**AERONAUTICAL CHARTING FORUM**
**Instrument Procedures Group**
**April 27, 2010**

**History Record**

**FAA Control # 10-01-295**

**Subject: Official Source for Charting Fix Makeup**

**Background/Discussion:** Attached are the NACO and Jeppesen charts for the Burbank (KBUR) ILS LOC Z Runway 8 IAP. The issue is the crossing radial fix determination for SILEX fix. On the NACO chart the crossing radial is shown as the SMO VOR 311 Radial. On the Jeppesen chart it is shown as the LAX VOR 316 Radial. The NACO chart correctly portrays the fix as designed and assessed by the AeroNav Services procedures designer to be used to determine SILEX fix.

This is because NACO receives the official Form 8260-2 (also attached), which describes the fix composition as well as what composition is to be charted as intended by the procedure designer. The specific fix use and makeup to be charted are included in the "Fix Use" section of the Form 8260-2; however, this information is not published in the NFDD to ensure access to all chart producers. Jeppesen and other charting agents do not receive the official Form 8260-2; instead they receive an extract of the fix as set forth in the National Flight Data Digest (NFDD) (also attached for SILEX). The NFDD description fails to provide the complete fix determination information for each aeronautical charting product thus leading to disparities between government and civil charts.

**Recommendations:** The FAA needs to provide complete fix determination information to all private chart vendors. This can be achieved by modifying the NFDD to include both the "Fix Make-up Facilities" section and the "Fix Use" section of the 8260-2.

**Comments:** This affects the manner in which the FAA transfers data from the Form 8260-2 to the NFDD description of all IFR fixes.

**Submitted by: Richard J. Boll II**
**Organization: NBAA**
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**Date: April 2, 2010**

| LOC I-BUR | APP CRS | Rwy Idg | 5802 |
|---|---|---|---|
| 109.5 | 076° | TDZE | 727 |
| | | Apt Elev | 778 |

# ILS or LOC Z RWY 8

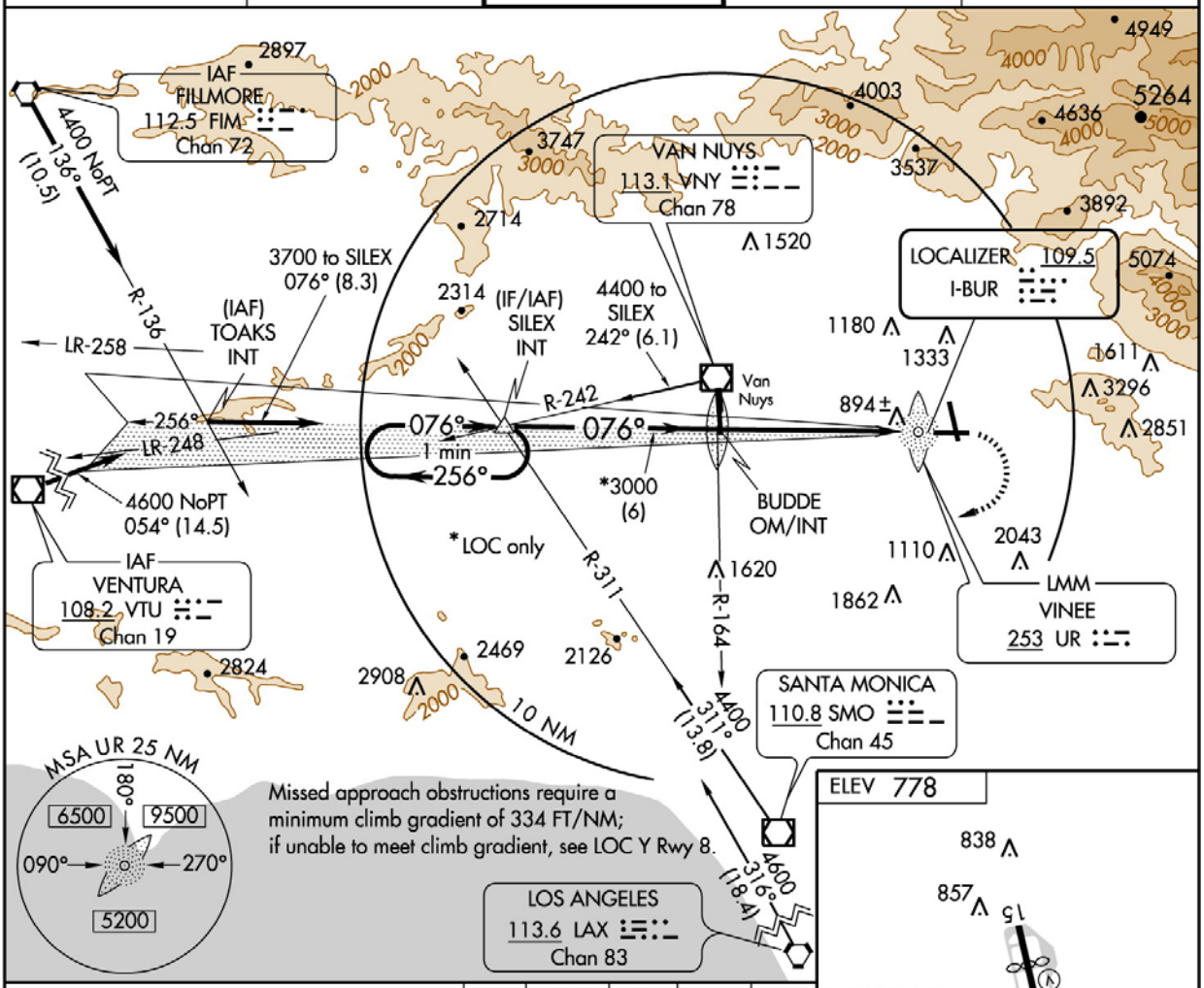
BURBANK/BOB HOPE (BUR)

