

Project file data		Coordinate System	
Name:	C:\Users\hp\Desktop\Juwari\ML-2.vce	Name:	World wide/UTM
Size:	81 KB	Datum:	WGS 1984
Modified:	5/28/2023 3:12:06 AM (UTC:5)	Zone:	44 North
Time zone:	India Standard Time	Geoid:	EGM96 (Global)
Reference number:		Vertical datum:	
Description:		Calibrated site:	
Comment 1:			
Comment 2:			
Comment 3:			

Baseline Processing Report

Processing Summary

Observation	From	To	Solution Type	H. Prec. (Meter)	V. Prec. (Meter)	Geodetic Az.	Ellipsoid Dist. (Meter)	ΔHeight (Meter)
GCP-8 --- GCP-13 (B18)	GCP-8	GCP-13	Fixed	0.0039	0.0056	231°44'14. 7"	2066.9297	12.5760
GCP-12 --- GCP-13 (B17)	GCP-12	GCP-13	Fixed	0.0017	0.0023	184°52'01. 5"	383.0226	1.4532
GCP-11 --- GCP-10 (B14)	GCP-11	GCP-10	Fixed	0.0015	0.0021	111°36'27. 3"	256.2949	-1.1354
GCP-9 --- GCP-7 (B12)	GCP-9	GCP-7	Fixed	0.0016	0.0026	179°21'14. 1"	639.0790	-5.9153
GCP-3 --- GCP-6 (B3)	GCP-3	GCP-6	Fixed	0.0032	0.0039	208°54'20. 9"	1264.7081	-9.6065
GCP-2 --- GCP-5 (B2)	GCP-2	GCP-5	Fixed	0.0028	0.0044	245°43'07. 8"	874.8522	3.2208
GCP-1 --- GCP-4 (B1)	GCP-1	GCP-4	Fixed	0.0024	0.0039	261°29'04. 5"	437.3213	1.9361
GCP-8 --- GCP-12 (B16)	GCP-8	GCP-12	Fixed	0.0021	0.0028	240°32'23. 3"	1826.5674	11.1261
GCP-8 --- GCP-11 (B15)	GCP-8	GCP-11	Fixed	0.0020	0.0032	247°24'05. 0"	1433.9785	6.7308
GCP-8 --- GCP-10 (B13)	GCP-8	GCP-10	Fixed	0.0020	0.0030	239°16'00. 3"	1262.9756	5.5920
GCP-8 --- GCP-9 (B11)	GCP-8	GCP-9	Fixed	0.0018	0.0030	320°58'04. 2"	379.2974	4.9518
GCP-8 --- GCP-7 (B4)	GCP-8	GCP-7	Fixed	0.0019	0.0030	213°55'37. 9"	415.0699	-0.9670
GCP-8 --- GCP-6 (B5)	GCP-8	GCP-6	Fixed	0.0023	0.0030	92°32'08.5"	573.5152	-1.2556
GCP-8 --- GCP-3 (B8)	GCP-8	GCP-3	Fixed	0.0030	0.0037	47°35'15.4"	1603.9542	8.3541

GCP-8 --- GCP-5 (B6)	GCP-8	GCP-5	Fixed	0.0024	0.0036	49°16'29.1"	871.3897	6.0205
GCP-8 --- GCP-2 (B9)	GCP-8	GCP-2	Fixed	0.0024	0.0038	57°30'40.0"	1728.2995	2.7974
GCP-8 --- GCP-4 (B7)	GCP-8	GCP-4	Fixed	0.0025	0.0037	58°21'54.4"	1349.3640	2.6531
GCP-8 --- GCP-1 (B10)	GCP-8	GCP-1	Fixed	0.0034	0.0050	63°57'47.3"	1759.9704	0.7243

Acceptance Summary

Processed	Passed	Flag	Fail
18	18	0	0

GCP-8 - GCP-13 (10:14:29 AM-10:45:37 AM) (S18)

Baseline observation:	GCP-8 --- GCP-13 (B18)
Processed:	5/27/2023 10:08:40 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0039 m
Vertical precision:	0.0056 m
RMS:	0.0160 m
Maximum PDOP:	0.901
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 10:14:32 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 10:45:32 AM (Local: UTC+5hr)
Processing duration:	00:31:00
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-8			
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To:		GCP-13			
Grid		Local		Global	
Easting	394075.031 m	Latitude	N16°48'31.54328"	Latitude	N16°48'31.54328"
Northing	1858665.280 m	Longitude	E80°00'21.28859"	Longitude	E80°00'21.28859"
Elevation	86.314 m	Height	5.337 m	Height	5.337 m

Vector					
Δ Easting	-1628.7910 m	NS Fwd Azimuth	231°44'14.7"	Δ X	1664.5764 m
Δ Northing	-1271.6086 m	Ellipsoid Dist.	2066.9297 m	Δ Y	95.0997 m
Δ Elevation	12.668 m	Δ Height	12.5760 m	Δ Z	-1221.6779 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0026 m	σ NS fwd Azimuth	0°00'00.3"	σ Δ X	0.0025 m
σ Δ Northing	0.0024 m	σ Ellipsoid Dist.	0.0023 m	σ Δ Y	0.0056 m
σ Δ Elevation	0.0056 m	σ Δ Height	0.0056 m	σ Δ Z	0.0025 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000060147		
Y	0.0000000895	0.0000315189	
Z	0.0000008904	0.0000047707	0.0000062456



