

LROP (Henri Coanda)**General Info**

Bucharest, ROU

N 44° 34.3' E 26° 05.1' Mag Var: 3.8°E

Elevation: 314'

Public, IFR, Control Tower, Customs, Landing Fee

Fuel: 100LL, Jet A-1

Repairs: Minor Airframe, Minor Engine

Time Zone Info: GMT+2:00 uses DST

Runway Info

Runway 08L-26R 7382' x 148' concrete

Runway 08R-26L 11483' x 148' asphalt

Runway 08L (80.0°M) TDZE 309'

Lights: Edge, ALS, Centerline, TDZ

Runway 08R (80.0°M) TDZE 314'

Lights: Edge, ALS, Centerline, TDZ

Runway 26L (260.0°M) TDZE 303'

Lights: Edge, ALS, Centerline

Runway 26R (260.0°M) TDZE 304'

Lights: Edge, ALS, Centerline

Communications InfoATIS **118.5**Otopeni Tower **121.85**Otopeni Tower **120.9**Otopeni Ground Control **121.7**Otopeni Ground Control **118.8**Bucharest Approach Control **120.6**Bucharest Approach Control **118.25****Notebook Info**

1. GENERAL

1.1. ATIS

ATIS 118.5

1.2. LOW VISIBILITY PROCEDURES (LVP)

The preparation phase will be implemented when VIS falls below 1500m and is deteriorated to 800m or ceiling is 500' and is deteriorated to 200' and CAT II/III operations are expected.

The operation phase will be commenced when RVR falls below 600m (VIS falls below 800m) or ceiling is below 200'.

LVP will be terminated when RVR is greater than 600m (VIS greater than 800m) and ceiling is greater than 200' and a continuing improvement in these conditions is anticipated.

If LVP operations are not in force, Low Visibility Take-off must be requested a minimum of 30 min in advance to permit the appropriate preparations.

ACFT movements on manoeuvring area to/from RWY 08R/26L should be made using the Standard Taxi Routes.

Upon receiving taxi clearance, ACFT must only proceed when a green centerline path is illuminated.

ACFT movements on apron and on manoeuvring area to/from RWY 08L/26R must be carried out with Follow-me car.

Red stop bars installed at all intersections of RWYs with TWYs and in the holding bay at THR 26R.

Pilots wishing to conduct a guided take-off must inform ATC on start-up in order to ensure that protection of the localizer sensitive area is provided.
Intersection take-offs are not permitted.

1.3. TAXI PROCEDURES

Orange guidelines are mandatory for:

A300, A310, B707-320, B757-200, B767-200, B777, DC10-30, IL18, IL62, IL76, IL86, L100-30, L1011-500, TU154, B747-200, B747-400 and AN124.

1.4. PARKING INFORMATION

Stands 1, 2 and 11 thru 13 are push-back and equipped with docking guidance system SAFEGATE.

2. ARRIVAL**2.1. SPEED RESTRICTIONS**

MAX 250 KT below FL 100.

2.2. CAT II/III OPERATIONS

RWYs 08L/R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.3. TAXI PROCEDURES**2.3.1. STANDARD TAXI ROUTES****2.3.1.1 RWY 08L**

Taxi route	Apron	TWY to be followed	Remarks
Arrival 1D *	Apron 1	V, O, N	
Arrival 1E **		O, N	
Arrival 2C *	Apron 2	V, O, P, C	For ACFT with wingspan less than 171'/52m
Arrival 2D *		O, P, C	
Arrival 3C *	Apron 3	V, O, P	
Arrival 3D **		O, P	

2.3.1.2. RWY 08R

Taxi route	Apron	TWY to be followed	Remarks
Arrival 1A	Apron 1	D, C	For ACFT with wingspan less than 171'/52m
Arrival 1B		D, P, O, N	
Arrival 1C		G	
Arrival 2A	Apron 2	D, C	For ACFT with wingspan less than 171'/52m
Arrival 2B		G, C	
Arrival 3A	Apron 3	D, P	
Arrival 3B		G, C, P	

* Not available for Low Visibility Operations.

** Available for Low Visibility Operations only with Follow-me car in sight.

3. DEPARTURE

3.1. TAXI PROCEDURES

3.1.1. STANDARD TAXI ROUTES

3.1.1.1. RWY 08L

Apron	Taxi route	Holding position	TWY to be followed	Remarks
Apron 1	Departure 1C	N*	N	For ACFT with wingspan less than 171'/52m
	Departure 1D	O*	C, P, W, turn LEFT taxi to end of RWY and line-up THR	
Apron 2	Departure 2C	N*	C, N	
	Departure 2D	O*	C, P, W, turn LEFT taxi to end of RWY and line-up THR	
Apron 3	Departure 3C	N*	P, C, N	
	Departure 3D	O*	P, W, turn LEFT taxi to end of RWY and line-up THR	

* Available for Low Visibility Operations only with Follow-me car in sight.

3.1.1.2. RWY 08R

Apron	Taxi route	Holding position	TWY to be followed	Remarks
Apron 1	Departure 1A	A	A	For ACFT with wingspan less than 171'/52m
	Departure 1B	G	G, turn RIGHT taxi to end of RWY and line-up THR	
Apron 2	Departure 2A	A	C, B, A	For ACFT with wingspan less than 171'/52m
	Departure 2B	G	C, G, turn RIGHT taxi to end of RWY and line-up THR	
Apron 3	Departure 3A	A	P, C, B, A	
	Departure 3B	G	P, C, G, turn RIGHT taxi to end of RWY and line-up THR	

3. DEPARTURE

3.1.1.3. RWY 26L

Apron	Taxi route	Holding position	TWY to be followed	Remarks
Apron 1	Departure 1E	D	C, D, turn LEFT taxi to end of RWY, turn around and line-up THR	For ACFT with wingspan less than 171'/52m
	Departure 1F	G	G, turn LEFT taxi to end of RWY, turn around and line-up THR	
Apron 2	Departure 2E	D	C, D, turn LEFT taxi to end of RWY, turn around and line-up THR	For ACFT with wingspan less than 171'/52m
	Departure 2F	G	C, G, turn LEFT taxi to end of RWY, turn around and line-up THR	
Apron 3	Departure 3E	D	P, D, turn LEFT taxi to end of RWY, turn around and line-up THR	
	Departure 3F	G	P, C, G, turn LEFT taxi to end of RWY, turn around and line-up THR	

3.1.1.4. RWY 26R

Apron	Taxi route	Holding position	TWY to be followed	Remarks
Apron 1	Departure 1G	O*	N, O and line-up THR	
	Departure 1H	N*	N, taxi on RWY, back-track and line-up THR	
Apron 2	Departure 2G	O*	C, P, O and line-up THR	For ACFT with wingspan less than 171'/52m
	Departure 2H	N*	C, N, taxi on RWY, back-track and line-up THR	
Apron 3	Departure 3G	O*	P, O and line-up THR	
	Departure 3H	N*	P, O, N, turn RIGHT taxi on RWY, back-track and line-up THR	

* Available for Low Visibility Operations only with Follow-me car in sight.

3.2. SPEED RESTRICTIONS

MAX 250 KT below FL 100.

LROP/OTP
HENRI COANDA

24 APR 09

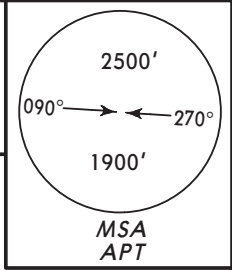
20-2

Eff 7 May

BUCHAREST, ROMANIA

STAR

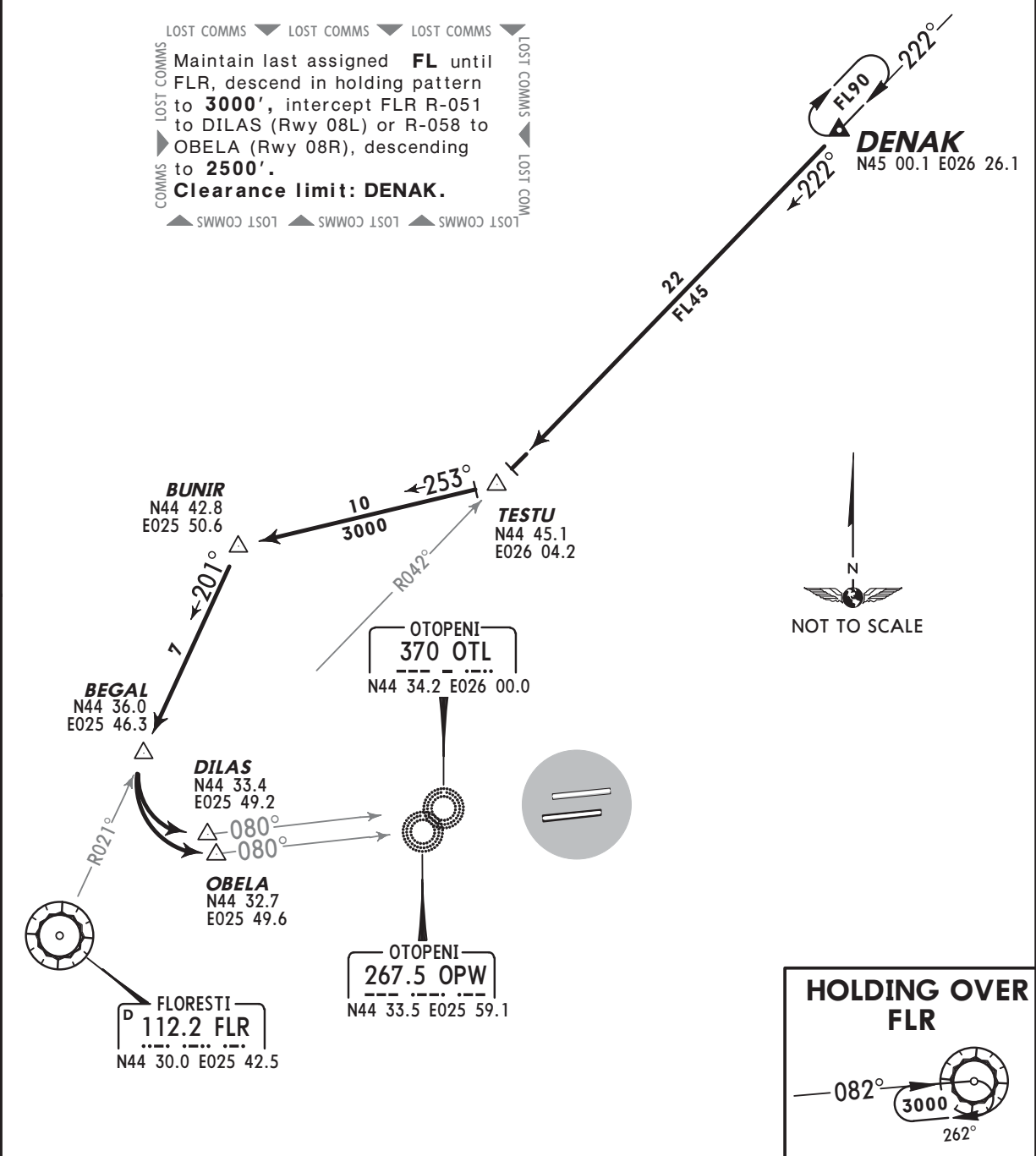
ATIS 118.5	Apt Elev 314'	Alt Set: hPa (MM on request) Trans level: By ATC Trans alt: 4000' STARs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.
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DENAK 1E [DENA1E]
RWYS 08L/R ARRIVAL
FROM NORTHEAST

~~SPEED~~ MAX 250 KT BELOW FL100
APPLICABLE WITHIN BUCHAREST TMA

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
 Maintain last assigned **FL** until FLR, descend in holding pattern to **3000'**, intercept FLR R-051 to DILAS (Rwy 08L) or R-058 to OBELA (Rwy 08R), descending to **2500'**.
Clearance limit: DENAK.
 ▲ SWW00 LST01 ▲ SWW00 LST01 ▲ SWW00 LST01



ROUTING

Intercept FLR R-042 inbound to TESTU, 253° track to BUNIR, intercept FLR R-021 inbound to BEGAL, turn LEFT to DILAS (Rwy 08L) or OBELA (Rwy 08R).

LROP/OTP
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24 APR 09

20-2A

Eff 7 May

BUCHAREST, ROMANIA

STAR

ATIS 118.5	Apt Elev 314'	Alt Set: hPa (MM on request) Trans level: By ATC Trans alt: 4000' STARs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.	
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DENAK 1F [DENA1F]
RWYS 26L/R ARRIVAL
FROM NORTHEAST

~~SPEEDS~~ MAX 250 KT BELOW FL100
APPLICABLE WITHIN BUCHAREST TMA



DENAK
N45 00.1 E026 26.1



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 Descend in holding pattern from the last assigned FL to the minimum FL/altitude of appropriate STAR and proceed to LEVTA (Rwy 26L) or RARIT (Rwy 26R).
Clearance limit: DENAK.
 ▲ SWWOC LOST ▲ SWWOC LOST ▲ SWWOC LOST

OTOPENI
318 OTR
N44 35.3 E026 14.1

RARIT
N44 36.1 E026 24.9

LEVTA
N44 35.4 E026 24.6

OTOPENI
349 OPE
N44 34.5 E026 12.7

LUROD
N44 38.5 E026 32.7

ROSIORI
P 117.1 OPT
N44 35.5 E026 33.6



ROUTING

Intercept OPT R-344 inbound to LUROD, turn RIGHT to LEVTA (Rwy 26L) or RARIT (Rwy 26R).

LROP/OTP
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24 APR 09

20-2B

Eff 7 May

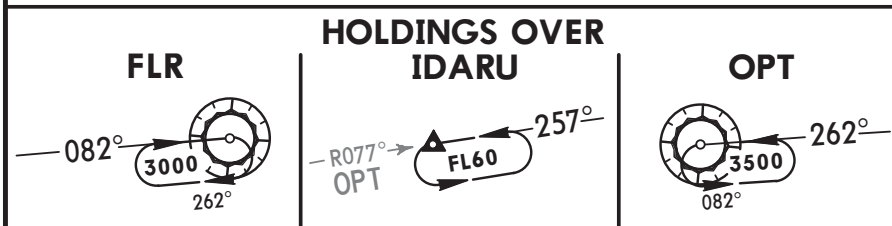
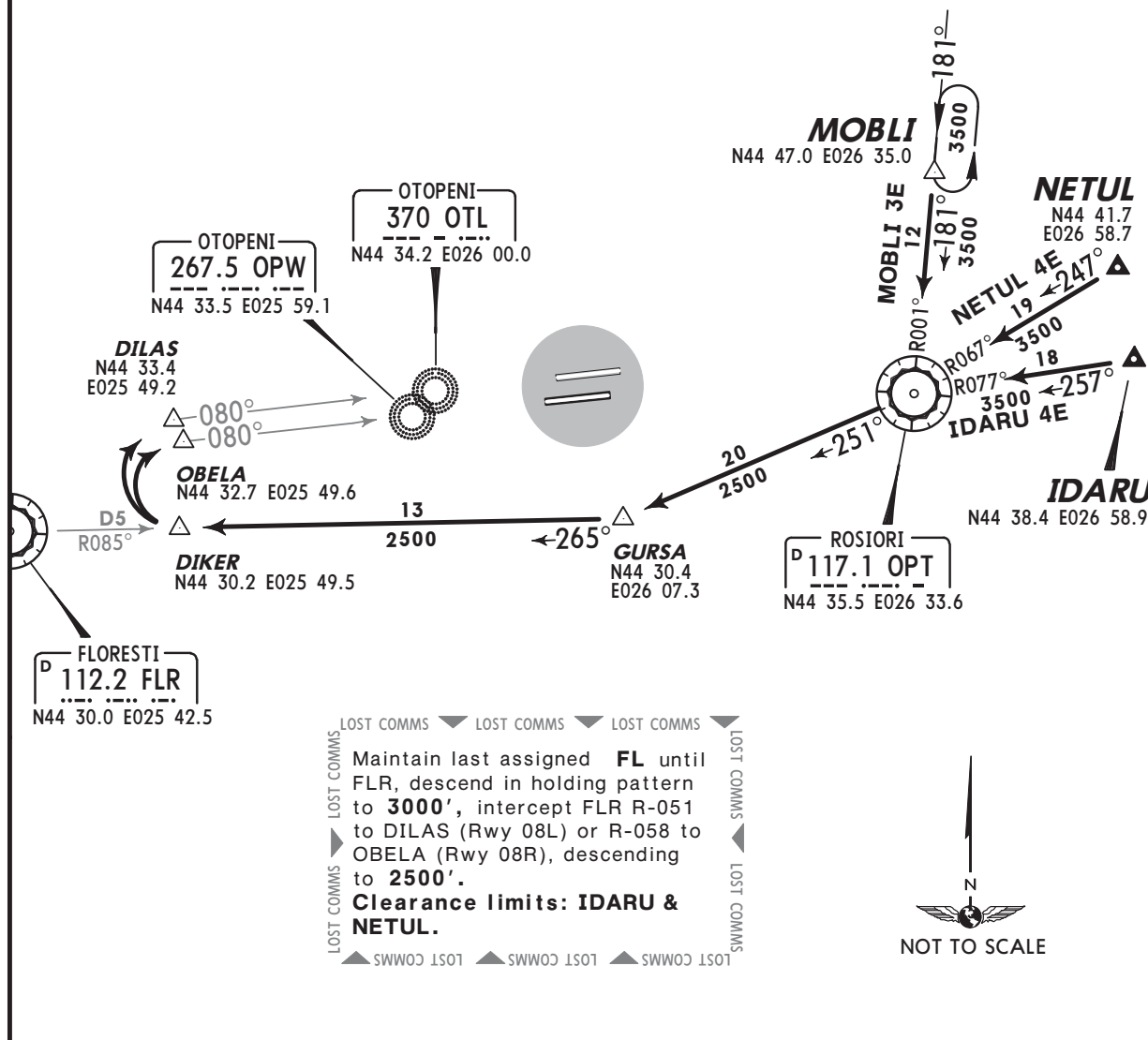
BUCHAREST, ROMANIA

STAR

ATIS 118.5	Apt Elev 314'	Alt Set: hPa (MM on request) Trans level: By ATC Trans alt: 4000' STARs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.	<p>2500' 090° ← → 270° 1900' MSA APT</p>
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IDARU 4E [IDAR4E]
MOBLI 3E [MOBL3E]
NETUL 4E [NETU4E]
RWYS 08L/R ARRIVALS
FROM EAST

~~SPEED~~ MAX 250 KT BELOW FL100
APPLICABLE WITHIN BUCHAREST TMA



STAR	ROUTING
IDARU 4E	Intercept OPT R-077 inbound to OPT, OPT R-251 to GURSA, intercept FLR R-085 inbound to DIKER, turn RIGHT to DILAS (Rwy 08L) or OBELA (Rwy 08R).
MOBLI 3E	Intercept OPT R-001 inbound to OPT, OPT R-251 to GURSA, intercept FLR R-085 inbound to DIKER, turn RIGHT to DILAS (Rwy 08L) or OBELA (Rwy 08R).
NETUL 4E	Intercept OPT R-067 inbound to OPT, OPT R-251 to GURSA, intercept FLR R-085 inbound to DIKER, turn RIGHT to DILAS (Rwy 08L) or OBELA (Rwy 08R).

