



SB ADS-B

October 29, 2020
Doug Dillon

OPG3256
A388
400 520

APH6388
A321
370 485

CKR8976
B744
350 415

YGD1723
A350
380 425

JFH6752
B738
390 450

Serving a world in motion
navcanada.ca



OUTLINE

- > SB ADS-B Implementation and NAT Trial
- > Gander OCA Flights
- > Oceanic Metric Reporting
- > ALERT Service



SB ADS-B IMPLEMENTATION

› Workforce Readiness

- ATCO GAP analysis transforming a procedural environment to an ADS-B Enhanced procedural airspace
 - › 6 Days Classroom/Simulator per ATCO over 12 Months

Support Tool Development

- GAATS+ - Transitioning to new Human-Machine Interface
- Decision Support tools for separation monitoring
- NAVCANADA/NATS collaborative model

System Validation

- AIREON signal testing and integration
- Data processing integrity (FUSION/Avionics)

SB ADS-B TRIALS

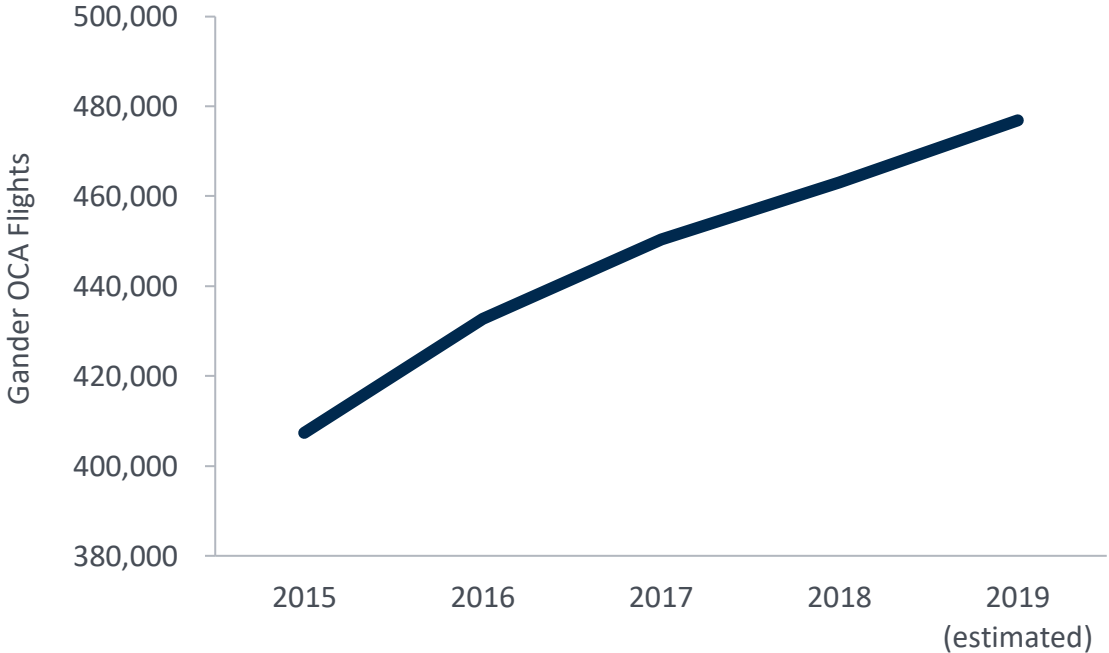
CHALLENGES

- Adjacent ANSP airspace
- PBCS vs Non PBCS – operating mixed mode operations
- Aireon outages (in the initial phase of trials) – capitalizing on contingency procedures

POSITIVES

- Safety assurances of conformance monitoring
- High confidence level of system monitoring and signal integrity
- Uptake rate of ADS-B equipage

