

<b>Flight Procedure Tracking Form</b>		<b>Action:</b> FLIGHT CHECK	<b>Task Type:</b> IAP	<b>Date Open:</b> 10/03/2012	<b>Task #:</b> 2012100323742701008	<b>Request #:</b> 20121003237427
<b>Procedure:</b> RADAR 1 AMDT 2			<b>Airport ID:</b> KGRF	<b>Airport:</b> GRAY AAF (JOINT BASE LEWIS-MCCHORD)		<b>Reimbursable #:</b>
<b>City:</b> FORT LEWIS/TACOMA		<b>ST:</b> WA	<b>GPS #:</b>		<b>Estimated Chart Date:</b> 05/02/2013	<b>FICO #:</b>
<b>Fac ID:</b> GRFA		<b>Fac. Type:</b> ASR		<b>Specialist:</b> CASIMIR TABAKA		

**Procedure Review**

	Rec'd	Rel'd	Full Name	Comments
<b>Lead:</b>		01/08/2013	CASIMIR TABAKA	<div style="color: red; font-size: 2em; font-weight: bold;">MAG VAR</div> <div style="color: red; font-size: 2em; font-weight: bold;">93</div>
<b>QA:</b>	01/08/2013	01/08/2013	CASIMIR TABAKA	
<b>Liaison:</b>	01/08/2013		Spur in ARMY - MAGVAR	

**Procedure Comments:** ENROUTE-NON **Remark Type:** INFORMATION 109 5 of 10

FORT LEWIS/TACOMA, WA GRAY AAF (JOINT BASE LEWIS-MCCHORD) (KGRF) RADAR 1, AMDT 2 ENROUTE-NO FC: 3.19.13 PUB: 5.2.13

ATTACHED FORMS: 8260-12; 8260-20; 8260-9; 8260-2(S): GRAYE (GRF) NDB-INT, REV 11.

CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036 / 405.954.3636



# Federal Aviation Administration

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## Memorandum

FEB 14 2013

Date:

To:

Mike Foster  
HQ USAASA, ATAS-AI  
9325 Gunston, Suite N 319  
Fort Belvoir, VA 22060-5582

From:

*Susan L W Crumb*  
Susan L W Crumb, Manager, Eastern Products Team AJV-352

Reply To Attn Of:

(405) 954-8830  
FAX (405) 954-9530

Subject:

**ACTION:** Transmittal of Data

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The attached Army Form(s) for Gray AAF (Joint Base Lewis-MCChord), Fort Lewis/Tocoma, WA (KGRF) are forwarded for further processing.

8260-11      COPTER RNAV (GPS) RWY 15, AMDT 2  
                 ILS OR LOC RWY 15, AMDT 7  
                 RNAV (GPS) RWY 15, AMDT 1  
                 RNAV (GPS) RWY 33, AMDT 1

8260-12      RADAR 1, AMDT 2

8260-13      COPTER NDB RWY 15, AMDT 2  
                 NDB RWY 15, AMDT 21  
                 NDB RWY 33, AMDT 7

8260-21B     LEWIS THREE

8260-21      TAKEOFF MINIMUMS, AMDT 3

The following FAA forms have been forwarded to NFDC:

8260-2

CFBMH, WA ORIG*	CIKRI, WA REV *
CODGU, WA REV 3*	ECEKO, WA REV 1*
EMOFO, WA REV 1*	ETAHO, WA REV 1*
GRAYE NDB, WA REV 11*	
HUMUT, WA REV 1*	LACOMAS NDB, WA REV 1*
UGVIF, WA ORIG*	VOPUY, WA REV 1*

Attachment

**UNITED STATES ARMY  
RADAR -- STANDARD INSTRUMENT APPROACH PROCEDURE**

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 (Sectors and distances measured from radar antenna)											MISSED APPROACH		
FROM	TO	DISTANCE	ALTITUDE	MAP: PAR RWY 15/33/DH									
												RWY 15: CLIMB TO 1000, THEN CLIMBING LEFT TURN TO 2000 ON HEADING 270 FOR RADAR VECTORS; OR AS DIRECTED BY ATC. ALTERNATE MA: CLIMB TO 1000, THEN CLIMBING LEFT TURN TO 2000 DIRECT GRF NDB AND HOLD NW, RT, 151.08 INBOUND (ADF REQUIRED).	
												RWY 33: SEE 8260-20	