LROP/OTP
HENRI COANDA

24 APR 09

20-2E

Eff 7 May

BUCHAREST, ROMANIA

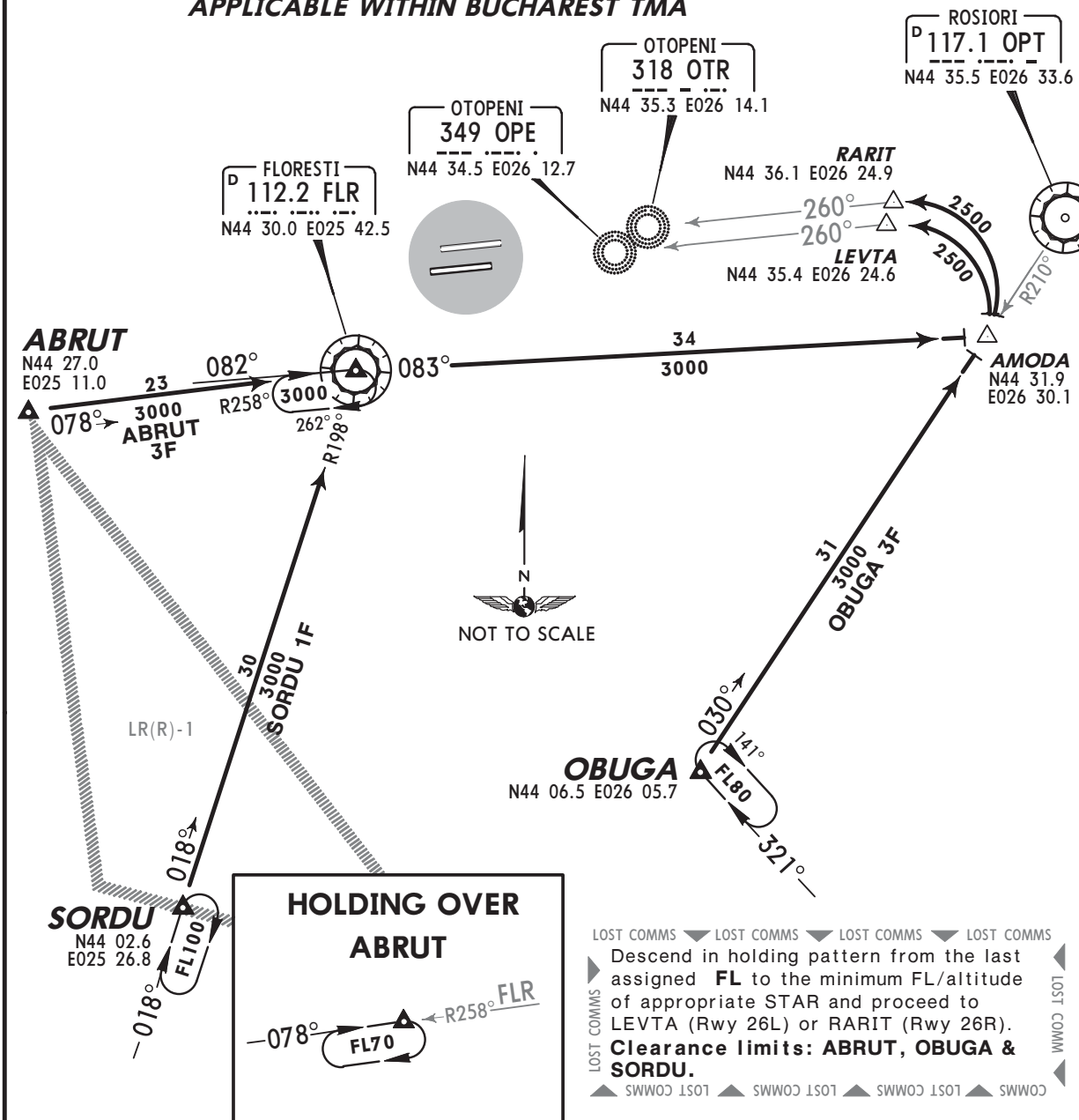
STAR

ATIS 118.5	Apt Elev 314'	Alt Set: hPa (MM on request) Trans level: By ATC Trans alt: 4000' STARs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.	<p>2500' 090° ← → 270° 1900' MSA APT</p>
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ABRUT 3F [ABRU3F]
OBUGA 3F [OBUG3F]
SORDU 1F [SORD1F]
RWYS 26L/R ARRIVALS

FROM SOUTH & WEST

SPEEDS MAX 250 KT BELOW FL100
APPLICABLE WITHIN BUCHAREST TMA



STAR	ROUTING
ABRUT 3F ①	Intercept FLR R-258 inbound to FLR, FLR R-083 to AMODA, turn LEFT to LEVTA (Rwy 26L) or RARIT (Rwy 26R).
OBUGA 3F	Intercept OPT R-210 inbound to AMODA, turn LEFT to LEVTA (Rwy 26L) or RARIT (Rwy 26R).
SORDU 1F ①	Intercept FLR R-198 inbound to FLR, FLR R-083 to AMODA, turn LEFT to LEVTA (Rwy 26L) or RARIT (Rwy 26R).

① **ALTERNATIVE PROCEDURE** during activity of LR(R)-1: Maintain last assigned FL until FLR, descend in holding pattern to 3000', intercept FLR R-083 to AMODA, turn LEFT to LEVTA (Rwy 26L) or RARIT (Rwy 26R), descending to 2500'.

LROP/OTP
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24 APR 09

20-2F

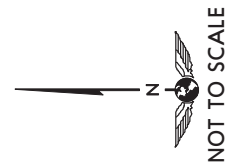
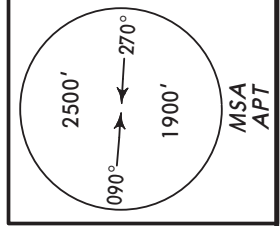
Eff 7 May

BUCHAREST, ROMANIA

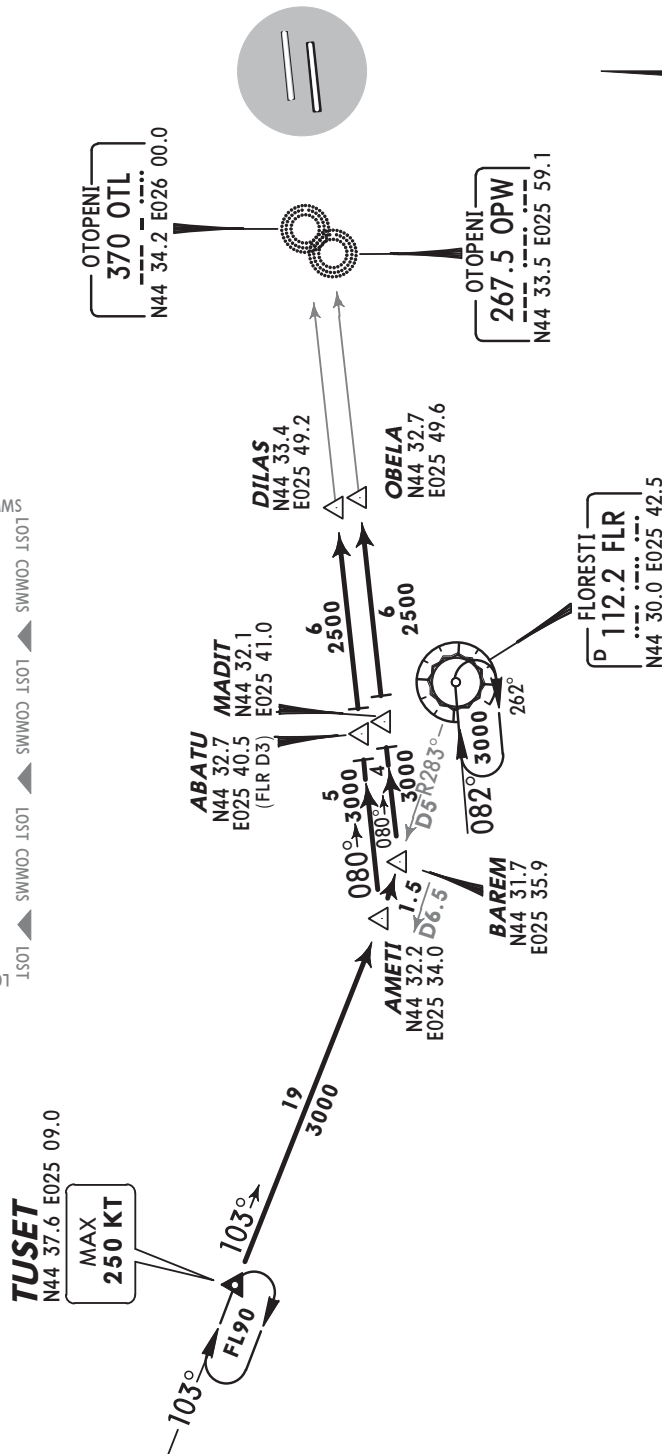
STAR

ATIS 118.5	Apt Elev 314'	Alt Set: hPa (MM on request) Trans level: By ATC Trans alt: 4000' STARs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.
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TUSET 4E [TUSE4E]
RWYS 08L/R ARRIVAL
 FROM NORTHWEST
~~SPEEDS~~ MAX 250 KT BELOW FL100
APPLICABLE WITHIN BUCHAREST TMA



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
 Maintain last assigned **FL** until FLR,
 descend in holding pattern to **3000'**,
 intercept FLR R-051 to DILAS
 (Rwy 08L) or R-058 to OBELA
 (Rwy 08R), descending to **2500'**.
Clearance limit: TUSET.



ROUTING

Intercept FLR R-283 inbound to AMETI (Rwy 08L) or BAREM (Rwy 08R), intercept 080° bearing towards OTL to DILAS (Rwy 08L) or towards OPW to OBELA (Rwy 08R).

LROP/OTP
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24 APR 09

20-3

Eff 7 May

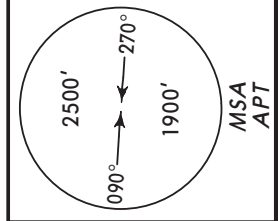
BUCHAREST, ROMANIA

RNAV SID

Apt Elev
314'

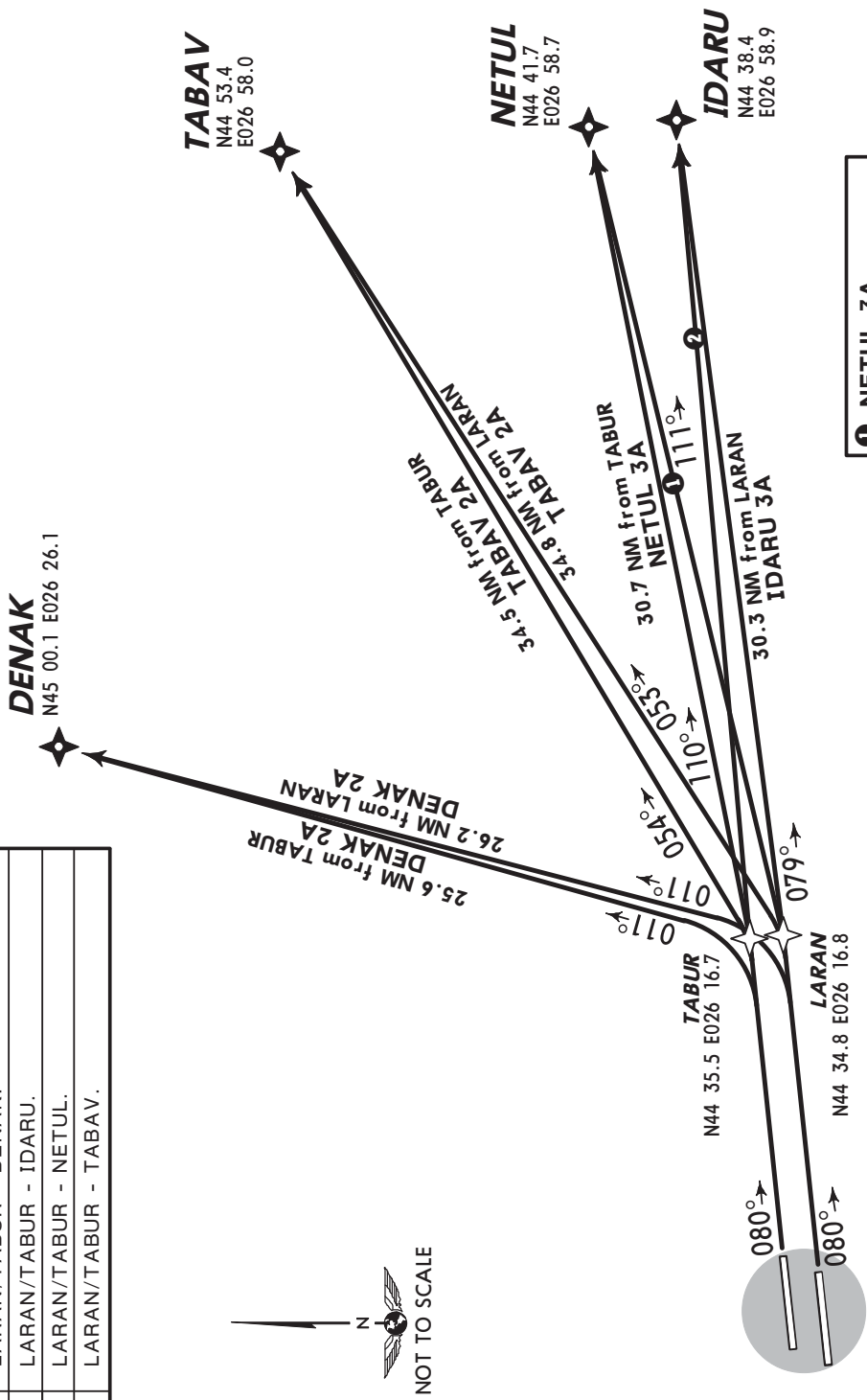
Trans level: By ATC Trans alt: 4000'
1. FLR, OPT and STJ must all be serviceable for DME/DME operation.
2. If unable to comply advise ATC and expect re-routing.

**DENAK 2A [DENA2A], IDARU 3A [IDAR3A]
NETUL 3A [NETU3A], TABAV 2A [TABA2A]
RWYS 08L/R RNAV DEPARTURES
TO NORTHEAST & EAST
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED**

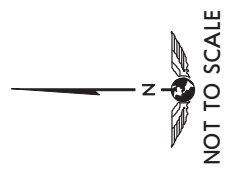


Initial climb clearance: Minimum enroute FL or as cleared by ATC

SID	ROUTING
DENAK 2A	LARAN/TABUR - DENAK.
IDARU 3A	LARAN/TABUR - IDARU.
NETUL 3A	LARAN/TABUR - NETUL.
TABAV 2A	LARAN/TABUR - TABAV.



- ① NETUL 3A 30.7 NM from LARAN
- ② IDARU 3A 30.3 NM from TABUR



LROP/OTP
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24 APR 09

20-3A

Eff 7 May

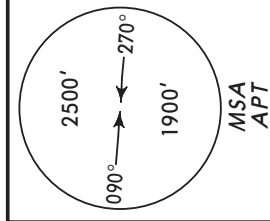
BUCHAREST, ROMANIA

RNAV SID

Apt Elev
314'

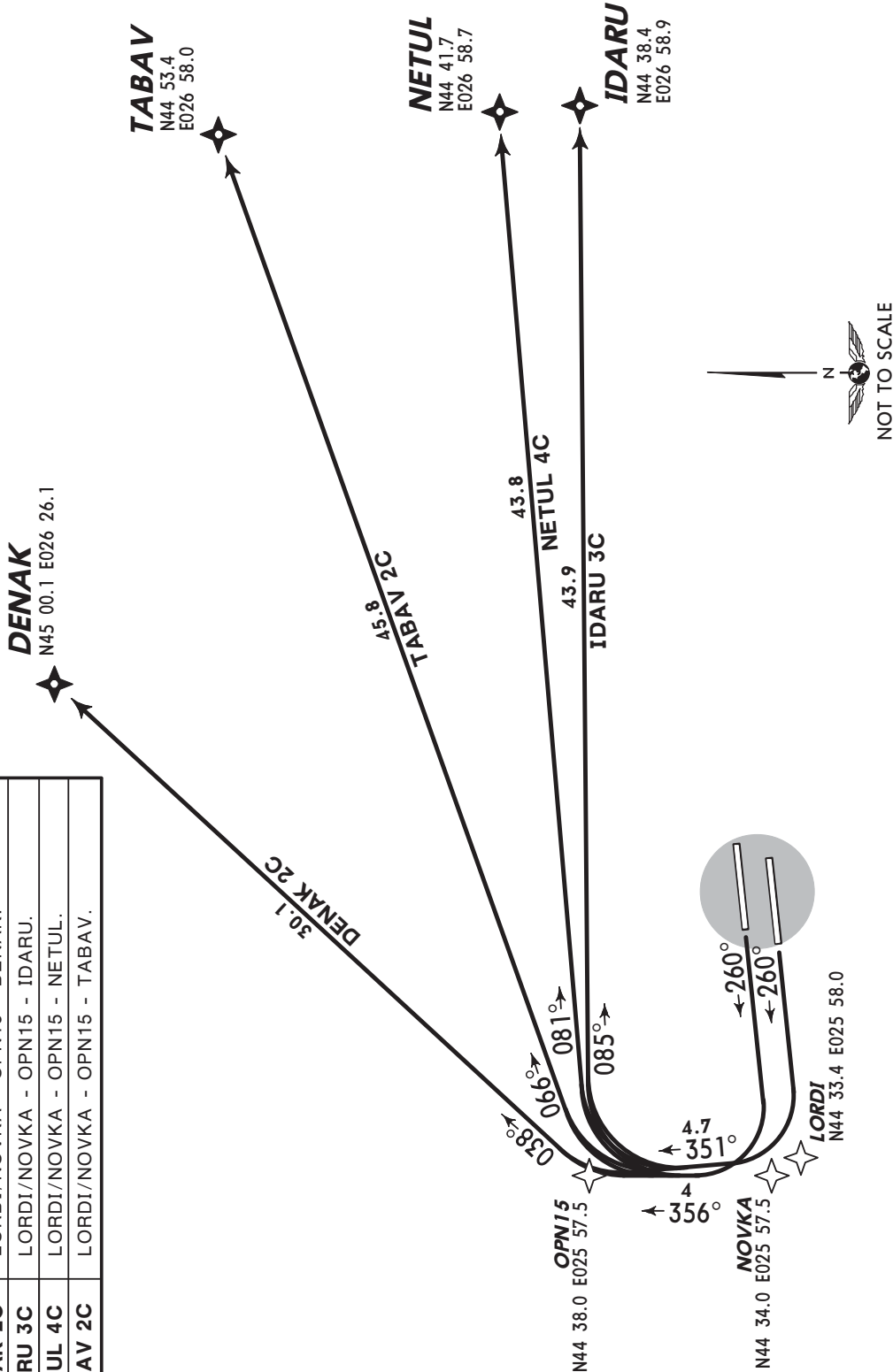
Trans level: By ATC Trans alt: 4000'
1. FLR, OPT and STJ must all be serviceable for DME/DME operation.
2. If unable to comply advise ATC and expect re-routing.

