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Terminal Charts For LHBP

Revision Letter For Cycle 01-2014

Change Notices

Notebook

General Information

Location: Budapest Hun
IATA Code: BUD
Lat/Long: N47° 26.4' E019° 15.7'
Elevation: 496 ft

Airport Use: Public
Magnetic Variation: 4.2°E

Fuel Types: 100 Octane (LL), Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 0630 Z
Sunset: 1507 Z,

Runway Information

Runway: 13L
Length x Width: 12162 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 496 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 13R
Length x Width: 9875 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 448 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 31L
Length x Width: 9875 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 448 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 31R
Length x Width: 12162 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 416 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

- ATIS 132.375
- ATIS 117.3
- Budapest Ground Tower 121.9
- Budapest Delivery Tower 134.55
- Budapest Tower 118.1
- Budapest Approach Control 129.7
- Budapest Approach Control 122.975
- Budapest Approach Control 119.5

1. GENERAL

1.1. ATIS

ATIS 132.37 117.3

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. GENERAL

The aim of noise abatement procedures is to mitigate the impacts of the noise generated by ACFT at the APT and on the residential areas affected by landing and take-off procedures.

The selection of the RWY to be used is performed by ATC.

ACFT operators unable to comply with these regulations and procedures are obliged to report this to the National Transport Authority Aviation Authority (NTA AA).

1.2.2. RWY USE

Daytime (0600-2200LT):

RWY direction 31:

In case of all traffic arriving to Terminal 2 and ICAO Code E traffic arriving to Terminal 1, RWY 31R, and, in case of ICAO Code A-D traffic arriving to Terminal 1, RWY 31L is to be used, but if traffic conditions require, RWY 31R can also be used for landings. In case of departing traffic, RWY 31L is to be used for take-off.

RWY direction 13:

In case of arriving traffic, RWY 13R, and 13L with the restrictions defined in this chapter are to be used for landings. In case of traffic departing from Terminal 2 and ICAO Code E traffic departing from Terminal 1, RWY 13L, and, in case of ICAO Code A-D traffic departing from Terminal 1, RWY 13R is to be used, but if traffic conditions require, RWY 13L is to be used for take-off.

Nighttime (2200-0600LT)-Operational regulations which differ from daytime:

Primarily RWY 31R and also RWY 13R are to be used by arriving traffic in compliance with the prevailing legal provisions. If traffic conditions require, RWY 31L may also be used for landings.

Between 0000-0500LT, RWY 13L is to be used for take-offs and RWY 31R is to be used for landings. In case of RWY 13L/31R is closed in this period RWY 13R is to be used for takeoffs and RWY 31L is to be used for landings.

Restrictions on landings on RWY 13L:

RWY 13L may only be used for landings on working days between 0800-2200LT by ACFT which comply at least with ICAO Annex 16 Vol. I, Section 3, and not exceeding a take-off weight of 100t, if traffic conditions require.

Exceptions:

Deviation from the basic rules on RWY use is only possible under the following circumstances:

- During the closure one of the two RWYs due to maintenance works, or another unexpected event;
- In case of calibration flights;
- If noise abatement considerations cannot be taken into account during the selection of the RWY to be used, based on section 7.2 of appendix 2 of decree no. 16/2000. (XI.22.) of the Minister of Transport and Water Affairs;
- If the captain cites safety reasons;
- If the ACFT is in an emergency;
- If no ILS approach is available on the RWY selected.

1.2.3. NIGHTTIME RESTRICTION (2200-0600LT)

Scheduled and non-scheduled commercial traffic may only be performed subject to restrictions.

ACFT performing patient transportation, disaster aversion, technical rescue, enforcement, criminal investigation, national security, military or government flights and those in an emergency may use the APT without restriction.

1. GENERAL

1.2.4. REVERSE THRUST

During nighttime between 2200-0600LT the use of reverse thrust must be limited to idle thrust, except for operational circumstances.

1.2.5. RUN-UP TESTS

1.2.5.1. General

Engine testing is prohibited on the terminal aprons, except for the case described in paragraph 1.2.5.2. If necessary, the air tightness checks of ACFT systems may be performed on stands R115 and R117 on Apron 1 and on stands R278 and R279 on Apron 2 at idle thrust for a maximum duration of 5min, based on the permission received from the competent Apron Management unit.

Engine testing may only be permitted and performed at the location constructed or designated for this purpose, with the exception of the case described in paragraph 1.2.5.2.

Permission for actual engine start-up must be requested from the unit of the competent department responsible for traffic management, by radio, and the completion of engine testing shall also be reported to the same unit.

1.2.5.2. Test sites and Authorization

Available by the competent Apron unit:

- The engine test site is available for prop or turboprop ACFT.
- The helicopter tie-down position next to the engine test site.

Available by BUDAPEST Ground:

- B5 holding bay. ACFT must be positioned parallel to the axis of TWY B5, so that at least ICAO Code D ACFT can taxi by on the marked taxi lane without restriction, and there should be at least 50m of load-bearing pavement behind the engine outtakes.
- TWY A9.

Engine testing at idle can be performed any time of day, a ground technician must be present.

The respective authorization unit must be informed of start-ups and shut-downs. Continuous Radio contact must be maintained.

ACFT may only access and leave the designated areas under tow.

Between 0800-1800LT, the areas designated for engine testing may be used without restriction on engine power. Between 1800-0800LT, with the exception of the case specified in paragraph 1.2.5.3., engines may only be operated at idle power, in accordance in paragraph 1.2.5.3.

1.2.5.3. Engine start-up for technical reasons, on idle power:

- May be performed without restriction in the areas designated for engine testing. A maximum of one engine may be operated concurrently on terminal aprons for 5 min on marked ACFT stands, but on terminal aprons, on contact stands equipped with air jetties (31-34 and 42-45) and on the stands marked on Apron AG, AA and AL, engine start-up for technical reasons is prohibited. On technical apron sections Apron AG, AA and AL, only one engine may operated for 5 min on marked taxi lanes, with the nose of the ACFT towards the neighboring apron section.
- Engine start-ups are authorized by the competent Apron Management unit. Engine start-up at idle power may be performed regardless of the time of day. A ground technician must be present during the operation of the engine. BUDAPEST Ground and the Apron unit must be informed of engine start-ups and shut-downs. Continuous radio contact must be maintained with the Apron Management during operation.

1. GENERAL

- Engine start-up for technical reasons, at a power level higher than idle power may be performed in the engine testing areas described above between 0800-1800LT. The duty airside manager authorizes the starting of the engine(s). The official managing engine testing is obliged to check full compliance with fire protection and labor safety regulations, and to report any fires immediately to the service competent in given area. A ground technician must be present during the operation of the engine(s). More than one engine may be operated concurrently. The competent service and the Duty Airside Management (DAM) must be informed of engine start-ups and shut-downs. Continuous radio contact must be maintained with the competent service during operation.
- The duty airside manager may only authorize engine testing at a power level higher than idle power in areas not equipped with adequate acoustic protection between 0800-18:00LT. If engine testing at a power level higher than idle power is necessary between 1800-0800LT, a separate prior written permit must be obtained from the National Transport Authority Aviation Authority (NTA AA) (by letter, email or fax). Requests for the same day 1800-2200LT and for the next morning 0600-0800LT must be submitted to the NTAA by 1000LT by letter, e-mail or fax. This permit or a copy of it shall be sent to the AOCC prior to engine testing. The engine testing performed in accordance with the authority permit is supervised and checked by the duty airside manager.
- The operator or its agent is obliged to clean up any pollution generated during engine testing. If unable to do so, the operator is to report this to the AOCC, which will provide for the cleaning at the operator's cost.
- Budapest APT may charge a usage fee for engine tests performed at the engine test area, the B5 holding bay and on TWY A9.

1.2.6. AUXILIARY POWER UNIT (APU) (2200-0600LT)

- The APUs must be stopped as soon as possible after arrival on the stand.
- APUs may only be restarted for essential technical checks, or immediately prior to planned departure.
- The operation of APUs is not permitted without the presence of trained specialist staff.
- Deviation from these regulations is only possible:
 - Due to safety reasons, or
 - Upon warranted requests, with permission from the duty airside manager (DAM).

1.3. LOW VISIBILITY PROCEDURES

1.3.1. OPERATION PHASE 1

When any RVR is 600m or less and/or cloudbase is 200' or below, ATC will ensure that the ILS protection area is clear of known traffic before landing ACFT reaches 2NM distance from touchdown zone.

ACFT will be advised of these procedures in ATIS broadcast with following expression:

"Attention! Low visibility procedures phase one are in force."

1.3.2. OPERATION PHASE 2:

When any of the RVRs is less than 400m the ATC is responsible for preventing collision between ACFT and other traffic on TWYs and at intersections on the manoeuvring area.

ACFT will be advised of these procedures in ATIS broadcast with following expression:

"Attention! Low visibility procedures phase two are in force."

During the approach pilots will be informed of:

- failure and/or downgrading of aids or facilities;
- significant changes in surface wind;
- changes in RVR.

1. GENERAL

1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.4.1. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON THE GROUND

ACFT operators shall ensure that Mode S transponders are able to operate when the ACFT is on the ground.

Pilots shall select AUTO mode and assigned Mode A code.

If AUTO mode is not available, select ON (e.g. XPDR) and assigned Mode A code

- from the request for push-back or taxi, whichever is earlier,
- after landing, continuously until the ACFT is fully parked on stand,
- when fully parked on stand, select STBY.

Whenever the ACFT is capable of reporting ACFT ident (i.e. callsign used in flight), the ACFT ident should also be entered from the request for push-back or taxi, whichever is earlier (through the FMS or the transponder control panel).

Flight crew shall use ACFT ident format as defined by ICAO (e.g. MAH602, SAS589, BAW869).

To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised

- if ACFT departs TCAS should not be selected before receiving the clearance to line-up,
- if ACFT arrives TCAS should then be deselected after vacating the RWY.

For ACFT taxiing without flight plan, Mode A code 2000 shall be selected.

1.5. TAXI PROCEDURES

Crossing active RWY 13R/31L is permitted on specific clearance only. In the absence of a specific clearance to cross the active RWY ahead ACFT shall not proceed beyond the relevant taxi holding point. They are designated as follows: A1, A2, A9, B1, B2, B5, C, D, K and X.

On Apron AG taxiing is allowed with Marshaller only.

On Apron AA and AL taxiing is not allowed, only towing between stand and break away point.

The maximum taxi speed on the aprons shall not exceed 16KT.

Traffic on the manoeuvring area will be monitored by ATC (ASMGCS).

Taxiing ACFT have to maintain continuous radio contact with BUDAPEST Ground or Tower while taxiing on the area.

1.6. PARKING INFORMATION

Stands 31 thru 34, 39 and 42 thru 45 equipped with SAFEGATE docking system.

On stands 1 thru 6, 31 thru 39, 42 thru 45, 107 thru 109, R110 thru R117, R220 thru R227 and R270 thru R279 push-back required.

Due to distance of the aviobridge the following ACFT types have to shut down the engines on the port side (left) just after turning into the centerline of the stands 31 and 42 thru 45, (Boeing B737-500, B737-600, Airbus A319).

1.7. OTHER INFORMATION

Birds.

2. ARRIVAL

2.1. SPEED RESTRICTIONS

MAX 160 KT within 4 NM from RWY THR.

Pilots who are unable to comply with this speed assignment, shall inform ATC accordingly.

2.2. NOISE ABATEMENT PROCEDURES

- It is prohibited to perform an approach below the glide path of the PAPI or in the given approach procedure.
- Prior to final approach, the last reported altitude must be maintained as long as possible.
- The reduction of the speed of the ACFT and the release of the landing gear and of high lift devices must be planned so that the conditions of stabilized approach and the appropriate approach speed should be in place by 5 NM from the touchdown point.
- Descent during final approach should be controlled so that increases to engine power can be avoided as much as possible.

2.3. CAT II/III OPERATIONS

RWY 31R approved for CAT II/III and RWYs 13L, 13R & 31L approved for CAT II operations, special aircrew and ACFT certification required.

2.4. TAXI PROCEDURES

2.4.1. GENERAL

ATC expects arriving ACFT to vacate the RWY via rapid exit TWY. If ACFT is not able to comply, immediately notify Tower.

After vacating the RWY, pilots shall immediately contact BUDAPEST Ground for detailed taxi instructions.

Restrictions affecting the use of rapid exit TWYs J4, Y and Z will be given by Tower with landing clearance.

For Taxi Routings refer to 10-9 charts.

2. ARRIVAL**2.4.2. ARRIVAL INFO**

List of available taxi clearances issued by ATC and Apron Unit:

ARR on RWY	Exit points	Taxi route on the manoeuvring area (TWY segments) to be followed	Stand/Gate numbers	Taxi route on apron (taxilane or TWY segments) to be followed	TML	Remarks
13R	A1	A1	1-27	G	1	Code D & E ACFT: B1 exit only
	B1	B1	107-109 R110-R117			
	U	A2-A3-U or (J4)-B2-T-A3-U	31-36	U	2	Available up to Code C ACFT
			R220-R223	U-W2		
	T7N	A2-A3-A4-T7N or (J4)-B2-T-A3-A4-T7N	42 R210-R212	T7N-H1		Available up to Code C ACFT
			R224-R227	T7N-W1		
	P1	A2-A3-A4-P1 or (J4)-B2-B3-M-P1	R270-R279*	P1-P2-P3		Available up to Code C ACFT. *Code D & E ACFT: Only P4
			43-45	P1-Q-S		
31R	L	Y-A7-L or Z-L or K-A6-L	31-34*-36	L-P2-W1-W2-U	2	U (+); *Code D & E ACFT: Exit via U
			37-39 42-43 R210-R212	L-R-H1		P4 (+); *Code D & E ACFT: Enter P4 only
			R220-R223	L-P2-W1-W2		
			R224-R227	L-P2-W1		
			R270-R279*	L-P3		
			44, 45	L-R-S		
31L	B1	B1	1-27 R110-R117 107-109	G	1	Code E ACFT: Restriction
	C	C				
	D	D				
	M10	B1-A1 or D/C-A1	G130-G141	G/Apron taxilane		Available up to Code B ACFT

(+) after coordination

2. ARRIVAL

2.5. OTHER INFORMATION

2.5.1. COMMUNICATION FAILURE PROCEDURES

- During a "Transition to final approach", procedure shall continue the acknowledged procedure and also the profile of that procedure up to the final APCH waypoint, then complete the final approach for the RWY in use.
- Prior entering Budapest TMA or under radar vectoring in Budapest TMA shall proceed to TPS VOR/DME and follow the standard instrument approach procedure for the RWY in use.

3. DEPARTURE

3.1. START-UP, PUSH-BACK & TAXI PROCEDURES

3.1.1. GENERAL

Request start-up and push-back/power-back clearance from BUDAPEST Ground stating stand number and receipt of ATIS information by reading back QNH.

In case of multi-engine ACFT separate clearance to start-up should be requested for each engine from the ground staff. In case of no ground-cockpit connection, advise BUDAPEST Ground to provide Marshaller assistance to control the procedure.

Power-back procedure shall be performed by visual signals of Marshaller.

ACFT making start-up, push-back or power-back procedure should be ready for taxi within 4 min after off-block time.

At stands 31, 32 and 44 engine start-up during push-back is allowed on idle power only.

At stand 45 engine start-up during push-back procedure is not allowed (silent push-back). It is allowed at the break away point only.

At stands R220 thru R227 start-up engines and taxi-out could be performed with power-back procedure for the prop and turboprop ACFT, if the MTOW is not more than 30,000 kg. The power-back procedure is not applicable when the Low Visibility Procedures are in operation or the published breaking action is at or less than medium-to-poor.

When engine start-up or power-back procedure is completed, request taxi clearance from BUDAPEST Ground and indicate receipt of clearance to the ground staff. The disconnected ground staff will give approval to commence taxiing.

At the stand taxi clearance will be given by BUDAPEST Ground to the designated holding point at the RWY.

For Taxi Routings refer to 10-9 charts.

3. DEPARTURE**3.1.2. DEPARTURE INFO**

List of available taxi clearances issued by ATC and Apron Unit:

DEP from RWY	From stands/ gates	Exit points	Taxi route on apron (taxi-lane or TWY segments) to be followed	Holding points	Taxi route on the manoeuvring area (TWY segments) to be followed	TML	Remarks	
13L	31-36	L	U-W2-W1-P2-L	K or B5 O/R	L-A6-K or L-A6-N-B5	2	U (+); Code D & E ACFT: Exit via U	
	37-39 42, 43		H1-R-L					
	R210-R212 R224-R227		W1-P2-L				P1 (+)	
	R220-R223		W2-W1-P2-L				T7N (+)	
	44-45		S-R-L				P1 (+)	
	R270-R277	P4	P3-P4		P4-A7-A6-K or P4-A7-A6-N-B5		L (+)	
	R278-R279		V-P4					
13R	1-27 R110-R117 107-109	C or D	G	C or D	C or D	1		
	G130-G141	M10/C	Apron taxilane/G	C	C		Follow instructions	
		M10/D		D	D			
31L	31-36	U	U	A2	U-A3-A2	2		
	R220-R223		W2-U					
	37-39*	T7N	T7N		T7N-A4-A3-A2		*Code D ACFT: via P1 only	
	42-43*		H1-T7N					
	R210-R212 R224-R227		W1-T7N					
	44-45	P1	S-Q-P1		P1-A4-A3-A2			
	R270-R277	P4	P3-P4		P4-A7-A6-A5- A4-A3-A2		P1 (+)	
	R278-R279		V-P4					
	1-27 107-109 R110-R117	A1	G-A1	A1	A1	1	Code D & E ACFT: via B1 only	
	G130-G141	M10	Apron taxilane	A1 or B1 O/R	A1 or B1			

(+) after coordination

3. DEPARTURE

3.2. NOISE ABATEMENT PROCEDURES

- Noise abatement departure routes have been designed for ACFT departing from RWY31L and 31R. These departure routes have to be followed by "heavy" and "medium" turbulence category ACFT and "light" category Jet ACFT.
- ACFT should not be diverted from assigned route unless for safety reasons.
- Pilots are invited to execute a rolling take-off whenever possible and to avoid the significant increase of engine power, while standing in the line-up position.
- In case of departure from RWY 13L, pilots are requested by the APT operator to plan take-off from TWY K, if possible.
- If a departing ACFT belonging in the "medium" or "heavy" turbulence category receives RWY 31R for take-off, it must commence take-off from the end of the RWY, using TWY A9, but if traffic conditions require, take-off may also be permitted by using TWY X.
- Due to safety reasons or in case of unfavorable meteorological conditions, ATC may apply a special departure procedure which differs from the SID.

3.3. OTHER INFORMATION

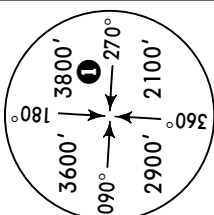
3.3.1. COMMUNICATION FAILURE PROCEDURES

If departing ACFT has acknowledged an initial or intermediate clearance to climb to a level other than those specified in the filed FPL for the en route phase of the flight and no time or geographical limit was included in the clearance, should maintain for a period of 7min the level to which it was cleared and then should climb to the level included in the filed FPL unless the cruising level was definitely specified in the enroute clearance.

ATIS
117.3
132.37

Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.



MSA
TPS VOR

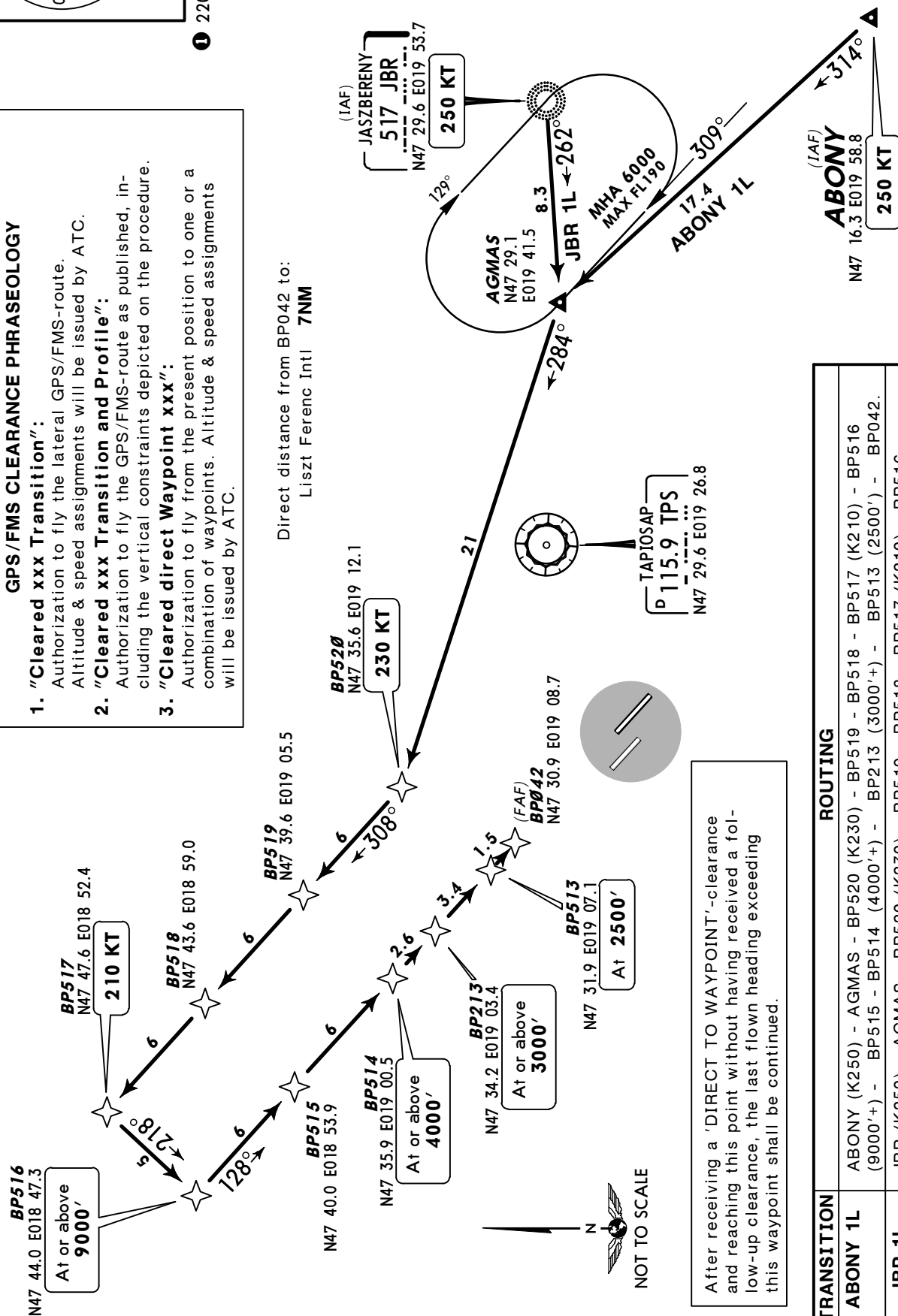
① 2200' within 15 NM

ABONY 1L [ABON1L], JBR 1L RWY 13L RNAV TRANSITIONS GPS/FMS-EQUIPPED AIRCRAFT

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

Direct distance from BP042 to:
Liszt Ferenc Intl 7NM



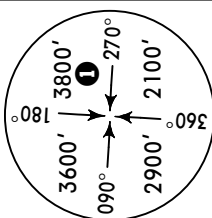
After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

ROUTING	
TRANSITION	
ABONY 1L	ABONY (K250) - AGMAS - BP520 (K230) - BP519 - BP518 - BP517 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500'+) - BP042.
JBR 1L	JBR (K250) - AGMAS - BP520 (K230) - BP519 - BP518 - BP517 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500'+) - BP042.

ATIS
117.3
132.37

Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.



MSA
TPS VOR

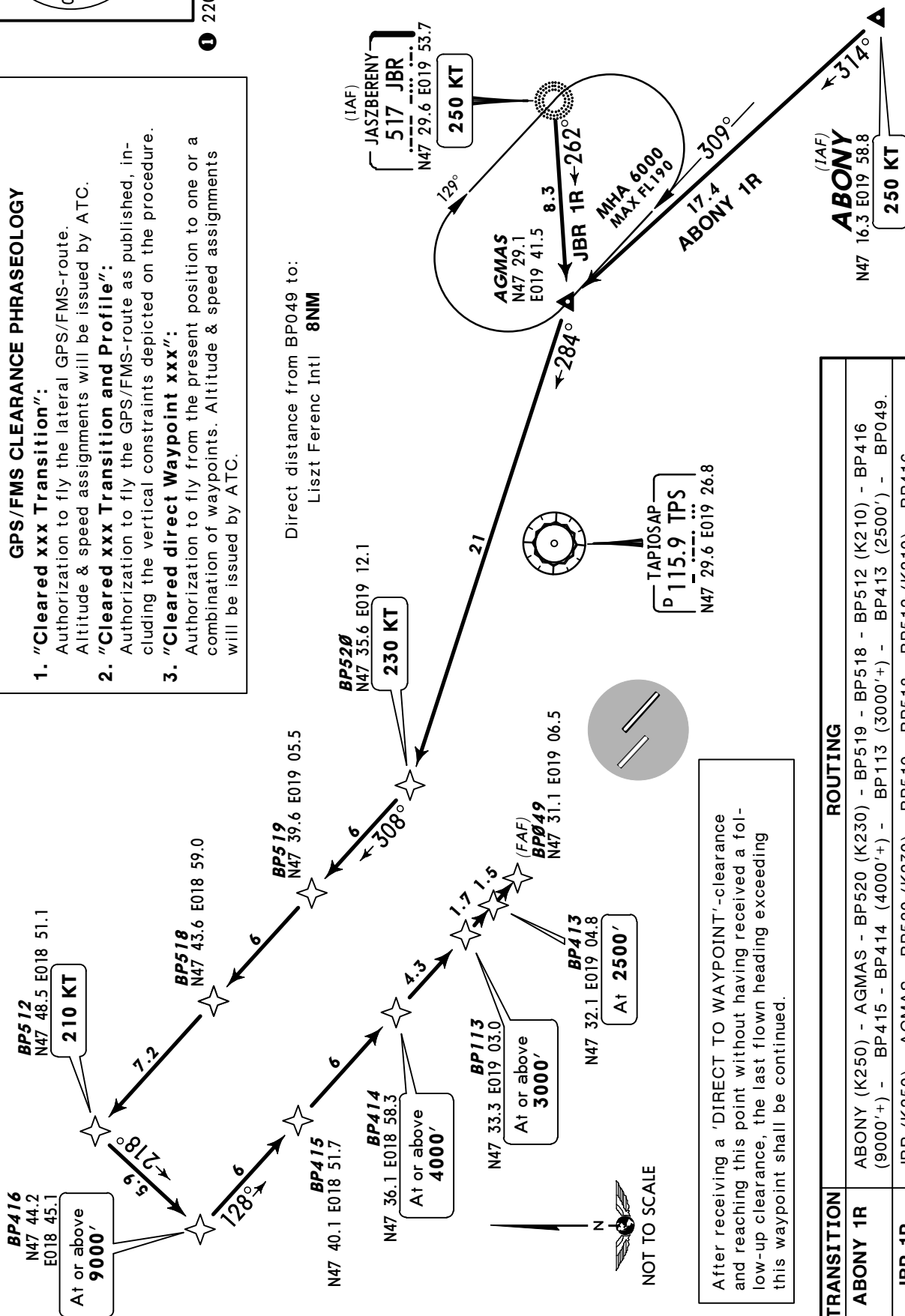
2200' within 15 NM

ABONY 1R [ABON1R], JBR 1R RWY 13R RNAV TRANSITIONS GPS/FMS-EQUIPPED AIRCRAFT

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

Direct distance from BP049 to:
Liszt Ferenc Intl 8NM



ROUTING

TRANSITION	ROUTING
ABONY 1R	ABONY (K250) - AGMAS - BP520 (K230) - BP519 - BP518 - BP512 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.
JBR 1R	JBR (K250) - AGMAS - BP520 (K230) - BP519 - BP518 - BP512 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.

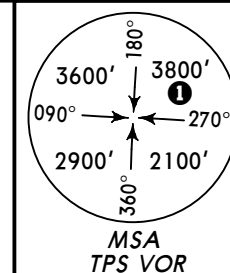
ATIS
117.3
132.37Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'

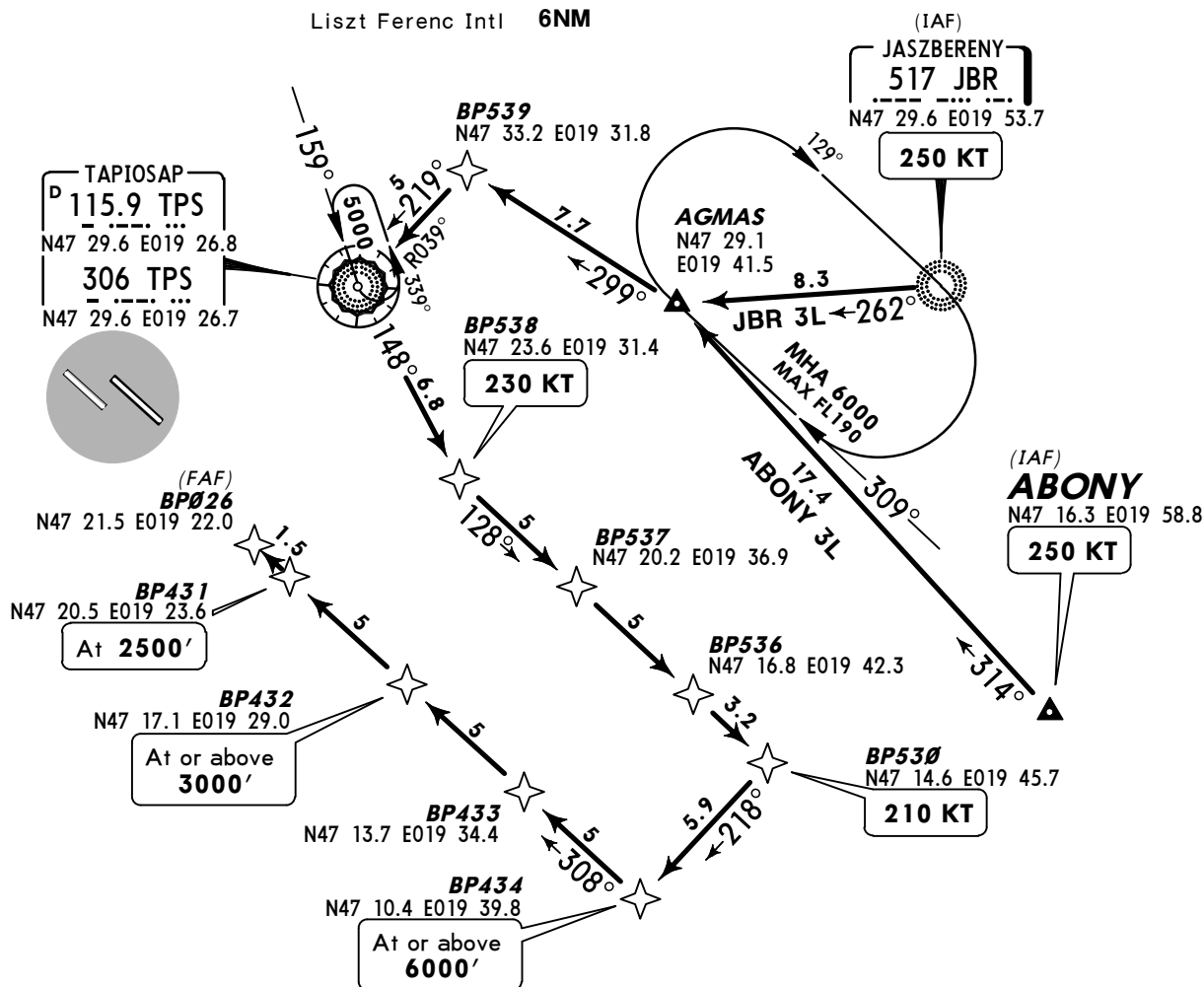
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

**ABONY 3L [ABON3L], JBR 3L
RWY 31L RNAV TRANSITION**
GPS/FMS-EQUIPPED AIRCRAFT

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.



