U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

LOC STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.25

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

## TERMINAL ROUTES

| FROM | TO | COURSE AND DISTANCE | ALTITUDE |
|---|---|---|---|
| TARZN INT/BGS 22.79 DME | MAF VORTAC | 205.00 / 22.94 | 4800 |
| MAF VORTAC | OCTAN INT/I-MAF 3.40 DME | 140.02 / 6.44 | 4800 |
| FARLY LOM | OCTAN INT/I-MAF 3.40 DME | 104.51 / 10.90 | 4800 |
| DERIC INT/MAF 19.00 DME (IAF) | FIVAL/I-MAF 13.51 DME (NOPT) | 297.02 / 3.28 (MAF R-117) | 4300 |
| FIVAL/I-MAF 13.51 DME (IF) | OCTAN INT/I-MAF 3.40 DME | 284.60 / 10.00 (I-MAF) | 4100 |

## MISSED APPROACH

MAP: 2.91 MILES AFTER OCTAN INT/MAF 3.40 DME OR AT LVIRA INT/I-MAF 0.49 DME FIX

CLIMB TO 4800 ON I-MAF W COURSE (285) TO FARLY LOM AND HOLD, OR AS DIRECTED BY ATC.

ALTERNATE MA: CLIMB TO 3300 THEN CLIMBING RIGHT TURN TO 4800 ON HEADING 030 AND MAF VORTAC R-357 TO MERGE INT/MAF 16.66 DME AND HOLD.

## ADDITIONAL FLIGHT DATA:

HOLD W, RT, 104.58 INBOUND.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD N MERGE INT/MAF 16.66 DME, LT, 176.74 INBOUND.
CHART FAS OBST: 2913 SIGN 315617N/1021103W
3028 AAO 315510N/1020726W
CHART: ASR
CHART IN PLANVIEW: MERGE INT/MAF 16.66 DME.
OCTAN TO RW28: 3.12/53.

1. PT L SIDE OF COURSE 104.60 OUTBOUND 4800 FT WITHIN 10 MILES OF OCTAN (IAF)
2.
3. FAC 284.60 FAF OCTAN INT/I-MAF 3.40 DME DIST FAF TO MAP 2.91 THLD 3.60
4. MIN. ALT OCTAN 4100
8. MSA FROM: MAF VORTAC 5100

MAG VAR: 9E EPOCH YEAR:1985

## MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT ALTERNATE: N A STANDARD @

| CATEGORY =====> | A | | | B | | | C | | | D | | | E | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MDA | VIS | HAT/HAA | MDA | VIS | HAT/HAA | MDA | VIS | HAT/HAA | MDA | VIS | HAT/HAA | MDA | VIS | HAT/HAA |
| S-28 | 3180 | 3/4 | 325 | 3180 | 3/4 | 325 | 3180 | 5/8 | 325 | 3180 | 5/8 | 325 | 3180 | 5/8 | 325 |
| CIRCLING | 3440 | 1 | 568 | 3440 | 1 | 568 | 3440 | 1 1/2 | 568 | 3520 | 2 | 648 | 3600 | 2 1/2 | 728 |

## NOTES:

CHART NOTE: ADF REQUIRED.
CHART PLANVIEW NOTE: RADAR AND DME REQUIRED FOR PROCEDURE ENTRY AT DERIC INT.
CHART PROFILE NOTE: DISREGARD GS INDICATIONS.
CHART PROFILE NOTE: PROCEDURE TURN NOT AUTHORIZED FOR CAT E.
CHART NOTE: FOR INOPERATIVE MALS, INCREASE S-LOC 28 CAT C/D/E VISIBILITY TO 1 MILE.

@ CAT E 800-2 1/2
@ NA WHEN CONTROL TOWER CLOSED.

QUALITY CHECKED

| CITY AND STATE | ELEVATION: 2872 THRE: 2855 | FACILITY IDENTIFIER: | PROCEDURE NO./AMDT NO./EFFECTIVE DATE: | SUP |
|---|---|---|---|---|
| MIDLAND, TX | AIRPORT NAME: MIDLAND INTL | I-MAF | LOC BC RWY 28, AMDT 13 | AMDT 12B |
| | | | | DATE 08/25/1988 |

| ALL AFFECTED PROCEDURES REVIEWED? | COORDINATES OF FACILITIES | REQUIRED EFFECTIVE DATE |
|---|---|---|
| [X] YES [ ] NO | | **ROUTINE** |

COORDINATED WITH:

| ATA | AAT | ALPA | APA | AOPA | NBAA | OTHER (specify) |
|---|---|---|---|---|---|---|
| [X] | [ ] | [X] | [X] | [X] | [X] | [X] **ZFW ARTCC, MAF APP CON, AMGR** |

| FLIGHT CHECKED BY | | |
|---|---|---|
| NAME: | FIFO | DATE: |
| **DEVELOPED BY** | | |
| NAME: **JILL OLSON (BRIAN BERUBEE)** | FIFO **AJV-353** | DATE: **03/19/2012** |
| **APPROVED BY** | | |
| NAME: **LARRY H STROUT** **MANAGER** | FIFO **AJV-353** | DATE: |

CHANGES:

**1. CHANGED FINAL APPROACH COURSE FROM 285.00 TO 284.60**
**2. CHANGE DIST FAF TO MAP FROM 3.10 TO 2.91**
**3. CHANGED PT OUTBOUND COURSE FROM 105.00 TO 104.60**
**4. CHANGED FAF DME VALUE FROM 3.41 DME TO 3.40 DME**
**5. NAMED INTERMEDIATE FIX**
**6. CHANGED INTERMEDIATE COURSE FROM 285.00 TO 284.60**
**7. CHANGED INITIAL COURSE/DIST/ALT FROM 297.00/3.30/4100 TO 297.02/3.39/4300**
**8. CHANGED FARLY FEEDER COURSE FROM 105.00 TO 104.51**
**9. CHANGED MAF FEEDER COURSE/DIST FROM 140.00/6.40 TO 140.02/6.44**
**10. CHANGED TARZN FEEDER COURSE/DIST FROM 205.00/22.90 TO 205.00/22.94**
**11. REDEFINED AND NAMED MAP**
**12. ADDED ALTERNATE MISSED APPROACH**
**13. CHANGED DG DATA FROM 3.13/52 TO 3.12/53**
**14. CHANGED TDZE TO THRE**
**SEE 8260-10**

