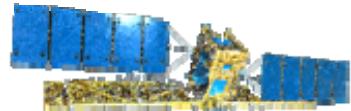


# U.S. National / Naval Ice Center (NIC)



20 April 2011  
Caryn Panowicz  
National Ice Center



USN



USCG



NOAA

# Outline

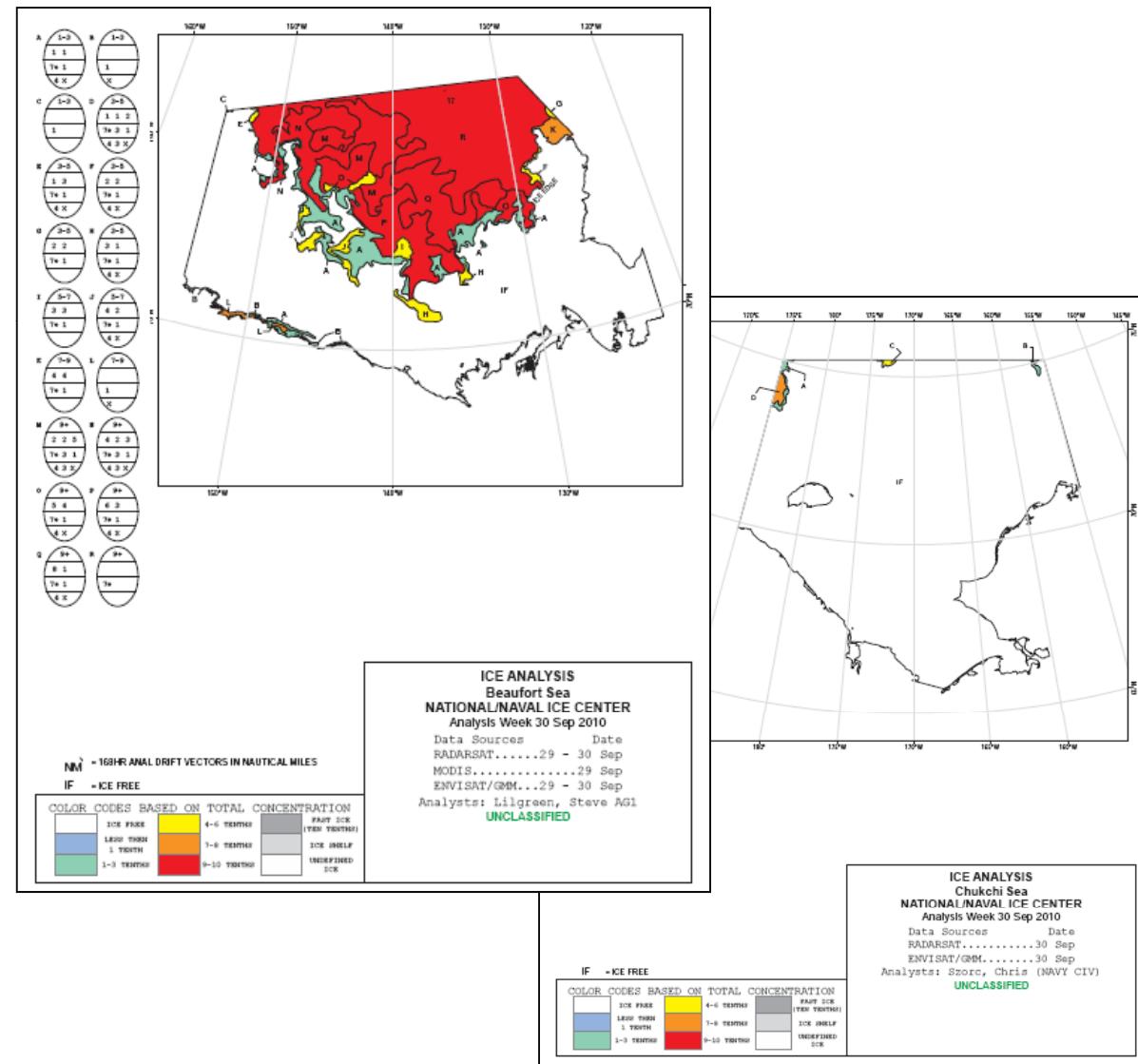
- Climo/Current Ice Comparison
- HLY 1101
- HLY 1102
  - NIC
  - Science
- HLY 1103
- What NIC Needs
- Back to Science





