

# PRELIMINARY VALUES

November 20, 1996

Mr. Robert B. Sperry, P.E.  
WEBSTER COUNTY ENGINEER  
703 Central Avenue  
Fort Dodge, Iowa 50501

**RE: GPS RELATIVE POSITIONING DATA FOR WEBSTER COUNTY, IOWA**

Dear Mr. Sperry,

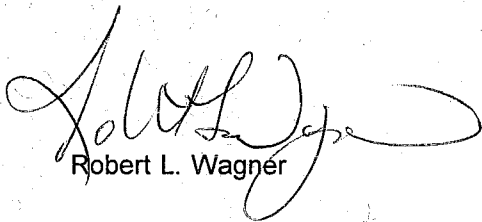
The purpose for this cover letter to be entitled "PRELIMINARY VALUES" is to make certain that users of the data clearly understand that these values will be readjusted upon the availability of the Iowa HARN.

Presently, as indicated within the pages of the "PROJECT REPORT" the following pages of values meet or exceed First-Order criteria horizontally.

Upon the HARN values being published and made available to our firm, a readjustment of both horizontal and vertical values will take place.

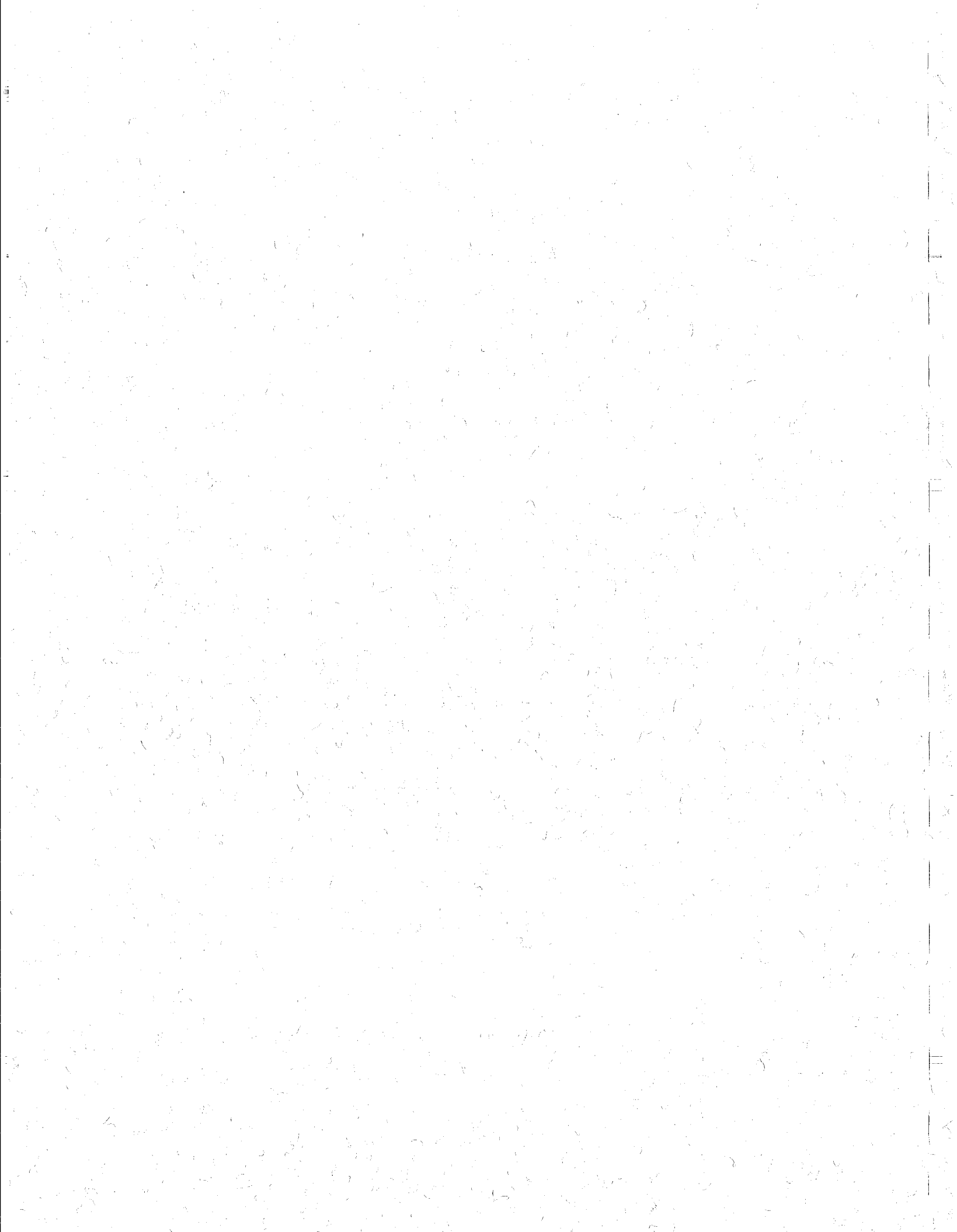
Yours very truly,

DENI ASSOCIATES, INC.