GANDER OCA FLIGHTS 2015 - 2019

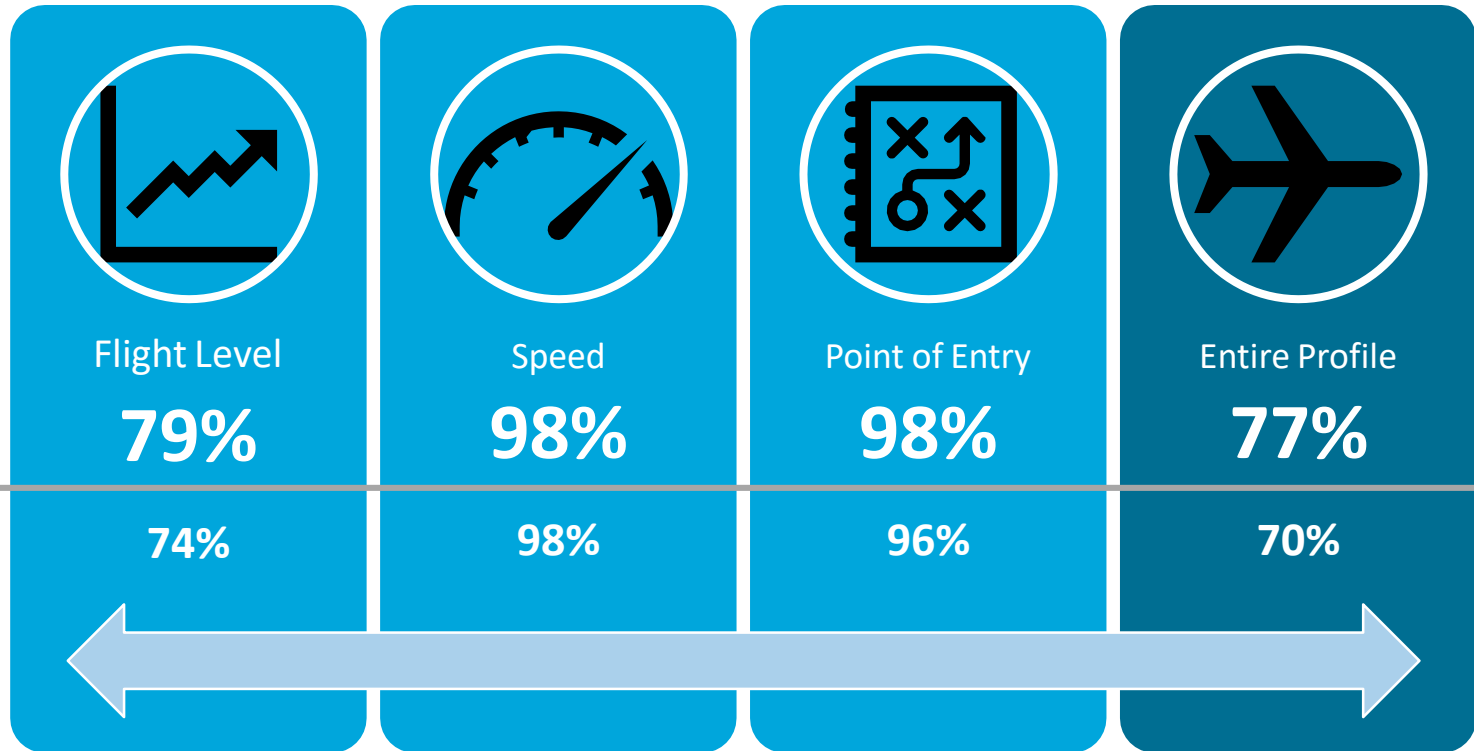


26%
growth in annual
flights
2018 compared to
2010

4%
Annual Average growth
rate 2016 - 2019

Gander OCA Requested and Issued Oceanic Clearances March 1 – March 14, 2020 comparison to March 2019

Eastbound Flights that Received Requested Profile at Entry based on Oceanic Clearance Request

