INNSBRUCK (INN/LOWI)

Elevation 1907FT

CATEGORY C

Video briefing: LOC/DME East Circle to Land 08

REGULATION

The following procedures are **not** approved for use:

- RNAV RNP 26 (AR) or any other RNAV RNP (AR) procedures
- LOC/DME West Special
- LOC/DME East
- RNAV SIDs with an RNP <1

Circling:

- When circle is required for Rwy 08, the BAV procedure is to utilise prescribed tracks, i.e. the "Special" Visual 08

Rwy 08 Take-off Minima:

- Lower Rwy 08 Takeoff Minima (by state permission only) is approved for use.

Operations to INN require a 'Safety Pilot' as P3. If due to unforeseen circumstances a P3 is not available, the Commander is authorised to operate without a P3, considering the P1/P2 experience and prevailing operational environment.

GENERAL

Guidance regarding operations in to INN are available from the following sources:

- This briefing
- The Innsbruck Aide-Memoire, available on the A320 fleet page, which details specific approach and departure procedures
- The forum thread at https://forum.bavirtual.co.uk/index.php?/topic/426-innsbruck-ops-20192020/

The definitive sources of information are the RIM and the Innsbruck Aide-Memoire.

Prior to operating to INN crews must be extremely familiar with all the provided briefing materials.

The Aide Memoire must be used for approach and departure procedures.

Dispatch Restrictions

The following must be serviceable for Airbus A319/A320 aircraft:

- One transponder
- TCAS
- EGPWS including automatic voice callouts
- Minimum of one autopilot

- At least one GPS
- ILS1 must be operative
- At least one VOR and ADF
- DMEs may be inoperative provided a serviceable GPS is available. This is in accordance with the MEL.

Threats

CFIT

- The airfield is located 2nm W of the city of Innsbruck in the valley of the River Inn.
- On both sides of the valley the terrain is steep and mountainous
- Typical spot heights (amsl) in the vicinity of the airfield are as follows:

2.5nm NORTH 8,655ft

12nm WEST 9,462ft — 16nm EAST 8,288ft

13.nm SOUTHWEST 10,108ft — 9nm SOUTHEAST 9,173ft

5nm SOUTH 8,386ft

Temperature Deviation from ISA

- When actual OAT differs from ISA by more than -10°C ATC will inform crews of corrections to be added to published altitudes. Refer to the Cold Temperature Corrections section of this manual for additional guidance.

Runway Excursion

- The runway is short and combined with the high airfield elevation landing performance can be limiting, especially in contaminated conditions. Careful consideration is required regarding touchdown point and use of retardation devices.

Runway Incursion

- Backtrack is required to use the full length of the Rwy. Turning circles are provided.

Loss of Control

- Aircraft specific procedures are required in the event of normal and engine-out take-off to assure the required turn radius and climb performance are achieved
- Föehn conditions with associated moderate to severe turbulence, WINDSHEAR and downdraughts especially on finals to Rwy 26. However the conditions on the approach to Rwy 08 can also be quite marked.

Mid Air Collision

- Extensive glider activity in spring, summer and autumn (rarely in winter) as well as during Föehn conditions. Generally to the N of the airfield and close to the mountains up to the cloud base
- Crews should be aware that there will be a number of light aircraft operating, possibly without mode C transponders, in the Inn valley. Verify any potential TCAS threats with ATC.

ARRIVAL

Diversion Airports			
MUNICH	MUC/EDDM	068 nm/015°T	CAT A
LINZ	LNZ/LOWL	129 nm/063°T	CAT A
NURNBERG	NUE/EDDN	135 nm/355°T	CAT A
VIENNA	VIE/LOWW	217 nm/076°T	CAT A
ZURICH	ZUE/LSZH	114 nm/276°T	CAT B

- After landing following a diversion, assess the situation at Innsbruck. Weather improvement at Innsbruck is often possible and will allow continued flight after refuelling. If the weather conditions are inclement, road conditions will be bad also and surface transfer times can be 5 to 6 hours.

Approach

Information is provided in the Lido AOI pages regarding the approach procedure at Innsbruck. Thorough briefing is essential before starting any approach.

- The primary approach is the Special LOC/DME East approach from NDB 'RTT'.
- The LOC/DME West approach from waypoint 'KUDAV' may be used on occasion by ATC.
- Guidance as to the approach, NOT the runway, in use may be obtained from Munich ATC.
- When turning at positions quoted as DME ranges it is **very important to commence the turn at that position and not before.** Reaction time is allowed for in the procedures.
- Be aware of erroneous 'OEJ' LOC indications from D2 before the LOC station until D2 after the LOC station.
- The 'OEV' LOC is offset 4° to the right of the Rwy 26 extended centreline and crosses it 0.2nm from the runway threshold.
- PAPIs to both Rwy 08 and Rwy 26 are set to a slope of 3.5°
- No approach lighting to Rwy 08
- A large block of flats on the eastern side of the city situated on the NORTH bank of the River Inn and close to the extended centreline gives additional guidance to Rwy 26.