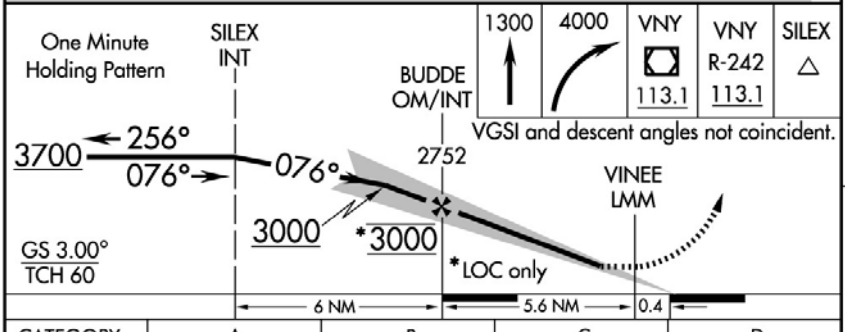
Visibility reduction by helicopters NA. Circling NA northeast Rwys 15 and 26. For inoperative MALSR, increase S-LOC 8 Cats C,D visibility to RVR 6000. Inoperative table does not apply to S-ILS 8 all Cats. Inoperative table does not apply to S-LOC 8 Cats A,B. ILS unusable from VINEE LMM inbound. Autopilot coupled approach not authorized below 977 MSL.

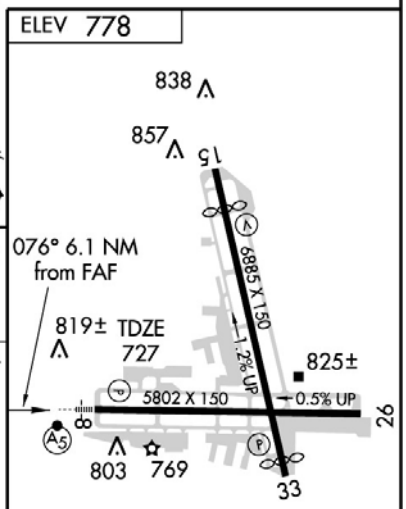
MALSR

MISSED APPROACH: Climb to 1300 then climbing right turn to 4000 direct VNY VOR/DME then via VNY VOR/DME R-242 to SILEX Int and hold.

| ATIS | SOCAL APP CON | BURBANK TOWER | GND CON | CLNC DEL |
|---|---|---|---|---|
| 134.5 | 134.2 338.2 | 118.7 254.3 | 123.9 348.6 | 118.0 348.6 |




