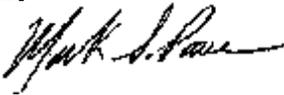




**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL WEATHER SERVICE  
Silver Spring, Md. 20910

MEMORANDUM FOR: All NWS Regional Headquarters, Regional Maintenance Specialists, Electronic Systems Analysts, and Electronics Technicians [Engineering Handbook (EHB)-13, Series II distribution]

FROM: W/OPS1 - Mark Paese (Acting) 

SUBJECT: Transmittal Memorandum for EHB-13 Series II, Issuance 02-19

1. Material Transmitted:

Engineering Handbook No. 13 Series II, Advanced Weather Interactive Processing System (AWIPS), section 2.0, AWIPS System Administration Note 14, Rev A, Activation/Deactivation of Open RPG(ORPG) LAN-to-LAN Functionality.

2. Summary:

AWIPS System Administration Note 14, Rev B provides revisions to the instructions on activating and deactivating open RPG LAN-to-LAN functionality. Change bars are shown in left margin.

3. Effect on Other Instructions:

Discard AWIPS System Administration Note 14, Issuance 02-14.



- SUBJECT** : Activation/Deactivation of Open RPG (ORPG) LAN-to-LAN Functionality
- PURPOSE** : To provide Instructions on activating and deactivating open RPG LAN-to-LAN Functionality.
- AFFECTED SITES:** All AWIPS sites with ORPG
- VERIFICATION STATEMENT** : These procedures were tested and verified at Silver Spring, MD (NMTW and NMTR), Topeka KS (TOP), Pittsburgh, PA (PBZ), Cleveland, OH (CLE), Salt Lake City, UT (SLC), and Medford, OR (MFR).
- TIME REQUIRED** : Approximately 1 hour
- TECHNICAL SUPPORT** : For questions or problems regarding these instructions please contact the SST at 301-713-0069.

## GENERAL

Before activating the ORPG LAN-to-LAN, the following three procedures must be completed:

- The ORPG hardware is installed
- ORPG Software Build 1.2 is installed
- AWIPS Software Build 5.2.1 is installed

Use the site assigned ORPG IP addresses.

- The ORPG router IP addresses are in the same AWIPS address space as the other AWIPS equipment (e.g., the servers and workstations). For sites with one NWS ORPG, the last quad will either be 75 or 205 (depends on the subnet). Sites on a low subnet will use 75 as the last quad, and sites on a high subnet will use 205 for the last quad. If uncertain of the subnet, verify the last quad of DS1's IP address. Numbers below 128 are on the low subnet, and numbers above 128 are on the high subnet. It is recommended to place the router address in the `/etc/hosts` file on the ds1. For example:

As `root` on ds1, edit the `/etc/hosts` file, and add the following line (in numerical sequence):

**165.92.xxx.yyy**

(Where xxx = sites' AWIPS space, yyy = 75 or 205)

**orpg-<Radar-ID> #ORPG**

(Where &lt;Radar-ID&gt; = site's ORPG radar)

Save and exit the file.

- Currently, five offices have two NWS ORPGs and one office will receive an additional ORPG. Since these sites are on the low subnet, one of the ORPGs at each site will have a last quad of 75 and the other will have a last quad of 76. The specific ORPG IP address assignments are as follows:

Birmingham (BMX):	Birmingham (KBMX) - 75
	Northeast Alabama (KHTX) - 76
Phoenix (PSR):	Phoenix (KIWA) - 75
	Yuma (KYUX) - 76
Salt Lake City (SLC)	Salt Lake City (KMTX) - 75
	Cedar City (KICX) - 76
San Diego (SGX):	San Diego (KNKX) - 75
	Santa Ana Mts (KSOX) - 76
Tulsa (TSA):	Tulsa (KINX) - 75
	Western Arkansas (KSRX) - 76
Paducah (PAH):	Paducah (KPAH) - 75
	Evansville (TBD) - 76

- A list of ORPG IP address assignments was provided to each of the regional AWIPS Focal Points. For additional clarification regarding ORPG IP address assignments, please contact the regional AWIPS Focal Point.

