

Software Development

Dave Santek and Jay Heinzelman

27 - 28 October 2005

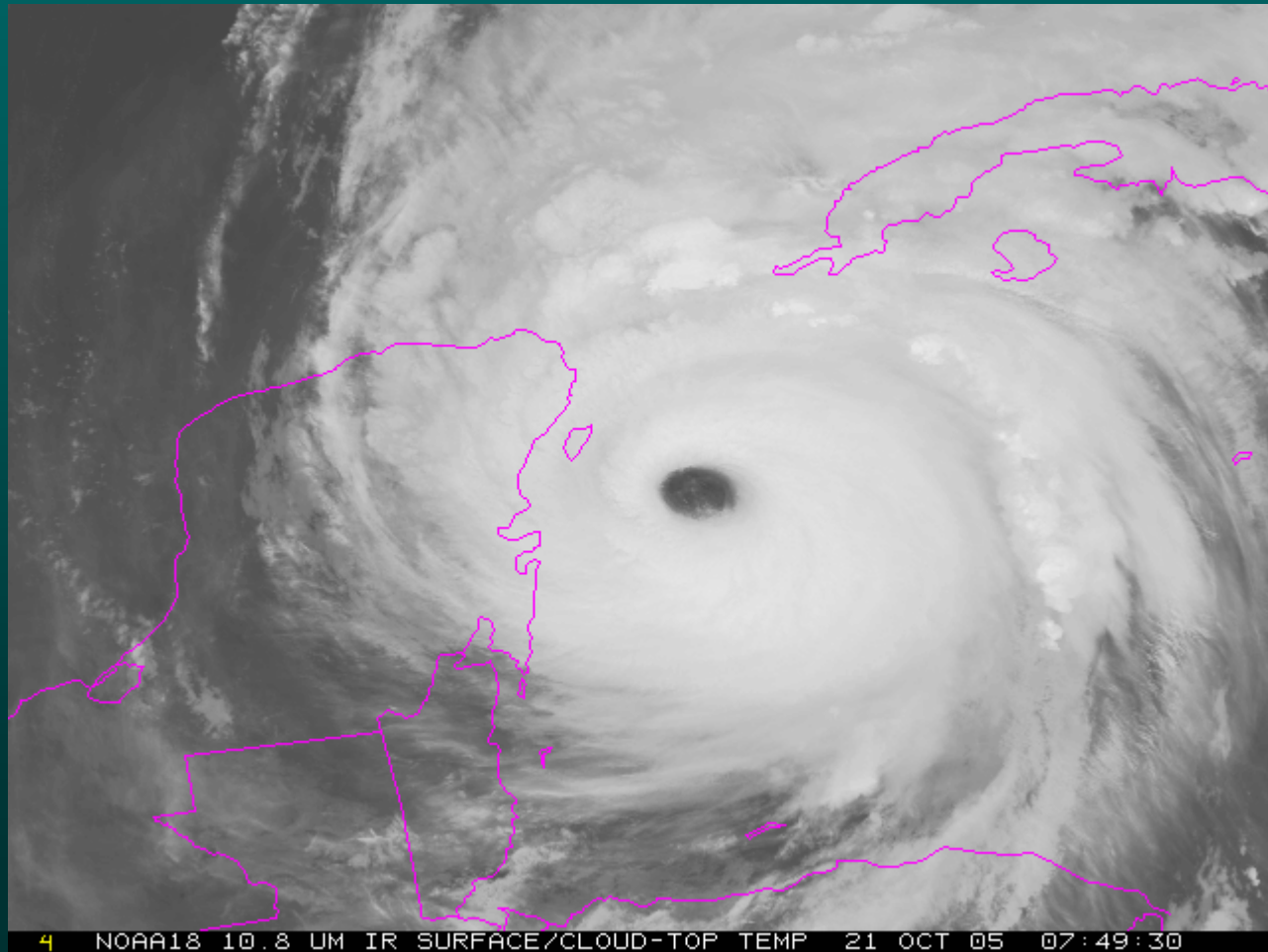
Overview

- McIDAS-X 2005
- McIDAS-XRD 2005
- Software Development in 2005
- Software Plans for 2006
- McIDAS-Lite Update
- OpenADDE Update
- McIDAS-V Update

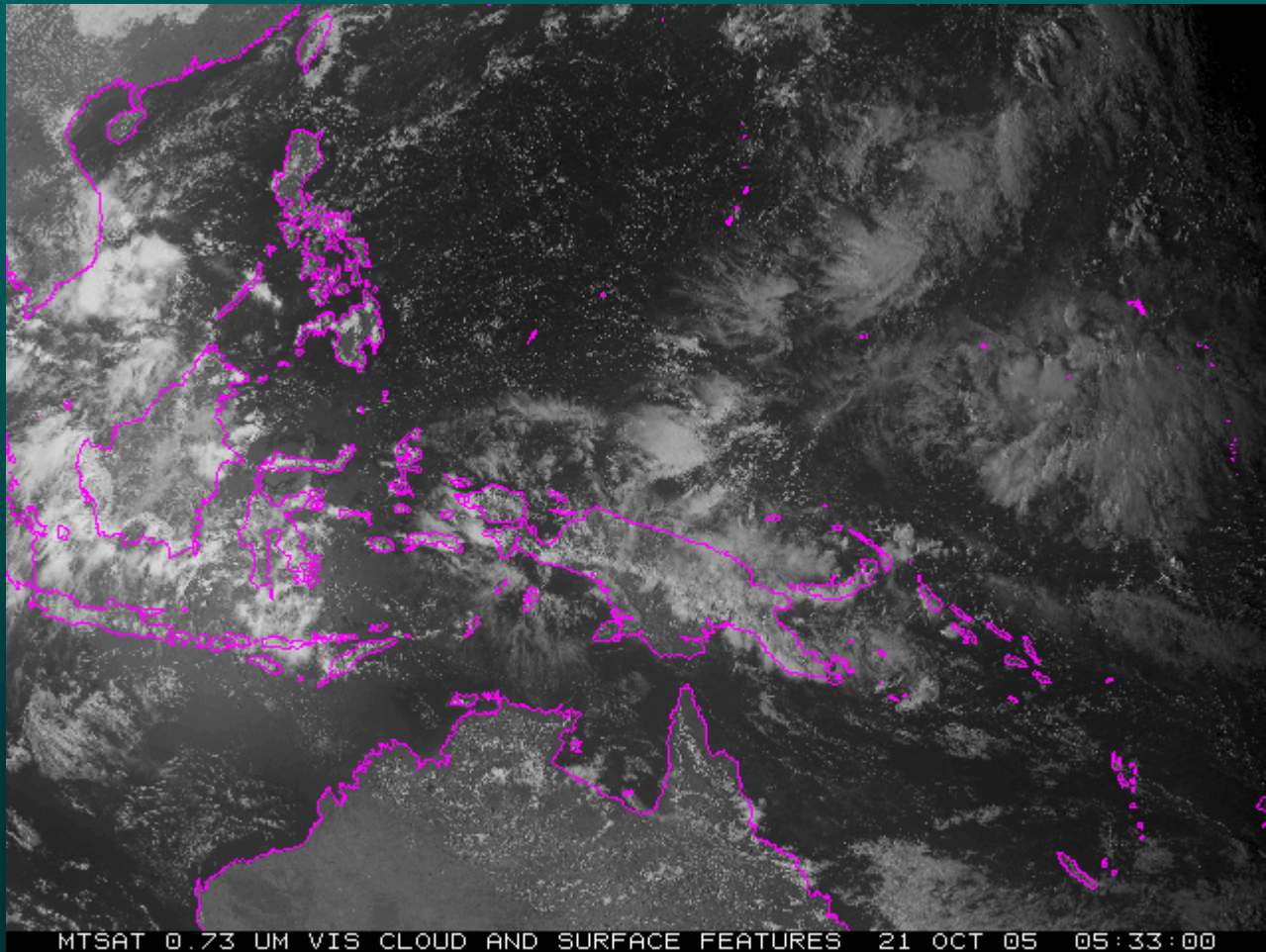
McIDAS-X 2005

- NOAA-18, MTSAT, FY-2C
- MODIS product servers
 - Aerosol
 - SST
- IMGFILT with SPOT=
- IMGREMAP with DIST=

