

NWS: EHB-6, Software Note 24

DoD: TO 31P1-4-108-618

FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

RADAR PRODUCT GENERATOR (RPG) GROUP SOFTWARE BUILD 5.0

DOPPLER METEOROLOGICAL RADAR WSR-88D



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COMMERCE, THE AIR FORCE, THE NAVY, AND TRANSPORTATION

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1. SUBJECT

Radar Product Generator (RPG) Group Software Build 5.0.

2. PURPOSE

This modification provides instructions and software for loading the new RPG Build 5.0 software. This document is issued under Radar Operations Center (ROC) Engineering Change Proposal (ECP) 0185, RPG Software Build 5.0.

NOTE

Software Note 23, Correction of High/Low Clutter Map Boundary Elevation for Radar Data Acquisition (RDA), dated 7 January 2004, must be completed prior to the installation of RPG Software Build 5.0.

Specifically, RPG Software Build 5.0 provides the following enhancements:

- Adds the Mesocyclone Detection Algorithm (MDA) and MDA product. The MDA product is similar to the MESO product.
- Adds two new Volume Coverage Patterns (VCPs): VCP 12 and VCP 121.
 - VCP 12 has a 4.1 minute duration and improved vertical resolution at low angles.
 - VCP 121 is used with the Multiple Pulse Repetition Frequency Dealiasing Algorithm (MPDA). MPDA combines velocity data from up to three Doppler sweeps (at the same elevation angle) with differing Pulse Repetition Frequencies (PRFs) to mitigate range and velocity aliasing problems.
- Replaces the existing Precipitation Preprocessing Algorithm with the Enhanced Preprocessing Algorithm (EPRE). The EPRE upgrades the Precipitation Processing Subsystem (PPS) to handle new VCPs and allows future PPS enhancements.
- Adds new Tornado Detection Rapid Update product.
- Adds distribution of compressed Level II data from the Base Data Distribution Server (BDDS).
- Changes to support non-associated AWIPS One-time Requests over the AWIPS WAN.
- Changes to support frame relay communication between DOD and FAA RPGs to Distant MSCFs and associated AWIPS.
- Removes RCM editing capability and PUP/RPGOP status messages.
- Automatically saves adaptation data changes.

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The estimated downtime for the RPG will be approximately 2 hours when no data will be available while Build 5.0 is being loaded.

Steps are included in the procedures to send out free text messages (ftms) notifying the network of the radar down time.

The RPG can continue to operate while the software is being loaded on the MSCF.

For FAA Redundant sites, RPG Software Build 5.0 should first be loaded on one channel and the Distant Master System Control Function (DMSCF). The other channel can be operating on the old software build during this time. However, the channel on the old build must be shut down before Build 5.0 is brought up on the first channel to avoid cross-talk between the different software builds (these steps are covered in the attachments).

For additional information concerning this document, contact the WSR-88D Hotline, Norman, OK; phone number: (800) 643-3363 or (405) 573-8900 through 8907, or by e-mail at NEXRAD.Hotline@noaa.gov. An electronic copy of this document can be found at the following Internet address:
www.roc.noaa.gov/ssb/sysdoc/techman/tmlinks.asp

3. SITES AFFECTED

See [ATTACHMENT 6](#) for site effectivity.

4. ESTIMATED COMPLETION DATE

This modification must be reported completed no later than 60 days after receipt of this kit.

5. EQUIPMENT AFFECTED

Radar Product Generator Group.

6. SPARES AFFECTED

Not applicable.

7. MODIFICATION ACCOMPLISHED BY

Site electronic systems analysts and/or electronics technicians will accomplish this task. One technician is required to perform these procedures. Operators may assist with [ATTACHMENT 5](#).

8. MATERIALS REQUIRED

The following kit will be required to install RPG Software Build 5.0. NWS sites that have a DoD MSCF will receive a separate kit for the DoD MSCF.

Nomenclature	Qty
CD-ROM, RPG LOAD MEDIA Version 5.0 (two identical CD-ROMs)	2
CD-ROM, EPSS Files (Electronic Performance Support System)	1
CD-ROM, RPG Blockage Files	1
3.5 inch diskette, RPG DEFAULT ADAPTATION DATA or MSCF DEFAULT ADAPTATION DATA	1
* Formatted 3.5 inch diskettes.	3

* Site will provide.

9. SOURCE OF MATERIALS

The items in paragraph 8 will be shipped to each site by the WSR-88D Radar Operations Center (ROC). Items annotated by an asterisk will be provided by the site.

10. SPECIAL TOOLS AND TEST EQUIPMENT REQUIRED

Cisco Cable # 72-0876-01 or 72-1259-01

* RJ45-DB25(F) adapter #2300027-301

(These tools should be in the kit provided with the ORPG installation.)

* If this adapter is not available, it can be replaced by the RJ45-DB9(F) adapter (Cisco 74-0495-01), DB9 male gender changer, and the 10 foot DB9(F)-DB25(M) serial cable (Black Box EVMBMC-0010). If this combination is used, when referenced below, it should be connected to I/O panel J7 instead of J8. Also, when activated with a tip session, use /dev/cua/1 instead of /dev/cua/3.

11. TIME AND PERSONNEL REQUIRED

Work Phases	NWS Configuration (Hours)	DoD Configuration (Hours)	FAA Configuration (Hours)
Unpacking	0.1	0.1	0.1
Coordination	0.1	0.1	0.1
Installation	MSCF: 1.0 RPG: 1.0 BDDS: 0.7 RPG Router: 0.7	Distant MSCF: 1.0 RPG: 1.0 Remote BDDS: 0.7 RPG Router: 0.7	Distant MSCF: 1.0 First RPG: 1.1 Second RPG: 0.9 RPG Routers: 1.4
Data Restoration	0.1	0.1	0.1
Total Work-hours	3.7	3.7	4.7

12. DOCUMENTS AFFECTED

- a. **Operations Instructions, Radar Product Generation (RPG), Revision 2, dated 29 March 2004**
 NWS: EHB 6-526
 DoD: AFTO 31P1-4-108-451-1
 FAA: TI 6345.1 V50

- b. **Maintenance Instructions, Radar Product Generator (RPG), Revision 1, dated 30 April 2003**
 NWS: EHB 6-525, Revision 1, Change 1
 DoD: AFTO 31P1-4-108-452-1, Revision 1, Change 1
 FAA: TI 6345.1 V49, Revision 1, Change 1

- c. **Guidance on Adaptable Parameters, Revision 2, dated 29 March 2004**
 NWS: WSR-88D Handbook Volume 4, RPG, Revision 2

13. VERIFICATION STATEMENT

This modification was successfully installed at Altus AFB, Oklahoma; Dodge City, Kansas; Albuquerque, New Mexico; Fort Hood, Texas; Yuma, Arizona; Kamuela/Kohala, Hawaii; and Fort Worth/Dallas, Texas.

14. DISPOSITION OF REMOVED AND REPLACED PARTS/MATERIALS

Not applicable.

15. PROCEDURES

NOTE

Software Note 23, Correction of High/Low Clutter Map Boundary Elevation for Radar Data Acquisition (RDA), dated 7 January 2004, must be completed prior to the installation of RPG Software Build 5.0.

Perform the following procedures that apply for your site:

- [ATTACHMENT 1](#), MSCF Software Build 5.0 Load Instructions
- [ATTACHMENT 2](#), RPG Software Build 5.0 Load Instructions
- [ATTACHMENT 3](#), BDDS Software Build 5.0 Load Instructions
- [ATTACHMENT 4](#), RPG Router Software Build 5.0 Load Instructions
- [ATTACHMENT 5](#), MSCF Restoration

All NWS sites shall perform [ATTACHMENT 1](#) and [ATTACHMENT 2](#) for their WSR-88D.

When supporting DoD or FAA MSCF/BDDS configurations, NWS sites may also need to perform the procedures in [ATTACHMENT 1](#), [ATTACHMENT 3](#), [ATTACHMENT 4](#), and [ATTACHMENT 5](#).

It is expected that the RPG, corresponding MSCF, the corresponding BDDS (if applicable), and the RPG Router will be loaded on the same date. If the MSCF and/or BDDS processors are located remotely from the RPG, then it is imperative that a load date be agreed upon for all three components by the affected maintainers.

The NEXRAD site Unit Radar Committee (URC) chairman must coordinate downtime with all dedicated users in accordance with Interagency NEXRAD Operation Memorandum of Agreement (MOA). Perform attachments in numerical sequence.

16. FAA DISTRIBUTION

This directive is distributed to selected offices and services within Washington headquarters, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, regional Airway Facilities divisions, and Airway Facilities field offices having the following facilities/equipment: NXRAD.

17. CHANGES TO TABLE OF CONTENTS (FAA)

This chapter will be included in the next revision to the table of contents for FAA Order 6345.1, Electronic Equipment Modification Handbook - Next Generation Weather Radar (NEXRAD).

To obtain additional copies of this publication, contact Printing and Distribution Team, AMI-700B, at (405) 954-6892.

18. RECOMMENDATIONS FOR CHANGES (FAA)

Forward any recommendations for changes to this directive through normal channels to the National Airway Systems Engineering Division, AOS-200, Operational Support.

19. REPORTING INSTRUCTIONS

a. NWS

Report the completed modification using the Engineering Management Reporting System (EMRS) according to the instructions in NWS Instruction 30-2104, Maintenance Documentation, Part 4 and Appendix E. Include the following information on the EMRS report:

- (1) An Equipment Code of MSCF in Block 7.
- (2) The appropriate serial number in Block 8.
- (3) A Mod No. of S24 in Block 17a.

A sample EMRS report is provided as [ATTACHMENT 8](#).

b. DoD

Update the AFTO Form 95 to show TCTO compliance. Report TCTO compliance in accordance with TO 00-20-2, Table 3-10, Rule 9.

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c. FAA

Enter this directive number, date, and chapter number on the appropriate FAA Form 6032-1, Airway Facilities Modification Record.

Use the Maintenance Management System (MMS) application Log Equipment Modification (LEM) function to report the completion of this modification. Verify N is in the REP COD field to ensure the log entry will be upward reportable to the national data base for access by AOS. If not found in the LEM database, this change should be entered into the LEM fields as follows:

- (1) FAC/SERV: NXRAD
- (2) LOC/IDENT: 55 BA
- (3) Short Name: SYS
- (4) Order No.: 6345.1
- (5) Chapter: 45
- (6) Change: 49

d. DoD and FAA

Complete [ATTACHMENT 7](#) and return the information to the ROC by one of the methods below:

- (1) Mail Address: Program Branch, Configuration Management Team
WSR-88D Radar Operations Center
3200 Marshall Ave., Suite 101
Norman, Oklahoma 73072-8028
- (2) Fax Number: (405) 573-3480
ATTN: Configuration Management Team
- (3) E-mail Address: NEXRAD.CM.comments@noaa.gov
- (4) Web Version: <http://www.roc.noaa.gov/ssb/logistics/completion.asp>

ATTACHMENT 1

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Technical Manual Required:

Maintenance Instructions, Radar Product Generator (RPG), Revision 1, dated 30 April 2003

NWS: EHB 6-525, Revision 1, Change 1

DoD: AFTO 31P1-4-108-452-1, Revision 1, Change 1

FAA: Order 6345.1 V49, Revision 1, Change 1

Material Required:

None.

Initial Conditions:

If the MSCF and/or the Base Data Distribution Server (BDDS) is located remotely (i.e., DoD or FAA configurations) from the RPG, the System Administrator must coordinate the load date with the MSCF and BDDS locations to determine a mutually agreed upon load date.

Be knowledgeable of user IDs, user passwords, and root passwords for your site.

NOTES

Software Note 23, Correction of High/Low Clutter Map Boundary Elevation for Radar Data Acquisition (RDA), dated 7 January 2004, must be completed prior to the installation of RPG Software Build 5.0.

The MSCF can be loaded with the new software without loss of products to any users. For FAA redundant sites, either channel can be controlling. The radar (RDA and RPG) remains fully operational during the software loading.

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

NOTES

The full system load script will automatically backup user IDs and passwords in case backup data from these account directories need to be restored later. The system full load script will also create new home directories for all users with the current environment file (.cshrc).

If the following full system software load is aborted on the MSCF for any reason, all user accounts will be lost. Do not intentionally abort the load. If the load aborts for any reason, reestablish all user accounts in accordance with NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Table 4-83. This table has the necessary steps to also relink user accounts to the MSCF applications software so that all users can access the MSCF applications.

Backup/restoral of user account data is not mandatory. However, if there are important logs or graphic screen captures stored in the user account directories, and if these need to be retained, then backup the MSCF user account directories using the procedures specified in NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Table 4-62. Installer should ensure site's list of user accounts is available if inadvertently deleted during this load process.

Step	Action/Response	Comments
1	If not logged in, login as a regular site user (i.e., a site-specific user account).	
2	Close all windows, including those minimized.	This leaves the user at the CDE level.

NOTE

Steps 3 and 4 contain methods to halt a system in a normal manner.

Should these methods not work and there is no ok prompt, (possible system corruption), use the power switch at the rear of the unit and power the processor off for five seconds and back on to reboot it. Then enter **<Stop>A** (i.e., simultaneously press the **<Stop>** and **A** keys) after it starts to boot. This stops the boot process. Then proceed to step 5.

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
3	Exit the Common Desktop Environment (CDE) by clicking the EXIT button on the CDE Front Panel (bottom of display) and OK at the <code>Logout Confirmation</code> window.	Leaves the CDE.
4	Push the button below the green LED on the front of the MSCF processor to shut down the processor. This should take approximately 20 seconds to complete the shutdown. An <code>ok</code> prompt appears.	Halts the system and the system goes to an <code>ok</code> prompt.
5	At the MSCF, open the CD-ROM drive. Place the CD-ROM labeled <u>RPG LOAD MEDIA Version 5.0</u> into the CD-ROM drive. Close the cradle.	Your site received two copies of the identical software. Either copy can be used.
6	At the <code>ok</code> prompt, enter: set-defaults<Return>	This ensures all Non-Volatile Random Access Memory (NVRAM) settings are returned to default values.
7	At the <code>ok</code> prompt, enter: boot cdrom<Return>	This boots the CD-ROM disk. Some disk check errors may be noted; however, they are not relevant at this point. Disregard the <code>hsfs mount failed, trying ufs ...</code> message.

NOTES

If an error appears that stops the load process, the CD-ROM may be dirty. Remove the CD-ROM by pushing the button on the right side of the drive, clean the surface, and return to Step 5. If another error appears, the CD-ROM is probably defective. Use the second CD-ROM supplied in the load kit and return to Step 5. If any other similar problems occur, call the WSR-88D Hotline at (800) 643-3363.

If the load starts and it is then realized that an incorrect entry was made, let the software complete its load and then start this procedure over at Step 2. If the load is aborted while in progress, all user accounts will be lost.

