

MHT-KMHT

1-10

AOI

AOI

**GENERAL****Operational Hours****ATS Hours:** TWR H24**AD OPS Hours:** Attended continuously**Airport Information****RFF:** FAA INDEX C / CAT 7**Fuel:** Jet A**PCN:** RWY 06/24, RWY 17/35: 90/F/C/W/T**Customs:** O/R**Operation****TWY Restriction**

TWY A safety area south of TWY E to TWY P is 19.8m / 65ft on west side.

TWY L not AVBL to Air carrier.

TWY G, N MAX wingspan 44m / 145ft.

JET taxiing west across RWY 17/35 at TWY C, D and E use low power due to parked ACFT on east ramp.

No taxiing between push-back ACFT and airline terminal or cargo ramps.

No taxiing between terminal BLDG and push-back ACFT or ACFT taxiing on TWY G or N.

**AMMON RAMP:**

- MAX wingspan 36m/118ft, maintain taxilane CL to avoid other parked ACFT.
- Bigger ACFT require crew assistance for taxi and parking

**Warnings****EEN VOR/DME** unusable:**VOR:**

R100-R110.

R165-R185 beyond 10NM below 6000ft.

R017-R027, R037-R047 beyond 20NM.

R070-R085 beyond 25NM below 9000ft.

**DME:**

R070-R085 beyond 25NM below 9000ft.

**ARRIVAL****Speed**

MAX IAS 250KT below 10000ft.

**Communication****COM Failure:** See CRAR.**Arrival Procedure****Non-standard GP intercept position on RWY 35**

GP intercepts RWY 35 at 320m / 1049ft after landing threshold.

Remaining DIST beyond GP is 2012m / 6601ft.

**Warnings****ILS RWY 17 DME** unusable: Beyond 10° right of RCL.

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## DEPARTURE

## | Take-off Minima

RWY		17	
1+2 ENG	ft - ft/SM	0 - 5000R/1.0V	SID PPORT: MNM climb gradient 5.3% up to 3000
		0 - 2400R/0.5V	All other departures: MNM climb gradient 4.5% up to 600
RWY		35	
1+2 ENG	ft - ft/SM	0 - 5000R/1.0V	SID MANCHESTER: MNM climb gradient 4.2% up to 2000 SID PPORT:
		0 - 2400R/0.5V	MNM climb gradient 5.3% up to 3000 All other departures: MNM climb gradient 4.4% up to 500
RWY		06	
1+2 ENG	ft - ft/SM	0 - 5000R/1.0V	SID MANCHESTER: MNM climb gradient 3.4% up to 1000 or TKOF must occur no later than 1900ft / 579m prior to RWY end.
		0 - 2400R/0.5V	SID PPORT: MNM climb gradient 5.3% up to 3000
RWY		24	
1+2 ENG	ft - ft/SM	0 - 5000R/1.0V	SID MANCHESTER: MNM climb gradient 5.3% up to 1200
		0 - 2400R/0.5V	SID PPORT: MNM climb gradient 5.3% up to 3000

## Speed

MAX IAS 250KT below 10000ft.

## Communication

**COM Failure:** See CRAR.

## Departure Procedure

**Noise Abatement Procedure**

Jet ACFT expect right turn when departing on RWY 17.

## MHT-KMHT

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**United States Manchester AFC**
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ATIS	119.550 ASOS
Boston APP	124.900
Boston DEP	134.750
TWR	124.900
Unicom	121.300
GND	122.950
DLV	121.900
RCO (Bangor RDO)	135.900
	122.100 Transmit
	114.400 Receive

TRL 1800 TA 10000	

## Landing RWY system:

06	155 HL ————— 3.0° ————— 15 HL
24	15 HL ————— 3.0° ————— 15 HL
24	-0.3% TDZ 242 (---%) / THR 242 (9hPa) +0.3%
17	TDZ 242 (---%) / THR 242 (9hPa) +0.3%