**DENAK 2C [DENA2C], IDARU 3C [IDAR3C]
NETUL 4C [NETU4C], TABAV 2C [TABA2C]
RWYS 26L/R RNAV DEPARTURES
TO NORTHEAST & EAST
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED**



Initial climb clearance: Minimum enroute **FL**
or as cleared by ATC

SID	ROUTING
DENAK 2C	LORDI/NOVKA - OPN15 - DENAK.
IDARU 3C	LORDI/NOVKA - OPN15 - IDARU.
NETUL 4C	LORDI/NOVKA - OPN15 - NETUL.
TABAV 2C	LORDI/NOVKA - OPN15 - TABAV.



LROP/OTP
HENRI COANDA

8 MAY 09 **(20-3B)**

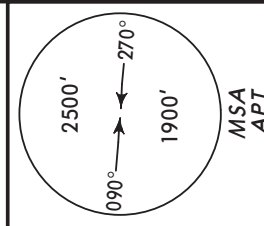
BUCHAREST, ROMANIA

RNAV SID

Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
1. FLR, OPT and STJ must all be serviceable for DME/DME operation.
2. If unable to comply advise ATC and expect re-routing.

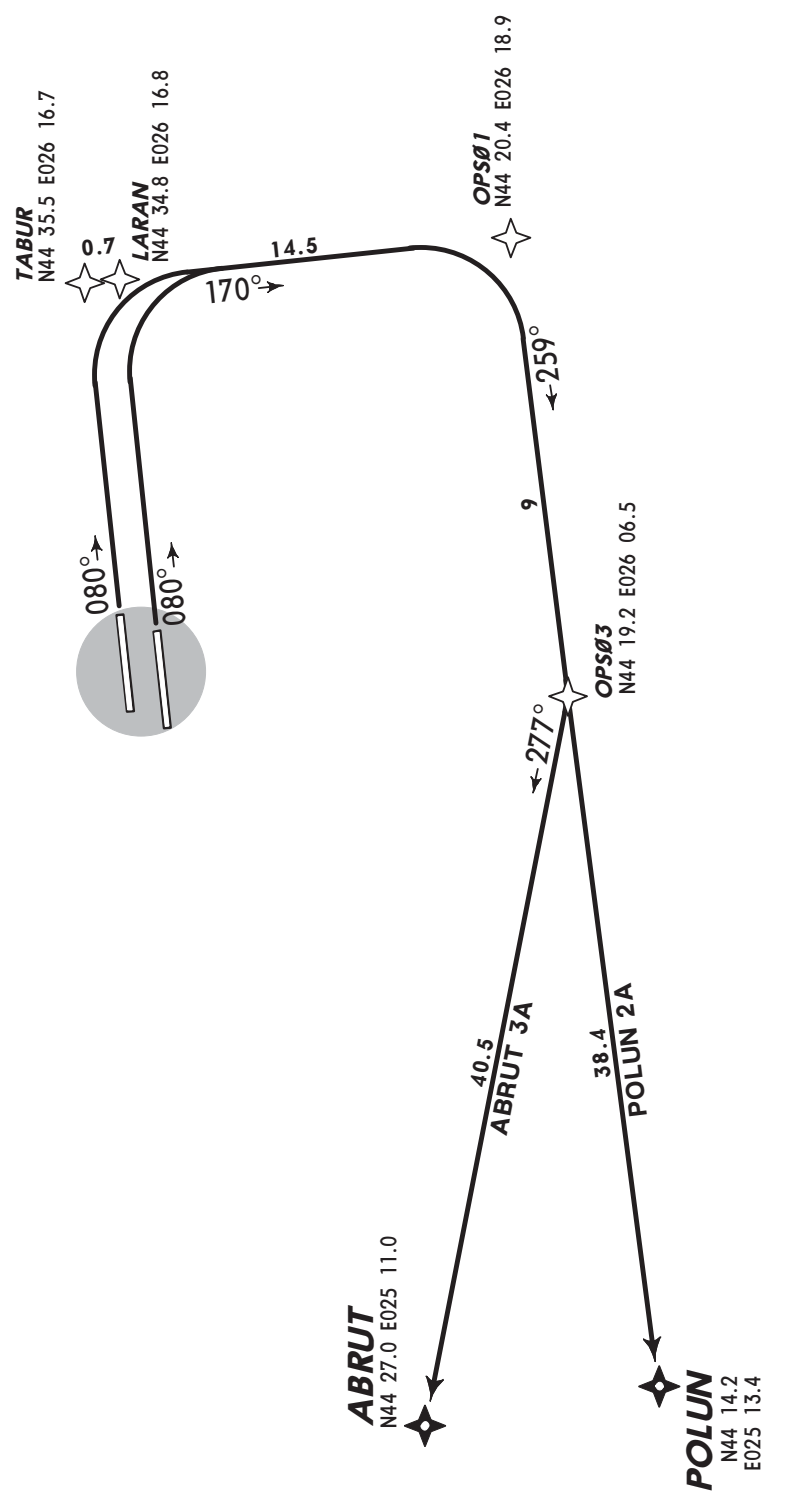
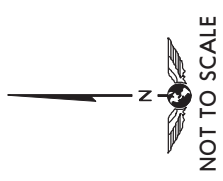
ABRUT 3A [ABRU3A], POLUN 2A [POLU2A]
RWYS 08L/R RNAV DEPARTURES
TO SOUTHWEST & WEST
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED



Initial climb clearance: Minimum enroute **FL** or as cleared by ATC

SID	ROUTING
ABRUT 3A ①	LARAN/TABUR - OPS01 - OPS03 - ABRUT.
POLUN 2A ②	LARAN/TABUR - OPS01 - POLUN.

① Not available for traffic to VELIP.
② Not available for traffic to LRCV.



LROP/OTP
HENRI COANDA

8 MAY 09 **20-3C**

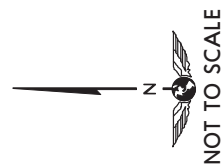
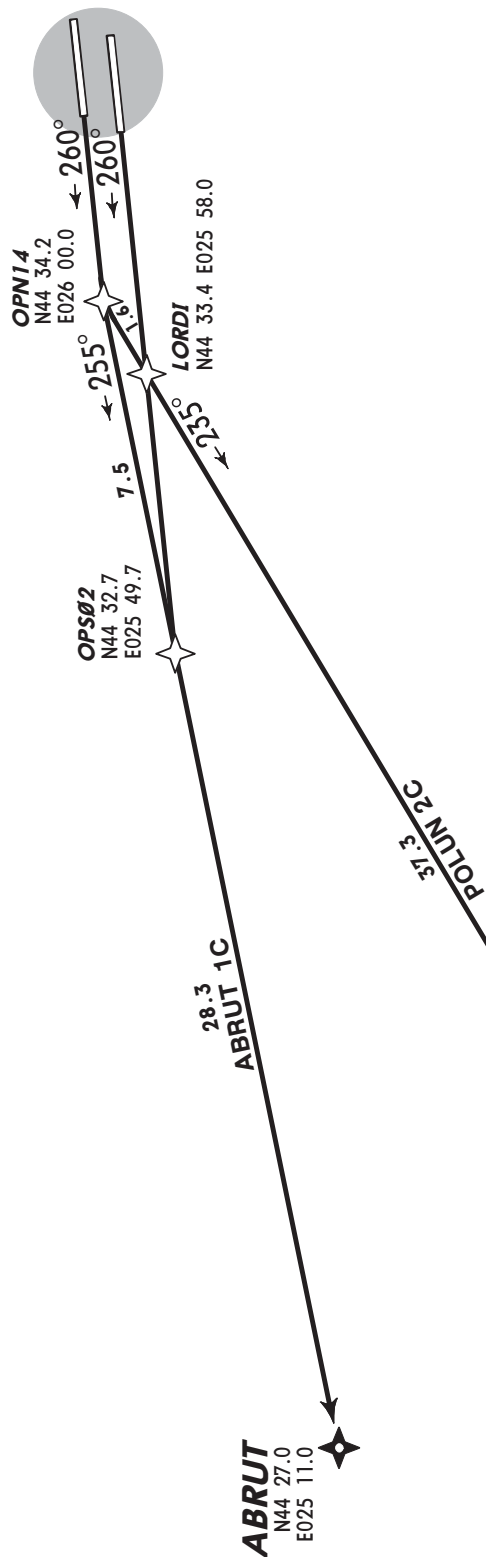
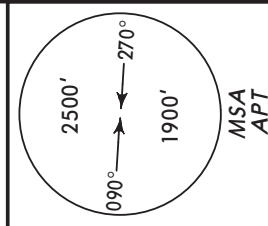
BUCHAREST, ROMANIA

RNAV SID

Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
1. FLR, OPT and STJ must all be serviceable for DME/DME operation.
2. If unable to comply advise ATC and expect re-routing.

ABRUT 1C [ABRU1C], POLUN 2C [POLU2C]
RWYS 26L/R RNAV DEPARTURES
TO SOUTHWEST & WEST
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED



Initial climb clearance: Minimum enroute **FL**
or as cleared by ATC

SID	ROUTING
ABRUT 1C ①	OPS02/OPN14 - ABRUT.
POLUN 2C ②	LORDI/OPN14 - POLUN.

① Not available for traffic to VELIP.
② Not available for traffic to LRCV.

LROP/OTP
HENRI COANDA

24 APR 09

20-3D

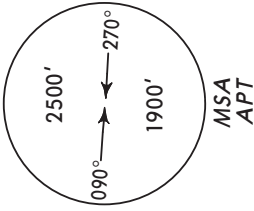
Eff 7 May

BUCHAREST, ROMANIA

RNAV SID

Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
1. FLR, OPT and STJ must all be serviceable for DME/DME operation.
2. If unable to comply advise ATC and expect re-routing.

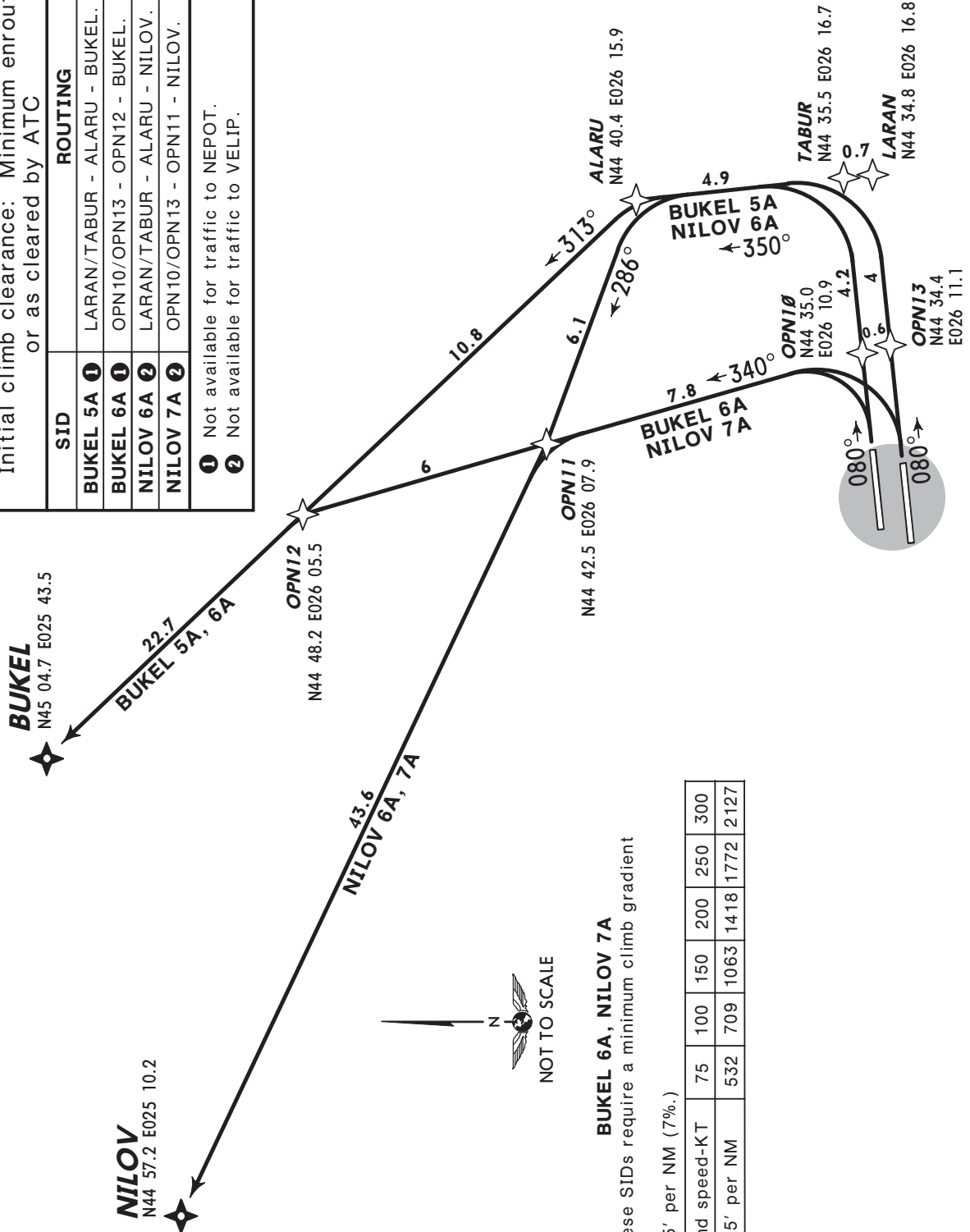


**BUKEL 5A [BUKE5A], BUKEL 6A [BUKE6A]
NILOV 6A [NILO6A], NILOV 7A [NILO7A]
RWYS 08L/R RNAV DEPARTURES
TO NORTHWEST
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED**

Initial climb clearance: Minimum enroute FL
or as cleared by ATC

SID	ROUTING
BUKEL 5A ①	LARAN/TABUR - ALARU - BUKEL.
BUKEL 6A ①	OPN10/OPN13 - OPN12 - BUKEL.
NILOV 6A ②	LARAN/TABUR - ALARU - NILOV.
NILOV 7A ②	OPN10/OPN13 - OPN11 - NILOV.

① Not available for traffic to NEPOT.
② Not available for traffic to VELIP.



BUKEL 6A, NILOV 7A

These SIDs require a minimum climb gradient of 425' per NM (7%.)

