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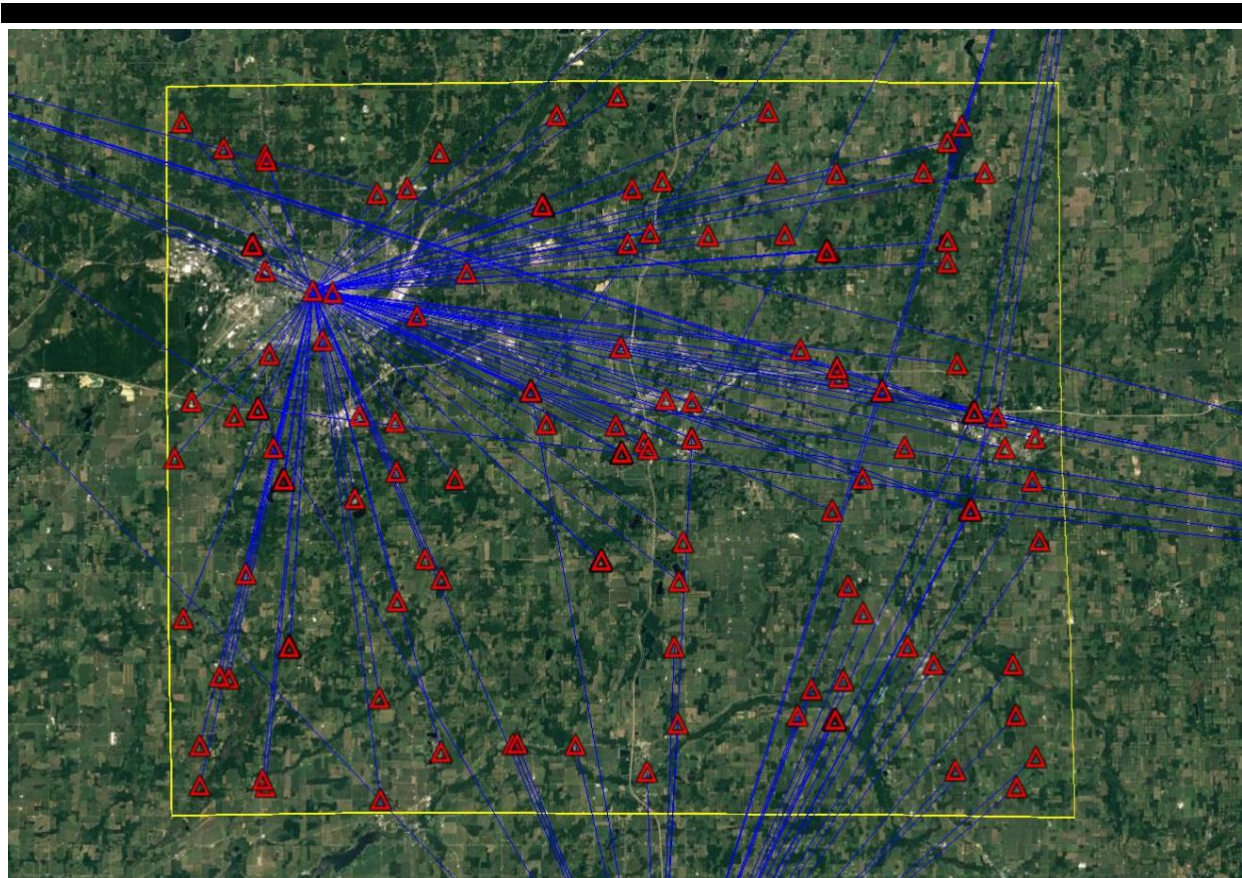
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Project File Data	Coordinate System
Name: 5017_Calhoun_MI_LiDAR_v6.vce	Name: United States/State Plane 1983
Size: 685 KB	Datum: NAD 1983 (Conus)
Modified: 12/15/2016 10:41:12 AM (UTC:-7)	Zone: Michigan South 2113
Time zone: Mountain Standard Time	Geoid: GEOID12B (Conus)



Network Adjustment Report

Adjustment Settings

Set-Up Errors

GNSS

Error in Height of Antenna: 0.001 m

Centering Error: 0.001 m

Terrestrial

Error in Height of Instrument 0.003 m

Error in Height of Target 0.003 m

Covariance Display

Horizontal:

Propagated Linear Error [E]: U.S.