06

24

24

17

PEASE  
THR 218 (8hPa) / TDZ 224 (---%)  
TDZ 242 (---%) / THR 242 (9hPa) +0.3%

155 HL

3.0°

15 HL

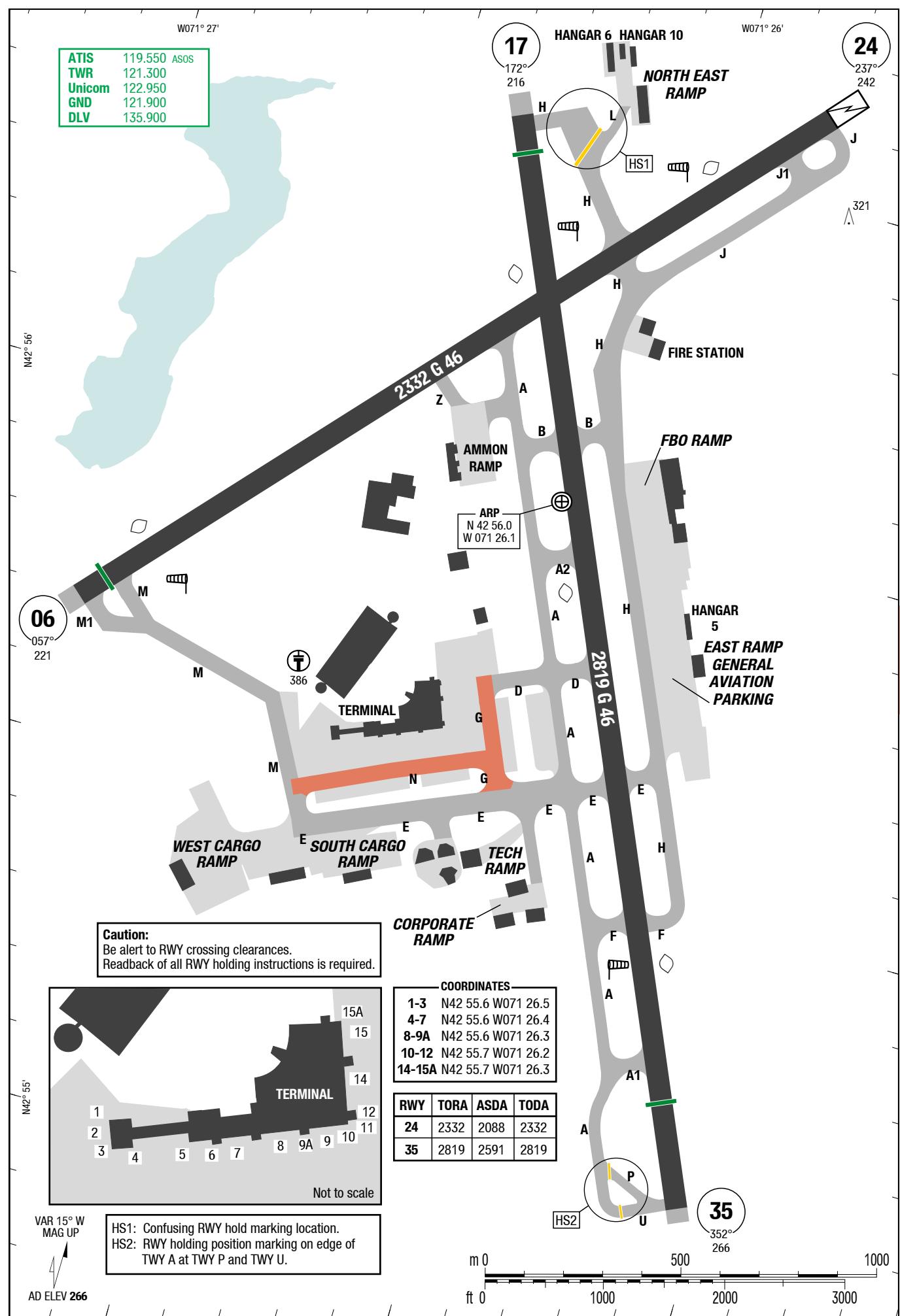
60 HL

15 HL

3.0°

60 HL

15 HL



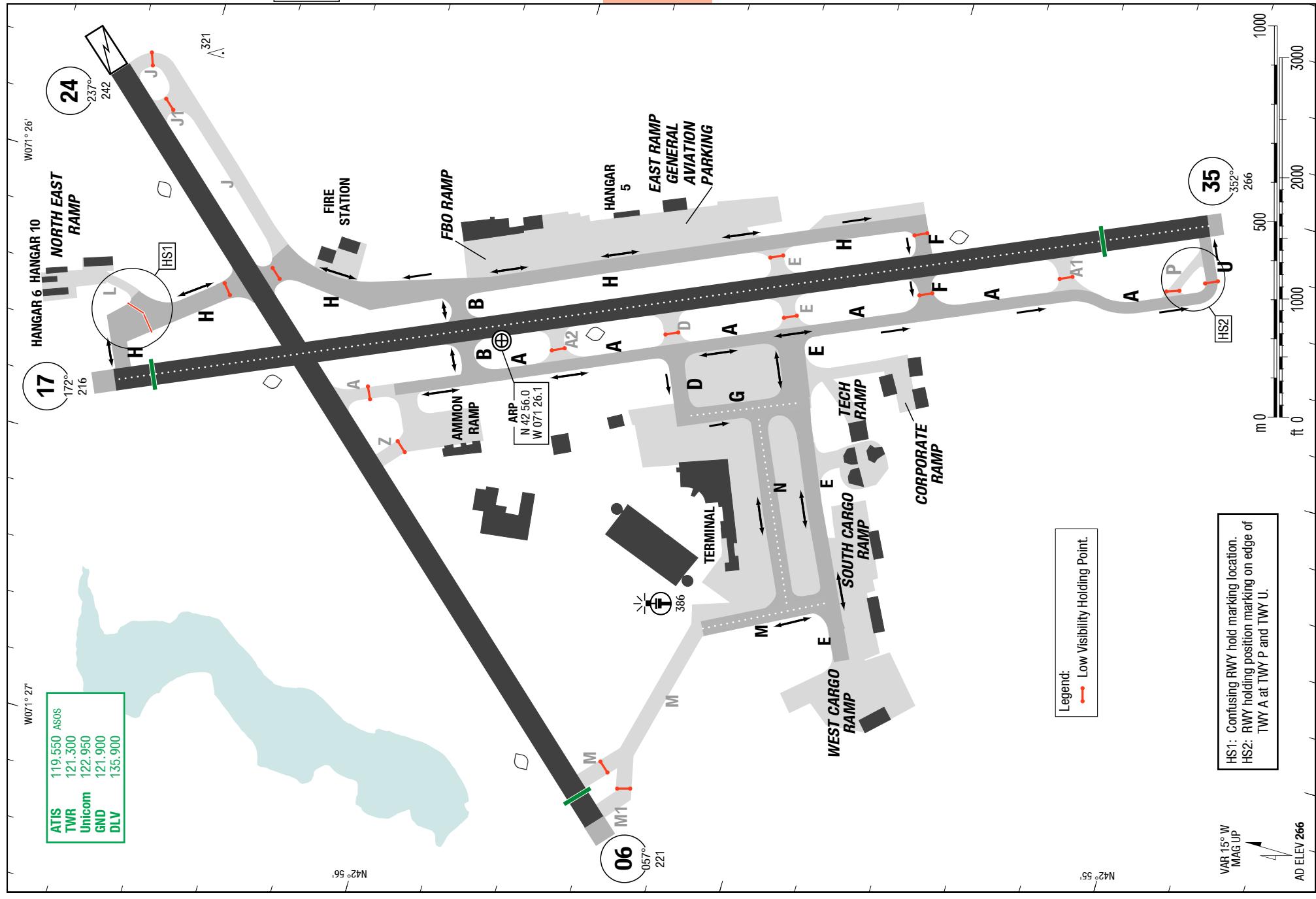
**Effective 19-JUL-2018**  
**12-JUL-2018**

MHT-KMHT

**United States Manchester**

**Manchester United States**  
**NIL**  
**LVC RVR 1200ft to 600ft**

3-30



Effective 17-AUG-2017

10-AUG-2017

MHT-KMHT

United States Manchester

NIL

SIDs / RNAV SIDs

4-10

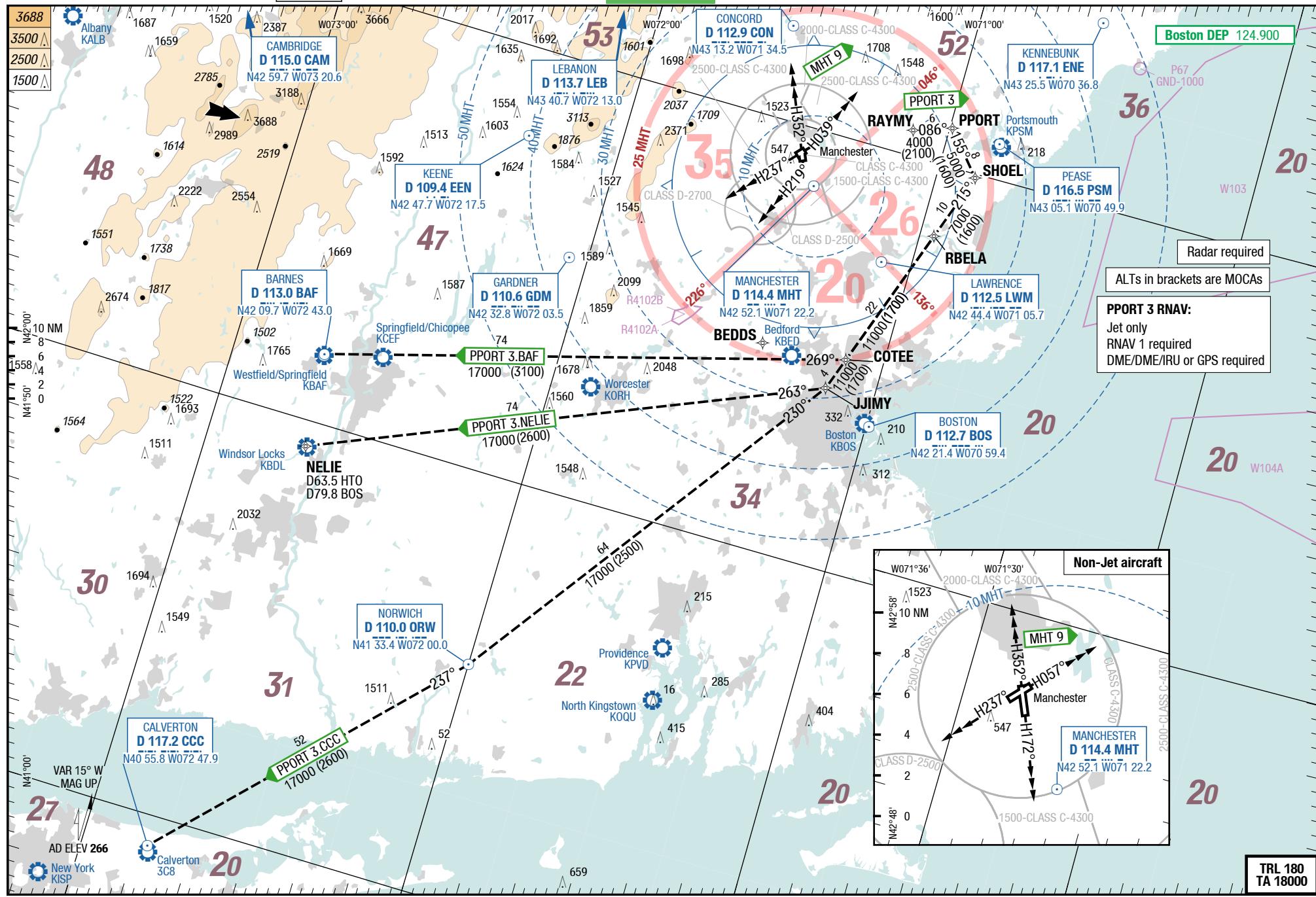
Manchester United States

NIL

SIDs / RNAV SIDs

SID

SID



## MHT-KMHT

5-10

IDs / RNAV SIDs

## MANCHESTER 9

RWYs 06 (057°) / 17 (172°) / 24 (237°) / 35 (352°)

DESIGNATOR	ROUTING	ALTITUDES
<b>MANCHESTER 9</b>		
<b>MHT 9</b>		
<b>124.900</b>		
①		initial climb 3000
<b>RWY 06</b> (Jet only)	LT HDG 039° - expect radar vectors	
<b>RWY 06</b> (Prop only)	HDG 057° - expect radar vectors	
<b>RWY 17</b> (Jet only)	RT HDG 219° - expect radar vectors	
<b>RWY 17</b> (Prop only)	HDG 172° - expect radar vectors	
<b>RWY 24</b> (Prop only)	HDG 237° - expect radar vectors	
<b>RWY 24</b> (Jet only)	HDG 237° - expect radar vectors	
<b>RWY 35</b> (Prop only)	HDG 352° - expect radar vectors	
<b>RWY 35</b> (Jet only)	HDG 352° - expect radar vectors	

① Expect clearance to filed ALT/FL within 5 minutes after DEP.

**PPORT 3**

RWYs 06 (057°) / 17 (172°) / 24 (237°) / 35 (352°)

DESIGNATOR	ROUTING	ALTITUDES
<b>PPORT 3</b> (Jet only) <b>124.900</b> ①		<b>Initial climb 3000</b>
<b>RWY 06</b>	LT HDG 039° - expect vectors to RAYMY - PPORT	
<b>RWY 17</b>	RT HDG 219° - expect vectors to RAYMY - PPORT	
<b>RWY 24</b>	HDG 237° - expect vectors to RAYMY - PPORT	
<b>RWY 35</b>	HDG 352° - expect vectors to RAYMY - PPORT	
	<b>TRANSITION</b>	
	<b>BARNES (BAF)</b> PPORT - SHOEL - RBELA - COTEE - <b>BAF</b>	
	<b>CALVERTON (CCC)</b> PPORT - SHOEL - RBELA - JJIMY - <b>ORW</b> - <b>CCC</b>	
	<b>NELIE</b> PPORT - SHOEL - RBELA - JJIMY - NELIE	

① Expect clearance to filed ALT/FL within 5 minutes after DEP.

