



Receiver ID: 4920K61934 014NCYOOD95AA1K6A742KICKQG  
Antenna type: TRM57971.00 NONE JAVTRIUMPH\_2A NONE  
Serial number: 31050987  
Antenna ARP height, m: 0.000 1.458  
Phase center variations: On On  
Longitude: W 79°26'12.199571" W 79°31'57.812316"  
Latitude: N 36°05'29.614401" N 36°15'58.295415"  
Ellipsoid height, m: 564.4418 669.9727  
X, m: 945967.3254 935392.7966  
Y, m: -5072710.6800 -5063065.3150  
Z, m: 3736507.4023 3752168.1412

DX, m: -10574.5288  
DY, m: 9645.3650  
DZ, m: 15660.7389  
Baseline length, m: 21215.8542

SX, m: 1.131E-2  
SY, m: 1.174E-2  
SZ, m: 1.157E-2  
SL, m: 1.999E-2

Covariance matrix:: X Y Z  
X 1.278E-4  
Y -6.994E-8 1.379E-4  
Z 5.181E-8 -3.950E-7 1.338E-4

Ellipsoidal distance, m: 21215.2123  
Forward azimuth: -23°59'37.1979  
Back azimuth: 155°56'58.7838  
Elevation angle forward: 0°00'31.1766  
Elevation angle backward: 0°10'56.6193  
Height difference, m: 32.1659

Measurement used: 11774 of 11774 (0% discarded)  
RMS residual: 0.0125  
Fix ratio: 100.00%

Solution name: NCAL - Basel / Solution 1  
Processed at: 4/2/2019 2:11:23 AM  
Begin time: 01/04/2019 16:16:17.000  
End time: 01/04/2019 19:40:34.000  
Time span, min: 204  
Rec interval, sec: 30.000  
Ephemeris: Broadcast  
Cut off angle, °: 12  
Processing mode: Auto  
Frequency: L1 + L2  
Used satellites: GPS (15) / GLONASS (12)  
Solution type: Fixed  
Temperature, °C: 20  
Pressure, hPa: 980  
Humidity, %: 50

Used observations: L1, L2, P1, P2

	Begin point	End point
Point name:	NCAL	Base1
Session name:	ncal0910.19d	Base1_111557
Receiver type:	TRIMBLE ALLOY	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00037
Receiver ID:	5841R40049	014NCYOOD95AA1K6A742KICKQG
Antenna type:	TRM115000.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	1430767454	
Antenna ARP height, m:	0.000	1.458
Phase center variations:	On	On
Longitude:	W 80°12'48.548609"	W 79°31'57.812153"
Latitude:	N 35°20'17.331008"	N 36°15'58.295835"
Ellipsoid height, m:	365.0395	669.9707
X, m:	885397.6588	935392.7991
Y, m:	-5133108.7457	-5063065.3062
Z, m:	3668598.3453	3752168.1513

DX, m: 49995.1403

DY, m: 70043.4395  
DZ, m: 83569.8060  
Baseline length, m: 119956.2834

SX, m: 6.086E-2  
SY, m: 6.270E-2  
SZ, m: 6.213E-2  
SL, m: 1.072E-1

Covariance matrix::

	X	Y	Z
X	3.704E-3		
Y	-9.986E-7	3.932E-3	
Z	7.555E-7	-4.316E-6	3.861E-3

Ellipsoidal distance, m: 119955.0500  
Forward azimuth: 30°39'45.7863  
Back azimuth: 211°03'39.4970  
Elevation angle forward: 0°29'43.9814  
Elevation angle backward: 0°35'03.4987  
Height difference, m: 92.9432

Measurement used: 11772 of 11780 (0% discarded)  
RMS residual: 0.0146  
Fix ratio: 98.80%

Solution name: HIPT - Basel / Solution 1  
Processed at: 4/2/2019 2:11:28 AM  
Begin time: 01/04/2019 16:16:17.000  
End time: 01/04/2019 19:40:34.000  
Time span, min: 204  
Rec interval, sec: 30.000  
Ephemeris: Broadcast  
Cut off angle, °: 12  
Processing mode: Auto  
Frequency: L1 + L2  
Used satellites: GPS (15) / GLONASS (12)  
Solution type: Fixed  
Temperature, °C: 20  
Pressure, hPa: 980  
Humidity, %: 50

Used observations: L1, L2, P1, P2

	Begin point	End point
Point name:	HIPT	Basel
Session name:	hipt0910.19d	Basel_111557
Receiver type:	TRIMBLE NETR9	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00037
Receiver ID:	5731R50541	014NCYOOD95AA1K6A742KICKQG
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	1441003459	
Antenna ARP height, m:	0.000	1.458
Phase center variations:	On	On
Longitude:	W 80°00'48.961407"	W 79°31'57.812237"
Latitude:	N 35°57'56.514954"	N 36°15'58.295468"
Ellipsoid height, m:	874.6407	670.0036
X, m:	896283.8255	935392.7998
Y, m:	-5090143.2746	-5063065.3211
Z, m:	3725268.4258	3752168.1481

DX, m: 39108.9742  
DY, m: 27077.9535  
DZ, m: 26899.7223  
Baseline length, m: 54647.2551