Constant Term [C]: 0.000 m

Scale on Linear Error [S]: 1.960

Three-Dimensional

Propagated Linear Error [E]: U.S.

Constant Term [C]: 0.000 m

Scale on Linear Error [S]: 1.960

Adjustment Statistics

Number of Iterations for Successful Adjustment: 3
Network Reference Factor: 0.97
Chi Square Test (95%): Passed
Precision Confidence Level: 95%
Degrees of Freedom: 715

Post Processed Vector Statistics

Reference Factor: 1.16
Redundancy Number: 96.55
A Priori Scalar: 1.00

RTK Vector Statistics

Reference Factor: 0.99
Redundancy Number: 499.08
A Priori Scalar: 0.80

Control Coordinate Comparisons

Values shown are control coordinates minus adjusted coordinates.

Point ID	Δ Easting (Meter)	Δ Northing (Meter)	Δ Height (Meter)
MIBC_NAD83(2011)_Epoch_2010_DS	0.004	0.000	-0.001
MIMR_NAD83(2011)_Epoch_2010_DS	-0.008	0.001	0.010

Control Point Constraints

Point ID	Type	East σ (Meter)	North σ (Meter)	Height σ (Meter)
LANS_NAD83(2011)_Epoch_2010_DS	Global	Fixed	Fixed	Fixed
MICW_NAD83(2011)_Epoch_2010_DS	Global	Fixed	Fixed	Fixed
MIPW_NAD83(2011)_Epoch_2010_DS	Global	Fixed	Fixed	Fixed
Fixed = 0.000001(Meter)				

Adjusted Grid Coordinates

Point ID	Easting Error (Meter)	Northing Error (Meter)	Elevation Error (Meter)
CAL501	0.006	0.008	0.013
CAL502	0.005	0.006	0.013
CAL502_TIEIN	0.005	0.007	0.014
CAL503	0.005	0.007	0.014
CAL504	0.004	0.007	0.014
CAL504_LAN	0.008	0.013	0.025
CAL504_LAN2	0.005	0.008	0.016
CAL505_2	0.006	0.009	0.017
CAL506	0.005	0.008	0.018

CAL507	0.005	0.008	0.012
CAL508	0.006	0.009	0.019
CAL509	0.006	0.008	0.021
CAL509A	0.005	0.007	0.015
CAL510	0.006	0.006	0.017
CAL511	0.008	0.017	0.022
CAL512	0.005	0.008	0.016
CAL513	0.006	0.007	0.018
CAL513A	0.005	0.007	0.016
CAL534	0.005	0.009	0.014
CAL535	0.006	0.010	0.019
CAL536	0.005	0.008	0.016
CAL537	0.008	0.010	0.018
CAL538	0.006	0.011	0.016
CAL539	0.010	0.010	0.022
CAL540	0.007	0.011	0.022
CAL541	0.006	0.008	0.018
CAL542	0.005	0.006	0.011
CAL543	0.003	0.004	0.008
CAL544	0.008	0.010	0.022
CAL545	0.005	0.006	0.012

MD0162_20161119	0.004	0.005	0.007
MD0612_20161129	0.004	0.006	0.011
MIBC_NAD83(2011)_Epoch_2010_DS	0.001	0.001	0.002
MIMR_NAD83(2011)_Epoch_2010_DS	0.002	0.002	0.004
NF0506	0.011	0.012	0.030
NF0506_20161129	0.014	0.019	0.038
NF0506_STATIC	0.005	0.007	0.032
NF0605_20161206	0.006	0.007	0.011
NF1179_20161207	0.006	0.009	0.021
NF1179_ST_1207	0.002	0.003	0.005
NF1686_STATIC	0.003	0.004	0.010
NF1686_VRS	0.007	0.009	0.016
NF1781_20161122	0.003	0.003	0.006
NF1781_20161128	0.004	0.005	0.008
NF1781_20161201	0.005	0.006	0.013
NF1781_Static	0.002	0.002	0.005
NVA301	0.009	0.012	0.022
NVA302	0.007	0.010	0.021
NVA303	0.006	0.008	0.016
NVA304	0.007	0.008	0.020
NVA305	0.006	0.010	0.022

