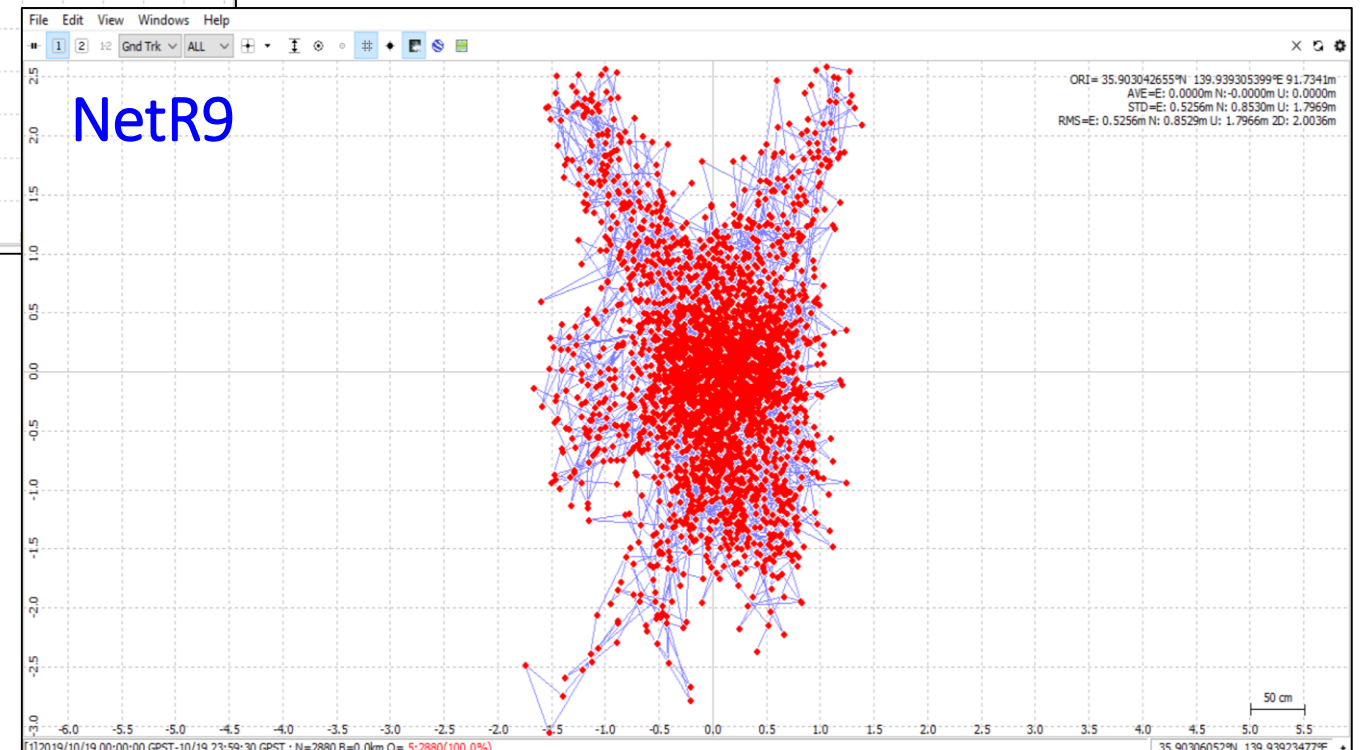
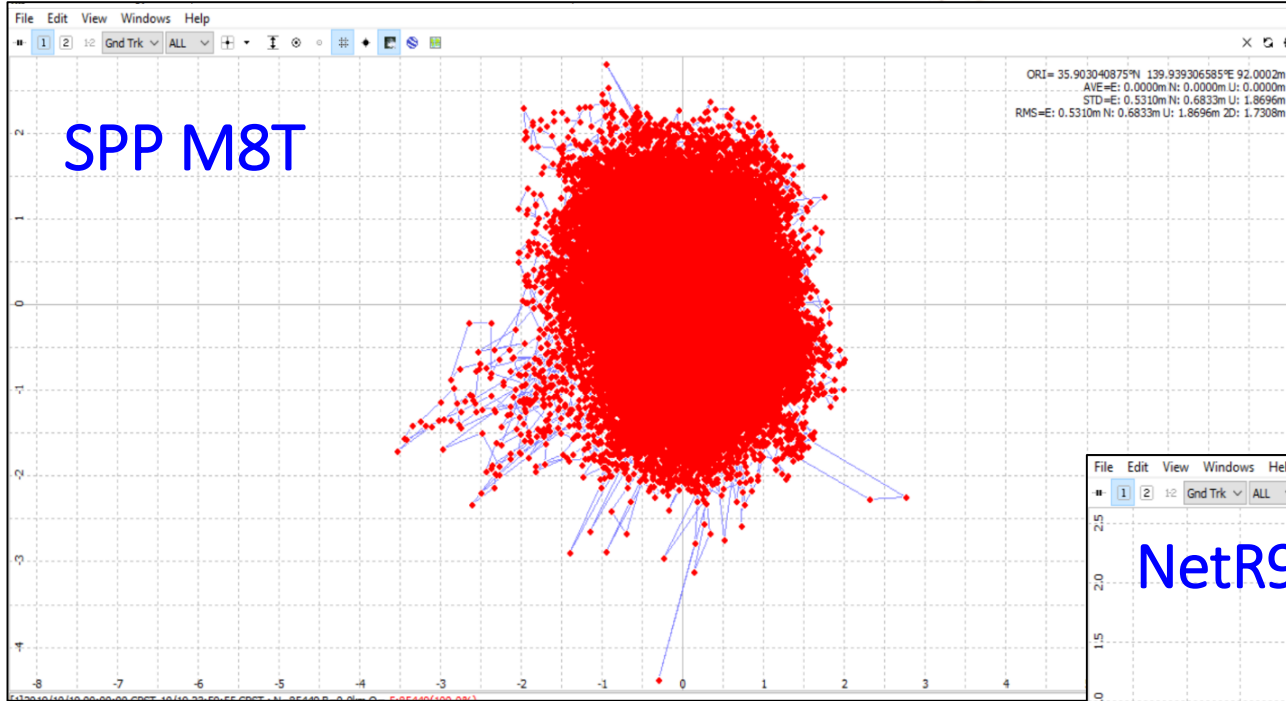


