BRITISH AIRWAYS

Concorde Performance Manual Part 1

"STATEMENT OF INITIAL CERTIFICATION
This Manual complies with the current ANO (Air Navigation Order), AL-15-05 and FTS-01-01. The inclusion of an uncertified revision will invalidate this Certification.

Signed

Capt A. Robinson
General Manager Flight Technical & Strategy
and where applicable, on behalf of Chief Engineer, British Airways Tech Servs. CAA Approval Nr. DAI/8566/78

Serial No. .....

This publication forms part of the British Airways approved Operations Manual."

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LETTER OF TRANSMITTAL
REVISION 05D

This permanent revision is in compliance with the statement of approval at the front of this manual.

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1.1. EXPLANATORY NOTES TO TAKE-OFF AND LANDING DATA

1.1.1. TAKE-OFF

Take-off Data Pages are provided for all Normal Destinations (Part 1) and Alternate (Part2) Airfields. Each page consists of one Runway/Start position for an appropriate range of ambient temperatures and wind components of normally 10 Tail, occasionally 20 Tail, to 30 Head. Normally pages will appear in ascending order by runway designator then by start positions in descending order of available length. Noise Abatement procedures and charts immediately follow the runway to which they apply.
Yellow pages will be provided, where possible, for Temporary situations and will be included either facing the relevant permanent page, or loose leaf on handout.
IF data is required for an airfield for which a Take-off Data Page is not available, or when a change to the published data arises at short notice, either:-

(a) – Use generalised Take-off Performance in Section 1.10

or

(b) – Contact Aerodromes and Performance Branch, at Heathrow (TBA), direct during normal office hours (0830–1700 local Monday – Friday) (telephone 081-562 5695 or SITA address LHRDSBA).

or

(c) – Request data through 'SPEEDBIRD LONDON' or 'Flight Crew Briefing', (telephone 081-562 7802).
N.B. Aerodromes and Performance staff will be contacted outside office hours.

1.1.2. UNITS OF MEASUREMENT

Weights	– Kilograms (kg)
Runway lengths	– Metres (m) & Feet (ft)
Temperatures	– Degrees Centigrade (°C)
Wind components	– Knots (kt)
Ceilings	– Feet
RVR/VIS	– as specified for each Runway

1.1.3. TAKE-OFF MINIMA

Take-off Minima are published, for all approved runways, on the Take-Off Data Pages for the relevant runways, or, for those airfields where only Landing Data pages are provided, on separate Take-off Minima Pages in Section 1.6.

N.B. If Take-off Minima is not published the runway is NOT APPROVED for take-off.

Where these values are subject to certain conditions, the published figures will be annotated '*' and an explanatory note will appear in the Notes section at the bottom of the page (or on the Take-off Minima Page where applicable).

1.1.3. TAKE-OFF MINIMA (cont)

In certain cases there is a requirement to promulgate post take-off visual reference data. In these cases the RVR area will contain a reference to an explanatory note, annotated '*', the text of which will appear in the Notes section at the bottom of the Data page (or on the Take-off Minima page).

This Note will contain a statement of RVR requirement for take-off guidance, the position (relative to the Airfield) of any obstacles which are required to be identified visually after take-off, and the Met. Visibility and cloud-base required to achieve this —

eg. "RVR for take-off guidance is .....m. Obstacle(s) in initial climb path at (positions relative to Airfield) must be identified visually during initial climb."

Normally RVR values are established in accordance with the following table which should be used if certain runway guidance aids (eg. centre-line lights) are not available at the time of take-off:-

A. Rwy C/L lighting plus edge guidance DAY and NIGHT — **150m**

B. Visible painted Rwy C/L plus edge guidance DAY and NIGHT — **200m**

C. Visible painted Rwy C/L only DAY — **250m**

D. Rwy edge guidance only DAY and NIGHT (Rwy width 45m) — **250m**

E. Rwy edge guidance only DAY and NIGHT (Rwy width 60m) — **300m**

TDZ RVR & MID POINT (if reported), must be at or above minima. STOP END RVR is advisory only. If actual TOW is close to RTOW, it is recommended that the STOP END RVR should be at or above minima. These values will apply except where State Minima are over-riding.

If a Captain needs to determine minima for an Airfield / Runway for which there is none published, either contact Aerodromes & Performance (as per para 1.1.1.) or, if this is not possible, use CLG 1000ft, VIS 5km.

1.1.4. FLIGHT INITATION

A. For rules on Flight Initiation see Flight Crew Orders Section 0-7 and the Concorde Navigation Manual.

B. When Flight Planning to destinations in the Western Hemisphere, Taiwan, Philippines, Australia or Japan, see Section 1.1 of the Performance Manual for Alternate Minima.

1.1.5. TAKE-OFF MINIMA IN THE U.S.A.

The standard Take-off Minima is **CLG NIL, VIS 0.5sm** for four engined aircraft. The standard figure is approved at all airfields unless a higher value is specified. On runways where standard Take-off Minima are approved, the following minima are also approved:-

A. CLG NIL, VIS 0.25sm (or RVR 1600ft), providing the runway is equipped with serviceable:-

1. High intensity runway lights, **or**
2. Runway centre-line lights, **or**
3. Runway centre-line markings, **or**
4. In unusual circumstances, where none of the above are available, the runway is marked in such a manner that the pilot has, at all times, visual reference sufficient for directional guidance throughout the take-off run.

N.B. If Take-off Minima is based on RVR, a touchdown transmissometer is required.

B. Touchdown **RVR 1200ft** with **RVR 1000ft** on rollout end, providing the runway is equipped with serviceable:-

1. Centre-line lights, **and**
2. Two operative transmissometers, either of which is not capable of reading lower than **RVR 1000ft.**

C. Touchdown **RVR 600ft** with Mid-point **RVR 600ft** (if operative) and **RVR 600ft** on rollout end provided the runway is equipped with serviceable:-

1. Runway centre-line lights, **and**
2. Runway centre-line markings, **and**
3. Two or three operative transmissometers capable of reading as low as **600ft.**

N.B. Where only two transmissometers are installed, the touchdown and rollout RVRs are required. If three transmissometers are installed, the failure of any one will not affect operations provided the two remaining RVRs are at or above the appropriate minimums stated above.

1.1.6. TAKE-OFF MINIMA IN CANADA

The following Take-off Minima are approved at all airfields unless a higher value is specified, subject to the following conditions:-

A. CLG NIL, VIS 0.25sm (or RVR 1400ft), providing the runway is equipped with serviceable:-

1. High intensity runway lights, **or**
2. Runway centre-line lights, **or**
3. Runway centre-line markings.

B. CLG NIL, RVR 600ft, providing the runway is equipped with serviceable:-

1. High intensity runway lights, **and**
2. Runway centre-line lights, **and**
3. Runway centre-line markings.

N.B. Touchdown and Mid-point transmissometers must also be available, and neither to be reading less than RVR 600ft.

1.1.7. AIRCRAFT CONFIGURATION

The aircraft configuration associated with the take-off data in this manual is shown below. Where necessary additional information is provided on the appropriate charts.

	THRUST	**NOSE / VISOR / L/GEAR**
Take-Off all engines	Take-Off (reheat on)	5° / Down / Down
Take-Off after engine failure	Contingency	5° / Down / Down
1st Segment Climb	Contingency	5° / Down / Down
2nd Segment Climb	Contingency	5° / Down / Up
Final Take-Off Climb	Maximum Continuous	5° / Down / Up

N.B. In practice the reheated climb may be required during the acceleration to en-route climb speed.

1.1.8. ENGINE BLEEDS AND ANTI-ICING

The performance data in this Manual includes the effects of all bleeds required for air conditioning and engine anti-icing.

No correction is necessary for the use of engine anti-icing during Take-Off at 3°C or below nor for the use of air conditioning.

Operation of the fuel heater and airframe anti-icing systems have no effect on RTOW and Take-Off speeds.

1.1.9. MINIMUM ACCELERATION ALTITUDE (Aa)

There are, two alternatives, the five segments of which are described below -.

ALTERNATIVE 1

1st Segment - starts at the 35' point and ends when the undercarriage is retracted; it is flown at V_2. The slope of the net flight path is never less than 1% in this segment.

2nd Segment - is flown at V_2 with the undercarriage retracted and ends at a net height of 600 feet above the runway.

3rd Segment - is flown level whilst the aircraft accelerates to V_2 + 40 knots.

4th Segment - is flown at V_2 + 40 knots to a height of 1500'.

5th Segment - is flown level while the speed is increased to the appropriate en-route climbing speed.

ALTERNATIVE 2

1st Segment - starts at the 35ft point and ends when the undercarriage is retracted; it is flown at V_2. The slope of the net flight path is never less than 1% in this segment.

2nd Segment - is flown at V_2 with the undercarriage retracted and ends at such a height that contingency rating is available until the end of the 3rd Segment.

3rd Segment - is flown level at the predetermined height (between 600 and 1500 ft) whilst the aircraft accelerates to V_2 + 40 knots.

4th Segment - is flown at V_2 + 40 knots to a height of 1500'.

5th Segment - is flown level at 1500ft whilst the speed is increased to the appropriate en-route climbing speed.

N.B. The 4th Segment will not be required if the 3rd Segment is flown at 1500ft.

1.1.10. TABULATED DATA

The Take-Off data pages show maximum brake release Take-Off weights for specific values of Outside Air Temperature (OAT) and surface wind component.

It is permissible to extrapolate for a maximum of 3°C beyond the range of temperatures given on the Take-Off data pages as follows:-

- For temperatures LOWER than the lowest tabulated temperature, use the MTOW and associated Take-Off speeds at the lowest tabulated temperature.

- For temperatures HIGHER than the highest chart temperature, reduce the MTOW at this temperature by 1,000kg/°C up to a maximum of 3°C. Use the Take-Off speeds at the highest tabulated temperature.

Do not attempt to extrapolate for a particular temperature and wind component where no data has been given.

The following Take-Off speeds are given for each temperature and wind combination:-

V_1 – The DRY runway decision speed. **V_1WET** is obtained by subtracting 15kt from **V_1DRY**. The minimum allowable V_1, **V_1MIN**, is 132kt.

V_R – The Rotation Speed is the target speed at which the pilot initiates action to change pitch attitude with the intention of leaving the ground. The minimum allowable V_R, **V_RMIN**, is 139kt.

V_2 – The initial climb out speed, one engine inoperative, is the target speed at the screen height (35ft) after an engine failure on a continued Take-Off. V_2 is found by adding the increment to V_R given at the bottom of each wind column.

Θ_2 – Screen attitude.

1.1.11. MAXIMUM TAKE-OFF WEIGHTS

A. Performance Limited TOW (PLTOW)-

The weight extracted from the Take-Off data page for the actual outside air temperature (OAT) and forcast wind component, corrected for pressure altitude, centre of gravity and DDM items is the Performance Limited TOW.

B. Maximum Authorised TOW (MATOW)-

Maximum Authorised TOW is **185070kg**. Notional weights in excess of this figure are tabulated when available to enable the highest possible weights to be used prior to applying significant negative corrections such as some DDM items.

N.B. The FAA Environmental Impact Statement and Noise Rule requires all Concorde operations from any U.S airfield to be restricted to a MATOW of 182250kg.

1.1.11. MAXIMUM TAKE-OFF WEIGHTS (cont)

C. Regulated Take-Off Weight (RTOW)-

RTOW is the lower of the MATOW and the PLTOW. It should be borne in mind that Regulated Landing Weight may limit RTOW on short sectors.

1.1.12. PROCEDURES FOR USE OF TABULATED DATA

A. Check the validity of the Take-off run distance quoted on the page. If a restriction has been imposed for any reason refer to the Generalised Take-Off Data.

B. Determine the least favourable wind component. No special allowance is required for light and variable winds. Observe maximum tail and cross wind limitations. Caution should be exercised should any variation in wind condition be expected at or around the time of departure.

C. Enter the Take-Off data page with the least favourable wind component and actual OAT and extract the MTOW, V_1, V_R, V_2 and Θ_2, interpolating as necessary. Apply corrections as follows to obtain the PLTOW.

1.1.13. CORRECTIONS

Any corrections to the tabulated MTOW value must be made in the following manner -.

A. Pressure Altitude

The tabulated MTOW and Take-off speeds are corrected for Pressure Altitude using the information given on page 1.3.1.

B. Centre of Gravity

1. 54% Co - RTOW Improvement With Take-off CG Position of 54% Co

When the fuel load exceeds the "53.5% Co maximum", the only permitted Take-off CG position is 54% Co.

In this situation, the following procedure should be followed:-

a. Obtain PLTOW and Take-Off speeds as normal.

b. Increase the PLTOW by the increment shown on page 1.1.8. Limit actual TOW to this value or MATOW, whichever is lower.

1.1.13. CORRECTIONS (cont)

c. If the actual TOW is less than than the value obtained in b. the difference between the PLTOW **before** the increment was applied and the actual TOW must be used to determine the "actual TOW less than PLTOW" Take-Off speed and Θ_2 corrections.

MAXIMUM TAKE-OFF WEIGHT CORRECTIONS - TONNES
FOR TAKE-OFF AT 54% Co.

MTOW (1000kg)	0	2	4	6	8
	INCREMENT – TONNES				
180	.90	.91	.92	.93	.94
170	.85	.86	.87	.88	.89

2. 53% Co - Take-Off at Weights Below 140000kg

For Take-Off at weights below **140000kg** the aft C.G. limit is 53% Co to avoid spurious M/CG warnings.

In this situation, the following procedure should be followed:-

a. Obtain PLTOW and Take-Off speeds as normal.

b. Reduce the PLTOW by the penalty shown below. Limit actual TOW to this value or MATOW, whichever is lower.

c. If the actual TOW is less than the value obtained in b. the difference between the PLTOW **before** the reduction was applied and the actual TOW must be used to determine the "actual TOW less than PLTOW" Take-Off speed and Θ_2 corrections.

MAXIMUM TAKE-OFF WEIGHT CORRECTIONS - TONNES
FOR TAKE-OFF AT 53% Co TOCG.

MTOW (1000kg) TONNES	0	2	4	6	8
	DECREMENT – TONNES				
180	3.6	3.6	3.7	3.7	3.8
170	3.4	3.4	3.5	3.5	3.6
160	3.2	3.2	3.3	3.3	3.4
150	3.0	3.0	3.1	3.1	3.2
140	2.8	2.8	2.9	2.9	3.0
130	2.6	2.6	2.7	2.7	2.8
120	2.4	2.4	2.5	2.5	2.6
110	2.3	2.2	2.3	2.3	2.4

1.1.13. CORRECTIONS (cont)

C. Dispatch Deviations

Corrections are made for any allowable Dispatch Deviations using the information given in Section 1.8.

D. Take-Off Speeds

If the actual Take-Off weight is less than PLTOW, extract from the appropriate tables the correction for V_1 dry and V_1 wet, V_R and V_2. Deduct these values from those given for PLTOW to obtain the actual values. From the same correction table extract the correction for Θ_2. Add this value to that given for PLTOW corrected for pressure altitude to obtain the actual value. Check that V_1 dry and V_1 wet are not less than 132 knots, V_R is not less than 139 knots and Θ_2 is not more than 18°.

1.1.14. CONTINUED TAKE-OFF WITH ONE REHEAT FAILED - UNPREMEDITATED

In order to reduce the number of occasions of Take-Offs being abandoned at 100kt because of a failure of one reheat, the procedure below should be followed when the PLTOW and Actual TOW corrections have been calculated.
Enter the reheat failure STOP/GO chart in this section with PLTOW and Actual Take-Off Weight and determine the point of intersection.
If the point lies in the GO area of the chart, this indicates that if one reheat is failed at 100kt, the Take-Off may be continued and normal procedures followed. In this case, V_1 calculated for Actual Take-Off Weight must be increased by 10kt. No other adjustments to V_R, V_2 or Θ_2 are required.
If the point of intersection on the STOP/GO chart lies in the STOP area, the Take-Off will be abandoned if, at 100kt, all four reheats are not operative.
Normal noise abatement procedures should continue to be followed in the GO case and no significant increase in noise levels is expected.
This procedure must not be used on a slippery runway.

1.1.15. NOISE ABATEMENT PROCEDURES

A. Where noise abatement is required the standard basic procedure as described in the FCOM should be followed. Additional information associated with each combination of runway and Standard Instrument Departure is provided immediately after the appropriate RTOW/TAKE-OFF SPEED CHART. This information gives details of bank angle requirements, heading changes and power requirements etc. Tables are also provided from which throttle times throttle lever angle and throttle RPM (N_2) may be extracted for the prevailing actual Take-Off weight and ambient temperature conditions. No corrections are required for wind.

1.1.15. NOISE ABATEMENT PROCEDURES (cont)

B. At some airports (for example Miami) immediately before the individual runway RTOW charts a table is provided which gives the noise levels at the most critical noise measuring post associated with a Take-Off at **181,000kg** in the specified temperature conditions for each runway and SID at that airport. This information is provided to indicate which runways and Standard Instrument Departures are the least noise sensitive and hence enables the best choice of runway and route to be made, to reduce noise to the minimum possible, ATC and other requirements permitting.

C. At New York as an alternative to **B.** above Noise Advisory Charts are provided for the two preferred runways **31L** and **22R**.

In addition to **31L** and **22R**, **22L** and **13R** may also be used for Concorde 'Transatlantic' departures.

In order to choose between the following procedure must be adopted:-

13R should never be used if it is possible to use 31L, 22R or 22L within the Performance Limitations of the aircraft, using a re-clearance technique where necessary. Should use of the 're-clearance planning' fail to reduce the actual TOW sufficiently to allow, in Performance terms , the use of **31L**, **22R** or **22L** and/or these runways are unacceptable for ATC reasons, then **13R** may be used.

To decide between **31L**, **22R** and **22L** (the RTOW chart for **22L** may be used as a noise advisory chart):-

1. Determine the noise advisory Take-Off weight for each runway from the charts.
2. If **31L**, **22R** or **22L** is the ATC runway and the actual TOW is below the noise advisory Take-Off weight then use that runway.
3. If only one runway shows the actual TOW is below the noise advisory Take-Off weight and it is not the ATC runway, then request that runway and adjust taxi fuel.
4. If the actual TOW exceeds the noise advisory Take-Off weights on **31L**, **22R** or **22L** runways, then **22R** becomes the preferential runway in all instances provided that the **233°R** is available. It is recommended that "Reclearance Planning" should be considered at the Captain's discretion in order to keep actual TOW below the noise advisory Take-Off weight limit.
5. Should **none** of the above runways be available, Rwy **31R** or **13L** may be used. These two runways are the last choice because both are very noise sensitive.

1.1.15. NOISE ABATEMENT PROCEDURES (cont)

The Noise Advisory Charts are based on a Polar presentation in order to take into account the affects of crosswind. The charts are entered using the reported surface wind speed and direction. Weight are obtained by linear interpolation. The charts are produced in bands of temperatures as follows:-

Up to 7°C
6°C to 12°C
13°C to 17°C
18°C to 22°C
23°C to 27°C
28°C to 32°C

EXAMPLE:

W/V 260°/5kt.
TEMP 20°C.
ACTUAL TOW 171000kg.
ATC RUNWAY 31L

Noise Advisory TOW, Rwy 31L 168500kg.
Noise Advisory TOW, Rwy 22R 179000kg.

Actual TOW is greater than Rwy 31L Noise Advisory TOW but below Rwy 22R Noise Advisory TOW.

Rwy 22R should be requested.

D. At main and alternate airports where no specific noise abatement procedures are provided, a requirement for minimising noise may still exist. the following technique should be used at such airports. The method consists of following the standard noise abatement procedues, as described in the FCOM, and throttling back at **1000ft.** above the airfield rather than time. The required /throttle angles are given in the appropriate table in this section. The power available after throttling is sufficient to maintain a minimum gradient of **3%** with a **20°** bank angle. If bank angles between **20°** and **25°** are required the N_2 values should be increased by **1.5%**. The normal SIDS and/or ATC instructions should be followed. After throttling **250kt** should be maintained until any crossing height requirements are assured. Acceleration may then be carried out ATC permitting. Normal incremental power settings should be used until clear of noise sensitive areas.

1.1.15. NOISE ABATEMENT PROCEDURES (cont)

GENERALISED NOISE ABATEMENT PROCEDURE
THROTTLE SETTINGS AT 1000ft
SEA LEVEL RUNWAY
250kt

T.O.W. 1000kg	AMBIENT TEMPERATURE - DEGREES C										
	-10	-5	0	+5	10	15	20	25	30	35	40
185.07	19.5 92.8	18.4 93.8	17.3 94.8	16.1 95.8	15.2 96.6	14.2 97.5	13.1 98.4	11.9 99.4	10.9 100.3	9.9 101.2	8.6 102.3
180	20.6 92.0	19.4 93.0	18.3 93.9	17.3 94.8	16.3 95.7	15.2 96.6	14.1 97.5	13.1 98.4	12.1 99.3	11.1 100.2	10.1 101.0
175	21.5 91.2	20.3 92.2	19.3 93.1	18.2 94.0	17.2 94.9	16.2 95.8	15.2 96.6	14.2 97.5	13.1 98.4	12.1 99.3	11.1 100.1
170	22.3 90.5	21.2 91.4	20.2 92.3	19.1 93.2	18.1 94.1	17.1 95.0	16.1 95.8	15.1 96.7	14.2 97.5	13.2 98.4	12.2 99.2
165	23.3 89.7	22.2 90.6	21.2 91.4	20.2 92.3	19.1 93.2	18.1 94.1	17.2 94.9	16.1 95.8	15.2 96.6	14.2 97.5	13.2 98.3
160	23.9 88.9	23.1 89.9	22.1 90.7	21.1 91.5	20.2 92.3	19.1 93.2	18.1 94.1	17.1 95.0	16.1 95.8	15.1 96.7	14.4 97.3
155	24.4 88.2	24.4 89.1	23.1 89.9	22.1 90.7	21.0 91.6	20.0 92.5	19.0 93.3	18.0 94.2	17.1 95.0	16.1 95.8	15.4 96.4
150	24.8 87.5	24.8 88.4	24.8 89.2	22.9 90.0	21.8 90.9	20.8 91.8	19.8 92.6	18.9 93.4	18.1 94.1	17.2 94.9	16.4 95.6
NOTE CHANGE OF WEIGHT SCALE BELOW											
140	26.3 86.3	25.7 87.2	25.8 88.0	24.5 88.8	23.5 89.6	22.3 90.5	21.3 91.3	20.4 92.1	19.6 92.8	18.7 93.6	17.6 94.5
130	26.3 85.3	25.7 86.2	25.1 87.0	24.6 87.8	24.1 88.6	23.6 89.4	22.7 90.2	21.7 91.0	20.9 91.7	20.0 92.5	19.0 93.3
THROTTLE LEVER (degrees) **N_2 (%)**											

N.B. See Runway Elevation Corrections overleaf.

1.1.15. *NOISE* ABATEMENT PROCEDURES (cont)

GENERALISED NOISE ABATEMENT PROCEDURE CORRECTIONS FOR RUNWAY ELEVATION

T.O.W.	RUNWAY PRESS HEIGHT (ft)		
1000kg	2000	4000	6000
185.07	-1.5 +1.3	-3.2 +2.8	
180	-1.3 +1.1	-2.8 +2.4	-5.0 +4.3
175	-1.0 +0.9	-2.3 +2.0	4.3 +3.7
170	-0.8 +0.7	-2.0 +1.7	-3.6 +3.1
165	-0.7 +0.6	-1.7 +1.5	-3.0 +2.6
160	-0.6 +0.5	-1.5 +1.3	-2.5 +2.2
155	-0.6 +0.5	-1.3 +1.1	-2.3 +2.0
150	-0.5 +0.4	-1.2 +1.0	-2.1 +1.8
140	-0.5 +0.4	-1.0 +0.9	-1.7 +1.5
130	-0.3 +0.3	-0.9 +0.8	-1.5 +1.3
THROTTLE LEVER ANGLE (degrees) N_2 (%)			

1.1. EXPLANATORY NOTES TO TAKE-OFF AND LANDING DATA

LANDING REFERENCE AND THRESHOLD SPEEDS

LANDING WEIGHT (1000kg)	V_{REF} (kt IAS) (SEE NOTE BELOW)	MAX THRESHOLD SPEEDS AUTOTHROTTLE OPERATIVE (kt IAS)
96 AND BELOW	150	160
98	152	162
100	153	163
102	155	165
104	157	167
106	158	168
108	160	170
110	161	171
111.10	162	172
SPEEDS FOR LANDING ABOVE MAX. LANDING WEIGHT		
115	165	175
120	168	178
130	175	185
140	182	192
150	188	198
160	194	204
170	200	210
180	206	216

N.B. V_{REF} is the target speed for final approach and crossing the threshold with all engines operating, light wind, low turbulence and auto throttle engaged. For other conditions refer to the Flying Manual.

1.1.16. LANDING

Landing Data Pages are provided for all Normal Destination (Part 1) and Alternate (Part 2) Airfields.
Yellow pages will be provided, where possible, for Temporary situations and will be included either facing the relevant permanent page, or loose leaf on handout.
Each page allows for up to two runways, published in ascending numeric order (and alphabetical where applicable).

N.B. Absence of landing data for a particular runway at an airfield where other runways are covered, implies it is NOT APPROVED for landing.

If data is required for an airfield for which a Landing Data page is not available, or when a change to the published data arises at short notice, either:-

(a) — **Check AIS brief for Temporary Data.**
or
(b) — **Use Generalised Landing Performance Data in Section 1.11.**
or
(c) — **Contact Aerodromes and Performance Branch, at Heathrow (TBA), direct during normal office hours (0830—1700 local Monday — Friday) (telephone 081-562-5695 or SITA address LHRDSBA).**
or
(d) — **Request data through 'SPEEDBIRD LONDON' or 'Flight Crew Briefing', (telephone 081-562-7802).**

N.B. — **Aerodromes and Performance staff will be contacted outside office hours.**

1.1.17. UNITS OF MEASUREMENT

Weights	— Kilograms (kg) or Metric tonnes (T)
Landing Distances	— Metres (m) & Feet (ft)
Wind components	— Knots (kt)

1.1.18. AIRCRAFT CONFIGURATION

The aircraft configuration associated with the landing data in this manual is shown below. Where necessary additional information is provided on the appropriate charts.

	THRUST	NOSE	VISOR	L/GEAR
LANDING CLIMB				
One engine inoperative	Take-Off	5	Down	Up
Two engines inoperative	Contingency	Down	Down	Down
LANDING	Normal Reverse (Maximum Reverse on Icy/Slippery Runways)	Down	Down	Down (anti-skid on)

1.1.19. MAXIMUM LANDING WEIGHT

Maximum Certified Landing Weight is **111130kg.**
Weights or allowable tailwinds are published for Manual and Automatic (AUTOLAND) landings. Normal Landing Weights allow for a wet runway, but if a runway is reported as having poor braking action, use Slippery Runway Landing Weights (see Para 1.1.25.).

1.1.20. LANDING DATA

A. Max wt Permitted

The Maximum Landing Weight permitted for an Airfield is normally Max Stuctural Weight, but may be governed by airfield elevation (WAT limit).

B. WAT Limit: Max Temp °C (V_{REF} / V_{REF} + 7)

If OAT at Arrival Airfield exceeds the published Max Temp, then enter WAT curve chart in Section 1.11, Generalised Landing. This will normally give the Regulated Landing Weight, but also check that the information given in the Runway Limited Weight information does not further restrict the runway chosen.

C. TW.or Zero HW wt (Manual Dry/Slippery, Autoland Dry/Slippery, Fuel Saving)

The Maximum Permitted Landing Weight published for each Runway for Manual Dry/Slippery and Autoland Dry/Slippery, is useable up to the number of knots of tailwind component listed. The maximum tailwind component for all these catagories is **10kt.** For Manual approaches weights are published based on both V_{REF} + 7 and V_{REF}, for Manual Slippery, Autoland and Autoland Slippery published weights are based on V_{REF}.

The Maximum Landing Weight for Fuel Saving Landings of 130000kg is usuable up to the number of knots of tailwind component listed, based on a manual approach at V_{REF} in dry or wet (up to 3mm water) runway conditions. Refer to Special Operations 1.8.16.

N.B. Autoland is NOT APPROVED if the GS angle exceeds 3.1° or is less than 2.5°.

D. Red'n per extra kt TW kg

If the maximum tailwind listed is less than **10kt** (Manual Dry/Slippery, Autoland Dry/Slippery), the Maximum Landing Weight should be reduced by the tabulated value of "Red'n per extra kt TW kg", for tailwinds greater than the figure listed, but not exceeding **10kt** maximum.

E. Inc per kt HW kg

If the Maximum Landing Weight in Zero Wind is less than the Maximum Structural Landing Weight, an "Inc per kt HW kg" is given, to be added to the weight, up to Maximum Landing Weight of **111130kg.**

1.1.21. REQUIREMENTS FOR LANDING SPEEDS

V_{REF} is the target speed for final approach and crossing the threshold with all engines operating. It must not be less than:-

A. 1.25 V_{MIN} 1g (3°) (the min. speed in the final steady approach configuration with thrust for a 3 degree angle of descent).

B. 1.20 V_{MIN} 1g (MT) (the min. speed in the same configuration with minimum authorised thrust for final approach).

C. V_{TMD} + 10kt. (minimum demonstrated threshold speed + 10kt).

1.1.22. PROCEDURES FOR USE OF LANDING DATA

A. Distances

Before using the tables, ensure that the Landing Distances published are valid, e.g. threshold not inset due WIP. If a restriction is in force, and no Yellow Page has been provided, refer to Generalised Landing Charts.

B. Procedure

1. Ensure Arrival OAT is less than WAT Limited Temperature V_{REF} or V_{REF} + 7kt as applicable.

2. Extract Maximum Tailwind Component or Still Air Maximum Landing Weight for appropriate landing conditions. Restart using Landing Weight as necessary.

3. Apply corrections for extra TW or HW as applicable.

1.1.23. LANDING WEIGHTS – PRE-LANDING CHECK

Check Landing Weight prior to arrival to ensure that the Landing Runway is suitable for the landing intended.

1.1.24. FIRE AND RESCUE

The ICAO Fire and Rescue Category for the CONCORDE is 9. The Category is derived from the length and maximum width of the fuselage.

The ICAO Airfield Category requirement is produced by considering the length, maximum width of the fuselage and frequency of movements of the largest aircraft normally using that airfield.

Airfields promulgated Category 8 may be used when movement rate is sufficiently low. Temporary airfield depletions to Category 7 are permitted.

1,1.25. LANDING ON A SLIPPERY RUNWAY

This is the most difficult situation to deal with simply because there is no reliable way of measuring braking co-efficient which is representative of a stopping aircraft. A slippery runway is defined as one with a uniform theoretical braking co-efficient of 0.05 Mu (0.05 JBI). It is important to note that this condition is assumed to be uniform **over the full length and breadth** of the appropriate runway surface - a most unlikely situation. In slippery runway conditions stopping the aircraft presents the greatest problem.

The slippery runway data, when used, may well produce very limiting landing weights so it is essential that careful thought is given before use.

A slippery runway caused by ice is usually of short duration, but a slippery runway can be caused by water on rubber deposits and on smooth surfaces. If a runway is promulgated as **liable to be slippery when wet**, it means that a certain portion of the runway (in UK more than 100 metres) has a Mu meter reading of .39 (.49 JBI)or below. This could mean that the whole runway has a braking action of medium/good - very far removed from the assumed co-efficient of 0.05 Mu (0.05 JBI)for a slippery runway.

As well as rubber deposits and smooth sufaces, local pools of water can also give a **liable to be slippery when wet** state. In the Performance Manual whenever such a statement is made, an indication of where and why will be included to enable pilots to make a better assessment of the particular situation. Whilst one cannot and should not interpolate between normal wet runway data and slippery runway data, the two sets of data for a particular runway give an indication of possible margins and may assist the Captain to choose the most appropriate level of performance for the conditions.

1.1.26. LANDING ON A WET RUNWAY

The presence of water on a runway will be reported as damp, wet, water patches, or flooded.

A wet runway is defined as having up to 3mm of water on the surface and a friction co-efficient of approximately one half of that of a dry runway but with "braking action good". The landing weights are based on a wet runway.
Flooded runways must be considered as slippery.

1.1.27. ROUGH RUNWAYS

There are no runway roughness limitations for take-off from runways which are **known not to be rough or undulating.**
A runway is considered to be **known not to be rough or undulating** if:-

Either

A. Enquiries of pilots of suitable transport aircraft on recent operations from a runway find the runway is reasonably smooth in comparison with other runways reguarly used by Concorde and the runway must be known to have no undue tendency to deteriorate.

or

B. The runway has been recently laid to ICAO standards by reputable contractors and operations on it with heavy aircraft are producing no adverse comment.

For one of the early take-offs from such a runway it is necessary to obtain a record of C of G accelerations using the AIDS recorder. The record should be passed to the CAA for analysis.

For runways where clearance cannot be obtained by the procedure given above, the maximum weight for take-off is limited by runway roughness considerations to 135000kg (with or without passengers).

For take-off at weights of 135000kg or less no limitations related to runway roughness are applicable and no authorisation is required.

SECTION 1.1.

EXPLANATORY NOTES TO AERODROME OPERATING MINIMA

1.1.28. AERODROME OPERATING MINIMA

AOM data, Decision Altitude, Decision Height (RA/HAT) and Runway Visual Range (RVR) or Met Visibility (Vis), below which operation is not permitted, unless adequate visual reference exists, are shown for all approved aids on each approved runway.
Operations down to these limits are not compulsory but are at the discretion of the Commander, who will take into account all relevant operational factors.

1.1.29. UNITS OF MEASUREMENT

Decision Altitudes	– Feet (ft)
RVR/VIS	– Metres (m), higher values Kilometres may be used
	– Feet (ft)/Statute Miles (sm) used in CANADA and USA
DH/(HAT)	– Feet (ft)

1.1.30. RUNWAY STATUS

Appropriate ILS runways have a status code to indicate the extent to which the autopilot may be employed during approach and landing.
The code is shown (in brackets) below the runway designator on the **STATUS** line.

Status (B) – Runway is suitable for a MANUAL hand flown approach

Status (A) – Runway is suitable for an automatic approach to a minimum autopilot disengage height of 100R.

Status (E) – Runway is suitable for AUTOLAND evaluation. Capts are requested to submit a Voyage Report about all such Autolands.

Status (L) – Runway is suitable for AUTOLAND.

1.1.31. EXPLANATION OF ABBREVIATIONS USED FOR ILS PROCEDURES

ILS C3A Autoland – ILS Cat 3A approach.
Decision Height based on Radio Altimeter.
Runway status must be **(L)**.
AUTOLAND must be used.

ILS C2 Autoland – ILS Cat 2 approach.
Decision Height based on Radio Altimeter.
Runway status must be **(L)**.
AUTOLAND must be used.

1.1.31. EXPLANATION OF ABBREVIATIONS USED FOR ILS PROCEDURES (cont)

ILS C1R – ILS Cat 1 approach.
Decision Height based on Radio Altimeter.
Runway status must be **(A), (E), (L).**
Autopilot must remain engaged until DH or Visual contact if earlier.

ILS C1 – ILS Cat 1 approach.
Decision Altitude based on Servo Altimeter.
Runway status may be **(B), (A), (E), (L).**

N.B. The minimum height for disengagement of the autopilot when operating to the above minima depends on the runway status (see para 1.1.30.).

LLZ – ILS No Glide Path. LLZ only approach.
MANUAL landing must be made.

Back Beam – Back Beam only approach.
MANUAL landing must be made.

1.1.32. RESTRICTIONS ON USE OF AOM

Captains will not operate to Category 2 or 3 minima until having completed the AWO qualification requirements specified in the Flying Manual.

1.1.33. CIRCLING / VISUAL MINIMA

Circling / Visual minima provide not less than 350ft clearance from all obstacles within the stated radius and within any sector specified in the notes – e.g 'Circuits SOUTH of runway only'.

This presentation is replacing an earlier standard quoting both 'Circling' and 'Visual' heights, respectively accounting for all obstacles within the stated radius, or only those within a specified sector. These minima are intended for use on a Circling approach following break-off from an instrument approach to another runway.

RVR or Visibility limits quoted are the State minima or where no such minima exists the minimum RVR for Visual landing with approach lighting available.

The minimum IN FLIGHT VISIBILITY required for Circling is defined as (20 x circling speed in knots =.....metres), using the speed for **Category D** aircraft (205kt) as defined in ICAO PANS OPS (for Concorde this equates to 4100m)..

1.1.34. ICAO PANS OPS (Doc 8168) SPEED RELATED A/C CATEGORY

Aircraft are divided into five speed categories. These are based on a nominal threshold speed defined as 1.3 times the stalling speed in the landing configuration at Maximum Certificated Landing Weight. The ICAO Category for the CONCORDE is **D**.

Aircraft Category	Vat	Range of Speeds for Initial Approach	Range of Final Approach Speeds	Max Speeds for Visual Manoeuvring (Circling)	Max Speeds for Missed Approach	
					Intermediate	Final
D	141/165	185/250	130/185	205	185	265

1.1.35. DOWNGRADING OF LANDING AIDS

The Landing Data page will not normally be amended for temporary downgrading, or withdrawal, of ILS Cat 2 and 3 facilities.

1.1.36. VISUAL REFERENCE REQUIRED AT DA or DH.

A. CATEGORY 1 ILS, PAR, or NON PRECISION APPROACH

A sufficient section of the Approach Lights, Runway Lights or the Runway must be continuously in view to ensure the proper descent path. This reference must have been in view for a sufficient length of time before DA for this path to be determined.

B. CATEGORY 2 and 3 CONDITIONS

The Minimum Visual Reference required is:-

Cat 2 – Three consecutive Approach or Runway C/L Lights and then the Runway must be continuously in view, and the aircraft must be seen to be tracking satisfactorily.

Cat 3A – Three consecutive Runway C/L Lights. If after decision to land has been announced the visual segment is reduced, the Captain may complete the landing provided the Autopilot remains engaged.

1.1.37. VISUAL REFERENCE REQUIRED AT DA or DH.

A. CATEGORY 1 ILS, PAR, or NON PRECISION APPROACH

A sufficient section of the Approach Lights, Runway Lights or Runway must be continuously in view to ensure the proper descent path. This reference must have been in view for a sufficient length of time before DA for this path to be determined.

B. CATEGORY 2 and 3 CONDITIONS

The Minimum Visual Reference required is :-

Cat 2 - Three consecutive Approach or Runway C/L Lights and then the Runway must be continuously in view, and the aircraft seen to be tracking satisfactorily.

Cat 3A - Three consecutive Runway C/L Lights. If after decision to land has been announced the visual segment is reduced, the Captain may complete the landing provided the Autopilot remains engaged.

1.1.38. SPECIAL RULES APPLYING TO AOM IN CANADA & USA

If the reported RVR/VIS is below minima:-

A. An approach may be commenced down to 1000ft above DA as normal, provided both ILS and PAR are operative and used. It is essential to check that PAR monitoring will be available, and to advise ATC it will be used.

B. An approach may be continued if the reported VIS falls below minima only after the aircraft:-

1. Has passed the OM on ILS final approach,
   or
2. Is on PAR final approach and has been turned over to the final approach controller,
   or
3. Is on final approach using aids other than ILS or PAR and has passed the authorised Decision Altitude.

1.1.39. CANADA (UNSERVICEABILITY OF FACILITIES)

ILS with UNSERVICEABLE COMPONENTS.

If minima of **300ft / 0.75sm** or less are quoted, these shall be increased by**100ft and 0.25sm** if any of the following are not available:-

GS, OM and outer L.BCN, Approach Lights, unless the Landing Data Page says otherwise..

1.1.40. U.S.A. (UNSERVICEABILITY OF FACILITIES).

A. Locator Beacon or PAR may be substituted for the ILS OM or MM.

B. SRA may be substituted for an ILS OM.

C. DME at the Glide Slope site may be substituted for the ILS OM when published on the procedure.

D. Unless the Landing Data page says otherwise, standard increments are to be applied to the minima where ILS components are inoperative:-

PROCEDURE	COMPONENTS U/S	INCREASE DA by	INCREASE VIS by
ILS (listed RVR 2400ft or above)	OM, MM or ALS	50ft	0.25sm
ILS (listed RVR less than 2400ft)	OM, MM or ALS HIRL, TDZL, RCLS or RVR Transmissometer	50ft	0.25sm

1.1.41. CONVERSION OF RVR TO VIS IN CANADA AND U.S.A.

When RVR is available, its relationship to the published VIS as follows:-

RVR (ft)	VIS (sm)
1600	0.25
2400	0.5
3200	0.625 (5/8)
4000	0.75
4500	0.875 (7/8)
5000	1.00
6000	1.25

1.1.42. CATEGORY 2 OPERATIONS IN CANADA.

Approaches are banned in Canada when Touchdown RVR ('A') is less than 1200ft, and/or the Mid Point RVR ('B') is less than 700ft. The Rollout RVR, if available, is advisory only.

1.1.43. CATEGORY 2 AND 3 OPERATIONS IN U.S.A.

Both Touchdown and Mid-Point RVRs must be at or above the published minima. The Rollout RVR, if available, is advisory only.

FLIGHT PLANNING MINIMA FOR ALTERNATE AERODROMES

A. When flight planning or replanning in flight, to areas or aerodromes other than those listed below, normal destination minima will apply, except:-

1. Where a near alternate has been nominated as the fuel alternate.

a. The forcasts for both destination and alternate must be at least 100ft and 0.5 mile above Cat 1 minima. **AND** Unless both are forcast to be 200ft and 1 mile above Cat 1 minima, an additional en-route alternate within 1000nm of destination and 500nm of track must be forecast to be at least 200ft and 1 mile above Cat 1 minima.

b. The actual weather reports must not indicate the forecast to be unreliable.

c. Prolonged landing delays must not be forecast. When replanning in flight, the reported and forecast weather at the nominated alternate must be equal to, or better than 800ft / 2sm.

B. When flight planning or replanning in flight to any of the following areas or aerodromes the weather at the nominated alternate must be forecast to be equal to or better than the appropriate alternate minima. If an in flight diversion is made the alternate becomes the destination and normal destination minima apply.

C. In Canada and the Philippines where minima are listed as 800ft / 2sm the use of 900ft / 1½sm or 1000ft / 1sm is permitted; where minima are listed as 600ft / 2sm the use of 700ft / 1½sm or 800ft / 1sm is permitted.

D. The alternate minima for aerodrome in Taiwan only apply if the destination is forecast below 5000ft / 5sm otherwise normal landing minima apply.

E. In Australia nomination of an alternate requires that the forecast for the alternate must not include:

1. More than 4/8 cloud below the Alternate Minima.

2. Visibility less than the Alternate Minima.

3. Possibility of fog.

4. A crosswind for landing exceeding the maximum applicable of the aircraft type.

F. There are specific Australian regulations with regard to alternates and fuel requirements. An agreement between BA and the Austrailan Civil Aviation Authorites allows the use of standard BA fuel procedures, with the proviso, that when a NOTAMED requirement for traffic holding fuel at the nominated alternate airfield is promulgated, that the fuel, plus alternate fuel must be carried when operating to Australian destinations.

FLIGHT PLANNING MINIMA FOR ALTERNATE AIRFIELDS

AIRFIELD NOMINATED AS DESTINATION ALTERNATE	RUNWAY	FACILITY	ALTERNATE MINIMA (HAA)	(Vis)
ATLANTA	ALL	ILS	600ft	2sm
	All	Others	800ft	2sm
ATLANTIC CITY	13	ILS	700ft	2sm
	All	Others	800ft	2sm
BALTIMORE	All	ILS	700ft	2sm
	10	VOR	1000ft	3sm
	15R	LLZ	Not Auth.	
	All	Others	800ft	2sm
BANGOR	All	ILS	600ft	2sm
	All	Others	800ft	2sm
BARBADOS	All	ALL	800ft	4km
BOSTON	All	ILS	700	2sm
	04R	NDB	900	2.75sm
	15R	VOR DME	800	2.5sm
	All	Others	800	2sm
BUFFALO (Greater)	All	ILS	600	2sm
	All	Others	800	2sm
DALLAS (Ft Worth)	All	ILS	600	2sm
	All	Conv. ILS	600	2sm
	ALL	Others	800	2sm
FORT LAUDERDALE	All	ILS	700	2sm
	All	Others	800	2sm
GANDER	All	ILS	600	2sm
	All	Others	800	2sm
GOOSE BAY	All	ILS/PAR	1000	2.5sm
	All	Others	1000	2.5sm

FLIGHT PLANNING MINIMA FOR ALTERNATE AIRFIELDS

AIRFIELD NOMINATED AS DESTINATION ALTERNATE	RUNWAY	FACILITY	ALTERNATE MINIMA (HAA)	(Vis)
HALIFAX	All	ILS	600	2sm
	All	Others	800	2sm
HOUSTON	All	ILS	600	2sm
	All	Others	800	2sm
JACKSONVILLE	All	ILS	600	2sm
	All	Others	800	2sm
MIAMI	All	ILS	600	2sm
	All	Others	800	2sm
MONTREAL (Mirabel)	All	ILS	600	2sm
	All	Others	800	2sm
NASSAU	All	All	800	3.7km
NEWARK	All	ILS	1000	3sm
	All	Others	1000	3sm
NEW YORK (J.F.K.)	13L	ILS	700	2sm
	All Other	ILS	600	2sm
	13L,13R	VOR	1000	3sm
	31L	VOR-DME	800	2.25sm
	All	Others	800	2sm
NIAGARA FALLS	28R	ILS	600	2sm
	All	Others	800	2sm
ORLANDO	All	ILS	600	2sm
	All	Others	800	2sm
OTTAWA	All	ILS/PAR	700	2sm
	All	Others	800	2sm

FLIGHT PLANNING MINIMA FOR ALTERNATE AIRFIELDS

AIRFIELD NOMINATED AS DESTINATION ALTERNATE	RUNWAY	FACILITY	ALTERNATE MINIMA (HAA)	(Vis)
PHILADELPHIA	All	ILS	700	2sm
	27L	NDB	800	2.5sm
	All	Others	800	2sm
	09R	Conv.ILS	Not Approved	
PITTSBURGH	All	ILS	600	2sm
	10R	LLZ	Not Approved	
	All	Others	800	2sm
ST. JOHNS	All	ILS	800	2sm
	All	Others	800	2sm
STEPHENVILLE	28	ILS	1100	2sm
	All	Others	1400	3sm
TAMPA	All	ILS	600	2sm
	All	Others	800	2sm
TORONTO	All	ILS	800	2.25sm
	All	Others	800	2.25sm
WASHINGTON (Dulles)	All	ILS	600	2sm
	All	Others	800	2sm
	All	Conv.ILS	Not Approved	
WINDSOR LOCKS (Bradley Field)	All	ILS	900	3sm
	All	Others	900	3sm

SECTION 1.2. - CONVERSION TABLES/FACTORS

Weights / Temperatures	1.2.1.
Pressure / Speeds	1.2.2.
Distances	1.2.3.- 1.2.6.
QFE v P.A.(ft)	1.2.7.
Standard Pressure Altitude	1.2.8.
Conversion Factors	1.2.9.

WEIGHTS

KG	LB	KG	LB	KG	LB	KG	LB	LB	KG	LB	KG	LB	KG	LB	KG
		300	661·4	600	1322·8	900	1984·2			300	136·1	600	272·1	900	408·2
10	22·0	10	683·4	10	1344·8	10	2006·2	10	4·6	10	140·6	10	276·7	10	412·8
20	44·1	20	705·5	20	1366·9	20	2028·2	20	9·1	20	145·1	20	281·2	20	417·3
30	66·1	30	727·5	30	1388·9	30	2050·3	30	13·7	30	149·7	30	285·8	30	421·8
40	88·2	40	749·6	40	1411·0	40	2072·3	40	18·1	40	154·2	40	290·3	40	426·4
50	110·2	50	771·6	50	1433·0	50	2094·4	50	22·7	50	158·8	50	294·8	50	430·9
60	132·3	60	793·7	60	1455·0	60	2116·4	60	27·2	60	163·3	60	299·4	60	435·4
70	154·3	70	815·7	70	1477·1	70	2138·5	70	31·8	70	167·8	70	303·9	70	440·0
80	176·4	80	837·8	80	1499·1	80	2160·5	80	36·3	80	172·4	80	308·4	80	444·5
90	198·4	90	859·8	90	1521·2	90	2182·6	90	40·8	90	176·9	90	313·0	90	449·0
100	220·5	400	881·8	700	1543·2	1000	2204·6	100	45·4	400	181·4	700	317·5	1000	453·6
10	242·5	10	903·9	10	1565·3			10	49·9	10	186·0	10	322·0		
20	264·6	20	925·9	20	1587·3			20	54·4	20	190·5	20	326·6		
30	286·6	30	948·0	30	1609·4			30	59·0	30	195·0	30	331·1		
40	308·6	40	970·0	40	1631·4			40	63·5	40	199·6	40	335·6		
50	330·7	50	992·1	50	1653·5			50	68·0	50	204·1	50	340·2		
60	352·7	60	1014·1	60	1675·5			60	72·6	60	208·6	60	344·7		
70	374·8	70	1036·2	70	1697·6			70	77·1	70	213·2	70	349·3		
80	396·8	80	1058·2	80	1719·6			80	81·6	80	217·7	80	353·8		
90	418·9	90	1080·3	90	1741·6			90	86·2	90	222·3	90	358·3		
200	440·9	500	1102·3	800	1763·7			200	90·7	500	226·8	800	362·9		
10	463·0	10	1124·4	10	1785·7			10	95·3	10	231·3	10	367·4		
20	485·0	20	1146·4	20	1807·8			20	99·8	20	235·9	20	371·9		
30	507·1	30	1168·4	30	1829·8			30	104·3	30	240·4	30	376·5		
40	529·1	40	1190·5	40	1851·9			40	108·9	40	244·9	40	381·0		
50	551·2	50	1212·5	50	1873·9			50	113·4	50	249·5	50	385·5		
60	573·2	60	1234·6	60	1896·0			60	117·9	60	254·0	60	390·1		
70	595·2	70	1256·6	70	1918·0			70	122·5	70	258·5	70	394·6		
80	617·2	80	1278·7	80	1940·1			80	127·0	80	263·1	80	399·2		
90	639·3	90	1300·7	90	1962·1			90	131·5	90	267·6	90	403·7		

ISA at ALTITUDES

ALT	°F	°C	ALT	°F	°C
S/lvl	59	15	20000	−13	−25
1000	55	13	21000	−17	−27
2000	52	11	22000	−20	−29
3000	48	9	23000	−24	−31
4000	45	7	24000	−27	−33
5000	41	5	25000	−31	−35
6000	37	3	26000	−33	−36
7000	34	1	27000	−36	−38
8000	30	−1	28000	−40	−40
9000	27	−3	29000	−44	−42
10000	23	−5	30000	−44	−47
11000	19	−7	31000	−51	−46
12000	16	−9	32000	−54	−48
13000	12	−11	33000	−58	−50
14000	9	−13	34000	−62	−52
15000	5	−15	35000	−65	−54
16000	1	−17	36000	−69	−56
17000	−2	−19	37000	−69	−56
18000	−6	−21	38000	−69	−56
19000	−9	−23	39000	−69	−56

TEMPERATURES

°F	°C	°F	°C	°F	°C	°F	°C
−22	−30	+14	−10	+50	+10	+86	+30
−20	−29	+16	−9	+52	+11	+88	+31
−18	−28	+18	−8	+54	+12	+90	+32
−17	−27	+19	−7	+55	+13	+91	+33
−15	−26	+21	−6	+57	+14	+93	+34
−13	−25	+23	−5	+59	+15	+95	+35
−11	−24	+25	−4	+61	+16	+97	+36
−9	−23	+27	−3	+63	+17	+99	+37
−8	−22	+28	−2	+64	+18	+100	+38
−6	−21	+30	−1	+66	+19	+102	+39
−4	−20	+32	0	+68	+20	+104	+40
−2	−19	+34	+1	+70	+21	+106	+41
−0	−18	+36	+2	+72	+22	+108	+42
+1	−17	+37	+3	+73	+23	+109	+43
+3	−16	+39	+4	+75	+24	+111	+44
+5	−15	+41	+5	+77	+25	+113	+45
+7	−14	+43	+6	+79	+26	+115	+46
+9	−13	+45	+7	+81	+27	+117	+47
+10	−12	+46	+8	+82	+28	+118	+48
+12	−11	+48	+9	+84	+29	+119	+49

ATMOSPHERIC PRESSURES

Mbs	Ins Hg	mm Hg	Mbs	Ins Hg	mm Hg
948·1	28·00	711·2	1000·6	29·55	750·6
949·8	28·05	712·5	1002·3	29·60	751·8
951·5	28·10	713·7	1003·9	29·65	753·1
953·2	28·15	715·0	1005·6	29·70	754·4
954·9	28·20	716·3	1007·3	29·75	755·6
956·5	28·25	717·5	1009·0	29·80	756·9
958·2	28·30	718·8	1010·7	29·85	758·2
959·9	28·35	720·1	1012·4	29·90	759·5
961·6	28·40	721·4	★1013·2	★29·92	★760·0
963·3	28·45	722·6	1014·1	29·95	760·7
965·0	28·50	723·9	1015·8	30·00	762·0
966·7	28·55	725·2	1017·5	30·05	763·3
968·4	28·60	726·4	1019·2	30·10	764·5
970·1	28·65	727·7	1020·9	30·15	765·8
971·8	28·70	729·0	1022·6	30·20	767·1
973·5	28·75	730·2	1024·3	30·25	768·3
975·2	28·80	731·5	1026·0	30·30	769·6
976·9	28·85	732·8	1027·7	30·35	770·9
978·6	28·90	734·1	1029·3	30·40	772·2
980·2	28·95	735·3	1031·0	30·45	773·4
981·9	29·00	736·6	1032·7	30·50	774·7
983·6	29·05	737·9	1034·4	30·55	776·0
985·3	29·10	739·1	1036·1	30·60	777·2
987·0	29·15	740·4	1037·8	30·65	778·5
988·7	29·20	741·7	1039·5	30·70	779·8
990·4	29·25	742·9	1041·2	30·75	781·0
992·1	29·30	744·2	1042·9	30·80	782·3
993·8	29·35	745·5	1044·6	30·85	783·6
995·5	29·40	746·8	1046·2	30·90	784·9
997·2	29·45	748·0	1048·0	30·95	786·1
998·9	29·50	749·3	1049·7	31·00	787·4
1000·6	29·55	750·6	★ISA		

SPEEDS

mts/ sec	kt	mts/ sec	ft/ min	mts/ sec	ft/ min
1	1·9	1	196·9	11	2165·4
2	3·9	2	393·7	12	2362·2
5	9·7	3	590·6	13	2559·1
10	19·4	4	787·4	14	2755·9
15	29·2	5	984·3	15	2952·8
20	38·9	6	1181·1	16	3149·6
30	58·3	7	1378·0	17	3346·5
40	77·8	8	1574·8	18	3543·3
50	97·2	9	1771·7	19	3740·2
60	116·6	10	1968·5	20	3937·0

DISTANCES

mtrs	yards	feet	mtrs	yards	feet	mtrs	yards	feet
5	5	16	205	224	672	405	443	1328
10	11	33	210	230	689	410	448	1345
15	16	49	215	235	705	415	454	1361
20	22	66	220	241	722	420	459	1378
25	27	82	225	246	738	425	465	1394
30	33	98	230	251	754	430	470	1410
35	38	115	235	257	770	435	475	1426
40	44	131	240	262	787	440	481	1443
45	49	147	245	268	803	445	486	1459
50	55	164	250	273	820	450	492	1476
55	60	180	255	279	836	455	497	1492
60	66	197	260	284	853	460	503	1509
65	71	213	265	290	869	465	508	1525
70	77	230	270	295	886	470	514	1542
75	82	246	275	301	902	475	519	1558
80	88	263	280	306	919	480	525	1575
85	93	279	285	312	935	485	530	1591
90	98	295	290	317	951	490	536	1607
95	104	311	295	322	967	495	541	1623
100	109	328	300	328	984	500	547	1640
105	115	344	305	333	1000	505	552	1656
110	120	361	310	339	1017	510	558	1673
115	126	377	315	344	1033	515	563	1689
120	131	394	320	350	1050	520	569	1706
125	137	410	325	355	1066	525	574	1722
130	142	426	330	361	1082	530	579	1738
135	147	442	335	366	1098	535	585	1754
140	153	459	340	372	1115	540	590	1771
145	158	475	345	377	1131	545	596	1787
150	164	492	350	383	1148	550	601	1804
155	169	508	355	388	1164	555	607	1820
160	175	525	360	394	1181	560	612	1837
165	180	541	365	399	1197	565	618	1853
170	186	558	370	405	1214	570	623	1870
175	191	574	375	410	1230	575	629	1886
180	197	591	380	416	1247	580	634	1903
185	202	607	385	421	1263	585	640	1919
190	208	623	390	426	1279	590	645	1935
195	213	639	395	432	1295	595	650	1951
200	219	656	400	437	1312	600	656	1969

DISTANCES

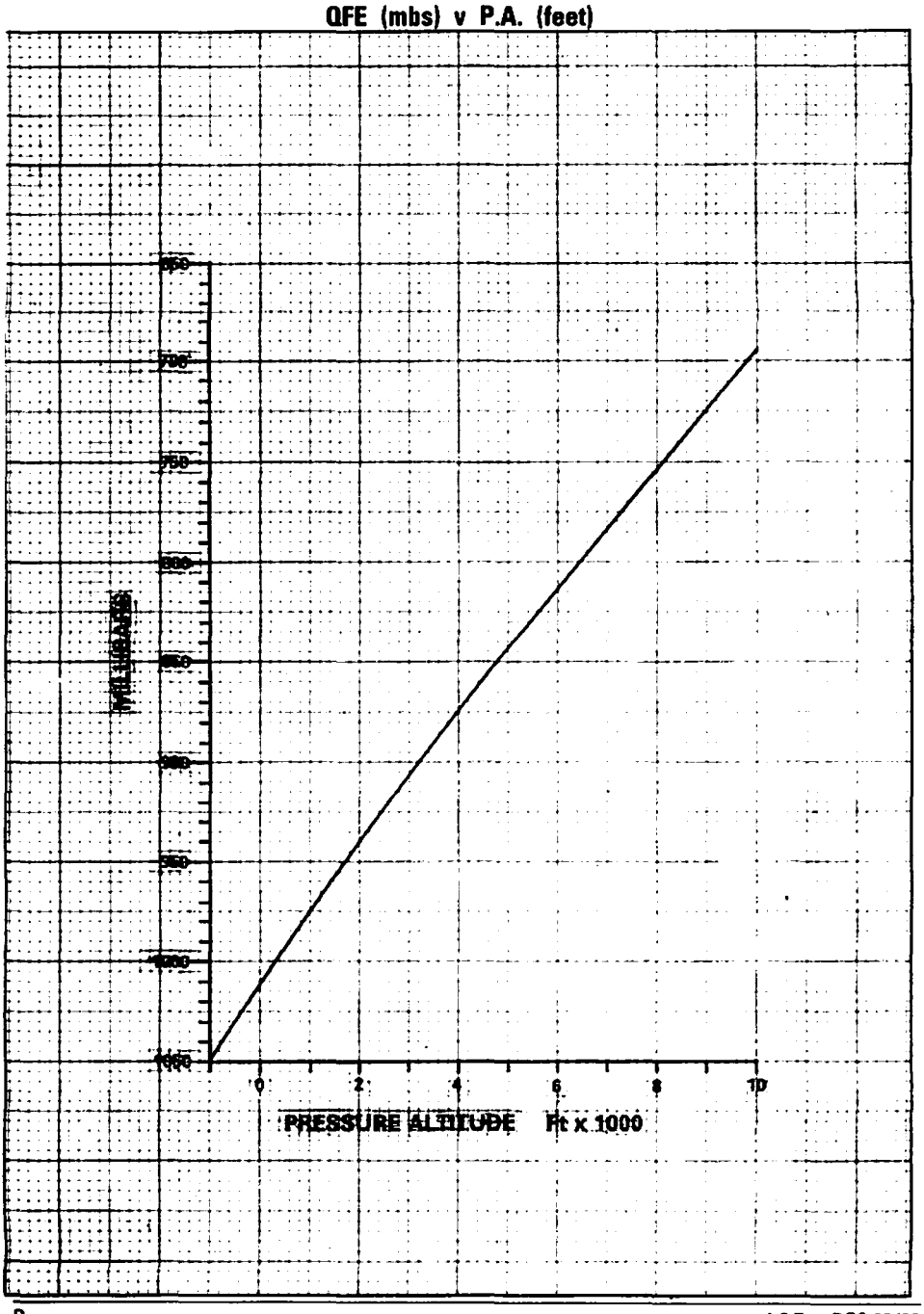
mtrs	yards	feet	mtrs	yards	feet	mtrs	yards	feet
605	662	1985	805	880	2641	1010	1105	3314
610	667	2002	810	886	2658	1020	1116	3347
615	673	2018	815	891	2674	1030	1126	3379
620	678	2035	820	897	2691	1040	1137	3412
625	684	2051	825	902	2707	1050	1148	3445
630	689	2067	830	908	2723	1060	1159	3478
635	694	2083	835	913	2739	1070	1170	3511
640	700	2100	840	919	2756	1080	1181	3544
645	705	2116	845	924	2772	1090	1192	3576
650	711	2133	850	930	2789	1100	1203	3609
655	716	2149	855	935	2805	1110	1214	3642
660	722	2166	860	941	2822	1120	1225	3675
665	727	2182	865	946	2838	1130	1236	3707
670	733	2199	870	952	2855	1140	1247	3740
675	738	2215	875	957	2871	1150	1258	3773
680	744	2232	880	963	2888	1160	1269	3806
685	749	2248	885	968	2904	1170	1280	3839
690	755	2264	890	973	2920	1180	1291	3872
695	760	2280	895	979	2936	1190	1301	3904
700	766	2297	900	984	2953	1200	1312	3937
705	771	2313	905	990	2969	1210	1323	3970
710	777	2330	910	995	2986	1220	1334	4003
715	782	2346	915	1001	3002	1230	1345	4035
720	788	2363	920	1006	3019	1240	1356	4068
725	793	2379	925	1012	3035	1250	1367	4101
730	798	2395	930	1017	3051	1260	1378	4134
735	804	2411	935	1023	3068	1270	1389	4167
740	809	2428	940	1028	3084	1280	1400	4200
745	815	2444	945	1033	3100	1290	1411	4232
750	820	2461	950	1039	3117	1300	1422	4265
755	826	2477	955	1044	3133	1310	1433	4298
760	831	2494	960	1050	3150	1320	1444	4331
765	837	2510	965	1055	3166	1330	1454	4363
770	842	2527	970	1061	3183	1340	1465	4396
775	848	2543	975	1066	3199	1350	1476	4429
780	853	2560	980	1072	3216	1360	1487	4462
785	859	2576	985	1077	3232	1370	1498	4495
790	864	2592	990	1083	3248	1380	1509	4528
795	870	2610	995	1088	3264	1390	1520	4560
800	875	2625	1000	1094	3281	1400	1531	4593

DISTANCES

mtrs	yards	feet	mtrs	yards	feet	mtrs	yards	feet
1410	1542	4626	1810	1979	5938	2210	2417	7251
1420	1553	4659	1820	1990	5971	2220	2428	7284
1430	1564	4691	1830	2001	6003	2230	2439	7316
1440	1575	4724	1840	2012	6036	2240	2450	7349
1450	1586	4757	1850	2023	6069	2250	2461	7382
1460	1597	4790	1860	2034	6102	2260	2472	7415
1470	1608	4823	1870	2045	6135	2270	2483	7448
1480	1619	4856	1880	2056	6168	2280	2494	7481
1490	1629	4888	1890	2067	6200	2290	2504	7513
1500	1640	4921	1900	2078	6233	2300	2515	7546
1510	1651	4954	1910	2089	6266	2310	2526	7579
1520	1662	4987	1920	2100	6299	2320	2537	7612
1530	1673	5019	1930	2110	6331	2330	2548	7644
1540	1684	5052	1940	2121	6364	2340	2559	7677
1550	1695	5085	1950	2132	6397	2350	2570	7710
1560	1706	5118	1960	2143	6430	2360	2581	7743
1570	1717	5151	1970	2154	6463	2370	2592	7776
1580	1728	5184	1980	2165	6496	2380	2603	7809
1590	1739	5216	1990	2176	6529	2390	2614	7841
1600	1750	5249	2000	2187	6562	2400	2625	7874
1610	1761	5282	2010	2198	6595	2410	2636	7907
1620	1772	5315	2020	2209	6628	2420	2647	7940
1630	1782	5347	2030	2220	6660	2430	2657	7972
1640	1793	5380	2040	2231	6693	2440	2668	8005
1650	1804	5413	2050	2242	6762	2450	2679	8038
1660	1815	5446	2060	2253	6759	2460	2690	8071
1670	1826	5479	2070	2264	6792	2470	2701	8104
1680	1837	5512	2080	2275	6825	2480	2712	8137
1690	1848	5544	2090	2286	6857	2490	2723	8169
1700	1859	5577	2100	2297	6890	2500	2734	8202
1710	1870	5610	2110	2308	6923	2510	2745	8235
1720	1881	5643	2120	2319	6956	2520	2756	8268
1730	1892	5675	2130	2329	6988	2530	2767	8300
1740	1903	5708	2140	2340	7021	2540	2778	8333
1750	1914	5741	2150	2351	7054	2550	2789	8366
1760	1925	5774	2160	2362	7987	2560	2800	8399
1770	1936	5807	2170	2373	7120	2570	2811	8432
1780	1947	5840	2180	2384	7153	2580	2822	8465
1790	1957	5872	2190	2395	7185	2590	2833	8498
1800	1968	5905	2200	2406	7218	2600	2844	8531

DISTANCES

mtrs	yards	feet	mtrs	yards	feet	mtrs	yards	feet
2610	2855	8564	2910	3183	9548	3210	3510	10531
2620	2866	8597	2920	3294	9581	3220	3521	10564
2630	2876	8629	2930	3204	9613	3230	3532	10596
2640	2887	8662	2940	3215	9646	3240	3543	10629
2650	2898	8695	2950	3226	9679	3250	3554	10662
2660	2909	8728	2960	3237	9712	3260	3565	10695
2670	2920	8761	2970	3248	9745	3270	3576	10728
2680	2931	8794	2980	3259	9778	3280	3587	10761
2690	2942	8826	2990	3270	9810	3290	3598	10793
2700	2953	8859	3000	3281	9842	3300	3609	10826
2710	2964	8892	3010	3292	9875	3310	3620	10859
2720	2975	8925	3020	3303	9908	3320	3631	10892
2730	2986	8957	3030	3313	9940	3330	3641	10924
2740	2997	8990	3040	3324	9973	3340	3652	10957
2750	3008	9023	3050	3335	10006	3350	3663	10990
2760	3019	9056	3060	3346	10039	3360	3674	11023
2770	3030	9089	3070	3357	10072	3370	3685	11056
2780	3041	9122	3080	3368	10105	3380	3696	11089
2790	3051	9154	3090	3379	10137	3390	3707	11121
2800	3062	9187	3100	3390	10170	3400	3718	11154
2810	3073	9220	3110	3401	10203	3410	3729	11187
2820	3084	9253	3120	3412	10236	3420	3740	11220
2830	3095	9285	3130	3423	10268	3430	3751	11252
2840	3106	9318	3140	3434	10301	3440	3762	11285
2850	3117	9351	3150	3445	10334	3450	3773	11318
2860	3128	9384	3160	3456	10367	3460	3784	11351
2870	3139	9417	3170	3467	10400	3470	3795	11384
2880	3150	9450	3180	3478	10433	3480	3806	11417
2890	3161	9482	3190	3489	10466	3490	3816	11449
2900	3172	9515	3200	3499	10498	3500	3827	11482


QFE (mbs) v P.A. (feet)
MILLIBARS
950
900
850
800
750
700
650
600
550
500
0
2
4
6
8
10
PRESSURE ALTITUDE Ft x 1000

STANDARD PRESSURE ALTITUDE ft/Mbs

STANDARD ATMOSPHERE

	0	1	2	3	4	5	6	7	8	9
930	2350	2320	2300	2270	2240	2210	2180	2150	2120	2090
940	2060	2030	2000	1980	1950	1920	1890	1860	1840	1810
950	1780	1750	1720	1690	1660	1630	1600	1570	1550	1520
960	1490	1460	1430	1400	1380	1350	1320	1290	1260	1230
970	1210	1180	1150	1120	1100	1070	1040	1010	980	960
980	930	900	870	840	810	780	750	720	700	670
990	640	610	580	560	530	500	480	450	420	400
1000	370	340	310	290	260	230	200	170	150	120
1010	90	60	40	10	-20	-50	-70	-100	-130	-150
1020	-180	-210	-240	-260	-290	-320	-350	-380	-400	-430
1030	-460	-480	-510	-540	-560	-590	-620	-650	-670	-700
1040	-720	-750	-780	-800	-830	-860	-880	-910	-940	-960
1050	-990	-1020								

NOTE: For take-off calculations:- Entry with Q.N.H. gives Height above or below Airport elevation.

CONVERSION FACTORS

TO CONVERT	INTO	MULTIPLY BY
inches	millibars	33.86
millibars	inches	0.0295
feet	metres	0.3048
metres	feet	3.2808
statute miles	nautical miles	0.8684
nautical miles	statute miles	1.1515
statute miles	kilometres	1.60932
kilometres	statute miles	0.62137
metres	yards	1.0936
yards	metres	0.9144
imperial gallons	litres	4.546
litres	imperial gallons	0.2205
imperial gallons	U.S. gallons	1.205
U.S. gallons	imperial gallons	0.830
pounds	kilograms	0.453592
kilograms	pounds	2.204622
knots	metres/sec	0.51477
metres/sec	knots	1.9426

RATIOS

The following ratios provide accurate enough answers for most practical purposes:-

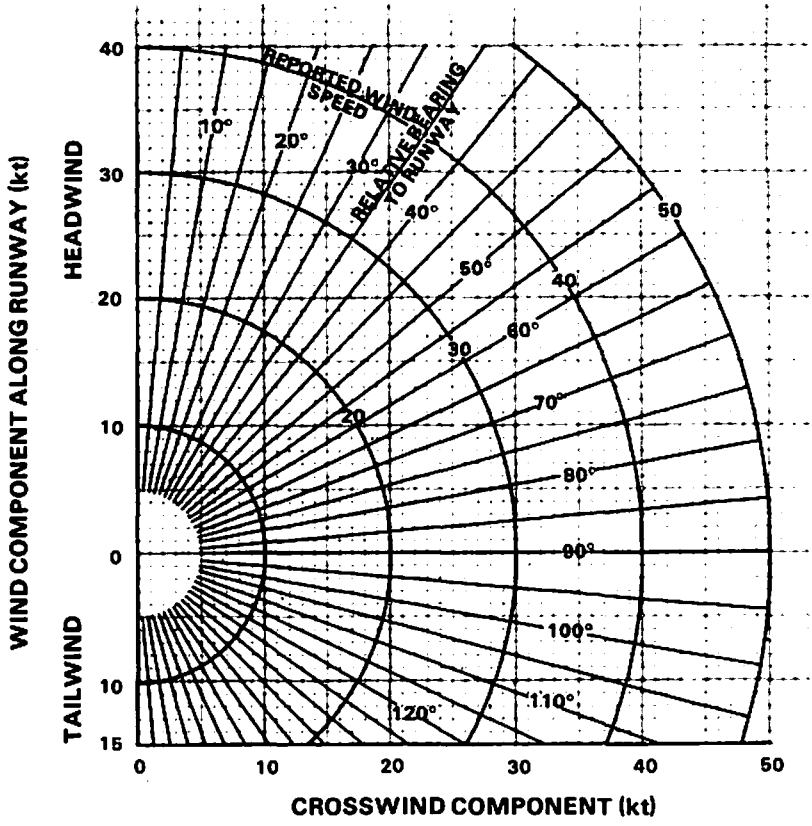
41 n.mls	=	76 km
66 n.mls	=	76 st.mls
41 st.mls	=	66 km
1 kt	=	0.5 mtrs/sec
1 mtr/sec	=	2 kt

SECTION 1.3. - CORRECTIONS

Wind Vector Diagram	1.3.1.
Pressure Altitude Corrections	1.3.3.
Maximum Take-Off Weight Corrections	1.3.4.
ATOW less than PLTOW	1.3.5. - 1.3.6.
Reheat Failure Stop/Go Chart	1.3.7.
2 Engine Zero Rate of Climb Speed	1.3.8.
Pitch Attitude in Climb	1.3.9.
Take-Off P_7 Bug Settings	1.3.10.
Take-Off Total Fuel Flow Bug Settings	1.3.11.

WIND VECTOR DIAGRAM

COMPARE MAGNETIC WIND DIRECTION WITH RUNWAY DIRECTION WHEN FINDING RELATIVE BEARING



INTENTIONALLY LEFT BLANK

PRESSURE ALTITUDE CORRECTIONS

CORRECTION TO MAXIMUM TAKE-OFF WEIGHT (1000kg)

QNH mb	0	1	2	3	4	5	6	7	8	9	
1040	3.9	4.0	4.2	4.3	4.4	4.6	4.7	4.9	5.0	5.2	
1030	2.4	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.6	3.7	ADD
1020	1.0	1.1	1.3	1.4	1.6	1.7	1.9	2.0	2.1	2.3	
1010	-0.6	-0.4	-0.2	0.0	0.1	0.3	0.4	0.6	0.7	0.9	
1000	-2.5	-2.3	-2.1	-1.9	-1.7	-1.5	-1.3	-1.2	-1.0	-0.8	
990	-4.3	-4.1	-3.9	-3.7	-3.5	-3.4	-3.2	-3.0	-2.8	-2.6	SUBTRACT
980	-6.1	-5.9	-5.8	-5.6	-5.4	-5.2	-5.0	-4.8	-4.6	-4.4	
970	-8.0	-7.8	-7.6	-7.4	-7.2	-7.0	-6.9	-6.7	-6.5	-6.3	

CORRECTION TO V_1, V_R AND V_2 (kt)

QNH mb	0	1	2	3	4	5	6	7	8	9	
1040	2	2	2	2	2	2	2	2	2	2	
1030	1	1	1	1	1	1	2	2	2	2	ADD
1020	0	1	1	1	1	1	1	1	1	1	
1010	-0	-0	-0	0	0	0	0	0	0	0	
1000	-1	-1	-1	-1	-1	-1	-1	-1	-0	-0	
990	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	SUBTRACT
980	-3	-3	-3	-3	-3	-2	-2	-2	-2	-2	
970	-4	-4	-4	-3	-3	-3	-3	-3	-3	-3	

N.B. No correction required to Θ_2

MAXIMUM TAKE-OFF WEIGHT CORRECTIONS - TONNES FOR TAKE-OFF AT 54% Co.

MTOW (1000kg)	0	2	4	6	8
	INCREMENT – TONNES				
180	.90	.91	.92	.93	.94
170	.85	.86	.87	.88	.89

MAXIMUM TAKE-OFF WEIGHT CORRECTIONS - TONNES FOR TAKE-OFF AT 53% Co TOCG.

MTOW (1000kg)	0	2	4	6	8
	DECREMENT – TONNES				
180	3.5	3.6	3.7	3.7	3.8
170	3.4	3.4	3.5	3.5	3.6
160	3.2	3.2	3.3	3.3	3.4
150	3.0	3.0	3.1	3.1	3.2
140	2.8	2.8	2.9	2.9	3.0
130	2.6	2.6	2.7	2.7	2.8
120	2.4	2.4	2.5	2.5	2.6
110	2.3	2.2	2.3	2.3	2.4

ATOW LESS THAN PLTOW

Speed and Screen Pitch Attitude corrections for Take-Off at less than PLTOW -

WEIGHT DIFFERENCE FROM PLTOW TONNES	V_{1D} or V_{TW} CORRECTION KT SUBTRACT	V_R CORRECTION KT SUBTRACT	Θ_2 CORRECTION DEGREES ADD
2	2	1	0.0
4	3	1	0.5
6	5	2	0.5
8	6	2	0.5
10	7	2	0.5
12	9	3	1.0
14	11	3	1.0
16	12	3	1.0
18	14	3	1.5
20	15	4	1.5
22	16	4	1.5
24	18	5	2.0
26	20	5	2.0
28	22	6	2.0
30	24	7	2.5
32	25	8	2.5
34	27	8	2.5
36	28	9	3.0
38	30	10	3.0
40	32	11	3.0
42	34	12	3.0
44	35	12	3.5
46	37	14	3.5
48	38	15	3.5
50	41	16	3.5
52	43	17	3.5
54	45	18	3.5
56	47	19	4.0
58	49	20	4.0
60	50	21	4.0
62	51	22	4.0
64	52	23	4.0
66	53	24	4.5
68	54	25	4.5
70 & Above	55	26	4.5

N.B. **Minimum Allowed: V_1 = 132kt, V_R = 139kt.**
Maximum Allowed: Θ_2 = 18°.

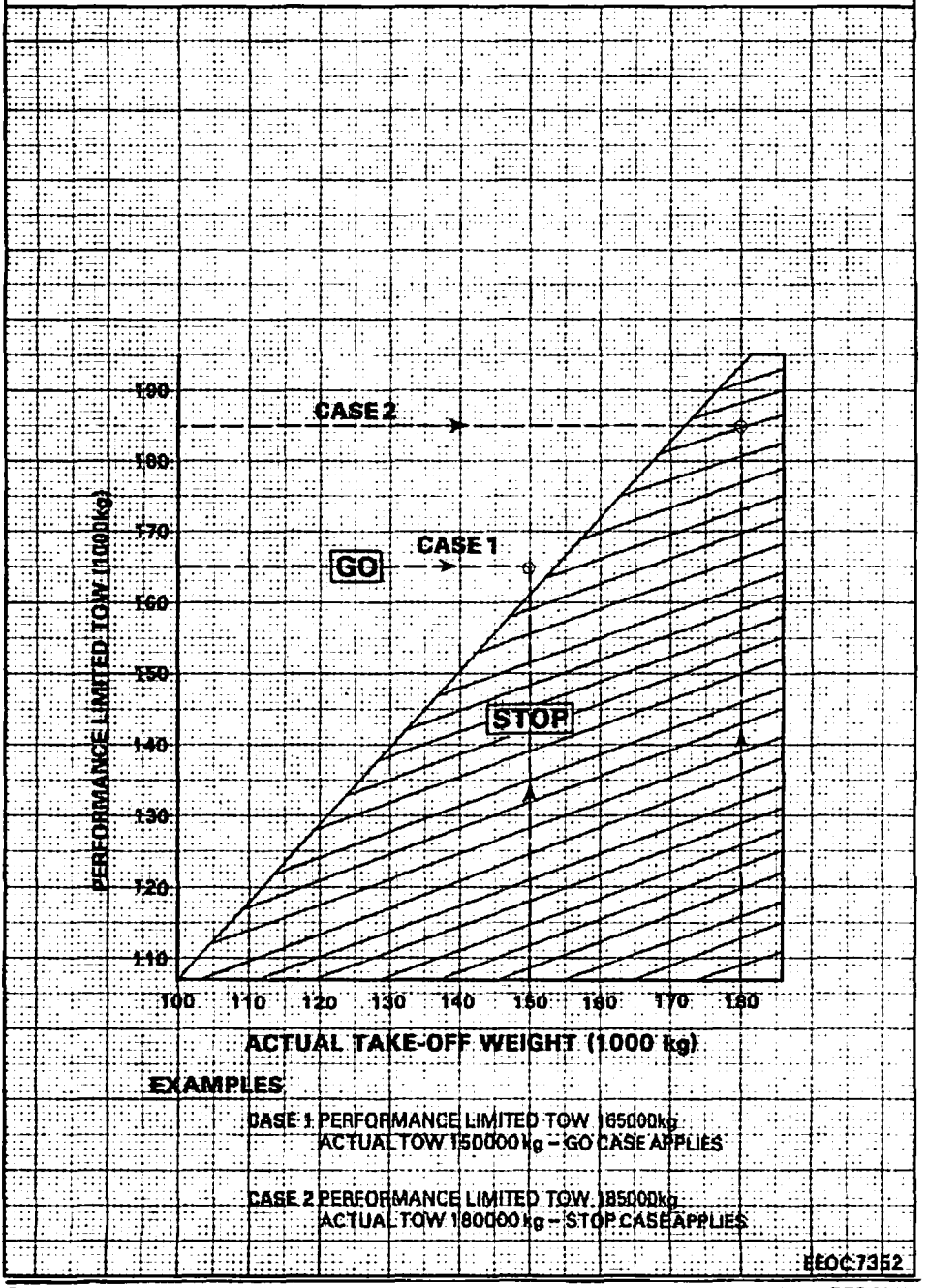
ATOW LESS THAN PLTOW (cont)

V_2 Screen Speed corrections for actual Take-Off weights less than PLTOW -

PLTOW V_2(KT)	SUBTRACT V_2 CORRECTION (KT) ACTUAL T.O.W. (1000 KG)														
	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180 & ABOVE
232	37	35	33	30	28	25	23	20	17	15	12	9	7	4	0
230	35	33	31	28	26	23	21	18	15	13	10	7	5	2	0
228	33	31	29	26	24	21	19	16	13	11	8	5	3	0	
226	31	29	27	24	22	19	17	14	11	9	6	3	1	0	
224	29	27	25	22	20	17	15	12	9	7	4	1	0		
222	27	25	23	20	18	15	13	10	7	5	2	0	0		
220	25	23	21	18	16	13	11	8	5	3	0	0			
218	23	21	19	16	14	11	9	6	3	1	0				
216	21	19	17	14	12	9	7	4	1	0					
214	19	17	15	12	10	7	5	2	0	0					
212	17	15	13	10	8	5	3	0	0						
210	15	13	11	8	6	3	1	0							
208	13	11	9	6	4	1	0								
206	11	9	7	4	2	0	0								
204	9	7	5	2	0	0									
202	7	5	3	0	0										
200	5	3	1	0											
198	3	1	0												
196	1	0	0												
194	0	0													
192 & BELOW	0	Nil corrections required at all altitudes													

N.B. Deduct a further 1 Kt for every 1000 Ft. Pressure Altitude above S.L. for values to left of lower line.

REHEAT FAILURE STOP/GO CHART



EXAMPLES

CASE 1 PERFORMANCE LIMITED TOW 165000kg
ACTUAL TOW 150000 kg – GO CASE APPLIES

CASE 2 PERFORMANCE LIMITED TOW 185000kg
ACTUAL TOW 180000 kg – STOP CASE APPLIES

EEOC 7352

2 ENGINE ZERO RATE OF CLIMB SPEED - VZRC

TWO ENGINES AT TAKE-OFF CONTINGENCY RATING

GEAR UP, NOSE 5°, VISOR DOWN

PRESSURE ALTITUDE FEET	TEMPERATURE - DEGREES C								
SL	0<16	25	34	44					
1000		0<15	25	36	43				
2000			0<14	27	35	42			
3000				0<14	25	34	41		
4000					0<13	24	32	39	
5000						0<12	23	31	33
6000	If	temp	less	than	zero		0<11	22	30
7000	add	1kt	to	VZRC	per			0<10	21
8000	15°C	below	zero						0<10
WEIGHT TONNES	**VZRC - KNOTS**								
185	258	265	272	279	285				
180	250	257	263	270	276	281			
175	242	249	254	261	267	272	277		
170	234	240	245	251	257	261	267	272	
165	227	233	238	244	248	254	259	263	268
160	219	225	230	236	241	245	250	255	260
155	212	217	222	228	233	237	242	247	252
150	203	209	213	219	224	228	232	237	242
145	196	202	206	211	216	220	224	229	233
140	189	194	198	203	207	211	215	220	224
135	181	187	190	196	200	204	208	212	216
130	173	178	182	187	191	195	199	203	207
125	164	169	173	178	182	186	190	194	198
120	156	161	165	170	174	177	181	185	189
115	147	152	156	161	164	169	172	176	180
110	138	144	147	152	156	160	164	168	172

N.B. The data above is for 'GEAR UP', for 'GEAR DOWN' apply the correction below.

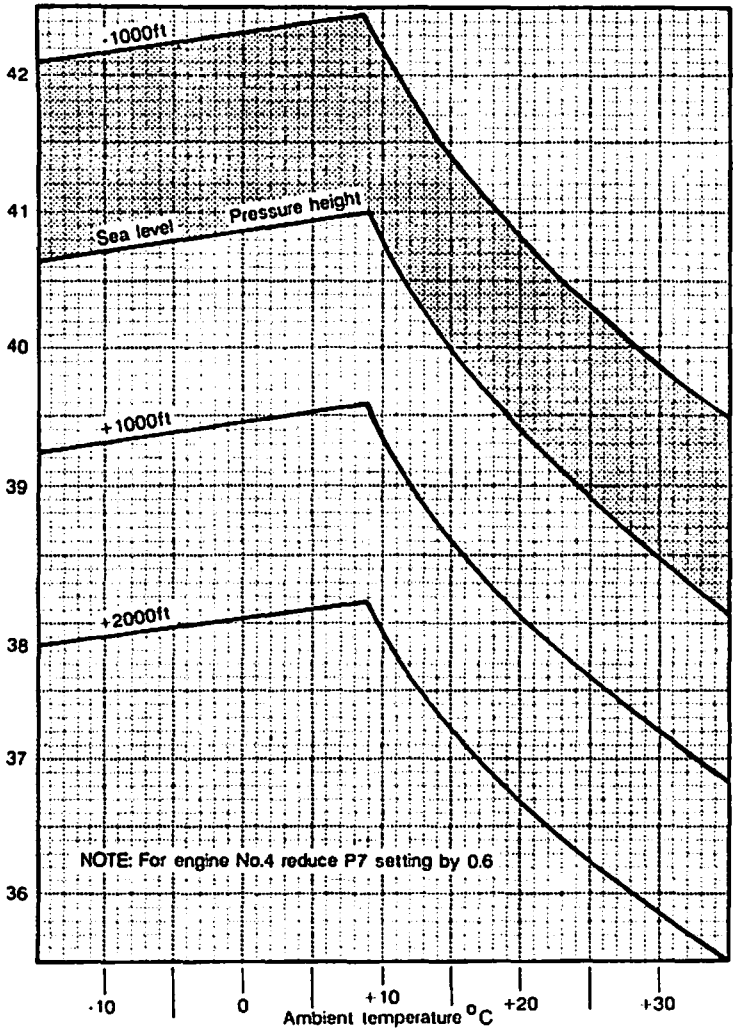
GEAR UP	kt	140	150	160	170	180	190
GEAR DOWN	kt	+7	+9	+11	+14	+17	+20
GEAR UP	kt	200	210	220	230	240	250
GEAR DOWN	kt	+24	+28	+33	+38	+43	+50

PITCH ATTITUDE IN CLIMB

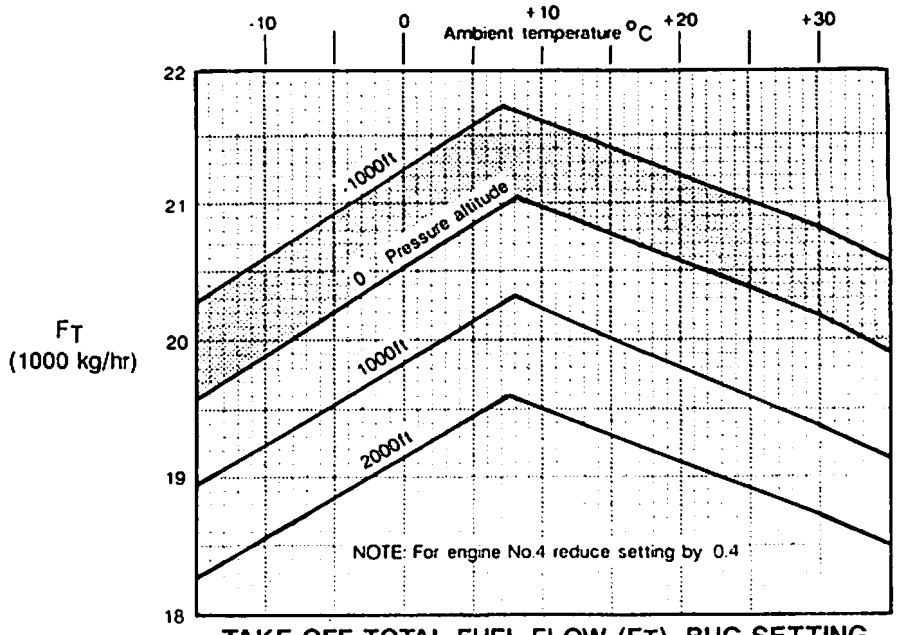
AIRFIELD PRESSURE ALTITUDE FEET	TEMPERATURE - DEGREES C										
SL	<8	20	29	37							
1000		<8	19	28	36						
2000			<8	18	28	36					
3000				<8	18	26	35				
4000					<8	17	27	35			
5000						<8	18	27	35		
6000							<8	18	27	35	
7000								<8	17	26	34
8000									<8	18	26
WEIGHT TONNES	**PITCH ATTITUDE - DEGREES**										
185	20.4	19.7	19.0	18.4	17.7	17.1	16.5	16.0	15.4	14.9	14.4
180	20.9	20.2	19.5	18.8	18.2	17.6	17.0	16.4	15.8	15.3	14.8
175	21.4	20.7	20.0	19.3	18.6	18.0	17.4	16.8	16.2	15.7	15.1
170	22.0	21.2	20.5	19.8	19.1	18.4	17.8	17.2	16.6	16.0	15.5
165	22.5	21.8	21.0	20.3	19.6	18.9	18.3	17.6	17.0	16.4	15.9
160	23.2	22.4	21.6	20.8	20.1	19.4	18.7	18.1	17.4	16.8	16.3
155	23.8	23.0	22.2	21.4	20.7	19.9	19.2	18.5	17.9	17.3	16.7
150	24.5	23.7	22.8	22.0	21.2	20.5	19.7	19.1	18.4	17.7	17.1
145	25.3	24.4	23.5	22.7	21.8	21.1	20.3	19.6	18.9	18.2	17.6
140	26.1	25.1	24.2	23.3	22.5	21.7	20.9	20.1	19.4	18.7	18.1
135	26.9	25.9	25.0	24.1	23.2	22.3	21.5	20.7	20.0	19.3	18.6
130	27.8	26.8	25.8	24.8	23.9	23.1	22.2	21.4	20.6	19.9	19.1
125	28.7	27.7	26.7	25.7	24.7	23.8	22.9	22.1	21.3	20.5	19.7
120	29.7	28.6	27.6	26.6	25.6	24.6	23.7	22.8	21.9	21.1	20.4
115	30.8	29.7	28.6	27.5	26.4	25.5	24.5	23.6	22.7	21.9	21.1
110	32.0	30.8	29.6	28.5	27.4	26.4	25.4	24.4	23.5	22.6	21.8

N.B. Although at light weights and low temperatures, i.e to the left of the broken line, high pitch attitudes are shown it is unlikely that pitch attitudes greater than 22° will be reached before a decrease in pitch attitude is required at noise abatement time or altitude.

TAKE-OFF P7 BUG SETTINGS



N.B. If taking off at Pressure Altitudes above 2000ft or at Ambient Temperatures in excess of +35°C, see Cruise Control Manual.



TAKE-OFF TOTAL FUEL FLOW (FT) BUG SETTING

O A T °C	Minimum N_2%
Above +5	103.0
+5 to -4	101.0
-5 to -14	99.0
-15 to -24	97.5
-25 to -34	95.5
-45 and below	92.0

N.B. If taking off at Pressure Altitudes above 2000ft or at Ambient Temperatures in excess of +35°C, see Cruise Control Manual.

INDEX OF SECTION 1.4.

This section contains Take-Off Data for the following airfields

AIRFIELD	CODE
BARBADOS	BGI
LONDON HEATHROW	LHR
NEW YORK J.F.K.	JFK
TORONTO	YYZ
WASHINGTON DULLES	IAD

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BARBADOS

A/D Elev **169ft**

GRANTLEY ADAMS

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 200m **SLOPE** 0.08%DN

TOR 3353m (11001ft) **ED** 3353m (11001ft) **TOD(U)** 3338m (10951ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.3 151/176	0.8	166.3 156/182	0.8	170.3 161/188	0.3	173.1 165/191	0.3	175.8 168/195	0.3	178.6 171/199
36	164.2 152/177	0.8	168.3 157/183	0.8	172.4 162/188	0.3	175.2 165/192	0.3	178.0 168/196	0.3	180.8 172/200
33	166.1 152/178	0.8	170.2 157/184	0.8	174.4 162/189	0.3	177.2 165/193	0.3	180.1 169/197	0.3	182.9 172/201
30	168.0 153/179	0.8	172.1 157/184	0.8	176.3 162/190	0.3	179.2 166/194	0.3	182.1 169/198	0.3	185.0 172/202
27	169.8 153/179	0.8	174.0 158/185	0.9	178.3 163/191	0.3	181.2 166/195	0.3	184.1 169/199	0.3	187.0 173/203
24	171.6 153/180	0.8	175.8 158/186	0.9	180.2 163/192	0.3	183.1 167/196	0.3	186.0 170/200	0.3	189.0 173/204
21	173.3 154/181	0.9	177.6 159/187	0.9	182.0 164/193	0.3	184.9 167/197	0.3	187.9 170/201	0.3	190.9 174/205
18	174.9 154/181	0.9	179.3 159/187	0.9	183.7 164/193	0.3	186.7 167/197	0.3	189.7 171/201	0.3	192.8 174/205
15	176.5 154/182	0.9	180.9 159/188	0.9	185.4 164/194	0.3	188.4 168/198	0.3	191.4 171/202	0.3	194.5 175/206
12	177.8 154/183	0.9	182.2 159/188	0.9	186.8 165/195	0.3	189.8 168/199	0.3	192.9 172/203	0.2	195.0 175/206
9	178.5 154/184	0.9	183.0 160/190	0.9	187.5 166/196	0.3	190.6 169/200	0.3	193.6 173/204	0.1	195.0 175/207
6	179.2 155/185	0.9	183.7 161/191	0.9	188.2 166/197	0.3	191.3 170/201	0.3	194.4 173/205	0.1	195.0 176/208
3	179.8 156/186	0.9	184.3 161/192	0.9	188.9 167/198	0.3	192.0 171/202	0.3	195.0 174/206	0.0	195.0 176/208
0	180.4 156/187	0.9	184.9 162/193	0.9	189.5 168/199	0.3	192.6 172/203	0.2	195.0 175/206	0.0	195.0 177/209
-3	181.0 157/188	0.9	185.5 163/194	0.9	190.1 169/200	0.3	193.2 172/204	0.2	195.0 175/207	0.0	195.0 177/209
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BARBADOS

A/D Elev **169ft**

GRANTLEY ADAMS

FULL LENGTH RWY 27

CLG NIL **RVR/VIS** 200m **SLOPE** 0.08%UP

TOR 3353m (11001ft) **ED** 3505m (11499ft) **TOD(U)** 2871m (9419ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	154.1 159/167	0.8	157.9 165/170	0.8	161.8 170/178	0.3	164.4 173/179	0.3	167.1 176/183	0.3	169.8 180/187
36	155.9 159/168	0.8	159.8 165/173	0.8	163.8 170/179	0.3	166.4 173/181	0.3	169.1 177/185	0.3	171.9 180/188
33	157.6 159/169	0.8	161.6 165/174	0.8	165.7 170/177	0.3	168.4 174/182	0.3	171.1 177/185	0.3	173.9 180/189
30	159.3 159/170	0.8	163.4 165/175	0.8	167.5 171/181	0.3	170.3 174/183	0.3	173.0 177/186	0.3	175.9 181/190
27	161.0 159/171	0.8	165.2 165/175	0.8	169.3 170/181	0.3	172.1 174/183	0.3	174.9 178/187	0.3	177.8 181/190
24	162.6 159/172	0.9	166.9 165/176	0.8	171.1 170/182	0.3	173.9 174/183	0.3	176.8 178/187	0.3	179.7 182/191
21	164.2 159/173	0.9	168.5 165/177	0.9	172.8 170/183	0.3	175.6 174/184	0.3	178.5 178/188	0.3	181.5 182/192
18	165.8 159/173	0.9	170.1 165/178	0.9	174.5 170/183	0.3	177.3 174/185	0.3	180.3 178/189	0.3	183.3 182/193
15	167.3 159/174	0.9	171.7 165/178	0.9	176.1 170/184	0.3	178.9 174/185	0.3	181.9 178/189	0.3	185.0 182/193
12	168.5 159/175	0.9	172.9 165/179	0.9	177.3 171/185	0.3	180.2 175/186	0.3	183.2 178/190	0.3	186.3 182/194
9	169.1 160/175	0.9	173.5 166/179	0.9	177.9 171/185	0.3	180.8 175/187	0.3	183.8 179/191	0.3	186.9 183/195
6	169.7 160/175	0.9	174.0 166/181	0.9	178.4 172/186	0.3	181.3 176/188	0.3	184.3 180/192	0.3	187.4 184/196
3	170.2 161/176	0.9	174.5 167/181	0.9	178.9 173/187	0.3	181.9 177/191	0.3	184.9 181/192	0.3	188.0 184/197
0	170.7 162/176	0.9	175.0 168/182	0.9	179.4 174/188	0.3	182.4 178/192	0.3	185.4 181/193	0.3	188.4 185/197
-3	171.1 163/177	0.9	175.4 169/183	0.9	179.9 175/189	0.3	182.8 178/193	0.3	185.8 182/195	0.3	188.7 186/198
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

FULL LENGTH RWY 09L

CLG NIL **RVR/VIS** 150m **SLOPE** 0.02%DN

TOR 3902m (12802ft) **ED** 3902m (12802ft) **TOD(U)** 3444m (11299ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	167.7 152/183	0.8	171.8 158/189	0.8	175.8 163/195	0.3	178.4 167/199	0.3	181.0 171/202	0.3	183.6 175/206
36	169.7 152/184	0.8	173.8 157/190	0.8	177.9 163/196	0.3	180.6 167/199	0.3	183.2 171/203	0.3	185.8 174/207
33	171.6 152/185	0.8	175.8 157/191	0.8	180.0 163/197	0.3	182.6 167/200	0.3	185.3 170/204	0.3	188.0 174/208
30	173.5 151/186	0.9	177.8 157/192	0.8	182.0 163/198	0.3	184.7 166/201	0.3	187.4 170/205	0.3	190.1 174/209
27	175.4 151/187	0.9	179.7 157/193	0.8	183.9 162/198	0.3	186.7 166/202	0.3	189.4 170/206	0.3	192.2 174/210
24	177.2 151/187	0.9	181.5 157/193	0.9	185.8 162/199	0.3	188.6 166/203	0.3	191.4 170/207	0.3	194.1 174/210
21	178.9 151/188	0.9	183.3 157/194	0.9	187.6 162/200	0.3	190.4 166/203	0.3	193.2 170/207	0.2	195.0 173/210
18	180.7 151/189	0.9	185.1 157/195	0.8	189.3 162/200	0.3	192.1 166/204	0.3	194.9 170/208	0.0	195.0 173/210
15	182.3 151/189	0.9	186.8 157/195	0.8	190.9 163/201	0.3	193.8 166/204	0.1	195.0 169/207	0.0	195.0 172/209
12	183.6 152/190	0.9	188.1 157/196	0.8	192.3 163/201	0.3	195.0 167/205	0.0	195.0 169/207	0.0	195.0 172/209
9	184.3 152/191	0.9	188.6 158/197	0.8	192.8 164/202	0.2	195.0 167/206	0.0	195.0 170/208	0.0	195.0 172/210
6	184.9 153/192	0.8	189.1 159/198	0.9	193.4 164/203	0.2	195.0 168/206	0.0	195.0 170/208	0.0	195.0 173/210
3	185.5 153/193	0.8	189.7 159/198	0.9	194.0 165/204	0.1	195.0 168/207	0.0	195.0 170/209	0.0	195.0 173/211
0	186.1 154/194	0.9	190.4 160/199	0.9	194.7 166/205	0.0	195.0 168/207	0.0	195.0 171/209	0.0	195.0 174/212
-3	186.6 155/195	0.9	191.0 161/200	0.8	195.0 166/206	0.0	195.0 169/208	0.0	195.0 172/210	0.0	195.0 174/212
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Noise Abatement Procedures:** See pages LHR/02 and LHR/03.

NOISE ABATEMENT PROCEDURE – RUNWAY 09L (FULL LENGTH)

1. MIDHURST 1K

On crossing the LON 119R/1.3d turn RIGHT to intercept LON 129R to LON 3.5d then RIGHT onto Track 211°M (MID 031R) to Midhurst and continue with SID.

2. SOUTHAMPTON 2K

On crossing the LON 119R/1.3d turn RIGHT to intercept LON 129R to LON 3.5d then RIGHT onto Track 226°M (OCK 046R).

At OCK 2d turn RIGHT to intercept 258R to OCK 19d then LEFT to Track 232°M (SAM 052R) to Southampton.

3. COMPTON 2K

On crossing the LON 119R/1.3d turn RIGHT using 25° bank applied expeditiously.

Continue turn onto 285°M QDM to Woodley.

At Woodley continue on 285°M (CPT 105R) to Compton.

Maintain 250kt IAS until a heading of at least 250°M is achieved.

4. DOVER 2K

On crossing the LON 119R/1.3d turn RIGHT using 25° bank applied expeditiously to achieve a heading of 125°M.

At LON 4d turn LEFT onto 108°M (DET 288R) to Detling.

At LON 5d increase N_2 by 2% and continue with SID.

NOTE – Rwy 09L must only be used when there is no other Rwy available.

NOISE ABATEMENT PROCEDURE – RUNWAY 09L (FULL LENGTH)

This table to be used in conjunction with the following departures:-

MIDHURST 1K, SOUTHAMPTON 2K, COMPTON 1K, DOVER 2K

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	61	61	62	63	63	64	65	66	68	70
180	16.5	16.5	16.5	15.5	14.5	13.0	12.0	10.5	9.5	8.0
	95.3	95.3	95.3	96.4	97.4	98.6	99.6	100.5	101.6	102.7
	60	60	61	62	62	63	64	65	67	69
175	17.5	17.5	17.5	16.5	15.5	14.0	13.0	12.0	10.5	9.5
	94.3	94.3	94.3	95.5	96.5	97.6	98.6	99.5	100.5	101.6
	58	58	59	60	60	61	62	63	65	67
170	19.0	19.0	19.0	17.5	16.5	15.0	14.0	13.0	12.0	10.5
	93.4	93.4	93.4	94.5	95.5	96.6	97.6	98.6	99.6	100.6
	56	56	57	58	58	59	60	61	63	65
165	20.0	20.0	20.0	18.5	17.5	16.5	15.0	14.0	13.0	11.5
	92.5	92.5	92.5	93.6	94.6	95.6	96.7	97.7	98.6	99.7
	54	54	55	56	56	57	58	59	61	63
160	21.0	21.0	21.0	19.5	18.5	17.5	16.5	15.0	14.0	13.0
	91.8	91.8	91.8	92.7	93.7	94.7	95.7	96.7	97.6	98.7
	52	53	54	54	55	55	56	58	60	62
155	21.5	21.5	21.5	21.0	19.5	18.5	17.5	16.5	15.0	14.0
	91.0	91.0	91.0	91.8	92.7	93.8	94.7	95.6	96.6	97.7
	51	51	52	52	53	54	55	57	59	61
150	22.5	22.5	22.5	21.5	20.5	19.5	18.5	17.5	16.0	15.0
	90.3	90.3	90.3	91.2	92.0	92.9	93.8	94.8	95.8	96.7
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	47	48	48	49	49	50	52	53	55	57
140	24.0	24.5	24.5	23.5	22.5	21.5	20.5	19.5	18.0	17.5
	88.7	88.7	88.7	89.7	90.6	91.3	92.1	93.0	94.0	94.9
	44	44	45	45	46	47	48	50	51	53
130	24.5	25.0	25.5	24.5	23.5	22.5	21.5	20.5	19.5	18.5
	87.8	87.8	87.8	88.5	89.4	90.1	91.1	92.0	92.8	93.6

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

INTENTIONALLY LEFT BLANK

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

FULL LENGTH RWY **09R**

CLG NIL **RVR/VIS** 150m **SLOPE** 0.02%UP

TOR 3658m (12001ft) **ED** 3658m (12001ft) **TOD(U)** 3321m (10895ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	163.4 0.8 155/177	167.5 0.8 160/183	171.6 0.3 166/189	174.2 0.3 170/192	176.8 0.3 173/196	179.4 177/200
36	165.3 0.8 154/178	169.4 0.8 160/184	173.6 0.3 166/190	176.2 0.3 169/193	178.9 0.3 173/197	181.5 177/201
33	167.2 0.8 154/179	171.4 0.8 160/185	175.6 0.3 165/191	178.3 0.3 169/194	180.9 0.3 173/198	183.6 177/202
30	169.1 0.8 154/180	173.3 0.9 159/185	177.6 0.3 165/192	180.3 0.3 169/195	182.9 0.3 173/199	185.7 176/203
27	170.9 0.8 154/180	175.1 0.9 159/186	179.5 0.3 165/192	182.2 0.3 169/196	184.9 0.3 172/200	187.7 176/203
24	172.6 0.9 154/181	176.9 0.9 159/187	181.3 0.3 165/193	184.1 0.3 169/197	186.9 0.3 172/201	189.7 176/204
21	174.3 0.9 154/182	178.7 0.9 159/188	183.1 0.3 165/194	186.0 0.3 169/198	188.7 0.3 172/201	191.6 176/205
18	176.0 0.9 154/182	180.4 0.9 159/188	184.9 0.3 165/194	187.8 0.3 169/198	190.6 0.3 172/202	193.4 176/206
15	177.6 0.9 154/183	182.0 0.9 159/189	186.6 0.3 165/195	189.5 0.3 169/199	192.3 0.3 172/202	195.0 176/206
12	178.9 0.9 154/184	183.4 0.9 160/190	187.9 0.3 165/196	190.9 0.3 169/199	193.7 0.1 173/203	195.0 176/206
9	179.5 0.9 155/185	184.0 0.9 160/191	188.6 0.3 166/197	191.5 0.3 170/200	194.3 0.1 174/204	195.0 176/207
6	180.1 0.9 155/186	184.6 0.9 161/191	189.2 0.3 167/198	192.0 0.3 170/201	194.9 0.0 174/205	195.0 177/207
3	180.7 0.9 156/186	185.2 0.9 162/192	189.7 0.3 167/198	192.6 0.2 171/202	195.0 0.0 175/206	195.0 177/208
0	181.2 0.9 157/187	185.7 0.9 162/193	190.2 0.3 168/199	193.1 0.2 172/203	195.0 0.0 176/206	195.0 178/208
-3	181.7 0.9 157/188	186.2 0.9 163/194	190.7 0.3 169/200	193.5 0.1 173/204	195.0 0.0 176/207	195.0 179/209
V2= θ2=	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 12.5	VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Noise Abatement Procedures:** See pages LHR/06 and LHR/07.

NOISE ABATEMENT PROCEDURE – RUNWAY 09R (FULL LENGTH)

1. MIDHURST 1J

Ahead to intercept LON 129R to LON 3.5d then RIGHT to intercept Track 211°M (MID 031R) to Midhurst and continue with SID.

2. SOUTHAMPTON 2J

Ahead to intercept LON 129R to LON 3.5d then RIGHT onto Track 226°M (OCK 046R).

At OCK 2d turn RIGHT to intercept 258R to OCK 19d then LEFT to Track 232°M (SAM 052R) to Southampton.

3. COMPTON 2J

At LON 144R turn RIGHT using 15° bank applied expeditiously.

On achieving 155°M heading increase N_2 by 2% and bank angle to 25°.

Continue turn onto 285°M QDM to Woodley and continue with SID.

Maintain 250kt IAS until a heading of at least 250°M is achieved.

4. DOVER 2J

At LON 144R turn RIGHT using 15° bank applied expeditiously to achieve a heading of 125°M.

At LON 4d turn LEFT onto 108°M (DET 288R) to Detling.

At LON 5d increase N_2 by 2% and continue with SID.

NOISE ABATEMENT PROCEDURE – RUNWAY 09R (FULL LENGTH)

This table to be used in conjunction with the following departures:-

MIDHURST 1J, SOUTHAMPTON 2J, COMPTON 1J, DOVER 2J

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	75	76	76	77	78	79	79	80	81	
185	17.0	17.0	17.0	16.0	15.0	14.5	13.0	12.5	11.5	
	94.7	94.7	94.7	95.8	96.4	97.1	98.0	98.7	99.5	
	72	73	73	74	75	76	76	77	78	
180	18.5	18.5	18.5	17.5	16.5	15.5	14.5	13.5	13.0	
	93.9	93.9	93.9	94.7	95.6	96.3	97.2	97.9	98.7	
	68	69	70	70	71	72	72	73	74	74
175	19.0	19.0	19.0	18.0	17.5	16.5	15.5	14.5	13.5	13.0
	93.2	93.2	93.2	94.0	94.8	95.6	96.4	97.2	98.0	98.7
	65	66	67	67	68	69	69	70	71	72
170	20.0	20.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5	13.5
	92.4	92.4	92.4	93.2	94.0	94.8	95.6	96.4	97.2	98.0
	62	63	64	64	65	66	67	67	68	69
165	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.7	91.7	91.7	92.5	93.3	94.1	94.8	95.6	96.4	97.1
	59	60	61	62	62	63	64	64	65	66
160	21.5	21.5	21.5	20.5	19.5	19.0	18.0	17.0	16.0	15.5
	91.1	91.1	91.1	92.0	92.7	93.5	94.3	95.0	95.8	96.5
	57	57	58	59	59	60	61	61	62	63
155	22.5	22.5	22.5	21.5	20.5	19.5	18.5	18.0	17.0	16.0
	90.4	90.4	90.4	91.2	92.0	92.8	93.6	94.3	95.1	95.8
	54	54	55	56	56	57	58	59	59	60
150	23.0	23.0	23.0	22.0	21.5	20.5	19.5	18.5	17.5	17.0
	89.8	89.8	89.8	90.6	91.4	92.2	92.9	93.7	94.6	95.2
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	48	49	49	50	51	51	52	53	53	54
140	24.0	24.5	24.5	23.5	22.5	21.5	21.0	20.0	19.0	18.5
	88.7	88.7	88.7	89.4	90.2	91.0	91.7	92.5	93.2	93.9
	42	43	43	44	45	46	46	47	48	48
130	24.5	25.0	26.0	25.0	24.0	23.0	22.0	21.5	20.5	19.5
	87.6	87.6	87.6	88.4	89.2	89.9	90.6	91.3	92.1	92.8

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **LONDON**

A/D Elev **80ft** HEATHROW

FULL LENGTH RWY **23**

CLG NIL **RVR/VIS** 200m **SLOPE** NIL

TOR 2357m (7733ft) **ED** 2357m (7733ft) **TOD(U)** 2357m (7733ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	133.5	1.1	139.1	1.2	144.9	0.4	148.9	0.4	153.0	0.4	157.2
	133/153		137/157		142/161		145/164		147/166		150/169
36	135.0	1.1	140.6	1.2	146.5	0.4	150.6	0.4	154.7	0.4	159.0
	133/153		138/158		142/162		145/165		148/167		150/170
33	136.4	1.1	142.1	1.2	148.1	0.4	152.2	0.4	156.4	0.4	160.7
	134/154		138/158		142/163		145/165		148/168		151/171
30	137.8	1.2	143.6	1.2	149.6	0.4	153.8	0.4	158.0	0.4	162.4
	134/155		139/159		143/163		146/166		148/169		151/172
27	139.2	1.2	145.0	1.2	151.1	0.4	155.3	0.4	159.6	0.4	164.0
	134/156		139/160		143/164		146/167		149/170		152/173
24	140.5	1.2	146.4	1.2	152.5	0.4	156.8	0.4	161.1	0.4	165.5
	135/157		139/161		144/165		146/168		149/171		152/174
21	141.8	1.2	147.7	1.2	153.9	0.4	158.2	0.4	162.6	0.4	167.0
	135/157		140/161		144/166		147/169		150/172		152/174
18	143.0	1.2	149.0	1.3	155.3	0.4	159.6	0.4	164.0	0.4	168.5
	136/158		140/162		144/166		147/169		150/172		153/175
15	144.2	1.2	150.2	1.3	156.5	0.4	160.9	0.4	165.3	0.5	169.9
	136/158		140/163		145/167		148/170		151/173		153/176
12	145.3	1.2	151.4	1.3	157.7	0.4	162.1	0.4	166.6	0.5	171.2
	136/159		141/163		145/168		148/171		151/174		154/177
9	146.4	1.2	152.5	1.3	158.9	0.4	163.3	0.4	167.8	0.5	172.4
	137/160		141/164		146/168		149/171		151/174		154/177
6	147.4	1.2	153.6	1.3	160.0	0.4	164.4	0.5	169.0	0.5	173.6
	137/160		142/165		146/169		149/172		152/175		155/178
3	148.4	1.2	154.6	1.3	161.1	0.4	165.5	0.4	170.0	0.5	174.7
	138/161		142/165		147/169		150/172		152/175		155/178
0	149.3	1.2	155.5	1.3	162.1	0.4	166.5	0.5	171.1	0.4	175.3
	138/161		143/166		147/170		150/173		153/176		156/179
-3	150.2	1.3	156.5	1.3	163.0	0.4	167.5	0.5	172.1	0.4	175.8
	139/162		143/166		148/171		151/173		154/176		157/180
V2=	VR+ 28		VR+ 26		VR+ 25		VR+ 23		VR+ 22		VR+ 22
Θ2=	15.5		15.5		15.0		14.5		14.0		14.0

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

FULL LENGTH RWY 27L

CLG NIL **RVR/VIS** 150m **SLOPE** 0.02%DN

TOR 3658m (12001ft) **ED** 3658m (12001ft) **TOD(U)** 3304m (10840ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	163.1 155/177	0.8	167.2 160/183	0.8	171.3 166/189	0.3	173.9 170/192	0.3	176.5 173/196	0.3	179.1 177/199
36	165.1 154/178	0.8	169.2 160/183	0.8	173.4 166/189	0.3	176.0 169/193	0.3	178.6 173/197	0.3	181.2 177/200
33	166.9 154/178	0.8	171.1 160/184	0.8	175.3 165/190	0.3	178.0 169/194	0.3	180.6 173/198	0.3	183.3 177/201
30	168.8 154/179	0.8	173.0 159/185	0.9	177.3 165/191	0.3	180.0 169/195	0.3	182.7 173/199	0.3	185.4 176/202
27	170.6 154/180	0.8	174.8 159/186	0.9	179.2 165/192	0.3	181.9 169/196	0.3	184.6 172/199	0.3	187.4 176/203
24	172.3 154/181	0.9	176.7 159/187	0.9	181.0 165/193	0.3	183.8 169/196	0.3	186.6 172/200	0.3	189.4 176/204
21	174.0 154/181	0.9	178.4 159/187	0.9	182.8 165/193	0.3	185.7 169/197	0.3	188.5 172/201	0.3	191.3 176/205
18	175.7 154/182	0.9	180.1 159/188	0.9	184.6 165/194	0.3	187.5 169/198	0.3	190.3 172/202	0.3	193.1 176/205
15	177.3 154/183	0.9	181.7 159/188	0.9	186.3 165/194	0.3	189.2 169/198	0.3	192.0 172/202	0.3	194.9 176/206
12	178.6 154/183	0.9	183.1 160/189	0.9	187.6 165/195	0.3	190.6 169/199	0.3	193.4 173/203	0.2	195.0 176/206
9	179.2 155/184	0.9	183.7 160/190	0.9	188.3 166/196	0.3	191.2 170/200	0.3	194.0 174/204	0.1	195.0 176/206
6	179.8 155/185	0.9	184.3 161/191	0.9	188.9 167/197	0.3	191.7 170/201	0.3	194.6 174/205	0.0	195.0 177/207
3	180.4 156/186	0.9	184.9 162/192	0.9	189.4 167/198	0.3	192.3 171/202	0.3	195.0 175/205	0.0	195.0 177/208
0	180.9 157/187	0.9	185.4 162/193	0.9	189.9 168/199	0.3	192.8 172/202	0.2	195.0 176/206	0.0	195.0 178/208
-3	181.4 157/188	0.9	185.9 163/194	0.9	190.4 169/200	0.3	193.2 173/203	0.2	195.0 176/206	0.0	195.0 179/208
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Noise Abatement Procedures:** See pages LHR/10, LHR/11, LHR/12 and LHR/13.

NOISE ABATEMENT PROCEDURE – RUNWAY 27L (FULL LENGTH)

1. MIDHURST 2G

Turn LEFT using 15° bank to intercept LON 244R.

At LON 5.5d increase N_2 by 2% and continue LEFT turn with maximum 25° bank on BUR 166R to intercept DUN 158R.

At LON 12d turn RIGHT onto Track 202°M (MID 022R) to Midhurst.

2. DOVER 3G

At 300ft QNH turn LEFT using 15° bank applied expeditiously.

At LON 5d increase N_2 by 2% and bank angle to 25° to intercept Track 126°R to Epsom and continue with SID.

NOTE – Initial turn should not be made until LON 219R (End of Runway).

NOISE ABATEMENT PROCEDURE – RUNWAY 27L (FULL LENGTH)

This table to be used in conjunction with the following departures:-

MIDHURST 2G, DOVER 2G

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	77	78	78	79	80	81	81	82	83	
185	17.0	17.0	17.0	16.0	15.0	14.0	13.0	12.5	11.5	
	94.7	94.7	94.7	95.5	96.4	97.1	98.0	98.7	99.5	
	74	75	75	76	77	78	78	79	80	
180	18.5	18.5	18.5	17.5	16.5	15.5	14.5	13.5	13.0	
	93.9	93.9	93.9	94.7	95.6	96.3	97.2	97.9	98.7	
	70	71	72	72	73	74	74	75	76	76
175	19.0	19.0	19.0	18.0	17.5	16.5	15.5	14.5	13.5	13.0
	93.2	93.2	93.2	94.0	94.8	95.6	96.4	97.2	98.0	98.7
	67	68	69	69	70	71	71	72	73	74
170	20.0	20.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5	13.5
	92.4	92.4	92.4	93.2	94.0	94.8	95.6	96.4	97.2	98.0
	64	65	66	66	67	68	69	69	70	71
165	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.7	91.7	91.7	92.5	93.3	94.1	94.8	95.6	96.4	97.1
	61	62	63	64	64	65	66	66	67	68
160	21.5	21.5	21.5	20.5	19.5	19.0	18.0	17.0	16.0	15.5
	91.1	91.1	91.1	92.0	92.7	93.5	94.3	95.0	95.8	96.5
	59	59	60	61	61	62	63	63	64	65
155	22.5	22.5	22.5	21.5	20.5	19.5	18.5	18.0	17.0	16.0
	90.4	90.4	90.4	91.2	92.0	92.8	93.6	94.3	95.1	95.8
	56	56	57	58	58	59	60	61	61	62
150	23.0	23.0	23.0	22.0	21.5	20.5	19.5	18.5	17.5	17.0
	89.8	89.8	89.8	90.6	91.4	92.2	92.9	93.7	94.6	95.2
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	50	51	51	52	53	53	54	55	55	56
140	24.0	24.5	24.5	23.5	22.5	21.5	21.0	20.0	19.0	18.5
	88.7	88.7	88.7	89.4	90.2	91.0	91.7	92.5	93.2	93.9
	44	45	45	46	47	48	48	49	50	50
130	24.5	25.0	26.0	25.0	24.0	23.0	22.0	21.5	20.5	19.5
	87.6	87.6	87.6	88.4	89.2	89.9	90.6	91.3	92.1	92.8

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

NOISE ABATEMENT PROCEDURE – RUNWAY 27L (FULL LENGTH)

1. SOUTHAMPTON 2G

Ahead to intercept LON 260R.

At LON 7d turn RIGHT onto Track 273°M (WOD 273M) to Woodley and increase N_2 by 2%.

At LON 13d turn LEFT onto Track 220°M (SAM 040R) to Southampton.

2. COMPTON 2G

Ahead to intercept LON 260R.

At LON 7d turn RIGHT onto Track 273°M (WOD 273M) to Woodley and increase N_2 by 2% and continue with SID.

NOISE ABATEMENT PROCEDURE – RUNWAY 27L (FULL LENGTH)

This table to be used in conjunction with the following departures:-

SOUTHAMPTON 1G, COMPTON 1G

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	79	80	81	82	82	83	84	85	85	
185	17.6	17.6	17.6	17.3	16.5	15.5	14.5	14.0	13.0	
	94.5	94.5	94.5	94.8	95.2	95.9	96.8	97.5	98.3	
	76	77	78	79	79	80	81	82	82	
180	18.6	18.6	18.6	18.2	18.0	17.0	16.0	15.0	14.0	
	93.7	93.7	93.7	94.0	94.4	95.1	96.0	96.7	97.5	
	73	74	75	76	76	77	78	79	79	80
175	19.4	19.4	19.4	19.0	18.5	18.0	17.0	16.0	15.0	14.0
	93.0	93.0	93.0	93.3	93.6	94.4	95.2	96.0	96.8	97.5
	71	71	72	73	74	74	75	76	76	77
170	20.3	20.3	20.3	20.0	19.5	18.5	18.0	17.0	16.0	15.0
	92.2	92.2	92.2	92.5	92.8	93.6	94.4	95.2	96.0	96.8
	68	69	70	70	71	72	72	73	74	74
165	21.1	21.1	21.1	20.8	20.5	19.5	18.5	18.0	17.0	16.0
	91.5	91.5	91.5	91.8	92.1	92.9	93.6	94.4	95.2	95.9
	66	66	67	68	68	69	70	70	71	72
160	21.8	21.8	21.8	21.4	21.0	20.0	19.5	18.5	17.5	17.0
	90.9	90.9	90.9	91.3	91.5	92.3	93.1	93.8	94.6	95.3
	63	64	64	65	66	66	67	68	69	69
155	22.6	22.6	22.6	22.3	22.0	21.0	20.0	19.5	18.5	17.5
	90.2	90.2	90.2	90.5	90.8	91.6	92.4	93.1	93.9	94.6
	60	61	62	62	63	64	65	65	66	67
150	23.4	23.6	23.6	23.1	22.5	21.5	21.0	20.0	19.0	18.0
	89.6	89.6	89.6	89.9	90.2	91.0	91.7	92.5	93.3	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	55	56	57	57	58	59	59	60	61	61
140	24.1	24.7	24.7	24.6	24.0	23.0	22.5	21.5	20.5	19.5
	88.5	88.5	88.5	88.7	89.0	89.8	90.5	91.3	92.0	92.7
	50	51	51	52	53	53	54	55	56	56
130	24.9	25.5	25.9	25.7	25.5	24.5	23.5	23.0	22.0	21.0
	87.4	87.4	87.4	87.7	88.0	88.7	89.4	90.1	90.9	91.6
120	45	46	46	47	48	48	49	50	51	
and	25.5	26.1	26.6	26.7	26.5	25.5	25.0	24.0	23.0	
below	86.6	86.6	86.6	86.7	87.0	87.7	88.4	89.1	89.9	

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

INTENTIONALLY LEFT BLANK

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

FULL LENGTH RWY 27R

CLG NIL **RVR/VIS** 150m **SLOPE** 0.02%UP

TOR 3902m (12802ft) **ED** 3902m (12802ft) **TOD(U)** 3245m (10646ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.4 155/179	0.8	166.3 161/185	0.7	170.0 167/189	0.2	172.4 171/190	0.2	174.8 175/193	0.2	177.2 178/197
36	164.3 155/180	0.8	168.3 161/185	0.8	172.1 166/190	0.2	174.5 170/191	0.2	176.9 174/194	0.2	179.4 178/198
33	166.1 155/180	0.8	170.2 160/186	0.8	174.1 166/191	0.2	176.5 170/192	0.2	179.0 174/195	0.2	181.5 178/199
30	168.0 154/181	0.8	172.1 160/187	0.8	176.0 166/192	0.2	178.5 170/193	0.2	181.0 174/196	0.2	183.5 178/200
27	169.8 154/182	0.8	174.0 160/188	0.8	178.0 166/192	0.2	180.5 170/194	0.2	183.0 174/197	0.3	185.6 177/201
24	171.6 154/183	0.8	175.8 160/189	0.8	179.9 166/194	0.2	182.4 170/195	0.3	185.0 173/198	0.2	187.5 177/201
21	173.3 154/183	0.9	177.6 160/189	0.8	181.8 166/195	0.2	184.3 169/197	0.3	186.9 173/199	0.3	189.5 177/202
18	175.0 154/184	0.9	179.3 160/190	0.9	183.6 166/195	0.2	186.1 169/198	0.3	188.7 173/199	0.3	191.4 177/203
15	176.6 154/185	0.9	180.9 160/191	0.9	185.3 166/196	0.3	187.9 170/198	0.3	190.5 173/200	0.3	193.2 177/204
12	177.9 155/185	0.9	182.3 160/191	0.9	186.7 166/197	0.3	189.3 170/199	0.3	191.9 174/201	0.3	194.6 178/204
9	178.4 155/186	0.9	182.8 161/192	0.9	187.1 167/197	0.3	189.7 171/199	0.3	192.3 175/202	0.3	195.0 178/205
6	179.0 156/187	0.9	183.4 162/193	0.8	187.5 167/198	0.3	190.1 171/199	0.3	192.7 175/202	0.2	195.0 179/206
3	179.5 156/188	0.9	183.9 162/194	0.8	187.9 168/198	0.3	190.5 172/199	0.3	193.1 176/203	0.2	195.0 180/206
0	180.0 157/188	0.9	184.4 163/195	0.8	188.2 169/198	0.3	190.8 173/200	0.3	193.5 177/203	0.1	195.0 181/206
-3	180.5 158/189	0.8	184.7 164/195	0.8	188.6 170/197	0.2	191.1 174/201	0.3	193.8 178/204	0.1	195.0 181/207
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Noise Abatement Procedures:** See pages LHR/16, LHR/17, LHR/18 and LHR/19.

NOISE ABATEMENT PROCEDURE – RUNWAY 27R (FULL LENGTH)

1. MIDHURST 2F

Turn LEFT using 15° bank to intercept LON 244R.

At LON 5.5d increase N_2 by 2% and continue LEFT turn with maximum 25° bank to intercept BUR 166R.

At LON 12d turn RIGHT onto Track 202°M (MID 022R) to Midhurst.

2. DOVER 2F

At 300ft QNH turn LEFT using 15° bank applied expeditiously.

At LON 5d increase N_2 by 2% and bank angle to 25° to intercept EPM 131M and continue with SID.

NOTE – Initial turn should not be made until LON 244R (End of Runway).

NOISE ABATEMENT PROCEDURE – RUNWAY 27R (FULL LENGTH)

This table to be used in conjunction with the following departures:-

MIDHURST 2F, DOVER 2F

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	76	76	77	77	77	78	79	80	81	
185.07	17.0	17.0	17.0	16.0	15.0	14.5	13.0	12.5	11.5	
	94.7	94.7	94.7	95.8	96.4	97.1	98.0	98.7	99.5	
	73	73	74	74	74	75	76	77	78	
180	18.5	18.5	18.5	17.5	16.5	15.5	14.5	13.5	13.0	
	93.9	93.9	93.9	94.7	95.6	96.3	97.2	97.9	98.7	
	70	71	71	72	72	73	74	75	76	78
175	19.0	19.0	19.0	18.0	17.5	16.5	15.5	14.5	13.5	13.0
	93.2	93.2	93.2	94.0	94.8	95.6	96.4	97.2	98.0	98.7
	67	68	69	69	70	71	72	73	74	76
170	20.0	20.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5	13.5
	92.4	92.4	92.4	93.2	94.0	94.8	95.6	96.4	97.2	98.0
	64	65	66	67	68	69	70	71	73	74
165	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.7	91.7	91.7	92.5	93.3	94.1	94.8	95.6	96.4	97.1
	62	63	64	65	66	67	68	69	71	72
160	21.5	21.5	21.5	20.5	19.5	19.0	18.0	17.0	16.0	15.5
	91.1	91.1	91.1	92.0	92.7	93.5	94.3	95.0	95.8	96.5
	59	60	61	62	63	64	66	67	68	69
155	22.5	22.5	22.5	21.5	20.5	19.5	18.5	18.0	17.0	16.0
	90.4	90.4	90.4	91.2	92.0	92.8	93.6	94.3	95.1	95.8
	56	57	58	60	61	62	63	64	66	67
150	23.0	23.0	23.0	22.0	21.5	20.5	19.5	18.5	17.5	17.0
	89.8	89.8	89.8	90.6	91.4	92.2	92.9	93.7	94.6	95.2
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	51	52	53	54	55	56	58	59	60	62
140	24.0	24.5	24.5	23.5	22.5	21.5	21.0	20.0	19.0	18.5
	88.7	88.7	88.7	89.4	90.2	91.0	91.7	92.5	93.2	93.9
	46	47	48	49	50	51	53	54	55	56
130	24.5	25.0	26.0	25.0	24.0	23.0	22.0	21.5	20.5	19.5
	87.6	87.6	87.6	88.4	89.2	89.9	90.6	91.3	92.1	92.8

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

NOISE ABATEMENT PROCEDURE – RUNWAY 27R (FULL LENGTH)

1. SOUTHAMPTON 2F

Ahead to intercept LON 260R.

At LON 7d turn RIGHT onto Track 273°M (WOD 273M) to Woodley and increase N_2 by 2%.

At LON 13d turn LEFT onto Track 220°M (SAM 040R) to Southampton.

2. COMPTON 2F

Ahead to intercept LON 260R **(take care not to turn before intercepting the radial).**

At LON 7d turn RIGHT onto Track 273°M (WOD 273M) to Woodley and increase N_2 by 2% and continue with SID.

NOISE ABATEMENT PROCEDURE – RUNWAY 27R (FULL LENGTH)

This table to be used in conjunction with the following departures:-

SOUTHAMPTON 1F, COMPTON 1F

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	74	75	75	76	77	77	78	79	80	
185.07	17.6	17.6	17.6	17.3	17.0	16.0	15.0	14.0	13.0	
	94.5	94.5	94.5	94.8	95.2	95.9	96.8	97.5	98.3	
	71	72	72	73	74	74	75	76	77	
180	18.6	18.6	18.6	18.2	18.0	17.0	16.0	15.0	14.0	
	93.7	93.7	93.7	94.0	94.4	95.1	96.0	96.7	97.5	
	67	68	69	70	70	71	72	73	73	74
175	19.4	19.4	19.4	19.0	18.5	18.0	17.0	16.0	15.0	14.0
	93.0	93.0	93.0	93.3	93.6	94.4	95.2	96.0	96.8	97.5
	65	66	66	67	68	68	69	70	71	72
170	20.3	20.3	20.3	20.0	19.5	18.5	18.0	17.0	16.0	15.0
	92.2	92.2	92.2	92.5	92.8	93.6	94.4	95.2	96.0	96.8
	62	63	64	64	65	66	67	67	68	69
165	21.1	21.1	21.1	20.8	20.5	19.5	18.5	18.0	17.0	16.0
	91.5	91.5	91.5	91.8	92.1	92.9	93.6	94.4	95.2	95.9
	60	61	61	62	63	63	64	65	65	66
160	21.8	21.8	21.8	21.4	21.0	20.0	19.5	18.5	17.5	17.0
	90.9	90.9	90.9	91.3	91.5	92.3	93.1	93.8	94.6	95.3
	57	58	59	59	60	61	61	62	63	64
155	22.6	22.6	22.6	22.3	22.0	21.0	20.0	19.5	18.5	17.5
	90.2	90.2	90.2	90.5	90.8	91.6	92.4	93.1	93.9	94.6
	55	55	56	57	58	58	59	60	60	61
150	23.4	23.6	23.6	23.1	22.5	21.5	21.0	20.0	19.0	18.0
	89.6	89.6	89.6	89.9	90.2	91.0	91.7	92.5	93.3	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	50	50	51	52	52	53	54	55	55	56
140	24.1	24.7	24.7	24.5	24.0	23.0	22.5	21.5	20.5	19.5
	88.5	88.5	88.5	88.7	89.0	89.8	90.5	91.3	92.0	92.7
	45	45	46	47	47	48	49	49	50	51
130	24.9	25.5	25.9	25.7	25.5	24.5	23.5	23.0	22.0	21.0
	87.4	87.4	87.4	87.7	88.0	88.7	89.4	90.1	90.9	91.6
120	40	40	41	42	42	43	44	44	45	
and	25.5	25.9	26.5	26.8	26.5	25.5	25.0	24.0	23.0	
below	86.6	86.6	86.6	86.7	87.0	87.7	88.4	89.1	89.9	

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NEW YORK
J F KENNEDY

A/D Elev **13ft**

FULL LENGTH RWY 04L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 3460m (11352ft) **ED** 3460m (11352ft) **TOD(U)** 2912m (9554ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	156.3 158/170	0.8	160.2 163/176	0.8	164.1 168/183	0.3	166.8 171/185	0.2	169.3 175/187	0.2	171.8 178/189
36	158.2 158/172	0.8	162.1 163/177	0.8	166.1 168/184	0.3	168.8 172/186	0.3	171.4 175/188	0.2	173.9 178/190
33	160.0 158/173	0.8	164.0 164/178	0.8	168.0 169/185	0.3	170.7 172/187	0.3	173.4 175/189	0.3	176.0 179/191
30	161.8 158/173	0.8	165.8 164/180	0.8	169.9 169/186	0.3	172.7 172/187	0.3	175.4 176/190	0.3	178.0 179/192
27	163.5 158/174	0.8	167.6 163/181	0.8	171.8 169/187	0.3	174.6 173/188	0.3	177.3 176/192	0.3	180.0 180/193
24	165.2 158/175	0.8	169.3 163/181	0.9	173.6 169/187	0.3	176.4 173/189	0.3	179.2 177/193	0.3	181.9 180/194
21	166.9 158/175	0.8	171.0 163/181	0.9	175.3 169/188	0.3	178.2 173/190	0.3	181.1 177/194	0.3	183.8 180/195
18	168.5 158/175	0.8	172.7 163/181	0.9	177.0 169/189	0.3	179.9 173/192	0.3	182.8 177/194	0.3	185.6 180/196
15	170.0 158/176	0.9	174.3 163/181	0.9	178.6 169/188	0.3	181.5 173/192	0.3	184.5 177/194	0.3	187.4 181/197
12	171.3 158/177	0.9	175.6 164/182	0.9	179.9 169/189	0.3	182.9 173/193	0.3	185.8 177/195	0.3	188.7 181/198
9	171.8 159/179	0.9	176.1 164/184	0.9	180.5 170/190	0.3	183.5 174/193	0.3	186.4 178/196	0.3	189.2 182/198
6	172.3 159/179	0.9	176.6 165/185	0.9	181.0 171/191	0.3	183.9 175/194	0.3	186.8 179/196	0.3	189.6 183/198
3	172.8 160/179	0.9	177.1 166/186	0.9	181.5 172/192	0.3	184.5 176/195	0.3	187.2 180/196	0.3	190.0 183/198
0	173.2 161/180	0.9	177.5 167/187	0.9	182.0 172/192	0.3	184.8 176/194	0.3	187.6 180/197	0.3	190.4 184/199
-3	173.7 161/180	0.8	177.9 167/187	0.9	182.4 173/192	0.3	185.2 177/195	0.3	187.9 181/197	0.3	190.6 185/199
V2= θ2=	VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Noise Abatement Procedures:** See Pages JFK/02 and JFK/03

NOISE ABATEMENT PROCEDURE – RUNWAY 04L (FULL LENGTH)

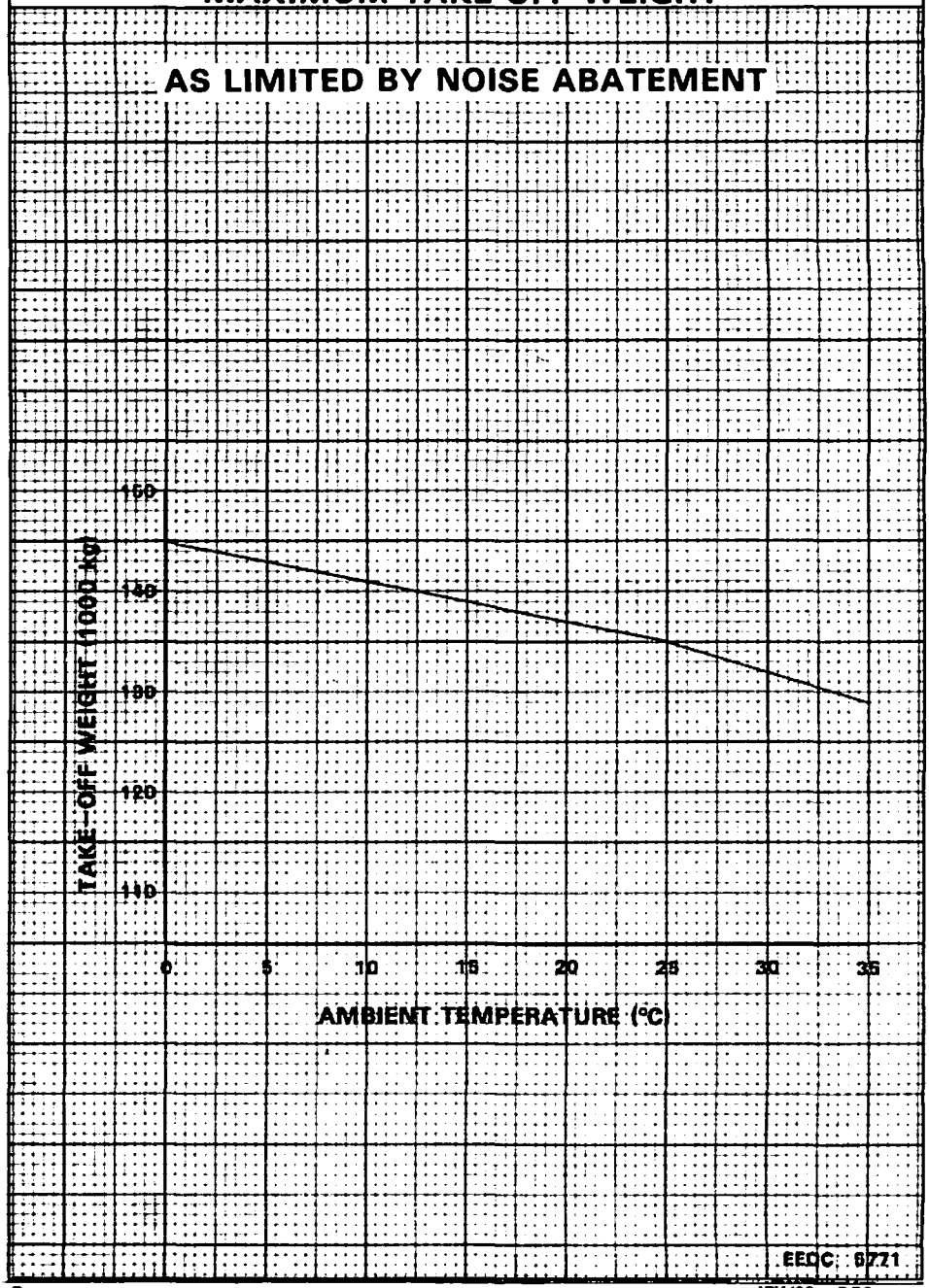
1. Turn RIGHT at 100ft RA using 25° bank applied expeditiously.
2. After throttling maintain between 250kt onto a heading of 100°M.
3. Use Normal Open Up Procedure.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	46	46	46							
145	23.5	23.5	23.5							
	89.6	89.6	89.6							
	44	44	44	45	46					
140	24.0	24.5	24.5	23.5	22.5					
	88.7	88.7	88.7	89.7	90.6					
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	40	40	40	41	42	44	46	49	52	
130	24.5	25.0	25.5	24.5	23.5	22.5	21.5	20.5	19.5	
	87.8	87.8	87.8	88.5	89.4	90.1	91.1	92.0	92.8	
	36	36	36	37	39	41	43	46	49	51
120	25.5	26.0	26.5	25.5	25.0	24.0	23.0	22.0	21.0	20.0
	86.6	86.6	86.6	87.4	88.2	89.0	89.8	90.8	91.6	92.4
	32	32	32	33	35	37	40	43	46	49
110	26.0	26.5	27.0	27.0	26.0	25.5	24.5	23.5	22.5	21.5
	85.7	85.7	85.7	86.5	87.2	88.0	88.8	89.6	90.4	91.3

THROTTLE TIME — SECONDS
THROTTLE LEVER ANGLE — DEGREES
N_2 — %

NEW YORK (J.F. KENNEDY) RUNWAY 04L
MAXIMUM TAKE-OFF WEIGHT

AS LIMITED BY NOISE ABATEMENT



EECC 6721

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BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NEW YORK
J F KENNEDY

A/D Elev **13ft**

FULL LENGTH RWY 13L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD(U)** 2935m (9629ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.7 147/167	0.9	158.4 152/170	0.8	162.4 157/175	0.3	165.1 160/179	0.3	167.8 164/183	0.3	170.5 167/187
36	155.5 148/168	0.9	160.2 152/171	0.8	164.4 157/176	0.3	167.1 161/180	0.3	169.8 164/184	0.3	172.6 167/188
33	157.3 148/169	1.0	162.1 153/172	0.8	166.3 158/177	0.3	169.0 161/181	0.3	171.8 164/185	0.3	174.6 168/189
30	159.0 148/170	1.0	163.8 153/173	0.9	168.2 158/178	0.3	170.9 161/182	0.3	173.7 165/186	0.3	176.6 168/190
27	160.6 149/171	1.0	165.6 153/174	0.9	170.0 158/179	0.3	172.8 162/183	0.3	175.6 165/187	0.3	178.5 168/191
24	162.3 149/171	1.0	167.3 154/175	0.9	171.8 159/180	0.3	174.6 162/183	0.3	177.5 165/187	0.3	180.4 169/191
21	163.8 149/172	1.0	168.9 154/176	0.9	173.5 159/180	0.3	176.4 162/184	0.3	179.3 166/188	0.3	182.3 169/192
18	165.2 150/173	1.1	170.5 154/176	0.9	175.2 159/181	0.3	178.1 163/185	0.3	181.0 166/189	0.3	184.0 170/193
15	166.5 150/174	1.1	172.0 155/177	1.0	176.8 160/182	0.3	179.7 163/185	0.3	182.7 167/189	0.3	185.7 170/193
12	167.8 151/174	1.1	173.3 155/178	1.0	178.2 160/182	0.3	181.1 164/186	0.3	184.1 167/190	0.3	187.1 171/194
9	168.9 151/175	1.0	174.1 156/178	0.9	178.8 161/183	0.3	181.7 165/187	0.3	184.7 168/191	0.3	187.8 171/195
6	169.7 152/175	1.0	174.9 157/178	0.9	179.4 162/184	0.3	182.3 165/188	0.3	185.3 169/192	0.3	188.4 172/196
3	170.5 152/176	1.0	175.5 157/179	0.9	180.0 163/185	0.3	182.9 166/189	0.3	185.9 170/193	0.3	188.9 173/197
0	171.2 153/176	1.0	176.0 158/180	0.9	180.5 163/186	0.3	183.4 167/190	0.3	186.4 170/194	0.3	189.5 174/198
-3	171.8 154/176	0.9	176.5 159/181	0.9	181.0 164/187	0.3	183.9 168/191	0.3	186.9 171/195	0.3	189.9 175/199
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. ***Noise Abatement Procedures:*** See Pages JFK/06 and JFK/07

NOISE ABATEMENT PROCEDURE – RUNWAY 13L (FULL LENGTH)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing. Stabilise Θ_2 with wings level.

