DeSSC New-User Program: NDSF Data Overview

Tina Haskins - NDSF Associate Director for Data and Science Ops

NDSF NATIONAL DEEP SUBMERGENCE FACILITY

Vicki Ferrini, PhD
NDSF Associate Director for Data System Strategy & Director of Marine Geoscience Data System

Tina Haskins
NDSF Associate Director for Data and Science Operations

John Morton
Applications Developer
MGDS/LDEO

Joe Garcia
Lead *Alvin* Data Engineer
NDSF

Isaac Vandor
Software Engineer
NDSF

Maddie Young
Data Manager
MGDS/LDEO

Scott McCue
Lead *Jason* Data Engineer
NDSF

Shefali Singh
Software Engineer
NDSF

Andrew Goodwillie, PhD,
Senior Data Manager
MGDS/LDEO

Catie Graver
SSSG & Data Engineer
NDSF

Tim Joyce
Software Engineer
NDSF

NDSF Data Products: What you'll receive

All Platforms Provide:

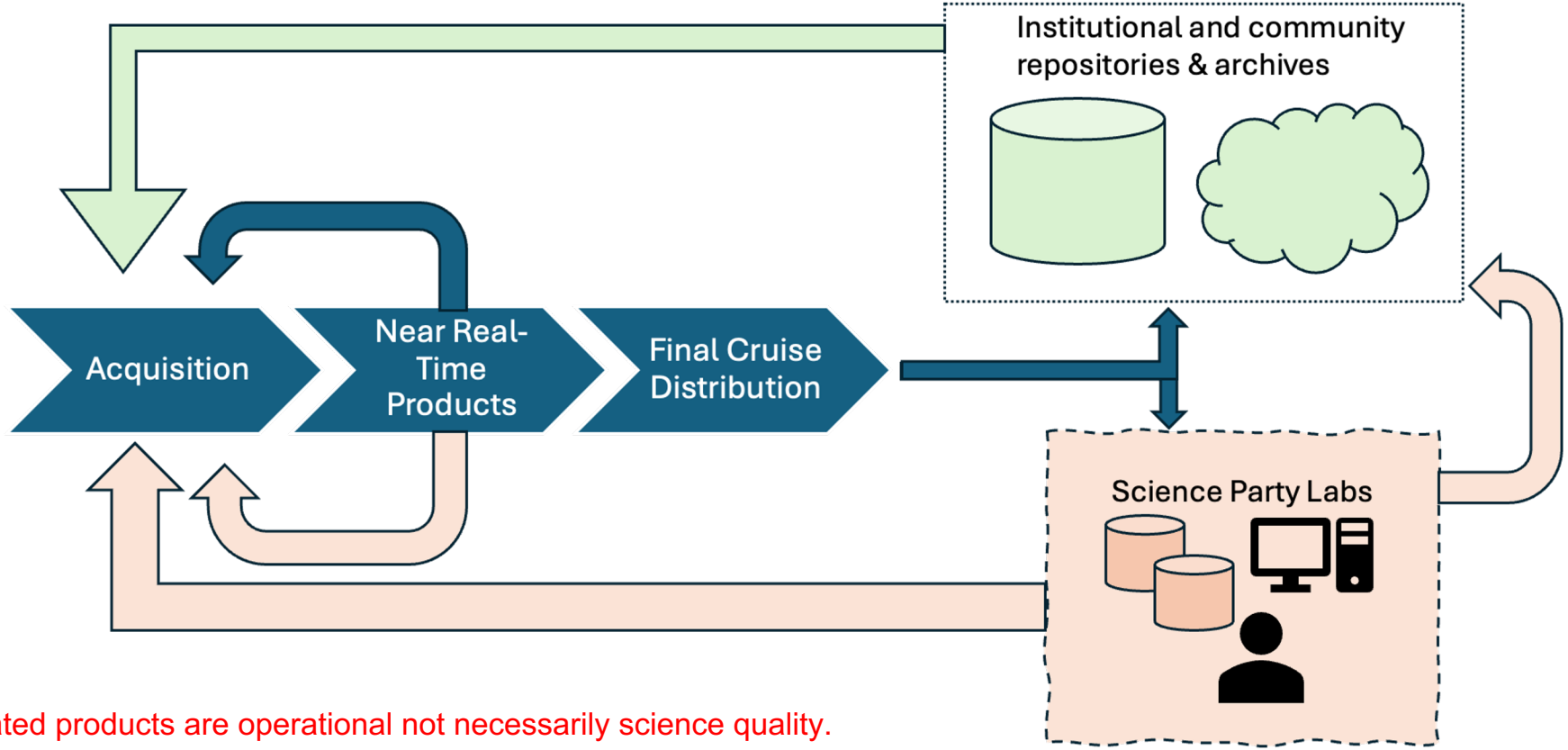
- Precise navigation & target files: Meter-level positioning & timestamping enables re-location with seamless co-registration of data streams.
- High-resolution imagery: Photos and HD video (Alvin/Jason) with synchronized position data
- Sensor data: Temperature, salinity, depth, and vehicle-specific sensors with timestamps
- Mission documentation: Cruise reports, sensor calibrations, and other metadata

Alvin/Jason	Sentry
Event logging (Sealog): Your real-time observations become searchable data - mark organisms, behaviors, sampling decisions.	High-resolution mapping: Multibeam bathymetry and sidescan sonar provide high-resolution surveys with a large coverage area
HD video streams: Continuous recording captures dive context and user-selected highlights	Sub-bottom profiler: Reveals buried structures and sediment layering.