Occupations

	From	To
Point ID:	GCP-8	GCP-13
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521044428.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-12 - GCP-13 (10:14:29 AM-10:45:37 AM) (S17)

Baseline observation: [GCP-12 --- GCP-13 \(B17\)](#)
 Processed: 5/27/2023 10:08:27 PM
 Solution type: Fixed
 Frequency used: Dual Frequency
 Horizontal precision: 0.0017 m
 Vertical precision: 0.0023 m
 RMS: 0.0114 m
 Maximum PDOP: 0.875
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 5/21/2023 10:14:32 AM (Local: UTC+5hr)
 Processing stop time: 5/21/2023 10:45:32 AM (Local: UTC+5hr)
 Processing duration: 00:31:00
 Processing interval: 10 seconds
 Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-12					
Grid		Local		Global	
Easting	394109.433 m	Latitude	N16°48'43.95810"	Latitude	N16°48'43.95810"
Northing	1859046.655 m	Longitude	E80°00'22.38613"	Longitude	E80°00'22.38613"
Elevation	84.847 m	Height	3.887 m	Height	3.887 m

To: GCP-13					
Grid		Local		Global	
Easting	394075.031 m	Latitude	N16°48'31.54331"	Latitude	N16°48'31.54331"
Northing	1858665.281 m	Longitude	E80°00'21.28859"	Longitude	E80°00'21.28859"
Elevation	86.318 m	Height	5.340 m	Height	5.340 m

Vector					
ΔEasting	-34.4025 m	NS Fwd Azimuth	184°52'01.5"	ΔX	51.4000 m
ΔNorthing	-381.3740 m	Ellipsoid Dist.	383.0226 m	ΔY	104.4290 m
ΔElevation	1.471 m	ΔHeight	1.4532 m	ΔZ	-364.9127 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0012 m	σ NS fwd Azimuth	0°00'00.6"	$\sigma \Delta$ X	0.0012 m
$\sigma \Delta$ Northing	0.0010 m	σ Ellipsoid Dist.	0.0010 m	$\sigma \Delta$ Y	0.0022 m
$\sigma \Delta$ Elevation	0.0023 m	$\sigma \Delta$ Height	0.0023 m	$\sigma \Delta$ Z	0.0012 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000013244		
Y	0.0000002192	0.0000049526	
Z	0.0000002916	0.0000012704	0.0000013623



Occupations

	From	To
Point ID:	GCP-12	GCP-13
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521044428.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521044428.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.9500 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-11 - GCP-10 (11:18:06 AM-11:38:27 AM) (S14)

Baseline observation:	GCP-11 --- GCP-10 (B14)
Processed:	5/27/2023 10:08:27 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0015 m
Vertical precision:	0.0021 m
RMS:	0.0097 m
Maximum PDOP:	1.044
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 11:18:12 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 11:38:22 AM (Local: UTC+5hr)
Processing duration:	00:20:10
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-11			
Grid		Local		Global	
Easting	394377.587 m	Latitude	N16°48'55.25640"	Latitude	N16°48'55.25640"
Northing	1859392.545 m	Longitude	E80°00'31.38649"	Longitude	E80°00'31.38649"
Elevation	80.431 m	Height	-0.508 m	Height	-0.508 m

To:		GCP-10			
Grid		Local		Global	
Easting	394615.334 m	Latitude	N16°48'52.18618"	Latitude	N16°48'52.18618"
Northing	1859296.998 m	Longitude	E80°00'39.43437"	Longitude	E80°00'39.43437"
Elevation	79.294 m	Height	-1.644 m	Height	-1.644 m

Vector					
Δ Easting	237.7467 m	NS Fwd Azimuth	111°36'27.3"	Δ X	-230.1231 m
Δ Northing	-95.5464 m	Ellipsoid Dist.	256.2949 m	Δ Y	67.1557 m
Δ Elevation	-1.137 m	Δ Height	-1.1354 m	Δ Z	-90.6744 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0011 m	σ NS fwd Azimuth	0°00'00.8"	σ Δ X	0.0011 m
σ Δ Northing	0.0010 m	σ Ellipsoid Dist.	0.0011 m	σ Δ Y	0.0020 m
σ Δ Elevation	0.0021 m	σ Δ Height	0.0021 m	σ Δ Z	0.0011 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000011713		
Y	0.0000003735	0.0000041857	
Z	0.0000001056	0.0000008959	0.0000012589



Occupations

	From	To
Point ID:	GCP-11	GCP-10
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521054738.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521054805.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.9500 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-9 - GCP-7 (7:54:10 AM-8:14:24 AM) (S12)