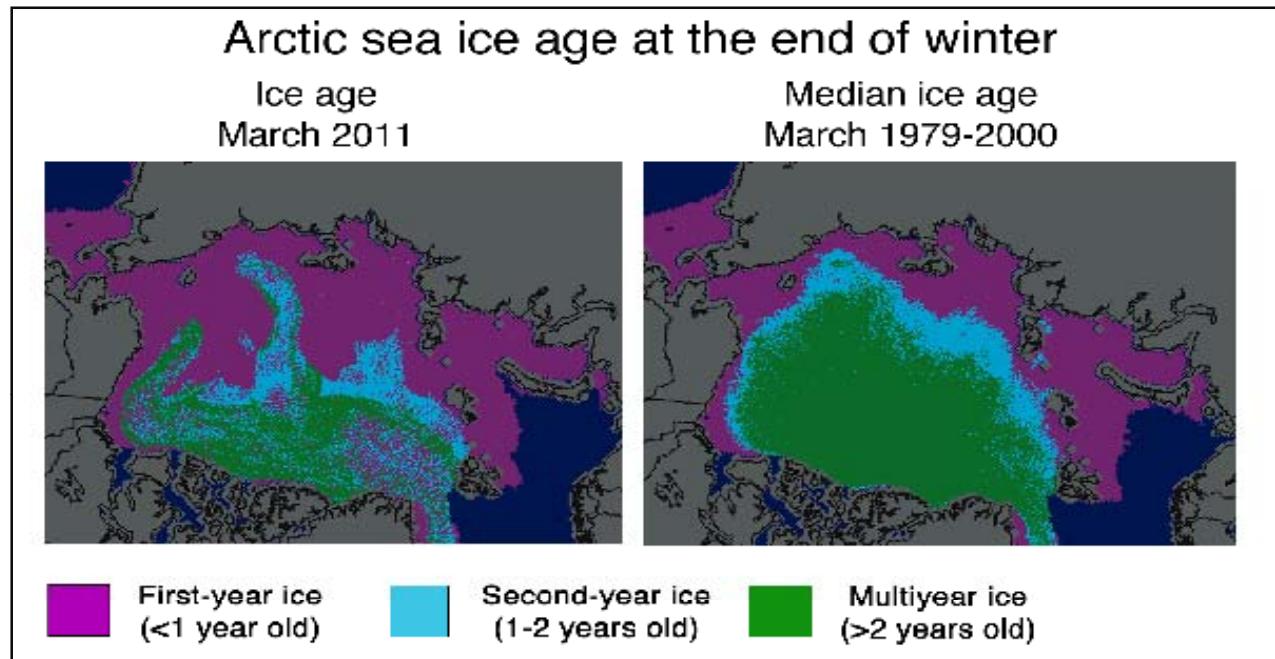
## End of 2010 Season

- As of 30 Sep 2010, most ice in Beaufort Sea was old ice - Sea ice which has survived at least one summer's melt.
- In Chukchi, the area was predominately sea ice free.
- Minimum was 19 Sep – 1.78 mil sq miles
- End of summer 2010 – less than 15% of ice remaining in Arctic was more than two years old.





# March 2011



Remaining older, thicker ice still younger than 1979-2000 average ice age.

“Almost none” of the oldest ice – more than 4 yrs

Difference in appearance of older ice with a tongue of old ice extending from north of CANARC into the Beaufort and Chukchi Sea. - Caused by combination winds and currents and ocean temperatures.

Temp: 7-9 C (13-16 F) above average over Chukchi.

March Trend -2.7%/10 year

Ice extent 2<sup>nd</sup> lowest for March

Max extent Mar 7 at 5.62 mil sq miles

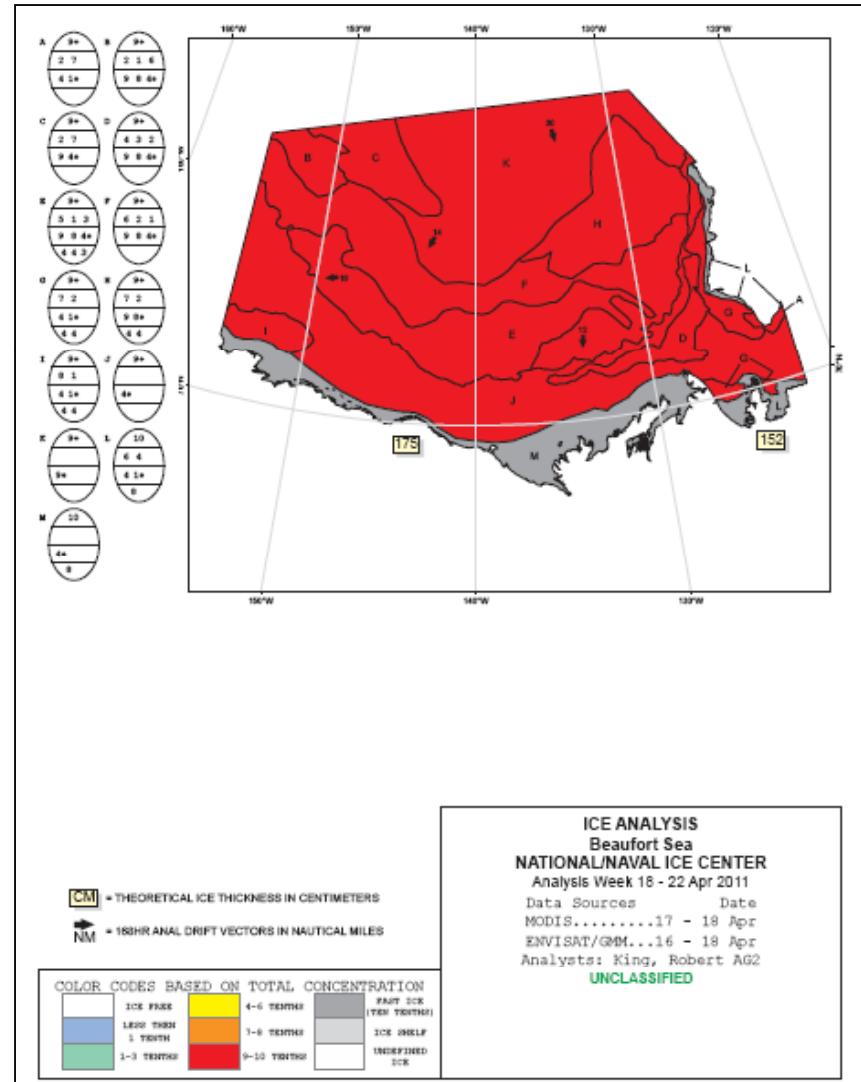
NSIDC courtesy J. Maslanik and C. Fowler, Univ of Colorado



