

**EHEH — EINDHOVEN/Eindhoven**

Note: the following sections in this chapter are intentionally left blank:  
AD 2.16.

**EHEH AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

EHEH — EINDHOVEN/Eindhoven

**EHEH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	<b>ARP co-ordinates and site at AD</b>	512700N 0052228E 300° GEO 320 M from TWR.
2	<b>Direction and distance from (city)</b>	4 NM west from Eindhoven.
3	<b>Elevation/reference temperature</b>	74 FT AMSL/22.3°C (JUL).
4	<b>Geoid undulation at AD ELEV PSN</b>	144 FT.
5	<b>MAG VAR/annual change</b>	2°E (2020)/11'E.
6	<b>AD operator, postal address, telephone, telefax, email, AFS, website</b>	Post: Eindhoven Airport N.V. Luchthavenweg 13 5657 EA Eindhoven The Netherlands Tel: +31 (0)40 291 9823 Email: operations@eindhovenairport.nl AFS: EHEHYDYX URL: http://www.eindhovenairport.nl
7	<b>Types of traffic permitted (IFR/VFR)</b>	IFR/VFR
8	<b>Remarks</b>	1. Military administration: Post: RNLAF Vliegbasis Eindhoven MPC 87A P.O. Box 8762 4820 BB Breda The Netherlands Tel: +31 (0)40 289 6240 (OPS, H24) Tel: +31 (0)40 289 6314 (Handling, during office HR) Fax: +31 (0)40 289 6466 AFS: EHEHZTZX 2. For MIL PPR: send email to amc.occ@mindef.nl, or call OPS or Handling.

**EHEH AD 2.3 OPERATIONAL HOURS**

1	<b>AD operator</b>	0600-2300 (0500-2200); BTN 2200-2300 (2100-2200) only for preplanned ARR TFC.
2	<b>Customs and immigration</b>	AD OPR HR
3	<b>Health and sanitation</b>	AD OPR HR
4	<b>AIS briefing office</b>	H24 Tel: +31 (0)20 406 2315 URL: https://www.homebriefing.nl
5	<b>ATS reporting office (ARO)</b>	H24, for details see ENR 1.10 paragraph 1.1.2.4.
6	<b>MET briefing office</b>	NIL
7	<b>ATS</b>	AD OPR HR
8	<b>Fuelling</b>	AD OPR HR
9	<b>Handling</b>	AD OPR HR
10	<b>Security</b>	AD OPR HR
11	<b>De-icing</b>	AD OPR HR
12	<b>Remarks</b>	1. AD PPR and slot co-ordinated for CIV ACFT (see EHEH AD 2.20 paragraph 1). 2. AD AVBL as preplanned alternate for CIV ACFT. PPR.

**EHEH AD 2.4 HANDLING SERVICES AND FACILITIES**

1	<b>Cargo-handling facilities</b>	Cargo and passenger handling AVBL (see EHEH AD 2.23 paragraph 4).
2	<b>Fuel/oil types</b>	Jet A-1/15W50 AERO.
3	<b>Fuelling facilities/capacity</b>	Jet A-1: unlimited.
4	<b>De-icing facilities</b>	Equipment AVBL, de-icing fluid Type I Killfrost DF plus and Type II Killfrost ABC-K plus <sup>1)</sup> .
5	<b>Hangar space for visiting aircraft</b>	Limited O/R.
6	<b>Repair facilities for visiting aircraft</b>	Limited O/R.
7	<b>Remarks</b>	<sup>1)</sup> No de-icing allowed on civil apron stands E2, S11, S12, S13, S14 and GA1 and GA2 (general aviation demarcated area).

**EHEH AD 2.5 PASSENGER FACILITIES**

1	<b>Hotels</b>	<ul style="list-style-type: none"> <li>At the airport: Tulip Inn Eindhoven Airport (120 rooms). Tel: +31 (0)40 303 0615 Email: info@tulipinneindhovenairport.com</li> <li>Numerous hotels in Eindhoven.</li> </ul>
2	<b>Restaurants</b>	At the airport and numerous in Eindhoven.
3	<b>Transportation</b>	Buses and taxis.
4	<b>Medical facilities</b>	First aid treatment and first responders on site. Hospitals in Eindhoven (8 KM).
5	<b>Bank and post office</b>	Bank (and ATM) at the airport, post office in Eindhoven city.
6	<b>Tourist office</b>	In Eindhoven city.
7	<b>Remarks</b>	NIL

**EHEH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

1	<b>AD category for fire fighting</b>	CAT 8: AD OPR HR
2	<b>Rescue equipment</b>	AVBL
3	<b>Capability for removal of disabled aircraft</b>	AVBL
4	<b>Remarks</b>	Higher fire fighting category on request 48 HR prior ETA.

**EHEH AD 2.7 SEASONAL AVAILABILITY - CLEARING**

1	<b>Types of clearing equipment</b>	Civil: 3 snowploughs, 1 spreader. Military: 2 snowplough combinations with liquid spreader, 2 spreaders, 3 snow brushes and 2 rollbars.
2	<b>Clearance priorities</b>	Civil: civil apron. Military: RWY and TWYs are cleaned simultaneously.
3	<b>Remarks</b>	Snow clearance information promulgated by SNOWTAM.

**EHEH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA**

1	<b>Apron surface and strength</b>	<b>Civil apron</b>	<b>Apron east</b>	<b>Apron west</b>	
		Surface	CONC	CONC	CONC
		Strength	PCN 53/R/B/W/T	PCN 61/R/B/W/T	PCN 61/R/B/W/T

2	Taxiway width, surface and strength	<b>TWY</b>	<b>Width (M)</b>	<b>Surface</b>	<b>Strength (PCN)</b>
		K	15	CONC	61/R/B/W/T
		L1	23	CONC	57/R/B/W/T
		L2	23	CONC	52/R/B/W/T
		L3	22.5	CONC	59/R/B/W/T
		L4	22.5	CONC	61/R/B/W/T
		L5	22.5	CONC	61/R/B/W/T
		P <sup>1)</sup>	22.5	CONC	57/R/B/W/T
		R	22.5	CONC	61/R/B/W/T
		R1	30.1	CONC	61/R/B/W/T
		R2	18.1	CONC	61/R/B/W/T
		R3	22.5	CONC	61/R/B/W/T
		R4	22.5	CONC	61/R/B/W/T
		R5	22.5	CONC	61/R/B/W/T
		R6	18.1	CONC	52/R/B/W/T
		R7	30.1	CONC	61/R/B/W/T
		RA	22.5	CONC	61/R/B/W/T
RB	22.5	CONC	61/R/B/W/T		
U	15	ASPH	61/F/B/W/T		
3	Altimeter checkpoint location and elevation	NA			
4	VOR checkpoints	NA			
5	INS checkpoints	NA			
6	Remarks	<sup>1)</sup> TWY P towing only after intersection TWY K.			

### EHEH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system at aircraft stands	<ul style="list-style-type: none"> <li>Marshaller will provide guidance to the aircraft stand. Follow-me car is available on request.</li> <li>ATC will issue the ACFT stand number (see AD 2.EHEH-APDC). Aircraft may only leave the taxiway centreline after visual contact with the marshaller.</li> <li>General aviation: ATC instructs pilots entering the civil apron to report "marshaller in sight" and follow the marshaller's instructions to the allocated aircraft stand.</li> </ul>
2	RWY and TWY markings and LGT	<b>RWY:</b> THR, centre line, RWY designations, TDZ markings, aiming point, RWY side stripe marking. Edge lights, THR lights, RWY-end lights. <b>TWY:</b> centre line, taxi holding points with mandatory red/white instruction signs. Retroreflective edge markers. Blue edge lights.
3	Stop bars	NIL
4	Remarks	NIL

### EHEH AD 2.10 AERODROME OBSTACLES

All obstacles are day and night marked and lighted. For obstacles in take-off area: see obstacle chart AD 2.EHEH-AOC-03-21 (aerodrome obstacle chart type A).

### EHEH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET office	De Bilt
2	Hours of service MET office outside hours	H24 -
3	Office responsible for TAF preparation Periods of validity	Woensdrecht (Joint Meteorological Group) 30 HR
4	Trend forecast Interval of issuance	TREND Every 30 MIN during AD OPR HR.
5	Briefing/consultation provided	Self-briefing; briefing on request from MWO-De Bilt by telephone after self-briefing <sup>1)</sup> (see item 10).
6	Flight documentation Language(s) used	Reports, forecasts, charts. English, Dutch.

7	Charts and other information available for briefing or consultation	S, P, W, T
8	Supplementary equipment available for providing information	WXR, APT
9	ATS units provided with information	Eindhoven TWR
10	Additional information (limitation of service, etc.)	<p>TEL: 0900 202 3341 Briefing low level flights (IFR/VFR).          TEL: 0900 202 3343 Briefing IFR flights above FL 100.          TEL: 0900 202 3340 Briefing balloon flights within Amsterdam FIR.</p> <p><b>Note:</b> charge for TEL briefings and consultations is €0,50/MIN.  <sup>1)</sup> Weather bulletin (Dutch language) and METARs via Dutch public TV Teletekst page 707.</p>

### EHEH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	True BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR co-ordinates RWY end co-ordinates THR GUND	THR elevation and highest elevation of TDZ of precision APCH RWY
1	2	3	4	5	6
03	034.99°	3000 x 45	PCN 62/F/A/W/T Tarmac <sup>1)</sup>	512627.14N 0052150.90E 512740.23N 0052312.81E 144 FT	73.3 FT 73.0 FT
21	215.01°	3000 x 45	PCN 62/F/A/W/T Tarmac <sup>1)</sup>	512733.79N 0052305.60E 512620.70N 0052143.69E 144 FT	66.6 FT 68.1 FT

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and type of arresting system	OFZ
1	7	8	9	10	11	12	13
03	INFO not AVBL	NA	60 x 300	3120 x 300	240 x 150	NIL	NIL
21	INFO not AVBL	NA	60 x 300	3120 x 300	240 x 150	NIL	NIL

#### Remarks

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<sup>1)</sup> RWY shoulders not AVBL.

### EHEH AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
03	3000	3060	3000	2757	DTHR 243 M
21	3000	3060	3000	2757	DTHR 243 M

INTERSECTION TAKE-OFF					
RWY Designator	TWY	TORA (M)	TODA (M)	ASDA (M)	Remarks
03	L5/R5	1920	1980	1920	For determination of the datum line for intersection take-off, see EHEH AD 2.23 paragraph 2.
	R6	2757	2817	2757	
21	L2/R2	2757	2817	2757	
	L3/R3	2250	2310	2250	
	L4/R4	2015	2075	2015	

### EHEH AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type, length, INTST	THR LGT colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT length	RWY centre line LGT length, spacing, colour, INTST	RWY edge LGT length, spacing, colour, INTST	RWY end LGT colour, WBAR	SWY LGT length, colour
1	2	3	4	5	6	7	8	9
03	CAT I 892 M LIH	G -	PAPI left/3° (50 FT)	NA	NIL	3000 M 30 M <sup>1)</sup> LIH	<sup>2)</sup> -	NIL
21	CAT I 869 M LIH	G -	PAPI left/3° (38 FT)	NA	NIL	3000 M 30 M <sup>1)</sup> LIH	<sup>2)</sup> -	NIL

#### Remarks

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<sup>1)</sup> REDL: red from beginning of RWY to DTHR;  
white from DTHR to 600 M before RWY end;  
yellow last 600 M before RWY end.

<sup>2)</sup> RENL: 3 red, 1 green, 3 red (for military reasons).

### EHEH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL. Anemometer: several on the airfield; 125 M NW of TWR, 50 M NW of THR RWY 03 and 50 M NW of THR RWY 21; not lighted.
3	TWY edge and centre line lighting	AVBL, for details, see EHEH AD 2.9.
4	Secondary power supply Switch-over time	AVBL Within 1 second.
5	Remarks	NIL

### EHEH AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	<b>EINDHOVEN CTR:</b> 513853N 0052323E - 512734N 0054129E - 512121N 0053130E - along clockwise arc (radius 8 NM, centre 512700N 0052228E) - 513239N 0051324E - 513853N 0052323E.
2	Vertical limits	GND to 3000 FT AMSL.
3	Airspace classification	D
4	ATS unit call sign Language(s)	Eindhoven TWR English
5	Transition altitude	IFR: 3000 FT AMSL; VFR: 3500 FT AMSL.
6	Hours of applicability	0600-2300 (0500-2200)
7	Remarks	NIL

## EHEH AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Channel(s)	SATVOICE NR	Logon address	Hours of operation	Remarks	
1	2	3	4	5	6	7	
APP	RAPCON South	123.180	INFO not AVBL	INFO not AVBL	MON-FRI: 0700-1545 (0600-1445)	Primary VHF.	
		122.100					Primary UHF.
	388.525	INFO not AVBL	INFO not AVBL	0600-2300 (0500-2200)		Primary VHF. VDF.	
	124.530	INFO not AVBL	INFO not AVBL				VFR traffic crossing Eindhoven TMA.
	122.100	INFO not AVBL	INFO not AVBL				
Eindhoven Arrival	132.530	INFO not AVBL	INFO not AVBL	0600-2300 (0500-2200)	Primary VHF. VDF.		
	265.975	INFO not AVBL	INFO not AVBL			Primary UHF.	
	131.005	INFO not AVBL	INFO not AVBL			0600-2300 (0500-2200)	Primary VHF. VDF.
122.100	INFO not AVBL	INFO not AVBL	Primary UHF.				
TWR	Eindhoven Tower	241.550	INFO not AVBL	INFO not AVBL	0600-2300 (0500-2200)	Primary UHF.	
		121.930	INFO not AVBL	INFO not AVBL			0600-2300 (0500-2200)
GND	Eindhoven Ground	335.750	INFO not AVBL	INFO not AVBL	0600-2300 (0500-2200)		
		126.030	INFO not AVBL	INFO not AVBL			TWR OPR HR
ATIS	Eindhoven Information						
-	As appropriate	121.500 243.000	INFO not AVBL	INFO not AVBL	As appropriate	Emergency	

## EHEH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, Type of supported OPS (VOR/ILS/MLS: declination)	ID	Frequency CH service provider and reference path identifier	Hours of operation	Position of transmitting antenna co-ordinates	Elevation of DME transmitting antenna or GBAS: elevation, ellipsoid height of reference point SBAS: ellipsoid height of LTP/FTP	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DVOR/DME (1°E/2020)	RTM	110.400 MHz CH41X	H24	515825.3N 0042851.5E	0 FT	NA	Designated operational coverage: BTN 030°-240° MAG 50 NM/FL 250; BTN 240°-030° MAG 100 NM/FL 250.
TACAN	EHV	117.200 MHz CH119X	H24	512653.4N 0052229.8E	100 FT	NA	RNLAF. Designated operational coverage: 150 NM/FL 600.
LOC 03 ILS CAT I/C/1 (2°E/2020)	EHZ	109.750 MHz	H24	512745.01N 0052318.19E	NA	NA	430 M from THR RWY 21.
DME 03	EHZ	CH34Y	H24	512634.2N 0052206.4E	100 FT	NA	Situated on GP 03. One direction only.
GP 03	-	333.050 MHz	H24	512634.18N 0052206.36E	NA	NA	363 M past THR RWY 03.
LOC 21 ILS CAT I/C/1 (2°E/2020)	EHO	109.750 MHz	H24	512615.09N 0052137.39E	NA	NA	462 M from THR RWY 03.
DME 21	EHO	CH34Y	H24	512722.3N 0052301.6E	100 FT	NA	Situated on GP 21. One direction only.
GP 21	-	333.050 MHz	H24	512722.30N 0052301.56E	NA	NA	358 M past THR RWY 21.
GPS	NA	L1 1575.42 MHz	H24	NA	NA	NA	NIL
EGNOS	NA	L1 1575.42 MHz	H24	NA	NA	NA	NIL

**EHEH AD 2.20 LOCAL AERODROME REGULATIONS****1 AIRPORT SLOT CO-ORDINATION****1.1 Definitions**

1. Commercial aviation: Flights carried out by an airline that offers regular services and/or scheduled irregular services or ad hoc transport and/or freight and/or post, including positioning flights that are directly related to these flights.
2. General aviation: Operations with a civil aircraft, whether or not at a fee or against payment of rent, other than commercial traffic.
3. Business aviation: The sector of general aviation that pertains to the operation or use of aircraft by businesses for the carriage of passengers (including the provision of taxi services or the carriage of goods as part of their business operations; the pilots need to have at least a valid commercial pilot licence with a qualification for flying with the use of instruments). These flights are generally not open for the public.

**1.2 Slot request****1.2.1 Commercial aviation**

1. Slot requests for commercial aviation must be filed in the slot clearance request (SCR) format according to the IATA standard schedule information manual (SSIM) Chapter 6.
2. The requests must include information about the flight number or registration number and the desired date/time.
3. Slot requests shall be submitted to:  
Airport Coordination Netherlands (ACNL)  
Email: [scr@slotcoordination.nl](mailto:scr@slotcoordination.nl)
4. Contact information ACNL during office hours:  
Tel: +31 (0)20 405 9730  
URL: <https://www.slotcoordination.nl>

**1.2.2 General aviation**

General aviation is co-ordinated through PPR. An allocated PPR number should be filed in item 18 of the flight plan. General aviation flights are prohibited to operate to and from Eindhoven Airport without a valid PPR number. Requests for PPR must be filed at <https://ppr.eindhovenairport.nl/customer/account/login/reference>. The PPR procedures for general aviation and business aviation are available on: <https://www.eindhovenairport.nl/en/general-aviation-business-aviation>.

**1.2.3 Business aviation**

Business aviation flights are prohibited to operate to and from Eindhoven Airport without a valid approval from Eindhoven Airport. Business aviation flight requests to be sent to:

Email: [capacity@eindhovenairport.nl](mailto:capacity@eindhovenairport.nl)

**2 GROUND HANDLING**

Ground handling is mandatory for all civil aircraft (see EHEH AD 2.23 for contact information).

**3 RESTRICTIONS ON TRAINING FLIGHTS**

No civil training flights allowed.

**4 TAXI PROCEDURES**

Eindhoven Ground 121.930 is operational during aerodrome operational hours.

1. After permission for start-up Eindhoven Ground will give instructions for push-back and taxi.
2. On taxiway turns greater than 90° not allowed.
3. Aircraft with a wingspan of 10 M or less shall request permission from ATC by radio before taxiing on the apron.
4. Aircraft CAT D, E and F: expect progressive taxi instructions from Eindhoven Ground.
5. A marshaller is mandatory at stop position RA1. Contact handling agency for marshalling services.

**5 OPERATIONAL USE OF INTERSECTION TAKE-OFFS**

- ATC may assign an intersection take-off to any aircraft for operational reasons or on request of the pilot.
- During low visibility procedures (visibility  $\leq$  1500 M and/or ceiling  $\leq$  200 FT) limited use of intersection take-offs.

**EHEH AD 2.21 NOISE ABATEMENT PROCEDURES****1 DEPARTURES**

To avoid noise nuisance, pilots of IFR flights and VFR flights (MTOM  $\geq$  2000 KG) shall adhere to the following:

- Departures RWY 03: maintain runway track until 4 DME EHV and climb to at least 1000 FT AMSL.
- Departures RWY 21 to the east: maintain runway track until 3 DME EHV and climb to at least 1000 FT AMSL.
- Departures RWY 21 to the west: at DER 21 turn right to track 220° MAG until 3 DME EHV and climb to at least 1000 FT AMSL.
- RNAV IFR departures RWY 21 to the west: as published in AD 2.22 Flight Procedures.
- RNAV IFR departures RWY 21 only allowed for aircraft with aerodrome reference code  $\leq$  C.

## 2 ARRIVALS

- To avoid noise nuisance, all aircraft with a MTOM  $\geq$  2000 KG shall perform an instrument approach profile.
- For noise abatement, reduced flaps landing procedures are recommended. However use of this procedure is subject to captain's decision and safety prevails at all times.
- Full reverse thrust should not be used due to noise abatement. Full reverse thrust shall only be used when required for safety reasons. Home based aircraft must only use idle reverse thrust for their last landing of the day.
- Only flight operations with the following aircraft types are allowed: aircraft with the noise performance according to ICAO Annex 16, Chapter 4 and higher.
- For noise abatement, arrivals RWY 21 are requested to apply a reduced-engine taxi-in (RETI) procedure. However, use of this procedure is subject to captain's decision and safety prevails at all times.

## EHEH AD 2.22 FLIGHT PROCEDURES

### 1 INSTRUMENT DEPARTURE PROCEDURES

#### 1.1 Introduction

The instrument departure procedures are based on ICAO Annex 2 and ICAO Doc 4444-ATM/501 (PANS-ATM), Doc 7030 (SUPPS) and Doc 8168-OPS/611 (PANS-OPS).

**Note:** Eindhoven airport and TMAs are situated in the Nieuw Milligen TMA D classified E between 1500 FT and FL 065. VFR flights without ATC clearance are permitted in that part of the Nieuw Milligen TMA D. For such flights, radio communication is not compulsory.

**Note:** to avoid noise disturbances pilots shall adhere to the IFR departure procedures as depicted.

#### 1.2 Instrument departure procedures

##### 1.2.1 Start-up and push-back permission

A request for start-up and push-back shall be made to Eindhoven Ground, this request shall include:

- aircraft identification (e.g. KLM001).
- position (e.g. S1).
- ATIS information (e.g. information "F").
- flight rules (e.g. IFR).
- destination (e.g. Amsterdam).
- request start-up (e.g. request start-up in 5 minutes).

Permission for start-up will be issued as soon as possible after the request has been made to Eindhoven Ground. The pilot shall be able to comply with the start-up and taxi permission, since ATC planning of outbound traffic (involving en-route clearance and co-ordination with adjacent ATC units) is based on the start-up time. Any delay in start-up or taxiing shall be reported to ATC immediately. In case of indefinite delay, the probable duration of delay will be given.

