

Camera Calibration Reporting

CAMERA CALIBRATION PARAMETERS		GEOID MODEL:		CAMERA NAME:		PRINCIPAL POINT	
PROJECT #:	Boresite Calibration Flight	CVGD 2013 (NAD83)		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:	31-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		
GEODETTIC 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/iNIR]	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)		Variance Components Image Points [µm] (RMS):		Variance Components GPS positions [cm] (RMS):	
SOFTWARE NAME AND VERSION:	ImageStation Automatic Orientations 2020		0.88 um		7.31 cm
BUNDLE BLOCK ADJUSTMENT PARAMETER ESTIMATES USED DURING ADJUSTMENT:	X0, Y0, Z0, omega, Phi, Kappa	Variance Components Image points x [µm] (RMS):	0.82 um	Variance Components GPS positions X-EASTING [cm] (RMS):	3.48 cm
IMAGE MEASUREMENT WEIGHTING [µ]/[PIXELS]:	2 um	Variance Components Image points y [µm] (RMS):	0.61 um	Variance Components GPS positions Y-NORTHINGS [cm] (RMS):	3.78 cm
GROUND CONTROL WEIGHTING in dN dE dZ [±m;±m;±m]:	0.12 / 0.12 / 0.12 meters	Variance Components Coordinates [cm] (RMS):	4.01 cm	Variance Components GPS positions Z-ELEVATION [cm] (RMS):	5.2 cm
GPS POSITION WEIGHTING in dN dE dZ [±m;±m;±m]:	.5 / .5 / .5 meters	Variance Components Coordinates X-EASTING [cm] (RMS):	1.3		
# 3D GROUND CONTROL POINTS:	26 control / 28 check points	Variance Components Coordinates Y-NORTHING [cm] (RMS):	1.36		
		Variance Components Coordinates Z-ELEVATION [cm] (RMS):	3.55		

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 [±°;±°;±°]:	0.0018 / 0.0024 / 0.0008 deg
Achieved positional Exterior Orientation Parameter Std.Dev in EAST/NORHT/ELEVATION [±m;±m;±m] Sigma Naught [µm]:	0.0465 / 0.0458 / 0.0232 m 0.89 um
Average Residuals of control points dE dN dZ [m;m;m] (RMS):	0.0181 / 0.0181 / 0.0409 m

Full software and residuals output to be submitted with this report