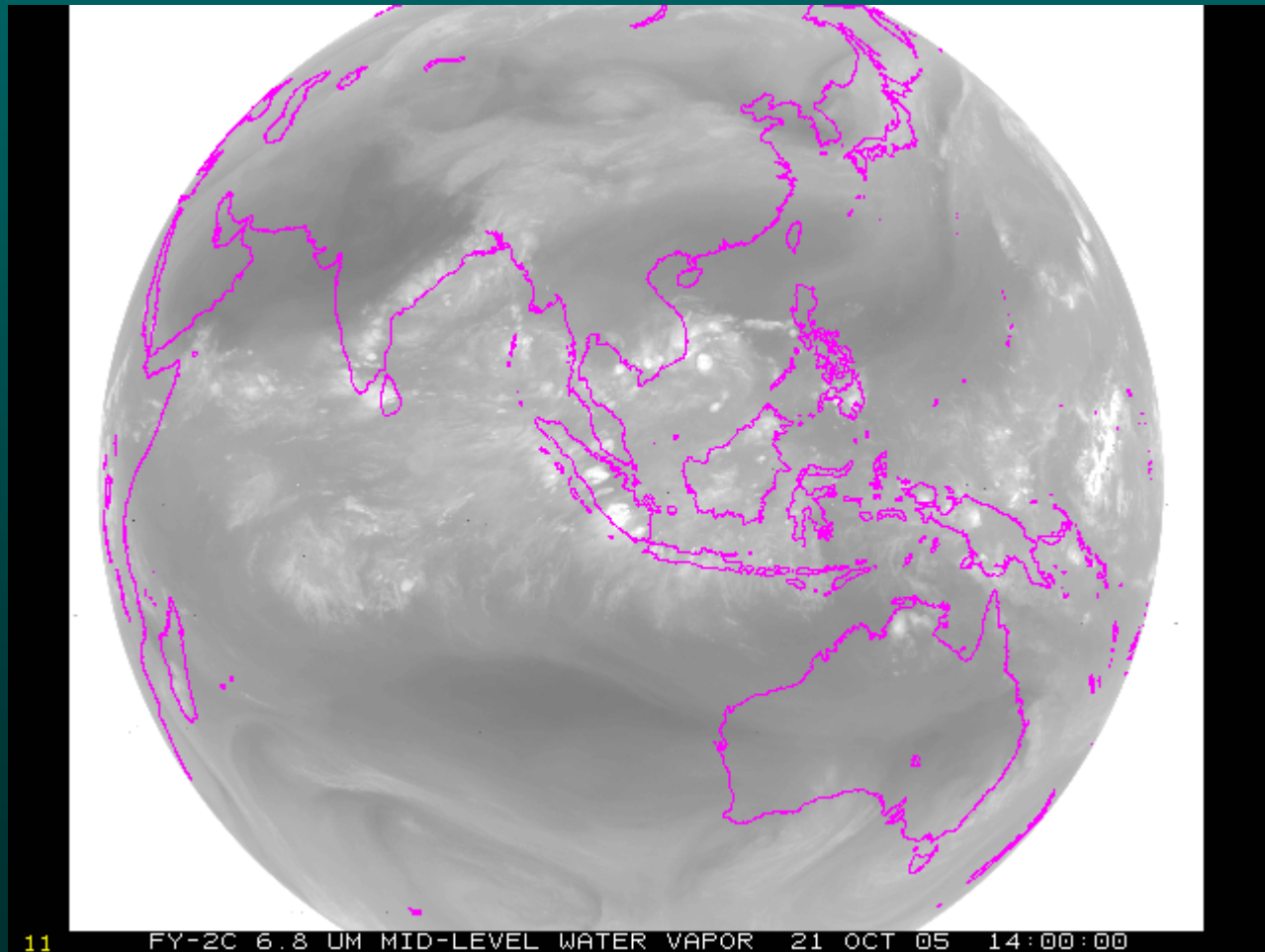
NOAA-18



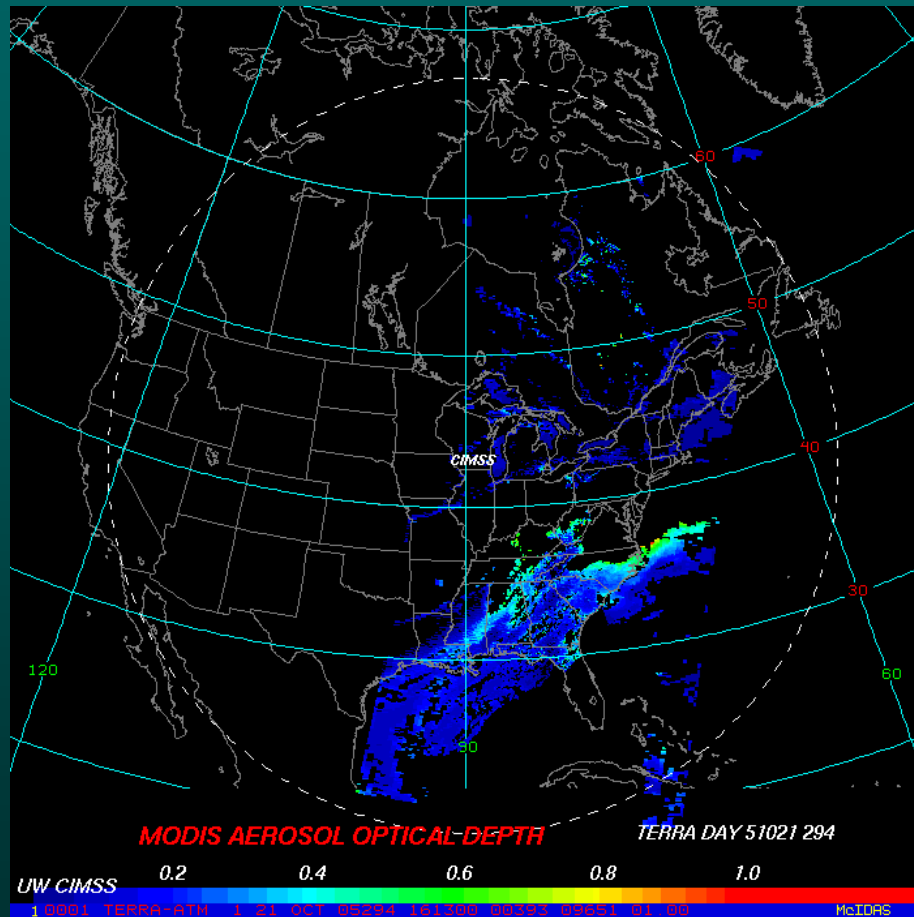
MTSAT



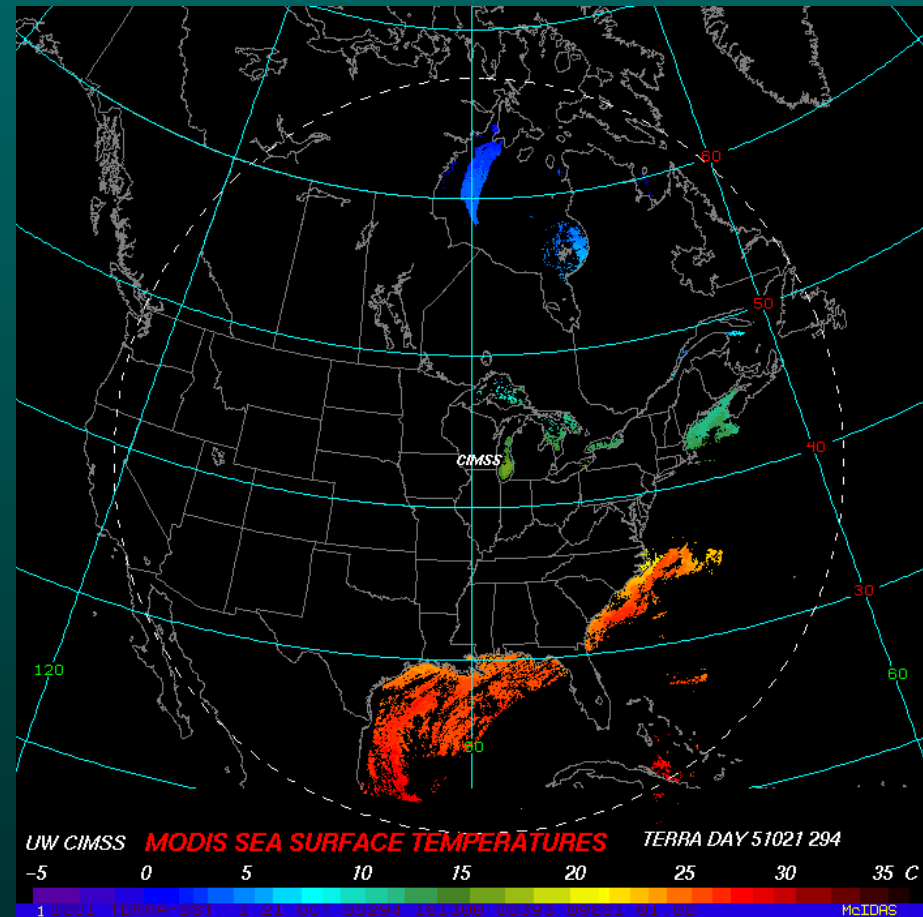
FY-2C



MODIS Products

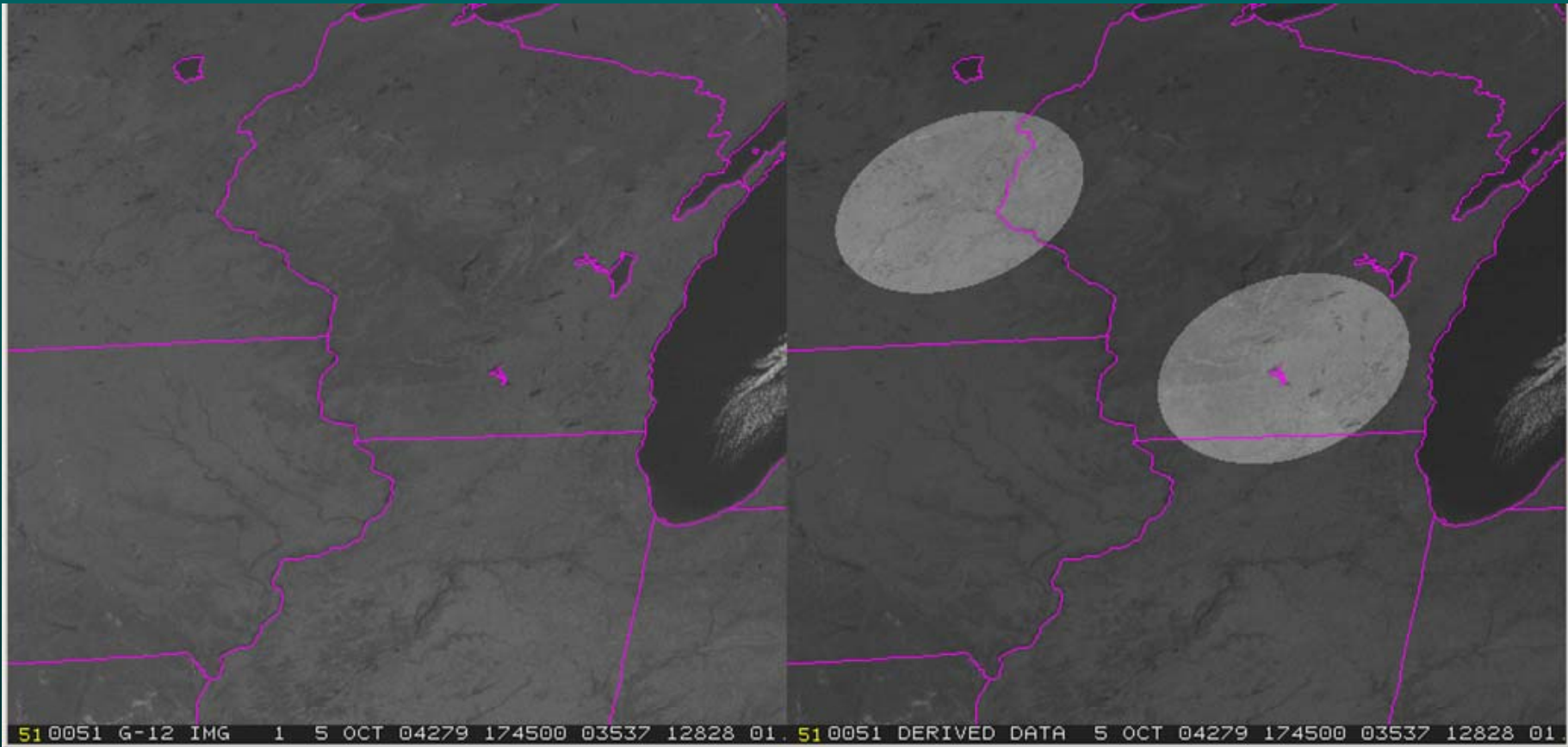


Aerosol Optical Depth



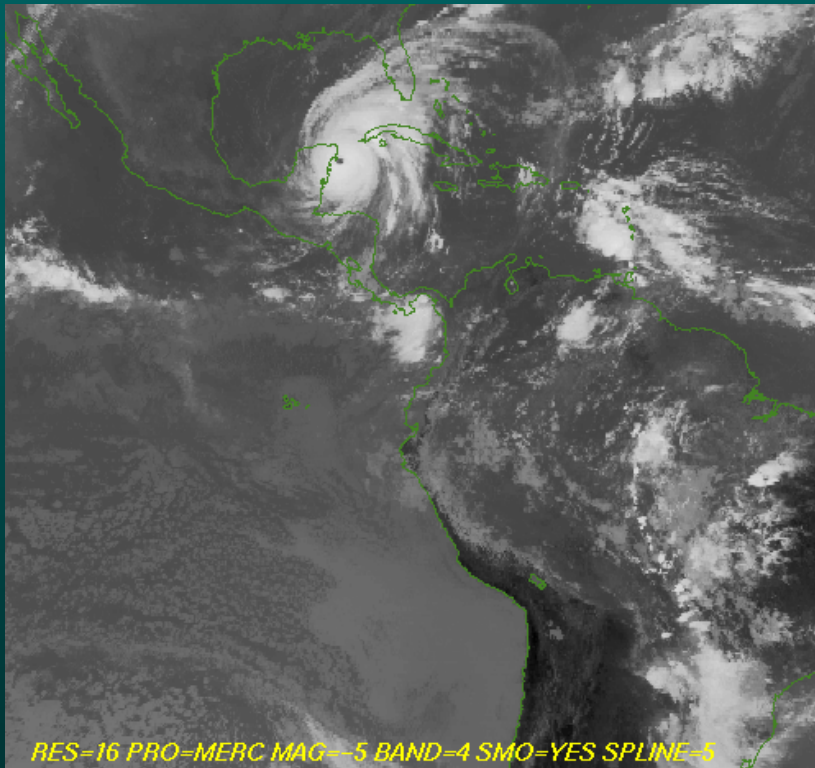
SST

IMGFILT

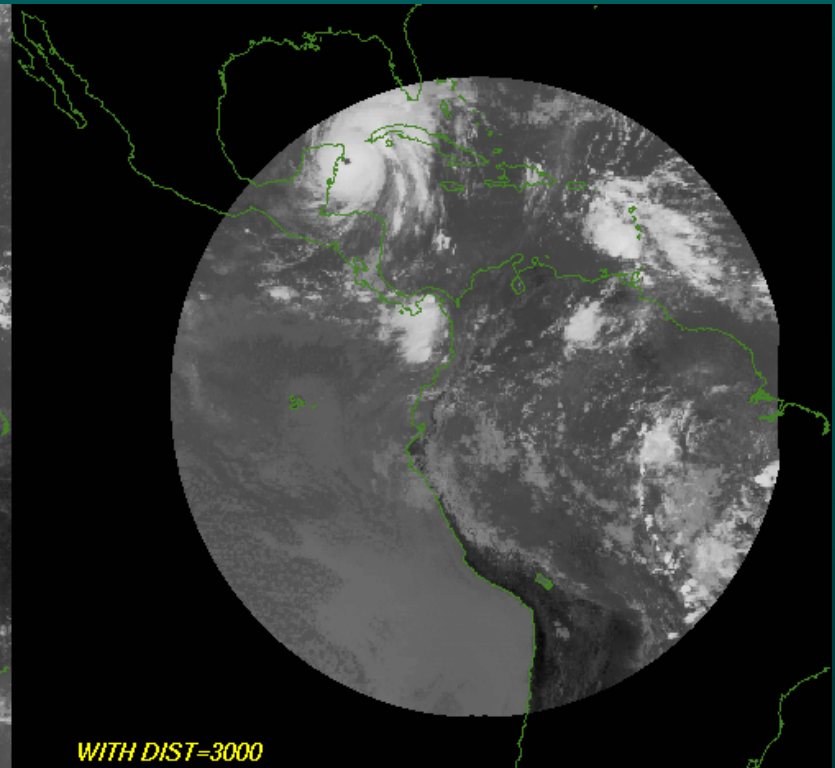


Spot filter

IMGREMAP



RES=16 PRO=MERC MAG= 5 BAND=4 SMO=YES SPLINE=5



WITH DIST=3000

510051 G-12 IMG 4 21 OCT 05294 144500 09761 09749 01. 510051 G-12 IMG 4 21 OCT 05294 144500 09761 09749 01.

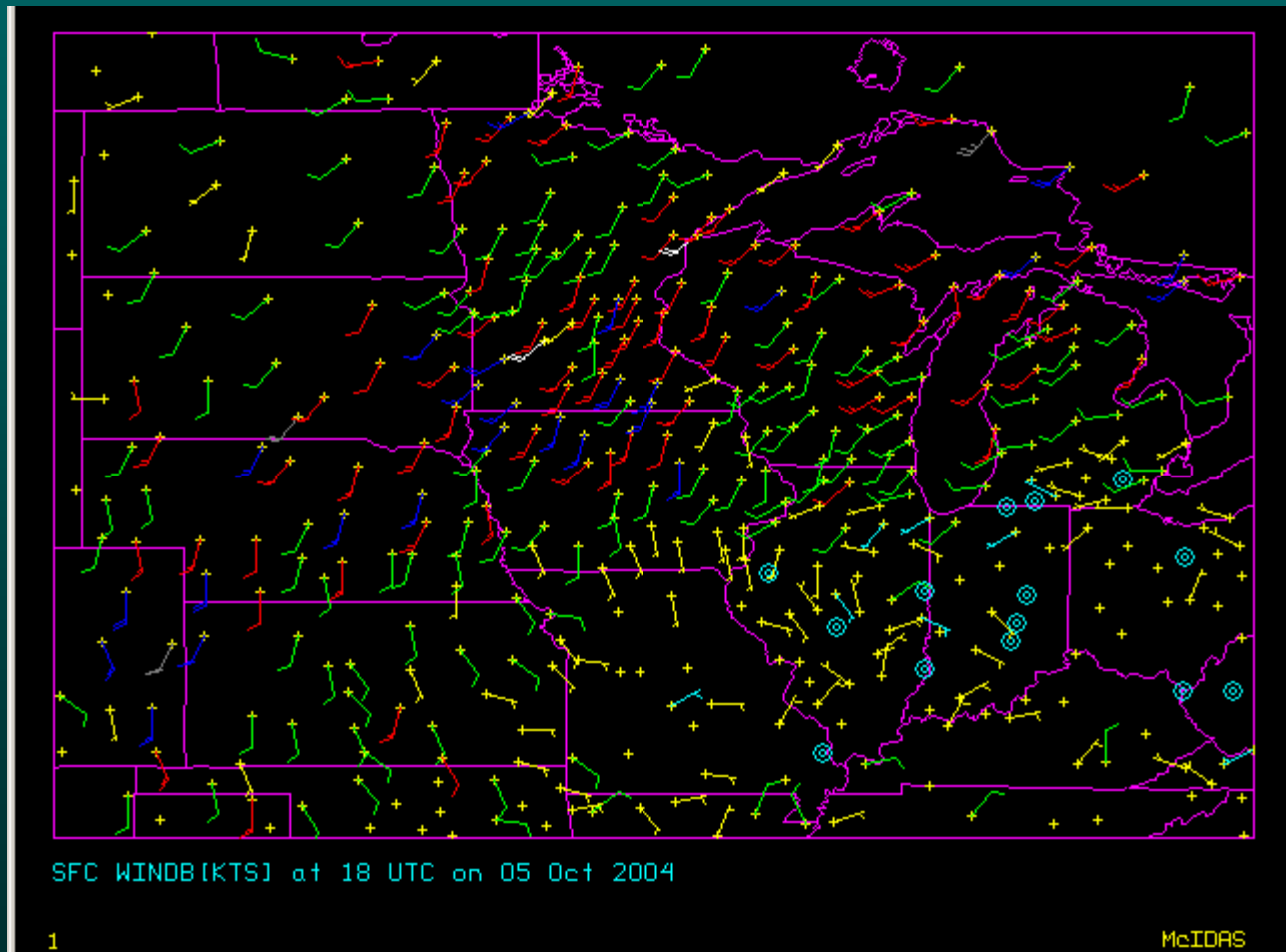
McIDAS-X 2005

- MSG multi-band transfer