GNSS PROCESSING BY USING RTKLIB

GNSS Training, Team No: 03		
Team Members' Name	Affiliation	E-mail
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Eranga Liyanathkoralala	Srilanka	gisehl@yahoo.com

- **Receivers**
 - M8T (Single Frequency Receiver)
 - F9P (Dual Frequency Receiver)
-
- **Software**
 - RTKLIB 2.4.3 b33
 - RtkDroid





Error calculation of data in M8T receiver

M8T.csv - Excel (Product Activation Failed)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
85431	10/19/201	59:36.0	-3958756	3328944	3719537	5	12	6.5198	2.908	5.8249	-3.0111	2.8003	-5.5409	0	0	0.6224	-0.0895	-0.1384	
85432	10/19/201	59:37.0	-3958756	3328944	3719536	5	12	6.5208	2.9078	5.826	-3.011	2.8005	-5.542	0	0	1.2522	-0.0064	-1.0719	
85433	10/19/201	59:38.0	-3958756	3328944	3719536	5	12	6.5218	2.9077	5.8271	-3.0109	2.8006	-5.543	0	0	1.1516	-0.0694	-0.9487	
85434	10/19/201	59:39.0	-3958756	3328944	3719536	5	12	6.5228	2.9075	5.8282	-3.0108	2.8008	-5.5441	0	0	1.1884	-0.3053	-1.0045	
85435	10/19/201	59:40.0	-3958756	3328944	3719536	5	12	6.5238	2.9073	5.8293	-3.0107	2.801	-5.5451	0	0	1.2972	-0.4177	-1.0677	
85436	10/19/201	59:41.0	-3958755	3328943	3719536	5	12	6.5249	2.9072	5.8304	-3.0106	2.8012	-5.5461	0	0	1.6521	-0.6791	-1.5626	
85437	10/19/201	59:42.0	-3958756	3328944	3719536	5	12	6.5259	2.907	5.8316	-3.0105	2.8013	-5.5472	0	0	1.3902	-0.5925	-1.2918	
85438	10/19/201	59:43.0	-3958755	3328943	3719536	5	12	6.5269	2.9069	5.8327	-3.0103	2.8015	-5.5482	0	0	2.1384	-0.8311	-1.8532	
85439	10/19/201	59:44.0	-3958754	3328943	3719535	5	12	6.5279	2.9067	5.8338	-3.0102	2.8017	-5.5492	0	0	2.5699	-0.6813	-2.0162	
85440	10/19/201	59:45.0	-3958755	3328943	3719536	5	12	6.5289	2.9066	5.8349	-3.0101	2.8018	-5.5503	0	0	2.2405	-0.6301	-1.7035	
85441	10/19/201	59:46.0	-3958755	3328943	3719536	5	12	6.53	2.9064	5.836	-3.01	2.802	-5.5513	0	0	2.1145	-0.7133	-1.4294	
85442	10/19/201	59:47.0	-3958755	3328944	3719536	5	12	6.531	2.9063	5.8372	-3.0099	2.8022	-5.5523	0	0	1.6732	-0.4989	-1.0125	
85443	10/19/201	59:48.0	-3958755	3328944	3719536	5	12	6.532	2.9061	5.8383	-3.0098	2.8024	-5.5534	0	0	1.9667	-0.5043	-1.3939	
85444	10/19/201	59:49.0	-3958754	3328944	3719535	5	12	6.533	2.906	5.8394	-3.0097	2.8025	-5.5544	0	0	3.01	-0.5982	-2.0549	
85445	10/19/201	59:50.0	-3958754	3328944	3719536	5	12	6.5341	2.9058	5.8405	-3.0096	2.8027	-5.5555	0	0	2.6392	-0.5578	-1.5649	
85446	10/19/201	59:51.0	-3958754	3328944	3719536	5	12	6.5351	2.9057	5.8416	-3.0095	2.8029	-5.5565	0	0	2.7609	-0.4873	-1.6858	
85447	10/19/201	59:52.0	-3958755	3328944	3719536	5	12	6.5361	2.9055	5.8427	-3.0094	2.8031	-5.5575	0	0	2.5372	-0.2208	-1.5116	
85448	10/19/201	59:53.0	-3958755	3328944	3719536	5	12	6.5371	2.9054	5.8439	-3.0093	2.8032	-5.5586	0	0	2.5143	-0.2094	-1.3238	
85449	10/19/201	59:54.0	-3958755	3328944	3719537	5	12	6.5382	2.9052	5.845	-3.0092	2.8034	-5.5596	0	0	1.5952	-0.2671	-0.6051	
85450	10/19/201	59:55.0	-3958755	3328944	3719536	5	12	6.5392	2.9051	5.8461	-3.0091	2.8036	-5.5606	0	0	2.4295	-0.3293	-1.393	
85451																0.892	-0.8	-0.84	
85452																			
85453																			

