



PRIORITIZING AIRPORT INFRASTRUCTURE DEVELOPMENT

Presented to the ALPA Remote Operations Conference by

**Government of the Northwest Territories
Department of Transportation**

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Overview

- Airport History and Governance
- Airport System
- Airport Financing
- Infrastructure Investment
- Climate Change
- Increasing Regulatory Burden
- Runway End Safety Areas (RESA)





NWT Airports History

➤ Canada:

- Transferred “B & C” airports to GNWT February 26, 1991
- Transferred 9 “A” airports to GNWT July 1st, 1995: 3 were then transferred to Nunavut April 1st, 1999
- Sold ownership and operation of Canada’s Civil Air Navigation Systems to NAV Canada November 1996
- CATSA created in 2002 as a Crown Corporation to oversee aviation security and intelligence
- Implemented first phase of Safety Management Systems (SMS) in 2007



NWT Airports Governance

- 27 airports owned and operated by Department of Transportation
- Full land transfer unlike southern airports
- Transfer of all assets with commitment to address environmental liabilities and future incremental needs required to meet regulatory changes
- Regulatory oversight remains with Canada; GNWT responsible to meet regulations including all regulatory changes
- Current governance structure (GNWT owned/ operated) works well
 - Yellowknife airport (YZF) only airport where other options could realistically be considered



Airport Financing

- Federal funding to operate airports transferred to GNWT General Revenue Fund
- Increasing government-wide demands on GNWT financial resources and capacity creates additional difficulties for airports to address industry growth, changes, and legacy issues
- Cost of operating and maintaining challenging for Northern airports
- Revenue generation opportunities must be balanced with economic growth and cost of living
- Infrastructure investment of critical importance to DOT

