



Circumpolar Infrastructure Task Force

Aviation Experts Meeting



Final Report to the Arctic Council and the Northern Forum

February 25-27, 2002
Anchorage Alaska

Executive Summary

The Circumpolar Infrastructure Task force is officially conducted as an activity of both the Northern Forum (regional governments) and the Arctic Council (national governments). The declaration of the Senior Arctic Officials of the Arctic Council requests the following from the US/CITF:

- That the CITF convene a network of aviation experts to discuss a range of topics in Arctic aviation, including links between Arctic regions and nations.
- That the CITF continue to work with the Finnish Ministry of Transport and Communication to refine and improve the document they presented on Arctic transport
- That the CITF will consult, communicate and report with the Senior Arctic Officials which will enable them to make recommendations to the Ministers.
- That the CITF will begin considering Arctic telecommunication problems with an approach resembling the aviation experts meeting

In accordance with these requests from the Arctic Council, the CITF held a meeting in Anchorage, Alaska in February 2002. The meeting was attended by strong delegations from the United States, Canada and Russia. Finland and the United Kingdom were also represented. The following topics were on the agenda:

- Aviation in the Arctic regions with particular focus on the United States Arctic, Alaska
- Inter-regional aviation between the US Arctic, the Russian Far East, and the Canadian Arctic
- Circumpolar Arctic aviation and global connections (transpolar air routes)
- Aviation and recent developments in telecommunications and information technology

Two separate working groups discussed these issues, for the purpose of accomplishing the following tasks:

- To arrive at a common understanding, terminology/definitions, and guidelines concerning the infrastructure/transport effort by a network of experts.
- Formulate recommendations to the Arctic Council and the Northern Forum whereby nations and regions can jointly bring about improvements to northern aviation and the links between us.
- Proceed with the US/CITF effort of establishing a database of Arctic aviation experts
- Enlist the identified network of aviation experts in the study of Arctic aviation issues

The major thrusts of the recommendations were as follows:

- There was unanimous agreement that the CITF approach was warranted and a real and accessible aviation experts network would be useful
- A "vision statement" for Arctic aviation, with long-term goals in regional and international cooperation, should be developed and adopted as a goal by the sponsors of CITF
- Immediate discussions should begin between nations of the Arctic Council to see whether mail between our nations can be directed to support the creation of more direct air routes between our Arctic regions (taking into account these routes may reduce mail

times and costs between us while also increasing the availability of cargo and passenger service)

- Regional joint tourism marketing between Canadian territories, provinces and Alaska might be expanded to include joint marketing with Russian regions, or a circumpolar tourism marketing initiative.
- A number of issues concerning cross-polar air routes demand attention as they relate both to the safety of international air routes but also the provision of infrastructure in Arctic regions which will directly benefit Arctic residents.
- There is a lack of information including market analysis and cost/benefit analysis. The experts agreed to develop an outline for a feasibility study to promote additional air links between arctic regions, and hold discussions with industry, host governments, and international financing institutions about funding for the study.
- The development and application of new technologies is very important, and immediate benefits to Arctic residents can be gained by sharing existing advances, such as the U.S. CAPSTONE project.

Background

The Finnish Ministry of Foreign Affairs began their chairmanship of the Arctic Council in 2000, and a new priority was to encourage projects that promoted economic and social development. As is stated in the program, “In the promotion of Arctic circumpolar development it is crucially important to improve traffic and transport infrastructure.....At the first stage, views will be exchanged on different ways of developing transport in the Arctic.” (Program for the Finnish Chair of the Arctic Council 2000-2002, Section 6)

The Finnish priority is supported by the following problems:

- The existing infrastructure is reaching the end of its useful life in many instances and is in dire need of costly maintenance or replacement.
- The Arctic lacks infrastructure; the region’s economy and the welfare of its people depends on a fragile network of transportation systems that is vulnerable to disruption by natural disasters, accidents, intentional acts, and effects of climate change.
- Improvements to the existing Arctic infrastructure are closely linked to Market Based Models for Financial Risk and Investment Decisions. These risk factors will likely be the main drivers of the cost of capital and access to capital.
- Currently, the lack of reliable economic ranking and the evaluation of financial risk are the principal hurdles in financing large-scale energy projects in the Circumpolar Arctic, not the lack of technical and economic feasibility studies.
- “Political, Economic and cultural differences or outright enmity has prevented mutual consideration of the infrastructure of the circumpolar region by Russia, the United States, and other high-latitude nations.¹

To address these problems, the Arctic Council requested that the US Circumpolar Infrastructure Task Force examine areas of infrastructure in the Arctic that need improvement. The CITF’s focus during its efforts has been mainly on aviation infrastructure as suggested by the SAOs.

