



***53rd Weather Reconnaissance Squadron
2015 Hurricane Season – Ops Review***



Lt Col Jon Talbot

Maj Ryan Rickert

Interdepartmental Hurricane Conference

Tropical Cyclone Research Forum

15-17 March 2016

Miami, FL



Integrity - Service - Excellence



Season Comparison For Tasking

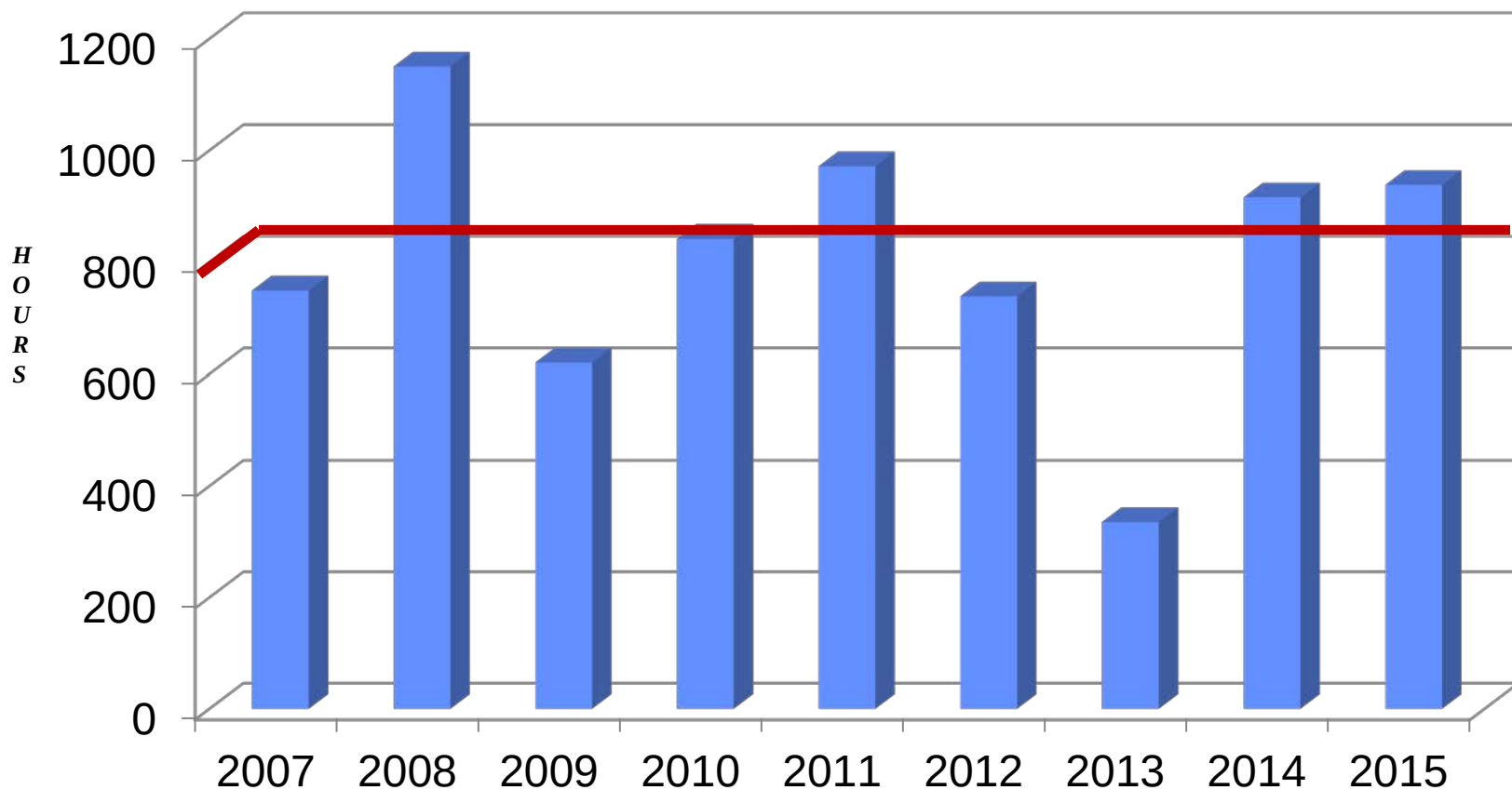


	'11	'12	'13	'14	'15
TASKED	191	162	103	141	155
CANCELLED	59	36	61	28	58
REQUIRED	132	126	42	113	97
ACCOMP	130	125	42	111	96
RELIABILITY	97%	99%	99%	99%	99%