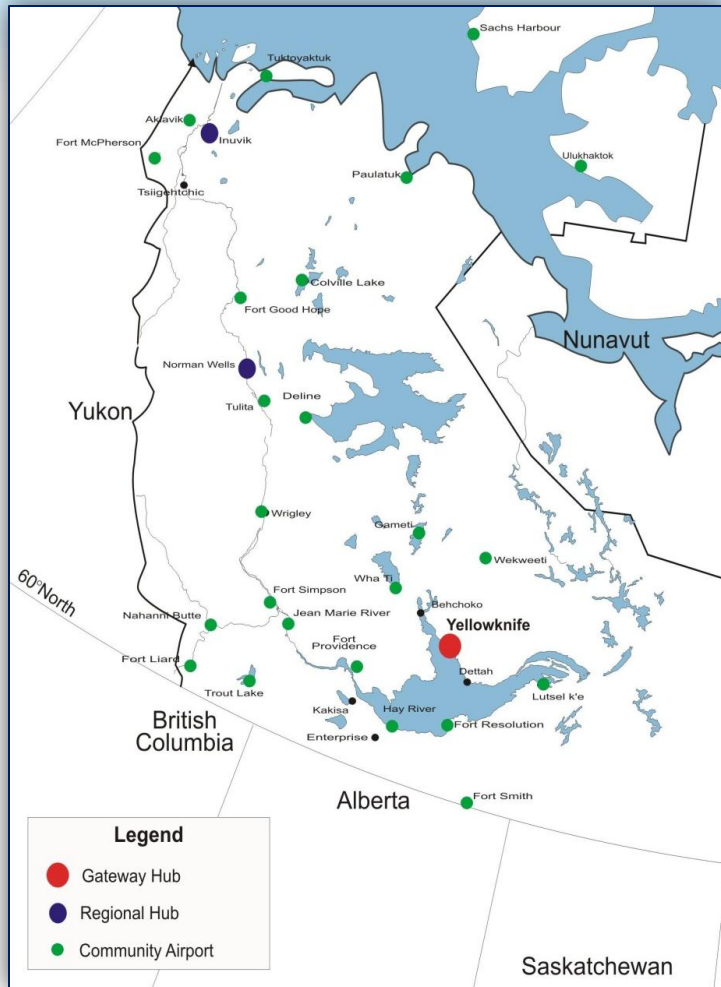




Northern Aviation Overview

➤ Northern Aviation Industry

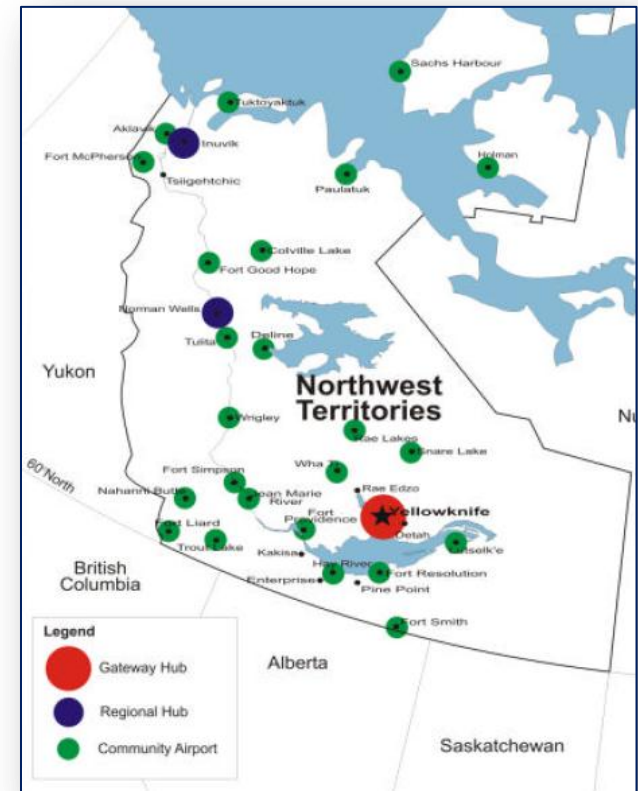
- Numerous Airports, small communities, vast distances between communities
- Remote communities with airports being vital to their existence (medevac, resupply)
- Infrastructure relatively good but ageing – constant vigilance
- Adverse climate change impacts are occurring to both capital and O&M
- Safe airports system but one-size-fits-all approach to regulations creates challenges
- Limited competition outside Yellowknife—emergence of Air Canada & WestJet in Yellowknife
- Older, smaller, less efficient, high maintenance aircraft





NWT Airports Overview

- 27 Airports: One Gateway Hub (Yellowknife), 2 Regional Hubs (Norman Wells and Inuvik), and 24 Community Airports
- Two CBSA offices (Yellowknife and Inuvik)
- One CATSA screening (Yellowknife)
- NAV Canada presence at three airports; 17 Community Aerodrome Radio Stations with own air navigation infrastructure; an AWOS at Wekweeti, and no services at 6
- Critical component of the territorial transportation system, providing year-round commercial scheduled and charter and emergency air transportation to NWT communities

