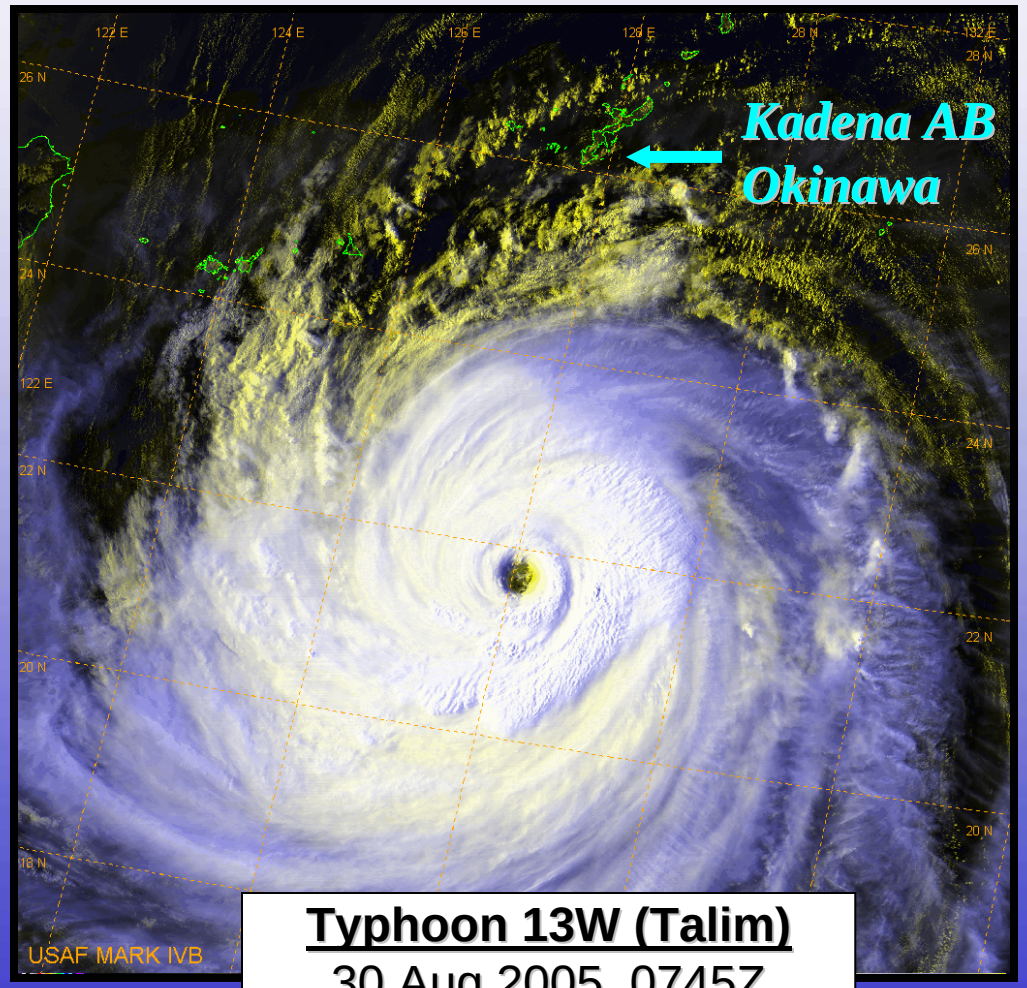
Air Force Weather Agency



Typhoon 13W (Talim)
30 Aug 2005, 0745Z
DMSP F12 Multispectral

2005
Tropical Cyclone Season
Support Review

- Surveillance Support
- DMSP System
- Spacecraft Status

AFWA Support

METSAT Applications Branch

Analysis Bulletin Product Support to…..

