

# DPOS REPORT JAVAD POST-PROCESSING SERVICE

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USER:  
FILE: log0130a.jps

DATE: 31.01.2016  
TIME: 14:44:57.121 GPS time

SOFTWARE: DPOS	START: 2016/01/30 01:57:23.000 PM
EPHEMERIS: brdc	STOP: 2016/01/30 06:10:41.000 PM
OBS USED: 21552 / 21689	Geometry factor: 0.8
ANT NAME: JAVTRIUMPH_2A NONE	FIXED AMB: Yes
ANT HEIGHT: Vertical(ARP) - 0.025 meters	OVERALL RMS: 0.004 meters

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

IGS08 (EPOCH:2016.0808)

X:	765721.819(m)	0.003(m)	765720.997(m)	0.003(m)
Y:	-5144667.901(m)	0.003(m)	-5144666.429(m)	0.003(m)
Z:	3679525.840(m)	0.002(m)	3679525.728(m)	0.002(m)

LAT: N 35 27 28.61167	0.003(m)	N 35 27 28.63840	0.003(m)
E LON: E 278 27 56.30047	0.002(m)	E 278 27 56.27681	0.002(m)
W LON: W 81 32 03.69953	0.002(m)	W 81 32 03.72319	0.002(m)
EL HGT:	271.083(m)	269.733(m)	0.003(m)
ORTHO HGT:	302.981(m)	[NAVD88 (Computed using GEOID12A)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 17)	SPC (NAD83(2011) /3200 North Carolina)
Northing (Y) [meters]	3923960.815	192399.410
Easting (X) [meters]	451511.669	379593.224

US NATIONAL GRID DESIGNATOR: NONE

## BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
NONE	GAST(CORS)	N 35 18 39.791 W 81 11 19.5411	35379.6	
NONE	NCHI(CORS)	N 35 44 31.010 W 81 18 30.9348	37570.8	
NONE	NCMG(CORS)	N 35 42 27.073 W 81 39 23.9986	29828.4	
NONE	NCSH(CORS)	N 35 16 53.642 W 81 29 28.1155	19960.0	
NONE	NCSP(CORS)	N 35 21 55.834 W 81 54 57.3482	36144.5	

## RESIDUALS OF POSITION

DESIGNATION	X	Y	Z	North	East	Up
GAST - log0130a.	-0.002	-0.005	0.001	-0.001	-0.002	0.004
NCHI - log0130a.	0.003	0.014	-0.008	0.001	0.005	-0.016
NCMG - log0130a.	0.007	-0.005	0.008	0.003	0.006	0.010
NCSH - log0130a.	-0.002	0.001	-0.004	-0.003	-0.002	-0.003
NCSP - log0130a.	-0.006	-0.002	0.003	0.002	-0.007	0.003

## GNSS Solution Report

Solution name:	NCSP - log0130a.jps / Solution 1
Processed at:	1/31/2016 2:44:43 PM
Begin time:	30/01/2016 13:57:23.000
End time:	30/01/2016 18:10:41.000
Time span, min:	253
Rec interval, sec:	30.000
Processing mode:	Auto

Frequency: GPS L1 + L2, GLONASS L1 + L2  
 Used satellites: GPS(16)/GLONASS(14)  
 Solution type: Used observations: CP, L1, L2, C1, P1, P2

	Begin point	End point
Point name:	NCSP	log0130a
Session name:	ncsp0300.16d	log0130a
Receiver type:	TRIMBLE NETR5	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00654
Receiver ID:	5001K65092	014Q4QK098U0Z0XUP4CA8AXRUS
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	1312118403	-Unknown-
Antenna ARP height, m:	0.000	0.025
Phase center variations:	On	On
Longitude:	W 81°54'57.372243"	W 81°32'03.722926"
Latitude:	N 35°21'55.860887"	N 35°27'28.638331"
Ellipsoid height, m:	301.4087	269.7304
X, m:	732282.0203	765721.0031
Y, m:	-5155561.2314	-5144666.4272
Z, m:	3671185.1006	3679525.7252

DX, m: 33438.9827  
 DY, m: 10894.8042  
 DZ, m: 8340.6246  
 Baseline length, m: 36144.5479

SX, m: 8.113E-3  
 SY, m: 1.926E-2  
 SZ, m: 1.273E-2  
 SL, m: 2.447E-2

Covariance matrix::	X	Y	Z
X	6.582E-5		
Y	-6.883E-5	3.709E-4	
Z	3.095E-5	-1.559E-4	1.622E-4

