

Welcome...

**To The
4th Annual
Research Implementation Forum (RIF)**

Sponsored by the Aircraft Icing Research Alliance (AIRA)



4th Annual AIRA Research Implementation Forum (RIF)

Wednesday evening, January 11, 7 -10 pm, Room N10

- AIRA Overview

- Invited Lecture

Mr. Eugene Hill

FAA Chief Scientific and Technical Advisor for Flight Environmental Icing

“A personal perspective on aircraft icing — past, present and future”

- Update on New Collaborative Opportunities to Work Together!
- Discussion on AIRA Collaborative Research Priorities





AIRA

A Brief Overview and Update

Joe Shaw

Chair, Executive Steering Committee

Aircraft Icing Research Alliance (AIRA)



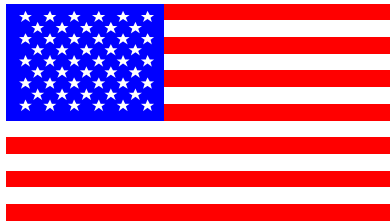
AIRA Mission

*“...to coordinate ... the conduct of **collaborative aircraft icing research** activities that improve the safety of aircraft operations in icing conditions.”*

Let's work together better!

The current AIRA Partners...

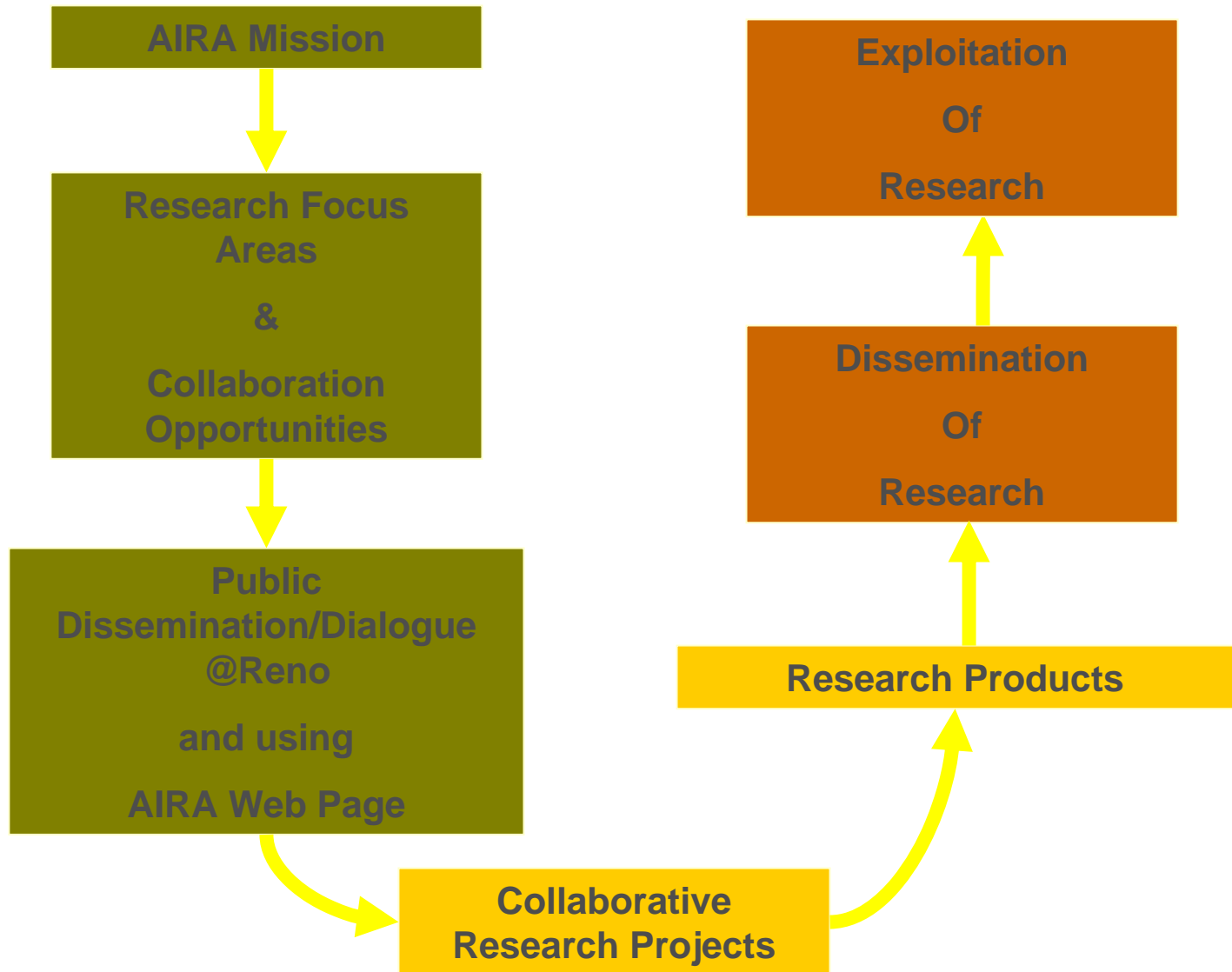
- NASA
- FAA
- NOAA
- Environment Canada
- Transport Canada
- Canadian National Research Council (NRC)
- National Defence, Canada
- UK Defense Science and Technology Laboratory (DSTL)



