

Appendix B: Statistics for the orbit solutions

GPS broadcast ephemeris accuracy statistics

Day 331
Overall R.M.S. = 4.94 metres

x				y				z				3D			
PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.
1	-1.795	2.211	1.213	1	-2.357	2.770	1.439	1	-4.092	1.697	2.144	1	0.986	4.411	2.853
2	-15.57	4.871	5.398	2	-15.79	22.63	10.88	2	-13.42	15.59	7.959	2	3.382	23.15	14.52
3	-1.360	1.741	0.891	3	-2.381	2.217	1.390	3	-0.035	2.179	1.178	3	0.656	3.002	2.028
4	-3.555	2.367	1.455	4	-3.548	5.652	2.250	4	-7.394	3.505	2.761	4	0.780	7.549	3.848
5	-2.396	4.127	1.546	5	-6.263	4.154	3.109	5	-1.220	3.539	1.713	5	1.021	7.197	3.872
6	-5.549	5.834	2.431	6	-8.427	6.766	5.020	6	-2.902	10.47	5.193	6	1.776	11.82	7.621
7	-5.540	4.883	3.193	7	-7.181	5.350	3.656	7	-3.067	6.056	2.420	7	2.349	8.942	5.424
8	-1.711	1.514	0.978	8	-2.529	1.691	1.060	8	-2.821	1.619	1.476	8	1.052	3.334	2.063
9	-2.387	3.960	1.697	9	-5.676	3.075	2.910	9	-3.971	2.527	1.753	9	1.456	6.321	3.797
10	-4.764	2.120	2.027	10	-2.781	3.508	1.702	10	-5.866	6.126	2.521	10	1.295	6.684	3.655
11				11				11				11			
12				12				12				12			
13	-2.037	2.054	1.085	13	-3.129	1.767	1.343	13	-2.562	3.064	1.708	13	1.050	3.638	2.429
14	-8.211	6.580	4.280	14	-4.992	3.755	2.673	14	-5.842	3.290	3.011	14	3.005	8.574	5.876
15	-3.202	3.588	2.292	15	-2.105	2.211	1.274	15	-2.797	0.956	0.907	15	1.098	3.762	2.775
16	-13.65	10.11	6.420	16	-11.16	1.174	2.766	16	-5.520	11.72	4.848	16	0.617	15.59	8.507
17	-3.927	5.847	2.543	17	-2.833	2.112	1.255	17	-4.731	3.633	2.619	17	0.570	6.268	3.860
18	-4.594	2.656	2.017	18	-6.191	4.291	2.703	18	-2.487	3.250	1.640	18	0.912	6.261	3.750
19	-2.776	2.979	1.681	19	-3.521	3.346	2.020	19	-2.574	3.696	1.596	19	0.864	4.451	3.075
20				20				20				20			
21	-1.175	2.205	0.626	21	-2.393	2.860	1.729	21	-2.403	1.485	0.939	21	0.347	3.283	2.064
22	-2.524	3.202	1.595	22	-3.422	3.748	2.253	22	-2.327	3.129	1.570	22	1.514	4.360	3.175
23	-4.669	2.183	1.788	23	-3.406	4.116	1.885	23	-7.903	1.769	2.576	23	0.231	9.259	3.659
24	-2.664	6.455	2.520	24	-3.076	4.980	1.646	24	-4.893	7.418	3.498	24	1.435	7.872	4.615
25	-3.645	4.595	2.073	25	-4.651	3.162	2.044	25	-4.184	2.940	1.909	25	0.496	5.152	3.482
26	-1.340	1.798	0.900	26	-2.181	1.433	0.912	26	-2.648	2.076	1.571	26	0.800	3.006	2.027
27	-4.477	6.749	3.366	27	-3.525	2.597	1.730	27	-4.808	3.462	2.802	27	1.449	7.571	4.709
28				28				28				28			
29	-4.318	1.686	1.790	29	-6.707	3.453	2.762	29	-4.868	3.993	2.319	29	0.715	6.959	4.026
30	-2.644	3.404	1.394	30	-2.944	1.942	1.260	30	-2.646	2.957	1.565	30	0.563	3.619	2.446
31	-4.442	2.719	2.292	31	-3.456	4.341	2.686	31	-3.031	5.423	2.525	31	1.282	6.742	4.341
32				32				32				32			