- GEO & LEO: NIR (near IR) changed to SW (shortwave)
- GOES-13 calibration added
- IMGCHA OTYPE= keyword
- IMGOPER ZERO=DATA or MISS replaced with MISS=NONE or value

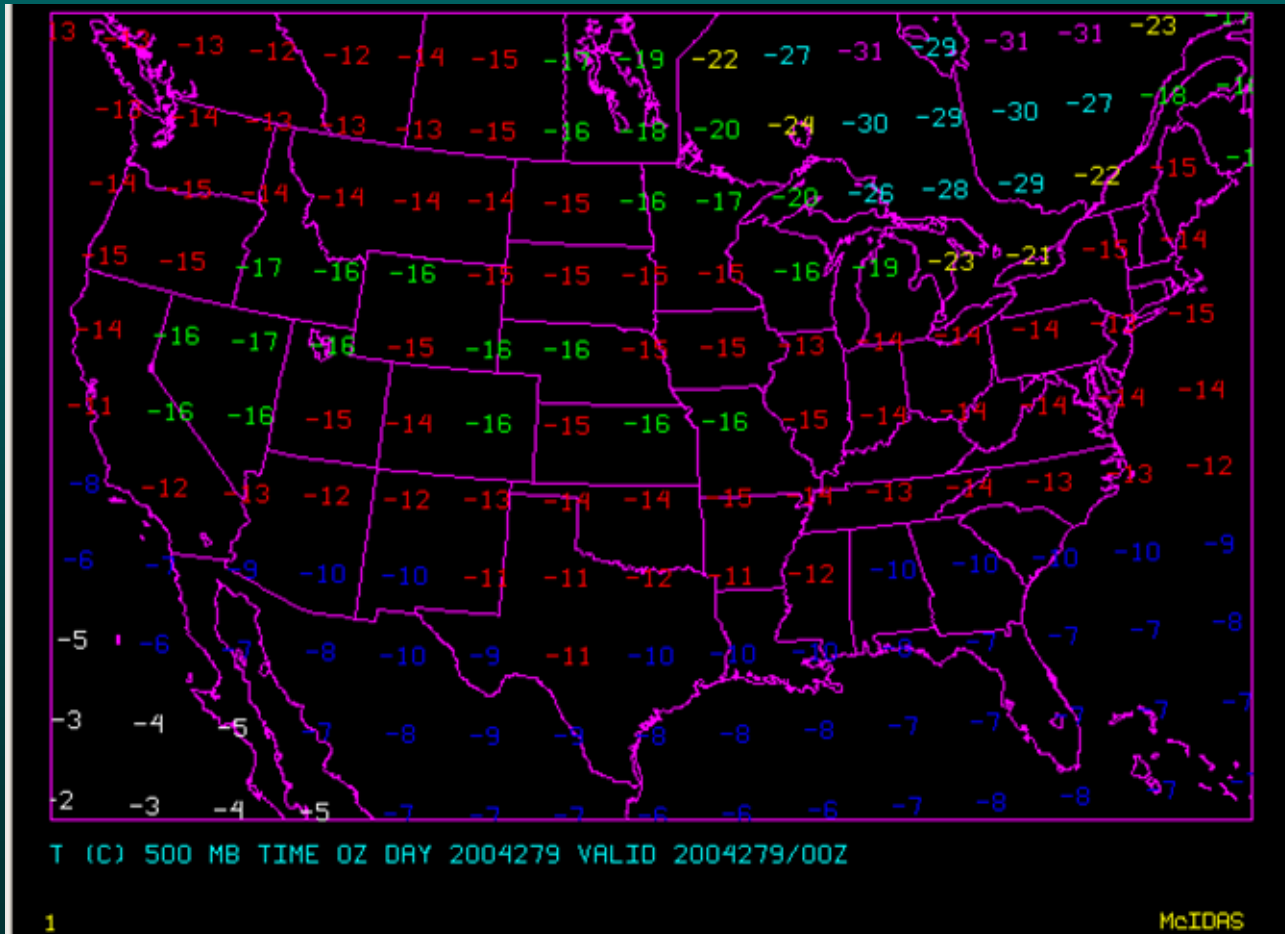
McIDAS-X 2005

- Grid file mask
- Upper air calculations
 - LCL/LFC, helicity, specific heat constant, freezing point of water
- PTDISP color plot of wind barbs and vectors
- GRDDISP color plot of values, wind barbs and vectors

PTDISP



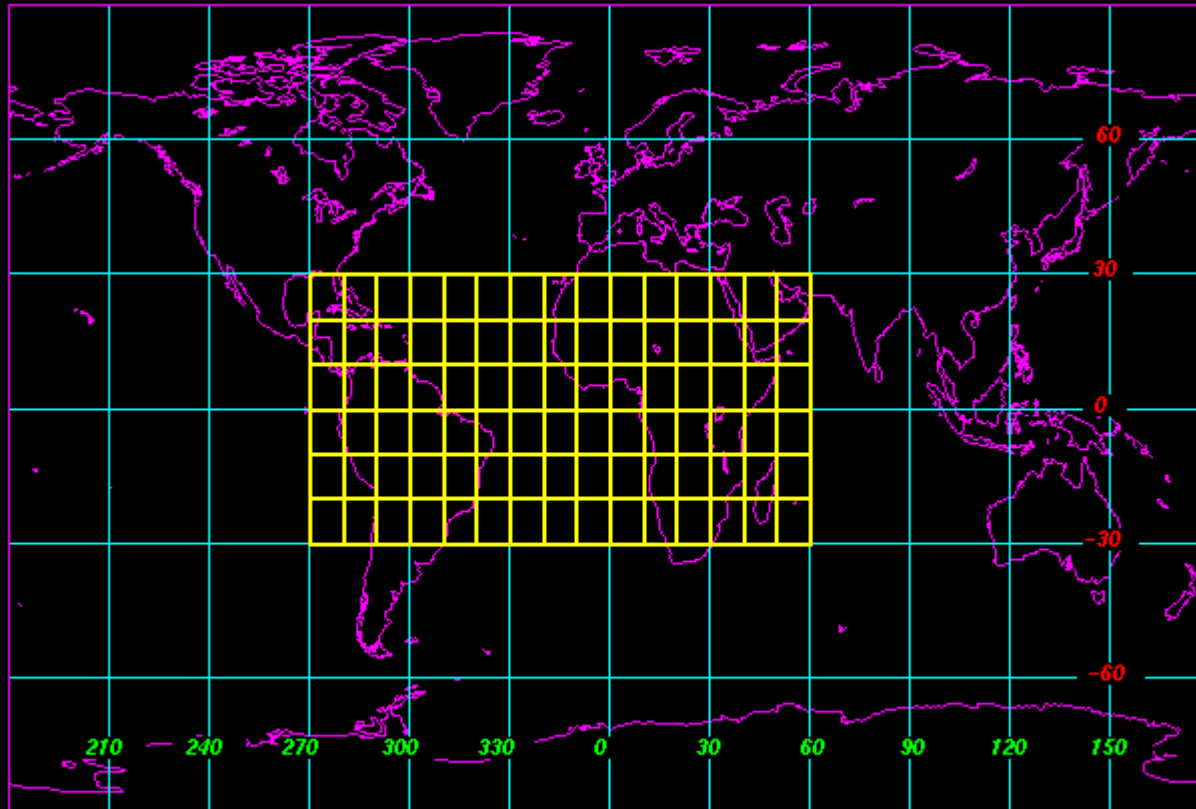
GRDDISP



McIDAS-X 2005

- MAP LLINSET= LABEL=
 - LLINSET lat/lon drawn as inset
 - LABEL 360E and 360W
- NAVDISP swath coverage for TLE navigation
- ZA & FRMLABEL options

