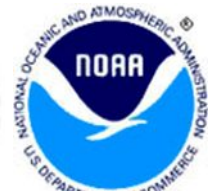


Additional GOES Sounder Imagery in AWIPS D-2D Instructions for NWSFO Installation

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Contributors

This document and the products gained from this installation could not have been accomplished without the dedicated work and assistance of the individuals listed below.

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Important Notes

This document is applicable only to offices located in Central Region (CRH).

Products gained from this installation are GOES Sounder CAPE and Ozone. These products are not considered operational. The Space Science and Engineering Center (SSEC) is not staffed around the clock. As a result, data outages may result periodically.

Contact Information

If you have questions regarding this document or experience installation problems, please contact Jordan Gerth, SSEC, jordang@ssec.wisc.edu or jordan.gerth@noaa.gov.

For questions and comments about these images and future developments involving GOES satellite imagery in AWIPS, contact Scott Bachmeier, SSEC, scottb@ssec.wisc.edu.

A copy of this document as well as updates and sample imagery is maintained at <http://cimss.ssec.wisc.edu/~jordang/awips-goes>. This is version 1.01.

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Instructions

!! Always use /tmp as your temporary directory when applying these instructions. These scripts have been written to look for files in /tmp/goes-setup. Every time directions request to extract a new tarball, make sure to have deleted the old, previous goes-setup directory. !!

!! Assure that the temporary files have the proper file permissions before running scripts. !!

Use the two Perl scripts included with color table manipulation package manage-ct.tar to extract the color tables from SSEC's GoesColors.nc and add into customColorMaps.nc as located in /data/fxa/workFiles. The manage-ct.tar file can be extracted into a temporary location of choice. Refer to instructions.txt for information about how to use the utility. It might be a good idea to backup the initial version of customColorMaps.

To add GOES menu items under "Satellite" on each AWIPS D-2D workstation, extract the files in goes-setup-loc.tar on PX1, review the depict keys file to make sure the key numbers (first column) are not already used on your system and the color tables (last column) correspond to the correct number in customColorMaps, and run localization.sh from within. Upon successful completion, delete the goes-setup directory and tarball, then force run a '-tables' and '-dataSups' localization on each workstation as user fxa.

```

su - fxa
cd /tmp
tar -xvf goes-setup-loc.tar
cd goes-setup
vi UW-localDepictKeys.txt
    Modify keys currently numbered 7290 and 7291; note changes
./localization.sh      # Ignore errors if previous files do not exist
cd ../
rm -rf goes-setup
rm -f goes-setup-loc.tar
cd /awips/fxa/data/localization/scripts
./mainScript.csh f -tables -dataSupS

```

To create the data management system (directory structure, data monitor, and purger) for the GOES files, extract the files in goes-setup-px1.tar to the temporary directory on PX1 and run px-purge-ldad.sh as user fxa. Delete the temporary goes-setup directory when complete, then run a '-tables', '-dataSupS', and '-dirs' localization on PX1 as user fxa. The html-add.sh script may need to be rerun after an operational build upgrade.

```

su - fxa
cd /tmp
tar -xvf goes-setup-px1.tar
cd goes-setup
./px-monitor-purge.sh      # Also runs two other scripts in directory
cd ../
rm -rf goes-setup
rm -f goes-setup-px1.tar
cd /awips/fxa/data/localization/scripts
./mainScript.csh -tables -dataSupS -dirs

```

Caution: These are satellite images, not GRIB files. The LDAD is not used to process GOES files; there is no preprocess script and there is no entry in the LDADinfo.txt file. The LDAD would likely be unable to maintain a load of incoming GOES products.

Important: The GOES files are filed in their LDM state (compressed) on LS1, but moved to PX1 for processing and filing. This is done by setting and running a cron task *at least once hourly*, which will be done in the following step. It is important to make sure this cron task exists and is executing properly or GOES products may quickly overwhelm LS1. The process script writes to a log file in /data/logs/fxa/[...].

As user fxa on PX1, uncompress processGOES.pl.gz in a local directory of choice. That is, choose a directory that is not overwritten during an operational build upgrade and contains other local applications. Since processGOES.pl is an executable, it may be best placed in a bin directory, but not /awips/fxa/bin. Kim Licitar suggested this procedure:

```

su - fxa
cd /data/local/localapps      # Choose the directory you wish
mkdir GOES
mv /tmp/processGOES.pl.gz GOES
cd GOES                      # Move to that directory

```

```

gunzip processGOES.pl.gz
chmod 775 processGOES.pl
su - root
vi /etc/cron.d/SITEpx1cron      # Make cron change in two files
vi /etc/ha.d/cron.d/SITEpx1cron # After the first file complete
ssh px2 vi /etc/ha.d/cron.d/SITEpx1cron # In case PX1 fails
<Page Up>                       # vi command to move to bottom of file
a                                 # vi command to append
<Enter>                          # vi command to add blank line
# Process GOES products from CIMSS/SSEC
10,25,40,55 * * * * fxa
    csh -c '/data/local/localapps/GOES/processGOES.pl &> /dev/null'
<Esc>                             # vi command to stop append mode
:wq!                              # vi command to write and quit