## Design Philosophy

Once the above prerequisites are satisfied, a site is able to access data from its NWS RPG(s) either through the new Open RPG LAN-to-LAN interface or through the traditional Simpact/wfoApi interface. The AWIPS software determines the type of interface to activate for each of the site's dedicated radars based on the contents of `portInfo.txt` and `orpgInfo.txt` configuration files. For each radar listed in the `portInfo.txt` file, the

AWIPS software looks for a corresponding entry in the `orpgInfo.txt` file. If `orpgInfo.txt` contains an entry for a radar listed in `portInfo.txt`, the software will activate an ORPG connection for that radar. If there is no entry in `orpgInfo.txt` for a radar listed in `portInfo.txt`, the AWIPS software will activate a Simpack/wfoApi connection for that radar.

The `portInfo.txt` file is located in the `/awips/fxa/data/localizationDataSets/XXX` directory on DS1, where XXX is the Site ID. The following is an example of a `portInfo.txt` file with multiple dedicated radars:

```
0 0 1 KTLX 50
3 0 305 KFDR 50
0 1 558 KVNK 50
```

When the AWIPS software starts up, it reads `portInfo.txt` file, (shown above) and attempts to establish connectivity to the three radars listed: KTLX, KFDR and KVNK.

The `orpgInfo.txt` file is a new file delivered in the AWIPS 5.2.1 baseline. When delivered on the AWIPS 5.2.1 CD, the file contains commented out sample Sterling, VA, WFO setup entries. An excerpt of the `orpgInfo.txt` file delivered on the AWIPS 5.2.1 CD is listed below. For readability, actual comments appearing at the beginning of the file are not shown in this example.

#	Radar name	Radar ID	ORPG IP address	tcp port	Link index	Password
#	-----	-----	-----	-----	-----	-----
#	KLWX	303	165.92.21.75	4489	25	passwd
#	KLWX	303	165.92.21.75	4490	26	passwd
#	KLWX	303	165.92.21.75	4491	27	passwd
#	KLWX	303	165.92.21.75	4492	28	passwd
#	KLWX	303	165.92.21.75	4493	29	passwd
#	KLWX	303	165.92.21.75	4494	30	passwd
#	KLWX	303	165.92.21.75	4495	31	passwd
#	KLWX	303	165.92.21.75	4496	32	passwd
#	KLWX	303	165.92.21.75	4497	33	passwd
#	KLWX	303	165.92.21.75	4498	34	passwd
#	KLWX	303	165.92.21.75	4499	35	passwd

As described above, when the AWIPS 5.2.1 software starts up, it will check the `portInfo.txt` file for radars connected to the system. The software then checks the `orpgInfo.txt` file for valid entries of the listed radars. In the sample `portInfo.txt` file shown above, the software attempts to establish connectivity with the three radars: KTLX, KFDR and KVNK. It will then check the `orpgInfo.txt` file for a valid entry on any of the three radars. In the baseline `orpgInfo.txt` file shown above, no valid entries are found (i.e., no uncommented entries have any of the three radars in the Radar Name field). In this case, none of the radars have an ORPG connection, the AWIPS software starts a Simpack/wfoApi connection for each of the

three radars.

As an example, the `orpgInfo.txt` file below was edited to activate the ORPG functionality for the KTLX radar:

#	Radar name	Radar ID	ORPG IP address	tcp port	Link index	Password
#	KTLX	1	165.92.118.75	4489	25	passwd
#	KLWX	303	165.92.21.75	4490	26	passwd
#	KLWX	303	165.92.21.75	4491	27	passwd
#	KLWX	303	165.92.21.75	4492	28	passwd
#	KLWX	303	165.92.21.75	4493	29	passwd
#	KLWX	303	165.92.21.75	4494	30	passwd
#	KLWX	303	165.92.21.75	4495	31	passwd
#	KLWX	303	165.92.21.75	4496	32	passwd
#	KLWX	303	165.92.21.75	4497	33	passwd
#	KLWX	303	165.92.21.75	4498	34	passwd
#	KLWX	303	165.92.21.75	4499	35	passwd

The valid KTLX radar entry above, allows the AWIPS software to start an ORPGCommsMgr process on TCP Port 4489 to communicate with the ORPG hardware found at IP Address 165.92.118.75. For the radars KFDR and KVNK not found in the `orpgInfo.txt` file, the AWIPS software initiates the `wfoApi` processes.