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

LROP/OTP
HENRI COANDA

24 APR 09

20-3E

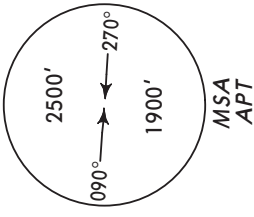
Eff 7 May

BUCHAREST, ROMANIA

RNAV SID

Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
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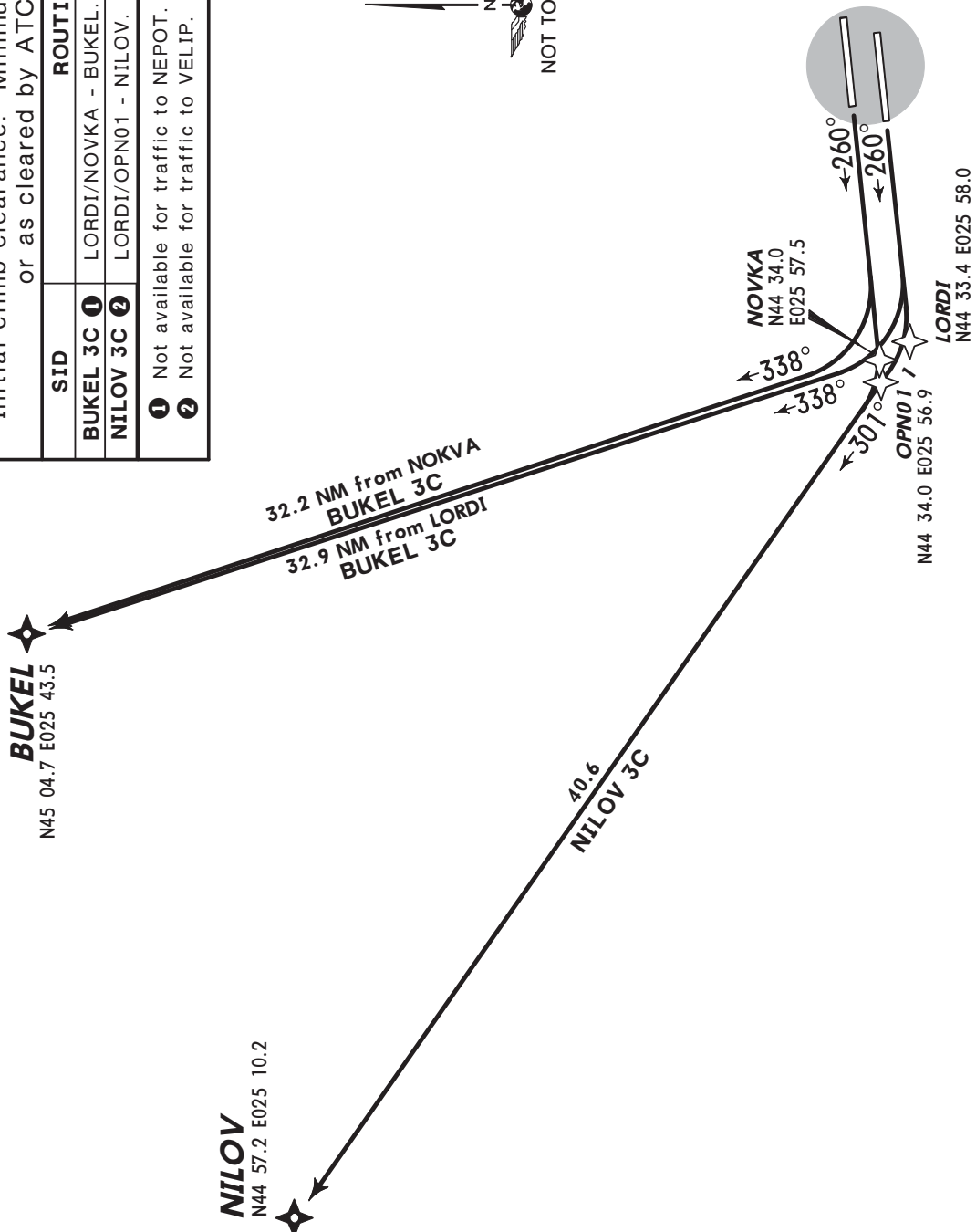
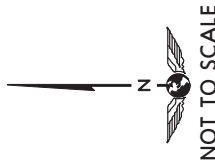


BUKEL 3C [BUKE3C], NILOV 3C [NILO3C]
RWYS 26L/R RNAV DEPARTURES
TO NORTHWEST
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED

Initial climb clearance: Minimum enroute **FL**
or as cleared by ATC

SID	ROUTING
BUKEL 3C ①	LORDI/NOVKA - BUKEL.
NILOV 3C ②	LORDI/OPN01 - NILOV.

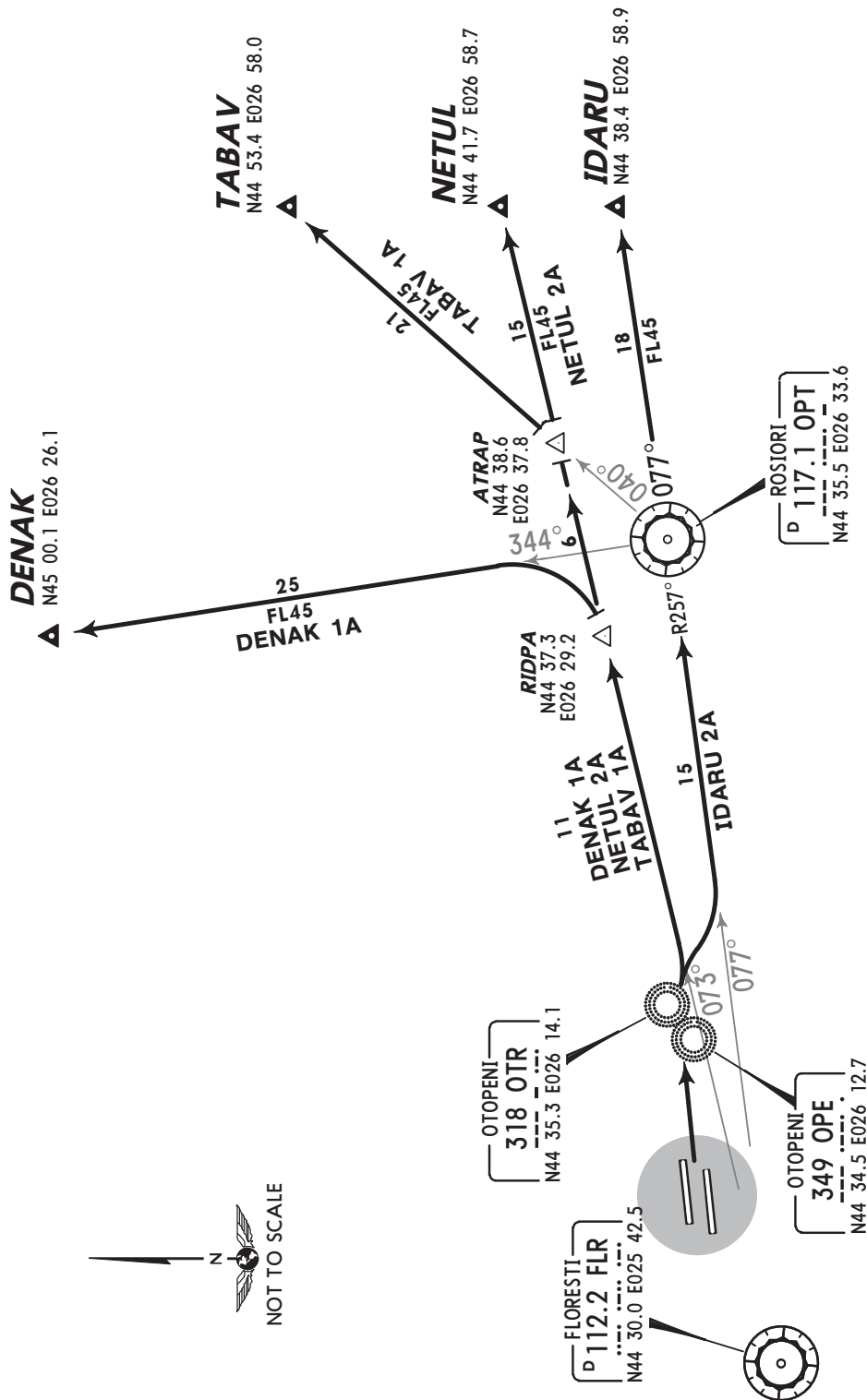
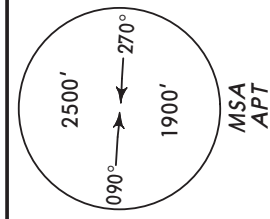
① Not available for traffic to NEPOT.
② Not available for traffic to VELIP.



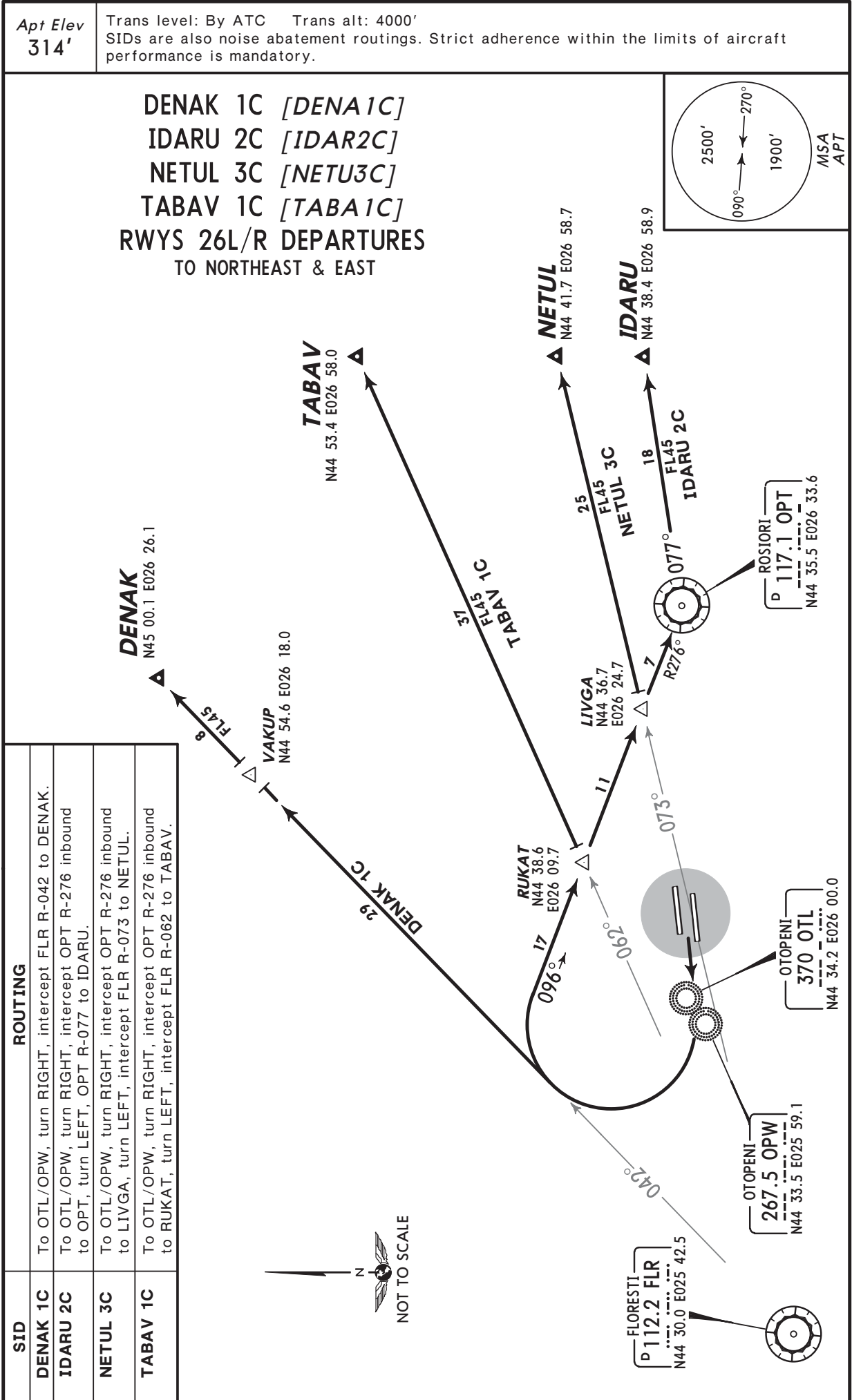
Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
SIDs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.

DENAK 1A [DENA1A], IDARU 2A [IDAR2A]
NETUL 2A [NETU2A], TABAV 1A [TABA1A]
RWYS 08L/R DEPARTURES
TO NORTHEAST & EAST



SID	ROUTING
DENAK 1A	To OTR/OPE, intercept FLR R-073 to RIDPA, turn LEFT, intercept OPT R-344 to DENAK.
IDARU 2A	To OTR/OPE, turn RIGHT, intercept OPT R-257 inbound to OPT, OPT R-077 to IDARU.
NETUL 2A	To OTR/OPE, intercept FLR R-073 to NETUL.
TABAV 1A	To OTR/OPE, intercept FLR R-073 to ATRAP, turn LEFT, intercept OPT R-040 to TABAV.



LROP/OTP
HENRI COANDA

24 APR 09

(20-3H)

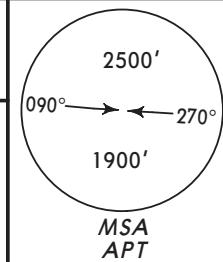
Eff 7 May

BUCHAREST, ROMANIA

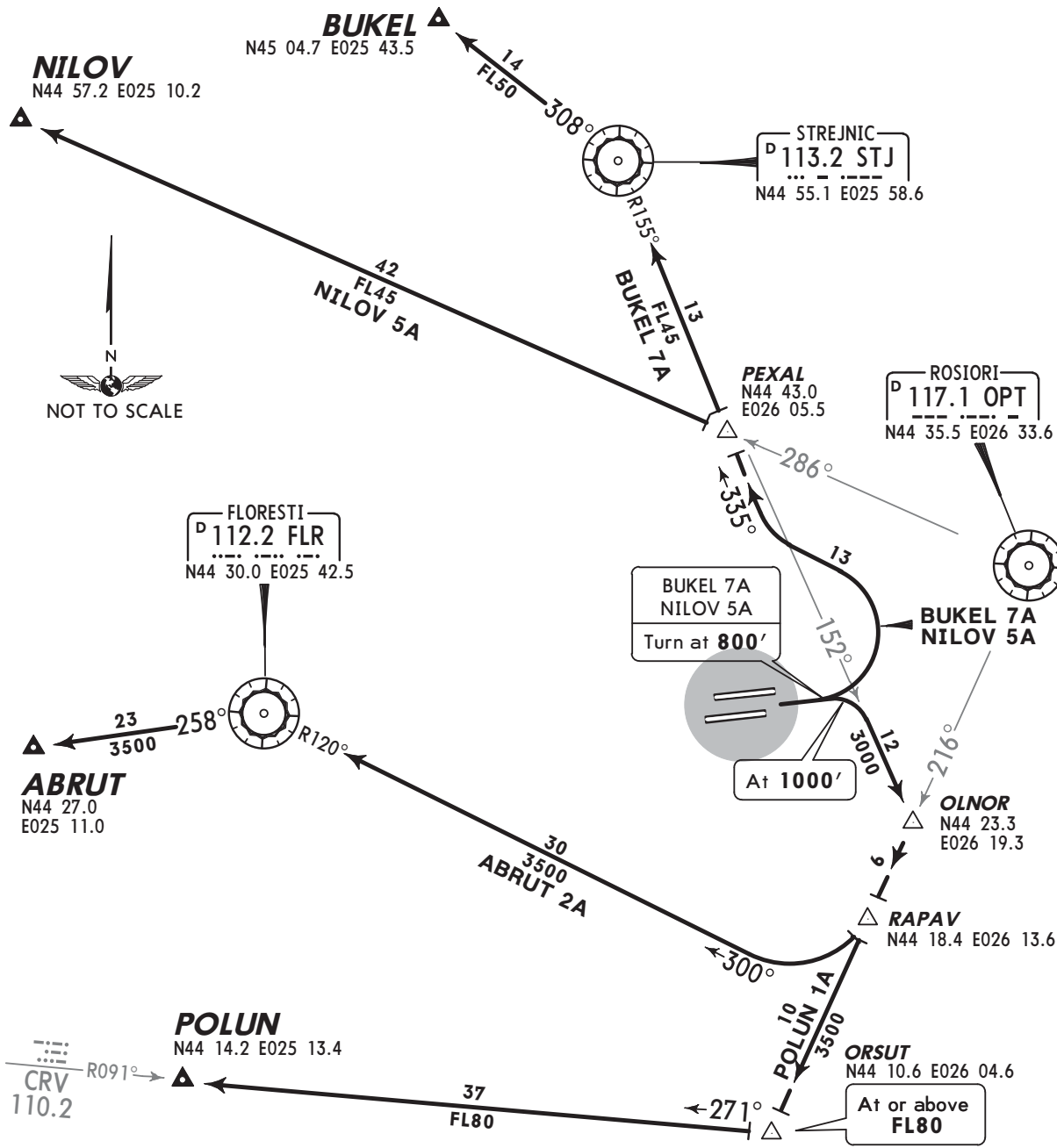
SID

Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
SIDs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.



**ABRUT 2A [ABRU2A], BUKEL 7A [BUKE7A]
NILOV 5A [NILO5A], POLUN 1A [POLU1A]
RWYS 08L/R DEPARTURES
TO WEST & NORTHWEST**



SID	ROUTING
ABRUT 2A ①	Climb on runway track to 1000' , turn RIGHT, intercept STJ R-152 to OLNOR, turn RIGHT, intercept OPT R-216 to RAPAV, turn RIGHT, intercept FLR R-120 inbound to FLR, FLR R-258 to ABRUT.
BUKEL 7A ②	Climb on runway track to 800' , intercept STJ R-155 inbound to STJ, STJ R-308 to BUKEL.
NILOV 5A ①	Climb on runway track to 800' , intercept STJ R-155 inbound to PEXAL, intercept OPT R-286 to NILOV.
POLUN 1A ③	Climb on runway track to 1000' , turn RIGHT, intercept STJ R-152 to OLNOR, turn RIGHT, intercept OPT R-216 to ORSUT, turn RIGHT, intercept CRV R-091 inbound to POLUN.

① Not available for traffic to VELIP. ② Not available for traffic to NEPOT.
③ Not available for traffic to LCRV.