Integrity - Service - Excellence

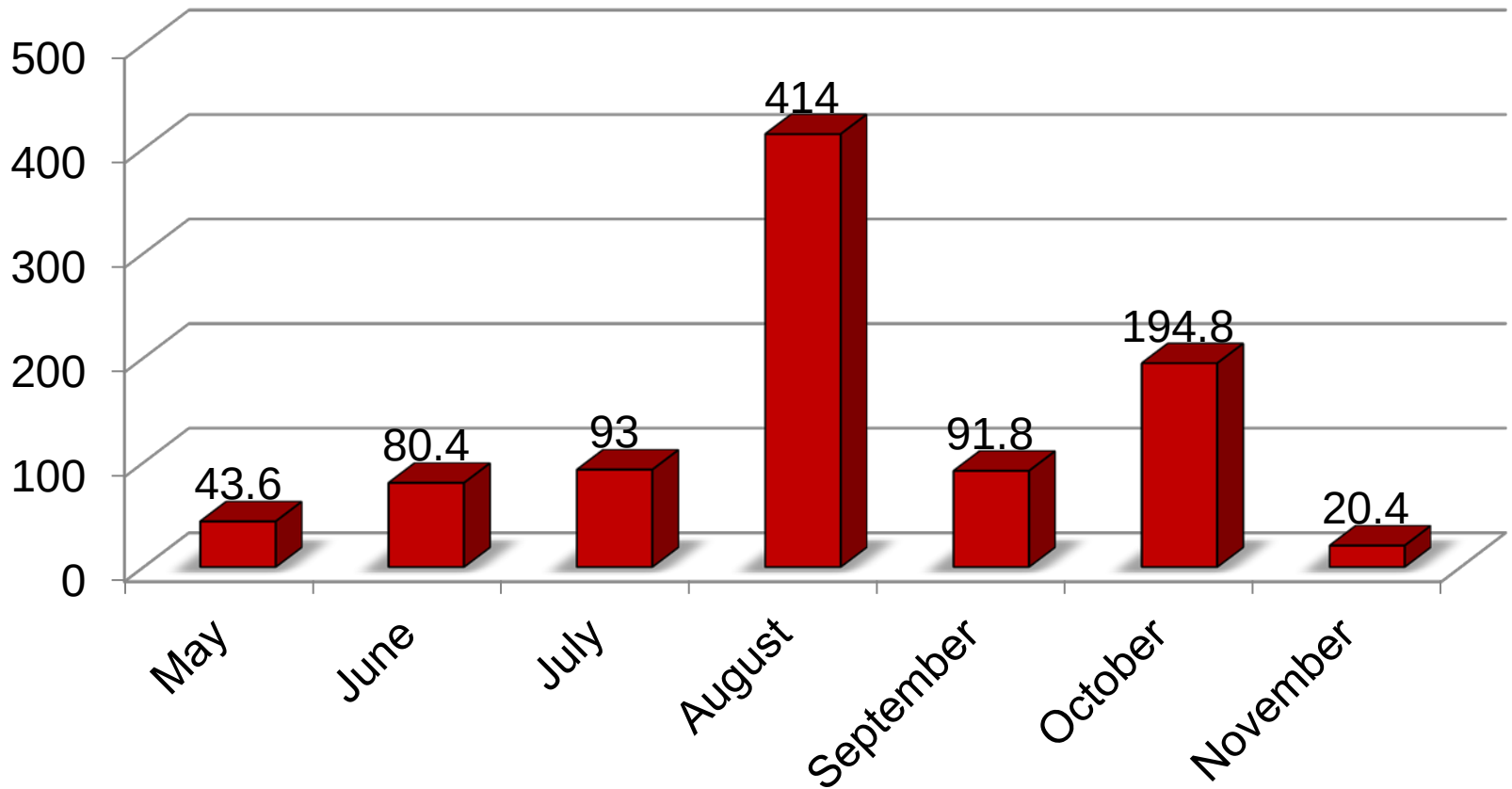


NHOP Flight Hours





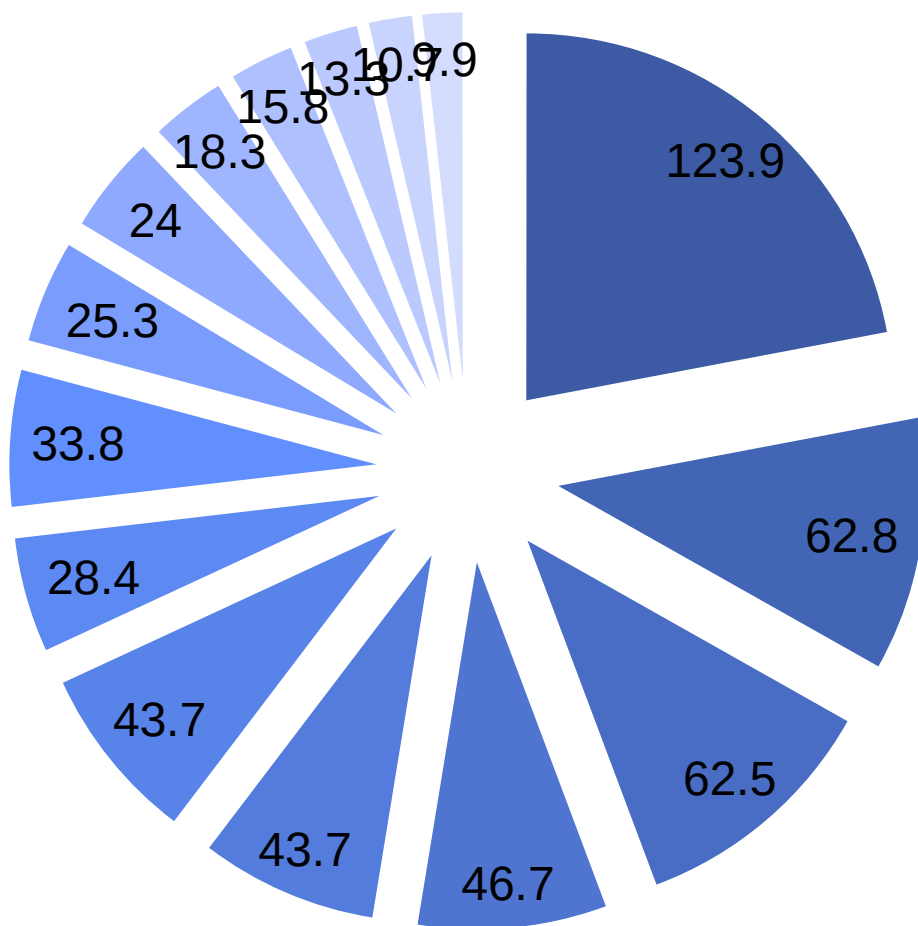
53rd Flying Hrs by Month



Integrity - Service - Excellence



Flying Hours by Storm



- Joaquin (A)
- Guillermo (CP)
- Erika (A)
- Ignacio (CP)
- Ana (A)
- Hilda (CP)
- Bill (A)
- Blanca (EP)
- Kilo (CP)
- Danny (A)
- Carlos (EP)
- Ela (CP)
- Oho (CP)
- Patricia (EP)
- Marty (EP)

Integrity - Service - Excellence



CHAT and the HAT



- Caribbean Hurricane Awareness Tour
 - The 2015 CHAT was successful and visited Merida and Cozumel, Mexico, Bonaire, NA, Santo Domingo, Dominican Republic, Saint Kitts, St. Eustatius and San Juan, PR.
 - The 2016 CHAT will visit Cabo San Lucas and Puerto Vallarta, Mexico, Tegucigalpa, Honduras, Tortola, British Virgin Islands, and Ponce, Puerto Rico.
- Hurricane Awareness Tour (Gulf Coast)
 - 53WRS along with NOAA AOC will visit San Antonio and Galveston, TX, New Orleans, LA, Panama City and Naples, FL

I n t e g r i t y - S e r v i c e - E x c e l l e n c e



Technological Improvements



- Software Upgrade - Spring 2016
 - SFMR and mission software?
- ARWO computer system hardware refresh in the works
 - 1st step needed to allow radar imagery transmission
- Sat-phone Upgrade
 - All aircraft modified summer 2014
- Testing broadband capability Aug 2016



AXBT's



- Test program began in 2011 season for 3 years (extended through 2016 season)
 - Current launch system marginal but usable at 10K ft or below
 - Navy provided data operators and portable receivers
 - Utility for hurricane operational models ongoing

