

Danish Defence, Joint Arctic Command

Marine environment monitoring

Inuit name for Greenland (Kaalaaliit Nunaat) means: Land of the people

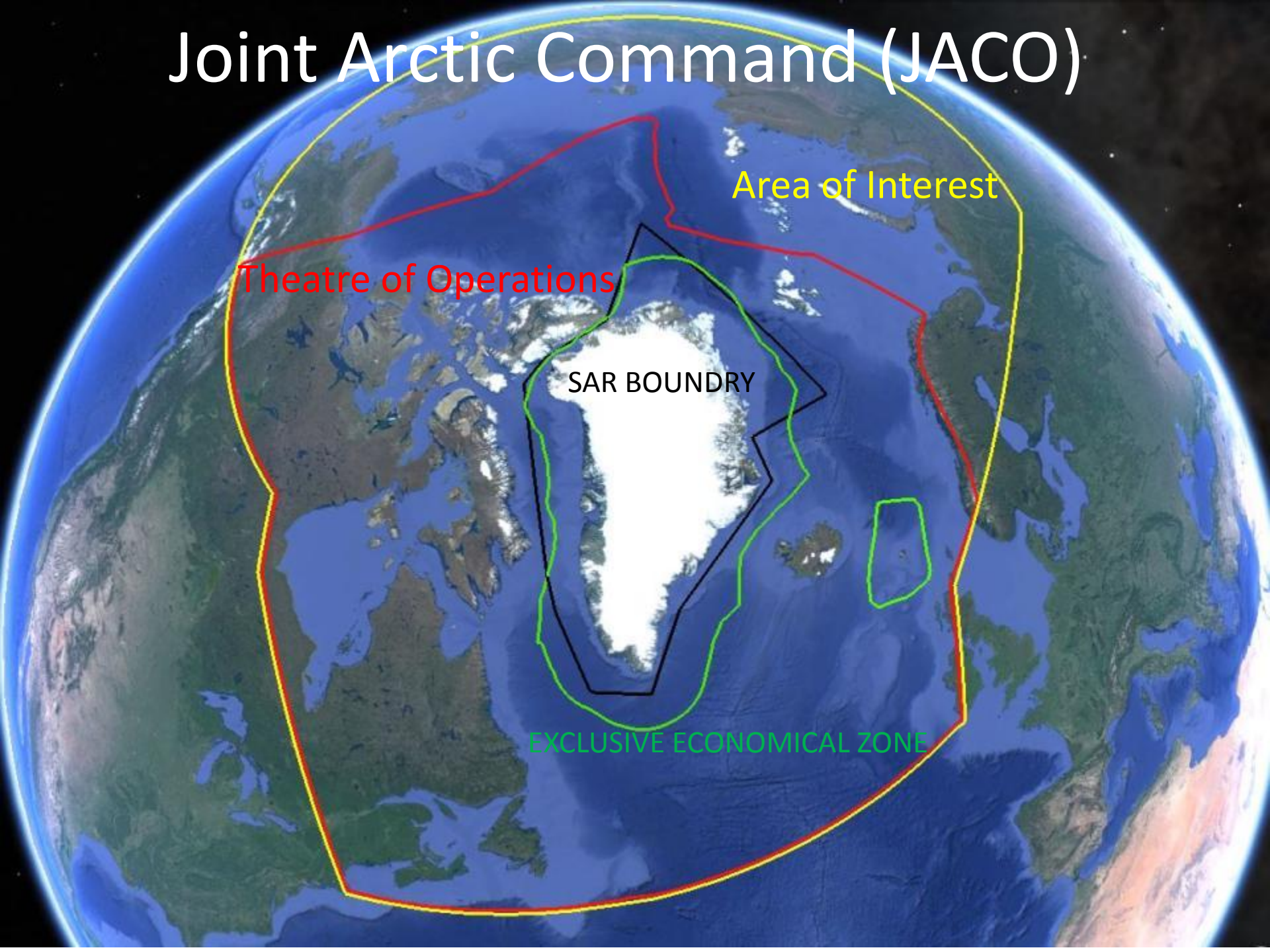


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ARCTIC COMMAND



Joint Arctic Command (JACO)





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GREENLANDIC – DANISH RELATIONS

SELF GOVERNMENT

- NON EU MEMBER-STATE.
- ENVIRONMENTAL PROTECTION.
- POLICE ENFORCEMENT OUT TO 3NM FROM COAST.
- HEALTHCARE, TAXATION, SOCIAL SERVICES.
- LEGISLATION ON FISHERY AND MARINE ENVIRONMENT PROTECTION

UNDER DANISH COMMONWEALTH

- TERRITORIAL DEFENCE
- REPRESENTATION IN UN
- REPRESENTATION IN EU
- ENVIRONMENTAL PROTECTION FROM 3 NM OUT TO 200 NM
- ECONOMIC SUBSIDARIES



