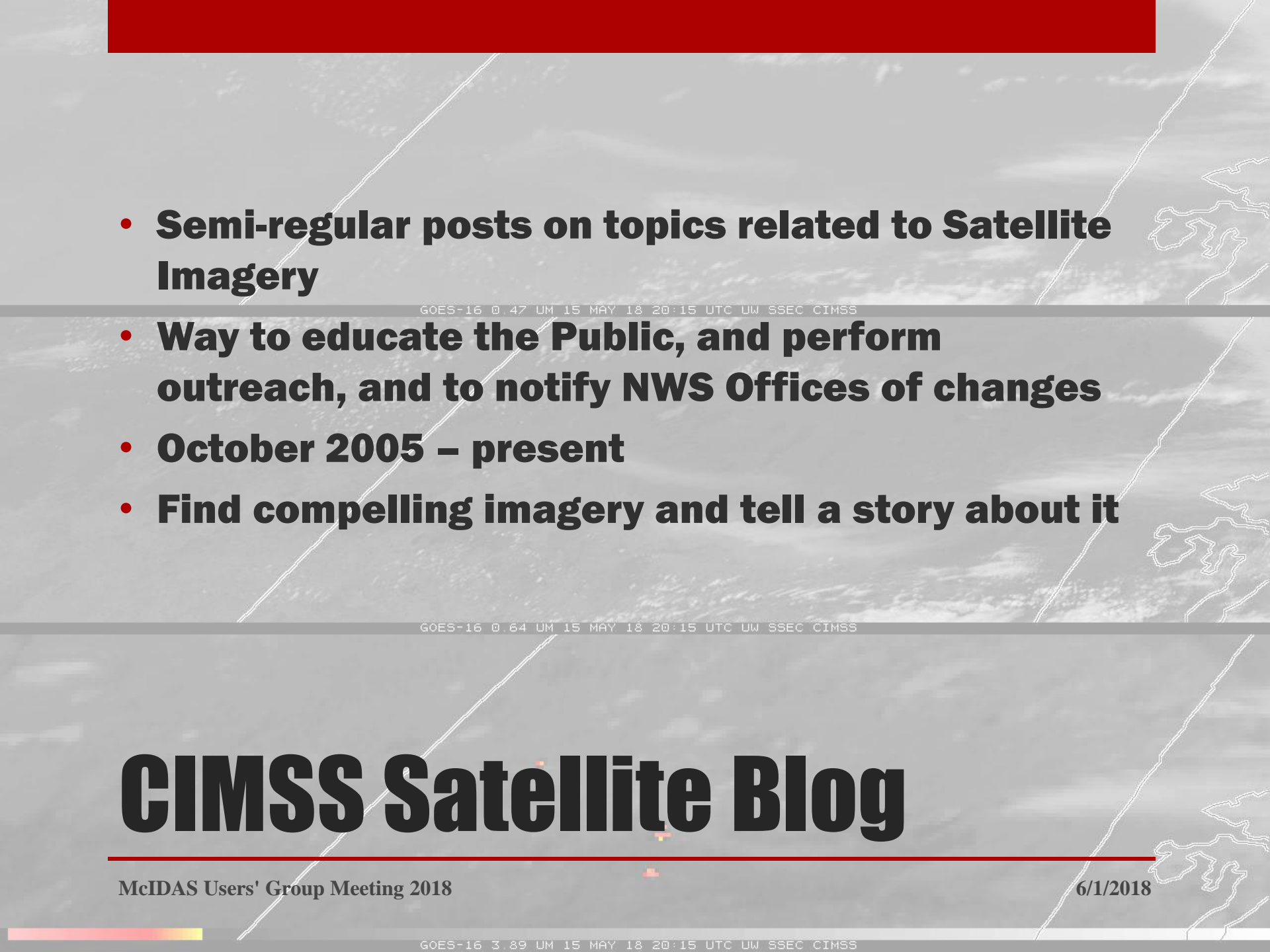




McIDAS and the CIMSS Satellite Blog

Scott Lindstrom
Scott Bachmeier

- 
- **Semi-regular posts on topics related to Satellite Imagery**
 - **Way to educate the Public, and perform outreach, and to notify NWS Offices of changes**
 - **October 2005 – present**
 - **Find compelling imagery and tell a story about it**