```

Run a '-purge' localization on DX1 as fxa to acknowledge the new purge information, then restart the purge process. The notification server may need restarting as well.

```

su - fxa
cd /awips/fxa/data/localization/scripts
./mainScript.csh -purge
cd /awips/fxa/bin
./stopPurgeProcess
./startPurgeProcess
./stopNotificationServer      # Optional, but may be necessary
./startNotificationServer    # Optional, but may be necessary

```

If there are no errors with the '-purge' localization, do the same on DX2. Remember, if PX1 is offline, there is nothing running to purge the incoming files on LS1.

```
ssh dx2 /awips/fxa/data/localization/scripts/mainScript.csh -purge
```

On LS1 as ldm user, extract the files in goes-setup-ls1.tar to a temporary directory and run ldad.sh. Delete the temporary directory when complete.

```

su - ldm
cd /tmp
tar -xvf goes-setup-ls1.tar
cd goes-setup
./ldad.sh
cd ../
rm -rf goes-setup
rm -f goes-setup-ls1.tar

```

Make the following addition to ldmd.conf in /usr/local/ldm/etc at the appropriate location:

```

request EXP \"*_AWIPS_GOES_EAST_.*\" ldm.crh.noaa.gov # For eastConus
request EXP \"*_AWIPS_GOES_WEST_.*\" ldm.crh.noaa.gov # For westConus

```

Create the initial storage directory for the compressed GOES data on LS1 as ldad user.

Give the directory proper permissions.

```

su - ldad
cd /data/ldad
mkdir GOES
chmod 775 GOES

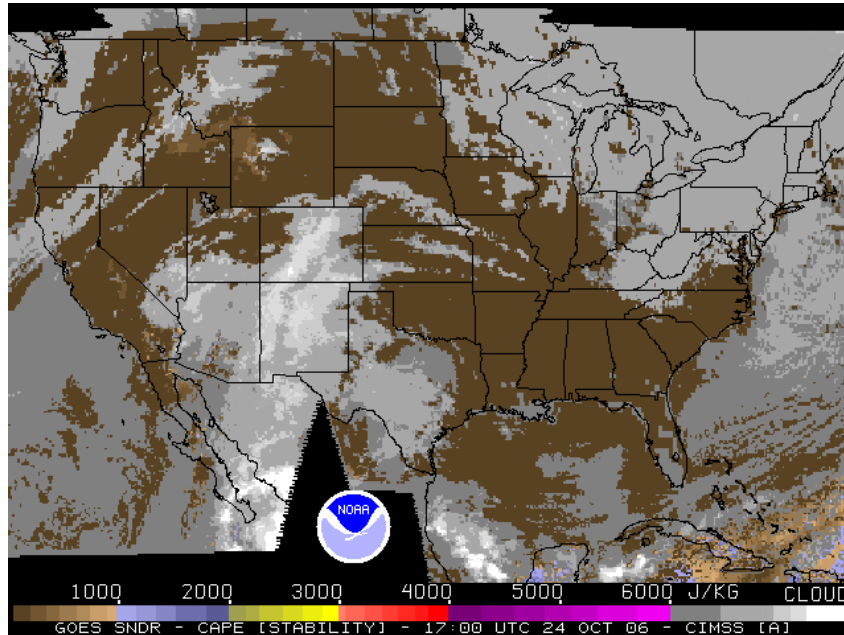
```

Restart the Local Data Manager on LS1 as ldm user. Watch the EXP feed if you wish.

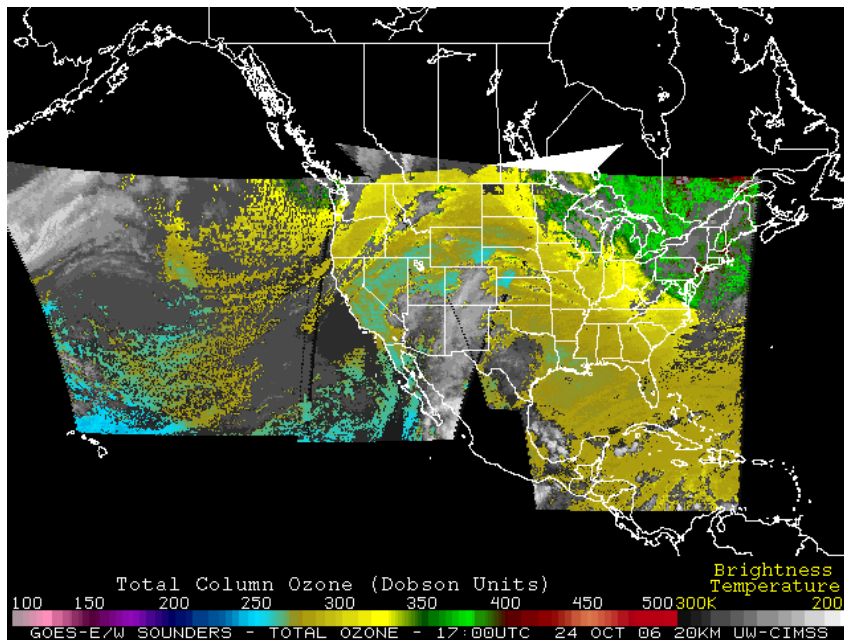
```
su - ldm
cd /usr/local/ldm/runtime/bin
./ldmadmin.in stop
./ldmadmin.in start
```

This completes the installation. Products will arrive in AWIPS within the next hour.

Sample Images



CAPE



Ozone