① 2200' within 15 NM

Direct distance from BP026 to:
Liszt Ferenc Intl **6NM****GPS/FMS CLEARANCE PHRASEOLOGY**

1. "Cleared xxx Transition":
Authorization to fly the lateral GPS/FMS-route.
Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Transition and Profile":
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct Waypoint xxx":
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

TRANSITION	ROUTING
ABONY 3L	ABONY (K250) - AGMAS - BP539 - TPS - BP538 (K230) - BP537 - BP536 - BP530 (K210) - BP434 (6000'+) - BP433 - BP432 (3000'+) - BP431 (2500') - BP026.
JBR 3L	JBR (K250) - AGMAS - BP539 - TPS - BP538 (K230) - BP537 - BP536 - BP530 (K210) - BP434 (6000'+) - BP433 - BP432 (3000'+) - BP431 (2500') - BP026.

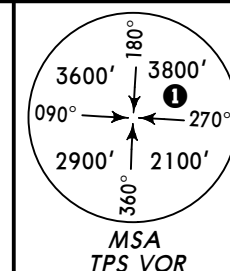
ATIS
117.3
132.37Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'

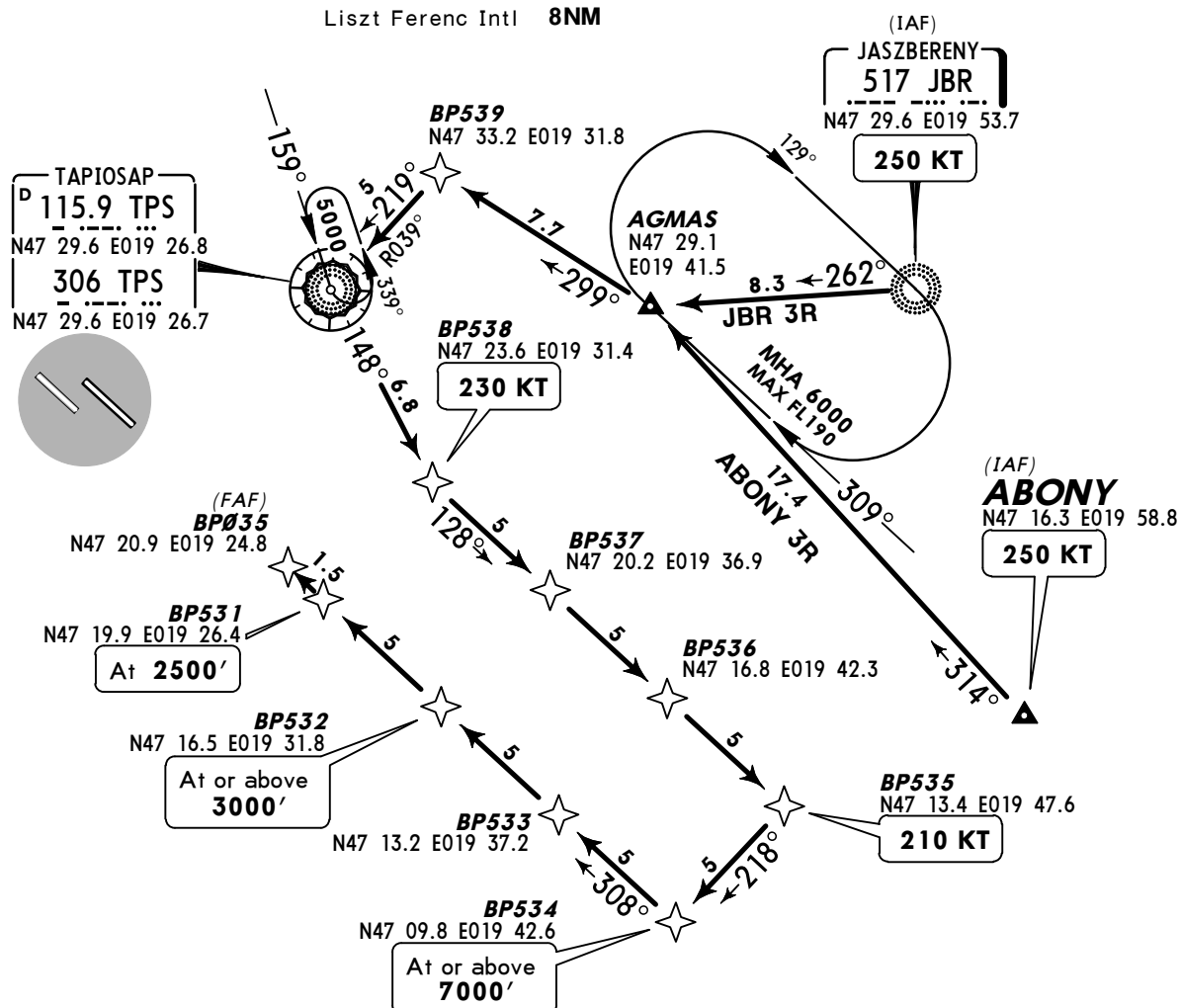
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

ABONY 3R [ABON3R], JBR 3R
RWY 31R RNAV TRANSITION
GPS/FMS-EQUIPPED AIRCRAFT

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.



① 2200' within 15 NM

Direct distance from BP035 to:
Liszt Ferenc Intl 8NM**GPS/FMS CLEARANCE PHRASEOLOGY**

1. "Cleared xxx Transition":
Authorization to fly the lateral GPS/FMS-route.
Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Transition and Profile":
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct Waypoint xxx":
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

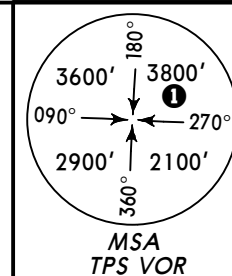
TRANSITION	ROUTING
ABONY 3R	ABONY (K250) - AGMAS - BP539 - TPS - BP538 (K230) - BP537 - BP536 - BP535 (K210) - BP534 (7000'+) - BP533 - BP532 (3000'+) - BP531 (2500') - BP035.
JBR 3R	JBR (K250) - AGMAS - BP539 - TPS - BP538 (K230) - BP537 - BP536 - BP535 (K210) - BP534 (7000'+) - BP533 - BP532 (3000'+) - BP531 (2500') - BP035.

ATIS
117.3
132.37Apt Elev
496'

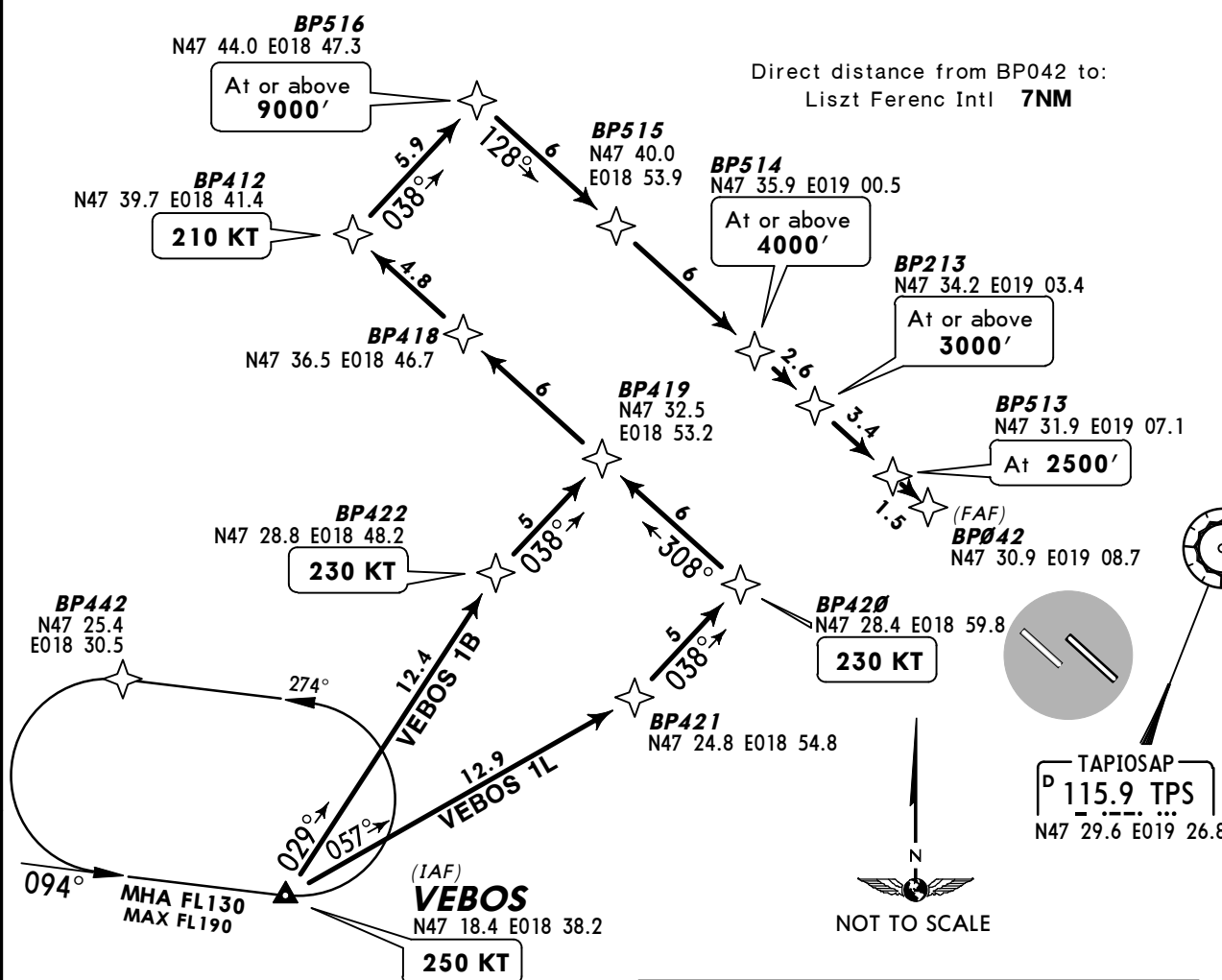
Alt Set: hPa Trans level: By ATC Trans alt: 9000'

1. On downwind expect vectors to final.

2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

VEBOS 1B [VEBO1B]
VEBOS 1L [VEBO1L]
RWY 13L RNAV TRANSITIONS
GPS/FMS-EQUIPPED AIRCRAFT

① 2200' within 15 NM



After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

GPS/FMS CLEARANCE PHRASEOLOGY

1. "Cleared xxx Transition":
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Transition and Profile":
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct Waypoint xxx":
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

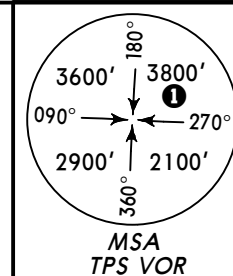
TRANSITION	ROUTING
VEBOS 1B	VEBOS (K250) - BP422 (K230) - BP419 - BP418 - BP412 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500') - BP042.
VEBOS 1L	VEBOS (K250) - BP421 - BP420 (K230) - BP419 - BP418 - BP412 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500') - BP042.

ATIS
117.3
132.37

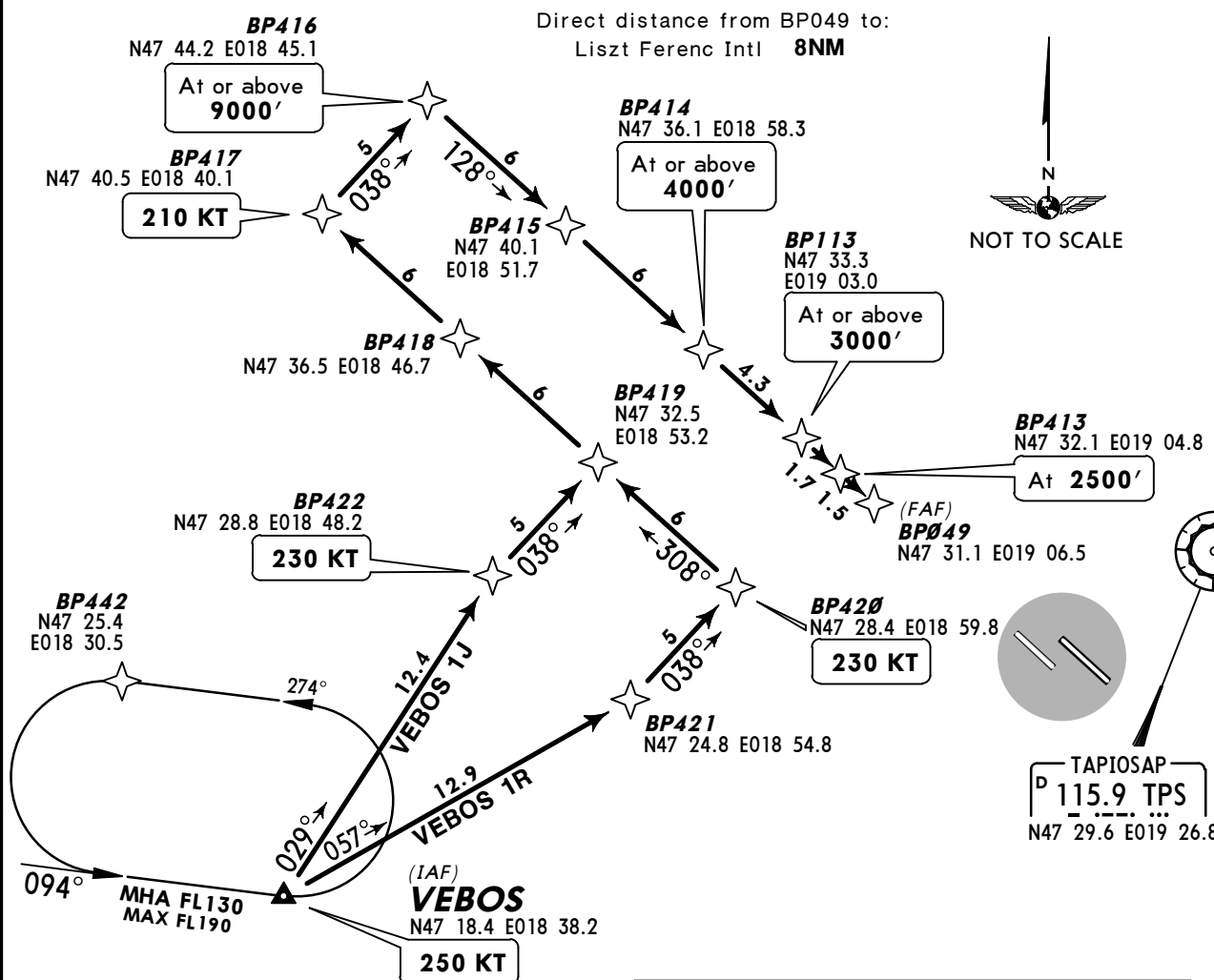
Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

VEBOS 1J [VEBO1J]
VEBOS 1R [VEBO1R]
RWY 13R RNAV TRANSITIONS
GPS/FMS-EQUIPPED AIRCRAFT



① 2200' within 15 NM



After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

GPS/FMS CLEARANCE PHRASEOLOGY

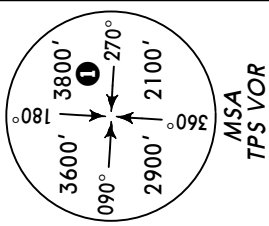
1. "Cleared xxx Transition": Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Transition and Profile": Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct Waypoint xxx": Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

TRANSITION	ROUTING
VEBOS 1J	VEBOS (K250) - BP422 (K230) - BP419 - BP418 - BP417 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.
VEBOS 1R	VEBOS (K250) - BP421 - BP420 (K230) - BP419 - BP418 - BP417 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.

ATIS
117.3
132.37

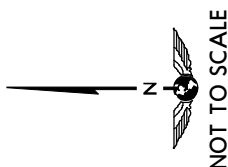
Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

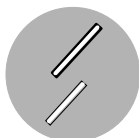


① 2200' within 15 NM

VEBOS 3L [VEBO3L] RWY 31L RNAV TRANSITION GPS/FMS-EQUIPPED AIRCRAFT



TAPIOSAP
D 115.9 TPS
N47 29.6 E019 26.8



BP431
N47 20.5 E019 23.6
At 2500'

BP432
N47 17.1 E019 29.0
At or above 3000'

(FAF)
BP026
N47 21.5 E019 22.0

BP438
N47 16.8 E019 18.6
230 KT

BP433
N47 13.7 E019 34.4

BP434
N47 10.4 E019 39.8
At or above 6000'

BP435
N47 06.7 E019 34.8
210 KT

BP436
N47 10.1 E019 29.4

BP437
N47 13.5 E019 24.0

Direct distance from BP026 to:
Liszt Ferenc Intl 6NM

BP440
N47 31.1 E018 55.8

BP439
N47 24.9 E019 05.8

(IAF)
VEBOS
N47 18.4 E018 38.2
250 KT

BP442
N47 25.4 E018 30.5

MHA FL130
MAX FL190

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

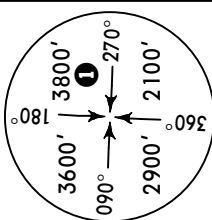
ROUTING

VEBOS (K250) - BP440 - BP439 - BP438 (K230) - BP437 - BP436 - BP435 (K210) - BP434 (6000'+) - BP433 - BP432 (3000'+) - BP431 (2500') - BP026.

ATIS
117.3
132.37

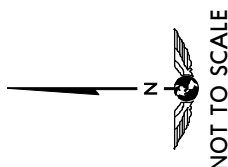
Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.



① 2200' within 15 NM

VEBOS 3R [VEBO3R] RWY 31R RNAV TRANSITION GPS/FMS-EQUIPPED AIRCRAFT



TAIPOSAP
115.9 TPS
N47 29.6 E019 26.8

BP531
N47 19.9 E019 26.4
At 2500'

BP532
N47 16.5 E019 31.8
At or above 3000'

(FAF)
BP035
N47 20.9 E019 24.8

BP438
N47 16.8 E019 18.6
230 KT

BP437
N47 13.5 E019 24.0

BP436
N47 10.1 E019 29.4

BP430
N47 05.5 E019 36.8
210 KT

BP534
N47 09.8 E019 42.6
At or above 7000'

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

BP440
N47 31.1 E018 55.8

BP442
N47 25.4 E018 30.5

BP439
N47 24.9 E019 05.8

(IAF)
VEBOS
N47 18.4 E018 38.2
250 KT

MHA FL130
MAX FL190

Direct distance from BP035 to:
Liszt Ferenc Intl 8NM

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

ROUTING

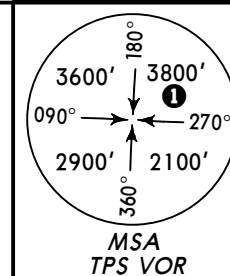
VEBOS (K250) - BP440 - BP439 - BP438 (K230) - BP437 - BP436 - BP430 (K210) - BP534 (7000'+) - BP533 - BP532 (3000'+) - BP531 (2500') - BP035.

ATIS
117.3
132.37Apt Elev
496'

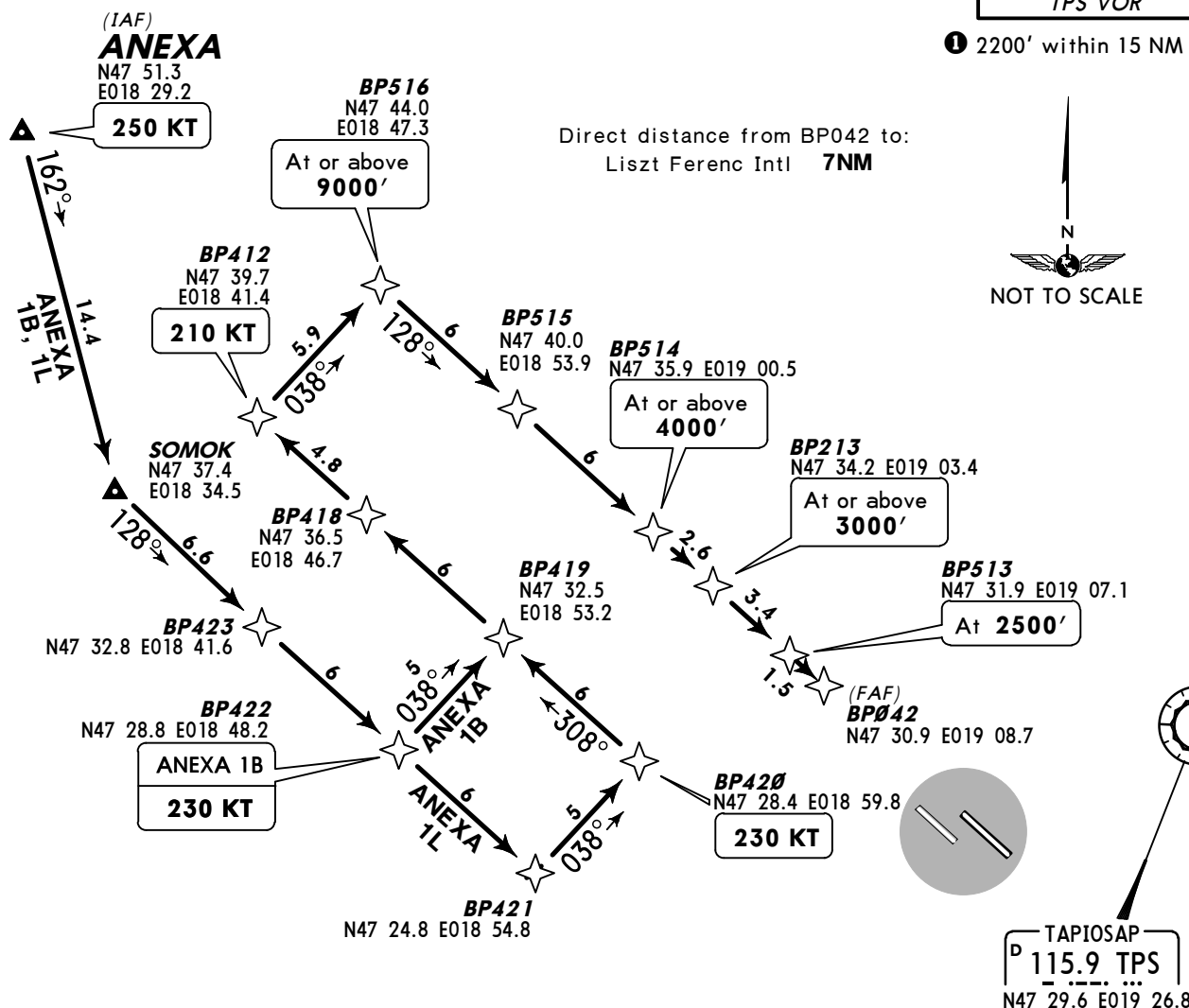
Alt Set: hPa Trans level: By ATC Trans alt: 9000'

1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

ANEXA 1B [ANEX1B]
ANEXA 1L [ANEX1L]
RWY 13L RNAV TRANSITIONS
GPS/FMS-EQUIPPED AIRCRAFT



① 2200' within 15 NM

**GPS/FMS CLEARANCE PHRASEOLOGY**

- 1. "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- 2. "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- 3. "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

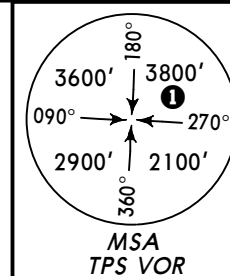
TRANSITION	ROUTING
ANEXA 1B	ANEXA (K250) - SOMOK - BP423 - BP422 (K230) - BP419 - BP418 - BP412 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500') - BP042.
ANEXA 1L	ANEXA (K250) - SOMOK - BP423 - BP422 - BP421 - BP420 (K230) - BP419 - BP418 - BP412 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500') - BP042.

ATIS
117.3
132.37Apt Elev
496'

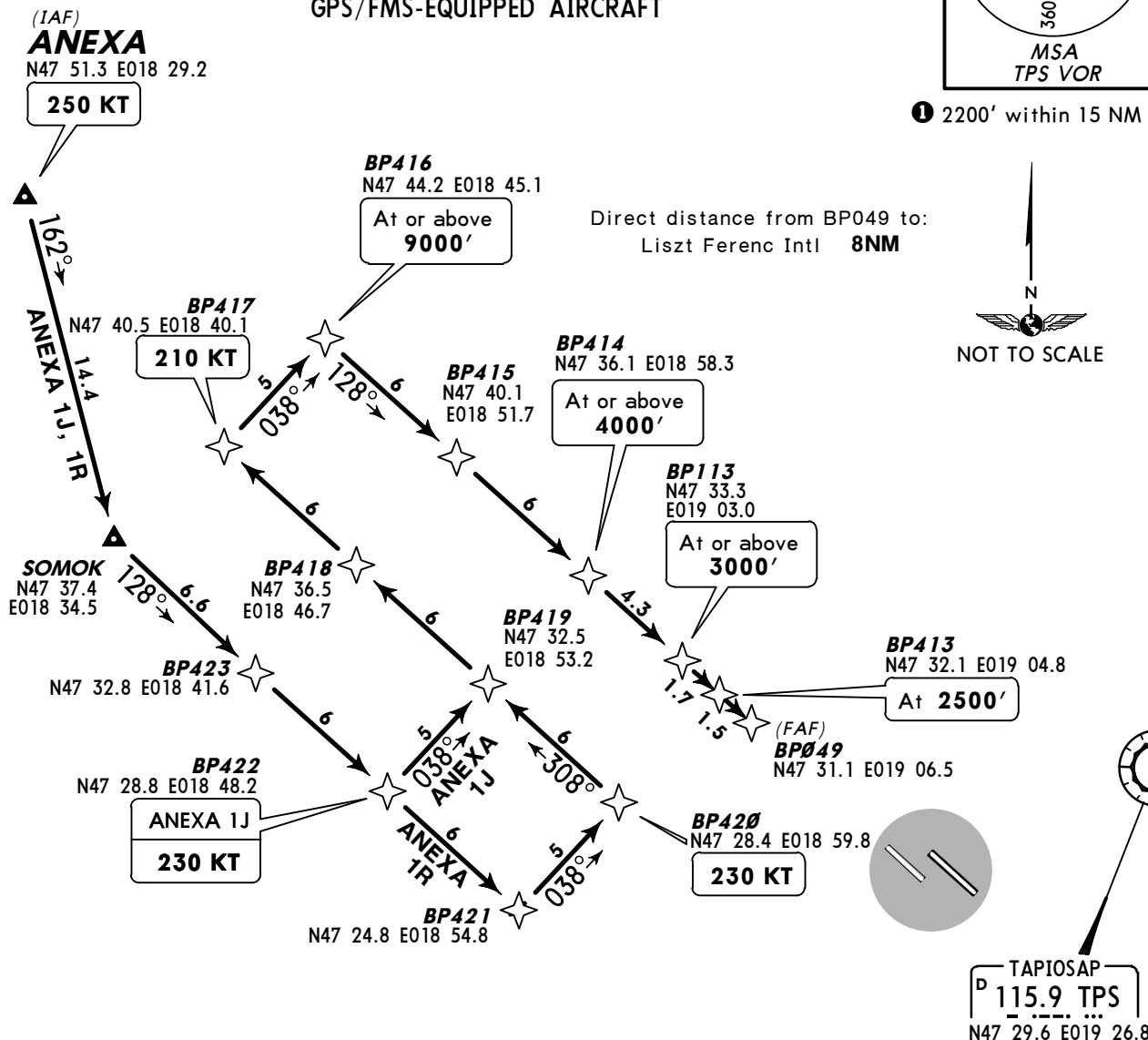
Alt Set: hPa Trans level: By ATC Trans alt: 9000'

1. On downwind expect vectors to final.

2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

**ANEXA 1J [ANEX1J]
ANEXA 1R [ANEX1R]
RWY 13R RNAV TRANSITIONS**
GPS/FMS-EQUIPPED AIRCRAFT

① 2200' within 15 NM

**GPS/FMS CLEARANCE PHRASEOLOGY**

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

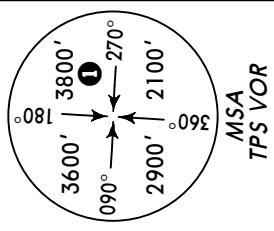
After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

TRANSITION	ROUTING
ANEXA 1J	ANEXA (K250) - SOMOK - BP423 - BP422 (K230) - BP419 - BP418 - BP417 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.
ANEXA 1R	ANEXA (K250) - SOMOK - BP423 - BP422 - BP421 - BP420 (K230) - BP419 - BP418 - BP417 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.

ATIS
117.3
132.37

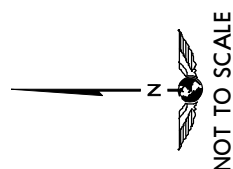
Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

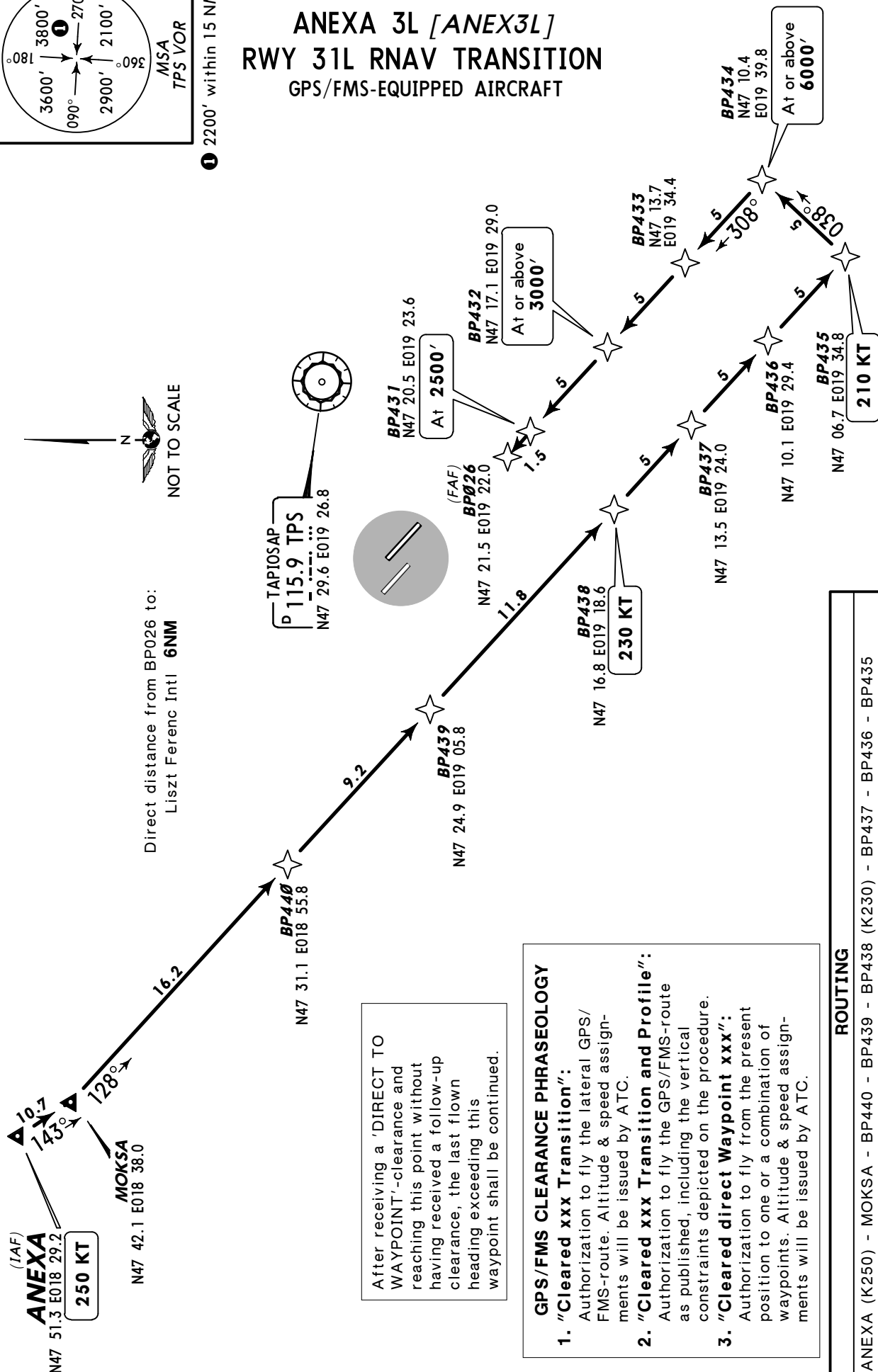
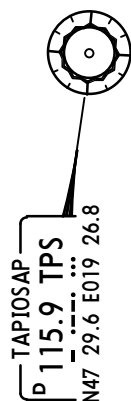


① 2200' within 15 NM

ANEXA 3L [ANEX3L] RWY 31L RNAV TRANSITION GPS/FMS-EQUIPPED AIRCRAFT



Direct distance from BP026 to:
Liszt Ferenc Intl 6NM



After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

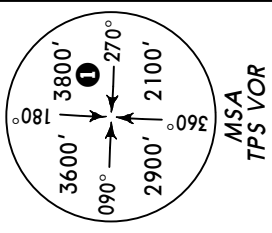
ROUTING

ANEXA (K250) - MOKSA - BP440 - BP439 - BP438 (K230) - BP437 - BP436 - BP435 (K210) - BP434 (6000'+) - BP433 - BP432 (3000'+) - BP431 (2500') - BP026.

