Briefing for Cloud-Breaking Procedures

IFR-Procedures (LOWZ and LOIJ)

25.08.2022

Preface

- Please note that the PIC shall be well familiar with RNP approaches in general and is required to check this mandatory pre-flight-briefing, in addition to the legally binding documents found in the AIP/AIC.

- Pilots shall note, that both procedures in LOIJ and LOWZ are inter-dependent, and it is only possible to clear one aircraft at a time to use the SID or the RNP-A procedure of the respective aerodrome.

    - This means that all other (IFR) flights to/from LOIJ/LOWZ have to be delayed until the previously cleared aircraft has left the procedure or in case of the approach has submitted an arrival report – Pilots are advised to expect delays.

- It is understood, that it is solely the pilot in command's (PIC's) ultimate responsibility to comply with the rules and regulations established for the procedures. However, the actual duties and obligations of the PIC may be carried out by any qualified or supervised (by PIC) flight crew member of an aircraft.

AGENDA

- General Introduction
  - Procedures established in LOWZ and LOIJ
  - Regulatory requirements
  - Equipment requirements / Pilot qualification
  - Air Traffic Services
- Departure Procedure
  - LOWZ – NANIT1G SID
  - LOIJ – ERKIR1G SID
- Arrival Procedure
  - RNP A LOWZ
  - RNP A LOIJ
- Documents to be carried in the aircraft

General Introduction

- Before starting this briefing and commencing the flight the pilot shall have at least studied the following documents: (Link to AIP: Luftfahrthandbuch Österreich / AIP Austria (austrocontrol.at))

  - For departures from LOWZ:
    - LOWZ AD 2 MAP 9-1 (Standard Departure Chart - Instrument – ICAO)
    - AIC A 11/22
    - AD2 LOWZ
    - LOWZ AD 2 MAP 14-2 (Chart for VFR flights ZELL AM SEE)

  - For arrivals to LOWZ:
    - LOWZ AD 2 MAP 13-2-1 (Instrument Approach Chart (RNP A/B))
    - AIC A 11/22
    - AD2 LOWZ
    - LOWZ AD 2 MAP 14-2 (Chart for VFR flights ZELL AM SEE)

General Introduction

- Before starting this briefing and commencing the flight the pilot shall have at least studied the following documents: (Link to AIP: Luftfahrthandbuch Österreich / AIP Austria (austrocontrol.at))

  - For departures from LOIJ:
    - LOIJ AD 2 MAP 9-1 (Standard Departure Chart - Instrument – ICAO)
    - AIC A 10/22
    - AD2 LOIJ
    - LOIJ AD 2 MAP 14-2 (Chart for VFR flights ST. JOHANN/TIROL)

  - For arrivals to LOIJ:
    - LOIJ AD 2 MAP 13-2-1 (Instrument Approach Chart - ICAO (RNP A CAT A / B))
    - AIC A 10/22
    - AD2 LOIJ
    - LOIJ AD 2 MAP 14-2 (Chart for VFR flights ST. JOHANN/TIROL)

General Introduction

- Procedures for cloud-breaking have been established at LOWZ and LOIJ

- It is important to note that neither the take-off nor the landing at LOWZ or LOIJ may be conducted under IFR – this means, that an IFR cancelation is mandatory prior landing according to the published procedure

- The next two slides will describe a generic departure from LOWZ or LOIJ and a generic arrival to LOWZ or LOIJ using the published cloud-breaking procedures – the slides aim to show when and how the change in flight rules is conducted (Further details regarding the procedure at LOWZ and LOIJ will be provided in this briefing)

General Introduction

✈ Example of a departure from LOWZ / LOIJ using the cloud-breaking procedures:

Note: The departure shall be conducted under VFR in VMC according to the published VFR procedures

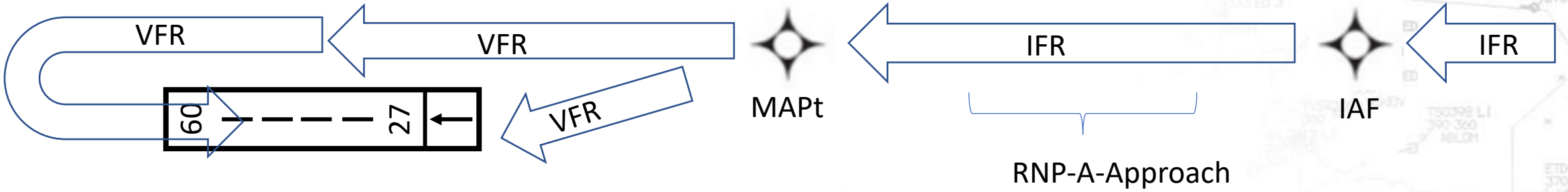
Note: IFR starts automatically when passing the "IFR starting point" on the SID according to conditions on the chart and the respective AIC

General Introduction

✈ Example of an arrival to LOWZ / LOIJ using the cloud-breaking procedures:

Note: Landing at LOWZ or LOIJ is not permitted as an IFR flight – IFR cancelation is mandatory latest at the MAPt or prior deviation from the approach procedure in accordance with the cancellation procedure (see slide 25 of this briefing)

Note: After the MAPt the pilot shall join the published VFR procedures



General Introduction

VFR Procedure

- It is important to note that since the initial part of the departure and the last part of the arrival is conducted under VFR the PIC shall be well familiar with the VFR procedures (Chart for VFR flights and rules and regulations in the AIP) for the respective aerodrome

See and avoid responsibilities: It is the sole responsibility of the PIC to ensure a proper transition from the IFR procedure into the VFR traffic circuit and vice-versa. ATC will **NOT** separate VFR aircraft to IFR aircraft within airspace class E and G.

