THIRD POLAR DATA FORUM SESSION AGENDA

SESSION: NASA ICESat-2 Polar Applications Discovery
DATE: Thursday, 21 November 2019
TIME: 9:00 – 12:00

TOPIC	EXPECTATIONS	PROPOSED PROCESS
What is the NASA Mission Applications Program and why are we organizing this session? TIME ALLOTED: 15 minutes PURPOSE: Welcome remarks & overview of ICESat-2 applications LEAD: Sabrina Delgado Arias, SSAI/NASA GSFC	• Clarify what we mean by applications • Review goals and desired outcomes for the session • Learn about ways to get involved with ICESat-2 via the applications initiatives	• Introduce the applications program for ICESat-2, including its Early Adopters and Applied Users programs. TIME: 10 min • Explain the structure, goals and desired outcomes of the session. TIME: 5 min
What is NASA's Ice, Cloud and land Elevation Satellite-2 (ICESat-2) mission and relevant data products? TIME ALLOTED: 30 minutes PURPOSE: Overview of NASA ICESat-2 LEAD: Thomas Neumann, NASA GSFC	• Find out what ICESat-2 measures and how it makes its observations • Clarify ICESat-2 data aspects, e.g. latency, resolution, coverage • Explore how the data looks like for sea ice, land ice, glaciers, and other surfaces	• Describe ICESat-2's photon counting lidar. TIME: 5 min • Explain ICESat-2's observation acquisition strategy. TIME: 10 min • Highlight data observations relevant to the Polar Regions. TIME: 10 min • Communicate mission status. TIME: 5 min
5 Minute Stretch		
What are your data requirements and needs for decision-making? TIME ALLOTED: 50 minutes PURPOSE: Group exercise I LEAD(s): ICESat-2 Team; Eeero Rinne, Finnish Meteorological Institute (FMI)	• What decision-making context are you involved in or does your research support? Participants can provide their perspective using our example scenario. • What data are currently available to you? • Do you currently use NASA data for your work – why or why not? • What data would you like to have? • What have you heard so far from ICESat-2 that would help address the data needs of the scenario you just learned about [or your particular decision making context]? • How would you leverage those data?	• Depending on participation, break room into small groups • Provide an overview of an existing assessment/operation in the Arctic to spark ideas. TIME: 10 min • Guide participants through a round robin brainstorming of the outlined questions. Have one person record all feedback. TIME: 30 min • Encourage formulation of questions to the mission representatives. Have one person record all questions. TIME: 10 min
10 Minute Break		

TOPIC	EXPECTATIONS	PROPOSED PROCESS
How does the NASA National Snow and Ice Data Center Distributed Active Archive Center (NSIDC DAAC) help users access ICESat-2 data to best fit their needs? TIME ALLOTED: 10 minutes PURPOSE: Overview of ICESat-2 Data Access options at NSIDC DAAC LEAD: Amy FitzGerrell, NSIDC	• Review NSIDC tools and services for on-demand analysis of data • Review goals and desired outcomes for session data demonstration	• Describe ICESat-2 data management at the NSIDC DAAC. TIME: 5 min • Explain structure, goals and desired outcomes of session data demonstration. TIME: 5 minutes
How can you discover, visualize, customize and access ICESat-2 data? TIME ALLOTED: 40 minutes PURPOSE: Demonstration of ICESat-2 Data Access at NSIDC DAAC LEAD: Amy FitzGerrell, NSIDC; Siri-Jodha Singh Khalsa, NSIDC	• Review how to explore ICESat-2 data sets and related resources via the NSIDC website • Identify the various access options for ICESat-2 data, including web interface tools and programmatic discovery and access • Follow guided demonstration on discovery and access of ICESat-2 data using OpenAltimetry web interface • Learn about NSIDC DAAC's Applications Programming Interface (API); follow guided demonstration on subsetting, reformatting, and analyzing data using Python • Lean about the available GitHub repository with interactive ICESat-2 Python tutorials	• Familiarize participants with NSIDC services and tools for discovery and access of ICESat-2 data. TIME: 10 min • Demonstrate discovery and access of ICESat-2 data using OpenAltimetry web interface. TIME: 15 min • Demonstrate search and customization of ICESat-2 data using the NSIDC Data Access Jupyter Notebook. TIME: 15 min
How can your work benefit from the use of ICESat-2? TIME ALLOTED: 20 minutes PURPOSE: Group exercise II LEAD: ICESat-2 Team	• Based on what you learned about ICESat-2, where do you see direct application to your work? • Do you have projects in mind that could benefit from the availability of these data? • What do you feel you still need to learn about ICESat-2? • What concerns do you have regarding the utility/applicability of the data? • What data gaps still exist? How would you prioritize the filling of these gaps?	• Depending on participation, break room into small groups • Discuss outcomes of example assessment/operation in the Arctic. TIME: 5 min • Guide participants through a round robin brainstorming of the outlined questions. Have one person record all feedback. TIME: 10 min • Encourage formulation of questions to the mission representatives. Have one person record all questions. TIME: 5 min