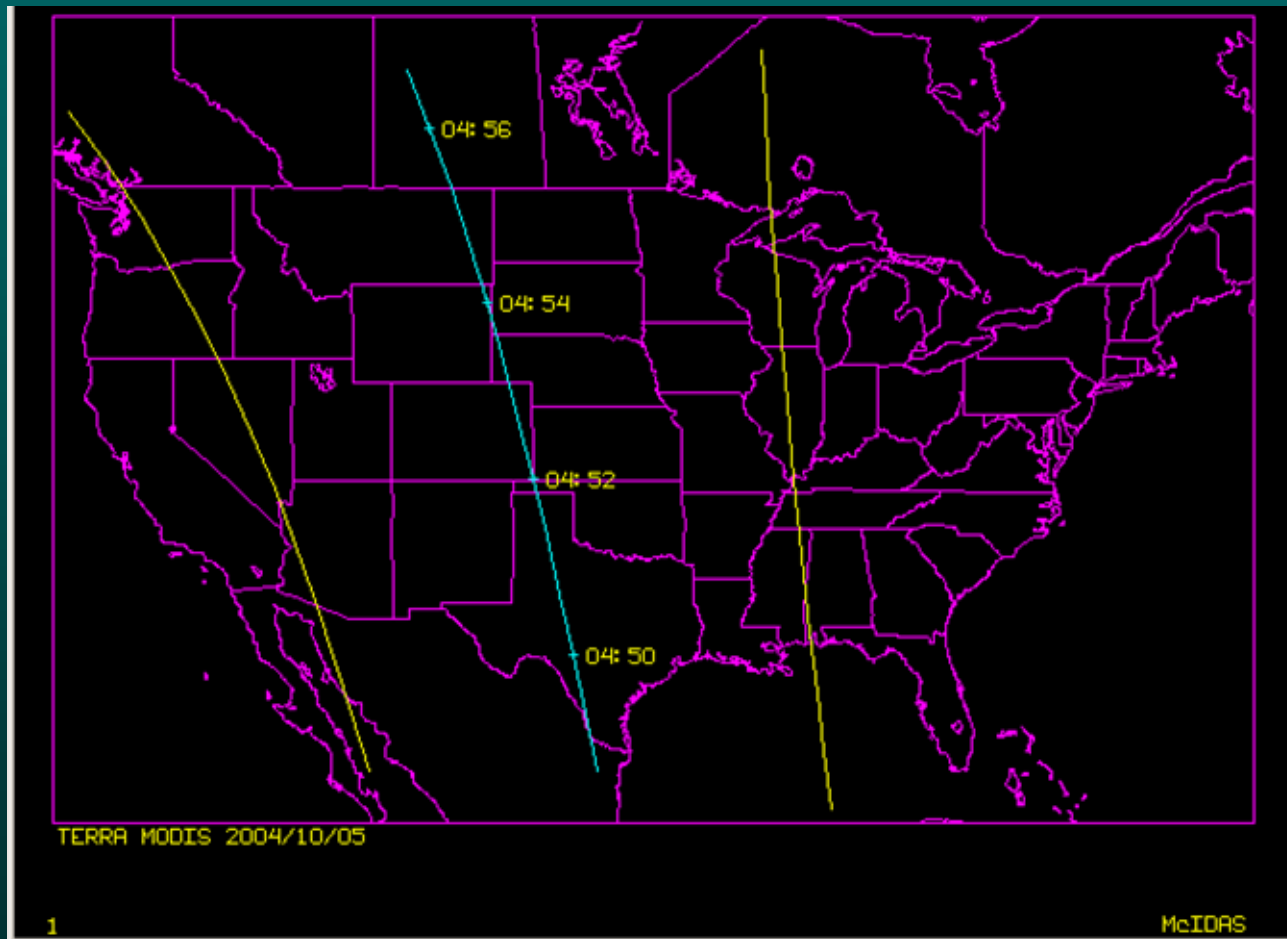
MAP



MAP WORL X LALO LABEL=360E

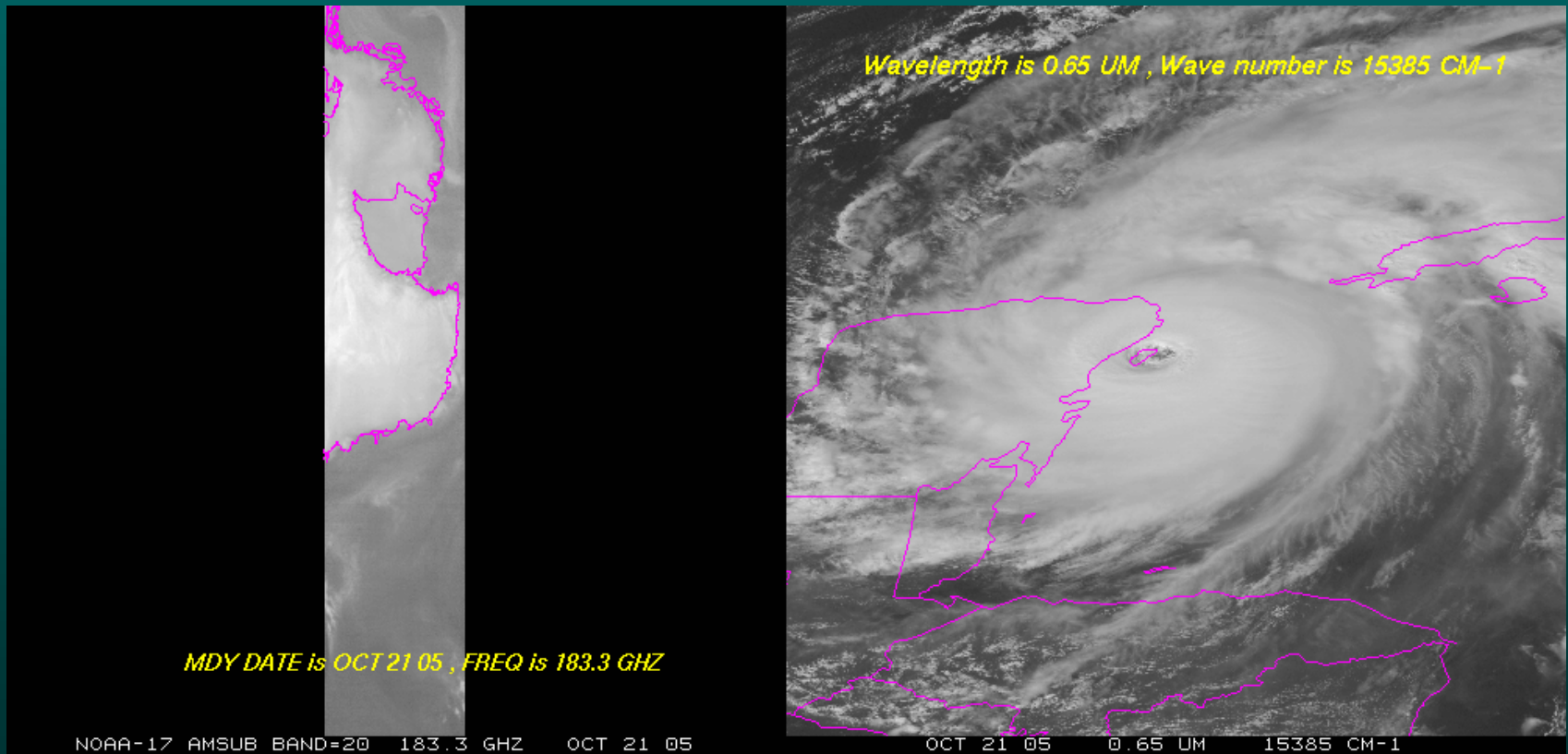
MAP X 0 LLINSET=-30 30 -60 90 10 10 3 WIDTH=2 LABEL=NO

NAVDISP



Terra MODIS swath coverage

ZA & FRMLABEL



McIDAS-X 2005

- MOSRPT changed ETA to NAM
- STNPLOT & STNLIST:
 - Changed ETAMOS to NAMMOS
 - Changed FOUS14 to NGMMOS

MOSRPT

MOSRPT KMSN 1 TYPE=NAME

KMSN	ETA	MOS	GUIDANCE	10/21/2005 1200 UTC																	
DT /OCT	21/OCT	22		/OCT 23												/OCT	24				
HR	18	21	00 03 06 09 12	15	18	21	00	03	06	09	12	15	18	21	00	06	12				
N/X				36			50				39			48		35					
TMP	55	56	49 43 40 39 39	45	48	48	45	44	42	42	41	45	47	46	41	39	37				
DPT	36	35	37 37 37 37 37	39	39	40	40	40	38	38	38	39	38	37	36	35	33				
CLD	SC	OV	OV OV OV OV OV	OV	OV	OV	OV	OV	OV	OV	OV	OV	OV	OV	OV	OV	OV				
WDR	03	36	02 00 00 00 34	33	33	35	35	35	35	35	35	35	35	35	35	35	34				
WSP	04	04	02 00 00 00 01	03	04	06	04	05	07	08	08	11	14	11	07	08	10				
P06		0	3	38	85	75	66	34	25	7	0	5									
P12				38	88	66	30	22													
Q06		0	0	1	1	1	1	1	0	0	0										
Q12				0	2	1	0														
T06		1/ 0	0/ 0	3/ 0	1/ 0	17/ 0	14/ 0	4/ 0	2/ 0	3/ 1999/99											
T12			1/ 0	3/ 0	25/ 0	5/ 0	999/99														
SNW				0	0	0															
CIG	8	7	7	7	6	6	6	2	4	4	4	4	4	4	5	5	5	4	4	4	4

McIDAS-X 2005

- Port 112 now used for all ADDE transfers; 500/503 removed from mcinet.sh script
- Memory leaks; cutting and pasting improvements in mctext
- DSSERVE file locking
- ADDE dataset restrictions

ADDE Access Control

- Control access to machine, group name, descriptor name
 - Restrict by user, IP address, project number
 - If a control file does not exist, all users have access
 - If a control file exists, the list is inclusive

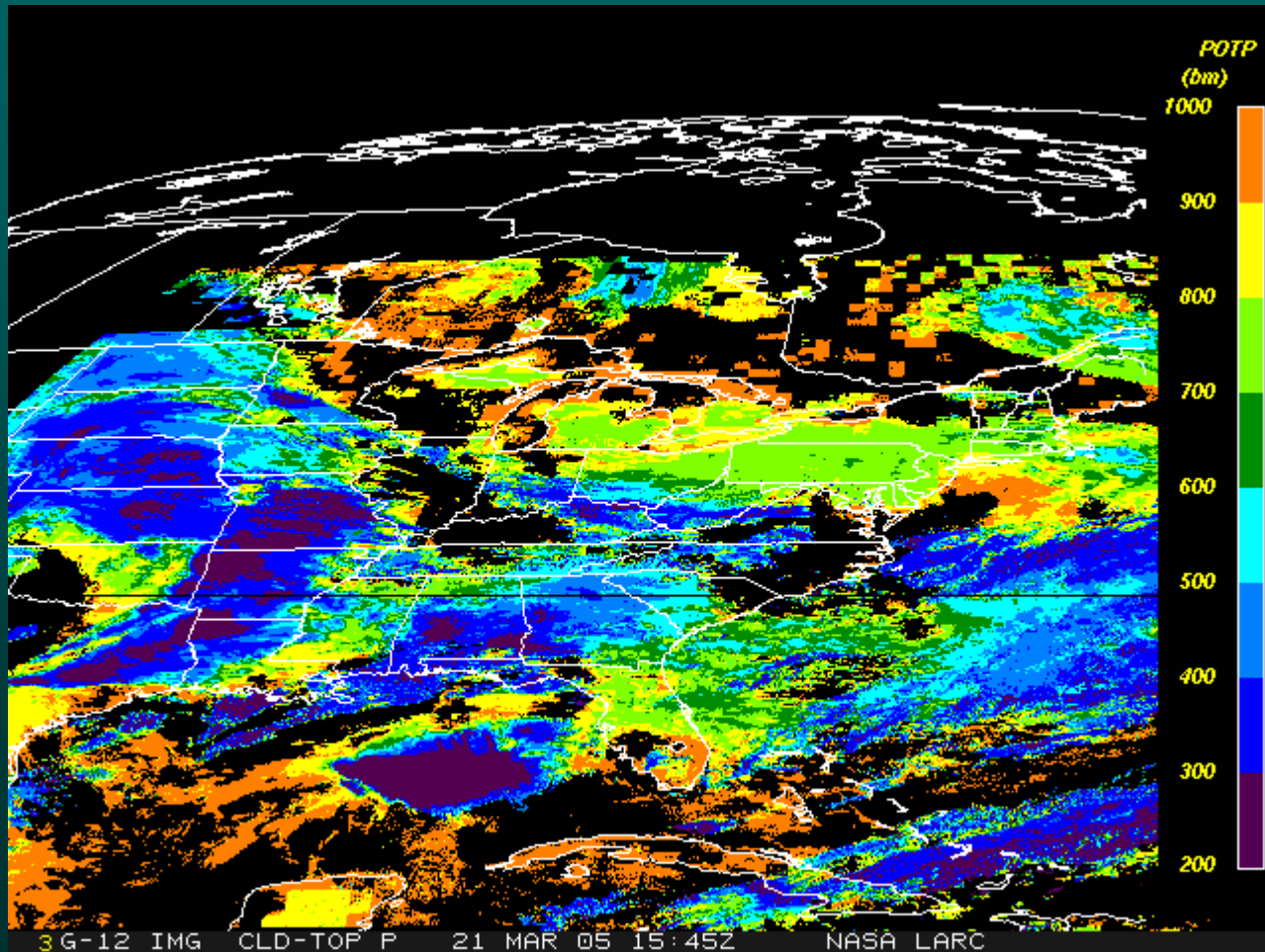
McIDAS-X 2005 GUI

- Enhancements to Scheduler, Image Display, and Weather Watch GUIs
- Shortcut Buttons
 - Display 1-10 buttons at a time
 - Added drop-down menu button option
 - Added ‘tool tips’ popup text

