
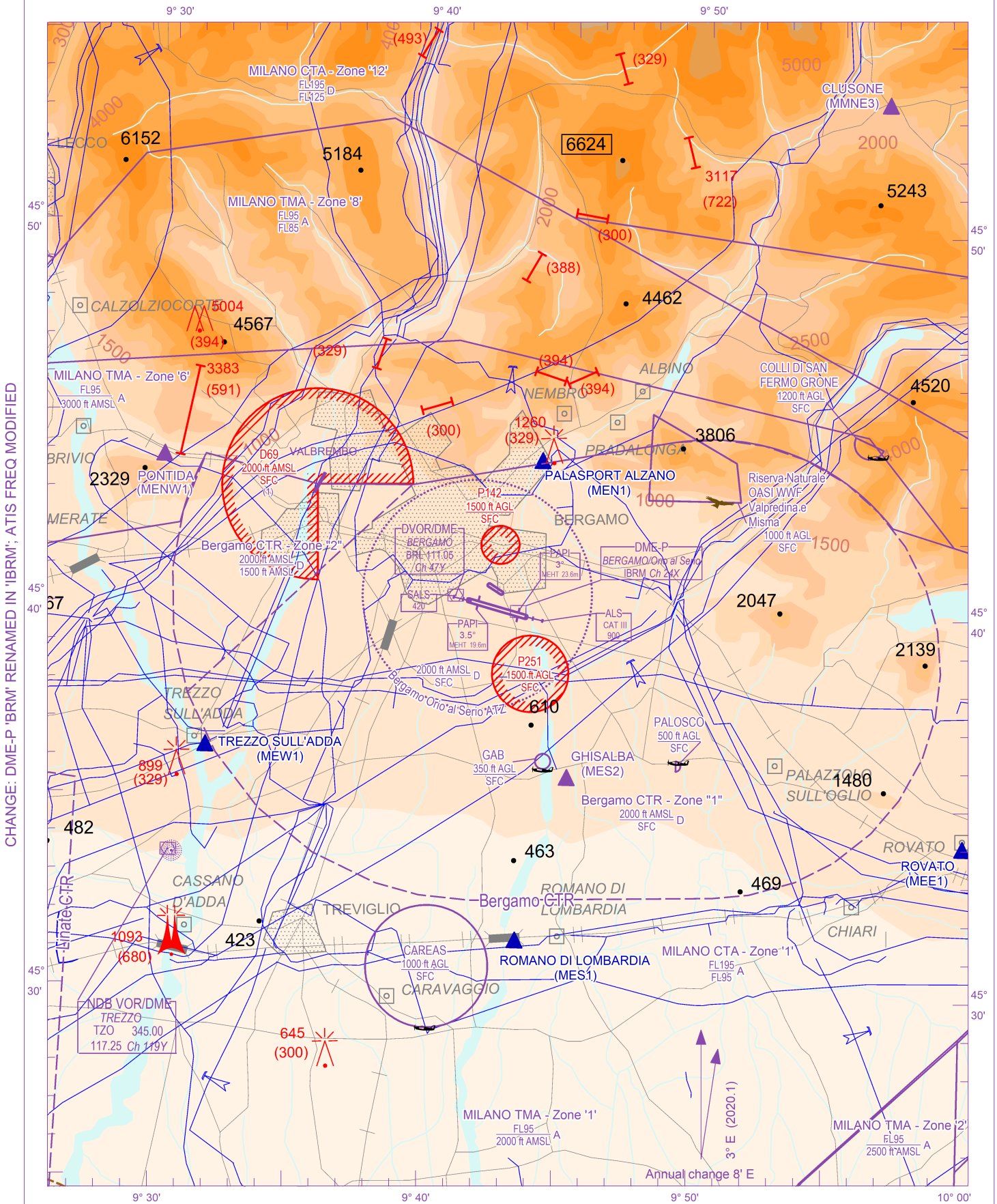


<p>SCALE 1:250.000</p> 	<p>FIS Milano Information 124.925                  APP Milano Radar 126.300 126.750                  TWR Orio TWR 125.875 (CH 134.105)                  ATIS Bergamo ATIS information CH 118.540</p>	<p>AD ELEV 782</p>	<p>L I M E</p>	<p><b>BERGAMO/ORIO AL SERIO</b></p>
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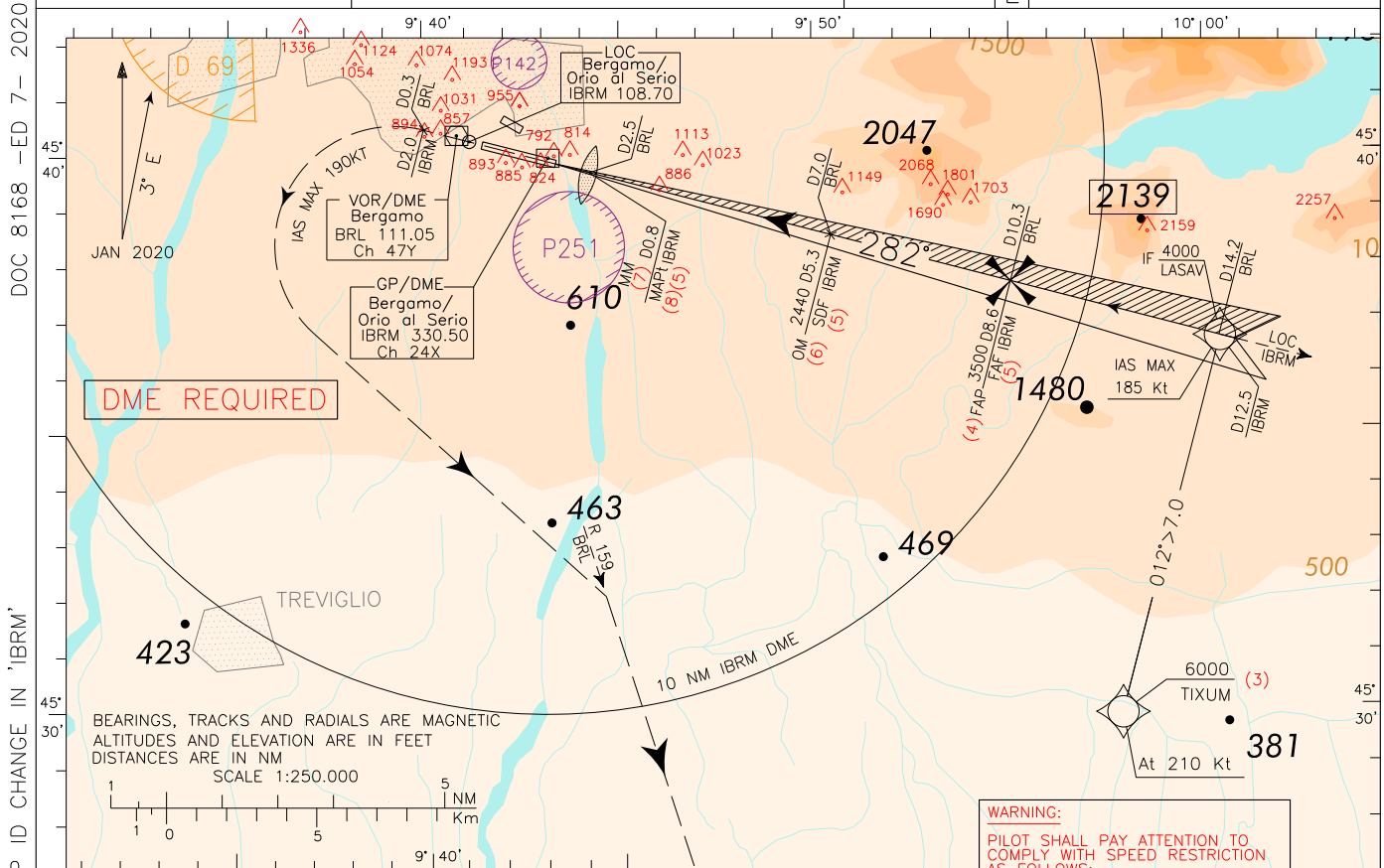


CHANGE: DME-P 'BRM' RENAMED IN 'BRM'; ATIS FREQ MODIFIED

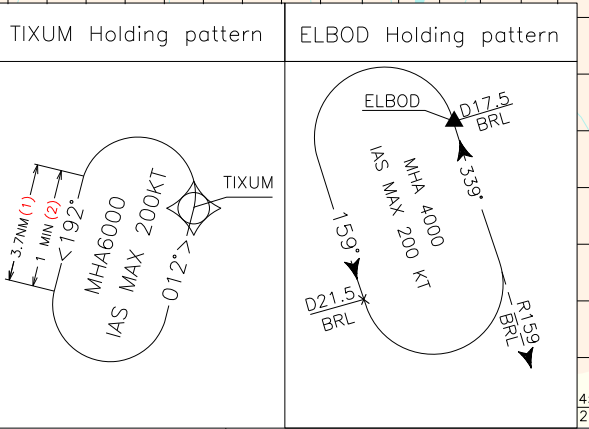
<p>AIRSPACE CLASSIFICATION See AIP ENR 1.4</p> <p>TRANSITION ALT 6000 FT</p> <p>ELEV AND ALT IN FT IF NOT OTHERWISE INDICATED</p>	<p><b>REMARK</b></p> <p>(1) D69 UPPER VERTICAL LIMIT WITHIN SECTOR 180°/285° IS LOWERED TO 1000ft AMSL</p>	<p><b>WARNING</b></p>
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APP Milano Radar 126.750  
 TWR Orio TWR (126.300)  
 ATIS Bergamo ATIS Information (CH 134.105) 118.540

AD ELEV 782  
 LIME BERGAMO/ORIO AL SERIO  
 ILS or LOC Z RWY28



CHANGE: ATIS FREQUENCY UPDATED, 'BRM' LOC/DME/GP ID CHANGE IN 'IBRM'

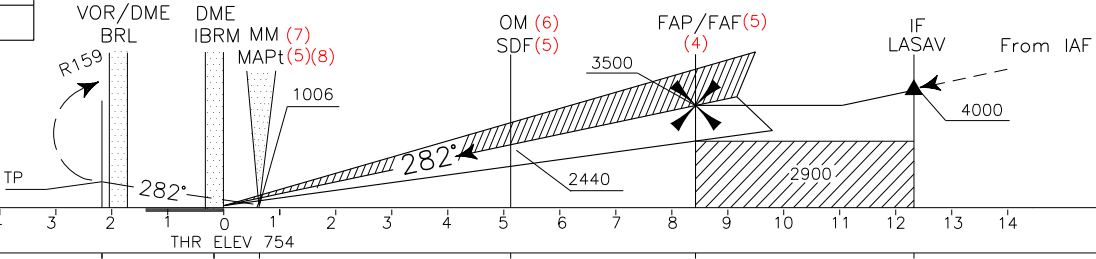


**WARNING:**  
 PILOT SHALL PAY ATTENTION TO COMPLY WITH SPEED RESTRICTION AS FOLLOWS:  
 IAS MAX 160KT AT 5NM FROM TDZ.  
 FOR MORE DETAILS SEE ENR 2.1.1.1-4

**REMARKS:**  
 (1) For RNAV system with holding functionality  
 (2) For RNAV system without holding functionality  
 (3) RNAV1/RNP1 transition to ILS/LOC  
 (4) IAS MAX 175 Kt  
 (5) Only for "LOC+DME"  
 (6) OM replaced by 5.3 NM IBRM DME or 7.0 NM BRL DME.  
 (7) MM provided also by 0.8 NM IBRM or 2.5 NM BRL DME.  
 (8) In case of "LOC+DME" timing not authorized for defining the MAPt.