NVA306	0.006	0.010	0.019
NVA308	0.005	0.007	0.016
NVA309	0.007	0.011	0.019
NVA310	0.006	0.010	0.018
NVA311	0.005	0.008	0.015
NVA312	0.010	0.013	0.028
NVA313	0.005	0.007	0.015
NVA314	0.009	0.011	0.024
NVA314 Check	0.006	0.010	0.018
NVA315	0.007	0.008	0.017
NVA316	0.005	0.008	0.013
NVA317	0.006	0.007	0.013
NVA318	0.007	0.008	0.020
NVA319	0.012	0.018	0.034
NVA320	0.008	0.012	0.023
NVA321	0.004	0.005	0.010
NVA322	0.008	0.009	0.017
NVA323	0.007	0.012	0.024
NVA323 TIEIN	0.008	0.009	0.017
NVA324	0.006	0.010	0.019
NVA325	0.007	0.011	0.027

NVA326	0.005	0.008	0.013
NVA327	0.006	0.007	0.017
NVA328	0.007	0.009	0.015
NVA329	0.006	0.009	0.016
NVA330	0.007	0.010	0.020
NVA331	0.006	0.008	0.016
NVA332	0.006	0.007	0.014
NVA333	0.007	0.008	0.015
NVA334	0.011	0.017	0.028
NVA335	0.006	0.009	0.019
NVA701	0.007	0.008	0.017
NVA702	0.005	0.007	0.016
NVA703	0.006	0.008	0.017
NVA703_TIEIN	0.007	0.009	0.014
NVA704	0.007	0.011	0.020
NVA705	0.007	0.009	0.016
NVA706	0.005	0.007	0.013
NVA707	0.008	0.010	0.022
NVA708	0.007	0.007	0.015
NVA710	0.003	0.004	0.007
VVA401	0.006	0.007	0.014

VVA402	0.006	0.009	0.014
VVA403	0.007	0.008	0.014
VVA404	0.011	0.018	0.030
VVA405	0.005	0.008	0.017
VVA406	0.006	0.008	0.013
VVA407	0.008	0.010	0.020
VVA408	0.005	0.008	0.016
VVA409	0.007	0.012	0.022
VVA410	0.005	0.008	0.014
VVA411	0.006	0.011	0.020
VVA412	0.006	0.007	0.017
VVA413	0.006	0.008	0.015
VVA416	0.007	0.013	0.031
VVA417	0.005	0.006	0.016
VVA418	0.006	0.007	0.018
VVA419	0.006	0.009	0.016
VVA420	0.007	0.009	0.019
VVA421	0.008	0.010	0.018
VVA422	0.007	0.008	0.020
VVA423	0.007	0.009	0.025
VVA501	0.008	0.012	0.021

VVA502	0.004	0.008	0.011
VVA601_BS	0.004	0.006	0.010
VVA601_CK	0.003	0.005	0.010
VVA601_CK1	0.013	0.008	0.014
VVA601_CK2	0.013	0.008	0.014
VVA601_TS	0.004	0.006	0.010
VVA601A	0.018	0.014	0.014
VVA601B	0.008	0.019	0.014
VVA602_BS	0.005	0.004	0.009
VVA602_CK	0.003	0.004	0.008
VVA602_CKNEW	0.006	0.007	0.017
VVA602_CKNEW1	0.004	0.009	0.012
VVA602_TS	0.004	0.004	0.009
VVA602A	0.009	0.011	0.013
VVA602B	0.009	0.006	0.013
VVA603_BS	0.005	0.005	0.011
VVA603_CK	0.005	0.007	0.015
VVA603_CK3	0.007	0.009	0.014
VVA603_TS	0.005	0.006	0.012
VVA603A	0.009	0.022	0.014
VVA603B	0.005	0.023	0.014

VVA604_BS	0.006	0.010	0.014
VVA604_CK	0.013	0.020	0.034
VVA604_TS	0.007	0.013	0.016
VVA605_BS	0.005	0.006	0.013
VVA605_CK	0.008	0.011	0.024
VVA605_CK1	0.008	0.016	0.016
VVA605_TS	0.006	0.007	0.013
VVA605A	0.019	0.018	0.016
VVA605B	0.023	0.026	0.016
VVA606_BS_STATIC	0.005	0.005	0.009
VVA606_CK	0.006	0.007	0.016
VVA606_TS_STAT	0.003	0.005	0.009
VVA607_BS	0.006	0.008	0.016
VVA607_CK	0.007	0.011	0.023
VVA607_CK1	0.024	0.008	0.019
VVA607_TS	0.007	0.009	0.016
VVA607A	0.007	0.014	0.019
VVA607B	0.013	0.013	0.019
VVA708_BS	0.007	0.009	0.015
VVA708_CK	0.005	0.007	0.012
VVA708_CK4	0.007	0.015	0.019