**MINIMUMS**

TAKEOFF:	STANDARD	X	SEE FAA FORM 8260-21A FOR THIS AIRPORT				ALTERNATE:		NA	X						
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	
PAR S-15	489	2400	200	489	2400	200	489	2400	200	489	2400	200				
PAR S-33	500	1/2	200	500	1/2	200	500	1/2	200	500	1/2	200				

**NOTES:**  
**PAR RWY 15: 9.90 MILES FROM THRESHOLD, MINIMUM ALTITUDE 2000.**  
**FAF 3.90 MILES FROM THRESHOLD. GLIDESLOPE INTERCEPT ALTITUDE 1600. FINAL APPROACH COURSE 151.07.**  
**PAR RWY 33: 10.00 MILES FROM THRESHOLD, MINIMUM ALTITUDE 2000.**  
**FAF 3.92 MILES FROM THRESHOLD. GLIDESLOPE INTERCEPT ALTITUDE 1600. FINAL APPROACH COURSE 331.07.**

**ADDITIONAL FLIGHT DATA**  
 TDZE: 288.7 RWY: 15 TDZE: \_\_\_\_\_ RWY: \_\_\_\_\_  
 TDZE: 300.0 RWY: 33 TDZE: \_\_\_\_\_ RWY: \_\_\_\_\_  
**PAR RWY 15: GS 3.00/TCH 55.0/RPI 947.19**  
**PAR RWY 33: GS 3.00/TCH 38.6/RPI 729.90**



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

MAG VAR: 16E EPOCH YEAR: 2015

CITY AND STATE  FORT LEWIS, WA	ELEVATION: 300	FACILITY IDENTIFIER:  GRF PAR	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:  RADAR 1, AMDT 2	SUP
	AIRPORT NAME: GRAY AAF			AMDT: 1
	DATED: 4/8/2010			

ALL AFFECTED PROCEDURES REVIEWED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE <b>CONCURRENT</b>
COORDINATED WITH: AIR TRAFFIC <input checked="" type="checkbox"/>		
FLIGHT CHECKED BY		
NAME: Charles Cunningham <i>for Susan Red Crumb</i>	FIFO	2/6/13 DATE:
DEVELOPED BY		
NAME: ROBERT HAMILTON <i>for Susan Red Crumb</i>	FIFO AJV-352	DATE: 11/01/2012
APPROVED BY		
NAME:	UNIT USAASA	DATE:
RECOMMENDED BY		
NAME: SUE CRUMB, MANAGER <i>Susan Red Crumb</i>	BRANCH AJV-352	FEB 14 2013
CHANGES: 1. 2015 MAGVAR, CHANGED FROM 20E TO 16E. 2. RWY 15 FINAL COURSE CHANGED FROM 147.07 TO 151.07. 3. RWY 33 FINAL COURSE CHANGED FROM 327.07 TO 331.07. 4. HATH BASED ON THLD 5. RPI UPDATED TO MATCH AVNIS USING AFS CALC. 6. UPDATED ALTERNATE MISSED INSTRUCTIONS TO CURRENT CRITERIA.		
REASONS: 1-3. 2015 MAGVAR 4. NEW 8260.3 CRITERIA 5. AFS APPROVED CALC, AND WHATS PUBLISHED IN AVNIS. 6. CURRENT CRITERIA (8260.19).  <p style="text-align: center;">CONCURRENT WITH KGRF ILS OR LOC RWY 15, AMDT 7</p> <div style="text-align: right;">  </div>		

**UNITED STATES ARMY  
STANDARD INSTRUMENT APPROACH PROCEDURE**

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 CONT:**

**RWY 33: CLIMB TO 1000, THEN CLIMBING LEFT TURN TO 2000 ON HEADING 270 FOR RADAR VECTORS; OR AS DIRECTED BY ATC. ALTERNATE MA: CLIMB TO 2000 DIRECT GRF NDB AND HOLD NW, RT, 151.08 INBOUND (ADF REQUIRED).**



