

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

DATE: 1/1/2024  
TIME: 9:49:25 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: 12038 / 12270      TIME SPAN: 120  
ANT NAME:      FIXED AMB: Yes  
ANT HEIGHT: Vertical(ARP) 2.000(m)      OVERALL RMS: 0.013(m)  
ANT DELTA N/E/H: 0.000/0.000/0.000

REF FRAME:	NAD83(2011) (EPOCH:2010.0000)	ITRF2014 (EPOCH:2024.0014)
X:	1308889.859(m)      0.003(m)	1308888.882(m)      0.003(m)
Y:	-4694857.287(m)      0.009(m)	-4694855.857(m)      0.009(m)
Z:	4100308.882(m)      0.008(m)	4100308.859(m)      0.008(m)
LAT:	N 40° 15' 46.43668"      0.004(m)	N 40° 15' 46.47048"      0.004(m)
E LON:	E 285° 34' 41.01073"      0.009(m)	E 285° 34' 40.98722"      0.009(m)
W LON:	W 74° 25' 18.98927"      0.009(m)	W 74° 25' 19.01278"      0.009(m)
EL HGT:	6.807(m)      0.009(m)	5.541(m)      0.009(m)
ORTHO HGT:	39.283(m)      0.009(m)	[NAVD88 (Computed using GEOID18)]

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 18)	SPC (New Jersey)
Northing (Y) [ meters]	4457097.364	158705.979
Easting (X) [ meters]	549153.291	156639.422
Convergence [degrees]	0.37075038	0.05044892
Point Scale	0.99962974	0.99990054
Combined Factor	0.99962867	0.99989947

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"    48562.183
NONE   NJNT	N 40° 12' 33.62000"    W 74° 02' 11.58978"    33330.996
NONE   NJOC	N 39° 57' 10.02346"    W 74° 11' 36.59335"    39560.733
NONE   NJTP	N 40° 32' 25.84150"    W 74° 28' 04.13541"    31071.735
NONE   NJTR	N 40° 15' 27.46286"    W 74° 47' 48.07138"    31884.552

	RESIDUALS OF POSITION
VECTOR	dX (m)    dY (m)    dZ (m)    dN (m)    dE (m)    dU (m)
njnt001r=>log404	0.003    0.009    0.008    0.004    0.009    0.009
njtr001r=>log404	0.003    0.009    0.008    0.004    0.009    0.009
njhc001r=>log404	0.003    0.009    0.008    0.004    0.009    0.009

	RESIDUALS OF POSITION
VECTOR	dX (m)    dY (m)    dZ (m)    dN (m)    dE (m)    dU (m)
njoc001r=>log404	0.003    0.009    0.008    0.004    0.009    0.009

Single solution report

Solution name	njhc001r - log404	Solution type	Fixed
Process time	1/1/2024 9:49:02 PM	Fix ratio	83%
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	12470 of 12256 (-2% 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	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	1308888.884
Y, m	-4689122.686	-4694855.857
Z, m	4120558.316	4100308.862
Latitude	N 40° 30' 05.83894"	N 40° 15' 46.47053"
Longitude	W 74° 54' 04.03988"	W 74° 25' 19.01278"
Height, m	94.654	5.543

DX, (m):	43765.0021	Sigma X, m:	0.0054
DY, (m):	-5733.1760	Sigma Y, m:	0.0054
DZ, (m):	-20249.4633	Sigma Z, m:	0.0054
Length, (m):	48562.1816	Sigma, (m):	0.0225

Covariance matrix:, (m):		X		Y		Z
	X	2.907633E-005				
	Y	-7.392542E-005		2.582798E-004		
	Z	6.520675E-005		-2.277191E-004		2.205955E-004

Geodetic distance, (m):	48561.837	Zenith distance forward,°:	S 0° 19' 23.53103"
Forward azimuth,°:	N 122° 55' 36.87276"	Zenith distance backward,°:	S 0° 06' 46.55760"
Back azimuth,°:	N 303° 14' 14.49671"	Height difference, (m):	-89.111

Solution name	njnt001r - log404	Solution type	Fixed
Process time	1/1/2024 9:49:03 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	0.020 (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	NJNT	log404
Session name	njnt001r.24d.gz	log404.jps
Receiver	LEICA GR30	JAVAD TRIUMPH_3NR
Receiver number		00087
Receiver ID	1708327	R345656AE6A423C66E2BAE2BF9
Antenna	LEIAR20	LEIM
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	1308888.884
Y, m	-4689622.775	-4694855.857
Z, m	4095754.356	4100308.862
Latitude	N 40° 12' 33.65397"	N 40° 15' 46.47053"
Longitude	W 74° 02' 11.61275"	W 74° 25' 19.01278"
Height, m	-16.790	5.543

