

**U.S. DEPARTMENT OF TRANSPORTATION -- FEDERAL AVIATION ADMINISTRATION
RADAR -- STANDARD INSTRUMENT APPROACH PROCEDURE -- FLIGHT STANDARDS SERVICE -- TITLE 14 CFR PART 97.31**

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.

Initial approach minimum altitude(s) shall correspond with those established for enroute operation in the particular area or as set forth below. Positive identification must be established with the radar controller. From initial contact with radar to final authorized landing minimums, the instructions of the radar controller are mandatory except when: (A) Visual contact is established on final approach at or before descent to the authorized landing minimums; or (B) at pilot's discretion if it appears desirable to discontinue the approach.

Except when the radar controller may direct otherwise prior to final approach, a missed approach shall be executed as provided below when: (A) communications on final approach is lost for more than 5 seconds during a precision approach, or for more than 30 seconds during a surveillance approach; (B) directed by radar controllers; (C) visual contact is not established upon descent to authorized landing minimums; or (D) if landing is not accomplished.

RADAR TERMINAL AREA MANEUVERING SECTORS AND ALTITUDES <i>(Sectors and distances measured from radar antenna)</i>											MISSED APPROACH		
FROM	TO	DISTANCE	ALTITUDE	MAP: RWY 3, 13, 21, 31: THLD									
AS ESTABLISHED BY THE CURRENT BISMARCK ASR MINIMUM VECTORING ALTITUDE CHART											SEE 8260-10 FOR MISSED APPROACH INSTRUCTIONS.		

MINIMUMS

TAKEOFF:	STANDARD	X	SEE FAA FORM 8260-15A FOR THIS AIRPORT				ALTERNATE: N A		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-3	2240	1	579	2240	1	579	2240	1 5/8	579	2240	1 5/8	579			
S-13	2140	1	486	2140	1	486	2140	1 3/8	486	2140	1 3/8	486			
S-21	2120	1	459	2120	1	459	2120	1 3/8	459	2120	1 3/8	459			
S-31	2200	2400	555	2200	2400	555	2200	6000	555	2200	6000	555			
CIRCLING	2240	1	579	2240	1	579	2240	1 5/8	579	2320	2	659			

NOTES:
RWY 3: FAF 5.5 MILES FROM THRESHOLD, MINIMUM ALTITUDE 3400; MINIMUM ALTITUDE 2.4 MILE FIX 2420; FINAL APPROACH COURSE 032. RECOMMENDED ALTITUDE: 5 MILES 3240; 4 MILES 2940; 3 MILES 2640; 2 MILES 2320.
RWY 13: FAF 5.6 MILES FROM THRESHOLD (AT HUSKE OM), MINIMUM ALTITUDE 3400; MINIMUM ALTITUDE 2.2 MILE FIX 2420; FINAL APPROACH COURSE 131. RECOMMENDED ALTITUDE: 5 MILES 3220; 4 MILES 2940; 3 MILES 2660; 2 MILES 2360.
RWY 21: FAF 5.5 MILES FROM THRESHOLD, MINIMUM ALTITUDE 3400; MINIMUM ALTITUDE 2.4 MILE FIX 2420; FINAL APPROACH COURSE 212. RECOMMENDED ALTITUDE: 5 MILES 3240; 4 MILES 2940; 3 MILES 2640; 2 MILES 2320.
RWY 31: FAF 5.5 MILES FROM THRESHOLD (AT JADAN LOM), MINIMUM ALTITUDE 3400; MINIMUM ALTITUDE 2.5 MILE FIX 2440; FINAL APPROACH COURSE 311. RECOMMENDED ALTITUDE: 5 MILES 3240; 4 MILES 2940; 3 MILES 2620; 2 SEE 8260-10

ADDITIONAL FLIGHT DATA
THRE: 1661 RWY: 3 THRE: 1655 RWY: 13
THRE: 1661 RWY: 21 THRE: 1645 RWY: 31
FAS OBST:
RWY 3: 1979 TREE 464328N/1004512W
RWY 13: 1879 TREE 464855N/1004547W
RWY 21: 1863 POWERLINE 464817N/1004308W
RWY 31: 1939 TREE 464428N/1004350W
MAG VAR: 7E EPOCH YEAR: 2010