Ellipsoidal distance, m: 36142.9653  
 Forward azimuth: 73°24'17.7146  
 Back azimuth: 253°24'17.7146  
 Elevation angle forward: 0°12'44.7849  
 Elevation angle backward: 0°06'43.2128  
 Height difference, m: -31.6783

Measurement used: 18490 of 18547 (0% discarded)  
 RMS residual: 0.1107  
 Fix ratio: 100.00%  
 Contrast: 0.000E+0

Solution name: NCSH - log0130a.jps / Solution 1  
 Processed at: 1/31/2016 2:44:46 PM  
 Begin time: 30/01/2016 13:57:23.000  
 End time: 30/01/2016 18:10:41.000  
 Time span, min: 253  
 Rec interval, sec: 30.000

Processing mode: Auto  
 Frequency: GPS L1 + L2, GLONASS L1 + L2  
 Used satellites: GPS(17)/GLONASS(14)  
 Solution type: Used observations: CP, L1, L2, C1, P1, P2

	Begin point	End point
Point name:	NCSH	log0130a
Session name:	ncsh0300.16d	log0130a
Receiver type:	TRIMBLE NETR5	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00654
Receiver ID:	4950K64644	014Q4QK098U0Z0XUP4CA8AXRUS
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	1441003339	-Unknown-
Antenna ARP height, m:	0.000	0.025
Phase center variations:	On	On
Longitude:	W 81°29'28.139061"	W 81°32'03.723126"
Latitude:	N 35°16'53.669004"	N 35°27'28.638483"
Ellipsoid height, m:	263.1084	269.7361
X, m:	771276.6767	765720.9983
Y, m:	-5155285.3273	-5144666.4298
Z, m:	3663564.0658	3679525.7323

DX, m: -5555.6784  
 DY, m: 10618.8976  
 DZ, m: 15961.6665  
 Baseline length, m: 19959.9936

SX, m: 4.937E-3  
 SY, m: 1.065E-2  
 SZ, m: 7.534E-3  
 SL, m: 1.395E-2

Covariance matrix::	X	Y	Z
X	2.437E-5		
Y	-2.144E-5	1.133E-4	
Z	5.938E-6	-4.939E-5	5.676E-5

Ellipsoidal distance, m: 19959.1643  
 Forward azimuth: -11°20'09.1203  
 Back azimuth: 168°39'50.8797  
 Elevation angle forward: 0°04'15.2825  
 Elevation angle backward: 0°06'32.2639  
 Height difference, m: 6.6276

Measurement used: 18487 of 18559 (0% discarded)  
 RMS residual: 0.1164  
 Fix ratio: 99.17%  
 Contrast: 0.000E+0

Solution name: NCMG - log0130a.jps / Solution 1  
 Processed at: 1/31/2016 2:44:50 PM  
 Begin time: 30/01/2016 13:57:23.000  
 End time: 30/01/2016 18:10:41.000  
 Time span, min: 253

Rec interval, sec: 30.000  
Processing mode: Auto  
Frequency: GPS L1 + L2, GLONASS L1 + L2  
Used satellites: GPS(17)/GLONASS(14)  
Solution type: Used observations: CP, L1, L2, C1, P1, P2

	Begin point	End point
Point name:	NCMG	log0130a
Session name:	ncmg0300.16d	log0130a
Receiver type:	TRIMBLE NETR9	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00654
Receiver ID:	5329K443251	014Q4QK098U0Z0XUP4CA8AXRUS
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	5000115841	-Unknown-
Antenna ARP height, m:	0.000	0.025
Phase center variations:	On	On
Longitude:	W 81°39'24.022578"	W 81°32'03.723432"
Latitude:	N 35°42'27.100725"	N 35°27'28.638307"
Ellipsoid height, m:	343.4766	269.7235
X, m:	752407.8955	765720.9897
Y, m:	-5130405.8969	-5144666.4239
Z, m:	3702089.6708	3679525.7206

DX, m: 13313.0941  
DY, m: -14260.5270  
DZ, m: -22563.9501  
Baseline length, m: 29828.3917

SX, m: 8.773E-3  
SY, m: 1.509E-2  
SZ, m: 1.031E-2  
SL, m: 2.027E-2

Covariance matrix::	X	Y	Z
X	7.697E-5		
Y	-4.104E-5	2.276E-4	
Z	4.905E-6	-9.280E-5	1.063E-4

Ellipsoidal distance, m: 29826.8902  
Forward azimuth: 158°08'48.1693  
Back azimuth: 338°08'48.1693  
Elevation angle forward: 0°16'33.6471  
Elevation angle backward: 0°00'26.4083  
Height difference, m: -73.7531

