BAVirtual
CITYFLYER

E190
Operational Aide Memoire

Preface

Record of Amendments

Rev. No	Date Entered
1	01 May 2025

Revision Highlights

N/A – Rev. No 1

Contents

Operational Procedures

Single Engine Taxi

General:

Single Engine Taxi is **prohibited** in the following circumstances:

- Departing or arriving LCY.
- When operating on slippery or contaminated taxiways.
- LVPs in force.
- APU or APU BLEED or APU GEN inoperative.

Single engine taxi may be performed when operating under icing conditions provided that the Engine Run-Up Procedure is completed before take-off.

Single Engine Taxi Out:

After Engine (1 / 2) start, complete the following procedure:

Electric Hydraulic Pump (2 / 1) Selector Knob.....ON

- Select the inoperative engine-side Electric Hydraulic Pump to ON.

MFD Hydraulic Status.....Confirm Pump Running

- If the Electric Hydraulic Pump is not running, dispatch is **not** authorised.

- Complete the After Start Checks - - - - - - - - - - - - - - - - - - -

Second Engine Start.....ACCOMPLISH

- Start the second engine with available time from take-off to allow 2 minutes of thermal stabilization. Taxi time at or near IDLE can be included in the engine warm-up period.
- The engine start should be preferably performed with the airplane static to avoid heads down condition during taxi.

Electric Hydraulic Pump (2 / 1) Selector Knob.....AUTO

- Select the relevant Electric Hydraulic Pump to AUTO.

APU.....AS REQUIRED

- Confirm the APU is set to ON or OFF as required for departure.

Complete the Taxi Checklist including Single Engine Taxi items after the second engine start.

Single Engine Taxi In:

After APU start and engine cooldown (MIN REV: 2 min, MAX REV: 6 min) complete the following:

APU.....ON

- The APU start cycle must be complete before the selected engine is shutdown.

Electric Hydraulic Pump (1 / 2) Selector Knob.....ON

- Select the Electric Hydraulic Pump for the selected engine for shutdown to ON.

MFD Hydraulic Status.....Confirm Pump Running

- If the Electric Hydraulic Pump is not running, do not proceed with Single Engine Taxi.

START/STOP Selector (1 / 2).....STOP

Ensure the Electric Hydraulic Pump is returned to AUTO during Shutdown Checks.

Take-Off Performance

Take-Off Performance SOP

LCY – TOW 40,000 kg or below:

Configuration	
Thrust Mode	TO-2
ATTCS	ON
REF ECS	OFF
REF A/I	AS REQ'D
FLEX T/O	NO
SLATS/FLAPS	4
APU - ON	

LCY – TOW greater than 40,000 kg:

Configuration	
Thrust Mode	TO-1
ATTCS	OFF
REF ECS	OFF
REF A/I	AS REQ'D
FLEX T/O	NO
SLATS/FLAPS	4
APU - ON	

Other stations:

Configuration	
Thrust Mode	OPTIMUM
ATTCS	ON
REF ECS	ON
REF A/I	AS REQ'D
FLEX T/O	YES
SLATS/FLAPS	OPTIMUM
APU - OFF	

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If Performance Precludes

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Configuration	
Thrust Mode	OPTIMUM
ATTCS	ON
REF ECS	OFF
REF A/I	AS REQ'D
FLEX T/O	ON
SLATS/FLAPS	OPTIMUM
APU - ON	