LROP/OTP
HENRI COANDA

24 APR 09

20-3J

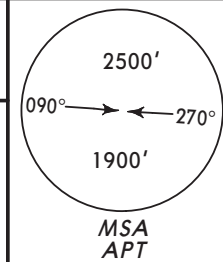
Eff 7 May

BUCHAREST, ROMANIA

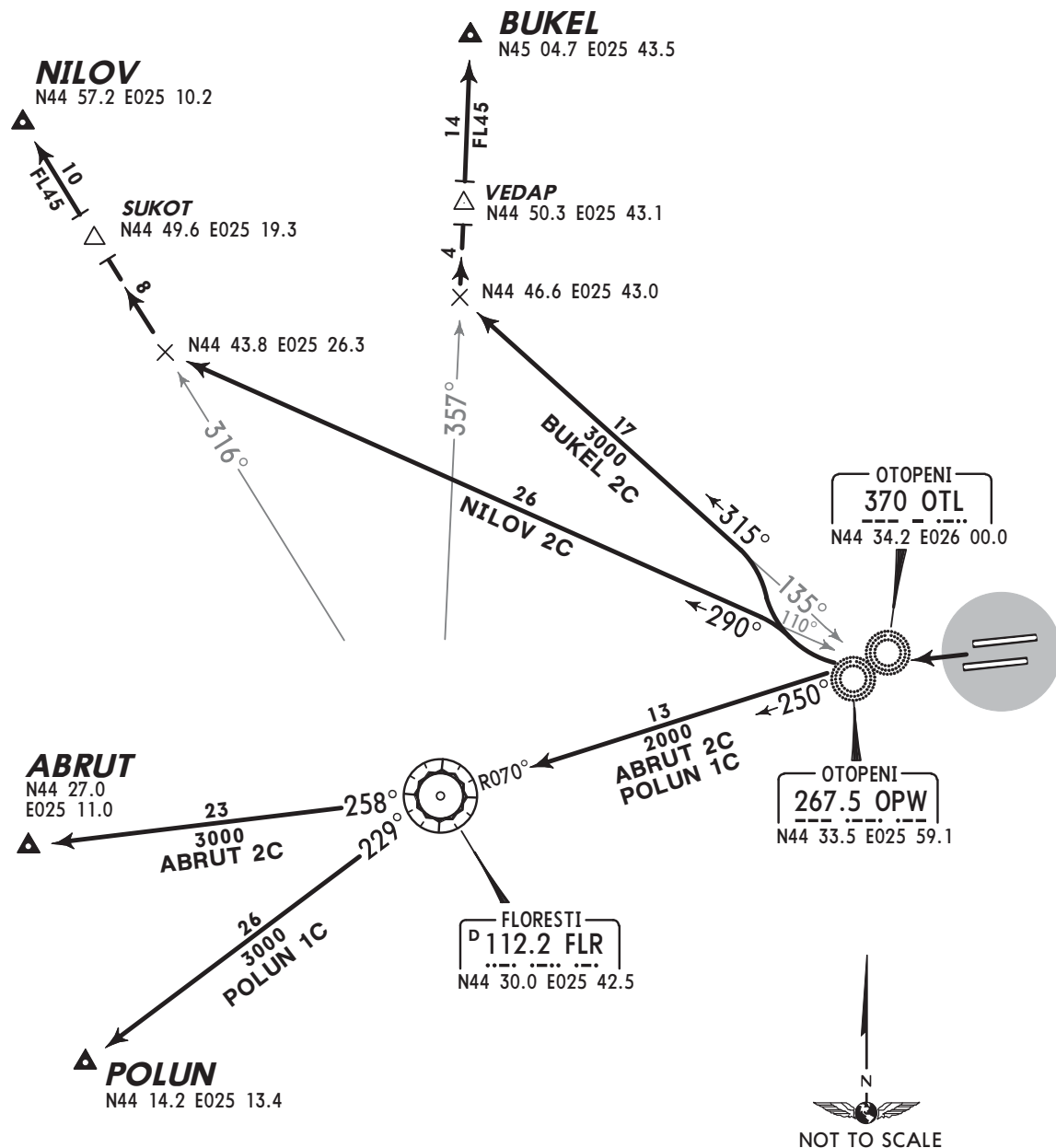
SID

Apt Elev
314'

Trans level: By ATC Trans alt: 4000'
SIDs are also noise abatement routings. Strict adherence within the limits of aircraft performance is mandatory.



**ABRUT 2C [ABRU2C], BUKEL 2C [BUKE2C]
NILOV 2C [NILO2C], POLUN 1C [POLU1C]
RWYS 26L/R DEPARTURES
TO WEST & NORTHWEST**



SID	ROUTING
ABRUT 2C ①	To OTL/OPW, intercept FLR R-070 inbound to FLR, FLR R-258 to ABRUT.
BUKEL 2C ②	To OTL/OPW, turn RIGHT, intercept 315° bearing from OTL/OPW, intercept FLR R-357 to BUKEL.
NILOV 2C ①	To OTL/OPW, turn RIGHT, intercept 290° bearing from OTL/OPW, intercept FLR R-316 to NILOV.
POLUN 1C ③	To OTL/OPW, turn LEFT, intercept FLR R-070 inbound to FLR, FLR R-229 to POLUN.

① Not available for traffic to VELIP. ② Not available for traffic to NEPOT.
③ Not available for traffic to LCRV.

LROP/OTP

Apt Elev **314'**
N44 34.3 E026 05.1

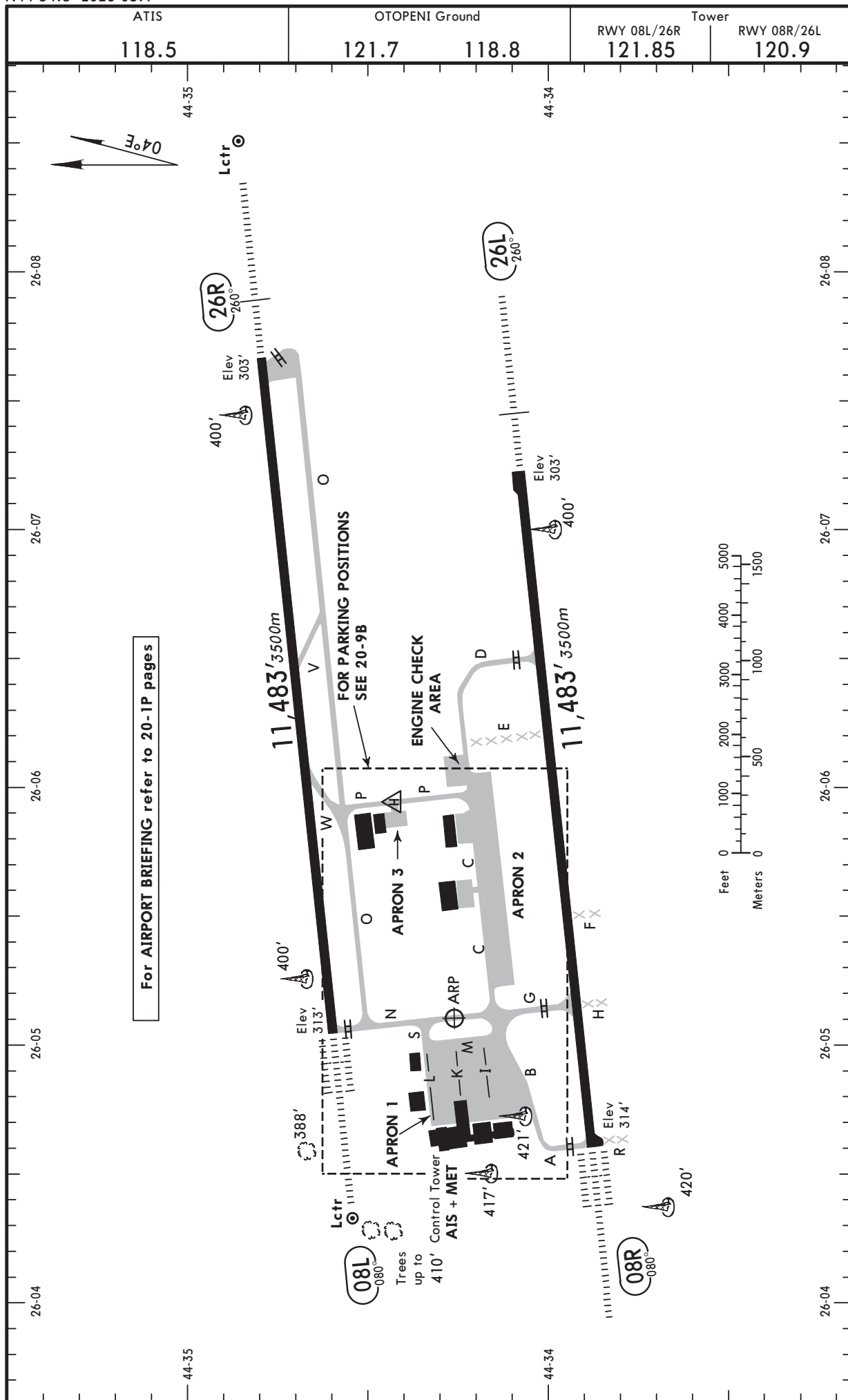
17 OCT 08

20-9

Eff 23 Oct

BUCHAREST, ROMANIA

HENRI COANDA



LROP/OTP

17 OCT 08

20-9A

Eff 23 Oct

BUCHAREST, ROMANIA

HENRI COANDA

ADDITIONAL RUNWAY INFORMATION								
RWY					USABLE LENGTHS		TAKE-OFF	WIDTH
					Threshold	Glide Slope		
08L	HIRL (60m)	CL (15m)	ALSF-II	TDZ ①	HST-V	RVR	10,444' 3183m	148'
26R	HIRL (60m)	CL (15m)	HIALS	PAPI-L (3.0°) ②	RVR		10,512' 3204m	45m
① PAPI-L (3.0°) ② HST-W								
08R	HIRL (60m)	CL (15m)	ALSF-II	TDZ ③	RVR		10,328' 3148m	148'
26L	HIRL (60m)	CL (15m)	HIALS	PAPI-L (2.7°)	RVR		10,338' 3151m	45m
③ PAPI-L (2.7°) ④ TAKE-OFF RUN AVAILABLE <u>RWY 08R:</u> From rwy head 11,483' (3500m) twy G int 9072' (2765m)								
<u>RWY 26L:</u> From rwy head 11,483' (3500m) twy D int 8169' (2490m)								

INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
APRON 1			
1	N44 34.3 E026 04.7	1, 2	N44 34.2 E026 06.0
2, 3	N44 34.3 E026 04.8	3, 4	N44 34.2 E026 05.9
4, 5	N44 34.3 E026 04.9	5	N44 34.2 E026 05.8
6	N44 34.3 E026 05.0	6	N44 34.1 E026 05.8
7	N44 34.2 E026 05.0	7 thru 9	N44 34.1 E026 05.7
8, 9	N44 34.2 E026 04.9	10, 11	N44 34.1 E026 05.6
10 thru 12	N44 34.2 E026 04.8	12 thru 14	N44 34.1 E026 05.5
13	N44 34.2 E026 04.7	15 thru 18	N44 34.1 E026 05.4
14 thru 16	N44 34.1 E026 04.7	19 thru 21	N44 34.1 E026 05.3
17	N44 34.1 E026 04.8	22	N44 34.1 E026 05.2
18 thru 20	N44 34.1 E026 04.9		
21	N44 34.1 E026 05.0		
22	N44 34.1 E026 04.8	1 thru 4	APRON 3 N44 34.4 E026 05.9
23, 24	N44 34.1 E026 04.9	5, 6	N44 34.4 E026 05.8

JAR-OPS

TAKE-OFF ①

All Rwys					
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
A					
B	125m	150m	200m	250m	400m
C					
D	150m	200m	250m	300m	500m

① Operators applying U.S. Ops Specs: CL required below 300m; approved guidance system required below 150m.

LROP/OTP

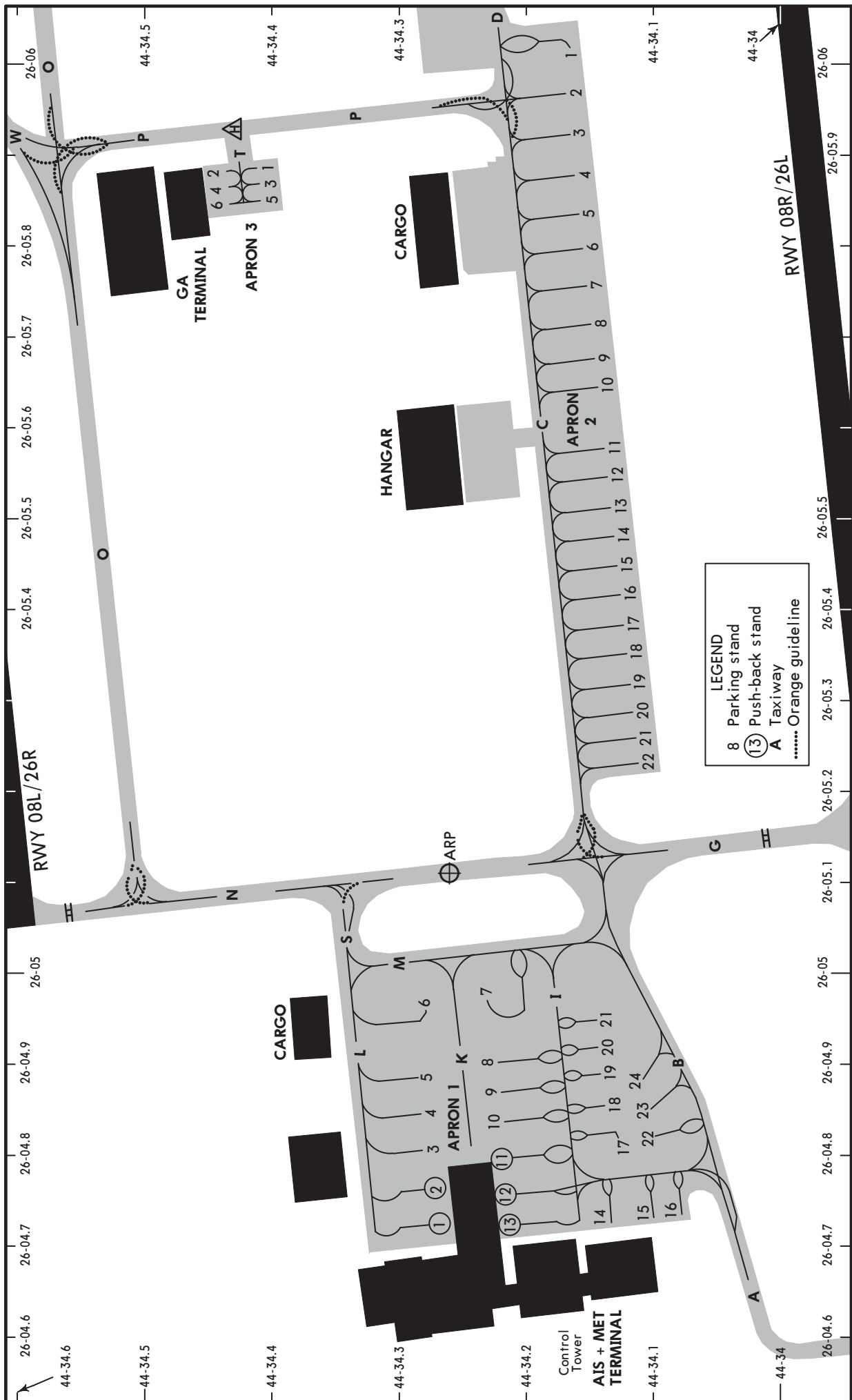
BUCHAREST, ROMANIA

13 JAN 06

20-9B

Eff 19 Jan

HENRI COANDA



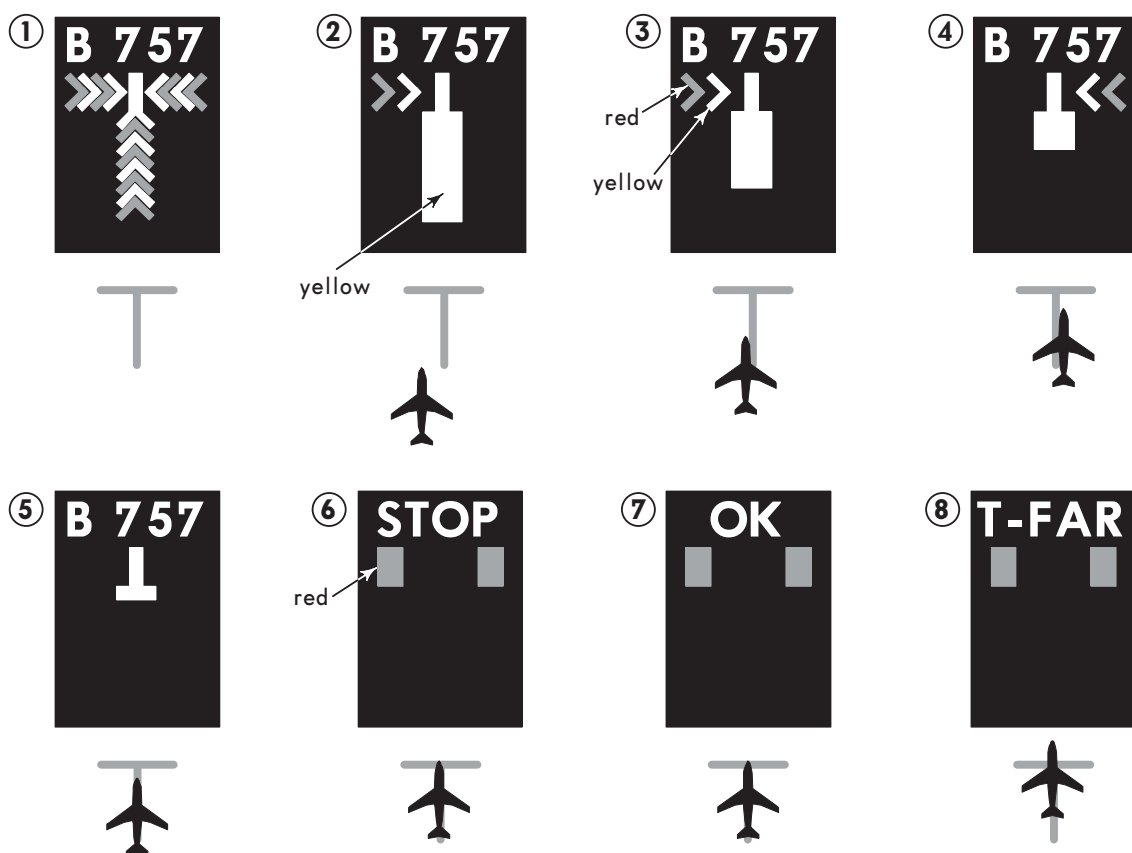
DOCKING GUIDANCE SYSTEM (SAFEDOCK)

A. DESCRIPTION

The docking system consists of a display unit and a laser unit to identify type and position of aircraft.

B. DOCKING PROCEDURE

CAUTION: The safedock docking guidance system has a built-in error detecting program to inform the acft pilots of possible hazards during the docking procedure. During the acft approach to the terminal gate, the docking guidance system automatically confirms the identification of the acft. The acft must be identified at least 39' (12m) before the correct stop position. If this does not occur, the system displays "STOP" and then "WAIT" with two red, rectangular fields being lit in the azimuth guidance area of the display. While the acft is stopped, the system will attempt to identify it. If successful, the docking procedure will continue. If not, "WAIT" will be replaced with "STOP". If the display reverts to the "STOP" indication, the pilot must contact OTOPENI Ground to obtain clearance to complete the docking procedure.



