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E-mail: aip.production@belgocontrol.be • Fax: +32 (0) 2 206 24 19 • AFS: EBVAYOYX

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AIRAC AIP AMENDMENT
Nr. 03 / 2015
Effective date: 02 APR 2015

1. Contents

EBBR AD 2.21 - Special procedures for departures between 2200 and 0459 (table ICAO aircraft types added)

EBBR AD 2.22 - SID RWY 25L/R (general revision)
- SID RWY 25R ONLY (general revision)
- SID RWY 25L ONLY (general revision)
- Climb requirements (updated)

EBBR AD 2.24 - Standard Departure Charts – Instrument (SID) – ICAO. RWY 25L (general revision)
- Standard Departure Chart – Instrument (SID) – ICAO. RWY 25L (P-RNAV OVERLAY) (removed)
- Standard Departure Charts – Instrument (SID) – ICAO. RWY 25R (general revision)
- Standard Departure Chart – Instrument (SID) – ICAO. RWY 25R (P-RNAV OVERLAY) (removed)

2. On the effective date, please remove and insert the following pages:

Note: sheet date indicated is the date of the most recent page of this sheet.

Sheets to be **removed**			Sheets to be **inserted**	
AD 2.EBBR-21/22	08 JAN 2015		AD 2.EBBR-21/22	02 APR 2015
AD 2.EBBR-23/24	08 JAN 2015		AD 2.EBBR-23/24	02 APR 2015
AD 2.EBBR-25/26	11 DEC 2014		AD 2.EBBR-25/26	02 APR 2015
AD 2.EBBR-27/28	05 MAR 2015	(AIRAC)	AD 2.EBBR-27/28	02 APR 2015
AD 2.EBBR-29/30	05 MAR 2015	(AIRAC)	AD 2.EBBR-29/30	02 APR 2015
AD 2.EBBR-31/32	05 MAR 2015	(AIRAC)	AD 2.EBBR-31/32	02 APR 2015
AD 2.EBBR-33/34	05 MAR 2015	(AIRAC)	AD 2.EBBR-33/34	02 APR 2015
AD 2.EBBR-35/36	05 MAR 2015	(AIRAC)	AD 2.EBBR-35/36	02 APR 2015
AD 2.EBBR-37/38	05 MAR 2015	(AIRAC)	AD 2.EBBR-37/38	02 APR 2015
AD 2.EBBR-39/40	05 MAR 2015	(AIRAC)	AD 2.EBBR-39/40	02 APR 2015
AD 2.EBBR-41/42	05 MAR 2015	(AIRAC)	AD 2.EBBR-41/42	02 APR 2015
AD 2.EBBR-43/44	05 MAR 2015	(AIRAC)	AD 2.EBBR-43/44	02 APR 2015
AD 2.EBBR-45/46	05 MAR 2015	(AIRAC)	AD 2.EBBR-45/46	02 APR 2015
AD 2.EBBR-47/48	05 MAR 2015	(AIRAC)	AD 2.EBBR-47/48	02 APR 2015
AD 2.EBBR-49/50	05 MAR 2015	(AIRAC)	AD 2.EBBR-49/50	02 APR 2015
AD 2.EBBR-51/52	05 MAR 2015	(AIRAC)	AD 2.EBBR-51/52	02 APR 2015
AD 2.EBBR-53/54	05 MAR 2015	(AIRAC)		
AD 2.EBBR-55/56	05 MAR 2015	(AIRAC)		
AD 2.EBBR-57	05 MAR 2015	(AIRAC)		
AD 2.EBBR-SID.05a	24 JUL 2014		AD 2.EBBR-SID.05a	02 APR 2015

AD 2.EBBR-SID.05b	06 FEB 2014	AD 2.EBBR-SID.05b	02 APR 2015
AD 2.EBBR-SID.05c	06 MAR 2014		
AD 2.EBBR-SID.06a	06 FEB 2014	AD 2.EBBR-SID.06a	02 APR 2015
AD 2.EBBR-SID.06b	29 MAY 2014	AD 2.EBBR-SID.06b	02 APR 2015
AD 2.EBBR-SID.06c	29 MAY 2014		

3. Changes are identified by a vertical black line (|) or an arrow (←).

4. Please enter this amendment in GEN 0.2 (Record of AIP Amendments).

5. NOTAM incorporated: NIL.

6. AIP SUP incorporated: NIL.

7. Hand amendments: NIL.

2.3 POWER SUPPLY

The aircraft parking positions 140 to 172, 201 to 240 and 680 to 699 are equipped with 400 Hz and pre-conditioned air (PCA). As soon as possible after arrival at one of these positions (5 MIN after docking MAX), 400 Hz shall be connected and the APU switched off. Upon departure (15 MIN before ETD), the APU may be started and 400 Hz shall be disconnected. When 400 Hz or PCA is not available, the APU may be used.

When no PCA is available and an authorization from the Airport Inspection has been obtained, the use of the APU is allowed during periods of extreme high or low temperatures for aircraft docked for more than 1 HR at the aircraft parking position.

3 ARRIVAL PROCEDURES

3.1 ILS APPROACH

Aircraft performing an ILS approach shall not intercept the GP below:

- 2 000 ft QNH for RWY 25L/R (3 000 ft and 2 000 ft respectively in case of simultaneous approach)
- 2 000 ft QNH for RWY 01
- 3 000 ft QNH for RWY 19.

After interception, the aircraft shall not descend below the GP.

3.2 SURVEILLANCE RADAR APPROACH

Aircraft performing an SRA without ILS assistance, shall not descend below 2 000 ft QNH before 6 NM from touchdown, nor fly thereafter below a descent path of 3°.

3.3 VISUAL APPROACH

Aircraft performing a visual approach without ILS or radar assistance, shall not descend below 1 800 ft QNH before intercepting the PAPI approach slope, nor fly below it thereafter.

3.4 VECTORED CONTINUOUS DESCENT OPERATIONS (CDO) ON RWY 25L, 25R AND 19

When the traffic situation permits, ATC will facilitate vectored continuous descent for RWY 25L, 25R and 19.

Between 2300 and 0459, facilitation of CDO is available at ATC discretion or at pilot's request.
Between 0500 and 2259, facilitation of CDO is available at ATC discretion only.

When vectoring for continuous descent, ATC will, as soon as practicable after first call on the APP frequency, provide distance from touchdown and an approval to descend at pilot's discretion. The phraseology "when ready, descend" shall be used.

CDO will **not** be facilitated in adverse weather conditions that may affect the approach (wind shear, thunderstorms, etc).

Subject to ATC instructions, inbound aircraft shall adopt a continuous descent profile - to the greatest possible extent compatible with safe operation of the aircraft - by employing minimum engine thrust, ideally in a low drag configuration, prior to the FAF/FAP.

Note: All noise abatement procedures for arrivals as well as the speed limitations in EBBR AD 2.22, § 2.1.3, remain applicable when performing CDO.

3.5 SPEED LIMITATION

Aircraft being radar vectored shall reduce speed to 250 KIAS when entering the radar vectoring area or when below FL 100. 250 KIAS MAX shall be respected by all pilots as soon as they cross one of the speed limiting points (SLP) as shown on chart AD 2.EBBR-STAR.01.

3.6 SPECIAL PROCEDURES FOR ARRIVALS BETWEEN 2200 AND 0459

Traffic leaving IAF KERKY for approach to RWY 25L/R will not be cleared to descend below FL 70 until crossing R-360 BUB.

4 DEPARTURE PROCEDURES

4.1 GENERAL

The SID (see EBBR AD 2.22, § 3.2.1) constitute noise abatement procedures. It is therefore emphasized that pilots shall adhere to these routes as closely as performance permits. If unable to comply with these procedures, they shall advise ATC immediately.

4.2 CLIMB GRADIENT

In order to minimize noise nuisance and to clear obstacles in the departure area, aircraft shall maintain a net climb gradient of 7% MNM until passing 3 200 ft QNH. If unable to comply, pilots shall advise ATS accordingly when requesting start-up clearance.

4.3 SPEED RESTRICTIONS

Unless otherwise instructed by ATC for safety reasons, maximum speed below FL 100 is 250 KIAS or clean speed (V_{ZF}), whichever is higher.

4.4 SPECIAL PROCEDURES FOR AIRCRAFT WITH MTOW > 200 T

When preferential runway system configuration RWY 25R/19 is in use for departures, the following aircraft shall use RWY 25R for departure, regardless of their destination.

ICAO AIRCRAFT TYPE (see ICAO Doc 8643)						
A124	A332	A333	A342	A343	A345	A346
A388	AN22	B741	B742	B743	B744	B748
B74R	B74S	B764	B772	B773	B77L	B77W
B788	C5	C17	DC10	IL96	L101	MD11

4.5 SPECIAL PROCEDURES FOR DEPARTURES BETWEEN 2200 AND 0459

All departures from RWY 25R shall start their take-off at the beginning of the runway and preferably an uninterrupted take-off from P3 will be made.

When RWY 25L or 25R are runway-in-use for take-off, following types of aircraft only will be allocated CIV 1D or CIV 1Q if routing via CIV:

ICAO AIRCRAFT TYPE (see ICAO Doc 8643)							
A148	B462	B737	CRJ2	E135	F70	GLF5	RJ1H
A318	B463	B738	CRJ7	E145	F100	GLF6	RJ70
AN72	B712	CL60	CRJ9	E170	GL5T	J328	RJ85
B461	B736	CRJ1	CRJX	E190	GLEX	MD90	SU95

EBBR AD 2.22 FLIGHT PROCEDURES

1 GENERAL

1.1 AERODROME MINIMA

Specific landing minima: see charts

- AD2 EBBR IAC.01
- AD2 EBBR IAC.02
- AD2 EBBR IAC.08
- AD2 EBBR IAC.09
- AD2 EBBR IAC.10

2 IFR FLIGHTS (INBOUND)

2.1 GENERAL

2.1.1 AIRCRAFT EQUIPMENT

DME is compulsory for all inbound IFR traffic.

2.1.2 RADAR VECTORING

Radar vectoring may be expected when crossing 30 DME BUB.

In case of radar vectoring, the intermediate approach procedure may be partially or completely omitted. The clearance limit assigned by Brussels ACC will then be replaced by a clearance to a final approach aid or radar vectors will be given to direct the aircraft to a position from where final approach can be started or a visual approach made.

2.1.3 SPEED LIMITATIONS

During the initial approach segment, the IAS shall not exceed 220 kt.

In case of ILS approach, 220 KIAS shall be maintained until established on LLZ. The OM (RWY 01, 25L/R) or 4 DME IBM (RWY 19) shall be crossed at 160 KIAS. Aircraft unable to maintain 160 KIAS will not be accepted during periods 0700-0900, 1200-1300 and 1600-1900 ATA.

Pilots are requested to comply as promptly as feasible within operational constraints with any speed adjustments requested by ATC. Aircraft unable to comply with the requested speed shall inform ATC and indicate the speed that will be used.

The speed limitations do not relieve pilots of their responsibility to observe any applicable noise abatement procedures (see EBBR AD 2.21).

2.2 HOLDING PATTERNS

The holding patterns shall be entered at 170 KIAS MAX (aircraft CAT A/B) or 230 KIAS MAX (aircraft CAT C/D).

ANTWERPEN

Fix	ANT DVOR/DME
Turn / inbound track (MAG)	Left / 118°
Levels (MAX / MNM)	FL 140 / FL 80
Remarks	NIL

BRUNO

Fix	BUN DVOR/DME
Turn / inbound track (MAG)	Right / 116°
Levels (MAX / MNM)	FL 140 / 3 000 ft QNH
Remarks	At ATC discretion only

FLORA

Fix	FLO DVOR/DME
Turn / inbound track (MAG)	Right / 309°
Levels (MAX / MNM)	FL 140 / FL 90 (FL 60 when RWY 25R/L is used for landings)
Remarks	NIL

GOSLY

Fix	GSY DVOR/DME
Turn / inbound track (MAG)	Left / 359°
Levels (MAX / MNM)	FL 230 / FL 100
Remarks	At ATC discretion only

KERKY

Fix	KERKY (R-283 AFI/5.7 NM and R-207 NIK/16.0 NM)
Turn / inbound track (MAG)	Right / 101°
Levels (MAX / MNM)	FL 90 / 4 000 ft QNH
Remarks	NIL

NIVOR

Fix	NIVOR (R-157 AFI/14.0 NM and R-256 HUL/13.7 NM)
Turn / inbound track (MAG)	Left / 076°
Levels (MAX / MNM)	FL 90 / 3 000 ft QNH
Remarks	At ATC discretion only

2.3 APPROACH PROCEDURES

2.3.1 STANDARD INSTRUMENT ARRIVALS

STAR have been established as shown on chart AD 2.EBBR-STAR.01 and as listed below. ATC may deviate from these routes and pilots may expect radar vectors for separation reasons or in order to expedite traffic flow.

