

Flight Procedures Cover Page	Task Action: Abbreviated Amendment	Task Type: IAP	Estimated Chart Date: 08/07/2025	APWS Task ID: A565C7806C62482DBC8A2F6AF5743FB8	APWS Project ID: 01AE26C009674A6AA680ABAD96AF7E23
Procedure: ILS OR LOC RWY 15 AMDT 0A		Enroute: NO	Specialist: Mccartney, Michael		Agreement Number:
Airport ID: KBTM			Airport City: BUTTE		State: MT
Facility ID: BEY	Facility Type: ILS	Flight Inspection Remark Type:			
<div>Procedure Comments: PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021, SUBJECT: GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION. ACTIVE DATA UTILIZED. CONTACT: ERIC SUSKI, AJV-A431, MANAGER, 405-954-7331.</div> <div>QUALITY 9 CHECKED BEGUE</div> <div>QUALITY 10 CHECKED</div>					



Federal Aviation Administration

Memorandum

Date:

To: Manager, Instrument Flight Procedures Coordination Team, AJV-5310

From: Manager, Flight Technologies and Procedures Division, AFS-40

Danny E Hamilton
Signed By: Danny E Hamilton Wed
Nov 1 2017 10:53:53 GMT-05:00:00
(Central Standard Time)

Prepared by: Flight Procedure Implementation & Oversight Branch, AFS-460

Subject: Waiver Request; AJV-5310 Memorandum Dated 09/22/2017

The attached waivers for the "ILS OR LOC RWY 15, ORIG" at Bert Mooney, Butte, MT are approved and forwarded for your action.

Reason for waiver 1: A maximum glidepath angle (GPA) of 3.50 degrees is commissioned to support Category D aircraft. The "X" OCS is penetrated by an Adverse Assumption Obstacle (AAO) that is 7.10 NM from the runway threshold. The final segment is 8.17 NM in length and the PFAF is located at the only feasible location due to high terrain. The 7210 AAO penetrates the "X" OCS by 147.73 FT. Three other obstacles penetrate the "W" OCS, but none require a greater adjustment to the HAT.

Reason for waiver 2: Due to rising terrain northwest of the airport, application of a 200 FT AAO results in an excessively high precision final approach fix (PFAF) altitude. Airport zoning standards as defined in Butte-Silver Bow, Montana municipal code chapter 17.34, describes the area in which the ILS and Localizer trapezoids are encompassed as the Precision Instrument Runway Approach Zone. The inner edge of this approach zone coincides with the end of the primary surface and is one thousand feet wide. It expands outward uniformly to a width of sixteen thousand feet at a horizontal distance of 50,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

Reason for waiver 3: High terrain requires the use of a 3.50 degree glidepath angle and fix placement is limited. The intermediate segment length between MAGIC INT (IF) and ZIPPER (PFAF) is 3.97NM.

Please direct all inquiries to Danny E. Hamilton, Manager, AFS-460, at (405) 954-9359.

Attachment



Federal Aviation Administration

Memorandum

To: Mark Steinbicker, Manager, Flight Technologies and Procedures Division
THRU: Wade Ek Terrell, Manager, Flight Procedure Implementation and Oversight Branch

From: Lonnie Everhart, Manager, Instrument Flight Procedures (IFP) Coordination Team, AJV-5310
Digitally signed by
BETTY F RICHARDS

Subject: Waiver Request: Bert Mooney, Butte, MT (KBTM) Sep 22, 2017

The attached waivers for Bert Mooney, Butte, MT (KBTM) are forwarded for your review and approval.

Please return a signed copy for our files.

8260-1 ILS OR LOC RWY 15

Please respond as soon as possible.

Attachment

1. FLIGHT PROCEDURE IDENTIFICATION:

Butte, MT
Bert Mooney (KBTM)
ILS or LOC RWY 15

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

Allow aircraft established on a 3.50 degree glideslope and lower limit analysis data as mitigation for Obstruction Clearance Surface (OCS) penetrations. FAAO 8260.3C, Chap 10, Para 10-2-4.C. "W" OCS penetrations. Lowest minimums are achieved when the "W" surface is clear. If the surface is penetrated by an obstacle, adjust the obstruction height, raise the GPA or displace the RWT to eliminate the penetration. If the penetration cannot be eliminated, adjust the DA.