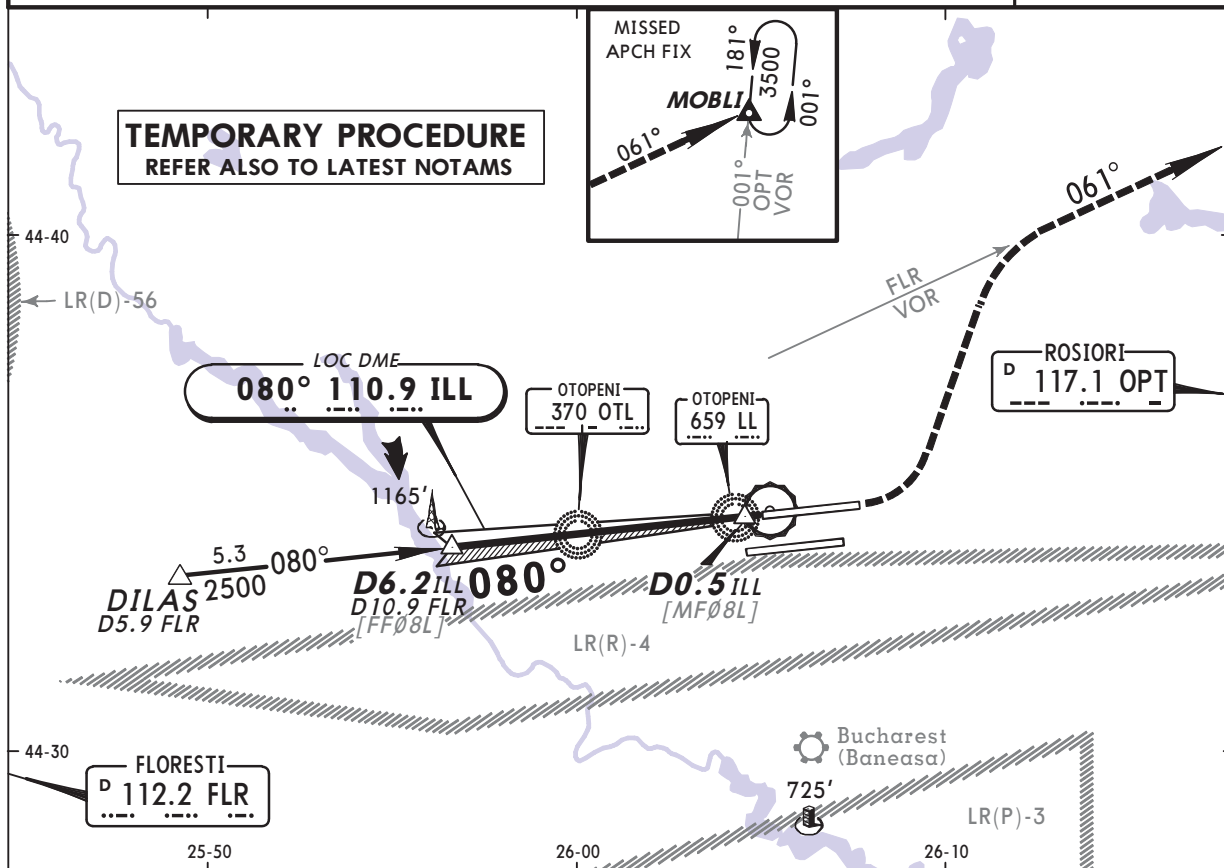
1. Check that the correct acft type is displayed. The scrolling arrows indicate that the system is activated.
2. Follow the lead in line. When the solid yellow closing rate field appears, the acft has been caught by the scanning unit. The scanning unit now checks that the acft is the correct type and the display provides azimuth guidance information.
3. Look for the flashing red arrow and solid yellow arrow which provide azimuth guidance information. The flashing red arrow shows which direction to steer, while solid yellow arrow gives an indication of how far the acft is off of the centerline.
4. When the acft is 39' (12m) from the stop position, closing rate information is given. "Distance to go" is indicated by turning off one row of LED's for each 2' (0.5 m) that the acft advances towards the stop position.
5. & 6. When the correct stop position is reached all of the LED's for the closing rate field will be off, the word "STOP" will appear in the display and two red rectangular fields will light in the azimuth guidance area of the display.
7. If the acft stops in the correct position, "OK" will be displayed after a few seconds.
8. If the acft has gone past the correct stop position, the display will show "T-FAR" (too far).

LROP/OTP
HENRI COANDA

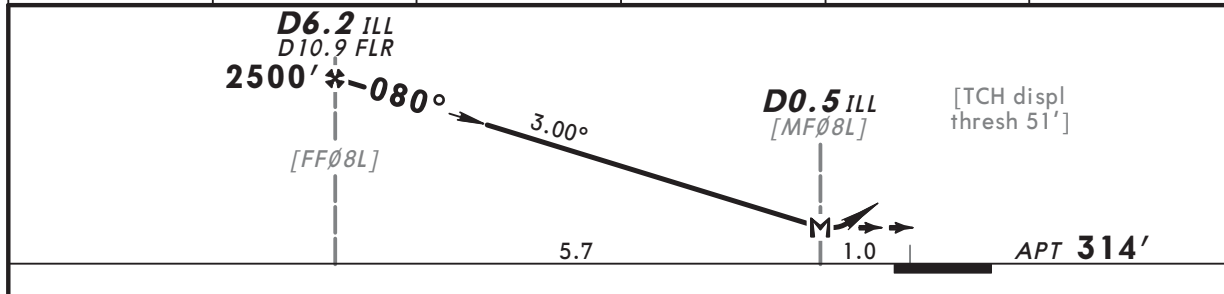
22 MAY 09 (21-01) **Eff 4 Jun**

BUCHAREST, ROMANIA
LOC DME Rwy 08L

ATIS 118.5		BUCHAREST Approach (R) 118.25		OTOPENI Tower 121.85		Ground 121.7 118.8	
LOC ILL 110.9	Final Apch Crs 080°	Minimum Alt D6.2 ILL 2500' (2186')	MDA(H) 690' (376')	Apt Elev 314'			
MISSED APCH: Climb on 080° to 800', then climbing turn LEFT to intercept and follow R-061 FLR, join MOBLI holding at 3500', or as directed.							MSA Airport
Alt Set: hPa (MM on req)		Apt Elev: 11 hPa		Trans level: By ATC		Trans alt: 4000'	



ILL DME	5.0	4.0	3.0	2.0	1.0
ALTITUDE	2130'	1810'	1490'	1170'	850'



Gnd speed-Kts	70	90	100	120	140	160	800' on 080° FLR 112.2 R-061 LT
Descent Gradient 5.24% or Descent angle 3.00°	372	478	531	637	743	849	
MAP at D0.5 ILL							

JAR-OPS			STRAIGHT-IN LANDING RWY 08L			CIRCLE-TO-LAND		
			MDA(H) 690' (376')			Not authorized South of airport		
A	RVR 1500m	Max Kts	100	MDA(H)	770' (456')	VIS	1500m	
B	RVR 1800m	135		820' (506')		1600m		
C	RVR 2000m	180		990' (676')		2400m		
D	RVR 2000m	205		1100' (786')		3600m		

LROP/OTP
HENRI COANDA

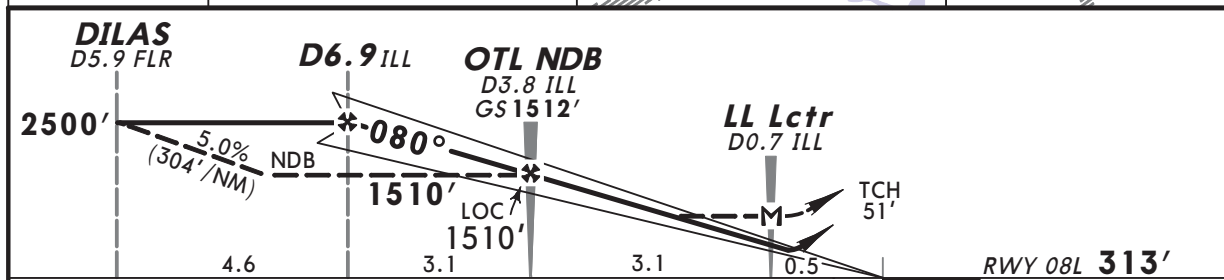
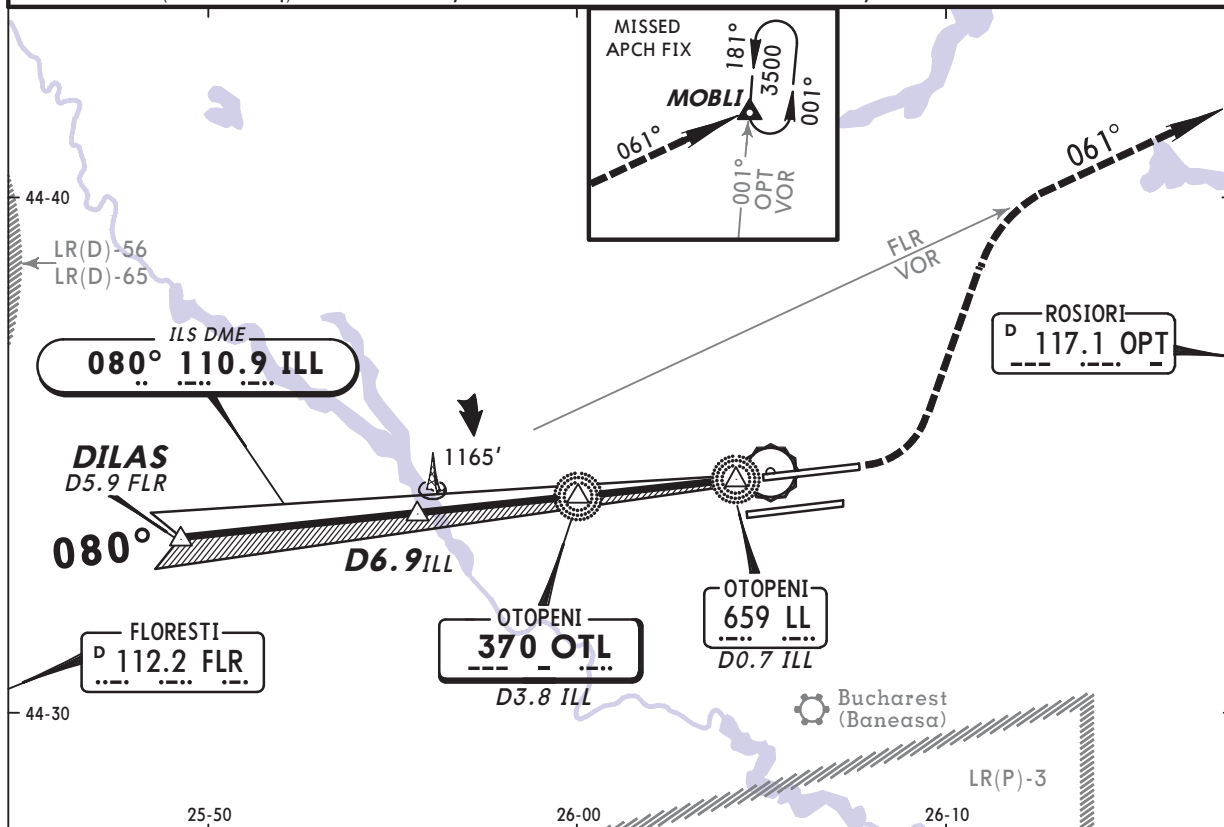
17 OCT 08
Eff 23 Oct (21-1)

BUCHAREST, ROMANIA
ILS DME or NDB Rwy 08L

ATIS 118.5	BUCHAREST Approach (R) 118.25	OTOPENI Tower 121.85	Ground 121.7 118.8		
LOC ILL 110.9	Final Apch Crs 080°	GS OTL NDB 1512' (1199')	ILS DA(H) 513' (200')		Apt Elev 314' RWY 313'
NDB OTL 370		Minimum Alt OTL NDB 1510' (1197')	NDB MDA(H) Refer to Minimums		

MISSED APCH: Climb on 080° to 800', then climbing turn LEFT to intercept and follow R-061 FLR, join MOBLI holding at 3500', or as directed.

Alt Set: hPa (MM on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 4000'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	800'	FLR
ILS GS 3.00° or LOC or NDB Descent Gradient 5.2%	377	484	538	646	753	861	PAPI	on 080°	112.2 R-061
MAP at LL Lctr/D0.7 ILL									LT

JAR-OPS		STRAIGHT-IN LANDING RWY 08L				NDB		CIRCLE-TO-LAND	
ILS		LOC (GS out)		MDA(H)		AB: 710' (397') CD: 720' (407')		Not authorized South of airport	
DA(H) 513' (200')		MDA(H) 690' (377')							
FULL		ALS out		ALS out		ALS out		Max Kts	
A		RVR 900m	RVR 1500m	RVR 900m	RVR 1500m	100	770' (456')	1500m	
B						135	820' (506')	1600m	
C	RVR 550m	RVR 1000m	RVR 1800m	RVR 1000m	RVR 1800m	180	990' (676')	2400m	
D		RVR 1400m	RVR 2000m	RVR 1400m	RVR 2000m	205	1100' (786')	3600m	

LROP/OTP
HENRI COANDA

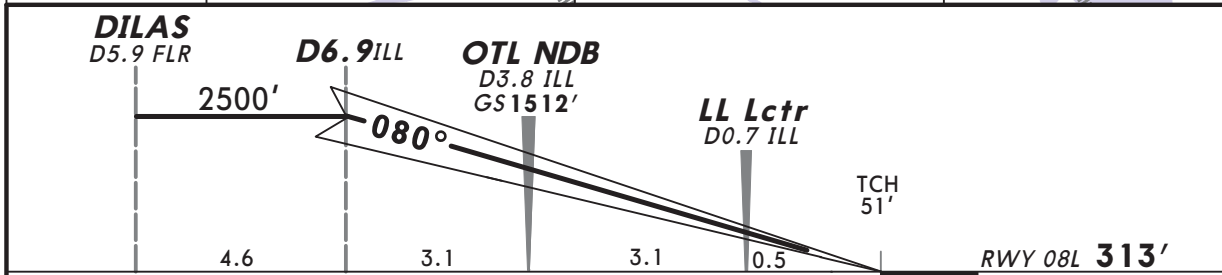
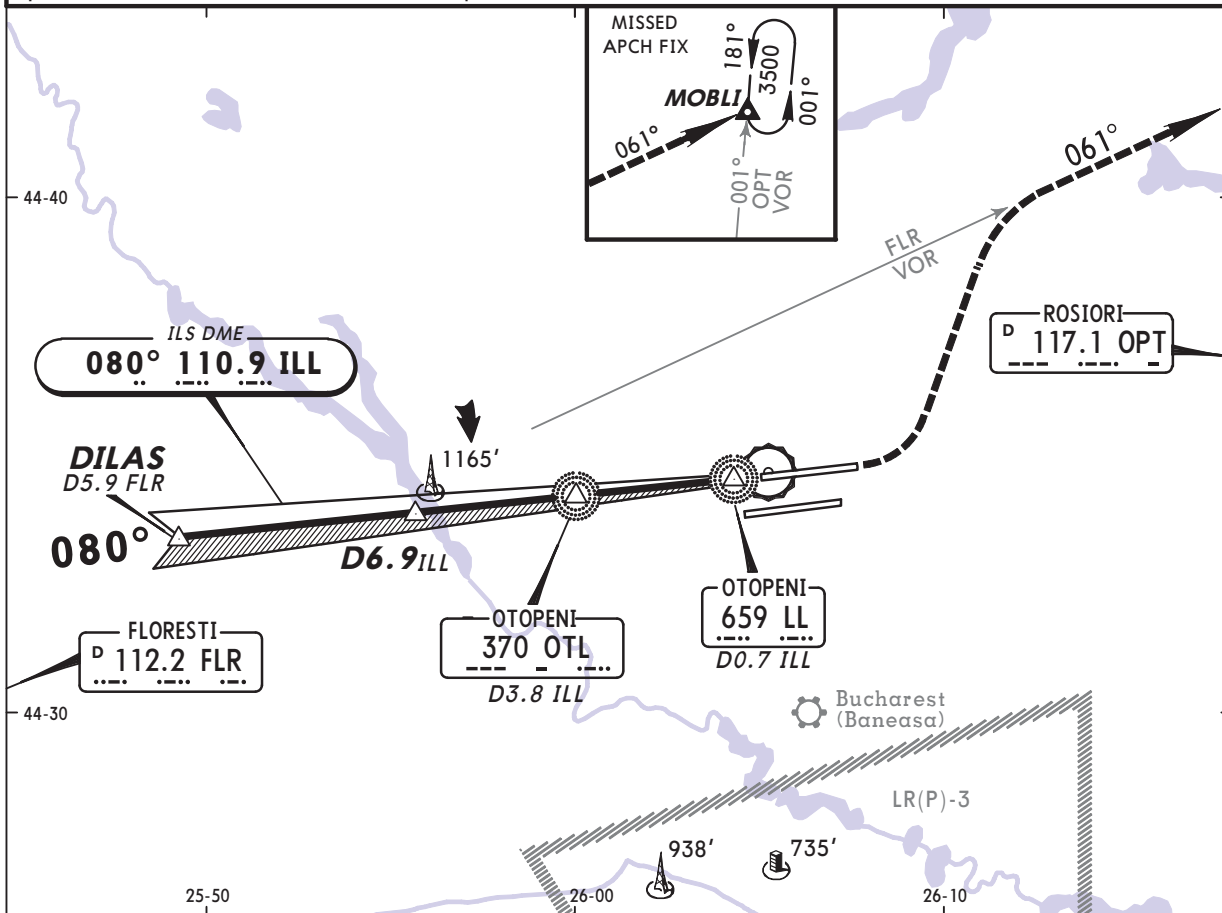
17 OCT 08

Eff 23 Oct

(21-1A)

BUCHAREST, ROMANIA
CAT II ILS DME Rwy 08L

ATIS 118.5	BUCHAREST Approach (R) 118.25	OTOPENI Tower 121.85	Ground 121.7 118.8	<p>MSA Airport</p>
LOC ILL 110.9	Final Apch Crs 080°	GS OTL NDB 1512' (1199')	CAT II ILS RA 99' DA(H) 413' (100')	
<p>MISSED APCH: Climb on 080° to 800', then climbing turn LEFT to intercept and follow R-061 FLR, join MOBLI holding at 3500', or as directed.</p>				
Alt Set: hPa (MM on req)		Rwy Elev: 11 hPa	Trans level: By ATC	Trans alt: 4000'
Special Aircrew & Acft Certification required.				



