

Station Occupation Report For Airborne GPS

Project:

Oahu LIDAR

Location:

Kalaheo Airport

Completed by:

Berry

Project Number:

7525-061

7505-078

Date:

June 1, 2013

Receiver:

Trimble "2"

Receiver Type:

R7 GNSS

Antenna Type:

Zephyr Geodetic

Station ID:

PSI HIR

Start -- H.I. (m):

1.665 1.667 1.666

End -- H.I. (m):

1.666

H.I. (ft):

5.46

Start Time:

6:16 AM

End Time:

8:54 AM

Time Zone:

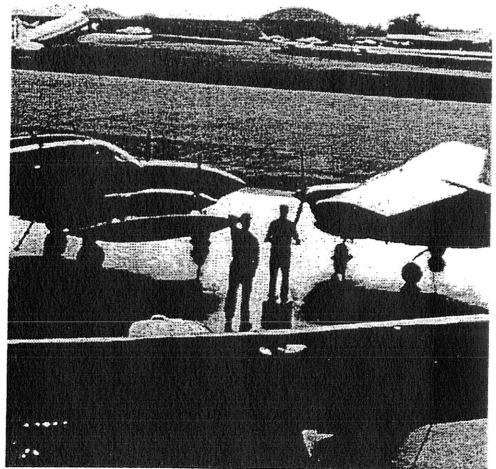
HST

Operator:

Berry

Comments

1306010-240 VOIPEP by 1306050-240



Station Occupation Report For Airborne GPS

Project:

Oahu LiDAR

Location:

Kahala Airport

Completed by:

Berry

Project Number:

525061
FOS-073

Date:

June 12, 2013

Receiver:

Trimble "2"

Receiver Type:

R1 GPS

Antenna Type:

Zephyr Geomatics 2

Station ID:

PS1-HJR

Start -- H.I. (m):

1.680 1.678 1.679

End -- H.I. (m):

1.679

H.I. (ft):

5.51

Start Time:

6:18 AM

End Time:

9:30 AM

Time Zone:

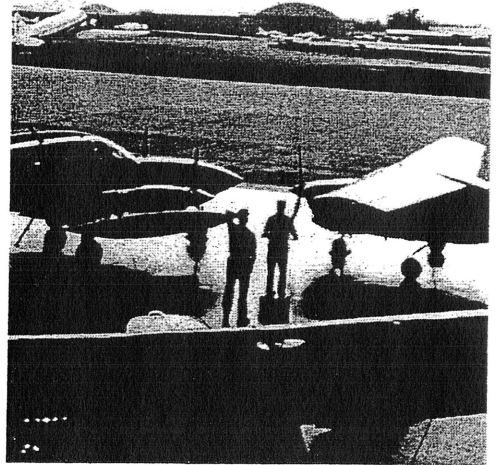
HST

Operator:

Berry

Comments

B0612a-240



Station Occupation Report For Airborne GPS

Project:

Oahu LIDAR

Location:

Kalaheo Airport

Completed by:

Berry

Project Number:

7525-061

7505-018

Date:

June 19, 2013

Receiver:

Trimble "2"

Receiver Type:

R7 GPS

Antenna Type:

Zenur Zenomatic 2

Station ID:

PSI LTR

Start -- H.I. (m):

1.676 1.698 1.695

End -- H.I. (m):

1.697

H.I. (ft):

5.56

Start Time:

6:10 AM

End Time:

9:15 AM

Time Zone:

HST

Operator:

Berry

Comments

130619a-24D



Station Occupation Report For Airborne GPS

Project:

Oahu LIDAR

Location:

Kahaloa Airport (PHJR)

Completed by:

Berry

Project Number:

7525-06161044
7505-081055

Date:

June 20, 2003

Receiver:

Trimble "2"

Receiver Type:

30 ANS

Antenna Type:

Percher Geodetic 2

Station ID:

PHJ PHJR

Start -- H.I. (m):

1.739 1.740 1.741

End -- H.I. (m):

1.740

H.I. (ft):

5.705

Start Time:

2:30 AM

End Time:

6:50 AM

Time Zone:

HST (-10 UTC)

Operator:

Berry

Comments

1306000a-7178





Station Occupation Report For Airborne GPS

Project:

DanWLiDAR

Location:

Kalaheoa Airport

Completed by:

Barry

Project Number:

7525-061
1005-078

Date:

June 5, 2003

Receiver:

Trimble "2"

Receiver Type:

R1 GPS

Antenna Type:

Zephyr Geodetic 2

Station ID:

PS1 HJR

Start -- H.I. (m):

1.628 1.628 1.630

End -- H.I. (m):

1.629

H.I. (ft):

5.34

Start Time:

5:35AM

End Time:

8:22AM

Time Zone:

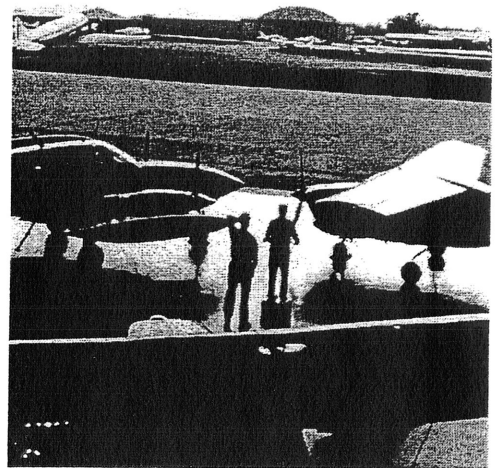
HST

Operator:

Barry

Comments

B0605a-240



**Station Occupation Report
For Airborne GPS**

Project: Oahu LIDAR

Location: Kalaheoa Airport

Completed by: Berry

Project Number: 7525-061
7505-078

Date: June 6, 2013

Receiver: Trimble 2

Receiver Type: Zephyr Geodetic 2

Antenna Type: R7 GPS

Station ID: P01 HJR

Start -- H.I. (m): 1,726 1,729 1,728

End -- H.I. (m): 1,728

H.I. (ft): 5,680

Start Time: 804 AM

End Time: 1023 AM

Time Zone: HST

Operator: Berry

Comments BX10 0160-040



Station Occupation Report For Airborne GPS

Project:

Onine LIDAR

Location:

Kalaheon Airport

Completed by:

Berny

Project Number:

7525-001
7505-078

Date:

June 8, 2013

Receiver:

Trimble "2"

Receiver Type:

RTK

Antenna Type:

Zephyr Geodetic 2

Station ID:

PS1HTR

Start -- H.I. (m):

1.678 1.681 1.679

End -- H.I. (m):

1.680

H.I. (ft):

5.505

Start Time:

6:13 AM

End Time:

10:02 AM

Time Zone:

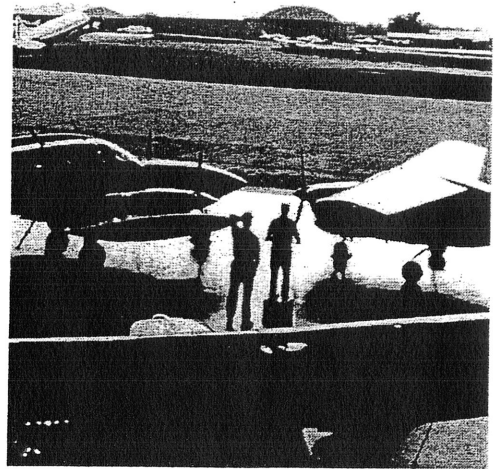
EST

Operator:

Berny

Comments

BD6080-240





Station Occupation Report For Airborne GPS

Project:

Oahu

Location:

HJR

Completed by:

MC

Project Number:

7505-061
7505-072

Date:

7/17/13

Receiver:

T2

Receiver Type:

Trimble 5700

Antenna Type:

Zuiper Geo

Station ID:

OSY HJR

Start - H.I. (m):

1.665

End - H.I. (m):

1.665

H.I. (ft):

735

Start Time:

1139

End Time:

HST

Time Zone:

Operator:

MC

Comments

130717a-240





Station Occupation Report For Airborne GPS

Project:

Oahu

Location:

HJR

Completed by:

MC

Project Number:

7525-061
7503-079

Date:

7/18/13

Receiver:

T2

Receiver Type:

S700

Antenna Type:

Zephyr Geo

Station ID:

PSI HJR

Start - H.I. (m):

1.735

End - H.I. (m):

1.735

H.I. (ft):