REASONS:

**1/6. OPTIMIZATION**
**2/5/12/15. CRITERIA**
**3. CONSISTENT WITH FINAL COURSE CHANGE**
**4/11. CONSISTENT WITH FAF TO MAP DIST CHANGE/CRITERIA**
**7/8/9/10/13. RECALCULATION**
**14. SURVEY**
**16. NOT CONNECTED TO EN-ROUTE STRUCTURE**
**17. OBSTACLE STUDY**

QUALITY CHECKED

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QUALITY CHECKED 3

| CITY AND STATE | ELEVATION: 2872 THRE: 2855 | FACILITY IDENTIFIER: | PROCEDURE NO./ AMDT NO./EFFECTIVE DATE: | SUP: |
|---|---|---|---|---|
| MIDLAND, TX | AIRPORT NAME: MIDLAND INTL | I-MAF | LOC BC RWY 28, AMDT 13 | AMDT: 12B |
| | | | | DATED: 08/25/1988 |

| ALL AFFECTED PROCEDURES REVIEWED? | COORDINATES OF FACILITIES | REQUIRED EFFECTIVE DATE |
|---|---|---|
| ☐ YES ☐ NO | | |

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

| FLIGHT CHECKED BY | | |
|---|---|---|
| NAME: | FIFO | DATE: |
| **DEVELOPED BY** | | |
| NAME: | FIFO | DATE: |
| **APPROVED BY** | | |
| NAME: | FIFO | DATE: |

CHANGES:

**CHANGES CONT.**
**15. ADDED INOP EQUIPMENT NOTE**
**16. ADDED PROCEDURE RESTRICTION NOTE AT DERIC**
**17. LOWERED FARLY FEEDER SEGMENT ALTITUDE FROM 5100 TO 4800**

REASONS:

QUALITY CHECKED

**U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION**

# LOC BC STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.25**

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ARINC PACKET - 424-18 - LOC BC

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        MAF   K4011480VTLW N32003364W102112540    N32003364W102112540E0110028601     NARMIDLAND
        SUSAD        MQP   K4011770VTHW N32433425W097595079    N32433425W097595079E0090009002     NARMILLSAP
        SUSAD KMAFK4 IMAF  K4011030 IT                     IMAFN31561396W102112639     028630     NARMIDLAND INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   DERIC K40    R   L N31484881W101535142                      E0067     NAR           DERIC
        SUSAEAENRT   FARLY K40    R     N31591692W102193017                      E0069     NAR           FARLY LOM
        SUSAEAENRT   FIVAL K40    R     N31505051W101565287                      E0067     NAR           FIVAL
        SUSAEAENRT   LVIRA K40    R     N31560480W102105338                      E0068     NAR           LVIRA
        SUSAEAENRT   OCTAN K40    R     N31545475W102074540                      E0068     NAR           OCTAN
        SUSAEAENRT   TARZN K40    C   L N32190841W101553080                      E0067     NAR           TARZN

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMAFK4AMAF     0     095YHN31563310W102120690E009002872         1800018000C    MNAR    MIDLAND INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMAFK4FB28   ADERIC 010DERICK4EA0E  A    FC MAF K4      1170019029700013D   + 04300     18000                0 NS
        SUSAP KMAFK4FB28   ADERIC 020FIVALK4EA0EE B    CF IMAFK4      1046013529700020PI  + 04300                          0 NS
        SUSAP KMAFK4FB28   AFARLY 010FARLYK4EA0E       IF                                            18000                0 NS
        SUSAP KMAFK4FB28   AFARLY 020OCTANK4EA0E       TF                                 + 04800                          0 NS
        SUSAP KMAFK4FB28   AFARLY 030OCTANK4EA0EE AR   PI IMAFK4      1046003405960100PI  + 04800                          0 NS
        SUSAP KMAFK4FB28   ATARZN 010TARZNK4EA0E       IF                                            18000                0 NS
        SUSAP KMAFK4FB28   ATARZN 020MAF  K4D 0V       TF                                 + 04800                          0 NS
        SUSAP KMAFK4FB28   ATARZN 030OCTANK4EA0E       TF                                 + 04800                          0 NS
        SUSAP KMAFK4FB28   ATARZN 040OCTANK4EA0EE AR   PI IMAFK4      1046003405960100PI  + 04800                          0 NS
        SUSAP KMAFK4FB28   B      010FIVALK4EA0E  I    IF IMAFK4      10460135        PI  + 04300     18000                0 NS
        SUSAP KMAFK4FB28   B      020OCTANK4EA0E  F    CF IMAFK4      1046003428500100PI  + 04100                 MAF   K4D 0 NS
        SUSAP KMAFK4FB28   B      030LVIRAK4EA0EY M    CF IMAFK4      1046000528500029PI    03136            -312           0 NS
        SUSAP KMAFK4FB28   B      040MA   K4PN0NYM     CF MQP K4      2508224328460080D   + 04800                          0 NS
        SUSAP KMAFK4FB28   B      050MA   K4PN0NE  R   HM                      1046T010    + 04800                          0 NS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMAFK4GRW28    0083022846 N31562139W102113793+0200    +0845802855069153150R
```

CHECKED

| CITY AND STATE | ELEVATION: **2872** THRE: **2855** | FACILITY IDENTIFIER: | PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: | SUP: |
|---|---|---|---|---|
| **MIDLAND, TX** | AIRPORT NAME: **MIDLAND INTL** | **I-MAF** | **LOC BC RWY 28, AMDT 13** | AMDT: **12B** |
| | | | | DATED: **08/25/1988** |

| ALL AFFECTED PROCEDURES REVIEWED? | COORDINATES OF FACILITIES | REQUIRED EFFECTIVE DATE |
|---|---|---|
| ☐ YES ☐ NO | | |

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

| FLIGHT CHECKED BY | | |
|---|---|---|
| NAME: | FIFO | DATE: |
| **DEVELOPED BY** | | |
| NAME: | NFPG | DATE: |
| **APPROVED BY** | | |
| NAME: | NFPG | DATE: |

CHANGES:

REASONS:

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```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
ILS     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMAFK4IIMAF1   011030RW10 N31561668W1021125281046N31565085W1021245460498 10850456300E00905402865

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMAFK4SMAF  K4D                0   18018005125                                                                          M

                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAPNKMAFK4 MA    K4003260HO W N31591715W102193055                      E0090          NARFARLY
```