Stab Trim Setting for Take-Off

FLAPS 1													
TOW (KG)	CG POSITION (% MAC)												
	5	7	9	11	13	15	17	19	21	23	25	27	29
46000	4 UP	3.9 UP	3.6 UP	3.3 UP	3 UP	2.7 UP	2.3 UP	2 UP	1.7 UP	1.4 UP	1 UP	0.7 UP	0.4 UP
44000	3.9 UP	3.8 UP	3.4 UP	3.1 UP	2.8 UP	2.5 UP	2.1 UP	1.8 UP	1.5 UP	1.2 UP	0.8 UP	0.6 UP	0.3 UP
42000	3.9 UP	3.6 UP	3.3 UP	2.9 UP	2.6 UP	2.3 UP	2 UP	1.7 UP	1.4 UP	1.1 UP	0.7 UP	0.4 UP	0.2 UP
40000	3.7 UP	3.4 UP	3.1 UP	2.7 UP	2.4 UP	2.1 UP	1.8 UP	1.5 UP	1.2 UP	0.9 UP	0.6 UP	0.2 UP	0.1 UP
38000	3.5 UP	3.1 UP	2.8 UP	2.4 UP	2.2 UP	1.9 UP	1.5 UP	1.3 UP	1 UP	0.7 UP	0.4 UP	0.1 UP	0
36000	3.3 UP	2.9 UP	2.5 UP	2.2 UP	2 UP	1.7 UP	1.3 UP	1.1 UP	0.8 UP	0.5 UP	0.2 UP	0	0
34000	3 UP	2.7 UP	2.3 UP	2 UP	1.8 UP	1.5 UP	1.1 UP	0.9 UP	0.6 UP	0.3 UP	0.1 UP	0	0
32000	2.7 UP	2.4 UP	2.1 UP	1.8 UP	1.5 UP	1.2 UP	0.8 UP	0.6 UP	0.3 UP	0.1 UP	0	0	0
30000	2.5 UP	2.2 UP	1.9 UP	1.6 UP	1.3 UP	1 UP	0.7 UP	0.4 UP	0.1 UP	0	0	0	0

FLAPS 2													
TOW (KG)	CG POSITION (% MAC)												
	5	7	9	11	13	15	17	19	21	23	25	27	29
46000	3.5 UP	3.5 UP	3.3 UP	3 UP	2.6 UP	2.3 UP	1.9 UP	1.6 UP	1.3 UP	0.9 UP	0.6 UP	0.2 UP	0.2 DN
44000	3.5 UP	3.4 UP	3.1 UP	2.8 UP	2.4 UP	2.1 UP	1.7 UP	1.4 UP	1.1 UP	0.7 UP	0.4 UP	0	0.4 DN
42000	3.4 UP	3.3 UP	2.9 UP	2.6 UP	2.2 UP	1.9 UP	1.6 UP	1.3 UP	1 UP	0.6 UP	0.2 UP	0.2 DN	0.4 DN
40000	3.3 UP	3 UP	2.7 UP	2.4 UP	2 UP	1.7 UP	1.4 UP	1.1 UP	0.8 UP	0.4 UP	0	0.3 DN	0.5 DN
38000	3.1 UP	2.8 UP	2.4 UP	2.1 UP	1.7 UP	1.5 UP	1.2 UP	0.9 UP	0.5 UP	0.2 UP	0.2 DN	0.4 DN	0.5 DN
36000	2.9 UP	2.6 UP	2.2 UP	1.9 UP	1.5 UP	1.3 UP	1 UP	0.7 UP	0.3 UP	0	0.4 DN	0.5 DN	0.5 DN
34000	2.7 UP	2.3 UP	2 UP	1.6 UP	1.3 UP	1.1 UP	0.8 UP	0.5 UP	0.1 UP	0.2 DN	0.4 DN	0.5 DN	0.5 DN
32000	2.5 UP	2 UP	1.7 UP	1.3 UP	1.1 UP	0.8 UP	0.5 UP	0.2 UP	0.1 DN	0.5 DN	0.5 DN	0.5 DN	0.5 DN
30000	2.2 UP	1.8 UP	1.5 UP	1.1 UP	0.8 UP	0.6 UP	0.3 UP	0	0.3 DN	0.5 DN	0.5 DN	0.5 DN	0.5 DN

Stab Trim Setting for Take-Off (Cont.)

FLAPS 3													
TOW (KG)	CG POSITION (% MAC)												
	5	7	9	11	13	15	17	19	21	23	25	27	29
46000	3 UP	2.9 UP	2.6 UP	2.2 UP	1.9 UP	1.5 UP	1.1 UP	0.7 UP	0.4 UP	0	0.4 DN	0.8 DN	1.2 DN
44000	2.9 UP	2.8 UP	2.4 UP	2 UP	1.7 UP	1.3 UP	0.9 UP	0.5 UP	0.2 UP	0.2 DN	0.6 DN	1 DN	1.3 DN
42000	2.8 UP	2.6 UP	2.2 UP	1.9 UP	1.5 UP	1.1 UP	0.7 UP	0.4 UP	0	0.4 DN	0.7 DN	1.1 DN	1.4 DN
40000	2.6 UP	2.4 UP	2 UP	1.7 UP	1.3 UP	0.9 UP	0.5 UP	0.2 UP	0.2 DN	0.6 DN	0.9 DN	1.3 DN	1.5 DN
38000	2.4 UP	2.1 UP	1.7 UP	1.4 UP	1 UP	0.6 UP	0.3 UP	0.1 DN	0.5 DN	0.8 DN	1.1 DN	1.4 DN	1.5 DN
36000	2.2 UP	1.8 UP	1.5 UP	1.1 UP	0.8 UP	0.4 UP	0.1 UP	0.3 DN	0.7 DN	1 DN	1.3 DN	1.5 DN	1.5 DN
34000	2 UP	1.6 UP	1.2 UP	0.8 UP	0.5 UP	0.1 UP	0.2 DN	0.6 DN	0.9 DN	1.2 DN	1.4 DN	1.5 DN	1.5 DN
32000	1.7 UP	1.3 UP	0.9 UP	0.5 UP	0.2 UP	0.2 DN	0.6 DN	0.9 DN	1.2 DN	1.5 DN	1.5 DN	1.5 DN	1.5 DN
30000	1.5 UP	1 UP	0.7 UP	0.3 UP	0	0.4 DN	0.8 DN	1.1 DN	1.4 DN	1.5 DN	1.5 DN	1.5 DN	1.5 DN