Start Time:

602

End Time:

915

Time Zone:

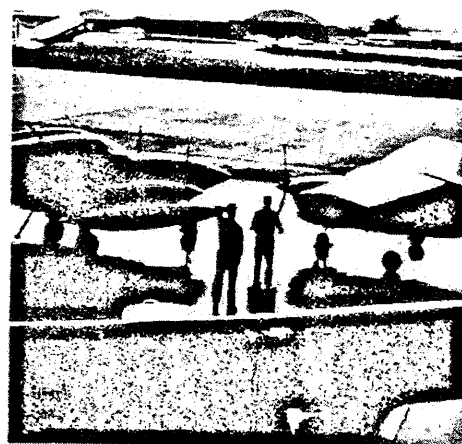
HST

Operator:

MC

Comments

130718a-240





**Station Occupation Report
For Airborne GPS**

Project:

Oahu LILAR

Location:

Kalaheo Airport

Completed by:

Berry

Project Number:

1525-061
7505-078

Date:

July 27, 2013

Receiver:

Trimble

Receiver Type:

S700

Antenna Type:

Zephyr Geodetic

Station ID:

PS1 HJE

Start - H.I. (m):

1.681 1.682 1.682

End - H.I. (m):

1.682

H.I. (ft):

5.565

Start Time:

8:15AM

End Time:

12:50PM

Time Zone:

HST

Operator:

Berry

Comments

1307276-240





Station Occupation Report For Airborne GPS

Project:

Oahu L. DAR

Location:

Kalaheoa Airport

Completed by:

Berry

Receiver:

Trimble

Receiver Type:

5700

Antenna Type:

Zephyr Geomatic

Station ID:

BS1 HTR

Start -- H.I. (m):

1.768 1.770 1.769

End -- H.I. (m):

1.769

H.I. (ft):

5.80

Start Time:

3:43 pm

End Time:

~5:30 PM

Time Zone:

HST

Operator:

Berry

Comments

130730a-240

TSOS-078
Project Number: 7525-061
Date: July 30, 2013





Station Occupation Report For Airborne GPS

Project:

Oahu

Location:

HJR

Completed by:

MC

Project Number:

7525-061
7505-078

Date:

July 4th 2013

Receiver:

T2

Receiver Type:

Trimble 5700

Antenna Type:

Zypper Geo

Station ID:

PSI 458

Start - H.I. (m):

1.59

End - H.I. (m):

1.59

H.I. (ft):

545

Start Time:

1015

End Time:

HST

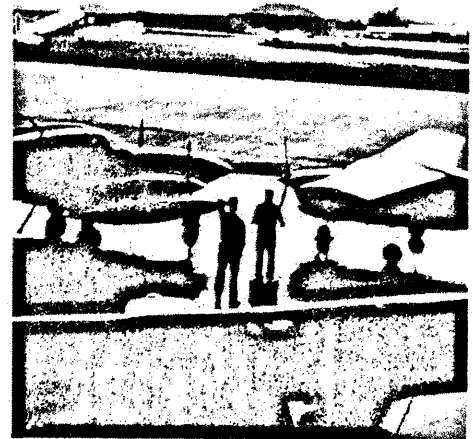
Time Zone:

MC

Operator:

Comments

B0704a-240





Station Occupation Report For Airborne GPS

Project: Oahu

Location: HJR **Project Number:** 7525-001
7505-074

Completed by: MC **Date:** 7/5/13

Receiver: TA

Receiver Type: Trim 5700

Antenna Type: Zephyr 610

Station ID: PSI HJR

Start - H.I. (m): 1.477

End - H.I. (m): 1.477

H.I. (ft): _____

Start Time: 555

End Time: 1025

Time Zone: HST

Operator: MC



Comments 130705a-240



Station Occupation Report For Airborne GPS

Project:

Oahu LIDAR

Location:

Kaheoia Airport

Completed by:

Berry

Project Number:

7525-061

7505-073

Date:

August 2, 2013

Receiver:

Trimble

Receiver Type:

5700

Antenna Type:

Zephyr Proactive

Station ID:

PS1 HTR

Start -- H.I. (m):

1.612 1.612 1.610

End -- H.I. (m):

1.611

H.I. (ft):

5.285

Start Time:

11:25 AM

End Time:

~2:30 PM

Time Zone:

HST

Operator:

Berry

Comments

130802 a-240





Station Occupation Report For Airborne GPS

Project: Oahu LiDAR

Location: Kalaheon Airport

Completed by: Berry

Receiver: Trimble

Receiver Type: 5700

Antenna Type: Zephyr broadcast

Station ID: PS1 HSR

Start -- H.I. (m): 1.651 1.651 1.650

End -- H.I. (m): 1.651

H.I. (ft): 5.42

Start Time: 8:20 AM

End Time: 10:20 AM

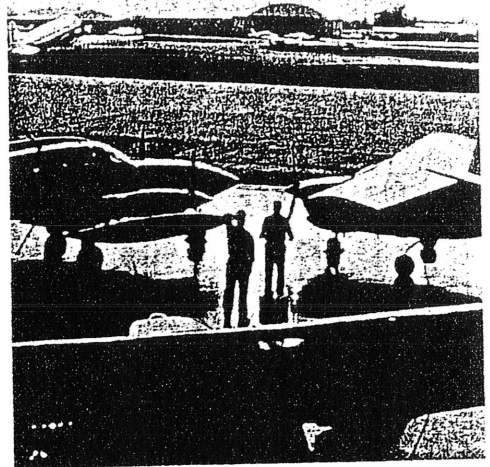
Time Zone: HST

Operator: Berry

Comments: 1308069-240

Project Number: 7525-061
7505-078

Date: August 06, 2013





Station Occupation Report For Airborne GPS

Project:

Oahu LiDAR

Location:

Kalaheoa Airport

Completed by:

Berry

Project Number:

7525-061
7505-078

Date:

August 06, 2013

Receiver:

Trimble

Receiver Type:

5700

Antenna Type:

Zephyr Aerobatic

Station ID:

PS1 HTR

Start -- H.I. (m):

1.675 1.675 1.674

End -- H.I. (m):

1.675

H.I. (ft):

5.495

Start Time:

2:12 PM

End Time:

~6:45 PM

Time Zone:

HST

Operator:

Berry

Comments

13D806b-240



Station Occupation Report For Airborne GPS

Project:

Oahu LIDAR

Location:

Kalaheha Airport

Completed by:

Berry

Project Number:

7525-061

7505-078

Date:

August 07, 2013

Receiver:

Trimble

Receiver Type:

5700

Antenna Type:

Zephyr Geodetic

Station ID:

PSI HJR

Start -- H.I. (m):

1.634 1.634 1.633

End -- H.I. (m):

1.634

H.I. (ft):

5.36

Start Time:

430 PM

End Time:

~730 PM

Time Zone:

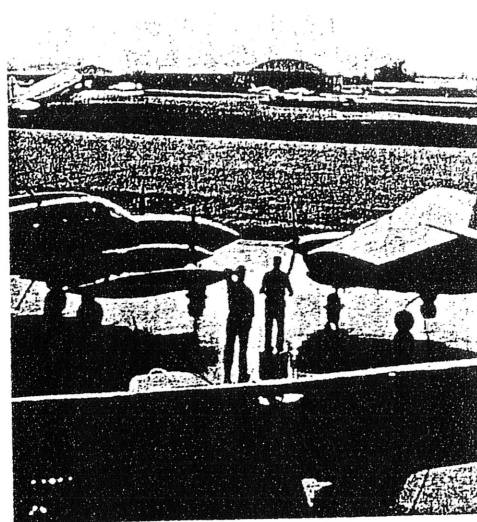
HST

Operator:

Berry

Comments

130807a-240





Station Occupation Report For Airborne GPS

Project:

Chuk LAR

Location:

Kalaheoa Airport

Completed by:

Berry

Project Number:

7305-073
7525-061

Date:

August 8, 2013

Receiver:

Trimble

Receiver Type:

S700

Antenna Type:

Zephyr geodetic

Station ID:

PS1-HJR

Start -- H.I. (m):

1.694 1.695 1.693

End -- H.I. (m):

1.694

H.I. (ft):

5555

Start Time:

6:04 AM

End Time:

~11:30 PM

Time Zone:

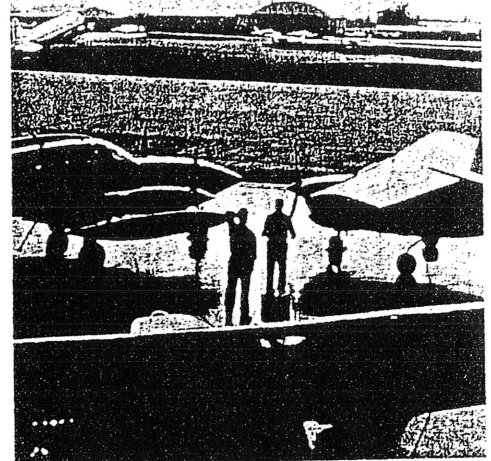
HST

Operator:

Berry

Comments

1308080-240





Station Occupation Report For Airborne GPS

Project:

Oahu LiDAR

Location:

Kahealoa Airport

Completed by:

Berry

Project Number:

7505-078
7525-061

Date:

August 09 2013

Receiver:

Trimble

Receiver Type:

5700

Antenna Type:

Zephyr Geodetic

Station ID:

PS1 HTR

Start -- H.I. (m):

1.607 1.607 1.606

End -- H.I. (m):

1.607

H.I. (ft):

5.27

Start Time:

6:11 AM

End Time:

~10:40 AM

Time Zone:

HST

Operator:

Berry

Comments

130809a-240



From: opus [opus@ngs.noaa.gov]
Sent: Thursday, June 06, 2013 12:00 AM
To: Jeremy Berry
Subject: OPUS solution : 76021560.DAT OP1370490063085

FILE: 76021560.DAT OP1370490063085

2005 NOTE: The IGS precise and IGS rapid orbits were not available
2005 at processing time. The IGS ultra-rapid orbit was/will be used to
2005 process the data.
2005

NGS OPUS SOLUTION REPORT
=====

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: jberry@photoscience.com DATE: June 06, 2013
RINEX FILE: 7602156p.13o TIME: 04:00:47 UTC

SOFTWARE: page5 1209.04 master13.pl 082112 START: 2013/06/05 15:35:00
EPHEMERIS: igu17433.eph [ultra-rapid] STOP: 2013/06/05 18:22:00
NAV FILE: brdc1560.13n OBS USED: 6464 / 6657 : 97%
ANT NAME: TRM57971.00 NONE # FIXED AMB: 30 / 37 : 81%
ARP HEIGHT: 1.575 OVERALL RMS: 0.019(m)

REF FRAME: NAD_83(PA11)(EPOCH:2010.0000) IGS08 (EPOCH:2013.4266)

X:	-5514650.754(m)	0.076(m)	-5514651.670(m)	0.076(m)
Y:	-2219938.988(m)	0.017(m)	-2219936.321(m)	0.017(m)
Z:	2303406.813(m)	0.036(m)	2303407.973(m)	0.036(m)

LAT:	21 18 35.76183	0.011(m)	21 18 35.79870	0.011(m)
E LON:	201 55 38.62753	0.020(m)	201 55 38.52982	0.020(m)
W LON:	158 4 21.37247	0.020(m)	158 4 21.47018	0.020(m)
EL HGT:	24.372(m)	0.085(m)	24.658(m)	0.085(m)
ORTHO HGT:	9.337(m)	0.144(m)	[H = h-N (N = GEOID12A HGT)]	

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 04) SPC (5103 HI 3)

Northing (Y) [meters]	2356732.404	15864.137
Easting (X) [meters]	596185.961	492467.156
Convergence [degrees]	0.33705373	-0.02638504
Point Scale	0.99971432	0.99999070
Combined Factor	0.99971049	0.99998687

US NATIONAL GRID DESIGNATOR: 4QEJ9618556732(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
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DF8972 ZHN1 HONOLULU WAAS 1 CORS ARP N211846.729 W1575514.882 15753.7
AI4960 KOKB KOKEE PARK CORS ARP N220734.518 W1593953.661 187926.2
DJ8967 KOK5 KOKOLE POINT 5 CORS ARP N215900.546 W1594529.318 189742.6

