

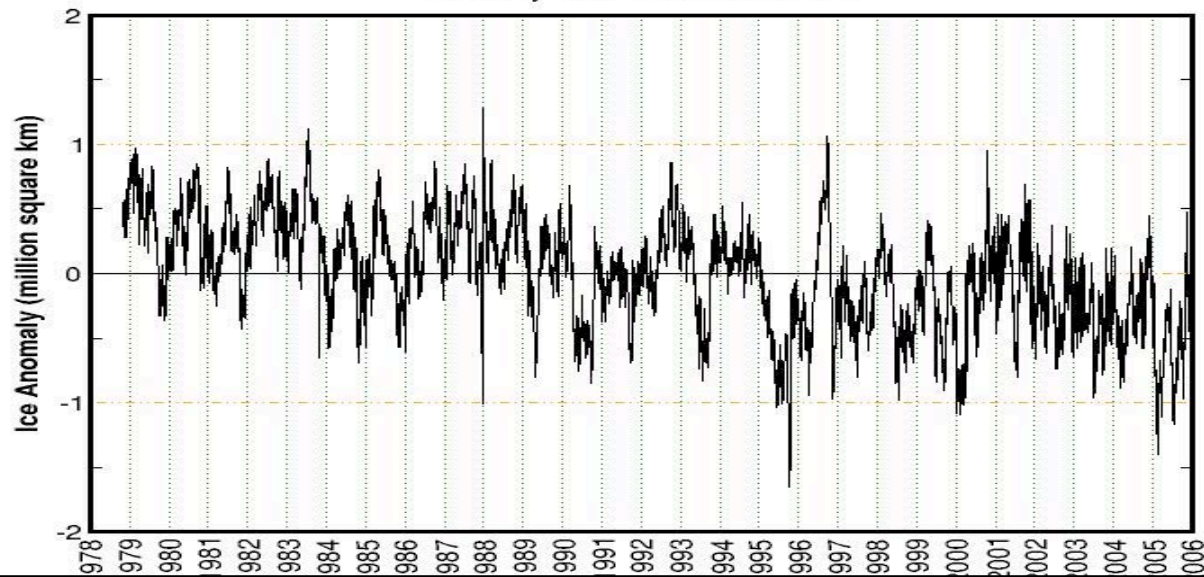
Sea Ice Analysis Uncertainty

- **Sea Ice concentration products are made by a number of groups**
- **Differences between analyses can be substantial**
- **Arctic sea ice extent anomaly has been in press a lot recently**
- **It provides an example that motivated establishment of Sea Ice WG.**
- **Will link w. existing SI activities**

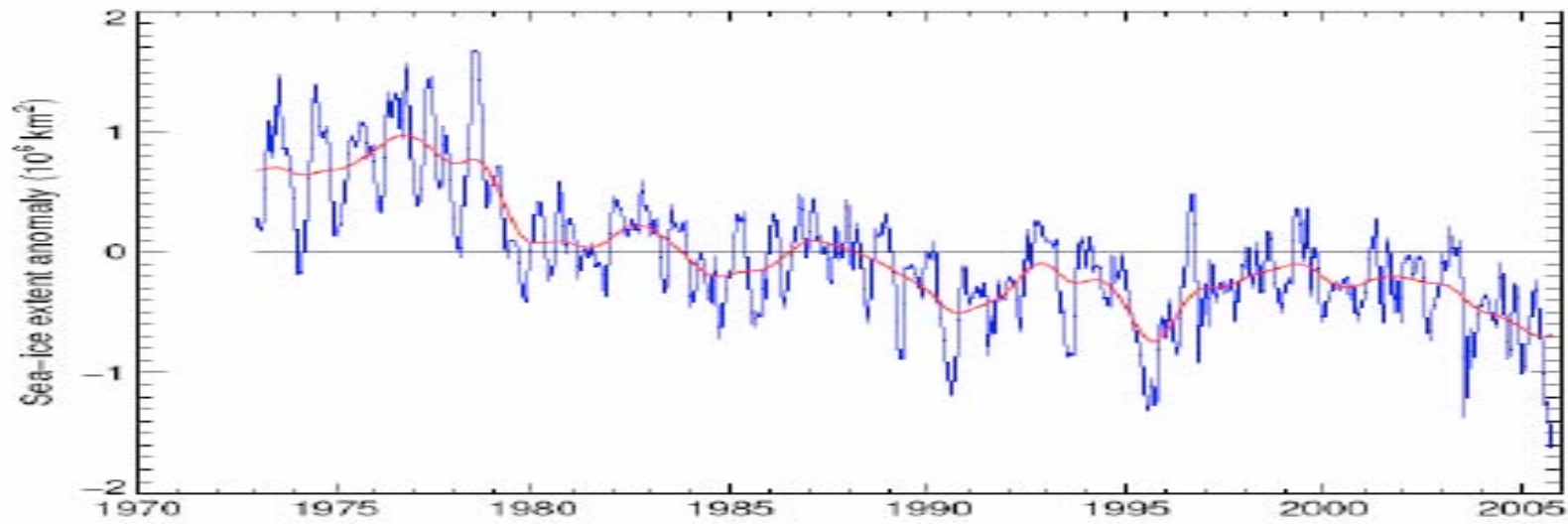
**Arctic Sea Ice
Extent
Anomaly
1979-2006**