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
8	<p>In approximately 2 minutes, when the following message appears:</p> <pre>Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]:</pre> <p>Enter: 2<Return></p>	
9	<p>When the following message appears:</p> <pre>A Distant MSCF connects to a DOD or FAA site. Is this a Distant MSCF? Yes or No [y,n,?,q]</pre> <p>For an MSCF on an NWS system, enter: n<Return></p> <p>For an MSCF on a DoD or FAA system, enter: y<Return></p> <p><u>For NWS only</u>, the following message will appear: Installing MSCF System... Skip to Step 11.</p> <p><u>For DoD or FAA</u>, continue with the next step.</p>	<p>Indicates Installing MSCF System...</p>
10	<p>When the following message appears:</p> <pre>Does this Distant MSCF have Frame Relay configured?</pre> <p>Enter: n<Return></p> <p>The following message will appear: Installing MSCF System...</p>	<p>Frame Relay is not yet installed.</p>

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
11	<p>When the following message appears:</p> <pre>Please enter the radar's site call letters (type 'help' for list):</pre> <p>Enter the appropriate <u>lower case</u> four-letter site mnemonic: xxxx</p> <p>Enter: xxxx<Return></p>	<p>Enter help<Return> to see a list of site mnemonics (ICAO identifiers) if it is unclear about which mnemonic to use.</p> <p>System responds with the system type, network number and netmask. For example:</p> <pre>System Type is: MSCF Site Name is: kxxx or pxxx Network is: 172.25.xxx.0 Subnet Mask is: 255.255.255.128</pre> <p>Space bar will advance to the next page.</p>
<p>NOTE</p> <p>The installation will start, and it will take approximately 23 minutes to complete.</p>		
12	<p>When the following message appears:</p> <pre>Do you want to restore an adaptation archive from CD or floppy for site mnemonic? Yes or No [y,n,?,q]</pre> <p>Enter: y<Return></p>	<p><i>Site mnemonic</i> is kxxx, pxxx, txxx, or lxxx.</p>

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
13	<p>When the following message appears:</p> <pre>Choose the adaptation archive media to restore from: 1 Floppy 2 CD (current install CD) Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q] Enter: 1<Return></pre>	<p>At this time, adaptation data can only be restored from a diskette. Use the diskette labeled <u>RPG DEFAULT ADAPTATION DATA</u>, fourth line <u>Version: 5.0</u>, provided in the kit.</p> <p>For DoD and FAA Distant MSCFs, the diskette will be labeled <u>MSCF DEFAULT ADAPTATION DATA</u>, fourth line <u>Version: 5.0</u>.</p>
14	<p>When the following message appears:</p> <pre>Is the floppy in the drive and ready? Insert the diskette: <u>RPG DEFAULT ADAPTATION DATA</u>, (or <u>MSCF DEFAULT ADAPTATION DATA</u> for DoD and FAA sites) enter: y<Return></pre>	<p>System starts to mount diskette.</p>
15	<p>When the following message appears:</p> <pre>Choose the adaptation file to restore: 1. ./adapt00...<i>site specific info</i> Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q] Enter: 1<Return> This should take less than 1 minute.</pre>	<p>The <i>site-specific</i> info will consist of the site mnemonic and the date/time when the adaptation data file was created at the ROC. This diskette is not a site backup. This is the diskette supplied with the kit.</p>
<p>NOTES</p> <p>System time should be checked/set to ensure accurate system operation. Steps 16 through 18 provide guidance for performing this action prior to system reboot.</p> <p>The automated synchronization of the clocks will not work correctly if the clocks are more than 1000 seconds apart. When setting the time, ensure the times are within 1000 seconds of each other.</p>		

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ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
16	<p>When the following message appears:</p> <pre>Adaptation data successfully retrieved from media. MSCF Installation Done! Please [q]uit menu to reboot. Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]:</pre> <p>Enter: 4<Return> to go into the Utilities Choice Menu, then enter: 1<Return> to get to a shell prompt.</p>	<p>For DoD and FAA sites, the second sentence of the prompt will read:</p> <p>Distant MSCF Installation Done!</p>
17	<p>Verify the displayed date/time is accurate within one minute. Call the WWV at (303) 499-7111 for current time.</p> <p>At the # prompt, enter: date<Return> to refresh the date/time display.</p>	<p>Allows check/set of system time prior to reboot.</p> <p>For FAA and DoD the MSCF is the master clock. Set this time as accurately as possible. For NWS, the MSCF will get the accurate clock time from the AWIPS.</p>
18	<p>If necessary, set the date/time (GMT) using the following procedure:</p> <p>At the # prompt, enter: date mmddHHMM[cc][yy][.ss]<Return></p>	<p>Reference NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA TI 6345.1 V 50 Table 4-77, step 3.</p>
19	<p>Once the date/time is accurate, at the # prompt, enter: exit<Return> to return to the main load menu.</p>	

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
20	When the following message appears: Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]: Enter: q<Return>	This will allow selection of a system reboot.
21	When the following message appears: Do you want to reboot the system? Yes or No [y,n,?,q] Enter: y<Return> This should take approximately 2.5 minutes.	Login menu will temporarily pop back up and then system reboots. On the first boot, a disk-type error may be noted on a non-existent disk (e.g., /dev/dsk/c1t4d0s0); however, this error is non-critical and will not occur on subsequent boots.
NOTE The MSCF is now fully functional and applications are loaded/started. The remaining steps remove the Load Media CD-ROM, set the root password, load the EPSS, and remove the Adaptable Parameters diskette.		
22	At the bottom of the CDE login window: Click and hold Options . Select Command Line Login . After three lines of comments appear, there is no prompt.	Will enable login as root outside of the CDE. If Login window disappears, this step must be repeated.
23	Enter: <Return> A <i>site mnemonic</i> console login: prompt appears.	

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
24	At the <i>site mnemonic</i> console login: prompt, enter: root<Return> A # prompt appears.	At this point, the system will not prompt for a root password because it is not yet set.
25	At the # prompt, enter: eject cdrom<Return> CD-ROM cradle opens.	
26	Remove the CD-ROM. Close the cradle. Save the CD-ROM in a safe location.	This is the CD-ROM labeled <u>RPG LOAD MEDIA Version 5.0</u> .
27	At the # prompt, enter: passwd<Return>	The system prompts the user to enter a new password.
28	At the <i>New Password:</i> prompt, enter the desired: <i>root_password<Return></i>	The system prompts the user to re-enter the new password.
29	At the <i>Re-enter new Password:</i> prompt, re-enter the desired: <i>root_password<Return></i>	Indicates the password was successfully changed for root.
30	Open the CD-ROM drive at the MSCF. Place the CD-ROM labeled <u>RPG EPSS Files...Use with RPG Build 5.0</u> into the CD-ROM drive. Close the cradle.	
31	At the # prompt, enter: cd /usr/local/bin<Return>	Changes to the directory where local executables are stored.
32	At the # prompt, enter: ./install_epss.ksh<Return>	Starts the script to install the EPSS.

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
33	<p>When the following message appears:</p> <pre>This script loads the EPSS. Please put the EPSS CD in the CD drive now. Do you want to install EPSS on this system's hard drive? Yes or No [y, n, ?,q] Enter: y<Return></pre> <p>This should take approximately 1 minute. When the EPSS installation is complete the # prompt returns.</p>	<p>Installs the EPSS to provide on-line operator help screens. The EPSS icon (RDA tower and shelter with a question mark) will be placed on the left side of the Control Panel on the next login as a normal user.</p>
34	<p>At the # prompt, enter: eject cdrom<Return></p> <p>CD-ROM cradle opens.</p>	
35	<p>Remove the CD-ROM.</p> <p>Close the cradle.</p> <p>Save the CD-ROM in a safe location.</p>	<p>This is the CD-ROM labeled <u>RPG EPSS Files...Use with RPG Build 5.0.</u></p>
36	<p>At the # prompt, enter: eject<Return></p>	<p>This will electronically dismount the diskette and the drive.</p>
37	<p>When the following message appears:</p> <pre>/vol/dev/rdiskette0 ... can now be manually ejected</pre> <p>Press the button on the right side of the diskette drive and remove the diskette.</p>	<p>The diskette can now be manually ejected. This is the diskette labeled <u>RPG DEFAULT ADAPTATION DATA</u> or <u>MSCF DEFAULT ADAPTATION DATA.</u></p>

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
38	At the # prompt, enter: exit<Return> Wait approximately 30 seconds for the system to return to the CDE login window.	
39	Log into the CDE as a regular site user. <u>DO NOT OPEN AN RPG Human Computer Interface (HCI) DISPLAY. The MSCF is not compatible with the RPG until both have Build 5.0 loaded.</u>	When logging into the CDE at the MSCF, an MSCF Display should automatically start.
40	Advise the site operators not to open an HCI until the RPG loading is complete.	

NOTES

DO NOT OPEN AN RPG HCI DISPLAY at the MSCF until Build 5.0 has been completely loaded on the RPG. If an HCI is opened prematurely, the MSCF may show erroneous information and lock up.

All normal user accounts have been set up with a default CDE "look" which includes one `Console` window, one `Terminal` window, and one digital clock. Due to variances in monitor sizes and types, the user may need to rearrange these items on the desktop as desired for best viewing. When arranged as desired, log out of CDE to save the new desktop "look." Inform all users that when they start the Electronic Performance Support System (EPSS) with the icon on the Control Panel, they should use Netscape's Edit Preferences option to set both the Fixed and Variable Width fonts to Application (Dt) Size 12. Refer to NWS EHB 6-526, DoD AFTO 31P1-4-108-451-1, FAA TI 6345.1 V50, for specific procedures concerning setup and use of the EPSS.

If it is necessary to restore the user accounts (data only), use procedures specified in NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA TI 6345.1 V 50, Table 4-68.

Since the RPG is currently running at Software Build 4.0, the MSCF will not be compatible with the RPG. [ATTACHMENT 2](#) must be completed before verifying if the MSCF is operational. Once [ATTACHMENT 2](#) is completed, if the MSCF is not operational, call the WSR-88D Hotline at (800) 643-3363.

NWS: EHB-6, Software Note 24
DoD: TO 31P1-4-108-618
FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

ATTACHMENT 1 (Continued)

MSCF SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
41	For <u>NWS and DoD</u> : If the site personnel are responsible for loading the RPG, proceed to ATTACHMENT 2 .	
42	For <u>NWS only</u> : If the site has a distant MSCF with a BDDS, proceed to ATTACHMENT 3 . If no BDDS, proceed to ATTACHMENT 4 once the RPG(s) have been successfully loaded.	

ATTACHMENT 2

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Technical Manual Required:

Maintenance Instructions, Radar Product Generator (RPG), Revision 1, dated 30 April 2003

NWS: EHB 6-525, Revision 1, Change 1

DoD: AFTO 31P1-4-108-452-1, Revision 1, Change 1

FAA: Order 6345.1 V49, Revision 1, Change 1

Material Required:

3 new 3 1/2-inch formatted diskettes (provided by the site).

Initial Conditions:

With the radar operational and collecting data, the RPG is operational and in control of the RDA. At the HCI, check the black line connecting the tower icon to the RPG box. "Either" or "RPG" must be displayed on this line. For FAA redundant sites, either channel can be controlling.

Be knowledgeable of user IDs, user passwords, and root passwords for your site.

NOTES

The MSCF is the operating position for the WSR-88D radar. If the MSCF is remote from the RPG, the RPG and MSCF must be loaded on the same date.

If the following full system software load is aborted on the RPG for any reason, all user accounts will be lost. Do not intentionally abort the load. If the load aborts for any reason, reestablish all user accounts in accordance with NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, and FAA TI 6345.1 V 50, Table 4-83.

If the screen is blank and this is being performed at the RPG workstation, (with a BDDS client), Raritan user must be selected. (FAA and select DoD sites will not see this option as no BDDS clients are installed on their radars.) Move the mouse and click in the edit field, then enter **Raritan<Return>** (no password) or, if a screen saver is not active yet, press the **<Scroll Lock>** key twice quickly to activate the on-screen menus. Select the RPG user channel.

Software Note 23, Correction of High/Low Clutter Map Boundary Elevation for Radar Data Acquisition (RDA), dated 7 January 2004, must be completed prior to the installation of RPG Software Build 5.0.

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
1	If not logged in, log in as a regular site user. <u>For FAA only:</u> Be on the active/controlling RPG channel.	
2	If there is not an HCI, open one. In a <code>Terminal</code> window, at the <code>user:</code> prompt, enter: hci &<Return>	To open a <code>Terminal</code> window, right click on an open screen, select Tools, then select Terminal. The HCI will be used to send out a free text message and to put the RDA into Standby

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
3	<p>At the HCI, send out a free text message using the <code>Console Messages</code> window under the Applications column.</p> <p>Click on the Console Messages icon.</p> <p>Click on ALL Destinations under the Other category.</p> <p>Click on ALL Destinations under the Class 1 category.</p> <p>Click on the <code>Outgoing Messages: edit block</code> to reposition the cursor.</p> <p>Using the keypad, enter the desired message.</p> <p><u>For NWS and DoD:</u> State: The xxxx radar will be down for approximately 2 hours for Build 5.0 software loading. Estimated time back on line will be ____ GMT.</p> <p><u>For FAA only:</u> State: The xxxx radar will be down for approximately 2 hours for Build 5.0 software loading. Inactive channel loading starts at (1800) GMT. Estimated outage will be from (1900) to (2100) GMT.</p> <p>Click on the Send button. Response in Feedback line of the HCI will read: <code>Sending Console Message.</code></p> <p>Click on the Close button.</p>	<p><u>For FAA only,</u> the 2-hour down period will not start until loading of the inactive channel is nearly complete. The scheduled 2-hour outage will start approximately 1 hour after starting loading of the inactive channel.</p>
4	<p>Send out any other applicable free text messages, emails, or make phone calls to any other agencies that require notification of your site being off-line.</p>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
5	<p><u>For NWS and DoD:</u> In the RDA box, click the Control button.</p> <p>In the RDA State section, click on Standby and Yes.</p> <p>Click on Close to close the RDA Control/Status window.</p> <p><u>For FAA only:</u> Go physically to the inactive/non-controlling RPG channel. The inactive/non-controlling RDA is already in Standby. Continue with the next step.</p>	<p><u>For NWS and DoD:</u> The RDA will be in standby state with the antenna in park prior to the software being loaded.</p>
6	<p>Open a new Terminal window. At the <i>user:</i> prompt, enter: save_adapt_floppy<Return></p>	<p>To open a Terminal window, right click on an open screen, select Tools, then select Terminal.</p> <p>This starts the RPG adaptation data save program.</p>
7	<p>When the following message appears:</p> <pre>---> Saving Adaptation Data ---> Insert a new floppy into the floppy drive ---> Hit return when ready</pre> <p>Insert a new diskette in the RPG processor, then enter: <Return></p>	<p>This continues the RPG adaptation data save program.</p> <p>Don't use an old diskette with previous adaptation files.</p>
8	<p>When the following message appears:</p> <pre>---> Mounting floppy ---> Saving RPG adaptation data to /floppy/floppy0 Saving RPG adaptation data . . . Saved adaptation data into RPG . . .</pre> <p>User is returned to the <i>user:</i> prompt.</p>	<p>This completes the RPG adaptation data save for Software Build 4.0.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
<p>NOTE</p> <p>A check is now made automatically to ensure the new adapt file is on the diskette. If it is not, an error will appear that reads:</p> <p style="padding-left: 40px;">--->ERROR: Unable to save adaptation data. Check floppy! Floppy may be bad or write protected.</p> <p>If this message appears, go back to Step 6, using another diskette.</p>		
9	At the <i>user:</i> prompt, enter: eject<Return>	Electronically dismounts the diskette and insures the file is placed on the diskette.
10	When the <i>Removable Media Manager</i> window opens and states the floppy can now be manually ejected, click on OK . The following message also appears: <pre>/vol/dev/rdiskette0 /...</pre> The diskette can now be manually ejected. Push the button on the right of the disk drive and remove the diskette.	
11	Move the write protect tab to the write protect position. Label the diskette with the following information: <u>RPG B4.0 - Backup Adaptation Data - Site</u> <i>Date</i> the backup was made <i>Site ID</i> Store this diskette in a safe location.	Diskette will be used during the Merge Program at step 64. It can also be used if Software Build 4.0 is reloaded. Use the word "site" in the title to distinguish this diskette from other diskettes used in the upcoming merge steps.