AFWA
Offutt AFB NE

JOINT TYPHOON WARNING CENTER

NATIONAL HURRICANE CENTER

- **Alternate JTWC Satellite Operations**

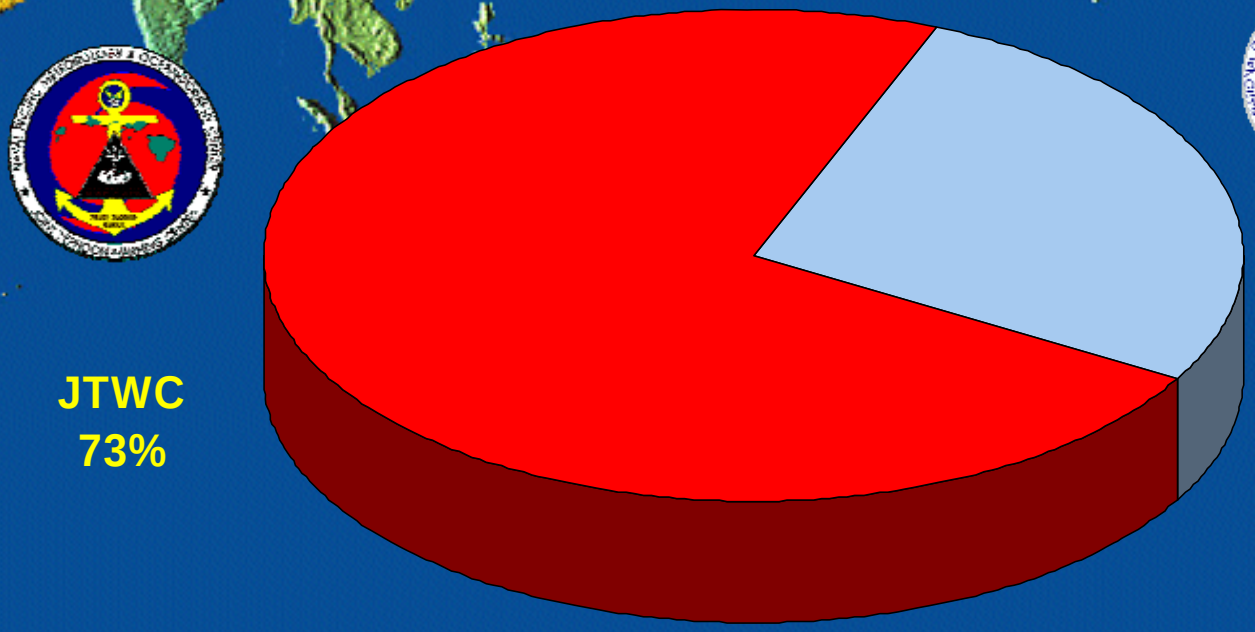
AFWA Support

METSAT Analysis Bulletins - 2005

