

SCICEX Phase 2

Science Advisory Committee Meeting
20 & 21 May 2014

AGENDA

Tuesday, 20 May

Morning:

- State of SCICEX
- Ice draft data collection & processing (M. Wensnahan)

Afternoon:

- Data collection, processing and distribution
- Identify shortcomings and a plan to resolve them

Wednesday, 21 May

Morning:

- Leveraging increased National interest in Arctic



US Submarine Arctic Science Program *SCICEX*

“The overall goal of SCICEX is to improve understanding of Arctic Ocean processes and their role in the Earth’s climate system by dual use of nuclear submarines, thus fully capitalizing on existing national platform capabilities. This Agreement is intended to mutually support the objectives of both the civilian and military communities.”

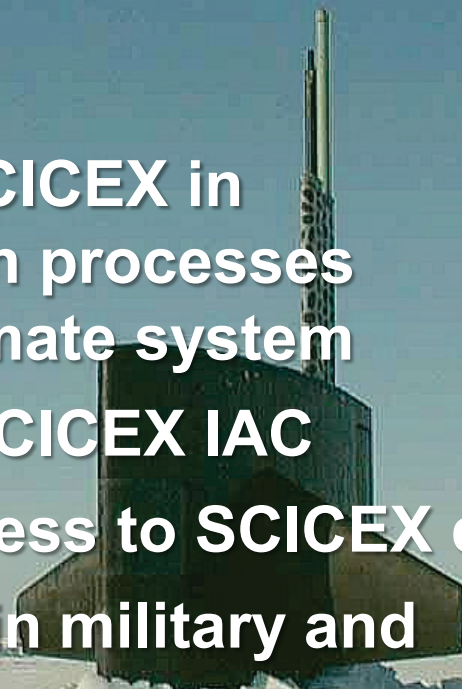


SCICEX

SCICEX Science Advisory Committee

OBJECTIVES

- Maximize the contribution of SCICEX in understanding the Arctic Ocean processes and their role in the Earth's climate system
- Provide guidance to ASL and SCICEX IAC
- Promote timely community access to SCICEX data
- Promote SCICEX program within military and scientific communities
- Support development of plan for sustaining SCICEX, including the collection and dissemination of data



SCICEX Phase 2

Science Accommodation Missions (SAM)

State of SCICEX

- SAC (Richter-Menge)
- IAC (Harper)
- ASL (Gossett)
- NSIDC (Windnagel)

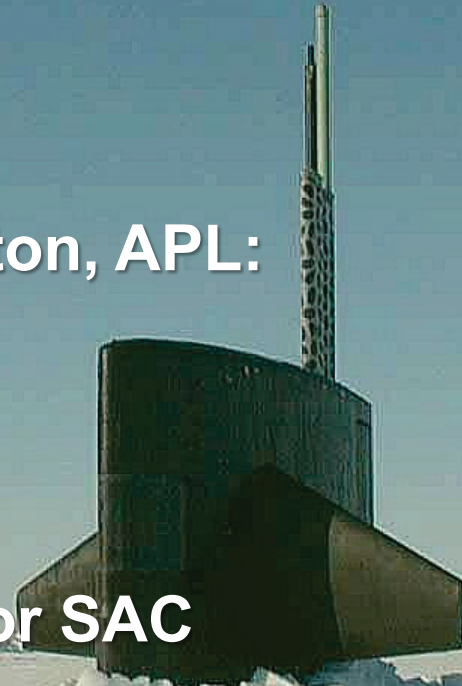


SCICEX Phase 2

State of SCICEX

SAC Report: Progress

- New SAC member:
 - Jamie Morison, U Washington, APL:
 - Hydrography
 - QA/QC XCTD data
- SCICEX resource support
 - USARC: Logistic support for SAC
 - ONR:
 - Research project support
 - NSIDC website
 - USN: ASL support

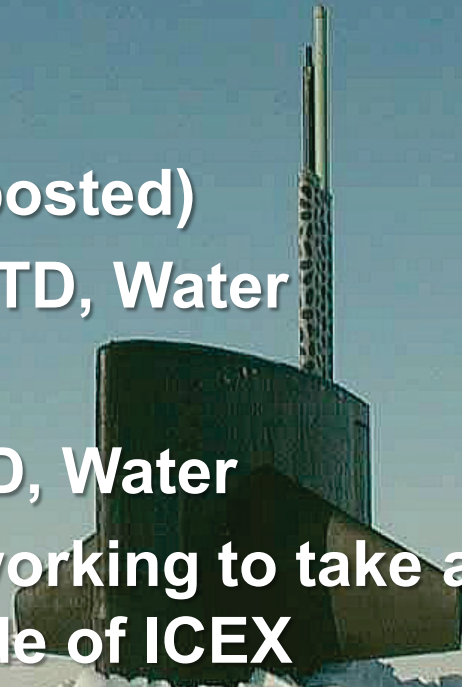


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State of SCICEX

SAC Report: Progress

- New SCICEX SAM data!!!! (* posted)
 - 2011: Bathy*, Ice Draft*, XCTD, Water
 - 2012: Bathy*, Ice Draft
 - 2014: Bathy, Ice Draft, XCTD, Water
- ASL, with support from USN, working to take advantage of existing opportunities outside of ICEX
- Improved method for training crew in the collection of water samples



