

**Camera Calibration Reporting**

CAMERA CALIBRATION PARAMETERS							
PROJECT #:	Boresite Calibration Flight	GEOID MODEL:	CVGD 2013 (NAD83)	CAMERA NAME:	DMC III	PRINCIPAL POINT OFFSET ppx [mm]:	0
COMPANY NAME:	Peregrine Aerial Survey	IMU TYPE:	LCI-100C	CAMERA SERIAL #:	27542	PRINCIPAL POINT OFFSET ppy [mm]:	0
DATE OF CALIBRATION:	17-06-2021	IMU orientation [ENU/NED]:	DD	# PIXEL (WIDTH)	14592		
CALIBRATION LOCATION:	Abbotsford, BC	BASE/ROVER GPS TYPE:	CORS	# PIXEL (LENGTH)	25728		
NAME OF PERSON PERFORMING CALIBRATION:	Paul Gagnon	GPS SOLUTION :	Differential / Multipass	PIXEL SIZE [µm]:	3.9		
GEODETTIC DATUM:	NAD83 (CSRS)	MAX BASELINE LENGTH [Km]:	28 km	A-Priory FOCAL LENGTH "f" [mm]:	92		
VERTICAL DATUM:	CVGD 2013 (NAD83)	A-Priory Spatial boresight offsets dX dY dZ [m;m;m]:	.087, 0.00 .182	#CHANNELS [R/G/B/iR/nIR]	R/G/B/NIR/Pan		
PROJECTION:	UTM 10N	A-Priory Angular boresight offsets dR dP dH [°]:	0, 0, 0	BIT DEPTH [bit]:	14		

BUNDLE BLOCK ADJUSTMENT (BBA)					
SOFTWARE NAME AND VERSION:	ImageStation Automatic Orientations 16.6.0 Build 618	Variance Components Image Points [µm] (RMS):	0.85	Variance Components GPS positions [cm] (RMS):	3.01 cm
BUNDLE BLOCK ADJUSTMENT PARAMETER ESTIMATES USED DURING ADJUSTMENT:	X0, Y0, Z0, omega, Phi, Kappa	Variance Components Image points x [µm] (RMS):	0.77	Variance Components GPS positions X EASTING [cm] (RMS):	3.01 cm
IMAGE MEASUREMENT WEIGHTING [µ]/[PIXELS]:	3 µm	Variance Components Image points y [µm] (RMS):	0.68	Variance Components GPS positions Y NORTHINGS [cm] (RMS):	2.76 cm
GROUND CONTROL WEIGHTING in dN dE dZ [±m;±m;±m]:	0.10 / 0.10 0.10 meters	Variance Components Coordinates [µm] (RMS):	1.9	Variance Components GPS positions Z ELEVATION [cm] (RMS):	1.53 cm
GPS POSITION WEIGHTING in dN dE dZ [±m;±m;±m]:	.5 / .5 / .5 meters	Variance Components Coordinates X- EASTING [cm] (RMS):	1.59 cm		
# 3D GROUND CONTROL POINTS:	17 control / 31 check points	Variance Components Coordinates Y- NORTHING [cm] (RMS):	2.14 cm		
		Variance Components Coordinates Z- ELEVATION [cm] (RMS):	4.12 cm		

BBA RESULTS	
A-Priory FOCAL LENGTH [mm]:	92 mm
A-Posteriori FOCAL LENGTH [mm]:	92 mm
A-Priory PRINCIPAL POINT OFFSET ppx [mm]:	0 mm
A-Posteriori PRINCIPAL POINT OFFSET ppx [mm]:	0 mm
A-Priory PRINCIPAL POINT OFFSET ppy [mm]:	0 mm
A-Posteriori PRINCIPAL POINT OFFSET ppy [mm]:	0 mm
Achieved angular Exterior Orientation Parameter Std.Dev Om/Phi/Kappa [±°;±°;±°]	.00088 / .00123 / .00042 degrees
Achieved positional Exterior Orientation Parameter Std.Dev in EAST/NORHT/ELEVATION [±m;±m;±m]	.02493 / .02454 / .01432 meters
Sigma Naught [µm]:	0.85 µm
Average Residuals of control points dE dN dZ [m;m;m] (RMS):	0.0009 / 0.0023 / 0.0021

Full software and residuals output to be submitted with this report