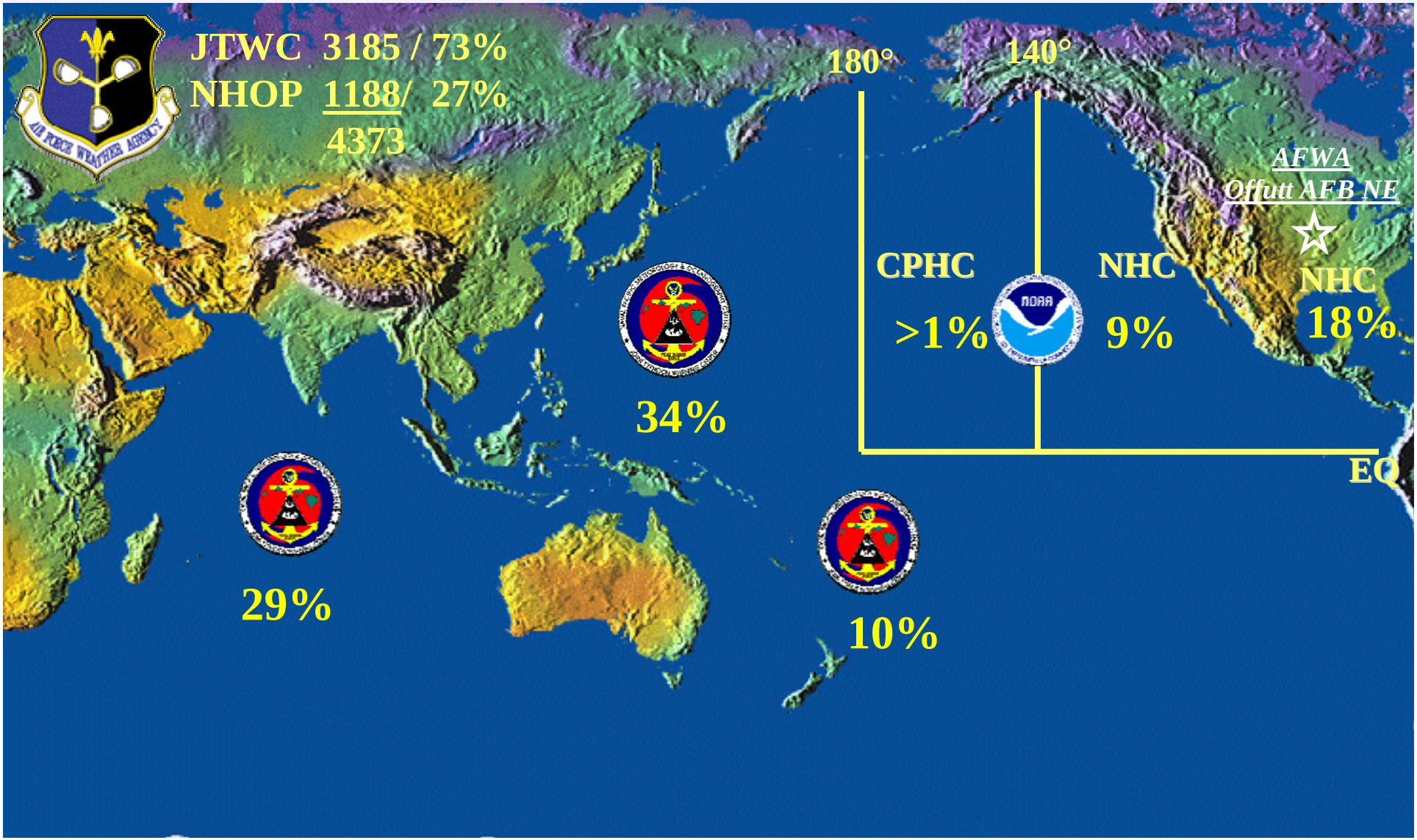
Analysis Bltns: 4373

Systems Tracked: 139

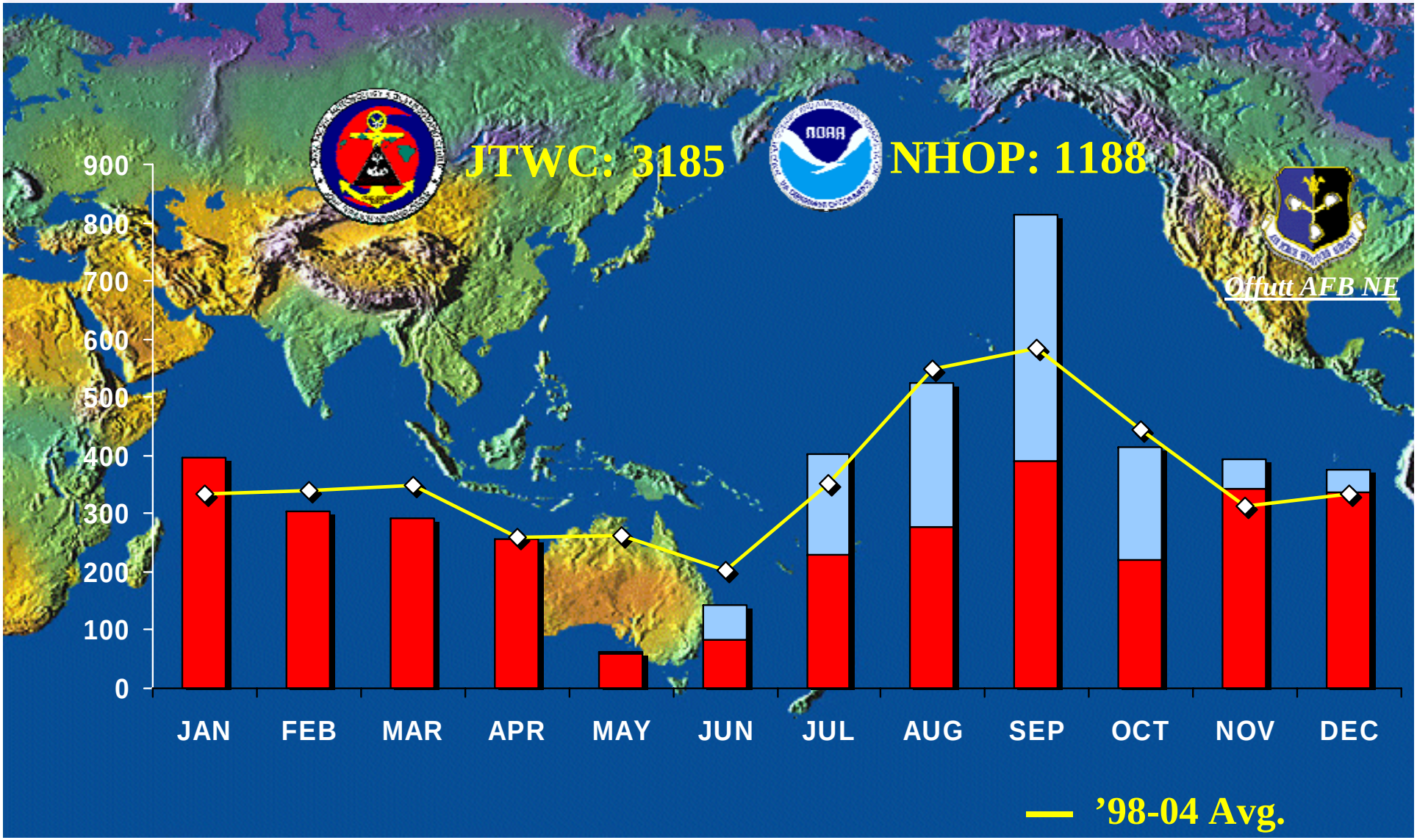
AFWA
Offutt AFB NE



METSAT Analysis Bulletins
(Basin Distribution - 2005)

