ANNOTATED FILE LISTING
UNIVERSAL DATA DELIVERY FORMAT
VERSION 1.07

THIS ANNOTATED FILE LISTING INCLUDES A CODE NUMBER FOR EACH FIELD.
THIS CODE NUMBER IS LOCATED BELOW THE FIRST CHARACTER IN THE FIELD. THESE
NUMBERS ARE DECODED AT THE END OF THIS DOCUMENTATION.

AIRPORT DATA

```
0        1         2         3         4         5         6         7         8         9        10        11
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
|MFR   |19514.A  |ANM |1.07|
 1      2         3    4
|MEDFORD-JACKSON COUNTY AIRPORT                                      |0721993|
 5                                                                    6

|MEDFORD                                |OREGON                     |
 7                                       8

|NAD83     |5 CM      |          |NAVD88    |25 CM          |
 9          10         11         12         13

|-17.3|0721993|
 14    15

| 1330.6|       |32+0    |0721993|
 16      17      18       19

| 1352.0|       |0721993|
 20      21      22

| 422220.1|-1225221.3|
 23        24

@
```

RUNWAY DATA

```
0        1         2         3         4         5         6         7         8         9        10        11
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890

|9    |P|0721993|
 30    3132

|N|0721993|
 3334

| 422225.9460|-1225245.9050|1131639| 3146|100|0721993|
 35           36            37      38    39  40

| 1315.6|       |0721993|
 41      42      43

|           |            |       |       |
 44          45           46      47

|    0| 1304.8|       |0721993|
 48    49      50      51

|  500| 1306.0|       |0721993|
| 1790| 1311.0|       |0721993|
| 2380| 1313.0|       |0721993|
| 2790| 1314.0|       |0721993|
| 3146| 1316.1|       |0721993|
| 3908| 1319.0|       |0721993|
#
|27   |P|0721993|
|N|0721993|
| 422213.6660|-1225207.4160|2931705| 3146|100|0721993|
| 1316.1|       |0721993|
|           |            |       |     |
|    0| 1316.1|       |0721993|
|  350| 1314.0|       |0721993|
|  766| 1313.0|       |0721993|
| 1356| 1311.0|       |0721993|
| 2646| 1306.0|       |0721993|
| 3146| 1304.8|       |0721993|
| 3843| 1298.0|       |0721993|
#
|14   |P|0721993|
|N|0721993|
| 422251.0140|-1225234.9390|1584558| 6700|150|0721993|
| 1310.1|       |0721993|
|           |            |       |     |
|    0| 1294.1|       |0721993|
| 1081| 1299.7|       |0721993|
| 3000| 1310.0|       |0721993|
| 3730| 1313.0|       |0721993|
| 6700| 1330.6|       |0721993|
#
|32   |P|0721993|
|N|0721993|
| 422149.3290|-1225202.6210|3384621| 6700|150|0721993|
| 1330.6|       |0721993|
|           |            |       |     |
|    0| 1330.6|       |0721993|
| 2970| 1313.0|       |0721993|
| 3700| 1310.0|       |0721993|
```

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| 5619| 1299.7|       |0721993|
| 6700| 1294.1|       |0721993|
@
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NAVIGATIONAL AID DATA

```
0       1         2         3         4         5         6         7         8         9        10        11
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
|ASR    (MFR)                    | 422306.6000|-1225146.7000| 1310.0|       |       |      |0721993|
60                                 61          62           63      64      65      66     67

|ASR    (MFR)                    | 422306.6000|-1225146.7000| 1310.0|       |       |      |0721993|
|DME    (14_MFR)                 | 422140.0470|-1225201.8010| 1334.0|       |       |      |0721993|
|GS     (14_MFR)                 | 422242.4910|-1225224.7530| 1297.1|       |       |      |0721993|
|GS     (14_MFR) PP              | 422241.0590|-1225229.7230|       |       |   400R|  1081|0721993|
|LMM    (14_MFR)                 | 422321.0000|-1225250.6000|       |       |       |  3250|0721993|
|LMM    (14_MFR) CLPT            | 422322.5454|-1225249.3030|       |       |     4L|  3250|0721993|
|LOC    (14_MFR)                 | 422140.1380|-1225157.8070| 1318.9|       |       |   998|0721993|
|LOM    (14_MFR)                 | 422703.2000|-1225448.2000|       |       |       | 27420|0721993|
|LOM    (14_MFR) CLPT            | 422702.5454|-1225444.3030|       |       |   221L| 27385|0721993|
|VORTAC (OED)                    | 422846.5000|-1225446.7000| 2080.0|       |       |      |0721993|
#
|ALS    (14)                     |            |             |       |       |       |      |0721993|
|APBN                            | 422100.1234|-1225100.0023|       |       |       |      |0721993|
|REIL   (14)                     |            |             |       |       |       |      |0721993|
#
|MTI # 1                         | 350337.2031| -895915.6612|       |       |       |      |0721993|
|MTI # 2                         | 350343.7826| -895834.7896|       |       |       |      |0721993|
|CPME                            | 350300.2394| -895851.9403|       |       |       |      |0721993|
|RBPM                            | 345414.0699| -895513.5368|       |       |       |      |0721993|
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OBSTRUCTION DATA (APPROACH, PRIMARY, AND MISSED APPROACH SURFACES)