ATIS
117.3
132.37

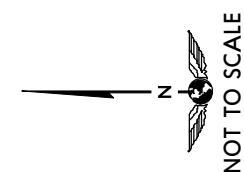
Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.



① 2200' within 15 NM

ANEXA 3R [ANEX3R] RWY 31R RNAV TRANSITION GPS/FMS-EQUIPPED AIRCRAFT



Direct distance from BP035 to:
Liszt Ferenc Intl 8NM

ANEXA (IAF)
N47 51.3 E018 29.2
250 KT
MOKSA
N47 42.1 E018 38.0
143°
128°
10.7

TAPIOSAP
D 115.9 TPS
N47 29.6 E019 26.8

BP531
N47 19.9 E019 26.4
At 2500'

BP035 (FAF)
N47 20.9 E019 24.8
BP532
N47 16.5 E019 31.8
At or above 3000'

BP438
N47 16.8 E019 18.6
230 KT

BP533
N47 13.2 E019 37.2
BP534
N47 09.8 E019 42.6
At or above 7000'

BP436
N47 10.1 E019 29.4
BP437
N47 13.5 E019 24.0
BP430
N47 05.5 E019 36.8
210 KT

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

GPS/FMS CLEARANCE PHRASEOLOGY

1. "Cleared xxx Transition":
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Transition and Profile":
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct Waypoint xxx":
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

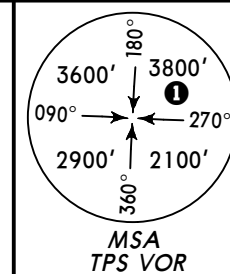
ROUTING

ANEXA (K250) - MOKSA - BP440 - BP438 (K230) - BP439 - BP436 - BP430 (K210) - BP534 (7000'+) - BP533 - BP532 (3000'+) - BP531 (2500') - BP035.

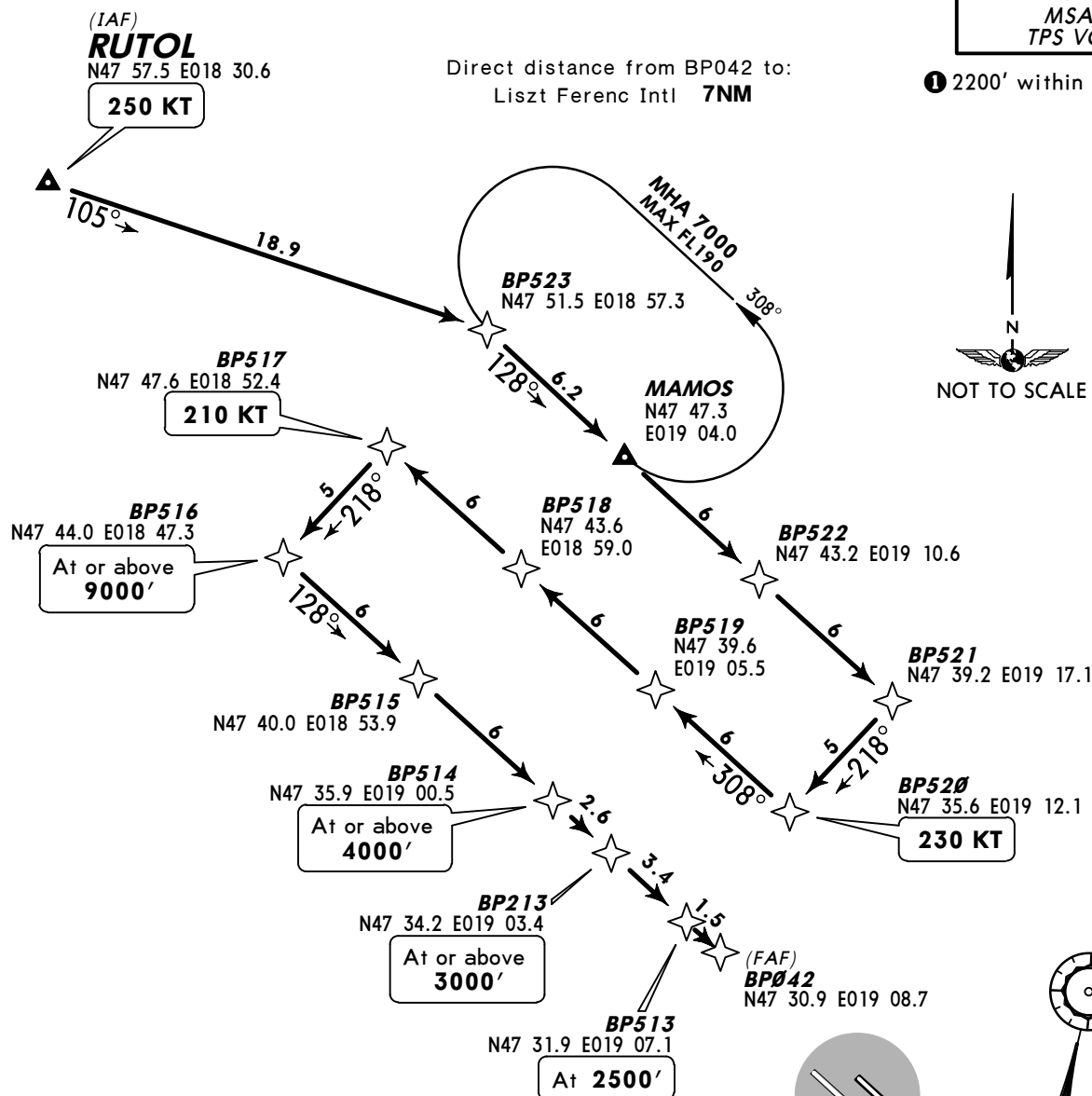
ATIS
117.3
132.37Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'

1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

RUTOL 1L [RUTO1L]
RWY 13L RNAV TRANSITION
GPS/FMS-EQUIPPED AIRCRAFT

① 2200' within 15 NM



GPS/FMS CLEARANCE PHRASEOLOGY

1. "Cleared xxx Transition":
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
2. "Cleared xxx Transition and Profile":
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
3. "Cleared direct Waypoint xxx":
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

ROUTING

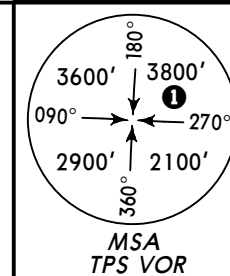
RUTOL (K250) - BP523 - MAMOS - BP522 - BP521 - BP520 (K230) - BP519 - BP518 - BP517 (K210) - BP516 (9000'+) - BP515 - BP514 (4000'+) - BP213 (3000'+) - BP513 (2500') - BP042.

ATIS
117.3
132.37

Apt Elev
496'

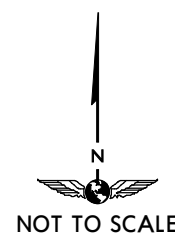
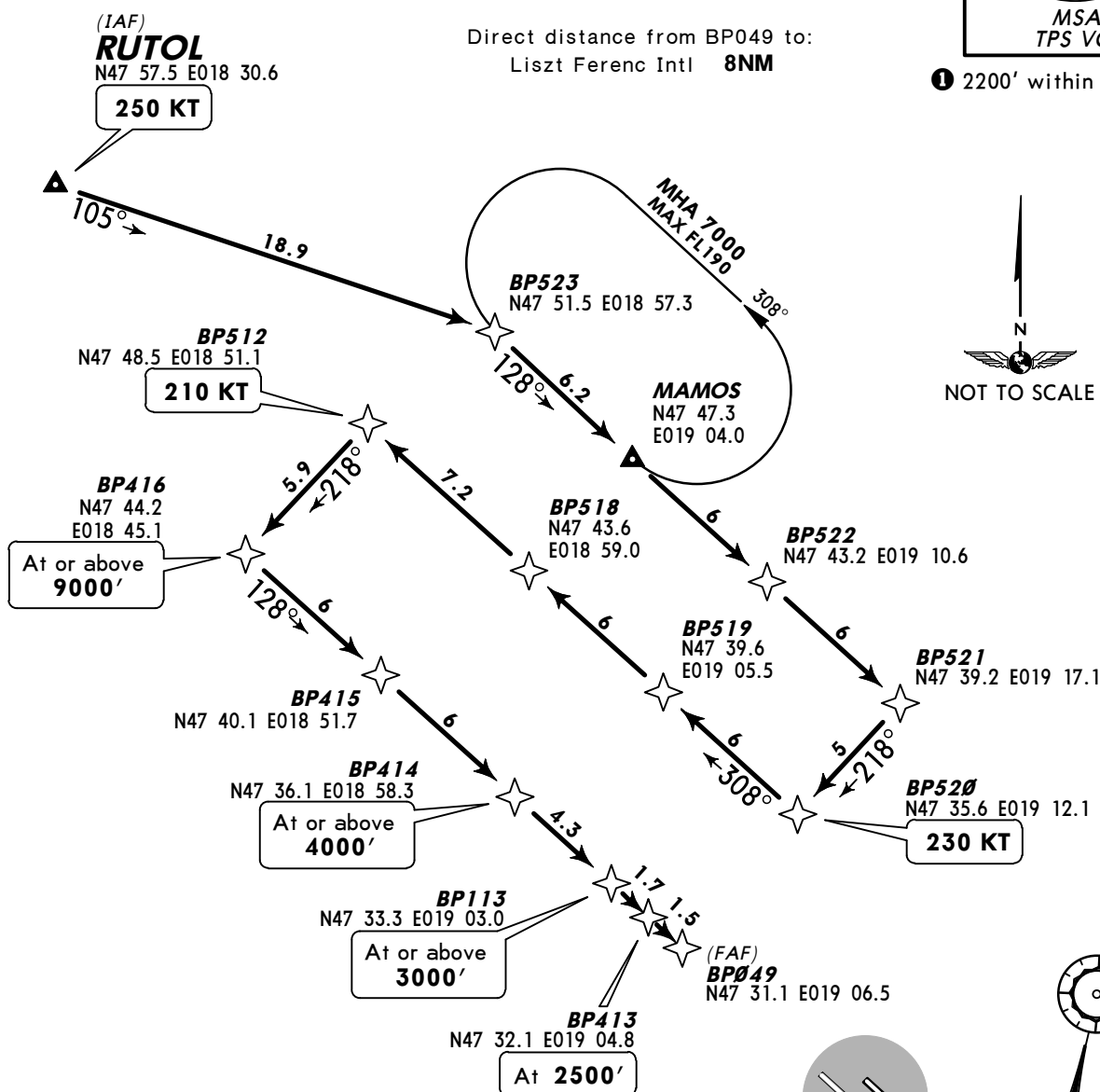
Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

RUTOL 1R [RUTO1R]
RWY 13R RNAV TRANSITION
GPS/FMS-EQUIPPED AIRCRAFT



① 2200' within 15 NM

Direct distance from BP049 to:
Liszt Ferenc Intl 8NM



NOT TO SCALE

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.

After receiving a 'DIRECT TO WAYPOINT'-clearance and reaching this point without having received a follow-up clearance, the last flown heading exceeding this waypoint shall be continued.

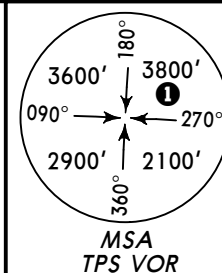
ROUTING

RUTOL (K250) - BP523 - MAMOS - BP522 - BP521 - BP520 (K230) - BP519 - BP518 - BP512 (K210) - BP416 (9000'+) - BP415 - BP414 (4000'+) - BP113 (3000'+) - BP413 (2500') - BP049.

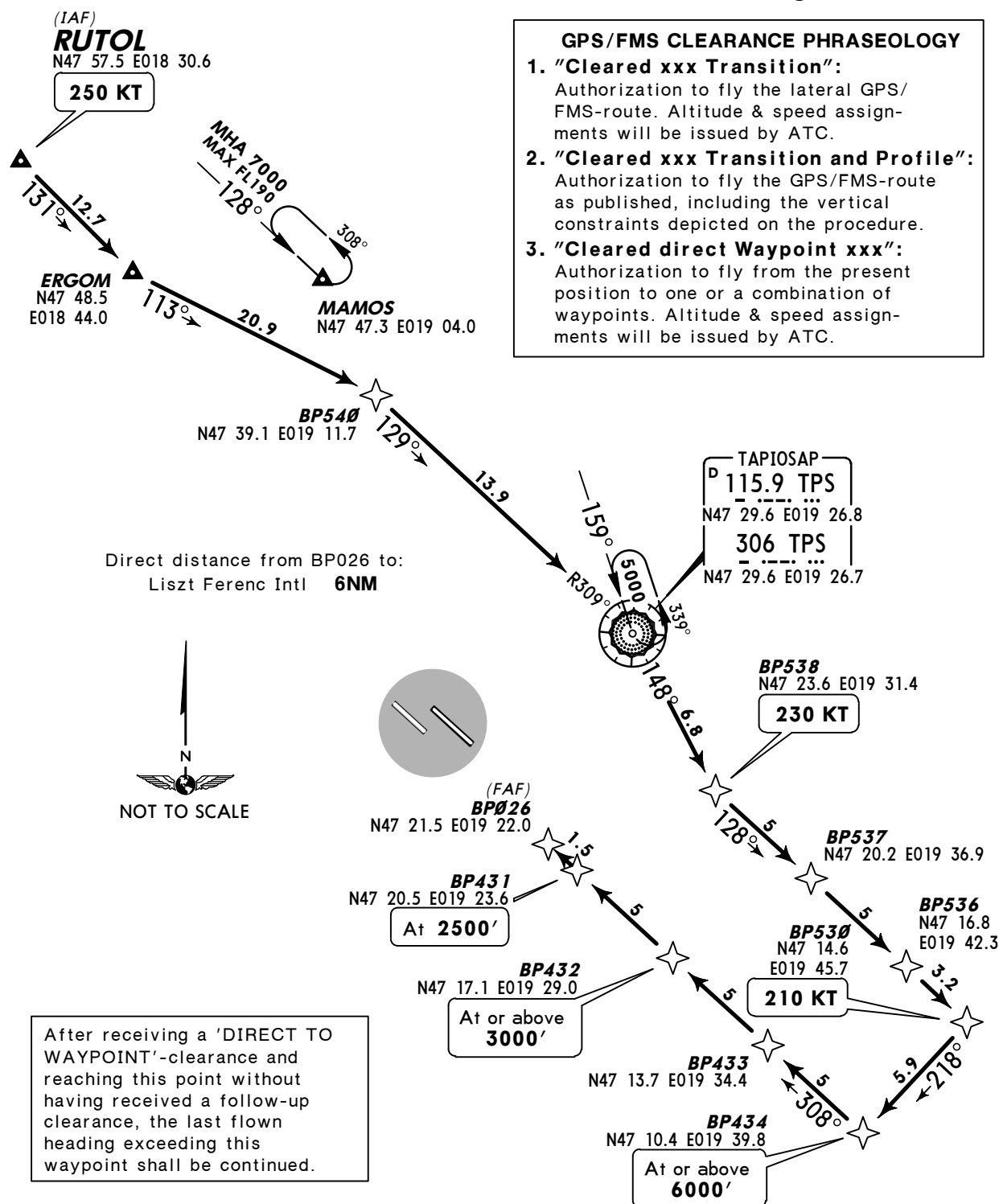
ATIS
117.3
132.37Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'

1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

**RUTOL 3L [RUTO3L]
RWY 31L RNAV TRANSITION**
GPS/FMS-EQUIPPED AIRCRAFT

① 2200' within 15 NM

**ROUTING**

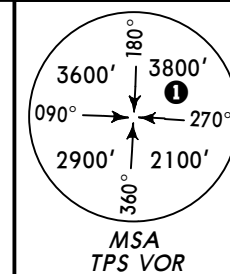
RUTOL (K250) - ERGOM - BP540 - TPS - BP538 (K230) - BP537 - BP536 - BP530 (K210) - BP434 (6000'+) - BP433 - BP432 (3000'+) - BP431 (2500') - BP026.

ATIS
117.3
132.37

Apt Elev
496'

Alt Set: hPa Trans level: By ATC Trans alt: 9000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.

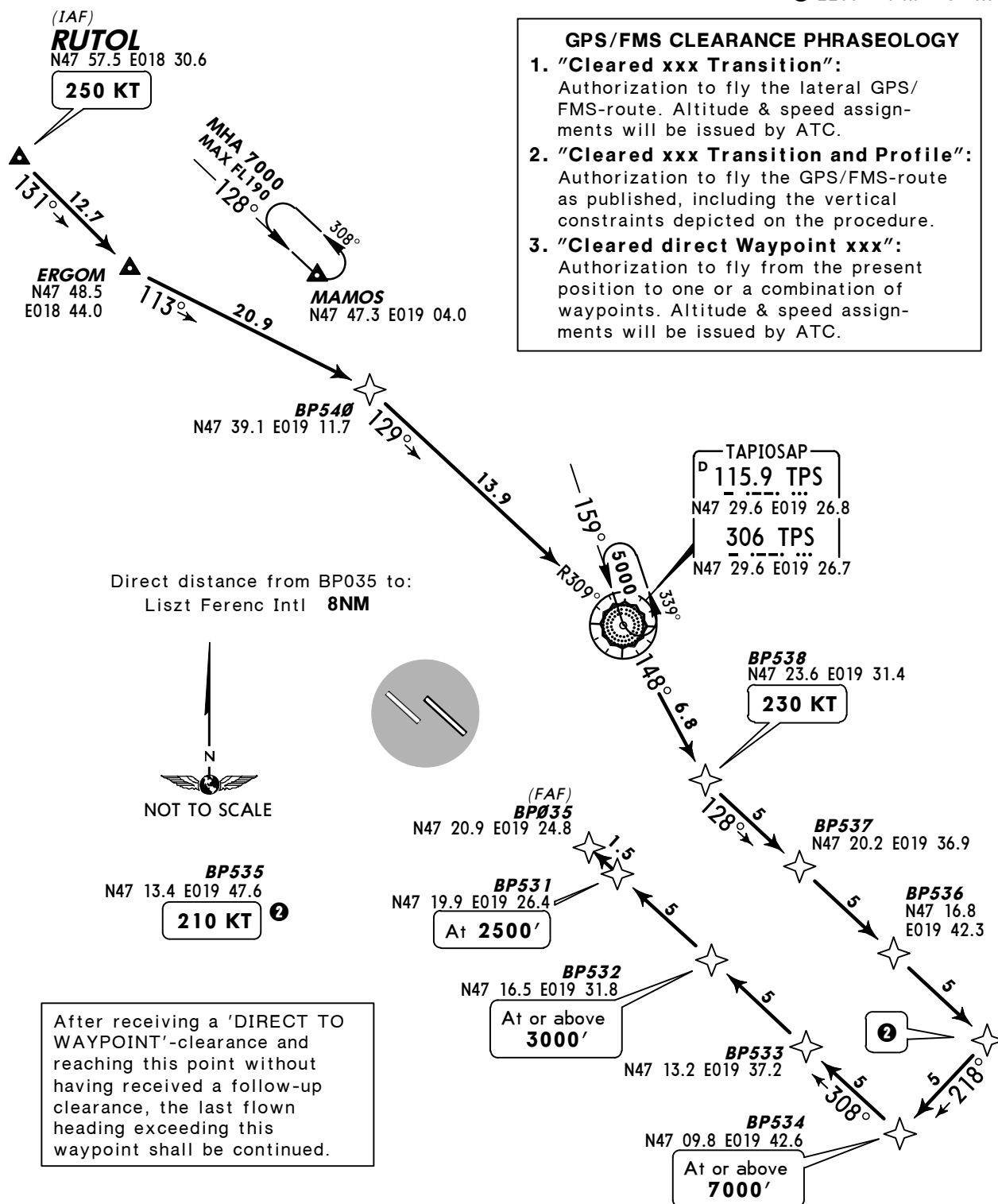
RUTOL 3R [RUTO3R]
RWY 31R RNAV TRANSITION
GPS/FMS-EQUIPPED AIRCRAFT



① 2200' within 15 NM

GPS/FMS CLEARANCE PHRASEOLOGY

- "Cleared xxx Transition":**
Authorization to fly the lateral GPS/FMS-route. Altitude & speed assignments will be issued by ATC.
- "Cleared xxx Transition and Profile":**
Authorization to fly the GPS/FMS-route as published, including the vertical constraints depicted on the procedure.
- "Cleared direct Waypoint xxx":**
Authorization to fly from the present position to one or a combination of waypoints. Altitude & speed assignments will be issued by ATC.



ROUTING

RUTOL (K250) - ERGOM - BP540 - TPS - BP538 (K230) - BP537 - BP536 - BP535 (K210) - BP534 (7000'+) - BP533 - BP532 (3000'+) - BP531 (2500'+) - BP035.

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.

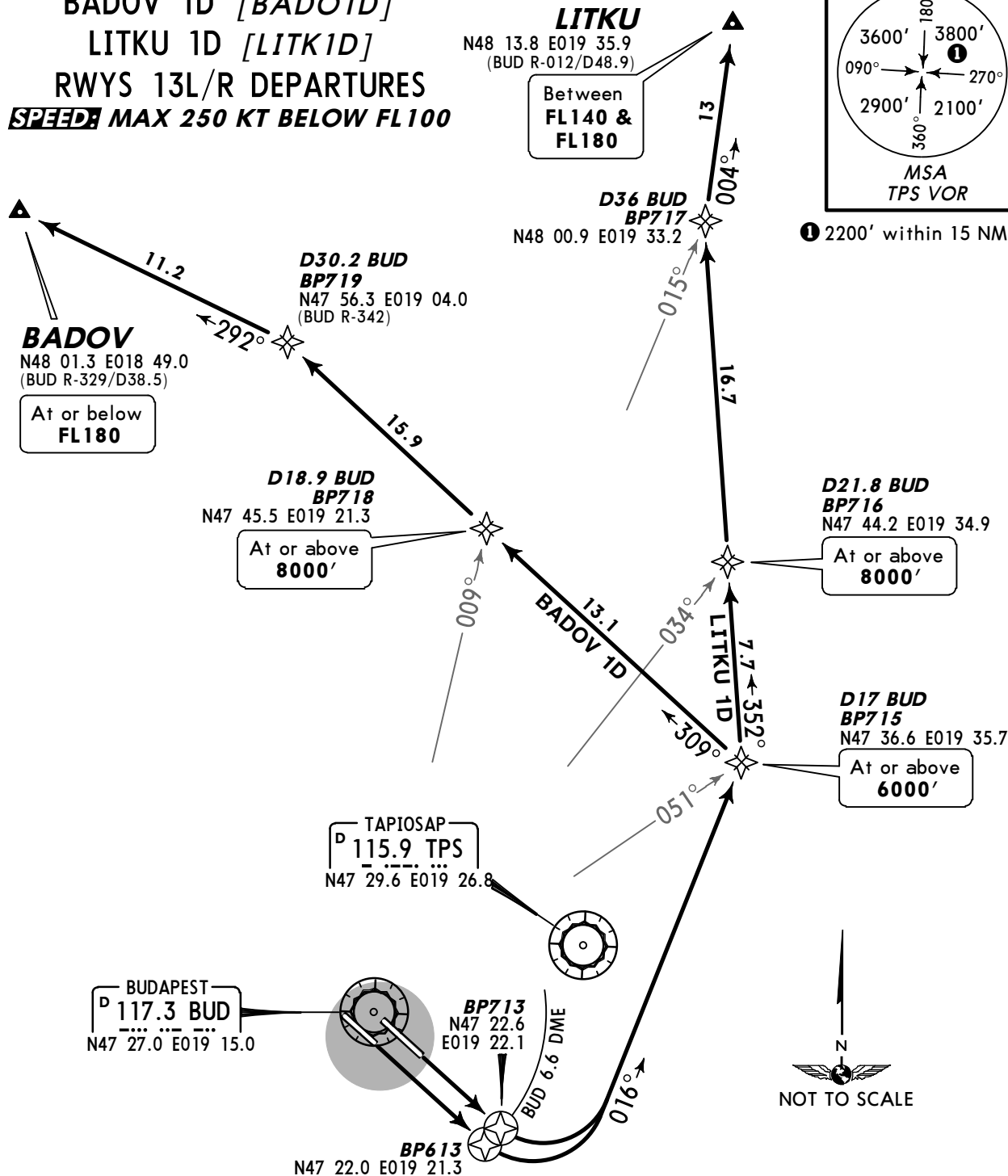
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.

3. An acceleration segment according to PANS-OPS is not contained.

BADOV 1D [BADO1D]

LITKU 1D [LITK1D]

RWYS 13L/R DEPARTURES

SPEED: MAX 250 KT BELOW FL100

These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to 7000'.

Gnd speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **7000'** further climb by ATC

SID	INITIAL CLIMB/ROUTING
BADOV 1D	On runway heading to BUD 6.6 DME, turn LEFT, 016° track, at D17 BUD turn LEFT, 309° track, at D30.2 BUD turn LEFT, 292° track to BADOV. GPS/FMS: BP613 (13R)/BP713 (13L) - BP715 (6000'+) - BP718 (8000'+) - BP719 - BADOV (FL180-).
LITKU 1D	On runway heading to BUD 6.6 DME, turn LEFT, 016° track, at D17 BUD turn LEFT, 352° track, at D36 BUD turn RIGHT, 004° track to LITKU. GPS/FMS: BP613 (13R)/BP713 (13L) - BP715 (6000'+) - BP716 (8000'+) - BP717 - LITKU (FL140+; FL180-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

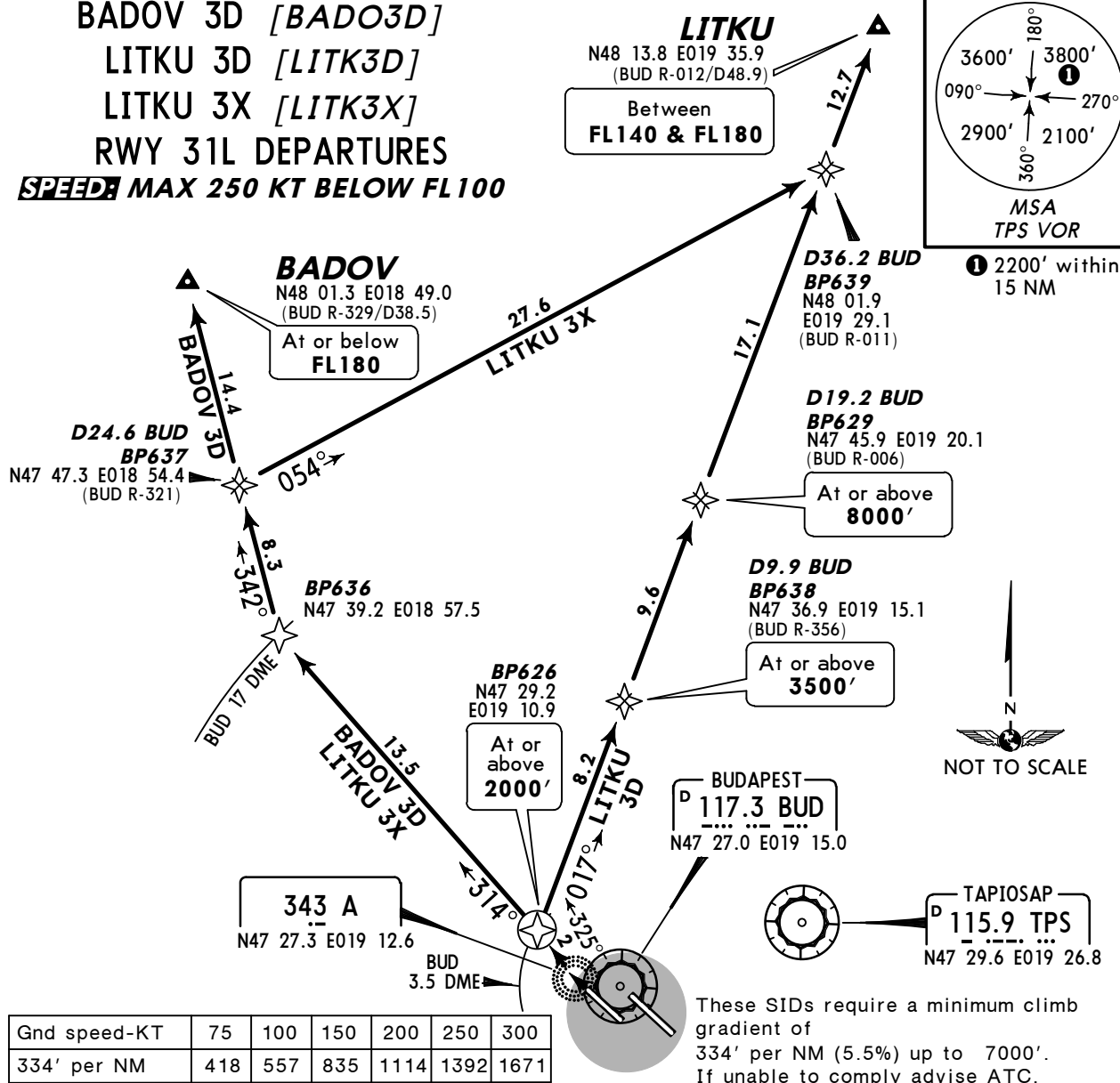
1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

BADOV 3D [BADO3D]

LITKU 3D [LITK3D]

LITKU 3X [LITK3X]

RWY 31L DEPARTURES

SPEED: MAX 250 KT BELOW FL100

Initial climb clearance 7000', further climb by ATC

RWY	INITIAL CLIMB
31L	After take-off proceed to A. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
BADOV 3D	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn RIGHT, 342° track to BADOV. GPS/FMS: BP626 (2000'+) - BP636 - BADOV (FL180-).
LITKU 3D	At BUD 3.5 DME turn RIGHT, 017° track to LITKU. GPS/FMS: BP626 (2000'+) - BP638 (3500'+) - BP629 (8000'+) - BP639 - LITKU (FL140+; FL180-).
LITKU 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn RIGHT, 342° track, at D24.6 BUD turn RIGHT, 054° track, at D36.2 BUD turn LEFT, 017° track to LITKU. GPS/FMS: BP626 (2000'+) - BP636 - BP637 - BP639 - LITKU (FL140+; FL180-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