GOES-16 0.47 UM 15 MAY 18 20:15 UTC LW SSEC CIMSS


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CIMSS Satellite Blog

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05 « May « 2018 « CIMSS x



← → ↻ cimss.ssec.wisc.edu/goes/blog/archives/date/2018/05/05 ☆


 University of Wisconsin-Madison / Space Science and Engineering Center
CIMSS Satellite Blog

/ CIMSS / CIMSS Satellite Blog / Search for: Search

Eruptions of Kilauea in Hawai'i
 May 5th, 2018 | [Scott Bachmeier](#)


 05-May-2018 05:00:00 UTC
 GOES-15 Imager / Shortwave Infrared - 3.9 um - Band 3

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 28 29 30 31
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- **Imagery Sources from a variety of places**

- GOES-16 0.47 UM 15 MAY 18 20:15 UTC LW SSEC CIMSS
- **AWIPS terminal**
 - **Real Earth**
 - **MODIS Today**
 - **McIDAS-X and sometimes McIDAS-V**

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- Scripts to create imagery

- Written by Jim Nelson (CIMSS) and Tim Schmit (NOAA/ASPB)

- Sample: `template_calls_make_satellite_server5.scr` 35.15 99.75

```
G16_NIR_SWIR_IR_TX_PYROCB_11MAY2018 "6|7|13" "VIS_BRIGHT_2|IR2TEMP|IR4AVHRR4"
255 "0|3|0" 380 1280 "8|8|8" "8|8|8" YES YELLOW YELLOW ASB:2572
G16_VIS_NIR_ND_04NOV2017.TEXT N Y 15 3000 "NOAA GOES-16 ABI - NEAR-IR 2.24 UM
(BAND 6) - (HHMMSS) UTC (DDMMYYYY) - CIMSS / SSEC / UNIVERSITY OF WISCONSIN -
MADISON|NOAA GOES-16 ABI - SHORTWAVE IR 3.9 UM (BAND 7) - (HHMMSS) UTC
(DDMMYYYY) - CIMSS / SSEC / UNIVERSITY OF WISCONSIN - MADISON|NOAA GOES-16
ABI - IR WINDOW 10.3 UM (BAND 13) - (HHMMSS) UTC (DDMMYYYY) - CIMSS / SSEC /
UNIVERSITY OF WISCONSIN - MADISON" X 15 90
/home/scottb/mcidas/data/CIMSS_logo_web_multicolor.png 110 105 X "Y:S:11:3:20:10:10:TIMBR|N|N"
AGOES16/M1 2018132 011500 2018132 025959 X GIF X X X X 3x1:NM X X "mceval.k GD
2;mceval.k MAP VH 11;mceval.k GD 1;mceval.k MAP VH 10 LALO -8 INT=1 1 ;mceval.k GD
2;mceval.k SFCPLOT PLOT X artim_hh arday COLOR=11 LSIZ=7 TITLE='.' 2 311 36;mceval.k GD
1;mceval.k SFCPLOT PLOT X artim_hh arday LSIZ=7 TITLE='.' 2 311 36;mceval.k PC T 10
350;mceval.k ZA 5 20 FONT=TIMBR WID=1 dquoteGOES-16 / Near-Infrared / 2.24 um / Band
6|mceval.k GD 2;mceval.k MAP VH 11;mceval.k GD 1;mceval.k MAP VH 10 LALO -8 INT=1
1;mceval.k GD 2;mceval.k SFCPLOT PLOT X artim_hh arday COLOR=11 LSIZ=7 TITLE='.' 2 311
36;mceval.k GD 1;mceval.k SFCPLOT PLOT X artim_hh arday LSIZ=7 TITLE='.' 2 311 36;mceval.k PC
T 10 350;mceval.k ZA 5 20 FONT=TIMBR WID=1 dquoteGOES-16 / Shortwave Infrared / 3.9 um / Band
7|mceval.k GD 2;mceval.k MAP VH 11;mceval.k GD 1;mceval.k MAP VH 10 LALO -8 INT=1
1;mceval.k GD 2;mceval.k SFCPLOT PLOT X artim_hh arday COLOR=11 LSIZ=7 TITLE='.' 2 311
36;mceval.k GD 1;mceval.k SFCPLOT PLOT X artim_hh arday LSIZ=7 TITLE='.' 2 311 36;mceval.k PC
T 10 350;mceval.k ZA 2 20 FONT=TIMBR WID=1 dquoteGOES-16 / Infrared Window / 10.3 um / Band
13
```

