

GENERAL**Operational Hours****ATS Hours:** TWR 1200-0600 \pm , use CTAF outside TWR OPS hours**AD OPS Hours:** Attended continuously**Airport Information****RFF:** FAA Index B / CAT 6, 0600-1200 \pm PN.**PCN:** Not published**Customs:** Not published**Operation****Traffic Note**

RWY and APCH light are dimmed/turned off when TWR CLSD, thereafter activation by CTAF.

Low Level Windshear Alert System (LLWAS) in operation

RWY Restrictions

RWY 04/22, 16L/34R, 10/28 east 211m / 692ft CLSD to ACFT above 27t / 60000lbs.

RWY 16R/34L, 10/28 180° turns prohibited to ACFT above 27t / 60000lbs.

TWY Restriction

TWYs B and F north of RWY 10/28 CLSD to ACFT above 27t / 60000lbs.

VOR Test Facility (VOT): 108.2**Warnings**

Numerous oil rigs in vicinity of AD at or below 200ft AGL.

Birds in vicinity of AD

ARRIVAL**Speed**

MAX IAS 250KT below 10000ft.

Communication**COM Failure:** See CRAR United States.**Arrival Procedure****Non-standard GP Intercept Position on RWY 10**

GP intercepts RWY 10 at 314m / 1030ft after landing threshold.

Remaining LDG DIST beyond 2216m / 7272ft.

DEPARTURE**Take-off Minima**

| RWY | | 10 | |
|---------|------------|---------------------|------------------------------------|
| 1+2 ENG | ft - ft/SM | 0 - 5000R/1.0V | - |
| 3+4 ENG | | 0 - 2400R/0.5V | - |
| RWY | | 04/22, 16L, 16R, 28 | |
| 1+2 ENG | ft - ft/SM | 0 - 1.0V | - |
| 3+4 ENG | | 0 - 0.5V | - |
| RWY | | 34R | |
| 1+2 ENG | ft - ft/SM | 0 - 1.0V | MNM climb gradient 5.3% up to 3200 |
| 3+4 ENG | | 0 - 0.5V | |
| RWY | | 34L | |
| 1+2 ENG | ft - ft/SM | 0 - 1.0V | MNM climb gradient 6.6% up to 3200 |
| 3+4 ENG | | 0 - 0.5V | |

Speed

MAX IAS 250KT below 10000ft.

Communication**COM Failure:** See CRAR United States.

MAF-KMAF

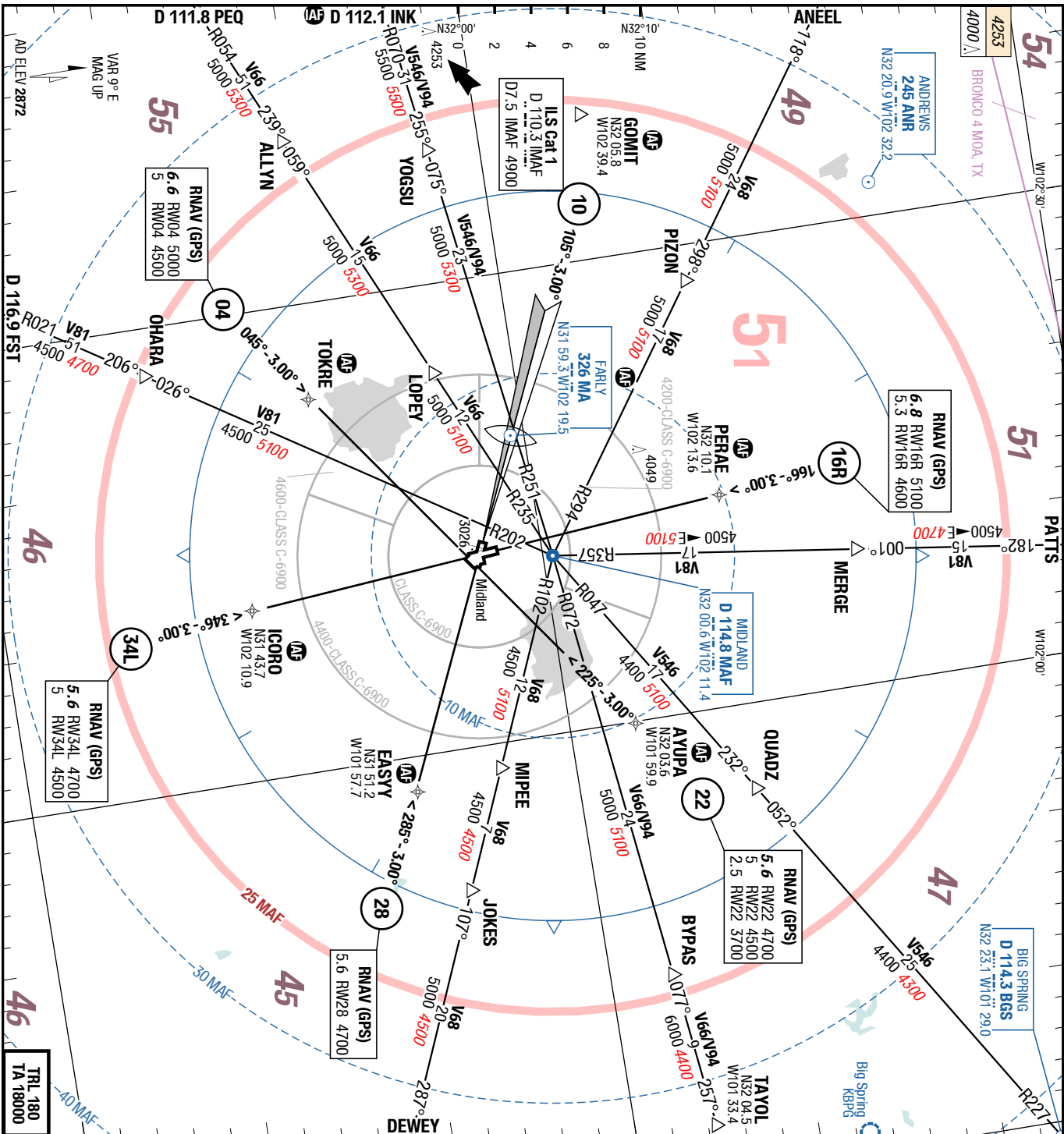
2-10

AFC

AFC

AFC

AFC



Landing RWY system:

| | |
|-------------------|---------------------|
| ATIS | 126.800 ASOS |
| Fort Worth Center | 133.100 0600-1200Z |
| APP/DEP | 124.600 (241°-136°) |
| | 1200-0600Z |
| | 121.000 (137°-240°) |
| | 1200-0600Z |
| TWR | 118.700 1200-0600Z |
| CTAF | 118.700 ARCAL |
| GND | 121.900 |
| DLV | 118.050 |
| San Angelo RCO | 122.600 |
| Unicom | 122.950 |

04

THR 2851 (99hPa) / TDZ 2851 (---%) +0.1%

22

THR 2855 (---%) / THR 2855 (99hPa)

