



The Alaska Department of Transportation

In collaboration with
NASA Ames Research Center

“Cargo Airships for Northern Operations Workshop”

WORKSHOP THEME

This workshop brings potential users of modern heavy lift airship services together with representatives from the airship development community. Sessions will examine what the principal mission requirements need to be for heavy lift airships operating in northern climates. An introduction to the basics of airship technologies, regulatory issues, and weather issues, the likely capabilities and limitations of heavy lift airships, and the current to near-term technology readiness of these aircraft will also be presented. Strategies for possible funding of transport airship development will also be examined. The workshop will conclude with the establishment of objectives for a larger follow up heavy lift airship conference in 2012.

Venue Provided By:



Welcomes you to the
“Cargo Airships for Northern Operations Workshop”
at the University of Alaska Anchorage
August 24 & 25, 2011





**TRANSFORMATIONAL HEAVY LIFT LOGISTICS
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“Cargo Airships for Northern Operations Workshop”

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WORKSHOP EXHIBITORS

Workshop Exhibitors are located in Rasmuson Hall. Exhibits open daily and during Wednesday Reception.

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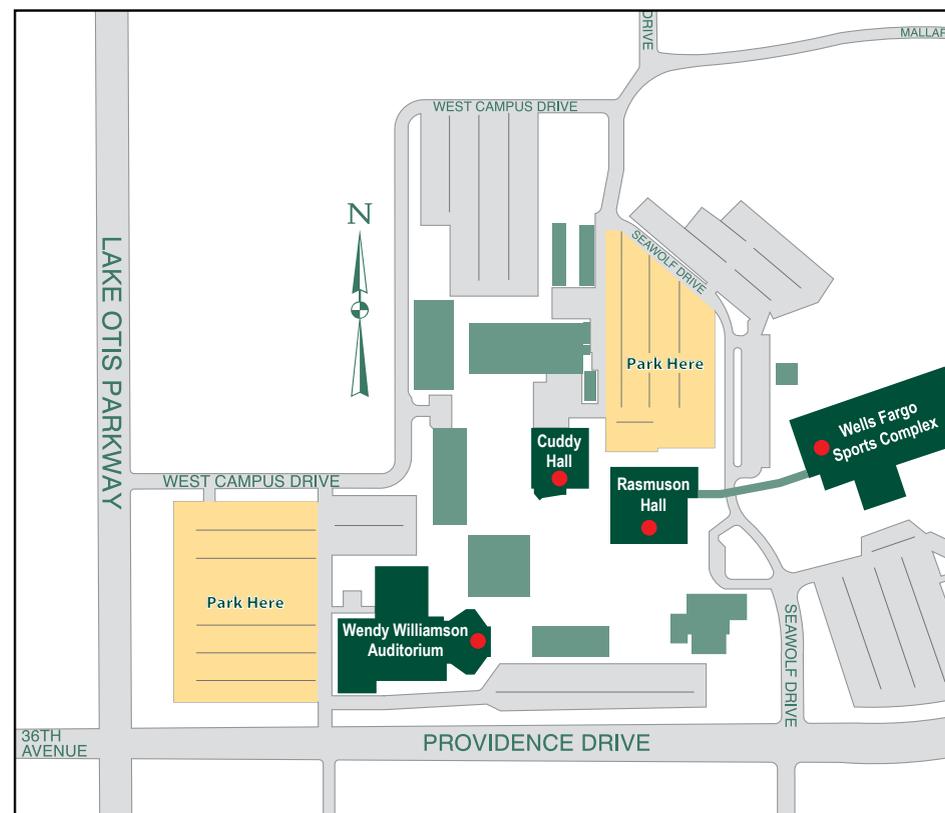


HYBRID AIR VEHICLES



Day Two: THURSDAY, AUGUST 25, 2011 continued

- 2:30 PM **Break** Wendy Williamson Auditorium *Sponsored by E-Terra, LLC*
- 3:00 PM **Breakout Session Report**
Presenter of Breakout Sessions Report: Al Elkins
- 3:30 PM **Workshop Summary, Announcement of 2012 Conference, and Closing Remarks**
- 3:45 PM **Workshop Ends**



Wendy Williamson Auditorium	Day One Day Two – Morning Sessions Day Two – Workshop Summary and Closing Remarks
Cuddy Hall	Lunch Daily Lunch Speakers Wednesday Reception
Rasmuson Hall	Exhibits Open Daily Day Two – Breakout Sessions
Wells Fargo Sports Complex	Day One – Airship Demonstration

AGENDA

August 24 – 25, 2011

“Cargo Airships for Northern Operations” Operational Considerations and Requirements

Day One: WEDNESDAY, AUGUST 24, 2011

MORNING SESSION: “Airship Technology and Operations”

- 8:00 AM **Sign In / Continental Breakfast** Wendy Williamson Auditorium
- 8:45 AM **Welcome Remarks**
Speaker: Tom Case, Chancellor, University of Alaska, Anchorage
- 9:00 AM **Introductory Remarks**
Speaker: Pete Worden, Center Director, NASA Ames Research Center (ARC)
- 9:15 AM **Keynote Address**
Speaker: The Honorable Mead Treadwell, Lt. Governor, Alaska
- 9:45 AM **Introduction to Airship Systems**
Speakers: Dr. John Melton, NASA ARC and Ron Hochstetler, SAIC
- Introduction to current cargo airship design concepts and technologies.
 - NASA ARC’s capabilities in aircraft design analysis, stress analysis, modeling and simulations.
 - Scope of the design and development research that’s needed for commercial cargo airships.
- 10:00 AM **Break**
- 10:45 AM **Airship Weather Management Options**
Speaker: Dr. Ananthakrishna Sarma, SAIC
- Outline of the weather issues that airship operations in Alaska must deal with.
 - Capability requirements for an effective airship weather mitigation approach.
 - Modeling and simulation programs for weather optimized flight routes for cargo airships.
- 11:15 AM **Airship Regulations, Insurance, and Other Legalities**
Speaker: Ron Hochstetler, SAIC
- Principal non-design issues that need to be addressed for commercial cargo airship operations.
 - (FAA regulations, insurance, crew duty/rest rules, available support infrastructures, etc...)
- 12:00 **Lunch** Cuddy Hall
Speaker: Mr. Earl Wyatt, Deputy Assistant Secretary of Defense for Rapid Fielding DASD(RF)

