

|  |               |                                |   |   |                                       |                                     |
|--|---------------|--------------------------------|---|---|---------------------------------------|-------------------------------------|
| <b>Flight Procedure Tracking Form</b>            |               | <b>Action:</b><br>FLIGHT CHECK | <b>Task Type:</b><br>IAP                | <b>Date Open:</b><br>01/08/2015   | <b>Task #:</b><br>2015010829447504002 | <b>Request #:</b><br>20150108294475 |
| <b>Procedure:</b> ILS OR Y LOC Y RWY 10L AMDT 26 |               |                                | <b>Airport ID:</b><br>KBIL              | <b>Airport:</b><br>BILLINGS LOGAN INTL  |                                       | <b>Reimbursable #:</b><br>NO        |
| <b>City:</b> BILLINGS                            | <b>ST:</b> MT | <b>GPS #:</b>                  | <b>Estimated Chart Date:</b> 12/07/2017 |   | <b>FICO #:</b>                        |                                     |
| <b>Fac ID:</b> BIL                               |               | <b>Fac. Type:</b> ILS          |   |   | <b>Specialist:</b> VICTOR BOONE       |                                     |
| <b>Procedure Review</b>                          |               |                                |   |   |                                       |                                     |
|  | <b>Rec'd</b>  | <b>Rel'd</b>                   | <b>Full Name</b>                        | <b>Comments</b>   |                                       |                                     |
| <b>Lead:</b>                                     | 06/14/2017    |                                |   | <div style="border: 1px solid green; padding: 5px; display: inline-block;"> <b>APPROVED</b><br/> <small>By Steven M Barnett at 1:15 pm, Sep 19, 2017</small> </div> |                                       |                                     |
| <b>QA:</b>                                       |               |                                |   |   |                                       |                                     |
| <b>Liaison:</b>                                  |               |                                |   |   |                                       |                                     |
| <b>Procedure Comments:</b>                       |               |                                | ENROUTE-NON                             | <b>Remark Type:</b> INFORMATION   |                                       |                                     |
| CONTACT JACOB POWERS 405-954-8702                |               |                                |   |   |                                       |                                     |



To: Janet Myers, National Flight Data Center, Sub Team B, AJV-5332

**From:** Lonnie Everhart, Manager IFP Coordination Team, AJV-531

Subject: **ACTION:** Request for Pending Records **KBIL BIL BILLINGS LOGAN INTL, BILLINGS, MT US**

The Magnetic Variation (MV) data for the airport(s) and/or facility(s) listed will be revised effective concurrent with the publication of the procedure(s) listed below. Estimated Chart Date: 12/7/2017

|                     |   |    |      |        |   |    |      |
|---------------------|---|----|------|--------|---|----|------|
| Current/Assigned MV | E | 14 | 1990 | New MV | E | 10 | 2020 |
|---------------------|---|----|------|--------|---|----|------|

| ECD       | Airport ID | Procedure Name                             | AMDT # | Task Report Type Selections          |
|-----------|------------|--|--------|--------------------------------------|
| 12/7/2017 | KBIL       | BIL BILLINGS MT KBIL AMDT 7A               | /A     | ABBREV AMEND, ENROUTE-NON, FPT-INITI |
| 12/7/2017 | KBIL       | BIL HI ILS OR LOC RWY 10 L AMDT 4          | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL ILS OR LOC RWY 10 L AMDT 26            | /A     | ABBREV AMEND, ENROUTE-NON, FPT-INITI |
| 12/7/2017 | KBIL       | BIL ILS OR LOC/DME RWY 28 R AMDT 3         | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL NDB RWY 10 L AMDT 19A                  | /A     | DECOM, ENROUTE-NON, FPT-INITIATED,   |
| 12/7/2017 | KBIL       | BIL RNAV (GPS) RWY 25 AMDT 2               | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL RNAV (GPS) RWY 7 AMDT 2                | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL RNAV (GPS) Y RWY 10 L AMDT 4           | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL RNAV (GPS) Y RWY 28 R AMDT 4           | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL RNAV (RNP) Z RWY 28 R AMDT 1           | /A     | ENROUTE-NON, FPT-INITIATED, MAGVAR   |
| 12/7/2017 | KBIL       | BIL SID BILLINGS FIVE BILLINGS MT KBIL     | /A     | ABBREV AMEND, ENROUTE-NON, FPT-INITI |
| 12/7/2017 | KBIL       | BIL STAR BGHRN (RNAV) TWO BILLINGS MT KBIL | /A     | ENROUTE, FPT-INITIATED, MAGVAR       |
| 12/7/2017 | KBIL       | BIL STAR CRAZI (RNAV) TWO BILLINGS MT KBIL | /A     | ENROUTE, FPT-INITIATED, MAGVAR       |
| 12/7/2017 | KBIL       | BIL STAR KUSTR (RNAV) TWO BILLINGS MT KBIL | /A     | ENROUTE, FPT-INITIATED, MAGVAR       |
| 12/7/2017 | KBIL       | BIL STAR YLSTN (RNAV) TWO BILLINGS MT KBIL | /A     | ENROUTE, FPT-INITIATED, MAGVAR       |

| NAVAID ID / RWY | Type / Old No. | Use / New RWY/Note |
|-----------------|----------------|--------------------|
| BIL             | ILS            | LOC                |
| BMO             | ILS            | LOC                |

Runway numbers will not change.