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Obstacle Departure RWYs 06/24

**Obstacle Departure**

RWY	Routing
06	Climb HDG 057° to <b>1000</b> before RT.
24	Climb HDG 244° to <b>1000</b> BPOC.
RWY	Notes
06	Fence 6ft from DER, 468ft right of centerline, 12ft AGL/242ft MSL. Lighting 40ft from DER, 117ft right of centerline, 3ft AGL/243ft MSL. Pole 67ft from DER, 454ft left of centerline, 24ft AGL/253ft MSL. Trees beginning 584ft from DER, 599ft right of centerline, up to 61ft AGL/265ft MSL. Trees beginning 798ft from DER, 90ft right of centerline, up to 66ft AGL/268ft MSL. Trees beginning 819ft from DER, 163ft left of centerline, up to 66ft AGL/273ft MSL. Tree 1014ft from DER, 309ft right of centerline, 87ft AGL/269ft MSL. Trees beginning 1102ft from DER, 473ft right of centerline, up to 72ft AGL/272ft MSL. Tree 1535ft from DER, 660ft left of centerline, 78ft AGL/281ft MSL. Trees beginning 1893ft from DER, 215ft left of centerline, up to 97ft AGL/297ft MSL. Tree 2056ft from DER, 366ft left of centerline, 102ft AGL/302ft MSL. Tree 2154ft from DER, 469ft left of centerline, 102ft AGL/307ft MSL. Trees beginning 2189ft from DER, 551ft left of centerline, up to 107ft AGL/308ft MSL. Tree 2315ft from DER, 653ft left of centerline, 107ft AGL/313ft MSL.
24	Terrain 3ft from DER, on centerline, 221ft MSL. Pole 221ft from DER, 475ft left of centerline, 18ft AGL/227ft MSL. Building 394ft from DER, 581ft left of centerline, 28ft AGL/233ft MSL. Trees beginning 451ft from DER, 220ft left of centerline, up to 74ft AGL/257ft MSL. Trees beginning 785ft from DER, 545ft left of centerline, up to 92ft AGL/264ft MSL. Trees beginning 810ft from DER, 352ft left of centerline, up to 119ft AGL/293ft MSL. Tree 2556ft from DER, 1112ft right of centerline, 85ft AGL/294ft MSL. Trees beginning 3529ft from DER, 1042ft right of centerline, up to 101ft AGL/313ft MSL.

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Obstacle Departure RWY 17 (Page 1)

SIDPT

## Obstacle Departure

RWY	Notes
17	Vehicles on roadway 643ft from DER, 640ft left of centerline, 303ft MSL. Building 761ft from DER, 421ft right of centerline, 8ft AGL/300ft MSL. Vehicles on roadway beginning 764ft from DER, 392ft left of centerline, up to 304ft MSL. Tree 1087ft from DER, 640ft left of centerline, 323ft MSL. Vehicles on roadway 1167ft from DER, 717ft right of centerline, 303ft MSL. Trees, terrain beginning 1288ft from DER, 320ft left of centerline, up to 334ft MSL. Vehicles on roadway, poles beginning 1345ft from DER, 211ft right of centerline, up to 307ft MSL. Poles beginning 1430ft from DER, 200ft right of centerline, up to 34ft AGL/324ft MSL. Tree 1479ft from DER, 710ft left of centerline, 27ft AGL/335ft MSL. Trees, poles beginning 1554ft from DER, 281ft right of centerline, up to 40ft AGL/329ft MSL. Trees, terrain, vertical point, building, vehicles on roadway, sign, poles beginning 1558ft from DER, 5ft left of centerline, up to 41ft AGL/346ft MSL. Tree 1760ft from DER, 530ft right of centerline, 43ft AGL/332ft MSL. Tree 1825ft from DER, 413ft right of centerline, 47ft AGL/335ft MSL. Trees, fence, building, pole, terrain beginning 1876ft from DER, on centerline, up to 48ft AGL/336ft MSL. Trees, pole beginning 2053ft from DER, on centerline, up to 49ft AGL/339ft MSL. Tree, vehicles on roadway, building beginning 2146ft from DER, 138ft left of centerline, up to 43ft AGL/352ft MSL. Trees, sign, building, pole beginning 2177ft from DER, 1ft left of centerline, up to 44ft AGL/359ft MSL. Trees, pole beginning 2215ft from DER, 118ft right of centerline, up to 58ft AGL/362ft MSL. Tree, building, pole, terrain, vehicles on roadway, spire, sign beginning 2267ft from DER, 4ft left of centerline, up to 46ft AGL/362ft MSL. Trees, vehicles on roadway, pole, building beginning 2383ft from DER, on centerline, up to 55ft AGL/366ft MSL. Trees, pole, building beginning 2846ft from DER, 64ft left of centerline, up to 52ft AGL/370ft MSL. Trees beginning 2876ft from DER, 196ft right of centerline, up to 368ft MSL. Trees, pole, building beginning 2885ft from DER, 2ft right of centerline, up to 70ft AGL/378ft MSL. Trees, pole beginning 3155ft from DER, 11ft right of centerline, up to 78ft AGL/384ft MSL. Trees, building, tank beginning 3216ft from DER, 37ft left of centerline, up to 51ft AGL/379ft MSL. Trees, pole, building beginning 3401ft from DER, 17ft left of centerline, up to 52ft AGL/383ft MSL. Trees, pole beginning 3455ft from DER, 33ft right of centerline, up to 385ft MSL. Trees beginning 3494ft from DER, 201ft left of centerline, up to 384ft MSL. Tree 3514ft from DER, 425ft left of centerline, 385ft MSL. Trees, tank beginning 3543ft from DER, 36ft left of centerline, up to 397ft MSL. Trees, pole beginning 3564ft from DER, 41ft right of centerline, up to 395ft MSL. Trees, elevator, grain elevator, pole, tank, building, antenna, vertical point beginning 3721ft from DER, 6ft right of centerline, up to 396ft MSL. Trees beginning 3994ft from DER, 49ft left of centerline, up to 62ft AGL/401ft MSL. Trees beginning 4090ft from DER, 147ft left of centerline, up to 62ft AGL/402ft MSL. Trees beginning 4197ft from DER, 50ft left of centerline, up to 70ft AGL/405ft MSL. Trees, pole, transmission line, building beginning 4334ft from DER, 14ft right of centerline, up to 93ft AGL/414ft MSL. Trees beginning 4372ft from DER, 764ft left of centerline, up to 407ft MSL. Trees beginning 4457ft from DER, 1078ft left of centerline, up to 408ft MSL. Trees, pole beginning 4500ft from DER, 10ft left of centerline, up to 417ft MSL.

## Obstacle Departure

RWY	Notes
17	<p>Tree 4773ft from DER, 511ft left of centerline, 60ft AGL/419ft MSL. Trees beginning 4784ft from DER, 92ft right of centerline, up to 416ft MSL. Trees beginning 4793ft from DER, 421ft left of centerline, up to 71ft AGL/422ft MSL. Trees beginning 4820ft from DER, 10ft left of centerline, up to 81ft AGL/426ft MSL. Tree, pole beginning 4830ft from DER, 26ft right of centerline, up to 419ft MSL. Tree, pole beginning 4907ft from DER, 91ft right of centerline, up to 422ft MSL. Trees beginning 5004ft from DER, 155ft right of centerline, up to 426ft MSL. Tree, pole beginning 5105ft from DER, 63ft right of centerline, up to 431ft MSL. Trees beginning 5128ft from DER, 186ft left of centerline, up to 32ft AGL/427ft MSL. Tree, terrain beginning 5182ft from DER, 52ft left of centerline, up to 47ft AGL/436ft MSL. Trees, vehicles on roadway beginning 5278ft from DER, 4ft right of centerline, up to 59ft AGL/437ft MSL. Tree, pole beginning 5331ft from DER, 44ft right of centerline, up to 56ft AGL/441ft MSL. Tree, terrain beginning 5346ft from DER, 35ft left of centerline, up to 64ft AGL/445ft MSL. Tree, vehicles on roadway, pole beginning 5392ft from DER, 8ft right of centerline, up to 442ft MSL. Pole, trees, vehicles on roadway, terrain beginning 5550ft from DER, 4ft left of centerline, up to 29ft AGL/447ft MSL. Trees, vehicles on roadway, terrain, pole, building beginning 5696ft from DER, 14ft left of centerline, up to 80ft AGL/455ft MSL. Trees beginning 5787ft from DER, 16ft right of centerline, up to 65ft AGL/452ft MSL. Tree 5929ft from DER, 474ft left of centerline, 68ft AGL/457ft MSL. Tree, pole beginning 5952ft from DER, 73ft left of centerline, up to 66ft AGL/459ft MSL. Trees beginning 1NM from DER, 98ft left of centerline, up to 96ft AGL/461ft MSL. Trees beginning 1NM from DER, 17ft left of centerline, up to 463ft MSL. Tree 1.1NM from DER, 336ft right of centerline, 453ft MSL. Tree 1.2NM from DER, 608ft left of centerline, 100ft AGL/458ft MSL.</p>