FLAPS 4													
TOW (KG)	CG POSITION (% MAC)												
	5	7	9	11	13	15	17	19	21	23	25	27	29
46000	4 UP	3.8 UP	3.4 UP	3 UP	2.5 UP	2.2 UP	1.7 UP	1.2 UP	0.8 UP	0.4 UP	0	0.4 DN	0.8 DN
44000	3.9 UP	3.6 UP	3.2 UP	2.8 UP	2.3 UP	2 UP	1.5 UP	1 UP	0.6 UP	0.2 UP	0.2 DN	0.6 DN	1 DN
42000	3.8 UP	3.4 UP	3 UP	2.6 UP	2.1 UP	1.8 UP	1.3 UP	0.9 UP	0.4 UP	0	0.4 DN	0.8 DN	1 DN
40000	3.6 UP	3.1 UP	2.7 UP	2.3 UP	1.9 UP	1.5 UP	1.1 UP	0.7 UP	0.2 UP	0.2 DN	0.6 DN	0.9 DN	1 DN
38000	3.2 UP	2.8 UP	2.4 UP	2 UP	1.6 UP	1.2 UP	0.8 UP	0.3 UP	0.1 DN	0.5 DN	0.8 DN	1 DN	1 DN
36000	2.9 UP	2.5 UP	2.1 UP	1.7 UP	1.3 UP	0.9 UP	0.5 UP	0	0.3 DN	0.7 DN	1 DN	1 DN	1 DN
34000	2.6 UP	2.2 UP	1.8 UP	1.4 UP	1 UP	0.6 UP	0.2 UP	0.3 DN	0.6 DN	0.8 DN	1 DN	1 DN	1 DN
32000	2.2 UP	1.8 UP	1.4 UP	1 UP	0.6 UP	0.2 UP	0.2 DN	0.6 DN	1 DN	1 DN	1 DN	1 DN	1 DN
30000	1.9 UP	1.6 UP	1.2 UP	0.8 UP	0.4 UP	0.1 DN	0.4 DN	0.8 DN	1 DN	1 DN	1 DN	1 DN	1 DN

Landing Performance

LCY Company Minima

09		Cat 1 DME E190 GA 3.0%	Cat 1 DME GA 2.5%	LOC DME GA 2.5%	Circling
C	ft - m/km ft	300 - 1.2 **310**	530 - 2.2 **540**	550 - 2.3 **560**	Not authorized

RWY 09: Minima are for state published standard 2.5% missed approach gradient and optional 3.0% missed approach gradient. The 3.0% minima may be utilised up to 39°C at maximum landing weight.

27		Cat 1 DME E190 GA 3.5%	Cat 1 DME GA 2.5%	LOC DME GA 2.5%	Circling
C	ft - m/km ft	380 - 1.5 **400**	610 - 2.4 **630**	610 - 2.6 **630**	Not authorized

RWY 27: Minima are for state published standard 2.5% missed approach gradient and optional 3.5% missed approach gradient. The 3.5% minima may be utilised up to:

- 35°C at maximum landing weight, or
- A maximum 42T landing weight in icing conditions.