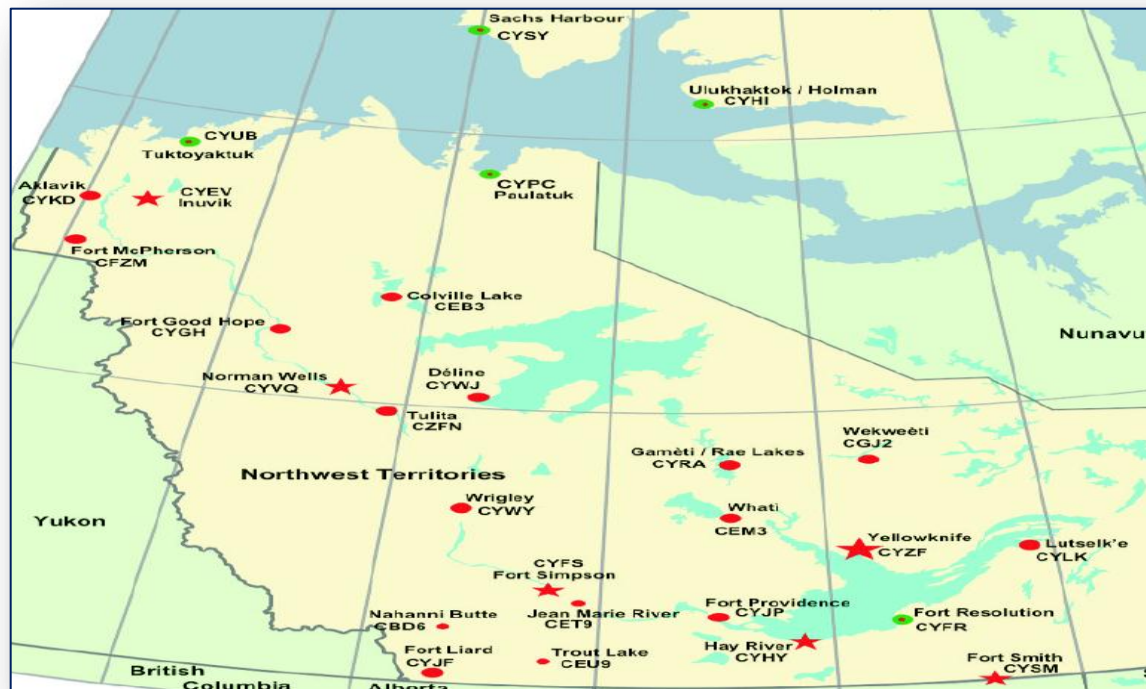




Runway Surfaces

- Code 1 Gravel: Up to – 800m/2625 ft
- Code 2 Gravel: 800m – 1200m/2625 ft – 3932 ft
- Code 3 Gravel: 1200m – 1800m/3932 ft – 5900 ft
- Code 4 Asphalt : 1800m +/5900 ft +

6 paved; 21 gravel





Airport Infrastructure Investment

- Building Canada Plan (BCP) funding used to improve airport infrastructures:
 - New Combined Services Building at Yellowknife Airport
 - New airports at Trout Lake and Colville Lake
 - New ATB's in Tuktoyaktuk, Sachs Harbour, and Paulatuk (Infrastructure Stimulus Fund)
- Airports Capital Assistance Program (ACAP) funds valued but needs greater than available funding
- 2011 federal budget announcement of new federal infrastructure program welcomed
- GNWT concerned about:
 - New regulatory requirements and federal responsibility to cover cost
 - Federal approach to legacy issues— land, liabilities, correction of exemptions, infrastructure constraints to meet modern travel requirements
 - Transportation partners' and industry's increasing expectations
- DOT continues to look for ways to fund infrastructure needs; new federal funding programs, Industry partnerships and devolution may present opportunities





Northern Challenges – Climate Change

- Climate change is a critical issue for DOT's airports and is being monitored
- Airport Runway Vulnerability Protocol completed
- Airport Runway Vulnerability Assessments being conducted at our airports
- Adverse O&M and infrastructure impacts realized
 - Increasing use of sand, glycol, other de-icing chemicals
 - Permafrost subsidence damage and drainage issues
 - Changing wind, temperature, and precipitation patterns
- Climate change expected to increase at rates exceeding southern locations and adversely impact costs to airports infrastructure and its operation and maintenance
- DOT developing a Climate Change Adaptation Plan





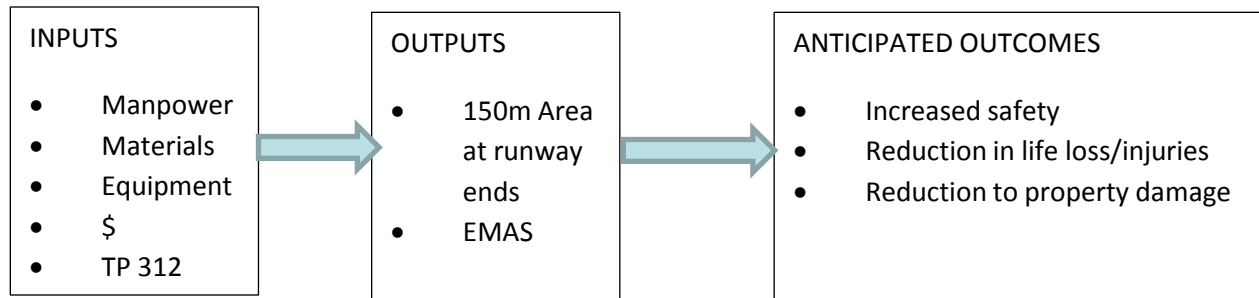
Increasing Regulatory Burden

- Multiple federal regulatory requirements are increasing the cost of operating DOT's airport network
- DOT's remote airports in locations such as Tuktoyaktuk, Paulatuk, and Sachs Harbour are governed by the same regulations as Lester B. Pearson International Airport in Toronto.
- For example:
 - SMS, emergency planning and training have added approximately \$760 K increasing to \$1.2 M annually in 2013
 - Lack of harmonization of regulation cycles – audit (3 years) vs. exercises (4 years)
 - Increased expectations from new regulations to air carrier industry CAR 704 2010, Contaminated Runway Regulations, cargo security, RESAs