```
0       1         2         3         4         5         6         7         8         9        10        11        12
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345

|9   |AV     |
 70   71

|ROAD(N)                         | 422227.04|-1225254.70|1A| 1313|      |      |   8|   -3|  -18|   650|      |  159R|  -14|0721993|
 72                                 73         74          75 76    77    78    79    80    81    82     83     84     85    86

|TREE                            | 422223.12|-1225305.13|1A| 1347|      |      |  42|   31|   16|  1653|      |  190L|  -30|0721993|
|POLE                            | 422231.66|-1225306.69|1A| 1314|      |      |   9|   -2|  -17|  1662|      |   85R|  -64|0721993|
#
|27  |AV     |
|FENCE                           | 422211.51|-1225154.02|1A| 1324|      |      |   8|    8|   -7|  1010|      |  197R|  -33|0721993|
|ANT ON BLDG                     | 422207.85|-1225142.68|1A| 1352|      |      |  36|   36|   21|  1938|      |  193R|  -51|0721993|
#
|14  |PIR    |
|OL ON LTD WSK                   | 422151.22|-1225159.92|1A| 1335|      |      |  41|   25|    4| -6594|      |  258L|    6|0721993|
|ROAD(N)                         | 422154.48|-1225212.67|1A| 1334|      |      |  40|   24|    3| -5940|      |* 515R|    8|0721993|
|OL ON LTD WSK                   | 422215.67|-1225224.01|1A| 1340|      |      |  46|   30|    9| -3632|      |* 531R|   28|0721993|
|ROD ON OL TMOM                  | 422239.81|-1225222.04|1A| 1317|      |      |  23|    7|  -14| -1408|      |  492L|   15|0721993|
|OL ON LTD WSK                   | 422241.56|-1225226.38|1A| 1307|      |      |  13|   -3|  -24| -1125|      |  252L|    7|0721993|
|ROD ON OL GS                    | 422242.49|-1225224.75|1A| 1349|      |      |  55|   39|   18| -1081|      |  400L|   49|0721993|
|BLDG                            | 422256.64|-1225244.69|1A| 1299|      |      |   5|  -11|  -32|   796|      |  476R|   -7|0721993|
|TREE                            | 422331.15|-1225303.87|1A| 1360|      |      |  66|   50|   29|  4573|      |  552R|  -22|0721993|
|ANT ON TWR                      | 422337.01|-1225303.87|1A| 1373|      |      |  79|   63|   42|  5126|      |  337R|  -20|0721993|
|TREE                            | 422759.80|-1225426.71|1A| 2118|      |      | 824|  808|  787| 32172|      | 3514L|   75|0721993|
|TREE                            | 422819.15|-1225450.09|1A| 2161|      |      | 867|  851|  830| 34633|      | 2590L|   56|0721993|
#
|32  |SUPLC  |
|ROD ON OL GS                    | 422242.49|-1225224.75|1A| 1349|      |      |  18|   18|   18| -5618|      |  400R|   49|0721993|
|OL ON LTD WSK                   | 422241.56|-1225226.38|1A| 1307|      |      | -24|  -24|  -24| -5574|      |  252R|    7|0721993|
|ROD ON OL TMOM                  | 422239.81|-1225222.04|1A| 1317|      |      | -14|  -14|  -14| -5291|      |  492R|   15|0721993|
|OL ON LTD WSK                   | 422215.67|-1225224.01|1A| 1340|      |      |   9|    9|    9| -3067|      |* 531L|   28|0721993|
|ROAD(N)                         | 422154.48|-1225212.67|1A| 1334|      |      |   3|    3|    3|  -759|      |* 515L|    8|0721993|
|OL ON LTD WSK                   | 422151.22|-1225159.92|1A| 1335|      |      |   4|    4|    4|  -105|      |  258R|    6|0721993|
|OL ON DME                       | 422140.05|-1225201.80|1A| 1339|      |      |   8|    8|    8|   898|      |  283L|  -12|0721993|
|OL ON LOC                       | 422140.14|-1225157.81|1A| 1334|      |      |   3|    3|    3|   998|      |    0R|  -20|0721993|
|TREE                            | 422132.26|-1225151.42|1A| 1357|      |      |  26|   26|   26|  1915|      |  158R|  -24|0721993|
|POLE                            | 422130.00|-1225146.32|1A| 1372|      |      |  41|   41|   41|  2267|      |  432R|  -19|0721993|
|VESSEL (A32)                    |          |           |  |     |      |      |    |     |     |      |      |      |0721993|
#
|32  |ANAPC  |
|ROD ON OL GS                    | 422242.49|-1225224.75|1A| 1349|      |      |  18|   18|   18| -5618|      |  400R|   49|0721993|
|OL ON LTD WSK                   | 422241.56|-1225226.38|1A| 1307|      |      | -24|  -24|  -24| -5574|      |  252R|    7|0721993|
|ROD ON OL TMOM                  | 422239.81|-1225222.04|1A| 1317|      |      | -14|  -14|  -14| -5291|      |  492R|   15|0721993|
|OL ON LTD WSK                   | 422151.22|-1225159.92|1A| 1335|      |      |   4|    4|    4|  -105|      |  258R|    6|0721993|
|TREE                            | 422132.26|-1225151.42|1A| 1357|      |      |  26|   26|   26|  1915|      |  158R|   -8|0721993|
|POLE                            | 422130.00|-1225146.32|1A| 1372|      |      |  41|   41|   41|  2267|      |  432R|    0|0721993|
|VESSEL                          |          |           |  |     |      |      |    |     |     |      |      |      |0721993|
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OBSTRUCTION DATA (FAR-77 HORIZONTAL, CONICAL, AND TRANSITION SURFACES)

```
0       1         2         3         4         5         6         7         8         9        10        11
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890

|ARP |HCT    |
 70   71

|OL ON LTD WSK                   | 422215.67|-1225224.01|1A| 1340|      |      |   9|18724|  488|    10|0721993|
 72                                 73         74          75 76    77    78    87    88    89    90     91

|ANT AND APBN ON ATCT            | 422210.10|-1225224.72|1A| 1386|      |      |  55|17700| 1040|    30|7021993|
|OL ON AMOM                      | 422230.12|-1225236.78|1A| 1323|      |      |  -8|29356| 1545|   -37|0721993|
|LT POLE                         | 422204.31|-1225221.10|1A| 1359|      |      |  28|16210| 1594|     5|0721993|
```