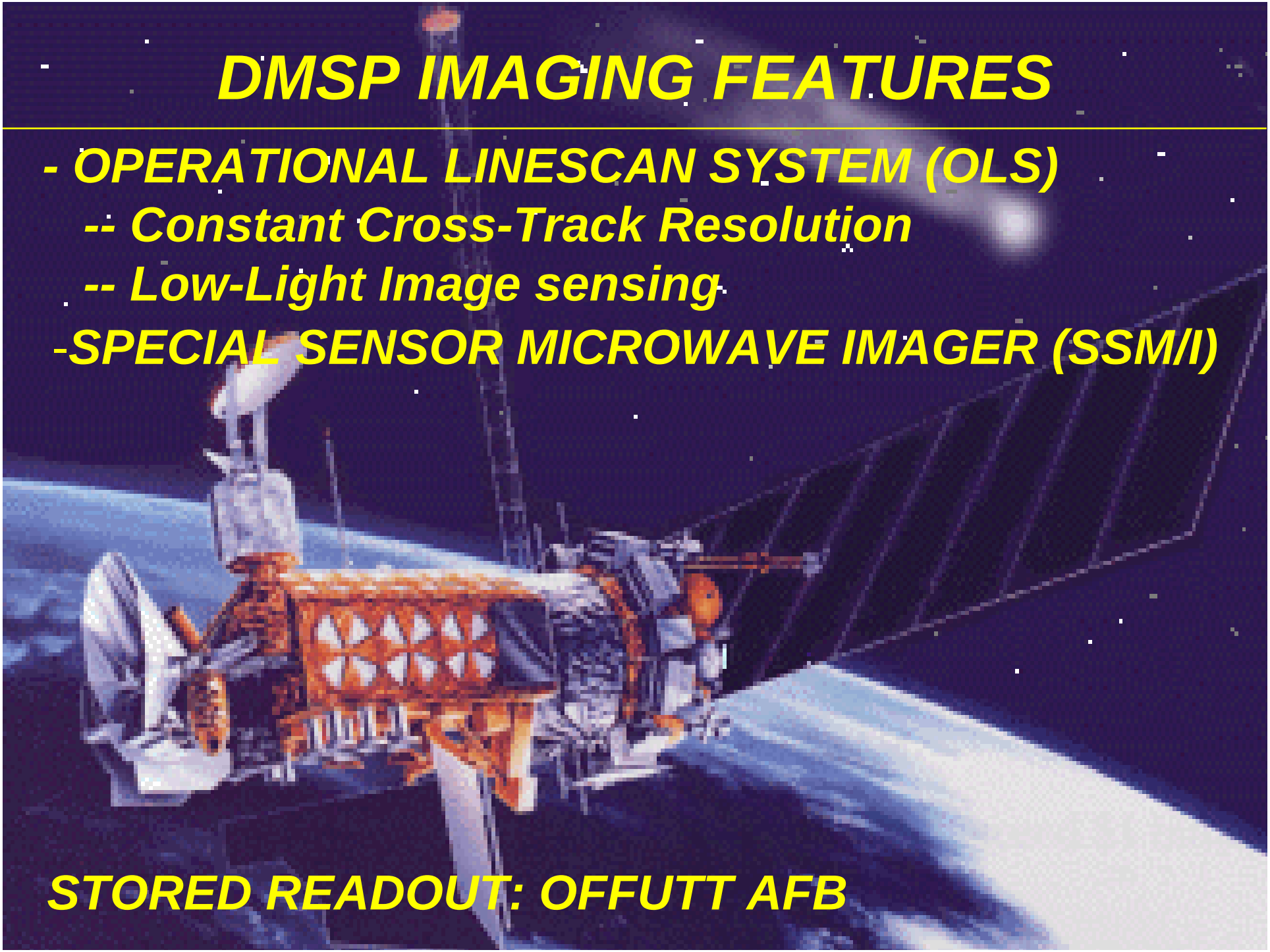


METSAT Analysis Bulletins
(All Basins - Monthly 2005)