Baseline observation: [GCP-9 --- GCP-7 \(B12\)](#)
Processed: 5/27/2023 10:08:21 PM
Solution type: Fixed
Frequency used: Dual Frequency
Horizontal precision: 0.0016 m
Vertical precision: 0.0026 m
RMS: 0.0120 m
Maximum PDOP: 0.912
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 5/21/2023 7:54:12 AM (Local: UTC+5hr)
Processing stop time: 5/21/2023 8:14:22 AM (Local: UTC+5hr)
Processing duration: 00:20:10
Processing interval: 10 seconds
Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-9					
Grid		Local		Global	
Easting	395466.480 m	Latitude	N16°49'22.76743"	Latitude	N16°49'22.76743"
Northing	1860232.623 m	Longitude	E80°01'08.03181"	Longitude	E80°01'08.03181"
Elevation	78.591 m	Height	-2.287 m	Height	-2.287 m

To: GCP-7					
Grid		Local		Global	
Easting	395470.518 m	Latitude	N16°49'01.97956"	Latitude	N16°49'01.97956"
Northing	1859593.726 m	Longitude	E80°01'08.27520"	Longitude	E80°01'08.27520"
Elevation	72.703 m	Height	-8.202 m	Height	-8.202 m

Vector					
ΔEasting	4.0385 m	NS Fwd Azimuth	179°21'14.1"	ΔX	23.9718 m
ΔNorthing	-638.8970 m	Ellipsoid Dist.	639.0790 m	ΔY	177.7907 m
ΔElevation	-5.888 m	ΔHeight	-5.9153 m	ΔZ	-613.4102 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0011 m	σ NS fwd Azimuth	0°00'00.3"	$\sigma \Delta$ X	0.0012 m
$\sigma \Delta$ Northing	0.0009 m	σ Ellipsoid Dist.	0.0009 m	$\sigma \Delta$ Y	0.0025 m
$\sigma \Delta$ Elevation	0.0026 m	$\sigma \Delta$ Height	0.0026 m	$\sigma \Delta$ Z	0.0012 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000014650		
Y	0.0000012643	0.0000060663	
Z	0.0000005695	0.0000017131	0.0000013483



Occupations

	From	To
Point ID:	GCP-9	GCP-7
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521022408.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521022359.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.9500 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-3 - GCP-6 (12:53:40 PM-1:16:40 PM) (S3)

Baseline observation:	GCP-3 --- GCP-6 (B3)
Processed:	5/27/2023 10:08:24 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0032 m
Vertical precision:	0.0039 m
RMS:	0.0184 m
Maximum PDOP:	0.790
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 12:53:42 PM (Local: UTC+5hr)
Processing stop time:	5/21/2023 1:16:32 PM (Local: UTC+5hr)
Processing duration:	00:22:50
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-3					
Grid		Local		Global	
Easting	396893.054 m	Latitude	N16°49'48.37300"	Latitude	N16°49'48.37300"
Northing	1861012.538 m	Longitude	E80°01'56.09890"	Longitude	E80°01'56.09890"
Elevation	81.926 m	Height	1.115 m	Height	1.115 m

To: GCP-6					
Grid		Local		Global	
Easting	396276.490 m	Latitude	N16°49'12.35737"	Latitude	N16°49'12.35737"
Northing	1859908.691 m	Longitude	E80°01'35.45130"	Longitude	E80°01'35.45130"
Elevation	72.382 m	Height	-8.491 m	Height	-8.491 m

Vector					
Δ Easting	-616.5640 m	NS Fwd Azimuth	208°54'20.9"	Δ X	655.9686 m
Δ Northing	-1103.8474 m	Ellipsoid Dist.	1264.7081 m	Δ Y	200.7268 m
Δ Elevation	-9.544 m	Δ Height	-9.6065 m	Δ Z	-1062.5399 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0022 m	σ NS fwd Azimuth	0°00'00.3"	σ Δ X	0.0021 m
σ Δ Northing	0.0017 m	σ Ellipsoid Dist.	0.0020 m	σ Δ Y	0.0037 m
σ Δ Elevation	0.0039 m	σ Δ Height	0.0039 m	σ Δ Z	0.0021 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000042946		
Y	-0.0000001315	0.0000137804	
Z	-0.0000007769	0.0000042940	0.0000042610



Occupations

	From	To
Point ID:	GCP-3	GCP-6
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521072337.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521072338.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.9500 m	0.8750 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-2 - GCP-5 (8:36:47 AM-8:56:47 AM) (S2)

Baseline observation: [GCP-2 --- GCP-5 \(B2\)](#)
Processed: 5/27/2023 10:08:21 PM
Solution type: Fixed
Frequency used: Dual Frequency
Horizontal precision: 0.0028 m
Vertical precision: 0.0044 m
RMS: 0.0142 m
Maximum PDOP: 1.029
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 5/21/2023 8:36:52 AM (Local: UTC+5hr)
Processing stop time: 5/21/2023 8:56:42 AM (Local: UTC+5hr)
Processing duration: 00:19:50
Processing interval: 10 seconds
Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-2					
Grid		Local		Global	
Easting	397165.817 m	Latitude	N16°49'43.37992"	Latitude	N16°49'43.37992"
Northing	1860857.753 m	Longitude	E80°02'05.33990"	Longitude	E80°02'05.33990"
Elevation	76.369 m	Height	-4.442 m	Height	-4.442 m