(!) Collision avoidance is always up to the PIC (!)

Traffic below 9000 FT AMSL in case of LOIJ and below 10.000 FT AMSL in case of LOWZ might not be visible/known to ATC (radar coverage) and therefore traffic information might not be practicable.

Regulatory requirements

- Additional pre-flight action (SERA.2010 (b))
  - The PIC shall, before using the published (IFR) procedures from and to LOWZ/LOIJ, have completed this briefing
  - The PIC shall have a (digital) copy of this briefing in the aircraft (see slide 34 of this briefing)
  - The pilot shall be familiar with the procedure

Note: Any other pre-flight action according to SERA.2010 (b) is not affected by this briefing and shall be complied with as appropriate

Equipment requirements / Pilot qualification

- Aircraft equipment according to SERA.5015 (a)

- The RNAV SID and/or RNP-A approach procedure require the aircraft to be equipped in accordance with ICAO Doc 9613 (PERFORMANCE-BASED NAVIGATION MANUAL).

- Pilot qualification/training in accordance with ICAO Doc 9613 (PERFORMANCE-BASED NAVIGATION MANUAL) is required.

Air Traffic Services

- The controlled IFR flight on the RNAV SID or the RNP-A approach is provided with air traffic control (ATC) service by INNSBRUCK RADAR.

- For aircraft intending to use the RNAV SID, INNSBRUCK RADAR will issue the IFR clearance for the aircraft on ground via phone. (see slide 13 of this briefing)

- At the aerodrome LOWZ and LOIJ no air traffic services unit is established and therefore no air traffic control service (ATC) or flight information service (AFIS) is provided.

Departure Procedure (Common Points – LOWZ/LOIJ)

- Receiving the IFR clearance
  - The procedure – thus starting in airspace class G (uncontrolled airspace) – requires a clearance before departure since the aircraft will enter controlled airspace (airspace class E) under IFR following the SID
  - The reception of the IFR clearance is ONLY possible from **INNSBRUCK RADAR** via phone due to lack of radio coverage:

+43 5 1703 6610

Note: The clearance shall be requested using standard phraseology

Note: The PIC shall advise ATC prior clearance request if a Network Manager Operations Centre/NMOC restriction (SLOT) has been received

Departure Procedure (Common Points – LOWZ/LOIJ)

- Clearance Expiry time
  - ATC will issue a “Clearance Expiry time” together with the ATC clearance
    - Example: “Clearance expires at 13:25”
  - It is very important to note that the clearance becomes automatically void after the clearance expiry time, unless the flight has passed the “IFR starting point” at or before the clearance expiry time
  - The clearance expiry time is therefore the last possible time the aircraft shall cross the “IFR starting point” (Be aware – Departing at the clearance expiry time and joining the VFR procedure to fly to the “IFR starting point” is not sufficient!)

Departure Procedure (Common Points – LOWZ/LOIJ)

- Clearance Expiry time (PIC unable to meet the Clearance Expiry time)
  - If the PIC can not depart in time to reach the IFR staring point at or before the clearance expiry time the PIC shall inform ATC immediately and remain VFR
  - An amended clearance expiry time may be requested by the PIC
  - The reason for the issuance of a clearance expiry time is due to the fact that ATC is unable to block other operations within controlled airspace for an absolutely longer period of time than necessary – since the airspace in this area is extremely busy (Traffic in and out of LOWI, LOWZ, LOIJ, overflights, etc.) the clearance expiry time greatly helps ATC to manage traffic efficiently and reduce delays for all aircraft

Departure Procedure (Common Points – LOWZ/LOIJ)

- Guidance for pilots departing from LOWZ/LOIJ with a “Z”-flight plan using the published departure procedure (PART 1)
  - The PIC shall ensure that a flight plan has been field and is available to ATC (If there are any problems kindly contact AIS/ARO Wien)
  - The PIC shall call INNSBRUCK RADAR via phone and request the IFR clearance – Note: It is possible that the pilot may have to hold the line for some time due to other (ATC) calls being handled by INNSBRUCK RADAR
  - PIC shall complete all checks for departure and after receiving the respective IFR clearance from INNSBRUCK RADAR as described depart along the published VFR procedures – Note: It is recommended to announce the intention on the respective aerodrome frequency

Departure Procedure (Common Points – LOWZ/LOIJ)