80 % of Greenland is permanently covered in ice and glaciers



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FAROE ISLANDS – DANISH RELATIONS

SELFGOVERNMENT

- NON EU MEMBER-STATE.
- ENVIRONMENTAL PROTECTION FROM 3 NM OUT TO 200 NM.
- POLICE ENFORCEMENT OUT TO 3NM FROM COAST.
- LEGISLATION ON FISHERY AND MARINE ENVIRONMENT PROTECTION

UNDER DANISH COMMONWEALTH

- TERRITORIAL DEFENCE
- REPRESENTATION IN UN
- REPRESENTATION IN EU

Inland ice in Greenland is between 400.000 and 800.000 thousand years old



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ASSETS





Comments

List of possible spills

Spill # on map	Spill Identifier	Centre Position		Area (km ²)	Length (km)	Width (km)	Alert	Oil Spill Warning Issued	Possible Source	
		Latitude	Longitude						Detected	Identified
1	OS_1808160016_1	62° 39' 24" N	052° 45' 15" W	0.49	1.89	0.44	Green	NO	No	No
2	OS_1808160016_2	62° 57' 54" N	051° 05' 27" W	0.42	0.89	0.82	Green	NO	No	No

Note: Possible spills outside alert area are presented on map - Additional spills may also have been reported outside the map - Please consult GIS Viewer

Hot springs in Southern Greenland has wells which has 37 degree water year around



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COURSE OF ACTION

- MARITIME DOMAIN AWARENESS

- VESSEL ANALYSIS
- WEATHER ANALYSIS
 - WIND GAUGE
 - WIND DIRECTION
 - CURRENTS
 - PROTECTED AREAS
- ALLOCATION OF SHIPS
 - MILITARY
 - POLICE
 - CIVILIAN



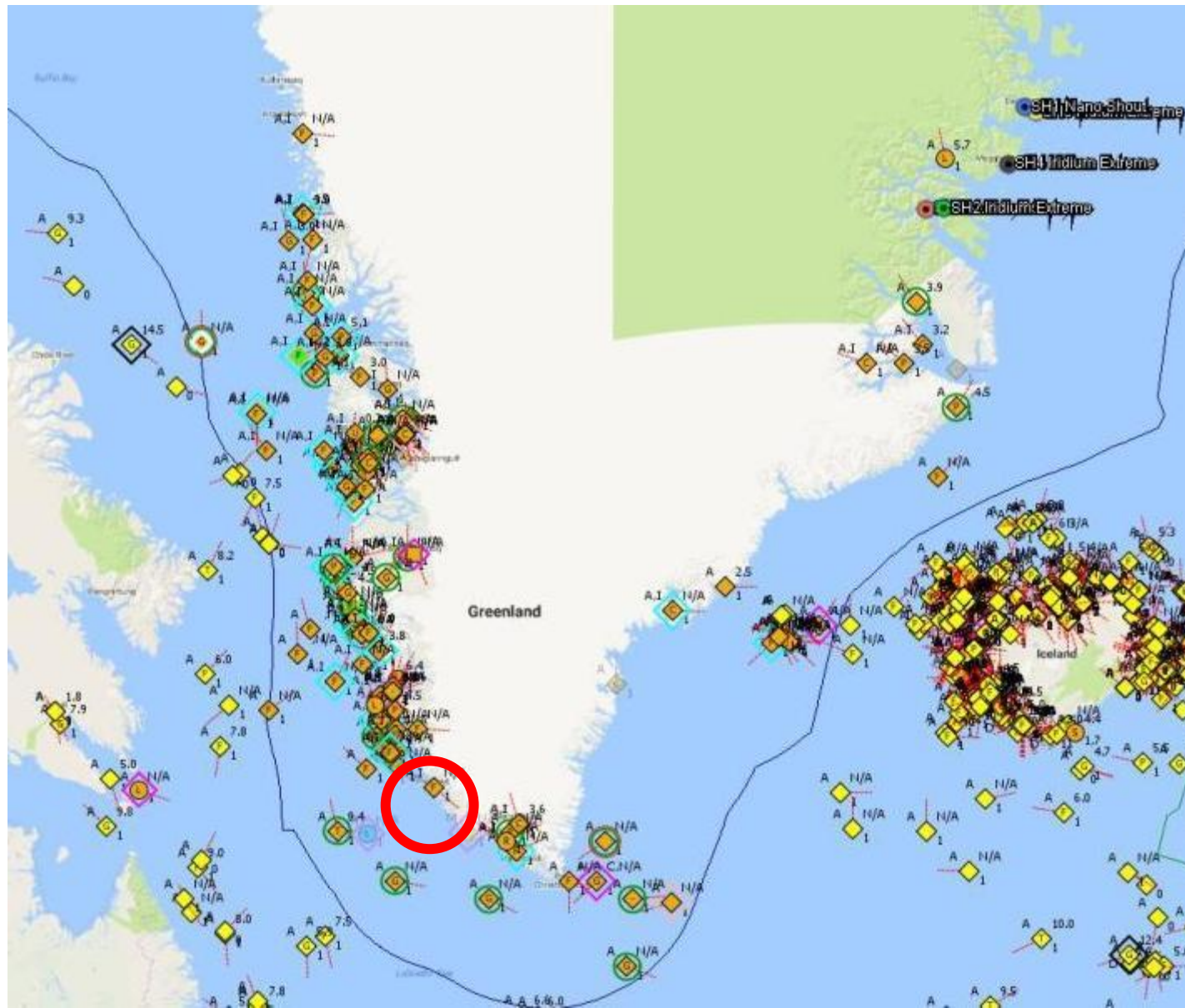
North of the polar circle the sun doesn't set between 25 May and 25 July.



