

DPOS REPORT  
 JAVAD POST-PROCESSING SERVICE  
 =====

USER:  
 FILE: 2\_101954.jps

DATE: 7/29/2022  
 TIME: 6:47:13 PM

SOFTWARE: Justin v.3(10/29/2021 8:07:17 AM)      START: 7/27/2022 2:20:13 PM  
 EPHEMERIS: brdc      STOP: 7/27/2022 2:40:43 PM  
 OBS USED: 2098 / 2105      TIME SPAN: 20  
 ANT NAME: JAVTRIUMPH\_2A NONE      FIXED AMB: Yes  
 ANT HEIGHT: Vertical(ARP) 6.644(f)      OVERALL RMS: 0.041(f)  
 ANT DELTA N/E/H: 0.000/0.000/0.000

REF FRAME:      NAD83(2011) (EPOCH:2010.0000)      ITRF2014 (EPOCH:2022.5685)

X:	2731675.599(f)	0.012(f)	2731672.623(f)	0.012(f)
Y:	-17018798.043(f)	0.035(f)	-17018793.180(f)	0.035(f)
Z:	11825962.085(f)	0.019(f)	11825961.748(f)	0.019(f)
LAT:	N 34° 38' 00.79923"	0.013(f)	N 34° 38' 00.82614"	0.013(f)
E LON:	E 279° 07' 07.42008"	0.025(f)	E 279° 07' 07.39421"	0.025(f)
W LON:	W 80° 52' 52.57992"	0.025(f)	W 80° 52' 52.60579"	0.025(f)
EL HGT:	352.887(f)	0.030(f)	348.357(f)	0.030(f)
ORTHO HGT:	452.953(f)	0.030(f)	[NAVD88 (Computed using GEOID18)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 17)	SPC (South Carolina)
Northing (Y) [ feet]	12573534.711	1018867.166
Easting (X) [ feet]	1676122.666	2035714.671
Convergence [degrees]	0.06599447	0.06582268
Point Scale	0.99960146	0.99993513
Combined Factor	0.99958458	0.99991825

US NATIONAL GRID DESIGNATOR:

BASE STATIONS USED				
PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE (f)
NONE	COLA	N 34° 04' 51.55886"	W 81° 07' 18.01490"	213792.450
NONE	NC77	N 35° 07' 21.25414"	W 80° 54' 58.46768"	178299.372
NONE	NCMR	N 34° 58' 54.77695"	W 80° 31' 25.78995"	166096.678
NONE	SCUN	N 34° 45' 58.60543"	W 81° 38' 55.69934"	235719.860
NONE	SCWR	N 34° 58' 57.03853"	W 81° 11' 57.44084"	158891.103

RESIDUALS OF POSITION						
VECTOR	dX (f)	dY (f)	dZ (f)	dN (f)	dE (f)	dU (f)
SCWR=>2	0.012	0.035	0.019	0.013	0.025	0.030
SCUN=>2	0.012	0.035	0.019	0.013	0.025	0.030
NCMR=>2	0.012	0.035	0.019	0.013	0.025	0.030

Single solution report

Solution name	COLA - 2	Solution type	Fixed
Process time	7/29/2022 6:46:51 PM	Fix ratio	100%
Begin time	7/27/2022 2:20:30 PM	Time span,min	20
End time	7/27/2022 2:40:30 PM	Interval,sec	30.000
Measurement used	2010 of 2027 (1% discarded)	RMS	0.021 (m)
Satellites used	GPS(8)/GLONASS(6)		
Used observations			

Ephemeris	Broadcast	Temperature, °C	20
Cutoff angle, °	12	Pressure, hPa	980
Engine	Default	Humidity, %	50
Processing mode	Auto		

Point name	COLA	2
Session name	cola2080.22d.gz	2_101954.jps
Receiver	TRIMBLE ALLOY	JAVAD TRIUMPH2
Receiver number		00133
Receiver ID	6023R40175	00KXUOF2ORPCT1HRZEKFI1CLJDG
Antenna	TRM55971.00 NONE	JAVTRIUMPH_2A NONE
Serial number	30278387	
Antenna height, (m)	Vertical(ARP) 0.000	Vertical(ARP) 2.025
Ant. delta, (m)	0.000/0.000/0.000	0.000/0.000/0.000

Phase center variations:

X, m	816177.614	832613.817
Y, m	-5224934.037	-5187328.161
Z, m	3553937.056	3604553.143
Latitude	N 34° 04' 51.58530"	N 34° 38' 00.82620"
Longitude	W 81° 07' 18.04068"	W 80° 52' 52.60579"
Height, m	81.567	106.181

DX, (m):	16436.2153	Sigma X, m:	0.0075
DY, (m):	37605.7966	Sigma Y, m:	0.0075
DZ, (m):	50616.1859	Sigma Z, m:	0.0075
Length, (m):	65163.9731	Sigma, (m):	0.0212

Covariance matrix:, (m):		X		Y		Z
	X	5.675516E-005				
	Y	-9.933894E-005		3.260693E-004		
	Z	2.780250E-005		-1.011162E-004		6.575225E-005