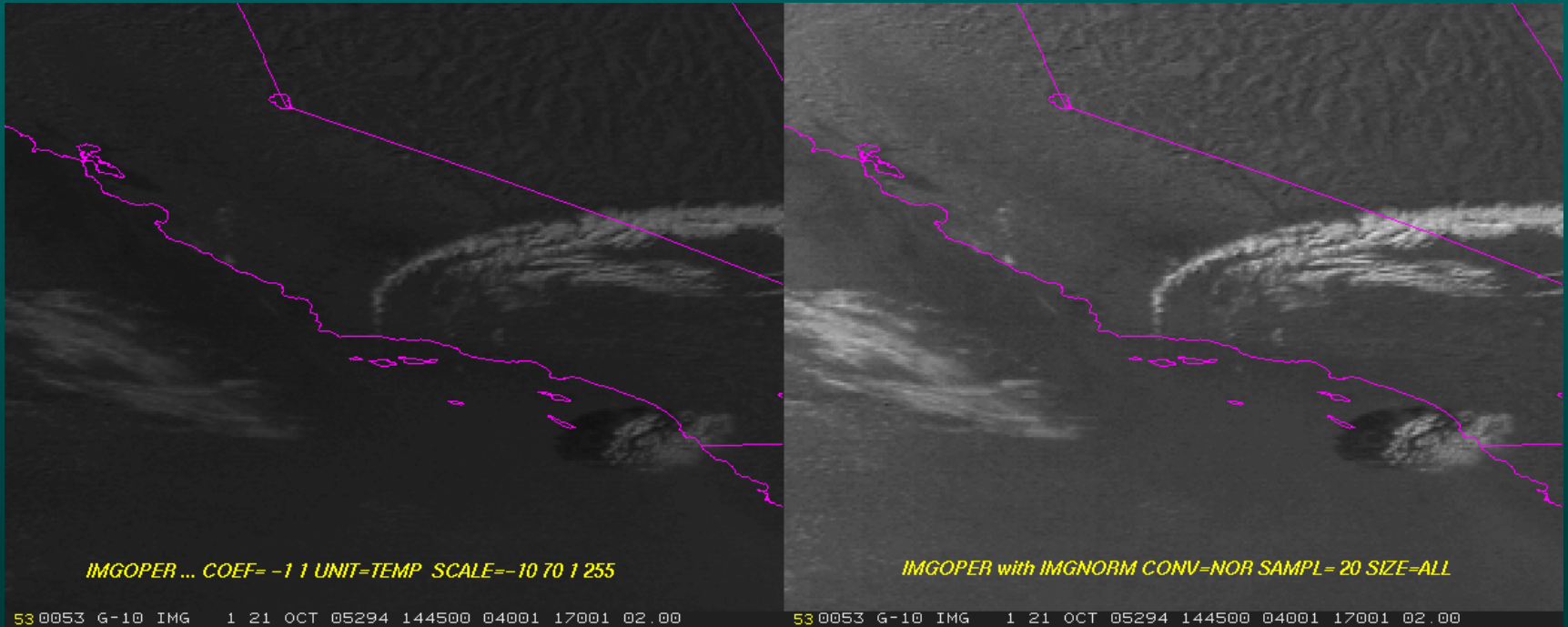
McIDAS-XRD 2005

- IMGDISPCP/BARCP (NASA Langley)
- IMGNORM (AWC)
- COLIMGPLOT (NSSL)
- GOES/POES Merge suite (NASA Langley)
- AMSR-E HDF image server
- SSM/I netCDF image server
- TRMM netCDF image server
- Tornado warning utilities