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State of SCICEX

SAC Report: Progress

- Data management: Current set up working well
 - NSIDC:
 - Data receipt and archiving
 - Host SCICEX website
 - Oral history: George Newton
- SCICEX publication
 - 2013 Fall AGU: 2011 ice draft data (M. Wensnahan)
 - Journal article to follow



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State of SCICEX

SAC Report: Progress

- Increasing National interest in Arctic Region
 - National strategy: May 2013
 - DoD strategy: November 2013
 - First visual: Sub surfacing at ICEX
 - Task Force Climate Change: February 2014
 - SAM listed as past accomplishment
 - Specifically mentions SCICEX as priority
 - Science and technology
 - Conduct SAM when possible



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State of SCICEX

SAC Report: Concerns


- Sustained support for SCICEX
 - Funding for ASL?
- Need to demonstrate rapid access to quality SAM data
- Running a non-PI driven data collection program
 - Requires sustained support for:
 - Basic equipment and lab work
 - Data transfer and derived products
 - Quality assessment
 - Data archive
 - Web site



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State of SCICEX

SAC Report: Concerns

- Increasing program visibility within military and civilian communities
 - Leveraging increased National interest to maintain support for SCICEX
 - 1D view of SCICEX contribution: Data collection
 - IAC membership:
 - Increase representation
 - Increase active support
 - SAC membership:
 - Rotation schedule
 - Other?
- 
- A black submarine conning tower stands on a sandy beach. The tower is a dark, cylindrical structure with a vertical mast extending upwards. The background shows a clear blue sky and a distant horizon line over the ocean.

SCICEX Phase 2

Science Advisory Committee Meeting
20 & 21 May 2014

Wednesday, 21 May

Morning:

- Leveraging increased National interest in Arctic
- Promoting SCICEX
- SAC Membership
 - Rotation schedule
 - Composition
- Moving ahead
 - Odds n' ends

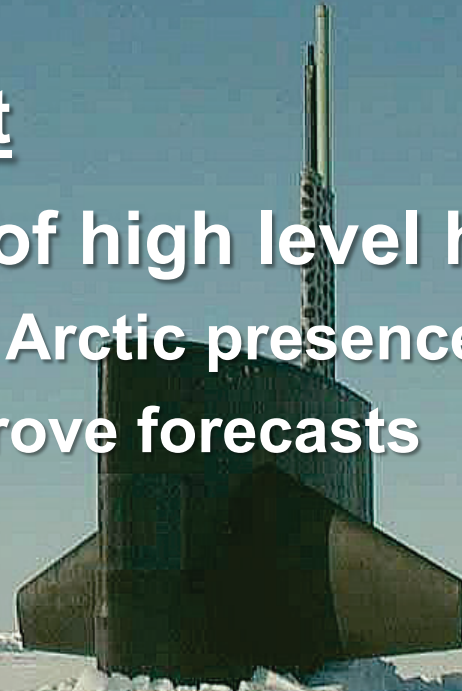


SCICEX Phase 2

Sustainment

Leveraging National Interest

- National strategy: Lots of high level hooks
 - Maintaining and building Arctic presence
 - Collection of data to improve forecasts
 - Innovative partnerships



SCICEX Phase 2

Sustainment

Leveraging National Interest

– DoD strategy

- Build cooperative strategic partnerships
 - Enhance regional expertise and cold-weather operational experience
 - S&T provides non-contentious opportunities for cooperation
 - Continue to train and operate routinely in region
 - Seek opportunities to contribute to observations and modeling
 - Leverage existing infrastructure and capabilities
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SCICEX Phase 2

Sustainment

Leveraging National Interest

- Navy Roadmap Update: TFCC
 - 1D: SCICEX contributes observations
 - Other potential linkages
 - Operations and training (only ICEX mentioned)
 - Development and evaluation of forecast tools
 - Multiyear hydrographic/bathy survey plan



SCICEX Phase 2

Sustainment

Leveraging National Interest

- SCICEX: Making the case
 - Contributes unique observations
 - Increased domain awareness
 - Improved forecasting tools
 - Operational and training experience
 - Detailed maneuvers
 - Innovative partnership
 - Military and civilian
 - Leveraging existing infrastructure and capabilities

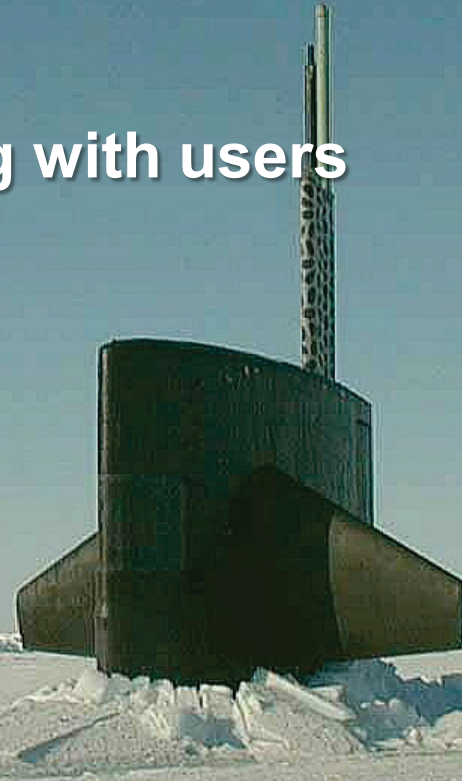


SCICEX Phase 2

Sustainment

Promoting SCICEX

- NSIDC web site: Connecting with users
- USARC: Updates
- Popular forums
 - ArcticInfo
 - cryolist
 - FAMOS
 - Others?