MIRL Rwy 15-33
HIRL Rwy 8-26
REIL Rwys 15, 26 and 33

| CATEGORY | A | B | C | D |
|---|---|---|---|---|
| S-ILS 8 | 977/50 250 (200-1) | | | |
| S-LOC 8 | 1140/50 413 (400-1) | | | |
| CIRCLING | 1240-1 462 (500-1) | | 1280-1½ 502 (600-1½) | 1440-2 662 (700-2) |

| FAF to MAP 5.4 NM | | | | | |
|---|---|---|---|---|---|
| Knots | 60 | 90 | 120 | 150 | 180 |
| Min:Sec | 5:24 | 3:36 | 2:42 | 2:10 | 1:48 |



SW-3, 11 FEB 2010 to 11 MAR 2010
SW-3, 11 FEB 2010 to 11 MAR 2010

# KBUR/BUR
HOPE

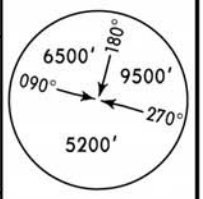
JEPPESEN
25 JUL 08 (11-1) Eff 31 Jul

# BURBANK, CALIF
ILS or LOC Z Rwy 8

| D-ATIS | | SOCAL Approach (R) | BURBANK Tower | Ground | Helicopter |
|---|---|---|---|---|---|
| 134.5 | Arrival via FIM/PMD VOR only 135.12 | 134.2 | 118.7 | 123.9 | 132.32 |

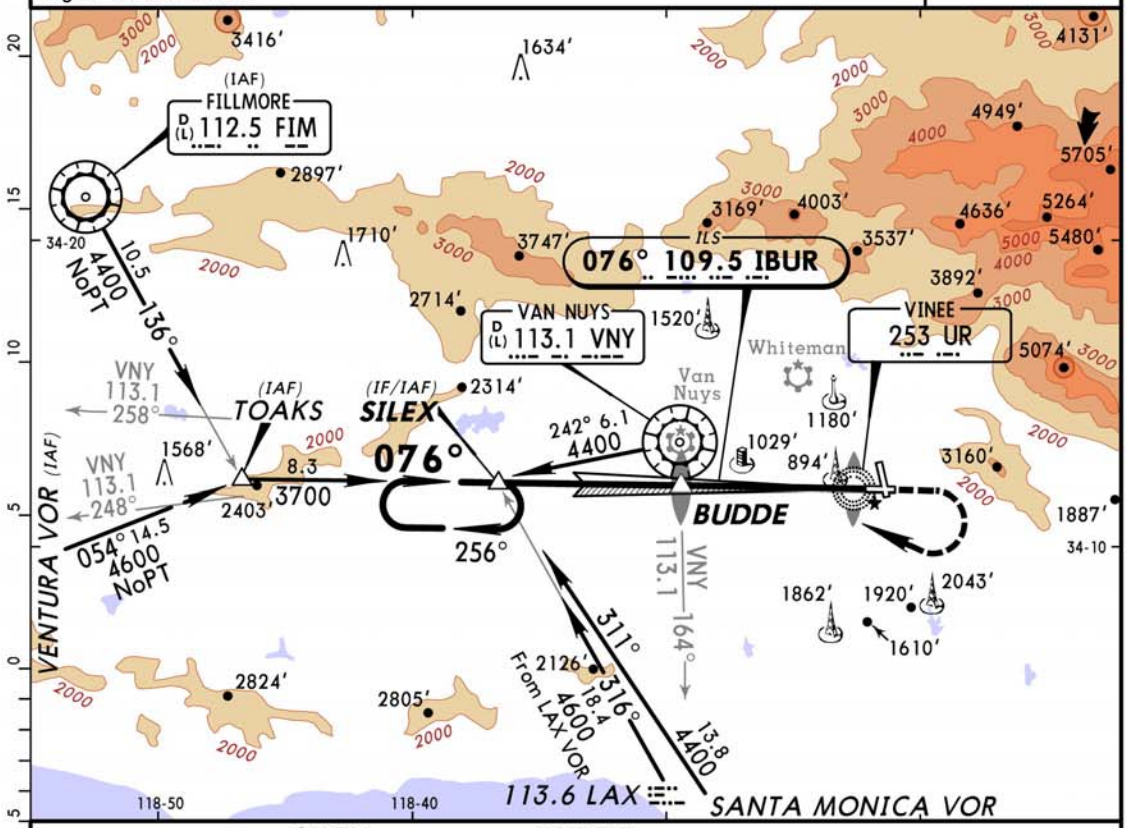
| LOC | Final | GS | ILS | |
|---|---|---|---|---|
| IBUR | Apch Crs | BUDDE | DA(H) | Apt Elev 778′ |
| 109.5 | 076° | 2752′ (2025′) | 977′ (250′) | TDZE 727′ |