Scripting – something McIDAS-X excels at

- Hi all -- FYI, `template_calls_make_satellite_server5.scr` (aka **the Superscript**) now echoes the value of `$MCSTRETCH`, as does `make_satellite_images_server7.scr` (called by the Sscript).
- This might help make it easier to determine if you are or are not using the new MX 2017.2 (and beyond) WV, SWIR & VIS image stretching capabilities.

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Periodic Updates from Jim

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- “when it works, it's sheer imagery goodness”

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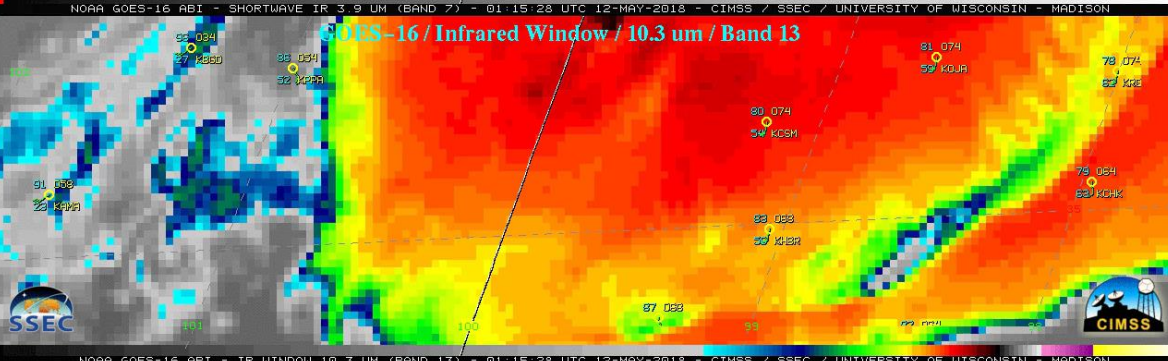
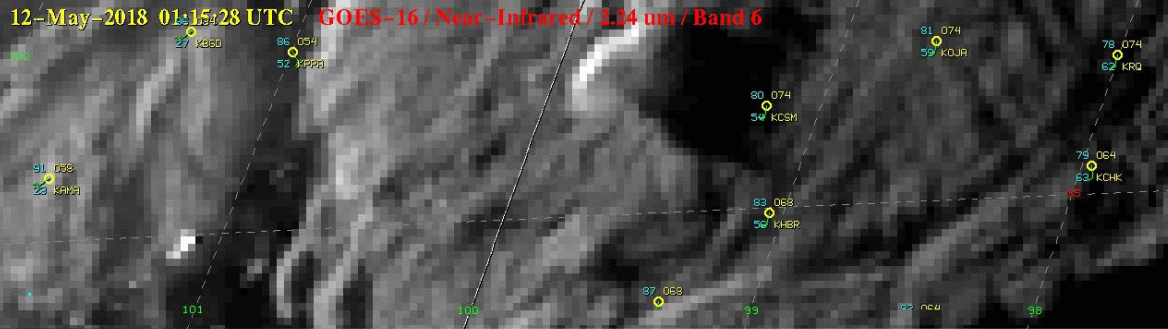
The Mega-Script