Robert L. Wagner

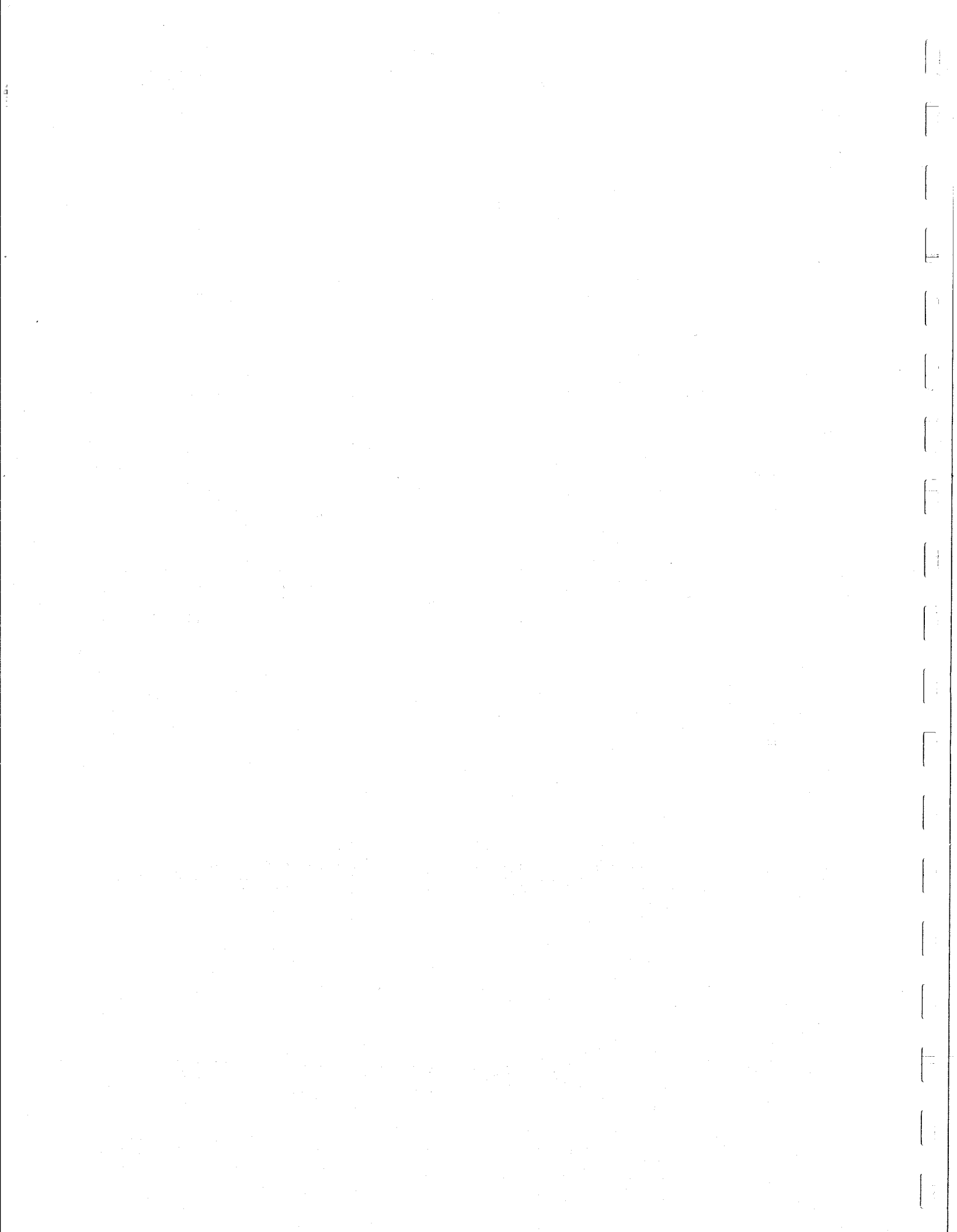
# PRELIMINARY VALUES



WEBSTER COUNTY, IOWA GPS PROJECT  
 HORIZONTAL DATUM: NAD83, IOWA NORTH ZONE (PRE-HARN)  
 VERTICAL DATUM: NAVD88 (GPS DERIVED, GEOID96, ELEVATIONS )

ADJUSTMENT DATE NOVEMBER 7, 1996

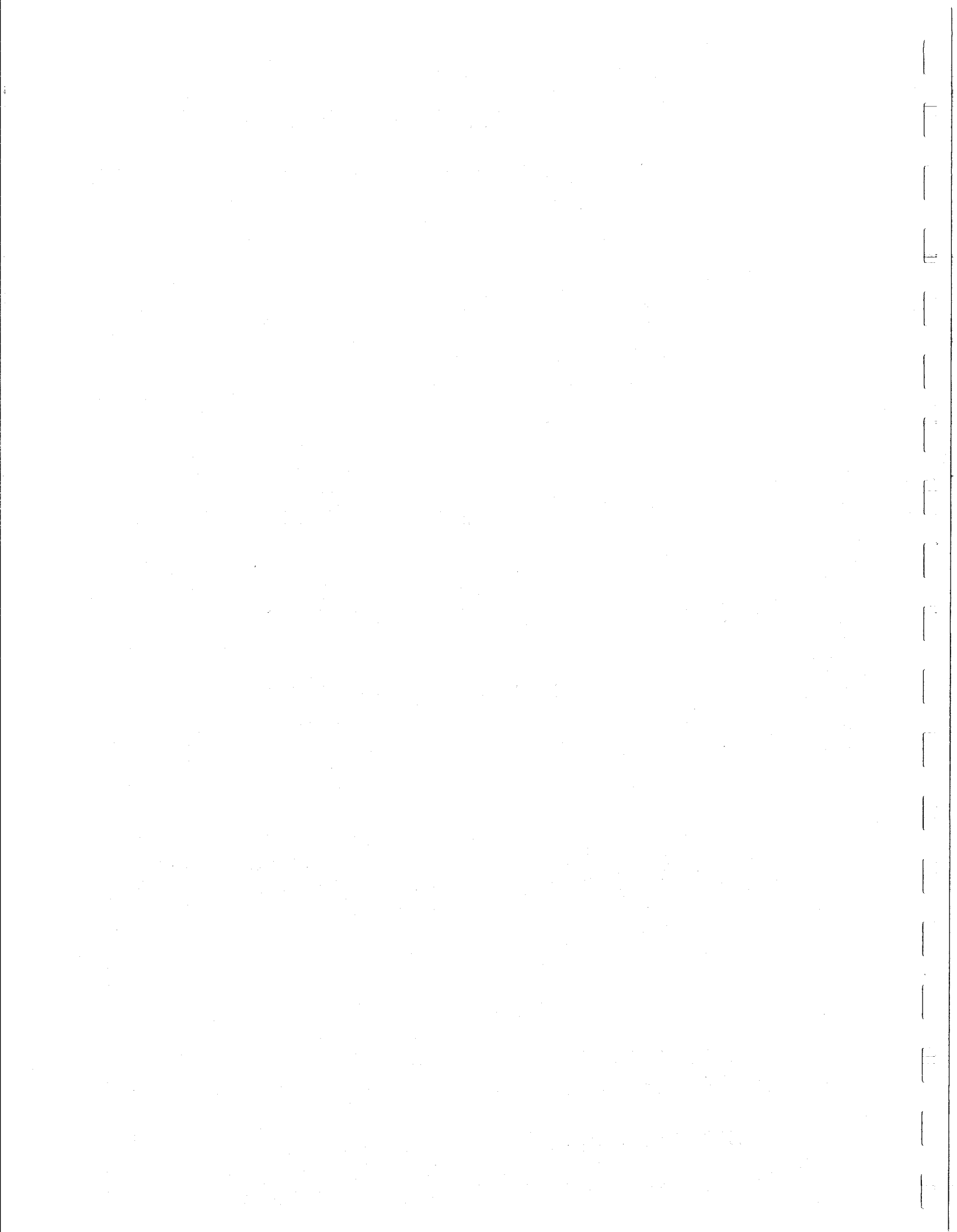
NUMBER	NAME	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT METERS	NORTHING METERS	EASTING METERS	ELEVATION METERS	CONVERGENCE D M S	SCALE FACTOR
6001	903006 4	N 42 38 42.21071	W 94 26 34.40413	340.540	1127620.172	1422680.590	369.479	- 0 38 20.53	0.99994544
6002	903019 4	N 42 36 1.90981	W 94 26 35.03934	337.642	1122674.496	1422610.946	366.555	- 0 38 20.96	0.99994605
6003	903031 3	N 42 33 32.20086	W 94 26 34.37485	322.897	1118055.319	1422574.574	361.769	- 0 38 20.51	0.99994716
6004	893003 4	N 42 33 30.88771	W 94 26 59.71364	320.765	1117961.920	1427470.372	349.559	- 0 35 55.03	0.99994717
6005	903015 3	N 42 36 7.41133	W 94 22 57.32495	330.898	1122790.651	1427575.276	359.758	- 0 35 53.41	0.99994602
6006	903004 1	N 42 38 42.40320	W 94 23 .99529	326.625	1127573.597	1427541.601	355.537	- 0 35 55.90	0.99994544
6007	902906 4	N 42 38 33.71396	W 94 19 28.69050	328.437	1127256.639	1432374.818	357.288	- 0 33 32.01	0.99994546
6008	903024 1	N 42 36 6.60112	W 94 19 30.00294	328.277	1122717.925	1432300.626	357.053	- 0 33 32.90	0.99994602
6009	902931 3	N 42 33 31.30437	W 94 19 29.95322	320.644	1117926.434	1432254.999	349.325	- 0 33 32.87	0.99994716
6010	902933 2	N 42 33 30.65256	W 94 15 58.07612	317.325	1117860.843	1437087.622	345.859	- 0 31 9.27	0.99994717
6011	902916 2	N 42 36 6.69303	W 94 16 2.96642	309.762	1122676.312	1437019.786	338.433	- 0 31 12.58	0.99994602
6012	902903 1	N 42 38 41.66129	W 94 15 21.92031	317.982	1127449.294	1437998.147	346.752	- 0 30 44.76	0.99994544
6013	902806 1	N 42 38 40.88873	W 94 11 37.07491	289.511	1127381.542	1443119.522	318.160	- 0 28 12.37	0.99994544
6014	902819 4	N 42 36 4.73930	W 94 12 26.78039	318.897	1122573.044	1441946.996	347.423	- 0 28 46.06	0.99994603
6015	892831 3	N 42 33 29.22154	W 94 12 .62179	308.459	1117769.717	1442503.517	336.781	- 0 28 28.33	0.99994718
6016	902804 1	N 42 33 28.35926	W 94 8 56.81630	316.070	1117709.653	1446695.910	344.185	- 0 26 22.76	0.99994719
6017	902815 3	N 42 36 7.44327	W 94 8 54.52032	315.003	1122617.672	1446785.934	343.343	- 0 26 22.20	0.99994602
6018	902804 1	N 42 38 40.86931	W 94 8 56.98666	316.046	1127351.982	1446766.068	344.579	- 0 26 23.88	0.99994544
6019	902706 4	N 42 38 40.82461	W 94 5 23.65966	320.891	1127314.992	1451625.325	349.217	- 0 23 59.29	0.99994544