2. Turn RIGHT once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining Θ_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between **initiation** of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the **achieved speed between 235–250kt** is to be maintained.

   Should the speed have increased above 250kt prior to Noise Abatement Time whilst maintaining Θ_2 (due to low temperatures and/or low heights), no adjustment to pitch attitude should be made until after the power cutback when 250kt should be sought and maintained.

4. After throttling maintain achieved speed (235–250kt) and turn onto assigned heading (preferably 170°M) using no more than 10° bank. If assigned heading has been achieved prior to throttle, maintain heading and throttle at given time.

   At JFK 5d increase N_2 to give Maximum Climb Power (over 10 secs) to accelerate or climb as cleared by ATC.

NOISE ABATEMENT PROCEDURE – RUNWAY 13L (FULL LENGTH)

T.O.W. 1000kg	AMBIENT TEMPERATURE – DEGREES C									
	−10	−5	0	5	10	15	20	25	30	35
	56	57	58	58	59	59	60	61	62	63
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	55	55	56	56	57	57	58	59	60	61
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	53	53	54	54	55	55	56	57	58	59
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	51	51	52	52	53	53	54	55	56	57
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	49	49	50	50	51	51	52	53	55	56
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	47	47	48	48	49	49	50	51	53	54
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	44	44	45	46	47	48	49	50	51	52
145	24.5	24.5	24.5	24.0	23.0	22.0	21.5	21.0	20.0	19.0
	88.3	88.3	88.3	89.1	89.7	90.4	91.1	91.9	92.6	93.3
	43	43	44	44	45	46	47	48	49	50
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	42	42	43	43	44	44	45	46	47	48
135	25.0	25.5	26.0	25.0	24.5	23.5	22.5	22.0	21.0	20.5
	87.3	87.3	87.3	88.0	88.7	89.4	90.1	90.8	91.4	92.2
	41	41	42	42	43	43	44	45	46	47
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.7	86.7	86.7	87.4	88.1	88.8	89.5	90.2	90.9	91.7
	39	39	40	40	41	41	42	43	44	45
125	25.5	26.0	26.5	26.5	25.5	24.5	23.5	23.0	22.0	21.5
	86.3	86.3	86.3	87.0	87.7	88.4	89.1	89.8	90.5	91.2
	37	37	38	38	39	39	40	41	42	43
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	35	35	36	36	37	37	38	39	40	41
115	26.0	26.5	27.0	27.5	26.5	25.5	25.0	24.0	23.5	22.5
	85.4	85.4	85.4	86.1	86.8	87.5	88.2	88.9	89.6	90.3
	34	34	35	35	36	36	37	38	39	40
110	26.5	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME — SECONDS
THROTTLE LEVER ANGLE — DEGREES
N_2 — %

INTENTIONALLY LEFT BLANK

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NEW YORK
J F KENNEDY

A/D Elev **13ft**

FULL LENGTH RWY 13R

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 4442m (14573ft) **ED** 4442m (14573ft) **TOD(U)** 3691m (12109ft)

OAT °C	20kt TAIL	Inc /kt	10kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.4 140/175	0.8	170.1 151/186	0.4	177.8 163/197	0.3	180.5 166/201	0.3	183.1 170/205	0.2	185.6 174/208
36	164.0 140/176	0.8	171.7 151/187	0.4	179.6 162/198	0.3	182.2 166/201	0.3	184.9 170/205	0.2	187.4 174/209
33	165.5 140/176	0.8	173.4 151/187	0.4	181.3 162/198	0.3	184.0 166/202	0.3	186.6 170/206	0.3	189.2 174/209
30	167.1 140/177	0.8	175.1 151/188	0.4	183.0 162/199	0.3	185.7 166/202	0.3	188.4 170/206	0.3	191.0 174/210
27	168.7 140/177	0.8	176.7 151/188	0.4	184.7 162/199	0.3	187.4 166/203	0.3	190.1 170/206	0.3	192.8 174/210
24	170.2 140/177	0.8	178.3 151/188	0.4	186.3 162/199	0.3	189.1 166/203	0.3	191.9 170/207	0.3	194.5 174/210
21	171.7 140/178	0.8	179.8 151/189	0.4	188.0 162/200	0.3	190.8 166/204	0.3	193.6 170/207	0.1	195.0 173/210
18	173.2 140/178	0.8	181.4 151/189	0.4	189.7 163/200	0.3	192.5 166/204	0.2	195.0 170/208	0.0	195.0 172/210
15	174.5 140/179	0.9	183.0 151/190	0.4	191.3 163/201	0.3	194.1 167/204	0.1	195.0 169/207	0.0	195.0 172/209
12	175.7 141/179	0.9	184.3 152/190	0.4	192.7 163/201	0.2	195.0 167/205	0.0	195.0 169/207	0.0	195.0 172/209
9	176.4 141/180	0.8	184.8 152/191	0.4	193.3 164/202	0.2	195.0 167/205	0.0	195.0 169/207	0.0	195.0 172/209
6	176.8 142/181	0.9	185.3 153/192	0.4	193.8 164/203	0.1	195.0 167/206	0.0	195.0 170/208	0.0	195.0 173/210
3	177.3 142/182	0.9	185.9 154/193	0.4	194.4 165/204	0.1	195.0 168/207	0.0	195.0 170/209	0.0	195.0 173/211
0	177.9 143/182	0.9	186.5 154/194	0.4	195.0 166/205	0.0	195.0 168/207	0.0	195.0 171/209	0.0	195.0 174/211
-3	178.4 144/183	0.9	187.0 155/195	0.4	195.0 166/206	0.0	195.0 169/208	0.0	195.0 171/210	0.0	195.0 174/212
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5		VR+ 22 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.
2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.
3. **Maximum Take-Off Weight:** Restricted to **182250kg**.
4. **Noise Abatement Procedures:** See Pages JFK/10 and JFK/11
5. **Tailwinds:** NOTE - Tailwind weights have been calculated at 10kt and 20kt tailwind.

NOISE ABATEMENT PROCEDURE – RUNWAY 13R (FULL LENGTH)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing. Stabilise Θ_2 with wings level.

2. Turn RIGHT once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining Θ_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between **initiation** of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the **achieved speed between 235–250kt** is to be maintained.

4. After throttling maintain achieved speed (235–250kt) and turn onto assigned heading (preferably 180°M) using no more than 10° bank. If assigned heading has been achieved prior to throttle, maintain heading and throttle at given time.

   At JFK 5d increase N_2 to give Maximum Climb Power (over 10 secs) to accelerate or climb as cleared by ATC.

NOTE:

a) For Take-off Weights below 140,000kg turn Right at 300ft QNH onto a heading of 180°M using 25° bank applied expeditiously.

b) If not given a heading of 180°M prior to departure, request it and be prepared to delay until request is granted – **this is important** for this highly sensitive Runway.

NOISE ABATEMENT PROCEDURE – RUNWAY 13R (FULL LENGTH)

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	68	68	69	69	70	70	71	72	73	74
185	18.5	18.5	18.5	17.5	16.5	16.0	15.0	14.0	13.5	12.5
	93.6	93.6	93.6	94.4	95.2	96.1	96.9	97.6	98.3	99.1
	66	66	67	67	68	68	69	70	71	72
180	19.5	19.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0	13.0
	92.8	92.8	92.8	93.6	94.4	95.3	96.1	96.8	97.5	98.3
	64	64	65	65	66	66	67	68	69	70
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	62	62	63	63	64	64	65	66	67	68
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	60	60	61	61	62	62	63	64	65	66
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	58	58	59	59	60	60	61	61	62	63
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	56	56	57	57	58	58	59	60	61	62
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	54	54	55	55	56	56	57	58	59	60
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	51	51	52	52	53	53	54	55	56	57
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	47	47	48	48	49	49	50	51	52	53
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.8	86.8	86.8	87.5	88.2	88.9	89.6	90.3	91.0	91.7
	44	44	45	45	46	46	47	48	49	50
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	41	41	42	42	43	43	44	45	46	47
110	26.5	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME — **SECONDS**
THROTTLE LEVER ANGLE — **DEGREES**
N_2 — **%**

INTENTIONALLY LEFT BLANK

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NEW YORK
J F KENNEDY

A/D Elev **13ft**

TAXIWAY PA RWY 13R

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 3292m (10801ft) **ED** 3292m (10801ft) **TOD(U)** 3112m (10210ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	157.3 153/169	0.9	161.6 158/174	0.8	165.7 162/180	0.3	168.4 166/184	0.3	171.1 169/188	0.3	173.9 172/192
36	159.1 153/170	0.9	163.5 158/175	0.8	167.7 163/181	0.3	170.4 166/185	0.3	173.2 169/189	0.3	176.0 173/193
33	160.9 153/171	0.9	165.4 158/176	0.8	169.6 163/182	0.3	172.4 167/186	0.3	175.2 170/190	0.3	178.0 173/194
30	162.6 154/172	0.9	167.3 159/177	0.8	171.5 164/183	0.3	174.3 167/187	0.3	177.2 170/191	0.3	180.1 174/195
27	164.3 154/173	1.0	169.1 159/178	0.9	173.4 164/183	0.3	176.2 167/187	0.3	179.1 171/191	0.3	182.0 174/195
24	165.9 155/174	1.0	170.9 159/178	0.9	175.2 164/184	0.3	178.0 168/188	0.3	181.0 171/192	0.3	183.9 174/196
21	167.5 155/175	1.0	172.6 160/179	0.9	176.9 165/185	0.3	179.8 168/189	0.3	182.8 171/193	0.3	185.8 175/197
18	169.0 155/175	1.0	174.2 160/180	0.9	178.6 165/186	0.3	181.6 169/189	0.3	184.6 172/193	0.3	187.6 175/198
15	170.4 156/176	1.1	175.8 160/180	0.9	180.3 166/186	0.3	183.2 169/190	0.3	186.2 172/194	0.3	189.3 176/198
12	171.7 156/177	1.1	177.1 161/181	0.9	181.6 166/187	0.3	184.6 169/191	0.3	187.6 173/195	0.3	190.7 176/199
9	172.7 157/177	1.0	177.8 162/182	0.9	182.3 167/188	0.3	185.3 170/192	0.3	188.3 174/196	0.3	191.4 177/200
6	173.7 157/178	1.0	178.5 162/183	0.9	182.9 168/189	0.3	185.9 171/193	0.3	189.0 175/197	0.3	192.0 178/201
3	174.6 158/178	0.9	179.1 163/184	0.9	183.6 168/190	0.3	186.5 172/194	0.3	189.6 175/198	0.3	192.6 179/202
0	175.3 159/179	0.9	179.6 164/185	0.9	184.1 169/191	0.3	187.1 173/195	0.3	190.2 176/199	0.3	193.2 180/203
-3	175.8 160/180	0.9	180.2 165/186	0.9	184.7 170/192	0.3	187.7 174/196	0.3	190.7 177/200	0.3	193.7 181/204
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

4. **Noise Abatement Procedures:** See Pages JFK/14 and JFK/15

NOISE ABATEMENT PROCEDURE – RUNWAY 13R (TAXIWAY PA)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing. Stabilise Θ_2 with wings level.

2. Turn RIGHT once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining Θ_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between **initiation** of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the **achieved speed between 235–250kt** is to be maintained.

4. After throttling maintain achieved speed (235–250kt) and turn onto assigned heading (preferably 180°M) using no more than 10° bank. If assigned heading has been achieved prior to throttle, maintain heading and throttle at given time.

   At JFK 5d increase N_2 to give Maximum Climb Power (over 10 secs) to accelerate or climb as cleared by ATC.

NOTE:

a) For Take-off Weights below 140,000kg turn Right at 300ft QNH onto a heading of 180°M using 25° bank applied expeditiously.

b) If not given a heading of 180°M prior to departure, request it and be prepared to delay until request is granted – **this is important** for this highly sensitive Runway.

NOISE ABATEMENT PROCEDURE - RUNWAY 13R (TAXIWAY PA)

T.O.W.	AMBIENT TEMPERATURE — DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	64	64	65	65	66	65	67	68	69	70
185	18.5	18.5	18.5	17.5	16.5	16.0	15.0	14.0	13.5	12.5
	93.6	93.6	93.6	94.4	95.2	96.1	96.9	97.6	98.3	99.1
	62	62	63	63	64	64	65	66	67	68
180	19.5	19.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0	13.0
	92.8	92.8	92.8	93.6	94.4	95.3	96.1	96.8	97.5	98.3
	60	60	61	61	62	62	63	64	65	66
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	58	58	59	59	60	60	61	62	63	64
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	56	56	57	57	58	58	59	60	61	62
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	54	54	55	55	56	56	57	57	58	59
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	52	52	53	53	54	54	55	56	57	58
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	50	50	51	51	52	52	53	54	55	56
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	47	47	48	48	49	49	50	51	52	53
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	43	43	44	44	45	45	46	47	48	49
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.8	86.8	86.8	87.5	88.2	88.9	89.6	90.3	91.0	91.7
	40	40	41	41	42	42	43	44	45	46
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	37	37	38	38	39	39	40	41	42	43
110	26.5	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME — **SECONDS**
THROTTLE LEVER ANGLE — **DEGREES**
N_2 — **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **13ft**

NEW YORK
J F KENNEDY

FULL LENGTH RWY 22L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 2560m (8399ft) **ED** 2560m (8399ft) **TOD(U)** 2560m (8399ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	140.2 138/158	1.1	145.9 142/162	1.2	151.8 146/166	0.4	155.9 149/168	0.4	159.6 152/171	0.3	162.5 155/176
36	141.8 138/158	1.2	147.6 142/162	1.2	153.6 146/167	0.4	157.6 149/169	0.4	161.5 152/172	0.3	164.4 155/176
33	143.3 138/159	1.2	149.2 143/163	1.2	155.2 147/167	0.4	159.4 150/170	0.4	163.4 152/173	0.3	166.3 156/177
30	144.8 139/160	1.2	150.7 143/164	1.2	156.8 147/168	0.4	161.0 150/171	0.4	165.2 153/174	0.3	168.2 156/178
27	146.2 139/161	1.2	152.2 143/165	1.2	158.4 148/169	0.4	162.6 150/172	0.4	167.0 153/175	0.3	170.0 156/179
24	147.6 139/162	1.2	153.6 144/166	1.3	159.9 148/170	0.4	164.2 151/173	0.4	168.6 154/176	0.3	171.7 157/180
21	149.0 140/162	1.2	155.0 144/166	1.3	161.3 148/171	0.4	165.7 151/173	0.4	170.1 154/176	0.3	173.5 157/180
18	150.2 140/163	1.2	156.4 144/167	1.3	162.7 149/171	0.4	167.1 152/174	0.4	171.5 154/177	0.4	175.1 158/181
15	151.5 141/164	1.2	157.6 145/168	1.3	164.1 149/172	0.4	168.5 152/175	0.4	172.9 155/178	0.4	176.7 158/181
12	152.6 141/164	1.3	158.9 145/168	1.3	165.3 150/173	0.4	169.7 153/176	0.5	174.3 155/178	0.4	178.0 159/182
9	153.8 141/165	1.2	160.0 146/169	1.3	166.5 150/173	0.4	171.0 153/176	0.4	175.5 156/179	0.3	178.7 159/183
6	154.8 142/165	1.3	161.1 146/170	1.3	167.7 151/174	0.4	172.1 154/177	0.4	176.3 157/180	0.3	179.4 160/184
3	155.9 142/166	1.3	162.2 147/170	1.3	168.8 151/174	0.4	173.3 154/177	0.4	176.9 157/181	0.3	180.1 161/185
0	156.8 143/166	1.3	163.2 147/171	1.3	169.8 152/175	0.4	174.3 155/178	0.3	177.5 158/182	0.3	180.7 161/186
-3	157.7 143/167	1.3	164.1 148/171	1.3	170.8 152/175	0.4	175.0 155/179	0.3	178.1 159/183	0.3	181.2 162/187
V2= θ2=	VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Noise Abatement Procedures:** See Page JFK/17.

NOISE ABATEMENT PROCEDURE – RUNWAY 22L (FULL LENGTH)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing. Stabilise Θ_2 with wings level.
2. Once established at Θ_2 and 500 f.p.m. rate of climb has been achieved, turn RIGHT using 25° bank onto a heading of 255°M and maintain 250kt.
3. At Noise Abatement Time cancel reheat and throttle to Noise Power.
4. After throttling turn LEFT using not more than 15° bank to establish on JFK 233R.
5. At JFK 3d turn LEFT onto a heading of 210°M.
6. At JFK 7d increase N_2 to give Maximum Climb Power (over 10 secs).

NOTE – a) Throttle to Noise Abatement Power at 1.9 DME JFK or the time extracted from the table below - (whichever is reached first).

b) If required to maintain Rwy heading no change to TLA and N_2 but reduce throttle time by correction (in mins), as follows:-

T.O.W.	180.0	175.0	170.0	165.0	160.0	155.0	150.0	140.0	130.0	120.0	110.0
TIME CORRN	−5	−5	−5	−4	−4	−3	−3	−3	−2	−2	−2

c) If no heading change approved for Take-off there is no need to delay for such clearance but see Note b) above.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	73	73	73	74	74	74	75	76	77	78
180	19.5	19.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0	13.0
	92.8	92.8	92.8	93.6	94.4	95.3	96.1	96.8	97.5	98.3
	71	71	71	72	72	72	73	74	75	76
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	69	69	69	70	70	70	71	72	73	74
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	67	67	67	68	68	68	69	70	71	72
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	65	65	65	66	66	66	67	68	69	70
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	62	62	62	63	63	63	64	65	66	67
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	59	59	59	60	60	60	61	62	63	64
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	54	54	54	55	55	55	56	56	57	58
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	49	49	49	50	50	50	51	51	52	53
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.8	86.8	86.8	87.5	88.2	88.9	89.6	90.3	91.0	91.7
	43	43	43	44	44	44	45	45	46	47
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	38	38	38	39	39	39	40	40	40	41
110	26.5	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME SECONDS
THROTTLE LEVER ANGLE DEGREES
N_2 %

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **13ft**

NEW YORK
J F KENNEDY

FULL LENGTH RWY 22R

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 3460m (11352ft) **ED** 3460m (11352ft) **TOD(U)** 3460m (11352ft)

OAT °C	20kt TAIL	Inc /kt	10kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.0 145/166	1.1	162.6 155/176	0.4	170.6 165/187	0.3	173.4 168/191	0.3	176.2 171/195	0.3	179.0 175/199
36	154.6 145/167	1.1	164.5 155/176	0.4	172.7 165/188	0.3	175.5 169/192	0.3	178.3 172/196	0.3	181.2 175/200
33	156.3 145/168	1.1	166.3 155/177	0.4	174.7 166/189	0.3	177.5 169/193	0.3	180.4 172/197	0.3	183.3 175/201
30	157.8 144/169	1.2	168.1 155/178	0.4	176.6 166/190	0.3	179.5 169/194	0.3	182.4 173/198	0.3	185.4 176/202
27	159.3 144/170	1.2	169.9 154/179	0.4	178.5 166/191	0.3	181.4 169/195	0.3	184.4 173/199	0.3	187.4 176/203
24	160.8 144/171	1.2	171.6 154/179	0.4	180.3 166/191	0.3	183.3 169/195	0.3	186.3 173/199	0.3	189.3 176/203
21	162.2 145/171	1.2	173.3 154/180	0.4	182.1 166/192	0.3	185.1 169/196	0.3	188.1 173/200	0.3	191.2 176/204
18	163.6 145/172	1.2	174.9 154/180	0.4	183.8 166/192	0.3	186.8 169/196	0.3	189.9 173/201	0.3	193.0 177/205
15	164.9 145/173	1.2	176.4 154/181	0.4	185.4 166/193	0.3	188.5 169/197	0.3	191.5 173/201	0.3	194.7 177/205
12	166.1 145/173	1.2	177.7 155/182	0.4	186.8 166/194	0.3	189.8 170/198	0.3	192.9 173/202	0.2	195.0 176/205
9	167.3 145/174	1.2	178.4 155/183	0.4	187.5 167/195	0.3	190.6 170/199	0.3	193.7 174/203	0.1	195.0 177/206
6	168.4 146/174	1.2	179.1 156/184	0.4	188.2 167/196	0.3	191.3 171/200	0.3	194.4 175/204	0.1	195.0 177/207
3	169.5 146/175	1.2	179.8 156/185	0.4	188.8 168/197	0.3	191.9 172/201	0.3	195.0 175/205	0.0	195.0 178/207
0	170.5 146/175	1.1	180.4 157/186	0.4	189.4 169/198	0.3	192.6 172/202	0.2	195.0 176/206	0.0	195.0 178/208
-3	171.5 147/176	1.0	180.9 158/187	0.4	190.0 169/199	0.3	193.1 173/203	0.2	195.0 177/206	0.0	195.0 179/208
V2= θ2=	VR+ 23 14.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Noise Abatement Procedures:** See Pages JFK/19, 20, 21, 22, 23, 24 and 25.

5. **Tailwinds:** NOTE - Tailwind weights have been calculated at 10kt and 20kt tailwind.

NOISE ABATEMENT PROCEDURE – RUNWAY 22R (FULL LENGTH)

1. Once stablilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 15°–20° bank, turn onto a heading to establish on the JFK 233R. Maintain 250kt.
2. At JFK 3d turn LEFT onto a heading of 210°M.
3. At JFK 7d increase N_2 to give Maximum Climb Power (over 10 secs) to accelerate or climb as cleared by ATC.

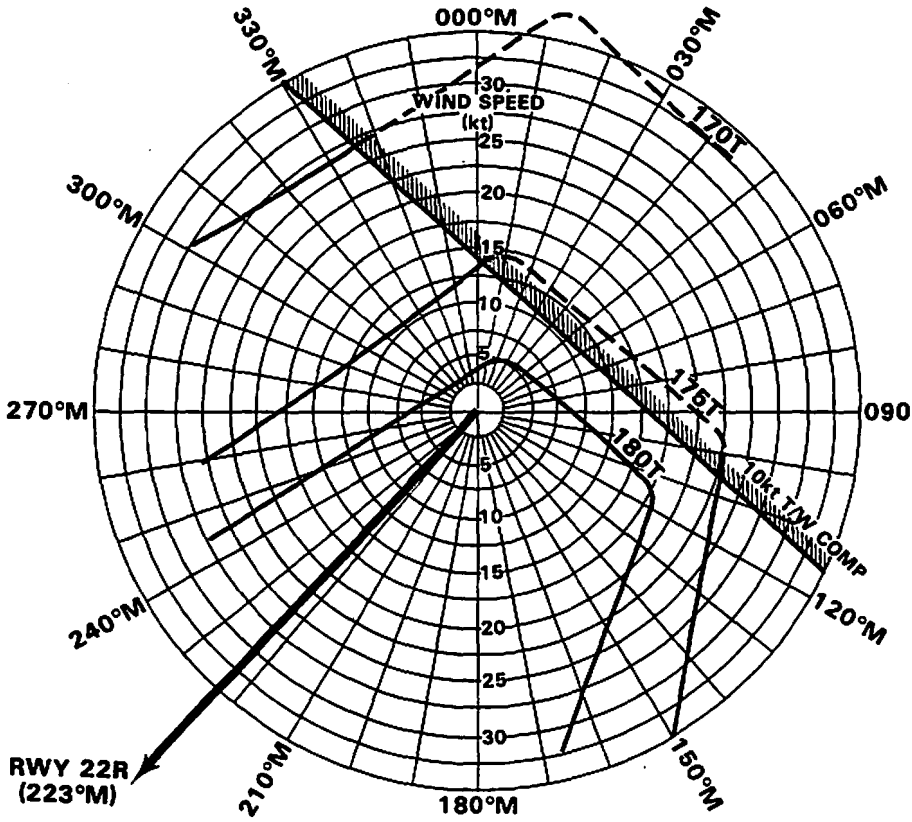
NOTE – a) If no heading change approved for Take-off accept delay of up to 15 mins, but no more, to receive such clearance.
b) If required to maintain Runway heading **no change** to Throttle Time, TLA and N_2 but a violation is likely.
c) Consider Rwy 22L.
d) Throttle to noise abatement power at 1.9 DME JFK or the time extracted from the table below - **(whichever is reached first)**.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	73	73	73	74	74	74	75	75	76	77
185	18.5	18.5	18.5	17.5	16.5	16.0	15.0	14.0	13.5	12.5
	93.6	93.6	93.6	94.4	95.2	96.1	96.9	97.6	98.3	99.1
	71	71	71	72	72	72	73	74	75	76
180	19.5	19.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0	13.0
	92.8	92.8	92.8	93.6	94.4	95.3	96.1	96.8	97.5	98.3
	69	69	69	70	70	70	71	72	73	74
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	67	67	67	68	68	68	69	70	71	72
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	65	65	65	66	66	66	67	68	69	70
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	63	63	63	64	64	64	65	66	67	68
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	60	60	60	61	61	61	62	63	64	65
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	57	57	57	58	58	58	59	60	61	62
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	52	52	52	53	53	53	54	54	55	56
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	47	47	47	48	48	48	49	49	50	51
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.8	86.8	86.8	87.5	88.2	88.9	89.6	90.3	91.0	91.7
	41	41	41	42	42	42	43	43	44	45
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	36	36	36	37	37	37	38	38	38	39
110	26.5	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

NOISE ADVISORY CHART – RUNWAY 22R (FULL LENGTH)

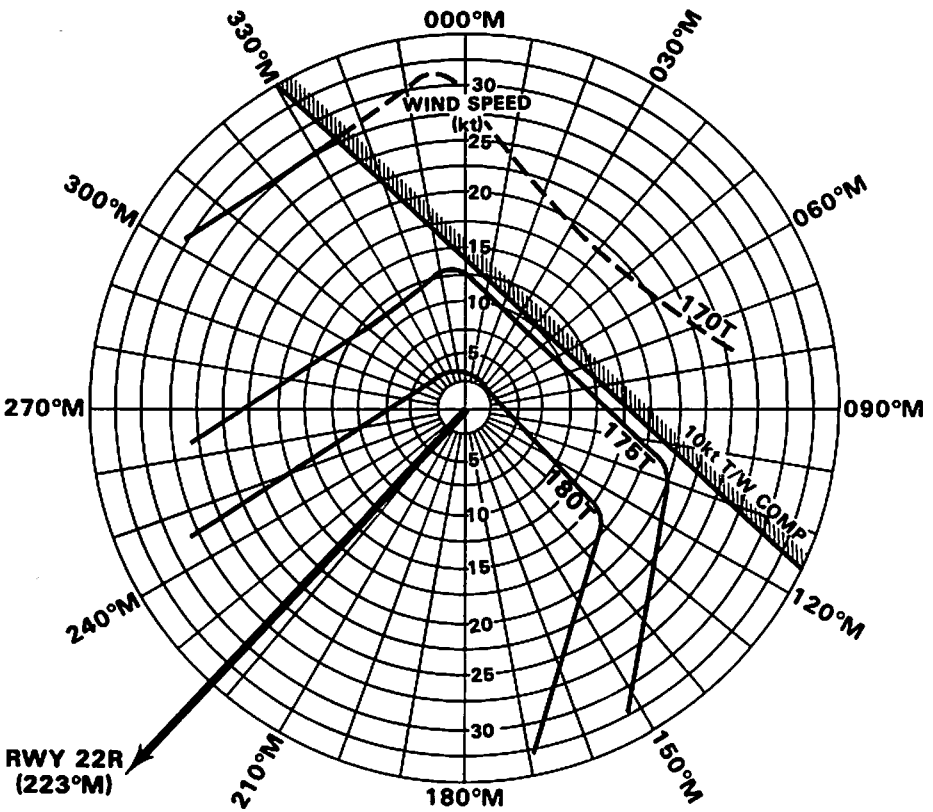
Temperature 7°C and below



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 22R (FULL LENGTH)

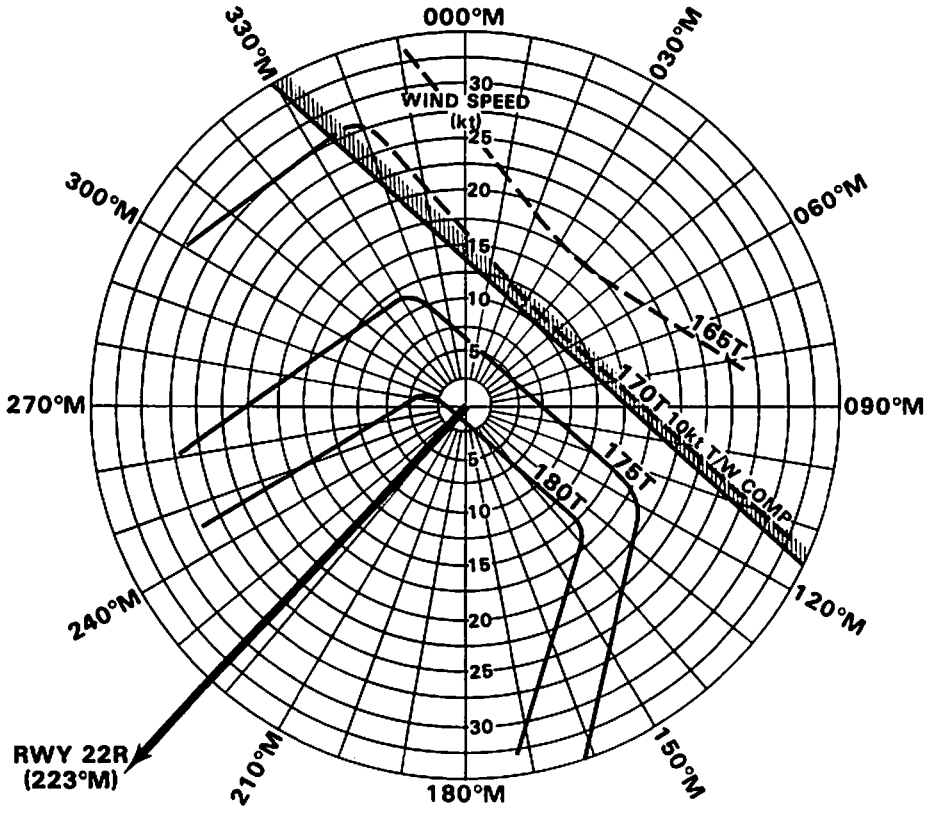
Temperature 8°C – 12°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 22R (FULL LENGTH)

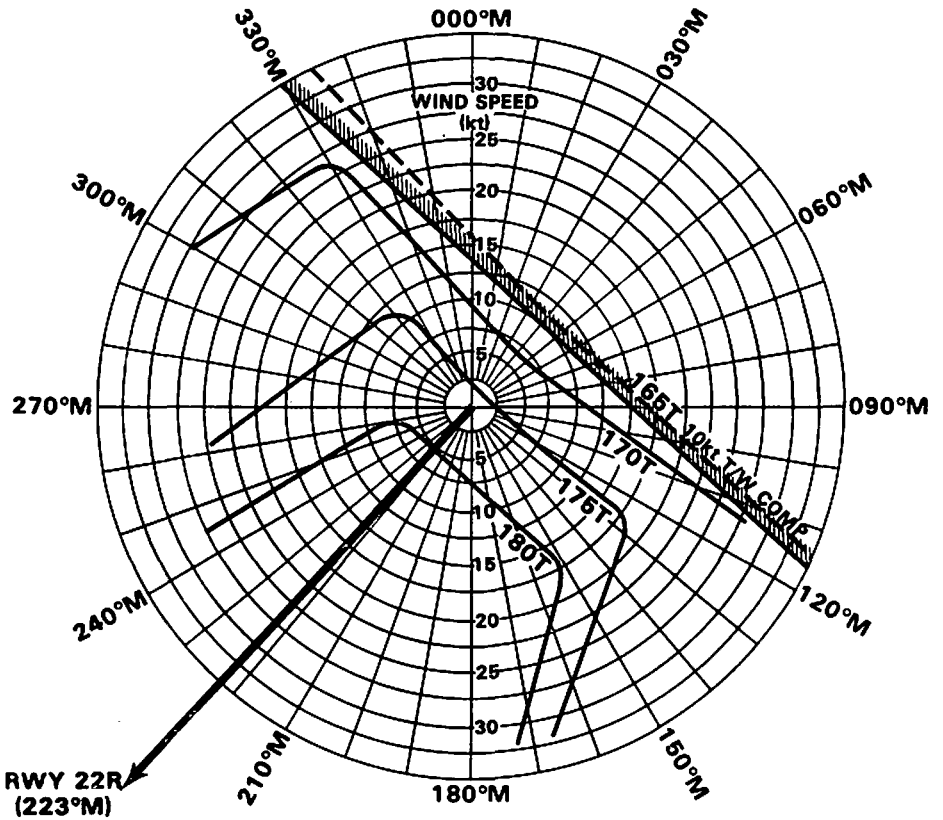
Temperature 13°C – 17°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 22R (FULL LENGTH)

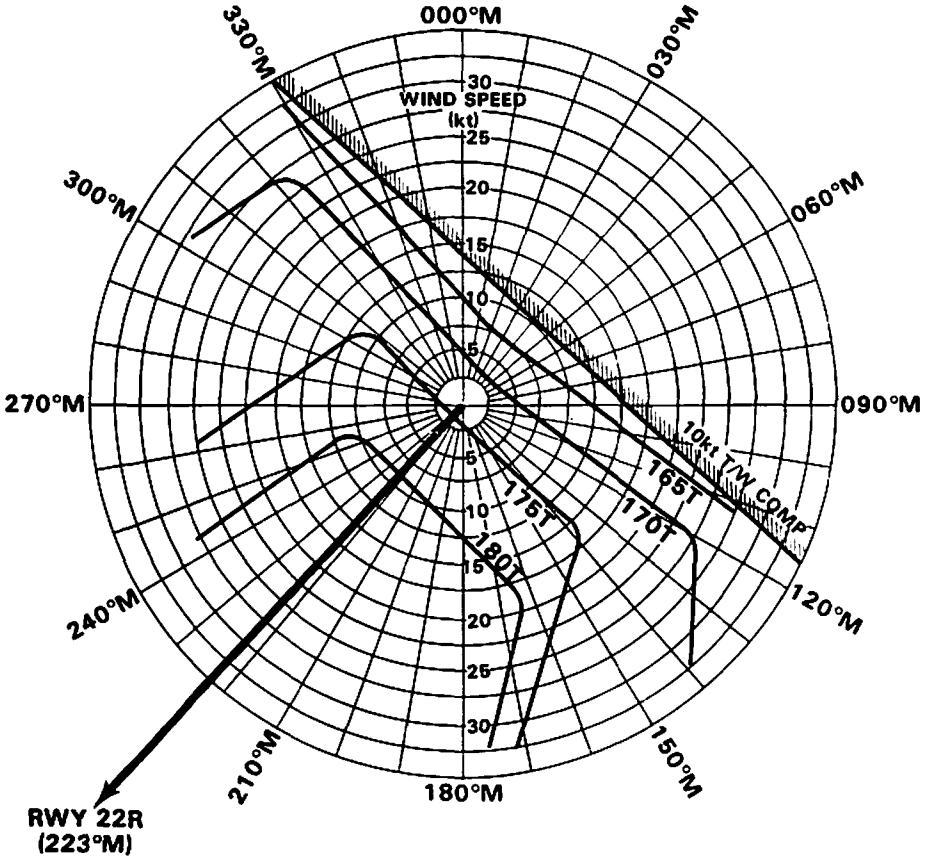
Temperature 18°C – 22°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 22R (FULL LENGTH)

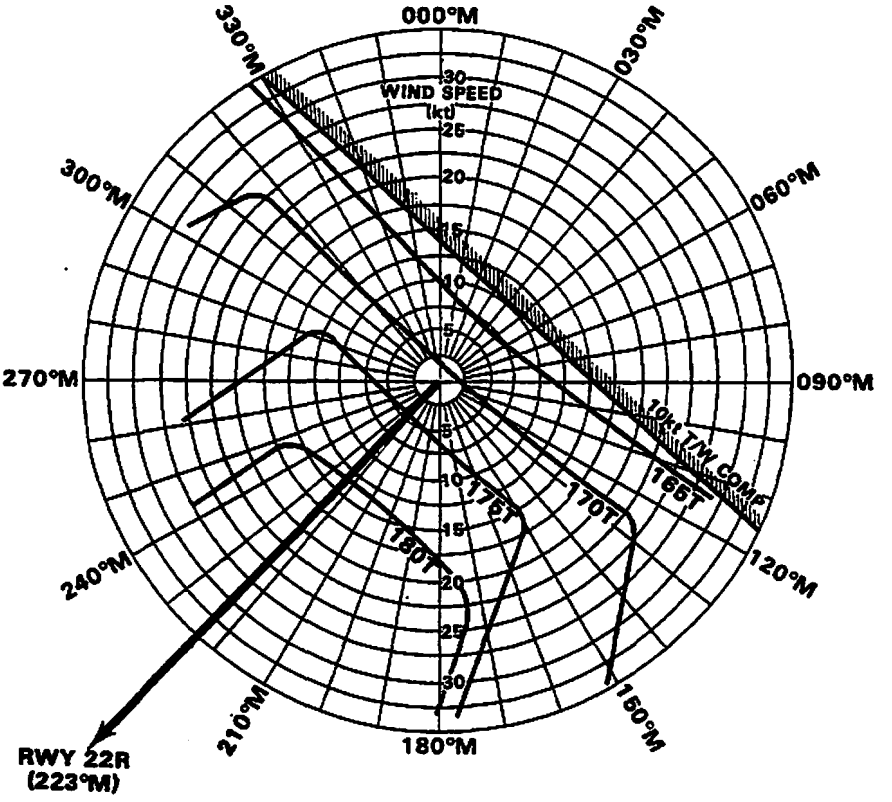
Temperature 23°C – 27°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART - RUNWAY 22R (FULL LENGTH)

Temperature 28°C - 32°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **13ft**

NEW YORK
J F KENNEDY

RWY 31R INTXN RWY 22R

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD(U)** 3200m (10499ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	158.1 150/170	0.8	162.3 155/175	0.8	166.4 160/181	0.3	169.1 163/185	0.3	171.9 166/189	0.3	174.8 169/193
36	159.9 150/171	0.9	164.2 155/176	0.8	168.4 160/182	0.3	171.1 163/186	0.3	174.0 166/190	0.3	176.9 170/194
33	161.6 150/172	0.9	166.1 155/177	0.8	170.3 160/183	0.3	173.1 164/187	0.3	176.0 167/191	0.3	178.9 170/195
30	163.3 151/173	0.9	168.0 156/178	0.8	172.2 161/184	0.3	175.1 164/188	0.3	178.0 167/192	0.3	181.0 171/196
27	165.0 151/173	1.0	169.8 156/179	0.9	174.1 161/184	0.3	177.0 164/188	0.3	179.9 168/192	0.3	182.9 171/197
24	166.5 152/174	1.0	171.6 156/179	0.9	175.9 161/185	0.3	178.8 165/189	0.3	181.8 168/193	0.3	184.8 171/197
21	168.0 152/175	1.1	173.3 157/180	0.9	177.6 162/186	0.3	180.6 165/190	0.3	183.6 168/194	0.3	186.7 172/198
18	169.5 153/176	1.1	174.9 157/181	0.9	179.3 162/186	0.3	182.3 166/190	0.3	185.4 169/195	0.3	188.5 172/199
15	170.8 153/176	1.1	176.5 158/181	0.9	181.0 163/187	0.3	184.0 166/191	0.3	187.0 169/195	0.3	190.2 173/199
12	172.2 153/177	1.1	177.8 158/182	0.9	182.3 163/188	0.3	185.4 166/192	0.3	188.4 170/196	0.3	191.6 173/200
9	173.4 154/178	1.0	178.6 159/183	0.9	183.1 164/189	0.3	186.1 167/193	0.3	189.2 171/197	0.3	192.3 174/201
6	174.6 154/178	0.9	179.2 159/184	0.9	183.7 165/190	0.3	186.8 168/194	0.3	189.9 171/198	0.3	193.0 175/202
3	175.5 155/179	0.9	179.9 160/185	0.9	184.4 165/191	0.3	187.4 169/195	0.3	190.5 172/199	0.3	193.7 176/203
0	176.1 156/180	0.9	180.5 161/186	0.9	185.0 166/192	0.3	188.0 170/196	0.3	191.2 173/200	0.3	194.3 176/204
-3	176.6 156/181	0.9	181.1 162/187	0.9	185.6 167/193	0.3	188.6 170/197	0.3	191.7 174/201	0.3	194.9 177/205
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Noise Abatement Procedures:** See Page JFK/27.

NOISE ABATEMENT PROCEDURE – RUNWAY 22R (INTXN 13L/31R)

1. Once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 15°–20° bank, turn onto a heading to establish on the JFK 233R. Maintain 250kt.
2. At JFK 3d turn LEFT onto a heading of 210°M.
3. At JFK 7d increase N_2 to give Maximum Climb Power (over 10 secs) to accelerate or climb as cleared by ATC.

NOTE – a) If no heading change approved for Take-off accept delay of up to 15 mins, but no more, to receive such clearance.
b) If required to maintain Runway heading no change to Throttle Time, TLA and N_2 but a violation is likely.
c) Consider Rwy 22L.
d) Throttle to noise abatement power at 1.9 DME JFK or the time extracted from the table below - (whichever is reached first).

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	71	71	71	72	72	72	73	73	74	75
185	18.5	18.5	18.5	17.5	16.5	16.0	15.0	14.0	13.5	12.5
	93.6	93.6	93.6	94.4	95.2	96.1	96.9	97.6	98.3	99.1
	69	69	69	70	70	70	71	72	73	74
180	19.5	19.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0	13.0
	92.8	92.8	92.8	93.6	94.4	95.3	96.1	96.8	97.5	98.3
	67	67	67	68	68	68	69	70	71	72
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	65	65	65	66	66	66	67	68	69	70
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	63	63	63	64	64	64	65	66	67	68
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	61	61	61	62	62	62	63	64	65	66
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	58	58	58	59	59	59	60	61	62	63
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	55	55	55	56	56	56	57	58	59	60
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	50	50	50	51	51	51	52	52	53	54
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	45	45	45	46	46	46	47	47	48	49
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.8	86.8	86.8	87.5	88.2	88.9	89.6	90.3	91.0	91.7
	39	39	39	40	40	40	41	41	42	43
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	34	34	34	35	35	35	36	36	36	37
110	26.5	27.0	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME – SECONDS
THROTTLE LEVER ANGLE – DEGREES
N_2 – %

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **13ft**

NEW YORK
J F KENNEDY
TAXIWAY F RWY 22R

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 2789m (9150ft) **ED** 2789m (9150ft) **TOD(U)** 2789m (9150ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	147.1 142/162	1.2	152.9 146/166	1.2	158.8 151/170	0.3	161.5 154/174	0.3	164.3 157/178	0.3	167.2 160/182
36	148.7 142/163	1.2	154.6 147/167	1.2	160.6 151/171	0.3	163.5 154/175	0.3	166.3 157/179	0.3	169.2 161/183
33	150.3 143/164	1.2	156.2 147/168	1.2	162.4 151/172	0.3	165.4 155/176	0.3	168.2 158/180	0.3	171.2 161/184
30	151.9 143/165	1.2	157.9 147/169	1.2	164.1 152/173	0.3	167.2 155/177	0.3	170.1 158/181	0.3	173.1 162/185
27	153.4 144/166	1.2	159.4 148/170	1.3	165.7 152/174	0.3	169.0 155/177	0.3	172.0 159/182	0.3	175.0 162/186
24	154.8 144/167	1.2	161.0 148/171	1.3	167.3 152/175	0.3	170.8 156/178	0.3	173.7 159/182	0.3	176.8 162/186
21	156.2 144/167	1.2	162.4 149/171	1.3	168.8 153/175	0.4	172.5 156/179	0.3	175.5 159/183	0.3	178.6 163/187
18	157.6 145/168	1.2	163.8 149/172	1.3	170.3 153/176	0.4	174.1 156/179	0.3	177.1 160/184	0.3	180.3 163/188
15	158.9 145/169	1.3	165.2 150/173	1.3	171.6 154/177	0.4	175.7 157/180	0.3	178.7 160/184	0.3	181.9 164/188
12	160.1 146/169	1.3	166.4 150/173	1.3	173.0 154/178	0.4	177.0 157/181	0.3	180.1 161/185	0.3	183.3 164/189
9	161.3 146/170	1.3	167.6 150/174	1.3	174.2 155/178	0.3	177.7 158/182	0.3	180.8 161/186	0.3	184.0 165/190
6	162.4 147/170	1.3	168.8 151/175	1.3	175.4 155/179	0.3	178.4 159/183	0.3	181.5 162/187	0.3	184.7 166/191
3	163.4 147/171	1.3	169.9 151/175	1.2	176.0 156/180	0.3	179.1 159/184	0.3	182.1 163/188	0.3	185.3 166/192
0	164.5 148/172	1.3	170.9 152/176	1.1	176.6 157/181	0.3	179.7 160/185	0.3	182.8 164/189	0.3	185.9 167/193
-3	165.4 148/172	1.3	171.9 152/176	1.1	177.2 157/182	0.3	180.2 161/186	0.3	183.3 164/190	0.3	186.5 168/194
V2= θ2=	VR+ 24 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Noise Abatement Procedures:** See Page JFK/29.

NOISE ABATEMENT PROCEDURE – RUNWAY 22R (TAXIWAY F)

1. Once stablilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 15°–20° bank, turn onto a heading to establish on the JFK 233R. Maintain 250kt.
2. At JFK 3d turn LEFT onto a heading of 210°M.
3. At JFK 7d increase N_2 to give Maximum Climb Power (over 10 secs) to accelerate or climb as cleared by ATC.

NOTE – a) If no heading change approved for Take-off accept delay of up to 15 mins, but no more, to receive such clearance.
b) If required to maintain Runway heading **no change** to Throttle Time, TLA and N_2 but a violation is likely.
c) Consider Rwy 22L.
d) Throttle to noise abatement power at 1.9 DME JFK or the time extracted from the table below - **(whichever is reached first)**.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	68	68	68	69	69	69	70	70	71	72
185	18.5	18.5	18.5	17.5	16.5	16.0	15.0	14.0	13.5	12.5
	93.6	93.6	93.6	94.4	95.2	96.1	96.9	97.6	98.3	99.1
	66	66	66	67	67	67	68	69	70	71
180	19.5	19.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0	13.0
	92.8	92.8	92.8	93.6	94.4	95.3	96.1	96.8	97.5	98.3
	64	64	64	65	65	65	66	67	68	69
175	20.5	20.5	20.5	19.5	18.5	17.5	16.5	15.5	15.0	14.0
	92.1	92.1	92.1	93.0	93.8	94.7	95.5	96.2	96.9	97.7
	62	62	62	63	63	63	64	65	66	67
170	21.0	21.0	21.0	20.0	19.0	18.0	17.0	16.5	15.5	14.5
	91.5	91.5	91.5	92.4	93.2	94.0	94.8	95.6	96.3	97.0
	60	60	60	61	61	61	62	63	64	65
165	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.4	96.2
	58	58	58	59	59	59	60	61	62	63
160	23.0	23.0	23.0	22.0	21.0	20.0	19.5	18.5	17.5	16.5
	90.0	90.0	90.0	90.8	91.6	92.4	93.1	93.8	94.5	95.3
	55	55	55	56	56	56	57	58	59	60
155	23.5	23.5	23.5	22.5	22.0	21.0	20.0	19.0	18.5	17.5
	89.5	89.5	89.5	90.2	90.9	91.7	92.4	93.2	93.9	94.7
	52	52	52	53	53	53	54	55	56	57
150	24.0	24.0	24.0	23.5	22.5	21.5	21.0	20.0	19.0	18.0
	88.9	88.9	88.9	89.5	90.2	91.0	91.7	92.5	93.2	94.0
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	47	47	47	48	48	48	49	49	50	51
140	24.5	25.0	25.0	24.5	24.0	23.0	22.0	21.5	20.5	20.0
	87.7	87.7	87.7	88.6	89.2	89.8	90.5	91.2	91.9	92.6
	42	42	42	43	43	43	44	44	45	46
130	25.5	26.0	26.5	26.0	25.0	24.5	23.5	22.5	21.5	21.0
	86.8	86.8	86.8	87.5	88.2	88.9	89.6	90.3	91.0	91.7
	36	36	36	37	37	37	38	38	39	40
120	26.0	26.5	27.0	27.0	26.0	25.0	24.5	23.5	23.0	22.0
	85.8	85.8	85.8	86.5	87.2	87.9	88.6	89.3	90.0	90.7
	31	31	31	32	32	32	33	33	33	34
110	26.5	27.0	27.5	27.5	27.0	26.0	25.5	24.5	24.0	23.0
	85.0	85.0	85.0	85.7	86.4	87.1	87.8	88.5	89.2	89.9

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

INTENTIONALLY LEFT BLANK

A/D Elev **13ft**

FULL LENGTH RWY 31L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 4442m (14573ft) **ED** 4442m (14573ft) **TOD(U)** 3588m (11771ft)

OAT °C	20kt TAIL	Inc /kt	10kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	158.8 142/176	0.7	166.3 153/185	0.4	173.5 165/191	0.2	175.9 169/195	0.2	178.3 173/198	0.2	180.8 177/201
36	160.7 142/177	0.7	168.3 153/186	0.4	175.6 165/192	0.2	178.0 168/196	0.2	180.5 172/199	0.2	183.0 176/203
33	162.6 141/175	0.7	170.2 153/187	0.4	177.7 164/193	0.2	180.1 168/197	0.2	182.6 172/200	0.2	185.1 176/204
30	164.4 141/176	0.8	172.1 152/188	0.4	179.7 164/194	0.2	182.2 168/197	0.2	184.7 172/201	0.3	187.3 176/204
27	166.2 141/178	0.8	174.0 152/189	0.4	181.7 164/195	0.2	184.2 168/198	0.2	186.7 172/202	0.3	189.3 176/205
24	167.9 141/178	0.8	175.8 152/189	0.4	183.6 164/196	0.3	186.2 168/199	0.2	188.7 172/203	0.3	191.4 175/206
21	169.6 141/178	0.8	177.6 152/189	0.4	185.5 164/197	0.3	188.1 168/200	0.3	190.7 172/203	0.3	193.3 175/207
18	171.3 141/179	0.8	179.4 152/190	0.4	187.4 164/197	0.3	190.0 168/201	0.3	192.6 172/204	0.2	195.0 175/208
15	172.8 141/179	0.8	181.0 152/190	0.4	189.2 164/199	0.3	191.8 168/201	0.3	194.4 172/205	0.1	195.0 174/207
12	174.1 141/180	0.8	182.3 152/191	0.4	190.5 164/200	0.3	193.2 168/202	0.2	195.0 172/205	0.0	195.0 174/207
9	174.6 142/180	0.8	182.9 153/192	0.4	191.0 165/199	0.3	193.6 169/203	0.1	195.0 172/206	0.0	195.0 175/207
6	175.1 142/182	0.8	183.4 154/193	0.4	191.4 166/200	0.3	194.0 170/204	0.1	195.0 173/206	0.0	195.0 175/208
3	175.6 143/182	0.8	183.9 154/194	0.4	191.8 166/201	0.3	194.4 170/204	0.1	195.0 173/206	0.0	195.0 176/208
0	176.1 144/183	0.8	184.3 155/195	0.4	192.1 167/201	0.3	194.8 171/205	0.0	195.0 174/207	0.0	195.0 177/209
-3	176.5 144/184	0.8	184.7 156/195	0.4	192.4 168/202	0.3	195.0 172/205	0.0	195.0 175/207	0.0	195.0 178/209
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

4. **Noise Abatement Procedures:** See Pages JFK/32, 33, 34, 35, 36, 37, 38 and 39.

5. **Tailwinds:** NOTE - Tailwind weights have been calculated at 10kt and 20kt tailwind.

NOISE ABATEMENT PROCEDURE – RUNWAY 31L (FULL LENGTH)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing. Stabilise Θ_2 with wings level.

2. Turn LEFT once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining Θ_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between initiation of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the achieved speed between 235–250kt is to be maintained.

4. At heading of 235°M increase N_2 rapidly to give Maximum Climb Power and decrease bank angle to 7.5° to enable 2500ft crossing altitude to be achieved. Maintain 250kt. On achieving JFK 253R again throttle to Bug Power. At CRI 5d slowly increase N_2 to Climb Power (over 10 secs).

NOTE:

a) After passing 2500ft QNH bank angle may be increased to optimise tracking.

b) In the unlikely event of not achieving 2500ft QNH by JFK 253R leave Maximum Climb Power until passing 2500ft QNH.

ENGINE FAILURE PROCEDURE

Commence a LEFT turn at 100ft RA with 15° of bank.

Continue with alternate one vertical profile, maintaining a LEFT turn with 15° bank until established on the assigned departure routing.

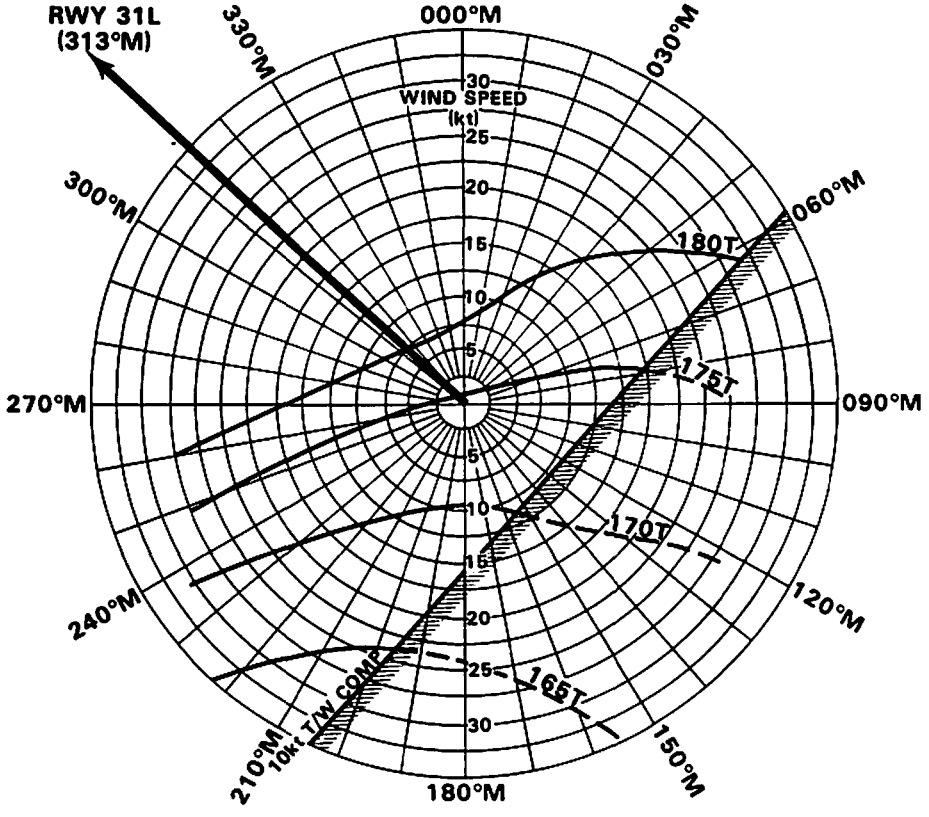
NOISE ABATEMENT PROCEDURE – RUNWAY 31L (FULL LENGTH)

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	63	63	64	64	65	66	68	69	70	71
185	15.5	15.5	15.5	14.5	13.0	12.0	10.5	9.5	8.5	7.0
	96.2	96.2	96.2	97.2	98.3	99.4	100.5	101.4	102.6	103.8
	61	61	62	62	63	64	66	67	68	69
180	16.5	16.5	16.5	15.5	14.5	13.0	12.0	10.5	9.5	8.0
	95.3	95.3	95.3	96.4	97.4	98.6	99.6	100.5	101.6	102.7
	59	59	60	60	61	62	64	65	66	67
175	17.5	17.5	17.5	16.5	15.5	14.0	13.0	12.0	10.5	9.5
	94.3	94.3	94.3	95.5	96.5	97.6	98.6	99.5	100.6	101.6
	57	57	58	58	59	60	62	63	64	65
170	19.0	19.0	19.0	17.5	16.5	15.0	14.0	13.0	12.0	10.5
	93.4	93.4	93.4	94.5	95.5	96.6	97.6	98.6	99.6	100.6
	55	55	56	56	57	58	60	61	62	63
165	20.0	20.0	20.0	18.5	17.5	16.5	15.0	14.0	13.0	11.5
	92.5	92.5	92.5	93.6	94.6	95.6	96.7	97.7	98.6	99.7
	53	53	54	54	55	56	58	59	60	61
160	21.0	21.0	21.0	19.5	18.5	17.5	16.5	15.0	14.0	13.0
	91.8	91.8	91.8	92.7	93.7	94.7	95.7	96.7	97.6	98.7
	51	51	52	52	53	54	56	57	58	59
155	21.5	21.5	21.5	21.0	19.5	18.5	17.5	16.5	15.0	14.0
	91.0	91.0	91.0	91.8	92.7	93.8	94.7	95.6	96.6	97.7
	49	49	50	50	51	52	54	55	56	57
150	22.5	22.5	22.5	21.5	20.5	19.5	18.5	17.5	16.0	15.0
	90.3	90.3	90.3	91.2	92.0	92.9	93.8	94.8	95.8	96.7
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	46	46	47	47	48	49	51	52	53	54
140	24.0	24.5	24.5	23.5	22.5	21.5	20.5	19.5	18.0	17.5
	88.7	88.7	88.7	89.7	90.6	91.3	92.1	93.0	94.0	94.9
	42	42	43	43	44	45	47	48	49	50
130	24.5	25.0	25.5	24.5	23.5	22.5	21.5	20.5	19.5	18.5
	87.8	87.8	87.8	88.5	89.4	90.1	91.1	92.0	92.8	93.6
	39	39	40	40	41	42	44	45	46	47
120	25.5	26.0	26.5	25.5	25.0	24.0	23.0	22.0	21.0	20.0
	86.6	86.6	86.6	87.4	88.2	89.0	89.8	90.8	91.6	92.4
	36	36	37	37	38	39	41	42	43	44
110	26.0	26.5	27.0	27.0	26.0	25.5	24.5	23.5	22.5	21.5
	85.7	85.7	85.7	86.5	87.2	88.0	88.8	89.6	90.4	91.3

THROTTLE TIME — SECONDS
THROTTLE LEVER ANGLE — DEGREES
N_2 — %

NOISE ADVISORY CHART – RUNWAY 31L (FULL LENGTH)

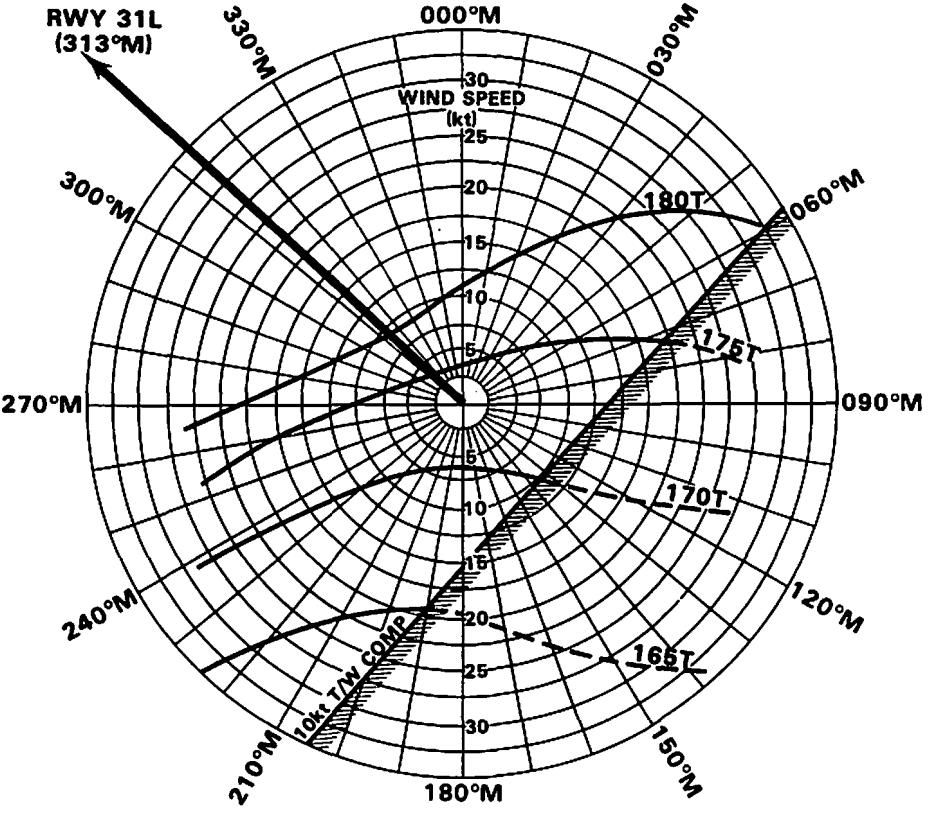
Temperature 7°C and below



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 31L (FULL LENGTH)

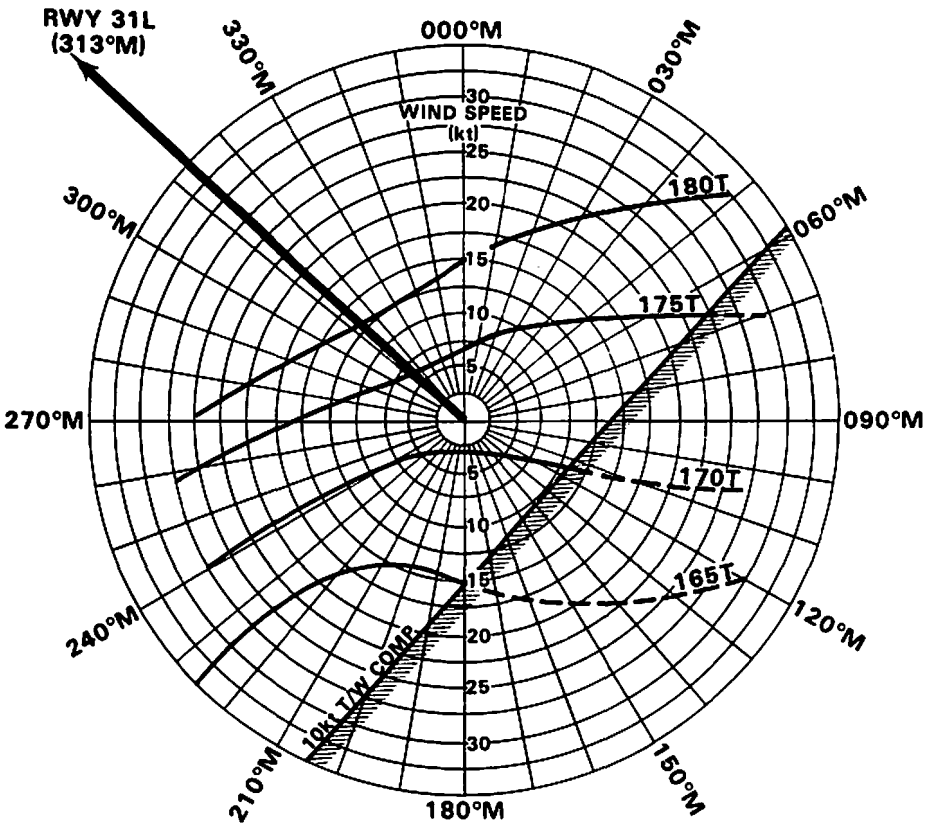
Temperature 8°C – 12°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 31L (FULL LENGTH)

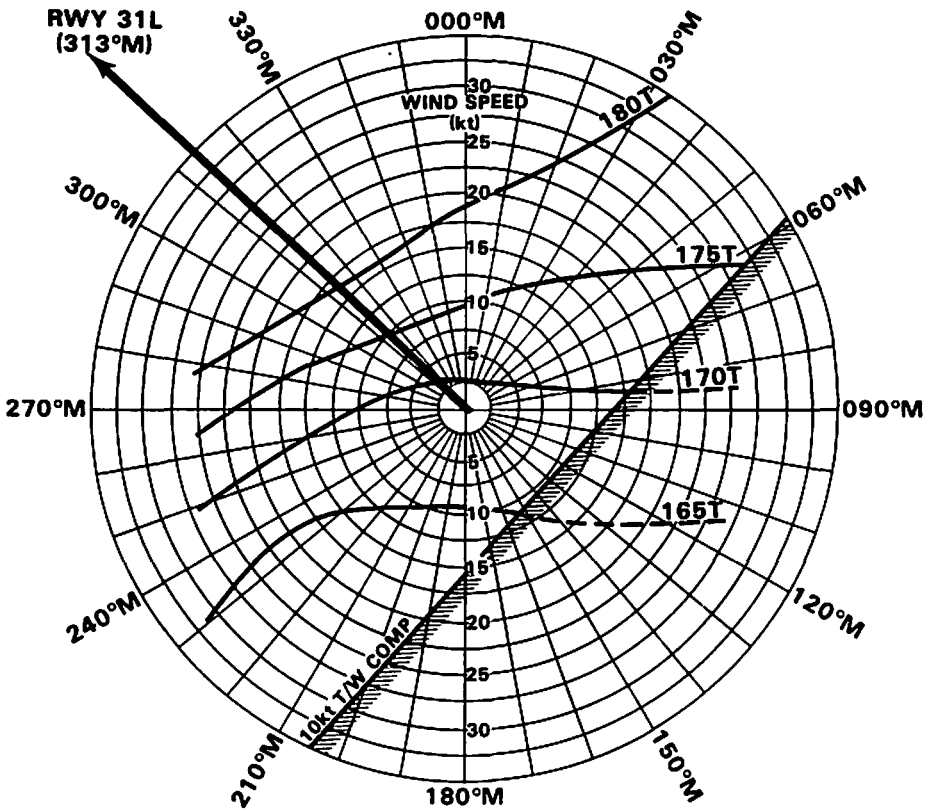
Temperature 13°C – 17°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 31L (FULL LENGTH)

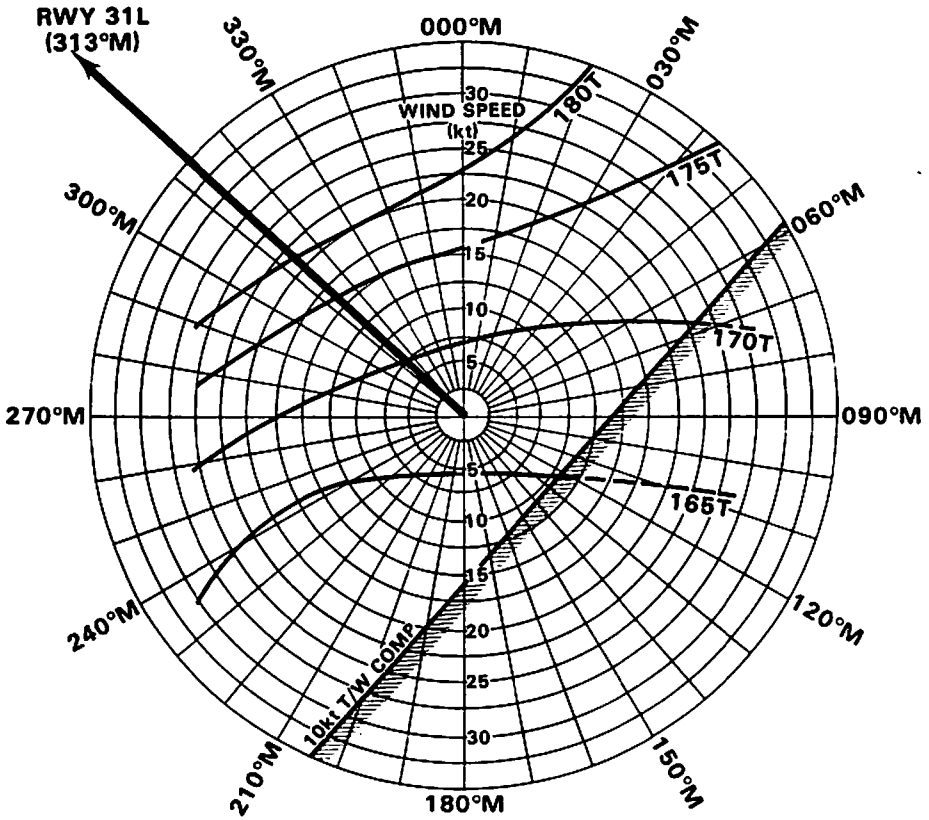
Temperature 18°C – 22°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 31L (FULL LENGTH)

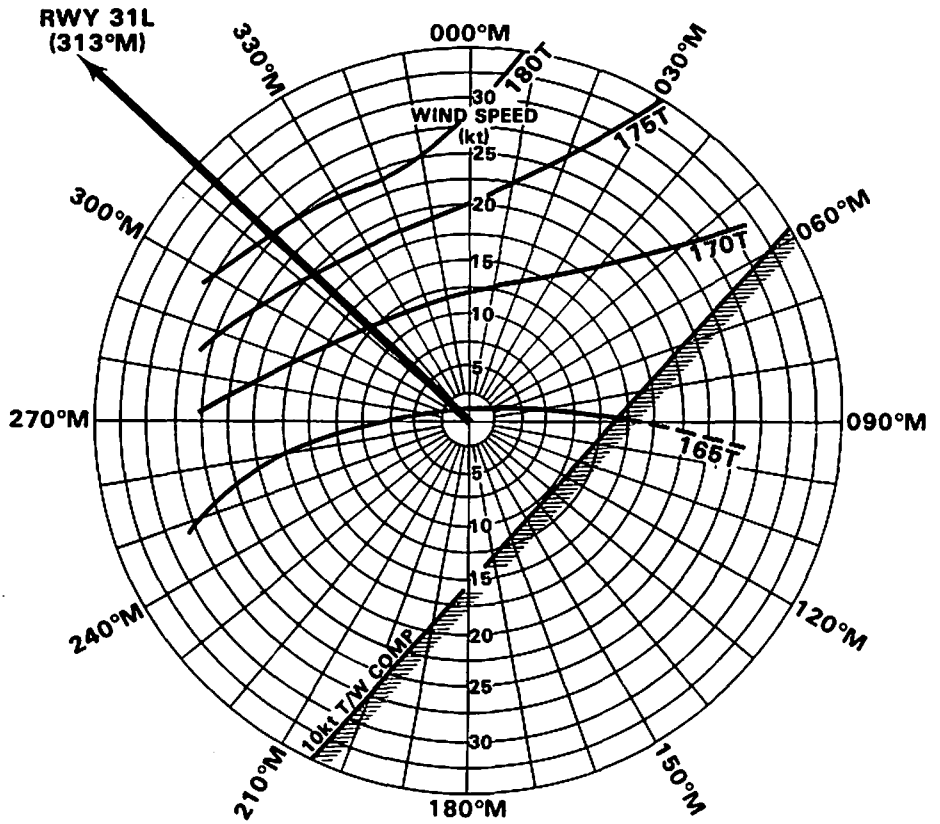
Temperature 23°C – 27°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

NOISE ADVISORY CHART – RUNWAY 31L (FULL LENGTH)

Temperature 28°C – 32°C



This chart is only to be used after the calculation of the Corrected Performance RTOW.

INTENTIONALLY LEFT BLANK

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **13ft**

NEW YORK
J F KENNEDY

TAXIWAY K RWY 31L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL

TOR 3566m (11699ft) **ED** 3566m (11699ft) **TOD(U)** 3054m (10020ft)

OAT °C	20kt TAIL	Inc /kt	10kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	149.3 147/164	0.7	156.7 158/173	0.4	164.5 170/184	0.3	167.2 174/186	0.2	169.5 177/188	0.2	171.8 181/190
36	151.1 147/165	0.7	158.6 158/174	0.4	166.5 170/185	0.3	169.1 174/187	0.2	171.6 177/189	0.2	174.0 181/193
33	152.8 146/166	0.8	160.4 158/174	0.4	168.4 169/186	0.3	171.1 173/188	0.2	173.5 177/190	0.2	176.0 181/193
30	154.5 146/167	0.8	162.2 158/175	0.4	170.3 169/187	0.3	173.0 173/189	0.2	175.5 177/191	0.2	178.0 181/194
27	156.1 146/168	0.8	163.9 157/176	0.4	172.1 169/188	0.3	174.8 173/190	0.3	177.4 177/192	0.2	179.9 181/195
24	157.7 146/168	0.8	165.6 157/177	0.4	173.9 169/189	0.3	176.7 173/190	0.3	179.3 177/193	0.3	181.9 181/196
21	159.3 146/169	0.8	167.3 157/178	0.4	175.7 169/190	0.3	178.5 173/191	0.3	181.2 177/194	0.2	183.7 181/197
18	160.8 146/170	0.8	168.9 157/178	0.4	177.4 169/190	0.3	180.2 173/192	0.3	183.0 177/195	0.3	185.6 180/198
15	162.3 146/171	0.8	170.5 157/179	0.4	179.0 169/190	0.3	181.9 173/194	0.3	184.8 177/195	0.2	187.3 181/198
12	163.5 146/172	0.8	171.7 158/180	0.4	180.3 169/191	0.3	183.2 173/194	0.3	186.1 177/196	0.3	188.7 181/199
9	164.0 147/172	0.8	172.2 158/181	0.4	180.9 170/193	0.3	183.7 174/194	0.3	186.5 178/197	0.3	189.1 182/200
6	164.5 148/172	0.8	172.7 159/181	0.4	181.3 171/193	0.3	184.2 175/195	0.3	186.8 179/197	0.3	189.4 183/200
3	165.0 148/172	0.8	173.2 160/182	0.4	181.8 172/193	0.3	184.6 175/195	0.3	187.2 180/197	0.3	189.8 184/201
0	165.5 149/172	0.8	173.6 160/183	0.4	182.2 172/193	0.3	185.0 176/195	0.2	187.5 180/198	0.3	190.1 185/201
-3	165.9 150/172	0.8	174.0 161/183	0.4	182.6 173/193	0.3	185.2 177/195	0.3	187.8 181/199	0.3	190.4 186/202
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.
2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.
3. **Maximum Take-Off Weight:** Restricted to **182250kg.**
4. **Noise Abatement Procedures:** See Pages JFK/42 and JFK/43.
5. **Tailwinds:** NOTE - Tailwind weights have been calculated at 10kt and 20kt tailwind.

NOISE ABATEMENT PROCEDURE – RUNWAY 31L (TAXIWAY K)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing. Stabilise Θ_2 with wings level.

2. Turn LEFT once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining Θ_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between initiation of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the **achieved speed between 235–250kt** is to be maintained.

4. At heading of 235°M increase N_2 rapidly to give Maximum Climb Power and decrease bank angle to 7.5° to enable 2500ft crossing altitude to be achieved. Maintain 250kt. On achieving JFK 253R again throttle to Bug Power. At CRI 5d slowly increase N_2 to Climb Power (over 10 secs).

NOTE:

a) After passing 2500ft QNH bank angle may be increased to optimise tracking.

b) In the unlikely event of not achieving 2500ft QNH by JFK 253R leave Maximum Climb Power until passing 2500ft QNH.

ENGINE FAILURE PROCEDURE

Commence a LEFT turn at 100ft RA with 15° of bank.

Continue with alternate one vertical profile, maintaining a LEFT turn with 15° bank until established on the assigned departure routing.

NOISE ABATEMENT PROCEDURE – RUNWAY 31L (TAXIWAY K)

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	59	59	60	60	61	62	64	65	66	67
185	15.5	15.5	15.5	14.5	13.0	12.0	10.5	9.5	8.5	7.0
	96.2	96.2	96.2	97.2	98.3	99.4	100.5	101.4	102.6	103.8
	57	57	58	58	59	60	62	63	64	65
180	16.5	16.5	16.5	15.5	14.5	13.0	12.0	10.5	9.5	8.0
	95.3	95.3	95.3	96.4	97.4	98.6	99.6	100.5	101.6	102.7
	55	55	56	56	57	58	60	61	62	63
175	17.5	17.5	17.5	16.5	15.5	14.0	13.0	12.0	10.5	9.5
	94.3	94.3	94.3	95.5	96.5	97.6	98.6	99.5	100.6	101.6
	53	53	54	54	55	56	58	59	60	61
170	19.0	19.0	19.0	17.5	16.5	15.0	14.0	13.0	12.0	10.5
	93.4	93.4	93.4	94.5	95.5	96.6	97.6	98.6	99.6	100.6
	51	51	52	52	53	54	56	57	58	59
165	20.0	20.0	20.0	18.5	17.5	16.5	15.0	14.0	13.0	11.5
	92.5	92.5	92.5	93.6	94.6	95.6	96.7	97.7	98.6	99.7
	49	49	50	50	51	52	54	55	56	57
160	21.0	21.0	21.0	19.5	18.5	17.5	16.5	15.0	14.0	13.0
	91.8	91.8	91.8	92.7	93.7	94.7	95.7	96.7	97.6	98.7
	47	47	48	48	49	50	52	53	54	55
155	21.5	21.5	21.5	21.0	19.5	18.5	17.5	16.5	15.0	14.0
	91.0	91.0	91.0	91.8	92.7	93.8	94.7	95.6	96.6	97.7
	45	45	46	46	47	48	50	51	52	53
150	22.5	22.5	22.5	21.5	20.5	19.5	18.5	17.5	16.0	15.0
	90.3	90.3	90.3	91.2	92.0	92.9	93.8	94.8	95.8	96.7
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	42	42	43	43	44	45	47	48	49	50
140	24.0	24.5	24.5	23.5	22.5	21.5	20.5	19.5	18.0	17.5
	88.7	88.7	88.7	89.7	90.6	91.3	92.1	93.0	94.0	94.9
	38	38	39	39	40	41	43	44	45	46
130	24.5	25.0	25.5	24.5	23.5	22.5	21.5	20.5	19.5	18.5
	87.8	87.8	87.8	88.5	89.4	90.1	91.1	92.0	92.8	93.6
	35	35	36	36	37	38	40	41	42	43
120	25.5	26.0	26.5	25.5	25.0	24.0	23.0	22.0	21.0	20.0
	86.6	86.6	86.6	87.4	88.2	89.0	89.8	90.8	91.6	92.4
	32	32	33	33	34	35	37	38	39	40
110	26.0	26.5	27.0	27.0	26.0	25.5	24.5	23.5	22.5	21.5
	85.7	85.7	85.7	86.5	87.2	88.0	88.8	89.6	90.4	91.3

THROTTLE TIME — SECONDS
THROTTLE LEVER ANGLE — DEGREES
N_2 — %

NOTE: The above Throttle Times may not always ensure that 235kt will be achieved at Throttling. If at Initiation of Noise Countdown the operating pilot is not satisfied that 235kt will be achieved, Throttling should be delayed until it is certain that 235kt will be obtained after Throttling.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NEW YORK
J F KENNEDY

A/D Elev **13ft**

TAXIWAY KK RWY 31L

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.01%DN
TOR 3261m (10699ft) **ED** 3261m (10699ft) **TOD(U)** 2776m (9107ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	152.5 154/167	0.8	156.3 159/173	0.8	160.2 164/178	0.2	162.7 168/182	0.3	165.3 171/184	0.3	167.9 174/187
36	154.4 154/168	0.8	158.2 159/174	0.8	162.1 164/179	0.3	164.7 168/183	0.3	167.3 171/185	0.3	170.0 175/188
33	156.2 155/169	0.8	160.0 160/174	0.8	164.0 165/180	0.3	166.7 168/184	0.3	169.3 172/187	0.3	172.0 175/189
30	158.0 155/170	0.8	161.8 160/175	0.8	165.9 165/181	0.3	168.5 169/185	0.3	171.2 172/188	0.3	174.0 175/190
27	159.7 155/171	0.8	163.6 160/176	0.8	167.7 166/182	0.3	170.4 169/186	0.3	173.2 172/189	0.3	175.9 176/191
24	161.4 156/171	0.8	165.4 161/177	0.8	169.5 166/183	0.3	172.2 169/187	0.3	175.0 173/190	0.3	177.8 176/192
21	163.0 156/172	0.8	167.0 161/177	0.8	171.2 166/183	0.3	174.0 170/187	0.3	176.8 173/191	0.3	179.7 177/193
18	164.7 156/173	0.8	168.7 162/179	0.8	172.9 167/184	0.3	175.7 170/188	0.3	178.6 174/191	0.3	181.4 177/193
15	166.2 157/173	0.8	170.3 162/179	0.8	174.5 167/185	0.3	177.4 171/189	0.3	180.3 174/192	0.3	183.2 177/194
12	167.4 157/174	0.8	171.5 162/179	0.9	175.8 168/185	0.3	178.7 171/189	0.3	181.6 175/193	0.3	184.5 178/195
9	167.9 158/175	0.8	172.1 163/181	0.9	176.4 168/187	0.3	179.2 172/190	0.3	182.1 175/193	0.3	185.0 179/195
6	168.4 159/176	0.8	172.6 164/182	0.9	176.9 169/187	0.3	179.7 173/191	0.3	182.5 176/193	0.3	185.4 180/196
3	168.9 160/177	0.8	173.0 165/182	0.9	177.3 170/188	0.3	180.2 174/192	0.3	183.0 177/194	0.3	185.8 181/196
0	169.3 160/177	0.8	173.5 166/183	0.9	177.8 171/189	0.3	180.6 175/192	0.3	183.4 178/194	0.3	186.1 182/196
-3	169.7 161/178	0.8	173.9 166/184	0.8	178.1 172/189	0.3	181.0 175/192	0.3	183.8 179/194	0.3	186.4 183/197
V2= 62=	VR+ 23 14.5		VR+ 23 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.
2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.
3. **Maximum Take-Off Weight:** Restricted to **182250kg**.
4. **Noise Abatement Procedures:** Whilst the above data is valid for performance purposes, for the purpose of noise abatement, use of Twy KK falls outside current Flight Manual parameters and consequently no valid noise abatement data exists. Use the Twy K noise abatement data published on pages JFK/42 and JFK/43. A Twy KK departure could well result in a noise violation. Consequently Captains should request Full Length or Twy K departures and only use Twy KK as a last resort to avoid an unacceptable delay.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NEW YORK
J F KENNEDY

A/D Elev **13ft**

FULL LENGTH RWY 31R

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD(U)** 2772m (9094ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.5 148/165	0.8	155.5 153/169	0.8	159.4 158/174	0.3	162.0 162/177	0.3	164.7 165/181	0.3	167.5 168/185
36	153.3 148/166	0.8	157.4 153/170	0.8	161.3 159/175	0.3	164.0 162/178	0.3	166.7 165/182	0.3	169.5 169/186
33	155.1 149/167	0.8	159.2 154/170	0.8	163.2 159/175	0.3	165.9 162/179	0.3	168.6 166/183	0.3	171.5 169/187
30	156.8 149/168	0.8	161.0 154/171	0.8	165.1 159/176	0.3	167.8 163/180	0.3	170.6 166/184	0.3	173.4 169/188
27	158.5 149/169	0.9	162.8 154/172	0.8	166.9 160/177	0.3	169.6 163/181	0.3	172.4 166/185	0.3	175.3 170/189
24	160.2 150/170	0.9	164.5 155/173	0.8	168.7 160/178	0.3	171.4 163/182	0.3	174.3 167/186	0.3	177.2 170/190
21	161.8 150/171	0.9	166.1 155/174	0.9	170.4 160/179	0.3	173.2 164/182	0.3	176.0 167/186	0.3	179.0 171/190
18	163.3 151/172	0.9	167.8 156/175	0.9	172.1 161/180	0.3	174.9 164/183	0.3	177.8 168/187	0.3	180.8 171/191
15	164.8 151/173	0.9	169.3 156/175	0.9	173.7 161/180	0.3	176.5 165/184	0.3	179.4 168/188	0.3	182.4 171/192
12	166.1 151/173	0.9	170.6 156/176	0.9	175.0 162/181	0.3	177.8 165/184	0.3	180.8 169/188	0.3	183.8 172/192
9	166.7 152/173	0.9	171.2 157/176	0.9	175.5 162/182	0.3	178.4 166/185	0.3	181.3 169/189	0.3	184.4 173/193
6	167.3 153/174	0.9	171.7 158/177	0.9	176.0 163/183	0.3	178.9 167/186	0.3	181.9 170/190	0.3	184.9 174/194
3	167.8 154/174	0.9	172.2 159/178	0.9	176.5 164/184	0.3	179.4 168/187	0.3	182.4 171/191	0.3	185.4 174/195
0	168.3 154/174	0.9	172.7 160/178	0.9	177.0 165/184	0.3	179.9 168/188	0.3	182.9 172/192	0.3	185.9 175/194
-3	168.8 155/174	0.9	173.1 160/179	0.9	177.5 166/185	0.3	180.3 169/188	0.3	183.3 173/192	0.3	186.3 176/195
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

4. ***Noise Abatement Procedures:*** See Pages JFK/46 and JFK/47

NOISE ABATEMENT PROCEDURE – RUNWAY 31R (FULL LENGTH)

1. Rotate normally to Θ_2 (i.e. in 5 secs) ensuring no overswing.
   Stabilise Θ_2 with wings level.

2. Turn LEFT once stabilised at Θ_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining Θ_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between initiation of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the achieved speed between 235–250kt is to be maintained.

4. After throttling maintain achieved speed (235–250kt).
   - At a heading of 235°M reduce bank to zero.
   - At JFK 280R increase N_2 to give Maximum Climb Power to enable 2500ft crossing altitude to be achieved. Maintain 250kt. On achieving JFK 253R again throttle to Bug Power.

   At CRI 5d slowly increase N_2 to Climb Power (over 10 secs).

NOTE:

a) After passing 2500ft QNH bank angle may be increased to optimise tracking.

b) In the unlikely event of not achieving 2500ft QNH by JFK 253R leave Maximum Climb Power until passing 2500ft QNH.

ENGINE FAILURE PROCEDURE

Commence a LEFT turn at 100ft RA with 15° of bank.

Continue with alternate one vertical profile, maintaining a LEFT turn with 15° bank until established on the assigned departure routing.

A/D Elev 12ft

FULL LENGTH RWY **31R**

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** NIL
TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD(U)** 2779m (9117ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.6	0.8	155.6	0.8	159.5	0.3	162.1	0.3	164.8	0.3	167.5
	148/165		153/169		158/175		162/178		165/182		168/186
36	153.4	0.8	157.4	0.8	161.4	0.3	164.1	0.3	166.8	0.3	169.6
	148/166		153/170		159/175		162/179		165/183		169/187
33	155.1	0.8	159.3	0.8	163.3	0.3	166.0	0.3	168.7	0.3	171.6
	149/167		154/170		159/176		162/180		166/184		169/188
30	156.9	0.8	161.1	0.8	165.2	0.3	167.9	0.3	170.7	0.3	173.5
	149/168		154/171		159/177		163/181		166/185		169/189
27	158.6	0.9	162.9	0.8	167.0	0.3	169.7	0.3	172.5	0.3	175.4
	149/169		154/172		160/178		163/181		166/186		170/190
24	160.2	0.9	164.6	0.8	168.8	0.3	171.5	0.3	174.4	0.3	177.2
	150/170		155/173		160/179		163/182		167/186		170/191
21	161.8	0.9	166.2	0.9	170.5	0.3	173.3	0.3	176.1	0.3	179.0
	150/171		155/174		160/179		164/183		167/187		171/190
18	163.3	0.9	167.9	0.9	172.2	0.3	175.0	0.3	177.9	0.3	180.8
	151/172		156/175		161/180		164/184		168/188		171/191
15	164.8	0.9	169.4	0.9	173.8	0.3	176.6	0.3	179.5	0.3	182.5
	151/173		156/176		161/181		165/184		168/188		171/193
12	166.0	0.9	170.7	0.9	175.1	0.3	177.9	0.3	180.9	0.3	183.9
	151/173		156/176		162/181		165/185		168/189		172/193
9	166.8	0.9	171.3	0.9	175.6	0.3	178.5	0.3	181.4	0.3	184.4
	152/174		157/176		162/182		166/186		169/190		173/193
6	167.4	0.9	171.8	0.9	176.1	0.3	179.0	0.3	182.0	0.3	185.0
	153/174		158/177		163/183		167/187		170/191		174/195
3	167.9	0.9	172.3	0.9	176.7	0.3	179.6	0.3	182.5	0.3	185.5
	154/174		159/178		164/184		167/188		171/192		174/195
0	168.4	0.9	172.8	0.9	177.1	0.3	180.0	0.3	183.0	0.3	185.9
	154/174		159/179		165/185		168/189		172/193		175/195
-3	168.9	0.9	173.2	0.9	177.6	0.3	180.5	0.3	183.4	0.3	186.3
	155/174		160/180		166/185		169/189		173/193		176/195
V2=	VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 21		VR+ 22
θ2=	14.5		14.0		14.0		13.5		13.5		13.5

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.2.3. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Pages JFK/46 and JFK/47.

NOISE ABATEMENT PROCEDURE – RUNWAY 31R (FULL LENGTH)

1. Rotate normally to O_2 (i.e. in 5 secs) ensuring no overswing.
   Stabilise O_2 with wings level.

2. Turn LEFT once stabilised at O_2 and a rate of climb of 500 f.p.m. has been achieved, using 25° bank (achieved in 6 secs) maintaining O_2.

3. At Noise Abatement Time the Engineer cancels reheat and throttles to Noise Power. If the Captain is not satisfied that 235kt will be achieved, he calls **Negative** to stop the E/O cancelling reheat and throttling back. Once the Captain is satisfied that the aircraft has achieved 235kt he calls **Noise Now** and the Engineer cancels the reheat and throttles back.

   5kt to 8kt increase in IAS may be expected between **initiation** of noise countdown and stabilised speed after throttling for noise. (Thus 230kt becomes minimum speed at initiation of noise countdown). At throttle time the **achieved speed between 235–250kt** is to be maintained.

4. After throttling maintain achieved speed (235–250kt).
   – At a heading of 235°M reduce bank to zero.
   – At JFK 280R increase N_2 to give Maximum Climb Power to enable 2500ft crossing altitude to be achieved. Maintain 250kt. On achieving JFK 253R again throttle to Bug Power.

   At CRI 5d **slowly** increase N_2 to Climb Power (over 10 secs).

NOTE:

a) After passing 2500ft QNH bank angle may be increased to optimise tracking.

b) In the unlikely event of **not** achieving 2500ft QNH by JFK 253R leave Maximum Climb Power until passing 2500ft QNH.

ENGINE FAILURE PROCEDURE

Commence a LEFT turn at 100ft RA with 15° of bank.

Continue with alternate one vertical profile, maintaining a LEFT turn with 15° bank until established on the CRI 176R.

NOISE ABATEMENT PROCEDURE – RUNWAY 31R (FULL LENGTH)

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	59	60	61	61	62	62	63	64	65	66
175	17.5	17.5	17.5	16.5	15.5	14.0	13.0	12.0	10.5	9.5
	94.3	94.3	94.3	95.5	96.5	97.6	98.6	99.5	100.6	101.6
	58	58	59	59	60	60	61	62	63	64
170	19.0	19.0	19.0	17.5	16.5	15.0	14.0	13.0	12.0	10.5
	93.4	93.4	93.4	94.5	95.5	96.6	97.6	98.6	99.6	100.6
	56	56	57	57	58	58	59	60	62	62
165	20.0	20.0	20.0	18.5	17.5	16.5	15.0	14.0	13.0	11.5
	92.5	92.5	92.5	93.6	94.6	95.6	96.7	97.7	98.6	99.7
	54	54	55	55	56	56	57	58	59	60
160	21.0	21.0	21.0	19.5	18.5	17.5	16.5	15.0	14.0	13.0
	91.8	91.8	91.8	92.7	93.7	94.7	95.7	96.7	97.6	98.7
	52	52	53	53	54	54	55	56	58	59
155	21.5	21.5	21.5	21.0	19.5	18.5	17.5	16.5	15.0	14.0
	91.0	91.0	91.0	91.8	92.7	93.8	94.7	95.6	96.6	97.7
	50	50	51	51	52	52	53	54	56	57
150	22.5	22.5	22.5	21.5	20.5	19.5	18.5	17.5	16.0	15.0
	90.3	90.3	90.3	91.2	92.0	92.9	93.8	94.8	95.8	96.7
	49	49	50	50	51	51	52	53	54	55
145	23.5	23.5	23.5	22.5	21.5	20.5	19.5	18.5	17.0	16.0
	89.6	89.6	89.6	90.5	91.3	92.1	93.0	93.9	94.9	95.8
	47	47	48	48	49	49	50	51	52	53
140	24.0	24.5	24.5	23.5	22.5	21.5	20.5	19.5	18.0	17.5
	88.7	88.7	88.7	89.7	90.6	91.3	92.1	93.0	94.0	94.9
	45	45	46	46	47	47	48	49	50	51
135	24.5	24.5	25.0	24.0	23.0	22.0	21.0	20.0	19.0	18.0
	88.3	88.3	88.3	89.1	90.0	90.7	91.6	92.5	93.4	94.3
	44	44	45	45	46	46	47	48	49	50
130	24.5	25.0	25.5	24.5	23.5	22.5	21.5	20.5	19.5	18.5
	87.8	87.8	87.8	88.5	89.4	90.1	91.1	92.0	92.8	93.6
	42	42	43	43	44	44	45	46	47	48
125	25.0	25.5	26.0	25.0	24.5	23.5	22.5	21.5	20.5	19.5
	87.2	87.2	87.2	88.0	88.8	89.6	90.5	91.4	92.2	93.0
	40	40	41	41	42	42	43	44	45	46
120	25.5	26.0	26.5	25.5	25.0	24.0	23.0	22.0	21.0	20.0
	86.6	86.6	86.6	87.4	88.2	89.0	89.8	90.8	91.6	92.4
	38	38	39	39	40	40	41	42	43	44
115	25.5	26.5	27.0	26.5	25.5	24.5	24.0	22.5	21.5	20.5
	86.2	86.2	86.2	87.0	87.7	88.5	89.3	90.2	91.0	91.9
	37	37	38	38	39	39	40	41	42	43
110	26.0	26.5	27.0	27.0	26.0	25.5	24.5	23.5	22.5	21.5
	85.7	85.7	85.7	86.5	87.2	88.0	88.8	89.6	90.4	91.3

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **TORONTO**

A/D Elev **569ft**

FULL LENGTH RWY 06L

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.07% DN
TOR 3200m (10500ft) **ED** 3200m (10500ft) **TOD(U)** 3085m (10121ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	154.2	0.8	158.2	0.8	162.2	0.3	164.8	0.3	167.5	0.3	170.1
	149/168		154/172		159/178		162/182		166/186		169/189
36	156.0	0.8	160.1	0.8	164.2	0.3	166.8	0.3	169.5	0.3	172.2
	149/169		154/173		159/179		163/183		166/187		169/190
33	157.8	0.8	162.0	0.8	166.1	0.3	168.8	0.3	171.5	0.3	174.2
	150/170		155/174		160/180		163/184		166/188		170/191
30	159.5	0.9	163.9	0.8	168.0	0.3	170.7	0.3	173.4	0.3	176.2
	150/170		155/175		160/181		163/185		167/188		170/192
27	161.2	0.9	165.7	0.8	169.8	0.3	172.6	0.3	175.4	0.3	178.2
	151/171		155/176		160/182		164/185		167/189		170/193
24	162.9	0.9	167.4	0.9	171.7	0.3	174.4	0.3	177.2	0.3	180.1
	151/172		156/177		161/182		164/186		167/190		171/194
21	164.5	0.9	169.1	0.9	173.4	0.3	176.2	0.3	179.1	0.3	181.9
	151/173		156/177		161/183		165/187		168/191		171/195
18	166.1	0.9	170.8	0.9	175.1	0.3	178.0	0.3	180.8	0.3	183.7
	152/174		157/178		162/184		165/188		168/192		172/196
15	167.6	1.0	172.4	0.9	176.7	0.3	179.6	0.3	182.5	0.3	185.5
	152/175		157/179		162/184		165/188		169/192		172/196
12	168.8	1.0	173.7	0.9	178.1	0.3	180.9	0.3	183.9	0.3	186.8
	153/175		157/179		163/185		166/189		169/193		173/197
9	169.7	0.9	174.3	0.9	178.7	0.3	181.6	0.3	184.6	0.3	187.5
	153/176		158/180		163/186		167/190		170/194		174/198
6	170.5	0.9	175.0	0.9	179.4	0.3	182.3	0.3	185.2	0.3	188.1
	154/176		159/181		164/187		168/191		171/195		174/199
3	171.3	0.9	175.6	0.9	180.0	0.3	182.9	0.3	185.8	0.3	188.7
	155/176		160/182		165/188		168/192		172/196		175/200
0	171.8	0.9	176.1	0.9	180.6	0.3	183.5	0.3	186.4	0.3	189.3
	155/177		161/183		166/189		169/193		173/197		176/201
-3	172.3	0.9	176.6	0.9	181.1	0.3	184.0	0.3	186.9	0.3	189.8
	156/178		161/184		167/190		170/194		174/198		177/201
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 20		VR+ 20		VR+ 21
θ2=	14.0		13.5		13.5		13.0		13.0		13.0

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **TORONTO**

A/D Elev **569ft**

FULL LENGTH RWY 06R

CLG NIL **RVR/VIS** 600ft **SLOPE** 0.18% UP
TOR 2895m (9498ft) **ED** 2895m (9498ft) **TOD(U)** 3074m (10085ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	150.9	0.9	155.2	0.8	159.1	0.3	161.7	0.3	164.3	0.3	167.0
	142/165		146/170		151/176		155/180		158/184		161/188
36	152.6	0.9	157.1	0.8	161.0	0.3	163.7	0.3	166.3	0.3	169.0
	142/166		147/171		152/177		155/181		158/184		162/188
33	154.3	0.9	158.9	0.8	162.9	0.3	165.6	0.3	168.3	0.3	171.0
	142/167		147/172		152/177		155/181		159/185		162/189
30	156.0	1.0	160.8	0.8	164.8	0.3	167.5	0.3	170.2	0.3	173.0
	143/168		147/172		152/178		156/182		159/186		162/190
27	156.8	1.1	162.5	0.8	166.6	0.3	169.3	0.3	172.1	0.3	174.9
	143/170		148/173		153/179		156/183		159/187		163/191
24	158.5	1.2	164.3	0.8	168.4	0.3	171.2	0.3	174.0	0.3	176.8
	144/171		148/174		153/180		157/184		160/188		163/192
21	160.2	1.2	166.0	0.8	170.1	0.3	172.9	0.3	175.8	0.3	178.7
	144/171		148/174		154/180		157/184		160/188		164/193
18	161.8	1.2	167.6	0.8	171.8	0.3	174.6	0.3	177.5	0.3	180.5
	144/172		149/175		154/181		157/185		161/189		164/193
15	163.3	1.2	169.1	0.9	173.4	0.3	176.3	0.3	179.2	0.3	182.1
	145/172		149/176		154/182		158/186		161/190		164/194
12	164.5	1.2	170.4	0.9	174.7	0.3	177.6	0.3	180.5	0.3	183.5
	145/173		150/176		155/182		158/186		162/191		165/195
9	165.0	1.2	171.1	0.9	175.4	0.3	178.2	0.3	181.1	0.3	184.1
	146/174		150/178		156/184		159/188		162/192		166/196
6	166.9	0.9	171.6	0.9	175.9	0.3	178.8	0.3	181.8	0.3	184.7
	146/174		151/179		156/185		160/189		163/193		167/197
3	167.8	0.9	172.2	0.9	176.5	0.3	179.4	0.3	182.3	0.3	185.2
	147/174		152/180		157/186		161/190		164/194		168/198
0	168.5	0.8	172.7	0.9	177.1	0.3	179.9	0.3	182.8	0.3	185.7
	147/175		153/181		158/187		161/191		165/195		168/199
-3	169.0	0.8	173.2	0.9	177.5	0.3	180.4	0.3	183.2	0.3	186.1
	148/176		153/182		159/188		162/192		166/196		169/200
V2=	VR+ 22		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	14.0		14.0		13.5		13.5		13.5		13.0

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.

A/D Elev **569ft**

FULL LENGTH RWY 15

CLG NIL
TOR 3368m (11050ft)

RVR/VIS 1200ft
ED 3368m (11050ft)

SLOPE 0.12% DN
TOD(U) 3439m (11282ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.0	0.8	166.0	0.8	169.8	0.2	172.2	0.2	174.6	0.2	177.0
	150/178		155/184		160/189		164/192		167/196		170/199
36	164.0	0.8	168.0	0.8	171.9	0.2	174.3	0.2	176.8	0.2	179.2
	151/179		155/185		160/190		164/193		167/197		171/200
33	165.9	0.8	170.0	0.8	173.9	0.2	176.4	0.2	178.9	0.2	181.4
	151/180		156/186		161/191		164/194		168/198		171/201
30	167.8	0.8	171.9	0.8	176.0	0.2	178.4	0.2	180.9	0.3	183.5
	151/181		156/186		161/192		165/195		168/199		171/202
27	169.7	0.8	173.8	0.8	177.9	0.2	180.4	0.3	183.0	0.3	185.6
	152/182		157/187		162/193		165/196		168/200		172/203
24	171.5	0.8	175.7	0.8	179.9	0.2	182.4	0.3	185.0	0.3	187.6
	152/182		157/188		162/194		165/197		169/201		172/204
21	173.3	0.8	177.5	0.9	181.8	0.2	184.3	0.3	186.9	0.3	189.6
	152/183		157/189		162/195		166/198		169/202		173/205
18	175.0	0.9	179.3	0.9	183.6	0.3	186.2	0.3	188.8	0.3	191.5
	152/184		158/190		163/195		166/199		170/202		173/206
15	176.5	0.9	180.9	0.9	185.3	0.3	188.0	0.3	190.6	0.3	193.3
	152/184		158/190		163/196		167/200		170/203		174/207
12	177.8	0.9	182.2	0.9	186.7	0.3	189.3	0.3	192.0	0.3	194.7
	152/185		158/191		164/197		167/200		171/204		174/207
9	178.5	0.9	182.9	0.9	187.3	0.3	189.9	0.3	192.6	0.2	195.0
	153/186		159/192		164/198		168/201		172/205		175/208
6	179.1	0.9	183.5	0.9	187.8	0.3	190.5	0.3	193.1	0.2	195.0
	154/187		159/193		165/199		169/202		173/206		176/209
3	179.7	0.9	184.1	0.8	188.3	0.3	191.0	0.3	193.7	0.1	195.0
	154/188		160/194		166/199		170/203		173/206		176/209
0	180.2	0.9	184.7	0.8	188.8	0.3	191.5	0.3	194.2	0.1	195.0
	155/189		161/195		167/200		171/204		174/207		177/210
-3	180.7	0.9	185.1	0.8	189.2	0.3	191.9	0.3	194.6	0.0	195.0
	156/189		161/195		167/201		171/204		175/208		178/210
V2=	VR+ 21		VR+ 20		VR+ 21		VR+ 21		VR+ 21		VR+ 21
θ2=	13.5		13.0		13.0		13.0		12.5		12.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **TORONTO**

A/D Elev **569ft**

FULL LENGTH RWY 24L

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.18% DN
TOR 2895m (9498ft) **ED** 2895m (9498ft) **TOD(U)** 3200m (10500ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	154.6	0.8	158.8	0.8	162.8	0.2	164.9	0.2	167.2	0.2	169.6
	140/168		145/173		150/179		153/182		157/185		160/189
36	156.3	0.9	160.7	0.8	164.7	0.2	166.9	0.2	169.3	0.2	171.7
	140/169		145/174		150/180		153/183		157/186		160/190
33	158.1	0.9	162.5	0.8	166.7	0.2	168.8	0.2	171.2	0.2	173.7
	141/170		145/175		150/181		154/184		157/187		161/191
30	159.7	0.9	164.4	0.8	168.6	0.2	170.7	0.2	173.2	0.2	175.7
	141/171		146/176		151/182		154/185		158/188		161/192
27	161.4	1.0	166.2	0.8	170.4	0.2	172.6	0.2	175.1	0.2	177.6
	141/171		146/176		151/182		155/185		158/189		162/192
24	162.9	1.0	167.9	0.9	172.2	0.2	174.4	0.2	176.9	0.3	179.5
	142/172		146/177		151/183		155/186		158/190		162/193
21	164.4	1.0	169.6	0.9	173.9	0.2	176.2	0.2	178.7	0.3	181.3
	142/173		147/178		152/184		155/187		159/190		162/194
18	165.9	1.1	171.3	0.9	175.6	0.2	177.9	0.3	180.5	0.3	183.1
	143/174		147/179		152/184		156/188		159/191		163/195
15	167.3	1.1	172.9	0.9	177.3	0.2	179.5	0.3	182.1	0.3	184.7
	143/175		148/179		153/185		156/188		160/192		163/195
12	168.6	1.1	174.2	0.8	178.3	0.3	180.9	0.3	183.5	0.3	186.1
	143/175		148/180		153/185		157/189		160/192		164/196
9	169.9	1.0	174.9	0.8	179.0	0.3	181.6	0.3	184.2	0.3	186.9
	144/176		149/181		154/187		157/190		161/194		165/197
6	171.1	0.9	175.6	0.8	179.7	0.3	182.3	0.3	184.9	0.3	187.6
	144/176		149/182		155/188		158/191		162/195		165/198
3	172.0	0.9	176.3	0.8	180.3	0.3	183.0	0.3	185.6	0.3	188.3
	145/177		150/183		155/189		159/192		163/196		166/199
0	172.6	0.9	177.0	0.8	181.0	0.3	183.6	0.3	186.2	0.3	189.0
	146/178		151/184		156/190		160/193		163/197		167/200
-3	173.2	0.9	177.5	0.8	181.5	0.3	184.1	0.3	186.8	0.3	189.5
	146/179		151/185		157/190		160/194		164/198		168/201
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 20		VR+ 21
θ2=	14.0		13.5		13.5		13.0		13.0		13.0

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **TORONTO**

A/D Elev **569ft**

FULL LENGTH RWY 24R

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.07% UP
TOR 3200m (10500ft) **ED** 3200m (10500ft) **TOD(U)** 3149m (10330ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	155.2	0.8	159.0	0.8	162.9	0.3	165.5	0.2	167.9	0.2	170.2
	149/169		154/175		159/181		162/184		165/189		169/190
36	157.1	0.8	160.9	0.8	164.9	0.3	167.6	0.2	170.0	0.2	172.3
	149/170		154/176		159/182		162/185		166/190		169/191
33	158.9	0.8	162.8	0.8	166.9	0.3	169.5	0.2	172.0	0.2	174.4
	149/171		154/177		159/183		163/186		166/191		170/192
30	160.7	0.8	164.7	0.8	168.8	0.3	171.5	0.2	174.0	0.2	176.4
	150/172		155/177		160/183		163/187		166/192		170/193
27	162.5	0.8	166.5	0.8	170.6	0.3	173.4	0.3	176.0	0.2	178.4
	150/172		155/178		160/184		163/188		167/192		170/194
24	164.3	0.8	168.3	0.8	172.5	0.3	175.3	0.3	177.9	0.2	180.4
	150/173		155/179		160/185		164/189		167/193		171/194
21	165.9	0.8	170.0	0.8	174.2	0.3	177.1	0.3	179.8	0.2	182.3
	151/174		156/180		161/186		164/190		168/194		171/195
18	167.4	0.9	171.7	0.9	176.0	0.3	178.8	0.3	181.7	0.2	184.2
	151/175		156/180		161/186		165/190		168/194		172/199
15	168.9	0.9	173.3	0.9	177.6	0.3	180.5	0.3	183.4	0.3	186.0
	152/176		157/181		162/187		165/191		168/195		172/199
12	170.2	0.9	174.6	0.9	178.9	0.3	181.8	0.3	184.8	0.2	187.3
	152/176		157/182		162/188		166/192		169/196		173/200
9	171.0	0.8	175.2	0.9	179.6	0.3	182.5	0.3	185.2	0.3	187.8
	153/177		158/183		163/189		166/193		170/197		174/198
6	171.6	0.8	175.8	0.9	180.2	0.3	183.0	0.3	185.6	0.3	188.2
	154/178		159/184		164/190		167/194		171/199		174/203
3	172.2	0.8	176.4	0.9	180.8	0.3	183.6	0.2	186.1	0.2	188.6
	154/179		159/185		165/191		168/195		172/200		175/204
0	172.7	0.9	177.0	0.9	181.3	0.3	184.0	0.2	186.5	0.2	189.0
	155/180		160/186		165/192		169/196		173/201		176/205
-3	173.2	0.8	177.4	0.9	181.8	0.2	184.3	0.2	186.7	0.3	189.3
	156/181		161/187		166/193		170/197		174/202		177/206
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	14.0		13.5		13.5		13.0		13.0		13.0

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **TORONTO**

A/D Elev **569ft**

FULL LENGTH RWY 33

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.12% UP
TOR 3368m (11050ft) **ED** 3368m (11050ft) **TOD(U)** 3453m (11328ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	159.4	0.8	163.3	0.8	167.3	0.2	169.6	0.2	171.9	0.3	175.1
	152/174		156/180		161/185		165/190		168/194		171/197
36	161.3	0.8	165.3	0.8	169.3	0.2	171.7	0.2	174.0	0.3	177.2
	152/175		157/181		162/186		165/191		169/195		172/198
33	163.2	0.8	167.2	0.8	171.3	0.2	173.8	0.2	176.1	0.3	179.3
	152/176		157/181		162/187		165/191		169/196		172/199
30	165.0	0.8	169.1	0.8	173.3	0.2	175.8	0.2	178.1	0.2	180.6
	153/177		158/182		162/188		166/192		169/197		173/201
27	166.8	0.8	171.0	0.8	175.2	0.3	177.8	0.2	180.2	0.2	182.6
	153/177		158/183		163/189		166/193		170/198		173/202
24	168.6	0.8	172.8	0.8	177.0	0.3	179.8	0.2	182.2	0.2	184.6
	153/178		158/184		163/190		167/194		170/198		174/203
21	170.3	0.8	174.5	0.9	178.8	0.3	181.7	0.2	184.1	0.2	186.6
	154/179		159/185		164/191		167/194		171/199		174/203
18	172.0	0.8	176.2	0.9	180.6	0.3	183.5	0.2	186.0	0.2	188.5
	154/179		159/185		164/191		167/195		171/200		174/204
15	173.6	0.9	177.9	0.9	182.2	0.3	185.2	0.3	187.8	0.2	190.3
	155/180		160/186		165/192		168/196		171/200		175/205
12	174.8	0.9	179.2	0.9	183.6	0.3	186.6	0.3	189.2	0.2	191.7
	155/181		160/187		165/193		168/197		172/201		176/205
9	175.5	0.9	179.9	0.9	184.4	0.3	187.1	0.2	189.6	0.3	192.2
	155/182		161/188		166/194		169/198		173/202		176/207
6	176.2	0.9	180.6	0.9	185.0	0.3	187.6	0.2	190.1	0.4	193.7
	156/183		162/189		167/195		170/199		174/204		177/206
3	176.7	0.9	181.1	0.9	185.5	0.2	188.0	0.2	190.5	0.4	194.4
	157/184		162/190		168/196		171/201		175/205		178/207
0	177.3	0.9	181.6	0.9	185.9	0.2	188.4	0.4	192.0	0.3	194.9
	157/185		163/191		168/197		172/202		175/204		179/208
-3	177.7	0.9	182.1	0.8	186.2	0.3	189.7	0.3	192.5	0.2	195.0
	158/186		164/192		169/198		173/201		176/205		179/209
V2=	VR+ 21		VR+ 20		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	13.5		13.5		13.0		13.0		13.0		12.5

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.

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BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **WASHINGTON**

A/D Elev **313ft** DULLES INTL

FULL LENGTH RWY **01L**

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.16% DN
TOR 3505m (11500ft) **ED** 3505m (11500ft) **TOD(U)** 3828m (12559ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	166.0	0.8	170.1	0.8	174.2	0.3	177.0	0.3	179.7	0.3	182.3
	152/182		157/188		163/194		166/198		170/202		173/205
36	168.0	0.8	172.1	0.8	176.3	0.3	179.1	0.3	181.8	0.3	184.5
	151/183		157/189		163/195		166/199		170/203		173/207
33	169.9	0.8	174.1	0.8	178.3	0.3	181.1	0.3	183.9	0.3	186.7
	151/184		157/190		162/196		166/200		170/204		173/208
30	171.8	0.8	176.0	0.9	180.3	0.3	183.1	0.3	186.0	0.3	188.8
	151/185		157/191		162/197		166/200		169/204		173/208
27	173.6	0.9	177.9	0.9	182.2	0.3	185.1	0.3	188.0	0.3	190.8
	151/185		156/191		162/197		166/201		169/205		173/209
24	175.4	0.9	179.7	0.9	184.1	0.3	187.0	0.3	189.9	0.3	192.8
	151/186		156/192		162/198		166/202		169/206		173/210
21	177.1	0.9	181.5	0.9	185.9	0.3	188.9	0.3	191.8	0.3	194.5
	151/187		156/193		162/199		166/203		169/207		173/210
18	178.8	0.9	183.2	0.9	187.7	0.3	190.7	0.3	193.6	0.1	195.0
	151/187		156/193		162/199		166/203		169/207		172/210
15	180.4	0.9	184.8	0.9	189.4	0.3	192.4	0.3	195.0	0.0	195.0
	151/188		156/194		162/200		166/204		169/208		172/210
12	181.7	0.9	186.2	0.9	190.8	0.3	193.7	0.1	195.0	0.0	195.0
	151/189		157/195		162/201		166/205		169/207		172/209
9	182.5	0.9	187.0	0.9	191.4	0.3	194.3	0.1	195.0	0.0	195.0
	152/190		157/196		163/202		167/205		170/208		172/210
6	183.2	0.9	187.7	0.9	192.0	0.3	194.9	0.0	195.0	0.0	195.0
	152/191		158/197		164/203		167/206		170/209		173/211
3	183.9	0.9	188.4	0.8	192.6	0.2	195.0	0.0	195.0	0.0	195.0
	153/192		159/198		164/204		168/207		170/209		173/211
0	184.5	0.9	189.0	0.9	193.3	0.2	195.0	0.0	195.0	0.0	195.0
	154/193		159/199		165/205		168/208		171/210		174/212
-3	185.1	0.9	189.6	0.9	193.9	0.1	195.0	0.0	195.0	0.0	195.0
	154/194		160/200		166/206		169/208		171/210		174/213
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
θ2=	13.5		13.0		13.0		12.5		12.5		12.5

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Page IAD/03.

NOISE ABATEMENT PROCEDURE – RUNWAY 01L

1. Maintain Runway heading and 250kt. At ARMEL 10d slowly increase N_2 to give Maximum Climb Power (over 10 secs).
2. Maintain 250kt to 10,000ft.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	72	72	72	73	73	73	74	75	76	77
185	16.5	16.5	16.5	15.5	14.5	13.5	12.5	11.5	10.5	9.5
	95.3	95.3	95.3	96.1	97.0	97.7	98.6	99.3	100.1	101.0
	69	69	69	70	70	70	71	72	73	74
180	17.5	17.5	17.5	16.5	15.5	15.0	14.0	13.0	12.0	11.0
	94.5	94.5	94.5	95.3	96.2	96.9	97.8	98.5	99.3	100.2
	67	67	67	68	68	68	69	70	71	72
175	18.5	18.5	18.5	17.5	16.5	15.5	14.5	14.0	13.0	12.0
	93.8	93.8	93.8	94.6	95.4	96.2	97.0	97.8	98.6	99.3
	65	65	65	66	66	66	67	68	69	70
170	19.5	19.5	19.5	18.5	17.5	16.5	15.0	14.5	14.0	13.0
	93.0	93.0	93.0	93.8	94.6	95.4	96.2	97.0	97.8	98.6
	63	63	63	64	64	64	65	66	67	68
165	20.0	20.0	20.0	19.5	18.0	17.5	16.5	15.5	14.5	14.0
	92.3	92.3	92.3	93.1	94.0	94.7	95.4	96.2	97.0	97.7
	61	61	61	62	62	62	63	64	65	66
160	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.6	91.6	91.6	92.5	93.2	94.0	94.8	95.5	96.3	97.0
	59	59	59	60	60	60	61	62	63	64
155	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.5	96.2
	56	56	56	57	57	57	58	59	60	61
150	23.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.5
	90.1	90.1	90.1	90.9	91.7	92.5	93.2	94.0	94.9	95.5
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	51	51	51	52	52	52	53	53	54	55
140	23.5	24.0	24.0	23.5	22.5	21.5	20.5	19.5	19.0	18.0
	89.0	89.0	89.0	89.7	90.5	91.3	92.0	92.8	93.5	94.2
	46	46	46	47	47	47	48	48	49	50
130	24.0	25.0	25.0	24.5	23.5	22.5	22.0	21.0	20.0	19.0
	87.9	87.9	87.9	88.7	89.5	90.2	90.9	91.5	92.4	93.1
	41	41	41	42	42	42	43	43	44	45
120	24.5	25.5	26.0	25.5	24.5	24.0	23.0	22.0	21.0	20.0
	87.1	87.1	87.1	87.8	88.6	89.3	90.0	90.7	91.4	92.2
	36	36	36	37	37	37	38	38	38	39
110	25.5	26.0	26.5	26.5	26.0	24.5	24.5	23.5	22.0	21.0
	86.3	86.3	86.3	87.0	87.7	88.5	89.2	89.9	90.7	91.4

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **WASHINGTON**

A/D Elev **313ft** DULLES INTL

FULL LENGTH RWY **01R**

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.16% DN

TOR 3505m (11500ft) **ED** 3505m (11500ft) **TOD(U)** 3506m (11503ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.4	0.8	166.4	0.8	170.5	0.3	173.1	0.3	175.7	0.3	178.3
	154/177		159/183		165/189		168/192		171/196		175/200
36	164.3	0.8	168.4	0.8	172.5	0.3	175.2	0.3	177.9	0.3	180.5
	153/178		159/184		165/190		168/193		172/197		175/201
33	166.2	0.8	170.3	0.8	174.5	0.3	177.2	0.3	179.9	0.3	182.7
	153/179		159/184		164/190		168/194		172/198		175/202
30	168.0	0.8	172.2	0.8	176.4	0.3	179.2	0.3	181.9	0.3	184.7
	153/179		159/185		164/191		168/195		172/199		175/203
27	169.8	0.8	174.0	0.9	178.3	0.3	181.1	0.3	183.9	0.3	186.7
	153/180		158/186		164/192		168/196		171/200		175/204
24	171.6	0.8	175.8	0.9	180.2	0.3	183.0	0.3	185.8	0.3	188.7
	153/181		158/187		164/193		168/197		171/200		175/204
21	173.2	0.9	177.6	0.9	182.0	0.3	184.8	0.3	187.7	0.3	190.6
	153/181		158/187		164/193		168/197		171/201		175/205
18	174.9	0.9	179.3	0.9	183.7	0.3	186.6	0.3	189.5	0.3	192.4
	153/182		158/188		164/194		168/198		171/202		175/206
15	176.5	0.9	180.9	0.9	185.4	0.3	188.3	0.3	191.2	0.3	194.2
	153/183		158/189		164/195		168/199		171/202		175/206
12	177.8	0.9	182.2	0.9	186.7	0.3	189.7	0.3	192.6	0.2	195.0
	153/183		159/189		164/195		168/199		172/203		175/207
9	178.5	0.9	182.9	0.9	187.4	0.3	190.4	0.3	193.3	0.2	195.0
	154/184		159/190		165/196		169/200		172/204		176/207
6	179.1	0.9	183.5	0.9	188.1	0.3	191.0	0.3	193.9	0.1	195.0
	154/185		160/191		166/197		169/201		173/205		176/208
3	179.7	0.9	184.2	0.9	188.7	0.3	191.6	0.3	194.5	0.0	195.0
	155/186		161/192		166/198		170/202		174/206		176/209
0	180.3	0.9	184.8	0.9	189.3	0.3	192.2	0.3	195.0	0.0	195.0
	156/187		161/193		167/199		171/203		175/207		177/209
-3	180.8	0.9	185.3	0.9	189.8	0.3	192.7	0.2	195.0	0.0	195.0
	156/188		162/194		168/200		172/204		175/207		178/210
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	13.5		13.5		13.0		13.0		12.5		12.5

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Page IAD/05.

NOISE ABATEMENT PROCEDURE – RUNWAY 01R

1. Turn LEFT at 100ft RA onto a heading of 357°M. At ARMEL 10d slowly increase N_2 to give Maximum Climb Power (over 10 secs).
2. Maintain 250kt to 10,000ft.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	72	72	72	73	73	73	74	75	76	77
185	16.5	16.5	16.5	15.5	14.5	13.5	12.5	11.5	10.5	9.5
	95.3	95.3	95.3	96.1	97.0	97.7	98.6	99.3	100.1	101.0
	69	69	69	70	70	70	71	72	73	74
180	17.5	17.5	17.5	16.5	15.5	15.0	14.0	13.0	12.0	11.0
	94.5	94.5	94.5	95.3	96.2	96.9	97.8	98.5	99.3	100.2
	67	67	67	68	68	68	69	70	71	72
175	18.5	18.5	18.5	17.5	16.5	15.5	14.5	14.0	13.0	12.0
	93.8	93.8	93.8	94.6	95.4	96.2	97.0	97.8	98.6	99.3
	65	65	65	66	66	66	67	68	69	70
170	19.5	19.5	19.5	18.5	17.5	16.5	15.0	14.5	14.0	13.0
	93.0	93.0	93.0	93.8	94.6	95.4	96.2	97.0	97.8	98.6
	63	63	63	64	64	64	65	66	67	68
165	20.0	20.0	20.0	19.5	18.0	17.5	16.5	15.5	14.5	14.0
	92.3	92.3	92.3	93.1	94.0	94.7	95.4	96.2	97.0	97.7
	61	61	61	62	62	62	63	64	65	66
160	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.6	91.6	91.6	92.5	93.2	94.0	94.8	95.5	96.3	97.0
	59	59	59	60	60	60	61	62	63	64
155	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.5	96.2
	56	56	56	57	57	57	58	59	60	61
150	23.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.5
	90.1	90.1	90.1	90.9	91.7	92.5	93.2	94.0	94.9	95.5
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	51	51	51	52	52	52	53	53	54	55
140	23.5	24.0	24.0	23.5	22.5	21.5	20.5	19.5	19.0	18.0
	89.0	89.0	89.0	89.7	90.5	91.3	92.0	92.8	93.5	94.2
	46	46	46	47	47	47	48	48	49	50
130	24.0	25.0	25.0	24.5	23.5	22.5	22.0	21.0	20.0	19.0
	87.9	87.9	87.9	88.7	89.5	90.2	90.9	91.5	92.4	93.1
	41	41	41	42	42	42	43	43	44	45
120	24.5	25.5	26.0	25.5	24.5	24.0	23.0	22.0	21.0	20.0
	87.1	87.1	87.1	87.8	88.6	89.3	90.0	90.7	91.4	92.2
	36	36	36	37	37	37	38	38	38	39
110	25.5	26.0	26.5	26.5	26.0	24.5	24.5	23.5	22.0	21.0
	86.3	86.3	86.3	87.0	87.7	88.5	89.2	89.9	90.7	91.4

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **WASHINGTON**

A/D Elev **313ft** DULLES INTL

FULL LENGTH RWY **12**

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.23% DN

TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD(U)** 3155m (10351ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	156.3	0.8	160.4	0.8	164.4	0.3	167.1	0.3	169.9	0.3	172.7
	145/169		150/174		155/180		158/184		161/188		164/192
36	158.0	0.9	162.3	0.8	166.4	0.3	169.2	0.3	171.9	0.3	174.8
	145/170		150/175		155/181		158/185		161/189		165/193
33	159.8	0.9	164.2	0.8	168.3	0.3	171.1	0.3	173.9	0.3	176.8
	145/171		150/176		155/182		159/186		162/190		165/194
30	161.5	0.9	166.1	0.8	170.3	0.3	173.1	0.3	175.9	0.3	178.8
	146/172		151/177		156/183		159/186		162/190		166/195
27	163.2	0.9	167.9	0.8	172.1	0.3	175.0	0.3	177.8	0.3	180.8
	146/172		151/177		156/183		159/187		163/191		166/195
24	164.8	1.0	169.6	0.9	173.9	0.3	176.8	0.3	179.7	0.3	182.7
	147/173		151/178		156/184		160/188		163/192		166/196
21	166.3	1.0	171.3	0.9	175.7	0.3	178.6	0.3	181.5	0.3	184.5
	147/174		152/179		157/185		160/189		163/193		167/197
18	167.8	1.0	173.0	0.9	177.4	0.3	180.3	0.3	183.3	0.3	186.4
	147/175		152/180		157/185		160/189		164/193		167/198
15	169.2	1.1	174.6	0.9	179.0	0.3	182.0	0.3	185.0	0.3	188.1
	148/176		152/180		158/186		161/190		164/194		168/198
12	170.5	1.1	175.9	0.9	180.3	0.3	183.3	0.3	186.4	0.3	189.5
	148/176		153/181		158/187		161/191		165/195		168/199
9	171.7	1.0	176.6	0.9	181.1	0.3	184.1	0.3	187.1	0.3	190.2
	149/177		154/182		159/188		162/192		166/196		169/200
6	172.8	0.9	177.3	0.9	181.8	0.3	184.8	0.3	187.8	0.3	190.9
	149/177		154/183		160/189		163/193		166/197		170/201
3	173.6	0.9	178.0	0.9	182.4	0.3	185.4	0.3	188.5	0.3	191.6
	150/178		155/184		160/190		164/194		167/198		171/202
0	174.2	0.9	178.6	0.9	183.1	0.3	186.1	0.3	189.1	0.3	192.2
	151/179		156/185		161/191		164/195		168/199		171/203
-3	174.7	0.9	179.1	0.9	183.6	0.3	186.6	0.3	189.7	0.3	192.8
	151/180		157/186		162/192		165/196		169/200		172/204
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	14.0		13.5		13.5		13.0		13.0		13.0

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Page IAD/07.

NOISE ABATEMENT PROCEDURE – RUNWAY 12

1. When cleared by ATC turn LEFT using 15° bank angle.
2. Continue turn on radar vectors.
3. Maintain 250kt to 10,000ft.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	74	74	74	74	75	75	75	76	77	
185	16.5	16.5	16.5	15.5	14.5	13.5	12.5	11.5	10.5	
	95.3	95.3	95.3	96.1	97.0	97.7	98.6	99.3	100.1	
	71	71	71	71	72	72	72	73	74	75
180	17.5	17.5	17.5	16.5	15.5	15.0	14.0	13.0	12.0	11.0
	94.5	94.5	94.5	95.3	96.2	96.9	97.8	98.5	99.3	100.2
	69	69	69	69	70	70	70	71	72	73
175	18.5	18.5	18.5	17.5	16.5	15.5	14.5	14.0	13.0	12.0
	93.8	93.8	93.8	94.6	95.4	96.2	97.0	97.8	98.6	99.3
	67	67	67	67	68	68	68	69	70	71
170	19.5	19.5	19.5	18.5	17.5	16.5	15.0	14.5	14.0	13.0
	93.0	93.0	93.0	93.8	94.6	95.4	96.2	97.0	97.8	98.6
	65	65	65	65	66	66	66	67	68	69
165	20.0	20.0	20.0	19.5	18.0	17.5	16.5	15.5	14.5	14.0
	92.3	92.3	92.3	93.1	94.0	94.7	95.4	96.2	97.0	97.7
	63	63	63	63	64	64	64	65	66	67
160	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.6	91.6	91.6	92.5	93.2	94.0	94.8	95.5	96.3	97.0
	60	60	60	60	61	61	61	62	63	64
155	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.5	96.2
	58	58	58	58	58	58	58	59	60	61
150	23.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.5
	90.1	90.1	90.1	90.9	91.7	92.5	93.2	94.0	94.9	95.5
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	53	53	53	53	53	53	53	54	55	56
140	23.5	24.0	24.0	23.5	22.5	21.5	20.5	19.5	19.0	18.0
	89.0	89.0	89.0	89.7	90.5	91.3	92.0	92.8	93.5	94.2
	48	48	48	48	48	48	48	49	50	51
130	24.0	25.0	25.0	24.5	23.5	22.5	22.0	21.0	20.0	19.0
	87.9	87.9	87.9	88.7	89.5	90.2	90.9	91.5	92.4	93.1
	42	42	42	42	42	42	42	43	44	45
120	24.5	25.5	26.0	25.5	24.5	24.0	23.0	22.0	21.0	20.0
	87.1	87.1	87.1	87.8	88.6	89.3	90.0	90.7	91.4	92.2
	37	37	37	37	37	37	37	38	39	40
110	25.5	26.0	26.5	26.5	26.0	24.5	24.5	23.5	22.0	21.0
	86.3	86.3	86.3	87.0	87.7	88.5	89.2	89.9	90.7	91.4

THROTTLE TIME **SECONDS**
THROTTLE LEVER ANGLE **DEGREES**
N_2 **%**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **WASHINGTON**

A/D Elev **313ft** DULLES INTL

FULL LENGTH RWY **19L**

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.16% UP

TOR 3505m (11500ft) **ED** 3505m (11500ft) **TOD(U)** 3491m (11453ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	161.0	0.8	165.0	0.8	169.0	0.3	171.7	0.3	174.3	0.3	177.0
	156/175		161/181		165/186		169/190		172/194		175/198
36	162.9	0.8	167.0	0.8	171.1	0.3	173.7	0.3	176.4	0.3	179.1
	155/176		161/182		166/187		169/191		172/195		176/199
33	164.8	0.8	168.9	0.8	173.1	0.3	175.8	0.3	178.5	0.3	181.2
	155/177		161/182		166/188		170/192		173/196		176/200
30	166.6	0.8	170.7	0.9	175.0	0.3	177.8	0.3	180.5	0.3	183.3
	155/177		161/183		166/189		170/193		173/197		177/201
27	168.4	0.8	172.6	0.9	176.9	0.3	179.7	0.3	182.5	0.3	185.3
	155/178		161/184		166/190		170/194		174/198		177/202
24	170.1	0.9	174.4	0.9	178.7	0.3	181.6	0.3	184.4	0.3	187.3
	155/179		160/185		166/191		170/195		173/198		177/202
21	171.8	0.9	176.1	0.9	180.5	0.3	183.4	0.3	186.2	0.3	189.1
	155/179		160/185		166/191		170/195		173/199		177/203
18	173.4	0.9	177.8	0.9	182.2	0.3	185.2	0.3	188.0	0.3	191.0
	155/180		160/186		166/192		170/196		173/200		177/204
15	175.0	0.9	179.4	0.9	183.9	0.3	186.8	0.3	189.7	0.3	192.7
	155/181		161/187		166/193		170/197		174/200		177/204
12	176.3	0.9	180.7	0.9	185.2	0.3	188.2	0.3	191.1	0.3	194.1
	155/181		161/187		166/193		170/197		174/201		178/205
9	176.9	0.9	181.4	0.9	185.9	0.3	188.9	0.3	191.8	0.3	194.8
	156/182		161/188		167/194		171/198		175/202		178/206
6	177.6	0.9	182.0	0.9	186.5	0.3	189.5	0.3	192.4	0.3	195.0
	156/183		162/189		168/195		172/199		175/203		179/207
3	178.2	0.9	182.6	0.9	187.2	0.3	190.1	0.3	193.1	0.2	195.0
	157/184		163/190		168/196		172/200		176/204		179/207
0	178.8	0.9	183.2	0.9	187.7	0.3	190.7	0.3	193.6	0.1	195.0
	158/185		163/191		169/197		173/201		177/205		180/208
-3	179.3	0.9	183.7	0.9	188.3	0.3	191.2	0.3	194.2	0.1	195.0
	158/186		164/192		170/198		174/202		178/206		181/209
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
θ2=	13.5		13.5		13.0		13.0		13.0		12.5

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Page IAD/09.

