

CHANGE: 'GRT' L DISMISSED

AIRSPACE CLASSIFICATION See AIP ENR 1.4	REMARK	WARNING
TRANSITION ALT 5000 FT		(1) PILOTS ARE STRONGLY REQUESTED TO WATCH FOR AND PAY ATTENTION DUE TO THE PRESENCE OF THE OBSTACLES (AEOLIC PROPELLERS) LOCATED CLOSE TO APPROACH SURFACE RWY35. THE ABOVE MENTIONED OBSTACLES DO NOT INTERFERE WITH APPROACH SURFACE RWY35.
ELEV AND ALT IN FT IF NOT OTHERWISE INDICATED		

ICAO - INSTRUMENT APPROACH CHART

AD 2 LIBG 5-3

DOC.8168-ED.7-2020

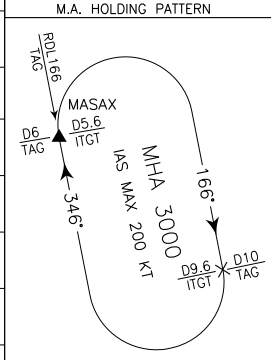
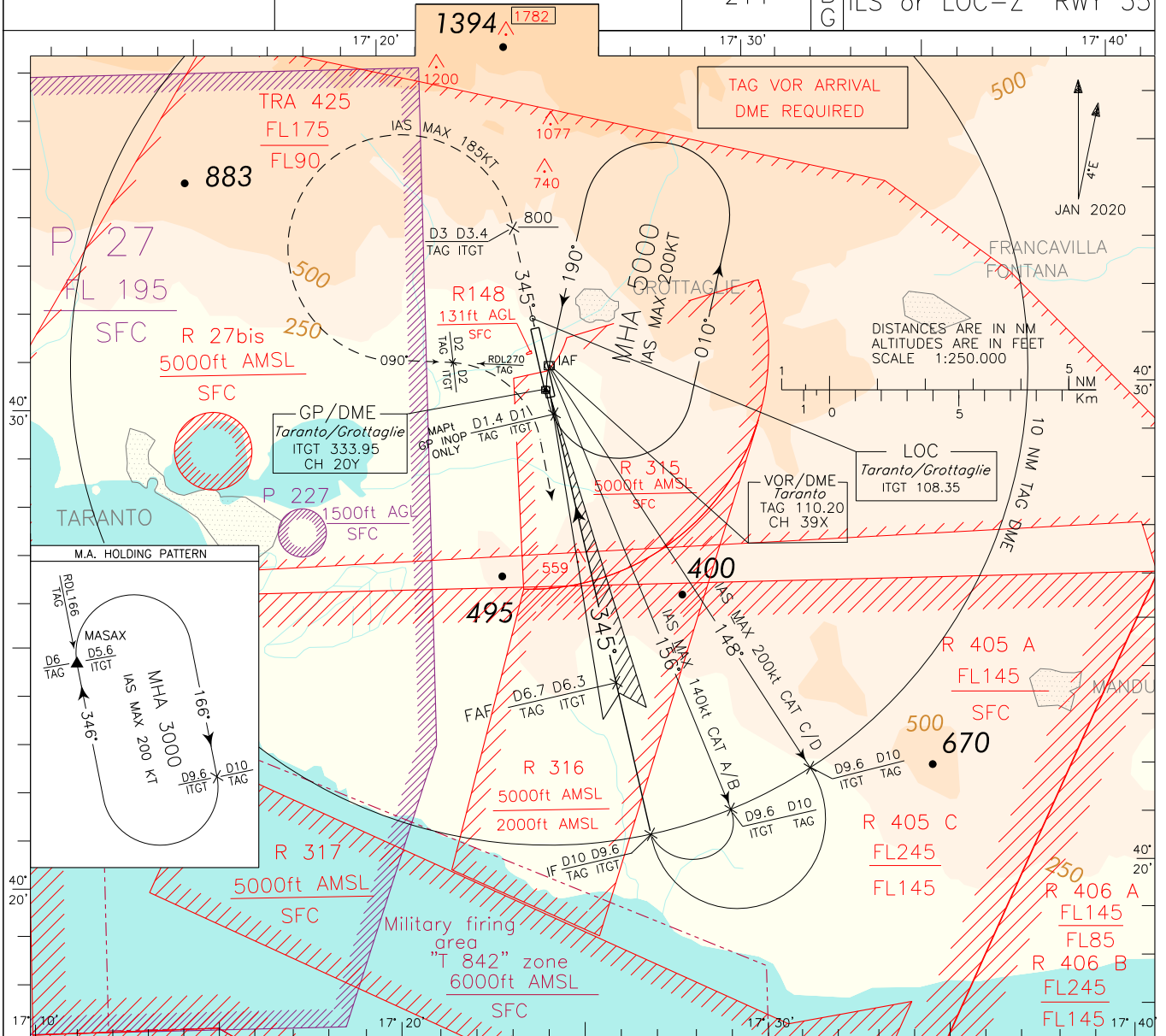
CHANGE: PROCEDURE REVISED