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
NOTES		
<p>The full system load script will automatically backup user IDs and passwords in case backup data from these account directories need to be restored later. The system full load script will also create new home directories for all users with the current environment file (.cshrc).</p> <p>Backup/restoral of user account data is not mandatory. If there are important logs or graphic screen captures stored in the user account directories, however, and if these need to be retained, then backup the RPG user account directories using the procedures specified in NWS EHB 6- 525, AFTO 31P1-4-108-452-1, FAA 6345.1 V49, Table 4-61.</p>		
12	Close all windows and terminals, including those minimized.	
NOTES		
<p>Steps 13 and 14 contain methods to halt the system in a normal manner.</p> <p>Should these methods not work and there is no ok prompt (possible system corruption), use the power switch at the rear of the unit and power the processor off for five seconds and back on to reboot it. Then enter <Stop>A (i.e., simultaneously press the <Stop> and A keys) after it starts to boot. This stops the boot process. Proceed to Step 13.</p>		
13	Exit out of Common Desktop Environment (CDE) by clicking the EXIT button on the CDE Front Panel (bottom of display) and OK at the Logout Confirmation window.	This leaves the CDE and the CDE login reappears.
14	<p>Push the button below the green LED on the front of the RPG processor.</p> <p>Wait until the ok prompt appears which will take approximately 80 seconds.</p>	No immediate response for approximately 50 seconds, then another 30 seconds to complete the shutdown. Halts the system and system goes to an ok prompt.
15	<p>Open the CD-ROM drive at the RPG.</p> <p>Place the CD-ROM labeled <u>RPG LOAD MEDIA Version 5.0</u> in the CD-ROM drive.</p> <p>Close the cradle.</p>	Your site received two copies of identical software. Either copy can be used.

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
16	At the <code>ok</code> prompt, enter: set-defaults<Return>	Ensures all NVRAM settings are returned to default values.
17	At the <code>ok</code> prompt, enter: boot cdrom<Return>	Boots the CD-ROM disk. Some disk errors may be noted; however, they are not relevant at this point. Disregard the <code>hsfs mount failed, trying ufs...</code> message.
<p>NOTE</p> <p>If an error appears that stops the load process, the CD-ROM may be dirty. Remove the CD-ROM by pushing the button on the right side of the drive, clean the surface, and return to Step 15. If another error appears, the CD-ROM is probably defective. Use the second CD-ROM supplied in the load kit and return to Step 15. If any other similar problems occur, call the WSR-88D Hotline at (800) 643-3363.</p>		
18	<p>In approximately 2 minutes, when the following message appears:</p> <pre>Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q] Enter: 1<Return></pre>	Indicates Installing RPG System...

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
19	<p>When the following message appears:</p> <pre>Please enter the radar's site call letters (type 'help' for list):</pre> <p>Enter the appropriate <u>lower case</u> four letter site mnemonic: xxxx</p> <p>Enter: xxxx<Return>.</p> <p><u>For NWS and DoD:</u> Proceed to step 21 while the software is loading.</p> <p><u>For FAA only:</u> Proceed to the next step.</p>	<p>Enter help<Return> to see a list of site mnemonics if it is unclear about which mnemonic to use.</p> <p>System responds with the system type, network number, and netmask. For example:</p> <pre>System Type is: RPG Site Name is: kxxx, pxxx, txxx, or lxxx Network is: 172.25.xxx.0 Subnet Mask is: 255.255.255.128</pre>
20	<p><u>For FAA only:</u></p> <p>When the following message appears:</p> <pre>Is this channel 1 or 2?</pre> <p>Enter: 1<Return> or 2<Return> Depending on the channel being loaded.</p> <p>Proceed to next step while software is loading.</p>	
21	<p>While the software is loading, cycle the power switch off for five seconds and then back on at the rear of all three communication servers (UD70/170A15, A16 and A17). The A15-A17 labels are midway up on the front right side of the cabinet.</p>	<p>This is necessary to allow for the communication servers to upload new internal operating software if it changed on the RPG processor as part of the new software load. The upload will not actually occur until the RPG processor itself is booted in subsequent steps (but still before the RPG applications software starts).</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
NOTES		
<p>The installation will start and take approximately 21 minutes to complete.</p> <p>If the screen is timed out and this is being performed at the RPG workstation in the RPGPCA, Raritan user must be selected. Activate mouse and use the on-screen menus to log in as raritan<Return> user (no password) or, if a screen saver is not active yet, press the <Scroll Lock> key twice quickly to activate the on-screen menus. Then select the RPG user channel.</p>		
22	<p>When the following message appears:</p> <pre>Do you want to restore an adaptation archive from CD or floppy for site mnemonic? Yes or No [y,n,?,q] Enter: y<Return></pre>	<p><i>site mnemonic</i> is the site being loaded at the time (site mnemonic kxxx, pxxx, txxx, or lxxx).</p>
23	<p>When the following message appears:</p> <pre>Choose the adaptation archive media to restore from: 1 Floppy 2 CD (current install CD) Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q] Enter: 1<Return></pre>	<p>At this time, adaptation data can only be restored from a diskette. Use the diskette titled <u>RPG DEFAULT ADAPTATION DATA</u>, fourth line: <u>Version: 5.0</u> provided in the kit.</p> <p>Diskette is selected.</p>
24	<p>When the following message appears:</p> <pre>Is the floppy in the drive and ready? Yes or No [y,n,?,q] Insert the <u>RPG DEFAULT ADAPTATION DATA</u> diskette in the floppy drive and then enter: y<Return></pre>	<p>System starts to mount diskette.</p> <p>This loads the Build 5.0 default adaptation data only.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
25	<p>When the following message appears:</p> <pre>Trying to mount floppy...</pre> <p>Choose the adaptation file to restore:</p> <pre>1 ./adapt00001.site specific info</pre> <p>Enter numeric selection from Above, q to Quit for ? for Help: [?,??,q]</p> <p>Enter: 1<Return></p> <p>This should take less than 1 minute.</p>	<p>The <i>site specific info</i> will consist of the site mnemonic and the date/time when the adaptation data file was created at the ROC. This diskette is not a site backup. This is the diskette supplied with the kit.</p> <p><u>For FAA only:</u> Channel 1 will have only the rpg1 file displayed. Channel 2 will have only the rpg2 file displayed.</p>

NOTES

System time will now be checked/set to ensure accurate system operation. Steps 26 through 28 provide guidance for performing this action prior to system reboot. In NWS configurations, the clock will automatically synchronize with AWIPS. In DoD and FAA configurations, the clock will synchronize with the MSCF.

The automated synchronization of the clocks will not work correctly if the clocks are more than 1000 seconds apart. When setting the time, ensure the time entered is within the 1000 second rule.

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
26	<p>When the following message appears:</p> <pre>Adaptation data successfully received from media RPG Installation Done! Please [q]uit menu to reboot. Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]: Enter: 4<Return> to go into the Utility Choice menu, then enter: 1<Return> to get to a shell prompt.</pre>	<p>The default adaptation data is successfully retrieved from the media. The Merge Program will be executed later on in these instructions to restore the site-specific adaptable parameters.</p>
27	<p>Verify the displayed date/time is accurate within one minute. Call the WWV at (303) 499-7111 for current time.</p> <p>At the # prompt, enter: date<Return> to redisplay a new date/time.</p>	<p>Allows check/set system time prior to reboot.</p>
28	<p>If necessary, set the date/time (GMT) using the following procedure:</p> <p>At the # prompt, enter: date mmddHHMM[cc][yy][.ss]<Return></p>	<p>Reference NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA TI 6345.1 V 50, Table 4-77, step 3.</p>
29	<p>Once the date/time is accurate, at the # prompt: enter: exit<Return> to return to the main load menu.</p>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
30	<p>When the following message appears:</p> <pre>Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]: Enter: q<Return></pre>	<p>This will allow selection of a system reboot.</p>
31	<p><u>For FAA only:</u></p> <p>FIRST TIME THROUGH: Go to the Active Channel RPG.</p> <p>In the RDA box,</p> <ul style="list-style-type: none"> - Click on the Control button. - Click on Standby and Yes. - The RDA goes to Standby. - Click on Close to close the RDA Control/Status window. <p>In the RPG box,</p> <ul style="list-style-type: none"> - Click on the Control button, - click on Shutdown: Off, and Yes. - The RPG goes to OFF. - Click on Close to close the RPG Control window. <p>Return to the Inactive Channel.</p> <p>SECOND TIME THROUGH: Disregard this entire step.</p>	<p>This shuts down the Active Channel (both RDA and RPG) and prevents crosstalk between channels.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
32	When the following message appears: <pre>Do you want to reboot the system?</pre> Enter: y<Return> In approximately 2.5 minutes the CDE login window appears.	Menu will temporarily pop back up and then system reboots. On the first boot, a disk-type error may be noted on a non-existent disk (e.g., /dev/dsk/c1t4d0s0); however, this error is non-critical and will not occur on subsequent boots.
33	At the bottom of the CDE login window: Click and hold Options . Select Command Line Login . After three lines of comments appear, there is no prompt.	Will enable login as root outside of the CDE. If Login window disappears, step must be repeated.
34	Enter: <Return> A <i>site mnemonic</i> console login: prompt appears.	If the window times out in 1.5 minutes, go back to Step 33.
35	At the <i>site mnemonic</i> console login: prompt, enter: root<Return> A # prompt appears.	At this point, the system will not prompt for a root password because the password is not yet set.
36	At the # prompt, enter: eject cdrom<Return> CD-ROM cradle opens.	
37	Remove the CD-ROM. Close the cradle. Save the CD-ROM in a safe location.	This is the CD-ROM labeled <u>RPG LOAD MEDIA Version 5.0</u> .
38	At the # prompt, enter: eject<Return>	This will start the ejection of the RPG Adaptation diskette. The diskette does not automatically eject from the drive.

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
39	<p>When the following message appears:</p> <pre style="font-family: monospace;">/vol/dev/rdiskette0 /... can now be manually ejected</pre> <p>Press the button on the right of the disk drive, remove the diskette, and save it in a safe location.</p>	<p>The diskette can now be manually ejected.</p> <p>This is the diskette labeled <u>RPG DEFAULT ADAPTATION DATA</u>.</p>
40	<p>At the # prompt, enter:</p> <pre style="font-family: monospace;">passwd<Return></pre>	<p>The system prompts the user to enter a new password.</p>
41	<p>At the <i>New Password:</i> prompt, enter the desired:</p> <pre style="font-family: monospace;">root password<Return></pre>	<p>The system prompts the user to re-enter the new password.</p>
42	<p>At the <i>Re-enter new Password:</i> prompt, re-enter the desired:</p> <pre style="font-family: monospace;">root password<Return></pre>	<p>Should indicate the password was successfully changed for root.</p>
43	<p>Open the CD-ROM drive at the RPG.</p> <p>Place the CD-ROM labeled <u>RPG EPSS Files... Use with RPG Build 5.0</u> into the CD-ROM drive.</p> <p>Close the cradle.</p>	
44	<p>At the # prompt, enter:</p> <pre style="font-family: monospace;">cd /usr/local/bin<Return></pre>	<p>Changes to the directory where local executables are stored.</p>
45	<p>At the # prompt, enter:</p> <pre style="font-family: monospace;">./install_epss.ksh<Return></pre>	<p>Starts the script to install the EPSS.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
46	<p>When the following message appears:</p> <pre>This script loads the EPSS. Please put the EPSS CD in the CD drive now. Do you want to install EPSS on this system's hard drive? Yes or No [y, n, ?,q]</pre> <p>Enter: y<Return></p> <p>This should take approximately 2 minutes. When the EPSS installation is complete the # prompt appears.</p>	<p>Installs the EPSS to provide on-line operator help screens. The EPSS icon (of an RDA tower and shelter with a question mark) will be placed on the left side of the Control Panel on the next login as a normal user.</p>
47	<p>At the # prompt, enter: eject cdrom<Return></p> <p>CD-ROM cradle opens.</p>	
48	<p>Remove the CD-ROM.</p> <p>Close the cradle.</p> <p>Save the CD-ROM in a safe location.</p>	<p>This is the CD-ROM labeled <u>RPG EPSS Files... Use with RPG Build 5.0.</u></p>
49	<p>At the # prompt, enter: exit<Return></p> <p>System returns to the CDE Login Screen after approximately 30 seconds.</p>	
50	<p>At the RPG processor, when a CDE Login Screen is present, login as the regular site user. <code>Console</code> and <code>Terminal</code> windows should appear. If a <code>Terminal</code> window does not appear, open one.</p>	<p>To open a <code>Terminal</code> window, right click on an open screen, select <code>Tools</code>, then select <code>Terminal</code>.</p>
51	<p>Open the CD-ROM drive at the RPG.</p> <p>Place the CD-ROM labeled <u>RPG Blockage Files . . . Use with RPG Build 5.0</u> into the CD-ROM drive.</p> <p>Close the cradle.</p>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
52	Wait for approximately 30 seconds for the <code>File Manager...</code> window to appear. Close this File Manager window by clicking in the upper left hand corner on File and Close .	This is done to unlock the keyboard.
53	Click in a <code>Terminal</code> window. At the <code>user:</code> prompt, enter: <code>cd /cdrom/cdrom0<Return></code> A <code>cdrom0 :</code> prompt appears.	Changes the prompt to the CD-ROM directory.
NOTE If a warning message is displayed indicating permissions problems, cancel the install process by entering <Ctrl>C . Enter <code>cd<Return></code> to return to the <code>V1.XX</code> directory.		
54	At the <code>cdrom0 :</code> prompt, enter: <code>./install_tbd<Return></code> When completed, the following message appears: <code>"Finished! Installed the Terrain Blockage Data. Restart RPG Software for Data to take effect."</code>	
55	At the <code>cdrom0 :</code> prompt, enter: <code>cd<Return></code> Changes the prompt to the <code>V1.XX</code> directory.	The <code>V1.XX</code> is the version number of the software build. It should read something like <code>V1.3</code> or <code>V1.12</code> .
56	At the <code>V1.XX:</code> prompt, enter: <code>eject cdrom<Return></code> CD-ROM cradle opens.	If a "Device busy" response appears, call the WSR-88D Hotline for recovery assistance.