Only the A319 and A320 are approved for Innsbruck.

Planning

The minima for the **LOC/DME East Special** is dependent on the Missed Approach Climb Gradient (MACG) and hence alters the maximum landing weight. The Lido (Aerosoft) approach chart shows the minima relating to the maximum structural landing weight.

Lower minima can be utilised for reduced landing weights as follows:

A319

- **Landing weight 60.0T or below WAI 'on':** Rwy 26 DA 2,890ft (996ft) RVR 2400m
- **Landing weight 58.0T or below WAI 'on':** Rwy 26 DA 2,860ft (966ft) RVR 2400m

If WAI is selected 'off' then the published LOC/DME East Special DA can be reduced by 20ft.

A320

- **Landing weight 62.0T or below WAI 'on':** Rwy 26 DA 2,750ft (856ft) RVR 2400m
- **Landing weight 60.0T or below WAI 'on':** Rwy 26 DA 2,740ft (846ft) RVR 2400m

There is no allowance for WAI 'off' for the A320.

Note that all minima/landing weights above and on the approach chart are based on 'Packs Off/APU to Packs' performance. This configuration is required from the start of the final approach until the missed approach acceleration altitude of 7,000ft amsl has been achieved.

Careful evaluation is required to balance the minima required against the landing weight. An in-flight landing distance calculation must also be completed prior to the approach to guard against runway excursion. Respect the most limiting of the landing weight limited by MACG and the in-flight landing distance calculation.

GROUND

- A follow-me service is provided on the apron.

DEPARTURE

- Crew **MUST** refer to the aide-memoire for departure procedures.

WEATHER

- Generally good in both winter and summer with good visibility and high cloudbase, although heavy rain showers in summer and snow showers in winter can restrict this visibility and lower the cloudbase.
- During the winter dense fog can form during the early morning hours, especially if snow is present
- In the summer frontal precipitation may occur but most is in the form of brief showers or thunderstorms
- Be prepared for low angle sun dazzle in autumn and winter, and the difficulties of differentiating between terrain and cloud in snow covered conditions
- Winds are usually westerly except when Föehn winds occur (in autumn and winter, surface wind of 100° to 180°, average windspeed of 15kt to 20kt gusting 30kt to 50kt)
- Föehn winds require high pressure over Eastern Europe and low pressure over SW Europe. This situation results in strong southeasterly winds which are channelled through the valley south of Innsbruck (the Brenner Pass) with associated good visibility (50km+) and high ceilings (11,000ft+).