Northern Hemisphere Sea Ice Anomaly

Anomaly from 1978-2000 mean



Northern Hemisphere Sea-Ice Extent Anomaly (10^6 km^2) for 1973-10/2005



Sea Ice Working Group

Status Report to OOPC-11

Soren Anderson, Chair
(Summary by DEH)

Please see report on OOPC web site for details.

This is a sketchy overview of that report.

History:

Need for Sea Ice subgroup of SST working group agreed in Nov 2005 at Exeter meeting of SST/SI working group.

Soren Anderson agrees to Chair

Sea Ice group preliminary discussion in March 2006, Boulder. Terms of Reference agreed, desired membership agreed. List of Decisions and Actions to be taken agreed.

Membership

- **Ackley (ASPeCT)**
- **Clemente-Colon (NIC, IICWG)**
- **Drinkwater (ESA)**
- **Fetterer (NSIDC)**
- **Gloersen (NASA)**
- **Smolyanitsky (ETSI, GDSIDB)**

Other Participants, Boulder

- **Donlon (UkMet)**
- **Gentemann (RSS)**
- **Minnett**
- **Evans (U Miami)**
- **Casey (NOAA)**
- **Wick (NOAA)**
- **Meier (NSIDC)**
- **Beggs (BoM)**

GCOS SST&Sea Ice Working group: First session on Sea Ice

Agenda

Sunday 26 March 13:00

Bechtel Collaboratory, Discovery Learning Center, University of Colorado

- Initial summary of the terms of reference
- Introduction to intercomparison activities of the sst group at NODC (Casey)
- Introduction to the GHRSSST sea ice group (Minnett)

- Possibility for presentations by ice group members
 - o Steve Ackley: intercomparisons of Antarctic sea ice thicknesses derived from ice charts and Aspect ship observations
 - o Per Gloersen: Arctic sea ice surviving the summer melt
 - o Søren Andersen: Intercomparison of satellite passive microwave sea ice concentration algorithms in Arctic high concentration sea ice.
 - o Andersen for Drinkwater: ESA view on activities of OOPC SST/sea ice working group

- Discussion to include:
 - o Relations to other groups and activities such as e.g. GHRSSST, ETSI, CliC, etc.
 - o Methods, techniques and metrics for different types of ice analyses.
 - o Requirements to the intercomparison framework. Existing infrastructure, etc.
 - o Ice thickness: Include it? What do we want to achieve and how?

- Extension of group: list of contacts to take up within both contemporary and historical/paleo sea ice communities.
- Review terms of reference
- Schedule/next meeting

Core tasks ahead:

Assemble relevant data sets into accessible form

Establish metrics for product comparisons

Establish metrics for product/data comparisons

Estimate uncertainty in existing products and observations

List of actions

1	Andersen	to assemble first draft inventory of passive microwave sea ice analyses, including information on formats, projections, algorithms, methods and base data.
2	Fetterer	to assemble inventory of available chart analyses and provide more details on the NSIDC SIGRID to raster grid conversion methodology.
3	Andersen	to draft recommendation to NIC to reintroduce the stage of development analysis in Antarctic ice charts.
4	Ackley	to provide information on the estimation of ice charting errors.
5	Andersen	to setup website containing observations (or links to it) including available (rasterised) ice charts, lake ice and possibly the ASPeCt observation archive.
6	Donlon	to encourage JCOMM to further the inclusion of sea ice observations in VOS reports on GTS, possibly taking ASPeCt experiences and framework into account.
7	Meier	to inform group of progress in IGOS activities and take into account GCOS SST&SI working group views.
8	Andersen	to lead the drafting of a plan for implementation of the intercomparison and validation activities.
9	Andersen	to contact the IICWG science working group to further the engagement of the ice charting community in the GCOS SST&SI working group activities, e.g. by proposing a session on the relationship between ice charts and the passive microwave record during the science sessions.
10	Andersen	to update and distribute a list of proposed activities for the groups consideration, prioritisation and comment.

Decisions

Decision-1: The group will work to initially create an overview of data availability and characteristics with a view to inclusion of sea ice analyses in the NODC intercomparison server.

Decision-2: Ice chart data to reside outside the NODC server.

Decision-3: Endorse the use of the ASPeCt ship observation data base within the group. Encourage extension of framework to Arctic.

Decision-4: Development of intercomparison metrics, uncertainty estimates and later a validation framework will follow the implementation of the intercomparison infrastructure.

Decision-5: The group will work through IICWG to engage the ice charting community in the group's objectives.

Next Meeting

- Helsinki, Sept 2006?