

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 #:	27550	PRINCIPAL POINT OFFSET ppy [mm]:	0
DATE OF CALIBRATION:	07-Jul-20	IMU orientation [ENU/NED]:	DD	# PIXEL (WIDTH)	14592		
CALIBRATION LOCATION:	Abbotsford, BC	BASE/ROVER GPS TYPE:	Trimble NETRS	# PIXEL (LENGTH)	25728		
NAME OF PERSON PERFORMING CALIBRATION:	Paul Gagnon	GPS SOLUTION :	Differential / Multipass	PIXEL SIZE [µm]:	3.9		
GEODETIC DATUM:	NAD83 (CSRS) epoch 2006	MAX BASELINE LENGTH [Km]:	27 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 2020	Variance Components Image Points [µm] (RMS):	0.84 um	Variance Components GPS positions [mm] (RMS):	4.42 cm
BUNDLE BLOCK ADJUSTMENT PARAMETER ESTIMATES USED DURING ADJUSTMENT:	X0, Y0, Z0, omega, Phi, Kappa	Variance Components Image points x [µm] (RMS):	0.784 um	Variance Components GPS positions X-EASTING [mm] (RMS):	2.68 cm
IMAGE MEASUREMENT WEIGHTING [µ]/[PIXELS]:	2 um	Variance Components Image points y [µm] (RMS):	0.6496 um	Variance Components GPS positions Y- NORTHINGS [mm] (RMS):	3.48 cm
GROUND CONTROL WEIGHTING in dN dE dZ [±m;±m;±m]:	0.12 / 0.12 0.12 meters	Variance Components Coordinates [µm] (RMS):	3.19 cm	Variance Components GPS positions Z- ELEVATION [mm] (RMS):	0.50 cm
GPS POSITION WEIGHTING in dN dE dZ [±m;±m;±m]:	.5 / .5 / .5 meters	Variance Components Coordinates X-EASTING [mm] (RMS):	1.59 cm		
# 3D GROUND CONTROL POINTS:	24 control / 37 check points	Variance Components Coordinates Y-NORTHING [mm] (RMS):	1.28 cm		
		Variance Components Coordinates Z-ELEVATION [mm] (RMS):	2.46 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 [±°;±°;±°]	.0014 / .0018 / .0006 deg
Achieved positional Exterior Orientation Parameter Std.Dev in EAST/NORHT/ELEVATION [±m;±m;±m]	.0371 / .0371 / .0210 m
Sigma Naught [µm]:	0.84 um
Average Residuals of control points dE dN dZ [m;m;m] (RMS):	.0165 / .0165 / .0335 m

Full software and residuals output to be submitted with this report