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Obstacle Departure RWY 35

**Obstacle Departure**

RWY	Routing
35	Climb HDG 352° to <b>1300</b> BPOC
RWY	Notes
35	<p>Tree 612ft from DER, 613ft left of centerline, 237ft MSL. Tree 712ft from DER, 493ft left of centerline, 239ft MSL. Tree 719ft from DER, 623ft right of centerline, 38ft AGL/243ft MSL. Trees beginning 891ft from DER, 527ft left of centerline, up to 26ft AGL/248ft MSL. Tree 1114ft from DER, 788ft right of centerline, 261ft MSL. Pole, tree beginning 1147ft from DER, 486ft left of centerline, up to 39ft AGL/258ft MSL. Tree 1779ft from DER, 944ft right of centerline, 77ft AGL/271ft MSL. Tree 1888ft from DER, 991ft right of centerline, 96ft AGL/287ft MSL. Tree 1989ft from DER, 994ft left of centerline, 274ft MSL. Tree 2030ft from DER, 989ft left of centerline, 61ft AGL/280ft MSL. Tree 2247ft from DER, 1079ft left of centerline, 68ft AGL/288ft MSL. Tree, poles beginning 2505ft from DER, 558ft right of centerline, up to 64ft AGL/303ft MSL. Tree 2514ft from DER, 1135ft left of centerline, 75ft AGL/295ft MSL. Trees beginning 2518ft from DER, 923ft left of centerline, up to 74ft AGL/297ft MSL. Trees beginning 2785ft from DER, 694ft left of centerline, up to 78ft AGL/301ft MSL. Trees beginning 3093ft from DER, 511ft left of centerline, up to 78ft AGL/305ft MSL. Tree 3358ft from DER, 1235ft left of centerline, 314ft MSL. Tree 3378ft from DER, 1133ft left of centerline, 318ft MSL. Tree 3422ft from DER, 1212ft left of centerline, 106ft AGL/319ft MSL. Trees beginning 3475ft from DER, 268ft left of centerline, up to 327ft MSL. Trees beginning 4270ft from DER, 261ft left of centerline, up to 86ft AGL/333ft MSL. Tree 5359ft from DER, 1186ft left of centerline, 84ft AGL/352ft MSL. Tree 5509ft from DER, 528ft left of centerline, 357ft MSL. Trees beginning 5536ft from DER, 1317ft left of centerline, up to 67ft AGL/361ft MSL. Trees beginning 5581ft from DER, 1079ft left of centerline, up to 65ft AGL/364ft MSL. Trees beginning 5689ft from DER, 1038ft left of centerline, up to 65ft AGL/368ft MSL. Trees beginning 5703ft from DER, 1259ft left of centerline, up to 63ft AGL/370ft MSL. Tree 5775ft from DER, 1860ft left of centerline, 78ft AGL/395ft MSL. Trees beginning 5851ft from DER, 1038ft left of centerline, up to 77ft AGL/403ft MSL. Trees beginning 5934ft from DER, 1317ft left of centerline, up to 76ft AGL/409ft MSL. Tree, pole beginning 1NM from DER, 795ft left of centerline, up to 71ft AGL/416ft MSL. Trees beginning 1NM from DER, 1093ft left of centerline, up to 68ft AGL/417ft MSL. Tree 1.2NM from DER, 1944ft left of centerline, 85ft AGL/407ft MSL.</p>