NOISE ABATEMENT PROCEDURE – RUNWAY 19L

A. PRECLEARED TURN GIVEN BY ATC

1. Turn RIGHT at 100ft RA or ARMEL 115R whichever is LATER using a 15° bank angle applied expeditiously.
2. Maintain 250kt and continue turn until assigned heading is achieved.
3. At ARMEL 240R slowly increase N_2 to give Maximum Climb Power (over 10 secs).
4. Maintain 250kt to 10,000ft.

B. PRECLEARED TURN NOT GIVEN BY ATC

1. Maintain Runway heading and 250kt.
2. When cleared by ATC turn RIGHT (preferably between ARMEL 3d and 4d) using a 15° bank angle applied expeditiously.
3. Continue as for precleared turn.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	−10	−5	0	5	10	15	20	25	30	35
	74	74	74	74	75	75	75	76	77	78
185	16.5	16.5	16.5	15.5	14.5	13.5	12.5	11.5	10.5	9.5
	95.3	95.3	95.3	96.1	97.0	97.7	98.6	99.3	100.1	101.0
	71	71	71	71	72	72	72	73	74	75
180	17.5	17.5	17.5	16.5	15.5	15.0	14.0	13.0	12.0	11.0
	94.5	94.5	94.5	95.3	96.2	96.9	97.8	98.5	99.3	100.2
	69	69	69	69	70	70	70	71	72	73
175	18.5	18.5	18.5	17.5	16.5	15.5	14.5	14.0	13.0	12.0
	93.8	93.8	93.8	94.6	95.4	96.2	97.0	97.8	98.6	99.3
	67	67	67	67	68	68	68	69	70	71
170	19.5	19.5	19.5	18.5	17.5	16.5	15.0	14.5	14.0	13.0
	93.0	93.0	93.0	93.8	94.6	95.4	96.2	97.0	97.8	98.6
	65	65	65	65	66	66	66	67	68	69
165	20.0	20.0	20.0	19.5	18.0	17.5	16.5	15.5	14.5	14.0
	92.3	92.3	92.3	93.1	94.0	94.7	95.4	96.2	97.0	97.7
	63	63	63	63	64	64	64	65	66	67
160	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.6	91.6	91.6	92.5	93.2	94.0	94.8	95.5	96.3	97.0
	60	60	60	60	61	61	61	62	63	64
155	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.5	96.2
	58	58	58	58	58	58	58	59	60	61
150	23.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.5
	90.1	90.1	90.1	90.9	91.7	92.5	93.2	94.0	94.9	95.5
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	53	53	53	53	53	53	53	54	55	56
140	23.5	24.0	24.0	23.5	22.5	21.5	20.5	19.5	19.0	18.0
	89.0	89.0	89.0	89.7	90.5	91.3	92.0	92.8	93.5	94.2
	48	48	48	48	48	48	48	49	50	51
130	24.0	25.0	25.0	24.5	23.5	22.5	22.0	21.0	20.0	19.0
	87.9	87.9	87.9	88.7	89.5	90.2	90.9	91.5	92.4	93.1
	42	42	42	42	42	42	42	43	44	45
120	24.5	25.5	26.0	25.5	24.5	24.0	23.0	22.0	21.0	20.0
	87.1	87.1	87.1	87.8	88.6	89.3	90.0	90.7	91.4	92.2
	37	37	37	37	37	37	37	38	39	40
110	25.5	26.0	26.5	26.5	26.0	24.5	24.5	23.5	22.0	21.0
	86.3	86.3	86.3	87.0	87.7	88.5	89.2	89.9	90.7	91.4

THROTTLE TIME SECONDS
THROTTLE LEVER ANGLE DEGREES
N_2 %

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **WASHINGTON**

A/D Elev **313ft** DULLES INTL

FULL LENGTH RWY **19R**

CLG NIL **RVR/VIS** 1600ft* **SLOPE** 0.16% UP

TOR 3505m (11500ft) **ED** 3505m (11500ft) **TOD(U)** 3560m (11680ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.5	0.8	166.5	0.8	170.5	0.2	172.9	0.2	175.4	0.2	177.9
	155/177		160/183		165/189		168/192		172/195		175/199
36	164.5	0.8	168.5	0.8	172.6	0.2	175.0	0.2	177.5	0.3	180.1
	155/178		160/184		165/190		169/193		172/197		175/200
33	166.3	0.8	170.5	0.8	174.6	0.2	177.1	0.2	179.6	0.3	182.2
	154/179		160/185		166/191		169/194		172/198		176/201
30	168.2	0.8	172.4	0.8	176.6	0.2	179.1	0.3	181.7	0.3	184.3
	154/180		160/186		165/191		169/195		173/199		176/202
27	170.0	0.8	174.2	0.9	178.5	0.3	181.1	0.3	183.7	0.3	186.4
	154/180		160/186		165/192		169/196		173/199		177/203
24	171.8	0.8	176.0	0.9	180.4	0.3	183.0	0.3	185.7	0.3	188.4
	154/181		160/187		165/193		169/197		173/200		177/204
21	173.5	0.9	177.8	0.9	182.2	0.3	184.9	0.3	187.6	0.3	190.3
	154/182		160/188		165/194		169/197		173/201		177/205
18	175.1	0.9	179.5	0.9	184.0	0.3	186.7	0.3	189.4	0.3	192.2
	154/182		160/188		165/194		169/198		173/202		177/205
15	176.7	0.9	181.2	0.9	185.6	0.3	188.5	0.3	191.2	0.3	194.0
	154/183		160/189		165/195		169/199		173/202		177/206
12	178.0	0.9	182.5	0.9	187.0	0.3	189.8	0.3	192.6	0.2	195.0
	154/184		160/190		165/196		169/199		173/203		177/207
9	178.7	0.9	183.1	0.9	187.6	0.3	190.4	0.3	193.1	0.2	195.0
	155/185		161/191		166/197		170/200		174/204		177/207
6	179.2	0.9	183.7	0.9	188.2	0.3	190.9	0.3	193.7	0.1	195.0
	156/186		161/192		167/198		171/201		175/205		178/208
3	179.8	0.9	184.3	0.9	188.7	0.3	191.4	0.3	194.2	0.1	195.0
	156/186		162/192		168/198		172/202		176/206		178/208
0	180.4	0.9	184.8	0.9	189.2	0.3	191.9	0.3	194.6	0.0	195.0
	157/187		163/193		168/199		172/203		176/206		179/209
-3	180.8	0.9	185.3	0.9	189.6	0.3	192.3	0.3	195.0	0.0	195.0
	158/188		163/194		169/200		173/203		177/207		180/209
V2=	VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	13.5		13.0		13.0		13.0		12.5		12.5

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Page IAD/11.

NOISE ABATEMENT PROCEDURE – RUNWAY 19R

A. PRECLEARED TURN GIVEN BY ATC

1. Turn RIGHT at 100ft RA using a 15° bank angle applied expeditiously.
2. Maintain 250kt and continue turn until assigned heading is achieved.
3. At ARMEL 240R slowly increase N_2 to give Maximum Climb Power (over 10 secs).
4. Maintain 250kt to 10,000ft.

B. PRECLEARED TURN NOT GIVEN BY ATC

1. Maintain Runway heading and 250kt.
2. When cleared by ATC turn RIGHT using a 15° bank angle applied expeditiously.
3. Continue as for precleared turn.

T.O.W.	AMBIENT TEMPERATURE – DEGREES C									
1000kg	–10	–5	0	5	10	15	20	25	30	35
	74	74	74	74	75	75	75	76	77	78
185	16.5	16.5	16.5	15.5	14.5	13.5	12.5	11.5	10.5	9.5
	95.3	95.3	95.3	96.1	97.0	97.7	98.6	99.3	100.1	101.0
	71	71	71	71	72	72	72	73	74	75
180	17.5	17.5	17.5	16.5	15.5	15.0	14.0	13.0	12.0	11.0
	94.5	94.5	94.5	95.3	96.2	96.9	97.8	98.5	99.3	100.2
	69	69	69	69	70	70	70	71	72	73
175	18.5	18.5	18.5	17.5	16.5	15.5	14.5	14.0	13.0	12.0
	93.8	93.8	93.8	94.6	95.4	96.2	97.0	97.8	98.6	99.3
	67	67	67	67	68	68	68	69	70	71
170	19.5	19.5	19.5	18.5	17.5	16.5	15.0	14.5	14.0	13.0
	93.0	93.0	93.0	93.8	94.6	95.4	96.2	97.0	97.8	98.6
	65	65	65	65	66	66	66	67	68	69
165	20.0	20.0	20.0	19.5	18.0	17.5	16.5	15.5	14.5	14.0
	92.3	92.3	92.3	93.1	94.0	94.7	95.4	96.2	97.0	97.7
	63	63	63	63	64	64	64	65	66	67
160	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.6	91.6	91.6	92.5	93.2	94.0	94.8	95.5	96.3	97.0
	60	60	60	60	61	61	61	62	63	64
155	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.5	96.2
	58	58	58	58	58	58	58	59	60	61
150	23.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.5
	90.1	90.1	90.1	90.9	91.7	92.5	93.2	94.0	94.9	95.5
	NOTE CHANGE OF WEIGHT SCALE BELOW									
	53	53	53	53	53	53	53	54	55	56
140	23.5	24.0	24.0	23.5	22.5	21.5	20.5	19.5	19.0	18.0
	89.0	89.0	89.0	89.7	90.5	91.3	92.0	92.8	93.5	94.2
	48	48	48	48	48	48	48	49	50	51
130	24.0	25.0	25.0	24.5	23.5	22.5	22.0	21.0	20.0	19.0
	87.9	87.9	87.9	88.7	89.5	90.2	90.9	91.5	92.4	93.1
	42	42	42	42	42	42	42	43	44	45
120	24.5	25.5	26.0	25.5	24.5	24.0	23.0	22.0	21.0	20.0
	87.1	87.1	87.1	87.8	88.6	89.3	90.0	90.7	91.4	92.2
	37	37	37	37	37	37	37	38	39	40
110	25.5	26.0	26.5	26.5	26.0	24.5	24.5	23.5	22.0	21.0
	86.3	86.3	86.3	87.0	87.7	88.5	89.2	89.9	90.7	91.4

THROTTLE TIME SECONDS
THROTTLE LEVER ANGLE DEGREES
N_2 %

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **WASHINGTON**

A/D Elev **313ft** DULLES INTL

FULL LENGTH RWY **30**

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.23% UP

TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD(U)** 3048m (10000ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.3	1.2	157.1	0.8	161.1	0.3	163.8	0.3	166.5	0.3	169.4
	147/166		151/169		156/175		160/179		163/183		166/187
36	153.0	1.2	158.9	0.8	163.0	0.3	165.8	0.3	168.5	0.3	171.4
	147/166		152/170		157/176		160/180		163/184		166/188
33	154.7	1.2	160.6	0.9	164.9	0.3	167.7	0.3	170.5	0.3	173.4
	148/167		152/171		157/177		160/181		164/185		167/189
30	156.3	1.2	162.3	0.9	166.7	0.3	169.6	0.3	172.4	0.3	175.4
	148/168		152/172		157/178		161/182		164/186		167/190
27	157.9	1.2	163.9	0.9	168.5	0.3	171.4	0.3	174.3	0.3	177.3
	149/169		153/173		158/178		161/182		164/186		168/191
24	159.4	1.2	165.5	1.0	170.3	0.3	173.2	0.3	176.1	0.3	179.1
	149/170		153/174		158/179		161/183		165/187		168/191
21	160.8	1.2	167.0	1.0	172.0	0.3	174.9	0.3	177.9	0.3	180.9
	150/171		154/175		159/180		162/184		165/188		169/192
18	162.2	1.3	168.5	1.0	173.7	0.3	176.6	0.3	179.6	0.3	182.7
	150/171		154/175		159/180		162/184		166/188		169/193
15	163.6	1.3	169.9	1.1	175.3	0.3	178.2	0.3	181.3	0.3	184.4
	150/172		155/176		159/181		163/185		166/189		169/193
12	164.9	1.3	171.2	1.1	176.6	0.3	179.6	0.3	182.6	0.3	185.7
	151/173		155/177		160/182		163/186		167/190		170/194
9	166.1	1.3	172.5	1.0	177.3	0.3	180.3	0.3	183.4	0.3	186.5
	151/173		156/177		161/183		164/187		167/191		171/195
6	167.2	1.3	173.6	0.9	178.0	0.3	181.0	0.3	184.1	0.3	187.2
	152/174		156/178		161/184		165/188		168/192		172/196
3	168.3	1.2	174.2	0.9	178.7	0.3	181.7	0.3	184.8	0.3	187.9
	152/174		157/179		162/185		166/189		169/193		172/197
0	169.4	1.1	174.9	0.9	179.3	0.3	182.3	0.3	185.4	0.3	188.6
	153/175		158/180		163/186		166/190		170/194		173/198
-3	170.4	1.0	175.4	0.9	179.9	0.3	182.9	0.3	186.0	0.3	189.1
	153/175		158/181		164/187		167/191		171/195		174/199
V2=	VR+ 22		VR+ 21		VR+ 21		VR+ 21		VR+ 21		VR+ 21
Θ2=	14.5		14.0		13.5		13.5		13.0		13.0

1. **V_1 WET SPEED**: V_1 WET is V_1 DRY minus 15kt.
2. **Maximum Take-Off Weight**: Restricted to **182250kg**.
3. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.
4. **Noise Abatement Procedures**: See Page IAD/13.

NOISE ABATEMENT PROCEDURE – RUNWAY 30

A. PRECLEARED TURN GIVEN BY ATC

1. Turn RIGHT at 100ft RA using a 15° bank angle applied expeditiously.
2. Maintain 250kt and continue turn until assigned heading is achieved.
3. At ARMEL 5d slowly increase N_2 to give Maximum Climb Power (over 10 secs).
4. Maintain 250kt to 10,000ft.

B. PRECLEARED TURN NOT GIVEN BY ATC

1. Maintain runway heading and 250kt.
2. When cleared by ATC turn right using a 15° bank angle applied expeditiously.
3. At ARMEL 5d slowly increase N_2 to give Maximum Climb Power (over 10 secs).
4. Maintain 250kt to 10,000ft.

T.O.W. 1000kg	AMBIENT TEMPERATURE – DEGREES C									
	−10	−5	0	5	10	15	20	25	30	35
	74	74	74	74	75	75	75	76	77	
185	16.5	16.5	16.5	15.5	14.5	13.5	12.5	11.5	10.5	
	95.3	95.3	95.3	96.1	97.0	97.7	98.6	99.3	100.1	
	71	71	71	71	72	72	72	73	74	
180	17.5	17.5	17.5	16.5	15.5	15.0	14.0	13.0	12.0	
	94.5	94.5	94.5	95.3	96.2	96.9	97.8	98.5	99.3	
	69	69	69	69	70	70	70	71	72	73
175	18.5	18.5	18.5	17.5	16.5	15.5	14.5	14.0	13.0	12.0
	93.8	93.8	93.8	94.6	95.4	96.2	97.0	97.8	98.6	99.3
	67	67	67	67	68	68	68	69	70	71
170	19.5	19.5	19.5	18.5	17.5	16.5	15.0	14.5	14.0	13.0
	93.0	93.0	93.0	93.8	94.6	95.4	96.2	97.0	97.8	98.6
	65	65	65	65	66	66	66	67	68	69
165	20.0	20.0	20.0	19.5	18.0	17.5	16.5	15.5	14.5	14.0
	92.3	92.3	92.3	93.1	94.0	94.7	95.4	96.2	97.0	97.7
	63	63	63	63	64	64	64	65	66	67
160	21.0	21.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5	14.5
	91.6	91.6	91.6	92.5	93.2	94.0	94.8	95.5	96.3	97.0
	60	60	60	60	61	61	61	62	63	64
155	22.0	22.0	22.0	21.0	20.0	19.0	18.0	17.5	16.5	15.5
	90.8	90.8	90.8	91.6	92.4	93.2	94.0	94.7	95.5	96.2
	58	58	58	58	58	58	58	59	60	61
150	23.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.5
	90.1	90.1	90.1	90.9	91.7	92.5	93.2	94.0	94.9	95.5
NOTE CHANGE OF WEIGHT SCALE BELOW										
	53	53	53	53	53	53	53	54	55	56
140	23.5	24.0	24.0	23.5	22.5	21.5	20.5	19.5	19.0	18.0
	89.0	89.0	89.0	89.7	90.5	91.3	92.0	92.8	93.5	94.2
	48	48	48	48	48	48	48	49	50	51
130	24.0	25.0	25.0	24.5	23.5	22.5	22.0	21.0	20.0	19.0
	87.9	87.9	87.9	88.7	89.5	90.2	90.9	91.5	92.4	93.1
	42	42	42	42	42	42	42	43	44	45
120	24.5	25.5	26.0	25.5	24.5	24.0	23.0	22.0	21.0	20.0
	87.1	87.1	87.1	87.8	88.6	89.3	90.0	90.7	91.4	92.2
	37	37	37	37	37	37	37	38	39	40
110	25.5	26.0	26.5	26.5	26.0	24.5	24.5	23.5	22.0	21.0
	86.3	86.3	86.3	87.0	87.7	88.5	89.2	89.9	90.7	91.4

THROTTLE TIME SECONDS
THROTTLE LEVER ANGLE DEGREES
N_2 %

INDEX OF SECTION 1.5.

This section contains Landing Data for the following airfields

AIRFIELD	CODE
BARBADOS	BGI
LONDON HEATHROW	LHR
NEW YORK J.F.K.	JFK
TORONTO	YYZ
WASHINGTON DULLES	IAD

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BARBADOS**

A/D Elev **169ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**09**	**27**
STATUS	(E)	
WAT Limit: V_{REF} / V_{REF} + 7kt	49°/49°	49°/49°
Landing Distance Available	3353m/11000ft	3353m/11000ft
Slope	.08 DN	.08 UP
Notes	Notes 1,2	Note 2
Manual ..... V_{REF} + 7kt	10kt	10kt
Manual ..... V_{REF}	10kt	10kt
Autoland ..... V_{REF}	10kt	
Manual Slippery ..... V_{REF}	9kt	9kt
Autoland Slippery ..... V_{REF}	3kt	
Fuel Saving Ldg Weight ..... V_{REF}	10kt	10kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	169ft	160ft
GS/Ht at THR	3°/49ft	

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled						
ILS C1	370	(201)	800m			
ILSH No Flt/Dir	470	(301)	1000m			
LLZ	570	(401)	1200m			
VOR DME	580	(411)	1200m			
VOR	630	(461)	1300m			
NDB	630	(461)	1300m			
Circling / Visual (radius 5.3nm)	1000	(831)	800m	1000	(831)	800m

RWY DIRECTION	075°T	255°T
APPROACH WAY PT (15nm)	N 13°00.2 W 059°45.4	N 13°08.5 W 059°13.8
TOUCHDOWN WAY PT	N 13°04.1 W 059°30.5	N 13°04.6 W 059°28.7

1. **ILS 09**: DME or Radar required.

2. **Circling and Visual**: SOUTH of Rwy 09/27 only.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LONDON**

A/D Elev **80ft** HEATHROW

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	05	09L
STATUS		(L)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2357m/7733ft	3597m/11800ft
Slope	NIL	.02 DN
Notes		Note 1,2
Manual ..... VREF + 7kt	0kt	10kt
Manual ..... VREF	4kt	10kt
Autoland ..... VREF		10kt
Manual Slippery ..... VREF	N/A	10kt
Autoland Slippery ..... VREF		7kt
Fuel Saving Ldg Weight ..... VREF	126.0	10kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	76ft	80ft
GS/Ht at THR		3°/51ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland					15R	200m
ILS C2 ..... Autoland					100R	400m
ILS C1R ..... Coupled					210R	550m
ILS C1				280	(200)	550m
ILSH No Flt/Dir				380	(300)	650m
LLZ				510	(430)	900m
SRA (term 2nm)	780	(704)	1500m	780	(700)	1400m
Circling / Visual (radius 5.3nm)	900	(820)	800m	900	(820)	800m

RWY DIRECTION	042°T	090°T
APPROACH WAY PT (15nm)	N 51°16.5 W 000°43.0	N 51°28.6 W 000°53.0
TOUCHDOWN WAY PT	N 51°27.7 W 000°27.0	N 51°28.6 W 000°28.9

1. **ILS C3A Rwy 09L:** Minimum Mid-point – RVR 150m, Stop-end RVR – Advisory only.

2. **ILSC1 Rwy 09L:** If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **LONDON**

A/D Elev **80ft** HEATHROW

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**09R**	**23**
STATUS	(L)	(A)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3353m/11000ft	2357m/7733ft
Slope	.02 UP	NIL
Notes	Note 1,2	
Manual ..... VREF + 7kt	10kt	0kt
Manual ..... VREF	10kt	4kt
Autoland ..... VREF	10kt	
Manual Slippery ..... VREF	9kt	N/A
Autoland Slippery ..... VREF	3kt	
Fuel Saving Ldg Weight ..... VREF	10kt	126.0
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	75ft	76ft
GS/Ht at THR	3°/52ft	3°/50ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland		15R	200m			
ILS C2 ..... Autoland		100R	400m			
ILS C1R ..... Coupled		210R	550m			
ILS C1	280	(205)	550m	280	(204)	700m
ILSH No Flt/Dir	380	(305)	650m	380	(304)	800m
LLZ	530	(455)	900m	710	(634)	1500m
SRA (term 2nm)	780	(705)	1400m	780	(704)	1500m
Circling / Visual (radius 5.3nm)	900	(820)	800m	900	(820)	800m

RWY DIRECTION	090°T	222°T
APPROACH WAY PT (15nm)	N 51°27.9 W 000°52.7	N 51°39.5 W 000°09.8
TOUCHDOWN WAY PT	N 51°27.9 W 000°28.6	N 51°28.4 W 000°26.0

1. **ILS C3A Rwy 09R**: Minimum Mid-point - RVR 150m, stop-end RVR - advisory only.

2. **ILSC1 Rwy 09R**: If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LONDON**

A/D Elev **80ft** HEATHROW

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	27L	27R
STATUS	(L)	(L)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3658m/12000ft	3902m/12800ft
Slope	.02 DN	.02 UP
Notes	Note 1,2	Note 1,2
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	10kt
Manual Slippery ..... VREF	10kt	10kt
Autoland Slippery ..... VREF	10kt	10kt
Fuel Saving Ldg Weight ..... VREF	10kt	10kt
Red'n per extra kt TW		
Inc per kt HW		
TDZ Elev	77ft	77ft
GS/Ht at THR	3°/56ft	3°/60ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland		15R	200m		15R	200m
ILS C2 ..... Autoland		100R	400m		100R	400m
ILS C1R ..... Coupled		200R	550m		200R	550m
ILS C1	280	(203)	550m	280	(203)	550m
ILSH No Flt/Dir	380	(303)	650m	380	(303)	650m
LLZ	540	(463)	1000m	510	(433)	900m
SRA (term 2nm)	780	(703)	1400m	780	(703)	1400m
Circling / Visual (radius 5.3nm)	900	(820)	800m	900	(820)	800m

RWY DIRECTION	270°T	270°T
APPROACH WAY PT (15nm)	N 51°27.8 W 000°02.2	N 51°28.6 W 000°02.2
TOUCHDOWN WAY PT	N 51°27.8 W 000°26.3	N 51°28.6 W 000°26.3

1. **ILS C3A Rwy 27L/R**: Minimum Mid-point – RVR 150m, Stop-end RVR – Advisory only.

2. **ILSC1 Rwy 27L/R**: If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **NEW YORK**

A/D Elev **13ft** J.F.K.

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**04L**	**04R**
STATUS	(A)	(L)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3460m/11352ft	2560m/8399ft
Slope	NIL	NIL
Notes		
Manual ..... VREF + 7kt	10kt	6kt
Manual ..... VREF	10kt	9kt
Autoland ..... VREF		2kt
Manual Slippery ..... VREF	10kt	99.1
Autoland Slippery ..... VREF		N/A
Fuel Saving Ldg Weight ..... VREF	10kt	2kt
Red'n per extra kt TW		3500kg
Inc per kt HW		600kg
TDZ Elev	12ft	12ft
GS/Ht at THR	2.86°/60ft	3°/53ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland					15R	700ft
ILS C2 ..... Autoland					115R	1200ft
ILS C1R ..... Coupled		270R	4000ft		212R	2000ft
ILS C1	270	(258)	4000ft	220	(208)	2000ft
ILSH No Flt/Dir	370	(358)	4000ft	320	(308)	2200ft
LLZ	450	(438)	6000ft	530	(518)	5000ft
VOR	630	(618)	2sm	630	(618)	2sm
VOR-D(BCP)	1000	(987)	3sm	1000	(987)	3sm
Circling / Visual (radius 5.3nm)	1000	(987)	3sm	1000	(987)	3sm

RWY DIRECTION	031°T	031°T
APPROACH WAY PT (15nm)	N 40°24.6 W 073°57.1	N 40°24.8 W 073°56.2
TOUCHDOWN WAY PT	N 40.37.5 W 073°47.0	N 40°37.7 W 073°46.1

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **NEW YORK**

A/D Elev **13ft** J.F.K.

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**13L**	**13R**
STATUS	(L)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2746m/9009ft	3648m/11969ft
Slope	NIL	.01 UP
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	7kt	
Manual Slippery ..... VREF	106.7	10kt
Autoland Slippery ..... VREF	90.8	
Fuel Saving Ldg Weight ..... VREF	7kt	10kt
Red'n per extra kt TW	3500kg	
Inc per kt HW	600kg	
TDZ Elev	13ft	13ft
GS/Ht at THR	3°/53ft	

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland		160R	1600ft			
ILS C1R ..... Coupled		200R	1800ft			
ILS C1	220	(207)	1800ft			
ILSH No Flt/Dir	320	(307)	2200ft			
LLZ	650	(637)	6000ft			
VOR	850	(837)	2.5sm	850	(837)	2.5sm
VOR-D(BCP)	1000	(987)	3sm	1000	(987)	3sm
Circling / Visual (radius 5.3nm)	1000	(987)	3sm	1000	(987)	3sm

RWY DIRECTION	121°T	121°T
APPROACH WAY PT (15nm)	N 40°47.0 W 074°04.0	N 40°46.3 W 074°05.4
TOUCHDOWN WAY PT	N 40°39.3 W 073°47.0	N 40°38.6 W 073°48.4

1. **VOR Rwys 13L/R:** Lead in lights must be operational for these procedures.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **NEW YORK**

A/D Elev **13ft** J.F.K.

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	22L	22R
STATUS	(L)	(B)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2560m/8399ft	2540m/8333ft
Slope	NIL	NIL
Notes		Note 1
Manual ..... VREF + 7kt	6kt	5kt
Manual ..... VREF	9kt	9kt
Autoland ..... VREF	2kt	
Manual Slippery ..... VREF	99.1	98.3
Autoland Slippery ..... VREF	N/A	
Fuel Saving Ldg Weight ..... VREF	2kt	1kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	12ft	12ft
GS/Ht at THR	3°/50ft	3°/42ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled		200R	2200ft			
ILS C1	220	(208)	2200ft	270	(257)	0.75sm
ILSH No Flt/Dir	320	(308)	2800ft	370	(357)	0.75sm
LLZ	490	(478)	5000ft	510	(497)	1.5sm
VOR DME	490	(478)	5000ft			
VOR-D(BCP)	1000	(987)	3sm	1000	(987)	3sm
Circling / Visual (radius 5.3nm)	1000	(987)	3sm	1000	(987)	3sm

RWY DIRECTION	211°T	211°T
APPROACH WAY PT (15nm)	N 40°51.4 W 073°35.3	N 40°51.3 W 073°36.2
TOUCHDOWN WAY PT	N 40°38.5 W 073°45.5	N 40°38.4 W 073°46.4

1. **LLZ 22R**: LLZ offset and intersects Rwy C/L 860m from threshold.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **NEW YORK**

A/D Elev **13ft** J.F.K.

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**31L**	**31R**
STATUS	(L)	(E)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3429m/11250ft	2733m/8967ft
Slope	NIL	NIL
Notes		Notes 1
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	3kt
Manual Slippery ..... VREF	10kt	106.2
Autoland Slippery ..... VREF	3kt	N/A
Fuel Saving Ldg Weight ..... VREF	10kt	6kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	13ft	13ft
GS/Ht at THR	3°/58ft	3°/42ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled		250R	4000ft		200R	2400ft
ILS C1	270	(257)	4000ft	220	(207)	2400ft
ILSH No Flt/Dir	370	(357)	4000ft	320	(307)	2800ft
LLZ	510	(497)	1.5sm	450	(437)	4000ft
VOR DME	750	(737)	2.25sm			
VOR-D(BCP)	1000	(987)	3sm	1000	(987)	3sm
Circling / Visual (radius 5.3nm)	1000	(987)	3sm	1000	(987)	3sm

RWY DIRECTION	301°T	301°T
APPROACH WAY PT (15nm)	N 40°30.3 W 073°30.3	N 40°31.1 W 073°29.1
TOUCHDOWN WAY PT	N 40°38.0 W 073°47.2	N 40°38.8 W 073°46.0

1. **LLZ 31R:** If MM inop RVR becomes 5000ft.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **TORONTO**

A/D Elev **569ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**06L**	**06R**
STATUS	(A)	(E)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3200m/10500ft	2896m/9500ft
Slope	.07 DN	.18 UP
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		10kt
Manual Slippery ..... VREF	5kt	0kt
Autoland Slippery ..... VREF		104.0
Fuel Saving Ldg Weight ..... VREF	10kt	10kt
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev	564ft	534ft
GS/Ht at THR	3°/52ft	3°/50ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled						
ILS C1	770	(206)	2600ft	740	(206)	2600ft
ILSH No Flt/Dir	870	(306)	2600ft	840	(306)	2600ft
LLZ	1170	(606)	1.25sm	1110	(576)	1.25sm
NDB	1270	(706)	1.75sm	1330	(796)	2.25sm
Circling / Visual (radius 5.3nm)	1400	(831)	2sm	1400	(831)	2.25sm
RWY DIRECTION		047°T			047°T	
APPROACH WAY PT (15nm)		N 43°30.3 W 079°55.0			N 43°29.4 W 079°52.2	
TOUCHDOWN WAY PT		N 43°40.5 W 079°39.9			N 43°39.6 W 079°37.4	

1. **LLZ or NDB 06L & 06R**: DME required.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **TORONTO**

A/D Elev **569ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**15**	**24L**
STATUS	(A)	(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3368m/11050ft	2896m/9500ft
Slope	.12 DN	.18 DN
Notes	Note 1	
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	8kt	109.4
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF	10kt	9kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	557ft	546ft
GS/Ht at THR	2.5°/73ft	3°/60ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled						
ILS C1	760	(203)	2600ft	750	(204)	0.75sm
ILSH No Flt/Dir	860	(303)	2600ft	850	(304)	0.75sm
LLZ	1030	(473)	5000ft	1010	(464)	1sm
NDB	1070	(513)	5000ft	1150	(604)	1.5sm
Circling / Visual (radius 5.3nm)	1400	(831)	2.25sm	1400	(831)	2.25sm
RWY DIRECTION		137°T			227°T	
APPROACH WAY PT (15nm)		N 43°52.6 W 079°52.8			N 43°50.9 W 079°20.7	
TOUCHDOWN WAY PT		N 43°41.6 W 079°38.6			N 43°40.7 W 079°35.9	

1. **LLZ or NDB 15**: DME required.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **TORONTO**

A/D Elev **569ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**24R**	**33**
STATUS	(A)	(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3200m/10499ft	3368m/11050ft
Slope	.07 UP	.12 UP
Notes		
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	5kt	9kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF	10kt	10kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	558ft	565ft
GS/Ht at THR	3°/53ft	3°/56ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled						
ILS C1	760	(202)	0.75sm	770	(205)	0.75sm
ILSH No Flt/Dir	860	(302)	0.75sm	870	(305)	0.75sm
LLZ	1050	(492)	1sm	970	(405)	1.25sm
NDB	1130	(572)	1.5sm	1030	(465)	1.25sm
Circling / Visual (radius 5.3nm)	1400	(831)	2.25sm	1400	(831)	2.25sm

RWY DIRECTION	227°T	317°T
APPROACH WAY PT (15nm)	N 43°51.8 W 079°22.9	N 43°29.3 W 079°22.8
TOUCHDOWN WAY PT	N 43°41.6 W 079°38.1	N 43°40.3 W 079°36.9

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **WASHINGTON**

A/D Elev **313ft** DULLES

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**01L**	**01R**
STATUS	(E)	(L)
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3505m/11500ft	3505m/11500ft
Slope	.16 DN	.16 DN
Notes	Note 1	Notes 2,3
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	10kt
Manual Slippery ..... VREF	10kt	10kt
Autoland Slippery ..... VREF	4kt	4kt
Fuel Saving Ldg Weight ..... VREF	10kt	10kt
Red'n per extra kt TW		3500kg
Inc per kt HW		
TDZ Elev	287ft	313ft
GS/Ht at THR	3°/54ft	3°/55ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland					15R	700ft
ILS C2 ..... Autoland					100R	1200ft
ILS C1R ..... Coupled					200R	2000ft
ILS C1	490	(203)	0.5sm	520	(207)	2000ft
ILSH No Flt/Dir	590	(303)	0.5sm	620	(307)	2200ft
LLZ	640	(353)	0.75sm	730	(417)	4000ft
NDB				810	(497)	6000ft
Circling / Visual (radius 5.3nm)	1150	(837)	2sm	1150	(837)	2sm

RWY DIRECTION	001°T	001°T
APPROACH WAY PT (15nm)	N 38°41.6 W 077°26.3	N 38°40.6 W 077°27.6
TOUCHDOWN WAY PT	N 38°56.6 W 077°26.3	N 38°55.6 W 077°27.6

1. **ILS C3A 01R**: TDZ and Mid-point minimum RVR is 700ft.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **WASHINGTON**

A/D Elev **313ft** DULLES

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**12**	**19L**
STATUS	(E)	(L)
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3048m/10000ft	3505m/11500ft
Slope	.23 DN	.16 UP
Notes	Note 1, 2	Note 2
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	10kt
Manual Slippery ..... VREF	2kt	10kt
Autoland Slippery ..... VREF	107.0	5kt
Fuel Saving Ldg Weight ..... VREF	10kt	10kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	311ft	303ft
GS/Ht at THR	3°/49ft	3°/55ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland						
ILS C2 ..... Autoland						
ILS C1R ..... Coupled					200R	2400ft
ILS C1	520	(209)	0.5sm	510	(207)	2400ft
ILSH No Flt/Dir	620	(309)	0.5sm	610	(307)	2800ft
LLZ	830	(519)	1sm	730	(427)	4000ft
Simultaneous Converging ILS	920	(609)	1.75sm	910	(607)	1.75sm
VOR DME	750	(439)	1sm			
Circling / Visual (radius 5.3nm)	1150	(837)	2sm	1150	(837)	2sm

RWY DIRECTION	111°T	181°T
APPROACH WAY PT (15nm)	N 39°01.9 W 077°47.1	N 39°12.1 W 077°26.2
TOUCHDOWN WAY PT	N 38°56.5 W 077°29.1	N 38°57.1 W 077°26.2

1. **VOR DME 12**: If ALS inop Vis becomes 1.25sm.
2. **Sim Con ILS 12 / 19L**: If ALS inop increase Vis by 0.5sm.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **WASHINGTON DULLES**

A/D Elev **313ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**19R**	**30**
STATUS	(L)	
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3505m/11500ft	3048m/10000ft
Slope	.16 UP	.23 UP
Notes	Note 1, 2	
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	
Manual Slippery ..... VREF	10kt	3kt
Autoland Slippery ..... VREF	4kt	
Fuel Saving Ldg Weight ..... VREF	10kt	10kt
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	272ft	289ft
GS/Ht at THR	3°/59ft	

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A ..... Autoland			-			
ILS C2 ..... Autoland						
ILS C1R ..... Coupled		200R	2200ft			
ILS C1	480	(208)	2200ft			
ILSH No Flt/Dir	580	(308)	2800ft			
LLZ	690	(418)	4000ft			
Simultaneous Converging ILS	880	(608)	1.75sm			
Circling / Visual (radius 5.3nm)	1150	(837)	2sm	1150	(837)	2sm

RWY DIRECTION	181°T	291°T
APPROACH WAY PT (15nm)	N 39°13.0 W 077°27.6	N 38°50.7 W 077°09.7
TOUCHDOWN WAY PT	N 38°58.0 W 077°27.6	N 38°56.1 W 077°27.7

1. **LLZ 19R**: If MM inop RVR becomes 5000ft.
2. **Sim Con ILS 19R**: If ALS inop increase Vis by 0.5sm.

SECTION 1.6. - INDEX OF MAIN ALTERNATES

Take-Off data for the following airfields is contained in this section -.

AIRFIELD	CODE	AIRFIELD	CODE
ANTIGUA	ANU	MONTREAL MIRABEL	YMX
BALTIMORE	BWI	NEWARK	EWR
BIRMINGHAM	BHX	NEWBURGH (STEWART)	SWF
FORT DE FRANCE	FDF	PHILADELPHIA	PHL
GLASGOW	GLA	POINT A PITRE	PTP
LONDON GATWICK	LGW	PORT OF SPAIN	POS
LONDON STANSTED	STN	ST. LUCIA	UVF
MANCHESTER	MAN	WINDSOR LOCKS	BDL

INTENTIONALLY

LEFT

BLANK

A/D Elev **62ft**

FULL LENGTH RWY 07

CLG NIL **RVR/VIS** 0.25nm **SLOPE** 0.38%DN
TOR 2743m (8999ft) **ED** 2743m (8999ft) **TOD** 2770m (9088ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.7 141/161	1.1	151.2 145/165	1.1	156.7 150/169	0.3	159.9 153/172	0.3	162.6 156/176	0.3	165.5 159/180
36	147.4 141/162	1.1	152.9 146/166	1.1	158.5 150/170	0.3	161.8 153/173	0.3	164.6 156/177	0.3	167.5 160/181
33	149.0 141/163	1.1	154.6 146/167	1.1	160.3 150/171	0.3	163.7 153/174	0.3	166.5 157/178	0.3	169.4 160/182
30	150.5 142/164	1.1	156.2 146/168	1.2	162.0 151/172	0.3	165.5 154/175	0.3	168.4 157/179	0.3	171.3 160/183
27	152.0 142/165	1.2	157.8 147/169	1.2	163.6 151/173	0.4	167.3 154/175	0.3	170.2 157/179	0.3	173.2 161/183
24	153.5 143/166	1.2	159.3 147/170	1.2	165.2 151/173	0.4	169.1 154/176	0.3	172.0 158/180	0.3	175.0 161/184
21	154.9 143/166	1.2	160.8 147/170	1.2	166.8 152/174	0.4	170.7 155/177	0.3	173.7 158/181	0.3	176.7 162/185
18	156.3 143/167	1.2	162.2 148/171	1.2	168.3 152/175	0.4	172.3 155/178	0.3	175.4 159/181	0.3	178.4 162/186
15	157.6 144/168	1.2	163.6 148/172	1.2	169.7 153/176	0.4	173.7 156/178	0.3	177.0 159/182	0.3	180.1 162/186
12	158.8 144/168	1.2	164.8 149/172	1.2	171.0 153/176	0.4	175.0 156/179	0.3	178.3 159/183	0.3	181.4 163/187
9	159.9 145/169	1.2	165.9 149/173	1.2	172.1 154/177	0.4	175.9 157/180	0.3	179.0 160/184	0.3	182.1 164/188
6	160.9 145/170	1.2	166.9 150/174	1.2	173.1 154/177	0.3	176.6 157/181	0.3	179.6 161/185	0.3	182.8 164/189
3	161.9 146/170	1.2	167.9 150/174	1.2	174.1 155/178	0.3	177.2 158/182	0.3	180.3 162/186	0.3	183.4 165/190
0	162.8 146/170	1.2	168.8 151/174	1.2	174.8 155/179	0.3	177.8 159/183	0.3	180.9 162/187	0.3	184.0 166/191
-3	163.6 147/171	1.2	169.7 151/175	1.1	175.3 156/179	0.3	178.3 160/183	0.3	181.4 163/187	0.3	184.5 167/192
V2= θ2=	VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

ANTIGUA

A/D Elev **62ft**

FULL LENGTH RWY 25

CLG NIL **RVR/VIS** 0.25nm **SLOPE** 0.38%UP

TOR 2743m (8999ft) **ED** 2743m (8999ft) **TOD** 3048m (10000ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	148.9 140/164	0.8	152.9 145/166	0.8	156.9 150/171	0.3	159.5 153/175	0.3	162.2 157/178	0.3	164.9 160/183
36	150.6 140/165	0.8	154.8 145/167	0.8	158.8 150/172	0.3	161.5 154/175	0.3	164.1 157/179	0.3	166.9 160/184
33	152.4 140/166	0.8	156.6 145/168	0.8	160.7 150/173	0.3	163.3 154/176	0.3	166.0 157/181	0.3	168.9 161/184
30	154.1 141/167	0.9	158.4 146/169	0.8	162.5 151/174	0.3	165.2 154/177	0.3	167.9 158/181	0.3	170.8 161/185
27	155.8 141/167	0.9	160.1 146/170	0.8	164.3 151/174	0.3	167.0 155/178	0.3	169.8 158/182	0.3	172.7 161/186
24	157.4 141/168	0.9	161.8 146/171	0.9	166.1 151/175	0.3	168.8 155/179	0.3	171.6 158/183	0.3	174.5 162/186
21	159.0 142/169	0.9	163.4 147/172	0.9	167.8 152/176	0.3	170.5 155/180	0.3	173.3 159/183	0.3	176.3 162/187
18	160.5 142/170	0.9	165.0 147/173	0.9	169.4 152/177	0.3	172.2 156/180	0.3	175.1 159/184	0.3	178.0 163/188
15	162.0 142/171	0.9	166.5 147/174	0.9	171.0 153/177	0.3	173.8 156/181	0.3	176.7 160/184	0.3	179.7 163/188
12	163.2 143/171	0.9	167.8 148/174	0.9	172.3 153/178	0.3	175.1 157/182	0.3	178.0 160/185	0.3	181.0 163/189
9	163.8 144/172	0.9	168.4 149/175	0.9	172.8 154/179	0.3	175.7 157/183	0.3	178.6 161/186	0.3	181.6 164/190
6	164.4 144/172	0.9	168.9 149/175	0.9	173.3 155/180	0.3	176.2 158/183	0.3	179.1 162/187	0.3	182.1 165/191
3	165.0 145/172	0.9	169.5 150/175	0.9	173.9 155/180	0.3	176.7 159/184	0.3	179.6 162/188	0.3	182.6 166/192
0	165.6 146/172	0.9	170.0 151/175	0.9	174.3 156/181	0.3	177.2 160/185	0.3	180.1 163/189	0.3	183.1 167/192
-3	166.0 146/172	0.9	170.4 152/176	0.9	174.8 157/182	0.3	177.6 160/186	0.3	180.5 164/190	0.3	183.5 168/193
V2= θ2=	VR+ 23 14.5		VR+ 23 14.0		VR+ 22 14.0		VR+ 21 14.0		VR+ 22 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **146ft**

FULL LENGTH RWY 10

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.12%DN
TOR 3201m (10502ft) **ED** 3201m (10502ft) **TOD** 3201m (10502ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	158.0 149/170	0.8	161.9 154/175	0.8	166.0 159/181	0.3	168.7 162/185	0.3	171.5 166/189	0.3	174.4 169/193
36	159.8 150/171	0.8	163.9 154/176	0.8	168.0 159/182	0.3	170.8 163/186	0.3	173.6 166/190	0.3	176.5 169/194
33	161.5 150/172	0.9	165.8 155/177	0.8	169.9 160/183	0.3	172.7 163/187	0.3	175.6 166/191	0.3	178.5 170/195
30	163.2 150/173	0.9	167.6 155/178	0.8	171.8 160/184	0.3	174.7 163/188	0.3	177.6 167/192	0.3	180.5 170/196
27	164.8 151/173	0.9	169.4 156/179	0.9	173.7 161/185	0.3	176.6 164/189	0.3	179.5 167/193	0.3	182.5 170/197
24	166.4 151/174	1.0	171.2 156/179	0.9	175.5 161/185	0.3	178.4 164/189	0.3	181.4 168/193	0.3	184.4 171/198
21	167.9 152/175	1.0	172.9 156/180	0.9	177.3 161/186	0.3	180.2 165/190	0.3	183.2 168/194	0.3	186.3 171/198
18	169.4 152/176	1.0	174.6 157/181	0.9	179.0 162/187	0.3	182.0 165/191	0.3	185.0 168/195	0.3	188.1 172/199
15	170.8 152/176	1.1	176.2 157/181	0.9	180.6 162/187	0.3	183.6 166/191	0.3	186.7 169/195	0.3	189.8 172/200
12	172.1 153/177	1.1	177.5 158/182	0.9	182.0 163/188	0.3	185.0 166/192	0.3	188.1 169/196	0.3	191.2 173/200
9	173.4 153/178	1.0	178.2 158/183	0.9	182.7 163/189	0.3	185.7 167/193	0.3	188.8 170/197	0.3	192.0 174/201
6	174.5 154/178	0.9	178.9 159/184	0.9	183.4 164/190	0.3	186.4 168/194	0.3	189.5 171/198	0.3	192.7 174/203
3	175.2 155/179	0.9	179.6 160/185	0.9	184.1 165/191	0.3	187.1 168/195	0.3	190.2 172/199	0.3	193.4 175/204
0	175.8 155/180	0.9	180.2 160/186	0.9	184.7 166/192	0.3	187.7 169/196	0.3	190.8 173/200	0.3	194.0 176/205
-3	176.4 156/181	0.9	180.8 161/187	0.9	185.2 166/193	0.3	188.3 170/197	0.3	191.4 173/201	0.3	194.6 177/205
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BALTIMORE

A/D Elev **146ft**

FULL LENGTH RWY 15R

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.10%DN

TOR 2902m (9521ft) **ED** 2902m (9521ft) **TOD** 3207m (10522ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	156.5 141/169	0.8	160.3 146/175	0.8	164.2 151/181	0.2	166.5 154/184	0.2	169.0 158/187	0.3	171.6 161/191
36	158.4 141/170	0.8	162.2 146/176	0.8	166.2 151/182	0.2	168.5 155/185	0.3	171.1 158/188	0.3	173.7 162/192
33	160.2 142/171	0.8	164.1 147/177	0.8	168.1 152/183	0.2	170.5 155/186	0.3	173.1 159/189	0.3	175.7 162/193
30	162.0 142/172	0.8	166.0 147/178	0.8	170.1 152/184	0.2	172.5 155/187	0.3	175.1 159/190	0.3	177.7 162/193
27	163.6 142/173	0.8	167.8 147/178	0.8	171.9 152/184	0.2	174.4 156/187	0.3	177.0 159/191	0.3	179.7 163/194
24	165.2 143/173	0.9	169.6 148/179	0.8	173.8 153/185	0.2	176.3 156/188	0.3	178.9 160/191	0.3	181.6 163/195
21	166.7 143/174	0.9	171.3 148/180	0.9	175.6 153/186	0.2	178.1 157/189	0.3	180.8 160/192	0.3	183.5 164/196
18	168.1 144/175	1.0	173.0 148/180	0.9	177.3 153/186	0.2	179.8 157/189	0.3	182.6 160/193	0.3	185.3 164/196
15	169.5 144/176	1.0	174.7 149/181	0.9	179.0 154/187	0.2	181.5 157/190	0.3	184.3 161/193	0.3	187.1 164/197
12	170.8 144/176	1.0	176.0 149/182	0.9	180.3 154/188	0.3	182.9 158/191	0.3	185.6 161/194	0.3	188.5 165/197
9	172.1 145/177	0.9	176.5 150/183	0.9	180.9 155/189	0.2	183.4 159/192	0.3	186.2 162/195	0.3	189.1 166/199
6	172.9 145/178	0.8	177.1 151/184	0.9	181.4 156/190	0.3	184.0 159/193	0.3	186.7 163/196	0.3	189.6 167/200
3	173.4 146/179	0.8	177.6 151/185	0.9	181.9 157/191	0.3	184.5 160/194	0.3	187.3 164/198	0.3	190.1 167/201
0	173.9 147/180	0.8	178.1 152/186	0.9	182.4 157/192	0.3	185.0 161/195	0.3	187.8 165/199	0.3	190.6 168/202
-3	174.3 148/181	0.9	178.6 153/187	0.9	182.9 158/193	0.2	185.4 162/196	0.3	188.2 165/200	0.3	191.0 169/203
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

A/D Elev **146ft**

FULL LENGTH RWY 28

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.12%UP
TOR 3201m (10502ft) **ED** 3201m (10502ft) **TOD** 3506m (11503ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	154.6 151/168	0.8	158.6 156/171	0.8	162.6 161/176	0.3	165.2 164/180	0.3	167.9 167/184	0.3	170.6 171/188
36	156.5 151/169	0.8	160.5 156/172	0.8	164.5 161/177	0.3	167.2 164/181	0.3	169.9 168/185	0.3	172.7 171/189
33	158.3 151/170	0.8	162.4 156/172	0.8	166.5 161/178	0.3	169.2 165/182	0.3	171.9 168/186	0.3	174.8 171/190
30	160.1 152/171	0.8	164.2 157/173	0.8	168.4 162/179	0.3	171.1 165/183	0.3	173.9 169/187	0.3	176.8 172/191
27	161.9 152/172	0.8	166.0 157/174	0.8	170.2 162/180	0.3	173.0 166/184	0.3	175.8 169/188	0.3	178.7 172/192
24	163.6 152/172	0.8	167.8 157/175	0.8	172.0 163/181	0.3	174.8 166/184	0.3	177.7 169/188	0.3	180.6 173/192
21	165.2 153/173	0.9	169.5 158/176	0.9	173.8 163/181	0.3	176.6 166/185	0.3	179.5 170/189	0.3	182.5 173/193
18	166.8 153/174	0.9	171.1 158/177	0.9	175.5 163/182	0.3	178.3 167/186	0.3	181.3 170/190	0.3	184.3 173/194
15	168.3 154/175	0.9	172.7 159/178	0.9	177.1 164/183	0.3	180.0 167/186	0.3	182.9 171/190	0.3	186.0 174/194
12	169.6 154/176	0.9	174.0 159/178	0.9	178.4 164/183	0.3	181.3 168/187	0.3	184.3 171/191	0.3	187.3 175/195
9	170.2 155/176	0.9	174.6 160/179	0.9	179.0 165/184	0.3	181.9 169/188	0.3	184.9 172/192	0.3	188.0 175/196
6	170.8 156/176	0.9	175.2 161/179	0.9	179.6 166/185	0.3	182.5 169/189	0.3	185.5 173/193	0.3	188.5 176/197
3	171.4 156/176	0.9	175.7 162/180	0.9	180.1 167/186	0.3	183.0 170/190	0.3	186.0 174/194	0.3	189.0 177/198
0	171.9 157/176	0.9	176.2 162/181	0.9	180.6 168/187	0.3	183.6 171/191	0.3	186.5 175/195	0.3	189.4 178/198
-3	172.3 158/177	0.9	176.6 163/182	0.9	181.1 168/187	0.3	184.0 172/191	0.3	187.0 175/195	0.3	189.8 179/199
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

A/D Elev **146ft**

FULL LENGTH RWY 33L

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.10%UP
TOR 2902m (9521ft) **ED** 2902m (9521ft) **TOD** 3001m (9846ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	150.2 144/165	0.7	153.9 149/171	0.8	157.7 154/177	0.3	160.3 157/181	0.2	162.7 161/184	0.2	165.0 164/188
36	152.1 144/166	0.7	155.8 149/172	0.8	159.7 154/178	0.3	162.3 158/182	0.2	164.7 161/185	0.2	167.0 165/189
33	153.8 144/167	0.8	157.6 150/172	0.8	161.5 155/178	0.3	164.2 158/182	0.2	166.6 162/186	0.2	169.0 165/190
30	155.5 145/168	0.8	159.4 150/173	0.8	163.4 155/179	0.3	166.1 158/183	0.2	168.6 162/187	0.2	171.0 165/191
27	157.1 145/168	0.8	161.2 150/174	0.8	165.2 155/180	0.3	167.9 159/184	0.3	170.5 162/188	0.2	172.9 166/192
24	158.6 146/169	0.9	162.9 151/175	0.8	167.0 156/181	0.3	169.7 159/185	0.3	172.4 163/189	0.2	174.8 166/193
21	160.0 146/170	0.9	164.6 151/175	0.8	168.7 156/181	0.3	171.4 159/185	0.3	174.2 163/190	0.2	176.7 166/193
18	161.4 146/171	1.0	166.2 151/176	0.8	170.4 156/182	0.3	173.2 160/186	0.3	176.0 163/190	0.2	178.5 167/194
15	162.8 147/171	1.0	167.8 152/176	0.8	172.0 157/182	0.3	174.8 160/187	0.3	177.7 164/191	0.2	180.2 167/195
12	164.0 147/172	1.0	169.0 152/177	0.9	173.3 157/183	0.3	176.1 161/187	0.3	179.0 164/192	0.3	181.6 168/196
9	165.2 148/173	0.9	169.6 153/178	0.8	173.8 158/184	0.3	176.6 161/189	0.3	179.4 165/193	0.2	181.9 169/196
6	166.0 148/173	0.8	170.0 154/179	0.9	174.3 159/186	0.3	177.1 162/190	0.3	179.7 166/194	0.3	182.3 170/197
3	166.4 149/174	0.8	170.5 154/180	0.9	174.8 160/187	0.3	177.5 163/191	0.2	180.0 167/194	0.3	182.6 171/197
0	166.9 150/175	0.8	171.0 155/181	0.8	175.2 160/188	0.3	177.9 164/191	0.2	180.3 168/195	0.3	183.0 171/197
-3	167.3 151/176	0.8	171.4 156/182	0.8	175.6 161/189	0.2	178.1 165/192	0.2	180.6 169/195	0.3	183.2 172/198
V2= θ2=	VR+ 23 14.5		VR+ 23 14.0		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

A/D Elev **325ft**

FULL LENGTH RWY 15

CLG NIL **RVR/VIS** 150m **SLOPE** 0.25%UP
TOR 2575m (8448ft) **ED** 2575m (8448ft) **TOD** 2675m (8776ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	139.5 137/157	1.1	144.8 142/161	1.0	149.6 146/164	0.3	152.3 150/166	0.3	154.9 153/170	0.3	157.5 157/174
36	141.1 138/158	1.1	146.4 142/162	1.0	151.4 147/165	0.3	154.1 150/167	0.3	156.8 154/171	0.3	159.4 157/175
33	142.6 138/159	1.1	148.1 142/163	1.0	153.2 147/166	0.3	155.9 150/168	0.3	158.6 154/171	0.3	161.3 157/175
30	144.1 138/160	1.1	149.6 143/164	1.1	154.9 147/167	0.3	157.7 151/169	0.3	160.4 154/172	0.3	163.1 158/176
27	145.6 139/161	1.1	151.2 143/164	1.1	156.6 148/168	0.3	159.4 151/170	0.3	162.2 155/173	0.3	165.0 158/177
24	147.0 139/161	1.1	152.6 144/165	1.1	158.2 148/169	0.3	161.1 152/171	0.3	163.9 155/174	0.3	166.7 158/178
21	148.4 140/162	1.1	154.1 144/166	1.1	159.8 148/170	0.3	162.7 152/172	0.3	165.6 155/174	0.3	168.4 159/178
18	149.7 140/163	1.2	155.5 144/167	1.2	161.3 149/171	0.3	164.3 152/173	0.3	167.2 156/175	0.3	170.1 159/179
15	150.9 140/163	1.2	156.8 145/167	1.2	162.6 149/171	0.3	165.8 153/173	0.3	168.8 156/175	0.3	171.7 160/179
12	152.1 141/164	1.2	158.0 145/168	1.2	163.9 150/172	0.3	167.0 153/174	0.3	170.1 157/176	0.3	173.0 160/180
9	153.1 141/165	1.2	159.0 146/169	1.1	164.7 150/172	0.3	167.7 154/174	0.3	170.6 157/177	0.3	173.5 161/181
6	154.1 142/165	1.2	160.0 146/169	1.1	165.3 151/173	0.3	168.3 155/175	0.3	171.1 158/178	0.3	174.1 162/182
3	155.1 142/166	1.2	160.9 147/170	1.0	165.9 152/173	0.3	168.8 155/175	0.3	171.6 159/179	0.3	174.6 162/183
0	155.9 143/166	1.2	161.7 147/170	0.9	166.4 153/173	0.3	169.3 156/176	0.3	172.1 160/180	0.3	175.0 163/184
-3	156.7 143/166	1.1	162.3 148/170	0.9	166.9 153/173	0.3	169.7 157/177	0.3	172.5 161/181	0.3	175.4 164/185
V2= θ2=	VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BIRMINGHAM

A/D Elev **325ft**

FULL LENGTH RWY 33

CLG NIL **RVR/VIS** 150m **SLOPE** 0.25%DN

TOR 2600m (8530ft) **ED** 2600m (8530ft) **TOD** 2750m (9022ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	141.7 137/159	1.1	147.0 141/163	1.0	152.0 146/166	0.3	154.9 149/168	0.3	157.6 152/171	0.3	160.3 156/175
36	143.3 137/160	1.1	148.7 142/163	1.0	153.8 146/167	0.3	156.7 149/169	0.3	159.5 153/172	0.3	162.3 156/176
33	144.9 138/161	1.1	150.3 142/164	1.1	155.6 147/168	0.3	158.6 150/170	0.3	161.4 153/173	0.3	164.2 157/176
30	146.4 138/161	1.1	151.9 142/165	1.1	157.3 147/169	0.3	160.3 150/171	0.3	163.2 154/173	0.3	166.0 157/177
27	147.9 138/162	1.1	153.5 143/166	1.1	159.0 147/170	0.3	162.1 151/172	0.3	165.0 154/174	0.3	167.9 157/178
24	149.3 139/163	1.1	155.0 143/167	1.1	160.6 148/171	0.3	163.8 151/173	0.3	166.8 154/175	0.3	169.7 158/179
21	150.7 139/164	1.2	156.5 144/168	1.1	162.2 148/171	0.3	165.4 151/174	0.3	168.5 155/175	0.3	171.4 158/179
18	152.1 139/164	1.2	157.9 144/168	1.2	163.7 148/172	0.3	167.0 152/174	0.3	170.1 155/176	0.3	173.1 158/180
15	153.3 140/165	1.2	159.2 144/169	1.2	165.1 149/173	0.3	168.5 152/175	0.3	171.7 155/177	0.3	174.7 159/180
12	154.5 140/166	1.2	160.4 145/170	1.2	166.3 149/174	0.3	169.8 153/176	0.3	173.0 156/178	0.3	176.0 159/181
9	155.6 141/166	1.2	161.5 145/170	1.1	167.2 150/174	0.3	170.5 153/176	0.3	173.6 157/178	0.3	176.6 160/182
6	156.6 141/167	1.2	162.4 146/171	1.1	168.0 151/174	0.3	171.2 154/176	0.3	174.2 157/180	0.3	177.2 161/183
3	157.5 142/167	1.2	163.4 146/171	1.1	168.7 151/175	0.3	171.8 155/177	0.3	174.7 158/181	0.3	177.7 162/185
0	158.4 142/168	1.2	164.2 147/172	1.0	169.3 152/175	0.3	172.3 155/178	0.3	175.2 159/182	0.3	178.2 162/185
-3	159.2 143/168	1.1	164.9 148/172	1.0	169.9 153/175	0.3	172.7 156/179	0.3	175.7 160/182	0.3	178.7 163/186
V2= θ2=	VR+ 25 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

FORT DE FRANCE
LA LAMENTIN

A/D Elev **16ft**

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 400m **SLOPE** 0.05%UP
TOR 3000m (9843ft) **ED** 3300m (10827ft) **TOD** 3300m (10827ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	129.9 150/150	1.4	136.9 157/157	0.7	140.5 162/162	0.2	143.0 166/166	0.3	145.6 170/170	0.2	147.7 174/174
36	131.9 151/151	1.4	138.7 158/158	0.8	142.5 164/164	0.2	145.0 168/168	0.3	147.6 172/172	0.2	149.7 175/175
33	133.9 152/152	1.3	140.6 159/159	0.8	144.4 165/165	0.2	146.9 169/169	0.3	149.5 173/173	0.2	151.6 176/176
30	135.8 154/154	1.3	142.3 160/160	0.8	146.3 166/166	0.2	148.8 170/170	0.3	151.4 174/174	0.2	153.6 177/177
27	137.7 155/155	1.3	144.2 161/161	0.8	148.1 167/167	0.3	150.7 171/171	0.3	153.4 175/175	0.2	155.5 178/178
24	139.6 156/156	1.3	146.1 162/162	0.8	150.0 168/168	0.3	152.6 172/172	0.3	155.3 176/176	0.2	157.4 179/179
21	141.4 157/157	1.3	147.9 163/163	0.8	151.8 169/169	0.3	154.4 173/173	0.3	157.1 178/178	0.2	159.3 181/181
18	143.2 158/158	1.3	149.6 165/165	0.8	153.6 170/170	0.3	156.2 174/174	0.3	159.0 179/179	0.2	161.2 182/182
15	144.9 159/159	1.3	151.3 166/166	0.8	155.3 171/171	0.3	158.0 176/176	0.3	160.8 180/180	0.2	163.0 183/183
12	146.6 160/160	1.2	152.5 166/166	0.8	156.6 172/172	0.3	159.3 176/176	0.3	162.1 181/181	0.2	164.3 184/184
9	148.8 161/161	0.8	153.0 167/167	0.8	157.1 173/173	0.3	159.8 177/177	0.3	162.4 181/181	0.2	164.6 184/184
6	149.4 162/162	0.8	153.5 168/168	0.8	157.5 174/174	0.3	160.2 178/178	0.2	162.6 181/181	0.2	164.9 185/185
3	150.1 163/163	0.8	154.0 169/169	0.8	158.0 175/175	0.3	160.8 179/179	0.2	163.0 182/182	0.2	165.0 185/185
0	150.7 164/164	0.8	154.5 170/170	0.8	158.6 176/176	0.2	161.1 179/179	0.2	163.3 183/183	0.2	165.3 185/185
-3	151.1 165/165	0.8	154.9 170/170	0.8	158.8 176/176	0.3	161.4 180/180	0.2	163.5 183/183	0.2	165.7 186/186
V2= θ2=	VR+ 28 16.0		VR+ 27 15.5		VR+ 27 15.0		VR+ 26 15.0		VR+ 26 15.0		VR+ 25 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

FORT DE FRANCE
LA LAMENTIN

A/D Elev **16ft**

FULL LENGTH RWY 27

CLG NIL **RVR/VIS** 400m **SLOPE** 0.05%DN

TOR 3300m (10827ft) **ED** 3300m (10827ft) **TOD** 3530m (11581ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	163.3 150/177	0.8	167.3 155/182	0.8	171.4 160/188	0.3	174.2 163/192	0.3	176.9 167/196	0.3	179.8 170/200
36	165.2 151/178	0.8	169.3 155/183	0.8	173.4 160/189	0.3	176.3 164/193	0.3	179.1 167/197	0.3	181.9 170/201
33	167.1 151/178	0.8	171.3 156/184	0.8	175.5 161/190	0.3	178.3 164/194	0.3	181.2 167/198	0.3	184.1 171/202
30	169.0 151/179	0.8	173.2 156/185	0.8	177.4 161/191	0.3	180.3 164/195	0.3	183.2 168/199	0.3	186.1 171/203
27	170.8 152/180	0.9	175.1 157/186	0.9	179.4 162/192	0.3	182.3 165/196	0.3	185.2 168/200	0.3	188.2 172/204
24	172.6 152/181	0.9	176.9 157/187	0.9	181.2 162/193	0.3	184.2 165/197	0.3	187.1 169/201	0.3	190.2 172/205
21	174.3 152/181	0.9	178.6 157/187	0.9	183.1 162/193	0.3	186.0 166/197	0.3	189.0 169/201	0.3	192.1 172/205
18	176.0 153/182	0.9	180.4 158/188	0.9	184.8 163/194	0.3	187.8 166/198	0.3	190.8 169/202	0.3	193.9 173/206
15	177.6 153/183	0.9	182.0 158/188	0.9	186.5 163/194	0.3	189.5 167/198	0.3	192.6 170/202	0.2	195.0 173/206
12	178.9 154/183	0.9	183.3 159/189	0.9	187.9 164/195	0.3	190.9 167/199	0.3	194.0 170/203	0.1	195.0 173/206
9	179.6 154/184	0.9	184.1 159/190	0.9	188.6 164/196	0.3	191.7 168/200	0.3	194.8 171/204	0.0	195.0 173/207
6	180.3 155/185	0.9	184.8 160/191	0.9	189.3 165/197	0.3	192.4 169/201	0.3	195.0 172/205	0.0	195.0 174/207
3	181.0 156/186	0.9	185.4 161/192	0.9	190.0 166/198	0.3	193.0 169/202	0.2	195.0 172/206	0.0	195.0 174/208
0	181.6 156/187	0.9	186.1 162/193	0.9	190.6 167/199	0.3	193.7 170/203	0.1	195.0 173/206	0.0	195.0 175/209
-3	182.2 157/188	0.9	186.6 162/194	0.9	191.2 168/200	0.3	194.2 171/204	0.1	195.0 173/207	0.0	195.0 175/209
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **26ft**

FULL LENGTH RWY 05

CLG NIL **RVR/VIS** 150m **SLOPE** 0.09%DN
TOR 2658m (8720ft) **ED** 2658m (8720ft) **TOD** 2787m (9144ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	143.6 139/160	1.0	148.7 144/164	1.0	153.7 148/167	0.3	156.5 152/169	0.3	159.3 155/171	0.3	162.1 158/175
36	145.2 140/161	1.0	150.4 144/164	1.0	155.6 149/168	0.3	158.4 152/170	0.3	161.3 155/172	0.3	164.0 159/176
33	146.8 140/162	1.1	152.1 144/165	1.1	157.4 149/169	0.3	160.2 152/171	0.3	163.1 156/173	0.3	165.9 159/177
30	148.4 140/163	1.1	153.8 145/166	1.1	159.1 149/170	0.3	162.1 153/172	0.3	165.0 156/174	0.3	167.8 159/178
27	149.9 141/163	1.1	155.4 145/167	1.1	160.7 150/171	0.3	163.8 153/173	0.3	166.8 156/175	0.3	169.6 160/178
24	151.4 141/164	1.1	156.9 146/168	1.1	162.3 150/172	0.3	165.5 153/174	0.3	168.5 157/176	0.3	171.4 160/179
21	152.8 141/165	1.1	158.4 146/169	1.1	163.9 151/172	0.3	167.2 154/174	0.3	170.2 157/176	0.3	173.2 161/180
18	154.1 142/166	1.1	159.8 146/169	1.1	165.4 151/173	0.3	168.8 154/175	0.3	171.8 158/177	0.3	174.9 161/181
15	155.4 142/166	1.2	161.2 147/170	1.1	166.8 151/174	0.3	170.3 155/176	0.3	173.4 158/178	0.3	176.5 161/181
12	156.6 143/167	1.2	162.4 147/171	1.1	168.1 152/175	0.3	171.6 155/177	0.3	174.7 158/179	0.3	177.8 162/182
9	157.6 143/167	1.2	163.4 148/171	1.1	169.0 152/175	0.3	172.3 156/177	0.3	175.4 159/179	0.3	178.4 163/183
6	158.6 144/168	1.1	164.2 148/172	1.1	169.8 153/175	0.3	172.9 156/177	0.3	175.9 160/180	0.3	179.0 163/184
3	159.4 144/168	1.1	165.1 149/172	1.1	170.4 154/176	0.3	173.5 157/177	0.3	176.5 161/180	0.3	179.5 164/185
0	160.2 145/169	1.1	165.9 149/172	1.0	171.0 154/176	0.3	174.0 158/178	0.3	177.0 161/181	0.3	180.0 165/185
-3	161.0 145/169	1.1	166.6 150/173	1.0	171.5 155/176	0.3	174.5 159/178	0.3	177.5 162/182	0.3	180.5 166/186
V2= θ2=	VR+ 25 15.0		VR+ 24 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **GLASGOW**

A/D Elev **26ft**

FULL LENGTH RWY 23

CLG NIL **RVR/VIS** 150m **SLOPE** 0.09%UP

TOR 2658m (8720ft) **ED** 2658m (8720ft) **TOD** 3091m (10141ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	149.1 137/164	1.0	154.0 142/167	1.0	158.8 146/170	0.3	161.5 150/174	0.3	164.2 153/178	0.3	166.9 156/182
36	150.9 137/165	1.0	155.8 142/168	1.0	160.7 147/171	0.3	163.4 150/175	0.3	166.1 153/179	0.3	169.0 157/183
33	152.6 138/166	1.0	157.6 142/169	1.0	162.6 147/172	0.3	165.3 150/176	0.3	168.1 154/180	0.3	170.9 157/184
30	154.2 138/167	1.0	159.3 143/170	1.0	164.4 147/173	0.3	167.2 151/177	0.3	170.0 154/181	0.3	172.9 157/185
27	155.8 138/167	1.0	161.0 143/171	1.0	166.1 148/174	0.3	169.0 151/178	0.3	171.8 154/181	0.3	174.8 158/185
24	157.4 139/168	1.0	162.6 143/172	1.0	167.8 148/175	0.3	170.8 151/178	0.3	173.6 155/182	0.3	176.6 158/186
21	158.9 139/169	1.1	164.2 144/173	1.0	169.4 148/176	0.3	172.5 152/179	0.3	175.4 155/183	0.3	178.4 158/187
18	160.4 139/170	1.1	165.7 144/173	1.1	171.0 149/177	0.3	174.2 152/180	0.3	177.1 155/184	0.3	180.1 159/188
15	161.8 140/171	1.1	167.2 144/174	1.1	172.5 149/178	0.3	175.8 152/180	0.3	178.7 156/184	0.3	181.8 159/188
12	163.0 140/171	1.1	168.4 145/175	1.1	173.8 150/178	0.3	177.1 153/181	0.3	180.1 156/185	0.3	183.1 160/189
9	163.9 141/172	1.1	169.3 145/175	1.1	174.7 150/179	0.3	177.7 154/182	0.3	180.7 157/186	0.3	183.8 161/190
6	164.7 141/172	1.1	170.2 146/176	1.0	175.4 151/179	0.3	178.3 154/183	0.3	181.3 158/187	0.3	184.4 161/191
3	165.6 142/172	1.1	170.9 147/176	1.0	176.0 152/180	0.3	178.9 155/184	0.3	181.9 159/188	0.3	185.0 162/192
0	166.3 142/173	1.1	171.6 147/176	1.0	176.5 152/181	0.3	179.4 156/185	0.3	182.4 159/189	0.3	185.5 163/193
-3	167.0 143/173	1.0	172.2 148/176	1.0	177.0 153/181	0.3	179.9 157/185	0.3	182.9 160/189	0.3	186.0 164/193
V2= θ2=	VR+ 24 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON GATWICK

A/D Elev **202ft**

FULL LENGTH RWY 08L

CLG NIL **RVR/VIS** 200m **SLOPE** 0.05%DN

TOR 2565m (8415ft) **ED** 2565m (8415ft) **TOD** 2978m (9770ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.6 135/161	0.8	149.4 140/164	0.8	153.2 145/169	0.2	155.7 148/174	0.3	158.3 152/177	0.3	161.1 155/181
36	147.3 135/162	0.8	151.2 140/165	0.8	155.0 145/170	0.3	157.6 149/174	0.3	160.3 152/178	0.3	163.0 155/182
33	149.0 135/163	0.8	153.0 140/166	0.8	156.9 145/171	0.3	159.5 149/175	0.3	162.2 152/179	0.3	164.9 156/183
30	150.7 136/164	0.8	154.7 141/167	0.8	158.6 146/172	0.3	161.3 149/176	0.3	164.0 153/180	0.3	166.8 156/184
27	152.4 136/165	0.8	156.4 141/168	0.8	160.4 146/173	0.3	163.1 149/177	0.3	165.9 153/181	0.3	168.7 156/185
24	154.0 136/166	0.8	158.1 141/169	0.8	162.1 146/174	0.3	164.8 150/178	0.3	167.6 153/182	0.3	170.5 157/186
21	155.5 136/167	0.8	159.7 142/170	0.8	163.8 147/175	0.3	166.5 150/179	0.3	169.3 154/182	0.3	172.3 157/186
18	157.1 137/168	0.8	161.3 142/171	0.8	165.4 147/175	0.3	168.2 151/179	0.3	171.1 154/183	0.3	174.0 157/187
15	158.5 137/169	0.9	162.8 142/171	0.8	167.0 147/176	0.3	169.8 151/180	0.3	172.7 154/183	0.3	175.6 158/188
12	159.7 138/169	0.9	164.0 143/172	0.8	168.2 148/177	0.3	171.0 151/181	0.3	173.9 155/184	0.3	176.9 158/189
9	160.3 138/169	0.8	164.5 143/172	0.8	168.7 149/177	0.3	171.6 152/181	0.3	174.5 156/185	0.3	177.5 159/189
6	160.9 139/170	0.8	165.0 144/172	0.8	169.2 149/178	0.3	172.0 153/183	0.3	175.0 156/186	0.3	178.0 160/190
3	161.4 140/170	0.8	165.5 145/173	0.8	169.7 150/179	0.3	172.6 154/183	0.3	175.5 157/187	0.3	178.5 161/191
0	161.8 140/170	0.8	165.9 146/174	0.8	170.1 151/180	0.3	173.0 154/183	0.3	175.9 158/188	0.3	178.9 161/191
-3	162.2 141/170	0.8	166.3 146/175	0.8	170.5 152/181	0.3	173.4 155/185	0.3	176.3 159/188	0.3	179.2 162/191
V2= θ2=	VR+ 24 14.5		VR+ 23 14.5		VR+ 23 14.0		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON GATWICK

A/D Elev **202ft**

FULL LENGTH RWY **08R**

CLG NIL **RVR/VIS** 150m **SLOPE** 0.07%DN

TOR 3159m (10364ft) **ED** 3233m (10607ft) **TOD** 3311m (10863ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	155.7 151/168	0.8	159.8 156/173	0.8	163.8 161/178	0.3	166.5 164/182	0.3	169.2 167/186	0.3	171.8 171/190
36	157.6 151/169	0.8	161.8 156/174	0.8	165.8 161/179	0.3	168.5 164/183	0.3	171.2 168/187	0.3	173.9 171/191
33	159.4 152/170	0.8	163.6 156/175	0.8	167.8 161/180	0.3	170.5 165/184	0.3	173.2 168/188	0.3	176.0 171/192
30	161.2 152/171	0.9	165.5 157/175	0.8	169.7 162/181	0.3	172.4 165/185	0.3	175.2 169/189	0.3	178.0 172/193
27	162.9 152/172	0.9	167.3 157/176	0.8	171.5 162/182	0.3	174.3 166/186	0.3	177.1 169/190	0.3	180.0 172/194
24	164.6 153/173	0.9	169.1 158/177	0.9	173.4 163/183	0.3	176.2 166/187	0.3	179.0 169/190	0.3	181.9 173/194
21	166.3 153/174	0.9	170.8 158/178	0.9	175.1 163/183	0.3	177.9 166/187	0.3	180.8 170/191	0.3	183.8 173/195
18	167.9 153/175	0.9	172.5 158/178	0.9	176.8 163/184	0.3	179.7 167/188	0.3	182.6 170/192	0.3	185.6 173/196
15	169.4 154/176	0.9	174.1 159/179	0.9	178.5 164/185	0.3	181.4 167/189	0.3	184.3 171/193	0.3	187.3 174/197
12	170.7 154/176	0.9	175.4 159/180	0.9	179.8 164/185	0.3	182.7 168/189	0.3	185.7 171/193	0.3	188.7 175/197
9	171.4 155/177	0.9	176.0 160/181	0.9	180.4 165/186	0.3	183.4 169/190	0.3	186.3 172/194	0.3	189.3 175/198
6	172.0 156/177	0.9	176.6 161/181	0.9	181.0 166/187	0.3	183.9 169/191	0.3	186.9 173/195	0.3	189.9 176/199
3	172.7 156/177	0.9	177.1 162/182	0.9	181.6 167/188	0.3	184.5 170/192	0.3	187.5 174/196	0.3	190.4 177/200
0	173.3 157/177	0.9	177.7 162/183	0.9	182.1 168/189	0.3	185.1 171/193	0.3	188.0 175/197	0.3	190.9 178/201
-3	173.8 158/178	0.9	178.1 163/184	0.9	182.6 168/190	0.3	185.5 172/194	0.3	188.4 175/198	0.3	191.3 179/201
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON GATWICK

A/D Elev **202ft**

FULL LENGTH RWY **26L**

CLG NIL **RVR/VIS** 150m **SLOPE** 0.05%UP

TOR 3098m (10164ft) **ED** 3159m (10364ft) **TOD** 3250m (10663ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	155.8 149/170	0.8	159.6 154/175	0.8	163.5 159/181	0.3	166.2 162/185	0.2	168.5 166/189	0.2	170.9 169/192
36	157.7 149/170	0.8	161.6 154/176	0.8	165.5 159/182	0.3	168.2 162/186	0.2	170.6 166/190	0.2	173.0 169/193
33	159.5 149/171	0.8	163.5 154/177	0.8	167.5 159/183	0.3	170.2 163/187	0.2	172.6 166/191	0.2	175.1 170/193
30	161.4 150/172	0.8	165.3 155/178	0.8	169.4 160/184	0.3	172.2 163/188	0.2	174.6 167/192	0.2	177.1 170/194
27	163.2 150/173	0.8	167.2 155/179	0.8	171.3 160/185	0.3	174.0 164/188	0.3	176.6 167/193	0.2	179.1 171/195
24	164.9 150/173	0.8	168.9 155/179	0.8	173.1 161/185	0.3	175.9 164/189	0.3	178.6 167/194	0.2	181.1 171/196
21	166.5 151/174	0.8	170.6 156/180	0.9	174.9 161/186	0.3	177.7 164/190	0.3	180.5 168/194	0.2	183.0 171/197
18	168.0 151/175	0.8	172.2 156/181	0.9	176.6 161/187	0.3	179.5 165/191	0.3	182.3 168/195	0.3	184.9 172/199
15	169.4 152/176	0.9	173.8 157/181	0.9	178.3 162/187	0.3	181.1 165/191	0.3	184.1 169/195	0.3	186.7 172/200
12	170.7 152/176	0.9	175.1 157/182	0.9	179.6 162/188	0.3	182.5 166/192	0.3	185.4 169/196	0.3	188.0 173/201
9	171.6 153/177	0.8	175.8 158/183	0.9	180.2 163/189	0.3	183.0 167/193	0.3	185.8 170/197	0.3	188.4 174/200
6	172.2 154/178	0.8	176.4 159/184	0.9	180.7 164/190	0.3	183.6 167/194	0.3	186.2 171/199	0.3	188.9 175/201
3	172.7 154/179	0.8	176.9 159/185	0.9	181.3 165/191	0.3	184.0 168/196	0.2	186.5 172/198	0.3	189.3 175/202
0	173.1 155/180	0.9	177.4 160/186	0.9	181.8 165/192	0.2	184.3 169/197	0.3	186.9 173/199	0.3	189.6 176/203
-3	173.6 156/181	0.8	177.8 161/187	0.9	182.1 166/193	0.2	184.6 170/198	0.3	187.2 174/200	0.3	189.9 177/203
V2= θ2=	VR+ 22 14.0		VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LONDON GATWICK

A/D Elev **202ft**

FULL LENGTH RWY 26R

CLG NIL **RVR/VIS** 200m **SLOPE** 0.05%UP

TOR 2565m (8415ft) **ED** 2565m (8415ft) **TOD** 2703m (8868ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	137.4 138/156	1.0	142.5 143/159	1.0	147.5 147/163	0.3	150.7 151/165	0.3	153.8 154/167	0.3	156.8 157/169
36	139.0 139/157	1.0	144.2 143/160	1.0	149.3 148/164	0.3	152.5 151/166	0.3	155.7 154/168	0.3	158.7 157/170
33	140.5 139/157	1.1	145.8 144/161	1.0	150.9 148/165	0.3	154.2 151/167	0.3	157.4 154/169	0.3	160.5 158/171
30	142.0 139/158	1.1	147.3 144/162	1.1	152.6 148/166	0.3	155.9 152/168	0.3	159.2 155/170	0.3	162.3 158/172
27	143.5 140/159	1.1	148.9 144/163	1.1	154.2 149/166	0.3	157.6 152/169	0.3	160.9 155/171	0.3	164.1 158/173
24	144.9 140/160	1.1	150.3 145/164	1.1	155.8 149/167	0.3	159.2 152/170	0.3	162.5 156/172	0.3	165.8 159/174
21	146.3 140/161	1.1	151.7 145/164	1.1	157.3 150/168	0.3	160.7 153/170	0.3	164.1 156/173	0.3	167.4 159/175
18	147.6 141/161	1.1	153.1 145/165	1.1	158.7 150/169	0.3	162.2 153/171	0.3	165.7 156/173	0.3	169.0 160/176
15	148.9 141/162	1.1	154.4 146/166	1.1	160.1 150/170	0.3	163.6 154/172	0.3	167.1 157/174	0.3	170.6 160/176
12	150.0 142/163	1.1	155.6 146/166	1.1	161.3 151/170	0.4	164.9 154/173	0.3	168.4 157/175	0.3	171.8 161/177
9	150.9 142/163	1.1	156.6 147/167	1.1	162.2 151/171	0.3	165.7 155/173	0.3	169.2 158/175	0.3	172.6 161/177
6	151.8 143/163	1.1	157.4 147/167	1.1	163.0 152/171	0.3	166.5 155/173	0.3	169.9 159/176	0.3	173.3 162/178
3	152.6 143/164	1.1	158.2 148/168	1.1	163.7 153/171	0.3	167.2 156/174	0.3	170.6 159/176	0.3	173.9 163/178
0	153.4 144/164	1.1	159.0 149/168	1.1	164.5 153/172	0.3	167.9 157/174	0.3	171.2 160/176	0.3	174.4 164/179
-3	154.1 144/165	1.1	159.7 149/168	1.1	165.1 154/172	0.3	168.5 157/174	0.3	171.8 161/176	0.3	174.9 164/179
V2= θ2=	VR+ 26 15.5		VR+ 25 15.0		VR+ 24 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **348ft**

FULL LENGTH RWY 05

CLG NIL **RVR/VIS** 150m **SLOPE** 0.24%UP
TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD** 3338m (10951ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	152.4 147/166	0.9	157.1 151/170	0.8	161.1 156/175	0.3	163.8 159/179	0.3	166.5 163/183	0.3	169.3 166/187
36	154.2 147/167	1.0	159.0 151/171	0.8	163.1 156/176	0.3	165.8 160/180	0.3	168.5 163/184	0.3	171.3 166/188
33	155.9 147/168	1.0	160.9 152/171	0.8	165.0 157/177	0.3	167.7 160/181	0.3	170.5 163/185	0.3	173.3 167/189
30	157.6 148/169	1.0	162.7 152/172	0.8	166.9 157/178	0.3	169.6 161/182	0.3	172.4 164/186	0.3	175.3 167/190
27	159.2 148/170	1.0	164.4 153/173	0.9	168.7 158/179	0.3	171.5 161/183	0.3	174.3 164/187	0.3	177.2 168/191
24	160.8 148/171	1.0	166.0 153/174	0.9	170.5 158/180	0.3	173.3 161/183	0.3	176.1 165/187	0.3	179.1 168/191
21	162.4 149/172	1.0	167.6 153/175	0.9	172.2 158/180	0.3	175.0 162/184	0.3	177.9 165/188	0.3	180.9 168/192
18	163.9 149/172	1.1	169.2 154/176	0.9	173.9 159/181	0.3	176.8 162/185	0.3	179.7 165/189	0.3	182.7 169/193
15	165.3 150/173	1.1	170.7 154/177	1.0	175.5 159/182	0.3	178.4 162/185	0.3	181.3 166/189	0.3	184.4 169/193
12	166.6 150/174	1.1	172.0 155/177	1.0	176.8 160/182	0.3	179.7 163/186	0.3	182.7 166/190	0.3	185.7 170/194
9	167.5 151/174	1.1	172.9 155/178	0.9	177.5 160/183	0.3	180.4 164/187	0.3	183.4 167/191	0.3	186.4 171/195
6	168.5 151/175	1.0	173.7 156/178	0.9	178.1 161/184	0.3	181.0 165/188	0.3	184.0 168/192	0.3	187.1 171/196
3	169.3 152/175	1.0	174.3 157/179	0.9	178.7 162/185	0.3	181.7 165/189	0.3	184.6 169/193	0.3	187.7 172/197
0	170.1 152/175	1.0	174.9 158/180	0.9	179.3 163/186	0.3	182.2 166/190	0.3	185.2 170/194	0.3	188.3 173/198
-3	170.8 153/176	0.9	175.4 158/181	0.9	179.8 163/187	0.3	182.8 167/191	0.3	185.7 170/195	0.3	188.7 174/199
V2= 62=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **348ft**

LONDON STANSTED

FULL LENGTH RWY 23

CLG NIL **RVR/VIS** 150m **SLOPE** 0.24%DN

TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD** 3316m (10879ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	156.6 144/169	0.8	160.5 149/174	0.8	164.5 154/180	0.3	167.1 158/184	0.3	169.8 161/188	0.2	172.3 164/191
36	158.4 145/170	0.8	162.4 150/175	0.8	166.5 155/181	0.3	169.2 158/185	0.3	171.9 161/189	0.2	174.4 165/192
33	160.2 145/171	0.8	164.3 150/176	0.8	168.4 155/182	0.3	171.1 158/186	0.3	173.9 162/190	0.3	176.5 165/193
30	162.0 145/172	0.8	166.2 150/177	0.8	170.3 155/183	0.3	173.1 159/187	0.3	175.9 162/191	0.3	178.5 165/194
27	163.7 146/173	0.9	168.0 151/178	0.8	172.2 156/184	0.3	175.0 159/188	0.3	177.8 162/192	0.3	180.5 166/195
24	165.3 146/174	0.9	169.8 151/179	0.9	174.1 156/184	0.3	176.9 159/188	0.3	179.7 163/192	0.3	182.5 166/196
21	166.9 147/174	0.9	171.6 151/179	0.9	175.9 156/185	0.3	178.7 160/189	0.3	181.6 163/193	0.3	184.4 167/197
18	168.4 147/175	1.0	173.2 152/180	0.9	177.6 157/186	0.3	180.5 160/190	0.3	183.4 164/194	0.3	186.3 167/198
15	169.9 147/176	1.0	174.9 152/181	0.9	179.2 157/187	0.3	182.1 161/190	0.3	185.1 164/194	0.3	188.0 167/198
12	171.2 148/177	1.0	176.2 153/181	0.9	180.6 158/187	0.3	183.5 161/191	0.3	186.5 165/195	0.3	189.4 168/199
9	172.2 149/177	0.9	176.8 153/182	0.9	181.2 159/188	0.3	184.2 162/192	0.3	187.1 165/196	0.3	190.0 169/200
6	173.1 149/178	0.9	177.4 154/183	0.9	181.8 159/189	0.3	184.8 163/193	0.3	187.7 166/197	0.3	190.5 170/201
3	173.6 150/178	0.9	178.0 155/184	0.9	182.4 160/190	0.3	185.3 164/194	0.3	188.2 167/198	0.3	191.0 171/202
0	174.2 151/179	0.9	178.5 156/185	0.9	183.0 161/191	0.3	185.9 164/195	0.3	188.7 168/199	0.3	191.5 172/202
-3	174.6 151/180	0.9	179.0 156/186	0.9	183.4 162/192	0.3	186.4 165/196	0.3	189.1 169/199	0.3	191.9 172/203
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **256ft**

FULL LENGTH RWY 06

CLG NIL **RVR/VIS** 150m **SLOPE** 0.49%UP
TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD** 3231m (10600ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.6 147/166	0.9	156.1 152/169	0.8	160.1 157/175	0.2	162.6 160/178	0.3	165.3 164/182	0.3	168.0 167/185
36	153.3 148/167	0.9	158.0 152/170	0.8	162.0 157/175	0.3	164.6 161/179	0.3	167.3 164/183	0.3	170.1 167/186
33	155.1 148/168	0.9	159.8 153/171	0.8	163.9 158/176	0.3	166.6 161/180	0.3	169.3 165/184	0.3	172.1 168/187
30	156.8 148/168	1.0	161.6 153/172	0.8	165.8 158/177	0.3	168.5 162/181	0.3	171.2 165/185	0.3	174.0 168/188
27	158.4 149/169	1.0	163.3 153/173	0.9	167.6 158/178	0.3	170.3 162/182	0.3	173.1 165/186	0.3	176.0 169/188
24	160.0 149/170	1.0	165.0 154/173	0.9	169.4 159/179	0.3	172.1 162/182	0.3	174.9 166/186	0.3	177.8 169/189
21	161.6 150/171	1.0	166.6 154/174	0.9	171.1 159/179	0.3	173.9 163/183	0.3	176.7 166/187	0.3	179.7 169/190
18	163.1 150/172	1.0	168.2 155/175	0.9	172.8 160/180	0.3	175.6 163/184	0.3	178.5 166/188	0.3	181.5 170/191
15	164.5 150/173	1.0	169.7 155/176	0.9	174.4 160/180	0.3	177.3 163/184	0.3	180.2 167/188	0.3	183.2 170/191
12	165.8 151/173	1.0	171.0 156/177	0.9	175.7 161/181	0.3	178.6 164/185	0.3	181.5 167/189	0.3	184.5 171/192
9	166.6 151/174	1.0	171.8 156/177	0.9	176.3 161/182	0.3	179.2 165/186	0.3	182.1 168/190	0.3	185.1 172/193
6	167.5 152/174	1.0	172.5 157/177	0.9	176.9 162/183	0.3	179.7 166/187	0.3	182.7 169/191	0.3	185.7 173/194
3	168.3 153/174	0.9	173.0 158/178	0.9	177.4 163/184	0.3	180.3 166/188	0.3	183.2 170/192	0.3	186.2 173/195
0	169.0 153/175	0.9	173.5 159/179	0.9	177.9 164/185	0.3	180.8 167/189	0.3	183.7 171/193	0.3	186.8 174/196
-3	169.6 154/175	0.9	173.9 159/180	0.9	178.3 165/186	0.3	181.2 168/190	0.3	184.1 172/192	0.3	187.2 175/196
V2= θ2=	VR+ 22 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **MANCHESTER**

A/D Elev **256ft**

FULL LENGTH RWY 24

CLG NIL **RVR/VIS** 150m **SLOPE** 0.49%DN

TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD** 3200m (10499ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	157.3 144/170	0.8	161.3 149/175	0.8	165.3 154/181	0.3	168.0 158/185	0.3	170.7 161/189	0.3	173.4 164/192
36	159.2 145/170	0.8	163.2 150/176	0.8	167.3 155/182	0.3	170.0 158/186	0.3	172.8 161/190	0.3	175.5 165/193
33	161.0 145/171	0.8	165.1 150/177	0.8	169.3 155/183	0.3	172.0 158/187	0.3	174.8 162/190	0.3	177.6 165/194
30	162.7 145/172	0.9	167.0 150/178	0.8	171.2 155/184	0.3	174.0 159/187	0.3	176.8 162/191	0.3	179.6 165/195
27	164.5 146/173	0.9	168.8 151/178	0.9	173.1 156/184	0.3	175.9 159/188	0.3	178.7 162/192	0.3	181.6 166/196
24	166.1 146/174	0.9	170.6 151/179	0.9	174.9 156/185	0.3	177.7 159/189	0.3	180.6 163/193	0.3	183.5 166/197
21	167.7 146/175	0.9	172.3 151/180	0.9	176.7 156/186	0.3	179.5 160/190	0.3	182.4 163/194	0.3	185.4 166/198
18	169.3 147/176	0.9	174.0 152/181	0.9	178.4 157/186	0.3	181.3 160/190	0.3	184.2 164/194	0.3	187.2 167/198
15	170.8 147/177	1.0	175.6 152/181	0.9	180.0 157/187	0.3	183.0 161/191	0.3	185.9 164/195	0.3	188.9 167/199
12	172.1 148/177	1.0	176.9 153/182	0.9	181.4 158/188	0.3	184.3 161/192	0.3	187.3 165/196	0.3	190.3 168/200
9	173.0 148/178	0.9	177.6 153/183	0.9	182.1 158/189	0.3	185.0 162/193	0.3	188.0 165/197	0.3	191.0 169/201
6	173.9 149/178	0.9	178.2 154/184	0.9	182.7 159/190	0.3	185.7 163/194	0.3	188.7 166/198	0.3	191.7 170/202
3	174.5 150/179	0.9	178.8 155/185	0.9	183.3 160/191	0.3	186.3 163/195	0.3	189.3 167/199	0.3	192.3 170/203
0	175.1 150/180	0.9	179.4 156/186	0.9	183.9 161/192	0.3	186.9 164/196	0.3	189.8 168/200	0.3	192.8 171/204
-3	175.6 151/181	0.9	179.9 156/187	0.9	184.4 161/193	0.3	187.4 165/197	0.3	190.3 169/200	0.3	193.3 172/204
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **270ft**

MONTREAL MIRABEL

FULL LENGTH RWY 06

CLG NIL **RVR/VIS** 600ft **SLOPE** 0.14%DN

TOR 3658m (12001ft) **ED** 3658m (12001ft) **TOD** 3962m (12999ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	161.2 154/182	0.7	164.6 160/186	0.7	168.1 166/190	0.2	170.5 170/193	0.2	173.0 174/196	0.2	175.5 178/198
36	163.1 154/183	0.7	166.6 160/187	0.7	170.2 166/191	0.2	172.6 170/194	0.2	175.1 174/197	0.2	177.6 178/200
33	165.0 154/184	0.7	168.5 160/188	0.7	172.1 166/192	0.2	174.6 170/195	0.2	177.1 174/198	0.3	179.7 177/201
30	166.9 154/185	0.7	170.5 160/189	0.7	174.1 166/193	0.2	176.6 169/196	0.2	179.1 173/199	0.3	181.8 177/202
27	168.7 154/186	0.7	172.4 159/190	0.7	176.1 165/194	0.2	178.6 169/197	0.2	181.1 173/199	0.3	183.8 177/203
24	170.5 153/187	0.7	174.2 159/190	0.8	178.0 165/195	0.2	180.5 169/198	0.3	183.1 173/200	0.3	185.8 177/203
21	172.3 153/188	0.7	176.0 159/191	0.8	179.8 165/196	0.2	182.3 169/199	0.3	185.0 173/201	0.3	187.7 177/204
18	174.0 153/189	0.8	177.8 159/192	0.8	181.6 165/196	0.3	184.2 169/199	0.3	186.9 173/202	0.3	189.6 177/205
15	175.7 153/190	0.8	179.5 159/193	0.8	183.4 165/197	0.2	185.9 169/200	0.3	188.6 173/203	0.3	191.4 177/206
12	176.9 154/190	0.8	180.8 160/194	0.8	184.7 165/198	0.3	187.3 169/201	0.3	190.0 173/204	0.3	192.8 177/207
9	177.4 154/191	0.8	181.2 160/194	0.8	185.1 166/199	0.3	187.7 170/202	0.3	190.4 174/204	0.3	193.2 178/207
6	177.8 155/191	0.8	181.6 161/195	0.8	185.5 167/199	0.3	188.1 171/202	0.3	190.8 175/205	0.3	193.6 179/208
3	178.2 156/191	0.8	182.0 162/195	0.8	185.9 168/200	0.3	188.5 172/203	0.3	191.2 176/205	0.3	194.0 180/208
0	178.6 156/191	0.7	182.3 163/196	0.8	186.2 169/200	0.3	188.9 173/203	0.3	191.6 177/206	0.3	194.4 181/209
-3	178.9 157/192	0.7	182.6 163/196	0.8	186.5 170/201	0.3	189.2 174/203	0.3	191.9 178/206	0.3	194.7 182/209
V2= θ2=	VR+ 22 13.5		VR+ 22 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

MONTREAL MIRABEL

A/D Elev **270ft**

FULL LENGTH RWY 11

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.18%UP

TOR 3658m (12001ft) **ED** 3658m (12001ft) **TOD** 3962m (12999ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.8 155/177	0.8	166.8 161/183	0.8	170.7 166/189	0.2	173.1 170/194	0.2	175.6 174/198	0.2	178.0 178/200
36	164.7 155/178	0.8	168.8 160/184	0.8	172.8 166/190	0.2	175.2 170/194	0.2	177.7 174/199	0.2	180.1 178/203
33	166.6 154/179	0.8	170.7 160/185	0.8	174.8 166/191	0.2	177.3 170/195	0.2	179.8 174/199	0.2	182.3 177/204
30	168.5 154/180	0.8	172.6 160/186	0.8	176.8 166/192	0.2	179.3 169/196	0.2	181.8 173/200	0.3	184.4 177/204
27	170.3 154/181	0.8	174.5 160/186	0.8	178.7 165/193	0.3	181.3 169/197	0.2	183.8 173/201	0.3	186.4 177/205
24	172.0 154/181	0.9	176.3 160/187	0.9	180.6 165/193	0.3	183.2 169/197	0.3	185.8 173/202	0.3	188.4 177/206
21	173.7 154/182	0.9	178.1 160/188	0.9	182.4 165/194	0.3	185.1 169/198	0.3	187.7 173/202	0.3	190.4 177/206
18	175.4 154/183	0.9	179.8 160/188	0.9	184.2 165/194	0.3	187.0 169/198	0.3	189.6 173/203	0.3	192.3 177/207
15	177.0 154/183	0.9	181.4 160/189	0.9	185.9 165/195	0.3	188.7 169/199	0.3	191.4 173/203	0.3	194.1 177/207
12	178.3 154/184	0.9	182.7 160/190	0.9	187.3 166/196	0.3	190.1 169/200	0.3	192.8 173/204	0.2	195.0 177/208
9	178.9 155/185	0.9	183.4 161/191	0.9	187.9 166/197	0.3	190.6 170/201	0.3	193.3 174/205	0.2	195.0 177/209
6	179.5 156/186	0.9	184.0 161/192	0.9	188.3 167/198	0.3	191.0 171/202	0.3	193.7 175/207	0.1	195.0 178/210
3	180.1 156/187	0.9	184.5 162/193	0.9	188.8 168/199	0.3	191.4 172/204	0.3	194.1 176/208	0.1	195.0 179/209
0	180.6 157/188	0.9	185.0 163/194	0.8	189.2 169/200	0.3	191.9 173/205	0.3	194.5 177/209	0.0	195.0 180/210
-3	181.1 158/189	0.9	185.4 164/195	0.8	189.5 170/202	0.3	192.2 174/206	0.3	194.8 178/209	0.0	195.0 180/209
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

MONTREAL
MIRABEL

A/D Elev **270ft**

FULL LENGTH RWY 24

CLG NIL **RVR/VIS** 600ft **SLOPE** 0.14%UP
TOR 3658m (12001ft) **ED** 3658m (12001ft) **TOD** 3962m (12999ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	163.7 154/184	0.7	167.2 160/187	0.7	170.7 166/192	0.2	173.0 170/195	0.2	175.4 174/198	0.2	177.9 178/200
36	165.7 154/185	0.7	169.2 160/188	0.7	172.8 166/193	0.2	175.2 170/196	0.2	177.6 174/199	0.2	180.1 178/202
33	167.6 154/186	0.7	171.2 160/189	0.7	174.8 166/194	0.2	177.2 169/198	0.2	179.6 173/200	0.3	182.2 177/203
30	169.5 154/187	0.7	173.1 159/190	0.7	176.8 165/195	0.2	179.2 169/198	0.2	181.7 173/201	0.3	184.3 177/204
27	171.4 153/188	0.7	175.1 159/191	0.7	178.8 165/196	0.2	181.2 169/199	0.2	183.7 173/202	0.3	186.3 177/206
24	173.3 153/189	0.7	176.9 159/192	0.8	180.7 165/197	0.2	183.2 169/200	0.2	185.7 173/203	0.3	188.3 177/207
21	175.0 153/189	0.8	178.8 159/193	0.8	182.6 165/198	0.2	185.1 169/201	0.3	187.7 173/204	0.3	190.3 177/207
18	176.7 153/190	0.8	180.5 159/195	0.8	184.4 165/198	0.3	187.0 169/202	0.3	189.6 173/205	0.3	192.2 177/208
15	178.3 153/190	0.8	182.3 159/196	0.8	186.2 165/199	0.3	188.8 169/202	0.3	191.4 173/206	0.3	194.1 177/209
12	179.6 154/191	0.8	183.6 159/196	0.8	187.5 165/200	0.3	190.2 169/203	0.3	192.8 173/207	0.2	195.0 177/210
9	180.1 154/191	0.8	184.0 160/197	0.8	188.0 166/201	0.3	190.6 170/204	0.3	193.2 174/207	0.2	195.0 177/210
6	180.6 155/193	0.8	184.4 161/196	0.8	188.3 167/201	0.3	191.0 171/204	0.3	193.6 175/207	0.1	195.0 178/209
3	181.0 156/193	0.8	184.8 162/196	0.8	188.8 168/202	0.3	191.4 172/205	0.3	194.0 176/208	0.1	195.0 179/209
0	181.3 156/194	0.8	185.2 162/198	0.8	189.1 169/202	0.3	191.7 173/206	0.3	194.4 177/209	0.1	195.0 179/210
-3	181.6 157/194	0.8	185.5 163/198	0.8	189.4 169/203	0.3	192.0 174/206	0.3	194.7 178/209	0.0	195.0 180/209
V2= θ2=	VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

MONTREAL
MIRABEL

A/D Elev **270ft**

FULL LENGTH RWY 29

CLG NIL **RVR/VIS** 0.5nm **SLOPE** 0.18%DN

TOR 3658m (12001ft) **ED** 3658m (12001ft) **TOD** 3962m (12999ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	166.6 151/183	0.8	170.6 157/189	0.8	174.7 163/194	0.3	177.4 166/198	0.3	180.0 170/202	0.3	182.6 174/206
36	168.5 151/184	0.8	172.7 157/189	0.8	176.8 162/195	0.3	179.5 166/199	0.3	182.2 170/203	0.3	184.8 173/207
33	170.4 151/184	0.8	174.6 156/190	0.8	178.8 162/196	0.3	181.5 166/200	0.3	184.3 169/204	0.3	186.9 173/208
30	172.3 151/185	0.9	176.6 156/191	0.8	180.8 162/197	0.3	183.6 166/201	0.3	186.3 169/205	0.3	189.0 173/208
27	174.2 151/186	0.9	178.5 156/192	0.8	182.7 162/198	0.3	185.5 165/202	0.3	188.3 169/205	0.3	191.1 173/209
24	176.0 151/187	0.9	180.3 156/193	0.9	184.6 162/199	0.3	187.5 165/202	0.3	190.3 169/206	0.3	193.0 173/210
21	177.7 151/187	0.9	182.1 156/193	0.9	186.5 162/199	0.3	189.3 165/203	0.3	192.1 169/207	0.3	194.8 173/210
18	179.4 151/188	0.9	183.8 156/194	0.9	188.2 162/200	0.3	191.0 165/204	0.3	193.8 169/207	0.1	195.0 172/210
15	181.1 151/189	0.9	185.5 156/195	0.9	189.8 162/200	0.3	192.7 166/204	0.2	195.0 169/207	0.0	195.0 172/209
12	182.4 151/189	0.9	186.9 156/195	0.8	191.1 162/201	0.3	194.0 166/205	0.1	195.0 169/207	0.0	195.0 171/209
9	183.1 151/190	0.9	187.5 157/196	0.8	191.7 163/202	0.3	194.5 167/206	0.0	195.0 169/208	0.0	195.0 172/210
6	183.7 152/191	0.9	188.0 158/197	0.9	192.3 164/203	0.3	195.0 167/206	0.0	195.0 170/208	0.0	195.0 172/211
3	184.4 153/192	0.8	188.6 158/198	0.9	192.9 164/204	0.2	195.0 168/207	0.0	195.0 170/209	0.0	195.0 173/211
0	185.0 153/193	0.9	189.3 159/199	0.8	193.5 165/205	0.1	195.0 168/208	0.0	195.0 171/210	0.0	195.0 173/212
-3	185.5 154/194	0.9	189.9 160/200	0.9	194.2 166/206	0.1	195.0 169/208	0.0	195.0 171/210	0.0	195.0 174/213
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **18ft**

FULL LENGTH RWY 04L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 2500m (8202ft) **ED** 2573m (8442ft) **TOD** 2586m (8484ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	139.7 138/157	1.1	145.3 143/161	1.1	150.9 147/165	0.3	154.1 150/168	0.3	156.7 153/172	0.3	159.4 157/176
36	141.3 139/158	1.1	146.9 143/162	1.2	152.7 147/166	0.3	156.0 150/169	0.3	158.6 154/173	0.3	161.4 157/177
33	142.8 139/159	1.1	148.5 143/163	1.2	154.3 148/167	0.3	157.8 151/170	0.3	160.5 154/174	0.3	163.3 158/178
30	144.3 139/160	1.2	150.1 144/164	1.2	156.0 148/168	0.4	159.6 151/171	0.3	162.3 154/175	0.3	165.1 158/179
27	145.7 140/160	1.2	151.6 144/165	1.2	157.5 148/169	0.4	161.3 151/171	0.3	164.1 155/176	0.3	166.9 158/180
24	147.1 140/161	1.2	153.0 144/165	1.2	159.0 149/169	0.4	163.1 152/172	0.3	165.8 155/176	0.3	168.7 159/180
21	148.5 140/162	1.2	154.4 145/166	1.2	160.5 149/170	0.4	164.6 152/173	0.3	167.5 155/177	0.3	170.4 159/181
18	149.8 141/163	1.2	155.8 145/167	1.2	161.9 150/171	0.4	166.1 152/174	0.3	169.2 156/177	0.3	172.1 159/182
15	151.0 141/163	1.2	157.0 146/167	1.3	163.3 150/172	0.4	167.4 153/174	0.3	170.8 156/178	0.3	173.7 160/182
12	152.2 142/164	1.2	158.3 146/168	1.2	164.5 150/172	0.4	168.7 153/175	0.3	172.0 157/179	0.3	175.0 160/183
9	153.2 142/164	1.2	159.4 147/169	1.2	165.6 151/173	0.4	169.7 154/176	0.3	172.6 157/180	0.3	175.6 161/184
6	154.3 143/165	1.2	160.4 147/169	1.3	166.7 151/173	0.3	170.2 155/177	0.3	173.1 158/181	0.3	176.1 162/185
3	155.2 143/165	1.2	161.4 147/170	1.3	167.7 152/174	0.3	170.7 155/178	0.3	173.6 159/182	0.3	176.6 163/186
0	156.2 143/166	1.2	162.3 148/170	1.2	168.3 153/175	0.3	171.1 156/179	0.3	174.0 160/183	0.3	177.0 163/187
-3	157.0 144/166	1.2	163.2 149/171	1.1	168.7 153/175	0.3	171.5 157/180	0.3	174.4 161/184	0.3	177.5 164/188
V2= θ2=	VR+ 26 15.5		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

A/D Elev **18ft**

FULL LENGTH RWY 04R

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.01%DN
TOR 2835m (9301ft) **ED** 3140m (10302ft) **TOD** 3140m (10302ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	150.7 151/165	0.9	155.4 156/168	0.8	159.3 161/174	0.3	161.9 164/178	0.3	164.5 168/182	0.3	167.2 171/186
36	152.5 152/166	0.9	157.2 156/169	0.8	161.2 161/175	0.3	163.8 165/179	0.3	166.5 168/182	0.3	169.3 171/187
33	154.2 152/167	1.0	159.0 157/170	0.8	163.1 162/175	0.3	165.8 165/179	0.3	168.5 169/183	0.3	171.2 172/187
30	155.8 152/168	1.0	160.7 157/171	0.9	165.0 162/176	0.3	167.6 165/180	0.3	170.4 169/184	0.3	173.2 172/188
27	157.5 153/169	1.0	162.4 157/172	0.9	166.8 162/177	0.3	169.5 166/181	0.3	172.2 169/185	0.3	175.1 173/189
24	159.1 153/169	1.0	164.1 158/173	0.9	168.5 163/178	0.3	171.3 166/182	0.3	174.1 170/186	0.3	176.9 173/190
21	160.6 153/170	1.0	165.7 158/174	0.9	170.3 163/178	0.3	173.0 167/182	0.3	175.8 170/186	0.3	178.8 173/190
18	162.1 154/171	1.0	167.2 159/174	0.9	171.9 164/179	0.3	174.7 167/183	0.3	177.6 170/187	0.3	180.5 174/191
15	163.5 154/172	1.0	168.7 159/175	1.0	173.5 164/179	0.3	176.4 167/183	0.3	179.2 171/187	0.3	182.2 174/191
12	164.7 155/172	1.1	170.0 159/176	1.0	174.8 164/180	0.3	177.7 168/184	0.3	180.6 171/188	0.3	183.6 175/192
9	165.6 155/173	1.0	170.8 160/176	0.9	175.4 165/181	0.3	178.2 169/185	0.3	181.1 172/189	0.3	184.1 176/193
6	166.4 156/173	1.0	171.5 161/176	0.9	175.9 166/182	0.3	178.7 170/186	0.3	181.7 173/190	0.3	184.6 177/195
3	167.1 157/173	1.0	172.1 162/177	0.9	176.4 167/183	0.3	179.3 170/187	0.3	182.2 174/192	0.3	185.1 177/196
0	167.8 157/174	0.9	172.5 162/178	0.9	176.9 168/184	0.3	179.7 171/188	0.3	182.6 175/192	0.3	185.5 178/197
-3	168.4 158/174	0.9	173.0 163/179	0.9	177.3 169/185	0.3	180.1 172/189	0.3	183.0 176/193	0.3	185.8 179/198
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

A/D Elev **18ft**

FULL LENGTH RWY 22L

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.01%UP
TOR 2835m (9301ft) **ED** 2921m (9583ft) **TOD** 3094m (10151ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.3 144/165	1.0	156.2 149/169	0.9	160.7 154/173	0.3	163.4 157/177	0.3	166.0 160/181	0.3	168.9 164/185
36	153.1 145/166	1.0	158.1 149/170	0.9	162.6 154/174	0.3	165.3 157/178	0.3	168.1 161/182	0.3	170.9 164/186
33	154.8 145/167	1.0	159.8 150/171	0.9	164.5 154/175	0.3	167.2 158/179	0.3	170.0 161/182	0.3	172.9 165/186
30	156.5 145/168	1.0	161.6 150/171	1.0	166.4 155/176	0.3	169.1 158/179	0.3	171.9 162/183	0.3	174.8 165/187
27	158.1 146/169	1.0	163.3 150/172	1.0	168.2 155/176	0.3	171.0 159/180	0.3	173.8 162/184	0.3	176.8 165/188
24	159.7 146/170	1.1	165.0 151/173	1.0	169.9 156/177	0.3	172.8 159/181	0.3	175.6 162/185	0.3	178.6 166/189
21	161.2 146/171	1.1	166.5 151/174	1.0	171.6 156/178	0.3	174.5 159/182	0.3	177.4 163/186	0.3	180.4 166/190
18	162.7 147/171	1.1	168.0 152/175	1.1	173.3 156/178	0.3	176.2 160/182	0.3	179.1 163/186	0.3	182.2 166/190
15	164.1 147/172	1.1	169.5 152/176	1.1	174.9 157/179	0.3	177.8 160/183	0.3	180.8 163/187	0.3	183.8 167/191
12	165.3 148/173	1.1	170.8 152/176	1.1	176.2 157/180	0.3	179.1 161/184	0.3	182.1 164/188	0.3	185.2 167/192
9	166.2 148/173	1.1	171.7 153/177	1.0	176.8 158/181	0.3	179.8 161/185	0.3	182.8 165/189	0.3	185.9 168/193
6	167.1 149/174	1.1	172.5 154/177	1.0	177.4 159/182	0.3	180.4 162/186	0.3	183.4 166/190	0.3	186.5 169/194
3	167.9 149/174	1.1	173.3 154/177	0.9	178.0 159/183	0.3	181.0 163/186	0.3	184.0 166/190	0.3	187.1 170/195
0	168.7 150/174	1.1	174.0 155/178	0.9	178.6 160/183	0.3	181.5 164/187	0.3	184.5 167/191	0.3	187.6 171/195
-3	169.4 151/175	1.0	174.6 156/178	0.9	179.1 161/184	0.3	182.0 164/188	0.3	185.0 168/192	0.3	188.1 171/196
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **NEWARK**

A/D Elev **18ft**

FULL LENGTH RWY 22R

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.00%UP

TOR 2500m (8202ft) **ED** 2573m (8442ft) **TOD** 2805m (9203ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	146.4 135/162	1.2	152.2 140/166	1.1	157.5 144/169	0.3	160.3 147/173	0.2	162.8 151/176	0.2	165.3 154/180
36	148.0 136/163	1.2	153.9 140/167	1.1	159.3 144/170	0.3	162.3 148/173	0.2	164.8 151/177	0.2	167.3 155/180
33	149.7 136/164	1.2	155.6 140/168	1.1	161.0 145/171	0.3	164.1 148/174	0.3	166.7 151/178	0.2	169.2 155/181
30	151.2 136/165	1.2	157.2 141/169	1.1	162.7 145/172	0.3	166.0 148/175	0.2	168.5 152/179	0.3	171.1 155/182
27	152.7 137/165	1.2	158.8 141/169	1.1	164.3 146/173	0.3	167.8 149/176	0.3	170.4 152/179	0.3	173.0 156/183
24	154.2 137/166	1.2	160.3 141/170	1.1	165.9 146/174	0.4	169.5 149/176	0.3	172.1 153/180	0.3	174.8 156/184
21	155.6 137/167	1.2	161.7 142/171	1.1	167.4 146/175	0.4	171.2 149/177	0.3	173.8 153/181	0.3	176.5 156/184
18	156.9 138/168	1.2	163.1 142/172	1.1	168.8 147/175	0.4	172.8 150/178	0.3	175.5 153/181	0.3	178.2 157/185
15	158.2 138/168	1.3	164.5 143/172	1.1	170.2 147/176	0.4	174.2 150/179	0.3	177.1 154/182	0.3	179.8 157/186
12	159.4 139/169	1.3	165.7 143/173	1.2	171.5 148/177	0.4	175.5 151/179	0.3	178.4 154/183	0.3	181.1 158/186
9	160.6 139/169	1.3	166.9 143/174	1.2	172.7 148/177	0.4	176.4 151/180	0.3	179.1 155/184	0.3	181.9 158/187
6	161.7 139/170	1.3	168.1 144/174	1.2	173.9 149/178	0.3	177.0 152/181	0.3	179.8 156/185	0.3	182.5 159/188
3	162.8 140/171	1.2	169.0 144/175	1.2	175.0 149/178	0.3	177.7 153/182	0.3	180.4 156/186	0.3	183.1 160/189
0	163.8 140/171	1.2	170.0 145/175	1.1	175.6 150/179	0.3	178.3 153/183	0.3	181.0 157/187	0.3	183.7 161/190
-3	164.7 141/172	1.3	171.0 145/176	1.0	176.1 150/180	0.3	178.8 154/184	0.3	181.5 158/187	0.3	184.3 161/191
V2= θ2=	VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **491ft**

NEWBURGH STEWART INTL

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.19%DN

TOR 3602m (11818ft) **ED** 3602m (11818ft) **TOD** 3602m (11818ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.9 158/169	0.8	157.7 163/174	0.8	161.7 169/180	0.3	164.3 173/184	0.3	166.9 177/186	0.3	169.5 181/188
36	155.7 157/170	0.8	159.6 163/175	0.8	163.6 169/181	0.3	166.2 173/184	0.3	168.8 176/187	0.3	171.5 180/189
33	157.5 157/170	0.8	161.4 163/176	0.8	165.4 169/182	0.3	168.1 172/185	0.3	170.8 176/187	0.3	173.5 180/190
30	159.2 157/171	0.8	163.2 163/177	0.8	167.3 168/183	0.3	170.0 172/186	0.3	172.7 176/188	0.3	175.5 180/191
27	160.9 157/172	0.8	165.0 163/178	0.8	169.1 168/183	0.3	171.8 172/187	0.3	174.6 176/190	0.3	177.4 180/192
24	162.6 157/173	0.8	166.7 162/178	0.8	170.9 168/184	0.3	173.6 172/187	0.3	176.4 176/191	0.3	179.2 179/192
21	164.2 157/173	0.8	168.4 162/179	0.8	172.6 168/185	0.3	175.4 172/189	0.3	178.2 176/192	0.3	181.0 179/193
18	165.8 157/174	0.8	170.0 162/180	0.9	174.3 168/186	0.3	177.1 172/189	0.3	180.0 176/193	0.3	182.8 179/194
15	167.3 157/175	0.8	171.5 162/180	0.9	175.9 168/186	0.3	178.7 172/190	0.3	181.6 176/193	0.3	184.5 179/195
12	168.6 157/175	0.8	172.8 163/181	0.9	177.1 168/187	0.3	180.0 172/191	0.3	182.9 176/194	0.3	185.8 180/196
9	169.1 158/176	0.9	173.4 163/182	0.9	177.7 169/188	0.3	180.6 173/191	0.3	183.5 177/195	0.3	186.4 181/196
6	169.6 158/177	0.9	173.9 164/183	0.9	178.3 170/189	0.3	181.1 174/192	0.3	184.0 178/194	0.3	186.9 181/197
3	170.2 159/178	0.8	174.4 165/184	0.9	178.8 171/190	0.3	181.6 174/193	0.3	184.5 178/195	0.3	187.3 182/198
0	170.7 160/178	0.8	174.9 166/184	0.9	179.3 171/190	0.3	182.1 175/193	0.3	185.0 179/195	0.3	187.7 183/198
-3	171.1 160/179	0.8	175.3 166/185	0.9	179.7 172/190	0.3	182.5 176/193	0.3	185.4 180/195	0.3	188.0 184/199
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **491ft**

NEWBURGH STEWART INTL

FULL LENGTH RWY 27

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.19%UP

TOR 3602m (11818ft) **ED** 3602m (11818ft) **TOD** 3602m (11818ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	158.8 156/173	0.8	162.7 162/178	0.8	166.7 168/184	0.3	169.3 172/188	0.2	171.5 175/191	0.2	173.8 179/194
36	160.6 156/174	0.8	164.7 162/179	0.8	168.7 168/185	0.3	171.3 171/189	0.2	173.6 175/192	0.2	176.0 179/195
33	162.5 156/174	0.8	166.5 162/180	0.8	170.7 167/186	0.3	173.3 171/190	0.2	175.7 175/193	0.2	178.1 179/196
30	164.2 156/175	0.8	168.4 162/181	0.8	172.6 167/187	0.3	175.3 171/191	0.2	177.7 175/194	0.2	180.1 179/197
27	166.0 156/176	0.8	170.2 161/182	0.8	174.4 167/188	0.3	177.2 171/191	0.2	179.7 175/195	0.2	182.1 179/198
24	167.7 156/177	0.8	171.9 161/182	0.9	176.3 167/188	0.3	179.1 171/192	0.2	181.6 175/196	0.2	184.1 178/199
21	169.4 156/177	0.8	173.6 161/183	0.9	178.0 167/189	0.3	180.9 171/193	0.3	183.5 174/196	0.2	186.0 178/200
18	171.0 156/178	0.9	175.3 161/184	0.9	179.7 167/190	0.3	182.6 171/194	0.3	185.4 174/197	0.2	187.9 178/201
15	172.6 156/178	0.9	176.9 161/184	0.9	181.4 167/190	0.3	184.3 171/194	0.3	187.1 174/198	0.3	189.7 178/201
12	173.8 156/179	0.9	178.2 162/185	0.9	182.7 167/191	0.3	185.6 171/195	0.3	188.5 175/199	0.3	191.1 179/202
9	174.5 157/180	0.9	178.9 162/186	0.9	183.4 168/192	0.3	186.3 172/196	0.3	188.9 176/199	0.3	191.5 180/203
6	175.1 157/181	0.9	179.5 163/187	0.9	183.9 169/193	0.3	186.8 172/197	0.2	189.3 176/200	0.3	191.9 180/204
3	175.7 158/182	0.9	180.0 164/188	0.9	184.5 169/194	0.3	187.1 173/197	0.3	189.7 177/201	0.3	192.3 181/204
0	176.2 159/183	0.9	180.6 164/189	0.9	185.0 170/195	0.2	187.5 174/198	0.3	190.1 178/201	0.3	192.7 182/205
-3	176.7 159/184	0.9	181.0 165/190	0.9	185.3 171/196	0.2	187.8 175/198	0.3	190.4 179/202	0.3	193.0 183/205
V2= 02=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

A/D Elev **21ft**

FULL LENGTH RWY 09L

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.03%DN
TOR 2896m (9501ft) **ED** 2896m (9501ft) **TOD** 2896m (9501ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	150.1 144/165	1.2	155.9 148/168	1.0	160.9 153/173	0.3	163.6 156/177	0.3	166.4 160/181	0.3	169.3 163/185
36	151.8 144/165	1.2	157.7 149/169	1.0	162.8 153/174	0.3	165.6 157/178	0.3	168.4 160/182	0.3	171.3 163/186
33	153.5 145/166	1.2	159.4 149/170	1.1	164.7 154/175	0.3	167.5 157/179	0.3	170.4 160/183	0.3	173.3 164/187
30	155.1 145/167	1.2	161.1 149/171	1.1	166.5 154/176	0.3	169.4 157/180	0.3	172.3 161/184	0.3	175.3 164/188
27	156.6 146/168	1.2	162.7 150/172	1.1	168.3 154/177	0.3	171.2 158/181	0.3	174.2 161/185	0.3	177.2 164/189
24	158.1 146/169	1.2	164.2 150/173	1.2	170.1 155/177	0.3	173.0 158/181	0.3	176.0 161/185	0.3	179.0 165/190
21	159.5 146/169	1.2	165.7 151/174	1.2	171.8 155/178	0.3	174.7 158/182	0.3	177.7 162/186	0.3	180.8 165/190
18	160.9 147/170	1.3	167.2 151/174	1.2	173.4 155/179	0.3	176.4 159/183	0.3	179.4 162/187	0.3	182.5 165/191
15	162.2 147/171	1.3	168.5 152/175	1.3	175.0 156/179	0.3	178.0 159/183	0.3	181.0 163/187	0.3	184.2 166/191
12	163.5 148/172	1.3	169.8 152/176	1.3	176.3 156/180	0.3	179.3 160/184	0.3	182.4 163/188	0.3	185.6 166/192
9	164.7 148/172	1.3	171.0 152/176	1.2	177.0 157/181	0.3	180.0 160/185	0.3	183.1 164/189	0.3	186.3 167/193
6	165.8 149/173	1.3	172.2 153/177	1.1	177.7 158/182	0.3	180.7 161/186	0.3	183.8 165/190	0.3	187.0 168/194
3	166.9 149/173	1.3	173.3 153/177	1.0	178.3 158/183	0.3	181.4 162/187	0.3	184.5 165/191	0.3	187.6 169/195
0	167.9 150/174	1.3	174.4 154/178	0.9	178.9 159/184	0.3	182.0 163/188	0.3	185.1 166/192	0.3	188.3 170/196
-3	168.8 150/174	1.2	175.0 155/179	0.9	179.5 160/185	0.3	182.6 163/189	0.3	185.6 167/193	0.3	188.8 170/197
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **PHILADELPHIA**

A/D Elev **21ft**

FULL LENGTH RWY 09R

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.10%DN
TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 3200m (10499ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	156.4 150/172	0.8	160.2 155/178	0.8	164.1 160/184	0.2	166.5 164/188	0.2	168.8 167/192	0.2	171.3 171/195
36	158.3 151/173	0.8	162.1 156/179	0.8	166.1 161/185	0.2	168.5 164/189	0.2	170.9 168/193	0.2	173.4 171/196
33	160.1 151/174	0.8	164.0 156/180	0.8	168.0 161/186	0.2	170.5 165/190	0.2	173.0 168/194	0.2	175.5 172/197
30	161.9 151/174	0.8	165.9 156/180	0.8	169.9 161/186	0.3	172.5 165/191	0.2	175.0 168/195	0.3	177.6 172/198
27	163.7 152/175	0.8	167.7 157/181	0.8	171.8 162/187	0.3	174.4 165/191	0.3	177.0 169/196	0.2	179.5 172/200
24	165.5 152/176	0.8	169.5 157/182	0.8	173.6 162/188	0.3	176.3 166/192	0.3	178.9 169/196	0.2	181.4 173/201
21	167.2 152/176	0.8	171.2 157/182	0.8	175.4 163/189	0.3	178.2 166/193	0.3	180.8 169/197	0.3	183.4 173/202
18	168.8 153/177	0.8	172.9 158/183	0.9	177.2 163/189	0.3	180.0 166/193	0.3	182.7 170/198	0.3	185.3 173/202
15	170.4 153/178	0.8	174.5 158/184	0.9	178.8 163/190	0.3	181.7 167/194	0.3	184.4 170/198	0.3	187.1 174/203
12	171.7 154/178	0.8	175.8 159/184	0.9	180.1 164/190	0.3	183.0 167/195	0.3	185.8 171/199	0.3	188.5 174/203
9	172.2 154/179	0.8	176.4 159/185	0.9	180.7 165/192	0.3	183.5 168/196	0.3	186.2 172/200	0.3	188.8 175/205
6	172.7 155/181	0.8	176.9 160/187	0.9	181.2 165/193	0.3	183.9 169/197	0.3	186.5 173/202	0.3	189.3 176/204
3	173.2 156/182	0.8	177.4 161/188	0.8	181.6 166/194	0.3	184.2 170/198	0.3	186.8 174/203	0.3	189.6 177/205
0	173.7 157/183	0.8	177.9 162/189	0.8	182.0 167/195	0.2	184.5 171/199	0.3	187.2 174/202	0.3	189.9 178/205
-3	174.1 157/184	0.8	178.3 163/190	0.8	182.3 168/196	0.2	184.8 172/200	0.3	187.5 175/203	0.3	190.2 179/206
V2= θ2=	VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 22 13.5		VR+ 22 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **PHILADELPHIA**

A/D Elev **21ft**

FULL LENGTH RWY 27L

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.10%UP
TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 3200m (10499ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	157.4 0.9 150/169	161.8 0.8 155/175	165.9 0.3 160/180	168.6 0.3 163/184	171.4 0.3 166/188	174.1 170/192
36	159.2 0.9 150/170	163.8 0.8 155/176	167.9 0.3 160/181	170.7 0.3 163/185	173.5 0.3 167/189	176.2 170/193
33	161.0 0.9 151/171	165.6 0.8 155/176	169.8 0.3 160/182	172.6 0.3 164/186	175.5 0.3 167/190	178.3 170/194
30	162.6 1.0 151/172	167.5 0.8 156/177	171.7 0.3 161/183	174.6 0.3 164/187	177.5 0.3 167/191	180.3 171/195
27	164.3 1.0 152/173	169.3 0.9 156/178	173.6 0.3 161/184	176.5 0.3 165/188	179.4 0.3 168/192	182.3 171/196
24	165.8 1.1 152/174	171.1 0.9 157/179	175.4 0.3 162/185	178.3 0.3 165/189	181.3 0.3 168/193	184.2 172/197
21	167.3 1.1 152/175	172.8 0.9 157/179	177.1 0.3 162/185	180.1 0.3 165/189	183.1 0.3 169/193	186.1 172/197
18	168.8 1.1 153/175	174.4 0.9 157/180	178.8 0.3 162/186	181.8 0.3 166/190	184.8 0.3 169/194	187.9 172/198
15	170.1 1.2 153/176	176.0 0.9 158/180	180.5 0.3 163/186	183.5 0.3 166/190	186.5 0.3 170/194	189.6 173/199
12	171.4 1.2 154/177	177.3 0.9 158/181	181.8 0.3 163/187	184.8 0.3 167/191	187.9 0.3 170/195	191.0 173/199
9	172.7 1.1 154/177	178.0 0.9 159/182	182.5 0.3 164/188	185.6 0.3 167/192	188.6 0.3 171/196	191.7 174/200
6	173.9 1.0 155/178	178.7 0.9 160/183	183.2 0.3 165/189	186.2 0.3 168/193	189.3 0.3 172/197	192.3 175/201
3	175.0 0.9 155/178	179.4 0.9 160/184	183.9 0.3 166/190	186.9 0.3 169/194	189.9 0.3 173/198	192.9 176/202
0	175.6 0.9 156/179	180.0 0.9 161/185	184.5 0.3 166/191	187.5 0.3 170/195	190.5 0.3 173/199	193.5 177/203
-3	176.1 0.9 157/180	180.5 0.9 162/186	185.0 0.3 167/192	188.0 0.3 171/196	191.0 0.3 174/200	194.0 178/204
V2= θ2=	VR+ 22 14.0	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **PHILADELPHIA**

A/D Elev **21ft**

FULL LENGTH RWY 27R

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.03%UP
TOR 2896m (9501ft) **ED** 2896m (9501ft) **TOD** 2896m (9501ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	149.8 144/164	1.2	155.6 148/168	1.0	160.7 153/173	0.3	163.4 156/177	0.3	166.2 160/181	0.3	169.1 163/185
36	151.5 145/165	1.2	157.4 149/169	1.0	162.6 153/174	0.3	165.4 157/178	0.3	168.2 160/182	0.3	171.1 163/186
33	153.1 145/166	1.2	159.1 149/170	1.1	164.5 154/175	0.3	167.3 157/179	0.3	170.2 160/183	0.3	173.1 164/187
30	154.7 145/167	1.2	160.8 150/171	1.1	166.3 154/176	0.3	169.2 157/179	0.3	172.1 161/184	0.3	175.0 164/188
27	156.3 146/168	1.2	162.4 150/172	1.1	168.1 154/176	0.3	171.0 158/180	0.3	173.9 161/184	0.3	177.0 164/188
24	157.8 146/169	1.2	163.9 150/173	1.2	169.8 155/177	0.3	172.8 158/181	0.3	175.7 161/185	0.3	178.8 165/189
21	159.2 147/169	1.2	165.4 151/173	1.2	171.5 155/178	0.3	174.5 159/182	0.3	177.5 162/186	0.3	180.6 165/190
18	160.6 147/170	1.2	166.8 151/174	1.3	173.2 156/178	0.3	176.2 159/182	0.3	179.2 162/186	0.3	182.3 166/190
15	161.9 147/171	1.3	168.2 152/175	1.3	174.7 156/179	0.3	177.7 159/183	0.3	180.8 163/187	0.3	184.0 166/191
12	163.1 148/171	1.3	169.5 152/175	1.3	176.0 156/180	0.3	179.1 160/183	0.3	182.2 163/188	0.3	185.3 167/192
9	164.3 148/172	1.3	170.7 153/176	1.2	176.8 157/181	0.3	179.8 161/185	0.3	182.9 164/189	0.3	186.1 167/193
6	165.4 149/173	1.3	171.9 153/177	1.1	177.4 158/182	0.3	180.5 161/186	0.3	183.6 165/190	0.3	186.7 168/194
3	166.5 149/173	1.3	173.0 154/177	1.0	178.1 159/183	0.3	181.1 162/187	0.3	184.2 165/191	0.3	187.4 169/195
0	167.5 150/174	1.3	174.0 154/178	0.9	178.7 159/184	0.3	181.8 163/188	0.3	184.9 166/192	0.3	188.0 170/196
-3	168.5 150/174	1.3	174.8 155/178	0.9	179.3 160/184	0.3	182.3 163/188	0.3	185.4 167/193	0.3	188.6 170/197
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

POINTE-A-PITRE
LE RAIZET

A/D Elev **36ft**

FULL LENGTH RWY 11

CLG NIL **RVR/VIS** 400m **SLOPE** 0.26%UP
TOR 3505m (11499ft) **ED** 3505m (11499ft) **TOD** 3525m (11565ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	160.1 157/177	0.8	164.0 162/183	0.7	167.6 167/189	0.2	169.9 171/194	0.2	172.3 174/196	0.2	174.7 178/199
36	162.0 157/178	0.8	166.0 163/184	0.7	169.7 168/190	0.2	172.0 171/195	0.2	174.4 175/197	0.2	176.9 178/200
33	163.9 157/179	0.8	167.9 163/185	0.8	171.7 168/191	0.2	174.1 172/195	0.2	176.5 175/198	0.2	179.0 179/201
30	165.7 157/180	0.8	169.8 163/186	0.8	173.6 168/192	0.2	176.1 172/196	0.2	178.6 175/199	0.2	181.1 179/202
27	167.5 157/180	0.8	171.6 162/186	0.8	175.6 168/193	0.2	178.1 172/197	0.2	180.6 176/200	0.3	183.2 179/204
24	169.3 157/181	0.8	173.4 162/187	0.8	177.4 168/193	0.3	180.0 172/198	0.2	182.5 176/201	0.3	185.2 180/204
21	170.9 157/182	0.8	175.1 162/188	0.8	179.3 168/194	0.3	181.9 172/198	0.2	184.4 176/203	0.3	187.1 180/205
18	172.6 157/182	0.8	176.8 162/188	0.9	181.1 168/194	0.3	183.7 172/199	0.3	186.3 176/203	0.3	189.0 180/205
15	174.2 157/183	0.9	178.5 162/189	0.9	182.8 168/195	0.3	185.4 172/199	0.3	188.1 176/204	0.3	190.8 180/207
12	175.5 157/183	0.9	179.8 163/189	0.9	184.1 168/196	0.3	186.8 172/200	0.3	189.5 176/204	0.3	192.2 180/207
9	176.0 157/184	0.9	180.3 163/191	0.8	184.5 169/197	0.3	187.2 173/201	0.3	189.8 177/205	0.3	192.6 181/208
6	176.5 158/186	0.9	180.8 164/192	0.8	184.9 170/198	0.3	187.5 174/203	0.3	190.2 178/205	0.3	192.9 182/208
3	177.0 159/187	0.9	181.3 165/193	0.8	185.3 171/199	0.2	187.8 175/204	0.3	190.5 179/206	0.3	193.3 183/208
0	177.5 160/188	0.8	181.7 165/194	0.8	185.6 172/200	0.3	188.2 176/203	0.3	190.9 180/206	0.3	193.6 184/209
-3	177.9 160/189	0.8	182.0 166/195	0.8	185.8 173/202	0.3	188.5 177/204	0.3	191.1 181/207	0.3	193.9 185/209
V2= θ2=	VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 22 13.0		VR+ 22 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

POINTE-A-PITRE

A/D Elev **36ft**

LE RAIZET

FULL LENGTH RWY 29

CLG NIL **RVR/VIS** 400m **SLOPE** 0.26%DN

TOR 3505m (11499ft) **ED** 3505m (11499ft) **TOD** 3565m (11696ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	163.0 154/180	0.8	167.0 159/185	0.8	170.9 165/188	0.2	173.4 169/191	0.2	175.7 173/194	0.2	178.2 176/198
36	164.9 153/181	0.8	169.0 159/186	0.8	172.9 165/189	0.3	175.5 169/192	0.2	177.9 173/195	0.2	180.4 176/199
33	166.8 153/181	0.8	170.9 159/187	0.8	174.9 165/190	0.3	177.5 168/193	0.2	180.0 172/196	0.2	182.5 176/200
30	168.7 153/182	0.8	172.8 159/188	0.8	176.9 164/191	0.3	179.5 168/194	0.2	182.0 172/197	0.2	184.5 176/201
27	170.5 153/183	0.8	174.7 159/189	0.8	178.8 164/192	0.3	181.5 168/195	0.2	184.0 172/198	0.3	186.6 176/202
24	172.2 153/184	0.9	176.5 158/189	0.8	180.7 164/193	0.3	183.4 168/196	0.3	186.0 172/199	0.3	188.6 176/203
21	174.0 153/185	0.9	178.3 158/190	0.8	182.5 164/194	0.3	185.3 168/196	0.3	187.9 172/200	0.3	190.5 176/203
18	175.7 153/185	0.9	180.0 158/191	0.9	184.3 164/195	0.3	187.2 168/197	0.3	189.8 172/201	0.3	192.4 176/204
15	177.3 153/186	0.9	181.6 158/192	0.9	186.0 164/196	0.3	188.9 168/198	0.3	191.5 172/201	0.3	194.2 176/205
12	178.6 153/186	0.9	183.0 159/193	0.9	187.4 164/197	0.3	190.2 168/198	0.3	192.9 172/202	0.2	195.0 176/205
9	179.2 154/188	0.9	183.6 159/193	0.9	187.9 165/197	0.3	190.7 169/199	0.3	193.4 173/203	0.2	195.0 176/206
6	179.7 154/188	0.9	184.1 160/194	0.9	188.4 166/197	0.3	191.1 170/200	0.3	193.8 174/203	0.1	195.0 177/206
3	180.2 155/189	0.9	184.6 161/195	0.9	188.9 167/197	0.3	191.6 171/201	0.3	194.2 175/204	0.1	195.0 178/206
0	180.7 156/189	0.9	185.1 162/195	0.8	189.3 167/198	0.3	192.0 172/201	0.3	194.6 176/205	0.0	195.0 178/207
-3	181.1 156/190	0.9	185.4 162/195	0.9	189.7 168/198	0.3	192.3 172/202	0.3	194.9 177/205	0.0	195.0 179/207
V2= θ2=	VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PORT OF SPAIN