**MISSED APPROACH:** Proceed on TR 282° climbing to 4000 ft. At 2 NM IBRM DME (or 0.3 NM BRL DME) turn left (IAS MAX 190 kt) to join and follow RDL159 BRL VOR to ELBOD holding pattern. Hold between 17.5 NM and 21.5 NM, inbound track 339° (RDL 159 BRL VOR), left turn, IAS MAX 200 KT.

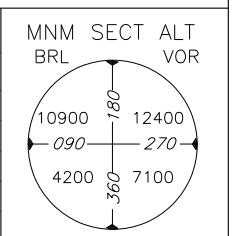
TRANSITION ALT 6000  
 ILS RDH 17.50 M  
 GP 3°



IBRM DME: D2, 0, D0.8, D5.3, D8.6, D12.5

STRAIGHT IN APPROACH	OCA (OCH)			
	A	B	C	D
ILS I (M.A.C.G. 2.5%)	970 (216)	982 (228)	990 (236)	1001 (247)
ILS II (M.A.C.G. 2.5%)	887 (133)	904 (150)	916 (162)	930 (176)
ILS II (M.A.C.G. 3.0%)	836 (82)	853 (99)	865 (111)	879 (125)
LOC+DME	1260 (506)			
CIRCLING RWY 10	1600 (818)		1730 (948)	

IBRM DME	DIST	ALT(HGT)	FT PER MIN	GS	OM(5)-MM	
					MM-THR	MM-TIM
6	2670(1916)	530	100	2 : 41	0 : 22	
5	2350(1596)	640	120	2 : 15	0 : 19	
4	2030(1276)	745	140	1 : 55	0 : 16	
3	1715 (961)	850	160	1 : 41	0 : 14	
2	1395 (641)	955	180	1 : 29	0 : 12	



**TABULAR DESCRIPTION****ILS or LOC Z RWY28 – Instrument Approach procedure****RNAV1/RNP1 transition to ILS/LOC**

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA (°)/TCH (m)	Navigation Specification
010	IF	TIXUM	-	-	-	-	-	+6000	AT 210	-	RNAV1/RNP1(1)
020	TF	LASAV	-	012 (015.0)	-	7.0	-	+4000	-185	-	RNAV1/RNP1(1)

(1) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

**Holding RNAV**

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (1)	Timing(min.)/ Waypoint Distance (NM) (2)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	TIXUM	012 (015.0)	3.7	1/-	L	6000	-	-200	3 E	RNAV1/RNP1(3)

(1) RNAV system with holding functionality

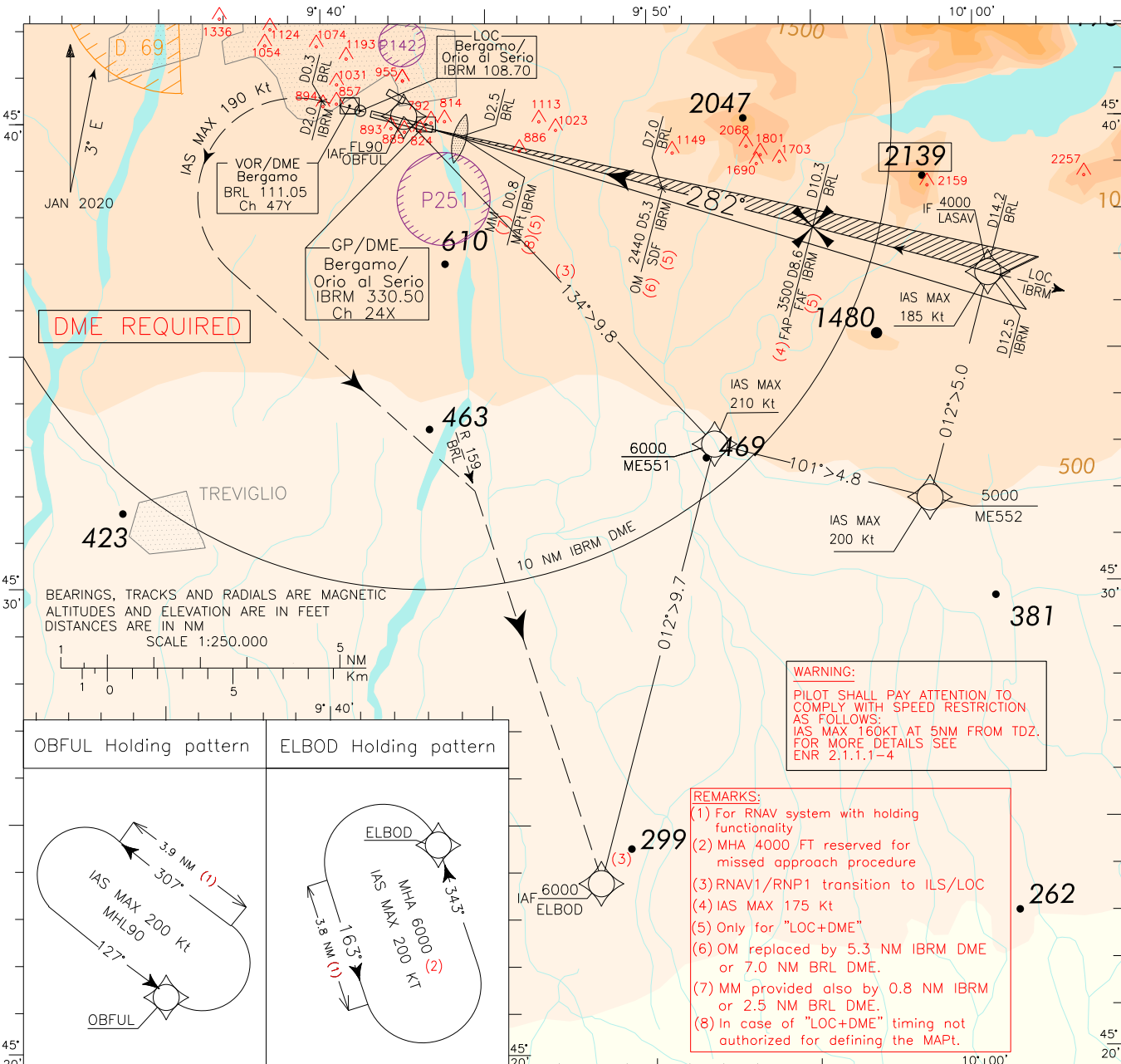
(2) RNAV system without holding functionality

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

APP	Milano Radar	126.750 (126.300)	AD ELEV	LIME	BERGAMO/ORIO AL SERIO
TWR	Orio TWR	125.875 (CH 134.105)	782		ILS or LOC W RWY28
ATIS	Bergamo ATIS Information	118.540			

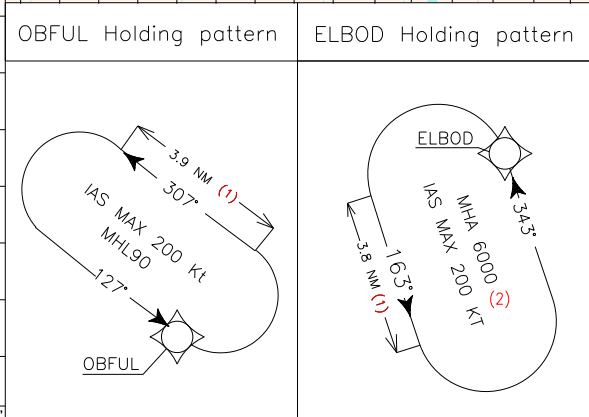
DOC 8168 - ED 7 - 2020

CHANGE: ATIS FREQUENCY UPDATED, 'BRM' LOC/DME/GP ID CHANGE IN 'IBRM'

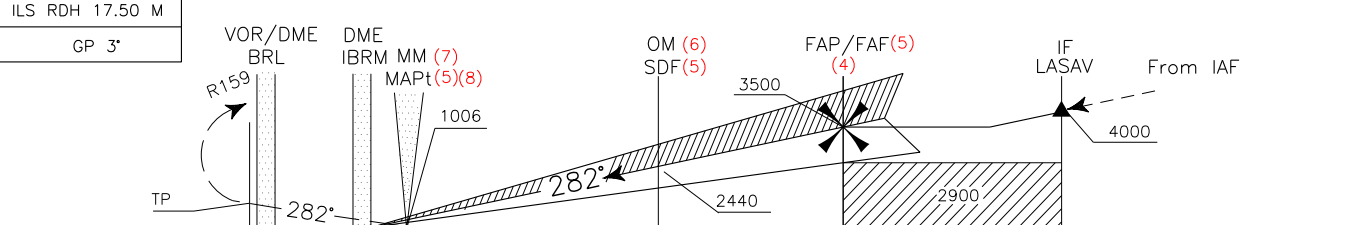


**WARNING:**  
PILOT SHALL PAY ATTENTION TO COMPLY WITH SPEED RESTRICTION AS FOLLOWS:  
IAS MAX 160KT AT 5NM FROM TDZ.  
FOR MORE DETAILS SEE ENR 2.1.1.1-4

**REMARKS:**  
(1) For RNAV system with holding functionality  
(2) MHA 4000 FT reserved for missed approach procedure  
(3) RNAV1/RNP1 transition to ILS/LOC  
(4) IAS MAX 175 kt  
(5) Only for "LOC+DME"  
(6) OM replaced by 5.3 NM IBRM DME or 7.0 NM BRL DME.  
(7) MM provided also by 0.8 NM IBRM or 2.5 NM BRL DME.  
(8) In case of "LOC+DME" timing not authorized for defining the MAPt.



**MISSED APPROACH:** Proceed on TR 282° climbing to 4000 ft. At 2 NM IBRM DME (or 0.3 NM BRL DME) turn left (IAS MAX 190 kt) to join and follow RDL159 BRL VOR to ELBOD RNAV holding pattern.