6020	902813 2	N 42 36 6.02507	W 94 5 24.56303	314.062	1122538.853	1451571.404	342.160	- 0 23 59.91	0.99994602
6021	902836 2	N 42 33 29.49429	W 94 5 24.88832	313.900	1117709.239	1451530.269	341.760	- 0 24 .13	0.99994718
6022	902703 4	N 42 33 28.87778	W 94 1 48.59767	313.175	1117657.523	1456463.775	340.775	- 0 21 33.54	0.99994719
6023	902721 1	N 42 36 5.40847	W 94 1 49.81281	317.420	1122487.383	1456466.366	345.256	- 0 21 34.36	0.99994603
6024	902703 4	N 42 38 40.50406	W 94 1 48.79711	319.979	1127272.677	1456519.532	348.066	- 0 21 33.67	0.99994544
6025	902701 1	N 42 38 40.64847	W 93 58 17.14289	316.910	1127248.570	1461340.773	344.758	- 0 19 10.22	0.99994544
6026	902713 2	N 42 36 5.73621	W 93 58 18.21033	317.385	1122468.904	1461289.787	344.980	- 0 19 10.95	0.99994603
6027	892701 1	N 42 33 28.96003	W 93 58 17.71761	321.398	1117631.560	1461274.034	348.770	- 0 19 10.61	0.99994719
6028	892724 1	N 42 30 54.37250	W 93 58 17.66542	314.774	1112861.833	1461248.617	341.959	- 0 19 10.58	0.99994869
6029	892736 2	N 42 28 20.08084	W 93 58 53.12552	308.939	1108105.832	1460412.094	336.000	- 0 17 34.61	0.99995115
6030	882701 1	N 42 28 17.82992	W 93 55 54.71015	312.624	1108014.368	1464487.050	339.564	- 0 17 33.69	0.99995119
6031	882724 1	N 42 25 38.38036	W 93 55 55.37667	311.783	1103094.749	1464446.682	338.644	- 0 17 34.14	0.99995412
6032	882701 1	N 42 23 .91075	W 93 55 55.58392	306.822	1098236.188	1464417.111	333.648	- 0 17 34.28	0.99995759
6033	882716 2	N 42 25 38.63123	W 93 59 32.57348	307.682	1103129.634	1459482.023	334.653	- 0 20 1.35	0.99995411
6034	882731 3	N 42 23 6.17688	W 94 2 23.08114	308.977	1098449.617	1455554.530	335.958	- 0 21 56.91	0.99995746
6035	882719 4	N 42 25 37.92152	W 94 2 24.03275	308.276	1103131.668	1455562.671	335.362	- 0 21 57.55	0.99995413
6036	882706 1	N 42 28 17.94174	W 94 2 22.34843	312.153	1108068.690	1455632.682	339.388	- 0 21 56.41	0.99995119
6037	892722 4	N 42 30 55.59135	W 94 1 46.04626	313.483	1112927.601	1456492.353	340.869	- 0 21 31.81	0.99994888
6038	892824 1	N 42 30 55.64390	W 94 5 32.76413	314.846	1112963.560	1451317.354	342.483	- 0 24 5.46	0.99994888
6039	882804 1	N 42 28 18.46603	W 94 6 24.97608	312.293	1108122.446	1450090.763	339.774	- 0 24 40.85	0.99995118
6040	882822 4	N 42 25 31.96582	W 94 6 22.99291	312.740	1102984.947	1450099.213	340.021	- 0 24 39.51	0.99995425
6041	872804 1	N 42 23 .92457	W 94 6 24.18523	312.557	1098324.959	1450038.512	339.687	- 0 24 40.32	0.99995759
6042	872806 4	N 42 23 .76091	W 94 9 52.16487	315.384	1098355.677	1445281.199	342.688	- 0 27 1.27	0.99995759