A/D Elev **57ft**

PIARCO

FULL LENGTH RWY 10

CLG NIL **RVR/VIS** 0.25NM **SLOPE** 0.24%UP

TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 4800m (15748ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.4 148/176	0.7	166.0 153/181	0.7	169.5 158/186	0.2	171.9 161/189	0.2	174.3 165/193	0.2	176.8 168/196
36	164.4 148/177	0.7	168.0 153/182	0.7	171.6 158/187	0.2	174.0 162/190	0.2	176.4 165/194	0.2	178.9 169/197
33	166.3 148/177	0.7	169.9 154/183	0.7	173.5 159/188	0.2	176.0 162/191	0.2	178.5 166/195	0.2	181.0 169/198
30	168.1 149/178	0.7	171.8 154/183	0.7	175.5 159/188	0.2	178.0 163/192	0.2	180.5 166/195	0.2	183.0 170/199
27	170.0 149/179	0.7	173.7 154/184	0.7	177.4 159/189	0.2	179.9 163/193	0.2	182.4 166/196	0.3	185.0 170/200
24	171.7 149/180	0.8	175.5 155/185	0.8	179.3 160/190	0.2	181.8 163/194	0.3	184.4 167/197	0.3	187.0 170/201
21	173.4 150/180	0.8	177.2 155/186	0.8	181.1 160/191	0.2	183.6 164/194	0.3	186.2 167/198	0.3	188.8 171/201
18	175.1 150/181	0.8	178.9 155/186	0.8	182.8 161/191	0.3	185.4 164/195	0.3	188.0 168/198	0.3	190.7 171/202
15	176.7 151/182	0.8	180.6 156/187	0.8	184.5 161/192	0.3	187.1 165/195	0.3	189.7 168/199	0.3	192.4 172/202
12	178.0 151/182	0.8	181.9 156/187	0.8	185.8 162/193	0.3	188.5 165/196	0.3	191.1 169/200	0.3	193.8 172/203
9	178.7 152/183	0.8	182.6 157/189	0.8	186.6 162/194	0.3	189.2 166/197	0.3	191.9 170/201	0.3	194.6 173/204
6	179.4 152/184	0.8	183.3 158/190	0.8	187.2 163/195	0.3	189.9 167/198	0.3	192.6 170/202	0.2	195.0 174/205
3	180.0 153/185	0.8	183.9 158/191	0.8	187.9 164/196	0.3	190.5 167/199	0.3	193.2 171/203	0.2	195.0 174/206
0	180.6 154/186	0.8	184.5 159/191	0.8	188.5 165/197	0.3	191.1 168/200	0.3	193.8 172/204	0.1	195.0 175/206
-3	181.2 155/187	0.8	185.1 160/192	0.8	189.0 165/198	0.3	191.7 169/201	0.3	194.4 173/205	0.1	195.0 175/207
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PORT OF SPAIN

A/D Elev **57ft**

PIARCO

FULL LENGTH RWY 28

CLG NIL **RVR/VIS** 0.25nm **SLOPE** 0.24%DN

TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 4800m (15748ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	164.0 147/178	0.7	167.5 152/183	0.7	171.0 157/188	0.2	173.4 161/191	0.2	175.8 164/195	0.2	178.3 167/198
36	166.0 147/179	0.7	169.5 152/184	0.7	173.1 157/189	0.2	175.5 161/192	0.2	178.0 164/196	0.2	180.5 168/199
33	167.9 148/180	0.7	171.5 153/185	0.7	175.1 158/190	0.2	177.6 161/193	0.2	180.0 165/197	0.3	182.6 168/200
30	169.8 148/180	0.7	173.4 153/186	0.7	177.1 158/191	0.2	179.6 162/194	0.2	182.1 165/198	0.2	184.6 169/201
27	171.6 148/181	0.7	175.3 153/186	0.7	179.0 159/192	0.2	181.5 162/195	0.3	184.1 166/198	0.2	186.6 169/202
24	173.4 149/182	0.7	177.1 154/187	0.8	180.9 159/192	0.2	183.4 162/196	0.3	186.0 166/199	0.3	188.6 169/203
21	175.1 149/183	0.8	178.9 154/188	0.8	182.7 159/193	0.3	185.3 163/196	0.3	187.9 166/200	0.3	190.5 170/203
18	176.8 149/183	0.8	180.6 154/188	0.8	184.5 160/194	0.2	187.0 163/197	0.3	189.7 167/201	0.3	192.3 170/204
15	178.4 150/184	0.8	182.3 155/189	0.8	186.2 160/194	0.3	188.8 164/198	0.3	191.4 167/201	0.3	194.1 171/205
12	179.7 150/185	0.8	183.6 155/190	0.8	187.5 161/195	0.3	190.2 164/198	0.3	192.8 168/202	0.2	195.0 171/205
9	180.4 151/186	0.8	184.3 156/191	0.8	188.3 161/196	0.3	190.9 165/200	0.3	193.6 169/203	0.1	195.0 172/206
6	181.1 152/187	0.8	185.0 157/192	0.8	188.9 162/197	0.3	191.6 166/201	0.3	194.3 169/204	0.1	195.0 172/206
3	181.7 152/188	0.8	185.6 158/193	0.8	189.6 163/198	0.3	192.2 167/202	0.3	194.9 170/205	0.0	195.0 172/207
0	182.4 153/189	0.8	186.2 158/194	0.8	190.2 164/199	0.3	192.9 167/203	0.2	195.0 171/206	0.0	195.0 173/208
-3	182.9 154/189	0.8	186.8 159/195	0.8	190.8 164/200	0.3	193.4 168/203	0.2	195.0 171/206	0.0	195.0 174/208
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **11ft**

FULL LENGTH RWY 10

CLG NIL **RVR/VIS** 400m **SLOPE** 0.00%UP
TOR 2743m (8999ft) **ED** 2743m (8999ft) **TOD** 2805m (9203ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.0 142/161	1.1	150.4 146/165	1.1	155.9 150/168	0.3	159.3 153/171	0.3	162.1 157/175	0.3	164.9 160/179
36	146.6 142/162	1.1	152.1 146/166	1.1	157.7 151/169	0.3	161.2 154/172	0.3	164.0 157/176	0.3	166.9 160/180
33	148.2 142/163	1.1	153.8 147/166	1.1	159.4 151/170	0.4	163.1 154/173	0.3	165.9 157/177	0.3	168.8 161/181
30	149.8 143/164	1.1	155.4 147/167	1.1	161.1 151/171	0.4	164.9 154/174	0.3	167.8 158/177	0.3	170.7 161/182
27	151.3 143/164	1.1	157.0 147/168	1.2	162.8 152/172	0.4	166.6 155/174	0.3	169.6 158/178	0.3	172.5 161/182
24	152.8 143/165	1.1	158.5 148/169	1.2	164.4 152/173	0.4	168.2 155/175	0.3	171.3 158/179	0.3	174.3 162/183
21	154.2 144/166	1.2	160.0 148/170	1.2	165.9 153/174	0.4	169.8 156/176	0.3	173.1 159/180	0.3	176.1 162/184
18	155.5 144/167	1.2	161.4 149/171	1.2	167.4 153/174	0.4	171.3 156/177	0.3	174.7 159/180	0.3	177.8 163/184
15	156.8 145/167	1.2	162.8 149/171	1.2	168.8 153/175	0.4	172.8 156/178	0.3	176.3 160/181	0.3	179.4 163/185
12	158.0 145/168	1.2	164.0 149/172	1.2	170.1 154/176	0.4	174.1 157/178	0.3	177.6 160/182	0.3	180.7 164/186
9	159.1 145/168	1.2	165.1 150/172	1.2	171.2 154/176	0.4	175.1 158/179	0.3	178.3 161/183	0.3	181.4 164/187
6	160.1 146/169	1.2	166.1 151/173	1.2	172.1 155/177	0.4	175.9 158/180	0.3	178.9 162/184	0.3	182.1 165/188
3	161.0 146/169	1.2	167.0 151/173	1.2	173.1 156/177	0.3	176.5 159/180	0.3	179.6 162/185	0.3	182.7 166/189
0	161.9 147/170	1.2	167.9 152/174	1.2	173.9 156/178	0.3	177.1 160/181	0.3	180.2 163/185	0.3	183.3 167/190
-3	162.8 148/170	1.2	168.8 152/174	1.2	174.6 157/178	0.3	177.6 160/182	0.3	180.7 164/186	0.3	183.8 167/190
V2= θ2=	VR+ 25 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **11ft**

FULL LENGTH RWY 28

CLG NIL **RVR/VIS** 400m **SLOPE** 0.00%UP
TOR 2743m (8999ft) **ED** 2743m (8999ft) **TOD** 2926m (9600ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	149.1 140/164	1.1	154.7 144/168	1.0	159.9 149/172	0.3	162.7 152/176	0.3	165.5 155/180	0.3	168.3 158/184
36	150.7 140/165	1.2	156.5 144/169	1.1	161.9 149/173	0.3	164.6 152/177	0.3	167.5 156/181	0.3	170.3 159/185
33	152.4 140/166	1.2	158.2 145/169	1.1	163.7 149/174	0.3	166.5 153/178	0.3	169.4 156/182	0.3	172.3 159/186
30	154.0 141/166	1.2	159.8 145/170	1.2	165.6 150/174	0.3	168.4 153/178	0.3	171.3 156/182	0.3	174.3 160/187
27	155.5 141/167	1.2	161.5 146/171	1.2	167.4 150/175	0.3	170.2 153/179	0.3	173.1 157/183	0.3	176.2 160/187
24	157.0 142/168	1.2	163.0 146/172	1.2	169.1 150/176	0.3	172.0 154/180	0.3	175.0 157/184	0.3	178.0 160/188
21	158.5 142/169	1.2	164.5 146/173	1.2	170.7 151/177	0.3	173.7 154/181	0.3	176.7 157/185	0.3	179.8 161/189
18	159.9 142/170	1.2	165.9 147/173	1.3	172.2 151/177	0.3	175.4 154/181	0.3	178.4 158/185	0.3	181.5 161/189
15	161.2 143/170	1.2	167.3 147/174	1.3	173.6 152/178	0.3	177.0 155/182	0.3	180.0 158/186	0.3	183.2 162/190
12	162.4 143/171	1.2	168.6 148/175	1.3	174.9 152/179	0.3	178.3 155/182	0.3	181.4 159/186	0.3	184.5 162/191
9	163.6 144/171	1.2	169.8 148/175	1.2	176.0 153/179	0.3	179.0 156/183	0.3	182.1 159/188	0.3	185.2 163/192
6	164.6 144/172	1.2	170.8 149/176	1.2	176.6 153/181	0.3	179.7 157/185	0.3	182.7 160/189	0.3	185.9 164/193
3	165.7 145/172	1.2	171.9 149/176	1.1	177.3 154/181	0.3	180.3 157/185	0.3	183.4 161/190	0.3	186.6 164/194
0	166.6 145/173	1.3	172.9 150/177	1.0	177.9 155/182	0.3	180.9 158/186	0.3	184.0 162/191	0.3	187.2 165/195
-3	167.5 146/173	1.3	173.8 150/177	0.9	178.4 155/183	0.3	181.5 159/187	0.3	184.5 162/191	0.3	187.7 166/196
V2= θ2=	VR+ 24 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

WINDSOR LOCKS
BRADLEY INT

A/D Elev **174ft**

FULL LENGTH RWY 06

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.13%DN
TOR 2896m (9501ft) **ED** 3196m (10486ft) **TOD** 2896m (9501ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.1 152/165	1.2	156.9 156/169	0.8	161.0 161/175	0.3	163.7 164/179	0.3	166.4 168/183	0.3	169.2 171/187
36	152.8 152/166	1.2	158.7 157/170	0.9	163.0 161/176	0.3	165.7 165/180	0.3	168.4 168/184	0.3	171.2 171/188
33	154.4 153/167	1.2	160.4 157/171	0.9	164.9 162/176	0.3	167.6 165/180	0.3	170.4 168/184	0.3	173.2 172/189
30	156.0 153/168	1.2	162.1 157/172	0.9	166.8 162/177	0.3	169.5 166/181	0.3	172.3 169/185	0.3	175.2 172/189
27	157.6 154/169	1.2	163.7 158/173	1.0	168.6 162/178	0.3	171.4 166/182	0.3	174.2 169/186	0.3	177.1 173/190
24	159.1 154/169	1.2	165.2 158/174	1.0	170.4 163/179	0.3	173.2 166/183	0.3	176.1 170/187	0.3	179.0 173/191
21	160.5 154/170	1.2	166.7 159/174	1.1	172.1 163/179	0.3	175.0 167/183	0.3	177.9 170/187	0.3	180.9 173/192
18	161.9 155/171	1.3	168.2 159/175	1.1	173.8 164/180	0.3	176.7 167/184	0.3	179.6 170/188	0.3	182.6 174/192
15	163.3 155/172	1.2	169.5 160/176	1.2	175.3 164/180	0.3	178.3 167/184	0.3	181.3 171/188	0.3	184.3 174/193
12	164.5 156/172	1.3	170.9 160/176	1.2	176.7 165/181	0.3	179.7 168/185	0.3	182.6 171/189	0.3	185.7 175/193
9	165.7 156/173	1.3	172.1 161/177	1.0	177.3 165/182	0.3	180.3 169/186	0.3	183.2 172/190	0.3	186.3 176/195
6	166.9 157/174	1.3	173.3 161/178	0.9	177.9 166/183	0.3	180.8 170/188	0.3	183.8 173/192	0.3	186.9 177/196
3	168.0 157/174	1.2	174.1 162/178	0.9	178.4 167/185	0.3	181.3 171/189	0.3	184.3 174/193	0.3	187.4 177/196
0	169.0 158/175	1.1	174.6 163/179	0.9	178.9 168/186	0.3	181.9 171/190	0.3	184.9 175/194	0.3	187.8 178/197
-3	170.0 158/175	1.0	175.0 163/180	0.9	179.4 169/186	0.3	182.3 172/191	0.3	185.3 176/195	0.3	188.2 179/197
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

WINDSOR LOCKS
BRADLEY INT

A/D Elev **174ft**

FULL LENGTH RWY **15**

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.01%DN
TOR 2087m (6847ft) **ED** 2087m (6847ft) **TOD** 2087m (6847ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	112.7 132/139	2.9	127.4 132/148	1.5	134.9 136/154	0.4	138.8 138/157	0.4	142.8 141/160	0.4	147.0 144/162
36	114.6 132/139	3.0	129.5 132/150	1.4	136.4 136/155	0.4	140.4 139/158	0.4	144.4 142/160	0.4	148.6 144/163
33	116.4 132/139	3.0	131.6 132/151	1.3	137.9 136/155	0.4	141.9 139/158	0.4	146.0 142/161	0.4	150.2 145/164
30	118.3 132/140	3.0	133.4 132/152	1.2	139.3 137/156	0.4	143.4 139/159	0.4	147.5 142/162	0.4	151.8 145/165
27	120.1 132/141	2.9	134.8 132/153	1.2	140.7 137/157	0.4	144.8 140/160	0.4	149.0 143/163	0.4	153.3 146/166
24	122.0 132/143	2.8	136.1 133/153	1.2	142.0 137/158	0.4	146.2 140/161	0.4	150.4 143/164	0.4	154.8 146/167
21	123.9 132/144	2.7	137.3 133/154	1.2	143.3 138/158	0.4	147.5 141/161	0.4	151.8 143/164	0.4	156.2 146/167
18	125.8 132/145	2.5	138.5 134/155	1.2	144.6 138/159	0.4	148.8 141/162	0.4	153.1 144/165	0.4	157.5 147/168
15	127.7 132/146	2.4	139.6 134/155	1.2	145.8 138/160	0.4	150.0 141/163	0.4	154.3 144/166	0.4	158.8 147/169
12	129.6 132/147	2.2	140.7 134/156	1.2	146.9 139/160	0.4	151.2 142/163	0.4	155.5 145/166	0.4	160.0 148/169
9	131.5 132/149	2.1	141.8 135/156	1.2	148.0 139/161	0.4	152.3 142/164	0.4	156.7 145/167	0.4	161.2 148/170
6	133.4 132/150	1.9	142.8 135/157	1.2	149.0 140/161	0.4	153.4 143/164	0.4	157.8 146/168	0.4	162.3 149/171
3	135.3 132/151	1.7	143.7 136/157	1.3	150.0 140/162	0.4	154.4 143/165	0.4	158.8 146/168	0.5	163.4 149/171
0	137.2 132/153	1.5	144.6 136/158	1.3	151.0 141/162	0.4	155.3 144/166	0.4	159.8 147/169	0.5	164.4 150/172
-3	139.1 132/154	1.3	145.5 137/158	1.3	151.9 141/163	0.4	156.3 144/166	0.4	160.8 147/169	0.5	165.4 150/172
V2= θ2=	VR+ 34 17.0		VR+ 29 16.0		VR+ 27 15.5		VR+ 26 15.5		VR+ 25 15.0		VR+ 24 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

WINDSOR LOCKS
BRADLEY INT

A/D Elev **174ft**

FULL LENGTH RWY 24

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.13%UP
TOR 2896m (9501ft) **ED** 2896m (9501ft) **TOD** 2896m (9501ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	148.6 144/164	1.0	153.5 149/168	0.8	157.4 154/174	0.3	160.0 157/178	0.3	162.6 161/182	0.3	165.2 164/185
36	150.2 145/164	1.0	155.4 149/169	0.8	159.3 154/175	0.3	161.9 158/179	0.3	164.6 161/183	0.3	167.2 164/186
33	151.9 145/165	1.1	157.2 149/170	0.8	161.2 155/176	0.3	163.8 158/180	0.3	166.5 161/184	0.3	169.2 165/187
30	153.4 145/166	1.1	159.0 150/170	0.8	163.0 155/176	0.3	165.7 158/180	0.3	168.4 162/185	0.3	171.2 165/188
27	155.0 146/167	1.2	160.8 150/171	0.8	164.8 155/177	0.3	167.5 159/181	0.3	170.3 162/185	0.3	173.1 165/189
24	156.4 146/168	1.2	162.5 150/172	0.8	166.6 156/178	0.3	169.3 159/182	0.3	172.1 162/186	0.3	175.0 166/190
21	157.9 147/168	1.2	164.0 151/173	0.9	168.3 156/178	0.3	171.1 159/183	0.3	173.9 163/187	0.3	176.8 166/191
18	159.2 147/169	1.3	165.5 151/173	0.9	170.0 156/179	0.3	172.8 160/183	0.3	175.6 163/187	0.3	178.6 167/192
15	160.5 147/170	1.3	166.8 152/174	0.9	171.5 157/180	0.3	174.4 160/184	0.3	177.3 164/188	0.3	180.3 167/192
12	161.8 148/171	1.3	168.1 152/175	0.9	172.8 157/180	0.3	175.7 161/184	0.3	178.6 164/189	0.3	181.6 167/193
9	163.0 148/171	1.2	169.1 153/175	0.9	173.4 158/182	0.3	176.2 161/186	0.3	179.2 165/190	0.3	182.1 168/194
6	164.1 149/172	1.1	169.6 154/177	0.9	173.9 159/183	0.3	176.7 162/187	0.3	179.7 166/191	0.3	182.4 169/194
3	165.2 149/172	1.0	170.1 154/178	0.9	174.4 160/184	0.3	177.3 163/188	0.3	180.2 167/192	0.3	182.9 170/194
0	166.2 150/173	0.9	170.6 155/179	0.8	174.8 160/185	0.3	177.7 164/189	0.3	180.6 167/192	0.3	183.2 171/195
-3	166.9 150/174	0.8	171.0 156/180	0.9	175.3 161/186	0.3	178.1 165/190	0.3	180.8 168/192	0.3	183.5 172/195
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

FULL LENGTH RWY 33

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.01%UP
TOR 2087m (6847ft) **ED** 2391m (7844ft) **TOD** 2087m (6847ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	125.1 138/146	1.1	130.6 142/151	1.1	136.2 147/155	0.4	140.1 149/158	0.3	143.0 153/160	0.3	145.7 156/162
36	126.6 138/147	1.1	132.1 143/151	1.1	137.8 147/156	0.4	141.8 150/159	0.3	144.7 153/161	0.3	147.5 157/163
33	128.0 139/148	1.1	133.6 143/152	1.2	139.4 147/157	0.4	143.3 150/159	0.3	146.4 154/162	0.3	149.2 157/163
30	129.4 139/149	1.1	135.0 143/153	1.2	140.9 148/157	0.4	144.9 151/160	0.3	148.0 154/162	0.3	150.9 157/164
27	130.6 139/150	1.2	136.4 144/154	1.2	142.3 148/158	0.4	146.4 151/161	0.3	149.6 154/163	0.3	152.5 158/165
24	131.9 140/150	1.2	137.7 144/155	1.2	143.7 148/159	0.4	147.9 151/162	0.3	151.2 155/164	0.3	154.1 158/166
21	133.1 140/151	1.2	138.9 144/155	1.2	145.0 149/160	0.4	149.2 152/163	0.3	152.7 155/165	0.3	155.6 158/167
18	134.2 140/151	1.2	140.1 145/156	1.2	146.2 149/160	0.4	150.5 152/163	0.4	154.2 155/166	0.3	157.2 159/168
15	135.3 141/152	1.2	141.2 145/156	1.2	147.4 150/161	0.4	151.7 153/164	0.4	155.6 156/167	0.3	158.6 159/169
12	136.4 141/153	1.2	142.3 146/157	1.3	148.6 150/162	0.4	152.9 153/165	0.4	156.7 156/167	0.3	159.8 160/169
9	137.4 142/153	1.2	143.4 146/158	1.3	149.7 151/162	0.4	154.0 154/165	0.3	157.4 157/167	0.3	160.4 160/169
6	138.3 142/154	1.2	144.4 147/158	1.3	150.7 151/163	0.4	154.8 154/165	0.3	157.9 158/168	0.3	160.9 161/170
3	139.3 143/154	1.2	145.4 147/159	1.3	151.7 152/163	0.4	155.3 155/166	0.3	158.4 158/168	0.3	161.3 162/170
0	140.2 143/155	1.2	146.3 148/159	1.3	152.7 152/164	0.3	155.9 156/166	0.3	158.8 159/168	0.3	161.8 163/170
-3	141.0 144/155	1.2	147.2 148/160	1.2	153.2 153/164	0.3	156.3 156/166	0.3	159.3 160/168	0.3	162.1 164/171
V2= θ2=	VR+ 31 16.5		VR+ 29 16.0		VR+ 27 15.5		VR+ 26 15.0		VR+ 25 15.0		VR+ 24 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

SECTION 1.7. - INDEX OF MAIN ALTERNATES

Landing data for the following airfields is contained in this section -.

AIRFIELD	CODE	AIRFIELD	CODE
ANTIGUA	ANU	MONTREAL MIRABEL	YMX
BALTIMORE	BWI	NEWARK	EWR
BIRMINGHAM	BHX	NEWBURGH (STEWART)	SWF
FORT DE FRANCE	FDF	PHILADELPHIA	PHL
GLASGOW	GLA	POINT A PITRE	PTP
LONDON GATWICK	LGW	PORT OF SPAIN	POS
LONDON STANSTED	STN	ST. LUCIA	UVF
MANCHESTER	MAN	WINDSOR LOCKS	BDL

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **ANTIGUA**

A/D Elev **62ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**07**	**25**
STATUS		
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2543m / 8344ft	2743m / 9000ft
Slope	.38 DN	.38 UP
Notes	Notes 1,2	Note 2
Manual.....VREF + 7kt	5kt	6kt
Manual.....VREF	8kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	96.2	100.2
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	62ft	20ft
GS/Ht at THR		

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
VOR DME	730	(668)	2nm	710	(690)	2nm
VOR	1050	(988)	2.75nm	750	(730)	2nm
NDB DME				590	(570)	1.5nm
NDB				590	(570)	1.75nm
NDB (BCP)	1050	(988)	2.75nm	1050	(988)	2.75nm
Circling / Visual (radius 5.3nm)	1050	(988)	2.75nm	1050	(988)	2.75nm

RWY DIRECTION	056°T	236°T
APPROACH WAY PT (15nm)	N 16° 59.5 W 062° 01.0	N 17° 17.1 W 061° 33.8
TOUCHDOWN WAY PT	N 17° 07.9 W 061° 48.0	N 17° 08.7 W 061° 46.8

1. **Landing Rwy 07:** Do NOT make 180° turn at Rwy intersection, proceed to turning circle at Rwy end.

2. **Circling / Visual & BCP:** All circuits SOUTH of Rwy 07/25 only.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BALTIMORE**

A/D Elev **146ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**10**	**15R**
STATUS	(L)	(A)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3033m / 9951ft	2901m / 9519ft
Slope	.12 DN	.11 DN
Notes	Note 1	Note 2
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF	10kt	
Manual Slippery.....VREF	1kt	0kt
Autoland Slippery .....VREF	101.0	
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	144ft	140ft
GS/Ht at THR	3°/56ft	3°/59ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C2 .....Autoland		115R	1200ft			
ILS C1R .....Coupled		200R	1800ft		200R	2400ft
ILS C1	350	(206)	1800ft	340	(200)	2400ft
ILSH No Flt/Dir	450	(306)	2200ft	440	(300)	2400ft
LLZ.....	550	(406)	5000ft	USE	CIRCLING	MINIMA
VOR DME.....	670	(526)	5000ft			
VOR.....	1270	(1126)	2.5sm			
VOR DME-A(BCP).....	1250	(1104)	3sm	1250	(1104)	3sm
Circling / Visual (radius 5.3nm).....	1250	(1104)	3sm	1250	(1104)	3sm

RWY DIRECTION	094°T	144°T
APPROACH WAY PT (15nm)	N 39°11.5 W 077°00.5	N 39°23.2 W 076°52.3
TOUCHDOWN WAY PT	N 39°10.5 W 076°41.2	N 39°11.1 W 076°40.9

1. **LLZ 10:** LLZ unusable above 3600ft. If MM inop increase Vis by 0.25sm.

2. **LLZ 15R:** Circling minima applies.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BALTIMORE**

A/D Elev **146ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**28**	**33L**
STATUS	(A)	(A)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3049m / 10003ft	2901m / 9519ft
Slope	.12 UP	.11 UP
Notes		Note 1
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland.....VREF		
Manual Slippery.....VREF	3kt	0kt
Autoland Slippery.....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	143ft	143ft
GS/Ht at THR	3°/55ft	3°/55ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	350	(207)	2400ft	350	(207)	2200ft
ILSH No Flt/Dir	450	(307)	2800ft	450	(307)	3000ft
LLZ	510	(367)	4000ft	590	(447)	4000ft
VOR	530	(387)	5000ft			
VOR DME				670	(527)	1sm
VOR DME - A (BCP)	1100	(954)	3sm	1100	(954)	3sm
Circling / Visual (radius 5.3nm)	1100	(954)	3sm	1100	(954)	3sm

RWY DIRECTION	274°T	324°T
APPROACH WAY PT (15nm)	N 39° 09.3 W 076° 20.0	N 38° 57.8 W 076° 28.5
TOUCHDOWN WAY PT	N 39° 10.4 W 076° 39.3	N 39° 09.9 W 076° 39.8

1. **LLZ 28**: If ALS inop increase Vis by 0.25sm.

2. **LLZ 33L**: If MM inop increase Vis by 0.25sm.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BIRMINGHAM**

A/D Elev **325ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**15**	**33**
STATUS	**(A)**	**(A)**
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	2279m / 7477ft	2304m / 7559ft
Slope	.25 UP	.25 DN
Notes	Notes 1,2	Notes 1,3
Manual.....VREF + 7kt	106.0	107.0
Manual.....VREF	1kt	1kt
Autoland .....VREF		
Manual Slippery.....VREF	N/A	N/A
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	303ft	325ft
GS/Ht at THR	3°/55ft	3°/54ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled		210R	550m		200R	550m
ILS C1	510	(207)	550m	530	(205)	550m
ILSH No Flt/Dir	610	(307)	700m	630	(305)	700m
LLZ	770	(467)	1000m	800	(475)	1000m
NDB DME.....	830	(527)	1100m	850	(525)	1100m
SRA (term 2nm).....	870	(567)	1200m	850	(525)	1100m
Circling / Visual (radius 5.3nm).....	1350	(1025)	800m	1350	(1025)	800m
RWY DIRECTION		146°T			326°T	
APPROACH WAY PT (15nm)		N 52° 40.2 W 001° 59.3			N 52° 14.5 W 001° 30.7	
TOUCHDOWN WAY PT		N 52° 27.8 W 001° 45.5			N 52° 26.9 W 001° 44.4	

1. **ILSC1 & C1R Rwys 15/33**: If TDZ or RCL inop RVR becomes 600m.

2. **NDB DME Rwy 15**: Final approach track offset by 5° and intercepts RCL 0.5nm before THR.

3. **NDB DME Rwy 33**: Final approach track offset by 6° and intercepts RCL 0.5nm before THR.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **FORT DE FRANCE**

A/D Elev **16ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**09**	**27**
STATUS	**(B)**	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3300m / 10827ft	3000m / 9842ft
Slope	.05 UP	.06 DN
Notes	Note 1	Note 1
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	9kt	2kt
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	10ft	13ft
GS/Ht at THR	3°/52ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	380	(370)	1350m			
ILSH No Flt/Dir	380	(370)	1350m			
LLZ	740	(730)	3.3km			
VOR DME	470	(460)	2.2km	1420	(1407)	3.5km
VOR	680	(670)	3.1km			
NDB	940	(930)	3.5km			
Circling / Visual (radius 5.3nm)	1700	(1684)	3.5km	1700	(1684)	3.5km
RWY DIRECTION		080°T			260°T	
APPROACH WAY PT (15nm)		N 14°32.6 W 061°16.6			N 14°38.1 W 060°44.3	
TOUCHDOWN WAY PT		N 14°35.2 W 061°01.3			N 14°35.5 W 060°59.6	

1. **Circling/Visual:** Approved Day only.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **GLASGOW**

A/D Elev **26ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY		**05**			**23**	
STATUS		(E)			(E)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2658m / 8720ft			2353m / 7720ft	
Slope		.09 DN			.09 UP	
Notes		Note 1,2			Note 1,2	
Manual.....VREF + 7kt		8kt			0kt	
Manual.....VREF		10kt			4kt	
Autoland .....VREF		5kt			108.8	
Manual Slippery.....VREF		102.7			N/A	
Autoland Slippery .....VREF		N/A			N/A	
Fuel Saving Ldg Weight.....VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		26ft			20ft	
GS/Ht at THR		3°/52ft			3°/50ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R..... Coupled		210R	550m		210R	550m
ILS C1	230	(204)	550m	220	(200)	550m
ILSH No Flt/Dir	330	(304)	650m	320	(300)	650m
LLZ DME.....	480	(454)	900m	510	(490)	1000m
VOR DME.....	530	(504)	1000m	510	(490)	1000m
NDB DME.....				750	(730)	1500m
NDB	980	(954)	1500m			
SRA (term 2nm).....	1120	(1094)	1500m	720	(700)	1400m
Circling / Visual (radius 5.3nm).....	1750	(1724)	800m	1750	(1724)	800m
RWY DIRECTION		046°T			226°T	
APPROACH WAY PT (15nm)		N 55°41.4 W 004°46.0			N 56°03.1 W 004°05.9	
TOUCHDOWN WAY PT		N 55°51.8 W 004°26.9			N 55°52.7 W 004°25.2	

1. **Noise Restrictions:** Due to noise restrictions, the minimum Altitude for joining Visual Final Approach should be 1530ft QNH to intercept a 3 degree glideslope.

2. **ILSC1 Rwy 05/23:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LONDON GATWICK**

A/D Elev **202ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	08L	08R
STATUS		(L)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2243m / 7360ft	2766m / 9075ft
Slope	.05 DN	.07 DN
Notes	Note 2	Note 1,3
Manual.....VREF + 7kt	103.9	10kt
Manual.....VREF	0kt	10kt
Autoland .....VREF		7kt
Manual Slippery.....VREF	N/A	106.4
Autoland Slippery .....VREF		N/A
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	195ft	195ft
GS/Ht at THR		3°/53ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C3A.....Autoland					15R	200m
ILS C2 .....Autoland					100R	400m
ILS C1R ..... Coupled					200R	550m
ILS C1				400	(205)	550m
ILSH No Flt/Dir				500	(305)	650m
LLZ.....				800	(605)	1200m
SRA (term 2nm).....	900	(705)	1500m	770	(575)	1200m
Circling / Visual (radius 5.3nm).....	1150	(948)	1500m	1150	(948)	800m
RWY DIRECTION		078°T			078°T	
APPROACH WAY PT (15nm)		N 51°05.6 W 000°35.8			N 51°05.5 W 000°35.7	
TOUCHDOWN WAY PT		N 51°08.8 W 000°12.4			N 51°08.7 W 000°12.3	

1. **ILS C3A Rwy 08R:** Minimum Mid-point -- RVR 150m, Stop-end RVR -- Advisory only.

2. **Rwy 08L/26R:** Is promulgated as an emergency runway and will only be used when the main runway is closed.

3. **ILSC1 Rwy 08R:** If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LONDON GATWICK**

A/D Elev **202ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY		**26L**			**26R**	
STATUS		(L)				
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2832m / 9291ft			2148m / 7047ft	
Slope		.05 UP			.07 UP	
Notes		Note 1,3			Note 2	
Manual ..... VREF + 7kt		10kt			98.2	
Manual ..... VREF		10kt			105.9	
Autoland ..... VREF		9kt				
Manual Slippery ..... VREF		109.6			N/A	
Autoland Slippery ..... VREF		96.1				
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		195ft			195ft	
GS/Ht at THR		3°/53ft				
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C3A ..... Autoland		15R	200m			
ILS C2 ..... Autoland		100R	400m			
ILS C1R ..... Coupled		200R	550m			
ILS C1	400	(205)	550m			
ILSH No Flt/Dir	500	(305)	650m			
LLZ	750	(555)	1100m			
SRA (term 2nm)	670	(475)	900m	900	(705)	1500m
Circling / Visual (radius 5.3nm)	1150	(948)	800m	1150	(948)	1500m
RWY DIRECTION		258°T			258°T	
APPROACH WAY PT (15nm)		N 51° 12.1 E 000° 13.2			N 51° 12.1 E 000° 12.4	
TOUCHDOWN WAY PT		N 51° 09.0 W 000° 10.2			N 51° 09.0 W 000° 11.0	

1. **ILS C3A Rwy 26L:** Minimum Mid-point -- RVR 150m, Stop-end RVR -- Advisory only.

2. **Rwy 08L/26R:** Is promulgated as an emergency runway and will only be used when the main runway is closed.

3. **ILSC1 Rwy 26L:** If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LONDON STANSTED**

A/D Elev **348ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**05**	**23**
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3048m / 10000ft	3048m / 10000ft
Slope	.24 UP	.21 DN
Notes		Note 1
Manual..... VREF + 7kt	10kt	10kt
Manual..... VREF	10kt	10kt
Autoland ..... VREF	10kt	10kt
Manual Slippery..... VREF	4kt	3kt
Autoland Slippery ..... VREF	108.6	105.6
Fuel Saving Ldg Weight..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	324ft	348ft
GS/Ht at THR	3°/56ft	3°/51ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1R..... Coupled					210R	550m
ILS C1	530	(206)	700m	550	(202)	550m
ILSH No Flt/Dir	630	(306)	800m	650	(302)	650m
LLZ.....	730	(406)	1000m	810	(462)	1000m
SRA.....	1030	(706)	1500m	1050	(702)	1400m
Circling / Visual (radius 5.3nm).....	1150	(802)	800m	1150	(802)	800m
RWY DIRECTION		043°T			223°T	
APPROACH WAY PT (15nm)		N 51° 41.5 W 000° 03.2			N 52° 04.7 E 000° 31.7	
TOUCHDOWN WAY PT		N 51° 52.5 E 000° 13.3			N 51° 53.7 E 000° 15.1	

1. **ILSC1 & C1R Rwy 23:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **MANCHESTER**

A/D Elev **256ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		06			24	
STATUS		(E)			(L)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2621m / 8599ft			2865m / 9400ft	
Slope		.49 UP			.49 DN	
Notes		Note 2			Note 1,2	
Manual.....VREF + 7kt		9kt			10kt	
Manual.....VREF		10kt			10kt	
Autoland .....VREF		3kt			7kt	
Manual Slippery.....VREF		104.0			107.7	
Autoland Slippery .....VREF		N/A			N/A	
Fuel Saving Ldg Weight.....VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		211ft			250ft	
GS/Ht at THR		3°/57ft			3°/55ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C3A.....Autoland					15R	200m
ILS C2 .....Autoland					100R	400m
ILS C1R ..... Coupled					200R	550m
ILS C1	420	(209)	550m	450	(201)	550m
ILSH No Flt/Dir	520	(309)	650m	550	(301)	650m
LLZ DME.....	620	(409)	900m	620	(371)	800m
VOR DME.....	680	(469)	1000m	680	(431)	900m
NDB DME.....	680	(469)	1000m	680	(431)	900m
Circling / Visual (radius 5.3nm).....	1300	(1044)	800m	1300	(1044)	800m
RWY DIRECTION		051°T			231°T	
APPROACH WAY PT (15nm)		N 53° 11.3 W 002° 36.7			N 53° 31.0 W 001° 56.0	
TOUCHDOWN WAY PT		N 53° 20.8 W 002° 17.2			N 53° 21.6 W 002° 15.6	

1. **ILS C3A Rwy 24:** Minimum Mid-point -- RVR 150m, Stop-end RVR -- Advisory only.

2. **ILSC1 & C1R Rwy 06/24:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH**

MONTREAL MIRABEL

A/D Elev **270ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**06**	**11**
STATUS	(E)	(L)
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3658m / 12000ft	3658m / 12000ft
Slope	.14 DN	.18 UP
Notes		
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland.....VREF	10kt	10kt
Manual Slippery.....VREF	10kt	10kt
Autoland Slippery.....VREF	7kt	10kt
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	
Inc per kt HW		
TDZ Elev	256ft	247ft
GS/Ht at THR	3°/52ft	3°/56ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	460	(204)	2600ft	450	(203)	2600ft
ILSH No Flt/Dir	560	(304)	2600ft	550	(303)	2600ft
LLZ	690	(434)	5000ft	730	(483)	1.25sm
NDB	890	(634)	1.25sm	930	(683)	1.5sm
Circling / Visual (radius 5.3nm)	1100	(830)	2sm	1100	(830)	2sm

RWY DIRECTION	045°T	098°T
APPROACH WAY PT (15nm)	N 45° 29.6 W 074° 16.4	N 45° 42.3 W 074° 26.6
TOUCHDOWN WAY PT	N 45° 40.2 W 074° 01.3	N 45° 40.2 W 074° 05.3

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH

MONTREAL MIRABEL

A/D Elev **270ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**24**			**29**	
STATUS		(L)				
WAT Limit: VREF / VREF + 7kt		49°/48°			49°/48°	
Landing Distance Available		3658m / 12000ft			3658m / 12000ft	
Slope		.14 UP			.18 DN	
Notes						
Manual..... VREF + 7kt		10kt			10kt	
Manual.....VREF		10kt			10kt	
Autoland .....VREF		10kt				
Manual Slippery.....VREF		10kt			10kt	
Autoland Slippery .....VREF		10kt				
Fuel Saving Ldg Weight.....VREF						
Red'n per extra kt TW						
Inc per kt HW						
TDZ Elev		240ft			270ft	
GS/Ht at THR		3°/50ft				
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	440	(200)	2600ft			
ILSH No Flt/Dir	540	(300)	2600ft			
LLZ.....	630	(390)	5000ft			
Back Beam.....				710	(440)	1sm
NDB	670	(430)	5000ft	830	(560)	1sm
Circling / Visual (radius 5.3nm).....	1100	(830)	2sm	1100	(830)	2sm
RWY DIRECTION		225°T			278°T	
APPROACH WAY PT (15nm)		N 45° 52.2 W 073° 44.1			N 45° 37.9 W 073° 41.5	
TOUCHDOWN WAY PT		N 45° 41.6 W 073° 59.3			N 45° 40.0 W 074° 02.7	

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **NEWARK**

A/D Elev **18ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**04L**	**04R**
STATUS	**(A)**	**(L)**
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2274m / 7461ft	2472m / 8110ft
Slope	NIL	.01 DN
Notes	Note 1	Note 2
Manual.....VREF + 7kt	106.8	3kt
Manual.....VREF	1kt	7kt
Autoland.....VREF		109.9
Manual Slippery.....VREF	N/A	95.0
Autoland Slippery.....VREF		N/A
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	11ft	12ft
GS/Ht at THR	3°/52ft	3°/55ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C2.....Autoland					100R	1200ft
ILS C1.....	220	(209)	2200ft	220	(208)	1800ft
ILSH No Flt/Dir.....	320	(309)	2800ft	320	(308)	2200ft
ILS Side-Step.....	630	(619)	1.5sm	630	(618)	1.5sm
LLZ.....	630	(619)	6000ft	590	(578)	6000ft
NDB.....	670	(659)	1.75sm	670	(658)	1.75sm
Circling / Visual (radius 5.3nm).....	950	(932)	3sm	950	(932)	3sm

RWY DIRECTION	026°T	026°T
APPROACH WAY PT (15nm)	N 40° 27.4 W 074° 19.1	N 40° 27.3 W 074° 19.0
TOUCHDOWN WAY PT	N 40° 40.9 W 074° 10.5	N 40° 40.8 W 074° 10.4

1. **ILS side-step Rwy 04L**: Based on an ILS Rwy 04R approach with a side-step manoeuvre to land on Rwy 04L.

2. **ILS side-step to Rwy 04R**: Based on an ILS Rwy 04L approach with a side-step manoeuvre to land on Rwy 04R.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **NEWARK**

A/D Elev **18ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	**22L**	**22R**
STATUS	(A)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2502m / 8210ft	2366m / 7762ft
Slope	.01 UP	NIL
Notes		Note 1
Manual.....VREF + 7kt	4kt	0kt
Manual.....VREF	8kt	4kt
Autoland.....VREF		
Manual Slippery.....VREF	96.7	N/A
Autoland Slippery.....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	11ft	11ft
GS/Ht at THR	3°/43ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	220	(209)	2200ft			
ILSH No Flt/Dir	320	(309)	2800ft			
ILS side-step				610	(599)	2sm
LLZ	610	(599)	6000ft			
VOR DME	910	(899)	2.25sm	910	(899)	2.75sm
Circling / Visual (radius 5.3nm)	950	(932)	3sm	950	(932)	3sm

RWY DIRECTION	206°T	206°T
APPROACH WAY PT (15nm)	N 40° 55.4 W 074° 01.0	N 40° 55.4 W 074° 01.2
TOUCHDOWN WAY PT	N 40° 41.9 W 074° 09.7	N 40° 41.9 W 074° 09.9

1. **ILS 22R:** Based on sidestep manoeuvre from ILS 22L.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH

NEWBURGH STEWART INTL

A/D Elev **491ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	09	27
STATUS	(E)	
WAT Limit: VREF / VREF + 7KT	48°/48°	48°/48°
Landing Distance Available	2995m / 9826ft	2995m / 9826ft
Slope	.20 DN	.20 UP
Notes		
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF	10kt	
Manual Slippery.....VREF	1kt	2kt
Autoland Slippery .....VREF	96.0	
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	482ft	468ft
GS/Ht at THR	3°/62ft	

APPROACH	DA (ft)	DH(HAT) (ft)	RVR	DA (ft)	DH(HAT) (ft)	RVR
ILS C1	690	(208)	1800ft			
ILSH No Flt/Dir	790	(308)	2200ft			
LLZ	970	(488)	5000ft			
VOR DME				990	(522)	1.5sm
VOR				1270	(802)	2.5sm
NDB	1150	(668)	1.75sm			
Circling / Visual (radius 5.3nm)	1300	(809)	2.5sm	1300	(809)	2.5sm

RWY DIRECTION	079°T	259°T
APPROACH WAY PT (15nm)	N 41°27.2 W 074°27.0	N 41°33.2 W 073°46.1
TOUCHDOWN WAY PT	N 41°30.1 W 074°07.4	N 41°30.4 W 074°05.8

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **PHILADELPHIA**

A/D Elev **21ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**09L**	**09R**
STATUS	(A)	(L)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2896m / 9500ft	3200m / 10500ft
Slope	.03 DN	.11 DN
Notes	Note 1	
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		10kt
Manual Slippery.....VREF	0kt	6kt
Autoland Slippery .....VREF		110.1
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	14ft	21ft
GS/Ht at THR	3°/57ft	3°/56ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C2 .....Autoland					110R	1200ft
ILS C1	220	(206)	2400ft	230	(209)	1800ft
ILSH No Flt/Dir	320	(306)	2800ft	330	(309)	2200ft
Converging ILS.....				730	(709)	2.5sm
ILS Side-step.....	730	(716)	2sm			
LLZ (Landi Fix).....	490	(476)	0.75sm			
LLZ (Baldn Fix)				570	(549)	5000ft
LLZ.....	730	(716)	1.5sm	730	(709)	1.5sm
SRA.....	530	(516)	1.5sm	570	(549)	5000ft
Circling / Visual (radius 5.3nm).....	850	(829)	2.5sm	850	(829)	2.5sm

RWY DIRECTION	075°T	075°T
APPROACH WAY PT (15nm)	N 39°48.2 W 075°34.2	N 39°47.8 W 075°35.3
TOUCHDOWN WAY PT	N 39°52.1 W.075°15.3	N 39°51.7 W 075°16.4

1. **Sidestep to 09L:** Based on an ILS Rwy 09R approach with a side-step manoeuvre to land on Rwy 09L.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **PHILADELPHIA**

A/D Elev **21ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**27L**			**27R**	
STATUS		(E)			(L)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		3200m / 10500ft			2896m / 9500ft	
Slope		.11 UP			.03 UP	
Notes		Note 1				
Manual ..... VREF + 7kt		10kt			10kt	
Manual ..... VREF		10kt			10kt	
Autoland ..... VREF		10kt			9kt	
Manual Slippery ..... VREF		7kt			0kt	
Autoland Slippery ..... VREF		1kt			97.8	
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW					600kg	
TDZ Elev		11ft			11ft	
GS/Ht at THR		3°/52ft			3°/62ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled		200R	2400ft			
ILS C1	220	(209)	2400ft	220	(209)	2400ft
ILSH No Flt/Dir	320	(309)	2800ft	320	(309)	2800ft
ILS Side-Step	710	(699)	2sm			
LLZ	710	(699)	1.5sm	710	(699)	1.5sm
NDB	810	(799)	2.25sm			
SRA	630	(619)	6000ft	630	(619)	6000ft
Circling / Visual (radius 5.3nm)	850	(829)	2.5sm	850	(829)	2.5sm
RWY DIRECTION		255°T			255°T	
APPROACH WAY PT (15nm)		N 39° 56.0 W 074° 55.5			N 39° 56.4 W 074° 54.5	
TOUCHDOWN WAY PT		N 39° 52.1 W 075° 14.4			N 39° 52.5 W 075° 13.4	

1. **Sidestep to 27L:** Based on an ILS Rwy 27R approach with a side-step manoeuvre to land on Rwy 27L.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **POINTE-A-PITRE**

A/D Elev **36ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**11**	**29**
STATUS	(B)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3105m / 10187ft	3255m / 10679ft
Slope	.26 UP	.26 DN
Notes	Note 1;2	Note 2
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	4kt	6kt
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	7ft	33ft
GS/Ht at THR	3.2°/50ft	

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	210	(203)	1350m			
ILSH No Flt/Dir	310	(303)	1350m			
LLZ	480	(473)	2400m			
VOR/DME/L.BCN	400	(393)	1800m			
VOR/DME	400	(393)	1800m	640	(607)	2.85km
VOR				850	(817)	3.5km
VOR (BCP)	950	(914)	3.5km	950	(914)	3.5km
NDB	950	(943)	3.5km			
Circling / Visual (radius 5nm)	950	(914)	3.5km	950	(914)	3.5km
RWY DIRECTION	101°T			281°T		
APPROACH WAY PT (15nm)	N 16°19.1 W 061°47.7			N 16°13.0 W 061°15.6		
TOUCHDOWN WAY PT	N 16°16.2 W 061°32.4			N 16°15.9 W 061°30.9		

1. **ILS Rwy 11:** If MM inop increase DA (HAT) by 50ft.

2. **Circling / Visual:** All circuits NORTH of A/D ONLY.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **PORT OF SPAIN**

A/D Elev **57ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**10**	**28**
STATUS	(B)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3200m / 10500ft	3200m / 10500ft
Slope	.24 UP	.24 DN
Notes		
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	8kt	5kt
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	32ft	57ft
GS/Ht at THR	3°/49ft	

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	290	(258)	1nm			
ILSH No Flt/Dir	390	(358)	1nm			
LLZ	610	(578)	1.5nm			
NDB	610	(578)	1.5nm			
Circling / Visual (radius 5nm).....	1050	(993)	3nm	1050	(993)	3nm
RWY DIRECTION	090°T			270°T		
APPROACH WAY PT (15nm)	N 10°35.6 W 061°36.5			N 10°35.6 W 061°04.2		
TOUCHDOWN WAY PT	N 10°35.6 W 061°21.2			N 10°35.6 W 061°19.5		

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **ST. LUCIA**

A/D Elev **11ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**10**	**28**
STATUS		
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2743m / 9000ft	2743m / 9000ft
Slope	NIL	NIL
Notes	Note 1	Note 1
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	106.6	106.6
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	9ft	9ft
GS/Ht at THR		

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
VOR DME.....	780	(771)	3.6km	820	(811)	4km
VOR.....	830	(821)	4km	820	(811)	4km
NDB	840	(831)	4km	940	(931)	4.8km
Circling / Visual (radius 5.3nm).....	1200	(1189)	4.8km	1200	(1198)	4.8km

RWY DIRECTION	089°T	269°T
APPROACH WAY PT (15nm)	N 13°43.6 W 061°13.3	N 13°44.2 W 060°41.0
TOUCHDOWN WAY PT	N 13°43.9 W 060°57.9	N 13°43.9 W 060°56.4

1. **Circling and visual minima:** SOUTH of Rwy 10/28 only.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **WINDSOR LOCKS**

A/D Elev **174ft**

Max wt Permitted (For pre flight planning)		111130kg			
RUNWAY		**06**		**15**	
STATUS		(E)			
WAT Limit: VREF / VREF + 7kt		49°/49°		49°/49°	
Landing Distance Available		2896m / 9500ft		2087m / 6847ft	
Slope		.12 DN		.02 UP	
Notes					
Manual.....VREF + 7kt		10kt		92.0	
Manual.....VREF		10kt		102.8	
Autoland .....VREF		10kt			
Manual Slippery.....VREF		0kt		N/A	
Autoland Slippery .....VREF		99.0			
Fuel Saving Ldg Weight.....VREF					
Red'n per extra kt TW		3500kg		3500kg	
Inc per kt HW		600kg		600kg	
TDZ Elev		174ft		172ft	
GS/Ht at THR		3°/50ft			
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	380	(206)	1800ft			
ILSH No Flt/Dir	480	(306)	2200ft			
LLZ	870	(696)	1.5sm			
VOR DME	910	(736)	1.75sm			
VOR				1130	(958)	3sm
NDB	950	(776)	2sm			
Circling / Visual (radius 5.3nm).....	1100	(926)	3sm	1100	(926)	3sm
RWY DIRECTION		044°T		134°T	
APPROACH WAY PT (15nm)		N 41°45.1 W 072°55.8		N 42°06.9 W 072°56.1	
TOUCHDOWN WAY PT		N 41°55.9 W 072°41.8		N 41°56.5 W 072°41.6	

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **WINDSOR LOCKS**

A/D Elev **174ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**24**			**33**	
STATUS		(A)			(B)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2896m / 9500ft			2087m / 6847ft	
Slope		.12 UP			.02 DN	
Notes		Notes 1,2				
Manual ..... VREF + 7kt		10kt			91.8	
Manual ..... VREF		10kt			102.6	
Autoland ..... VREF						
Manual Slippery ..... VREF		0kt			N/A	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW					600kg	
TDZ Elev		170ft			172ft	
GS/Ht at THR		3°/59ft			3°/59ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	370	(200)	2400ft	380	(208)	0.75sm
ILSH No Flt/Dir	470	(300)	2400ft	480	(308)	0.75sm
LLZ	570	(400)	5000ft	550	(378)	1sm
VOR	610	(440)	5000ft	550	(378)	1sm
Circling / Visual (radius 5.3nm)	1100	(926)	3sm	1100	(926)	3sm
RWY DIRECTION		224°T			314°T	
APPROACH WAY PT (15nm)		N 42° 07.8 W 072° 26.3			N 41° 45.4 W 072° 26.1	
TOUCHDOWN WAY PT		N 41° 57.0 W 072° 40.3			N 41° 55.8 W 072° 40.6	

1. **LLZ 24:** If ALS inop increase VIS by 0.25sm.

2. **VOR 24:** If ALS inop VIS becomes 1.25sm.

SECTION 1.8. - DISPATCH DEV./SPECIAL OPS.

Combinations of Dispatch Dev./Special Ops.	1.8.1.
Dispatch With Certain Items of Equipment U/S	1.8.2. - 1.8.14.
Dispatch With Certain Items of Equipment Missing	1.8.15.
Fuel Saving Landings	1.8.16.
Carriage of Wide Cut (JP4) Type Fuel	1.8.17. - 1.8.18.
Take-Off Without Reheat	1.8.19. - 1.8.20.
Dispatch With Gear Locked Down	1.8.21. - 1.8.26.



1.8. DISPATCH DEVIATIONS AND SPECIAL OPERATIONS

COMBINATIONS OF DISPATCH DEVIATIONS/SPECIAL OPERATIONS

The table below lists the combinations of dispatch deviations/special operations which are NOT PERMITTED. Where certain combinations are permitted the penalties for each case must be added together to calculate the overall penalty.

ITEM	MUST NOT BE USED WITH ITEM(S)
1. Dispatch with one reheat inoperative	12, 16
2. Dispatch with one secondary nozzle locked within range 10° to 27°	4, 15, 16
3. Dispatch with both autothrottles inoperative	15, 16
4. Dispatch with one wheel brake (or anti-skid unit) inoperative	2, 15, 16
5. Dispatch with one green system hydraulic pump inoperative	12, 16
6. Dispatch with one or more secondary air door systems failed shut	16
7. Dispatch without nose and/or main landing gear water anti-ingestion devices	13, 14
8. Dispatch with engine anti-icing continuously on	16
9. Dispatch without contingency power	16
10. Dispatch with gear locked down	12, 16
11. Dispatch without reheat	12, 16
12. Carriage of wide cut (JP4) type fuel	1, 5, 10, 11, 13, 14, 16, 17
13. Take-off from contaminated runways	7, 12, 15, 16
14. Take-off from icy/slippery runways	7, 12, 15, 16
15. Fuel saving landings	2, 3, 4, 13, 14, 16
16. Three engine ferry (see separate manual)	1-6, 8-15, 17
17. Crew training flights and C of A renewals	12, 16
18. Dispatch with one EGT instrument inoperative	16

DISPATCH WITH CERTAIN ITEMS OF EQUIPMENT UNSERVICEABLE

22-4 DISPATCH WITH BOTH AUTOTHROTTLES INOPERATIVE

A. LIMITATIONS

Due to the increased landing speeds, it is recommended that where a slippery runway condition could occur on landing use of this procedure is restricted to cases where the stopping distances are clearly non-critical.

B. FLIGHT PLANNING

1. No penalties required.

C. TAKE-OFF

1. No penalties required.

D. LANDING

1. Use $V_{REF}+7$ landing data only. Reduced Noise Approach is NOT approved.

2. The landing distance required is increased by 4%. Reduce the actual landing distance available by 4% using the table below. Use this Effective Landing Distance to enter the appropriate Generalised Landing Distance chart to obtain a runway limited landing weight.

LDA (m)	1900	2100	2300	2500	2700	2900	3100
DECREMENT (m)	75	85	90	100	110	115	125

29-1 DISPATCH WITH ONE GREEN SYSTEM HYDRAULIC PUMP INOPERATIVE

A. FLIGHT PLANNING

1. In the event of the landing gear failing to retract the aircraft should return to the departure airfield. The reduction in climb gradient due to drag and low airspeed in combination with an engine failure will reduce net level off altitude to low levels. Refer to the net ceiling chart for this configuration in this section.

B. TAKE-OFF

1. The PLTOW must be reduced by 9% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	12.6	13.5	14.4	15.3	16.2	17.1

29-1 DISPATCH WITH ONE GREEN SYSTEM HYDRAULIC PUMP INOPERATIVE (cont)

C. LANDING

1. For V_{REF} landings the landing WAT limited weight must be reduced by **2%** using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	1.8	2.0	2.2	2.4	2.6

2. For V_{REF} + 7 landings the landing WAT limited weight must be reduced by **3%** using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	2.7	3.0	3.3	3.6	3.9

32-6 DISPATCH WITH ONE WHEEL BRAKE (OR ANTI-SKID CHANNEL) INOPERATIVE

A. LIMITATIONS

1. Dispatch with one wheel brake (or anti-skid channel) inoperative in combination with a secondary nozzle locked within the range 10° to 27° is authorised provided the inoperative brake (or anti-skid unit) and nozzle are not on the same side of the aircraft.

B. FLIGHT PLANNING

1. No penalties required.

C. TAKE-OFF

1. The PLTOW must be reduced by **1.75%** using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	2.5	2.6	2.8	3.0	3.2	3.3

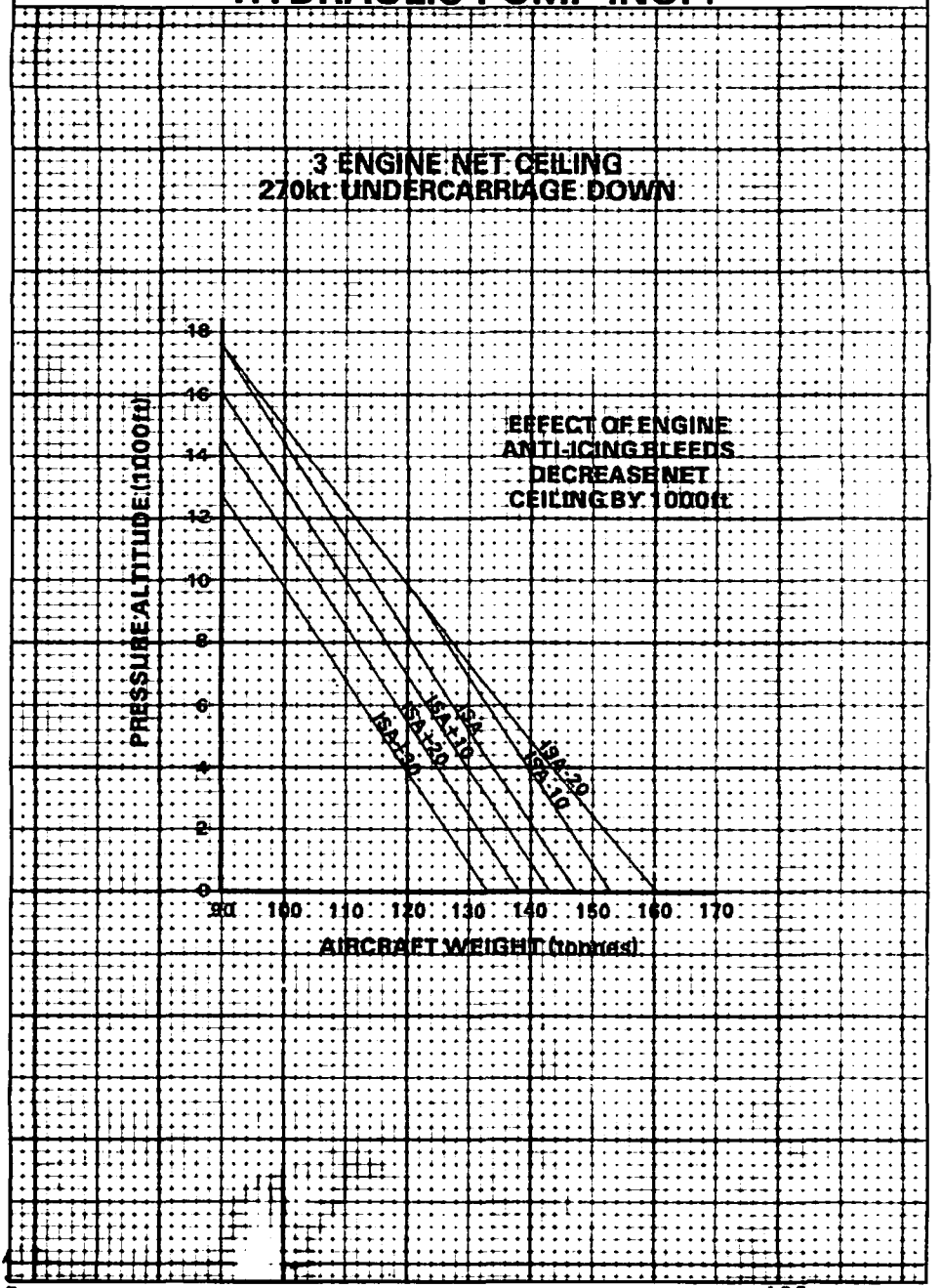
2. Reduce V_1 (DRY or WET) by 9kt.

32-6 DISPATCH WITH ONE WHEEL BRAKE (OR ANTI-SKID CHANNEL) INOPERATIVE (cont)

D. The landing distance required is increased by 5%. Reduce the actual landing distance available by 5% using the table below. Use this Effective Landing Distance to enter the appropriate Generalised Landing Distance chart to obtain a runway limited landing weight.

LDA (m)	1900	2100	2300	2500	2700	2900	3100
DECREMENT (m)	95	105	115	125	135	145	155

DISPATCH WITH ONE GREEN SYSTEM HYDRAULIC PUMP INOP.



71-4 DISPATCH WITH ONE OR MORE SECONDARY AIR DOOR SYSTEMS FAILED SHUT

A. LIMITATIONS

1. The aircraft is limited to subsonic flight.

2. Details of other Dispatch Deviations/Special Operations which may not be used in combination with this item are given on page 1.8.1.

B. FLIGHT PLANNING

1. No penalties required.

C. TAKE-OFF

1. The PLTOW must be reduced by **0.33%** for each system selected shut (up to a maximum reduction of **0.99%**) using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	0.5	0.5	0.5	0.6	0.6	0.6

D. LANDING

1. No penalties required.

75-1 ENGINE ANTI-ICING CONTINUOUSLY ON

A. LIMITATIONS

1. Only one flight with system failed on is permitted before the fault is rectified.

B. FLIGHT PLANNING

1. The flight plan fuel must be increased by the amount given in the table below.

NUMBER OF AFFECTED ENGINES	FLIGHT PLAN FUEL REQUIRED (1000kg)						
	30	40	50	60	70	80	90
	EXTRA FUEL (kg)						
1	150	200	250	300	350	400	500
2	250	350	450	600	700	850	950
3	450	600	750	900	1050	1200	1350
4	600	800	1000	1200	1400	1600	1800

C. TAKE-OFF

1. At ambient temperatures of +3°C and above the PLTOW must be reduced by 0.5% for each engine anti-icing systems continuously operating (up to a maximum penalty of 1.5%). At temperatures below 3°C no penalties are required.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	0.7	0.8	0.8	0.9	0.9	1.0

D. LANDING

1. At ambient temperatures of +3°C and above the landing WAT limited weight must be reduced by 1% for each engine anti-icing system continuously operating (up to a maximum of 2%) using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	0.9	1.0	1.1	1.2	1.3

76-2 DISPATCH WITHOUT CONTINGENCY POWER

A. LIMITATIONS

1. No additional limitations apply.

B. TAKE-OFF

1. The PLTOW must be reduced by 5% for one or more engines without contingency power using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	7.0	7.5	8.0	8.5	9.0	9.5

C. LANDING

1. The landing WAT limited weight must be reduced by 6% for one or more engines without contingency power using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	5.4	6.0	6.6	7.2	7.8

77-1 DISPATCH WITH ONE EGT INSTRUMENT INOPERATIVE

A. LIMITATIONS

1. Clearance for dispatch in this condition is limited to those cases where only one engine is affected. For that engine the T/O monitor caption, fuel flowrate, P_7 and N_2 instruments must be serviceable.

B. FLIGHT PLANNING

1. No penalties required.

C. TAKE-OFF

1. The PLTOW must be reduced by 0.5% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	0.7	0.8	0.8	0.9	0.9	1.0

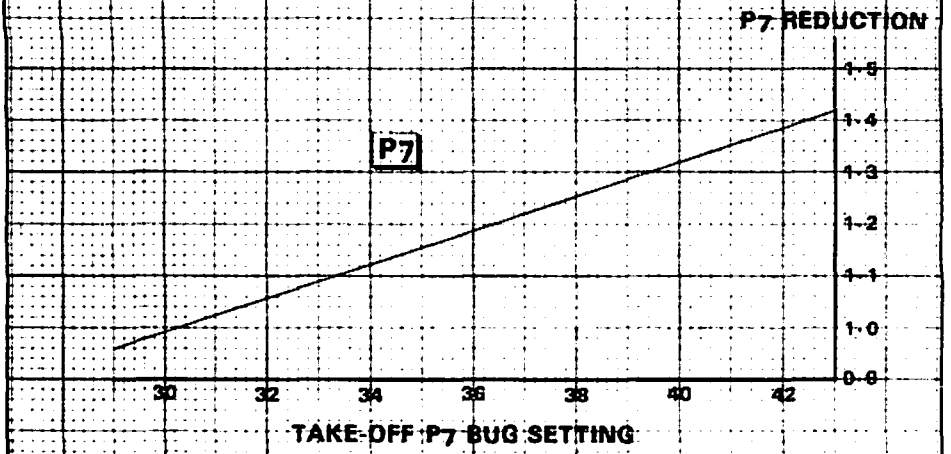
2. The P_7 and F_T take-off bug settings must be reduced by the amount shown on page 1.5.10.

D. LANDING

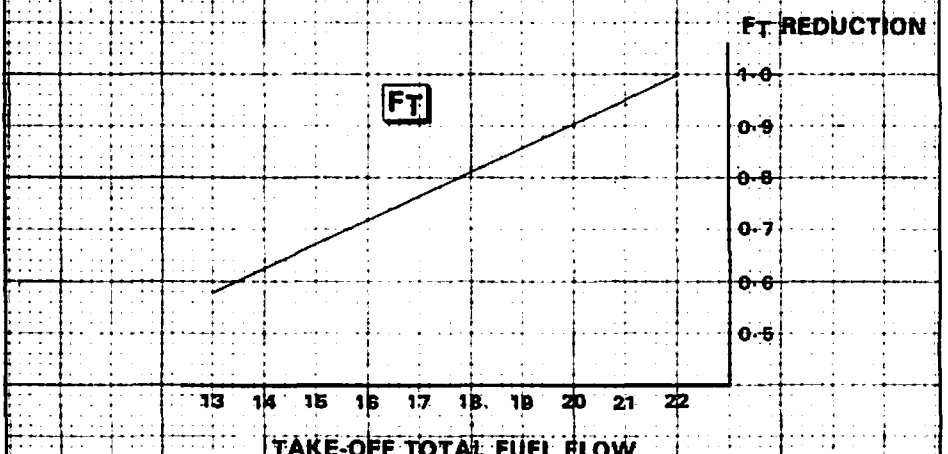
1. The landing WAT limited weight must be reduced by 1% using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	0.9	1.0	1.1	1.2	1.3

DISPATCH WITH ONE EGT INSTRUMENT INOPERATIVE P7 AND FT TAKE-OFF BUG SETTING CORRECTIONS



TAKE-OFF P7 BUG SETTING



TAKE-OFF TOTAL FUEL FLOW FT BUG SETTING

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78-1 DISPATCH WITH ONE SECONDARY NOZZLE LOCKED WITHIN RANGE 10° to 27°

A. LIMITATIONS

1. Dispatch with one wheel brake (or anti-skid channel) inoperative in combination with a secondary nozzle locked within the range 10° to 27° is authorised provided the inoperative brake (or anti-skid unit) and nozzle are not on the same side of the aircraft.

B. FLIGHT PLANNING

1. The flight plan fuel must be increased by the amount given in the "ONE SECONDARY NOZZLE LOCKED BETWEEN 10° AND 27°" chart in this section.

2. The value of the supersonic portion of the trip for some current sectors is given in the table below.

SECTOR	SUPERSONIC PORTION OF TRIP
LHR-JFK	85%
JFK-LHR	85%
LHR-IAD	85%
IAD-LHR	88%
IAD-MIA	
MIA-IAD	

C. TAKE-OFF

1. The PLTOW must be reduced by 2.5% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	3.5	3.8	4.0	4.3	4.5	4.8

2. Reduce V_1 (DRY or WET) by 5kt.

D. LANDING

1. The landing WAT limited weight must be reduced by 4% using the table below.

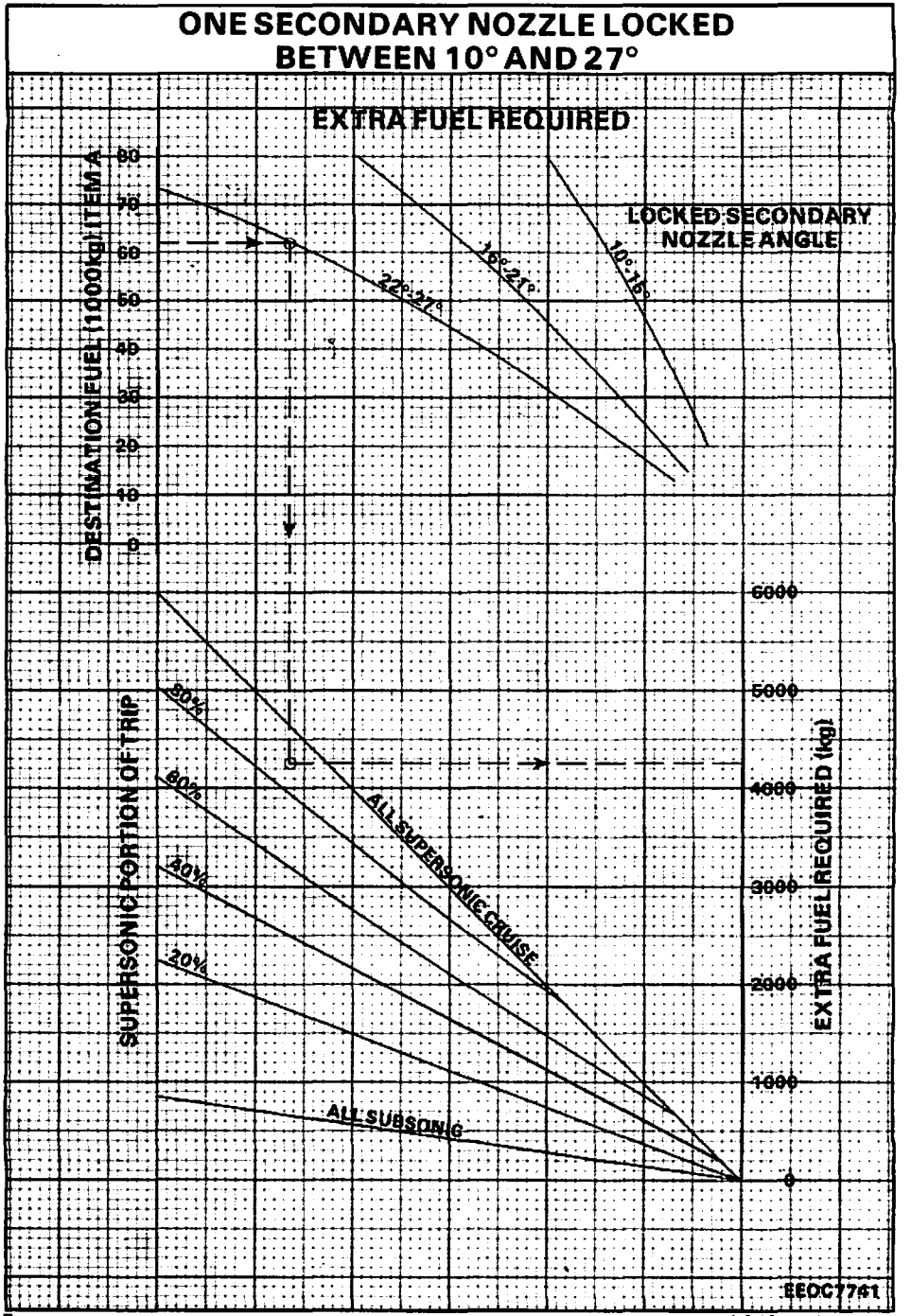
Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	3.6	4.0	4.4	4.8	5.2

78-1 DISPATCH WITH ONE SECONDARY NOZZLE LOCKED WITHIN RANGE 10° to 27° (cont)

D. LANDING (cont)

2. The landing distance required is increased by 7.5%. Reduce the actual landing distance available by 7.5% using the table below. Use this Effective Landing Distance to enter the appropriate Generalised Landing Distance chart to obtain a runway limited landing weight.

LDA (m)	1900	2100	2300	2500	2700	2900	3100
DECREMENT (m)	145	160	175	190	205	220	235


ONE SECONDARY NOZZLE LOCKED BETWEEN 10° AND 27°
EXTRA FUEL REQUIRED
DESTINATION FUEL (1000kg) ITEM A
90
70
60
50
40
30
20
10
0
LOCKED SECONDARY NOZZLE ANGLE
22°-27°
16°-21°
10°-15°
SUPERSONIC PORTION OF TRIP
80%
60%
40%
20%
ALL SUPERSONIC CRUISE
ALL SUBSONIC
6000
5000
4000
3000
2000
1000
0
EXTRA FUEL REQUIRED (kg)
EEDC7741

78-5 / 78-6 DISPATCH WITH ONE REHEAT INOPERATIVE

A. LIMITATIONS

1. If the take-off is to be carried out from a slippery runway the inoperative reheat must be on engine 1 or 2 (due to the reduced thrust from engine 4 during the early part of the take-off roll.

B. FLIGHT PLANNING

1. For supersonic sectors the flight plan fuel must be increased by the amount given in the table below.

SUBSONIC CLIMB TEMPERATURE DEVN (°C)	AIRCRAFT WEIGHT AT ACCELERATION (1000kg)						
	145	150	155	160	165	170	175
	EXTRA FUEL REQUIRED (kg)						
+20	340	360	410	440	510	570	655
+10	230	255	270	290	325	360	385
0	150	170	170	190	200	240	255
−10	110	120	130	145	155	170	180
−20	75	100	110	110	120	135	135

C. TAKE-OFF

1. The PLTOW must be reduced by 7% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	9.8	10.5	11.2	11.9	12.6	13.3

2. Increase V_1(DRY or WET) by 2kt.

D. LANDING

1. The landing WAT limited weight must be reduced by 14% using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	12.6	14.0	15.4	16.8	18.2

DISPATCH WITH TWO REHEATS INOPERATIVE

A. LIMITATIONS

1. If two reheats are inoperative they must not be on the same side of the aircraft.

2. On a slippery runway take-off with TWO reheats inoperative is not permitted.

B. FLIGHT PLANNING

1. For supersonic sectors the flight plan fuel must be increased by the amount given in the table below.

SUBSONIC CLIMB TEMPERATURE DEVN (°C)	AIRCRAFT WEIGHT AT ACCELERATION							
	140	145	150	155	160	165	170	175
	EXTRA FUEL REQUIRED							
+20	610	680	720	820	880	1020	1140	1310
+10	430	460	510	540	580	650	720	770
0	290	300	340	340	380	400	480	510
-10	220	220	240	260	290	310	340	360
-20	140	150	200	220	220	240	270	270

C. TAKE-OFF

1. The PLTOW must be reduced by **14%** using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	19.6	21	22.4	23.8	25.2	26.6

2. Increase **V1** (DRY or WET) by 4kt.

D. LANDING

1. The landing WAT limited weight must be reduced by **28%** using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	25.2	28	30.8	33.6	36.4

SPECIAL OPERATIONS

FUEL SAVING LANDINGS

A. INTRODUCTION

Landings at weights above the maximum structural weight of 111,130kg are permitted for fuel saving reasons provided that the limitations and procedures given in the Flying Manual Vol 2 Section 4 are followed and the performance effects given below are applied.

B. LIMITATIONS

Observe the following:

1. Refer to the Flying Manual Vol 2 Section 4.
2. Maximum fuel saving landing weight is 130,000kg.
3. Fuel saving landings must not be made on icy/slippery or contaminated runways.
4. Reduced Noise Approach is NOT approved.
5. If more than one dispatch deviation/special operation applies check that the combination is permitted by refering to the "COMBINATIONS OF DISPATCH DEVIATIONS/SPECIAL OPERATIONS" table in this Section.
6. Manual Approaches based on V_{REF} only.

C. LANDING

Use runway specific data on Landing Data page.

Or

1. Enter the appropriate Generalised Landing Distance Chart with Landing Distance Available. Correct for wind, slope and airfield pressure altitude to obtain a Runway Limited Landing Weight.
2. Enter the appropriate Maximum Landing Weight (WAT Limit) Chart with the landing ambient temperature and correct for airfield pressure altitude to obtain a WAT Limited Landing Weight.
3. The Performance Limited Landing Weight is the lower of the Runway Limited and the WAT Limited Landing Weight.
4. Regulated Landing Weight is the lower of the Performance Limited Landing Weight and, in this case, 130,000kg. Restrict actual landing weight to this value.

CARRIAGE OF WIDE CUT (JP4) TYPE FUEL

A. INTRODUCTION

Flight with wide cut (JP4) type fuel is only permitted if the limitations and procedures given in the Flying Manual Vol. 2 Section 4 are followed and the performance effects given below are applied.

B. FLIGHT PLANNING

The density of wide cut (JP4) type fuel may be significantly lower than that of normal fuel i.e. densities below 0.76 are relatively common with JP4 type fuel. As a result the likelihood of reaching limiting values of take-off CG limited fuels and tank volumetric capacities are increased. Sufficient data is published in the Refuelling Book and Load and Balance Manual to cover the majority of fuel densities likely to be experienced.

Observe the maximum altitude of 36,000ft and the maximum TAT of +15°C using the graph on page 1.8.18. overleaf as a guide.

C. TAKE-OFF

The PLTOW must be reduced by 5% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	7.0	7.5	8.0	8.5	9.0	9.5

No corrections required to take-off speeds or Θ_2.

To calculate take-off speeds and Θ_2 appropriate to an actual take-off weight use the difference between actual take-off weight and corrected PLTOW. Obtain the required corrections in the normal way using the tables in Section 1.2.

D. LANDING

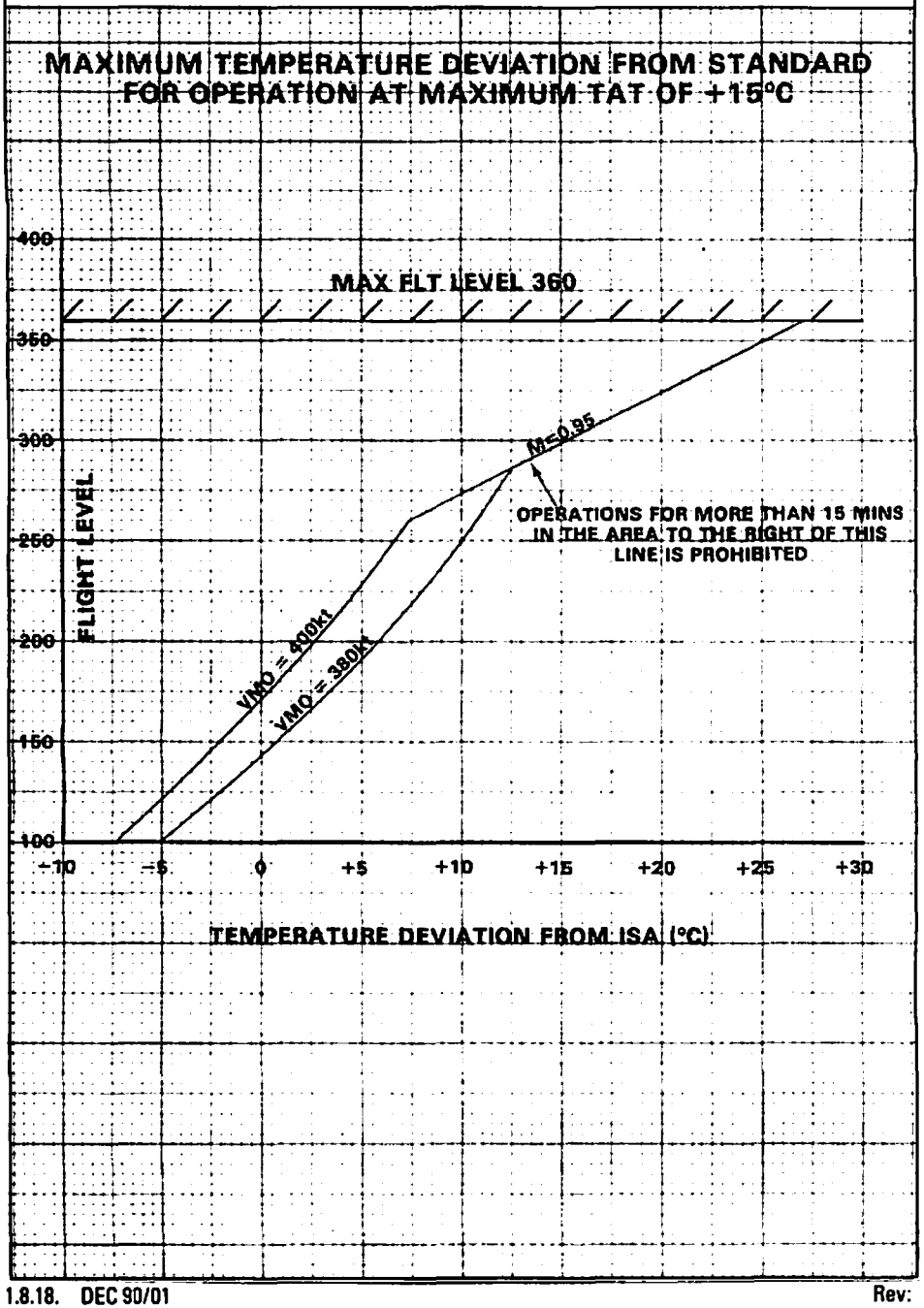
The landing WAT limited weight must be reduced by 6% using the table below.

Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	5.4	6.0	6.6	7.2	7.8

No correction required to the landing distances.

Reduced Noise Approach is NOT approved.

CARRIAGE OF JP4 FUEL



TAKE-OFF WITHOUT REHEAT

A. LIMITATIONS

1. Details of other Dispatch Deviations/Special Operations which may not be used in combination with this item are given on page 1.8.1.

2. All the performance effects for an unreheated take-off are included in this procedure. Therefore, the performance effects for Dispatch With One Reheat Inoperative and Dispatch With One or more Secondary Air Door Systems Failed Shut do NOT need to be applied to the unreheated take-off case but the landing penalties still apply.

B. FLIGHT PLANNING

1. Take-off is not permitted if the airfield pressure altitude is above 4,000ft.

C. TAKE-OFF

1. The PLTOW must be reduced by 25% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	35.0	37.5	40.0	42.5	45.0	47.5

2. Reduce V_1 (DRY or WET) by 20kt.

3. Reduce V_R and V_2 by 25kt.

N.B. V_1 must not be greater than V_R. If calculated V_1 is less than V_{1MIN} (132kt), then use = 132kt.

D. LANDING

1. No penalties required.

E. NOISE ABATEMENT

1. GENERAL

The standard noise abatement instructions as given in the Flying Manual should be followed except that noise abatement speed is 225kt in place of 250kt.

TAKE-OFF WITHOUT REHEAT (cont)

E. NOISE ABATEMENT (cont)

2. SPECIFIC PROCEDURES

Where specific noise abatement instructions are provided e.g. London Heathrow, Washington, New York etc., the following corrections to these instructions should be applied:

a. Where the specific instructions refer to 250kt IAS, this should be changed to 225kt IAS.

b. ADD 8 secs to throttle time.

c. SUBTRACT 1 degree from throttle angle.

d. ADD 1.5% to N_2 value.

3. GENERALISED PROCEDURE

Correct the procedure and throttle settings as follows:

a. After throttling maintain 225kt until any crossing height requirements are assured.

b. SUBTRACT 1 degree from throttle angle.

c. ADD 1.5% to N_2 value.

N.B. Take-off without reheat may not necessarily be the optimum for overall noise abatement when this procedure is used since the noise under the flight path will be greater after throttling due to lower height gain. Most noise reduction will be in the immediate airport surroundings to the side of the runway and to the side of the flight path. However, take-off without reheat should be used where possible at weights below 140000kg. in the interest of aircraft handling and passenger comfort, since noise levels both with and without reheat at these weights are considerably below those produced by heavy weight take-offs.

4. NO NOISE ABATEMENT REQUIRED

The normal procedure in this case will consist of climb at take-off power until 1000ft above the airfield, then throttle to maximum climb power.

5. SECONDARY AIR DOORS

Secondary Air Doors must be closed during take-off and must not be opened until a speed of 250kt has been achieved whatever procedure has been utilised.

DISPATCH WITH GEAR LOCKED DOWN

A. LIMITATIONS

1. Gear must be established locked down and landing gear doors locked shut before flight.
2. Maximum permitted speed is 290kt / 0.7 Mach.
3. Areas of known turbulence should be avoided. If rough air is encountered, flight is permitted at the maximum speed limit but in order to avoid frequent overspeed excursions it may be necessary to select a speed below the maximum. For performance reasons speed reductions below the maximum permitted speed should be kept to a minimum.
4. Extended flight over water is not permitted.
5. The carriage of commercial passengers is permitted.
6. Details of other Dispatch Deviations/Special Operations which may not be used in combination with this item are given on page 1.8.1.

B. FLIGHT PLANNING

1. DESTINATION FUEL AND TIME

Destination Fuel and Time should be obtained from the "GEAR DOWN OPERATION - DESTINATION FUEL AND TIME" chart in this section. The chart values include allowances for take-off and approach and landing. In addition, the chart also gives maximum cruise height available as a function of Take-Off weight.

2. ALTERNATE FUEL AND TIME

f Alternate fuel and time can also be obtained from the "GEAR DOWN OPERATION - DESTINATION FUEL AND TIME" chart in this section. To this should be added an alternate reserve allowance of 8500kg, representing 30 mins hold at 6000ft and 250kt at a mean weight of 105000kg.

3. TERRAIN CLEARANCE

With gear down and speed limited to 270kt the net ceiling obtainable in the event of engine failure can be very restrictive. The "GEAR DOWN OPERATION - NET CEILINGS" chart in this section should be used to establish en-route terrain clearance.

DISPATCH WITH GEAR LOCKED DOWN (cont)

C. TAKE-OFF

1. The PLTOW must be reduced by 7% using the table below.

PLTOW (1000kg)	140	150	160	170	180	190
PENALTY (1000kg)	9.8	10.5	11.2	11.9	12.6	13.3

D. LANDING

1. For V_{REF} landings the landing WAT limited weight must be reduced by 0.5% using the table below.

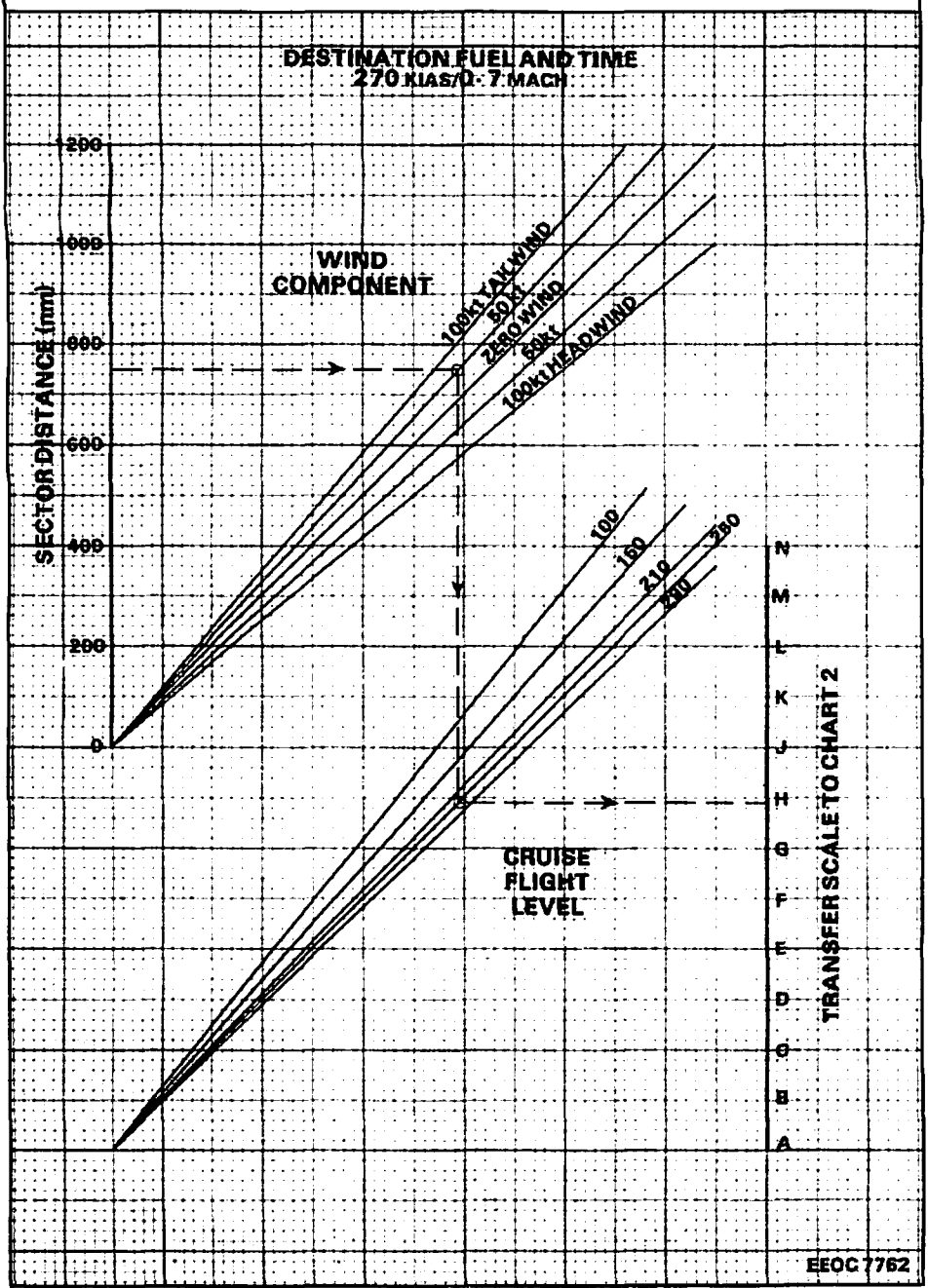
Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	0.5	0.5	0.6	0.6	0.7

2. For V_{REF} + 7 landings the landing WAT limited weight must be reduced by 2% using the table below.

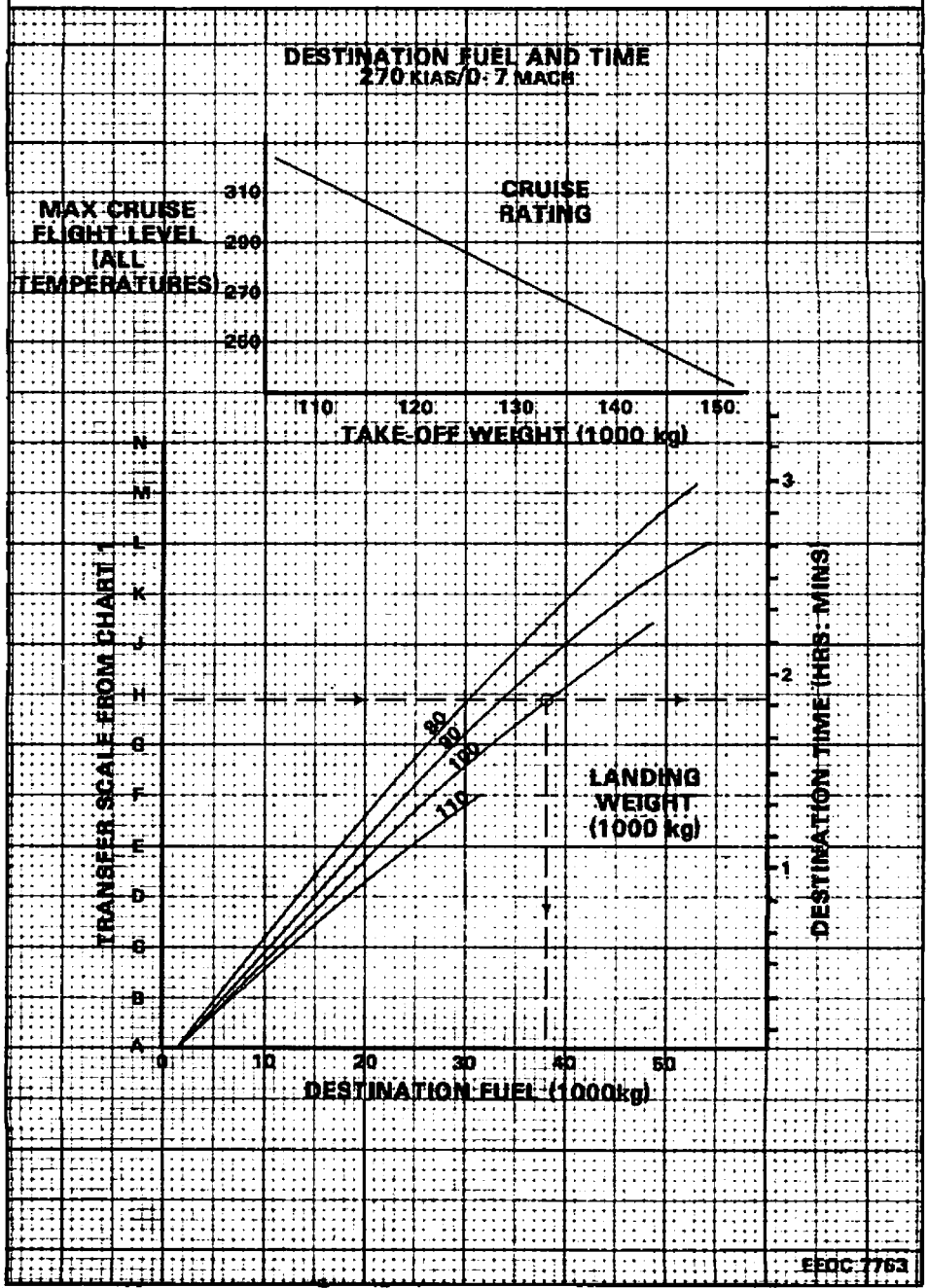
Landing WAT (1000kg)	90	100	110	120	130
PENALTY (1000kg)	1.8	2.0	2.2	2.4	2.6

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GEAR DOWN OPERATION CHART 1

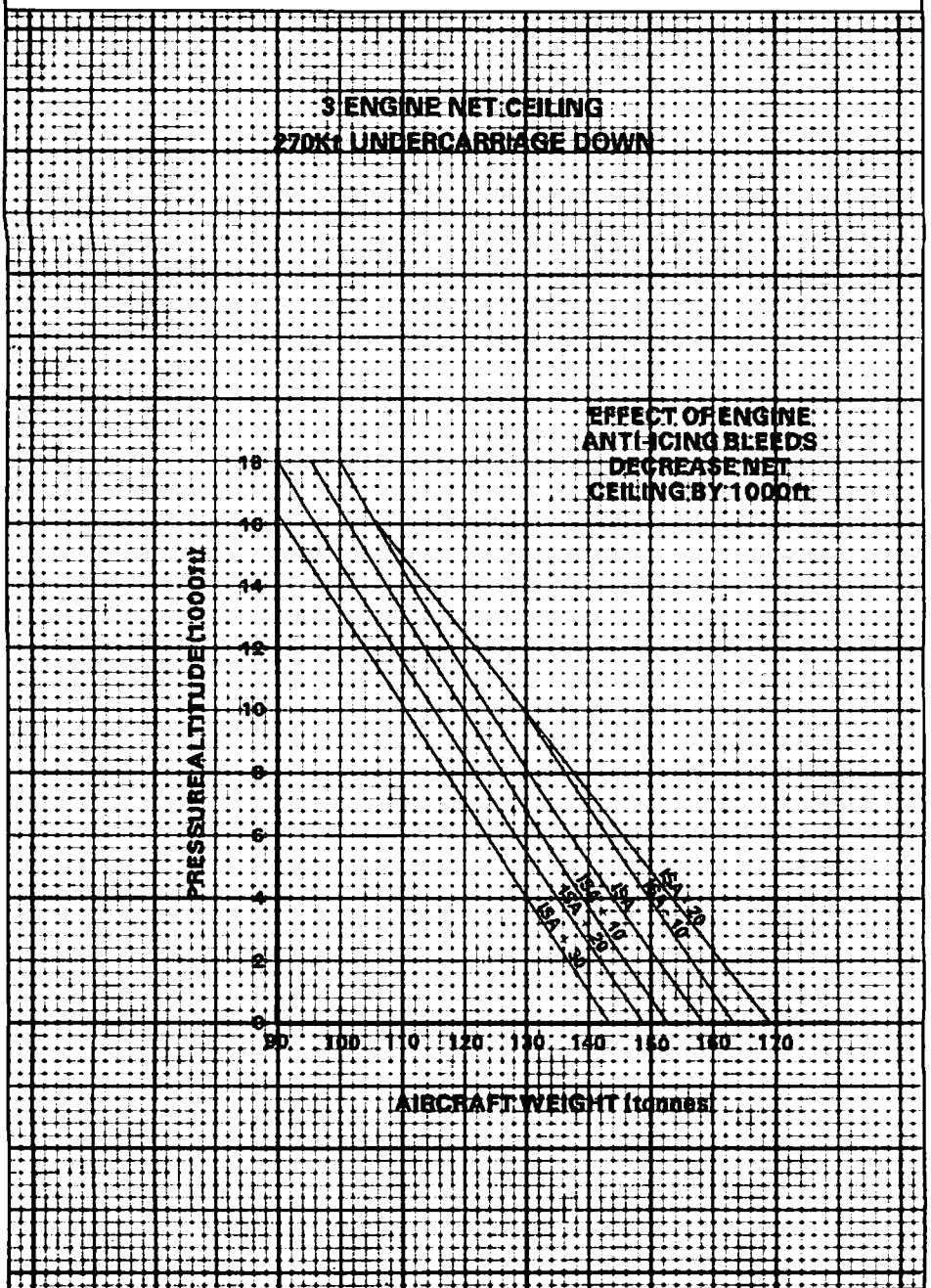


GEAR DOWN OPERATION CHART 2



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GEAR DOWN OPERATION CHART 3



SECTION 1.9. - ICY SLIPPERY/CONTAMINATED

Take-Off From Icy/Slippery But Not Contaminated	1.9.1. -1.9.4.
Icy/Slippery Take-Off Data - LHR/JFK/IAD	1.9.5. -1.9.17.
Take-Off From Contaminated Runways	1.9.19. -1.9.21.
Contaminated Take-Off Data - LHR/JFK/RVN/IAD	1.9.22. -1.9.34.
Generalised Charts Icy/Slippery and Contaminated	1.9.35. -1.9.38.
SNOTAM Proforma	1.9.39. -1.9.40.
MOTNE/OPMET Decode	1.9.41. -1.9.42.

1.9. ICY/SLIPPERY AND CONTAMINATED NOTES AND AIRFIELD DATA

TAKE-OFF FROM ICY/SLIPPERY BUT NOT CONTAMINATED RUNWAYS

A. INTRODUCTION

This is the most difficult situation to deal with simply because there is no reliable way of measuring braking co-efficient which is representative of a stopping aircraft. A slippery runway is defined as one with a uniform theoretical braking co-efficient of 0.05 Mu (0.05 JBI). it is important to note that this condition is assumed to be uniform over the full length and breadth of the appropriate runway surface – a most unlikely situation. In slippery runway conditions stopping the aircraft presents the greatest problem.

The slippery runway data, when used, may well produce very limiting Take-off weights so it is essential that careful thought is given before use.

A slippery runway caused by ice is usually of short duration but a slippery runway can be caused by water on rubber deposits and on smooth surfaces. If a runway is promulgated as "liable to be slippery when wet", it means that a certain portion of the runway (in UK more than 100m) hsa a Mu-meter reading of 0.39 (0.49 JBI) or below. This could mean that the whole runway has a braking action of medium/good - very far removed from the assumed co-efficient of 0.05 Mu (0.05 JBI)for a slippery runway.

As well as rubber deposits and smooth surfaces, local pools of water can also give a "liable to be slippery when wet" state. In the Performance Manual whenever such a statementis made, an indication of where and why will be included to enable pilots to make better assessment of the particular situation. Whilst one cannot and should not interpolate between normal wet runway data and slippery runway data the two sets of data for a particular runway give an indication of possible margins and may assist the Captain to choose the most appropriate level of performance for the conditions.

For further information see FCIB 05 dated 01 OCT 87.

B. LIMITATIONS

If more than one abnormal operation applies check that the combination is permitted by refering to the "COMBINATIONS OF DISPATCH DEVIATIONS/SPECIAL OPERATIONS in Section 1.8.

The procedure in Section 1.1. "CONTINUED TAKE-OFF WITH ONE REHEAT FAILED - UNPREMEDIATED" must NOT be used on an icy/slippery runway.

C. PROCEDURE FOR USE OF ICY/SLIPPERY RTOW TABLES

Individual runway tables are provided for the main departure airfields. They are produced for suitable ranges of winds and temperatures and extrapolation outside these ranges is NOT permitted. The low values of V_1 required to meet the accelerate stop requirements on an icy/slippery runway may result in the PLTOW becoming additionally limited by V_{1MIN} (= 132kt).

TAKE-OFF FROM ICY/SLIPPERY BUT NOT CONTAMINATED RUNWAYS (cont)

D. ESTABLISH PERFORMANCE RTOW, ASSOCIATED SPEEDS AND Θ_2

1. Ensure that the TOR and ED quoted agree with the officially published figures.

2. Obtain the least favourable wind component and ambient temperature.

3.

Either:-

Enter the RTOW table with the ambient conditions found in **2.** and extract the PLTOW, associated speeds and Θ_2, interpolating as necessary.

OR:-

Refer to the generalised charts in this section for "Take-off from icy/slippery or contaminated runways" to obtain the PLTOW, associated speeds and Θ_2.

E. PRESSURE HEIGHT CORRECTIONS

Obtain the difference between actual QNH and 1013.2 mb, then use one of the methods to correct the PLTOW, associated speeds and Θ_2, depending on the value of V_1 found above:

IF V_1 > 132kt apply normal corrections.

IF V_1 = 132kt use table below:

	RTOW (kg)	V_R (kt)	V_2 (kt)	Θ_2
−10mb below SUBTRACT	4000	5.0	5.0	ADD 0.2
+10mb above ADD	3500	5.0	5.0	SUBTRACT 0.1
	USE V_1 = 132kt			

N.B. No correction to Θ_2 is required if V_1 (corrected for pressure height) is less than 132kt use V_1 = 132kt.

TAKE-OFF FROM ICY/SLIPPERY BUT NOT CONTAMINATED RUNWAYS (cont)

F. ACTUAL TOW LESS THAN RTOW CORRECTIONS

Obtain the difference between the Actual Take-off Weight and the PLTOW then use one of the following methods to further correct the take-off speeds and Θ_2, depending on the value of V_1 (corrected for pressure height) found in 1.9.2. E.

IF V_1 (corrected for pressure height) > 132kt apply normal corrections.

IF V_1 (corrected for pressure height) = 132kt use table below:

	V_R (kt)	V_2 (kt)	Θ_2 (deg)
For each 1000kg below SUBTRACT	0.7	0.4	ADD 0.07

USE V_1 = 132kt

G. DISPATCH DEVIATIONS/SPECIAL OPERATIONS

If any abnormal operations are being considered the relevant penalty should be applied to the PLTOW and associated speeds found above (corrected for pressure height) before correcting the take-off speeds and Θ_2 for the Actual Take-off Weight.

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BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

ICY / SLIPPERY

FULL LENGTH RWY 09R

CLG NIL
TOR 3658m (12001ft)

RVR/VIS 150m
ED 3658m (12001ft)

SLOPE 0.02% DN
TOD 3658m (12001ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	136.4	6.6	169.2	3.5	186.8	0.3	189.8	0.3	192.7	19.3	
	132/152		132/175		136/194		140/198		144/202		
4	136.9	6.7	172.2	3.0	187.2	0.3	190.2	0.3	193.1	19.3	
	132/154		132/177		136/195		140/199		145/203		
2	141.4	6.8	175.2	2.5	187.6	0.3	190.5	0.3	193.4	19.3	
	132/156		132/179		137/196		141/200		145/203		
0	143.9	6.9	178.2	2.0	188.0	0.3	190.9	0.3	193.8	19.4	
	132/157		132/183		137/196		142/200		146/204		
-2	146.6	6.9	181.3	1.4	188.3	0.3	191.2	0.3	194.1	19.4	
	132/159		132/187		138/197		142/201		147/204		
-4	149.2	7.0	184.0	0.9	188.6	0.3	191.5	0.3	194.4	19.4	
	132/161		132/191		139/197		143/201		147/205		
-6	152.0	6.5	184.3	0.9	188.9	0.3	191.7	0.3	194.6	19.5	
	132/163		133/192		139/198		144/201		148/205		
-8	154.8	6.0	184.6	0.9	189.1	0.3	192.0	0.3	194.9	19.5	
	132/165		133/192		140/198		144/202		149/206		
-10	157.6	5.4	184.8	0.9	189.4	0.3	192.2	0.3	195.0	19.5	
	132/167		134/193		140/199		145/202		149/206		
-12	157.6	5.4	184.7	0.9	189.3	0.3	192.1	0.3	195.0	19.5	
	132/167		134/193		140/199		145/202		149/206		
-14	157.6	5.4	184.6	0.9	189.1	0.3	192.0	0.3	194.9	19.5	
	132/167		134/193		140/199		145/202		149/206		
-16	157.6	5.4	184.5	0.9	189.0	0.3	191.9	0.3	194.8	19.5	
	132/167		134/193		141/199		145/202		149/206		
-18	157.6	5.4	184.4	0.9	188.9	0.3	191.8	0.3	194.7	19.5	
	132/167		134/193		141/199		145/203		149/206		
-20	157.6	5.3	184.3	0.9	188.8	0.3	191.7	0.3	194.6	19.5	
	132/167		134/193		141/199		145/203		149/206		
-22	157.6	5.3	184.2	0.9	188.7	0.3	191.6	0.3	194.4	0.1	195.0
	132/167		134/193		141/199		145/203		149/206		153/209
V2=	VR+ 28		VR+ 22		VR+ 22		VR+ 22		VR+ 22		VR+ 23
Θ2=	15.5		13.5		13.0		13.0		12.5		12.5

1. **Noise Abatement Procedures:** See Pages LHR/06 and LHR/07.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

ICY / SLIPPERY

FULL LENGTH RWY 27L

CLG NIL
TOR 3658m (12001ft)

RVR/VIS 150m
ED 3658m (12001ft)

SLOPE 0.02% DN
TOD 3658m (12001ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	135.7	6.5	168.3	3.6	186.5	0.3	189.5	0.3	192.4	19.2	
	132/152		132/174		136/194		140/198		144/202		
4	138.1	6.6	171.3	3.1	186.9	0.3	189.9	0.3	192.8	19.3	
	132/153		132/176		136/195		140/199		145/202		
2	140.6	6.8	174.4	2.6	187.3	0.3	190.2	0.3	193.1	19.3	
	132/155		132/178		137/195		141/199		145/203		
0	143.1	6.8	177.3	2.1	187.7	0.3	190.6	0.3	193.5	19.3	
	132/157		132/182		137/196		142/200		146/203		
-2	145.7	6.9	180.3	1.5	188.0	0.3	190.9	0.3	193.8	19.4	
	132/159		132/186		138/196		142/200		146/204		
-4	148.4	7.0	183.5	1.0	188.3	0.3	191.2	0.3	194.1	19.4	
	132/160		132/190		138/197		143/201		147/204		
-6	151.1	6.6	184.0	0.9	188.6	0.3	191.4	0.3	194.3	19.4	
	132/162		133/191		139/197		143/201		148/205		
-8	153.9	6.1	184.3	0.9	188.8	0.3	191.7	0.3	194.6	19.5	
	132/164		133/192		140/198		144/202		148/205		
-10	156.7	5.6	184.5	0.9	189.1	0.3	191.9	0.3	194.8	19.5	
	132/166		134/192		140/198		145/202		149/206		
-12	156.7	5.5	184.4	0.9	189.0	0.3	191.8	0.3	194.7	19.5	
	132/166		134/192		140/198		145/202		149/206		
-14	156.7	5.5	184.3	0.9	188.8	0.3	191.7	0.3	194.6	19.5	
	132/166		134/192		140/198		145/202		149/206		
-16	156.7	5.5	184.2	0.9	188.7	0.3	191.6	0.3	194.5	19.4	
	132/166		134/192		140/198		145/202		149/206		
-18	156.7	5.5	184.1	0.9	188.6	0.3	191.5	0.3	194.4	19.4	
	132/166		134/192		140/198		145/202		149/206		
-20	156.7	5.5	184.0	0.9	188.5	0.3	191.4	0.3	194.2	19.4	
	132/166		134/192		140/198		145/202		149/206		
-22	156.7	5.4	183.9	0.9	188.4	0.3	191.2	0.3	194.1	0.1	195.0
	132/166		134/192		140/198		145/202		149/206		153/209
V2=	VR+ 28		VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 22
θ2=	15.5		13.5		13.0		13.0		12.5		12.5

1. **Noise Abatement Procedures:** See Pages LHR/10, 11, .12 and 13.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

LONDON HEATHROW

A/D Elev 80ft

ICY / SLIPPERY

FULL LENGTH RWY 27R

CLG NIL **RVR/VIS** 150m **SLOPE** 0.02% UP
TOR 3902m (12802ft) **ED** 3902m (12802ft) **TOD** 3902m (12802ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	160.5	4.2	181.7	0.9	186.1	0.3	188.8	0.3	191.4	0.3	194.2
	132/169		135/191		141/196		146/199		150/203		154/207
4	163.3	3.7	182.0	0.9	186.4	0.3	189.0	0.3	191.7	0.3	194.5
	132/171		135/192		142/196		146/200		151/203		155/208
2	166.3	3.2	182.4	0.9	186.7	0.3	189.3	0.3	192.0	0.3	194.8
	132/173		136/192		142/196		147/200		151/204		155/209
0	169.3	2.7	182.8	0.8	187.0	0.3	189.6	0.3	192.3	0.3	194.9
	132/175		137/193		143/197		147/201		152/205		156/208
-2	172.3	2.2	183.1	0.8	187.2	0.3	189.8	0.3	192.5	0.2	195.0
	132/177		137/193		144/197		148/201		152/205		157/209
-4	175.3	1.6	183.4	0.8	187.4	0.3	190.0	0.3	192.7	0.2	195.0
	132/179		138/194		144/198		149/202		153/206		157/209
-6	179.2	0.9	183.6	0.8	187.6	0.3	190.2	0.3	192.9	0.2	195.0
	132/188		138/194		145/198		149/202		154/207		158/209
-8	179.4	0.9	183.8	0.8	187.8	0.3	190.4	0.3	193.0	0.2	195.0
	132/188		139/194		146/199		150/203		155/206		159/209
-10	179.7	0.9	184.0	0.8	188.0	0.3	190.6	0.3	193.2	0.2	195.0
	133/189		140/194		146/199		151/204		155/206		159/209
-12	179.6	0.9	183.9	0.8	187.8	0.3	190.5	0.3	193.1	0.2	195.0
	133/189		140/194		146/199		151/204		155/207		160/209
-14	179.5	0.9	183.8	0.8	187.7	0.3	190.4	0.2	192.9	0.2	195.0
	133/189		140/194		146/199		151/204		155/207		160/209
-16	179.4	0.9	183.7	0.8	187.6	0.3	190.2	0.3	192.8	0.2	195.0
	133/189		140/194		146/199		151/204		155/207		160/209
-18	179.2	0.9	183.5	0.8	187.4	0.3	190.1	0.2	192.6	0.2	195.0
	133/189		140/194		147/200		151/204		155/207		160/209
-20	179.1	0.9	183.4	0.8	187.3	0.3	189.9	0.3	192.5	0.2	195.0
	133/189		140/194		147/200		151/204		156/207		160/209
-22	179.0	0.8	183.2	0.8	187.2	0.2	189.7	0.3	192.3	0.3	194.9
	133/189		140/194		147/200		151/203		156/207		160/209
V2=	VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 23		VR+ 23
θ2=	14.0		13.5		13.0		13.0		13.0		12.5

1. **Noise Abatement Procedures:** See Pages LHR/16, 17, 18 and 19.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev 13ft

ICY / SLIPPERY

FULL LENGTH RWY 04L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 3460m (11352ft) **ED** 3460m (11352ft) **TOD** 3460m (11352ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	120.1	5.7	148.5	6.0	178.7	0.3	181.6	0.3	184.5	0.3	187.3
	132/139		132/161		133/190		137/193		141/195		146/198
4	122.1	5.8	151.1	5.6	179.0	0.3	182.0	0.3	184.9	0.3	187.6
	132/141		132/163		133/190		138/193		142/195		146/198
2	124.2	5.9	153.9	5.1	179.4	0.3	182.3	0.3	185.2	0.3	187.8
	132/142		132/165		134/191		138/193		143/195		147/199
0	126.3	6.1	156.7	4.6	179.8	0.3	182.6	0.3	185.4	0.3	188.1
	132/144		132/166		135/192		139/193		143/196		148/199
-2	128.5	6.2	159.5	4.1	180.0	0.3	182.9	0.3	185.6	0.3	188.3
	132/146		132/168		135/192		139/193		144/196		148/200
-4	130.8	6.3	162.4	3.6	180.3	0.3	183.1	0.3	185.8	0.3	188.4
	132/147		132/170		136/192		140/194		145/197		149/200
-6	133.1	6.5	165.4	3.0	180.5	0.3	183.3	0.3	186.0	0.3	188.6
	132/149		132/172		136/192		141/194		145/197		150/201
-8	135.5	6.6	168.4	2.5	180.7	0.3	183.5	0.3	186.2	0.2	188.7
	132/151		132/174		137/192		141/194		146/197		150/201
-10	138.0	6.7	171.5	1.9	180.9	0.3	183.7	0.3	186.3	0.3	188.9
	132/152		132/176		138/192		142/194		147/198		151/201
-12	138.0	6.7	171.5	1.9	180.8	0.3	183.6	0.3	186.2	0.3	188.8
	132/152		132/176		138/192		142/194		147/198		151/201
-14	138.0	6.7	171.5	1.8	180.7	0.3	183.5	0.3	186.1	0.3	188.7
	132/152		132/176		138/191		142/194		147/198		151/201
-16	138.0	6.7	171.5	1.8	180.6	0.3	183.3	0.3	185.9	0.3	188.6
	132/152		132/176		138/191		142/194		147/198		151/201
-18	138.0	6.7	171.5	1.8	180.5	0.3	183.2	0.3	185.8	0.3	188.4
	132/152		132/176		138/192		142/194		147/198		151/201
-20	138.0	6.7	171.5	1.8	180.4	0.3	183.1	0.2	185.6	0.3	188.3
	132/152		132/176		138/191		142/194		147/198		151/201
-22	138.0	6.7	171.5	1.8	180.3	0.3	182.9	0.3	185.5	0.3	188.1
	132/152		132/176		138/191		142/194		147/198		151/201
V2=	VR+ 35		VR+ 24		VR+ 23		VR+ 23		VR+ 22		VR+ 23
Θ2=	16.5		14.5		13.5		13.5		13.0		13.0

1. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight:** Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/02 and JFK/03

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev 13ft

ICY / SLIPPERY

FULL LENGTH RWY 13R

CLG NIL
TOR 4442m (14573ft)

RVR/VIS 600ft*
ED 4442m (14573ft)

SLOPE NIL
TOD 4442m (14573ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	184.8	0.8	188.9	0.9	193.2	19.3					
	139/191		145/197		151/202						
4	185.1	0.8	189.3	0.9	193.6	19.4					
	139/192		145/197		152/203						
2	185.5	0.8	189.7	0.8	193.9	19.4					
	140/192		146/198		153/204						
0	185.8	0.9	190.1	0.8	194.3	19.4					
	140/193		147/199		153/204						
-2	186.2	0.8	190.4	0.9	194.7	19.5					
	141/194		147/199		154/205						
-4	186.5	0.9	190.8	0.8	195.0	19.5					
	141/194		148/200		154/205						
-6	186.9	0.9	191.2	0.8	195.0	19.5					
	142/195		149/200		155/206						
-8	187.2	0.9	191.5	0.7	195.0	19.5					
	143/195		149/201		155/206						
-10	187.5	0.9	191.9	0.6	195.0	19.5					
	143/196		150/201		156/206						
-12	187.4	0.9	191.8	0.6	195.0	19.5					
	143/196		150/202		156/207						
-14	187.3	0.9	191.6	0.7	195.0	19.5					
	143/196		150/202		156/207						
-16	187.2	0.9	191.5	0.7	195.0	19.5					
	143/196		150/202		156/207						
-18	187.1	0.9	191.4	0.7	195.0	19.5					
	143/196		150/202		156/207						
-20	187.0	0.9	191.3	0.7	195.0	19.5					
	143/196		150/202		156/207						
-22	186.8	0.9	191.2	0.8	195.0	0.0	195.0	0.0	195.0	0.0	195.0
	143/196		150/202		156/207		160/209		163/211		166/214
V2=	VR+ 22		VR+ 22		VR+ 22		VR+ 23		VR+ 24		VR+ 23
θ2=	13.0		13.0		12.5		12.5		12.5		12.5

1. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight:** Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/14 and JFK/15

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev 13ft

ICY / SLIPPERY

FULL LENGTH RWY 22R

CLG NIL
TOR 3460m (11352ft)

RVR/VIS 600ft*
ED 3460m (11352ft)

SLOPE NIL
TOD 3460m (11352ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	120.1	5.7	148.5	6.9	183.2	0.5	188.3	0.3	191.5	0.3	194.7
	132/139		132/161		132/189		136/196		140/200		144/204
4	122.1	5.8	151.1	6.9	185.6	0.3	188.8	0.3	191.9	0.3	195.0
	132/141		132/163		132/193		136/197		141/201		145/205
2	124.2	5.9	153.9	6.4	186.1	0.3	189.2	0.3	192.4	0.3	195.0
	132/142		132/165		133/193		137/197		141/202		145/205
0	126.3	6.1	156.7	6.0	186.5	0.3	189.6	0.3	192.8	0.2	195.0
	132/144		132/166		133/194		137/198		142/202		145/206
-2	128.5	6.2	159.5	5.5	186.9	0.3	190.0	0.3	193.2	0.2	195.0
	132/146		132/168		134/194		138/199		142/203		146/206
-4	130.8	6.3	162.4	5.0	187.3	0.3	190.4	0.3	193.6	0.1	195.0
	132/147		132/170		134/195		139/199		143/203		146/207
-6	133.1	6.5	165.4	4.4	187.6	0.3	190.8	0.3	194.0	0.1	195.0
	132/149		132/172		135/196		139/200		144/204		147/207
-8	135.5	6.6	168.4	3.9	187.9	0.3	191.1	0.3	194.3	0.1	195.0
	132/151		132/174		135/196		140/200		144/205		147/207
-10	138.0	6.7	171.5	3.4	188.3	0.3	191.4	0.3	194.6	0.0	195.0
	132/152		132/176		136/197		140/201		145/205		148/208
-12	138.0	6.7	171.5	3.3	188.2	0.3	191.3	0.3	194.5	0.0	195.0
	132/152		132/176		136/197		140/201		145/205		148/208
-14	138.0	6.7	171.5	3.3	188.1	0.3	191.3	0.3	194.4	0.1	195.0
	132/152		132/176		136/197		140/201		145/205		148/208
-16	138.0	6.7	171.5	3.3	188.0	0.3	191.2	0.3	194.3	0.1	195.0
	132/152		132/176		136/197		140/201		145/205		148/208
-18	138.0	6.7	171.5	3.3	187.9	0.3	191.1	0.3	194.2	0.1	195.0
	132/152		132/176		136/197		141/201		145/205		148/208
-20	138.0	6.7	171.5	3.3	187.8	0.3	191.0	0.3	194.2	0.1	195.0
	132/152		132/176		136/197		141/201		145/205		148/208
-22	138.0	6.7	171.5	3.2	187.7	0.3	190.9	0.3	194.1	0.1	195.0
	132/152		132/176		136/197		141/201		145/206		148/208
V2=	VR+ 35		VR+ 24		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	16.5		14.5		13.0		13.0		12.5		12.5

1. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight:** Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/19, 20, 21, 22, 23, 24 and 25.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev 13ft

ICY / SLIPPERY

FULL LENGTH RWY 31L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 4442m (14573ft) **ED** 4442m (14573ft) **TOD** 4442m (14573ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	183.0	0.8	187.1	0.8	191.0	0.3	193.6	19.4			
	139/192		145/197		152/203		156/206				
4	183.3	0.8	187.4	0.8	191.3	0.3	193.9	19.4			
	139/192		146/198		152/204		157/207				
2	183.6	0.8	187.7	0.8	191.5	0.3	194.1	19.4			
	140/193		147/199		153/204		157/207				
0	184.0	0.8	187.9	0.8	191.8	0.3	194.4	19.4			
	141/194		147/199		154/204		158/208				
-2	184.3	0.8	188.1	0.8	192.0	0.3	194.6	19.5			
	141/194		148/200		154/205		159/208				
-4	184.5	0.8	188.3	0.8	192.2	0.2	194.7	19.5			
	142/195		149/200		155/205		160/208				
-6	184.7	0.8	188.5	0.8	192.4	0.2	194.9	19.5			
	143/195		149/200		156/205		160/208				
-8	184.8	0.8	188.6	0.8	192.5	0.2	195.0	19.5			
	143/196		150/201		157/206		161/208				
-10	184.9	0.8	188.8	0.8	192.7	0.2	195.0	19.5			
	144/197		151/201		157/206		162/209				
-12	184.9	0.8	188.7	0.8	192.5	0.2	195.0	19.5			
	144/196		151/201		157/206		162/209				
-14	184.8	0.7	188.5	0.8	192.4	0.3	195.0	19.5			
	144/196		151/201		157/206		162/209				
-16	184.6	0.8	188.4	0.8	192.3	0.2	194.8	19.5			
	144/196		151/201		157/206		162/209				
-18	184.5	0.8	188.3	0.8	192.1	0.3	194.7	19.5			
	144/196		151/201		157/206		162/209				
-20	184.4	0.7	188.1	0.8	192.0	0.2	194.5	19.4			
	144/196		151/201		157/206		162/209				
-22	184.2	0.8	188.0	0.8	191.8	0.2	194.3	0.1	195.0	0.0	195.0
	144/196		151/201		158/206		162/209		166/210		169/210
V2=	VR+ 23		VR+ 23		VR+ 23		VR+ 23		VR+ 23		VR+ 23
Θ2=	13.5		13.0		13.0		12.5		12.5		12.5

1. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight:** Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/32, 33, 34, 35, 36, 37, 38 and 39.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA **ICY / SLIPPERY**

A/D Elev 645ft **ROVANIEMI**

FULL LENGTH RWY 03

CLG NIL RVR/VIS 150m SLOPE 0.23% DN

TOR 3000m (9843ft) ED 3000m (9843ft) TOD 3000m (9843ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6					120.2	1.8	138.0	2.1	158.9	2.3	182.0
					132/140		132/154		132/169		132/191
4					122.3	1.8	140.5	2.1	161.8	2.1	183.3
					132/142		132/156		132/170		132/193
2			103.3	4.2	124.4	1.9	143.1	2.2	164.7	1.9	183.8
			132/126		132/143		132/157		132/172		133/194
0					126.5	1.9	145.7	2.2	167.7	1.6	184.2
					132/145		132/159		132/174		133/194
-2					128.8	1.9	148.3	2.2	170.6	1.4	184.6
					132/146		132/161		132/176		134/195
-4			102.6	5.7	131.1	2.0	151.0	2.2	173.5	1.1	185.0
			132/139		132/148		132/163		132/180		135/196
-6			105.0	5.7	133.4	2.0	153.8	2.3	176.5	0.9	185.4
			132/139		132/150		132/165		132/184		135/196
-8			107.4	5.7	135.8	2.1	156.6	2.3	179.6	0.6	185.7
			132/139		132/151		132/166		132/188		136/197
-10			109.9	5.7	138.2	2.1	159.4	2.3	182.7	0.3	186.1
			132/139		132/153		132/168		132/193		136/197
-12			109.9	5.7	138.2	2.1	159.4	2.3	182.7	0.3	186.0
			132/139		132/153		132/168		132/193		136/197
-14			109.9	5.7	138.2	2.1	159.4	2.3	182.7	0.3	185.9
			132/139		132/153		132/168		132/193		136/198
-16			109.9	5.7	138.2	2.1	159.4	2.3	182.6	0.3	185.8
			132/139		132/153		132/168		132/193		136/198
-18			109.9	5.7	138.2	2.1	159.4	2.3	182.5	0.3	185.8
			132/139		132/153		132/168		132/193		136/198
-20			109.9	5.7	138.2	2.1	159.4	2.3	182.4	0.3	185.7
			132/139		132/153		132/168		132/193		136/198
-22			109.9	5.7	138.2	2.1	159.4	2.3	182.3	0.3	185.6
			132/139		132/153		132/168		132/193		136/198
V2=	VR+ 0		VR+ 46		VR+ 33		VR+ 26		VR+ 22		VR+ 22
Θ2=	0.0		18.0		16.5		15.0		13.5		13.0

1. **ARRESTER GEAR:** This data is valid only with Arrester Net in **DOWN** position.

ROVANIEMI

A/D Elev 645ft

RWY **21**

CLG RVR/VIS SLOPE 0.23%UP
TOR 3000m (9843ft) ED 3000m (9843ft) TOD 3300m (10827ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6			100.6	5.6	126.6	1.9	148.1	2.2	170.3	1.3	183.2
			132/139		132/147		132/161		132/176		134/193
4			102.9	5.6	130.9	2.0	150.8	2.2	173.2	1.0	183.6
			132/139		132/148		132/163		132/179		135/193
2			105.2	5.6	133.2	2.0	153.5	2.3	176.2	0.8	184.1
			132/139		132/150		132/165		132/183		135/194
0			107.6	5.6	135.6	2.1	156.3	2.3	179.3	0.5	184.5
			132/139		132/152		132/167		132/188		136/195
-2			110.0	5.6	138.1	2.1	159.1	2.3	181.7	0.3	184.9
			132/139		132/153		132/168		132/191		136/195
-4			112.5	5.6	140.6	2.1	162.1	2.0	182.1	0.3	185.2
			132/139		132/155		132/170		133/192		137/195
-6			115.1	5.6	143.1	2.2	165.0	1.7	182.4	0.3	185.5
			132/139		132/157		132/172		133/192		137/196
-8			117.7	5.6	145.7	2.2	167.9	1.5	182.7	0.3	185.9
			132/139		132/159		132/174		134/192		138/197
-10			120.3	5.6	148.4	2.2	170.8	1.2	183.0	0.3	186.1
			132/139		132/161		132/177		134/193		139/197
-12			120.3	5.6	148.4	2.2	170.8	1.2	183.0	0.3	186.1
			132/139		132/161		132/177		134/193		139/198
-14			120.3	5.6	148.4	2.2	170.8	1.2	182.9	0.3	186.0
			132/139		132/161		132/177		134/193		139/198
-16			120.3	5.6	148.4	2.2	170.8	1.2	182.8	0.3	185.9
			132/139		132/161		132/177		134/193		139/198
-18			120.3	5.6	148.4	2.2	170.8	1.2	182.7	0.3	185.8
			132/139		132/161		132/177		134/194		139/198
-20			120.3	5.6	148.4	2.2	170.7	1.2	182.6	0.3	185.7
			132/139		132/161		132/177		134/194		139/198
-22			120.3	5.6	148.4	2.2	170.7	1.2	182.5	0.3	185.5
			132/139		132/161		132/177		134/194		139/198
V2=	VR+ 0		VR+ 42		VR+ 29		VR+ 24		VR+ 22		VR+ 22
Θ2=	0.0		17.5		16.0		14.0		13.0		0.0

1. **Arrester Gear**: This data is valid only with Arrester Net in DOWN position.

WASHINGTON DULLES INTL

A/D Elev 313ft

RWY **01L**

CLG
TOR 3505m (11499ft)

RVR/VIS
ED 3505m (11499ft)

SLOPE 0.16%DN
TOD 3828m (12559ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	117.0	5.6	145.0	6.8	179.0	1.4	192.9				
	132/139		132/159		132/185		134/204				
4	119.5	5.6	147.7	6.9	182.1	1.1	193.3				
	132/139		132/160		132/190		135/204				
2	121.5	5.8	150.3	7.0	185.4	0.8	193.8				
	132/141		132/162		132/194		135/205				
0	123.6	5.9	153.1	7.1	188.6	0.6	194.3				
	132/142		132/164		132/198		136/206				
-2	125.7	6.0	155.9	7.1	191.6	0.3	194.7				
	132/144		132/166		132/202		136/206				
-4	127.9	6.2	158.7	6.6	191.9	0.3	195.0				
	132/145		132/168		133/203		137/207				
-6	130.2	6.3	161.6	6.1	192.3	0.3	195.0				
	132/147		132/170		133/204		137/207				
-8	132.5	6.4	164.5	5.6	192.6	0.2	195.0				
	132/149		132/171		134/204		138/208				
-10	134.9	6.5	167.5	5.1	193.0	0.2	195.0				
	132/150		132/173		134/205		138/208				
-12	134.9	6.5	167.5	5.1	192.9	0.2	195.0				
	132/150		132/173		134/205		138/208				
-14	134.9	6.5	167.5	5.1	192.8	0.2	195.0				
	132/150		132/173		134/205		138/208				
-16	134.9	6.5	167.5	5.0	192.7	0.2	195.0				
	132/150		132/173		134/205		138/209				
-18	134.9	6.5	167.5	5.0	192.6	0.2	195.0				
	132/150		132/173		134/205		138/209				
-20	134.9	6.5	167.5	5.0	192.5	0.2	195.0				
	132/150		132/173		134/205		139/209				
-22	134.9	6.5	167.5	5.0	192.4	0.3	195.0	0.0	195.0	0.0	195.0
	132/150		132/173		134/205		139/209		142/211		145/214
V2=	VR+ 35		VR+ 25		VR+ 22		VR+ 22		VR+ 23		VR+ 23
Θ2=	17.0		14.5		13.0		12.5		12.5		12.5

WASHINGTON DULLES INTL

A/D Elev 313ft

RWY **01R**

CLG
TOR 3505m (11499ft)

RVR/VIS
ED 3505m (11499ft)

SLOPE 0.16%DN
TOD 3855m (12648ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	117.0	5.6	145.0	6.8	179.0	0.9	188.4	0.3	191.4	0.3	194.4
	132/139		132/159		132/185		135/198		139/202		143/206
4	119.5	5.6	147.7	6.9	182.1	0.7	188.9	0.3	191.9	0.3	194.9
	132/139		132/160		132/190		135/199		140/203		144/206
2	121.5	5.8	150.3	7.0	185.4	0.4	189.3	0.3	192.3	0.3	195.0
	132/141		132/162		132/194		136/199		140/203		144/207
0	123.6	5.9	153.1	6.7	186.7	0.3	189.7	0.3	192.6	0.2	195.0
	132/142		132/164		132/196		137/200		141/204		145/207
-2	125.7	6.0	155.9	6.2	187.1	0.3	190.0	0.3	193.0	0.2	195.0
	132/144		132/166		133/196		137/200		141/204		145/208
-4	127.9	6.2	158.7	5.7	187.4	0.3	190.3	0.3	193.3	0.2	195.0
	132/145		132/168		133/197		138/201		142/205		146/208
-6	130.2	6.3	161.6	5.2	187.7	0.3	190.7	0.3	193.6	0.1	195.0
	132/147		132/170		134/197		138/201		143/205		146/208
-8	132.5	6.4	164.5	4.7	188.0	0.3	190.9	0.3	193.9	0.1	195.0
	132/149		132/171		135/198		139/202		143/206		147/209
-10	134.9	6.5	167.5	4.2	188.3	0.3	191.2	0.3	194.2	0.1	195.0
	132/150		132/173		135/198		140/202		144/206		147/209
-12	134.9	6.5	167.5	4.1	188.2	0.3	191.1	0.3	194.1	0.1	195.0
	132/150		132/173		135/198		140/202		144/206		147/209
-14	134.9	6.5	167.5	4.1	188.1	0.3	191.0	0.3	194.0	0.1	195.0
	132/150		132/173		135/199		140/202		144/206		147/209
-16	134.9	6.5	167.5	4.1	188.0	0.3	190.9	0.3	193.9	0.1	195.0
	132/150		132/173		135/199		140/202		144/206		148/209
-18	134.9	6.5	167.5	4.1	187.9	0.3	190.8	0.3	193.8	0.1	195.0
	132/150		132/173		135/199		140/203		144/207		148/209
-20	134.9	6.5	167.5	4.1	187.8	0.3	190.7	0.3	193.7	0.1	195.0
	132/150		132/173		135/199		140/203		144/207		148/210
-22	134.9	6.5	167.5	4.0	187.6	0.3	190.6	0.3	193.6	0.1	195.0
	132/150		132/173		135/199		140/203		144/207		148/210
V2=	VR+ 35		VR+ 25		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	17.0		14.5		13.0		13.0		12.5		12.5

WASHINGTON DULLES INTL

A/D Elev 313ft

RWY **19L**

CLG
TOR 3505m (11499ft)

RVR/VIS
ED 3505m (11499ft)

SLOPE 0.16%UP
TOD 3761m (12339ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	123.2	5.9	152.5	6.2	183.7	0.3	186.7	0.3	189.8	0.3	192.8
	132/142		132/164		133/192		137/196		141/200		145/204
4	125.3	6.0	155.3	5.8	184.1	0.3	187.2	0.3	190.2	0.3	193.3
	132/144		132/166		133/192		137/196		142/200		146/204
2	127.5	6.1	158.1	5.3	184.6	0.3	187.6	0.3	190.6	0.3	193.7
	132/145		132/168		134/193		138/197		142/201		146/205
0	129.7	6.2	160.9	4.8	185.0	0.3	188.0	0.3	191.0	0.3	194.1
	132/147		132/169		134/194		139/198		143/202		147/206
-2	132.0	6.4	163.9	4.3	185.4	0.3	188.4	0.3	191.4	0.3	194.4
	132/149		132/171		135/194		139/198		143/202		148/206
-4	134.4	6.5	166.8	3.8	185.7	0.3	188.7	0.3	191.7	0.3	194.8
	132/150		132/173		136/195		140/199		144/203		148/207
-6	136.8	6.6	169.8	3.2	186.0	0.3	189.0	0.3	192.0	0.3	195.0
	132/152		132/175		136/195		140/199		145/203		149/207
-8	139.3	6.7	172.8	2.7	186.3	0.3	189.3	0.3	192.3	0.3	195.0
	132/154		132/177		137/196		141/200		145/204		149/208
-10	141.8	6.8	175.7	2.2	186.6	0.3	189.6	0.3	192.6	0.2	195.0
	132/155		132/182		137/196		142/200		146/204		150/208
-12	141.8	6.8	175.7	2.2	186.5	0.3	189.5	0.3	192.5	0.2	195.0
	132/155		132/182		137/196		142/200		146/204		150/208
-14	141.8	6.8	175.7	2.1	186.4	0.3	189.4	0.3	192.4	0.3	195.0
	132/155		132/182		137/196		142/200		146/204		150/208
-16	141.8	6.8	175.7	2.1	186.3	0.3	189.3	0.3	192.3	0.3	195.0
	132/155		132/182		137/196		142/200		146/204		150/208
-18	141.8	6.8	175.7	2.1	186.2	0.3	189.2	0.3	192.2	0.3	195.0
	132/155		132/182		137/196		142/200		146/204		150/208
-20	141.8	6.8	175.7	2.1	186.1	0.3	189.1	0.3	192.1	0.3	195.0
	132/155		132/182		137/197		142/200		146/204		150/208
-22	141.8	6.8	175.6	2.1	186.0	0.3	189.0	0.3	192.0	0.3	195.0
	132/155		132/182		137/197		142/201		146/205		150/209
V2=	VR+ 33		VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	16.5		14.0		13.0		13.0		12.5		12.5

WASHINGTON DULLES INTL

A/D Elev 313ft

RWY **19R**

CLG
TOR 3505m (11499ft)

RVR/VIS
ED 3505m (11499ft)

SLOPE 0.16%UP
TOD 3669m (12037ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	123.2	5.9	152.5	6.6	185.7	0.3	188.6	0.3	191.4	0.3	194.2
	132/142		132/164		132/195		137/198		141/202		145/206
4	125.3	6.0	155.3	6.2	186.1	0.3	189.0	0.3	191.7	0.3	194.6
	132/144		132/166		133/195		137/199		141/202		146/206
2	127.5	6.1	158.1	5.7	186.5	0.3	189.3	0.3	192.1	0.3	194.9
	132/145		132/168		133/195		138/199		142/203		146/207
0	129.7	6.2	160.9	5.2	186.9	0.3	189.6	0.3	192.4	0.3	195.0
	132/147		132/169		134/196		138/200		143/203		147/207
-2	132.0	6.4	163.9	4.7	187.2	0.3	189.9	0.3	192.7	0.2	195.0
	132/149		132/171		135/197		139/200		143/204		147/207
-4	134.4	6.5	166.8	4.1	187.4	0.3	190.2	0.3	192.9	0.2	195.0
	132/150		132/173		135/197		140/201		144/204		148/208
-6	136.8	6.6	169.8	3.6	187.7	0.3	190.4	0.3	193.2	0.2	195.0
	132/152		132/175		136/197		140/201		144/205		148/208
-8	139.3	6.7	172.8	3.0	187.9	0.3	190.6	0.3	193.4	0.2	195.0
	132/154		132/177		136/198		141/201		145/205		149/208
-10	141.8	6.8	175.7	2.5	188.1	0.3	190.8	0.3	193.6	0.1	195.0
	132/155		132/182		137/198		141/202		146/206		150/208
-12	141.8	6.8	175.7	2.5	188.0	0.3	190.7	0.3	193.5	0.1	195.0
	132/155		132/182		137/198		141/202		146/206		150/209
-14	141.8	6.8	175.7	2.4	187.9	0.3	190.6	0.3	193.4	0.2	195.0
	132/155		132/182		137/198		141/202		146/206		150/209
-16	141.8	6.8	175.7	2.4	187.8	0.3	190.5	0.3	193.3	0.2	195.0
	132/155		132/182		137/198		141/202		146/206		150/209
-18	141.8	6.8	175.7	2.4	187.6	0.3	190.4	0.3	193.1	0.2	195.0
	132/155		132/182		137/198		141/202		146/206		150/209
-20	141.8	6.8	175.7	2.4	187.5	0.3	190.2	0.3	193.0	0.2	195.0
	132/155		132/182		137/198		142/202		146/206		150/209
-22	141.8	6.8	175.6	2.4	187.4	0.3	190.1	0.3	192.9	0.2	195.0
	132/155		132/182		137/198		142/202		146/206		150/209
V2=	VR+ 33		VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	16.5		14.0		13.0		13.0		12.5		12.5

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TAKE-OFF FROM CONTAMINATED RUNWAYS

A. INTRODUCTION

The following table provides guidance for determining whether contaminated runway performance is applicable. It is recommended that for further information reference be made to the introductory notes to both the "Take-off from Icy/Slippery but not Contaminated Runways" data in this Section and the normal Performance Data in Section 1.1.