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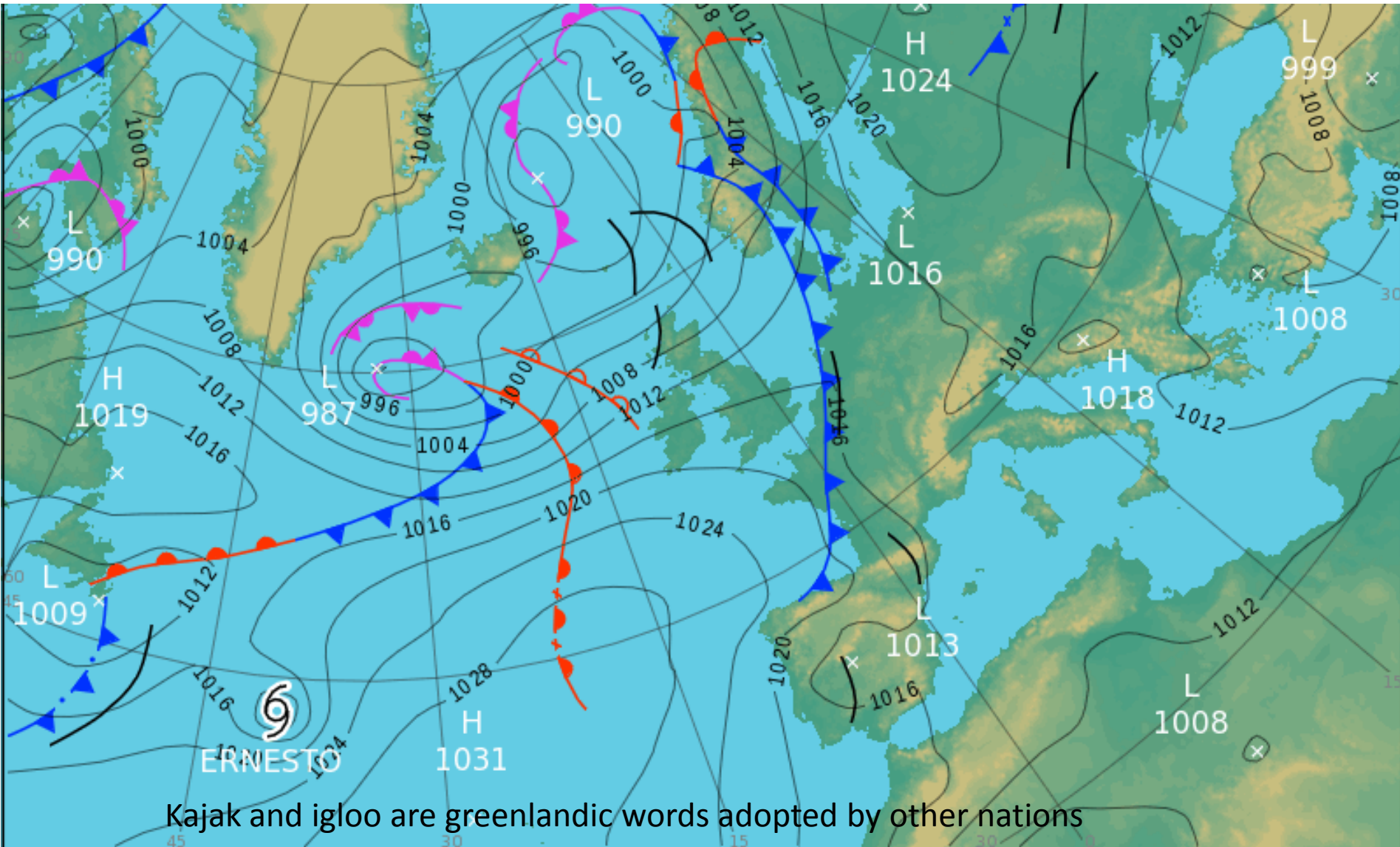