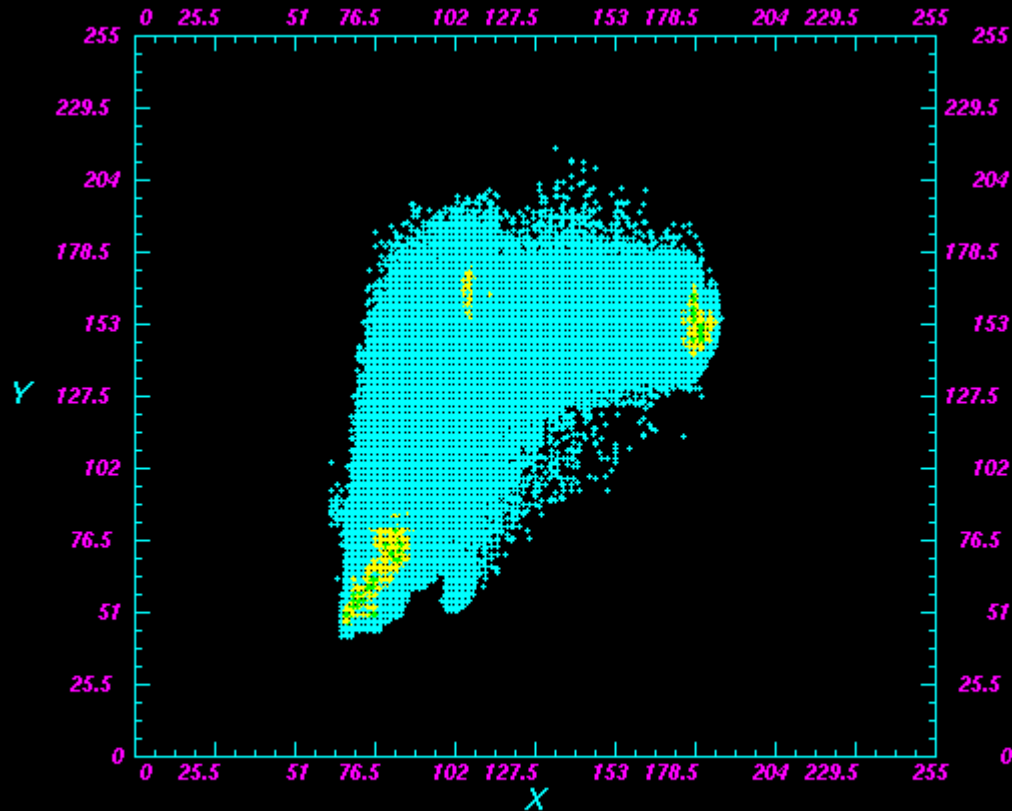
IMGDISPCP/BARCP



IMGNORM



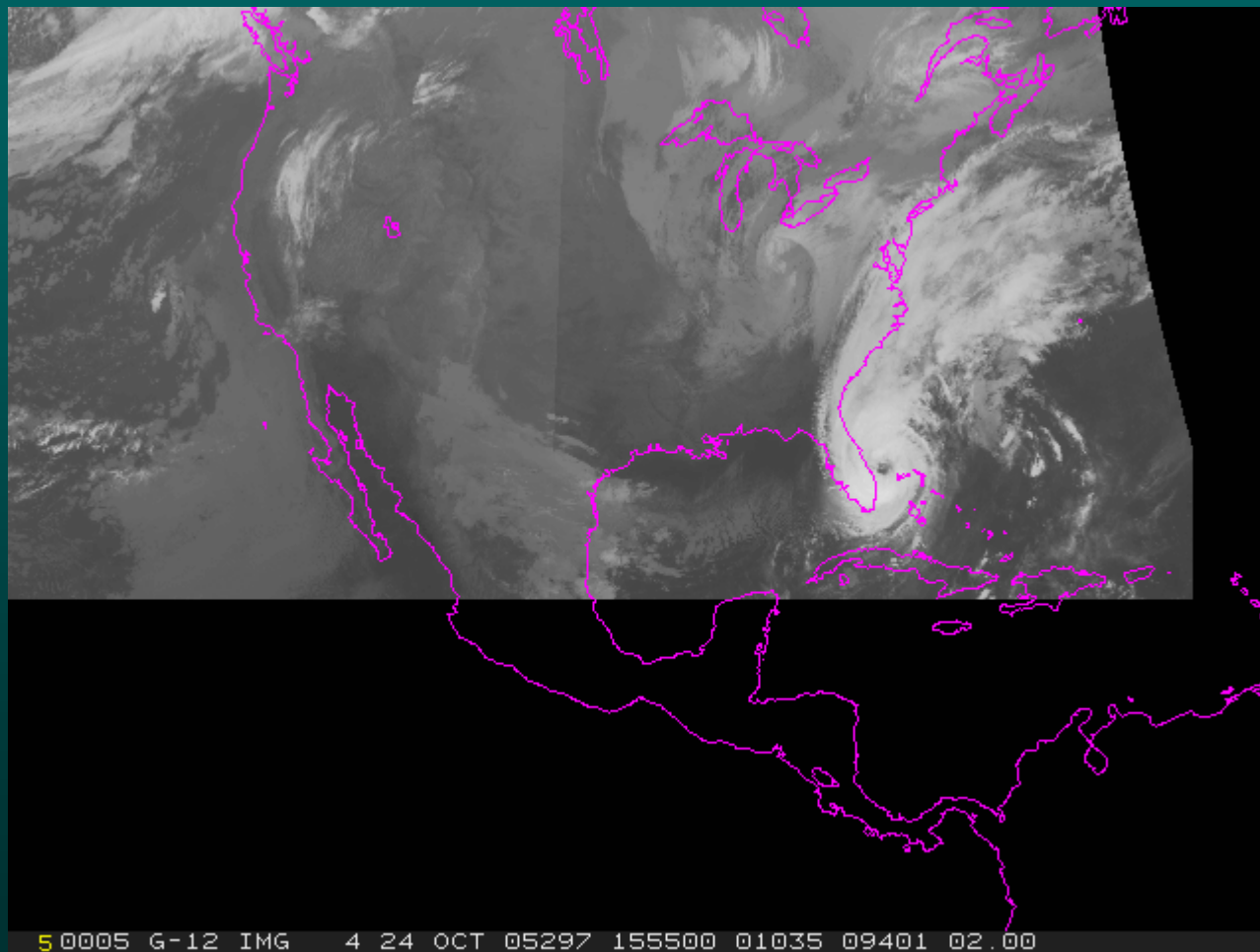
COLIMGLOT



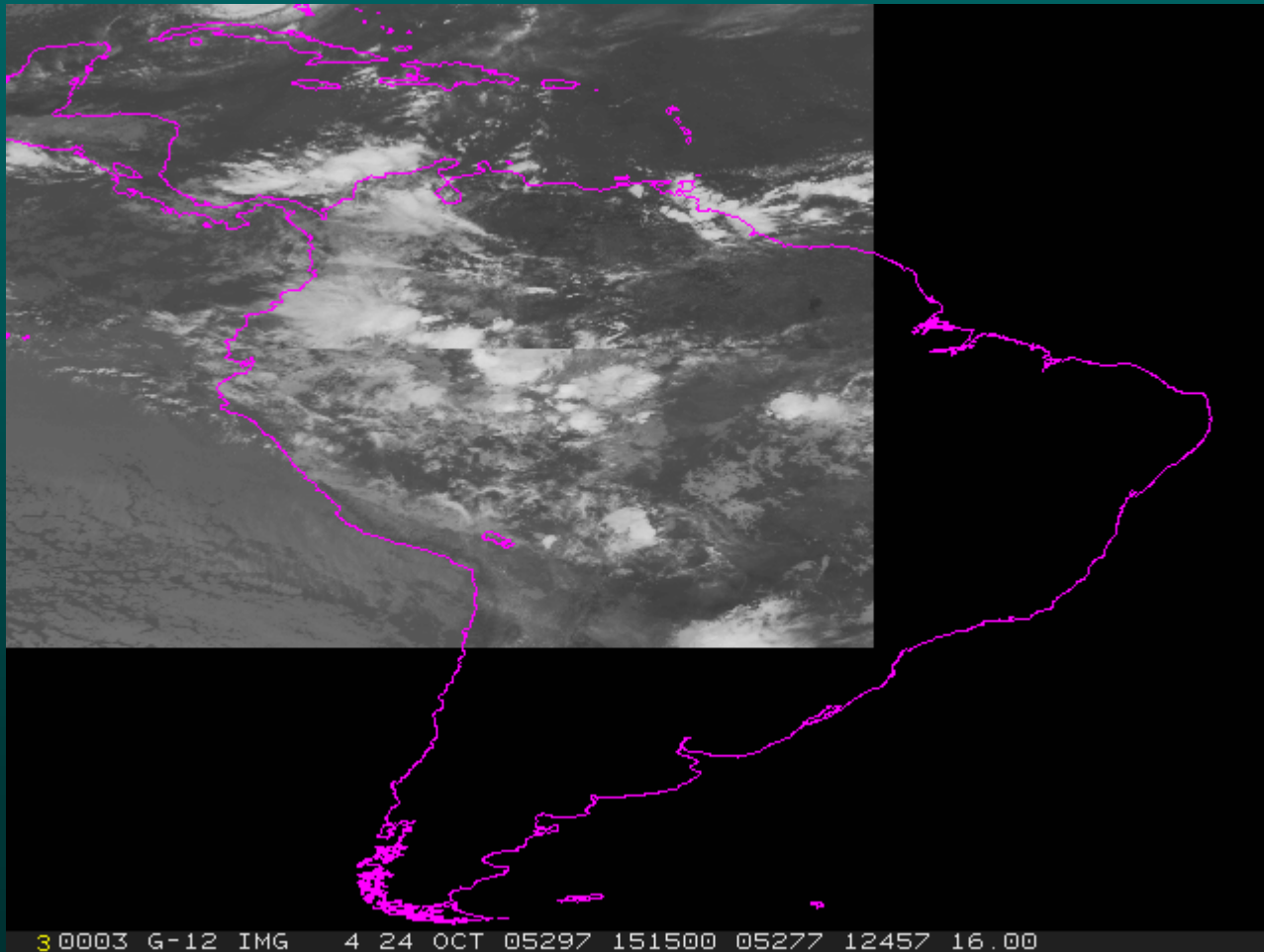
X: A/A.4001 BRIT BAND= 4

Y: A/A.4002 BRIT BAND= 1

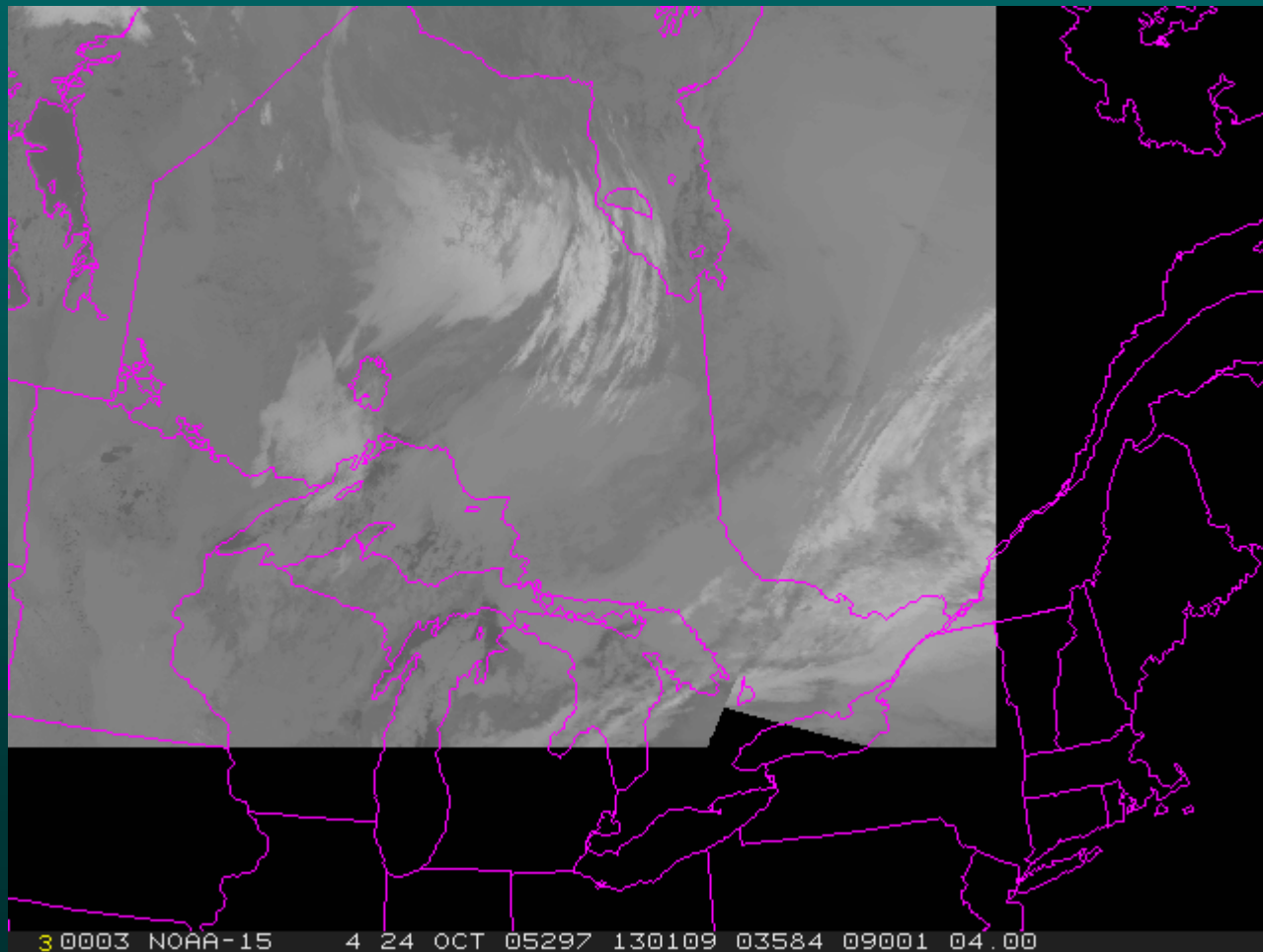
MERGE_GOES



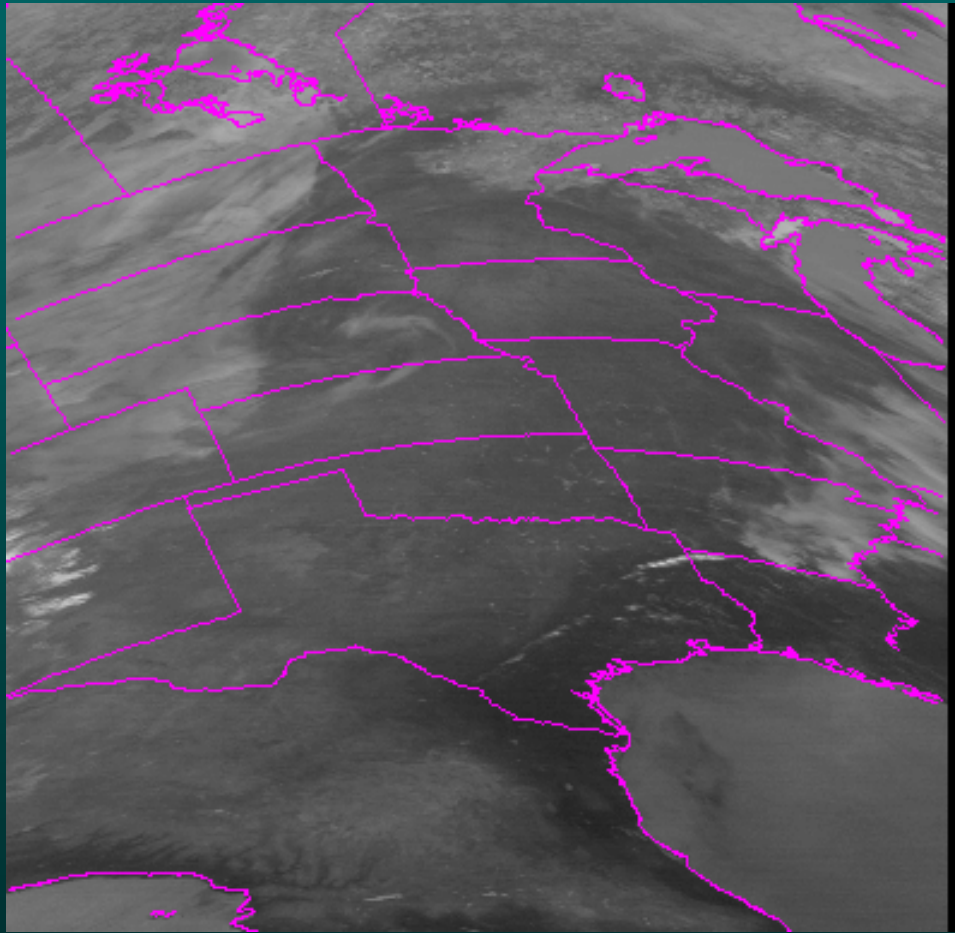
MERGE_GOESNS



MERGE_POLAR

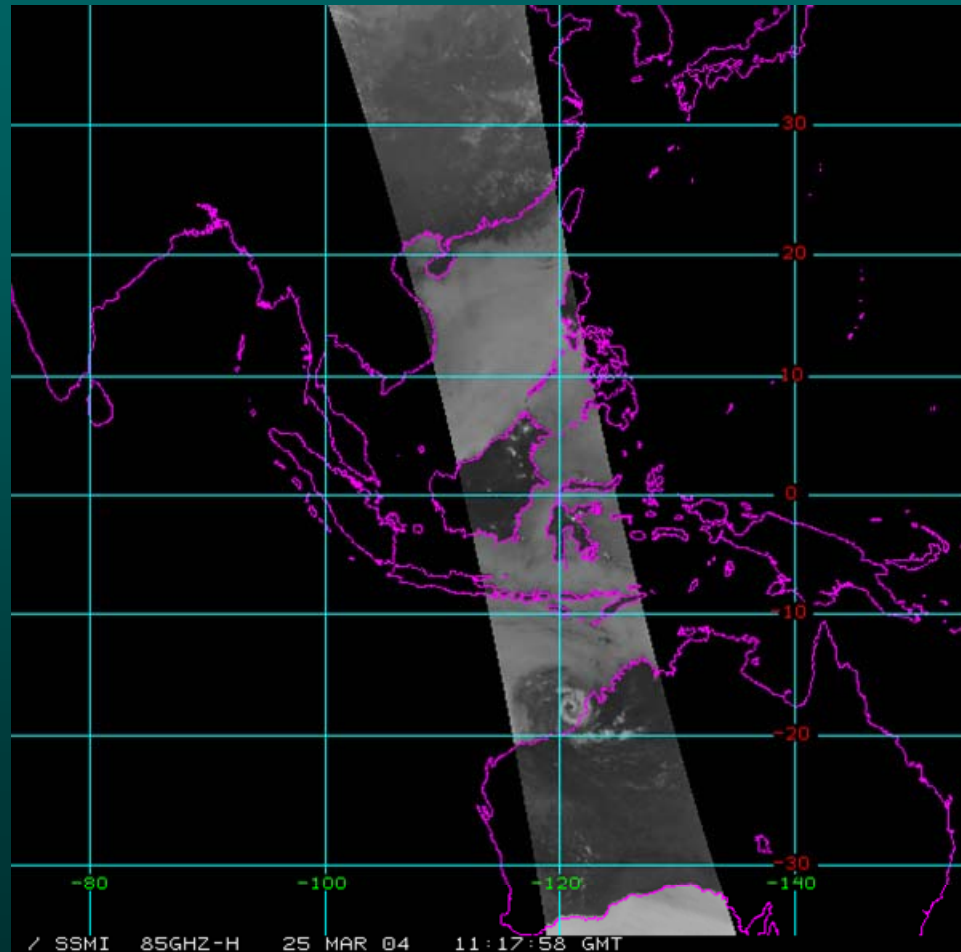


AMSR-E



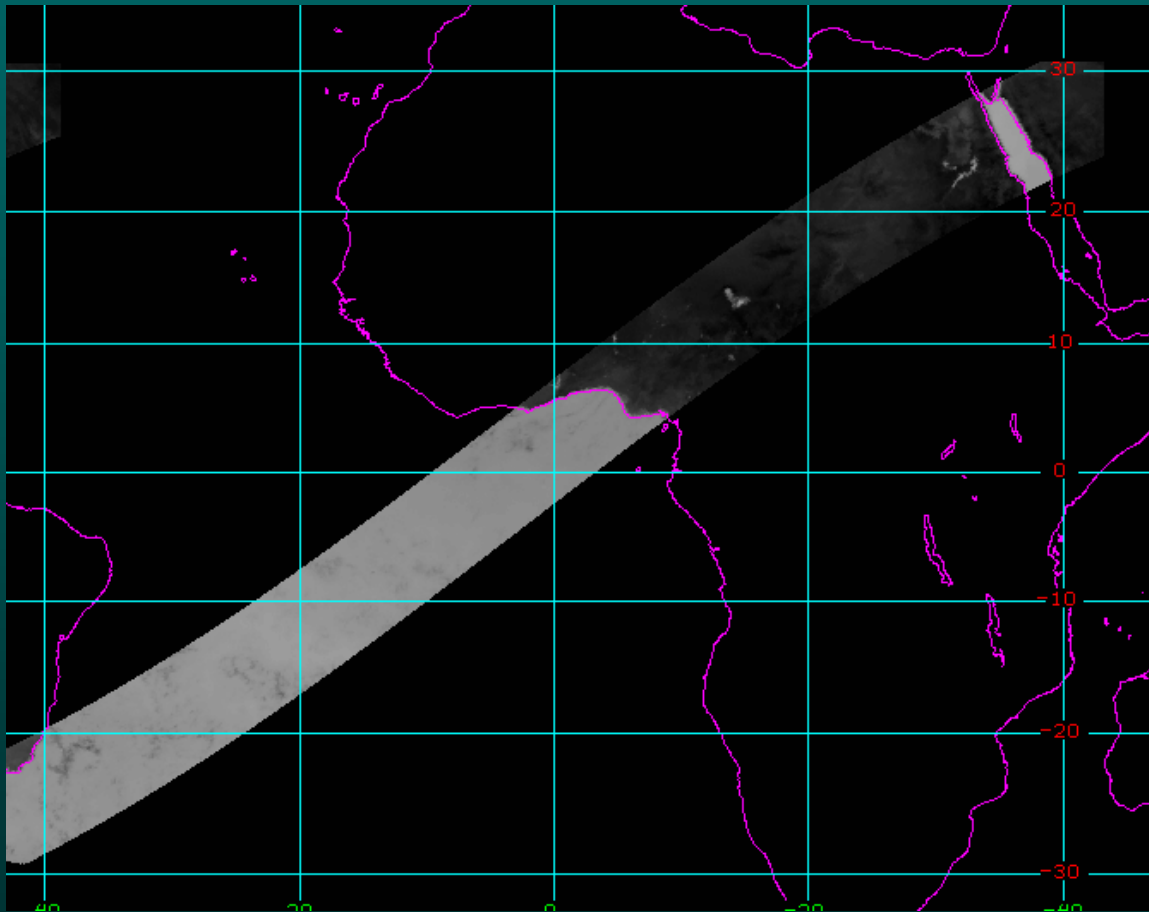
87 GHz Channel

SSM/I



85 GHz Channel

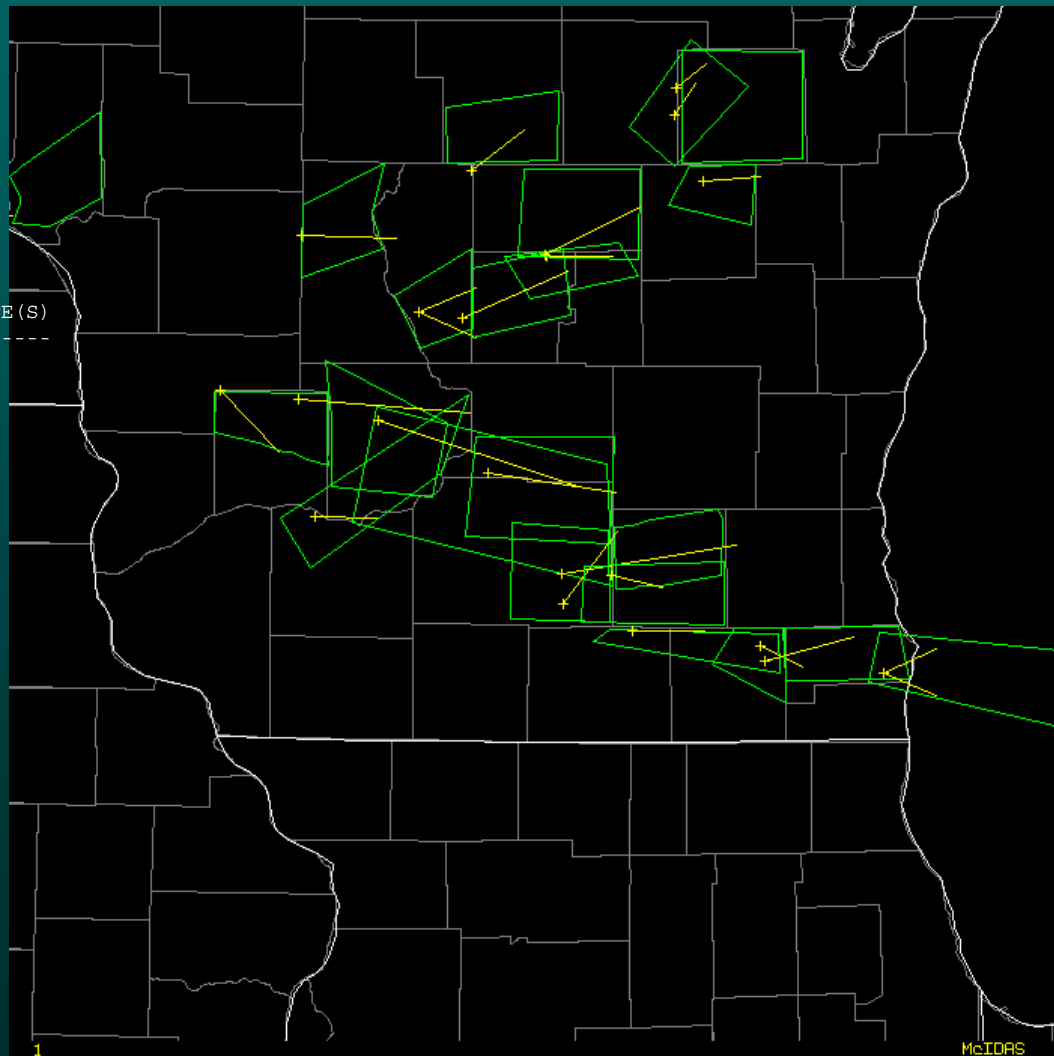
TRMM



TMI 85 GHz Channel

Tornado Warnings

NUM	From YYDDD HMMSS	To YYDDD HMMSS	Initial Position DD:MM:SS DDD:MM:SS		Moving DIR	SPEED	STATE (S)
1	05230 015900	05230 024500	40:42:31	099:44:28	E	40 MPH	NE
2	05230 172900	05230 181500	33:27:04	079:33:40	SE	15 MPH	SC
3	05230 182900	05230 190000	43:49:37	092:24:34	E	20 MPH	MN
4	05230 191800	05230 201500	44:04:12	091:33:06	E	25 MPH	WI