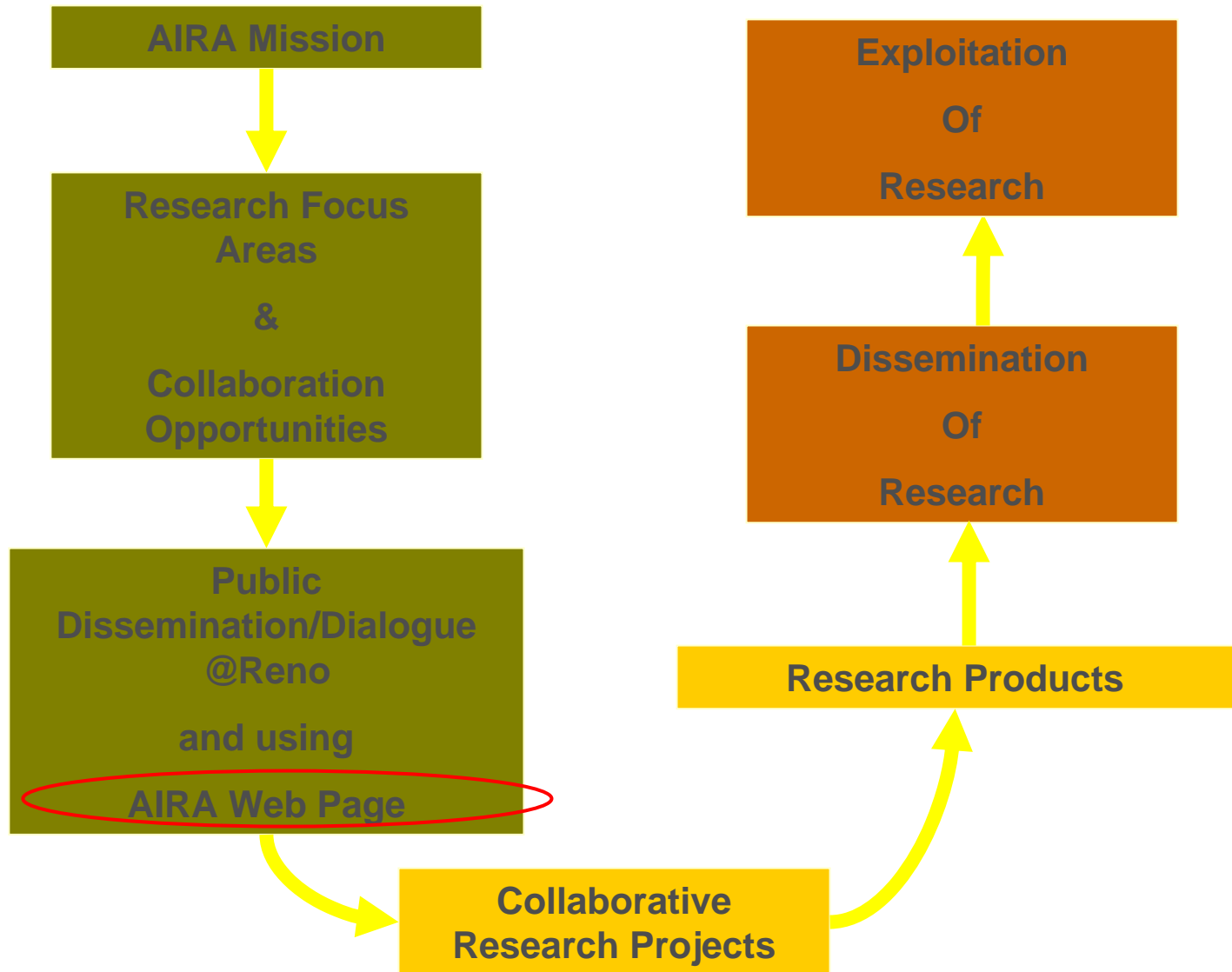
The AIRA Structure...

- AIRA Protocol & Research Strategy Documents
- Executive Steering Committee (ESC)
 - Decision making
- Working Subcommittee (WSC)
 - Does all the real work (“guides decision making”)
- Standing Subcommittee (SSC)
 - All interested parties who wish to participate in project formulation, development, and execution

The AIRA Process...



The AIRA Process...





Aircraft Icing Research Alliance

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News

AIRA recently completed an update of our priority research areas.

- [Review the updates](#)

The 4th annual **AIRA Research Implementation Forum (RIF)** will be held on Wednesday evening, **January 11, 2006**.

- [Get more information](#)

Mission

To coordinate... the conduct of collaborative aircraft icing research activities that improve the safety of aircraft operations in icing conditions.

Overview

Aircraft icing is the most critical natural hazard affecting the safe operation of aircraft in the northern hemisphere.