APP *Grottaglie APP* 118.700
 TWR *Grottaglie TWR* 118.700

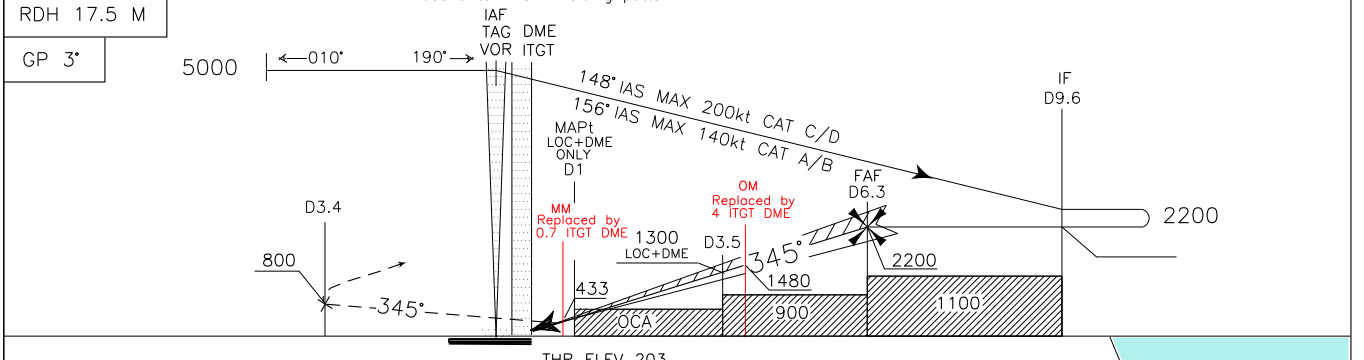
AD ELEV
214

LIBG

TARANTO/GROTTAGLIE
 ILS or LOC-Z RWY 35



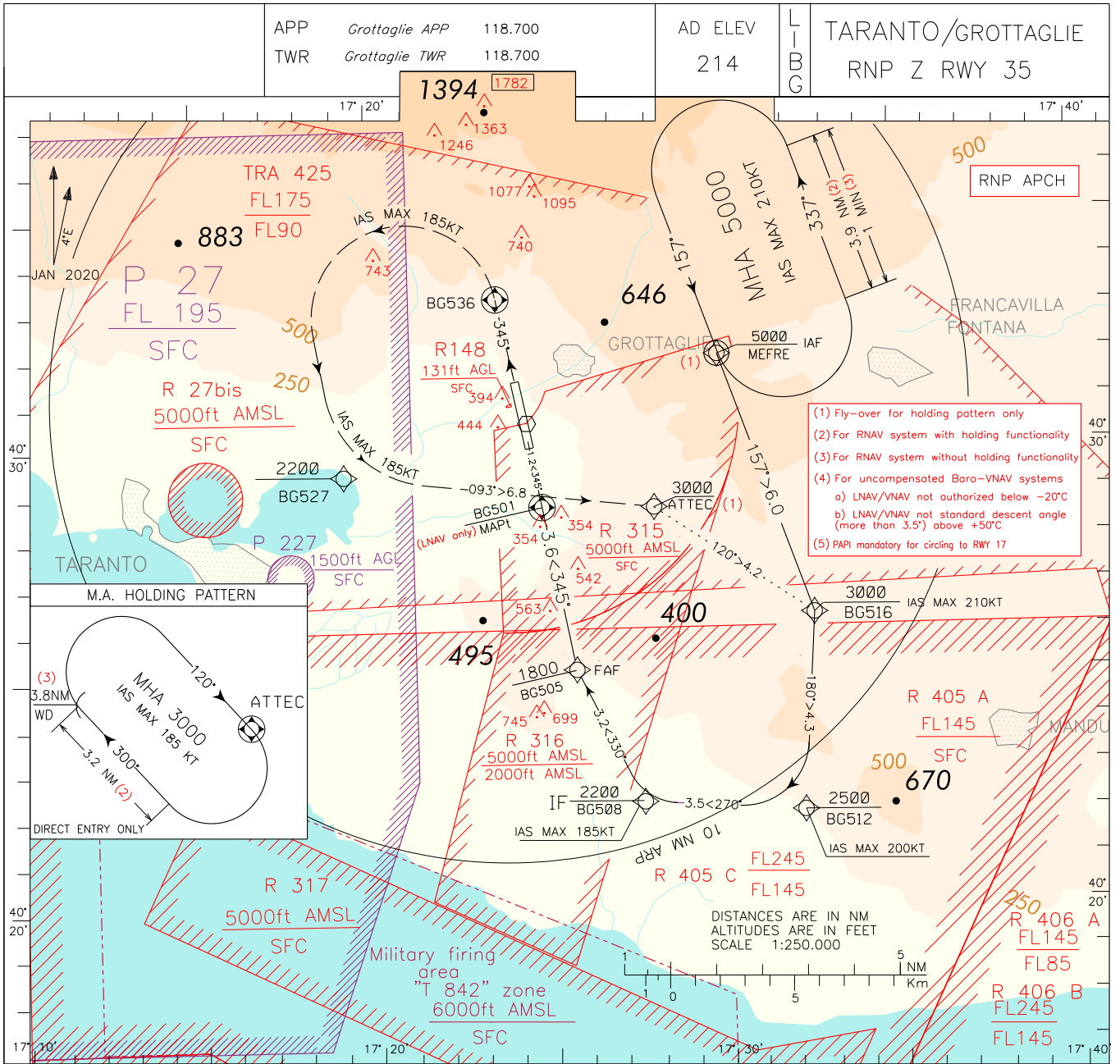
TRANSITION ALT 5000 MISSED APPROACH: Proceed on track 345° climbing to 3000 ft. At D3.4 ITGT, at 800 ft or above, turn left (IAS MAX 185KT) to join RDL 270 TAG VOR (TR 090°). On RDL 270/2NM TAG VOR/DME turn right to join RDL 166 (TR 166°) bound to MASAX holding pattern



ITGT DME	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	ITGT DME		
