IMU Calibration Certificate
No: LCI-100C 1136

For

Peregrine Aerial Surveys, Inc.

#201 1255 Townline Road

Abbotsford, B.C. V2T 6E1

Canada

Northrop Grumman LITEF GmbH Data Sheet PN: 153310-0000-390 Rev: E

Product:	**LCI-100C**	**PN: 153300-1000** **Config-ID: 1011**	**MOD: 002**	**SN: 1136**

TESTER CONFIGURATION:

Peripheral:	A000		
Computer:	IMP087	PN: 309442-5003-001	Rev: B
Fixture ID:	91	Slot: 1	Pos: 1
Adapter:	SN: 1003	PN: 309327-7700-000	Rev: B
Basis SW:		PN: 309186-1001	Rev: A
Appl. SW:		PN: 309943-2000-000	Rev: G
IAS:		PN: 309197-1013-882	Rev: A(3.52)
Operator:	Default Operator		
Comment:	Default Comment		

TEST RESULT:

Start CFG:	13/02/2017, 12:57	*End CFG:*	13/02/2017, 12:58
Number Tests:	6	Tests passed:	6
Fails:	**0**	**Overall Test Result:**	**PASS**

	Name:	Signature, Stamp:	Date:
Operator:	Burgert		13.02.17 3566

ATP Base Unit PN: 153310-0401 SN: 1129 Pass: V Fail: .....

	Name:	Signature, Stamp:	Date:
NG LITEF QA:	U. Kulp	U.	15. FEB. 2017

UUT PN: 153300-1000 MOD: 002 SN: 1136

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Result Summary:

Testreference:	*Date:*	*Result:*
Setup IFBOX	13/02/2017, 12:57	**pass**
Switch UUT on	13/02/2017, 12:57	**pass**
Configure UUT	13/02/2017, 12:58	**pass**
HDLC Interface	13/02/2017, 12:58	**pass**
Read Default Information	13/02/2017, 12:58	**pass**
Switch off UUT	13/02/2017, 12:58	**pass**

Detailed Results:

	L. Limit	*Result*	*U. Limit*	*Unit*	
Setup IFBOX	Date: 13/02/2017, 12:57				Test: **pass**
Switch UUT on	Date: 13/02/2017, 12:57				Test: **pass**
Current at +27.57 V	0.200	**0.389**	0.750	A	**pass**
Configure UUT	Date: 13/02/2017, 12:58				Test: **pass**
CRC of UI-Data	0x4AA628DA	**0x4AA628DA**			**pass**
UCrcXor		**0**			
UCrcStart		**0**			
UCrcPoly		**33568**			
UCRCDef		**220**			
UParity		**0**			
UStop		**1**			
UMsgID		**128**			
SyncFreq		**500**			
UBaud		**33792**			
TransRate		**33920**			
SyncOut		**21327**			
RES		**0**			
UEnable		**8**			
HDLC Interface	Date: 13/02/2017, 12:58				Test: **pass**
Number of Bytes	35	**35**			**pass**
Gyro Status	0x00000000	**0x00000000**			**pass**
Accel Status	0x00000000	**0x00000000**			**pass**
Number of Bytes	42	**42**			**pass**
Message ID	43	**43**			**pass**
Read Default Information	Date: 13/02/2017, 12:58				Test: **pass**
UUT-PN		**153300-1000-002**			
UUT-SN		**1136**			
UUT-REV		**C**			
Switch off UUT	Date: 13/02/2017, 12:58				Test: **pass**

GNSS/IMU Performance (Calibration Flight 13.06.2017)

Angular Accuracy:

Component	StDev Omega [deg]	StDev Phi [deg]	StDev Kappa [deg]
IMU	0.0019	0.0024	0.0012

Position Accuracy:

Component	StDev X [m]	StDev Y [m]	StDev Z [m]
GNSS	0.0551	0.0438	0.0203

Camera:	LCI-100C
Manufacturer:	Northrup Grumman LITEF GmbH
Serial Number:	1136
Date of Calibration Flight:	13. June 2017
Date of Report:	21. June 2017

This GNSS/IMU system is certified by Leica Geosystems Technologies and is fully functional within its specifications and tolerances.

Date of Calibration: June 2017

Date of Certification: June 2017

Dipl.Ing. Christian Mueller, Product Manager

Dipl.Ing. Gerald Kapoun, Technical Consultant