Runway End Safety Areas (RESA)

➤ Expectation



➤ Reality

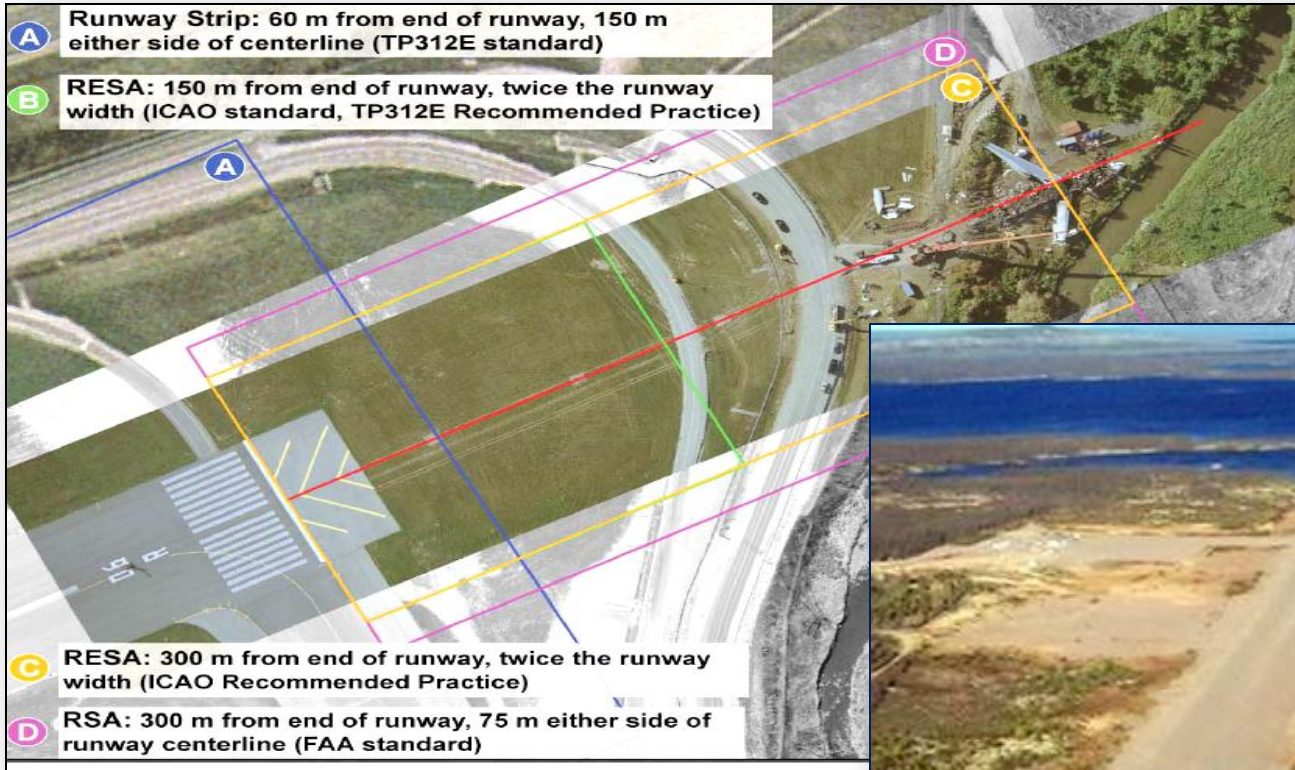
- Cost of implementing RESA's in the NWT in excess of \$40 million
- Additional cost to operate and maintain RESA's
- Runway landing and takeoff distance may need to be reduced due to land and environmental issues resulting in shorter runway lengths
- EMAS not tested in North; single use; GNWT has no capacity to replace; no Canadian suppliers

➤ Canada must consider covering all costs associated with this initiative

➤ Understand TC is conducting an analysis to investigate benefit, cost and risk



Runway End Safety Areas



Gameti Airport



Toronto – Pearson International



Key Points

- The airport system is critical to the Northwest Territories.
- The current airport system is safe (airports and air carriers).
- Should always look for opportunities to improve air services and air safety.
- One-size-fits-all regulations do not work in the North.
- Special needs of the North must be considered in federal regulations, programs and services.
- GNWT appreciates the ongoing cooperation with federal agencies and industry.
- GNWT welcomes partnerships with industry to meet common objectives.



Questions?