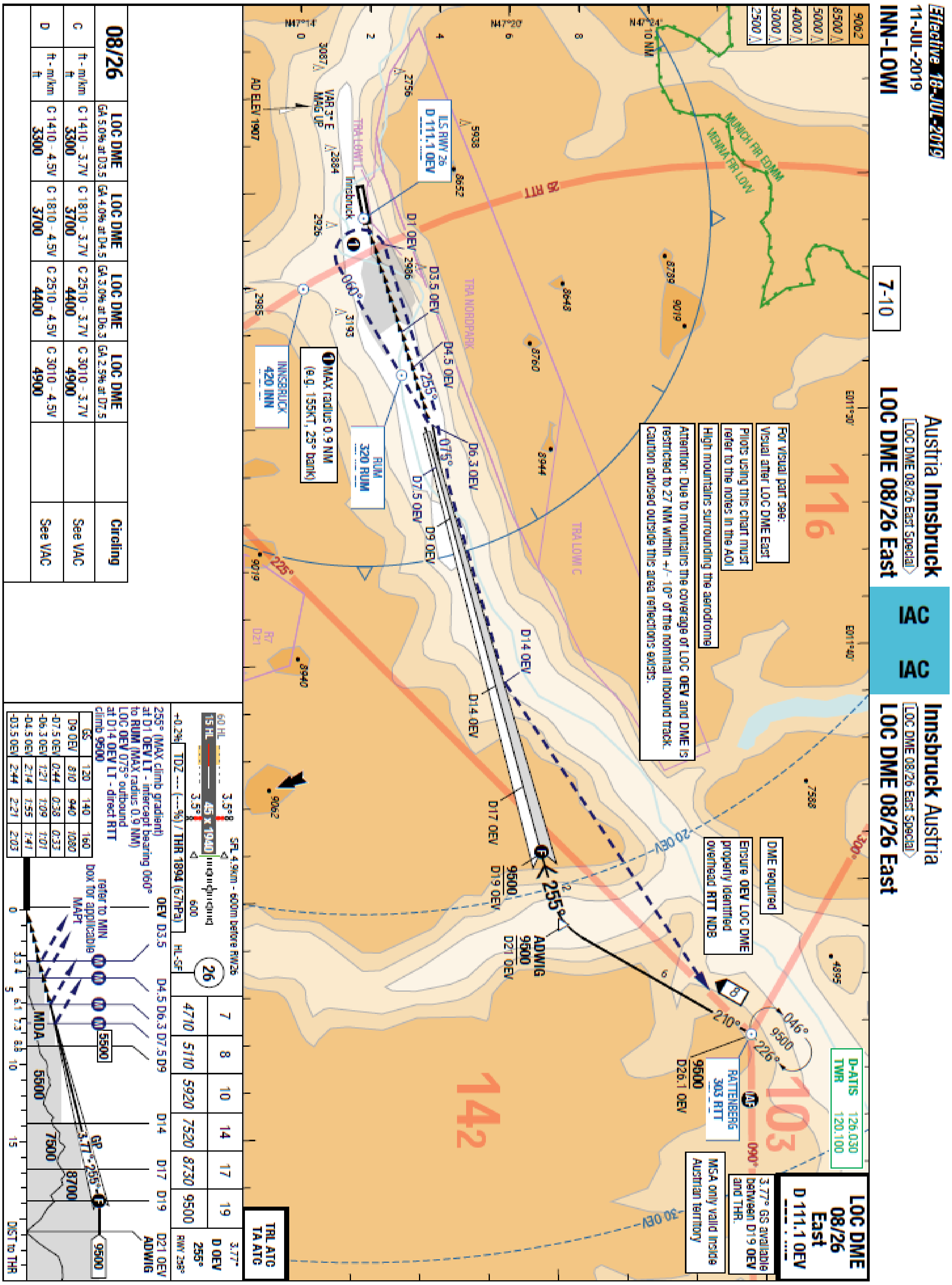
- Anemometers are positioned around the airfield and are known as 'Patscherkofel' (5 nm SE), 'Eigels' (in the vicinity of 'INN') and 'Citynorth' (N abeam of Rwy 26 centreline). The information