To: GCP-5					
Grid		Local		Global	
Easting	396366.825 m	Latitude	N16°49'31.67672"	Latitude	N16°49'31.67672"
Northing	1860501.990 m	Longitude	E80°01'38.40468"	Longitude	E80°01'38.40468"
Elevation	79.625 m	Height	-1.221 m	Height	-1.221 m

Vector					
ΔEasting	-798.9920 m	NS Fwd Azimuth	245°43'07.8"	ΔX	803.9771 m
ΔNorthing	-355.7633 m	Ellipsoid Dist.	874.8522 m	ΔY	-32.4396 m
ΔElevation	3.255 m	ΔHeight	3.2208 m	ΔZ	-343.4305 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0019 m	σ NS fwd Azimuth	0°00'00.4"	$\sigma \Delta$ X	0.0019 m
$\sigma \Delta$ Northing	0.0015 m	σ Ellipsoid Dist.	0.0017 m	$\sigma \Delta$ Y	0.0043 m
$\sigma \Delta$ Elevation	0.0044 m	$\sigma \Delta$ Height	0.0044 m	$\sigma \Delta$ Z	0.0018 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000036896		
Y	0.0000013422	0.0000184253	
Z	0.0000010106	0.0000043090	0.0000033493



Occupations

	From	To
Point ID:	GCP-2	GCP-5
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521030629.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521030646.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.9500 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-1 - GCP-4 (9:05:58 AM-9:26:16 AM) (S1)

Baseline observation:	GCP-1 --- GCP-4 (B1)
Processed:	5/27/2023 10:08:18 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0024 m
Vertical precision:	0.0039 m
RMS:	0.0087 m
Maximum PDOP:	1.305
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 9:06:02 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 9:26:12 AM (Local: UTC+5hr)
Processing duration:	00:20:10
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-1			
Grid		Local		Global	
Easting	397288.553 m	Latitude	N16°49'38.31166"	Latitude	N16°49'38.31166"
Northing	1860701.392 m	Longitude	E80°02'09.51233"	Longitude	E80°02'09.51233"
Elevation	74.300 m	Height	-6.515 m	Height	-6.515 m

To:		GCP-4			
Grid		Local		Global	
Easting	396855.859 m	Latitude	N16°49'36.20499"	Latitude	N16°49'36.20499"
Northing	1860638.760 m	Longitude	E80°01'54.90401"	Longitude	E80°01'54.90401"
Elevation	76.249 m	Height	-4.579 m	Height	-4.579 m

Vector					
Δ Easting	-432.6942 m	NS Fwd Azimuth	261°29'04.5"	Δ X	429.5382 m
Δ Northing	-62.6323 m	Ellipsoid Dist.	437.3213 m	Δ Y	-54.5608 m
Δ Elevation	1.949 m	Δ Height	1.9361 m	Δ Z	-61.4277 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0017 m	σ NS fwd Azimuth	0°00'00.5"	σ Δ X	0.0016 m
σ Δ Northing	0.0010 m	σ Ellipsoid Dist.	0.0016 m	σ Δ Y	0.0038 m
σ Δ Elevation	0.0039 m	σ Δ Height	0.0039 m	σ Δ Z	0.0016 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000025737		
Y	0.0000005798	0.0000143261	
Z	0.0000006209	0.0000042514	0.0000024335



Occupations

	From	To
Point ID:	GCP-1	GCP-4
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521033555.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521033557.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.9500 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-12 (10:14:29 AM-10:45:40 AM) (S16)

Baseline observation: [GCP-8 --- GCP-12 \(B16\)](#)
 Processed: 5/27/2023 10:08:13 PM
 Solution type: Fixed
 Frequency used: Dual Frequency
 Horizontal precision: 0.0021 m
 Vertical precision: 0.0028 m
 RMS: 0.0155 m
 Maximum PDOP: 0.901
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 5/21/2023 10:14:32 AM (Local: UTC+5hr)
 Processing stop time: 5/21/2023 10:45:32 AM (Local: UTC+5hr)
 Processing duration: 00:31:00
 Processing interval: 10 seconds
 Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-8					
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To: GCP-12					
Grid		Local		Global	
Easting	394109.433 m	Latitude	N16°48'43.95810"	Latitude	N16°48'43.95810"
Northing	1859046.655 m	Longitude	E80°00'22.38613"	Longitude	E80°00'22.38613"
Elevation	84.847 m	Height	3.887 m	Height	3.887 m

Vector					
ΔEasting	-1594.3886 m	NS Fwd Azimuth	240°32'23.3"	ΔX	1613.1770 m
ΔNorthing	-890.2336 m	Ellipsoid Dist.	1826.5674 m	ΔY	-9.3265 m
ΔElevation	11.201 m	ΔHeight	11.1261 m	ΔZ	-856.7634 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0015 m	σ NS fwd Azimuth	0°00'00.2"	$\sigma \Delta$ X	0.0015 m
$\sigma \Delta$ Northing	0.0013 m	σ Ellipsoid Dist.	0.0014 m	$\sigma \Delta$ Y	0.0027 m
$\sigma \Delta$ Elevation	0.0028 m	$\sigma \Delta$ Height	0.0028 m	$\sigma \Delta$ Z	0.0014 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000023036		
Y	0.0000007801	0.0000071627	
Z	0.0000004096	0.0000013694	0.0000019625