Geodetic distance, (m):	65163.257	Zenith distance forward, °:	S 0° 16' 18.93976"
Forward azimuth, °:	N 19° 46' 19.02543"	Zenith distance backward, °:	S 0° 18' 54.72699"
Back azimuth, °:	N 199° 54' 27.44120"	Height difference, (m):	24.614

Solution name	NC77 - 2	Solution type	Fixed
Process time	7/29/2022 6:46:51 PM	Fix ratio	91%
Begin time	7/27/2022 2:20:30 PM	Time span,min	20
End time	7/27/2022 2:40:30 PM	Interval,sec	30.000
Measurement used	2130 of 2089 (-2% discarded)	RMS	0.027 (m)
Satellites used	GPS (8)/GLONASS (8)		
Used observations			

Ephemeris	Broadcast	Temperature, °C	20
Cutoff angle, °	12	Pressure, hPa	980
Engine	Default	Humidity, %	50
Processing mode	Auto		

Point name	NC77	2
Session name	nc772080.22d.gz	2_101954.jps
Receiver	TRIMBLE ALLOY	JAVAD TRIUMPH2
Receiver number		00133
Receiver ID	5837R40094	00KXUOF2ORPCT1HRZEKF1CLJDG
Antenna	TRM115000.00 NONE	JAVTRIUMPH_2A NONE
Serial number	1430767430	
Antenna height, (m)	Vertical (ARP) 0.000	Vertical (ARP) 2.025
Ant. delta, (m)	0.000/0.000/0.000	0.000/0.000/0.000
Phase center variations:		
X, m	824556.383	832613.817
Y, m	-5157242.187	-5187328.161
Z, m	3649088.089	3604553.143
Latitude	N 35° 07' 21.28144"	N 34° 38' 00.82620"
Longitude	W 80° 54' 58.49393"	W 80° 52' 52.60579"
Height, m	156.186	106.181

DX, (m):	8057.4410	Sigma X, m:	0.0094
DY, (m):	-30086.0800	Sigma Y, m:	0.0094
DZ, (m):	-44534.8617	Sigma Z, m:	0.0094
Length, (m):	54345.6389	Sigma, (m):	0.0271

Covariance matrix:, (m):		X		Y		Z
	X	8.883774E-005				
	Y	-1.582030E-004		5.372604E-004		

Z | 5.020308E-005 | -1.775905E-004 | 1.101892E-004 |

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Geodetic distance, (m): 54344.669 Zenith distance forward, °: S 0° 17' 51.53718"  
Forward azimuth, °: N 176° 37' 02.85567" Zenith distance backward, °: S 0° 11' 31.97638"  
Back azimuth, °: N 356° 38' 14.84318" Height difference, (m): -50.005  
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Solution name NCMR - 2 Solution type Fixed  
Process time 7/29/2022 6:46:52 PM Fix ratio 94%  
Begin time 7/27/2022 2:20:30 PM Time span,min 20  
End time 7/27/2022 2:40:30 PM Interval,sec 30.000  
Measurement used 2234 of 2265 (1% discarded) RMS 0.018 (m)  
Satellites used GPS(8)/GLONASS(8)  
Used observations  
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Ephemeris Broadcast Temperature, °C 20  
Cutoff angle, ° 12 Pressure,hPa 980  
Engine Default Humidity,% 50  
Processing mode Auto  
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Point name NCMR 2  
Session name ncmr2080.22d.gz 2\_101954.jps  
Receiver TRIMBLE NETR5 JAVAD TRIUMPH2  
Receiver number 00133  
Receiver ID 5009K65825 00KXUOF2ORPCT1HRZEKf1CLJGD  
Antenna TRM57971.00 NONE JAVTRIUMPH\_2A NONE  
Serial number 30492486  
Antenna height, (m) Vertical (ARP) 0.000 Vertical (ARP) 2.025  
Ant. delta, (m) 0.000/0.000/0.000 0.000/0.000/0.000  
Phase center variations:  
X, m 861332.064 832613.817  
Y, m -5160305.322 -5187328.161  
Z, m 3636302.906 3604553.143  
Latitude N 34° 58' 54.80432" N 34° 38' 00.82620"  
Longitude W 80° 31' 25.81566" W 80° 52' 52.60579"  
Height, m 142.947 106.181  
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DX, (m): -28718.2548 Sigma X, m: 0.0053  
DY, (m): -27022.8585 Sigma Y, m: 0.0053  
DZ, (m): -31749.7602 Sigma Z, m: 0.0053  
Length, (m): 50626.2809 Sigma, (m): 0.0182  
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Covariance matrix, (m):  
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X | 2.825188E-005 | | |  
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Y | -3.972294E-005 | 2.157462E-004 | |  
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Z | 1.793962E-005 | -1.043239E-004 | 8.693580E-005 |  
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Geodetic distance, (m): 50625.397 Zenith distance forward, °: S 0° 16' 09.67278"  
Forward azimuth, °: S 139° 39' 13.59634" Zenith distance backward, °: S 0° 11' 10.09047"  
Back azimuth, °: N 40° 08' 31.86757" Height difference, (m): -36.767  
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Solution name SCUN - 2 Solution type Fixed  
Process time 7/29/2022 6:46:52 PM Fix ratio 100%  
Begin time 7/27/2022 2:20:30 PM Time span,min 20  
End time 7/27/2022 2:40:30 PM Interval,sec 30.000  
Measurement used 2206 of 2165 (-2% discarded) RMS 0.015 (m)  
Satellites used GPS(8)/GLONASS(7)  
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## Used observations