QUALITY
2
CHECKED

LOST COMMUNICATIONS (ALL RWYS): AS DIRECTED BY ATC ON INITIAL CONTACT

CITY AND STATE BISMARCK, ND	ELEVATION: AIRPORT NAME:	1661 BISMARCK MUNI	FACILITY IDENTIFIER: BIS ASR	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: RADAR 1, AMDT 4	SUP
					AMDT: 3B
					DATED: 08/26/2010

ALL AFFECTED PROCEDURES REVIEWED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE ROUTINE
COORDINATED WITH: ATA <input checked="" type="checkbox"/> AAT <input type="checkbox"/> ALPA <input checked="" type="checkbox"/> APA <input type="checkbox"/> AOPA <input checked="" type="checkbox"/> NBAA <input checked="" type="checkbox"/> OTHER (specify) <input checked="" type="checkbox"/> <u>ZMP, BIS APP CON, BIS ATCT, AMGR</u>		
FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: LARRY H. STROUT (SCOTT M. CORY)	FIFO AJW-3753	DATE: 09/03/2010
APPROVED BY		
NAME: SUSAN L. CRUMB <div style="text-align: right;">MANAGER</div>	FIFO AJW-3753	DATE:
CHANGES: 1. UPDATED S-3 MDA/HAT FROM 2120/459 TO 2240/579 ALL CATS, VIS CAT C FROM 1 1/4 TO 1 5/8, CAT D FROM 1 1/2 TO 1 5/8. 2. UPDATED S-13 MDA/HAT FROM 2100/445 TO 2140/486 ALL CATS, VIS CAT C FROM 1 1/4 TO 1 3/8, CAT D FROM 1 1/2 TO 1 3/8. 3. UPDATED S-21 CAT C VIS FROM 1 1/4 TO 1 3/8, CAT D FROM 1 1/2 TO 1 3/8. 4. UPDATED S-31 MDA/HAT FROM 2100/455 TO 2200/555 ALL CATS, VIS CAT C FROM RVR 4000 TO RVR 6000, CAT D FROM RVR 5000 TO RVR 6000. 5. UPDATED CIRCLING CAT A MDA/HAA FROM 2180/503 TO 2240/579, CAT B/C FROM 2200/523 TO 2240/579, CAT D FROM 2280/619 TO 2320/659; VIS CAT C FROM 1 1/2 TO 1 5/8. 6. MOVED RWY 3 STEPDOWN LOCATION FROM 2 MILES TO 2.4 MILES AND RAISED MIN ALT FROM 2320 TO 2420. 7. MOVED RWY 13 STEPDOWN LOCATION FROM 2 MILES TO 2.2 MILES AND RAISED MIN ALT FROM 2300 TO 2420. 8. UPDATED RWY 13 RECOMMENDED ALTITUDES: 4 MILES FROM 2920 TO 2940, 3 MILES FROM 2620 TO 2660, 2 MILES FROM 2300 TO 2360. 9. MOVED RWY 21 STEPDOWN LOCATION FROM 4 MILES TO 2.4 MILES AND LOWERED MIN ALT FROM 2940 TO 2420. 10. MOVED RWY 31 STEPDOWN LOCATION FROM 2 MILES TO 2.5 MILES AND RAISED MIN ALT FROM 2320 TO 2440. 11. UPDATED FINAL APPROACH COURSE: RWY 3 FROM 030 TO 032; RWY 13 FROM 129 TO 131; RWY 21 FROM 210 TO 212; RWY 31 FROM 309 TO 311. 12. UPDATED ALTERNATE MINIMUMS. 13. UPDATED FAS OBSTACLES. 14. UPDATED MAG VAR/EPOCH YEAR FROM 9E/1990 TO 7E/2010. SEE 8260-10		
REASONS: 1,2,3,4,5,6,7,9,10. NEW CONTROLLING OBSTACLES. 8. RE-CALCULATED WITH FINAL AND STEPDOWN DESCENT GRADIENTS. 11. MAG VAR UPDATED. 12. CRITERIA. 13. NEW CONTROLLING OBSTACLES. 14. TO MATCH AIRPORT MAG VAR CHANGE. 15. AIRSPACE REQUIREMENT (RWY 3), OTHER RUNWAYS CHANGED TO MATCH. 16. MISSED APPROACH CONSTRUCTION REQUIREMENT (CAT D TURN RADIUS). 17. RWY 21 20:1 PENETRATION.		