While some aircraft are certified for flight into icing conditions, and aircraft operate in icing conditions routinely, a number of outstanding challenges in the understanding of aircraft icing need to be addressed.

The Aircraft Icing Research Alliance (AIRA) was created with the purpose of increasing coordination in aircraft icing research. [[Read more about AIRA](#)]

Let's work together better!

Members

NASA
Environment Canada
Transport Canada
National Research Council, Canada
FAA
NOAA
National Defence, Canada
DSTL-United Kingdom

Aircraft Icing Research Alliance, <http://icingalliance.org> – [Site Map](#) | [Contact](#) | [Accessibility](#)



NRC-CMRC
Aerospace/Aéropatiale

[dstl]



Environment Canada / Environnement Canada
Transport Canada / Transports Canada
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[Home](#)
[About AIRA](#)
[Meetings](#)
[Collaborations](#)
[Links](#)

[Home](#) > [Collaborations](#) > [Overview](#)

Collaborations

Some collaborations do not yet have information.

Select a highlighted description to read more about that collaboration.

Description	Status	Partners
Alliance Icing Research Study (AIRS)	1.0, 1.5, 2.0 (debriefing) Completed	NASA, FAA, TC, MSC, NRC, NOAA
Icing for Rotorcraft Pilots	Ongoing	NASA, TC, RC Sikorski, Cougar Helicopters Inc.
Characterization of the Atmospheric Icing Environment	Ongoing	NASA, MSC
High Ice Water Content Research	Ongoing	NASA, MSC, FAA
Icing Cloud Instrumentation Development	Ongoing	NASA, MSC, FAA, NRC
Icing Environment Remote Sensing Systems Development	Ongoing	NASA, MSC, NOAA, FAA, Transport Canada
Common Practices for Processing and Analyzing Flight Data	Formulated	NSA, NSC
Icing Scaling	Formulated	NASA, NRC
Air 3.0 2008 Field Campaign	Formulated	
Ground Icing Training - GA Module	Formulated	NASA, TC, DND, FAA

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Home About AIRA Meetings Collaborations Links

Home > Collaborations > Overview

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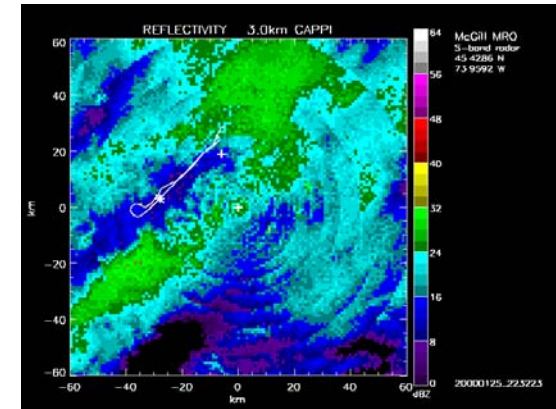
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AIRS I, 1.5, II – A Huge Success!!



- Major objectives

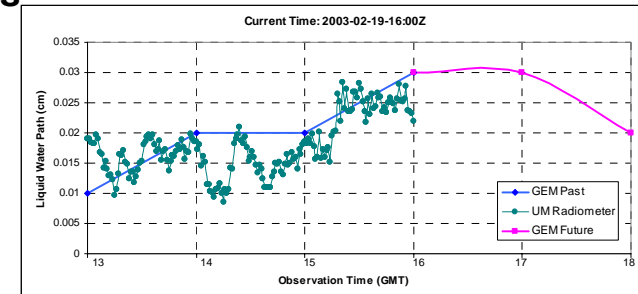
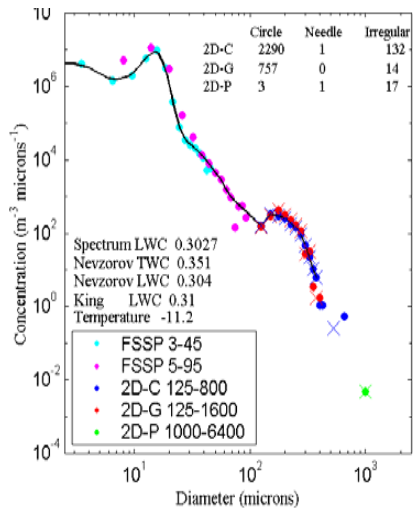
- Improve ability to remotely sense icing conditions
- Characterize icing environment
- Improve ability to forecast icing conditions
- Obtain measurements of aircraft performance in icing and ice accretion shapes

- Three test phases over 1999-2004
- Extensive collaborative planning efforts

- Up to 23 U.S., Canadian, European organizations participated

- Test assets provided

- 3 Aircraft
- Ground and air sensing systems
- 2 integrated remote icing detection systems



Final Thoughts...

- AIRA's current emphasis for 2006
 - Exploration of collaborative efforts focused on propulsion system icing
 - Increase European involvement in AIRA
- Collaboration takes partners...you are invited, get involved!
- The AIRA Web site - <http://icingalliance.org> -is there to help you get involved!
 - Protocol
 - Strategy
 - Communication with AIRA members

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