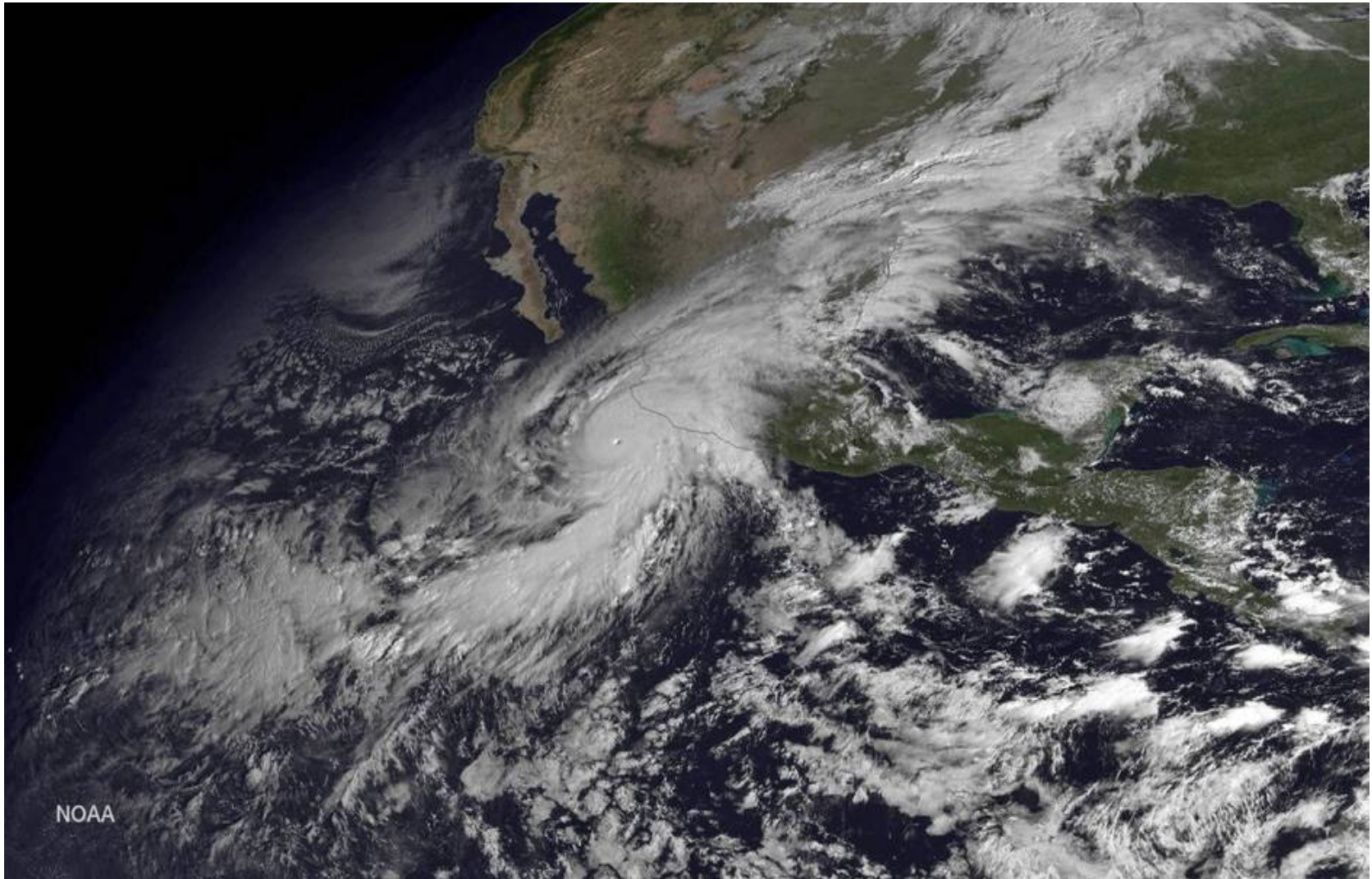


Integrity - Service - Excellence