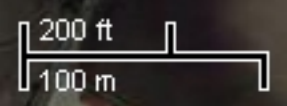
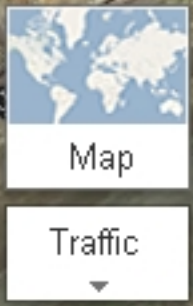
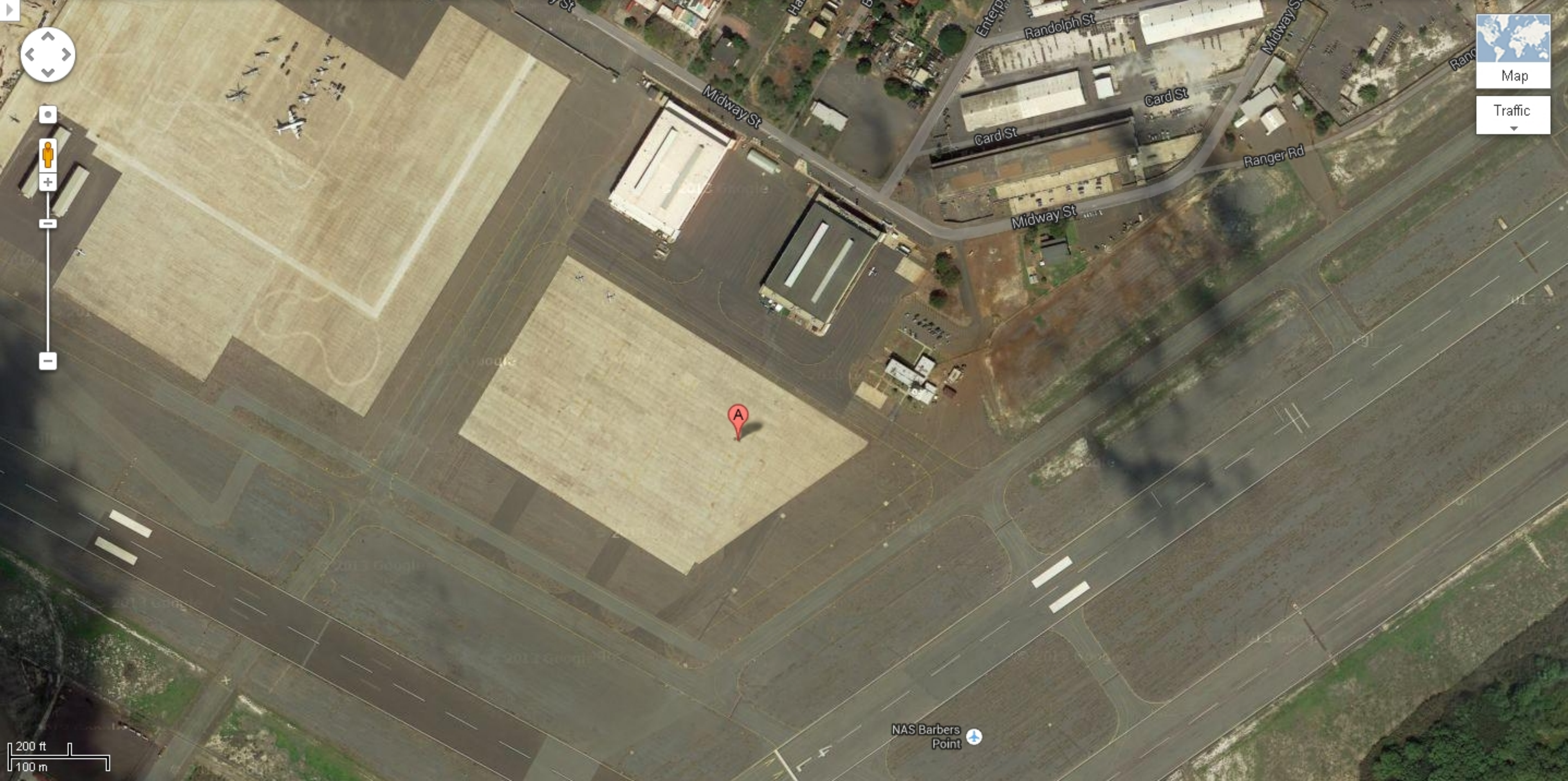
NEAREST NGS PUBLISHED CONTROL POINT

TU1662 BARBERS PT NAS BASE CONT TR BN N211837.272 W1580414.874 192.9

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.







NAS Barbers Point