Depending on traffic conditions (LVP in progress, etc.), ATC may clear traffic to hold at GSY DVOR/DME. At EAT, such traffic will be re-cleared for a standard approach or will be radar vectored for sequencing.

2.3.1.1 ROUTE DESCRIPTION

Designator	Significant point	Track (MAG)	Distance (NM)	MNM IFR level	Remarks
BATTY 4A	BATTY				When RWY 25R/L is in use for landing, TFC shall endeavour to cross IAF FLO at FL 80 MAX.
		297°	30.5	FL 70	
	FLO DVOR				
	P-RNAV: BATTY-BR205[K250-]-FLO[F070+]				
LNO 3A	LNO DVOR				When RWY 25R/L is in use for landing, TFC shall endeavour to cross IAF FLO at FL 80 MAX.
		309°	28.0	FL 70	
	FLO DVOR				
	P-RNAV: LNO-BR204[K250-]-FLO[F070+]				
ARVOL 6A	ARVOL				(*) Turning point to intercept and follow R-251 BUN.
		035°	14.8	FL 70	
	AKOVI				
		035°	9.5	FL 70	
	RODRI (*)				
		-	-	FL 70	
	KERKY				
	P-RNAV: ARVOL[K250-]-AKOVI-RODRI-BR209[R]-KERKY[F070+]				
ARVOL 6B	ARVOL				To be used on ATC discretion.
		082°	13.0	FL 70	
	CIV DVOR				
		071°	32.6	FL 70	
	HUL DVOR				
		068°	20.3	FL 70	
	FLO DVOR				
	P-RNAV: ARVOL[K250-]-CIV-HUL-FLO[F070+]				
TULNI 6A	TULNI				To be used only when MIL activities permit. (*) Turning point to intercept and follow R-251 BUN.
		055°	20.2	FL 90	
	AKOVI				
		035°	9.5	FL 70	
	RODRI (*)				
		-	-	FL 70	
	KERKY				
	P-RNAV: TULNI[K250-]-AKOVI[F090+;L]-RODRI-BR209[R]-KERKY[F070+]				
TULNI 6B	TULNI				To be used on ATC discretion.
		087°	21.1	FL 90	
	CIV DVOR				
		071°	32.6	FL 70	
	HUL DVOR				
		068°	20.3	FL 70	
	FLO DVOR				
	P-RNAV: TULNI[K250-]-CIV[F090+;L]-HUL-FLO[F070+]				
KOK 6A	KOK VORTAC				NIL
		101°	51.8	FL 70	
	KERKY				
	P-RNAV: KOK-BR201[K250-]-KERKY[F070+]				
WOODY 6A	WOODY				NIL
		206°	7.6	FL 70	

	8.4 DME NIK				
		118°	-	FL 70	
	ANT DVOR				
	P-RNAV: WOODY[K250-]-BR202[L]-ANT[F070+]				
WOODY 2B	WOODY				To be used on ATC discretion.
		206°	16.0	FL 80	
	NIK				
		207°	16.0	FL 80	
	KERKY				
	P-RNAV: WOODY[K250-]-NIK-KERKY[F080+]				
BEKEM 6A	BEKEM				NIL
		223°	13.2	FL 70	
	8.7 DME NIK				
		118°	-	FL 70	
	ANT DVOR				
	P-RNAV: BEKEM[K250-]-BR203[L]-ANT[F070+]				
BEKEM 2B	BEKEM				To be used on ATC discretion.
		223°	21.9	FL 80	
	NIK				
		207°	16.0	FL 80	
	KERKY				
	P-RNAV: BEKEM[K250-]-NIK[L]-KERKY[F080+]				

2.3.1.2 WAYPOINT INFORMATION

ID	Latitude	Longitude	Fly-over
BR201	505928.7N	0032936.7E	N
BR202	511544.3N	0041526.8E	N
BR203	511448.1N	0041815.6E	N
BR204	504240.1N	0052749.8E	N
BR205	504527.6N	0053038.7E	N
BR209	505435.4N	0035506.2E	N
ANT	511125.7N	0042821.3E	N
AKOVI	504450.0N	0034307.0E	N
ARVOL	503245.0N	0032949.0E	N
BATTY	503857.0N	0055055.6E	N
BEKEM	512556.0N	0043448.7E	N
CIV	503426.3N	0034958.4E	N
FLO	505236.0N	0050804.3E	N
HUL	504458.1N	0043829.9E	N
KERKY	505537.0N	0035933.4E	N
KOK	510540.9N	0023905.8E	N
LNO	503509.3N	0054237.0E	N
NIK	510954.3N	0041102.2E	N
RODRI	505236.0N	0035146.4E	N
TULNI	503327.0N	0031656.0E	N
WOODY	512420.4N	0042159.3E	N

2.3.1.3 SUGGESTED DATABASE CODING

BATTY 4A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	BATTY	503857.0N	0055055.6E	IF	N					
2	BR205	504527.6N	0053038.7E	TF	N	296.9			14.5	250-
3	FLO	505236.0N	0050804.3E	TF	N	296.7		FL070+	16.0	

LNO 3A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	LNO	503509.3N	0054237.0E	IF	N					
2	BR204	504240.1N	0052749.8E	TF	N	308.7			12.1	250-
3	FLO	505236.0N	0050804.3E	TF	N	308.5		FL070+	16.0	

ARVOL 6A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	ARVOL	503245.0N	0032949.0E	IF	N					250-
2	AKOVI	504450.0N	0034307.0E	TF	N	034.9			14.8	
3	RODRI	505236.0N	0035146.4E	TF	N	035.2			9.5	
4	BR209	505435.4N	0035506.2E	TF	N	046.6	R		2.9	
5	KERKY	505537.0N	0035933.4E	TF	N	069.9		FL070+	3.0	

ARVOL 6B

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	ARVOL	503245.0N	0032949.0E	IF	N					250-
2	CIV	503426.3N	0034958.4E	TF	N	082.4			13.0	
3	HUL	504458.1N	0043829.9E	TF	N	070.8			32.6	
4	FLO	505236.0N	0050804.3E	TF	N	067.7		FL070+	20.3	

TULNI 6A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	TULNI	503327.0N	0031656.0E	IF	N					250-
2	AKOVI	504450.0N	0034307.0E	TF	N	055.5	L	FL090+	20.2	
3	RODRI	505236.0N	0035146.4E	TF	N	035.2			9.5	
4	BR209	505435.4N	0035506.2E	TF	N	046.6	R		2.9	
5	KERKY	505537.0N	0035933.4E	TF	N	069.9		FL070+	3.0	

TULNI 6B

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	TULNI	503327.0N	0031656.0E	IF	N					250-
2	CIV	503426.3N	0034958.4E	TF	N	087.3	L	FL090+	21.1	
3	HUL	504458.1N	0043829.9E	TF	N	070.8			32.6	
4	FLO	505236.0N	0050804.3E	TF	N	067.7		FL070+	20.3	

KOK 6A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	KOK	510540.9N	0023905.8E	IF	N					
2	BR201	505928.7N	0032936.7E	TF	N	100.7			32.5	250-
3	KERKY	505537.0N	0035933.4E	TF	N	101.4		FL070+	19.3	

WOODY 6A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	WOODY	512420.4N	0042159.3E	IF	N					250-
2	BR202	511544.3N	0041526.8E	TF	N	205.5	L		9.5	
3	ANT	511125.7N	0042821.3E	TF	N	117.9		FL070+	9.2	

WOODY 2B

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	WOODY	512420.4N	0042159.3E	IF	N					250-
2	NIK	510954.3N	0041102.2E	TF	N	205.5			16.0	
3	KERKY	505537.0N	0035933.4E	TF	N	206.9		FL080+	16.0	

BEKEM 6A

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	BEKEM	512556.0N	0043448.7E	IF	N					250-
2	BR203	511448.1N	0041815.6E	TF	N	223.1	L		15.2	
3	ANT	511125.7N	0042821.3E	TF	N	118.0		FL070+	7.2	

BEKEM 2B

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	BEKEM	512556.0N	0043448.7E	IF	N					250-
2	NIK	510954.3N	0041102.2E	TF	N	223.1	L		21.9	
3	KERKY	505537.0N	0035933.4E	TF	N	206.9		FL080+	16.0	

2.3.2 SURVEILLANCE RADAR APPROACH

SRA is available on all runways and will be terminated either:

- at a distance of 2 NM (RWY 01, 19, 25L/R) or 3 NM (RWY 07L/R) from threshold
- before the aircraft enters an area of continuous radar clutters
- when the aircraft reports that a visual approach can be made.

The aircraft will be informed at regular intervals of its position relative to the extended RCL and heading corrections will be given as necessary. The distance from THR will be passed on at each NM.

The levels through which the aircraft should be passing to maintain the glide path (3° or 5.2% on all runways) will also be passed on at each NM:

DIST TO THR (NM)	ALTITUDE (ft)					
	RWY 01	RWY 07L	RWY 07R	RWY 19	RWY 25L	RWY 25R
6	2 000	2 000	2 000	2 000	2 000	2 000
5	1 800	1 800	1 800	1 800	1 800	1 800
4	1 500	1 500	1 500	1 400	1 500	1 400
3	1 200	1 100	1 200	1 100	1 200	1 100

2	900	NIL	NIL	800	800	800

RWY	THR ELEV (ft)	INBD TRACK (MAG)	DIST FROM FAF TO THR (NM)	DIST FROM MAPT TO THR (NM)	OCA (OCH) (ft)
01	183	014°	6	2	880 (700)
07L	129	065°	6	3	1 030 (900)
07R	175	070°	6	3	1 030 (860)
19	113	194°	6	2	800 (690)
25L	159	250°	6	2	800 (640)
25R	110	245°	6	2	800 (690)

2.3.3 CIRCLING APPROACH

Circling approaches are prohibited.

2.3.4 SIMULTANEOUS DEPENDENT IFR APPROACHES ON RWY 25L AND 25R

Simultaneous dependent IFR approaches may be performed on RWY 25L and 25R in all meteorological conditions, provided that radio, radar and ILS equipment (both airborne and on ground) are fully serviceable.

ATC will provide following separations:

- a minimum 1 000 ft vertical separation between aircraft during turn-on to the LLZ course until interception
- a minimum staggered radar separation of 2 NM between aircraft established on the adjacent LLZ. Minimum ICAO standard separations will continue to be applied between aircraft on the same LLZ course.

The ATIS broadcast will include the following message: “Simultaneous dependent IFR approaches in progress on runways 25R and 25L.” When receiving this information, pilots shall advise ATC of the unavailability of any equipment needed to perform the approach.

Each pilot will be informed by Brussels APP of the assigned runway and shall acknowledge receipt of the message. The assigned runway will be repeated by ATC with the instruction for ILS interception.

Depending on traffic conditions, aircraft may be vectored to one of both LLZ courses for a straight-in approach. If, for any reason, a vectored aircraft does not receive LLZ interception instructions, the pilot will perform interception of the LLZ serving the assigned runway by himself. In any case, pilots shall execute a precise interception, without overshooting the LLZ axis. If overshoot occurs, ATC will instruct to return to the LLZ course immediately.

Any undue track variation in relation to the LLZ axis or any equipment malfunctioning shall be reported to ATC immediately, together with any decision to perform a missed approach. ATC will radar monitor the missed approach and transmit instructions to start a new approach.

2.3.5 SIMULTANEOUS INDEPENDENT IFR APPROACHES ON RWY 25L AND 25R (SIMINDEP)

Simultaneous independent IFR approaches without radar separation between aircraft on the adjacent runway centre lines may be performed on RWY 25L and 25R in all meteorological conditions, provided that following conditions are met:

- no adverse weather, such as wind shear, severe turbulence, thunderstorms, … is reported which might increase ILS LLZ course deviations
- radio, radar and ILS equipment (LLZ, GP, DME and markers) are fully serviceable, both airborne and on ground.