10

THR 2869 (100hPa) / TDZ 2869 (---%) -0.2%

28

THR 2858 (---%) / THR 2855 (99hPa)

16L

THR 2865 (100hPa) / TDZ 2865 (---%) -0.4%

34R

THR 2848 (99hPa)

16R

THR 2872 (100hPa) / TDZ 2872 (---%) -0.2%

34L

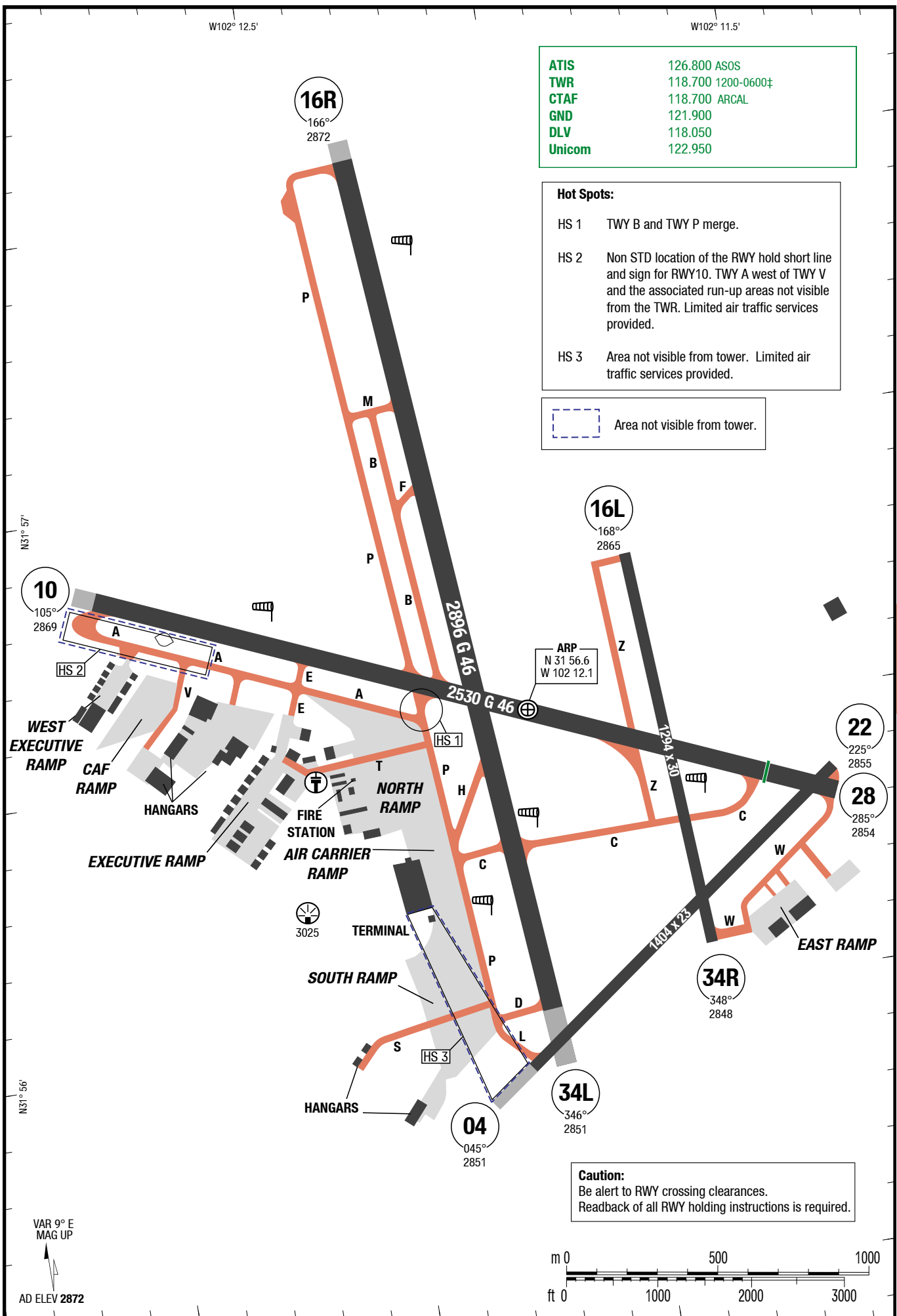
THR 2851 (99hPa)

| | |
|--------|--------------------|
| ATIS | 126.800 ASOS |
| TWR | 118.700 1200-0600± |
| CTAF | 118.700 ARCAL |
| GND | 121.900 |
| DLV | 118.050 |
| Unicom | 122.950 |

Hot Spots:

- HS 1 TWY B and TWY P merge.
- HS 2 Non STD location of the RWY hold short line and sign for RWY10. TWY A west of TWY V and the associated run-up areas not visible from the TWR. Limited air traffic services provided.
- HS 3 Area not visible from tower. Limited air traffic services provided.

 Area not visible from tower.



MAF-KMAF**5-10****Obstacle Departure**

| Obstacle Departure | |
|---------------------------|---|
| RWY | Notes |
| 04 | Trees beginning 24ft from DER, 34ft right of centerline, up to 40ft AGL/2903ft MSL. Rods, towers and domes beginning 1231ft from DER, 442ft left of centerline, up to 108ft AGL/2963ft MSL. |
| 10 | Rods, antennas and lights beginning 72ft from DER, 40ft right of centerline, up to 20ft AGL/2874ft MSL. Trees, poles and signs beginning 1296ft from DER, 457ft left of centerline, up to 40ft AGL/2913ft MSL. |
| 16L | Signs and poles beginning 94ft from DER, 20ft left of centerline, up to 30ft AGL/2877 MSL. Railroad beginning 530ft from DER, 17ft left of centerline, 23 ft AGL/2869ft MSL. Vehicles on road beginning 301ft from DER, 268ft left of centerline, 17ft AGL/2862 MSL. |
| 16R | Pole 1794ft from DER, 975ft right of centerline, 55ft AGL/2906ft MSL. |
| 22 | Tower, poles, lights and antenna beginning 111ft from DER, 66ft right of centerline, up to 102ft AGL/2986ft MSL. Hangars 1112ft from DER, 600ft right of centerline, 55ft AGL/2906ft MSL. Tower, poles and sign beginning 83ft from DER, 62ft left of centerline, up to 120ft AGL/2971ft MSL. |
| 34L | Drilling rigs beginning 201ft from DER, 178ft right of centerline, up to 165ft AGL/3037ft MSL. Drilling rigs beginning 3228ft from DER, 769ft left of centerline, 165ft AGL/3056ft MSL. |
| 34R | Vehicles on road beginning 256ft from DER, 10ft right of centerline, up to 17ft AGL/2881ft MSL. Trees and bushes beginning 171ft from DER, 80ft right of centerline, up to 40ft AGL/2878ft MSL. Poles and fence beginning 28ft from DER, 109ft right of centerline, up to 38ft AGL/2903ft MSL. Fence beginning 83ft from DER, 271ft left of centerline, 8ft AGL/2872ft MSL. Windmill, poles and trees beginning 1239ft from DER, 116ft left of centerline, up to 66ft AGL/2913ft MSL. Drilling rig 5540ft from DER, 267ft left of centerline, 165ft AGL/3025ft MSL. |
| | |