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6/1/2018



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Script Output

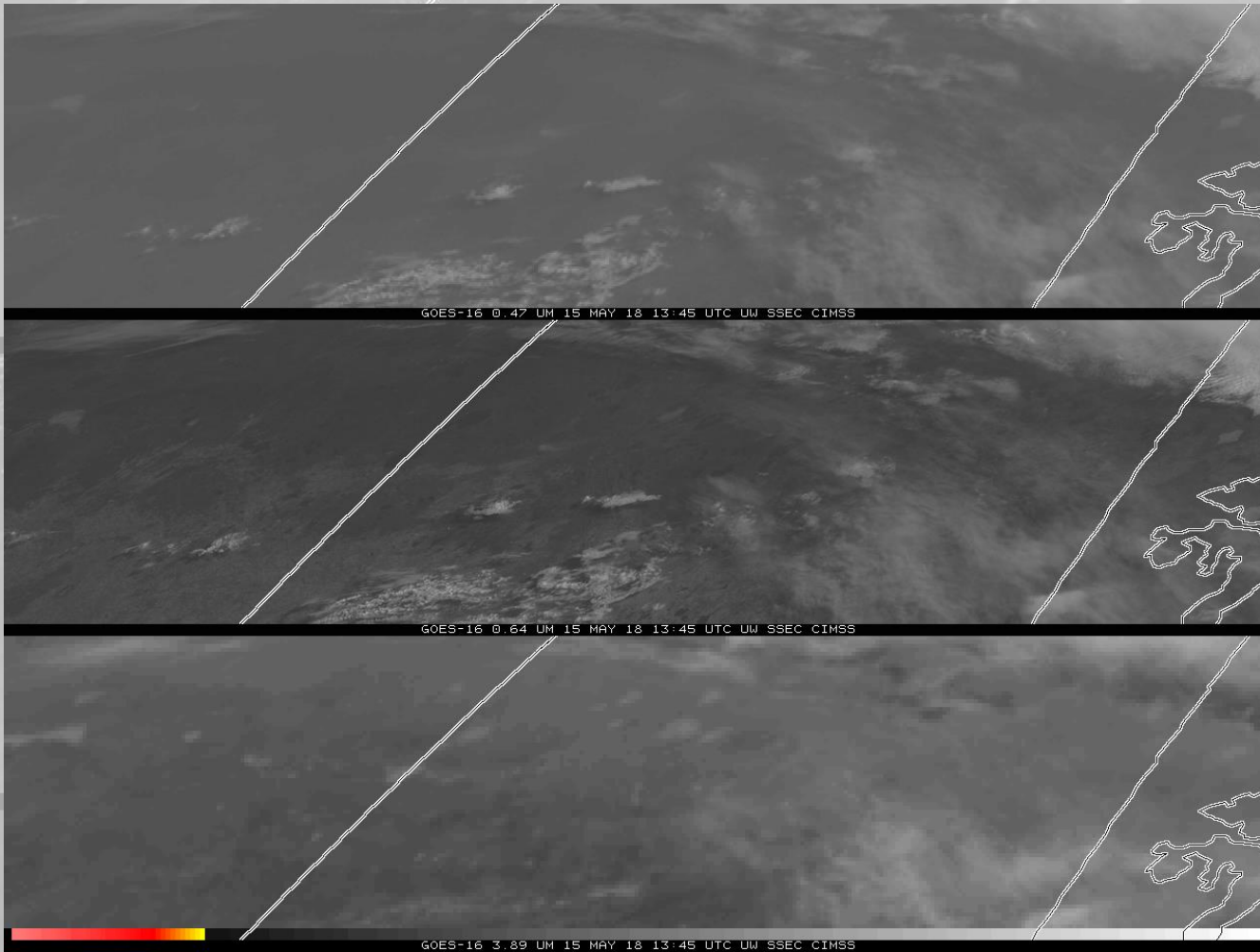
- Create Imagery, and then use ImageMagick to slice and dice it.

```
PANEL 3 1 1 36
IMGDISP AGOES16/FD.56 1 DAY,2018135 LATLON=54.1 107.1 REP=36 BAND=1 MAG=2 PANEL=1
IMGDISP AGOES16/FD.56 1 DAY,2018135 LATLON=54.1 107.1 REP=36 BAND=2 MAG=1 PANEL=2
IMGDISP AGOES16/FD.56 1 DAY,2018135 LATLON=54.1 107.1 REP=36 BAND=7 MAG=2 PANEL=3
IMGDISP AGOES16/FD.56 1 DAY,2018135 LATLON=54.1 107.1 REP=36 BAND=7 MAG=2 PANEL=3 GRAY=YES
TE FML16 "FRMLABEL IMA=!1 PANEL=1 \"GOES-16 (WL) (DAY) (HHMM) UTC UW SSEC CIMSS