IF you have any questions please notify: [patrick.j.mulqueen@faa.gov](mailto:patrick.j.mulqueen@faa.gov)

(405) 954-4576

Processed Monday, June 26, 2017

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
CATEGORICAL EXCLUSION DECLARATION**

**Billings Logan International Airport**

**AMENDMENTS TO MULTIPLE PROCEDURES  
MAGNETIC VARIATION UPDATES**

**Description of Action:**

The FAA is proposing to amend multiple procedures for the Billings Logan International Airport (KBIL) in Billings, Montana. Criteria require that the magnetic variation (MagVar) for both the airport and the instrument landing system (ILS) (1) I-BIL (Billings) and (2) I-BMO be updated necessitating amendments to procedures. Additionally, the SAIGE (BI) Nondirectional Beacon (NDB) navigational aid (NAVAID) will be decommissioned under the VOR Minimum Operational Network (VOR MON) initiative.

The NDB RWY 10L procedure will be cancelled as a result of the decommissioning of the BI NDB. The HI-ILS or LOC RWY 10L procedure will be amended to remove the BI NDB.

At the request of ATC, approach procedures and standard terminal arrival routes (STAR) will be amended so that the STARs and instrument flight procedures connect to allow for a continued descent profile from the en route structure to KBIL.

Proposed procedure specific amendments are described below.

**Standard Terminal Arrivals (STAR):**

**1. BGHRN TWO STAR:**

- a. Crossing altitude at IZUFE is lowered from AT 10000 to AT/ABOVE 8000.
- b. Crossing restrictions at KROWE changed:
  - i. Crossing altitude lowered from AT/ABOVE 10000 to AT/ABOVE 9000.
  - ii. Added speed restriction AT/BELOW 230 knots.
- c. Altitude restriction at LTTLE raised from AT/ABOVE 12000 to AT/ABOVE 13500.
- d. Speed restriction at HRDIN changed from AT 210 knots to AT/BELOW 230 knots.
- e. Add speed restriction of AT 270 knots at BGHRN.

**2. CRAZI TWO STAR:**

- a. CRAZI moves 26.72 nautical miles (NM) west. SULFR is removed from the procedure.
- b. Crossing restrictions at CRAZI will be AT/ABOVE 16,000 and AT 270 knots to improve the descent gradient.
- c. EDYTH, LOKOW, and BYRCH en route transitions will connect to CRAZI.
- d. BYRCH moves 2.3 NM southeast and connects to CRAZI.
- e. TYMBR moves 19.76 NM west on the same track as the BYRCH to CRAZI segment.
- f. RYGAT and IGIFE are removed from the procedure.

3. KUSTR TWO STAR:

- a. Remove IGIFE from procedure.
- b. Restrictions at HYTES change from AT 10000 and AT 210 knots to AT 8000 and AT/BELOW 230 knots.
- c. Crossing restriction at KUSTR changes from AT/ABOVE 11000 to AT/ABOVE 10000. Add speed restriction AT/BELOW 250 knots.
- d. Add altitude restriction of AT/ABOVE 15000 at FSYTH.
- e. Add altitude restriction of AT/ABOVE 17000 at CONUK.
- f. Speed restriction at PILLR changes from AT 210 knots to AT 230 knots.

4. YLSTN TWO STAR:

- a. Replace UKACO with GRYZZ and change restrictions from AT 7200 and AT 210 knots to AT 9000 and AT/BELOW 210 knots.
- b. Add speed restriction of AT/BELOW 250 knots at GRYNT.
- c. BEARE moves 3.76 NM west. Change restrictions from AT 6600 and AT 210 knots to AT 8000 and AT/BELOW 210 knots.

Instrument Approach Procedures (IAP):

1. ILS or Localizer (LOC) Runway (RWY) 10L:

- a. Add DME to the procedure; replace the BI NAVAID with a DME fix at an altitude of 5,300 feet Mean Sea Level (MSL).
- b. Remove the alternate missed approach procedure.
- c. Add an intermediate fix (IF) WIBON.
- d. Add two initial approach fixes (IAF): LRSUN and BEARE.
- e. Add two initial segments at 7,000 feet MSL for connectivity to STARS
  - i. Add segment from LRSUN to WIBON.
  - ii. Add segment from BEARE to WIBON.

2. ILS or LOC RWY 28R:

- a. Lower altitude of final approach fix (FAF) from 5,200 feet MSL to 5,000 feet MSL.
- b. Change the IF from SUTLE to YIGUD.
- c. Add three IAFs: GRYZZ, HRDIN, and PILLR.
- d. Add three segments at 6,000 feet MSL for connectivity to STARS:
  - i. Add segment from GRYZZ to YIGUD.
  - ii. Add segment from HRDIN to YIGUD.
  - iii. Add segment from PILLR to YIGUD.