15-JUN-2017

United States **Midland** Midland Intl Air and Space Port

NIL

IAC

IAC

Midland Intl Air and Space Port **Midland** United States

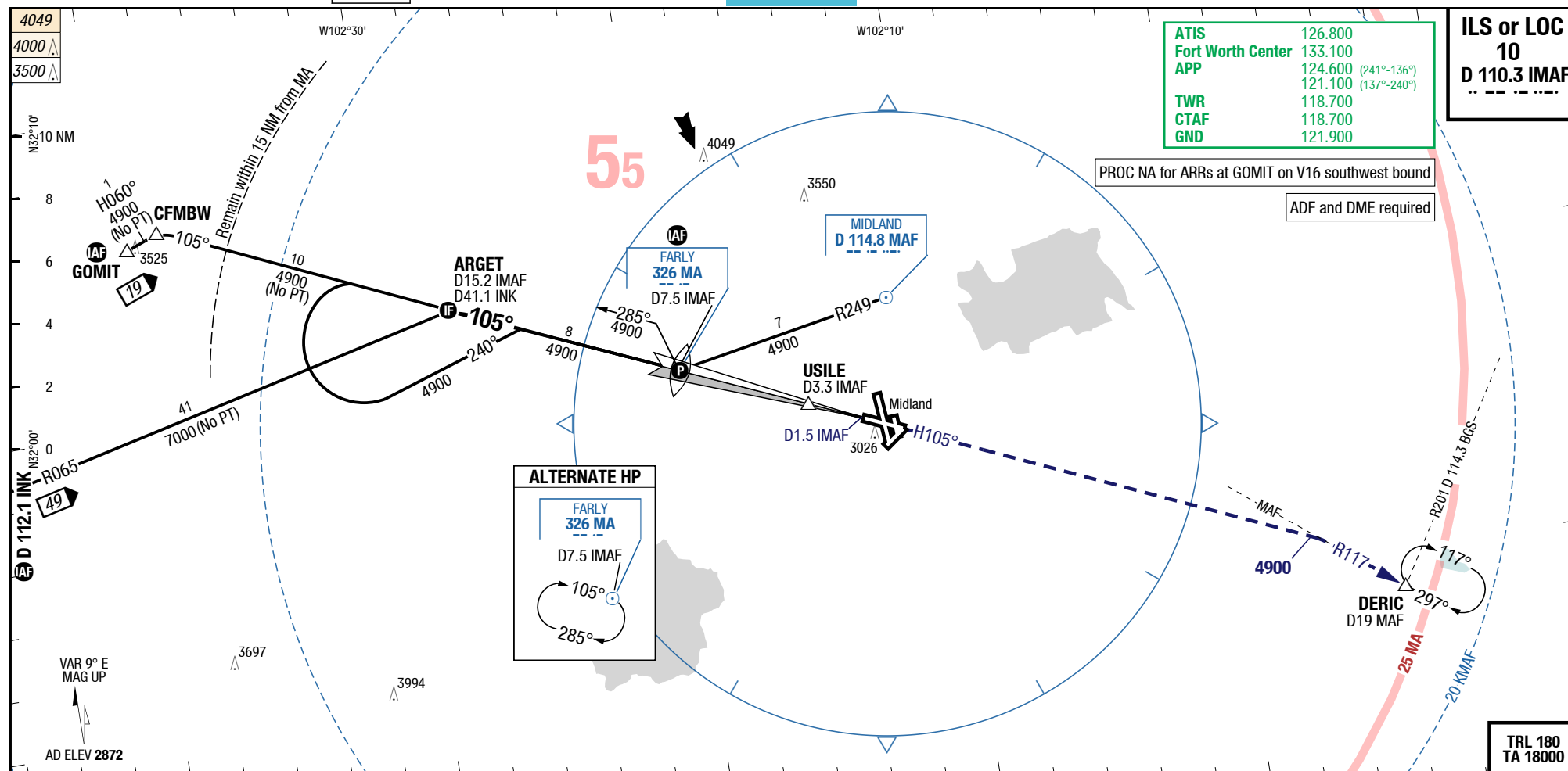
NIL

ILS or LOC 10

MAF-KMAF

7-10

ILS or LOC 10



| 10 | | Cat 1 1) | LOC DME | LOC wo USILE | SRA 2) | Circling 3) TERPS | Circling 3) 4) TERPS <i>N_{GW}</i> |
|-----------|------------------|---------------------------------|----------------------------------|----------------------------|----------------------------|------------------------------------|--|
| C | ft - ft/SM ft | 200 - 1800R/0.5V 3070 | 560 - 6000R/1.25V 3420 | 600 - 1.25V 3460 | 620 - 1.38V 3480 | 600 - 1.75V 3480 | 670 - 1.75V 3540 |
| D | ft - ft/SM ft | 200 - 1800R/0.5V 3070 | 560 - 6000R/1.25V 3420 | 600 - 1.25V 3460 | 620 - 1.38V 3480 | 700 - 2.25V 3580 | 700 - 2.25V 3580 |

1) FD, AP or HGS required, else RVR 2400ft or VIS 0.5SM
2) PROC NA when TWR CLSD

3) To RWY 16L HJ only
4) RADAR

| LOC 3.08° D IMAF | 7.5 | 7 | 6 | 5 | 4 | 3 |
|---------------------|------|------|------|------|------|------|
| | 4900 | 4740 | 4410 | 4080 | 3760 | 3430 |

10

ML-P1R THR 2869 (100hPa) / **TDZ 2869** (---%) -0.2%

83.0° 60 HL

D7.5 IMAF
MA

4900

4900

P

105°

GP 3.00°

3460

D3.3
USILE

D1.5
IMAF

MDA

54

HDG 105°
 climb **4900**
 intercept R117 MAF
 to DERIC
 maintain **4900**

| | | | |
|-------|------|------|------|
| GS | 120 | 140 | 160 |
| OM | 650 | 760 | 870 |
| -MAPT | 3:02 | 2:36 | 2:16 |

