

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		ILS - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.29		Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.													
TERMINAL ROUTES										MISSED APPROACH							
FROM		TO		COURSE AND DISTANCE				ALTITUDE		ILS: DA LOC: 5.23 NM AFTER HEXOS/I-BIL 5.04 DME OR AT I-BIL 0.19 DME							
BIL VORTAC		HEXOS/I-BIL LOC/DME 5.04 DME		304.52 / 2.91				6200		CLIMB TO 4500 THEN CLIMBING RIGHT TURN TO 6000 ON BIL VORTAC R-122 TO BIL VORTAC AND HOLD.							
BEARE (IAF)		WIBON (TF) (FB) (RNP 1.00)		064.40 / 5.68				6000									
LRSUN (IAF)		WIBON (TF) (FB) (RNP 1.00)		111.11 / 6.62				6000									
WIBON/I-BIL LOC/DME 11.04 DME (IF)		HEXOS/I-BIL LOC/DME 5.04 DME		101.71 / 6.00 (I-BIL)				5300		ADDITIONAL FLIGHT DATA: HOLD SE, RT, 303.00 INBOUND. CHART FAS OBST: 3732 TREE 454908N/1083544W. CHART IN PROFILE VIEW: I-BIL DME ANTENNA. CHART VDP AT 0.96 DME* DISTANCE VDP TO THLD 1.14 NM. *LOC ONLY. CHART MANDATORY 8000 AT BEARE. CHART MANDATORY 8000 AT LRSUN. CHART CIRCLING ICON.							
1. PT <u>L</u> SIDE OF COURSE <u>281.71</u> OUTBOUND <u>5800</u> FT WITHIN <u>10</u> MILES OF <u>HEXOS</u> (IAF)																	
2.																	
3. FAC: <u>101.71</u> FAF: <u>HEXOS/I-BIL LOC/DME 5.04 DME</u> DIST FAF TO MAP: <u>5.23</u> THLD: <u>5.23</u>										MAG VAR: 10E EPOCH YEAR: 2020							
4. MIN. ALT: <u>HEXOS/I-BIL LOC/DME 5.04 DME 5300, ZOBUM/I-BIL LOC/DME 2.12 DME 4360*</u>																	
5. DIST TO THLD FROM OM: <u>-</u> MM: <u>-</u> IM: <u>-</u> 150 HAT: <u>-</u> 100 HAT: <u>-</u> GS ANT: <u>1135</u>																	
6. MIN GS INCPT: <u>5300</u> GS ALT AT: <u>HEXOS 5300</u> OM: <u>-</u> MM: <u>-</u> IM: <u>-</u>																	
7. GS ANGLE: <u>3.00</u> TCH: <u>50.6</u>																	
8. MSA FROM: <u>BIL VORTAC 130-220 8300, 220-130 6300</u>																	
MINIMUMS																	
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT						ALTERNATE: N A		ILS: STANDARD #		LOC: STANDARD @							
CATEGORY =====>		A			B			C			D			E			
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA		
S-ILS 10L**	3785	2400	200	3785	2400	200	3785	2400	200	3785	2400	200					
S-LOC 10L	4000	2400	415	4000	2400	415	4000	4000	415	4000	4000	415					
CIRCLING	4100	1	448	4160	1	508	4180	1 1/2	528	4580	3	928					
NOTES: CHART SPEED ICON IN PLANVIEW AT BEARE : MAX 210 KIAS. CHART SPEED ICON IN PLANVIEW AT LRSUN : MAX 230 KIAS. CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 10L CAT C/D VISIBILITY TO RVR 6000. CHART NOTE: **RVR 1800 AUTHORIZED WITH THE USE OF FD OR AP OR HUD TO DA. (CONTINUED ON PAGE 2)																	
CITY AND STATE BILLINGS, MT		ELEVATION: 3652 TDZE: 3585 AIRPORT NAME: BILLINGS LOGAN INTL				FACILITY IDENTIFIER: I-BIL		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: ILS Y OR LOC Y RWY 10L, AMDT 26				SUP: ILS OR LOC RWY 10L AMDT: 25A DATED 04/28/2016					



ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
ROUTINE					
COORDINATED WITH:					
ATA <div><input checked="" type="checkbox"/></div>		AAT <div><input type="checkbox"/></div>		ALPA <div><input checked="" type="checkbox"/></div>	
APA <div><input checked="" type="checkbox"/></div>		AOPA <div><input checked="" type="checkbox"/></div>		NBAA <div><input checked="" type="checkbox"/></div>	
OTHER (specify) <div><input checked="" type="checkbox"/></div>		ZLC, BIL ATCT, BIL APP CON, AMGR			
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
VICTOR BOONE				AJV-5432	08/03/2017
APPROVED BY Sep 12, 2017					
NAME:				FIFO	DATE:
PATRICK MULQUEEN				AJV-5430	
CHANGES:					
<div>1. I-BIL MAGVAR UPDATED FROM 14E TO 10E.</div> <div>2. FAC CHANGED FROM 97.72 TO 101.71.</div> <div>3. UPDATED INOPERATIVE ALS NOTE FROM "FOR INOPERATIVE MALSR, INCREASE S-LOC R10L CAT C/D VISIBILITY TO 2 1/2 MILE TO" FOR INOPERATIVE ALS, INCREASE S-LOC 10L CAT C/D VISIBILITY TO RVR 6000".</div> <div>4. CHANGED FAF FROM SAIGE LOM TO NEW PFAF HEXOS.</div> <div>5. LOWERED FAF ALTITUDE FROM 5700 TO 5300 FT.</div> <div>6. FAC LENGTH CHANGED FROM 6.32 TO 5.23 NM.</div> <div>7. REPLACED MSA FROM BI LOM WITH BIL VORTAC.</div> <div>8. ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED.</div> <div>9. REMOVED ZOBUM FIX LINE OF MINIMUMS AND "DUAL VOR RECEIVERS REQUIRED" NOTE.</div> <div>10. REMOVED ALTERNATE MISSED APPROACH.</div> <div>11. ADDED INTERMEDIATE FIX FROM WIBON.</div> <div>12. ADDED PT OVER HEXOS.</div> <div>13. ADDED FEEDER FROM BIL VORTAC TO HEXOS.</div> <div>(SEE FORM 8260-10)</div>					
REASONS:					
<div>1, 2. 2020 MAGVAR EPOCH USED.</div> <div>3. PER 8260.19G.</div> <div>4-10. SAIGE LOM DECOMMISSIONED AND PER ATC/FPT REQUEST.</div> <div>11-14. PER ATC AND FPT REQUEST.</div> <div>15-18. ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.</div> <div>19. DME ADDED TO I-BIL NAVAID.</div> <div>20. PER 8260.3C PARA 1-6-2(D).</div> <div>21. ASSIST PILOT TRANSITION FROM BIL VORTAC TO BIL LOC.</div>					

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION  
ILS - STANDARD  
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.29

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NOTES, (CONT.):

CHART PBN NAVSPEC REQUIREMENT NOTE: RNAV 1.

EQUIPMENT REQUIREMENT NOTE: RNAV 1-GPS OR DME REQUIRED FOR PROCEDURE ENTRY.

EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED.

EQUIPMENT REQUIREMENTS NOTE FROM BEARE, LRSUN: RNAV 1-GPS REQUIRED.

QUALITY  
23  
CHECKED

CITY AND STATE  
BILLINGS, MT

ELEVATION: 3652 TDZE: 3585  
AIRPORT NAME:  
BILLINGS LOGAN INTL

FACILITY  
IDENTIFIER:  
I-BIL

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:  
ILS Y OR LOC Y RWY 10L, AMDT 26

SUP: ILS OR LOC RWY  
10L  
AMDT: 25A  
DATED: 04/28/2016

ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <div><input type="checkbox"/></div>		AAT <div><input type="checkbox"/></div>	ALPA <div><input type="checkbox"/></div>	APA <div><input type="checkbox"/></div>	AOPA <div><input type="checkbox"/></div>
NBAA <div><input type="checkbox"/></div>		OTHER (specify) <div><input type="checkbox"/></div> _____			
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
<div>CHANGES:</div> <div>CHANGES CONT.</div> <div>14. ADDED RNAV INITIALS FROM BEARE AND LRSUN TO NEW WIBON IF WITH APPROPRIATE NOTES.</div> <div>15. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA.</div> <div>16. LOWERED CIRCLING CAT A MDA/HAA FROM 4160/508 TO 4100/448.</div> <div>17. LOWERED CIRCLING CAT B MDA/HAA FROM 4180/528 TO 4160/508.</div> <div>18. RAISED CIRCLING CAT D MDA/HAA FROM 4220/568 TO 4580/928 AND VIS FROM 2 TO 3 MILES.</div> <div>19. ADDED VDP.</div> <div>20. CHANGED PROCEDURE NAME FROM "ILS OR LOC RWY 10L" TO "ILS Y OR LOC Y RWY 10L".</div> <div>21. ADDED CHART IN PROFILE VIEW: I-BIL DME ANTENNA.</div>					
REASONS:					

## STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

## PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.	
FEEDER	BIL VORTAC	HEXOS/I-BIL	1. AAO	454748.00N/1084406.00W	4116 (4E)	2000		6200	
		LOC/DME 5.04	2. TERRAIN	454748.00N/1084406.00W	3916 (3900)		AS1500	5400	
		DME							
INITIAL	BEARE	WIBON	3. AAO	455200.00N/1084657.00W	4466 (3E)	1000	AT534	6000	
			4. TERRAIN	455200.00N/1084657.00W	4266 (4300)		AS1500	5800	
INITIAL	LRSUN	WIBON	5. AAO	455224.00N/1084757.00W	4459 (3E)	1000	AT541	6000	
			6. TERRAIN	455224.00N/1084757.00W	4259 (4300)		AS1500	5800	
INTERMEDIATE	WIBON/I-BIL	HEXOS/I-BIL	7. AAO	455200.00N/1084639.00W	4482 (4E)	500	AC98	5100	
	LOC/DME 11.04	LOC/DME 5.04	8. TERRAIN	455200.00N/1084639.00W	4282 (4300)		AS1000	5300	
	DME	DME							
INTERMEDIATE: PT	10 NM	HEXOS/I-BIL	7. AAO	455200.00N/1084639.00W	4482 (4E)	500	AC98	5100	
		LOC/DME 5.04	8. TERRAIN	455200.00N/1084639.00W	4282 (4300)		AS1000	5300	
		DME							
FINAL: ILS	HEXOS/I-BIL	RW10L				ASC		3785/200	
	LOC/DME 5.04 DME								
2. PROCEDURE TURN	HEXOS	10 NM	11. AAO	460021.00N/1085915.00W	4525 (4E)	1000	DG275	5800	
			12. TERRAIN	460021.00N/1085915.00W	4325 (4300)		AS1000	5300	
3. MISSED APPROACH	MAP: DA / 5.23 NM	BIL VORTAC				ASC		5700	
	AFTER		13. TOWER (30-000339)	454535.06N/1082702.22W	4261 (1A)	1000		5300	
	ELEV: 3619/3750		14. TERRAIN	454239.00N/1082845.00W	3700 (3700)		AS1500	5200	
4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED 350	ACTUAL 448	15. POLE (30-024018)	454833.81N/1083527.11W	3795 (1A)	300	4100	
CATEGORY B	1.5 NM	450	508	16. TOWER (30-000140)	454813.96N/1083554.04W	3859 (1A)	300	4160	
CATEGORY C	1.7 NM	450	528	17. BLDG (30-059138)	454818.31N/1083756.81W	3878 (1A)	300	4180	
CATEGORY D	2.3 NM	550	928	13. TOWER (30-000339)	454535.06N/1082702.22W	4261 (1A)	300	4580	
CATEGORY E	4.5 NM	550							
5. MINIMUM SAFE ALTITUDES	PRIMARY NAVAIID: BIL VORTAC								
SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
130-220	AAO	150/28.9	7235 (4E)	8300					
220-130	AAO	259/28.6	5217 (4E)	6300					
CITY AND STATE	ELEVATION: 3652			FACILITY	PROCEDURE AND AMENDMENT NO:			REGION	
BILLINGS, MT	AIRPORT NAME:			I-BIL	ILS Y OR LOC Y RWY 10L, AMDT 26			ANM	
	BILLINGS LOGAN INTL								