QUALITY CHECKED

| CITY AND STATE | ELEVATION: 2872 THRE: 2855 | FACILITY IDENTIFIER: | PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: | SUP: |
|---|---|---|---|---|
| MIDLAND, TX | AIRPORT NAME: MIDLAND INTL | I-MAF | LOC BC RWY 28, AMDT 13 | AMDT: 12B |
| | | | | DATED: 08/25/1988 |

| ALL AFFECTED PROCEDURES REVIEWED? | COORDINATES OF FACILITIES | REQUIRED EFFECTIVE DATE |
|---|---|---|
| ☐ YES ☐ NO | | |

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

| FLIGHT CHECKED BY | | |
|---|---|---|
| NAME: | FIFO | DATE: |
| **DEVELOPED BY** | | |
| NAME: | NFPG | DATE: |
| **APPROVED BY** | | |
| NAME: | NFPG | DATE: |

CHANGES:

REASONS:

**U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION**

# LOC BC STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.25**

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ARINC SUMMARY - 424-18 - LOC BC

| ROUTES | TRANSITION | FIX | SEQ | USE | PATH | TURN | FO/FB | RNP | MAG(TRUE) | DISTANCE | ALTITUDE | SPEED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DERIC | DERIC | 010 | IAF | FC | | FB | | 297.0() | 001.3 | AA 04300 | |
| | DERIC | FIVAL | 020 | | CF | | FB | | 297.0() | 002.0 | AA 04300 | |
| | FARLY | FARLY | 010 | | IF | | FB | | | | | |
| | FARLY | OCTAN | 020 | | TF | | FB | | | | AA 04800 | |
| | FARLY | OCTAN | 030 | IAF | PI | R | FB | | 059.6() | 010.0 | AA 04800 | |
| | TARZN | TARZN | 010 | | IF | | FB | | | | | |
| | TARZN | MAF | 020 | | TF | | FB | | | | AA 04800 | |
| | TARZN | OCTAN | 030 | | TF | | FB | | | | AA 04800 | |
| | TARZN | OCTAN | 040 | IAF | PI | R | FB | | 059.6() | 010.0 | AA 04800 | |
| | | FIVAL | 010 | FACF | IF | | FB | | | | AA 04300 | |
| | | OCTAN | 020 | FAF | CF | | FB | | 285.0() | 010.0 | AA 04100 | |
| | | LVIRA | 030 | MAP | CF | | FO | | 285.0() | 002.9 | AT 03136 | |

| MISSED APPROACH | FIX | SEQ | USE | PATH | TURN | FO/FB | RNP | MAG(TRUE) | DISTANCE | ALTITUDE | SPEED |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MA | 040 | | CF | | FO | | 284.6() | 008.0 | AA 04800 | |
| | MA | 050 | | HM | R | FO | | 104.6() | T01.0 | AA 04800 | |

| POINT DATA | WAYPOINT | LAT IN SECS | LONG IN SECS | LAT IN MINS | LONG IN MINS |
|---|---|---|---|---|---|
| | MAF | N320033.64 | W1021125.40 | N3200.561 | W10211.423 |
| | MQP | N324334.25 | W0975950.79 | N3243.571 | W09759.847 |
| | IMAF (DME) | N315613.96 | W1021126.39 | N3156.233 | W10211.440 |
| | DERIC | N314848.81 | W1015351.42 | N3148.814 | W10153.857 |
| | FARLY | N315916.92 | W1021930.17 | N3159.282 | W10219.503 |
| | FIVAL | N315050.51 | W1015652.87 | N3150.842 | W10156.881 |
| | LVIRA | N315604.80 | W1021053.38 | N3156.080 | W10210.890 |
| | OCTAN | N315454.75 | W1020745.40 | N3154.913 | W10207.757 |
| | TARZN | N321908.41 | W1015530.80 | N3219.140 | W10155.513 |
| | RW28 | N315621.39 | W1021137.93 | N3156.357 | W10211.632 |
| | IMAF (LOC) | N315616.68 | W1021125.28 | N3156.278 | W10211.421 |
| | MA | N315917.15 | W1021930.55 | N3159.286 | W10219.509 |

| RUNWAY DATA | RWY | THRESHOLD ELEVATION | TCH |
|---|---|---|---|
| | RW28 | 02855 | 53 |

QUALITY CHECKED

| CITY AND STATE | ELEVATION: 2872 THRE: 2855 | FACILITY IDENTIFIER: | PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: | SUP: |
|---|---|---|---|---|
| MIDLAND, TX | AIRPORT NAME: MIDLAND INTL | I-MAF | LOC BC RWY 28, AMDT 13 | AMDT: 12B |
| | | | | DATED: 08/25/1988 |

| ALL AFFECTED PROCEDURES REVIEWED? | COORDINATES OF FACILITIES | REQUIRED EFFECTIVE DATE |
|---|---|---|
| ☐ YES ☐ NO | | |

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

| FLIGHT CHECKED BY | | |
|---|---|---|
| NAME: | FIFO | DATE: |
| **DEVELOPED BY** | | |
| NAME: | NFPG | DATE: |
| **APPROVED BY** | | |
| NAME: | NFPG | DATE: |

CHANGES:

REASONS:

# STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

| 1. APP SEGMENT | FROM | TO | OBSTRUCTION | COORDINATES | ELEV. MSL | ROC | ALT. ADJUSTMENTS | MIN. ALT. |
|---|---|---|---|---|---|---|---|---|
| FEEDER | TARZN INT/BGS | MAF VORTAC | 1. TOWER (48-008997) | 320405.00N/1021353.00W | 3549 (2C) | 1000 | AT251 | 4800 |
| | 22.79 DME | | 2. TERRAIN | 320912.00N/1020951.00W | 2920 (2900) | | AS1500 | 4400 |
| FEEDER | MAF VORTAC | OCTAN INT/I-MAF | 3. TOWER (48-002518) | 315803.00N/1020707.00W | 3234 (5D) | 1000 | AT566 | 4800 |
| | | 3.40 DME | 4. TERRAIN | 315826.00N/1021510.00W | 2945 (2900) | | AS1500 | 4400 |
| FEEDER | FARLY LOM | OCTAN INT/I-MAF | 3. TOWER (48-002518) | 315803.00N/1020707.00W | 3234 (5D) | 1000 | AT566 | 4800 |
| | | 3.40 DME | 5. TERRAIN | 315806.00N/1022006.00W | 2953 (3000) | | AS1500 | 4500 |
| INITIAL | DERIC INT/MAF | FIVAL/I-MAF | 6. TOWER (48-008306) | 314910.00N/1015822.00W | 3031 (1A) | 1000 | | 4100 |
| | 19.00 DME | 13.51 DME | 7. TERRAIN | 314627.00N/1015600.00W | 2750 (2800) | | AS1500 | 4300 |
| INTERMEDIATE | FIVAL/I-MAF | OCTAN INT/I-MAF | 8. TOWER (48-005854) | 315453.00N/1015750.00W | 3460 (5D) | 500 | AT140 | 4100 |
| | 13.51 DME | 3.40 DME | 9. TERRAIN | 315509.77N/1020726.10W | 2828 (2800) | | AS1000 | 3800 |
| INTERMEDIATE: PT | 10 NM | OCTAN INT/I-MAF | 8. TOWER (48-005854) | 315453.00N/1015750.00W | 3460 (5D) | 500 | AT140 | 4100 |
| | | 3.40 DME | 9. TERRAIN | 315509.77N/1020726.10W | 2828 (2800) | | AS1000 | 3800 |
| 2. PROCEDURE TURN | OCTAN | 10 NM | 8. TOWER (48-005854) | 315453.00N/1015750.00W | 3460 (5D) | 1000 | AT340 | 4800 |
| | | | 11. TERRAIN | 314915.00N/1020627.00W | 2868 (2900) | | AS1500 | 4400 |
| 3. MISSED APPROACH — MAP: | 2.91 MILES AFTER | FARLY LOM | | | | ASC | | 4800 |
| | OCTAN INT/MAF | | 12. DRILLING RIG | 315812.53N/1021447.92W | 3163 (4D) | 1000 | | 4200 |
| ELEV: | 2930 | | 13. TERRAIN | 315806.00N/1022006.00W | 2953 (3000) | | AS1000 | 4000 |

| 4. CIRCLING AREA | DISTANCE | HT. ABV. ARPT. REQUIRED | HT. ABV. ARPT. ACTUAL | | OBSTRUCTION | COORDINATES | ELEV. MSL | ROC | ALT. ADJUSTMENTS | MIN. ALT. |
|---|---|---|---|---|---|---|---|---|---|---|
| CATEGORY A | 1.3 NM | 350 | 568 | | 15. DRILLING RIG | 315830.43N/1021316.38W | 3071 (4D) | 300 | AC50 | 3440 |
| CATEGORY B | 1.5 NM | 450 | 568 | | 15. DRILLING RIG | 315830.43N/1021316.38W | 3071 (4D) | 300 | AC50 | 3440 |
| CATEGORY C | 1.7 NM | 450 | 568 | | 16. DRILLING RIG | 315839.59N/1021335.15W | 3078 (4D) | 300 | AC50 | 3440 |
| CATEGORY D | 2.3 NM | 550 | 648 | | 12. DRILLING RIG | 315812.53N/1021447.92W | 3163 (4D) | 300 | AC50 | 3520 |
| CATEGORY E | 4.5 NM | 550 | 728 | | 3. TOWER (48-002518) | 315803.00N/1020707.00W | 3234 (5D) | 300 | AC50 | 3600 |

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: MAF VORTAC

| SECTOR | OBSTRUCTION | BRG/DIST | ELEVATION (MSL) | M S A | SECTOR | OBSTRUCTION | BRG/DIST | ELEVATION (MSL) | M S A |
|---|---|---|---|---|---|---|---|---|---|
| 360-360 | TWR (48-005355) | 305/ 07.3 | 4048 (1A) | 5100 | | | | | |

| CITY AND STATE | ELEVATION: 2872 / AIRPORT NAME: | FACILITY | PROCEDURE AND AMENDMENT NO: | REGION |
|---|---|---|---|---|
| MIDLAND, TX | MIDLAND INTL | I-MAF | LOC BC RWY 28, AMDT 13 | ASW |

QUALITY CHECKED

## PART B - SUPPLEMENTAL DATA

| 1. COMMUNICATIONS WITH: | 2. WEATHER SERVICE | | | 3. ALTIMETER SETTING |
|---|---|---|---|---|
| MAF TOWER<br>ZFW ARTCC<br>MAF APP CON | | N W S | OTHER:<br>ASOS | SOURCE: KMAF |
| | | F A A | | DISTANCE: 0 |
| | | A / C | | HOURS REMOTE OPERATION: |
| SATISFACTORY ON: | | | | |
| X V H F  X U H F  H F | LOCATION: KMAF | | | ADJUSTMENT: 0 |

| | | | |
|---|---|---|---|
| 4. MONITOR STATUS | PRIMARY NAVAID: I-MAF | | |
| | MONITOR POINT: MAF ATCT | | |
| | HRS OPTN: | CAT 1 | TOWER OPEN |
| | | CAT 3 | TOWER CLOSED |

| | | |
|---|---|---|
| 5. APPROACH & RUNWAY LIGHTING | | ALS |
| | | (S) SALS |
| | X | MALS 28 (PCL) MALSR 10 (PCL) |
| | X | HIRL 10, 28, 34L, 16R |
| | X | MIRL 16L, 22, 04, 34R |
| | X | REIL 34L |
| | | TDZ |
| | | C/LINE |
| | X | OTHER (SPECIFY)<br>PAPI-4L 34L, 16R VASI-4L 10, 28 |

| | | |
|---|---|---|
| 6. RUNWAY MARKINGS | BASIC | BSC-G 16L, 34R |
| | ALL WEATHER | PIR-G 10, 28, 34L, 16R |
| | INSTRUMENT | NPI-G 22, 04 |
| 7. RUNWAY VISUAL RANGE | APPROACH | 10 |
| | MIDFIELD | |
| | ROLL OUT | |

| | | |
|---|---|---|
| 8. GLIDE PATH | GP ANGLE: | ELEV RWY THRESHOLD: |
| | DISTANCE FROM RWY: | ELEV GP ANTENNA: |
| | | THRESHOLD CROSSING HEIGHT: |

| | | | |
|---|---|---|---|
| 9. FINAL APPROACH COURSE AIMING | X | RUNWAY THRESHOLD | FT. FROM THRESHOLD |
| | X | ON CENTERLINE | FT. FROM CENTERLINE |

10. WAIVERS: NONE

QUALITY CHECK

| | |
|---|---|
| PART D - PREPARED BY:<br>JILL OLSON (BRIAN BERUBEE) | DATE:<br>03/19/2012 |
| TITLE:<br>AERONAUTICAL INFORMATION SPECIALIST | OFFICE:<br>AJV-353 |

## PART C - REMARKS:

VDP NOT ESTABLISHED - VDP LESS THAN 1/2 MIILE FROM MAP.