VVA708_CK5	0.007	0.015	0.019
VVA708_CK6	0.007	0.015	0.019
VVA708_TS	0.010	0.009	0.016
VVA708A	0.018	0.015	0.018
VVA708B	0.017	0.020	0.019
VVA709_BS	0.003	0.008	0.012
VVA709_CK	0.007	0.008	0.020
VVA709_TS	0.002	0.004	0.005
VVA710_BS	0.006	0.009	0.015
VVA710_CK	0.010	0.019	0.037
VVA710_CK1	0.014	0.015	0.017
VVA710_TS	0.007	0.011	0.016
VVA710A	0.017	0.030	0.017
VVA710B	0.009	0.031	0.017

Error Ellipse Components

Point ID	Semi-major axis (Meter)	Semi-minor axis (Meter)	Azimuth
CAL501	0.010	0.007	170°
CAL502	0.008	0.006	0°
CAL502_TIEIN	0.009	0.006	4°
CAL503	0.008	0.006	4°
CAL504	0.009	0.005	169°
CAL504_LAN	0.016	0.009	170°
CAL504_LAN2	0.010	0.006	168°
CAL505_2	0.011	0.007	13°
CAL506	0.010	0.007	1°
CAL507	0.011	0.007	13°
CAL508	0.011	0.007	173°
CAL509	0.010	0.007	2°
CAL509A	0.009	0.006	177°
CAL510	0.008	0.007	159°
CAL511	0.021	0.009	1°
CAL512	0.010	0.007	6°
CAL513	0.009	0.007	2°
CAL513A	0.008	0.007	9°

CAL534	0.011	0.006	1°
CAL535	0.013	0.008	174°
CAL536	0.010	0.007	175°
CAL537	0.013	0.009	26°
CAL538	0.014	0.008	6°
CAL539	0.014	0.011	137°
CAL540	0.014	0.008	10°
CAL541	0.010	0.007	6°
CAL542	0.007	0.006	19°
CAL543	0.005	0.004	162°
CAL544	0.013	0.010	16°
CAL545	0.008	0.006	23°
MD0162_20161119	0.007	0.004	17°
MD0612_20161129	0.007	0.005	2°
MIBC_NAD83(2011)_Epoch_2010_DS	0.002	0.002	11°
MIIMR_NAD83(2011)_Epoch_2010_DS	0.003	0.003	66°
NF0506	0.016	0.012	153°
NF0506_20161129	0.024	0.016	12°
NF0506_STATIC	0.009	0.006	178°
NF0605_20161206	0.009	0.007	23°
NF1179_20161207	0.011	0.008	8°

NF1179_ST_1207	0.003	0.003	4°
NF1686_STATIC	0.005	0.004	3°
NF1686_VRS	0.011	0.008	18°
NF1781_20161122	0.004	0.003	9°
NF1781_20161128	0.006	0.004	11°
NF1781_20161201	0.007	0.006	154°
NF1781_Static	0.003	0.003	170°
NVA301	0.016	0.011	173°
NVA302	0.013	0.009	167°
NVA303	0.011	0.007	14°
NVA304	0.010	0.008	164°
NVA305	0.012	0.007	3°
NVA306	0.013	0.008	171°
NVA308	0.009	0.006	13°
NVA309	0.013	0.009	177°
NVA310	0.012	0.008	168°
NVA311	0.010	0.006	171°
NVA312	0.016	0.013	6°
NVA313	0.008	0.006	4°
NVA314	0.014	0.010	158°
NVA314_Check	0.012	0.007	7°

NVA315	0.011	0.008	155°
NVA316	0.010	0.006	180°
NVA317	0.010	0.007	32°
NVA318	0.010	0.008	160°
NVA319	0.022	0.014	171°
NVA320	0.015	0.010	0°
NVA321	0.007	0.005	173°
NVA322	0.012	0.009	32°
NVA323	0.014	0.008	0°
NVA323_TIEIN	0.012	0.009	29°
NVA324	0.013	0.008	8°
NVA325	0.014	0.008	2°
NVA326	0.009	0.006	174°
NVA327	0.009	0.007	178°
NVA328	0.011	0.009	168°
NVA329	0.012	0.007	171°
NVA330	0.013	0.008	160°
NVA331	0.010	0.008	165°
NVA332	0.009	0.007	2°
NVA333	0.010	0.008	155°
NVA334	0.021	0.013	15°