Hurricane Patricia

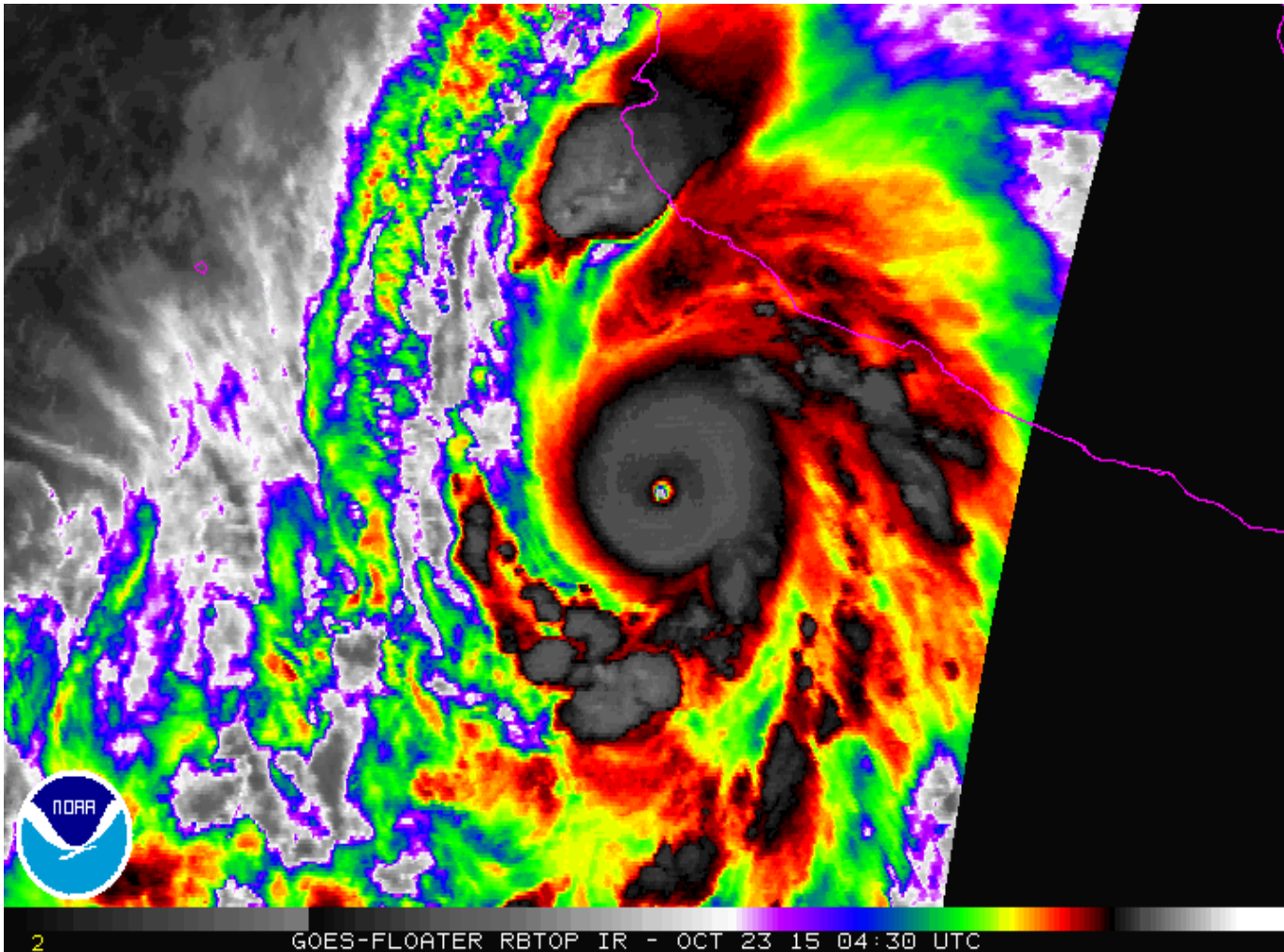
22-23 October 2015



NOAA