ATC will provide following separations:

- A radar separation of at least 3 NM and/or 1 000 ft vertical separation during turn-on to the LLZ course until both aircraft are stabilized on the LLZ course.
- 1 000 ft MNM vertical separation between aircraft established on adjacent LLZ until **14 NM** from touchdown.
- Minimum ICAO standard separations will continue to be applied between aircraft on the same LLZ course.

Note 1: No Transgression Zone (NTZ): A corridor of airspace of defined dimensions located centrally between the two extended runway centre lines where a penetration by an aircraft requires a controller intervention to manoeuvre any threatened aircraft on the adjacent approach.

Note 2: An aircraft established on ILS LLZ course is separated from another aircraft established on an adjacent parallel ILS LLZ course, provided neither aircraft penetrates the NTZ as depicted on the radar display.

Following procedures apply:

a. The ATIS broadcast will include the following message: "Simultaneous independent IFR approaches in progress - ILS 25R frequency 108.9; ILS 25L frequency 110.35." When informed by ATIS that SIMINDEP are in progress, pilots will advise ATC of any unavailability of required equipment.
b. Each pilot will be informed by Brussels APP of the assigned runway for landing and shall acknowledge receipt of the message. The assigned runway (25L or 25R) will be repeated by the controller with the instruction for ILS interception.
c. Pilots experiencing radio-communication failure before runway assignment shall execute an ILS approach on RWY 25L.
d. If - for any reason - an aircraft being radar vectored does not receive LLZ interception instructions, the pilot shall intercept the ILS/LLZ course serving the **assigned** runway by himself.
e. Pilots shall execute precise LLZ interception (not overshooting the LLZ axis).
f. If an aircraft is observed to overshoot the assigned LLZ course during its turn to final on the assigned runway, the pilot will be instructed to return to the LLZ course immediately.
g. When an aircraft is observed penetrating the NTZ, the aircraft on the adjacent LLZ course will be immediately cleared by the appropriate controller to climb and turn away (45° MAX) from penetrating aircraft.
h. Any undue track variation in relation to the LLZ axis or any equipment malfunction shall be reported immediately to ATC, together with any decision to perform a missed approach. ATC will exercise radar monitoring of the missed approach and will transmit instructions to start a new approach.

2.4 MISSED APPROACH

Unless instructed otherwise by Brussels TWR or Brussels APP, the missed approach procedures as published on the instrument approach charts (see EBBR AD 2.24) shall be followed.

3 IFR FLIGHTS (OUTBOUND)

3.1 STARTING PROCEDURES

3.1.1 AIRPORT COLLABORATIVE DECISION MAKING (A-CDM)

CDM is part of the European programme “Single European Sky” to optimize airspace and airport operations. Major European airports started implementing local CDM-programmes (A-CDM), which will become a harmonized procedure in Europe.

A-CDM is about partnership at airports between Airport Operations, ATC, Aircraft Operators, Slot Coordinator and Ground Handlers. Emphasis is put on:

- Linking the inbound, turn-round and outbound processes;
- The sharing of the right information at the right time to the right people best placed to act upon it; and
- The improved flight operational data exchange between airports and the ATFM network

3.1.1.1 CDM PROCEDURES

3.1.1.1.1 Flight Plan Check

The ATC FPL-originator needs to check if the flight has a valid airport slot and that the scheduled departure time of the related ATC flight plan is in line with the Airport Slot. If they do not correspond, the contact address will be informed together with the request to coordinate the times. The CDM-process may be blocked if the flight is not coordinated according the rules and the flight plan may be rejected (no TSAT) if the air carrier intends to take off without having an airport slot allocated by the Brussels Slot Coordinator (EC-Regulation N°793/2004 amending Council Regulation 95/93 on common rules for the allocation of slots at Community Airports §14.1).

Filing and updating a flight plan is and remains the responsibility of the Aircraft Operator. He may delegate these tasks to his accredited Handling Agent.

3.1.1.1.2 TOBT-TSAT PROCEDURE

INFO from airline / handler	TOBT	Target off block time: confirmation of estimated ready time
INFO from ATC	TSAT	Target start-up approval time, based on TOBT or EOBT (if TOBT not AVBL): sequenced off block time

TOBT represents the time that an Aircraft Operator or Handling Agent estimates that an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available, ready to start-up immediately and push back within 5 MIN after reception of start-up clearance from TWR.

TSAT is issued by ATC and represents the time at which an aircraft can expect start-up, taking into account the ATFM restrictions and local constraints. ATC sequences the departures based on TOBT.

TSAT will be calculated from TOBT-30 MIN onwards. Changes to the TOBT do not affect the TSAT in general, as long as the newly calculated TOBT is not later than TSAT. However it is of the utmost importance that a TOBT reflects the potential readiness of the aircraft, since it is the basis for the determination of TSAT.

3.1.1.1.3 ACTIONS BY COCKPIT CREW

Pilots at a stand with a docking guidance system display (e.g. Pier A or B, P60): TOBT is displayed from EOBT-20 MIN onwards and TSAT appears at TOBT-5 MIN.

Pilots at a stand with no docking guidance system display (e.g. on remote stands): TOBT can be obtained from the Redcap/Loadmaster and the TSAT becomes available at Brussels Delivery on FREQ 121.950 MHz from approximately TOBT-10 MIN onwards.

Start-up shall be requested from Brussels Delivery on FREQ 121.950 MHz or via Digital Data Link (see below, § 3.1.2) in accordance with the related TSAT±5 MIN (TSAT takes the ATFM slot into consideration, if any). Early requests without flight plan update are only allowed as of EOBT minus 15 MIN. The start-up request shall only be made when the aircraft is “ready” (see TOBT definition) and when push back (if required) becomes available. Pilots **must** check the pushback availability before requesting start-up.

If the flight is not ready at TSAT+5 MIN, ATS will issue a new TSAT only after receipt of an updated EOBT. The IATA delay code becomes “code 61”.

Aircraft requiring full runway length shall include this in their start-up request. Pilots are reminded that noise abatement procedures affecting some runway distances remain to be adhered to (see EBBR AD 2.21, § 4.5).

The request for push back and/or taxi shall be done within 5 MIN after reception of start-up clearance. TWR shall be advised if the latter is not possible and delay is expected. Otherwise, the TOBT will be deleted and must be entered again. If pilot does not call at TSAT+5 MIN, ATC will issue a new TSAT only after receipt of an updated EOBT.

The pushback sequence of the Handling Agent is based on TSAT, not on TOBT. The pushback vehicle will become available at TSAT-5 MIN.

3.1.1.1.4 ACTIONS BY AIRLINE REPRESENTATIVE OR HANDLING AGENT

The first TOBT is triggered automatically at EOBT-2 HR and copies the value of EOBT.

Until the TSAT has been issued, the TOBT can be corrected as often as desired. Thereafter, the TOBT corrections are limited to a maximum of three.

If the TOBT cannot be adhered to, it must be corrected by the TOBT responsible person.

As the TOBT is triggering additional processes at the airport, TOBT adaptations shall be done as soon as possible. If a flight is to be withdrawn from the TOBT and/or TSAT calculation, the TOBT shall be cancelled. To set this process in motion again, the TOBT shall be filed anew. It is still mandatory to send a delay message to the IFPS if the EOBT deviates by 15 MIN or more.

Note: Restricted flights should not update their EOBT/TOBT in function of the related CTOT.

Aircraft Operators shall communicate known or expected delays to their Handling Agent and the Airport Partners well in advance.

In case of changing the aircraft and filing a change message (CHG-type / registration), the original TOBT will be retained.

3.1.1.1.5 ACTIONS BY ATC

The TOBT received by Brussels Delivery is processed and results in a TSAT, which can never be earlier than TOBT. Start-up approval will only be granted from TSAT-5 MIN till TSAT+5 MIN.

3.1.1.2 CDM-ALERTS

An alert mechanism monitors expected upcoming events to trigger data updates and consistency. These alert messages will be sent via the A-CDM Information Sharing Platform and are classified into 3 classes, sorted in decreasing priority:

- Primary Alert;
- Secondary Alert; and
- Advisory Alert

React onto the alerts as required.

3.1.1.3 COORDINATION WITH THE CFMU/CTOT

A permanent and fully automatic data exchange with the CFMU is established. This data transfer enables highly accurate early predictions of landing and departure times. Furthermore, this allows for more accurate and efficient calculation of the CTOT due to the use of local target take-off times.

The following system-to-system messages are used:

- Flight Update Message (FUM)
- Early Departure Planning Information Message (E-DPI)

- Target Departure Planning Information Message (T-DPI)
  - T-DPI-t is based on the TOBT and related updates
  - T-DPI-s is based on TSAT and related updates
- ATC Departure Planning Information Message (A-DPI)
- Cancel DPI (C-DPI)

The first DPI (E-DPI) is based on the Estimated Off-Block Time (=STD) and confirms the validity of the Airport Slot against a flight plan. The target DPIs are triggered by TOBT/ TSAT and provide Target Take-Off Times, used to re-assess the impact on the network. The final DPI is sent at Actual Off-Block Time and freezes the ATFM slot.

The basic CFMU procedures continue to apply. The CFMU will generally take these local target take-off times into consideration and will try to adjust the CTOT accordingly, if possible.

3.1.1.4 DE-ICING

In case of on-stand de-icing, the TOBT value shall include the time at which de-icing is expected to be finished. The resulting TSAT is the target time to start-up in order to proceed to the runway holding position.

In case of remote de-icing the TOBT is based on the remote de-icing sequence but it does NOT include any assessment of de-icing operations. However in building the pre-departure sequence, ATC will include the waiting time for de-icing in the TSAT. The estimated de-icing time is part of the taxi-out calculation by ATC. In order to do so properly, ATC needs extra information from the Ground Handler such as de-icing sequence and rate. De-icing must therefore be requested by the pilot as early as possible.

3.1.2 DATA LINK CLEARANCE DELIVERY SERVICE (DCL)

3.1.2.1 GENERAL

A DCL through Digital Data Link is implemented at Brussels TWR. The system, implemented through ACARS, uses the SITA, which complies with the requirements and recommendations of *EUROCAE Document ED 85*.

To use DCL via Data Link, the user should have certified on-board equipment according to the recommendations of *Document ED 85* and comply with the entire operational procedure that overcomes the risk identified by *Document ED 85*.

In order to be authorized to use Brussels DCL, operators shall apply to the national authority responsible for their own operational oversight (or to the state of registry when appropriate) to obtain technical and operational approval to receive departure clearance over ACARS. When obtained, copy of such authorization shall be sent to Belgocontrol:

Mail:
Belgocontrol
DGO
Tervuursesteenweg 303
B-1820 Steenokkerzeel

The document shall indicate the type and registration of each authorized aircraft, as well as the ICAO and IATA aircraft operating agency designator of the operator.

3.1.2.2 OPERATIONAL USE

DCL via Data Link can only be used by aircraft using SID whose specifications include level requirements.

The service does not provide clearance revision. Any clearance modification will be made via the Brussels Delivery voice frequency.

After reception of the departure clearance, the pilot shall send to the ground system an acknowledge message including the entire content of the clearance before contacting GND. In case a departure clearance is not received, the pilot shall contact Brussels Delivery by voice.

TSAT will be communicated from TOBT-10 MIN onwards. Syntax: *"Standby till TSAT hh:mm".*

Note: TSAT on DGS has precedence over TSAT via Data Link (TSAT can only be sent once via DCL, thus late TSAT-changes should be monitored via DGS).

The aircrew, before taking off, shall check the consistency of the SID delivered in the DCL message with the departure runway and the flight plan information. Voice procedures shall be used in case of inconsistency.

Departure clearance delivered by voice shall always supersede any DCL clearance. **Pilots are reminded to keep a continuous listening watch on 121.950 MHz.**

3.2 DEPARTURE PROCEDURES

3.2.1 STANDARD INSTRUMENT DEPARTURES

SID have been established as shown on the EBBR SID charts (see EBBR AD 2.24) and as listed below. Pilots unable to comply shall inform ATC when requesting start-up clearance.

After take-off, aircraft shall remain on TWR frequency.

Note: ATC may deviate from these routes.