What This Enables:

- Temporal studies: Return to exact organisms/features years later using target files and precise navigation
- Multi-scale integration: Combine Sentry's mapping with Alvin/Jason detailed observations and event logs
- Quantitative analysis: All observations georeferenced and time-stamped for rigorous statistical analysis
- Reproducible science: Comprehensive data packages support post-cruise analysis and cross-platform insights

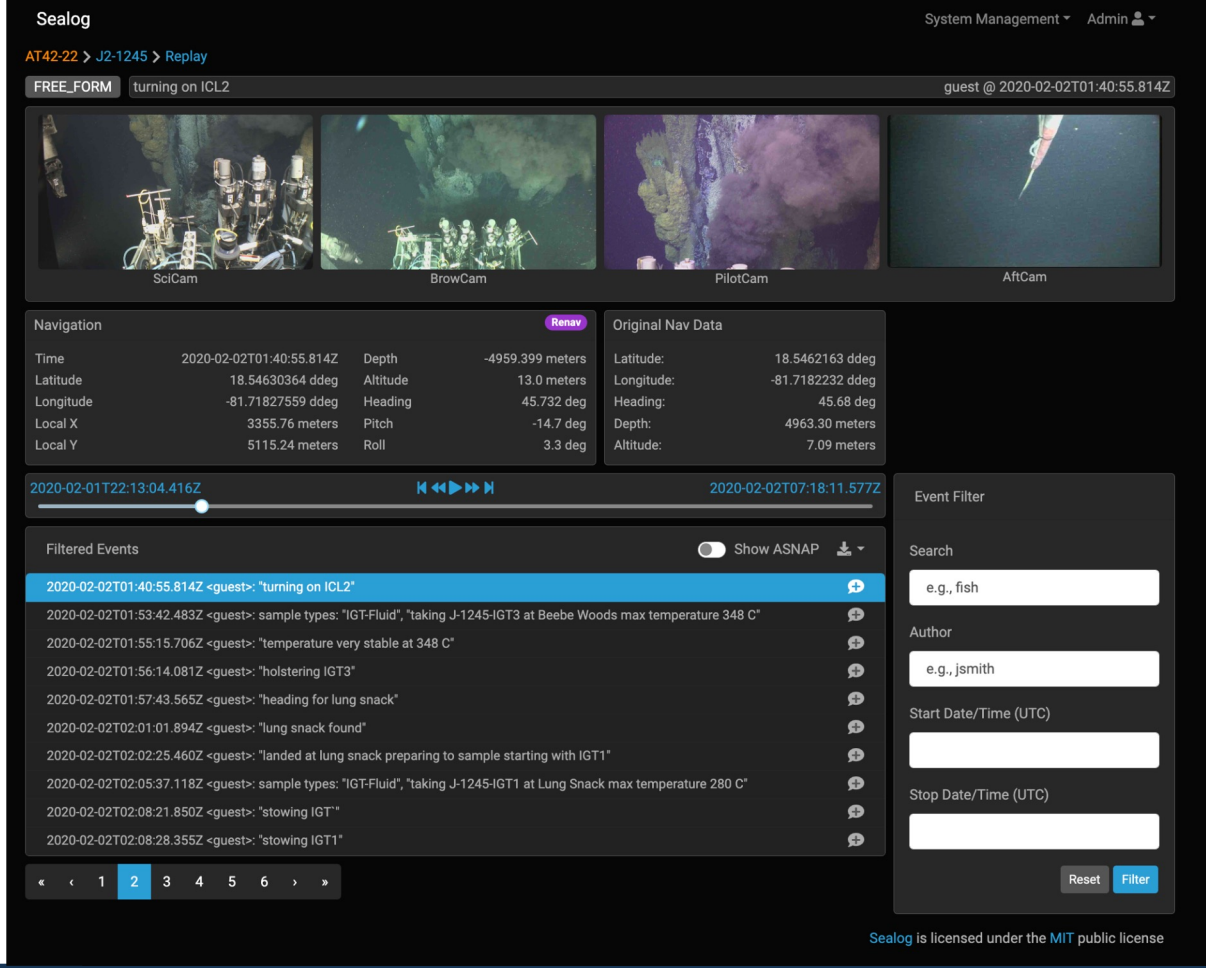
Data Quality



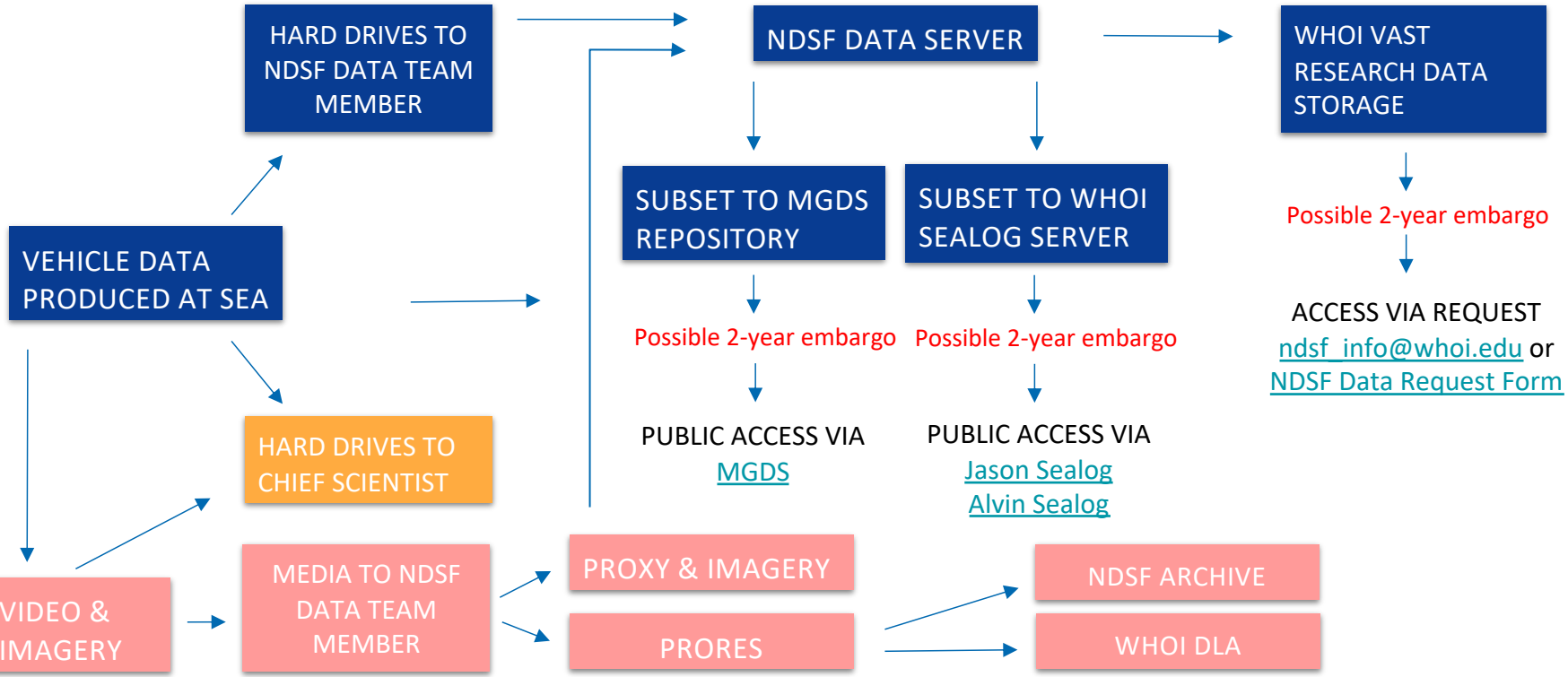
*generated products are operational not necessarily science quality.

Sealog

- Event logger utilized by Alvin/Jason
- Integrates real-time watchstander observations with corresponding sensor data, including timestamps, coordinates, and depth.
- Customizable “hot buttons”
- Framegrabs for every logged event as well as ASNAP’s on a predefined interval
- Export to CSV or JSON
- Available shoreside post-cruise



From Ship to Shore



Data Policy

Embargo

- The maximum embargo period for data obtained on National Science Foundation - funded cruises is two years.
- During the embargo period, archived data may be accessed only by the Chief Scientist, or by others identified by the chief Scientist in writing.
- At the end of the embargo period, all data, with the exception of video and photo, are considered freely publicly available for general use by scientists, engineers, educators, and the public.

Third-party sensors

- Third-party tools are sensors or samplers other than those in the normal NDSF inventory used on the vehicles to accomplish science party objectives.
- Data belong to the PI who collected them and must be shared according to the data management/stewardship plan agreed upon with the funding agency at the time of the award.
- If NDSF data loggers are used to record data from a third-party tool and the data are fed into multiplexed data files, that data will be preserved and archived by NDSF in the multiplexed data files.

Questions

- Reach us at ndsf_info@whoi.edu