Effective 17-AUG-2017

10-AUG-2017

MHT-KMHT

United States Manchester

POPPP 1

STAR

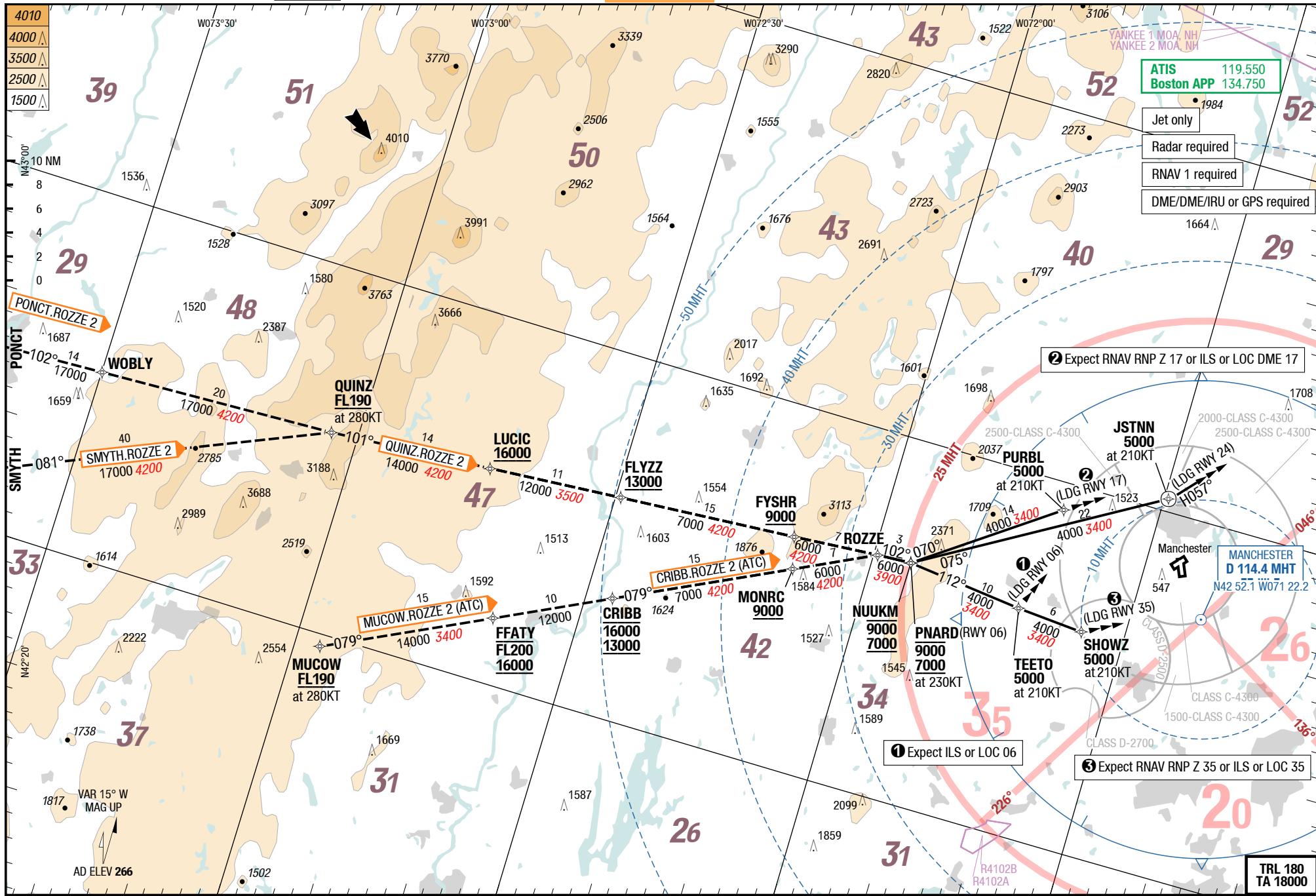
STAR

Manchester United States

POPPP 1

ROZZE 2 RNAV

6-10



Changes: Track, ASP, SUAs, PROC renumbered, OBST, VAR

**Effective 17-AUG-2017**

10-AUG-2017

# United States Manchester

**Manchester United States**

MHT-KMHT

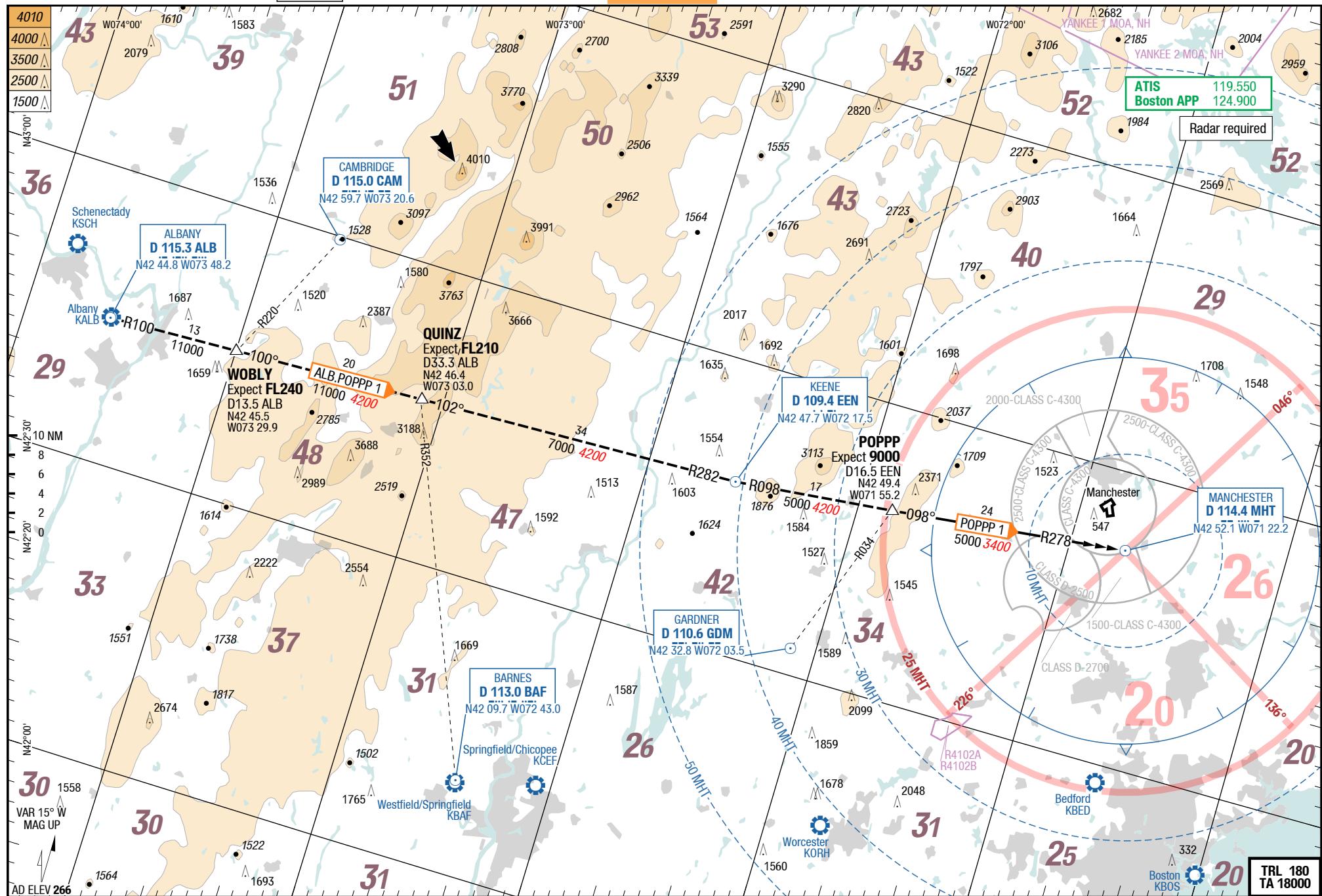
6-20

## **POPPP 1**

SAR

STAR

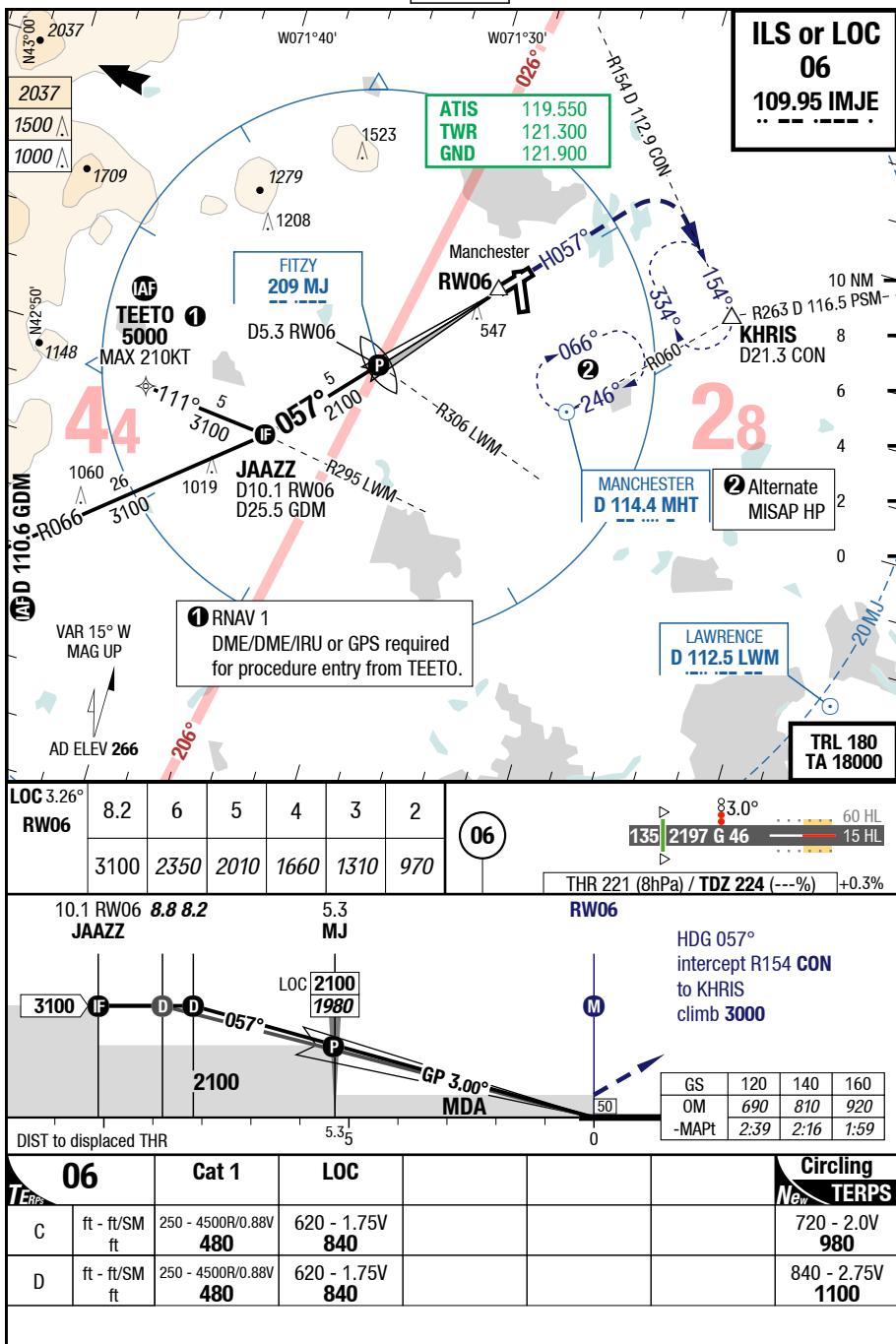
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## MHT-KMHT

7-10

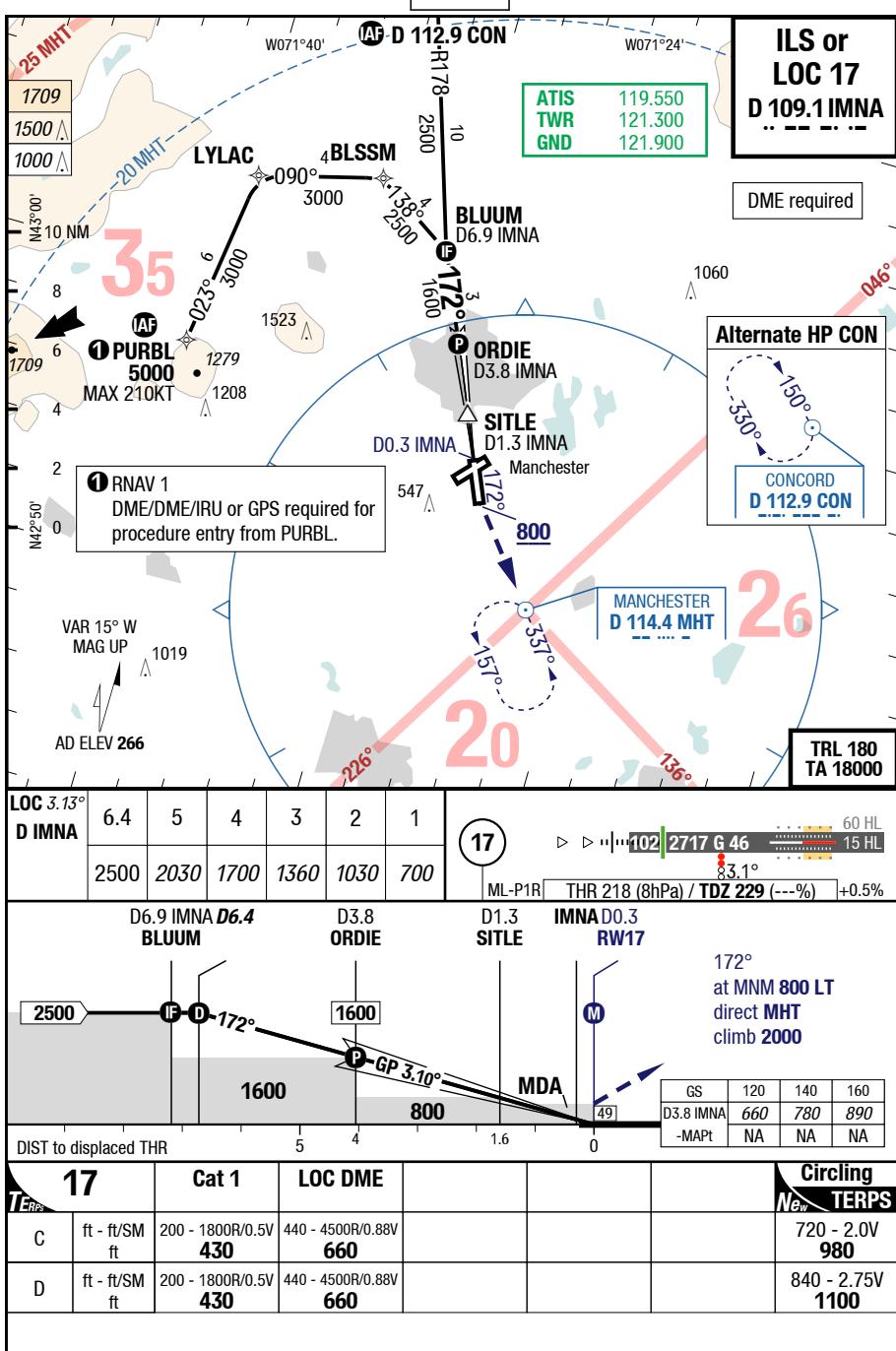
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## MHT-KMHT