# Current Beaufort Sea

## Beaufort

- 2011 estimated ice thickness is fairly close to 2010 thickness.
- Eastern portion of the Beaufort Sea approx **2cm thicker** in 2011 in the eastern portion and **7cm thinner** in the central.
- Multiyear ice is much closer to the coast in the eastern half of the Beaufort, approx **30nm off of Banks Island in 2011**, and **420nm in 2010**.
- MY further away from the Alaskan Coast in the western portion. In **2010 the multiyear line also approx 20nm north of Pt. Barrow**, in **2011 the multiyear was approx 200nm north of Pt Barrow**

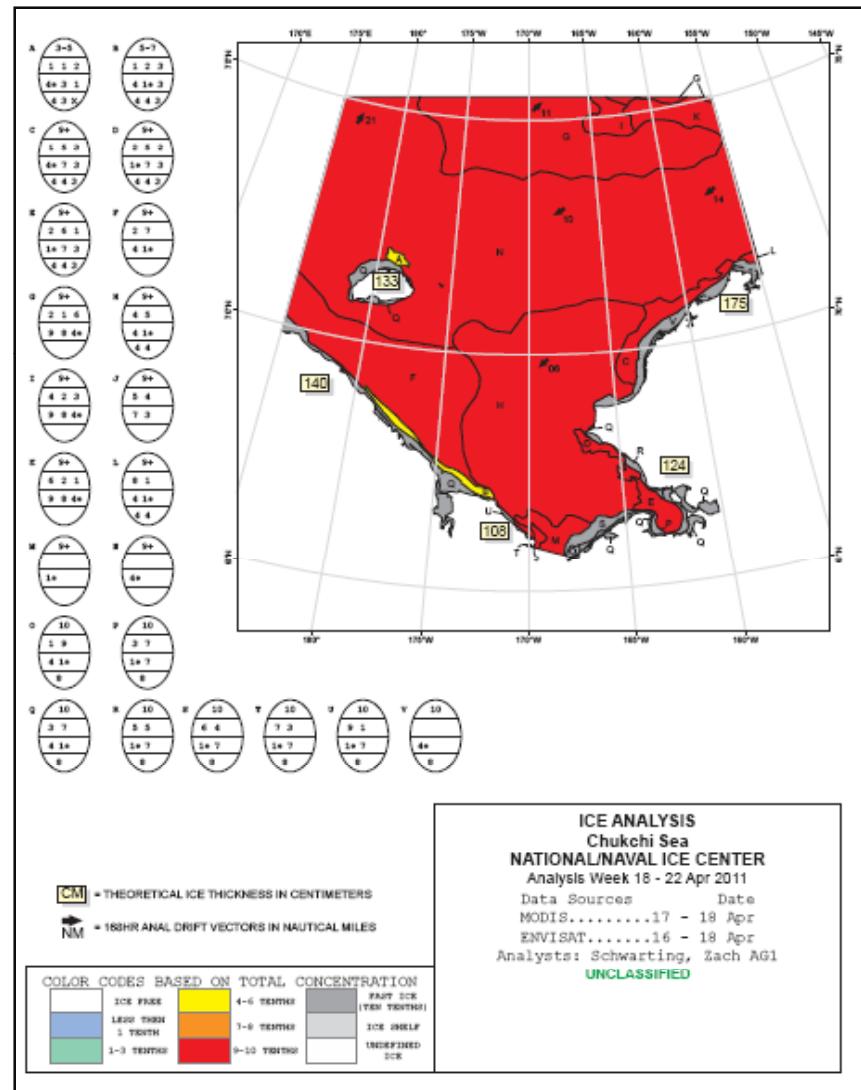




# Current Chukchi Sea

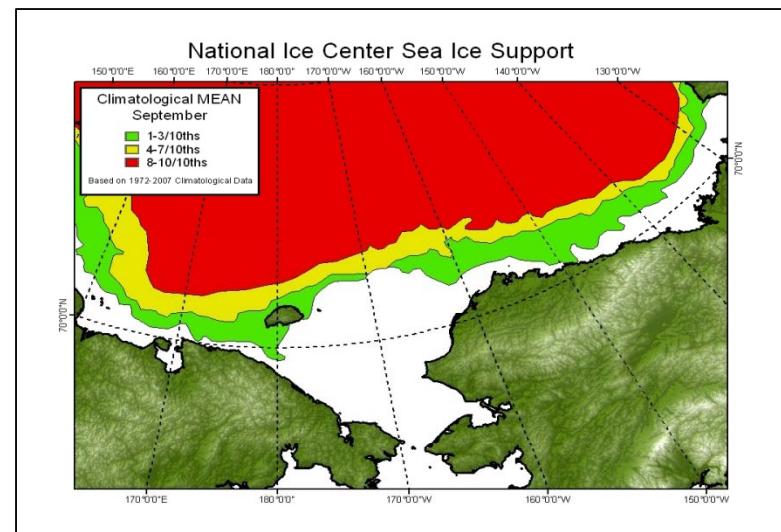
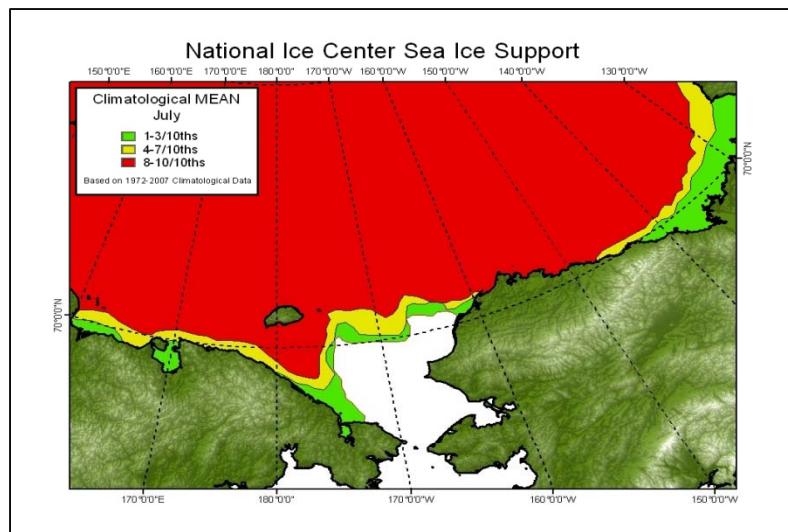
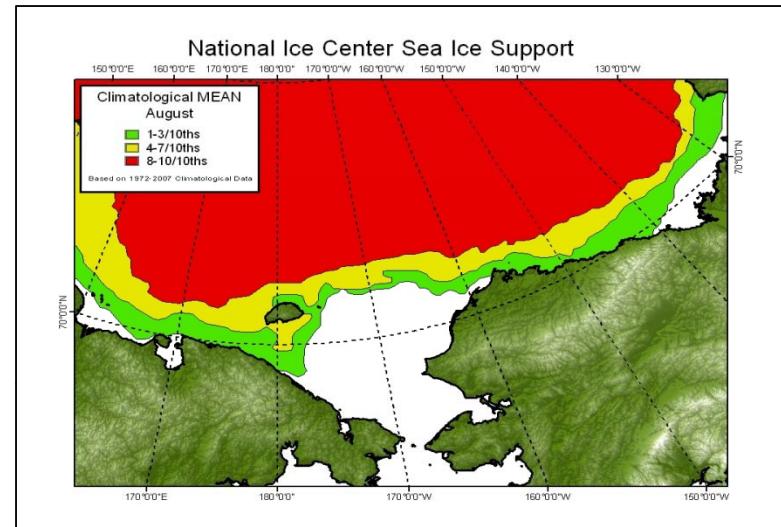
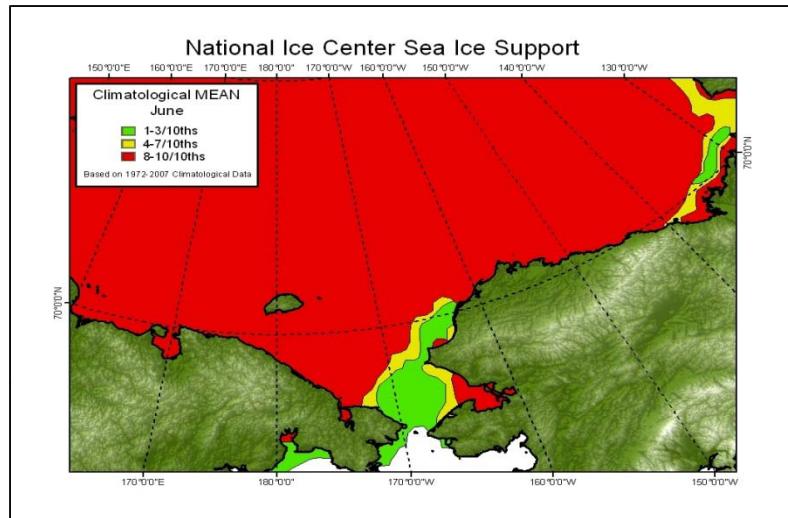
## Chukchi

- 2011 ice is **thinner** (approx. 10cm) than 2010, however a lot less multiyear ice in 2011.
- **Southern extent of multiyear ice is approx. 74N in 2011, 2010 saw multiyear ice extend to just south of 70N east of 169W.**





