Iceberg Sub-Committee Report

IICWG-18

September 29, 2017
Iceberg Modeling - Action Item IC 17-1

- Seek funding source(s) and research opportunities e.g., European Maritime Safety Agency, and research opportunities to develop and evaluate a method/model to track propagation of large icebergs after calving. Applies to both hemispheres.
- Responsible: W. Dierking, N. Young, C. Readinger
- Deadline: IICWG 2018
- Status:
  - OPEN
  - Reframed to make the key action searching for the funding; tightened up language. Does it still convey what we want?
  - show where it breaks off to smaller ice pieces that are difficult to detect with SAR imagery.
• Develop a file name standard to be used to compile one database of icebergs worldwide. Explore the creation of a script by BSH to merge multiple databases once standard is set.

• Responsible: Iceberg Subcommittee

• Deadline: N/A

• Status:
  – CLOSED
  – Subcommittee discussed and decided that existing, adjacent databases are acceptable.
  – While a single iceberg database may be a future goal, this item was deemed as a low priority for the next year and the subcommittee recommends closing this item.
• Evaluate the implementation of the NAIS Iceberg Drift and Deterioration Model in Argentina and Denmark.
• Responsible: M. Hicks
• POC: A. Scardilli, K. Qvistgard, N. Hughes
• Deadline: June 2018
• Status:
  – OPEN.
  – Limited funding to evaluate at DMI.
  – Slow-going for Argentina but expectation is to have model in place for Southern Hemisphere summer.
  – Nick offered to investigate a mechanism to facilitate implementation. (Nick, more specificity?)
Iceberg Monitoring - Action Item IC 17-9

• Share best practices on collecting “ground truth” iceberg data for continued model and remote sensing evaluation e.g., through use of iceberg tagging, vessel sightings etc.

• Responsible: M. Hicks

• Deadline: IICWG 2018

• Status:
  – OPEN.
  – IIP and CIS have similar action within NAIS that will be discussed during the Glacial Ice Hazards Working Group meeting in St. John’s, NL in October.
  – Re-worded to reflect sharing of best practices vice ‘developing a strategy’ and added ‘remote sensing’.
  – NAIS activity is but one example among others.
Action Item IC 17-10

Complete all action items from updated IAW-5 recommendations.

Status: COMPLETED

– IBSC considered recommendations from the 5th Ice Analysts Workshop (IAW) at NIC from May 2016

– 15 IAW recommendations: adopted 9 as Action Items and “tabled” 6 for future consideration.

– Most IAW actions involved WMO & JCOMM iceberg documentation revisions/updates and harmonization.

COMPLETED
• Update ICE ASSIST iceberg reporting standards with new SIGRID-3 convention once adopted by ETSI.
• Responsible: Nick Hughes
• Deadline: IICWG 2018
• Status: OPEN
Action Item IC 17-17

- Consider harmonization of sea ice and icebergs symbology in SIN and S-411 presentation library; agree on a need for a single JCOMM/WMO/IHO depository for all sea ice symbology; develop updates for corresponding documentation.

- Responsible: Iceberg Sub-Committee

- Deadline:

- Status:
  - DEFERRED.
  - Recommend adding this to the list of tabled items and revisit.

CLOSED
Action Item IC 17-18

- Consider clarification of wording in SIGRID-3 concerning using and mixing 2 and 6 letter identifiers. Develop updates for corresponding documentation (SIGRID-3, IOC).
- Responsible: Iceberg Sub-Committee
- Deadline:
- Status:
  - OPEN.
Action Item IC 17-19

• Summarize content and data sources for BYU iceberg database. Prepare short briefing for Iceberg to Subcommittee for further consideration.

• Responsible: C. Readinger

• Deadline: IICWG XIX

• Status:
  – OPEN.
Action Item IC 17-20

- Prepare and approve SIGRID-3 revisions for iceberg documentation.
- Responsible: Iceberg Sub-Committee
- Deadline:
- Status:
  - OPEN.
  - Redundant with IC17-15 & IC 17-16. Recommend incorporating into these AIs and closing as its own AI.
• Agree upon draft version of “Isolated, Few, Many” standard for operational test by each Ice Service.

• Responsible: M. Hicks

• Deadline:

• Status:
  – OPEN.
  – We have done a lot of work on this. Still need to consider Vasily’s suggestion to make our definitions more concise to be consistent with other SIN terms.
Action Item IC 18-1 (old 17-15)

- Review, compare, and harmonize iceberg polygon and point classes for iceberg concentration, max length/height, and non-ice S57 attributes in SIGRID-3 and Ice Objectives Catalogue. Agree on proposals and submit to ETSI.

- Lead: M. Hicks

- POCs: Iceberg Subcommittee

- Due Date: IICWG XIX

- Status:
  - OPEN.
  - Keeping users in mind, consider the need for new attributes i.e., what is missing?
  - Consider need and definition for “Unknown but Estimated”
Action Item IC 18-2 (old 17-16)

• Review, compare, and harmonize new symbols and color coding contained within Sea Ice Nomenclature I and III, Color Code Standard, and S-411 for the areas and boundaries of iceberg shape, size, number, and concentration. Agree on proposals and submit to ETSI.

• Lead: K. Qvistgard

• POCs: Iceberg Subcommittee

• Due Date: IICWG XIX

• Status:
  – OPEN.
  – Action item addresses how to portray areas of icebergs (not points)
  – Consider need and propose symbology for “Unknown but Estimated”
Action Item IC 18-3

- Share results from Glacial Ice Hazards Workshop (Oct 2017) on development of a North Atlantic iceberg limit and iceberg distribution climatology.
- Lead: M. Hicks
- POCs: Keld Qvistgard
- Due Date: Update status at IICWG XIX
- Status:
  - OPEN.
Action Item IC 18-4

• Develop a prototype product showing the Iceberg Limit for the Atlantic sector of the southern ocean (~Weddell Sea). Eastern extent TBD (METAREA VI, 0 Lon, 20E?).

• Lead: C. Readinger

• POCs: A. Scardilli, IIP

• Due Date: Prototype by July 30th. Written document by IICWG 2018.

• Status:
  – OPEN.
  – Subject to analyst time. Regular communication.
Argentina’s current product
Action Item IC 18-5

• Investigate the possibility of using “Machine Learning” as a way to exploit Big Data for iceberg detection using SAR imagery.

• Lead: M. Hicks

• POCs: G. Wachira

• Due Date: IICWG XIX

• Status:
  – OPEN.
  – Conduct literature search, develop contacts both within and outside of ice world
Action Item IC 18-6

- Investigate the possibility of using VHF Data Exchange System (VDES) for sending IIP Iceberg Limit.
- Lead: IIP
- POCs: J. Carson-Jackson
- Due Date: IICWG XIX
- Status:
  - OPEN.
  - Might represent a simple operational demo to move toward getting our ice information out onto ECDIS.
Ongoing activity

• Review Tabled IAW 5 Recommendations.

• Lead: M. Hicks

• POCs:

• Due Date: February 2018

• Status:
  – OPEN.
  – There are some potentially worthy recommendations but do we have the time priority?
  – Mike will circulate Tabled Recommendations for consideration.
  – Adopt similar approach as DICSSC committee