3.2.1.1 ROUTE DESCRIPTION

RWY 01

Designator	Route		Remarks
	Lateral	Vertical	
LNO 5F	At 700 ft QNH TR 029. At 1 700 ft QNH RT to intercept R-355 HUL INBD. At 6.0 DME HUL LT to intercept R-288 LNO INBD to LNO.	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	For TFC requesting a cruising or initial FL below FL 195.
SPI 5F	At 700 ft QNH TR 029. At 1 700 ft QNH RT to intercept R-355 HUL INBD. At 6.0 DME HUL LT to intercept R-288 LNO INBD, RT to intercept R-296 SPI INBD to SPI.	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	NIL
SOPOK 5F	At 700 ft QNH TR 029. At 1 700 ft QNH RT to intercept R-355 HUL INBD. LT to intercept R-288 SPI INBD. When passing BULUX or climbing through FL 170, whichever is later, RT direct to SOPOK.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	ATC climb requirements: see below (§ 3.2.2).
PITES 5F	At 700 ft QNH TR 029. At 1 700 ft QNH RT to intercept R-355 HUL INBD. LT to intercept R-288 SPI INBD. When passing REMBA, RT direct to RITAX, DIK, PITES next.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 5F - SOPOK - RITAX - DIK - PITES). Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 5F - SOPOK - ETENO).
ROUSY 5F	At 700 ft QNH TR 029. At 1 700 ft QNH RT to intercept R-355 HUL INBD. LT to intercept R-288 SPI INBD. When passing REMBA, RT direct to RITAX, ROUSY next.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 5F - SOPOK - RITAX - ROUSY).
CIV 8F	At 700 ft QNH TR 029. At 1 700 ft QNH RT to intercept R-355 HUL INBD. At 3 DME HUL RT to intercept R-072 CIV INBD to CIV.		AVBL when RWY 01 in single RWY operations. ATC climb requirements: see below (§ 3.2.2).

			M617 southbound, MAX FL 170. Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA. N872 and UN872 southbound, only for TFC flightplanned above FL 195.
KOK 2F	Climb straight ahead. At 1 700 ft QNH LT direct to KOK.		L607 westbound.
DENUT 7F	At 700 ft QNH TR 009. At 1 800 ft QNH DCT to DENUT.		B-RNAV above MSA.
HELEN 7F	At 700 ft QNH TR 009. At 1 800 ft QNH DCT to HELEN.		B-RNAV above MSA.
NIK 4F	At 700 ft QNH TR 009. At 1 700 ft QNH LT direct to NIK.		M624 northbound. Not to be used by TFC DEST EHAM.
ELSIK 2F	At 700 ft QNH RT direct to BUN, ELSIK next.		L179 eastbound. To be used when adequate MIL airspaces are AVBL for GAT.

RWY 07L ONLY

Designator	Route		Remarks
	Lateral	Vertical	
LNO 4H	Climb straight ahead. At 17.7 DME AFI, RT to intercept R-084 AFI. At 22.7 DME AFI, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. LT to intercept R-279 LNO INBD to LNO.		For TFC requesting a cruising or initial FL below FL 195.
SPI 5H	Climb straight ahead. At 17.7 DME AFI, RT to intercept R-084 AFI. At 22.7 DME AFI, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. LT to intercept R-288 SPI INBD to SPI.		
SOPOK 4H	Climb straight ahead. At 17.7 DME AFI, RT to intercept R-084 AFI. At 22.7 DME AFI, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. LT to intercept R-288 SPI to BULUX, SOPOK next.		ATC climb requirements: see below (§ 3.2.2). BULUX-SOPOK is a B-RNAV segment.
PITES 5H	Climb straight ahead. At 17.7 DME AFI, RT to intercept R-084 AFI. At 22.7 DME AFI, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA.		ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route:

	Intercept R-315 DIK INBD via RITAX to DIK, PITES next.		SOPOK 4H - SOPOK - RITAX - DIK - PITES). Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 4H - SOPOK - ETENO).
ROUSY 5H	Climb straight ahead. At 17.7 DME AFI, RT to intercept R-084 AFI. At 22.7 DME AFI, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. Intercept R-315 DIK INBD to RITAX, ROUSY next.		ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 4H - SOPOK - RITAX - ROUSY).
CIV 6H	Climb straight ahead. At 17.7 DME AFI, RT to intercept R-084 AFI. At 22.7 DME AFI, RT to TR 158 to intercept R-065 CIV INBD to CIV.		ATC climb requirements: see below (§ 3.2.2). M617 southbound, MAX FL 170. Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA. N872 and UN872 southbound, only for TFC flightplanned above FL 195.
CIV 1P	Climb straight ahead. At 1 700 ft QNH LT to TR 276 to intercept R-043 CIV INBD to CIV.		At ATC discretion only.
KOK 1H	Climb straight ahead. At 1 700 ft QNH LT direct to KOK.		L607 westbound.
DENUT 4H	Climb straight ahead. At 1 800 ft QNH DCT to DENUT.		B-RNAV above MSA.
HELEN 4H	Climb straight ahead. At 1 800 ft QNH DCT to HELEN.		B-RNAV above MSA.
NIK 1H	Climb straight ahead. At 1 700 ft QNH LT direct to NIK.		M624 northbound. Not to be used by TFC DEST EHAM.
ELSIK 1H	At 700 ft QNH LT direct to BUN, ELSIK next.		L179 eastbound. To be used when adequate MIL airspaces are AVBL for GAT.

RWY 07R ONLY

Designator	Route		Remarks
	Lateral	Vertical	
LNO 4J	At 700 ft QNH TR 063. At 4.4 DME BUB, intercept R-069 BUB. At 8.0 DME BUB, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. LT to intercept R-279 LNO INBD to LNO.		For TFC requesting a cruising or initial FL below FL 195.

SPI 4J	At 700 ft QNH TR 063. At 4.4 DME BUB, intercept R-069 BUB. At 8.0 DME BUB, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. LT to intercept R-288 SPI INBD to SPI.		
SOPOK 4J	At 700 ft QNH TR 063. At 4.4 DME BUB, intercept R-069 BUB. At 8.0 DME BUB, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. LT to intercept R-288 SPI to BULUX, SOPOK next.		ATC climb requirements: see below (§ 3.2.2). BULUX-SOPOK is a B-RNAV segment.
PITES 5J	At 700 ft QNH TR 063. At 4.4 DME BUB, intercept R-069 BUB. At 8.0 DME BUB, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. Intercept R-315 DIK INBD via RITAX to DIK, PITES next.		ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 4J - SOPOK - RITAX - DIK - PITES). Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 4J - SOPOK - ETENO).
ROUSY 5J	At 700 ft QNH TR 063. At 4.4 DME BUB, intercept R-069 BUB. At 8.0 DME BUB, RT to intercept R-140 ANT. RT to intercept R-174 BUN to REMBA. Intercept R-315 DIK INBD to RITAX, ROUSY next.		ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 4J - SOPOK - RITAX - ROUSY).
CIV 6J	At 700 ft QNH TR 063. At 4.4 DME BUB, intercept R-069 BUB. At 8.0 DME BUB, RT to TR 158 to intercept R-065 CIV INBD to CIV.		ATC climb requirements: see below (§ 3.2.2). M617 southbound, MAX FL 170. Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA. N872 and UN872 southbound, only for TFC flightplanned above FL 195.
CIV 1U	At 700 ft QNH TR 063. At 1 700 ft QNH LT to TR 276 to intercept R-043 CIV INBD to CIV.		At ATC discretion only.
KOK 1J	At 700 ft QNH TR 063. At 1 700 ft QNH LT DCT to KOK.		L607 westbound.
DENUT 1J	At 700 ft QNH TR 063. At 1 800 ft QNH DCT to DENUT.		B-RNAV above MSA.
HELEN 1J	At 700 ft QNH TR 063. At 1 800 ft QNH DCT to HELEN.		B-RNAV above MSA.
NIK 1J	At 700 ft QNH TR 063. At 1 700 ft QNH DCT to NIK.		M624 northbound. Not to be used by TFC DEST EHAM.

ELSIK 1J	At 700 ft QNH TR 063. At 4.4 DME BUB, DCT to BUN, ELSIK next.		L179 eastbound. To be used when adequate MIL airspaces are AVBL for GAT.

RWY 19

Designator	Route		Remarks
	Lateral	Vertical	
LNO 5L	At 700 ft QNH LT to intercept R-288 LNO INBD to LNO. **P-RNAV:** [A700+] - BR010 - BR011[6000+] - LNO	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	For TFC requesting a cruising or initial FL below FL 195.
SPI 4L	At 700 ft QNH LT to intercept R-288 LNO INBD, RT to intercept R-296 SPI INBD to SPI **P-RNAV:** [A700+] - BR010 - BR011[6000+] - SPI	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	NIL
SOPOK 5L	At 700 ft QNH LT to intercept R-319 HUL INBD. LT to intercept R-288 SPI INBD. When passing BULUX RT direct to SOPOK. **P-RNAV:** [A700+] - BR012[5000+] - BR013 - REMBA - BULUX - SOPOK	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	ATC climb requirements: see below (§ 3.2.2).
PITES 6L	At 700 ft QNH LT to intercept R-319 HUL INBD. LT to intercept R-288 SPI INBD. When passing REMBA, RT direct to RITAX, DIK, PITES next. **P-RNAV:** [A700+] - BR012[5000+] - BR013 - REMBA - RITAX - DIK - PITES	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	ATC climb requirements: see below (§ 3.2.2). CDR - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 5L - SOPOK - RITAX - DIK -PITES). Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 5L - SOPOK - ETENO).
ROUSY 6L	At 700 ft QNH LT to intercept R-319 HUL INBD. LT to intercept R-288 SPI INBD. When passing REMBA, RT direct to RITAX, ROUSY next. **P-RNAV:** [A700+] - BR012[5000+] - BR013 - REMBA - RITAX - ROUSY	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	ATC climb requirements: see below (§ 3.2.2). CDR - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 5L - SOPOK - RITAX - ROUSY).
CIV 1L	At 700 ft QNH LT on TR 131 to intercept R-067 CIV INBD to CIV. **P-RNAV:**		ATC climb requirements: see below (§ 3.2.2). M617 southbound, MAX FL 170.

	[A700+] - BR012 - BR014 - CIV		Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA. N872 and UN872 southbound, only for TFC flightplanned ABV FL 195.
KOK 6L	At 700 ft QNH RT HDG 334 to intercept R-281 BUB to KOK. **P-RNAV:** [A700+] - BR015[2900+] - KOK	Cross 7.0 DME BUB at or above 1 700 ft QNH.	L607 westbound.
DENUT 6L	Climb straight ahead. At 1 700 ft QNH RT to intercept R-315 HUL. LT to intercept R-302 BUB to DENUT. **P-RNAV:** [A1700+] - BR016 - BR017 - DENUT		**AVBL from 0500 to 2159.** (U)L610 westbound. For TFC overflying London TMA with requested FL above FL 245. For TFC destination EGKK, EGHH and EGHI.
DENUT 5N	At 700 ft QNH RT to intercept R-315 HUL. LT to intercept R-302 BUB to DENUT. **P-RNAV:** [A700+] - BR016[3700+] - BR017 - DENUT	Cross R-281 BUB at or above 1 700 ft QNH.	**AVBL from 2200 to 0459 or when RWY 25R is not AVBL for LDG.** (U)L610 westbound. For TFC overflying London TMA with requested FL above FL 245. For TFC DEST EGKK, EGHH and EGHI.
HELEN 5L	Climb straight ahead. At 1 700 ft QNH RT to intercept R-315 HUL to HELEN. **P-RNAV:** [A1700+] - BR016 - BR017 - HELEN		**AVBL from 0500 to 2159.** For TFC INBD London TMA except DEST EGKK, EGHH and EGHI: route connection, HELEN - COA. For TFC overflying London TMA with requested FL below FL 245: route connection: HELEN - COA. For TFC via L745 intending to leave Amsterdam FIR via RAVLO, MIMVA or GODOS: route connection HELEN - COA - TULIP. For TFC DEST EHAM: route connection HELEN - HSD.
HELEN 4N	At 700 ft QNH RT to intercept R-315 HUL to HELEN. **P-RNAV:** [A700+] - BR016[3700+] - BR017 - HELEN	Cross R-281 BUB at or above 1 700 ft QNH.	**AVBL from 2200 to 0459 or when RWY 25R is not AVBL for LDG.** For TFC INBD London TMA except DEST EGKK, EGHH and EGHI: route connection HELEN - COA. For TFC overflying London TMA with requested FL below FL 245: route connection HELEN - COA. For TFC via L745 intending to leave Amsterdam FIR via RAVLO, MIMVA or GODOS: route connection HELEN - COA - TULIP. For TFC DEST EHAM: route connection HELEN - HSD.

