

Tourism: A Growing Presence in an Ice Diminishing Arctic

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The Significance of Arctic Tourism

- Tourism is the single largest human presence in the Arctic.
- The vast majority of Arctic tourists travel aboard marine transport.
- The number of Arctic tourists far exceeds the populations and infrastructure capacities of their host communities.
- Arctic economies rely on tourism for revenue, jobs, personal income, and public finance. It's future is thus assured.

Two Centuries of Arctic Tourism



Early 1800's tourist destination for:
Mountaineers
Anglers
Hunters
"Knapsack" Adventurers



1850's Mass tourism enabled by:
Steamships
Railroads
Increased personal wealth
More leisure time

Arctic Tourism Today: 5 Diverse Markets



1. Mass Tourism

2. Sport Fishing and Hunting

3. Nature Tourism

4. Adventure Tourism

5. Cultural and Heritage Tourism



Tourism Growth Caused by Reduced "Barriers to Entry"

Physical Access Improved

- Reduced amount, extent and duration of Arctic sea ice
- Weather conditions becoming more tolerable
- Improved transport technologies
- New and expanding infrastructure
- New recreational clothing and equipment

Time to Travel

- More leisure time
- Fast and convenient access to Arctic gateway communities
- Large population now entering retirement

Cost of Travel Reduced

- Travel increasingly affordable
- More personal wealth to facilitate travel

Jurisdictional Constraints

- Allowable entry replacing prohibited access
- Closure of military bases and reduced security restrictions

Less Ice = New Destinations & Expanded Seasons

North Pole
Northwest Passage
Northern Sea Route
Wildlife Habitats

Heritage Sites

Allowable Entry Replaces Prohibited Access



New tourism opportunities:

- **Reduced Military Restrictions**
- **Economic Development by former Soviet Union and Native Governments**

Vast Arctic regions now open:

- **Russia**
- **Greenland**
- **Nunavut**

Economic Significance of Arctic Marine Tourism

- Tourism is a primary economic development goal for all Arctic economies.
 - Norway: 370,000 cruise passengers visited Norway in 2007, double the number that arrived in 2000. In 2007, Svalbard had 45 cruise calls, 17 more than in 2006.
 - Iceland: tourism is nation's second largest industry with annual growth of 9 % since 1990. Since 2000 tourists have outnumbered Icelanders
 - Canada: Cruise ships doubled in 2006, from 11 to 22. Inuit-owned Cruise North Expeditions entered market in 2008 with trips to Ellesmere Island.
 - Russia: Northern Sea Route, White and Barents Seas now have cruise tourism. Kamchatka and Kola Peninsulas offer sportfishing and wildlife tours.
 - Alaska: 2007 cruise visitor volume was 1,029,800. This is an increase of 7.3 percent to between 2006 and 2007.

THE RAPID GROWTH OF ARCTIC MARINE TOURISM

GREENLAND CRUISE TOURISM: 2003 TO 2008

Number of Cruise Ship Arrivals

2003 = 164

2008 = 375

Number of Cruise Ships

2003 = 13

2008 = 39

Total Cruise Tourists in 2008 = 24,999

(Crew and staff add to this total)

Greenland's Population = 56,901



Sources: Greenland Port Statistics; Greenland Tourism & Business Council

Human Impacts of Arctic Tourism



Social Issues

- Communities seasonally transformed
- Infrastructure capacities exceeded
- Emergency response and law enforcement resources strained.
- Social institutions overwhelmed

Cultural Issues

- Native People attempt to balance economic benefits with cultural preservation and subsistence practices.



Tourist Perceptions

- No terror threats in the Arctic
- Climate change publicity is priceless
- Response to scarcity – see the Arctic and its wildlife before it is "lost"

Potential Environmental Impacts

- Oil spill and illegal discharge
- Disturbance of marine mammals and damage to fisheries
- Invasive species from ballast and shore excursions
- Wildlife disruptions during breeding and migratory seasons
- Solid waste disposal
- Air pollution by toxins and particulates
- Noise pollution
- Protected Areas require special use guidelines



Polar Tourism Marine Incidents



2007 *Explorer* sinks during Antarctic polar tourism cruise.