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

A maximum glidepath angle (GPA) of 3.50 degrees is commissioned to support Category D aircraft. The "X" OCS is penetrated by an Adverse Assumption Obstacle (AAO) that is 7.10 NM from the runway threshold. The final segment is 8.17 NM in length and the PFAF is located at the only feasible location due to high terrain. The 7210 AAO penetrates the "X" OCS by 147.73 FT. Three other obstacles penetrate the "W" OCS, but none require a greater adjustment to the HAT.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

The obstacle with the greatest OCS penetration (147.73 FT) is a 7210 MSL AAO that is 1.07 NM inside the PFAF and 2412 FT from the extended runway centerline. The obstacle requiring the greatest GPA increase (3.91 degrees) is a 6338 MSL monument that is 3.60 NM from the runway threshold and 864 FT from the extended runway centerline, and is also the obstacle providing the least amount of vertical clearance (562 FT) from an aircraft on the nominal glidepath. The lower alert limit on the glideslope monitor is 3.24 degrees. If the glideslope is at the lowest angle allowed before a monitor alert, and an aircraft is flown at the lower full-scale deflection limit of 0.7 degrees below the glideslope, the resulting glidepath of 2.54 degrees ensures an aircraft vertical clearance above all identified obstacles no less than 179 FT.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

Raising the GPA to 3.91 degrees results in a loss of category C and D minimums. Based on the penetrating obstacle location, the DA adjustment results in a HAT exceeding 2200 FT.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

ZLC, AMGR

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE
	AJV-5400	Instrument Flight Procedures Group

SIGNATURE
Steve Szukala
Digitally signed by
JACOB POWERS
Sep 21, 2017

8. AFS ACTIONS:

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

COMMENTS:

DATE	ROUTING SYMBOL	SIGNATURE
		Danny E Hamilton Signed By: Danny E Hamilton Wed Nov 1 2017 10:53:53 GMT-05:00:00 (Central Standard Time)

1. FLIGHT PROCEDURE IDENTIFICATION:

Butte, MT
Bert Mooney (KBTM)
ILS or LOC RWY 15

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

A 50 FT AAO is applied to high terrain between 20,000 and 50,000 feet within the confines of ILS and Localizer final approach segments. FAAO 8260.19G, Para 2-11-5, Controlling Obstacles. An Adverse Assumption Obstacle (AAO) of 200 FT AGL is assumed to exist at and beyond a specified distance (radius) from the nearest landing surface at a given airport.

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

Due to rising terrain northwest of the airport, application of a 200 FT AAO results in a excessively high precision final approach fix (PFAF) altitude. Airport zoning standards as defined in Butte-Silver Bow, Montana municipal code chapter 17.34, describes the area in which the ILS and Localizer trapezoids are encompassed as the Precision Instrument Runway Approach Zone. The inner edge of this approach zone coincides with the end of the primary surface and is one thousand feet wide. It expands outward uniformly to a width of sixteen thousand feet at a horizontal distance of 50,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

The Butte-Silver Bow Zoning Board confirms that Ordinance 17.34 Airport Zoning restricts any obstacles from being constructed that are over 50 FT AGL between 20,000 and 50,000 feet within the confines of ILS and Localizer final approach segments (see attached memo subject, "Re: Confirmation of Airport Zoning Regulations"). Existing obstacles to include imagery and surface elevation data identified in a Vertically Guided (VG) survey conducted in 2015 are retained in AGIS and AIRNAV obstacle databases. The Butte-Silver Bow Airport Zoning Board of Adjustment requires FAA approval of any new construction or submitted variances that exceed 35 FT AGL for the purpose of evaluating potential ILS Obstacle Clearance Surface (OCS) penetrations. A request for construction over 50 FT in height would not be permitted.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

Raising the glidepath angle does not support category D aircraft. Increasing the PFAF altitude moves the intermediate segment into higher terrain creating a cascade effect of higher terrain and a higher fix altitudes.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

ZLC, AMGR

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE
	AJV-5400	Instrument Flight Procedures Group

SIGNATURE
Steve Szukala

Digitally signed by
JACOB POWERS
Sep 21, 2017

8. AFS ACTIONS:

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

COMMENTS:

DATE	ROUTING SYMBOL	SIGNATURE
		Danny E Hamilton Signed By: Danny E Hamilton Wed Nov 1 2017 10:53:54 GMT-05:00:00 (Central Standard Time)

1. FLIGHT PROCEDURE IDENTIFICATION:

Butte, MT
Bert Mooney (KBTM)
ILS or LOC RWY 15

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

Allow a descent gradient of 353 ft/NM in the intermediate segment. FAAO 8260.3C, Chap 2, Para 2-5-3.d. The maximum gradient between the IF and the PFAF is 318 ft/NM.