In case of push-back, the flight crew shall read back to ATC all instructions contained in the push-back clearance. As the flight crew is part of the communication chain between ground controller and truck driver, the flight crew shall also ensure that the complete push-back clearance from ATC is communicated word-for-word to the push-back crew. Therefore, the use of a ground engineer with an intercom connection is recommended. When intercom connection with a ground engineer is not possible, the pilot shall inform Eindhoven Ground.

Standard push-back directions from the stands are in force. To expedite traffic flow, instructions can be given for an "alternative push-back". The aircraft will then be pushed in the direction and location instructed by Eindhoven Ground.

During ATIS OPR HR (see EHEH AD 2.18) no MET information will be issued to departing aircraft, except RVR.

##### 1.2.2 En-route clearance

###### 1.2.2.1 Contents

Report 5 minutes prior to push-back and/or start-up for an en-route clearance request.

When RWY 21 is in use, anticipate a departure from intersection L2. In case a full length take-off run is required, inform Eindhoven Ground prior to push-back.

An en-route clearance contains:

- a. Clearance limit: airport of destination.
- b. Standard instrument departure (SID).
- c. Level instructions if applicable.
- d. SSR code.
- e. Departure instructions if applicable.

Example of an en-route clearance: "KLM001 cleared to Amsterdam, PESER 2J Departure FL 060, squawk 7001".

###### 1.2.2.2 Standard instrument departures

The instrument departure procedures are laid down in standard instrument departures (SIDs). SIDs are designated in accordance with ICAO Annex 11. SID designation is composed of the following elements:

- a basic indicator, i.e. a significant point.
- a validity indicator, i.e. a number from 1 to 9 indicating the valid version of a specific SID.
- a route indicator, i.e. a letter representing the runway where the SID begins.

SIDs are published for RWY 03 and 21.

**Note:** if not able to comply with the crossing conditions prescribed in the SIDs, inform Eindhoven TWR before departure.



**1.2.2.3 Departure instructions (paragraph 1.2.2.1, item e)**

Instructions containing deviations from the SID may be added to the en-route or take-off clearance. These instructions may comprise an opposite turn after take-off, maintaining a specified heading or temporary altitude restrictions; they amend the relevant part of the SID only.

**1.3 Communication failure**

- Select transponder code 7600.
- If possible call Amsterdam ACC Supervisor on telephone number +31 (0)20 406 3999.

**Note:** Use telephone connection to mitigate COM failure only. All telephone calls will be automatically recorded.

- If telephone connection is disconnected prematurely (before read-back), revert to general communication failure procedure (see ENR 1.3).

**1.4 SID descriptions****1.4.1 General remarks**

- Transition altitude: 3000 FT AMSL.
- Turn radii based on a 25° bank angle.
- Radial interception angle: 45°.
- The SIDs are based on an average climb rate of 2000 FT/MIN.
- For continuous routings and crossing conditions on ATS routes as applicable see paragraph 1.4.3.
- SIDs have to be considered as minimum noise routings which shall be strictly adhered to.
- MAX 250 KIAS below FL 100 unless otherwise instructed.
- Initiate turns in due time in order not to overshoot radials.
- **Additional departure instructions:** especially propeller-driven aircraft can expect additional departure instructions. These instructions may be added to the en-route or take-off clearance and may comprise a specific heading or temporary altitude restriction. Such additives amend the relevant part of the SID only.
- **RNAV:** the Netherlands highly recommends the use of pre-programmed (RNAV) routes on board of aircraft. Within the TMAs these RNAV routes shall be considered as overlays of conventional routes, except the ABNED #S, INKET #S, PESER #S, TULIP #S and WOODY #S SIDs. An RNAV route may result in a different flight path (vertically: turn altitudes and/or laterally: turn anticipation effects) compared to the conventional route. By making use of the FMS route functionalities, a significant part of the noise production is shifted to less sensitive noise areas. Therefore, using RNAV will not result in route violations. The description of the published SIDs is extended with additional information intended for database coding only. The ABNED #S, INKET #S, PESER #S, TULIP #S and WOODY #S SIDs however, are mandatory for aircraft with an RNAV 1 approval. The SIDs are provided with:

1. EH-waypoints. These points define unnamed intersections, turning points, positions etc.
2. Route definition by means of publishing the sequence of relevant waypoints. It is prohibited to code other waypoints.
3. A FMS-coding advice for B-737 aircraft as result of trials with the PDT (Procedure Design Tool) which is a FMS simulator for PCs predicting flight path. With the help of PDT all departures at Eindhoven AP have been checked on flyability and adherence to the desired ground path (within acceptable limits), covering more extreme flight conditions.

Furthermore:

- Database programmers must be aware that due to algorithms built-in FMCs not all conventional NAV instructions need to be part of the coding in order to work properly.
- Due to the computer algorithms the flightpath of aircraft using RNAV overlays may deviate slightly from the conventional route. This will occur particularly during turns.
- Connect FMS and autopilot as early as possible
- The EH-waypoints shall not be used in RTF procedures.
- Turn anticipation is mandatory for all waypoints except those which are underlined, these waypoints shall be overflown.
- The navigation aid (e.g. VOR) mentioned in the column "Expected path terminator" is for selection of MAG station declination only.

**1.4.2 Specific remarks**

1. Only for aircraft with destination EBBR or EBAW.
2. Only for aircraft with destination EHRD, MAX FL 075.
3. Only for aircraft with destination EHBK.
4. Only for aircraft with destination EHAM, MAX FL 075.
5. Only for aircraft with destination EHGG and EHLE, MAX FL 095.
6. Prohibited for aircraft operators with RNAV 1 approval and able to comply with crossing conditions prescribed in the SID operating with aircraft with 2 or more engines.
7. RNAV 1 required.

**1.4.3 Continuous routings for SIDs with crossing conditions on ATS routes as applicable**

**Note:** REF EHEH AD 2.22, paragraph 1.2.2 "En-route clearance". If not able to comply with the crossing conditions prescribed in the SIDs, inform Eindhoven start-up control before take-off.

**LNO Departures**

N852	If the requested flight level is above FL 095, cross OSGOS at or above FL 100. Expect radar vectors by Dutch MIL if unable to cross FL 100 in time.
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1.4.4 SIDs RWY 03

<b>ABNED 2J</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to maintain FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[ABNE2J]</b>	To EH550 on course 033° MAG, turn left	EH550 [M033; L]	CF (MAS)	Y
	Direct to EH556 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH556 [A3000+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To HAMZA	HAMZA	TF	N
	To ABNED	ABNED	TF	N
<b>ELSIK 3J</b>	See paragraph 1.4.2 specific remark: 1, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[ELSI3J]</b>	To EH550 on course 033° MAG, turn left	EH550 [M033; L]	CF (MAS)	Y
	Direct to EH557 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH557 [A3000+; K220-]	DF	N
	To ELSIK	ELSIK	TF	N
<b>INKET 4J</b>	See paragraph 1.4.2 specific remark: 2. After departure climb to FL 050.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[INKE4J]</b>	To EH550 on course 033° MAG, turn left	EH550 [M033; L]	CF (MAS)	Y
	Direct to EH566 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH566 [A3000+; K220-]	DF	N
	To EH554 at or below FL 050	EH554 [F050-]	TF	N
	To INKET at or below FL 050	INKET [F050-]	TF	N
<b>Conventional description</b>	Lateral: Track 033° MAG. At 4.0 EHV turn left (MAX 220 KIAS) to track 292° MAG to intercept RTM R-130 inbound to INKET (14.4 RTM). Vertical: Cross 7.0 EHV at or above 3000 FT AMSL.			
<b>LNO 5J</b>	See paragraph 1.4.2 specific remark: -. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[LNO5J]</b>	To EH550 on course 033° MAG, turn right	EH550 [M033; R]	CF (MAS)	Y
	Direct to EH552 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH552 [A3000+; K220-]	DF	N
	To EH575	EH575	TF	N
	To SOPVI	SOPVI	TF	N
	To OSGOS	OSGOS	TF	N
	To EDUMA	EDUMA	TF	N
	To LNO	LNO	TF	N
<b>Conventional description</b>	Lateral: Track 033° MAG. At 4.0 EHV turn right (MAX 220 KIAS) to track 104° MAG. At 9.0 EHV turn right to track 145° MAG to SOPVI to intercept MAS R-351 inbound to OSGOS to EDUMA (7.5 MAS) to intercept LNO R-014 inbound to LNO VOR. Vertical: Cross 7.0 EHV at or above 3000 FT AMSL.			
<b>OSGOS 3J</b>	See paragraph 1.4.2 specific remark: 3. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[OSGO3J]</b>	To EH550 on course 033° MAG, turn right	EH550 [M033; R]	CF (MAS)	Y
	Direct to EH552 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH552 [A3000+; K220-]	DF	N
	To EH575	EH575	TF	N
	To SOPVI	SOPVI	TF	N
	To OSGOS	OSGOS	TF	N
<b>Conventional description</b>	Lateral: Track 033° MAG. At 4.0 EHV turn right (MAX 220 KIAS) to track 104° MAG. At 9.0 EHV turn right to track 145° MAG to SOPVI to intercept MAS R-351 inbound to OSGOS (12.8 MAS). Vertical: Cross 7.0 EHV at or above 3000 FT AMSL.			

<b>PESER 3J</b>	See paragraph 1.4.2 specific remark: 4, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[PESE3J]</b>	To <u>EH550</u> on course 033° MAG, turn left	<u>EH550</u> [M033; L]	CF (MAS)	Y
	Direct to EH556 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH556 [A3000+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To PESER	PESER	TF	N
<b>TENLI 2J</b>	See paragraph 1.4.2 specific remark: 5, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[TENL2J]</b>	To <u>EH550</u> on course 033° MAG, turn right	<u>EH550</u> [M033; R]	CF (MAS)	Y
	Direct to EH552 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH552 [A3000+; K220-]	DF	N
	To EH575	EH575	TF	N
	To RUMER at FL 060	RUMER [F060 ]	TF	N
	To BASGU	BASGU	TF	N
	To NIHOF	NIHOF	TF	N
	To TENLI	TENLI	TF	N
<b>TULIP 6J</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[TULI6J]</b>	To <u>EH550</u> on course 033° MAG, turn left	<u>EH550</u> [M033; L]	CF (MAS)	Y
	Direct to EH556 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH556 [A3000+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To HAMZA	HAMZA	TF	N
	To TULIP	TULIP	TF	N
<b>VELNI 2J</b>	See paragraph 1.4.2 specific remark: -. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[VELN2J]</b>	To <u>EH550</u> on course 033° MAG, turn right	<u>EH550</u> [M033; R]	CF (MAS)	Y
	Direct to EH552 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH552 [A3000+; K220-]	DF	N
	To EH575	EH575	TF	N
	To VELNI	VELNI	TF	N
<b>Conventional description</b>	Lateral: Track 033° MAG. At 4.0 EHV turn right (MAX 220 KIAS) to track 104° MAG. At 10.0 EHV turn left to track 081° MAG (QDM BOT 081°) to VELNI (31.3 EHV). Vertical: Cross 7.0 EHV at or above 3000 FT AMSL.			
<b>WOODY 5J</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[WOOD5J]</b>	To <u>EH550</u> on course 033° MAG, turn left	<u>EH550</u> [M033; L]	CF (MAS)	Y
	Direct to EH556 at or above 3000 FT AMSL, MAX 220 KIAS	=> EH556 [A3000+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To RONSA	RONSA	TF	N
	To WOODY	WOODY	TF	N

**1.4.5 SIDs RWY 21**

<b>ABNED 2K</b>	See paragraph 1.4.2 specific remark: 6, 7. After departure climb to maintain FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[ABNE2K]</b>	To EH599 on course 220° MAG, turn right	EH599 [M220; R]	CF (MAS)	Y
	Direct to EH556 at or above 3500 FT AMSL, MAX 220 KIAS	=> EH556 [A3500+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To HAMZA	HAMZA	TF	N
	To ABNED	ABNED	TF	N
<b>ABNED 2S</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to maintain FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[ABNE2S]</b>	To EH597 on course 213° MAG, at or above 500 FT AMSL turn right	EH597 [M213; A500+; R]	CF (MAS)	Y
	To EH598 on course 342° MAG at or above 3000 FT AMSL, MAX 220 KIAS	=> EH598 [M342; A3000+; K220-]	CF (MAS)	N
	To EH556 at or above 3500 FT AMSL	EH556 [A3500+]	TF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To HAMZA	HAMZA	TF	N
	To ABNED	ABNED	TF	N
<b>ELSIK 4K</b>	See paragraph 1.4.2 specific remark: 1, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[ELSI4K]</b>	To EH560 on course 213° MAG, at or above 3000 FT AMSL	EH560 [M213; A3000+]	CF (MAS)	N
	To EH561	EH561	TF	N
	To ELSIK	ELSIK	TF	N
<b>INKET 4K</b>	See paragraph 1.4.2 specific remarks: 2, 6. After departure climb to FL 050.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[INKE4K]</b>	To EH599 on course 220° MAG, turn right	EH599 [M220; R]	CF (MAS)	Y
	Direct to EH556 at or above 3500 FT AMSL, MAX 220 KIAS	=> EH556 [A3500+; K220-]	DF	N
	To EH554 at or below FL 050	EH554 [F050-]	TF	N
	To INKET at or below FL 050	INKET [F050-]	TF	N
<b>Conventional description</b>	Lateral: At DER 21 turn right to track 220° MAG. At 3.0 EHV turn right (MAX 220 KIAS) to track 337° MAG to intercept RTM R-130 inbound to INKET (14.4 RTM). Vertical: Cross 7.0 EHV at or above 3500 FT AMSL.			
<b>INKET 1S</b>	See paragraph 1.4.2 specific remarks: 2, 7. After departure climb to FL 050.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[INKE1S]</b>	To EH597 on course 213° MAG, at or above 500 FT AMSL turn right	EH597 [M213; A500+; R]	CF (MAS)	Y
	To EH598 on course 342° MAG at or above 3000 FT AMSL, MAX 220 KIAS	=> EH598 [M342; A3000+; K220-]	CF (MAS)	N
	To INKET at or below FL 050	INKET [F050-]	TF	N

<b>LNO 6K</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[LNO6K]</b>	To <u>EH558</u> on course 213° MAG, turn left	<u>EH558</u> [M213; L]	CF (MAS)	Y
	To EH562 on course 089° MAG, at or above 3000 FT AMSL, MAX 220 KIAS	EH562 [M089, A3000+, K220-]	CF (MAS)	N
	To EH570	EH570	TF	N
	To SOPVI	SOPVI	TF	N
	To OSGOS	OSGOS	TF	N
	To EDUMA	EDUMA	TF	N
	To LNO	LNO	TF	N
<b>OSGOS 4K</b>	See paragraph 1.4.2 specific remark: 3, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[OSGO4K]</b>	To <u>EH558</u> on course 213° MAG, turn left	<u>EH558</u> [M213; L]	CF (MAS)	Y
	To EH562 on course 089° MAG, at or above 3000 FT AMSL, MAX 220 KIAS	EH562 [M089, A3000+, K220-]	CF (MAS)	N
	To EH570	EH570	TF	N
	To SOPVI	SOPVI	TF	N
	To OSGOS	OSGOS	TF	N
<b>PESER 4K</b>	See paragraph 1.4.2 specific remarks: 4, 6. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[PESE4K]</b>	To <u>EH599</u> on course 220° MAG, turn right	<u>EH599</u> [M220; R]	CF (MAS)	Y
	Direct to EH556 at or above 3500 FT AMSL, MAX 220 KIAS	=> EH556 [A3500+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To PESER	PESER	TF	N
<b>PESER 1S</b>	See paragraph 1.4.2 specific remarks: 4, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[PESE1S]</b>	To <u>EH597</u> on course 213° MAG, at or above 500 FT AMSL turn right	<u>EH597</u> [M213; A500+; R]	CF (MAS)	Y
	To EH598 on course 342° MAG at or above 3000 FT AMSL, MAX 220 KIAS	=> EH598 [M342; A3000+; K220-]	CF (MAS)	N
	To EH556 at or above 3500 FT AMSL	EH556 [A3500+]	TF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To PESER	PESER	TF	N
<b>TENLI 2K</b>	See paragraph 1.4.2 specific remark: 5, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[TENL2K]</b>	To <u>EH558</u> on course 213° MAG, turn left	<u>EH558</u> [M213; L]	CF (MAS)	Y
	To EH576 on course 089° MAG, MAX 220 KIAS	=> EH576 [M089; K220]	CF (MAS)	N
	To EH577 at or above 3000 FT AMSL	EH577 [A3000+]	TF	N
	To RUMER at FL 060	RUMER [F060]	TF	N
	To BASGU	BASGU	TF	N
	To NIHOF	NIHOF	TF	N
	To TENLI	TENLI	TF	N

<b>TULIP 6K</b>	See paragraph 1.4.2 specific remark: 6, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[TULI6K]</b>	To <u>EH599</u> on course 220° MAG, turn right	<u>EH599</u> [M220; R]	CF (MAS)	Y
	Direct to <u>EH556</u> at or above 3500 FT AMSL, MAX 220 KIAS	=> <u>EH556</u> [A3500+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To HAMZA	HAMZA	TF	N
	To TULIP	TULIP	TF	N
<b>TULIP 2S</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[TULI2S]</b>	To <u>EH597</u> on course 213° MAG, at or above 500 FT AMSL turn right	<u>EH597</u> [M213; A500+; R]	CF (MAS)	Y
	To <u>EH598</u> on course 342° MAG at or above 3000 FT AMSL, MAX 220 KIAS	=> <u>EH598</u> [M342; A3000+; K220-]	CF (MAS)	N
	To <u>EH556</u> at or above 3500 FT AMSL	<u>EH556</u> [A3500+]	TF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To HAMZA	HAMZA	TF	N
	To TULIP	TULIP	TF	N
<b>VELNI 4K</b>	See paragraph 1.4.2 specific remark: -. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[VELN4K]</b>	To <u>EH558</u> on course 213° MAG, turn left	<u>EH558</u> [M213; L]	CF (MAS)	Y
	To <u>EH562</u> on course 089° MAG, at or above 3000 FT AMSL, MAX 220 KIAS	<u>EH562</u> [M089, A3000+, K220-]	CF (MAS)	N
	To YOGCE	YOGCE	TF	N
	To VELNI	VELNI	TF	N
<b>Conventional description</b>	Lateral: Track 213° MAG. At 3.0 EHV turn left to track 089° MAG. At 11.0 EHV turn left to intercept BUN R-062 to VELNI (56.7 BUN). Vertical: Cross 7.0 EHV at or above 3000 FT AMSL.			
<b>VELNI 1S</b>	See paragraph 1.4.2 specific remark: 7. Minimum climb gradient: 5.7% 500 FT AMSL. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[VELN1S]</b>	To <u>EH559</u> on course 213° MAG, turn left	<u>EH559</u> [M213;L]	CF (MAS)	Y
	To <u>EH562</u> on course 089° MAG, at or above 3000 FT AMSL, MAX 220 KIAS	<u>EH562</u> [M089, A3000+, K220-]	CF (MAS)	N
	To YOGCE	YOGCE	TF	N
	To VELNI	VELNI	TF	N
<b>WOODY 5K</b>	See paragraph 1.4.2 specific remark: 6, 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[WOOD5K]</b>	To <u>EH599</u> on course 220° MAG, turn right	<u>EH599</u> [M220; R]	CF (MAS)	Y
	Direct to <u>EH556</u> at or above 3500 FT AMSL, MAX 220 KIAS	=> <u>EH556</u> [A3500+; K220-]	DF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To RONSA	RONSA	TF	N
	To WOODY	WOODY	TF	N

<b>WOODY 1S</b>	See paragraph 1.4.2 specific remark: 7. After departure climb to FL 060.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[WOOD1S]</b>	To EH597 on course 213° MAG, at or above 500 FT AMSL turn right	EH597 [M213; A500+; R]	CF (MAS)	Y
	To EH598 on course 342° MAG at or above 3000 FT AMSL, MAX 220 KIAS	=> EH598 [M342; A3000+; K220-]	CF (MAS)	N
	To EH556 at or above 3500 FT AMSL	EH556 [A3500+]	TF	N
	To BREDA at or above FL 060	BREDA [F060+]	TF	N
	To RONSA	RONSA	TF	N
	To WOODY	WOODY	TF	N

## 2 INSTRUMENT APPROACH PROCEDURES

### 2.1 Introduction

The arrival, instrument approach and holding procedures are based on ICAO Annex 2 and ICAO Doc 4444-ATM/501 (PANS-ATM), Doc 7030 (SUPPS) and Doc 8168-OPS/611 (PANS-OPS). During initial and intermediate approach to Eindhoven Airport radar service may be provided by MILATCC Schiphol (Dutch MIL), RAPCON South and/or Eindhoven Arrival (DIR).

**Note:** Eindhoven airport and TMAs are situated in the Nieuw Milligen TMA D classified E between 1500 FT and FL 065. VFR flights without ATC clearance are permitted in that part of the Nieuw Milligen TMA D. For such flights, radio communication is not compulsory.

**Note:** to avoid noise disturbances pilots shall adhere to the IFR approach procedures as depicted.

**Note:** exercise caution when intercepting the glide slope from above as this increases the risk of false glide slope capture.

### 2.2 Arrival

#### 2.2.1 Arrival clearance

Before entering the Nieuw Milligen TMA D, an arrival clearance will be issued by Amsterdam ACC or MILATCC Schiphol containing:

- Standard arrival route<sup>1)</sup> or direct route.
- Main landing runway<sup>2)</sup>.
- Level instructions (normally descent instructions).
- Any other necessary instructions or information.

<sup>1)</sup> when cleared via a standard arrival route (STAR), the clearance limit is the initial approach fix (IAF).

<sup>2)</sup> issued by ATIS (see EHEH AD 2.18) or ATC.

#### 2.2.2 Level restriction

Flights via DENUT should comply with the following crossing condition: cross DENUT at FL 180 or below, unless otherwise instructed.