WAAS-corrected GPS broadcast ephemeris accuracy statistics

Day 331
Overall R.M.S. = 4.01 metres

x				y				z				3D			
PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.
1	-7.650	2.343	2.370	1	-1.079	6.237	1.927	1	-3.487	4.603	1.979	1	0.239	10.64	3.640
2	-5.291	-0.073	1.975	2	-1.054	2.384	1.283	2	-3.166	0.275	1.324	2	0.618	6.258	2.702
3	-6.934	1.207	2.149	3	-7.050	1.821	1.510	3	-5.603	2.397	2.237	3	1.120	8.542	3.450
4	-12.68	10.84	4.668	4	-11.36	3.650	4.142	4	-7.663	5.347	3.896	4	1.816	17.03	7.356
5	-1.973	1.678	0.919	5	-11.31	3.153	2.637	5	-4.153	5.469	1.882	5	1.207	12.59	3.367
6	-1.558	4.455	1.698	6	-2.928	2.403	1.542	6	-4.403	2.895	2.307	6	1.310	5.372	3.253
7	-4.763	3.678	1.775	7	-6.772	1.729	2.342	7	-5.013	7.754	2.531	7	0.379	9.940	3.878
8	-1.308	1.079	0.659	8	-2.946	3.278	1.762	8	-3.903	1.569	1.614	8	1.215	4.993	2.479
9	-0.783	2.429	0.976	9	-0.621	2.981	1.663	9	-2.962	3.184	1.538	9	0.697	3.789	2.466
10	-6.796	3.301	1.909	10	-6.106	2.308	1.579	10	-3.748	0.572	1.918	10	0.751	9.154	3.133
11				11				11				11			
12				12				12				12			
13	-1.687	2.020	1.128	13	-1.680	1.511	0.734	13	-3.166	1.179	1.836	13	0.373	3.606	2.276
14	-2.425	2.226	1.234	14	-8.648	4.243	2.867	14	-3.146	10.87	2.321	14	1.633	14.10	3.890
15	-3.545	4.568	1.795	15	-15.55	5.746	4.725	15	-7.533	16.90	5.246	15	0.646	22.20	7.285
16	-3.868	1.668	1.247	16	-16.24	3.510	3.816	16	-4.533	15.87	3.970	16	0.849	22.90	5.646
17	-2.141	2.995	1.413	17	-3.905	5.939	2.056	17	-5.474	1.398	1.402	17	0.287	8.125	2.862
18	-1.829	2.414	1.139	18	-2.448	2.656	1.237	18	-3.089	1.633	1.401	18	0.946	3.353	2.188
19	-5.020	3.661	1.699	19	-1.052	4.352	1.449	19	-5.624	1.527	2.176	19	0.637	7.534	3.118
20				20				20				20			
21	-3.033	4.744	1.365	21	-2.997	2.676	1.384	21	-2.568	0.593	1.059	21	0.636	5.883	2.214
22	-7.327	2.413	2.659	22	-10.14	2.659	2.424	22	-4.772	-0.302	2.818	22	0.665	13.08	4.570
23	-7.466	1.032	1.678	23	-2.836	2.336	1.285	23	-4.644	1.911	1.869	23	0.343	7.786	2.822
24	-3.571	17.23	4.166	24	-3.217	3.430	1.851	24	-6.160	3.110	2.202	24	0.594	18.61	5.063
25	-7.907	7.942	2.938	25	-7.140	3.537	3.037	25	-6.705	3.196	3.423	25	0.234	11.60	5.438
26	-3.636	1.811	1.480	26	-6.332	2.778	2.145	26	-7.358	1.188	2.333	26	0.202	8.406	3.498
27	-3.928	2.117	1.316	27	-3.630	4.603	1.923	27	-3.981	3.954	1.880	27	0.262	7.021	2.993
28				28				28				28			
29	-18.99	2.408	4.038	29	-3.841	4.480	2.251	29	-3.909	6.558	2.234	29	0.505	20.13	5.135
30	-2.420	1.934	1.419	30	-4.273	3.249	1.672	30	-3.097	2.067	1.829	30	1.213	4.530	2.855
31	-8.905	2.708	2.140	31	-9.992	4.199	2.308	31	-11.23	1.208	2.592	31	0.789	14.35	4.077
32				32				32				32			