DIST to THR

6.1

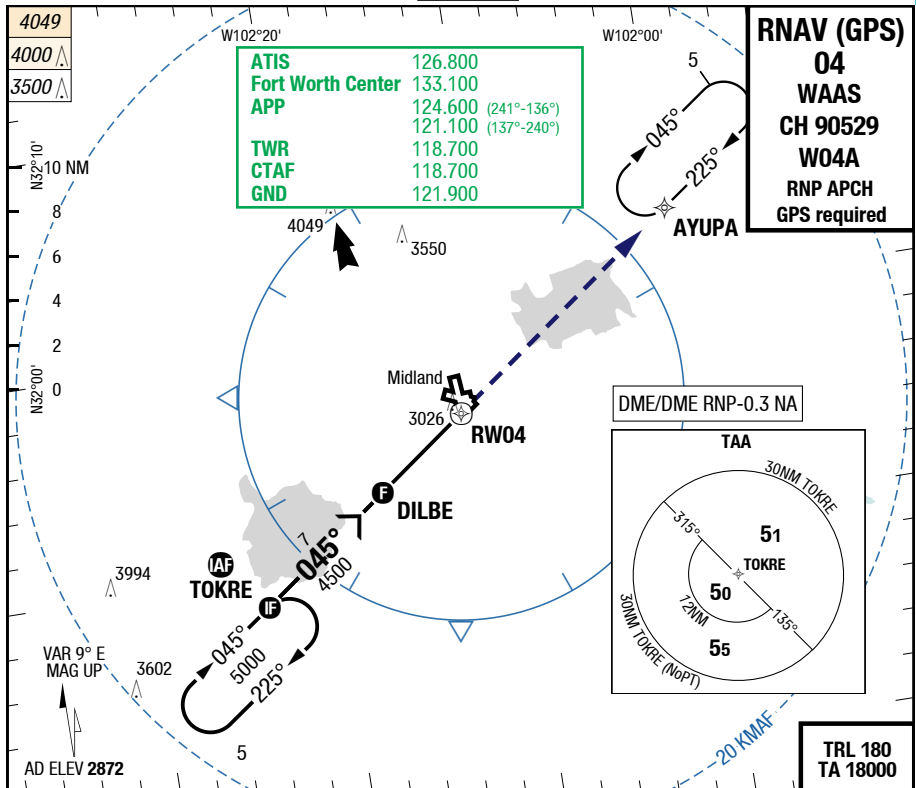
1.8

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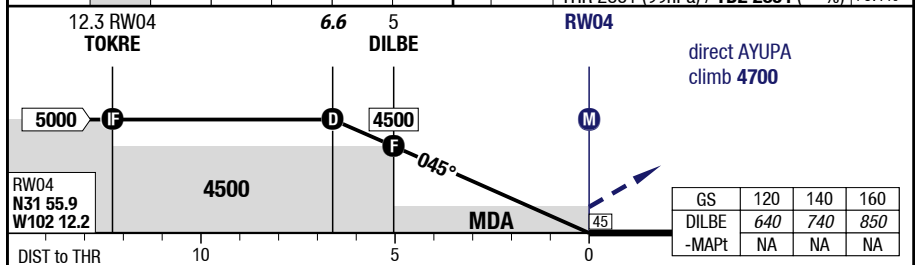
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Changes: MIN, APL, AMDT No

AMDT 16C

MAF-KMAF**7-30****RNAV (GPS) 04**

| | | | | | | | | |
|--|--|------|------|------|------|------|-----------|-------|
| 3.00° RW04 | | 6.6 | 6 | 4 | 3 | 2 | 04 | 60 ML |
| | | 5000 | 4810 | 4170 | 3860 | 3540 | | |
| THR 2851 (99hPa) / TDZ 2851 (---%) +0.1% | | | | | | | | |



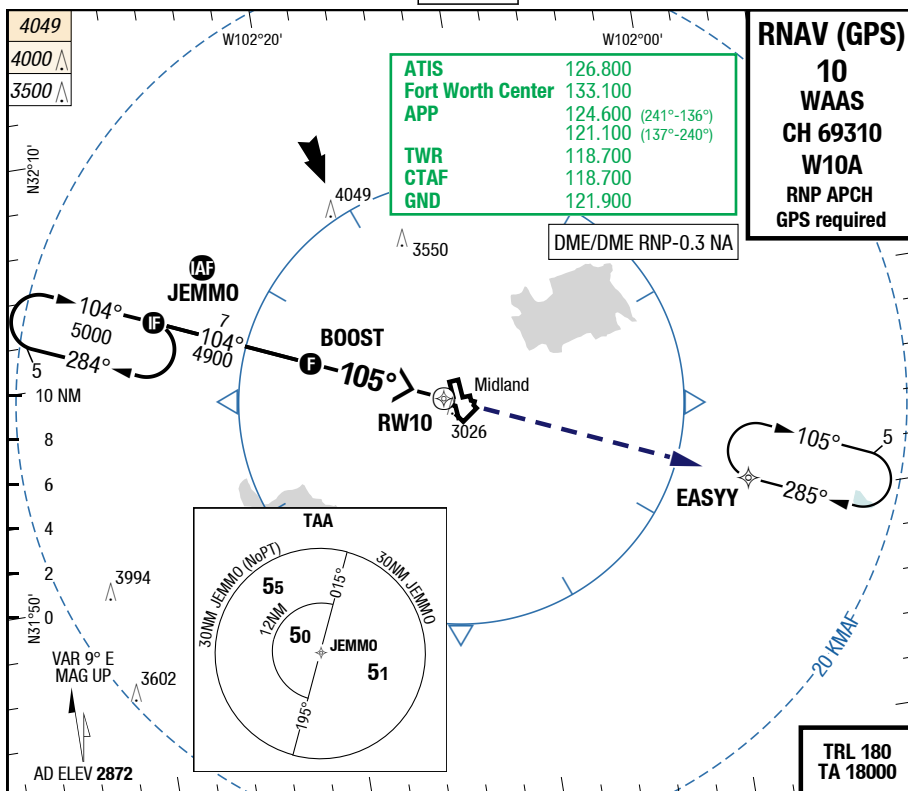
| 04 | RNAV GPS LPV | RNAV GPS VNAV 1) | RNAV GPS LNAV | SRA 2) | Circling 3) TERPS | Circling 3) 4) TERPS |
|-----------|--|---------------------------|---------------------------|---------------------------|----------------------------|-----------------------------|
| C | ft - ft/SM ft 200 - 0.75V 3060 | 440 - 1.5V 3290 | 510 - 1.5V 3360 | 510 - 1.5V 3360 | 600 - 1.5V 3480 | 670 - 1.75V 3540 |
| D | ft - ft/SM ft 200 - 0.75V 3060 | 440 - 1.5V 3290 | 510 - 1.5V 3360 | 510 - 1.5V 3360 | 700 - 2.25V 3580 | 700 - 2.25V 3580 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 25°C (77°F) 2) PROC NA when TWR CLSD 3) To RWY 16L HJ only
 4) RADAR