#### 2.2.3 STAR descriptions

See charts AD 2.EHEH-STAR-1 and AD 2.EHEH-STAR-2.

<b>COA 5E</b>	RNAV 1 required.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[COA5E]</b>	COA, at or below FL 050	COA [F50-]	IF	N
	To RIMBU	RIMBU	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N

<b>DENUT 2E</b>	RNAV 1 required.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[DENU2E]</b>	DENUT, at or below FL 180	DENUT [F180-]	IF	N
	To RIMBU	RIMBU	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N

<b>ELSIK 2E</b>	RNAV 1 required. ACFT from EBAW and EBBR only.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[ELSI2E]</b>	ELSIK	ELSIK	IF	N
	To EHOJI	EHOJI	TF	N

<b>HELEN 6E</b>	RNAV 1 required. ACFT from EBAW, EBBR and EBMB only.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[HELE6E]</b>	HELEN	HELEN	IF	N
	To RIMBU	RIMBU	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N

<b>INKET 3E</b>	RNAV 1 required. ACFT from EHRD only.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[INKE3E]</b>	INKET	INKET	IF	N
	To EHOJI	EHOJI	TF	N

<b>LAMSO 4E</b>	RNAV 1 required.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[LAMS4E]</b>	LAMSO	LAMSO	IF	N
	To HAMZA	HAMZA	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N

<b>LNO 4E</b>	RNAV 1 required.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[LNO4E]</b>	LNO	LNO	IF	N
	To EDUMA	EDUMA	TF	N
	To OSGOS	OSGOS	TF	N
	To SOPVI	SOPVI	TF	N
	To EHOJI	EHOJI	TF	N

<b>LOPIK 2E</b>	RNAV 1 required. ACFT from EHAM only.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[LOPI2E]</b>	LOPIK	LOPIK	IF	N
	To TOTNA	TOTNA	TF	N
	To EHOJI	EHOJI	TF	N

<b>MOLIX 4E</b>	RNAV 1 required.			
<b>ARINC designator</b>	<b>Formal description</b>	<b>Abbreviated description</b>	<b>Expected path terminator</b>	<b>Fly-over required</b>
<b>[MOLI4E]</b>	MOLIX	MOLIX	IF	N
	To HAMZA	HAMZA	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N



OSGOS 2E				
RNAV 1 required.				
ARINC designator	Formal description	Abbreviated description	Expected path terminator	Fly-over required
[OSGO2E]	OSGOS	OSGOS	IF	N
	To SOPVI	SOPVI	TF	N
	To EHOJI	EHOJI	TF	N

REDF4 4E				
RNAV 1 required.				
ARINC designator	Formal description	Abbreviated description	Expected path terminator	Fly-over required
[REDF4E]	REDF4	REDF4	IF	N
	To HAMZA	HAMZA	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N

ROTEK 3E				
RNAV 1 required.				
ARINC designator	Formal description	Abbreviated description	Expected path terminator	Fly-over required
[ROTE3E]	ROTEK	ROTEK	IF	N
	To EHOJI	EHOJI	TF	N

RUMER 2E				
RNAV 1 required. ACFT from EHGK and EHLE only.				
ARINC designator	Formal description	Abbreviated description	Expected path terminator	Fly-over required
[RUMER 2E]	RUMER	RUMER	IF	N
	To EHOJI	EHOJI	TF	N

TOPPA 4E				
RNAV 1 required.				
ARINC designator	Formal description	Abbreviated description	Expected path terminator	Fly-over required
[TOPP4E]	TOPPA	TOPPA	IF	N
	To HAMZA	HAMZA	TF	N
	To LIKDO	LIKDO	TF	N
	To TUPAK	TUPAK	TF	N
	To IPTAS	IPTAS	TF	N
	To EHOJI	EHOJI	TF	N

## 2.2.4 Holding descriptions

Standard holding is located at the IAF EHOJI. The GILIV holding may be used at ATC discretion. Transition to and from the GILIV holding by ATC radar vectors.

Procedure IDENT	WPT IDENT	Fly-over required	Direction MAG	Time (MIN)	Turn direction	Altitude (FT / FL)	MAX Speed (KIAS)	NAV specification
GILIV	GILIV	Y	315	2	R	B FL 140 FL 070	220	RNAV 1

## 2.3 Initial approach

### 2.3.1 General procedures

Holding and entry procedures and the calculations of the associated protected areas are in accordance with PANS-OPS Volume II, part 4. Since separation is based on the calculated areas, compliance with these in-flight procedures is essential.

### 2.3.2 Approach instructions

Approach instructions will contain as applicable:

- Additional instructions with respect to clearance limit, route and level.
- Approach procedure.
- Runway in use<sup>1)</sup>.
- EAT, if holding procedures are applied.
- QNH.
- Transition level<sup>1)</sup>.
- MET information<sup>1)</sup>.
- Runway condition<sup>1)</sup>.

<sup>1)</sup> During ATIS OPR HR (see EHEH AD 2.18) this item may be omitted when included in the ATIS broadcast.

### 2.3.3 RNAV approach procedures

An RNAV approach procedure will be initiated by ATC in order to reduce noise nuisance, fuel consumption, and to provide flexible and efficient ATC dispatch.

#### 2.3.3.1 General

The RNAV approach procedures are developed in accordance with ICAO PANS-OPS criteria with the following safeguards:

- The RNAV section of the inbound route is situated above MSA/MFA/MVA.
- The RNAV part is complete on entering the intermediate segment in which ILS-LOC interception takes place.
- If radar service is available the operations will be radar monitored by ATC.

#### 2.3.3.2 Clearances and constraints

On initiative of ATC, pilots may be instructed to fly an RNAV approach procedure preceding the ILS, LOC, Baro-VNAV or LNAV instrument approach to RWY 03 or RWY 21.

- The RNAV approach procedure starts at the waypoint IPTAS, OKLOV, RUMER or SOPVI.
- After receiving a clearance for an RNAV approach procedure the pilot is free to optimise the descent and speed within the constraints as laid down in the procedure description, with the objective to establish a low noise continuous descent approach.
- The clearance for the RNAV approach procedure includes clearance to execute the subsequent ILS, LOC, Baro-VNAV or LNAV instrument approach procedure.

Further details are published on the relevant instrument approach charts AD 2.EHEH-IAC-03.2, AD 2.EHEH-IAC-03.3, AD 2.EHEH-IAC-21.2 and AD 2.EHEH-IAC-21.3.

#### 2.3.3.3 Aircraft requirements

For the use of the RNAV approach procedures the following requirements are applicable:

- The aircraft must be equipped with an FMS comprising a pre-loaded navigation database and a navigation display.
- The aircraft FMS must use GNSS as the primary navigation sensor.
- The operator must be approved for RNAV 1 operations by their state of registry.
- To execute the Baro-VNAV or LNAV approach, the operator must hold an RNP APCH operations approval issued by their state of registry which should be compliant with EASA AMC 20-27 or equivalent.

#### 2.3.3.4 Non-RNAV equipped aircraft

Pilots of aircraft that are not equipped or approved for TMA RNAV procedures, i.e. not meeting the requirements in paragraph 2.3.3.3, shall inform ATC by use of the phrase "UNABLE (designator) APPROACH DUE RNAV TYPE" if instructed to fly an RNAV approach procedure. These aircraft will be guided by vectors or will be rerouted via conventional navigation aids.

### 2.3.4 Radar service

During the initial and intermediate approach, radar service will be provided by RAPCON South and/or Eindhoven Arrival. Outside operating hours of these radar service units, MILATCC Schiphol (Dutch MIL) will provide radar approach service.

## 2.4 Intermediate and final approach

### 2.4.1 Final approach procedures

**Note:** an aircraft vectored to intercept final approach shall report to ATC when established on the final approach track (ICAO Doc 4444-ATM/501 (PANS-ATM) chapter 8.9.4.1).

#### 2.4.1.1 Instrument approaches

Instrument approaches to RWY 03/21 can be made with the assistance of ILS or RNP.

**Note:** aircraft crossing the runway can cause interference to the ILS signal, which may result in significant ILS signal deviations.

#### 2.4.1.2 Visual approach

A visual approach (only final approach segment) will be allowed or offered if the visibility is at least 5 km and the cloud base at least 2000 ft AMSL. To minimise noise nuisance aircraft executing a visual approach shall intercept the final approach leg at an altitude of at least 1500 ft AMSL.

#### 2.4.1.3 Circling approach

Circling approaches are not allowed.

### 2.4.2 Missed approach procedure

#### 2.4.2.1 General

All turns shall be the shortest turn and in case of a 180° turn that turn shall be to the left, unless otherwise specified below or instructed by ATC.

#### 2.4.2.2 Missed approach procedure during instrument approach

See relevant instrument approach chart AD 2.EHEH-IAC-xx.x.

#### 2.4.2.3 Missed approach procedure during visual approach

Turn to the intended landing runway, intercept the runway track MAG of that runway while:

- a. When visual:

- remain visual and inform ATC, or
- b. When unable to remain visual:
  - climb to 2000 ft AMSL. At 4.0 EHV (RWY 03) or 3.0 EHV (RWY 21) climb to 3000 ft AMSL and inform ATC.

## 2.5 Communication failure

### 2.5.1 General

- Select transponder code 7600.
- If possible call Amsterdam ACC Supervisor on telephone number +31 (0)20 406 3999.  
**Note:** Use telephone connection to mitigate COM failure only. All telephone calls will be automatically recorded.
- If telephone connection is disconnected prematurely (before read-back), revert to general communication failure procedure.

For the general procedures for IFR flights see ENR 1.3 paragraph "Communication Failure". In addition, for arriving flights, the following communication failure procedures apply.

### 2.5.2 Inbound clearance not received

- Proceed according the current flight plan to EHOJI.
- Maintain the last cleared and acknowledged flight level.
- After arrival over EHOJI, intercept the holding pattern.
- Commence descent to 3000 FT AMSL at or as near as possible to the ETO over EHOJI.
- After reaching 3000 FT AMSL leave EHOJI and carry out an instrument approach procedure to RWY 21 (see AD 2.EEH-IAC-xx.x). A circling procedure for the most convenient runway may be carried out (ICAO standard).

### 2.5.3 Inbound clearance received

#### 2.5.3.1 Traffic via standard arrival

- Proceed according the current flight plan to the holding fix specified in the inbound clearance.
- Maintain the last cleared and acknowledged flight level or altitude.
- After arrival over the holding fix, intercept the holding pattern.
- Commence descent to 3000 ft AMSL at the EAT last received and acknowledged.
- When no EAT has been received and acknowledged, commence descent to 3000 ft AMSL at or as near as possible to the ETO over holding fix.
- After reaching 3000 ft AMSL leave the holding and carry out an instrument approach procedure to the assigned runway (see AD 2.EEH-IAC-xx.x).

#### 2.5.3.2 Traffic via CDO approaches no level restriction

- A clearance direct to IPTAS and/or a CDO clearance for IPTAS, OKLOV, RUMER or SOPVI approach received.
- Carry out the instrument approach procedure to the assigned runway (see AD 2.EEH-IAC-xx.x).

#### 2.5.3.3 Traffic via CDO approaches with level restriction

- Descend to last cleared and acknowledged flight level or altitude.
- Upon reaching the last cleared and acknowledged flight level or altitude, proceed to EHOJI and maintain level.
- After arrival over EHOJI, descend to 3000 ft AMSL, if applicable.
- Carry out the instrument approach procedure to the assigned runway (see AD 2.EEH-IAC-xx.x).

#### 2.5.3.4 Traffic vectored to final approach

- Proceed to EHOJI.
- Maintain the last cleared and acknowledged flight level.
- After arrival over EHOJI, descend to 3000 ft AMSL, if applicable.
- Carry out an instrument approach procedure to the assigned runway (see AD 2.EEH-IAC-xx.x).

## 2.5.4 Missed approach procedure in case of communication failure

### 2.5.4.1 General

All turns shall be the shortest turn and in case of a 180° turn that turn shall be to the left, unless otherwise specified below or instructed by ATC.

### 2.5.4.2 Missed approach procedure during instrument approach

See relevant instrument approach chart AD 2.EEH-IAC-xx.x.

### 2.5.4.3 Missed approach procedure during visual approach

Turn to the intended landing runway, intercept the runway track MAG of that runway while:

- a. When visual:
  - remain visual and execute a circuit for that runway or
- b. When unable to remain visual:
  - climb to 2000 ft AMSL.
  - at 4.0 EHV (RWY 03) or 3.0 EHV (RWY 21) climb to 3000 ft AMSL and start the shortest turn to EHOJI.
  - after EHOJI execute the instrument approach procedure as depicted on the relevant approach chart AD 2.EEH-IAC-xx.x.

**2.6 Instrument approach descriptions**

**Note:** for positions of EH waypoints see relevant instrument approach charts.

**Note:** in the tables below, the specification of recommended navaid is for coding purposes only. For legs based upon some path terminators, the aircraft systems use the station declination of the recommended navaid associated with the leg.

**2.6.1 Instrument approach segments RWY 03****2.6.1.1 EHOJI 1D approach RWY 03**

Serial number	Path descriptor	WPT ident	Fly-over	Course/Track °MAG / (°T)	Recom. navaid	Dist. (NM)	Turn	Altitude (FT / FL)	Speed (KIAS)	VPA (°) / TCH (FT)	NAV specification
001	IF	EHOJI	-	-	-	-	-	+ 3000	-	-	RNAV 1
002	TF	EH578	-	259 (260.8)	-	7.0	-	-	-	-	RNAV 1
003	TF	RUSAL	-	213 (214.9)	-	5.0	-	+ 3000	-	-	RNAV 1
004	TF	ERSUL	-	124 (126.0)	-	5.0	-	+ 2000	-	-	RNAV 1
005	TF	EH573	-	033 (034.9)	-	2.1	-	+ 2000	-	-	RNAV 1
006	CF	EH583	-	033 (034.9)	EHZ	2.1	-	-	-	-3.00 / 50	-
007	CF	THR03	Y	033 (034.9)	EHZ	3.8	-	-	-	-3.00 / 50	-
008	CF	EH550	Y	033 (034.9)	EHZ	4.6	-	-	-	-	RNAV 1
009	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
005	TF	EH573	-	033 (034.9)	-	2.1	-	+ 2000	-	-	RNP APCH
006	TF	THR03	Y	033 (034.9)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
007	TF	EH550	Y	033 (034.9)	-	4.6	-	-	-	-	RNP APCH
008	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNP APCH

**2.6.1.2 IPTAS 2D approach RWY 03**

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	IPTAS	-	-	-	-	-	+ FL 070	-	-	RNAV 1
002	TF	EH582	-	103 / (105.3)	-	3.6	-	+ FL 060	-	-	RNAV 1
003	TF	EH595	-	188 / (189.9)	-	6.8	-	+ 4000	-	-	RNAV 1
004	TF	RUSAL	-	188 / (189.9)	-	8.0	-	-	-	-	RNAV 1
005	TF	ERSUL	-	124 / (126.0)	-	5.0	-	+ 2000	-	-	RNAV 1
006	TF	EH573	-	033 / (034.9)	-	2.1	-	+ 2000	-	-	RNAV 1
007	CF	EH583	-	033 / (034.9)	EHZ	2.1	-	-	-	-3.00 / 50	-
008	CF	THR 03	Y	033 / (034.9)	EHZ	3.8	-	-	-	-3.00 / 50	-
009	CF	EH550	Y	033 / (035.0)	EHZ	4.6	-	-	-	-	RNAV 1
010	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
006	TF	EH573	-	033 / (034.9)	-	2.1	-	-	-	-	RNP APCH
007	TF	THR 03	Y	033 / (034.9)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
008	TF	EH550	Y	033 / (035.0)	-	4.6	-	-	-	-	RNP APCH
009	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNP APCH

**2.6.1.3 OKLOV 2D approach RWY 03**

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	OKLOV	-	-	-	-	-	-	-	-	RNAV 1
002	TF	EH589	-	216 / (218.0)	-	8.5	-	+ FL 070	-	-	RNAV 1
003	TF	DERUV	-	223 / (225.4)	-	4.7	-	+ FL 060	-	-	RNAV 1
004	TF	SOMEM	-	223 / (225.3)	-	9.3	-	-	-	-	RNAV 1
005	TF	EH588	-	251 / (252.7)	-	7.6	-	+ 4000	-	-	RNAV 1
006	TF	MITSA	-	251 / (252.5)	-	3.4	-	-	-	-	RNAV 1
007	TF	ERSUL	-	302 / (303.8)	-	5.0	-	+ 2000	-	-	RNAV 1
008	TF	EH573	-	033 / (034.9)	-	2.1	-	+ 2000	-	-	RNAV 1
009	CF	EH583	-	033 / (034.9)	EHZ	2.1	-	-	-	-3.00 / 50	-

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
010	CF	THR 03	Y	033 / (034.9)	EHZ	3.8	-	-	-	-3.00 / 50	-
011	CF	EH550	Y	033 / (035.0)	EHZ	4.6	-	-	-	-	RNAV 1
012	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
008	TF	EH573	-	033 / (034.9)	-	2.1	-	-	-	-	RNP APCH
009	TF	THR 03	Y	033 / (034.9)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
010	TF	EH550	Y	033 / (035.0)	-	4.6	-	-	-	-	RNP APCH
011	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNP APCH

## 2.6.1.4 RUMER 2D approach RWY 03

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	RUMER	-	-	-	-	-	-	-	-	RNAV 1
002	TF	EH590	-	194 / (195.6)	-	1.7	-	+ FL 070	-	-	RNAV 1
003	TF	DERUV	-	194 / (195.6)	-	8.9	-	+ FL 060	-	-	RNAV 1
004	TF	SOMEM	-	223 / (225.3)	-	9.3	-	-	-	-	RNAV 1
005	TF	EH588	-	251 / (252.7)	-	7.6	-	+ 4000	-	-	RNAV 1
006	TF	MITSA	-	251 / (252.5)	-	3.4	-	-	-	-	RNAV 1
007	TF	ERSUL	-	302 / (303.8)	-	5.0	-	+ 2000	-	-	RNAV 1
008	TF	EH573	-	033 / (034.9)	-	2.1	-	+ 2000	-	-	RNAV 1
009	CF	EH583	-	033 / (034.9)	EHZ	2.1	-	-	-	-3.00 / 50	-
010	CF	THR 03	Y	033 / (034.9)	EHZ	3.8	-	-	-	-3.00 / 50	-
011	CF	EH550	Y	033 / (035.0)	EHZ	4.6	-	-	-	-	RNAV 1
012	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
008	TF	EH573	-	033 / (034.9)	-	2.1	-	-	-	-	RNP APCH
009	TF	THR 03	Y	033 / (034.9)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
010	TF	EH550	Y	033 / (035.0)	-	4.6	-	-	-	-	RNP APCH
011	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNP APCH

## 2.6.1.5 SOPVI 2D approach RWY 03

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	SOPVI	-	-	-	-	-	-	-	-	RNAV 1
002	TF	EH586	-	296 / (298.3)	-	5.1	-	+ FL 070	-	-	RNAV 1
003	TF	EH587	-	296 / (298.2)	-	3.6	-	+ FL 060	-	-	RNAV 1
004	TF	SOMEM	-	296 / (298.1)	-	2.9	-	-	-	-	RNAV 1
005	TF	EH588	-	251 / (252.7)	-	7.6	-	+ 4000	-	-	RNAV 1
006	TF	MITSA	-	251 / (252.5)	-	3.4	-	-	-	-	RNAV 1
007	TF	ERSUL	-	302 / (303.8)	-	5.0	-	+ 2000	-	-	RNAV 1
008	TF	EH573	-	033 / (034.9)	-	2.1	-	+ 2000	-	-	RNAV 1
009	CF	EH583	-	033 / (034.9)	EHZ	2.1	-	-	-	-3.00 / 50	-
010	CF	THR 03	Y	033 / (034.9)	EHZ	3.8	-	-	-	-3.00 / 50	-
011	CF	EH550	Y	033 / (035.0)	EHZ	4.6	-	-	-	-	RNAV 1
012	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
008	TF	EH573	-	033 / (034.9)	-	2.1	-	-	-	-	RNP APCH
009	TF	THR 03	Y	033 / (034.9)	-	5.9	-	-	-	-3.00 / 50	RNP APCH

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
010	TF	EH550	Y	033 / (035.0)	-	4.6	-	-	-	-	RNP APCH
011	DF	EHOJI	-	-	-	-	L	@ 3000	-	-	RNP APCH

## 2.6.2 Instrument approach segments RWY 21

### 2.6.2.1 EHOJI 1F approach RWY 21

Serial number	Path descriptor	WPT ident	Fly-over	Course/Track °MAG / (°T)	Recom. navaid	Dist. (NM)	Turn	Altitude (FT / FL)	Speed (KIAS)	VPA (°) / TCH (FT)	NAV specification
001	IF	EHOJI	-	-	-	-	-	+ 3000	-	-	RNAV 1
002	TF	EH579	-	344 (345.6)	-	6.6	-	-	-	-	RNAV 1
003	TF	BESTI	-	033 (035.0)	-	5.0	-	+ 3000	-	-	RNAV 1
004	TF	GILIV	-	122 (124.2)	-	5.0	-	+ 2000	-	-	RNAV 1
005	TF	EH567	-	213 (215.1)	-	4.1	-	+ 2000	-	-	RNAV 1
006	CF	EH584	-	213 (215.1)	EHO	2.1	-	-	-	-3.00 / 50	-
007	CF	THR21	Y	213 (215.1)	EHO	3.8	-	-	-	-3.00 / 50	-
008	CF	EH558	Y	213 (215.1)	EHO	3.8	-	-	-	-	RNAV 1
009	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
005	TF	EH567	-	213 (215.1)	-	2.1	-	+ 2000	-	-	RNP APCH
006	TF	THR21	Y	213 (215.1)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
007	TF	EH558	Y	213 (215.1)	-	3.8	-	-	-	-	RNP APCH
008	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNP APCH