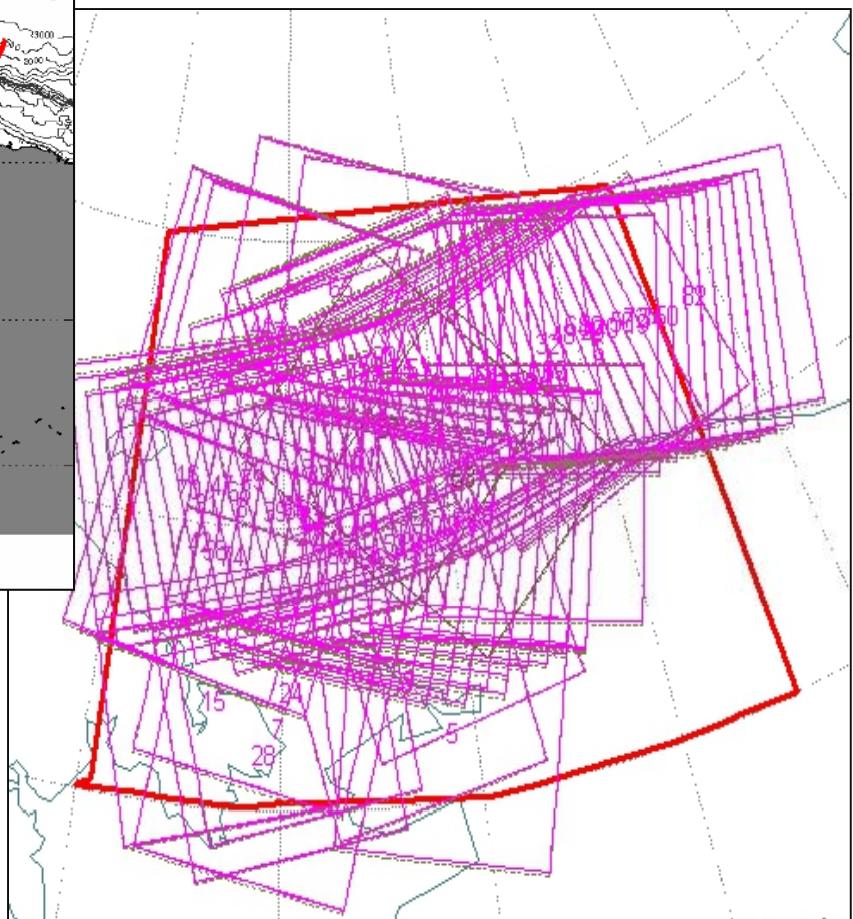
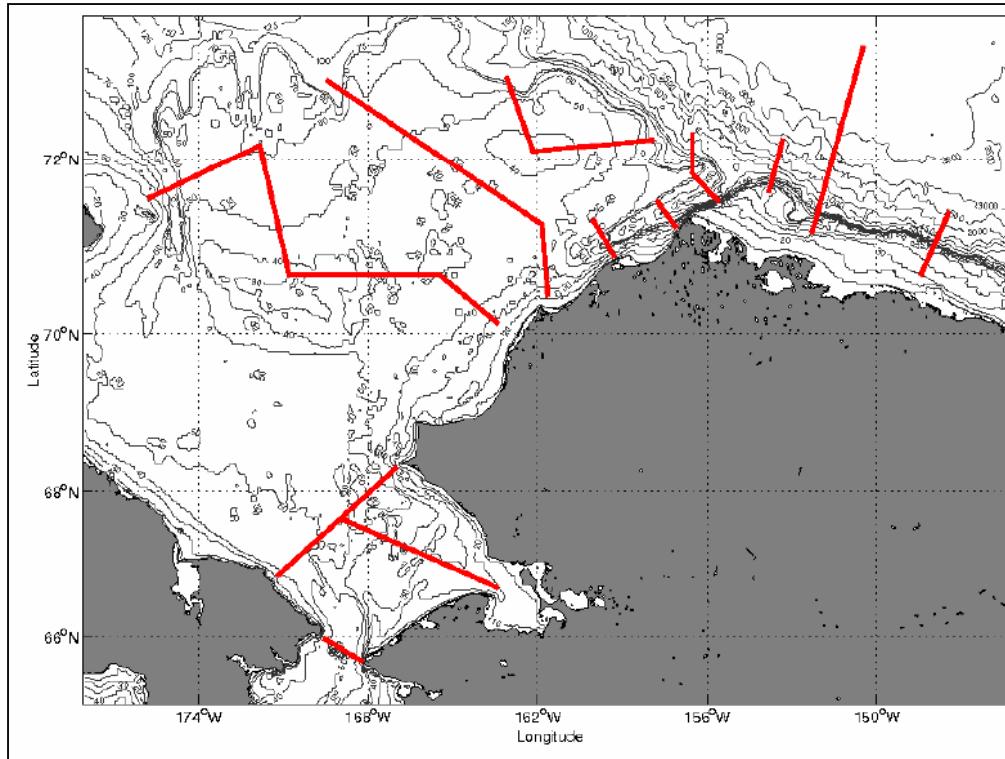
# Climatology June - September





# HLY1101

## June 25 to July 29 2011



- Ordered 82 RSAT2 images
- Also receive any additional images from NIC ordered for routine analysis.

*Daily schedule available.*



HLY 1102

UNCLOS/ECS - 11 August-28 September 2011

## Joint OPS 23 Aug-23 Sep

- Personnel from Norfolk Fleet Weather Service will be onboard.
- NIC send Ice Analyst to training US Navy personnel and provide daily brief/ice information.

*Confirm billet – Healy OPS Officer*

- NIC Ice Analyst **will** also **be** the reach back to the NIC.