HANGAR	422221.76	-1225242.75	1A	1327			-4	25849	1620	-3	0721993
LT POLE	422232.50	-1225238.92	1A	1356			25	29618	1827	-12	0721993
TREE	422224.22	-1225252.42	1A	1321			-10	26256	2374	-23	0721993
WSK ON HANGAR	422231.65	-1225251.14	1A	1333			2	28021	2529	-21	0721993
ROAD(N)	422154.48	-1225212.67	1A	1334			3	14839	2669	6	0721993
POLE	422252.60	-1225247.03	1A	1331			0	31219	3819	-4	0721993
ANT ON OL RTR TWR	422138.36	-1225211.30	1A	1381			50	15237	4287	-29	0721993
TREE	422257.49	-1225249.39	1A	1327			-4	31336	4337	-5	0721993
POLE	422305.40	-1225232.03	1A	1326			-5	33244	4661	1	0721993
ANT ON OL ASR	422306.62	-1225146.74	1A	1409			78	1130	5380	-72	0721993
TREE	422313.83	-1225233.34	1A	1355			24	33316	5518	0	0721993
TREE	422254.66	-1225114.54	1B	1500			169	3744	6113	19	0721993
TREE	422314.01	-1225306.63	1A	1374			43	31047	6435	-41	0721993
TREE	422239.61	-1225047.36	1B	1684			353	5700	7323	203	0721993
MOBILE CRANE	422240.88	-1225046.98	1M	1690			359	5606	7386	209	0721993
TREE	422255.41	-1225037.35	1B	1567			236	4802	8584	86	0721993
TREE	422134.83	-1225003.35	1A	1490			159	9632	11323	9	0721993
TREE	422107.15	-1225014.51	1B	1574			243	11028	12045	93	0721993
TREE	422128.14	-1224940.07	1C	1532			201	9609	13195	11	0721993
TREE	422011.35	-1225051.89	2C	1592			261	13526	14657	59	0721993
TREE	422110.52	-1224921.10	2C	1705			374	10010	15250	93	0721993
TREE	422149.06	-1224901.02	2C	1827			496	8428	15359	168	0721993
TREE	422102.00	-1224910.90	1A	1835			504	10136	16333	173	0721993
TREE	421959.08	-1225029.68	2C	1658			327	13215	16550	29	0721993
ANT	422057.66	-1224909.46	1A	1835			504	10245	16643	161	0721993
TRMSN TWR	422045.78	-1224919.31	1A	1691			360	10737	16666	26	0721993
VESSEL (HCT)											0721993

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ADDITIONAL INFORMATION

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0        1         2         3         4         5         6         7         8         9        10        11        12
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
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ADDITIONAL INFORMATION
100
INFORMATION IN THIS DOCUMENTATION SHOULD NOT BE USED FOR OPERATIONAL PURPOSES.

EOF

FIELD DESCRIPTIONS

1. AIRPORT IDENTIFIER/A6/2-7

   THE SOURCE FOR THIS IDENTIFIER IS FAA ORDER 7350.**, AS AMENDED.

2. AIRPORT SITE NUMBER/A10/9-18

3. FAA REGION/A4/20-23

4. UNIVERSAL DATA DELIVERY FORMAT VERSION/F4.2/25-28

   MINOR MODIFICATIONS ARE INDICATED BY CHANGES TO THE RIGHT OF THE DECIMAL. MAJOR MODIFICATIONS ARE INDICATED BY CHANGES TO THE LEFT OF THE DECIMAL.