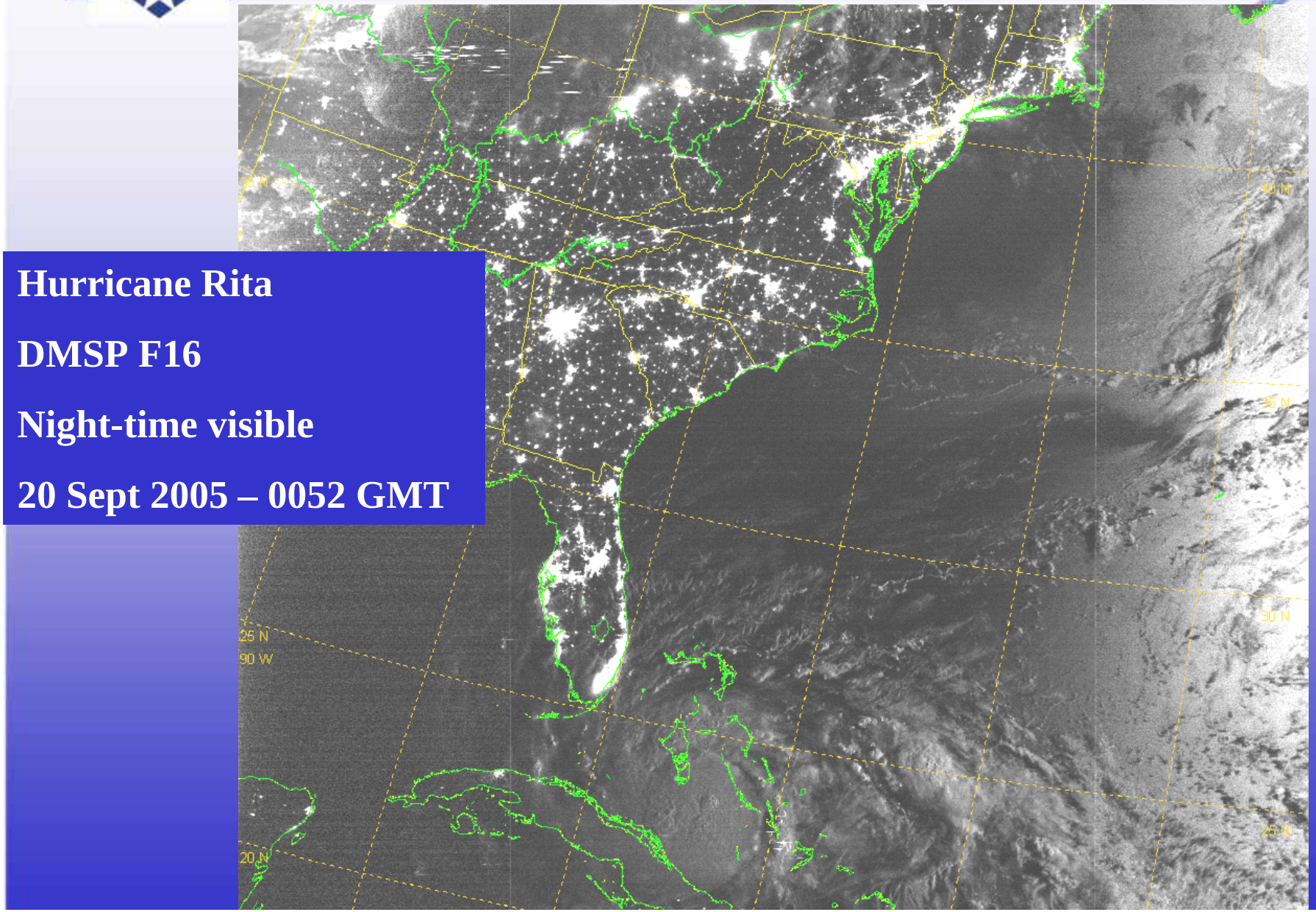
DMSP IMAGING FEATURES

- OPERATIONAL LINESCAN SYSTEM (OLS)
  - -- Constant Cross-Track Resolution
  - -- Low-Light Image sensing
- SPECIAL SENSOR MICROWAVE IMAGER (SSM/I)