Error calculation in data for NetR9

NETR9 RTK.csv - Excel (Product Activation Failed)

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

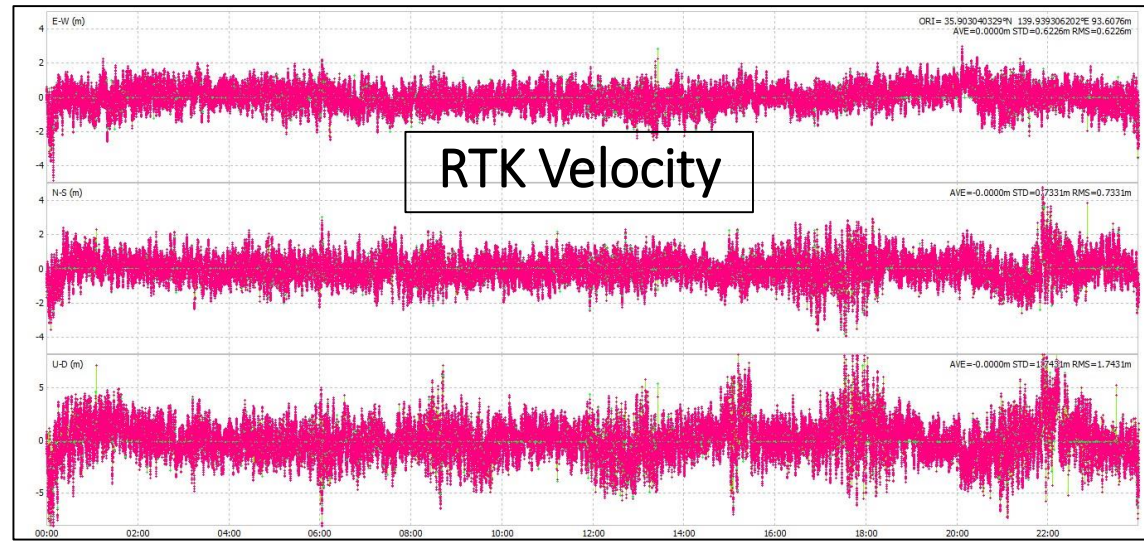