- Guidance for pilots departing from LOWZ/LOIJ with a “Z”-flight plan using the published departure procedure (PART 2)
  - The PIC will automatically join IFR upon passing the IFR starting point on the SID at or before the clearance expiry time (Note: Observe the altitude restrictions on the respective charts)
  - The PIC shall contact INNSBRUCK RADAR on FREQ 128.975 MHz (unless another FREQ has been advised in the received IFR clearance) as an “IFR initial contact” latest passing 7000 FT AMSL
    - Example: INNSBRUCK RADAR (call sign) (passing altitude) climbing (cleared altitude) via SID (SID designator)
  - The flight will be identified and further clearance will be issued by INNSBRUCK RADAR

Departure Procedure (Common Points – LOWZ/LOIJ)

- Guidance for pilots departing from LOWZ/LOIJ with a “Z”-flight plan using the published departure procedure (Special Communication Failure Procedure – Part 1)
  - If the PIC is completely unable to establish radio contact with INNSBRUCK RADAR after departure the transponder shall be set to Code:

A 7600

  - The flight shall follow the special communication failure procedure as described on the next slide

Departure Procedure (Common Points – LOWZ/LOIJ)

Guidance for pilots departing from LOWZ/LOIJ with a “Z”-flight plan using the published departure procedure (Special Communication Failure Procedure – Part 2)

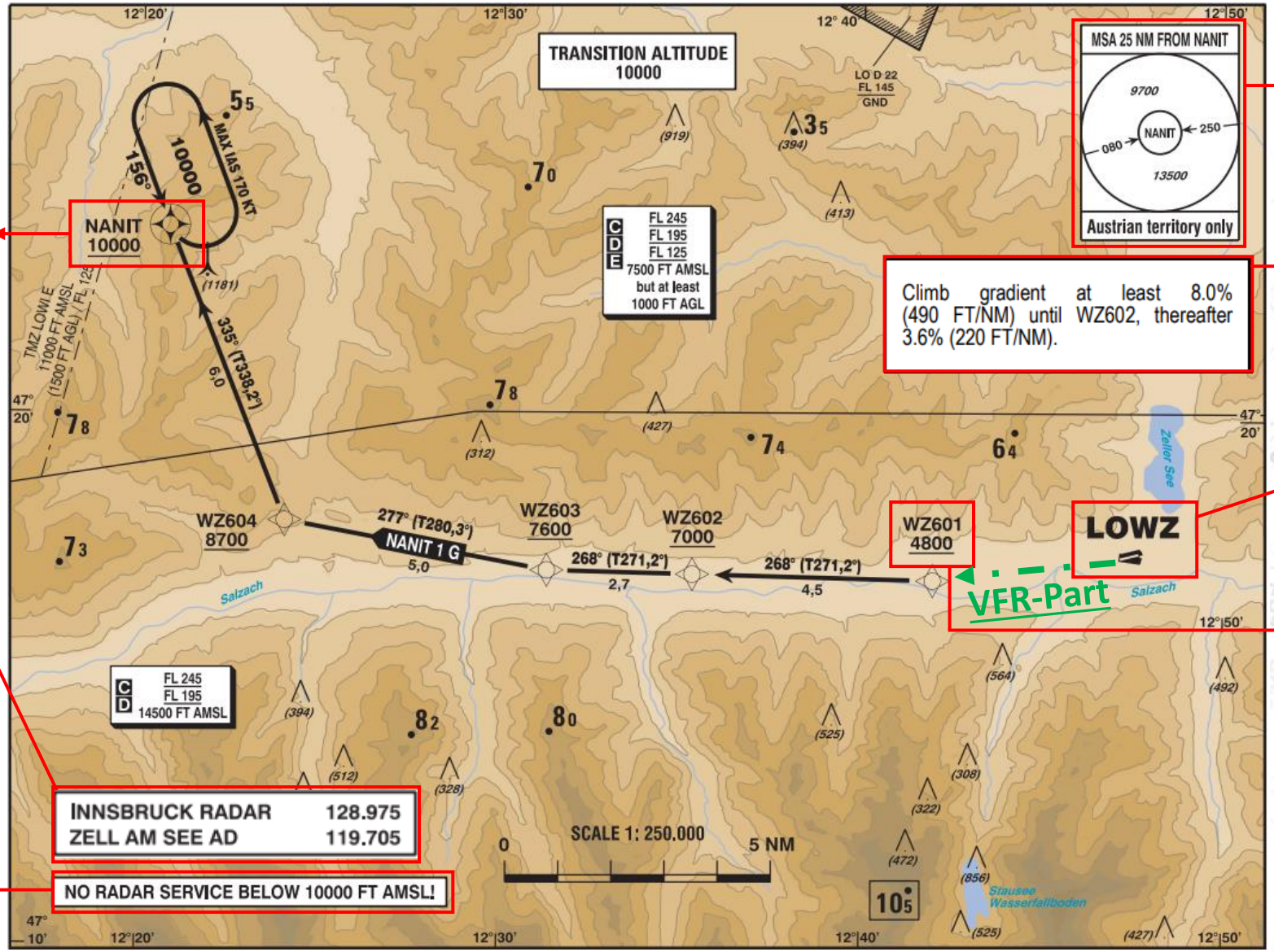
Operation in VMC	Operation in IMC
(1) Maintain VMC	(1) Join NANIT/ERKIR HLDG at the cleared altitude or minimum HLDG altitude if higher
(2) Land at the nearest suitable uncontrolled aerodrome as a VFR flight	(2) If situation allows descent in the NANIT holding to 10000 FT AMSL or in the ERKIR holding to 9000 FT AMSL - if cleared altitude was higher - and after two holdings complete the RNP approach to return to the departure aerodrome (LOWZ/LOIJ)
(3) Report the arrival time by the most expeditious means to the appropriate ATS-unit	(3) If unable to return to the departure aerodrome enter NANIT/ERKIR holding and climb to the minimum flight altitude, if the minimum flight altitude is higher than the last assigned level – After two holdings and minimum flight altitude is reached continue according standard communications failure procedure
Note: If unable or unwilling to continue in VMC the PIC shall comply with the procedure „Operation in IMC“ as described in the right column of this table	