5. AIRPORT NAME/A70/2-71

   AIRPORT NAME CURRENT AT DATE OF SURVEY

6. VERIFICATION DATE/A7/73-79

   VERIFICATION DATE IS THE MOST RECENT DATE THAT DATA IN THIS RECORD WAS VERIFIED AS CORRECT. IT IS NOT NECESSARILY THE ORIGINAL SURVEY DATE.

   FORMAT: DDDYYYY WHERE:
   DDD = DAY OF YEAR
   YYYY = YEAR

   THE FIRST THREE NUMBERS IN THIS FIELD INDICATE THE DAY IN THE YEAR. THE LAST FOUR NUMBERS INDICATE THE YEAR. FOR EXAMPLE, 1061996 IS APRIL 15, 1996.

7. CITY/A40/2-41

   ASSOCIATED CITY

8. STATE/A30/43-72

   STATE (OR POLITICAL SOVEREIGNTY IF NOT A STATE)

9. HORIZONTAL AND ELLIPSOID ELEVATION DATUM/A10/2-11

10. HORIZONTAL DATUM TIE ACCURACY/A10/13-22

    ACCURACIES ARE RELATIVE TO THE NATIONAL SPATIAL REFERENCE SYSTEM (NSRS) AND REPRESENT THE MINIMUM ACCURACY FOR THE DATUM TIE. BECAUSE OF VARIABLES IN THE SURVEY PROCESS, INDIVIDUAL TIES MAY BE SIGNIFICANTLY MORE ACCURATE THAN INDICATED.

    ACCURACIES EXPRESSED AS A RATIO (1:10,000 ETC.) ARE RELATIVE TO THE NSRS AS A PROPORTION OF THE DISTANCE FROM THE NSRS TIE STATION. FOR EXAMPLE, A 1:10,000 TIE IS ACCURATE TO ONE FOOT FOR EACH 10,000 FEET FROM THE NSRS TIE STATION.

    ALL ACCURACIES ARE AT THE 95 PERCENT CONFIDENCE LEVEL.

11. ELLIPSOID ELEVATION DATUM TIE ACCURACY/A10/24-33

    ACCURACIES ARE RELATIVE TO THE NATIONAL SPATIAL REFERENCE SYSTEM (NSRS) AND REPRESENT THE MINIMUM ACCURACY FOR THE DATUM TIE. BECAUSE OF VARIABLES IN THE SURVEY PROCESS, INDIVIDUAL

TIES MAY BE SIGNIFICANTLY MORE ACCURATE THAN INDICATED.

ALL ACCURACIES ARE AT THE 95 PERCENT CONFIDENCE LEVEL.

12. ORTHOMETRIC ELEVATION DATUM/A10/35-44

13. ORTHOMETRIC ELEVATION DATUM TIE ACCURACY/A15/46-60

ACCURACIES ARE RELATIVE TO THE NATIONAL SPATIAL REFERENCE SYSTEM (NSRS) AND REPRESENT THE MINIMUM ACCURACY FOR THE DATUM TIE. BECAUSE OF VARIABLES IN THE SURVEY PROCESS, INDIVIDUAL TIES MAY BE SIGNIFICANTLY MORE ACCURATE THAN INDICATED.

ALL ACCURACIES ARE AT THE 95 PERCENT CONFIDENCE LEVEL.

14. MAGNETIC DECLINATION/F5.1/2-6

EAST DECLINATION IS INDICATED BY "-"

15. VERIFICATION DATE/A7/8-14

SEE FIELD 6

16. AIRPORT ORTHOMETRIC (MSL) ELEVATION/F7.1/2-8

17. AIRPORT ELLIPSOIDAL ELEVATION/F7.1/10-16

18. AIRPORT ELEVATION LOCATION/A8/18-25

LOCATION OF AIRPORT ELEVATION IN FEET FROM THE INDICATED RUNWAY END.
(FOR EXAMPLE, 30 + 1500 = 1500 FEET FROM THE APPROACH END OF RUNWAY 30).

19. VERIFICATION DATE/A7/27-33

SEE FIELD 6

20. CONTROL TOWER FLOOR ORTHOMETRIC (MSL) ELEVATION/F7.1/2-8

21. CONTROL TOWER FLOOR ELLIPSOIDAL ELEVATION/F7.1/10-16

22. VERIFICATION DATE/A7/18-24

SEE FIELD 6

23. AIRPORT REFERENCE POINT (ARP) LATITUDE/F9.1/2-10
A NEGATIVE (-) INDICATES SOUTH LATITUDE

24. AIRPORT REFERENCE POINT (ARP) LONGITUDE/F10.1/12-21
A NEGATIVE (-) INDICATES WEST LONGITUDE

25-29. INTENTIONALLY OMITTED

30. RUNWAY/A5/2-6

31. RUNWAY SURFACE TYPE/A1/8

P ... SPECIALLY PREPARED HARD SURFACE - PAVED
S ... SPECIALLY PREPARED HARD SURFACE - UNPAVED
U ... NOT A SPECIALLY PREPARED HARD SURFACE