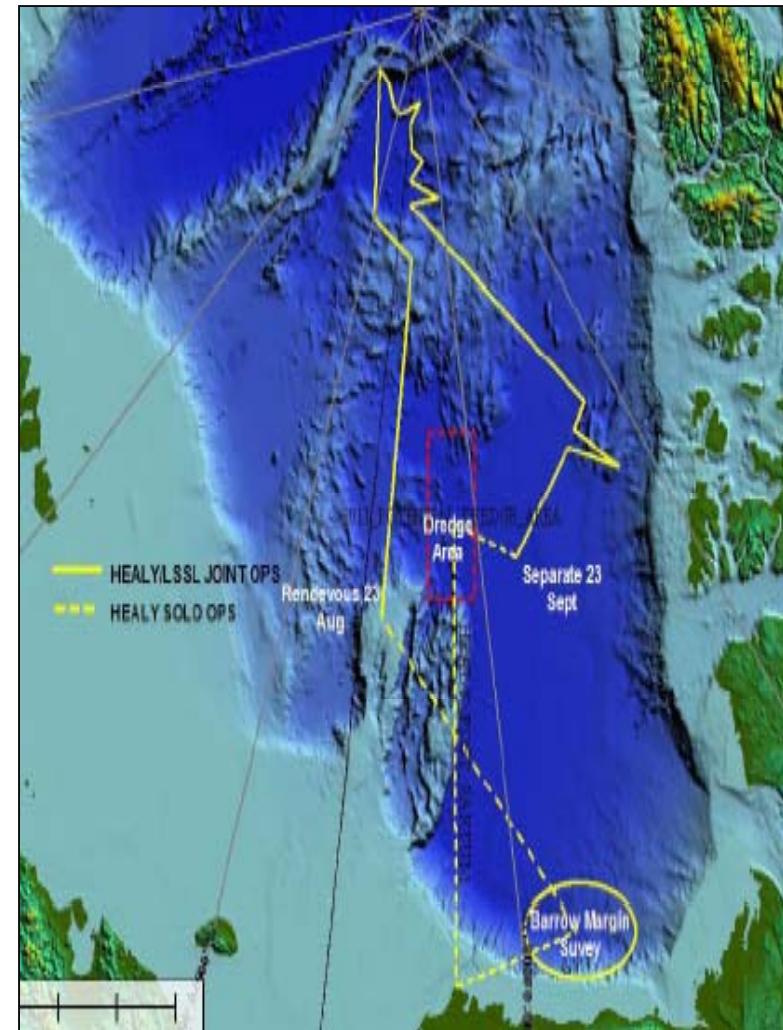
NIC Duty Ice 301-938-6541

NIC CDO 301-943-6977

OPS – 301-817-3942

OPS Floor – 202-761-1401

- CIS **WILL NOT** be sending Ice Analyst





# HLY 1102

## UNCLOS-ECS

- UNCLOS 2010 – Approx 268 images

This Year:

***Edward Lau***

- UNCLOS 2011 – 50 to 175 more images **depending on selected polarization and participating agencies.**

**Daily schedule available.**

MDA will also send email:

- Informing Healy to retrieve files from MDA server

- Server will contain multiple files with The different compression-file sizes

Last Year:

A new ESA ENVISAT ASAR WSM image is now available.

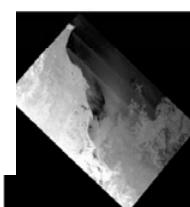
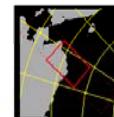
Area: Beaufort / Chukchi Sea  
Image: WSM\_SS\_20100729\_213239\_0332\_2.dim  
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Please follow the links to access the image and see the preview images attached to this email.

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For additional information on Antarctic coverage please visit <http://www.polarview.ag/>

For additional information on Arctic coverage please visit <http://www.polarview.ag/arctic>



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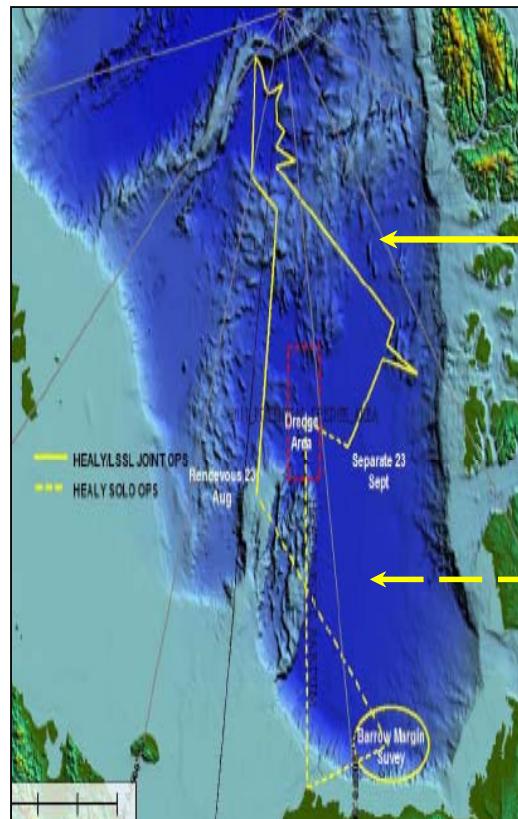
- Also work with PolarView. Already sent file to PolarView for test.



# COLLABORATION

- NIC, CIS, MDA thru KSAT and Polar View
- Science Departments of participating agencies
- Share the cost of SAR imagery and Conduct test of KSAT onboard system.
- Collect data for project on use of dual pol SAR Data in Operations.

