This AIC includes 7 pages.

This AIC replaces AIC A 8/22.

RNP AR (Authorization Required) approach procedure RWY 16 at Wien-Schwechat airport (LOWW)

This AIC is issued to publish 2 RNP AR procedures: RNP N RWY 16 (AR) and RNP E RWY 16 (AR).

These RNP AR approaches are established for noise measuring purposes. Operators holding an authorization are invited to request these approaches on ATC frequency.
Clearance for RNP AR approach will be given as often as traffic situation and noise abatement restrictions allow.

All aircraft cleared for one of the approaches may expect radar vectors to the relevant IAF at an altitude coincident with the first vertical constraint of the procedure.

These procedures are available for all interested operators!
Procedure guideline and application process are published together with the relevant charts and coding tables on the next pages of this AIC.

RNP RWY 16 (AR) – Procedure Guidelines (Authorization required)
for the application to the Austrian Civil Aviation Authority
(refers to the procedure on chart!)

1. Purpose and Scope

This RNP AR Procedure is based on ICAO Doc 9905. ARINC 424 RF coding and navigation capability reduces the size of protected airspace during turn significantly since no wind spiral has to be considered.

NOTE: To assure availability of GNSS signal operators/pilots shall perform a RAIM check.
A tool (AUGUR by EUROCONTROL) is available on: https://augur.eurocontrol.int

2. Procedure Characteristics:

Nominal descent angle from FAP: 3.0° (5.2%).

Protected airspace is based on 2x RNP (e.g. 0,6 NM for RNP 0.3).

Protected airspace during RF Leg in accordance with ICAO Doc 9905.

The use of ARINC Path Terminators for the coding of the procedure must be limited to the following leg types:
IF, TF, RF, DF, HM.

ARINC 424 coding of the procedure for the transition from WW006 to WW004, WW002 to WW001 and WWW003 to WW001 must be RF.

During RF transition MAX IAS 185KT.

The required minimum missed approach climb gradient is 2,5% (ICAO PANS-OPS Standard).

This procedure requires special authorization by Austro Control. This authorization does not relieve the operator/pilot to obtain an approval/acceptance from the competent national aviation authority of the state of the operator/pilot.

3. Equipment Requirements

a) Approved Dual FMS installation according AC20-138() including RNP capability of 0.3NM or better (≤ 0.3NM)

b) Dual GNSS and at least one IRS or equivalent DME/DME or VOR/DME or LOC update not authorized

c) FMS must be capable to perform ARINC 424 RF Path Terminator

d) Required RNP AR APCH functions / airworthiness according EASA CS-ACNS as amended

4. Flight Operations

The applicable regulations linked to a Specific Approval for RNP AR APCH may be found in EASA Air Operations (Regulation (EU) No 965/2012). The applicable AMC/GM material within Part-ARO and Part-SPA.

5. Application

Only operators/pilots of multi-engine aircraft shall apply for such permission.

The application shall contain:

- aircraft type

- FMS type and certification

- instrument approach and landing chart

- flight crew training documentation for normal and non normal operation including documentation changes (FCOM, AFM, etc.)

- Data file with ARINC 424 coding of the procedure

- Safety Analysis in regard to accuracy, integrity, continuity and availability for normal and non normal operations

- a copy of the letter of approval to conduct RNP AR operations granted by their national aviation authority

This data shall be submitted in a listed form together with copies of the relevant pages of the Aeroplane Flight Manual and - if relevant - other certified data.