3. Area Navigation (RNAV) (Required Navigation Performance [RNP]) Z RWY 28R:

- a. Raise the crossing altitude of the FAF from 4,300 feet MSL to 5,000 feet MSL.
- b. Remove all segments connecting to CAVEE: from IGIFE, KUSTR, GRYNT, KROWE, and SUTLE from the procedure.
- c. Add IF YIGUD.
- d. Add four IAFs: BBCAT, GRYZZ, HRDIN, and PILLR.
- e. Add four segments at 6,000 feet MSL for connectivity to STARS:
  - i. Add segment from BBCAT to FAF.
  - ii. Add segment from GRYZZ to YIGUD.
  - iii. Add segment from HRDIN to YIGUD.
  - iv. Add segment from PILLR to YIGUD.



4. RNAV (GPS) Y RWY 10L:
  - a. Remove “Y” from the procedure name.
  - b. Remove from procedure:
    - i. Segment from CUKOV to WIBON.
    - ii. Segment from SHELA to WIBON.
    - iii. Segment from the BIL VORTAC to WIBON.
    - iv. Hold-in-Lieu at WIBON.
  - c. Add two IAFs: LRSUN and BEARE.
  - d. Add two segments at 7,000 feet MSL for connectivity to STARs:
    - i. Add segment from LRSUN to WIBON to connect to the CRAZI STAR.
    - ii. Add segment from BEARE to WIBON to connect to the YLSTN STAR.
5. RNAV (GPS) Y RWY 28R:
  - a. Remove “Y” from the procedure name.
  - b. Remove from procedure:
    - i. Segment from NIBBE to SUTLE.
    - ii. Segment from ARDMO to SUTLE.
    - iii. Segment from PRYER to SUTLE. Retain the IAF KRONA.
    - iv. Segment from BIL VORTAC to SUTLE.
    - v. YICUM and ZELAR.
    - vi. Hold-in-Lieu at SUTLE.
  - c. Lower crossing altitude of the FAF from 5,200 feet MSL to 5,000 feet MSL.
  - d. Add IF YIGUD to replace IF SUTLE.
  - e. Add three IAFs: GRYZZ, HRDIN, and PILLR.
  - f. Add three segments at 6,000 feet MSL for connectivity to STARs:
    - i. Segment from GRYZZ to YIGUD.
    - ii. Segment from HRDIN to YIGUD.
    - iii. Segment from PILLR to YIGUD.
    - iv. Amend segment from KRONA to YIGUD.

Based on a review of available Performance Data Analysis and Reporting System track data, amendments to the procedures will not direct aircraft to overfly areas not currently overflown.

The noise modeling Aviation Environmental Screening Tool (AEST) which supercedes the NST was used to complete the analysis of potential effects due to the change in the aircraft noise exposure level as a result of implementation of the proposed amendments. The Altitude/Operations Test (A/O) was used to determine whether the percent change in altitude on a route or procedure, or simultaneous change in number of operations as a percentage and altitude are high enough to generate noise levels that exceed noise screening thresholds. The results of the noise pre-screening A/O Test indicated that the percent changes between the proposed altitudes and the existing altitudes on the EDYTH-CRAZI/EDYTH-RYGAT and BYRCH-TYMBR segments of the CRAZI TWO STAR are not high enough to warrant further noise screening.

#### Declaration of Exclusion:

The FAA has reviewed the above referenced proposed action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, “Environmental Impacts: Policies and Procedures.” The implementation of

this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F.


**Basis for this Determination:**

The Initial Environmental Review was processed and reviewed by the Western Service Center. This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, "Procedures for Considering Environmental Impacts" and FAA Order 1050.1F.

The proposed procedure meets the following categorical exclusion contained in FAA Order 1050.1F:

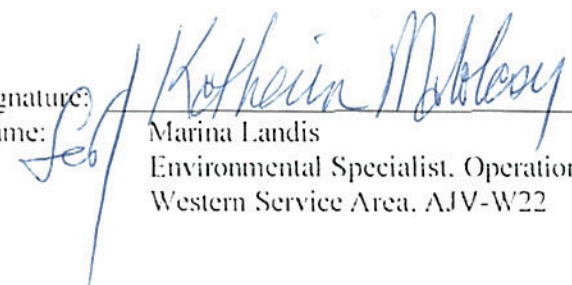
*5-6.5.i. Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); procedures conducted below 3,000 feet AGL that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved procedures conducted below 3,000 feet AGL that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima.*

Facility Manager Review/Concurrence

Signature:  Date: 6/26/17  
Name: Pete Schmitz  
Air Traffic Manager  
Billings Terminal Radar Approach Control Facility, BIL

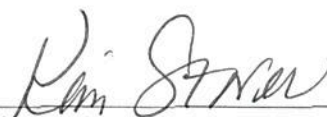
Concurrence by:

**Western Service Area Environmental Specialist**

Signature:  Date: 6/29/17  
Name: Marina Landis  
Environmental Specialist, Operations Support Group  
Western Service Area, AJV-W22

Approval by:

**Western Service Area Director or Designee Approval**

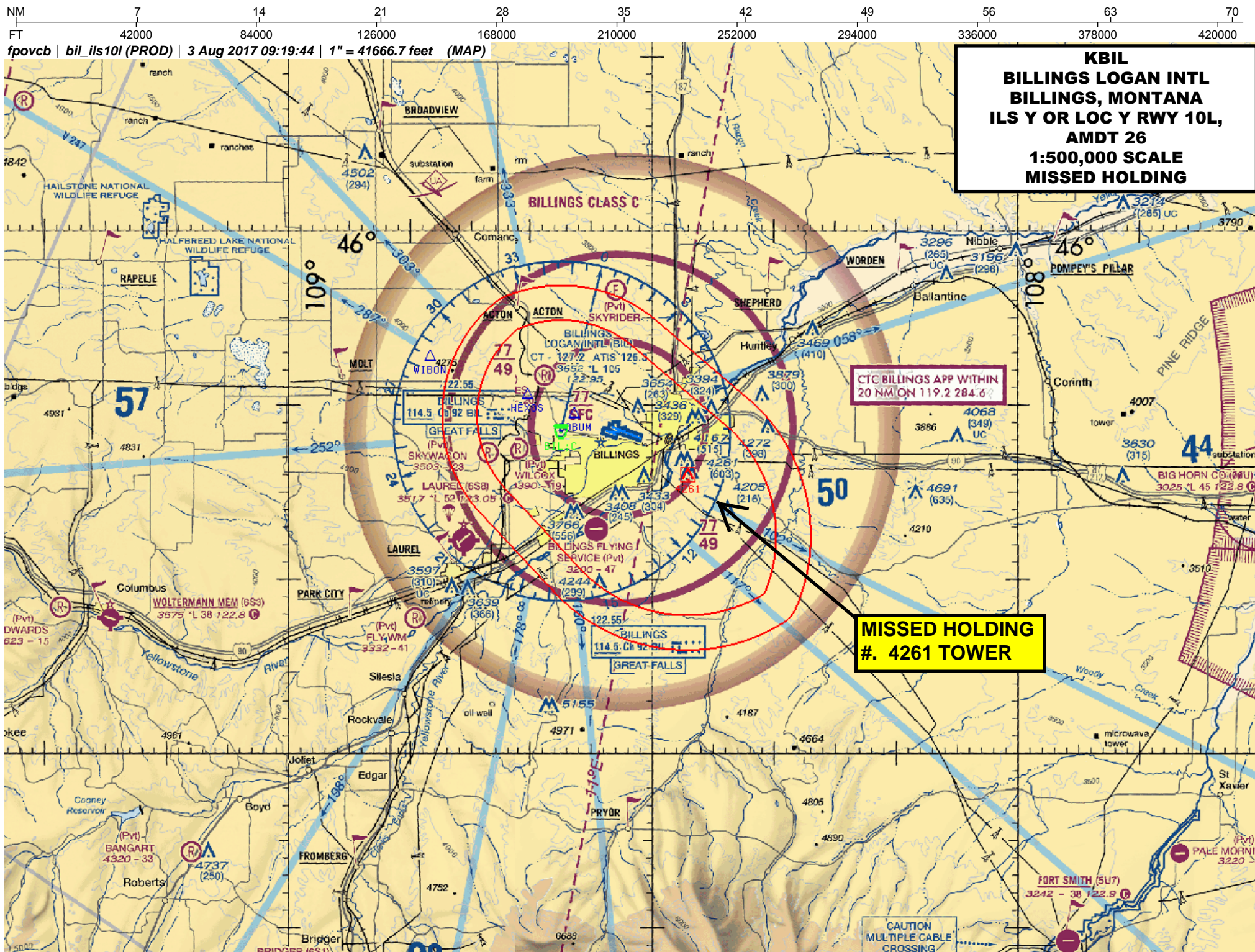
Signature:  Date: 6/30/17  
Name: Kim A. Stover  
Director, Air Traffic Operations, North/Acting South  
Western Service Area, AJTW