32. VERIFICATION DATE/A7/10-16

SEE FIELD 6

33. BLAST PAD/A1/2

Y = BLAST PAD EXISTS
N = NO BLAST PAD EXISTS
X = NOT VERIFIED

34. VERIFICATION DATE/A7/4-10

SEE FIELD 6

35. RUNWAY CENTERLINE END LATITUDE /F12.4/2-13

36. RUNWAY CENTERLINE END LONGITUDE/F13.4/15-27

37. RUNWAY GEODETIC AZIMUTH/I7/29-35

FORMAT: DDDMMSS WHERE
DDD = DEGREES
MM = MINUTES
SS = SECONDS

AZIMUTH FROM SOUTH IF HORIZONTAL DATUM IS NAD 27

38. RUNWAY LENGTH/I5/37-41

39. RUNWAY WIDTH/I3/43-45

40. VERIFICATION DATE/A7/47-53

SEE FIELD 6

41. TOUCHDOWN ZONE ORTHOMETRIC (MSL) ELEVATION/F7.1/2-8

42. TOUCHDOWN ZONE ELLIPSOIDAL ELEVATION/F7.1/10-16

43. VERIFICATION DATE/A7/18-24

SEE FIELD 6

44. DISPLACED THRESHOLD LATITUDE/F12.4/2-13

45. DISPLACED THRESHOLD LONGITUDE/F13.4/15-27

46. DISPLACED THRESHOLD LENGTH/I7/29-35

47. VERIFICATION DATE/A7/37-43

SEE FIELD 6

48. RUNWAY PROFILE POINT DISTANCE FROM RUNWAY APPROACH END/I5/2-6

PROFILE POINT DISTANCE FROM RUNWAY APPROACH END IDENTIFIED IN FIELD 30.
RUNWAY APPROACH END IS INDICATED BY 0 FEET.
NOTE: IF A PROFILE POINT DISTANCE IS GREATER THAN THE RUNWAY LENGTH, THE POINT
IS ON A STOPWAY. STOPWAY LENGTH IS EQUAL TO THE GREATEST PROFILE DISTANCE
SHOWN MINUS THE RUNWAY LENGTH.

49. RUNWAY PROFILE POINT ORTHOMETRIC (MSL) ELEVATION/F7.1/8-14

50. RUNWAY PROFILE POINT ELLIPSOIDAL ELEVATION/F7.1/16-22

51. VERIFICATION DATE/A7/24-30

SEE FIELD 6

52-59. INTENTIONALLY OMITTED

60. NAVAID TYPE/A33/2-34

ELECTRONIC NAVAIDS, VISUAL NAVAIDS, AND RADAR COMPONENTS ARE LISTED SEPARATELY.

ELECTRONIC NAVAIDS ARE LISTED IN ALPHABETICAL ORDER BY TYPE. ILS AND MLS COMPONENTS
INCLUDE THE RUNWAY SERVED AND ILS/MLS IDENTIFIER IN PARENTHESIS. NON-ILS/MLS COMPONENTS
INCLUDE THE NAVAID IDENTIFIER IN PARENTHESIS.

"PP" (PERPENDICULAR POINT) REFERS TO THE POINT ON THE RUNWAY CENTERLINE OR CENTERLINE
EXTENDED NEAREST TO THE INDICATED NAVAID.

"CLPT" (CENTERLINE POINT) REFERS TO THE POINT ON THE CENTERLINE EXTENDED NEAREST TO THE
INDICATED ILS MARKER BEACON ANTENNA.

VISUAL NAVAIDS ARE LISTED IN ALPHABETICAL ORDER BY TYPE. VISUAL NAVAIDS INCLUDE THE
RUNWAY SERVED IN PARENTHESIS. THE AIRPORT BEACON (APBN) IS THE ONLY VISUAL
NAVAID CARRYING A POSITION.

FIELD 60 ALSO INCLUDES NAVAID STATUS IF KNOWN. THIS STATUS IS ABBREVIATED AS FOLLOWS:

OTS - OUT OF SERVICE, NCM - NOT COMMISSIONED, UNC - UNDER CONSTRUCTION.

IF THE UDDF FILE IS A "NAV##" FILE, FIELD 60 WILL ALSO INDICATE THE STATE WHERE THE
NAVAID IS LOCATED.

61. NAVAID LATITUDE/F12.4/36-47

62. NAVAID LONGITUDE/F13.4/49-61

63. NAVAID ORTHOMETRIC (MSL) ELEVATION/F7.1/63-69

BASE ELEVATION OF THE NAVAID
NOTE: FOR ILS DISTANCE MEASURING EQUIPMENT (DME) THE ELEVATION PROVIDED IS THE CENTER OF THE ANTENNA COVER;
FOR MICROWAVE LANDING SYSTEM AZIMUTH GUIDANCE (MLSAZ), MICROWAVE LANDING SYSTEM ELEVATION GUIDANCE (MLSEL)
AND END FIRE TYPE GLIDE SLOPE ANTENNAS THE ELEVATION PROVIDED IS THE PHASE CENTER OF THE REFERENCE
POINT.