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAP	800' on 080°	FLR 112.2 R-061 LT
GS	3.00°	377	484	538	646	753			

JAR-OPS STRAIGHT-IN LANDING RWY 08L
CAT II ILS
 ABCD
RA 99'
 DA(H) **413' (100')**
 RVR **300m**

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

LROP/OTP
HENRI COANDA

17 OCT 08
Eff 23 Oct

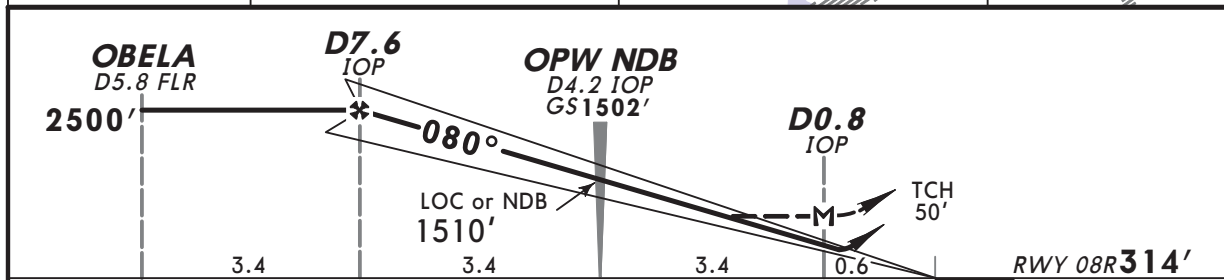
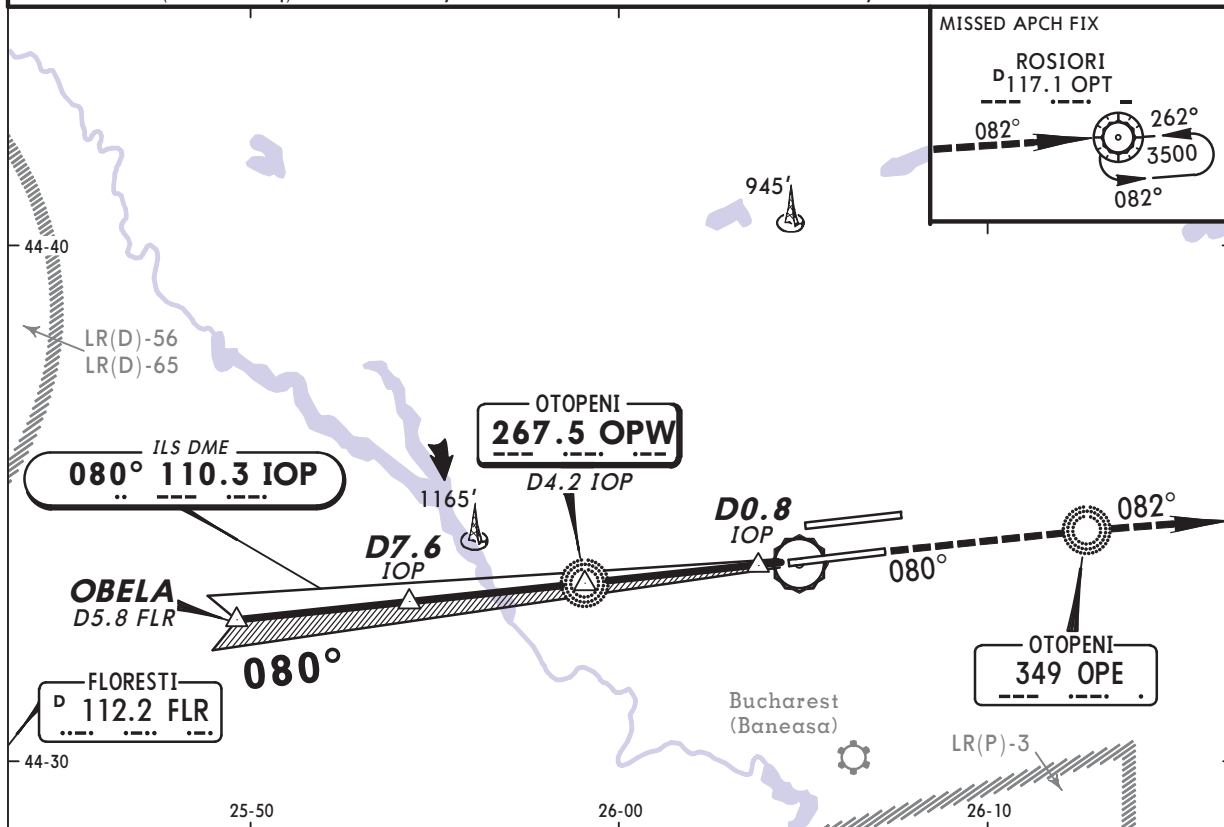
(21-2)

BUCHAREST, ROMANIA
ILS DME or NDB DME Rwy 08R

ATIS 118.5	BUCHAREST Approach (R) 118.25	OTOPENI Tower 120.9	Ground 121.7 118.8	<p>2500' 090° ← → 270° 1900' MSA Airport</p>	
LOC IOP 110.3	Final Apch Crs 080°	GS OPW NDB 1502' (1188')	ILS DA(H) 514' (200')		Apt Elev 314' RWY 314'
NDB OPW 267.5		Minimum Alt D7.6 IOP 2500' (2186')	NDB MDA(H) Refer to Minimums		

MISSED APCH: Climb via OPE NDB to OPT VOR to 3500' and hold, or as directed.

Alt Set: hPa (MM on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 4000'



Gnd speed-Kts	70	90	100	120	140	160		OPÉ 349
ILS GS 2.70° or LOC or NDB Desc Grad 4.7%	338	435	483	580	677	773		
MAP at D0.8 IOP								

JAR-OPS		STRAIGHT-IN LANDING RWY 08R				NDB		CIRCLE-TO-LAND	
ILS		LOC (GS out)		MDA(H)		AB: 710' (396') CD: 720' (406')		Not authorized South of airport	
DA(H) 514' (200')		MDA(H) 690' (376')							
FULL		ALS out		ALS out		ALS out		Max Kts	
A		RVR 900m	RVR 1500m	RVR 900m	RVR 1500m	100	770' (456')	1500m	
B		RVR 1000m	RVR 1800m	RVR 1000m	RVR 1800m	135	820' (506')	1600m	
C	RVR 550m	RVR 1000m	RVR 2000m	RVR 1400m	RVR 2000m	180	990' (676')	2400m	
D		RVR 1400m	RVR 2000m	RVR 1400m	RVR 2000m	205	1100' (786')	3600m	

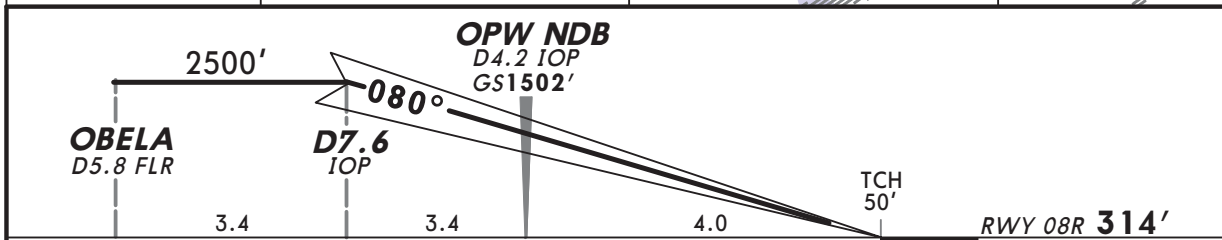
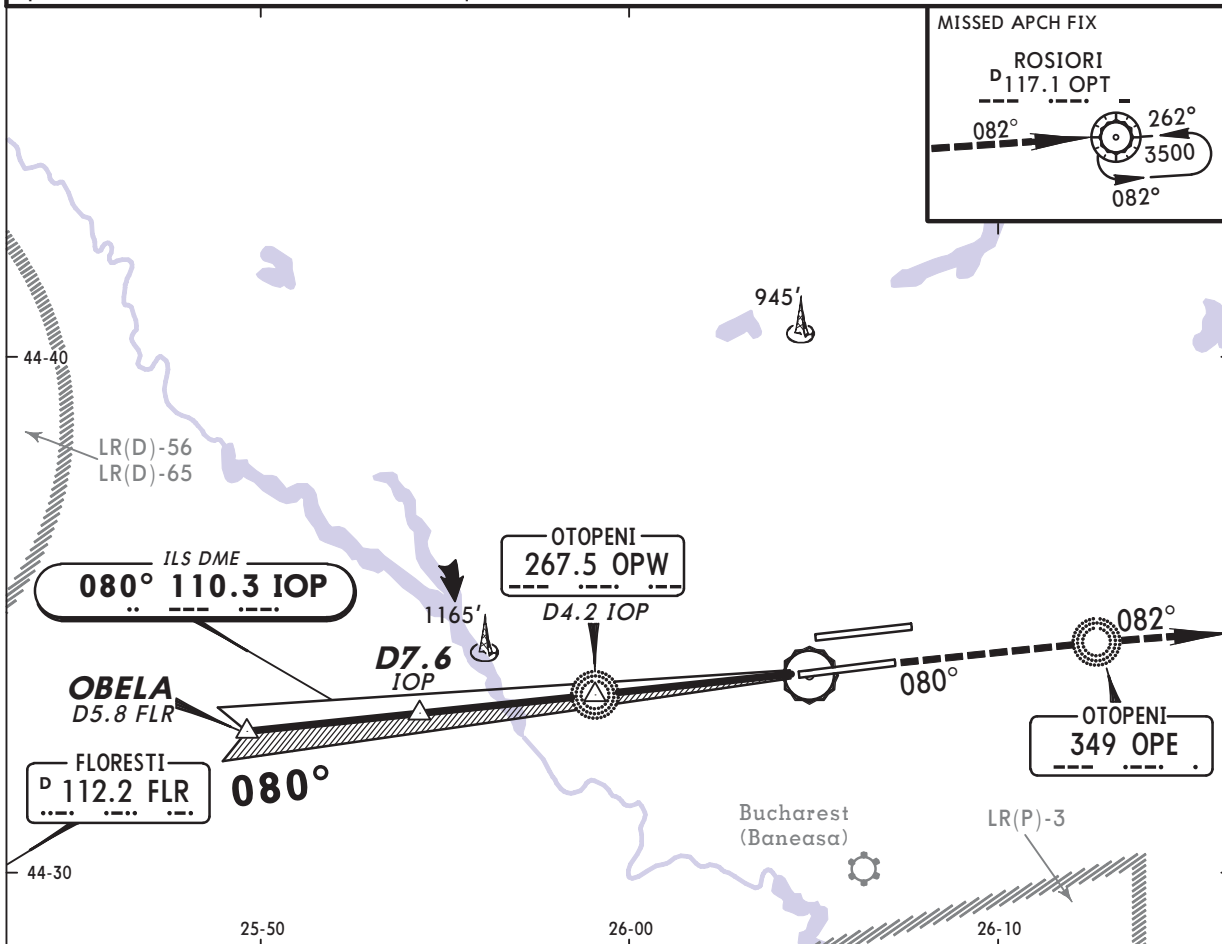
LROP/OTP
HENRI COANDA

17 OCT 08
Eff 23 Oct

(21-2A)

BUCHAREST, ROMANIA
CAT II ILS DME Rwy 08R

ATIS 118.5	BUCHAREST Approach (R) 118.25	OTOPENI Tower 120.9	Ground 121.7 118.8	<p>MSA Airport</p>
LOC IOP 110.3	Final Apch Crs 080°	GS OPW NDB 1502' (1188')	CAT II ILS RA 101' DA(H) 414' (100')	
<p>MISSED APCH: Climb via OPE NDB to OPT VOR to 3500' and hold, or as directed.</p>				
Alt Set: hPa (MM on req)		Rwy Elev: 11 hPa	Trans level: By ATC	Trans alt: 4000'
Special Aircrew & Acft Certification required.				



JAR-OPS	STRAIGHT-IN LANDING RWY 08R						ALSIF-II	OPE 349
	CAT II ILS							
	ABCD							
	RA 101'							
	DA(H) 414' (100')							

RVR 300m

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

LROP/OTP
HENRI COANDA

17 OCT 08

Eff 23 Oct

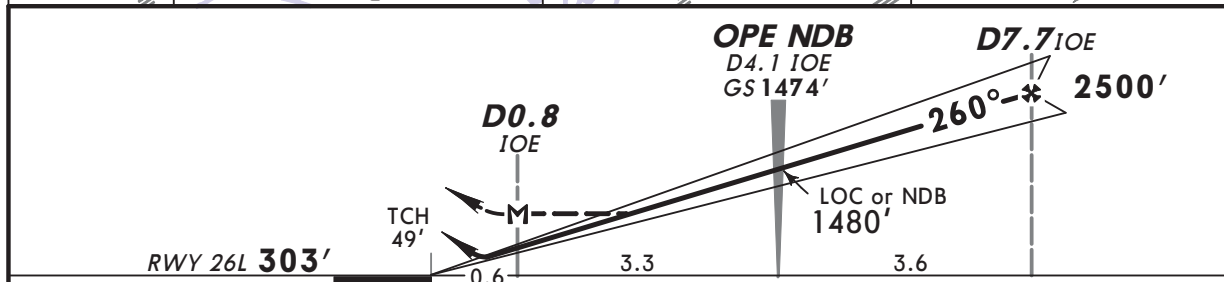
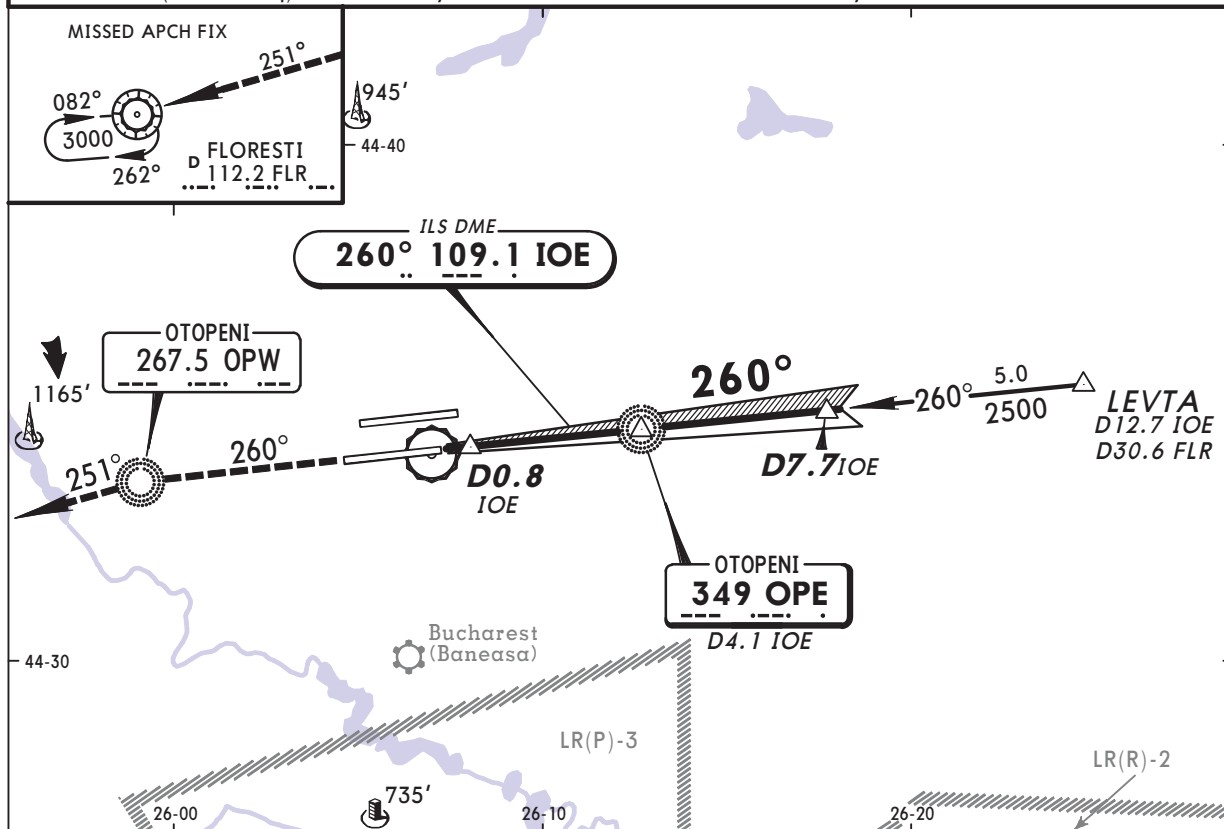
(21-3)

BUCHAREST, ROMANIA
ILS DME or NDB DME Rwy 26L

ATIS 118.5		BUCHAREST Approach (R) 118.25		OTOPENI Tower 120.9		Ground 121.7 118.8		<p>2500' 090° ← → 270° 1900' MSA Airport</p>	
LOC IOE 109.1		Final Apch Crs 260°		GS OPE NDB 1474' (1171')		ILS DA(H) 503' (200')			Apt Elev 314' RWY 303'
NDB OPE 349				Minimum Alt D7.7 IOE 2500' (2197')		NDB MDA(H) 790' (487')			

MISSED APCH: Climb via OPW NDB to FLR VOR to 3000' and hold, or as directed.

Alt Set: hPa (MM on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 4000'



Gnd speed-Kts	70	90	100	120	140	160	<p>HIALS PAPI OPW 267.5</p>
ILS GS 2.70° or LOC or NDB Descent Gradient 4.7%	340	437	486	583	680	777	
MAP at D0.8 IOE							

JAR-OPS STRAIGHT-IN LANDING RWY 26L							CIRCLE-TO-LAND Not authorized South of airport	
ILS DA(H) 503' (200')		LOC (GS out) MDA(H) 730' (427')		NDB MDA(H) 790' (487')			Max Kts	MDA(H) _____ VIS _____
FULL	ALS out		ALS out		ALS out			
A		RVR 900m	RVR 1500m	RVR 1000m	RVR 1500m	100	770' (456') 1500m	
B						135	820' (506') 1600m	
C	RVR 550m	RVR 1000m	RVR 1000m	RVR 1800m	RVR 1200m	180	990' (676') 2400m	
D			RVR 1400m	RVR 2000m	RVR 1600m	205	1100' (786') 3600m	

I After NDB apch: MDA(H) 790' (476').