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
57	Remove the CD-ROM. Close the cradle. Save the CD-ROM in a safe location.	This is the CD-ROM labeled <u>RPG Blockage Files . . . Use with RPG Build 5.0</u> .
58	At the v1.XX: prompt, enter: mrpg shutdown<Return> This should take approximately 10 seconds.	Shuts down the RPG.
59	When the following message appears: RPG processes are notified to shutdown It will be followed by the v1.XX: prompt.	
NOTE The adaptation data from the <u>RPG B4.0 - Backup Adaptation Data - Site</u> diskette (made in steps 6 through 11) will now be merged with the adaptation data from the <u>RPG DEFAULT ADAPTATION DATA Build 5.0</u> diskette received in the Software Build 5.0 Load kit from the ROC. The merged Adaptation Data will then be placed on two blank diskettes, one for the site to use and save (<u>Site Diskette</u>), and the second to be returned to the ROC (<u>ROC Diskette</u>).		
60	<u>For FAA only:</u> FIRST TIME THROUGH: Continue to the next step. SECOND TIME THROUGH: Skip the steps dealing with the Merge, and Proceed to Step 79 (MRPG Startup). The Match/Mismatch feature of the Redundant Channels will be used to match the merged Adaptation Data at the end of this attachment.	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
61	<p>Take two blank diskettes (provided by the site) and label them with the following information:</p> <p>First diskette:</p> <ul style="list-style-type: none"> - <u>RPG B5.0 - Merged Adaptation Data - Site</u> - <i>Current date</i> - <i>Site ID</i> <p>Second diskette:</p> <ul style="list-style-type: none"> - <u>RPG B5.0 - Merged Adaptation Data - ROC</u> - <i>Current date</i> - <i>Site ID</i> 	<p>These diskettes provided by the site will be used to record the merged adaptation data.</p> <p>These exact titles will be used in the script to clarify which diskette is used when.</p>
62	<p>Make sure the write-protect tab is set to the write position to allow writing on diskette (i.e., hole is closed on diskette).</p>	
63	<p><u>For NWS and DoD:</u> At the <code>v1.xx:</code> prompt, enter: merge_adapt xxxx rpg1<Return></p> <p><u>For FAA only:</u> If on Channel 1, at the <code>v1.xx:</code> prompt, enter: merge_adapt xxxx rpg1<Return></p> <p>If on Channel 2, at the <code>v1.xx:</code> prompt, enter: merge_adapt xxxx rpg2<Return></p>	<p>This starts the Merge Program for the RPG.</p> <p>xxxx is the appropriate four-letter site mnemonic (in lower case).</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
64	<p>When the following message appears:</p> <p>Please make sure you have the following items ready before you continue:</p> <ol style="list-style-type: none"> 1. RPG B4.0 - Backup Adaptation Data - Site diskette. 2. RPG DEFAULT ADAPTATION DATA - Version: 5.0 diskette. 3. Blank formatted diskette labeled: "RPG B5.0 - Merged Adaptation Data - Site". 4. Blank formatted diskette labeled: "RPG B5.0 - Merged Adaptation Data - ROC". <p>Insert the RPG B4.0 - Backup Adaptation Data - Site diskette, then press Return.</p> <p>Insert the diskette labeled: <u>RPG B4.0 - Backup Adaptation Data - Site</u> from Step 11, then enter: <Return></p> <p>This should take less than 1 minute.</p>	<p>Script pauses until <Return> key is pressed.</p>
65	<p>When the following message appears:</p> <p>Copying saved RPG B4.0 - Backup Adaptation Data - Site archive from diskette . . .</p> <p>Remove the RPG B4.0 - Backup Adaptation Data - Site diskette, then press Return.</p> <p>Remove the diskette labeled: <u>RPG B4.0 - Backup Adaptation Data - Site</u> from the drive. Store this diskette in a safe place if Software Build 4.0 needs to be reloaded on the RPG.</p> <p>Enter: <Return></p>	<p>Script pauses until <Return> key is pressed.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
NOTE		
<p>If the following message appears,</p> <pre>Error copying adapt00040.ICA0.RPG.(Date-Time Group)Z from diskette</pre> <p>then the backup of the sites' adaptation data was not copied. Continue with Step 66 to load the RPG with the Software Build 5.0 default adaptable parameters. Remember that the site default adaptation data values that were stored at the ROC will be the only data used in the merge.</p>		
66	<p>When the following message appears:</p> <pre>Insert the RPG DEFAULT ADAPTATION DATA - Version: 5.0 diskette, then press Return.</pre> <p>Insert the diskette labeled <u>RPG DEFAULT ADAPTATION DATA</u>, fourth line: Version: 5.0 that was provided by the ROC, then enter: <Return></p> <p>This should take less than 1 minute.</p>	<p>Script pauses until <Return> key is pressed.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
67	<p>When the following message appears:</p> <pre>Copying RPG DEFAULT ADAPTATION DATA - Version: 5.0 archive from diskette...</pre> <p>Remove the RPG DEFAULT ADAPTATION DATA - Version: 5.0 diskette, then press Return.</p> <p>Remove the diskette labeled <u>RPG DEFAULT ADAPTATION DATA</u>, fourth line: Version 5.0. Save it in a safe place.</p> <p>Enter: <Return></p> <p>Response will be: <pre>Could not find entry . . . Could not find entry . . . Data merge complete.</pre></p>	<p>The two files are merged together to be used as the Build 5.0 adaptation data.</p> <p>Script pauses until <Return> key is pressed.</p> <p>If the merge fails, call the WSR-88D Hotline. The "Could not find entry . . ." messages may be important in troubleshooting the failure.</p>
<p>NOTES</p> <p>If the following message appears, the diskette containing the RPG DEFAULT ADAPTATION DATA Version 5.0 was not correctly read.</p> <pre>RPG DEFAULT ADAPTATION DATA - Version: 5.0 file not found on diskette</pre> <p>You cannot continue without the RPG DEFAULT ADAPTATION DATA - VERSION: 5.0 diskette.</p> <p>If the RPG DEFAULT ADAPTATION DATA - VERSION: 5.0 diskette is not available, contact the ROC</p> <p>Stop here and call the WSR-88D Hotline immediately.</p>		

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
68	<p>When the following message appears:</p> <p>Insert blank diskette labeled "RPG B5.0 - Merged Adaptation Data - Site", then press Return.</p> <p>Insert the blank diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - Site</u>. Then enter: <Return></p> <p>This should take less than 1 minute.</p>	<p>Copies the merged Software Build 5.0 adaptation data to a diskette for the site to use.</p> <p>Script pauses until Return key is pressed.</p>
69	<p>When the following message appears:</p> <p>Copying merged archive to RPG B5.0 - Merged Adaptation Data - Site Diskette...</p> <p>This diskette will be used during installation of the latest RPG software. Remove the diskette, then press Return.</p> <p>Remove the diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - Site</u>.</p> <p>This diskette will be used later in the load procedures to restore the merged adaptation data to the RPG. Then enter: <Return></p>	<p>The date/time group in the file name will be 01 September 2003, 00-00-00Z. This date/time represents the Merge Program version, not the date/time the files were made.</p> <p>Script pauses until <Return> key is pressed.</p>
70	<p>On the diskette just removed, <u>RPG B5.0 - Merged Adaptation Data - Site</u>, move the write protect tab to the write protect position (hole is open).</p>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
71	<p>When the following message appears:</p> <p>Insert blank diskette labeled "RPG B5.0 - Merged Adaptation Data - ROC", then press Return.</p> <p>Insert the blank diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - ROC</u>. Then enter: <Return></p> <p>This should take less than 1 minute.</p>	<p>Script pauses until <Return> key is pressed.</p>
72	<p>When the following message appears:</p> <p>Copying merged archive to RPG B5.0 - Merged Adaptation Data - ROC Diskette...</p> <p>This diskette is to be delivered to the ROC. Remove the diskette, then press Return.</p> <p>Remove the diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - ROC</u>, then enter: <Return></p>	<p>Script pauses until <Return> key is pressed. Once it is pressed, the script is finished and the command line prompt will appear.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
NOTES		
<p>If either the "Site" or "ROC" diskette cannot be written to, the following will appear and the script will abort.</p> <pre>cp: cannot create /floppy/floppy0/ adapt 00050.site.rpg1.????????-??-??-?.z: read-only file system</pre> <p>Error copying adapt00050.site.rpg1.????????-??-??-? to diskette</p> <p>If the error messages appear for just one diskette, take the good diskette, "Site" or "ROC," and copy it onto a new diskette. Use a site desktop computer and disk copy commands. Call the WSR-88D Hotline if necessary.</p> <p>If the error messages appear for both diskettes, there may be a problem with the Merge program. Return to Step 63 and redo the entire merge steps.</p>		
73	On the diskette just removed, <u>RPG B5.0 - Merged Adaptation Data - ROC</u> , move the write protect tab to the write protect position (hole is open).	
74	Insert the diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - Site</u> . At the V1.XX: prompt, enter: restore_adapt_floppy<Return>	
75	When the following message appears: ->Restoring from Floppy ->Insert the adaptation backup floppy into the floppy drive ->Hit return when ready enter: <Return>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
76	<p>When the following message appears:</p> <pre> ->Mounting floppy ->Restoring RPG adaptation data from /floppy/floppy0 Restoring adaptation data... Restored adaptation data from rpg: /floppy/floppy0/ adapt00040.xxxx.rpg.date-time.Z. The restored adaptation data will be used on the next application startup. The user is returned to the V1.XX: prompt. This should take less than 1 minute. </pre>	<p>The Software Build 5.0 merged adaptation data has now been restored onto the RPG.</p> <p>The merge software output passes the data to the MSCF through this step.</p>
77	<p>At the V1.XX: prompt, enter: eject<Return></p>	
78	<p>When the Removable Media Manager window opens and states the floppy can now be manually ejected, click on OK. The following message also appears:</p> <pre> /vol/dev/rdiskette0/... can now be manually ejected. Push the drive button to manually remove the diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - Site</u>. Save this diskette in a safe place as it will be used if Software Build 5.0 needs to be reloaded. </pre>	
79	<p>At the V1.XX: prompt, enter: mrpg startup<Return></p>	<p>This starts up the RPG with Software Build 5.0 merged adaptation data.</p> <p><u>For FAA only:</u> On the second time through, the channel has ROC default parameters only.</p>

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
80	<p>When the following message appears:</p> <p>RPG startup completed</p> <p>It will be followed by a V1.XX: prompt.</p> <p>Enter: hci &<Return></p> <p>This opens an RPG HCI window.</p>	
81	<p>The RPG is now operational. If the RPG is not operational, call the WSR-88D Hotline at (800) 643-3363.</p>	
82	<p><u>For FAA only:</u></p> <p>FIRST TIME THROUGH: The Inactive/ Noncontrolling channel is now loaded with Software Build 5.0. The RPG software is ON, but the RPG box is red as there is no communication with the RPG. The Adapt Times box should be red with MISMATCH identified.</p> <p>Return to step 12 to load the other channel currently on the old build.</p> <p>SECOND TIME THROUGH: Both channels have Software Build 5.0 loaded. Continue on with the next step.</p>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
83	<p>The RDA is in standby.</p> <p><u>For NWS and DoD:</u> Click on the RDA Control button. Click on Operate and Yes. Click on Close to close the RDA Control/ Status window.</p> <p><u>For FAA only:</u> In the lower right hand corner of the HCI, if the Adapt Times: states MISMATCH with a red background, do the following three steps:</p> <ol style="list-style-type: none"> a. Go to the Channel loaded first and had the Merge Program performed on it. b. Make this Channel the Active/Controlling Chan- nel. c. Click on MISMATCH and Yes. This forces an update of the merged adaptation data to the other channel. <p>Click on the RDA Control button. Click on Operate and Yes. Click on Close to close the RDA Control/ Status window</p>	<p>The radar is now operating.</p>
84	<p>For sites with distant MSCF locations, notify the MSCF site and any agency-specific offices that Software Build 5.0 has been successfully loaded on the RPG(s).</p>	
85	<p>The MSCF (or distant MSCF) can now be restored. Bring up the HCI, as both the RPG(s) and MSCF have Software Build 5.0 software loaded.</p> <p><u>For FAA only:</u> This step is not necessary for the second channel.</p>	

ATTACHMENT 2 (Continued)

RPG SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
86	Send the diskette labeled: <u>RPG B5.0 - Merged Adaptation Data - ROC</u> to the following address: Radar Operations Center Configuration Management ATTN: Chris Hunt 3200 Marshall Ave Norman, OK 73072-8028	This data provides the ROC with information to support future builds.
87	Continue with the next attachment applicable to your site.	

ATTACHMENT 3

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Technical Manual Required:

Maintenance Instructions, Radar Product Generator (RPG), Revision 1, dated 30 April 2003

NWS: EHB 6-525, Revision 1, Change 1

DoD: AFTO 31P1-4-108-452-1, Revision 1, Change 1

FAA: Order 6345.1 V49, Revision 1, Change 1

Initial Conditions:

This procedure can be performed while the radar is operational.

Be knowledgeable of user IDs, user passwords, and root passwords for your site.

NOTE

If the following full system software load is aborted on the BDDS for any reason, all user accounts will be lost. Do not intentionally abort the load. If the load aborts for any reason, reestablish all user accounts in accordance with NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Table 4-83 after the full software load is successfully completed. If this is a new replacement processor or fixed disk, user accounts must also be reestablished after the load in accordance with NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Table 4-83

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
NOTES		
<p>If this is being performed at a local BDDS workstation (installed in RPG cabinets), Raritan user Channel 2 (BDDS) must be selected. Move mouse and click on the edit field, then enter Raritan<Return> (no password) or, if a screen saver is not active yet, press the <Scroll Lock> key twice quickly to activate the on-screen menus. Select the BDDS user channel. Login on the screen saver with the site-specific password.</p> <p>If being performed at a remote BDDS, identify the correct On/Off button and the remote BDDS keyboard.</p> <p>The full system load script will automatically backup user IDs and passwords should backup data from these account directories be restored later. The system full load script will also create new home directories for all users with the current environment file (.cshrc) in-place so backup/restoral of user account data is not mandatory.</p> <p>Steps 1 through 3 contain methods to halt a system in a normal manner. Should these methods not work (possible system corruption), press the button on the front of the processor assembly (below green LED) and wait 30 seconds. If the system still will not shutdown, use the power switch at the rear of the unit and power the processor off for five seconds and back on to reboot it. Then enter <Stop>A (i.e., simultaneously press the <Stop> and A keys) after it starts to boot to stop the boot process. Then proceed to step 5.</p>		
1	If at the CDE Login Screen, proceed to step 3. If within the CDE continue with the next step.	
2	Exit out of Common Desktop Environment (CDE) by clicking the EXIT button on the CDE Front Panel (bottom of display) and OK at the Logout Confirmation window.	Leave the CDE.