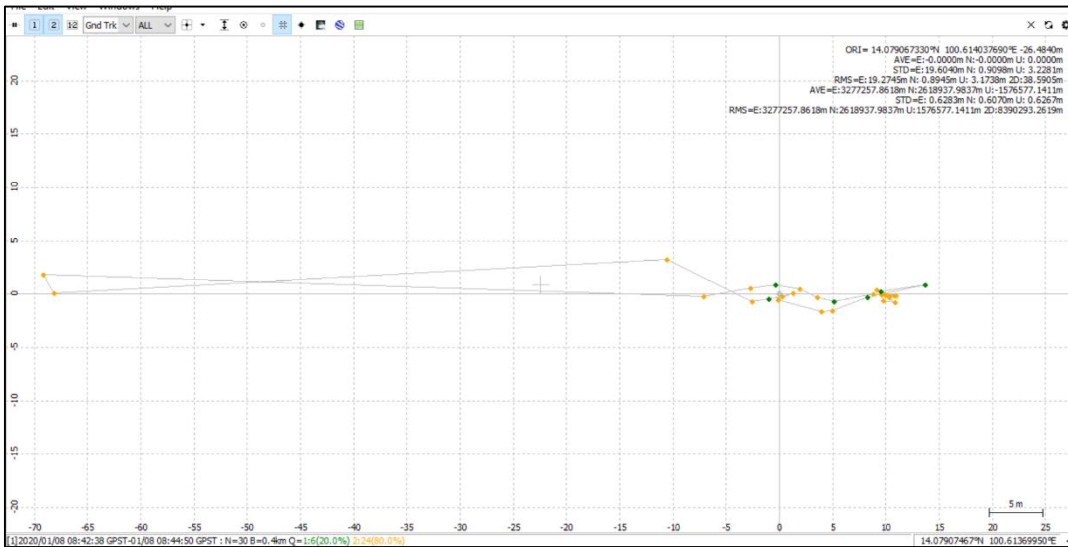
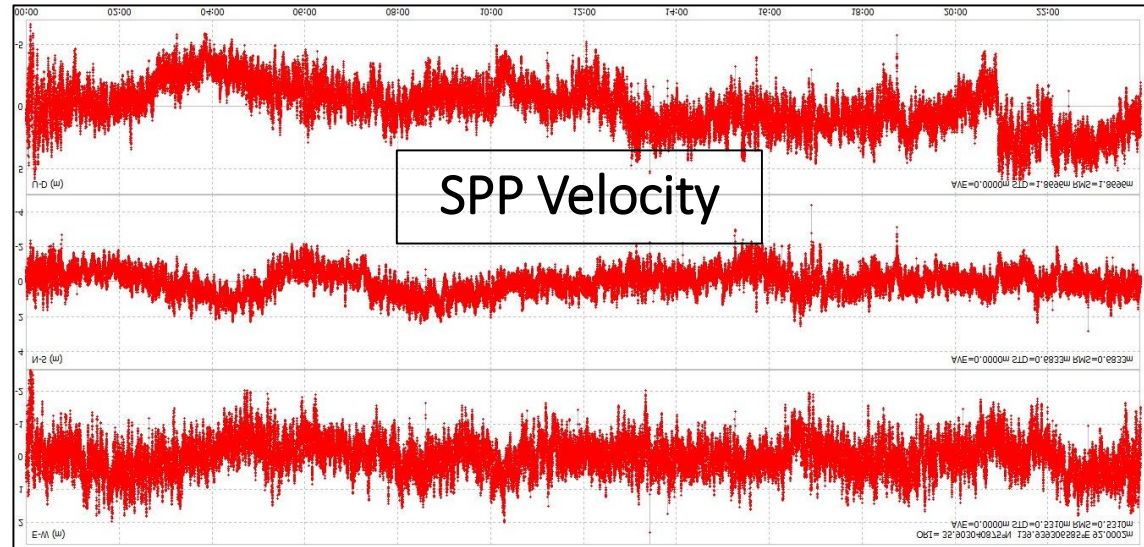
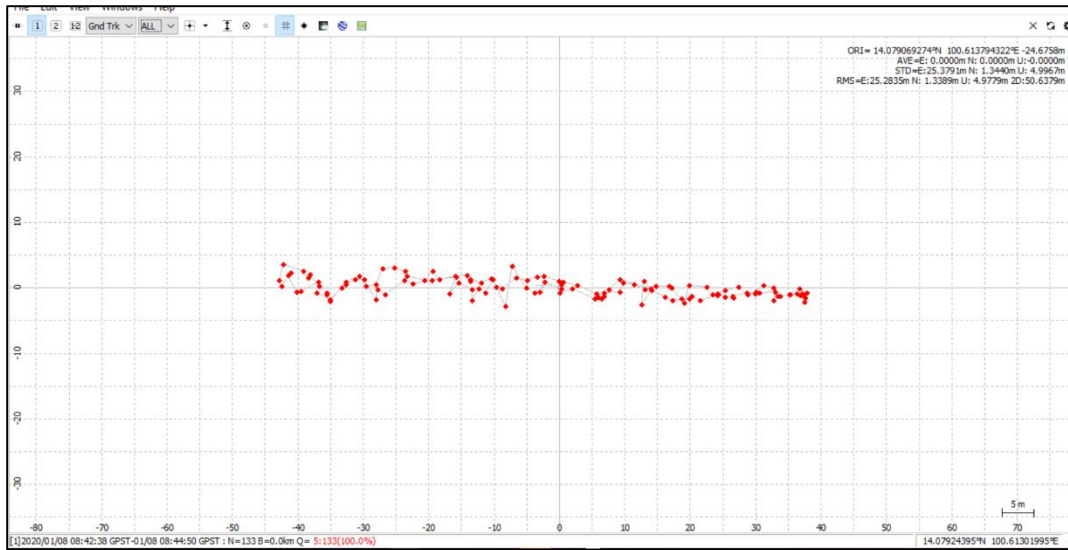
Clipboard Font Alignment Number Styles Cells Editing