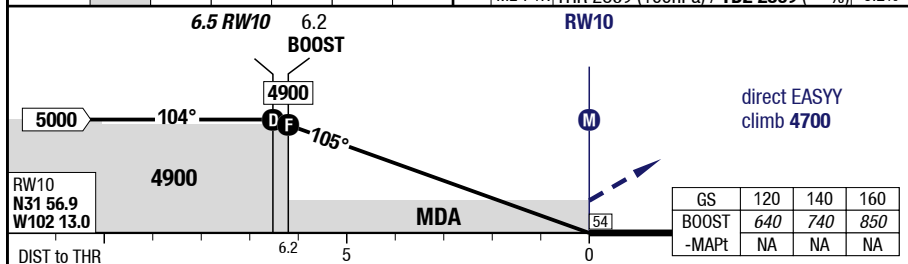
MAF-KMAF

7-40

RNAV (GPS) 10



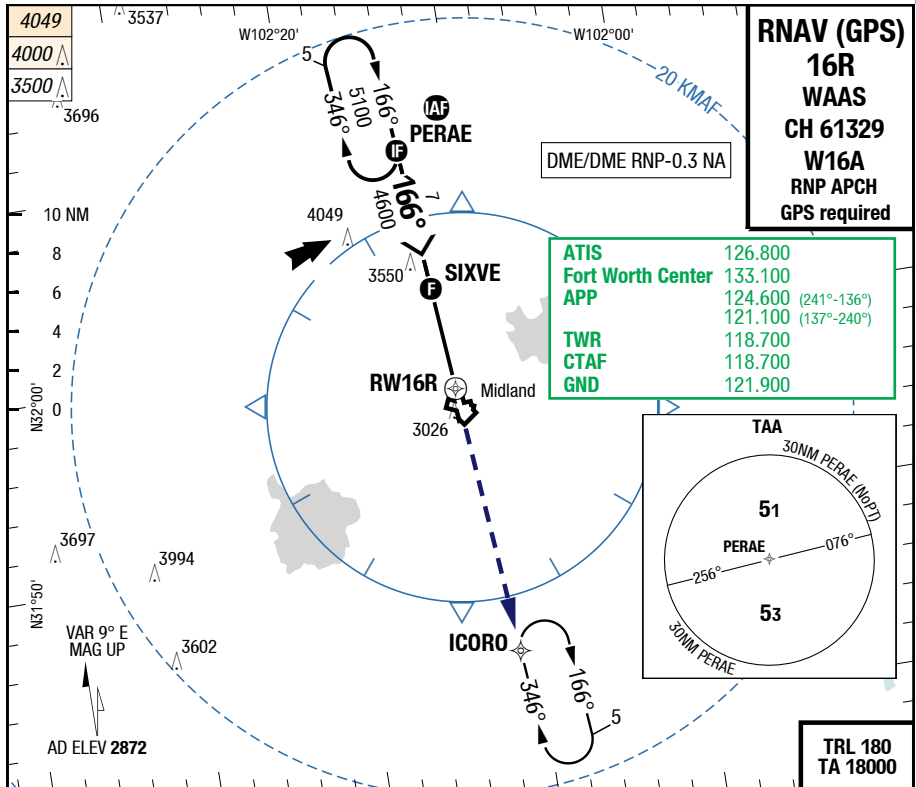
| | | | | | | |
|---------------|------|------|------|------|------|---|
| 3.00° RW10 | 6.5 | 6 | 5 | 4 | 3 | <div><div>10</div><div><div><div>3.0°</div><div>60 HL</div></div><div><div>2530 G 46</div></div></div></div> <div><div>ML-P1R</div><div>THR 2869 (100hPa)</div><div>TDZ 2869 (---%) -0.2%</div></div> |
| | 5000 | 4840 | 4520 | 4200 | 3880 | |



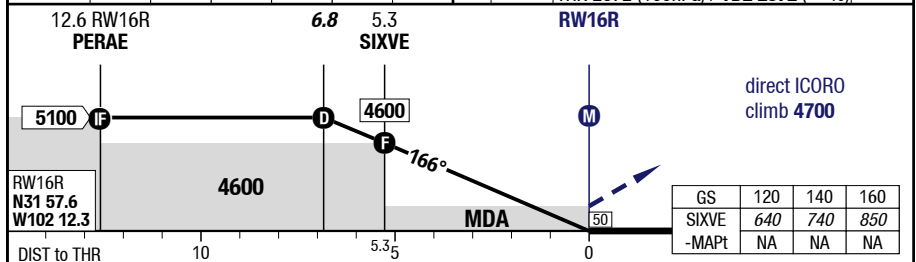
| 10 | | RNAV GPS LPV | RNAV GPS VNAV 1) | RNAV GPS LNAV | | Circling 2) TERPS |
|----|------------------|--------------------------|---------------------|---------------------|--|----------------------|
| C | ft - ft/SM ft | 200 - 2400R/0.5V 3070 | 530 - 1.25V 3400 | 620 - 1.38V 3480 | | 620 - 1.75V 3490 |
| D | ft - ft/SM ft | 200 - 2400R/0.5V 3070 | 530 - 1.25V 3400 | 620 - 1.38V 3480 | | 700 - 2.25V 3580 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 25°C (77°F)

2) To RWY 16L HJ only



| | | | | | | | | | |
|--------------|--|-------------|-------------|-------------|-------------|-------------|------------|------------------|--------------|
| 3.00° | 6.8 | 6 | 5 | 4 | 3 | 2 | 16R | 83.0° | 60 HL |
| RW16R | 5100 | 4840 | 4520 | 4200 | 3880 | 3560 | | 2896 G 46 | |
| | THR 2872 (100hPa) / TDZ 2872 (---%) -0.2% | | | | | | | | |



| 16R | RNAV GPS LPV | RNAV GPS VNAV 1) | RNAV GPS LNAV | Circling 2) |
|------------|--|----------------------------|----------------------------|----------------------------|
| C | ft - ft/SM 200 - 0.75V 3080 | 530 - 1.75V 3400 | 490 - 1.38V 3360 | 600 - 1.75V 3480 |
| D | ft - ft/SM 200 - 0.75V 3080 | 530 - 1.75V 3400 | 490 - 1.38V 3360 | 700 - 2.25V 3580 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 25°C (77°F)
 2) To RWY 16L HJ only