### 2.6.2.2 IPTAS 2F approach RWY 21

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	IPTAS	-	-	-	-	-	+ FL 070	-	-	RNAV 1
002	TF	EH582	-	103 / (105.3)	-	3.6	-	+ FL 060	-	-	RNAV 1
003	TF	EH594	-	089 / (091.2)	-	5.3	-	-	-	-	RNAV 1
004	TF	BESTI	-	065 / (066.5)	-	3.4	-	+ 4000	-	-	RNAV 1
005	TF	GILIV	-	122 / (124.2)	-	5.0	-	+ 2000	-	-	RNAV 1
006	TF	EH567	-	213 / (215.1)	-	4.1	-	+ 2000	-	-	RNAV 1
007	CF	EH584	-	213 / (215.1)	EHO	2.1	-	-	-	-3.00 / 50	-
008	CF	THR 21	Y	213 / (215.1)	EHO	3.8	-	-	-	-3.00 / 50	-
009	CF	EH558	Y	213 / (215.0)	EHO	3.8	-	-	-	-	RNAV 1
010	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
006	TF	EH567	-	213 / (215.1)	-	2.1	-	-	-	-	RNP APCH
007	TF	THR 21	Y	213 / (215.1)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
008	TF	EH558	Y	213 / (215.0)	-	3.8	-	-	-	-	RNP APCH
009	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNP APCH

### 2.6.2.3 OKLOV 2F approach RWY 21

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	OKLOV	-	-	-	-	-	-	-	-	RNAV 1
002	TF	EH589	-	216 / (218.0)	-	8.5	-	+ FL 070	-	-	RNAV 1
003	TF	DERUV	-	223 / (225.4)	-	4.7	-	+ FL 060	-	-	RNAV 1
004	TF	GEMTI	-	312 / (313.8)	-	8.4	-	+ 4000	-	-	RNAV 1
005	TF	GILIV	-	304 / (306.1)	-	5.0	-	+ 2000	-	-	RNAV 1
006	TF	EH567	-	213 / (215.1)	-	4.1	-	+ 2000	-	-	RNAV 1
007	CF	EH584	-	213 / (215.1)	EHO	2.1	-	-	-	-3.00 / 50	-

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
008	CF	THR 21	Y	213 / (215.1)	EHO	3.8	-	-	-	-3.00 / 50	-
009	CF	EH558	Y	213 / (215.0)	EHO	3.8	-	-	-	-	RNAV 1
010	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
006	TF	EH567	-	213 / (215.1)	-	2.1	-	-	-	-	RNP APCH
007	TF	THR 21	Y	213 / (215.1)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
008	TF	EH558	Y	213 / (215.0)	-	3.8	-	-	-	-	RNP APCH
009	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNP APCH

## 2.6.2.4 RUMER 2F approach RWY 21

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	RUMER	-	-	-	-	-	-	-	-	RNAV 1
002	TF	EH591	-	223 / (225.3)	-	1.5	-	+ FL 070	-	-	RNAV 1
003	TF	VENAV	-	223 / (225.3)	-	3.5	-	+ FL 060	-	-	RNAV 1
004	TF	EH596	-	223 / (225.3)	-	4.4	-	-	-	-	RNAV 1
005	TF	GEMTI	-	312 / (313.7)	-	3.1	-	+ 4000	-	-	RNAV 1
006	TF	GILIV	-	304 / (306.1)	-	5.0	-	+ 2000	-	-	RNAV 1
007	TF	EH567	-	213 / (215.1)	-	4.1	-	+ 2000	-	-	RNAV 1
008	CF	EH584	-	213 / (215.1)	EHO	2.1	-	-	-	-3.00 / 50	-
009	CF	THR 21	Y	213 / (215.1)	EHO	3.8	-	-	-	-3.00 / 50	-
010	CF	EH558	Y	213 / (215.0)	EHO	3.8	-	-	-	-	RNAV 1
011	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
007	TF	EH567	-	213 / (215.1)	-	2.1	-	-	-	-	RNP APCH
008	TF	THR 21	Y	213 / (215.1)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
009	TF	EH558	Y	213 / (215.0)	-	3.8	-	-	-	-	RNP APCH
010	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNP APCH

## 2.6.2.5 SOPVI 2F approach RWY 21

Serial number	Path descriptor	WPT ident	Fly over	Course MAG° / (T°)	Recommended navaid	Distance (NM)	Turn	Altitude (ft AMSL)	Speed (KIAS)	VPA (°) / TCH (ft)	NAV specification
001	IF	SOPVI	-	-	-	-	-	-	-	-	RNAV 1
002	TF	EH585	-	342 / (343.7)	-	5.7	-	+ FL 070	-	-	RNAV 1
003	TF	DERUV	-	342 / (343.7)	-	6.8	-	+ FL 060	-	-	RNAV 1
004	TF	GEMTI	-	312 / (313.8)	-	8.4	-	+ 4000	-	-	RNAV 1
005	TF	GILIV	-	304 / (306.1)	-	5.0	-	+ 2000	-	-	RNAV 1
006	TF	EH567	-	213 / (215.1)	-	4.1	-	+ 2000	-	-	RNAV 1
007	CF	EH584	-	213 / (215.1)	EHO	2.1	-	-	-	-3.00 / 50	-
008	CF	THR 21	Y	213 / (215.1)	EHO	3.8	-	-	-	-3.00 / 50	-
009	CF	EH558	Y	213 / (215.0)	EHO	3.8	-	-	-	-	RNAV 1
010	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNAV 1
<b>or RNP</b>											
006	TF	EH567	-	213 / (215.1)	-	2.1	-	-	-	-	RNP APCH
007	TF	THR 21	Y	213 / (215.1)	-	5.9	-	-	-	-3.00 / 50	RNP APCH
008	TF	EH558	Y	213 / (215.0)	-	3.8	-	-	-	-	RNP APCH
009	DF	EHOJI	-	-	-	-	R	@ 3000	-	-	RNP APCH

### 3 LOW VISIBILITY PROCEDURES

During periods of low visibility the overall ATC capacity is reduced. To guarantee aircraft safety and optimal use of ATC capacity, Eindhoven Airport uses low visibility procedures. When the visibility is equal to or below 1500 M and the ceiling is equal to or below 300 FT cautionary measures are taken.

Four low visibility phases are recognised:

Phase	Conditions	Procedure
A	RVR <sup>1)</sup> <= 1500 M and/or ceiling <= 300 FT	Limited use of intersection take-offs. All WIP on airside will be terminated. No conditional clearances.
B	RVR < 1100 M and/or ceiling < 200 FT	Separation between landing aircraft will be increased to 8 NM.
C	RVR < 550 M	No landings. No intersection take-offs. No simultaneous ground movements.
D	RVR < 300 M	The airport is below operational minima for arriving and departing aircraft.

<sup>1)</sup> RVR of the runway in use.

**Note:** During low visibility procedures, taxi instructions to cross the runway and use taxiway Romeo will be provided by Eindhoven TWR.

### 4 VFR FLIGHT PROCEDURES AND REGULATIONS

**Note:** for visual approach chart and traffic circuits see AD 2.EHEH-VAC.1 and AD 2.EHEH-VAC.2.

#### 4.1 General

- Eindhoven CTR has been designated as controlled airspace (class D).
- All VFR flights within the Eindhoven CTR shall submit a flight plan (see ENR 1.10).
- Arriving, departing and crossing VFR flights shall be carried out via the arrival/departure routes unless otherwise instructed by ATC or approved on pilots request.
- IFR areas: VFR flights within the CTR may be instructed by ATC to stay clear of this area. The IFR areas are indicated on chart AD 2.EHEH-VAC.1.
- Built-up areas shall be avoided as much as possible.
- Marked areas shall be avoided.
- Noise abatement has been included in the procedures. Therefore pilots shall strictly adhere to the VFR traffic circuits, approach and departure procedures as depicted.
- Standard circuit altitude is 1000 FT AMSL for aircraft with a MTOM < 2000 KG.
- Within the EHEH CTR an operational mode S transponder is mandatory for all aircraft.
- VFR reporting points positions:

VFR reporting point	Position
ECHO	512424N 0053340E
HOTEL	512845N 0051916E
MIKE	512612N 0052534E
OSCAR	512959N 0051723E
TANGO	513420N 0051700E
VICTOR	512418N 0052553E
WHISKEY	513000N 0051142E
X-RAY	512035N 0052514E
ZULU	511859N 0052709E

#### 4.2 Visual departure procedures

##### 4.2.1 General

- Pilots must have obtained start-up clearance from ATC before starting engines. A request for start-up shall be made to Eindhoven Ground; clearance for start-up will either be issued immediately or at a specified time depending on traffic. A request for start-up includes:
  - aircraft identification (e.g. PHSPY Cessna 172).
  - position (e.g. aeroclub).
  - ATIS information (e.g. information "J").
  - flight rules (e.g. VFR).
  - destination (e.g. Hilversum).
  - request start-up.
- Taxiing on taxiways:
  - pilots of aircraft intending to taxi on the taxiways shall obtain a clearance from Eindhoven Ground.
- Taxiing on the apron:
  - aircraft not maintaining two-way communication and intending to taxi on the apron must obtain prior permission from ATC.



#### **4.2.2 Aircraft with a MTOM < 2000 KG**

Unless otherwise instructed or approved climb to 1000 FT AMSL.

1. ZULU Departure.
  - After take-off follow the VFR route via MIKE and VICTOR to ZULU.
2. ECHO Departure.
  - After take-off follow the VFR route via MIKE and VICTOR to ECHO.
3. WHISKEY Departure.
  - After take-off follow the VFR route via HOTEL and OSCAR to WHISKEY.
4. TANGO Departure.
  - After take-off follow the VFR route via HOTEL and OSCAR to TANGO.
5. For other directions.
  - Departure instructions will be given.

#### **4.2.3 Aircraft with a MTOM >= 2000 KG**

Unless otherwise instructed or approved climb to 1000 FT AMSL.

1. Aircraft have to remain on runway track to at least:
  - 3 DME EHV after departure from RWY 21.
  - 4 DME EHV after departure from RWY 03.
2. Left or right turn only after approval of Eindhoven TWR.

### **4.3 Visual approach procedures**

#### **4.3.1 Aircraft with a MTOM < 2000 KG**

1. Contact Eindhoven TWR 2 minutes before reaching the CTR boundary for permission to enter the CTR.
2. Enter the CTR at 1500 FT AMSL and maintain this altitude.
3. Proceed via an indicated VFR route (ZULU, ECHO, WHISKEY or TANGO) unless otherwise instructed.
4. Join the circuit as instructed by ATC.

#### **4.3.2 Aircraft with a MTOM >= 2000 KG**

In order to avoid noise nuisance aircraft with a MTOM >= 2000 KG shall perform a straight-in approach.

### **4.4 VFR traffic circuits**

#### **4.4.1 Aircraft with a MTOM < 2000 KG**

Circuit direction (unless otherwise instructed by Eindhoven TWR):

- RWY 21 righthand.
- RWY 03 lefthand.

Circuit altitude: 1000 FT AMSL.

### **4.5 Missed approach procedures**

In case of a missed approach climb straight ahead to 1000 FT AMSL and inform Eindhoven TWR.

### **4.6 Communication failure procedures**

#### **4.6.1 General**

- Select transponder code 7600.
- If possible call Amsterdam ACC Supervisor on telephone number +31 (0)20 406 3999.
  - Note:** Use telephone connection to mitigate COM failure only. All telephone calls will be automatically recorded.
- If telephone connection is disconnected prematurely (before read-back), revert to communication failure procedures below.

#### **4.6.2 VFR outbound**

In case of communication failure adhere strictly to the departure instructions. If the departure instructions contain a clearance limit in the CTR, act in accordance with paragraph 4.6.4.

#### **4.6.3 VFR inbound**

##### **4.6.3.1 Via ZULU or ECHO Arrival**

1. In case of communication failure before passing reporting point VICTOR act in accordance with paragraph 4.6.4.
2. In case of communication failure after passing reporting point VICTOR descend to 500 FT AMSL and start orbiting on downwind. After green light from TWR complete the circuit as short as practicable. Make a full stop landing and vacate the runway as soon as possible. In case of go-around execute a similar circuit.

#### 4.6.3.2 Via TANGO or WHISKEY Arrival

1. In case of communication failure before passing reporting point OSCAR act in accordance with paragraph 4.6.4.
2. In case of communication failure after passing reporting point OSCAR descend to 500 FT AMSL and start orbiting on downwind. After green light from TWR complete the circuit as short as practicable. Make a full stop landing and vacate the runway as soon as possible. In case of go-around execute a similar circuit.

#### 4.6.3.3 Via a different route to the field

1. In case of communication failure before joining the circuit act in accordance with paragraph 4.6.4.
2. In case of communication failure over or after a position from where to join the circuit, descend to 500 FT AMSL and start orbiting on downwind. After green light from TWR complete the circuit as short as practicable. Make a full stop landing and vacate as soon as possible. In case of go-around execute a similar circuit.

#### 4.6.4 VFR crossing the CTR

In case of communication failure:

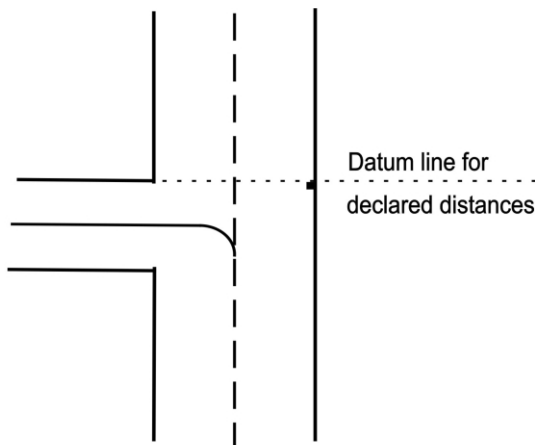
1. Leave the CTR via the shortest route.
2. Maintain altitude until outside the CTR.
3. Do not cross runway centre lines or IFR areas.
4. Proceed to an appropriate aerodrome.

### EHEH AD 2.23 ADDITIONAL INFORMATION

#### 1 CAUTIONS AND ADDITIONAL INFORMATION

1. Bird-scare patrols are active during AD OPR HR and use various equipment, including flare shellcrackers, alternating bird dispersal guns and amplified cries of distress.
2. General aviation crew: walking to and from aircraft is prohibited without assistance of ground handling. Please contact TEL +31 (0)6 2707 3658 or TEL +31 (0)40 258 1152.
3. High visibility vests are mandatory on the civil apron.

#### 2 DETERMINATION OF DATUM LINE FOR INTERSECTION TAKE-OFF



For declared distances see EHEH AD 2.13.

#### 3 GROUND HANDLING COMPANIES

##### 1. Passenger ground handling

Post: Viggo Eindhoven Airport B.V. (passenger & AC handling)  
Jan Hilgersweg 2  
5657 ES Eindhoven  
Tel: +31(0)40 258 1141  
Email: quality.safety@viggo.eu

##### 2. Cargo handling

Post: Viggo Cargo  
Jan Hilgersweg 2  
5657 ES Eindhoven  
Tel: +31(0)40 251 6133  
Fax: +31(0)40 251 7910  
Email: office.ein@viggo.eu

##### 3. Ground handling general aviation

Post: Viggo General Aviation  
Jan Hilgersweg 2  
5657 ES Eindhoven  
Tel: +31(0)40 258 1158  
Fax: +31(0)40 235 0733  
Email: generalaviation@viggo.eu

**EHEH AD 2.24 CHARTS RELATED TO AN AERODROME**

Type of chart	Page
Aerodrome chart	AD 2.EHEH-ADC
Aircraft parking / docking chart	AD 2.EHEH-APDC
Aerodrome obstacle chart RWY 03/21	AD 2.EHEH-AOC-03-21
Standard instrument departure chart	AD 2.EHEH-SID-OVERVIEW
Standard instrument departure chart RWY 03	AD 2.EHEH-SID-03
Standard instrument departure chart RWY 21	AD 2.EHEH-SID-21.1
RNAV standard instrument departure chart RWY 21	AD 2.EHEH-SID-21.2
Standard arrival chart	AD 2.EHEH-STAR.1
Standard arrival chart - only from EBAW, EBBR, EBMB, EHAM, EHGG, EHLE, EHRD	AD 2.EHEH-STAR.2
Instrument approach chart ILS Y or LOC Y RWY 03	AD 2.EHEH-IAC-03.1
Instrument approach chart CDO approaches to ILS X or LOC X RWY 03	AD 2.EHEH-IAC-03.2
Instrument approach chart CDO approaches RNP Y RWY 03	AD 2.EHEH-IAC-03.3
Instrument approach chart ILS Y or LOC Y RWY 21	AD 2.EHEH-IAC-21.1
Instrument approach chart CDO approaches to ILS X or LOC X RWY 21	AD 2.EHEH-IAC-21.2
Instrument approach chart CDO approaches RNP Y RWY 21	AD 2.EHEH-IAC-21.3
Visual approach chart / VFR procedures	AD 2.EHEH-VAC.1
Visual approach chart VFR traffic circuits	AD 2.EHEH-VAC.2

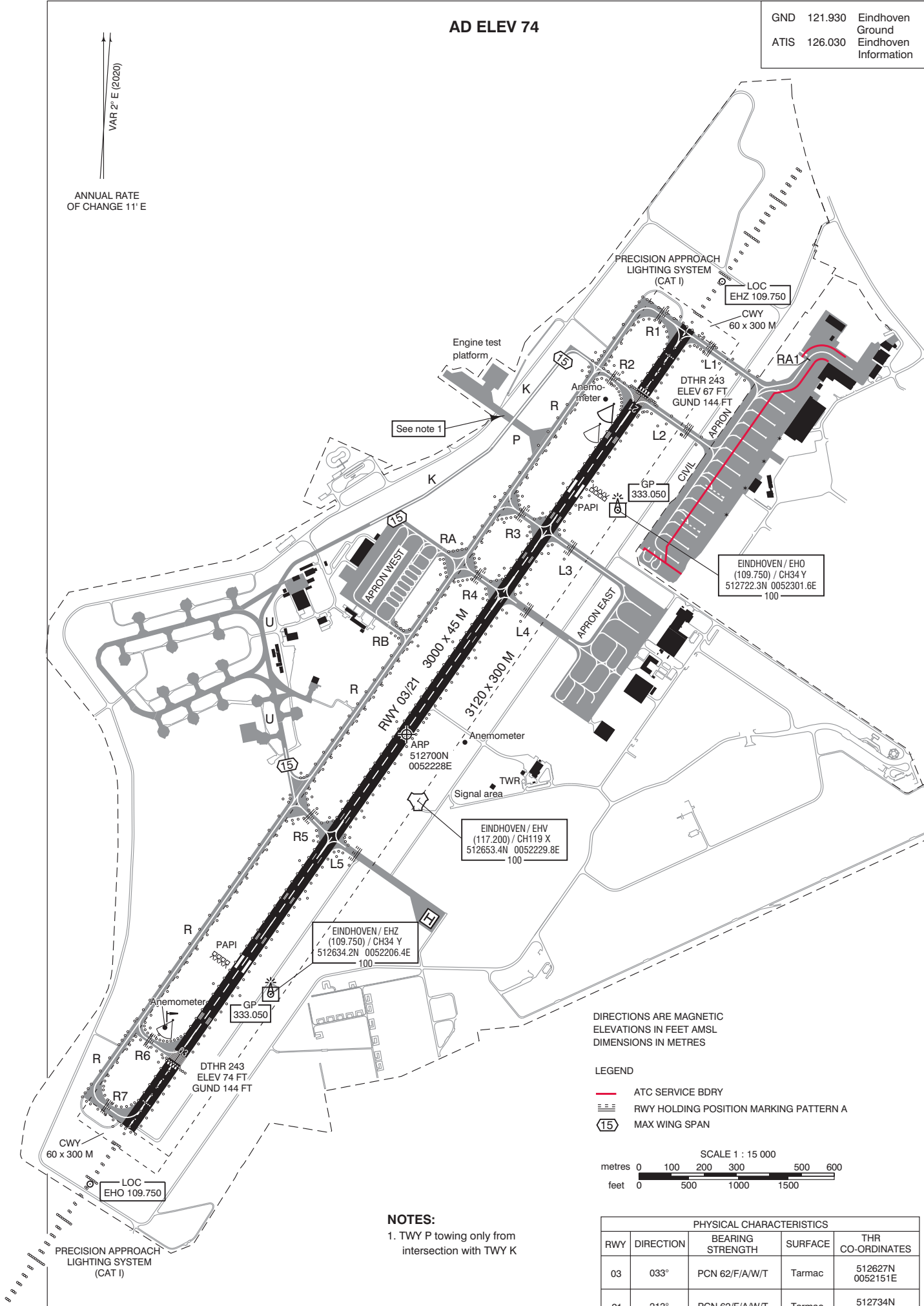


AD ELEV 74

GND	121.930	Eindhoven Ground
ATIS	126.030	Eindhoven Information

VAR 2° E (2020)

ANNUAL RATE OF CHANGE 11' E



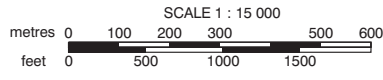
EINDHOVEN / EHO  
(109.750) / CH34 Y  
512722.3N 0052301.6E  
100