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
2864	50:30.0	-3958757	3328943	3719538	5	7	5.13	3.678	3.9992	-3.321	2.5287	-3.5797	0	0	0.0309	-0.637	0.3419		
2865	51:00.0	-3958757	3328944	3719538	5	7	5.1209	3.6626	4.0018	-3.2969	2.5159	-3.5706	0	0	0.0611	-0.3431	0.4601		
2866	51:30.0	-3958757	3328944	3719537	5	7	5.1123	3.6475	4.0045	-3.2732	2.5033	-3.5618	0	0	-0.4056	-0.2653	0.0132		
2867	52:00.0	-3958757	3328944	3719538	5	7	5.1041	3.6328	4.0074	-3.2497	2.491	-3.5531	0	0	0.0782	-0.3899	0.2199		
2868	52:30.0	-3958757	3328944	3719538	5	7	5.0964	3.6185	4.0105	-3.2265	2.479	-3.5448	0	0	0.2325	-0.2219	0.3735		
2869	53:00.0	-3958757	3328943	3719538	5	7	5.0891	3.6045	4.0138	-3.2036	2.4673	-3.5367	0	0	0.1083	-0.9759	0.533		
2870	53:30.0	-3958756	3328943	3719538	5	7	5.0823	3.5908	4.0172	-3.181	2.4559	-3.5288	0	0	0.5465	-1.1793	0.1198		
2871	54:00.0	-3958757	3328944	3719538	5	7	5.076	3.5774	4.0207	-3.1586	2.4448	-3.5212	0	0	-0.0732	-0.0996	0.8259		
2872	54:30.0	-3958758	3328944	3719539	5	7	5.0701	3.5643	4.0244	-3.1365	2.4339	-3.5139	0	0	-0.4868	-0.3403	1.2314		
2873	55:00.0	-3958758	3328943	3719538	5	8	3.1677	3.4239	3.5772	-2.4437	2.0309	-2.2313	0	0	-0.7461	-0.6205	0.6903		
2874	55:30.0	-3958758	3328944	3719538	5	8	3.1668	3.4167	3.5884	-2.4342	2.0312	-2.2343	0	0	-0.813	-0.4723	0.8523		
2875	56:00.0	-3958758	3328944	3719538	5	8	3.166	3.4097	3.5995	-2.4249	2.0315	-2.2373	0	0	-0.4556	-0.3645	0.7734		
2876	56:30.0	-3958757	3328943	3719538	5	8	3.1654	3.4029	3.6107	-2.4156	2.0319	-2.2405	0	0	0.1021	-0.9756	0.5596		
2877	57:00.0	-3958757	3328943	3719538	5	8	3.1649	3.3961	3.6219	-2.4065	2.0325	-2.2438	0	0	0.3185	-0.8774	0.4656		
2878	57:30.0	-3958758	3328944	3719539	5	7	3.4251	3.3901	5.6238	-2.4145	2.0977	-3.2673	0	0	-0.7131	-0.5405	1.4241		
2879	58:00.0	-3958757	3328943	3719538	5	7	3.4354	3.3841	5.6721	-2.4117	2.1203	-3.2984	0	0	0.3915	-1.0606	0.1923		
2880	58:30.0	-3958757	3328943	3719539	5	7	3.446	3.3784	5.7207	-2.4093	2.1432	-3.3298	0	0	-0.3234	-0.8547	1.2291		
2881	59:00.0	-3958757	3328943	3719538	5	7	3.4571	3.373	5.7697	-2.4073	2.1666	-3.3616	0	0	0.1875	-1.1066	1.0587		
2882	59:30.0	-3958757	3328943	3719539	5	7	3.4684	3.3678	5.819	-2.4056	2.1904	-3.3937	0	0	-0.4012	-0.8044	1.21		
2883															1.215	-0.93	-0.83		
2884																			
2885																			
2886																			