NM	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	NM

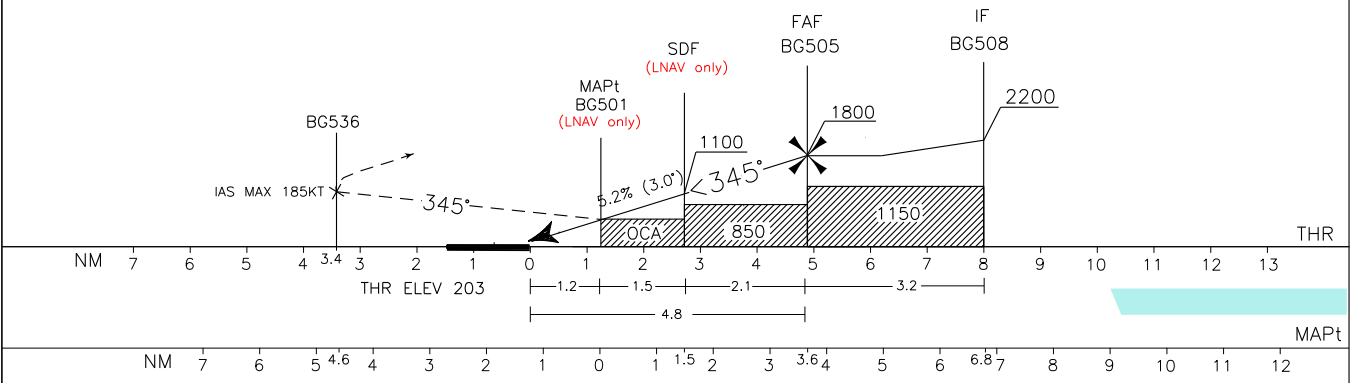
STRAIGHT IN APPROACH	OCA (OCH)				CIRCLING	GS	FT PER MIN	D3.5-MAPt 2.5 NM	MAPt-THR 0.8 NM	ITGT DME	ALT (HGT)	MNM SECT ALT	
	A	B	C	D								TAG	VOR
ILS	414(211)	424(221)	434(231)	445(242)		80	425	01 : 53	00 : 37	6	2116(1913)		
LOC+DME	730(527)					100	531	01 : 30	00 : 30	4	1479(1276)		
	WARNING: PAPI mandatory for circling to RWY 17					120	637	01 : 15	00 : 25	3	1161(958)		
						140	743	01 : 04	00 : 21	2	842(639)		
CIRCLING	1000 (786)		1310 (1096)			160	849	01 : 56	00 : 19	1	523(320)		