Departure Procedure (NANIT1G SID – LOWZ)

SID terminates at NANIT – If NANIT is the clearance limit and no further clearance is received the PIC shall enter the HLDG (see also Special Communication Failure Procedure)

Contact LOWI RADAR (128.975 MHz) latest passing 7000 FT AMSL

No Radar Service below 10.000 FT AMSL – ATC is unable to provide (navigational) assistance



CAUTION:
Mountainous Area and high MSA around NANIT – **Deviation from the SID (vertical/lateral)** in IMC **may lead to CFIT** (!)

AD LOWZ is uncontrolled – No AFIS or ATC provided

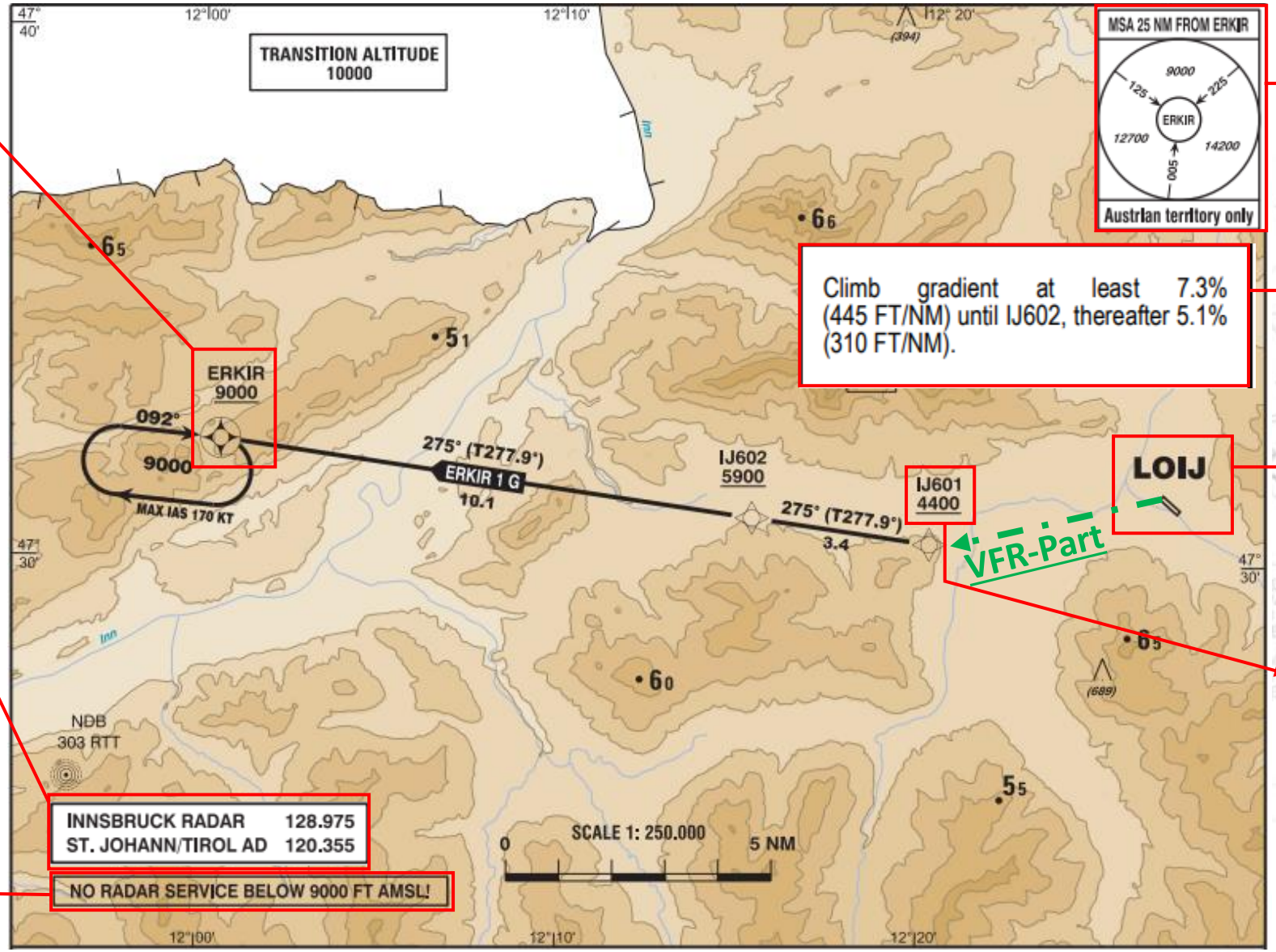
IFR starts passing WZ601 and 4800 FT AMSL when the aircraft is established on the SID (WZ601 to WZ602)