REPEAT FML16 1 TO 36
TE FML16 "FRMLABEL IMA=!1 PANEL=2 \"GOES-16 (WL) (DAY) (HHMM) UTC UW SSEC CIMSS
REPEAT FML16 1 TO 36
TE FML16 "FRMLABEL IMA=!1 PANEL=3 \"GOES-16 (WL) (DAY) (HHMM) UTC UW SSEC CIMSS
REPEAT FML16 1 TO 36
GD 3;MAP X 7 PANEL=1 GRA=1-36;GD 1;MAP X 3 PANEL=1 GRA=1-36;GU MAKE 3 BLACK 1 36;GU MAKE 7 WHITE 1 36
GD 3;MAP X 7 PANEL=2 GRA=1-36;GD 1;MAP X 3 PANEL=2 GRA=1-36;GU MAKE 3 BLACK 1 36;GU MAKE 7 WHITE 1 36
GD 3;MAP X 7 PANEL=3 GRA=1-36;GD 1;MAP X 3 PANEL=3 GRA=1-36;GU MAKE 3 BLACK 1 36;GU MAKE 7 WHITE 1 36
TE FMS "FRMSAVE !1 GOES16_FIRE_15MAY2018_!1.GIF
REPEAT FMS 1 TO 36
EU REST IR2SCOTT 1 36
TE FMS "FRMSAVE !1 GOES16_FIRE__ENH_15MAY2018_!1.GIF
REPEAT FMS 1 TO 36
```