Occupations

	From	To
Point ID:	GCP-8	GCP-12
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521044428.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-11 (11:17:39 AM-11:38:27 AM) (S15)

Baseline observation:	GCP-8 --- GCP-11 (B15)
Processed:	5/27/2023 10:08:15 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0020 m
Vertical precision:	0.0032 m
RMS:	0.0135 m
Maximum PDOP:	1.044
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 11:17:42 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 11:38:22 AM (Local: UTC+5hr)
Processing duration:	00:20:40
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-8			
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To:		GCP-11			
Grid		Local		Global	
Easting	394377.587 m	Latitude	N16°48'55.25640"	Latitude	N16°48'55.25640"
Northing	1859392.545 m	Longitude	E80°00'31.38649"	Longitude	E80°00'31.38649"
Elevation	80.431 m	Height	-0.508 m	Height	-0.508 m

Vector					
Δ Easting	-1326.2350 m	NS Fwd Azimuth	247°24'05.0"	Δ X	1332.5698 m
Δ Northing	-544.3440 m	Ellipsoid Dist.	1433.9785 m	Δ Y	-66.1719 m
Δ Elevation	6.784 m	Δ Height	6.7308 m	Δ Z	-525.5626 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0014 m	σ NS fwd Azimuth	0°00'00.2"	σ Δ X	0.0014 m
σ Δ Northing	0.0013 m	σ Ellipsoid Dist.	0.0014 m	σ Δ Y	0.0031 m
σ Δ Elevation	0.0032 m	σ Δ Height	0.0032 m	σ Δ Z	0.0015 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000018652		
Y	0.0000002843	0.0000097331	
Z	0.0000000569	0.0000018806	0.0000021903



Occupations

	From	To
Point ID:	GCP-8	GCP-11
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521054738.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-10 (11:18:06 AM-11:38:38 AM) (S13)

Baseline observation: [GCP-8 --- GCP-10 \(B13\)](#)
 Processed: 5/27/2023 10:08:15 PM
 Solution type: Fixed
 Frequency used: Dual Frequency
 Horizontal precision: 0.0020 m
 Vertical precision: 0.0030 m
 RMS: 0.0137 m
 Maximum PDOP: 0.979
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 5/21/2023 11:18:12 AM (Local: UTC+5hr)
 Processing stop time: 5/21/2023 11:38:32 AM (Local: UTC+5hr)
 Processing duration: 00:20:20
 Processing interval: 10 seconds
 Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-8					
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To: GCP-10					
Grid		Local		Global	
Easting	394615.334 m	Latitude	N16°48'52.18619"	Latitude	N16°48'52.18619"
Northing	1859296.999 m	Longitude	E80°00'39.43439"	Longitude	E80°00'39.43439"
Elevation	79.291 m	Height	-1.647 m	Height	-1.647 m

Vector					
ΔEasting	-1088.4877 m	NS Fwd Azimuth	239°16'00.3"	ΔX	1102.4456 m
ΔNorthing	-639.8902 m	Ellipsoid Dist.	1262.9756 m	ΔY	0.9806 m
ΔElevation	5.644 m	ΔHeight	5.5920 m	ΔZ	-616.2378 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0014 m	σ NS fwd Azimuth	0°00'00.2"	$\sigma \Delta$ X	0.0014 m
$\sigma \Delta$ Northing	0.0013 m	σ Ellipsoid Dist.	0.0014 m	$\sigma \Delta$ Y	0.0030 m
$\sigma \Delta$ Elevation	0.0030 m	$\sigma \Delta$ Height	0.0030 m	$\sigma \Delta$ Z	0.0014 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000018347		
Y	0.0000002073	0.0000091319	
Z	0.0000000162	0.0000015594	0.0000019792



Occupations

	From	To
Point ID:	GCP-8	GCP-10
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521054805.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-9 (7:54:10 AM-8:14:38 AM) (S11)

Baseline observation:	GCP-8 --- GCP-9 (B11)
Processed:	5/27/2023 10:08:01 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0018 m
Vertical precision:	0.0030 m
RMS:	0.0109 m
Maximum PDOP:	0.912
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 7:54:12 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 8:14:32 AM (Local: UTC+5hr)
Processing duration:	00:20:20
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-8			
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To:		GCP-9			
Grid		Local		Global	
Easting	395466.480 m	Latitude	N16°49'22.76743"	Latitude	N16°49'22.76743"
Northing	1860232.623 m	Longitude	E80°01'08.03181"	Longitude	E80°01'08.03181"
Elevation	78.591 m	Height	-2.287 m	Height	-2.287 m

Vector					
ΔEasting	-237.3423 m	NS Fwd Azimuth	320°58'04.2"	ΔX	221.2967 m
ΔNorthing	295.7344 m	Ellipsoid Dist.	379.2974 m	ΔY	-120.7033 m
ΔElevation	4.944 m	ΔHeight	4.9518 m	ΔZ	283.4595 m