NIK 3L	Climb straight ahead. At 1 700 ft QNH RT direct to NIK. **P-RNAV:** [A1700+] - BR018 - NIK		**AVBL from 0500 to 2159.** M624 northbound. Not to be used by TFC DEST EHAM.
NIK 3N	At 700 ft QNH RT direct to NIK. **P-RNAV:** [A700+] - BR018[4200+] - NIK	Cross R-281 BUB at or above 1 700 ft QNH.	**AVBL from 2200 to 0459 or when RWY 25R is not AVBL for LDG.** M624 northbound. Not to be used by TFC DEST EHAM.
ELSIK 2L	At 700 ft QNH LT direct to BUN, ELSIK next. **P-RNAV:** [A700+] - BUN - ELSIK		L179 eastbound. To be used when adequate MIL airspaces are AVBL for GAT.

RWY 25L / R

	Designator	Route		Remarks
		Lateral	Vertical	
←	**LNO 2D**	Climb straight ahead. At 4 000 ft QNH or when crossing 8.0 DME BUB, whichever is later, LT to HUL. At HUL intercept R-284 LNO INBD to LNO.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** For TFC requesting a cruising or initial FL below FL 195. To be used by four-engine aircraft.
←	**SPI 2D**	Climb straight ahead. At 4 000 ft QNH or when crossing 8.0 DME BUB, whichever is later, LT to intercept R-288 SPI INBD to SPI.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** To be used by four-engine aircraft.
←	**SOPOK 3D**	Climb straight ahead. At 4 000 ft QNH or when crossing 8.0 DME BUB whichever is later, LT to intercept R-288 SPI. When passing BULUX or climbing through FL 170, whichever is later, RT direct to SOPOK.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** To be used by four-engine aircraft. ATC climb requirements: see below (§ 3.2.2).
←	**PITES 3D**	Climb straight ahead. At 4 000 ft QNH or when crossing 8.0 DME BUB, whichever is later, LT to intercept R-288 SPI. When passing REMBA, RT direct to RITAX, DIK, PITES next.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** To be used by four-engine aircraft. ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 3D - SOPOK - RITAX - DIK -PITES). Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 3D - SOPOK - ETENO).

←	**ROUSY 3D**	Climb straight ahead. At 4 000 ft QNH or when crossing 8.0 DME BUB, whichever is later, LT to intercept R-288 SPI. When passing REMBA, RT direct to RITAX, ROUSY next.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** To be used by four-engine aircraft. ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 3D - SOPOK - RITAX - ROUSY).
←	**CIV 3C**	At 700 ft QNH RT on track 293° to intercept R-274 BUB. At 6.7 DME BUB, LT to intercept R-042 CIV INBD to CIV.		**NOT AVBL during weekends from 0500 to 2159.** ATC climb requirements: see below (§ 3.2.2). M617 southbound, MAX FL 170. Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA. N872 and UN872 southbound, only for TFC flightplanned ABV FL 195.
	KOK 3C	At 700 ft QNH RT HDG 291 to intercept R-281 BUB to KOK.	Cross 7.0 DME BUB at or above 1 700 ft QNH.	L607 westbound.
	DENUT 5C	At 700 ft QNH RT on track 298° to intercept R-279 BUB. RT to intercept R-308 HUL to DENUT.	Cross R-281 BUB at or above 1 700 ft QNH.	(U)L610 westbound. For TFC overflying London TMA with requested FL above FL 245. For TFC DEST EGKK, EGHH and EGHI.
	HELEN 5C	At 700 ft QNH RT on track 306° to intercept R-315 HUL to HELEN.	Cross R-281 BUB at or above 1 700 ft QNH.	For TFC INBD London TMA except DEST EGKK, EGHH and EGHI: route connection HELEN - COA. For TFC overflying London TMA with requested FL below FL 245: route connection HELEN - COA. For TFC via L745 intending to leave Amsterdam FIR via RAVLO, MIMVA or GODOS: route connection HELEN - COA - TULIP. For TFC DEST EHAM: route connection HELEN - HSD.
	NIK 2C	At 700 ft QNH RT direct to NIK.	Cross R-281 BUB at or above 1 700 ft QNH. .	M624 northbound. Not to be used by TFC DEST EHAM.
←	**ELSIK 2C**	At 700 ft QNH RT direct to BUN, ELSIK next.	Cross R-281 BUB at or above 1 700 ft QNH.	L179 eastbound. To be used when adequate MIL airspaces are AVBL for GAT. To be used by all TFC at ATC discretion. Pilots unable to comply with the procedure shall advise ATC and expect ELSIK 2D.
	ELSIK 2D	At 700 ft QNH RT direct to NIK, ELSIK next.	Cross R-281 BUB at or above 1 700 ft QNH.	L179 eastbound.

			To be used when adequate MIL airspaces are AVBL for GAT. To be used at ATC discretion.
SOPOK 7C	Climb straight ahead. At 1 700 ft QNH LT to HUL. After HUL intercept R-288 SPI INBD. When passing BULUX or climbing through FL 170 whichever is later, RT direct to SOPOK.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** ATC climb requirements: see below (§ 3.2.2). To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID. BULUX-SOPOK is a B-RNAV Segment.
PITES 6C	Climb straight ahead. At 1 700 ft QNH LT to HUL. After HUL intercept R-288 SPI INBD. When passing REMBA, RT direct to RITAX, DIK, PITES next.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** ATC climb requirements: see below (§ 3.2.2). To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID. CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 7C - SOPOK - RITAX - DIK -PITES). Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 7C - SOPOK - ETENO).
ROUSY 6C	Climb straight ahead. At 1 700 ft QNH LT to HUL. After HUL intercept R-288 SPI INBD. When passing REMBA, RT direct to RITAX, ROUSY next.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**Only AVBL from 0500 to 2159 for DEP RWY 25R and H24 for DEP RWY 25L.** ATC climb requirements: see below (§ 3.2.2). To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID. CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 7C - SOPOK - RITAX - ROUSY). RITAX - ROUSY is a B-RNAV segment.

RWY 25R ONLY

	Designator	Route		Remarks
		Lateral	Vertical	
←	**LNO 4C**	Climb straight ahead. At 1 700 ft QNH LT to intercept R-288 LNO INBD to LNO.	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 0500 to 2159.** AVBL for TFC requesting a cruising or initial FL below FL 195. To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID.
←	**LNO 4Z**	At 700 ft QNH RT HDG 291 to intercept R-044 CIV. Do not cross R-278 BUB. At 22.0 DME CIV LT to intercept R-157 AFI. At 9.0 DME AFI LT to intercept R-269 HUL INBD. At HUL intercept R-284 LNO INBD to LNO.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 2200 to 0459.** ATC climb requirements: see below (§ 3.2.2). For TFC requesting a cruising or initial FL below FL 195.
←	**SPI 4C**	Climb straight ahead. At 1 700 ft QNH LT to intercept R-288 LNO INBD, intercept R-296 SPI INBD to SPI.	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 0500 to 2159.** To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID.
←	**SPI 5Z**	At 700 ft QNH RT HDG 291 to intercept R-044 CIV. Do not cross R-278 BUB. At 22.0 DME CIV LT to intercept R-157 AFI. At 9.0 DME AFI LT to intercept R-269 HUL INBD. At HUL R-291 SPI INBD to SPI.	Cross HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 2200 to 0459.** ATC climb requirements: see below (§ 3.2.2).
←	**SOPOK 5Z**	At 700 ft QNH RT HDG 291 to intercept R-044 CIV. Do not cross R-278 BUB. At 22.0 DME CIV LT to intercept R-157 AFI. At 9.0 DME AFI LT to intercept R-269 HUL INBD to intercept R-288 SPI INBD to BULUX, SOPOK next.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 2200 to 0459.** ATC climb requirements: see below (§ 3.2.2).
←	**PITES 4Z**	At 700 ft QNH RT HDG 291 to intercept R-044 CIV. Do not cross R-278 BUB. At 22.0 DME CIV LT to intercept R-157 AFI. At 9.0 DME AFI LT to intercept R-269 HUL INBD to intercept R-310 DIK INBD to DIK, PITES next.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 2200 to 0459.** ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 5Z - SOPOK - RITAX - DIK - PITES).

				Only when UM150 between DIK and PITES is AVBL (alternative route: SOPOK 5Z - SOPOK - ETENO).
←	**ROUSY 4Z**	At 700 ft QNH RT HDG 291 to intercept R-044 CIV. Do not cross R-278 BUB. At 22.0 DME CIV LT to intercept R-157 AFI. At 9.0 DME AFI LT to intercept R-269 HUL INBD. RT to intercept R-139 AFI to ROUSY.	Cross R-225 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	**AVBL from 2200 to 0459.** ATC climb requirements: see below (§ 3.2.2). CDR 1 - H24. TEMPO CLSD on ATC instructions due to MIL requirements (alternative route: SOPOK 5Z - SOPOK - RITAX - ROUSY).
←	**CIV 1D**	At 700 ft QNH track 252. At 6.0 DME BUB LT to track 207 to intercept R-054 CIV INBD to CIV. **P-RNAV:** [A700]-BR045-BR009-CIV		**AVBL from 2200 to 0459.** **H24 on SAT and SUN.** ATC climb requirements: see below (§ 3.2.2). M617 southbound, MAX FL 170. Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA. N872 and UN872 southbound, only for TFC flightplanned ABV FL 195. Between 2200 and 0459, only to be used by aircraft types listed in EBBR AD 2.21, §4.5.

RWY 25L ONLY

	Designator	Route		Remarks
		Lateral	Vertical	
←	**LNO 4Q**	At 700 ft QNH LT to intercept R-288 LNO INBD to LNO.	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID. For TFC requesting a cruising or initial FL below FL 195.
←	**SPI 4Q**	At 700 ft QNH LT to intercept R-288 LNO INBD, intercept R-296 SPI INBD to SPI.	Cross R-045 HUL at FL 60 (FL 70 when QNH is below 977 hPa) or above.	To be used by single, two- and three-engine aircraft. May be used by four-engine aircraft noise certificated according to *ICAO Annex 16 Chapter 3 / FAR Part 36 Stage 3* and those performances permit to adhere to the SID.
←	**CIV 1Q**	Climb straight ahead. At 7.0 DME BUB LT to TR 207 to intercept R-054 CIV INBD to CIV.		**AVBL from 2200 to 0459.** **H24 on SAT and SUN.** ATC climb requirements: see below (§ 3.2.2). M617 southbound, MAX FL 170. Y50 southbound, MAX FL 190, compulsory for TFC DEST Paris TMA.

			N872 and UN872 southbound, only for TFC flightplanned above FL 195. Between 2200 and 0459, only to be used by aircraft types listed in EBBR AD 2.21, §4.5.