GREATEST DEPTH ALONG TAKE-OFF RUN

STANDING WATER/SLUSH	DRY SNOW	ACTION IF OAT < + 5°C
Less than 3mm (<.125 in)	Less than 9mm (<.375 in)	Use Normal Performance with V_{1WET} (unless icy or slippery then refer to 1.9.1. on)
3–13mm (.125–.5 in)	9–37mm (.375–1.5 in)	Use Contaminated RTOW tables (or Generalised Charts 1.9.31. on) and observe the procedures in this section
Greater than 13mm	Greater than 37mm	DO NOT TAKE-OFF

N.B. If the ambient temperature is above +5°C allow the runway to drain or clear sufficiently to allow Normal Performance to be used.

B. LIMITATIONS

If more than one abnormal operation applies check that the combination is permitted by refering to the "COMBINATIONS OF DISPATCH DEVIATIONS/SPECIAL OPERATIONS" table in Section 1.8.

The maximum permitted crosswind is 15kt.

The procedure in Section 1.1. "CONTINUED TAKE-OFF WITH ONE REHEAT FAILED UNPREMEDIATED" must NOT be used on a contaminated runway.

C. PROCEDURE FOR USE OF CONTAMINATED RTOW TABLES

Individual runway tables are provided for the main departure airfields. They are produced for suitable ranges of winds and temperatures and extrapolation outside these ranges is NOT permitted. The low values of V_1 required to meet the accelerate stop requirements on an icy/slippery runway may result in the PLTOW becoming additionally limited by V_{1MIN} (= 132kt).

TAKE-OFF FROM CONTAMINATED RUNWAYS (cont)

D. ESTABLISH PERFORMANCE RTOW, ASSOCIATED SPEEDS AND Θ_2

1. Ensure that the TOR and ED quoted agree with the officially published figures.

2. Obtain the least favourable wind component and ambient temperature.

3. **Either:-**

   Enter the RTOW table with the ambient conditions found in **2.** and extract the PLTOW, associated speeds and Θ_2, interpolating as necessary.

   OR:-

   Refer to the generalised charts in this section for "Take-off from icy/slippery or contaminated runways" to obtain the PLTOW, associated speeds and Θ_2.

E. PRESSURE HEIGHT CORRECTIONS

Obtain the difference between actual QNH and 1013.2 mb, then use one of the methods to correct the PLTOW, associated speeds and Θ_2, depending on the value of V_1 found above:

IF V_1 > 132kt apply normal corrections.

IF V_1 = 132kt use table below:

	RTOW (kg)	V_R (kt)	V_2 (kt)	Θ_2
−10mb below SUBTRACT	4000	5.0	5.0	ADD 0.2
+10mb above ADD	3500	5.0	5.0	SUBTRACT 0.1

USE V_1 = 132kt

N.B. No correction to Θ_2 is required if V_1 (corrected for pressure height) is less than 132kt. Use V_1 = 132kt.

TAKE-OFF FROM CONTAMINATED RUNWAYS (cont)

F. ACTUAL TOW LESS THAN RTOW CORRECTIONS

Obtain the difference between the Actual Take-off Weight and the PLTOW then use one of the following methods to further correct the take-off speedsand θ_2, depending on the value of V_1 (corrected for pressure height) found above:

IF V_1 (corrected for pressure height) > 132kt apply normal corrections.

IF V_1 (corrected for pressure height) = 132kt use table below:

	V_R (kt)	V_2 (kt)	θ_2 (deg)
For each 1000kg below SUBTRACT	0.7	0.4	ADD 0.07

USE V_1 = 132kt

G. DISPATCH DEVIATIONS / SPECIAL OPERATIONS

If any abnormal operations are being considered the relevant penalty should be applied to the PLTOW and associated speeds found above (corrected for pressure height) before correcting the take-off speeds and θ_2 for the Actual Take-off Weight.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

CONTAMINATED

FULL LENGTH RWY 09R

CLG NIL
TOR 3658m (12001ft)

RVR/VIS 150m
ED 3658m (12001ft)

SLOPE 0.02% DN
TOD 3658m (12001ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	136.4	6.6	169.2	1.7	177.7	0.3	180.7	0.3	183.7	0.3	186.9
	132/152		132/175		138/182		142/186		146/190		150/194
4	138.9	6.7	172.2	1.2	178.1	0.3	181.1	0.3	184.1	0.3	187.3
	132/154		132/177		138/183		142/187		147/191		151/195
2	141.4	6.5	173.8	0.9	178.5	0.3	181.5	0.3	184.5	0.3	187.7
	132/156		132/178		139/183		143/187		147/192		151/196
0	143.9	6.1	174.3	0.9	178.8	0.3	181.8	0.3	184.9	0.3	188.0
	132/157		133/178		139/184		144/188		148/192		152/196
-2	146.6	5.6	174.6	0.9	179.2	0.3	182.2	0.3	185.2	0.3	188.4
	132/159		133/178		140/185		144/189		149/193		153/197
-4	149.2	5.1	174.9	0.9	179.5	0.3	182.5	0.3	185.5	0.3	188.7
	132/161		134/179		141/185		145/189		149/193		153/197
-6	152.0	4.6	175.2	0.9	179.8	0.3	182.8	0.3	185.8	0.3	188.9
	132/163		135/179		141/186		146/190		150/194		154/198
-8	154.8	4.1	175.5	0.9	180.1	0.3	183.1	0.3	186.1	0.3	189.2
	132/165		135/180		142/186		146/190		151/194		155/198
-10	157.6	3.6	175.7	0.9	180.3	0.3	183.4	0.3	186.4	0.3	189.4
	132/167		136/180		142/186		147/191		151/195		156/199
-12	157.6	3.6	175.6	0.9	180.3	0.3	183.3	0.3	186.3	0.3	189.3
	132/167		136/180		142/187		147/191		151/195		156/199
-14	157.6	3.6	175.6	0.9	180.2	0.3	183.2	0.3	186.2	0.3	189.2
	132/167		136/180		142/187		147/191		151/195		156/199
-16	157.6	3.6	175.5	0.9	180.1	0.3	183.1	0.3	186.1	0.3	189.1
	132/167		136/180		143/187		147/191		151/195		156/199
-18	157.6	3.6	175.4	0.9	180.0	0.3	183.0	0.3	186.0	0.3	189.0
	132/167		136/180		143/187		147/191		151/195		156/199
-20	157.6	3.5	175.3	0.9	179.9	0.3	182.8	0.3	185.9	0.3	188.9
	132/167		136/181		143/187		147/191		151/195		156/199
-22	157.6	3.5	175.2	0.9	179.7	0.3	182.7	0.3	185.8	0.3	188.7
	132/167		136/181		143/187		147/191		151/195		156/199
V2=	VR+ 28		VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 22
θ2=	15.5		14.0		13.5		13.5		13.0		13.0

1. **Noise Abatement Procedures:** See Pages LHR/06 and LHR/07.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

CONTAMINATED

FULL LENGTH RWY 27L

CLG NIL
TOR 3658m (12001ft)

RVR/VIS 150m
ED 3658m (12001ft)

SLOPE 0.02% DN
TOD 3658m (12001ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	135.7	6.5	168.3	1.8	177.3	0.3	180.3	0.3	183.3	0.3	186.5
	132/152		132/174		137/182		142/186		146/190		150/194
4	138.1	6.6	171.3	1.3	177.7	0.3	180.7	0.3	183.7	0.3	186.9
	132/153		132/176		138/182		142/186		147/190		151/195
2	140.6	6.6	173.4	0.9	178.1	0.3	181.1	0.3	184.1	0.3	187.3
	132/155		132/177		139/183		143/187		147/191		151/195
0	143.1	6.1	173.8	0.9	178.4	0.3	181.4	0.3	184.5	0.3	187.6
	132/157		133/178		139/183		144/187		148/192		152/196
-2	145.7	5.7	174.2	0.9	178.8	0.3	181.8	0.3	184.8	0.3	188.0
	132/159		133/178		140/184		144/188		148/192		153/196
-4	148.4	5.2	174.5	0.9	179.1	0.3	182.1	0.3	185.1	0.3	188.3
	132/160		134/178		140/184		145/189		149/193		153/197
-6	151.1	4.7	174.8	0.9	179.4	0.3	182.4	0.3	185.4	0.3	188.5
	132/162		134/179		141/185		145/189		150/193		154/197
-8	153.9	4.2	175.1	0.9	179.7	0.3	182.7	0.3	185.7	0.3	188.8
	132/164		135/179		142/185		146/189		150/194		155/198
-10	156.7	3.7	175.3	0.9	179.9	0.3	182.9	0.3	186.0	0.3	189.0
	132/166		136/180		142/186		147/190		151/194		155/198
-12	156.7	3.7	175.2	0.9	179.8	0.3	182.9	0.3	185.9	0.3	188.9
	132/166		136/180		142/186		147/190		151/194		156/198
-14	156.7	3.7	175.1	0.9	179.7	0.3	182.8	0.3	185.8	0.3	188.8
	132/166		136/180		142/186		147/190		151/194		156/198
-16	156.7	3.7	175.0	0.9	179.6	0.3	182.7	0.3	185.7	0.3	188.7
	132/166		136/180		142/186		147/190		151/194		156/198
-18	156.7	3.7	175.0	0.9	179.5	0.3	182.5	0.3	185.6	0.3	188.6
	132/166		136/180		142/186		147/190		151/194		156/198
-20	156.7	3.6	174.9	0.9	179.4	0.3	182.4	0.3	185.5	0.3	188.5
	132/166		136/180		142/186		147/190		151/194		156/198
-22	156.7	3.6	174.8	0.9	179.3	0.3	182.3	0.3	185.4	0.3	188.3
	132/166		136/180		142/186		147/190		151/194		156/198
V2=	VR+ 28		VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	15.5		14.0		13.5		13.5		13.0		13.0

1. **Noise Abatement Procedures:** See Pages LHR/10, 11, .12 and 13.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

LONDON HEATHROW

A/D Elev **80ft**

CONTAMINATED

FULL LENGTH RWY 27R

CLG NIL
TOR 3902m (12802ft)

RVR/VIS 150m
ED 3902m (12802ft)

SLOPE 0.02% UP
TOD 3902m (12802ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	160.5	2.4	172.6	0.9	177.0	0.3	180.0	0.3	183.1	0.3	186.0
	132/169		137/179		143/186		148/190		152/193		156/196
4	163.3	1.9	172.9	0.9	177.4	0.3	180.4	0.3	183.5	0.3	186.3
	132/171		137/180		144/186		148/190		152/193		157/197
2	166.3	1.4	173.3	0.9	177.8	0.3	180.7	0.3	183.8	0.3	186.7
	132/173		138/180		144/187		149/191		153/194		157/196
0	169.2	0.9	173.6	0.9	178.1	0.3	181.1	0.3	184.1	0.3	186.9
	132/175		139/180		145/187		149/191		154/194		158/197
-2	169.6	0.9	173.9	0.9	178.4	0.3	181.4	0.3	184.4	0.3	187.2
	133/175		139/181		146/188		150/191		154/195		159/196
-4	169.8	0.9	174.2	0.9	178.7	0.3	181.7	0.3	184.6	0.3	187.4
	133/176		140/182		146/188		151/192		155/195		160/197
-6	170.1	0.9	174.4	0.9	179.0	0.3	182.0	0.3	184.8	0.3	187.6
	134/176		140/183		147/189		151/192		156/195		160/197
-8	170.3	0.9	174.7	0.9	179.2	0.3	182.2	0.3	185.0	0.3	187.8
	134/177		141/183		148/189		152/192		157/195		161/197
-10	170.6	0.9	175.0	0.9	179.5	0.3	182.5	0.3	185.2	0.3	187.9
	135/177		142/184		148/190		153/193		157/195		162/198
-12	170.5	0.9	174.8	0.9	179.3	0.3	182.4	0.3	185.1	0.3	187.8
	135/177		142/184		148/190		153/193		157/195		162/198
-14	170.4	0.9	174.7	0.9	179.2	0.3	182.3	0.3	185.0	0.3	187.7
	135/177		142/184		148/190		153/193		157/194		162/198
-16	170.3	0.9	174.6	0.9	179.1	0.3	182.1	0.3	184.9	0.3	187.5
	135/177		142/184		148/190		153/193		157/194		162/198
-18	170.2	0.9	174.5	0.9	179.0	0.3	182.0	0.3	184.7	0.3	187.4
	135/177		142/184		149/190		153/193		157/195		162/198
-20	170.1	0.9	174.4	0.9	178.9	0.3	181.9	0.3	184.6	0.3	187.2
	135/177		142/184		149/190		153/193		157/195		162/198
-22	170.0	0.9	174.3	0.9	178.8	0.3	181.7	0.3	184.4	0.3	187.1
	135/177		142/184		149/189		153/193		158/195		162/198
V2=	VR+ 24		VR+ 23		VR+ 23		VR+ 23		VR+ 22		VR+ 23
Θ2=	14.0		14.0		13.5		13.5		13.0		13.0

1. **Noise Abatement Procedures:** See Pages LHR/16, 17, 18 and 19.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev **13ft**

CONTAMINATED

FULL LENGTH RWY 04L

CLG NIL **RVR/VIS** 600ft* **SLOPE** NIL
TOR 3460m (11352ft) **ED** 3460m (11352ft) **TOD** 3460m (11352ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	120.1	5.7	148.5	4.3	169.9	0.3	172.8	0.3	175.8	0.3	178.8
	132/139		132/161		135/178		139/182		143/186		148/190
4	122.1	5.8	151.1	3.8	170.2	0.3	173.1	0.3	176.1	0.3	179.2
	132/141		132/163		135/178		140/183		144/187		148/190
2	124.2	5.9	153.9	3.3	170.6	0.3	173.5	0.3	176.5	0.3	179.5
	132/142		132/165		136/179		140/183		145/187		149/191
0	126.3	6.1	156.7	2.8	170.9	0.3	173.8	0.3	176.8	0.3	179.8
	132/144		132/166		136/179		141/183		145/187		149/191
-2	128.5	6.2	159.5	2.3	171.2	0.3	174.1	0.3	177.1	0.3	180.1
	132/146		132/168		137/180		141/184		146/188		150/192
-4	130.8	6.3	162.4	1.8	171.4	0.3	174.3	0.3	177.3	0.3	180.4
	132/147		132/170		138/180		142/184		146/188		151/192
-6	133.1	6.5	165.4	1.3	171.7	0.3	174.6	0.3	177.6	0.3	180.6
	132/149		132/172		138/181		143/185		147/189		152/192
-8	135.5	6.4	167.5	0.9	171.9	0.3	174.9	0.3	177.8	0.3	180.8
	132/151		132/175		139/182		143/185		148/189		152/192
-10	138.0	5.9	167.7	0.9	172.2	0.3	175.1	0.3	178.1	0.3	181.0
	132/152		133/176		140/182		144/186		148/190		153/192
-12	138.0	5.9	167.7	0.9	172.1	0.3	175.0	0.3	178.0	0.3	180.9
	132/152		133/175		140/182		144/186		149/190		153/192
-14	138.0	5.9	167.6	0.9	172.0	0.3	174.9	0.3	177.9	0.3	180.7
	132/152		133/176		140/182		144/186		149/190		153/192
-16	138.0	5.9	167.5	0.9	171.8	0.3	174.8	0.3	177.7	0.3	180.7
	132/152		133/176		140/182		144/186		149/189		153/192
-18	138.0	5.9	167.3	0.9	171.7	0.3	174.7	0.3	177.6	0.3	180.5
	132/152		133/176		140/182		144/186		149/190		153/192
-20	138.0	5.8	167.2	0.9	171.6	0.3	174.6	0.3	177.5	0.3	180.4
	132/152		133/176		140/182		144/186		149/190		153/192
-22	138.0	5.8	167.1	0.9	171.5	0.3	174.4	0.3	177.4	0.3	180.3
	132/152		133/176		140/182		144/186		149/189		153/192
V2=	VR+ 35		VR+ 25		VR+ 24		VR+ 24		VR+ 23		VR+ 23
Θ2=	16.5		14.5		14.0		14.0		13.5		13.5

1. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight:** Restricted to **182250kg.**

3. **Noise Abatement Procedures:** See Pages JFK/02 and JFK/03

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev **13ft**

CONTAMINATED

FULL LENGTH RWY 13R

CLG NIL
TOR 4442m (14573ft)

RVR/VIS 600ft*
ED 4442m (14573ft)

SLOPE NIL
TOD 4442m (14573ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	179.0 140/184	0.9	183.5 146/190	0.9	188.2 152/196	0.3	191.2 157/200	0.3	194.3 161/204	19.4	
4	179.4 140/184	0.9	184.0 147/190	0.9	188.6 153/197	0.3	191.6 157/201	0.3	194.7 161/205	19.5	
2	179.8 141/185	0.9	184.4 147/191	0.9	189.0 154/197	0.3	192.1 158/201	0.3	195.0 162/205	19.5	
0	180.2 141/185	0.9	184.8 148/192	0.9	189.4 154/198	0.3	192.5 159/202	0.2	195.0 163/205	19.5	
-2	180.6 142/186	0.9	185.2 149/192	0.9	189.8 155/198	0.3	192.8 159/202	0.2	195.0 163/206	19.5	
-4	180.9 143/187	0.9	185.5 149/193	0.9	190.1 156/199	0.3	193.2 160/203	0.2	195.0 164/206	19.5	
-6	181.3 143/187	0.9	185.8 150/193	0.9	190.4 156/199	0.3	193.5 161/203	0.1	195.0 164/206	19.5	
-8	181.6 144/188	0.9	186.1 151/194	0.9	190.8 157/200	0.3	193.8 161/204	0.1	195.0 165/207	19.5	
-10	181.9 145/188	0.9	186.4 151/194	0.9	191.1 158/200	0.3	194.1 162/204	0.1	195.0 165/207	19.5	
-12	181.8 145/188	0.9	186.4 151/194	0.9	191.0 158/200	0.3	194.0 162/204	0.1	195.0 166/207	19.5	
-14	181.7 145/188	0.9	186.3 151/194	0.9	190.9 158/201	0.3	193.9 162/205	0.1	195.0 166/207	19.5	
-16	181.6 145/188	0.9	186.2 151/195	0.9	190.8 158/201	0.3	193.8 162/205	0.1	195.0 166/208	19.5	
-18	181.5 145/188	0.9	186.1 151/195	0.9	190.7 158/201	0.3	193.7 162/205	0.1	195.0 166/208	19.5	
-20	181.4 145/188	0.9	186.0 151/195	0.9	190.6 158/201	0.3	193.6 162/205	0.1	195.0 166/208	19.5	
-22	181.3 145/189	0.9	185.9 151/195	0.9	190.5 158/201	0.3	193.5 162/205	0.1	195.0 166/208	0.0	195.0 169/210
V2= Θ2=	VR+ 22 13.5		VR+ 22 13.0		VR+ 22 13.0		VR+ 22 13.0		VR+ 22 12.5		VR+ 23 12.5

1. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight**: Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/14 and JFK/15

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev **13ft**

CONTAMINATED

FULL LENGTH RWY 22R

CLG NIL
TOR 3460m (11352ft)

RVR/VIS 600ft*
ED 3460m (11352ft)

SLOPE NIL
TOD 3460m (11352ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	120.1	5.7	148.5	5.5	175.9	0.3	179.0	0.3	182.2	0.3	185.5
	132/139		132/161		133/180		138/184		142/188		146/192
4	122.1	5.8	151.1	5.0	176.3	0.3	179.5	0.3	182.6	0.3	185.9
	132/141		132/163		134/180		138/184		142/189		147/193
2	124.2	5.9	153.9	4.6	176.8	0.3	179.9	0.3	183.1	0.3	186.4
	132/142		132/165		135/181		139/185		143/189		147/194
0	126.3	6.1	156.7	4.1	177.2	0.3	180.3	0.3	183.5	0.3	186.8
	132/144		132/166		135/181		139/186		144/190		148/194
-2	128.5	6.2	159.5	3.6	177.6	0.3	180.7	0.3	183.9	0.3	187.2
	132/146		132/168		136/182		140/186		144/190		148/195
-4	130.8	6.3	162.4	3.1	178.0	0.3	181.1	0.3	184.3	0.3	187.5
	132/147		132/170		136/183		141/187		145/191		149/195
-6	133.1	6.5	165.4	2.6	178.3	0.3	181.4	0.3	184.6	0.3	187.9
	132/149		132/172		137/183		141/187		146/192		150/196
-8	135.5	6.6	168.4	2.0	178.6	0.3	181.8	0.3	185.0	0.3	188.2
	132/151		132/174		137/184		142/188		146/192		150/197
-10	138.0	6.7	171.5	1.5	179.0	0.3	182.1	0.3	185.3	0.3	188.5
	132/152		132/176		138/184		142/188		147/193		151/197
-12	138.0	6.7	171.5	1.5	178.9	0.3	182.0	0.3	185.2	0.3	188.4
	132/152		132/176		138/184		142/189		147/193		151/197
-14	138.0	6.7	171.5	1.5	178.8	0.3	181.9	0.3	185.1	0.3	188.3
	132/152		132/176		138/184		142/189		147/193		151/197
-16	138.0	6.7	171.5	1.4	178.7	0.3	181.8	0.3	185.0	0.3	188.3
	132/152		132/176		138/184		143/189		147/193		151/197
-18	138.0	6.7	171.5	1.4	178.6	0.3	181.8	0.3	184.9	0.3	188.2
	132/152		132/176		138/185		143/189		147/193		151/197
-20	138.0	6.7	171.5	1.4	178.5	0.3	181.7	0.3	184.8	0.3	188.1
	132/152		132/176		138/185		143/189		147/193		151/197
-22	138.0	6.7	171.5	1.4	178.5	0.3	181.6	0.3	184.7	0.3	188.0
	132/152		132/176		138/185		143/189		147/193		151/197
V2=	VR+ 35		VR+ 24		VR+ 22		VR+ 22		VR+ 22		VR+ 22
θ2=	16.5		14.5		13.5		13.5		13.0		13.0

1. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight:** Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/19, 20, 21, 22, 23, 24 and 25.

BRITISH AIRWAYS **CONCORDE** TAKE OFF DATA

NEW YORK - JFK

A/D Elev **13ft**

CONTAMINATED

FULL LENGTH RWY 31L

CLG NIL
TOR 4442m (14573ft)

RVR/VIS 600ft*
ED 4442m (14573ft)

SLOPE NIL
TOD 4442m (14573ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	174.3	0.9	178.7	0.8	182.9	0.3	185.5	0.3	188.1	0.3	190.8
	141/184		147/190		154/194		158/197		162/199		167/203
4	174.7	0.9	179.1	0.8	183.1	0.3	185.8	0.3	188.4	0.3	191.1
	141/185		148/191		154/195		159/197		163/200		167/203
2	175.0	0.9	179.4	0.8	183.4	0.3	186.0	0.3	188.6	0.3	191.3
	142/185		148/191		155/195		159/197		164/200		168/204
0	175.4	0.9	179.7	0.8	183.7	0.3	186.3	0.3	188.9	0.3	191.6
	143/186		149/191		156/195		160/197		164/201		169/204
-2	175.6	0.9	180.0	0.8	183.9	0.3	186.5	0.3	189.1	0.3	191.8
	143/187		150/192		156/195		161/198		165/201		170/204
-4	175.9	0.9	180.2	0.8	184.1	0.3	186.7	0.3	189.3	0.3	191.9
	144/187		150/192		157/195		162/198		166/201		170/205
-6	176.2	0.8	180.4	0.8	184.3	0.3	186.9	0.3	189.5	0.3	192.1
	144/187		151/192		158/195		162/198		167/202		171/205
-8	176.4	0.8	180.6	0.8	184.5	0.2	187.0	0.3	189.6	0.3	192.3
	145/188		152/192		159/195		163/198		168/202		172/205
-10	176.7	0.8	180.8	0.8	184.6	0.3	187.2	0.3	189.8	0.3	192.4
	146/188		153/192		159/196		164/199		168/202		173/206
-12	176.5	0.8	180.6	0.8	184.5	0.2	187.0	0.3	189.6	0.3	192.3
	146/188		153/192		159/196		164/199		168/202		173/206
-14	176.4	0.8	180.5	0.8	184.3	0.3	186.9	0.3	189.5	0.3	192.1
	146/188		153/192		159/196		164/199		168/202		173/206
-16	176.3	0.8	180.4	0.8	184.2	0.2	186.7	0.3	189.3	0.3	192.0
	146/188		153/192		159/196		164/199		169/202		173/206
-18	176.2	0.8	180.3	0.8	184.1	0.2	186.6	0.3	189.2	0.3	191.9
	146/188		153/192		159/196		164/199		169/202		173/206
-20	176.1	0.8	180.1	0.8	183.9	0.2	186.4	0.3	189.0	0.3	191.7
	146/188		153/192		160/196		164/199		169/202		173/206
-22	176.0	0.8	179.9	0.8	183.8	0.2	186.3	0.3	188.9	0.3	191.6
	146/188		153/192		160/196		164/199		169/202		173/206
V2=	VR+ 24		VR+ 23		VR+ 23		VR+ 23		VR+ 23		VR+ 23
Θ2=	14.0		13.5		13.5		13.0		13.0		13.0

1. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

2. **Maximum Take-Off Weight**: Restricted to **182250kg**.

3. **Noise Abatement Procedures:** See Pages JFK/32, 33, 34, 35, 36, 37, 38 and 39.

ROVANIEMI

A/D Elev **645ft** RWY **03**

SLOPE 0.23% DN

TOR 3000m (9843ft) ED 3000m (9843ft) TOD 3000m (9843ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6					120.3	1.8	138.1	2.1	159.0	1.8	177.1
					132/140		132/154		132/169		133/185
4					122.3	1.8	140.6	2.1	161.5	1.5	177.6
					132/142		132/156		132/171		134/185
2					124.4	1.9	143.1	2.2	164.8	1.3	178.1
					132/143		132/157		132/172		134/186
0					126.6	1.9	145.7	2.2	167.7	1.1	178.5
					132/145		132/159		132/174		135/187
-2			100.4	5.7	128.8	2.0	148.4	2.2	170.7	0.8	178.9
			132/139		132/146		132/161		132/176		135/187
-4			102.7	5.7	131.1	2.0	151.1	2.2	173.6	0.6	179.3
			132/139		132/148		132/163		132/180		136/188
-6			105.0	5.7	133.5	2.0	153.8	2.3	176.4	0.3	179.7
			132/139		132/150		132/165		132/184		136/188
-8			107.5	5.7	135.8	2.1	156.6	2.0	176.8	0.3	180.0
			132/139		132/151		132/166		132/185		137/189
-10			110.0	5.7	138.3	2.1	159.5	1.8	177.1	0.3	180.4
			132/139		132/153		132/168		133/185		137/190
-12			110.0	5.7	138.3	2.1	159.5	1.8	177.1	0.3	180.3
			132/139		132/153		132/168		133/185		137/190
-14			110.0	5.7	138.3	2.1	159.5	1.7	177.0	0.3	180.2
			132/139		132/153		132/168		133/185		137/190
-16			110.0	5.7	138.3	2.1	159.5	1.7	176.9	0.3	180.1
			132/139		132/153		132/168		133/185		137/190
-18			110.0	5.7	138.3	2.1	159.5	1.7	176.8	0.3	180.0
			132/139		132/153		132/168		133/185		137/190
-20			110.0	5.7	138.3	2.1	159.5	1.7	176.7	0.3	179.9
			132/139		132/153		132/168		133/186		138/190
-22			110.0	5.7	138.3	2.1	159.5	1.7	176.6	0.3	179.8
			132/139		132/153		132/168		133/186		138/190
V2=	VR+ 0		VR+ 47		VR+ 33		VR+ 26		VR+ 22		VR+ 22
Θ2=	0.0		0.0		16.5		0.0		13.5		13.5

1. Arrester Gear: This data is valid only with Arrester Net in DOWN position.

ROVANIEMI

A/D Elev **645ft** **RWY 21**

SLOPE 0.23%UP

TOR 3000m (9843ft) ED 3000m (9843ft) TOD 3300m (10827ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6			100.6	5.6	128.5	1.9	148.0	2.2	170.2	0.6	176.0
			132/139		132/147		132/161		132/176		136/183
4			102.8	5.6	130.8	2.0	150.7	2.2	173.1	0.3	176.5
			132/139		132/148		132/163		132/179		136/184
2			105.2	5.6	133.2	2.0	153.5	2.1	174.2	0.3	176.9
			132/139		132/150		132/165		132/181		137/184
0			107.5	5.6	135.6	2.1	156.2	1.8	174.6	0.3	177.3
			132/139		132/152		132/167		133/181		137/185
-2			110.0	5.6	138.0	2.1	159.1	1.6	175.0	0.3	177.7
			132/139		132/153		132/168		134/182		138/186
-4			112.5	5.6	140.5	2.1	162.0	1.3	175.3	0.3	178.1
			132/139		132/155		132/170		134/182		138/186
-6			115.0	5.6	143.0	2.2	164.9	1.1	175.7	0.3	178.4
			132/139		132/157		132/172		135/183		139/187
-8			117.6	5.6	145.6	2.2	167.8	0.8	176.0	0.3	178.8
			132/139		132/159		132/174		135/184		140/187
-10			120.2	5.6	148.3	2.2	170.8	0.5	176.3	0.3	179.1
			132/139		132/160		132/177		136/184		140/188
-12			120.2	5.6	148.3	2.2	170.7	0.5	176.2	0.3	179.0
			132/139		132/160		132/177		136/184		140/188
-14			120.2	5.6	148.3	2.2	170.7	0.5	176.1	0.3	178.9
			132/139		132/160		132/177		136/184		140/188
-16			120.2	5.6	148.3	2.2	170.7	0.5	176.1	0.3	178.8
			132/139		132/160		132/177		136/184		140/188
-18			120.2	5.6	148.3	2.2	170.7	0.5	176.0	0.3	178.7
			132/139		132/160		132/177		136/184		140/188
-20			120.2	5.6	148.3	2.2	170.7	0.5	175.9	0.3	178.7
			132/139		132/160		132/177		136/184		140/188
-22			120.2	5.6	148.3	2.2	170.7	0.5	175.8	0.3	178.6
			132/139		132/160		132/177		136/184		140/188
V2=	VR+ 0		VR+ 42		VR+ 30		VR+ 24		VR+ 22		VR+ 22
∂2=	0.0		17.5		16.0		14.0		13.5		13.5

1. Arrester Gear: This data is valid only with Arrester Net in DOWN position.

WASHINGTON DULLES INTL

A/D Elev 313ft

RWY 01L

SLOPE 0.19% DN

TOR 3505m (11499ft) ED 3505m (11499ft) TOD 3823m (12559ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	116.3	5.6	144.3	6.8	178.1	0.4	181.7	0.3	184.8	0.3	188.1
	132/139		132/158		132/184		136/189		140/193		144/197
4	118.7	5.6	146.9	6.4	179.1	0.3	182.2	0.3	185.3	0.3	188.6
	132/139		132/160		132/185		137/190		141/194		145/198
2	120.9	5.7	149.6	6.0	179.5	0.3	182.6	0.3	185.8	0.3	189.0
	132/140		132/162		133/186		137/190		141/195		146/199
0	123.0	5.9	152.3	5.5	179.9	0.3	183.1	0.3	186.2	0.3	189.5
	132/142		132/164		134/187		138/191		142/195		146/199
-2	125.1	6.0	155.1	5.0	180.3	0.3	183.5	0.3	186.6	0.3	189.9
	132/143		132/165		134/187		138/192		143/196		147/200
-4	127.3	6.1	157.9	4.6	180.7	0.3	183.8	0.3	187.0	0.3	190.3
	132/145		132/167		135/188		139/192		143/196		147/201
-6	129.5	6.3	160.8	4.1	181.1	0.3	184.2	0.3	187.4	0.3	190.6
	132/146		132/169		135/189		139/193		144/197		148/201
-8	131.8	6.4	163.7	3.5	181.4	0.3	184.5	0.3	187.7	0.3	191.0
	132/148		132/171		136/189		140/193		144/198		149/202
-10	134.2	6.5	166.7	3.0	181.8	0.3	184.9	0.3	188.1	0.3	191.3
	132/150		132/173		136/190		141/194		145/198		149/202
-12	134.2	6.5	166.7	3.0	181.7	0.3	184.8	0.3	188.0	0.3	191.2
	132/150		132/173		136/190		141/194		145/198		149/203
-14	134.2	6.5	166.7	3.0	181.6	0.3	184.7	0.3	187.9	0.3	191.1
	132/150		132/173		136/190		141/194		145/198		149/203
-16	134.2	6.5	166.7	3.0	181.5	0.3	184.6	0.3	187.8	0.3	191.1
	132/150		132/173		136/190		141/194		145/198		149/203
-18	134.2	6.5	166.7	2.9	181.4	0.3	184.5	0.3	187.7	0.3	191.0
	132/150		132/173		136/190		141/194		145/198		149/203
-20	134.2	6.5	166.7	2.9	181.3	0.3	184.4	0.3	187.6	0.3	190.9
	132/150		132/173		136/190		141/194		145/199		149/203
-22	134.2	6.5	166.7	2.9	181.2	0.3	184.3	0.3	187.5	0.3	190.8
	132/150		132/173		136/190		141/194		145/199		149/203
V2=	VR+ 35		VR+ 25		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	17.0		14.5		13.5		13.0		13.0		13.0

WASHINGTON DULLES INTL

A/D Elev **313ft** **RWY 01R**

SLOPE 0.19% DN

TOR 3505m (11499ft) ED 3505m (11499ft) TOD 3855m (12648ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	116.3	5.6	144.3	6.4	176.3	0.3	179.3	0.3	182.4	0.3	185.5
	132/139		132/158		132/182		137/186		141/190		145/194
4	118.7	5.6	146.9	6.0	176.7	0.3	179.7	0.3	182.8	0.3	185.9
	132/139		132/160		133/182		137/186		141/190		146/195
2	120.9	5.7	149.6	5.5	177.1	0.3	180.1	0.3	183.2	0.3	186.4
	132/140		132/162		133/183		138/187		142/191		146/195
0	123.0	5.9	152.3	5.0	177.5	0.3	180.5	0.3	183.6	0.3	186.8
	132/142		132/164		134/183		138/187		143/192		147/196
-2	125.1	6.0	155.1	4.6	177.9	0.3	180.9	0.3	184.0	0.3	187.1
	132/143		132/165		135/184		139/188		143/192		147/196
-4	127.3	6.1	157.9	4.1	178.2	0.3	181.2	0.3	184.3	0.3	187.5
	132/145		132/167		135/185		139/189		144/193		148/197
-6	129.5	6.3	160.8	3.5	178.5	0.3	181.6	0.3	184.6	0.3	187.8
	132/146		132/169		136/185		140/189		144/193		149/198
-8	131.8	6.4	163.7	3.0	178.8	0.3	181.9	0.3	184.9	0.3	188.0
	132/148		132/171		136/186		141/190		145/194		149/198
-10	134.2	6.5	166.7	2.5	179.1	0.3	182.1	0.3	185.3	0.3	188.3
	132/150		132/173		137/186		141/190		146/194		150/198
-12	134.2	6.5	166.7	2.5	179.0	0.3	182.1	0.3	185.2	0.3	188.2
	132/150		132/173		137/186		141/190		146/194		150/199
-14	134.2	6.5	166.7	2.4	178.9	0.3	182.0	0.3	185.0	0.3	188.1
	132/150		132/173		137/186		141/190		146/195		150/199
-16	134.2	6.5	166.7	2.4	178.8	0.3	181.9	0.3	184.9	0.3	188.0
	132/150		132/173		137/186		141/190		146/195		150/199
-18	134.2	6.5	166.7	2.4	178.8	0.3	181.8	0.3	184.8	0.3	187.9
	132/150		132/173		137/186		141/190		146/195		150/199
-20	134.2	6.5	166.7	2.4	178.7	0.3	181.7	0.3	184.7	0.3	187.8
	132/150		132/173		137/186		141/191		146/195		150/199
-22	134.2	6.5	166.7	2.4	178.6	0.3	181.6	0.3	184.6	0.3	187.7
	132/150		132/173		137/186		141/191		146/195		150/199
V2=	VR+ 35		VR+ 25		VR+ 22		VR+ 22		VR+ 22		VR+ 22
θ2=	17.0		14.5		13.5		13.5		13.0		13.0

WASHINGTON DULLES INTL

A/D Elev **313ft** **RWY 19L**

SLOPE 0.19% UP

TOR 3505m (11499ft) ED 3505m (11499ft) TOD 3761m (12339ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	123.7	5.9	153.2	4.3	174.5	0.3	177.6	0.3	180.7	0.3	183.8
	132/143		132/164		135/179		139/183		143/188		147/192
4	125.9	6.0	156.0	3.8	175.0	0.3	178.0	0.3	181.1	0.3	184.3
	132/144		132/166		135/180		140/184		144/188		148/192
2	128.0	6.2	158.8	3.3	175.4	0.3	178.4	0.3	181.5	0.3	184.7
	132/146		132/168		136/181		140/185		144/189		149/193
0	130.3	6.3	161.7	2.8	175.8	0.3	178.8	0.3	181.9	0.3	185.1
	132/147		132/170		136/181		141/185		145/189		149/194
-2	132.6	6.4	164.6	2.3	176.2	0.3	179.2	0.3	182.3	0.3	185.5
	132/149		132/172		137/182		141/186		146/190		150/194
-4	135.0	6.5	167.6	1.8	176.5	0.3	179.6	0.3	182.6	0.3	185.8
	132/151		132/174		138/182		142/186		146/191		150/195
-6	137.4	6.6	170.6	1.2	176.8	0.3	179.9	0.3	183.0	0.3	186.1
	132/152		132/175		138/183		143/187		147/191		151/195
-8	139.9	6.5	172.6	0.9	177.2	0.3	180.2	0.3	183.3	0.3	186.5
	132/154		132/177		139/183		143/187		148/192		152/196
-10	142.5	6.1	172.9	0.9	177.5	0.3	180.5	0.3	183.6	0.3	186.7
	132/156		133/178		139/184		144/188		148/192		152/196
-12	142.5	6.1	172.8	0.9	177.4	0.3	180.4	0.3	183.5	0.3	186.6
	132/156		133/178		139/184		144/188		148/192		153/196
-14	142.5	6.0	172.7	0.9	177.3	0.3	180.3	0.3	183.4	0.3	186.5
	132/156		133/178		139/184		144/188		148/192		153/196
-16	142.5	6.0	172.6	0.9	177.2	0.3	180.2	0.3	183.3	0.3	186.4
	132/156		133/178		140/184		144/188		148/192		153/197
-18	142.5	6.0	172.5	0.9	177.1	0.3	180.1	0.3	183.2	0.3	186.3
	132/156		133/178		140/184		144/188		148/192		153/197
-20	142.5	6.0	172.4	0.9	177.0	0.3	180.0	0.3	183.1	0.3	186.2
	132/156		133/178		140/184		144/188		148/192		153/197
-22	142.5	6.0	172.4	0.9	176.9	0.3	179.9	0.3	183.0	0.3	186.1
	132/156		133/178		140/184		144/188		148/193		153/197
V2=	VR+ 32		VR+ 24		VR+ 22		VR+ 22		VR+ 22		VR+ 22
Θ2=	16.5		14.0		13.5		13.5		13.0		13.0

WASHINGTON DULLES INTL

A/D Elev **313ft**

RWY 19R

SLOPE 0.19% UP

TOR 3505m (11499ft) ED 3505m (11499ft) TOD 3669m (12037ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
6	123.7	5.9	153.2	4.8	177.1	0.3	180.2	0.3	183.4	0.3	186.6
	132/143		132/164		134/183		138/187		143/191		147/196
4	125.9	6.0	156.0	4.3	177.6	0.3	180.7	0.3	183.9	0.3	187.1
	132/144		132/166		135/183		139/188		143/192		147/196
2	128.0	6.2	158.8	3.9	178.1	0.3	181.2	0.3	184.3	0.3	187.6
	132/146		132/168		135/184		140/188		144/193		148/197
0	130.3	6.3	161.7	3.4	178.5	0.3	181.6	0.3	184.8	0.3	188.0
	132/147		132/170		136/185		140/189		144/193		149/198
-2	132.6	6.4	164.6	2.9	178.9	0.3	182.0	0.3	185.2	0.3	188.4
	132/149		132/172		136/185		141/190		145/194		149/198
-4	135.0	6.5	167.6	2.3	179.3	0.3	182.4	0.3	185.5	0.3	188.8
	132/151		132/174		137/186		141/190		146/194		150/199
-6	137.4	6.6	170.6	1.8	179.6	0.3	182.7	0.3	185.9	0.3	189.2
	132/152		132/175		138/187		142/191		146/195		150/199
-8	139.9	6.7	173.6	1.3	180.0	0.3	183.1	0.3	186.3	0.3	189.5
	132/154		132/178		138/187		143/191		147/196		151/200
-10	142.5	6.6	175.7	0.9	180.3	0.3	183.4	0.3	186.6	0.3	189.9
	132/156		132/181		139/188		143/192		147/196		152/201
-12	142.5	6.6	175.6	0.9	180.2	0.3	183.3	0.3	186.5	0.3	189.8
	132/156		132/182		139/188		143/192		147/196		152/201
-14	142.5	6.6	175.5	0.9	180.1	0.3	183.2	0.3	186.4	0.3	189.7
	132/156		132/182		139/188		143/192		147/196		152/201
-16	142.5	6.6	175.4	0.9	180.0	0.3	183.2	0.3	186.3	0.3	189.6
	132/156		132/182		139/188		143/192		148/196		152/201
-18	142.5	6.6	175.4	0.9	180.0	0.3	183.1	0.3	186.2	0.3	189.5
	132/156		132/182		139/188		143/192		148/196		152/201
-20	142.5	6.6	175.3	0.9	179.9	0.3	183.0	0.3	186.2	0.3	189.4
	132/156		132/182		139/188		143/192		148/197		152/201
-22	142.5	6.5	175.2	0.9	179.8	0.3	182.9	0.3	186.1	0.3	189.3
	132/156		132/182		139/188		143/192		148/197		152/201
V2=	VR+ 32		VR+ 23		VR+ 22		VR+ 22		VR+ 22		VR+ 22
θ2=	16.5		14.0		13.5		13.0		13.0		13.0

GENERALISED CHARTS FOR TAKE-OFF FROM ICY/SLIPPERY AND CONTAMINATED RUNWAYS

A. INTRODUCTION

Initial reference MUST be made to the introductory notes and limitations for the icy/slippery or contaminated take-off data in this sub-section, as appropriate.

B. PROCEDURE FOR THE USE OF GENERALISED TAKE-OFF FROM ICY/SLIPPERY OR CONTAMINATED RUNWAYS CHARTS

1. Determine the runway state for the planned departure i.e. icy/slippery but not contaminated, standing water/slush or dry snow.

2. Obtain the appropriate field length, normally the lesser of the Take-off Run Available, Emergency Distance or the Take-off Distance (Usable) quoted on the specific icy/slippery or contaminated RTOW table provided. Where no specific table is provided use the lesser of the Take-off Run Available, Emergency Distance or the Take-off Distance (Usable) quoted on the normal performance RTOW table in Section 1 or as defined in Section 1.10.1. (G. 2 - 4).

3. Obtain the least favourable wind component and ambient temperature. Take-offs in tailwinds greater than 5kt are NOT permitted when using these generalised charts.

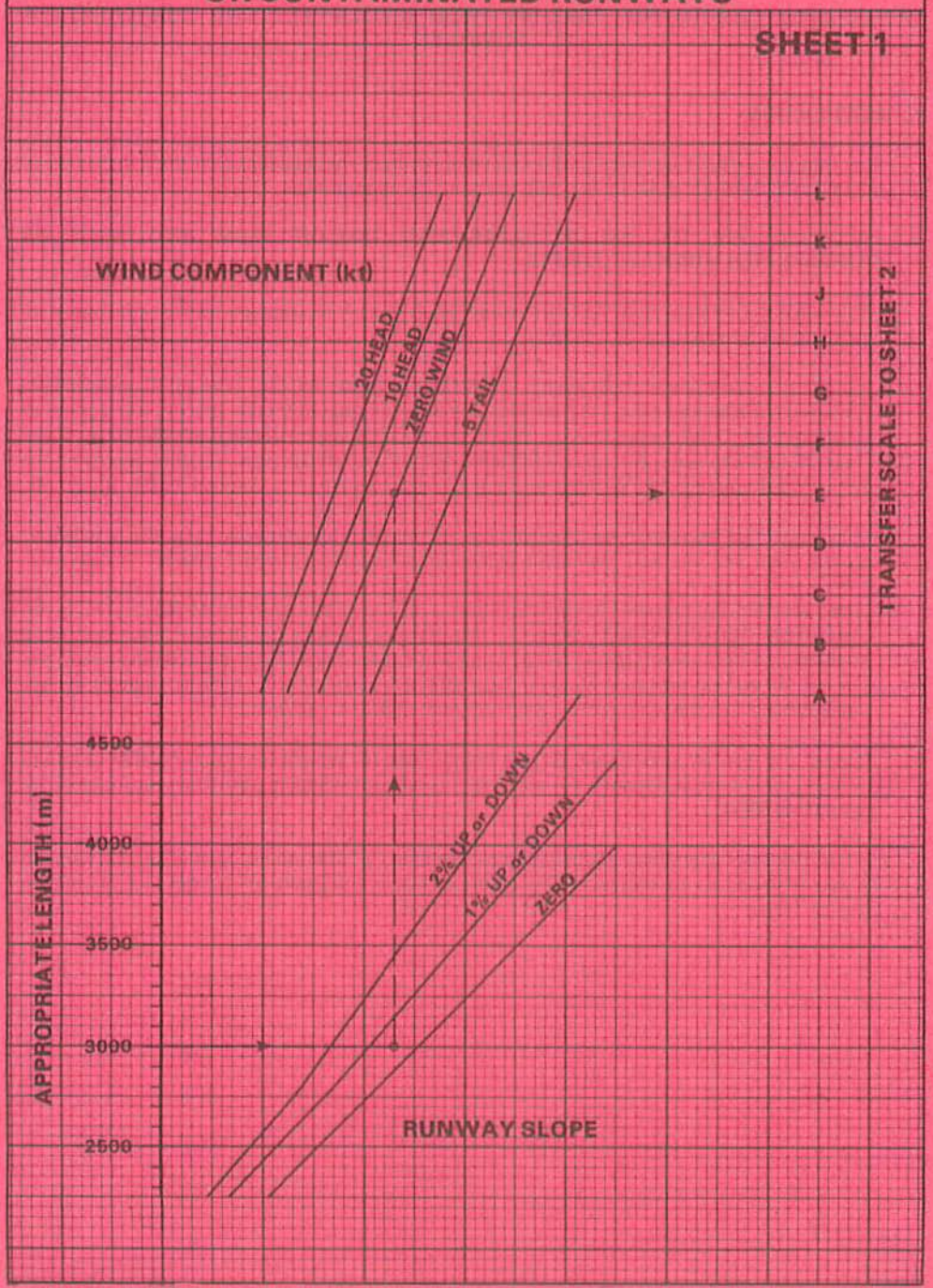
4. Enter with the appropriate length into Sheet 1 of the "TAKE-OFF FROM ICY/SLIPPERY OR CONTAMINATED RUNWAYS" charts in this section. Correct for runway slope and wind component before transfering to Sheet 2 and 3 to extract the PLTOW, associated speeds and Θ_2 for the airfield pressure altitude. Note that the correction for runway slope is always unfavourable i.e. has the same effect whether uphill or downhill.

5. Correct the take-off speeds and Θ_2 for Actual Take-off Weight less than PLTOW using the normal procedures in Sections 1.1. or 1.3. of this manual including correcting for Actual TOW below 140,000kg.

6. If any abnormal operations are being considered the PLTOW and associated speeds found in **3.** above should be corrected for this before correcting the take-off speeds and Θ_2 for the Actual TOW.

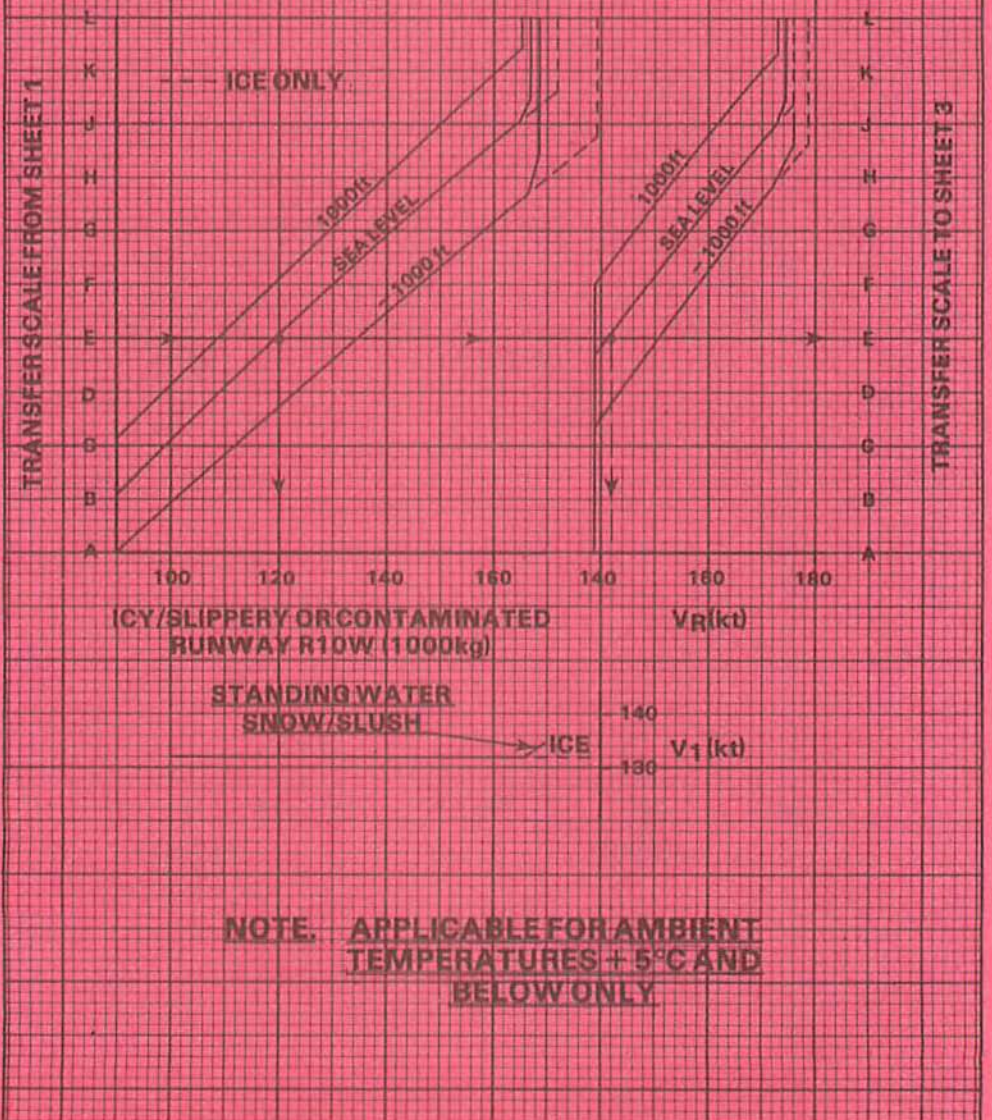
TAKE-OFF FROM ICY/SLIPPERY OR CONTAMINATED RUNWAYS

SHEET 1



TAKE-OFF FROM ICY/SLIPPERY OR CONTAMINATED RUNWAYS

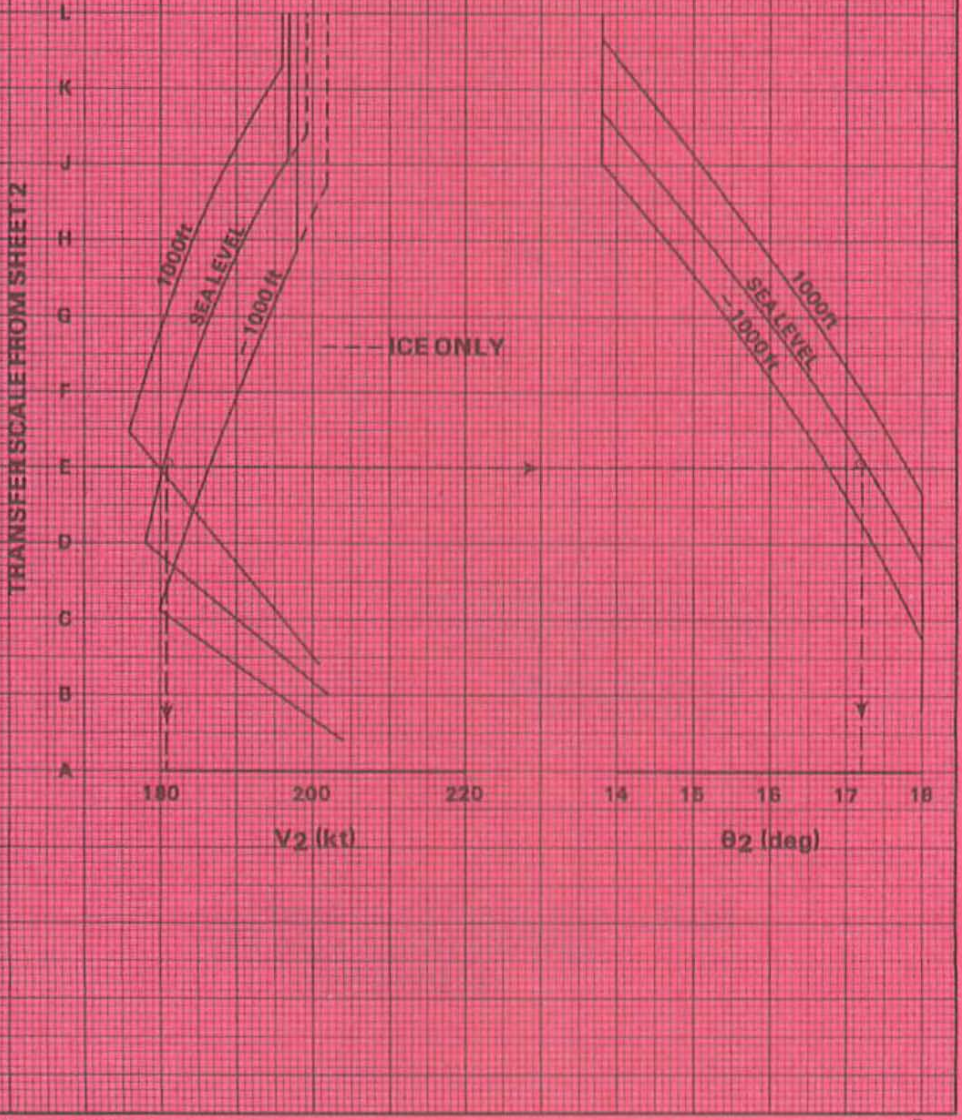
SHEET 2



NOTE. APPLICABLE FOR AMBIENT TEMPERATURES + 5°C AND BELOW ONLY

TAKE-OFF FROM ICY/SLIPPERY OR CONTAMINATED RUNWAYS

SHEET 3



PROCEDURES FOR REPORTING RUNWAY STATE IN CONDITIONS OF SNOW/SLUSH ETC. 'PART 1' 'SNOTAM' PROFORMA

SNOTAM	Priority Indicator	ADDRESSES			
Date and Time of filing		Originators indicator	SNOW NOTAM ('S'SERIES) SERIAL NUMBER		SNOTAM s
AERODROME			A		
DATE/TIME OF OBSERVATION (Time of completion of measurement in UTC)			B	B	B
RUNWAY DESIGNATOR			C	C	C
CLEARED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH (m)			D	D	D
CLEARED RUNWAY WIDTH, IF LESS THAN PUBLISHED WIDTH (m) If offset LEFT or RIGHT of centreline add 'L' or 'R'			E	E	E
DEPOSITS OVER TOTAL RUNWAY LENGTH (Observed on each third of the runway, starting from threshold having the lower designation number) NIL – CLEAR AND DRY 1 – DAMP 2 – WET OR WATER PATCHES 3 – RIME OR FROST COVERED (depth normally less than 1 mm) 4 – DRY SNOW 5 – WET SNOW 6 – SLUSH 7 – ICE 8 – COMPACTED OR ROLLED SNOW 9 – FROZEN RUTS OR RIDGES See Note 5 overleaf			F	F	F
MEAN DEPTH (mm)FOR EACH THIRD OF TOTAL RUNWAY LENGTH			G	G	G
BRAKING ACTION ON EACH THIRD OF RUNWAY AND MEASURING EQUIPMENT					
Measured or Calculated Coefficient		or Estimated Braking Action			
0·40 and above		GOOD –5			
0·39 to 0·36		MEDIUM/GOOD –4			
0·35 to 0·30		MEDIUM –3			
0·29 to 0·26		MEDIUM/POOR –2	H	H	H
0·25 and below		POOR –1			
9 – unreliable		UNRELIABLE –9			
(When quoting a measured coefficient use the observed two figures, followed by the abbreviation of the measured equipment used. When quoting an estimate use single digits).					
CRITICAL SNOWBANKS EXIST: (If present, insert height (cm)/distance from the edge of runway (m) followed by 'L', 'R' or 'LR' if applicable			J	J	J
RUNWAY LIGHTS, (If obscured, insert 'YES' followed by 'L', 'R' or both 'LR' if applicable)			K	K	K
FURTHER CLEARANCE (If planned insert length (m)/width (m) to be cleared or if to full dimension, insert 'TOTAL')			L	L	L
FURTHER CLEARANCE EXPECTED TO BE COMPLETED BY ....(UTC)			M	M	M
TAXIWAY. (if no appropriate taxiway is available, insert)'NO'			N	N	N
TAXIWAY SNOWBANKS (If more than 60cm, high distance apart in M			P	P	P
APRON (If unusable, indicated by 'NO'			R		
NEXT PLANNED OBSERVATION/MEASUREMENT IS FOR.....(day/ month/hour in GMT)			S		
PLAIN LANGUAGE REMARKS, (If required (e.g. sanding/gritting carried out)T					
SIGNATURE OF ORIGINATOR (not for transmission)					

Notes

(1) When reporting on two or three runways transmit Column 1 down to and including item P then Column 2, then Column 3 (if appropriate) and finish with items R and S and T

(2) Items together with their indicator must be dropped completely, where no information is to be included.

(3) Metric units must be used and the unit of measurement not reported.

(4) The maximum validity of SNOTAM is 24 hours. New SNOTAM must be issued whenever there is a significant change in conditions. The following changes relating to runway conditions are considered as significant:
- (a) a change in the coefficient of friction of about .05
- (b) changes in depth of deposit greater than the following: 20 mm for dry snow, 10 mm for wet snow; 3mm for slush;
- (c) a change in the available length or width of a runway of 10 per cent or more;
- (d) any change in the type of deposit or extent of coverage which requires reclassification in Items F or T of the SNOTAM;
- (e) When critical snow banks exist on one or both sides of the runway, any change in the height or distance from centre line;
- (f) any change in the conspicuity of runway lighting caused by obscuring of the lights; and
- (g) any other conditions known to be significant according to experience or local circumstances.

(5) Suitable combinations of these numbers may be used to indicate varying conditions over runway segments. If more than one deposit is present on the same portion of the runway, they should be reported in sequence from the top to the bottom. Drifts, depths of deposits appreciably greater than the average values, or other significant characteristics of the deposits may be reported under item "T" in plain language.

(6) In the U.K. in conditions of slush or thin deposits of wet snow, the words 'Not Measured' will be used in item 'H' at certain Aerodromes. The Mu-Metar will normally be used at ABERDEEN, BELFAST, BENBECULA, BRISTOL, EAST MIDLANDS, EDINBURGH, GLASGOW, INVERNESS, JERSEY, KIRKWALL, LEEDS,LIVERPOOL, LONDON (GATWICK & HEATHROW & STANSTED), LUTON, MANCHESTER, NEWCASTLE, PRESTWICK, STORNOWAY, SUMBURGH, TEES-SIDE & WICK for assessment of runway braking action, with the decelerometer method as a back-up.l5
Use the following abbreviations to indicate the type of measuring equipment used:

DBV	Diagonal Braked Vehicle	SKH	Skiddometer (high pressure tire)
JBI	James Brake Index	SKL	Skiddometer (low pressure tire)
MUM	Mu-meter	TAP	Tapley-meter
SFT	Friction Tester		

If other equipment used specify in plain language.
The codes and co-efficients below relate to those shown in Field H.

CODE	BRAKING ACTION	CO-EFFICIENTS				
		SFT/TAP	MUM	SKH SKL	DBV	JBI
5	GOOD	.40	.45	.48	.50	.60
4	MEDIUM TO GOOD	.39–.36	.44–.40	.47–.43	.49–.43	.59–.50
3	MEDIUM	.35–.30	.39–.33	.42–.36	.42–.36	.49–.40
2	MEDIUM TO POOR	.29–.26	.32–.27	.35–.30	.35–.31	.39–.26
1	POOR	.25	.26	.29	.30	.25
9	UNRELIABLE					

Check method used to obtain co-efficient with AIS before departure or from airfield approach control before landing.

PART 2
DECODE OF EIGHT FIGURE GROUP APPENDED TO ROUTINE MOTNE/OPMET

The first two digits indicate the Runway Designator.
The third digit indicates the Runway Deposits.
The fourth digit indicates the extent of runway contamination.
The fifth and sixth digits indicate the depth of deposit.
The seventh and eighth digits indicate the friction co-efficient or Braking Action.

A RUNWAY DESIGNATOR

The two digits correspond to the Runway Designator, e.g. 09, 27, etc. In the case of parallel runways the "Left" runway is shown minus the L and the "Right" runway has 50 added so that 09R becomes 59 and 27R becomes 77. Whenever ALL runways are affected the figure group 88 will be used. (Note: 99 may sometimes appear as the first two digits. This does not purport to be a runway indicator but means that the information is a repetition of the last message because no new message has been received in time for transmission.)

B RUNWAY DEPOSITS

Expressed as single digits from 0 to 9, having the following meanings:

0 - Clear and dry
1 - Damp
2 - Wet or water patches
3 - Rime or frost covered (Depth normally less than 1 mm)
4 - Dry snow
5 - Wet snow
6 - Slush
7 - Ice
8 - Compacted or rolled snow
9 - Frozen ruts or ridges
/ - Type of deposit not reported (eg due to runway clearance in progress).

C EXTENT OF RUNWAY CONTAMINATION

The extent of runway contamination is expressed as a single digit in accordance with the following scale:

1 - Less than 10% of runway contaminated (covered)
2 - 11% to 25% of runway contaminated (covered)
5 - 26% to 50% of runway contaminated (covered)
9 - 51% to 100% of runway contaminated (covered)
/ - not reported (eg due to runway clearance in progress).

D DEPTH OF DEPOSIT

Expressed as two digits on the following scale.

00	less than 1mm
01	1mm
02	2mm
etc up to	
10	1cm
15	1.5cm
20	2cm
etc up to	
90	9cm

(NOTE: Code figure 91 is NOT used)

thereafter the following code should be used:

92	10cm
93	15cm
94	20cm
95	25cm
96	30cm
97	35cm
98	40cm or more

99 R/W or R/Ws non-operational due to snow, slush, ice or large drifts, depth not measured.
// - Depth of deposit operationally not significant or not measureable.

Between code figures 92 and 98 the depth of deposit can easily be determined by multiplying the last digit by 5 e.g. 94 = 4 x 5 = 20

NOTE: The quoted depth is the mean of a number of readings or, if operationally significant, the greatest depth measured.

E FRICTION CO-EFFICIENT OR BRAKING ACTION

The friction co-efficient is denoted by two digits or, if the co-efficient is not available, the Braking Action is denoted by two digits.

a) Friction co-efficient
   eg 28 - friction co-effcent 0.28
      35 - friction co-effcent 0.35
      etc.

b) Braking Action
   95 - GOOD
   94 - MEDIUM/GOOD
   93 - MEDIUM
   92 - MEDIUM/POOR
   91 - POOR.
   99 - Unreliable
   // - Braking Action not Reported; Runway not Operational; Aerodrome Closed; etc.

   NOTE: (i) Where Braking Action is assessed at a number of points along a runway, the mean value will be transmitted or, if operationally significant, the lowest value.
   (ii) If measuring equipment does not allow measurement of friction with satisfactory reliability, which may be the case when a runway is contaminated by wet snow, slush, or loose snow, the figures 99 will be used.

F EXAMPLES OF RUNWAY STATE MESSAGES

Note: The occasion may arise when a new report or a valid report is not available in time for dissemination with the appropriate METAR message. In this case, the previous runway state report will be repeated, this will be indicated by the figures 99 in place of the runway designator.

99421594	Dry snow covering 11% to 25% of the runway; depth 15mm; Braking Action medium to good.
14//99//	Runway 14 non-operational due to runway clearance in progress.
14//////	Runway 14 contaminated but reports are not available or are not updated due to aerodrome closure or curfew, etc.
88//////	All runways are contaminated but reports are not available or are not updated due to aerodrome closure or curfew, etc.
14CLRD//	Runway 14 contaminated has ceased to exist. (No further reports will be sent unless recontamination occurs).

LIST OF AERODROMES FOR WHICH IT MAY BE EXPECTED THAT RUNWAY CONDITION REPORTS WILL BE ADDED TO THE MOTNE/OPMET BROADCAST.

AALBORG	BRUSSELS	HAMBURG	LYON/SAT	OSTEND	STUTTGART
AMSTERDAM	BUCHAREST/O	HANNOVER	MADRID	PARIS/CDG	TAMPERE
ANKARA	BUDAPEST	HELSINKI	MALMO	PARIS/ORLY	TURIN
BASLE	COLOGNE	ISTANBUL	MILAN/L	POZNAN	TURKU
BELGRADE	COPENHAGEN	JONKOPING	MILAN/M	PRAGUE	VIENNA
BERGEN	DRESDEN	KLAGENFURT	MOSCOW/S	ROTTERDAM	WARSAW
BERLIN/SCH'LD	DUBLIN	KRISTIANSAND	MOSCOW/V	SAARBRUCKEN	ZAGREB
BERLIN/TEMP'F	DUSSELDORF	LENINGRAD	MUNICH	SALZBURG	ZURICH
BERLIN/TEGEL	FRANKFURT	LILLE	NORKOPING	SHANNON	
BILLUND	GENEVA	LINZ	NURNBERG	SOFIA	
BRATISLAVA	GOTHENBURG	LJUBLJANA	OSLO/F	STAVANGER	
BREMEN	GRAZ	LUXEMBOURG	OSLO/G	STOCKHOLM/A	

The following UK Airports may include runway condition reports in OPMET Broadcast bulletins (also available in Continental Europe on MOTNE).

ABERDEEN, BELFAST, BIRMINGHAM, BOURNEMOUTH, BRISTOL, CARDIFF, EAST MIDLANDS, EDINBURGH, GLASGOW, GUERNSEY, JERSEY, LEEDS BRADFORD, LIVERPOOL, LONDON (GATWICK), LONDON (HEATHROW), LONDON (STANSTED), LUTON, MANCHESTER, NEWCASTLE, PRESTWICK, SOUTHEND, TEES-SIDE.

SECTION 1.10. - GENERALISED TAKE-OFF DATA

Use of Generalised Take-Off Weight Charts	1.10.1. - 1.10.3.
Use of Generalised Obstacle Clearance Charts	1.10.4.
Example of Generalised Chart Usage	1.10.5. - 1.10.6.
WAT Chart Weight 2nd Seg. Climb	1.10.7.
Tyre Speed Limited Weight	1.10.8.
Brake Energy Limited Weight Chart 1	1.10.10.
Brake Energy Limited Weight Chart 2	1.10.11.
Runway Take-Off Chart 1	1.10.12.
Runway Take-Off Weight Chart 2	1.10.13.
Rotation Speed V_R	1.10.14.
Engine Failure Screen Speed V_2	1.10.15.
Decision Speed V_1DRY Chart 1	1.10.16.
Decision Speed V_1DRY Chart 2	1.10.17.
Decision Speed V_1WET Chart 1	1.10.18.
Decision Speed V_1WET Chart 2	1.10.19.
WAT Weight Ratio Chart	1.10.20.
3 Eng. Screen Pitch Atitude Θ_2	1.10.21.
Obstacle Clearance Chart 1	1.10.22.
Obstacle Clearance Chart 2	1.10.23.

1.10. GENERALISED TAKE-OFF DATA

1.10.1 PROCEDURE FOR THE USE OF GENERALISED TAKE-OFF WEIGHT CHARTS

A. Performance Configuration – See Section 1.1.

B. Employ the Generalised Take-Off Weight Charts to obtain the RTOW, V_1, V_R, V_2 speeds and screen altitude Θ_2 for runways where no Take-off Data Page has been provided, or where restrictions in length of runway have occured for which a revised Take-off Data Page is not available.

N.B. The minimum permitted Take-Off Run Available is 2,000m.

C. Determine the least favourable wind component employing the range of forecast wind conditions expected at time of take-off. Take-off in tailwind conditions exceeding 10kt. is not permitted.

D. Enter the WAT curve with ambient temperature and pressure altitude and read off the maximum weight to meet the Second Segment Climb Gradient Limit.

N.B. This weight, even if not limiting, is required to derive Θ_2 and also to check obstacle clearance by use of WAT weight ratio (see below).

E. Enter the Generalised Tyre Speed Limited weight chart with the ambient temperature and pressure altitude, correct for least favourable wind component and read off the maximum weight to meet the tyre rolling speed limit.

F. Enter the Generalised Brake Energy Limited Take-off weight chart Sheet 1 with ambient temperature and pressure altitude, and correct for the least favourable wind component to read off a point on the transfer scale. Transfer this to sheet 2, correct for overall runway slope and read off the maximum weight to meet the maximum Brake Energy capacity of the brakes.

G.

1. Enter the appropriate length into Sheet 1 of the Generalised Runway Take-off Weight chart, for overall runway slope and least favourable wind component to read off a point on the transfer scale. Transfer this to sheet 2. Enter Sheet 2 with ambient temperature and pressure altitude and proceed vertically to the intersection with a horizontal drawn from the value on the transfer scale. Interpolate to read the weight to meet the runway requirement.

1.10.1 PROCEDURE FOR THE USE OF GENERALISED TAKE-OFF WEIGHT CHARTS (cont)

G. (cont)

2. Where no Take-off Data Page is available, or where a chart is available but the runway is restricted at the lift off end, the appropriate length is the available Take-off Run. A check should then be made for obstacle clearance, in particular allowing for obstacles on any unusable portion of the runway, by making use of the Generalised Obstacle Clearance Chart in this Section.

3. Where a Take-off Data Page has been provided and the temperature range is inadequate, the appropriate length is the lesser of the Take-off Distance Usable and the Emergency Distance quoted at the top of the page. This will automatically ensure obstacle clearance.

4. Where a Take-off Data Page is provided and the runway is restricted at the start of the take-off, deduct the restriction from the lesser of the Take-off Distance Usable and the Emergency Distance quoted at the top of the page and enter with this value. This will automatically ensure obstacle clearance.

H. The minimum value of the take-off weight determined in **D., E., F.** and **G.** above becomes the PLTOW for take-off. No correction should be made for the difference between pressure altitude and the geographical elevation of the airfield as pressure altitude will have been employed for chart entry. Correct PLTOW as necessary for the effects of Dispatch Deviations/Special Operations as specified in Section 1.8.

N.B. The actual take-off weight must not exceed any of the following:

1. Corrected PLTOW.
2. Obstacle clearence limited TOW.
3. Max. Authorised Take-off weight.
4. Nose-nodding limited TOW.
5. Noise limited TOW.

I. Take-Off Speeds

V_R – NOTE THAT MINIMUM V_R IS 139kt IAS.:
Enter the V_R chart with ambient temperature and pressure altitude and read off the Rotation Speed, V_R appropriate to the PLTOW.

Correct as necessary for Dispatch Deviations/Special Operations as specified in Section 1.8.

Correct for ATOW less than PLTOW.

I. Take-Off Speeds (cont)

V_2:

Enter the V_2 chart with ambient temperature and pressure altitude and read off the Engine Failed Screen Speed V_2 appropriate to the PLTOW.

Correct as necessary for Dispatch Deviations/Special Operations as specified in Section 1.8.

Correct for ATOW less than PLTOW.

V_1 DRY – (NOTE THAT MINIMUM V_1 is 132kt IAS.:)

Enter the **V_1 DRY** chart, Sheet 1 with Ambient temperature and Pressure Altitude. Proceed vertically to the PLTOW and read off a value on the Transfer Scale. Transfer this value to Sheet 2 and correct for least favourable wind component and runway slope and read off **V_1 DRY**.

Correct as necessary for Dispatch Deviations/Special Operations as specified in Section 1.8.

Correct for ATOW less than PLTOW.

V_1 WET – NOTE THAT MINIMUM V_1 is 132kt IAS.:

Enter the **V_1 WET** chart, Sheet 1 and proceed in the same manner as for **V_1 DRY**.

Θ_2 (3-ENGINE SCREEN ATTITUDE) – NOTE THAT MAXIMUM Θ_2 IS 18°:

1. Enter the Generalised WAT weight ratio graph with WAT weight obtained in **D.** above and proceed horizontally to intersect a line corresponding to PLTOW. Drop a vertical from this intersection to read the WAT weight ratio.

2. Enter the 3 engine screen attitude graph with WAT weight ratio and read off Θ_2.

Correct as necessary for Dispatch Deviations/Special Operations as specified in Section 1.8.

Correct for ATOW less than PLTOW.

1.10.2 PROCEDURE FOR THE USE OF GENERALISED OBSTACLE CLEARANCE CHARTS

A. In order to check obstacle clearance the distance and height of the obstacle must be established. Use the Aerodrome Folder Landing Chart or any other reputable source.

1. Establish distance and height of the obstacle relative to the lift-off end of the usable Take-off run.

2. The obstacles that may require checking are those within an area, commencing at the lift-off end of the usable Take-off run, initially 200m wide about the extended runway centreline (i.e. 100m each side) and increasing in width on each side by one eighth of the distance out from the lift-off end.

B. Enter the Generalised Runway Take-off weight chart with ambient temperature, pressure altitude, PLTOW, wind component and runway slope to determine the required length.

C. If the required length obtained is less than Usable Take-off Run, increase the distance to the obstacle by the distance between theses two distances.

D.

1. Enter the Generalised WAT curve with pressure altitude and ambient temperature and extract the WAT weight.

2. With this weight and PLTOW enter the WAT weight ratio graph and obtain a value of WAT weight ratio.

E. Enter the Generalised Obstacle Clearance chart with the distance of the obstacle from the end of the required length (from **B.**). Correct for wind component, WAT weight ratio (found in **D.**) and runway gradient and obtain the maximum permitted height of an obstacle that will be cleared by 35ft. at that distance.

F. If the maximum permitted height is less than the actual obstacle height then the PLTOW must be reduced until clearance is assured.

1.10.3 EXAMPLE OF GENERALISED TAKE-OFF WEIGHT AND OBSTACLE CLEARANCE CHART USAGE

Ambient Temperature	+20°C
Pressure Altitude	+1000ft
Least favourable wind component	10kt headwind
Runway slope	0.5% uphill
Appropriate length	3100m
Actual (i.e. required) Take-off weight	155,000kg
A. WAT Weight	179,300kg
B. Tyre Speed Limited Weight	greater than 190,000kg
C. Max. Brake Energy limited weight	177,200kg
D. Runway limited weight	167,500kg

Generalised PLTOW is the lesser of **A.,B.,C.** and **D.**.

Actual Take-off weight must never exceed the Maximum Structural TOW.

In this example the PLTOW is 167,500kg.

For a PLTOW of 167,500kg, Take-off speeds are:-

V_R = 185kt.

V_2 = 207kt.

V_1 **DRY** = 165kt.

V_1 **WET** = 159kt.

WAT Weight ratio = **.934 giving** Θ_2 = **13.8°.**

1.10.3 EXAMPLE OF GENERALISED TAKE-OFF WEIGHT AND OBSTACLE CLEARANCE CHART USAGE (cont)

Take-off speeds for Actual Take-off Weight.

From Table 1, V_2 correction is zero. Now Actual TOW is 155,000kg giving a difference from PLTOW of 12,500kg.

From Table 2.

V_R difference = −3kt

V_1 difference = −9kt

Θ_2 difference = +1.0°

Therefore, for an Actual TOW of 155,000kg.

V_2	=	207−0	=	207kt
V_R	=	185−3	=	182kt
V_1 DRY	=	165−9	=	156kt
V_1 WET	=	159−9	=	150kt
Θ_2	=	13.8+1.0	=	14.8°

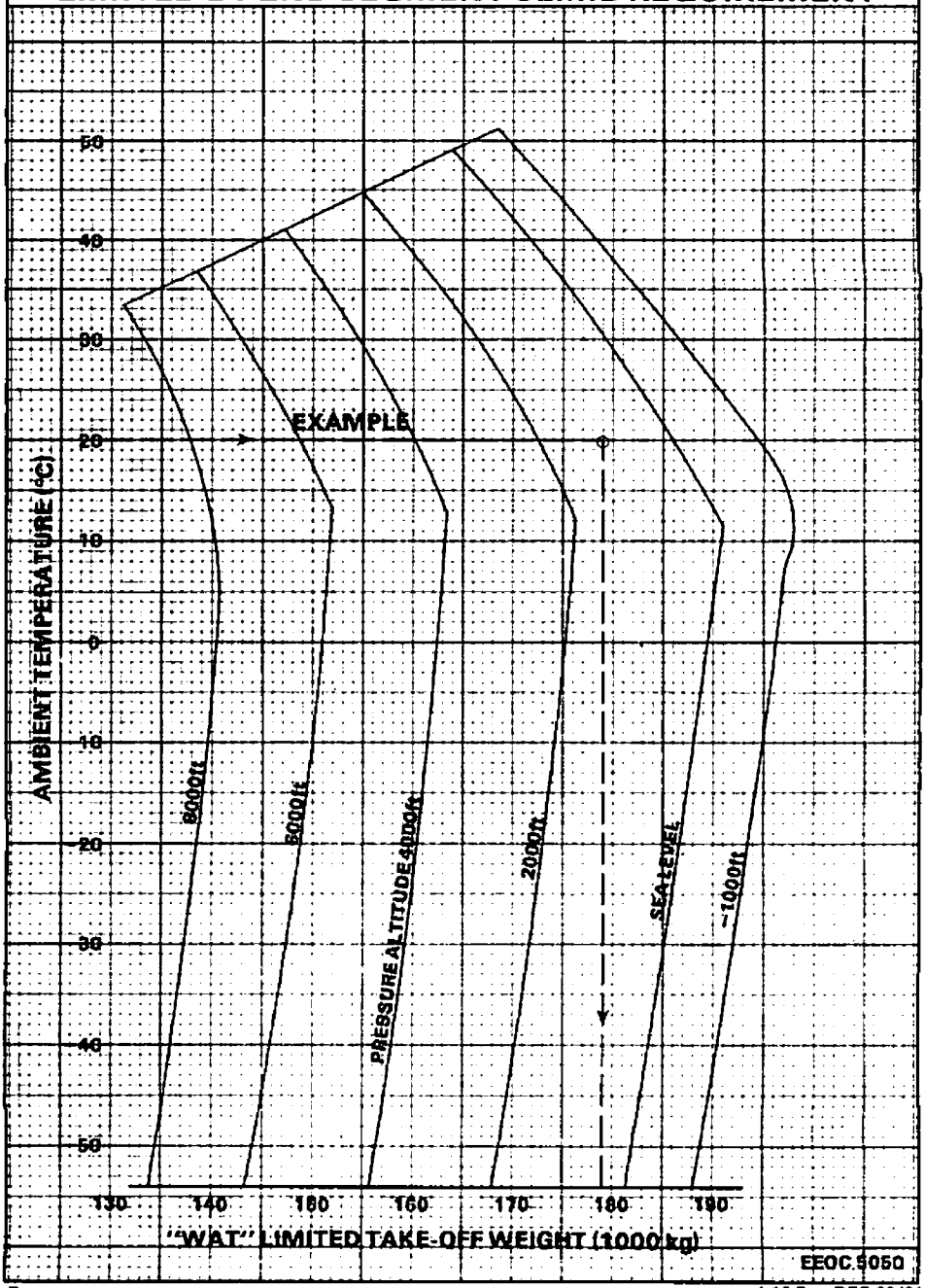
OBSTACLE CLEARANCE CHECK

Obstacle at height 120ft at 1400m from end of runway. Entering with PLTOW in the Generalised Runway Take-off Weight chart extract the appropriate lengths. In this example the PLTOW was limited by runway length and the appropriate length is 3100m. Distance of obstacle from end of required length is given by (Runway length - appropriate length + obstacle distance from runway end).

i.e. **3100 − 3100 + 1400 = 1400m**

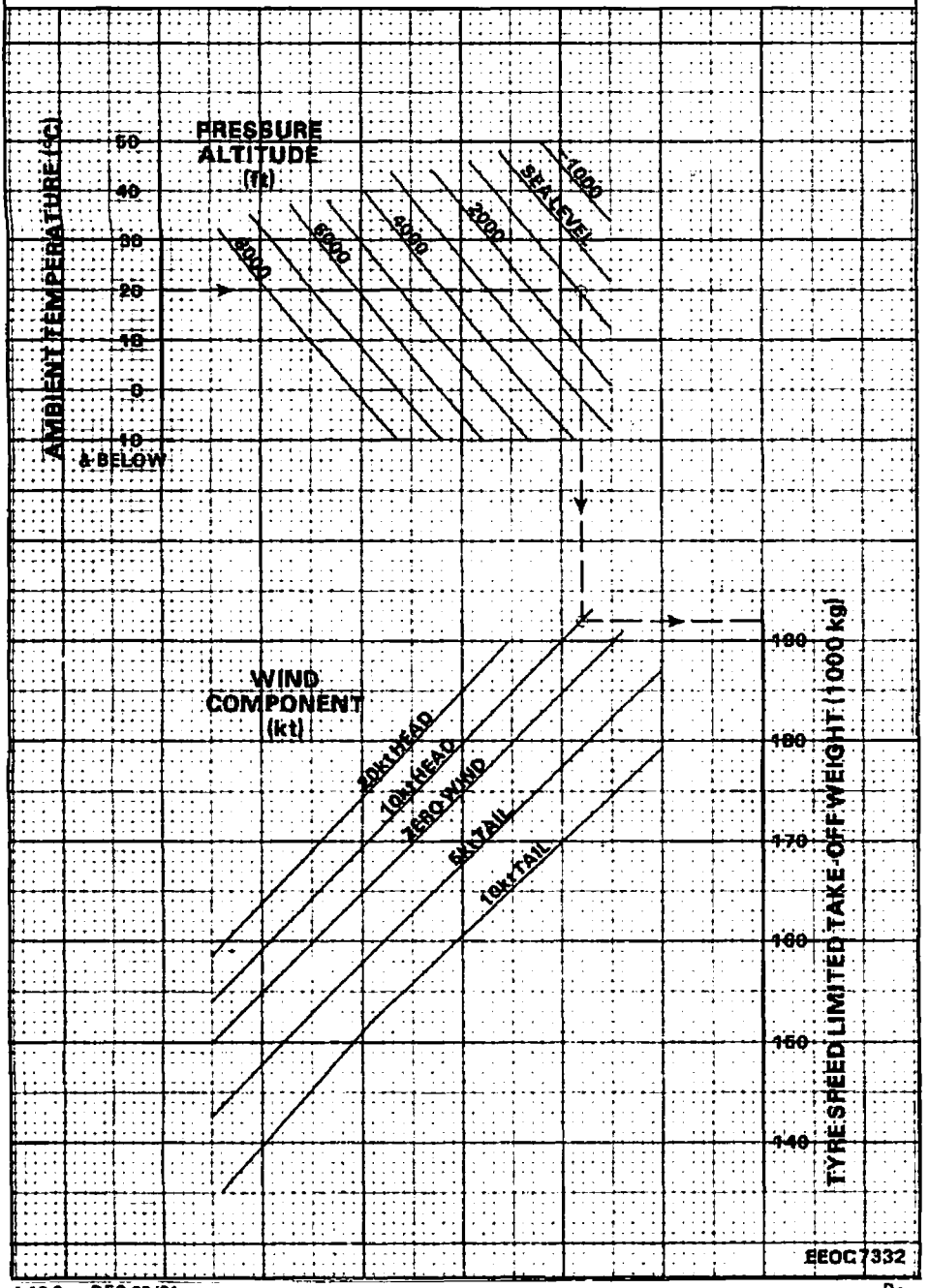
Maximum height of obstacle that may be cleared at this distance is **145ft**.

GENERALISED WAT CHART WEIGHT LIMITED BY 2ND SEGMENT CLIMB REQUIREMENT



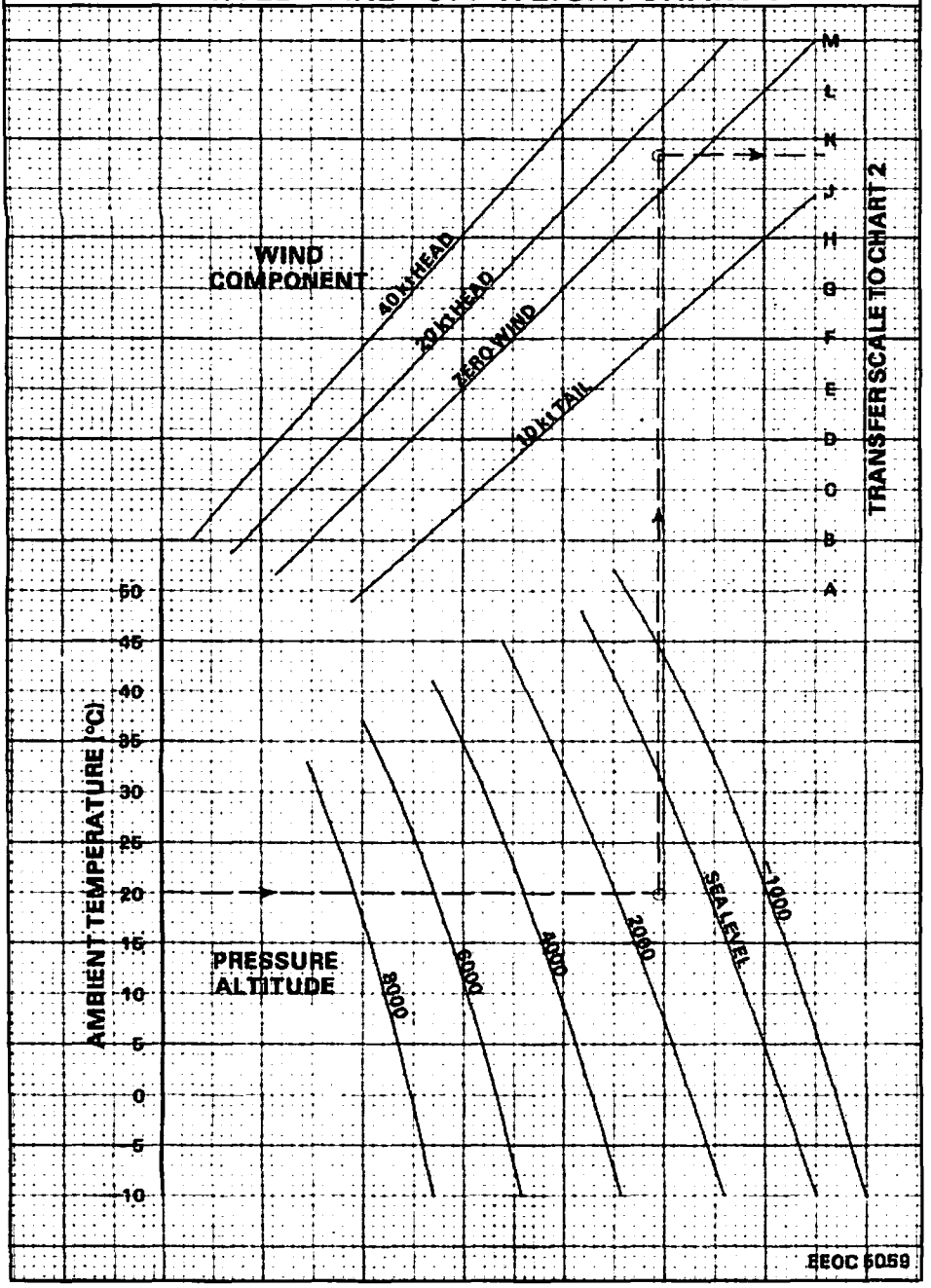
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GENERALISED TYRE SPEED LIMITED WEIGHT

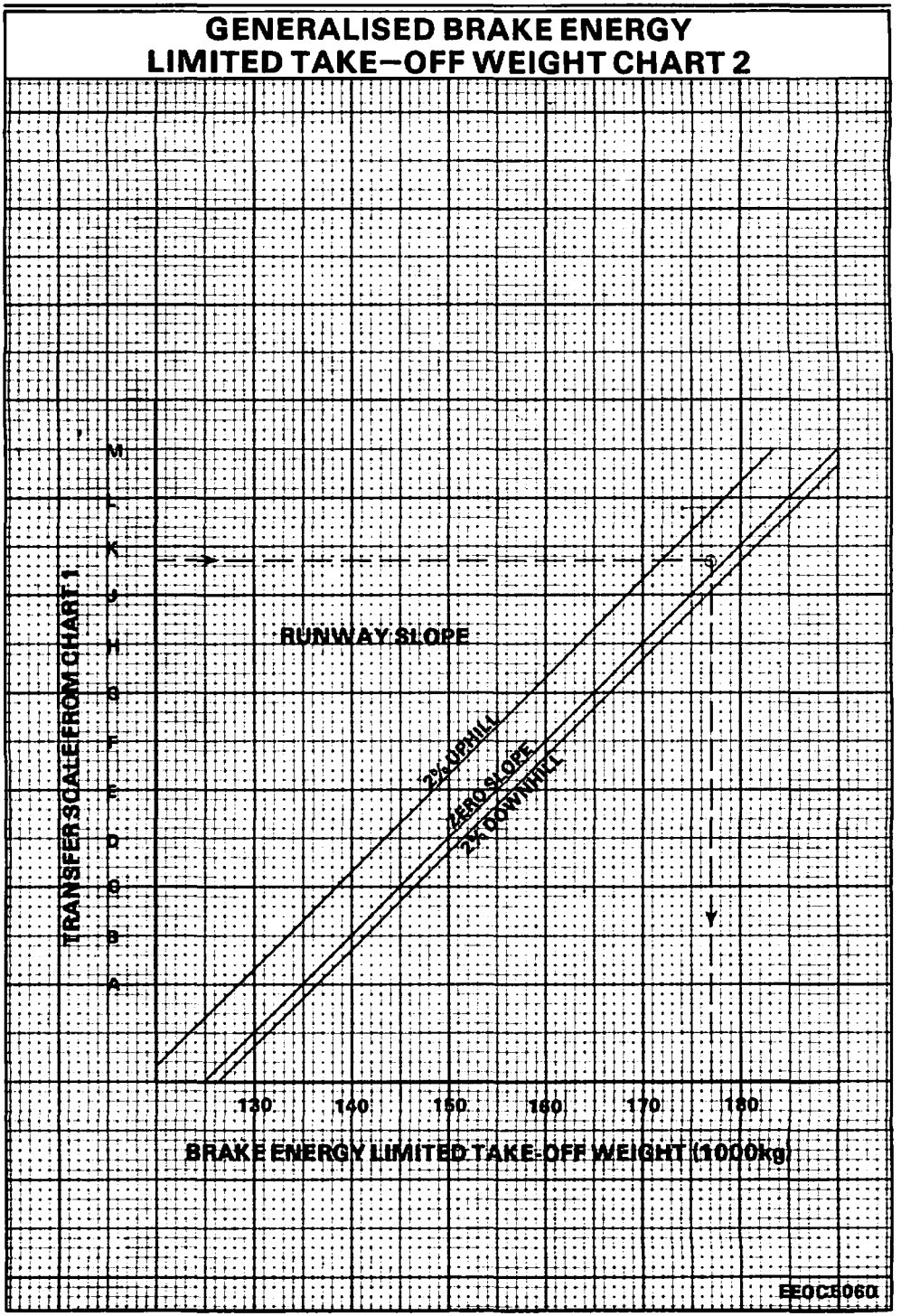


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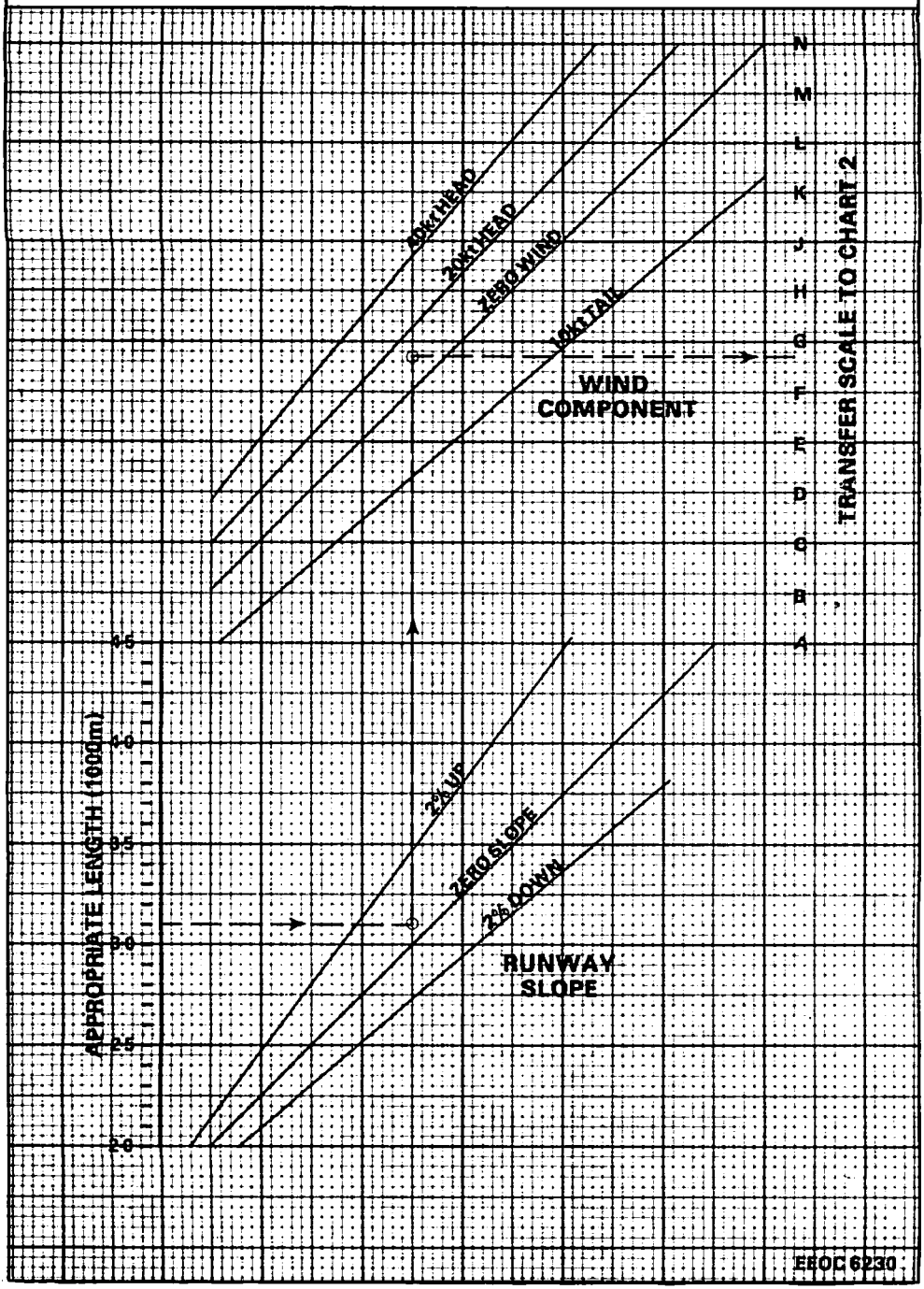
GENERALISED BRAKE ENERGY
LIMITED TAKE-OFF WEIGHT CHART 1



GENERALISED BRAKE ENERGY LIMITED TAKE-OFF WEIGHT CHART 2

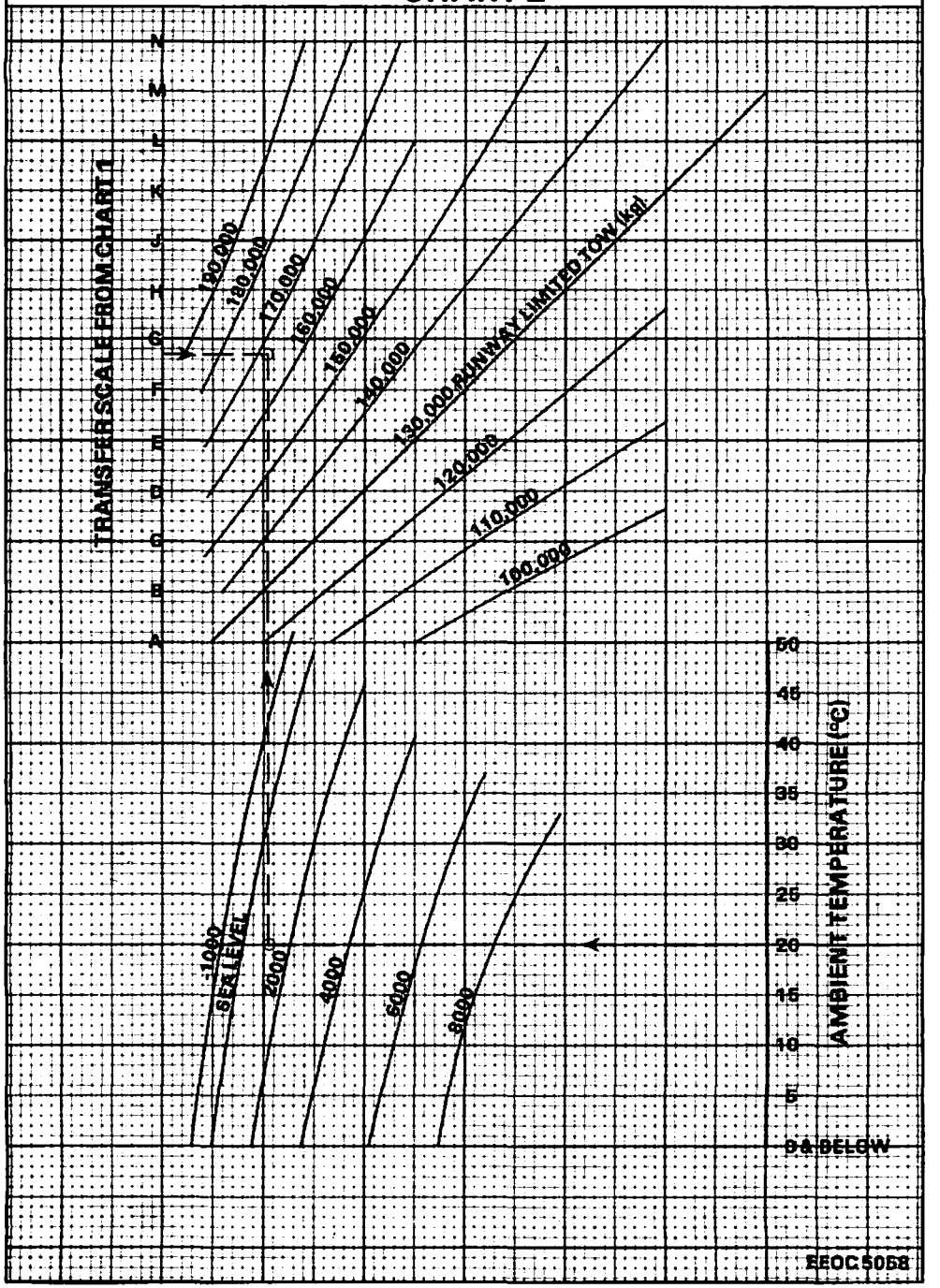


GENERALISED RUNWAY TAKE-OFF CHART 1

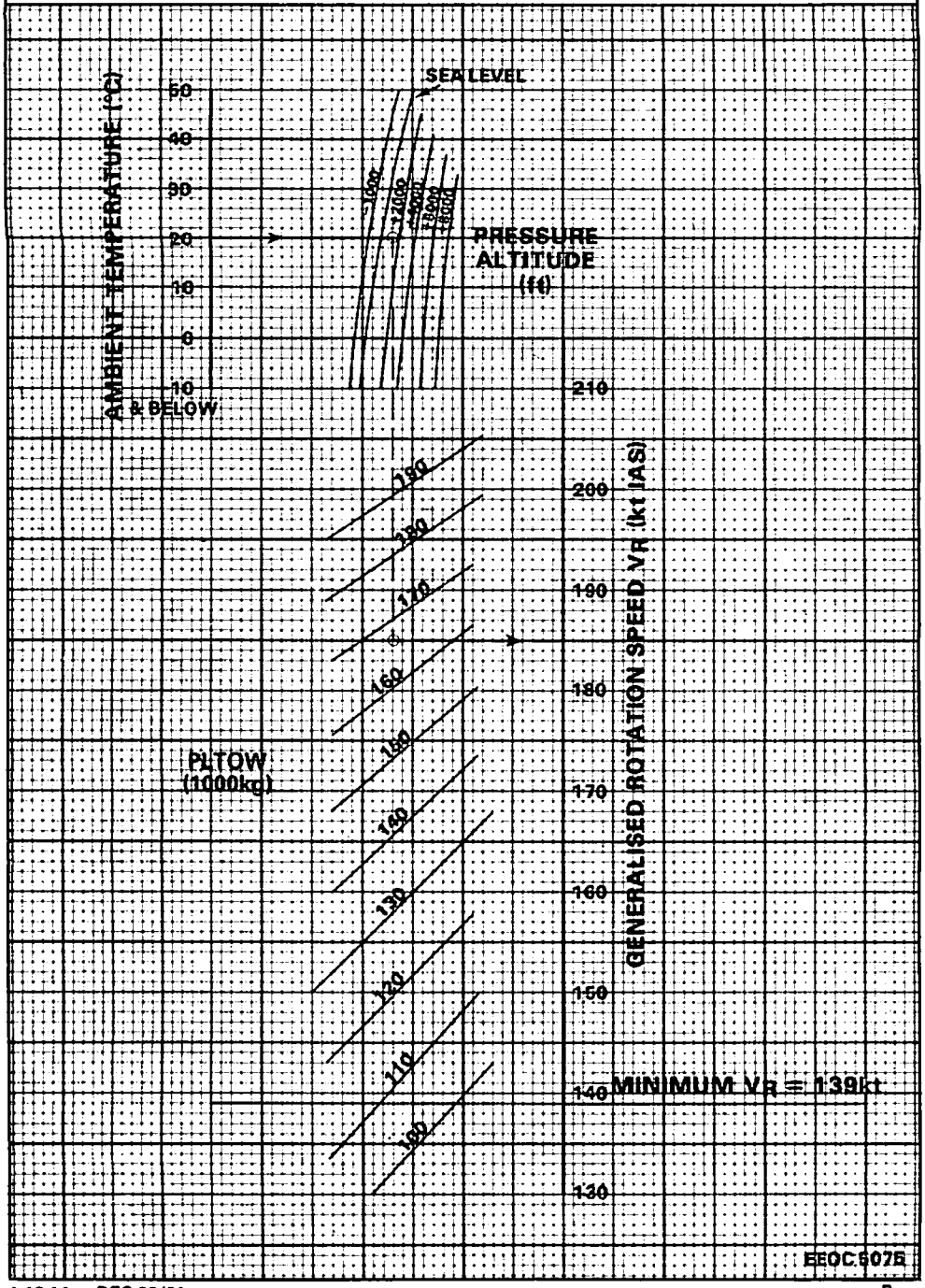


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GENERALISED RUNWAY TAKE-OFF WEIGHT CHART 2

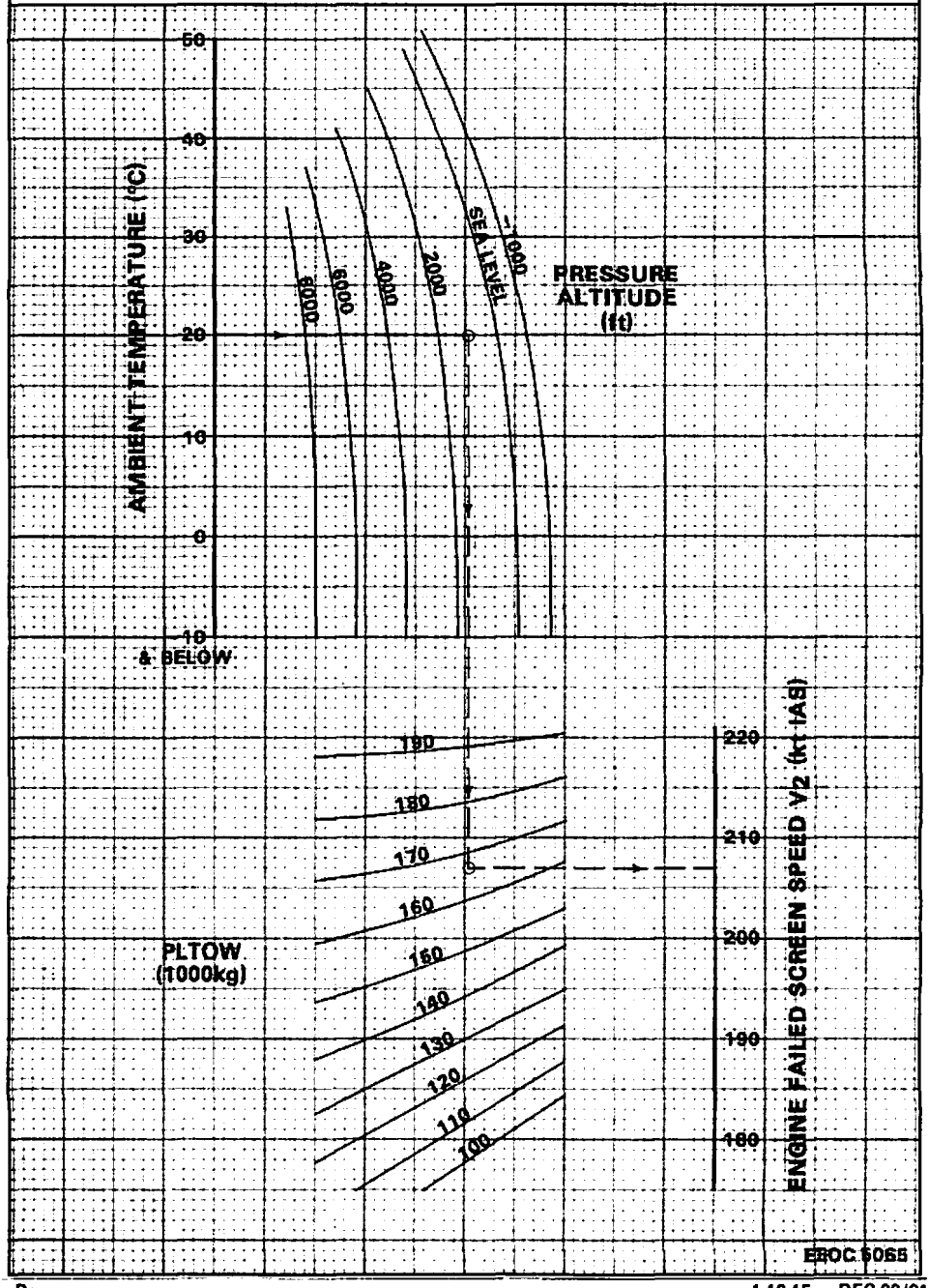


GENERALISED ROTATION SPEED V_R

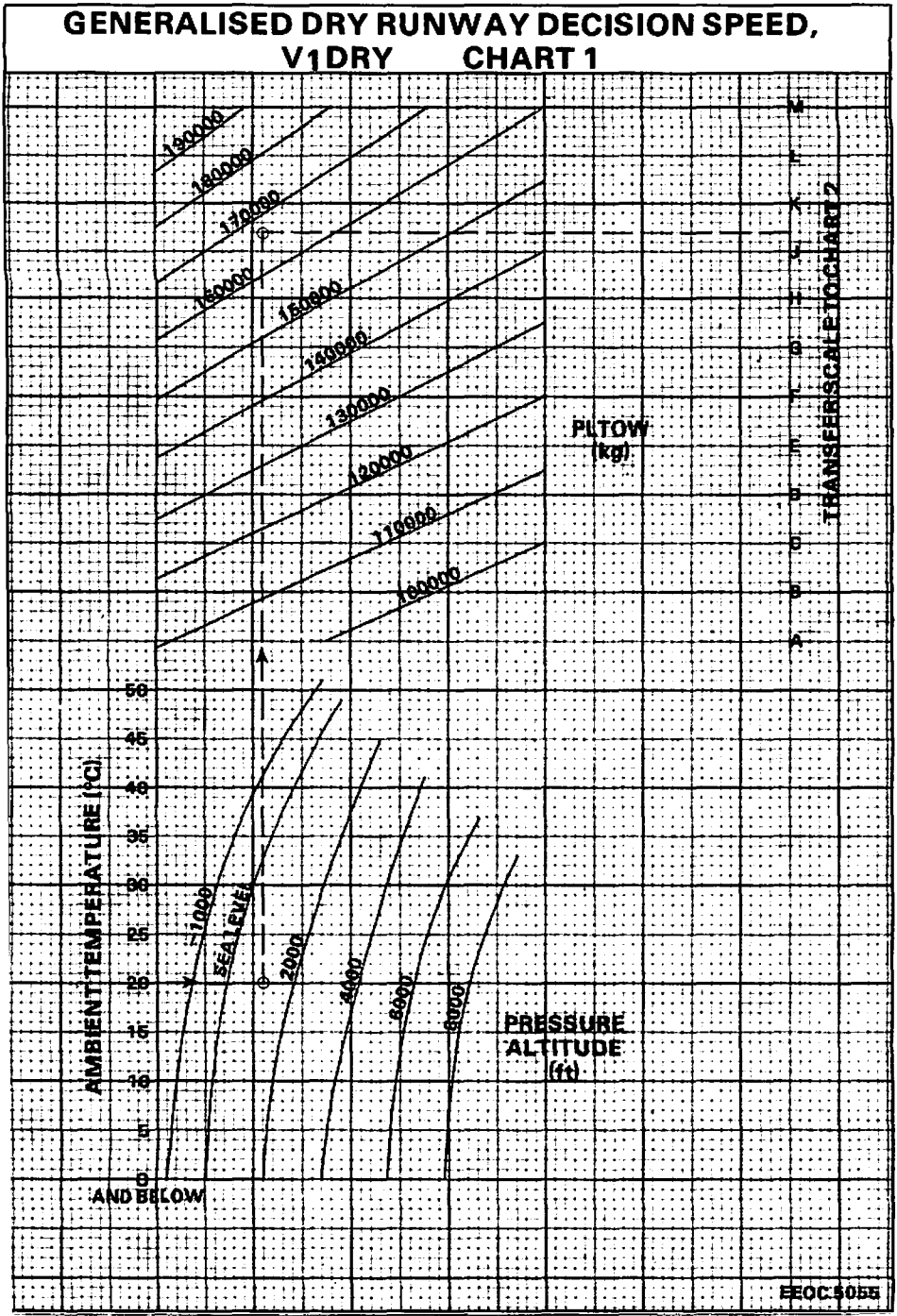


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GENERALISED ENGINE FAILURE SCREEN SPEED V_2

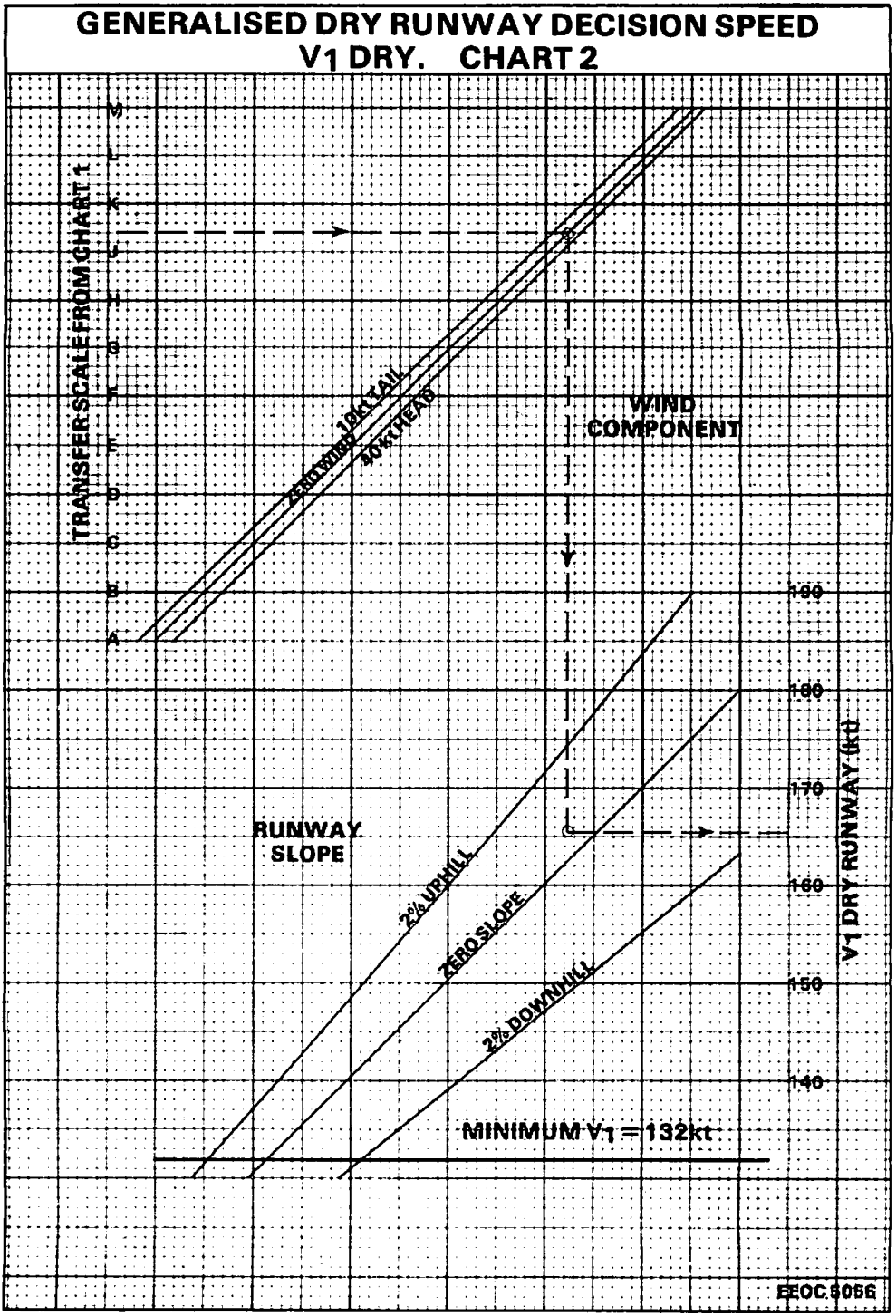


GENERALISED DRY RUNWAY DECISION SPEED, V1DRY CHART 1

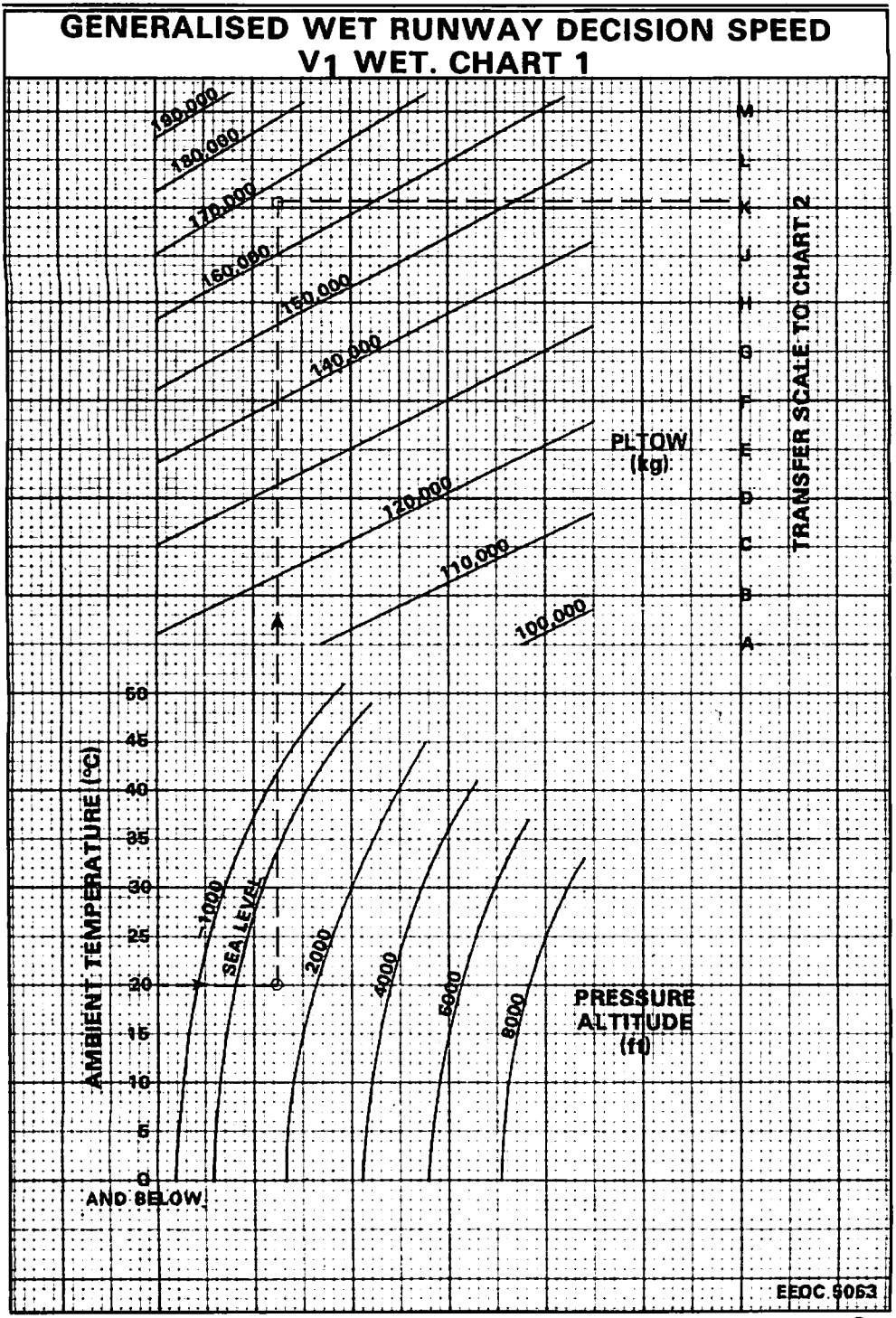


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GENERALISED DRY RUNWAY DECISION SPEED
V_1 DRY. CHART 2

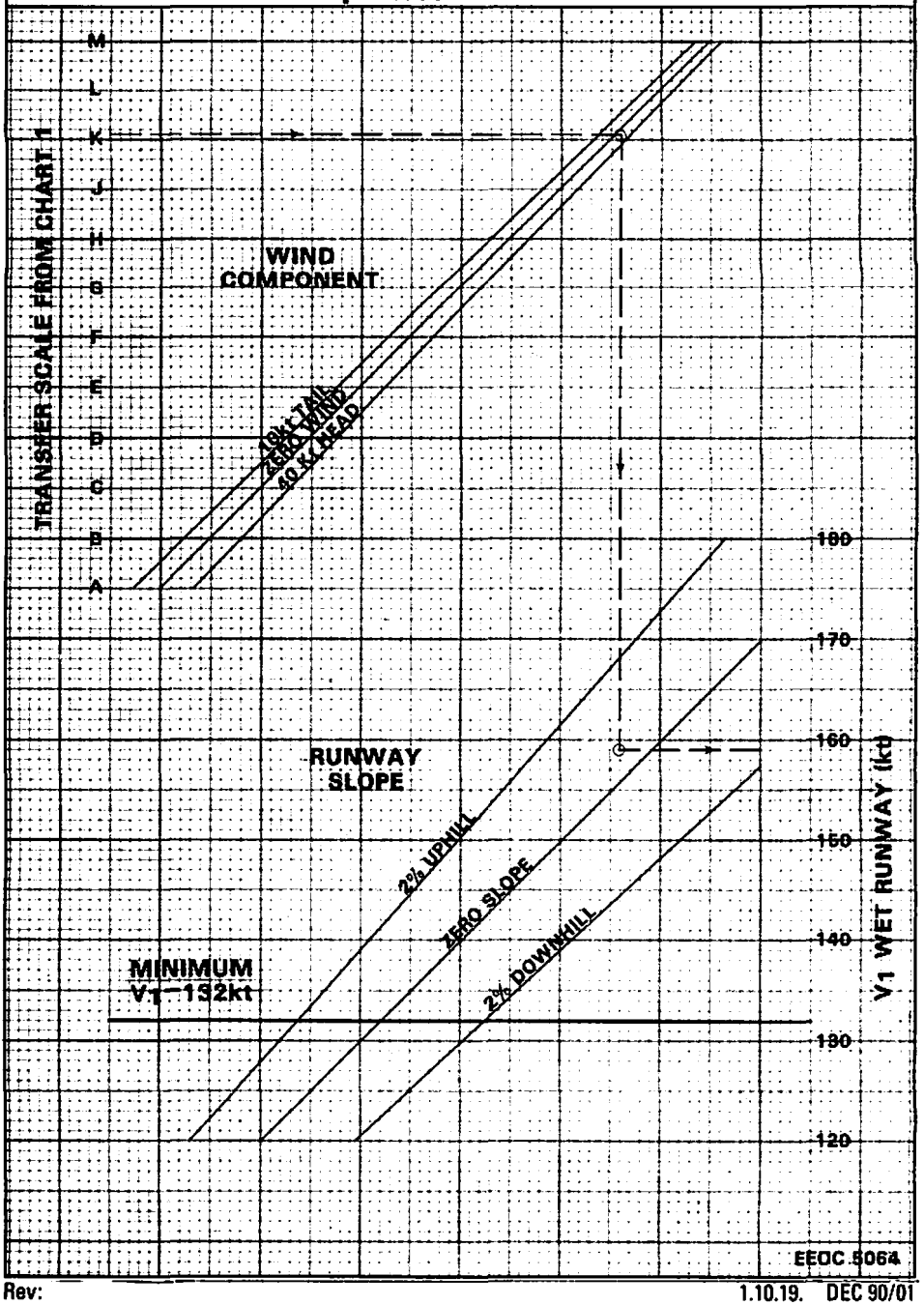


GENERALISED WET RUNWAY DECISION SPEED V_1 WET. CHART 1

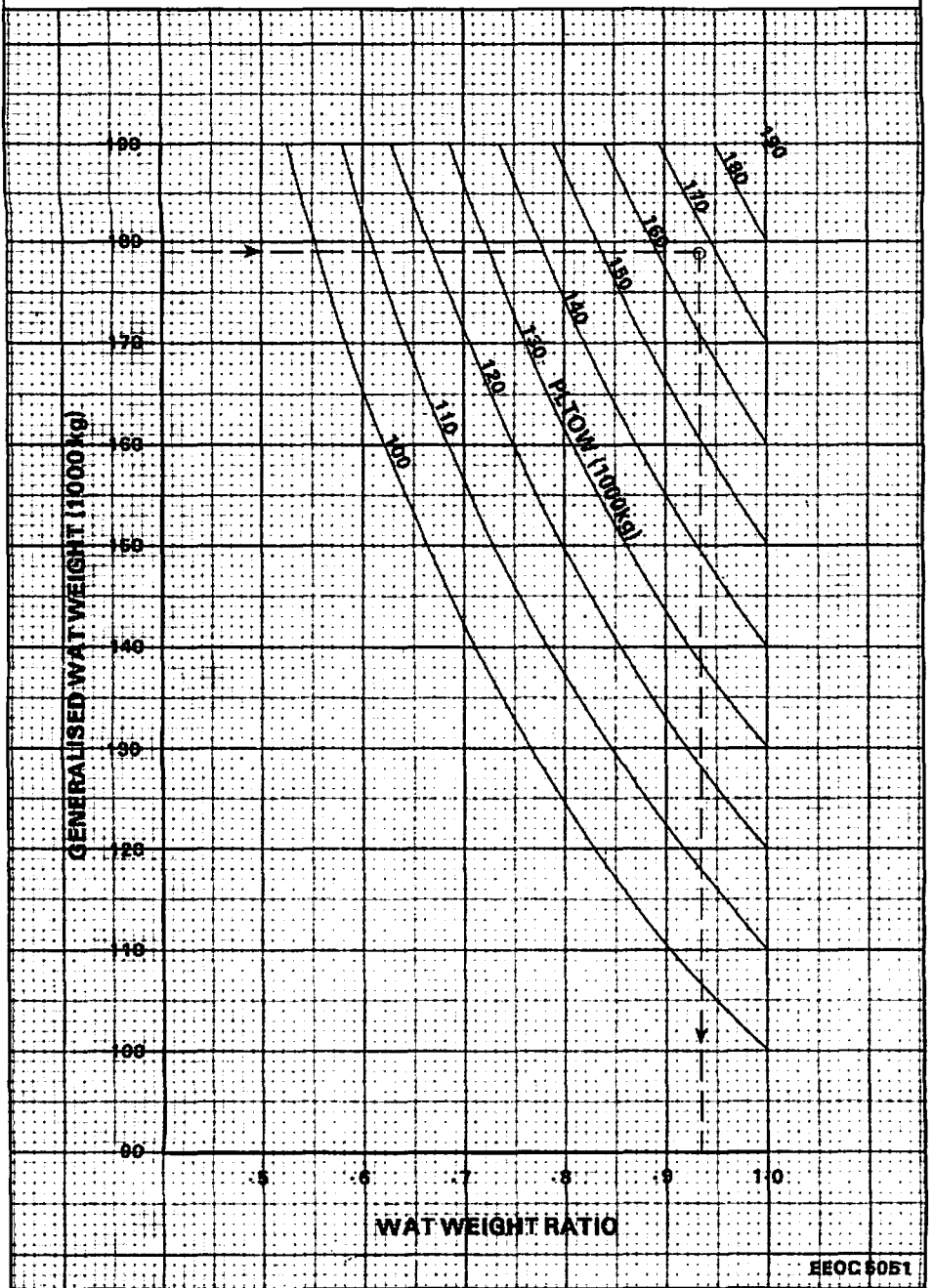


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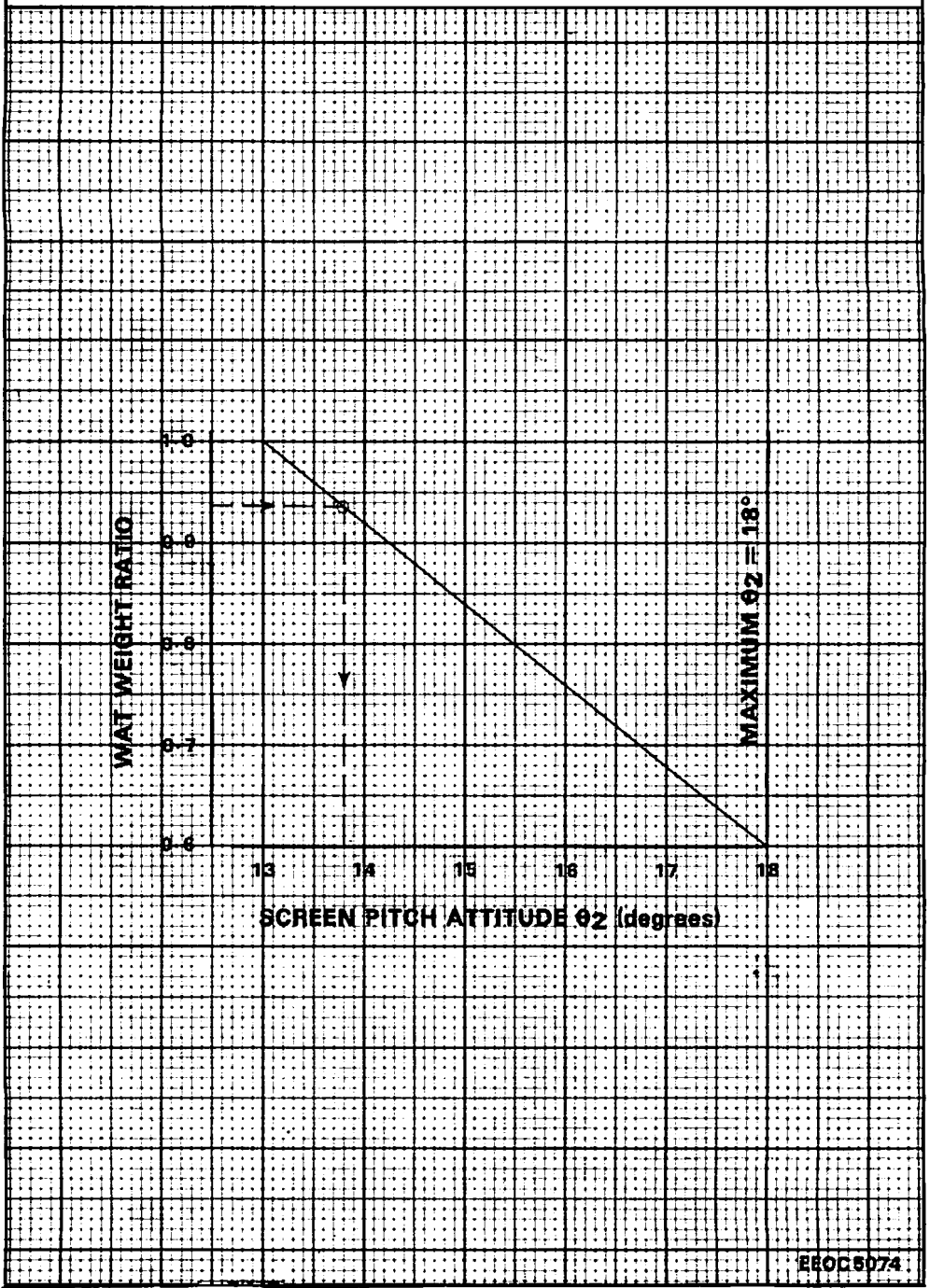
GENERALISED WET RUNWAY DECISION SPEED V_1 WET. CHART 2



GENERALISED WAT WEIGHT RATIO CHART

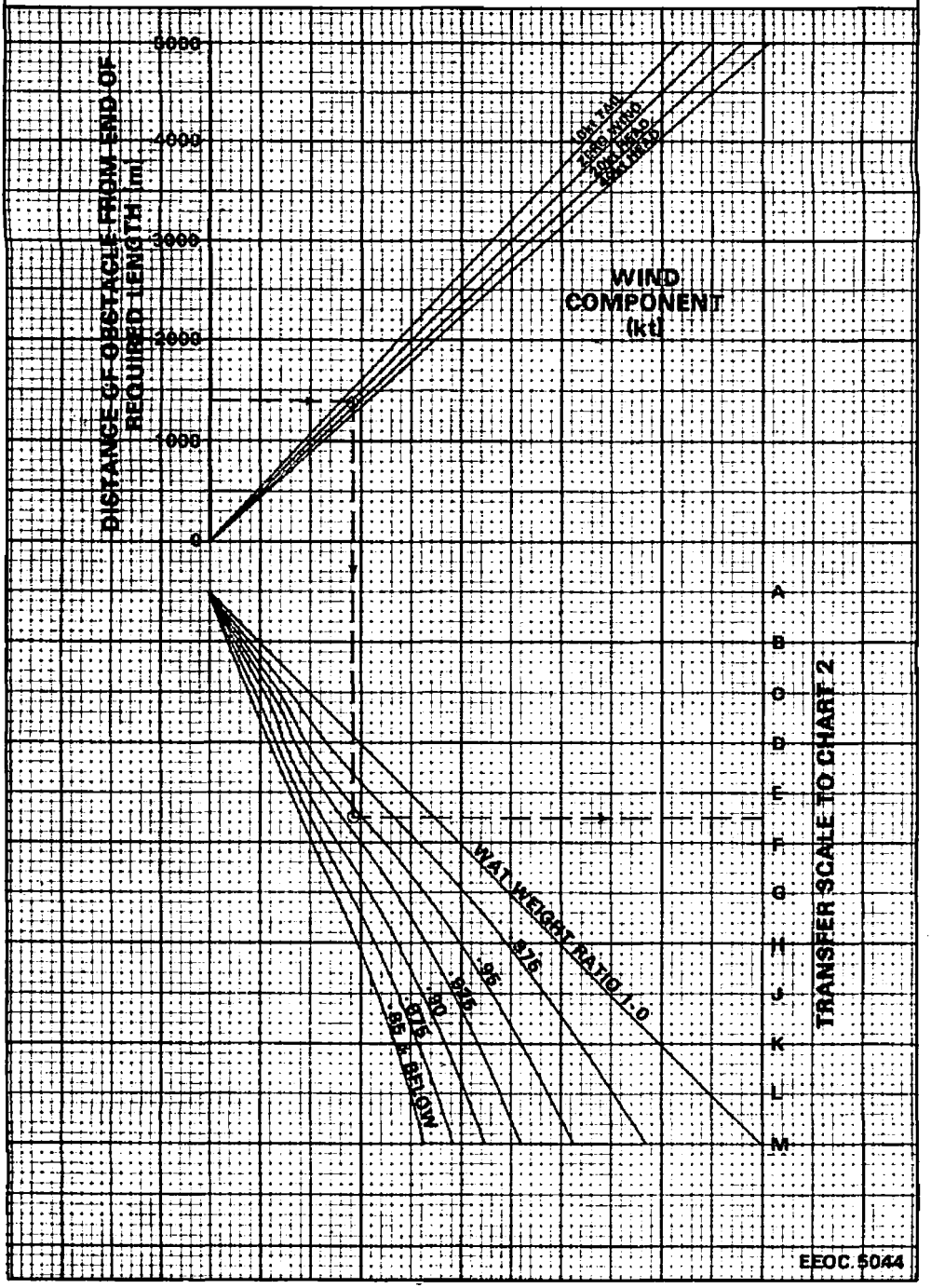


3 ENGINE SCREEN PITCH ATTITUDE, θ2

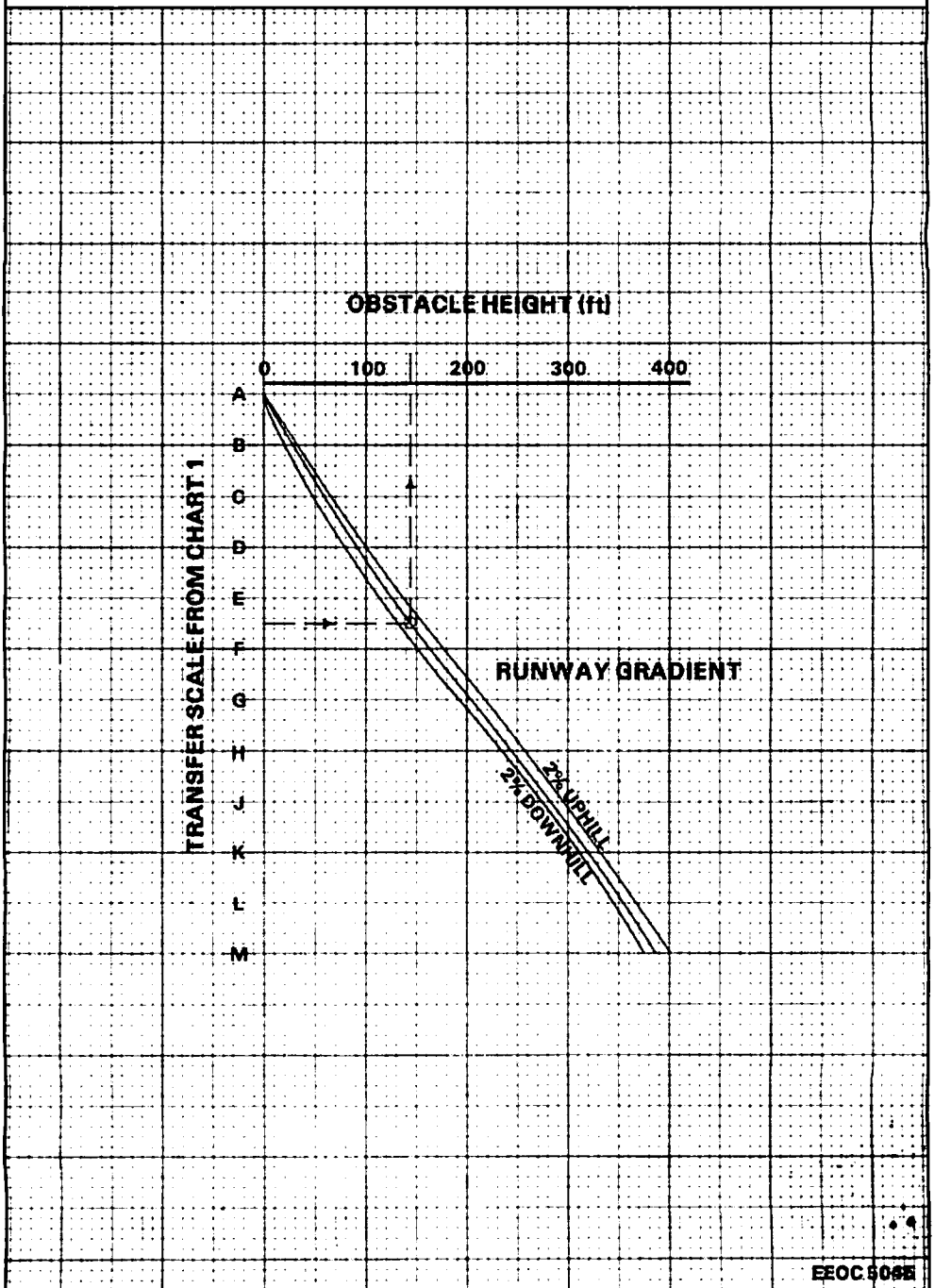


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GENERALISED OBSTACLE CLEARANCE CHART 1



GENERALISED OBSTACLE CLEARANCE CHART 2



SECTION 1.11. - GENERALISED LANDING DATA

Use of Generalised Landing Data	1.11.1. - 1.11.2.
Landing Distance VREF+7 Chart 1	1.11.4.
Landing Distance VREF+7 Chart 2	1.11.5.
Maximum Landing Weight (WAT Limit) VREF+7	1.11.6.
Landing Distance VREF Chart 1	1.11.8.
Landing Distance VREF Chart 2	1.11.9.
Maximum Landing Weight (WAT Limit) VREF	1.11.10.
Landing Distance VREF Chart 1 Slippery Runway	1.11.12.
Landing Distance VREF Chart 2 Slippery Runway	1.11.13.