CHANGE: INITIAL APPROACH SEGMENT MODIFIED. RENUMBERED CHART



- (1) Fly-over for holding pattern only
- (2) For RNAV system with holding functionality
- (3) For RNAV system without holding functionality
- (4) For uncompensated Baro-VNAV systems
 - a) LNAV/VNAV not authorized below -20°C
 - b) LNAV/VNAV not standard descent angle (more than 3.5°) above +50°C
- (5) PAPI mandatory for circling to RWY 17

TRANSITION ALT 5000
 MISSED APPROACH: Climbing to 3000 ft, proceed to BG536 on course 345°. At BG536, turn left (IAS MAX 185KT) direct to BG527, then turn left (IAS MAX 185KT) to ATTEC on track 093° and hold.
 TCH 17.5 M



STRAIGHT IN APPROACH	OCA (OCH)	A	B	C	D	CIRCLING	NOT ALLOWED	GS	FT PER MIN	DIST. to RWY35	DIST. to MAPt	ALT (HGT)	MNM SECT ALT
	LNAV/VNAV (4)	599(396)	611(408)	619(416)	630(427)			80	425	4.2	3	1600(1397)	25NM
	LNAV	650(447)						100	531	3.2	2	1280(1077)	3200
	CIRCLING (5)	900 (686)	1050 (836)	1470 (1256)	1650 (1436)		120	637	2.2	1	960(757)		
							140	743					
							160	849					

TABULAR DESCRIPTION

RNP Z RWY35 – Instrument Approach procedure – Transition Via MEFRE

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH	Navigation Specification
010	IF	MEFRE	-	-	-	-	-	+5000	-	-	RNP 1
020	TF	BG516	-	157° (160.8°)	-	6.0	-	+3000	-210	-	RNP 1
030	TF	BG512	-	180° (184.0°)	-	4.3	-	+2500	-200	-	RNP 1
040	TF	BG508	-	270° (274.0°)	-	3.5	-	+2200	-185	-	RNP 1
050	TF	BG505	-	330° (334.1°)	-	3.2	-	+1800	-	-	RNP APCH
060	TF	BG501	Y	345° (348.7°)	-	3.6	-	+650 (1)	-	-	RNP APCH
070	-	RWY35	Y	345° (348.7°)	-	1.2	-	@260 (2)	-	-3.0/17.5	RNP APCH
-	CF	BG536	Y	345° (348.7°)	+4	-	-	-	-185	-	RNP APCH
080	DF	BG527	-	-	-	-	-	+2200	-185	-	RNP 1
090	TF	ATTEC	-	093° (096.6°)	-	6.8	-	+3000	-185	-	RNP 1
100	HM (3)	ATTEC	Y	120°(124.0°)	+4	-	R	+3000	-185	-	RNP 1

RNP Z RWY35 – Instrument Approach procedure – Transition Via ATTEC (following Missed Approach)

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH	Navigation Specification
010	IF	ATTEC	-	-	-	-	-	+3000	-	-	RNP 1
020	TF	BG516	-	120° (124.5°)	-	4.2	-	+3000	-210	-	RNP 1
030	TF	BG512	-	180° (184.0°)	-	4.3	-	+2500	-200	-	RNP 1
040	TF	BG508	-	270° (274.0°)	-	3.5	-	+2200	-185	-	RNP 1
050	TF	BG505	-	330° (334.1°)	-	3.2	-	+1800	-	-	RNP APCH
060	TF	BG501	Y	345° (348.7°)	-	3.6	-	+650 (1)	-	-	RNP APCH
070	-	RWY35	Y	345° (348.7°)	-	1.2	-	@260 (2)	-	-3.0/17.5	RNP APCH
-	CF	BG536	Y	345° (348.7°)	+4	-	-	-	-185	-	RNP APCH
080	DF	BG527	-	-	-	-	-	+2200	-185	-	RNP 1
090	TF	ATTEC	-	093° (096.6°)	-	6.8	-	+3000	-185	-	RNP 1
100	HM (3)	ATTEC	Y	120°(124.0°)	+4	-	R	+3000	-185	-	RNP 1