LROP/OTP
HENRI COANDA

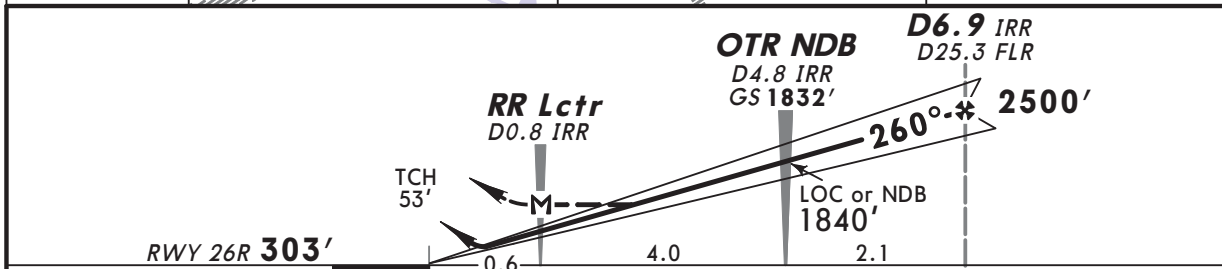
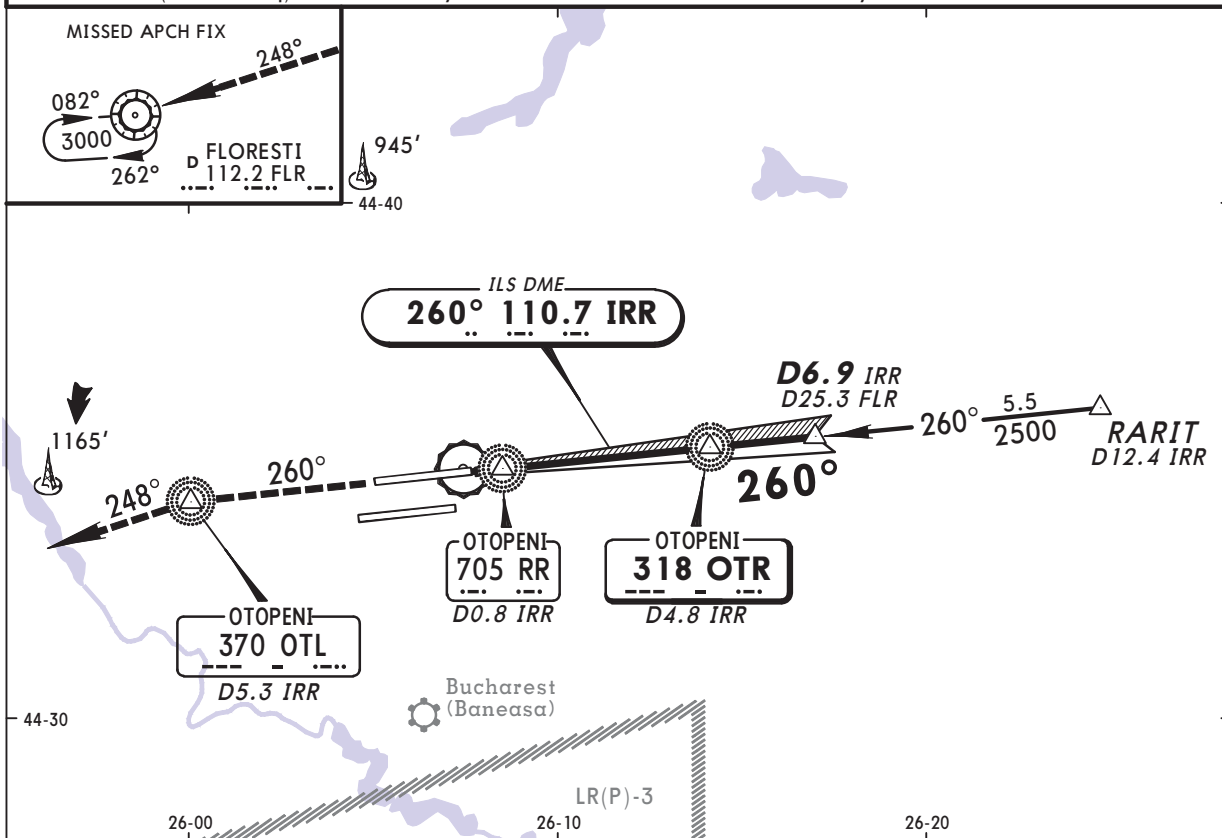
17 OCT 08
Eff 23 Oct (21-4)

BUCHAREST, ROMANIA
ILS DME or NDB DME Rwy 26R

ATIS 118.5	BUCHAREST Approach (R) 118.25	OTOPENI Tower 121.85	Ground 121.7 118.8	<p>2500' 1900' MSA Airport</p>	
LOC IRR 110.7	Final Apch Crs 260°	GS OTR NDB 1832' (1529')	ILS DA(H) 503' (200')		Apt Elev 314' RWY 303'
NDB OTR 318		Minimum Alt D6.9 IRR 2500' (2197')	NDB MDA(H) 710' (407')		

MISSED APCH: Climb via OTL NDB to FLR VOR to 3000' and hold, or as directed.

Alt Set: hPa (MM on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 4000'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS 3.00° or LOC or NDB Desc Grad 5.2%	377	484	538	646	753	861	
MAP at RR Lctr/D0.8 IRR							

JAR-OPS		STRAIGHT-IN LANDING RWY 26R				CIRCLE-TO-LAND Not authorized South of airport	
ILS		LOC (GS out)		NDB		Max Kts	MDA(H) _____ VTS _____
FULL	ALS out		ALS out		ALS out		
A				RVR 900m		100	770'(456') 1500m
B		RVR 800m	RVR 1500m	RVR 1000m	RVR 1500m	135	820'(506') 1600m
C	RVR 550m	RVR 1000m	RVR 1600m		RVR 1800m	180	990'(676') 2400m
D		RVR 1200m	RVR 1800m	RVR 1400m	RVR 2000m	205	1100'(786') 3600m

LROP/OTP
HENRI COANDA

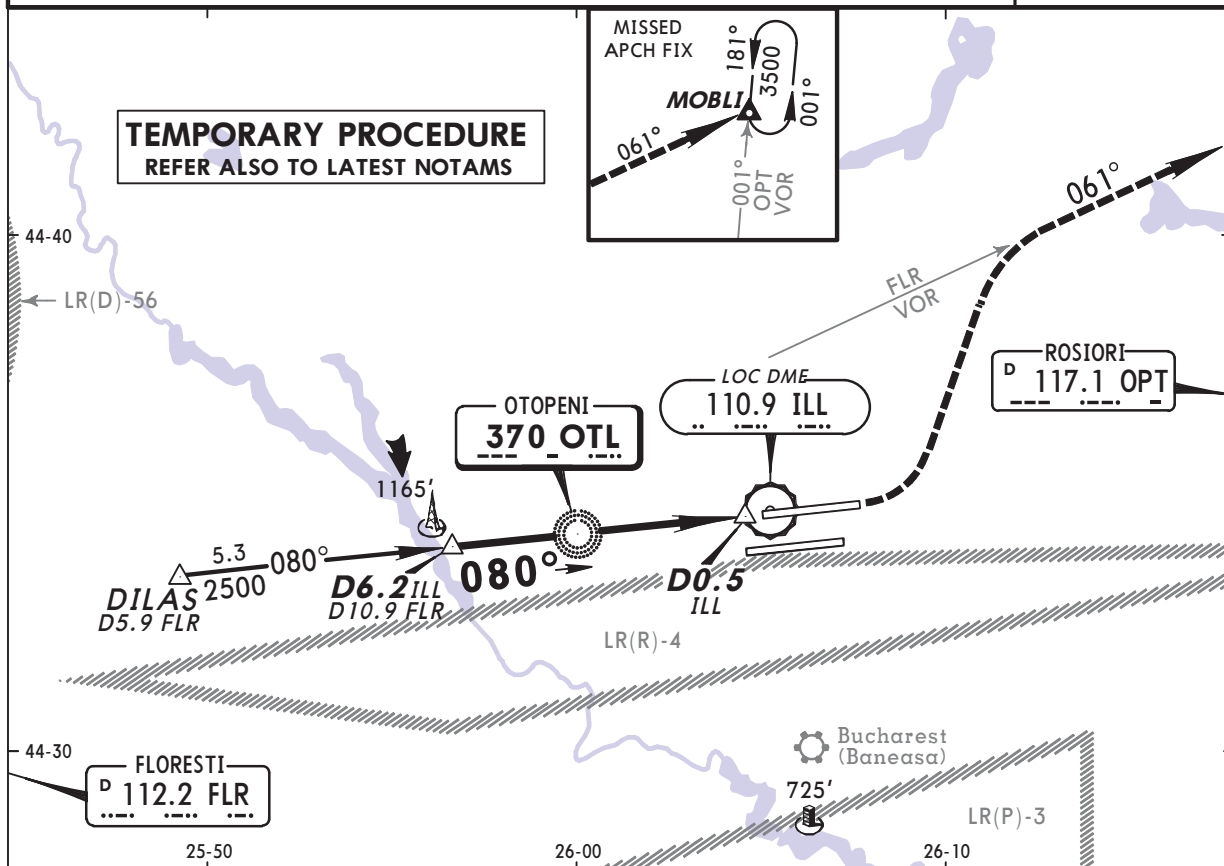
22 MAY 09

26-01

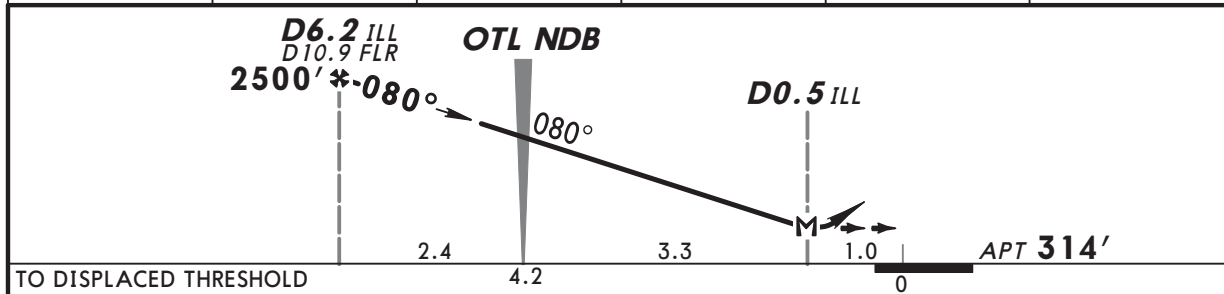
Eff 4 Jun

BUCHAREST, ROMANIA
NDB DME Rwy 08L

ATIS 118.5		BUCHAREST Approach (R) 118.25		OTOPENI Tower 121.85		Ground 121.7 118.8	
NDB OTL 370	Final Apch Crs 080°	Minimum Alt D6.2 ILL 2500' (2186')	MDA(H) Refer to Minimums	Apt Elev 314'			
MISSED APCH: Climb on 080° to 800', then climbing turn LEFT to intercept and follow R-061 FLR, join MOBLI holding at 3500', or as directed.							MSA Airport
Alt Set: hPa (MM on req)		Apt Elev: 11 hPa		Trans level: By ATC		Trans alt: 4000'	



ILL DME	5.0	4.0	3.0	2.0	1.0
ALTITUDE	2130'	1810'	1490'	1170'	850'



TO DISPLACED THRESHOLD							APT 314'	
Gnd speed-Kts	70	90	100	120	140	160	800' on 080° FLR 112.2 R-061 LT	
Descent Gradient 5.2%	369	474	527	632	737	843		
MAP at D0.5 ILL								

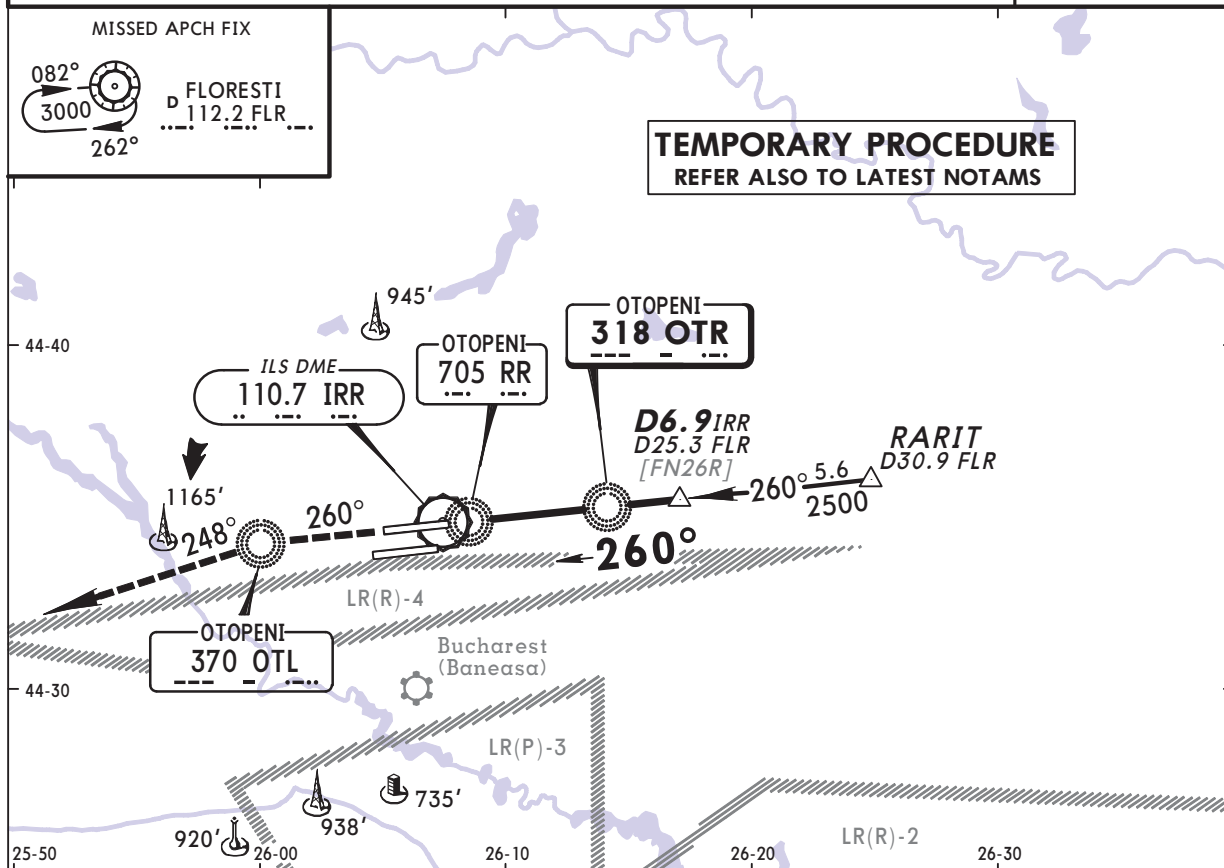
JAR-OPS				STRAIGHT-IN LANDING RWY 08L				CIRCLE-TO-LAND			
				MDA(H) AB: 710' (396') CD: 720' (406')				Not authorized South of airport			
A					Max Kts	MDA(H)	VIS				
B	RVR 1500m				100	770' (456')	1500m				
C	RVR 1800m				135	820' (506')	1600m				
D	RVR 2000m				180	990' (676')	2400m				
					205	1100' (786')	3600m				

LROP/OTP
HENRI COANDA

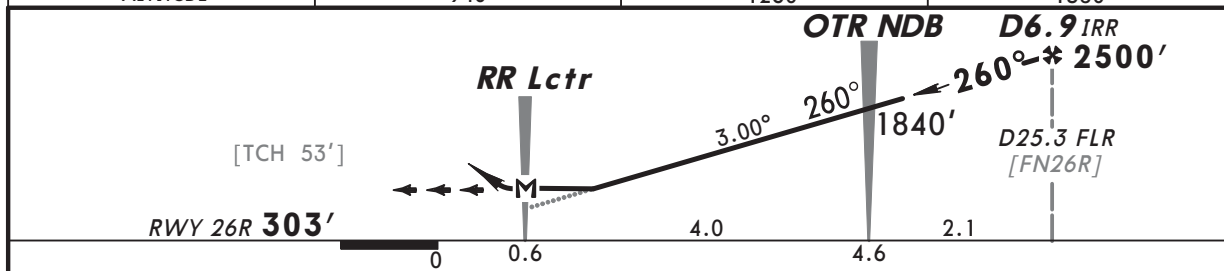
22 MAY 09 **(26-02)** **Eff 4 Jun**

BUCHAREST, ROMANIA
NDB DME Rwy 26R

ATIS 118.5		BUCHAREST Approach (R) 118.25		OTOPENI Tower 121.85		Ground 121.7 118.8	
NDB OTR 318	Final Apch Crs 260°	Minimum Alt D6.9 IRR 2500' (2197')	MDA(H) 710' (407')	Apt Elev 314' RWY 303'			
MISSED APCH: Climb via OTL NDB to reach FLR VOR at 3000' and hold, or as directed.							MSA Airport
Alt Set: hPa (MM on req)		Rwy Elev: 11 hPa		Trans level: By ATC		Trans alt: 4000'	



IRR DME	2.0	3.0	4.0
FLR DME	19.0	20.0	21.0
ALTITUDE	940'	1260'	1580'



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI ↑ 370
Descent Gradient 5.24% or Descent angle 3.00°	372	478	531	637	743	849	
MAP at RR Lctr							

JAR-OPS				STRAIGHT-IN LANDING RWY 26R				CIRCLE-TO-LAND					
				MDA(H) 710' (407')				Not authorized South of airport					
				ALS out				Max Kts		MDA(H)		VIS	
A	RVR 900m			RVR 1500m			100		770' (456')		1500m		
B	RVR 1000m			RVR 1800m			135		820' (506')		1600m		
C	RVR 1400m			RVR 2000m			180		990' (676')		2400m		
D							205		1100' (786')		3600m		