NM	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500
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IBRM DME		D2	D0.8	D5.3	D8.6	D12.5	IBRM DME							
OCA (OCH)	A	B	C	D	WARNING 2: DIST		IBRM DME	ALT(HGT)	FT PER MIN	GS	OM(5)-MM	MM-THR	MNM SECT ALT	
STRAIGHT IN APPROACH	ILS I (M.A.C.G. 2.5%)	970 (216)	982 (228)	990 (236)	1001 (247)	Circling RWY 10 available limited South of the RWY.	6	2670(1916)	530	100	2 : 41	0 : 22	BRL VOR	
	ILS II (M.A.C.G. 2.5%)	887 (133)	904 (150)	916 (162)	930 (176)		5	2350(1596)	640	120	2 : 15	0 : 19	10900 180 12400	
	ILS II (M.A.C.G. 3.0%)	836 (82)	853 (99)	865 (111)	879 (125)		4	2030(1276)	745	140	1 : 55	0 : 16	090 270	
	LOC+DME	1260 (506)					3	1715 (961)	850	160	1 : 41	0 : 14	4200 360 7100	
CIRCLING RWY 10		1600 (818)		1730 (948)		2	1395 (641)	955	180	1 : 29	0 : 12			

## TABULAR DESCRIPTION

## ILS or LOC W RWY28 – Instrument Approach procedure

## RNAV1/RNP1 transition to ILS/LOC

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA (°)/TCH (m)	Navigation Specification
010	IF	ELBOD	-	-	-	-	-	+6000	-	-	RNAV1/RNP1(1)
020	TF	ME551	-	012 (015.0)	-	9.7	-	+6000	-210	-	RNAV1/RNP1(1)
030	TF	ME552	-	101 (104.4)	-	4.8	-	+5000	-200	-	RNAV1/RNP1(1)
040	TF	LASAV	-	012 (015.1)	-	5.0	-	+4000	-185	-	RNAV1/RNP1(1)
010	IF	OBFUL	-	-	-	-	-	+FL90	-	-	RNAV1/RNP1(1)
020	TF	ME551	-	134 (137.0)	-	9.8	-	+6000	-210	-	RNAV1/RNP1(1)
030	TF	ME552	-	101 (104.4)	-	4.8	-	+5000	-200	-	RNAV1/RNP1(1)
040	TF	LASAV	-	012 (015.1)	-	5.0	-	+4000	-185	-	RNAV1/RNP1(1)

(1) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

## Holding RNAV

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (1)	Timing(min.)/Waypoint Distance (NM) (2)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	OBFUL	127 (130.0)	3.9	-/-	L	+FL90	-	-200	3 E	RNAV1/RNP1(3)
HM	ELBOD	343 (346.0)	3.8	-/-	L	+6000 (4)	-	-200	3 E	RNAV1/RNP1(3)

(1) RNAV system with holding functionality

(2) RNAV system without holding functionality

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

(4) MHA 4000 reserved for missed approach procedure

## WAYPOINT LIST

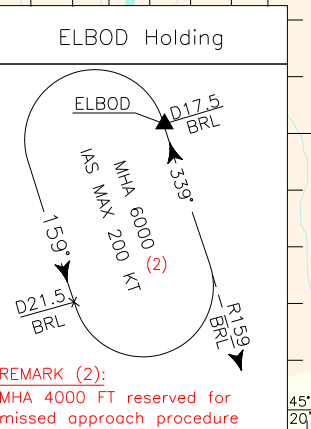
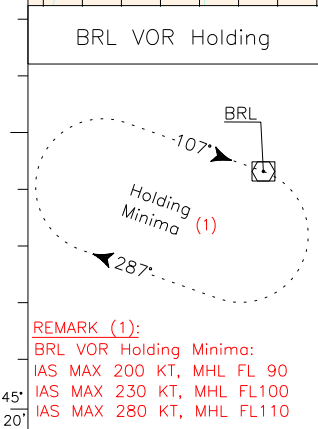
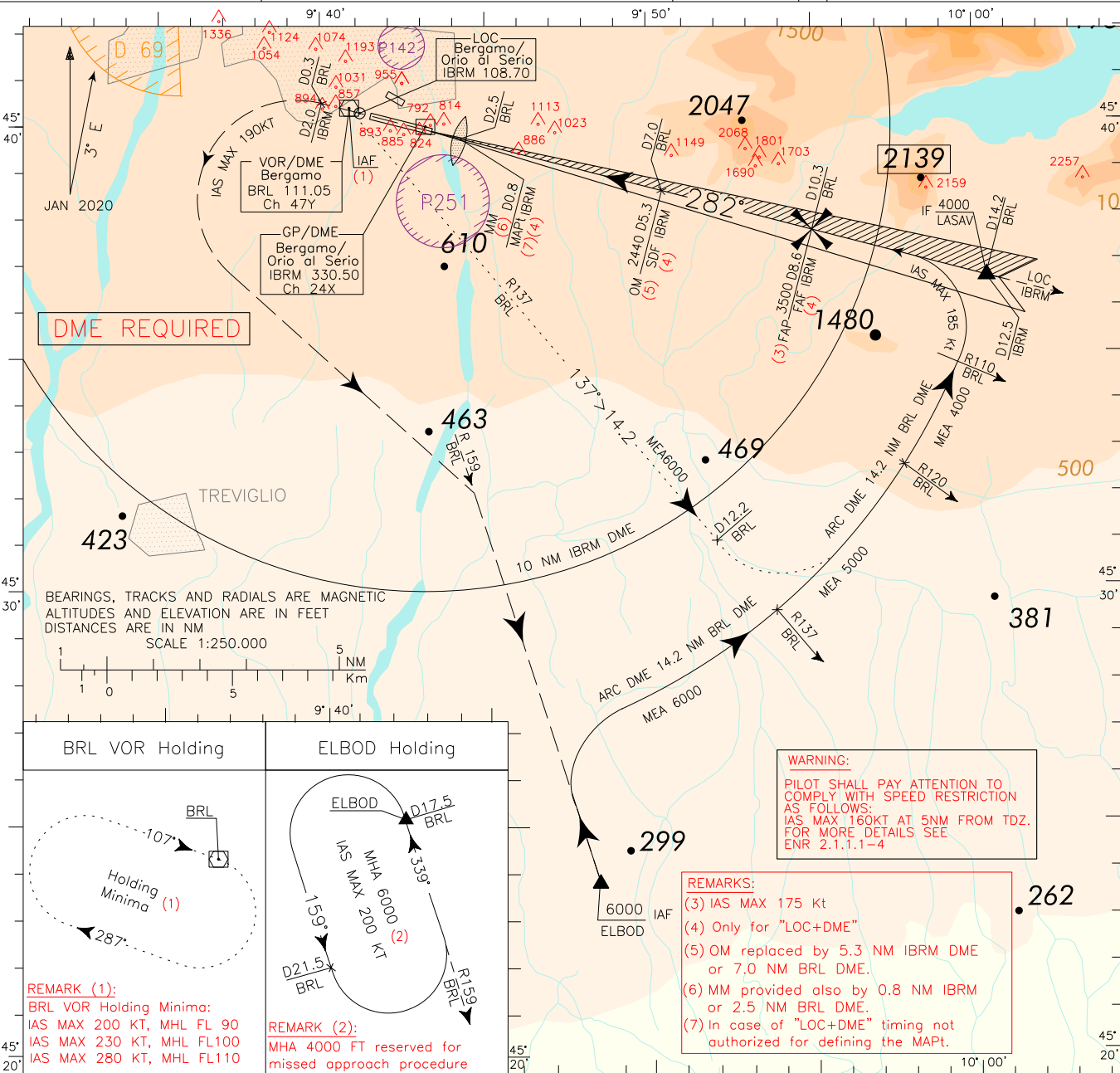
## ILS or LOC W RWY28

Waypoint Identifier	Coordinates
ME551	45°33'03.39" N 009°51'58.89" E
ME552	45°31'52.02" N 009°58'33.32" E

APP Milano Radar 126.750 (126.300)  
 TWR Orio TWR 125.875 (CH 134.105)  
 ATIS Bergamo ATIS Information 118.540

AD ELEV 782  
 LIME BERGAMO/ORIO AL SERIO  
 ILS or LOC X RWY28

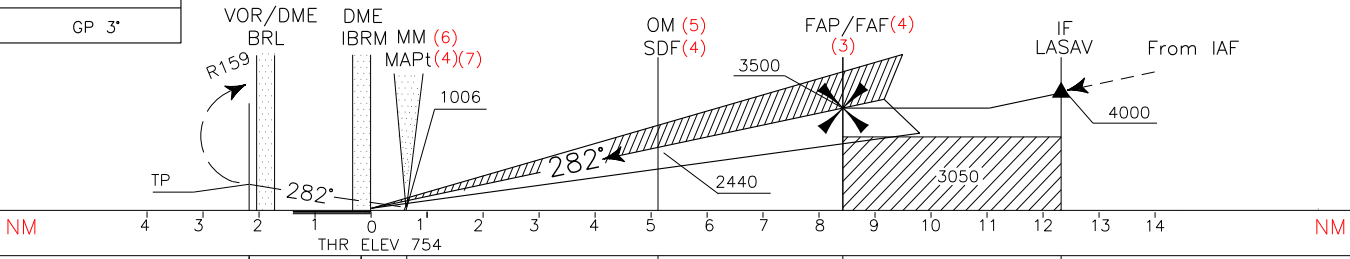
CHANGE: ATIS FREQUENCY UPDATED, 'BRM' LOC/DME/GP ID CHANGE IN 'IBRM'



**WARNING:**  
 PILOT SHALL PAY ATTENTION TO COMPLY WITH SPEED RESTRICTION AS FOLLOWS:  
 IAS MAX 160KT AT 5NM FROM TDZ.  
 FOR MORE DETAILS SEE ENR 2.1.1-4

**REMARKS:**  
 (3) IAS MAX 175 Kt  
 (4) Only for "LOC+DME"  
 (5) OM replaced by 5.3 NM IBRM DME or 7.0 NM BRL DME.  
 (6) MM provided also by 0.8 NM IBRM or 2.5 NM BRL DME.  
 (7) In case of "LOC+DME" timing not authorized for defining the MAPt.

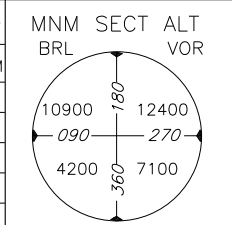
**TRANSITION ALT 6000**  
**MISSED APPROACH:** Proceed on TR 282° climbing to 4000 ft. At 2 NM IBRM DME (or 0.3 NM BRL DME) turn left (IAS MAX 190 kt) to join and follow RDL159 BRL VOR to ELBOD holding pattern. Hold between 17.5 NM and 21.5 NM, inbound track 339° (RDL 159 BRL VOR), left turn, IAS MAX 200 KT.



