

GOES-R/JPSS HANDS-ON TRAINING

TO PROCESS, DISPLAY AND ANALYZE SATELLITE DATA PRODUCTS

2021 AMS Sponsored Short Course Virtual Sessions

Wednesday, March 17 and Thursday March 18, 2021

11:00AM - 3:00PM Eastern Time each day (10AM-2PM Central time)

Day 1, Wednesday, March 17, 2021

Time ET	Session Title	Instructors
11:00 AM	Introductions, Summary of Planned Activities	Sherrie Morris, STC contractor for GOES-R Program Office
11:10 AM	NOAA's role in optimizing the use of satellite information	Mitch Goldberg, NESDIS Chief Scientist
11:40AM	JPSS / GOES-R Satellite Applications	Andy Heidinger, GEO Senior Scientist Satya Kalluri, JPSS Program Office
12:00 PM	The use of tools for processing and displaying satellite data	Tom Atkins, Center for Satellite Applications and Research (STAR)
12:20 PM	Hands-On Exercise 1: Using JSTAR Mapper	Tom Atkins, STAR
12:50 PM	15 minute Break	
1:05 PM	Hands-On Exercise 2: Using CIMSS RealEarth (Flood Mapping)	William Straka, CIMSS/University of Wisconsin – Madison
1:35 PM	Hands-On Exercise 3: Using CIRA SLIDER (Satellite Loop Interactive Data Explorer in Real-time)	Curtis Seaman, Cooperative Institute for Research in the Atmosphere (CIRA)
2:05 PM	Hands-On Exercise 4: Using ERDDAP	Cara Wilson, NOAA Southwest Fisheries Science Center, Environmental Research Division (SWFSC/ERD)
2:35 PM	Discussion on all sessions	Bill Sjoberg (15 minutes)
2:50 PM	Recap Closing remarks	Andy Heidinger, GEO Senior Scientist
3:00 PM	End of Day 1	

Day 2, Thursday, March 18, 2021

Time	Session Title	Instructors
11:00 AM	Introduction of today's speakers	Sherrie Morris, STC contractor for GOES-R Program Office
11:10 AM	Interactive Session: Using multispectral imagery products to anticipate, detect, and track severe thunderstorms	Bill Line, STAR
11:50 AM	Interactive Session: Using GLM products to anticipate and understand severe thunderstorms	Joseph Patton, Cooperative Institute for Satellite Earth System Studies (CISESS)
12:25 PM	15 minute Break	
12:40	Understanding GOES-16 and -17 Advanced Baseline Imager (ABI) data files	Amy Huff, IMMSG at NOAA/NESDIS/STAR
12:55 PM	Hands-on Exercise 5: Download ABI data files from AWS using Python	Amy Huff, IMMSG at NOAA/NESDIS/STAR
1:10 PM	Hands-on Exercise 6: Open and explore the contents of an ABI data file using Python	Amy Huff, IMMSG at NOAA/NESDIS/STAR
1:30 PM	10 minute	Break
1:40 PM	Hands-on Exercise 7: Process and visualize ABI data using Python	Amy Huff, IMMSG at NOAA/NESDIS/STAR
2:15 PM	Closing remarks, Outbrief and Evaluation	Mitch Goldberg, NESDIS Chief Scientist
2:30PM	SPECIAL TOPIC (Optional): Sharing NOAA Data across platforms to Support CA Civil Air Patrol and CA National Guard via GeoCollaborate: A LIVE Demonstration of putting NOAA data to work	Dave Jones, President and CEO of StormCenter Communications, Halethorpe, MD
3:00PM	Short Course End	

Short Course description:

The combined GOES-R and JPSS short course will focus on exercises that allow participants to access, process and display GOES-R and JPSS data and products. The participants will receive instruction from satellite subject matter experts on how to use the products to analyze specific environmental scenarios such as severe convection, tropical storms, flooding, fire weather, air quality, etc. The course will include hands-on exercises to train participants on the use of tools such as NESDIS JSTAR mapper, CIMSS RealEarth, CIRA's Satellite Loop Interactive Data Explorer in Realtime (SLIDER), and ERDDAP. Additional exercises will teach participants how to construct and use red-green-blue (RGB) and Geostationary Lightning Mapper (GLM) products to display and easily identify important features within satellite imagery, and how to download, read,

process, and display satellite data using Python. In addition, the two day short course will conclude with a GeoCollaborate demonstration: California Burning: Putting Federal Data to Work.

Additional information for the GeoCollaborate demonstration:

Demonstration Topic: California Burning: Putting Federal Data to Work as a Strategic Asset

GeoCollaborate was used to deliver multiple federal agency data in response to the August Wildfire complex in California in August 2020 in support of the CA National Guard (NG) and the CA Civil Air Patrol (CAP). NOAA HRRR smoke model data, JPSS and GOES satellite data, FAA Temporary Flight Restrictions (TFR), USFS NIFC Fire Perimeter, CA NG Damage Assessment Imaging Task Orders were shared in a trusted secure environment so the CA CAP could swoop in when the smoke was clearing to acquire damage assessment images. This just in time capability was delivered through the JPSS Fire & Smoke Initiative. StormCenter is funded under JPSS Fire & Smoke and River Ice & Flooding Initiatives to deliver NOAA data into decision making environments.