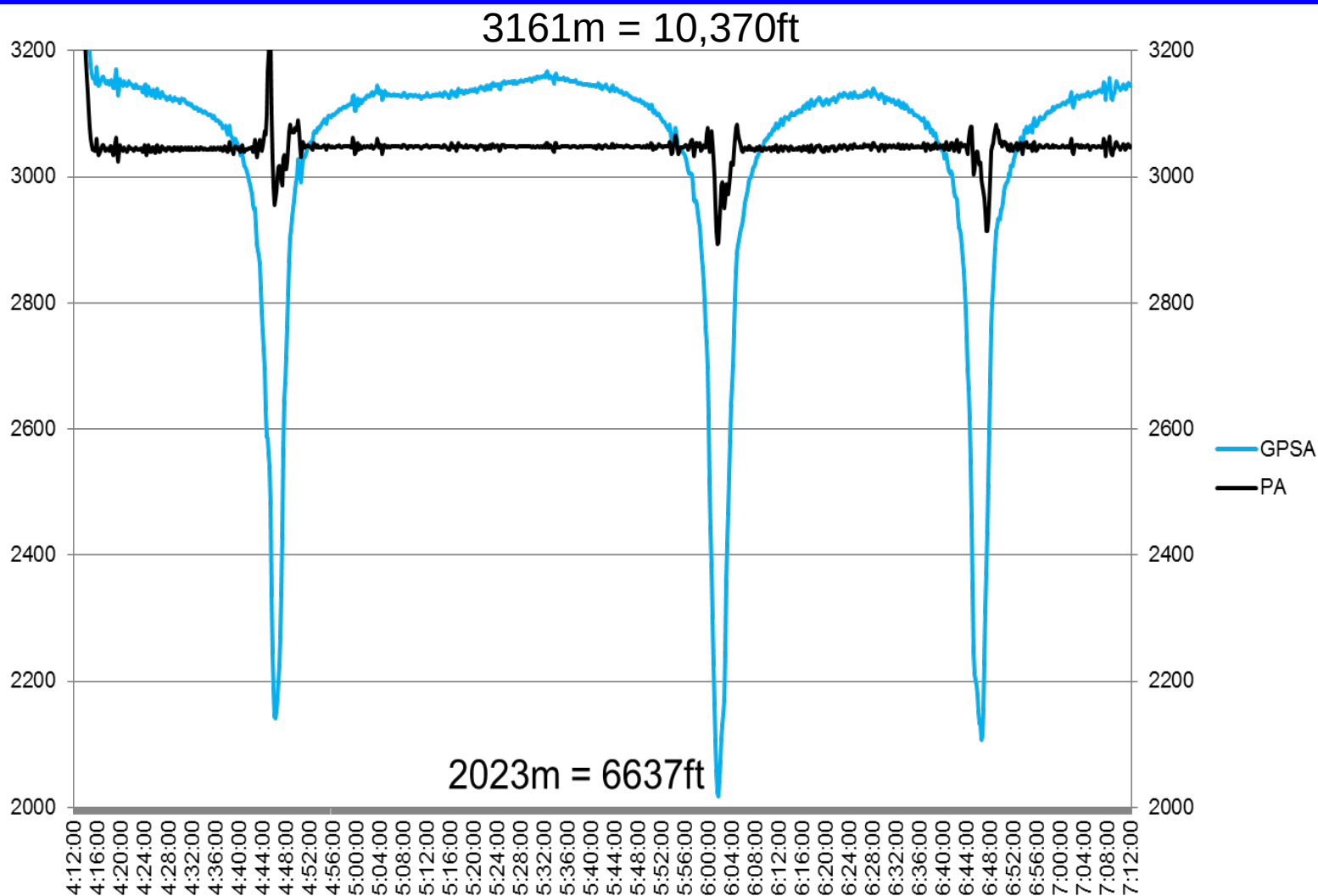


Hurricane Patricia Satellite Imagery