IBRM DME	D2	0	D0.8	D5.3	D8.6	D12.5	IBRM DME
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STRAIGHT IN APPROACH	OCA (OCH)			
	A	B	C	D
ILS I (M.A.C.G. 2.5%)	970 (216)	982 (228)	990 (236)	1001 (247)
ILS II (M.A.C.G. 2.5%)	887 (133)	904 (150)	916 (162)	930 (176)
ILS II (M.A.C.G. 3.0%)	836 (82)	853 (99)	865 (111)	879 (125)
LOC+DME	1260 (506)			
CIRCLING RWY 10	1600 (818)		1730 (948)	

DIST IBRM DME	ALT(HGT)	FT PER MIN	GS	OM(5)-MM	
				MM-THR	MM-THR
6	2670(1916)	530	100	2 : 41	0 : 22
5	2350(1596)	640	120	2 : 15	0 : 19
4	2030(1276)	745	140	1 : 55	0 : 16
3	1715 (961)	850	160	1 : 41	0 : 14
2	1395 (641)	955	180	1 : 29	0 : 12



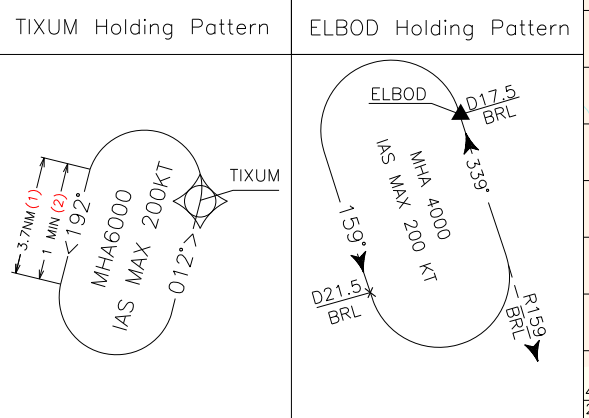
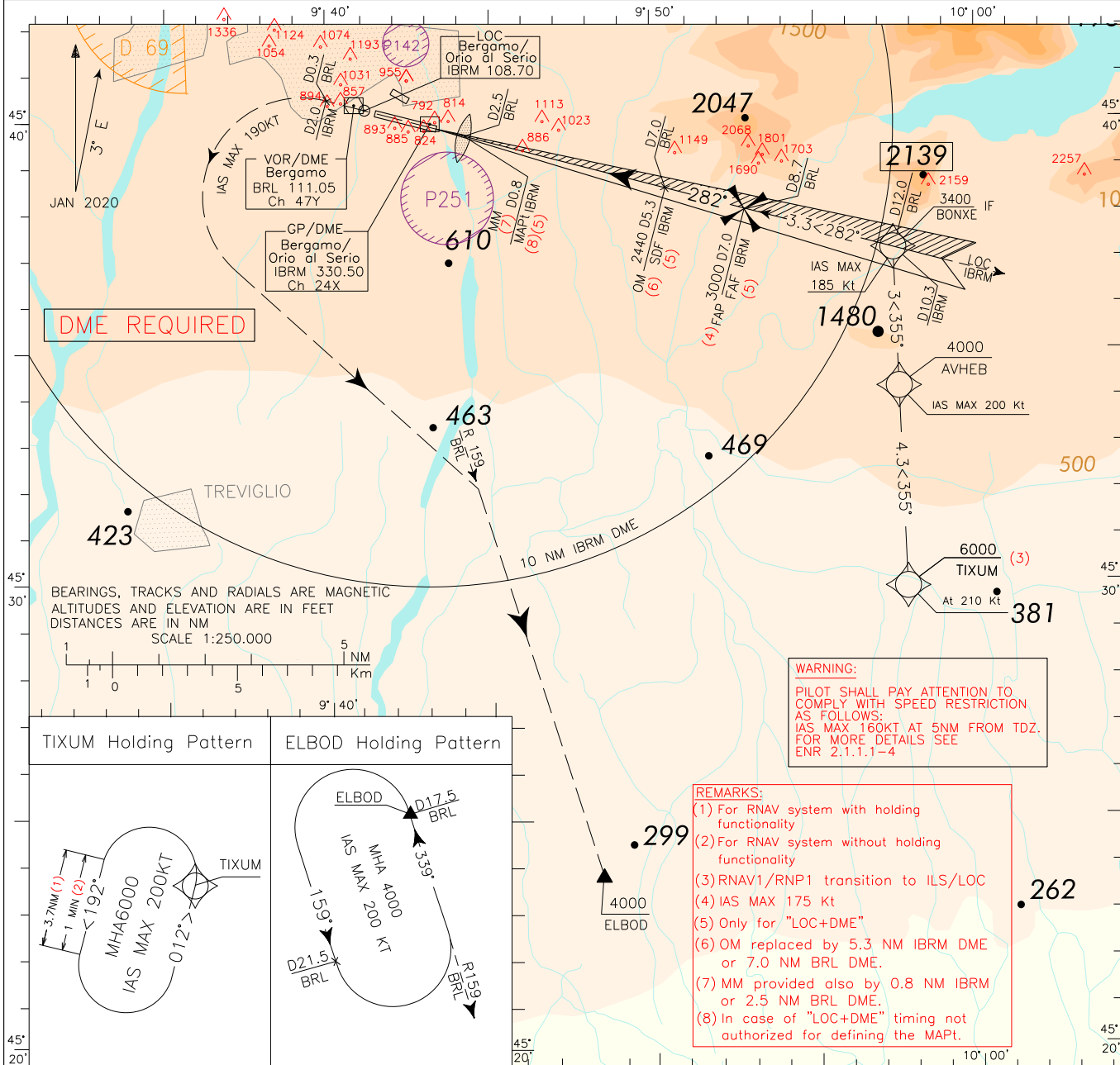
ICAO – INSTRUMENT APPROACH CHART

AD 2 LIME 5-9

APP	Milano Radar	126.750 (126.300)	AD ELEV	782	LIME BERGAMO/ORIO AL SERIO ILS or LOC V RWY28 ATC discretion
TWR	Orio TWR	125.875 (CH 134.105)			
ATIS	Bergamo ATIS Information	118.540			

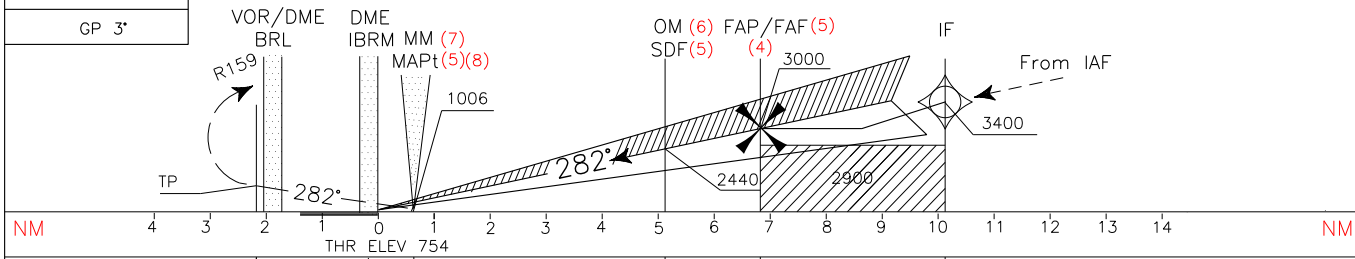
DOC 8168 - ED 7 - 2020

CHANGE: ATIS FREQUENCY UPDATED, 'BRM' LOC/DME/GP ID CHANGE IN 'IBRM'



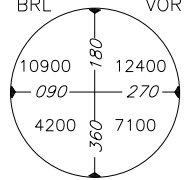
**TRANSITION ALT 6000**

**MISSED APPROACH:** Proceed on TR 282° climbing to 4000 ft. At 2 NM IBRM DME (or 0.3 NM BRL DME) turn left (IAS MAX 190 kt) to join and follow RDL159 BRL VOR to ELBOD holding pattern. Hold between 17.5 NM and 21.5 NM, inbound track 339° (RDL 159 BRL VOR), left turn, IAS MAX 200 KT.



NM	4	5	6	7	8	9	10	11	12	13	14	NM
IBRM DME	D2	0	D0.8	D5.3	D7.0	D10.3						IBRM DME

STRAIGHT IN APPROACH	OCA (OCH)				WARNING 2: Circling RWY 10 available limited South of the RWY.	DIST IBRM DME	ALT(HGT)	FT PER MIN	GS	OM(5)-MM	MM-THR	MNM SECT BRL	ALT VOR
	A	B	C	D									
ILS I (M.A.C.G. 2.5%)	970 (216)	982 (228)	990 (236)	1001 (247)		6	2670(1916)	530	100	2 : 41	0 : 22		
ILS II (M.A.C.G. 2.5%)	887 (133)	904 (150)	916 (162)	930 (176)		5	2350(1596)	640	120	2 : 15	0 : 19		
ILS II (M.A.C.G. 3.0%)	836 (82)	853 (99)	865 (111)	879 (125)		4	2030(1276)	745	140	1 : 55	0 : 16		
LOC+DME	1260 (506)					3	1715 (961)	850	160	1 : 41	0 : 14		
CIRCLING RWY 10	1600 (818)		1730 (948)			2	1395 (641)	955	180	1 : 29	0 : 12		



**TABULAR DESCRIPTION****ILS or LOC V RWY28 ATC discretion – Instrument Approach procedure****RNAV1/RNP1 transition to ILS/LOC**

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA (°)/TCH (m)	Navigation Specification
010	IF	TIXUM	-	-	-	-	-	+6000	AT 210	-	RNAV1/RNP1(1)
020	TF	AVHEB	-	355 (358.0)	-	4.3	-	+4000	-200	-	RNAV1/RNP1(1)
030	TF	BONXE	-	355 (358.0)	-	3.0	-	+3400	-185	-	RNAV1/RNP1(1)

(1) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

**Holding RNAV**

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (1)	Timing(min.)/ Waypoint Distance (NM) (2)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	TIXUM	012 (015.0)	3.7	1/-	L	6000	-	-200	3 E	RNAV1/RNP1(3)