***Dr. Pablo Clemente-Colon***



Joint OPS 23 Aug-23 Sep

MDA/CIS Project

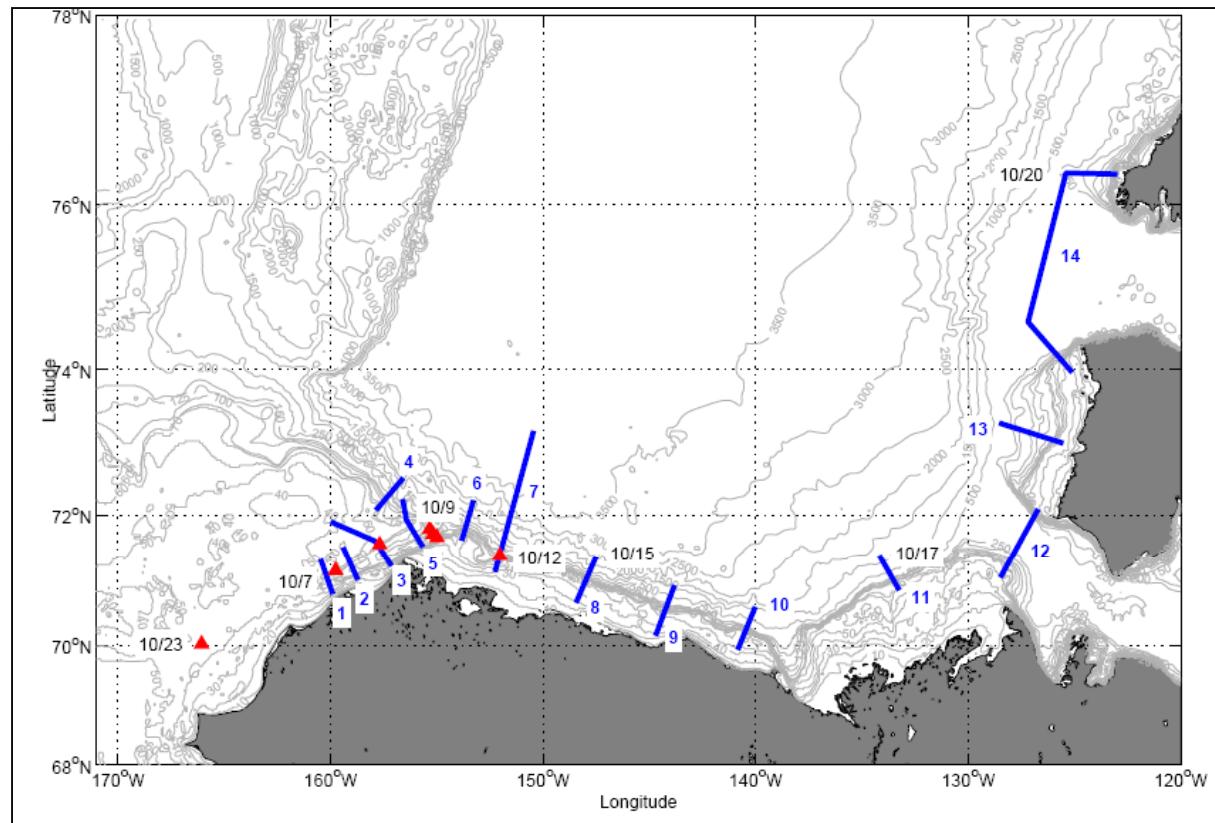
NIC



# HLY 1103

## 3-27 October 2011

FY 2012 – Funds not appropriated as of yet.





## *What NIC Needs*

---

- Assign NIC Analyst berthing. Keep in loop for Healy schedule
- E mail addresses from Healy to MDA
- FTP information from Healy to MDA and Polarview
- FTP and password to Seattle
- Healy Science – decide how want compression
- Signed SAR Users Agreement (Chief Scientist)



## *Science Collaboration*

---

?

***Back to Pablo***

Welcome to KSAT Image Access Solutions - Windows Internet Explorer

http://nut.tss.no/ksat/welcome.faces;jsessionid=94FCFA56439653FE298D65ECFCBDE0B5

Welcome to KSAT Image Access Solutions

# Welcome to KSAT Image Access Solutions



Instructions and requirements

The username is guest, and there is no password.

Once logged in you will see a map and a table.

If you click on the bottom link of the table, this should launch a Java window (you may have to switch off any desktop firewalls installed).

## Login

User Name

guest

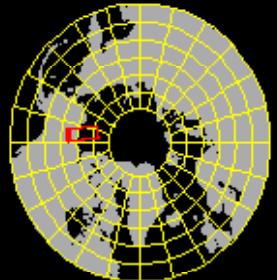
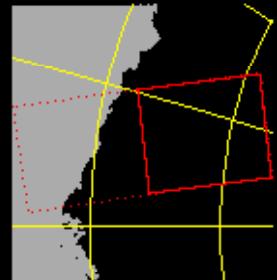
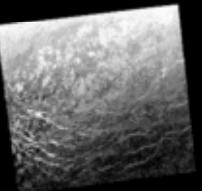
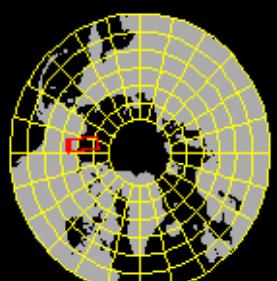
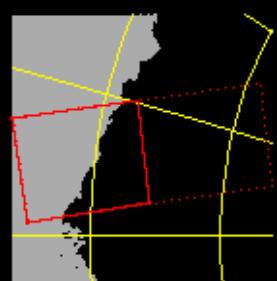
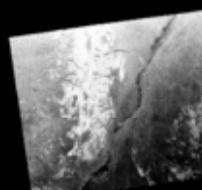
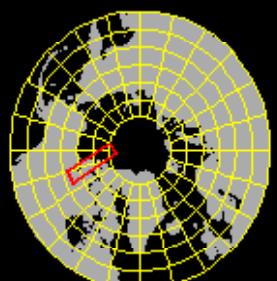
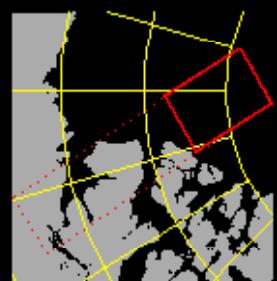
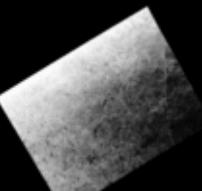
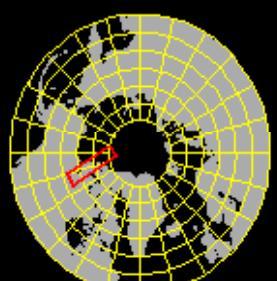
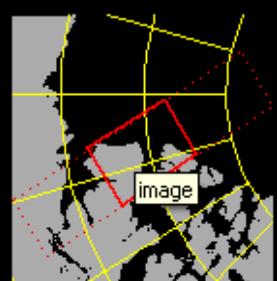
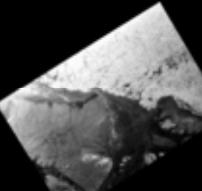