Departure Procedure (ERKIR1G SID – LOIJ)

SID terminates at ERKIR – If ERKIR is the clearance limit and no further clearance is received the PIC shall enter the HLDG (see also Special Communication Failure Procedure)

Contact LOWI RADAR (128.975 MHz) latest passing 7000 FT AMSL

No Radar Service below 9000 FT AMSL – ATC is unable to provide (navigational) assistance



CAUTION:
Mountainous Area and high MSA around ERKIR – **Deviation from the SID (vertical/lateral)** in IMC **may lead to CFIT** (!)

AD LOIJ is uncontrolled – No AFIS or ATC provided

IFR starts passing IJ601 and 4400 FT AMSL when the aircraft is established on the SID (IJ601 to IJ602)

Arrival Procedure (Common Points – LOWZ/LOIJ)

- Planning phase for the RNP-A procedure
  - The PIC shall ensure that a “Y”-flight plan(*) is filed to LOWZ or LOIJ
  - In the “Y”-flight plan the PIC shall file in item 15 of the flight plan ERKIR (for LOIJ) or NANIT (for LOWZ) as the last (IFR) waypoint in the flight plan
  - In item 18 of the “Y”-flight plan the PIC shall indicate the following:
    - For LOIJ: RMK/ERKIR DCT IJ801 DCT IJ802 DCT IJ803 VFR
    - For LOWZ: RMK/NANIT DCT WZ801 DCT WZ802 DCT WZ803 VFR

(*) If an aircraft intends to use the approach procedure but has submitted a Z flight plan due to the fact that the aircraft departed VFR and joined IFR in-flight the same procedures as described for a Y flight plan in this briefing shall apply.

Arrival Procedure (Common Points – LOWZ/LOIJ)

- Intention by the pilot and clearance by ATC to fly the RNP-A procedure
  - The PIC shall advise ATC (INNSBRUCK RADAR) as soon as possible that the RNP-A approach to LOWZ or LOIJ is requested
  - This allows ATC to pre-plan and sequence traffic accordingly
  - The procedure may only be flown (under IFR) subject to an ATC clearance (Note: A simulated approach under VFR in VMC is not subject to an ATC clearance as long as the flight remains in airspace class E and G)
    - Note: The clearance limit is always the NANIT HLDG (for flights to LOWZ) and the ERKIR HLDG (for flights to LOIJ) – If no further approach clearance is received prior to reaching the NANIT or ERKIR HLDG (as applicable) the flight shall enter the published HLDG

Arrival Procedure (Common Points – LOWZ/LOIJ)

- Issuing the approach clearance
  - The clearance is issued by INNSBRUCK RADAR depending on the traffic situation
  - PICs shall remain on the ATC FREQ until leaving controlled airspace (SERA.8035 (a))
  - After passing NANIT/ERKIR radar service will be terminated by INNSBRUCK RADAR and the PIC is now in any case responsible to resume own navigation along the published IAP
  - The PIC is encouraged to announce the aircraft position on the respective aerodrome frequency

Arrival Procedure (Common Points – LOWZ/LOIJ)

- Reaching the MAPt and cancelling the IFR flight

  - Since landing at LOWZ or LOIJ is not permitted as an IFR flight the PIC shall cancel the IFR flight latest at the MAPt in order to continue as a VFR flight

  - IFR cancellation is mandatory by using the

IFR Cancelation Procedure according to flight plan (“Y”-flight plan)

(see description on the following slides)

Note: Alternatively, IFR may be cancelled at any time by the PIC by stating: “CANCELLING MY IFR FLIGHT” according to SERA.5015 (c) (3) – However a lack of radio coverage may only allow the PIC to cancel IFR verbally before starting the approach (see description on the following slides)

Arrival Procedure (Common Points – LOWZ/LOIJ)

IFR Cancelation Procedure according to “Y”-flight plan (PART 1)

- The flight will automatically become VFR if the aircraft passes over the last point (for LOIJ: MAPt IJ803 and for LOWZ: MAPt WZ803) in the “Y”-flight plan (as indicated in item 18)
- An additional verbal IFR cancellation according to SERA.5015 (c) (3) is not required and in the later stage of the approach also impossible due to radio coverage
- The flight shall continue according to the VFR procedures

Note: It is important to note that the IFR cancellation according to flight plan is only possible if the flight physically passes over the last point in the flight plan as indicated in item 18 – Deviation from the procedure is therefore not possible without cancelling the IFR flight with ATC on the frequency.

