

Arctic Communications Infrastructure Initiative

February 2, 2012 - Ottawa



- **Canada's premier satellite service provider**

- Operate global fleet of 12 satellites with two more under construction
- World's fourth largest satellite operator
- Excellent satellite coverage of Northern Canada including the high Arctic and ocean regions
- Cover Latin America, Europe, Africa, Middle East and Asia

- **Long heritage of providing best in class technical expertise and network reliability**

- Headquartered in Ottawa with teleports and offices across Canada and around the world
- 500 employees with the majority located in Canada

- **Privately held**

- Owned by Canada's Public Sector Pension Investment Board and Loral Space & Communications (NASDAQ: LORL)
- 2010 revenues of CAD \$820 million and over \$5B in contracted backlog

- **Four decades of Experience in Canada's Arctic**

- Telesat is prepared to invest in bridging the infrastructure gaps to bring true broadband capability to the North

NCIS-WG and ACIA Report



- Northern Communications & Information Systems Working Group (NCIS-WG) commissioned the Arctic Communications Infrastructure Assessment (ACIA) Report
- The NCIS-WG took a collaborative approach with the Territories and their communities, the Federal Government and Industry
- The Report identified a comprehensive inventory of the communications infrastructure and requirements in the North
- The Report detailed capacity requirements on a community by community basis and focused on identifying potential solutions
- Telesat, as a major provider of northern services, actively participated in the consultations



A Matter of Survival

Arctic Communications Infrastructure in the 21st Century

Arctic Communications Infrastructure Assessment Report
Prepared for the Northern Communications & Information
Systems Working Group
www.aclareport.ca



Produced by
Imaituk Inc.
www.imaituk.ca

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ACIA Report's Findings

- Significant shortfall in capacity to service the needs in the North
- Outlined the business realities of the northern market making introduction of new communications infrastructure and capacity by the Service Providers economically difficult
 - Low population
 - Vast distances
 - High operating costs
- Identified that perception was not reality regarding availability of satellite capacity
- Highlighted ground segment upgrades needed in the communities to:
 - Get access to additional capacity
 - Anik F3, Dual Polarization
 - Provide diversity
 - Multiple Satellite Access



Telesat Focused on Top 3 Report Recommendations



■ Recommendation 1

- Commit to service parity among Arctic communities, and set minimum connectivity standards for all Arctic communities that assure service parity to southern urban centres

■ Recommendation 2

- Develop an Arctic-specific strategy with clearly defined rules, that articulates a sustained, multi-year funding commitment for communications network development to meet connectivity standards set by policy makers

■ Recommendation 3

- Ensure there is redundant connection into every Arctic community to avoid gaps in the provision of essential communication services

ACIA Report's Capacity Projections



	# of Communities	Satellite Reliant Communities	Total Projected Capacity	% Satellite Reliance	Satellite Capacity Estimate
Yukon	17	1	1058 Mbps	1%	11 Mbps
NWT	33	10	2146 Mbps	10%	215 Mbps
Nunavut	25	25	1352 Mbps	100%	1352 Mbps
Total	75	36	4556 Mbps		1578 Mbps

- Telesat estimates it will cost \$160 million to provide the additional communications infrastructure to meet the requirements outlined in the Report for the next ten years
 - Commitment by the Governments for 10 years – \$120 million
 - Telesat contribution in satellite capacity for 10 years – \$30 million
 - Telesat cash contribution to upgrade Northern ground equipment – up to \$10 million