(1) RNAV system with holding functionality

(2) RNAV system without holding functionality

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation



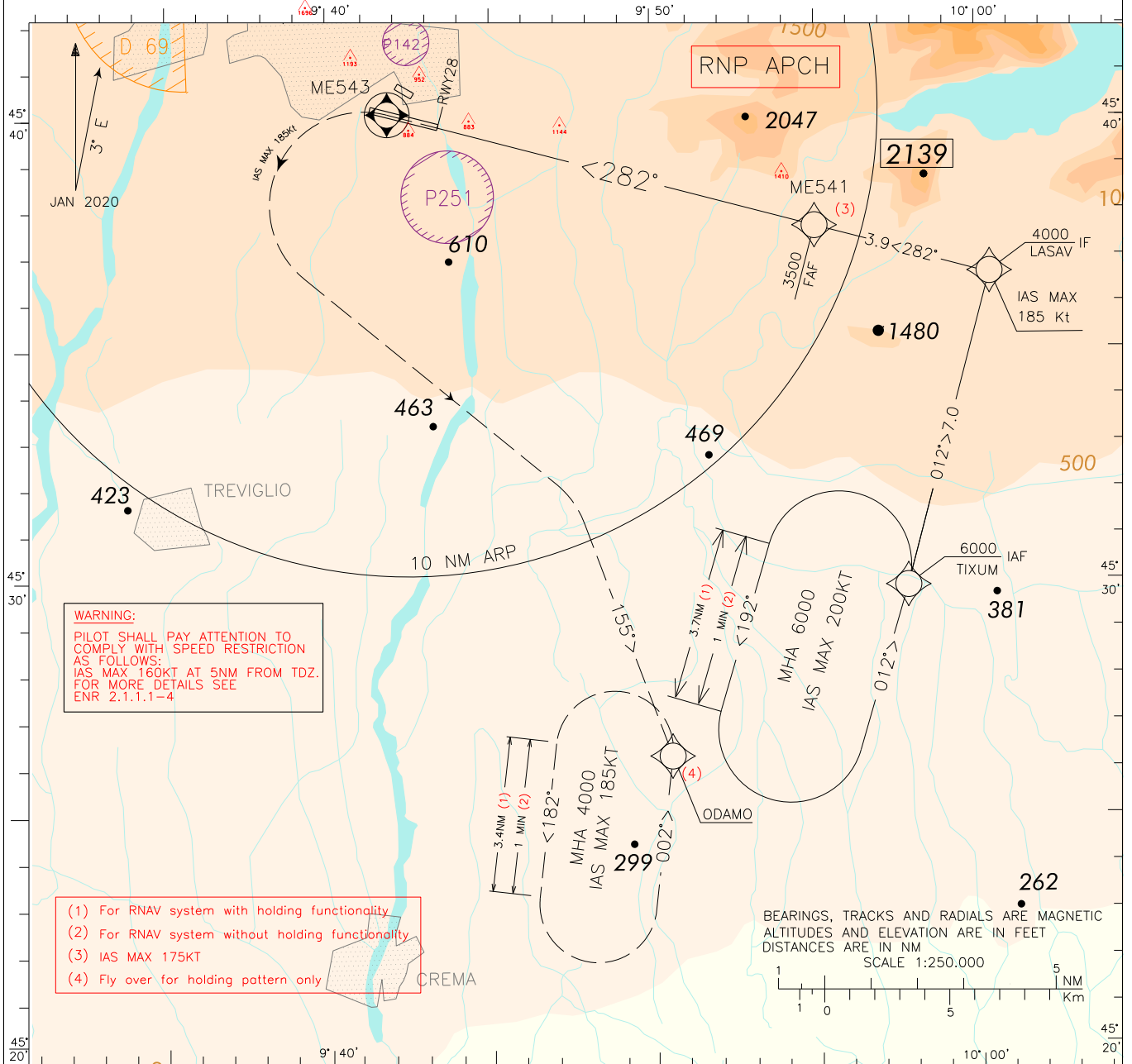
ICAO - INSTRUMENT APPROACH CHART

AD 2 LIME 5-11

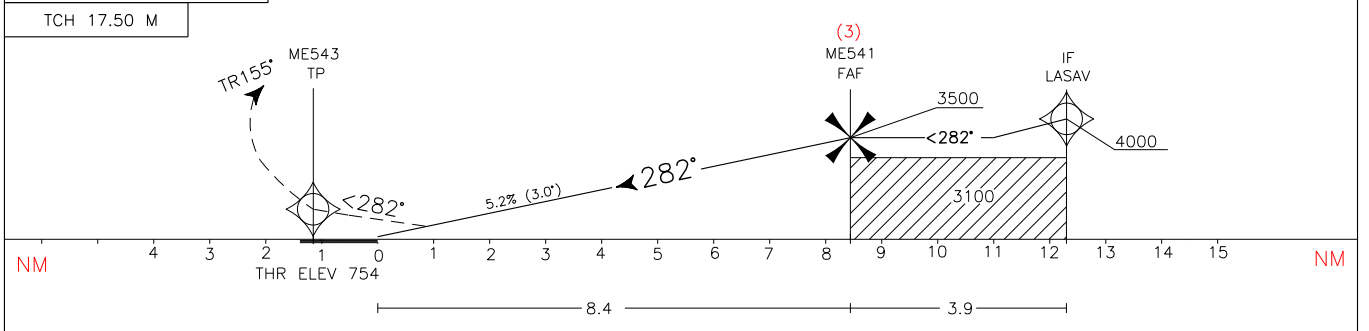
DOC 8168 - ED 6 - 2014 AMDT 8

CHANGE: ATIS FREQUENCY UPDATED

EGNOS CH 74136 E28A	APP	Milano Radar	126.750 (126.300)	AD ELEV	LIME BERGAMO/ORIO AL SERIO
	TWR	Orio TWR	125.875 (CH 134.105)	782	
	ATIS	Bergamo ATIS Information	118.540		



**TRANSITION ALT 6000**  
MISSED APPROACH: Proceed on TR 282° climbing to 4000 ft; at ME543 turn left (IAS MAX 185kt) to join Track 155° bound to ODAMO holding pattern



OCA (OCH)		A	B	C	D	CIRCLING SECTOR:  Only South of RWY	RWY28 DISTANCE	ALT(HGT)	GS	FT PER MIN	MNM SECT ALT 25 NM ARP  12400
STRAIGHT IN APPROACH	LPV	1120 (366)	1130 (376)	1140 (386)	1150 (396)		8	3360(2606)			
						7	3040(2286)	80	425		
						6	2720(1966)	100	530		
						5	2400(1646)	120	635		
						4	2085(1331)	140	745		
						3	1765(1011)	160	850		
						2	1445(691)	180	955		
CIRCLING RWY 10		1490 (708)	1790 (1008)	2100 (1318)							

## TABULAR DESCRIPTION

## RNP Z RWY28 – Instrument Approach Procedure

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA (°)/TCH (m)	Navigation Specification
010	IF	TIXUM	-	-	-	-	-	+6000	-	-	RNP APCH
020	TF	LASAV	-	012° (015.2°)	-	7.0	-	+4000	-185	-	RNP APCH
030	TF	ME541	-	282° (285.2°)	-	3.9	-	+3500	-175	-	RNP APCH
-	-	RWY28	Y	282° (285.2°)	-	-	-	@811 (1)	-	-3.0/17.5	RNP APCH
040	CF	ME543	Y	282° (285.2°)	3 E	9.5	-	-	-185	-	RNP APCH
050	CF	ODAMO	-	155° (158.1°)	3 E	-	L	+4000	-	-	RNP APCH
060	HF	ODAMO	Y	002° (005.1°)	-	-	L	+4000	-185	-	RNAV1/RNP1(2)

(1) THR Altitude plus TCH

(2) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

## Holding RNAV

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (1)	Timing(min.)/Waypoint Distance (NM) (2)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	TIXUM	012°(015.0°)	3.7	1/-	L	6000	-	-200	3 E	RNAV1/RNP1(3)
HM	ODAMO	002°(005.0°)	3.4	1 / -	L	4000	-	-185	3 E	RNAV1/RNP1(3)

(1) RNAV system with holding functionality

(2) RNAV system without holding functionality

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

## WAYPOINT LIST

Waypoint Identifier	Coordinates
ME541	45°37'42.62" N 009°55'03.31" E
ME543	45°40'09.97" N 009°41'54.61" E

## SBAS FAS DATA BLOCK LIME RNP Z RWY28

INPUT DATA	
PARAMETERS	VALUES
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LIME
Runway	28
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	Z
Reference Path Data Selector	0
Reference Path Identifier	E28A
LTP/FTP Latitude	453952.9800N
LTP/FTP Longitude	0094325.6400E
LTP/FTP Ellipsoidal Height (metres)	275.0
FPAP Latitude	454015.7180N
Delta FPAP Latitude (seconds)	22.7380
FPAP Longitude	0094123.2060E
Delta FPAP Longitude (seconds)	-122.4340
Threshold Crossing Height	57.4
TCH Units Selector	0 (feet)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	0
HAL (metres)	40.0
VAL (metres)	35.0

OUTPUT DATA	
Data Block	10 05 0D 09 0C 1C D0 00 01 38 32 05 28 E0 98 13 90 49 2C 04 BE 1E A4 B1 00 7C 43 FC 3E 02 2C 01 64 00 C8 AF B7 C3 32 38
Calculated CRC Value	B7C33238

## Required Additional Data (not CRC wrapped)

Parameters	Values
ICAO Code	LI
LTP/FTP Orthometric Height (metres)	229.9

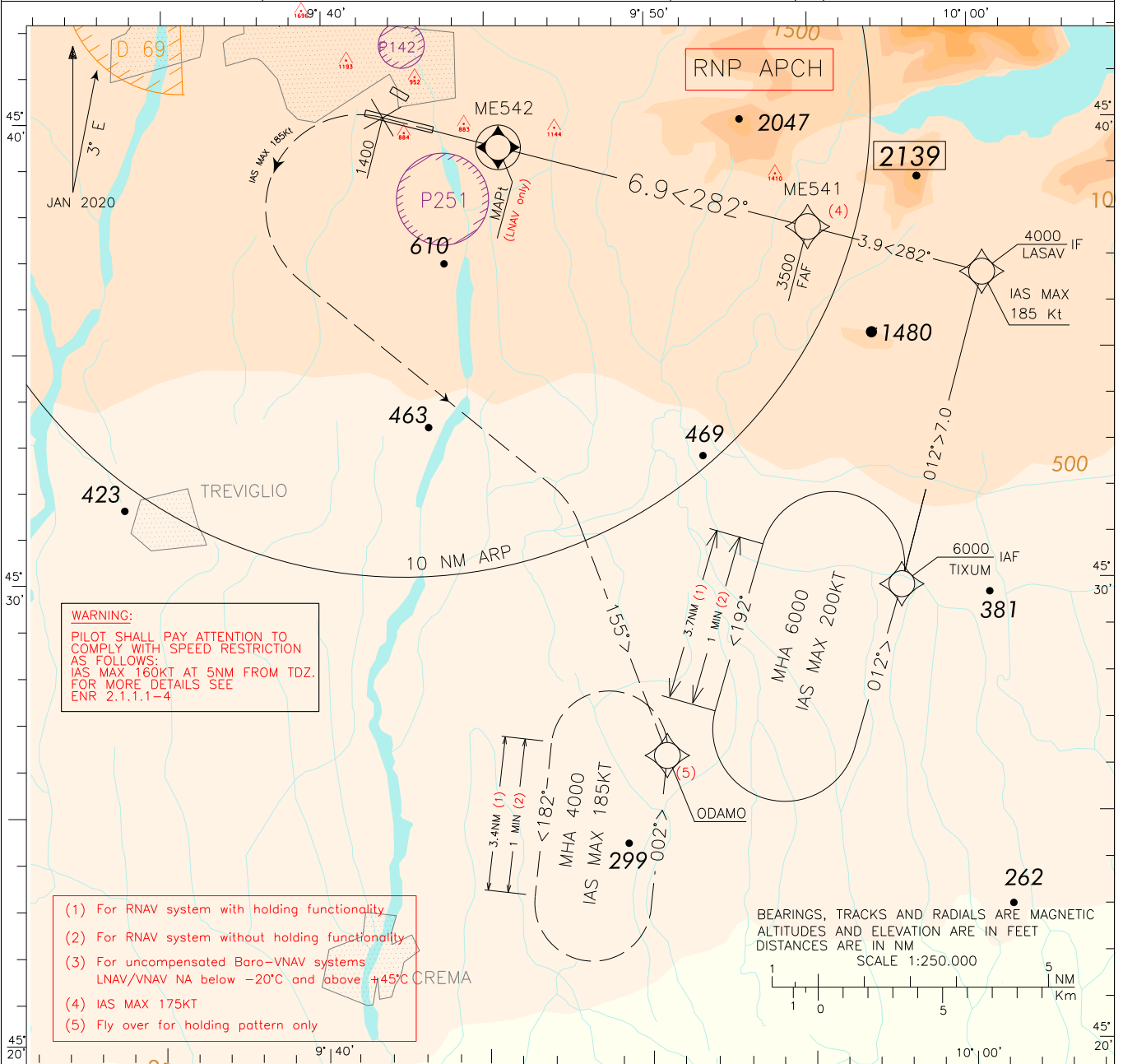
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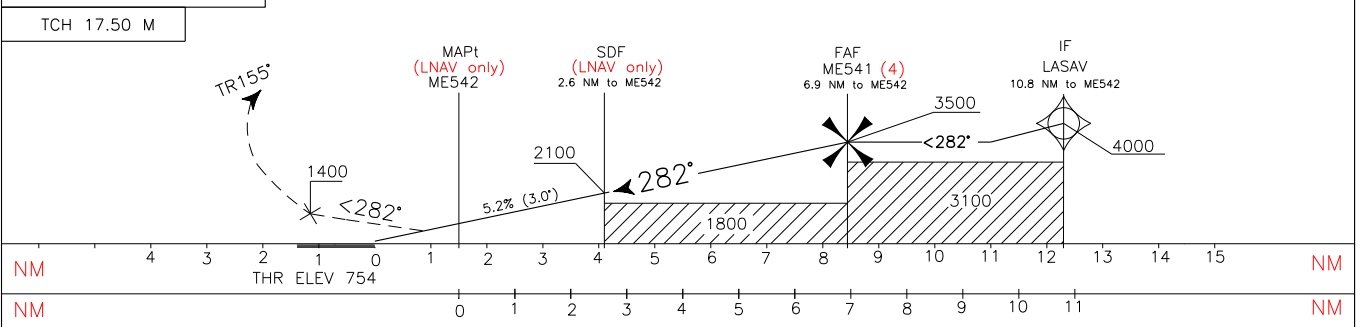
DOC 8168 - ED 6 - 2014 AMDT 8