Applications shall be conveyed at least six weeks prior to the intended operations.
Note: Details for approval shall be obtained by special.procedures@austrocontrol.at

Operators shall address their application to:

Austro Control GmbH
Department ATM/IFP
Schnirchgasse 17
1030 Wien
AUSTRIA

FAX: +43 5 1703 2006

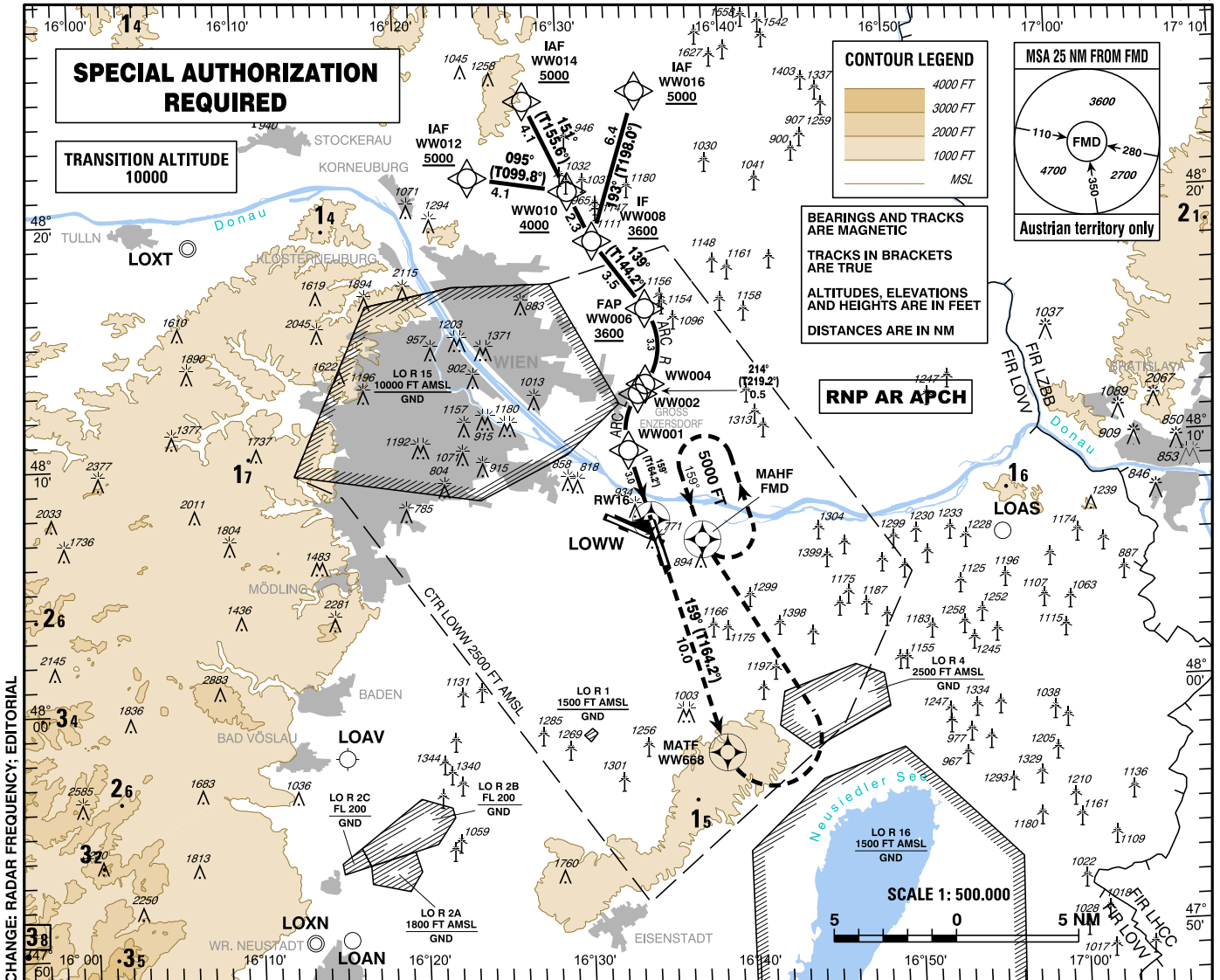e-mail: special.procedures@austrocontrol.at
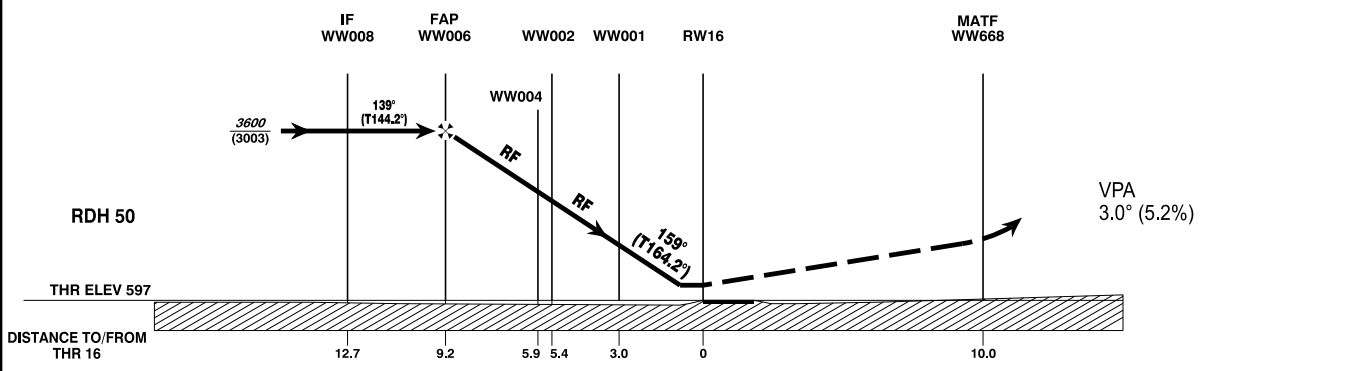
INSTRUMENT
APPROACH
CHART - ICAO