Approach and Landing Speeds

WEIGHT (KG)	V_{REF} FLAP 5 V_{AC} FLAP 3 (KIAS)		V_{REF} FLAP FULL V_{AC} FLAP 4 (KIAS)	CAT II / AUTOLAND V_{REF} FLAP 5 V_{AC} FLAP 3 (KIAS)	Steep Approach V_{REF} FLAP FULL V_{AC} FLAP 4 (KIAS)		VFS (KIAS)	WEIGHT (KG)
	Ice	No Ice	Ice / No Ice	Ice / No Ice	Ice	No Ice	Ice / No Ice	
28000	110	104	104	114	106	104	156	28000
29000	112	105	104	116	108	104	159	29000
30000	114	107	104	118	110	106	161	30000
31000	116	109	106	120	112	108	164	31000
32000	118	111	107	122	113	109	167	32000
33000	120	113	109	124	115	111	169	33000
34000	121	114	111	126	117	113	172	34000
35000	123	116	112	127	118	114	174	35000
36000	125	118	114	129	120	116	177	36000
37000	127	119	115	131	121	117	179	37000
38000	128	121	117	133	123	119	182	38000
39000	130	122	119	135	124	120	184	39000
40000	132	124	120	136	126	122	187	40000
41000	133	125	122	138	127	123	189	41000
42000	135	127	123	140	129	125	191	42000
43000	137	129	124	141	130	126	194	43000
44000	138	130	126	143	132	128	196	44000
45000	140	131	127	145	133	129	198	45000
46000	141	133	129	146	135	131	200	46000

Low Visibility Procedures

Take-Off Minima

Take-off is banned if any of the following are below the specified minima:

- RVR assessed by the Captain from the flight deck when lined-up on the runway immediately before take-off,
- Reported Touchdown Zone (TDZ) RVR or Met Visibility (see note),
- Mid-point RVR (when reported),
- Rollout (stop-end) RVR (for operations below 200 m),
- Cloud-ceiling (if specified, otherwise zero cloud height permitted), or
- If the runway is indistinguishable from its surroundings.

Additionally:

- Aerodrome low visibility procedures must be in force, and
- For operations below 150 m, the following runway lighting is required:
    - High intensity centreline lighting at 15 m intervals or less
    - High intensity edge lighting at 60 m intervals or less.

Note: Pilot assessment of TDZ RVR, when practical, always overrides the reported TDZ RVR or Met Visibility (either to increase or decrease the reported RVR). Pilot assessment may not be practical where runways are humped or the RVR limit is high.

Low Visibility Take-Off Briefing

The following items should be reviewed in the briefing prior to making a low visibility take-off:

- Crew Qualification: AWOPS certification required for RVR below 150 m
- Minimum Runway RVR/Required cloud-ceiling: Specified in the Performance Manual
- Advise SCCM that all passenger PEDs must be switched off for take-off
- Taxi Route including Hot Spots
- CAT II/III Holding Points
- RTO Runway Exits
- Take-Off Alternate

Low Visibility Approach Briefing

The following items should be reviewed in the briefing prior to making a low visibility approach:

- Crew Qualification
- Ground and Aircraft Equipment Status
- Aerodrome Low Visibility Procedures
- Alternate
- Downgrade Options
- Cockpit Lighting: It is recommended to adjust the overall illumination to the minimum necessary
- External Lighting: External lights may be turned OFF and as soon as visual contact is assured, the PM turns ON the external lights upon PF request
- Seat Position
- Advise SCCM that all passenger PEDs must be switched off for approach and landing – the SCCM will include this in the arrival PA made after the “10 MINUTES TO LANDING” call
- Runway Exit and Taxi Route including Hot Spots

Approach Ban

Do not descend below 1,000 ft AAL unless:

- TDZ RVR is greater than the required minimum, and
- If reported and relevant (see note),
  - (1) Mid-point RVR is 125 m or greater, and
  - (2) Stop-end RVR is 75 m or greater.

Note:

1. RVRs reported below 1,000 ft AAL are advisory only.

2. Relevant in this context means that part of the runway used during the high-speed phase of the landing down to a speed of approximately 60 knots.

Minimum RVR and Required Visual References

ILS CAT II:

- Minimum RVR 300 m
- At DH, the visual references specified below must be distinctly visible and identifiable to the PF:
  - (1) A segment of at least three consecutive lights being the centreline of the approach lights, or touchdown zone lights, or runway centreline lights, or runway edge lights, or a combination of them,
  - (2) This visual reference must include a lateral element of the ground pattern, such as an approach light crossbar or the landing threshold or a barrette of the touchdown zone light.