STORED READOUT: OFFUTT AFB

DMSP Low-Light Imagery



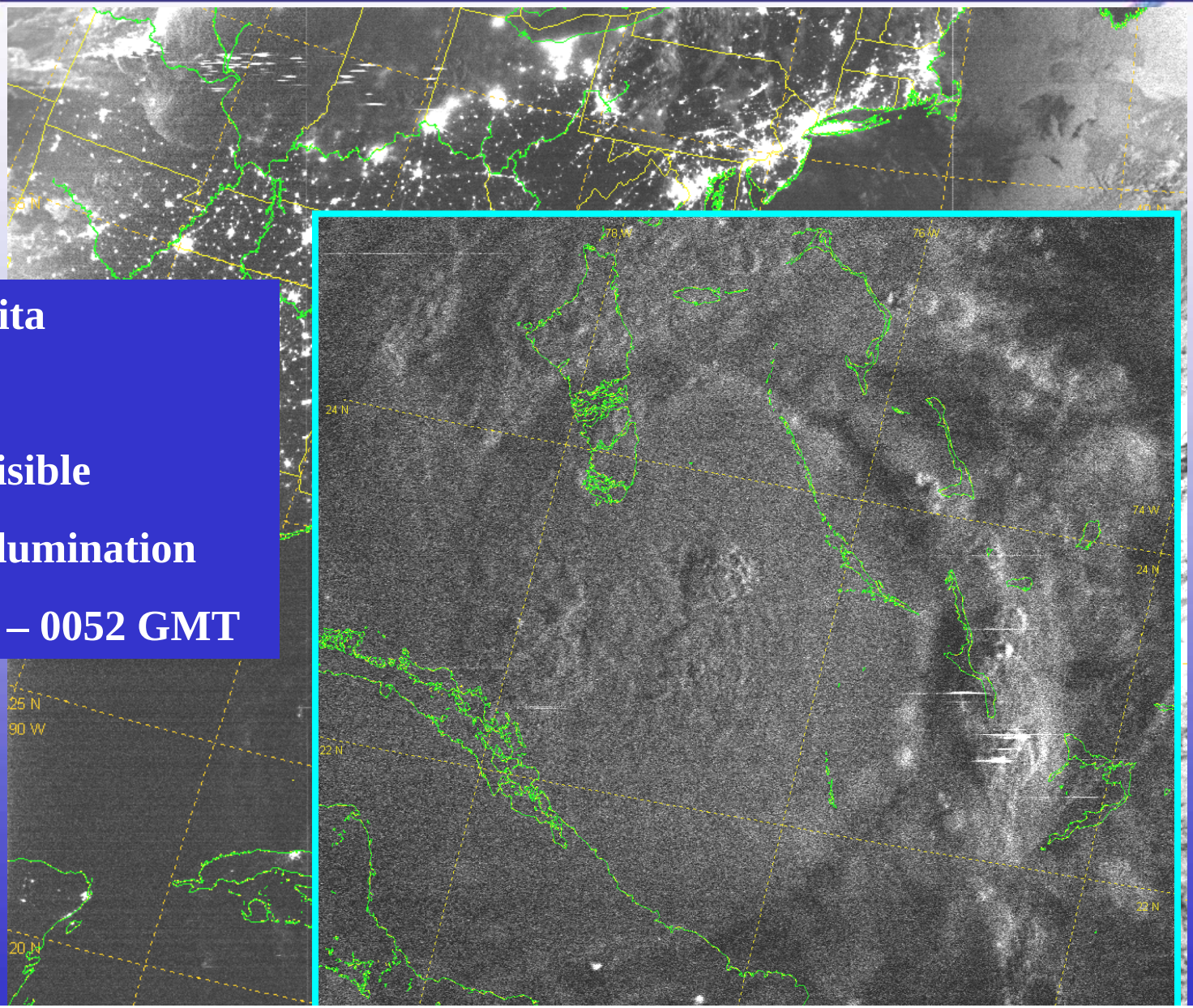
Hurricane Rita

DMSP F16

Night-time visible

20 Sept 2005 – 0052 GMT

DMSP Low-Light Imagery



Hurricane Rita

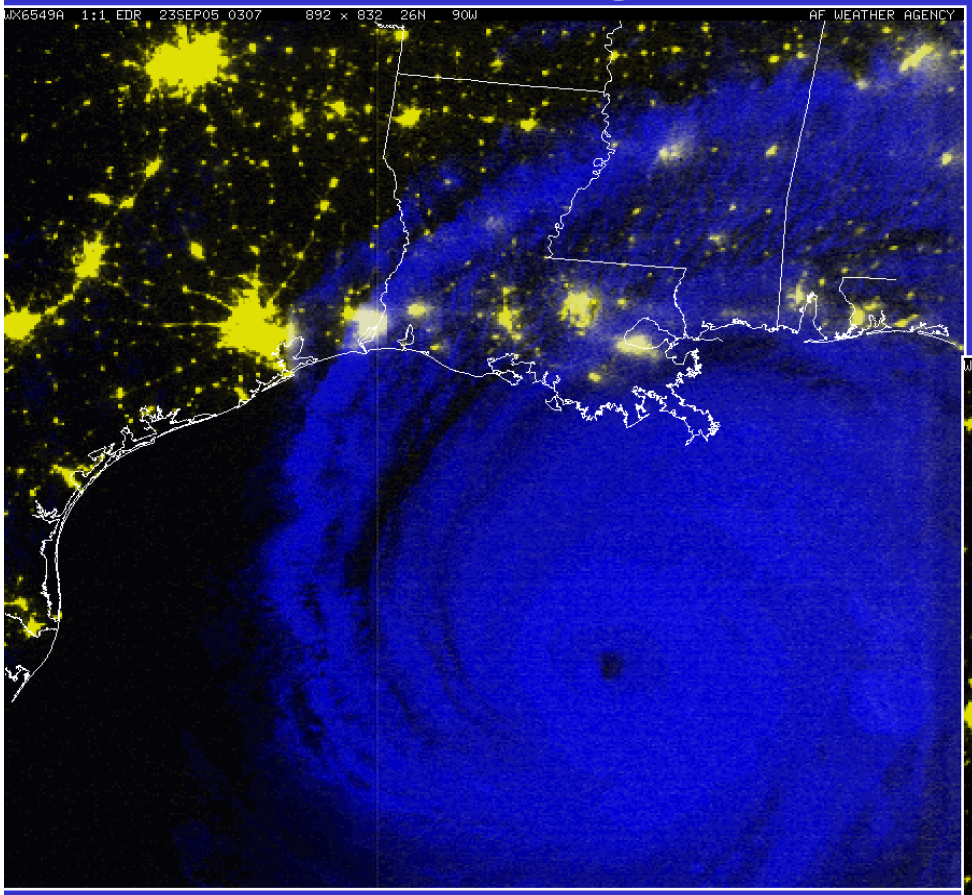
DMSP F16

Night-time visible

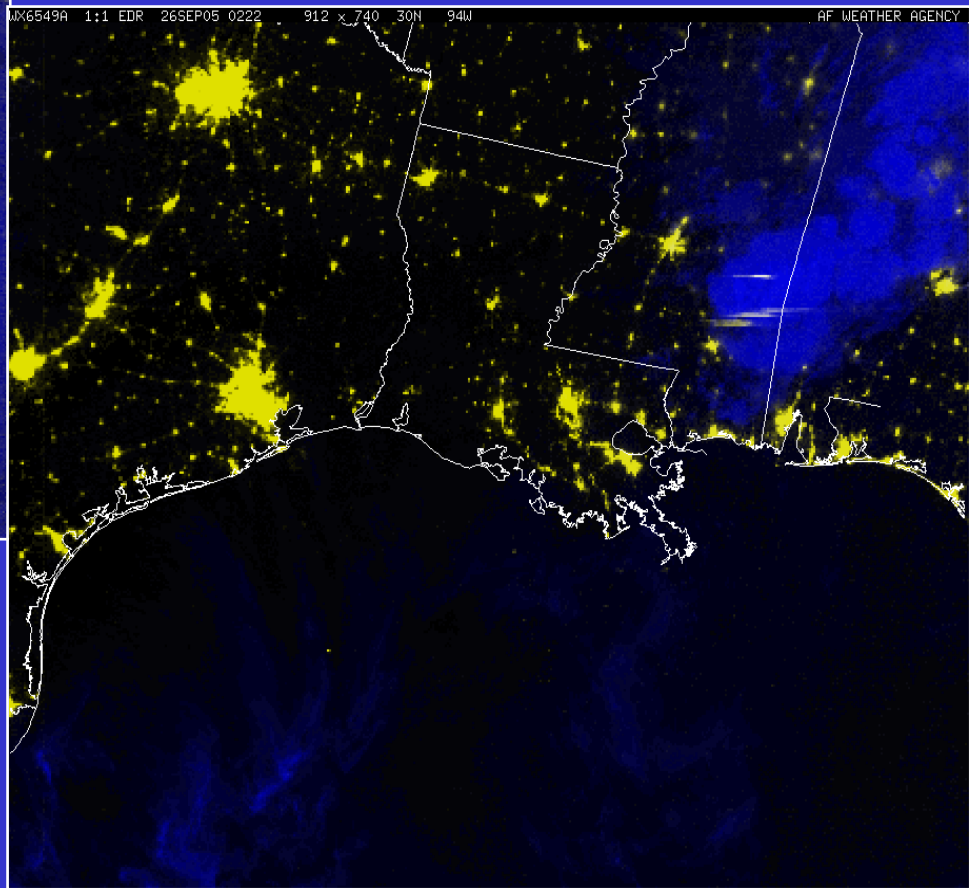