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
3	<p>Push the button below the green LED on the front of the BDDS Processor. Proceed to step 5.</p> <p>It takes approximately 20 seconds to complete the shutdown.</p> <p>An <code>ok</code> prompt appears.</p>	<p>Halts the system and the system goes to an <code>ok</code> prompt.</p>
4	<p>If the system was powered off, then power the system on, and enter <Stop>A when the system starts to boot.</p> <p>An <code>ok</code> prompt appears.</p>	
5	<p>At the BDDS Processor, open the CD-ROM drive.</p> <p>Place the CD-ROM labeled <u>RPG LOAD MEDIA Version 5.0</u> in the CD-ROM drive.</p> <p>Close the cradle.</p>	
6	<p>At the <code>ok</code> prompt, enter: set-defaults<Return></p>	<p>This ensures all NVRAM settings are returned to default values.</p>
7	<p>At the <code>ok</code> prompt, enter: boot cdrom<Return></p>	<p>This boots the CD-ROM disk. Some disk check errors may be noted; however, they are not relevant at this point. Disregard the <code>hsfs mount failed, trying ufs ...</code> message.</p>
<p>NOTE</p> <p>If the load starts and it is then realized that an incorrect entry was made, let the software complete its load and then start this procedure over from the beginning. If the load is aborted while in progress, all user accounts will be lost.</p>		

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
8	<p>In approximately 2 minutes when the following message appears:</p> <pre>Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]: Enter: 3<Return></pre>	<p>Indicates Installing BDDS System...</p>
9	<p>When the following message appears:</p> <pre>Please enter the radar's site call letters (type 'help' for list): Enter the appropriate <u>lower case</u> four-letter site mnemonic: xxxx Enter: xxxx<Return></pre>	<p>Enter help<Return> to see a list of site mnemonics if it is unclear about which mnemonic to use.</p> <p>System responds with the system type, site name, network number, and netmask. For example:</p> <pre>System Type is: BDDS Site name is: kxxx or pxxx Network is: 172.25.xxx.0 Subnet Mask is: 255.255.255.128</pre>
<p>NOTES</p> <p>The installation will start and take approximately 21 minutes to complete.</p> <p>System time should be checked/set to ensure accurate system operation. Steps 10 and 11 provide guidance for performing this action prior to system reboot.</p>		

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
10	<p>When the following message appears:</p> <pre>BDDS Installation Done! Please [q]uit menu to reboot. Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?,??,q]:</pre> <p>Enter: 4<Return> to go into the Utility Choice Menu, then enter: 1<Return> to get to a shell prompt.</p>	
<p>NOTES</p> <p>Perform the next step even though the BDDS will synchronize its time with the AWIPS for NWS, or MSCF for DoD.</p> <p>The automated synchronization of the clocks will not work correctly if the clocks are more than 1000 seconds apart. When setting the time, ensure the time entered is within the 1000 second rule.</p>		
11	<p>Verify the displayed date/time is accurate within one minute. Call the WWV at (303) 499-7111 for current time.</p> <p>At the # prompt, enter: date<Return> to refresh the date/time display.</p>	Allows check/set of system time prior to reboot.
12	<p>If necessary, set the date/time (GMT) using the following procedure:</p> <p>At the # prompt, enter: date mmddHHMM[cc][yy][.ss]<Return></p>	Reference NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Table 4-77, step 3.

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
13	Once the date/time is accurate, at the # prompt, enter: exit<Return> to return to the main load menu.	
14	When the following message appears: Choose System Type to Load: 1 RPG 2 MSCF 3 BDDS 4 Utilities Enter Numeric Selection from Above, q to Quit or ? for Help: [?, ??, q]: Enter: q<Return>	This will allow selection of a system reboot.
15	When the following message appears: Do you want to reboot the system? Enter: y<Return>	Menu will temporarily pop back up and then system reboots. On the first boot, a disk-type error may be noted on a non-existent disk (e.g., /dev/dsk/c1t4d0s0); however, this error is non-critical and will not occur on subsequent boots.
NOTE		
In approximately 2 minutes, the BDDS will be fully functional and applications will be loaded/started. The BDDS is then able to perform its prime function. The remaining steps are for removing the CD-ROM, setting the root password, and restoring user accounts if desired.		
16	At the bottom of the CDE login window: Click and hold Options . Select Command Line Login . After three lines of comments appear, there is no prompt.	Will enable login as root outside of the CDE.
17	Enter: <Return> A <i>site mnemonic</i> console login: prompt appears.	

NWS: EHB-6, Software Note 24
 DoD: TO 31P1-4-108-618
 FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
18	At the <i>site mnemonic</i> console login: prompt, enter: root<Return> A # prompt appears.	At this point, the system will not prompt for a root password because it is not yet set.
19	At the # prompt, enter: eject cdrom<Return> CD-ROM cradle opens.	
20	Remove the CD-ROM. Close the cradle. Save CD-ROM in a safe location.	This is the CD-ROM labeled <u>RPG LOAD MEDIA Version 5.0</u> .
21	At the # prompt, enter: passwd<Return> Changes to <i>New Password:</i> prompt.	Prompts the user to enter a new password.
22	At the <i>New Password:</i> prompt, enter the desired: <i>root_password<Return></i>	Prompts the user to re-enter the new password.
23	At the <i>Re-enter new Password:</i> prompt, re-enter the desired: <i>root_password<Return></i>	Should indicate that the password was successfully changed for root.
24	At the # prompt, enter: exit<Return> System returns to the CDE login window after approximately 10 seconds.	If it is not necessary to restore any backed-up user accounts (data only), then this procedure is theoretically complete; however, the following Note provides information for setting up the CDE "look" when logging into a normal user account and into the CDE. If it is necessary to restore user accounts (data only), follow NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Table 4-68.

ATTACHMENT 3 (Continued)

BDDS SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
25	The BDDS is now operational. If the BDDS is not operational, call the WSR-88D Hotline at (800) 643-3363 for assistance.	
26	<p>Close out the BDDS channel.</p> <p>Press the <Scroll Lock> key twice quickly to activate the on-screen menu.</p> <p>Scroll to the RPG user channel and press <Return>.</p> <p>This will return the user to the RPG user channel.</p>	
27	Continue with the next attachment applicable to your site.	

NOTE

All normal user accounts have been set up with a default CDE “look” which includes one `Console` window, one `Terminal` window, and one digital clock. Due to variances in monitor sizes and types, the user may need to rearrange these items on the desktop as desired for best viewing. When arranged as desired, log out of CDE to save the new desktop “look.”

ATTACHMENT 4

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Tools Required:

Cisco Cable # 72-0876-01 or 72-1259-01

* RJ45-DB25(F) adapter #2300027-301

(These tools should be in the kit provided with the ORPG installation.)

* If this adapter is not available, it can be replaced by the RJ45-DB9(F) adapter (Cisco 74-0495-01), DB9 male gender changer, and the 10 foot DB9(F)-DB25(M) serial cable (Black Box EVMBMC-0010). If this combination is used, when referenced below, it should be connected to I/O panel J7 instead of J8. Also, when activated with a tip session, use `/dev/cua/1` instead of `/dev/cua/3`.

Initial Conditions:

This procedure can be performed while the radar is operational.

Be knowledgeable of user IDs, user passwords, and root passwords for your site.

If state change messages appear in the terminal window, however, and interrupt the entry of commands, put the RDA into STANDBY before continuing with load procedures. Notify all appropriate offices that the RDA will be in STANDBY for approximately 1 hour.

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
NOTES		
<p>The router must now be upgraded for compatibility with RPG Software Build 5.0</p> <p>Prerequisite for using the Radar Product Generation Processor Communications Assembly (RPGPCA) for setup: The Router (UD70A2) is installed and connected to the LAN Switch (UD70A13) in its normal manner. The RPG processor is fully loaded, operational and connected to the LAN Switch (UD70A13) in its normal manner within the RPGPCA cabinet UD70.</p> <p>The next step requires input of the site-specific IP address from the RPG processor. If this number is not known, in a terminal window, at any prompt enter the following: more /etc/hosts<Return> and put the <i>Third Octet Subnet</i> number (found near the top of the hosts file) in the blank below:</p> <p style="text-align: center;">172.25._____.1</p> <p>For FAA Channel 2, the IP address will have the form:</p> <p style="text-align: center;">172.25._____.71</p> <p>For FAA sites, recommend start with the Inactive/Non-controlling channel.</p>		
1	For the router and RPGPCA setup: Plug the Cisco cable into the CON port at the front of the Cisco 3600 Router.	See Tools Required list at the beginning of ATTACHMENT 4 .
2	Attach the RJ45–DB25(F) adapter to the free end of the Cisco cable.	
3	Plug the free end of the RJ45–DB25(F) adapter into the I/O Panel J8 port. This port is in the bottom eight inch section of the left hand cabinet as you face the back of the cabinets.	
4	In a new Terminal window, at a <i>user:</i> prompt, enter: tip -9600 /dev/cua/3<Return> The feedback "connected" appears.	

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
5	<p>After the <code>connected</code> feedback appears, enter: <Return> to finish establishing the connection.</p> <p>A <code>Password:</code> prompt should appear. If there is no prompt, verify the routing of the J8 I/O panel reference NWS EHB 6-525, DoD AFTO 31P1-4-108-452-1, FAA Order 6345.1 V49, Figure FO7-4, titled "RPG-PCA Data Cables". Cable W253 goes from J8 to PCI board 2 port 3 (fourth one down on the bottom).</p>	
<p>NOTE</p> <p>For simplicity with this procedure the possible <i>hostname</i> (rtr, rtr1, or rtr2) is referred to as <code>rtr</code> for the remainder of this procedure. When an entry requires the router <i>hostname</i>, the user needs to enter the appropriate hostname as directed by the procedure.</p>		
6	<p>At the <code>Password:</code> prompt, enter: <code>site_password<Return></code></p> <p>If this is a new box that may have been previously tested by NRC, it will either have no password set for the CONSOLE port or will use a default password of cisco.</p>	<p>Enter the actual password for site, not the words "site_password."</p>
7	<p>At the <code>rtr></code> prompt, enter: enable<Return></p>	
8	<p>When prompted, enter: <code>site_password<Return></code></p> <p>If this is a new box that may have been previously tested by NRC, it will either have no password set for the "enable" level or will use a default password of cisco.</p> <p>A <code>rtr#</code> prompt appears.</p>	

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
CAUTION		
<p>Upon completion of steps 9 through 11, if power is removed without successful completion of steps 12 through 17 the firmware within the Router <u>will become corrupted</u> (signified by a <code>router:</code> prompt) and a new router must be ordered.</p>		
9	<p>At the <code>rtr#</code> prompt, enter: erase startup-config<Return></p>	This erases the old configuration files.
10	<p>When the following message appears:</p> <pre>Erasing the nvram filesystem will remove all files! Continue? [confirm]</pre> <p>Enter: <Return></p> <p>[OK] will appear.</p>	
11	<p>Wait for feedback:</p> <pre>Erase of nvram: complete</pre> <p>and the <code>rtr#</code> prompt reappears.</p>	
12	<p>At the <code>rtr#</code> prompt,</p> <p><u>For NWS, DoD, or FAA Channel 1 only:</u> enter: copy tftp://172.25.===.1/c3640.bin flash: <Return></p> <p><u>For FAA Channel 2 only,</u> enter: copy tftp://172.25.===.71/c3640.bin flash: <Return></p> <p>Enter the correct subnet referencing the hosts file.</p>	<p>The IP address is the RPG processor IP Address and === is the site-specific subnet number. Refer to note before step 1 for the site-unique subnet ID.</p> <p>This will start the copy process of the new Cisco operating system from the RPG newly loaded with Build 5.0.</p>

NWS: EHB-6, Software Note 24
 DoD: TO 31P1-4-108-618
 FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
13	When the following message appears: Destination filename [c3640.bin]? Enter: <Return>	
14	When the following message appears: %Warning: There is a file already existing with this name Do you want to over write? [confirm] Enter: <Return>	
15	When the following message appears: Accessing tftp://172.25.===.1/c3640.bin... Erase flash: before copying? [confirm]. Enter: <Return>	For FAA Channel 2, the following message will appear: Accessing tftp://172.25.===.71/c3640.bin... Erase flash: before copying? [confirm].
16	When the following message appears: Erasing the flash filesystem will remove all files! Continue? [confirm] Enter: <Return> The message Erasing device... will be displayed.	This erases the old operating system and makes room for the new operating system.

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
17	<p>Wait for approximately 40 seconds while the older file is erased and newer file loads.</p> <p>Ensure the <code>Verifying checksum...OK</code> message appears followed by the <code>rtr#</code> prompt before cycling power in the next step.</p> <p>If <code>Verifying checksum...OK</code> does not appear, repeat steps 12 through 17 before continuing.</p>	
18	<p>Cycle power to the Router (A2) by manually turning the power switch Off for five seconds, and then back On. (The power switch is on the back of the router, right hand side).</p> <p>Once power is returned to the router, it reloads the default software taking approximately 45 seconds. When complete, the last line of feedback states:</p> <p style="padding-left: 20px;"><code>--- System Configuration Dialog ---</code></p>	
<p>NOTE</p> <p>Throughout this procedure, the router state is changed and feedback messages are presented while the user is trying to complete entries. To return to an entry prompt, press <Return>.</p>		
19	<p>When the following message appears:</p> <p style="padding-left: 20px;"><code>Would you like to enter initial configuration dialog? [yes/no]:</code></p> <p>Enter: n<Return></p>	
20	<p>When the following message appears:</p> <p style="padding-left: 20px;"><code>Would you like to terminate autoinstall? [yes]:</code></p> <p>Enter: <Return></p>	

NWS: EHB-6, Software Note 24
 DoD: TO 31P1-4-108-618
 FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
21	State Changes will be noted. Wait approximately 30 seconds until the State Changes stop, then enter: <Return> to continue. The Router> prompt appears.	
22	At the Router> prompt, enter: enable<Return> Prompt changes to Router#.	
23	At the Router# prompt, enter: config t <Return> Prompt changes to Router (config) #.	
24	At the Router (config) # prompt, enter: no logging console<Return>	This turns off the display of the state change comments.
25	At the Router (config) # prompt, enter: bridge irb<Return>	
26	At the Router (config) # prompt, enter: bridge 1 protocol ieee<Return>	
27	At the Router (config) # prompt, enter: bridge 1 route ip<Return>	
28	At the Router (config) # prompt, enter: int bvi1<Return> Prompt changes to Router (config-if) #.	