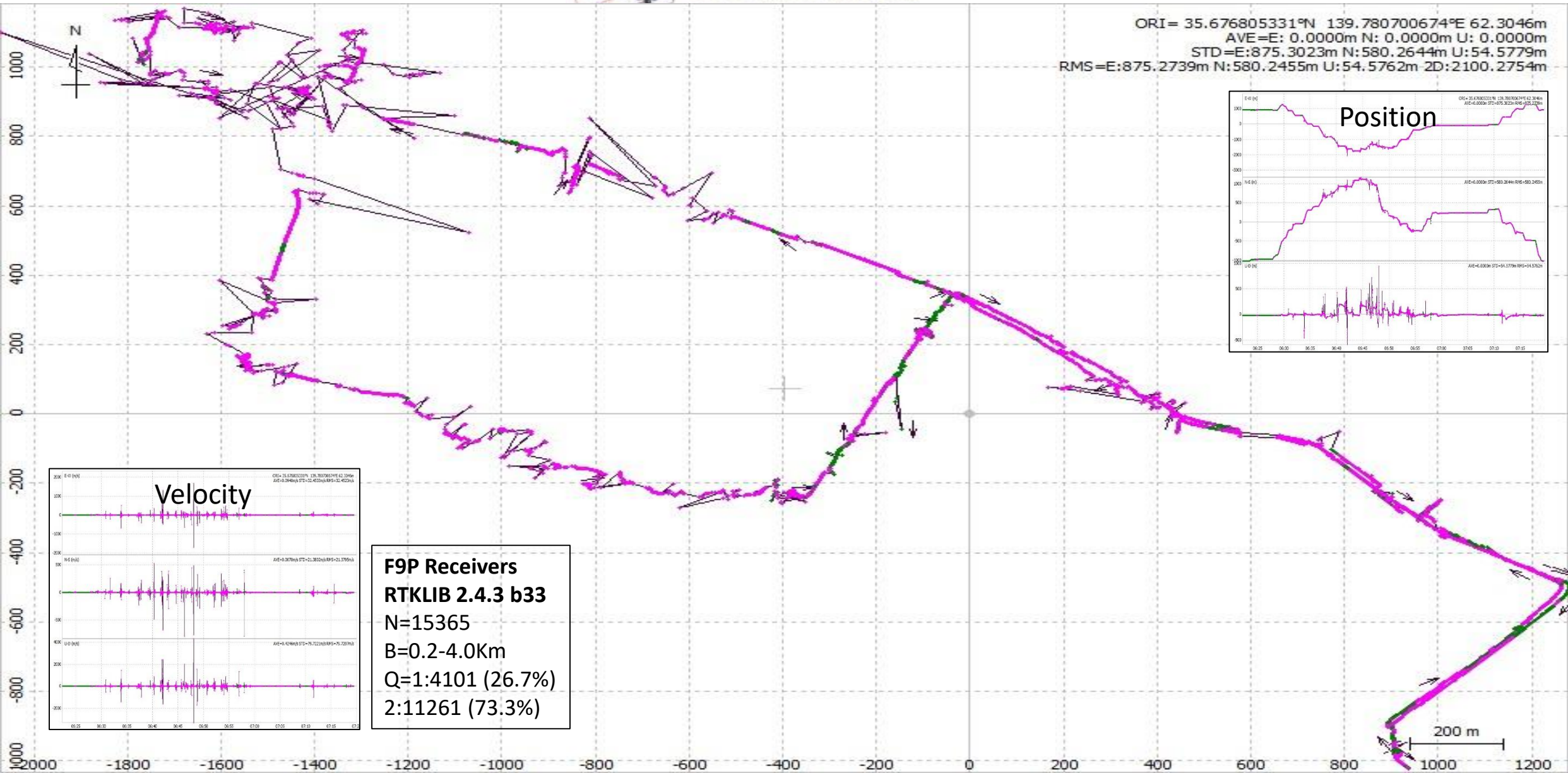
NETR9 RTK

READY

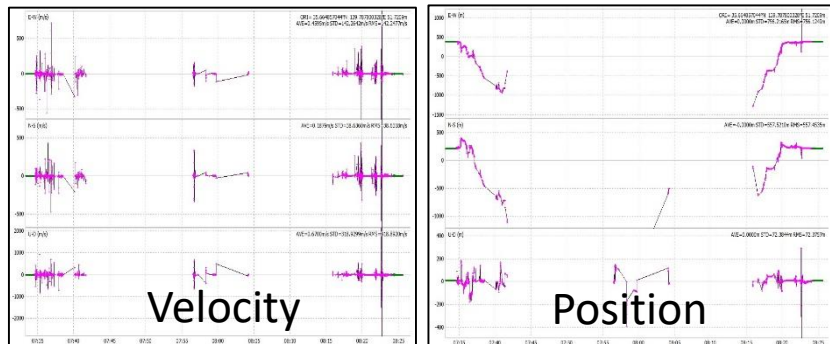