CHANGE: ATIS FREQUENCY UPDATED

APP	Milano Radar	126.750 (126.300)	AD ELEV	LIME	BERGAMO/ORIO AL SERIO
TWR	Orio TWR	125.875 (CH 134.105)	782		
ATIS	Bergamo ATIS Information	118.540			RNP Y RWY28



**TRANSITION ALT 6000**  
MISSED APPROACH: Proceed on TR 282° climbing to 4000 ft; at 1400 ft, not before MAPt (ME542), turn left (IAS MAX 185KT) to join Track 155° bound to ODAMO holding pattern



OCA (OCH)		A	B	C	D	CIRCLING SECTOR:  Only South of RWY	MAPt (ME542) DISTANCE	ALT(HGT)	GS	FT PER MIN	MNM SECT ALT 25 NM	ARP
STRAIGHT IN APPROACH	LNAV/VNAV(3)	1250 (496)	1260 (506)	1270 (516)	1280 (526)			6	3200(2446)	80	425	
	LNAV	1300 (546)					5	2880(2126)	100	530		
							4	2565(1811)	120	635		
							3	2245(1491)	140	745		
							2	1925(1171)	160	850		
CIRCLING RWY 10		1490 (708)	1790 (1008)	2100 (1318)			1	1605(851)	180	955		

## TABULAR DESCRIPTION

### RNP Y RWY28 – Instrument Approach Procedure

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA (°)/ TCH (m)	Navigation Specification
010	IF	TIXUM	-	-	-	-	-	+6000	-	-	RNP APCH
020	TF	LASAV	-	012° (015.2°)	-	7.0	-	+4000	-185	-	RNP APCH
030	TF	ME541	-	282° (285.2°)	-	3.9	-	+3500	-175	-	RNP APCH
040	TF	ME542	Y	282° (285.2°)	-	6.9	-	+1300 (1)	-	-	RNP APCH
	-	RWY28	Y	282° (285.2°)	-	-	-	@811 (2)	-	-3.0/17.5	RNP APCH
050	CA	-	-	282° (285.2°)	-	-	-	+1400	-185	-	RNP APCH
060	CF	ODAMO	-	155° (158.1°)	3 E	-	L	+4000	-	-	RNP APCH
070	HF	ODAMO	Y	002° (005.1°)	-	-	L	+4000	-185	-	RNAV1/RNP1(3)

(1) For LNAV only

(2) THR Altitude plus TCH

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

### Holding RNAV

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (1)	Timing(min.)/ Waypoint Distance (NM) (2)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	TIXUM	012°(015.0°)	3.7	1/-	L	6000	-	-200	3 E	RNAV1/RNP1(3)
HM	ODAMO	002°(005.0°)	3.4	1 / -	L	4000	-	-185	3 E	RNAV1/RNP1(3)

(1) RNAV system with holding functionality

(2) RNAV system without holding functionality

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

### WAYPOINT LIST

Waypoint Identifier	Coordinates
ME541	45°37'42.62" N 009°55'03.31" E
ME542	45°39'30.05" N 009°45'29.72" E

**REMARK (1):** Final approach track does not intersect the extended centre line. Distance between final approach track and extended centre line at 1400 m before threshold is 45 m north of ECL

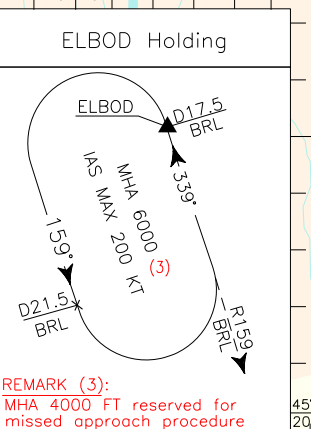
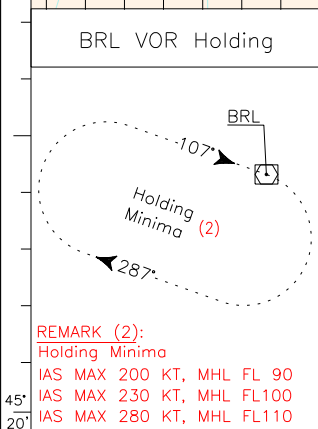
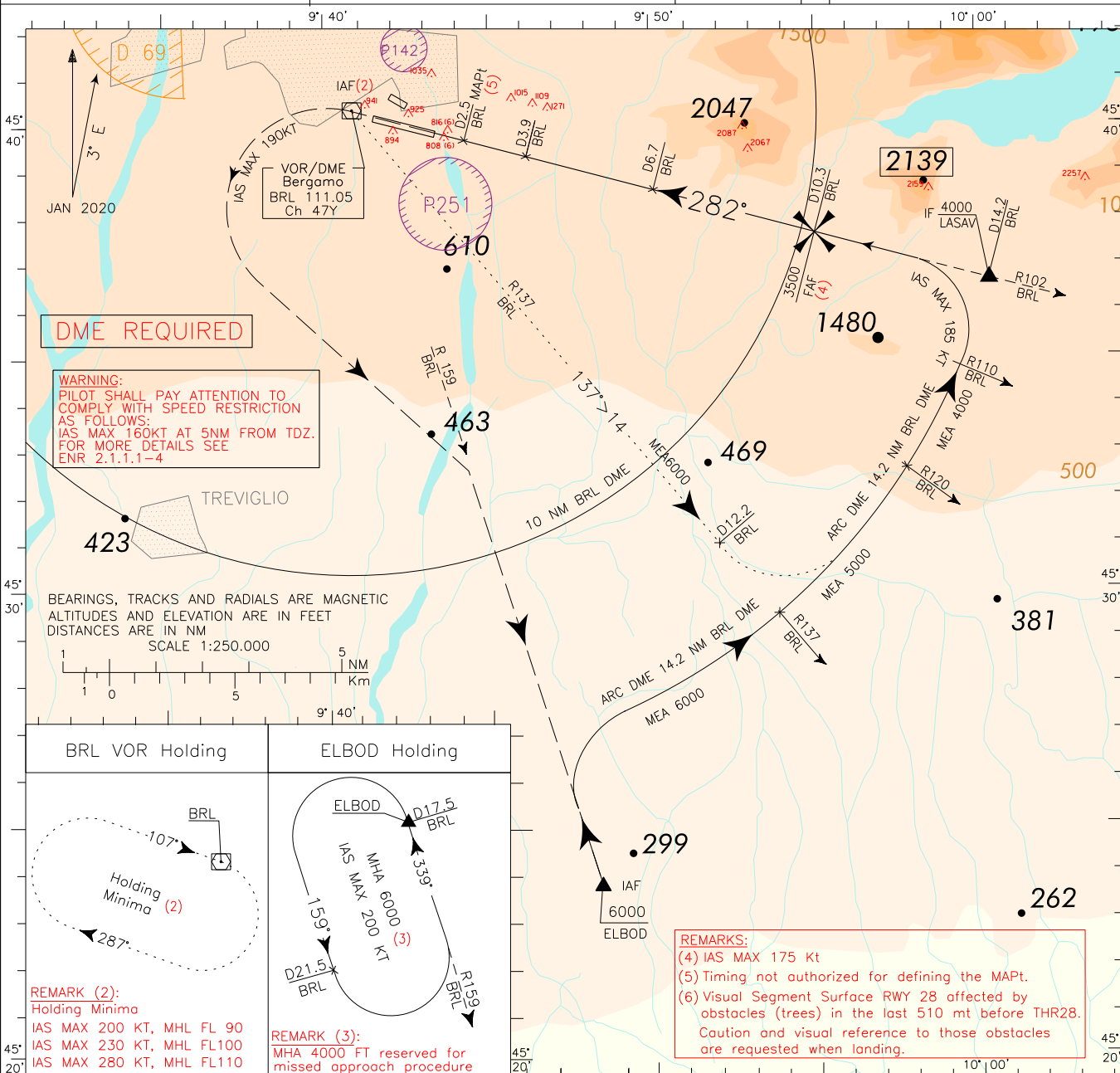
APP Milano Radar  
 TWR Orio TWR  
 ATIS Bergamo ATIS Information

126.750 (126.300)  
 125.875 (CH 134.105)  
 118.540

AD ELEV 782  
 LIME  
 BERGAMO/ORIO AL SERIO  
 VOR RWY28

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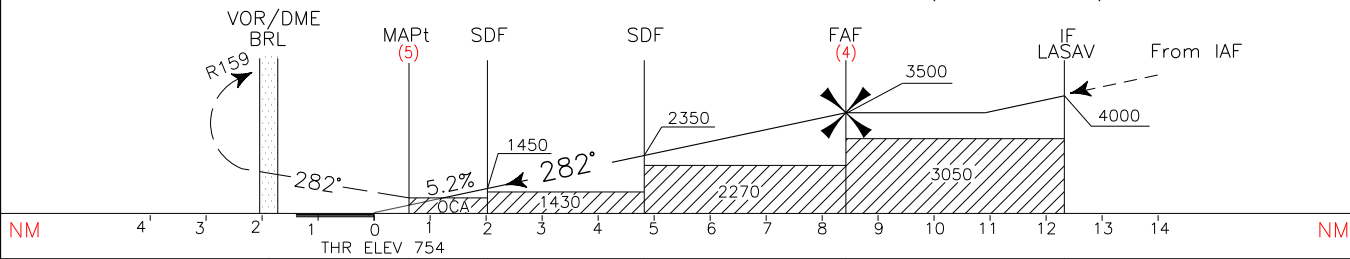
CHANGE: ATIS FREQUENCY UPDATED



**REMARKS:**  
 (4) IAS MAX 175 Kt  
 (5) Timing not authorized for defining the MAPt.  
 (6) Visual Segment Surface RWY 28 affected by obstacles (trees) in the last 510 mt before THR28. Caution and visual reference to those obstacles are requested when landing.