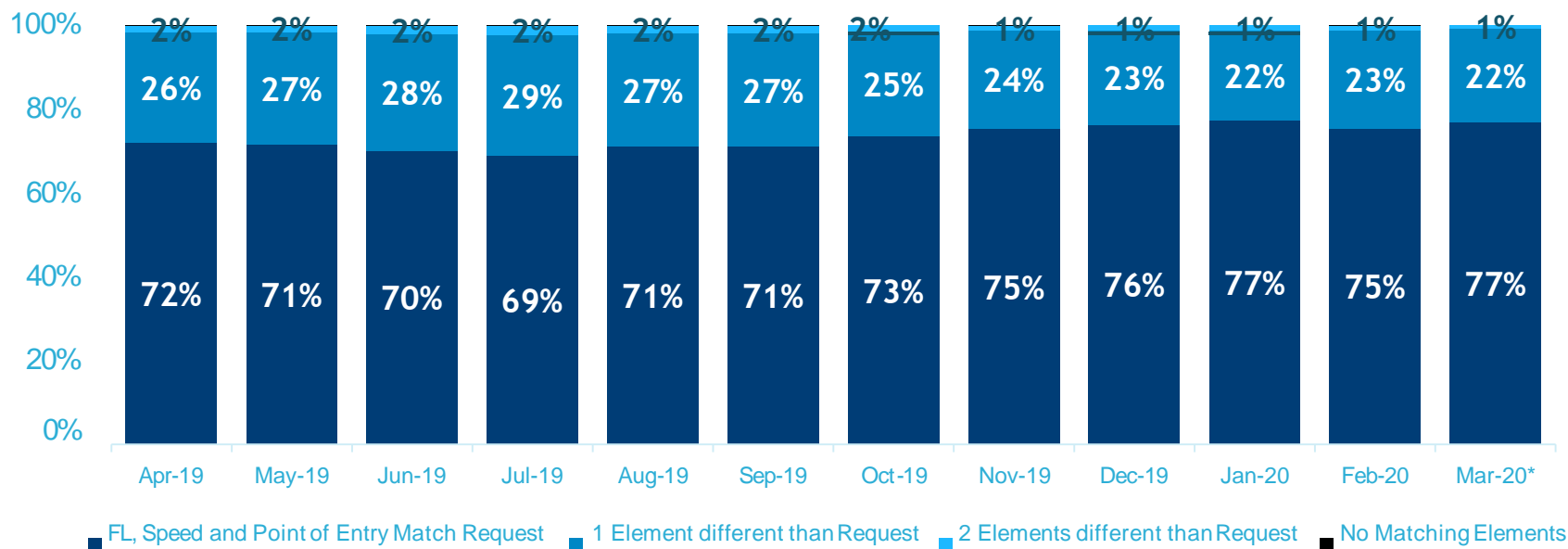


*March 2020 only includes March 1 – March 14, 2020 prior to decreases in traffic due to COVID-19