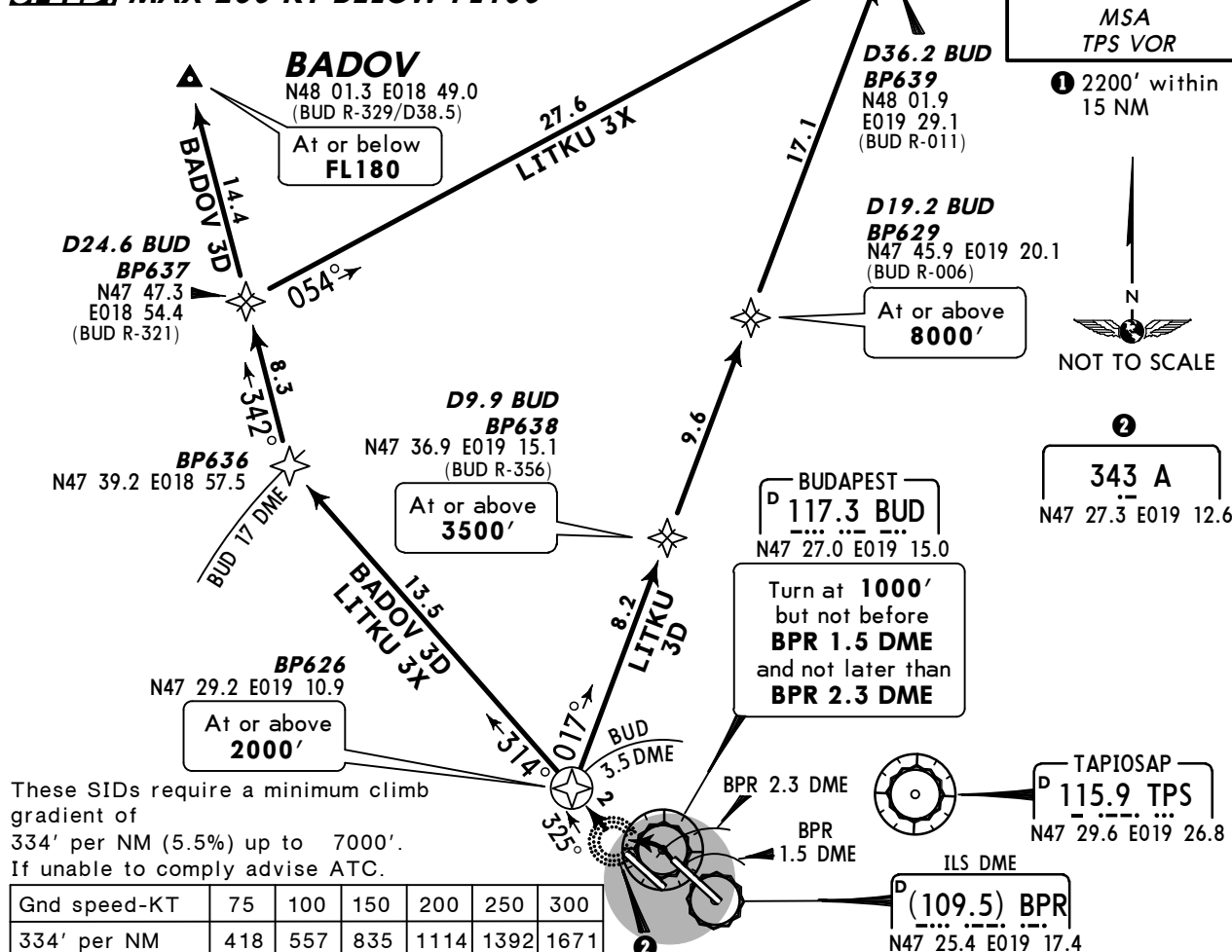
1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

BADOV 3D [BADO3D]

LITKU 3D [LITK3D]

LITKU 3X [LITK3X]

RWY 31R DEPARTURES

SPEED MAX 250 KT BELOW FL100

Initial climb clearance 7000', further climb by ATC

RWY	INITIAL CLIMB
31R	Take-off and climb up to 1000'. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. At 1000' turn LEFT and proceed to A and continue climbing. Initiate turn not before BPR 1.5 DME and not later than BPR 2.3 DME. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
BADOV 3D	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn RIGHT, 342° track to BADOV. GPS/FMS: BP626 (2000'+) - BP636 - BADOV (FL180-).
LITKU 3D	At BUD 3.5 DME turn RIGHT, 017° track to LITKU. GPS/FMS: BP626 (2000'+) - BP638 (3500'+) - BP629 (8000'+) - BP639 - LITKU (FL140+; FL180-).
LITKU 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn RIGHT, 342° track, at D24.6 BUD turn RIGHT, 054° track, at D36.2 BUD turn LEFT, 017° track to LITKU. GPS/FMS: BP626 (2000'+) - BP636 - BP637 - BP639 - LITKU (FL140+; FL180-).

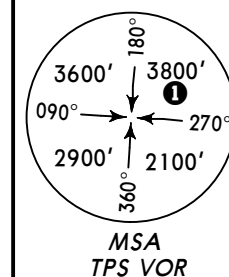
BUDAPEST
Approach
129.7

Apt Elev
496'

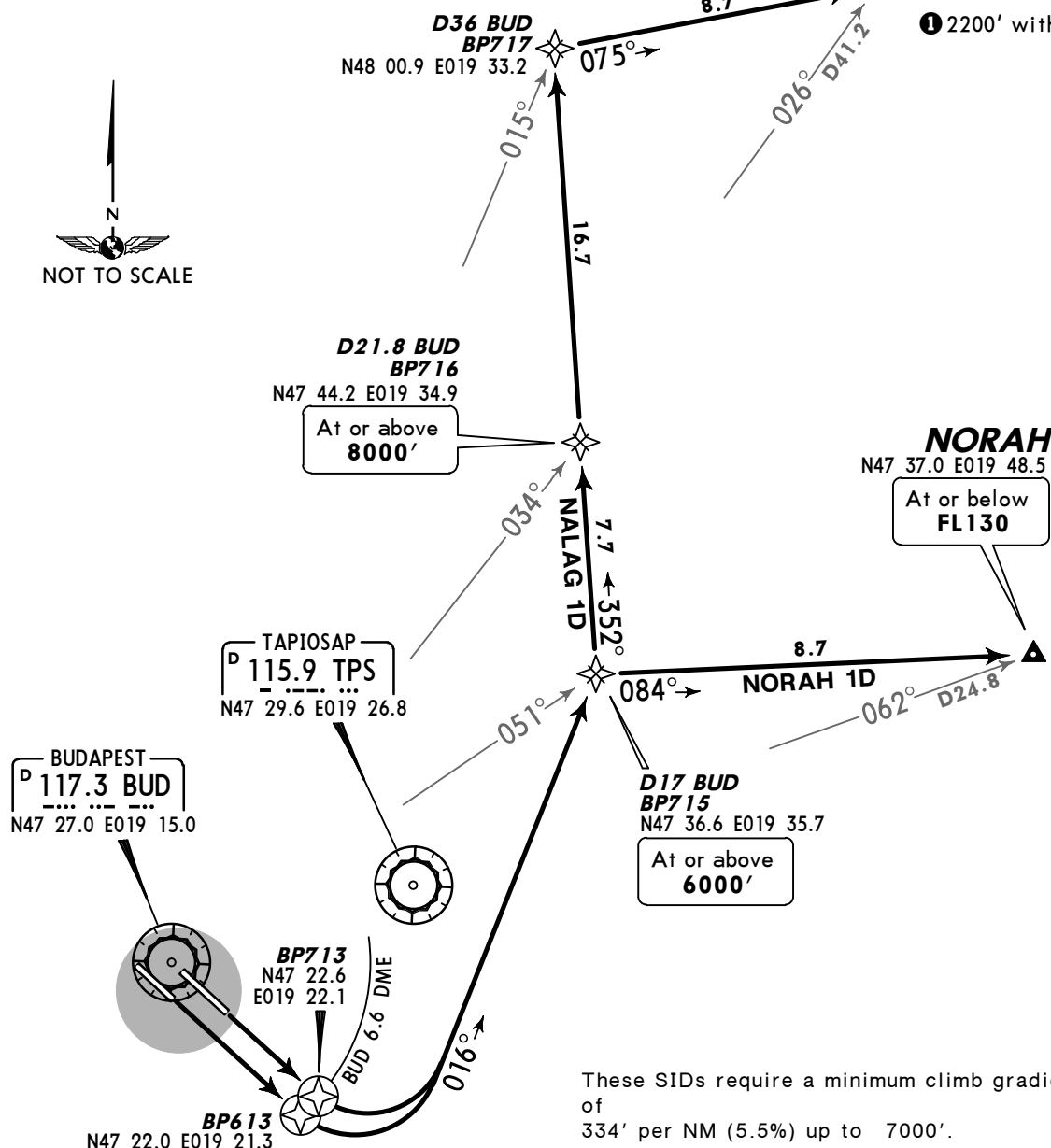
- Trans level: By ATC Trans alt: 9000'
1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
 2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
 3. An acceleration segment according to PANS-OPS is not contained.

NALAG 1D [NALA1D]
NORAH 1D [NORA1D]
RWYS 13L/R DEPARTURES
~~SPEED~~ MAX 250 KT BELOW FL100

NALAG
N48 02.6 E019 46.0
At or below
FL170



① 2200' within 15 NM



These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to 7000'.

Gnd speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **7000'** further climb by ATC

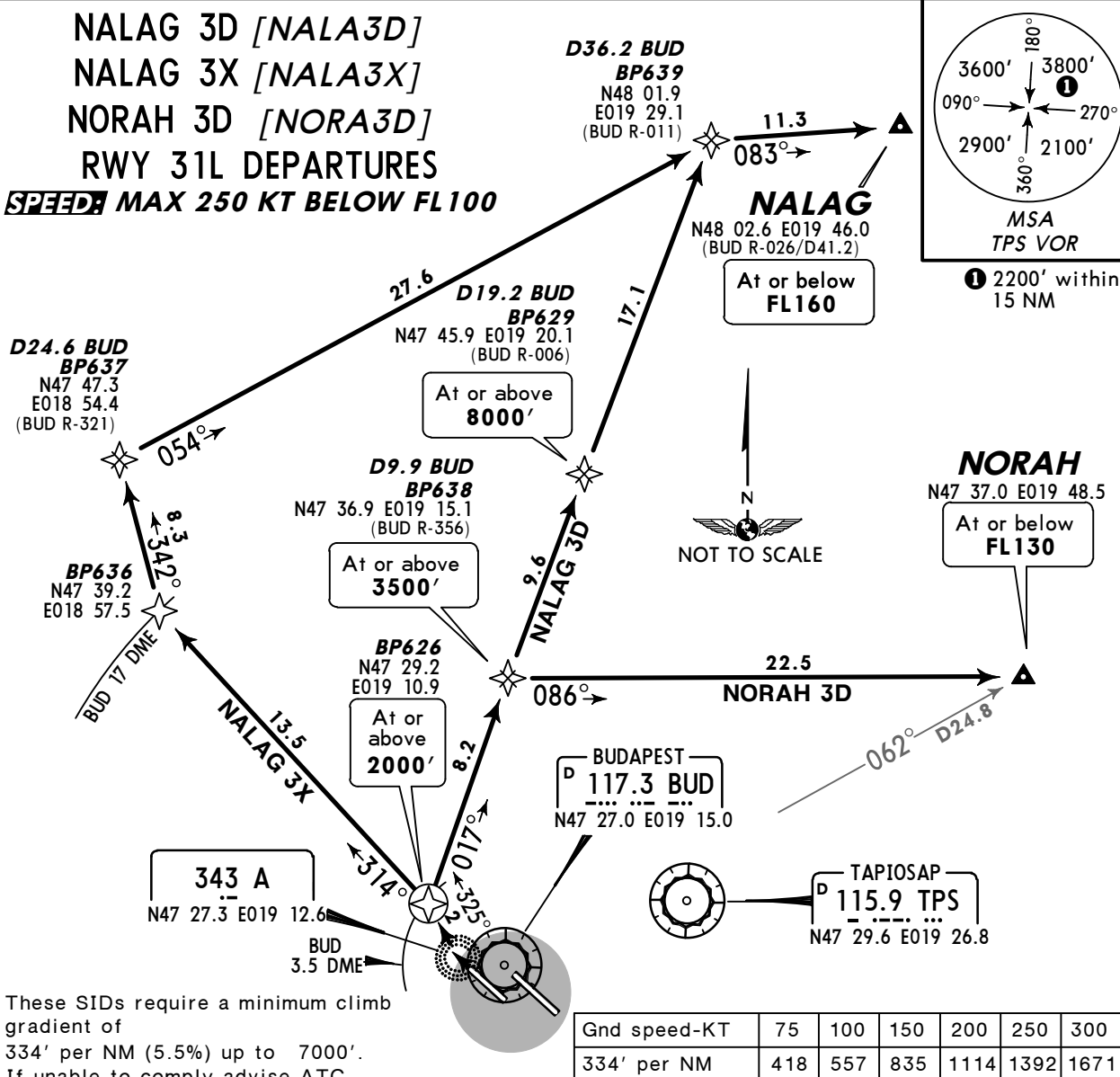
SID	INITIAL CLIMB/ROUTING
NALAG 1D	On runway heading to BUD 6.6 DME, turn LEFT, 016° track, at D17 BUD turn LEFT, 352° track, at D36 BUD turn RIGHT, 075° track to NALAG. GPS/FMS: BP613 (13R)/BP713 (13L) - BP715 (6000'+) - BP716 (8000'+) - BP717 - NALAG (FL170-).
NORAH 1D	On runway heading to BUD 6.6 DME, turn LEFT, 016° track, at D17 BUD turn RIGHT, 084° track to NORAH. GPS/FMS: BP613 (13R)/BP713 (13L) - BP715 (6000'+) - NORAH (FL130-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

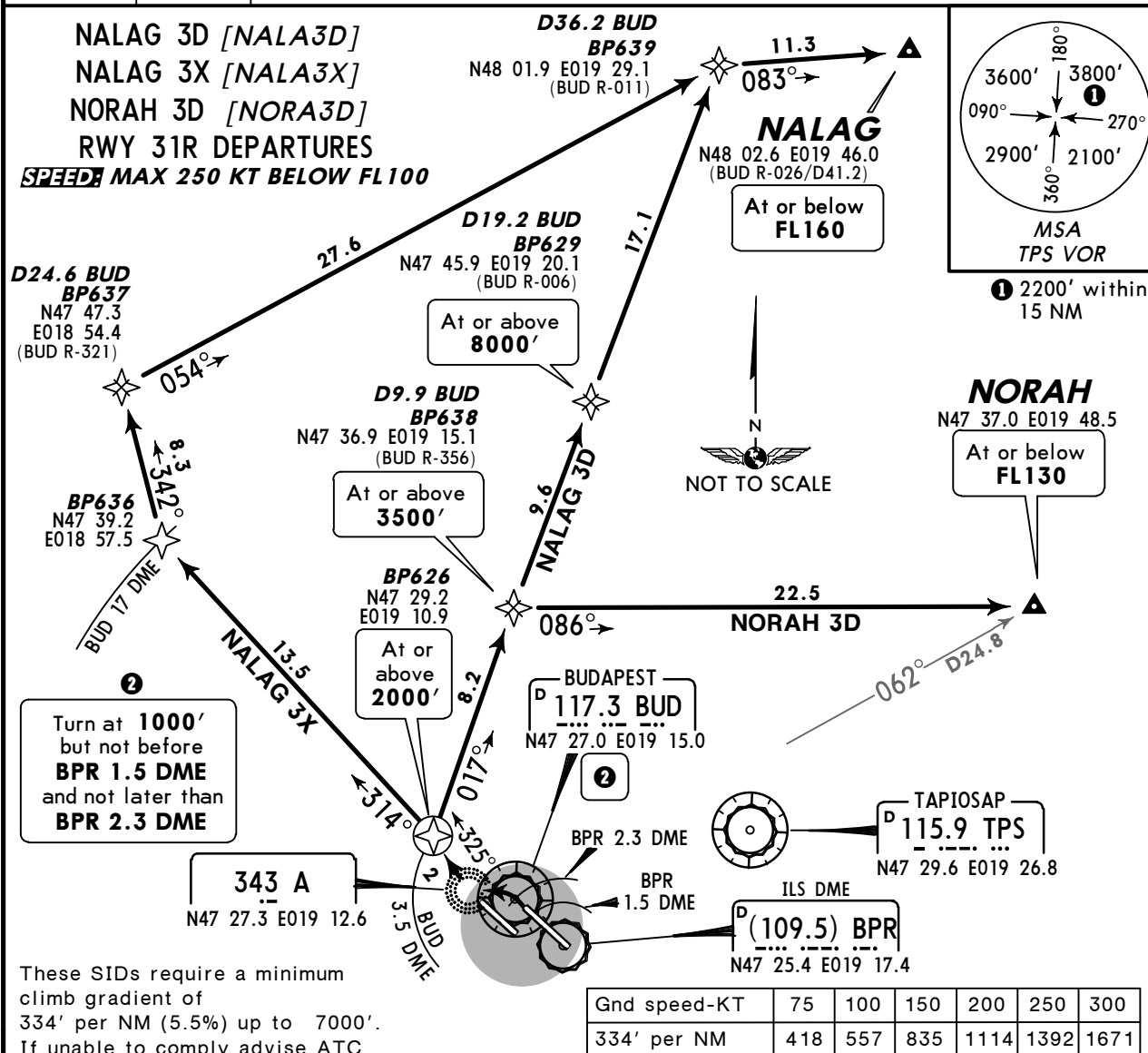
NALAG 3D [NALA3D]
NALAG 3X [NALA3X]
NORAH 3D [NORA3D]
RWY 31L DEPARTURES

SPEED MAX 250 KT BELOW FL100Initial climb clearance **7000'**, further climb by ATC

RWY	INITIAL CLIMB
31L	After take-off proceed to A. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
NALAG 3D	At BUD 3.5 DME turn RIGHT, 017° track, at D36.2 BUD turn RIGHT, 083° track to NALAG. GPS/FMS: BP626 (2000'+) - BP638 (3500'+) - BP629 (8000'+) - BP639 - NALAG (FL160-).
NALAG 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn RIGHT, 342° track, at D24.6 BUD turn RIGHT, 054° track, at D36.2 BUD turn RIGHT, 083° track to NALAG. GPS/FMS: BP626 (2000'+) - BP636 - BP637 - BP639 - NALAG (FL160-).
NORAH 3D	At BUD 3.5 DME turn RIGHT, 017° track, at D9.9 BUD turn RIGHT, 086° track to NORAH. GPS/FMS: BP626 (2000'+) - BP638 (3500'+) - NORAH (FL130-).

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.



Initial climb clearance **7000'**, further climb by ATC

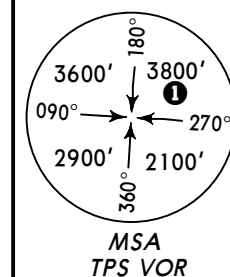
RWY	INITIAL CLIMB
31R	Take-off and climb up to 1000'. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. At 1000' turn LEFT and proceed to A and continue climbing. Initiate turn not before BPR 1.5 DME and not later than BPR 2.3 DME. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
NALAG 3D	At BUD 3.5 DME turn RIGHT, 017° track, at D36.2 BUD turn RIGHT, 083° track to NALAG. GPS/FMS: BP626 (2000'+) - BP638 (3500'+) - BP629 (8000'+) - BP639 - NALAG (FL160-).
NALAG 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn RIGHT, 342° track, at D24.6 BUD turn RIGHT, 054° track, at D36.2 BUD turn RIGHT, 083° track to NALAG. GPS/FMS: BP626 (2000'+) - BP636 - BP637 - BP639 - NALAG (FL160-).
NORAH 3D	At BUD 3.5 DME turn RIGHT, 017° track, at D9.9 BUD turn RIGHT, 086° track to NORAH. GPS/FMS: BP626 (2000'+) - BP638 (3500'+) - NORAH (FL130-).

BUDAPEST
 Approach
129.7

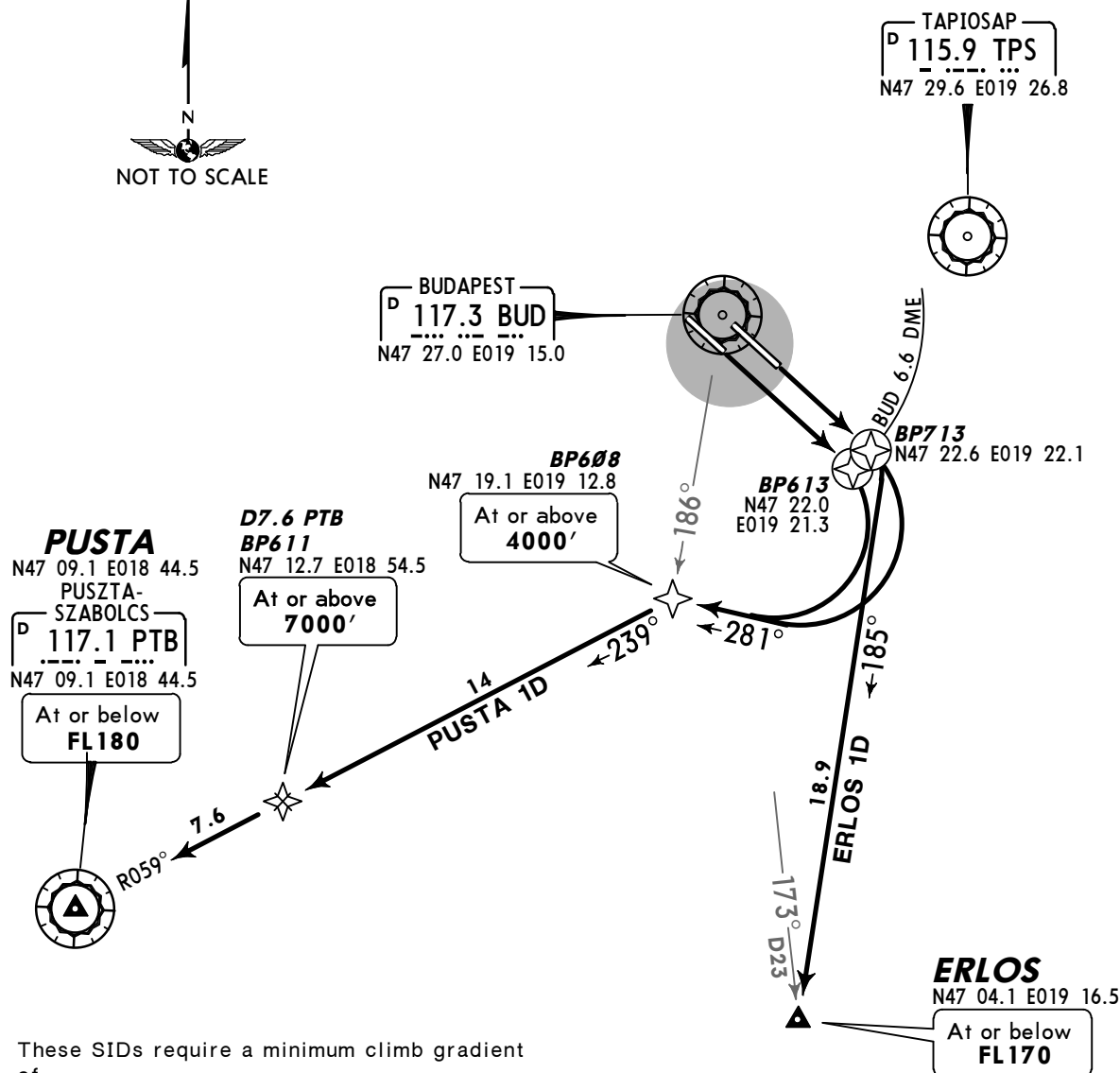
Apt Elev
496'

- Trans level: By ATC Trans alt: 9000'
1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
 2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
 3. An acceleration segment according to PANS-OPS is not contained.

ERLOS 1D [ERLO1D]
PUSTA 1D [PUST1D]
RWYS 13L/R DEPARTURES
~~SPEED~~ MAX 250 KT BELOW FL100



1 2200' within 15 NM



These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to 7000'.

Gnd speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance 7000' further climb by ATC

SID	INITIAL CLIMB/ROUTING
ERLOS 1D	On runway heading to BUD 6.6 DME, turn RIGHT, 185° track to ERLOS. GPS/FMS: BP613 (13R)/BP713 (13L) - ERLOS (FL170-).
PUSTA 1D	On runway heading to BUD 6.6 DME, turn RIGHT, 281° track, at BUD R-186 turn LEFT, 239° track (PTB R-059 inbound) to PUSTA. GPS/FMS: BP613 (13R)/BP713 (13L) - BP608 (4000'+) - BP611 (7000'+) - PUSTA (FL180-).

BUDAPEST
Approach
129.7Apt Elev
496'

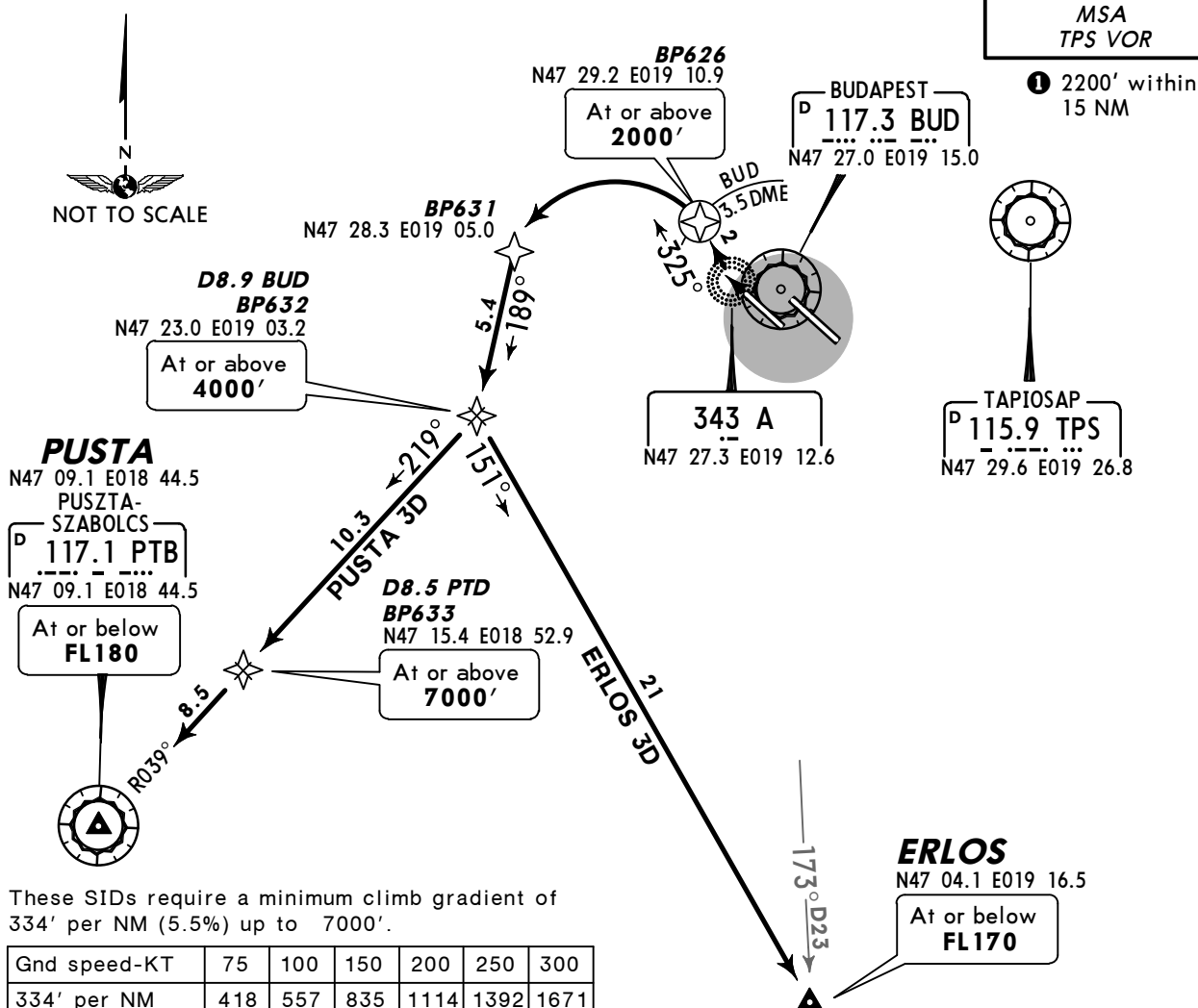
Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

ERLOS 3D [ERLO3D]

PUSTA 3D [PUST3D]

RWY 31L DEPARTURES

SPEED: MAX 250 KT BELOW FL100

If unable to comply advise ATC.

Initial climb clearance **7000'**, further climb by ATC

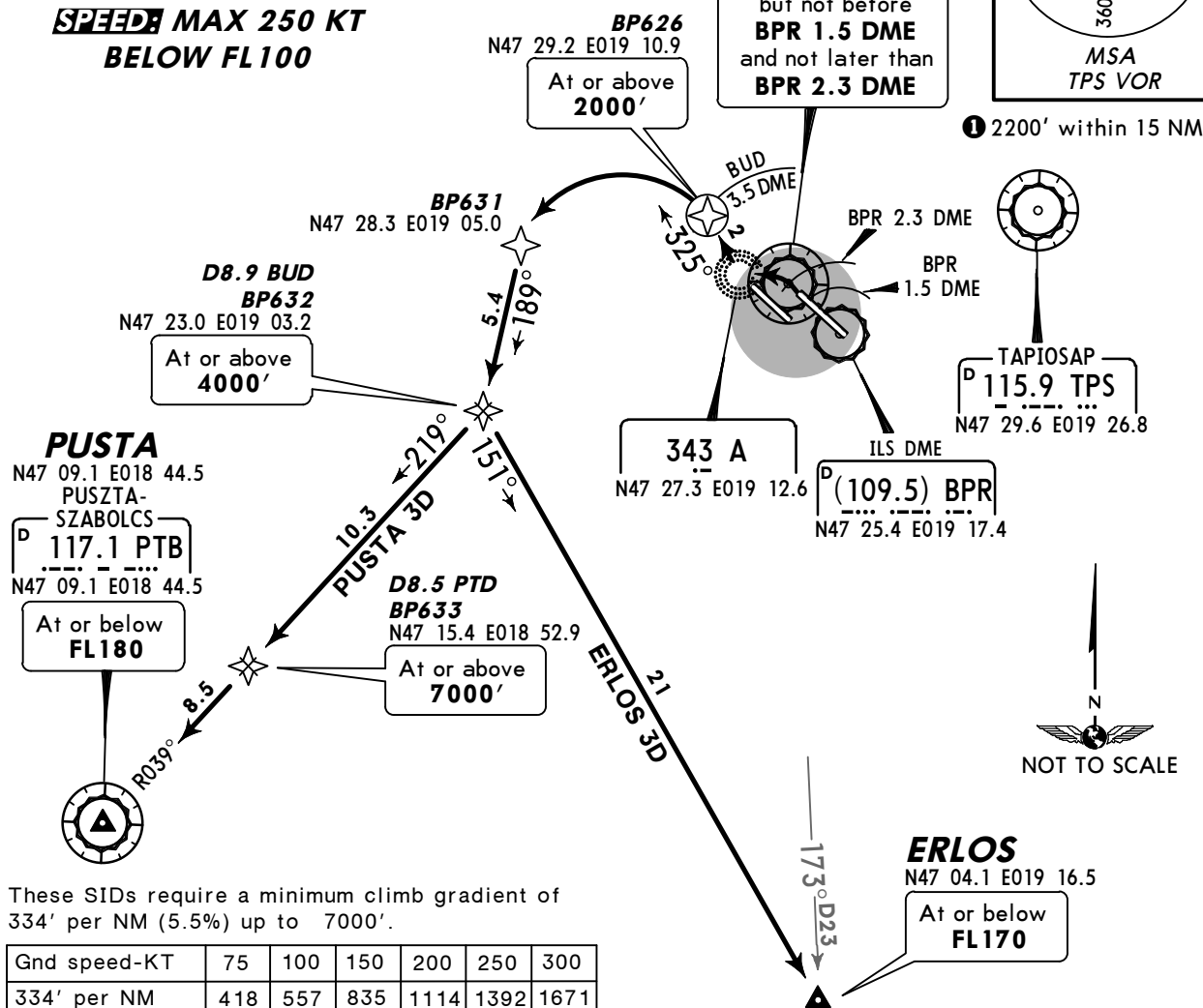
RWY	INITIAL CLIMB
31L	After take-off proceed to A. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
ERLOS 3D	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn LEFT, 151° track to ERLOS. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - ERLOS (FL170-).
PUSTA 3D	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn RIGHT, 219° track to PUSTA. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - BP633 (7000'+) - PUSTA (FL180-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

ERLOS 3D [ERLO3D]
PUSTA 3D [PUST3D]
RWY 31R DEPARTURES
~~SPEED~~ MAX 250 KT
BELOW FL100



If unable to comply advise ATC.