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
29	<p>Enter the IP address command string, dependent on system and/or channel. For NWS, DoD, or FAA Channel 1, at the <code>router(config-if)#</code> prompt, enter: ip address 172.25.===.7 255.255.255.128<Return></p> <p>Where === is the site-specific subnet ID (see hosts file). Refer to note before step 1 for the site-unique subnet ID.</p>	<p>This configures the router for the network connection to the RPG.</p> <p>Note: There is a “.7” instead of a “.1” after the site ID in this command string.</p>
30	<p><u>For FAA Channel 2 only:</u> At the <code>router(config-if)#</code> prompt, enter: ip address 172.25.===.77 255.255.255.128<Return></p> <p>Where === is the site-specific subnet ID (see host file). Refer to note before step 1 for the site-unique subnet ID.</p>	<p>This configures the router for the network connection to the RPG.</p>
31	<p>At the <code>Router(config-if)#</code> prompt, enter: exit<Return></p> <p>Prompt changes to <code>Router(config)#</code>.</p>	
32	<p>At the <code>Router(config)#</code> prompt, enter: int f0/0<Return></p> <p>Prompt changes to <code>Router(config-if)#</code>.</p>	<p>This starts the configuration of the Ethernet port.</p>
33	<p>At the <code>Router(config-if)#</code> prompt, enter: bridge-group 1 <Return></p>	
34	<p>At the <code>Router(config-if)#</code> prompt, enter: no shutdown<Return></p>	
35	<p>At the <code>Router(config-if)#</code> prompt, enter: end<Return></p> <p>Prompt changes to <code>Router#</code>.</p>	

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
36	At the Router# prompt, enter: write mem<Return> to save the entries. Wait a few seconds for the router to update and the Router# prompt returns.	
37	At the Router# prompt, enter: copy tftp running-config<Return> Feedback: Address or name of remote host []? will appear.	This copies the first Cisco configuration file from the RPG newly loaded with Build 5.0.
38	<u>For NWS, DoD, or FAA Channel 1 only:</u> At the Address or name of remote host []? prompt, enter: 172.25.===.1<Return>	Where === is the site-specific subnet ID (see hosts file).
39	<u>For FAA Channel 2 only:</u> At the Address or name of remote host []? prompt, enter: 172.25.===.71<Return>	Where === is the site-specific subnet ID (see hosts file).
40	When the following message appears: Source filename []? Enter: rtr-template<Return>	

NWS: EHB-6, Software Note 24
DoD: TO 31P1-4-108-618
FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
41	<p>When the following message appears:</p> <pre>Destination filename [running-config]?</pre> <p>Enter: <Return></p> <p>The router proceeds with the upload. Error messages noted for non-installed modules are normal. The last response will be:</p> <pre>Cannot find community private Cannot find community public</pre> <p>Wait for approximately 30 seconds for a <code>rtr#</code> prompt to appear.</p>	<p>Prompt would be <code>rtr1#</code> for an FAA Channel 1, or <code>rtr2#</code> for FAA Channel 2.</p>
42	<p>At the <code>rtr#</code> prompt, enter: copy tftp running-config<Return></p> <p>The following message appears:</p> <pre>Address or name of remote host []?</pre>	<p>This starts copying the second configuration file depending upon the agency.</p>
43	<p><u>For NWS, DoD, or FAA Channel 1 only:</u> At the <code>Address or name of remote host [172.25.===.1]?</code> prompt, enter: 172.25.===.1<Return></p>	<p>Where === is the site-specific subnet ID (see hosts file).</p>
44	<p><u>For FAA Channel 2 only:</u> At the <code>Address or name of remote host [172.25.===.71]?</code> prompt, enter: 172.25.===.71<Return></p>	<p>Where === is the site-specific subnet ID (see hosts file).</p>
45	<p>When the following message appears:</p> <pre>Source filename [rtr-template]?</pre> <p>Depending on user's agency, enter: faa-specific<Return> or dod-specific<Return> or nws-specific<Return></p>	

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
46	<p>When the following message appears:</p> <pre>Destination filename [running-config]?</pre> <p>Enter: <Return></p> <p>The router proceeds with the upload. Error messages noted for non-installed modules are normal.</p> <p>A <code>rtr#</code> prompt appears in approximately 15 seconds.</p>	<p>Prompt would be <code>rtr1#</code> for an FAA Channel 1, or <code>rtr2#</code> for FAA Channel 2</p>
<p>NOTE</p> <p>Several passwords are assigned for the Router's various ports. To make the management of these passwords simpler for the user, using the same <code>site_password</code> is suggested.</p>		
47	<p>At the <code>rtr#</code> prompt, enter: config t <Return></p> <p>The following message appears:</p> <pre>Enter configuration commands, one per line. End with CNTL/Z.</pre> <p>Prompt changes to <code>rtr(config)#</code>.</p>	
48	<p>At the <code>rtr(config)#</code> prompt, enter: no enable password<Return></p>	
49	<p>At the <code>rtr(config)#</code> prompt, enter: service password-encryption<Return></p>	
50	<p>At the <code>rtr(config)#</code> prompt, enter: enable password <code>site_password</code><Return></p> <p><u>Make note of the password for future operations.</u></p>	<p>Recording the password is critical to future operations.</p>

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
51	At the <code>rtr(config)#</code> prompt, enter: line vty 0 4<Return> Prompt changes to <code>rtr(config-line)#</code> .	
52	At the <code>rtr(config-line)#</code> prompt, enter: login<Return>	
53	At the <code>rtr(config-line)#</code> prompt, enter: password site_password<Return> <u>Make note of the password for future operations.</u>	Recording the password is critical to future operations.
54	At the <code>rtr(config-line)#</code> prompt, enter: line con 0<Return>	
55	At the <code>rtr(config-line)#</code> prompt, enter: login<Return>	
56	At the <code>rtr(config-line)#</code> prompt, enter: password site_password<Return> <u>Make note of the password for future operations.</u>	Recording the password is critical to future operations.
57	At the <code>rtr(config-line)#</code> prompt, enter: line aux 0<Return>	
58	At the <code>rtr(config-line)#</code> prompt, enter: login<Return>	
59	At the <code>rtr(config-line)#</code> prompt, enter: password site_password<Return> <u>Make note of the password for future operations.</u>	Recording the password is critical to future operations.

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
60	At the <code>rtr(config-line)#</code> prompt, enter: exit<Return> Prompt changes to <code>rtr(config)#</code> .	
61	At the <code>rtr(config)#</code> prompt, enter: no service password-encryption<Return>	
62	At the <code>rtr(config)#</code> prompt, enter: logging console<Return>	This turns on the display of the state change comments.
63	At the <code>rtr(config)#</code> prompt, enter: end<Return>	
64	When the message below appears: <code>Configured from console by console.</code> Enter: <Return> Prompt changes to <code>rtr#</code> .	
65	At the <code>rtr#</code> prompt, enter: write mem<Return> to save the entries. Messages will appear. Watch for an <code>[OK]</code> prompt, and then an <code>rtr#</code> prompt.	
66	At the <code>rtr#</code> prompt, enter: exit<Return> to exit.	

ATTACHMENT 4 (Continued)

RPG ROUTER SOFTWARE BUILD 5.0 LOAD INSTRUCTIONS

Step	Action/Response	Comments
67	<p>The message:</p> <pre>Press RETURN to get started</pre> <p>will appear, but there is no prompt.</p> <p>Enter: <code>~ .</code> (tilde dot)</p>	<p>EOT is displayed and the user is returned to a <i>user:</i> prompt.</p> <p>Command is executed when the dot (.) is entered.</p>
68	<p>Unplug the data cable from the I/O Panel J8 Port and Cisco Router Con Port. These connections were made at the beginning of this attachment.</p>	
69	<p>The RPG Router load is complete. Close the Terminal window.</p>	
70	<p><u>For FAA only:</u> Switch channels so the new active channel has the router already loaded. Repeat ATTACHMENT 4 for the second channel while it is in STANDBY and non-controlling.</p>	
71	<p>Continue with the next attachment applicable to your site.</p>	

ATTACHMENT 5

MSCF RESTORATION

Technical Manual Required:

Maintenance Instructions, Radar Product Generator (RPG), Revision 1, dated 30 April 2003
 NWS: EHB 6-525, Revision 1, Change 1
 DoD: AFTO 31P1-4-108-452-1, Revision 1, Change 1
 FAA: Order 6345.1 V49, Revision 1, Change 1

Materials Required:

None

Initial Conditions:

The MSCF and RPG must have Build 5.0 successfully loaded. For FAA sites, both RPGs must be successfully loaded with Build 5.0.

Step	Action/Response	Comments
NOTE		
The following steps may require the assistance of site operators.		
1	<p><u>For NWS and DoD:</u> If the RPG HCI is not open, at the MSCF, click on the RPG HCI button. The <code>RPG Control/Status</code> window (HCI) opens.</p> <p><u>For FAA only:</u> Open the RPG HCI for the controlling channel by clicking on the RPG HCI button. The <code>RPG Control/Status</code> window (HCI) opens.</p>	
2	On the HCI, in the Applications area on the right side of the screen, click on the <code>Clutter Regions</code> icon. The <code>Clutter Regions</code> window opens.	
3	In the <code>Clutter Regions</code> window, click on the File button and the <code>Clutter Region Files</code> window appears.	
4	In the <code>Clutter Region Files</code> window, double-click the clutter region file to be used for daily operations.	This selected file now appears on the <code>Clutter Regions</code> window.

ATTACHMENT 5 (Continued)

MSCF RESTORATION

Step	Action/Response	Comments
5	Click Close to close the Clutter Region Files window.	
6	On the Clutter Regions window, click Download and Yes to download the selected clutter region file to the RDA. Response in Feedback line of the HCI will read: Downloading Clutter Censor Zones.	
7	Click Close to close the Clutter Regions window.	
8	Under the Applications column of the HCI, click on the Environmental Data icon. This opens the Environmental Data Editor window.	Updates can be done graphically using the mouse on the Environmental Data Editor window.
9	In the Environmental Data Editor window, click on the Data Entry button. This opens the Environmental Data Entry window.	
10	In the Environmental Data Entry window, verify and update with assistance from the site operator: - Environmental Winds - The 0 degrees and -20 degrees Hail Temperature Heights - Default Storm Motion Click Save and Yes if any changes are made.	
11	Click on the Close button in the Environmental Data Entry window.	
12	In the Environmental Data Editor window, enable VAD update, if desired. Click on the Close button in the Environmental Data Editor window	
13	In the HCI, the RPG Control/Status window shows the software build number (e.g. B5.0) in the lower right corner of the screen. The software version is also distributed to all users in the General Status Message (GSM).	This verifies Software Build 5.0 is loaded.

ATTACHMENT 5 (Continued)

MSCF RESTORATION

Step	Action/Response	Comments
14	In the HCI, click on the RPG Products button, then click on the Algorithms button. The Algorithms window appears.	
15	Scroll down the Adaptation Item selection bar (list of algorithms in the middle of the second line) to Hydromet Preprocessing . Click on this title to make the Hydromet Preprocessing Algorithm appear. It will take approximately 35 seconds for the screen to fully appear.	
16	Look at the bottom of the window where the first of 20 Exclusion Zones can be identified. If the site wants to develop a zone, then first Click on the Closed Padlock button and enter the URC password. Once the zones are sensitized and available for edit, enter the desired Exclusion Zones. Scroll down the window to enter in more zones. Don't forget to insert the number of zones in the Number of Exclusion Zones (NEXZONE) line directly above the Zone #1 parameters.	
17	If no zones are developed, then click the Close button to close the window. If zones are created and the NEXZONE value entered, then click on the Save button before clicking the Close button. The Exclusion Zones will then be automatically incorporated into the Hydromet Preprocessing algorithm at the start of the next volume scan.	
18	Close the RPG Products window by clicking on the Close button.	
19	In the HCI, click on the Comms button under the USERS Group . The Product Distribution Comms Status window opens. Verify all site Users lines are connected. Check both windows, lines 1-24 and 25-42.	WAN lines 26-32 and 41-42 are now listed.
20	Close the Product Distribution Comms Status window by clicking on the Close button.	

ATTACHMENT 5 (Continued)

MSCF RESTORATION

Step	Action/Response	Comments
21	<p>Check the following variables to ensure they are correctly set for your site's operation:</p> <p>In the HCI, lower right corner:</p> <ul style="list-style-type: none">-Auto PRF-Calibration-Audio Alarms-RDA Messages <p>In the RDA Control/Status window:</p> <ul style="list-style-type: none">-RDA Control-Interference Suppression <p>In the VCP Control window:</p> <ul style="list-style-type: none">-VCP <p>In the RPG Control window:</p> <ul style="list-style-type: none">-Default Weather Mode	

ATTACHMENT 5 (Continued)

MSCF RESTORATION

Step	Action/Response	Comments
22	<p>The twenty (20) sites listed below must perform Steps 23 through 32 to correct the /etc/hosts IP address for their printer. All other sites skip to Step 33.</p> <p>Albuquerque (KABX) * Atlanta (KFFC) Austin/San Antonio (KEWX) Birmingham (KBMX) Bismarck (KBIS) Burlington (KCXX) El Paso (KEPZ) Ft Worth/Dallas (KFWS) * Jackson/Brandon (KDGX) Jacksonville (KJAX) Lake Charles (KLCH) Las Vegas (KESX) Los Angeles (KVTX) Mobile (KMOB) Norfolk (KAKQ) Norman (KTLX) Paducah (KPAH) Sacramento (KDAX) San Angelo (KSJT) Tallahassee (KTLH)</p> <p>* Corrected during Build 5.0 Beta Test. Use if Build 5.0 has to be reloaded.</p>	
23	<p>Exit the CDE by clicking on the EXIT button, and clicking OK in the <code>Logout Confirmation</code> window.</p>	
24	<p>In the <code>CDE Login</code> window, at the <code>Please enter your user name</code> prompt, enter: root <Return></p>	
25	<p>At the <code>Please enter your password</code> prompt, enter: root_password <Return></p> <p>Both a <code>Terminal</code> window and a <code>Console</code> window should appear with a <code>#</code> prompt.</p>	

ATTACHMENT 5 (Continued)

MSCF RESTORATION

Step	Action/Response	Comments
26	<p>In a <code>Terminal</code> window, at the <code>#</code> prompt, enter: cp /etc/hosts /etc/hosts.org <Return></p> <p>A <code>#</code> prompt appears.</p>	<p>This makes a copy of the current <code>/etc/hosts</code> file.</p>
27	<p>Edit the <code>/etc/hosts</code> files with the CDE Text Editor. The Text Editor Icon is the fifth from the left margin on the front panel, and is a notepad and pencil.</p> <p>Click on the Text Editor Icon up arrow.</p> <p>Click on Text Editor.</p> <p>A <code>Text Editor - (UNTITLED)</code> window appears.</p>	
28	<p>At the <code>Text Editor - (UNTITLED)</code> window, Click on File. Click on Open.</p> <p>A <code>Text Editor - Open a File</code> window appears.</p>	
29	<p>In the <code>Enter path or folder name: edit box</code>, enter: /etc <Return></p> <p>In the <code>Enter file name: edit box</code>, enter: hosts <Return></p> <p>A <code>Text Editor - hosts</code> window appears.</p>	

ATTACHMENT 5 (Continued)

MSCF RESTORATION

Step	Action/Response	Comments
30	<p>Search down the list of <code>/etc/hosts</code> addresses. The <code>printer</code> address should be about line 14 of the addresses. It will look like: <code>172.25.xxx.21 printer ...</code> where <code>xxx</code> is the value which must be changed to the site-specific third octet.</p> <p>Make the third octet of the <code>printer</code> entry identical to the third octet entry of the <code>mscf</code> entry directly above it.</p> <p>Once the third octets of the <code>mscf</code> and <code>printer</code> entries match, do the following:</p> <p>Click on File. Click on Save (needed).</p> <p>Click on File. Click on Close.</p>	
31	<p>Exit out of the CDE by clicking on the EXIT button and clicking OK in the <code>Logout Confirmation</code> window.</p> <p>This returns you to a <code>CDE Login</code> window.</p>	
32	Login as a Regular User.	Returns you to <code>Console</code> and <code>Terminal</code> windows as <code>user</code> :
33	<p><u>For NWS only:</u> Using ATTACHMENT 8 as a guide, report the successful loading of Software Build 5.0 on EMRS.</p>	List the Equipment Code as MSCF in Block 7.
34	<p><u>For DoD and FAA:</u> Go to ATTACHMENT 7 to report the successful loading of Build 5.0.</p>	