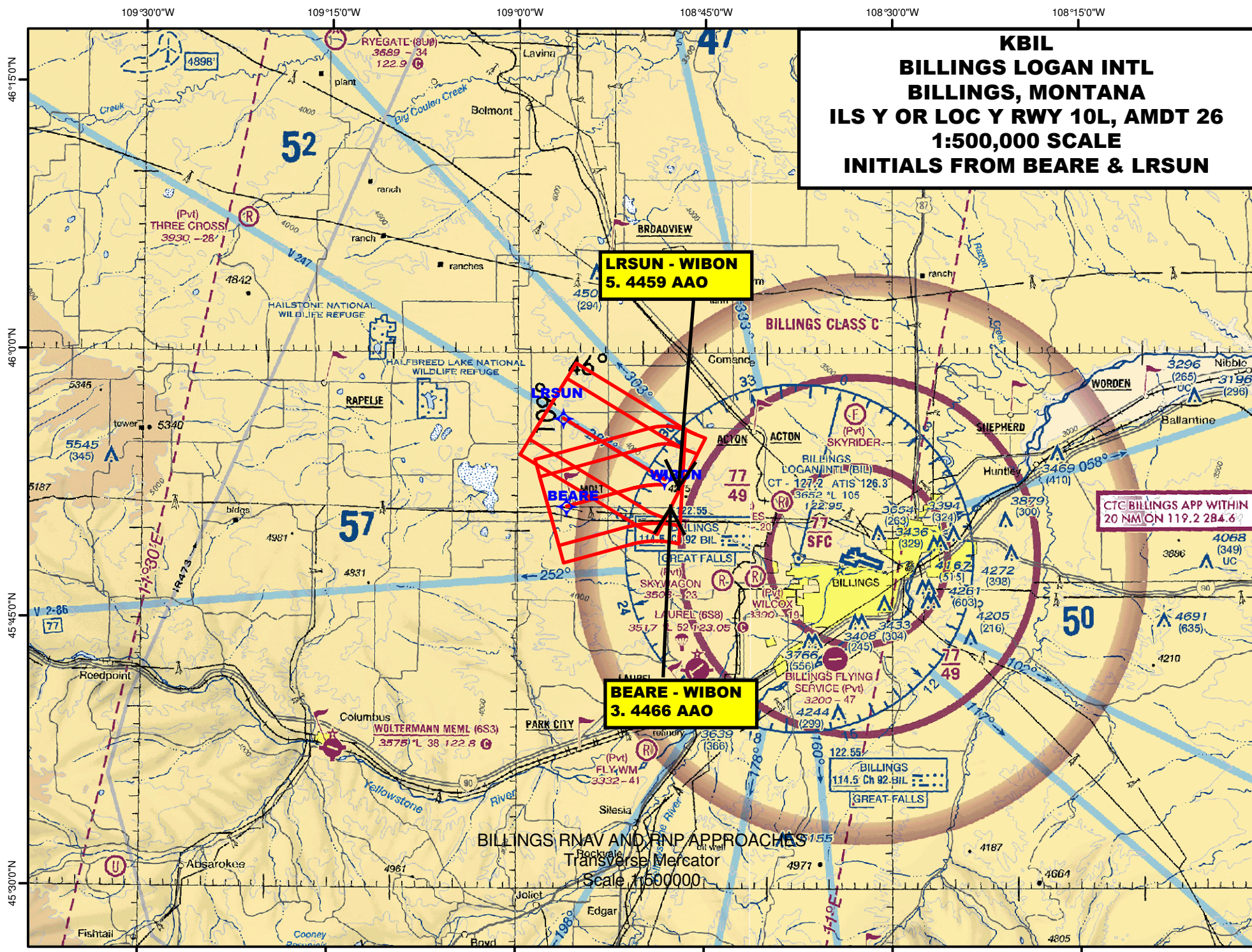
**KBIL  
BILLINGS LOGAN INTL  
BILLINGS, MONTANA  
ILS Y OR LOC Y 10L, AMDT 26  
1:500,000 SCALE  
PT, INTERMEDIATE, LOC FINAL  
AND MISSED**

**MISS LVL SURFACE**  
**13. 4261 TOWER**











NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000  
fpovcb | bil\_ils10l (PROD) | 2 Aug 2017 16:11:38 | 1" = 8333.3 feet (MAP)

**KBIL**  
**BILLINGS LOGAN INTL**  
**BILLINGS, MONTANA**  
**ILS Y OR LOC Y RWY 10L,**  
**AMDT 26**  
**1:100,000 SCALE**  
**LOC FINAL, CIRCLING &**  
**MISSSED**