7-20

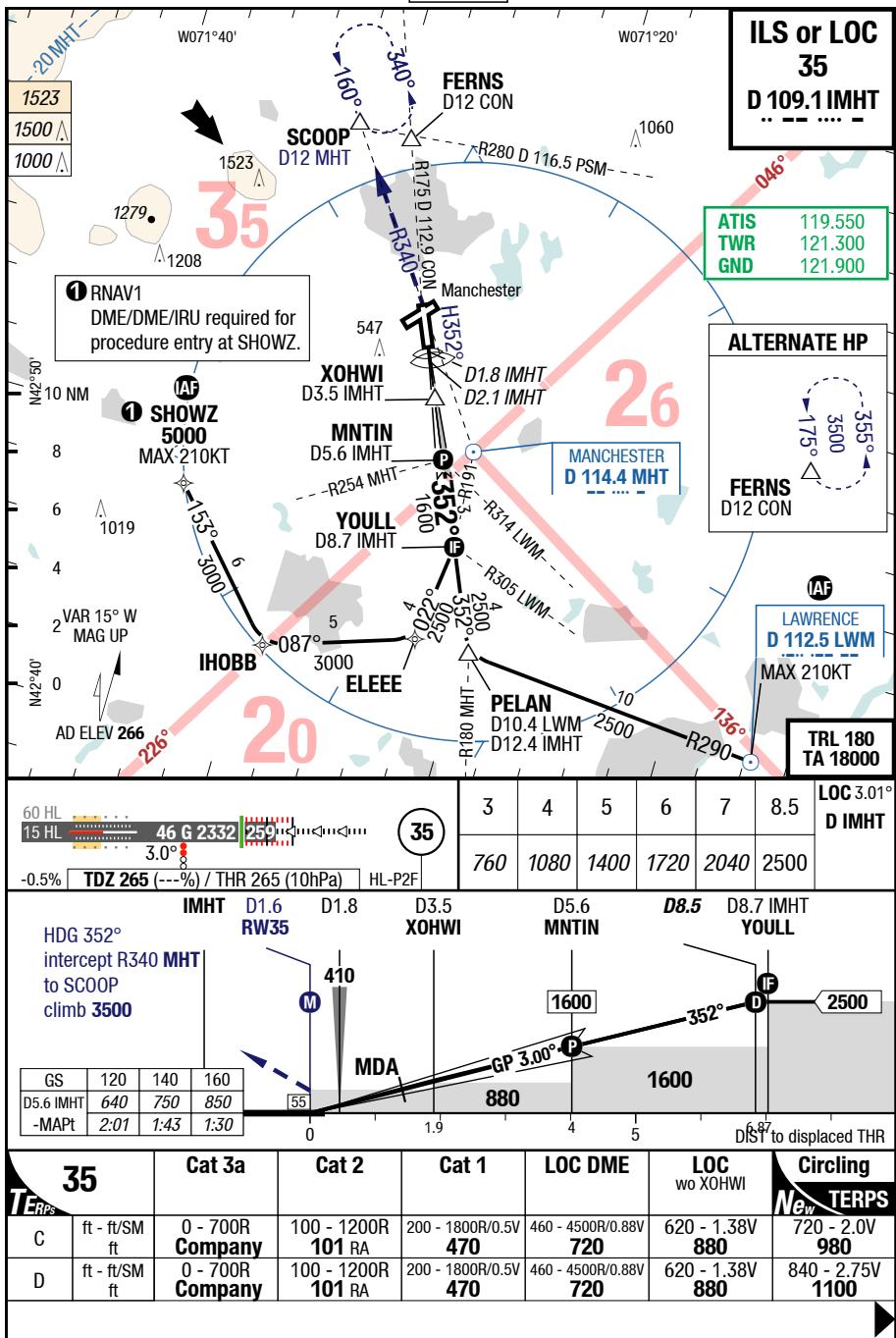
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## MHT-KMHT

7-30

ILS or LOC 35

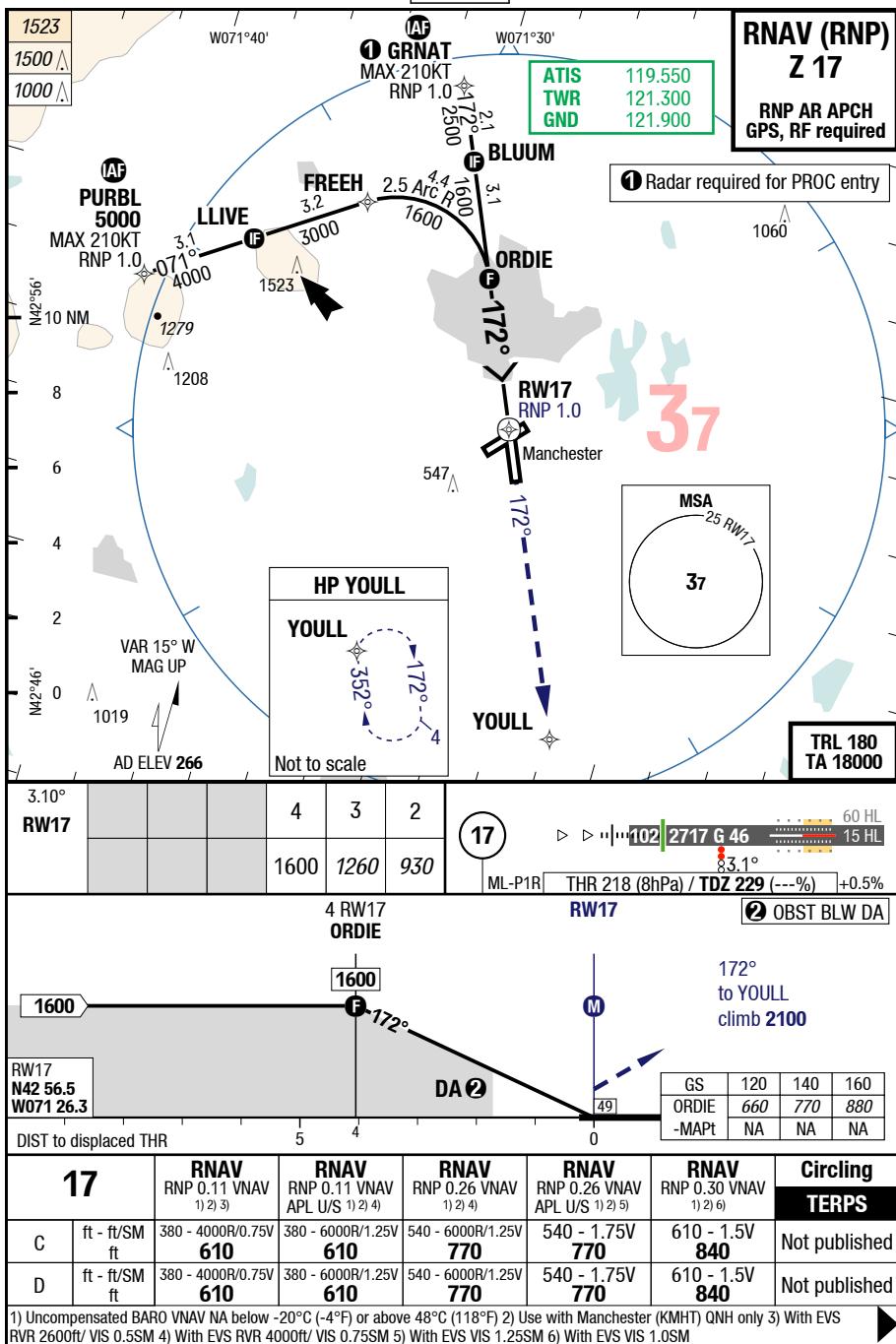


## MHT-KMHT

7-50

RNAV (RNP) Z 17

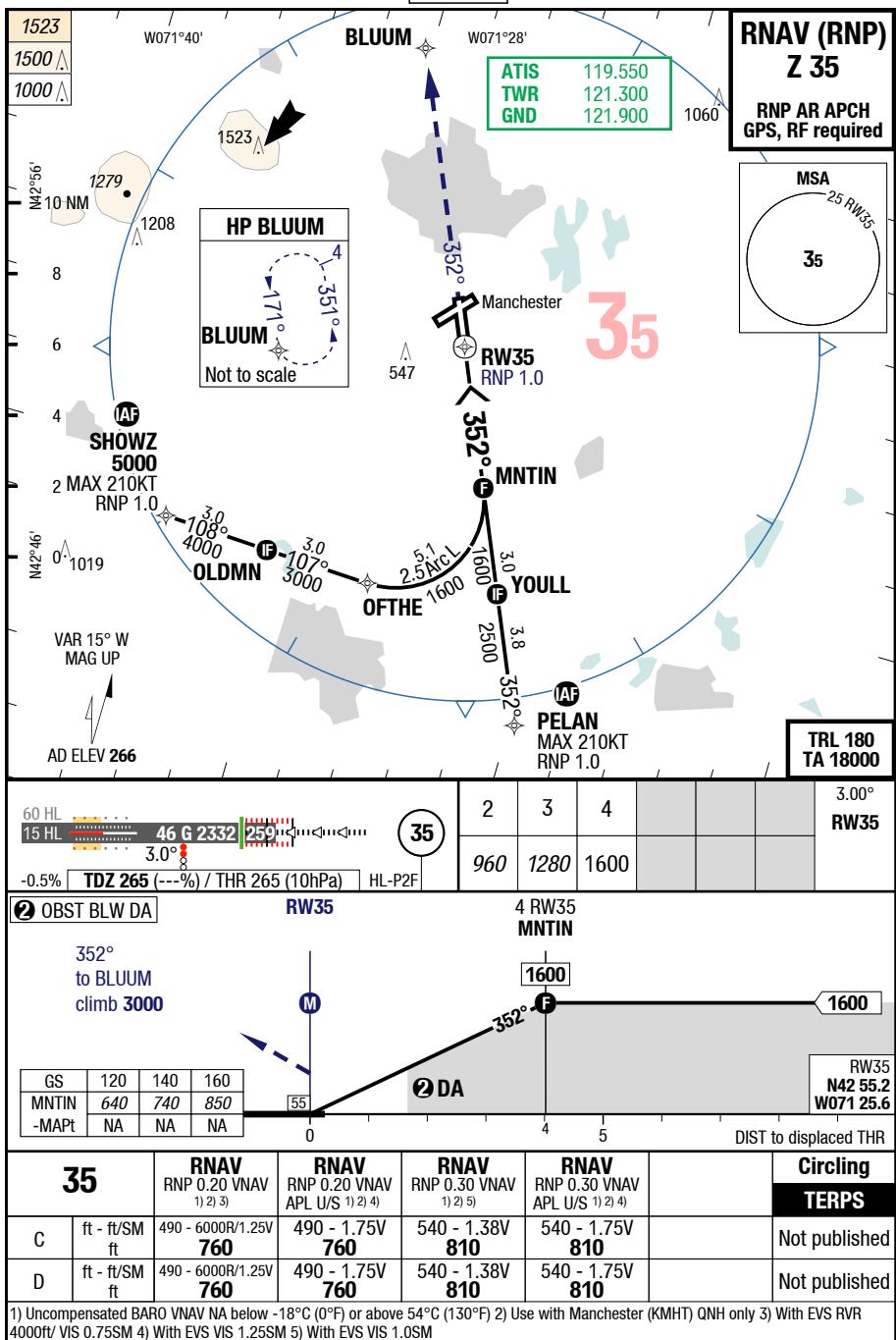
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## MHT-KMHT