SX, m: 2.819E-2  
SY, m: 3.001E-2  
SZ, m: 2.942E-2  
SL, m: 5.060E-2

Covariance matrix::

	X	Y	Z
X	7.946E-4		
Y	-9.340E-7	9.005E-4	
Z	6.916E-7	-4.112E-6	8.654E-4

Ellipsoidal distance, m: 54645.3690  
Forward azimuth: 52°15'23.1967  
Back azimuth: 232°32'23.5801  
Elevation angle forward: 0°18'39.4476  
Elevation angle backward: 0°10'48.5823  
Height difference, m: -62.3735

Measurement used: 11696 of 11698 (0% discarded)  
RMS residual: 0.0125  
Fix ratio: 99.83%

Solution name: DURH - Basel / Solution 1  
Processed at: 4/2/2019 2:11:34 AM  
Begin time: 01/04/2019 16:16:17.000  
End time: 01/04/2019 19:40:34.000  
Time span, min: 204  
Rec interval, sec: 30.000  
Ephemeris: Broadcast  
Cut off angle, °: 12  
Processing mode: Auto  
Frequency: L1 + L2  
Used satellites: GPS (15) / GLONASS (12)  
Solution type: Fixed  
Temperature, °C: 20  
Pressure, hPa: 980  
Humidity, %: 50

Used observations: L1, L2, P1, P2

	Begin point	End point
Point name:	DURH	Basel
Session name:	durh0910.19d	Basel_111557
Receiver type:	TRIMBLE NETR9	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00037
Receiver ID:	5245K40273	014NCYOOD95AA1K6A742KICKQG
Antenna type:	TRM57971.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	2612177119	
Antenna ARP height, m:	0.000	1.458
Phase center variations:	On	On
Longitude:	W 78°53'58.059256"	W 79°31'57.812428"
Latitude:	N 35°59'46.157842"	N 36°15'58.295246"
Ellipsoid height, m:	380.9257	670.0489
X, m:	994682.3065	935392.7978
Y, m:	-5069685.5944	-5063065.3369
Z, m:	3727914.7460	3752168.1508

DX, m: -59289.5087  
DY, m: 6620.2575  
DZ, m: 24253.4047  
Baseline length, m: 64399.5442

SX, m: 3.310E-2  
SY, m: 3.498E-2  
SZ, m: 3.436E-2  
SL, m: 5.916E-2

Covariance matrix::

	X	Y	Z
X	1.096E-3		
Y	-1.018E-6	1.223E-3	
Z	7.590E-7	-4.417E-6	1.180E-3

Ellipsoidal distance, m: 64398.1405  
Forward azimuth: -62°05'04.7667  
Back azimuth: 117°32'30.9963  
Elevation angle forward: 0°12'38.8312  
Elevation angle backward: 0°22'03.3177  
Height difference, m: 88.1249

Measurement used: 11694 of 11696 (0% discarded)  
RMS residual: 0.0135  
Fix ratio: 99.61%

Solution name: DOBS - Basel / Solution 1

Processed at: 4/2/2019 2:11:39 AM  
Begin time: 01/04/2019 16:16:17.000  
End time: 01/04/2019 19:40:34.000  
Time span, min: 204  
Rec interval, sec: 30.000  
Ephemeris: Broadcast  
Cut off angle, °: 12  
Processing mode: Auto  
Frequency: L1 + L2  
Used satellites: GPS (15) / GLONASS (12)  
Solution type: Fixed  
Temperature, °C: 20  
Pressure, hPa: 980  
Humidity, %: 50

Used observations: L1, L2, P1, P2

	Begin point	End point
Point name:	DOBS	Base1
Session name:	dobs0910.19d	Base1_111557
Receiver type:	TRIMBLE ALLOY	JAVAD TRIUMPH2
Receiver number:	-Unknown-	00037
Receiver ID:	5818R40024	014NCYOOD95AA1K6A742KICKQG
Antenna type:	TRM115000.00 NONE	JAVTRIUMPH_2A NONE
Serial number:	6122223871	
Antenna ARP height, m:	0.000	1.458
Phase center variations:	On	On
Longitude:	W 80°43'11.735689"	W 79°31'57.812087"
Latitude:	N 36°25'31.542571"	N 36°15'58.295021"
Ellipsoid height, m:	1113.2064	670.0084
X, m:	828618.6844	935392.8051
Y, m:	-5071130.9258	-5063065.3296
Z, m:	3766480.8856	3752168.1379

DX, m: 106774.1207  
DY, m: 8065.5962  
DZ, m: -14312.7478  
Baseline length, m: 108030.6505

SX, m: 5.498E-2  
SY, m: 5.698E-2  
SZ, m: 5.633E-2  
SL, m: 9.717E-2

Covariance matrix::	X	Y	Z
X	3.023E-3		
Y	-1.217E-6	3.247E-3	
Z	8.953E-7	-5.147E-6	3.173E-3

Ellipsoidal distance, m: 108027.2566  
Forward azimuth: 99°03'42.3064  
Back azimuth: 279°45'55.3403  
Elevation angle forward: 0°33'22.8219  
Elevation angle backward: 0°24'47.0078  
Height difference, m: -135.0870

Measurement used: 11744 of 11748 (0% discarded)  
RMS residual: 0.0145  
Fix ratio: 98.87%