3.2.1.2 WAYPOINT INFORMATION

	ID	Latitude	Longitude
←	BR009	504645.6N	0041652.9E
←	BR010	504759.7N	0043857.8E
←	BR011	504634.6N	0044604.2E
←	BR012	504642.1N	0043607.3E
←	BR013	504200.3N	0044228.9E
←	BR014	504315.6N	0042300.9E
←	BR015	505527.1N	0042026.7E
←	BR016	505707.5N	0041921.6E
←	BR017	510208.8N	0041122.9E
←	BR018	505823.7N	0041943.8E
←	BR045	505247.9N	0042143.7E
	RWL07	505400.1N	0042734.3E
	RWR25	505441.5N	0042957.7E

3.2.1.3 PATH TERMINATORS

Note: The following database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

3.2.1.3.1 RWY 19

LNO 5L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR010	504759.7N	0043857.8E	DF	N					
3	BR011	504634.6N	0044604.2E	TF	N	107.5		6000+	4.7	
4	LNO	503509.3N	0054237.0E	TF	N	107.3			37.7	

SPI 4L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR010	504759.7N	0043857.8E	DF	N					
3	BR011	504634.6N	0044604.2E	TF	N	107.5		6000+	4.7	
4	SPI	503053.1N	0053725.0E	TF	N	115.3			36.3	

SOPOK 5L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR012	504642.1N	0043607.3E	DF	N			5000+		
3	BR013	504200.3N	0044228.9E	TF	N	139.3			6.2	
4	REMBA	503944.0N	0045450.5E	TF	N	106.1			8.2	
5	BULUX	503534.0N	0051504.6E	TF	N	107.8			13.5	
6	SOPOK	501510.0N	0054626.0E	TF	N	135.3			28.6	

ROUSY 6L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR012	504642.1N	0043607.3E	DF	N			5000+		
3	BR013	504200.3N	0044228.9E	TF	N	139.3			6.2	
4	REMBA	503944.0N	0045450.5E	TF	N	106.1			8.2	
5	RITAX	500440.0N	0054825.0E	TF	N	135.3			49.1	
6	ROUSY	492835.0N	0060654.0E	TF	N	161.5			38.1	

PITES 6L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR012	504642.1N	0043607.3E	DF	N			5000+		
3	BR013	504200.3N	0044228.9E	TF	N	139.3			6.2	
4	REMBA	503944.0N	0045450.5E	TF	N	106.1			8.2	
5	RITAX	500440.0N	0054825.0E	TF	N	135.3			49.1	
6	DIK	495141.0N	0060746.7E	TF	N	136.0			18.0	
7	PITES	494342.9N	0063109.7E	TF	N	117.6			17.1	

CIV 1L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR012	504642.1N	0043607.3E	DF	N			5000+		
3	BR014	504315.6N	0042300.9E	TF	N	247.6			9.0	
4	CIV	503426.3N	0034958.4E	TF	N	247.4			22.8	

KOK 6L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR015	505527.1N	0042026.7E	DF	N			2900+		
3	KOK	510540.9N	0023905.9E	TF	N	279.8			64.8	

DENUT 6L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		1700+		
2	BR016	505707.5N	0041921.6E	DF	N					
3	BR017	510208.8N	0041122.9E	TF	N	315.0			7.1	
4	DENUT	511410.0N	0033927.4E	TF	N	301.1			23.4	

DENUT 5N

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR016	505707.5N	0041921.6E	DF	N			3700+		
3	BR017	510208.8N	0041122.9E	TF	N	315.0			7.1	
4	DENUT	511410.0N	0033927.4E	TF	N	301.1			23.4	

HELEN 5L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		1700+		
2	BR016	505707.5N	0041921.6E	DF	N					
3	BR017	510208.8N	0041122.9E	TF	N	315.0			7.1	
4	HELEN	511407.1N	0035211.0E	TF	N	314.9			17.0	

HELEN 4N

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR016	505707.5N	0041921.6E	DF	N			3700+		
3	BR017	510208.8N	0041122.9E	TF	N	315.0			7.1	
4	HELEN	511407.1N	0035211.0E	TF	N	314.9			17.0	

NIK 3L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		1700+		
2	BR018	505823.7N	0041943.8E	DF	N					
3	NIK	510954.3N	0041102.2E	TF	N	334.6			12.8	

NIK 3N

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BR018	505823.7N	0041943.8E	DF	N			4200+		
3	NIK	510954.3N	0041102.2E	TF	N	334.6			12.8	

ELSIK 2L

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1				CA		194.4		700+		
2	BUN	510707.1N	0045031.6E	DF	N					
3	ELSIK	511142.1N	0045955.0E	TF	N	52.1			7.5	

3.2.1.3.2 RWY 25R ONLY

←

CIV 1D

#	ID	Latitude	Longitude	P/T	F/O	Course (°T)	Turn Dir.	ALT (ft)	DIST (NM)	Speed limit (KIAS)
1	RWR25			CA		245.4		700		
2	BR045	505247.9N	0042143.7E	CF	N	252.0	L			
3	BR009	504645.6N	0041652.9E	TF	N	207.0	R		6.8	
4	CIV	503426.3N	0034958.4E	TF	N	234.4			21.1	

← 3.2.2 CLIMB REQUIREMENTS

All traffic shall initially climb to FL 60, unless instructed otherwise by ATC. Brussels APP or Brussels ACC will allocate a higher level as soon as possible.

Following additional requirements apply:

←

- Traffic proceeding via SOPOK - ETENO - LIRSU and planned above FL 245 shall cross BULUX at FL 170 MNM and ETENO at FL 250 MNM.
- Traffic proceeding via REMBA - RITAX shall cross REMBA at FL 100 MNM.
- Traffic proceeding via RITAX - ROUSY or RITAX - PITES and planned above FL 245 shall cross RITAX or abeam at FL 250 MNM.
- Traffic proceeding via CIV - MEDIL and planned above FL 265 shall cross MEDIL at FL 210 MNM.

← Aircraft unable to meet these requirements shall advise ATC when requesting start-up clearance, allowing for appropriate coordination to be made with adjacent ATS units in due time.

4 LOW VISIBILITY PROCEDURES

4.1 FACILITIES AND EQUIPMENT AVAILABLE

4.1.1 RUNWAYS

RWY 25L and 25R are equipped with ILS and are approved for CAT IIIB operations.

The runway exits are equipped with alternating green and yellow centre line lights within the ILS sensitive areas. Landing aircraft should leave this area as soon as possible.

In order to provide adequate protection of the ILS system, no vehicle or aircraft shall infringe the ILS sensitive areas when an arriving aircraft is within 2 NM from touchdown and has not completed its landing run.

Departing aircraft are required to use the following CAT II/III holding points at RWY 25R: B1 (backtrack not allowed), P3 or A1. Intersection take-offs are not allowed except when entering RWY 25R via B1 or A1.

Guided take-off is not available.

4.1.2 TAXIWAYS

Taxi is restricted to the taxiways equipped with centre line lights. Standard routes are established for departing and arriving aircraft (see chart AD 2.EBBR-MISC.03). After receiving taxi clearance, aircraft shall proceed only when a green centre line path is illuminated, except on TWY N6-A1.

When RVR at TDZ falls below 400 m, a follow-me car is available on stand-by to assist pilots during taxi upon request.

ATC may use ground surveillance information to assist in monitoring aircraft and vehicles on the manoeuvring area. Any ground surveillance derived information is however to be considered as advice only.

4.1.3 COMMUNICATIONS

Pilots will be informed by ATIS or ATC when LVP are in progress. The ATIS message will contain the phrase *"LOW VISIBILITY PROCEDURES IN PROGRESS*" and will also provide details of any unavailability of equipment relevant to LVP.

Pilots will be informed by ATC when LVP are terminated.

4.2 CRITERIA FOR INITIATION AND TERMINATION OF LVP

The preparation phase will start when visibility falls below 1 500 m and/or ceiling is at or below 300 ft, and CAT II/III operations are expected. The operations phase will start when RVR falls below 800 m or ceiling is at or below 200 ft.

LVP will be terminated when RVR is greater than 800 m and ceiling is higher than 200 ft, and a continuing improvement in these conditions is expected.

4.3 OTHER INFORMATION

When LVP are in operation, arriving aircraft will be vectored to intercept the ILS at least 10 NM from touchdown. ATC will provide suitable spacing between arrivals to achieve sufficient protection of the ILS sensitive area (see § 4.1.1 above). This spacing will be in the order of 8 NM in case of CAT II operations and 10 NM during CAT III operations.

The traffic manager will determine the applicable traffic acceptance rate according to the circumstances.

CAT II and CAT III approach practice during normal operations is allowed, but pilots should be aware that due to high traffic intensity, protection of the ILS sensitive area cannot be guaranteed and fluctuations in the ILS signal may occur.

5 VFR FLIGHTS

5.1 GENERAL

Pilots flying to/from EBBR or crossing Brussels CTR or TMA shall adhere strictly to all published procedures and ATC instructions. Non-adherence can cause unacceptable supplementary workload for ATC and may result in delays for the flights concerned. In any case, IFR traffic will have priority over VFR traffic.

VFR traffic (state aircraft and helicopter flights excluded) shall not enter Brussels CTR or TMA during following periods:

- from MON to FRI: 0700-0900, 1200-1300 and 1600-1900
- on SAT: 0700-0800
- on SUN: 1600-1900.

Local VFR flights at night within the aerodrome traffic circuit are prohibited.

The published routes are compulsory. All routes are allocated at ATC discretion according to the traffic situation. Pilots unable to comply shall contact ATC immediately to request an alternative route.

To enhance the see-and-avoid concept, VFR flights operating in Brussels CTR or TMA are advised to switch on their navigation, landing and anti-collision lights, and they shall keep a sharp look-out for other aircraft.

In order to improve radar detection, pilots flying transponder equipped aircraft shall set code 7000 in mode A/C. Unless another code has been previously allocated, Brussels TWR will allocate a code from series 6301-6313.

5.2 VISUAL REPORTING POINTS

VFR traffic shall only use following reporting points:

Abbreviation	Name	Associated landmark	Position
AM	Abeam Mechelen	east of Mechelen, lake Nekker	510117N 0043023E
AT	Atomium	monument	505342N 0042029E
BE	Bertem	radar station	505226N 0043659E
CA	Brucargo	cargo terminal	505420N 0042726E
GB	Groot-Bijgaarden	motorway intersection R0-E40	505231N 0041626E
HO	Haasrode	intersection motorway E40 and road N25	505041N 0044302E
KH	Kampenhout-Sas	intersection canal Leuven-Dijle and road N21	505720N 0043537E
LO	Waterloo	monument	504042N 0042417E
ME	Mechelen	water tower	510039N 0042749E
NO	Nossegem	intersection motorway E40 and road N227	505210N 0043038E
PU	Peutie	pylon military domain	505555N 0042757E
SH	South Herent	KBC building at intersection of motorway E314 and road N2	505310N 0044039E
TE	Ternat	castle	505216N 0041014E
WA	Wavre	radio and television mast	504426N 0043512E
ZB	Forêt de Soignes/Zoniënbos	motorway intersection R0-E411	504803N 0042754E

5.3 INBOUND TRAFFIC

5.3.1 COMMUNICATIONS

Pilots intending to enter Brussels CTR shall contact Brussels TWR on FREQ 120.775 MHz (entry via AT, GB or ME) or 118.600 MHz (entry via HO, LO or WA).

Pilots entering Brussels TMA shall contact Brussels Departure (entry between 2 000 ft AMSL and FL 60) or Brussels ACC (entry above FL 60).

All VFR flights with destination EBBR shall report their position and obtain an ATC clearance before entering the Brussels CTA, TMA or CTR. When practicable, the request shall be made at least 5 MIN prior to entry.

5.3.2 ROUTES

RWY 19 AND 25L/R IN USE

Arrivals from the north	Join Brussels CTR via ME and proceed to PU. Traffic shall remain RIGHT of motorway E19 and enter the aerodrome traffic circuit according to ATC instructions.
Arrivals from the south	Join Brussels CTR via WA or LO and proceed to ZB, NO next. Traffic shall remain RIGHT of motorways E411/R0, and enter the aerodrome traffic circuit according to ATC instructions.

RWY 01 AND 07L/R IN USE

Arrivals from the west	Join Brussels CTR via TE and proceed to GB, AT and CA next. Traffic shall remain RIGHT of motorway E40 and enter the aerodrome traffic circuit according to ATC instructions.
Arrivals from the east	Join Brussels CTR via HO and proceed to BE, NO next. Traffic shall remain RIGHT of motorway E40, and enter the aerodrome traffic circuit according to ATC instructions.

Crossing traffic shall follow the routes indicated above and proceed in accordance with ATC instructions.

Crossing traffic with destination EBGB will not be allowed to route directly to EBGB, but will be instructed to vacate Brussels CTR via the relevant outbound routes indicated below.

Aircraft crossing Brussels CTR east of EBBR may be instructed by ATC to hold over reporting point SH (northbound traffic) or KH (southbound traffic), awaiting clearance to cross the final approach path of RWY 25L/R.

5.4 OUTBOUND TRAFFIC

5.4.1 COMMUNICATIONS

Pilots departing from EBBR shall request start-up clearance from Brussels Delivery. The clearance will be issued depending on traffic density.

Together with start-up clearance, pilots will receive instructions regarding the transponder setting, the outbound routes to be expected and the ATS unit(s) to be contacted with the associated frequency.

Departing traffic with destination EBGB will not be allowed to route directly to EBGB, but will be instructed to vacate Brussels CTR via the relevant outbound routes indicated above.