derived allows ATC to advise the possibility of turbulence and WINDSHEAR.

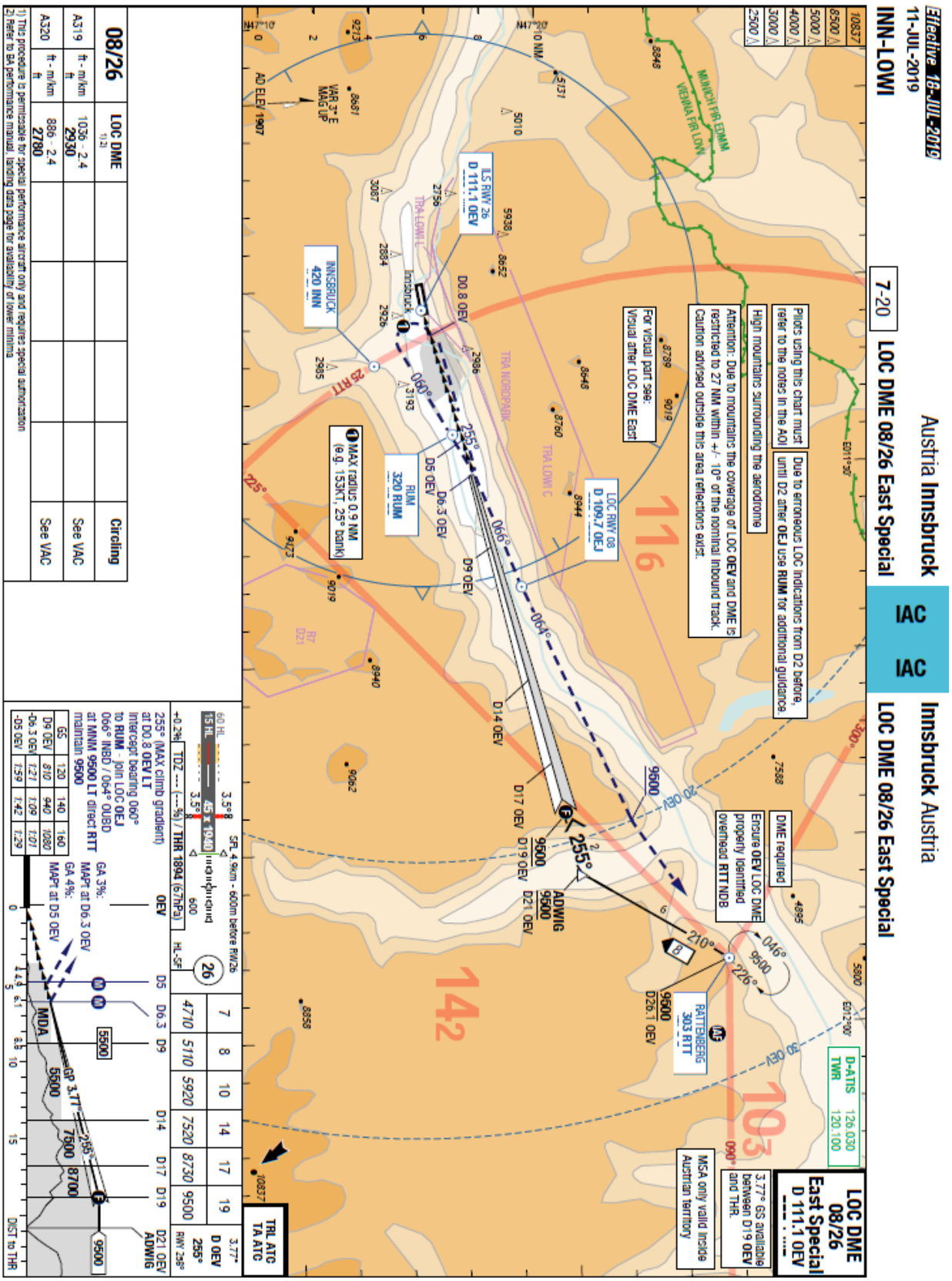
- Refer to Lido AOI pages for further information on this and other met conditions that may be encountered.

