

LiDAR Project Summary



Airborne Imaging
2700 - 61 Avenue SE
Calgary, Alberta, Canada
T2C 4V2

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Telephone: (403) 215 2960
Fax: (403) 258 3189
www.airborneimaginginc.com

Project Information

Project Name:	NorthernAerodromes2020 (Teslin)
Airborne Project Number:	16023
Client:	NavCanada
Project Location:	Teslin, Yukon, Canada
Project Size:	17 km ²

Acquisition Projects

Project Number	Project Name	Vintage
1808	NavCanada2020	Aug 2020

Acquisition Parameters

Date (MM/DD/YY)	Mission	Flying Height (m)	Flying Speed (knots)	Pulse Rate Rep (kHz)	Scan Freq (Hz)	Scan Angle (degree)	Side Lap %	Point Density (pts/m ²)	LiDAR System
8/25/2020	3620238a	1000	160	800	270	60	60	11.1	Riegl VQ-1560i

Geodetic Control

Horizontal Datum:	Nad83 CSRS	Vertical Datum:	CGVD2013
		Undulation model:	CGG2013
Note: All positioning was based on the following existing control:			
Station ID	Lat	Long	Ellp Height (m)
180847	60 10 25.87785	-132 43 53.97024	711.823
180848	60 10 28.51119	-132 44 00.22107	712.941

Calibration Methodology

Airborne Imaging performs a complete calibration on every LiDAR acquisition flight. The data is first produced with its predetermined boresight values and then the calibration refined by applying corrections to the attitude of the aircraft (roll, pitch and heading) and fluctuations if necessary. To statistically quantify the accuracy, we compare the LiDAR elevations with independently surveyed ground points

Accuracy

Horizontal Accuracy, 95% or 2σ:	30 cm
Fundamental Vertical Accuracy (on flat hard surfaces), 95% or 2σ:	20 cm

Deliverables	
Projection:	UTM 8
Deliverables Formats	
1m Grids (32Bit Geotiff), DEM and DSM	
Hillshade Images (Geotiffs), DEM and DSM	
Classified Point Cloud (LAZ v1.2, 1km tiles), classes 1, 2, 7, 18	
Unclassified Point Cloud (LAZ v1.2, 1km tiles), class 0	
Outlines of project area and 1km tiles (.shp)	
Ground Truth results (.txt)	
Metadata (.xml format, FGDC compliant)	