THRESHOLD DISPLACED 691 FT.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

TERPS PARAGRAPH 289 APPLIED TO 3028 AAO
315510N/1020726W

NO ADDITIONAL AIRSPACE REQUIRED.

KMAF ASOS ON SVC A
REDUNDANT WEATHER REPORTING SOURCES ON APT

40' VEGETATION APPLIED

VGSI DATA: 3.00/52.8

TERPS VOL 1, VISUAL PORTION OF FINAL PENETRATIONS
RW16L
20:1
2875 TREE (KMAF0047) 315649.00N/1021150.70W (7.70)
2880 ROAD (KMAF0035) 315650.86N/1021151.00W (3.12)

FPT NOTIFIED OF PENETRATIONS

OBST #10 LIES 895 FT INTO SECONDARY, FULL ROC APPLIED

MISSED APPROACH OBSTACLES CONT.
ALTERNATE:
ASC 4800
1. TOWER (48-008997) 320405.00N/1021353.00W 3549 (2C)
1000 4600
14. TERRAIN 321818.00N/1021539.00W 3006 (3000) AS1000
4000

# STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

| 1. APP SEGMENT | FROM | TO | OBSTRUCTION | COORDINATES | ELEV. MSL | ROC | ALT. ADJUSTMENTS | MIN. ALT. |
|---|---|---|---|---|---|---|---|---|
| FINAL | OCTAN INT/I-MAF | 2.91 MILES AFTER | 10. SIGN (KMAFL042) | 315617.07N/1021103.39W | 2913 (1A) | 250 | | 3180 |
| | 3.40 DME | OCTAN INT/MAF | | | | | | |
| | | 3.40 DME OR AT | | | | | | |
| | | LVIRA INT/ I-MAF | | | | | | |
| | | 0.49 DME FIX | | | | | | |
| 3. MISSED APPROACH | MAP: | | | | | | | |
| | | | | | | | | |
| | ELEV: | | | | | | | |

| 4. CIRCLING AREA | DISTANCE | HT. ABV. ARPT. REQUIRED | HT. ABV. ARPT. ACTUAL |
|---|---|---|---|
| CATEGORY A | 1.3 NM | 350 | |
| CATEGORY B | 1.5 NM | 450 | |
| CATEGORY C | 1.7 NM | 450 | |
| CATEGORY D | 2.3 NM | 550 | |
| CATEGORY E | 4.5 NM | 550 | |

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

| SECTOR | OBSTRUCTION | BRG/DIST | ELEVATION (MSL) | M S A | SECTOR | OBSTRUCTION | BRG/DIST | ELEVATION (MSL) | M S A |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |

| CITY AND STATE | | FACILITY | PROCEDURE AND AMENDMENT NO: | REGION |
|---|---|---|---|---|
| MIDLAND, TX | ELEVATION: 2872<br>AIRPORT NAME: MIDLAND INTL | I-MAF | LOC BC RWY 28, AMDT 13 | ASW |

## PART B - SUPPLEMENTAL DATA

| 1. COMMUNICATIONS WITH: | 2. WEATHER SERVICE | | | 3. ALTIMETER SETTING |
|---|---|---|---|---|
| SATISFACTORY ON: | | N W S | OTHER: | SOURCE: |
| | | F A A | | DISTANCE: |
| | | A / C | | HOURS REMOTE OPERATION: |
| V H F / U H F / H F | LOCATION: | | | ADJUSTMENT: |

| | | |
|---|---|---|
| 4. MONITOR STATUS | PRIMARY NAVAID: | |
| | MONITOR POINT: | |
| | HRS OPTN: | CAT 1 |
| | | CAT 3 |

| | | |
|---|---|---|
| 5. APPROACH & RUNWAY LIGHTING | | **ALS** |
| | | **(S) SALS** |
| | | **MALS** |
| | | **HIRL** |
| | | **MIRL** |
| | | **REIL** |
| | | **TDZ** |
| | | **C/LINE** |
| | | **OTHER (SPECIFY)** |

| | |
|---|---|
| 6. RUNWAY MARKINGS | BASIC |
| | ALL WEATHER |
| | INSTRUMENT |
| 7. RUNWAY VISUAL RANGE | APPROACH |
| | MIDFIELD |
| | ROLL OUT |

| | | |
|---|---|---|
| 8. GLIDE PATH | GP ANGLE: | ELEV RWY THRESHOLD: |
| | DISTANCE FROM RWY: | ELEV GP ANTENNA: |
| | | THRESHOLD CROSSING HEIGHT: |

| | | | |
|---|---|---|---|
| 9. FINAL APPROACH COURSE AIMING | | RUNWAY THRESHOLD | FT. FROM THRESHOLD |
| | | ON CENTERLINE | FT. FROM CENTERLINE |

10. WAIVERS:

| | |
|---|---|
| PART D - PREPARED BY: | DATE: |
| TITLE: | OFFICE: |

PART C - REMARKS:

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** DERIC **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 314848.81N/1015351.42W **TYPE:** INT, DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** MODIFY

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MIDLAND | MAF | VORTAC | L | 117.02 | 128.02 | 19.00 | 19.00 | | 4000 | 14000 |
| 2 | BIG SPRING | BGS | VORTAC | L | 200.74 | 211.74 | | 40.23 | | 4000 | 14000 |

**EXPANDED SERVICE VOLUME (ESV):**

| FAC IDENT | FAC TYPE | RADIAL/BEARING | DISTANCE | MIN ALTITUDE | MAX ALTITUDE |
|---|---|---|---|---|---|
| BGS | VORTAC | R-201 | 41 | 4000 | 17500 |

**HOLDING:** **HOLDING TYPE OF ACTION:** MODIFY

**PATTERNS:**

| PAT | DIR | IDENT | TYPE | RAD/CRS/BRG | CRS INBOUND | TURN (L OR R) | LEG LENGTH TIME | LEG LENGTH DME | HOLDING ALTITUDES MIN | HOLDING ALTITUDES MAX | TEMPLATES MIN | TEMPLATES MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SE | MAF | VORTAC | 117.02 | 297.02 | R | 1 | | 4600 | 14000 | 9 | 12 |