Day One: WEDNESDAY, AUGUST 24, 2011 continued

AFTERNOON SESSION: "Alaska Remote Operations Requirements and Perspective on Airship Applicability to Development and Delivery of Essential Services in Alaska"

- 1:15 PM Delivering Responsible Resource Development**
Speaker: Joe Balash, Alaska Deputy Commissioner, Department of Natural Resources
- The unique challenges of delivering responsible resource development, permitting and extraction in Alaska's extreme and remote environments.
 - How airships support improved wildlife management, critical habitat monitoring and wildfire suppression across the state.
- 1:45 PM Provision of Aviation Services to Alaska**
Speaker: Steven Hatter, Alaska Deputy Commissioner, Department of Transportation, Aviation Division
- The unique perspectives on delivering aviation services in a state where approximately one third of the population lives off the road system and relies on aviation as the primary means of travel.
 - Provisions for the delivery of commerce and health services as well as rural airport management and maintenance present/future.
- 2:15 PM Transport Issues Development Projects in Alaska's Rural Communities**
Speaker: Captain Bob Pawlowski, Legislative Liaison, Denali Commission
- 2:45 PM Impacts of Distance and Remoteness for Emergency Management and Disaster Relief in Alaska**
Speaker: John Madden, Alaska Director, Division of Homeland Security, Department of Military and Veterans Affairs
- How the size and remote nature of Alaska presents many unique challenges for emergency management, disaster preparedness, mitigation and recovery, and surveillance for Alaska citizens.
- 3:15 PM Break** *Sponsored by Windcrafter, Inc*
- 3:45 PM Panel Discussion on Airship Technology and Operations to meet Alaska Requirements**
Speakers: Per Lindstrand, Lindstrand Technologies; Brandon Berge, Microflight; Greg Opas, Merrill-Dean Consulting, and Stuart Russell, BBE
- Panelists address the viability of airship technologies to meet the needs of Alaskans.
 - The panel will answer questions about airship technology and operations that attendees may have.
- Moderator: Dr. Oliver Hedgepeth, Program Director, Transportation and Logistics Management, American Military University - American Public University
- 4:45 PM Summation of the Day's Presentations and Discussions**
Presenter: Dr. Oliver Hedgepeth
- 5:00 PM Reception** Cuddy Hall *Sponsored by Discovery Air Innovations (DAI)*
- 5:10 PM Airship Demonstration** Wells Fargo Sports Complex Gym *Sponsored by Windcrafter, Inc*

Day Two: THURSDAY, AUGUST 25, 2011

MORNING SESSION: "Airship Technical and Operational Perspectives"

- 8:30 AM Continental Breakfast** Wendy Williamson Auditorium
- 9:30 AM Canadian Forces Perspective on Airships for Cargo Transport**
Speakers include: Major J.A. (Julie) Lycon Canadian Forces, Ahmed Ghanmi, Defence Research and Development Canada
- Canadian Forces perspective on airships for missions in remote areas of Canada.
 - General airship performance capabilities would be most attractive for their missions.
- 10:00 AM Airship Flight Performance and Operations**
Speaker: Scott Danneker, Airship Flight Operations Consultant
- Basics on airship flight and ground operations
 - Principal factors that will govern proposed cargo airship flight operations in Alaska and Canada.
- 10:30 AM Break**
- 11:00 AM Operational Factors and Costs of Cargo Airship Operations**
Speaker: Greg Opas, Merrill-Dean Consulting
- Modeling and analysis of the operational factors and costs that define cargo airship operations.
 - Tools and techniques available to provide valid insights into airship operational costs.
- 11:30 PM Economic Aspects of Transport Airship Operations**
Speaker: Dr. Barry Prentice, Director, Transport Institute, University of Manitoba
- Options for funding transport airship development, acquisition, and operations.
 - Factors affecting commercial, governmental, or NGO funding of cargo airship development.
 - Risks vs returns, what assurances investors or government agencies need.
 - Investment mechanisms (joint ventures, consortiums, public/private partnerships, government loans, etc...), and other possible tools to facilitate funding airship programs.
- 12:00 PM Lunch** Cuddy Hall
Industry Developments Demonstrating the Advancement of Commercial Airship Operations
Speaker: Gordon Taylor, Hybrid Air Vehicles Limited
- 1:15 PM Breakout Sessions** Rasmuson Hall
Moderator of Breakout Sessions: Al Elkins, Center for Applied Strategic Excellence
The moderator of the breakout sessions will choose an individual leader to facilitate each of the four breakout groups that will disperse to rooms for discussions in the following cargo airship topic areas:
- **GROUP 1** – Business Approaches and Strategies (financing, incentives, public/private partnerships, etc) for Airship Development and Operation (Room 101)
 - **GROUP 2** – Design, Development, Production Challenges, and Possible Solutions (Room 117)
 - **GROUP 3** – Regulatory, Certification, Legal, and Insurance Issues (Room 111)
 - **GROUP 4** – Operational Issues, Customer Requirements, and Airship Requirements (Room 316)