

DPOS REPORT
JAVAD POST-PROCESSING SERVICE
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USER:
FILE: log404.jps

DATE: 1/1/2024
TIME: 9:45:39 PM

SOFTWARE: Justin v.3(10/29/2021 8:07:17 AM) START: 1/1/2024 5:37:30 PM
EPHEMERIS: brdc STOP: 1/1/2024 7:37:00 PM
OBS USED: 10224 / 10380 TIME SPAN: 120
ANT NAME: JAVTRIMPH 2A NONE FIXED AMB: Yes
ANT HEIGHT: Vertical(ARP) 2.000(m) OVERALL RMS: 0.009(m)
ANT DELTA N/E/H: 0.000/0.000/0.000

REF FRAME: NAD83(2011) (EPOCH:2010.0000) ITRF2014 (EPOCH:2024.0014)

X:	1308889.848 (m)	0.002 (m)	1308888.870 (m)	0.002 (m)
Y:	-4694857.236 (m)	0.006 (m)	-4694855.807 (m)	0.006 (m)
Z:	4100308.826 (m)	0.006 (m)	4100308.803 (m)	0.006 (m)
LAT:	N 40° 15' 46.43638"	0.003 (m)	N 40° 15' 46.47017"	0.003 (m)
E LON:	E 285° 34' 41.01083"	0.006 (m)	E 285° 34' 40.98733"	0.006 (m)
W LON:	W 74° 25' 18.98917"	0.006 (m)	W 74° 25' 19.01267"	0.006 (m)
EL HGT:	6.731 (m)	0.006 (m)	5.465 (m)	0.006 (m)
ORTHO HGT:	39.208 (m)	0.006 (m)	[NAVD88 (Computed using GEOID18)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 18)	SPC (New Jersey)
Northing (Y) [meters]	4457097.355	158705.970
Easting (X) [meters]	549153.293	156639.425
Convergence [degrees]	0.37075026	0.05044888
Point Scale	0.99962974	0.99990054
Combined Factor	0.99962869	0.99989949

US NATIONAL GRID DESIGNATOR:

BASE STATIONS USED				
PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE (m)
NONE	NJHC	N 40° 30' 05.80512"	W 74° 54' 04.01557"	48562.190
NONE	NJNT	N 40° 12' 33.62000"	W 74° 02' 11.58978"	33330.992
NONE	NJOC	N 39° 57' 10.02346"	W 74° 11' 36.59335"	39560.723
NONE	NJTP	N 40° 32' 25.84150"	W 74° 28' 04.13541"	31071.744
NONE	NJTR	N 40° 15' 27.46286"	W 74° 47' 48.07138"	31884.555

RESIDUALS OF POSITION						
VECTOR	dX (m)	dY (m)	dZ (m)	dN (m)	dE (m)	dU (m)
njtp001r=>log404	0.002	0.006	0.006	0.003	0.006	0.006
njnt001r=>log404	0.002	0.006	0.006	0.003	0.006	0.006
njtr001r=>log404	0.002	0.006	0.006	0.003	0.006	0.006

RESIDUALS OF POSITION						
VECTOR	dX (m)	dY (m)	dZ (m)	dN (m)	dE (m)	dU (m)
njhc001r=>log404	0.002	0.006	0.006	0.003	0.006	0.006
njoc001r=>log404	0.002	0.006	0.006	0.003	0.006	0.006

Single solution report

Solution name	njhc001r - log404	Solution type	Fixed
Process time	1/1/2024 9:45:16 PM	Fix ratio	94%
Begin time	1/1/2024 5:37:30 PM	Time span,min	120
End time	1/1/2024 7:37:00 PM	Interval,sec	30.000
Measurement used	12410 of 12256 (~1% discarded)	RMS	0.023 (m)
Satellites used	GPS(9)/GLONASS(11)		
Used observations			

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

Point name	NJHC	log404
Session name	njhc001r.24d.gz	log404.jps
Receiver	LEICA GR30	JAVAD TRIUMPH_3NR
Receiver number		00087

Receiver ID	1707885	R345656AE6A423C66E2BAE2BF9
Antenna	LEIAR10	JAVTRIUMPH_2A NONE
Serial number	14245029	
Antenna height, (m)	Vertical (ARP) 0.000	Vertical (ARP) 2.000
Ant. delta, (m)	0.000/0.000/0.000	0.000/0.000/0.000
Phase center variations:		
X, m	1265123.876	1308888.873
Y, m	-4689122.686	-4694855.807
Z, m	4120558.316	4100308.805
Latitude	N 40° 30' 05.83894"	N 40° 15' 46.47022"
Longitude	W 74° 54' 04.03988"	W 74° 25' 19.01267"
Height, m	94.654	5.467