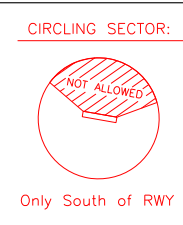
**TRANSITION ALT 6000**

**MISSED APPROACH:** At MAPt climb to 4000 FT and proceed on TR 282°. On BRL VOR turn left (IAS MAX 190 kt) to join and follow RDL159 BRL VOR to ELBOD holding pattern.  
 Hold between 17.5 and 21.5 NM, inbound track 339° (RDL 159 BRL VOR), left turn, IAS MAX 200 KT.

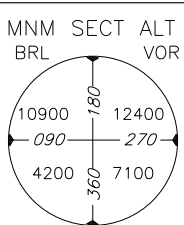


BRL DME	0	D2.5	D3.9	D6.7	D10.3	D14.2	BRL DME
---------	---	------	------	------	-------	-------	---------

OCA (OCH)		A	B	C	D
STRAIGHT IN APPROACH	VOR DME	1300 (546)			
CIRCLING RWY 10		1600 (818)	1720 (938)	1990 (1208)	



GS	FT PER NM	BRL DISTANCE	ALT(HGT)
80	425	10 DME	3400(2646)
100	530	9 DME	3080(2326)
120	635	8 DME	2770(2016)
140	745	7 DME	2450(1696)
160	850	6 DME	2130(1376)
		5 DME	1810(1056)
		4 DME	1490(736)



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CHANGE: ATIS FREQUENCY UPDATED

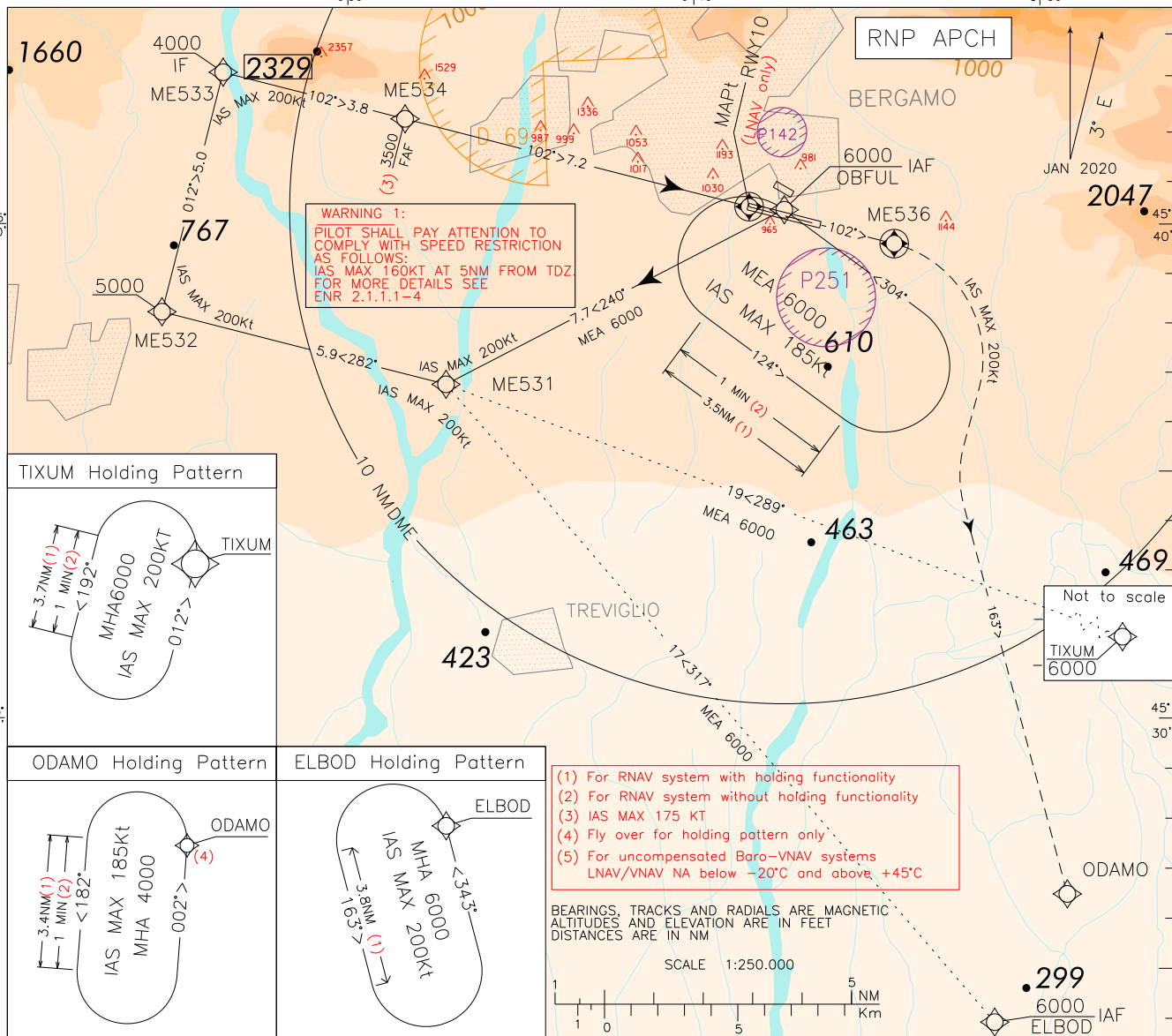
EGNOS  
CH 42214  
E10A

APP Milano Radar (126.300) 126.750  
TWR Orio TWR 125.875  
(CH 134.105)  
ATIS Bergamo ATIS Information 118.540

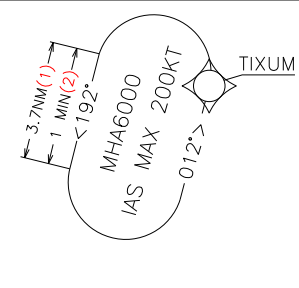
AD ELEV  
782

L  
I  
M  
E

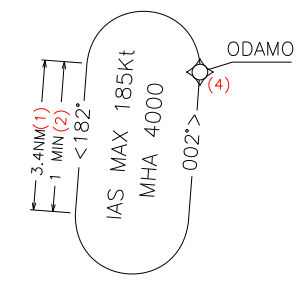
BERGAMO/ORIO AL SERIO  
RNP RWY10



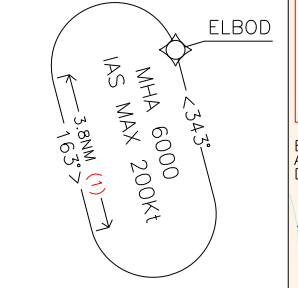
TIXUM Holding Pattern



ODAMO Holding Pattern



ELBOD Holding Pattern

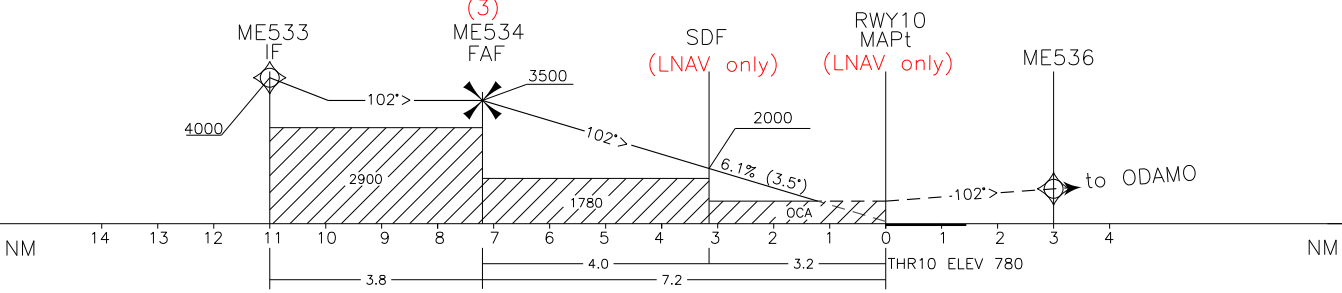


- (1) For RNAV system with holding functionality
- (2) For RNAV system without holding functionality
- (3) IAS MAX 175 KT
- (4) Fly over for holding pattern only
- (5) For uncompensated Baro-VNAV systems LNAV/VNAV NA below -20°C and above +45°C

TRANSITION ALT 6000

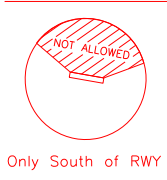
MISSED APPROACH: Climb 4000FT. Proceed to ME536 then turn right (IAS MAX 200kt) to ODAMO and hold.

TCH 15.0 M

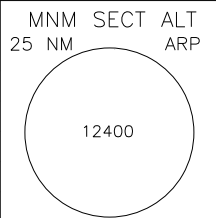


OCA (OCH)	A	B	C	D
STRAIGHT IN APPROACH				
LPV	1103(323)	1115(335)	1127(347)	1140(360)
LNAV/VNAV (5)	1103(323)	1115(335)	1127(347)	1140(360)
LNAV	1280 (498)			
CIRCLING RWY 28	1490 (708)	1610 (828)	1870 (1088)	

CIRCLING SECTOR:



GS	FT PER NM	RWY10 DISTANCE	ALT (HGT)
80	495	6	3060(2280)
100	620	5	2690(1910)
120	740	4	2320(1540)
140	865	3	1950(1180)
160	990	2	1570(790)





