VIIRS Calibration Workshop: Introduction

Jim Butler

NPP Deputy Project Scientist for Instruments and Calibration

NASA's GSFC

VIIRS Calibration Workshop

January 25, 2010

Objectives

- **Present results of ambient and thermal/vacuum test data analyses on NPP VIIRS F1**
  - Includes comparisons to the instrument performance specifications
  - Analyses presented here are primarily those of the NASA team within the VIIRS Data Analysis Working Group (DAWG)
- **Identify issues and risks indicated by the NASA test data analysis**
  - Differences in the analyses of the DAWG teams, Northrop, and Raytheon exist with the majority determined to be minor
  - The more significant differences will be highlighted in this workshop and will continue to be addressed in the remaining pre-launch and post-launch cal/val timeframes
- **Encourage dialogue until the agenda times are significantly compromised**
  - Additional details will be presented at tomorrow's poster session and presenters will be available for continued discussion at that time and throughout the Science Team meeting.

VIIRS Test Data Analysis: A Team Effort

GVT-DAWG Coordinator
Frank De Luccia
IPO/Aerospace

NASA Team Leadership
Jim Butler – PSG, GSFC
Hassan Oudrari – PSG, Sigma
Jack Xiong – NICST, GSFC
Jeff McIntire, NICST Lead, Sigma

Robert Barnes, VOST, SAIC
Melanie Blackburn, NICST, SSAI
Nianzeng Che, NICST, Sigma
Vincent Chiang, NICST, Sigma
Dan La Porte, UW
Gary Lin, NICSE, Innovim
Arthur Liu, NICST, SSAI
Sergey Marchenko, NICST, SSAI
Chunhui Pan, NICST, SSAI
Gerhardt Meister, VOST, Futuretech
Christopher Moeller, UW
Mash Nishihama, NICSE, RSC
Thomas Schwarting, NICST,Sigma
Junqiang Sun, NICST, Sigma
Robert Wolfe, NICSE, GSFC
Sam Xiong, NICST, SSAI

Aerospace Team Lead
David Moyer,
IPO/Aerospace

Jason Geis (IPO)
Jason Cardema
Kameron Rausch
George Rossano
Stephen Cota (Chantilly, Lead)
P. Brian Cameron (Chantilly)
Christopher Florio (Chantilly)
Scott Houchin (Chantilly)
Michael Muto (Chantilly)
Diane Paulson (Chantilly)
Brandon Reese (Chantilly, MIT Intern)

MIT LL Team Lead
Carl Fischer

John Aldridge
Edward Bicknell
Kristin Clark

NICST = NPP Instrument Characterization Support Team
NICSE = NPP Instrument Calibration and Support Element
VOST = VIIRS Ocean Science Team
PSG = Project Science Group
UW = University of Wisconsin
Green= NASA On-site Test Observers/Data Analysts

GVT-DAWG comprised of 37 members, 20 NASA, 13 Aerospace, 4 MIT LL
(29 East Coast, 6 West Coast, 2 Wisconsin)

