International Arctic Systems for Observing the Atmosphere

IASOA Overview
New Challenges for IASOA
Invitation for Participation

www.iasoa.org
Taneil.Uttal@noaa.gov
James.Drummond@dal.ca
Lisa.Darby@noaa.gov
The IASOA Concept

Determine **HOW** the Arctic atmosphere is evolving:
- Long term monitoring
- International programs (GAW, AMAP, BSRN etc.)
- Data coordination

**BUT**
- Also emphasis **WHY** the Arctic atmosphere is changing
  - Process Studies
  - Research grade observations
  - Model Support

**ALSO**
- Need to respond to the **NOW** issues
  - Sudden events
Observatory Challenges

Each observatory is autonomous
- Separate funding
- Separate objectives
- Separate management
- Unique circumstances
  - (Alert is a military base, Barrow is a local community,
    - Summit is a science station, Eureka is a weather station, Tiksi is a community and a multi-National effort)
- The operation of each observatory is a daily challenge

IASOA has to be an “integrating” function, not a “controlling” function
Ny-Aalesund Newsletter

Click [here](http://www.iasoa.org) to download the latest newsletter from Ny-Ålesund.

IASOA Email List

If you are interested in receiving emails about IASOA events, please contact Lisa Darby (lisa.darby@noaa.gov).

We're on Facebook!

[Become a fan of IASOA](http://www.facebook.com/iasoa)

Search...

Search

Menu

- Home
- Mission
- Observatories
- News
- Science
- Data
- Partners
- IPY Media Day
- Weather-At-A-Glance
- Travel Blog

---

[International Arctic Systems for Observing the Atmosphere](http://www.iasoa.org)

**WELCOME!**

---

*Developing a legacy of continuous Arctic atmospheric measurements*
Observational Atmospheric science is a relatively small Arctic discipline
How do to science that may have effects on national security issues?
How to stimulate collaborations between observatories?
How to integrate between disciplines? (difficult even at the same observatory!)
How to manage data? (Undiscovered and difficult to access data)
How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
How to deal with substantial logistics issues expense)
Very few Arctic atmosphere projects – even less went forward...........
IASOA Issues

• Observational Atmospheric science is a relatively small Arctic discipline
• How to do to science may have effects on national security issues?
• How to stimulate collaborations between observatories?
• How to integrate between disciplines? (difficult even at the same observatory!)
• How to manage data? (Undiscovered and difficult to access data)
• How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
• How to deal with substantial logistics issues expense)
Thinking forward on implementing agreements

“Arctic treaty” cannot be modeled after the Antarctic treaty but it may be possible to have something for atmospheric science which does not have the territorial issues of marine sciences? Weather Service and the postal service works)

IASOA committee could propose an atmospheric science treaty between the 8 Arctic countries
IASOA Issues

• Observational Atmospheric science is a relatively small Arctic discipline
• How to do to science may have effects on national security issues?
• How to stimulate collaborations between observatories?
• How to integrate between disciplines? (difficult even at the same observatory!)
• How to manage data? (Undiscovered and difficult to access data
• How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
• How to deal with substantial logistics issues expense)
Organization of science sessions
(T5-2H) Land-Based Atmospheric Arctic Observatory Networks
Theme 5 - New frontiers, data practices, and directions in polar research.

IASOA can coordinate more sessions workshops and exchange programs
IASOA Issues

- Observational Atmospheric science is a relatively small Arctic discipline
- How to do to science may have effects on national security issues?
- How to stimulate collaborations between observatories?
- How to integrate between disciplines? (difficult even at the same observatory!)
- How to manage data? (Undiscovered and difficult to access data)
- How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
- How to deal with substantial logistics issues expense)
Take advantage of marine and terrestrial coordination possibilities

- Russian Drifting Station
- IABP
- CALM

IASOA supports the concept of the International Polar Decade
• Observational Atmospheric science is a relatively small Arctic discipline
• How to do to science may have effects on national security issues?
• How to stimulate collaborations between observatories?
• How to integrate between disciplines? (difficult even at the same observatory!)
• How to manage data? (Undiscovered and difficult to access data)
• How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
• How to deal with substantial logistics issues expense)
Survey the already extensively available Arctic data sets and think hard about how to extract integrate the information content.
IASOA Issues

- Observational Atmospheric science is a relatively small Arctic discipline
- How to do to science may have effects on national security issues?
- How to stimulate collaborations between observatories?
- How to integrate between disciplines? (difficult even at the same observatory!)
- How to manage data? (Undiscovered and difficult to access data)
- How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
- How to deal with substantial logistics issues expense)
Tiksi was a major infrastructure goal of IASOA that has had great coordination successes.
Person to person interactions are critical

IASOA needs to establish a science steering committee

Could a permanent International Ice Station be the centerpiece of a robust international collaboration?
IASOA Issues

- Observational Atmospheric science is a relatively small Arctic discipline
- How to do to science may have effects on national security issues?
- How to stimulate collaborations between observatories?
- How to integrate between disciplines? (difficult even at the same observatory!)
- How to manage data? (Undiscovered and difficult to access data)
- How to manage Arctic science collaborations with separate U.S., Canadian, Russian Federation and EU funding? (Mismatched fiscal years!)
- How to deal with substantial logistics issues/expense
An IASOA Station Managers meeting will be a good start to addressing logistics and operations issues.
Why Arctic Atmospheric Science is like U.S. Health Care Programs

- It is hard to get complete records in one location
- Historical records are often handwritten
- Specialists don’t talk to each other and coordinate evaluations
- Tests are often repeated
- Tests results are rarely fully evaluated
- Background information is not collected for context
- There is often a “blunt instrument” approach
- Action is often prompted by a crisis situation
- There is usually little coordination of resources between institutions
- The funding structure does not necessarily encourage good results
You are Invited to do
Great System Science

Topic: The Arctic Atmosphere

Observers, Modelers, Operators, Data Specialists Welcome!

Please RSVP
www.iasoa.org