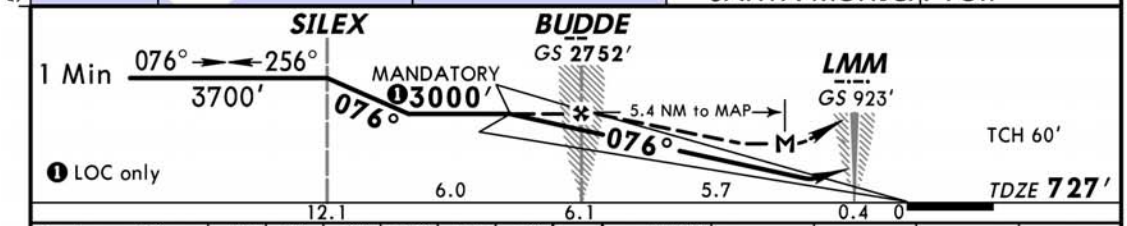
**MISSED APCH:** Climb to 1300′ then climbing RIGHT turn to 4000′ direct VNY VOR then outbound via VNY VOR R-242 to SILEX INT and hold.
Missed approach obstructions require a minimum climb gradient of 334′/NM; if unable to meet climb gradient, see LOC Y Rwy 8 (11-2).



MSA UR LMM

Alt Set: INCHES Trans level: FL 180 Trans alt: 18000′
1. ILS unusable from VINEE LMM inbound. 2. Autopilot coupled approach not authorized below 977′. 3. Visibility reduction by helicopters not authorized. 4. VGSI and descent angles not coincident.




| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|
| GS 3.00° | 377 | 484 | 538 | 646 | 753 | 861 |
| BUDDE to MAP 5.4 | 4:38 | 3:36 | 3:14 | 2:42 | 2:19 | 2:02 |

MALSR
PAPI

1300′

4000′ RT

D

VNY 113.1

## STRAIGHT-IN LANDING RWY8

| | ILS | | LOC (GS out) | |
|---|---|---|---|---|
| | DA(H) 977′ (250′) | | MDA(H) 1140′ (413′) | |
| | FULL | RAIL or ALS out | RAIL out | ALS out |
| A | RVR 50 or 1 | | RVR 50 or 1 | |
| B | | | | |
| C | | | RVR 50 or 1 | RVR 60 or 1¼ |
| D | | | | |

## CIRCLE-TO-LAND

Not Authorized Northeast of Rwys 15 and 26.

| Max Kts | MDA(H) |
|---|---|
| 90 | 1240′ (462′)-1 |
| 120 | |
| 140 | 1280′ (502′)-1½ |
| 165 | 1440′ (662′)-2 |

AMEND 36 TERPS

CHANGES: Procedure.

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** SILEX **STATE:** CA **COUNTRY:** US

**LATITUDE/LONGITUDE:** 341203.81N/1183641.89W **TYPE:** WP, INT

**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 | BURBANK | I-BUR | LOC | | 255.93 | 270.93 | | 11.90 | | 3000 | 5200 |
| 2 | SANTA MONICA | SMO | VOR/DME | L | 311.01 | 326.01 | | 13.79 | | 3000 | 17500 |
| 3 | VINEE | UR | LMM | | 255.96 | 270.96 | | 11.64 | | 3000 | 17500 |
| 4 | LOS ANGELES | LAX | VORTAC | H | 315.89 | 330.89 | | 18.38 | | 3000 | 17500 |
| 5 | VAN NUYS | VNY | VOR/DME | L | 242.37 | 257.37 | | 6.12 | | 3700 | 17500 |

**FIX RESTRICTIONS:**
SPECIAL ILS 3 RWY 8, KBUR, BURBANK, CA

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

**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 | I-BUR | LOC | W CRS | 075.93 | R | 1 | | 3700 | 8000 | 5 | 9 |
| 2 | W | | WP | 255.80 | 075.80 | R | | 4 | 3700 | 8000 | 5 | 9 |
| 3 | W | | WP | 255.65 | 075.65 | R | | 4 | 4000 | 8000 | 5 | 9 |