5.4.2 ROUTES

RWY 19 AND 25L/R IN USE

Departures to the north	After take-off, right turn to PU and proceed via AM. Traffic shall remain RIGHT of motorway E19 and leave Brussels CTR according to ATC instructions.
Departures to the south	After take-off, left turn to NO and proceed via ZB to LO or WA. Traffic shall remain RIGHT of motorways R0/E411 and leave Brussels CTR according to ATC instructions.

RWY 01 AND 07L/R IN USE

Departures to the west	After take-off, left turn to CA and proceed via AT, GB and TE. Traffic shall remain RIGHT of motorway E40 and leave Brussels CTR according to ATC instructions.
Departures to the east	After take-off, right turn to NO or abeam and proceed via BE and HO. Traffic shall remain RIGHT of motorway E40 and leave Brussels CTR according to ATC instructions.

6 HELICOPTER FLIGHTS

All helicopters to and from EBBR are subject to PPR. Prior permission must be obtained before the departure of the helicopter. In-flight requests are not allowed. PPR request shall be addressed to Brussels Airport Company Airside Inspection:

Tel:+ 32 (0) 2 753 69 00
Fax:+ 32 (0) 2 753 69 09
Email:inspect@brusselsairport.be

Upon requesting permission to land at or take off from EBBR, notwithstanding any other required information, the pilot will clearly indicate:

- the flight rules under which the flight will be performed: IFR or VFR
- the MOPSC
- the time of the day on which the flight will be performed (day or night flight)
- the performence class under which the helicopter will be operated

Restrictions of use applying to the FATO:

- The FATO is limited to:
  - helicopters able to climb on a 8 % slope all engines running
  - VFR traffic only
  - day operations only (HJ)
  - performance class 2 (slope category "C") and performance class 3 (slope category "B") operations only
  - helicopters that have an MOPSC <= 19
- All helicopters shall take off or land on the designated runway in use in the following conditions:
  - night operations (HN)
  - operating under IFR
  - operating under performance class 1 (slope category "A")
  - if the MOPSC > 19

7 RADIO COMMUNICATION FAILURE

If an aircraft does not succeed in landing within the 30 MIN normally allowed for approach and landing, it shall leave Brussels CTR and TMA on R-290 BUB at 2 200 ft QNH or below, and land at the first suitable aerodrome where the weather conditions allow a visual approach and landing.

See also ENR 1.1, § 3.3.5.3.

EBBR AD 2.23 ADDITIONAL INFORMATION

1 ATIS

ATIS messages serving inbound and outbound traffic are broadcasted H24 (see EBBR AD 2.18).

The messages contain following elements in the order as listed:

Item	ATIS	Start of expression
Aerodrome name	BRUNAT	Brussels ...
Alphabetical designator	INFO (A till Z)	Information ... (alfa - zulu)
Time of observation	HHMM	...
Type of approach to be expected	TYP APCH	Expecting vectoring ...
Runway in use for landing	LDG RWY	Landing runway …
Runway in use for take-off	TKOF RWY	Take-off runway…
Braking action	BA (TDZ) MID END	Braking action touchdown ... Mid-point ... Stop-end ...
Operational status	OPS STS	Operational status ...
Surface wind, direction and speed (including significant variations)	WIND	Wind ...
Visibility	VIS	Visibility ...

RVR	RVR (RWY) TDZ / m MID / m END / m	Runway visual range on runway ... ... touchdown ... / ... metres ... ... mid-point ... / ... metres ... ... stop-end ... / ... metres ...
Present weather	WX	Present weather ...
Cloud base	BASE	Cloud base ...
Air temperature	T	Temperature ...
Dew point temperature	DP	Dew point ...
Altimeter setting	QNH	QNH ...
Transition level	TL	Transition level ...
Recent weather	RE	Recent weather ...
Wind shear	WS	Windshear ...
Landing forecast TREND	TREND	Trend ...

When rapidly changing weather conditions make it inadvisable to include a weather report in the ATIS broadcast, the weather data are omitted and replaced by the phrase *"MET REPORT OMITTED DUE TO RAPID CHANGES"*. The omitted data can be requested from ATC.

Pilots are requested to listen to the ATIS broadcast prior to the first contact with ATS. When establishing communication with the relevant ATS unit, the pilot shall acknowledge receipt of ATIS message with the phrase *"INFORMATION ... (alphabetical designator) RECEIVED"*. ATS will confirm the validity of the received alphabetical designator. If the designator has changed meanwhile, only the actually valid designator will be given.

2 LIGHTNING PROCEDURE

Lightning procedure in progress will be announced by ATIS.

When lightning procedure is activated, some handling activities may be temporarily suspended.

EBBR AD 2.24 CHARTS RELATED TO EBBR

1.	Aerodrome Chart - ICAO	AD2 EBBR ADC.01 AD2 EBBR ADC.02
2.	Aerodrome Ground Movement Chart - ICAO	AD2 EBBR GMC.01
3.	Appendix to Aerodrome Ground Movement Chart - ICAO	AD2 EBBR GMC.02a AD2 EBBR GMC.02b AD2 EBBR GMC.02c AD2 EBBR GMC.02d
4.	Aircraft Parking Docking Chart - ICAO	AD2 EBBR APDC.01 AD2 EBBR APDC.02 AD2 EBBR APDC.03
5.	Aerodrome Ground Movement Responsibilities	AD2 EBBR MISC.05
6.	Aerodrome Obstacle Chart - ICAO (Type A - Operating limitations)	
6.1	RWY 01/19	AD2 EBBR AOC.01
6.2	RWY 07L/25R	AD2 EBBR AOC.02
6.3	RWY 07R/25L	AD2 EBBR AOC.03
7.	Aerodrome Obstacle Chart (Type B)	AD2 EBBR AOC.04
8.	Precision Approach Terrain Chart - ICAO	
8.1	RWY 25L	AD2 EBBR PATC.01
8.2	RWY 25R	AD2 EBBR PATC.02
9.	Low Visibility Procedures Chart	AD2 EBBR MISC.03
10.	ATC Surveillance Minimum Altitude Chart - ICAO	AD2 EBBR ATCSMAC.01
11.	Standard Arrival Chart - Instrument - ICAO	
11.1	Standard Arrival Chart - Instrument - ICAO	AD2 EBBR STAR.01
11.2	Standard Arrival Chart - Instrument - ICAO (P-RNAV OVERLAY)	AD2 EBBR STAR.02
12.	Standard Departure Chart - Instrument - ICAO	
12.1	RWY 01	AD2 EBBR SID.01

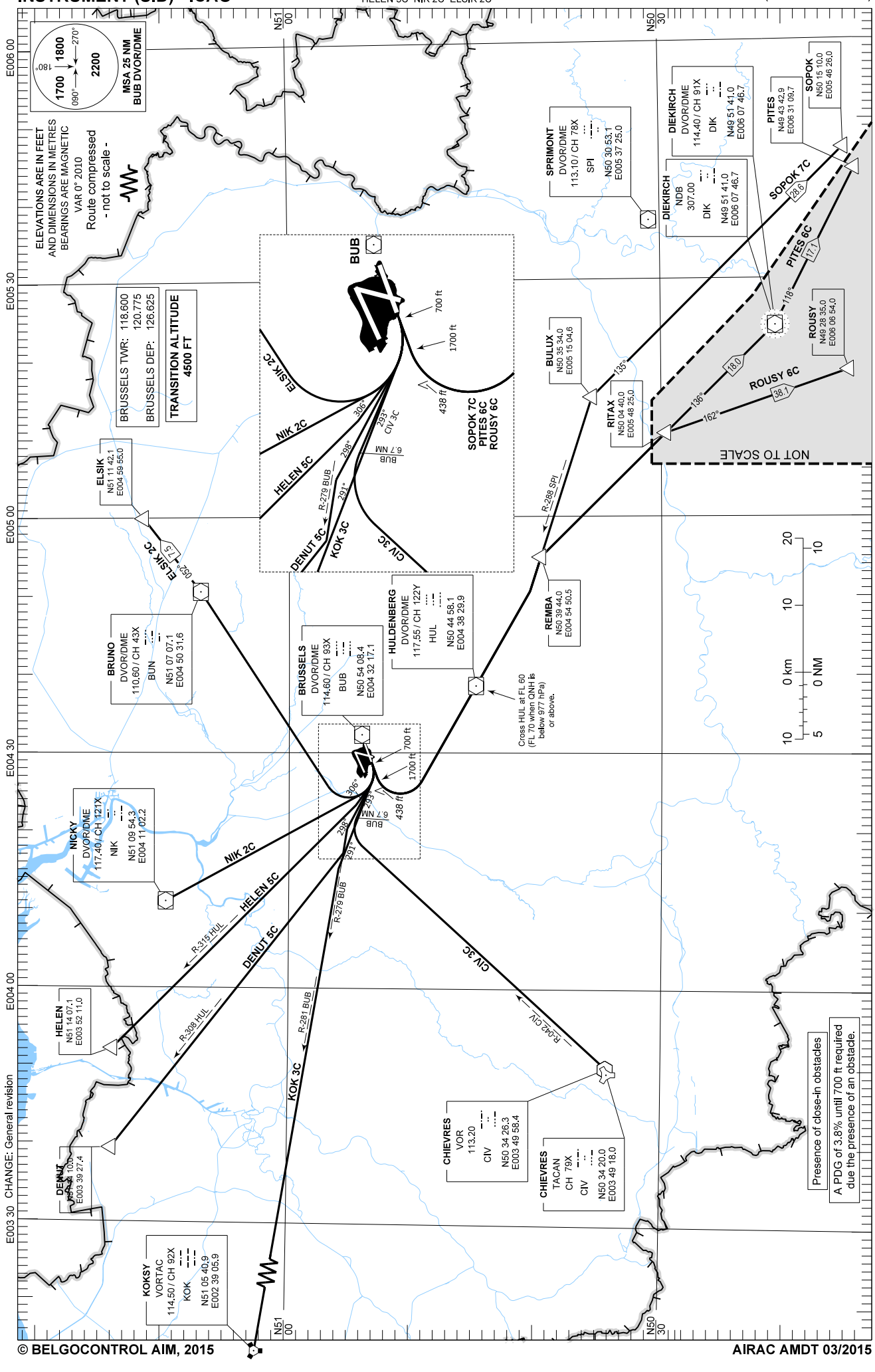
	12.2	RWY 07L	AD2 EBBR SID.02
	12.3	RWY 07R	AD2 EBBR SID.03
	12.4	RWY 19	AD2 EBBR SID.04a
	12.5	RWY 19 (P-RNAV OVERLAY)	AD2 EBBR SID.04b
←	12.6	RWY 25L (C DEPARTURES)	AD2 EBBR SID.05a
←	12.7	RWY 25L (D - Q DEPARTURES)	AD2 EBBR SID.05b
←	12.8	RWY 25R (C DEPARTURES)	AD2 EBBR SID.06a
←	12.9	RWY 25R (D - Z DEPARTURES)	AD2 EBBR SID.06b
←	13.	Instrument Approach Chart - ICAO	
	13.1	ILS or LLZ a RWY 25R (IAF ANT/KERKY)	AD2 EBBR IAC.01
	13.2	ILS or LLZ b RWY 25R (IAF FLO)	AD2 EBBR IAC.02
	13.3	ILS or LLZ a RWY 25L (IAF KERKY/ANT)	AD2 EBBR IAC.03
	13.4	ILS or LLZ b RWY 25L (IAF FLO)	AD2 EBBR IAC.04
	13.5	VOR a RWY 25L (IAF KERKY/ANT)	AD2 EBBR IAC.05
	13.6	VOR b RWY 25L (IAF FLO)	AD2 EBBR IAC.06
	13.7	ILS or LLZ RWY 01	AD2 EBBR IAC.07a AD2 EBBR IAC.07b
	13.8	VOR RWY 07R	AD2 EBBR IAC.08
	13.9	ILS or LLZ RWY 19	AD2 EBBR IAC.09
	13.10	VOR RWY 07L	AD2 EBBR IAC.10
	14.	Visual Approach Chart - ICAO	AD2 EBBR VAC.01
	15.	"Area Requiring Special Attention" Chart	AD2 EBBR MISC.06

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

SOPOK 7C PITES 6C ROUSY 6C
CIV 3C KOK 3C DENUT 5C
HELEN 5C NIK 2C ELSIK 2C

BRUSSELS / Brussels-National (EBBR)

RWY 25L (C DEPARTURES)