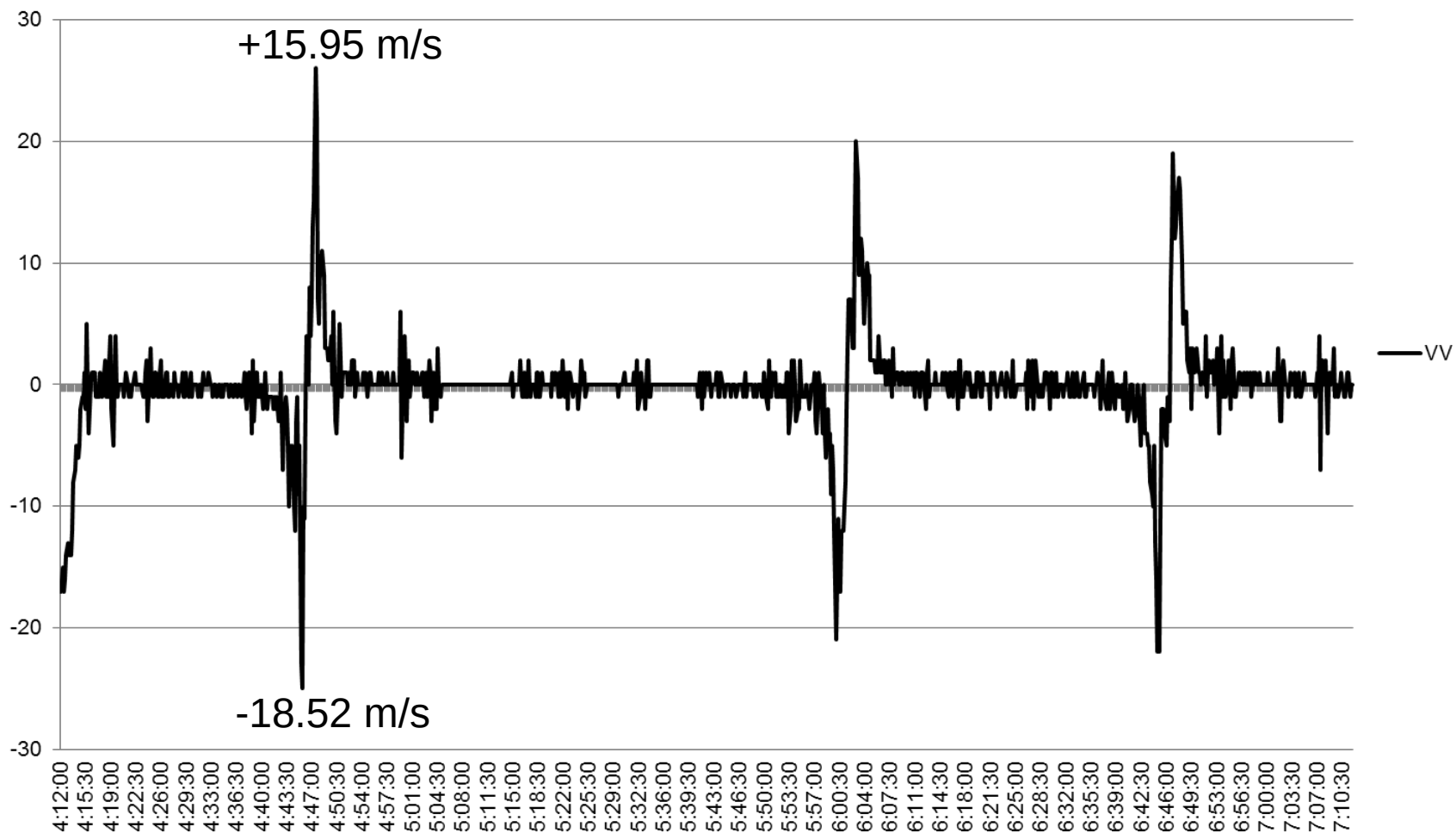


Pressure Alt. vs. GPS Alt. (Meters)



