

Canadian Atmospheric Science Community Workshop

The Future of Canadian Atmospheric Science from Space

Telecon 1

Friday 6 October

Agenda

- Introductions
- Motivation
- Purpose of Workshop
- Approach to Workshop
- Self-assembled Teams/Consortia Concept
- Q&A
- Next Steps

Introductions

- Atmospheric Science Advisory Committee
 - Jean-Pierre Blanchet (UQAM, blanchet.jean-pierre@uqam.ca)
 - Doug Degenstein (U. Sask., doug.degenstein@usask.ca)
 - Jim Drummond (Dalhousie U., james.drummond@dal.ca)
 - Yi Huang (McGill U., yi.huang@mcgill.ca)
 - Chris McLinden (ECCEC, chris.mclinden@canada.ca)
 - Ray Nassar (ECCEC, ray.nassar@canada.ca)
 - Kaley Walker (U. Toronto, kaley.walker@utoronto.ca)
 - Mengistu Wolde (NRC, mengistu.wolde@nrc-cnrc.gc.ca)
- CSA members and support people
- Who is on-line

Active Canadian Assets Monitoring Earth

LAND & OCEAN

2007 

RADARSAT-2

Monitors sea ice, land, glaciers and natural disasters

ATMOSPHERE

2006  

CloudSat

Measures vertical structure of clouds

ATMOSPHERE

2001  

OSIRIS on Odin

Measures profiles of ozone, NO₂, and aerosols

ATMOSPHERE

2003 

SCISAT

Measures profiles of ozone, greenhouse gases and over 40 trace gases and aerosols

ATMOSPHERE

1999  

MOPITT on Terra

Measures carbon monoxide in the lower atmosphere

Listed for each sensor: Primary target, launch date, partner countries, name, principal function

Selected Future Canadian Atmospheric Missions

Motivation

- To get the next missions into development, “priorities” and “interests” for Canadian atmospheric missions need to be obtained from the atmospheric science community
- The goal for the workshop is to develop a “menu” of options from the community for the agency
 - This will allow CSA to find “missions” that “fit”
 - Within a potential budget range and
 - Correspond to interests in government, academia, and industry, and to international opportunities

Purpose of Workshop

- This workshop is the **start for developing** both short- and longer-term strategies for Canadian atmospheric measurements from space
- This will include, but not restricted to, ideas for:
 - Missions
 - Instruments
 - Observing systems
 - International collaborations
 - Other mission-related concepts (e.g. data assimilation systems, validation sites and instruments, etc.)

Defining the Time Frame for Discussion

- What is short-term versus longer-term?
 - Short-term is ~0-5 years
 - Longer-term is ~5-20 years
- Another way to look at this is
 - What can we do now (short-term)?
 - Some work has already been done on instrumentation or mission development
 - What do we want to do (longer-term)?
 - New ideas or concepts that need development

To Enable New Mission Development

- Need to get new atmospheric projects into the federal government budget exercise for this and coming years
 - Want to provide input as soon as possible – hence the workshop in November
- Often opportunities for missions or funding arise at “short notice” or with a “tight timeline”
 - Could be national or international
 - Need to be ready for these to take best advantage

To Enable New Mission Development

- Goal from workshop is to provide a “menu” of options to CSA for their planning
 - Range of ideas on different themes and with estimates of cost/effort/impact magnitude
 - Proactive approach so that options are readily available to CSA when opportunities arise
- As part of this, we need ways to include ideas when they are ready to go and ways to develop ideas further

Approach to Workshop

- The two days of the workshop will be used to discuss ideas for the different time frames
 - Day one will focus on the short term
 - “what can we do now?”
 - Day two will focus on the longer term
 - “where do we want to go?”

Approach to Workshop

- Want to use time together at the workshop in most effective manner
 - Maximize time for discussion of plans and ideas rather than most of time spent on presentations
 - With only two days, we must be focused and effective!
- To do this, we will be holding preparatory telecons
 - To provide background information and
 - To organize participants prior to the workshop

Pre-Workshop Telecons

- We will have three telecons prior to the workshop
 - First: Introduction to workshop and plans
 - This telecon – essentially an information dump
 - Second: Organization and planning for teams
 - Next, discussing what is expected at workshop
 - Third: Final discussions prior to workshop
 - Last, identifying teams and formulating agenda

Consortia Concept

- Consortia are to be self-organized by members of the Canadian atmospheric science community
- There will be no individual presentations at the workshop
 - Presentations will be made by teams/consortia
 - These will provide ideas for missions, instruments, observing systems, international collaborations, and other mission-related concepts
- The consortia are assembled for the purpose of the workshop and are not a “final” team for development of any idea

You do not need to be a member of a consortium to attend the November workshop and pre-workshop telecons!

Consortia Requirements - Prior

- Before the workshop, each consortium will
 - Assemble their team including members from academia, government, and industry as appropriate
 - Provide a summary of their idea including the details of who, what, why, etc.
 - Participate in all telecons
 - Prepare a presentation on their idea

Consortia Requirements – At Workshop

- At the workshop, each consortium will
 - Present their idea – part of a block of presentations (details to follow)
 - Participate in group discussion to
 - Consolidate plans for short-term and
 - Develop longer-term vision

Questions?

Next Steps

- Attend next two telecons to prepare for the workshop
- Prior to the next telecon,
 - Start to organize your consortium and ideas for both short-term and longer-term
- Prior to the last telecon,
 - Develop summary document for your consortium
- Encourage your colleagues to participate in the November workshop and the pre-workshop telecons

Timeline

- First Telecon TODAY 6 Oct.
- Second Telecon 19 Oct.
- Registration deadline 31 Oct.
- Third Telecon 8 Nov.
- Community Workshop 16-17 Nov.

Next Telecons

Dates for next telecons:

- Second – Thursday 19 October
- Third – Wednesday 8 November
- Also, we will use this time (1-2 PM ET) as it works reasonably well across all time zones within work hours

More Details

- Will circulate information and telecon announcements on CSA and ARRCU mailing lists
- Website is almost ready
 - Registration information
 - Background and workshop plans
 - Details on consortia concept