Appendix C: Statistics for the orbit solutions for the satellites as viewed from station 'tmgo'

GPS broadcast ephemeris accuracy statistics

Day 331
Overall R.M.S. = 4.73 metres

x				y				z				3D			
PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.
1	-1.795	1.914	1.390	1	0.450	2.651	1.339	1	-4.092	-1.415	2.396	1	1.579	4.411	3.077
2	-15.57	4.915	7.398	2	-6.438	22.13	12.16	2	-11.77	11.06	6.656	2	5.533	23.00	15.71
3	-0.989	1.372	0.833	3	-1.971	2.166	1.319	3	-0.035	2.141	1.079	3	0.656	2.561	1.898
4	-1.474	2.367	1.048	4	-3.548	4.201	2.545	4	-7.394	3.213	3.401	4	0.779	7.549	4.375
5	-1.479	4.127	1.750	5	-5.977	4.154	2.843	5	-0.930	3.213	1.488	5	1.021	7.075	3.656
6	-4.987	3.603	2.453	6	-3.425	6.766	3.457	6	1.697	8.812	5.994	6	4.195	10.74	7.341
7	-1.526	3.766	2.306	7	-1.103	4.905	2.422	7	-2.449	1.522	1.555	7	1.858	5.154	3.688
8	-1.322	1.514	0.883	8	-1.485	2.010	1.003	8	-2.821	1.660	1.728	8	1.052	3.334	2.184
9	-1.814	3.960	1.911	9	-5.676	3.075	3.268	9	-3.971	1.615	1.818	9	1.456	6.321	4.200
10	-3.354	2.120	1.384	10	-2.781	3.035	1.677	10	-4.965	1.223	1.889	10	0.905	6.132	2.881
11				11				11				11			
12				12				12				12			
13	-1.512	2.054	1.128	13	-3.070	2.185	1.238	13	-2.602	2.142	1.722	13	1.231	3.442	2.402
14	-7.141	6.580	3.820	14	-4.992	3.755	2.683	14	-5.842	0.674	3.520	14	3.514	8.427	5.847
15	-3.180	3.544	2.542	15	-2.053	1.775	1.184	15	-2.656	0.956	0.932	15	1.098	3.715	2.955
16	-3.829	8.337	2.952	16	-2.290	1.113	1.316	16	-5.520	-0.416	3.254	16	1.135	8.602	4.587
17	-3.927	1.358	2.268	17	-1.551	2.112	1.284	17	-3.456	3.459	2.407	17	1.459	4.629	3.548
18	-3.083	2.656	1.520	18	-6.191	4.234	2.536	18	-2.167	2.258	1.549	18	1.535	6.261	3.338
19	-2.744	2.979	1.692	19	-1.167	3.345	1.942	19	-2.399	1.358	1.203	19	1.399	4.313	2.843
20				20				20				20			
21	-1.175	0.425	0.505	21	-0.673	2.694	1.484	21	-2.403	-0.034	1.244	21	0.511	3.283	2.001
22	-2.127	3.202	1.857	22	-2.505	3.220	2.205	22	-2.169	3.129	1.729	22	2.005	4.360	3.361
23	-1.365	1.733	0.805	23	-1.774	4.116	1.822	23	-3.616	-0.510	2.636	23	0.954	4.617	3.304
24	-2.664	1.781	1.704	24	-1.534	1.200	0.918	24	-2.332	3.463	2.029	24	1.785	3.926	2.805
25	-0.902	4.595	2.568	25	-1.050	3.162	1.365	25	-4.184	1.837	2.186	25	1.387	5.152	3.638
26	-1.131	1.798	0.980	26	-2.236	1.433	1.017	26	-2.648	2.249	1.640	26	0.800	2.969	2.164
27	-4.451	6.749	4.065	27	-3.525	2.197	1.716	27	-4.459	2.255	2.258	27	1.449	7.571	4.956
28				28				28				28			
29	-0.122	1.686	0.976	29	-3.477	2.517	1.293	29	-2.862	3.992	2.247	29	0.723	5.243	2.771
30	-2.633	1.022	1.128	30	-2.548	1.673	0.809	30	-2.421	2.118	1.418	30	0.562	2.992	1.984
31	-4.740	1.977	2.135	31	-3.456	4.341	2.967	31	-3.030	5.423	3.039	31	1.283	6.742	4.753
32				32				32				32			