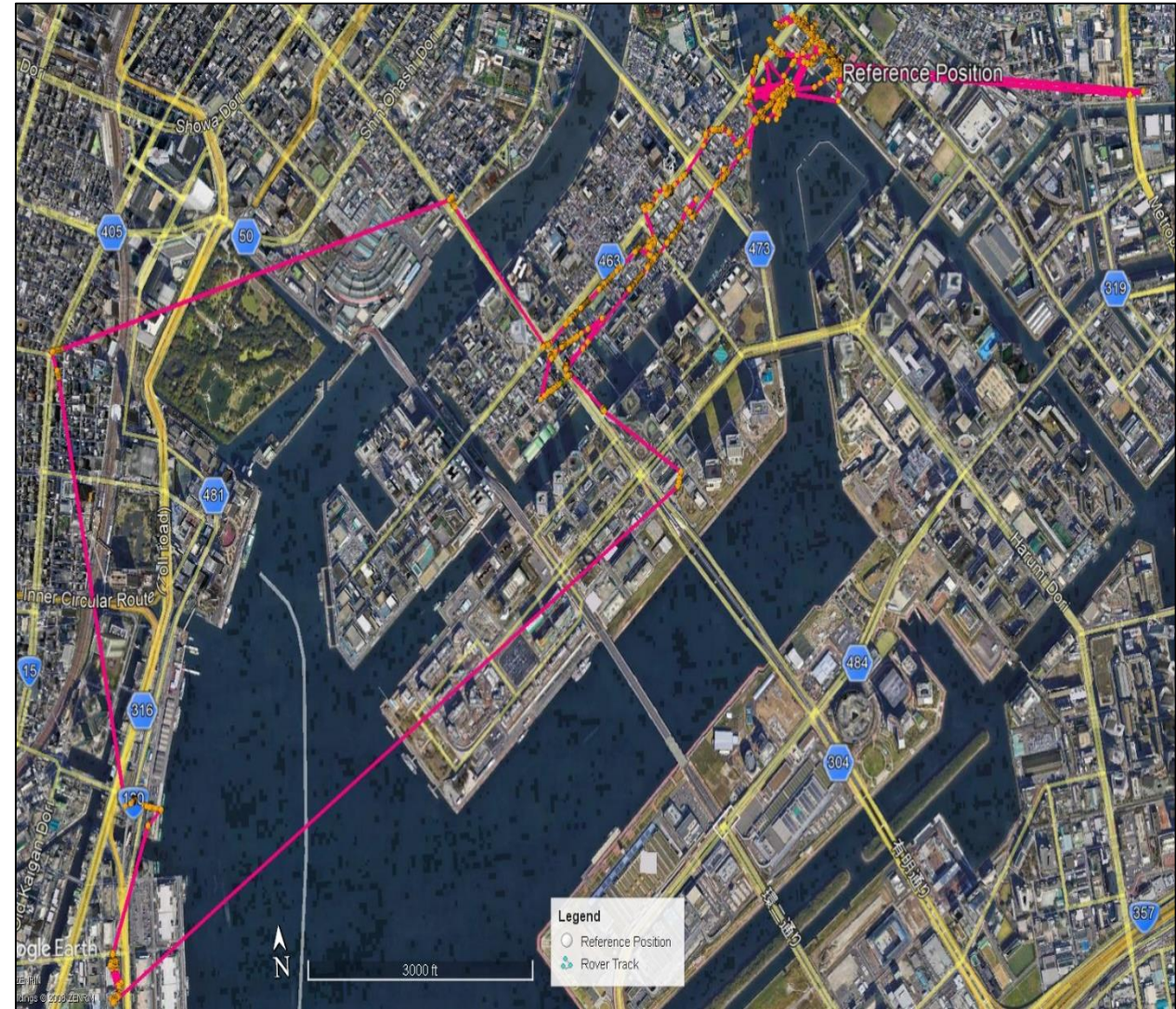
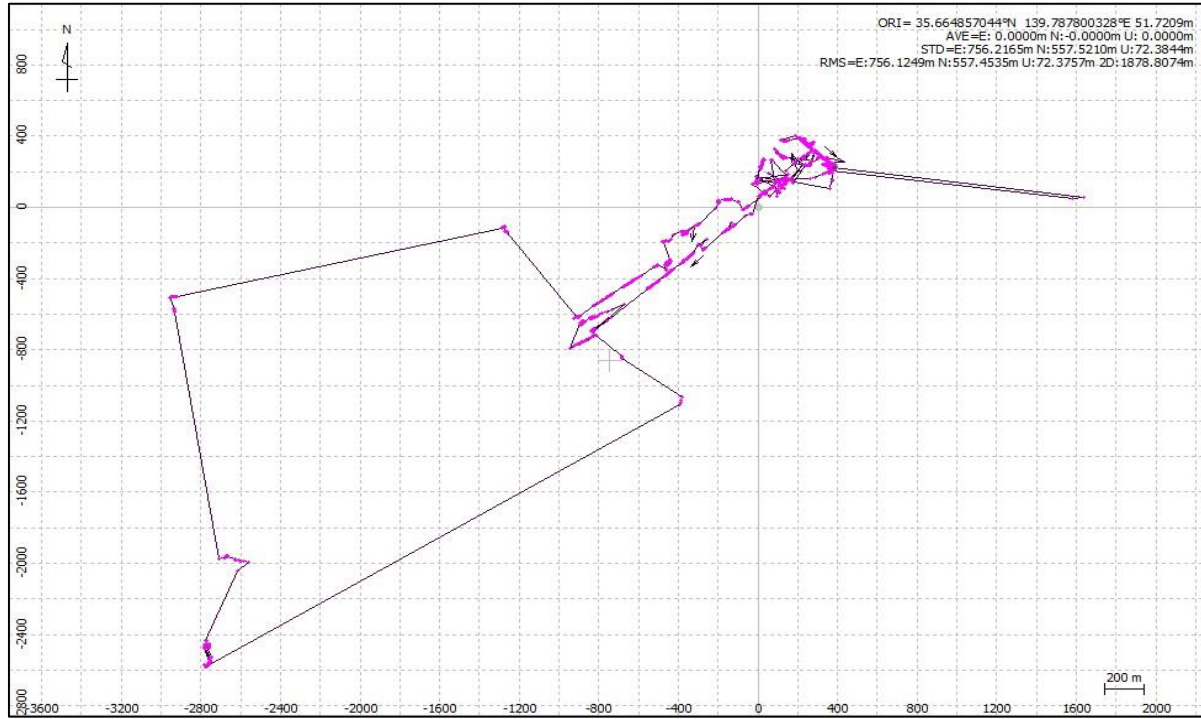
Address 1:40 PM 10/01/2020