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Ephemeris          Broadcast      Temperature, °C   20
Cutoff angle, °    12              Pressure, hPa     980
Engine             Default         Humidity, %       50
Processing mode     Auto
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Point name          SCUN              2
Session name       scun2080.22d.gz  2_101954.jps
Receiver           TRIMBLE ALLOY    JAVAD TRIUMPH2
Receiver number    00133
Receiver ID        6024R40077       00KXUOF2ORPCT1HRZEKF1CLJDG
Antenna            TRM115000.00     NONE             JAVTRIUMPH_2A   NONE
Serial number      60273G0046
Antenna height, (m) Vertical (ARP) 0.000 Vertical (ARP) 2.025
Ant. delta, (m)   0.000/0.000/0.000 0.000/0.000/0.000
Phase center variations:
X, m               761841.825       832613.817
Y, m               -5189773.450     -5187328.161
Z, m               3616693.840     3604553.143
Latitude           N 34° 45' 58.63213" N 34° 38' 00.82620"
Longitude          W 81° 38' 55.72616" W 80° 52' 52.60579"
Height, m          168.358          106.181
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DX, (m):           70771.9904          Sigma X, m:         0.0049
DY, (m):           2445.3106          Sigma Y, m:         0.0049
DZ, (m):           -12140.6997        Sigma Z, m:         0.0049
Length, (m):       71847.4131          Sigma, (m):         0.0150
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Covariance matrix:, (m):
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|           X           |           Y           |           Z           |
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X | 2.427123E-005 | | |
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Y | -4.583504E-005 | 1.655746E-004 | |
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Z | 1.545010E-005 | -5.542499E-005 | 3.377122E-005 |
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Geodetic distance, (m): 71846.221 Zenith distance forward, °: S 0° 22' 19.20832"
Forward azimuth, °: N 101° 36' 25.03804" Zenith distance backward, °: S 0° 16' 22.21259"
Back azimuth, °: N 282° 02' 38.03993" Height difference, (m): -62.177
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Solution name       SCWR - 2          Solution type       Fixed
Process time       7/29/2022 6:46:52 PM Fix ratio           99%
Begin time         7/27/2022 2:20:30 PM Time span, min      20
End time           7/27/2022 2:40:30 PM Interval, sec       30.000
Measurement used   2098 of 2105 (0% RMS 0.015 (m)
discarded)
Satellites used    GPS (8)/GLONASS (8)
Used observations
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Ephemeris          Broadcast      Temperature, °C   20
Cutoff angle, °    12              Pressure, hPa     980
Engine             Default         Humidity, %       50
Processing mode     Auto
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Point name          SCWR              2
Session name       scwr2080.22d.gz  2_101954.jps
Receiver           TRIMBLE ALLOY    JAVAD TRIUMPH2
Receiver number    00133
Receiver ID        6033R40034       00KXUOF2ORPCT1HRZEKF1CLJDG
Antenna            TRM115000.00     NONE             JAVTRIUMPH_2A   NONE
Serial number      3122446776
Antenna height, (m) Vertical (ARP) 0.000 Vertical (ARP) 2.025
Ant. delta, (m)   0.000/0.000/0.000 0.000/0.000/0.000
Phase center variations:
X, m               800438.730       832613.817
Y, m               -5170099.735     -5187328.161
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Z, m	3636387.257	3604553.143
Latitude	N 34° 58' 57.06560"	N 34° 38' 00.82620"
Longitude	W 81° 11' 57.46731"	W 80° 52' 52.60579"
Height, m	190.484	106.181

DX, (m):	32175.0925	Sigma X, m:	0.0038
DY, (m):	-17228.4331	Sigma Y, m:	0.0038
DZ, (m):	-31834.1097	Sigma Z, m:	0.0038
Length, (m):	48430.0116	Sigma, (m):	0.0151

Covariance matrix:, (m):		X		Y		Z	
	X	1.467564E-005					
	Y	-2.319782E-005		1.584476E-004			
	Z	9.498057E-006		-7.065122E-005		5.344999E-005	

Geodetic distance, (m):	48428.923	Zenith distance forward, °:	S 0° 19' 03.56385"
Forward azimuth, °:	N 142° 58' 40.51872"	Zenith distance backward, °:	S 0° 07' 05.46396"
Back azimuth, °:	N 323° 09' 34.04282"	Height difference, (m):	-84.304