EINDHOVEN / EHV  
(117.200) / CH119 X  
512653.4N 0052229.8E  
100

EINDHOVEN / EHZ  
(109.750) / CH34 Y  
512634.2N 0052206.4E  
100

DIRECTIONS ARE MAGNETIC  
ELEVATIONS IN FEET AMSL  
DIMENSIONS IN METRES

- LEGEND
- ATC SERVICE BDRY
  - RWY HOLDING POSITION MARKING PATTERN A
  - MAX WING SPAN

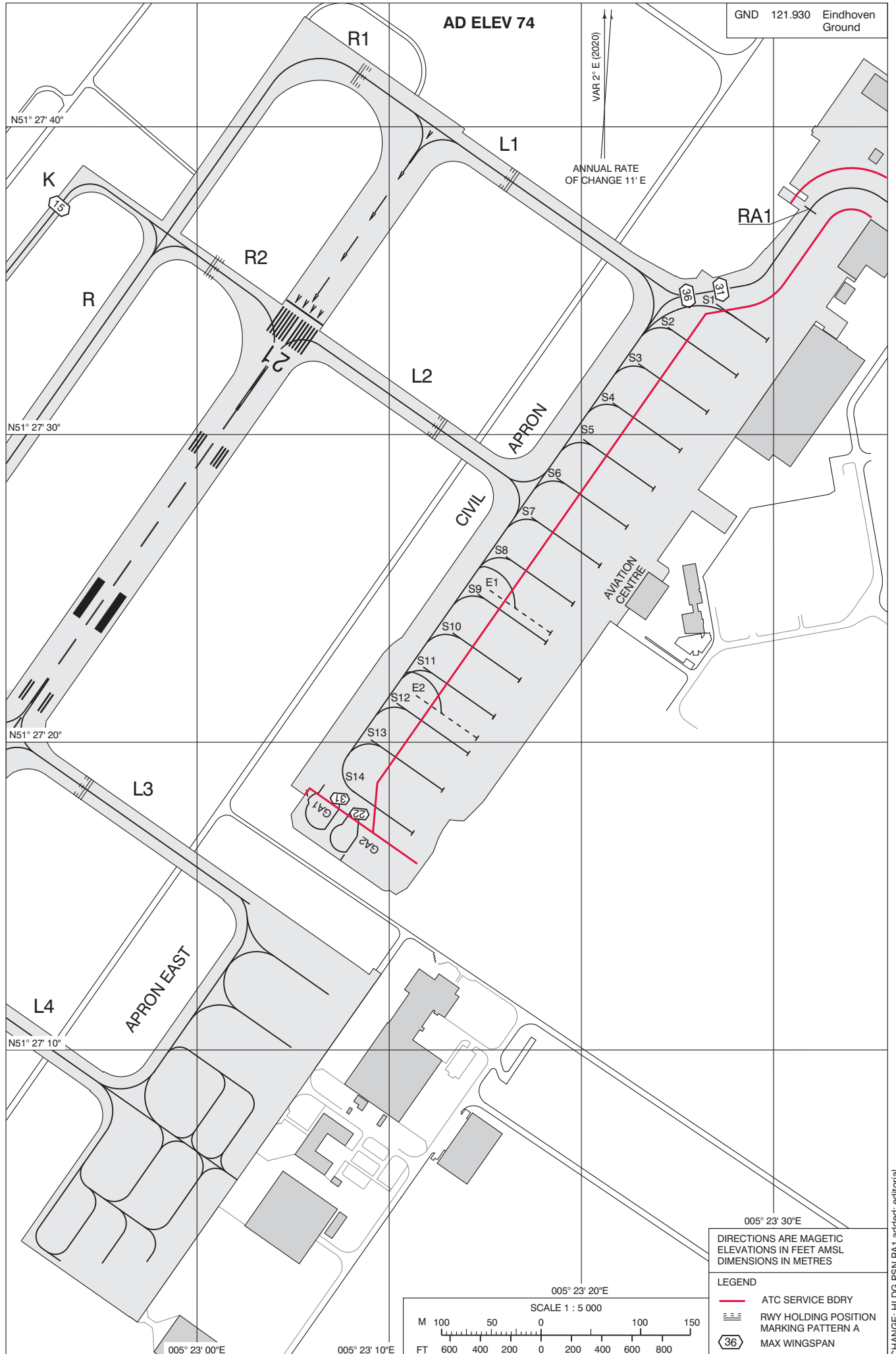


NOTES:  
1. TWY P towing only from intersection with TWY K

PHYSICAL CHARACTERISTICS				
RWY	DIRECTION	BEARING STRENGTH	SURFACE	THR CO-ORDINATES
03	033°	PCN 62/F/A/W/T	Tarmac	512627N 0052151E
21	213°	PCN 62/F/A/W/T	Tarmac	512734N 0052306E

CHANGE: HLDG PSN RA 1 added: editorial.



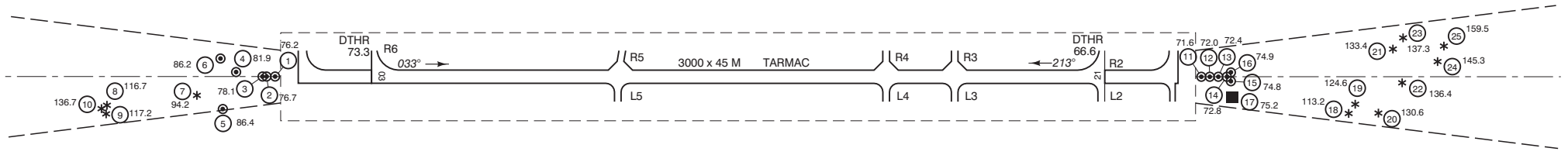
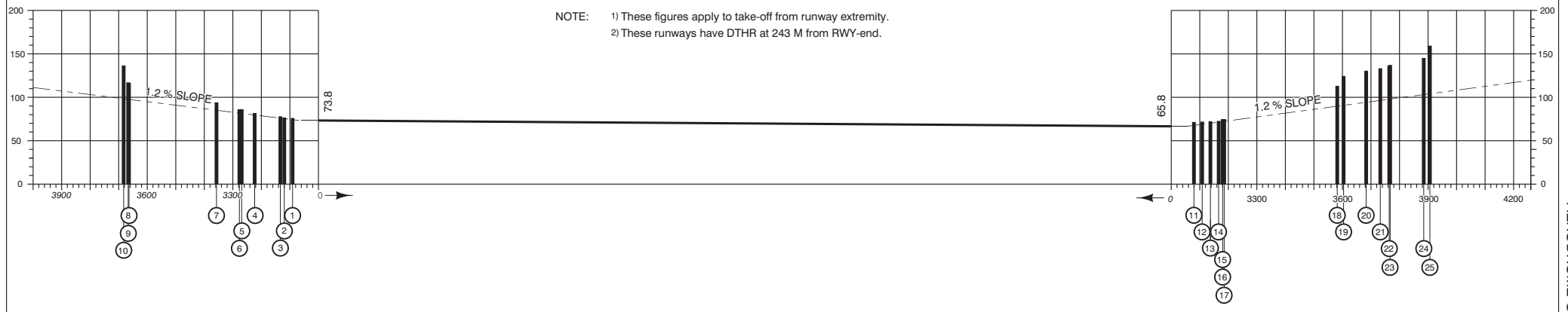






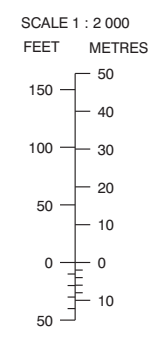
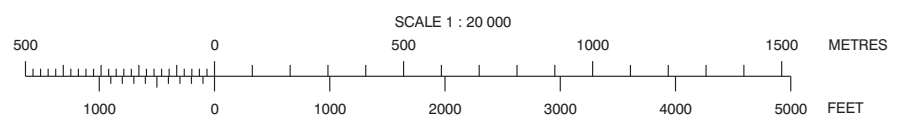
	RWY 03			RWY 21			
	R6	L5/R5		L2/R2	L3/R3	L4/R4	
TORA	3000 <sup>1)</sup>	2757	1920	3000 <sup>1)</sup>	2757	2250	2015
TODA	3060 <sup>1)</sup>	2817	1980	3060 <sup>1)</sup>	2817	2310	2075
ASDA	3000 <sup>1)</sup>	2757	1920	3000 <sup>1)</sup>	2757	2250	2015
LDA	2757 <sup>2)</sup>			2757 <sup>2)</sup>			

NOTE: 1) These figures apply to take-off from runway extremity.  
2) These runways have DTHR at 243 M from RWY-end.



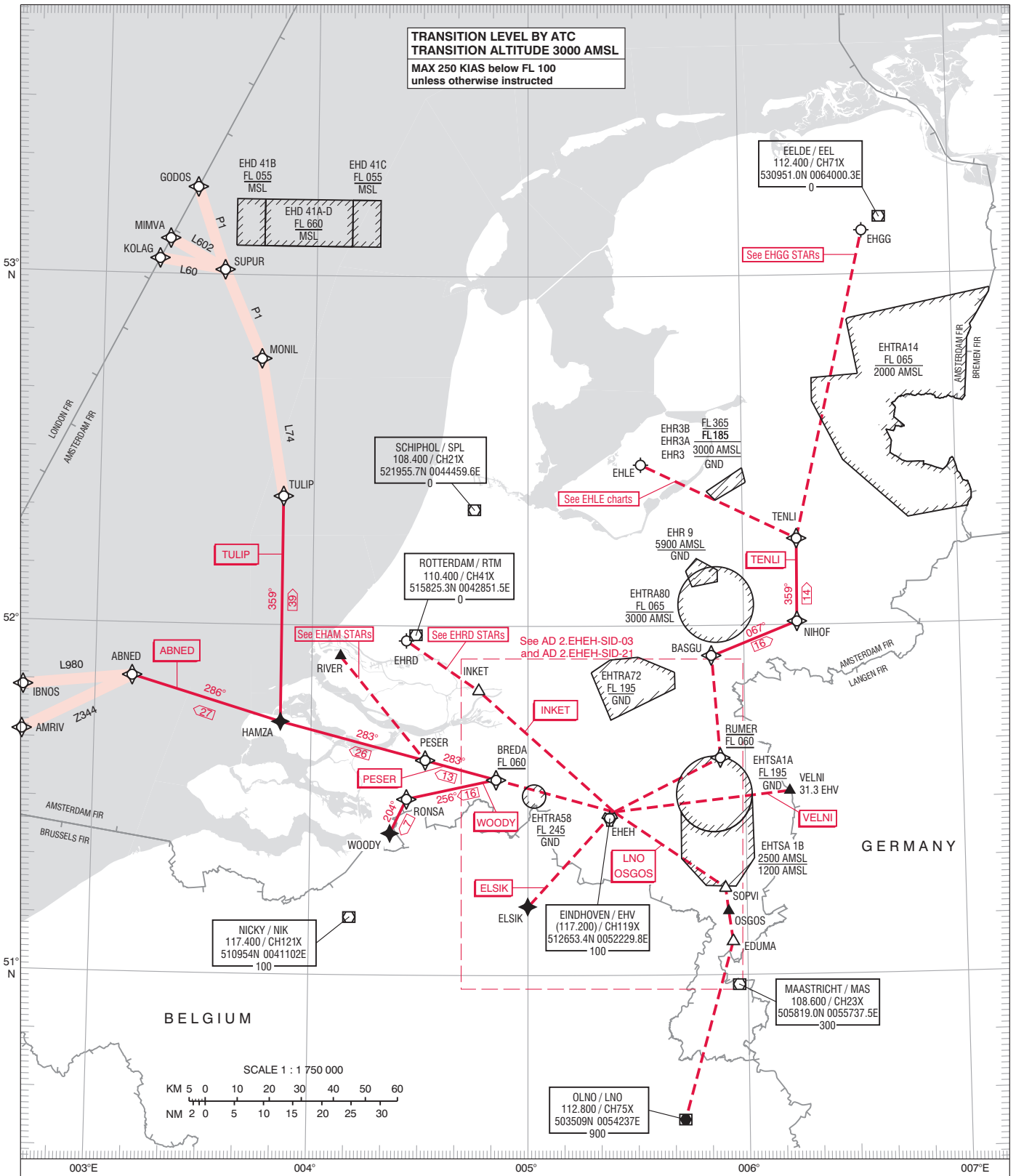
MAGNETIC VARIATION : 2° E (2020)  
DIRECTIONS ARE MAGNETIC  
ELEVATIONS IN FEET  
DIMENSIONS IN METRES  
IDENTIFICATION NUMBER

- ⊙ TREE
- ⊙ POLE, TOWER, SPIRE, ANTENNA, CHIMNEY
- BUILDING OR LARGE STRUCTURE
- ⊙ TRAFFIC (IN PLAN)
- ⋯ TRAFFIC (IN PROFILE)
- ⊗ WINDMILL



SURVEYING AGENCY : PANS-OPS office, Royal Netherlands Air Force  
DATE OF SURVEY : NOV 2015

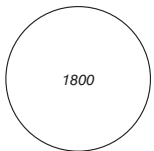




- Detailed information concerning ATS-routes and WPTs see ENR 3, 4 and 6.
- For ATS-routes restrictions see AD 2.22 paragraph 1.4.3

TWR	121.005	Eindhoven Tower
	122.100	
APP	123.180	Rapcon South
ACC	125.930	Dutch MIL
	132.350	Dutch MIL Info
ATIS	126.030	Eindhoven Information
	121.500	General Emergency

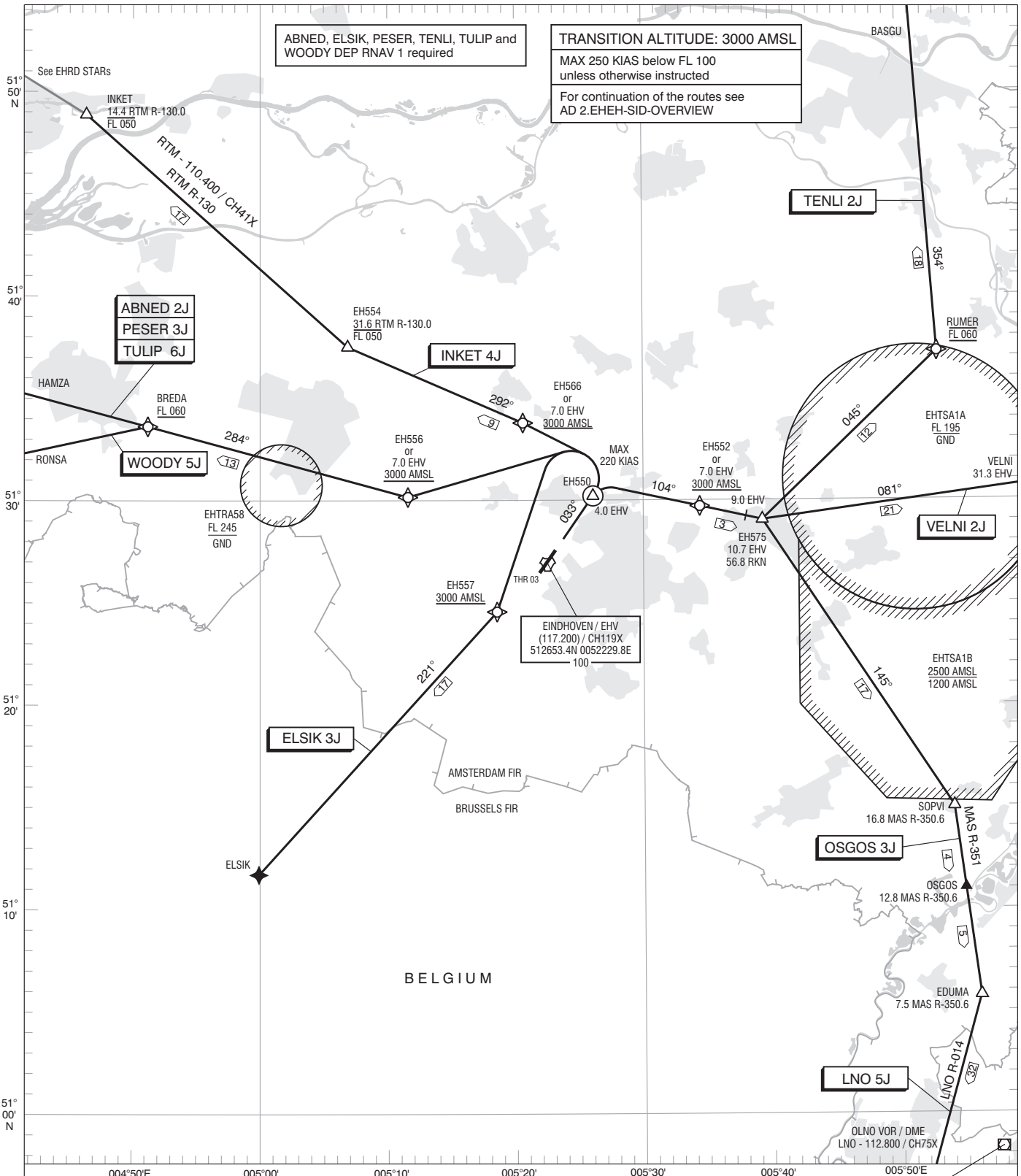
MSA BASED ON ARP



AVERAGE VAR 2°E (2020)  
DISTANCES IN NM  
ALTITUDES IN FEET  
DIRECTIONS ARE MAGNETIC

- 23.1 SPL R-304.2 DME SPL 23.1 NM
- VOR SPL RADIAL 304.2
- SID / STAR
- SID / STAR AS DESCRIBED
- ATS ROUTE





ABNED, ELSIK, PESER, TENLI, TULIP and WOODY DEP RNAV 1 required

TRANSITION ALTITUDE: 3000 AMSL  
MAX 250 KIAS below FL 100 unless otherwise instructed  
For continuation of the routes see AD 2.EHEH-SID-OVERVIEW

ABNED 2J  
PESER 3J  
TULIP 6J

INKET 4J

WOODY 5J

ELSIK 3J

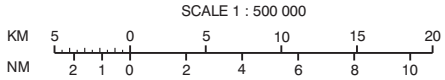
TENLI 2J

VELNI 2J

OSGOS 3J

LNO 5J

MAASTRICHT / MAS  
108.600 / CH23X  
505819.0N 0055737.5E  
300



SCALE 1 : 500 000

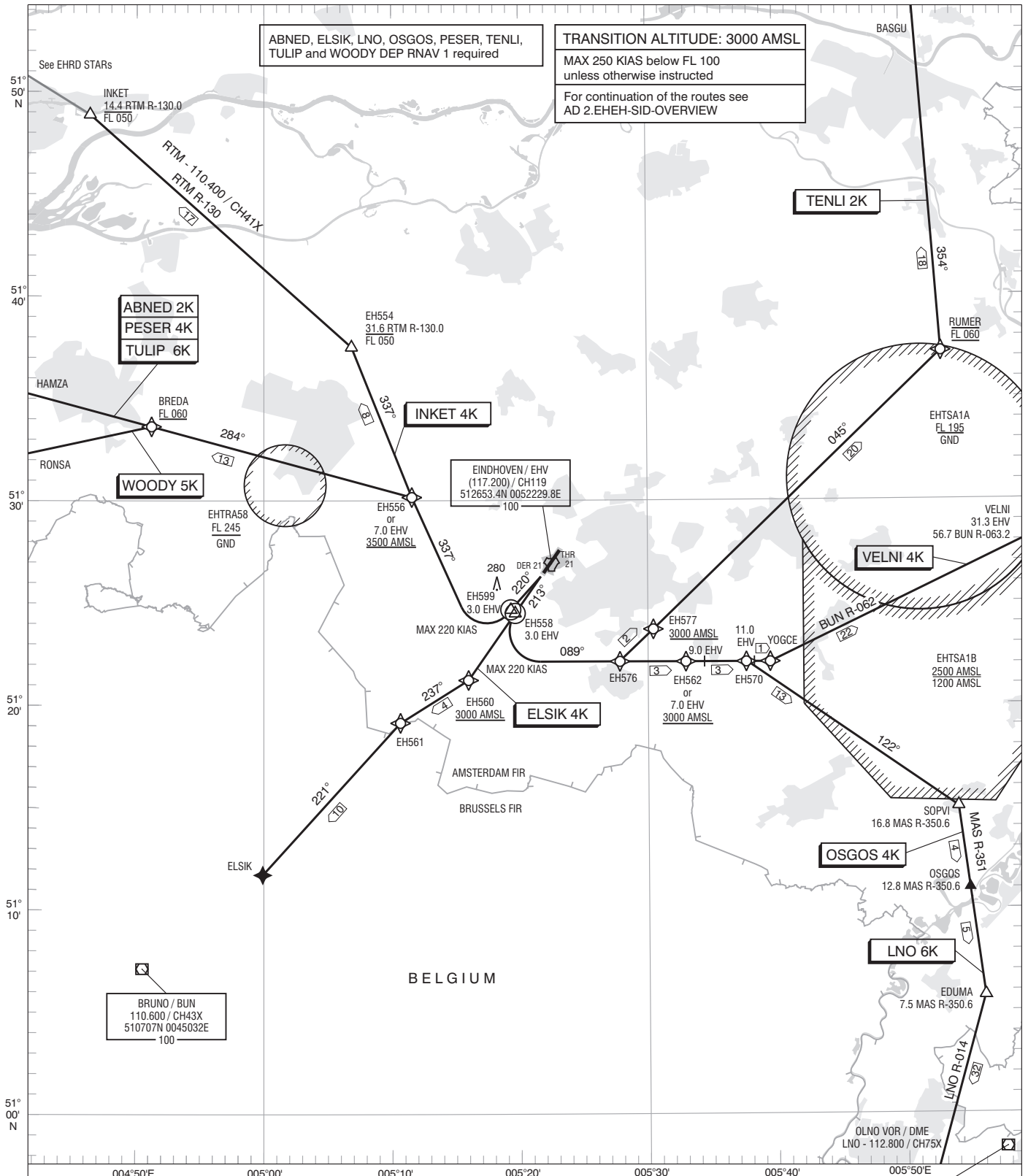
DISTANCES IN NM  
ALTITUDES IN FEET  
DIRECTIONS ARE MAGNETIC  
AVERAGE VAR 2° E (2020)  
23.1 SPL R-304.2 DME SPL 23.1 NM  
VOR SPL RADIAL 304.2

— SID  
— ATS ROUTE

THR 03	512627.1N	0052150.9E
EH550	513012.4N	0052603.7E
EH552	512941.4N	0053427.8E
EH554	513729.9N	0050652.3E
EH556	513009.6N	0051134.7E
EH557	512432.8N	0051832.6E
EH566	513346.8N	0052035.9E
EH575	512901.9N	0053918.8E