QUALITY
 2
 CHECKED

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RADAR STANDARD INSTRUMENT APPROACH PROCEDURE
 FLIGHT STANDARDS SERVICES

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.

MISSED APPROACH INSTRUCTIONS:

- RWY 3: CLIMB TO 3200 THEN CLIMBING RIGHT TURN TO 3500 DIRECT BIS VOR/DME AND HOLD E, RT, 271.00 INBOUND.
- RWY 13: CLIMB TO 2500 THEN CLIMBING LEFT TURN TO 3500 DIRECT BIS VOR/DME AND HOLD E, RT, 271.00 INBOUND.
- RWY 21: CLIMB TO 2500 THEN CLIMBING LEFT TURN TO 3500 DIRECT BIS VOR/DME AND HOLD E, RT, 271.00 INBOUND.
- RWY 31: CLIMB TO 2800 THEN CLIMBING RIGHT TURN TO 3500 DIRECT BIS VOR/DME AND HOLD E, RT, 271.00 INBOUND.

ALTERNATE MINIMUMS (CONT.):
 @NA WHEN CONTROL TOWER CLOSED.

NOTES (CONT.):
 MILES 2320.
 CHART NOTE: WHEN CONTROL TOWER CLOSED, ASR NA.
 CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO MALS RWY 13.
 CHART NOTE: RWY 21 VISIBILITY REDUCTION BY HELICOPTERS NA.
 CHART NOTE: RWY 21: WHEN VGSI INOP, PROCEDURE NA AT NIGHT.



CITY AND STATE BISMARCK, ND	ELEVATION: 1661 TDZE: AIRPORT NAME: BISMARCK MUNI	FACILITY IDENTIFIER: BIS ASR	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: RADAR 1, AMDT 4	SUP:
				AMDT: 3B
				DATED: 08/26/2010

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.	
INTERMEDIATE	AS ESTABLISHED	BY THE CURRENT	BISMARCK ASR	MINIMUM VECTORING	ALTITUDE	CHART			
FINAL (RWY 3)	5.5 NM RADAR	2.4 NM RADAR	1. AAO	464214.00N/1004925.00W	2169 (2C)	250		2420	
	2.4 NM RADAR	RW03	2. TREE	464328.00N/1004512.00W	1979 (2C)	250		2240	
FINAL (RWY 13)	5.6 NM RADAR	2.2 NM RADAR	3. AAO	465030.00N/1004809.00W	2159 (2C)	250		2420	
	2.2 NM RADAR	RW13	4. TREE	464855.00N/1004547.00W	1879 (2C)	250		2140	
FINAL (RWY 21)	5.5 NM RADAR	2.4 NM RADAR	5. TOWER (38-000891)	465009.00N/1004010.00W	2170 (2C)	250		2420	
	2.4 NM RADAR	RW21	6. POWERLINE	464817.00N/1004308.00W	1863 (2C)	250		2120	
FINAL (RWY 31)	5.5 NM RADAR	2.5 NM RADAR	7. AAO	464331.00N/1003806.00W	2189 (2C)	250		2440	
	2.5 NM RADAR	RW31	8. TREE	464428.00N/1004350.00W	1939 (2C)	250		2200	
MISSED APPROACH	RW03	BIS VOR/DME				ASC		3500	
			9. AAO	464327.00N/1003748.00W	2199 (4E)	1000		3200	
ELEV:	1990		10. TERRAIN	464327.00N/1003748.00W	1999 (2000)		AS1500	3500	
MISSED APPROACH	RW13	BIS VOR/DME				ASC		3500	
			11. AAO	464421.00N/1003912.00W	2166 (4E)	1000		3200	
ELEV:	1890		12. TERRAIN	464421.00N/1003912.00W	1966 (2000)		AS1500	3500	
2. PROCEDURE TURN NA									
3. MISSED APPROACH	MAP: RW21	BIS VOR/DME				ASC		3500	
	ELEV: 1870		13. AAO	464330.00N/1003801.00W	2209 (2C)	1000		3300	
			14. TERRAIN	464330.00N/1003801.00W	2009 (2000)		AS1500	3500	
4. CIRCLING									
	DISTANCE	HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED	ACTUAL	17. TREE	464440.96N/1004349.35W	1929 (2C)	300	2240	
CATEGORY B	1.5 NM	450	579	8. TREE	464428.00N/1004350.00W	1939 (2C)	300	2240	
CATEGORY C	1.7 NM	450	579	8. TREE	464428.00N/1004350.00W	1939 (2C)	300	2240	
CATEGORY D	2.3 NM	550	659	18. TREE	464915.00N/1004516.00W	2009 (2C)	300	2320	
CATEGORY E	4.5 NM	550							
5. MINIMUM SAFE ALTITUDES									
PRIMARY NAVAID: NA									
SECTOR	OBSTRUCTION	BRG / DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG / DIST	ELEVATION (MSL)	M S A
PAGE 1 OF 2									
CITY AND STATE		AIRPORT & ELEVATION		FACILITY		PROCEDURE AND AMENDMENT NO:		REGION	
BISMARCK, ND		BISMARCK MUNI 1661		BIS ASR		RADAR 1, AMDT 4		AGL	