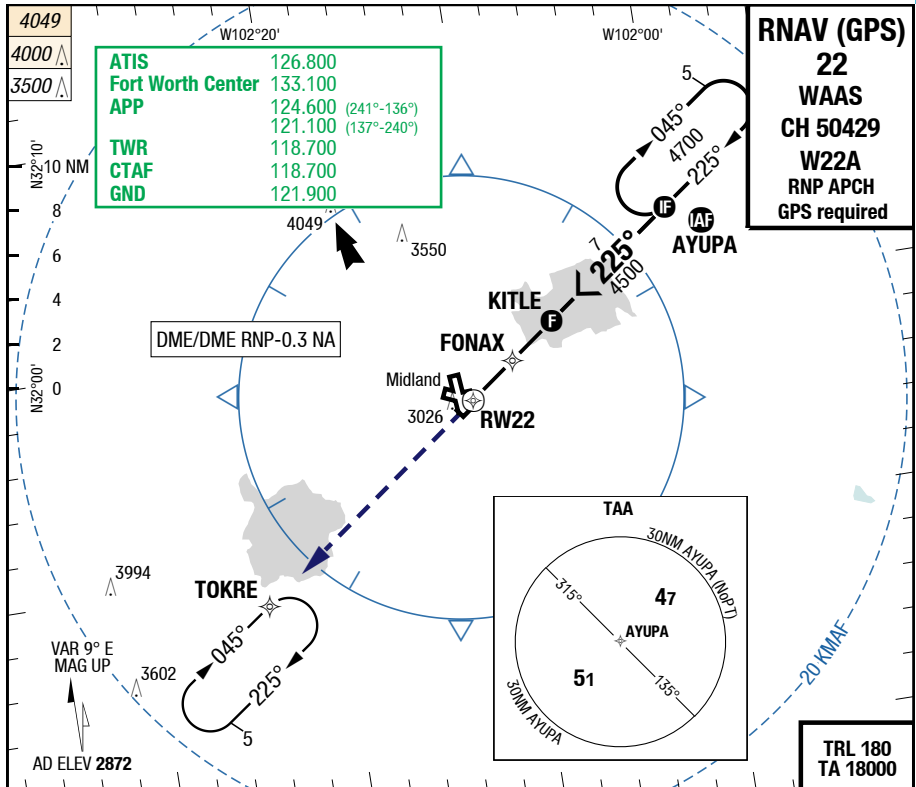
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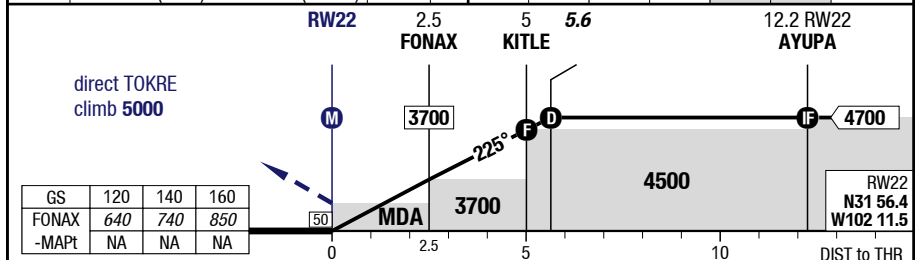
MAF-KMAF

7-60

RNAV (GPS) 22



| | | | | | | | | | |
|-------|------------------------------------|----|------|------|------|------|--|--|-------|
| 60 ML | 23 x 1404 | 22 | 2 | 3 | 4 | 5.6 | | | 3.00° |
| -0.1% | TDZ 2855 (---%) / THR 2855 (99hPa) | | 3550 | 3860 | 4180 | 4700 | | | RW22 |



| 22 | RNAV GPS LPV | RNAV GPS VNAV 1) | RNAV GPS LNAV | SRA 2) | Circling 3) TERPS | Circling 3) 4) TERPS |
|----|---|---------------------|---------------------|--------------------|---------------------|----------------------|
| C | ft - ft/SM ft 200 - 0.75V 3060 | 280 - 0.88V 3140 | 470 - 1.38V 3320 | 690 - 2.0V 3540 | 600 - 1.5V 3480 | 690 - 2.0V 3560 |
| D | ft - ft/SM ft 200 - 0.75V 3060 | 280 - 0.88V 3140 | 470 - 1.38V 3320 | 690 - 2.0V 3540 | 700 - 2.25V 3580 | 700 - 2.25V 3580 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 25°C (77°F) 2) PROC NA when TWR CLSD 3) To RWY 16L HJ only
 4) RADAR

Changes: APL, MIN, OBST, AMDT No

AMDT 1B

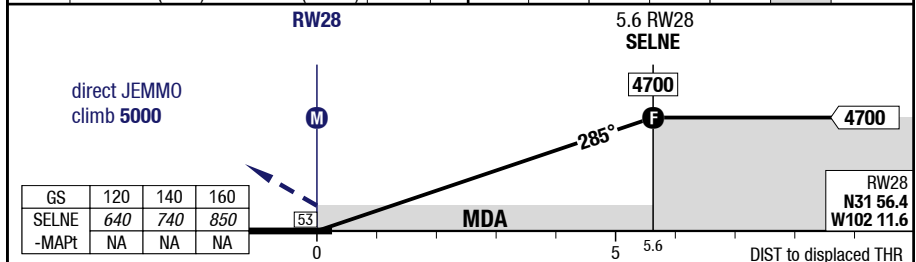
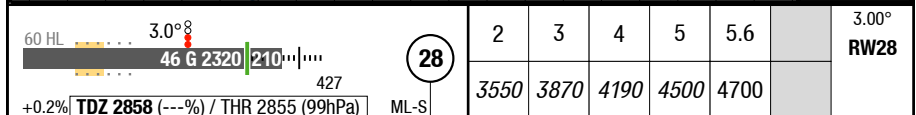
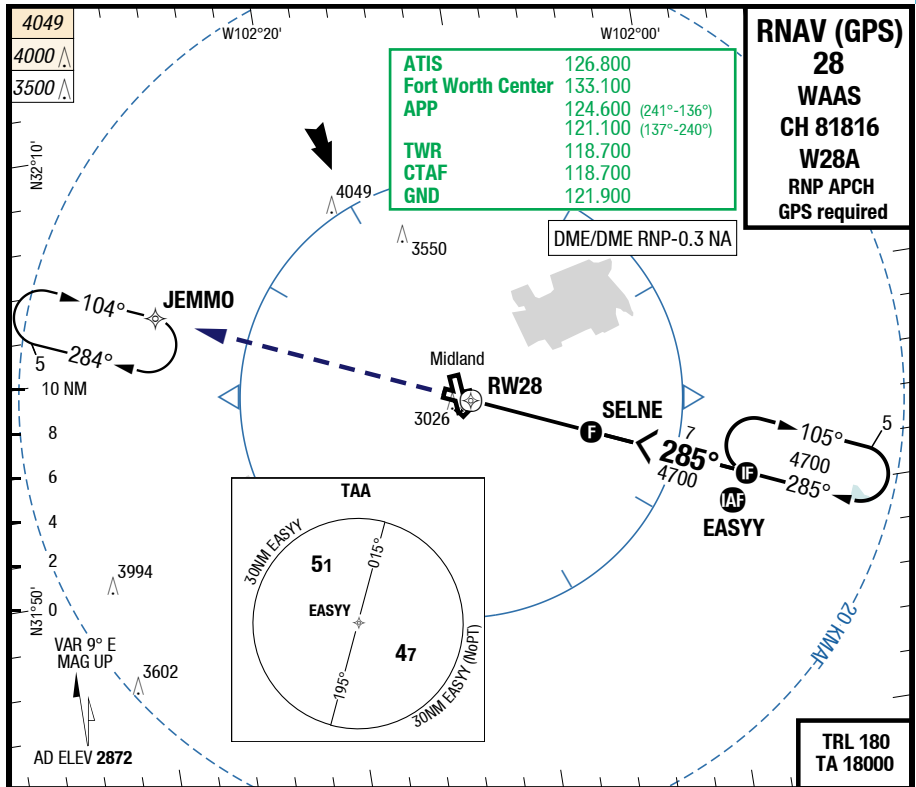
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MAF-KMAF