GND	121.930	Eindhoven Ground
TWR	131.005	Eindhoven Tower
APP	123.180	Rapcon South
	124.530	Eindhoven Arrival
	132.350	Dutch MIL Info
ATIS	126.030	Eindhoven Information
	121.500	General Emergency





ABNED, ELSIK, LNO, OSGOS, PESER, TENLI,  
TULIP and WOODY DEP RNAV 1 required

TRANSITION ALTITUDE: 3000 AMSL  
MAX 250 KIAS below FL 100  
unless otherwise instructed  
For continuation of the routes see  
AD 2.EHEH-SID-OVERVIEW

ABNED 2K  
PESER 4K  
TULIP 6K

WOODY 5K

INKET 4K

EINDHOVEN / EHV  
(117.200) / CH119  
512653.4N 0052229.8E

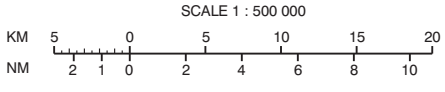
ELSIK 4K

VELNI 4K

OSGOS 4K

LNO 6K

MAASTRICHT / MAS  
108.600 / CH23X  
505819.0N 0055737.5E  
300



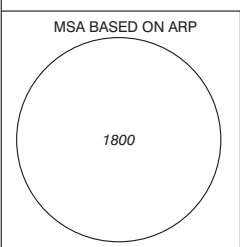
SCALE 1 : 500 000

THR 21	512733.8N 0052305.6E
EH554	513729.9N 0050652.3E
EH556	513009.6N 0051134.7E
EH558	512428.9N 0051938.6E
EH560	512112.4N 0051559.1E
EH561	511907.5N 0051039.7E
EH562	512206.0N 0053257.2E
EH570	512205.2N 0053740.3E
EH576	512206.6N 0052748.1E
EH577	512341.9N 0053026.2E
EH599	512439.4N 0051918.0E

GND	121.930 Eindhoven Ground
TWR	131.005 Eindhoven Tower
APP	123.180 Rapcon South
	124.530 Eindhoven Arrival
	132.350 Dutch MIL Info
ATIS	126.030 Eindhoven Information
	121.500 General Emergency

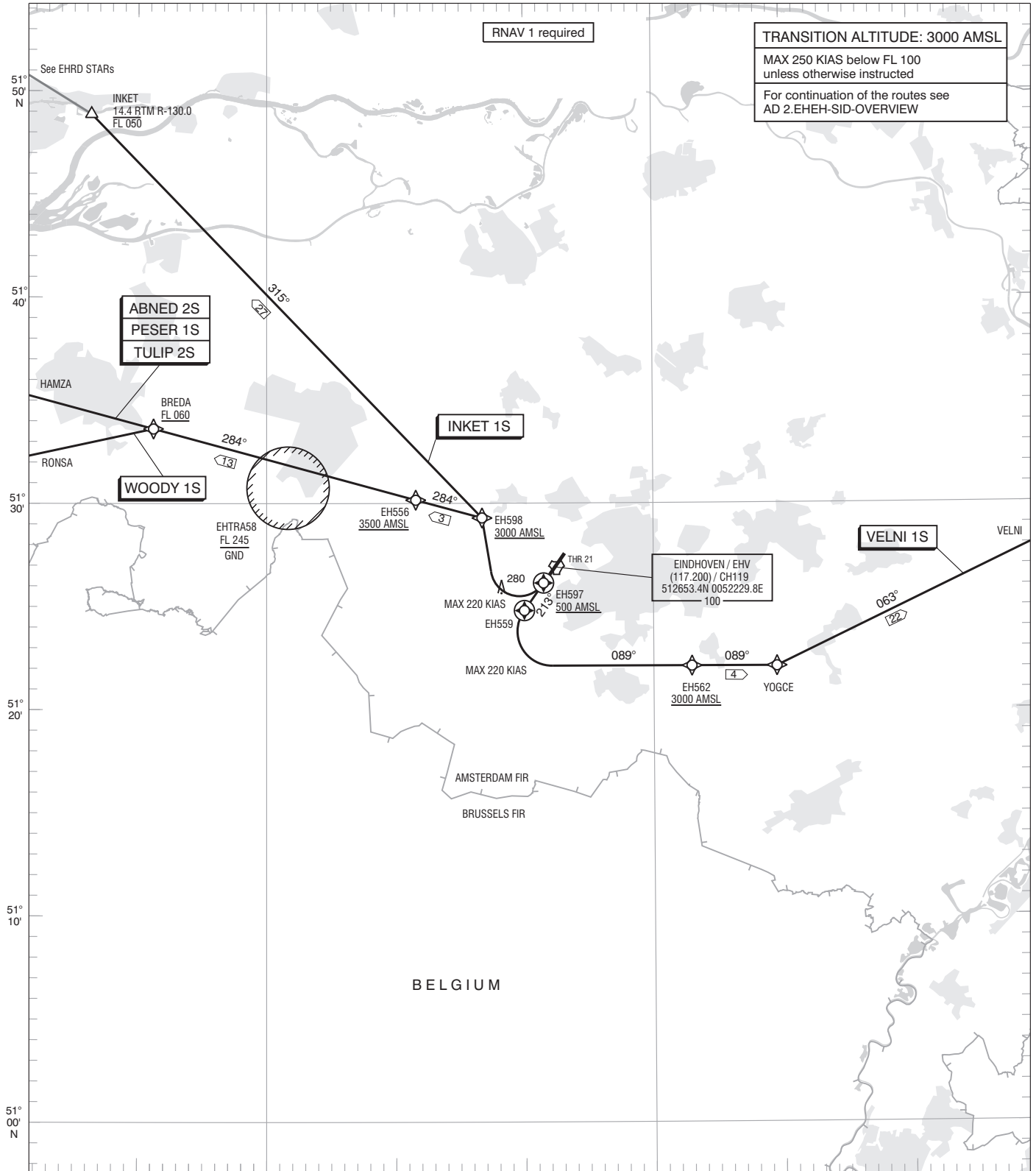
DISTANCES IN NM  
ALTITUDES IN FEET  
DIRECTIONS ARE MAGNETIC  
AVERAGE VAR 2° E (2020)  
23.1 SPL R-304.2 DME SPL 23.1 NM  
VOR SPL RADIAL 304.2

— SID  
— ATS ROUTE









RNAV 1 required

TRANSITION ALTITUDE: 3000 AMSL

MAX 250 KIAS below FL 100 unless otherwise instructed

For continuation of the routes see AD 2.EHEH-SID-OVERVIEW

ABNED 2S  
PESER 1S  
TULIP 2S

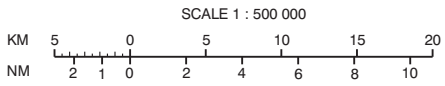
WOODY 1S

INKET 1S

VELNI 1S

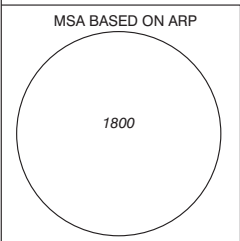
EINDHOVEN / EHV  
(117.200) / CH119  
512653.4N 0052229.8E  
100

BELGIUM



EH556	513009.6N	0051134.7E
EH559	512447.4N	0051959.3E
EH562	512206.0N	0053257.2E
EH597	512607.5N	0052128.8E
EH598	512917.2N	0051643.4E

GND	121.930	Eindhoven Ground
TWR	131.005	Eindhoven Tower
APP	123.180	Rapcon South
	124.530	Eindhoven Arrival
	132.350	Dutch MIL Info
ATIS	126.030	Eindhoven Information
	121.500	General Emergency



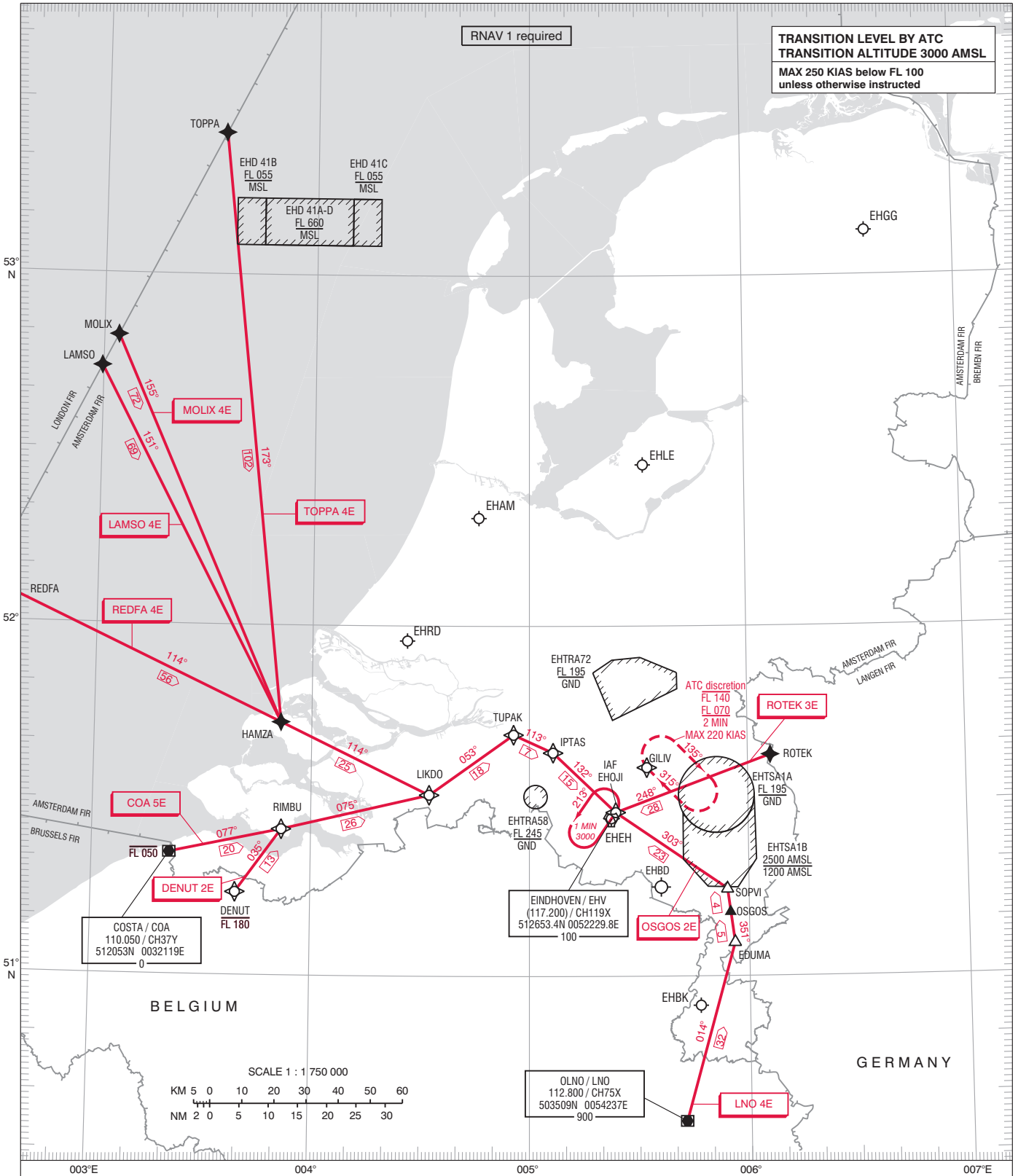
DISTANCES IN NM  
ALTITUDES IN FEET  
DIRECTIONS ARE MAGNETIC

AVERAGE VAR 2° E (2020)

23.1 SPL R-304.2 DME SPL 23.1 NM  
VOR SPL RADIAL 304.2

— SID  
— ATS ROUTE



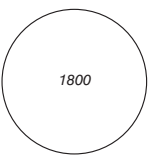


NOTES:

1. Detailed information concerning ATS routes and WPTs see ENR 3, 4 and 6.

TWR	131.005	Eindhoven Tower
	122.100	
APP	123.180	Rapcon South
ACC	125.930	Dutch MIL
	132.350	Dutch MIL Info
ATIS	126.030	Eindhoven Information
	121.500	General Emergency

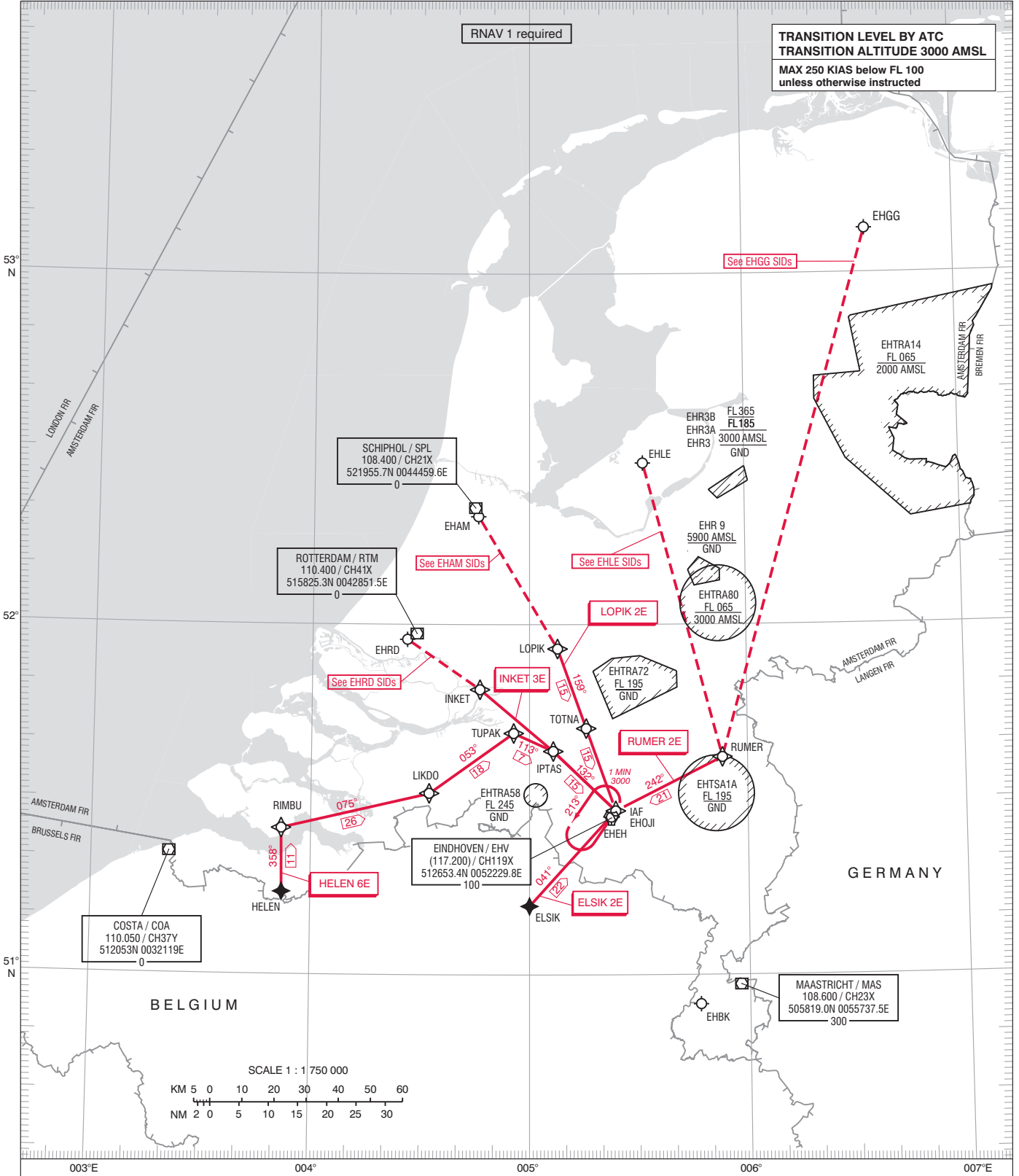
MSA BASED ON ARP



AVERAGE VAR 2°E (2020)  
DISTANCES IN NM  
ALTITUDES IN FEET  
DIRECTIONS ARE MAGNETIC

— SID / STAR  
- - - SID / STAR AS DESCRIBED





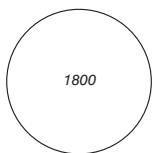
**NOTES:**

1. HOLDING (incl. ENTRY) procedures: standard ICAO.

ELSIK ACFT from EBAA and EBBR only  
 HELEN ACFT from EBAA, EBBR and EBMB only  
 INKET ACFT from EHRD only  
 LOPIK ACFT from EHAM only  
 RUMER ACFT from EHGG and EHLE only

TWR	131.005	Eindhoven Tower
APP	123.180	Rapcon South
ACC	125.930	Dutch MIL
	132.350	Dutch MIL Info
ATIS	126.030	Eindhoven Information
	121.500	General Emergency

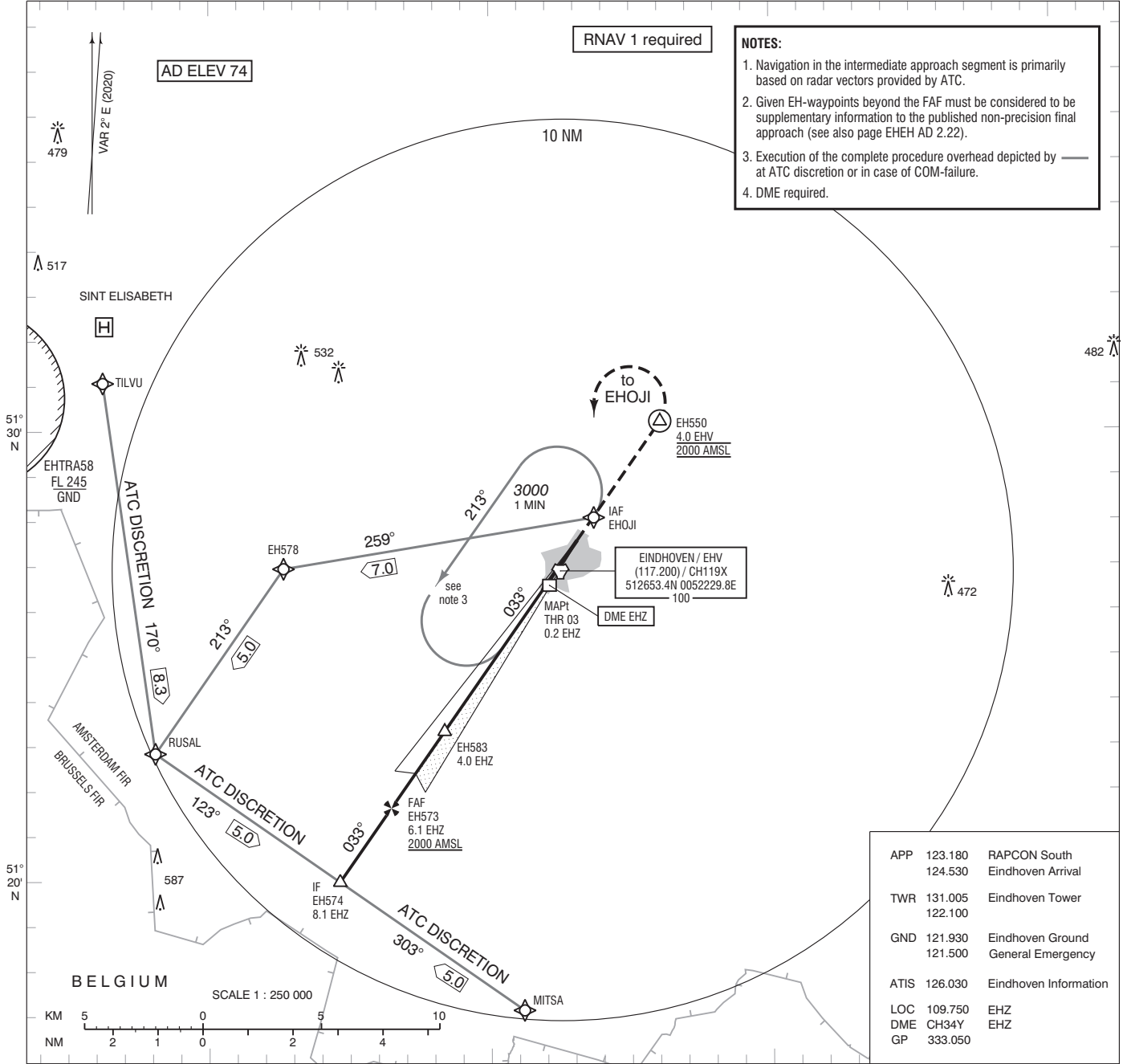
MSA BASED ON ARP



AVERAGE VAR 2°E (2020)  
 DISTANCES IN NM  
 ALTITUDES IN FEET  
 DIRECTIONS ARE MAGNETIC

— SID / STAR  
 - - - SID / STAR AS DESCRIBED





**NOTES:**

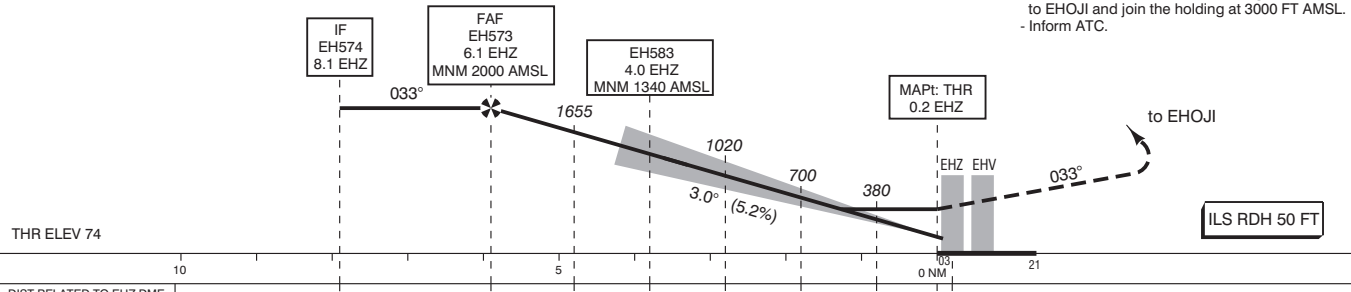
1. Navigation in the intermediate approach segment is primarily based on radar vectors provided by ATC.
2. Given EH-waypoints beyond the FAF must be considered to be supplementary information to the published non-precision final approach (see also page EEH AD 2.22).
3. Execution of the complete procedure overhead depicted by — at ATC discretion or in case of COM-failure.
4. DME required.

APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
TWR	131.005	Eindhoven Tower
	122.100	
GND	121.930	Eindhoven Ground
	121.500	General Emergency
ATIS	126.030	Eindhoven Information
LOC	109.750	EHZ
DME	CH34Y	EHZ
GP	333.050	

TRANSITION LEVEL BY ATC  
TRANSITION ALTITUDE 3000 FT AMSL

DO NOT DESCEND BELOW THE DESCENT PROFILE

Missed Approach:  
- Climb to 2000 FT AMSL on track 033° MAG.  
- At 4.0 EHV / EH550 start a climbing left turn to EHOJI and join the holding at 3000 FT AMSL.  
- Inform ATC.

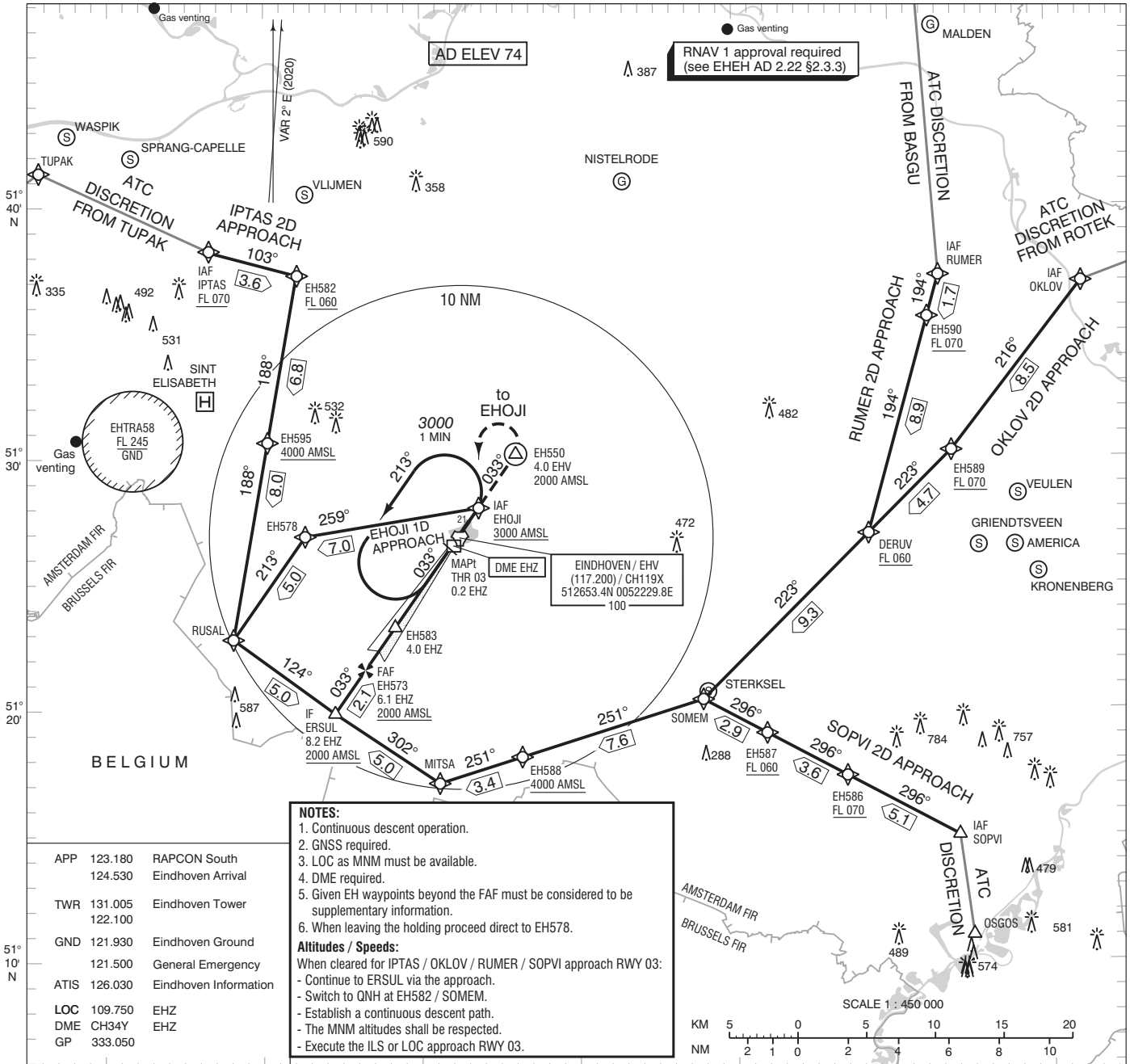


DIST RELATED TO EHZ DME	8.1	6.1	5	4.0	3	2	1	0.2	0 NM	21
GS IN KT	60	80	100	120	140	160	180			
VERTICAL SPEED	320 FT/MIN	425 FT/MIN	530 FT/MIN	635 FT/MIN	745 FT/MIN	850 FT/MIN	955 FT/MIN			

OCA (OCH) ELEV THR 03: 73.3 FT				THR 03 512627.1N 0052150.9E EH550 513012.4N 0052603.7E EH573 512137.8N 0051627.5E EH574 511959.5N 0051437.9E EH578 512656.6N 0051239.0E EH583 512320.0N 0051821.6E	MSA BASED ON ARP 
ACFT CAT	CAT I	LOC MAP: THR	CIRCLING		
A	239 (165)	420 (346)	NOT ALLOWED		
B	249 (175)				
C	259 (185)				
D	269 (195)				
CEILING AND VISIBILITY MINIMA				BEARINGS ARE MAGNETIC DISTANCES IN NM ALTITUDES AND ELEVATIONS IN FEET	
TAKE-OFF	DAY: NA	NIGHT: NA			
LANDING	DAY: NA	NIGHT: NA			



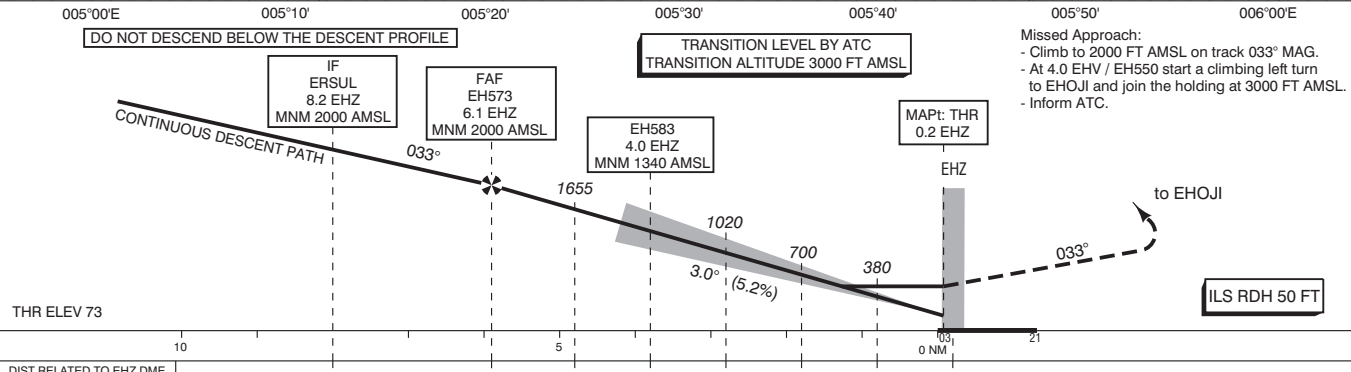




**NOTES:**  
 1. Continuous descent operation.  
 2. GNSS required.  
 3. LOC as MNM must be available.  
 4. DME required.  
 5. Given EH waypoints beyond the FAF must be considered to be supplementary information.  
 6. When leaving the holding proceed direct to EH578.

**Altitudes / Speeds:**  
 When cleared for IPTAS / OKLOV / RUMER / SOPVI approach RWY 03:  
 - Continue to ERSUL via the approach.  
 - Switch to QNH at EH582 / SOMEM.  
 - Establish a continuous descent path.  
 - The MNM altitudes shall be respected.  
 - Execute the ILS or LOC approach RWY 03.

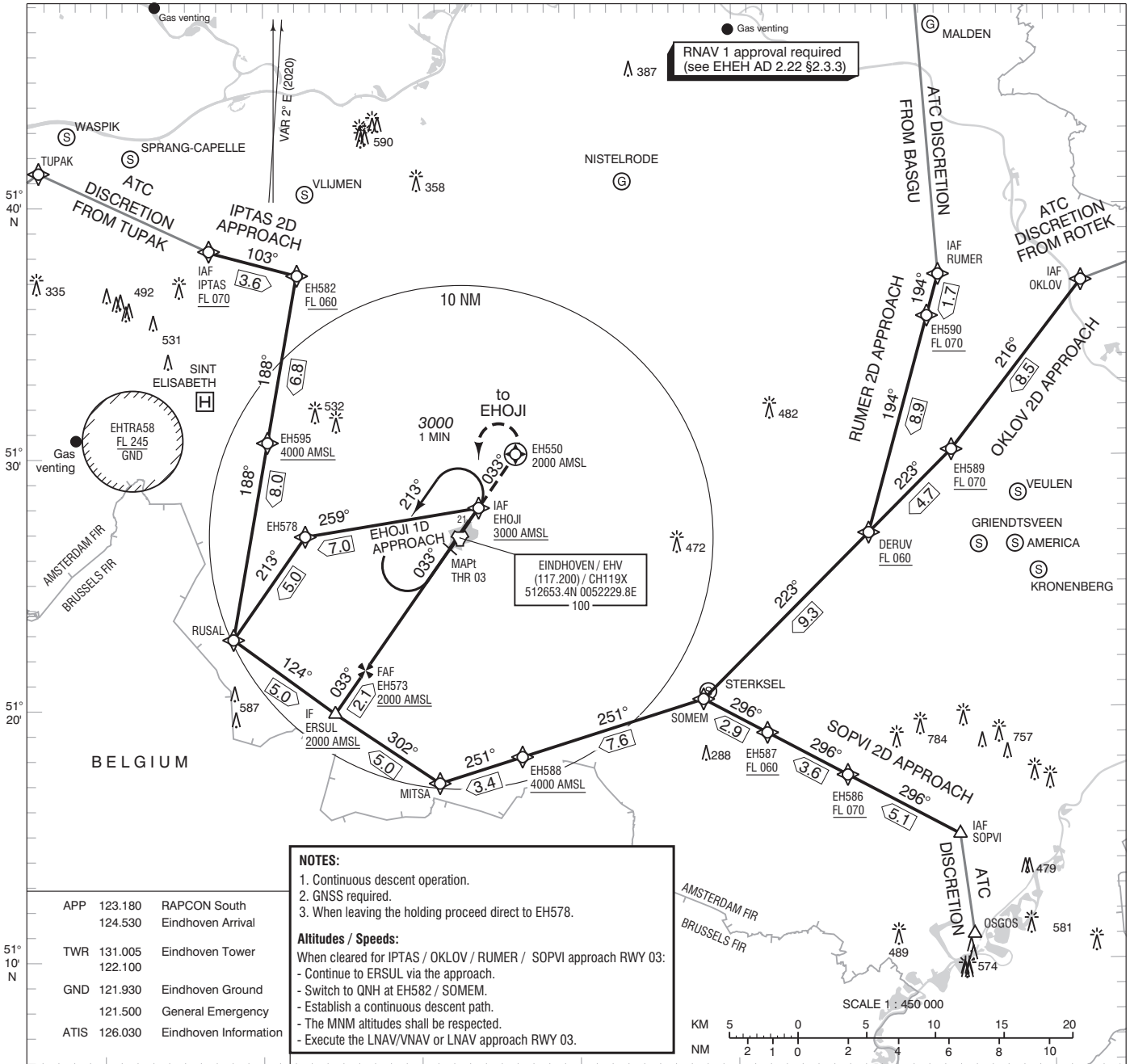
APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
TWR	131.005	Eindhoven Tower
	122.100	
GND	121.930	Eindhoven Ground
	121.500	General Emergency
ATIS	126.030	Eindhoven Information
LOC	109.750	EHZ
DME	CH34Y	EHZ
GP	333.050	



DIST RELATED TO EHZ DME	8.2	6.1	5	4.0	3	2	1	0 NM	1	2	3	4	5	6	7	8	9	10
GS IN KT	60	80	100	120	140	160	180											
VERTICAL SPEED	320 FT/MIN	425 FT/MIN	530 FT/MIN	635 FT/MIN	745 FT/MIN	850 FT/MIN	955 FT/MIN											

OCA (OCH) ELEV THR 03: 73.3 FT				MSA BASED ON ARP													
ACFT CAT	CAT I	LOC MAP: THR	CIRCLING	THR 03	EH550	EH573	EH578	EH582	EH583	EH586	EH587	EH588	EH589	EH590	EH595	1800	
A	239 (165)	420 (346)	NOT ALLOWED	512627.1N 0052150.9E	513012.4N 0052603.7E	512137.8N 0051627.5E	512656.6N 0051239.0E	513719.3N 0051209.3E	512320.0N 0051821.6E	511722.2N 0054701.4E	511904.4N 0054157.0E	511810.0N 0052624.1E	513016.1N 0055348.7E	513535.5N 0055220.5E	513040.6N 0051015.7E		
B	249 (175)																
C	259 (185)																
D	269 (195)																
CEILING AND VISIBILITY MINIMA				DIRECTIONS ARE MAGNETIC DISTANCES IN NM ALTITUDES AND ELEVATIONS IN FEET													
TAKE-OFF	DAY:	NA	NIGHT:	NA													
LANDING	DAY:		NIGHT:														

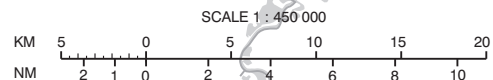




**NOTES:**  
 1. Continuous descent operation.  
 2. GNSS required.  
 3. When leaving the holding proceed direct to EH578.

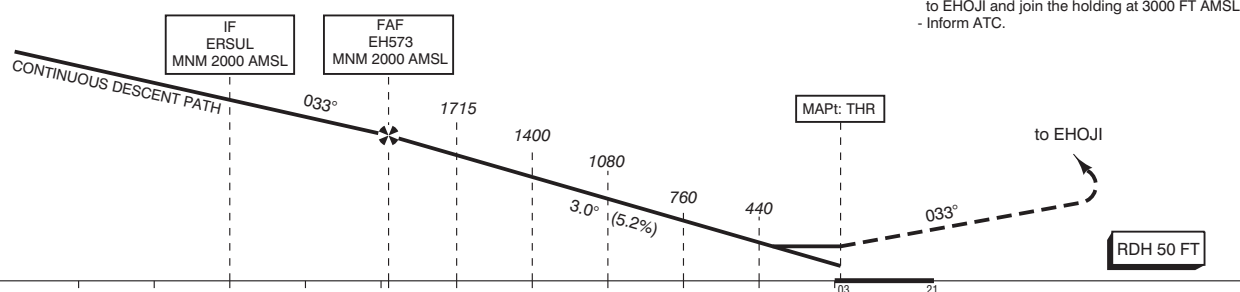
**Altitudes / Speeds:**  
 When cleared for IPTAS / OKLOV / RUMER / SOPVI approach RWY 03:  
 - Continue to ERSUL via the approach.  
 - Switch to QNH at EH582 / SOMEM.  
 - Establish a continuous descent path.  
 - The MNM altitudes shall be respected.  
 - Execute the LNAV/VNAV or LNAV approach RWY 03.

APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
TWR	131.005	Eindhoven Tower
	122.100	
GND	121.930	Eindhoven Ground
	121.500	General Emergency
ATIS	126.030	Eindhoven Information



DO NOT DESCEND BELOW THE DESCENT PROFILE

TRANSITION LEVEL BY ATC  
 TRANSITION ALTITUDE 3000 FT AMSL



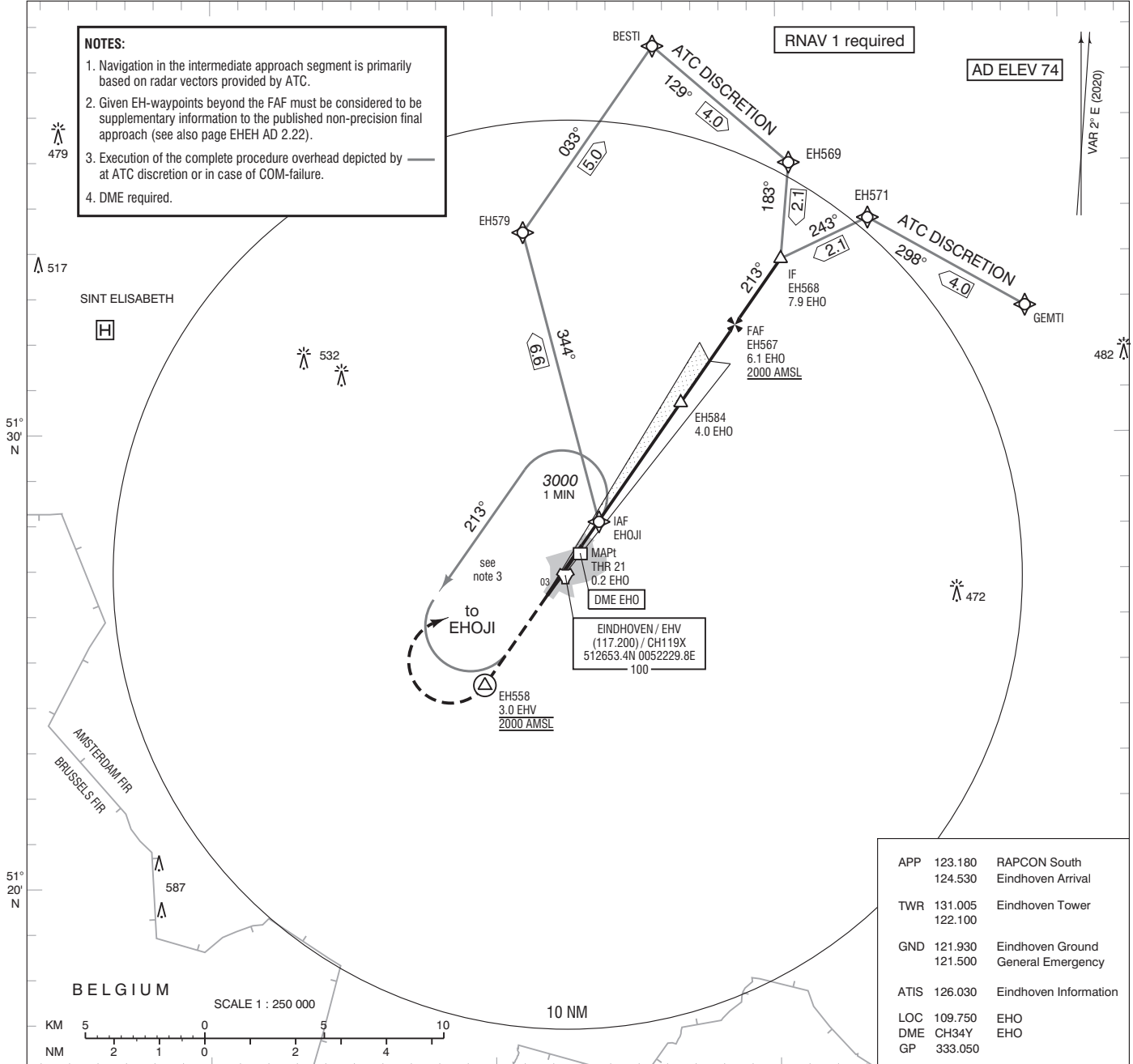
GS IN KT	60	80	100	120	140	160	180
VERTICAL SPEED	320 FT/MIN	425 FT/MIN	530 FT/MIN	635 FT/MIN	745 FT/MIN	850 FT/MIN	955 FT/MIN

OCA (OCH) ELEV THR 03: 73.3 FT				THR 03 512627.1N 0052150.9E EH550 513012.4N 0052603.7E EH573 512137.8N 0051627.5E EH578 512656.6N 0051239.0E EH582 513719.3N 0051209.3E EH586 511722.2N 0054701.4E EH587 511904.4N 0054157.0E EH588 511810.0N 0052624.1E EH589 513016.1N 0055348.7E EH590 513535.5N 0055220.5E EH595 513040.6N 0051015.7E	MSA BASED ON ARP 
ACFT CAT	LNAV/VNAV MNM TEMP -20°C	LNAV MAP: THR	CIRCLING		
A					
B	324 (250)	420 (350)	NOT ALLOWED		
C					
D	333 (259)				
CEILING AND VISIBILITY MINIMA				DIRECTIONS ARE MAGNETIC DISTANCES IN NM ALTITUDES AND ELEVATIONS IN FEET	
TAKE-OFF	DAY: NA	NIGHT: NA			
LANDING	DAY: NA	NIGHT: NA			



**NOTES:**

1. Navigation in the intermediate approach segment is primarily based on radar vectors provided by ATC.
2. Given EH-waypoints beyond the FAF must be considered to be supplementary information to the published non-precision final approach (see also page EHEH AD 2.22).
3. Execution of the complete procedure overhead depicted by — at ATC discretion or in case of COM-failure.
4. DME required.