ATTACHMENT 6

EFFECTIVITY

NWS

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
	Eastern Region			
ALBANY	ALBANY, NY	RPG MSCF BDDS	ALY	WN9518
BINGHAMTON	JOHNSON CITY, NY	RPG MSCF BDDS	BGM	WN9515
BOSTON	TAUNTON, MA	RPG MSCF BDDS	BOX	WN9509
BROOKHAVEN	UPTON, NY	RPG MSCF BDDS	OKX	WN9912
BUFFALO	BUFFALO, NY	RPG MSCF BDDS	BUF	WN9528
BURLINGTON	SOUTH BURLINGTON, VT	RPG MSCF	BTV	WN9617
FT DRUM	SOUTH BURLINGTON, VT	MSCF	BTV	WN9617
BURLINGTON	SOUTH BURLINGTON, VT	BDDS	BTV	WN9617
CARIBOU	CARIBOU, ME	RPG MSCF	CAR	WN9712

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
CHARLESTON, SC	CHARLESTON, SC	RPG MSCF BDDS	CHS	WN9208
CHARLESTON, WV	CHARLESTON, WV	RPG MSCF BDDS	RLX	WN9414
CINCINNATI	WILMINGTON, OH	RPG MSCF BDDS	ILN	WN9710
CLEVELAND	CLEVELAND, OH	RPG MSCF BDDS	CLE	WN9524
COLUMBIA	WEST COLUMBIA, SC	RPG MSCF BDDS	CAE	WN9310
GREER	GREER, SC	RPG MSCF BDDS	GSP	WN9312
MOREHEAD CITY	NEWPORT, NC	RPG MSCF BDDS	MHX	WN9307
NORFOLK DOVER AFB NORFOLK	WAKEFIELD, VA WAKEFIELD, VA WAKEFIELD, VA	RPG MSCF BDDS	AKQ AKQ AKQ	WN9952 WN9952 WN9952

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
PHILADELPHIA	MOUNT HOLLY, NJ	RPG MSCF BDDS	PHI	WN9950
PITTSBURGH	CORAOPOLIS, PA	RPG MSCF BDDS	PBZ	WN9917
PORTLAND, ME	GRAY, ME	RPG MSCF BDDS	GYX	WN9938
RALEIGH/DURHAM	RALEIGH, NC	RPG MSCF BDDS	RAH	WN9306
ROANOKE	BLACKSBURG, VA	RPG MSCF BDDS	RNK	WN9954
STATE COLLEGE	STATE COLLEGE, PA	RPG MSCF BDDS	CTP	WN9925
STERLING	STERLING, VA	RPG MSCF BDDS	LWX	WN9931
WILMINGTON	WILMINGTON, NC	RPG MSCF BDDS	ILM	WN9301

Southern Region

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
ALBUQUERQUE	ALBUQUERQUE, NM	RPG MSCF	ABQ	WP9365
CANNON AFB	ALBUQUERQUE, NM	MSCF	ABQ	WP9365
ALBUQUERQUE	ALBUQUERQUE, NM	BDDS	ABQ	WP9365
AMARILLO	AMARILLO, TX	RPG MSCF BDDS	AMA	WP9363
ATLANTA	PEACHTREE CITY, GA	RPG MSCF	FFC	WP9219
ROBINS AFB	PEACHTREE CITY, GA	MSCF	FFC	WP9219
ATLANTA	PEACHTREE CITY, GA	BDDS	FFC	WP9219
AUSTIN/SAN ANTONIO	NEW BRAUNFELS, TX	RPG MSCF	EWX	WP9253
LAUGHLIN AFB	NEW BRAUNFELS, TX	MSCF	EWX	WP9253
AUSTIN/SAN ANTONIO	NEW BRAUNFELS, TX	BDDS	EWX	WP9253
BIRMINGHAM	ALABASTER, AL	RPG MSCF	BMX	WP9957
MAXWELL AFB	ALABASTER, AL	MSCF	BMX	WP9957
BIRMINGHAM	ALABASTER, AL	BDDS	BMX	WP9957
BROWNSVILLE	BROWNSVILLE, TX	RPG MSCF BDDS	BRO	WP9250
CORPUS CHRISTI	CORPUS CHRISTI, TX	RPG MSCF BDDS	CRP	WP9251

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
DALLAS/FT WORTH	FORT WORTH, TX	RPG MSCF	FWD	WP9259
FT HOOD	FORT WORTH, TX	MSCF	FWD	WP9259
DALLAS/FT WORTH	FORT WORTH, TX	BDDS	FWD	WP9259
EL PASO	SANTA TERESA, NM	RPG MSCF	EPZ	WP9270
HOLLOMAN AFB	SANTA TERESA, NM	MSCF	EPZ	WP9270
EL PASO	SANTA TERESA, NM	BDDS	EPZ	WP9270
HOUSTON	DICKINSON, TX	RPG MSCF BDDS	HGX	WP9935
JACKSON/BRANDON, MS	JACKSON, MS	RPG	JAN	WP9235
COLUMBUS AFB	JACKSON, MS	MSCF	JAN	WP9235
JACKSON/BRANDON, MS	JACKSON, MS	MSCF BDDS	JAN	WP9235
COLUMBUS AFB	JACKSON, MS	RBDDS	JAN	WP9235
JACKSONVILLE	JACKSONVILLE, FL	RPG MSCF	JAX	WP9206
MOODY AFB	JACKSONVILLE, FL	MSCF	JAX	WP9206
JACKSONVILLE	JACKSONVILLE, FL	BDDS	JAX	WP9206
KEY WEST	BOCA CHICA KEY, FL	RPG MSCF BDDS	EYW	WP9201

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
KNOXVILLE	MORRISTOWN, TN	RPG MSCF BDDS	MRX	WP9325
LAKE CHARLES	LAKE CHARLES, LA	RPG	LCH	WP9240
FT POLK	LAKE CHARLES, LA	MSCF	LCH	WP9240
LAKE CHARLES	LAKE CHARLES, LA	MSCF BDDS	LCH	WP9240
LITTLE ROCK	NORTH LITTLE ROCK, AR	RPG MSCF BDDS	LZK	WP9340
LUBBOCK	LUBBOCK, TX	RPG MSCF BDDS	LUB	WP9933
MELBOURNE	MELBOURNE, FL	RPG MSCF BDDS	MLB	WP9204
MEMPHIS	MEMPHIS, TN	RPG MSCF BDDS	MEG	WP9334
MIAMI	MIAMI, FL	RPG MSCF BDDS	MFL	WP9918
MIDLAND/ODESSA	MIDLAND, TX	RPG MSCF BDDS	MAF	WP9265
MOBILE	MOBILE, AL	RPG	MOB	WP9223

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
EGLIN AFB	MOBILE, AL	MSCF	MOB	WP9223
MOBILE	MOBILE, AL	MSCF BDDS	MOB	WP9223
NASHVILLE	OLD HICKORY, TN	RPG MSCF BDDS	OHX	WP9327
NORMAN	NORMAN, OK	RPG	OUN	WP9921
ALTUS AFB	NORMAN, OK	MSCF	OUN	WP9921
NORMAN	NORMAN, OK	MSCF	OUN	WP9921
VANCE AFB	NORMAN, OK	MSCF	OUN	WP9921
NORMAN	NORMAN, OK	BDDS	OUN	WP9921
ALTUS AFB	NORMAN, OK	RBDDS	OUN	WP9921
VANCE AFB	NORMAN, OK	RBDDS	OUN	WP9921
NORTHEAST ALABAMA	HUNTSVILLE, AL	RPG MSCF BDDS	HUN	WP9914
SAN ANGELO	SAN ANGELO, TX	RPG	SJT	WP9263
DYESS AFB	SAN ANGELO, TX	MSCF	SJT	WP9263
SAN ANGELO	SAN ANGELO, TX	MSCF BDDS	SJT	WP9263
SAN JUAN FAA	SAN JUAN, PR	MSCF	SJU	WP9526
SHREVEPORT	SHREVEPORT, LA	RPG MSCF BDDS	SHV	WP9248

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
SLIDELL	SLIDELL, LA	RPG MSCF BDDS	LIX	WP9919
TALLAHASSEE	TALLAHASSEE, FL	RPG	TLH	WP9214
FT RUCKER	TALLAHASSEE, FL	MSCF	TLH	WP9214
TALLAHASSEE	TALLAHASSEE, FL	MSCF BDDS	TLH	WP9214
TAMPA	RUSKIN, FL	RPG MSCF BDDS	TBW	WP9961
TULSA	TULSA, OK	RPG	TSA	WP9356
WESTERN ARKANSAS	TULSA, OK	RPG	TSA	WP9356
TULSA	TULSA, OK	MSCF	TSA	WP9356
WESTERN ARKANSAS	TULSA, OK	MSCF	TSA	WP9356
TULSA	TULSA, OK	BDDS	TSA	WP9356
WESTERN ARKANSAS	TULSA, OK	BDDS	TSA	WP9356
Central Region				
ABERDEEN	ABERDEEN, SD	RPG MSCF BDDS	ABR	WR9659
BISMARCK	BISMARCK, ND	RPG MSCF	BIS	WR9764
MINOT AFB	BISMARCK, ND	MSCF	BIS	WR9764

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
BISMARCK	BISMARCK, ND	BDDS	BIS	WR9764
CHEYENNE	CHEYENNE, WY	RPG MSCF BDDS	CYS	WR9564
CHICAGO	ROMEIOVILLE, IL	RPG MSCF BDDS	LOT	WR9969
DENVER	BOULDER, CO	RPG MSCF BDDS	BOU	WR9469
DES MOINES	JOHNSTON, IA	RPG MSCF BDDS	DMX	WR9546
DETROIT	WHITE LAKE, MI	RPG MSCF BDDS	DTX	WR9954
DODGE CITY	DODGE CITY, KS	RPG MSCF BDDS	DDC	WR9451
DULUTH	DULUTH, MN	RPG MSCF BDDS	DLH	WR9745
EVANSVILLE,IN	PADUCAH, KY	RPG	PAH	WR9957
PADUCAH	PADUCAH, KY	RPG	PAH	WR9957
EVANSVILLE,IN	PADUCAH, KY	MSCF	PAH	WR9957
FT CAMPBELL	PADUCAH, KY	MSCF	PAH	WR9957

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
PADUCAH	PADUCAH, KY	MSCF	PAH	WR9957
EVANSVILLE,IN	PADUCAH, KY	BDDS	PAH	WR9957
PADUCAH	PADUCAH, KY	BDDS	PAH	WR9957
FARGO/GRAND FORKS	GRAND FORKS, ND	RPG	FGF	WR9750
		MSCF		
		BDDS		
GOODLAND	GOODLAND, KS	RPG	GLD	WR9465
		MSCF		
		BDDS		
GRAND ISLAND	HASTINGS, NE	RPG	GID	WR9552
		MSCF		
		BDDS		
GRAND JUNCTION	GRAND JUNCTION, CO	RPG	GJT	WR9476
		MSCF		
		BDDS		
GRAND RAPIDS	GRAND RAPIDS, MI	RPG	GRR	WR9635
		MSCF		
		BDDS		
GREEN BAY	GREEN BAY, WI	RPG	GRB	WR9645
		MSCF		
		BDDS		
INDIANAPOLIS	INDIANAPOLIS, IN	RPG	IND	WR9438
		MSCF		
		BDDS		

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
JACKSON, KY	JACKSON, KY	RPG MSCF BDDS	JKL	WR9956
LA CROSSE	LA CROSSE, WI	RPG MSCF BDDS	ARX	WR9643
LINCOLN	LINCOLN, IL	RPG MSCF BDDS	ILX	WR9436
LOUISVILLE	LOUISVILLE, KY	RPG MSCF BDDS	LMK	WR9423
MARQUETTE	NEGAUNEE, MI	RPG MSCF BDDS	MQT	WR9743
MILWAUKEE	DOUSMAN, WI	RPG MSCF BDDS	MKX	WR9965
MINNEAPOLIS	CHANHASSEN, MN	RPG MSCF BDDS	MPX	WR9658
NCL MICHIGAN	GAYLORD, MI	RPG MSCF BDDS	APX	WR9610
NORTH PLATTE	NORTH PLATTE, NE	RPG MSCF BDDS	LBF	WR9562

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
NORTHERN INDIANA	NORTH WEBSTER, IN	RPG MSCF BDDS	IWX	WR9534
OMAHA	VALLEY, NE	RPG MSCF BDDS	OAX	WR9553
PLEASANT HILL	PLEASANT HILL, MO	RPG MSCF BDDS	EAX	WR9446
PUEBLO	PUEBLO, CO	RPG MSCF BDDS	PUB	WR9464
QUAD CITIES	DAVENPORT, IA	RPG MSCF BDDS	DVN	WR9544
RAPID CITY	RAPID CITY, SD	RPG MSCF BDDS	UNR	WR9662
RIVERTON/LANDER	RIVERTON, WY	RPG MSCF BDDS	RIW	WR9576
SIoux FALLS	SIoux FALLS, SD	RPG MSCF BDDS	FSD	WR9651
SPRINGFIELD	SPRINGFIELD, MO	RPG MSCF BDDS	SGF	WR9440

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
ST LOUIS	WELDON SPRING, MO	RPG MSCF BDDS	LSX	WR9971
TOPEKA	TOPEKA, KS	RPG MSCF BDDS	TOP	WR9456
WICHITA	WICHITA, KS	RPG MSCF BDDS	ICT	WR9450

Western Region

BILLINGS	BILLINGS, MT	RPG MSCF BDDS	BYZ	WT9677
BOISE	BOISE, ID	RPG MSCF BDDS	BOI	WT9681
CEDAR CITY	SALT LAKE CITY, UT	RPG	SLC	WT9932
SALT LAKE CITY	SALT LAKE CITY, UT	RPG	SLC	WT9932
CEDAR CITY	SALT LAKE CITY, UT	MSCF	SLC	WT9932
SALT LAKE CITY	SALT LAKE CITY, UT	MSCF	SLC	WT9932
CEDAR CITY	SALT LAKE CITY, UT	BDDS	SLC	WT9932
SALT LAKE CITY	SALT LAKE CITY, UT	BDDS	SLC	WT9932

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
ELKO	ELKO, NV	RPG MSCF BDDS	LKN	WT9903
EUREKA (BUNKER HILL)	EUREKA, CA	RPG MSCF BDDS	EKA	WT9594
FLAGSTAFF	BELLEMONT, AZ	RPG MSCF BDDS	FGZ	WT9375
GLASGOW	GLASGOW, MT	RPG MSCF BDDS	GGW	WT9768
GREAT FALLS	GREAT FALLS, MT	RPG MSCF BDDS	TFX	WT9950
LAS VEGAS	LAS VEGAS, NV	RPG	VEF	WT9386
EDWARDS AFB	LAS VEGAS, NV	MSCF	VEF	WT9386
LAS VEGAS	LAS VEGAS, NV	MSCF BDDS	VEF	WT9386
LOS ANGELES	OXNARD, CA	RPG MSCF BDDS	LOX	WT9295
MEDFORD	MEDFORD, OR	RPG MSCF BDDS	MFR	WT9597