Moonlight Illumination

20 Sept 2005 – 0052 GMT

Hurricane Rita Power Blackout
DMSP Nighttime Imagery Comparison



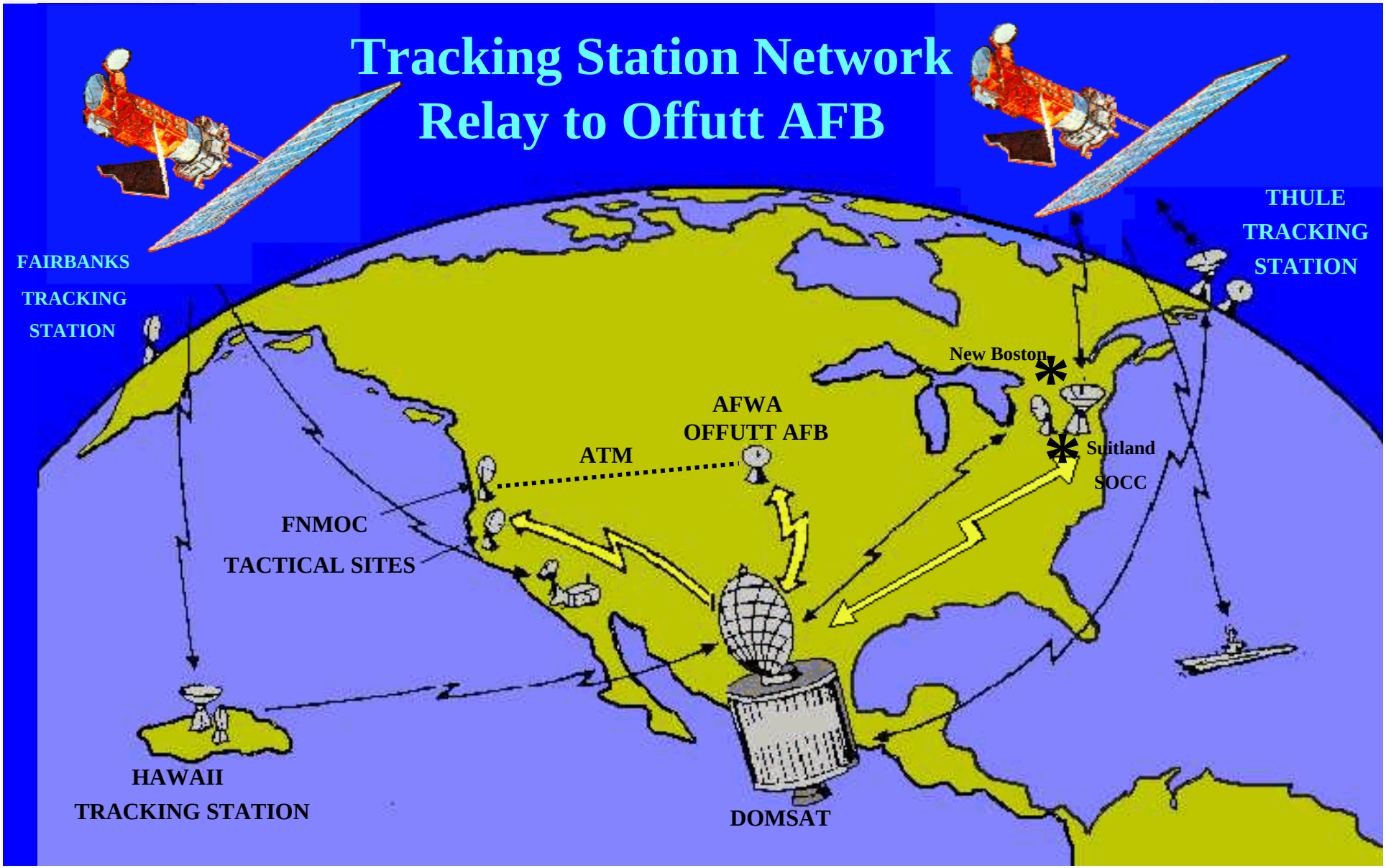
26 Sep 05 vs Baseline Image
DMSP F15
Nighttime – 1.5nm Resolution
Visible/Infrared Composite
IR - Blue – Cloud
Vis – Yellow – City Lights