A. Introduction to Aviation Experts Meeting

¹ Anadyr Aerodrome Project

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The agenda was as follows:

Introductory plenary session led by CITF team (Endeavor Room)
 Dr. Walter Parker- Introduction of CITF team
 Mr. Patrick N. Poe, Regional Administrator, FAA Alaskan Region-
 Opening Remarks
 Dr. Peter Wilkniss- Discussion of Objectives
 10:00-12:00 Break Out Sessions
Session 1: Alaska/Russian Far East Aviation
Alaska/Canada Aviation (Endeavor Room)
 Moderators: Priscilla Wohl and Mike Barbeau
Session 2: Global & Polar Aviation Issues (Resolution Room)
Telecommunication and Information Technology
 Moderators: Charlene Derry and Ginger Washburn
 12:00-1:00 Luncheon sponsored by the CITF
 1:00-3:00 Break Out Sessions Continue
 3:00-3:15 Break
 3:15-5:00 Conclusions and Recommendations

A. Definitions

The aviation experts at the February CITF meeting used the following definitions and terms of reference:

Arctic: The North Polar Region and the adjacent regions connected by aviation

Aviation: All aspects of aviation from large passenger planes to small, “bush,” planes.

Infrastructure: The basic facilities, services, and installations needed for the functioning of a community or society, such as transportation and communication systems, water and power lines, and public institutions including schools, post offices etc.

Aviation Experts Network: A group of credible aviation “experts” for continuous review of existing aviation infrastructure and for developing recommendations for improvements to the Arctic Council. The network will focus on common issues in aviation to further safety, efficiency and coordination in the Arctic. The aviation experts network will consider the following tasks:

- Arrive at a common understanding, terminology/definitions, and guidelines concerning the infrastructure/transport effort by a network of Arctic aviation experts.
- Proceed with the US/CITF effort of establishing a database of Arctic aviation experts and transportation and telecommunications infrastructure
- Enlist the identified network of aviation experts in the study of Arctic aviation issues

- Agree on a mechanism by which the findings and recommendations from the aviation experts are transmitted by the Task Force to the Arctic Council
- Establish needs and priorities for specific development of infrastructure

B. Arctic Aviation Networks

Aviation networks in the Arctic do exist, and an example of such a network is the Alaska Aviation Coordination Council (AACC).

The AACC.

Vision: That Alaska will enjoy an air transportation system that has safe, efficient, and reliable access to population centers and other areas of general and commercial interest. This same transportation system would enhance the health and welfare of residents and visitors alike, while serving as a vehicle for commerce throughout the State.

AACC Background: There are numerous aviation related organizations in Alaska dedicated to advancing aviation causes. The Alaska Aviation Coordination Council's purpose is to pull together these various organizations to focus on common issues to further safety, efficiency and coordination in the state.

Member Organizations:

AACA – Alaska Air Carriers Association

AAAI - Alaska Airmen's Association Inc

AASF - Alaska Aviation Safety Foundation

CAP – Civil Air Patrol

EAA - Experimental Airplane Association (Local Chapter)

NAAUG –Northern Alaskan Aviation Users Group

SPA-Seaplane Pilot's Association

University of Alaska – Aviation Technology Division Anchorage

Affiliate Organizations:

FAA – Federal Aviation Administration

NWS- - National Weather Service

Military

Municipal Airports

AK DOTPF – Alaska Department of Transportation and Public Facilities

AACC Function:

- Member organizations listed above will hold a public forum bi-monthly. Affiliate members and public are encouraged to participate.
- Designated representatives of member organizations and selected affiliate executives will meet quarterly.

- Member organizations may, when necessary, meet in closed session to consider actions separate from affiliate organizations
- Special meetings will be called as required.

The AACC reflects one of many organizations working in Alaska to further aviation safety and infrastructure and coordinates among these organizations. The AACC also:

- Deals with the federal government and legislative issues regarding aviation. An example of this is work with the military on training issues, and work with the government on homeland security.
- Works with the state government on international issues. An example of this is the work done with the FAA to improve international Air Traffic Control.
- Coordinates on new technology like CAPSTONE and developments in Search and Rescue (SAR).
- Promotes the health of general aviation and the special requirements of aviation in rural Alaska.

D. Findings

The Aviation Experts Meeting focused on the most important problem inherent to Arctic travel—that is, East-West air routes. It was clearly demonstrated at the meeting that East West connectivity is wanting and even declining. Specifically in Alaska, travel to the Russian Far East has declined significantly since 2000. There used to be 4 airlines with routes to the RFE, Alaska, Reeve Aleutian, Mavial and Aeroflot, but now there is only one, Mavial.

A number of factors are responsible for the lack of East West connectivity in the Arctic:

- Political
- Economic
- Operational
- Technological
- Safety

These factors are major impediments to providing safe, practical, efficient and useful circumpolar aviation, which serves the economic development and social well-being of Arctic communities.

In a presentation made at both the CITF Edmonton Workshop and the Aviation Experts meeting, the CITF found that East-West commercial air routes in the Arctic are not common and not reliable.² An experiment was done to ascertain the feasibility of flying around the Arctic using commercial air service. The inquiry had these preconditions:

- Circle the Arctic North of 60 degrees
- Use only commercial air transport
- Cross international borders at established points of entry
- See as much of the Arctic inside the countries
- Report on opportunities and obstacles specific to each region.