WEBSTER COUNTY, IOWA GPS PROJECT  
 HORIZONTAL DATUM: NAD83, IOWA NORTH ZONE (PRE-HARN)  
 VERTICAL DATUM: NAVD88 (GPS DERIVED, GEOID96, ELEVATIONS)

ADJUSTMENT DATE NOVEMBER 7, 1996

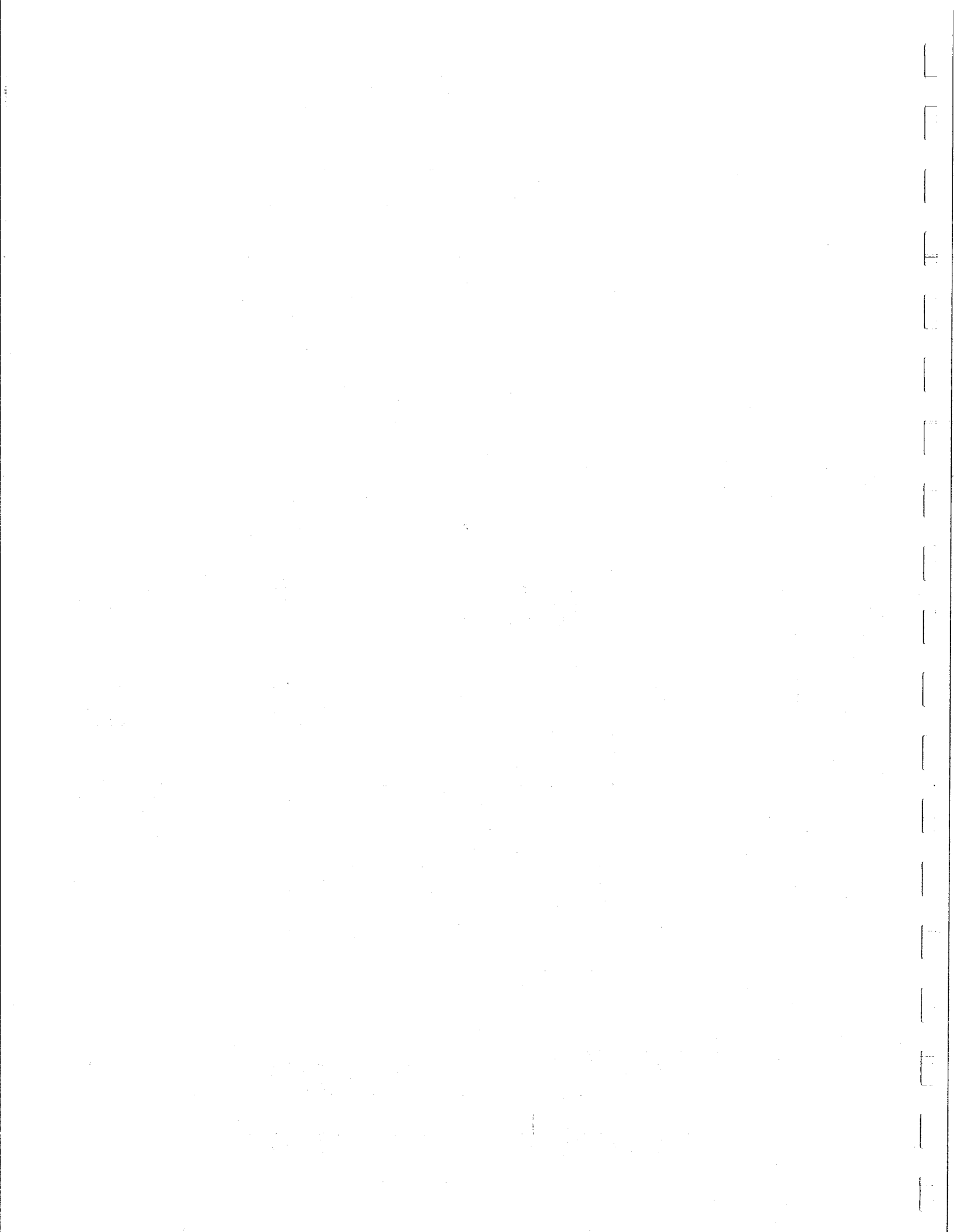
NUMBER	NAME	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT METERS	NORTHING METERS	EASTING METERS	ELEVATION METERS	CONVERGENCE D M S	SCALE FACTOR
6043	862819 4	N 42 25 36.71197	W 94 9 52.00792	314.410	1103167.295	1445322.607	341.901	- 0 27 1.17	0.99995415
6044	892832 3	N 42 28 23.95776	W 94 10 43.53154	298.805	1108336.796	1444186.318	326.599	- 0 27 36.09	0.99995109
6045	892822 4	N 42 30 56.14657	W 94 8 47.96773	311.480	1113011.724	1446861.823	339.354	- 0 26 17.76	0.99994887
6046	892913 2	N 42 30 55.04801	W 94 12 30.98025	305.013	1113018.632	1441771.170	333.164	- 0 28 48.91	0.99994888
6047	892936 3	N 42 28 30.48650	W 94 13 28.11691	315.592	1108569.432	1440428.773	343.596	- 0 29 27.63	0.99995098
6048	862916 2	N 42 25 38.17137	W 94 13 24.39138	314.797	1103252.173	1440468.367	342.534	- 0 29 25.11	0.99995412
6049	872903 4	N 42 23 .95269	W 94 13 22.08592	323.594	1098400.993	1440479.590	351.115	- 0 29 23.55	0.99995759
6050	863036 2	N 42 23 1.40797	W 94 16 51.35409	320.692	1098457.613	1435693.027	348.452	- 0 31 45.38	0.99995758
6051	862919 4	N 42 25 37.41746	W 94 16 50.82447	320.241	1103270.892	1435749.598	348.233	- 0 31 45.02	0.99995414
6052	892933 3	N 42 28 23.17108	W 94 16 50.34539	315.394	1108384.844	1435807.774	343.629	- 0 31 44.69	0.99995110
6053	892916 2	N 42 30 57.62988	W 94 15 58.42629	318.705	1113139.597	1437036.842	347.082	- 0 31 9.50	0.99994885
6054	892918 3	N 42 30 59.98592	W 94 19 29.99485	321.127	1113257.737	1432208.487	349.691	- 0 33 32.89	0.99994882
6055	893036 2	N 42 28 24.09543	W 94 19 48.77515	325.467	1108452.193	1431732.596	353.891	- 0 33 45.62	0.99995109
6056	863015 3	N 42 25 37.58860	W 94 20 21.04174	323.008	1103322.212	1430944.614	351.258	- 0 34 7.49	0.99995413
6057	863034 3	N 42 23 1.06790	W 94 20 20.60617	324.246	1098514.393	1430906.851	352.263	- 0 34 7.19	0.99995757
6058	873006 4	N 42 23 1.06790	W 94 23 49.92427	322.555	1098542.150	1426118.869	350.806	- 0 36 29.06	0.99995759
6059	863018 3	N 42 25 38.27528	W 94 23 50.14900	325.356	1103392.487	1426165.209	353.814	- 0 36 29.21	0.99995412
6060	863006 4	N 42 28 23.47562	W 94 23 34.75955	331.399	1108485.677	1426570.810	360.014	- 0 36 18.78	0.99995110
6061	893016 2	N 42 31 1.82503	W 94 23 .88958	330.209	1113363.124	1427395.479	358.920	- 0 35 55.83	0.99994880