(1) For LNAV only

(2) THR Altitude plus TCH

(3) Direct Entry Only

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (4)	Timing(min.)/ Waypoint Distance (NM) (5)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	MEFRE	157°(160.8°)	3.9	1.0 / -	L	+5000	-	-210	+4	RNP 1
HM (3)	ATTEC	120°(124.0°)	3.2	- / 3.8	R	+3000	-	-185	+4	RNP 1

(3) Direct Entry Only

(4) RNAV system with holding functionality

(5) RNAV system without holding functionality.

WAYPOINT LIST

Waypoint Identifier	Coordinates
BG501	40°28'45.78" N - 017°24'47.96" E
BG505	40°25'11.78" N 017°25'44.18" E
BG508	40°22'17.76" N - 017°27'34.83" E
BG512	40°22'03.19" N 017°32'08.92" E
BG516	40°26'20.75" N 017°32'32.47" E
BG527	40°29'29.50" N 017°19'13.15" E
BG536	40°33'19.01" N 017°23'35.96" E

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TABULAR DESCRIPTION

RNP Y RWY35 – Instrument Approach procedure – Transition Via MEFRE

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH	Navigation Specification
010	IF	MEFRE	-	-	-	-	-	+5000	-	-	RNP 1
020	TF	BG516	-	157° (160.8°)	-	6.0	-	+3000	-210	-	RNP 1
030	TF	BG512	-	180° (184.0°)	-	4.3	-	+2500	-200	-	RNP 1
040	TF	BG708	-	262° (266.1°)	-	4.2	-	+2200	-185	-	RNP 1
050	TF	BG505	-	345° (348.7°)	-	3.5	-	+1800	-	-	RNP APCH
060	-	RWY35	Y	345° (348.7°)	-	4.8	-	@260 (1)	-	-3.0/17.5	RNP APCH
-	CF	BG536	Y	345° (348.7°)	+4	-	-	-	-185	-	RNP APCH
070	DF	BG527	-	-	-	-	-	+2200	-185	-	RNP 1
080	TF	ATTEC	-	093° (096.6°)	-	6.8	-	+3000	-185	-	RNP 1
090	HM (2)	ATTEC	Y	120°(124.0°)	+4	-	R	+3000	-185	-	RNP 1

RNP Y RWY35 – Instrument Approach procedure – Transition Via ATTEC (following Missed Approach)

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA/ TCH	Navigation Specification
010	IF	ATTEC	-	-	-	-	-	+3000	-	-	RNP 1
020	TF	BG516	-	120° (124.5°)	-	4.2	-	+3000	-210	-	RNP 1
030	TF	BG512	-	180° (184.0°)	-	4.3	-	+2500	-200	-	RNP 1
040	TF	BG708	-	262° (266.1°)	-	4.2	-	+2200	-185	-	RNP 1
050	TF	BG505	-	345° (348.7°)	-	3.5	-	+1800	-	-	RNP APCH
060	-	RWY35	Y	345° (348.7°)	-	4.8	-	@260 (1)	-	-3.0/17.5	RNP APCH
-	CF	BG536	Y	345° (348.7°)	+4	-	-	-	-185	-	RNP APCH
070	DF	BG527	-	-	-	-	-	+2200	-185	-	RNP 1
080	TF	ATTEC	-	093° (096.6°)	-	6.8	-	+3000	-185	-	RNP 1
090	HM (2)	ATTEC	Y	120°(124.0°)	+4	-	R	+3000	-185	-	RNP 1

(1) THR Altitude plus TCH

(2) Direct Entry Only

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (3)	Timing(min.)/ Waypoint Distance (NM) (4)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	MEFRE	157°(160.8°)	3.9	1.0 / -	L	+5000	-	-210	+4	RNP 1
HM (2)	ATTEC	120°(124.0°)	3.2	- / 3.8	R	+3000	-	-185	+4	RNP 1