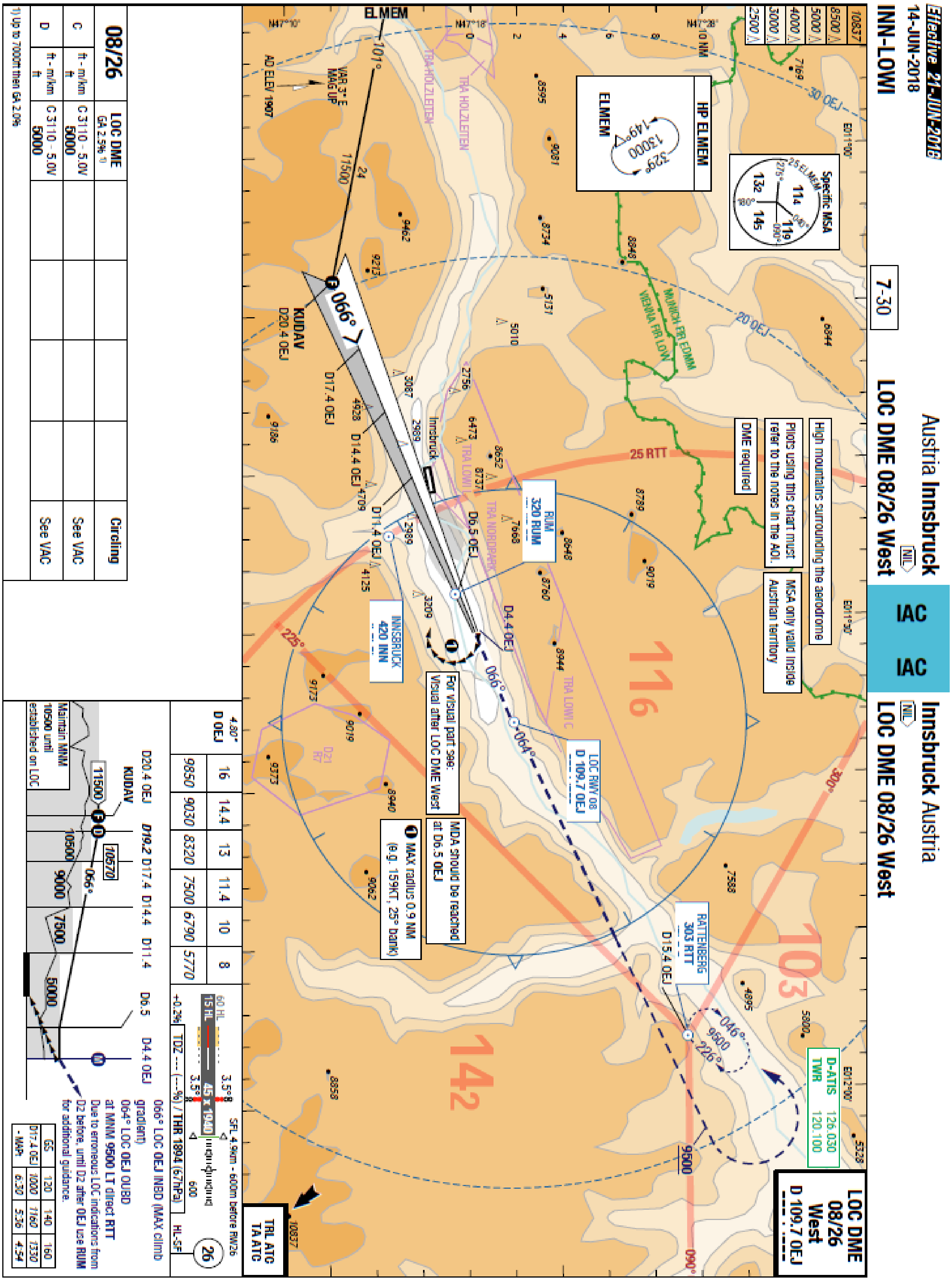
OPERATIONAL INFORMATION

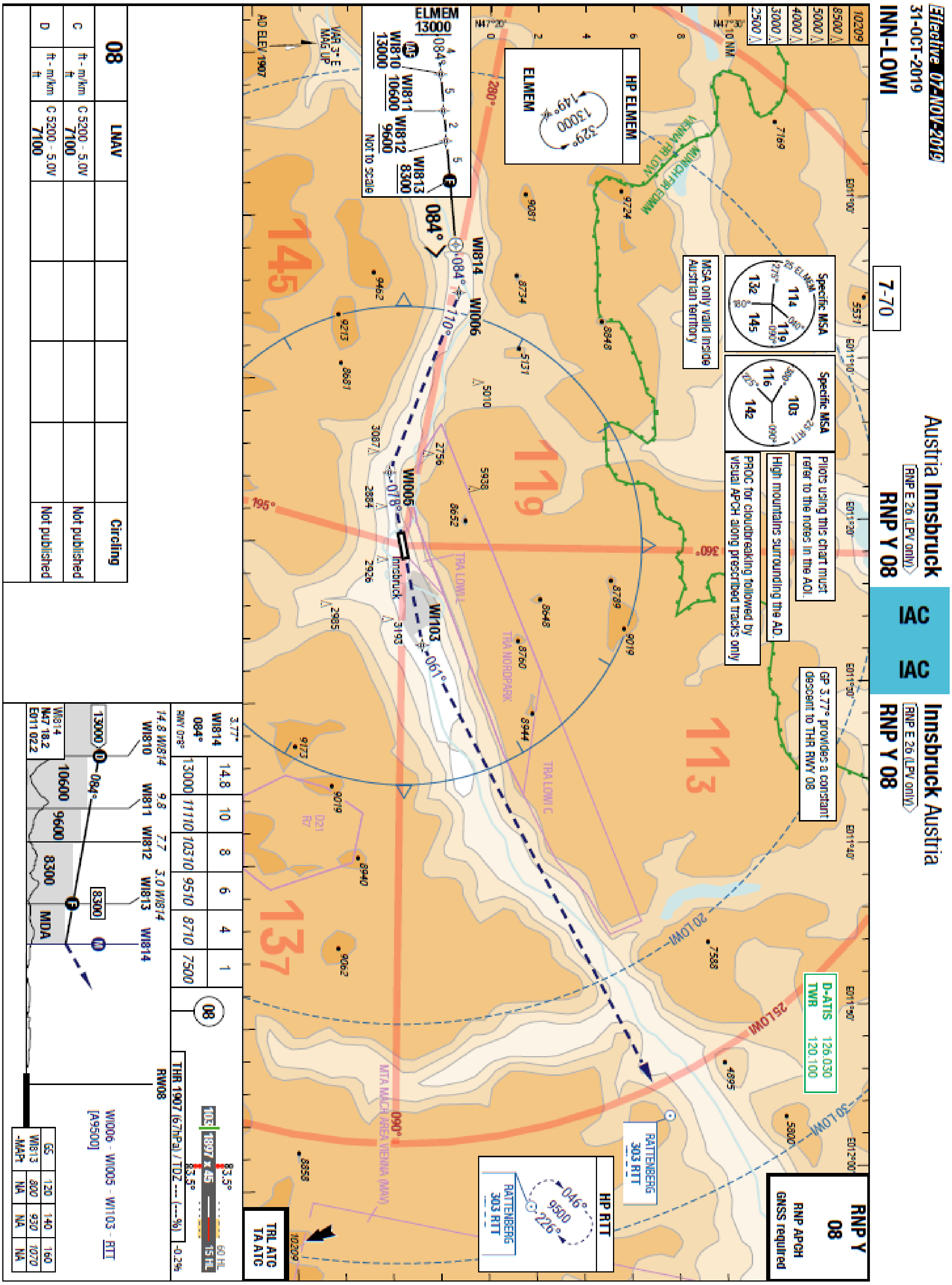
Handling Agent	Tiroler Flughafenbetriebsges mbH
Handling Agent VHF	131.475
Potable Water	

