## FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.

Distances are in nautical miles (NM). Graphic depictions attached.

| Arrival Name | Number | STAR Computer Code | Superseded Number | Dated      | Effective Date |
|--------------|--------|--------------------|-------------------|------------|----------------|
| BGHRN (RNAV) | THREE  | BGHRN.BGHRN3       | TWO               | 02/01/2018 | 09/13/2018     |

### TRANSITION ROUTES:

| Transition Name | Transition<br>Computer Codes | From<br>FIX/NAVAID | To<br>FIX/NAVAID | Mag Course | Distance | MEA   | MOCA | MAA | Crossing Altitudes / Fixes |
|-----------------|------------------------------|--------------------|------------------|------------|----------|-------|------|-----|----------------------------|
| CUSGA           | CUSGA.BGHRN3                 | CUSGA              | CUSGA            |            |          |       |      |     | AT/ABOVE 15000             |
|                 | -                            |                    | BGHRN            | 310.66     | 37.27    | 11700 |      |     | AT/ABOVE 15000             |

#### ARRIVAL ROUTE DESCRIPTION:

FROM BGHRN ON TRACK 310.59/5.53 TO CROSS LTTLE AT OR ABOVE 13500, THEN ON TRACK 310.53/17.71 TO CROSS KROWE AT OR ABOVE 9000 AND AT OR BELOW 250 KIAS.

LANDING RWY 10L: FROM KROWE ON TRACK 296.24/15.53 TO CROSS IZUFE AT OR ABOVE 8000 AND AT OR BELOW 220 KIAS, THEN ON TRACK 281.88/8.21 TO CROSS DEHLR AT 6200 AND AT 210 KIAS, THEN ON HEADING 280.00 OR AS ASSIGNED BY ATC. EXPECT ASSIGNED APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 28R: FROM KROWE ON TRACK 335.58/9.26 TO CROSS HRDIN AT 6700 AND AT OR BELOW 230 KIAS, THEN ON HEADING 308.00 OR AS ASSIGNED BY ATC. EXPECT ASSIGNED APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

#### PROCEDURAL DATA NOTES:

NOTE: RADAR REQUIRED

NOTE: RNAV 1

NOTE: GPS REQUIRED

#### FIXES AND/OR HOLDING PATTERNS:

CHART: HOLDING AT BGHRN, HOLD SE, RT, 310.66 INBOUND, (10 NM LEGS). CHART: BIL VORTAC.

### COMMUNICATIONS:

ATIS, APP CON, TWR, GND CON.

#### AIRPORTS SERVED:

BILLINGS LOGAN INTL (KBIL), BILLINGS, MT

### LOST COMMUNICATIONS PROCEDURE:

#### REMARKS:

#### ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: UNSAT.

REFERENCE MAGNETIC VARIATION = KBIL 10E/2020.

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Distances are in nautical miles (NM). Graphic depictions attached.

| Arrival Name     | Num  | ber STAR Computer Code | Superseded Number | Dated                             | Effective Date |
|------------------|--|------------------------|-------------------|-----------------------------------|----------------|
| BGHRN (RNAV)     |  | REE BGHRN.BGHRN3       | TWO               | 02/01/2018                        | 09/13/2018     |
| FLIGHT INSPECTED | BY:  |                        |                   | Digitally signed by               |                |
|                  | FLIGHT INSPECTION REVIEW NOT                                     |                        |                   | JACOB POWERS Jun 15, 2018         |                |
|                  | REQUIRED-PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, | Organization           | Date              | Signature                         |                |
| DEVELOPED BY:    | DEC 22, 2017   |                        |                   | Digitally signed by               |                |
| Rodr             | ney Sabino, Support Manager                                      | Salt Lake ARTCC        | 05/30/2018        | JACOB POWERS<br>Jun 15, 2018      |                |
|                  | Name   | Organization           | Date              | Signature                         |                |
| APPROVED BY:     |  |                        |                   | Digitally signed by  JACOB POWERS |                |
| M                | ARLON J. ROBINSON, MANAGER                                       | AJV-5440               |                   | Jun 15, 2018                      |                |
|                  | Name   | Organization           | Date              | Signature                         |                |

### CHANGES:

- 1. REVISED RWY 28R (REMOVED NAMED APPROACH PROCEDURE) AND 10L ARRIVAL ROUTE DESCRIPTIONS ADVISING TO EXPECT ASSIGNED APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.
- 2. CHANGED RWY 28R VM LEG COURSE FROM 307 TO 308.