Marine Incidents Involving Polar Cruise Ships

MARINE INCIDENT	TOTAL EVENTS	EVENTS SINCE 2000	PERCENT SINCE 2000
Polar Cruise Ships Sunk, 1979 – 2007	8	5	63 %
Polar Cruise Ships Running Aground, 1972 – 2009	27	16	59%
Pollution and Environmental Violations, 1992 – 2009	64	42	65 %
Disabling by Collisions, Fires, Propulsion Loss, 1979 - 2009	34	28	82 %

SOURCES: Public Media Sources, Ross A. Klein, Ph.D., and www.cruisejunkie.com

Other Marine Transport and Lives at Risk

- Ferries
- Charter touring vessels
- Kayaks
- Sport fishing boats
- Private vessels
- Crew
- Staff

Health Incidents: Impacts on Arctic People and their Infrastructure Capacity

Cruise Ship Illness Outbreaks: 2002 - 2007

<u>Year</u>	<u># of Reports</u>	<u>Total Sick</u>
<u>2002</u>	43	3530
<u>2003</u>	44	3556
<u>2004</u>	42	3675
<u>2005</u>	35	4674
<u>2006</u>	54	6815
<u>2007</u>	33 (7 Polar Cruises)	4166

SOURCE: United States Center for Disease Control (CDC).

Environmental Hazards at Shore Attractions

Exposure of tourists to environmental contaminants is a health issue receiving little attention. Examples include:

- **Cold War Legacy**: Former military facilities and caches with hazardous building materials and toxic substances are serious health threats.
- **Historic Structures**: Abandoned canneries, whaling and sealing stations, and explorers' huts are simultaneously tourist attractions and health threats.
- **Soviet Union's Environmental Pollution**: Dangerous environmental contaminants remain throughout the Arctic's largest land mass.

The Probable Future of Arctic Marine Tourism:

- Growing number of Arctic tourist destinations
- Length of seasons expanding
- Duration of the tourist visit increasing
- Greater diversity of vessels in polar waters
- Transits less conventional and predictable
- Cumulative impacts are
 - larger numbers of tourists
 - spending more time
 - in more locations

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Navigating the Future



- Accomplished by Prevention and Preparedness
 - Actions that Prevent Harm
 - Improve Incident Response Capabilities

ACTIONS TO PREVENT HARM

- **Information for Safe Passage:**
 - Ice Condition Information: Expand Coverage
 - Weather Information: Expand Coverage and Timely Notifications
 - Update Hydrographic Charts
 - Navigational Aids
 - LRIT Long Range Identification and Tracking
 - Coordinate Cruise Ship Transits & Scheduling for Mutual Aid
 - Collaboration of International Information Organizations (e.g., Maritime, Hydrographic, Meteorological, and Maritime Satellite Organizations)
- **Guidelines for Vessel Operations**
 - IMO Guidelines for ships operating in Arctic ice covered waters
 - Improve Passenger Ship Safety in Arctic Waters
 - Multilateral Arctic Search and Rescue (SAR) Instrument
 - Unified Governance: UN Convention on Law of the Sea

ACTIONS TO IMPROVE INCIDENT RESPONSE CAPABILITIES

- **Expand Infrastructure Capacity**
 - Places of Refuge
 - Expand and Develop Ports
 - Search and Rescue Resource Investments
 - Medical Evacuation & Care Resources
 - Shoreside Evacuation Shelters and Provisions
 - Environmental Incidence Response Equipment and Personnel
 - Salvage Resources
 - Waste Disposal Facilities
 - Law Enforcement Resources
- **Human Resource Training**
 - Mariners
 - Ice Navigators
 - Emergency Service Providers
 - Lifeboat Drills and Prepare Tourists for Extreme Conditions
 - Environmental Managers and Monitors