6062	893018 3	N 42 31 7.82354	W 94 26 34.82685	341.963	1113600.950	1422514.573	370.777	- 0 38 20.82	0.99994872
6063	893031 3	N 42 28 24.32793	W 94 26 35.07922	327.063	1108556.700	1422452.539	355.788	- 0 38 20.99	0.99995108
6064	873019 4	N 42 20 21.82057	W 94 23 50.07115	322.689	1093628.981	1424063.362	350.702	- 0 36 29.16	0.99996169
6065	863006 4	N 42 17 45.90748	W 94 23 50.35695	320.176	1088818.733	1426005.760	347.956	- 0 36 29.35	0.99996627
6066	863031 3	N 42 12 33.17071	W 94 23 43.40136	311.437	1079168.350	1426062.881	338.796	- 0 36 24.64	0.99997718
6067	863034 3	N 42 12 34.03799	W 94 20 22.16548	310.759	1079147.745	1430678.859	337.955	- 0 34 8.25	0.99997714
6068	863015 3	N 42 15 11.08095	W 94 20 22.83508	310.779	1083993.084	1430711.627	338.139	- 0 34 8.71	0.99997139
6069	873033 2	N 42 17 46.60948	W 94 20 22.13683	320.133	1088791.399	1430775.283	347.690	- 0 34 8.23	0.99996625
6070	873021 1	N 42 20 22.66835	W 94 20 24.81447	323.560	1093606.856	1430761.807	351.341	- 0 34 10.05	0.99996166
6071	873024 1	N 42 20 22.54573	W 94 16 51.32297	323.580	1093556.217	1435648.461	351.121	- 0 31 45.35	0.99996167
6072	862906 4	N 42 17 46.47356	W 94 16 50.47997	321.969	1088740.748	1435623.288	349.315	- 0 31 44.78	0.99996625
6073	862931 3	N 42 12 35.17098	W 94 16 52.20230	316.106	1079136.537	1435495.086	343.157	- 0 31 45.95	0.99997710
6074	862934 3	N 42 12 35.79793	W 94 13 22.14396	319.752	1079113.022	1440313.344	346.686	- 0 29 23.58	0.99997708
6075	862916 2	N 42 15 12.49064	W 94 13 24.26956	323.877	1083947.881	1440305.959	349.907	- 0 29 25.03	0.99997134
6076	872934 3	N 42 17 47.49726	W 94 13 21.34342	322.652	1088729.740	1440413.908	350.816	- 0 29 23.04	0.99996622
6077	872922 4	N 42 20 23.09193	W 94 13 22.16856	326.001	1093530.489	1440436.055	353.333	- 0 29 23.60	0.99996165
6078	872924 1	N 42 20 22.07645	W 94 9 52.26133	321.448	1093459.733	1445240.507	348.597	- 0 27 1.34	0.99996168
6079	862806 4	N 42 17 46.12161	W 94 9 33.93604	324.167	1088644.718	1445622.435	351.173	- 0 26 48.92	0.99996626
6080	862819 4	N 42 15 5.21827	W 94 9 52.14757	329.004	1083683.593	1445166.268	355.922	- 0 27 1.26	0.99997159
6081	862936 2	N 42 12 36.12609	W 94 10 1.80932	324.433	1079085.370	1444908.499	351.303	- 0 27 7.81	0.99997706
6082	862834 3	N 42 12 36.12902	W 94 6 21.61131	322.426	1079047.427	1449959.200	349.274	- 0 24 38.57	0.99997706
6083	862821 1	N 42 15 7.94133	W 94 6 22.02924	325.388	1083731.414	1449983.197	352.252	- 0 24 38.85	0.99997150
6084	862804 1	N 42 17 46.13111	W 94 6 24.11568	320.659	1088612.452	1449970.400	347.578	- 0 24 40.27	0.99996626