WAAS-corrected GPS broadcast ephemeris accuracy statistics

Day 331
Overall R.M.S. = 3.23 metres

x				y				z				3D			
PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.	PRN	min	max	r.m.s.
1	-1.004	1.143	0.812	1	-1.079	1.699	0.912	1	-3.487	0.875	1.994	1	1.322	3.623	2.338
2	-3.173	1.276	1.376	2	-0.646	2.384	1.350	2	-1.710	2.814	1.052	2	0.618	4.108	2.196
3	-5.179	1.129	1.590	3	-2.170	1.821	1.186	3	-6.638	1.741	2.569	3	1.120	8.588	3.246
4	-7.293	6.013	2.898	4	-8.437	2.741	3.087	4	-6.568	11.85	4.091	4	1.816	15.74	5.888
5	-1.973	1.678	0.981	5	-7.524	3.100	2.109	5	-3.188	2.109	1.487	5	1.413	7.744	2.761
6	-1.558	1.004	0.633	6	0.212	2.403	1.088	6	-4.077	2.681	1.961	6	1.310	4.982	2.331
7	-1.476	1.687	0.750	7	-3.038	1.275	0.981	7	-1.787	4.503	1.335	7	0.379	5.688	1.818
8	-1.308	0.828	0.615	8	-2.577	3.278	1.666	8	-2.758	1.569	1.378	8	1.136	3.779	2.248
9	-2.295	0.960	0.611	9	-3.799	2.981	1.871	9	-5.213	0.416	1.635	9	0.697	6.847	2.559
10	-2.996	3.301	1.723	10	-2.188	2.412	1.339	10	-3.748	0.361	2.032	10	0.751	4.181	2.982
11				11				11				11			
12				12				12				12			
13	-1.687	1.774	0.982	13	-1.680	1.429	0.651	13	-3.166	1.179	2.017	13	0.373	3.606	2.336
14	-2.134	2.226	1.275	14	-3.086	4.243	2.104	14	-3.146	1.586	1.581	14	1.633	4.405	2.924
15	-0.873	2.588	0.868	15	-0.297	5.566	2.067	15	-4.552	1.639	1.558	15	0.646	7.243	2.730
16	-1.194	1.517	0.809	16	-1.892	3.510	1.788	16	-3.771	2.170	1.873	16	0.849	4.722	2.713
17	-2.028	0.754	0.958	17	-1.137	5.939	1.891	17	-5.474	1.448	1.687	17	0.287	8.125	2.709
18	-1.829	2.414	1.209	18	-2.448	2.359	1.088	18	-3.089	1.633	1.499	18	0.946	3.353	2.212
19	-2.295	3.661	1.294	19	-0.899	4.353	1.798	19	-5.624	0.563	2.674	19	0.637	7.534	3.472
20				20				20				20			
21	-3.033	2.018	1.050	21	-0.564	4.583	1.406	21	-3.537	2.286	1.142	21	0.636	5.818	2.094
22	-5.985	2.413	2.310	22	-4.270	2.140	1.543	22	-4.772	-0.094	2.496	22	0.665	7.492	3.735
23	-3.003	2.601	1.456	23	-2.471	2.336	0.941	23	-4.644	6.324	2.172	23	0.343	7.271	2.779
24	-1.763	2.373	1.203	24	-3.341	2.414	1.415	24	-2.412	4.324	1.907	24	0.594	5.534	2.662
25	-1.163	11.38	3.408	25	-11.60	3.162	3.503	25	-3.819	15.69	5.386	25	0.234	22.41	7.273
26	-3.874	1.811	1.318	26	-1.815	2.778	1.428	26	-7.358	1.188	2.746	26	0.202	8.405	3.365
27	-1.413	0.558	0.664	27	-0.435	3.015	1.352	27	-3.673	1.526	1.965	27	0.356	4.785	2.476
28				28				28				28			
29	-1.084	2.408	0.853	29	-1.745	3.767	1.216	29	-3.910	2.078	1.751	29	0.505	4.601	2.296
30	-2.420	1.934	1.393	30	-1.432	3.249	1.651	30	-2.843	1.016	1.692	30	1.213	3.907	2.744
31	-8.905	2.708	2.640	31	-0.783	4.199	1.665	31	-11.23	1.208	3.128	31	1.106	14.35	4.419
32				32				32				32			