Arrival Procedure (Common Points – LOWZ/LOIJ)

IFR Cancelation Procedure according to “Y”-flight plan (PART 2)

- If it is not possible, to file the routing remark in item 18 of the flight plan (see slide 22 of this briefing) prior departure, the PIC may request to change the flight plan in flight with ATC (SERA.8020 (c)).

- If the flight plan change is acknowledged and accepted by ATC the procedure of an automatic IFR cancellation – as described on the slide before – according to “Y”-flight plan is possible.

Note: Due to traffic and ATC workload a request for a flight plan change might be declined.

Arrival Procedure (Common Points – LOWZ/LOIJ)

IFR Cancellation according to SERA.5015 (c) (3)

- If a “Y”-flight plan incl. the remarks in item 18 has not been filed (see slide 22 of this briefing) and/or ATC is unable to accept the requested flight plan change (see slide 27 of this briefing) the IFR flight shall be cancelled at or before the MAPt by stating: “CANCELLING MY IFR FLIGHT” on the last assigned ATC frequency. (SERA.5015 (c) (3))

- ATC will in this case acknowledge the IFR cancellation and provide the PIC with the time of the IFR cancellation.

! ***CAUTION:*** ***Due to insufficient radio coverage PIC is not able to transmit the required IFR cancellation in the later stage of the approach (especially close to the MAPt)***

In this case the flight shall perform the published missed approach procedure, inform ATC immediately and shall not continue VFR even if VMC is reached. !

Note: The PIC may cancel IFR according to SERA.5015 (c) (3) at any time even if an IFR cancelation procedure according to flight plan was originally intended.

Arrival Procedure (Common Points – LOWZ/LOIJ)

Closing the flight plan

- It is important to note that the flight plan shall be closed after landing by the PIC in order to not only avoid unnecessary search and rescue operations but also to allow ATC to clear another aircraft to use the departure or arrival procedure into LOWZ or LOIJ since both procedures are inter-dependent.

- The flight plan shall be closed by the PIC after landing by submitting an arrival report to AIS/ARO Wien for example via telephone:

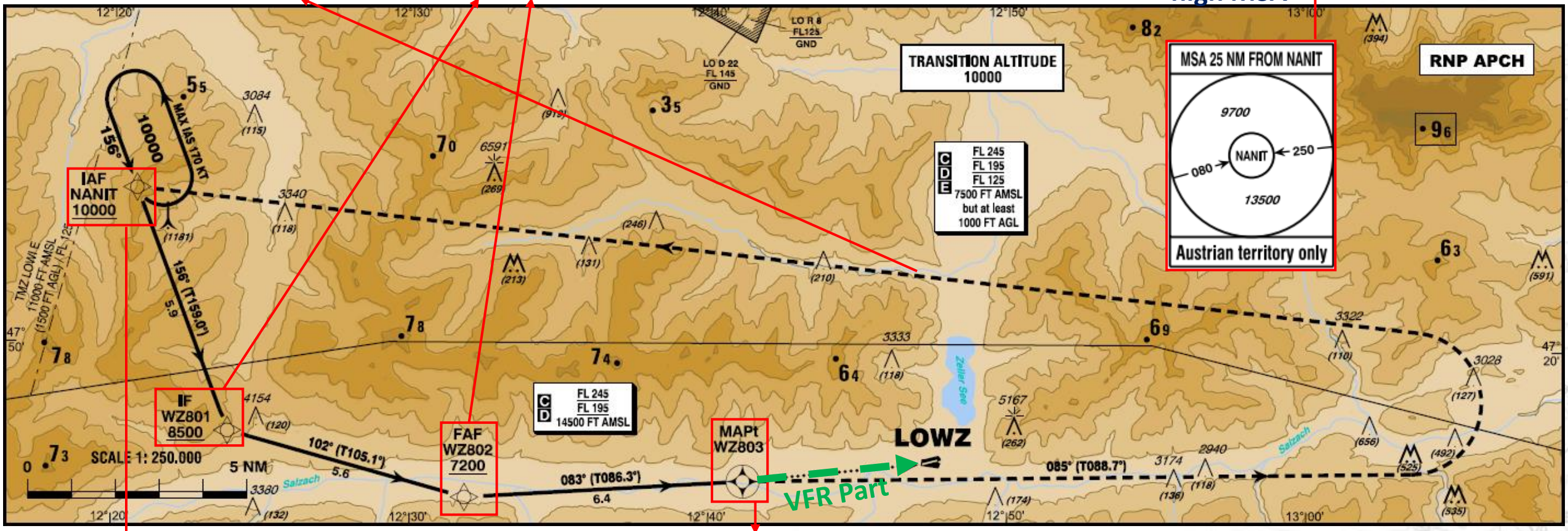
+43 (0)5 1703 / 3211

Arrival Procedure (RNP-A – LOWZ)

PIC shall be familiar with the missed approach

Observe the fix altitudes at the IF and FAF – Deviation from the procedure is not permitted without verbal IFR CNL