(2) Direct Entry Only

(3) RNAV system with holding functionality

(4) RNAV system without holding functionality

WAYPOINT LIST

Waypoint Identifier	Coordinates
BG505	40°25'11.78" N 017°25'44.18" E
BG512	40°22'03.19" N 017°32'08.92" E
BG516	40°26'20.75" N 017°32'32.47" E
BG527	40°29'29.50" N 017°19'13.15" E
BG536	40°33'19.01" N 017°23'35.96" E
BG708	40°21'45.77" N 017°26'38.28" E

SBAS FAS DATA BLOCK LIBG RNP Y RWY35

INPUT DATA	
PARAMETERS	VALUES
Operation Type MAPt	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LIBG
Runway	35
Runway Direction	0 (None)
Approach Performance Designator	0
Route Indicator	Y
Reference Path Data Selector	0
Reference Path Identifier	E35A
LTP/FTP Latitude	402956.4175N
LTP/FTP Longitude	0172429.3805E
LTP/FTP Ellipsoidal Height (metres)	104.6
FPAP Latitude	403130.7455N
Delta FPAP Latitude (seconds)	94.3280
FPAP Longitude	0172404.5510E
Delta FPAP Longitude (seconds)	-24.8295
Threshold Crossing Height	17.50
TCH Units Selector	1 (meters)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	16
HAL	40.0
VAL	35.0

OUTPUT DATA	
Data Block	10 07 02 09 0C 23 C8 00 01 35 33 05 83 5A 61 11 89 84 78 07 16 18 F0 E0 02 05 3E FF 5E 81 2C 01 64 02 C8 AF 45 91 A8 2F
Calculated CRC Value	4591A82F