5	05230 204700	05230 211500	29:56:34	090:21:06	E	5 MPH	LA
6	05230 211800	05230 223000	43:33:24	090:38:57	E	15 MPH	WI
7	05230 213600	05230 223000	43:31:55	090:19:17	E	40 MPH	WI
8	05230 215600	05230 224500	44:01:33	090:19:01	NE	25 MPH	WI
9	05230 220500	05230 223000	43:10:30	090:14:46	NE	30 MPH	WI
10	05230 221600	05230 231500	43:28:15	089:59:00	E	45 MPH	WI
11	05230 224300	05230 231500	43:47:49	089:49:00	E	25 MPH	WI
12	05230 224300	05230 233000	43:46:52	089:38:06	E	30 MPH	WI
13	05230 224900	05230 234500	44:13:32	089:35:55	E	15 MPH	WI
14	05230 230500	05230 234500	43:18:50	089:31:35	E	40 MPH	WI
15	05230 232600	05231 003000	43:00:20	089:13:24	E	35 MPH	WI
16	05230 233200	05231 001500	43:58:03	089:17:05	NE	20 MPH	WI
17	05230 233200	05231 001500	43:58:25	089:17:16	NE	30 MPH	WI



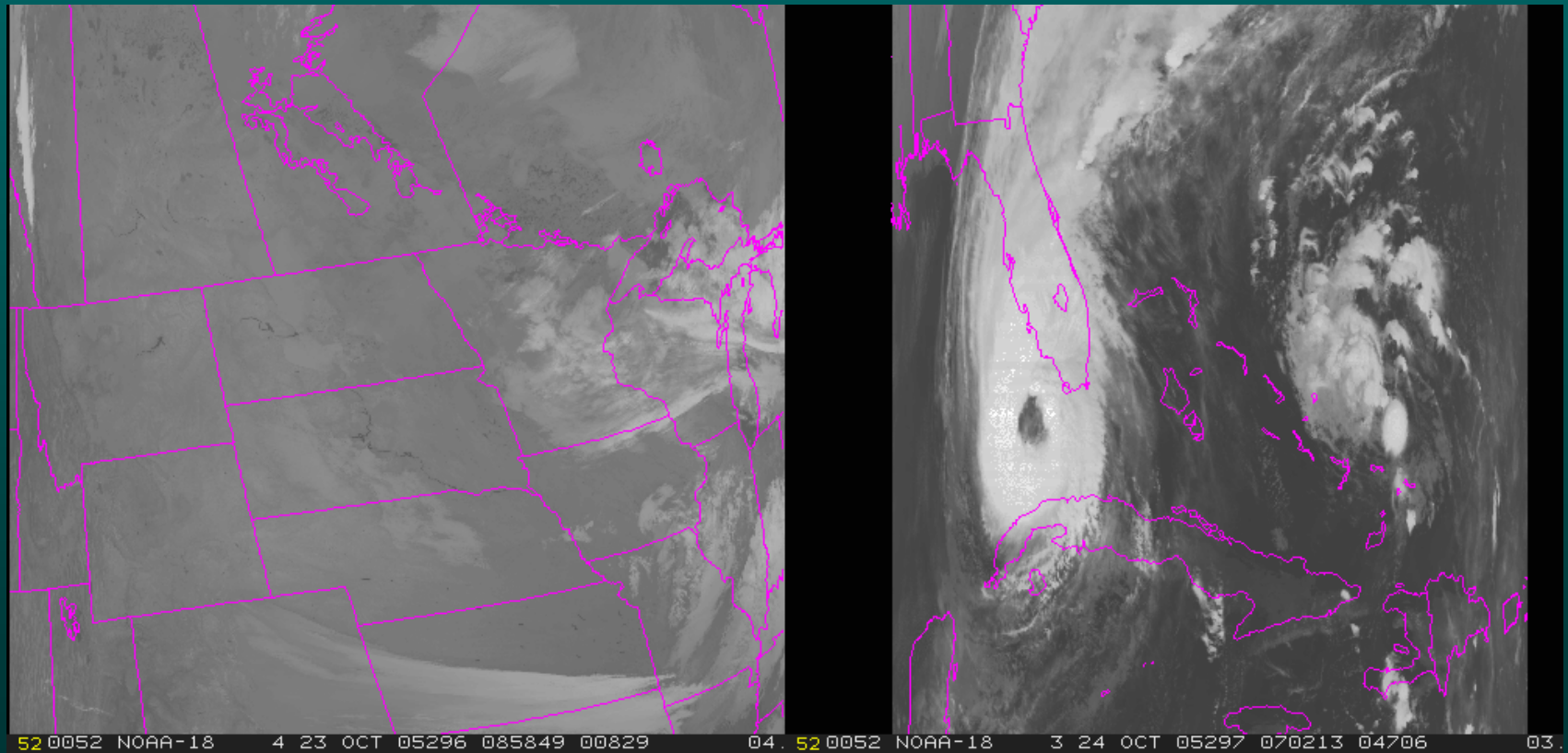
McIDAS-XRD 2005

- GET_POINT_SFC (NASA Langley)
- IMGMAKE (Weathernews)