1.11. GENERALISED LANDING DATA

1.11.1 INTRODUCTION

This section provides generalised landing data required to schedule landings at the flight planning stage or in flight. The data may be used when no runway specific landing data is available, where a restriction in length has occurred or when a dispatch deviation applies.

The minimum permitted Landing Distance Available is 2,000m

1.11.2 DRY OR WET RUNWAY

The generalised landing data is based on a hard wet runway and, therefore, may be used for both dry and wet runways.

1.11.3 SLIPPERY RUNWAY

Advisory information is provided for landing on slippery runways. It is based on approach at V_{REF} and assumes the use of maximum reverse thrust. It should be used when intending to land on runways considered icy/slippery or contaminated.

N.B. With any unserviceability affecting the stopping performance of the aircraft landing on icy/slippery or contaminated runways should be avoided as the landing distance is likely to exceed any runway length available.

Observe the following:

A. Maximum contaminant depths are as follows:-

1. Standing water/slush/wet snow — 13mm
2. Dry snow — 50mm

B. The maximum permitted crosswind component is 15kt.

C. The maximum permitted tailwind component is 10kt.

D. Visual guidance MUST be available from runway edge or centreline lighting.

E. Runway clearance, The minimum acceptable cleared width for landing is 30m (100ft).

1.11.4 USE OF GENERALISED LANDING DATA

A. Enter the appropriate Generalised Landing Distance Chart with Landing Distance Available (or effective LDA if a DDM item applies). Correct for wind, slope and airfield pressure altitude to obtain a Runway Limited Landing Landing Weight.

1.11.4 USE OF GENERALISED LANDING DATA (cont)

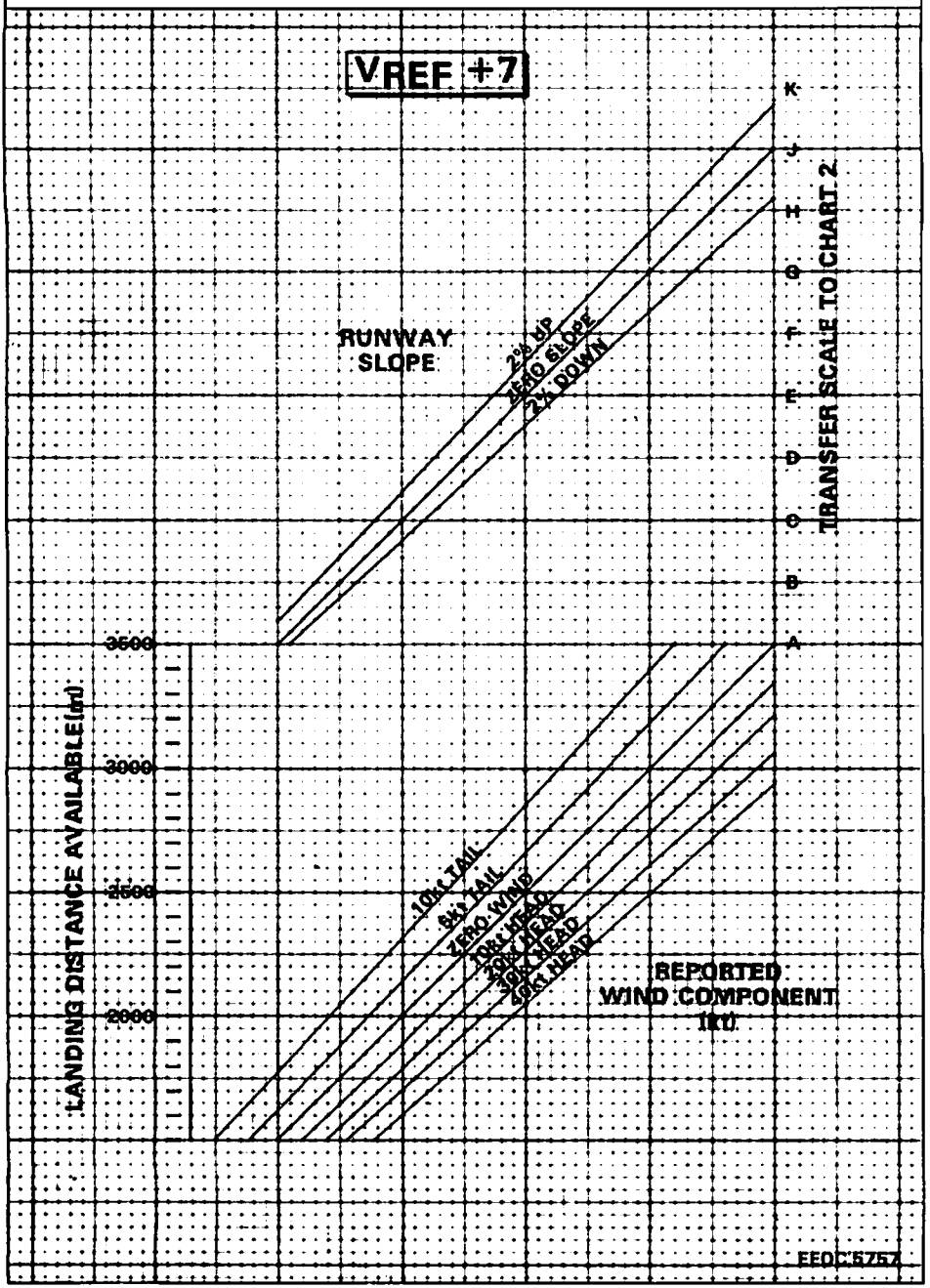
B. Enter the appropriate Maximum Landing Weight (WAT Limit) Chart with landing ambient temperature and correct for airfield pressure altitude to obtain a WAT Limited Landing Weight.

C. The Performance Limited Landing Weight is the lower or the Runway Limited and the WAT Limited Landing Weight.

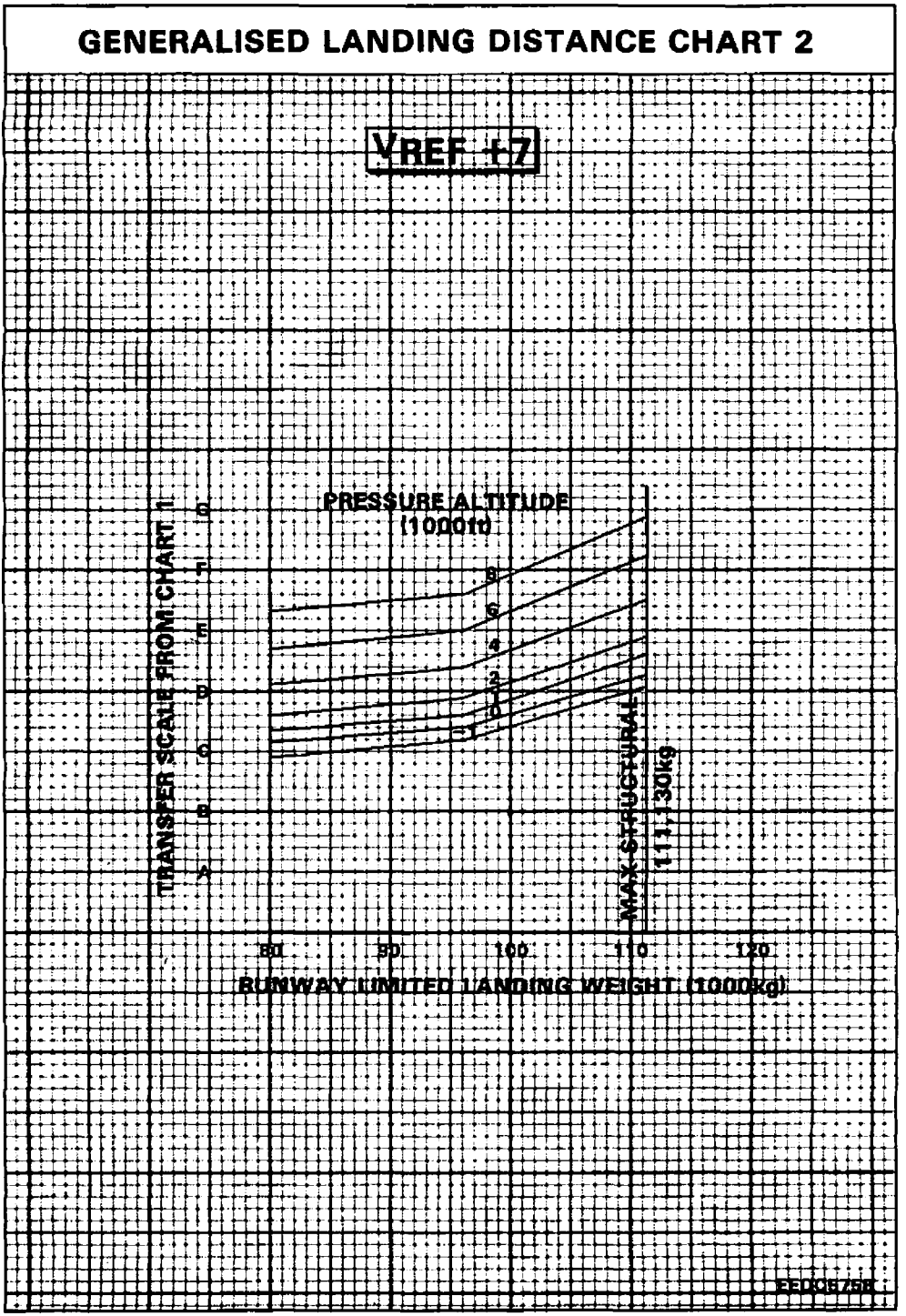
D. Regulated Landing Weight is the lower of the Performance Limited Landing Weight and the Maximum Authorised Landing Weight.

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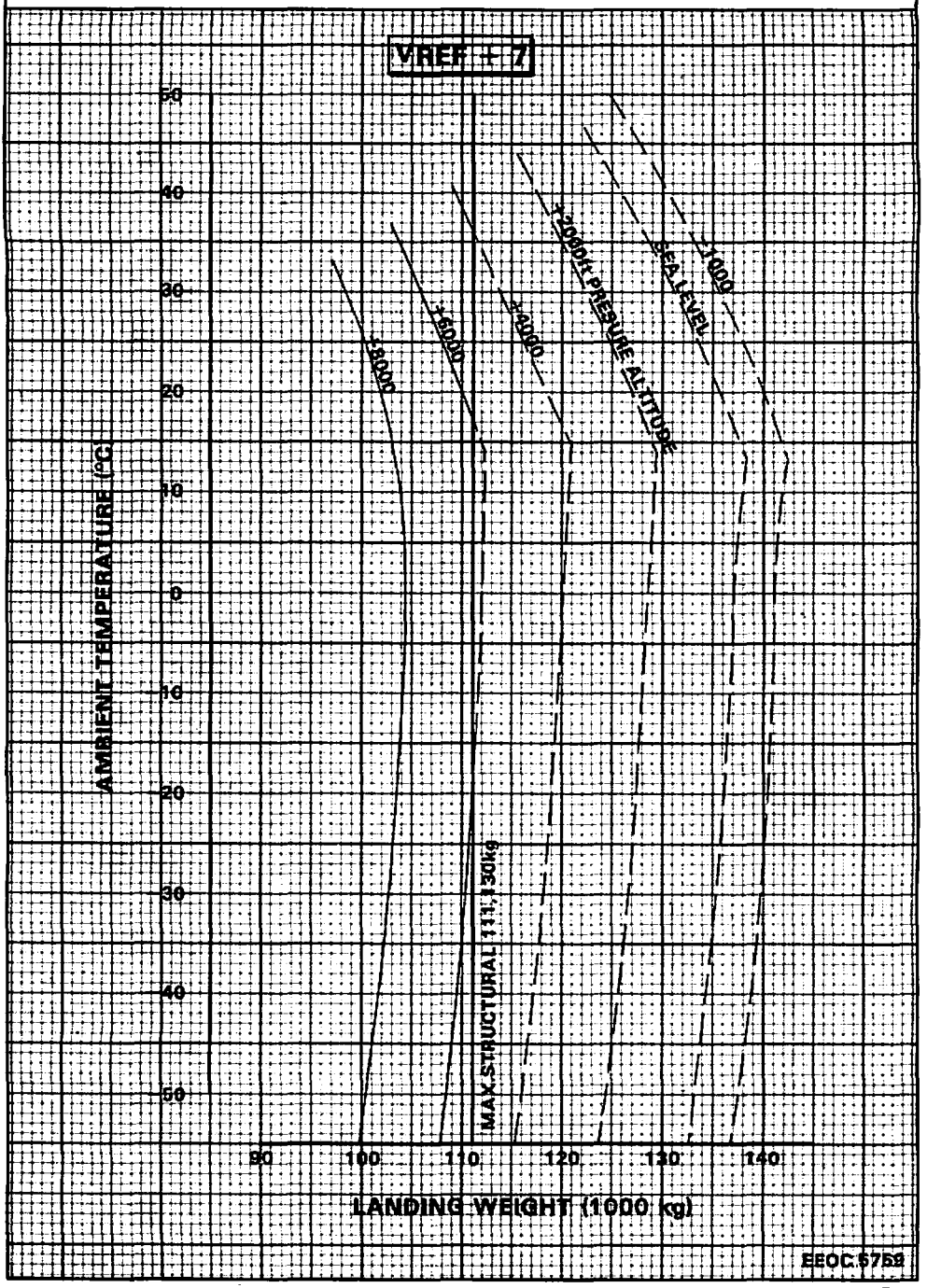
GENERALISED LANDING DISTANCE CHART 1



GENERALISED LANDING DISTANCE CHART 2



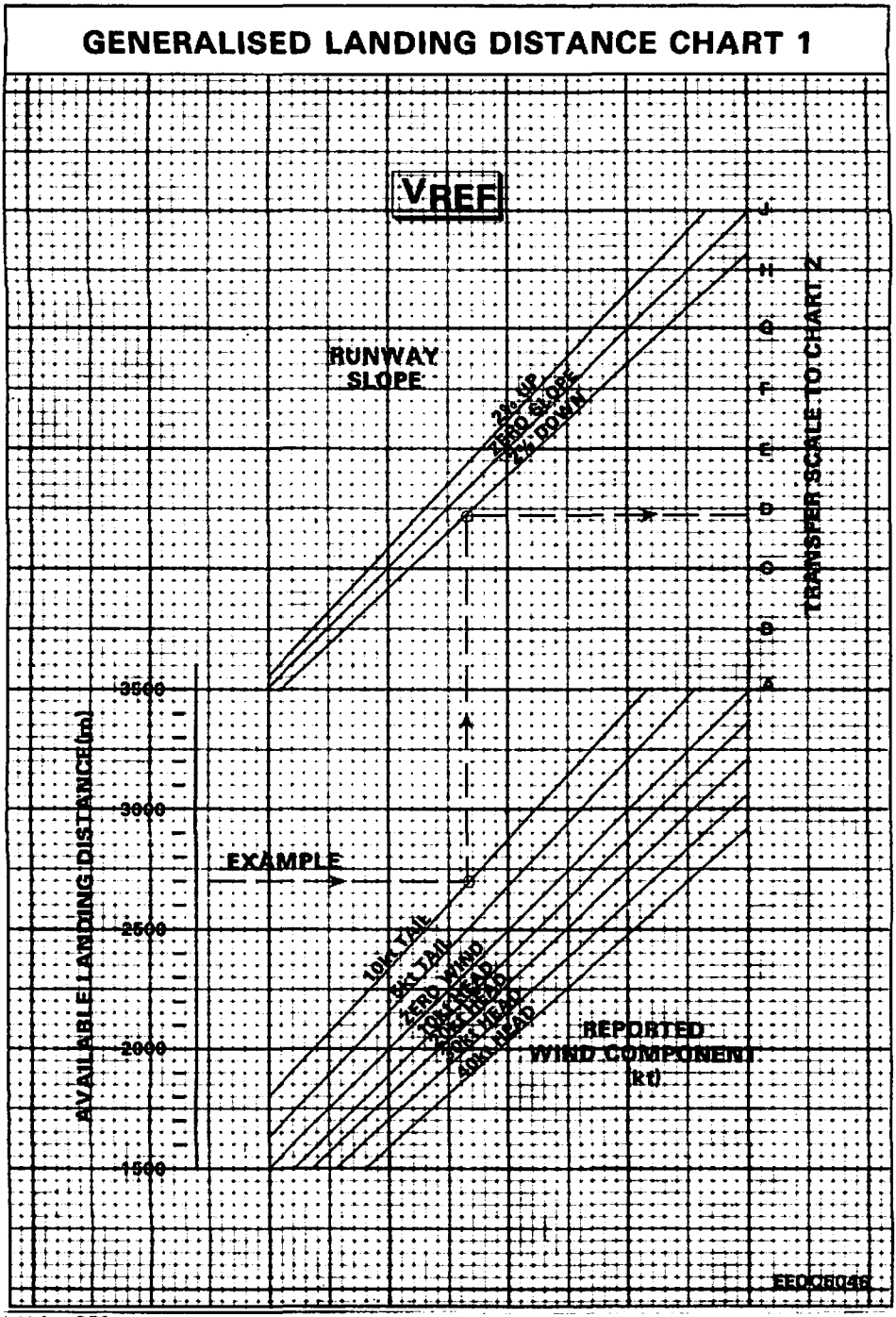
MAXIMUM LANDING WEIGHT (WAT LIMIT)



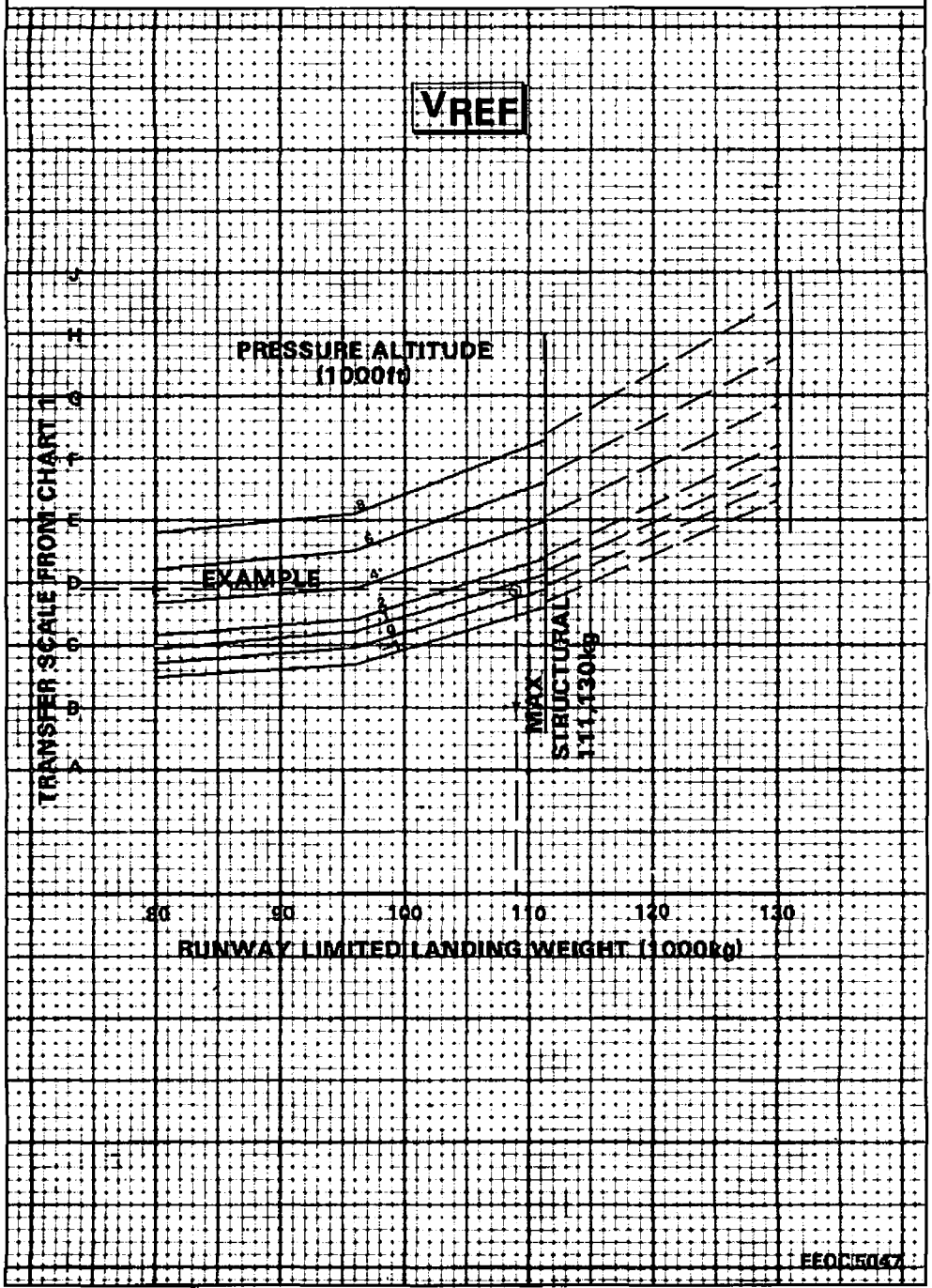
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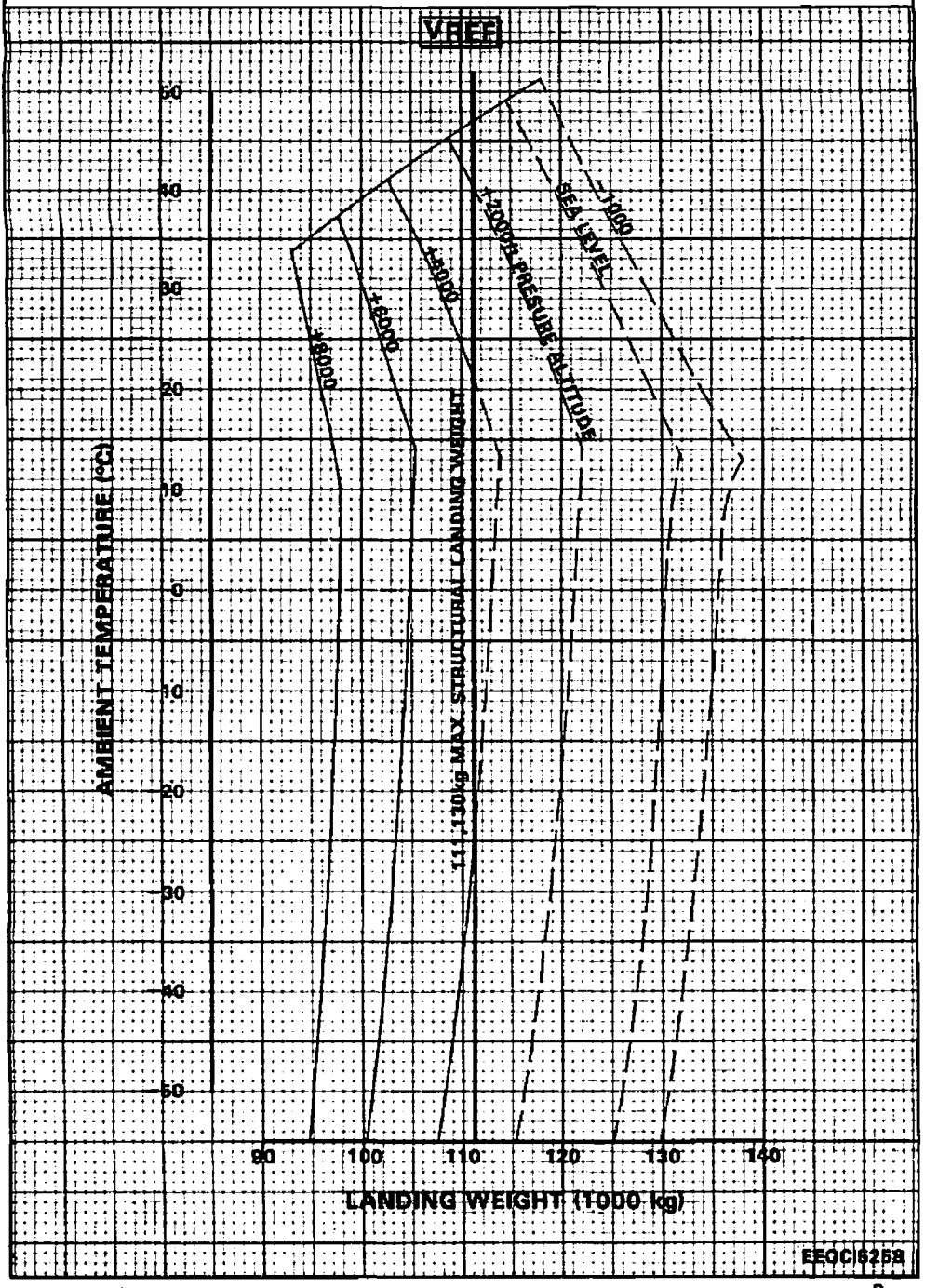
GENERALISED LANDING DISTANCE CHART 1



GENERALISED LANDING DISTANCE CHART 2

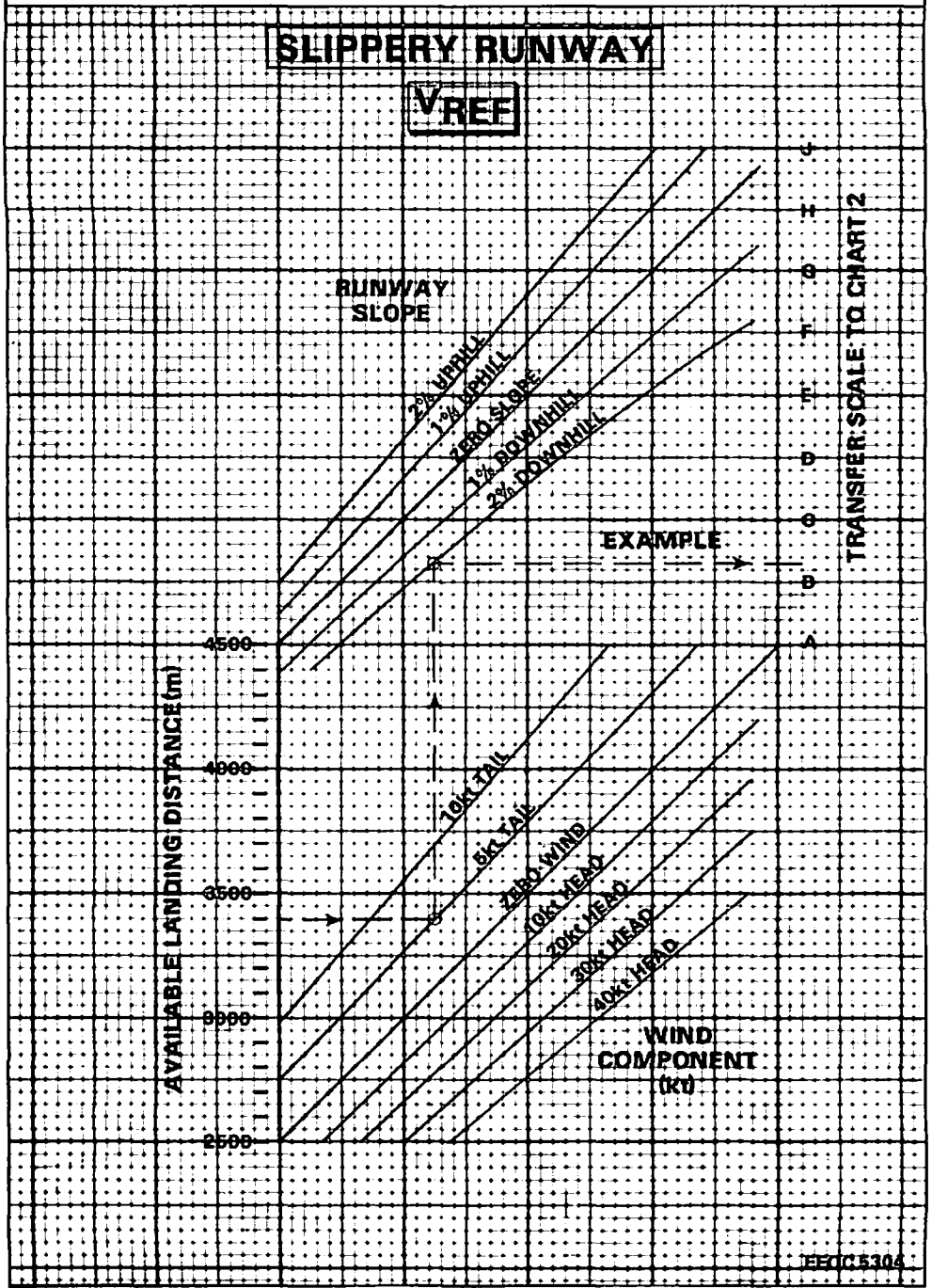


MAXIMUM LANDING WEIGHT (WAT LIMIT)

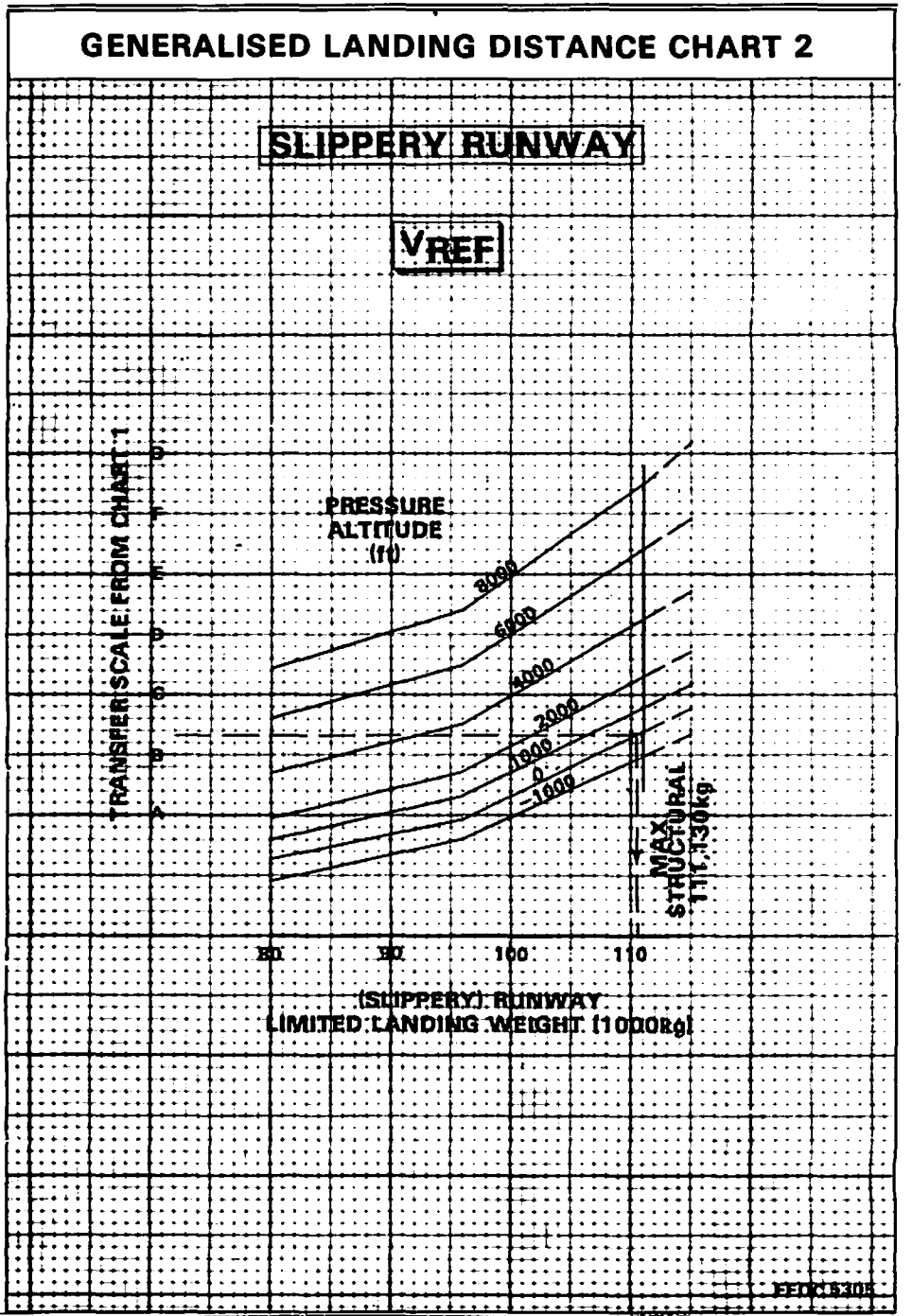


INTENTIONALLY LEFT BLANK

GENERALISED LANDING DISTANCE CHART 1



GENERALISED LANDING DISTANCE CHART 2



SECTION 1.12. - INDEX OF ALTERNATES AND CHARTER DESTINATIONS

Take-Off data for the following airfields is contained in this section -.

AIRFIELD	CODE	AIRFIELD	CODE
BANGOR	BGR	LUXOR	LXR
BOSTON	BOS	MANSTON	MSE
BRIZE NORTON	BZZ	MARSEILLE	MRS
CAIRO	CAI	NIAGARA FALLS	IAG
DUBLIN	DUB	OPORTO	OPO
EAST MIDLANDS	EMA	OTTAWA	YOW
EDINBURGH	EDI	PARIS CDG	CDG
FARO	FAO	PARIS ORLY	ORY
GANDER	YQX	PRESTWICK	PIK
GOOSE	YYR	RIYADH	RUH
HALIFAX	YHZ	ROVANIEMI	RVN
HUMBERSIDE	HUY	SANTA MARIA	SMA
JEDDAH	JED	SHANNON	SNN
LAJES	TER	TAIF	TIF
LISBON	LIS	TEES-SIDE	MME
LIVERPOOL	LPL	VAL D'OR	YVO

INTENTIONALLY

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A/D Elev **192ft**

FULL LENGTH RWY 15

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.25%DN
TOR 3486m (11437ft) **ED** 3760m (12336ft) **TOD** 3760m (12336ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	161.9 154/179	0.8	165.9 160/184	0.8	169.8 165/187	0.2	172.2 169/190	0.2	174.6 173/194	0.2	177.0 177/197
36	163.9 154/180	0.8	167.9 159/186	0.8	171.8 165/188	0.2	174.3 169/191	0.2	176.7 173/195	0.2	179.2 177/198
33	165.7 153/180	0.8	169.8 159/186	0.8	173.8 165/189	0.2	176.3 169/192	0.2	178.8 172/196	0.2	181.3 176/199
30	167.6 153/181	0.8	171.7 159/187	0.8	175.7 165/191	0.3	178.3 168/193	0.2	180.8 172/197	0.2	183.3 176/200
27	169.4 153/182	0.8	173.6 159/188	0.8	177.6 164/192	0.3	180.3 168/194	0.2	182.8 172/197	0.2	185.3 176/201
24	171.2 153/182	0.8	175.4 159/189	0.8	179.5 164/192	0.3	182.2 168/195	0.2	184.7 172/198	0.3	187.3 176/202
21	172.9 153/183	0.8	177.1 159/189	0.8	181.3 164/193	0.3	184.1 168/196	0.2	186.6 172/199	0.3	189.3 176/203
18	174.5 153/184	0.9	178.8 159/190	0.9	183.1 164/194	0.3	185.9 168/196	0.3	188.5 172/200	0.3	191.2 176/203
15	176.1 153/184	0.9	180.5 159/190	0.9	184.8 164/196	0.3	187.6 168/197	0.3	190.3 172/200	0.3	193.0 176/204
12	177.4 153/185	0.9	181.8 159/191	0.9	186.2 165/196	0.3	189.0 168/198	0.3	191.7 172/201	0.3	194.4 176/205
9	178.0 154/186	0.9	182.4 159/192	0.9	186.7 165/196	0.3	189.5 169/199	0.3	192.1 173/202	0.3	194.8 177/205
6	178.6 154/187	0.9	183.0 160/193	0.8	187.2 166/196	0.3	189.9 170/199	0.3	192.6 174/203	0.2	195.0 178/206
3	179.1 155/188	0.9	183.4 161/193	0.9	187.7 167/196	0.3	190.4 171/200	0.3	193.0 175/203	0.2	195.0 178/206
0	179.6 156/189	0.9	183.9 162/194	0.9	188.2 168/197	0.2	190.7 172/200	0.3	193.4 176/204	0.2	195.0 179/207
-3	180.1 157/190	0.8	184.3 162/194	0.8	188.5 168/198	0.3	191.1 173/201	0.3	193.7 177/205	0.1	195.0 180/207
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight**: Restricted to **182250kg**.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BANGOR

A/D Elev **192ft**

FULL LENGTH RWY 33

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.25%UP

TOR 3486m (11437ft) **ED** 3748m (12297ft) **TOD** 3748m (12297ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	163.0 0.8 155/177	167.0 0.8 161/183	171.0 0.2 167/189	173.4 0.2 171/192	175.8 0.2 175/195	178.2 178/199
36	164.9 0.8 155/178	168.9 0.8 161/184	173.1 0.2 166/190	175.5 0.2 170/193	177.9 0.2 174/196	180.4 178/200
33	166.8 0.8 155/179	170.9 0.8 161/185	175.1 0.2 166/191	177.5 0.2 170/194	179.9 0.2 174/197	182.4 178/201
30	168.6 0.8 155/180	172.8 0.8 160/185	177.0 0.2 166/191	179.5 0.2 170/195	182.0 0.2 174/198	184.5 178/202
27	170.5 0.8 155/180	174.7 0.8 160/186	178.9 0.3 166/192	181.5 0.2 170/196	184.0 0.3 174/199	186.6 177/203
24	172.2 0.9 155/181	176.5 0.9 160/187	180.8 0.3 166/193	183.4 0.3 170/196	186.0 0.3 173/200	188.6 177/203
21	173.9 0.9 154/182	178.2 0.9 160/188	182.6 0.3 166/194	185.3 0.3 170/197	187.9 0.3 173/201	190.5 177/204
18	175.6 0.9 155/182	180.0 0.9 160/188	184.4 0.3 166/194	187.2 0.3 170/198	189.8 0.3 173/201	192.4 177/205
15	177.2 0.9 155/183	181.6 0.9 160/189	186.1 0.3 166/195	188.9 0.3 170/199	191.5 0.3 173/202	194.2 177/206
12	178.5 0.9 155/184	182.9 0.9 160/190	187.4 0.3 166/196	190.3 0.3 170/199	192.9 0.2 174/203	195.0 177/206
9	179.1 0.9 155/185	183.5 0.9 161/191	188.0 0.3 167/197	190.8 0.3 171/200	193.4 0.2 175/204	195.0 178/206
6	179.7 0.9 156/186	184.1 0.9 162/191	188.6 0.3 167/197	191.2 0.3 171/201	193.8 0.1 175/204	195.0 179/207
3	180.2 0.9 157/186	184.6 0.9 163/192	189.0 0.3 168/198	191.6 0.3 172/202	194.3 0.1 176/205	195.0 179/207
0	180.7 0.9 157/187	185.2 0.8 163/193	189.4 0.3 169/199	192.1 0.3 173/202	194.7 0.0 177/206	195.0 180/208
-3	181.2 0.9 158/188	185.6 0.8 164/194	189.8 0.3 170/199	192.4 0.3 174/203	195.0 0.0 178/206	195.0 181/208
V2= θ2=	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 12.5	VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

A/D Elev **12ft**

FULL LENGTH RWY 12

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.01%UP
TOR 2945m (9662ft) **ED** 2945m (9662ft) **TOD** 3015m (9892ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	152.9 144/166	1.2	158.7 149/170	0.8	162.8 154/176	0.3	165.6 157/180	0.3	168.4 160/184	0.3	171.2 163/188
36	154.6 145/167	1.2	160.5 149/171	0.9	164.8 154/177	0.3	167.6 157/181	0.3	170.4 161/185	0.3	173.3 164/189
33	156.3 145/168	1.2	162.3 149/172	0.9	166.7 154/178	0.3	169.5 158/182	0.3	172.4 161/186	0.3	175.3 164/190
30	157.9 146/169	1.2	164.0 150/173	0.9	168.5 155/179	0.3	171.4 158/183	0.3	174.3 161/187	0.3	177.3 165/191
27	159.5 146/170	1.2	165.6 150/174	1.0	170.4 155/179	0.3	173.2 158/183	0.3	176.2 162/187	0.3	179.2 165/192
24	161.0 146/171	1.2	167.2 151/175	1.0	172.1 155/180	0.3	175.0 159/184	0.3	178.0 162/188	0.3	181.1 165/192
21	162.5 147/171	1.2	168.7 151/175	1.0	173.8 156/181	0.3	176.8 159/185	0.3	179.8 162/189	0.3	182.9 166/193
18	163.9 147/172	1.3	170.2 151/176	1.1	175.5 156/181	0.3	178.5 159/185	0.3	181.5 163/189	0.3	184.6 166/194
15	165.2 148/173	1.3	171.6 152/177	1.1	177.1 157/182	0.3	180.1 160/186	0.3	183.2 163/190	0.3	186.3 167/194
12	166.5 148/173	1.3	172.9 152/178	1.1	178.4 157/183	0.3	181.4 160/187	0.3	184.5 164/191	0.3	187.7 167/195
9	167.7 148/174	1.3	174.1 153/178	1.0	179.1 158/184	0.3	182.2 161/188	0.3	185.3 165/192	0.3	188.4 168/196
6	168.9 149/175	1.3	175.3 153/179	0.9	179.8 158/185	0.3	182.9 162/189	0.3	186.0 165/193	0.3	189.1 169/197
3	169.9 149/175	1.2	176.0 154/180	0.9	180.5 159/186	0.3	183.5 163/190	0.3	186.6 166/194	0.3	189.8 169/198
0	171.0 150/176	1.1	176.6 155/181	0.9	181.1 160/187	0.3	184.1 163/191	0.3	187.2 167/195	0.3	190.4 170/199
-3	172.0 150/176	1.0	177.1 155/181	0.9	181.6 161/187	0.3	184.7 164/192	0.3	187.8 168/196	0.3	191.0 171/200
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

A/D Elev **12ft**

FULL LENGTH RWY 30

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.01%DN
TOR 2945m (9662ft) **ED** 2945m (9662ft) **TOD** 3112m (10210ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	147.4 0.7 147/163	151.1 0.8 152/168	154.9 0.3 157/174	157.5 0.2 161/178	160.0 0.3 164/180	162.7 167/183
36	149.3 0.7 147/164	152.9 0.8 152/169	156.7 0.3 157/174	159.4 0.3 161/179	162.0 0.3 164/182	164.6 168/184
33	151.0 0.7 147/165	154.7 0.8 153/170	158.6 0.3 158/175	161.2 0.3 161/180	163.9 0.3 165/183	166.6 168/185
30	152.7 0.8 148/166	156.5 0.8 153/171	160.4 0.3 158/176	163.1 0.3 162/181	165.8 0.3 165/184	168.5 168/186
27	154.4 0.8 148/166	158.2 0.8 153/172	162.2 0.3 158/177	164.9 0.3 162/181	167.6 0.3 165/185	170.4 169/187
24	156.0 0.8 148/167	159.9 0.8 154/173	163.9 0.3 159/178	166.6 0.3 162/181	169.4 0.3 166/186	172.2 169/188
21	157.6 0.8 149/168	161.6 0.8 154/173	165.6 0.3 159/179	168.3 0.3 163/182	171.1 0.3 166/186	174.0 170/189
18	159.1 0.8 149/169	163.2 0.8 154/174	167.3 0.3 160/180	170.0 0.3 163/183	172.9 0.3 166/187	175.7 170/190
15	160.6 0.8 149/170	164.7 0.8 155/174	168.9 0.3 160/181	171.6 0.3 163/184	174.5 0.3 167/188	177.4 170/190
12	161.8 0.8 150/170	165.9 0.8 155/175	170.1 0.3 160/181	172.9 0.3 164/184	175.8 0.3 167/189	178.7 171/191
9	162.4 0.8 151/171	166.4 0.8 156/176	170.6 0.3 161/182	173.4 0.3 165/185	176.3 0.3 168/189	179.2 172/191
6	162.8 0.8 151/171	166.8 0.8 157/176	171.0 0.3 162/183	173.9 0.3 166/187	176.7 0.3 169/190	179.6 173/192
3	163.2 0.8 152/172	167.3 0.8 158/177	171.5 0.3 163/183	174.3 0.3 166/187	177.1 0.3 170/189	180.1 174/192
0	163.7 0.8 153/172	167.7 0.8 158/178	171.9 0.3 164/184	174.7 0.3 167/188	177.6 0.3 171/190	180.4 174/192
-3	164.0 0.8 154/173	168.1 0.8 159/178	172.3 0.3 164/185	175.1 0.3 168/187	177.9 0.3 172/190	180.6 175/192
V2= θ2=	VR+ 24 14.5	VR+ 23 14.5	VR+ 23 14.0	VR+ 23 14.0	VR+ 22 14.0	VR+ 22 13.5

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.01%UP

TOR 2396m (7861ft) **ED** 2396m (7861ft) **TOD** 2396m (7861ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	132.4 135/152	1.1	137.7 140/156	1.0	142.9 144/159	0.3	146.1 147/162	0.3	149.1 151/164	0.3	152.0 154/166
36	133.8 136/153	1.1	139.3 140/157	1.0	144.5 145/160	0.3	147.8 148/163	0.3	150.8 151/165	0.3	153.8 154/167
33	135.3 136/153	1.1	140.9 140/158	1.1	146.2 145/161	0.3	149.5 148/164	0.3	152.6 151/166	0.3	155.5 155/168
30	136.7 136/154	1.1	142.4 141/158	1.1	147.7 145/162	0.3	151.1 149/164	0.3	154.3 152/167	0.3	157.3 155/169
27	138.0 137/155	1.2	143.9 141/159	1.1	149.3 146/163	0.3	152.7 149/165	0.3	155.9 152/167	0.3	159.0 155/170
24	139.3 137/156	1.2	145.3 141/160	1.1	150.7 146/164	0.3	154.2 149/166	0.3	157.5 152/168	0.3	160.7 156/170
21	140.6 137/156	1.2	146.7 142/161	1.1	152.2 146/165	0.3	155.7 150/167	0.3	159.1 153/169	0.3	162.3 156/171
18	141.8 138/157	1.2	148.0 142/161	1.1	153.6 147/165	0.3	157.1 150/168	0.3	160.6 153/170	0.3	163.8 157/172
15	142.9 138/158	1.3	149.3 143/162	1.1	154.9 147/166	0.4	158.5 150/168	0.3	162.0 154/171	0.3	165.3 157/173
12	144.0 139/158	1.3	150.5 143/163	1.1	156.1 148/167	0.4	159.7 151/169	0.4	163.3 154/171	0.3	166.6 157/174
9	145.1 139/159	1.2	151.3 143/163	1.1	156.9 148/167	0.4	160.5 151/169	0.3	163.9 155/172	0.3	167.2 158/174
6	146.1 139/159	1.2	152.1 144/163	1.1	157.8 149/167	0.3	161.3 152/170	0.3	164.6 155/172	0.3	167.8 159/174
3	147.1 140/160	1.1	152.8 145/164	1.1	158.5 149/168	0.3	162.0 153/170	0.3	165.2 156/172	0.3	168.3 160/174
0	148.0 140/160	1.1	153.6 145/164	1.1	159.1 150/168	0.3	162.6 153/170	0.3	165.8 157/172	0.3	168.9 160/174
-3	148.7 141/161	1.1	154.2 146/165	1.1	159.8 151/168	0.3	163.1 154/171	0.3	166.2 158/173	0.3	169.3 161/175
V2= θ2=	VR+ 29 16.0		VR+ 27 15.5		VR+ 25 15.0		VR+ 24 15.0		VR+ 24 14.5		VR+ 23 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 679ft from the end of TOR.

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%DN

TOR 3050m (10007ft) **ED** 3050m (10007ft) **TOD** 3050m (10007ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	146.3 151/162	0.7	150.0 156/167	0.7	153.7 161/172	0.2	156.2 164/176	0.3	158.8 168/179	0.3	161.4 171/182
36	148.1 151/163	0.7	151.8 156/168	0.8	155.6 161/173	0.2	158.1 165/177	0.3	160.7 168/180	0.3	163.4 172/183
33	149.8 151/164	0.8	153.6 156/168	0.8	157.4 162/174	0.3	160.0 165/178	0.3	162.6 168/181	0.3	165.3 172/184
30	151.5 152/165	0.8	155.3 157/169	0.8	159.2 162/175	0.3	161.8 165/179	0.3	164.5 169/182	0.3	167.2 172/185
27	153.1 152/166	0.8	157.0 157/170	0.8	160.9 162/176	0.3	163.6 166/180	0.3	166.3 169/183	0.3	169.0 173/186
24	154.7 152/166	0.8	158.7 157/170	0.8	162.7 163/176	0.3	165.4 166/180	0.3	168.1 170/184	0.3	170.9 173/187
21	156.3 153/167	0.8	160.3 158/171	0.8	164.3 163/177	0.3	167.1 166/181	0.3	169.8 170/185	0.3	172.6 173/188
18	157.9 153/168	0.8	161.9 158/172	0.8	166.0 163/178	0.3	168.7 167/182	0.3	171.5 170/186	0.3	174.3 174/188
15	159.3 153/169	0.8	163.4 158/173	0.8	167.5 164/178	0.3	170.3 167/183	0.3	173.2 171/187	0.3	176.0 174/189
12	160.5 154/170	0.8	164.7 159/174	0.8	168.8 164/179	0.3	171.6 168/184	0.3	174.5 171/187	0.3	177.3 175/190
9	161.0 155/170	0.8	165.1 160/174	0.8	169.3 165/180	0.3	172.1 169/184	0.3	174.9 172/188	0.3	177.8 176/191
6	161.5 155/170	0.8	165.6 161/175	0.8	169.7 166/181	0.3	172.5 169/185	0.3	175.3 173/188	0.3	178.2 177/191
3	162.0 156/170	0.8	166.0 161/175	0.8	170.2 167/182	0.3	173.0 170/186	0.3	175.8 174/189	0.3	178.6 178/191
0	162.4 157/171	0.8	166.4 162/177	0.8	170.6 168/183	0.3	173.4 171/186	0.3	176.1 175/188	0.3	179.0 178/191
-3	162.8 158/171	0.8	166.8 163/177	0.8	170.9 168/183	0.3	173.7 172/187	0.3	176.5 176/189	0.3	179.3 179/191
V2= θ2=	VR+ 24 15.0		VR+ 24 14.5		VR+ 23 14.5		VR+ 23 14.0		VR+ 23 14.0		VR+ 22 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 600ft from the end of TOR.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BOSTON

A/D Elev **20ft**

NO SHIPPING

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%DN

TOR 2134m (7001ft) **ED** 2134m (7001ft) **TOD** 2134m (7001ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	117.8 132/140	2.8	131.8 132/151	1.1	137.5 137/156	0.4	141.4 140/158	0.4	145.5 142/161	0.4	149.6 145/164
36	119.7 132/142	2.7	133.2 133/152	1.2	139.0 137/156	0.4	143.0 140/159	0.4	147.1 143/162	0.4	151.3 146/165
33	121.6 132/143	2.6	134.7 133/153	1.2	140.5 137/157	0.4	144.6 140/160	0.4	148.7 143/163	0.4	153.0 146/166
30	123.5 132/144	2.5	136.0 133/154	1.2	142.0 138/158	0.4	146.1 141/161	0.4	150.2 144/164	0.4	154.5 146/167
27	125.5 132/145	2.4	137.4 134/154	1.2	143.4 138/159	0.4	147.5 141/162	0.4	151.7 144/165	0.4	156.1 147/168
24	127.4 132/147	2.3	138.7 134/155	1.2	144.7 139/160	0.4	148.9 141/162	0.4	153.2 144/165	0.4	157.6 147/168
21	129.4 132/148	2.1	139.9 134/156	1.2	146.0 139/160	0.4	150.2 142/163	0.4	154.6 145/166	0.4	159.0 148/169
18	131.3 132/149	2.0	141.1 135/156	1.2	147.3 139/161	0.4	151.5 142/164	0.4	155.9 145/167	0.4	160.4 148/170
15	133.3 132/150	1.8	142.3 135/157	1.2	148.5 140/162	0.4	152.8 143/165	0.4	157.2 146/168	0.4	161.7 148/171
12	135.2 132/152	1.6	143.4 136/158	1.3	149.7 140/162	0.4	154.0 143/165	0.4	158.4 146/168	0.4	162.9 149/171
9	137.2 132/153	1.5	144.5 136/158	1.3	150.8 141/163	0.4	155.1 144/166	0.4	159.5 146/169	0.5	164.1 149/172
6	139.1 132/154	1.3	145.5 137/159	1.3	151.8 141/163	0.4	156.2 144/166	0.4	160.6 147/169	0.5	165.2 150/172
3	140.3 132/155	1.2	146.4 137/159	1.3	152.8 141/164	0.4	157.2 144/167	0.4	161.7 147/170	0.5	166.3 150/173
0	141.2 133/155	1.2	147.4 137/160	1.3	153.8 142/164	0.4	158.2 145/167	0.4	162.7 148/170	0.5	167.3 151/173
-3	142.1 133/156	1.2	148.2 138/160	1.3	154.7 142/165	0.4	159.1 145/168	0.4	163.6 148/171	0.5	168.3 151/174
V2= θ2=	VR+ 32 16.5		VR+ 29 16.0		VR+ 27 15.5		VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima**: Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight**: Restricted to **182250kg**.

4. **Shipping**: This data assumes no shipping is present in the shipping channel 561ft from the end of TOR. If shipping is present use data on page BOS/04.

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%DN

TOR 2134m (7001ft) **ED** 2134m (7001ft) **TOD** 2134m (7001ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	117.8 2.0 132/140	127.9 1.2 134/148	134.1 0.3 138/153	137.6 0.3 141/156	141.0 0.3 145/158	144.3 148/160
36	119.7 1.9 132/142	129.3 1.3 135/149	135.6 0.4 139/154	139.2 0.3 142/157	142.6 0.3 145/159	146.0 148/161
33	121.6 1.8 132/143	130.7 1.3 135/150	137.0 0.4 139/155	140.7 0.3 142/157	144.2 0.3 145/160	147.7 148/162
30	123.5 1.7 132/144	132.1 1.3 135/151	138.4 0.4 139/155	142.2 0.3 142/158	145.7 0.4 146/161	149.3 149/163
27	125.5 1.6 132/145	133.4 1.3 136/151	139.8 0.4 140/156	143.7 0.4 143/159	147.3 0.3 146/162	150.8 149/164
24	127.4 1.4 132/147	134.6 1.3 136/152	141.1 0.4 140/157	145.1 0.4 143/160	148.7 0.4 146/162	152.4 149/165
21	129.4 1.3 132/148	135.8 1.3 136/153	142.4 0.4 141/158	146.5 0.4 143/161	150.1 0.4 147/163	153.8 150/166
18	130.6 1.3 132/149	137.0 1.3 137/153	143.6 0.4 141/158	147.9 0.4 144/161	151.5 0.4 147/164	155.3 150/166
15	131.7 1.3 133/149	138.1 1.3 137/154	144.8 0.4 141/159	149.1 0.4 144/162	152.8 0.4 147/165	156.6 151/167
12	132.7 1.3 133/150	139.2 1.3 137/155	145.9 0.4 142/160	150.3 0.4 145/163	154.0 0.4 148/165	157.8 151/168
9	133.7 1.3 133/150	140.2 1.4 138/155	147.0 0.4 142/160	151.1 0.4 145/163	154.8 0.4 148/166	158.6 152/168
6	134.6 1.3 134/151	141.2 1.4 138/156	148.0 0.4 143/161	151.9 0.4 146/163	155.6 0.4 149/166	159.3 152/168
3	135.5 1.3 134/151	142.1 1.4 139/156	149.0 0.4 143/161	152.6 0.4 146/164	156.4 0.4 150/166	160.0 153/169
0	136.4 1.3 135/152	143.0 1.3 139/157	149.6 0.4 144/161	153.3 0.4 147/164	157.1 0.4 150/167	160.7 154/169
-3	137.2 1.3 135/152	143.9 1.3 140/157	150.3 0.4 144/162	154.0 0.4 148/164	157.7 0.4 151/167	161.3 154/169
V2= θ2=	VR+ 33 16.5	VR+ 30 16.0	VR+ 28 15.5	VR+ 27 15.5	VR+ 26 15.0	VR+ 25 15.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 561ft from the end of TOR. If no shipping is present in channel use data on page BOS/03.

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%DN

TOR 3073m (10082ft) **ED** 3073m (10082ft) **TOD** 3073m (10082ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	154.9 147/168	1.0	159.9 152/172	0.8	164.0 157/178	0.3	166.7 160/182	0.3	169.5 163/186	0.3	172.3 167/190
36	156.6 148/169	1.0	161.8 152/173	0.8	166.0 157/179	0.3	168.7 161/183	0.3	171.5 164/186	0.3	174.4 167/191
33	158.3 148/170	1.1	163.7 153/174	0.8	167.9 158/179	0.3	170.7 161/183	0.3	173.5 164/187	0.3	176.4 167/191
30	160.0 148/170	1.1	165.5 153/174	0.8	169.7 158/180	0.3	172.6 161/184	0.3	175.5 165/188	0.3	178.4 168/192
27	161.6 149/171	1.1	167.3 153/175	0.9	171.6 158/181	0.3	174.5 162/185	0.3	177.4 165/189	0.3	180.4 168/193
24	163.2 149/172	1.2	169.1 154/176	0.9	173.4 159/182	0.3	176.3 162/186	0.3	179.2 165/190	0.3	182.3 169/194
21	164.7 150/173	1.2	170.7 154/177	0.9	175.1 159/182	0.3	178.0 162/186	0.3	181.0 166/190	0.3	184.1 169/195
18	166.1 150/174	1.2	172.2 154/177	0.9	176.8 159/183	0.3	179.8 163/187	0.3	182.8 166/191	0.3	185.9 170/195
15	167.4 151/174	1.2	173.6 155/178	1.0	178.4 160/184	0.3	181.4 163/188	0.3	184.4 167/192	0.3	187.5 170/196
12	168.7 151/175	1.2	174.9 155/179	1.0	179.7 160/184	0.3	182.7 164/188	0.3	185.8 167/192	0.3	188.9 171/197
9	169.9 151/176	1.2	176.0 156/179	0.9	180.4 161/185	0.3	183.5 164/189	0.3	186.5 168/194	0.3	189.7 171/198
6	171.0 152/176	1.1	176.6 157/181	0.9	181.1 162/186	0.3	184.1 165/191	0.3	187.2 169/195	0.3	190.4 172/199
3	172.0 153/177	1.0	177.2 157/181	0.9	181.7 163/187	0.3	184.8 166/191	0.3	187.9 169/196	0.3	191.0 173/200
0	173.0 153/177	1.0	177.9 158/182	0.9	182.4 163/188	0.3	185.4 167/192	0.3	188.5 170/197	0.3	191.6 174/201
-3	173.9 154/177	0.9	178.4 159/183	0.9	182.9 164/189	0.3	185.9 168/193	0.3	189.0 171/197	0.3	192.1 175/201
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 5118ft from the end of TOR. For masts up to 176ft use data on page BOS/06.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BOSTON

A/D Elev **20ft**

SHIPPING - 176ft

FULL LENGTH RWY 15R

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%DN

TOR 3073m (10082ft) **ED** 3073m (10082ft) **TOD** 3073m (10082ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	152.4 148/170	0.8	156.2 153/176	0.7	159.9 159/182	0.2	162.2 162/184	0.2	164.5 166/188	0.2	166.9 169/191
36	154.3 149/171	0.8	158.1 154/176	0.8	161.9 159/182	0.2	164.2 162/186	0.2	166.5 166/189	0.2	168.9 170/192
33	156.1 149/171	0.8	159.9 154/177	0.8	163.8 159/183	0.2	166.0 163/188	0.2	168.5 166/190	0.2	171.0 170/193
30	157.9 149/172	0.8	161.7 154/178	0.8	165.7 160/184	0.2	168.0 163/188	0.2	170.5 167/191	0.2	173.0 170/194
27	159.6 150/173	0.8	163.5 155/179	0.8	167.5 160/185	0.2	170.0 163/189	0.2	172.4 167/192	0.2	174.9 171/195
24	161.3 150/174	0.8	165.3 155/179	0.8	169.3 160/186	0.3	171.9 164/190	0.2	174.3 167/193	0.2	176.8 171/196
21	163.0 150/174	0.8	167.0 155/180	0.8	171.1 161/186	0.3	173.7 164/190	0.2	176.1 168/193	0.3	178.7 171/197
18	164.6 151/175	0.8	168.6 156/181	0.8	172.8 161/187	0.3	175.5 164/191	0.2	178.0 168/195	0.3	180.6 172/198
15	166.2 151/175	0.8	170.2 156/181	0.8	174.4 161/187	0.3	177.1 165/192	0.3	179.7 168/196	0.3	182.3 172/198
12	167.4 152/176	0.8	171.5 157/182	0.8	175.7 162/188	0.3	178.5 165/192	0.2	180.9 169/197	0.3	183.7 173/199
9	167.9 152/177	0.8	172.0 157/183	0.8	176.2 163/189	0.3	178.8 166/194	0.3	181.4 170/196	0.3	184.0 174/200
6	168.4 153/178	0.8	172.5 158/184	0.8	176.7 164/190	0.2	179.1 167/194	0.3	181.7 171/197	0.3	184.3 174/200
3	168.8 154/179	0.8	172.9 159/185	0.8	177.0 164/191	0.2	179.4 168/194	0.3	182.0 172/197	0.3	184.7 175/201
0	169.3 154/180	0.8	173.4 160/186	0.8	177.3 165/192	0.2	179.7 169/195	0.3	182.3 173/198	0.3	185.0 176/201
-3	169.7 155/181	0.8	173.8 161/187	0.7	177.5 166/192	0.2	180.0 170/195	0.3	182.6 174/198	0.3	185.2 177/202
V2= θ2=	VR+ 23 14.5		VR+ 23 14.0		VR+ 23 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 176ft AMSL in the shipping channel 5118ft from the end of TOR. For masts up to 60ft use data on page BOS/05.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BOSTON

A/D Elev **20ft**

SHIPPING - 60ft

FULL LENGTH RWY 22L

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%UP

TOR 3050m (10007ft) **ED** 3050m (10007ft) **TOD** 3050m (10007ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	152.2 148/169	0.7	155.9 153/174	0.8	159.7 158/180	0.2	162.2 162/182	0.2	164.5 165/185	0.2	166.8 169/188
36	154.0 148/169	0.8	157.8 153/175	0.8	161.7 158/181	0.2	164.2 162/184	0.2	166.5 165/186	0.2	168.9 169/189
33	155.8 149/170	0.8	159.6 154/176	0.8	163.6 159/182	0.2	166.1 162/185	0.2	168.5 166/187	0.2	170.9 169/190
30	157.6 149/171	0.8	161.4 154/177	0.8	165.4 159/183	0.3	168.0 163/186	0.2	170.5 166/188	0.2	172.9 170/191
27	159.3 149/172	0.8	163.2 154/177	0.8	167.3 159/183	0.3	169.9 163/187	0.2	172.4 166/189	0.2	174.8 170/192
24	161.0 149/172	0.8	165.0 155/178	0.8	169.0 160/184	0.3	171.7 163/187	0.3	174.3 167/190	0.2	176.7 170/192
21	162.7 150/173	0.8	166.7 155/179	0.8	170.8 160/185	0.3	173.5 164/188	0.3	176.1 167/191	0.2	178.6 171/193
18	164.3 150/173	0.8	168.3 155/179	0.8	172.5 160/185	0.3	175.3 164/190	0.3	177.9 167/192	0.2	180.4 171/194
15	165.8 151/174	0.8	169.9 156/180	0.8	174.1 161/186	0.3	176.9 164/190	0.3	179.7 168/192	0.2	182.2 171/195
12	167.1 151/175	0.8	171.2 156/181	0.8	175.4 161/187	0.3	178.3 165/191	0.3	181.0 168/193	0.2	183.5 172/196
9	167.6 152/176	0.8	171.7 157/182	0.8	175.9 162/188	0.3	178.7 166/191	0.3	181.4 169/193	0.2	183.9 173/196
6	168.0 153/177	0.8	172.1 158/183	0.9	176.4 163/189	0.3	179.1 167/192	0.3	181.7 170/194	0.2	184.2 174/197
3	168.5 153/178	0.8	172.6 159/184	0.8	176.8 164/190	0.3	179.5 167/192	0.2	182.0 171/194	0.3	184.6 175/197
0	168.9 154/179	0.8	173.1 159/185	0.8	177.2 165/190	0.3	179.8 168/192	0.2	182.3 172/195	0.3	184.9 176/198
-3	169.3 155/180	0.8	173.5 160/186	0.8	177.5 166/190	0.3	180.1 169/192	0.2	182.5 173/195	0.3	185.1 177/198
V2= θ2=	VR+ 23 14.5		VR+ 23 14.0		VR+ 23 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 1529ft from the end of TOR. For masts up to 176ft use data on page BOS/08.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BOSTON

A/D Elev **20ft**

SHIPPING - 176ft

FULL LENGTH RWY 22L

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%UP

TOR 3050m (10007ft) **ED** 3050m (10007ft) **TOD** 3050m (10007ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	138.9 154/157	0.7	142.6 159/159	0.7	146.2 165/165	0.2	148.6 168/168	0.2	151.0 172/172	0.3	153.6 175/176
36	140.6 155/158	0.7	144.3 160/160	0.7	147.9 165/165	0.2	150.4 169/169	0.2	152.9 172/173	0.3	155.5 176/177
33	142.2 155/158	0.8	146.0 160/161	0.7	149.7 165/166	0.2	152.2 169/170	0.2	154.7 173/173	0.3	157.3 176/177
30	143.8 155/159	0.8	147.7 160/162	0.7	151.4 166/167	0.2	153.9 169/171	0.3	156.5 173/174	0.3	159.1 176/178
27	145.4 156/160	0.8	149.3 161/163	0.8	153.1 166/168	0.2	155.6 170/171	0.3	158.2 173/175	0.3	160.8 177/179
24	146.9 156/161	0.8	150.9 161/164	0.8	154.7 166/168	0.3	157.3 170/172	0.3	159.9 174/176	0.3	162.6 177/180
21	148.4 156/162	0.8	152.4 162/165	0.8	156.3 167/169	0.3	158.9 170/173	0.3	161.6 174/177	0.3	164.3 178/181
18	149.9 157/163	0.8	153.9 162/166	0.8	157.9 167/170	0.3	160.5 171/174	0.3	163.2 174/177	0.3	165.9 178/181
15	151.3 157/163	0.8	155.4 162/166	0.8	159.4 168/170	0.3	162.1 171/174	0.3	164.8 175/178	0.3	167.5 178/182
12	152.4 157/164	0.8	156.5 163/167	0.8	160.6 168/171	0.3	163.3 172/175	0.3	166.0 175/179	0.3	168.8 179/183
9	152.9 158/164	0.8	157.0 164/167	0.8	161.0 169/172	0.3	163.7 173/176	0.3	166.4 176/180	0.3	169.2 180/183
6	153.3 159/164	0.8	157.4 164/167	0.8	161.3 170/173	0.3	164.0 174/176	0.3	166.8 177/180	0.3	169.5 181/184
3	153.7 160/164	0.8	157.8 165/167	0.8	161.7 171/173	0.3	164.4 174/177	0.3	167.1 178/181	0.3	169.9 182/185
0	154.1 161/165	0.8	158.1 166/167	0.8	162.1 172/174	0.3	164.7 175/177	0.3	167.5 179/182	0.3	170.3 183/185
-3	154.4 161/165	0.8	158.4 167/169	0.8	162.4 173/174	0.3	165.0 176/178	0.3	167.8 180/182	0.3	170.5 184/185
V2= θ2=	VR+ 26 15.5		VR+ 25 15.0		VR+ 25 15.0		VR+ 24 14.5		VR+ 24 14.5		VR+ 24 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 176ft AMSL in the shipping channel 1529ft from the end of TOR. For masts up to 60ft use data on page BOS/07.

FULL LENGTH RWY 22R

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.01%DN

TOR 2396m (7861ft) **ED** 2971m (9747ft) **TOD** 2396m (7861ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	137.1 153/155	1.1	142.7 157/159	1.2	148.6 161/163	0.4	152.6 164/166	0.4	156.8 166/169	0.3	160.1 169/172
36	138.6 153/156	1.1	144.3 157/160	1.2	150.3 161/164	0.4	154.4 164/167	0.4	158.6 167/170	0.3	162.1 170/173
33	140.2 153/157	1.2	146.0 158/161	1.2	152.0 162/165	0.4	156.1 164/168	0.4	160.4 167/171	0.4	164.0 170/174
30	141.7 154/158	1.2	147.5 158/162	1.2	153.6 162/166	0.4	157.8 165/169	0.4	162.1 168/172	0.4	165.9 171/175
27	143.2 154/159	1.2	149.1 158/163	1.2	155.2 163/167	0.4	159.4 165/170	0.4	163.8 168/173	0.4	167.7 171/176
24	144.6 154/159	1.2	150.5 159/164	1.2	156.7 163/168	0.4	161.0 166/171	0.4	165.4 168/174	0.4	169.6 171/177
21	146.0 155/160	1.2	152.0 159/164	1.2	158.2 163/169	0.4	162.6 166/171	0.4	167.0 169/174	0.4	171.3 172/177
18	147.3 155/161	1.2	153.3 160/165	1.3	159.7 164/169	0.4	164.0 167/172	0.4	168.5 169/175	0.5	173.1 172/178
15	148.6 156/162	1.2	154.7 160/166	1.3	161.0 164/170	0.4	165.5 167/173	0.4	170.0 170/176	0.5	174.6 172/179
12	149.8 156/162	1.2	155.9 160/167	1.3	162.4 165/171	0.4	166.8 167/174	0.5	171.4 170/177	0.5	176.1 173/180
9	151.0 157/163	1.2	157.2 161/167	1.3	163.7 165/171	0.4	168.2 168/174	0.5	172.8 171/177	0.4	176.8 174/181
6	152.1 157/163	1.2	158.3 161/168	1.3	164.9 166/172	0.4	169.4 168/175	0.5	174.0 171/178	0.3	177.4 175/182
3	153.2 157/164	1.3	159.5 162/168	1.3	166.1 166/173	0.4	170.6 169/176	0.4	175.1 172/179	0.3	178.1 175/183
0	154.1 158/165	1.3	160.5 162/169	1.3	167.1 167/173	0.4	171.6 170/176	0.4	175.7 173/179	0.3	178.7 176/184
-3	155.1 159/165	1.3	161.5 163/169	1.3	168.1 167/174	0.4	172.6 170/177	0.4	176.2 173/180	0.3	179.3 177/184
V2= 02=	VR+ 27 15.5		VR+ 25 15.0		VR+ 24 14.5		VR+ 22 14.5		VR+ 22 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 3219ft from the end of TOR. For masts up to 176ft use data on page BOS/10.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BOSTON

A/D Elev **20ft**

SHIPPING - 176ft

FULL LENGTH RWY 22R

CLG NIL **RVR/VIS** 0.25sm* **SLOPE** 0.01%DN

TOR 2396m (7861ft) **ED** 2971m (9747ft) **TOD** 2396m (7861ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	136.3 0.7 153/155	140.0 0.7 158/158	143.5 0.2 163/163	145.9 0.2 167/167	148.4 0.2 169/169	150.9 174/174
36	138.0 0.7 153/156	141.7 0.7 158/158	145.3 0.2 164/164	147.7 0.2 165/165	150.2 0.3 170/170	152.8 174/174
33	139.6 0.8 154/157	143.4 0.7 159/159	147.0 0.2 164/164	149.5 0.2 166/166	152.0 0.3 171/171	154.6 175/175
30	141.2 0.8 154/157	145.0 0.8 159/160	148.8 0.2 164/164	151.3 0.2 168/168	153.8 0.3 171/171	156.4 175/175
27	142.7 0.8 154/158	146.6 0.8 160/161	150.5 0.2 164/164	153.0 0.3 168/168	155.6 0.3 172/172	158.2 175/175
24	144.2 0.8 155/159	148.2 0.8 160/162	152.1 0.3 165/165	154.7 0.2 169/169	157.2 0.3 172/173	159.9 176/176
21	145.7 0.8 155/160	149.7 0.8 160/163	153.7 0.2 166/166	156.2 0.3 169/170	158.9 0.3 173/173	161.6 176/177
18	147.1 0.8 155/161	151.2 0.8 161/164	155.3 0.3 166/166	157.9 0.3 170/170	160.5 0.3 173/174	163.2 177/178
15	148.4 0.8 156/161	152.6 0.8 161/164	156.7 0.3 166/167	159.4 0.3 170/171	162.0 0.3 174/175	164.7 177/179
12	149.6 0.8 156/162	153.7 0.8 161/165	157.9 0.3 167/168	160.6 0.3 170/171	163.3 0.3 174/175	166.0 178/180
9	150.1 0.8 157/162	154.2 0.8 162/165	158.3 0.3 168/168	160.9 0.3 171/173	163.6 0.3 175/176	166.4 179/180
6	150.5 0.8 158/162	154.6 0.8 163/165	158.6 0.3 169/169	161.3 0.3 172/173	164.0 0.3 176/177	166.8 180/180
3	150.9 0.8 159/162	155.0 0.8 164/165	159.0 0.3 169/170	161.7 0.3 173/173	164.3 0.3 177/178	167.1 180/181
0	151.3 0.8 159/163	155.3 0.8 165/165	159.3 0.3 170/171	161.9 0.3 174/174	164.7 0.3 178/178	167.4 181/182
-3	151.6 0.8 160/163	155.7 0.8 165/165	159.6 0.3 171/171	162.2 0.3 175/175	165.0 0.3 179/179	167.8 182/183
V2= θ2=	VR+ 27 15.5	VR+ 26 15.0	VR+ 25 15.0	VR+ 25 15.0	VR+ 24 14.5	VR+ 24 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg**.

4. **Shipping:** This data covers masts up to 176ft AMSL in the shipping channel 3219ft from the end of TOR. For masts up to 60ft use data on page BOS/09.

FULL LENGTH RWY 27

CLG 900ft **RVR/VIS** 1sm **SLOPE** 0.04%UP

TOR 2134m (7001ft) **ED** 2674m (8773ft) **TOD** 2134m (7001ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	127.5 148/148	1.1	133.0 152/152	1.1	138.7 156/157	0.4	142.7 159/159	0.4	146.7 162/162	0.4	150.9 164/165
36	129.0 148/149	1.1	134.6 152/153	1.2	140.4 157/157	0.4	144.3 159/160	0.4	148.4 162/163	0.4	152.6 165/166
33	130.5 148/150	1.1	136.1 153/154	1.2	141.9 157/158	0.4	146.0 160/161	0.4	150.1 162/164	0.4	154.3 165/167
30	131.9 149/151	1.1	137.6 153/155	1.2	143.5 157/159	0.4	147.5 160/162	0.4	151.7 163/165	0.4	156.0 166/168
27	133.2 149/151	1.2	139.0 153/156	1.2	144.9 158/160	0.4	149.1 160/163	0.4	153.3 163/166	0.4	157.6 166/169
24	134.6 149/152	1.2	140.4 154/156	1.2	146.4 158/161	0.4	150.5 161/164	0.4	154.8 164/167	0.4	159.2 166/169
21	135.8 150/153	1.2	141.7 154/157	1.2	147.8 158/161	0.4	152.0 161/164	0.4	156.3 164/167	0.4	160.7 167/170
18	137.1 150/153	1.2	143.0 155/158	1.2	149.1 159/162	0.4	153.3 162/165	0.4	157.7 165/168	0.4	162.2 167/171
15	138.3 150/154	1.2	144.2 155/158	1.2	150.4 159/163	0.4	154.7 162/166	0.4	159.1 165/169	0.4	163.6 168/172
12	139.4 151/155	1.2	145.4 155/159	1.2	151.6 160/164	0.4	156.0 163/167	0.4	160.4 165/169	0.4	164.9 168/172
9	140.5 151/155	1.2	146.5 156/160	1.3	152.8 160/164	0.4	157.2 163/167	0.4	161.7 166/170	0.4	166.2 169/173
6	141.5 152/156	1.2	147.6 156/160	1.3	154.0 161/165	0.4	158.4 164/168	0.4	162.9 166/171	0.5	167.5 169/174
3	142.5 152/156	1.2	148.7 157/161	1.3	155.1 161/165	0.4	159.5 164/168	0.4	164.0 167/171	0.5	168.7 170/174
0	143.5 153/157	1.2	149.7 157/161	1.3	156.1 162/166	0.4	160.6 165/169	0.4	165.1 167/172	0.5	169.8 170/175
-3	144.4 153/158	1.2	150.6 158/162	1.3	157.1 162/166	0.4	161.6 165/170	0.5	166.2 168/173	0.5	170.9 171/176
V2= θ2=	VR+ 30 16.0		VR+ 28 16.0		VR+ 26 15.5		VR+ 25 15.0		VR+ 24 14.5		VR+ 23 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Maximum Take-Off Weight:** Restricted to **182250kg.**

3. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 2021ft from the end of TOR. For masts up to 176ft use data on page BOS/12.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BOSTON

A/D Elev **20ft**

SHIPPING - 176ft

FULL LENGTH RWY 27

CLG 900ft **RVR/VIS** 1sm **SLOPE** 0.04%UP

TOR 2134m (7001ft) **ED** 2674m (8773ft) **TOD** 2134m (7001ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39			121.7 144/144	1.5	129.0 149/149	0.5	133.9 153/153	0.3	136.8 155/155	0.2	139.2 159/159
36			123.1 144/144	1.5	130.5 150/150	0.5	135.5 154/154	0.3	138.5 157/157	0.2	140.9 160/160
33	117.3 139/139	1.4	124.5 145/145	1.5	132.0 151/151	0.5	137.0 155/155	0.3	140.2 158/158	0.2	142.6 160/160
30	118.5 140/140	1.5	125.8 146/146	1.5	133.4 152/152	0.5	138.4 155/155	0.3	141.8 158/158	0.2	144.3 161/161
27	119.7 141/141	1.5	127.1 147/147	1.5	134.7 152/152	0.5	139.9 156/156	0.3	143.4 159/159	0.3	146.0 161/161
24	120.9 141/141	1.5	128.3 147/147	1.5	136.0 153/153	0.5	141.2 157/157	0.4	145.0 160/160	0.3	147.6 162/162
21	122.0 142/142	1.5	129.5 148/148	1.6	137.3 154/154	0.5	142.5 158/158	0.4	146.5 161/161	0.3	149.1 162/162
18	123.1 143/143	1.5	130.6 149/149	1.6	138.5 155/155	0.5	143.8 158/158	0.4	148.0 161/161	0.3	150.7 165/165
15	124.1 143/143	1.5	131.7 149/149	1.6	139.7 155/155	0.5	145.0 159/159	0.4	149.5 162/162	0.3	152.1 164/164
12	125.1 144/144	1.5	132.8 150/150	1.6	140.8 156/156	0.5	146.1 160/160	0.4	150.6 163/163	0.3	153.3 167/167
9	126.0 144/144	1.6	133.8 150/150	1.6	141.8 156/156	0.5	147.2 160/160	0.4	150.9 163/163	0.3	153.6 165/165
6	126.9 145/145	1.6	134.7 151/151	1.6	142.8 157/157	0.5	148.2 161/161	0.3	151.2 164/164	0.3	153.9 167/167
3	127.8 145/145	1.6	135.6 151/151	1.6	143.8 157/157	0.5	148.9 161/161	0.3	151.5 164/164	0.3	154.2 168/168
0	128.6 146/146	1.6	136.5 152/152	1.6	144.7 158/158	0.4	149.2 161/161	0.3	151.8 164/164	0.3	154.5 168/168
-3	129.3 146/146	1.6	137.3 152/152	1.6	145.5 158/158	0.4	149.5 161/161	0.3	152.1 166/166	0.3	154.8 168/168
V2= θ2=	VR+ 36 17.0		VR+ 32 16.5		VR+ 30 16.0		VR+ 28 15.5		VR+ 27 15.5		VR+ 26 15.5

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

2. **Maximum Take-Off Weight**: Restricted to **182250kg**.

3. **Shipping**: This data covers masts up to 176ft AMSL in the shipping channel 2021ft from the end of TOR. For masts up to 60ft use data on page BOS/11.

CLG NIL **RVR/VIS** 600ft* **SLOPE** 0.04%UP

TOR 3073m (10082ft) **ED** 3073m (10082ft) **TOD** 3073m (10082ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	150.8 149/165	0.8	154.6 154/170	0.8	158.5 159/175	0.3	161.1 163/178	0.3	163.7 166/182	0.3	166.5 170/185
36	152.6 150/166	0.8	156.5 155/171	0.8	160.4 160/176	0.3	163.0 163/179	0.3	165.7 167/183	0.3	168.5 170/185
33	154.4 150/167	0.8	158.3 155/172	0.8	162.3 160/177	0.3	164.9 163/180	0.3	167.6 167/184	0.3	170.5 170/186
30	156.1 150/168	0.8	160.1 155/173	0.8	164.1 160/178	0.3	166.8 164/181	0.3	169.6 167/185	0.3	172.4 171/187
27	157.8 151/169	0.8	161.8 156/173	0.8	165.9 161/179	0.3	168.6 164/182	0.3	171.4 168/185	0.3	174.3 171/188
24	159.5 151/170	0.8	163.6 156/174	0.8	167.7 161/180	0.3	170.4 165/183	0.3	173.2 168/186	0.3	176.2 171/189
21	161.1 151/171	0.8	165.2 156/174	0.8	169.4 161/181	0.3	172.2 165/183	0.3	175.0 168/187	0.3	178.0 172/190
18	162.6 152/171	0.9	166.9 157/175	0.8	171.1 162/180	0.3	173.9 165/184	0.3	176.8 169/188	0.3	179.7 172/192
15	164.1 152/172	0.9	168.4 157/176	0.9	172.7 162/181	0.3	175.5 166/185	0.3	178.4 169/188	0.3	181.4 173/193
12	165.4 152/173	0.9	169.7 158/177	0.8	173.9 163/182	0.3	176.8 166/185	0.3	179.7 170/189	0.3	182.8 173/194
9	166.0 153/173	0.8	170.2 158/178	0.9	174.5 164/184	0.3	177.4 167/187	0.3	180.3 171/190	0.3	183.3 174/193
6	166.5 154/173	0.8	170.7 159/178	0.9	175.0 164/184	0.3	177.9 168/187	0.3	180.8 171/191	0.3	183.8 175/194
3	167.0 155/173	0.8	171.2 160/179	0.9	175.5 165/185	0.3	178.4 169/188	0.3	181.3 172/192	0.3	184.4 176/195
0	167.5 155/174	0.8	171.6 161/179	0.9	176.0 166/185	0.3	178.8 170/189	0.3	181.8 173/192	0.3	184.8 177/195
-3	167.9 156/175	0.8	172.0 162/180	0.9	176.4 167/186	0.3	179.2 170/190	0.3	182.2 174/192	0.3	185.1 178/195
V2= θ2=	VR+ 23 14.5		VR+ 23 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5 on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

4. **Shipping:** This data covers masts up to 60ft AMSL in the shipping channel 1388ft from the end of TOR.

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BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

BRIZE NORTON

A/D Elev **288ft**

FULL LENGTH RWY 08

CLG NIL **RVR/VIS** 200m **SLOPE** 0.36%DN
TOR 3050m (10007ft) **ED** 3248m (10656ft) **TOD** 3068m (10066ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.5 152/167	0.9	158.0 156/171	0.8	161.9 162/177	0.3	164.5 165/181	0.3	167.1 168/185	0.3	169.8 172/189
36	155.4 152/168	0.9	159.9 157/172	0.8	163.9 162/178	0.3	166.5 165/182	0.3	169.2 169/186	0.3	171.9 172/190
33	157.1 152/169	0.9	161.8 157/173	0.8	165.8 162/179	0.3	168.4 166/183	0.3	171.2 169/187	0.3	173.9 172/191
30	158.8 153/170	1.0	163.7 158/173	0.8	167.7 163/179	0.3	170.4 166/183	0.3	173.1 169/187	0.3	175.9 173/192
27	160.5 153/171	1.0	165.5 158/174	0.8	169.5 163/180	0.3	172.3 166/184	0.3	175.0 170/188	0.3	177.9 173/192
24	162.1 154/172	1.0	167.2 158/175	0.8	171.4 163/181	0.3	174.1 167/185	0.3	176.9 170/189	0.3	179.8 173/193
21	163.6 154/172	1.0	168.8 159/176	0.9	173.1 164/182	0.3	175.9 167/186	0.3	178.7 171/190	0.3	181.7 174/194
18	165.1 154/173	1.1	170.4 159/177	0.9	174.8 164/182	0.3	177.7 168/186	0.3	180.5 171/190	0.3	183.5 174/194
15	166.6 155/174	1.1	171.9 160/177	0.9	176.5 165/183	0.3	179.3 168/187	0.3	182.2 171/191	0.3	185.2 175/195
12	167.8 155/175	1.1	173.2 160/178	0.9	177.8 165/183	0.3	180.6 169/187	0.3	183.6 172/192	0.3	186.6 175/196
9	168.8 156/175	1.1	174.1 161/178	0.9	178.4 166/185	0.3	181.2 169/189	0.3	184.2 173/193	0.3	187.2 176/197
6	169.7 157/175	1.0	174.6 162/180	0.9	178.9 167/186	0.3	181.8 170/190	0.3	184.7 174/194	0.3	187.7 177/198
3	170.5 157/176	0.9	175.1 162/181	0.9	179.4 168/187	0.3	182.3 171/191	0.3	185.2 175/195	0.3	188.1 178/199
0	171.2 158/176	0.9	175.6 163/182	0.9	179.9 168/188	0.3	182.8 172/192	0.3	185.7 175/196	0.3	188.6 179/200
-3	171.9 159/177	0.8	176.0 164/183	0.9	180.3 169/189	0.3	183.2 173/193	0.3	186.1 176/197	0.3	188.9 180/201
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **BRIZE NORTON**

A/D Elev **288ft**

FULL LENGTH RWY 26

CLG NIL **RVR/VIS** 150m **SLOPE** 0.36%UP

TOR 3050m (10007ft) **ED** 3349m (10988ft) **TOD** 3068m (10066ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	151.7 1.1 156/166	157.3 0.8 160/170	161.3 0.3 165/175	163.9 0.3 168/179	166.7 0.3 172/183	169.5 175/187
36	153.5 1.1 156/167	159.2 0.8 160/170	163.2 0.3 165/176	165.9 0.3 169/180	168.7 0.3 172/184	171.5 175/188
33	155.1 1.2 157/168	160.9 0.8 161/171	165.1 0.3 166/177	167.8 0.3 169/181	170.6 0.3 172/185	173.5 176/189
30	156.8 1.2 157/168	162.6 0.9 161/172	166.9 0.3 166/178	169.7 0.3 170/182	172.6 0.3 173/186	175.5 176/190
27	158.3 1.2 157/169	164.2 0.9 162/173	168.7 0.3 167/179	171.6 0.3 170/182	174.4 0.3 173/186	177.4 177/191
24	159.9 1.2 158/170	165.8 0.9 162/174	170.5 0.3 167/179	173.4 0.3 170/183	176.3 0.3 174/187	179.2 177/191
21	161.3 1.2 158/171	167.3 1.0 163/175	172.2 0.3 167/180	175.1 0.3 171/184	178.0 0.3 174/188	181.0 177/192
18	162.7 1.2 159/172	168.8 1.0 163/175	173.9 0.3 168/181	176.8 0.3 171/184	179.8 0.3 175/189	182.8 178/193
15	164.1 1.2 159/172	170.2 1.1 164/176	175.5 0.3 168/181	178.4 0.3 172/185	181.4 0.3 175/189	184.5 178/193
12	165.4 1.2 160/173	171.5 1.1 164/177	176.8 0.3 169/182	179.7 0.3 172/186	182.8 0.3 176/190	185.8 179/194
9	166.5 1.2 160/174	172.7 1.0 165/177	177.5 0.3 170/183	180.5 0.3 173/187	183.5 0.3 176/191	186.6 180/195
6	167.6 1.2 161/174	173.8 0.9 165/178	178.2 0.3 170/184	181.1 0.3 174/188	184.2 0.3 177/192	187.3 181/196
3	168.7 1.1 161/175	174.4 0.9 166/179	178.8 0.3 171/185	181.8 0.3 175/189	184.8 0.3 178/193	187.9 181/197
0	169.7 1.1 162/175	175.0 0.9 167/180	179.4 0.3 172/186	182.4 0.3 175/190	185.5 0.3 179/194	188.5 182/198
-3	170.6 1.0 163/176	175.6 0.9 168/181	180.0 0.3 173/187	183.0 0.3 176/191	186.0 0.3 180/195	188.9 183/199
V2= θ2=	VR+ 22 14.0	VR+ 21 14.0	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

A/D Elev **382ft**

FULL LENGTH RWY 05L

CLG NIL **RVR/VIS** 150m **SLOPE** 0.08%UP
TOR 3300m (10827ft) **ED** 3300m (10827ft) **TOD** 3300m (10827ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	157.5 151/170	0.8	161.4 156/176	0.8	165.5 161/182	0.3	168.2 164/186	0.3	170.9 168/190	0.3	173.7 171/194
36	159.4 152/171	0.8	163.4 157/177	0.8	167.5 162/183	0.3	170.2 165/187	0.3	173.0 168/191	0.3	175.8 171/195
33	161.2 152/172	0.8	165.3 157/178	0.8	169.4 162/184	0.3	172.2 165/187	0.3	175.0 168/191	0.3	177.9 172/196
30	163.0 152/173	0.8	167.1 157/179	0.8	171.3 162/184	0.3	174.1 166/188	0.3	177.0 169/192	0.3	179.9 172/196
27	164.8 153/174	0.8	169.0 158/179	0.8	173.2 163/185	0.3	176.0 166/189	0.3	178.9 169/193	0.3	181.9 173/197
24	166.4 153/174	0.9	170.7 158/180	0.9	175.0 163/186	0.3	177.9 166/190	0.3	180.8 170/194	0.3	183.8 173/198
21	168.0 154/175	0.9	172.4 158/181	0.9	176.8 163/187	0.3	179.7 167/191	0.3	182.6 170/195	0.3	185.7 173/199
18	169.4 154/176	0.9	174.1 159/181	0.9	178.5 164/187	0.3	181.4 167/191	0.3	184.4 171/195	0.3	187.5 174/199
15	170.8 154/177	1.0	175.7 159/182	0.9	180.1 164/188	0.3	183.1 168/192	0.3	186.1 171/196	0.3	189.2 174/200
12	172.2 155/177	1.0	177.0 160/183	0.9	181.5 165/189	0.3	184.5 168/193	0.3	187.5 172/197	0.3	190.6 175/201
9	173.4 155/178	0.9	177.8 161/184	0.9	182.2 166/190	0.3	185.2 169/194	0.3	188.3 172/198	0.3	191.4 176/202
6	174.1 156/179	0.9	178.5 161/185	0.9	182.9 166/191	0.3	185.9 170/195	0.3	189.0 173/199	0.3	192.1 177/203
3	174.8 157/180	0.9	179.1 162/186	0.9	183.6 167/192	0.3	186.6 171/196	0.3	189.7 174/200	0.3	192.8 177/204
0	175.4 158/181	0.9	179.8 163/187	0.9	184.2 168/193	0.3	187.3 171/197	0.3	190.4 175/201	0.3	193.5 178/205
-3	176.0 158/182	0.9	180.4 164/188	0.9	184.8 169/194	0.3	187.8 172/198	0.3	190.9 176/202	0.3	194.1 179/206
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 20 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **382ft**

FULL LENGTH RWY 05R

CLG NIL **RVR/VIS** 150m **SLOPE** 0.05%DN
TOR 4000m (13123ft) **ED** 4000m (13123ft) **TOD** 4000m (13123ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	167.3 0.8 151/184	171.3 0.8 157/190	175.5 0.3 162/196	178.2 0.3 166/200	180.9 0.2 170/204	183.4 173/208
36	169.2 0.8 151/185	173.4 0.8 157/191	177.5 0.3 162/197	180.2 0.3 166/201	182.8 0.2 170/204	185.3 173/208
33	171.2 0.8 151/186	175.3 0.8 156/192	179.2 0.3 162/197	181.9 0.3 166/201	184.6 0.2 169/205	187.1 173/209
30	173.1 0.8 151/187	177.0 0.8 156/192	181.0 0.3 162/198	183.7 0.3 166/202	186.3 0.3 169/205	188.9 173/209
27	174.7 0.8 151/187	178.7 0.8 156/193	182.7 0.3 162/198	185.4 0.3 166/202	188.1 0.3 169/206	190.7 173/209
24	176.3 0.8 151/188	180.3 0.8 156/193	184.3 0.3 162/199	187.1 0.3 166/203	189.8 0.3 169/206	192.4 173/210
21	177.9 0.8 151/188	181.9 0.8 156/194	186.0 0.3 162/199	188.7 0.3 166/203	191.5 0.3 170/207	194.1 173/210
18	179.5 0.8 151/189	183.5 0.8 156/194	187.6 0.3 162/200	190.4 0.3 166/203	193.2 0.2 170/207	195.0 173/210
15	181.0 0.8 151/189	185.1 0.8 157/195	189.2 0.3 162/200	192.0 0.3 166/204	194.8 0.0 170/208	195.0 172/210
12	182.2 0.8 151/190	186.3 0.8 157/195	190.5 0.3 163/201	193.3 0.2 166/204	195.0 0.0 170/207	195.0 172/209
9	182.7 0.8 152/190	186.8 0.8 158/196	191.0 0.3 163/202	193.8 0.1 167/205	195.0 0.0 170/208	195.0 173/210
6	183.2 0.8 152/191	187.4 0.8 158/197	191.6 0.3 164/202	194.4 0.1 168/206	195.0 0.0 171/209	195.0 173/211
3	183.8 0.8 153/192	188.0 0.8 159/198	192.2 0.3 165/203	195.0 0.0 169/207	195.0 0.0 171/209	195.0 174/211
0	184.3 0.9 154/193	188.6 0.9 160/199	192.9 0.2 165/204	195.0 0.0 169/208	195.0 0.0 172/210	195.0 174/212
-3	184.9 0.9 155/194	189.2 0.9 160/200	193.5 0.1 166/205	195.0 0.0 169/208	195.0 0.0 172/211	195.0 175/213
V2= θ2=	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 12.5	VR+ 21 12.5	VR+ 21 12.5	VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **382ft**

FULL LENGTH RWY 16

CLG Note 2* **RVR/VIS** Note 2* **SLOPE** 1.70%UP
TOR 3013m (9885ft) **ED** 3133m (10279ft) **TOD** 3133m (10279ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.0 153/161	0.8	149.1 158/164	0.8	152.9 163/169	0.2	155.3 166/173	0.2	157.8 170/177	0.2	160.3 173/180
36	146.8 153/162	0.8	150.9 158/165	0.8	154.7 163/170	0.2	157.2 167/174	0.2	159.7 170/178	0.3	162.3 173/181
33	148.4 153/163	0.9	152.7 158/166	0.8	156.5 163/171	0.2	159.0 167/175	0.3	161.6 170/179	0.3	164.2 174/182
30	150.0 154/164	0.9	154.4 159/167	0.8	158.3 164/172	0.3	160.9 167/176	0.2	163.4 171/180	0.3	166.1 174/183
27	151.6 154/165	0.9	156.1 159/168	0.8	160.1 164/172	0.3	162.7 168/176	0.2	165.2 171/180	0.3	167.9 175/184
24	153.2 155/166	0.9	157.7 159/169	0.8	161.8 165/173	0.3	164.4 168/177	0.3	167.0 172/181	0.3	169.7 175/185
21	154.7 155/166	0.9	159.3 160/170	0.8	163.5 165/174	0.3	166.1 168/178	0.3	168.8 172/182	0.3	171.5 175/186
18	156.0 155/167	1.0	160.9 160/170	0.8	165.1 165/175	0.3	167.8 169/179	0.3	170.4 172/183	0.3	173.2 176/187
15	157.3 156/168	1.0	162.3 161/171	0.9	166.7 166/175	0.3	169.3 169/179	0.3	172.1 173/184	0.3	174.8 176/187
12	158.6 156/169	1.0	163.5 161/172	0.9	167.9 166/176	0.3	170.6 170/180	0.3	173.3 173/184	0.3	176.1 177/188
9	159.5 157/169	0.9	164.2 162/172	0.8	168.4 167/177	0.3	171.1 171/181	0.3	173.8 174/185	0.3	176.7 178/189
6	160.2 158/169	0.9	164.7 163/172	0.8	168.9 168/178	0.3	171.6 172/182	0.3	174.3 175/186	0.3	177.2 179/190
3	160.8 158/170	0.9	165.2 164/172	0.8	169.4 169/179	0.3	172.1 173/183	0.3	174.8 176/187	0.3	177.6 180/190
0	161.4 159/170	0.8	165.6 164/174	0.8	169.8 170/180	0.3	172.5 173/184	0.3	175.3 177/188	0.3	178.1 181/191
-3	161.8 160/170	0.8	166.0 165/175	0.8	170.2 171/180	0.3	172.9 174/184	0.3	175.7 178/188	0.3	178.4 182/191
V2= θ2=	VR+ 24 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Runway Availability:** Rwy 16/34 authorised for use in DAY LIGHT and VMC only.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **CAIRO**

A/D Elev **382ft**

FULL LENGTH RWY 23L

CLG NIL **RVR/VIS** 150m **SLOPE** 0.05%UP

TOR 4000m (13123ft) **ED** 4000m (13123ft) **TOD** 4000m (13123ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	166.2 152/183	0.8	170.2 158/189	0.7	173.9 164/194	0.2	176.3 168/197	0.2	178.7 171/201	0.2	181.1 175/204
36	168.2 152/184	0.8	172.2 158/189	0.8	176.0 163/195	0.2	178.4 167/198	0.2	180.9 171/202	0.2	183.3 175/205
33	170.1 152/185	0.8	174.2 157/190	0.8	178.0 163/196	0.2	180.5 167/199	0.2	183.0 171/203	0.2	185.5 175/206
30	172.0 152/185	0.8	176.2 157/191	0.8	180.0 163/197	0.2	182.5 167/200	0.3	185.1 171/204	0.2	187.6 174/207
27	173.9 151/186	0.8	178.1 157/192	0.8	182.0 163/197	0.3	184.6 167/201	0.2	187.1 170/204	0.3	189.7 174/208
24	175.7 151/187	0.9	180.0 157/193	0.8	184.0 163/198	0.2	186.5 166/202	0.3	189.1 170/205	0.3	191.7 174/209
21	177.5 151/188	0.9	181.8 157/194	0.8	185.8 163/199	0.3	188.4 166/203	0.3	191.1 170/206	0.3	193.7 174/210
18	179.2 151/188	0.9	183.5 157/194	0.8	187.6 163/200	0.3	190.3 166/203	0.3	193.0 170/207	0.2	195.0 174/210
15	180.9 151/189	0.8	185.1 157/195	0.8	189.2 163/200	0.3	192.0 166/204	0.3	194.8 170/208	0.0	195.0 173/210
12	182.2 152/190	0.8	186.3 157/195	0.8	190.5 163/201	0.3	193.3 167/204	0.2	195.0 170/207	0.0	195.0 173/209
9	182.7 152/190	0.8	186.8 158/196	0.8	191.0 164/202	0.3	193.8 168/205	0.1	195.0 171/208	0.0	195.0 173/210
6	183.2 153/191	0.8	187.4 159/197	0.8	191.6 164/202	0.3	194.4 168/206	0.1	195.0 171/209	0.0	195.0 174/211
3	183.8 154/192	0.8	188.0 159/198	0.8	192.2 165/203	0.3	195.0 169/207	0.0	195.0 172/209	0.0	195.0 174/211
0	184.3 154/193	0.9	188.6 160/199	0.9	192.9 166/204	0.2	195.0 170/208	0.0	195.0 172/210	0.0	195.0 175/212
-3	184.9 155/194	0.9	189.2 161/200	0.8	193.2 167/205	0.2	195.0 170/208	0.0	195.0 173/210	0.0	195.0 176/212
V2= θ2=	VR+ 21 13.0		VR+ 20 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **382ft**

FULL LENGTH RWY 23R

CLG NIL **RVR/VIS** 150m **SLOPE** 0.08%DN
TOR 3300m (10827ft) **ED** 3300m (10827ft) **TOD** 3300m (10827ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	157.1 0.8 151/172	160.9 0.8 156/178	164.8 0.2 161/184	167.3 0.2 165/186	169.7 0.2 168/188	172.1 172/191
36	159.0 0.8 152/173	162.8 0.8 157/179	166.8 0.3 162/185	169.4 0.2 165/187	171.8 0.2 169/189	174.2 172/192
33	160.8 0.8 152/174	164.8 0.8 157/180	168.8 0.3 162/186	171.4 0.2 165/188	173.8 0.2 169/190	176.3 172/193
30	162.7 0.8 152/175	166.6 0.8 157/180	170.7 0.3 162/186	173.3 0.2 166/189	175.8 0.2 169/191	178.3 173/194
27	164.5 0.8 153/175	168.5 0.8 158/181	172.6 0.3 163/187	175.3 0.3 166/190	177.9 0.2 170/192	180.3 173/195
24	166.2 0.8 153/176	170.3 0.8 158/182	174.5 0.3 163/188	177.2 0.3 167/192	179.8 0.2 170/193	182.3 174/196
21	167.9 0.8 153/177	172.0 0.8 159/183	176.2 0.3 164/189	179.0 0.3 167/193	181.7 0.2 170/194	184.2 174/197
18	169.6 0.8 154/177	173.7 0.9 159/183	178.0 0.3 164/189	180.9 0.3 167/193	183.5 0.3 171/195	186.1 174/198
15	171.2 0.8 154/178	175.4 0.9 159/184	179.7 0.3 164/190	182.6 0.3 168/194	185.3 0.3 171/196	187.9 175/198
12	172.4 0.9 155/179	176.7 0.9 160/185	181.0 0.3 165/191	183.9 0.3 168/195	186.6 0.3 172/197	189.3 175/199
9	173.0 0.9 156/180	177.3 0.9 161/186	181.6 0.3 166/192	184.4 0.3 169/195	187.1 0.3 173/197	189.8 176/200
6	173.6 0.9 156/181	177.9 0.9 161/187	182.2 0.3 167/193	184.9 0.3 170/195	187.6 0.3 174/197	190.2 177/201
3	174.2 0.8 157/182	178.4 0.9 162/188	182.7 0.3 167/194	185.3 0.3 171/196	188.0 0.3 175/198	190.6 178/201
0	174.7 0.8 158/183	178.9 0.8 163/189	183.1 0.3 168/194	185.8 0.3 172/196	188.4 0.3 176/198	191.0 179/202
-3	175.1 0.9 159/184	179.4 0.8 164/190	183.5 0.3 169/194	186.1 0.3 173/196	188.7 0.3 177/199	191.3 180/203
V2= θ2=	VR+ 21 14.0	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

CAIRO

A/D Elev **382ft**

FULL LENGTH RWY 34

CLG Note 2* **RVR/VIS** Note 2* **SLOPE** 1.63%DN
TOR 3133m (10279ft) **ED** 3133m (10279ft) **TOD** 3133m (10279ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	160.0 0.8 144/174	164.0 0.8 149/180	168.0 0.3 154/185	170.7 0.3 157/189	173.5 0.3 161/193	176.3 164/197
36	161.9 0.8 145/175	166.0 0.8 149/181	170.1 0.3 154/186	172.8 0.3 158/190	175.6 0.3 161/194	178.5 164/198
33	163.8 0.8 145/176	167.9 0.8 150/181	172.0 0.3 155/187	174.8 0.3 158/191	177.7 0.3 161/195	180.5 165/199
30	165.7 0.8 145/177	169.8 0.8 150/182	174.0 0.3 155/188	176.8 0.3 158/192	179.7 0.3 162/196	182.6 165/200
27	167.5 0.8 146/177	171.6 0.9 151/183	175.9 0.3 156/189	178.8 0.3 159/193	181.7 0.3 162/197	184.6 165/201
24	169.2 0.9 146/178	173.5 0.9 151/184	177.8 0.3 156/190	180.6 0.3 159/194	183.6 0.3 163/198	186.6 166/202
21	170.9 0.9 146/179	175.2 0.9 151/185	179.5 0.3 156/190	182.5 0.3 160/195	185.5 0.3 163/199	188.5 166/203
18	172.6 0.9 147/179	176.9 0.9 152/185	181.3 0.3 157/191	184.3 0.3 160/195	187.3 0.3 163/199	190.3 167/203
15	174.2 0.9 147/180	178.5 0.9 152/186	183.0 0.3 157/192	185.9 0.3 160/196	189.0 0.3 164/200	192.0 167/204
12	175.5 0.9 148/181	179.9 0.9 153/187	184.3 0.3 158/193	187.3 0.3 161/197	190.4 0.3 164/201	193.5 168/205
9	176.2 0.9 148/182	180.6 0.9 153/188	185.1 0.3 158/194	188.1 0.3 162/198	191.2 0.3 165/202	194.3 169/206
6	176.9 0.9 149/183	181.3 0.9 154/189	185.8 0.3 159/195	188.9 0.3 163/199	191.9 0.3 166/203	195.0 169/207
3	177.6 0.9 149/184	182.0 0.9 155/190	186.5 0.3 160/196	189.6 0.3 163/200	192.6 0.2 167/204	195.0 170/208
0	178.2 0.9 150/185	182.7 0.9 155/191	187.2 0.3 161/197	190.2 0.3 164/201	193.3 0.2 167/205	195.0 170/208
-3	178.8 0.9 151/186	183.2 0.9 156/192	187.7 0.3 161/198	190.8 0.3 165/202	193.9 0.1 168/206	195.0 171/209
V2= θ2=	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. ***Runway Availability:** Rwy 16/34 authorised for use in DAY LIGHT and VMC only.

A/D Elev **242ft**

FULL LENGTH RWY 10

CLG NIL **RVR/VIS** 150m **SLOPE** 0.46%DN
TOR 2637m (8652ft) **ED** 2728m (8950ft) **TOD** 2850m (9350ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	148.6 138/164	1.1	154.1 143/167	1.0	159.0 147/172	0.3	161.7 151/176	0.3	164.4 154/180	0.3	167.3 157/184
36	150.3 139/165	1.1	155.8 143/168	1.0	160.9 148/173	0.3	163.6 151/176	0.3	166.4 154/180	0.3	169.3 157/184
33	152.0 139/165	1.1	157.6 143/169	1.0	162.8 148/173	0.3	165.5 151/177	0.3	168.3 155/181	0.3	171.2 158/185
30	153.6 139/166	1.1	159.2 144/170	1.1	164.6 148/174	0.3	167.4 152/178	0.3	170.2 155/182	0.3	173.2 158/186
27	155.2 140/167	1.1	160.9 144/171	1.1	166.4 149/175	0.3	169.2 152/179	0.3	172.1 155/183	0.3	175.1 159/187
24	156.7 140/168	1.1	162.4 144/172	1.1	168.1 149/176	0.3	171.0 152/180	0.3	173.9 156/184	0.3	176.9 159/188
21	158.1 140/169	1.2	164.0 145/173	1.2	169.8 149/176	0.3	172.7 153/180	0.3	175.7 156/184	0.3	178.7 159/189
18	159.5 141/169	1.2	165.4 145/173	1.2	171.4 150/177	0.3	174.4 153/181	0.3	177.4 156/185	0.3	180.4 160/189
15	160.9 141/170	1.2	166.8 146/174	1.2	172.9 150/178	0.3	176.0 153/182	0.3	179.0 157/186	0.3	182.1 160/190
12	162.1 142/171	1.2	168.1 146/175	1.2	174.2 151/179	0.3	177.3 154/182	0.3	180.3 157/186	0.3	183.5 161/191
9	163.2 142/171	1.2	169.2 147/175	1.2	175.0 151/179	0.3	178.0 155/183	0.3	181.1 158/187	0.3	184.2 161/192
6	164.3 143/172	1.2	170.3 147/176	1.1	175.7 152/180	0.3	178.7 155/184	0.3	181.7 159/189	0.3	184.9 162/193
3	165.3 143/172	1.2	171.3 148/176	1.0	176.3 153/181	0.3	179.3 156/185	0.3	182.4 160/190	0.3	185.5 163/194
0	166.2 144/173	1.2	172.2 148/177	0.9	176.9 153/182	0.3	179.9 157/186	0.3	183.0 160/190	0.3	186.1 164/195
-3	167.1 144/173	1.2	173.0 149/177	0.9	177.5 154/183	0.3	180.5 158/187	0.3	183.5 161/191	0.3	186.7 165/196
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **242ft**

FULL LENGTH RWY 28

CLG NIL **RVR/VIS** 150m **SLOPE** 0.46%UP
TOR 2637m (8652ft) **ED** 2693m (8835ft) **TOD** 2850m (9350ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	143.5 140/160	1.0	148.7 144/164	1.0	153.9 149/167	0.3	157.3 152/169	0.3	160.0 155/173	0.3	162.7 159/177
36	145.1 140/161	1.1	150.4 145/165	1.1	155.7 149/168	0.3	159.1 152/170	0.3	161.9 156/174	0.3	164.7 159/178
33	146.7 141/162	1.1	152.1 145/165	1.1	157.5 150/169	0.3	160.9 153/171	0.3	163.8 156/175	0.3	166.6 159/179
30	148.3 141/163	1.1	153.7 145/166	1.1	159.2 150/170	0.3	162.7 153/172	0.3	165.6 156/176	0.3	168.5 160/180
27	149.8 141/163	1.1	155.3 146/167	1.1	160.8 150/171	0.4	164.4 153/173	0.3	167.5 157/177	0.3	170.4 160/181
24	151.3 142/164	1.1	156.8 146/168	1.1	162.4 151/172	0.4	166.0 154/174	0.3	169.2 157/177	0.3	172.1 160/181
21	152.7 142/165	1.1	158.3 147/169	1.1	164.0 151/173	0.4	167.6 154/175	0.3	170.9 157/178	0.3	173.9 161/182
18	154.0 143/166	1.2	159.8 147/170	1.1	165.5 152/173	0.4	169.2 155/176	0.3	172.6 158/179	0.3	175.6 161/183
15	155.3 143/166	1.2	161.1 147/170	1.2	166.9 152/174	0.4	170.7 155/176	0.3	174.2 158/179	0.3	177.2 162/183
12	156.5 143/167	1.2	162.4 148/171	1.2	168.2 152/175	0.4	172.0 156/177	0.3	175.5 159/180	0.3	178.5 162/184
9	157.6 144/168	1.2	163.4 148/171	1.2	169.2 153/175	0.4	172.9 156/178	0.3	176.1 160/181	0.3	179.2 163/185
6	158.5 144/168	1.2	164.3 149/172	1.2	170.1 154/176	0.4	173.8 157/178	0.3	176.8 160/182	0.3	179.8 164/186
3	159.5 145/169	1.1	165.2 150/172	1.1	170.9 154/176	0.3	174.4 158/179	0.3	177.4 161/183	0.3	180.5 165/187
0	160.3 145/169	1.2	166.1 150/173	1.1	171.7 155/176	0.3	175.0 158/180	0.3	178.0 162/184	0.3	181.0 165/188
-3	161.1 146/169	1.1	166.8 151/173	1.1	172.5 156/177	0.3	175.5 159/180	0.3	178.5 163/184	0.3	181.5 166/189
V2= θ2=	VR+ 25 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **EAST MIDLANDS**

A/D Elev **310ft**

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 150m **SLOPE** 0.33%DN

TOR 2280m (7480ft) **ED** 2280m (7480ft) **TOD** 2590m (8497ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	127.3 132/148	2.8	141.5 132/159	1.0	146.7 137/162	0.3	150.1 140/165	0.3	153.5 143/167	0.3	156.8 146/169
36	129.4 132/149	2.7	143.1 133/160	1.1	148.4 137/163	0.3	151.8 140/166	0.3	155.3 143/168	0.3	158.6 147/170
33	131.5 132/151	2.6	144.7 133/160	1.1	150.0 138/164	0.3	153.5 141/167	0.3	157.0 144/169	0.3	160.5 147/171
30	133.7 132/152	2.5	146.2 133/161	1.1	151.7 138/165	0.3	155.2 141/167	0.3	158.7 144/170	0.3	162.2 147/172
27	135.8 132/153	2.4	147.7 134/162	1.1	153.3 138/166	0.3	156.8 141/168	0.4	160.4 145/171	0.3	163.9 148/173
24	137.9 132/155	2.3	149.2 134/163	1.1	154.8 139/167	0.4	158.4 142/169	0.4	162.0 145/172	0.4	165.6 148/174
21	140.1 132/156	2.1	150.6 135/164	1.1	156.3 139/168	0.4	159.9 142/170	0.4	163.6 145/172	0.4	167.2 148/175
18	142.2 132/157	1.9	151.9 135/164	1.2	157.7 139/168	0.4	161.4 143/171	0.4	165.1 146/173	0.4	168.8 149/176
15	144.4 132/159	1.8	153.2 135/165	1.2	159.0 140/169	0.4	162.8 143/171	0.4	166.5 146/174	0.4	170.3 149/176
12	146.5 132/160	1.6	154.4 136/166	1.2	160.3 140/170	0.4	164.1 143/172	0.4	167.8 147/175	0.4	171.6 150/177
9	148.6 132/161	1.4	155.4 136/166	1.2	161.2 141/170	0.4	165.0 144/173	0.4	168.8 147/175	0.4	172.5 150/177
6	150.6 132/163	1.1	156.3 137/167	1.2	162.1 141/171	0.4	165.9 145/173	0.4	169.6 148/175	0.4	173.3 151/178
3	151.4 133/163	1.2	157.2 137/167	1.2	163.0 142/171	0.4	166.7 145/173	0.4	170.4 148/176	0.3	173.9 152/179
0	152.3 133/164	1.1	158.0 138/167	1.2	163.8 142/171	0.4	167.5 146/174	0.4	171.2 149/176	0.3	174.5 152/179
-3	153.1 134/164	1.1	158.8 138/168	1.1	164.5 143/172	0.4	168.2 146/174	0.4	171.9 150/176	0.3	175.0 153/180
V2= θ2=	VR+ 28 15.5		VR+ 25 15.0		VR+ 23 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

EAST MIDLANDS

A/D Elev **310ft**

FULL LENGTH RWY 27

CLG NIL **RVR/VIS** 150m **SLOPE** 0.33%UP

TOR 2280m (7480ft) **ED** 2280m (7480ft) **TOD** 2554m (8379ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	128.3 2.5 132/149	140.6 1.1 133/158	146.3 0.4 138/162	150.0 0.4 141/165	153.9 0.3 143/167	157.3 147/170
36	130.5 2.3 132/150	142.2 1.1 134/159	147.9 0.4 138/163	151.8 0.4 141/166	155.6 0.4 144/168	159.2 147/171
33	132.6 2.2 132/152	143.8 1.1 134/160	149.5 0.4 138/164	153.4 0.4 141/166	157.4 0.4 144/169	161.1 147/172
30	134.8 2.1 132/153	145.3 1.2 134/161	151.1 0.4 139/165	155.1 0.4 142/167	159.0 0.4 145/170	162.8 148/172
27	136.9 2.0 132/154	146.7 1.2 135/161	152.7 0.4 139/165	156.6 0.4 142/168	160.7 0.4 145/171	164.5 148/173
24	139.1 1.8 132/156	148.1 1.2 135/162	154.1 0.4 139/166	158.2 0.4 142/169	162.2 0.4 145/172	166.2 148/174
21	141.2 1.7 132/157	149.5 1.2 135/163	155.6 0.4 140/167	159.6 0.4 143/170	163.8 0.4 146/172	167.8 149/175
18	143.4 1.5 132/158	150.8 1.2 136/164	156.9 0.4 140/168	161.1 0.4 143/171	165.2 0.4 146/173	169.4 149/176
15	145.6 1.3 132/160	152.1 1.2 136/164	158.2 0.4 141/168	162.4 0.4 144/171	166.6 0.4 147/174	170.9 150/177
12	147.3 1.2 132/161	153.3 1.2 137/165	159.5 0.4 141/169	163.7 0.4 144/172	167.9 0.4 147/175	172.2 150/177
9	148.4 1.2 133/161	154.4 1.2 137/165	160.6 0.4 142/170	164.8 0.4 145/172	169.1 0.4 148/175	173.1 151/178
6	149.4 1.2 133/162	155.4 1.3 138/166	161.7 0.4 142/170	165.9 0.4 145/173	170.1 0.4 148/176	173.9 151/178
3	150.3 1.2 133/162	156.4 1.3 138/167	162.7 0.4 143/171	166.9 0.4 146/173	171.0 0.3 149/176	174.5 152/179
0	151.3 1.2 134/163	157.4 1.2 139/167	163.6 0.4 143/171	167.8 0.4 146/174	171.8 0.3 149/176	175.0 153/180
-3	152.1 1.2 134/163	158.3 1.2 139/167	164.5 0.4 144/172	168.7 0.4 147/174	172.5 0.3 150/177	175.6 153/181
V2= θ2=	VR+ 28 15.5	VR+ 25 15.0	VR+ 24 14.5	VR+ 23 14.5	VR+ 22 14.0	VR+ 21 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **135ft**

FULL LENGTH RWY 07

CLG NIL **RVR/VIS** 150m **SLOPE** 0.17%DN
TOR 2560m (8399ft) **ED** 2621m (8599ft) **TOD** 2621m (8599ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	141.4 139/159	1.0	146.3 143/162	0.9	150.9 148/165	0.3	153.8 151/167	0.3	156.6 155/169	0.3	159.4 158/172
36	143.0 139/159	1.0	148.0 143/163	0.9	152.7 148/166	0.3	155.7 152/168	0.3	158.5 155/170	0.3	161.3 158/173
33	144.6 139/160	1.0	149.7 144/164	0.9	154.4 149/167	0.3	157.4 152/169	0.3	160.3 155/171	0.3	163.2 159/174
30	146.2 140/161	1.0	151.3 144/165	1.0	156.1 149/168	0.3	159.2 152/170	0.3	162.1 156/172	0.3	165.0 159/174
27	147.7 140/162	1.0	152.9 145/166	1.0	157.8 149/169	0.3	160.9 153/171	0.3	163.9 156/173	0.3	166.9 159/175
24	149.2 140/163	1.0	154.4 145/166	1.0	159.4 150/170	0.3	162.6 153/172	0.3	165.6 156/174	0.3	168.6 160/176
21	150.6 141/163	1.1	155.9 145/167	1.0	161.0 150/171	0.3	164.2 153/173	0.3	167.3 157/175	0.3	170.3 160/177
18	152.0 141/164	1.1	157.4 146/168	1.0	162.5 150/171	0.3	165.8 154/173	0.3	168.9 157/175	0.3	172.0 160/177
15	153.3 141/165	1.1	158.7 146/169	1.1	164.0 151/172	0.3	167.2 154/174	0.3	170.4 157/176	0.3	173.6 161/178
12	154.4 142/166	1.1	159.9 146/169	1.1	165.2 151/173	0.3	168.5 155/175	0.3	171.7 158/177	0.3	174.9 161/179
9	155.3 142/166	1.1	160.8 147/170	1.0	166.0 152/173	0.3	169.2 155/175	0.3	172.4 159/177	0.3	175.5 162/179
6	156.2 143/166	1.1	161.6 148/170	1.0	166.7 153/173	0.3	169.9 156/175	0.3	173.0 159/177	0.3	176.1 163/180
3	157.0 143/167	1.1	162.3 148/170	1.0	167.3 153/174	0.3	170.5 157/176	0.3	173.6 160/178	0.3	176.6 164/181
0	157.7 144/167	1.0	162.9 149/171	1.0	167.9 154/174	0.3	171.0 157/176	0.3	174.1 161/178	0.3	177.1 165/182
-3	158.4 145/167	1.0	163.5 150/171	1.0	168.5 155/174	0.3	171.5 158/176	0.3	174.6 162/179	0.3	177.6 165/183
V2= θ2=	VR+ 25 15.0		VR+ 24 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **EDINBURGH**

A/D Elev **135ft**

FULL LENGTH RWY 25

CLG NIL **RVR/VIS** 150m **SLOPE** 0.17%UP

TOR 2560m (8399ft) **ED** 2621m (8599ft) **TOD** 3007m (9865ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	144.3 137/163	0.7	148.0 143/168	0.8	151.9 148/174	0.2	154.4 151/178	0.2	156.7 155/181	0.2	159.1 158/185
36	146.2 138/163	0.7	149.9 143/169	0.8	153.8 148/175	0.2	156.3 151/178	0.2	158.7 155/182	0.2	161.1 158/186
33	147.9 138/164	0.8	151.7 143/170	0.8	155.6 148/175	0.3	158.2 152/179	0.2	160.6 155/183	0.2	163.1 159/187
30	149.6 138/165	0.8	153.4 143/170	0.8	157.4 148/176	0.3	160.0 152/180	0.2	162.5 155/184	0.2	165.0 159/188
27	151.3 139/165	0.8	155.2 144/171	0.8	159.1 149/177	0.3	161.8 152/181	0.3	164.4 156/184	0.2	166.9 159/188
24	153.0 139/166	0.8	156.9 144/172	0.8	160.9 149/177	0.3	163.6 153/181	0.3	166.2 156/185	0.3	168.8 160/189
21	154.5 139/167	0.8	158.5 144/172	0.8	162.6 149/178	0.3	165.3 153/182	0.3	168.0 156/186	0.3	170.6 160/190
18	156.1 139/167	0.8	160.1 145/173	0.8	164.3 150/179	0.3	167.0 153/183	0.3	169.8 157/186	0.3	172.4 160/190
15	157.5 140/168	0.8	161.7 145/173	0.8	165.8 150/179	0.3	168.6 154/183	0.3	171.4 157/187	0.3	174.0 161/191
12	158.7 140/168	0.8	162.9 145/174	0.8	167.1 151/180	0.3	169.9 154/184	0.3	172.7 158/188	0.3	175.4 161/191
9	159.3 141/169	0.8	163.4 146/175	0.8	167.6 151/181	0.3	170.4 155/185	0.3	173.2 158/189	0.3	175.9 162/193
6	159.8 142/170	0.8	163.9 147/176	0.9	168.2 152/182	0.3	171.0 156/186	0.3	173.6 159/189	0.3	176.3 163/193
3	160.3 142/171	0.8	164.4 148/176	0.9	168.7 153/182	0.3	171.5 156/186	0.3	174.1 160/190	0.3	176.8 164/194
0	160.8 143/171	0.8	164.9 148/177	0.9	169.2 154/183	0.3	171.9 157/187	0.3	174.5 161/191	0.3	177.2 164/195
-3	161.2 144/172	0.8	165.3 149/178	0.9	169.6 154/184	0.3	172.3 158/188	0.3	174.9 162/192	0.3	177.6 165/196
V2= θ2=	VR+ 25 15.0		VR+ 24 14.5		VR+ 24 14.5		VR+ 23 14.0		VR+ 23 14.0		VR+ 23 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **24ft**

FULL LENGTH RWY 11

CLG NIL **RVR/VIS** 150m **SLOPE** 0.09%DN
TOR 2490m (8169ft) **ED** 2490m (8169ft) **TOD** 2758m (9049ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.2 133/161	1.2	151.0 137/165	1.2	156.9 141/169	0.3	160.1 145/172	0.2	162.6 148/176	0.2	165.0 151/179
36	146.9 133/162	1.2	152.7 137/166	1.2	158.7 142/170	0.3	162.0 145/173	0.2	164.5 148/177	0.2	167.0 152/180
33	148.5 134/163	1.2	154.4 138/167	1.2	160.5 142/171	0.3	163.9 145/174	0.2	166.4 149/177	0.3	169.0 152/181
30	150.0 134/164	1.2	156.0 138/168	1.2	162.1 142/172	0.4	165.7 146/175	0.3	168.3 149/178	0.3	170.9 152/182
27	151.5 134/164	1.2	157.5 139/169	1.3	163.8 143/173	0.4	167.5 146/175	0.3	170.1 149/179	0.3	172.7 153/183
24	153.0 135/165	1.2	159.0 139/169	1.3	165.3 143/173	0.4	169.3 146/176	0.3	171.9 150/180	0.3	174.5 153/183
21	154.4 135/166	1.2	160.5 139/170	1.3	166.8 144/174	0.4	170.9 147/177	0.3	173.6 150/180	0.3	176.2 154/184
18	155.7 135/167	1.2	161.9 140/171	1.3	168.3 144/175	0.4	172.4 147/178	0.3	175.2 150/181	0.3	177.9 154/185
15	157.0 136/167	1.2	163.2 140/172	1.3	169.6 144/176	0.4	173.8 147/178	0.3	176.8 151/182	0.3	179.5 154/185
12	158.2 136/168	1.3	164.5 141/172	1.3	171.0 145/176	0.4	175.1 148/179	0.3	178.1 151/182	0.3	180.9 155/186
9	159.3 137/169	1.3	165.7 141/173	1.3	172.2 145/177	0.4	176.1 148/180	0.3	178.8 152/183	0.3	181.6 156/187
6	160.4 137/169	1.3	166.8 141/173	1.3	173.4 146/178	0.3	176.8 149/181	0.3	179.5 153/184	0.3	182.3 156/188
3	161.5 137/170	1.3	167.9 142/174	1.3	174.5 146/178	0.3	177.4 150/182	0.3	180.1 153/185	0.3	182.9 157/189
0	162.5 138/170	1.3	168.9 142/174	1.3	175.3 147/179	0.3	178.0 150/183	0.3	180.7 154/186	0.3	183.5 158/190
-3	163.4 138/171	1.3	169.9 143/175	1.2	175.8 148/180	0.3	178.5 151/183	0.3	181.3 155/187	0.3	184.0 158/191
V2= Θ2=	VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **24ft**

FULL LENGTH RWY 29

CLG NIL **RVR/VIS** 150m **SLOPE** 0.09%UP
TOR 2490m (8169ft) **ED** 2490m (8169ft) **TOD** 2758m (9049ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	144.5 133/161	1.1	150.2 138/165	1.2	156.2 142/169	0.3	159.7 145/172	0.2	162.1 148/175	0.2	164.6 152/179
36	146.1 134/161	1.2	151.9 138/165	1.2	157.9 142/169	0.4	161.6 145/173	0.2	164.1 149/176	0.2	166.6 152/180
33	147.7 134/162	1.2	153.6 138/166	1.2	159.6 143/170	0.4	163.5 145/173	0.2	166.0 149/177	0.2	168.5 152/180
30	149.2 134/163	1.2	155.2 139/167	1.2	161.3 143/171	0.4	165.3 146/174	0.2	167.8 149/178	0.3	170.4 153/181
27	150.7 135/164	1.2	156.7 139/168	1.2	162.9 143/172	0.4	167.1 146/175	0.2	169.6 150/178	0.3	172.2 153/182
24	152.1 135/165	1.2	158.2 139/169	1.3	164.5 144/173	0.4	168.8 147/176	0.3	171.4 150/179	0.3	174.0 154/183
21	153.5 135/165	1.2	159.6 140/170	1.3	166.0 144/174	0.4	170.3 147/176	0.3	173.1 150/180	0.3	175.8 154/183
18	154.8 136/166	1.2	161.0 140/170	1.3	167.4 144/174	0.4	171.8 147/177	0.3	174.8 151/180	0.3	177.5 154/184
15	156.1 136/167	1.2	162.3 141/171	1.3	168.8 145/175	0.4	173.2 148/178	0.3	176.3 151/181	0.3	179.1 155/185
12	157.3 137/167	1.3	163.6 141/172	1.3	170.1 145/176	0.4	174.5 148/179	0.3	177.6 152/182	0.3	180.4 155/185
9	158.5 137/168	1.3	164.8 141/172	1.3	171.3 146/176	0.4	175.7 149/179	0.3	178.4 152/183	0.3	181.1 156/186
6	159.6 137/169	1.3	165.9 142/173	1.3	172.5 146/177	0.4	176.4 149/180	0.3	179.0 153/184	0.3	181.8 157/187
3	160.6 138/169	1.3	167.0 142/173	1.3	173.6 147/178	0.3	177.1 150/181	0.2	179.6 154/185	0.3	182.4 157/188
0	161.6 138/170	1.3	168.0 143/174	1.3	174.6 147/178	0.3	177.7 151/182	0.2	180.2 154/186	0.3	183.0 158/189
-3	162.6 139/170	1.3	169.0 143/174	1.2	175.2 148/179	0.3	178.2 151/183	0.3	180.8 155/186	0.3	183.5 159/190
V2= θ2=	VR+ 25 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

GANDER INTERNATIONAL

A/D Elev **496ft**

FULL LENGTH RWY 04

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.26%UP

TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 3337m (10948ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.1 150/167	0.9	157.6 155/171	0.8	161.6 160/177	0.3	164.2 163/181	0.3	166.8 166/184	0.3	169.5 170/188
36	154.9 150/168	0.9	159.5 155/172	0.8	163.5 160/178	0.3	166.2 163/181	0.3	168.9 167/185	0.3	171.6 170/189
33	156.6 151/169	0.9	161.3 155/173	0.8	165.4 160/179	0.3	168.1 164/182	0.3	170.9 167/186	0.3	173.6 170/190
30	158.3 151/170	1.0	163.2 156/174	0.8	167.3 161/179	0.3	170.0 164/183	0.3	172.8 167/187	0.3	175.6 171/191
27	160.0 152/171	1.0	165.0 156/174	0.8	169.1 161/180	0.3	171.9 164/184	0.3	174.7 168/188	0.3	177.6 171/192
24	161.6 152/171	1.0	166.7 157/175	0.8	170.9 162/181	0.3	173.7 165/185	0.3	176.6 168/189	0.3	179.5 172/193
21	163.1 152/172	1.1	168.4 157/176	0.9	172.7 162/182	0.3	175.5 165/186	0.3	178.4 169/189	0.3	181.3 172/194
18	164.6 153/173	1.1	170.1 157/177	0.9	174.4 162/182	0.3	177.2 166/186	0.3	180.1 169/190	0.3	183.1 172/194
15	166.0 153/174	1.1	171.6 158/177	0.9	176.0 163/183	0.3	178.9 166/187	0.3	181.8 170/191	0.3	184.8 173/195
12	167.3 154/174	1.1	172.9 158/178	0.9	177.3 163/184	0.3	180.2 167/188	0.3	183.1 170/192	0.3	186.2 174/196
9	168.4 154/175	1.0	173.6 159/179	0.9	178.0 164/185	0.3	180.9 168/189	0.3	183.8 171/193	0.3	186.9 174/197
6	169.3 155/175	1.0	174.2 160/180	0.9	178.6 165/186	0.3	181.5 168/190	0.3	184.5 172/194	0.3	187.5 175/198
3	170.2 156/176	0.9	174.8 161/181	0.9	179.2 166/187	0.3	182.2 169/191	0.3	185.1 173/195	0.3	188.1 176/199
0	171.0 156/176	0.9	175.4 161/182	0.9	179.8 167/188	0.3	182.7 170/191	0.3	185.7 173/196	0.3	188.6 177/199
-3	171.6 157/177	0.9	175.9 162/182	0.9	180.3 167/188	0.3	183.2 171/192	0.3	186.2 174/196	0.3	189.1 178/200
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 20 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

GANDER INTERNATIONAL

A/D Elev **496ft**

FULL LENGTH RWY 13

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.34%DN

TOR 2713m (8901ft) **ED** 2713m (8901ft) **TOD** 2783m (9131ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.5 138/162	1.1	151.2 142/166	1.0	156.1 147/169	0.3	158.8 150/173	0.3	161.4 154/177	0.3	164.2 157/181
36	147.1 139/163	1.2	152.9 143/166	1.0	158.0 147/170	0.3	160.7 151/174	0.3	163.4 154/178	0.3	166.2 157/181
33	148.7 139/163	1.2	154.6 143/167	1.0	159.8 148/171	0.3	162.6 151/175	0.3	165.3 154/178	0.3	168.1 158/182
30	150.3 139/164	1.2	156.2 144/168	1.1	161.6 148/172	0.3	164.4 151/175	0.3	167.2 155/179	0.3	170.0 158/183
27	151.8 140/165	1.2	157.8 144/169	1.1	163.3 148/173	0.3	166.2 152/176	0.3	169.0 155/180	0.3	171.9 158/184
24	153.3 140/166	1.2	159.3 144/170	1.1	164.9 149/174	0.3	168.0 152/177	0.3	170.8 155/181	0.3	173.8 159/185
21	154.7 141/167	1.2	160.8 145/171	1.1	166.5 149/174	0.3	169.7 152/178	0.3	172.6 156/182	0.3	175.5 159/186
18	156.0 141/167	1.2	162.2 145/171	1.2	168.1 150/175	0.3	171.3 153/178	0.3	174.3 156/182	0.3	177.2 160/186
15	157.3 141/168	1.2	163.5 146/172	1.2	169.6 150/176	0.3	172.9 153/179	0.3	175.9 157/183	0.3	178.9 160/187
12	158.6 142/169	1.2	164.8 146/173	1.2	170.9 151/177	0.3	174.2 154/180	0.3	177.2 157/184	0.3	180.2 161/188
9	159.8 142/169	1.3	166.1 147/173	1.1	171.8 151/177	0.3	174.9 155/181	0.3	177.9 158/185	0.3	180.9 161/189
6	160.9 143/170	1.3	167.2 147/174	1.1	172.6 152/178	0.3	175.6 155/182	0.3	178.5 159/186	0.3	181.6 162/190
3	162.0 143/170	1.2	168.1 148/174	1.0	173.3 153/179	0.3	176.2 156/183	0.3	179.2 159/187	0.3	182.2 163/191
0	163.0 144/171	1.2	168.9 148/175	1.0	173.8 153/179	0.3	176.8 157/183	0.3	179.8 160/187	0.3	182.8 164/192
-3	164.0 144/171	1.1	169.6 149/175	1.0	174.4 154/180	0.3	177.3 157/184	0.3	180.3 161/188	0.3	183.3 164/192
V2= θ2=	VR+ 24 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 20 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