7-70

RNAV (GPS) 28

IAC



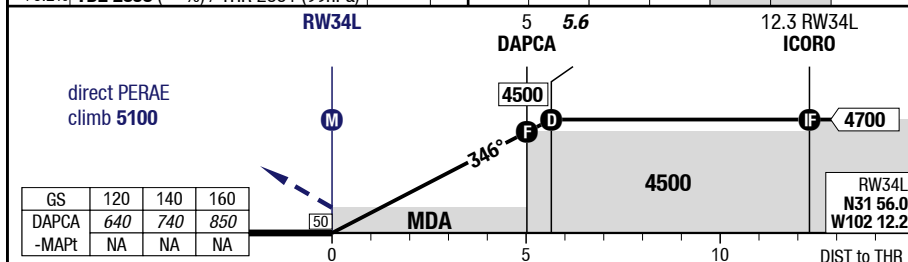
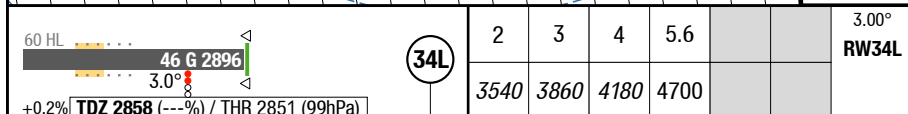
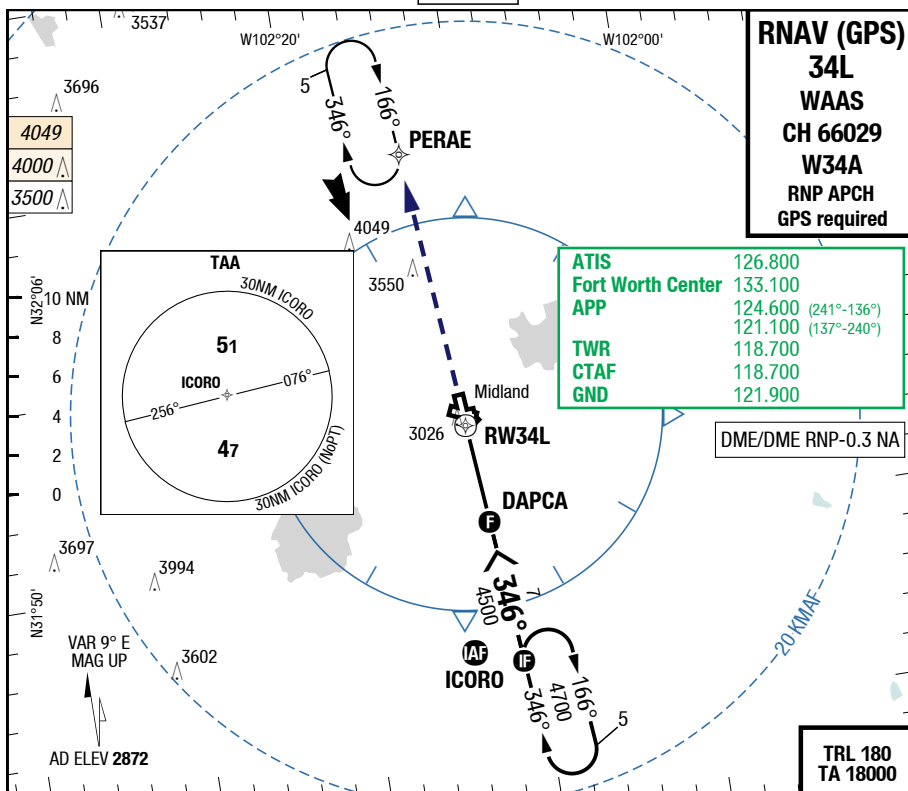
| T _{Enr} | 28 | RNAV GPS | RNAV GPS | RNAV GPS | SRA | Circling 3) | Circling 3) 4) |
|------------------|------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|
| | | LPV | VNAV 1) | LNAV | 2) | TERPS | TERPS |
| C | ft - ft/SM ft | 200 - 0.75V 3060 | 420 - 1.13V 3280 | 430 - 1.0V 3280 | 430 - 1.0V 3280 | 600 - 1.5V 3480 | 670 - 1.75V 3540 |
| D | ft - ft/SM ft | 200 - 0.75V 3060 | 420 - 1.13V 3280 | 430 - 1.0V 3280 | 430 - 1.0V 3280 | 700 - 2.25V 3580 | 700 - 2.25V 3580 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 25°C (77°F) 2) PROC NA when TWR CLSD 3) To RWY 16L HJ only 4) RADAR

MAF-KMAF

7-80

RNAV (GPS) 34L



| TERPS 34L | | RNAV GPS LPV | RNAV GPS VNAV 1) | RNAV GPS LNAV | | Circling ²⁾ TERPS |
|------------------|------------------|----------------------------|----------------------------|----------------------------|--|--|
| C | ft - ft/SM ft | 200 - 0.75V 3060 | 350 - 1.13V 3210 | 430 - 1.25V 3280 | | 600 - 1.5V 3480 |
| D | ft - ft/SM ft | 200 - 0.75V 3060 | 350 - 1.13V 3210 | 430 - 1.25V 3280 | | 700 - 2.25V 3580 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 26°C (78°F)

2) To RWY 16L HJ only

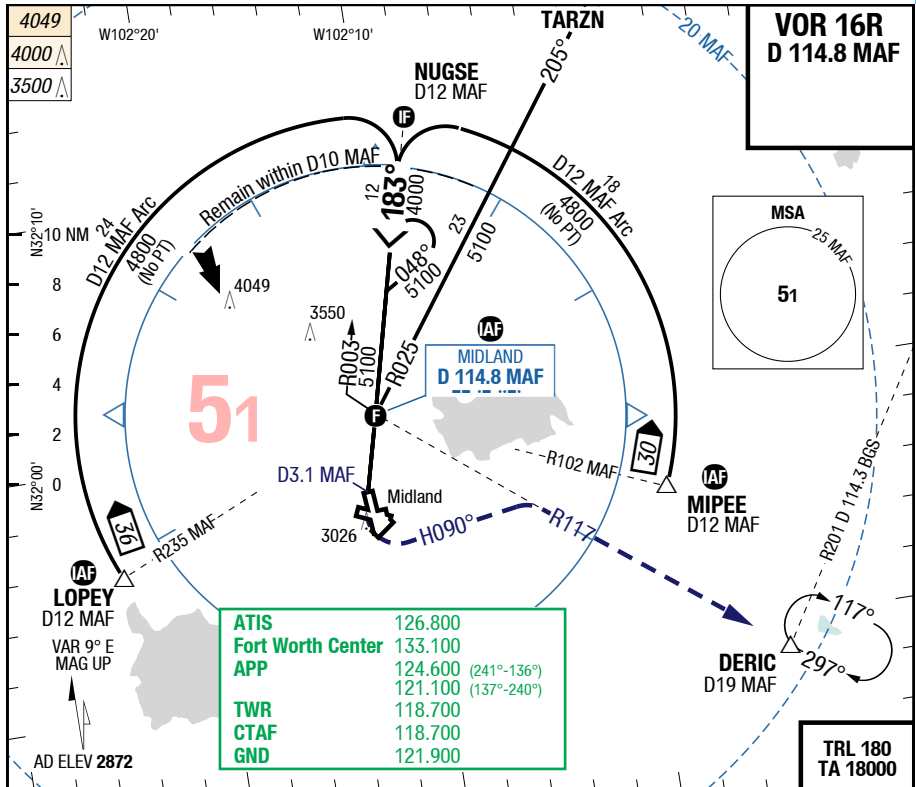
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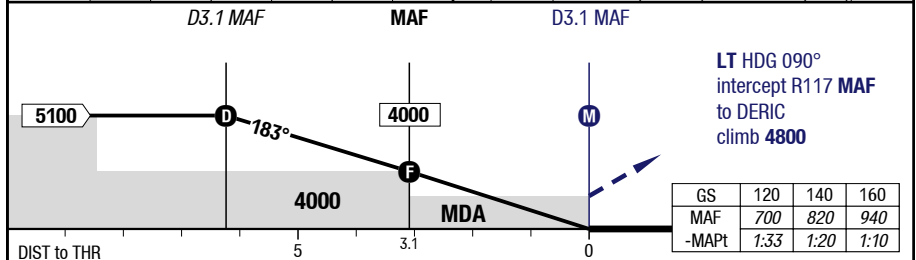
MAF-KMAF