VIIRS Reference Material is Available as a Handout

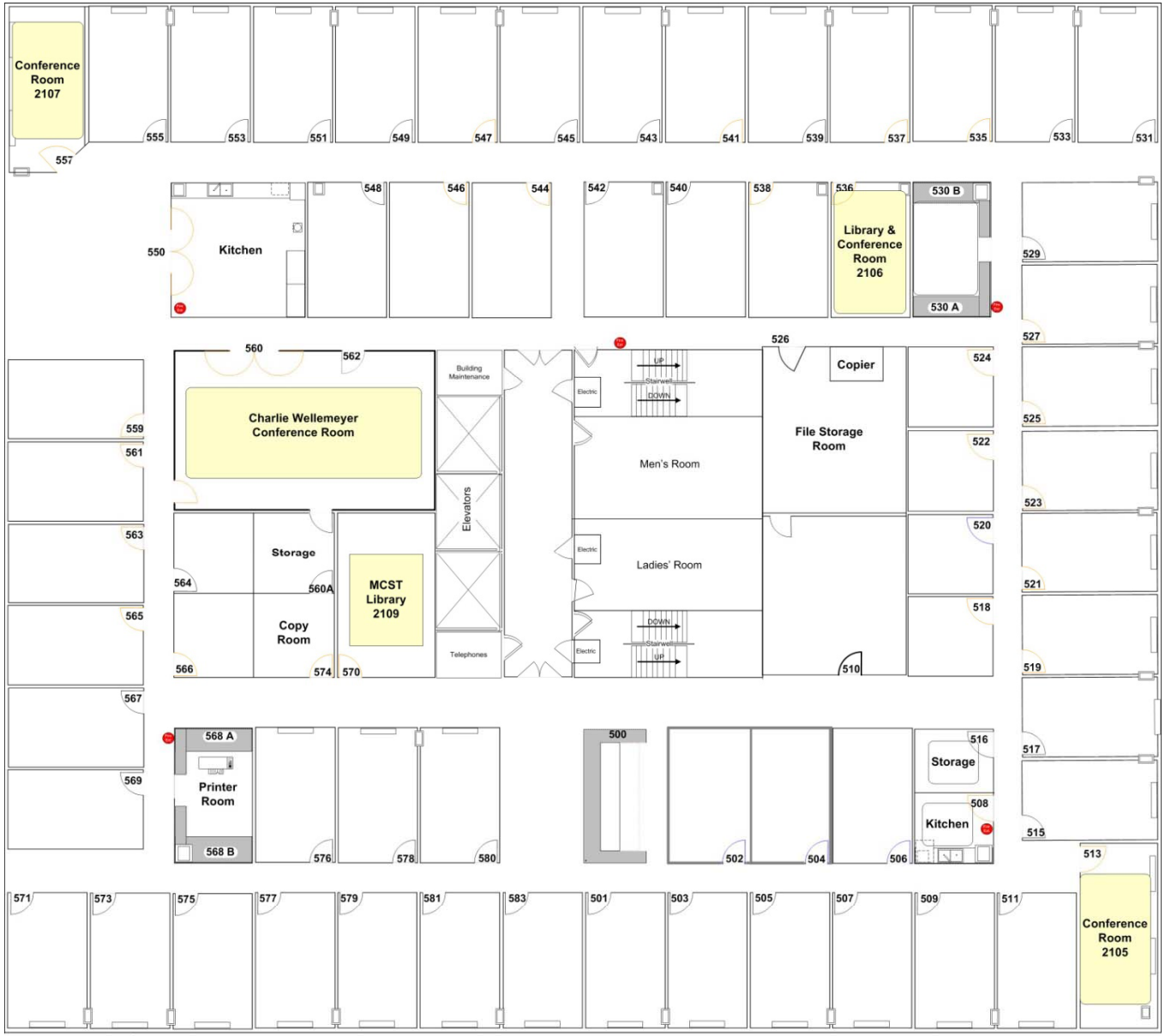
NPP VIIRS F1 Calibration and Characterization Workshop

January 25th, 2010
SSAI, Lanham, MD

Workshop Agenda

• Introduction (Butler)	1:30 pm
• VIIRS Instrument & Calibration Background (Oudrari)	1:40 pm
• Reflective Solar Bands Calibration (Sun)	2:00 pm
• Thermal Emissive Bands Calibration (McIntire)	2:35 pm
• RSR Characterization (Moeller)	3:10 pm
• Break	3:35 pm
• Spatial Characterization (Lin)	3:50 pm
• Cross-talk Characterization (Schwarting)	4:20 pm
• Polarization Characterization (Meister/Sun)	4:50 pm
• Stray Light, NFR, and RVS Characterization (Oudrari)	5:10 pm
• Adjourn	5:30 pm