GANDER INTERNATIONAL

A/D Elev **496ft**

FULL LENGTH RWY 22

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.26%DN

TOR 3109m (10200ft) **ED** 3109m (10200ft) **TOD** 3414m (11201ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	157.4 145/171	0.8	161.4 150/176	0.8	165.4 155/182	0.3	168.1 158/186	0.3	170.7 162/190	0.3	173.4 165/194
36	159.3 146/172	0.8	163.3 150/177	0.8	167.4 155/183	0.3	170.1 159/187	0.3	172.8 162/191	0.3	175.6 165/195
33	161.2 146/173	0.8	165.2 151/178	0.8	169.3 156/184	0.3	172.1 159/188	0.3	174.8 162/192	0.3	177.6 166/196
30	163.0 146/173	0.8	167.1 151/179	0.8	171.3 156/185	0.3	174.0 159/189	0.3	176.8 163/193	0.3	179.7 166/197
27	164.8 147/174	0.8	168.9 152/180	0.8	173.1 156/186	0.3	176.0 160/190	0.3	178.8 163/194	0.3	181.7 166/198
24	166.6 147/175	0.8	170.7 152/181	0.9	175.0 157/187	0.3	177.8 160/190	0.3	180.7 164/194	0.3	183.6 167/198
21	168.2 147/176	0.8	172.4 152/181	0.9	176.8 157/187	0.3	179.6 161/191	0.3	182.5 164/195	0.3	185.5 167/199
18	169.8 148/176	0.9	174.1 153/182	0.9	178.5 158/188	0.3	181.4 161/192	0.3	184.3 164/196	0.3	187.3 168/200
15	171.3 148/177	0.9	175.7 153/183	0.9	180.1 158/189	0.3	183.1 161/193	0.3	186.0 165/197	0.3	189.0 168/201
12	172.6 149/178	0.9	177.0 154/183	0.9	181.5 159/189	0.3	184.4 162/193	0.3	187.4 165/197	0.3	190.4 169/201
9	173.4 149/179	0.9	177.8 154/184	0.9	182.2 159/190	0.3	185.2 163/194	0.3	188.2 166/198	0.3	191.2 170/202
6	174.1 150/180	0.9	178.5 155/186	0.9	182.9 160/192	0.3	185.9 164/196	0.3	188.9 167/200	0.3	191.9 170/204
3	174.8 151/181	0.9	179.1 156/187	0.9	183.6 161/193	0.3	186.5 164/197	0.3	189.5 168/201	0.3	192.6 171/205
0	175.4 151/182	0.9	179.7 156/187	0.9	184.2 162/193	0.3	187.2 165/197	0.3	190.2 169/201	0.3	193.2 172/205
-3	175.9 152/182	0.9	180.3 157/188	0.9	184.8 162/194	0.3	187.7 166/198	0.3	190.7 169/202	0.3	193.7 173/206
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

GANDER INTERNATIONAL

A/D Elev **496ft**

FULL LENGTH RWY 31

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.34%UP

TOR 2713m (8901ft) **ED** 2713m (8901ft) **TOD** 3018m (9902ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	147.7 138/163	1.0	152.7 142/168	0.8	156.5 147/173	0.2	159.0 151/177	0.2	161.5 154/180	0.2	164.0 157/183
36	149.4 138/164	1.0	154.6 142/168	0.8	158.5 148/174	0.2	160.9 151/178	0.2	163.4 154/181	0.3	166.0 158/184
33	151.0 138/165	1.1	156.4 143/169	0.8	160.3 148/175	0.2	162.8 151/178	0.3	165.4 155/182	0.3	168.0 158/185
30	152.6 139/166	1.1	158.2 143/170	0.8	162.2 148/176	0.2	164.7 152/179	0.3	167.3 155/183	0.3	169.9 159/186
27	154.1 139/167	1.2	160.0 143/171	0.8	164.0 149/177	0.2	166.5 152/180	0.3	169.1 155/183	0.3	171.8 159/187
24	155.6 140/167	1.2	161.6 144/171	0.8	165.7 149/177	0.3	168.3 152/181	0.3	170.9 156/184	0.3	173.6 159/188
21	157.0 140/168	1.2	163.1 144/172	0.9	167.5 149/178	0.3	170.1 153/181	0.3	172.7 156/185	0.3	175.4 160/188
18	158.4 140/169	1.2	164.6 145/173	0.9	169.1 150/179	0.3	171.8 153/182	0.3	174.4 157/185	0.3	177.2 160/189
15	159.7 141/170	1.3	166.0 145/174	0.9	170.7 150/179	0.3	173.4 153/182	0.3	176.1 157/186	0.3	178.8 160/190
12	161.0 141/170	1.3	167.3 146/174	0.9	172.0 150/180	0.3	174.6 154/183	0.3	177.4 158/187	0.3	180.2 161/190
9	162.2 142/171	1.2	168.4 146/175	0.8	172.6 151/181	0.3	175.2 155/184	0.3	178.0 158/188	0.3	180.8 162/191
6	163.4 142/171	1.1	168.9 147/176	0.8	173.1 152/182	0.3	175.7 156/186	0.3	178.5 159/189	0.3	181.3 163/193
3	164.5 143/172	1.0	169.4 148/177	0.8	173.6 153/183	0.3	176.3 156/187	0.3	179.0 160/190	0.3	181.8 163/194
0	165.5 143/173	0.9	169.9 148/178	0.8	174.1 153/184	0.3	176.7 157/188	0.3	179.5 161/191	0.3	182.2 164/195
-3	166.2 144/173	0.8	170.3 149/179	0.8	174.5 154/185	0.3	177.2 158/189	0.3	179.9 161/192	0.3	182.5 165/196
V2= 82=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **160ft**

FULL LENGTH RWY 08

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.10%DN
TOR 3368m (11050ft) **ED** 3368m (11050ft) **TOD** 3673m (12051ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	164.6 151/179	0.8	168.6 156/185	0.8	172.7 161/191	0.3	175.5 164/195	0.3	178.2 167/199	0.3	181.0 171/203
36	166.6 151/180	0.8	170.7 156/186	0.8	174.8 161/192	0.3	177.6 164/196	0.3	180.4 168/200	0.3	183.2 171/204
33	168.5 152/181	0.8	172.6 156/187	0.8	176.8 161/193	0.3	179.7 165/197	0.3	182.5 168/201	0.3	185.3 171/205
30	170.4 152/182	0.8	174.6 157/188	0.8	178.8 162/194	0.3	181.7 165/198	0.3	184.6 168/202	0.3	187.4 172/206
27	172.3 152/183	0.8	176.5 157/189	0.9	180.8 162/195	0.3	183.7 166/198	0.3	186.6 169/202	0.3	189.5 172/206
24	174.0 152/183	0.9	178.3 158/189	0.9	182.7 163/195	0.3	185.6 166/199	0.3	188.6 169/203	0.3	191.5 173/207
21	175.7 152/184	0.9	180.1 158/190	0.9	184.5 163/196	0.3	187.5 166/200	0.3	190.4 170/204	0.3	193.4 173/208
18	177.4 152/185	0.9	181.8 158/191	0.9	186.3 163/197	0.3	189.3 167/201	0.3	192.3 170/205	0.3	195.0 173/208
15	179.0 152/185	0.9	183.4 158/191	0.9	188.0 163/197	0.3	191.0 167/201	0.3	194.0 171/205	0.1	195.0 173/208
12	180.3 153/186	0.9	184.8 158/192	0.9	189.3 164/198	0.3	192.4 167/202	0.3	195.0 171/206	0.0	195.0 173/208
9	181.0 153/187	0.9	185.5 159/193	0.9	190.1 164/199	0.3	193.2 168/203	0.2	195.0 171/206	0.0	195.0 173/209
6	181.7 154/188	0.9	186.2 159/194	0.9	190.8 165/200	0.3	193.9 169/204	0.1	195.0 172/207	0.0	195.0 174/209
3	182.4 154/189	0.9	186.9 160/195	0.9	191.5 166/201	0.3	194.6 169/205	0.0	195.0 172/208	0.0	195.0 174/210
0	183.0 155/190	0.9	187.5 161/196	0.9	192.1 166/202	0.3	195.0 170/206	0.0	195.0 172/208	0.0	195.0 175/211
-3	183.6 156/191	0.9	188.1 161/197	0.9	192.7 167/203	0.2	195.0 171/207	0.0	195.0 173/209	0.0	195.0 175/211
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **160ft**

FULL LENGTH RWY 26

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.10%UP
TOR 3368m (11050ft) **ED** 3368m (11050ft) **TOD** 3673m (12051ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	162.5 0.8 152/176	166.4 0.8 157/182	170.4 0.2 162/188	172.9 0.2 165/191	175.2 0.2 169/194	177.7 172/198
36	164.5 0.8 152/177	168.5 0.8 157/183	172.5 0.2 162/189	175.0 0.2 166/192	177.4 0.2 169/195	179.9 172/199
33	166.4 0.8 153/178	170.4 0.8 158/184	174.6 0.2 163/190	177.1 0.2 166/193	179.5 0.2 169/196	182.0 173/200
30	168.3 0.8 153/179	172.4 0.8 158/185	176.6 0.2 163/191	179.1 0.2 166/194	181.6 0.2 170/197	184.1 173/201
27	170.2 0.8 153/180	174.3 0.8 158/186	178.5 0.3 163/191	181.1 0.2 167/195	183.6 0.3 170/198	186.2 174/202
24	172.0 0.8 154/181	176.2 0.8 159/186	180.4 0.3 164/192	183.1 0.2 167/196	185.6 0.3 171/199	188.2 174/203
21	173.7 0.8 154/181	177.9 0.9 159/187	182.3 0.3 164/193	185.0 0.3 167/197	187.6 0.3 171/200	190.2 174/204
18	175.4 0.9 154/182	179.7 0.9 159/188	184.1 0.3 164/194	186.9 0.3 168/197	189.5 0.3 171/201	192.1 175/204
15	177.0 0.9 154/183	181.4 0.9 160/188	185.8 0.3 165/194	188.7 0.3 168/198	191.3 0.3 172/202	194.0 175/205
12	178.3 0.9 154/183	182.7 0.9 160/189[1]	187.2 0.3 165/195	190.1 0.3 169/199	192.7 0.2 172/202	195.0 176/206
9	178.9 0.9 155/184	183.3 0.9 161/190	187.8 0.3 166/196	190.6 0.3 170/200	193.2 0.2 173/203	195.0 176/206
6	179.4 0.9 156/185	183.9 0.9 161/191	188.3 0.3 167/197	191.0 0.3 171/200	193.6 0.1 174/204	195.0 177/207
3	180.0 0.9 156/186	184.4 0.9 162/192	188.9 0.2 168/198	191.4 0.3 171/201	194.1 0.1 175/205	195.0 178/207
0	180.5 0.9 157/187	184.9 0.9 163/193	189.3 0.3 169/198	191.9 0.3 172/202	194.5 0.0 176/205	195.0 179/207
-3	180.9 0.9 158/187	185.4 0.8 164/193	189.6 0.3 170/199	192.2 0.3 173/202	194.8 0.0 177/206	195.0 179/208
V2= θ2=	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

HALIFAX INTL

A/D Elev **477ft**

FULL LENGTH RWY 06

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.08%DN

TOR 2682m (8799ft) **ED** 2682m (8799ft) **TOD** 2987m (9800ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	149.1 136/164	1.1	154.4 140/168	0.9	158.7 145/173	0.2	161.2 148/176	0.2	163.6 152/180	0.2	166.1 155/183
36	150.7 136/165	1.1	156.2 141/169	0.9	160.6 145/173	0.3	163.2 149/177	0.2	165.6 152/181	0.2	168.1 156/184
33	152.4 137/166	1.1	158.0 141/170	0.9	162.5 146/174	0.3	165.1 149/178	0.2	167.5 153/181	0.2	170.0 156/185
30	154.0 137/167	1.2	159.8 141/171	0.9	164.3 146/175	0.3	166.9 150/179	0.2	169.4 153/182	0.2	171.9 156/186
27	155.6 137/168	1.2	161.5 142/171	0.9	166.1 146/176	0.3	168.8 150/180	0.2	171.3 153/183	0.2	173.8 157/187
24	157.1 138/168	1.2	163.1 142/172	1.0	167.9 147/177	0.3	170.5 150/180	0.3	173.1 154/184	0.3	175.7 157/187
21	158.5 138/169	1.2	164.6 142/173	1.0	169.6 147/177	0.3	172.3 151/181	0.2	174.8 154/185	0.3	177.4 158/188
18	159.9 139/170	1.2	166.1 143/174	1.0	171.2 148/178	0.3	173.9 151/182	0.3	176.5 155/185	0.3	179.2 158/189
15	161.2 139/171	1.3	167.5 143/175	1.1	172.8 148/179	0.3	175.5 151/182	0.3	178.1 155/186	0.3	180.8 159/189
12	162.5 139/171	1.3	168.8 144/175	1.1	174.1 148/179	0.3	176.8 152/183	0.3	179.5 156/187	0.3	182.1 159/190
9	163.7 140/172	1.2	169.9 144/176	1.0	174.8 149/180	0.3	177.5 153/184	0.3	180.2 156/188	0.3	182.9 160/191
6	164.9 140/172	1.2	170.8 145/176	0.9	175.4 150/181	0.3	178.2 153/185	0.3	180.9 157/189	0.3	183.6 161/192
3	166.0 141/173	1.1	171.6 146/177	0.9	176.1 151/182	0.3	178.9 154/186	0.3	181.5 158/190	0.3	184.2 161/193
0	167.0 141/174	1.0	172.2 146/177	0.9	176.6 151/183	0.3	179.5 155/187	0.3	182.2 158/191	0.3	184.9 162/194
-3	167.8 142/174	1.0	172.7 147/178	0.9	177.1 152/184	0.3	180.1 156/188	0.3	182.7 159/192	0.3	185.4 163/195
V2= θ2=	VR+ 23 14.5		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 20 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

HALIFAX INTL

A/D Elev **477ft**

FULL LENGTH RWY 15

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.54%UP

TOR 2347m (7700ft) **ED** 2347m (7700ft) **TOD** 2652m (8701ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	132.8 132/152	1.9	142.5 134/160	1.1	147.9 139/163	0.4	151.5 142/166	0.4	155.1 145/168	0.3	157.9 148/171
36	135.0 132/154	1.8	144.1 135/160	1.1	149.6 139/164	0.4	153.2 142/167	0.4	156.9 145/169	0.3	159.8 148/172
33	137.2 132/155	1.7	145.7 135/161	1.1	151.2 140/165	0.4	154.9 143/168	0.4	158.6 146/170	0.3	161.6 149/173
30	139.5 132/157	1.5	147.2 135/162	1.1	152.8 140/166	0.4	156.5 143/168	0.4	160.3 146/171	0.3	163.4 149/174
27	141.7 132/158	1.4	148.7 136/163	1.1	154.3 140/167	0.4	158.1 143/169	0.4	161.9 146/172	0.3	165.2 150/175
24	144.0 132/159	1.2	150.2 136/164	1.1	155.8 141/168	0.4	159.6 144/170	0.4	163.4 147/173	0.4	167.0 150/175
21	145.6 132/160	1.2	151.5 137/164	1.1	157.2 141/168	0.4	161.0 144/171	0.4	164.9 147/173	0.4	168.6 150/176
18	146.9 133/161	1.2	152.9 137/165	1.1	158.6 142/169	0.4	162.4 145/172	0.4	166.3 148/174	0.4	170.3 151/177
15	148.1 133/162	1.2	154.1 137/166	1.2	159.9 142/170	0.4	163.8 145/172	0.4	167.7 148/175	0.4	171.7 151/177
12	149.3 133/162	1.2	155.4 138/166	1.2	161.2 142/170	0.4	165.1 145/173	0.4	169.0 149/175	0.4	173.1 152/178
9	150.4 134/163	1.2	156.5 138/167	1.2	162.3 143/171	0.4	166.3 146/173	0.4	170.3 149/176	0.3	173.8 152/179
6	151.4 134/163	1.2	157.6 139/168	1.2	163.5 143/172	0.4	167.4 146/174	0.4	171.4 150/177	0.3	174.5 153/180
3	152.5 135/164	1.2	158.7 139/168	1.2	164.5 144/172	0.4	168.5 147/175	0.4	172.4 150/177	0.3	175.1 154/181
0	153.4 135/164	1.3	159.7 140/169	1.2	165.5 144/173	0.4	169.5 147/175	0.3	173.0 151/178	0.3	175.7 154/182
-3	154.4 136/165	1.3	160.7 140/169	1.2	166.5 145/173	0.4	170.5 148/176	0.3	173.5 152/179	0.3	176.3 155/183
V2= θ2=	VR+ 26 15.5		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **477ft**

FULL LENGTH RWY 24

CLG NIL **RVR/VIS** 600ft **SLOPE** 0.08%UP

TOR 2682m (8799ft) **ED** 2682m (8799ft) **TOD** 2987m (9800ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	144.7 138/161	1.0	149.7 142/165	1.0	154.7 147/168	0.3	157.5 150/171	0.3	160.2 154/175	0.3	163.0 157/179
36	146.4 138/162	1.0	151.4 143/165	1.0	156.5 147/169	0.3	159.4 151/172	0.3	162.1 154/176	0.3	164.9 157/180
33	148.0 139/163	1.0	153.1 143/166	1.0	158.3 148/170	0.3	161.3 151/173	0.3	164.0 154/177	0.3	166.9 158/180
30	149.6 139/164	1.0	154.8 143/167	1.0	160.0 148/171	0.3	163.1 151/173	0.3	165.9 155/177	0.3	168.8 158/181
27	151.2 139/165	1.0	156.4 144/168	1.1	161.7 148/172	0.3	164.9 152/174	0.3	167.7 155/178	0.3	170.6 158/182
24	152.7 140/165	1.1	158.0 144/169	1.1	163.4 149/172	0.3	166.7 152/175	0.3	169.5 155/179	0.3	172.4 159/183
21	154.1 140/166	1.1	159.5 145/170	1.1	164.9 149/173	0.3	168.4 152/176	0.3	171.2 156/180	0.3	174.2 159/184
18	155.5 140/167	1.1	161.0 145/171	1.1	166.5 150/174	0.3	170.0 153/176	0.3	172.9 156/180	0.3	175.9 160/184
15	156.8 141/168	1.1	162.4 145/171	1.1	168.0 150/175	0.3	171.5 153/177	0.3	174.5 157/181	0.3	177.5 160/185
12	158.1 141/168	1.1	163.6 146/172	1.1	169.3 151/176	0.3	172.8 154/178	0.3	175.8 157/182	0.3	178.8 161/186
9	159.1 142/169	1.1	164.6 146/172	1.1	170.2 151/176	0.3	173.5 154/179	0.3	176.5 158/183	0.3	179.5 161/187
6	160.0 142/169	1.1	165.5 147/173	1.1	171.0 152/176	0.3	174.2 155/180	0.3	177.1 159/184	0.3	180.2 162/188
3	160.9 143/170	1.1	166.4 148/173	1.1	171.8 152/177	0.3	174.8 156/181	0.3	177.7 159/185	0.3	180.8 163/189
0	161.7 144/170	1.1	167.2 148/174	1.1	172.5 153/178	0.3	175.4 157/181	0.3	178.3 160/185	0.3	181.4 164/190
-3	162.5 144/170	1.1	167.9 149/174	1.0	173.0 154/178	0.3	175.9 157/182	0.3	178.8 161/186	0.3	181.9 164/190
V2= θ2=	VR+ 24 14.5		VR+ 23 14.5		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

HALIFAX INTL

A/D Elev **477ft**

FULL LENGTH RWY 33

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.54%DN

TOR 2347m (7700ft) **ED** 2347m (7700ft) **TOD** 2652m (8701ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	131.0 3.1 132/151	146.4 1.1 132/162	151.7 0.4 136/166	155.3 0.3 139/168	157.9 0.2 143/172	160.4 146/175
36	133.2 3.0 132/153	148.1 1.1 132/163	153.4 0.4 137/167	157.0 0.3 140/169	159.8 0.2 143/172	162.3 147/176
33	135.4 2.9 132/154	149.7 1.1 133/164	155.1 0.4 137/168	158.8 0.3 140/170	161.7 0.2 143/173	164.2 147/177
30	137.7 2.7 132/155	151.3 1.1 133/165	156.7 0.4 138/169	160.4 0.3 141/171	163.5 0.3 144/174	166.1 147/178
27	139.9 2.6 132/157	152.8 1.1 133/166	158.3 0.4 138/169	162.1 0.3 141/172	165.3 0.3 144/175	167.9 148/178
24	142.1 2.4 132/158	154.3 1.1 134/166	159.8 0.4 138/170	163.6 0.3 141/173	167.0 0.3 145/175	169.6 148/179
21	144.3 2.3 132/159	155.7 1.1 134/167	161.3 0.4 139/171	165.1 0.4 142/173	168.7 0.3 145/176	171.3 148/180
18	146.5 2.1 132/161	157.1 1.1 135/168	162.7 0.4 139/172	166.6 0.4 142/174	170.4 0.3 145/177	173.0 149/180
15	148.8 1.9 132/162	158.4 1.1 135/169	164.1 0.4 140/172	167.9 0.4 143/175	171.9 0.3 146/177	174.6 149/181
12	151.0 1.7 132/163	159.6 1.1 135/169	165.3 0.4 140/173	169.2 0.4 143/176	173.2 0.3 146/178	175.9 150/182
9	153.2 1.5 132/165	160.8 1.1 136/170	166.5 0.4 140/174	170.5 0.3 144/176	173.9 0.3 147/179	176.6 150/183
6	155.4 1.3 132/166	161.9 1.2 136/170	167.7 0.4 141/174	171.7 0.3 144/177	174.6 0.3 148/180	177.3 151/184
3	157.2 1.1 132/167	162.9 1.2 137/171	168.8 0.4 141/175	172.5 0.3 145/178	175.2 0.3 148/181	178.0 152/185
0	158.2 1.1 133/168	163.9 1.2 137/172	169.8 0.3 142/175	173.2 0.3 145/178	175.8 0.3 149/182	178.6 152/186
-3	159.1 1.2 133/168	164.9 1.2 138/172	170.8 0.3 142/176	173.7 0.3 146/179	176.4 0.3 150/183	179.1 153/187
V2= θ2=	VR+ 26 15.5	VR+ 23 14.5	VR+ 22 14.0	VR+ 21 14.0	VR+ 21 13.5	VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **HUMBERSIDE**

A/D Elev **122ft**

FULL LENGTH RWY **03**

CLG NIL **RVR/VIS** 200m **SLOPE** 0.71%DN

TOR 2070m (6791ft) **ED** 2070m (6791ft) **TOD** 2208m (7244ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	110.5 132/139	2.9	125.1 132/146	2.7	138.6 133/156	0.4	142.3 136/159	0.4	146.1 139/162	0.4	149.8 142/164
36	112.3 132/139	3.0	127.2 132/148	2.6	140.1 133/157	0.4	143.9 136/160	0.4	147.7 139/163	0.4	151.5 142/165
33	114.1 132/139	3.0	129.2 132/149	2.5	141.7 133/158	0.4	145.5 136/161	0.4	149.4 139/164	0.4	153.2 142/166
30	115.9 132/139	3.1	131.3 132/150	2.4	143.2 134/159	0.4	147.0 137/162	0.4	150.9 140/164	0.4	154.9 143/167
27	117.7 132/139	3.1	133.4 132/152	2.2	144.6 134/160	0.4	148.5 137/162	0.4	152.5 140/165	0.4	156.5 143/168
24	119.5 132/140	3.2	135.5 132/153	2.1	146.0 135/161	0.4	150.0 138/163	0.4	154.0 141/166	0.4	158.0 144/169
21	121.3 132/142	3.3	137.6 132/154	2.0	147.4 135/161	0.4	151.3 138/164	0.4	155.4 141/167	0.4	159.5 144/170
18	123.2 132/143	3.3	139.6 132/155	1.8	148.7 135/162	0.4	152.7 138/165	0.4	156.8 141/168	0.4	160.9 144/170
15	125.0 132/144	3.3	141.7 132/157	1.6	149.9 136/163	0.4	154.0 139/165	0.4	158.1 142/168	0.4	162.3 145/171
12	126.9 132/145	3.4	143.8 132/158	1.5	151.1 136/163	0.4	155.2 139/166	0.4	159.3 142/169	0.4	163.5 145/172
9	128.7 132/147	3.4	145.9 132/159	1.2	152.1 137/164	0.4	156.2 140/167	0.4	160.4 143/169	0.4	164.5 146/172
6	130.7 132/148	3.3	147.0 132/160	1.2	153.1 137/164	0.4	157.2 140/167	0.4	161.4 143/170	0.4	165.5 146/173
3	132.5 132/149	3.1	147.9 133/160	1.2	154.0 137/165	0.4	158.1 141/168	0.4	162.3 144/170	0.4	166.4 147/173
0	134.4 132/150	2.9	148.8 133/161	1.2	154.9 138/165	0.4	159.0 141/168	0.4	163.1 144/171	0.4	167.3 147/173
-3	136.3 132/152	2.7	149.6 134/161	1.2	155.7 138/166	0.4	159.8 142/168	0.4	164.0 145/171	0.4	168.1 148/174
V2= θ2=	VR+ 35 17.0		VR+ 29 16.0		VR+ 26 15.5		VR+ 25 15.0		VR+ 24 15.0		VR+ 23 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **122ft**

FULL LENGTH RWY 21

CLG NIL **RVR/VIS** 200m **SLOPE** 0.72%UP
TOR 2200m (7218ft) **ED** 2200m (7218ft) **TOD** 2450m (8038ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	123.7 132/145	2.2	134.8 134/154	1.1	140.1 138/158	0.4	143.8 141/160	0.3	147.3 144/163	0.3	150.8 147/165
36	125.7 132/147	2.1	136.3 134/155	1.1	141.7 139/158	0.4	145.4 142/161	0.4	149.0 145/164	0.4	152.6 148/166
33	127.8 132/148	2.0	137.8 134/155	1.1	143.3 139/159	0.4	147.0 142/162	0.4	150.7 145/164	0.4	154.3 148/167
30	129.8 132/149	1.9	139.2 135/156	1.1	144.8 139/160	0.4	148.6 142/163	0.4	152.3 145/165	0.4	155.9 148/168
27	131.9 132/150	1.7	140.6 135/157	1.1	146.3 140/161	0.4	150.1 143/164	0.4	153.9 146/166	0.4	157.6 149/169
24	133.9 132/152	1.6	142.0 136/158	1.1	147.7 140/162	0.4	151.6 143/164	0.4	155.4 146/167	0.4	159.2 149/170
21	136.0 132/153	1.5	143.3 136/158	1.2	149.1 140/162	0.4	153.0 143/165	0.4	156.9 146/168	0.4	160.7 150/170
18	138.1 132/154	1.3	144.5 136/159	1.2	150.4 141/163	0.4	154.4 144/166	0.4	158.3 147/169	0.4	162.1 150/171
15	139.5 132/155	1.2	145.7 137/160	1.2	151.7 141/164	0.4	155.7 144/167	0.4	159.6 147/169	0.4	163.6 150/172
12	140.6 133/156	1.2	146.8 137/160	1.2	152.9 142/164	0.4	156.9 145/167	0.4	160.9 148/170	0.4	164.8 151/172
9	141.6 133/156	1.3	147.9 138/161	1.2	153.8 142/165	0.4	157.9 145/168	0.4	161.8 148/170	0.4	165.7 151/173
6	142.6 133/157	1.3	148.9 138/161	1.2	154.8 143/165	0.4	158.8 146/168	0.4	162.7 149/171	0.4	166.6 152/173
3	143.6 134/157	1.2	149.7 138/162	1.2	155.7 143/166	0.4	159.7 146/169	0.4	163.5 149/171	0.4	167.3 153/174
0	144.5 134/158	1.2	150.5 139/162	1.2	156.5 144/166	0.4	160.5 147/169	0.4	164.3 150/172	0.4	168.1 153/174
-3	145.4 135/158	1.2	151.3 140/163	1.2	157.3 144/167	0.4	161.2 147/169	0.4	165.0 151/172	0.4	168.7 154/174
V2= θ2=	VR+ 30 16.0		VR+ 27 15.5		VR+ 26 15.0		VR+ 25 15.0		VR+ 24 14.5		VR+ 23 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

JEDDAH

A/D Elev **48ft**

KING ABDUL AZIZ

FULL LENGTH RWY **16L**

CLG NIL **RVR/VIS** 480m **SLOPE** 0.15%UP

TOR 3690m (12106ft) **ED** 3690m (12106ft) **TOD** 3690m (12106ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	158.8 156/176	0.8	162.7 161/182	0.8	166.7 167/188	0.3	169.4 171/192	0.3	172.0 174/196	0.3	174.7 178/200
45	160.8 155/177	0.8	164.8 161/183	0.8	168.8 166/189	0.3	171.5 170/193	0.3	174.3 174/197	0.3	177.0 178/201
42	162.8 155/178	0.8	166.8 160/184	0.8	170.9 166/190	0.3	173.7 170/194	0.3	176.4 173/198	0.3	179.2 177/202
39	164.8 154/179	0.8	168.8 160/185	0.8	173.0 166/191	0.3	175.8 169/195	0.3	178.6 173/199	0.3	181.4 177/203
36	166.7 154/180	0.8	170.8 160/186	0.8	175.0 165/192	0.3	177.9 169/196	0.3	180.7 173/199	0.3	183.6 176/203
33	168.5 154/181	0.8	172.7 160/186	0.9	177.0 165/192	0.3	179.9 169/196	0.3	182.8 173/200	0.3	185.6 176/204
30	170.4 154/181	0.8	174.6 159/187	0.9	178.9 165/193	0.3	181.8 169/197	0.3	184.8 172/201	0.3	187.7 176/205
27	172.2 154/182	0.9	176.5 159/188	0.9	180.8 165/194	0.3	183.8 169/198	0.3	186.7 172/202	0.3	189.7 176/206
24	173.9 154/183	0.9	178.3 159/189	0.9	182.7 165/195	0.3	185.6 168/199	0.3	188.6 172/203	0.3	191.6 176/207
21	175.6 154/183	0.9	180.0 159/189	0.9	184.5 165/195	0.3	187.5 168/199	0.3	190.5 172/203	0.3	193.5 176/207
18	177.3 154/184	0.9	181.7 159/190	0.9	186.2 165/196	0.3	189.2 169/200	0.3	192.3 172/204	0.3	195.0 176/208
15	178.9 154/184	0.9	183.3 159/190	0.9	187.9 165/196	0.3	190.9 169/200	0.3	194.0 172/204	0.1	195.0 175/207
12	180.2 154/185	0.9	184.7 160/191	0.9	189.2 165/197	0.3	192.3 169/201	0.3	195.0 172/205	0.0	195.0 175/207
9	180.9 155/186	0.9	185.4 160/192	0.9	190.0 166/198	0.3	193.1 170/202	0.2	195.0 173/206	0.0	195.0 175/208
6	181.6 155/187	0.9	186.1 161/193	0.9	190.7 167/199	0.3	193.8 170/203	0.1	195.0 173/206	0.0	195.0 175/209
V2= θ2=	VR+ 21 13.5		VR+ 20 13.0		VR+ 20 13.0		VR+ 20 13.0		VR+ 20 12.5		VR+ 21 12.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

JEDDAH

A/D Elev **48ft**

KING ABDUL AZIZ

FULL LENGTH RWY 16C

CLG NIL **RVR/VIS** 200m **SLOPE** NIL

TOR 3300m (10827ft) **ED** 3300m (10827ft) **TOD** 3300m (10827ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	153.8 151/169	0.8	157.6 156/175	0.8	161.5 161/180	0.3	164.1 164/184	0.3	166.8 167/188	0.3	169.5 170/192
45	155.8 151/170	0.8	159.7 156/176	0.8	163.6 161/181	0.3	166.3 164/185	0.3	169.0 167/189	0.3	171.8 171/193
42	157.8 151/171	0.8	161.7 156/177	0.8	165.7 161/182	0.3	168.5 165/186	0.3	171.2 168/190	0.3	174.0 171/194
39	159.8 152/172	0.8	163.7 157/178	0.8	167.8 162/183	0.3	170.6 165/187	0.3	173.4 168/191	0.3	176.2 171/195
36	161.7 152/173	0.8	165.7 157/178	0.8	169.8 162/184	0.3	172.6 165/188	0.3	175.4 169/192	0.3	178.3 172/196
33	163.5 152/174	0.8	167.6 157/179	0.8	171.8 162/185	0.3	174.6 166/189	0.3	177.5 169/193	0.3	180.4 172/197
30	165.4 153/174	0.8	169.5 158/180	0.8	173.7 163/186	0.3	176.6 166/190	0.3	179.5 169/194	0.3	182.4 173/198
27	167.1 153/175	0.8	171.3 158/181	0.9	175.6 163/187	0.3	178.5 166/191	0.3	181.4 170/195	0.3	184.4 173/199
24	168.9 153/176	0.8	173.1 158/182	0.9	177.4 163/187	0.3	180.4 167/191	0.3	183.3 170/196	0.3	186.4 173/200
21	170.4 154/177	0.9	174.8 159/182	0.9	179.2 164/188	0.3	182.2 167/192	0.3	185.1 171/196	0.3	188.2 174/200
18	171.9 154/177	0.9	176.5 159/183	0.9	180.9 164/189	0.3	183.9 168/193	0.3	186.9 171/197	0.3	190.0 174/201
15	173.3 155/178	1.0	178.1 160/183	0.9	182.6 165/189	0.3	185.6 168/193	0.3	188.6 171/197	0.3	191.7 175/202
12	174.6 155/179	1.0	179.4 160/184	0.9	183.9 165/190	0.3	187.0 169/194	0.3	190.0 172/198	0.3	193.2 175/202
9	175.8 156/179	0.9	180.2 161/185	0.9	184.7 166/191	0.3	187.7 169/195	0.3	190.8 173/199	0.3	193.9 176/203
6	176.4 156/180	0.9	180.8 162/186	0.9	185.4 167/192	0.3	188.4 170/196	0.3	191.5 174/200	0.3	194.6 177/205
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 20 13.0		VR+ 20 13.0

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

JEDDAH

A/D Elev **48ft**

KING ABDUL AZIZ

FULL LENGTH RWY **16R**

CLG NIL **RVR/VIS** 200m **SLOPE** NIL

TOR 3800m (12467ft) **ED** 3800m (12467ft) **TOD** 3800m (12467ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	160.6 154/179	0.8	164.5 160/185	0.8	168.5 165/191	0.3	171.2 169/194	0.3	173.8 173/198	0.2	176.3 177/202
45	162.7 154/180	0.8	166.6 159/186	0.8	170.7 165/192	0.3	173.4 168/195	0.3	176.0 172/199	0.3	178.6 176/203
42	164.7 153/181	0.8	168.7 159/187	0.8	172.8 164/192	0.3	175.6 168/196	0.3	178.2 172/200	0.3	180.9 176/204
39	166.7 153/182	0.8	170.8 158/188	0.8	175.0 164/193	0.3	177.7 168/197	0.3	180.5 171/201	0.3	183.1 175/205
36	168.6 153/183	0.8	172.8 158/188	0.8	177.0 164/194	0.3	179.8 167/198	0.3	182.6 171/202	0.3	185.3 175/206
33	170.5 152/183	0.8	174.7 158/189	0.9	179.0 163/195	0.3	181.9 167/199	0.3	184.7 171/203	0.3	187.4 175/207
30	172.4 152/184	0.9	176.7 158/190	0.9	181.0 163/196	0.3	183.9 167/200	0.3	186.8 171/204	0.3	189.5 174/208
27	174.2 152/185	0.9	178.5 158/191	0.9	182.9 163/197	0.3	185.8 167/201	0.3	188.8 170/205	0.3	191.6 174/209
24	176.0 152/186	0.9	180.4 158/191	0.9	184.8 163/198	0.3	187.7 167/202	0.3	190.7 170/206	0.3	193.6 174/209
21	177.7 152/186	0.9	182.1 158/192	0.9	186.6 163/198	0.3	189.6 167/202	0.3	192.6 170/206	0.2	195.0 174/210
18	179.4 152/187	0.9	183.8 158/193	0.9	188.3 163/199	0.3	191.4 167/203	0.3	194.4 170/207	0.1	195.0 173/209
15	181.0 152/187	0.9	185.5 158/193	0.9	190.0 163/199	0.3	193.1 167/203	0.2	195.0 170/207	0.0	195.0 172/209
12	182.3 152/188	0.9	186.8 158/194	0.9	191.4 164/200	0.3	194.5 167/204	0.0	195.0 170/206	0.0	195.0 172/209
9	183.1 153/189	0.9	187.6 159/195	0.9	192.2 164/201	0.3	195.0 168/205	0.0	195.0 170/207	0.0	195.0 172/209
6	183.7 154/190	0.9	188.3 159/196	0.9	192.9 165/202	0.2	195.0 168/206	0.0	195.0 170/208	0.0	195.0 173/210
V2= θ2=	VR+ 20 13.5		VR+ 20 13.0		VR+ 20 13.0		VR+ 20 12.5		VR+ 21 12.5		VR+ 21 12.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **48ft**

JEDDAH
KING ABDUL AZIZ
FULL LENGTH RWY 34L

CLG NIL **RVR/VIS** 200m **SLOPE** NIL

TOR 3800m (12467ft) **ED** 3800m (12467ft) **TOD** 3800m (12467ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	160.6 154/179	0.8	164.5 160/185	0.8	168.5 165/191	0.3	171.2 169/194	0.3	173.9 173/198	0.3	176.5 176/202
45	162.7 154/180	0.8	166.6 159/186	0.8	170.7 165/192	0.3	173.4 168/195	0.3	176.1 172/199	0.3	178.8 176/203
42	164.7 153/181	0.8	168.7 159/187	0.8	172.8 164/192	0.3	175.6 168/196	0.3	178.3 172/200	0.3	181.0 175/204
39	166.7 153/182	0.8	170.8 158/188	0.8	175.0 164/193	0.3	177.7 168/197	0.3	180.5 171/201	0.3	183.3 175/205
36	168.6 153/183	0.8	172.8 158/188	0.8	177.0 164/194	0.3	179.8 167/198	0.3	182.7 171/202	0.3	185.4 175/206
33	170.5 152/183	0.8	174.7 158/189	0.9	179.0 163/195	0.3	181.9 167/199	0.3	184.7 171/203	0.3	187.6 174/207
30	172.4 152/184	0.9	176.7 158/190	0.9	181.0 163/196	0.3	183.9 167/200	0.3	186.8 171/204	0.3	189.6 174/208
27	174.2 152/185	0.9	178.5 158/191	0.9	182.9 163/197	0.3	185.8 167/201	0.3	188.8 170/205	0.3	191.7 174/209
24	176.0 152/186	0.9	180.4 158/191	0.9	184.8 163/198	0.3	187.7 167/202	0.3	190.7 170/206	0.3	193.7 174/210
21	177.7 152/186	0.9	182.1 158/192	0.9	186.6 163/198	0.3	189.6 167/202	0.3	192.6 170/206	0.2	195.0 174/210
18	179.4 152/187	0.9	183.8 158/193	0.9	188.3 163/199	0.3	191.4 167/203	0.3	194.4 170/207	0.1	195.0 173/209
15	181.0 152/187	0.9	185.5 158/193	0.9	190.0 163/199	0.3	193.1 167/203	0.2	195.0 170/207	0.0	195.0 172/209
12	182.3 152/188	0.9	186.8 158/194	0.9	191.4 164/200	0.3	194.5 167/204	0.0	195.0 170/206	0.0	195.0 172/209
9	183.1 153/189	0.9	187.6 159/195	0.9	192.2 164/201	0.3	195.0 168/205	0.0	195.0 170/207	0.0	195.0 172/209
6	183.7 154/190	0.9	188.3 159/196	0.9	192.9 165/202	0.2	195.0 168/206	0.0	195.0 170/208	0.0	195.0 173/210
V2= θ2=	VR+ 20 13.5		VR+ 20 13.0		VR+ 20 13.0		VR+ 20 12.5		VR+ 21 12.5		VR+ 21 12.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

JEDDAH

A/D Elev **48ft**

KING ABDUL AZIZ

FULL LENGTH RWY 34C

CLG NIL **RVR/VIS** 200m **SLOPE** NIL

TOR 3300m (10827ft) **ED** 3300m (10827ft) **TOD** 3300m (10827ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	153.8 151/169	0.8	157.6 156/175	0.8	161.5 161/180	0.3	164.1 164/184	0.3	166.8 167/188	0.3	169.5 170/192
45	155.8 151/170	0.8	159.7 156/176	0.8	163.6 161/181	0.3	166.3 164/185	0.3	169.0 167/189	0.3	171.8 171/193
42	157.8 151/171	0.8	161.7 156/177	0.8	165.7 161/182	0.3	168.5 165/186	0.3	171.2 168/190	0.3	174.0 171/194
39	159.8 152/172	0.8	163.7 157/178	0.8	167.8 162/183	0.3	170.6 165/187	0.3	173.4 168/191	0.3	176.2 171/195
36	161.7 152/173	0.8	165.7 157/178	0.8	169.8 162/184	0.3	172.6 165/188	0.3	175.4 169/192	0.3	178.3 172/196
33	163.5 152/174	0.8	167.6 157/179	0.8	171.8 162/185	0.3	174.6 166/189	0.3	177.5 169/193	0.3	180.4 172/197
30	165.4 153/174	0.8	169.5 158/180	0.8	173.7 163/186	0.3	176.6 166/190	0.3	179.5 169/194	0.3	182.4 173/198
27	167.1 153/175	0.8	171.3 158/181	0.9	175.6 163/187	0.3	178.5 166/191	0.3	181.4 170/195	0.3	184.4 173/199
24	168.9 153/176	0.8	173.1 158/182	0.9	177.4 163/187	0.3	180.4 167/191	0.3	183.3 170/196	0.3	186.4 173/200
21	170.4 154/177	0.9	174.8 159/182	0.9	179.2 164/188	0.3	182.2 167/192	0.3	185.1 171/196	0.3	188.2 174/200
18	171.9 154/177	0.9	176.5 159/183	0.9	180.9 164/189	0.3	183.9 168/193	0.3	186.9 171/197	0.3	190.0 174/201
15	173.3 155/178	1.0	178.1 160/183	0.9	182.6 165/189	0.3	185.6 168/193	0.3	188.6 171/197	0.3	191.7 175/202
12	174.6 155/179	1.0	179.4 160/184	0.9	183.9 165/190	0.3	187.0 169/194	0.3	190.0 172/198	0.3	193.2 175/202
9	175.8 156/179	0.9	180.2 161/185	0.9	184.7 166/191	0.3	187.7 169/195	0.3	190.8 173/199	0.3	193.9 176/203
6	176.4 156/180	0.9	180.8 162/186	0.9	185.4 167/192	0.3	188.4 170/196	0.3	191.5 174/200	0.3	194.6 177/205
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 20 13.0		VR+ 20 13.0

1. V_1 WET SPEED: V_1 WET is V_1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

JEDDAH

A/D Elev **48ft**

KING ABDUL AZIZ

FULL LENGTH RWY 34R

CLG NIL **RVR/VIS** 480m **SLOPE** 0.15%DN

TOR 3690m (12106ft) **ED** 3690m (12106ft) **TOD** 3690m (12106ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	159.8 154/178	0.8	163.8 159/184	0.8	167.8 165/189	0.3	170.4 169/193	0.3	173.1 172/197	0.3	175.7 176/201
45	161.9 153/179	0.8	165.9 159/185	0.8	169.9 165/190	0.3	172.6 168/194	0.3	175.3 172/198	0.3	178.0 176/202
42	163.9 153/180	0.8	167.9 159/185	0.8	172.0 164/191	0.3	174.8 168/195	0.3	177.5 172/199	0.3	180.3 175/203
39	165.9 153/181	0.8	170.0 158/186	0.8	174.1 164/192	0.3	176.9 168/196	0.3	179.7 171/200	0.3	182.5 175/204
36	167.8 152/181	0.8	172.0 158/187	0.8	176.2 164/193	0.3	179.0 167/197	0.3	181.8 171/201	0.3	184.7 175/205
33	169.7 152/182	0.8	173.9 158/188	0.9	178.2 163/194	0.3	181.0 167/198	0.3	183.9 171/202	0.3	186.8 174/206
30	171.6 152/183	0.8	175.8 158/189	0.9	180.1 163/195	0.3	183.0 167/199	0.3	185.9 170/203	0.3	188.8 174/207
27	173.4 152/184	0.9	177.7 157/190	0.9	182.0 163/196	0.3	185.0 167/200	0.3	187.9 170/204	0.3	190.9 174/208
24	175.1 152/184	0.9	179.5 157/190	0.9	183.9 163/196	0.3	186.9 167/200	0.3	189.8 170/204	0.3	192.8 174/208
21	176.8 152/185	0.9	181.2 157/191	0.9	185.7 163/197	0.3	188.7 167/201	0.3	191.7 170/205	0.3	194.7 174/209
18	178.5 152/186	0.9	183.0 157/192	0.9	187.5 163/198	0.3	190.5 167/202	0.3	193.5 170/206	0.1	195.0 173/209
15	180.1 152/186	0.9	184.6 158/192	0.9	189.1 163/198	0.3	192.2 167/202	0.3	195.0 170/206	0.0	195.0 172/208
12	181.4 152/187	0.9	185.9 158/193	0.9	190.5 163/199	0.3	193.6 167/203	0.1	195.0 170/206	0.0	195.0 172/208
9	182.2 153/188	0.9	186.7 158/194	0.9	191.3 164/200	0.3	194.3 168/204	0.1	195.0 170/207	0.0	195.0 172/209
6	182.8 153/189	0.9	187.4 159/195	0.9	192.0 165/201	0.3	195.0 168/205	0.0	195.0 171/207	0.0	195.0 173/209
V2= θ2=	VR+ 20 13.5		VR+ 20 13.0		VR+ 20 13.0		VR+ 20 12.5		VR+ 20 12.5		VR+ 21 12.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

A/D Elev **180ft**

FULL LENGTH RWY 15

CLG NIL **RVR/VIS** 200m **SLOPE** 0.22%UP
TOR 3311m (10863ft) **ED** 3628m (11903ft) **TOD** 3311m (10863ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	155.5 159/173	0.8	159.3 165/178	0.8	163.2 171/183	0.2	165.7 175/185	0.2	168.0 179/187	0.2	170.3 183/191
36	157.3 159/173	0.8	161.2 165/179	0.8	165.1 171/184	0.3	167.7 175/186	0.2	170.1 179/188	0.2	172.4 183/192
33	159.1 159/174	0.8	163.0 165/180	0.8	167.0 171/185	0.3	169.6 174/187	0.2	172.1 178/189	0.2	174.4 182/193
30	160.9 159/175	0.8	164.8 165/181	0.8	168.8 170/185	0.3	171.5 174/188	0.2	174.0 178/190	0.2	176.4 182/193
27	162.6 159/176	0.8	166.6 164/181	0.8	170.7 170/187	0.3	173.3 174/189	0.3	175.9 178/191	0.2	178.4 182/194
24	164.3 159/176	0.8	168.4 164/182	0.8	172.5 170/187	0.3	175.2 174/190	0.3	177.8 178/192	0.2	180.3 182/195
21	165.9 159/177	0.8	170.0 164/183	0.8	174.2 170/189	0.3	177.0 174/191	0.3	179.7 178/193	0.2	182.2 182/196
18	167.6 159/178	0.8	171.7 164/183	0.8	175.9 170/189	0.3	178.7 174/192	0.3	181.5 178/194	0.2	184.0 182/197
15	169.1 159/178	0.8	173.3 164/184	0.9	177.6 170/190	0.3	180.4 174/193	0.3	183.2 178/195	0.3	185.8 182/198
12	170.3 159/179	0.8	174.5 165/185	0.9	178.9 170/191	0.3	181.7 174/193	0.3	184.5 178/195	0.3	187.1 182/198
9	170.8 159/180	0.9	175.1 165/186	0.9	179.4 171/191	0.3	182.2 175/194	0.3	184.9 179/196	0.3	187.5 183/199
6	171.3 160/181	0.8	175.5 166/187	0.9	179.8 172/191	0.3	182.6 176/194	0.3	185.3 180/196	0.2	187.8 184/200
3	171.8 161/182	0.8	176.0 167/188	0.9	180.3 173/192	0.3	183.0 177/194	0.3	185.6 181/197	0.3	188.2 185/200
0	172.2 162/182	0.9	176.5 168/188	0.8	180.7 174/192	0.3	183.4 178/194	0.2	185.9 182/197	0.3	188.5 186/201
-3	172.6 162/183	0.9	176.9 168/189	0.8	181.0 174/192	0.3	183.7 179/195	0.2	186.2 183/198	0.3	188.8 187/201
V2= θ2=	VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Arrester Gear:** Ensure arrester gear is de-rigged before take-off.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **LAJES**

A/D Elev **180ft**

FULL LENGTH RWY 33

CLG NIL **RVR/VIS** 200m **SLOPE** 0.22%DN

TOR 3311m (10863ft) **ED** 3595m (11795ft) **TOD** 3311m (10863ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	153.0 0.7 159/172	156.7 0.7 165/178	160.4 0.2 171/181	162.8 0.2 175/184	165.1 0.2 179/185	167.5 183/188
36	154.8 0.8 159/173	158.6 0.7 165/179	162.3 0.2 171/182	164.8 0.2 175/184	167.1 0.2 179/186	169.5 183/189
33	156.5 0.8 158/174	160.3 0.8 164/180	164.2 0.2 170/183	166.7 0.2 174/185	169.0 0.2 178/187	171.4 182/190
30	158.3 0.8 158/175	162.1 0.8 164/180	166.0 0.3 170/185	168.6 0.2 174/186	170.9 0.2 178/188	173.4 182/191
27	160.0 0.8 158/176	163.9 0.8 164/181	167.8 0.3 170/186	170.4 0.2 174/187	172.8 0.2 178/190	175.3 182/192
24	161.7 0.8 158/176	165.6 0.8 164/182	169.6 0.3 170/186	172.2 0.2 174/188	174.7 0.2 178/191	177.2 182/193
21	163.3 0.8 158/177	167.3 0.8 164/182	171.4 0.3 170/187	174.0 0.2 174/189	176.5 0.2 178/192	179.0 182/194
18	164.9 0.8 158/177	169.0 0.8 164/183	173.1 0.3 170/188	175.7 0.3 174/190	178.3 0.2 178/193	180.8 182/195
15	166.5 0.8 158/178	170.5 0.8 164/184	174.6 0.3 170/188	177.3 0.3 174/191	180.0 0.2 178/193	182.5 182/196
12	167.7 0.8 158/179	171.8 0.8 164/185	175.9 0.3 170/189	178.6 0.3 174/192	181.3 0.3 178/194	183.9 182/197
9	168.1 0.8 159/180	172.3 0.8 165/185	176.4 0.3 171/190	179.1 0.2 175/192	181.6 0.3 179/194	184.2 183/197
6	168.6 0.8 160/180	172.7 0.8 166/186	176.8 0.3 172/190	179.5 0.2 176/192	182.0 0.3 180/195	184.6 184/197
3	169.0 0.8 160/181	173.2 0.8 166/187	177.2 0.3 172/190	179.8 0.2 176/193	182.3 0.3 181/195	184.9 185/198
0	169.5 0.8 161/182	173.6 0.8 167/187	177.6 0.2 173/190	180.1 0.2 177/193	182.6 0.3 181/196	185.3 186/199
-3	169.8 0.8 162/182	173.8 0.8 168/187	177.9 0.2 174/191	180.4 0.2 178/193	182.9 0.3 182/196	185.6 187/199
V2= θ2=	VR+ 23 14.5	VR+ 23 14.0	VR+ 22 14.0	VR+ 22 13.5	VR+ 22 13.5	VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Arrester Gear:** Ensure arrester gear is de-rigged before take-off.

A/D Elev **374ft**

FULL LENGTH RWY 03

CLG NIL **RVR/VIS** 150m **SLOPE** 0.10%UP
TOR 3805m (12484ft) **ED** 3805m (12484ft) **TOD** 3905m (12812ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	163.7 154/184	0.8	167.6 159/190	0.8	171.5 165/196	0.3	174.1 169/200	0.3	176.7 173/204	0.3	179.3 177/208
36	165.6 153/184	0.8	169.6 159/190	0.8	173.6 165/196	0.3	176.3 169/200	0.3	178.9 172/205	0.3	181.5 176/208
33	167.6 153/185	0.8	171.6 159/191	0.8	175.6 165/197	0.3	178.3 168/201	0.3	181.0 172/205	0.3	183.6 176/209
30	169.5 153/186	0.8	173.5 159/192	0.8	177.7 164/198	0.3	180.4 168/202	0.3	183.1 172/206	0.2	185.6 176/210
27	171.3 153/187	0.8	175.5 159/193	0.8	179.7 164/199	0.3	182.4 168/203	0.3	185.2 172/207	0.2	187.6 176/210
24	173.2 153/187	0.8	177.4 158/193	0.8	181.6 164/200	0.3	184.2 168/203	0.3	187.0 172/207	0.3	189.6 175/211
21	174.9 153/188	0.9	179.2 158/194	0.8	183.4 164/200	0.3	186.0 168/204	0.3	188.9 172/208	0.3	191.5 175/211
18	176.7 153/189	0.9	181.0 158/195	0.8	185.1 164/200	0.3	187.9 168/204	0.3	190.6 172/208	0.3	193.2 175/212
15	178.3 153/189	0.9	182.7 158/195	0.8	186.9 164/201	0.3	189.6 168/205	0.3	192.4 172/208	0.3	195.0 176/212
12	179.7 153/190	0.9	184.1 159/196	0.8	188.2 164/201	0.3	191.0 168/205	0.3	193.8 172/209	0.1	195.0 175/212
9	180.3 154/191	0.9	184.6 159/197	0.8	188.8 165/203	0.3	191.5 169/206	0.3	194.3 173/210	0.1	195.0 176/213
6	180.9 154/192	0.8	185.1 160/198	0.8	189.3 166/203	0.3	192.0 170/207	0.3	194.8 174/211	0.0	195.0 176/213
3	181.5 155/193	0.8	185.6 161/198	0.8	189.8 167/204	0.3	192.6 170/208	0.2	195.0 174/212	0.0	195.0 177/214
0	182.1 156/194	0.8	186.1 161/199	0.9	190.4 167/205	0.3	193.2 171/209	0.2	195.0 175/212	0.0	195.0 177/215
-3	182.6 156/195	0.8	186.7 162/200	0.9	191.0 168/206	0.3	193.7 172/210	0.1	195.0 175/213	0.0	195.0 178/215
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

LISBON

A/D Elev **374ft**

FULL LENGTH RWY 17

CLG NIL **RVR/VIS** 200m **SLOPE** 0.55%DN
TOR 2400m (7874ft) **ED** 2400m (7874ft) **TOD** 2400m (7874ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	135.4 132/154	1.1	141.0 137/158	1.2	146.8 141/162	0.4	150.8 144/165	0.4	154.8 146/168	0.3	158.2 150/171
36	136.9 133/155	1.1	142.6 137/159	1.2	148.4 141/163	0.4	152.5 144/166	0.4	156.6 147/169	0.3	160.1 150/172
33	138.4 133/156	1.1	144.1 137/160	1.2	150.1 142/164	0.4	154.1 144/167	0.4	158.3 147/170	0.4	162.0 150/173
30	139.9 133/157	1.1	145.6 138/161	1.2	151.6 142/165	0.4	155.7 145/168	0.4	159.9 148/171	0.4	163.8 151/174
27	141.3 134/158	1.2	147.1 138/162	1.2	153.1 142/166	0.4	157.3 145/169	0.4	161.6 148/171	0.4	165.6 151/175
24	142.6 134/158	1.2	148.5 138/162	1.2	154.6 143/167	0.4	158.8 146/169	0.4	163.1 148/172	0.4	167.3 151/175
21	143.9 134/159	1.2	149.9 139/163	1.2	156.0 143/167	0.4	160.3 146/170	0.4	164.6 149/173	0.4	169.0 152/176
18	145.2 135/160	1.2	151.2 139/164	1.2	157.4 144/168	0.4	161.7 146/171	0.4	166.0 149/174	0.5	170.6 152/177
15	146.4 135/160	1.2	152.4 140/165	1.3	158.7 144/169	0.4	163.0 147/172	0.4	167.4 150/174	0.5	172.0 153/177
12	147.5 136/161	1.2	153.6 140/165	1.3	160.0 144/169	0.4	164.3 147/172	0.4	168.7 150/175	0.5	173.3 153/178
9	148.6 136/162	1.2	154.8 141/166	1.3	161.1 145/170	0.4	165.5 148/173	0.4	170.0 151/176	0.4	174.2 154/179
6	149.7 137/162	1.2	155.9 141/166	1.3	162.3 145/171	0.4	166.7 148/174	0.4	171.2 151/176	0.4	174.9 154/180
3	150.7 137/163	1.2	156.9 141/167	1.3	163.4 146/171	0.4	167.8 149/174	0.4	172.3 152/177	0.3	175.6 155/181
0	151.6 137/163	1.3	157.9 142/167	1.3	164.4 146/172	0.4	168.8 149/175	0.4	173.1 152/178	0.3	176.2 156/182
-3	152.5 138/164	1.3	158.8 142/168	1.3	165.4 147/172	0.4	169.8 150/175	0.4	173.6 153/179	0.3	176.8 157/183
V2= θ2=	VR+ 26 15.5		VR+ 25 15.0		VR+ 23 14.5		VR+ 22 14.5		VR+ 22 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **374ft**

FULL LENGTH RWY 21

CLG NIL **RVR/VIS** 150m **SLOPE** 0.10%DN
TOR 3805m (12484ft) **ED** 3805m (12484ft) **TOD** 3905m (12812ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	166.0 152/182	0.8	170.1 157/188	0.8	174.1 163/194	0.3	176.7 167/198	0.3	179.3 170/201	0.2	181.7 174/205
36	168.0 151/183	0.8	172.1 157/189	0.8	176.2 163/195	0.3	178.8 166/199	0.3	181.4 170/202	0.2	183.9 174/206
33	169.9 151/184	0.8	174.0 157/190	0.8	178.2 162/196	0.3	180.9 166/200	0.3	183.5 170/203	0.3	186.1 174/207
30	171.8 151/185	0.8	176.0 157/191	0.8	180.2 162/197	0.3	182.9 166/201	0.3	185.6 170/204	0.3	188.2 173/208
27	173.6 151/186	0.9	177.9 156/192	0.8	182.1 162/198	0.3	184.9 166/201	0.3	187.6 169/205	0.3	190.3 173/209
24	175.4 151/186	0.9	179.7 156/192	0.9	184.0 162/198	0.3	186.8 166/202	0.3	189.6 169/206	0.3	192.3 173/210
21	177.2 151/187	0.9	181.5 156/193	0.9	185.9 162/199	0.3	188.7 166/203	0.3	191.5 169/207	0.3	194.2 173/210
18	178.9 151/188	0.9	183.3 156/194	0.9	187.7 162/200	0.3	190.4 166/203	0.3	193.2 169/207	0.2	195.0 173/210
15	180.5 151/188	0.9	184.9 156/194	0.9	189.3 162/200	0.3	192.1 166/204	0.3	194.9 170/208	0.0	195.0 172/210
12	181.8 151/189	0.9	186.3 157/195	0.8	190.5 162/201	0.3	193.4 166/204	0.2	195.0 169/207	0.0	195.0 172/209
9	182.5 152/190	0.9	186.9 157/196	0.8	191.0 163/202	0.3	193.9 167/205	0.1	195.0 170/208	0.0	195.0 172/210
6	183.2 152/191	0.8	187.4 158/197	0.8	191.6 164/203	0.3	194.5 168/206	0.0	195.0 170/209	0.0	195.0 173/211
3	183.8 153/192	0.8	188.0 159/198	0.9	192.3 165/203	0.3	195.0 168/207	0.0	195.0 171/209	0.0	195.0 173/211
0	184.4 154/193	0.8	188.6 159/199	0.9	192.9 165/204	0.2	195.0 169/208	0.0	195.0 171/210	0.0	195.0 174/212
-3	184.9 154/194	0.9	189.3 160/200	0.9	193.6 166/205	0.1	195.0 169/208	0.0	195.0 172/211	0.0	195.0 175/213
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **374ft**

FULL LENGTH RWY 35

CLG NIL **RVR/VIS** 200m **SLOPE** 0.55%UP
TOR 2400m (7874ft) **ED** 2400m (7874ft) **TOD** 2400m (7874ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	131.4 135/151	1.0	136.6 139/155	0.9	141.0 144/158	0.2	143.4 148/161	0.2	145.8 151/164	0.2	148.3 155/169
36	132.8 135/152	1.1	138.2 140/156	0.9	142.7 145/159	0.2	145.1 148/162	0.2	147.6 152/165	0.3	150.2 155/170
33	134.2 136/153	1.1	139.7 140/157	0.9	144.4 145/160	0.2	146.8 148/163	0.2	149.3 152/166	0.3	151.9 155/171
30	135.6 136/154	1.1	141.2 140/158	1.0	146.0 145/161	0.2	148.5 149/164	0.2	151.0 152/167	0.3	153.7 156/172
27	137.0 136/154	1.1	142.7 141/159	1.0	147.6 146/162	0.3	150.2 149/165	0.2	152.7 153/168	0.3	155.4 156/173
24	138.3 137/155	1.2	144.1 141/159	1.0	149.2 146/163	0.3	151.8 149/165	0.3	154.4 153/169	0.3	157.1 156/174
21	139.6 137/156	1.2	145.5 141/160	1.0	150.7 146/164	0.3	153.4 150/166	0.3	156.0 153/170	0.3	158.7 157/175
18	140.8 137/156	1.2	146.9 142/161	1.1	152.2 147/165	0.3	154.9 150/166	0.3	157.6 154/171	0.3	160.3 157/174
15	141.9 138/157	1.2	148.1 142/162	1.1	153.6 147/165	0.3	156.4 150/167	0.3	159.1 154/172	0.3	161.8 158/174
12	143.0 138/158	1.2	149.2 143/162	1.1	154.7 147/166	0.3	157.6 151/168	0.3	160.3 155/172	0.3	163.0 158/176
9	144.1 139/158	1.2	150.1 143/163	1.0	155.3 148/166	0.3	158.0 152/169	0.3	160.7 155/172	0.3	163.5 159/178
6	145.1 139/159	1.2	150.9 144/163	1.0	155.7 149/166	0.3	158.4 153/169	0.3	161.1 156/173	0.3	163.9 160/178
3	146.1 140/159	1.1	151.6 144/163	0.9	156.1 150/166	0.3	158.8 153/171	0.3	161.5 157/174	0.3	164.3 161/178
0	146.9 140/160	1.1	152.3 145/164	0.8	156.5 150/166	0.3	159.2 154/171	0.3	161.9 158/176	0.3	164.7 161/179
-3	147.6 141/160	1.0	152.8 146/164	0.8	156.8 151/168	0.3	159.5 155/171	0.3	162.2 159/176	0.3	165.0 162/180
V2= θ2=	VR+ 28 16.0		VR+ 26 15.5		VR+ 25 15.0		VR+ 24 15.0		VR+ 24 14.5		VR+ 24 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **81ft**

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 150m **SLOPE** 0.25%UP
TOR 2286m (7500ft) **ED** 2297m (7536ft) **TOD** 2368m (7769ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	130.0 133/150	1.1	135.6 137/154	1.1	141.1 141/158	0.4	144.8 144/161	0.4	148.4 147/163	0.4	152.1 150/166
36	131.4 133/151	1.1	137.1 137/155	1.1	142.7 142/159	0.4	146.4 145/162	0.4	150.1 148/164	0.4	153.8 151/167
33	132.8 133/152	1.2	138.6 138/156	1.1	144.2 142/160	0.4	148.0 145/163	0.4	151.8 148/165	0.4	155.6 151/168
30	134.2 134/152	1.2	140.1 138/157	1.1	145.7 142/161	0.4	149.6 145/163	0.4	153.4 148/166	0.4	157.2 151/169
27	135.5 134/153	1.2	141.5 138/157	1.1	147.2 143/162	0.4	151.1 146/164	0.4	155.0 149/167	0.4	158.9 152/169
24	136.8 134/154	1.2	142.8 139/158	1.2	148.6 143/162	0.4	152.6 146/165	0.4	156.5 149/168	0.4	160.4 152/170
21	138.1 135/155	1.2	144.1 139/159	1.2	150.0 144/163	0.4	154.0 147/166	0.4	158.0 150/168	0.4	161.9 153/171
18	139.3 135/155	1.2	145.3 139/160	1.2	151.3 144/164	0.4	155.4 147/167	0.4	159.4 150/169	0.4	163.4 153/172
15	140.4 135/156	1.2	146.5 140/160	1.2	152.6 144/164	0.4	156.7 147/167	0.4	160.7 150/170	0.4	164.8 153/173
12	141.5 136/156	1.2	147.7 140/161	1.2	153.8 145/165	0.4	157.9 148/168	0.4	162.0 151/171	0.4	166.1 154/173
9	142.5 136/157	1.3	148.8 141/161	1.2	154.8 145/166	0.4	158.9 148/168	0.4	163.0 151/171	0.4	167.0 154/174
6	143.5 137/157	1.2	149.7 141/162	1.2	155.8 146/166	0.4	159.8 149/169	0.4	163.9 152/172	0.4	168.0 155/174
3	144.5 137/158	1.2	150.6 142/162	1.2	156.7 146/167	0.4	160.8 149/169	0.4	164.8 153/172	0.4	168.8 156/175
0	145.4 138/158	1.2	151.4 142/163	1.2	157.6 147/167	0.4	161.6 150/170	0.4	165.6 153/172	0.4	169.7 156/175
-3	146.3 138/159	1.2	152.2 143/163	1.2	158.4 147/167	0.4	162.4 151/170	0.4	166.4 154/173	0.4	170.4 157/175
V2= θ2=	VR+ 29 16.0		VR+ 27 15.5		VR+ 26 15.0		VR+ 25 15.0		VR+ 23 14.5		VR+ 23 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **LIVERPOOL**

A/D Elev **81ft**

FULL LENGTH RWY 27

CLG NIL **RVR/VIS** 150m **SLOPE** 0.25%DN

TOR 2286m (7500ft) **ED** 2317m (7602ft) **TOD** 2469m (8100ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	132.3 132/152	2.1	142.8 134/159	1.1	148.4 139/163	0.4	152.2 141/166	0.4	156.0 144/169	0.3	159.5 147/172
36	134.5 132/153	2.0	144.4 134/160	1.1	150.1 139/164	0.4	154.0 142/167	0.4	157.8 145/169	0.4	161.4 148/173
33	136.7 132/154	1.9	146.0 135/161	1.2	151.8 139/165	0.4	155.7 142/168	0.4	159.6 145/170	0.4	163.2 148/173
30	138.9 132/156	1.7	147.6 135/162	1.2	153.4 140/166	0.4	157.3 142/169	0.4	161.3 145/171	0.4	165.1 148/174
27	141.1 132/157	1.6	149.0 136/163	1.2	155.0 140/167	0.4	158.9 143/170	0.4	162.9 146/172	0.4	166.9 149/175
24	143.3 132/159	1.4	150.5 136/164	1.2	156.5 140/168	0.4	160.5 143/170	0.4	164.5 146/173	0.4	168.6 149/176
21	145.5 132/160	1.3	151.9 136/164	1.2	157.9 141/168	0.4	162.0 144/171	0.4	166.1 147/174	0.4	170.2 150/176
18	147.2 132/161	1.2	153.2 137/165	1.2	159.3 141/169	0.4	163.4 144/172	0.4	167.5 147/175	0.4	171.7 150/177
15	148.4 133/161	1.2	154.5 137/166	1.2	160.6 141/170	0.4	164.8 144/173	0.4	168.9 147/175	0.4	173.2 150/178
12	149.5 133/162	1.2	155.7 137/166	1.2	161.9 142/171	0.4	166.0 145/173	0.4	170.2 148/176	0.4	174.5 151/179
9	150.6 133/163	1.2	156.8 138/167	1.2	163.0 142/171	0.4	167.1 145/174	0.4	171.3 148/176	0.4	175.5 151/179
6	151.7 134/163	1.2	157.8 138/167	1.2	164.0 143/172	0.4	168.2 146/174	0.4	172.4 149/177	0.4	176.2 152/180
3	152.7 134/164	1.2	158.8 139/168	1.2	165.0 143/172	0.4	169.2 146/175	0.4	173.3 149/177	0.3	176.8 153/181
0	153.6 135/164	1.2	159.7 139/168	1.2	165.9 144/173	0.4	170.1 147/175	0.4	174.3 150/178	0.3	177.4 154/182
-3	154.4 135/165	1.2	160.6 140/169	1.2	166.8 144/173	0.4	170.9 148/176	0.4	174.8 151/179	0.3	177.9 154/183
V2= θ2=	VR+ 27 15.5		VR+ 25 15.0		VR+ 23 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **294ft**

FULL LENGTH RWY 02

CLG 500ft **RVR/VIS** 1000m **SLOPE** 0.22%DN
TOR 3000m (9843ft) **ED** 3000m (9843ft) **TOD** 3000m (9843ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	147.0 144/163	1.0	152.0 148/168	0.8	155.8 153/173	0.3	158.5 157/177	0.3	161.1 160/181	0.3	163.8 163/185
45	148.8 144/164	1.0	154.0 149/169	0.8	157.9 154/174	0.3	160.5 157/178	0.3	163.2 160/182	0.3	166.0 163/186
42	150.6 145/165	1.1	155.9 149/170	0.8	159.9 154/175	0.3	162.6 157/179	0.3	165.3 161/183	0.3	168.1 164/187
39	152.4 145/166	1.1	157.8 149/170	0.8	161.9 154/176	0.3	164.6 158/180	0.3	167.3 161/184	0.3	170.2 164/188
36	154.1 145/167	1.1	159.7 150/171	0.8	163.8 155/177	0.3	166.6 158/181	0.3	169.4 161/185	0.3	172.2 165/189
33	155.8 146/168	1.2	161.6 150/172	0.8	165.7 155/178	0.3	168.5 158/182	0.3	171.3 162/186	0.3	174.2 165/190
30	157.4 146/169	1.2	163.4 150/173	0.8	167.6 155/179	0.3	170.4 159/183	0.3	173.3 162/187	0.3	176.2 165/191
27	159.0 147/170	1.2	165.1 151/174	0.9	169.4 156/179	0.3	172.3 159/183	0.3	175.2 162/187	0.3	178.1 166/192
24	160.5 147/171	1.2	166.7 151/175	0.9	171.2 156/180	0.3	174.1 159/184	0.3	177.0 163/188	0.3	180.0 166/192
21	162.0 147/171	1.2	168.2 152/175	0.9	172.9 157/181	0.3	175.8 160/185	0.3	178.8 163/189	0.3	181.8 167/193
18	163.4 148/172	1.3	169.7 152/176	1.0	174.5 157/181	0.3	177.5 160/185	0.3	180.5 164/190	0.3	183.6 167/194
15	164.8 148/173	1.3	171.1 153/177	1.0	176.1 157/182	0.3	179.1 161/186	0.3	182.2 164/190	0.3	185.3 167/194
12	166.1 149/173	1.3	172.4 153/177	1.0	177.5 158/183	0.3	180.5 161/187	0.3	183.5 165/191	0.3	186.7 168/195
9	167.3 149/174	1.3	173.7 154/178	0.9	178.2 159/184	0.3	181.2 162/188	0.3	184.3 165/192	0.3	187.4 169/196
6	168.5 150/175	1.2	174.4 154/179	0.9	178.9 159/185	0.3	181.9 163/189	0.3	185.0 166/193	0.3	188.1 170/197
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 20 13.5		VR+ 20 13.0		VR+ 20 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **LUXOR**

A/D Elev **294ft**

FULL LENGTH RWY 20

CLG 500ft **RVR/VIS** 1000m **SLOPE** 0.22%UP
TOR 3000m (9843ft) **ED** 3000m (9843ft) **TOD** 3000m (9843ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
48	142.9 146/164	0.7	146.5 151/169	0.7	150.2 156/175	0.2	152.5 160/179	0.2	154.9 163/183	0.2	157.4 166/187
45	144.8 146/164	0.7	148.4 151/170	0.8	152.2 157/176	0.2	154.6 160/180	0.2	157.0 163/184	0.3	159.6 167/188
42	146.7 147/165	0.7	150.4 152/171	0.8	154.2 157/177	0.2	156.6 160/181	0.2	159.1 164/185	0.3	161.7 167/189
39	148.6 147/166	0.7	152.3 152/172	0.8	156.1 157/178	0.3	158.7 161/182	0.2	161.2 164/186	0.3	163.8 167/190
36	150.4 147/167	0.8	154.2 152/173	0.8	158.0 157/178	0.3	160.7 161/182	0.2	163.2 164/187	0.3	165.8 168/191
33	152.2 148/168	0.8	156.0 153/173	0.8	159.9 158/179	0.3	162.6 161/183	0.3	165.2 165/187	0.3	167.9 168/192
30	153.9 148/168	0.8	157.8 153/174	0.8	161.8 158/180	0.3	164.5 161/184	0.3	167.1 165/188	0.3	169.8 168/192
27	155.7 148/169	0.8	159.6 153/175	0.8	163.6 158/181	0.3	166.4 162/185	0.3	169.0 165/189	0.3	171.8 169/193
24	157.4 149/170	0.8	161.3 154/175	0.8	165.4 159/181	0.3	168.2 162/185	0.3	170.9 166/190	0.3	173.7 169/194
21	159.0 149/170	0.8	163.0 154/176	0.8	167.1 159/182	0.3	169.9 163/186	0.3	172.7 166/190	0.3	175.6 169/195
18	160.6 149/171	0.8	164.7 154/177	0.8	168.8 160/183	0.3	171.7 163/187	0.3	174.5 166/191	0.3	177.4 170/195
15	162.1 150/171	0.8	166.2 155/177	0.9	170.5 160/183	0.3	173.3 163/187	0.3	176.2 167/191	0.3	179.1 170/196
12	163.4 150/172	0.8	167.5 155/178	0.8	171.7 160/184	0.3	174.6 164/188	0.3	177.5 167/192	0.3	180.5 171/197
9	164.0 151/173	0.8	168.1 156/179	0.9	172.4 161/185	0.3	175.3 165/189	0.3	178.1 168/193	0.3	181.1 172/198
6	164.6 152/174	0.8	168.7 157/180	0.9	173.0 162/186	0.3	175.9 165/190	0.3	178.7 169/195	0.3	181.6 172/199
V2= ∂2=	VR+ 23 14.5		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **MANSTON**

A/D Elev **178ft**

FULL LENGTH RWY 10

CLG NIL **RVR/VIS** 200m **SLOPE** 0.01%UP

TOR 2752m (9029ft) **ED** 2752m (9029ft) **TOD** 2814m (9232ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	146.5 141/162	1.2	152.3 145/166	1.2	158.1 149/170	0.3	160.8 152/174	0.3	163.6 156/178	0.3	166.4 159/182
36	148.2 141/163	1.2	154.0 145/167	1.2	160.0 149/171	0.3	162.7 153/175	0.3	165.5 156/179	0.3	168.4 159/183
33	149.8 141/164	1.2	155.7 145/168	1.2	161.8 150/172	0.3	164.6 153/176	0.3	167.5 156/180	0.3	170.4 160/184
30	151.3 142/165	1.2	157.3 146/169	1.2	163.5 150/173	0.3	166.5 153/177	0.3	169.3 157/181	0.3	172.3 160/185
27	152.8 142/166	1.2	158.9 146/170	1.2	165.1 150/174	0.3	168.3 154/177	0.3	171.2 157/181	0.3	174.2 160/185
24	154.3 142/166	1.2	160.4 147/170	1.3	166.7 151/174	0.3	170.0 154/178	0.3	173.0 157/182	0.3	176.0 161/186
21	155.7 143/167	1.2	161.9 147/171	1.3	168.2 151/175	0.3	171.7 154/179	0.3	174.7 158/183	0.3	177.8 161/187
18	157.1 143/168	1.2	163.3 147/172	1.3	169.7 152/176	0.4	173.4 155/179	0.3	176.4 158/183	0.3	179.5 162/188
15	158.4 144/168	1.2	164.6 148/173	1.3	171.1 152/177	0.4	174.9 155/180	0.3	178.0 159/184	0.3	181.1 162/188
12	159.6 144/169	1.3	165.9 148/173	1.3	172.4 153/177	0.4	176.2 156/181	0.3	179.3 159/185	0.3	182.5 162/189
9	160.8 144/170	1.3	167.1 149/174	1.3	173.6 153/178	0.3	177.0 156/182	0.3	180.1 160/186	0.3	183.2 163/190
6	161.9 145/170	1.3	168.3 149/174	1.3	174.6 154/179	0.3	177.7 157/183	0.3	180.8 161/187	0.3	183.9 164/191
3	163.0 145/171	1.3	169.4 150/175	1.2	175.3 154/180	0.3	178.3 158/184	0.3	181.4 161/188	0.3	184.6 165/192
0	164.0 146/171	1.3	170.4 150/176	1.1	175.9 155/181	0.3	179.0 159/185	0.3	182.1 162/189	0.3	185.2 165/193
-3	164.9 146/172	1.3	171.4 151/176	1.0	176.5 156/181	0.3	179.5 159/186	0.3	182.6 163/190	0.3	185.8 166/194
V2= θ2=	VR+ 24 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **178ft**

FULL LENGTH RWY 28

CLG NIL **RVR/VIS** 200m **SLOPE** 0.01%DN
TOR 2752m (9029ft) **ED** 2752m (9029ft) **TOD** 2806m (9206ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	146.4 141/162	1.2	152.2 145/166	1.2	158.0 149/170	0.3	160.7 152/174	0.3	163.5 156/178	0.3	166.4 159/182
36	148.1 141/163	1.2	153.9 145/167	1.2	159.9 149/171	0.3	162.7 153/175	0.3	165.5 156/179	0.3	168.4 159/183
33	149.7 141/164	1.2	155.6 145/168	1.2	161.7 150/172	0.3	164.5 153/176	0.3	167.4 156/180	0.3	170.3 160/184
30	151.2 142/165	1.2	157.2 146/169	1.2	163.4 150/173	0.3	166.4 153/176	0.3	169.3 157/180	0.3	172.3 160/185
27	152.8 142/165	1.2	158.8 146/169	1.2	165.0 150/174	0.3	168.2 154/177	0.3	171.1 157/181	0.3	174.1 160/185
24	154.2 142/166	1.2	160.3 147/170	1.3	166.6 151/174	0.3	170.0 154/178	0.3	172.9 157/182	0.3	175.9 161/186
21	155.6 143/167	1.2	161.8 147/171	1.3	168.1 151/175	0.3	171.6 154/179	0.3	174.6 158/183	0.3	177.7 161/187
18	157.0 143/168	1.2	163.2 148/172	1.3	169.6 152/176	0.4	173.3 155/179	0.3	176.3 158/183	0.3	179.4 162/187
15	158.3 144/168	1.2	164.5 148/172	1.3	171.0 152/177	0.4	174.9 155/180	0.3	177.9 159/184	0.3	181.1 162/188
12	159.5 144/169	1.3	165.8 148/173	1.3	172.3 153/177	0.4	176.2 156/180	0.3	179.2 159/185	0.3	182.4 163/189
9	160.7 145/170	1.3	167.0 149/174	1.3	173.5 153/178	0.3	176.9 156/182	0.3	180.0 160/186	0.3	183.2 163/190
6	161.8 145/170	1.3	168.2 149/174	1.3	174.6 154/179	0.3	177.6 157/183	0.3	180.7 161/187	0.3	183.9 164/191
3	162.9 145/171	1.3	169.2 150/175	1.2	175.2 154/180	0.3	178.3 158/184	0.3	181.4 161/188	0.3	184.5 165/192
0	163.9 146/171	1.3	170.3 150/175	1.1	175.9 155/181	0.3	178.9 159/185	0.3	182.0 162/189	0.3	185.1 166/193
-3	164.8 146/172	1.3	171.3 151/176	1.0	176.4 156/181	0.3	179.5 159/185	0.3	182.5 163/190	0.3	185.7 166/194
V2= θ2=	VR+ 24 14.5		VR+ 23 14.5		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

MARSEILLE MARIGNANE

A/D Elev **69ft**

FULL LENGTH RWY 14L

CLG NIL **RVR/VIS** 200m **SLOPE** 0.51%UP

TOR 3500m (11483ft) **ED** 3500m (11483ft) **TOD** 3500m (11483ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	152.6 161/177	0.6	155.8 166/182	0.7	159.1 171/187	0.2	161.3 175/191	16.1			165.5 182/197
36	154.6 161/178	0.6	157.8 166/183	0.7	161.1 172/188	0.2	163.3 175/191	16.3			167.6 182/198
33	156.4 161/179	0.7	159.7 167/184	0.7	163.0 172/189	0.2	165.3 176/192	16.5			169.7 183/199
30	158.3 161/180	0.7	161.6 167/185	0.7	165.0 172/190	0.2	167.3 176/193	0.2	169.5 180/196	0.2	171.8 183/200
27	160.2 162/180	0.7	163.5 167/185	0.7	166.9 173/190	0.2	169.3 176/194	0.2	171.6 180/197	0.2	173.8 183/201
24	161.9 161/181	0.7	165.4 167/186	0.7	168.8 173/191	0.2	171.2 177/195	0.2	173.5 180/198	0.2	175.8 184/201
21	163.6 161/182	0.7	167.2 168/187	0.7	170.7 173/192	0.2	173.1 177/195	0.2	175.5 180/199	0.2	177.8 184/202
18	165.3 161/182	0.7	168.9 167/187	0.7	172.5 174/193	0.2	174.9 177/196	0.2	177.4 181/199	0.2	179.7 184/203
15	166.8 161/182	0.8	170.6 167/188	0.7	174.3 174/193	0.2	176.7 178/197	0.2	179.2 181/200	0.2	181.6 185/203
12	168.1 162/183	0.8	171.9 168/189	0.7	175.6 174/194	0.2	178.1 178/197	0.2	180.6 182/201	0.2	183.1 185/204
9	168.6 162/184	0.7	172.3 168/189	0.7	175.9 175/194	0.2	178.4 179/198	0.2	180.9 183/201	0.2	183.3 186/205
6	169.0 163/185	0.7	172.6 169/190	0.7	176.3 175/195	0.2	178.7 180/198	0.2	181.2 184/202	0.2	183.5 187/205
3	169.4 164/185	0.7	173.0 170/190	0.7	176.6 176/196	0.2	179.1 181/199	0.2	181.5 185/202	0.2	183.9 189/206
0	169.8 165/186	0.7	173.3 171/191	0.7	177.0 177/196	0.2	179.5 181/199	0.2	181.8 186/203	0.2	184.2 190/206
-3	170.1 165/186	0.7	173.6 172/191	0.7	177.3 178/196	0.2	179.8 182/200	0.2	182.1 187/203	0.2	184.4 191/206
V2= θ2=	VR+ 24 14.5		VR+ 24 14.0		VR+ 23 14.0		VR+ 23 14.0		VR+ 23 13.5		VR+ 23 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Runway Surface:** Rwy 14L/32R liable to be slippery when wet only on rubber deposits.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **69ft**

MARSEILLE MARIGNANE

FULL LENGTH RWY 14R

CLG NIL **RVR/VIS** Note 2* **SLOPE** 0.72%UP

TOR 2370m (7776ft) **ED** 2370m (7776ft) **TOD** 2370m (7776ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	131.4 135/151	1.1	137.0 139/155	1.1	142.4 144/160	0.3	145.0 147/164	0.3	147.6 151/168	0.3	150.3 154/172
36	132.9 135/152	1.1	138.5 140/156	1.1	144.2 144/160	0.3	146.8 148/164	0.3	149.4 151/168	0.3	152.1 154/172
33	134.3 136/153	1.1	140.0 140/157	1.2	145.9 144/161	0.3	148.6 148/165	0.3	151.2 151/169	0.3	153.9 155/173
30	135.7 136/153	1.1	141.4 140/158	1.2	147.4 145/162	0.3	150.3 148/166	0.3	153.0 152/170	0.3	155.8 155/174
27	137.0 136/154	1.2	142.8 141/158	1.2	148.9 145/163	0.3	152.0 148/166	0.3	154.7 152/170	0.3	157.5 155/175
24	138.3 137/155	1.2	144.2 141/159	1.2	150.3 146/163	0.3	153.6 149/167	0.3	156.4 152/171	0.3	159.2 156/175
21	139.6 137/156	1.2	145.5 142/160	1.2	151.7 146/164	0.4	155.3 149/168	0.3	158.0 153/172	0.3	160.9 156/176
18	140.8 138/156	1.2	146.7 142/161	1.3	153.0 146/165	0.4	156.8 149/168	0.3	159.7 153/172	0.3	162.5 156/176
15	141.9 138/157	1.2	147.9 142/161	1.3	154.2 147/166	0.4	158.3 150/169	0.3	161.2 153/173	0.3	164.1 157/177
12	143.0 138/157	1.2	149.1 143/162	1.3	155.4 147/166	0.4	159.6 150/169	0.3	162.4 154/173	0.3	165.4 157/178
9	144.1 139/158	1.2	150.2 143/162	1.3	156.6 148/167	0.3	160.1 151/170	0.3	163.0 154/174	0.3	166.0 158/179
6	145.1 139/159	1.2	151.2 144/163	1.3	157.6 148/167	0.3	160.7 152/171	0.3	163.6 155/175	0.3	166.5 159/180
3	146.0 140/159	1.2	152.2 144/163	1.2	158.4 149/168	0.3	161.2 152/172	0.3	164.1 156/176	0.3	167.1 159/181
0	147.0 140/160	1.2	153.2 145/164	1.1	158.9 149/169	0.3	161.8 153/173	0.3	164.7 157/177	0.3	167.6 160/181
-3	147.8 141/160	1.3	154.1 145/164	1.1	159.4 150/170	0.3	162.2 154/174	0.3	165.1 157/178	0.3	168.1 161/182
V2= θ2=	VR+ 29 16.0		VR+ 27 15.5		VR+ 25 15.0		VR+ 25 15.0		VR+ 24 14.5		VR+ 24 14.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Take-Off RVR:** 350m DAY, 400m NIGHT.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **69ft**

MARSEILLE MARIGNANE

FULL LENGTH RWY 32L

CLG NIL **RVR/VIS** Note 2* **SLOPE** 0.72%DN

TOR 2370m (7776ft) **ED** 2370m (7776ft) **TOD** 2670m (8760ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	136.0 132/155	2.8	150.0 133/164	1.1	155.3 137/168	0.3	158.8 140/171	0.2	161.2 144/174	0.2	163.7 147/178
36	138.2 132/156	2.7	151.7 133/165	1.1	157.1 138/169	0.4	160.7 141/171	0.2	163.2 144/175	0.2	165.7 148/179
33	140.5 132/157	2.6	153.3 133/166	1.1	158.8 138/170	0.4	162.5 141/172	0.3	165.1 144/176	0.2	167.6 148/179
30	142.7 132/159	2.4	154.9 134/167	1.1	160.5 138/171	0.4	164.2 141/173	0.3	166.9 145/177	0.3	169.5 148/180
27	145.0 132/160	2.3	156.5 134/168	1.1	162.1 139/172	0.4	165.9 142/174	0.3	168.7 145/177	0.3	171.3 149/181
24	147.3 132/161	2.1	158.0 134/169	1.1	163.6 139/172	0.4	167.5 142/175	0.3	170.5 145/178	0.3	173.1 149/182
21	149.5 132/163	2.0	159.4 135/169	1.1	165.1 139/173	0.4	169.0 142/176	0.3	172.2 146/179	0.3	174.8 149/182
18	151.7 132/164	1.8	160.8 135/170	1.1	166.5 140/174	0.4	170.4 143/176	0.3	173.8 146/179	0.3	176.5 150/183
15	154.0 132/165	1.6	162.1 136/171	1.2	167.9 140/175	0.4	171.8 143/177	0.4	175.4 147/180	0.3	178.1 150/184
12	156.2 132/167	1.4	163.3 136/171	1.2	169.2 141/175	0.4	173.1 144/178	0.4	176.7 147/181	0.3	179.5 151/184
9	158.4 132/168	1.2	164.5 136/172	1.2	170.4 141/176	0.4	174.4 144/178	0.3	177.4 148/182	0.3	180.2 151/185
6	159.9 132/169	1.1	165.6 137/173	1.2	171.5 142/176	0.4	175.4 145/179	0.3	178.1 148/183	0.3	180.8 152/186
3	160.9 133/169	1.2	166.7 137/173	1.2	172.6 142/177	0.3	176.0 145/180	0.3	178.7 149/184	0.3	181.5 153/187
0	161.9 133/170	1.2	167.7 138/174	1.2	173.7 143/177	0.3	176.6 146/181	0.3	179.3 150/185	0.3	182.1 153/188
-3	162.8 134/170	1.2	168.6 138/174	1.2	174.4 143/178	0.3	177.1 147/182	0.3	179.9 150/185	0.3	182.6 154/189
V2= θ2=	VR+ 26 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Take-Off RVR:** 350m DAY, 400m NIGHT.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **69ft**

MARSEILLE MARIGNANE

FULL LENGTH RWY 32R

CLG NIL **RVR/VIS** 200m **SLOPE** 0.51%DN

TOR 3500m (11483ft) **ED** 3500m (11483ft) **TOD** 3800m (12467ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	168.5 0.8 150/184	172.6 0.8 155/190	176.8 0.3 161/196	179.5 0.3 164/200	182.3 0.3 168/204	184.9 172/208
36	170.4 0.8 149/185	174.6 0.8 155/191	178.8 0.3 160/197	181.7 0.3 164/201	184.4 0.3 168/205	187.1 172/209
33	172.4 0.8 149/186	176.6 0.9 155/192	180.9 0.3 160/198	183.6 0.3 164/202	186.3 0.3 168/205	188.9 172/209
30	174.3 0.8 149/187	178.5 0.8 155/193	182.7 0.3 160/199	185.4 0.3 164/202	188.1 0.3 168/206	190.7 171/210
27	176.1 0.8 149/188	180.3 0.8 154/193	184.4 0.3 160/199	187.1 0.3 164/203	189.8 0.3 168/206	192.4 171/210
24	177.9 0.8 149/188	182.0 0.8 155/194	186.0 0.3 160/199	188.8 0.3 164/203	191.5 0.3 168/207	194.2 172/210
21	179.5 0.8 149/189	183.6 0.8 155/194	187.7 0.3 160/200	190.5 0.3 164/203	193.2 0.2 168/207	195.0 171/210
18	181.1 0.8 149/189	185.2 0.8 155/195	189.3 0.3 160/200	192.2 0.3 164/204	195.0 0.0 168/208	195.0 170/210
15	182.7 0.8 149/190	186.8 0.8 155/195	191.0 0.3 161/201	193.8 0.1 164/204	195.0 0.0 167/207	195.0 170/209
12	184.0 0.8 149/190	188.1 0.8 155/196	192.3 0.3 161/201	195.0 0.0 165/205	195.0 0.0 167/207	195.0 170/209
9	184.5 0.8 150/191	188.7 0.8 156/197	192.9 0.2 162/202	195.0 0.0 165/206	195.0 0.0 167/208	195.0 170/210
6	185.0 0.8 151/192	189.2 0.9 156/198	193.5 0.1 162/203	195.0 0.0 165/206	195.0 0.0 168/208	195.0 171/210
3	185.6 0.8 151/193	189.8 0.9 157/198	194.1 0.1 163/204	195.0 0.0 166/207	195.0 0.0 168/209	195.0 171/211
0	186.1 0.9 152/194	190.4 0.9 158/199	194.8 0.0 164/205	195.0 0.0 166/207	195.0 0.0 169/209	195.0 172/212
-3	186.7 0.9 153/195	191.1 0.8 159/200	195.0 0.0 164/206	195.0 0.0 167/208	195.0 0.0 169/210	195.0 172/212
V2= θ2=	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 12.5	VR+ 21 12.5	VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Runway Surface:** Rwy 14L/32R liable to be slippery when wet only on rubber deposits.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NIAGARA FALLS

A/D Elev **590ft**

FULL LENGTH RWY 10L

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.01%DN
TOR 2782m (9127ft) **ED** 3086m (10125ft) **TOD** 2782m (9127ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.2 150/162	1.1	150.9 154/165	1.0	156.0 158/169	0.3	158.6 162/173	0.3	161.2 165/177	0.3	163.9 168/181
36	146.9 150/162	1.1	152.6 154/166	1.1	157.9 159/170	0.3	160.5 162/174	0.3	163.1 165/178	0.3	165.8 169/182
33	148.4 151/163	1.2	154.3 155/167	1.1	159.7 159/171	0.3	162.3 162/175	0.3	165.0 166/179	0.3	167.8 169/182
30	150.0 151/164	1.2	155.9 155/168	1.1	161.5 159/172	0.3	164.2 163/176	0.3	166.9 166/179	0.3	169.7 170/183
27	151.5 151/165	1.2	157.4 156/169	1.2	163.3 160/173	0.3	166.0 163/176	0.3	168.8 167/180	0.3	171.6 170/184
24	152.9 152/166	1.2	159.0 156/170	1.2	165.1 160/174	0.3	167.8 164/177	0.3	170.6 167/181	0.3	173.4 170/185
21	154.3 152/166	1.2	160.4 157/170	1.3	166.7 161/175	0.3	169.5 164/178	0.3	172.3 167/182	0.3	175.2 171/186
18	155.7 153/167	1.2	161.8 157/171	1.3	168.1 161/175	0.3	171.2 164/179	0.3	174.0 168/182	0.3	176.9 171/186
15	157.0 153/168	1.2	163.2 157/172	1.3	169.5 162/176	0.3	172.8 165/179	0.3	175.6 168/183	0.3	178.6 172/187
12	158.2 154/168	1.3	164.5 158/173	1.3	170.9 162/177	0.3	174.1 165/180	0.3	176.9 169/184	0.3	179.9 172/188
9	159.4 154/169	1.3	165.7 158/173	1.2	171.9 163/177	0.3	174.7 166/181	0.3	177.6 170/185	0.3	180.6 173/189
6	160.6 155/170	1.3	166.9 159/174	1.1	172.5 164/178	0.3	175.3 167/182	0.3	178.2 171/186	0.3	181.2 174/190
3	161.6 155/170	1.3	168.0 160/174	1.0	173.0 164/179	0.3	175.9 168/183	0.3	178.8 171/187	0.3	181.8 175/191
0	162.7 156/171	1.3	169.1 160/175	0.9	173.6 165/180	0.3	176.4 169/183	0.3	179.3 172/187	0.3	182.3 176/191
-3	163.7 156/171	1.2	169.6 161/175	0.9	174.0 166/180	0.3	176.9 170/184	0.3	179.8 173/188	0.3	182.8 177/192
V2= 02=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 20 13.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

NIAGARA FALLS

A/D Elev **590ft**

FULL LENGTH RWY 28R

CLG NIL **RVR/VIS** 0.5sm* **SLOPE** 0.01%UP
TOR 2782m (9127ft) **ED** 3086m (10125ft) **TOD** 2782m (9127ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	145.1 150/161	1.1	150.7 154/165	0.8	154.6 159/170	0.2	157.1 162/175	0.3	159.7 166/179	0.3	162.3 169/183
36	146.8 150/162	1.1	152.5 154/166	0.8	156.4 159/171	0.3	159.0 163/176	0.3	161.6 166/180	0.3	164.3 170/184
33	148.3 151/163	1.2	154.2 155/167	0.8	158.3 160/172	0.2	160.8 163/177	0.3	163.5 167/181	0.3	166.2 170/185
30	149.9 151/164	1.2	155.8 155/168	0.9	160.1 160/173	0.3	162.7 164/178	0.3	165.4 167/182	0.3	168.1 170/186
27	151.4 151/165	1.2	157.3 156/169	0.9	161.8 161/174	0.3	164.5 164/178	0.3	167.2 167/182	0.3	170.0 171/187
24	152.8 152/166	1.2	158.8 156/170	1.0	163.6 161/175	0.3	166.3 164/179	0.3	169.0 168/183	0.3	171.9 171/187
21	154.2 152/166	1.2	160.3 157/170	1.0	165.3 161/176	0.3	168.0 165/180	0.3	170.8 168/184	0.3	173.6 171/188
18	155.6 153/167	1.2	161.7 157/171	1.0	166.9 162/176	0.3	169.7 165/180	0.3	172.5 169/184	0.3	175.4 172/189
15	156.9 153/168	1.2	163.1 158/172	1.1	168.5 162/177	0.3	171.3 166/181	0.3	174.1 169/185	0.3	177.0 172/189
12	158.1 154/168	1.3	164.4 158/172	1.1	169.7 163/177	0.3	172.5 166/182	0.3	175.4 170/186	0.3	178.3 173/190
9	159.3 154/169	1.3	165.6 159/173	0.9	170.3 164/179	0.3	173.1 167/183	0.3	176.0 170/187	0.3	178.9 174/191
6	160.4 155/170	1.2	166.6 159/174	0.8	170.8 164/179	0.3	173.6 168/184	0.3	176.5 171/188	0.3	179.5 175/191
3	161.5 155/170	1.1	167.1 160/174	0.9	171.4 165/181	0.3	174.2 169/185	0.3	177.0 172/189	0.3	180.1 176/192
0	162.6 156/171	1.0	167.6 161/176	0.8	171.8 166/182	0.3	174.7 170/186	0.3	177.5 173/190	0.3	180.6 176/192
-3	163.5 156/171	0.9	168.0 162/177	0.9	172.3 167/183	0.3	175.1 170/187	0.3	178.0 174/189	0.3	180.9 177/193
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5

1. **V_1 WET SPEED:** V_1 WET is V_1 DRY minus 15kt.

2. ***Take-Off Minima:** Where RVR/VIS is shown as 0.5sm (2400ft) or less, higher minima may apply if any radio or visual aids are unserviceable. See para 1.1.5. on Page 1.1.3.

3. **Maximum Take-Off Weight:** Restricted to **182250kg.**

A/D Elev **228ft**

FULL LENGTH RWY 17

CLG NIL **RVR/VIS** 150m **SLOPE** 0.72%UP
TOR 3480m (11417ft) **ED** 3480m (11417ft) **TOD** 3480m (11417ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.8 159/170	0.8	157.6 164/176	0.8	161.5 169/181	0.3	164.1 172/183	0.2	166.6 176/186	0.2	168.9 179/188
36	155.7 159/171	0.8	159.5 164/176	0.8	163.5 169/182	0.3	166.1 173/184	0.3	168.7 176/187	0.2	171.0 180/189
33	157.5 160/172	0.8	161.4 165/177	0.8	165.4 170/183	0.3	168.0 173/186	0.3	170.6 176/188	0.2	173.0 180/190
30	159.3 160/173	0.8	163.2 165/178	0.8	167.3 170/184	0.3	169.9 173/187	0.3	172.6 177/189	0.2	175.0 180/191
27	161.1 160/174	0.8	165.0 165/179	0.8	169.1 170/184	0.3	171.8 174/188	0.3	174.5 177/190	0.2	177.0 181/192
24	162.8 161/175	0.8	166.8 166/180	0.8	170.9 171/185	0.3	173.6 174/189	0.3	176.4 178/191	0.2	178.9 181/193
21	164.4 161/174	0.8	168.5 166/181	0.8	172.7 171/186	0.3	175.4 175/189	0.3	178.2 178/192	0.3	180.9 182/194
18	166.1 161/175	0.8	170.2 166/181	0.8	174.4 172/187	0.3	177.2 175/190	0.3	180.0 178/192	0.3	182.7 182/195
15	167.6 161/176	0.8	171.8 167/181	0.8	176.0 172/187	0.3	178.9 175/191	0.3	181.7 179/193	0.3	184.5 182/195
12	168.8 162/176	0.8	173.0 167/182	0.9	177.4 173/188	0.3	180.2 176/192	0.3	183.0 179/194	0.3	185.8 183/196
9	169.3 162/178	0.9	173.6 168/184	0.9	177.9 173/189	0.3	180.8 177/192	0.3	183.6 180/194	0.3	186.2 184/197
6	169.8 163/178	0.9	174.1 169/184	0.9	178.4 174/189	0.3	181.2 178/193	0.3	184.0 181/195	0.3	186.6 185/198
3	170.3 164/179	0.9	174.6 170/185	0.9	178.9 175/190	0.3	181.7 179/193	0.3	184.4 182/195	0.2	186.9 186/197
0	170.8 164/179	0.8	175.0 170/186	0.9	179.4 176/191	0.3	182.2 180/193	0.3	184.8 183/195	0.2	187.3 187/196
-3	171.2 165/180	0.8	175.4 171/186	0.9	179.8 177/192	0.3	182.5 181/193	0.2	185.0 184/195	0.2	187.5 188/197
V2= θ2=	VR+ 22 14.0		VR+ 22 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **228ft**

FULL LENGTH RWY 35

CLG NIL **RVR/VIS** 150m **SLOPE** 0.72%DN
TOR 3480m (11417ft) **ED** 3480m (11417ft) **TOD** 3480m (11417ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	157.4 154/178	0.7	161.0 160/182	0.7	164.5 166/186	0.2	166.9 170/189	0.2	169.2 174/192	0.2	171.7 177/195
36	159.3 154/180	0.7	162.9 160/183	0.7	166.5 166/187	0.2	168.9 170/190	0.2	171.3 174/193	0.2	173.8 178/196
33	161.2 154/181	0.7	164.8 160/184	0.7	168.5 165/188	0.2	170.8 169/191	0.2	173.3 173/194	0.2	175.8 177/197
30	163.0 153/182	0.7	166.7 159/185	0.7	170.4 165/189	0.2	172.8 169/192	0.2	175.3 173/195	0.2	177.8 177/198
27	164.8 153/183	0.7	168.5 159/186	0.8	172.3 165/190	0.2	174.7 169/193	0.2	177.2 173/196	0.3	179.8 177/199
24	166.6 153/183	0.7	170.3 159/187	0.8	174.1 165/191	0.2	176.6 169/194	0.2	179.1 173/197	0.3	181.8 177/200
21	168.3 153/184	0.8	172.1 159/188	0.8	175.9 165/192	0.2	178.4 169/195	0.3	181.0 173/198	0.3	183.6 177/201
18	169.9 153/185	0.8	173.9 159/189	0.8	177.7 165/193	0.2	180.2 169/196	0.3	182.8 173/199	0.3	185.5 177/202
15	171.5 153/186	0.8	175.5 159/190	0.8	179.4 165/193	0.3	182.0 169/196	0.3	184.6 173/200	0.3	187.3 177/203
12	172.8 153/186	0.8	176.8 159/190	0.8	180.7 165/194	0.3	183.3 169/197	0.3	185.9 173/200	0.3	188.6 177/204
9	173.3 154/187	0.8	177.2 160/191	0.8	181.1 166/195	0.3	183.7 170/198	0.3	186.3 174/201	0.3	189.0 178/204
6	173.7 155/187	0.8	177.6 161/191	0.8	181.5 167/195	0.3	184.1 171/198	0.3	186.7 175/201	0.3	189.4 179/204
3	174.2 155/188	0.7	177.9 161/192	0.8	181.8 168/196	0.3	184.4 172/199	0.3	187.1 176/202	0.3	189.8 180/204
0	174.5 156/188	0.8	178.3 162/191	0.8	182.2 168/196	0.3	184.8 172/199	0.3	187.4 176/202	0.3	190.2 180/205
-3	174.8 157/188	0.8	178.6 163/192	0.8	182.5 169/197	0.3	185.1 173/200	0.3	187.7 177/203	0.3	190.5 181/205
V2= θ2=	VR+ 23 14.0		VR+ 22 13.5		VR+ 22 13.5		VR+ 22 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **OTTAWA**

A/D Elev **374ft**

FULL LENGTH RWY 07

CLG NIL **RVR/VIS** 200m **SLOPE** 0.09%DN

TOR 2438m (7999ft) **ED** 2438m (7999ft) **TOD** 2713m (8901ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	140.1 132/158	1.3	146.7 136/162	0.9	151.0 141/165	0.3	153.7 144/167	0.3	156.3 147/169	0.3	159.0 151/173
36	142.4 132/159	1.2	148.4 136/163	0.9	152.8 141/166	0.3	155.5 144/168	0.3	158.2 148/170	0.3	161.0 151/173
33	144.8 132/161	1.1	150.1 136/164	0.9	154.6 141/167	0.3	157.3 145/169	0.3	160.1 148/171	0.3	162.8 151/174
30	146.8 132/162	1.0	151.8 137/165	0.9	156.3 142/168	0.3	159.1 145/170	0.3	161.9 148/172	0.3	164.7 152/175
27	148.3 132/162	1.0	153.5 137/166	0.9	158.0 142/169	0.3	160.9 145/171	0.3	163.7 149/173	0.3	166.5 152/176
24	149.7 133/163	1.1	155.1 137/167	0.9	159.7 142/170	0.3	162.6 146/172	0.3	165.4 149/174	0.3	168.3 153/177
21	151.1 133/164	1.1	156.6 138/168	0.9	161.3 143/171	0.3	164.3 146/173	0.3	167.1 150/175	0.3	170.0 153/177
18	152.4 134/165	1.1	158.1 138/169	1.0	162.9 143/172	0.3	165.9 146/174	0.3	168.8 150/176	0.3	171.7 153/178
15	153.6 134/165	1.2	159.5 139/169	1.0	164.4 143/173	0.3	167.4 147/174	0.3	170.3 150/176	0.3	173.3 154/179
12	154.9 134/166	1.2	160.7 139/170	1.0	165.6 144/173	0.3	168.6 147/175	0.3	171.6 151/177	0.3	174.6 154/179
9	156.0 135/167	1.1	161.5 140/170	1.0	166.3 145/173	0.3	169.3 148/175	0.3	172.2 151/177	0.3	175.2 155/180
6	157.1 135/167	1.0	162.1 140/171	1.0	166.9 145/174	0.3	169.8 149/176	0.3	172.8 152/177	0.3	175.8 156/181
3	157.9 136/168	1.0	162.8 141/171	0.9	167.5 146/174	0.3	170.4 149/176	0.3	173.3 153/178	0.3	176.3 156/182
0	158.6 136/168	1.0	163.4 141/171	0.9	168.1 147/174	0.3	170.9 150/176	0.3	173.8 154/179	0.3	176.9 157/183
-3	159.2 137/168	0.9	163.9 142/171	0.9	168.5 147/174	0.3	171.4 151/176	0.3	174.3 154/180	0.3	177.3 158/184
V2= θ2=	VR+ 25 15.0		VR+ 23 14.5		VR+ 22 14.5		VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **OTTAWA**

A/D Elev **374ft**

FULL LENGTH RWY 14

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.17%UP

TOR 2941m (9649ft) **ED** 2941m (9649ft) **TOD** 3246m (10650ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.6 144/166	1.0	156.6 148/169	0.8	160.6 153/175	0.3	163.2 156/179	0.3	166.0 160/182	0.3	168.7 163/186
36	153.4 144/167	1.0	158.4 148/170	0.8	162.5 153/176	0.3	165.2 157/179	0.3	168.0 160/183	0.3	170.8 163/187
33	155.1 144/168	1.0	160.2 149/171	0.8	164.4 154/177	0.3	167.1 157/180	0.3	169.9 160/184	0.3	172.8 164/188
30	156.7 145/168	1.0	161.9 149/172	0.9	166.3 154/177	0.3	169.1 157/181	0.3	171.9 161/185	0.3	174.7 164/189
27	158.4 145/169	1.1	163.7 149/173	0.9	168.1 154/178	0.3	170.9 158/182	0.3	173.7 161/186	0.3	176.7 164/190
24	160.0 145/170	1.1	165.3 150/174	0.9	169.9 155/179	0.3	172.7 158/183	0.3	175.6 161/187	0.3	178.5 165/191
21	161.5 146/171	1.1	166.9 150/175	0.9	171.6 155/180	0.3	174.5 159/183	0.3	177.4 162/187	0.3	180.3 165/192
18	163.0 146/172	1.1	168.5 151/175	1.0	173.3 156/180	0.3	176.2 159/184	0.3	179.1 162/188	0.3	182.1 166/192
15	164.4 147/173	1.1	169.9 151/176	1.0	174.9 156/181	0.3	177.8 159/185	0.3	180.8 163/189	0.3	183.8 166/193
12	165.6 147/173	1.1	171.2 152/177	1.0	176.2 156/182	0.3	179.1 160/185	0.3	182.1 163/189	0.3	185.2 167/194
9	166.6 148/174	1.1	172.2 152/177	0.9	176.9 157/183	0.3	179.8 161/187	0.3	182.8 164/191	0.3	185.9 167/195
6	167.6 148/174	1.1	173.1 153/178	0.9	177.5 158/184	0.3	180.5 161/188	0.3	183.5 165/192	0.3	186.5 168/196
3	168.5 149/175	1.0	173.7 154/179	0.9	178.1 159/185	0.3	181.1 162/189	0.3	184.1 166/193	0.3	187.2 169/197
0	169.3 149/175	1.0	174.3 154/179	0.9	178.7 159/185	0.3	181.7 163/189	0.3	184.7 166/193	0.3	187.7 170/198
-3	170.1 150/175	0.9	174.8 155/180	0.9	179.2 160/186	0.3	182.2 164/190	0.3	185.2 167/194	0.3	188.3 171/198
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 20 13.0

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **OTTAWA**

A/D Elev **374ft**

FULL LENGTH RWY 25

CLG NIL **RVR/VIS** 0.25sm **SLOPE** 0.09%UP

TOR 2438m (7999ft) **ED** 2438m (7999ft) **TOD** 2438m (7999ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	133.2 135/153	1.1	138.5 140/157	1.1	144.0 144/160	0.3	147.5 147/163	0.4	151.1 150/165	0.3	154.6 153/168
36	134.7 135/154	1.1	140.1 140/157	1.1	145.6 144/161	0.4	149.2 147/164	0.4	152.8 150/166	0.4	156.4 153/169
33	136.2 136/154	1.1	141.6 140/158	1.1	147.2 145/162	0.4	150.9 148/165	0.4	154.5 151/167	0.4	158.2 154/170
30	137.6 136/155	1.1	143.1 141/159	1.1	148.8 145/163	0.4	152.5 148/166	0.4	156.2 151/168	0.4	159.9 154/171
27	139.0 137/156	1.1	144.5 141/160	1.2	150.3 145/164	0.4	154.1 148/166	0.4	157.8 151/169	0.4	161.6 154/171
24	140.3 137/157	1.1	145.9 141/161	1.2	151.8 146/165	0.4	155.6 149/167	0.4	159.4 152/170	0.4	163.2 155/172
21	141.6 137/157	1.1	147.3 142/161	1.2	153.2 146/165	0.4	157.0 149/168	0.4	160.9 152/171	0.4	164.8 155/173
18	142.8 138/158	1.2	148.6 142/162	1.2	154.5 147/166	0.4	158.5 150/169	0.4	162.4 153/171	0.4	166.3 156/174
15	144.0 138/159	1.2	149.9 143/163	1.2	155.9 147/167	0.4	159.8 150/170	0.4	163.7 153/172	0.4	167.7 156/175
12	145.1 139/159	1.2	151.1 143/163	1.2	157.1 148/168	0.4	161.1 151/170	0.4	165.0 154/173	0.4	169.0 157/175
9	146.2 139/160	1.2	152.1 144/164	1.2	158.1 148/168	0.4	162.1 151/171	0.4	166.0 154/173	0.4	170.0 157/176
6	147.2 139/160	1.2	153.0 144/164	1.2	159.1 149/169	0.4	163.0 152/171	0.4	167.0 155/174	0.4	170.9 158/176
3	148.1 140/161	1.2	154.0 145/165	1.2	160.0 149/169	0.4	163.9 152/172	0.4	167.9 155/174	0.4	171.7 159/177
0	149.0 140/161	1.2	154.9 145/165	1.2	160.8 150/169	0.4	164.8 153/172	0.4	168.7 156/175	0.4	172.5 159/177
-3	149.8 141/162	1.2	155.7 146/166	1.2	161.7 150/170	0.4	165.6 153/172	0.4	169.4 157/175	0.4	173.0 160/178
V2= θ2=	VR+ 27 15.5		VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.5		VR+ 22 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **OTTAWA**

A/D Elev **374ft**

FULL LENGTH RWY 32

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.17%DN

TOR 2941m (9649ft) **ED** 2941m (9649ft) **TOD** 3197m (10489ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	151.3 143/166	1.0	156.3 148/169	0.8	160.3 153/174	0.3	163.0 156/178	0.3	165.7 160/182	0.3	168.5 163/186
36	153.0 144/166	1.0	158.1 148/170	0.8	162.3 153/175	0.3	165.0 157/179	0.3	167.7 160/183	0.3	170.5 163/187
33	154.7 144/167	1.0	159.9 149/171	0.8	164.1 154/176	0.3	166.9 157/180	0.3	169.6 160/184	0.3	172.5 164/188
30	156.4 145/168	1.0	161.6 149/172	0.9	166.0 154/177	0.3	168.8 157/181	0.3	171.6 161/185	0.3	174.5 164/189
27	158.0 145/169	1.1	163.3 149/173	0.9	167.8 154/178	0.3	170.6 158/182	0.3	173.5 161/186	0.3	176.4 164/190
24	159.6 145/170	1.1	165.0 150/173	0.9	169.6 155/178	0.3	172.4 158/182	0.3	175.3 161/186	0.3	178.2 165/190
21	161.1 146/171	1.1	166.6 150/174	0.9	171.3 155/179	0.3	174.2 158/183	0.3	177.1 162/187	0.3	180.1 165/191
18	162.6 146/172	1.1	168.1 151/175	1.0	173.0 155/180	0.3	175.9 159/184	0.3	178.8 162/188	0.3	181.8 166/192
15	164.0 146/172	1.1	169.6 151/176	1.0	174.6 156/180	0.3	177.5 159/184	0.3	180.5 163/188	0.3	183.5 166/192
12	165.3 147/173	1.1	170.9 152/177	1.0	175.9 156/181	0.3	178.8 160/185	0.3	181.8 163/189	0.3	184.9 167/193
9	166.3 148/173	1.1	171.8 152/177	1.0	176.6 157/182	0.3	179.5 161/186	0.3	182.5 164/190	0.3	185.6 167/194
6	167.2 148/174	1.1	172.8 153/177	0.9	177.2 158/183	0.3	180.2 161/187	0.3	183.2 165/191	0.3	186.3 168/195
3	168.1 149/174	1.1	173.4 153/178	0.9	177.9 159/184	0.3	180.8 162/188	0.3	183.8 166/192	0.3	186.9 169/196
0	169.0 149/175	1.0	174.0 154/179	0.9	178.5 159/185	0.3	181.4 163/189	0.3	184.4 166/193	0.3	187.5 170/197
-3	169.7 150/175	1.0	174.5 155/180	0.9	179.0 160/186	0.3	181.9 164/190	0.3	184.9 167/194	0.3	188.0 171/198
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS

A/D Elev **387ft**

CHARLES DE GAULLE

FULL LENGTH RWY 09

CLG NIL **RVR/VIS** 200m **SLOPE** 0.14%UP

TOR 3600m (11811ft) **ED** 3660m (12008ft) **TOD** 3690m (12106ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.0 155/177	0.8	166.0 160/183	0.8	170.1 166/188	0.3	172.9 170/192	0.3	175.6 174/196	0.3	178.3 177/200
36	163.9 155/178	0.8	168.0 160/183	0.8	172.1 166/189	0.3	174.9 170/193	0.3	177.7 173/197	0.3	180.4 177/201
33	165.7 154/178	0.8	169.9 160/184	0.8	174.1 166/190	0.3	176.9 169/194	0.3	179.7 173/198	0.3	182.5 177/202
30	167.6 154/179	0.8	171.7 160/185	0.9	176.0 165/191	0.3	178.8 169/195	0.3	181.7 173/199	0.3	184.5 176/203
27	169.3 154/180	0.9	173.6 160/186	0.9	177.9 165/192	0.3	180.7 169/196	0.3	183.6 173/200	0.3	186.5 176/204
24	171.1 154/181	0.9	175.4 160/186	0.9	179.7 165/192	0.3	182.6 169/196	0.3	185.5 173/200	0.3	188.5 176/204
21	172.8 154/181	0.9	177.1 160/187	0.9	181.5 165/193	0.3	184.4 169/197	0.3	187.4 173/201	0.3	190.3 176/205
18	174.4 154/182	0.9	178.8 160/188	0.9	183.2 165/194	0.3	186.2 169/198	0.3	189.2 173/202	0.3	192.2 176/206
15	176.0 154/182	0.9	180.4 160/188	0.9	184.9 165/194	0.3	187.8 169/198	0.3	190.9 173/202	0.3	193.9 176/206
12	177.3 154/183	0.9	181.7 160/189	0.9	186.2 166/195	0.3	189.2 169/199	0.3	192.3 173/203	0.3	195.0 176/207
9	178.0 155/184	0.9	182.4 161/190	0.9	186.9 166/196	0.3	190.0 170/200	0.3	193.0 174/204	0.2	195.0 177/208
6	178.6 156/185	0.9	183.1 161/191	0.9	187.7 167/197	0.3	190.7 171/201	0.3	193.7 174/205	0.1	195.0 177/208
3	179.3 156/186	0.9	183.8 162/192	0.9	188.3 168/198	0.3	191.4 171/202	0.3	194.4 175/206	0.1	195.0 178/209
0	180.0 157/187	0.9	184.4 163/193	0.9	189.0 168/199	0.3	192.0 172/203	0.3	195.0 176/207	0.0	195.0 178/210
-3	180.5 157/188	0.9	185.0 163/194	0.9	189.5 169/200	0.3	192.6 173/204	0.2	195.0 176/208	0.0	195.0 179/210
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS

A/D Elev **387ft**

CHARLES DE GAULLE

FULL LENGTH RWY 10

CLG NIL **RVR/VIS** 200m **SLOPE** 0.17%DN

TOR 3615m (11860ft) **ED** 3675m (12057ft) **TOD** 3675m (12057ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.9 153/178	0.8	166.9 159/184	0.8	171.0 164/190	0.3	173.7 168/194	0.3	176.5 172/197	0.3	179.2 175/201
36	164.8 153/179	0.8	168.9 158/185	0.8	173.0 164/191	0.3	175.8 168/195	0.3	178.6 171/198	0.3	181.3 175/202
33	166.6 153/180	0.8	170.8 158/186	0.8	175.0 164/191	0.3	177.8 167/195	0.3	180.6 171/199	0.3	183.4 175/203
30	168.5 152/180	0.8	172.7 158/186	0.8	176.9 164/192	0.3	179.8 167/196	0.3	182.6 171/200	0.3	185.5 175/204
27	170.3 152/181	0.8	174.5 158/187	0.9	178.8 163/193	0.3	181.7 167/197	0.3	184.6 171/201	0.3	187.5 174/205
24	172.0 152/182	0.9	176.3 158/188	0.9	180.7 163/194	0.3	183.6 167/198	0.3	186.5 171/202	0.3	189.4 174/206
21	173.7 152/183	0.9	178.1 158/188	0.9	182.4 163/194	0.3	185.4 167/198	0.3	188.3 171/202	0.3	191.3 174/206
18	175.4 152/183	0.9	179.8 158/189	0.9	184.2 163/195	0.3	187.2 167/199	0.3	190.1 171/203	0.3	193.1 174/207
15	176.9 152/184	0.9	181.4 158/190	0.9	185.9 163/196	0.3	188.8 167/200	0.3	191.9 171/204	0.3	194.9 174/208
12	178.2 153/184	0.9	182.7 158/190	0.9	187.2 164/196	0.3	190.2 167/200	0.3	193.3 171/204	0.2	195.0 174/208
9	179.0 153/186	0.9	183.4 159/192	0.9	188.0 164/198	0.3	191.0 168/202	0.3	194.0 172/206	0.1	195.0 174/208
6	179.7 154/187	0.9	184.1 159/193	0.9	188.7 165/199	0.3	191.7 169/203	0.3	194.7 172/207	0.0	195.0 175/209
3	180.3 154/188	0.9	184.8 160/194	0.9	189.3 166/200	0.3	192.4 169/204	0.3	195.0 173/207	0.0	195.0 175/210
0	181.0 155/188	0.9	185.4 161/195	0.9	190.0 166/201	0.3	193.0 170/205	0.2	195.0 173/208	0.0	195.0 176/210
-3	181.5 156/189	0.9	186.0 161/195	0.9	190.6 167/202	0.3	193.6 171/206	0.1	195.0 174/209	0.0	195.0 176/211
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 20 13.0		VR+ 20 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

FULL LENGTH RWY 27

CLG NIL **RVR/VIS** 200m **SLOPE** 0.14%DN
TOR 3600m (11811ft) **ED** 3660m (12008ft) **TOD** 3690m (12106ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	163.1 153/178	0.8	167.2 159/184	0.8	171.3 164/190	0.3	174.0 168/194	0.3	176.8 172/198	0.3	179.5 175/202
36	165.1 153/179	0.8	169.2 158/185	0.8	173.3 164/191	0.3	176.1 168/195	0.3	178.9 171/199	0.3	181.6 175/203
33	166.9 153/180	0.8	171.1 158/186	0.8	175.3 164/192	0.3	178.1 167/196	0.3	180.9 171/200	0.3	183.7 175/204
30	168.8 152/181	0.8	173.0 158/187	0.8	177.2 164/193	0.3	180.1 167/197	0.3	182.9 171/201	0.3	185.8 175/205
27	170.6 152/182	0.8	174.8 158/187	0.9	179.1 163/193	0.3	182.0 167/197	0.3	184.9 171/201	0.3	187.8 174/205
24	172.3 152/182	0.9	176.6 158/188	0.9	181.0 163/194	0.3	183.9 167/198	0.3	186.8 171/202	0.3	189.7 174/206
21	174.0 152/183	0.9	178.3 158/189	0.9	182.7 163/195	0.3	185.7 167/199	0.3	188.6 171/203	0.3	191.6 174/207
18	175.7 152/184	0.9	180.0 158/189	0.9	184.5 163/196	0.3	187.5 167/199	0.3	190.4 171/203	0.3	193.4 174/207
15	177.2 152/184	0.9	181.7 158/190	0.9	186.2 163/196	0.3	189.2 167/200	0.3	192.2 171/204	0.3	195.0 174/208
12	178.5 153/185	0.9	183.0 158/191	0.9	187.5 164/197	0.3	190.5 167/201	0.3	193.6 171/205	0.1	195.0 174/208
9	179.3 153/186	0.9	183.7 159/192	0.9	188.3 164/198	0.3	191.3 168/202	0.3	194.3 172/206	0.1	195.0 174/209
6	180.0 154/187	0.9	184.4 159/193	0.9	189.0 165/199	0.3	192.0 169/203	0.3	195.0 172/207	0.0	195.0 175/209
3	180.6 154/188	0.9	185.1 160/194	0.9	189.7 166/200	0.3	192.7 169/204	0.2	195.0 173/208	0.0	195.0 175/210
0	181.3 155/189	0.9	185.7 161/195	0.9	190.3 166/201	0.3	193.4 170/205	0.2	195.0 173/208	0.0	195.0 176/211
-3	181.8 156/190	0.9	186.3 161/196	0.9	190.9 167/202	0.3	193.9 171/206	0.1	195.0 174/209	0.0	195.0 176/211
V2= θ2=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS

A/D Elev **387ft**

CHARLES DE GAULLE

FULL LENGTH RWY 28

CLG NIL **RVR/VIS** 200m **SLOPE** 0.17%UP

TOR 3615m (11860ft) **ED** 3675m (12057ft) **TOD** 3675m (12057ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	162.5 155/178	0.8	166.5 160/183	0.8	170.6 166/189	0.3	173.4 170/193	0.3	176.1 173/197	0.3	178.7 177/201
36	164.4 154/178	0.8	168.5 160/184	0.8	172.6 166/190	0.3	175.4 169/194	0.3	178.2 173/198	0.3	180.8 177/202
33	166.3 154/179	0.8	170.4 160/185	0.8	174.6 165/191	0.3	177.4 169/195	0.3	180.2 173/199	0.3	182.9 177/203
30	168.1 154/180	0.8	172.3 160/186	0.8	176.5 165/192	0.3	179.4 169/196	0.3	182.3 173/200	0.3	184.9 176/203
27	169.9 154/181	0.8	174.1 160/187	0.9	178.4 165/193	0.3	181.3 169/196	0.3	184.2 172/201	0.3	187.0 176/204
24	171.6 154/181	0.9	175.9 159/187	0.9	180.2 165/193	0.3	183.2 169/197	0.3	186.1 172/201	0.3	188.9 176/205
21	173.3 154/182	0.9	177.6 159/188	0.9	182.0 165/194	0.3	185.0 169/198	0.3	188.0 172/202	0.3	190.9 176/206
18	174.9 154/183	0.9	179.3 159/188	0.9	183.7 165/194	0.3	186.7 169/199	0.3	189.8 172/203	0.3	192.7 176/207
15	176.5 154/183	0.9	180.9 160/189	0.9	185.4 165/195	0.3	188.4 169/199	0.3	191.5 172/203	0.3	194.5 176/207
12	177.8 154/184	0.9	182.2 160/190	0.9	186.8 165/196	0.3	189.8 169/200	0.3	192.9 173/204	0.2	195.0 176/207
9	178.5 155/185	0.9	183.0 160/191	0.9	187.5 166/197	0.3	190.6 170/201	0.3	193.6 173/205	0.1	195.0 176/208
6	179.2 155/186	0.9	183.7 161/192	0.9	188.2 167/198	0.3	191.3 170/202	0.3	194.3 174/206	0.1	195.0 177/209
3	179.9 156/187	0.9	184.4 162/193	0.9	188.9 167/199	0.3	192.0 171/203	0.3	194.9 175/207	0.0	195.0 177/209
0	180.5 157/188	0.9	185.0 162/194	0.9	189.6 168/200	0.3	192.6 172/204	0.2	195.0 176/208	0.0	195.0 178/210
-3	181.1 157/189	0.9	185.6 163/195	0.9	190.2 169/201	0.3	193.1 173/205	0.2	195.0 176/208	0.0	195.0 179/210
V2= 02=	VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS ORLY

A/D Elev **292ft**

FULL LENGTH RWY 02L

CLG NIL **RVR/VIS** 300m **SLOPE** NIL

TOR 2400m (7874ft) **ED** 2400m (7874ft) **TOD** 2400m (7874ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	133.7 134/153	1.1	139.3 138/157	1.1	145.0 142/161	0.4	148.9 145/164	0.4	152.9 148/167	0.3	156.4 151/170
36	135.2 134/154	1.1	140.8 138/158	1.2	146.6 143/162	0.4	150.6 146/165	0.4	154.6 148/167	0.4	158.3 151/171
33	136.7 134/155	1.1	142.3 139/159	1.2	148.2 143/163	0.4	152.2 146/166	0.4	156.3 149/168	0.4	160.2 152/171
30	138.1 135/155	1.1	143.8 139/160	1.2	149.8 143/164	0.4	153.8 146/166	0.4	158.0 149/169	0.4	162.0 152/172
27	139.5 135/156	1.2	145.3 140/160	1.2	151.3 144/165	0.4	155.4 147/167	0.4	159.6 150/170	0.4	163.8 152/173
24	140.8 136/157	1.2	146.7 140/161	1.2	152.7 144/165	0.4	156.9 147/168	0.4	161.1 150/171	0.4	165.4 153/174
21	142.1 136/158	1.2	148.0 140/162	1.2	154.1 145/166	0.4	158.3 148/169	0.4	162.6 150/172	0.4	166.9 153/174
18	143.3 136/158	1.2	149.3 141/163	1.2	155.5 145/167	0.4	159.7 148/170	0.4	164.0 151/172	0.4	168.4 154/175
15	144.5 137/159	1.2	150.5 141/163	1.3	156.8 146/167	0.4	161.0 148/170	0.4	165.4 151/173	0.4	169.8 154/176
12	145.6 137/160	1.2	151.7 142/164	1.3	158.0 146/168	0.4	162.3 149/171	0.4	166.7 152/174	0.4	171.1 155/177
9	146.7 138/160	1.2	152.8 142/164	1.3	159.1 146/169	0.4	163.5 149/172	0.4	167.9 152/174	0.4	172.3 155/177
6	147.8 138/161	1.2	153.9 143/165	1.3	160.3 147/169	0.4	164.6 150/172	0.4	169.0 153/175	0.4	172.9 156/178
3	148.7 138/161	1.2	154.9 143/165	1.3	161.3 147/170	0.4	165.6 150/173	0.4	170.1 153/176	0.3	173.4 157/179
0	149.6 139/162	1.3	155.9 143/166	1.3	162.3 148/170	0.4	166.6 151/173	0.4	170.9 154/176	0.3	173.9 157/180
-3	150.5 139/162	1.3	156.8 144/166	1.3	163.2 148/171	0.4	167.6 151/174	0.4	171.4 155/177	0.3	174.4 158/181
V2= θ2=	VR+ 28 15.5		VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS ORLY

A/D Elev **292ft**

FULL LENGTH RWY 07

CLG NIL **RVR/VIS** 200m **SLOPE** 0.03%DN

TOR 3650m (11975ft) **ED** 3650m (11975ft) **TOD** 3650m (11975ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	161.2 155/175	0.8	165.2 160/181	0.8	169.3 166/187	0.3	171.9 170/190	0.2	174.4 174/194	0.3	177.0 178/198
36	163.1 155/176	0.8	167.2 160/182	0.8	171.3 166/188	0.3	173.9 170/191	0.3	176.5 173/195	0.3	179.1 177/199
33	165.0 154/177	0.8	169.1 160/183	0.8	173.3 166/189	0.3	175.9 169/192	0.3	178.5 173/196	0.3	181.2 177/200
30	166.8 154/178	0.8	171.0 160/183	0.8	175.2 165/189	0.3	177.9 169/193	0.3	180.5 173/197	0.3	183.2 177/200
27	168.6 154/178	0.8	172.8 160/184	0.9	177.1 165/190	0.3	179.9 169/194	0.3	182.5 173/198	0.3	185.2 177/201
24	170.3 154/179	0.9	174.6 160/185	0.9	178.9 165/191	0.3	181.7 169/195	0.3	184.4 173/198	0.3	187.2 176/202
21	172.0 154/180	0.9	176.3 160/186	0.9	180.7 165/192	0.3	183.6 169/196	0.3	186.3 173/199	0.3	189.1 176/203
18	173.7 154/180	0.9	178.0 160/186	0.9	182.5 165/192	0.3	185.4 169/196	0.3	188.1 173/200	0.3	190.9 176/204
15	175.3 154/181	0.9	179.7 160/187	0.9	184.1 165/193	0.3	187.1 169/197	0.3	189.9 173/200	0.3	192.7 177/204
12	176.5 154/182	0.9	181.0 160/188	0.9	185.5 166/194	0.3	188.4 169/198	0.3	191.2 173/201	0.3	194.1 177/205
9	177.2 155/183	0.9	181.6 161/189	0.9	186.1 166/195	0.3	189.0 170/198	0.3	191.8 174/202	0.3	194.7 178/206
6	177.8 156/184	0.9	182.2 161/189	0.9	186.7 167/196	0.3	189.6 171/199	0.3	192.4 175/203	0.3	195.0 178/207
3	178.3 156/184	0.9	182.8 162/190	0.9	187.3 168/196	0.3	190.1 171/200	0.3	192.9 175/204	0.2	195.0 179/207
0	178.9 157/185	0.9	183.3 163/191	0.9	187.8 168/197	0.3	190.6 172/201	0.3	193.4 176/205	0.2	195.0 180/208
-3	179.4 158/186	0.9	183.8 163/192	0.9	188.3 169/198	0.3	191.0 173/202	0.3	193.8 177/205	0.1	195.0 180/208
V2= θ2=	VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS

ORLY

A/D Elev **292ft**

FULL LENGTH RWY **08**

CLG NIL **RVR/VIS** 200m **SLOPE** 0.07%UP

TOR 3320m (10892ft) **ED** 3320m (10892ft) **TOD** 3320m (10892ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	157.6 152/170	0.8	161.6 157/176	0.8	165.6 162/181	0.3	168.2 165/185	0.3	170.8 169/189	0.3	173.4 172/193
36	159.6 152/171	0.8	163.5 157/177	0.8	167.6 162/182	0.3	170.3 166/186	0.3	172.9 169/190	0.3	175.5 172/194
33	161.4 153/172	0.8	165.4 158/177	0.8	169.6 163/183	0.3	172.3 166/187	0.3	175.0 169/191	0.3	177.6 173/195
30	163.3 153/173	0.8	167.3 158/178	0.8	171.5 163/184	0.3	174.2 167/188	0.3	177.0 170/192	0.3	179.6 173/196
27	165.0 154/174	0.8	169.2 159/179	0.8	173.4 164/185	0.3	176.1 167/189	0.3	178.9 170/193	0.3	181.7 174/196
24	166.7 154/175	0.9	171.0 159/180	0.8	175.2 164/186	0.3	178.0 167/190	0.3	180.8 171/194	0.3	183.6 174/197
21	168.4 154/175	0.9	172.7 159/181	0.9	177.0 164/187	0.3	179.8 168/190	0.3	182.7 171/194	0.3	185.5 174/198
18	170.0 155/176	0.9	174.4 160/181	0.9	178.8 165/187	0.3	181.6 168/191	0.3	184.5 171/195	0.3	187.4 175/199
15	171.5 155/177	0.9	176.0 160/182	0.9	180.4 165/188	0.3	183.3 169/192	0.3	186.2 172/196	0.3	189.1 175/199
12	172.8 156/178	0.9	177.3 161/183	0.9	181.8 166/189	0.3	184.6 169/192	0.3	187.6 173/196	0.3	190.5 176/200
9	173.6 156/178	0.9	177.9 161/184	0.9	182.4 167/190	0.3	185.3 170/193	0.3	188.3 173/197	0.3	191.1 177/201
6	174.2 157/179	0.9	178.5 162/185	0.9	183.0 167/191	0.3	185.9 171/194	0.3	188.8 174/198	0.3	191.7 178/202
3	174.8 158/180	0.9	179.1 163/185	0.9	183.6 168/191	0.3	186.5 172/195	0.3	189.4 175/199	0.3	192.2 179/203
0	175.3 159/180	0.9	179.7 164/186	0.9	184.2 169/192	0.3	187.1 172/196	0.3	189.9 176/200	0.3	192.7 180/204
-3	175.8 159/181	0.9	180.1 165/187	0.9	184.6 170/193	0.3	187.5 173/197	0.3	190.3 177/201	0.3	193.2 180/204
V2= θ2=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS

A/D Elev **292ft**

ORLY

FULL LENGTH RWY 20R

CLG NIL **RVR/VIS** 350m **SLOPE** NIL

TOR 2400m (7874ft) **ED** 2400m (7874ft) **TOD** 2400m (7874ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	133.5 134/153	1.1	139.0 138/157	1.1	144.7 143/161	0.4	148.5 145/164	0.4	152.4 148/166	0.4	156.0 151/169
36	135.0 134/154	1.1	140.5 139/158	1.2	146.3 143/162	0.4	150.2 146/164	0.4	154.2 149/167	0.4	157.9 152/170
33	136.4 135/154	1.1	142.1 139/159	1.2	147.9 143/163	0.4	151.8 146/165	0.4	155.9 149/168	0.4	159.8 152/171
30	137.9 135/155	1.1	143.5 139/159	1.2	149.4 144/163	0.4	153.4 147/166	0.4	157.5 149/169	0.4	161.6 152/172
27	139.2 135/156	1.2	145.0 140/160	1.2	151.0 144/164	0.4	155.0 147/167	0.4	159.1 150/170	0.4	163.3 153/173
24	140.6 136/157	1.2	146.4 140/161	1.2	152.4 144/165	0.4	156.5 147/168	0.4	160.6 150/171	0.4	164.9 153/173
21	141.8 136/157	1.2	147.7 140/162	1.2	153.8 145/166	0.4	157.9 148/169	0.4	162.1 151/171	0.4	166.4 153/174
18	143.1 136/158	1.2	149.0 141/162	1.2	155.2 145/167	0.4	159.3 148/169	0.4	163.6 151/172	0.4	167.9 154/175
15	144.3 137/159	1.2	150.2 141/163	1.2	156.4 146/167	0.4	160.7 149/170	0.4	164.9 151/173	0.4	169.3 154/176
12	145.4 137/159	1.2	151.4 142/164	1.3	157.7 146/168	0.4	161.9 149/171	0.4	166.2 152/173	0.4	170.6 155/176
9	146.5 138/160	1.2	152.5 142/164	1.3	158.8 147/168	0.4	163.0 150/171	0.4	167.4 152/174	0.4	171.8 155/177
6	147.5 138/160	1.2	153.6 143/165	1.3	159.9 147/169	0.4	164.1 150/172	0.4	168.5 153/175	0.4	172.4 156/178
3	148.5 139/161	1.2	154.5 143/165	1.3	160.9 148/170	0.4	165.2 151/172	0.4	169.5 154/175	0.3	173.0 157/179
0	149.4 139/161	1.2	155.5 144/166	1.3	161.8 148/170	0.4	166.1 151/173	0.4	170.5 154/176	0.3	173.5 158/180
-3	150.2 140/162	1.2	156.4 144/166	1.3	162.8 149/170	0.4	167.1 152/173	0.4	170.9 155/177	0.3	173.9 158/181
V2= θ2=	VR+ 28 15.5		VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 22 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS ORLY