Required Additional Data	
ICAO Code	LI
LTP/FTP Orthometric Height (metres)	61.8

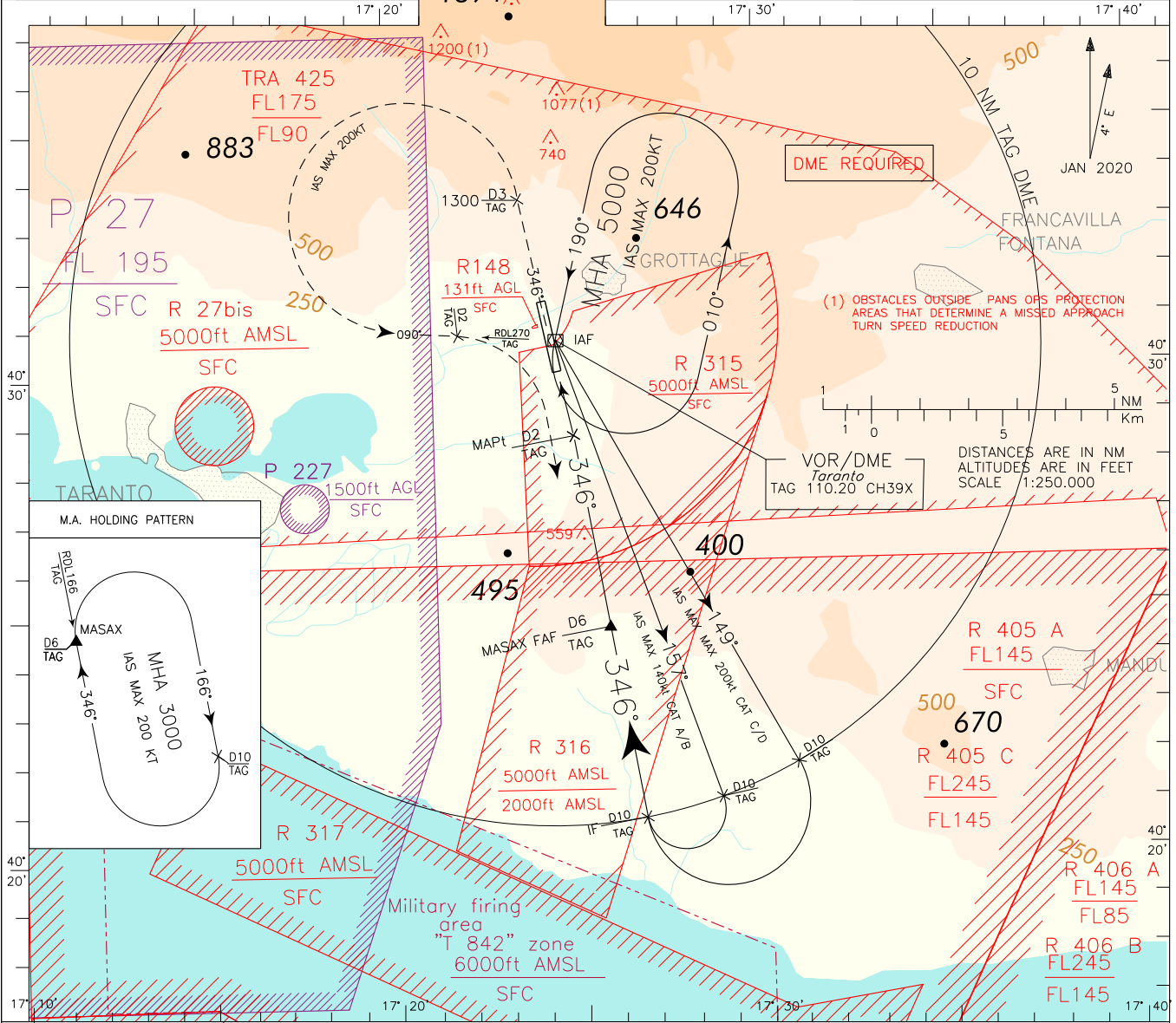
ICAO - INSTRUMENT APPROACH CHART

AD 2 LIBG 5-13

REMARK 2: Final track off set 1'52' from RWY centreline. RWY centreline intercepted 5184 m before THR 35	APP	Grottaglie APP	118.700	AD ELEV	LIBG	TARANTO/GROTTAGLIE VOR Z RWY 35
	TWR	Grottaglie TWR	118.700	214		

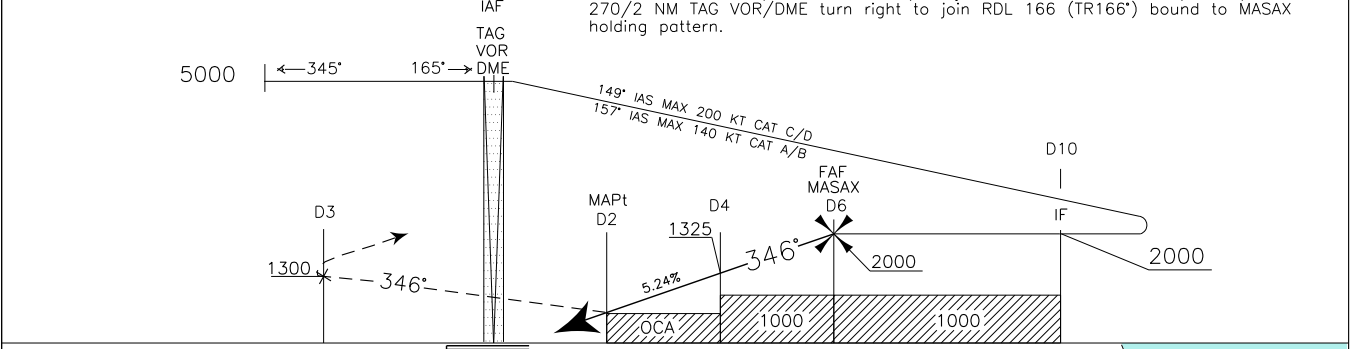
DOC 8168 ED 7 - 2020

CHANGE: RENUMBERED CHART



TRANSITION ALT 5000

MISSED APPROACH: At D2 TAG DME proceed on track 346°. Climbing to 3000 ft. At D3 TAG, at 1300 ft or above turn left (IAS MAX 200 KT) to join RDL 270 TAG VOR (TR090°). On RDL 270/2 NM TAG VOR/DME turn right to join RDL 166 (TR166°) bound to MASAX holding pattern.



TAG DME		6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	TAG DME			
NM		8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
OCA (OCH)		A	B	C	D	CIRCLING		GS		FT PER MIN		FAF-MAPT		MAPt-THR		TAG DME		ALT (HGT)		MNM SECT ALT				
STRAIGHT IN APPROACH		VOR		800 (597)		NOT ALLOWED		80	425	03 : 00		01 : 03		6		2000(1797)		TAG		VOR				
CIRCLING		1000 (786)		1500 (1286)		WARNING: PAPI mandatory for circling to RWY 17		100	531	02 : 24		00 : 50		5		1680(1477)		3200		2800				
								120	637	02 : 00		00 : 42		3		1045(842)								
								140	743	01 : 43		00 : 36												
								160	849	01 : 30		00 : 32												