NVA335	0.012	0.008	174°
NVA701	0.011	0.008	16°
NVA702	0.009	0.006	175°
NVA703	0.010	0.008	18°
NVA703_TIEIN	0.011	0.008	166°
NVA704	0.014	0.009	166°
NVA705	0.012	0.008	33°
NVA706	0.009	0.006	171°
NVA707	0.013	0.010	162°
NVA708	0.010	0.007	37°
NVA710	0.005	0.004	175°
VVA401	0.009	0.007	41°
VVA402	0.011	0.007	10°
VVA403	0.010	0.008	154°
VVA404	0.022	0.014	174°
VVA405	0.010	0.007	173°
VVA406	0.010	0.007	23°
VVA407	0.013	0.009	162°
VVA408	0.010	0.007	9°
VVA409	0.015	0.009	169°
VVA410	0.010	0.007	177°

VVA411	0.014	0.008	5°
VVA412	0.009	0.008	168°
VVA413	0.010	0.007	174°
VVA416	0.016	0.009	177°
VVA417	0.008	0.006	172°
VVA418	0.009	0.007	169°
VVA419	0.011	0.008	175°
VVA420	0.011	0.009	179°
VVA421	0.014	0.009	153°
VVA422	0.011	0.009	15°
VVA423	0.011	0.009	170°
VVA501	0.015	0.010	179°
VVA502	0.010	0.004	21°
VVA601_BS	0.007	0.005	18°
VVA601_CK	0.006	0.004	177°
VVA601_CK1	0.018	0.006	119°
VVA601_CK2	0.018	0.006	119°
VVA601_TS	0.007	0.005	15°
VVA601A	0.028	0.006	127°
VVA601B	0.026	0.005	161°
VVA602_BS	0.006	0.005	95°

VVA602_CK	0.005	0.004	8°
VVA602_CKNEW	0.009	0.008	162°
VVA602_CKNEW1	0.011	0.005	10°
VVA602_TS	0.005	0.005	98°
VVA602A	0.017	0.005	36°
VVA602B	0.012	0.005	65°
VVA603_BS	0.007	0.006	21°
VVA603_CK	0.009	0.006	178°
VVA603_CK3	0.013	0.006	142°
VVA603_TS	0.008	0.006	37°
VVA603A	0.029	0.005	19°
VVA603B	0.029	0.005	6°
VVA604_BS	0.013	0.007	19°
VVA604_CK	0.026	0.015	17°
VVA604_TS	0.018	0.007	21°
VVA605_BS	0.008	0.006	161°
VVA605_CK	0.014	0.009	9°
VVA605_CK1	0.021	0.006	160°
VVA605_TS	0.009	0.007	145°
VVA605A	0.032	0.007	132°
VVA605B	0.043	0.007	139°

VVA606_BS_STATIC	0.007	0.006	104°
VVA606_CK	0.009	0.007	30°
VVA606_TS_STAT	0.006	0.004	21°
VVA607_BS	0.011	0.007	163°
VVA607_CK	0.013	0.009	178°
VVA607_CK1	0.031	0.010	88°
VVA607_TS	0.012	0.008	155°
VVA607A	0.018	0.008	19°
VVA607B	0.021	0.009	47°
VVA708_BS	0.012	0.009	167°
VVA708_CK	0.009	0.006	175°
VVA708_CK4	0.019	0.009	4°
VVA708_CK5	0.019	0.009	4°
VVA708_CK6	0.019	0.009	4°
VVA708_TS	0.013	0.011	111°
VVA708A	0.028	0.010	129°
VVA708B	0.031	0.010	139°
VVA709_BS	0.010	0.004	166°
VVA709_CK	0.011	0.009	8°
VVA709_TS	0.004	0.002	171°
VVA710_BS	0.012	0.007	175°

VVA710_CK	0.024	0.013	6°
VVA710_CK1	0.024	0.009	41°
VVA710_TS	0.015	0.008	160°
VVA710A	0.043	0.008	152°
VVA710B	0.040	0.007	166°