Initial climb clearance **7000'**, further climb by ATC

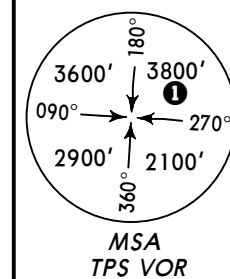
RWY	INITIAL CLIMB
31R	Take-off and climb up to 1000'. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. At 1000' turn LEFT and proceed to A and continue climbing. Initiate turn not before BPR 1.5 DME and not later than BPR 2.3 DME. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
ERLOS 3D	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn LEFT, 151° track to ERLOS. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - ERLOS (FL170-).
PUSTA 3D	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn RIGHT, 219° track to PUSTA. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - BP633 (7000'+) - PUSTA (FL180-).

BUDAPEST
Approach
129.7

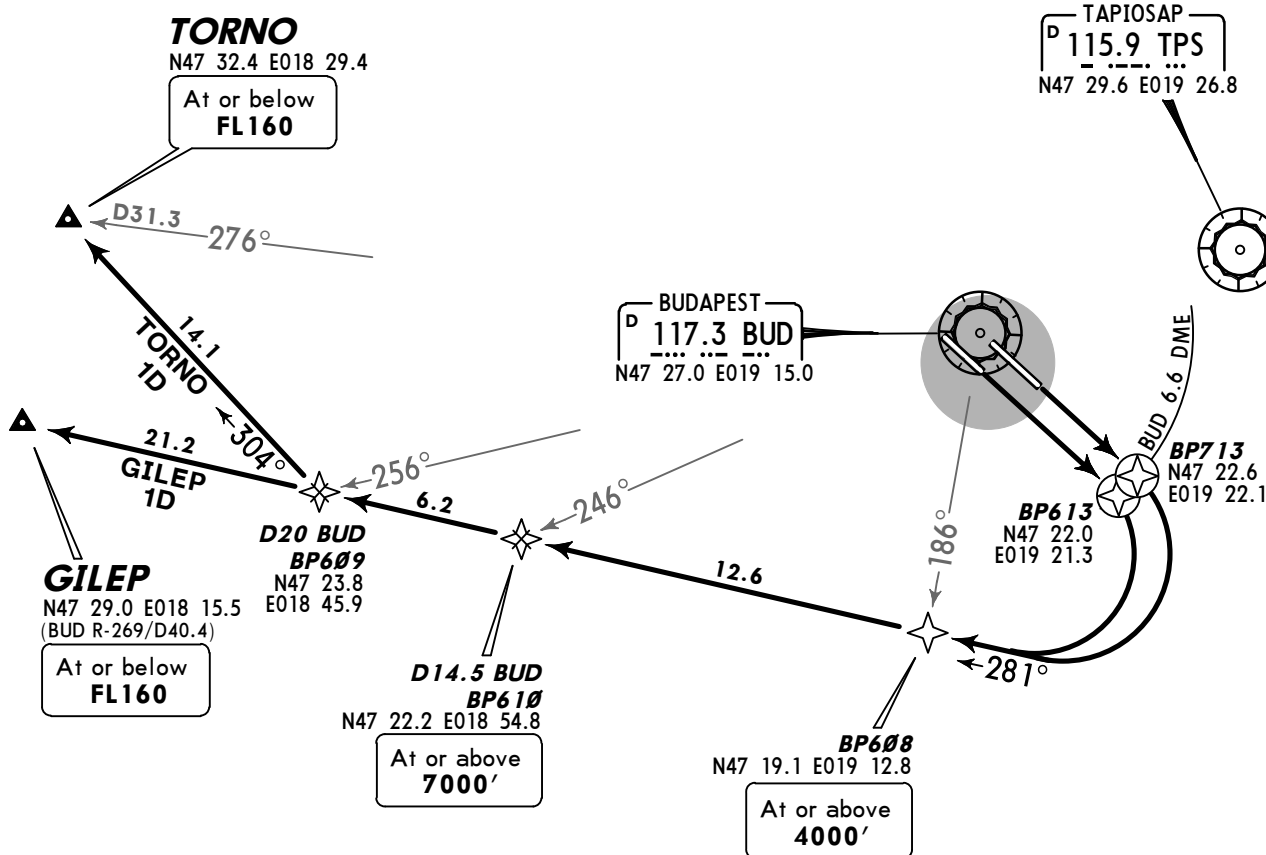
Apt Elev
496'

- Trans level: By ATC Trans alt: 9000'
1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
 2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
 3. An acceleration segment according to PANS-OPS is not contained.

**GILEP 1D [GILE1D]
TORNO 1D [TORN1D]
RWYS 13L/R DEPARTURES**
~~SPEED~~ MAX 250 KT BELOW FL100



① 2200' within 15 NM



These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to 7000'.

Gnd speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **7000'** further climb by ATC

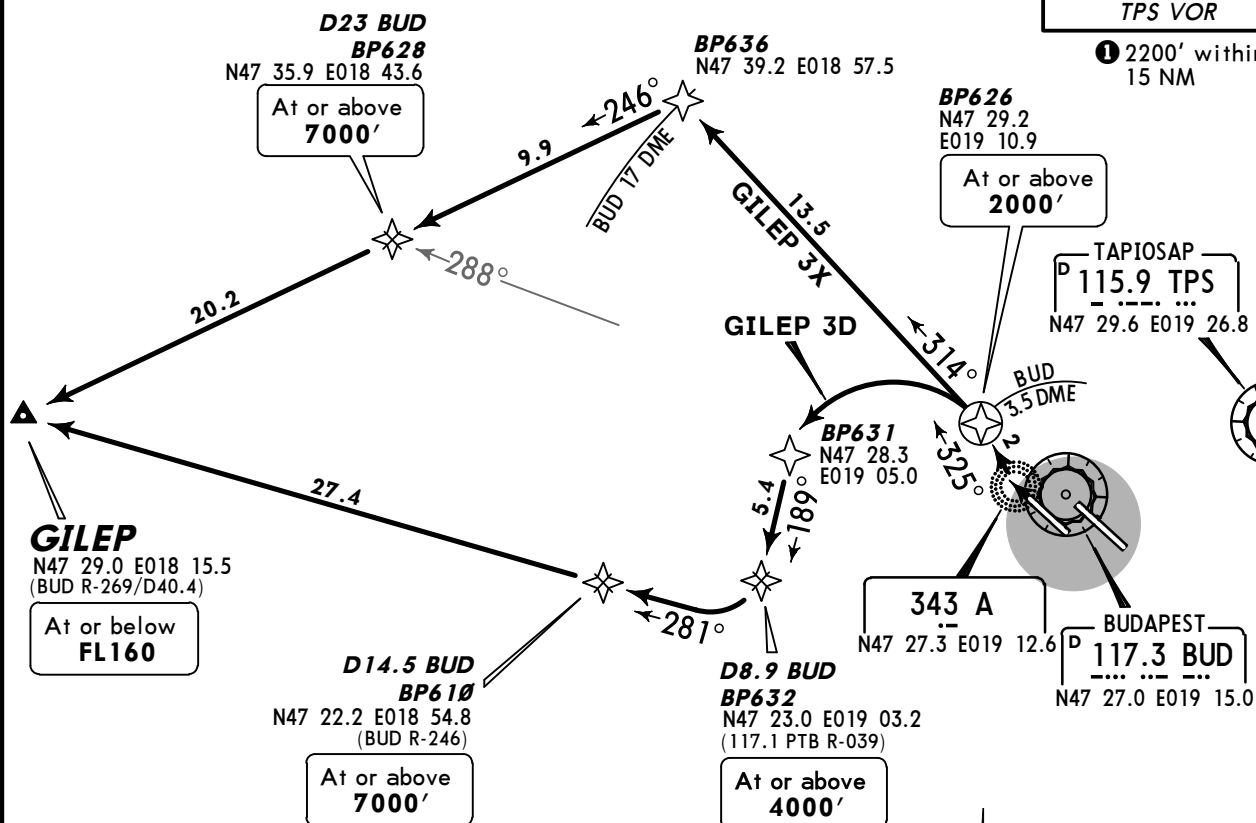
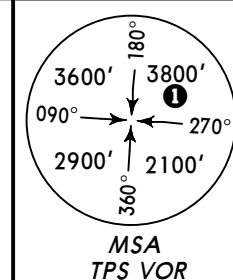
SID	INITIAL CLIMB/ROUTING
GILEP 1D	On runway heading to BUD 6.6 DME, turn RIGHT, 281° track to GILEP. GPS/FMS: BP613 (13R)/BP713 (13L) - BP608 (4000'+) - BP610 (7000'+) - GILEP (FL160-).
TORNO 1D	On runway heading to BUD 6.6 DME, turn RIGHT, 281° track, at D20 BUD turn RIGHT, 304° track to TORNO. GPS/FMS: BP613 (13R)/BP713 (13L) - BP608 (4000'+) - BP610 (7000'+) - BP609 - TORNO (FL160-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

**GILEP 3D [GILE3D]
GILEP 3X [GILE3X]
RWY 31L DEPARTURES**
~~SPEED~~ MAX 250 KT BELOW FL100



These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to 7000'.

Gnd speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.



Initial climb clearance **7000'**, further climb by ATC

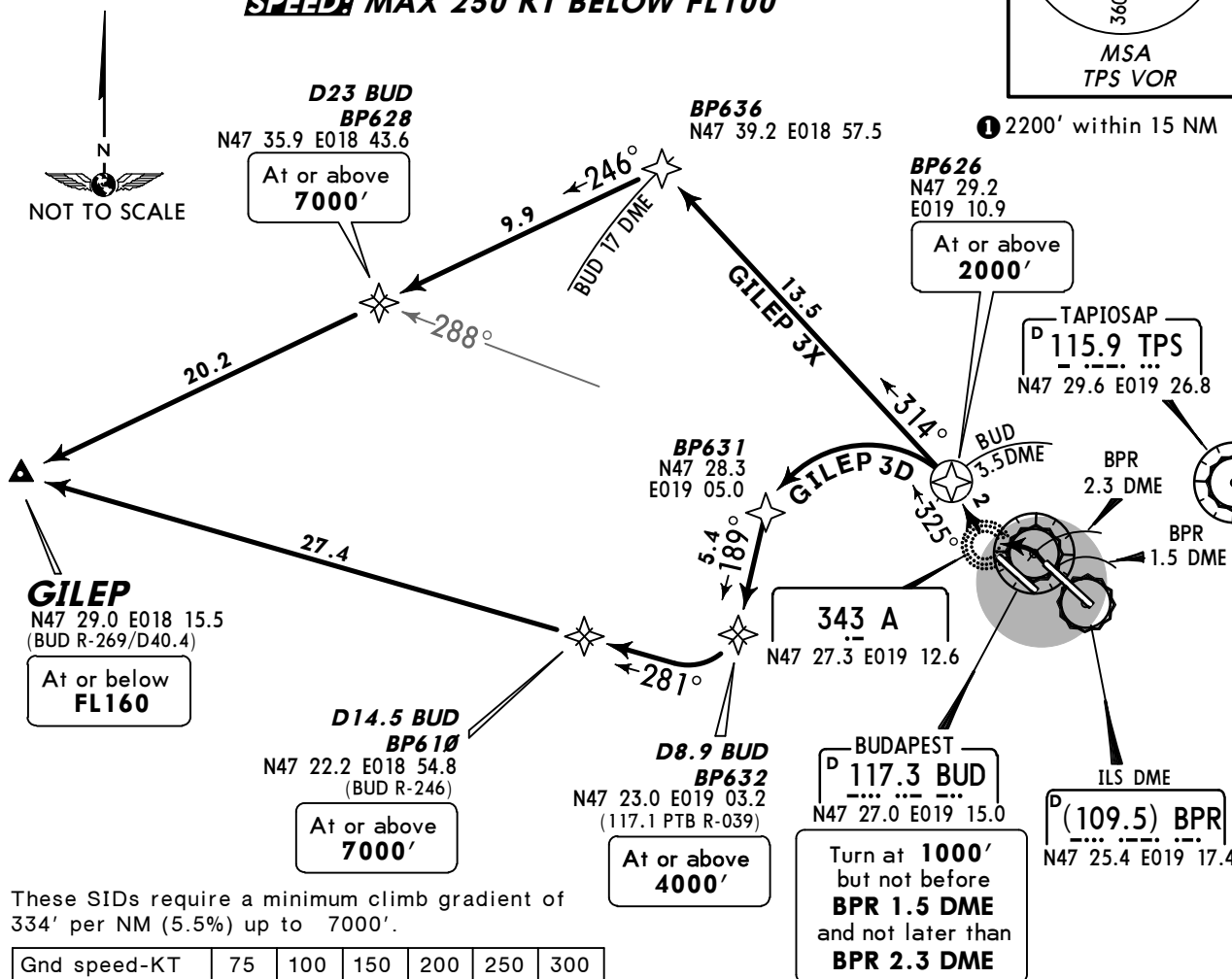
RWY	INITIAL CLIMB
31L	After take-off proceed to A. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
GILEP 3D	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn RIGHT, 281° track to GILEP. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - BP610 (7000'+) - GILEP (FL160-).
GILEP 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn LEFT, 246° track to GILEP. GPS/FMS: BP626 (2000'+) - BP636 - BP628 (7000'+) - GILEP (FL160-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

**GILEP 3D [GILE3D]
GILEP 3X [GILE3X]
RWY 31R DEPARTURES**
~~SPEED~~ MAX 250 KT BELOW FL100



If unable to comply advise ATC.

Initial climb clearance 7000', further climb by ATC

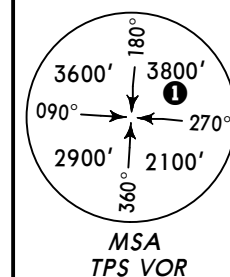
RWY	INITIAL CLIMB
31R	Take-off and climb up to 1000'. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. At 1000' turn LEFT and proceed to A and continue climbing. Initiate turn not before BPR 1.5 DME and not later than BPR 2.3 DME. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
GILEP 3D	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn RIGHT, 281° track to GILEP. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - BP610 (7000'+) - GILEP (FL160-).
GILEP 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn LEFT, 246° track to GILEP. GPS/FMS: BP626 (2000'+) - BP636 - BP628 (7000'+) - GILEP (FL160-).

BUDAPEST
Approach
129.7Apt Elev
496'

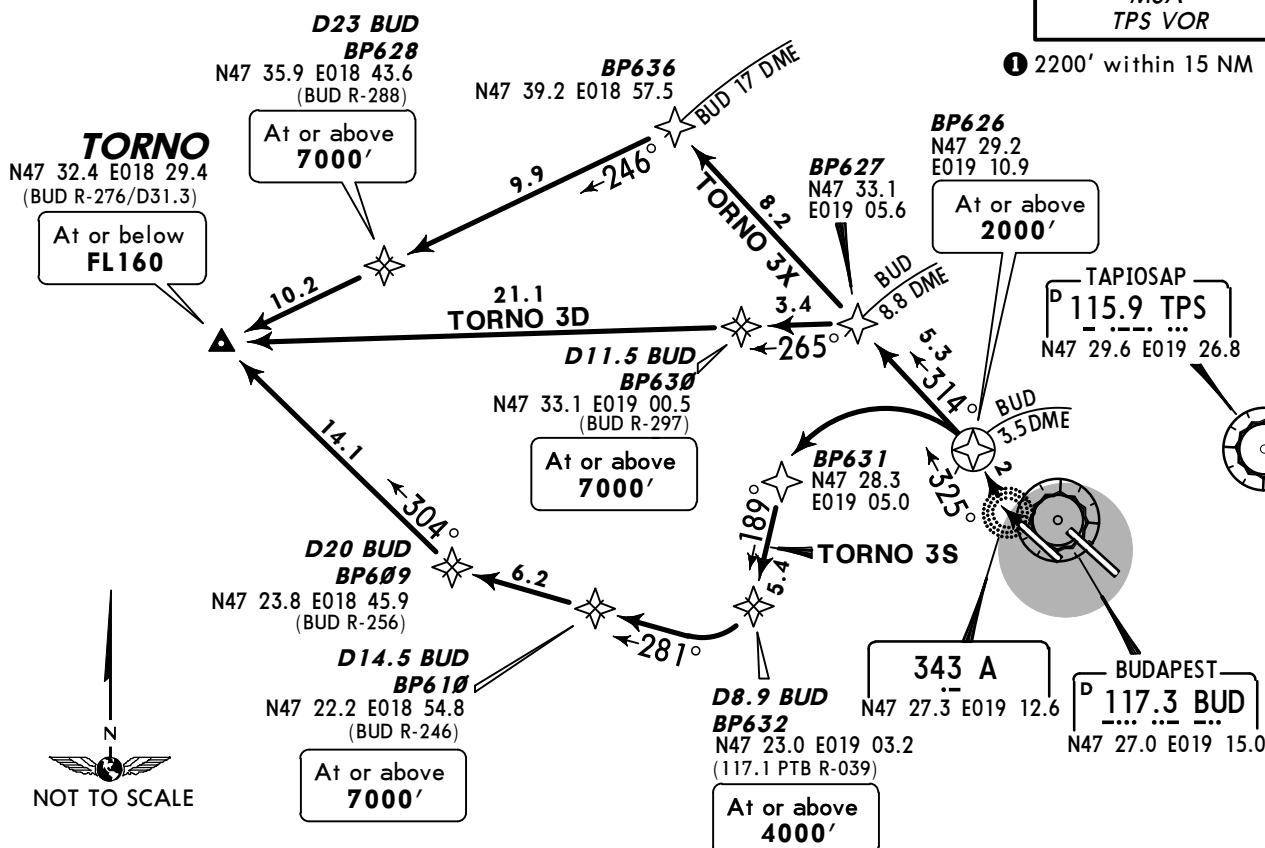
Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.

TORNO 3D [TORN3D]
TORNO 3S [TORN3S], TORNO 3X [TORN3X]
RWY 31L DEPARTURES
~~SPEED~~ MAX 250 KT BELOW FL100



① 2200' within 15 NM



These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to 7000'. If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

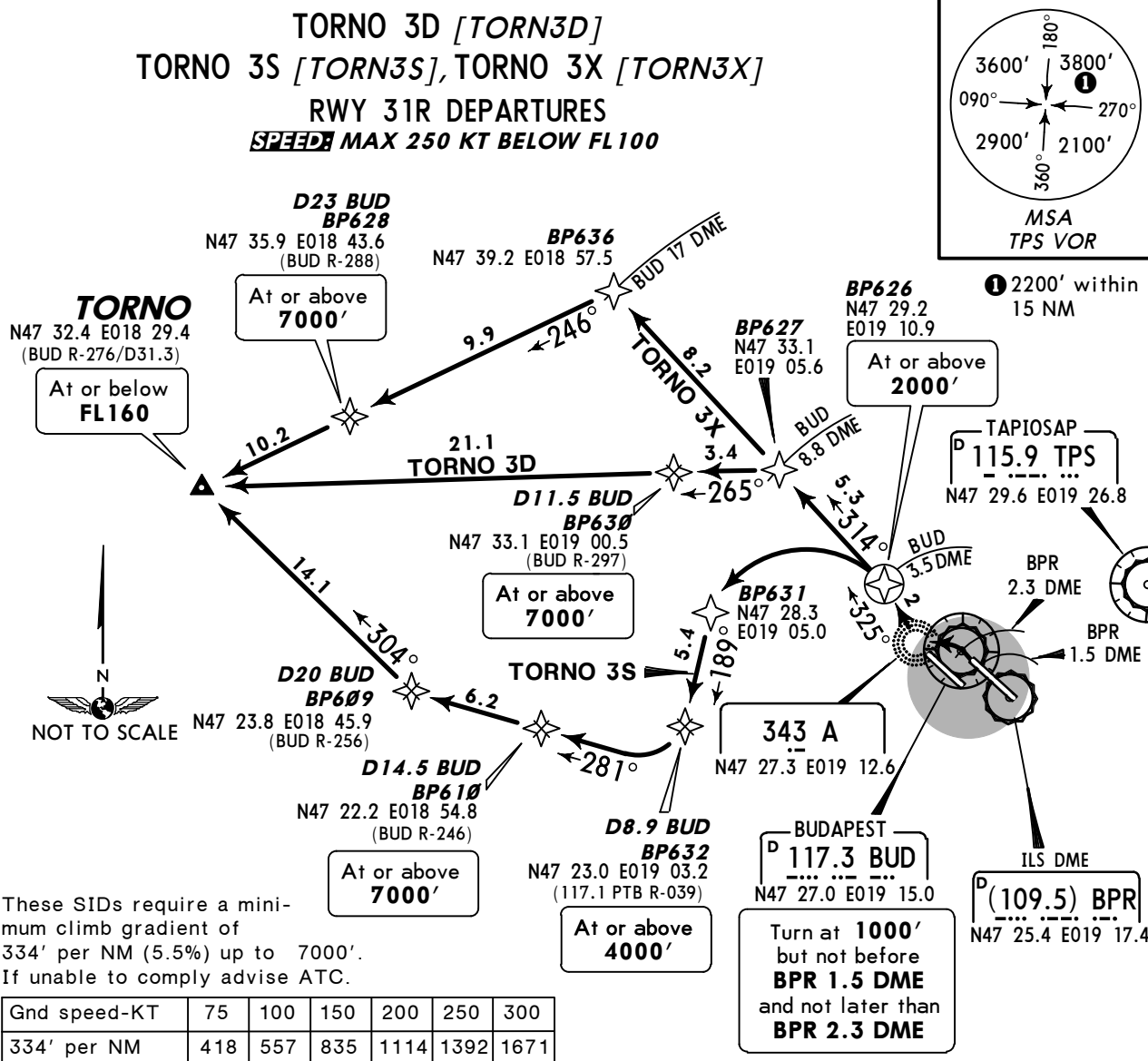
Initial climb clearance 7000', further climb by ATC

RWY	INITIAL CLIMB
31L	After take-off proceed to A. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
TORNO 3D	At BUD 3.5 DME turn LEFT, 314° track, at BUD 8.8 DME turn LEFT, 265° track to TORNO. GPS/FMS: BP626 (2000'+) - BP627 - BP630 (7000'+) - TORNO (FL160-).
TORNO 3S	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn RIGHT, 281° track, at D20 BUD turn RIGHT, 304° track to TORNO. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - BP610 (7000'+) - BP609 - TORNO (FL160-).
TORNO 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn LEFT, 246° track to TORNO. GPS/FMS: BP626 (2000'+) - BP636 - BP628 (7000'+) - TORNO (FL160-).

BUDAPEST
Approach
129.7Apt Elev
496'

Trans level: By ATC Trans alt: 9000'

1. If not otherwise instructed by Tower contact BUDAPEST Approach when passing 1500'.
2. SIDs include minimum noise routings. Strict adherence to prescribed tracks is mandatory for safety reasons and noise abatement.
3. An acceleration segment according to PANS-OPS is not contained.



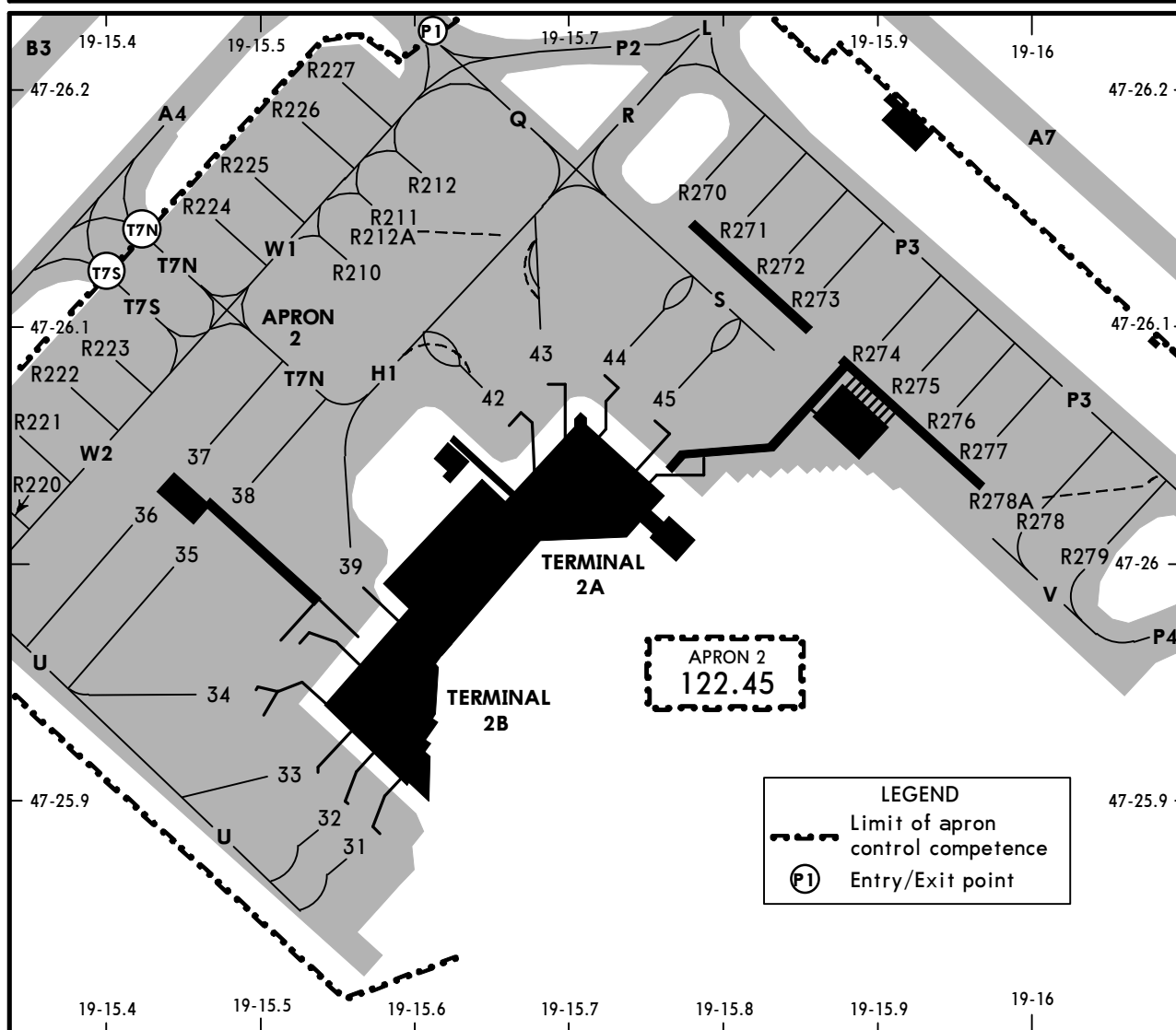
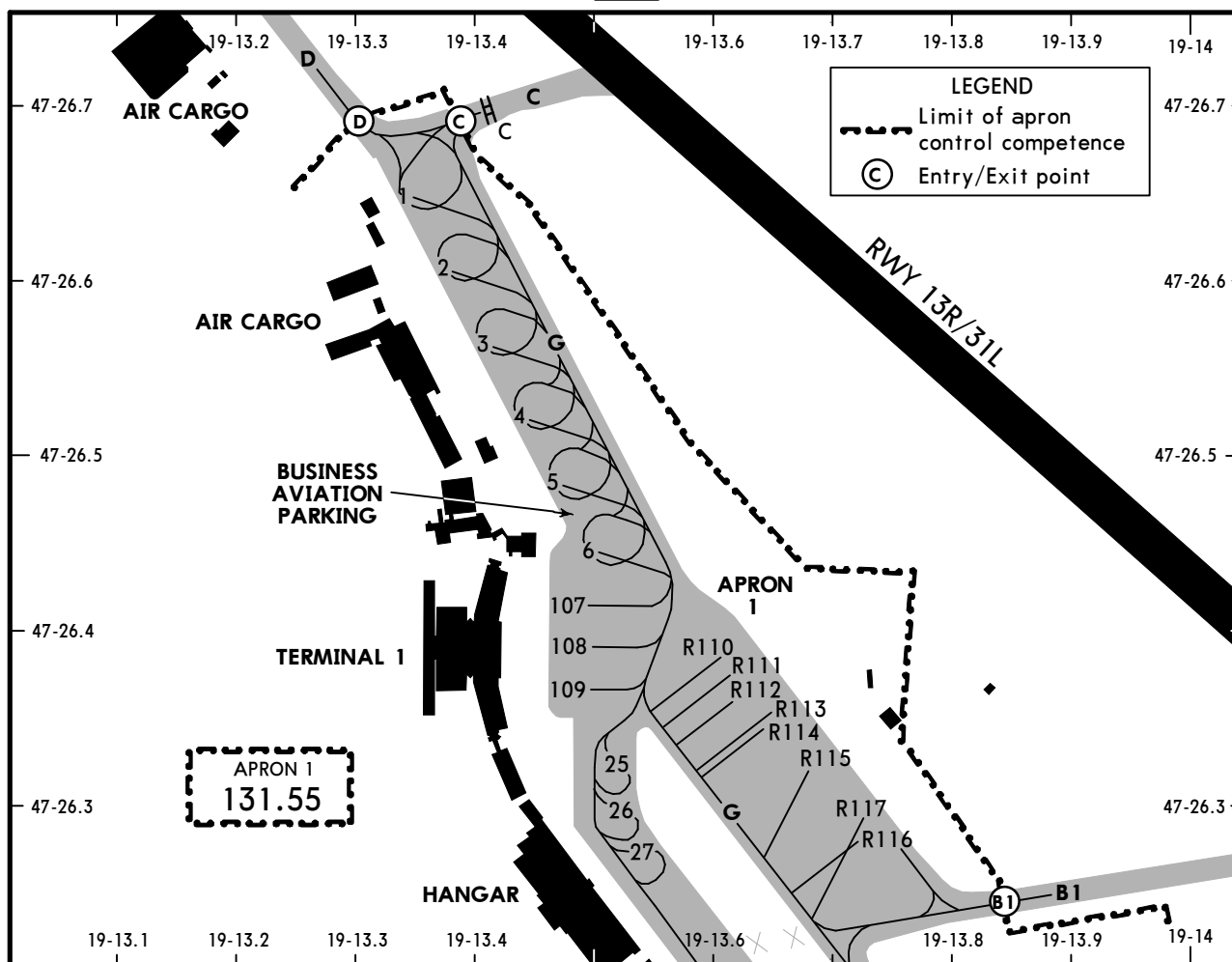
Initial climb clearance 7000', further climb by ATC