64. NAVAID ELLIPSOIDAL ELEVATION/F7.1/71-77

65. NAVAID OFFSET DISTANCE/A7/79-85

DISTANCE BETWEEN A NAVAID AND ITS ASSOCIATED PP OR CLPT, DEPENDING ON THE NAVAID.

OFFSET DISTANCES BETWEEN THE NAVAID AND ASSOCIATED PP ARE LISTED FOR:
- ILS GLIDE SLOPE AND LOCALIZER ANTENNAS
- MLS ELEVATION AND AZIMUTH GUIDANCE ANTENNAS
- LOCALIZER TYPE DIRECTIONAL AID ANTENNAS
- SIMPLIFIED DIRECTIONAL FACILITY ANTENNAS

OFFSET DISTANCES FOR THE NAVAIDS LISTED ABOVE ARE PROVIDED ONLY IF THE NAVAID IS MORE THAN 10 FEET OFF THE
RUNWAY CENTERLINE OR CENTERLINE EXTENDED.

OFFSET DISTANCES BETWEEN ILS MARKER BEACON ANTENNAS AND ASSOCIATED CLPT ARE ALWAYS PROVIDED.

OFFSET DIRECTION L (LEFT) OR R (RIGHT) IS RELATIVE TO AN OBSERVER FACING FORWARD IN
A LANDING AIRCRAFT.

66. NAVAID ALONG CENTERLINE DISTANCES/I6/87-92

DISTANCE BETWEEN THE NAVAID PP AND THE RUNWAY APPROACH OR STOP END, DEPENDING ON NAVAID.

DISTANCE BETWEEN NAVAID PP AND RUNWAY APPROACH END IS PROVIDED FOR THE FOLLOWING NAVAIDS.
A NEGATIVE DISTANCE FOR THESE NAVAIDS INDICATES THAT THE PP IS ON THE APPROACH SIDE OF
THE RUNWAY APPROACH END.

- ILS GLIDE SLOPE ANTENNAS

- MLS ELEVATION GUIDANCE ANTENNAS

DISTANCE BETWEEN NAVAID PP AND RUNWAY STOP END IS PROVIDED FOR THE FOLLOWING NAVAIDS. A NEGATIVE DISTANCE FOR THESE NAVAIDS INDICATES THAT THE PP IS ON THE RUNWAY SIDE OF THE RUNWAY STOP END.

- LOCALIZER ANTENNAS
- LOCALIZER TYPE DIRECTIONAL AID ANTENNAS
- MLS AZIMUTH GUIDANCE ANTENNAS
- SIMPLIFIED DIRECTIONAL FACILITY ANTENNAS

DISTANCE BETWEEN NAVAID AND RUNWAY APPROACH END IS PROVIDED FOR THE FOLLOWING NAVAIDS.
NOTE: FOR THESE NAVAIDS, THE PROVIDED DISTANCE IS FROM THE NAVAID, NOT THE PP, TO THE RUNWAY END.

- BACK COURSE MARKER ANTENNAS
- ILS MARKER BEACON ANTENNAS

NOTE: FOR ILS MARKER BEACON ANTENNAS THE DISTANCE BETWEEN THE NAVAID'S CLPT AND RUNWAY APPROACH END IS ALSO PROVIDED.

67. VERIFICATION DATE/A7/94-100

SEE FIELD 6

68-69. INTENTIONALLY OMITTED

70. OBSTRUCTION REFERENCE/A4/2-5

OBSTRUCTION INFORMATION IS ORGANIZED INTO OBSTRUCTION BLOCKS. EACH BLOCK IS IDENTIFIED WITH A REFERENCE IDENTIFIER AND THE OBSTRUCTION IDENTIFICATION SURFACES (OIS) FOR WHICH THE SURVEY WAS ACCOMPLISHED (FIELD 71).
FOR EXAMPLE, "4 AV" INDICATES THAT THE DATA IN THIS BLOCK PERTAINS TO RUNWAY 4 AND THAT THE OBSTRUCTION SURVEY WAS ACCOMPLISHED TO FAR77 VISUAL UTILITY RUNWAY OIS SPECIFICATIONS (SEE OIS CODING BELOW).

OBJECTS LOCATED WITHIN A FAR77 APPROACH OR PRIMARY AREA ARE LISTED IN AN OBSTRUCTION BLOCK WITH A RUNWAY NUMBER AS THE REFERENCE IDENTIFIER AND AN FAR77 OIS CODE.

OBJECTS LOCATED WITHIN AN AREA NAVIGATION APPROACH (ANA) CONVENTIONAL LANDING APPROACH, PRIMARY, TRANSITION, OR MISSED APPROACH AREA ARE LISTED IN AN OBSTRUCTION BLOCK WITH A RUNWAY NUMBER AS THE REFERENCE IDENTIFIER AND AN ANA OIS CODE.

IF BOTH A FAR77 AND ANA SURVEY WERE ACCOMPLISHED FOR THE SAME APPROACH, THE DATA WILL BE CARRIED IN TWO OBSTRUCTION BLOCKS, EACH SHOWING THE SAME RUNWAY NUMBER AS THE REFERENCE IDENTIFIER BUT DIFFERENT OIS CODING.