## PROCEDURE

### A. AWIPS to ORPG Connectivity Verification

**NOTE:** Ensure the LAN cable W340, delivered with the system, is connected between the RPG and AWIPS.

Verify the LAN cable labeled W340 is connected between the back of the RPG I/O panel at CP6 and the AWIPS Primary Plaintree LAN Switch (LSW1) port 3. Sites with two NWS RPGs have the W340 cable for the second RPG connected to the AWIPS secondary Plaintree LAN Switch (LSW2) at port 3. LAN cable W235 inside the RPG cabinet is connected between the I/O panel at CP6 and the router on slot 1 at port "FAST ETH 0" (e.g., A2A1 FAST ETH 0). The router "LINK" LED for slot 1 FAST ETH 0 is lit green when the LAN cables are connected and the RPG router and AWIPS LAN switch are powered on.

If necessary, refer to NWS EHB-6, Software Note 18, "Open Radar Product Generator Group (ORPG) Software Build 1.2," dated March 18, 2002. Attachment 2 specifically addresses the cable connectivity.

1. Ping the ORPG IP Address and verify the ping is successful.
2. If pinging the ORPG IP address is successful call the ROC Hotline at (800) 643-3363 **and** the NCF at (301) 713-9344 and provide them with the Radar(s) IDs that will be switched to ORPG connectivity.

**NOTE:** It is important to notify the NCF and OSF to prevent them from restarting killed processes.

3. Inform the ROC and the NCF once the activation is complete. Due to the ORPG activation, the site's new processes differ from the processes before the activation. Informing the ROC and the NCF of the site's new configuration will help the monitoring facilities in their troubleshooting efforts and will prevent mistaken restarts of wfoAPI instead of the correct ORPGCommsMgr process.

This completes the AWIPS to ORPG connectivity verification procedure.

## B. Disable restartRadar in FXA Cron Procedure

### Overview

Whenever the cron executes the restartRadar script, the script checks the `orpgInfo.txt` file for appropriate radar ingest processes. If the radar connectivity is via the ORPG LAN-to-LAN connection, the restartRadar starts an ORPGComsMgr process. If the connectivity is through the Simpact, the restartRadar starts a syncComms process (which in turn restarts the wfoApi process). If the `orpgInfo.txt` does **not** contain an entry for a given radar, the restartRadar script starts a syncComms process **regardless if the ORPGComsMgr process is running**. This design makes it difficult to stop and start radar ingest processes during an ORPG activation.

Because the lines in the `orpgInfo.txt`, delivered with Build 5.2.1, are commented out, the restartRadar script is unable to find valid entries for the site's radars. This prompts the restartRadar script to start the syncComms/wfoApi process for the site's dedicated radar(s). If the ORPG LAN-to-LAN is manually activated and the restartRadar script is already running the syncComms/wfoApi process, killing these processes prompts the restartRadar script to restart the syncComms/Api process the next time the cron runs.

It is necessary to deactivate restartRadar in the fxa crontab to kill radar ingest processes. The cron change is temporary and is restored in part E step 6. Perform the following steps to temporarily deactivate restartRadar:

1. Log into DS1 as user **fxa**, and type:

```
crontab -e.
```

**NOTE:** The fxa crontab file displays in vi edit mode.

2. Near the top of the file, verify the following listing:

```
# Run scour daily to clean up log files and a few items not hit by
master.purge.
30 0 * * * csh -c '${FXA_HOME}/bin/startScour >&! ${LOG_DIR}/startScour.log'
# Purge MHS data once per day.
20 1 * * * csh -c '${FXA_HOME}/bin/mhs-data.purge'

# Radar ingest
* * * * * csh -c '${FXA_HOME}/bin/restartRadar'

# Process Monitor start-up script
0,10,20,30,40,50 * * * * csh -c '${FXA_HOME}/bin/DS_startProcMon.sh'
0,10,20,30,40,50 * * * * csh -c '${FXA_HOME}/bin/startCtrlCpu.sh'
```

3. Comment out restartRadar by placing a “#” at the beginning of the line. It should read as follows:

```
# * * * * * csh -c '${FXA_HOME}/bin/restartRadar'
```

4. Save the file and close the vi session.

This completes disabling the restartRadar in FXA cron procedure.

### C. Obtain portInfo.txt File Setup Information

1. As user `fxa`, change to the `/awips/fxa/data/localizationDataSets/XXX` directory on DS1, where XXX is the AWIPS site ID. List the contents of `portInfo.txt`. A sample listing follows:

```
0 0 1 KTLX 50
3 0 305 KFDR 50
0 1 558 KVNK 50
```

Columns 1 and 2 = port numbers through which radar data enters AWIPS

Column 3 = RPG ID

Column 4 = radar name

Column 5 = maximum number of products AWIPS allows for that radar.