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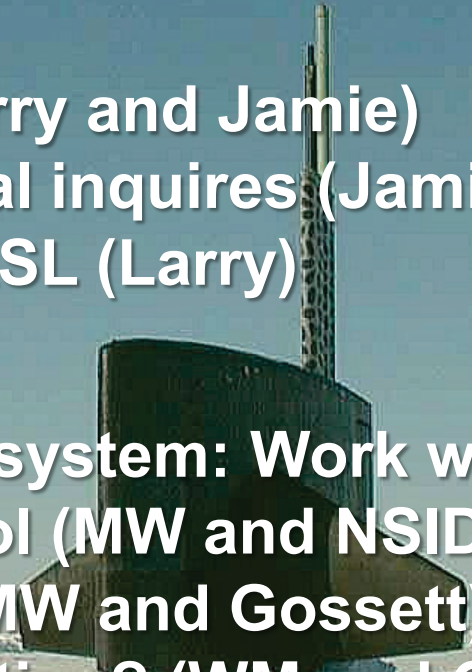
Moving ahead

– Bathy

- Map of priority sites (Larry and Jamie)
- Adding gravimeter: Initial inquires (Jamie)
- Calibration location to ASL (Larry)

– Ice Draft

- JHU ice draft collection system: Work with ASL
- Data processing protocol (MW and NSIDC)
- Re-evaluate 2011 data (MW and Gossett)
- 2012 data: Worth evaluating? (WM and ONR)
- 2014 data: Support for processing
- 2015/2016: Switch to first return (Gossett)



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Moving ahead

– XCTD and CTD

- 2014: XCTD performance variability (Gossett)
- 2014: NPEO comparison (Morison and Gossett)
- QA/QC of new data: Morison

– Water samples

- List of samples for non-ice camp ICEX (S&S)
- POAM for SCICEX SAM (Gossett)
- 2014 lessons learned (S&S and Gossett)
- Planning letter for 2016 (S&S)
 - Titration systems
 - Instrument TEMPALTs
- Resource requirements (JRM and S&S)

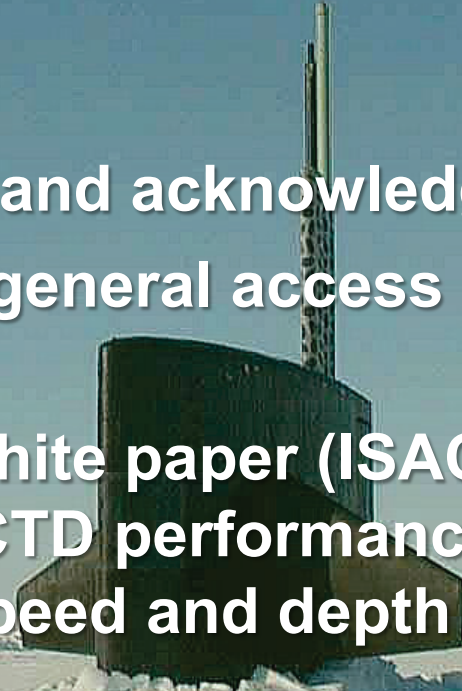


SCICEX Phase 2

Moving ahead

– NSIDC

- Tracking usage
 - Register users
 - Guidance on citation and acknowledgement
- Raw data: Guidance for general access
- Postings
 - Sambrotto SCICEX white paper (ISAC?)
 - Boyd white paper: XCTD performance
 - MW assessment of speed and depth impacts
- Historic data
 - Water samples: Ray to contact T. Whitledge
- Documentation
 - Work with SAC on protocols



SCICEX Phase 2

Moving ahead

– SAC Membership

- Rotation

- 2014-15: Tucker and Smethie

- 2015-16: Sambrotto and Richter-Menge (?)

- Composition (just suggestions)

- Modeler

- Someone working directly with ice draft

– ASL

- SCICEX SAM POAM

- Shadow for Gossett?



SCICEX Phase 2

Odds and Ends

- Posting Boyd's report on XCTDs
 - Posting record of IAC 2013 May meeting
 - Add Jamie's name to SAC
 - Announcing the new data via ArcticInfo, cryolist, FAMOS, etc.
 - JRM to coordinate delivery of additional topsounder data from ICEX2011 PBL
 - Gossett to provide coordinates for SCICEX box
 - NSF looking forward to receiving SCICEX science proposal: Data analysis
 - Arctic Observing Viewer (?): Adding SCICEX
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