DX, (m):	43764.9915	Sigma X, m:	0.0056
DY, (m):	-5733.1290	Sigma Y, m:	0.0056
DZ, (m):	-20249.5172	Sigma Z, m:	0.0056
Length, (m):	48562.1889	Sigma, (m):	0.0233

Covariance matrix:, (m):		X		Y		Z	
	X	3.084854E-005					
	Y	-7.893922E-005		2.752236E-004			
	Z	7.016197E-005		-2.445813E-004		2.383801E-004	

Geodetic distance, (m):	48561.844	Zenith distance forward,°:	S 0° 19' 23.85288"
Forward azimuth,°:	N 122° 55' 36.90036"	Zenith distance backward,°:	S 0° 06' 46.23599"
Back azimuth,°:	N 303° 14' 14.52438"	Height difference, (m):	-89.186

Solution name	njnt001r - log404	Solution type	Fixed
Process time	1/1/2024 9:45:16 PM	Fix ratio	100%
Begin time	1/1/2024 5:37:30 PM	Time span,min	120
End time	1/1/2024 7:37:00 PM	Interval,sec	30.000
Measurement used	12038 of 12270 (2% discarded)	RMS	0.019 (m)
Satellites used	GPS (9)/GLONASS (11)		
Used observations			

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

Point name	NJNT	log404
Session name	njnt001r.24d.gz	log404.jps
Receiver	LEICA GR30	JAVAD TRIUMPH_3NR
Receiver number		00087
Receiver ID	1708327	R345656AE6A423C66E2BAE2BF9
Antenna	LEIAR20	JAVTRIUMPH_2A NONE
Serial number	23349032	
Antenna height, (m)	Vertical (ARP) 0.000	Vertical (ARP) 2.000
Ant. delta, (m)	0.000/0.000/0.000	0.000/0.000/0.000
Phase center variations:		
X, m	1341489.906	1308888.873
Y, m	-4689622.775	-4694855.807
Z, m	4095754.356	4100308.805
Latitude	N 40° 12' 33.65397"	N 40° 15' 46.47022"
Longitude	W 74° 02' 11.61275"	W 74° 25' 19.01267"
Height, m	-16.790	5.467

DX, (m):	-32601.0327	Sigma X, m:	0.0047
DY, (m):	-5233.0412	Sigma Y, m:	0.0047
DZ, (m):	4554.4594	Sigma Z, m:	0.0047
Length, (m):	33330.9939	Sigma, (m):	0.0186

Covariance		X		Y		Z	
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matrix:, (m):	-----+-----+-----+-----			
	X		2.170104E-005	
	-----+-----+-----+-----			
	Y		-5.248264E-005	
	-----+-----+-----+-----			
	Z		4.737517E-005	
			-1.548012E-004	
			1.508387E-004	

Geodetic distance, (m):	33331.052	Zenith distance forward,°:	S 0° 06'
Forward azimuth,°:	S 79° 35'		40.53215"
	50.07129"	Zenith distance backward,°:	S 0° 11'
Back azimuth,°:	N 100° 09'		15.99864"
	13.75067"	Height difference, (m):	22.257

Solution name	njoc001r - log404	Solution type	Fixed
Process time	1/1/2024 9:45:17 PM	Fix ratio	99%
Begin time	1/1/2024 5:37:30 PM	Time span,min	120
End time	1/1/2024 7:37:00 PM	Interval,sec	30.000
Measurement used	12758 of 12550 (-2% discarded)	RMS	0.020 (m)
Satellites used	GPS (9)/GLONASS (11)		
Used observations			

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

Point name	NJOC	log404
Session name	njoc001r.24d.gz	log404.jps
Receiver	LEICA GR30	JAVAD TRIUMPH_3NR
Receiver number		00087
Receiver ID	1708331	R345656AE6A423C66E2BAE2BF9
Antenna	LEIAR10	NONE
Serial number	15269067	JAVTRIUMPH_2A
Antenna height, (m)	Vertical (ARP) 0.000	NONE
Ant. delta, (m)	0.000/0.000/0.000	Vertical (ARP) 2.000
Phase center variations:		0.000/0.000/0.000
X, m	1333636.643	1308888.873
Y, m	-4710933.439	-4694855.807
Z, m	4073962.869	4100308.805
Latitude	N 39° 57' 10.05720"	N 40° 15' 46.47022"
Longitude	W 74° 11' 36.61630"	W 74° 25' 19.01267"
Height, m	-9.470	5.467

DX, (m):	-24747.7592	Sigma X, m:	0.0048
DY, (m):	16077.6317	Sigma Y, m:	0.0048
DZ, (m):	26345.9529	Sigma Z, m:	0.0048
Length, (m):	39560.7263	Sigma, (m):	0.0197