Measurement used: 21550 of 21689 (1% discarded)  
RMS residual: 0.1034  
Fix ratio: 95.21%  
Contrast: 0.000E+0

Solution name: NCHI - log0130a.jps / Solution 1  
Processed at: 1/31/2016 2:44:53 PM  
Begin time: 30/01/2016 13:57:23.000  
End time: 30/01/2016 18:10:41.000

Time span, min: 253  
 Rec interval, sec: 30.000  
 Processing mode: Auto  
 Frequency: GPS L1 + L2, GLONASS L1 + L2  
 Used satellites: GPS(17)/GLONASS(14)  
 Solution type: Used observations: CP, L1, L2, C1, P1, P2

	Begin point	End point
Point name:	NCHI	log0130a
Session name:	nchi0300.16d	log0130a
Receiver type:	TRIMBLE NETR9	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00654
Receiver ID:	5245K40272	014Q4QK098U0Z0XUP4CA8AXRUS
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	1441003132	-Unknown-
Antenna ARP height, m:	0.000	0.025
Phase center variations:	On	On
Longitude:	W 81°18'30.958466"	W 81°32'03.723403"
Latitude:	N 35°44'31.037125"	N 35°27'28.638353"
Ellipsoid height, m:	324.9546	269.7489
X, m:	783221.8479	765720.9933
Y, m:	-5123520.6469	-5144666.4434
Z, m:	3705180.0409	3679525.7365

DX, m: -17500.8546  
 DY, m: -21145.7966  
 DZ, m: -25654.3044  
 Baseline length, m: 37570.8392

SX, m: 8.259E-3  
 SY, m: 1.983E-2  
 SZ, m: 1.354E-2  
 SL, m: 2.539E-2

Covariance matrix::	X	Y	Z
X	6.820E-5		
Y	-7.389E-5	3.932E-4	
Z	3.458E-5	-1.774E-4	1.834E-4

Ellipsoidal distance, m: 37569.0982  
 Forward azimuth: -146°56'24.3305  
 Back azimuth: 33°03'35.6695  
 Elevation angle forward: 0°15'11.8097  
 Elevation angle backward: 0°05'05.6320  
 Height difference, m: -55.2057

Measurement used: 21552 of 21619 (0% discarded)  
 RMS residual: 0.0992  
 Fix ratio: 99.73%  
 Contrast: 0.000E+0

Solution name: GAST - log0130a.jps / Solution 1  
 Processed at: 1/31/2016 2:44:56 PM  
 Begin time: 30/01/2016 13:57:23.000

End time: 30/01/2016 18:10:41.000  
Time span, min: 253  
Rec interval, sec: 30.000  
Processing mode: Auto  
Frequency: GPS L1 + L2, GLONASS L1 + L2  
Used satellites: GPS(17)/GLONASS(14)  
Solution type: Used observations: CP, L1, L2, C1, P1, P2

	Begin point	End point
Point name:	GAST	log0130a
Session name:	gast0300.16d	log0130a
Receiver type:	TRIMBLE NETR5	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00654
Receiver ID:	4850K59815	014Q4QK098U0Z0XUP4CA8AXRUS
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	31052454	-Unknown-
Antenna ARP height, m:	0.000	0.025
Phase center variations:	On	On
Longitude:	W 81°11'19.564349"	W 81°32'03.723094"
Latitude:	N 35°18'39.818304"	N 35°27'28.638440"
Ellipsoid height, m:	212.3454	269.7287
X, m:	798177.2353	765720.9984
Y, m:	-5149234.1891	-5144666.4245
Z, m:	3666204.8235	3679525.7270

DX, m: -32456.2369  
DY, m: 4567.7646  
DZ, m: 13320.9035  
Baseline length, m: 35379.6305

SX, m: 7.816E-3  
SY, m: 1.896E-2  
SZ, m: 1.262E-2  
SL, m: 2.408E-2

Covariance matrix::	X	Y	Z
X	6.109E-5		
Y	-5.753E-5	3.593E-4	
Z	2.720E-5	-1.509E-4	1.592E-4

Ellipsoidal distance, m: 35378.2926  
Forward azimuth: -62°28'11.7056  
Back azimuth: 117°31'48.2944  
Elevation angle forward: 0°03'57.4217  
Elevation angle backward: 0°15'06.5341  
Height difference, m: 57.3833

Measurement used: 18494 of 18582 (0% discarded)  
RMS residual: 0.1229  
Fix ratio: 99.53%  
Contrast: 0.000E+0