2. Before editing the `orpgInfo.txt` file, perform the following steps:
  - a. Identify the radar name and RPG ID of the NWS radar(s) that will have ORPG connectivity (see step 1 above).
  - b. In order to kill the `wfoApi` process, identify the radars' port number. To find the port number, perform the steps below using the sample listing in step 1.
    - (1) Multiply the number in column 2 by 4 and add it to the number in column 1.

$$(value\ column2 \times 4) + value\ column1 = port\ number$$

- (2) For KTLX, in the sample above, the port number is 0.

$$(0 \times 4) + 0 = 0$$

**NOTE:** Do not create DoD radar entries in the `orpgInfo.txt` file. DoD radars such as KFDR and KVNK above, will not have ORPG connections. For demonstrational purposes, the port numbers for the 2 DoD radars are as follows:

KFDR	KVNK
$(0 \times 4) + 3 = 3$	$(1 \times 4) + 0 = 4$

#### D. Adding Radars to Base orpgInfo.txt File

1. As user **fxa** on DS1, change to the `/awips/fxa/data` directory and edit the contents of the `orpgInfo.txt` file. The baseline file reads as follows:

```
# orpgInfo.txt

# ORPGCommsMgr will get invoked with either a single parameter, radar name,
# or with two parameters, radar name and tcp port.  If called with just
# one arg, ORPGCommsMgr will match the first entry that matches that first
# arg (radar name).  If called with two args, the specific
radarName/tcpPort
# entry will be matched.
#
# Guidelines:
# - If there are duplicates, the first entry to match is used.
# - Field separators can be spaces or tabs
# - Comments ('#') can follow an entry
# - Blank lines ok too.
#

# Radar name   Radar ID   ORPG IP address   tcp port   Link index   Password
# -----
#      KLWX      303        165.92.21.75     4489       25           passwd
#      KLWX      303        165.92.21.75     4490       26           passwd
#      KLWX      303        165.92.21.75     4491       27           passwd
#      KLWX      303        165.92.21.75     4492       28           passwd
#      KLWX      303        165.92.21.75     4493       29           passwd
#      KLWX      303        165.92.21.75     4494       30           passwd
#      KLWX      303        165.92.21.75     4495       31           passwd
#      KLWX      303        165.92.21.75     4496       32           passwd
#      KLWX      303        165.92.21.75     4497       33           passwd
#      KLWX      303        165.92.21.75     4498       34           passwd
#      KLWX      303        165.92.21.75     4499       35           passwd
```

**NOTE:** TCP ports 4495 through 4499 are reserved for the OPUP program and are not available for use by AWIPS. Delete the line entries corresponding to TCP ports 4495 through 4499.

2. Use the information collected from the `portInfo.txt` file in part C and edit the `orpgInfo.txt` in the following manner:
  - a. Uncomment the line by removing the “#” from the first character position.
  - b. In the column labelled Radar Name, enter the NWS Radar Name.
  - c. In the column labeled Radar ID, enter the RPG ID.
  - d. In the column labeled ORPG IP Address, enter the IP Address pinged in part A step 2.
  - e. Do not make any changes to the remaining fields.
3. An example of adding KTLX radar in the baseline `orpgInfo.txt` file is shown below. By removing the “#” sign, the red highlighted entry is uncommented. The KTLX radar is added and the entries for the unavailable TCP ports (4495-4499) are deleted.

#	Radar name	Radar ID	ORPG IP address	tcp port	Link index	Password
#	-----	-----	-----	-----	-----	-----
	KTLX	1	165.92.118.75	4489	25	passwd
#	KLWX	303	165.92.21.75	4490	26	passwd
#	KLWX	303	165.92.21.75	4491	27	passwd
#	KLWX	303	165.92.21.75	4492	28	passwd
#	KLWX	303	165.92.21.75	4493	29	passwd
#	KLWX	303	165.92.21.75	4494	30	passwd

4. Sites with more than one NWS ORPG are required to enter the information for both radars in the same `orpgInfo.txt` file. Each radar entered should have a 4489 TCP port and a unique ORPG IP Address assignment. Site PSR entries for radars KIWA (Phoenix) and KYUX (Yuma) are shown below.
  - a. Enter the ORPG IP address for the KIWA radar on the existing 4489 TCP port.
  - b. For the second radar, add a line entry for the KYUX radar using TCP port 4489. Enter the remaining necessary data.
5. The rest of the table remains unchanged.