DX, (m):	-32601.0346	Sigma X, m:	0.0049
DY, (m):	-5233.1016	Sigma Y, m:	0.0049
DZ, (m):	4554.5095	Sigma Z, m:	0.0049
Length, (m):	33331.0120	Sigma, (m):	0.0198

Covariance matrix:, (m):		X		Y		Z
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X		2.443802E-005			
Y		-5.910491E-005		1.964877E-004	
Z		5.335298E-005		-1.743340E-004	
				1.698703E-004	

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Geodetic distance, (m):      33331.056      Zenith distance forward,°:  S 0° 06'
Forward azimuth,°:          S 79° 35'      Zenith distance backward,°: S 0° 11'
                               50.01656"      16.46753"
Back azimuth,°:             N 100° 09'      Height difference, (m):    22.333
                               13.80533"

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Solution name      njoc001r - log404      Solution type      Fixed
Process time      1/1/2024 9:49:03 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  12758 of 12550 (-2%    RMS               0.019 (m)
                    discarded)
Satellites used   GPS (9)/GLONASS (11)
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          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
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                 1333636.643      1308888.884
Y, m                 -4710933.439      -4694855.857
Z, m                 4073962.869      4100308.862
Latitude             N 39° 57' 10.05720"    N 40° 15' 46.47053"
Longitude             W 74° 11' 36.61630"    W 74° 25' 19.01278"
Height, m            -9.470          5.543

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DX, (m):            -24747.7529      Sigma X, m:         0.0046
DY, (m):            16077.5927      Sigma Y, m:         0.0046
DZ, (m):            26346.0064      Sigma Z, m:         0.0046
Length, (m):        39560.7421      Sigma, (m):         0.0190

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Covariance matrix:, (m):		X		Y		Z
	X		2.116217E-005			
	Y		-5.456365E-005		1.840734E-004	
	Z		4.827939E-005		-1.614755E-004	1.551759E-004

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Geodetic distance, (m):      39560.806      Zenith distance forward,°:  S 0° 09'
Forward azimuth,°:          S 29° 25'      Zenith distance backward,°: S 0° 11'
                               12.85843"      58.97349"
Back azimuth,°:             N 150° 25'      Height difference, (m):    15.013
                               57.32802"

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Solution name      njtp001r - log404      Solution type      Fixed
Process time      1/1/2024 9:49:04 PM    Fix ratio          94%
Begin time        1/1/2024 5:37:30 PM    Time span,min      120

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End time 1/1/2024 7:37:00 PM Interval,sec 30.000  
Measurement used 10696 of 10456 (~2% RMS 0.021 (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  
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 1308888.884  
Y, m -4676647.147 -4694855.857  
Z, m 4123779.827 4100308.862  
Latitude N 40° 32' 25.87551" N 40° 15' 46.47053"  
Longitude W 74° 28' 04.15922" W 74° 25' 19.01278"  
Height, m -0.891 5.543

DX, (m): 9110.9204 Sigma X, m: 0.0050  
DY, (m): -18208.7135 Sigma Y, m: 0.0050  
DZ, (m): -23470.9777 Sigma Z, m: 0.0050  
Length, (m): 31071.7382 Sigma, (m): 0.0209

Covariance matrix:, (m):

	X	Y	Z
X	2.480641E-005		
Y	-6.287180E-005	2.208611E-004	
Z	5.648304E-005	-1.955121E-004	1.917250E-004

Geodetic distance, (m): 31071.754 Zenith distance forward, °: S 0° 07' 40.92607"  
Forward azimuth, °: N 172° 47' 06.56805" Zenith distance backward, °: S 0° 09' 06.35982"  
Back azimuth, °: N 352° 48' 53.60682" Height difference, (m): 6.434

Solution name njtr001r - log404 Solution type Fixed  
Process time 1/1/2024 9:49:05 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 0.020 (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  
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	1308888.884
Y, m	-4703706.562	-4694855.857
Z, m	4099884.516	4100308.862
Latitude	N 40° 15' 27.49656"	N 40° 15' 46.47053"
Longitude	W 74° 47' 48.09535"	W 74° 25' 19.01278"
Height, m	39.991	5.543

DX, (m):	30628.5847	Sigma X, m:	0.0048
DY, (m):	8850.7173	Sigma Y, m:	0.0048
DZ, (m):	424.3328	Sigma Z, m:	0.0048
Length, (m):	31884.5646	Sigma, (m):	0.0198

Covariance matrix:, (m):		X		Y		Z	
	X	2.274313E-005					
	Y	-5.781283E-005		1.986605E-004			
	Z	5.226893E-005		-1.763740E-004		1.719257E-004	

Geodetic distance, (m):	31884.453	Zenith distance forward,°:	S 0° 12' 17.69088"
Forward azimuth,°:	N 88° 49' 37.87888"	Zenith distance backward,°:	S 0° 04' 51.99370"
Back azimuth,°:	N 269° 04' 09.73991"	Height difference, (m):	-34.448