**CONTROLLING OBSTRUCTIONS:**

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|---|---|---|---|---|---|
| 1 | 230 | TOWER (48-005854) | 315453.00N/1015750.00W | 3460 | 5D |

**HOLDING RESTRICTIONS:**
PAT 1 CHART 230K ICON
HOLDING LIMITED TO ESTABLISHED PATTERN

**REMARKS:**
MIDLAND (FAC 1) AND BIG SPRING (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETE

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| IAP | HI-VOR/DME OR TACAN RWY 16R | 1, 2 | 1 | KMAF | MIDLAND | TX (US) |
| IAP | ILS OR LOC RWY 10 | 1, 2 | 1 | KMAF | MIDLAND | TX (US) |
| IAP | LOC BC RWY 28 | 1, 2 | | KMAF | MIDLAND | TX (US) |
| IAP | VOR OR TACAN RWY 16R | 1, 2 | 1 | KMAF | MIDLAND | TX (US) |

**REQUIRED CHARTING:** IAP, CONTROLLER, EN ROUTE LOW

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 6 **DATE OF REVISION:** 08/23/2012

**REASON FOR REVISION:**
DELETED WP FROM FIX TYPE
ADDED DIST FROM FAC 1/2
CHANGED HOLDING INBOUND COURSE FROM 297.00 TO 297.02
CHANGED HOLDING PAT OBSTACLE FROM 3449 TWR TO 3460 TWR
CHANGED HOLDING PAT TEMPLATES FROM 8/11 TO 8/12
DELETED DME LEG LENGTH
ADDED ESV DATA
UPDATED FIX USE

**DEVELOPED BY:** **DATE:** 02/28/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (BRIAN BERUBEE)

**APPROVED BY:** **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

**SIGNATURE:**

**DISTRIBUTION:** **NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON/ATCT
**OTHER:**

QUALITY CHECK

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** FARLY LOM **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 315916.92N/1021930.17W **TYPE:** DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** MODIFY

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FARLY | MA | LOM | | | | | | | 4600 | 17500 |
| 2 | MIDLAND | I-MAF | LOC/DME | | 284.58 | 293.58 | 7.50 | 7.50 | 45572 | 4800 | 7300 |

**HOLDING:** **HOLDING TYPE OF ACTION:** MODIFY

**PATTERNS:**

| PAT | DIR | IDENT | TYPE | RAD/CRS/BRG | CRS INBOUND | TURN (L OR R) | LEG LENGTH TIME | LEG LENGTH DME | HOLDING ALTITUDES MIN | HOLDING ALTITUDES MAX | TEMPLATES MIN | TEMPLATES MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | W | MA | LOM | 284.58 | 104.58 | R | 1 | | 4800 | 14000 | 7 | 10 |
| 2 | NE | MA | LOM | 030.60 | 210.60 | L | 1 | | 5100 | 14000 | 5 | 10 |

**CONTROLLING OBSTRUCTIONS:**

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|---|---|---|---|---|---|
| 1 | 230 | TOWER (48-015547) | 320441.81N/1023350.55W | 3449 | 5D |
| 2 | 200 | TOWER (48-005355) | 320551.00N/1021723.00W | 4048 | 1A |

**REASON FOR NONSTANDARD HOLDING:**
PAT 2 ATC REQUEST

**HOLDING RESTRICTIONS:**
HOLDING LIMITED TO ESTABLISHED PATTERNS.

**REMARKS:**
MIDLAND (FAC 2) USED TO ESTABLISH FIX COORDINATES
COORDINATES REFLECT LOCATION ON LOC/AZ CENTERLINE ABEAM THE FARLY LOM.
ACTUAL FACILITY LOCATION IS 315916.84N/1021930.21W.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| IAP | ILS OR LOC RWY 10 | 1, 2 | | KMAF | MIDLAND | TX (US) |
| IAP | ILS OR LOC RWY 10 (ALT MA) | 1, 2 | 1 | KMAF | MIDLAND | TX (US) |
| IAP | LOC BC RWY 28 | 1, 2 | 1 | KMAF | MIDLAND | TX (US) |
| IAP | RADAR-1 (ALT MISSED) | | 1 | KMAF | MIDLAND | TX (US) |
| IAP | NDB RWY 20 | 1 | 2 | KODO | ODESSA | TX (US) |

**REQUIRED CHARTING:** IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 10 **DATE OF REVISION:** 07/26/2012

**REASON FOR REVISION:**
REPOSITIONED FIX 9.18 FT NORTHEAST
ADDED REMARKS PERTAINING TO THE FIX LOCATION ABEAM THE CENTERLINE
CHANGED PATTERN 1 INBOUND COURSE FROM 105 TO 104.58

**DEVELOPED BY:** **DATE:** 02/28/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (BRIAN BERUBEE)

**APPROVED BY:** **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

**SIGNATURE:**

**DISTRIBUTION:** **NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON/ATCT
**OTHER:**

QUALITY CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** FIVAL **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 315050.51N/1015652.87W **TYPE:** DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** ESTABLISH

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MIDLAND | I-MAF | LOC/DME | | 104.60 | 113.60 | 13.51 | 13.51 | | 4300 | 7300 |
| 2 | MIDLAND | MAF | VORTAC | L | 117.02 | 128.02 | 15.72 | 15.72 | | 4300 | 17500 |

**REMARKS:**
MIDLAND (FAC 1) USED TO ESTABLISH FIX COORDINATES

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| IAP | LOC BC RWY 28 | 1 | | KMAF | MIDLAND | TX (US) |

**REQUIRED CHARTING:** IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG **DATE OF REVISION:** 08/23/2012

**DEVELOPED BY:** **DATE:** 02/29/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (BRIAN BERUBEE)

**APPROVED BY:** **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

**SIGNATURE:**

**DISTRIBUTION:**
**NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON/ATCT
**OTHER:**

QUALITY CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** LVIRA **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 315604.80N/1021053.38W **TYPE:** INT, DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** ESTABLISH

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MIDLAND | I-MAF | LOC/DME | | 104.60 | 113.60 | 0.49 | 0.49 | | 3080 | 7300 |
| 2 | MIDLAND | MAF | VORTAC | L | 163.20 | 174.20 | | 4.49 | | 3080 | 17500 |