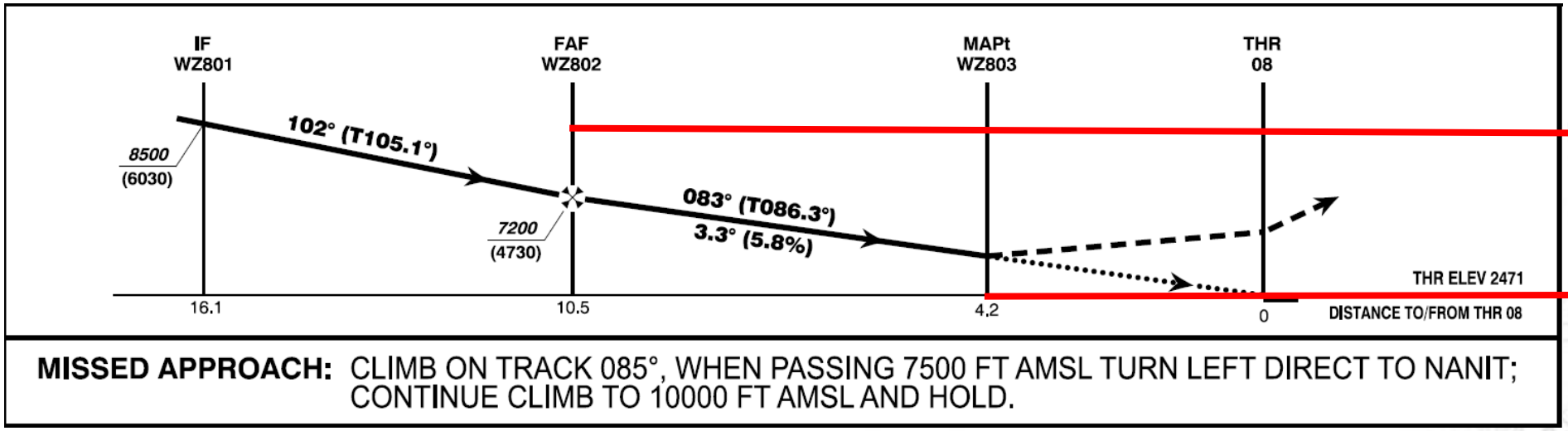
CAUTION:
Mountainous Area and high MSA



The clearance limit is the **NANIT HLDG** – Do not proceed past the clearance limit without ATC clearance

IFR status ends according to the remark in item 18 of the flight plan unless a missed approach is executed

Arrival Procedure (RNP-A – LOWZ)



Any vertical guidance after the Final Approach Fix (FAF) is advisory only and in some avionics may not be displayed at all.

PIC shall continue VFR or perform missed approach

MDA (MDH) IN FT	MA Climb Gradient	A	B	QNH LOWI required
LNAV	2.5%	5630 (3160)		
	5.0%	5140 (2670)		
	7.0%	4970 (2500)		

PIC shall ensure that the correct QNH of LOWI is set

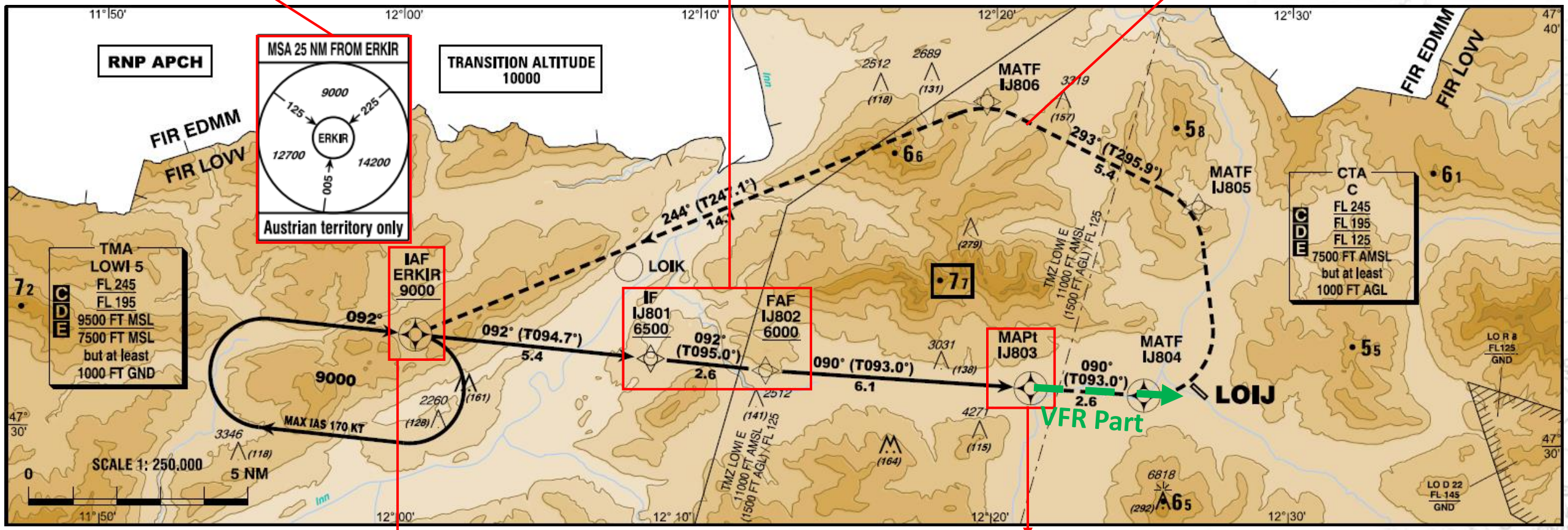
PIC shall check the MA climb gradient before the approach and select the minimum appropriately – *Note: If in doubt always use the higher minimum to ensure terrain clearance in case of a missed approach*