AL/1/1
2
CHECKED

NOTES / EXPLANATIONS FROM OPPOSITE SIDE OF FORM:
NO ADDITIONAL AIRSPACE REQUIRED.

TERPS, VOLUME 1, "VISUAL PORTION OF FINAL"
PENETRATIONS:

20:1 1663 GRD(KBIST0003) 464636.03N/1004349.62W (0.77) (ASR 21)
34:1 1666 GRD(KBIST0004) 464636.86N/1004348.33W (0.57) (ASR 21)
(FPO NOTIFIED)

RWY 13 FINAL HAS NON-STABILIZED DESCENT TO ACHIEVE LOWER
MDA (2140 VS 2300). 2049 MSL TOWER LOCATION PREVENTED
MOVING STEPDOWN ANY FURTHER OUT FROM THRESHOLD AND
STILL APPLY PARAGRAPH 289.

MISSED APPROACH: RAISED MISSED APPROACH ALTITUDE TO
3500 DUE TO AIRSPACE EVALUATION (RWY 03); RAISED ALTITUDES
FOR ALL OTHER RUNWAYS TO MATCH.

RWY 13 VISIBILITY REDUCTION NOT APPLIED DUE TO
NON-STANDARD MALS (1300'); WAIVER FOR MALS ON FILE.

OBSTACLE #6 - OBSTACLE OBTAINED FROM 8260-9 OF
EXISTING PROCEDURE (RNAV (GPS) RWY 21).

100 FT VEGETATION APPLIED.

PART C - REMARKS (CONT.):

2. KBIS ASOS ON SERVICE A; HRS OPTN: 24.

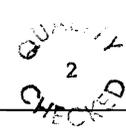
BACKUP ALTIMETER SOURCE NOT ESTABLISHED DUE TO
REDUNDANT WEATHER SOURCES (NWS) AT AIRPORT.