OBJECTS LOCATED WITHIN A FAR77 HORIZONTAL, CONICAL, OR TRANSITION AREA ARE LISTED IN AN OBSTRUCTION BLOCK WITH THE AIRPORT REFERENCE POINT (ARP) AS THE REFERENCE IDENTIFIER AND "HCT" AS THE OIS CODE.

OBJECTS LOCATED WITHIN ANY HELIPORT OIS ARE LISTED IN AN OBSTRUCTION BLOCK WITH THE HELIPORT REFERENCE POINT (HRP) AS THE REFERENCE IDENTIFIER AND AN ANA VERTICAL LANDING OIS CODE.

71. OBSTRUCTION IDENTIFICATION SURFACE/A7/7-13

OBSTRUCTION IDENTIFICATION SURFACES (OIS) CODING FOLLOWS:

ANAC - AREA NAVIGATION APPROACH - NONPRECISION, CONVENTIONAL LANDING
(STANDARDS TO BE DEVELOPED)

ANAV - AREA NAVIGATION APPROACH - NONPRECISION, VERTICAL LANDING
(STANDARDS TO BE DEVELOPED)

ANAPC - AREA NAVIGATION APPROACH - PRECISION, CONVENTIONAL LANDING,
INCLUDES APPROACH, PRIMARY, TRANSITION, AND MISSED APPROACH SURFACES.

ANALPV - AREA NAVIGATION APPROACH - LOCALIZER PERFORMANCE WITH VERTICAL GUIDANCE,
INCLUDES APPROACH, PRIMARY, TRANSITION, AND MISSED APPROACH SURFACES.

AV - FAR77 VISUAL APPROACH - UTILITY RUNWAY,
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

ANP - FAR77 NONPRECISION APPROACH - UTILITY RUNWAY,
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

BV - FAR77 VISUAL APPROACH,
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

C - FAR77 NONPRECISION APPROACH - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

D - FAR77 NONPRECISION APPROACH - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

PIR - FAR77 PRECISION INSTRUMENT APPROACH,
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

SUPLC - C APPROACH UNDERLYING A BV APPROACH,
INCLUDES APPROACH AND PRIMARY SURFACES ONLY.

HCT - FAR77 HORIZONTAL, CONICAL, AND TRANSITIONS
INCLUDES FAR77 HORIZONTAL, CONICAL, AND TRANSITION SURFACES ONLY.

NUL - OIS NOT APPLICABLE

72. OBJECT NAME/A30/2-31

MOBILE OBJECTS:

AN ESTIMATED MAXIMUM ELEVATION (EME) POINT IS PROVIDED FOR FAR77 SURVEYS AT:
(1) THE POINT NEAREST TO THE RUNWAY APPROACH CENTERLINE END FOR PRIMARY SURFACE PENETRATIONS,
(2) THE MOST PENETRATING POINT FOR APPROACH SURFACE PENETRATIONS, AND
(3) AS APPROPRIATE TO REPRESENT EACH MOBILE OBJECT AREA.

AN ESTIMATED MAXIMUM ELEVATION (EME) POINT IS PROVIDED FOR ANA SURVEYS AT:
(1) THE POINT NEAREST TO THE RUNWAY CENTERLINE AT THE THRESHOLD FOR PRIMARY SURFACE PENETRATIONS,
(2) THE MOST PENETRATING POINT FOR APPROACH SURFACE PENETRATIONS, AND
(3) AS APPROPRIATE TO REPRESENT EACH MOBILE OBJECT AREA.

VESSELS:

VESSEL POSITIONS AND ELEVATIONS ARE NOT PROVIDED BECAUSE OF UNCERTAINTIES IN DETERMINING MAXIMUM VESSEL HEIGHTS, TRAVEL LIMITS, AND FREQUENCY OF PASSAGE.

IF A POSSIBLE VESSEL OBSTRUCTION EXIST, THE NAME "VESSEL" WILL BE ENTERED IN THE OBSTRUCTION BLOCK IN THE OBJECT NAME FIELD. FOR FAR77 STUDIES, THE GENERAL AREA OF POSSIBLE OBSTRUCTION WILL ALSO BE ENTERED IN PARENTHESIS WITH THE OBJECT NAME.

FOR VESSELS POSSIBLY OBSTRUCTING AN FAR77 APPROACH OR PRIMARY OIS, AN "A" FOLLOWED BY THE APPROPRIATE RUNWAY NUMBER, IN PARENTHESIS, WILL ALSO BE ENTERED IN THE OBJECT NAME FIELD.

FOR VESSELS POSSIBLY OBSTRUCTING AN FAR77 HORIZONTAL, CONICAL, OR TRANSITION OIS, AN "HCT" WILL ALSO BE ENTERED IN THE OBJECT NAME FIELD.

FOR VESSELS POSSIBLY OBSTRUCTING AN ANA OIS, ONLY THE NAME "VESSEL" WILL BE ENTERED IN THE OBJECT NAME FIELD.

EXAMPLES:

FOR FAR77 OIS:

VESSEL (A32) - VESSELS MAY OBSTRUCT THE RUNWAY 32 APPROACH OR PRIMARY OIS.