**REMARKS:**
MIDLAND (FAC 1) AND MIDLAND (FAC 2) USED TO ESTABLISH FIX COORDINATES

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| IAP | LOC BC RWY 28 | 1, 2 | | KMAF | MIDLAND | TX (US) |

**REQUIRED CHARTING:** IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG **DATE OF REVISION:** 08/23/2012

**DEVELOPED BY:** **DATE:** 05/17/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (BRIAN BERUBEE)

**APPROVED BY:** **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

**SIGNATURE:**

**DISTRIBUTION:**
**NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON
**OTHER:**

QUALITY A CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** OCTAN **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 315454.75N/1020745.40W **TYPE:** INT, DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** MODIFY

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MIDLAND | I-MAF | LOC/DME | | 104.60 | 113.60 | 3.40 | 3.40 | 20680 | 4100 | 7300 |
| 2 | MIDLAND | MAF | VORTAC | L | 140.02 | 151.02 | | 6.44 | | 4100 | 17500 |

**HOLDING:** **HOLDING TYPE OF ACTION:** NO CHANGE

**REMARKS:**
MIDLAND (FAC 1) AND MIDLAND (FAC 2) USED TO ESTABLISH FIX COORDINATES

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| IAP | LOC BC RWY 28 | 1, 2 | | KMAF | MIDLAND | TX (US) |

**REQUIRED CHARTING:** IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 4 **DATE OF REVISION:** 07/26/2012

**REASON FOR REVISION:**
REDESIGNATED LOC/DME AS FAC 1 AND V/TAC AS FAC 2
CHANGED FAC 1 BRG FROM 105.89 TO 104.60
RAISED FAC 1 MRA FROM 4000 TO 4100
RAISED FAC 1 MAA FROM 7000 TO 7300
CHANGED FAC 2 BRG FROM 139.97 TO 140.02
ADDED DIST FROM FAC 1/2
UPDATED FIX USE

**DEVELOPED BY:** **DATE:** 02/29/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (BRIAN BERUBEE)

**APPROVED BY:** **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

**SIGNATURE:**

**DISTRIBUTION:** **NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON/ATCT
**OTHER:**

QUALITY CHECKED 3

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** TARZN **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 321908.41N/1015530.80W **TYPE:** WP, INT, DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** MODIFY

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BIG SPRING | BGS | VORTAC | L | 249.04 | 260.04 | 22.79 | 22.79 | | 4400 | 17500 |
| 2 | MIDLAND | MAF | VORTAC | L | 025.00 | 036.00 | | 22.94 | | 4400 | 17500 |

**HOLDING:** **HOLDING TYPE OF ACTION:** NO CHANGE

**REMARKS:**
BIG SPRING (FAC 1) AND MIDLAND (FAC 2) USED TO ESTABLISH FIX COORDINATES

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| EN ROUTE | V16 | 1, 2 | | | | (US) |
| IAP | VOR/DME RNAV RWY 35 (SPECIAL) | | | K7TX5 | MIDLAND | TX (US) |
| IAP | LOC BC RWY 28 | 1, 2 | | KMAF | MIDLAND | TX (US) |
| IAP | VOR OR TACAN RWY 16R | 1, 2 | | KMAF | MIDLAND | TX (US) |

**REQUIRED CHARTING:** IAP, CONTROLLER, EN ROUTE LOW

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 3 **DATE OF REVISION:** 07/26/2012

**REASON FOR REVISION:**
ADDED DIST FROM FAC 1/2
UPDATED FIX USE

**DEVELOPED BY:** **DATE:** 02/29/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (BRIAN BERUBEE)

**APPROVED BY:** **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

**SIGNATURE:**

**DISTRIBUTION:**
**NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON/ATCT
**OTHER:**

QUALITY CHECKED

# RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

**NAME:** MERGE **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 321706.22N/1020846.50W **TYPE:** WP, INT, DME

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** MODIFY

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MIDLAND | MAF | VORTAC | L | 356.74 | 007.74 | 16.66 | 16.66 | | 4400 | 17500 |
| 2 | BIG SPRING | BGS | VORTAC | L | 249.04 | 260.04 | | 34.22 | | 4400 | 17500 |

**HOLDING:** **HOLDING TYPE OF ACTION:** MODIFY

**PATTERNS:**

| PAT | DIR | IDENT | TYPE | RAD/CRS/BRG | CRS INBOUND | TURN (L OR R) | LEG LENGTH TIME | LEG LENGTH DME | HOLDING ALTITUDES MIN | HOLDING ALTITUDES MAX | TEMPLATES MIN | TEMPLATES MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | N | MAF | VORTAC | 356.74 | 176.74 | L | 1 | | 4500 | 6000 | 7 | 7 |
| 2 | N | MAF | VORTAC | 356.74 | 176.74 | L | 1-1 1/2 | | 4800 | 17500 | 15 | 22 |

**CONTROLLING OBSTRUCTIONS:**

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|---|---|---|---|---|---|
| 1 | 200 | TOWER (48-013424) | 321741.81N/1021007.13W | 3320 | 2C |
| 2 | 310 | TOWER (48-004448) | 322347.00N/1015726.00W | 3635 | 5D |

**REASON FOR NONSTANDARD HOLDING:**
PAT 1 ATC REQUEST
PAT 2 ATC REQUEST

**HOLDING RESTRICTIONS:**
HOLDING LIMITED TO ESTABLISHED PATTERNS.

**REMARKS:**
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
HOLDING PAT 1 USED FOR CAT A-D PROCEDURES, PAT 2 USED FOR PROCEDURES WITH CAT E.