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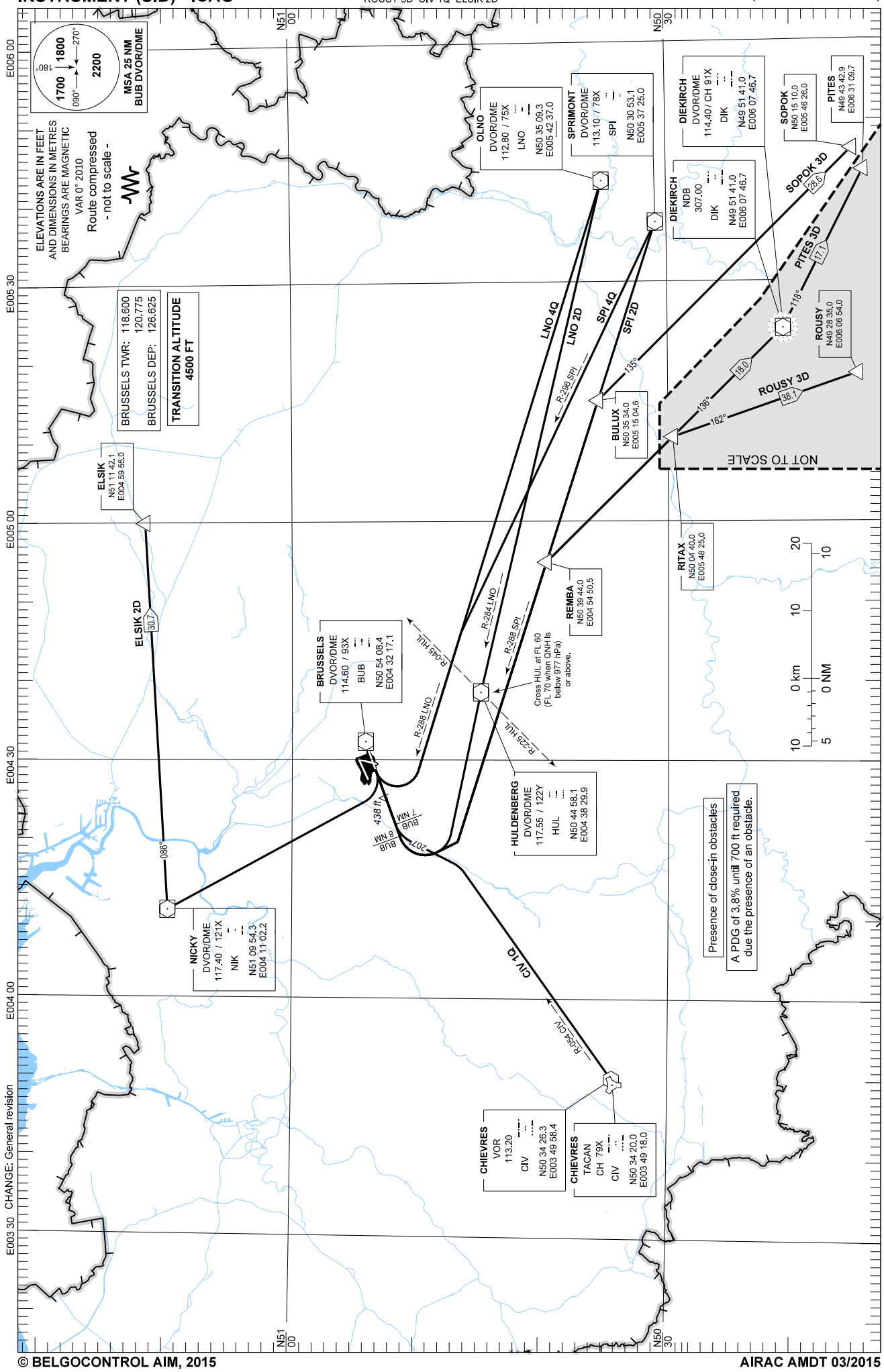
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

LNO 4Q-2D SPI 4Q-2D
SOPOK 3D PITES 3D
ROUSY 3D CIV 1Q ELSIK 2D

BRUSSELS / Brussels-National (EBBR)

RWY 25L (D - Q DEPARTURES)



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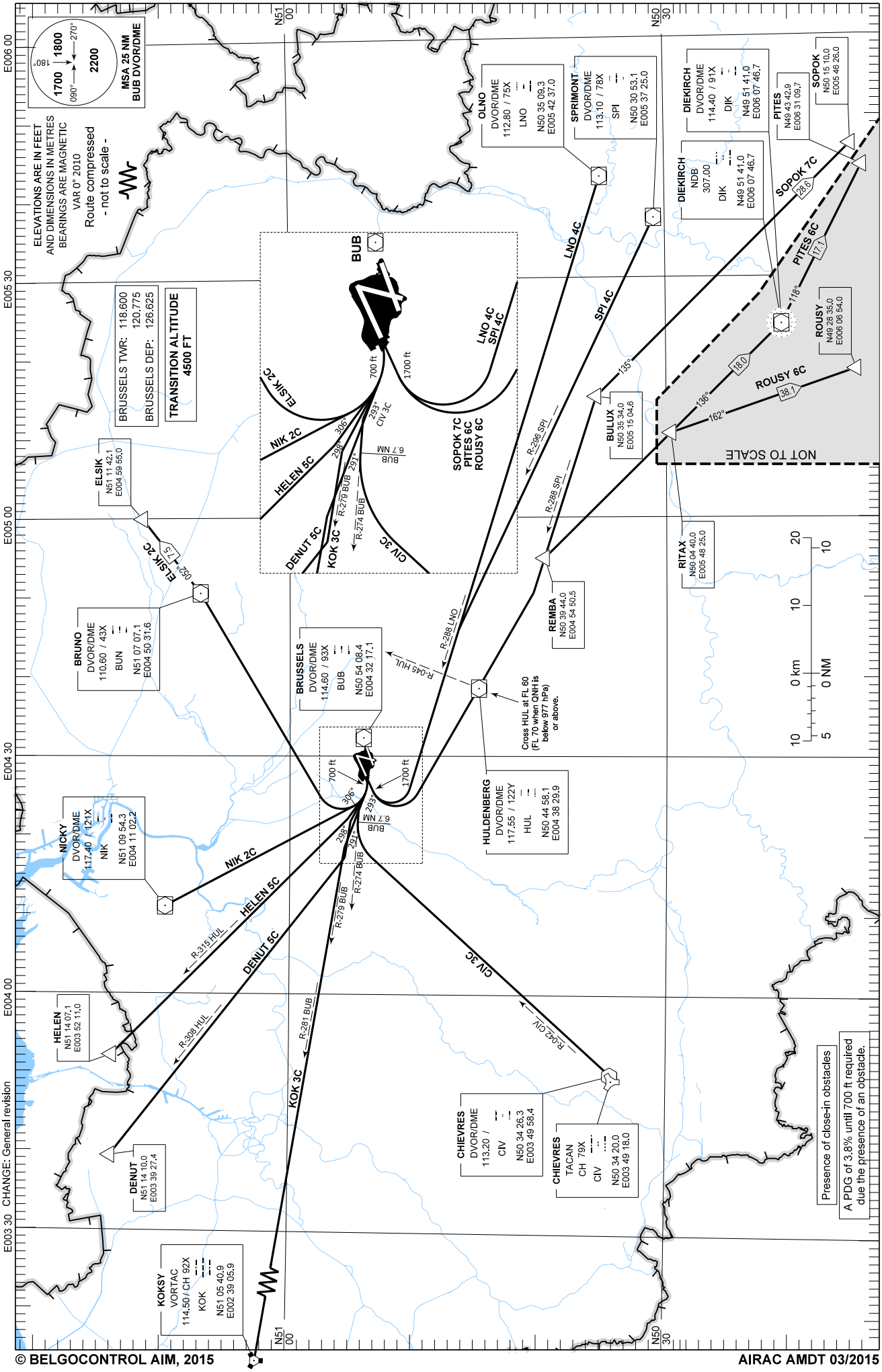
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

LNO 4C SPI 4C SOPOK 7C PITES 6C
ROUSY 6C CIV 3C KOK 3C DENUT 5C
HELEN 5C NIK 2C ELSIK 2C

BRUSSELS / Brussels-National (EBBR)

RWY 25R (C DEPARTURES)



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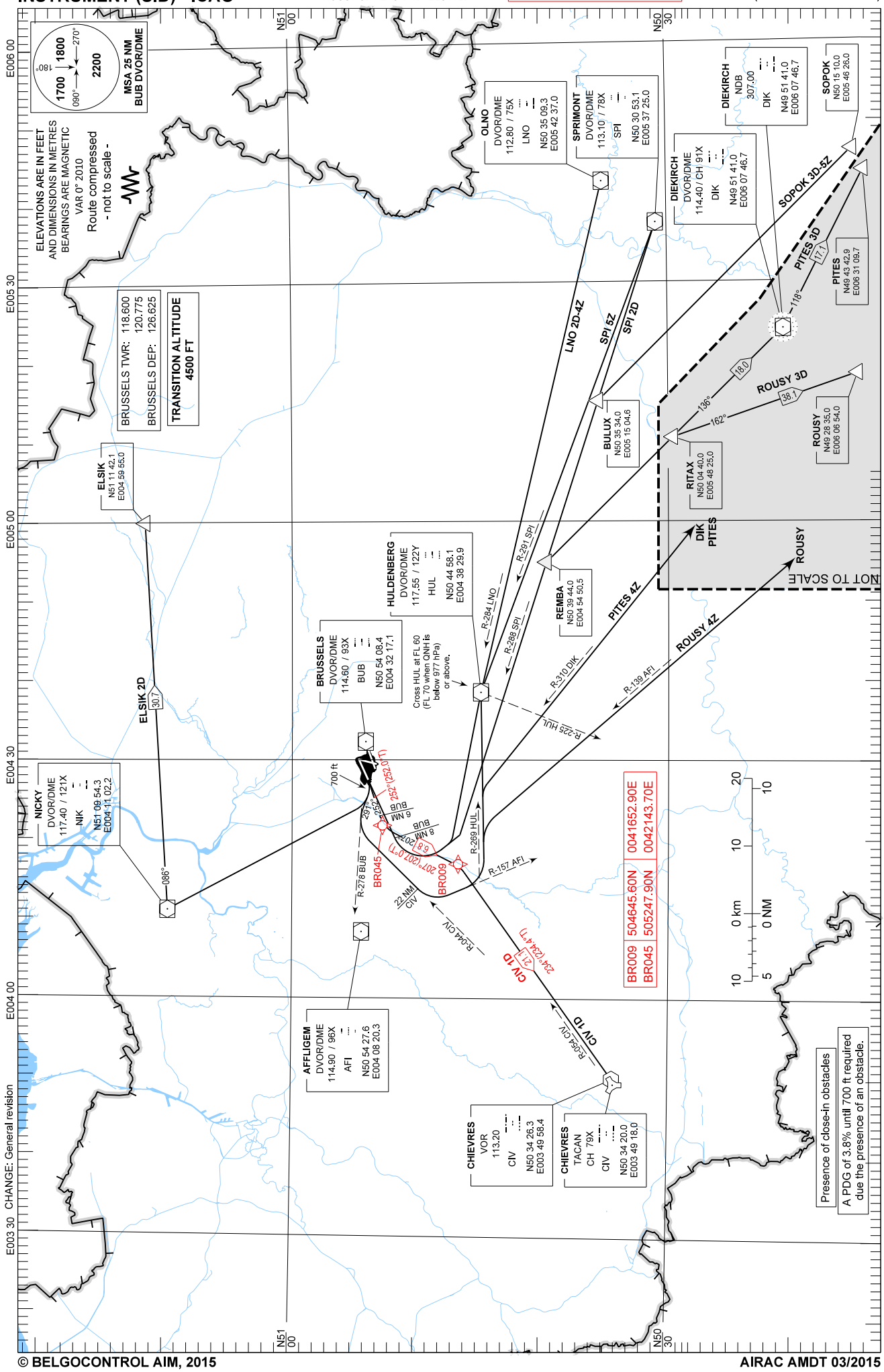
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

LNO 2D-4Z SPI 2D-5Z
SOPOK 3D-5Z PITES 3D-4Z
ROUSY 3D-4Z CIV 1D ELSIK 2D

BRUSSELS / Brussels-National (EBBR)

P-RNAV OVERLAY GNSS/DME-DME RWY 25R (D - Z DEPARTURES)



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