**CONTROLLING OBSTRUCTIONS:**

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|---|---|---|---|---|---|
| 1 | 200 | AAO | 341217.30N/1184659.40W | 2603 | 6A |
| 2 | 200 | AAO | 341217.30N/1184659.40W | 2603 | 6A |
| 3 | 200 | AAO (OBS-105887) | 341217.30N/1184659.40W | 2603 | 6A |

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

**REMARKS:**
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|---|---|---|---|---|---|---|
| DP | CASTA (RNAV) | | | KLAX | LOS ANGELES | CA (US) |
| DP | PEEER (RNAV) (SPECIAL) | | | KSMO | SANTA MONICA | CA (US) |
| EN ROUTE | T245 | 1, 2 | | | | (US) |
| IAP | ILS 3 RWY 8 | | 1 | KBUR | BURBANK | CA (US) |
| IAP | ILS OR LOC Z RWY 8 | 1, 2, 5 | 1 | KBUR | BURBANK | CA (US) |
| IAP | LOC Y RWY 8 | 1, 2, 5 | 1 | KBUR | BURBANK | CA (US) |
| IAP | RNAV (GPS) Y RWY 8 | | 2 | KBUR | BURBANK | CA (US) |
| IAP | RNAV (RNP) Z RWY 8 | | 3 | KBUR | BURBANK | CA (US) |
| IAP | VAN NUYS - LDA-C | | | KVNY | VAN NUYS | CA (US) |

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 5 **DATE OF REVISION:** 04/17/2009

**REASON FOR REVISION:**
REMOVED FAC 6

**DEVELOPED BY:** **DATE:** 04/17/2009 **OFFICE:** AVN-130 **NAME:** DEZ SILAGYI (CHARLES SCHNEIDER)

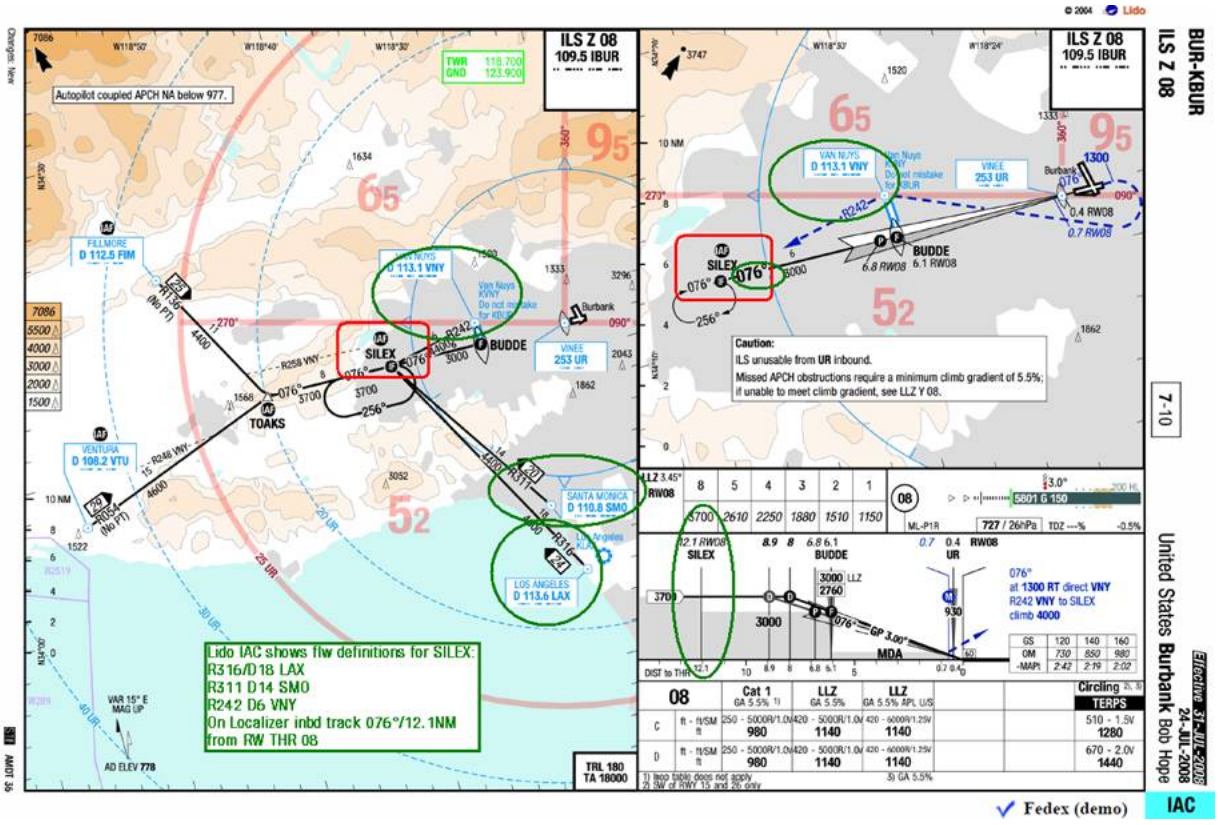
**NFPO APPROVAL:** **DATE:** 08/27/2009 **OFFICE:** AVN-130 **NAME:** RICK WEBB