Standard Errors

Vector errors:					
σ ΔEasting	0.0013 m	σ NS fwd Azimuth	0°00'00.6"	σ ΔX	0.0013 m
σ ΔNorthing	0.0011 m	σ Ellipsoid Dist.	0.0012 m	σ ΔY	0.0029 m
σ ΔElevation	0.0030 m	σ ΔHeight	0.0030 m	σ ΔZ	0.0013 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000017302		
Y	0.0000009031	0.0000082445	
Z	0.0000003865	0.0000020783	0.0000017774



Occupations

	From	To
Point ID:	GCP-8	GCP-9
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521022408.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-7 (7:54:00 AM-8:14:24 AM) (S4)

Baseline observation: [GCP-8 --- GCP-7 \(B4\)](#)
 Processed: 5/27/2023 10:07:55 PM
 Solution type: Fixed
 Frequency used: Dual Frequency
 Horizontal precision: 0.0019 m
 Vertical precision: 0.0030 m
 RMS: 0.0112 m
 Maximum PDOP: 0.910
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 5/21/2023 7:54:02 AM (Local: UTC+5hr)
 Processing stop time: 5/21/2023 8:14:22 AM (Local: UTC+5hr)
 Processing duration: 00:20:20
 Processing interval: 10 seconds
 Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-8					
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To: GCP-7					
Grid		Local		Global	
Easting	395470.517 m	Latitude	N16°49'01.97956"	Latitude	N16°49'01.97956"
Northing	1859593.726 m	Longitude	E80°01'08.27517"	Longitude	E80°01'08.27517"
Elevation	72.700 m	Height	-8.206 m	Height	-8.206 m

Vector					
ΔEasting	-233.3047 m	NS Fwd Azimuth	213°55'37.9"	ΔX	245.2687 m
ΔNorthing	-343.1627 m	Ellipsoid Dist.	415.0699 m	ΔY	57.0839 m
ΔElevation	-0.947 m	ΔHeight	-0.9670 m	ΔZ	-329.9519 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0013 m	σ NS fwd Azimuth	0°00'00.6"	$\sigma \Delta$ X	0.0015 m
$\sigma \Delta$ Northing	0.0010 m	σ Ellipsoid Dist.	0.0011 m	$\sigma \Delta$ Y	0.0028 m
$\sigma \Delta$ Elevation	0.0030 m	$\sigma \Delta$ Height	0.0030 m	$\sigma \Delta$ Z	0.0013 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000021382		
Y	0.0000016794	0.0000080709	
Z	0.0000006671	0.0000022142	0.0000017062



Occupations

	From	To
Point ID:	GCP-8	GCP-7
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521022359.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-6 (12:53:40 PM-1:16:41 PM) (S5)

Baseline observation:	GCP-8 --- GCP-6 (B5)
Processed:	5/27/2023 10:08:01 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0023 m
Vertical precision:	0.0030 m
RMS:	0.0137 m
Maximum PDOP:	0.758
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 12:53:42 PM (Local: UTC+5hr)
Processing stop time:	5/21/2023 1:16:32 PM (Local: UTC+5hr)
Processing duration:	00:22:50
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-8			
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To:		GCP-6			
Grid		Local		Global	
Easting	396276.491 m	Latitude	N16°49'12.35736"	Latitude	N16°49'12.35736"
Northing	1859908.691 m	Longitude	E80°01'35.45132"	Longitude	E80°01'35.45132"
Elevation	72.379 m	Height	-8.495 m	Height	-8.495 m

Vector					
Δ Easting	572.6687 m	NS Fwd Azimuth	92°32'08.5"	Δ X	-563.2254 m
Δ Northing	-28.1983 m	Ellipsoid Dist.	573.5152 m	Δ Y	105.3073 m
Δ Elevation	-1.268 m	Δ Height	-1.2556 m	Δ Z	-24.6586 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0015 m	σ NS fwd Azimuth	0°00'00.5"	σ Δ X	0.0013 m
σ Δ Northing	0.0013 m	σ Ellipsoid Dist.	0.0015 m	σ Δ Y	0.0029 m
σ Δ Elevation	0.0030 m	σ Δ Height	0.0030 m	σ Δ Z	0.0016 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000018154		
Y	-0.0000006197	0.0000081443	
Z	-0.0000007116	0.0000027180	0.0000026782



Occupations

	From	To
Point ID:	GCP-8	GCP-6
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521072338.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	0.8750 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-3 (12:53:38 PM-1:16:40 PM) (S8)

Baseline observation: [GCP-8 --- GCP-3 \(B8\)](#)
Processed: 5/27/2023 10:08:01 PM
Solution type: Fixed
Frequency used: Dual Frequency
Horizontal precision: 0.0030 m
Vertical precision: 0.0037 m
RMS: 0.0173 m
Maximum PDOP: 0.790
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 5/21/2023 12:53:42 PM (Local: UTC+5hr)
Processing stop time: 5/21/2023 1:16:32 PM (Local: UTC+5hr)
Processing duration: 00:22:50
Processing interval: 10 seconds
Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-8					
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To: GCP-3					
Grid		Local		Global	
Easting	396893.054 m	Latitude	N16°49'48.37300"	Latitude	N16°49'48.37300"
Northing	1861012.538 m	Longitude	E80°01'56.09890"	Longitude	E80°01'56.09890"
Elevation	81.926 m	Height	1.115 m	Height	1.115 m