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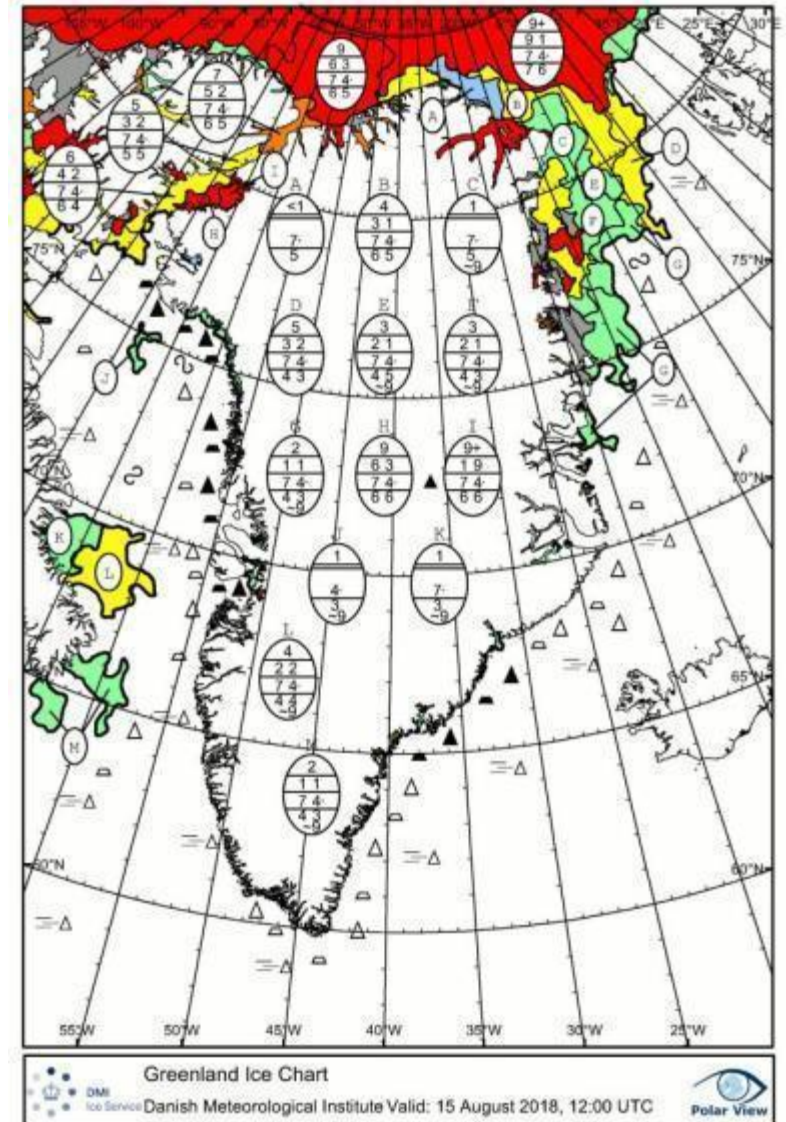
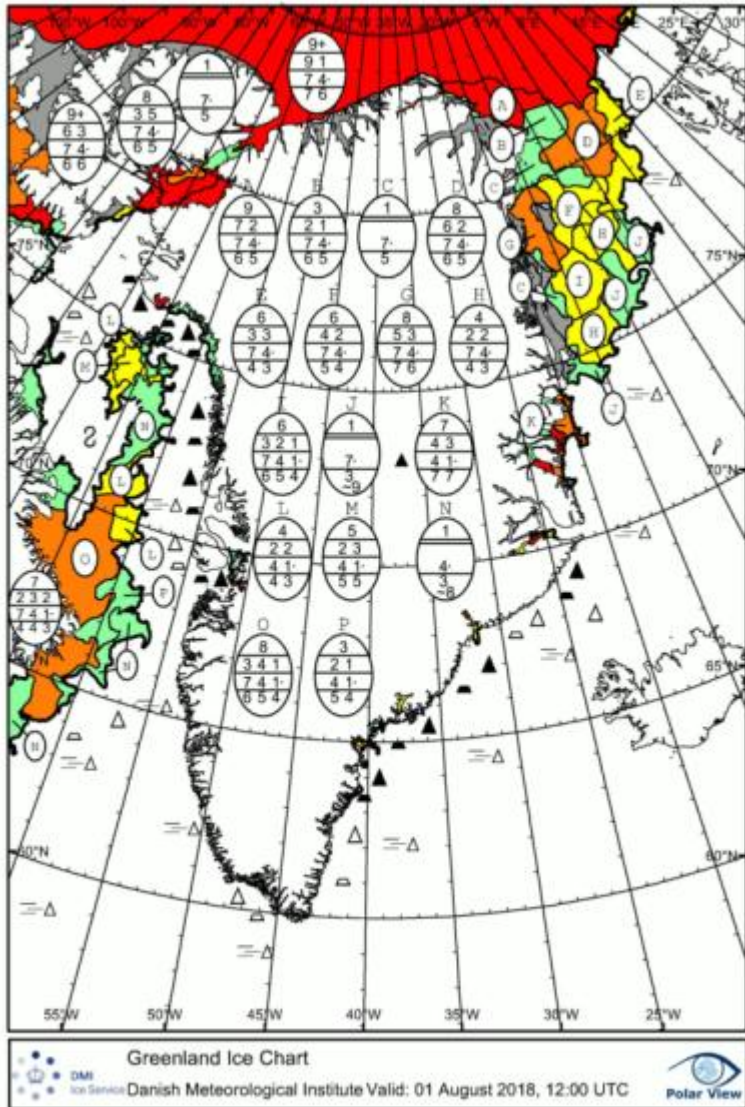
Kajak and igloo are greenlandic words adopted by other nations