A/D Elev **292ft**

FULL LENGTH RWY 25

CLG NIL **RVR/VIS** 200m **SLOPE** 0.03%UP

TOR 3650m (11975ft) **ED** 3650m (11975ft) **TOD** 3650m (11975ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	156.9 0.7 157/181	160.5 0.7 163/187	164.1 0.2 169/193	166.4 0.2 173/197	168.7 0.2 177/201	171.1 181/205
36	158.8 0.7 157/182	162.4 0.7 163/188	166.1 0.2 169/194	168.4 0.2 173/198	170.8 0.2 177/202	173.2 181/206
33	160.7 0.7 157/183	164.4 0.7 163/189	168.1 0.2 169/195	170.5 0.2 173/199	172.9 0.2 177/202	175.3 181/206
30	162.6 0.7 157/183	166.3 0.8 163/189	170.1 0.2 168/195	172.5 0.2 172/199	174.9 0.2 176/203	177.4 180/207
27	164.4 0.8 156/184	168.2 0.8 162/190	172.0 0.2 168/196	174.5 0.2 172/200	176.9 0.3 176/204	179.5 180/208
24	166.2 0.8 156/185	170.0 0.8 162/191	173.9 0.2 168/197	176.4 0.2 172/201	178.9 0.2 176/205	181.4 180/209
21	168.0 0.8 156/185	171.8 0.8 162/191	175.8 0.2 168/197	178.3 0.2 172/201	180.8 0.3 176/205	183.4 180/209
18	169.7 0.8 156/186	173.6 0.8 162/192	177.6 0.3 168/198	180.2 0.2 172/202	182.7 0.3 176/206	185.3 180/210
15	171.2 0.8 156/187	175.3 0.8 162/192	179.3 0.3 168/199	182.0 0.2 172/203	184.5 0.3 176/206	187.1 180/210
12	172.5 0.8 156/187	176.6 0.8 162/193	180.7 0.3 168/199	183.3 0.3 172/203	185.9 0.2 176/207	188.4 180/211
9	173.2 0.8 157/188	177.1 0.8 163/194	181.2 0.3 169/200	183.8 0.2 173/204	186.3 0.3 177/208	188.9 181/212
6	173.6 0.8 158/189	177.6 0.8 164/195	181.7 0.2 170/201	184.2 0.3 174/205	186.8 0.3 178/209	189.4 182/213
3	174.1 0.8 158/190	178.1 0.8 164/196	182.2 0.2 170/202	184.7 0.2 174/206	187.2 0.3 179/210	189.8 183/214
0	174.6 0.8 159/191	178.6 0.8 165/197	182.6 0.2 171/203	185.1 0.3 175/207	187.7 0.3 179/211	190.3 183/215
-3	175.0 0.8 160/191	179.0 0.8 166/197	183.0 0.2 172/204	185.5 0.3 176/208	188.1 0.2 180/212	190.6 184/215
V2= θ2=	VR+ 23 14.0	VR+ 23 14.0	VR+ 23 13.5	VR+ 22 13.5	VR+ 22 13.5	VR+ 22 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

PARIS

A/D Elev **292ft**

ORLY

FULL LENGTH RWY 26

CLG NIL **RVR/VIS** 200m **SLOPE** 0.07%DN

TOR 3320m (10892ft) **ED** 3320m (10892ft) **TOD** 3400m (11155ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	158.3 152/173	0.8	162.2 157/179	0.8	166.3 162/185	0.3	169.0 165/188	0.3	171.6 168/192	0.3	174.4 172/196
36	160.2 152/174	0.8	164.2 157/180	0.8	168.3 162/185	0.3	171.0 165/189	0.3	173.8 169/193	0.3	176.5 172/197
33	162.1 152/175	0.8	166.1 157/181	0.8	170.3 162/186	0.3	173.1 166/190	0.3	175.8 169/194	0.3	178.7 172/198
30	164.0 153/176	0.8	168.1 158/181	0.8	172.3 163/187	0.3	175.1 166/191	0.3	177.9 169/195	0.3	180.7 173/199
27	165.8 153/176	0.8	169.9 158/182	0.9	174.2 163/188	0.3	177.0 166/192	0.3	179.9 170/196	0.3	182.8 173/200
24	167.6 153/177	0.8	171.8 158/183	0.9	176.1 163/189	0.3	178.9 167/193	0.3	181.8 170/197	0.3	184.8 173/201
21	169.3 154/178	0.8	173.5 159/183	0.9	177.9 164/189	0.3	180.8 167/193	0.3	183.7 171/197	0.3	186.7 174/201
18	171.0 154/178	0.8	175.2 159/184	0.9	179.6 164/190	0.3	182.6 168/194	0.3	185.5 171/198	0.3	188.5 174/202
15	172.6 155/179	0.9	176.9 160/185	0.9	181.3 165/190	0.3	184.2 168/195	0.3	187.3 171/199	0.3	190.3 175/203
12	173.9 155/179	0.9	178.2 160/185	0.9	182.7 165/191	0.3	185.7 169/195	0.3	188.7 172/199	0.3	191.8 175/203
9	174.5 156/181	0.9	178.9 161/186	0.9	183.4 166/192	0.3	186.4 169/196	0.3	189.4 173/200	0.3	192.5 176/205
6	175.2 157/182	0.9	179.6 162/188	0.9	184.1 167/193	0.3	187.1 170/198	0.3	190.1 174/202	0.3	193.1 177/206
3	175.8 157/183	0.9	180.2 162/188	0.9	184.7 168/194	0.3	187.7 171/199	0.3	190.7 174/203	0.3	193.8 178/207
0	176.5 158/184	0.9	180.9 163/189	0.9	185.4 168/195	0.3	188.3 172/199	0.3	191.3 175/204	0.3	194.4 179/208
-3	177.0 159/184	0.9	181.4 164/190	0.9	185.9 169/196	0.3	188.9 173/200	0.3	191.9 176/204	0.3	194.9 180/209
V2= 62=	VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **66ft**

FULL LENGTH RWY 13

CLG NIL **RVR/VIS** 150m **SLOPE** 0.26%UP
TOR 2987m (9800ft) **ED** 2987m (9800ft) **TOD** 3139m (10299ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.0 146/166	0.8	156.9 151/172	0.8	160.9 156/178	0.3	163.6 159/182	0.3	166.2 162/186	0.2	168.6 166/189
36	154.8 146/167	0.8	158.8 151/173	0.8	162.9 156/179	0.3	165.6 159/183	0.3	168.3 163/186	0.2	170.7 166/190
33	156.4 146/168	0.9	160.7 151/174	0.8	164.8 156/180	0.3	167.5 160/183	0.3	170.3 163/187	0.2	172.8 166/191
30	158.1 147/169	0.9	162.6 152/174	0.8	166.7 157/180	0.3	169.4 160/184	0.3	172.2 163/188	0.3	174.8 167/192
27	159.7 147/170	0.9	164.4 152/175	0.8	168.6 157/181	0.3	171.3 160/185	0.3	174.1 164/189	0.3	176.8 167/192
24	161.2 147/171	1.0	166.1 152/176	0.9	170.4 157/182	0.3	173.1 161/186	0.3	176.0 164/190	0.3	178.7 168/193
21	162.7 148/172	1.0	167.8 153/176	0.9	172.1 158/182	0.3	174.9 161/186	0.3	177.8 164/190	0.3	180.6 168/194
18	164.2 148/172	1.1	169.5 153/177	0.9	173.8 158/183	0.3	176.7 161/187	0.3	179.6 165/191	0.3	182.4 168/195
15	165.5 149/173	1.1	171.1 153/177	0.9	175.5 158/183	0.3	178.3 162/187	0.3	181.3 165/191	0.3	184.2 169/195
12	166.8 149/174	1.1	172.4 154/178	0.9	176.8 159/184	0.3	179.6 162/188	0.3	182.6 166/192	0.3	185.6 169/196
9	167.9 150/174	1.0	172.9 155/179	0.9	177.3 160/185	0.3	180.2 163/189	0.3	183.2 167/193	0.3	186.1 170/197
6	169.0 150/175	0.9	173.5 155/180	0.9	177.8 160/186	0.3	180.7 164/190	0.3	183.7 167/194	0.3	186.5 171/197
3	169.9 151/175	0.8	174.0 156/181	0.9	178.3 161/187	0.3	181.2 165/191	0.3	184.2 168/194	0.3	186.8 172/198
0	170.2 152/176	0.9	174.5 157/182	0.9	178.8 162/188	0.3	181.7 166/191	0.3	184.6 169/195	0.2	187.1 173/198
-3	170.6 152/176	0.9	174.9 158/184	0.9	179.2 163/189	0.3	182.2 166/192	0.3	184.9 170/195	0.2	187.4 174/199
V2= 02=	VR+ 23 14.5		VR+ 22 14.0		VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Airfield Availability:** To be used for training purposes only.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **PRESTWICK**

A/D Elev **66ft**

FULL LENGTH RWY 31

CLG NIL **RVR/VIS** 150m **SLOPE** 0.26%DN

TOR 2987m (9800ft) **ED** 2987m (9800ft) **TOD** 3078m (10098ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	154.0 145/167	1.0	159.2 149/171	0.8	163.3 154/177	0.3	166.0 158/181	0.3	168.8 161/185	0.3	171.6 164/189
36	155.8 145/168	1.1	161.1 150/172	0.8	165.3 155/178	0.3	168.0 158/182	0.3	170.8 161/186	0.3	173.7 165/190
33	157.5 146/169	1.1	163.0 150/173	0.8	167.2 155/179	0.3	170.0 158/183	0.3	172.8 162/187	0.3	175.7 165/191
30	159.1 146/170	1.1	164.8 150/174	0.8	169.0 155/180	0.3	171.9 159/183	0.3	174.8 162/188	0.3	177.7 165/192
27	160.7 146/171	1.2	166.6 151/175	0.9	170.9 156/180	0.3	173.8 159/184	0.3	176.7 162/188	0.3	179.7 166/192
24	162.3 147/172	1.2	168.2 151/175	0.9	172.7 156/181	0.3	175.6 159/185	0.3	178.5 163/189	0.3	181.5 166/193
21	163.8 147/172	1.2	169.8 151/176	0.9	174.4 156/182	0.3	177.3 160/186	0.3	180.3 163/190	0.3	183.4 166/194
18	165.2 148/173	1.2	171.3 152/177	1.0	176.1 157/182	0.3	179.0 160/186	0.3	182.0 164/190	0.3	185.1 167/195
15	166.6 148/174	1.2	172.7 152/178	1.0	177.7 157/183	0.3	180.7 161/187	0.3	183.7 164/191	0.3	186.8 167/195
12	167.9 148/174	1.2	174.0 153/178	1.0	179.0 158/184	0.3	182.0 161/188	0.3	185.1 164/192	0.3	188.2 168/196
9	169.0 149/175	1.2	175.2 153/179	0.9	179.7 158/185	0.3	182.7 162/189	0.3	185.8 165/193	0.3	188.9 169/197
6	170.1 149/176	1.2	175.9 154/180	0.9	180.4 159/186	0.3	183.4 163/190	0.3	186.5 166/194	0.3	189.6 169/198
3	171.1 150/176	1.1	176.5 155/181	0.9	181.0 160/187	0.3	184.0 163/191	0.3	187.1 167/195	0.3	190.3 170/199
0	172.1 150/177	1.0	177.1 155/182	0.9	181.6 161/188	0.3	184.6 164/192	0.3	187.7 168/196	0.3	190.9 171/200
-3	173.0 151/177	0.9	177.7 156/182	0.9	182.1 161/188	0.3	185.2 165/193	0.3	188.3 168/197	0.3	191.4 172/201
V2= θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Airfield Availability:** To be used for training purposes only.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **2049ft**

RIYADH
KING KHALID
FULL LENGTH RWY 15L

CLG NIL **RVR/VIS** 200m **SLOPE** 0.15%DN

TOR 4200m (13780ft) **ED** 4200m (13780ft) **TOD** 4200m (13780ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
42	157.9 150/182	0.7	161.6 155/188	0.7	165.2 161/193	0.2	167.6 165/197	0.2	170.0 169/200	0.2	172.3 172/204
39	159.6 150/183	0.7	163.3 155/188	0.7	166.9 161/193	0.2	169.3 165/197	0.2	171.7 168/201	0.2	174.1 172/204
36	161.2 149/183	0.7	164.9 155/188	0.7	168.6 161/194	0.2	171.1 165/197	0.2	173.5 168/201	0.2	175.8 172/205
33	162.8 149/183	0.7	166.5 155/189	0.7	170.2 161/194	0.2	172.7 164/198	0.2	175.2 168/202	0.2	177.5 172/205
30	164.4 149/184	0.7	168.1 155/189	0.7	171.8 161/195	0.3	174.4 164/198	0.2	176.9 168/202	0.2	179.3 172/206
27	165.9 149/184	0.8	169.7 155/190	0.8	173.5 161/195	0.3	176.1 164/199	0.2	178.6 168/203	0.2	181.0 172/206
24	167.5 149/185	0.8	171.3 155/190	0.8	175.1 161/196	0.3	177.7 164/199	0.3	180.3 168/203	0.2	182.8 172/207
21	169.0 149/185	0.8	172.9 155/191	0.8	176.7 161/196	0.3	179.4 164/200	0.3	182.0 168/204	0.2	184.5 172/207
18	170.6 149/186	0.8	174.4 155/191	0.8	178.4 161/197	0.3	181.0 164/200	0.3	183.7 168/204	0.2	186.2 172/208
15	172.0 150/186	0.8	175.9 155/192	0.8	179.9 161/197	0.3	182.5 165/201	0.3	185.2 168/205	0.2	187.7 172/208
12	173.1 150/187	0.8	177.0 156/192	0.8	181.0 161/198	0.3	183.6 165/202	0.3	186.3 169/205	0.3	188.9 173/209
9	173.6 151/188	0.8	177.5 156/193	0.8	181.5 162/199	0.3	184.2 166/203	0.3	186.8 169/206	0.2	189.3 173/210
6	174.1 151/189	0.8	178.1 157/194	0.8	182.1 163/200	0.3	184.8 166/203	0.3	187.4 170/207	0.2	189.9 174/211
3	174.7 152/189	0.8	178.7 158/195	0.8	182.6 163/200	0.3	185.3 167/204	0.3	188.0 171/208	0.2	190.5 175/212
0	175.2 152/190	0.8	179.2 158/196	0.8	183.2 164/201	0.3	185.9 168/205	0.3	188.6 172/209	0.2	191.1 176/212
V2= θ2=	VR+ 20 13.0		VR+ 19 13.0		VR+ 20 12.5		VR+ 20 12.5		VR+ 20 12.5		VR+ 20 12.0

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

RIYADH

A/D Elev **2049ft**

KING KHALID

FULL LENGTH RWY 15R

CLG NIL **RVR/VIS** 200m **SLOPE** 0.12%DN

TOR 4200m (13780ft) **ED** 4200m (13780ft) **TOD** 4200m (13780ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
42	157.7 0.8 150/182	161.5 0.7 156/187	165.2 0.2 161/193	167.6 0.2 165/197	170.0 0.2 169/200	172.3 173/204
39	159.6 0.7 150/183	163.3 0.7 155/188	166.9 0.2 161/193	169.3 0.2 165/197	171.7 0.2 169/201	174.1 172/204
36	161.2 0.7 150/183	164.9 0.7 155/188	168.6 0.2 161/194	171.1 0.2 165/197	173.5 0.2 168/201	175.8 172/205
33	162.8 0.7 150/183	166.5 0.7 155/189	170.2 0.2 161/194	172.7 0.2 165/198	175.2 0.2 168/202	177.5 172/205
30	164.4 0.7 149/184	168.1 0.7 155/189	171.8 0.3 161/195	174.4 0.2 165/198	176.9 0.2 168/202	179.3 172/206
27	165.9 0.8 149/184	169.7 0.8 155/190	173.5 0.3 161/195	176.1 0.2 165/199	178.6 0.2 168/202	181.0 172/206
24	167.5 0.8 149/185	171.3 0.8 155/190	175.1 0.3 161/196	177.7 0.3 165/199	180.3 0.2 168/203	182.8 172/207
21	169.0 0.8 150/185	172.9 0.8 155/191	176.7 0.3 161/196	179.4 0.3 165/200	182.0 0.2 168/204	184.5 172/207
18	170.6 0.8 150/186	174.4 0.8 155/191	178.4 0.3 161/197	181.0 0.3 165/200	183.7 0.2 168/204	186.2 172/208
15	172.0 0.8 150/186	175.9 0.8 155/192	179.9 0.3 161/197	182.5 0.3 165/201	185.2 0.2 168/205	187.7 172/208
12	173.1 0.8 150/187	177.0 0.8 156/192	181.0 0.3 161/198	183.6 0.3 165/202	186.3 0.3 169/205	188.9 173/209
9	173.6 0.8 151/188	177.5 0.8 156/193	181.5 0.3 162/199	184.2 0.3 166/203	186.8 0.2 170/206	189.3 173/210
6	174.1 0.8 151/189	178.1 0.8 157/194	182.1 0.3 163/200	184.8 0.3 167/203	187.4 0.2 170/207	189.9 174/211
3	174.7 0.8 152/189	178.7 0.8 158/195	182.6 0.3 163/200	185.3 0.3 167/204	188.0 0.2 171/208	190.5 175/212
0	175.2 0.8 153/190	179.2 0.8 158/196	183.2 0.3 164/201	185.9 0.3 168/205	188.6 0.2 172/209	191.1 176/212
V2= θ2=	VR+ 20 13.0	VR+ 19 13.0	VR+ 20 12.5	VR+ 20 12.5	VR+ 20 12.5	VR+ 20 12.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

RIYADH

A/D Elev **2049ft**

KING KHALID

FULL LENGTH RWY 33L

CLG NIL **RVR/VIS** 200m **SLOPE** 0.12%UP

TOR 4200m (13780ft) **ED** 4200m (13780ft) **TOD** 4200m (13780ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
42	156.9 151/181	0.8	160.7 157/186	0.7	164.4 163/192	0.2	166.9 166/195	0.2	169.3 170/199	0.2	171.6 174/203
39	158.8 151/181	0.8	162.6 157/187	0.8	166.4 162/193	0.2	168.9 166/196	0.2	171.4 170/200	0.2	173.8 174/204
36	160.7 151/182	0.8	164.5 156/188	0.8	168.4 162/194	0.3	171.0 166/197	0.2	173.4 169/201	0.2	175.8 173/205
33	162.5 151/183	0.8	166.4 156/189	0.8	170.2 162/194	0.2	172.7 166/198	0.2	175.2 169/202	0.2	177.5 173/205
30	164.3 150/184	0.8	168.1 156/189	0.7	171.8 162/195	0.3	174.4 166/198	0.2	176.9 169/202	0.2	179.3 173/206
27	165.9 150/184	0.8	169.7 156/190	0.8	173.5 162/195	0.3	176.1 165/199	0.2	178.6 169/203	0.2	181.0 173/206
24	167.5 150/185	0.8	171.3 156/190	0.8	175.1 162/196	0.3	177.7 165/199	0.3	180.3 169/203	0.2	182.8 173/207
21	169.0 150/185	0.8	172.9 156/191	0.8	176.7 162/196	0.3	179.4 166/200	0.3	182.0 169/204	0.2	184.5 173/207
18	170.6 151/186	0.8	174.4 156/191	0.8	178.3 162/197	0.3	181.0 166/200	0.3	183.7 169/204	0.2	186.2 173/208
15	172.0 151/186	0.8	175.9 156/192	0.8	179.8 162/197	0.3	182.5 166/201	0.3	185.2 169/205	0.2	187.7 173/208
12	173.1 151/187	0.8	177.0 157/192	0.8	181.0 162/198	0.3	183.7 166/202	0.3	186.3 170/205	0.3	188.9 174/209
9	173.6 152/188	0.8	177.5 157/193	0.8	181.5 163/199	0.3	184.2 167/203	0.3	186.8 171/206	0.2	189.3 174/210
6	174.1 152/189	0.8	178.1 158/194	0.8	182.1 164/200	0.3	184.8 168/203	0.3	187.4 171/207	0.2	189.9 175/211
3	174.7 153/189	0.8	178.7 159/195	0.8	182.6 164/200	0.3	185.3 168/204	0.3	188.0 172/208	0.2	190.5 176/212
0	175.2 154/190	0.8	179.2 159/196	0.8	183.2 165/201	0.3	185.9 169/205	0.3	188.6 173/209	0.2	191.1 177/212
V2= θ2=	VR+ 20 13.0		VR+ 19 13.0		VR+ 19 12.5		VR+ 20 12.5		VR+ 20 12.5		VR+ 20 12.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

A/D Elev **2049ft**

RIYADH
KING KHALID
FULL LENGTH RWY 33R

CLG NIL **RVR/VIS** 200m **SLOPE** 0.15%UP

TOR 4200m (13780ft) **ED** 4200m (13780ft) **TOD** 4200m (13780ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
42	156.8 0.7 152/180	160.5 0.8 157/186	164.3 0.2 163/192	166.7 0.2 167/195	169.2 0.2 170/199	171.5 174/203
39	158.7 0.8 151/181	162.5 0.8 157/187	166.3 0.2 163/192	168.8 0.2 166/196	171.2 0.2 170/200	173.6 174/204
36	160.6 0.8 151/182	164.4 0.8 157/188	168.3 0.2 162/193	170.8 0.2 166/197	173.3 0.2 170/201	175.7 173/204
33	162.4 0.8 151/183	166.3 0.8 156/189	170.2 0.2 162/194	172.7 0.2 166/198	175.2 0.2 169/202	177.5 173/205
30	164.2 0.8 151/184	168.1 0.7 156/189	171.8 0.3 162/195	174.4 0.2 166/198	176.9 0.2 169/202	179.3 173/206
27	165.9 0.8 151/184	169.7 0.8 156/190	173.5 0.3 162/195	176.1 0.2 166/199	178.6 0.2 169/203	181.0 173/206
24	167.5 0.8 151/185	171.3 0.8 156/190	175.1 0.3 162/196	177.7 0.3 166/199	180.3 0.2 169/203	182.8 173/207
21	169.0 0.8 151/185	172.9 0.8 156/191	176.7 0.3 162/196	179.4 0.3 166/200	182.0 0.2 169/204	184.5 173/207
18	170.6 0.8 151/186	174.4 0.8 156/191	178.4 0.3 162/197	181.0 0.3 166/200	183.7 0.2 169/204	186.2 173/208
15	172.0 0.8 151/186	175.9 0.8 156/192	179.8 0.3 162/197	182.5 0.3 166/201	185.2 0.2 170/205	187.7 173/208
12	173.1 0.8 151/187	177.0 0.8 157/192	181.0 0.3 163/198	183.7 0.3 166/202	186.3 0.3 170/205	188.9 174/209
9	173.6 0.8 152/188	177.5 0.8 158/193	181.5 0.3 163/199	184.2 0.3 167/203	186.8 0.2 171/206	189.3 175/210
6	174.1 0.8 152/189	178.1 0.8 158/194	182.1 0.3 164/200	184.8 0.3 168/203	187.4 0.2 171/207	189.9 175/211
3	174.7 0.8 153/189	178.7 0.8 159/195	182.6 0.3 165/200	185.3 0.3 168/204	188.0 0.2 172/208	190.5 176/212
0	175.2 0.8 154/190	179.2 0.8 160/196	183.2 0.3 165/201	185.9 0.3 169/205	188.6 0.2 173/209	191.1 177/212
V2= θ2=	VR+ 20 13.0	VR+ 19 13.0	VR+ 20 12.5	VR+ 20 12.5	VR+ 20 12.5	VR+ 20 12.0

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

ROVANIEMI

A/D Elev **645ft**

FULL LENGTH RWY 03

CLG NIL **RVR/VIS** 150m **SLOPE** 0.23%DN
TOR 3000m (9843ft) **ED** 3000m (9843ft) **TOD** 3000m (9843ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
24	155.6 148/167	1.1	161.0 152/171	1.0	166.1 157/175	0.3	168.9 160/179	0.3	171.8 164/183	0.3	174.7 167/187
21	157.0 148/168	1.1	162.5 153/172	1.1	167.8 157/176	0.3	170.6 161/180	0.3	173.5 164/184	0.3	176.4 167/188
18	158.5 149/169	1.1	164.0 153/173	1.1	169.4 158/176	0.3	172.3 161/180	0.3	175.2 164/184	0.3	178.2 168/188
15	159.8 149/170	1.1	165.4 153/173	1.1	171.0 158/177	0.3	173.9 161/181	0.3	176.8 165/185	0.3	179.8 168/189
12	161.1 149/170	1.1	166.7 154/174	1.1	172.3 159/178	0.3	175.2 162/182	0.3	178.1 165/186	0.3	181.2 169/190
9	162.1 150/171	1.1	167.8 155/175	1.0	173.0 159/179	0.3	175.9 163/183	0.3	178.8 166/187	0.3	181.9 170/191
6	163.1 151/171	1.1	168.7 155/175	1.0	173.7 160/180	0.3	176.6 164/184	0.3	179.5 167/188	0.3	182.6 170/192
3	164.0 151/172	1.1	169.6 156/175	0.9	174.3 161/181	0.3	177.2 164/185	0.3	180.2 168/189	0.3	183.2 171/193
0	164.9 152/172	1.1	170.4 156/176	0.9	174.9 162/182	0.3	177.8 165/186	0.3	180.8 169/190	0.3	183.8 172/194
-3	165.7 152/173	1.1	171.0 157/177	0.9	175.4 162/183	0.3	178.3 166/186	0.3	181.3 169/191	0.3	184.4 173/195
-6	166.4 153/173	1.0	171.5 158/177	0.9	175.9 163/183	0.3	178.8 167/187	0.3	181.8 170/191	0.3	184.8 174/196
-9	167.1 154/173	1.0	172.0 159/178	0.9	176.4 164/184	0.3	179.3 168/188	0.3	182.3 171/192	0.3	185.3 175/196
12	167.3 154/173	0.9	172.0 159/178	0.9	176.4 164/184	0.3	179.3 168/188	0.3	182.3 171/192	0.3	185.3 175/197
15	167.2 154/173	0.9	171.9 159/178	0.9	176.3 164/184	0.3	179.2 168/188	0.3	182.2 171/193	0.3	185.2 175/197
18	167.1 154/173	0.9	171.8 159/179	0.9	176.1 164/185	0.3	179.1 168/189	0.3	182.0 171/193	0.3	185.0 175/197
V2= θ2=	VR+ 23 14.5		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Arrester Gear:** Above data is valid with Arrester Net in either UP or DOWN position.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

ROVANIEMI

A/D Elev **645ft**

FULL LENGTH RWY 21

CLG NIL **RVR/VIS** 150m **SLOPE** 0.23%UP

TOR 3000m (9843ft) **ED** 3000m (9843ft) **TOD** 3000m (9843ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
24	152.3 149/165	1.0	157.4 154/169	1.0	162.5 159/172	0.3	165.6 162/174	0.3	168.4 165/178	0.3	171.2 169/182
21	153.7 150/166	1.1	159.0 154/170	1.0	164.1 159/173	0.3	167.3 162/175	0.3	170.1 166/179	0.3	173.0 169/183
18	155.2 150/167	1.1	160.5 155/170	1.0	165.7 160/174	0.3	169.0 163/176	0.3	171.8 166/180	0.3	174.7 170/184
15	156.5 151/168	1.1	161.9 155/171	1.1	167.2 160/175	0.3	170.5 163/177	0.3	173.4 167/180	0.3	176.3 170/184
12	157.7 151/168	1.1	163.1 156/172	1.1	168.4 161/175	0.3	171.8 164/177	0.3	174.7 167/181	0.3	177.6 171/185
9	158.7 152/169	1.1	164.0 156/172	1.1	169.3 161/176	0.3	172.4 165/178	0.3	175.3 168/182	0.3	178.3 171/186
6	159.6 152/169	1.0	164.8 157/173	1.0	170.0 162/176	0.3	173.1 165/179	0.3	175.9 169/183	0.3	178.9 172/187
3	160.4 153/169	1.0	165.6 158/173	1.0	170.8 163/176	0.3	173.7 166/180	0.3	176.6 170/184	0.3	179.5 173/188
0	161.1 154/170	1.1	166.4 158/173	1.0	171.4 163/177	0.3	174.2 167/181	0.3	177.1 170/185	0.3	180.1 174/189
-3	161.8 154/170	1.0	167.0 159/174	1.0	171.9 164/178	0.3	174.7 168/182	0.3	177.6 171/186	0.3	180.6 175/190
-6	162.5 155/170	1.0	167.6 160/174	0.9	172.3 165/178	0.3	175.2 169/182	0.3	178.1 172/186	0.3	181.1 176/190
-9	163.1 156/171	1.0	168.2 161/174	0.9	172.7 166/179	0.3	175.6 169/183	0.3	178.5 173/187	0.3	181.5 177/191
12	163.2 156/171	1.0	168.3 161/174	0.9	172.8 166/179	0.3	175.6 170/183	0.3	178.5 173/187	0.3	181.5 177/191
15	163.2 156/171	1.0	168.2 161/174	0.9	172.6 166/179	0.3	175.5 170/183	0.3	178.4 173/187	0.3	181.3 177/191
18	163.1 156/171	1.0	168.1 161/174	0.9	172.5 166/180	0.3	175.3 170/183	0.3	178.2 173/187	0.3	181.2 177/192
V2= θ2=	VR+ 24 14.5		VR+ 23 14.0		VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

2. **Arrester Gear:** Above data is valid with Arrester Net in either UP or DOWN position.

A/D Elev **308ft**

FULL LENGTH RWY 18

CLG NIL **RVR/VIS** 200m **SLOPE** NIL
TOR 3048m (10000ft) **ED** 3348m (10984ft) **TOD** 3048m (10000ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	153.8 155/167	1.0	158.7 159/172	0.8	162.8 164/177	0.3	165.5 167/181	0.3	168.2 171/185	0.3	171.0 174/189
36	155.5 155/168	1.0	160.6 159/173	0.8	164.7 164/178	0.3	167.4 168/182	0.3	170.2 171/186	0.3	173.1 174/190
33	157.2 155/169	1.1	162.5 160/173	0.8	166.6 165/179	0.3	169.4 168/183	0.3	172.2 171/187	0.3	175.1 175/191
30	158.8 156/170	1.1	164.3 160/174	0.8	168.5 165/180	0.3	171.3 169/184	0.3	174.1 172/188	0.3	177.1 175/192
27	160.4 156/171	1.1	166.1 161/175	0.8	170.3 166/181	0.3	173.1 169/185	0.3	176.0 172/189	0.3	179.0 175/193
24	162.0 157/171	1.2	167.8 161/176	0.9	172.1 166/182	0.3	175.0 169/185	0.3	177.9 173/190	0.3	180.9 176/194
21	163.5 157/172	1.2	169.5 161/176	0.9	173.8 166/182	0.3	176.7 170/186	0.3	179.7 173/190	0.3	182.7 176/194
18	164.9 158/173	1.2	171.1 162/177	0.9	175.5 167/183	0.3	178.4 170/187	0.3	181.4 174/191	0.3	184.5 177/195
15	166.2 158/174	1.3	172.6 162/178	0.9	177.1 167/183	0.3	180.1 171/187	0.3	183.1 174/191	0.3	186.2 177/196
12	167.5 159/174	1.3	173.9 163/178	0.9	178.4 168/184	0.3	181.4 171/188	0.3	184.4 175/192	0.3	187.5 178/196
9	168.8 159/175	1.2	174.7 163/179	0.9	179.2 169/185	0.3	182.1 172/189	0.3	185.2 175/193	0.3	188.3 179/198
6	169.9 160/176	1.1	175.4 164/180	0.9	179.9 169/186	0.3	182.8 173/190	0.3	185.9 176/195	0.3	189.0 180/199
3	171.0 160/176	1.0	176.1 165/181	0.9	180.5 170/187	0.3	183.5 174/191	0.3	186.6 177/196	0.3	189.7 180/200
0	172.1 160/177	0.9	176.7 166/182	0.9	181.1 171/188	0.3	184.2 174/192	0.3	187.2 178/196	0.3	190.4 181/201
-3	172.9 161/177	0.9	177.3 167/183	0.9	181.7 172/189	0.3	184.7 175/193	0.3	187.8 179/197	0.3	191.0 182/202
V2= θ2=	VR+ 22 14.0		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

SANTA MARIA

A/D Elev **308ft**

FULL LENGTH RWY 36

CLG NIL **RVR/VIS** 200m **SLOPE** NIL
TOR 3048m (10000ft) **ED** 3348m (10984ft) **TOD** 3048m (10000ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	153.8 1.0 155/167	158.7 0.8 159/172	162.8 0.3 164/177	165.5 0.3 167/181	168.2 0.3 171/185	171.0 174/189
36	155.5 1.0 155/168	160.6 0.8 159/173	164.7 0.3 164/178	167.4 0.3 168/182	170.2 0.3 171/186	173.1 174/190
33	157.2 1.1 155/169	162.5 0.8 160/173	166.6 0.3 165/179	169.4 0.3 168/183	172.2 0.3 171/187	175.1 175/191
30	158.8 1.1 156/170	164.3 0.8 160/174	168.5 0.3 165/180	171.3 0.3 169/184	174.1 0.3 172/188	177.1 175/192
27	160.4 1.1 156/171	166.1 0.8 161/175	170.3 0.3 166/181	173.1 0.3 169/185	176.0 0.3 172/189	179.0 175/193
24	162.0 1.2 157/171	167.8 0.9 161/176	172.1 0.3 166/182	175.0 0.3 169/185	177.9 0.3 173/190	180.9 176/194
21	163.5 1.2 157/172	169.5 0.9 161/176	173.8 0.3 166/182	176.7 0.3 170/186	179.7 0.3 173/190	182.7 176/194
18	164.9 1.2 158/173	171.1 0.9 162/177	175.5 0.3 167/183	178.4 0.3 170/187	181.4 0.3 174/191	184.5 177/195
15	166.2 1.3 158/174	172.6 0.9 162/178	177.1 0.3 167/183	180.1 0.3 171/187	183.1 0.3 174/191	186.2 177/196
12	167.5 1.3 159/174	173.9 0.9 163/178	178.4 0.3 168/184	181.4 0.3 171/188	184.4 0.3 175/192	187.5 178/196
9	168.8 1.2 159/175	174.7 0.9 163/179	179.2 0.3 169/185	182.1 0.3 172/189	185.2 0.3 175/193	188.3 179/198
6	169.9 1.1 160/176	175.4 0.9 164/180	179.9 0.3 169/186	182.8 0.3 173/190	185.9 0.3 176/195	189.0 180/199
3	171.0 1.0 160/176	176.1 0.9 165/181	180.5 0.3 170/187	183.5 0.3 174/191	186.6 0.3 177/196	189.7 180/200
0	172.1 0.9 160/177	176.7 0.9 166/182	181.1 0.3 171/188	184.2 0.3 174/192	187.2 0.3 178/196	190.4 181/201
-3	172.9 0.9 161/177	177.3 0.9 167/183	181.7 0.3 172/189	184.7 0.3 175/193	187.8 0.3 179/197	191.0 182/202
V2= θ2=	VR+ 22 14.0	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **47ft**

FULL LENGTH RWY 06

CLG NIL **RVR/VIS** 200m **SLOPE** 0.29%DN
TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 3261m (10699ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	158.7 149/173	0.8	162.6 154/179	0.8	166.5 159/185	0.2	168.9 163/188	0.2	171.2 166/191	0.2	173.7 170/194
36	160.6 149/174	0.8	164.5 154/180	0.8	168.5 159/186	0.2	171.0 163/189	0.2	173.4 166/192	0.2	175.8 170/195
33	162.5 150/175	0.8	166.5 155/181	0.8	170.5 160/187	0.2	173.0 163/190	0.2	175.4 167/194	0.2	177.9 170/197
30	164.4 150/176	0.8	168.4 155/182	0.8	172.5 160/188	0.2	175.0 164/191	0.2	177.5 167/194	0.2	180.0 171/197
27	166.2 150/177	0.8	170.2 155/182	0.8	174.4 161/188	0.3	177.0 164/192	0.2	179.5 167/195	0.2	182.0 171/198
24	167.9 151/177	0.8	172.0 156/183	0.8	176.2 161/189	0.3	178.9 164/192	0.2	181.4 168/196	0.3	184.0 171/200
21	169.6 151/178	0.8	173.8 156/184	0.8	178.0 161/190	0.3	180.8 165/194	0.3	183.4 168/197	0.2	185.9 172/201
18	171.3 151/178	0.8	175.5 157/184	0.9	179.8 162/190	0.3	182.7 165/195	0.2	185.2 169/198	0.3	187.8 172/201
15	172.9 152/179	0.8	177.1 157/185	0.9	181.5 162/191	0.3	184.4 165/195	0.3	187.0 169/199	0.3	189.6 173/202
12	174.2 152/180	0.8	176.4 157/186	0.9	182.8 163/192	0.3	185.8 166/196	0.3	188.4 170/199	0.3	191.0 173/202
9	174.8 153/181	0.8	179.0 158/187	0.9	183.4 163/193	0.3	186.2 167/197	0.3	188.8 170/200	0.3	191.5 174/204
6	175.3 154/182	0.9	179.6 159/188	0.9	183.9 164/194	0.3	186.6 168/197	0.3	189.2 171/201	0.3	191.9 175/204
3	175.8 155/183	0.9	180.1 160/189	0.8	184.3 165/195	0.3	187.0 169/198	0.3	189.6 172/201	0.3	192.3 176/204
0	176.3 155/184	0.8	180.5 161/190	0.9	184.8 166/195	0.2	187.3 170/199	0.3	189.9 173/202	0.3	192.6 177/205
-3	176.7 156/185	0.9	181.0 161/191	0.8	185.1 167/196	0.2	187.6 170/199	0.3	190.2 174/202	0.3	192.9 178/206
V2= θ2=	VR+ 22 14.0		VR+ 22 13.5		VR+ 21 13.5		VR+ 21 13.0		VR+ 21 13.0		VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **SHANNON**

A/D Elev **47ft**

FULL LENGTH RWY 24

CLG NIL **RVR/VIS** 200m **SLOPE** 0.29%UP

TOR 3200m (10499ft) **ED** 3200m (10499ft) **TOD** 3261m (10699ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	157.6 0.8 150/170	161.8 0.8 155/175	165.9 0.3 160/181	168.6 0.3 163/184	171.3 0.3 166/188	174.1 170/192
36	159.3 0.9 150/170	163.7 0.8 155/176	167.9 0.3 160/181	170.6 0.3 163/185	173.4 0.3 167/189	176.2 170/193
33	161.1 0.9 151/171	165.6 0.8 155/177	169.8 0.3 160/182	172.6 0.3 164/186	175.4 0.3 167/190	178.2 170/194
30	162.8 0.9 151/172	167.5 0.8 156/177	171.7 0.3 161/183	174.5 0.3 164/187	177.4 0.3 167/191	180.3 171/195
27	164.4 1.0 151/173	169.3 0.9 156/178	173.6 0.3 161/184	176.4 0.3 165/188	179.3 0.3 168/192	182.2 171/196
24	166.0 1.0 152/174	171.1 0.9 157/179	175.4 0.3 162/185	178.3 0.3 165/189	181.2 0.3 168/193	184.2 172/197
21	167.5 1.1 152/175	172.8 0.9 157/179	177.2 0.3 162/185	180.1 0.3 165/189	183.0 0.3 169/193	186.0 172/197
18	168.9 1.1 153/175	174.5 0.9 157/180	178.9 0.3 162/186	181.8 0.3 166/190	184.8 0.3 169/194	187.8 172/198
15	170.3 1.1 153/176	176.0 0.9 158/181	180.5 0.3 163/187	183.5 0.3 166/191	186.5 0.3 170/195	189.6 173/199
12	171.6 1.1 154/177	177.3 0.9 158/181	181.8 0.3 163/187	184.8 0.3 167/191	187.9 0.3 170/195	191.0 173/199
9	172.8 1.1 154/177	178.1 0.9 159/182	182.6 0.3 164/188	185.5 0.3 167/192	188.6 0.3 171/196	191.7 174/200
6	174.0 0.9 155/178	178.7 0.9 160/183	183.2 0.3 165/189	186.2 0.3 168/193	189.2 0.3 172/197	192.3 175/201
3	174.9 0.9 155/179	179.3 0.9 160/184	183.8 0.3 166/190	186.8 0.3 169/194	189.8 0.3 173/198	192.9 176/202
0	175.5 0.9 156/179	179.9 0.9 161/185	184.4 0.3 166/191	187.4 0.3 170/195	190.4 0.3 173/199	193.5 177/203
-3	176.0 0.9 157/180	180.4 0.9 162/186	184.9 0.3 167/192	187.9 0.3 171/196	190.9 0.3 174/200	194.0 178/204
V2= θ2=	VR+ 22 14.0	VR+ 21 13.5	VR+ 21 13.5	VR+ 21 13.0	VR+ 21 13.0	VR+ 21 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **4848ft**

FULL LENGTH RWY 07

CLG NIL **RVR/VIS** 480m **SLOPE** 0.66%DN
TOR 3735m (12254ft) **ED** 3935m (12910ft) **TOD** 3935m (12910ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	143.5 147/173	0.7	146.9 153/178	0.7	150.3 159/183	0.2	152.6 162/187	0.2	154.8 166/190	0.2	157.0 170/194
36	145.1 147/173	0.7	148.6 153/179	0.7	152.1 158/184	0.2	154.3 162/188	0.2	156.6 166/191	0.2	158.7 170/195
33	146.8 147/174	0.7	150.3 153/180	0.7	153.8 158/185	0.2	156.1 162/189	0.2	158.3 166/192	0.2	160.5 170/195
30	148.4 147/175	0.7	151.9 153/180	0.7	155.5 158/186	0.2	157.8 162/189	0.2	160.1 166/193	0.2	162.3 169/196
27	150.0 147/176	0.7	153.6 152/181	0.7	157.1 158/186	0.2	159.5 162/190	0.2	161.8 165/194	0.2	164.0 169/197
24	151.5 147/176	0.7	155.1 152/182	0.7	158.8 158/187	0.2	161.1 162/191	0.2	163.5 165/194	0.2	165.7 169/198
21	153.0 147/177	0.7	156.7 152/182	0.7	160.3 158/188	0.2	162.7 162/192	0.2	165.1 165/195	0.2	167.4 169/199
18	154.4 147/178	0.7	158.1 152/183	0.7	161.8 158/189	0.2	164.2 162/192	0.2	166.6 165/196	0.2	168.9 169/199
15	155.8 147/178	0.7	159.5 153/184	0.7	163.2 158/189	0.2	165.7 162/193	0.2	168.1 166/197	0.2	170.4 169/200
12	156.9 147/179	0.7	160.6 153/185	0.8	164.4 158/190	0.2	166.9 162/194	0.2	169.3 166/198	0.2	171.7 170/201
9	157.6 148/180	0.8	161.4 153/186	0.8	165.2 159/191	0.2	167.6 163/195	0.2	170.1 166/199	0.2	172.4 170/202
6	158.3 148/181	0.8	162.1 154/187	0.8	165.9 159/192	0.2	168.4 163/196	0.2	170.8 167/200	0.2	173.2 171/204
3	158.9 149/182	0.8	162.7 154/188	0.8	166.6 160/194	0.2	169.0 164/197	0.2	171.5 168/201	0.2	173.9 171/205
0	159.5 149/183	0.8	163.3 155/189	0.8	167.2 161/195	0.2	169.7 165/198	0.2	172.1 168/202	0.2	174.5 172/206
-3	160.0 150/184	0.8	163.9 156/190	0.8	167.7 161/196	0.2	170.2 165/199	0.2	172.6 169/203	0.2	175.0 173/207
V2= θ2=	VR+ 18 13.0		VR+ 18 13.0		VR+ 18 12.5		VR+ 18 12.5		VR+ 18 12.0		VR+ 18 12.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **4848ft**

FULL LENGTH RWY 17

CLG NIL **RVR/VIS** 480m **SLOPE** 0.20%UP
TOR 3350m (10991ft) **ED** 3620m (11877ft) **TOD** 3620m (11877ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	137.4 0.7 150/163	140.8 0.7 155/168	144.1 0.2 159/173	146.4 0.2 162/177	148.6 0.2 165/181	150.9 169/184
36	139.1 0.7 150/164	142.4 0.7 155/169	145.8 0.2 160/174	148.1 0.2 163/178	150.4 0.2 166/181	152.7 169/185
33	140.7 0.7 151/165	144.0 0.7 155/170	147.5 0.2 160/175	149.8 0.2 163/179	152.1 0.2 166/182	154.4 169/186
30	142.2 0.7 151/165	145.7 0.7 156/171	149.1 0.2 161/176	151.5 0.2 164/180	153.8 0.2 167/183	156.2 170/187
27	143.8 0.7 152/166	147.3 0.7 156/171	150.8 0.2 161/177	153.1 0.2 164/180	155.5 0.2 167/184	157.9 170/188
24	145.3 0.7 152/167	148.8 0.7 157/172	152.4 0.2 161/178	154.8 0.2 165/181	157.2 0.2 168/185	159.6 171/188
21	146.8 0.7 152/167	150.3 0.7 157/173	153.9 0.2 162/178	156.3 0.2 165/182	158.7 0.2 168/186	161.2 171/189
18	148.1 0.7 153/168	151.7 0.7 158/174	155.3 0.2 162/179	157.8 0.2 166/183	160.2 0.2 169/186	162.7 172/190
15	149.4 0.7 153/169	153.1 0.7 158/174	156.7 0.2 163/180	159.2 0.2 166/183	161.7 0.2 169/187	164.2 172/191
12	150.5 0.7 154/170	154.2 0.7 159/175	157.9 0.2 164/181	160.3 0.2 167/184	162.8 0.3 170/188	165.4 173/192
9	151.2 0.7 155/171	154.9 0.7 160/176	158.6 0.2 164/182	161.1 0.2 168/185	163.6 0.2 171/189	166.1 174/193
6	151.9 0.7 155/172	155.6 0.7 160/177	159.3 0.2 165/183	161.8 0.3 168/186	164.4 0.2 172/190	166.9 175/194
3	152.5 0.7 156/173	156.2 0.8 161/178	160.0 0.2 166/184	162.5 0.2 169/187	165.0 0.3 173/191	167.6 176/195
0	153.1 0.7 157/173	156.8 0.8 162/179	160.6 0.2 167/185	163.1 0.2 170/188	165.6 0.3 173/192	168.2 177/196
-3	153.6 0.7 157/174	157.3 0.8 163/180	161.1 0.2 168/186	163.6 0.3 171/189	166.2 0.2 174/193	168.7 178/197
V2= θ2=	VR+ 19 13.5	VR+ 19 13.0	VR+ 18 13.0	VR+ 18 13.0	VR+ 18 12.5	VR+ 18 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **4848ft**

FULL LENGTH RWY 25

CLG NIL **RVR/VIS** 480m **SLOPE** 0.66%UP
TOR 3735m (12254ft) **ED** 3935m (12910ft) **TOD** 3935m (12910ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	139.5 155/166	0.7	142.9 161/172	0.7	146.2 166/177	0.2	148.5 169/180	0.2	150.7 172/184	0.2	152.9 175/187
36	141.0 155/167	0.7	144.5 161/172	0.7	148.0 166/178	0.2	150.2 169/181	0.2	152.5 173/185	0.2	154.7 176/188
33	142.6 155/168	0.7	146.1 161/173	0.7	149.6 166/179	0.2	151.9 170/182	0.2	154.2 173/186	0.2	156.5 176/189
30	144.2 155/168	0.7	147.7 161/174	0.7	151.2 166/179	0.2	153.6 170/183	0.2	156.0 173/187	0.2	158.3 177/190
27	145.7 155/169	0.7	149.2 160/174	0.7	152.8 166/180	0.2	155.2 170/184	0.2	157.6 174/187	0.2	160.0 177/191
24	147.2 155/170	0.7	150.8 160/175	0.7	154.4 166/181	0.2	156.8 170/184	0.2	159.3 173/188	0.2	161.7 177/192
21	148.6 155/170	0.7	152.2 160/176	0.7	155.9 166/181	0.2	158.4 170/185	0.2	160.8 173/189	0.2	163.3 177/192
18	150.0 155/171	0.7	153.6 160/176	0.7	157.3 166/182	0.2	159.8 170/186	0.2	162.3 174/189	0.2	164.8 177/193
15	151.2 155/171	0.7	154.9 161/177	0.8	158.7 166/183	0.2	161.2 170/186	0.2	163.7 174/190	0.2	166.2 177/194
12	152.3 155/172	0.7	156.0 161/178	0.8	159.8 167/183	0.2	162.3 170/187	0.3	164.9 174/191	0.2	167.4 178/195
9	153.0 156/173	0.7	156.7 161/179	0.8	160.5 167/185	0.3	163.1 171/188	0.2	165.6 175/192	0.3	168.2 178/196
6	153.7 156/174	0.7	157.4 162/180	0.8	161.2 168/186	0.3	163.8 171/189	0.2	166.3 175/193	0.3	168.9 179/197
3	154.3 157/175	0.7	158.0 163/181	0.8	161.9 168/187	0.2	164.4 172/190	0.3	167.0 176/194	0.2	169.5 180/198
0	154.8 158/176	0.8	158.6 163/182	0.8	162.5 169/188	0.3	165.1 173/191	0.2	167.6 177/195	0.2	170.1 180/199
-3	155.3 158/177	0.8	159.1 164/183	0.8	163.0 170/189	0.3	165.6 174/192	0.2	168.1 177/196	0.3	170.7 181/200
V2= θ2=	VR+ 19 13.5		VR+ 18 13.0		VR+ 18 13.0		VR+ 18 12.5		VR+ 18 12.5		VR+ 18 12.5

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA **TAIF**

A/D Elev **4848ft**

FULL LENGTH RWY 35

CLG NIL **RVR/VIS** 480m **SLOPE** 0.20%DN

TOR 3350m (10991ft) **ED** 3550m (11647ft) **TOD** 3550m (11647ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	137.8 148/164	0.7	141.2 152/169	0.7	144.5 157/174	0.2	146.8 160/178	0.2	149.0 163/181	0.2	151.3 166/185
36	139.5 148/164	0.7	142.8 153/170	0.7	146.2 158/175	0.2	148.5 161/179	0.2	150.8 164/182	0.2	153.1 167/186
33	141.1 149/165	0.7	144.5 153/171	0.7	147.9 158/176	0.2	150.2 161/179	0.2	152.5 164/183	0.2	154.9 167/187
30	142.7 149/166	0.7	146.1 154/171	0.7	149.6 158/177	0.2	151.9 162/180	0.2	154.3 165/184	0.2	156.6 168/187
27	144.2 149/167	0.7	147.7 154/172	0.7	151.2 159/177	0.2	153.6 162/181	0.2	156.0 165/185	0.2	158.3 168/188
24	145.7 150/167	0.7	149.3 155/173	0.7	152.8 159/178	0.2	155.2 162/182	0.2	157.6 166/185	0.2	160.0 169/189
21	147.2 150/168	0.7	150.7 155/174	0.7	154.3 160/179	0.2	156.8 163/183	0.2	159.2 166/186	0.2	161.6 169/190
18	148.6 151/169	0.7	152.2 155/174	0.7	155.8 160/180	0.2	158.2 163/183	0.2	160.7 167/187	0.2	163.2 170/191
15	149.9 151/169	0.7	153.5 156/175	0.7	157.2 161/180	0.2	159.7 164/184	0.2	162.1 167/188	0.2	164.6 170/191
12	151.0 152/170	0.7	154.6 157/176	0.7	158.3 161/181	0.2	160.8 165/185	0.2	163.3 168/189	0.2	165.8 171/192
9	151.7 153/171	0.7	155.4 157/177	0.7	159.1 162/182	0.2	161.6 165/186	0.2	164.1 169/190	0.2	166.6 172/194
6	152.4 153/172	0.7	156.1 158/178	0.7	159.8 163/183	0.2	162.3 166/187	0.2	164.8 169/191	0.3	167.4 173/195
3	153.0 154/173	0.7	156.7 159/179	0.8	160.5 164/184	0.2	163.0 167/188	0.2	165.5 170/192	0.2	168.0 174/196
0	153.5 155/174	0.8	157.3 160/180	0.8	161.1 165/185	0.2	163.6 168/189	0.2	166.1 171/193	0.3	168.7 174/197
-3	154.0 155/175	0.8	157.8 161/181	0.8	161.6 165/186	0.2	164.1 169/190	0.3	166.7 172/194	0.2	169.2 175/198
V2= θ2=	VR+ 19 13.5		VR+ 19 13.0		VR+ 19 13.0		VR+ 18 13.0		VR+ 18 12.5		VR+ 18 12.5

1. **V1 WET SPEED**: V1 WET is V1 DRY minus 15kt.

A/D Elev **120ft**

FULL LENGTH RWY 05

CLG NIL **RVR/VIS** 150m **SLOPE** 0.01%UP
TOR 2291m (7516ft) **ED** 2291m (7516ft) **TOD** 2400m (7874ft)

OAT °C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	130.2 132/150	1.9	139.7 135/157	1.2	145.5 139/161	0.4	149.5 142/164	0.4	153.6 145/167	0.4	157.8 147/170
36	132.4 132/152	1.8	141.2 135/158	1.2	147.1 139/162	0.4	151.2 142/165	0.4	155.3 145/168	0.4	159.6 148/171
33	134.6 132/153	1.6	142.8 135/159	1.2	148.7 140/163	0.4	152.8 142/166	0.4	157.0 145/169	0.4	161.3 148/172
30	136.7 132/154	1.5	144.3 136/160	1.2	150.3 140/164	0.4	154.4 143/167	0.4	158.7 146/170	0.4	163.0 148/172
27	138.9 132/156	1.4	145.7 136/161	1.2	151.8 140/165	0.4	156.0 143/168	0.4	160.2 146/170	0.4	164.6 149/173
24	141.1 132/157	1.2	147.1 136/161	1.2	153.2 141/166	0.4	157.5 144/168	0.4	161.8 146/171	0.4	166.2 149/174
21	142.5 132/158	1.2	148.4 137/162	1.2	154.6 141/166	0.4	158.9 144/169	0.4	163.2 147/172	0.4	167.7 150/175
18	143.7 133/158	1.2	149.7 137/163	1.3	156.0 142/167	0.4	160.3 144/170	0.4	164.7 147/173	0.4	169.2 150/176
15	144.9 133/159	1.2	150.9 138/163	1.3	157.2 142/168	0.4	161.6 145/171	0.4	166.0 148/173	0.5	170.6 151/176
12	146.0 133/160	1.2	152.1 138/164	1.3	158.5 142/168	0.4	162.8 145/171	0.4	167.3 148/174	0.5	171.9 151/177
9	147.1 134/160	1.2	153.2 138/165	1.3	159.6 143/169	0.4	164.0 146/172	0.4	168.5 149/175	0.5	173.1 151/178
6	148.1 134/161	1.2	154.3 139/165	1.3	160.7 143/169	0.4	165.2 146/172	0.4	169.7 149/175	0.5	174.3 152/178
3	149.1 135/161	1.2	155.3 139/166	1.3	161.8 144/170	0.4	166.2 147/173	0.5	170.8 150/176	0.4	175.1 153/179
0	150.0 135/162	1.3	156.3 140/166	1.3	162.8 144/171	0.4	167.3 147/173	0.4	171.8 150/176	0.4	175.7 153/180
-3	150.9 136/162	1.3	157.2 140/167	1.3	163.8 145/171	0.4	168.2 148/174	0.5	172.8 151/177	0.3	176.3 154/181
V2= θ2=	VR+ 28 15.5		VR+ 26 15.0		VR+ 24 15.0		VR+ 23 14.5		VR+ 22 14.0		VR+ 21 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

BRITISH AIRWAYS **CONCORDE** TAKE-OFF DATA

TEES-SIDE

A/D Elev **120ft**

FULL LENGTH RWY 23

CLG NIL **RVR/VIS** 150m **SLOPE** 0.01%DN

TOR 2291m (7516ft) **ED** 2426m (7959ft) **TOD** 2480m (8136ft)

OAT °C	10kt TAIL Inc /kt	5kt TAIL Inc /kt	STILL AIR Inc /kt	10kt HEAD Inc /kt	20kt HEAD Inc /kt	30kt HEAD
39	137.0 1.1 134/155	142.6 1.2 138/159	148.5 0.3 142/163	152.0 0.3 145/166	155.2 0.3 149/168	158.2 152/170
36	138.5 1.1 134/156	144.2 1.2 139/160	150.2 0.4 143/164	153.8 0.3 146/167	157.0 0.3 149/169	160.2 152/171
33	140.0 1.2 135/157	145.8 1.2 139/161	151.8 0.4 143/165	155.5 0.3 146/168	158.8 0.3 149/170	162.0 153/172
30	141.5 1.2 135/158	147.3 1.2 139/162	153.4 0.4 144/166	157.2 0.3 146/169	160.6 0.3 150/171	163.8 153/173
27	142.9 1.2 135/159	148.8 1.2 140/163	154.9 0.4 144/167	158.9 0.3 147/170	162.3 0.3 150/172	165.6 153/174
24	144.2 1.2 136/159	150.2 1.2 140/163	156.4 0.4 144/168	160.5 0.3 147/170	163.9 0.3 150/173	167.3 154/175
21	145.6 1.2 136/160	151.6 1.2 140/164	157.8 0.4 145/168	162.0 0.3 148/171	165.5 0.3 151/173	168.9 154/176
18	146.8 1.2 136/161	152.9 1.3 141/165	159.2 0.4 145/169	163.5 0.4 148/172	167.1 0.3 151/174	170.5 154/176
15	148.0 1.2 137/161	154.1 1.3 141/166	160.5 0.4 146/170	164.8 0.4 148/173	168.5 0.3 152/175	172.0 155/177
12	149.2 1.2 137/162	155.3 1.3 142/166	161.7 0.4 146/170	166.1 0.4 149/173	169.8 0.3 152/176	173.3 155/178
9	150.3 1.2 138/162	156.5 1.3 142/167	162.9 0.4 146/171	167.1 0.4 149/174	170.7 0.3 153/176	174.1 156/178
6	151.3 1.3 138/163	157.6 1.3 143/167	164.0 0.4 147/172	167.9 0.3 150/174	171.4 0.3 153/176	174.8 157/179
3	152.3 1.3 139/164	158.6 1.3 143/168	165.1 0.3 147/172	168.6 0.3 151/174	172.1 0.3 154/177	175.4 157/179
0	153.3 1.3 139/164	159.6 1.2 143/168	165.8 0.4 148/173	169.4 0.3 151/175	172.7 0.3 155/177	175.9 158/180
-3	154.2 1.3 139/165	160.5 1.2 144/169	166.5 0.3 149/173	170.0 0.3 152/175	173.3 0.3 155/177	176.4 159/181
V2= θ2=	VR+ 27 15.5	VR+ 25 15.0	VR+ 23 14.5	VR+ 23 14.5	VR+ 22 14.0	VR+ 21 14.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **1106ft**

FULL LENGTH RWY 18

CLG NIL **RVR/VIS** 1200ft **SLOPE** 0.04% UP
TOR 3048m (10000ft) **ED** 3048m (10000ft) **TOD** 3048m (10000ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	147.9 145/164	1.0	153.1 150/168	0.8	157.0 154/174	0.3	159.7 158/177	0.3	162.3 161/181	0.3	165.1 164/185
36	149.6 146/165	1.1	155.0 150/169	0.8	158.9 155/174	0.3	161.6 158/178	0.3	164.3 161/182	0.3	167.1 165/186
33	151.2 146/166	1.1	156.8 150/170	0.8	160.8 155/175	0.3	163.5 159/179	0.3	166.2 162/183	0.3	169.0 165/187
30	152.8 146/166	1.2	158.6 151/170	0.8	162.6 156/176	0.3	165.3 159/180	0.3	168.1 162/184	0.3	170.9 165/188
27	154.4 147/167	1.2	160.3 151/171	0.8	164.4 156/177	0.3	167.2 159/181	0.3	170.0 163/185	0.3	172.8 166/189
24	155.9 147/168	1.2	161.8 151/172	0.9	166.1 156/178	0.3	168.9 160/181	0.3	171.8 163/185	0.3	174.7 166/190
21	157.4 148/169	1.2	163.4 152/173	0.9	167.8 157/178	0.3	170.6 160/182	0.3	173.5 163/186	0.3	176.5 167/190
18	158.8 148/170	1.2	164.8 152/173	0.9	169.5 157/179	0.3	172.3 161/183	0.3	175.2 164/187	0.3	178.2 167/191
15	160.1 149/170	1.2	166.2 153/174	1.0	171.0 158/180	0.3	173.9 161/184	0.3	176.9 164/188	0.3	179.9 168/192
12	161.4 149/171	1.2	167.6 153/175	0.9	172.3 158/180	0.3	175.2 162/184	0.3	178.2 165/188	0.3	181.2 168/193
9	162.6 150/172	1.2	168.8 154/176	0.9	173.1 159/182	0.3	176.0 162/186	0.3	179.0 166/190	0.3	182.0 169/194
6	163.8 150/172	1.1	169.5 155/177	0.9	173.8 160/183	0.3	176.8 163/187	0.3	179.7 167/191	0.3	182.8 170/195
3	164.9 151/173	1.1	170.2 155/178	0.9	174.5 161/184	0.3	177.5 164/188	0.3	180.4 167/192	0.3	183.5 171/196
0	166.0 151/173	1.0	170.8 156/179	0.9	175.2 161/185	0.3	178.1 165/189	0.3	181.1 168/193	0.3	184.2 171/197
-3	167.0 152/174	0.9	171.4 157/180	0.9	175.8 162/186	0.3	178.7 165/190	0.3	181.7 169/194	0.3	184.8 172/198
V2= Θ2=	VR+ 22 14.0		VR+ 21 14.0		VR+ 20 13.5		VR+ 20 13.5		VR+ 20 13.0		VR+ 20 13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

A/D Elev **1106ft**

FULL LENGTH RWY 36

CLG NIL RVR/VIS 0.25sm SLOPE 0.04% DN

TOR 3048m (10000ft) ED 3048m (10000ft) TOD 3048m (10000ft)

OAT C	10kt TAIL	Inc /kt	5kt TAIL	Inc /kt	STILL AIR	Inc /kt	10kt HEAD	Inc /kt	20kt HEAD	Inc /kt	30kt HEAD
39	148.3 145/164	1.0	153.4 149/168	0.8	157.3 154/174	0.3	159.9 158/178	0.3	162.6 161/182	0.3	165.3 164/186
36	150.0 145/165	1.0	155.2 150/169	0.8	159.2 155/175	0.3	161.9 158/179	0.3	164.6 161/183	0.3	167.3 164/187
33	151.6 146/166	1.1	157.0 150/170	0.8	161.0 155/176	0.3	163.7 158/180	0.3	166.5 162/183	0.3	169.3 165/187
30	153.2 146/167	1.1	158.8 150/171	0.8	162.9 155/176	0.3	165.6 159/180	0.3	168.4 162/184	0.3	171.2 165/188
27	154.8 147/167	1.2	160.6 151/171	0.8	164.7 156/177	0.3	167.4 159/181	0.3	170.2 162/185	0.3	173.1 166/189
24	156.3 147/168	1.2	162.3 151/172	0.8	166.4 156/178	0.3	169.2 160/182	0.3	172.1 163/186	0.3	175.0 166/190
21	157.8 148/169	1.2	163.8 152/173	0.9	168.1 157/179	0.3	170.9 160/183	0.3	173.8 163/187	0.3	176.8 167/191
18	159.2 148/170	1.2	165.2 152/174	0.9	169.8 157/179	0.3	172.6 160/183	0.3	175.5 164/187	0.3	178.5 167/191
15	160.5 148/171	1.2	166.6 153/174	0.9	171.3 158/180	0.3	174.2 161/184	0.3	177.2 164/188	0.3	180.2 168/192
12	161.8 149/171	1.2	168.0 153/175	0.9	172.6 158/181	0.3	175.5 161/185	0.3	178.5 165/189	0.3	181.5 168/193
9	163.1 149/172	1.2	169.1 154/176	0.9	173.4 159/182	0.3	176.3 162/186	0.3	179.3 166/190	0.3	182.3 169/194
6	164.2 150/172	1.1	169.8 155/177	0.9	174.1 160/183	0.3	177.1 163/187	0.3	180.0 166/191	0.3	183.1 170/195
3	165.4 150/173	1.0	170.5 155/178	0.9	174.8 160/184	0.3	177.8 164/188	0.3	180.7 167/192	0.3	183.8 170/196
0	166.5 151/174	0.9	171.1 156/179	0.9	175.5 161/185	0.3	178.4 165/189	0.3	181.4 168/193	0.3	184.5 171/197
-3	167.5 152/174	0.8	171.7 157/180	0.9	176.1 162/186	0.3	179.0 165/190	0.3	182.0 169/194	0.3	185.1 172/198
V2=	VR+ 22		VR+ 21		VR+ 20		VR+ 20		VR+ 20		VR+ 20
θ2=	14.0		14.0		13.5		13.5		13.0		13.0

1. **V1 WET SPEED:** V1 WET is V1 DRY minus 15kt.

SECTION 1.13. - INDEX OF ALTERNATES AND CHARTER DESTINATIONS

Landing data for the following airfields is contained in this section -.

AIRFIELD	CODE	AIRFIELD	CODE
BANGOR	BGR	LUXOR	LXR
BOSTON	BOS	MANSTON	MSE
BRIZE NORTON	BZZ	MARSEILLE	MRS
CAIRO	CAI	NIAGARA FALLS	IAG
DUBLIN	DUB	OPORTO	OPO
EAST MIDLANDS	EMA	OTTAWA	YOW
EDINBURGH	EDI	PARIS CDG	CDG
FARO	FAO	PARIS ORLY	ORY
GANDER	YQX	PRESTWICK	PIK
GOOSE	YYR	RIYADH	RUH
HALIFAX	YHZ	ROVANIEMI	RVN
HUMBERSIDE	HUY	SANTA MARIA	SMA
JEDDAH	JED	SHANNON	SNN
LAJES	TER	TAIF	TIF
LISBON	LIS	TEES-SIDE	MME
LIVERPOOL	LPL	VAL D'OR	YVO

INTENTIONALLY

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **BANGOR**

A/D Elev **192ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**15**	**33**
STATUS	(L)	(A)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3486m / 11437ft	3486m / 11437ft
Slope	.25 DN	.25 UP
Notes	Notes 1,2	Notes 1,2,3
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	
Manual Slippery ..... VREF	10kt	10kt
Autoland Slippery ..... VREF	3kt	
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW Inc per kt HW	3500kg	
TDZ Elev	192ft	163ft
GS/Ht at THR	3°/55ft	3°/57ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C2 ..... Autoland		160R	1600ft			
ILS C1	400	(208)	1800ft	370	(207)	2400ft
ILSH No Flt/Dir	500	(308)	2200ft	470	(307)	2800ft
LLZ	750	(558)	5000ft	610	(447)	4000ft
VOR DME	610	(418)	5000ft	630	(467)	5000ft
NDB				770	(607)	1.5sm
SRA	750	(558)	5000ft	630	(467)	5000ft
VOR-A(BCP)	1000	(808)	2sm	1000	(808)	2sm
Circling / Visual (radius 5.3nm)	1000	(808)	2sm	1000	(808)	2sm
RWY DIRECTION		134°T			314°T	
APPROACH WAY PT (15nm)		N 44° 59.5 W 069° 06.0			N 44° 37.4 W 068° 33.6	
TOUCHDOWN WAY PT		N 44° 49.1 W 068° 50.7			N 44° 47.8 W 068° 48.8	

1. **VOR DME 15 & 33:** If ALS inop RVR becomes 6000ft.

2. **Circling and Visual & VOR-A(BCP):** NOT AUTHORISED NORTH EAST of Rwy 15/33.

3. **LLZ 33:** If MM inop RVR becomes 5000ft.

INTENTIONALLY

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **BERMUDA**

A/D Elev **12ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**12**	**30**
STATUS		(B)
WAT Limit: VREF / VREF + 7KT	49°/49°	49°/49°
Landing Distance Available	2944m / 9659ft	2944m / 9659ft
Slope	NIL	NIL
Notes	Notes 1,2	Notes 1,3
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	1kt	1kt
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	11ft	12ft
GS/Ht at THR		3°/52ft

APPROACH	DA (ft)	DH(HAT) (ft)	RVR	DA (ft)	DH(HAT) (ft)	RVR
ILS C1				270	(258)	0.75sm
ILSH No Flt/Dir				320	(308)	0.75sm
LLZ				450	(438)	1sm
VOR DME	450	(439)	1.25sm	530	(518)	1.25sm
VOR	650	(639)	1.5sm	650	(638)	1.5sm
Circling / Visual (radius 5.3nm)	850	(838)	2sm	850	(838)	2sm

RWY DIRECTION	101°T	281°T
APPROACH WAY PT (15nm)	N 32°24.7 W 064°58.9	N 32°18.7 W 064°22.4
TOUCHDOWN WAY PT	N 32°21.9 W 064°41.5	N 32°21.6 W 064°39.8

1. **Circling / Visual:** All circuits NORTH of Rwy 12/30 only.

2. **VOR DME Rwy 12:** If ALS inop increase VIS by 0.25sm.

3. **All Procedures Rwy 30:** If ALS inop increase VIS by 0.25sm.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **BOSTON**

A/D Elev **20ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**04L**			**04R**	
STATUS					(L)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2396m / 7858ft			2698m / 8852ft	
Slope		.01 UP			.04 DN	
Notes		Note 2			Notes 1;2	
Manual ..... VREF + 7kt		1kt			9kt	
Manual ..... VREF		5kt			10kt	
Autoland ..... VREF					6kt	
Manual Slippery ..... VREF		N/A			104.5	
Autoland Slippery ..... VREF					90.7	
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW					600kg	
TDZ Elev		15ft			18ft	
GS/Ht at THR					3°/47ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C2 ..... Autoland					100R	1200ft
ILS C1R ..... Coupled					220R	1800ft
ILS C1				220	(202)	1800ft
ILSH No Flt/Dir				320	(302)	2200ft
LLZ				490	(472)	4000ft
NDB				930	(912)	2.5sm
ILS(Tall Ships)				360	(342)	6000ft
LLZ(Tall Ships)				490	(472)	6000ft
Circling / Visual (radius 5.3nm)	900	(880)	2.75sm	900	(880)	2.75sm
RWY DIRECTION		020°T			020°T	
APPROACH WAY PT (15nm)		N 42° 07.4 W 071° 07.8			N 42° 07.2 W 071° 07.5	
TOUCHDOWN WAY PT		N 42° 21.5 W 071° 00.9			N 42° 21.3 W 071° 00.6	

1. **LLZ 04R:** If MM inop RVR becomes 5000ft.

2. **Circling and Visual:** NOT AUTHORISED Rwy 04L clockwise to Rwy 15R.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BOSTON**

A/D Elev **20ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**09**			**15R**	
STATUS					(A)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2133m / 7000ft			2805m / 9203ft	
Slope		.04 DN			.04 DN	
Notes		Note 2			Notes 1;2	
Manual ..... VREF + 7kt		97.8			10kt	
Manual ..... VREF		105.4			10kt	
Autoland ..... VREF						
Manual Slippery ..... VREF		N/A			108.8	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		18ft			18ft	
GS/Ht at THR					3°/59ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1				270	(252)	4000ft
ILSH No Flt/Dir				370	(352)	4000ft
LLZ				630	(612)	1.75sm
VOR DME				830	(812)	2.5sm
Circling / Visual (radius 5.3nm)	900	(880)	2.75sm	900	(880)	2.75sm
RWY DIRECTION		076°T			135°T	
APPROACH WAY PT (15nm)		N 42° 17.6 W 071° 20.5			N 42° 32.9 W 071° 15.3	
TOUCHDOWN WAY PT		N 42° 21.3 W 071° 00.8			N 42° 22.3 W 071° 00.9	

1. **ILS 15R:** LLZ offset.

2. **Circling and Visual:** NOT AUTHORISEDf Rwy 04L clockwise to Rwy 15R.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BOSTON**

A/D Elev **20ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**22L**	**22R**
STATUS	(B)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2685m / 8809ft	2148m / 7047ft
Slope	.04 UP	.01 DN
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	9kt	98.9
Manual ..... VREF	10kt	106.4
Autoland ..... VREF		
Manual Slippery ..... VREF	104.4	N/A
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	17ft	16ft
GS/Ht at THR	3°/55ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	420	(403)	6000ft			
ILSH No Flt/Dir	420	(403)	6000ft			
LLZ DME	470	(453)	6000ft			
LLZ	550	(533)	1.5sm			
NDB	690	(673)	2sm			
Circling / Visual (radius 5.3nm)	900	(880)	2.75sm	900	(880)	2.75sm

RWY DIRECTION	200°T	200°T
APPROACH WAY PT (15nm)	N 42° 36.5 W 070° 53.1	N 42° 36.6 W 070° 53.4
TOUCHDOWN WAY PT	N 42° 22.4 W 071° 00.1	N 42° 22.5 W 071° 00.4

1. **Circling and Visual:** NOT AUTHORISED Rwy 04L, clockwise to Rwy 15R.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **BOSTON**

A/D Elev **20ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**27**			**33L**	
STATUS		(B)			(A)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2133m / 7000ft			3072m / 10081ft	
Slope		.04 UP			.04 UP	
Notes		Note 1			Note 1	
Manual ..... VREF + 7kt		98.1			10kt	
Manual ..... VREF		105.6			10kt	
Autoland ..... VREF						
Manual Slippery ..... VREF		N/A			4kt	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg				
TDZ Elev		17ft			17ft	
GS/Ht at THR		3°/57ft			3°/52ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled					200R	2200ft
ILS C1	460	(443)	1.5sm	230	(213)	2200ft
ILSH No Flt/Dir	460	(443)	1.5sm	330	(313)	2800ft
LLZ	510	(493)	1.5sm	530	(513)	5000ft
VOR DME	510	(493)	1.5sm	530	(513)	5000ft
Circling / Visual (radius 5.3nm)	900	(880)	2.75sm	900	(880)	2.75sm
RWY DIRECTION		256°T			315°T	
APPROACH WAY PT (15nm)		N 42° 25.2 W 070° 39.6			N 42° 10.6 W 070° 45.3	
TOUCHDOWN WAY PT		N 42° 21.6 W 070° 59.3			N 42° 21.2 W 070° 59.6	

1. **Circling and Visual:** NOT AUTHORISED Rwy 04L clockwise to Rwy 15R.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **BRIZE NORTON**

A/D Elev **288ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**08**	**26**
STATUS	(B)	(E)
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3050m / 10007ft	3050m / 10007ft
Slope	.36 DN	.36 UP
Notes		
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		10kt
Manual Slippery ..... VREF	2kt	4kt
Autoland Slippery ..... VREF		109.0
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	288ft	266ft
GS/Ht at THR	3.24°/58ft	3°/51ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	550	(262)	650m	530	(264)	650m
ILSH No Flt/Dir	590	(302)	650m	570	(304)	650m
LLZ	770	(482)	1000m	670	(404)	800m
L.BCN	910	(622)	1300m	990	(724)	1500m
SRA	710	(422)	900m	690	(424)	900m
Circling / Visual (radius 5.3nm)	1100	(812)	800m	1100	(812)	800m

RWY DIRECTION	074°T	254°T
APPROACH WAY PT (15nm)	N 51°40.6 W 001°59.5	N 51°49.3 W 001°10.4
TOUCHDOWN WAY PT	N 51°44.8 W 001°36.2	N 51°45.2 W 001°33.7

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **CAIRO**

A/D Elev **382ft**

Max wt Permitted (For pre flight planning)	111130kg

RUNWAY	05L	05R
STATUS	(A)	(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3300m / 10827ft	4000m / 13123ft
Slope	.09 UP	.05 DN
Notes	Note 1;2	Note 1;2
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	8kt	10kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	
Inc per kt HW		
TDZ Elev	190ft	382ft
GS/Ht at THR	3°/52ft	3°/49ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	480	(290)	650m	650	(268)	650m
ILSH No Flt/Dir	580	(390)	800m	750	(368)	750m
LLZ	810	(620)	1300m	760	(378)	800m
VOR DME	680	(490)	1000m	930	(548)	1100m
VOR/NDB				970	(588)	1200m
L.BCN DME	810	(620)	1300m			
L.BCN	810	(620)	1300m	1090	(708)	1500m
Circling / Visual (radius 5nm)	1550	(1168)	800m	1550	(1168)	800m
RWY DIRECTION		050°T			050°T	
APPROACH WAY PT (15nm)		N 29°57.5 E 031°09.6			N 29°56.3 E 031°10.7	
TOUCHDOWN WAY PT		N 30°07.2 E 031°22.9			N 30°06.0 E 031°24.0	

1. **RVRs:** RVR measurements are only available for Rwy 23R.

2. **Circling/Visual:** All circuits NORTH of Rwy 05R/23L only.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **CAIRO**

A/D Elev **382ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**16**			**23L**	
STATUS					(A)	
WAT Limit: VREF / VREF + 7kt		48°/48°			48°/48°	
Landing Distance Available		2893m / 9491ft			4000m / 13123ft	
Slope		1.64 UP			.05 UP	
Notes		Notes 1;2;3			Note 2;3	
Manual ..... VREF + 7kt		10kt			10kt	
Manual ..... VREF		10kt			10kt	
Autoland ..... VREF						
Manual Slippery ..... VREF		4kt			10kt	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg				
Inc per kt HW						
TDZ Elev		199ft			375ft	
GS/Ht at THR					3°/52ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1				640	(265)	650m
ILSH No Flt/Dir				740	(365)	750m
LLZ				810	(435)	900m
VOR DME				810	(435)	900m
VOR/NDB				810	(435)	900m
L.BCN				810	(435)	900m
Circling / Visual (radius 5nm)	1550	(1168)	800m	1550	(1168)	800m
RWY DIRECTION		164°T			230°T	
APPROACH WAY PT (15nm)		N 30° 22.6 E 031° 19.7			N 30° 16.9 E 031° 39.2	
TOUCHDOWN WAY PT		N 30° 08.2 E 031° 24.5			N 30° 07.3 E 031° 25.9	

1. **Availability:** Rwy 16/34 Landing DAY only.

2. **RVRs:** RVR measurements are only available for Rwy 23R.

3. **Circling/Visual:** All circuits NORTH of Rwy 05R/23L only.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **CAIRO**

A/D Elev **382ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**23R**			**34**	
STATUS		(A)				
WAT Limit: VREF / VREF + 7kt		48°/48°			48°/48°	
Landing Distance Available		3300m / 10827ft			3013m / 9885ft	
Slope		.09 DN			1.64 DN	
Notes		Note 2;3			Notes 1;2;3	
Manual ..... VREF + 7kt		10kt			10kt	
Manual ..... VREF		10kt			10kt	
Autoland ..... VREF						
Manual Slippery ..... VREF		7kt			106.0	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW					600kg	
TDZ Elev		199ft			369ft	
GS/Ht at THR		3°/52ft				
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	430	(231)	600m			
ILSH No Flt/Dir	530	(331)	700m			
LLZ	680	(481)	1000m			
VOR DME	690	(491)	1000m			
Circling / Visual (radius 5nm)	1550	(1168)	800m	1550	(1168)	800m
RWY DIRECTION		230°T			344°T	
APPROACH WAY PT (15nm)		N 30°17.8 E 031°37.7			N 29°52.3 E 031°29.8	
TOUCHDOWN WAY PT		N 30°08.2 E 031°24.4			N 30°06.7 E 031°25.0	

1. **Availability:** Rwy 16/34 landing DAY only.

2. **RVRs:** RVR measurements are only available for Rwy 23R.

3. **Circling/Visual:** All circuits NORTH of Rwy 05R/23L only.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **DUBLIN**

A/D Elev **242ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	10	28
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2637m / 8652ft	2637m / 8652ft
Slope	.46 DN	.46 UP
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	7kt	8kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	2kt	4kt
Manual Slippery ..... VREF	99.2	103.7
Autoland Slippery ..... VREF	N/A	N/A
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	242ft	202ft
GS/Ht at THR	3°/54ft	3°/53ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	450	(208)	550m	410	(208)	550m
ILSH No Flt/Dir	550	(308)	700m	510	(308)	700m
SRA	910	(668)	1400m	760	(558)	1200m
Circling / Visual (radius 5.3nm)	1100	(858)	800m	1100	(858)	800m

RWY DIRECTION	095°T	275°T
APPROACH WAY PT (15nm)	N 53° 26.6 W 006° 42.5	N 53° 23.8 W 005° 49.9
TOUCHDOWN WAY PT	N 53° 25.3 W 006° 17.4	N 53° 25.2 W 006° 15.0

1. **ILSC1 Rwy 10/28:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **EAST MIDLANDS**

A/D Elev **310ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**09**			**27**	
STATUS		(A)			(E)	
WAT Limit: VREF / VREF + 7kt		49°/48°			49°/48°	
Landing Distance Available		2280m / 7480ft			2280m / 7480ft	
Slope		.33 DN			.33 UP	
Notes						
Manual ..... VREF + 7kt		104.9			107.1	
Manual ..... VREF		0kt			1kt	
Autoland ..... VREF					96.8	
Manual Slippery ..... VREF		N/A			N/A	
Autoland Slippery ..... VREF					N/A	
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		305ft			280ft	
GS/Ht at THR		3°/50ft			3°/57ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled					210R	600m
ILS C1	510	(205)	600m	480	(200)	600m
ILSH No Flt/Dir	610	(305)	650m	580	(300)	650m
LLZ DME	710	(405)	800m	680	(400)	800m
LLZ	710	(405)	800m	680	(400)	800m
NDB DME	790	(485)	1000m	680	(400)	900m
NDB	790	(485)	1000m	680	(400)	900m
SRA (term 2nm)	840	(535)	1100m	690	(410)	900m
Circling / Visual (radius 5.3nm)	1200	(890)	800m	1200	(890)	800m
RWY DIRECTION		088°T			268°T	
APPROACH WAY PT (15nm)		N 52°49.2 W 001°45.5			N 52°50.3 W 000°53.9	
TOUCHDOWN WAY PT		N 52°49.8 W 001°21.7			N 52°49.8 W 001°18.7	

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **EDINBURGH**

A/D Elev **135ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		07			25	
STATUS		(E)			(E)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2347m / 7700ft			2347m / 7700ft	
Slope		0.16 DN			0.16 UP	
Notes		Note 1;2			Note 1;2	
Manual ..... VREF + 7kt		110.0			0kt	
Manual ..... VREF		3kt			4kt	
Autoland ..... VREF		101.3			104.3	
Manual Slippery ..... VREF		N/A			N/A	
Autoland Slippery ..... VREF		N/A			N/A	
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		110ft			100ft	
GS/Ht at THR		3°/55ft			3°/52ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled		200R	550m		220R	550m
ILS C1	310	(200)	550m	300	(200)	550m
ILSH No Flt/Dir	410	(300)	650m	400	(300)	650m
LLZ DME	710	(600)	1200m			
LLZ	880	(770)	1500m	610	(510)	1100m
NDB DME	760	(650)	1300m	700	(600)	1200m
NDB	880	(770)	1500m			
SRA (term 2nm)				750	(650)	1300m
SRA (term 4nm)	1410	(1300)	1500m			
Circling / Visual (radius 5.3nm)	2050	(1915)	800m	2050	(1915)	800m
RWY DIRECTION		059°T			239°T	
APPROACH WAY PT (15nm)		N55°48.9 W003°46.0			N56°05.0 W002°58.4	
TOUCHDOWN WAY PT		N55°56.7 W003°23.1			N55°57.3 W003°21.4	

1. **Circling/Visual:** IF circling restricted to NORTH of RWY 07/25 minima may be reduced to DA 1250 / HAT (1115), however circling is not approved following an SRA approach to RWY 07.

2. **ILSC1 & C1R Rwy 07/25:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **FARO**

A/D Elev **24ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	11	29
STATUS		
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2445m / 8022ft	2445m / 8022ft
Slope	.09 DN	.09 UP
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	1kt	1kt
Manual ..... VREF	5kt	5kt
Autoland ..... VREF		
Manual Slippery ..... VREF	N/A	N/A
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev GS/Ht at THR	24ft	18ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
VOR DME	460	(436)	1300m	510	(492)	1400m
VOR	480	(456)	1300m	510	(492)	1400m
NDB				570	(552)	1500m
Circling / Visual (radius 5.3nm)	850	(826)	800m	850	(826)	800m
RWY DIRECTION		100°T			280°T	
APPROACH WAY PT (15nm)		N 37° 03.6 W 008° 17.6			N 36° 58.1 W 007° 39.0	
TOUCHDOWN WAY PT		N 37° 01.0 W 007° 59.1			N 37° 00.7 W 007° 57.5	

1. **Circling / Visual Minima:** All circuits SOUTH of the runway due terrain. Visual approaches from the NORTH are permitted, but descent below 3000ft is not to be commenced before VFA 6d. Avoid an excessive descent rate to prevent GPWS.
   Avoid overflying built up areas 3nm EAST and 6nm WEST of airfield.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **GANDER**

A/D Elev **496ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**04**	**13**
STATUS	(A)	(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3200m / 10500ft	2713m / 8900ft
Slope	.26 UP	.34 DN
Notes		
Manual ..... VREF + 7kt	10kt	8kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	6kt	101.8
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	428ft	488ft
GS/Ht at THR	3°/59ft	3°/63ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	630	(202)	2600ft	690	(202)	2600ft
ILSH No Flt/Dir	730	(302)	2600ft	790	(302)	2600ft
LLZ	810	(382)	5000ft	930	(442)	5000ft
NDB				990	(502)	5000ft
Circling / Visual (radius 5.3nm)	1300	(804)	2sm	1300	(804)	2sm

RWY DIRECTION	011°T	107°T
APPROACH WAY PT (15nm)	N 48°40.5 W 054°38.4	N 49°01.5 W 054°57.1
TOUCHDOWN WAY PT	N 48°55.2 W 054°34.1	N 48°57.1 W 054°35.2

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **GANDER**

A/D Elev **496ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**22**	**31**
STATUS		
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3109m / 10200ft	2713m / 8900ft
Slope	.27 DN	.33 UP
Notes		
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	3kt	105.1
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	459ft	460ft
GS/Ht at THR		

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
LLZ (BB) DME	830	(371)	1sm	870	(410)	1sm
LLZ (BB) NDB	830	(371)	1sm			
LLZ (BB) VOR				870	(410)	1sm
VOR	850	(391)	1sm			
NDB/VOR				930	(470)	1sm
Circling / Visual (radius 5.3nm)	1300	(804)	2sm	1300	(804)	2sm
RWY DIRECTION		191°T			287°T	
APPROACH WAY PT (15nm)		N 49° 11.5 W 054° 29.2			N 48° 52.3 W 054° 11.3	
TOUCHDOWN WAY PT		N 48° 56.8 W 054° 33.6			N 48° 56.7 W 054° 33.1	

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **GOOSE**

A/D Elev **160ft**

Max wt Permitted (For pre flight planning)	111130kg					
RUNWAY	**08**			**26**		
STATUS	(E)					
WAT Limit: VREF / VREF + 7kt	49°/49°			49°/49°		
Landing Distance Available	3368m / 11050ft			3368m / 11050ft		
Slope	.10 DN			.10 UP		
Notes				Notes 1,2		
Manual ..... VREF + 7kt	10kt			10kt		
Manual ..... VREF	10kt			10kt		
Autoland ..... VREF	10kt					
Manual Slippery ..... VREF	9kt			10kt		
Autoland Slippery ..... VREF	4kt					
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW	3500kg					
Inc per kt HW						
TDZ Elev	160ft			153ft		
GS/Ht at THR	3°/51ft					
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	360	(200)	2600ft			
ILSH No Flt/Dir	460	(300)	2600ft			
LLZ	1000	(840)	2.25sm			
LLZ Back Beam				510	(357)	1sm
NDB				570	(417)	1sm
PAR	460	(300)	2600ft	460	(307)	0.75sm
Circling / Visual (radius 5.3nm)	1000	(840)	2.25sm	1000	(840)	2.25sm
RWY DIRECTION	055°T			235°T		
APPROACH WAY PT (15nm)	N 53°09.7 W 060°47.3			N 53°27.8 W 060°03.9		
TOUCHDOWN WAY PT	N 53°18.3 W 060°26.8			N 53°19.2 W 060°24.5		

1. **Back Beam 26:** Ignore any glidepath indications.

2. **Circling/Visual 26:** Right hand circuits only approved

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **HALIFAX**

A/D Elev **477ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**06**	**15**
STATUS		(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	2682m / 8800ft	2347m / 7700ft
Slope	.06 DN	.55 UP
Notes		
Manual.....VREF + 7kt	8kt	0kt
Manual.....VREF	10kt	3kt
Autoland.....VREF		
Manual Slippery.....VREF	101.9	N/A
Autoland Slippery.....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	462ft	441ft
GS/Ht at THR		3°/50ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1				650	(209)	2600ft
ILSH No Flt/Dir				750	(309)	2600ft
LLZ				800	(359)	5000ft
LLZ Back Beam	820	(358)	1sm			
NDB	1010	(548)	1sm	850	(409)	1.25sm
Circling / Visual (radius 5.3nm)	1300	(823)	2sm	1300	(823)	2sm
RWY DIRECTION		035°T			125°T	
APPROACH WAY PT (15nm)		N 44° 39.8 W 063° 43.6			N 45° 02.2 W 063° 48.5	
TOUCHDOWN WAY PT		N 44° 52.1 W 063° 31.5			N 44° 53.6 W 063° 31.1	

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **HALIFAX**

A/D Elev **477ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**24**	**33**
STATUS	**(E)**	
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	2682m / 8800ft	2347m / 7700ft
Slope	.06 UP	.55 DN
Notes		
Manual.....VREF + 7kt	8kt	107.6
Manual.....VREF	10kt	2kt
Autoland.....VREF	2kt	
Manual Slippery.....VREF	102.7	N/A
Autoland Slippery.....VREF	N/A	
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	450ft	477ft
GS/Ht at THR	2.7°/61ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	650	(200)	2600ft			
ILSH No Flt/Dir	750	(300)	2600ft			
LLZ	810	(360)	5000ft			
LLZ Back Beam				830	(353)	1sm
NDB	910	(460)	5000ft			
Circling / Visual (radius 5.3nm)	1300	(823)	2sm	1300	(823)	2sm

RWY DIRECTION	215°T	305°T
APPROACH WAY PT (15nm)	N 45° 05.6 W 063° 18.2	N 44° 44.3 W 063° 12.4
TOUCHDOWN WAY PT	N 44° 53.3 W 063° 30.4	N 44° 52.9 W 063° 29.7

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **HUMBERSIDE**

A/D Elev **122ft**

Max wt Permitted (For pre flight planning)		**107500kg**				
RUNWAY		**03**			**21**	
STATUS					(B)	
WAT Limit: VREF / VREF + 7kt		49°/49°			49°/49°	
Landing Distance Available		2070m / 6791ft			1950m / 6398ft	
Slope		.71 DN			.72 UP	
Notes		Notes 1,3			Notes 2,3	
Manual ..... VREF + 7kt		100.0			101.8	
Manual ..... VREF		106.9			107.5	
Autoland ..... VREF						
Manual Slippery ..... VREF		N/A			N/A	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		122ft			74ft	
GS/Ht at THR					3°/54ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1				280	(206)	600m
ILSH No Flt/Dir				380	(306)	700m
LLZ DME				500	(426)	900m
LLZ				570	(496)	1000m
NDB DME	620	(498)	1000m	520	(446)	900m
NDB	620	(498)	1000m			
NDB 'KIM'				770	(696)	1400m
NDB 'HBR'				570	(496)	1000m
SRA (term 1nm)	620	(498)	1000m			
SRA (term 2nm)	640	(518)	1100m	550	(476)	1000m
Circling / Visual (radius 5.3nm)	1100	(978)	800m	1100	(978)	800m
RWY DIRECTION		022°T			202°T	
APPROACH WAY PT (15nm)		N 53°20.1 W 000°30.7			N 53°48.8 W 000°11.2	
TOUCHDOWN WAY PT		N 53°34.0 W 000°21.3			N 53°34.9 W 000°20.7	

1. **Rwy 03:** The landing weights published assume a landing distance of 2200m commencing from the normal landing threshold.

2. **Rwy 21:** The landing weights published assume a landing distance of 2200m commencing from a temporary threshold 250m before the inset landing threshold. Circling / Visual minima ONLY may be used, all other minima is shown only for reference.

3 **Max Pre-Flight Planning Weight:** Note planning weight is restricted to **107500kg.**

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **JEDDAH**

A/D Elev **48ft** **KING ABDUL AZIZ**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	16L	16C
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3690m / 12106ft	3300m / 10827ft
Slope	.14 UP	NIL
Notes	Note 1	Notes 2;3
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland.....VREF	10kt	10kt
Manual Slippery.....VREF	10kt	8kt
Autoland Slippery.....VREF	9kt	2kt
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev	30ft	26ft
GS/Ht at THR	3°/57ft	3°/52ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	230	(200)	800m	230	(204)	550m
ILSH No Flt/Dir	330	(300)	800m	330	(304)	700m
LLZ	470	(440)	1200m	470	(444)	1200m
VOR DME	490	(460)	1600m	470	(444)	1500m
Circling / Visual (radius 5.3nm)	NOT AUTH			NOT AUTH		
RWY DIRECTION	159°T			159°T		
APPROACH WAY PT (15nm)	N 21° 55.8 E 039° 04.3			N 21° 55.3 E 039° 03.4		
TOUCHDOWN WAY PT	N 21° 41.8 E 039° 10.1			N 21° 41.3 E 039° 09.2		

1. **Approach Lights Rwy 16L:** If ALS inop the following RVR/VIS applies:- ILS 1200m, LLZ 2km, VOR DME 2km.

2. **ILS Rwy 16C:** If MM/TDZ/RCL inop RVR becomes 800m.

3. **Approach Lights Rwy 16C:** If ALS inop the following RVR/VIS applies:- ILS 1200m, LLZ 1800m, VOR DME 1800m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH**

JEDDAH
KING ABDUL AZIZ

A/D Elev **48ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**16R**	**34L**
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3800m / 12467ft	3800m / 12467ft
Slope	NIL	NIL
Notes	Notes 1;2	Notes 1;2
Manual..... VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF	10kt	10kt
Manual Slippery.....VREF	10kt	10kt
Autoland Slippery .....VREF	10kt	10kt
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW		
Inc per kt HW		
TDZ Elev	13ft	13ft
GS/Ht at THR	3°/52ft	3°/52ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	220	(207)	550m	220	(207)	550m
ILSH No Flt/Dir	320	(307)	700m	320	(307)	700m
LLZ.....	470	(457)	1200m	470	(457)	1200m
Circling / Visual (radius 5.3nm).....	NOT	AUTH		NOT	AUTH	

RWY DIRECTION	159°T	339°T
APPROACH WAY PT (15nm)	N 21°56.0 E 039°01.8	N 21°26.3 E 039°14.1
TOUCHDOWN WAY PT	N 21°42.0 E 039°07.6	N 21°40.3 E 039°08.3

1. **ILS Rwy 16R & 34L:** If MM/TDZ/RCL inop RVR becomes 800m.

2. **Approach Lights Rwy 16R & 34L:** If ALS inop the following RVR's apply:- ILS 1200m, LLZ 1800m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH**

JEDDAH
KING ABDUL AZIZ

A/D Elev **48ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**34C**	**34R**
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3300m / 10827ft	3690m / 12106ft
Slope	NIL	.14 DN
Notes	Note 1;2	Note 3
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland.....VREF	10kt	10kt
Manual Slippery.....VREF	8kt	10kt
Autoland Slippery.....VREF	2kt	8kt
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev	26ft	48ft
GS/Ht at THR	3°/52ft	3°/58ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	230	(204)	550m	250	(202)	800m
ILSH No Flt/Dir	330	(304)	700m	350	(302)	800m
LLZ	470	(444)	900m	470	(422)	1200m
VOR DME	470	(444)	1500m	550	(502)	1600m
Circling / Visual (radius 5.3nm)	NOT AUTH			NOT AUTH		
RWY DIRECTION	339°T			339°T		
APPROACH WAY PT (15nm)	N 21°25.7 E 039°15.7			N 21°26.1 E 039°16.6		
TOUCHDOWN WAY PT	N 21°39.7 E 039°09.9			N 21°40.1 E 039°10.8		

1. **Approach Lights Rwy 34C:** If ALS inop the following RVR's apply:- ILS 1200m, LLZ 1800m, VOR DME 1800m.

2. **ILS Rwy 34C:** If MM/TDZ/RCL inop RVR becomes 800m.

3. **Approach Lights Rwy 34R:** If ALS inop the following RVR/VIS applies:- ILS 1200m, LLZ 2km, VOR DME 2.4km.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LAJES**

A/D Elev **180ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**15**	**33**
STATUS	(A)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3312m / 10865ft	3312m / 10865ft
Slope	.20 UP	.20 DN
Notes	Notes 1,2	Notes 1,2
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	9kt	8kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	158ft	180ft
GS/Ht at THR	3°/54ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	360	(202)	1520m			
ILSH No Flt/Dir	460	(302)	1520m			
LLZ	510	(352)	1520m			
VOR (BCP)	1000	(820)	4km	1000	(820)	4km
NDB	710	(552)	2.4km			
PAR	460	(302)	1520m	480	(300)	1520m
SRA	610	(452)	2km	790	(610)	2.8km
Circling / Visual (radius 5.3nm)	1000	(820)	4km	1000	(820)	4km

RWY DIRECTION	141°T	321°T
APPROACH WAY PT (15nm)	N 38° 58.1 W 027° 18.4	N 38° 33.5 W 026° 52.9
TOUCHDOWN WAY PT	N 38° 46.5 W 027° 06.3	N 38° 45.2 W 027° 05.0

1. **Circling / Visual:** All circuits EAST of runway due high ground WEST and SOUTH of A/D.

2. **Arrester Gear:** Ensure arrester gear is de-rigged before landing.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LISBON**

A/D Elev **374ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**03**	**17**
STATUS	(E)	
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3715m / 12188ft	2400m / 7874ft
Slope	.10 UP	.55 DN
Notes	Notes 1,2	Note 1
Manual ..... VREF + 7kt	10kt	0kt
Manual ..... VREF	10kt	3kt
Autoland ..... VREF	10kt	
Manual Slippery ..... VREF	10kt	N/A
Autoland Slippery ..... VREF	9kt	
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev	331ft	374ft
GS/Ht at THR	3°/54ft	

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	540	(209)	800m			
ILSH No Flt/Dir	640	(309)	1000m			
LLZ	880	(549)	1400m			
SRA (term 3nm)	1270	(939)	1500m			
Circling / Visual (radius 5.3nm)	1600	(1226)	800m	1600	(1226)	800m
RWY DIRECTION		023°T			168°T	
APPROACH WAY PT (15nm)		N 38°32.1 W 009°16.1			N 39°01.7 W 009°12.1	
TOUCHDOWN WAY PT		N 38°45.9 W 009°08.6			N 38°47.0 W 009°08.1	

1. **Rwy Availability:** Use Rwys 17 or 21 whenever possible.

2. **GPWS Rwy 03:** Caution, a high probability exists for a genuine GPWS warning during circuits flown to the West of the airfield when descending on downwind leg or positioning for a short final. To alleviate this problem:-
   Aim to fly downwind (LIS 210R or as cleared) descending to NOT BELOW 2500ft QNH and maintain until commencing base turn at LIS 11d or later.
   Adjust rate of descent during base turn to cross the OM at 1700ft QNH.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LISBON**

A/D Elev **374ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**21**			**35**	
STATUS		(E)				
WAT Limit: VREF / VREF + 7kt		48°/48°			48°/48°	
Landing Distance Available		3205m / 10515ft			2250m / 7382ft	
Slope		.10 DN			.55 UP	
Notes		Notes 1,2,3			Note 1	
Manual ..... VREF + 7kt		10kt			105.7	
Manual ..... VREF		10kt			1kt	
Autoland ..... VREF		10kt				
Manual Slippery ..... VREF		6kt			N/A	
Autoland Slippery ..... VREF		110.0				
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg			600kg	
TDZ Elev		347ft			332ft	
GS/Ht at THR		3°/50ft				
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	550	(203)	550m			
ILSH No Flt/Dir	650	(303)	700m			
LLZ	800	(453)	900m			
VOR DME				1210	(878)	1500m
L.BCN	900	(553)	1100m			
SRA (term 2nm)	870	(523)	1100m	880	(548)	1500m
Circling / Visual (radius 5.3nm)	1600	(1226)	800m	1600	(1226)	800m
RWY DIRECTION		203°T			348°T	
APPROACH WAY PT (15nm)		N 39°01.2 W 009°00.2			N 38°31.2 W 009°03.9	
TOUCHDOWN WAY PT		N 38°47.4 W 009°07.7			N 38°45.9 W 009°07.9	

1. **Runway Availability:** Use Rwys 17 or 21 whenever possible.

2. **ILSC1 Rwy 21:** If TDZ or RCL inop RVR becomes 600m.

3. **GPWS Rwy 21:** Due to an isolated outcrop of high terrain to the West of centreline a high probability of a genuine GPWS exists, to avoid this problem endeavour to stabilise on the centreline and glide path by 8nm from touchdown.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LIVERPOOL**

A/D Elev **81ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	09	27
STATUS		(A)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2225m / 7300ft	2286m / 7500ft
Slope	.25 UP	.25 DN
Notes	Note 1	Note 1,2
Manual.....VREF + 7kt	104.4	105.4
Manual.....VREF	0kt	0kt
Autoland .....VREF		
Manual Slippery.....VREF	N/A	N/A
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	58ft	77ft
GS/Ht at THR		3°/54ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1R ..... Coupled					210R	550m
ILS C1				280	(203)	550m
ILSH No Flt/Dir				380	(303)	650m
LLZ DME.....	430	(372)	800m	450	(373)	800m
NDB DME.....				630	(553)	1100m
SRA (Term 2nm).....	560	(502)	1000m	550	(473)	1000m
Circling / Visual (radius 5.3nm).....	950	(869)	800m	950	(869)	800m
RWY DIRECTION		086°T			266°T	
APPROACH WAY PT (15nm)		N 53°18.9 W 003°16.8			N 53°21.1 W 002°24.8	
TOUCHDOWN WAY PT		N 53°20.0 W 002°51.8			N 53°20.1 W 002°49.9	

1. **Runway Surface:** Liable to be slippery when wet when Mu is less than .39.

2. **ILSC1 & C1R Rwy 27:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **LUXOR**

A/D Elev **294ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**02**	**20**
STATUS		(B)
WAT Limit: VREF / VREF + 7kt	49°/48°	49°/48°
Landing Distance Available	3000m / 9843ft	3000m / 9843ft
Slope	.22 DN	.22 UP
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	1kt	1kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	294ft	272ft
GS/Ht at THR		3°/50ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1				510	(238)	800m
ILSH No Flt/Dir				610	(338)	1000m
VOR DME	900	(606)	1500m	810	(538)	1400m
L.BCN	940	(646)	1500m	770	(498)	1300m
Circling / Visual (radius 5.3nm)	1500	(1206)	800m	1500	(1206)	800m

RWY DIRECTION	021°T	201°T
APPROACH WAY PT (15nm)	N 25° 25.3 E 032° 35.6	N 25° 54.7 E 032° 48.2
TOUCHDOWN WAY PT	N 25° 39.3 E 032° 41.6	N 25° 40.7 E 032° 42.2

1. **Circling and Visual:** All circuits NORTH WEST of A/D.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **MANSTON**

A/D Elev **178ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**10**	**28**
STATUS		
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2752m / 9029ft	2752m / 9029ft
Slope	NIL	NIL
Notes		
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	106.4	106.4
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	178ft	178ft
GS/Ht at THR		

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
PAR	480	(302)	900m	480	(302)	900m
SRA	580	(402)	1200m	590	(412)	1200m
Circling / Visual (radius 5.3nm)	1000	(822)	800m	1000	(822)	800m
RWY DIRECTION		101°T			281°T	
APPROACH WAY PT (15nm)		N51°23.4 E000°56.1			N51°17.5 E001°45.4	
TOUCHDOWN WAY PT		N51°20.6 E001°19.7			N51°20.4 E001°21.9	

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **MARSEILLE**

A/D Elev **69ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**14L**	**14R**
STATUS	(E)	
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3160m / 10367ft	2370m / 7776ft
Slope	.51 UP	.67 UP
Notes	Notes 1,2,3,5,6	Notes 1,3,4,6
Manual ..... VREF + 7kt	10kt	1kt
Manual ..... VREF	10kt	5kt
Autoland ..... VREF	10kt	
Manual Slippery ..... VREF	7kt	91.7
Autoland Slippery ..... VREF	108.6	
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	8ft	7ft
GS/Ht at THR	3°/55ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	270	(262)	850m			
ILSH No Flt/Dir	370	(362)	1000m			
LLZ	430	(422)	1800m			
L.BCNs 'MAR' & 'MS'	580	(572)	2450m			
L.BCN 'MAR'	840	(832)	3.5km			
Circling / Visual (radius 5.3nm)	1550	(1481)	3.5km	1550	(1481)	3.5km

RWY DIRECTION	134°T	135°T
APPROACH WAY PT (15nm)	N 43° 37.3 E 004° 57.2	N 43° 37.1 E 004° 57.6
TOUCHDOWN WAY PT	N 43° 26.9 E 005° 12.1	N 43° 26.5 E 005° 12.3

1. **QBB**: Approach ban exists for all procedures listed below when reported cloud ceiling or vertical visibility is less than following:– Circling/Visual QBB 1440ft AAL.

2. **ILS Rwy 14L**: If OM inop increase DA/(HAT) by 50ft.

3. **Circling / Visual Minima**: All circuits to SOUTH of airfield only.

4. **Runway Availabilty**: Rwy 14R/32L for use in emergency only due to low bearing strength.

5. **Runway Surface**: Rwy 14L/32R slippery when wet only on rubber deposits.

6. **WARNING**: Terrain located to the NORTH of the airfield.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **MARSEILLE**

A/D Elev **69ft**

Max wt Permitted (For pre flight planning) 111130kg

RUNWAY	32L	32R
STATUS		
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2265m / 7431ft	2900m / 9514ft
Slope	.72 DN	.51 DN
Notes	Notes 1,2,3,5	Notes 1,2,4,5
Manual ..... VREF + 7kt	103.9	10kt
Manual ..... VREF	0kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	N/A	109.8
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	56ft	52ft
GS/Ht at THR		

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
VOR DME	740	(684)	3.2km	600	(548)	2850m
L.BCN				1090	(1038)	3.5km
Circling / Visual (radius 5.3nm)	1550	(1481)	3.5km	1550	(1481)	3.5km
RWY DIRECTION		315°T			314°T	
APPROACH WAY PT (15nm)		N 43° 15.1 E 005° 28.0			N 43° 15.5 E 005° 28.3	
TOUCHDOWN WAY PT		N 43° 25.7 E 005° 13.4			N 43° 25.9 E 005° 13.5	

1. **QBB:** Approach ban exists for all procedures listed below when reported cloud ceiling or vertical visibility is less than following:– Circling/Visual QBB 1440ft AAL.

2. **Circling / Visual Minima:** All circuits to SOUTH of airfield only.

3. **Availability:** Rwy 14R/32L for use in emergency only due to low bearing strength.

4. **Runway Surface:** Rwy 14L/32R slippery when wet only on rubber deposits.

5. **WARNING:** Terrain located to the NORTH of the airfield.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **OPORTO**

A/D Elev **228ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**17**	**35**
STATUS	(A)	
WAT Limit: V_{REF} / V_{REF} + 7KT	49°/49°	49°/49°
Landing Distance Available	3180m/10433ft	3330m/10925ft
Slope	0.71 UP	0.71 DN
Notes	Note 1	Note 1
Manual ..... V_{REF} + 7kt	10kt	10kt
Manual ..... V_{REF}	10kt	10kt
Autoland ..... V_{REF}		
Manual Slippery ..... V_{REF}	5kt	6kt
Autoland Slippery ..... V_{REF}		
Fuel Saving Ldg Weight ..... V_{REF}		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev	151ft	227ft
GS/Ht at THR	2.7°/52ft	

APPROACH	DA (ft)	DH(HAT) (ft)	RVR	DA (ft)	DH(HAT) (ft)	RVR
ILS C1	390	(239)	600m			
ILSH No Flt/Dir	490	(339)	700m			
LLZ	600	(449)	900m			
VOR DME	600	(449)	900m	660	(433)	900m
NDB	760	(609)	1200m	1010	(783)	1500m
Circling / Visual (radius 5.3nm)	1300	(1072)	800m	1300	(1072)	800m

RWY DIRECTION	169°T	349°T
APPROACH WAY PT (15nm)	N 41°30.3 W 008°44.8	N 40°59.3 W 008°36.8
TOUCHDOWN WAY PT	N 41°15.6 W 008°41.0	N 41°14.0 W 008°40.6

1. **Circling / Visual:** If circuits restricted to WEST of runway minima may be reduced to DA 1050ft (HAA 822ft).

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **NIAGARA FALLS**

A/D Elev **590ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**10L**	**28R**
STATUS		(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	2781m / 9124ft	2781m / 9124ft
Slope	.01 DN	.01 UP
Notes		
Manual..... VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	105.7	105.8
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	589ft	588ft
GS/Ht at THR		2.5°/66ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1				790	(202)	2400ft
ILSH No Flt/Dir				890	(302)	2400ft
LLZ.....				950	(362)	4000ft
NDB				1050	(462)	5000ft
Circling / Visual (radius 5.3nm).....	1400	(810)	2sm	1400	(810)	2sm

RWY DIRECTION	090°T	270°T
APPROACH WAY PT (15nm)	N 43°06.6 W 079°18.5	N 43°06.6 W 078°35.5
TOUCHDOWN WAY PT	N 43°06.6 W 078°58.0	N 43°06.6 W 078°56.0

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **OPORTO**

A/D Elev **228ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**17**	**35**
STATUS	**(A)**	
WAT Limit: V_{REF} / V_{REF} + 7KT	49°/49°	49°/49°
Landing Distance Available	3180m/10433ft	3330m/10925ft
Slope	0.71 UP	0.71 DN
Notes	Note 1	Note 1
Manual.....V_{REF} + 7kt	10kt	10kt
Manual.....V_{REF}	10kt	10kt
Autoland.....V_{REF}		
Manual Slippery.....V_{REF}	5kt	6kt
Autoland Slippery.....V_{REF}		
Fuel Saving Ldg Weight.....V_{REF}		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev	151ft	227ft
GS/Ht at THR	2.7°/52ft	

APPROACH	**DA (ft)**	**DH(HAT) (ft)**	**RVR**	**DA (ft)**	**DH(HAT) (ft)**	**RVR**
ILS C1	390	(239)	600m			
ILSH No Flt/Dir	490	(339)	700m			
LLZ	600	(449)	900m			
VOR DME	600	(449)	900m	660	(433)	900m
NDB	760	(609)	1200m	1010	(783)	1500m
Circling / Visual (radius 5.3nm)	1300	(1072)	800m	1300	(1072)	800m

RWY DIRECTION	169°T	349°T
APPROACH WAY PT (15nm)	N 41°30.3 W 008°44.8	N 40°59.3 W 008°36.8
TOUCHDOWN WAY PT	N 41°15.6 W 008°41.0	N 41°14.0 W 008°40.6

1. **Circling / Visual:** If circuits restricted to WEST of runway minima may be reduced to DA 1050ft (HAA 822ft).

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **OTTAWA**

A/D Elev **374ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**07**	**14**
STATUS	(A)	
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	2438m / 8000ft	2941m / 9649ft
Slope	.09 DN	.16 UP
Notes		
Manual ..... VREF + 7kt	1kt	10kt
Manual ..... VREF	5kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	N/A	0kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	373ft	367ft
GS/Ht at THR	3°/55ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	580	(207)	2600ft			
ILSH No Flt/Dir	680	(307)	2600ft			
LLZ	830	(457)	5000ft			
LLZ (BB) DME				890	(523)	1.5sm
LLZ (BB) NDB				890	(523)	1.5sm
VOR DME				890	(523)	1.5sm
VOR NDB				890	(523)	1.5sm
NDB	890	(517)	1.25sm			
Circling / Visual (radius 5.3nm)	1200	(826)	2sm	1200	(826)	2sm

RWY DIRECTION	057°T	126°T
APPROACH WAY PT (15nm)	N 45° 10.6 W 075° 38.1	N 45° 28.3 W 075° 58.4
TOUCHDOWN WAY PT	N 45° 18.8 W 075° 40.3	N 45° 19.5 W 075° 41.1

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **OTTAWA**

A/D Elev **374ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**25**			**32**	
STATUS					(A)	
WAT Limit: VREF / VREF + 7kt		48°/48°			48°/48°	
Landing Distance Available		2438m / 8000ft			2941m / 9649ft	
Slope		.09 UP			.16 DN	
Notes						
Manual ..... VREF + 7kt		2kt			10kt	
Manual ..... VREF		6kt			10kt	
Autoland ..... VREF						
Manual Slippery ..... VREF		90.0			0kt	
Autoland Slippery ..... VREF						
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW		600kg				
TDZ Elev		373ft			371ft	
GS/Ht at THR					3°/52ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1				580	(209)	2600ft
ILSH No Flt/Dir				680	(309)	2600ft
LLZ DME				770	(399)	5000ft
LLZ				770	(399)	5000ft
LLZ (BB) DME	850	(477)	1sm			
LLZ (BB)	850	(477)	1sm			
NDB	910	(537)	1sm	910	(539)	5000ft
Circling / Visual (radius 5.3nm)	1200	(826)	2sm	1200	(826)	2sm
RWY DIRECTION		237°T			306°T	
APPROACH WAY PT (15nm)		N 45° 27.6 W 075° 20.8			N 45°09.8 W 075°22.0	
TOUCHDOWN WAY PT		N 45° 19.5 W 075° 38.7			N 45°18.6 W 075°39.2	

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **PARIS C.D.G.**

A/D Elev **387ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**09**			**10**	
STATUS		(L)			(E)	
WAT Limit: VREF / VREF + 7kt		48°/48°			48°/48°	
Landing Distance Available		3600m / 11811ft			3615m / 11860ft	
Slope		.13 UP			.16 DN	
Notes		Note 1,2,3			Note 1,2,3	
Manual ..... VREF + 7kt		10kt			10kt	
Manual ..... VREF		10kt			10kt	
Autoland ..... VREF		10kt				
Manual Slippery ..... VREF		10kt			10kt	
Autoland Slippery ..... VREF		7kt				
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW		3500kg				
Inc per kt HW						
TDZ Elev		371ft			338ft	
GS/Ht at THR		3°/54ft			3°/57ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C3A ..... Autoland		15R	200m			
ILS C2 ..... Autoland		100R	400m			
ILS C1R ..... Coupled		210R	550m		200R	550m
ILS C1	580	(209)	550m	540	(202)	550m
ILSH No Flt/Dir	680	(309)	700m	640	(302)	700m
LLZ DME	730	(359)	1200m	710	(372)	1200m
VOR DME	770	(399)	1300m	860	(522)	1750m
VOR	890	(519)	1750m	860	(522)	1750m
Circling / Visual (radius 5.3nm)	1300	(913)	3.5km	1300	(913)	3.5km
RWY DIRECTION		085°T			085°T	
APPROACH WAY PT (15nm)		N 48°59.9 E 002°08.0			N 48°58.5 E 002°10.5	
TOUCHDOWN WAY PT		N 49°01.2 E 002°30.8			N 48°59.8 E 002°33.3	

1. **QBBs:** Approach ban exists for Circling/Visual approaches when reported cloud ceiling or vertical visibility is less than QBB 910ft AAL.

2. **ILS Rwy's 09 & 10:** If OM inop increase DA/(HAT) by 50ft.

3. **ILSC1 & C1R Rwys 09 & 10:** If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **PARIS**

A/D Elev **387ft** **C.D.G.**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**27**			**28**	
STATUS		(L)			(L)	
WAT Limit: VREF / VREF + 7kt		48°/48°			48°/48°	
Landing Distance Available		3600m / 11811ft			3615m / 11860ft	
Slope		.13 DN			.16 UP	
Notes		Note 1,2,3			Note 1,2,3	
Manual ..... VREF + 7kt		10kt			10kt	
Manual ..... VREF		10kt			10kt	
Autoland ..... VREF		10kt			10kt	
Manual Slippery ..... VREF		10kt			10kt	
Autoland Slippery ..... VREF		5kt			10kt	
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW Inc per kt HW		3500kg				
TDZ Elev		387ft			318ft	
GS/Ht at THR		3°/58ft			3°/54ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C3A ..... Autoland		15R	200m		50R	200m
ILS C2 ..... Autoland		100R	400m		100R	400m
ILS C1R ..... Coupled		220R	550m		210R	550m
ILS C1	590	(203)	550m	520	(202)	550m
ILSH No Flt/Dir	690	(303)	700m	620	(302)	700m
LLZ DME	740	(353)	1200m	690	(372)	1200m
VOR DME	870	(483)	1500m	700	(382)	1200m
VOR	870	(483)	1500m	710	(392)	1200m
Circling / Visual (radius 5.3nm)	1300	(913)	3.5km	1300	(913)	3.5km
RWY DIRECTION		265°T			265°T	
APPROACH WAY PT (15nm)		N 49°02.7 E 002°56.5			N 49°01.3 E 002°59.0	
TOUCHDOWN WAY PT		N 49°01.4 E 002°33.7			N 49°00.0 E 002°36.2	

1. **QBBs**: Approach ban exists for Circling/Visual approaches when reported cloud ceiling or vertical visibility is less than QBB 910ft AAL.

2. **ILS Rwys 27 & 28**: If OM inop increase DA/(HAT) by 50ft.

3. **ILSC1 & C1R Rwys 27 & 28**: If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH**

PARIS ORLY

A/D Elev **292ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**02L**	**07**
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2400m / 7874ft	3350m / 10991ft
Slope	.02 UP	.02 DN
Notes	Notes 1,2	Notes 1,2,3
Manual ..... VREF + 7kt	1kt	10kt
Manual ..... VREF	5kt	10kt
Autoland ..... VREF	106.8	10kt
Manual Slippery ..... VREF	N/A	9kt
Autoland Slippery ..... VREF	N/A	3kt
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	
TDZ Elev	285ft	289ft
GS/Ht at THR	3°/50ft	3°/57ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled					200R	550m
ILS C1	490	(205)	850m	490	(201)	550m
ILSH No Flt/Dir	590	(305)	1000m	590	(301)	700m
LLZ	650	(365)	1600m	750	(461)	1500m
VOR DME	730	(445)	1600m	840	(551)	2850m
VOR				1120	(831)	3.5km
Circling / Visual (radius 5.3nm)	1200	(908)	3.5km	1200	(908)	3.5km

RWY DIRECTION	018°T	062°T
APPROACH WAY PT (15nm)	N 48° 28.9 E 002° 15.7	N 48° 36.3 E 001° 59.3
TOUCHDOWN WAY PT	N 48° 43.2 E 002° 22.7	N 48° 43.4 E 002° 19.3

1. **QBBs:** Approach ban exists for Ceiling / Visual approaches when reported cloud ceiling or vertical is less than QBB 890ft AAL.

2. **ILS Rwy 02L & 07:** If OM inop increase DA/(HAT) by 50ft.

3. **ILSC1 & C1R Rwy 07:** If TDZ or RCL inop RVR becomes 600m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **PARIS ORLY**

A/D Elev **292ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**08**	**20R**
STATUS		
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3320m / 10892ft	2400m / 7874ft
Slope	.07 UP	.02 DN
Notes	Note 1	Note 1
Manual ..... VREF + 7kt	10kt	1kt
Manual ..... VREF	10kt	4kt
Autoland ..... VREF		
Manual Slippery ..... VREF	9kt	N/A
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW Inc per kt HW	3500kg	3500kg
TDZ Elev GS/Ht at THR	276ft	285ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
LLZ DME	630	(354)	1150m			
VOR DME	720	(444)	1300m			
VOR	1120	(844)	3.5km			
Circling / Visual (radius 5.3nm)	1200	(908)	3.5km	1200	(908)	3.5km
RWY DIRECTION		075°T			198°T	
APPROACH WAY PT (15nm)		N 48°39.3 E 001°59.7			N 48°58.6 E 002°30.4	
TOUCHDOWN WAY PT		N 48°43.2 E 002°21.6			N 48°44.3 E 002°23.3	

1. **QBBs:** Approach ban exists for Ceiling / Visual approaches when reported cloud ceiling or vertical visibility is less than QBB 890ft AAL.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **PARIS ORLY**

A/D Elev **292ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**25**	**26**
STATUS	**(A)**	**(E)**
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3650m / 11975ft	2885m / 9465ft
Slope	.02 UP	.07 DN
Notes	Notes 1,2	Notes 1,2,3
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		10kt
Manual Slippery ..... VREF	10kt	110.8
Autoland Slippery ..... VREF		99.8
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW		3500kg
Inc per kt HW		600kg
TDZ Elev	285ft	286ft
GS/Ht at THR	3.2°/53ft	3°/47ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1R ..... Coupled					230R	550m
ILS C1	490	(205)	1050m	490	(204)	550m
ILSH No Flt/Dir	590	(305)	1200m	590	(304)	700m
LLZ	680	(395)	1400m	640	(354)	1150m
VOR DME(BCP)				1200	(908)	3.5km
L.BCN				690	(404)	1200m
Circling / Visual (radius 5.3nm)	1200	(908)	3.5km	1200	(908)	3.5km
RWY DIRECTION		242°T			255°T	
APPROACH WAY PT (15nm)		N 48°51.2 E 002°41.8			N 48°47.4 E 002°45.8	
TOUCHDOWN WAY PT		N 48°44.2 E 002°21.7			N 48°43.6 E 002°23.8	

1. **QBBs:** Approach ban exists for Ceiling / Visual approaches when reported cloud ceiling or vertical visibility is less than QBB 890ft AAL.

2. **ILS Rwy 25 & 26:** If OM inop increase DA/(HAT) by 50ft.

3. **ILSC1 & C1R Rwy 26:** If TDZ or RCL inop RVR becomes 600m.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **PRESTWICK**

A/D Elev **66ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**13**	**31**
STATUS	(B)	(A)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2743m / 8999ft	2987m / 9800ft
Slope	.27 UP	.27 DN
Notes	Notes 1,2	Notes 1,2
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	106.2	0kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	38ft	66ft
GS/Ht at THR	3°/53ft	3.5°/56ft

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
ILS C1	250	(212)	600m	280	(214)	600m
ILSH No Flt/Dir	340	(302)	650m	370	(304)	650m
LLZ	420	(382)	800m	NOT	AUTH	
NDB	490	(452)	900m	NOT	AUTH	
SRA (term 2nm)	570	(532)	1100m	800	(734)	1500m
Circling / Visual (radius 5.3nm)	1150	(1084)	800m	1150	(1084)	800m
RWY DIRECTION		121°T			301°T	
APPROACH WAY PT (15nm)		N 55° 38.6 W 004° 59.4			N 55° 22.4 W 004° 11.9	
TOUCHDOWN WAY PT		N 55° 30.9 W 004° 36.6			N 55° 30.2 W 004° 34.5	

1. **Fire Cover:** Normal fire cover at PIK is ICAO Cat 6 with upgrades to Cat 7, 8 and 9 on request at 60 mins notice. A minimum of ICAO Cat 8 is required by Concorde and this should be pre-arranged and confirmed prior to arrival.

2. **Circling / Visual:** May be reduced to 1100 (1034) for circuits SW of Rwy.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **RIYADH**

A/D Elev **2049ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**15L**	**15R**
STATUS	(E)	(E)
WAT Limit: VREF / VREF + 7kt	40°/45°	40°/45°
Landing Distance Available	4200m / 13780ft	4200m / 13786ft
Slope	.15 DN	.11 DN
Notes	Note 1;2	Note 1;2
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF	10kt	10kt
Manual Slippery ..... VREF	10kt	10kt
Autoland Slippery ..... VREF	10kt	10kt
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW		
Inc per kt HW		
TDZ Elev	2033ft	2049ft
GS/Ht at THR	3°/55ft	3°/55ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	2240	(207)	600m	2250	(201)	600m
ILSH No Flt/Dir	2340	(307)	700m	2350	(301)	700m
LLZ	2470	(437)	1200m	2470	(421)	1200m
VOR DME	2490	(457)	1500m	2510	(461)	1500m
Circling / Visual (radius 5.3nm)	NOT AUTHORISED			NOT AUTHORISED		
RWY DIRECTION	150°T			150°T		
APPROACH WAY PT (15nm)	N25°11.5 E046°33.8			N25°11.2 E046°32.2		
TOUCHDOWN WAY PT	N24°58.5 E046°42.1			N24°58.2 E046°40.5.		

1. **ILS Rwys 15L/R:** IF MM/TDZ/RCL inop RVR becomes 800m.

3. **Approach Lights Rwy 15L/R:** IF ALS inop the following RVR's apply:-
   ILS 1200m, LLZ 1800m, VOR DME 1800m.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **RIYADH**

A/D Elev **2049ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**33L**			**33R**	
STATUS		(E)			(E)	
WAT Limit: VREF / VREF + 7kt		40°/45°			40°/45°	
Landing Distance Available		4200m / 13780ft			4200m / 13786ft	
Slope		.11 UP			.15 UP	
Notes		Note 1;2			Note 1;2	
Manual ..... VREF + 7kt		10kt			10kt	
Manual ..... VREF		10kt			10kt	
Autoland ..... VREF		10kt			10kt	
Manual Slippery ..... VREF		10kt			10kt	
Autoland Slippery ..... VREF		10kt			10kt	
Fuel Saving Ldg Weight ..... VREF						
Red'n per extra kt TW						
Inc per kt HW						
TDZ Elev		2047ft			2023ft	
GS/Ht at THR		3°/55ft			3°/55ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	2250	(203)	600m	2230	(207)	600m
ILSH No Flt/Dir	2350	(303)	700m	2330	(307)	700m
LLZ	2470	(423)	1200m	2470	(447)	1200m
VOR DME	2550	(503)	1500m	2550	(527)	1500m
VOR				2550	(527)	1800m
Circling / Visual (radius 5.3nm)	NOT AUTHORISED			NOT AUTHORISED		
RWY DIRECTION		330°T			330°T	
APPROACH WAY PT (15nm)		N24°43.3 E046°50.0			N24°43.7 E046°51.6	
TOUCHDOWN WAY PT		N24°56.3 E046°41.7			N24°56.7 E046°43.3	

1. **ILS Rwys 33L/R:** IF MM/TDZ/RCL inop RVR becomes 800m.

3. **Approach Lights Rwy 33L/R:** IF ALS inop the following RVR/VIS applies:-
   ILS 1200m, LLZ 1800m, VOR DME / VOR 2.4km.

BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **ROVANIEMI**

A/D Elev **645ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**03**	**21**
STATUS		(A)
WAT Limit: VREF / VREF + 7kt	48°/48°	48°/48°
Landing Distance Available	3000m / 9843ft	3000m / 9843ft
Slope	.23 DN	.23 UP
Notes		
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	0kt	2kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	632ft	609ft
GS/Ht at THR		3°/52ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1				810	(201)	550m
ILSH No Flt/Dir				910	(301)	700m
LLZ				1070	(461)	1000m
NDB VOR DME	1090	(458)	1000m			
2 NDBs	1150	(518)	1100m	1110	(501)	1000m
PAR	940	(308)	700m	910	(301)	700m
SRA	1160	(538)	1100m	1100	(491)	1000m
Circling / Visual (radius 5.3nm)	1450	(805)	800m	1450	(805)	800m

RWY DIRECTION	038°T	218°T
APPROACH WAY PT (15nm)	N 66° 21.5 E 025° 26.0	N 66° 46.3 E 026° 14.7
TOUCHDOWN WAY PT	N 66° 33.3 E 025° 49.0	N 66° 34.5 E 025° 51.3

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **SANTA MARIA**

A/D Elev **308ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**18**			**36**	
STATUS		(A)				
WAT Limit: VREF / VREF + 7kt		49°/48°			49°/48°	
Landing Distance Available		3048m / 10000ft			3048m / 10000ft	
Slope		NIL			NIL	
Notes		Note 1			Note 1	
Manual..... VREF + 7kt		10kt			10kt	
Manual.....VREF		10kt			10kt	
Autoland .....VREF						
Manual Slippery.....VREF		3kt			3kt	
Autoland Slippery .....VREF						
Fuel Saving Ldg Weight.....VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW						
TDZ Elev		284ft			283ft	
GS/Ht at THR		2.75°/50ft				
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	490	(206)	700m			
ILSH No Flt/Dir	590	(306)	900m			
LLZ.....	640	(356)	1100m			
VOR.....	770	(486)	1200m	660	(377)	1000m
NDB	690	(406)	1100m	690	(407)	1100m
Circling / Visual (radius 5.3nm).....	1150	(842)	800m	1150	(842)	800m
RWY DIRECTION		171°T			351°T	
APPROACH WAY PT (15nm)		N 37° 13.9 W 025° 13.3			N 36° 42.7 W 025° 07.2	
TOUCHDOWN WAY PT		N 36° 59.1 W 025° 10.4			N 36° 57.5 W 025° 10.1	

1. **Circling and Visual:** WEST of airfield only.

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BRITISH AIRWAYS **CONCORDE** LANDING DATA QNH **SHANNON**

A/D Elev **47ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**06**	**24**
STATUS	**(E)**	**(E)**
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	3200m / 10500ft	3060m / 10040ft
Slope	.29 DN	.29 UP
Notes		
Manual.....VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland.....VREF	10kt	10kt
Manual Slippery.....VREF	5kt	4kt
Autoland Slippery.....VREF	0kt	N/A
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	47ft	15ft
GS/Ht at THR	3°/54ft	3°/54ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	250	(203)	800m	220	(205)	800m
ILSH No Flt/Dir	350	(303)	900m	320	(305)	1000m
VOR DME	450	(403)	1100m	450	(435)	1200m
SRA (term 2nm)	500	(453)	1200m	520	(505)	1300m
Circling / Visual (radius 5.3nm)	850	(803)	800m	850	(803)	800m

RWY DIRECTION	052°T	232°T
APPROACH WAY PT (15nm)	N 52° 32.3 W 009° 15.9	N 52° 51.8 W 008° 34.8
TOUCHDOWN WAY PT	N 52° 41.6 W 008° 56.5	N 52° 42.6 W 008° 54.4

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **TAIF**

A/D Elev **4848ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**07**	**17**
STATUS		
WAT Limit: VREF / VREF + 7kt	13°/27°	13°/27°
Reduce Max Landing Weight by 500kg / °C above Max WAT Limit Temperature		
Landing Distance Available	3735m / 12254ft	3350m / 10991ft
Slope	.66 DN	.20 UP
Notes	Notes 1,2	Note 2
Manual..... VREF + 7kt	10kt	10kt
Manual.....VREF	10kt	10kt
Autoland .....VREF		
Manual Slippery.....VREF	3kt	109.4
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		600kg
TDZ Elev	4848ft	4753ft
GS/Ht at THR		

APPROACH	DA (ft)	DH/(HAT) (ft)	RVR	DA (ft)	DH/(HAT) (ft)	RVR
VOR DME.....	5370	(522)	2.4km	5330	(577)	2.8km
TACAN.....	5370	(522)	2000m	5330	(577)	2.8km
Circling / Visual (radius 5.3nm).....	5700	(852)	4km	5700	(852)	4km
RWY DIRECTION		075°T			173°T	
APPROACH WAY PT (15nm)		N21°24.7 E040°15.6			N21°45.3 E040°30.5	
TOUCHDOWN WAY PT		N21°28.6 E040°31.3			N21°30.4 E040°32.5.	

1. **Approach Lights Rwy 07**: IF ALS inop the following RVR applies:- TACAN 2400m.

2. **LANDING WEIGHTS**: Published landing weights must be adjusted for WAT limitations as specified above, in addition to normal HW/TW adjustments.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **TAIF**

A/D Elev **4848ft**

Max wt Permitted (For pre flight planning)		111130kg				
RUNWAY		**25**			**35**	
STATUS		(B)			(B)	
WAT Limit: VREF / VREF + 7kt		13°/27°			13°/27°	
Reduce Max Landing Weight by 500kg / °C above Max WAT Limit Temperature						
Landing Distance Available		3735m / 12254ft			3350m / 10991ft	
Slope		.66 UP			.20 DN	
Notes		Notes 1,2,5			Notes 3,4,5	
Manual.....VREF + 7kt		10kt			10kt	
Manual.....VREF		10kt			10kt	
Autoland .....VREF						
Manual Slippery.....VREF		5kt			107.0	
Autoland Slippery .....VREF						
Fuel Saving Ldg Weight.....VREF						
Red'n per extra kt TW		3500kg			3500kg	
Inc per kt HW					600kg	
TDZ Elev		4767ft			4775ft	
GS/Ht at THR		3°/69ft			3°/53ft	
APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	4970	(203)	800m	4980	(205)	1200m
ILSH No Flt/Dir	5070	(303)	800m	5080	(305)	1200m
LLZ	5330	(563)	2000m	5390	(615)	2.8km
VOR DME	5330	(563)	2000m	5390	(615)	2.8km
TACAN	5330	(563)	2000m	5390	(615)	2.8km
NDB				5550	(775)	3.6km
Circling / Visual (radius 5.3nm)	5700	(852)	4km	5700	(852)	4km
RWY DIRECTION		255°T			353°T	
APPROACH WAY PT (15nm)		N21°33.1 E040°48.9			N21°13.7 E040°34.7	
TOUCHDOWN WAY PT		N21°29.2 E040°33.3			N21°28.6 E040°32.7.	

1. **ILS Rwy 25:** IF MM inop DA 5020ft HAT 253ft RVR 1200m applies.

2. **Approach Lights Rwy 25:** IF ALS inop the following RVR's apply:- ILS 1200m, LLZ 2800m, VOR DME 2800m, TACAN 2800m.

3. **ILS Rwy 35:** IF MM inop DA 5030ft HAT 255ft RVR 1200m applies.

4. **Approach Lights Rwy 35:** IF ALS inop the following RVR applies:- TACAN 4000m.

5. **LANDING WEIGHTS:** Published landing weights must be adjusted for WAT limitations as specified above, in addition to normal HW/TW adjustments.

BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **TEES-SIDE**

A/D Elev **120ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**05**	**23**
STATUS	(B)	(B)
WAT Limit: VREF / VREF + 7kt	49°/49°	49°/49°
Landing Distance Available	2291m / 7516ft	2291m / 7516ft
Slope	NIL	NIL
Notes		
Manual.....VREF + 7kt	107.4	107.4
Manual.....VREF	2kt	2kt
Autoland .....VREF		
Manual Slippery.....VREF	N/A	N/A
Autoland Slippery .....VREF		
Fuel Saving Ldg Weight.....VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW	600kg	600kg
TDZ Elev	115ft	116ft
GS/Ht at THR	3°/52ft	3°/50ft

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	320	(205)	700m	320	(204)	600m
ILSH No Flt/Dir	420	(305)	800m	420	(304)	800m
LLZ DME	490	(375)	1000m	560	(444)	1000m
NDB DME	530	(415)	1200m	560	(444)	1000m
SRA (term 1nm)	530	(415)	1200m	570	(454)	1100m
Circling / Visual (radius 5.3nm)	950	(830)	800m	950	(830)	800m

RWY DIRECTION	047°T	227°T
APPROACH WAY PT (15nm)	N54°19.8 W001°45.2	N54°41.1 W001°06.0
TOUCHDOWN WAY PT	N54°30.1 W001°26.4	N54°30.9 W001°25.0

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BRITISH AIRWAYS **CONCORDE** LANDING DATA **QNH** **VAL D'OR**

A/D Elev **1106ft**

Max wt Permitted (For pre flight planning)	111130kg	
RUNWAY	**18**	**36**
STATUS	**(B)**	
WAT Limit: VREF / VREF + 7kt	47°/47°	47°/47°
Landing Distance Available	3048m / 10000ft	3048m / 10000ft
Slope	.04 UP	.04 DN
Notes		
Manual ..... VREF + 7kt	10kt	10kt
Manual ..... VREF	10kt	10kt
Autoland ..... VREF		
Manual Slippery ..... VREF	1kt	1kt
Autoland Slippery ..... VREF		
Fuel Saving Ldg Weight ..... VREF		
Red'n per extra kt TW	3500kg	3500kg
Inc per kt HW		
TDZ Elev	1104ft	1106ft
GS/Ht at THR	3°/69ft	

APPROACH	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**	**DA (ft)**	**DH/(HAT) (ft)**	**RVR**
ILS C1	1310	(206)	2600ft			
ILSH No Flt/Dir	1410	(306)	3500ft			
LLZ DME	1530	(426)	1.25sm			
LLZ/DME (BB)				1590	(484)	1.25sm
VOR DME				1590	(484)	1.25sm
VOR	1690	(586)	1.25sm			
NDB				1730	(624)	1.75sm
Circling / Visual (radius 5.3nm)	1950	(844)	2sm	1950	(844)	2sm

RWY DIRECTION	169°T	349°T
APPROACH WAY PT (15nm)	N48°18.6 W077°57.5	N47°47.7 W077°42.4
TOUCHDOWN WAY PT	N48°03.9 W077°47.2	N48°02.4 W077°46.7

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