WEBSTER COUNTY, IOWA GPS PROJECT  
 HORIZONTAL DATUM: NAD83, IOWA NORTH ZONE (PRE-HARN)  
 VERTICAL DATUM: NAVD88 (GPS DERIVED, GEOID96, ELEVATIONS )

ADJUSTMENT DATE NOVEMBER 7, 1996

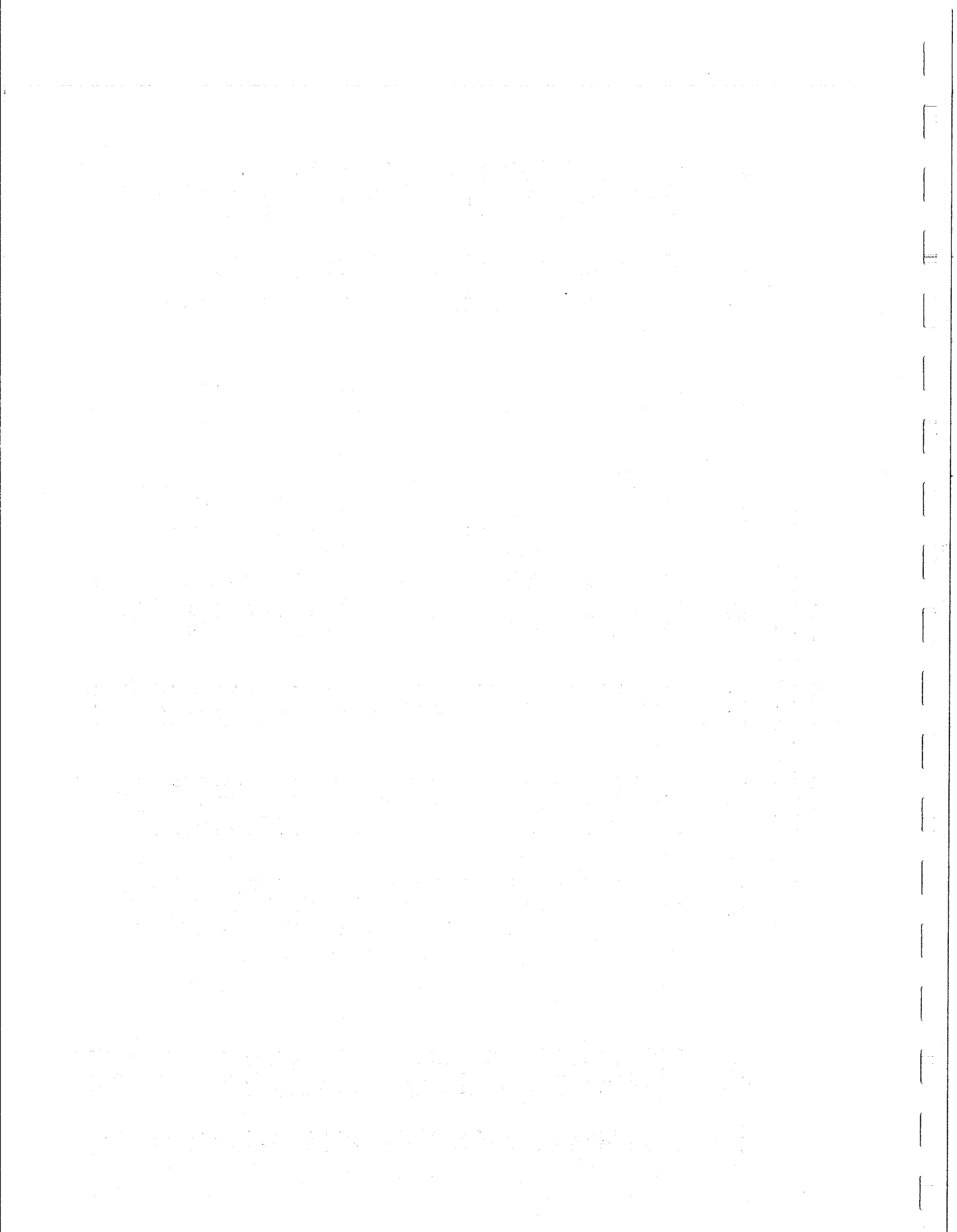
NUMBER	NAME	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT METERS	NORTHING METERS	EASTING METERS	ELEVATION METERS	CONVERGENCE D M S	SCALE FACTOR
6085	872815 3	N 42 20 23.70568	W 94 6 22.73056	320.839	1093473.951	1450036.996	347.847	- 0 24 39.33	0.99996163
6086	872813 2	N 42 20 23.01707	W 94 2 53.03517	312.811	1093419.933	1454836.744	339.724	- 0 22 17.21	0.99996165
6087	862801 1	N 42 17 46.03228	W 94 2 54.41689	313.074	1088576.585	1454773.693	339.940	- 0 22 18.15	0.99996627
6088	862719 4	N 42 15 3.58178	W 94 2 51.64601	317.518	1083563.998	1454804.691	344.372	- 0 22 16.27	0.99997165
6089	862836 2	N 42 12 36.04795	W 94 2 54.23916	318.459	1079012.449	1454715.721	345.327	- 0 22 18.03	0.99997707
6090	862733 2	N 42 12 54.78949	W 93 59 29.94889	312.273	1079561.868	1459404.954	339.185	- 0 19 59.57	0.99997635
6091	862715 3	N 42 15 11.62750	W 93 59 8.09303	310.542	1083780.922	1459789.785	337.416	- 0 19 44.76	0.99997137
6092	872722 4	N 42 20 21.24847	W 93 59 16.63667	306.596	1093335.013	1459789.785	333.449	- 0 19 50.55	0.99996170
6093	872713 3	N 42 20 22.33921	W 93 56 30.30445	304.480	1093347.731	1463597.345	331.313	- 0 17 57.82	0.99996622
6094	872736 2	N 42 17 47.57170	W 93 56 9.40120	256.577	1088570.068	1464051.199	283.434	- 0 17 43.65	0.99996622
6095	862736 2	N 42 12 35.82882	W 93 55 54.45901	312.755	1078949.867	1464344.335	339.750	- 0 17 33.52	0.99997707
6096	WEB CITY F.S. ECC.	N 42 28 5.31950	W 93 49 19.19666	292.823	1107588.084	1473519.914	319.632	- 0 13 5.63	0.99996140
9600	FOD A	N 42 33 9.87472	W 94 11 14.86278	317.879	1117164.223	1443542.423	346.127	- 0 27 57.32	0.99994737
9601	HUBBARD WEST BASE	N 42 11 17.96422	W 93 21 58.33233		1076465.113	1511052.179		+ 0 5 26.44	0.99998014
9602	2 85 24	N 42 12 32.45957	W 93 37 12.18784		1078761.893	1490086.431		- 0 4 52.91	0.99997720
9603	D 3	N 42 13 29.73365	W 94 2 52.48211	318.853	1080668.579	1454766.759	345.712	- 0 22 16.83	0.99997504
9604	ET 1 HK	N 42 15 9.40094	W 94 22 44.60642	314.464	1083974.285	1427461.569	341.957	- 0 35 44.79	0.99997144
9605	ALLEN	N 42 14 15.02276	W 94 40 12.83441		1082587.871	1403412.431		- 0 47 35.22	0.99997337
9606	EAGLE	N 42 40 23.59167	W 93 54 22.88664	317.696	1130397.201	1466692.121	346.060	- 0 16 31.46	0.99994537
9607	B 28	N 42 41 26.23783	W 94 1 48.21255		1132386.309	1456564.911		- 0 21 33.28	0.99994544
9608	THOR	N 42 40 40.11044	W 94 6 34.45754	317.521	1131006.970	1450039.192	345.990	- 0 24 47.28	0.99994538
9609	L 2 RESET	N 42 37 48.37357	W 94 8 57.18120		1125732.284	1446749.198		- 0 26 24.01	0.99994558
9610	TJEBBEN	N 42 30 9.70454	W 94 36 27.65776	347.392	1111971.963	1408960.690	376.317	- 0 45 2.61	0.99994949
9611	15 MK	N 42 36 7.19183	W 94 30 5.90633	328.127	1122892.748	1417806.437	356.742	- 0 40 43.88	0.99994602
9612	E 13	N 42 28 47.11791	W 94 23 6.78726	313.390	1109208.395	1427217.347	341.673	- 0 35 59.82	0.99995072
9613	B 13	N 42 29 42.42573	W 94 15 56.92793	322.130	1110818.968	1437050.022	349.314	- 0 31 8.49	0.99994988
9614	ET 2 HK	N 42 15 11.43180	W 94 16 56.76963	317.358	1083958.593	1463920.091	344.265	- 0 31 49.05	0.99997137
9615	34 WMC	N 42 15 12.09005	W 93 56 14.04180	317.358	1083773.418	1463920.091	339.424	- 0 17 46.79	0.99997135
9616	29 WMC	N 42 17 47.09679	W 93 59 23.50254	312.575	1088579.761	1459605.064	333.970	- 0 19 55.20	0.99996623
9617	27 WMC	N 42 23 1.34916	W 94 0 2.89420	307.061	1098280.928	1458760.204	333.970	- 0 20 21.90	0.99995758
9618	J 32	N 42 29 56.42980	W 94 11 14.22075	285.861	1111195.570	1443508.544	313.834	- 0 27 56.89	0.99994967
9620	ET 4 HK	N 42 22 4.63173	W 94 8 32.62543	316.509	1096609.830	1447087.402	343.687	- 0 26 7.36	0.99995897