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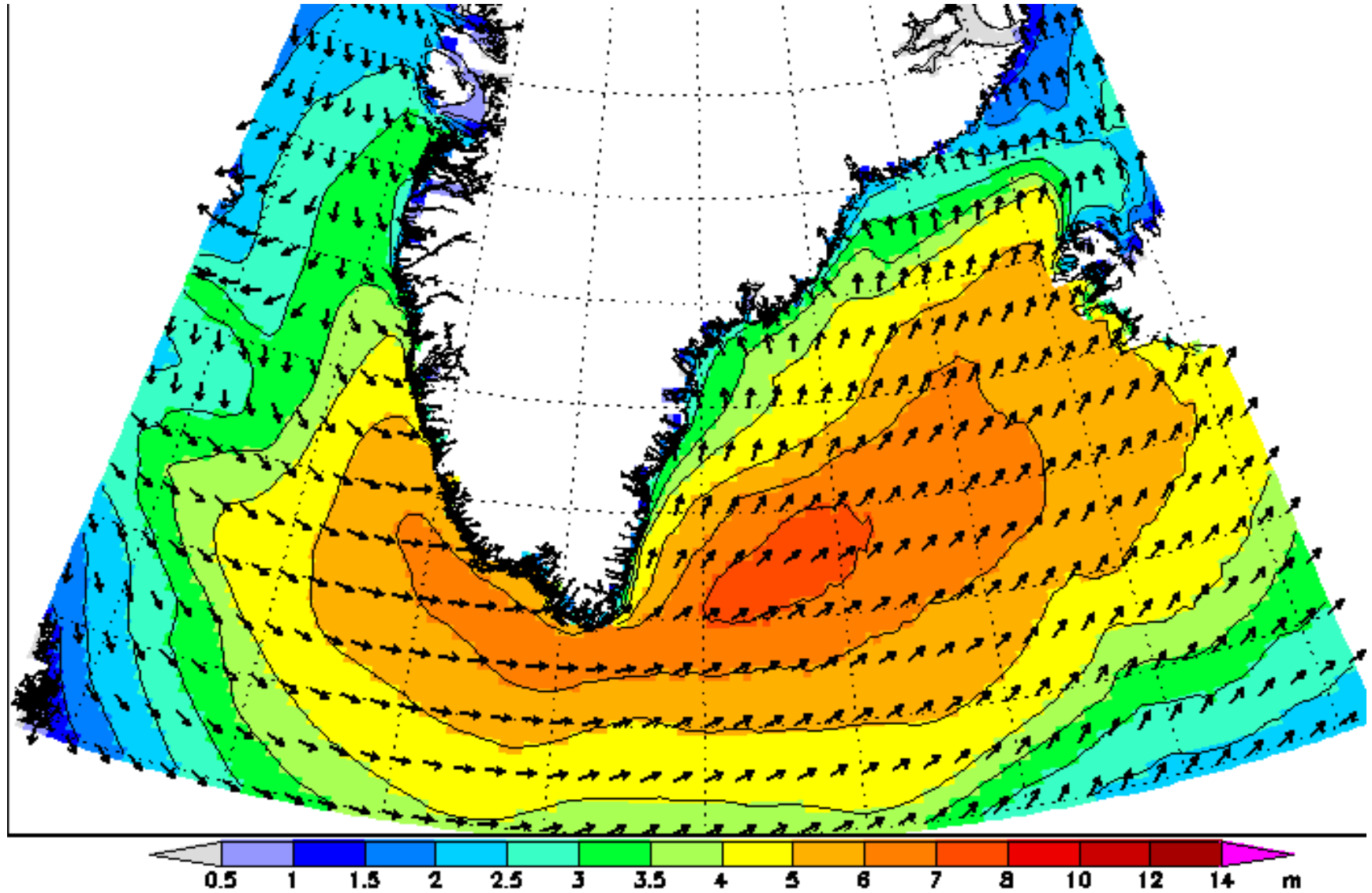