Baseline Image
23 Sep 05 0307Z (22 Sep 05 2207 CDT)

26 Sep 05
0222Z (25 Sep 05 2122 CDT) →

DMSP: STORED READOUT



DMSP SPACECRAFT STATUS

Stored Readout

SPACECRAFT	LOCAL TIME	SENSORS
F13	0633/1833	OLS-SSM/I
F14	0619/1819	OLS-SSM/I
F16	0813/2013	OLS-SSM/IS
F15	0828/2028	OLS- SSM/I

Primary
Secondary
Secondary (1 of 4 Recorders Remaining)

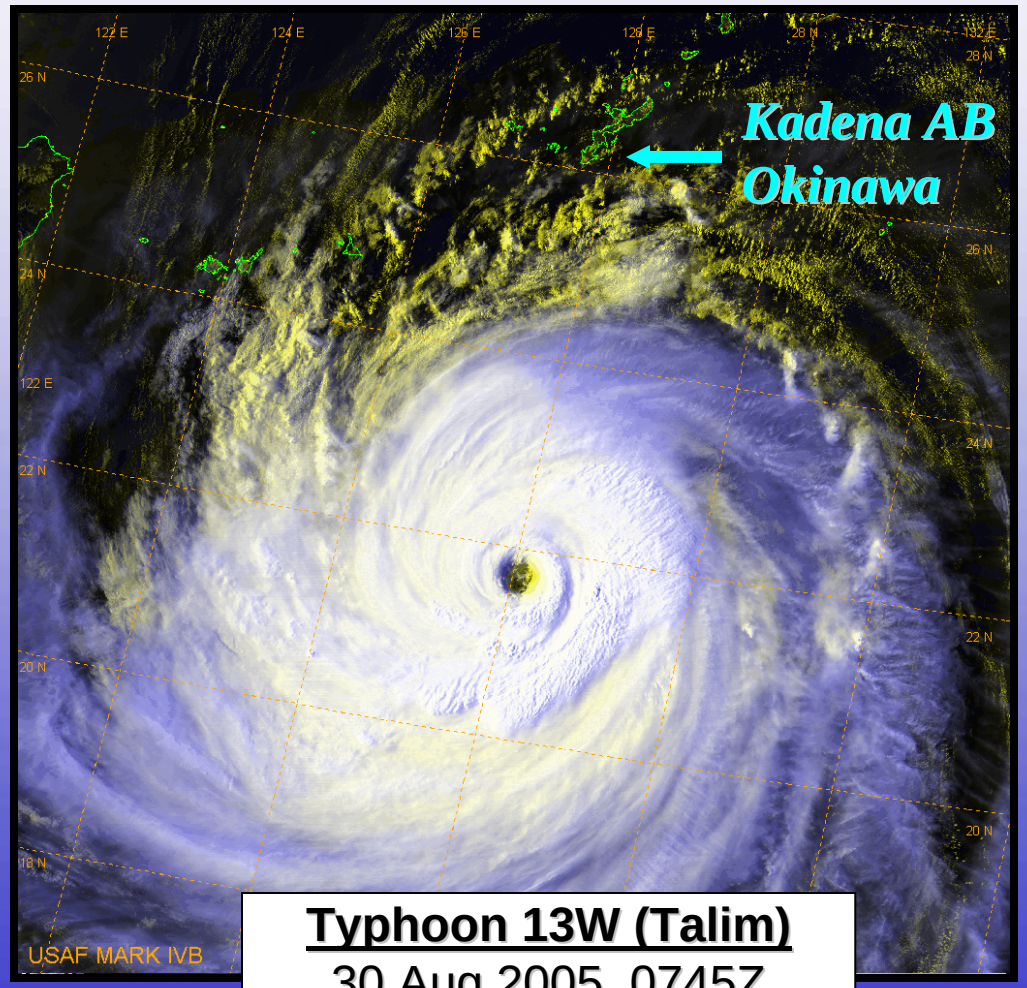
DMSP SPACECRAFT

F-17

- Scheduled to Launch ~Sept 2006

- FEATURES:
  - -- Spl Sensor Microwave Imager/Sounder
  - -- Solid State Recorders
  - -- Planned LTAN 0630/1830 (Replace F13)

Air Force Weather Agency



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