

NDSF Data & Software Initiatives Update

Tina Haskins - NDSF Associate Director for Data and Science Ops



Continued Team Growth



Vicki Ferrini, PhD

NDSF Associate Director for Data System Strategy & Director of MGDS



Tina Haskins

NDSF Associate Director for Data and Science Operations



Will Bain

Research Software Engineer
NDSF



Hayley Drennon

Data Manager
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Scott McCue

Lead Jason Data Engineer
NDSF



Isaac Vandor

Software Engineer
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Shefali Singh

Software Engineer
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Andrew Goodwillie, PhD,

Senior Data Manager
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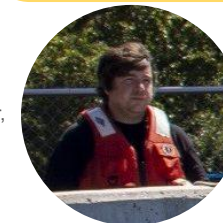
Joe Garcia

Lead Alvin Data Engineer
NDSF



Catie Graver

SSSG & Data Engineer,
NDSF



Tim Joyce

Software Engineer
NDSF

General Data & Software Updates

- Scientific Ocean Vehicle Alliance (SOVA) - Data & Software Focus Group
 - Co-led by Tina Haskins & Corinne Bassin (SOI)
 - First meeting in January 2024
 - Focused on Sealog
 - Participants from SOI, OET, NDSF & MGDS
- MGDS
 - Collaborative focus on dive metadata and data distribution normalization
 - Ongoing data ingestion
 - Revitalization and integration of NDSF metadata web services
 - Training for use of data resources
- Sealog
 - Real-time ICL integration
 - Resolved twitchy framegrab images
 - Improved CSV export formatting
 - Restructured column order
 - Cleaned up column names
 - Merged UOM into column name

	A	B	C
1	Date/Time (UTC)	vehicleRealtimeNavData.latitude (ddeg)	vehicleRealtimeNavData.longitude (ddeg)
2	2024-02-04T16:19:11.729Z	9.8481192	-104.2926879
3	2024-02-04T16:34:52.689Z	9.8485607	-104.2929017
4	2024-02-04T16:35:00.436Z	9.84857	-104.2929073
5	2024-02-04T16:36:00.698Z	9.8486628	-104.2929816
6	2024-02-04T16:51:20.114Z	9.849255	-104.2934031
7	2024-02-04T17:06:16.097Z	9.8492555	-104.2934076
8	2024-02-04T17:07:38.822Z	9.8492554	-104.2934081
9	2024-02-04T17:08:10.908Z	9.8492552	-104.2934082
10	2024-02-04T17:10:19.915Z	9.8492545	-104.2934088
11	2024-02-04T17:10:41.742Z	9.8492545	-104.2934089
12	2024-02-04T17:11:19.764Z	9.8492544	-104.2934091
13	2024-02-04T17:12:23.375Z	9.8492542	-104.2934092
14	2024-02-04T17:13:24.801Z	9.8492542	-104.2934094
15	2024-02-04T17:22:45.345Z	9.849254	-104.2934102
16	2024-02-04T17:25:34.979Z	9.8492538	-104.2934106

Additional Data & Software Updates

- Automated Cruise/Dive Reports **PCAR 2023** ✓
 - Modeled after the Sentry Cruise/Dive Reports
- Automated QA plotting routines **PCAR 2023** ✓
 - Science Sensors
 - Provide timely feedback to at-sea operations team
 - Ensure that intended data was acquired and sensors are working properly.

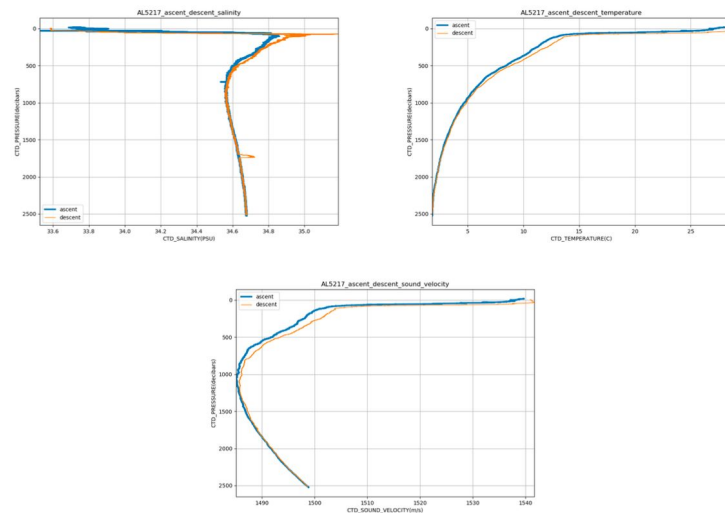
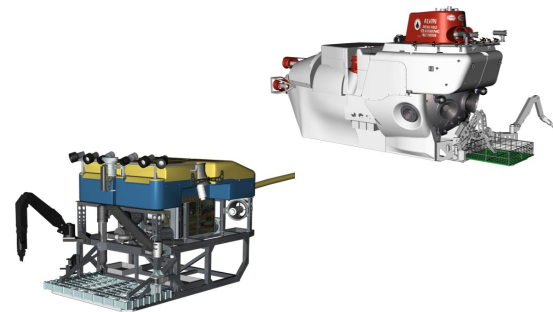
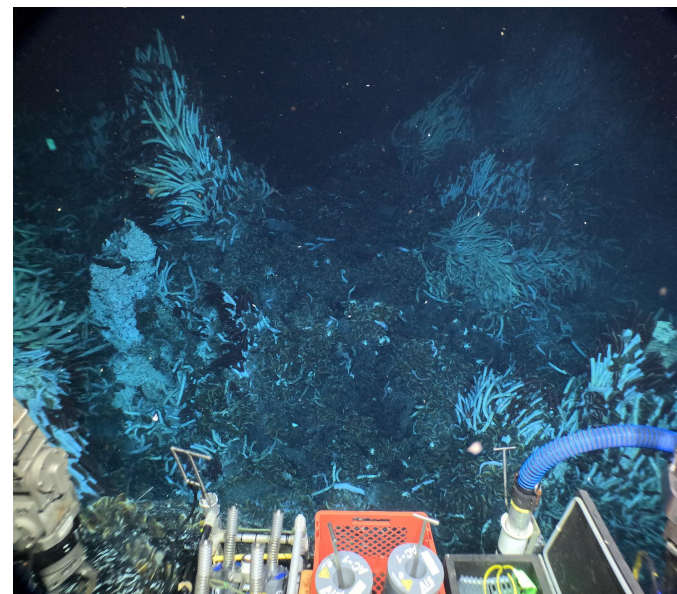


Figure 2: CTD water column profiles

Improvements in the Alvin Data Pipeline



- AIS still image regeneration **PCAR 2023** ✓
 - AIS has become more stable since this implementation but the capability now exists in post-processing
- Integration of two Alvin_GoPro's into the data package
 - One camera captures stills, the other set to video
 - Includes creation of still camera timelapses
 - Same technology as the MISO cameras
- Integration of optode into data package
 - Leveraging cross platform sensor drivers
- Post Dive Video Access **PCAR 2023** ✓
 - Replaced both Main Lab Macs with new Mac Studios
 - Larger internal storage capacity
 - Improved port connection speeds
 - New SSD loaner library
 - Dedicated Video Nas with 10G connection
 - Created a video access “best practices” document



Questions/Feedback

- Reach us at ndsf_info@whoi.edu