Gander OCA Requested and Issued Oceanic Clearances April 2019 – March 14, 2020



Eastbound Flights that Received Requested Flight Level, Speed and Point of Entry

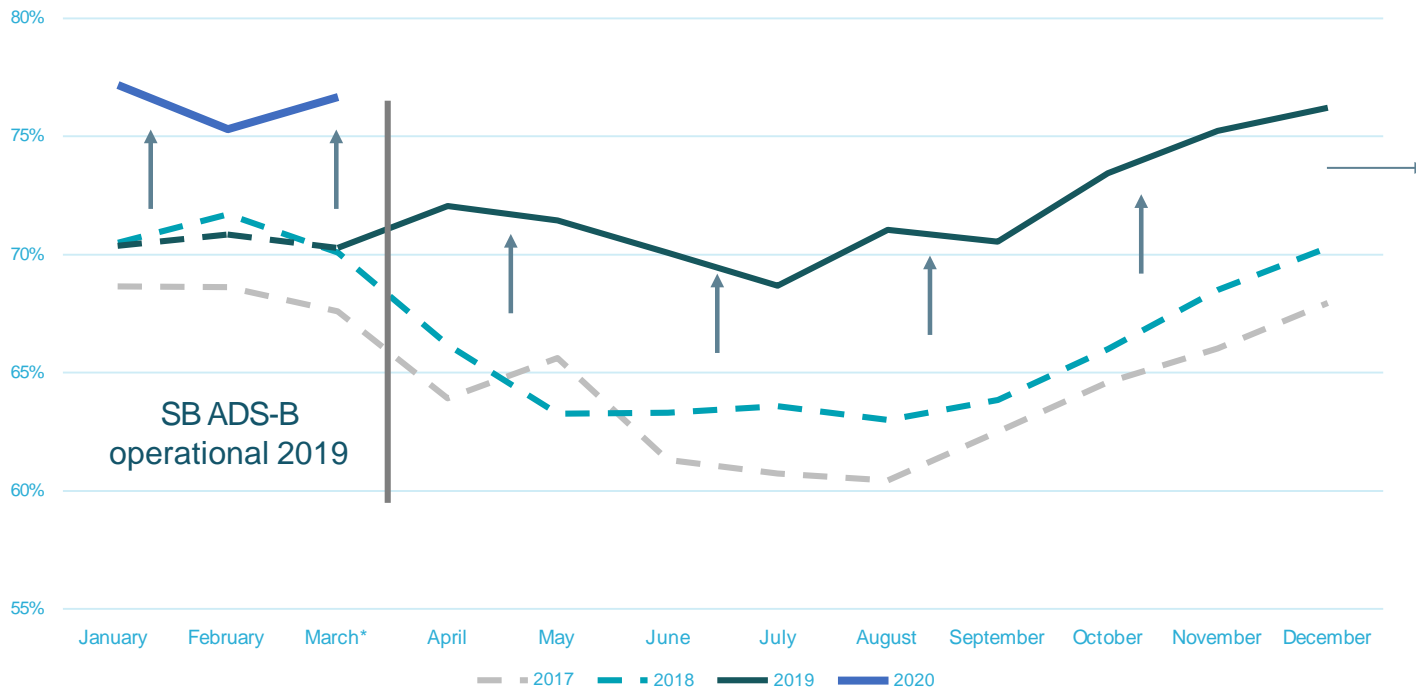


*March 2020 only includes March 1 – March 14, 2020 prior to decreases in traffic due to COVID-19

Gander OCA Requested and Issued Oceanic Clearances January 1, 2017 – March 14, 2020



Eastbound Flights that Received Requested Flight Level, Speed and Point of Entry



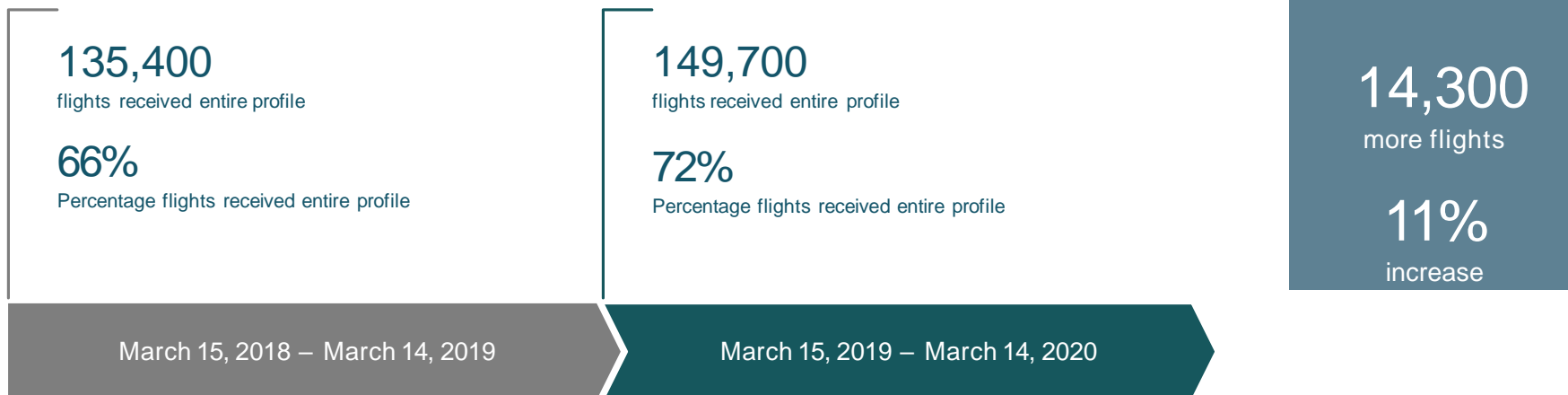
Higher service delivery after SB ADS-B trials began

*March 2020 only includes March 1 – March 14, 2020 prior to decreases in traffic due to COVID-19

Gander OCA Requested and Issued Oceanic Clearances March 2018 – March 2020



Eastbound Flights that Received Requested Flight Level, Speed and Point of Entry



ALERTING SERVICE

Springbank to Nanaimo – June 28

ELT report is received.

Last Kamloops radar return had the aircraft at 5800 feet with higher terrain in the vicinity.