VAR 5° E

AD ELEV 600 FT
THR 16 ELEV 597 FT
HGT RELATED TO THR ELEV

RADAR	118.775	125.175	129.050	134.675	136.250
ARRIVAL	119.800	134.125			
TOWER	119.400	123.800	124.475		
GROUND	121.600	121.775			
ATIS	122.955				

WIEN-SCHWECHAT
ÖSTERREICH AUSTRIA
RNP N RWY 16 (AR)

SPECIAL AUTHORIZATION REQUIRED

TRANSITION ALTITUDE 10000

CONTOUR LEGEND

4000 FT
3000 FT
2000 FT
1000 FT
MSL

MSA 25 NM FROM FMD

3600
110 — FMD — 280
4700   350   2700

Austrian territory only

BEARINGS AND TRACKS ARE MAGNETIC

TRACKS IN BRACKETS ARE TRUE

ALTITUDES, ELEVATIONS AND HEIGHTS ARE IN FEET

DISTANCES ARE IN NM

RNP AR APCH

IAF WW014 5000
IAF WW016 5000
IAF WW012 5000

095° (T099.8°) 4.1

139° (T144.2°) 3.5

WW010 4000

IF WW008 3600

FAP WW006 3600

WW004

WW002

WW001

RW16

MAHF FMD

5000 FT

MATF WW668

159° (T164.2°) 10.0

214° (T219.2°) 0.5

LO R 15 10000 FT AMSL GND

LO R 1 1500 FT AMSL GND

LO R 2B FL 200 GND

LO R 2C FL 200 GND

LO R 2A 1800 FT AMSL GND

LO R 4 2500 FT AMSL GND

LO R 16 1500 FT AMSL GND

CTR LOWW 2500 FT AMSL

SCALE 1: 500.000

5   0   5 NM

| | IF WW008 | FAP WW006 | WW002 | WW001 | RW16 | MATF WW668 |

WW004

3600 (3003)

139° (T144.2°)

RF   RF

159° (T164.2°)

RDH 50

THR ELEV 597

VPA 3.0° (5.2%)

| DISTANCE TO/FROM THR 16 | 12.7 | 9.2 | 5.9 | 5.4 | 3.0 | 0 | 10.0 |

MISSED APPROACH: CLIMB STRAIGHT AHEAD, AT WW668 TURN LEFT DIRECT TO FMD; CLIMB TO 5000 FT AMSL AND HOLD.