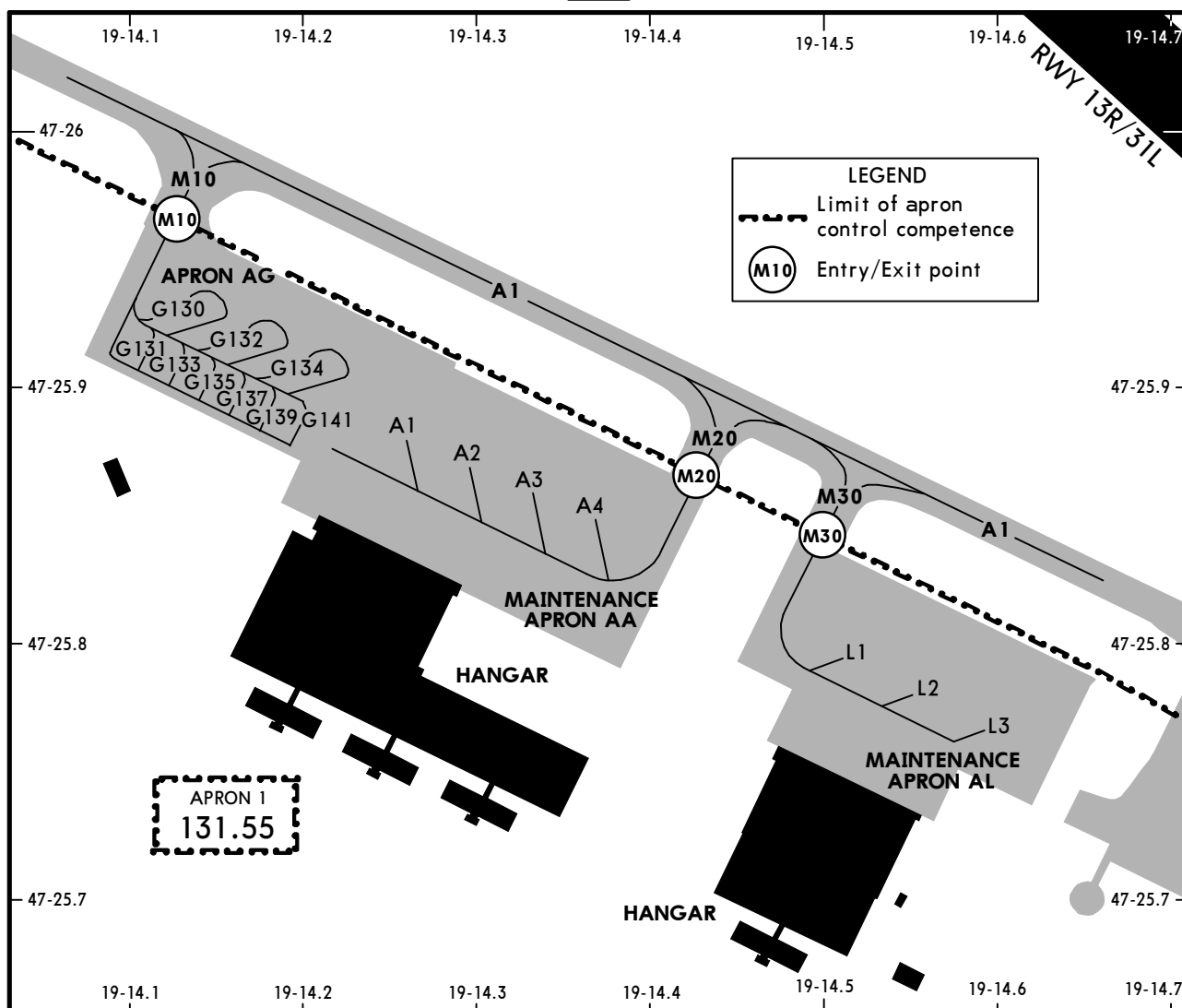
RWY	INITIAL CLIMB
31R	Take-off and climb up to 1000'. The initial climbing speed to the noise abatement initiation point is $V_2 + 10$ KT to 20 KT. At 1000' turn LEFT and proceed to A and continue climbing. Initiate turn not before BPR 1.5 DME and not later than BPR 2.3 DME. After passing A turn RIGHT and proceed on 325° track. When reaching an altitude equivalent to at least 1300' decrease body angle/angle of pitch while maintaining a positive rate of climb, accelerate towards V_{ZF} and either: a) reduce power with the initiation of the first flap/slat retraction; or b) reduce power after flap/slat retraction. Cross BUD 3.5 DME at or above 2000'. Maintain a positive rate of climb and accelerate to and maintain a climb speed of $V_{ZF} + 10$ KT to 20 KT to 3500'. When reaching 3500', transition to normal en-route climb speed.
SID	ROUTING
TORNO 3D	At BUD 3.5 DME turn LEFT, 314° track, at BUD 8.8 DME turn LEFT, 265° track to TORNO. GPS/FMS: BP626 (2000'+) - BP627 - BP630 (7000'+) - TORNO (FL160-).
TORNO 3S	At BUD 3.5 DME turn LEFT, 189° track, at D8.9 BUD turn RIGHT, 281° track, at D20 BUD turn RIGHT, 304° track to TORNO. GPS/FMS: BP626 (2000'+) - BP631 - BP632 (4000'+) - BP610 (7000'+) - BP609 - TORNO (FL160-).
TORNO 3X	At BUD 3.5 DME turn LEFT, 314° track, at BUD 17 DME turn LEFT, 246° track to TORNO. GPS/FMS: BP626 (2000'+) - BP636 - BP628 (7000'+) - TORNO (FL160-).

CHANGES: None. © JEPPESEN, 2001, 2013. ALL RIGHTS RESERVED.

ADDITIONAL RUNWAY INFORMATION					
RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond Glide Slope		
13L	HIRL (60m)CL (15m)ALSF-II TDZ PAP-L(3.0°)	RVR	11,129' 3392m	2	148'
31R	HIRL (60m)CL (15m)ALSF-II TDZ PAP-L(3.0°)	1 RVR	11,190' 3411m		45m
1 HST-Y&Z					
2 TAKE-OFF RUN AVAILABLE					
RWY 13L:					
From rwy head		12,162' (3707m)	From rwy head		12,162' (3707m)
twy K int		9678' (2950m)	twy X int		8694' (2650m)
			twy K int		2313' (705m)
13R	HIRL (60m)CL (15m)ALSF-II TDZ PAP-L(3.0°)	3 RVR	8842' 2695m	4	148'
31L	HIRL (60m)CL (15m)ALSF-II TDZ PAP-L(3.0°)	RVR	8599' 2621m		45m
3 HSTIL HST-J4					
4 TAKE-OFF RUN AVAILABLE					
RWY 13R:					
From rwy head		9875' (3010m)	From rwy head		9875' (3010m)
twy C int		8038' (2450m)	twy B1/B2 int		5906' (1800m)
twy B1/B2 int		3937' (1200m)	twy C int		1657' (505m)

Standard		TAKE-OFF 1					
		LVP must be in force					
Approved Operators							
HIRL, CL & mult. RVR req		RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)	
A					400m	500m	
B	125m	150m	200m	250m			
C							
D	150m	200m	250m	300m			
1 Operators applying U.S. Ops Specs: CL required below 300m; approved HUD required below 150m.							

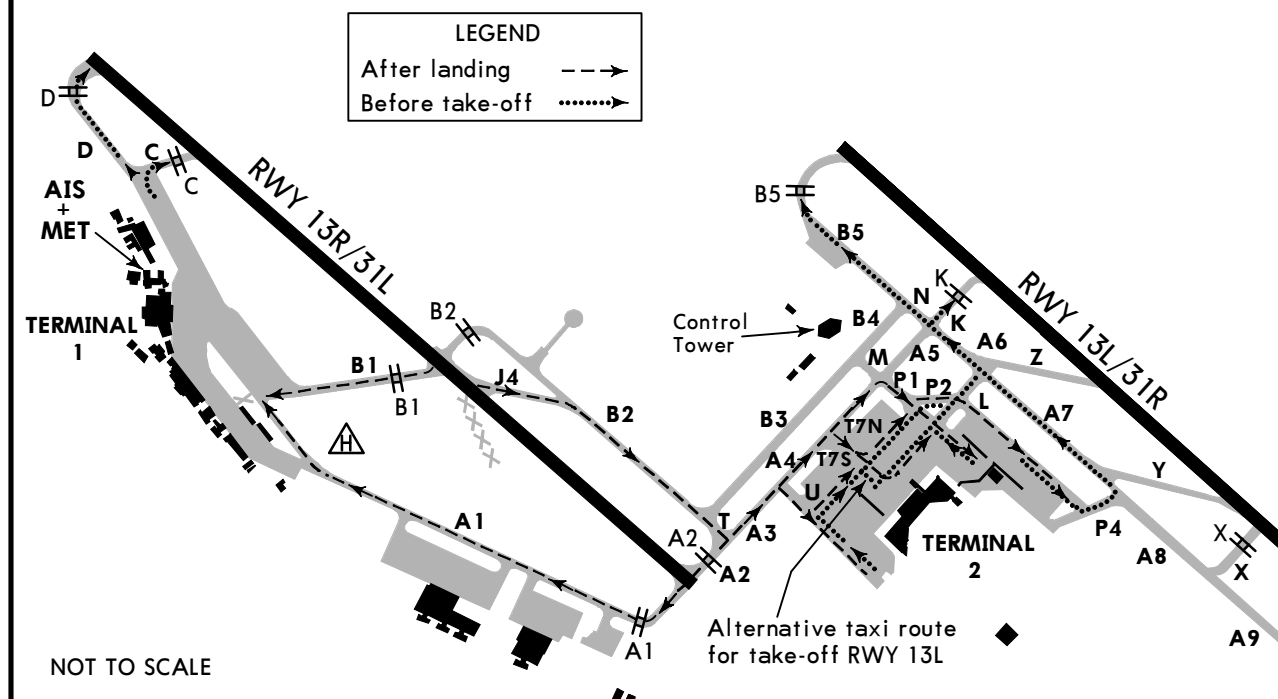




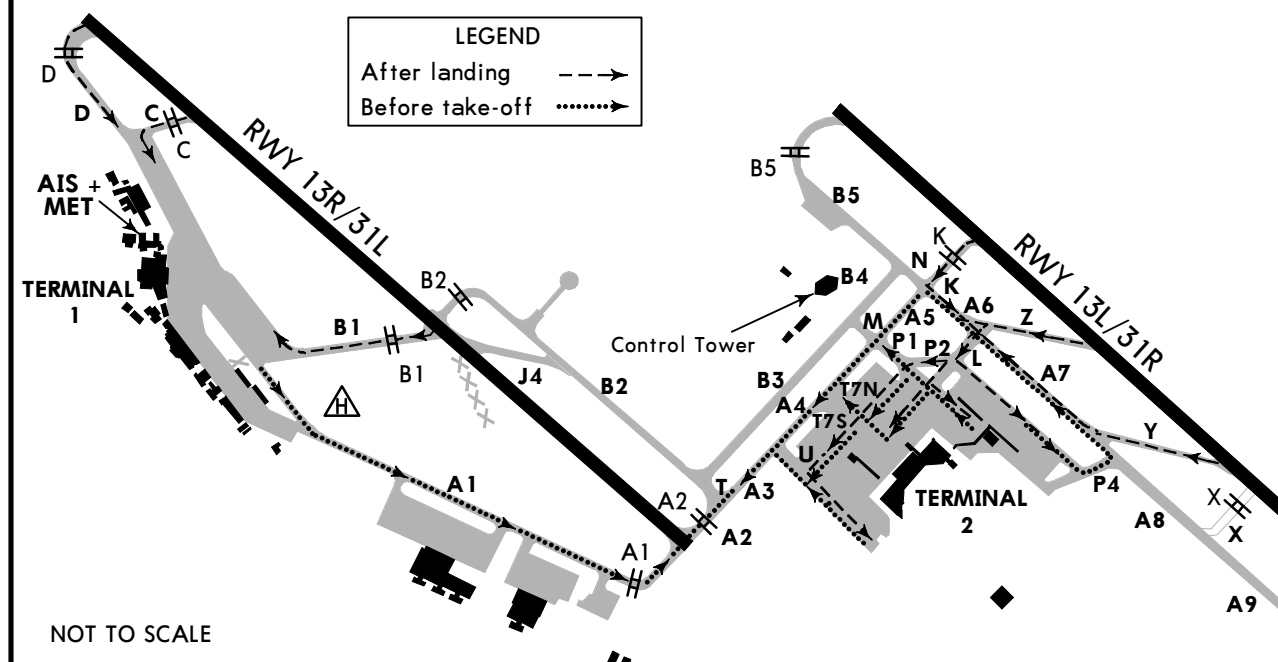
INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
1	N47 26.7 E019 13.4	L3	N47 25.7 E019 14.6
2, 3	N47 26.6 E019 13.4	R110 thru R112	N47 26.4 E019 13.7
4, 5	N47 26.5 E019 13.5	R113 thru R115	N47 26.3 E019 13.7
6	N47 26.4 E019 13.5	R116, R117	N47 26.3 E019 13.8
25 thru 27	N47 26.3 E019 13.6	R210 thru R212A	N47 26.1 E019 15.6
31, 32	N47 25.9 E019 15.6	R220	N47 26.0 E019 15.3
33 thru 37	N47 25.9 E019 15.5	R221	N47 26.0 E019 15.4
38, 39	N47 26.0 E019 15.6	R222, R223	N47 26.1 E019 15.4
42	N47 26.0 E019 15.7	R224	N47 26.1 E019 15.5
43, 44	N47 26.1 E019 15.7	R225, R226	N47 26.2 E019 15.5
45	N47 26.0 E019 15.8	R227	N47 26.2 E019 15.6
70, 71	N47 26.1 E019 15.8	R270, R271	N47 26.1 E019 15.8
72 thru 75	N47 26.1 E019 15.9	R272 thru R275	N47 26.1 E019 15.9
76 thru 78	N47 26.0 E019 16.0	R276	N47 26.1 E019 16.0
79	N47 26.0 E019 16.1	R277 thru R278A	N47 26.0 E019 16.0
82	N47 26.1 E019 15.9	R279	N47 26.0 E019 16.1
84	N47 26.0 E019 16.0		
107 thru 109	N47 26.4 E019 13.5		
A1, A2	N47 25.9 E019 14.3		
A3, A4	N47 25.8 E019 14.4		
G130	N47 25.9 E019 14.2		
G131	N47 25.9 E019 14.1		
G132 thru G141	N47 25.9 E019 14.2		
L1	N47 25.8 E019 14.5		
L2	N47 25.8 E019 14.6		

TAXI ROUTING RWYs 13L/R



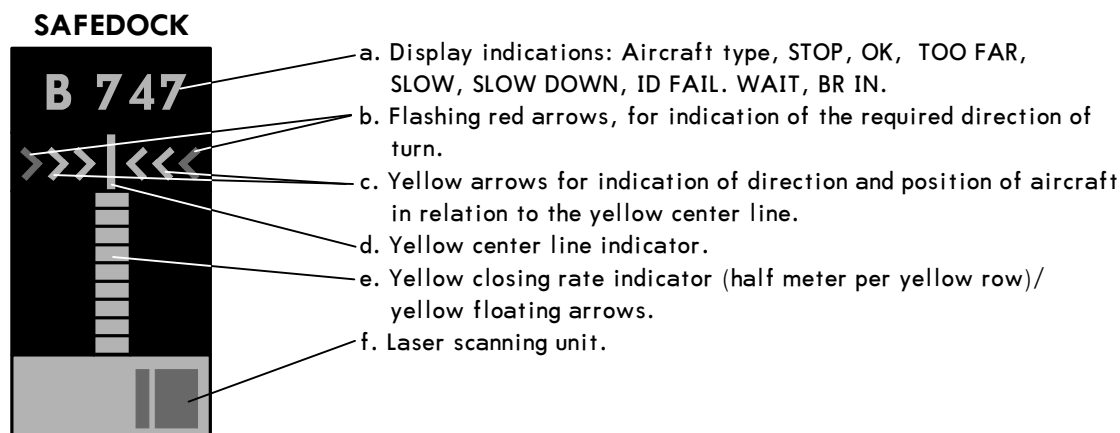
TAXI ROUTING RWYs 31L/R



SAFEGATE DOCKING SYSTEM

A. SYSTEM DESCRIPTION

The SAFEDOCK system is a microprocessor controlled laser scanning device which directs an approaching aircraft to the terminal gate stopping position with assistance of a real time display unit that is clearly visible from cockpit.



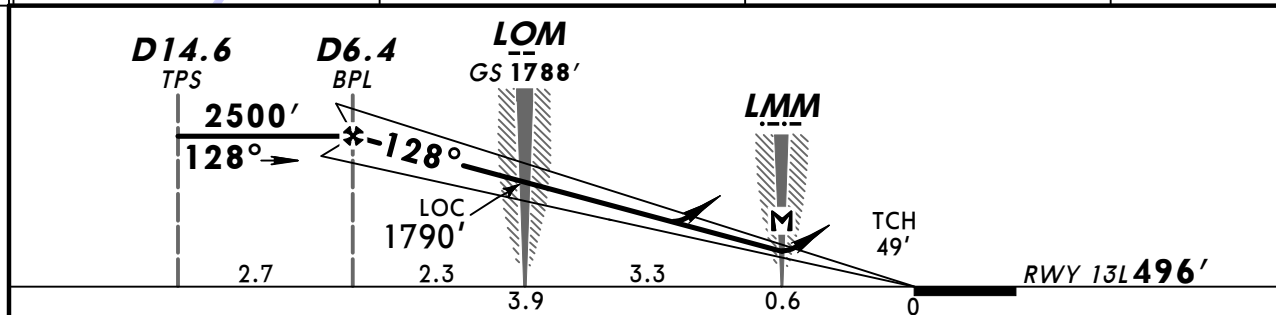
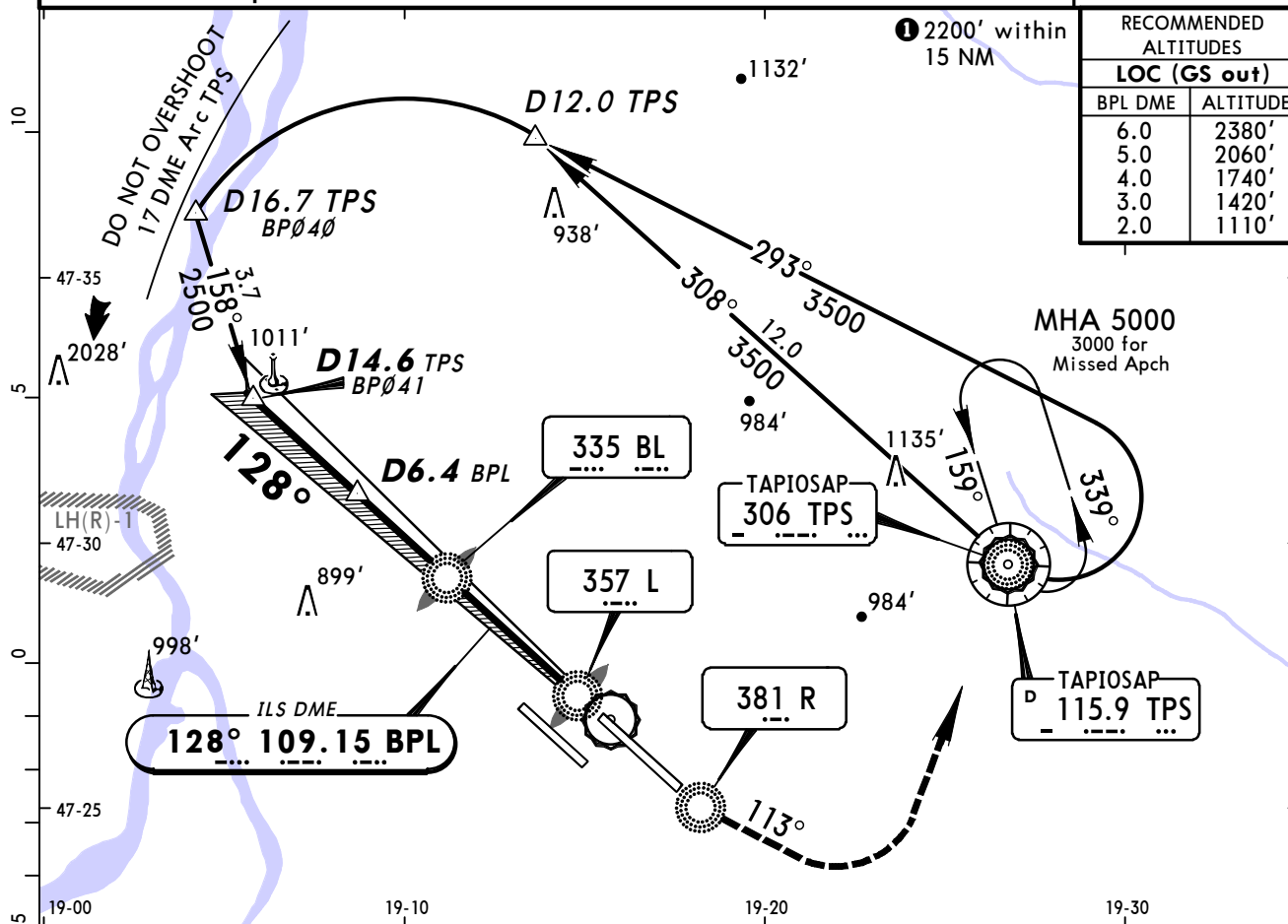
B. DOCKING PROCEDURE

1. Follow the taxi-in line to the respective gate.
2. Check correct aircraft type, the flashing arrows of direction and floating arrows. (The system is activated and ready for docking procedure)
3. When the aircraft has been caught by the system, the floating arrows are replaced by the closing rate indicator.
 - Watch the yellow center line indicator and the flashing arrow indicate the correct azimuth guidance.
 - Watch the flashing red arrows for required direction of turn.
4. When the aircraft is 12m from the stop position, the closing rate is indicated by turning off one row per half meter indicating the remaining distance to the stop position.
5. If the docking speed of the aircraft is more than 4 KT "SLOW DOWN" is displayed for the correct docking.
6. At the correct stop position all yellow closing rate indicator bars are switched off and "STOP" is displayed and 2 red lights will be lit.
7. When the aircraft has parked correctly "OK" is displayed.
8. When the aircraft has overshoot the stop position, "TOO FAR" is displayed.

WARNING:

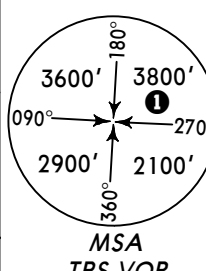
1. When the detection of the aircraft is not possible (the closing rate indicator does not appear) the aircraft has to stop safety distance from the aviobridge (as primary obstacle) and wait for the marshaller's manual guidance.
2. When the identification of the aircraft is not made 12m before the correct stop position, "STOP" then "ID FAIL" is displayed. In this case the docking procedure has to be interrupted. The aircraft has to wait for the system restarting or for the manual guidance by the marshaller.
3. During heavy fog, opposite sunlight or snow the visibility of the docking system can be reduced. In this case the display deactivates the floating arrows and "SLOW" is displayed. This configuration is superseded by the closing rate indicator bar, as soon as the system detects the approaching aircraft.

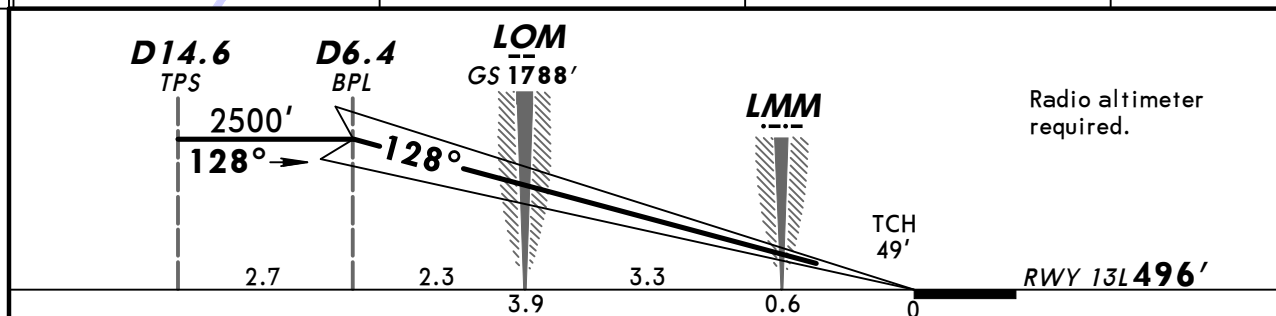
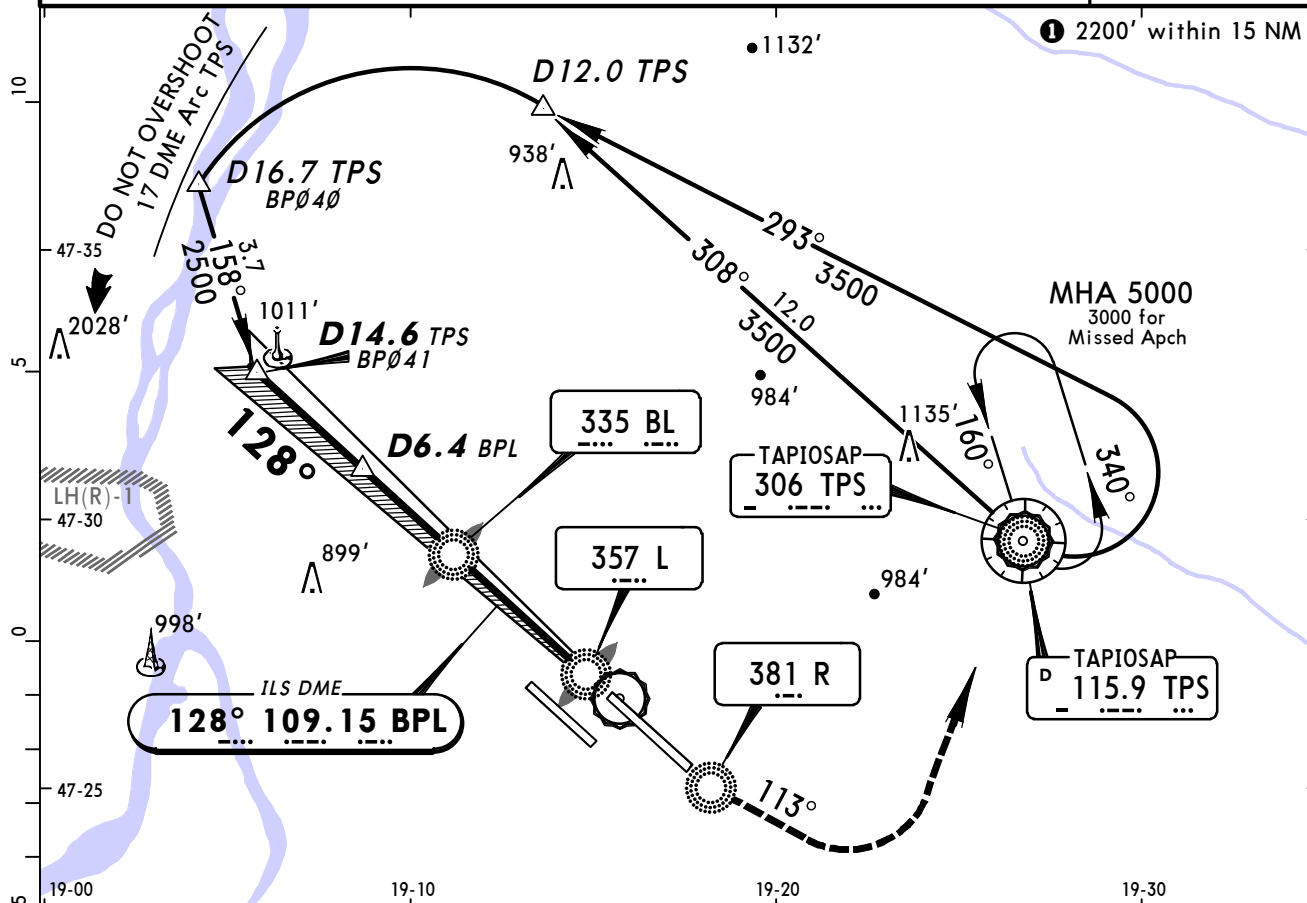
ATIS		BUDAPEST Approach			BUDAPEST Tower		Ground	
132.37 117.3		129.7 122.97 119.5			118.1		121.9	
LOC BPL 109.15	Final Apch Crs 128°	GS LOM 1788' (1292')	ILS DA(H) 696' (200')		Apt Elev 496' RWY 496'			
MISSED APCH: Continuous climb to 3000'. Climb STRAIGHT AHEAD to R Lctr, then turn LEFT onto 113°. When passing 2000' turn LEFT (MAX 230 KT) to TPS VOR.								
Alt Set: hPa Rwy Elev: 18 hPa Trans level: By ATC Trans alt: 9000'								
VOR and DME required.						MSA TPS VOR		



Gnd speed-Kts	70	90	100	120	140	160	ALSFI-II	R	113°	230 KT
ILS GS or	377	484	538	646	753	861	PAPI PAPI	381	LT	MAX
LOC Desc Angle	3.00°									
MAP at LMM										

Standard			STRAIGHT-IN LANDING RWY 13L				CIRCLE-TO-LAND	
ILS			LOC (GS out)				Max Kts	MDA(H) _____ VIS _____
DA(H) 696' (200')			DA(H) 830' (334')					
FULL		Limited	ALS out	ALS out				
A	RVR 550m	RVR 750m	RVR 1200m	RVR 800m	RVR 1500m	100	950' (454') 1900m	
B						135	1100' (604') 2800m	
C						180	1280' (784') 3700m	
D						205	1460' (964') 4600m	

ATIS		BUDAPEST Approach			BUDAPEST Tower		Ground	
132.37 117.3		129.7	122.97	119.5	118.1		121.9	
LOC BPL 109.15	Final Apch Crs 128°	GS LOM 1788' (1292')	CAT II ILS RA 92' DA(H) 596' (100')		Apt Elev 496' RWY 496'			
MISSED APCH: Continuous climb to 3000'. Climb STRAIGHT AHEAD to R Lctr, then turn LEFT onto 113°. When passing 2000' turn LEFT (MAX 230 KT) to TPS VOR.								
Alt Set: hPa Rwy Elev: 18 hPa Trans level: By ATC Trans alt: 9000' 1. VOR and DME required. 2. Special Aircrew & Acft Certification Required.								