## **REASONS:**

- 1. ATC REQUEST. CLARIFIES EXPECTATIONS AT TERMINATION OF THE STAR.
- ATC REQUEST. ALIGNS VM LEG WITH SEVERAL RWY 28R IAP'S FROM HRDIN INITIAL WHICH HAS BEEN PREVIOUSLY FLIGHT CHECKED SAT.

# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STAR (DATA RECORD)

| Arrival Name<br>BGHRN (RNAV) |                          | Number<br>THREE |       | STAR Computer Code<br>BGHRN.BGHRN3 |        |              | Superseded Number<br><b>TWO</b> |               | Dated<br>02/01/2018 | Effective Date 09/13/2018 |
|------------------------------|--------------------------|-----------------|-------|------------------------------------|--------|--------------|---------------------------------|---------------|---------------------|---------------------------|
| FIX/NAVAID                   | LAT/LONG                 | С               | FO/FB | LEG<br>TYPE                        | тс     | DIST<br>(NM) | ALTITUDE                        | SPEED         | REMARKS             |                           |
| En Route Transition          |                          |                 |       |                                    |        |              |                                 |               |                     |                           |
| CUSGA                        | 444536.50N / 1071741.24W | Υ               |       | IF                                 |        |              | AT/ABOVE 15000                  |               | CUSGA.BGHRN3        |                           |
| BGHRN                        | 451420.97N / 1075107.48W | Υ               | FB    | TF                                 | 320.66 | 37.27        | AT/ABOVE 15000                  | AT 270K       |                     |                           |
| Common Route                 |                          |                 |       |                                    |        |              |                                 |               |                     |                           |
| BGHRN                        | 451420.97N / 1075107.48W | Υ               |       | IF                                 |        |              | AT/ABOVE 15000                  | AT 270K       | BGHRN.BGHRN3        |                           |
| LTTLE                        | 451837.07N / 1075605.86W | Υ               | FB    | TF                                 | 320.59 | 05.53        | AT/ABOVE 13500                  |               |                     |                           |
| KROWE                        | 453216.09N / 1081206.83W | Y               | FB    | TF                                 | 320.53 | 17.71        | AT/ABOVE 9000                   | AT/BELOW 250K |                     |                           |
| Runway Transition            |                          |                 |       |                                    |        |              |                                 |               |                     |                           |
| KROWE                        | 453216.09N / 1081206.83W | Υ               |       | IF                                 |        |              | AT/ABOVE 9000                   | AT/BELOW 250K |                     |                           |
| IZUFE                        | 454125.47N / 1082959.17W | Υ               | FB    | TF                                 | 306.24 | 15.53        | AT/ABOVE 8000                   | AT/BELOW 220K |                     |                           |
| DEHLR                        | 454428.49N / 1084051.86W | Υ               | FO    | TF                                 | 291.88 | 08.21        | AT 6200                         | AT 210K       |                     |                           |
| KBIL:RWY 10L                 |                          |                 |       | VM                                 | 290.00 |              |                                 |               |                     |                           |
| Runway Transition            |                          |                 |       |                                    |        |              |                                 |               |                     |                           |
| KROWE                        | 453216.09N / 1081206.83W | Υ               |       | IF                                 |        |              | AT/ABOVE 9000                   | AT/BELOW 250K |                     |                           |
| HRDIN                        | 454113.78N / 1081524.11W | Υ               | FO    | TF                                 | 345.58 | 09.26        | AT 6700                         | AT/BELOW 230K |                     |                           |
| KBIL:RWY 28R                 |                          |                 |       | VM                                 | 318.00 |              |                                 |               |                     |                           |