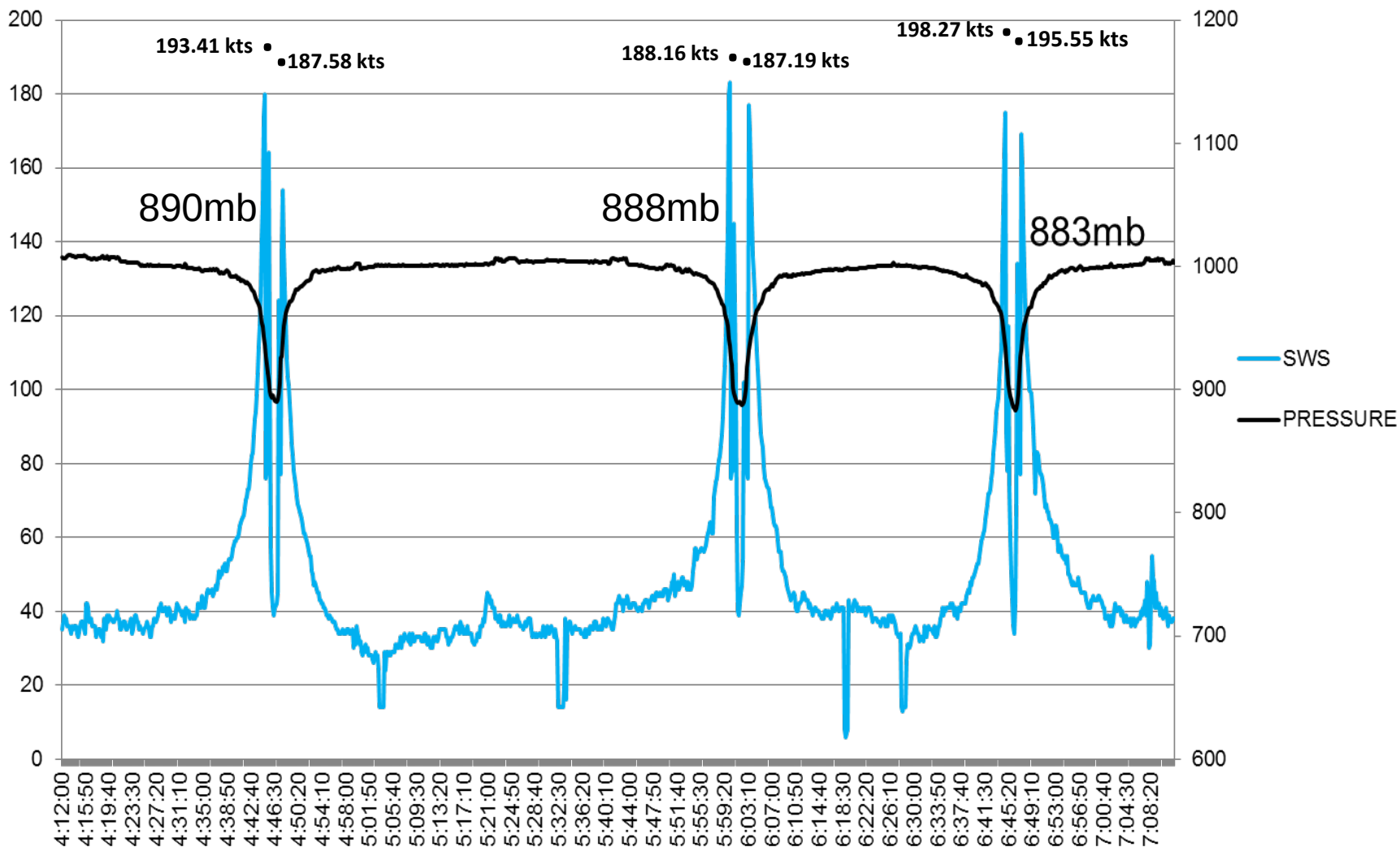


Vertical Velocity





SLP vs. Surface Wind Speed

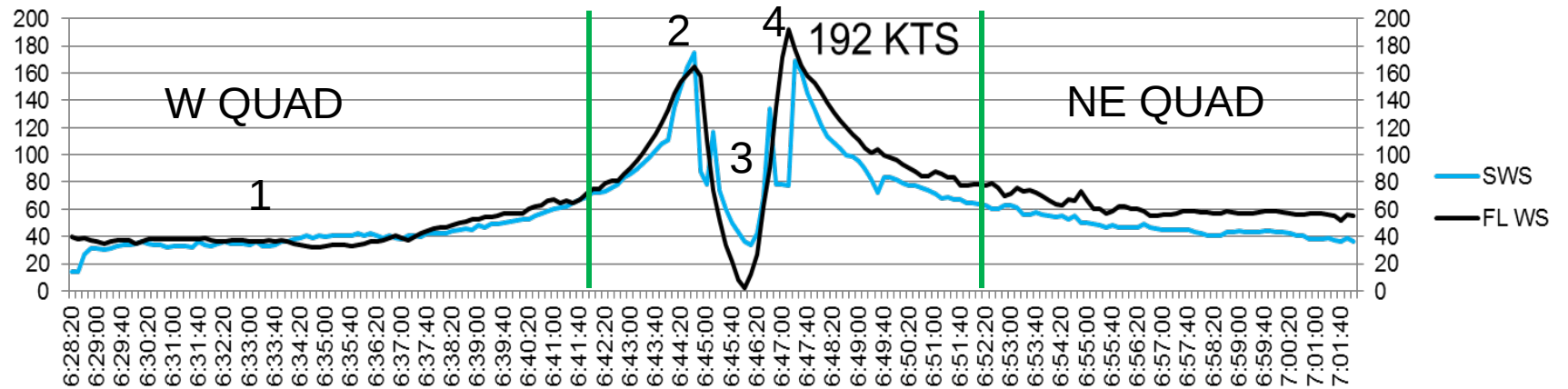




Flt Level WS vs. Surface WS



HURRICANE WINDS = 31 MILES





Hurricane Patricia





Random Pictures





U.S. AIR FORCE RESERVE