Vector					
ΔEasting	1189.2324 m	NS Fwd Azimuth	47°35'15.4"	ΔX	-1219.1931 m
ΔNorthing	1075.6494 m	Ellipsoid Dist.	1603.9542 m	ΔY	-95.4166 m
ΔElevation	8.279 m	ΔHeight	8.3541 m	ΔZ	1037.8825 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0020 m	σ NS fwd Azimuth	0°00'00.2"	$\sigma \Delta$ X	0.0019 m
$\sigma \Delta$ Northing	0.0017 m	σ Ellipsoid Dist.	0.0021 m	$\sigma \Delta$ Y	0.0036 m
$\sigma \Delta$ Elevation	0.0037 m	$\sigma \Delta$ Height	0.0037 m	$\sigma \Delta$ Z	0.0020 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000036061		
Y	-0.0000002701	0.0000126661	
Z	-0.0000007836	0.0000039782	0.0000041470



Occupations

	From	To
Point ID:	GCP-8	GCP-3
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521072337.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-5 (8:36:47 AM-8:57:03 AM) (S6)

Baseline observation:	GCP-8 --- GCP-5 (B6)
Processed:	5/27/2023 10:07:50 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0024 m
Vertical precision:	0.0036 m
RMS:	0.0149 m
Maximum PDOP:	0.901
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 8:36:52 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 8:57:02 AM (Local: UTC+5hr)
Processing duration:	00:20:10
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-8			
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To:		GCP-5			
Grid		Local		Global	
Easting	396366.828 m	Latitude	N16°49'31.67668"	Latitude	N16°49'31.67668"
Northing	1860501.989 m	Longitude	E80°01'38.40479"	Longitude	E80°01'38.40479"
Elevation	79.627 m	Height	-1.218 m	Height	-1.218 m

Vector					
Δ Easting	663.0064 m	NS Fwd Azimuth	49°16'29.1"	Δ X	-677.9084 m
Δ Northing	565.1000 m	Ellipsoid Dist.	871.3897 m	Δ Y	-41.9722 m
Δ Elevation	5.981 m	Δ Height	6.0205 m	Δ Z	545.9246 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0017 m	σ NS fwd Azimuth	0°00'00.4"	σ Δ X	0.0017 m
σ Δ Northing	0.0013 m	σ Ellipsoid Dist.	0.0013 m	σ Δ Y	0.0035 m
σ Δ Elevation	0.0036 m	σ Δ Height	0.0036 m	σ Δ Z	0.0015 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000028795		
Y	0.0000011767	0.0000119451	
Z	0.0000008224	0.0000026681	0.0000023054



Occupations

	From	To
Point ID:	GCP-8	GCP-5
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521030646.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-2 (8:36:31 AM-8:56:47 AM) (S9)

Baseline observation: [GCP-8 --- GCP-2 \(B9\)](#)
 Processed: 5/27/2023 10:07:42 PM
 Solution type: Fixed
 Frequency used: Dual Frequency
 Horizontal precision: 0.0024 m
 Vertical precision: 0.0038 m
 RMS: 0.0124 m
 Maximum PDOP: 1.029
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 5/21/2023 8:36:32 AM (Local: UTC+5hr)
 Processing stop time: 5/21/2023 8:56:42 AM (Local: UTC+5hr)
 Processing duration: 00:20:10
 Processing interval: 10 seconds
 Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-8					
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To: GCP-2					
Grid		Local		Global	
Easting	397165.817 m	Latitude	N16°49'43.37992"	Latitude	N16°49'43.37992"
Northing	1860857.753 m	Longitude	E80°02'05.33990"	Longitude	E80°02'05.33990"
Elevation	76.369 m	Height	-4.442 m	Height	-4.442 m

Vector					
ΔEasting	1461.9953 m	NS Fwd Azimuth	57°30'40.0"	ΔX	-1481.8829 m
ΔNorthing	920.8646 m	Ellipsoid Dist.	1728.2995 m	ΔY	-9.5357 m
ΔElevation	2.723 m	ΔHeight	2.7974 m	ΔZ	889.3557 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0017 m	σ NS fwd Azimuth	0°00'00.2"	$\sigma \Delta$ X	0.0017 m
$\sigma \Delta$ Northing	0.0012 m	σ Ellipsoid Dist.	0.0014 m	$\sigma \Delta$ Y	0.0036 m
$\sigma \Delta$ Elevation	0.0038 m	$\sigma \Delta$ Height	0.0038 m	$\sigma \Delta$ Z	0.0015 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000028890		
Y	0.0000013744	0.0000132110	
Z	0.0000009020	0.0000030099	0.0000023542



Occupations

	From	To
Point ID:	GCP-8	GCP-2
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521030629.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-4 (9:05:58 AM-9:26:16 AM) (S7)

Baseline observation:	GCP-8 --- GCP-4 (B7)
Processed:	5/27/2023 10:07:42 PM
Solution type:	Fixed
Frequency used:	Dual Frequency
Horizontal precision:	0.0025 m
Vertical precision:	0.0037 m
RMS:	0.0118 m
Maximum PDOP:	1.201
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	5/21/2023 9:06:02 AM (Local: UTC+5hr)
Processing stop time:	5/21/2023 9:26:12 AM (Local: UTC+5hr)
Processing duration:	00:20:10
Processing interval:	10 seconds
Processing mode:	Uncombined Mode