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| EN ROUTE | V16 | 1, 2 | | | | (US) |
| EN ROUTE | V81 | 1, 2 | 1 | | | (US) |
| IAP | RNAV (GPS) RWY 34 | | | K2F5 | LAMESA | TX (US) |
| IAP | HI-VOR/DME OR TACAN RWY 34L | 1, 2 | 2 | KMAF | MIDLAND | TX (US) |
| IAP | LOC BC RWY 28 (ALT MA) | 1, 2 | 2 | KMAF | MIDLAND | TX (US) |
| IAP | RADAR-1 | 1, 2 | 2 | KMAF | MIDLAND | TX (US) |
| IAP | VOR/DME OR TACAN RWY 34L | 1, 2 | 2 | KMAF | MIDLAND | TX (US) |
| IAP | VOR -A | 1, 2 | 1 | KMDD | MIDLAND | TX (US) |
| IAP | VOR/DME RWY 25 | 1, 2 | 1 | KMDD | MIDLAND | TX (US) |
| IAP | RNAV (GPS) RWY 20 | | | KODO | ODESSA | TX (US) |

**REQUIRED CHARTING:** IAP, CONTROLLER, EN ROUTE LOW

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 9 **DATE OF REVISION:** 07/29/2010

**REASON FOR REVISION:**
1. DELETED FAC 3 BREWE.
2. RAISED FAC 1 AND 2 MRA FROM 4000 TO 4400.
3. ADDED FAC 1 AND 2 DIST FROM FAC IN NM.
4. ADDED REMARK, PRECIPITOUS TERRAIN EVALUATION COMPLETED.
5. MOVED REMARK, HOLDING LIMITED TO ESTABLISHED PATTERNS, TO HOLDING RESTRICTIONS.
6. SPLIT PAT 1 INTO PAT 1 200K HOLDING AND PAT 2 310K HOLDING, ALTITUDES, TEMPLATES, AND OBSTACLES CHANGED.
7. DELETED REMARK,ALL AIRSPEEDS EVALUATED, BUT 310 KTS IDENTIFIED DUE TO TYPE OF AIRCRAFT WHICH MAY USE THE HOLDING FIX.
8. ADDED REMARK, HOLDING PAT 1 USED FOR CAT A-D PROCEDURES, PAT 2 USED FOR PROCEDURES WITH CAT E.

**DEVELOPED BY:** **DATE:** 01/11/2010 **OFFICE:** AVN-120 **NAME:** JOSE ALFONSO (DAVID SAUER)

**APPROVED BY:** **DATE:** 04/27/2010 **OFFICE:** AVN-120 **NAME:** SUE CRUMB

**SIGNATURE:**

**DISTRIBUTION:** **NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON

QUALITY CHECKED 3

**OTHER:**

# RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

**NAME:** MIDLAND VORTAC **STATE:** TX **COUNTRY:** US

**LATITUDE/LONGITUDE:** 320033.64N/1021125.40W **TYPE:**

**AIRSPACE DOCKET:** **FIX TYPE OF ACTION:** NO CHANGE

**FIX MAKE-UP FACILITIES:**

| FAC | NAME | IDENT | TYPE | CLASS | MAG BRG | TRUE BRG | DME | DIST FROM FAC NM | DIST FROM FAC FEET | MRA | MAA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MIDLAND | MAF | VORTAC | L | | | | | | 4000 | 17500 |

**HOLDING:** **HOLDING TYPE OF ACTION:** MODIFY

**PATTERNS:**

| PAT | DIR | IDENT | TYPE | RAD/CRS/BRG | CRS INBOUND | TURN (L OR R) | LEG LENGTH TIME | LEG LENGTH DME | HOLDING ALTITUDES MIN | HOLDING ALTITUDES MAX | TEMPLATES MIN | TEMPLATES MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NE | MAF | VORTAC | 051.14 | 231.14 | L | 1 | | 5000 | 6000 | 5 | 5 |

**CONTROLLING OBSTRUCTIONS:**

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|---|---|---|---|---|---|
| UPN | 310 | TOWER (48-004478) | 315755.00N/1024612.00W | 4240 | 3C |
| 1 | 200 | TOWER (48-000685) | 315730.00N/1020401.00W | 3287 | 4D |

**REASON FOR NONSTANDARD HOLDING:**
PAT 1 ATC REQUEST

**HOLDING RESTRICTIONS:**
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 5300.

**REMARKS:**
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| DP | MIDLAND | | | KMAF | MIDLAND | TX (US) |
| EN ROUTE | V546 | | | | | (US) |
| EN ROUTE | V66 | | | | | (US) |
| EN ROUTE | V68 | | | | | (US) |
| EN ROUTE | V81 | | | | | (US) |
| EN ROUTE | V94 | | | | | (US) |
| IAP | HI-VOR/DME OR TACAN RWY 16R | | | KMAF | MIDLAND | TX (US) |
| IAP | HI-VOR/DME OR TACAN RWY 34L | | | KMAF | MIDLAND | TX (US) |
| IAP | ILS OR LOC RWY 10 | | | KMAF | MIDLAND | TX (US) |
| IAP | LOC BC RWY 28 | | | KMAF | MIDLAND | TX (US) |
| IAP | VOR OR TACAN RWY 16R | | | KMAF | MIDLAND | TX (US) |
| IAP | VOR/DME OR TACAN RWY 34L | | | KMAF | MIDLAND | TX (US) |
| IAP | VOR-A | | | KMDD | MIDLAND | TX (US) |
| IAP | VOR/DME RWY 25 | | | KMDD | MIDLAND | TX (US) |
| IAP | NDB RWY 20 | | | KODO | ODESSA | TX (US) |
| IAP | VOR-A | | 1 | KODO | ODESSA | TX (US) |
| IAP | NDB RWY 35 | | | KGNC | SEMINOLE | TX (US) |

**REQUIRED CHARTING:** MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW

**COMPULSORY REPORTING POINT:** LOW

**RECORD REVISION NUMBER:** 8 **DATE OF REVISION:** 07/29/2010

**REASON FOR REVISION:**
1. ADDED PAT 1.
2. DELETED REMARK, HOLDING EVALUATED FOR GPS HOLDING.
3. DELETED REMARK, UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 5000.
4. ADDED HOLDING RESTRICTION, UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 5300.
5. ADDED REMARK, PRECIPITOUS TERRAIN EVALUATION COMPLETED.
6. DELETED UNPLANNED HOLDING 230K AND 265K CONTROLLING OBSTACLE.
7. CHANGED UNPLANNED HOLDING 310K OBSTACLE DESCRIPTION NUMBER.

**DEVELOPED BY:** **DATE:** 01/13/2010 **OFFICE:** AVN-120 **NAME:** JOSE ALFONSO (DAVID SAUER)

**APPROVED BY:** **DATE:** 04/26/2010 **OFFICE:** AVN-120 **NAME:** SUE CRUMB

**SIGNATURE:**

QUALITY CHECKED

**DISTRIBUTION:**

**NFDC**
**FPO:** CEN
**ARTCC:** ZFW
**ATC FACILITY:** MAF APP CON
**OTHER:**

QUALITY CHECKED