Recent Developments
In Arctic Shipping

Paul Fuhs, Marine Exchange of Alaska
RECENT TRENDS

- Arctic transit shipping is down for 2016: Low fuel prices and international disputes.
- Destination shipping within Russia is increasing.
- Intense and destructive competition in shipping.
- Ice conditions for shipping are improving.
- Russian icebreaker capacity increasing to 65MW.
- Alaskans are proposing efficiencies and safety measures.
Russian LNG terminal
Russian Response Centers

- Marine Rescue Sub Center, Port Tiksi
- Marine Rescue Sub Center, Port Pevek
- Port Provideniya

Marine operations, Headquarters, Eastern sector of the Arctic
Icebreakers and oil spill response equipment
Russian Icebreaker Construction
NSR Container Shipments
Crystal Serenity and Sea IceExtent
Arctic Shipping Routes
Great Circle Route
Screen Shot January 15, 2014

Source: Marine Exchange of Alaska
The Aleut Corporation Proposal

Adak Hub

NORTHERN SEA ROUTE

GREAT CIRCLE ROUTE

Hamburg

Adak International Transshipment Hub
Combining World Trade Routes
ADAK INTERNATIONAL CONTAINER TERMINAL
Basis of NSR Container Trades

- Use standard vessels in open waters.
- Use icebreaking container vessels in Arctic waters.
- Vessels assisted by Russian icebreaking escorts.
- Operate 6 months per year.
- Connect Asian, North American and European ports through Transshipment port at Adak Alaska.
2016 SEA ICE EXTENT
Multi year and 1 year ice
Prevention Measures

- Prevention measure in Alaskan waters:
  - Ships must be tracked and monitored via AIS
  - Ships must sail at least 50 miles offshore
  - Ships must notify loss of power or steering
  - Nearby rescue vessels are identified
  - Ship towing and arrest packages are prepositioned
  - Ports cooperate in emergency response
  - Need international agreements to extend prevention
BERING STRAIT
Arctic AIS Receiving Sites

Marine Exchange Arctic AIS (Automatic Identification System) Receiving Sites

MXAK Arctic AIS Sites

- Barrow
- Wainwright
- Prudhoe Bay
- Kaktovik
- Pt. Lay
- Pt. Hope
- Kivalina
- Kotzebue
- Nome
- Stebbins
- Savoonga
- Gambell
- Wales

Russia

Canada

United States of America
Network Vessel Coverage
Network Coverage Area

1.3 MILLION SQUARE MILES
2015 Milestones

Routing Measures Work

24 x 7 Monitoring Creates Results
– Reduces Risks
**EICS Details**

**SPAR CANIS**

MMSI: 257807000
IMO: 9299290
Call Sign: LAFQ6
Ship Type: Bulk Carrier
GT: 32,474
DWT: 53,565
Length: 595.7 ft (181.57 m)
Breadth: 104.9 ft (31.96 m)
Draught: 41.3 ft (12.6 m)

**Ship Details**

Year: 2006

**AIS Details**

Type and Cargo: Cargo ship

---

**SPAR CANIS**

MMSI/IMO: 257807000 / 9299290
Lat./Long.: 52°32.410'N / 178°47.460'E
Nearest MM: n/a
Type: Cargo ship
Nav. Stat.: Under way using engine
Speed/Course: 4.8knt (5.5MPH) / 292°
Dest.: KO SI CHANG
ETA: 8/10/2016 8:00 PM
UTC: 7/27/2016 2:00:39 AM
Received: 56 min ago

**EICS/Ship Details**

---

**ALASKA JURIS**
**EICS Details**

**VIENNA EXPRESS**

MMSI: 218355000
IMO: 9450416
Call Sign: DGWF2
Ship Type: Fully Cellular Containership
Length: 1099.1ft (335m)
Breadth: 137.8ft (42m)
Draught: 43ft (13.1m)
APC: Yes

**Ship Details**

GT: 93,750
DWT: 103,648
Propellers: 1
Year: 2010
Length: 1099.3ft (335.08m)
Breadth: 141.1ft (43m)
Draught: 47.9ft (14.61m)

**AIS Details**

Type and Cargo: Cargo ship
Draught: 37.7ft (11.5m)
Research & Development - Ship Arrestor

Large Vessel Arrestor Sea Trials | Puget Sound, WA. June 22, 2015
Dynamic Resource Protection

Shell Exploration Fleet Monitoring

Alerts generated when...
Shipboard AIS Display
International Cooperation

- Extend prevention measures to regional and international agreements.
- Standardized requirements are easier to follow.
- Due to lack of infrastructure and nature of the Arctic, prevention measures are paramount.
- Formation of League of Arctic Ports.
- Arctic nations should pledge to cooperate in the Arctic regardless of other disputes elsewhere.
Paul Fuhs
President, Marine Exchange of Alaska
paulfuhs@earthlink.net