IF ONLY Electrical Power is required	Use ground power at all times
If BOTH electrical power and air conditioning is required:	Use APU for air conditioning (keep ground power connected to reduce APU fuel burn)


Effective 18-JUL-2019
11-JUL-2019
INN-LOWI
7-10
Austria Innsbruck
LOC DME 08/26 East
IAC
Innsbruck Austria
LOC DME 08/26 East
LOC DME 08/26 East
D 111.1 OEV
D-ATIS 126.030
TWR 120.100
MSA only valid inside Austrian territory
3.77° GS available between D19 OEV and THR.
DME required
Ensure OEV LOC DME properly identified overhead RTT NDB
For visual part see: Visual after LOC DME East
Pilots using this chart must refer to the notes in the AOI
High mountains surrounding the aerodrome
Attention: Due to mountains the coverage of LOC OEV and DME is restricted to 27 NM within +/- 10° of the nominal inbound track. Caution advised outside this area reflections exists.
RATTENBERG 303 RTT
ADWIG 9500 D21 OEV
INNSBRUCK 420 INN
RUM 320 RUM
ILS RWY 26 D 111.1 OEV
MAX radius 0.9 NM (e.g. 155KT, 25° bank)
TRL ATC
TA ATC
08/26
Circling
See VAC


Effective 18-JUL-2019
11-JUL-2019
INN-LOWI
7-20
LOC DME 08/26 East Special
Austria Innsbruck
IAC
IAC
Innsbruck Austria
LOC DME 08/26 East Special
LOC DME 08/26 East Special
D 111.1 OEV
Pilots using this chart must refer to the notes in the AOI
Due to erroneous LOC indications from D2 before, until D2 after OEJ use RUM for additional guidance
High mountains surrounding the aerodrome
Attention: Due to mountains the coverage of LOC OEV and DME is restricted to 27 NM within +/- 10° of the nominal inbound track. Caution advised outside this area reflections exist.
For visual part see: Visual after LOC DME East
DME required
Ensure OEV LOC DME property identified overhead RTT NDB
3.77° GS available between D19 OEV and THR.
MSA only valid inside Austrian territory
D-ATIS 126.030
TWR 120.100
TRL ATC
TA ATC
08/26
LOC DME
Circling
A319
A320
See VAC
1) This procedure is permissible for special performance aircraft only and requires special authorization
2) Refer to BA performance manual, landing data page for availability of lower minima


Effective 21-JUN-2018
14-JUN-2018
INN-LOWI
7-30
Austria Innsbruck
LOC DME 08/26 West
IAC
IAC
Innsbruck Austria
LOC DME 08/26 West
High mountains surrounding the aerodrome
Pilots using this chart must refer to the notes in the AOI.
MSA only valid inside Austrian territory
DME required
Specific MSA
HP ELMEM
ELMEM
KUDAV
D20.4 OEJ
INNSBRUCK
420 INN
RUM
320 RUM
RATTENBERG
303 RTT
LOC RWY 08
D 109.7 OEJ
D-ATIS 126.030
TWR 120.100
LOC DME
08/26
West
D 109.7 OEJ
For visual part see: Visual after LOC DME West
MDA should be reached at D6.5 OEJ
MAX radius 0.9 NM (e.g. 159KT, 25° bank)
TRL ATC
TA ATC
AD ELEV 1907
VAR 3° E MAG UP
08/26
LOC DME
Circling
See VAC
Maintain MNM 10500 until established on LOC
066° LOC OEJ INBD (MAX climb gradient)
064° LOC OEJ OUBD
at MNM 9500 LT direct RTT
Due to erroneous LOC indications from D2 before, until D2 after OEJ use RUM for additional guidance.
1) Up to 7000ft then GA 2.0%