7-60

RNAV (RNP) Z 35



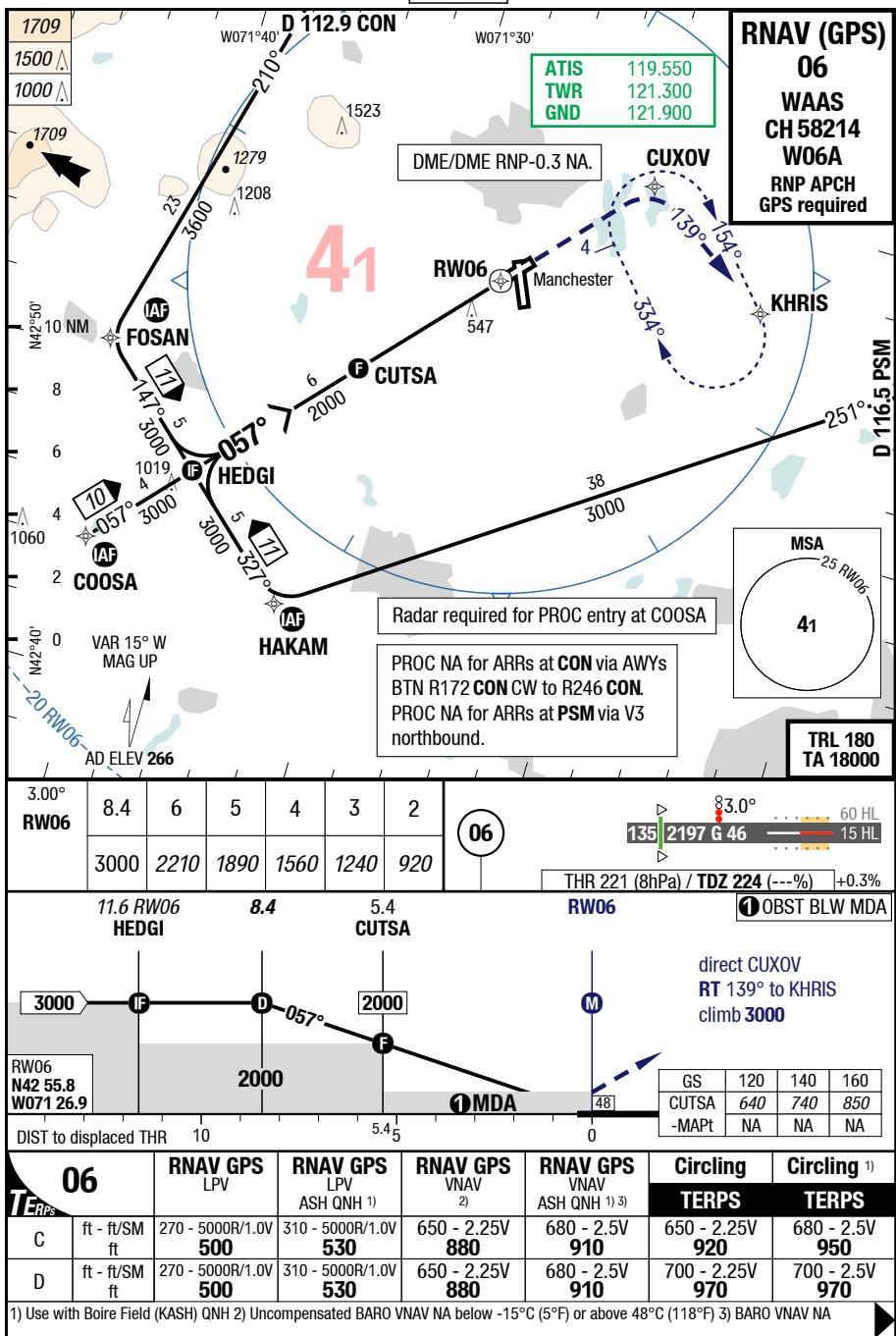
05-OCT-2017

## MHT-KMHT

7-70

## RNAV (GPS) 06

IAC



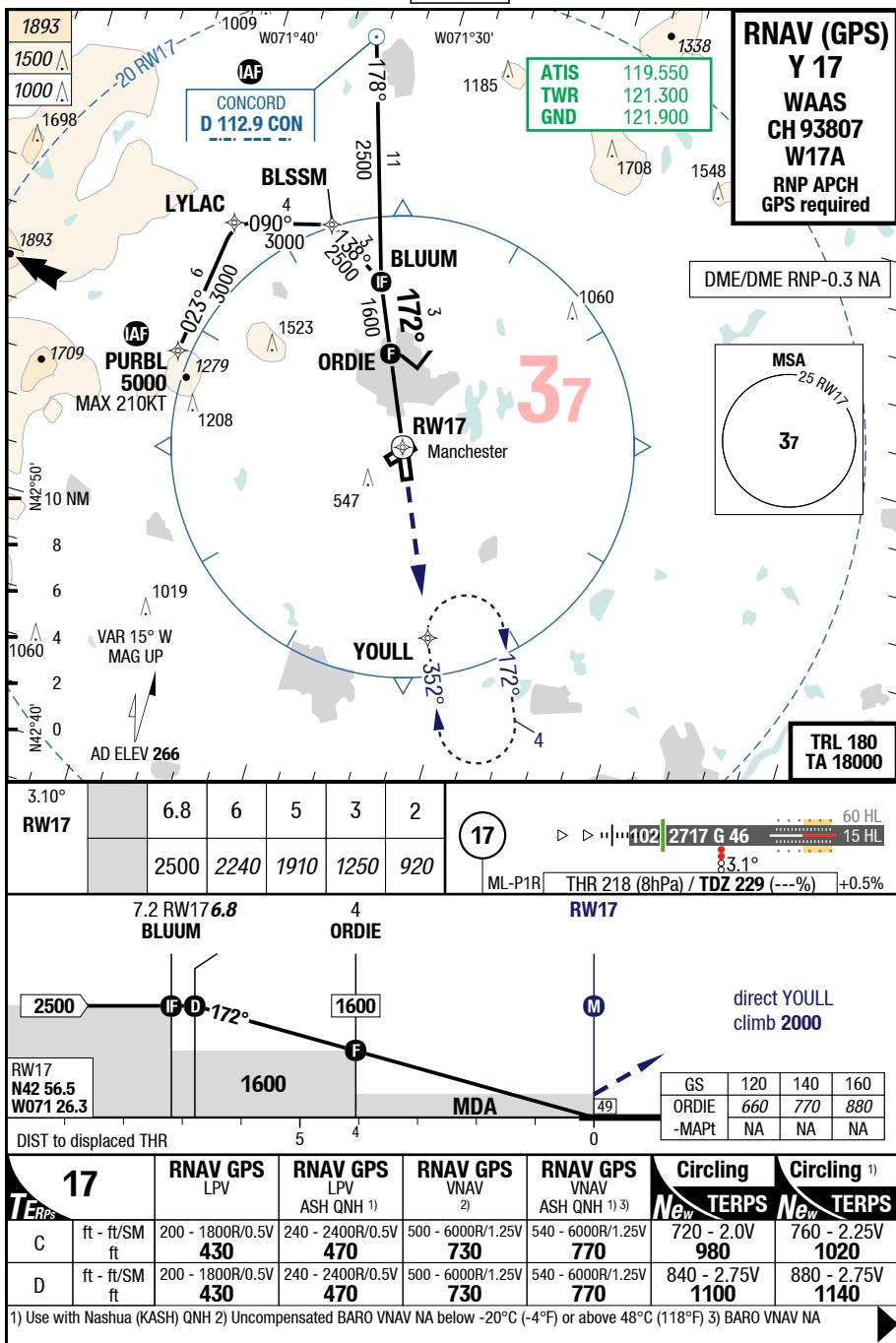
05-OCT-2017

MHT-KMHT

7-80

RNAV (GPS) Y 17

AAC



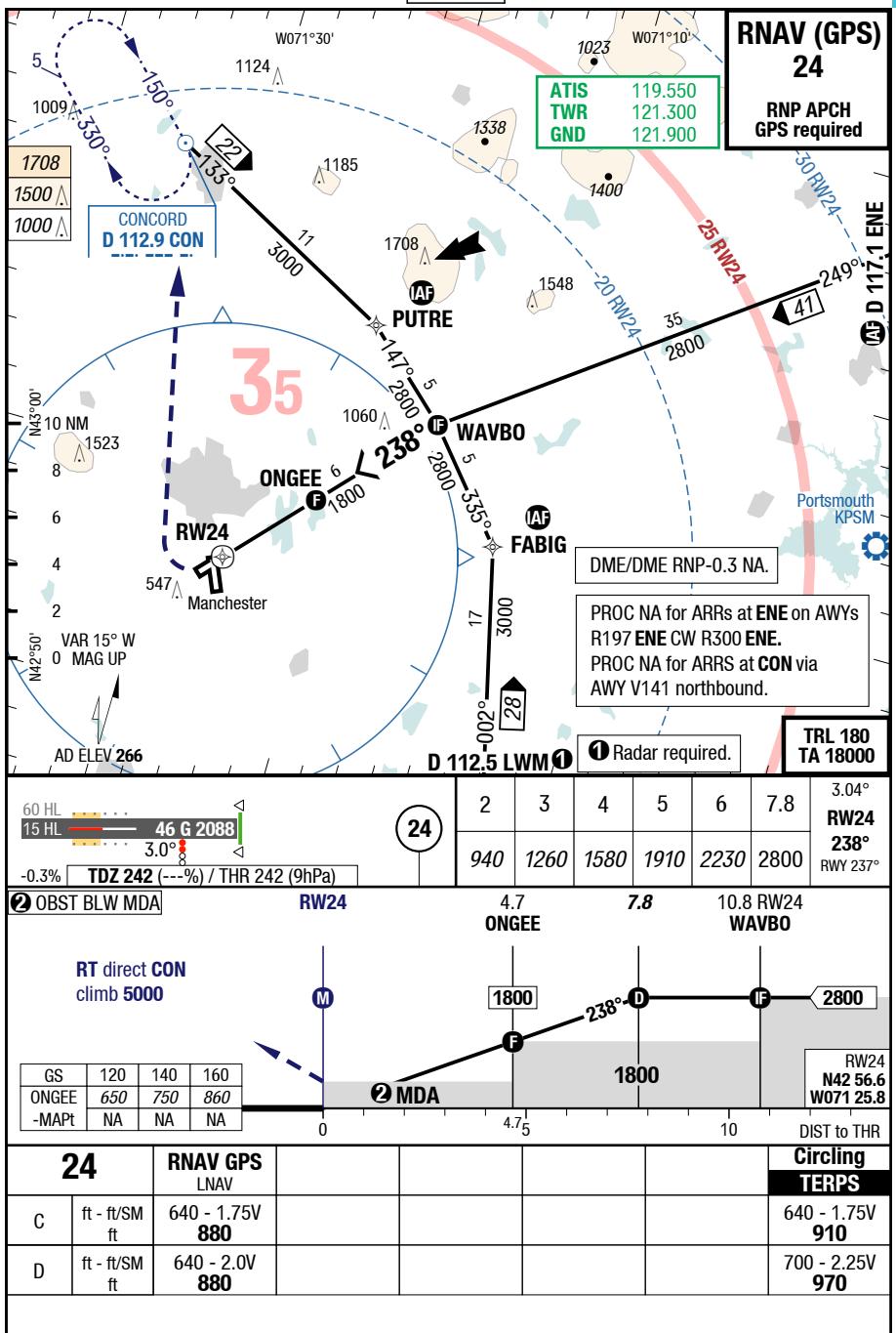
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MHT-KMHT

7-90

RNAV (GPS) 24

IAC



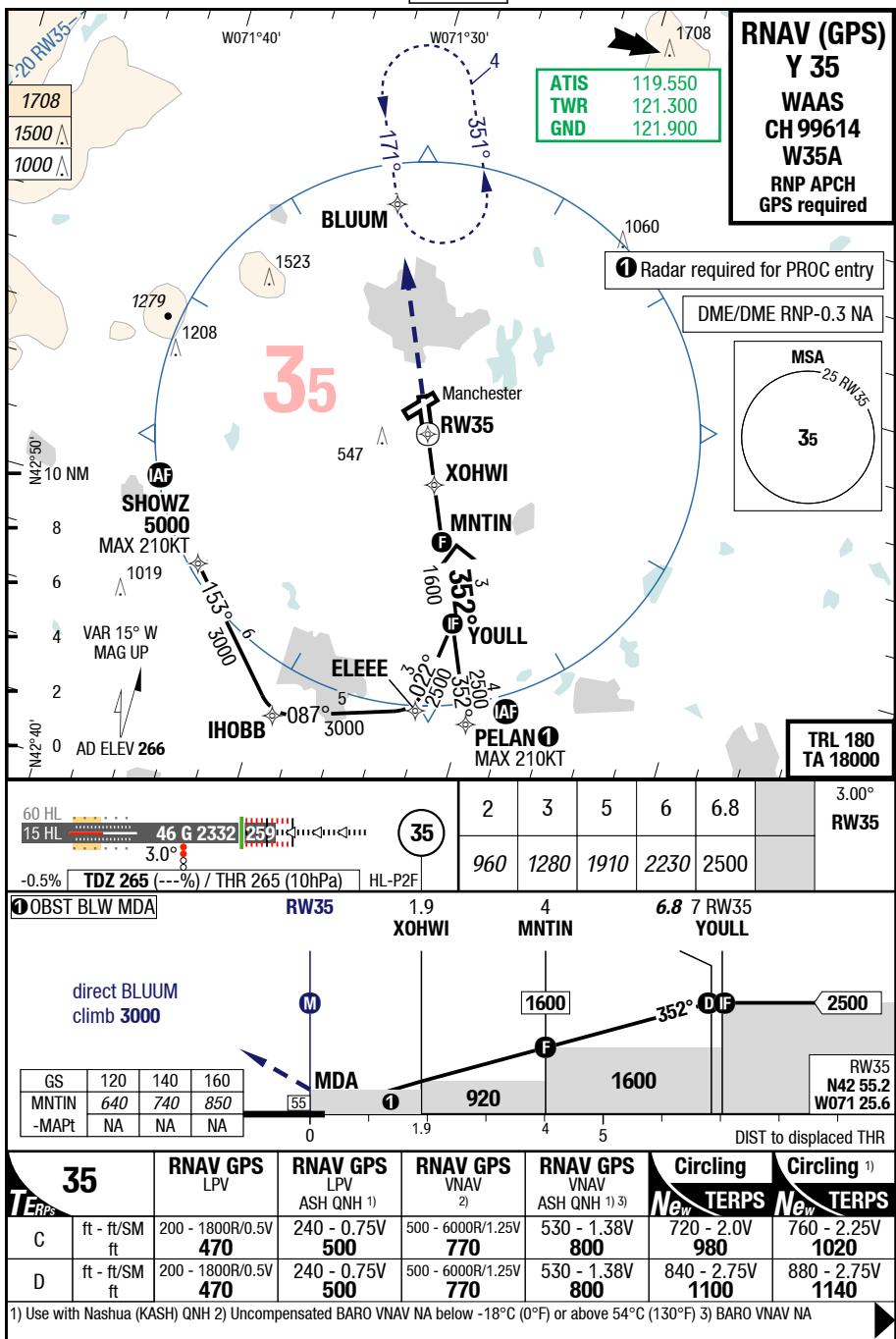
05-OCT-2017

## MHT-KMHT

7-100

## RNAV (GPS) Y 35

IAC



## MHT-KMHT

7-110

## WxMinima Overflow

06		RNAV GPS LNAV	RNAV GPS LNAV ASH QNH 1)				
C	ft - ft/SM ft	580 - 1.5V <b>800</b>	620 - 1.75V <b>840</b>				
D	ft - ft/SM ft	580 - 1.75V <b>800</b>	620 - 2.0V <b>840</b>				

1) Use with Boire Field (KASH) QNH

17		RNAV RNP 0.30 VNAV APL U/S 1) 2) 3)					