#	Radar name	Radar ID	ORPG IP address	tcp port	Link index	Password
#	-----	-----	-----	-----	-----	-----
	KIWA	524	165.92.198.75	4489	25	passwd
	KYUX	393	165.92.198.76	4489	25	passwd
#	KLWX	303	165.92.21.75	4490	26	passwd
#	KLWX	303	165.92.21.75	4491	27	passwd
#	KLWX	303	165.92.21.75	4492	28	passwd
#	KLWX	303	165.92.21.75	4493	29	passwd
#	KLWX	303	165.92.21.75	4494	30	passwd

6. Save the file and exit the vi session.

This completes adding radars to base orpgInfo.txt file procedure.

### E. ORPG Activation

1. After the `orpgInfo.txt` file editing is complete, kill the `syncComms` and `wfoApi` processes.
2. On DS1, type `ps -ef | grep syncComms` to display the active `syncComms` processes. An example from OUN is shown below.

```

ds1-oun{fxa}11: ps -ef | grep syncComms
 fxa 17506    1  0  Mar 21  ?           0:00  ./syncComms ./syncComms cs_config0 0
 fxa 17546    1  0  Mar 21  ?           0:02  ./syncComms ./syncComms cs_config3 3
 fxa 17583    1  0  Mar 21  ?           0:08  ./syncComms ./syncComms cs_config4 4

```

The OUN sample listing above shows three active `syncComms` processes associated with the three radars (KTLX, KFDR, and KVNIX) listed in the `portInfo.txt` file. The numbers at the end of each line (0, 3, and 4) identify the port number on which data is ingested. Calculations performed in Part C, step 2 determined the port numbers and their associated radars as follows:

KTLX - 0	KFDR - 3	KVNIX - 4
----------	-------------	-----------

3. Associate the syncComms process ID with the radar port numbers (for example process 17506 corresponds to KTLX radar port number 0 in the example above), and kill the process by typing:

```
kill 17506
```

If the command does not kill the process, type:

```
kill -9 17506
```

4. On DS1, type:

```
ps -ef | grep wfoApi
```

A sample wfoApi process listing from OUN follows:

```
ds1-oun{fxa}1: ps -ef | grep wfoApi
fxa 17544 17506 0 Mar 21 ? 33:47 ./wfoApi cs_config0 0
fxa 11973 17546 0 20:04:44 ? 2:10 ./wfoApi cs_config3 3
fxa 25468 17583 0 12:41:05 ? 0:00 ./wfoApi cs_config4 4
```

5. To prevent the active wfoApi process from restarting, kill the wfoApi process associated with the radar port and process killed in step 4. In the OUN example above, KTLX radar port 0 is associated with wfoApi process PID 17544.

```
kill 17544
```

6. Restore restartRadar in the fxa cron by removing the “#” sign added in part B. The restartRadar watchdog process automatically starts the appropriate radar processes.

- a. To reactivate restartRadar, log in to DS1 as user **fxa** and type:

```
crontab -e
```

<b>NOTE:</b> The fxa crontab file displays in vi edit mode.
---

- b. Near the top of the file, verify the following listing:

```
# Run scour daily to clean up log files and a few items not hit by
master.purge.
30 0 * * * csh -c '${FXA_HOME}/bin/startScour >&! ${LOG_DIR}/startScour.log'
# Purge MHS data once per day.
20 1 * * * csh -c '${FXA_HOME}/bin/mhs-data.purge'

# Radar ingest
#* * * * * csh -c '${FXA_HOME}/bin/restartRadar'

# Process Monitor start-up script
0,10,20,30,40,50 * * * * csh -c '${FXA_HOME}/bin/DS_startProcMon.sh'
0,10,20,30,40,50 * * * * csh -c '${FXA_HOME}/bin/startCtrlCpu.sh'
```

- c. Remove the “#” sign at the beginning of the line. It should read as follows:

```
* * * * * csh -c '${FXA_HOME}/bin/restartRadar'
```

- d. Save the file and close the vi session.