9. 4010 AAO

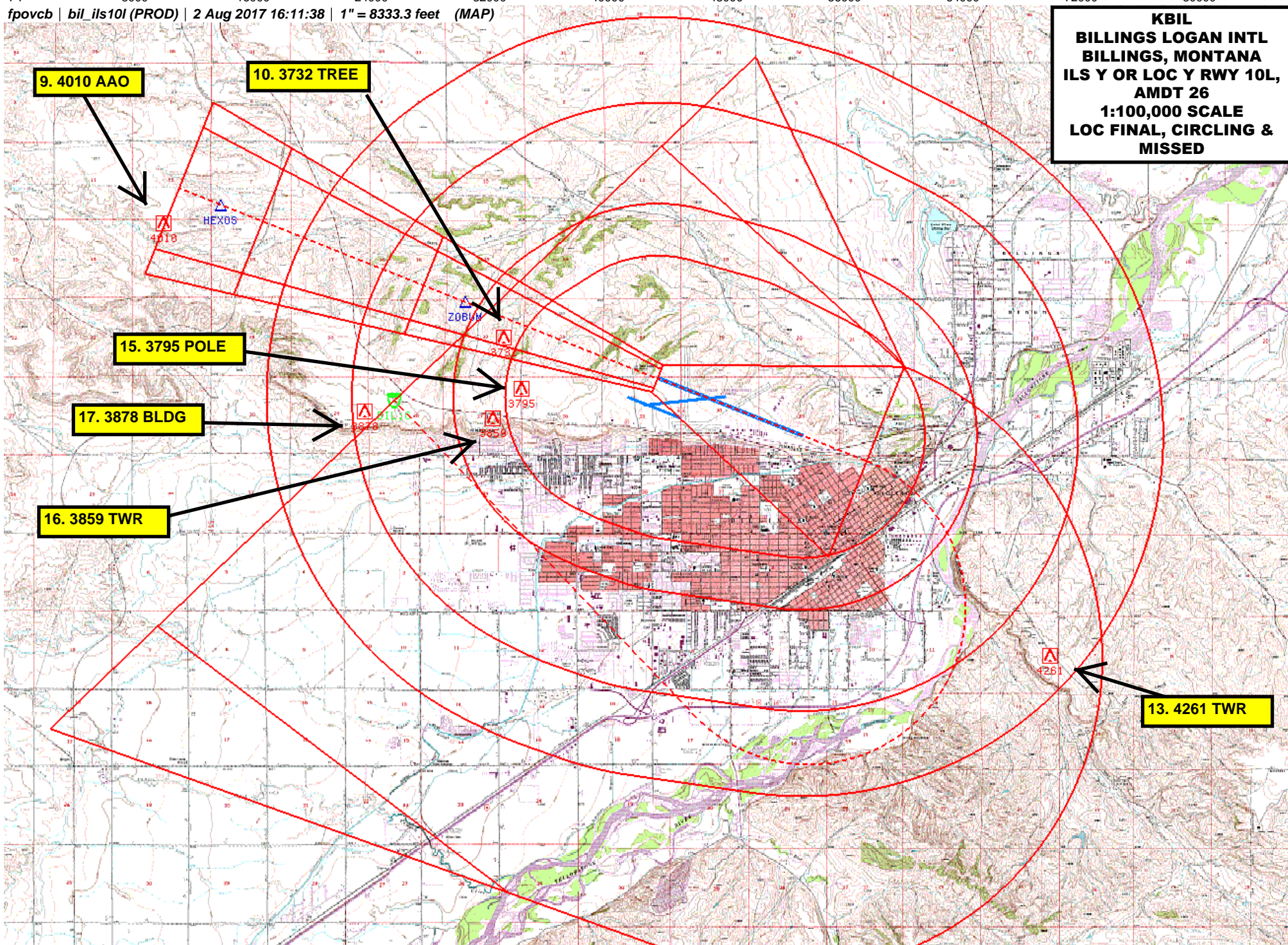
10. 3732 TREE

15. 3795 POLE

17. 3878 BLDG

16. 3859 TWR

13. 4261 TWR





NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fpovcb | bil\_ils10l (PROD) | 2 Aug 2017 16:13:33 | 1" = 8333.3 feet (MAP)

**KBIL**  
**BILLINGS LOGAN INTL**  
**BILLINGS, MONTANA**  
**ILS Y OR LOC Y RWY 10L,**  
**AMDT 26**  
**1:100,000 SCALE**  
**ILS FINAL & MISSED**