WEBSTER COUNTY, IOWA GPS PROJECT  
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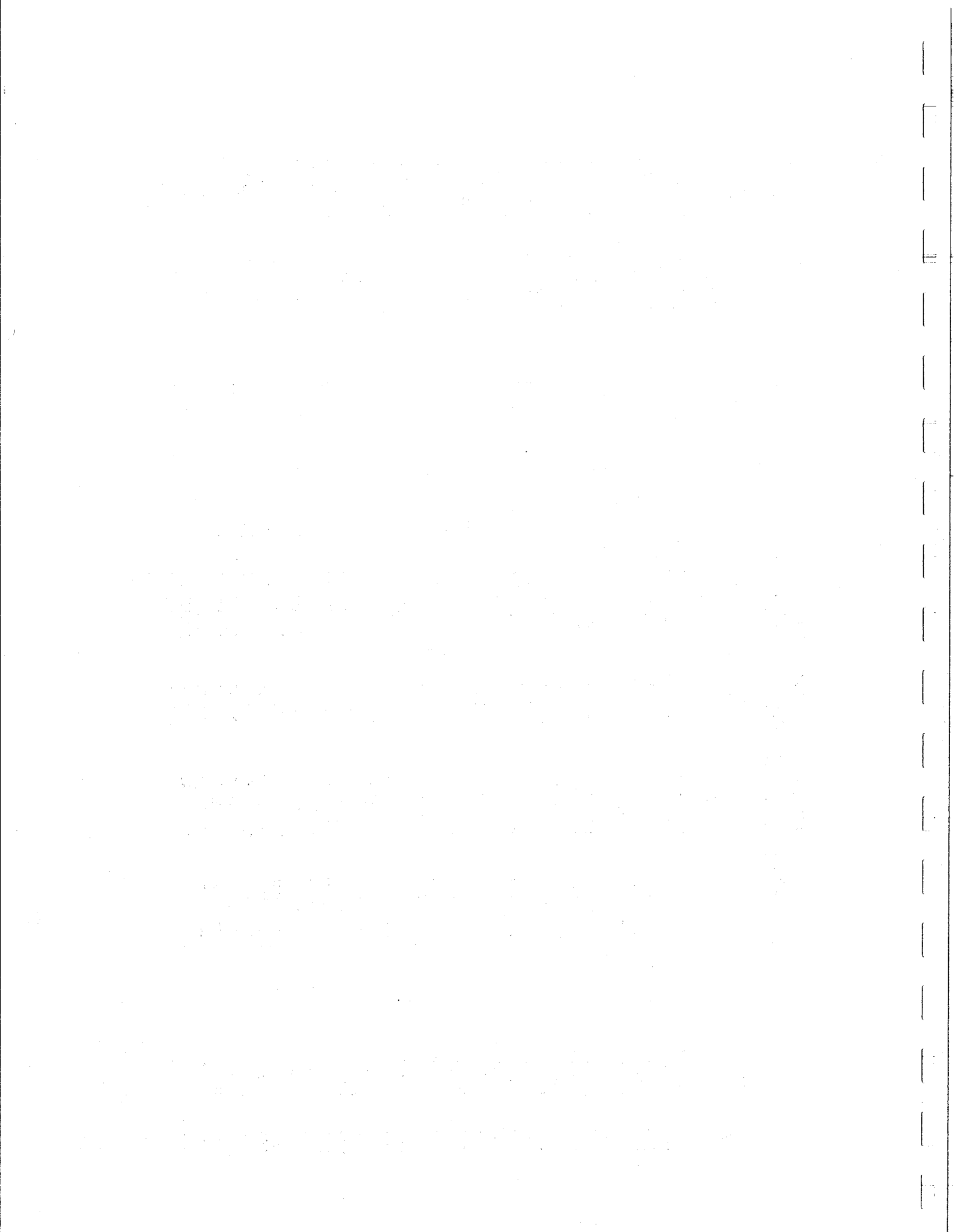
NUMBER	NAME	NORTHING FEET	EASTING FEET	ELEVATION FEET	NORTHING METERS	EASTING METERS	ELEVATION METERS	CONVERGENCE D M S	SCALE FACTOR
6001	903006 4	3699533.85	4667577.90	1212.20	1127620.172	1422680.590	369.479	- 0 38 20.53	0.99994544
6002	903019 4	3683307.91	4667349.41	1202.61	1122674.496	1422610.946	366.555	- 0 38 20.96	0.99994605
6003	903031 3	3668153.16	4667230.08	1186.90	1118055.319	1422574.574	361.769	- 0 38 20.51	0.99994716
6004	893003 4	3667846.73	4683292.38	1146.84	1117961.920	1427470.372	349.559	- 0 35 55.03	0.99994717
6005	903015 3	3683688.99	4683636.55	1180.31	1122790.651	1427575.276	359.758	- 0 35 53.41	0.99994602
6006	903004 1	3699381.04	4683526.07	1166.46	1127573.597	1427541.601	355.537	- 0 35 55.90	0.99994544
6007	902906 4	3698341.16	4699383.05	1172.20	1127256.639	1432374.818	357.288	- 0 33 32.01	0.99994546
6008	903024 1	3683450.39	4699139.64	1171.43	1122717.925	1432300.626	357.053	- 0 33 32.90	0.99994602
6009	902931 3	3667730.31	4698989.94	1146.08	1117926.434	1432254.999	349.325	- 0 33 32.87	0.99994716
6010	902933 2	3667515.12	4714844.97	1134.71	1117860.843	1437087.622	345.859	- 0 31 9.27	0.99994717
6011	902916 2	3683313.87	4714822.41	1110.34	1122676.312	1437019.786	338.433	- 0 31 12.58	0.99994602
6012	902903 1	3698973.23	4717832.26	1137.64	1127449.294	1437998.147	346.752	- 0 30 44.76	0.99994544
6013	902806 1	3698750.94	4734634.63	1043.83	1127381.542	1443119.522	318.160	- 0 28 46.06	0.99994544
6014	902819 4	3682975.06	4730787.77	1139.84	1122573.044	1441946.996	347.423	- 0 28 12.37	0.99994603
6015	902831 3	3667216.15	4732613.62	1104.92	1117769.717	1442503.517	336.781	- 0 28 28.33	0.99994718
6016	892804 1	3667019.09	4746368.17	1129.21	1117709.653	1446695.910	344.185	- 0 26 23.76	0.99994719
6017	902815 3	3683121.48	4746663.52	1126.45	1122617.672	1446785.934	343.343	- 0 26 22.20	0.99994602
6018	902804 1	3698653.96	4746598.34	1130.51	1127351.982	1446766.068	344.579	- 0 26 23.88	0.99994544
6019	902706 4	3698532.60	4762540.75	1145.72	1127314.992	1451625.325	349.217	- 0 23 59.29	0.99994544
6020	902813 2	3682862.89	4762563.85	1122.57	1122538.853	1451571.404	342.160	- 0 23 59.91	0.99994602
6021	902836 2	3667017.73	4762228.89	1121.26	1117709.239	1451530.269	341.760	- 0 24 1.13	0.99994718
6022	892703 4	3666848.06	4778414.90	1118.03	1117657.523	1456463.775	340.775	- 0 21 33.54	0.99994719
6023	902721 1	3682694.02	4778423.40	1132.73	1122487.383	1456466.366	345.256	- 0 21 34.36	0.99994603
6024	902703 4	3698393.77	4778597.83	1141.95	1127272.677	1456519.532	348.066	- 0 21 33.67	0.99994544
6025	902701 1	3698314.68	4794415.52	1131.09	1127248.570	1461340.773	344.758	- 0 19 10.22	0.99994544
6026	902713 2	3682633.40	4794248.24	1131.82	1122468.904	1461289.787	344.980	- 0 19 10.95	0.99994603
6027	892701 1	3666762.88	4794196.56	1144.26	1117631.560	1461274.034	348.770	- 0 19 10.61	0.99994719
6028	892724 1	3651114.20	4794113.17	1121.91	1112861.833	1461248.617	341.959	- 0 19 10.58	0.99994889
6029	892736 2	3635510.55	4791368.68	1102.36	1108105.832	1460412.094	336.000	- 0 19 34.61	0.99995115
6030	882701 1	3635210.47	4804737.93	1114.05	1108014.368	1464487.050	339.564	- 0 17 33.69	0.99995119
6031	882724 1	3619070.02	4804605.49	1111.03	1103094.749	1464446.682	338.644	- 0 17 34.14	0.99995412
6032	882701 1	3603129.89	4804508.47	1094.64	1098236.188	1464417.111	333.648	- 0 17 34.28	0.99995759
6033	882716 2	3619184.47	4788317.27	1097.94	1103129.634	1459482.023	334.653	- 0 20 1.35	0.99995411
6034	882721 3	3603830.12	4775431.82	1102.22	1098449.617	1455554.530	335.958	- 0 21 56.91	0.99995746
6035	882719 4	3619191.15	4775458.53	1100.27	1103131.668	1455562.671	335.362	- 0 21 57.55	0.99995413
6036	882706 1	3635388.69	4775688.22	1113.48	1108068.690	1455632.682	339.388	- 0 21 56.41	0.99995119
6037	892722 4	3651329.97	4778508.66	1118.33	1112927.601	1456492.353	340.869	- 0 21 31.81	0.99994888
6038	892824 1	3651447.95	4761530.35	1123.63	1112963.560	1451317.354	342.463	- 0 24 5.46	0.99994888
6039	882804 1	3635565.06	4757506.11	1114.74	1108122.446	1450090.763	339.774	- 0 24 40.85	0.99995118
6040	882822 4	3618709.78	4757533.83	1115.55	1102984.947	1450099.213	340.021	- 0 24 39.51	0.99995425
6041	872804 1	3603421.14	4757334.69	1114.46	1098324.959	1450038.512	339.687	- 0 24 40.32	0.99995759