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

High terrain requires the use of a 3.50 degree glidepath angle and fix placement is limited. The intermediate segment length between MAGIC INT (IF) and ZIPPER (PFAF) is 3.97NM.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

With an altitude loss of 1400 FT, the computed descent gradient is 353 ft/NM. The computed descent angle of 3.32 degrees from the IF to PFAF is below the maximum glidepath angle authorized for the procedure and is as flat as possible for configuration prior to final approach entry. The GS has an approved ESV for the location of the IF, ensuring vertical and lateral coverage of the aircraft by the LOC and GS.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

The IF underlies V113 which supports feeder routes from Coppertown VOR/DME and EVVER INT along with NIYID (IAF). Lowering the IF altitude below 10000 MSL is not feasible due to ATC requirements. Moving the PFAF inward .43 NM would result in a higher GPA and loss of category D minimums.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

ZLC, AMGR

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE
	AJV-5400	Instrument Flight Procedures Group

SIGNATURE
Steve Szukala

8. AFS ACTIONS:

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

Digitally signed by
JACOB POWERS
Sep 21, 2017

COMMENTS:

DATE	ROUTING SYMBOL	SIGNATURE
		Danny E Hamilton Signed By: Danny E Hamilton Wed Nov 1 2017 10:53:54 GMT-05:00:00 (Central Standard Time)

EXISTING

AL-588 (FAA)

23054

LOC/DME I-BEY 110.9 Chan 46	APP CRS 155°	Rwy Idg 9000 TDZE 5523 Apt Elev 5551
---	------------------------	---

ILS or LOC RWY 15

T

NA

 -25°C

Circling NA northeast of Rwy 15-33. DME required.
 S-ILS 15 for inop ALS, increase all Cats visibility to 2½ SM.
 #S-ILS 15 for inop ALS, increase Cat C/D visibility to 1 SM.
 #S-LOC 15 for inop ALS, increase Cat C/D visibility to 1⅜ SM.

MALSR

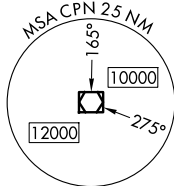


MISSED APPROACH: (Do not exceed 190K until 7100) Climb to 7100 then climbing right turn to 11000 direct CPN VOR/DME and hold, continue climb-in-hold to 11000. #Missed approach requires minimum climb of 365 feet per NM to 8700.

ASOS
35.175

SALT LAKE CENTER
132.4 338.3

UNICOM
123.0 (CTAF) **L**



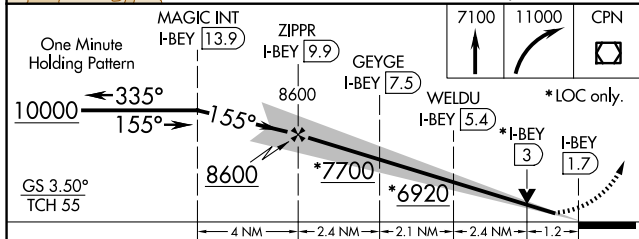
DME REQUIRED

Procedure NA for arrivals at CPN
VOR/DME on V257 southbound.

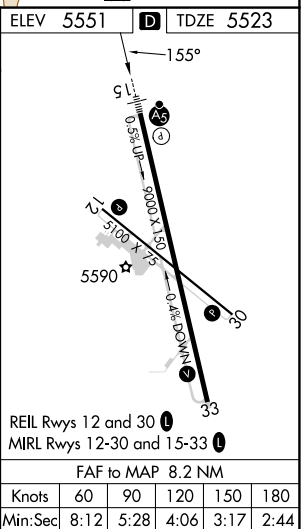


LOCALIZER 110.9
I-BEY
Chan 46

WHITEHALL
13.7 HIA :::
Chan 84



CATEGORY	A	B	C	D
S-ILS 15#	5778-1/2	255 (300-1/2)	5848-1/2	325 (300-1/2)
S-ILS 15	6280-1 7/8 757 (800-1 7/8)			
S-LOC 15	6500-3/4 977 (1000-3/4)	6500-1 977 (1000-1)	6500-2 1/2	977 (1000-2 1/2)
C CIRCLING	6660-1 1/4 1109 (1200-1 1/4)	6660-1 1/2 1109 (1200-1 1/2)	7060-3 1509 (1600-3)	7120-3 1569 (1600-3)
WELDU FIX MINIMUMS				
S-LOC 15#	6020-1/2	497 (500-1/2)	6020-1	497 (500-1)



BUTTE, MONTANA
Orig 07DEC17

45°57'N-112°30'W

Bert Mooney (BTM)

ILS or LOC RWY 15

NW-1, 20 FEB 2025 to 20 MAR 2025