



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. Readerger**
- **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.**

CONTINUE



Iceberg Modeling - Action Item IC 17-3

- **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.**

CLOSED



Iceberg Modeling - Action Item IC 17-7

- **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?)**

CONTINUE



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.*

CONTINUE



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



Action Item IC 17-11

- **Update ICE ASSIST iceberg reporting standards with new SIGRID-3 convention once adopted by ETSI.**
- **Responsible: Nick Hughes**
- **Deadline: IICWG 2018**
- ***Status:***
 - ***OPEN***

CONTINUE



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.***

CONTINUED



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.***

CONTINUE?



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.***

CLOSED



Action Item IC 17-21

- 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.*

CONTINUE



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”**

CONTINUE



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”**

CONTINUE



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.***

CONTINUE



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.**

CONTINUE



Argentina's current product



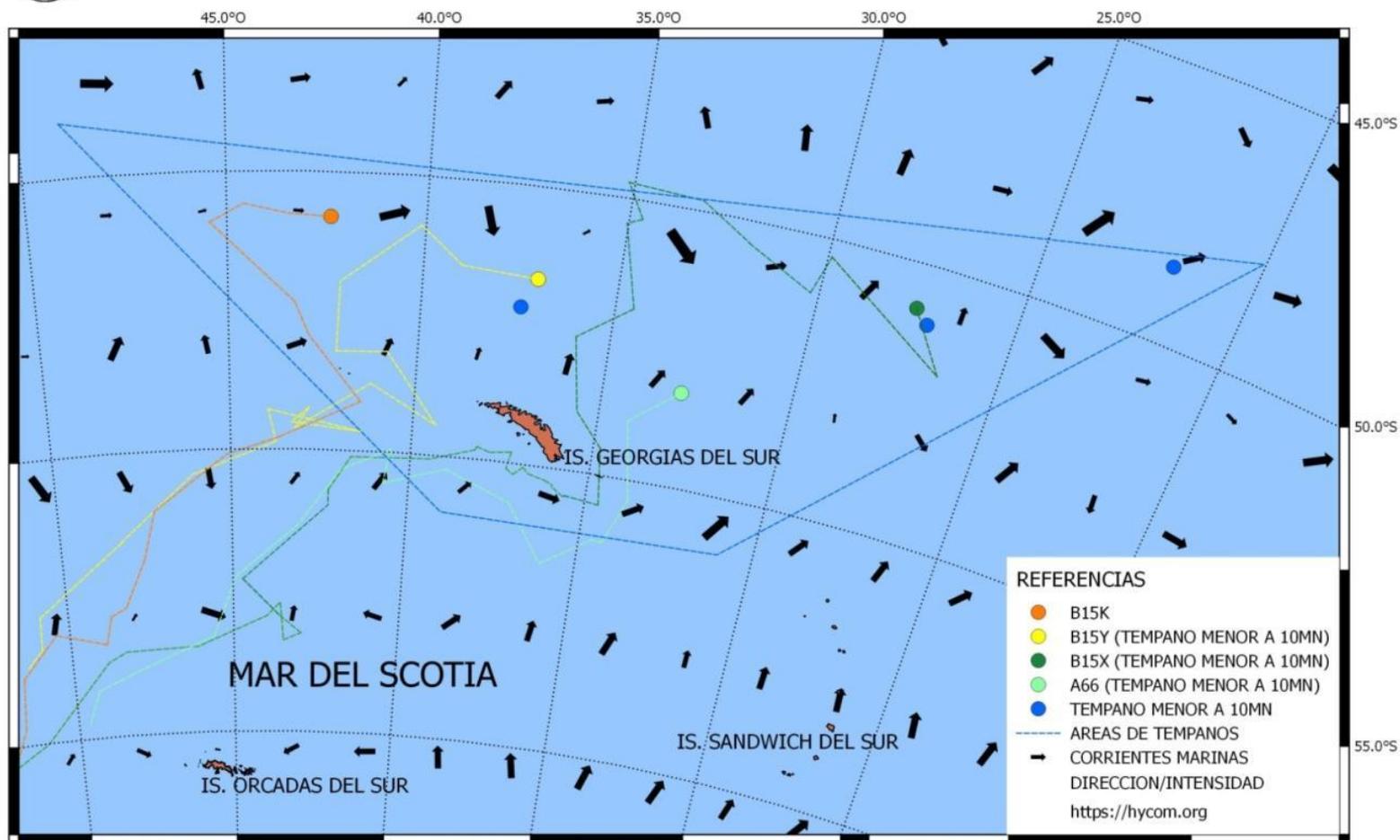
DEPARTAMENTO METEOROLOGÍA
SEGUIMIENTO DE TÉMPANOS MAYORES A 10 MN
FECHA DE ANÁLISIS: 03/10/2016



ARGENTINA
200 AÑOS DE
INDEPENDENCIA



Ministerio de Defensa
Presidencia de la Nación





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**

CONTINUE



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.***

CONTINUE



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***