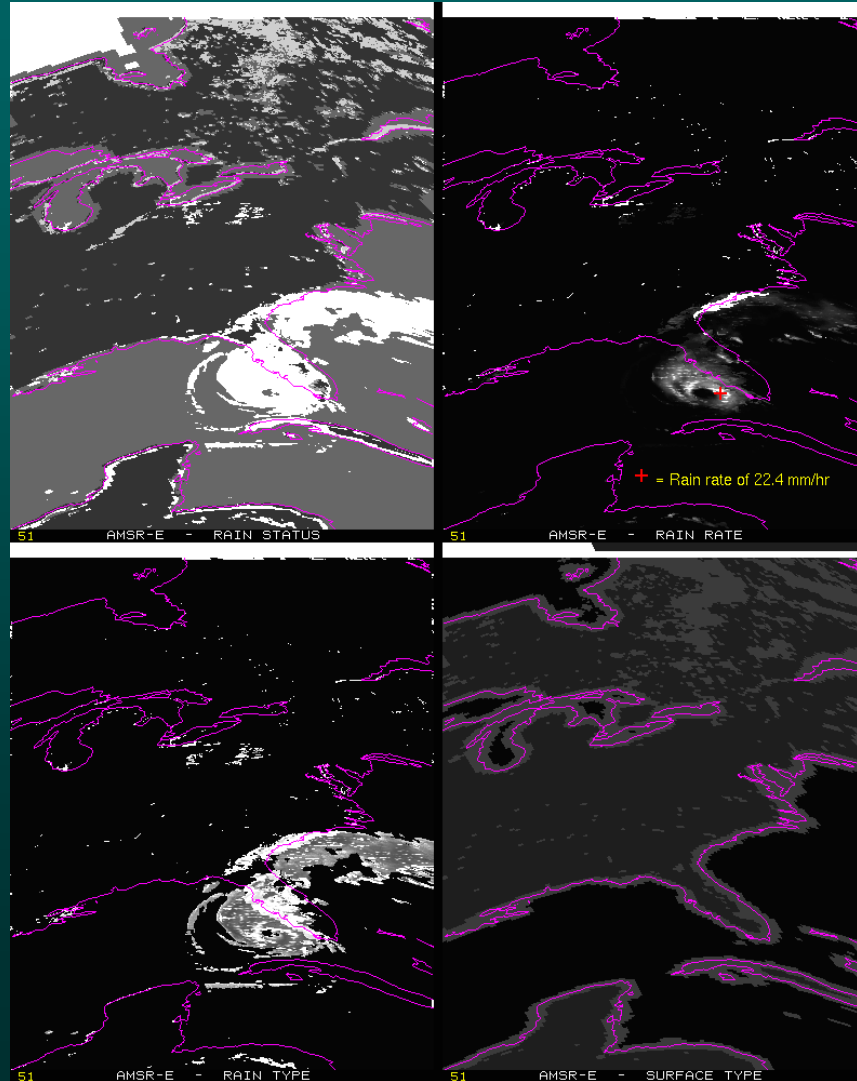
Software Development Since the 2005 Upgrade

- NOAA-18 added to AVHRR Level 1B server
- IMGDISP REPEAT=
- AMSR-E rain rate product
- Kalpana navigation and calibration
- Meteosat-8 HRV moving sector

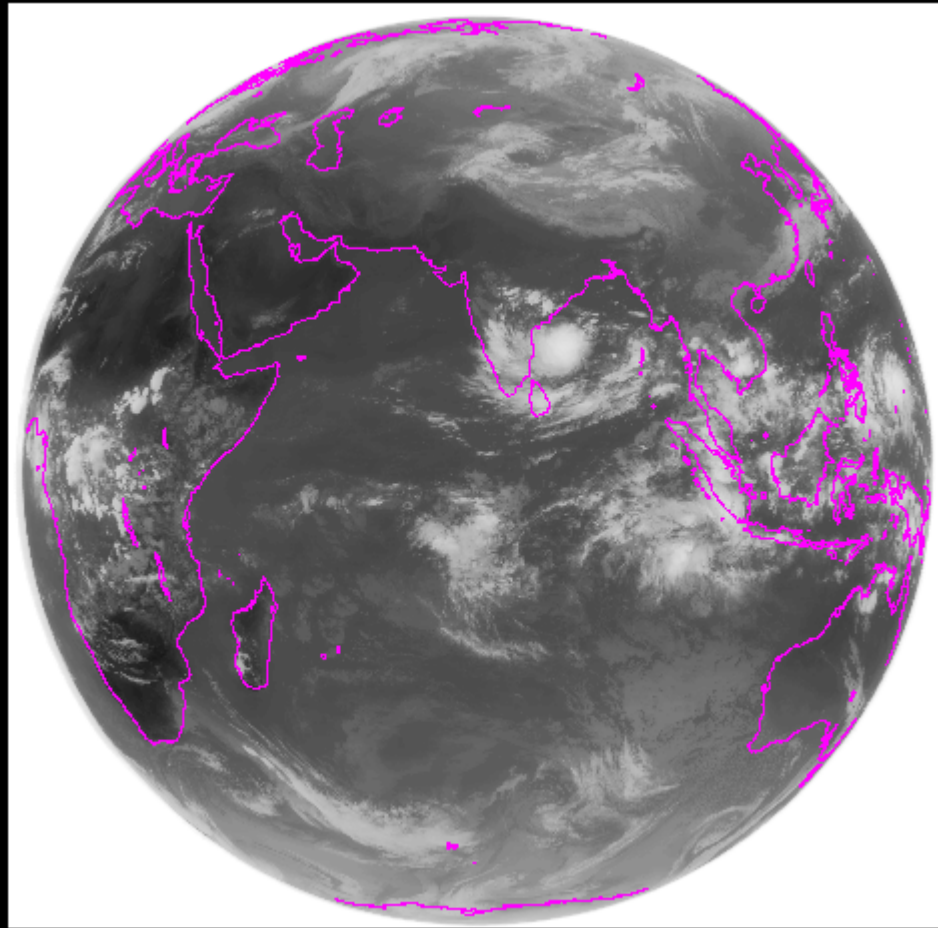
NOAA-18 Level 1B



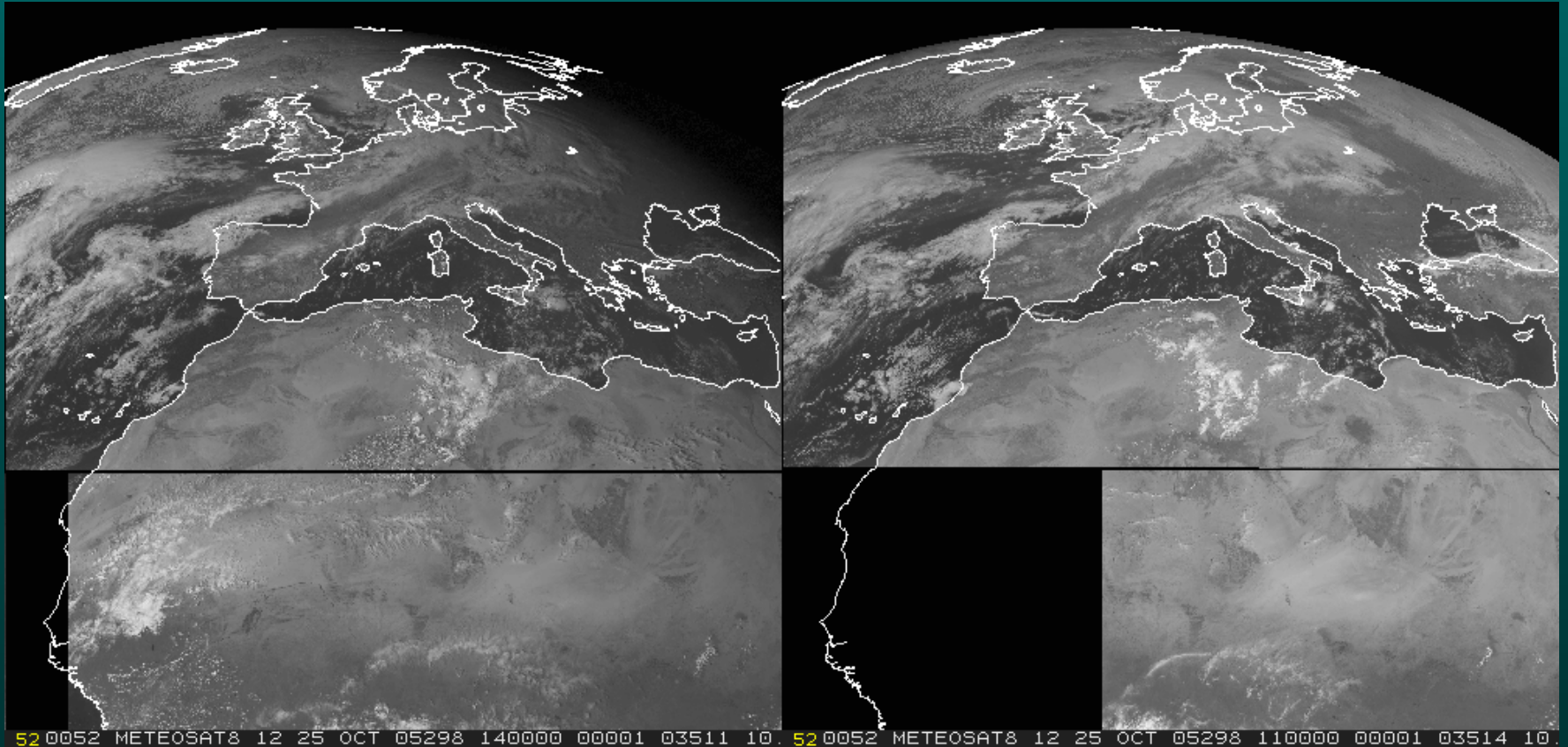
AMSR-E Rain Rate Product



Kalpana



Meteosat-8 Moving Sector



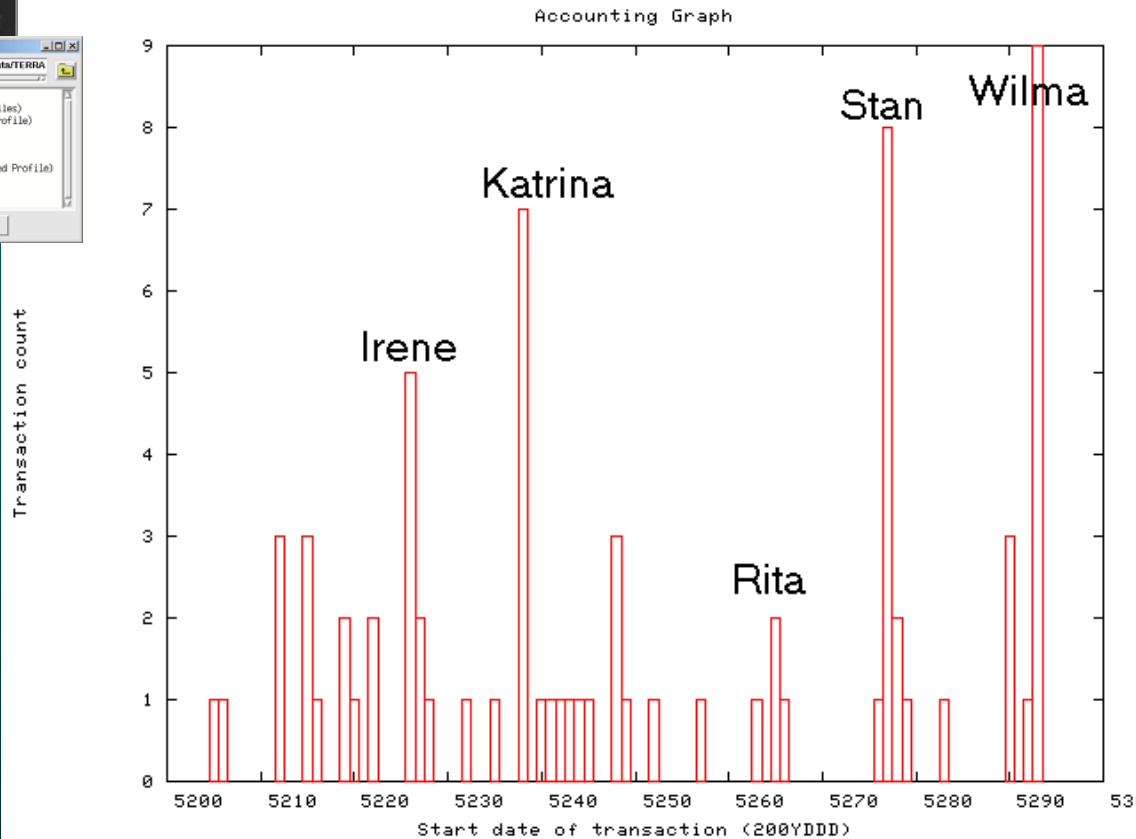
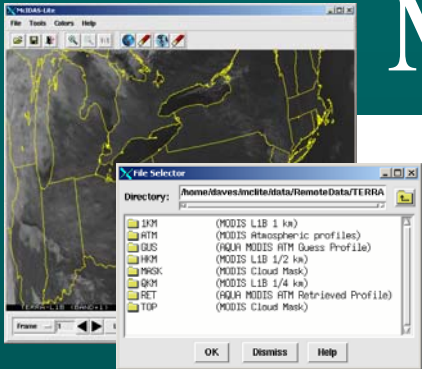
Software Development Since the 2005 Upgrade

- AVHRR Level 1B bug fixes
- IMGCOPY to netCDF bug fixes
- Fix problem with GMS navigation at subpoint
- Maximum number of grid points increased
- WWDISP/WWLIST WCN header info capability added
- Enable UPPR schema for UA* commands
- GRIB read server with -XCD database

Software Plans for 2006

- AWIPS read and write netCDF image server
- GRIB read server with –XCD database
- McIDAS-XRD
 - Kalpana servers

McIDAS-Lite Update



Number of McLite startups

OpenADDE Update

- Open source release of ADDE image servers
- First release in early 2005
- Over 25 downloads

McIDAS-V Update

- Lat/lon nav grid for area server
- Change to mcimage to interface to the IDV