The CITF concluded, and the aviation experts at both meetings concurred, that each region within the circumpolar north had specific impediments to travel. For example:

- Traveling from Alaska to Russia. In this region flights are rare and expensive. The cost of maintenance for the existing flights is high and causes problems. (Example: in Nome, Alaska, the past practice has been to fly in customs and immigration officials for flights arriving from Russia. This practice is extremely expensive and time-consuming.) There is also an extreme lack of communication and knowledge between Russia and Alaska, which causes flight delays and customs problems.
- Traveling within the Russian Arctic. The main impediment to travel here is the lack of economic development and investment in the Russian Arctic. Coupled with this is the rapidly growing cost of transportation. Another problem is that the population within the Russian Arctic is widespread and many locations are inaccessible. It is almost impossible to find data and information on commercial air routes in the Russian Arctic, making it hard to ascertain the level of access. Also, the established points-of-entry into the Russian Arctic are limited and highly controlled, which makes travel and entry difficult. This problem is further compounded by the strict visa requirements.
- Travel within the European Arctic. This area includes Finland, Norway and Sweden. While this area has the most advanced system of infrastructure and commercial air is the most highly developed, there are still problems. Getting from the European Arctic to the North American Arctic is still difficult and is mostly seasonal. The same problem can be seen in Europe-Russia travel. Again, it is mainly seasonal and the points-of-entry are limited.

² “Around the World at the Top” Presentation by Elizabeth Beiswenger. www.institutenorth.org

- Iceland-Greenland Travel. Travel within this region is very expensive and rare. The routes are almost all North-South and are mainly charter flights. The flights that are commercial are seasonal and limited. Like in Russia, the points-of-entry are few. A recent development in this region has cut Greenland-North America travel completely.
- Canadian Arctic Travel. The population in this region, like in Russia, is very widespread. Along with the inaccessibility, the costs of travel are increasing rapidly. Further, there are a limited number of airlines that fly within this region.

However, the following would help with potential improvements:

- External forces could improve aviation linkages in the circumpolar north. E.G. Postal, cargo and tourist traffic
- International agreements between northern regions could be expanded. E.G. the bilateral between Alaska and Russia.
- Data on arctic aviation is becoming increasingly accessible, but the coordination of schedules is still a problem
- International points-of-entry, while still limited, are increasing. (Example: Tromso-Murmansk on Aeroflot) These points-of-entry, however, are still not hubs and often do not connect with other hubs
- Some other opportunities for growth can be seen coming from outside sources such as the postal authorities and those involved in tourism.
- There are also opportunities in the coordination with other modes of transport such as rail, ferries, and shipping.
- Since the end of the Cold War new opportunities have been emerging for economic and cultural integration within the RFE and for economic and political collaboration linking Eastern Russia with its East Asian neighbors and the United States.³

In summary, the major findings of the CITF Aviation Experts meetings were as follows:

1. **Intra-Arctic aviation infrastructure is in need of improvement. Especially East-West air routes.**
2. **Customs and INS regulations between Arctic Regions, especially between regions and the Russian Arctic, are confusing and outdated.**
3. **East-West within the circumpolar regions is difficult and confusing.**
4. **New noise and emission regulations make it difficult for Russian aircraft to travel into other Arctic Regions (excluding Alaska, who is exempt from such standards) especially the European Arctic.**

³ Anadyr Aerodrome Project

E. Recommendations from the Experts to the Senior Arctic Officials

Among the major thrusts of the recommendations to improve East-West connectivity in the Arctic developed by the experts are:

- There was unanimous agreement that the CITF approach was warranted and a real and accessible aviation experts network would be useful and would support the goal of sustainable development
- A “vision statement” for Arctic aviation, with long-term goals in regional and international cooperation, should be developed and adopted as a goal by the sponsors of CITF
- Immediate consideration should begin between nations of the Arctic Council to examine whether mail between the Arctic nations can be helpful in the creation of more direct air routes between our Arctic regions (taking into account these routes may reduce mail times and costs between us while also increasing the availability of cargo and passenger service)
- Regional joint tourism marketing between Canadian territories, provinces and Alaska might be expanded to include joint marketing with Russian regions, or a circumpolar tourism marketing initiative.
- A number of issues concerning cross-polar air routes demand attention as they relate both to the enhancement of safety of international air routes but also the provision of infrastructure in Arctic regions which will directly benefit Arctic residents.
- There is a lack of information including market analysis and cost/benefit analysis. The experts agreed to develop an outline for a feasibility study to promote additional air links between arctic regions, and hold discussions with industry, host governments, and international financing institutions about funding for the study
- There was much enthusiasm for the potential of aviation to meet the sustainable development needs of the Arctic
- The development and application of new technologies is very important, and immediate benefits to Arctic residents can be gained by sharing existing advances, such as the U.S. CAPSTONE project.

F. References

“Program for the Finnish Chair of the Arctic Council 2000-2002” www.arctic-council.org

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