7-90

VOR 16R



| | | | | | | | | | |
|--------------|--|------|------|------|------|------|--|-----------|-------|
| 3.29° | | 3.1 | 2 | 1 | MAF | 1 | | 83.0° | 60 HL |
| D MAF | | | | | | | | 2896 G 46 | |
| 183° | | | | | | | | | |
| RWY 166° | | | | | | | | | |
| | | 5100 | 4700 | 4350 | 4000 | 3660 | | | |



| 16R | VOR | SRA | | | Circling 2) TERPS | Circling 2) 3) TERPS |
|-----|----------------------------------|--------------------|--|--|---------------------|----------------------|
| C | ft - ft/SM 530 - 1.5V 3400 | 530 - 1.5V 3400 | | | 600 - 1.5V 3480 | 670 - 1.75V 3540 |
| D | ft - ft/SM 530 - 1.5V 3400 | 530 - 1.5V 3400 | | | 700 - 2.25V 3580 | 700 - 2.25V 3580 |

1) PROC NA when TWR CLSD
 2) To RWY 16L HJ only
 3) RADAR

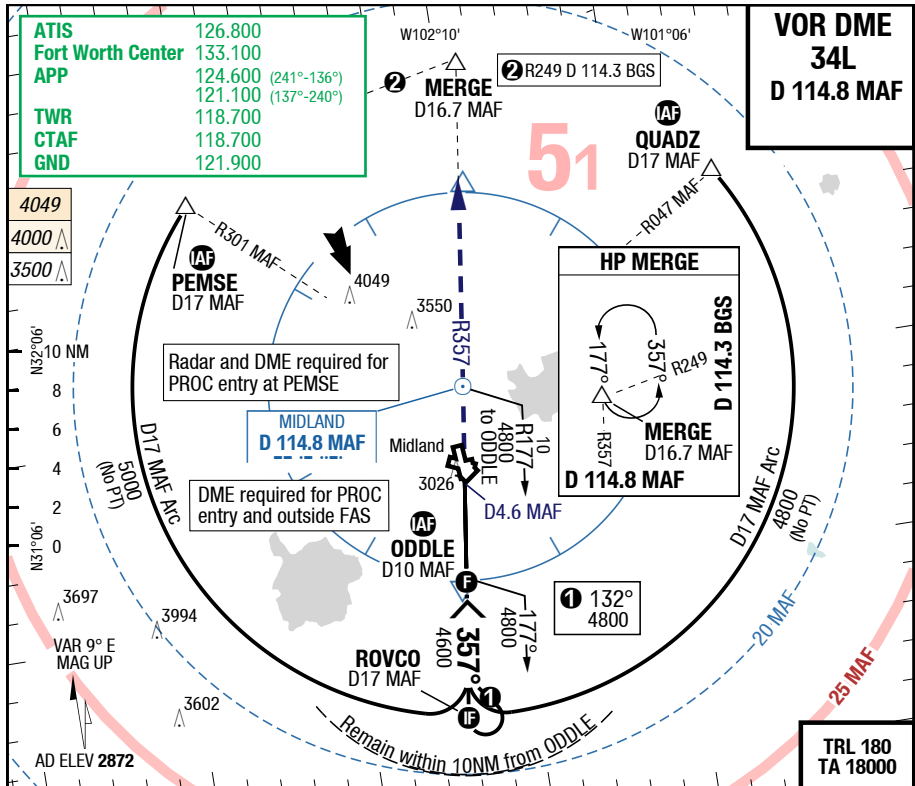
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MAF-KMAF

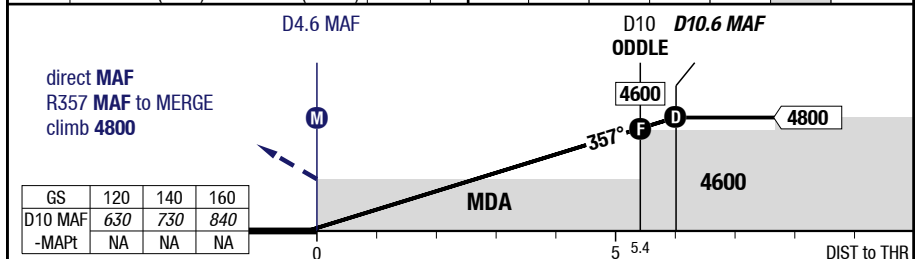
7-100

VOR DME 34L

IAC



| | | | | | | | | |
|-------|------------------------------------|------|------|------|------|------|------|------------|
| 60 HL | 46 G 2896 | 3.0° | 6 | 7 | 8 | 9 | 10.6 | 2.96° |
| +0.2% | TDZ 2858 (---%) / THR 2851 (99hPa) | | 3350 | 3660 | 3980 | 4290 | 4800 | D MAF 357° |
| | | | | | | | | RWY 346° |



| 34L | VOR DME | SRA | | | Circling 2) TERPS | Circling 2) 3) TERPS |
|-----|------------------|---------------------|---------------------|--|---------------------|----------------------|
| C | ft - ft/SM ft | 470 - 1.38V 3320 | 470 - 1.38V 3320 | | 600 - 1.5V 3480 | 670 - 1.75V 3540 |
| D | ft - ft/SM ft | 470 - 1.38V 3320 | 470 - 1.38V 3320 | | 700 - 2.25V 3580 | 700 - 2.25V 3580 |

1) PROC NA when TWR CLSD
 2) To RWY 16L HJ only
 3) RADAR

15-JUN-2017

MAF-KMAF

7-110

WxMinima Overflow

| | | | | | | | |
|--------------------------|------------------|----------------------------|--|--|--|--|--|
| 10 | | SRA APL U/S 1) | | | | | |
| C | ft - ft/SM ft | 620 - 1.75V 3480 | | | | | |
| D | ft - ft/SM ft | 620 - 1.75V 3480 | | | | | |
| 1) PROC NA when TWR CLSD | | | | | | | |
| | | | | | | | |