FINAL DESCENT ANGLE: RW03 2.90/48.2; RW13 3.03/58.0; RW21
2.90/48.2; RW31 2.92/48.1

VGSI DATA: RW03 3.00/48.2; RW13 3.00/58.0; RW21 3.00/48.2; RW31
3.00/47.7

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH :		2. WEATHER SERVICE		3. ALTIMETER SETTING		
ZMP		<input checked="" type="checkbox"/> NWS	OTHER:		SOURCE: KBIS	
BIS APP CON		<input type="checkbox"/> FAA	ASOS		DISTANCE:	
BIS TOWER		<input type="checkbox"/> A/C	LOCATION: KBIS		HOURS REMOTE OPERATION:	
SATISFACTORY ON:		HRS OPTN: 24		ADJUSTMENT: 0		
<input checked="" type="checkbox"/> VHF		<input checked="" type="checkbox"/> UHF		<input type="checkbox"/> HF		
4. MONITOR STATUS	PRIMARY			SECONDARY		
	NAVAID: BIS ASR			NAVAID:		
	MONITOR POINT: BIS ATCT			MONITOR POINT:		
	HRS OPTN:	CAT 1	HRS OPTN:	CAT 1		
	CAT 3		CAT 3			
5. AIRSPACE	FLOOR OF CONTROLLED AIRSPACE UNDER FAC			CONTROL AREA		
	CONTROL ZONE:			HOURS OPTN	TRANSITION AREA	
6. APPROACH & RUNWAY LIGHTING	ALS			<input checked="" type="checkbox"/> REIL 21, 03		
	(S) SALS			TDZ		
	<input checked="" type="checkbox"/>	MALS 13 (PCL), MALSR 31 (PCL)			C/LINE	
	<input checked="" type="checkbox"/>	HIRL 31, 21, 13, 03			<input checked="" type="checkbox"/> OTHER (Specify) PAPI-4L 31, 21, 13, 03	
	MIRL					
7. RUNWAY MARKINGS			8. RUNWAY VISUAL RANGE			
ALL WEATHER PIR-G 31, 13; -F 21, 03			APPROACH 31			
INSTRUMENT			ROLL OUT			
9. GLIDE SLOPE	G S ANGLE:			ELEV RWY THRESHOLD:		
	DISTANCE FROM RWY:			ELEV GS ANTENNA:		
				THRESHOLD CROSSING HEIGHT:		
10. FINAL APPROACH COURSE AIMING	<input checked="" type="checkbox"/>	RUNWAY THRESHOLD		F T. FROM THRESHOLD		
	<input checked="" type="checkbox"/>	ON CENTERLINE		F T. FROM CENTERLINE		
11. WAIVERS OF STANDARDS		NUMBER OF WAIVERS ON FILE		DATES OF APPROVAL		
		NONE				
PART C - REMARKS: PRECIPITOUS TERRAIN EVALUATION COMPLETED. PARA 251, 20:1 PENETRATION (ASR 21). PARA 251, 34:1 PENETRATION (ASR 21). TERPS PARAGRAPH 289 APPLIED TO 2049 TOWER 464915N/1004657W (ASR 13) TERPS PARAGRAPH 289 APPLIED TO 2209 AAO 464330N/1003801.00W (ASR 31) TERPS PARAGRAPH 289 APPLIED TO 1959 TREE 464430N/1004102W (ASR 31) (CONT.)						
PART D - PREPARED BY: LARRY H. STROUT (SCOTT M. CORY)				DATE: 09/03/2010		
TITLE: AERONAUTICAL INFORMATION SPECIALIST				OFFICE: AJW-3753		



NFPO APPROVAL:

DATE:

OFFICE: AVN-120

NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: BIS APP CON, BIS ATCT
OTHER:

QUALITY
2
CHECKED



Federal Aviation Administration

Memorandum

Date:

To: Dick Powell Manager, National Flight Data Center, AJR-32

From: Wade EK Terrell, Lead, Production Integration Coordination Team, AJW-3741

Reply To Attn Of: Meghan Kieffer
301-427-5169
FAX: 301-427-5412

Subject: **ACTION:** Magnetic Variation Change

The Magnetic Variation (MV) data for the airport(s) and/or facility(s) listed under the 'Airport/Facility' column will be revised effective concurrent with the publication of the procedure(s) listed below.

ILS OR LOC RWY 13, AMDT 3
RNAV (GPS) RWY 13, AMDT 0
ILS OR LOC RWY 31 AMDT 33
RNAV (GPS) RWY 31, AMDT 1

RNAV (GPS) RWY 3, AMDT 2
RNAV (GPS) RWY 21, AMDT 1
VOR-A, AMDT 21
RADAR 1, AMDT 4

Estimated Chart Date: 1/13/2011

Please publish these changes in the National Flight Data Digest.

NORTH DAKOTA

<u>Location</u>	<u>Name</u>	<u>Airport /Facility</u>	<u>Identifier</u>	<u>Assigned Magnetic Variation Value</u>	<u>Epoch Year</u>
Bismarck	Bismarck Muni	Airport	KBIS / BIS	Old 11 ° East New 07 ° East	2010
Bismarck		ILS	BIS	Old 11 ° East New 07 ° East	2010
Bismarck		ILS	BZX	Old 11 ° East New 07 ° East	2010
Bismarck		ASR	BIS	Old 09 ° East New 07 ° East	2010
Bismarck	Jadan	NDB	BISBI	Old 11 ° East New 07 ° East	2010

cc: Requested by Cory Scott, AJW-3253

AJW-3741 (Guest), AJW-3762 (Catherine Terrell), FTW-FPO, AVN-250/AJW-3253/AVN-100rf

U:\AVN100\100Public\MAGVAR\MAGVAR Letters 2010\ MV Change Request for Bismarck Muni, Bismarck, ND 8-12-10