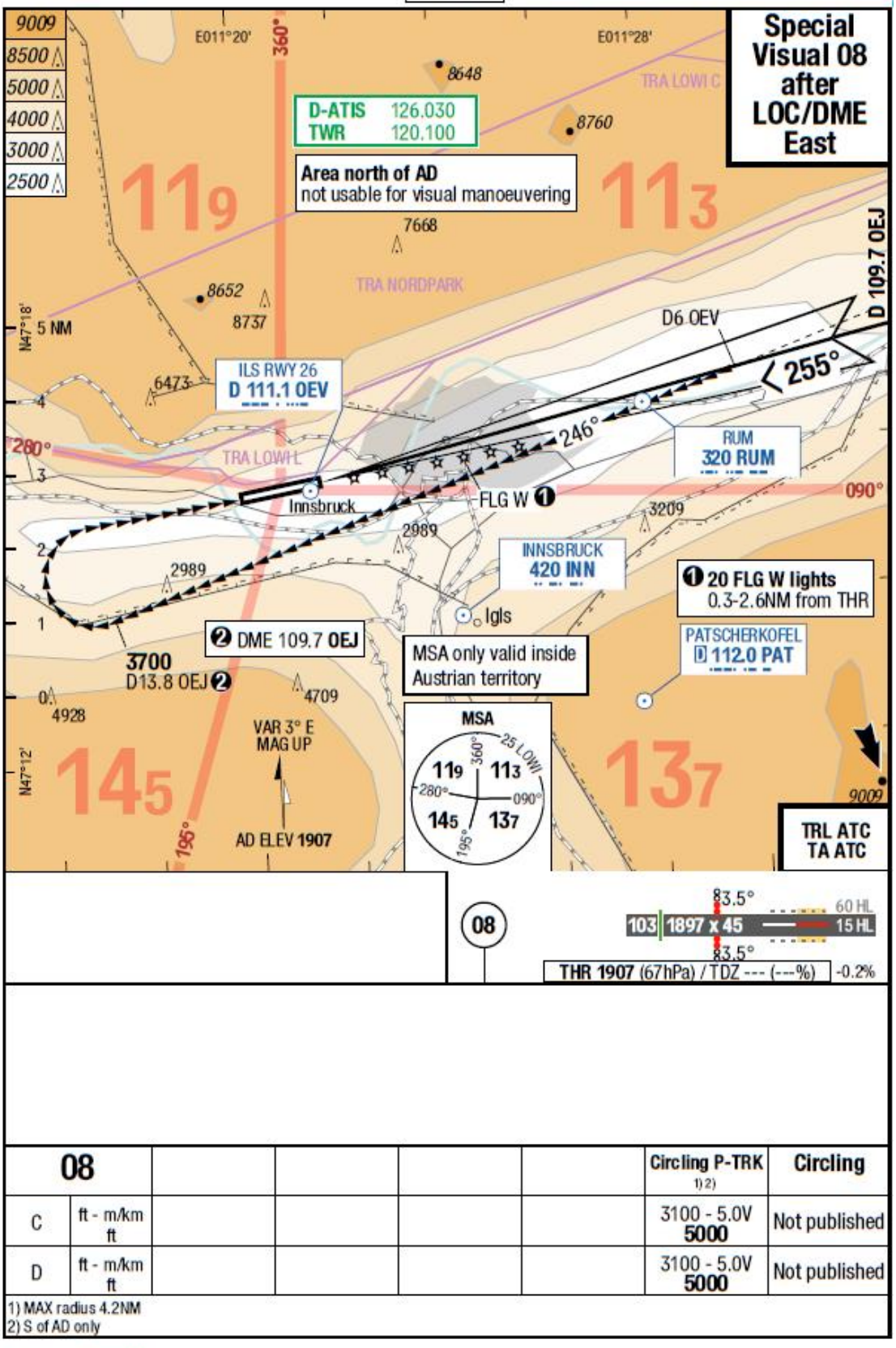

Effective 07-NOV-2019
31-OCT-2019
INN-LOWI
7-70
Austria Innsbruck
RNP E 26 (LPV only)
RNP Y 08
IAC
IAC
Innsbruck Austria
RNP E 26 (LPV only)
RNP Y 08
RNP Y 08
RNP APCH
GNSS required
Specific MSA
Specific MSA
MSA only valid inside Austrian territory
Pilots using this chart must refer to the notes in the AOI.
High mountains surrounding the AD.
PROC for cloudbreaking followed by visual APCH along prescribed tracks only
GP 3.77° provides a constant descent to THR RWY 08
D-ATIS 126.030
TWR 120.100
HP ELMEM
HP RTT
RATTENBERG 303 RTT
ELMEM 13000
Not to scale
VAR 3° E MAG UP
AD ELEV 1907
TRL ATC
TA ATC
TRA LOWI C
TRA NORDPARK
MTA MACH AREA VIENNA (MAV)
08
LNAV
Circling
C
D
ft - m/km
ft
C 5200 - 5.0V
7100
Not published
WI006 - WI005 - WI103 - RTT
[A9500]
THR 1907 (67hPa)
RWY 08
GS
120
140
160
WI813
-MAP-
NA
800
930
1070