**SIGNATURE:**

**DISTRIBUTION:**
**NFDC**
**FPO:** WST
**ARTCC:** ZLA
**ATC FACILITY:** SOCAL/BUR
**OTHER:** VNY ATCT

| | | | | |
|---|---|---|---|---|
| CALIFORNIA | | **NFDD 170 - 21** | 09/03/2009 | |
| GARDY | | | | |
| NAV-FAC-AZIMUTH/DSTC | DAG*VORTAC*213.88/64.00 | | | |
| NAV-FAC-AZIMUTH/DSTC | PDZ*VORTAC*342.52 | | | |
| NAV-FAC-AZIMUTH/DSTC | POM*VORTAC*033.20/15.98 | | | MODIFIED |
| LATITUDE | 34-15-21.39 N | | | |
| LONGITUDE | 117-32-51.44 W | | | |
| ARTCC | ZLA | | | |
| FIX TYPE | REP-PT | | | |
| CHARTING | AREA | | | |
| CHARTING | ENROUTE LOW | | | |
| CHARTING | SID | | | |
| CALIFORNIA | | **NFDD 170 - 22** | 09/03/2009 | |
| GHART | | | | |
| LATITUDE | 34-01-44.44 N | | | MODIFIED |
| LONGITUDE | 118-43-17.51 W | | | MODIFIED |
| ARTCC | ZLA | | | |
| FIX TYPE | RNAV-WP | | | |
| CHARTING | SID | | | |
| CALIFORNIA | | **NFDD 170 - 23** | 09/03/2009 | |
| SILEX | | | | |
| NAV-FAC-AZIMUTH/DSTC | LAX*VORTAC*315.89 | | | |
| NAV-FAC-AZIMUTH/DSTC | SMO*VOR/DME*311.01 | | | |
| NAV-FAC-AZIMUTH/DSTC | VNY*VOR/DME*242.37 | | | |
| ILS-FAC-CRS/DSTC | BUR*LS*LMM*255.96 | | | |
| ILS-FAC-CRS/DSTC | BUR*LS*255.93 | | | MODIFIED |
| LATITUDE | 34-12-03.81 N | | | |
| LONGITUDE | 118-36-41.89 W | | | |
| ARTCC | ZLA | | | |
| FIX TYPE | REP-PT | | | |
| CHARTING | AREA | | | |
| CHARTING | IAP | | | |
| CHARTING | ENROUTE LOW | | | |
| CHARTING | SID | | | |
| CHARTING INFO | RNAV | | | |
| DELAWARE | | **NFDD 170 - 24** | 09/03/2009 | |
| CANNY | | | | |
| NAV-FAC-AZIMUTH/DSTC | ENO*VORTAC*225.54/12.72 | | | |
| NAV-FAC-AZIMUTH/DSTC | SIE*VORTAC*276.40/41.06 | | | MODIFIED |
| LATITUDE | 39-03-39.92 N | | | MODIFIED |
| LONGITUDE | 075-40-40.65 W | | | MODIFIED |
| ARTCC | ZDC | | | |
| FIX TYPE | REP-PT | | | |
| CHARTING | ENROUTE HIGH | | | |
| CHARTING | ENROUTE LOW | | | |
| CHARTING | STAR | | | |
| CHARTING INFO | RNAV | | | ADDED |