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI PAPI	R 381	113° LT	230 KT MAX
GS 3.00°	377	484	538	646	753	861				

Standard STRAIGHT-IN LANDING RWY 13L
 CAT II ILS
 ABCD
RA 92'
 DA(H) **596'** (100')

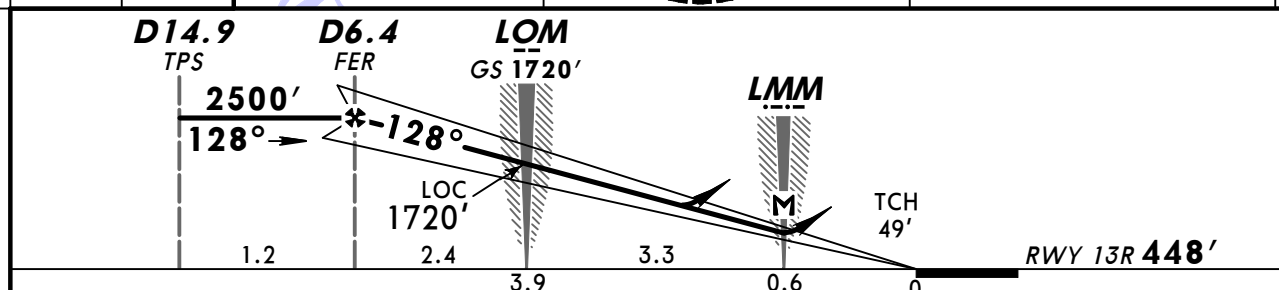
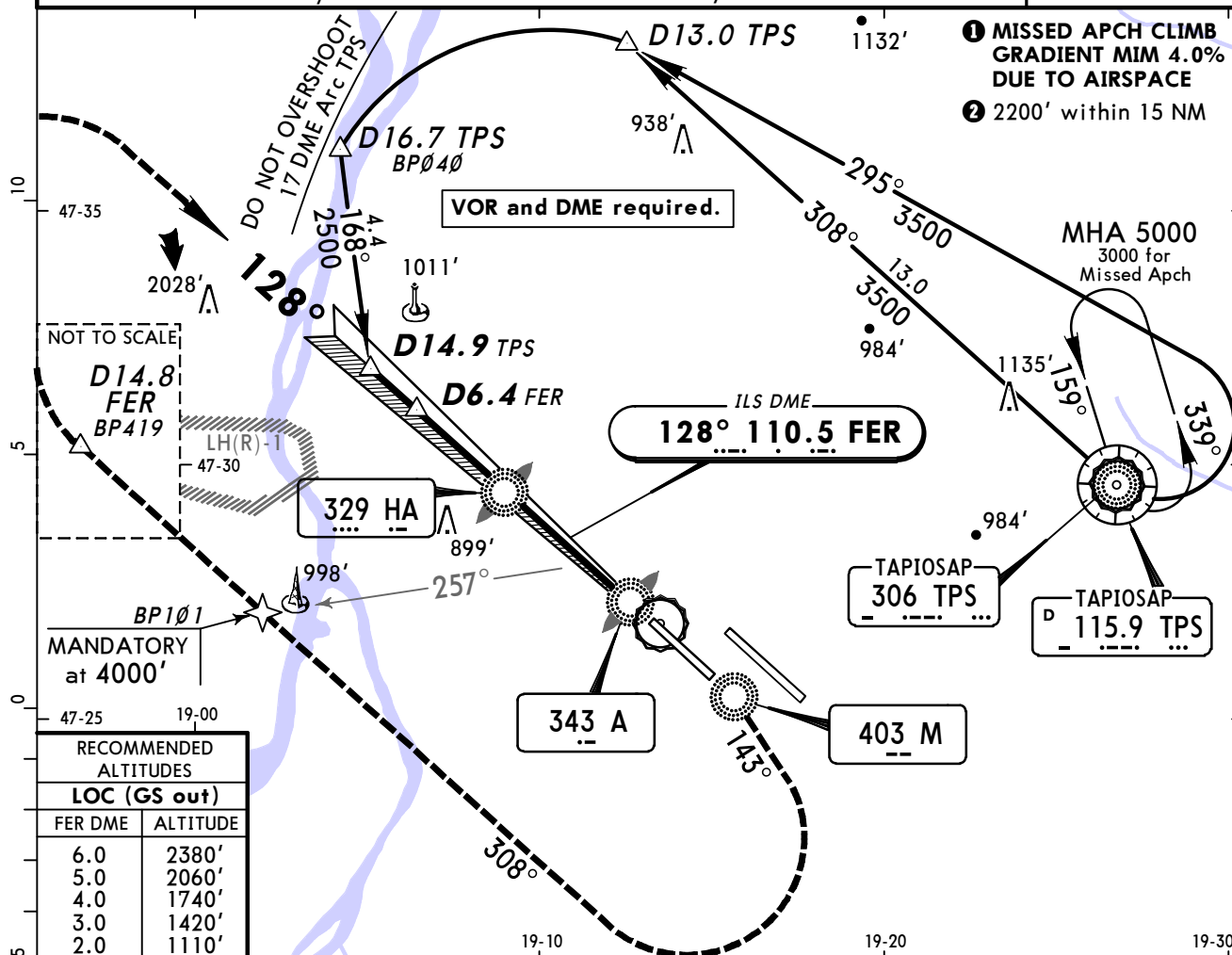
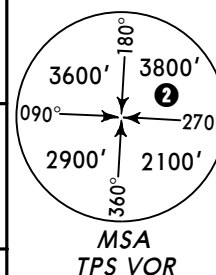
RVR **300m** 

 Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

ATIS 132.37 117.3	BUDAPEST Approach 129.7 122.97 119.5	BUDAPEST Tower 118.1	Ground 121.9
LOC FER 110.5	Final Apch Crs 128°	GS LOM 1720' (1272')	ILS DA(H) 648' (200')
		Apt Elev 496'	RWY 448'

MISSED APCH: Continuous climb to 4000'. Climb STRAIGHT AHEAD to M Lctr, then turn RIGHT to 143°. When passing 2500' turn RIGHT to 308°. When crossing D14.8 FER turn RIGHT to intercept LOC, descend to 3000', then follow approach procedure.

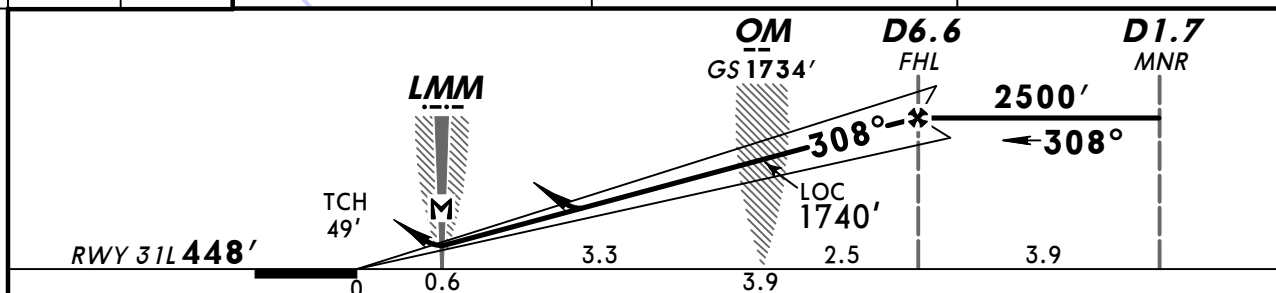
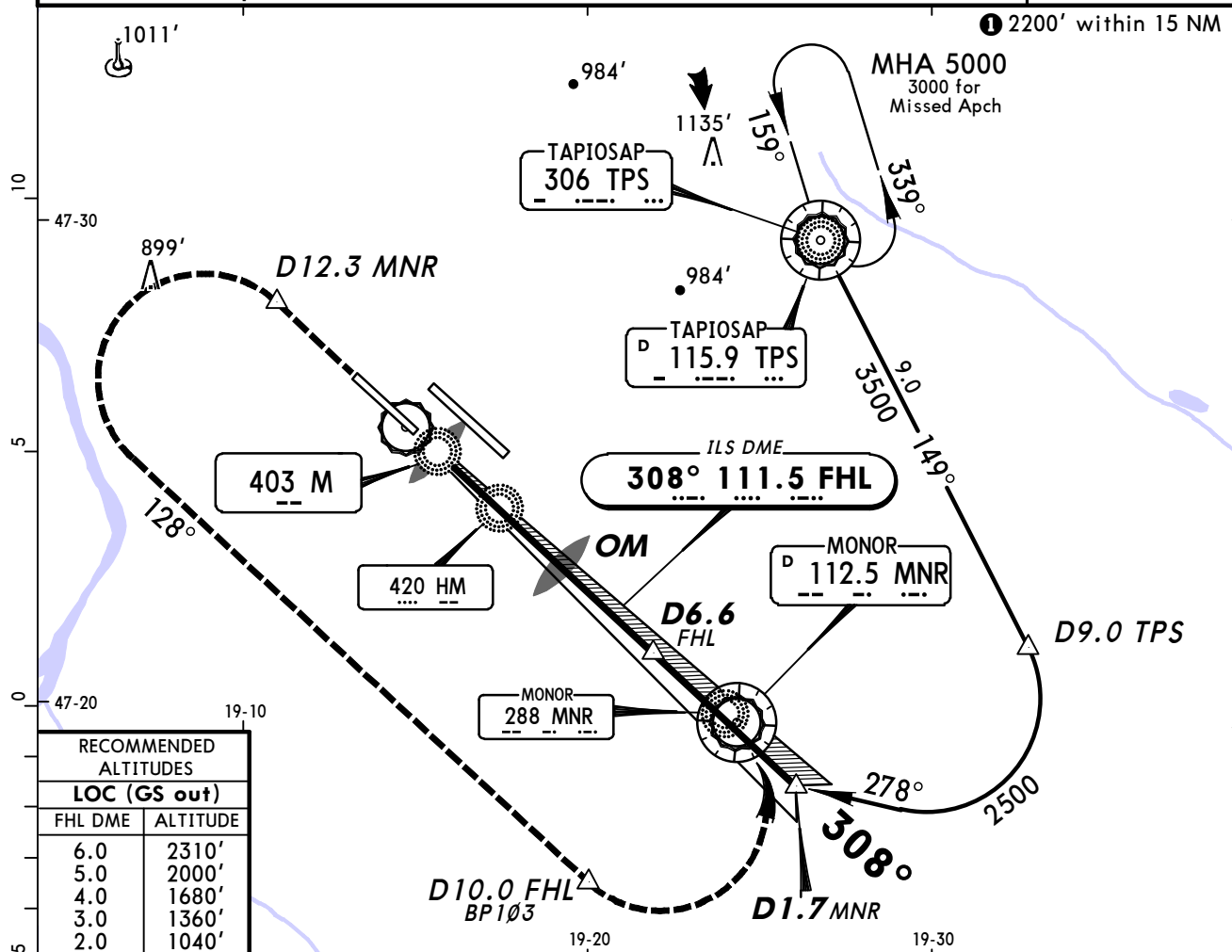
Alt Set: hPa Rwy Elev: 16 hPa Trans level: By ATC Trans alt: 9000'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	M	143°
ILS GS or LOC Desc Angle	3.00°	377	484	538	646	753	PAPI PAPI	403	RT
MAP at LMM									

STRAIGHT-IN LANDING RWY 13R					CIRCLE-TO-LAND	
Missed apch climb gradient minimum 4.0%						
ILS			LOC (GS out)			
DA(H) 648' (200')			DA(H) 920' (472')			
FULL	Limited	ALS out	ALS out		Max Kts	MDA(H) VIS
A				RVR 1500m	100	970' (474') 1900m
B	RVR 550m	RVR 750m	RVR 1200m	RVR 1500m	135	1100' (604') 2800m
C				CMV 2200m	180	1280' (784') 3700m
D					205	1460' (964') 4600m

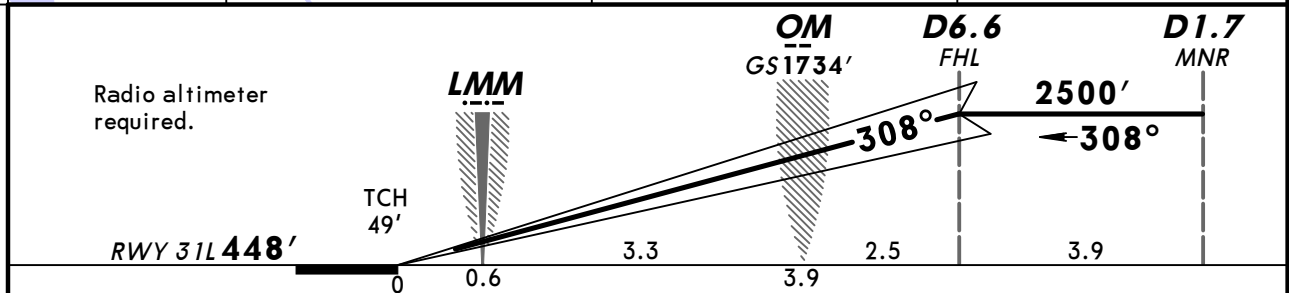
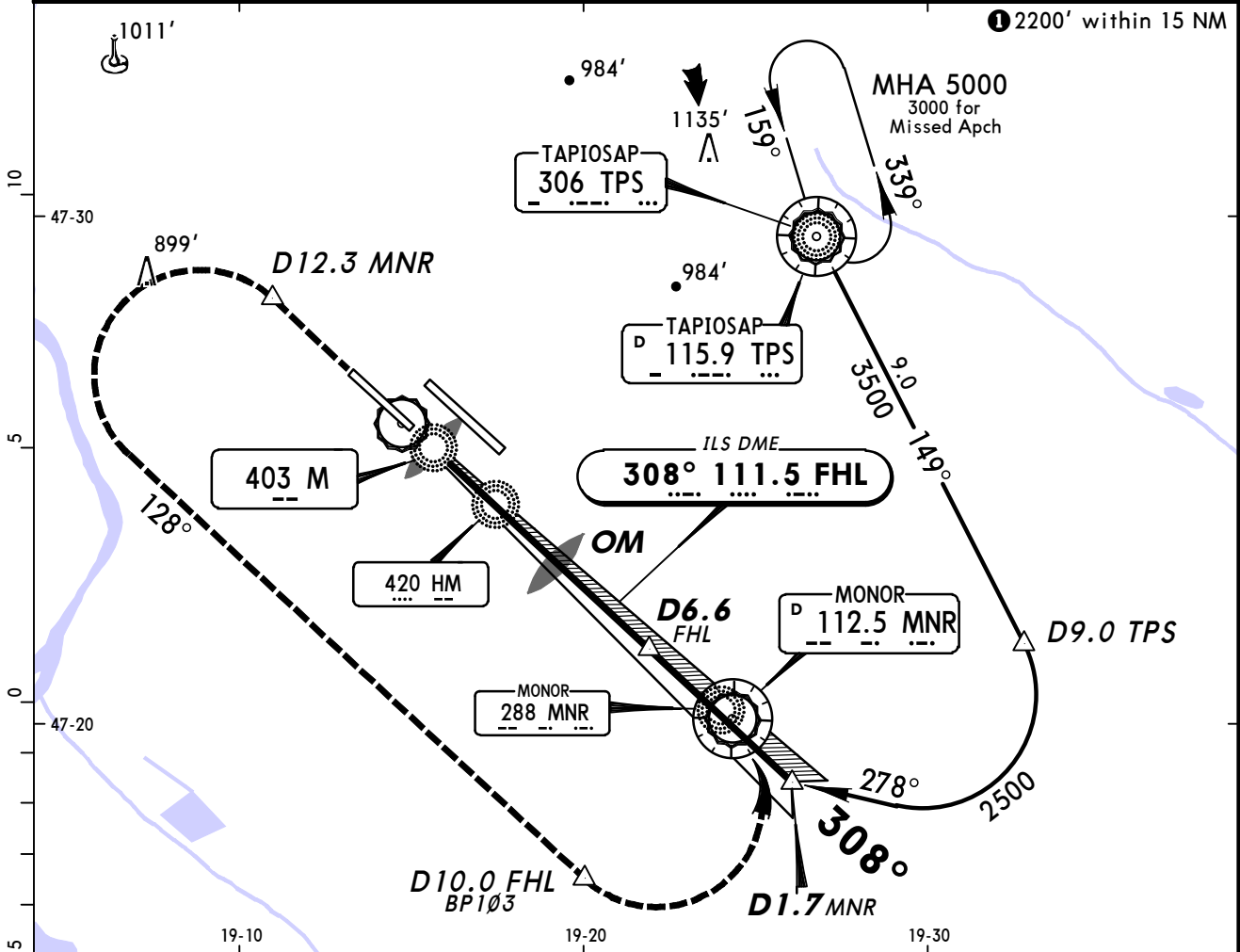
ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5		BUDAPEST Tower 118.1	Ground 121.9
LOC FHL 111.5	Final Apch Crs 308°	GS OM 1734' (1286')	ILS DA(H) 648' (200')	Apt Elev 496' RWY 448'	 MSA TPS VOR
MISSED APCH: Continuous climb to 2500'. Climb STRAIGHT AHEAD to D12.3 MNR, turn LEFT onto 128°. When crossing D10.0 FHL turn LEFT to intercept LOC and follow approach procedure.					
Alt Set: hPa Rwy Elev: 16 hPa		Trans level: By ATC		Trans alt: 9000'	
VOR and DME required.					



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	ALSF-II PAPI PAPI		D12.3 MNR	128° LT
<i>ILS GS or LOC Desc Angle</i> 3.00°	377	484	538	646	753	861				
<i>MAP at LMM</i>										

STRAIGHT-IN LANDING RWY 31L					CIRCLE-TO-LAND		
ILS DA(H) 648' (200')			LOC (GS out) DA(H) 760' (312')		Max Kts	MDA(H)	VIS
FULL	Limited	ALS out	ALS out				
A					100	950' (454')	1900m
B	RVR 550m	RVR 750m	RVR 1200m	RVR 750m	135	1100' (604')	2800m
C					180	1280' (784')	3700m
D					205	1460' (964')	4600m

ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5			BUDAPEST Tower 118.1	Ground 121.9
LOC FHL 111.5	Final Apch Crs 308°	GS OM 1734' (1286')	CAT II ILS RA 90' DA(H) 548' (100')	Apt Elev 496' RWY 448'	MSA TPS VOR	
MISSED APCH: Continuous climb to 2500'. Climb STRAIGHT AHEAD to D12.3 MNR, turn LEFT onto 128°. When crossing D10.0 FHL turn LEFT to intercept LOC and follow approach procedure.						
Alt Set: hPa Rwy Elev: 16 hPa Trans level: By ATC Trans alt: 9000'						
1. VOR and DME required.					2. Special Aircrew & Acft Certification Required.	



Gnd speed-Kts	70	90	100	120	140	160		ALSF-II PAPI PAPI	D12.3 MNR	128° LT
GS 3.00°	377	484	538	646	753	861				

Standard STRAIGHT-IN LANDING RWY 31L
CAT II ILS
ABCD
RA 90'
DA(H) 548' (100')

RVR 300m

Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

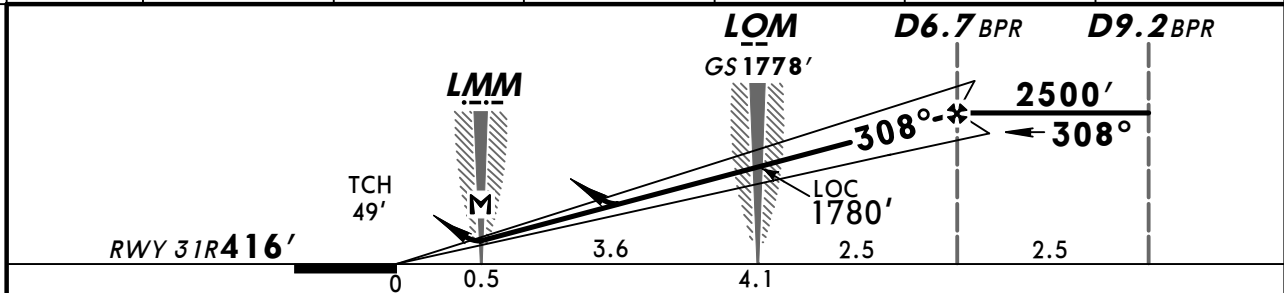
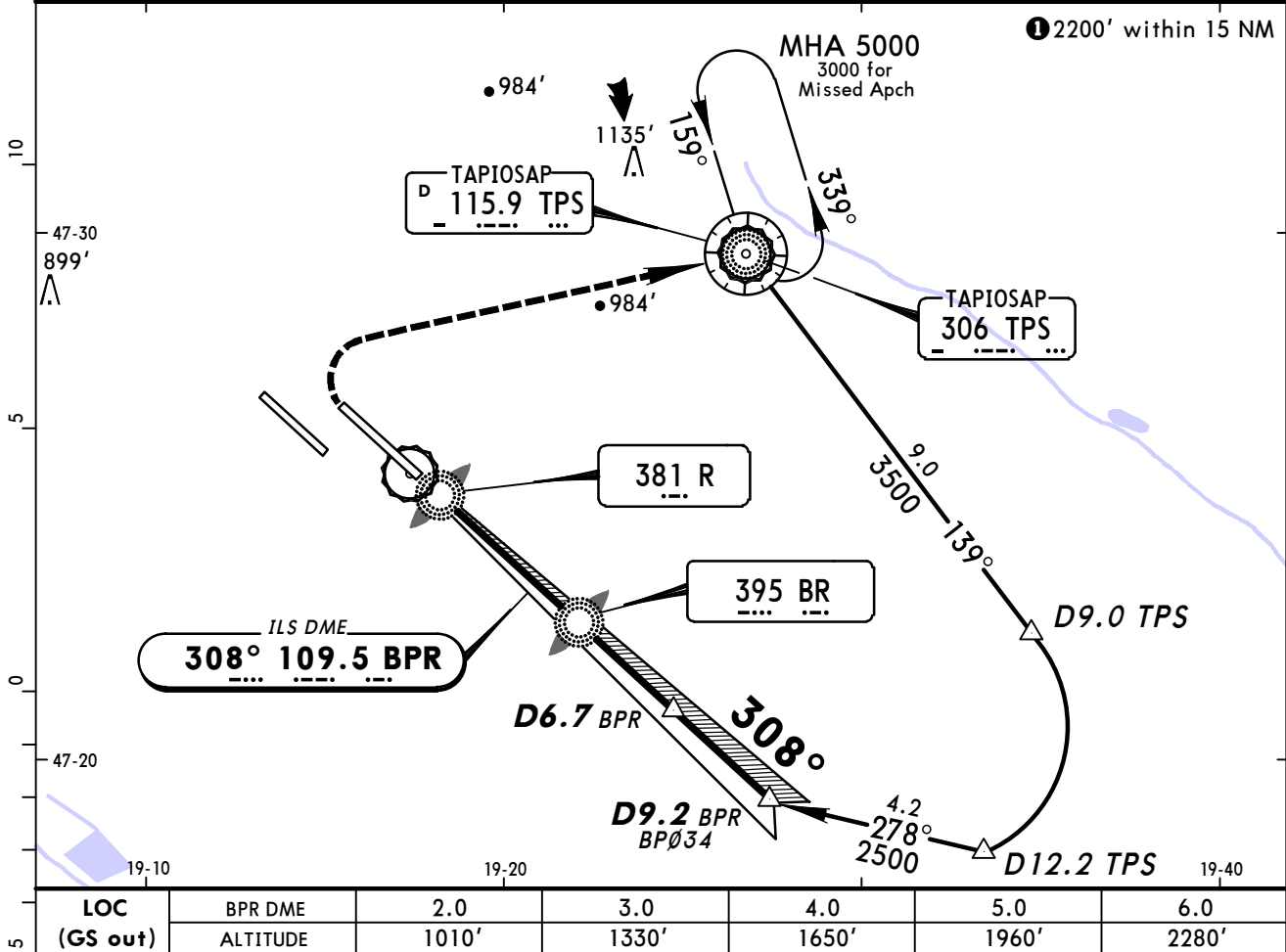
LISZT FERENC INTL

Eff 25 Aug

(RNAV)

ILS or LOC Rwy 31R

ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5		BUDAPEST Tower 118.1	Ground 121.9
LOC BPR 109.5	Final Apch Crs 308°	GS LOM 1778' (1362')	ILS DA(H) 616' (200')	Apt Elev 496' RWY 416'	
MISSED APCH: Continuous climb to 3000'. Initially climb STRAIGHT AHEAD to 900', then turn RIGHT (MAX 185 KT) to TPS VOR.					
Alt Set: hPa Rwy Elev: 15 hPa Trans level: By ATC Trans alt: 9000' VOR and DME required.					



<i>Gnd speed-Kts</i>	70	90	100	120	140	160		900' 	185 KT MAX  RT	TPS 115.9
<i>ILS GS or LOC Desc Angle 3.00°</i>	377	484	538	646	753	861				
<i>MAP at LMM</i>										

Standard

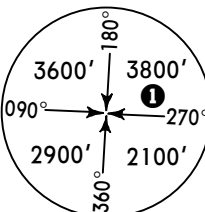
STRAIGHT-IN LANDING RWY 31R

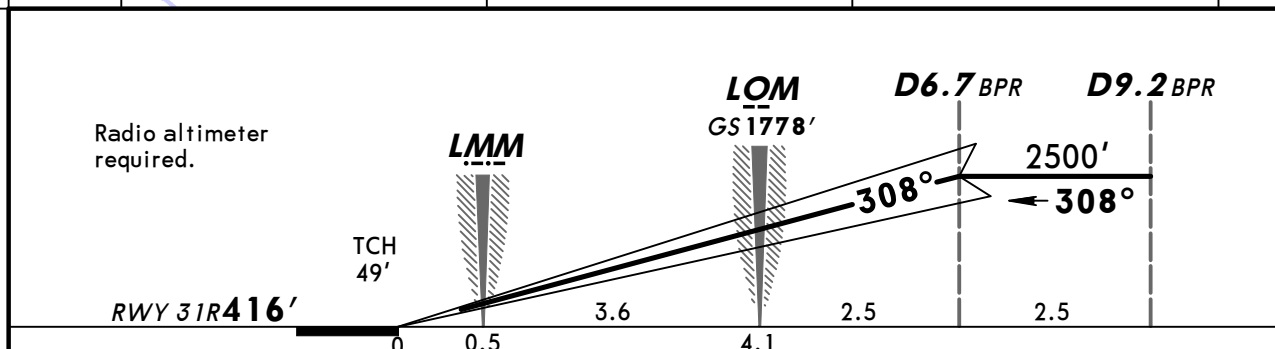
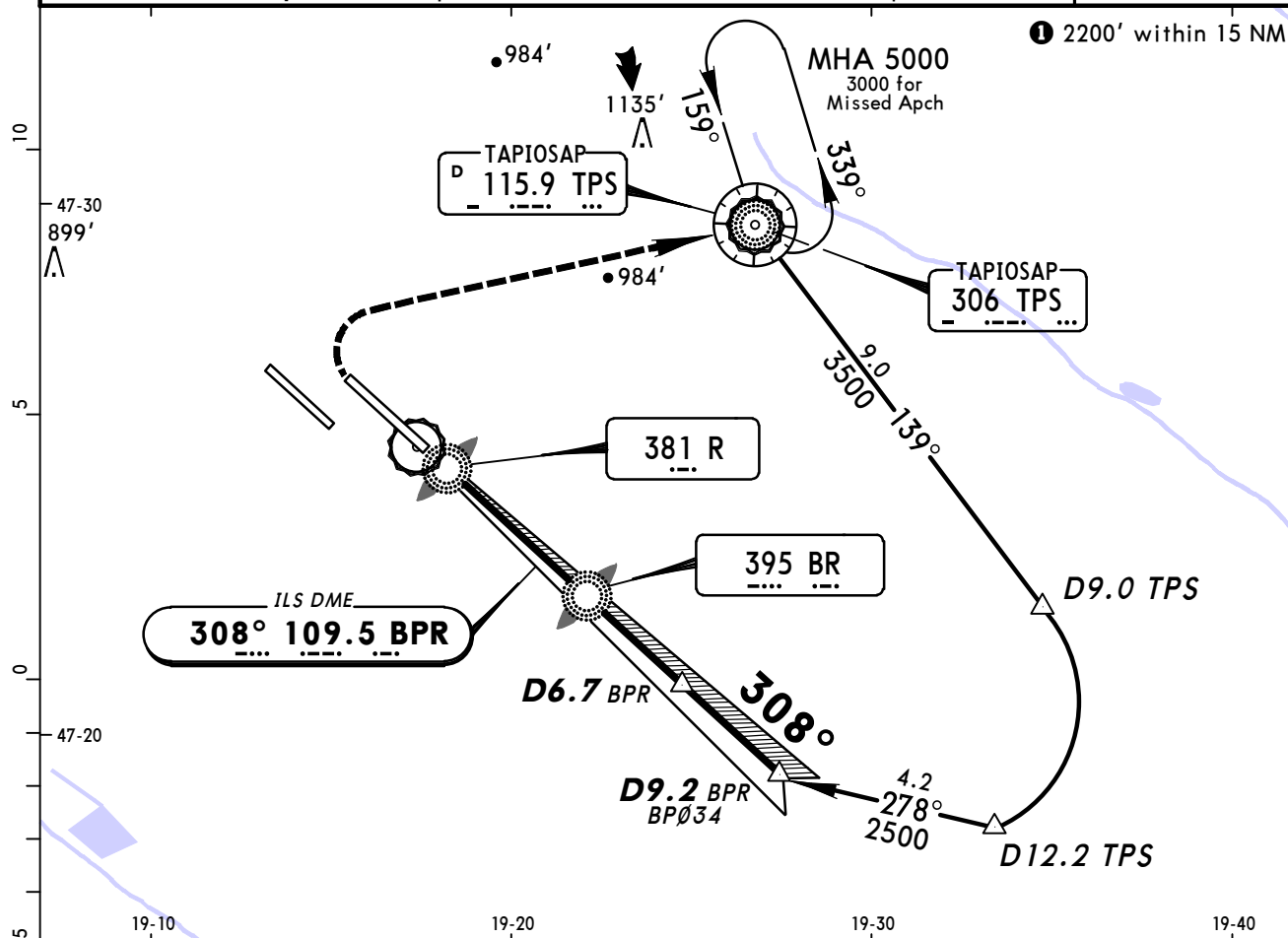
CIRCLE-TO-LAND

ILS				LOC (GS out)		Max Kts	MDA(H)	VIS
DA(H) 616' (200')				DA(H) 800' (384')				
FULL		Limited	ALS out		ALS out			
A	RVR 550m	RVR 750m	RVR 1200m	RVR 1100m	RVR 1500m	100	950' (454')	1900m
B						135	1100' (604')	2800m
C						180	1280' (784')	3700m
D						205	1460' (964')	4600m

CHANGES: Apt name.

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ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5		BUDAPEST Tower 118.1	Ground 121.9
LOC BPR 109.5	Final Apch Crs 308°	GS LOM 1778' (1362')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 496' RWY 416'	 MSA TPS VOR
MISSED APCH: Continuous climb to 3000'. Initially climb STRAIGHT AHEAD to 900', then turn RIGHT (MAX 185 KT) to TPS VOR.					
Alt Set: hPa Rwy Elev: 15 hPa Trans level: By ATC Trans alt: 9000' 1. VOR and DME required. 2. Special Aircrew & Acft Certification Required.					