OCA (OCH) In FT	A	B	C	D
RNP 0.3	1200 (610)			

GS (KT)	80	100	120	140	160	180
FT / MIN	420	530	640	740	850	960

1. GNSS and IRS required
2. DME/DME, LOC and VOR/DME updating not authorized
3. For uncompensated Baro-VNAV systems, procedure not authorized below AD temp -7°C
4. VPA exceeds 3.5° above +50°C

This procedure is permissable for special performance aircraft ONLY and requires authorization by Austro Control GmbH

Proposed Instrument Approach Procedure Coding Table
Wien-Schwechat RNP N RWY 16 (AR) - via WW014/WW016

Path Terminator	Waypoint				Course/ Track ° MAG (° True)	DIST NM	Turn Direction	ARC Centre Waypoint		ARC Radius NM
	Identifier	Type	Flyover	Coordinates				Identifier	Coordinates	
IF	WW014	IAF	no	N482428.90 E0162747.08						
IF	WW016	IAF	no	N482444.26 E0163441.48						
TF	WW008	IF	no	N481840.54 E0163143.98	151° (155.6°) 193° (198.0°)	6.4				
TF	WW006	FAP	no	N481550.24 E0163447.85	139° (144.2°)	3.5				
RF	WW004		no	N481245.07 E0163439.18		3.3	right	WW013	N481421.40 E0163142.56	2.54
TF	WW002		no	N481221.84 E0163410.80	214° (219.2°)	0.5				
RF	WW001		no	N481004.33 E0163328.07		2.4	left	WW011	N481045.54 E0163707.34	2.54
TF	RW16		yes	N480711.22 E0163441.40	159° (164.2°)	3.0				
TF	WW668	MATF	yes	N475734.06 E0163844.80	159° (164.2°)	10.0				
DF	FMD	MAHF	yes	N480618.41 E0163745.35			left			

Waypoint	Constraints		RNP Value NM	Navigation Specification	Remarks
Identifier	Level	Speed			
WW014	A5000+		1.0	RNP AR APCH	
WW016	A5000+		1.0	RNP AR APCH	
WW008	A3600+	K210-	1.0	RNP AR APCH	
WW006	A3600+	K185-	0.3	RNP AR APCH	
WW004			0.3	RNP AR APCH	
WW002			0.3	RNP AR APCH	
WW001			0.3	RNP AR APCH	
RW16			0.3	RNP AR APCH	
WW668			-	RNP APCH	Missed Approach based on RNP APCH Criteria
FMD	A5000+		-	RNP APCH	Missed Approach based on RNP APCH Criteria

RNAV Holding

Holding Point	Inbound Track ° True	Inbound Track ° MAG	Turn Direction	MAX IAS	Minimum Holding Altitude FT MSL / FL	Time	DIST NM	Remarks
FMD	163.6°	159°	left		A5000	1 MIN		

Proposed Instrument Approach Procedure Coding Table
Wien-Schwechat RNP N RWY 16 (AR) - via WW012

Path Terminator	Waypoint				Course/ Track ° MAG (° True)	DIST NM	Turn Direction	ARC Centre Waypoint		ARC Radius NM
	Identifier	Type	Flyover	Coordinates				Identifier	Coordinates	
IF	WW012	IAF	no	N482126.17 E0162415.22						
TF	WW010		no	N482044.17 E0163020.02	095° (099.8°)					
TF	WW008	IF	no	N481840.54 E0163143.98	151° (155.6°)	2.3	right			
TF	WW006	FAP	no	N481550.24 E0163447.85	139° (144.2°)	3.5				
RF	WW004		no	N481245.07 E0163439.18		3.3	right	WW013	N481421.40 E0163142.56	2.54
TF	WW002		no	N481221.84 E0163410.80	214° (219.2°)	0.5				
RF	WW001		no	N481004.33 E0163328.07		2.4	left	WW011	N481045.54 E0163707.34	2.54
TF	RW16		yes	N480711.22 E0163441.40	159° (164.2°)	3.0				
TF	WW668	MATF	yes	N475734.06 E0163844.80	159° (164.2°)	10.0				
DF	FMD	MAHF	yes	N480618.41 E0163745.35			left			

