

Guam Polar Orbiter Workshop: Satellite Direct Broadcast in Support of Real-Time Environmental Applications

Location: Guam National Weather Service Forecast Office

Date: 16-17 and 19-20 April 2018

Preliminary Workshop Agenda

Day One AM Polar Orbiter Imager Sensors - including MODIS and VIIRS

Liam Gumley

8:30 AM – 9:00 AM Introductions and Overview

9:00 AM – 10:00 AM Lecture Session 1: Introduction to Polar Orbiting Satellites and Sensors, focusing on direct broadcast reception of Suomi-NPP, Aqua and Terra satellites.

10:00 AM – 12:00 PM HYDRA Lab Session 1: Exploring VIIRS and MODIS Imager high spatial resolution data including the VIIRS Day/Night Band using the HYDRA tool.

Day One PM Polar Orbiter Imager Sensor Products and Applications

Kathy Strabala

1:00 PM – 2:00 PM Lecture Session 2: Introduction to Polar Orbiter imager products including Volcanic Cloud Detection and Sea Surface Temperature Retrievals.

2:00 PM – 4:30 PM HYDRA Lab Session 2: Exploring Polar Orbiter Volcanic Cloud Detection and SST products and their applications using HYDRA.

Day Two AM Polar Orbiter Sounder Data and Products Introduction

Scott Lindstrom

8:30 AM – 9:30 AM Lecture Session 3: Introduction to Polar Orbiter infrared and microwave sounder products and applications, including NUCAPS and MIRS retrievals.

9:30 AM – 12:00 AM Lab Session 3: Exploring Polar Orbiter Sounder products and applications including NUCAPS retrievals in AWIPS.

Day Two PM Polar Orbiter Microwave Data and Product Applications

Scott Lindstrom

1:00 PM – 2:00 PM Lecture Session 4 Continued: Polar Orbiter microwave data and products and applications including relevance to evaluating Tropical Cyclone Intensity.

2:00 PM – 4:30 PM HYDRA Lab Session 4: Exploring Polar Orbiter microwave products and applications including MIRS microwave Rain Rate retrievals.

General Notes:

- Breaks will be included in both morning and afternoon sessions.
- Lab sessions will consist of students working together in groups of 2 or 3. The free tool we will use for lab investigations is called HYDRA, and can be installed on most Apple, Windows, and Linux laptops. It was developed specifically at the University of Wisconsin as a remote sensing teaching tool.