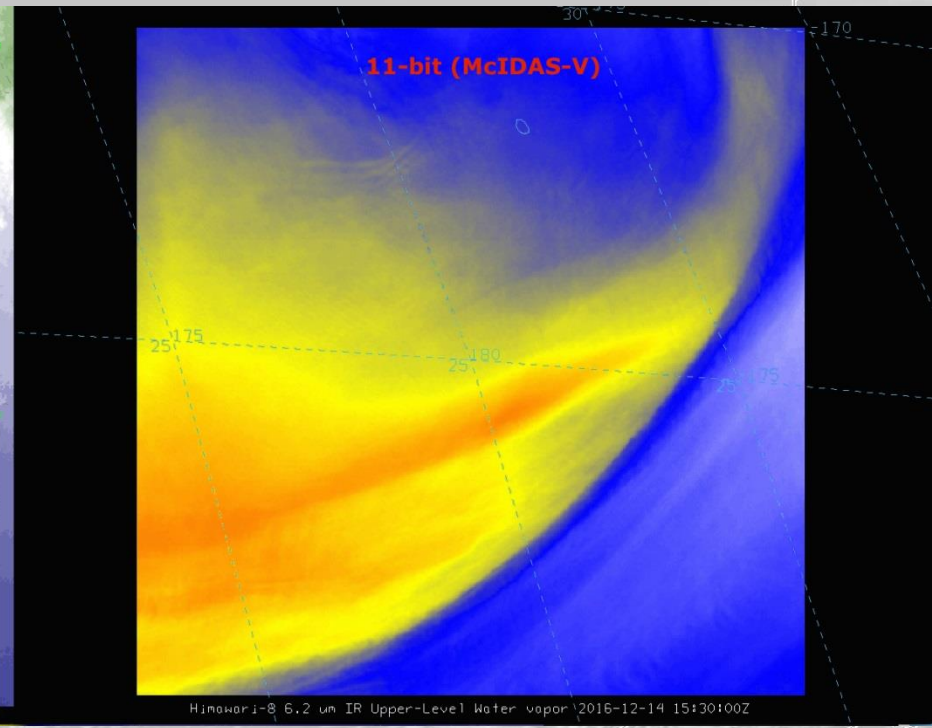
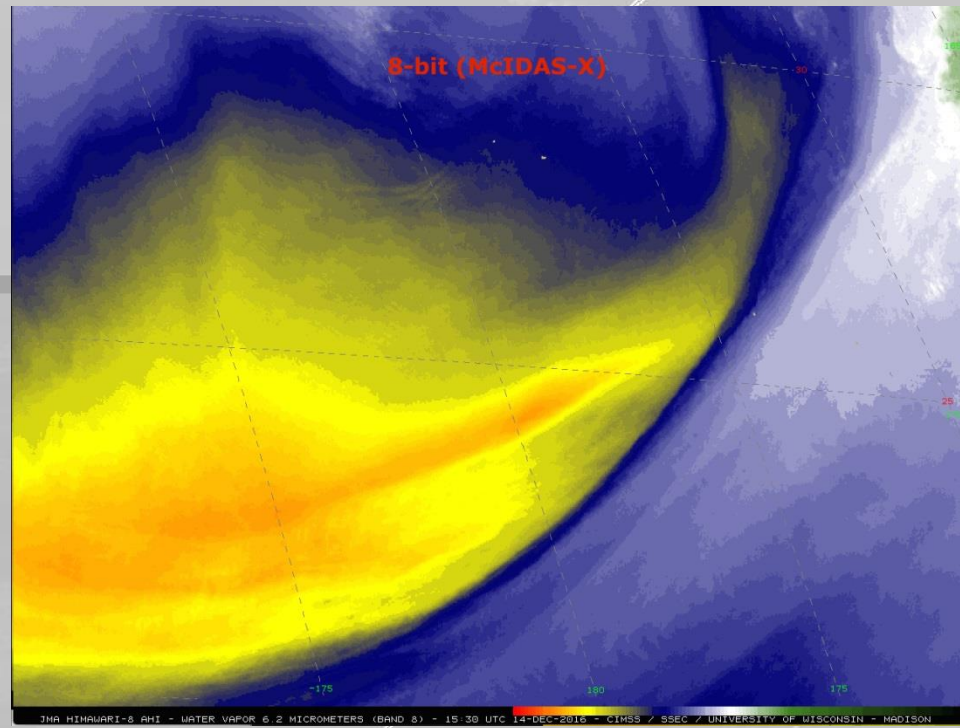
- Then use ImageMagick

```
convert -crop 1280x320+0+0 +repage -quality 100 GOES16_FIRE_15MAY2018_1.GIF GOES16_FIRE_15MAY2018_1crop1.png
convert -crop 1280x320+0+320 +repage -quality 100 GOES16_FIRE_15MAY2018_1.GIF GOES16_FIRE_15MAY2018_1crop2.png
convert -crop 1280x320+0+640 +repage -quality 100 GOES16_FIRE__ENH_15MAY2018_1.GIF GOES16_FIRE_15MAY2018_1crop3.png
convert -append GOES16_FIRE_15MAY2018_1crop1.png GOES16_FIRE_15MAY2018_1crop2.png
GOES16_FIRE_15MAY2018_1crop3.png GOES16_FIRE_15MAY2018_1combine.png
```

Batch Files work too



Batch File output



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8-bit data still in McIDAS-X

McIDAS-V also used

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- Scripts create and save multiple images (all you need is the ADDE dataset pointing to the data!)
- Easy to tweak images if something doesn't look quite right – because it's all in an easily re-runnable script
- Thank you McIDAS for making blogging life easy

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Strengths

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- <http://cimss.ssec.wisc.edu/goes/blog>
- E-Mail: scott.lindstrom@ssec.wisc.edu
- E-Mail: scott.bachmeier@ssec.wisc.edu

Thank you!