Covariance matrix:, (m):	-----+-----+-----+-----			
	X		Y	
	-----+-----+-----+-----			
	Y		Z	
	-----+-----+-----+-----			
	Z			

Geodetic distance, (m):	39560.796	Zenith distance forward,°:	S 0° 09'
Forward azimuth,°:	S 29° 25'		22.82713"
	12.87114"	Zenith distance backward,°:	S 0° 11'
Back azimuth,°:	N 150° 25'		58.57835"
	57.31538"	Height difference, (m):	14.937

Solution name	njtp001r - log404	Solution type	Fixed
Process time	1/1/2024 9:45:18 PM	Fix ratio	96%

Begin time 1/1/2024 5:37:30 PM Time span,min 120
End time 1/1/2024 7:37:00 PM Interval,sec 30.000
Measurement used 10224 of 10380 (2% RMS 0.016 (m)
discarded)
Satellites used GPS (9)/GLONASS (8)
Used observations

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

Point name NJTP log404
Session name njtp001r.24d.gz log404.jps
Receiver LEICA GR30 JAVAD TRIUMPH_3NR
Receiver number 00087
Receiver ID 1708343 R345656AE6A423C66E2BAE2BF9
Antenna LEIAR10 NONE JAVTRIUMPH_2A NONE
Serial number 19216001
Antenna height, (m) Vertical (ARP) 0.000 Vertical (ARP) 2.000
Ant. delta, (m) 0.000/0.000/0.000 0.000/0.000/0.000
Phase center variations:
X, m 1299777.938 1308888.873
Y, m -4676647.147 -4694855.807
Z, m 4123779.827 4100308.805
Latitude N 40° 32' 25.87551" N 40° 15' 46.47022"
Longitude W 74° 28' 04.15922" W 74° 25' 19.01267"
Height, m -0.891 5.467

DX, (m): 9110.9217 Sigma X, m: 0.0039
DY, (m): -18208.6536 Sigma Y, m: 0.0039
DZ, (m): -23471.0302 Sigma Z, m: 0.0039
Length, (m): 31071.7431 Sigma, (m): 0.0161

Covariance matrix:, (m):

	X	Y	Z
X	1.530536E-005		
Y	-3.406281E-005	1.344446E-004	
Z	3.185612E-005	-1.146572E-004	1.089961E-004

Geodetic distance, (m): 31071.763 Zenith distance forward, °: S 0° 07' 41.42916"
Forward azimuth, °: N 172° 47' 06.55907" Zenith distance backward, °: S 0° 09' 05.85703"
Back azimuth, °: N 352° 48' 53.59791" Height difference, (m): 6.359

Solution name njtr001r - log404 Solution type Fixed
Process time 1/1/2024 9:45:18 PM Fix ratio 98%
Begin time 1/1/2024 5:37:30 PM Time span,min 120
End time 1/1/2024 7:37:00 PM Interval,sec 30.000
Measurement used 12256 of 12158 (-1% RMS 0.019 (m)
discarded)
Satellites used GPS (9)/GLONASS (11)
Used observations

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

Point name NJTR log404
Session name njtr001r.24d.gz log404.jps
Receiver LEICA GR30 JAVAD TRIUMPH_3NR
Receiver number 00087
Receiver ID 1708290 R345656AE6A423C66E2BAE2BF9
Antenna LEIAR10 NONE JAVTRIUMPH_2A NONE
Serial number 15072033

Antenna height, (m)	Vertical (ARP) 0.000	Vertical (ARP) 2.000
Ant. delta, (m)	0.000/0.000/0.000	0.000/0.000/0.000
Phase center variations:		
X, m	1278260.309	1308888.873
Y, m	-4703706.562	-4694855.807
Z, m	4099884.516	4100308.805
Latitude	N 40° 15' 27.49656"	N 40° 15' 46.47022"
Longitude	W 74° 47' 48.09535"	W 74° 25' 19.01267"
Height, m	39.991	5.467

DX, (m):	30628.5743	Sigma X, m:	0.0047
DY, (m):	8850.7645	Sigma Y, m:	0.0047
DZ, (m):	424.2787	Sigma Z, m:	0.0047
Length, (m):	31884.5669	Sigma, (m):	0.0195

Covariance matrix:, (m):	X	Y	Z
X	2.191558E-005		
Y	-5.570827E-005	1.914290E-004	
Z	5.036618E-005	-1.699534E-004	1.656675E-004

Geodetic distance, (m):	31884.455	Zenith distance forward,°:	S 0° 12' 18.18101"
Forward azimuth,°:	N 88° 49' 37.94023"	Zenith distance backward,°:	S 0° 04' 51.50365"
Back azimuth,°:	N 269° 04' 09.80132"	Height difference, (m):	-34.524