Waypoint	Constraints		RNP Value NM	Navigation Specification	Remarks
Identifier	Level	Speed			
WW012	A5000+		1.0	RNP AR APCH	
WW010	A4000+		1.0	RNP AR APCH	
WW008	A3600+	K210-	1.0	RNP AR APCH	
WW006	A3600+	K185-	0.3	RNP AR APCH	
WW004			0.3	RNP AR APCH	
WW002			0.3	RNP AR APCH	
WW001			0.3	RNP AR APCH	
RW16			0.3	RNP AR APCH	
WW668			-	RNP APCH	Missed Approach based on RNP APCH Criteria
FMD	A5000+		-	RNP APCH	Missed Approach based on RNP APCH Criteria

RNAV Holding

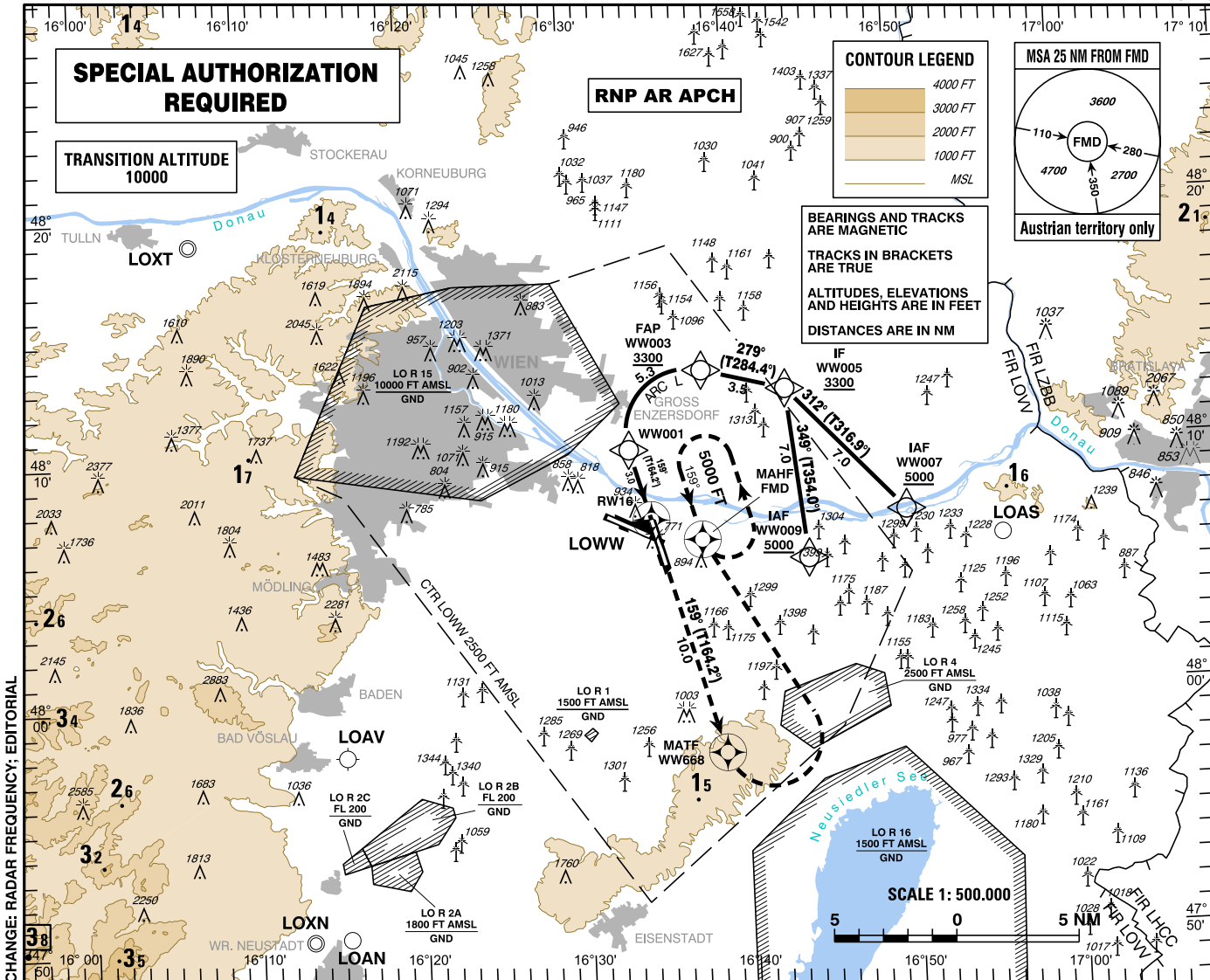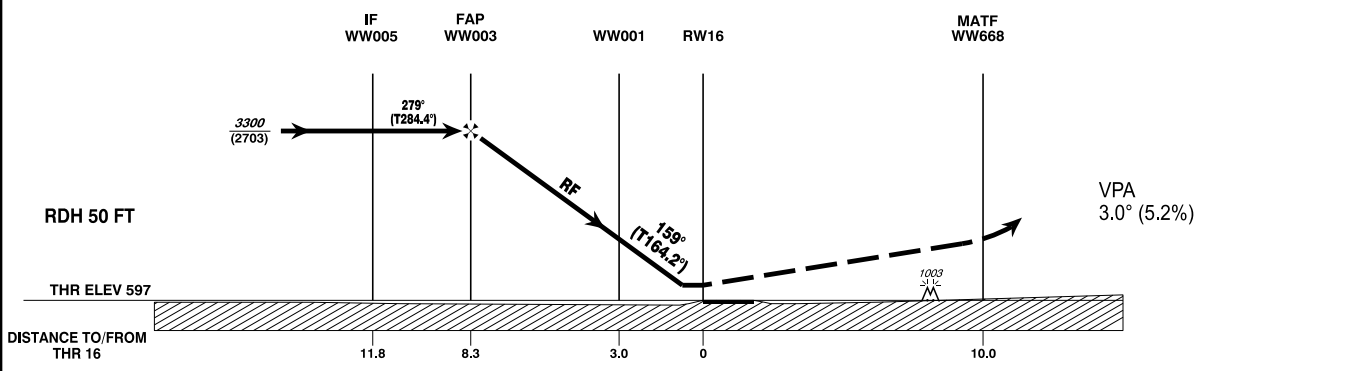| Holding Point	Inbound Track ° True	Inbound Track ° MAG	Turn Direction	MAX IAS	Minimum Holding Altitude FT MSL / FL	Time	DIST NM	Remarks
FMD	163.6°	159°	left		A5000	1 MIN		

VAR 5° E

AD ELEV 600 FT
THR 16 ELEV 597 FT
HGT RELATED TO THR ELEV

RADAR	118.775 125.175 129.050 134.675 136.250
ARRIVAL	119.800 134.125
TOWER	119.400 123.800 124.475
GROUND	121.600 121.775
ATIS	122.955

WIEN-SCHWECHAT
ÖSTERREICH AUSTRIA
RNP E RWY 16 (AR)

**SPECIAL AUTHORIZATION
REQUIRED**

RNP AR APCH

**TRANSITION ALTITUDE
10000**

CONTOUR LEGEND

4000 FT
3000 FT
2000 FT
1000 FT
MSL

MSA 25 NM FROM FMD

3600
110   FMD   280
4700   350   2700

Austrian territory only

BEARINGS AND TRACKS
ARE MAGNETIC

TRACKS IN BRACKETS
ARE TRUE

ALTITUDES, ELEVATIONS
AND HEIGHTS ARE IN FEET

DISTANCES ARE IN NM

FAP
WW003
3300
5.3

279°
(T284.4°)