***Secretary's Note:*** *Per approval of LIDO, their chart is included to demonstrate additional fix make-up charting differences.*




**Initial Discussion - Meeting 10-01:** New issue introduced by Rich Boll, on behalf of NBAA. Rich briefed that FAA Form 8260-2 is the source for fix make-up, holding patterns, and fix use. Currently, only FAA's AeroNav Services receives the complete -2 with all the data. Other charting agencies (Jeppesen, LIDO, etc.) only receive what information is promulgated via the National Flight Data Digest (NFDD). Although the NFDD includes all facilities that are used to make up a fix, it does not denote which facilities were used by the procedure specialist for a specific procedure. As an example, the -2 for the fix SILEX indicates that there are five facilities that may be used to form the fix; however, only three were used in design of the Burbank ILS or LOC Z RWY 8 IAP. These three facilities were charted correctly by AeroNav services as they had access to the complete -2. However, Jeppesen charted three different facilities and LIDO charted all five. NBAA recommends that the NFDD provide complete information so all charting agents will have the same and correct data for chart development. Mike Oudemans, AJR-321, reported that the NFDD is generated from the National Airspace System Resources (NASR) database. However, NASR does not have the fields necessary to automatically generate the information to NFDD output. Changes are planned for NASR to provide this data, but are not in the immediate future. A workaround was considered to add 'comments' to the NFDD, but this idea was rejected as impracticable. Mike offered several interim suggestions with the basic premise that the entire 8260-2 would not be included in the NFDD. 1) He asked whether the fix make-up to be charted could be included on the 8260 form supporting the procedure. Brad Rush, AJW-372, responded no. This would require a full procedure amendment anytime any change (even non-procedural) was made to the fix. 2) Mike then stated that the NFDC Facility Aeronautical Data Distribution System (FADDs) web site is under consideration as a possible source. The 8260-2s would be stored as procedures are reviewed and then released bi-weekly as a supplement with the Transmittal Letter. It was agreed that this option may work, but would require further coordination between NFDC and all non-FAA charting agents. Tom Schneider, AFS-420, asked whether there has been any discussion to make the NFDC Docushare system available to the public and if it could be used to resolve the issue. Mike said he would have to research this and report back at the next meeting. ACTION: AJR-321.

**Meeting 10-02:** Marty Heller, AJV-21B, briefed the decision has been made and it was agreed to post entire Form 8260-2s on FADDS. Marty asked how many days prior to and after the procedure effective date the data needs to be kept there. Bill Hammett, AFS-420 (ISI) recommended that the -2s be posted no later than concurrently with the Transmittal Letter promulgating the procedures and remain on the site until the 28-day AIRAC cycle after publication. The group agreed this seems reasonable. Valerie Watson, AJV-3B, asked when this process would happen. Ted Thompson, Jeppesen, reported that Jeppesen has not been able to establish access to FADDS through NFDC; apparently there are “additional details" to work out. Marty responded that George Sempeles or Marty Oudemans of NFDC will be POCs to coordinate with Ted and/or Bob Gill (Jeppesen POCs) to arrange a telcon to resolve the matter. ACTION: AJV-21.

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**MEETING 11-01:** Mike Oudemans, AJV-21, briefed that NFDC has been working with Jeppesen regarding the process of posting form 8260-2s on FADDS. The first posting occurred for the May 5 AIRAC cycle and feedback was positive. The plan is to post the forms every 2-weeks and keep them on the FADDS web site until 2-weeks after the specified procedure effective date. Val Watson, AJV-3B asked whether the ultimate fix was to place the entire -2 in NASR. Mike responded that a replacement for NASR is under consideration and having the entire -2 information is a desired feature. Brad Rush, AJV-3B stated that eventually, it is hoped that IFP-FIX will be the source for all fix data. Tom Schneider, AFS-420, asked whether FADDS is now the source for fix information. Bill Hammett, AFS-420 (ISI) responded that the NFDD is still the primary method of promulgating -2 data; however, FADDS may be used to access additional information. Bill asked whether the issue could be closed and all agreed.

**Status:** Item Closed.

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