Breakout Session #1 - A Shared Vision of Future Logistics
Monday a.m., 7 October 2013

Group 6

Range of background and experience
• Terrestrial & marine
• Arctic & antarctic
• Remote sensing & field obs
• Science & logistics
• Absence of social science representation
What does field research look like (in the next 20 years)?

More autonomous than today
Data received / disseminated in real time
Satellite data playing larger role in research and planning
What logistics support is in place?

Foreign ice breakers
Smaller boats for short-term / mobile research
New roads?
How is the support delivered?

- Greater use of foreign ice breakers
- Smaller boats for short-term / mobile research
- Communications will take on a greater importance
- Increased use of autonomous platforms will change logistics needs
- Greater number of ships / aircraft / sleds-of-opportunity
How would it be same or different from today?

Key transformative technologies in last 20 years
- GPS, satellite communications/telemetry
- Improved satellite data availability/accessibility
- This has largely made things much safer

Next transformative technology
• Autonomous platforms
• Lighter-than-air vessels (dirigibles / blimps)
How would it be same or different from today?

Much current tech & infrastructure > 20 yrs old

• Icebreakers
• LC-130s
• Roads
• Buildings
• Much of this will need to be replaced soon
How would it be same or different from today?

Many logistical challenges will remain same
• e.g. traversing ice sheet margins will always require airlift

Some new challenges will emerge
• Researcher expectations currently outstripping improvements in communications
• Competition for limited infrastructure with increased commercial activity
How would we foster interdisciplinary science and system-level understanding?

International collaboration will play a key role

• Use of foreign ice breakers
• Access to Russian Arctic

Facilitated at high- and low levels

• Heads of agencies
• Arctic council
• Grass roots collaborations (scientific & logistical)
How would we foster interdisciplinary science and system-level understanding?

Sharing of technologies across disciplines

• E.g. including optical / bio sensors on more buoys & moorings

• Co-development of communications and remote power systems