7. After approximately 1 minute, verify the process started properly by typing:

```
ps -ef | grep ORPGCommsMgr
```

8. Verify no other wfoApi process is running for the same radar as in step 7 by typing:

```
ps -ef | grep wfoApi
```

9. Check the ORPG log file(s) to ensure products are coming in:

On DS1 as **fxa** use `ps -ef | grep ORPG` to determine the activeprocess id associated with each ORPG radar.

```
logs
ls ORPG*
tail -f <process>
```

This completes the ORPG activation procedure.

## F. Increase Maximum Radar Products

The LAN-to-LAN ORPG interface is capable of handling more products (65) than the current 56 Kbps RPGOP line (50 products) or the 14.4 Kbps line (31 products). After the ORPG functionality is active, the maximum number of products specified in `portInfo.txt` can be increased. Sites must edit `portInfo.txt` and increase the maximum number of radar products by following the procedure below.

**NOTE:** Edit the `portInfo.txt` file only after verifying the ORPG functionality is running successfully as instructed in part E step 7.

1. On DS1 as user `fxa`, change to the `/awips/fxa/data/localizationDataSets/XXX` directory and edit `portInfo.txt` to change the number of products for KTLX from 50 to 65. See the following example:

```
0 0 1 KTLX 65
3 0 305 KFDR 50
0 1 558 KVNK 50
```

2. To prevent localization from overwriting the changed the `portInfo.txt` values, edit the "master" version of `portInfo.txt`. On DS1 as user `fxa`, change to the `/awips/fxa/data/ localization/XXX` directory and edit the `XXX-portInfo.txt` file as in step 1.
3. Restart the ORPG process in order to register the new value with RadarServer. On DS1 as user `fxa`, change to the `/awips/fxa/bin` directory and type:

```
./stopORPGCommsMgr
```

4. After the script is complete restart the ORPGCommsMgr process by typing:

```
./startORPGCommsMgr
```

**NOTE:** Although the maximum number of products with ORPG has increased to 65, there is a new ORPG-era requirement for the national collection of Archive III products. To meet this requirement, new national RPS lists containing the additional Archive III products will be included in the first 5.2.1 Maintenance Release (R5.2.1.1). These new Archive III products are listed in Attachment A.

This completes the increase maximum radar products procedure.

### G. Update Remaining Servers and Workstations Procedure

1. Copy the edited `orpgInfo.txt` file to DS2 by typing:

```
rcp /awips/fxa/data/orpgInfo.txt ds2:/awips/fxa/data/orpgInfo.txt
```

2. Copy the edited `portInfo.txt` files to the remaining servers and workstations. Ensure the `portInfo.txt` file in the `/awips/fxa/data/localizationDataSets/XXX` directory and the `XXX-portInfo.txt` file in the `/awips/fxa/data/localization/XXX` directory are copied. An example of a procedure to copy the 2 files is given below. As user `root` type the following commands:

```
for i in ds2 as1 as2 $WORKSTATIONS lx1 lx2
do
cd /awips/fxa/data/localizationDataSets/XXX    (where XXX is the site ID)
rcp portInfo.txt    $i:/awips/fxa/data/localizationDataSets/XXX/

cd /awips/fxa/data/localization/XXX    (where XXX is the site ID)
rcp XXX-portInfo.txt    $i:/awips/fxa/data/localization/XXX/

echo $i
done
```

This completes the update of the remaining servers and workstations procedure.

## H. Restoring to Original Simpact/wfoApi Configuration Procedure

**NOTE:** Perform the following procedure only if it is necessary to restore the original Simpact/wfoApi connectivity to the NWS radar(s).

1. On DS1 as user `fxa`, restore the maximum product number in the `portInfo.txt` back to the original value and copy the edited file to the remaining servers and workstations.
2. Edit the `orpgInfo.txt` file on DS1 and comment out the radar(s) for which the Simpact/wfoApi connection is restored. Copy the edited file to DS2.
3. List the active radar processes by typing:  

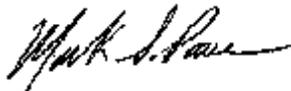
```
ps -ef | grep ORPGCommsMgr
```
4. Kill the ORPGCommsMgr process for each radar that is switched back to Simpact/wfoApi.
5. After approximately 1 minute the `restartRadar` script will restart the `wfoApi` process for the radars commented out in the `orpgInfo.txt`.
6. If the `portInfo.txt` file was changed from 65 back to an original value (see step 1 above), it will be necessary to create a new `KXXX.current` RPS list to prevent load shedding.
7. To force the system to generate a new `KXXX.current` RPS list, command a radar mode change at the UCP. Once AWIPS detects the change, a new `KXXX.current` list is generated using the new maximum number of products.