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ALLOCATION

Civilian

Commercial Vessel SARFAK ITTUK

En route between Nuuk and S
Greenland
2 hours away

Militære

HMDS HVIDBJORNEN

250 NM away – 18 hours

Danish Air Force CHALLENGER

On mission in N Greenland – divert
time 9 hours





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RESULTS

NO SPILL FOUND

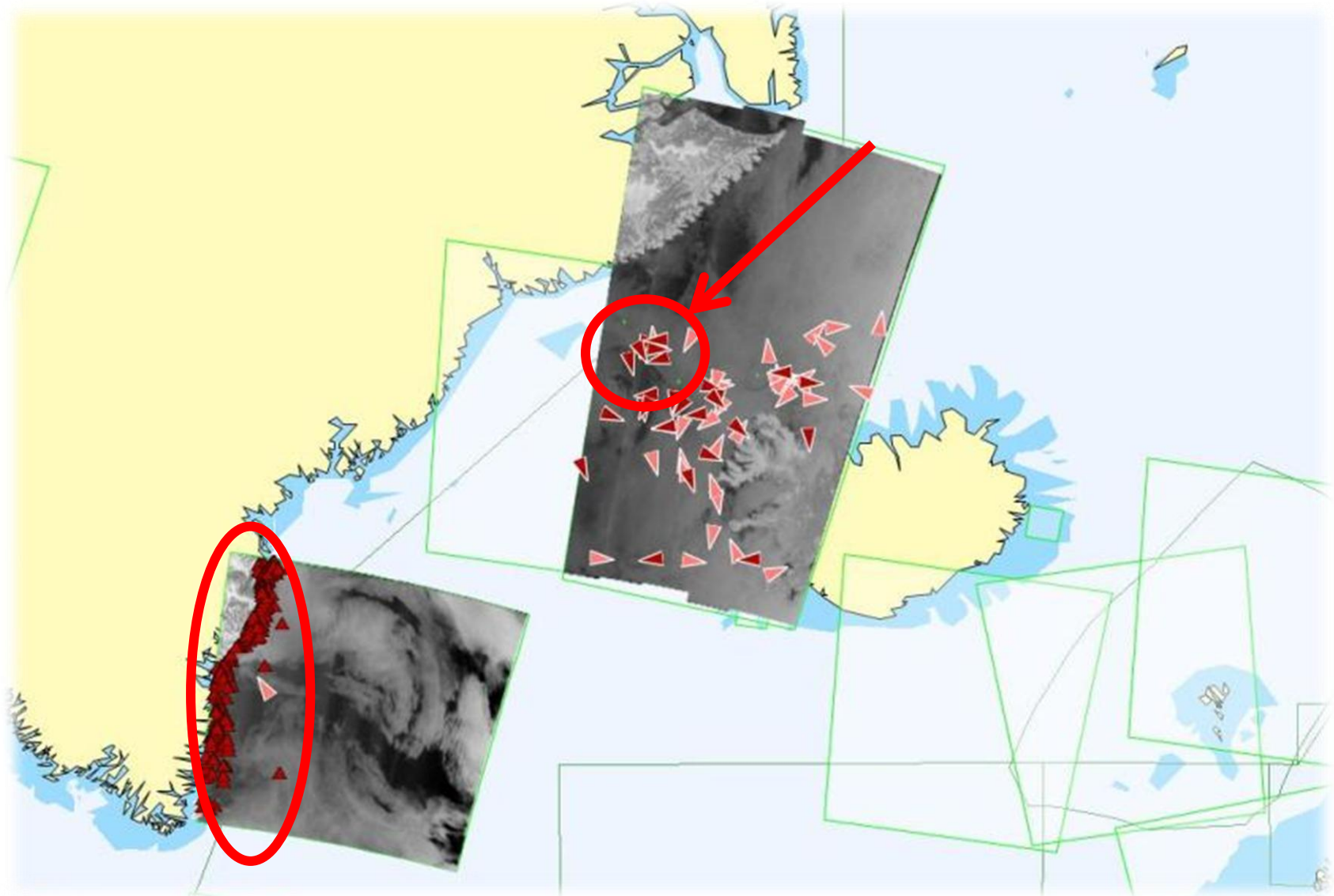
- Large areas of drifting ice.
- Large areas of drifting seaweed



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COURSE OF ACTION

- MARITIME DOMAIN AWARENESS
 - VESSEL ANALYSIS
 - CLASSIFIED PICTURE
- AGREEMENTS AND PERMISSIONS
 - STATE VESSELS
 - COMMERCIAL VESSELS
 - LOCAL VESSELS
- WEATHER ANALYSIS
 - WIND GAUGE
 - WIND DIRECTION
 - CURRENTS
- ALLOCATION OF SHIPS
 - MILITARY