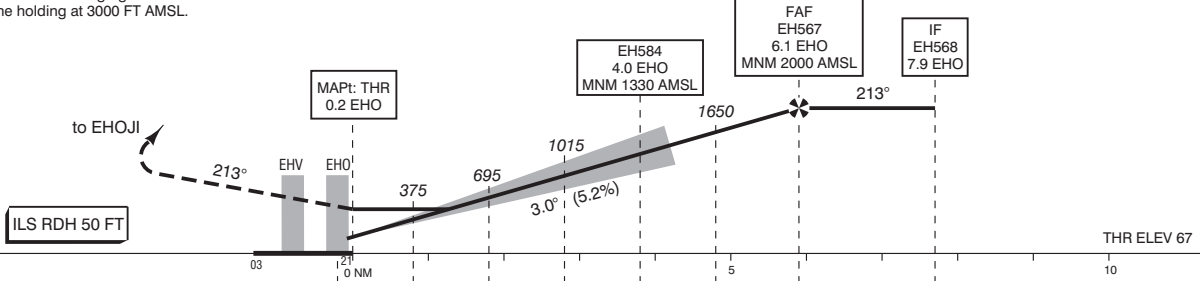


APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
TWR	131.005	Eindhoven Tower
	122.100	
GND	121.930	Eindhoven Ground
	121.500	General Emergency
ATIS	126.030	Eindhoven Information
LOC	109.750	EHO
DME	CH34Y	EHO
GP	333.050	

**Missed Approach:**  
 - Climb to 2000 FT AMSL on track 213° MAG.  
 - At 3.0 EHV / EH558 start a climbing right turn to EHOJI and join the holding at 3000 FT AMSL.  
 - Inform ATC.

**TRANSITION LEVEL BY ATC  
TRANSITION ALTITUDE 3000 FT AMSL**

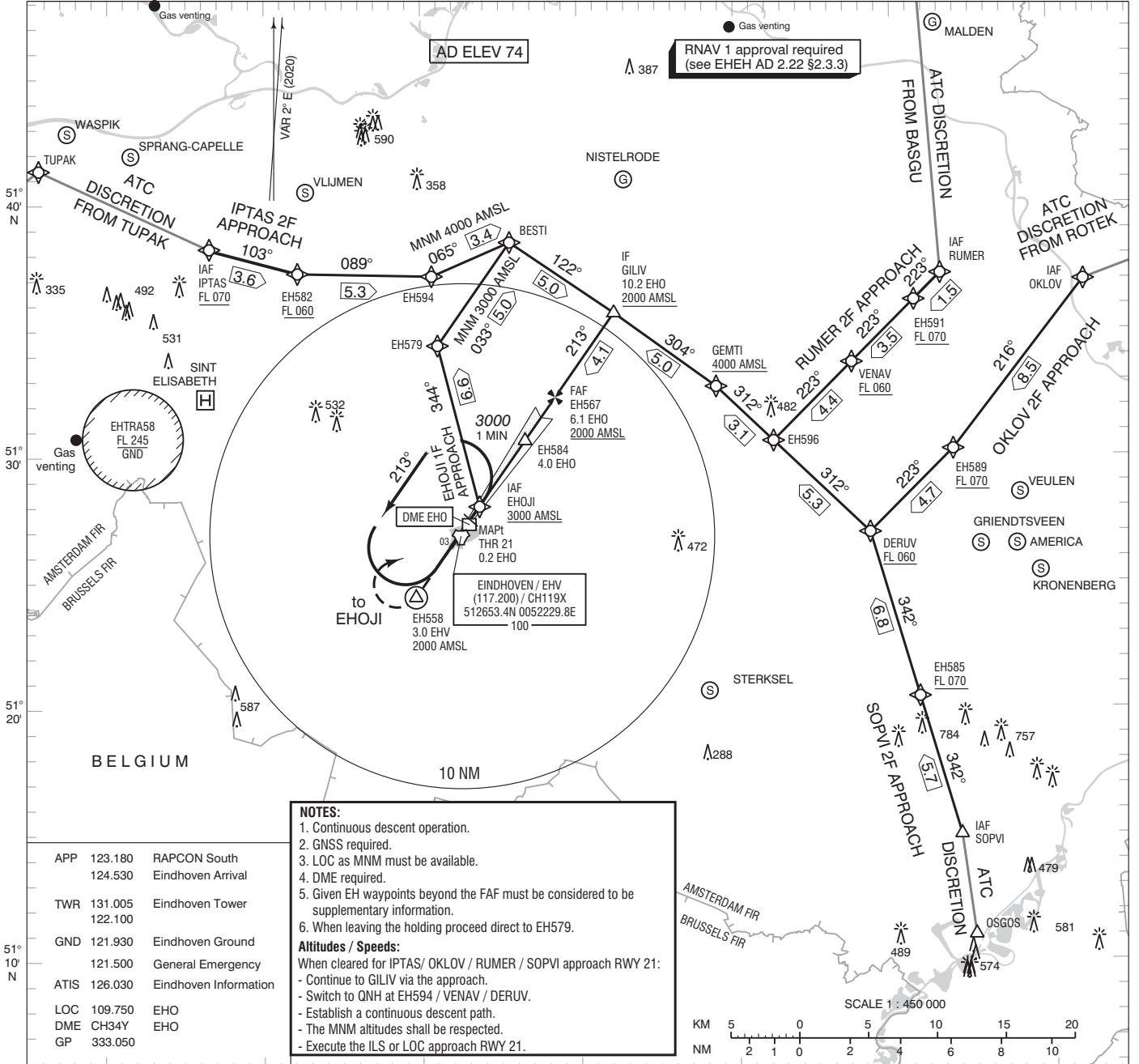
**DO NOT DESCEND BELOW THE DESCENT PROFILE**



DIST RELATED TO EHO DME	0 NM	0.2	1	2	3	4.0	5	6.1	7.9	10
GS IN KT	60	80	100	120	140	160	180			
VERTICAL SPEED	320 FT/MIN	425 FT/MIN	530 FT/MIN	635 FT/MIN	745 FT/MIN	850 FT/MIN	955 FT/MIN			

OCA (OCH) ELEV THR 21: 66.6 FT				THR 21 512733.8N 0052305.6E EH558 512428.9N 0051938.6E EH567 513223.9N 0052831.6E EH568 513350.9N 0053009.6E EH569 513558.1N 0053027.3E EH571 513444.8N 0053314.2E EH579 513427.3N 0052103.4E EH584 513041.2N 0052635.9E	MSA BASED ON ARP 
ACFT CAT	CAT I	LOC MAPt: THR	CIRCLING		
A	227 (160)	500 (433)	NOT ALLOWED		
B	236 (169)				
C	246 (179)				
D	256 (189)				
CEILING AND VISIBILITY MINIMA				BEARINGS ARE MAGNETIC DISTANCES IN NM ALTITUDES AND ELEVATIONS IN FEET	
TAKE-OFF	DAY: NA	NIGHT: NA			
LANDING	DAY: NA	NIGHT: NA			





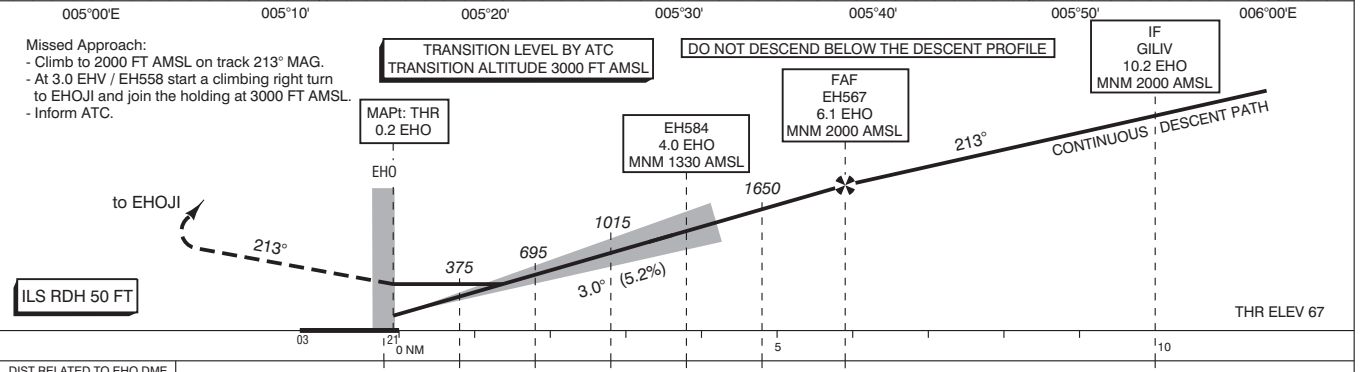
**NOTES:**

1. Continuous descent operation.
2. GNSS required.
3. LOC as MNM must be available.
4. DME required.
5. Given EH waypoints beyond the FAF must be considered to be supplementary information.
6. When leaving the holding proceed direct to EH579.

**Altitudes / Speeds:**  
When cleared for IPTAS / OKLOV / RUMER / SOPVI approach RWY 21:

- Continue to GILV via the approach.
- Switch to QNH at EH594 / VENAV / DERUV.
- Establish a continuous descent path.
- The MNM altitudes shall be respected.
- Execute the ILS or LOC approach RWY 21.

APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
TWR	131.005	Eindhoven Tower
	122.100	
GND	121.930	Eindhoven Ground
	121.500	General Emergency
ATIS	126.030	Eindhoven Information
LOC	109.750	EHO
DME	CH34Y	EHO
GP	333.050	

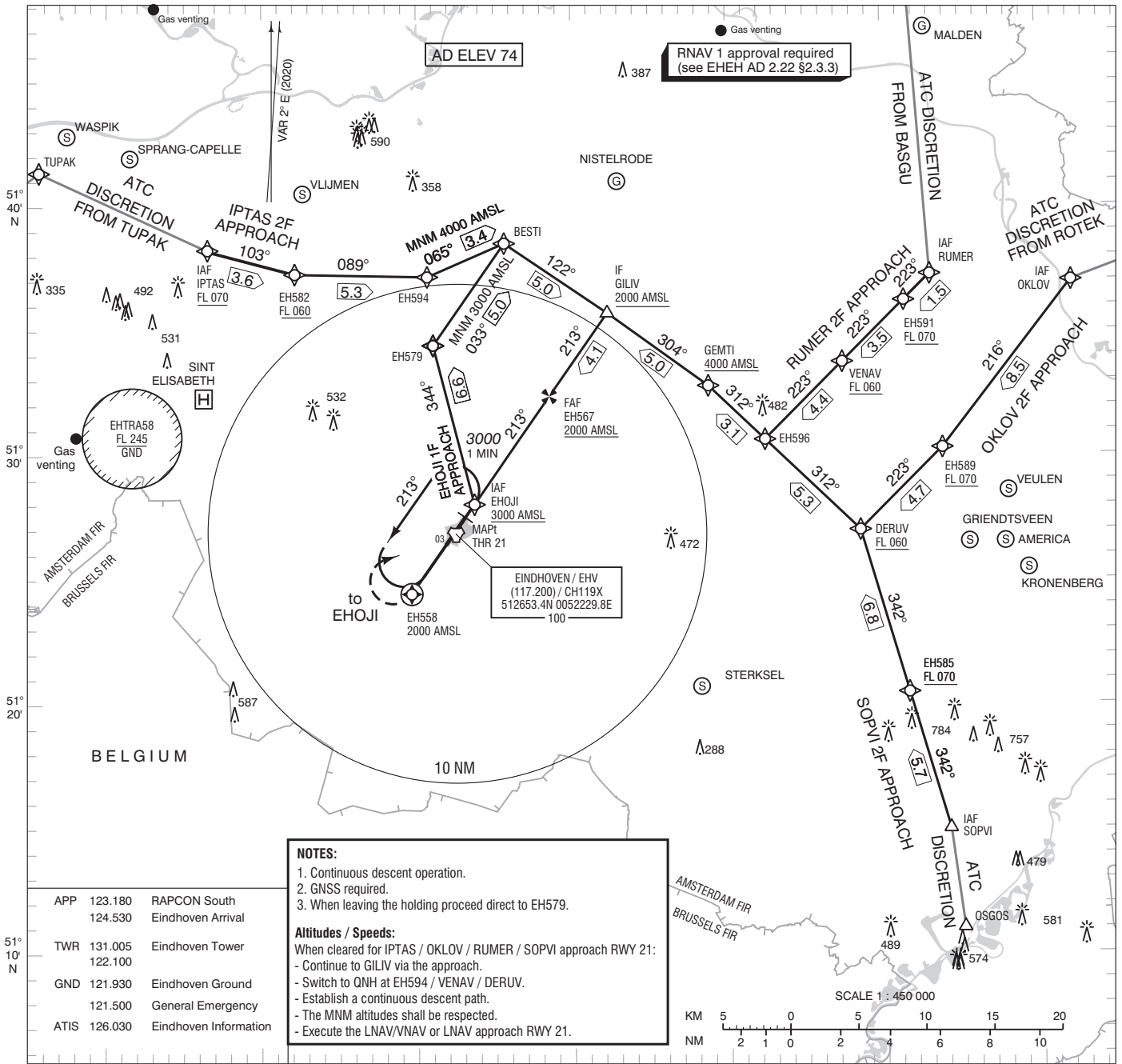


DIST RELATED TO EHO DME	0 NM	1	2	3	4.0	5	6.1	10	10.2
GS IN KT	60	80	100	120	140	160	180		
VERTICAL SPEED	320 FT/MIN	425 FT/MIN	530 FT/MIN	635 FT/MIN	745 FT/MIN	850 FT/MIN	955 FT/MIN		

OCA (OCH) ELEV THR 21: 66.6 FT				THR 21 512733.8N 0052305.6E		EH585 512028.2N 0055133.1E		MSA BASED ON ARP 1800
ACFT CAT	CAT I	LOC MAPT: THR	CIRCLING	EH558 512428.9N 0051938.6E	EH589 513016.1N 0055348.7E			
A	227 (160)	500 (433)	NOT ALLOWED	EH567 513223.9N 0052831.6E	EH591 513611.7N 0055123.1E			
B	236 (169)			EH579 513427.3N 0052103.4E	EH594 513712.4N 0052041.6E			
C	246 (179)			EH582 513719.3N 0051209.3E	EH596 513038.4N 0054223.6E			
D	256 (189)			EH584 513041.2N 0052635.9E				
CEILING AND VISIBILITY MINIMA				DIRECTIONS ARE MAGNETIC DISTANCES IN NM ALTITUDES AND ELEVATIONS IN FEET				
TAKE-OFF	DAY:	NA	NIGHT:	NA				
LANDING	DAY:			NA				







**NOTES:**  
 1. Continuous descent operation.  
 2. GNSS required.  
 3. When leaving the holding proceed direct to EH579.

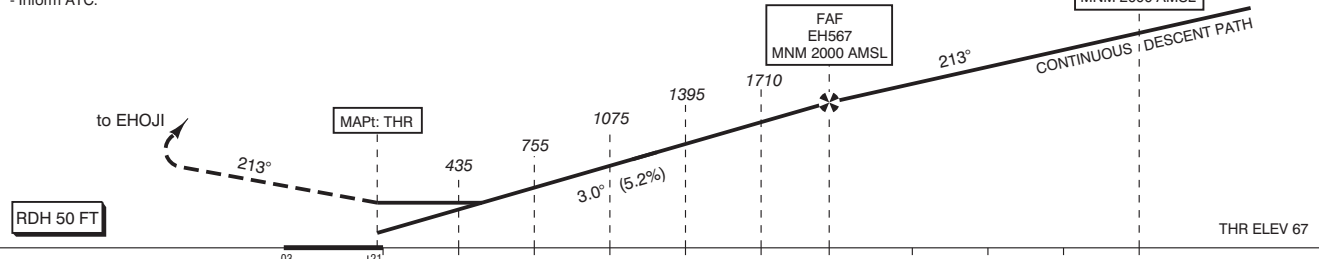
**Altitudes / Speeds:**  
 When cleared for IPTAS / OKLOV / RUMER / SOPVI approach RWY 21:  
 - Continue to GILIV via the approach.  
 - Switch to QNH at EH594 / VENAV / DERUV.  
 - Establish a continuous descent path.  
 - The MNM altitudes shall be respected.  
 - Execute the LNAV/VNAV or LNAV approach RWY 21.

APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
TWR	131.005	Eindhoven Tower
	122.100	
GND	121.930	Eindhoven Ground
	121.500	General Emergency
ATIS	126.030	Eindhoven Information

**Missed Approach:**  
 - Climb to 2000 FT AMSL on track 213° MAG.  
 - EH558 start a climbing right turn to EHOJI and join the holding at 3000 FT AMSL.  
 - Inform ATC.

TRANSITION LEVEL BY ATC  
 TRANSITION ALTITUDE 3000 FT AMSL

DO NOT DESCEND BELOW THE DESCENT PROFILE



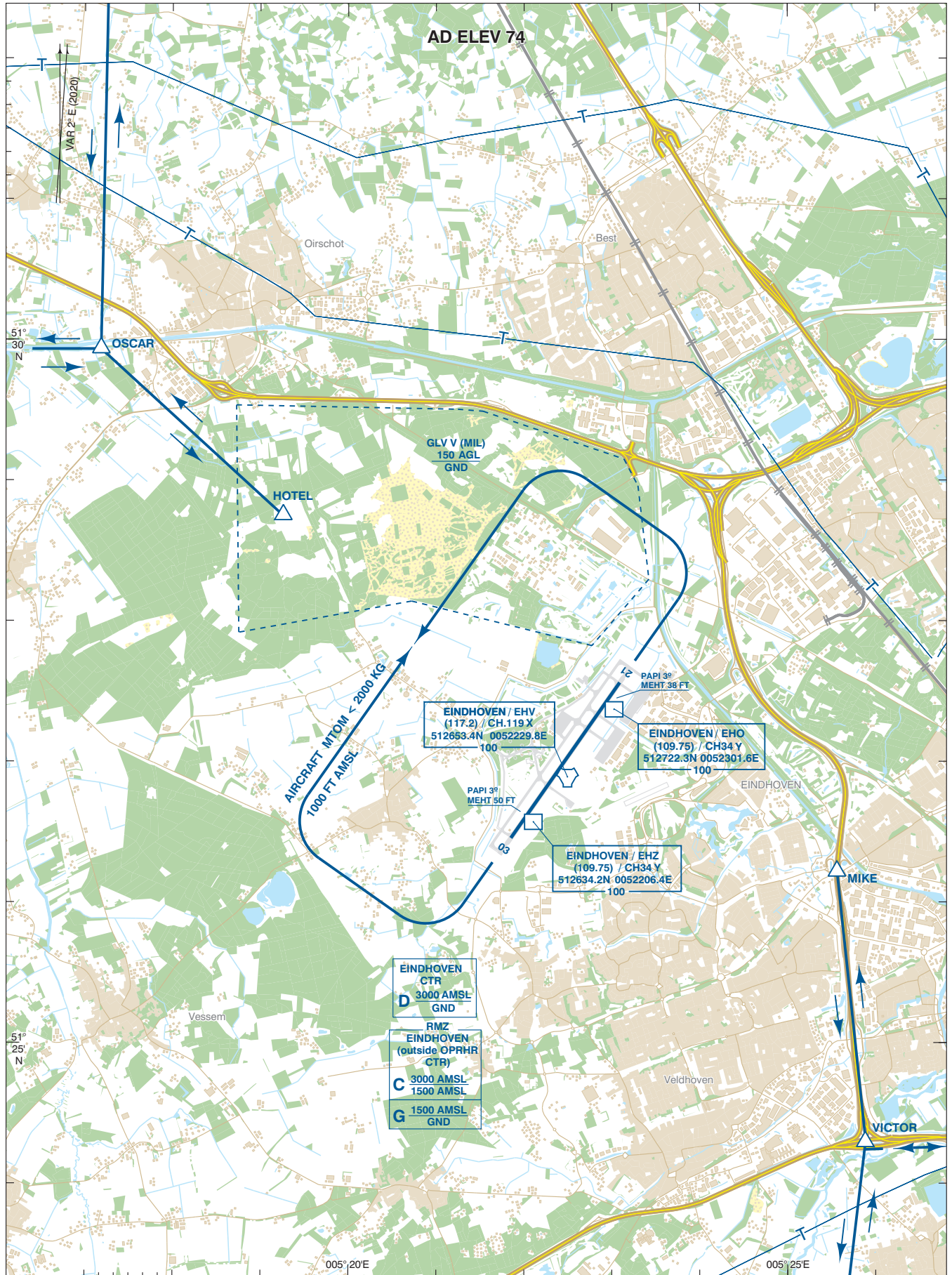
GS IN KT	60	80	100	120	140	160	180
VERTICAL SPEED	320 FT/MIN	425 FT/MIN	530 FT/MIN	635 FT/MIN	745 FT/MIN	850 FT/MIN	955 FT/MIN

OCA (OCH) ELEV THR 21: 66.6 FT				THR 21 512733.8N 0052305.6E		EH585 512028.2N 0055133.1E		MSA BASED ON ARP 1800
ACFT CAT	LNAV/VNAV MNM TEMP -20°C	LNAV MAPt: THR	CIRCLING	EH558 512428.9N 0051938.6E	EH589 513016.1N 0055348.7E			
A	334 (267)	450 (390)	NOT ALLOWED	EH567 513223.9N 0052831.6E	EH591 513611.7N 0055123.1E			
B	344 (277)			EH579 513427.3N 0052103.4E	EH594 513712.4N 0052041.6E			
C	354 (287)			EH582 513719.3N 0051209.3E	EH596 513038.4N 0054223.6E			
D	364 (297)							
CEILING AND VISIBILITY MINIMA				DIRECTIONS ARE MAGNETIC DISTANCES IN NM ALTITUDES AND ELEVATIONS IN FEET				
TAKE-OFF	DAY: NA	NIGHT: NA						
LANDING	DAY: NA	NIGHT: NA						

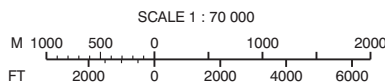








For description VFR - procedures see EHEH AD 2.22.



DIRECTIONS ARE MAGNETIC  
DISTANCES IN NM  
ALTITUDES AND ELEVATIONS  
IN FEET AMSL

TWR	131.005	Eindhoven Tower
GND	121.930	Eindhoven Ground
APP	123.180	RAPCON South
	124.530	Eindhoven Arrival
	132.530	
ATIS	126.030	Eindhoven Information