Arrival Procedure (RNP-A – LOIJ)

CAUTION:
Mountainous Area and high MSA

Observe the fix altitudes at the IF and FAF – Deviation from the procedure is not permitted without verbal IFR CNL

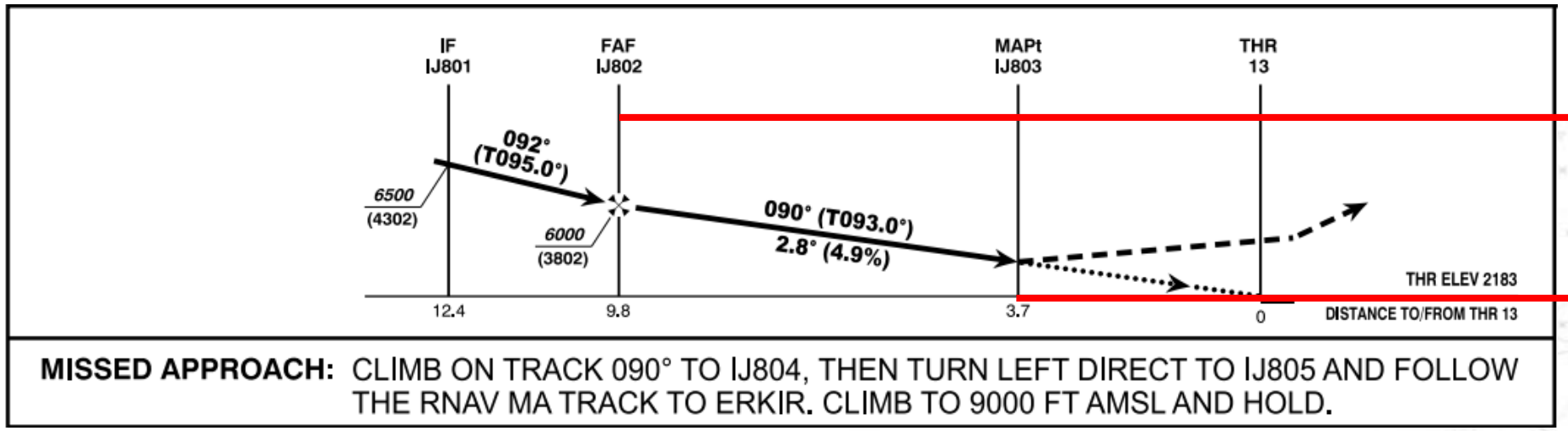
PIC shall be familiar with the missed approach



The clearance limit is the **ERKIR HLDG** – Do not proceed past the clearance limit without ATC clearance

IFR status ends according to the remark in item 18 of the flight plan unless a missed approach is executed

Arrival Procedure (RNP-A – LOIJ)



MISSED APPROACH: CLIMB ON TRACK 090° TO IJ804, THEN TURN LEFT DIRECT TO IJ805 AND FOLLOW THE RNAV MA TRACK TO ERKIR. CLIMB TO 9000 FT AMSL AND HOLD.

Any vertical guidance after the Final Approach Fix (FAF) is advisory only and in some avionics may not be displayed at all.

PIC shall continue VFR or perform missed approach

MDA (MDH) IN FT	MA Climb Gradient	A	B	QNH LOWI required
LNAV	2.5%	5460 (3270)		
	5.0%	4620 (2430)		
	7.0%	4180 (1990)		

PIC shall ensure that the correct QNH of LOWI is set

PIC shall check the MA climb gradient before the approach and select the minimum appropriately – *Note: If in doubt always use the higher minimum to ensure terrain clearance in case of a missed approach*

Documents to be carried in the aircraft

- PICs shall – in addition to the other legally required documents – carry a (digital) copy of this briefing in the aircraft at all times when conducting the IFR procedures described in this briefing.

- This mandatory briefing is part of the pilot's responsibility for a flight preparation in accordance with the relevant operating procedures (e.g. NCO.OP.135, NCC.OP.145, …) and part of the required documents for a safe flight (e.g. NCO.GEN.135, NCC.GEN.140, …)

- The copy of this briefing carried in the aircraft shall be presented to officials of Austro Control GmbH on request.

Q&A

In case there are any question regarding the procedures or the briefing please contact:

ifr.ga@austrocontrol.at