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RESULTS AND FINDINGS

SW

ICECLUSTERS ALONG COAST

SPOTTED BY LOCAL FISHERMEN

CONTACTED BY JRCC GREENLAND

NE

ONE ITEM UNACCOUNTED FOR

OWN SHIPS: 8 HOURS AWAY

OWN AIR-UNIT: ENGAGED IN SAR

CIVILIAN SHIP CONTACTED

DRIFTING ICE BLOCK AT POSITION



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SPECIAL CASE

POTENTIAL MARINE POLLUTION FROM ICE

- OIL, VESSELS, RESEARCH AND OTHER ON NON-PERMANENT ICE.
- PREVENTIVE MEASURES

AQUISITION OF PICTURES ON ICE

- NOT WITHIN THE SCOPE OF EITHER COPERNICUS PROGRAM OR EMSA IN GENERAL.
- NO FIXED PLACE FOR AQUISITION OF PICTURE

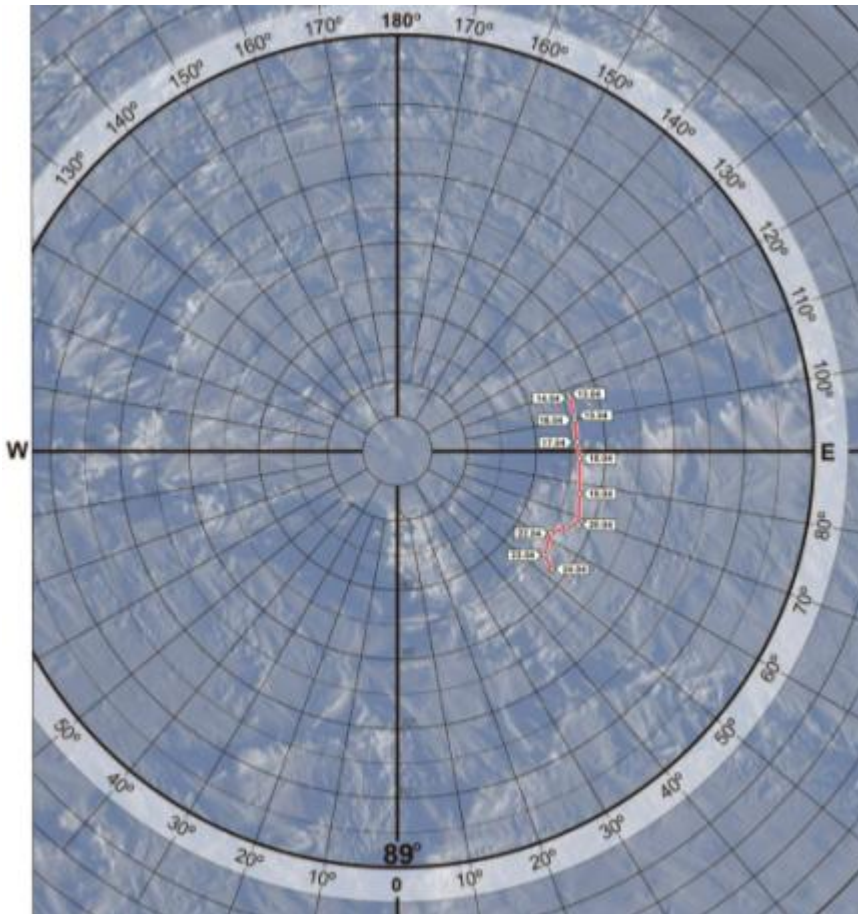


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CAMP BARNEO



Russian research facility in Greenlandic waters

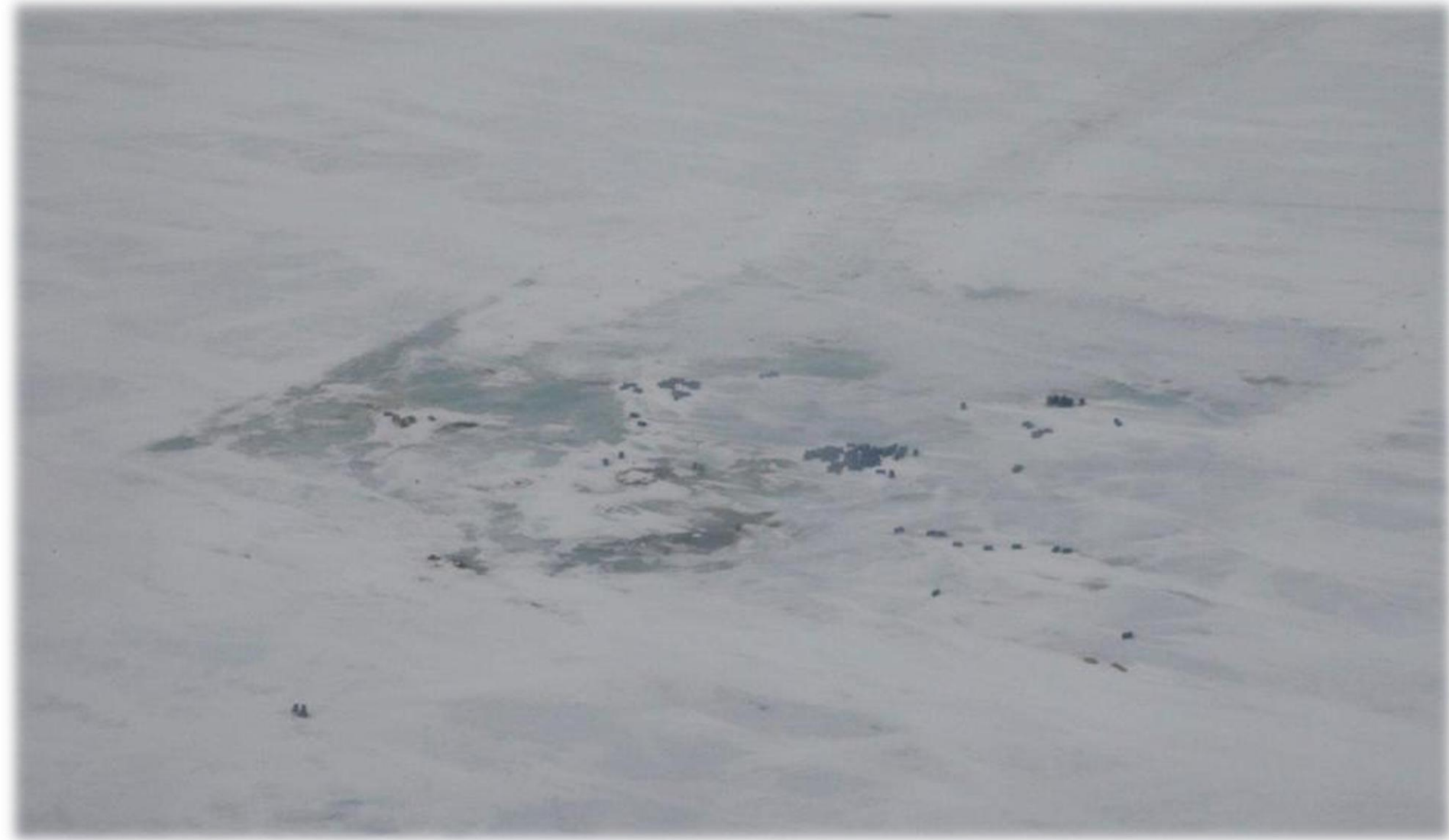
- Research through winter
- Drift through spring
- Sinking in early summer



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ARCTIC COMMAND

SL ROAF SQN 721
85°48.7231' N 3°44.9018' E
SPD 224 KTS HDG 113 °T
ALT 963 FT



85°48.8806' N 3°48.9732' E
SPD 0 KTS HDG --- °T
ELV 0 FT SLT 0.36 NM