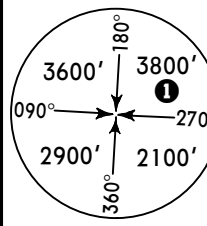


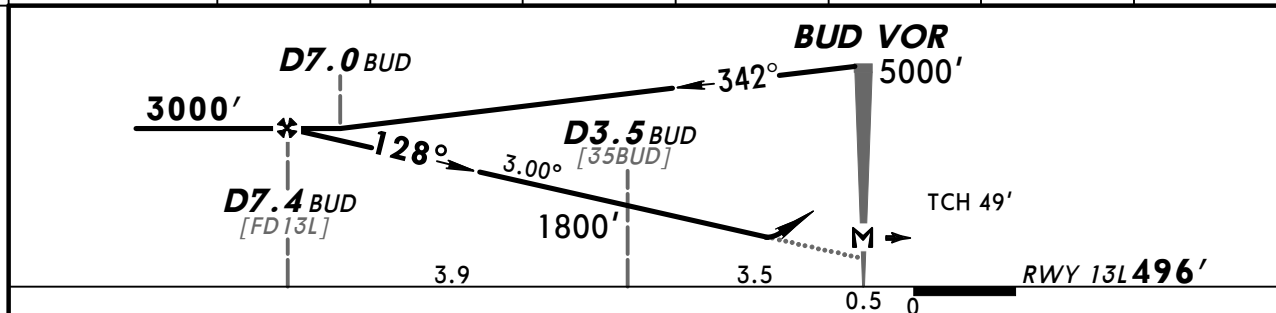
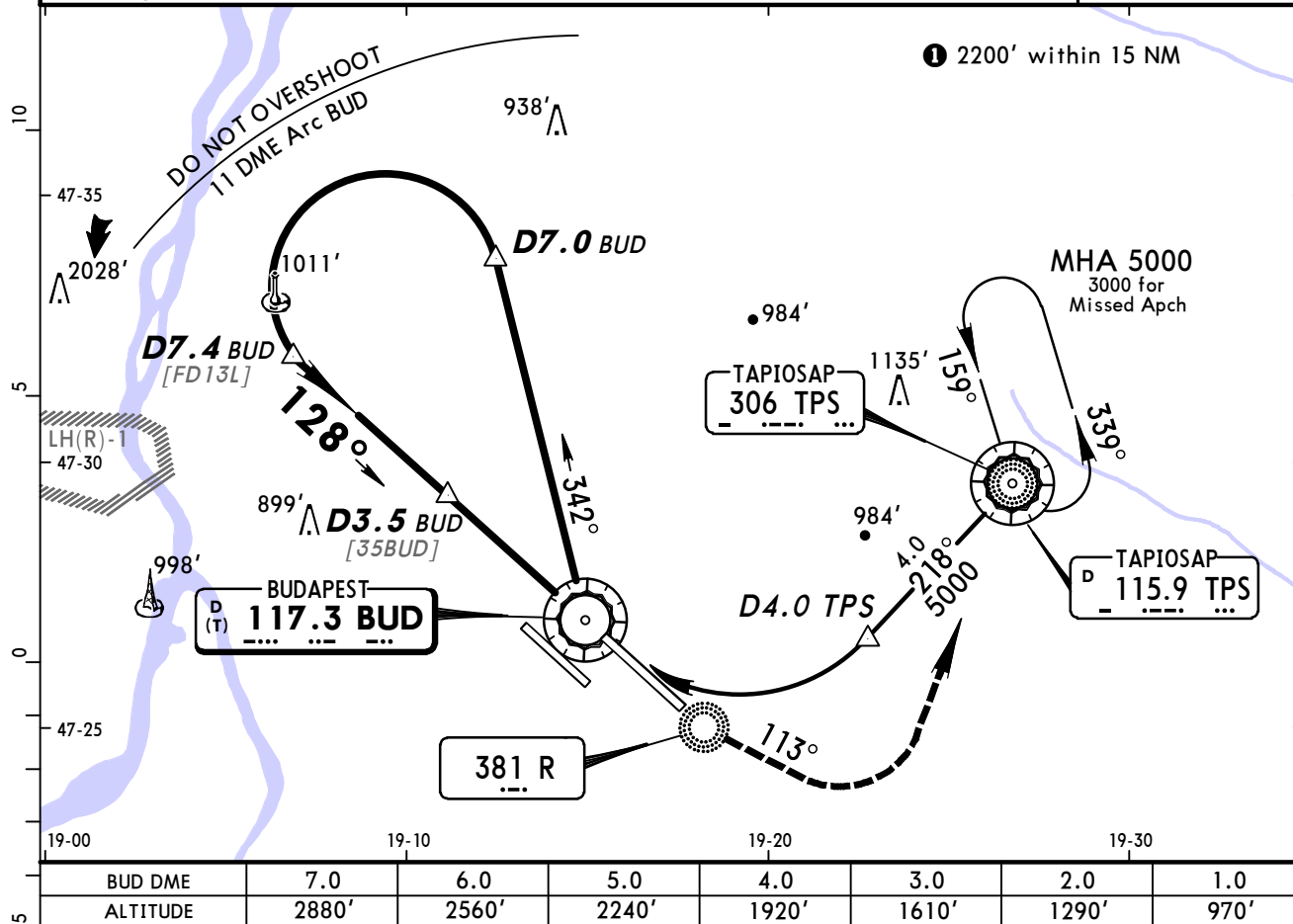
Radio altimeter required.							ALSF-II	900'	185 KT	TPS
Gnd speed-Kts	70	90	100	120	140	160	PAPI	↑	MAX	115.9
GS	3.00°	377	484	538	646	753	PAPI		RT	

Standard		STRAIGHT-IN LANDING RWY 31R	
CAT IIIA ILS		CAT II ILS	
		Missed apch climb gradient mim 3.0%	Missed apch climb gradient mim 2.5%
		ABCD	AB: RA 103' DA(H) 516'(100')
		RA 103'	C: RA 107' DA(H) 521'(105')
DH 50'		DA(H) 516'(100')	D: RA 122' DA(H) 534'(118')
RVR 200m		RVR 300m 	

 Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

BRIEFING STRIP™

ATIS		BUDAPEST Approach			BUDAPEST Tower		Ground	
132.37 117.3		129.7 122.97 119.5			118.1		121.9	
VOR BUD 117.3	Final Apch Crs 128°	Minimum Alt D7.4 BUD 3000' (2504')	DA(H) 900' (404')		Apt Elev 496' RWY 496'			
MISSED APCH: Continuous climb to 3000'. Climb STRAIGHT AHEAD to R Lctr, then turn LEFT onto 113°. When passing 2000' turn LEFT (MAX 230 KT) to TPS VOR.								
Alt Set: hPa DME required.		Rwy Elev: 18 hPa		Trans level: By ATC		Trans alt: 9000'		

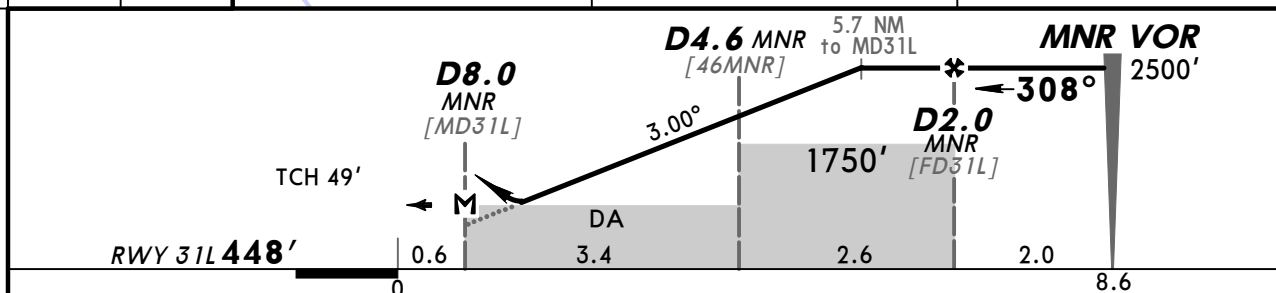
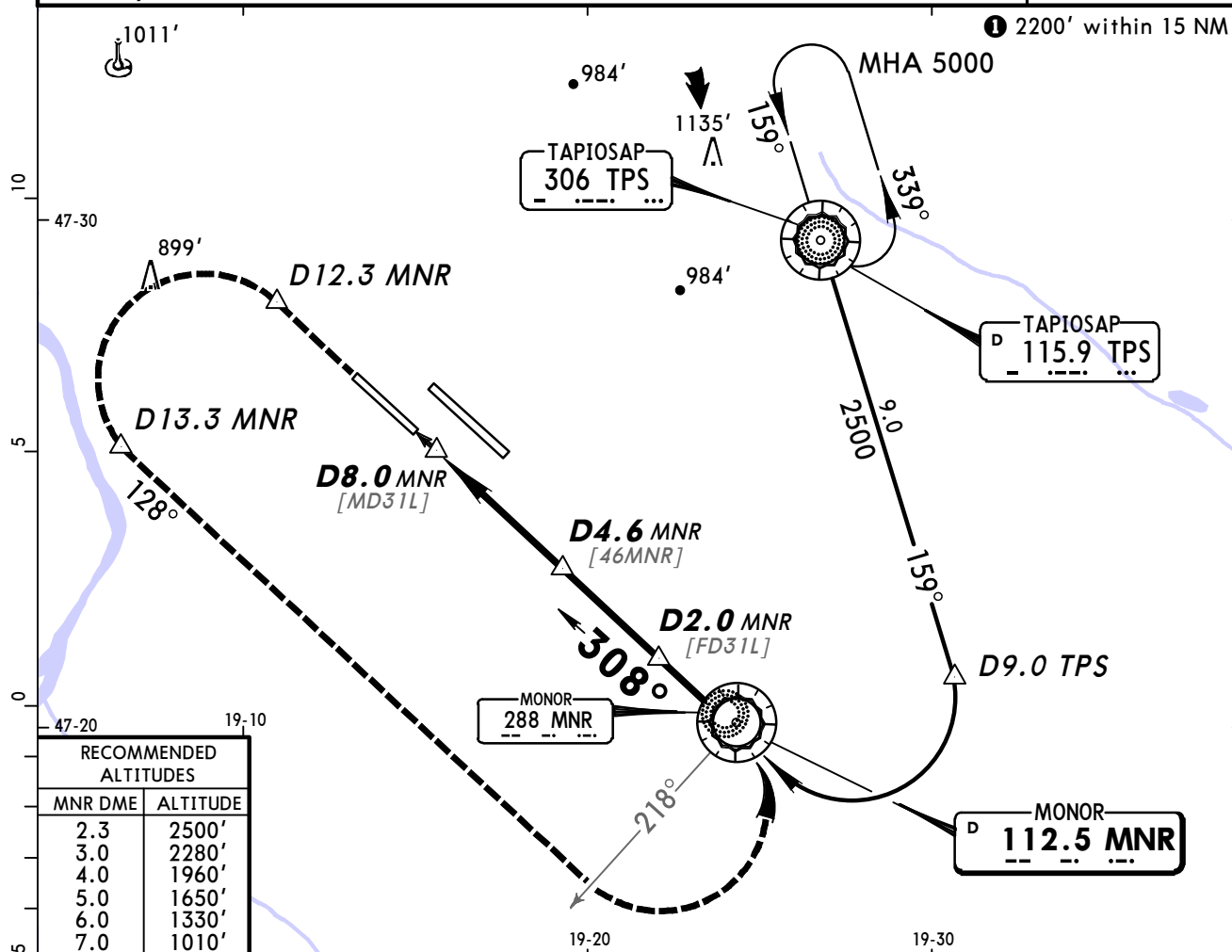


ALSF-II	PAPI	PAPI	R	113°	230 KT
			381	LT	MAX

Standard			CIRCLE-TO-LAND		
STRAIGHT-IN LANDING RWY 13L					
DA(H) 900' (404')			Max Kts	MDA(H)	VIS
ALS out			100	950' (454')	1900m
RVR 1500m			135	1100' (604')	2800m
RVR 1200m			180	1280' (784')	3700m
RVR 1900m			205	1460' (964')	4600m

BRIEFING STRIP™

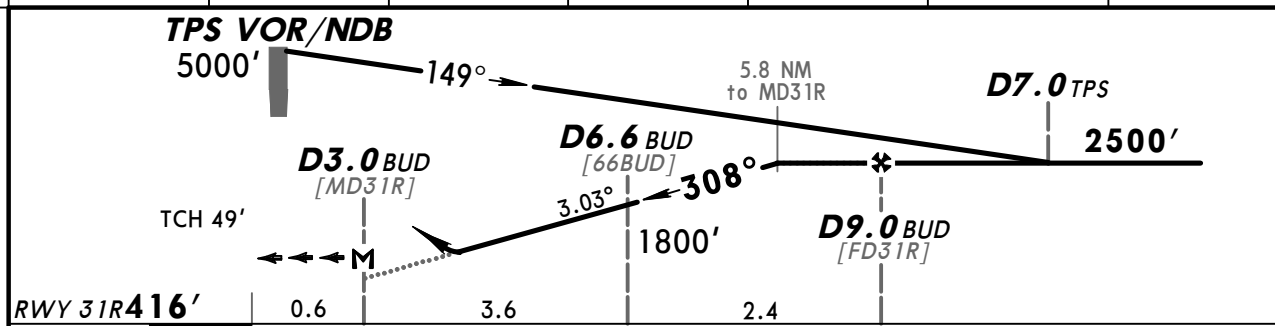
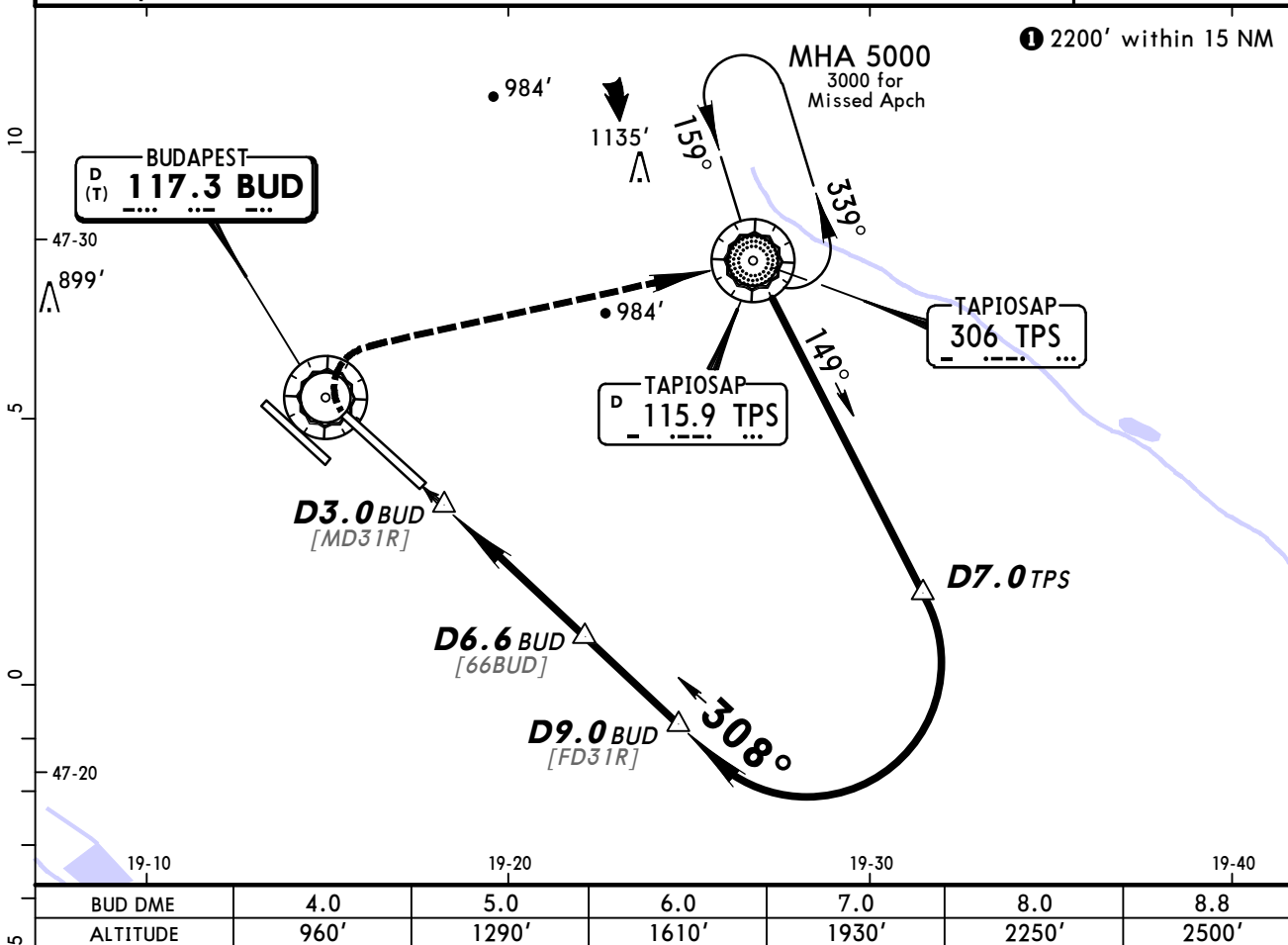
ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5			BUDAPEST Tower 118.1	Ground 121.9
VOR MNR 112.5	Final Apch Crs 308°	Procedure Alt D2.0 MNR 2500' (2052')	DA(H) 830' (382')	Apt Elev 496'	RWY 448'	
MISSED APCH: Continuous climb to 2500'. Climb STRAIGHT AHEAD to 1700' to D12.3 MNR, turn LEFT onto 128° to 2500' to D13.3 MNR. When crossing R-218 MNR turn LEFT to MNR.						 MSA TPS VOR
Alt Set: hPa DME required.		Rwy Elev: 16 hPa	Trans level: By ATC		Trans alt: 9000'	



Gnd speed-Kts	70	90	100	120	140	160	ALSII		D12.3 MNR		128°
Descent Angle 3.00°	372	478	531	637	743	849	PAPI		PAPI		LT
MAP at D8.0 MNR											

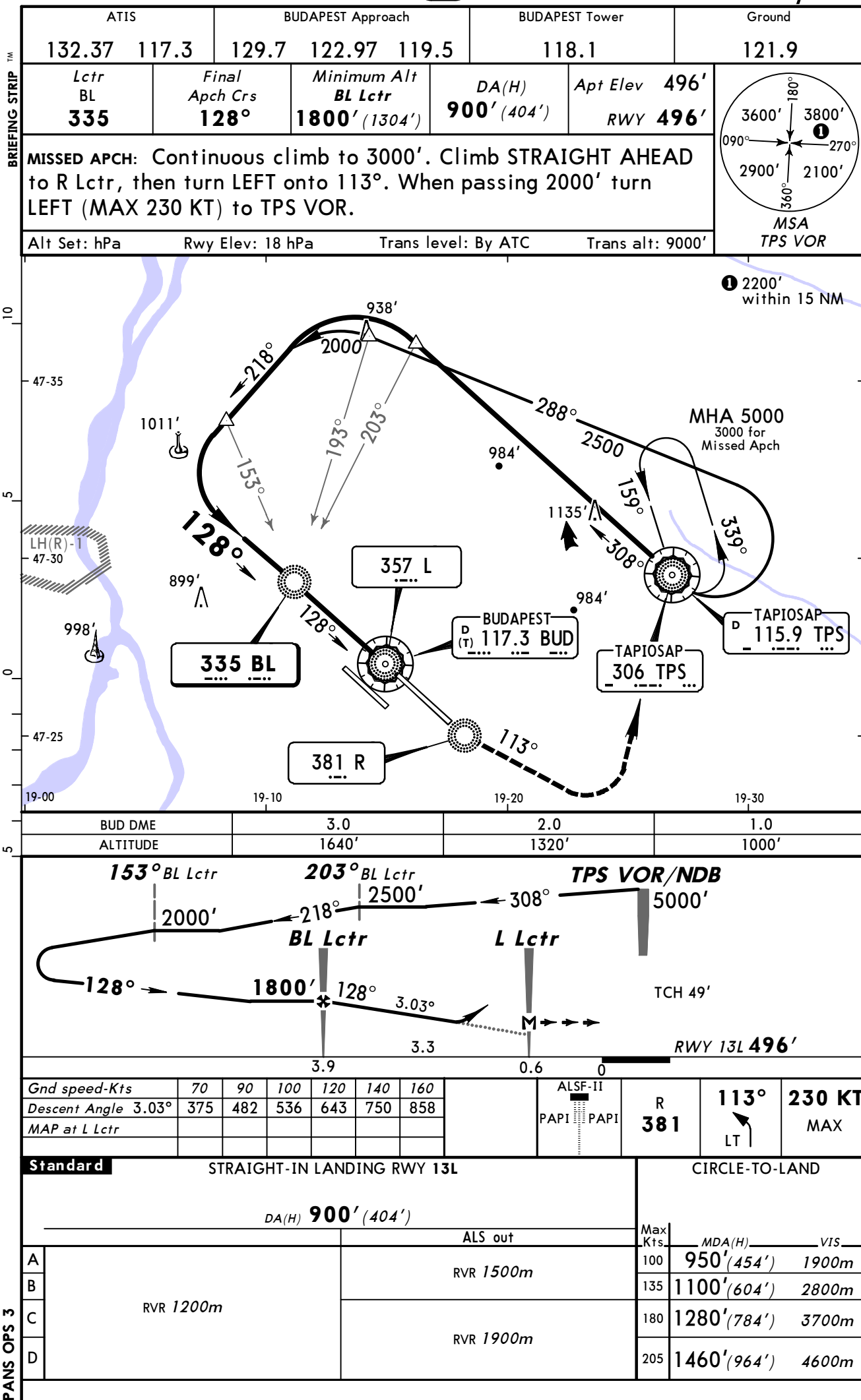
Standard				STRAIGHT-IN LANDING RWY 31L				CIRCLE-TO-LAND			
				DA(H) 830' (382')							
				ALS out				Max Kts	MDA(H)	VIS	
				RVR 1500m				100	950' (454')	1900m	
								135	1100' (604')	2800m	
								180	1280' (784')	3700m	
								205	1460' (964')	4600m	

ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5			BUDAPEST Tower 118.1	Ground 121.9
VOR BUD 117.3	Final Apch Crs 308°	Minimum Alt D9.0 BUD 2500' (2084')	DA(H) 860' (444')	Apt Elev 496'	RWY 416'	
MISSED APCH: As soon as practicable turn RIGHT (MAX 185 KT) to TPS VOR, climbing to 3000' and hold.						
Alt Set: hPa DME required.		Rwy Elev: 15 hPa	Trans level: By ATC		Trans alt: 9000'	

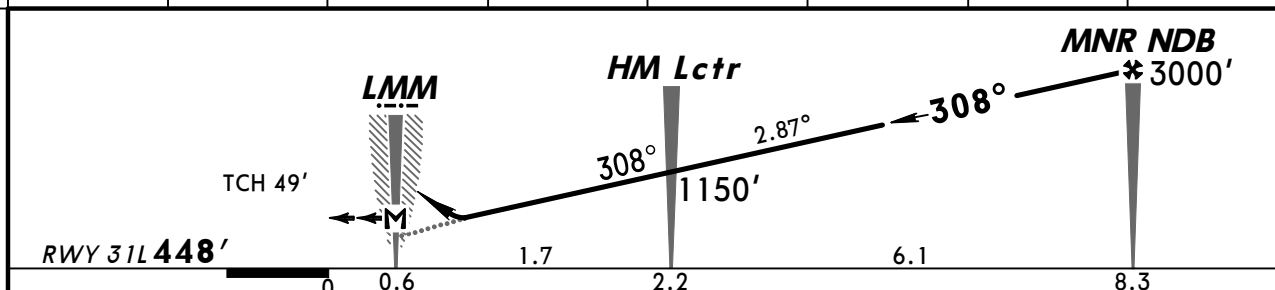
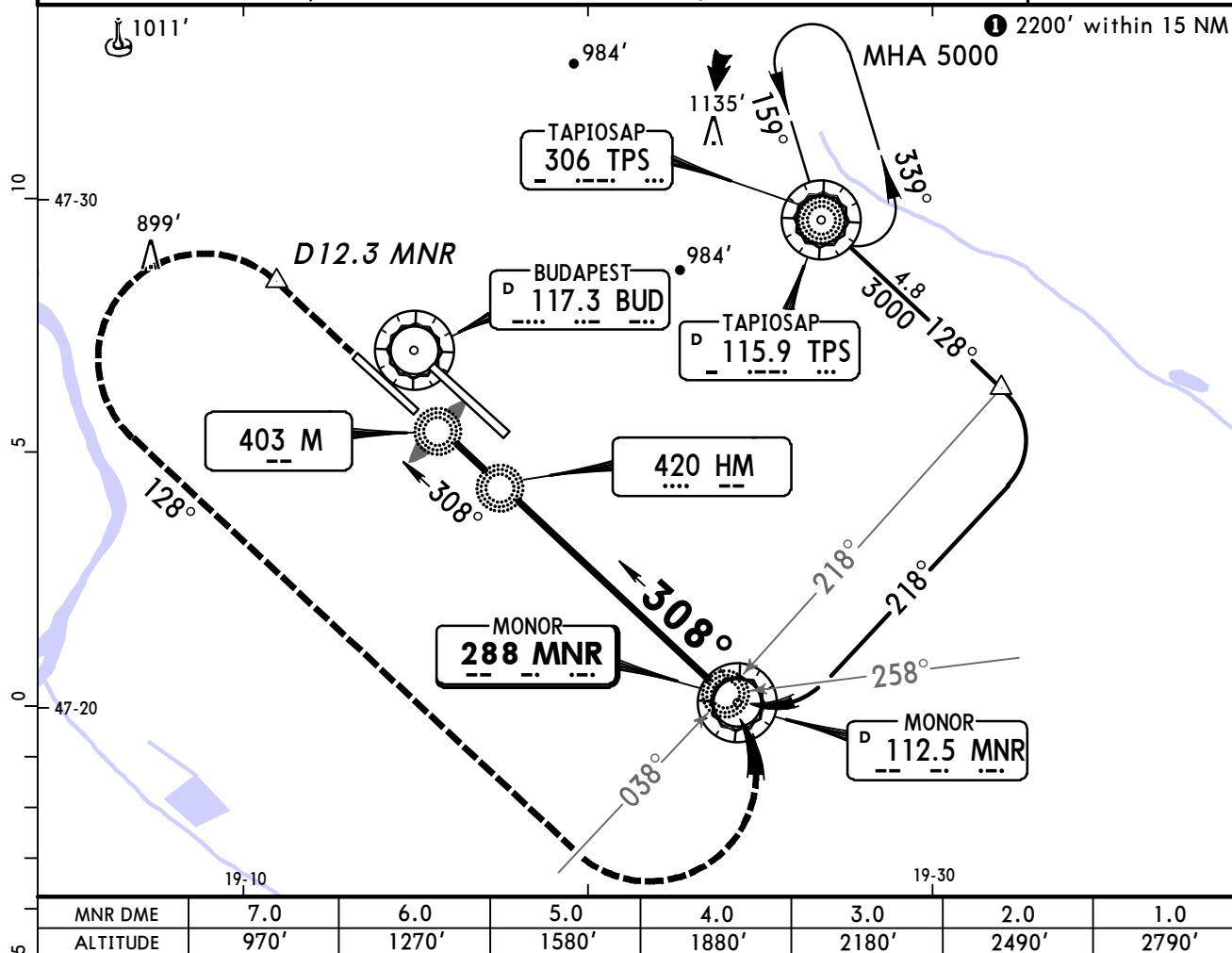


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI PAPI 185 KT MAX RT	TPS 115.9
Descent Angle 3.03°	375	482	536	643	750	858		
MAP at D3.0 BUD								

Standard				STRAIGHT-IN LANDING RWY 31R		CIRCLE-TO-LAND	
				DA(H) 860' (444')		Max Kts	MDA(H) VIS
PANS OPS 3	A	RVR 1400m		ALS out		100	950' (454') 1900m
	B			RVR 1500m		135	1100' (604') 2800m
	C	RVR 1400m		CMV 2100m		180	1280' (784') 3700m
	D					205	1460' (964') 4600m

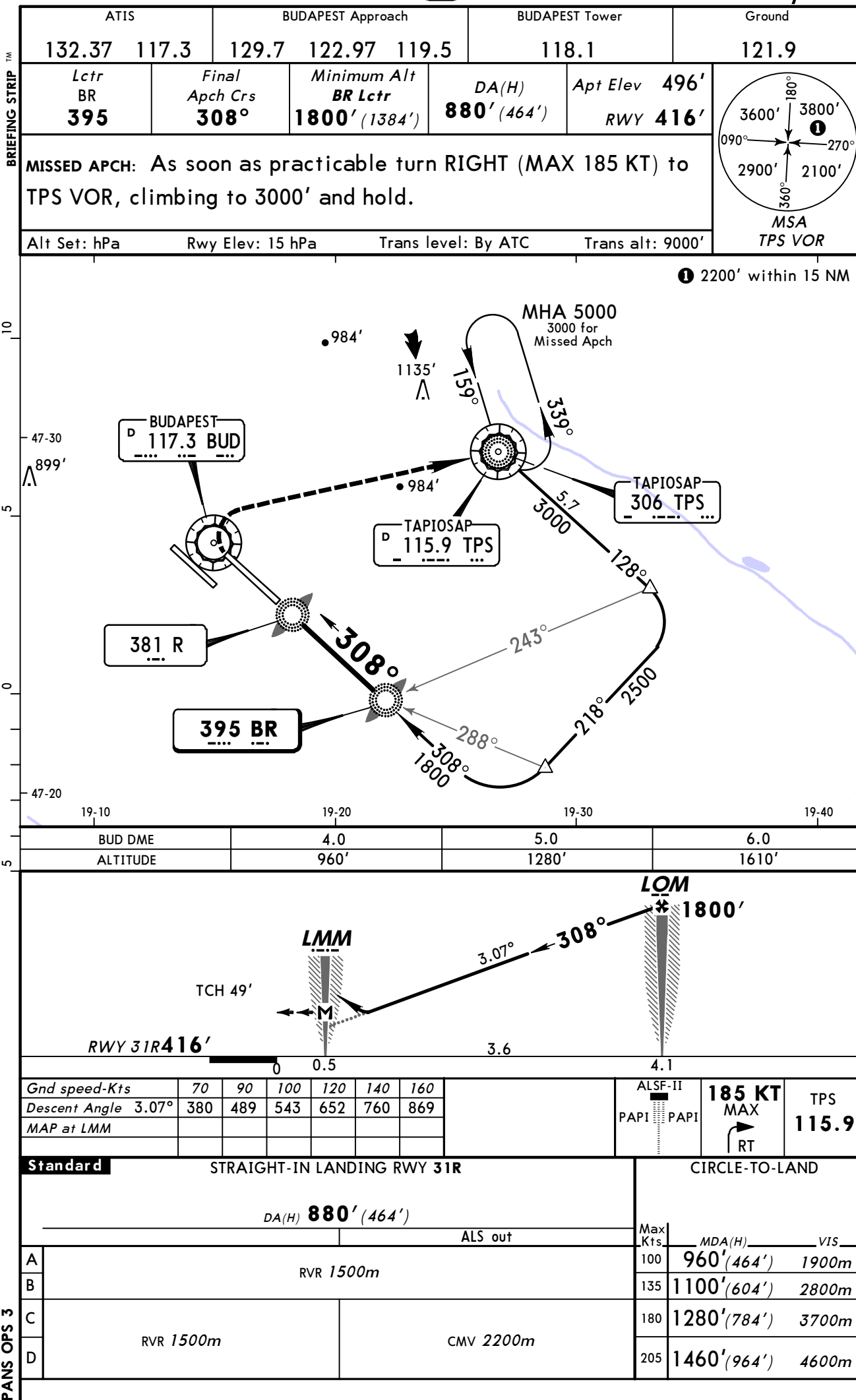


ATIS 132.37 117.3		BUDAPEST Approach 129.7 122.97 119.5			BUDAPEST Tower 118.1	Ground 121.9
NDB MNR 288	Final Apch Crs 308°	Minimum Alt MNR NDB 3000' (2552')	DA(H) 900' (452')	Apt Elev 496'	RWY 448'	
MISSED APCH: Continuous climb to 2500'. Climb STRAIGHT AHEAD to D12.3 MNR, turn LEFT onto 128°. When crossing 038° bearing to MNR NDB turn LEFT to MNR.						
Alt Set: hPa	Rwy Elev: 16 hPa	Trans level: By ATC	Trans alt: 9000'			



Gnd speed-Kts	70	90	100	120	140	160			ALSF-II PAPI PAPI	D12.3 MNR	128° LT
Descent Angle 2.87°	355	457	508	609	711	812					
MAP at LMM											

Standard						STRAIGHT-IN LANDING RWY 31L						CIRCLE-TO-LAND					
						DA(H) 900' (452')											
						ALS out						Max Kts					
						RVR 1500m						MDA(H)					
												VIS					
												100					
												135					
												180					
												205					



BUDAPEST, (LISZT FERENC INTL - LHBP)

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport LHBP

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

Construction works around Terminal 2A & 2B in two phases. Phase 1 with minor operational impact. During Phase 2 twys P3 and S and stands 70 thru 79 affected. Refer to latest NOTAMs for activation of phases and operational impact.