PART B - SUPPLEMENTAL DATA										PART C - REMARKS: <b>PRECIPITOUS TERRAIN EVALUATION COMPLETED.</b>  30' USED FOR VEGETATION HEIGHT PER FPT.  <b>BACK UP ALTIMETER NOT DEVELOPED DUE TO LACK OF USABLE SOURCES.</b>  VGSI DATA: 3.00/50.7  ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED. CAT A: 1.36NM CAT B: 1.94NM CAT C: 3.07NM CAT D: 4.01NM  SEE ATTACHED AIRSPACE LETTER.	
1. COMMUNICATIONS WITH:			2. WEATHER SERVICE			3. ALTIMETER SETTING					
<b>BIL TOWER</b> <b>BIL APP CON</b>				N W S	OTHER: <b>ASOS</b>		SOURCE: <b>KBIL</b>				
				F A A			DISTANCE:				
				A / C			HOURS REMOTE OPERATION:				
SATISFACTORY ON:						LOCATION: <b>KBIL</b>					ADJUSTMENT: <b>0</b>
4. MONITOR STATUS	PRIMARY NAVAID: <b>I-BIL</b>		MONITOR POINT: <b>ATCT</b>								
5. APPROACH & RUNWAY LIGHTING		HRS	CAT 1	<b>24</b>							
		OPTN:	CAT 3								
			<b>ALS</b>								
			<b>(S) SALS</b>								
		<b>X</b>	<b>MALSR 10L</b>								
		<b>X</b>	<b>HIRL 10L, 28R</b>								
		<b>X</b>	<b>MIRL 07, 10R, 25, 28L</b>								
		<b>X</b>	<b>REIL 25, 28R</b>								
			<b>TDZ</b>								
	<b>C/LINE</b>										
<b>X</b>	<b>OTHER (SPECIFY)</b> <b>PAPI-4R 25, 28R PAPI-4L 07, 10L</b>										
6. RUNWAY MARKINGS		BASIC <b>BSC-F 10R, 28L</b>									
		ALL WEATHER <b>PIR-G 10L, 28R</b>									
		INSTRUMENT <b>NPI-G 07, 25</b>									
7. RUNWAY VISUAL RANGE		APPROACH <b>10L</b>									
		MIDFIELD									
		ROLL OUT <b>28R</b>									
8. GLIDE PATH		GP ANGLE: <b>3.00</b>				ELEV RWY THRESHOLD: <b>3584.4</b>					
		DISTANCE FROM RWY: <b>1135</b>				ELEV GP ANTENNA: <b>3571.9</b>					
						THRESHOLD CROSSING HEIGHT: <b>50.6</b>					
9. FINAL APPROACH COURSE AIMING			<b>X</b>	RUNWAY THRESHOLD					FT. FROM THRESHOLD		
			<b>X</b>	ON CENTERLINE					FT. FROM CENTERLINE		
10. WAIVERS: <b>NONE</b>											
PART D - PREPARED BY: <b>VICTOR BOONE</b>						DATE: <b>08/03/2017</b>					
TITLE: <b>AERONAUTICAL INFORMATION SPECIALIST</b>						OFFICE: <b>AJV-5432</b>					



STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD		
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## PART - A OBSTRUCTION DATA

[illegible]

PART B - SUPPLEMENTAL DATA										PART C - REMARKS:	
1. COMMUNICATIONS WITH:				2. WEATHER SERVICE			3. ALTIMETER SETTING				
SATISFACTORY ON:					N W S	OTHER:		SOURCE:			
					F A A			DISTANCE:			
					A / C			HOURS REMOTE OPERATION:			
	V H F		U H F		H F	LOCATION:			ADJUSTMENT:		
4. MONITOR STATUS		PRIMARY NAVAID:									
		MONITOR POINT:									
		HRS	CAT 1								
		OPTN:	CAT 3								
5. APPROACH & RUNWAY LIGHTING			ALS								
			(S) SALS								
			MALS								
			HIRL								
			MIRL								
			REIL								
			TDZ								
			C/LINE								
6. RUNWAY MARKINGS		BASIC									
		ALL WEATHER									
		INSTRUMENT									
7. RUNWAY VISUAL RANGE		APPROACH									
		MIDFIELD									
		ROLL OUT									
8. GLIDE PATH		GP ANGLE:				ELEV RWY THRESHOLD:					
		DISTANCE FROM RWY:				ELEV GP ANTENNA:					
						THRESHOLD CROSSING HEIGHT:					
9. FINAL APPROACH COURSE AIMING				RUNWAY THRESHOLD					FT. FROM THRESHOLD		
				ON CENTERLINE					FT. FROM CENTERLINE		
10. WAIVERS:											
PART D - PREPARED BY:										DATE:	
TITLE:										OFFICE:	