Vector Components (Mark to Mark)

From:		GCP-8			
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To:		GCP-4			
Grid		Local		Global	
Easting	396855.859 m	Latitude	N16°49'36.20497"	Latitude	N16°49'36.20497"
Northing	1860638.759 m	Longitude	E80°01'54.90401"	Longitude	E80°01'54.90401"
Elevation	76.242 m	Height	-4.586 m	Height	-4.586 m

Vector					
Δ Easting	1152.0369 m	NS Fwd Azimuth	58°21'54.4"	Δ X	-1166.5504 m
Δ Northing	701.8704 m	Ellipsoid Dist.	1349.3640 m	Δ Y	-0.2575 m
Δ Elevation	2.596 m	Δ Height	2.6531 m	Δ Z	678.1939 m

Standard Errors

Vector errors:					
σ Δ Easting	0.0017 m	σ NS fwd Azimuth	0°00'00.2"	σ Δ X	0.0016 m
σ Δ Northing	0.0012 m	σ Ellipsoid Dist.	0.0014 m	σ Δ Y	0.0036 m
σ Δ Elevation	0.0037 m	σ Δ Height	0.0037 m	σ Δ Z	0.0015 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000026446		
Y	0.0000003645	0.0000130420	
Z	0.0000006392	0.0000028614	0.0000021347



Occupations

	From	To
Point ID:	GCP-8	GCP-4
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover1_raw_20230521033557.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No
GIS processing type:	Automatic Carrier and Code Processing

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

GCP-8 - GCP-1 (9:05:56 AM-9:26:17 AM) (S10)

Baseline observation: [GCP-8 --- GCP-1 \(B10\)](#)
Processed: 5/27/2023 10:07:42 PM
Solution type: Fixed
Frequency used: Dual Frequency
Horizontal precision: 0.0034 m
Vertical precision: 0.0050 m
RMS: 0.0128 m
Maximum PDOP: 1.305
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 5/21/2023 9:06:02 AM (Local: UTC+5hr)
Processing stop time: 5/21/2023 9:26:12 AM (Local: UTC+5hr)
Processing duration: 00:20:10
Processing interval: 10 seconds
Processing mode: Uncombined Mode

Vector Components (Mark to Mark)

From: GCP-8					
Grid		Local		Global	
Easting	395703.822 m	Latitude	N16°49'13.18301"	Latitude	N16°49'13.18301"
Northing	1859936.889 m	Longitude	E80°01'16.09966"	Longitude	E80°01'16.09966"
Elevation	73.646 m	Height	-7.239 m	Height	-7.239 m

To: GCP-1					
Grid		Local		Global	
Easting	397288.553 m	Latitude	N16°49'38.31166"	Latitude	N16°49'38.31166"
Northing	1860701.392 m	Longitude	E80°02'09.51233"	Longitude	E80°02'09.51233"
Elevation	74.300 m	Height	-6.515 m	Height	-6.515 m

Vector					
ΔEasting	1584.7313 m	NS Fwd Azimuth	63°57'47.3"	ΔX	-1596.0877 m
ΔNorthing	764.5034 m	Ellipsoid Dist.	1759.9704 m	ΔY	54.3100 m
ΔElevation	0.654 m	ΔHeight	0.7243 m	ΔZ	739.6243 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.0024 m	σ NS fwd Azimuth	0°00'00.2"	$\sigma \Delta$ X	0.0024 m
$\sigma \Delta$ Northing	0.0015 m	σ Ellipsoid Dist.	0.0021 m	$\sigma \Delta$ Y	0.0049 m
$\sigma \Delta$ Elevation	0.0050 m	$\sigma \Delta$ Height	0.0050 m	$\sigma \Delta$ Z	0.0019 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000057275		
Y	0.0000015725	0.0000235265	
Z	0.0000014159	0.0000053141	0.0000036577



Occupations

	From	To
Point ID:	GCP-8	GCP-1
Data file:	C:\Users\hp\Desktop\Juwari\ML-2\BaseStation_raw_20230521015454.23O	C:\Users\hp\Desktop\Juwari\ML-2\Rover2_raw_20230521033555.23O
Receiver type:	Unknown	Unknown
Receiver serial number:		
Antenna type:	Reach RS2	Reach RS2
Antenna serial number:	-----	-----
Antenna height (measured):	1.7900 m	1.9500 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Processing style

Elevation mask:	5°00'00.0"
Auto start processing:	Yes
Start automatic ID numbering:	AUTO0001
Continuous vectors:	No
Antenna model:	Automatic
Ephemeris type:	Automatic
Frequency:	All Frequencies
Processing Interval:	Automatic
Force float:	No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.0250 m + 1.000 ppm	0.0500 m + 1.000 ppm
Vertical Precision >	0.0500 m + 1.000 ppm	0.1000 m + 1.000 ppm

5/28/2023 3:22:17 AM	C:\Users\hp\Desktop\Juwari\ML-2.vce	Survey Office
----------------------	-------------------------------------	---------------