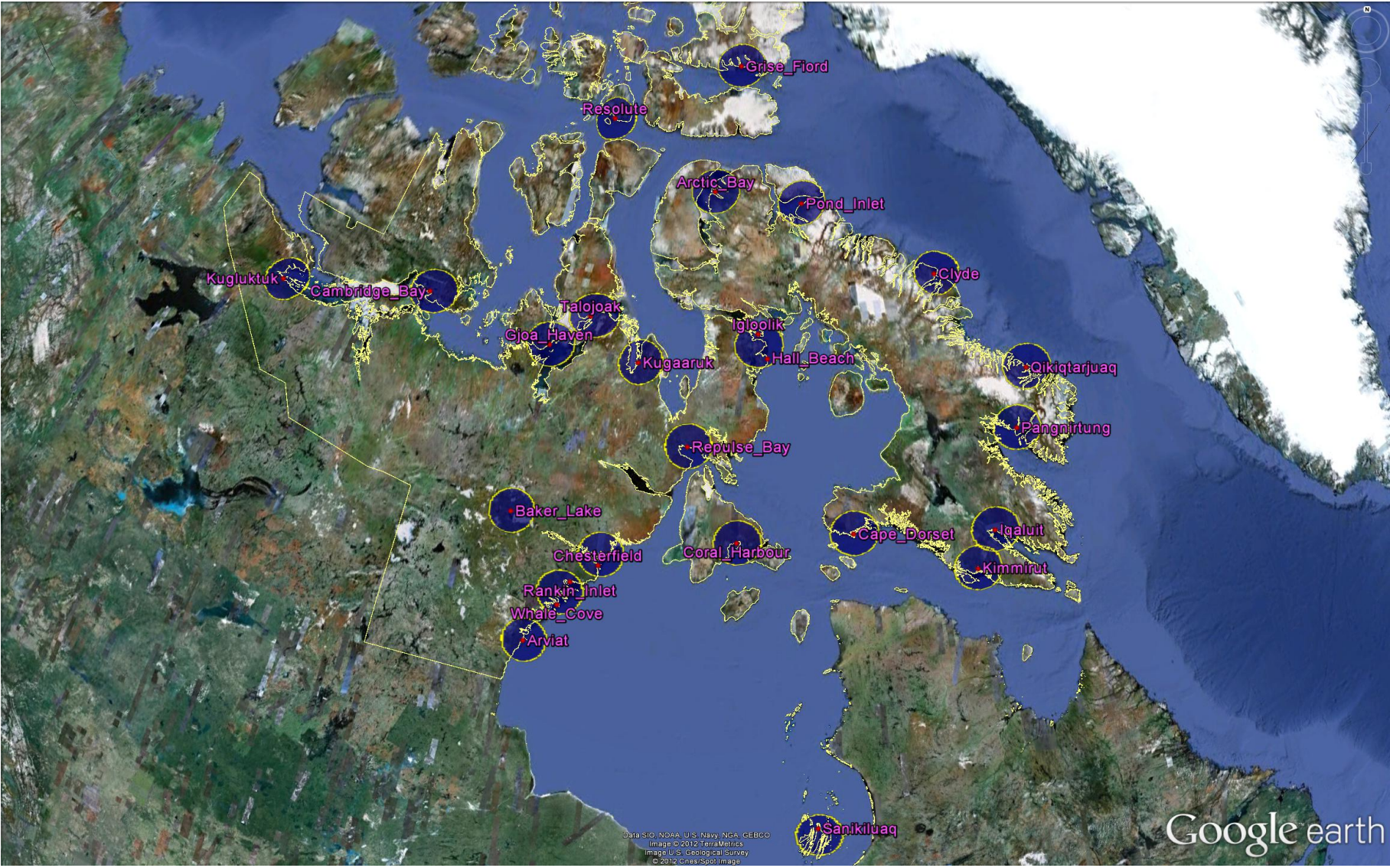
Immediate Benefits of Telesat Proposal



- Bridges the infrastructure gap by providing additional broadband capacity to bring service parity to Canada's North
- Provides long term funding and stability to the communications infrastructure
- Assures greater redundancy/diversity in satellite reliant Arctic communities
- Telesat's Anik F1R, F2, and F3 have sufficient capacity to meet the requirements identified in the NCIS report and have more capacity available for growth
- The needs of the North can be met with minimal upgrades to the earth stations
- The project could be implemented in less than 12 months time

- The NCIS-WG and the ACIA Report addressed Government requirements in the North now and projected growth for the next 5-10 years
- Satellites typically last 15- 20 years. The existing satellites (F1R, F2, F3) can meet and exceed the gaps outlined in the ACIA report
- Replacement satellites planned beyond 2020 can provide new capabilities to the North
 - High Throughput Satellites (HTS) can address consumer and commercial broadband services in the North
 - The ViaSat-1 HTS launched in October provides over 120Gbps of capacity
 - Next generation of HTS can provide a payload dedicated to the North providing communities with 10-15 Gbps of capacity

High Throughput Satellites - Evolution



Summary



- Telesat's proposal addresses the top three (3) recommendations raised in the NCIS-WG Report
 - Capacity and sustained multi-year funding
 - Parity with the south
 - Diversity and redundancy
- Telesat in a Public/Private partnership is prepared to make significant contributions towards modernizing and expanding the Northern networks – \$40M
- Working in partnership with the Northern Governments and Service Providers, a satellite solution is available immediately – 12 months
- Telesat satellites, by design, can provide primary and/or back-up service to every Arctic community today – Access to multiple satellites more than doubling Arctic Broadband capacity