IF
WW005
3300

312°
(T316.9°)

349° (T354.0°)

IAF
WW007
5000

WW001

MAHF
FMD

IAF
WW009
5000

RW16

LOWW

5000 FT

159° (T164.2°)

MATF
WW668

LO R 15
10000 FT AMSL
GND

LO R 1
1500 FT AMSL
GND

LO R 4
2500 FT AMSL
GND

LO R 16
1500 FT AMSL
GND

LO R 2C
FL 200
GND

LO R 2B
FL 200
GND

LO R 2A
1800 FT AMSL
GND

CTR LOWW 2500 FT AMSL

SCALE 1: 500.000

5   0   5 NM

CHANGE: RADAR FREQUENCY; EDITORIAL

| IF | FAP | | MATF |
| WW005 | WW003 | WW001   RW16 | WW668 |

3300
(2703)

279°
(T284.4°)

RDH 50 FT

RF

159°
(T164.2°)

VPA
3.0° (5.2%)

THR ELEV 597

DISTANCE TO/FROM
THR 16

| 11.8 | 8.3 | 3.0 | 0 | 10.0 |

MISSED APPROACH: CLIMB STRAIGHT AHEAD, AT WW668 TURN LEFT DIRECT TO FMD;
CLIMB TO 5000 FT MSL AND HOLD.

OCA (OCH) In FT	A	B	C	D
RNP 0.3	1200 (610)			

GS (KT)	80	100	120	140	160	180
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1. GNSS and IRS required
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3. For uncompensated Baro-VNAV systems, procedure not authorized below AD temp -7°C
4. VPA exceeds 3.5° above +50°C

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for special performance
aircraft ONLY and requires
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Austro Control GmbH

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Wien-Schwechat RNP E RWY 16 (AR)

Path Terminator	Waypoint				Course/Track ° MAG (° True)	DIST NM	Turn Direction	ARC Centre Waypoint		ARC Radius NM
	Identifier	Type	Flyover	Coordinates				Identifier	Coordinates	
IF	WW009	IAF	no	N480523.87 E0164413.08						
IF	WW007	IAF	no	N480714.77 E0165016.06						
TF	WW005	IF	no	N481221.09 E0164307.62	349° (354.0°) / 312° (316.9°)	7.0				
TF	WW003	FAP	no	N481313.20 E0163803.37	279° (284.4°)	3.5				
RF	WW001		no	N481004.33 E0163328.07		5.3	left	WW011	N481045.54 E0163707.34	2.54
TF	RW16		yes	N480711.22 E0163441.40	159° (164.2°)	3.0				
TF	WW668	MATF	yes	N475734.06 E0163844.80	159° (164.2°)	10.0				
DF	FMD	MAHF	yes	N480618.41 E0163745.35			left			

Waypoint Identifier	Constraints		RNP Value NM	Navigation Specification	Remarks
	Level	Speed			
WW009	A5000+		1.0	RNP AR APCH	
WW007	A5000+		1.0	RNP AR APCH	
WW005	A3300+	K210-	1.0	RNP AR APCH	
WW003	A3300+	K185-	0.3	RNP AR APCH	
WW001			0.3	RNP AR APCH	
RW16			0.3	RNP AR APCH	
WW668			-	RNP APCH	Missed Approach based on RNP APCH Criteria
FMD	A5000+		-	RNP APCH	Missed Approach based on RNP APCH Criteria

RNAV Holding

Holding Point	Inbound Track ° True	Inbound Track ° MAG	Turn Direction	MAX IAS	Minimum Holding Altitude FT MSL / FL	Time	DIST NM	Remarks
FMD	163.6°	159°	left		A5000	1 MIN		