SEARCH & RESCUE PATTERNS

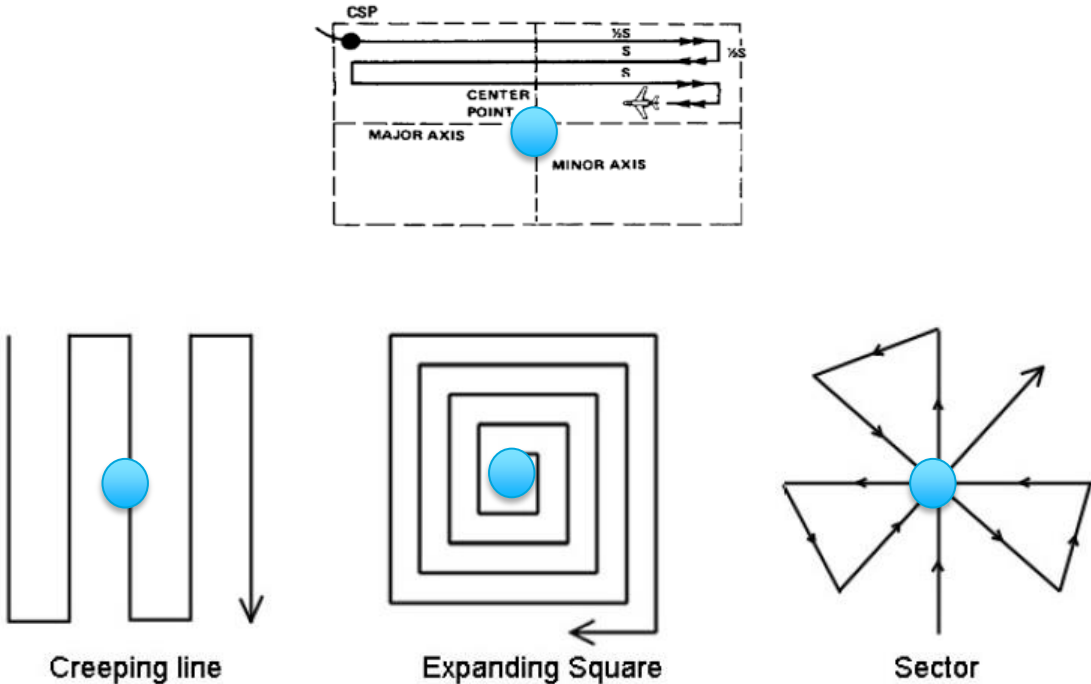
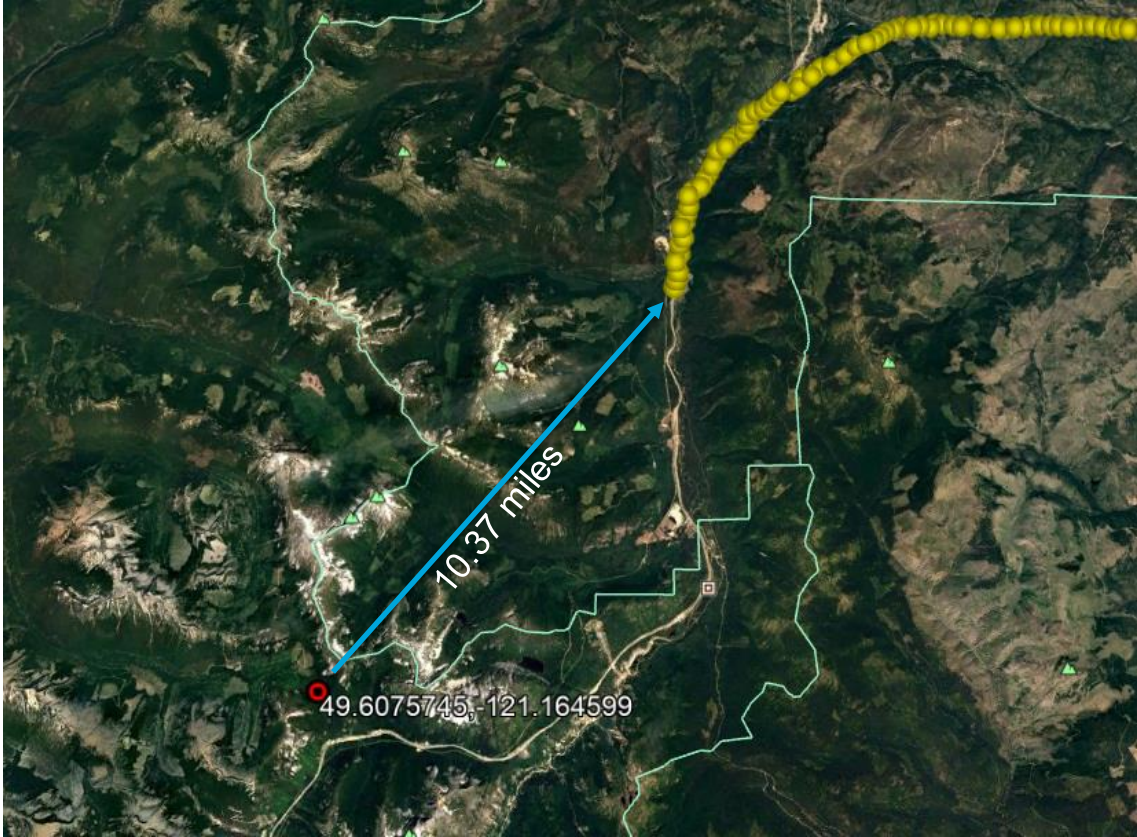