Effective 21-JUN-2018
14-JUN-2018

Austria **Innsbruck**

INN-LOWI

7-90 Special Visual 08 after LOC/DME East



08						Circling P-TRK 1) 2)	Circling
C	ft - m/km ft					3100 - 5.0V **5000**	Not published
D	ft - m/km ft					3100 - 5.0V **5000**	Not published

1) MAX radius 4.2NM
2) S of AD only

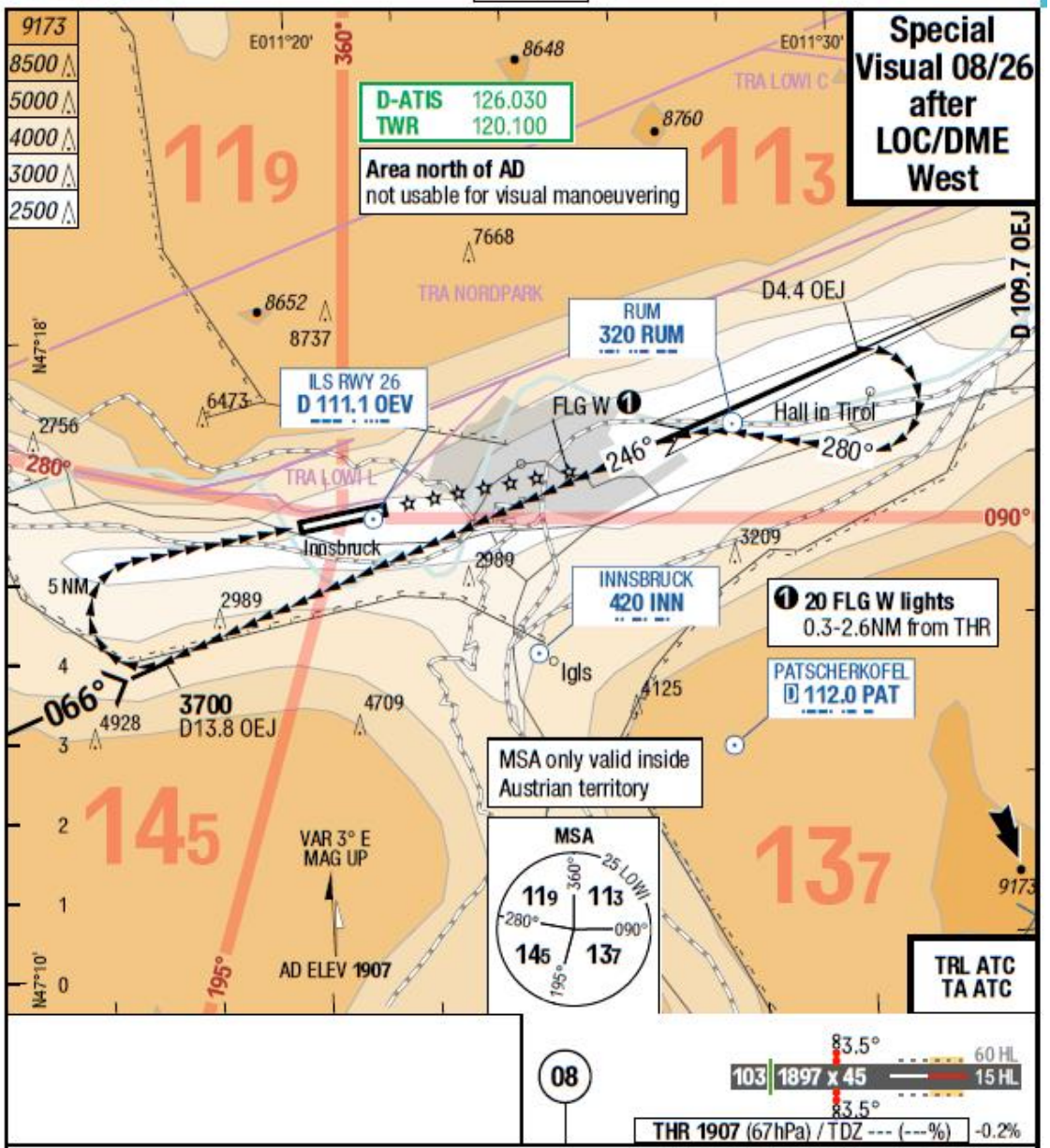
Changes: FREQ, OBST

Effective 21-JUN-2018
14-JUN-2018

INN-LOWI

Austria **Innsbruck**

7-100 Special Visual 08/26 after LOC/DME West



08						Circling P-TRK 1)	Circling
C	ft - m/km ft					3100 - 5.0V **5000**	Not published
D	ft - m/km ft					3100 - 5.0V **5000**	Not published

1) S of AD only

Changes: FREQ, OBST