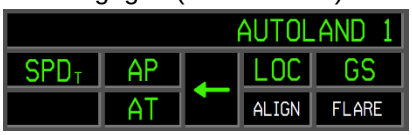
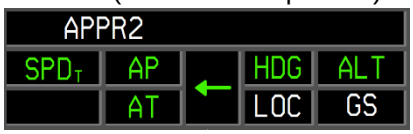
ILS CAT IIIA:

- Minimum RVR 200 m
- A segment of at least three consecutive lights being the centreline of the approach lights, or touchdown zone lights, or runway centreline lights, or runway edge lights, or a combination of these is attained and can be maintained by the PF.

Equipment Required

	Autoland *Applicability: All except G-LCYV* *****	**CAT II** **Non-Autoland**
Autopilot	One channel operational	
Flight Director	Both channels operational	
Radio Altimeters	Both operational	One operational
IRS 1 and 2	Both operational	
ADS 1 and 2	Both operational	
PFD 1 and 2	Both operational	
NAV VOR/ILS 1 and 2	Both operational	
COMM VHF 1	Operational	
EGPWS	Operational	
Windshield Wipers	Both operational	LSP operational
Hydraulic Systems, Flight Controls and Yaw Damper	All hydraulic systems operational Rudder in Normal Mode; SPOILER FAULT **not** presented Yaw damper operational	

Autoland / CAT II Non-Autoland Procedures

	Autoland *Applicability: All except G-LCYV* *****	**CAT II** **Non-Autoland**
Minima	CAT II CAT IIIA	CAT II **only** **Note:** FD only CAT II approaches are prohibited.
MCDU OPR CONFIG	Autoland ENABLE	Autoland OFF ******
Wind Limits	HW: 25 kts XW: 15 kts TW: 10 kts	HW: 37 kts XW: 16 kts TW: 10 kts
Flap	Flap 5 (Go-around Flap 3)	
VAP	VAP = VREF + 1/2 steady headwind component + gust increment Minimum VAP = VRF + 0 kts and maximum VAP = VRF + 20 kts	
Autobrake	Medium	
NAV 1 and 2 Source	Primary or PREV NAV source on PFD 1 and PFD 2 set to LOC. PFD 1 and PFD 2 NAV are valid and tuned to the same frequency. PFD 1 and PFD 2 NAV selected courses are valid and set equal.	
BARO/RA Knob	**Both** set RA before 1500 ft RA CAT IIIA: 50 ft CAT II: 80-200 ft per minima CAT I Autoland: OFF *******	**Both** set RA before 1500 ft RA CAT II: 80-200 ft per minima
	Caution: Failure to set both BARO/RA Knobs to RA will prevent AUTOLAND 1 or APPR2 from arming.	
FMA Sequence	Armed (APPR Button pushed):  Engaged (< 1500 ft RA): 	Armed (APPR Button pushed):  Engaged (< 1500 ft RA): 
	If APPR1 or APPR1 ONLY or NO AUTOLAND displayed: **Go-Around**	If APPR1 or APPR1 ONLY displayed: **Go-Around**
1,000 ft RA	"STABLE, AUTOLAND ____ RADIO/BARO, AUTOLAND GREEN"	"STABLE, MANLAND ____ RADIO"
AP MUH	AP disconnects 5 sec after touchdown	50 ft RA

***** G-LCYV equipped for **CAT II Non-Autoland only**

****** If Autoland ENABLE is selected, AUTOLAND 1 will engage instead of APPR2. If intending a manual landing be aware that the system will automatically pitch trim up at 800 ft as per an Autoland.

******* To conduct an Autoland to CAT I minima set both BARO/RA knobs to OFF. Once AUTOLAND 1 engages, both knobs can be reselected to BARO minima to trigger the auto-callout.
Caution: Do not reselect BARO minima before AUTOLAND 1 engages, otherwise AUTOLAND 1 will fail to arm.

Failures

Above 1,000 ft AAL:

- Malfunctions above 1,000 ft AAL are to be evaluated by the crew and should lead to a go-around if necessary procedures cannot be completed before reaching 1,000 ft AAL.

Between 500 ft and 1,000 ft AAL:

- Any airplane malfunction requiring crew action below 1,000 ft AAL under IMC should lead to a go-around. An approach can be continued for malfunctions occurring above 500 ft AAL only if the failure results solely in an approach status downgrade (for example, single RA failure).

Below 500 ft AAL:

- Following an Autothrottle failure below 500 ft, the approach may be continued if the airspeed is under control and stabilised.