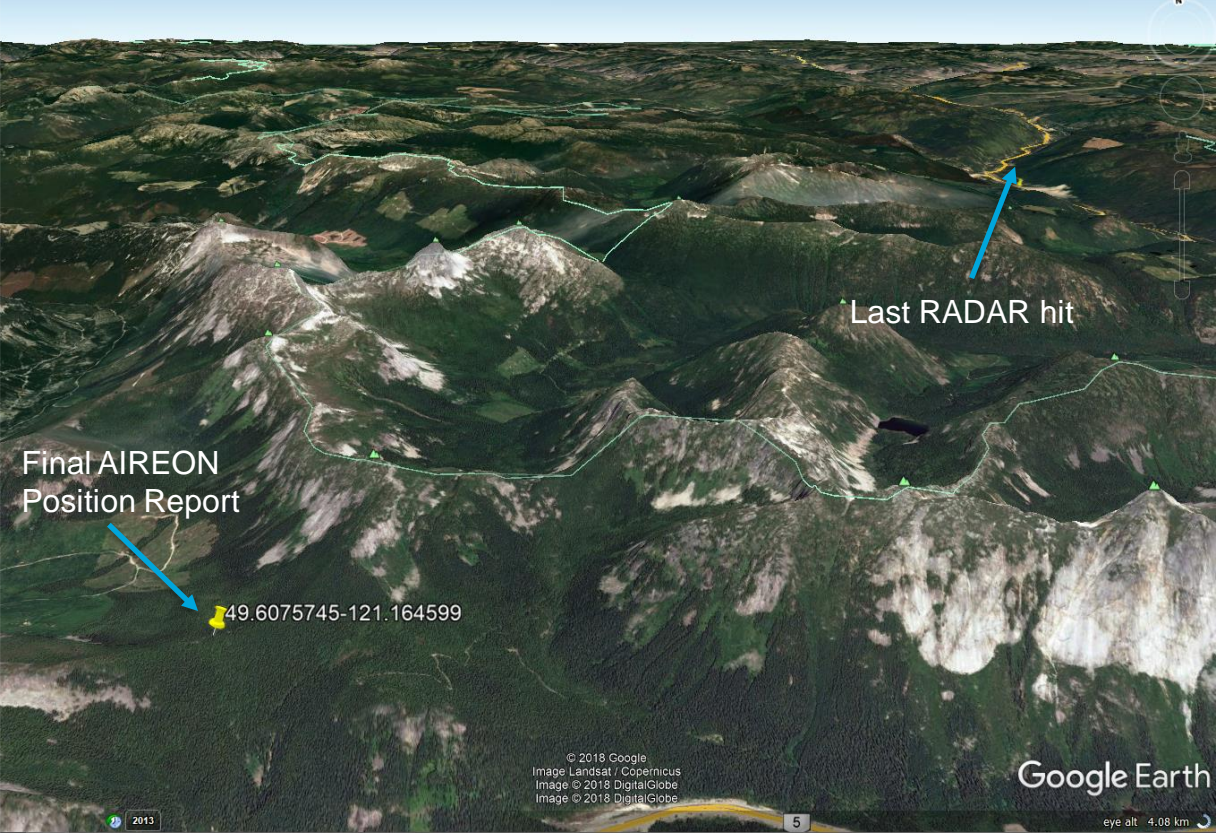


Figure 2.2: Search patterns

RADAR VS AIREON COMPARITION



RADAR VS AIREON COMPARISON





THANK YOU