This completes the restoring to original Simpact/wfoApi configuration procedure.

**REPORTING MODIFICATION**

Report the completed modification on a WS Form A-26, Maintenance Record, according to the instructions in Engineering Handbook 4 (EHB-4), Engineering Management Reporting System (EMRS), Part 2, and Appendix I. A sample WS Form A-26 is attached. As an additional guide, use the information in the table below.

<b>Block #</b>	<b>Block Type</b>	<b>Information</b>
5	Description	Activation/Deactivation of Open RPG (ORPG) LAN-to-LAN Functionality
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Performed Activation/Deactivation of Open RPG (ORPG) LAN-to-LAN Functionality I.A.W. AWIPS System Administration Note 14.
17a	Mod. No.	SA14



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Acting Chief, Maintenance, Logistics, and Acquisition Division

Attachment A - New Archive III Products  
Attachment B - WS Form A-26 Sample

## Attachment A

## New Archive III Products

<u>Product ID</u>	<u>Product Number</u>	<u>AWIPS Header</u>	<u>Product Name</u>
V	25	NOW	Base Velocity - 32 nm range; 0.50 degree elevation angle
SW	28	NSP	Base Spectrum Width - 32 nm range; 0.50 degree elevation angle
SW	30	NSW	Base Spectrum Width - 124 nm range; 0.50 degree elevation angle
CFC	34	NCF	Clutter Filter Control
SWP	47	NWP	Severe Weather Probability
STI	58	NST	Storm Tracking Information
HI	59	NHI	Hail Index
M	60	NME	Mesocyclone
TVS	61	NTV	Tornadic Vortex Signature
SS	62	NSS	Storm Structure
SPD	82	SPD	Supplemental Precipitation Data

**NOTE:** The CFC product is not required for every volume scan; therefore it is not included on the RPS lists.

Attachment B

WS FORM A-26 (4/94)		WS FORM A-26 (4/94)			U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE			Document Number <b>G 49978</b>		
<b>ENGINEERING MANAGEMENT REPORTING SYSTEM MAINTENANCE RECORD</b>										
<b>General Information</b>		1. Open Date <b>7 / 08 / 02</b>	Time <b>0900</b>	2. Initials <b>JMM</b>	3. Response Priority (check one) <input type="radio"/> Immediate <input type="radio"/> Low <input type="radio"/> Routine <input checked="" type="radio"/> Not Applicable		4. Close Date <b>7 / 08 / 02</b>	Time <b>1000</b>		
5. Description <b>Activation/Deactivation of Open RPG (ORPG) LAN to LAN Functionality</b>										
<b>Equipment Information</b>		6. Station ID <b>RLX</b>	7. Equipment Code <b>AWIPS</b>	8. Serial Number <b>001</b>	9. TM <b>M</b>	10. AT <b>M</b>	11. How Mal. <b>999</b>			
12. EQUIPMENT OPERATIONAL STATUS TIMES		a. Fully Operational <input type="text"/>	b. Logistics Delay <input type="text"/>	Partly Operational		c. All Other <input type="text"/>	d. Logistics Delay <input type="text"/>	Not Operational		e. All Other <input type="text"/>
<b>13. Parts Failure Information</b>								<b>14. Work Load Information</b>		
Block #	a. ASN	b. NSN	c. TM	d. AT	e. How Mal.	f. Qty.	g. Maint. Hrs.	Type	Staff Hrs.	
1								a. Routine		
2								b. Non-routine		
3								c. Travel		
4								d. Misc.	<b>1:00</b>	
5								e. Overtime		
<b>Miscellaneous Information</b>		15. Maintenance Comments <b>Performed Activation/Deactivation of Open RPG (ORPG) LAN to LAN Functionality I.A.W. AWIPS System Admin Note 14</b>							16. Initials <b>JMM</b>	
17. SPECIAL PURPOSE REPORTING		a. Mod. No. <b>SA14</b>	b. Mod./Act./Deact.Date <b>7/08/02</b>	c.	d.	e.				
18. CONFIGURATION MGMT. REPORTING (use as directed)		ASN		Vendor Part Number (New Part)		Serial Number (Old Part)		Serial Number (New Part)		