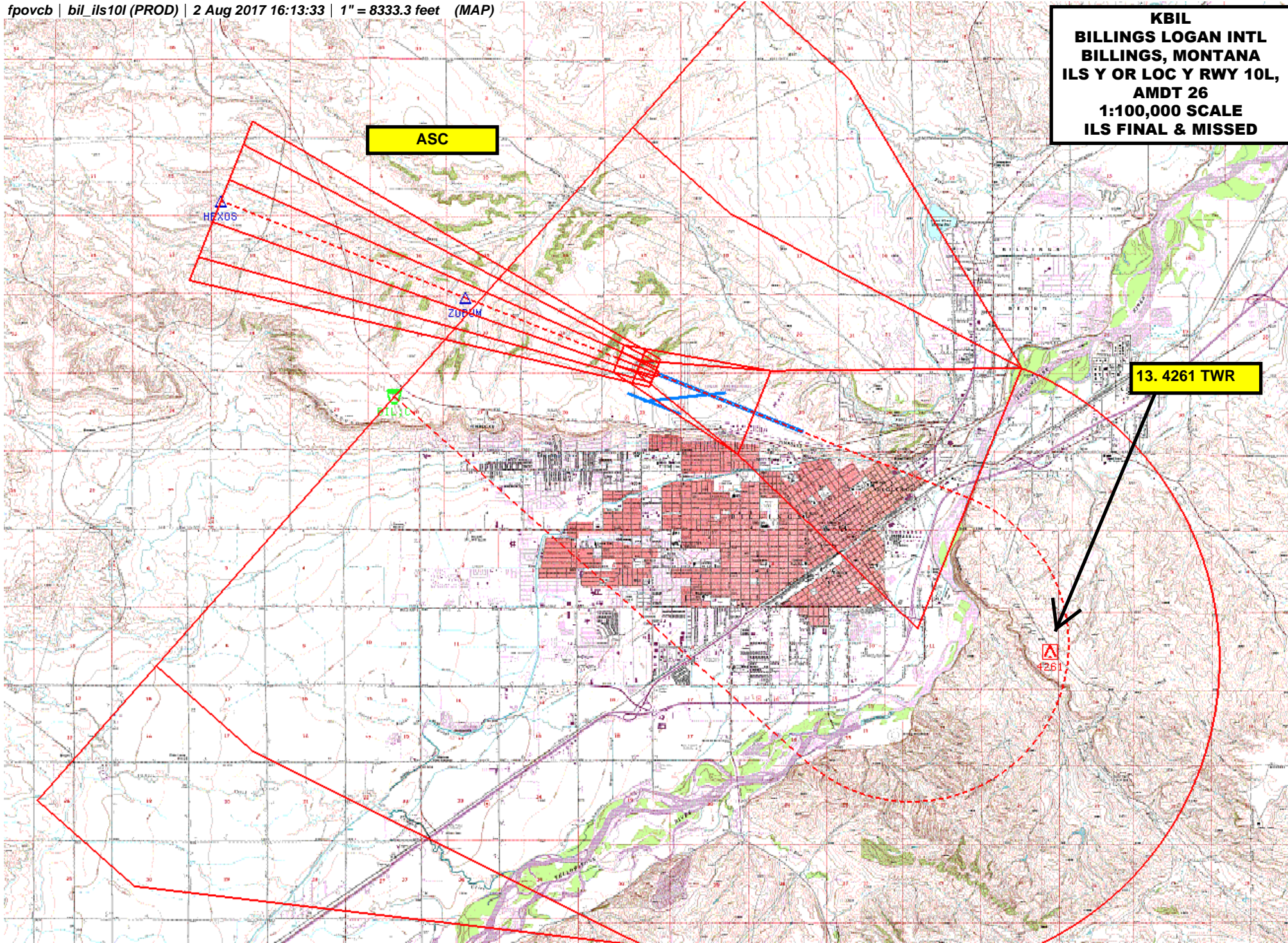
**ASC**

HEX06

Z060M


**13. 4261 TWR**

4261

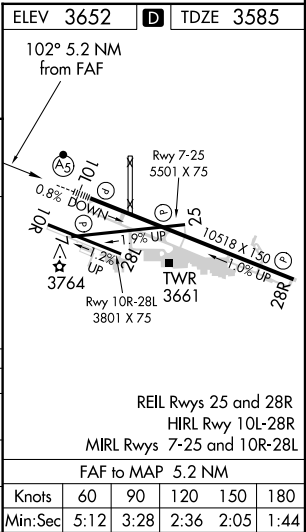
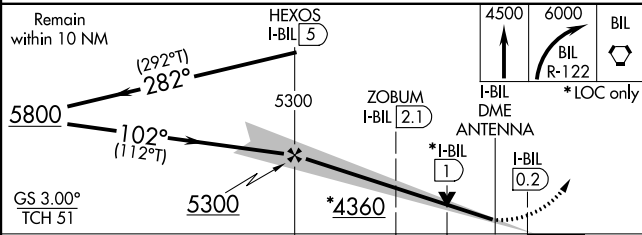
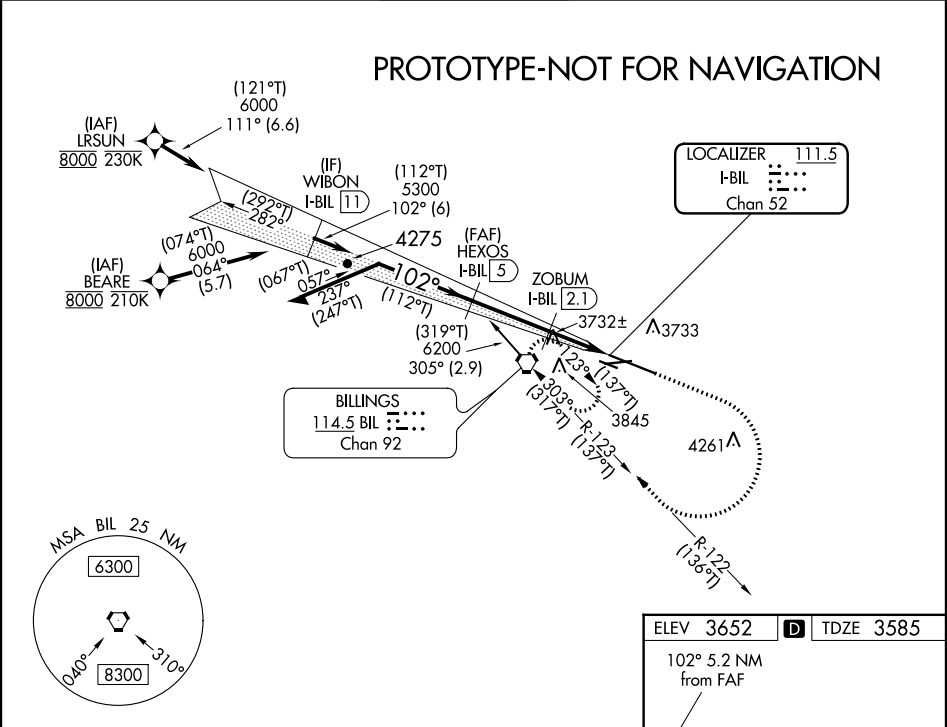