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
MISSOULA	MISSOULA, MT	RPG MSCF BDDS	MSO	WT9773
PENDLETON	PENDLETON, OR	RPG MSCF BDDS	PDT	WT9688
PHOENIX	PHOENIX, AZ	RPG	PSR	WT9278
YUMA	PHOENIX, AZ	RPG	PSR	WT9278
PHOENIX	PHOENIX, AZ	MSCF	PSR	WT9278
YUMA	PHOENIX, AZ	MSCF	PSR	WT9278
PHOENIX	PHOENIX, AZ	BDDS	PSR	WT9278
YUMA	PHOENIX, AZ	BDDS	PSR	WT9278
POCATELLO	POCATELLO, ID	RPG MSCF BDDS	PIH	WT9578
PORTLAND, OR	PORTLAND, OR	RPG MSCF BDDS	PQR	WT9698
RENO	RENO, NV	RPG MSCF BDDS	REV	WT9488
SACRAMENTO	SACRAMENTO, CA	RPG	STO	WT9914
BEALE AFB	SACRAMENTO, CA	MSCF	STO	WT9914
SACRAMENTO	SACRAMENTO, CA	MSCF BDDS	STO	WT9914

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
SAN DIEGO	SAN DIEGO, CA	RPG	SGX	WT9918
SANTA ANA MTS	SAN DIEGO, CA	RPG	SGX	WT9918
SAN DIEGO	SAN DIEGO, CA	MSCF	SGX	WT9918
SANTA ANA MTS	SAN DIEGO, CA	MSCF	SGX	WT9918
SAN DIEGO	SAN DIEGO, CA	BDDS	SGX	WT9918
SANTA ANA MTS	SAN DIEGO, CA	BDDS	SGX	WT9918
SAN FRANCISCO	MONTEREY, CA	RPG	MTR	WT9933
		MSCF		
		BDDS		
SAN JOAQUIN VALY	HANFORD, CA	RPG	HNX	WT9389
		MSCF		
		BDDS		
SEATTLE	SEATTLE, WA	RPG	SEW	WT9922
		MSCF		
		BDDS		
SPOKANE	SPOKANE, WA	RPG	OTX	WT9785
		MSCF		
		BDDS		
TUCSON	TUCSON, AZ	RPG	TWC	WT9274
		MSCF		
		BDDS		
Alaskan Region				
ANCHORAGE FAA	ANCHORAGE, AK	MSCF	AFC	WV9904

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
BETHEL FAA	ANCHORAGE, AK	MSCF	AFC	WV9904
KING SALMON FAA	ANCHORAGE, AK	MSCF	AFC	WV9904
MIDDLETON ISLAND	ANCHORAGE, AK	MSCF	AFC	WV9904
FAIRBANKS FAA	FAIRBANKS, AK	MSCF	AFG	WV9261
NOME FAA	FAIRBANKS, AK	MSCF	AFG	WV9261
SITKA FAA	JUNEAU, AK	MSCF	AJK	WV9381

Pacific Region

ANDERSEN AFB	AGANA, GU	MSCF	GUM	WW9902
KAMUELA/KOHALA APT	HONOLULU, HI	MSCF	HFO	WW9182
MOLOKAI FAA	HONOLULU, HI	MSCF	HFO	WW9182
SOUTH KAUAI	HONOLULU, HI	MSCF	HFO	WW9182
SOUTH SHORE FAA	HONOLULU, HI	MSCF	HFO	WW9182

Miscellaneous

NATL CLIMATIC DATA CTR (NCDC)	ASHEVILLE, NC	RPG	NCCN7	WN9312
NRC #1	KANSAS CITY, MO	RPG	NRCM7	WG9163
NRC #2	KANSAS CITY, MO	RPG	NRCM7	WG9163
NRC #1	KANSAS CITY, MO	MSCF	NRCM7	WG9163
NRC #2	KANSAS CITY, MO	MSCF	NRCM7	WG9163
NRC #1	KANSAS CITY, MO	BDDS	NRCM7	WG9163

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
NWSHQ TESTBED	SILVER SPRING, MD	RPG		WG9310
NWSHQ TESTBED	SILVER SPRING, MD	MSCF		WG9310
NWSHQ TESTBED	SILVER SPRING, MD	BDDS		WG9310
ROC3 NWS RPG	NORMAN, OK	RPG		WG9410
ROC4 NWS RPG	NORMAN, OK	RPG		WG9410
WDTB RPG	NORMAN, OK	RPG		WG9410
OSF-3 (RPG/KOHLER GEN)	NORMAN, OK	RPG	OSFO2	WG9410
ROC6 (ORDA Testing)	NORMAN, OK	RPG		WG9410
ROC5 HOTLINE	NORMAN, OK	RPG		WG9410
ROC3 NWS RPG	NORMAN, OK	MSCF		WG9410
ROC4 NWS RPG	NORMAN, OK	MSCF		WG9410
ROC5 HOTLINE	NORMAN, OK	MSCF		WG9410
ROC6	NORMAN, OK	MSCF		WG9410
WDTB	NORMAN, OK	MSCF		WG9410
ROC DOD RPG (KREX)	NORMAN, OK	MSCF		WG9420
ROC5 HOTLINE	NORMAN, OK	BDDS		WG9410
WDTB	NORMAN, OK	BDDS		WG9410
ROC3 NWS RPG	NORMAN, OK	BDDS		WG9410
ROC4 NWS RPG	NORMAN, OK	BDDS		WG9410
ROC6	NORMAN, OK	BDDS		WG9410
PRC RPG	RESTON, MD	RPG	PRCV2	WG9310
		MSCF		
		BDDS		

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
SHANGHAI, CHINA	SHANGHAI,	RPG		
TAIPEI, TAIWAN	TAIPEI,	RPG		
TRAINING CENTER #1 NWSTC	KANSAS CITY, MO	RPG	TTCM7	WB9612
TRAINING CENTER #2 NWSTC	KANSAS CITY, MO	RPG	TTCM7	WB9612
TRAINING CENTER #1 NWSTC	KANSAS CITY, MO	MSCF BDDS	TTCM7	WB9612
DoD				
ALTUS AFB	FREDERICK, OK	RPG	FDR	FE4419
ANDERSEN AFB	ANDERSEN AFB, GU	RPG	UAM	FE5240
BEALE AFB	OROVILLE, CA	RPG	BBX	FE4686
CAMP HUMPHREYS	YOKOTA AB, JA	MSCF		
KADENA AB	YOKOTA AB, JA	MSCF		
KUNSAN AB	YOKOTA AB, JA	MSCF		
CAMP HUMPHREYS	CAMP HUMPHREYS, KO	RPG RBDDS	KSGR4	FI5294
CANNON AFB	FIELD, NM	RPG	FDX	FE4855
COLUMBUS AFB	GREENWOOD SPRINGS, MS	RPG	GWX	FE3022
DOVER AFB	ELLENDALE STATE FOREST, DE	RPG	DOX	FE4497
DYESS AFB	MORAN, TX	RPG	DYX	FE4661
EDWARDS AFB	BORON, CA	RPG	EYX	FE2805

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
EGLIN AFB	RED BAY, FL	RPG RBDDS	EVX	FE2823
FT CAMPBELL	TRENTON, KY	RPG	HPX	FY4812
FT DRUM	MONTAGUE, NY	RPG	TYX	FY4846
FT HOOD	GRANGER, TX	RPG	GRK	FY4824
FT POLK	FT POLK, LA	RPG	POE	FY4825
FT RUCKER	ECHO, AL	RPG	EOX	FY4805
HOLLOMAN AFB	RUIDOSO, NM	RPG RBDDS	HDX	FE4801
KADENA AB	KADENA AB, JA	RPG	ODNR5	FH5270
KEESLER AFB MNTC TRNG A	KEESLER AFB, MS	RPG	BIX	FE3010
KEESLER AFB MNTC TRNG B	KEESLER AFB, MS	RPG	BIX	FE3010
KEESLER AFB OPS TRNG	D'IBERVILLE, MS	RPG	BIX	FE3010
KEESLER AFB MNTC TRNG A	KEESLER AFB, MS	MSCF	BIX	FE3010
KEESLER AFB MNTC TRNG B	KEESLER AFB, MS	MSCF RBDDS	BIX	FE3010
KUNSAN AB	KUNSAN AB, KO	RPG	KJKR4	FH5284
KUNSAN AB	KUNSAN AB, KO	RBDDS	KUZ	FH5284
LAJES AB	SANTA BARBARA, AZR	RPG MSCF	PLAL3	FE4486
LAUGHLIN AFB	BRACKETVILLE, TX	RPG	DFX	FE3099
MAXWELL AFB	CARRVILLE, AL	RPG	MXX	FE3300
MINOT AFB	DEERING, ND	RPG	MBX	FE4528

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
MOODY AFB	SOUTH STOCKTON, GA	RPG	VAX	FE4830
ROC DOD RPG (KREX)	NORMAN, OK	RPG		WG9420
ROBINS AFB	JEFFERSONVILLE, GA	RPG	JGX	FE2067
VANCE AFB	CHEROKEE, OK	RPG	VNX	FE3029
VANDENBERG AFB	ORCUTT, CA	RPG	VBX	FE4610
		MSCF		
		BDDS		

FAA

ANCHORAGE FAA (RPG 1)	KENAI, AK	RPG	AHG	6901AJ
ANCHORAGE FAA (RPG 2)	KENAI, AK	RPG	AHG	6901AJ
BETHEL FAA (RPG 1)	BETHEL, AK	RPG	ABC	690112
BETHEL FAA (RPG 2)	BETHEL, AK	RPG	ABC	690112
FAA RPG 1 PSF AT OKC	OKC, OK	RPG		
FAA RPG 2 PSF AT OKC	OKC, OK	RPG		
FAIRBANKS FAA (RPG 1)	FAIRBANKS, AK	RPG	APD	690178
FAIRBANKS FAA (RPG 2)	FAIRBANKS, AK	RPG	APD	690178
KAMUELA/KOHALA APT(RPG 1)	KAMUELA, HI	RPG	HKM	699235
KAMUELA/KOHALA APT(RPG 2)	KAMUELA, HI	RPG	HKM	699235
KING SALMON FAA (RPG 1)	KING SALMON, AK	RPG	AKC	690137
KING SALMON FAA (RPG 2)	KING SALMON, AK	RPG	AKC	690137
MIDDLETON ISLAND (RPG 1)	MIDDLETON ISLAND, AK	RPG	AIH	690140

ATTACHMENT 6 (Continued)

EFFECTIVITY

NEXRAD Site Name	City, ST	EQP	SID	ORG Code
MIDDLETON ISLAND (RPG 2)	MIDDLETON ISLAND, AK	RPG	AIH	690140
MOLOKAI FAA (RPG 1)	MOLOKAI, HI	RPG	HMO	699213
MOLOKAI FAA (RPG 2)	MOLOKAI, HI	RPG	HMO	699213
NOME FAA (RPG 1)	NOME, AK	RPG	AEC	690147
NOME FAA (RPG 2)	NOME, AK	RPG	AEC	690147
ROC FAA REDUNDANT (RPG 1)	NORMAN, OK	RPG	CRIO2	WG9410
ROC FAA REDUNDANT (RPG 2)	NORMAN, OK	RPG	CRIO2	WG9410
ROC FAA REDUNDANT	NORMAN, OK	MSCF	CRIO2	WG9410
SAN JUAN FAA (RPG 1)	SAN JUAN, PR	RPG	JUA	69F362
SAN JUAN FAA (RPG 2)	SAN JUAN, PR	RPG	JUA	69F362
SITKA FAA (RPG 1)	BIORKA ISLAND, AK	RPG	ACG	690141
SITKA FAA (RPG 2)	BIORKA ISLAND, AK	RPG	ACG	690141
SOUTH KAUAI FAA (RPG 1)	SOUTH KAUAI, HI	RPG	HKI	699211
SOUTH KAUAI FAA (RPG 2)	SOUTH KAUAI, HI	RPG	HKI	699211
SOUTH SHORE FAA (RPG 1)	NAALEHU, HI	RPG	HWA	699201

ATTACHMENT 7

RPG GROUP SOFTWARE BUILD 5.0 LOAD COMPLETION FORM

DoD and FAA only will complete this form
NWS: Report Completion in EMRS Only

Site Name: _____

Site Identifier: _____

Total Time to Complete this Modification Document: _____

Technician's Name(s): _____

Technician's Phone Number: _____

Date Completed: _____

Equipment Modified (SID) RPG _____ MSCF _____ (R)BDDS _____
FAA Only: RPG(2) _____

Problem(s) Encountered:

Upon completion of this form, return the information to the ROC using one of the four methods below:

1. Mailing Address: Program Branch, Configuration Management Team
WSR-88D Radar Operations Center
3200 Marshall Ave., Suite 101
Norman, OK 73072-8028

2. FAX Number: (405) 573-3480
ATTN: Configuration Management Team

3. E-mail Address: NEXRAD.CM.comments@noaa.gov

4. Web Version: <http://www.roc.noaa.gov/ssb/logistics/completion.asp>

NWS: EHB-6, Software Note 24
 DoD: TO 31P1-4-108-618
 FAA: EEM Modification Handbook 6345.1 CHG 49, Chap 45

ATTACHMENT 8

SAMPLE EMRS PAGE

A26 Detail Form - ESCM2, SILVER SPRING, MD :: JOHN MERHI - Microsoft Internet Explorer

New A26 Commit A26 Place on Hold Copy A26 Delete A26 Detail Report Document Summary Help

GENERAL INFORMATION

NEW RECORD WFO* TBW Document No. * TBW40129009

1. Open Date Open Time 2. Op Initials 3. Response Priority 4. Close Date Close Time

01/29/2004 08:00 WSH Immediate Low 01/29/2004 12:00

Routine Not Applicable

5. Maintenance Description 470 characters left RADAR, WSR-88D

Install RPG Software Build 5.0

EQUIPMENT INFORMATION

6. Station ID* 7. Equipment Code 8. Serial Number 9. TM 10. AT 11. How Mal

TBW MSCF M0160 M M 999

Alert: Time Remaining: 4:00
 (For Block 12 use only)

12. EQUIPMENT OPERATIONAL STATUS TIMES

a. Fully Operational		Partially Operational				Not Operational			
		b. Logistic Delay		c. All Other		d. Logistic Delay		e. All Other	
Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

13. PARTS USAGE and CONFIGURATION MANAGEMENT REPORTING

ASN	Vendor Part No. (New Part)	Serial Number (Old Part)	Serial Number (New Part)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	New Row
				Delete Row

14. WORKLOAD INFORMATION

a. Routine		b. Non-Routine		c. Travel		d. Misc		e. Overtime	
Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes
<input type="text"/>	4	<input type="text"/>	<input type="text"/>						

MISCELLANEOUS INFORMATION

15. Maintenance Comments 696 characters left

Installed RPG Build 5.0 I.A.W. NEXRAD Software Note 24

16. Tech Initials GAF

17. SPECIAL PURPOSE REPORTING INFORMATION

a. Mod No. b. Mod Act/Deact Date c. Block C d. Trouble Ticket No. e. Block E

S24 1/29/2004 | |

Done Internet