CITY AND STATE  FORT LEWIS, WA	ELEVATION: 300 TDZE: AIRPORT NAME:  GRAY AAF	FACILITY IDENTIFIER:  GRF PAR	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:  RADAR-1, AMDT 2	SUP:
				AMDT: 1
				DATED: 4/8/2010

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE				
COORDINATED WITH:						
<input type="checkbox"/> ATA	<input type="checkbox"/> AAT	<input type="checkbox"/> ALPA	<input type="checkbox"/> APA	<input type="checkbox"/> AOPA	<input type="checkbox"/> NBAA	<input type="checkbox"/> OTHER (specify) _____
FLIGHT CHECKED BY						
NAME:					FIFO	DATE:
DEVELOPED BY						
NAME:					FIFO	DATE:
APPROVED BY						
NAME:					UNIT	DATE:
CHANGES:						
REASONS:						

# RADIO FIX AND HOLDING DATA RECORD

NAME: GRAYE NDB

STATE: WA

COUNTRY: US

LATITUDE/LONGITUDE: 470901.07N/1223616.76W

TYPE: WP, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

**FIX MAKE-UP FACILITIES:**

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	GRAYE	GRF	NDB	MH							17500
2	TACOMA	I-GRF	LOC/DME		331.07	347.07	4.50	5.03	30543	1600	4800

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

**PATTERNS:**

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING DME	ALTITUDES MIN	ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	NW	GRF	NDB	331.08	151.08	R	1		1700	2000	5	5
2	S	GRF	NDB	172.84	352.84	L	1		2000	6000	5	7
3	NW	WP	WP	331.08	151.08	R		4	2000	2000	4	4
4	NW	GRF	NDB	331.08	151.08	R	1		2000	8700	11	15

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	470829.65N/1223645.31W	620	4E
2	230	AAO	465921.00N/1224130.00W	781	4E
3	100	AAO	470829.65N/1223645.31W	620	2C
4	310	TOWER (53-000029)	471643.50N/1223046.38W	918	2C

**REASON FOR NONSTANDARD HOLDING:**

PAT 2 MCCHORD AFB ATA AVOIDANCE

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERNS.  
PRIOR COORDINATION REQUIRED WITH SEA APP CON FOR HOLDING OVER R-6703A/B/C/D AND/OR RAINIER MOA 1,2,3.

**PROCEDURES REQUIRING CLIMB-IN-HOLD:**

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
4	NDB RWY 15	KGRF	FORT LEWIS/TACOMA	WA (US)
4	TAKEOFF MINMUMS	KGRF	FORT LEWIS/TACOMA	WA (US)

**REMARKS:**

HOLDING OVERLAPS R-6703 AND RAINIER MOA; ATC HAS RECALL.  
PAT 1,3: R-6703A/B, AND RAINIER 1,2,3 MOA.  
PAT 2: R-6703A/B/C/D, AND RAINIER 1,2,3 MOA.  
PAT 3: HOLDING FOR MILITARY HELICOPTERS ONLY. MAX AIRSPEED 100KTS.  
PRECIPITOUS TERRAIN EVALUATION COMPLETED  
FAC 2 DME COORDINATES 470441.00N-1223432.30W.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	TAKEOFF MINMUMS	1	4	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	COPTER NDB RWY 15	1	1	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	COPTER RNAV (GPS) RWY 15		3	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	ILS OR LOC RWY 15	1, 2	1	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	NDB RWY 15	1	1	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	NDB RWY 33	1	1	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	RADAR-1, PAR RWY 15/33	1	1	KGRF	FORT LEWIS/TACOMA	WA (US)
IAP	NDB RWY 35	1	2	KTIW	TACOMA	WA (US)

REQUIRED CHARTING: MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11

DATE OF REVISION: 05/02/2013

**REASON FOR REVISION:**

REMOVED OLD PATTERN 3, HELICOPTER NDB HOLDING. PROCEDURE USES PAT 1  
PAT 1 INBOUND CRS FROM 147.07 TO 151.08, MAGVAR FROM 20E TO 16E, NDB TO THRS.  
PAT 2 INBOUND CRS FROM 348.83 TO 352.84, MAGVAR FROM 20E TO 16E, NDB TO THRS.  
UPDATED FACILITY COORDINATES.  
FAC 2 DME DISTANCE CHANGED FROM 5.03 TO 4.50.  
RAISED FAC 2 MAA FROM 4300 TO 4800.  
REMOVED RADAR-1 AND ILS OR LOC RWY 15 FROM PROCEDURES REQUIRING CLIMB AND HOLD.  
UPDATED FIX USE.