VESSEL (HCT) - VESSELS MAY OBSTRUCT AN FAR77 HORIZONTAL, CONICAL, OR TRANSITION OIS.

FOR ANA OIS:

VESSEL - VESSELS MAY OBSTRUCT THE APPROACH, PRIMARY, TRANSITION, OR MISSED APPROACH OIS FOR THE RUNWAY INDICATED IN THE OBSTRUCTION REFERENCE (SEE FIELD 70).

IF POSSIBLE VESSEL OBSTRUCTION IS INDICATED, USER IS ADVISED TO CONTACT LOCAL AUTHORITIES FOR MAXIMUM VESSEL HEIGHT, FREQUENCY OF PASSAGE, TRAVEL LIMITS, AND OTHER PERTINENT INFORMATION.

73. LATITUDE/F10.2/33-42

74. LONGITUDE/F11.2/44-54

75. ACCURACY CODE/A2/56-57

HORIZONTAL (FT)	VERTICAL (FT)
1 = 20	A = 3
2 = 50	B = 10
3 = 100	C = 20
	D = 50
	M = ESTIMATED MAXIMUM ELEVATION*

* AN ESTIMATED MAXIMUM ELEVATION IS PROVIDED WHEN THE ELEVATION OF AN OBJECT CANNOT BE DETERMINED PRECISELY, AS WITH MOBILE OBJECTS.

76. OBJECT ORTHOMETRIC (MSL) ELEVATION/I5/59-63

77. OBJECT ELLIPSOIDAL ELEVATION/I5/65-69

78. ABOVE GROUND LEVEL (AGL) ELEVATION/I5/71-75

AGL VALUES ARE NORMALLY PROVIDED ONLY FOR REPRESENTATIVE MANMADE OBSTRUCTIONS THAT ARE EQUAL TO OR GREATER THAN 200 FEET AGL.

79. HEIGHT ABOVE RUNWAY PHYSICAL END/I5/77-81

THIS DATA IS NOT PROVIDED FOR HCT SURVEYS.

80. HEIGHT ABOVE TOUCHDOWN ZONE ELEVATION/I5/83-87

THIS DATA IS NOT PROVIDED FOR HCT SURVEYS.

81. HEIGHT ABOVE AIRPORT/I5/89-93

82. DISTANCE MEASURED ALONG RUNWAY CENTERLINE EXTENDED FROM RUNWAY PHYSICAL END TO A POINT ABEAM OBJECT/I6/95-100

A NEGATIVE DISTANCE INDICATES THAT THE OBJECT IS ON THE TOUCHDOWN SIDE OF THE RUNWAY APPROACH END.

THIS DATA IS NOT PROVIDED FOR HCT SURVEYS.

83. DISTANCE MEASURED ALONG RUNWAY CENTERLINE EXTENDED FROM DISPLACED THRESHOLD TO A POINT ABEAM OBJECT/I6/102-107

A NEGATIVE DISTANCE INDICATES THAT THE OBJECT IS ON THE TOUCHDOWN SIDE OF THE DISPLACED THRESHOLD.

THIS DATA IS NOT PROVIDED FOR HCT SURVEYS.

84. DISTANCE FROM RUNWAY CENTERLINE/A6/109-114

SHORTEST DISTANCE FROM THE RUNWAY CENTERLINE OR CENTERLINE EXTENDED TO THE OBJECT. "L" (LEFT) OR "R" (RIGHT) IS RELATIVE TO AN OBSERVER FACING FORWARD IN A LANDING AIRCRAFT.

AN ASTERISK (*) INDICATES THAT THIS OBJECT IS OUTSIDE, BUT WITHIN 50 FEET, OF THE OIS. THIS CONVENTION IS USED ONLY WITH FAR77 APPROACH AHD PRIMARY SURFACES.

85. PENETRATION OF INDICATED SURFACE (FIELD 71)/I5/116-120

PENETRATIONS FOR OBJECTS NOTED WITH AN ASTERISK (*) IN FIELD 84 ARE THE APPROACH SURFACE PENETRATIONS IF THE OBJECT WERE MOVED PERPENDICULAR TO THE RUNWAY CENTERLINE, TO THE APPROACH SURFACE.

WHEN ONE OIS UNDERLIES ANOTHER, THE PENETRATION IS RELATIVE TO THE LOWER OIS.

86. VERIFICATION DATE/A7/122-128

SEE FIELD 6

87. HEIGHT ABOVE AIRPORT/I5/77-81

88. MAGNETIC HEADING FROM ARP/I5/83-87

FORMAT: DDDMM WHERE
DDD = DEGREES
MM = MINUTES

THIS DATA IS PROVIDED ONLY FOR HCT SURVEYS.

89. DISTANCE FROM ARP/I5/89-93

THIS DATA IS PROVIDED ONLY FOR HCT SURVEY.

90. PENETRATION OF HORIZONTAL, CONICAL, OR TRANSITION OIS /I5/95-99

91. VERIFICATION DATE/A7/101-107

SEE FIELD 6

92 - 99 INTENTIONALLY OMITTED

100. ADDITIONAL INFORMATION/A120/2-121