C	ft - ft/SM ft	610 - 2.0V <b>840</b>					
D	ft - ft/SM ft	610 - 2.0V <b>840</b>					

1) Uncompensated BARO VNAV NA below -20°C (-4°F) or above 48°C (118°F) 2) Use with Manchester (KMHT) QNH only 3) With EVS VIS 1.3SM

17		RNAV GPS LNAV	RNAV GPS LNAV ASH QNH 1)				
C	ft - ft/SM ft	540 - 6000R/1.25V <b>760</b>	580 - 1.38V <b>800</b>				
D	ft - ft/SM ft	540 - 6000R/1.25V <b>760</b>	580 - 1.38V <b>800</b>				

1) Use with Nashua (KASH) QNH

35		LOC wo XOHWI APL U/S					
C	ft - ft/SM ft	620 - 1.75V <b>880</b>					
D	ft - ft/SM ft	620 - 1.75V <b>880</b>					

1) Use with Nashua (KASH) QNH

35		RNAV GPS LNAV	RNAV GPS LNAV ASH QNH 1)				
C	ft - ft/SM ft	500 - 5000R/1.0V <b>760</b>	540 - 1.13V <b>800</b>				
D	ft - ft/SM ft	500 - 5000R/1.0V <b>760</b>	540 - 1.13V <b>800</b>				