DEVELOPED BY:            DATE: 10/24/2012            OFFICE: AJV-352

NAME: ROBERT HAMILTON

APPROVED BY:            DATE: FEB 14 2013            OFFICE: AJV-352

NAME: SUE CRUMB

SIGNATURE:



DISTRIBUTION:        NFDC  
                          FPO: WST  
                          ARTCC: ZSE  
                          ATC FACILITY: GRF ATCT, WESTERN DAR  
                          OTHER: US\MSA





# Federal Aviation Administration

## Memorandum

Date:

To: Dick Powell Manager, National Flight Data Center, AJV-21

From: Deborah L. Copeland, Manager, Western Products Team, AJV-354

Subject: **ACTION:** Magnetic Variation Change for Gray AAF (Joint Base Lewis-McChord), Fort Lewis/Tacoma, WA (KGRF)

This rescinds the previously submitted letter on OCT 22 2012 same subject. It changes Estimated Chart Date : 03/07/2013 to read Estimated Chart Date: 05/02/2013.

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.

### **GRAY AAF (JOINT BASE LEWIS-MCCHORD), LEWIS/TACOMA, WA, (KGRF)**

- COPTER NDB RWY 15, AMDT 2
- COPTER RNAV (GPS) RWY 15, AMDT 2
- ILS OR LOC RWY 15, AMDT 7
- NDB RWY 15, AMDT 21
- NDB RWY 33, AMDT 7
- RADAR 1, AMDT 2
- RNAV (GPS) RWY 15, AMDT 1
- RNAV (GPS) RWY 33, AMDT 1
- TAKEOFF MINIMUMS AND OBSTACLE DP, AMDT 3
- LEWIS TWO DEPARTURE (VECTOR), AMDT 3

### **TACOMA NARROW, TACOMA, WA (KTIW)**

- NDB RWY 35, AMDT 8

Estimated Chart Date: 05/02/2013

Please publish these changes in the National Flight Data Digest.

CONCURRENCES
ROUTING SYMBOL AJV-34 SBaker
INITIALS/SIG
DATE
ROUTING SYMBOL AJV-354 PGetz/LEverha
INITIALS/SIG
DATE
ROUTING SYMBOL AJV-354 DCopeland
INITIALS/SIG
DATE
ROUTING SYMBOL AJV-341 JAlfonso
INITIALS/SIG
DATE
ROUTING SYMBOL
INITIALS/SIG
DATE

**WASHINGTON**

<b><u>Location</u></b>	<b><u>Name</u></b>	<b><u>Airport /Facility</u></b>	<b><u>Identifier</u></b>	<b><u>Assigned Magnetic Variation Is</u></b>	<b><u>Epoch Year</u></b>
Fort Lewis/Tacoma	Gray AAF (Joint Base Lewis-McChord)	Airport	KGRF / GRF	Old 20° East New 16° East	2015
Tacoma		ILS	GRF	Old 20° East New 16° East	2015
Fort Lewis/Tacoma	GRAYE	NDB/M	GRF	Old 20° East New 16° East	2015
Fort Lewis	LACOMAS	NDB/M	LAC	Old 20° East New 16° East	2015

If you have any questions please notify Deborah L. Copeland, [deborah.l.copeland@faa.gov](mailto:deborah.l.copeland@faa.gov)  
(301) 427-5070.

CC AJV-3rf

sjb:x7537:11/27/2012: (U:\AVN100\PIT\MAGVAR\MAGVAR\MAGVAR Letters 2013\MV

Change for Fort Lewis/Tacoma, WA (KGRF) 11-27-12 Requestor:DSmith, Evaluated By: LFortier