ORI = 35.676805331°N 139.780700674°E 62.3046m
 AVE = E: 0.0000m N: 0.0000m U: 0.0000m
 STD = E: 875.3023m N: 580.2644m U: 54.5779m
 RMS = E: 875.2739m N: 580.2455m U: 54.5762m 2D: 2100.2754m



F9P Receivers
RTKLIB 2.4.3 b33
 N=15365
 B=0.2-4.0Km
 Q=1:4101 (26.7%)
 2:11261 (73.3%)



M8T Receivers
RTKLIB 2.4.3 b33

N=4132
 B=0.0-4.2Km
 Q=1:1231 (29.8%)
 2:2901 (70.2%)


RtkDroid
ABOUT


Date: Jan 10, 2020
 Time: 03:30:09
 Latitude: 14.07865536°
 Longitude: 100.61448251°
 X: 47N 674310.236m E
 Y: 47N 1557022.740m N
 Ellipsoidal Height: 194.439m
 Orthometric Height: 225.754m
 Fix Type: Float RTK
 Speed: 67.36 km/hr
 HDOP: 0.9
 VDOP: 2.1
 PDOP: 2.3
 Satellites in View: 22
 Satellites in Use: 20
 Latitude Error: 0.089m
 Longitude Error: 0.143m
 Altitude Error: 0.064m


By using android cell phones

NMEA: 2020_01_10_10_24_42.txt(230KB)
 UBX: 2020_01_10_10_24_42.ubx(761KB)

STOP RECORDING

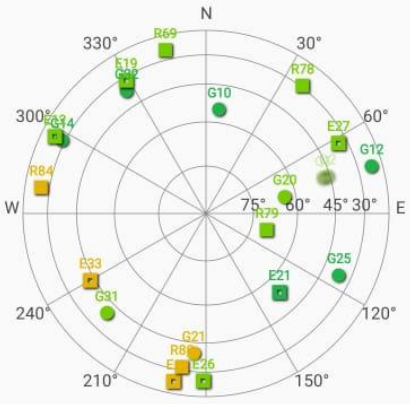


Setup



Status



Skyplot


RtkDroid
ABOUT

UTC Time: 03:30:03
 Latitude: 14.07862442° N
 Longitude: 100.61453469° E
 Ellipsoidal Height: 200.636m
 Orthometric Height: 231.950m
 Speed: 82.78 km/hr
 Fix type: Float RTK
 Satellites in view: 22
 Satellites in use: 20
 PDOP: 2.3
 HDOP: 0.9
 VDOP: 2.1


Setup


Status


Skyplot