## TABULAR DESCRIPTION

## RNP RWY10 – Instrument Approach Procedure

Serial Number	Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	VPA (°)/TCH (m)	Navigation Specification
010	IF	OBFUL	-	-	-	-	-	+6000	-	-	RNP APCH
020	TF	ME531	-	240° (243.1°)	-	7.7	-	+6000	200	-	RNP APCH
030	TF	ME532	-	282° (284.7°)	-	5.9	-	+5000	200	-	RNP APCH
040	TF	ME533	-	012° (014.6°)	-	5.0	R	+4000	200	-	RNP APCH
010	IF	ELBOD	-	-	-	-	-	+6000	-	-	RNP APCH
020	TF	ME531	-	317° (319.9°)	-	17.0	-	+6000	200	-	RNP APCH
030	TF	ME532	-	282° (284.7°)	-	5.9	-	+5000	200	-	RNP APCH
040	TF	ME533	-	012° (014.6°)	-	5.0	R	+4000	200	-	RNP APCH
010	IF	TIXUM	-	-	-	-	-	+6000	-	-	RNP APCH
020	TF	ME531	-	289° (290.9°)	-	19.0	-	+6000	200	-	RNP APCH
030	TF	ME532	-	282° (284.7°)	-	5.9	-	+5000	200	-	RNP APCH
040	TF	ME533	-	012° (014.6°)	-	5.0	R	+4000	200	-	RNP APCH
010	IF	ME533	-	-	-	-	-	+4000	-	-	RNP APCH
020	TF	ME534	-	102° (104.6°)	-	3.8	-	+3500	175	-	RNP APCH
-	-	-	-	102° (104.6°)	-	-	-	+2000	-	-	-
030	TF	RWY10	Y	102° (104.6°)	-	7.2	-	@830 (1)	-	-3.5/15	RNP APCH
040	CF	ME536	Y	102° (104.6°)	3 E	-	-	-	200	-	RNP APCH
050	TF	ODAMO	-	163° (165.5°)	-	-	-	+4000	-	-	RNP APCH
060	HF	ODAMO	Y	002°(005.0°)	-	-	L	+4000	-185	-	RNAV1/RNP (2)

(1) THR Altitude plus TCH

(2) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

## Holding RNAV

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (1)	Timing(min.)/Waypoint Distance (NM) (2)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	OBFUL	304°(307.0°)	3.5	1 / -	L	6000	-	185	3 E	RNAV1/RNP (3)
HM	ELBOD	343°(346.0°)	3.8	- / -	L	6000	-	200	3 E	RNAV1/RNP (3)
HM	TIXUM	012°(015.0°)	3.7	1/-	L	6000	-	200	3 E	RNAV1/RNP (3)
HM	ODAMO	002°(005.0°)	3.4	1 / -	L	4000	-	185	3 E	RNAV1/RNP (3)

(1) RNAV system with holding functionality

(2) RNAV system without holding functionality

(3) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation

**WAYPOINT LIST**

Waypoint Identifier	Coordinates
ME531	45°36'41.09" N 009°32'46.02" E
ME532	45°38'11.27" N 009°24'35.20" E
ME533	45°43'01.58" N 009°26'23.35" E
ME534	45°42'03.80" N 009°31'38.21" E
ME536	45°39'27.35" N 009°45'43.42" E

**SBAS FAS DATA BLOCK LIME RNP RWY10**

INPUT DATA	
PARAMETERS	VALUES
Operation Type MAPt	0
SBAS Provider	1
Airport Identifier	LIME
Runway	10
Runway Direction	0
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E10A
LTP/FTP Latitude	454013.9000N
LTP/FTP Longitude	0094133.0200E
LTP/FTP Ellipsoidal Height (metres)	283.0
FPAP Latitude	453951.8760N
Delta FPAP Latitude (seconds)	-22.0240
FPAP Longitude	0094331.5865E
Delta FPAP Longitude (seconds)	118.5665
Threshold Crossing Height	15.0
TCH Units Selector	1
Glidepath Angle (degrees)	3.50
Course Width (metres)	105.00
Length Offset (metres)	0
HAL	40.0
VAL	50.0

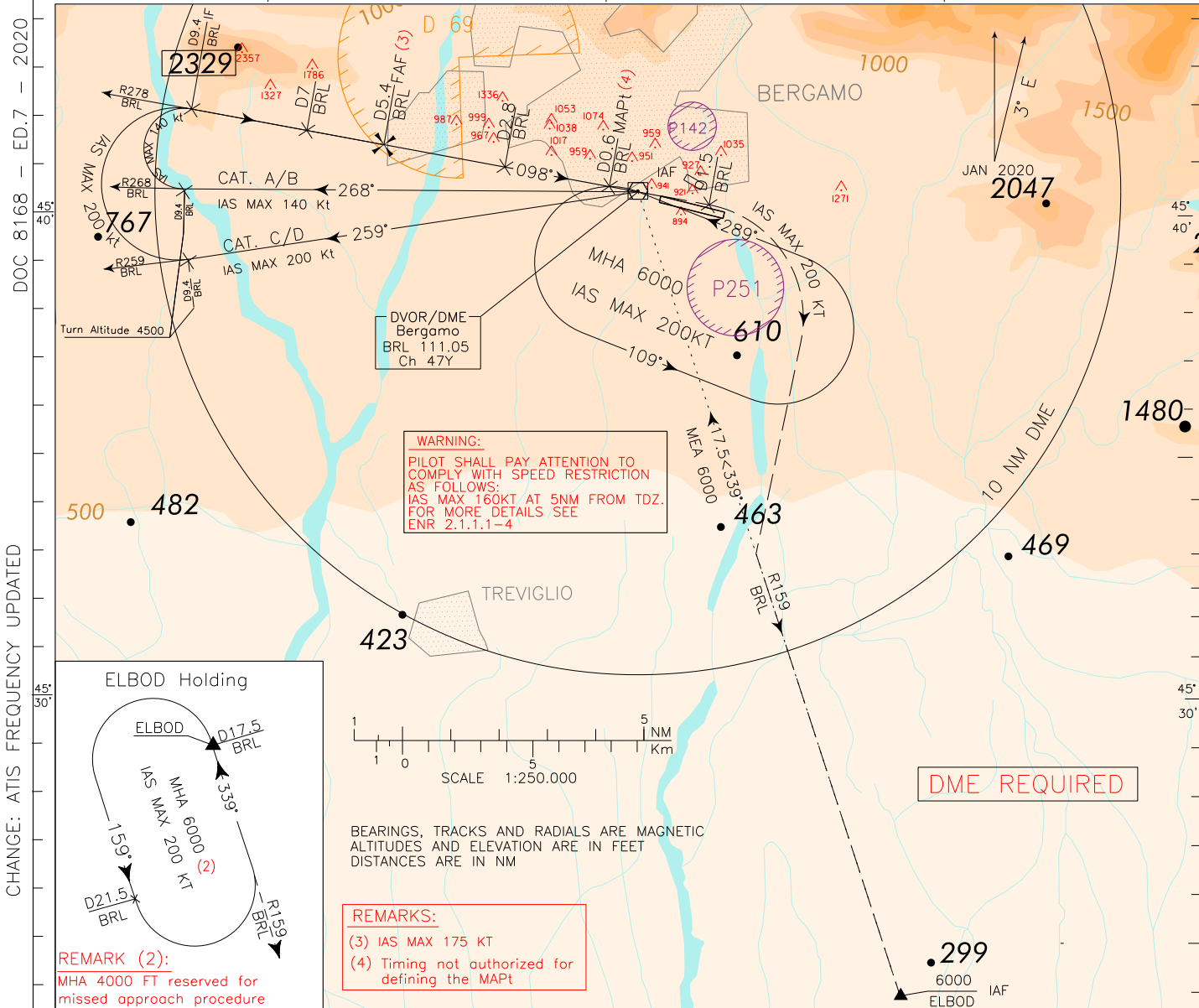
OUTPUT DATA	
Data Block	10 05 0D 09 0C 0A 00 00 01 30 31 05 98 83 99 13 B8 D9 28 04 0E 1F F0 53 FF 4D 9E 03 2C 81 5E 01 64 00 C8 FA 5C 15 78 63
Calculated CRC Value	5C157863

Required Additional Data	
ICAO Code	LI
LTP/FTP Orthometric Height (metres)	237.9
FPAP Orthometric Height (metres)	229.6

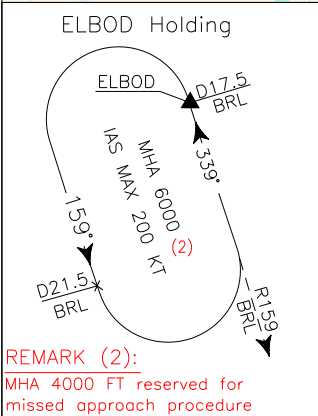
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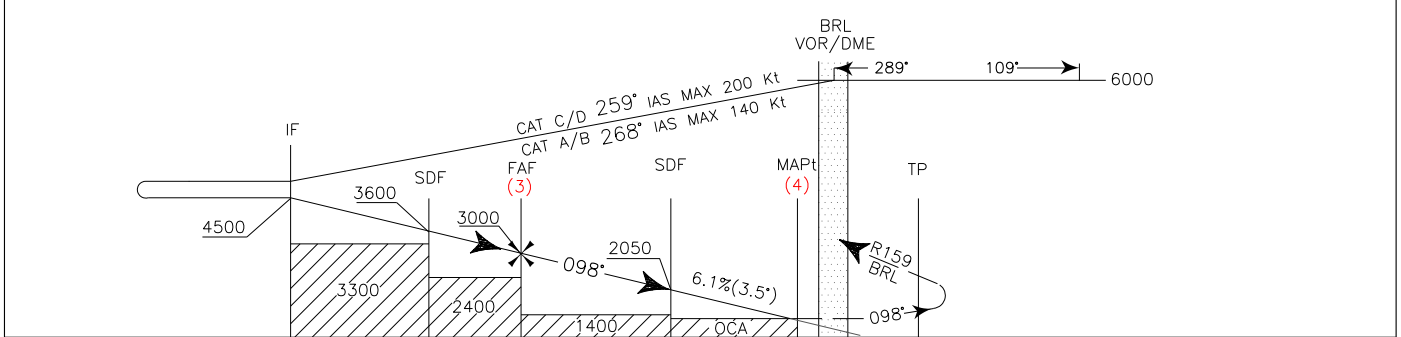
<b>REMARK (1):</b> Final approach track is offset 3.8° from RCL extension. Final approach track intersects RCL extension at 1745m before THR 10.	APP Milano Radar (126.300)126.750	AD ELEV	LIME	BERGAMO/ORIO AL SERIO VOR RWY10
TWR Orio TWR 125.875 (CH 134.105)	782			
ATIS Bergamo ATIS Information 118.540				



CHANGE: ATIS FREQUENCY UPDATED



**TRANSITION ALT 6000** MISSED APPROACH: At MAPt climb to 4000 ft and proceed on TR 098°. At 1.5 BRL DME (RDL 098 BRL VOR) turn right (IAS MAX 200 KT) to join and follow RDL159 BRL VOR to ELBOD holding pattern. Hold between 17.5 and 21.5 NM, inbound TR 339° (RDL 159 BRL VOR), left turn, IAS MAX 200kt.



NM	11	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	NM
BRL DME		D9.4		D7.0		D5.4		D2.8		D0.6	0		D1.5							BRL DME

OCA (OCH)		A	B	C	D
STRAIGHT IN APPROACH	VOR DME	1280 (498)			
CIRCLING RWY28		1490 (708)	1590 (808)	1750 (968)	

**CIRCLING SECTOR:**

NOT ALLOWED

Only South of RWY

GS	FT PER NM	BRL DISTANCE	ALT (HGT)
80	495	5 DME	2860(2078)
100	620	4 DME	2490(1708)
120	745	3 DME	2120(1338)
140	865	2 DME	1750(968)
160	990	1 DME	1380(598)