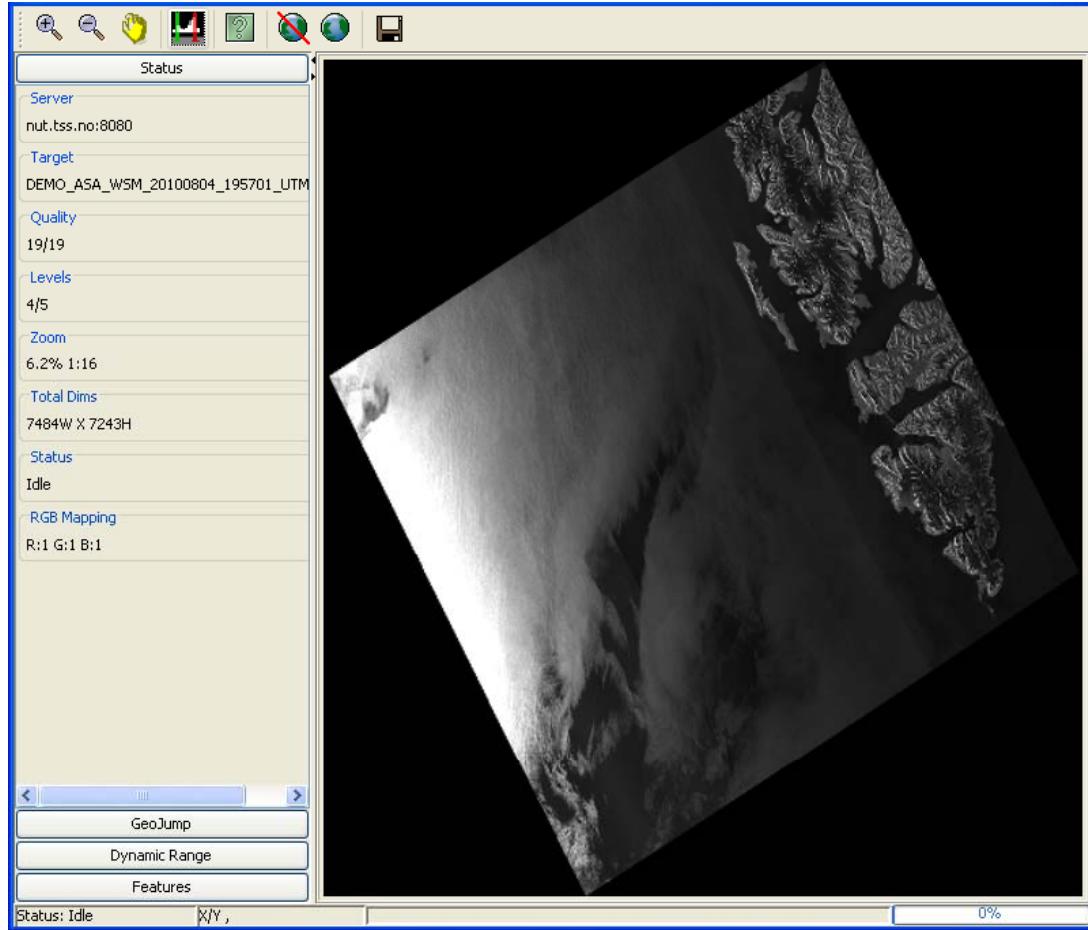
KONGSBERG

Password

Submit

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ver1d_20100629_163326_SCWA_HH_UTM_16bit_400m.tif		4,776 KB	TIF File	3/8/2011 6:52 PM
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ver2a_20100629_163326_SCWA_HH_LCC_8bit.sid		19,058 KB	SID File	3/8/2011 6:54 PM
ver2a_20100629_163326_SCWA_HH_LCC_8bit.tif		190,682 KB	TIF File	3/8/2011 7:20 PM
ver2a_20100629_163326_SCWA_HV_LCC_8bit.sid		19,058 KB	SID File	3/8/2011 6:56 PM
ver2a_20100629_163326_SCWA_HV_LCC_8bit.tif		190,682 KB	TIF File	3/8/2011 7:14 PM
ver3a_20100629_163326_SCWA_HH_GCS_8bit.tif		102,486 KB	TIF File	3/8/2011 7:05 PM
ver3b_20100629_163326_SCWA_HH_GCS_8bit.tif		25,642 KB	TIF File	3/8/2011 6:57 PM
ver3c_20100629_163326_SCWA_HH_GCS_8bit.kmz		995 KB	KMZ File	3/8/2011 6:56 PM