2017/06/26
15:34:00 Z

LRF TARGET
---' ---'
---' ---'
ELV --- FT
SLT --- NM

LRF L ARMED
IP C ARMED
LI ARMED

HDEO
DOE
FOC MAN
EXP MAN

GEOPOINT
INS NAV 0.03°

TRK GEN

SLAVE READY

W 26 FT N





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ARCTIC COMMAND

PL RDAF SQN 721
85°49.1867' N 3°52.2080' E
SPD 183 KTS HDG 255 °T
ALT 690 FT

2017/03/26
15:04:06 Z



85°48.8677' N 3°49.2828' E
SPD 0 KTS HDG --- °T
ELV 28 FT SLT 0.41 NM

LRF TARGET
85°48.8636' N
3°49.3628' E
ELV 28 FT
SLT 0.58 NM

LRF L INH RGN
LP C INH RGN
LI INH RGN

HDEO
DDE
FOC MAN
EXP AUT
W N 28 FT



GEOPOINT
INS NAV 0.03°
TRK GEN
SLAVE READY





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ARCTIC COMMAND

AL RDAF SQN 721
86°48.7614' N 3°39.6363' E
SPD 213 KTS HDG 117 °T
ALT 487 FT

2017/03/26
18:48:56 Z



86°48.8637' N 3°48.7121' E
SPD 0 KTS HDG --- °T
ELV 28 FT SLT 0.54 NM

LRF TARGET
86°48.8636' N
3°48.3625' E
ELV 28 FT
SLT 0.58 NM

←N-

LRF L ARMED
LP C ARMED
LI ARMED

SWIR
DDE
FOC MAN
EXP AUT
W N 43 FT



GEOPOINT
INS NAV 0.02°

TRK GEN
SLAVE READY



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QUESTIONS AND COMMENTS