|   |                        |   |
|---|------------------------|---|
| LOC/DME I-BIL<br><b>111.5</b><br>Chan <b>52</b> | APP CRS<br><b>102°</b> | Rwy Idg<br>TDZE <b>3585</b><br>Apt Elev <b>3652</b> |
|---|------------------------|---|

ILS Y or LOC Y RWY 10L  
BILLINGS LOGAN INTL (BIL)

|  |  |   |
|--|--|---|
| RNAV 1.<br>RNAV 1-GPS or DME required for procedure entry. DME required.<br>From BEARE, LRSUN: RNAV 1-GPS required.                  | MALSR<br> | MISSED APPROACH: Climb to 4500 then climbing right turn to 6000 on BIL VORTAC R-122 to BIL VORTAC and hold. |
| ▼ For inop ALS, increase S-LOC 10L Cat C/D visibility to RVR 6000.<br>▲ # RVR 1800 authorized with the use of FD or AP or HUD to DA. |  |   |

|                      |  |                                      |                         |                          |
|----------------------|--|--------------------------------------|-------------------------|--------------------------|
| ATIS<br><b>126.3</b> | BILLINGS APP CON<br><b>120.5 284.6</b> | BILLINGS TOWER<br><b>127.2 257.8</b> | GND CON<br><b>121.9</b> | CLNC DEL<br><b>121.9</b> |
|----------------------|--|--------------------------------------|-------------------------|--------------------------|

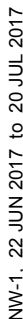
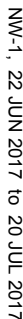


| CATEGORY    | A                     | B                     | C                       | D                      |
|-------------|-----------------------|-----------------------|-------------------------|------------------------|
| S-ILS 10L # | 3785/24               | 200 (200-½)           |                         |                        |
| S-LOC 10L   | 4000/24               | 415 (400-½)           | 4000/40                 | 415 (400-¾)            |
| CIRCLING    | 4100-1<br>448 (500-1) | 4160-1<br>508 (600-1) | 4180-1½<br>528 (600-1½) | 4580-3<br>928 (1000-3) |

ILS or LOC RWY 10L  
BILLINGS LOGAN INTL (BIL)

**MISSED APPROACH:** Climb to 4500 then climbing right turn to 6000 on BIL VORTAC R-122 to BIL VORTAC and hold.

|                                  |                       |
|----------------------------------|-----------------------|
| ALTERNATE MISSED<br>APPROACH FIX | RADAR or ADF REQUIRED |
|----------------------------------|-----------------------|

SAIGE  
251 | ■■■



# TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: BILLINGS

STATE: MT

AIRPORT NAME: BILLINGS LOGAN INTL

ID: KBIL

PROCEDURE: ILS Y OR LOC Y RWY 10L

AMDT: 26

DOCKET # :

(96-AXX-X/Required/Not Required)

**ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.**

1. Distance from \_\_\_\_\_\* to 1000' point \_\_\_\_\_\*  
(Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of \_\_\_\_\_\* segment at 1000' point \_\_\_\_\_\*  
(Enter appropriate segment , final, intermediate, etc.)
3. True Course of \_\_\_\_\_\* segment containing 1000' point \_\_\_\_\_\*
4. High Terrain in \_\_\_\_\_\* segment containing 1000' point \_\_\_\_\_\*
5. Distance from \_\_\_\_\_\* to 1500' point \_\_\_\_\_\*  
(If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of \_\_\_\_\_\* segment at 1500' point \_\_\_\_\_\*
7. True Course of \_\_\_\_\_\* segment containing 1500' point \_\_\_\_\_\*
8. High Terrain in \_\_\_\_\_\* segment containing 1500' point \_\_\_\_\_\*
9. Threshold Coordinates (if straight-in) ... 454845.81N / 1083317.34W
10. ARP Coordinates ..... 454827.58N / 1083234.35W
11. Runway Approach End and distance furthest from ARP.....RWY R28R  
Distance 1.16 NM
12. FAF Coordinates ..... 455041.58N / 1084014.20W  
(Click to Select)

## REMARKS:

\*1000 FT AND 1500 FT POINTS ARE ASSUMED TO BE 7 NM FROM THE FAF ON THE PT.

*fpovcb* | *bil\_ils10l* (PROD) | 3 Aug 2017 16:14:58 | 1" = 41666.7 feet (MAP)

**KBIL  
BILLINGS LOGAN INTL  
BILLINGS, MONTANA  
ILS Y OR Y LOC 10L, AMDT 26  
1:500,000 SCALE  
AIRSPACE MAP**