SSAI 5th Floor Logistics

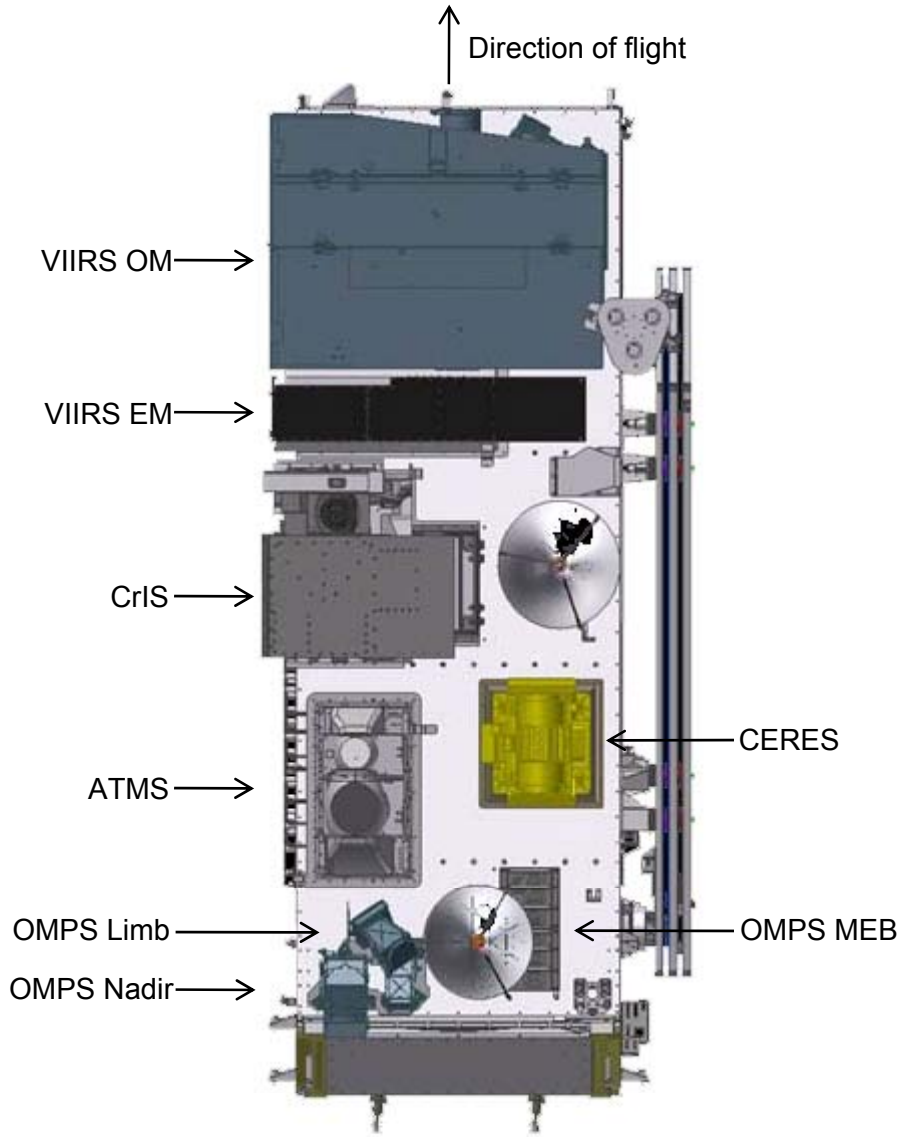


SSAI 5th Floor

Wireless Access Information

- SSID: SSAI Guest
- WPA key: redskins
- Open web browser, access any page, you will be redirected to the wireless network login page
- Enter the following
  - User ID: clinton
  - Password: portis

Evolution of VIIRS



- **VIIRS Milestones**
  - PDRR 8/1997
  - PDR 5/2000
  - CDR 3/2002
  - ΔCDR 7/2002
  - EDU I&T 7/2004
  - FM1 I&T 9/2006
  - Gate 8 2/2007
  - PER 4/2008
  - Pre-TV 3/2009
  - TV 5/2009
  - Post-TV 8/2009
  - PSR 12/2009

Timeframe for acquisition and processing of data presented In this workshop