WEBSTER COUNTY, IOWA GPS PROJECT  
 HORIZONTAL DATUM: NAD83, IOWA NORTH ZONE (PRE-HARN)  
 VERTICAL DATUM: NAVD88 (GPS DERIVED, GEOID96, ELEVATIONS )

ADJUSTMENT DATE NOVEMBER 7, 1996

NUMBER	NAME	NORTHING FEET	EASTING FEET	ELEVATION FEET	NORTHING METERS	EASTING METERS	ELEVATION METERS	CONVERGENCE D M S	SCALE FACTOR
6042	872806 4	3603521.92	4741726.73	1124.30	1098355.677	1445281.199	342.688	- 0 27 1.27	0.99995759
6043	882819 4	3619308.03	4741862.59	1121.72	1103167.295	1445322.607	341.901	- 0 27 1.17	0.99995415
6044	892832 3	3636268.31	4738134.61	1071.52	1108336.796	1444186.318	326.599	- 0 27 36.09	0.99995109
6045	892822 4	3651605.96	4746912.50	1113.36	1113011.724	1446861.823	339.354	- 0 26 17.76	0.99994887
6046	892913 2	3651628.63	4730210.92	1093.06	1113018.632	1441771.170	333.164	- 0 28 48.91	0.99994888
6047	892936 3	3637031.54	4725806.73	1127.28	1108569.432	1440428.773	343.596	- 0 29 27.63	0.99995098
6048	882916 2	3619586.50	4725936.64	1123.80	1103252.173	1440468.367	342.534	- 0 29 25.11	0.99995412
6049	872903 4	3603670.59	4725973.46	1151.95	1098400.993	1440479.590	351.115	- 0 29 23.55	0.99995759
6050	883036 2	3603856.35	4710269.54	1143.21	1098457.613	1435693.027	348.452	- 0 31 45.38	0.99995758
6051	882919 4	3619647.92	4710455.14	1142.49	1103270.892	1435749.598	348.233	- 0 31 45.02	0.99995414
6052	892933 3	3636425.94	4710646.01	1127.39	1108384.844	1435807.774	343.629	- 0 31 44.69	0.99995110
6053	892916 2	3652025.49	4714678.37	1138.72	1113139.597	1437036.847	347.082	- 0 31 9.50	0.99994885
6054	892918 3	3652413.09	4698837.35	1147.28	1113257.737	1432208.482	349.691	- 0 33 32.89	0.99994882
6055	893036 2	3636646.90	4697276.03	1161.06	1108452.193	1431732.596	353.891	- 0 33 45.62	0.99995109
6056	883015 3	3619816.29	4694590.79	1152.42	1103322.212	1430944.614	351.258	- 0 34 7.49	0.99995413
6057	883034 3	3604042.64	4694566.89	1155.72	1098514.393	1430906.851	352.263	- 0 34 7.19	0.99995757
6058	873006 4	3604133.71	4678858.32	1150.94	1098542.150	1426118.869	350.806	- 0 36 29.06	0.99995759
6059	883018 3	3620046.85	4679010.36	1160.80	1103392.487	1426165.209	353.814	- 0 36 29.21	0.99995412
6060	883006 4	3636756.76	4680341.07	1181.15	1108485.677	1426570.810	360.014	- 0 36 18.78	0.99995110
6061	893016 2	3652758.85	4683046.67	1177.56	1113363.124	1427395.479	358.920	- 0 35 55.83	0.99994880
6062	893018 3	3653539.12	4667033.23	1216.46	1113600.950	1422514.573	370.777	- 0 38 20.82	0.99994872
6063	893031 3	3636989.77	4666829.71	1167.28	1108556.700	1422452.539	355.788	- 0 38 20.99	0.99995108
6064	873019 4	3588014.41	4678676.21	1150.59	1093628.981	1426063.362	350.702	- 0 36 29.16	0.99996169
6065	863006 4	357232.79	4678487.23	1141.59	1088818.733	1426005.760	347.956	- 0 36 29.35	0.99996627
6066	863031 3	3540571.49	4678674.63	1111.53	1079168.350	1426062.881	338.796	- 0 36 24.64	0.99997718
6067	863034 3	3540503.89	4693818.89	1108.77	1079147.745	1430678.859	337.955	- 0 34 8.25	0.99997114
6068	863015 3	3556400.64	4693926.40	1109.38	1083993.084	1430711.627	338.139	- 0 34 8.71	0.99997139
6069	873033 2	3572143.11	4694135.24	1140.71	1088791.399	1430775.283	347.690	- 0 34 8.23	0.99996625
6070	873024 1	3587941.83	4694091.03	1152.69	1093606.856	1430761.807	351.341	- 0 34 10.05	0.99996166
6071	873024 1	3587775.69	4710123.33	1151.97	1093556.217	1435648.461	351.121	- 0 31 45.35	0.99996167
6072	862906 4	3571976.94	4710040.74	1146.04	1088740.748	1435623.288	349.315	- 0 31 44.78	0.99996625
6073	862931 3	3540467.12	4709620.13	1125.84	1079136.537	1435495.086	343.157	- 0 31 45.95	0.99997110
6074	862934 3	3540389.97	4725428.03	1137.42	1079113.022	1440313.344	346.686	- 0 29 23.58	0.99997708
6075	862916 2	3556252.34	4725403.80	1147.99	1083947.881	1440305.959	349.907	- 0 29 25.03	0.99997134
6076	872934 3	3571940.82	4725757.96	1150.97	1088729.740	1440413.908	350.816	- 0 29 23.04	0.99996622
6077	872924 4	3587691.28	4725830.62	1159.23	1093530.489	1440436.055	353.333	- 0 29 23.60	0.99996165
6078	872924 1	3587459.14	4741593.23	1143.69	1093459.733	1445240.537	348.597	- 0 27 1.34	0.99996168
6079	862806 4	3571661.88	4742846.27	1152.14	1088644.718	1445622.405	351.172	- 0 26 48.92	0.99996626
6080	862819 4	3555385.26	4741349.66	1167.72	1083683.593	1445166.268	355.933	- 0 27 1.26	0.99997159
6081	862936 2	3540299.25	4740503.97	1152.57	1079085.370	1444908.499	351.303	- 0 27 7.81	0.99997706
6082	862834 3	3540174.77	4757074.48	1145.91	1079047.427	1449959.200	349.274	- 0 24 38.57	0.99997706



WEBSTER COUNTY, IOWA GPS PROJECT  
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ADJUSTMENT DATE NOVEMBER 7, 1996

NUMBER	NAME	NORTHING FEET	EASTING FEET	ELEVATION FEET	NORTHING METERS	EASTING METERS	ELEVATION METERS	CONVERGENCE D M S	SCALE FACTOR
6083	862821 1	3555542.15	4757153.21	1155.68	1083731.414	1449983.197	352.252	- 0 24 38.85	0.99997150
6084	862804 1	3571556.02	4757111.22	1140.35	1088612.452	1449970.400	347.578	- 0 24 40.27	0.99996626
6085	872815 3	3587505.79	4757329.71	1141.23	1093473.951	1450036.996	347.847	- 0 24 39.33	0.99996163
6086	872813 2	3587328.56	4773076.88	1114.58	1093419.933	1454836.744	339.724	- 0 22 17.21	0.99996165
6087	862801 1	3571438.35	4772870.03	1115.29	1088576.585	1454773.693	339.940	- 0 22 18.15	0.99996627
6088	862719 4	3554992.88	4772971.72	1129.83	1083563.998	1454804.691	344.372	- 0 22 16.27	0.99997165
6089	862836 2	3540060.01	4772679.83	1132.96	1079012.449	1454715.721	345.327	- 0 22 18.03	0.99997707
6090	862733 2	3541862.56	4788064.42	1112.81	1079561.868	1459404.954	339.185	- 0 19 59.57	0.99997635
6091	862715 3	3555704.57	4789788.58	1107.01	1083780.922	1459930.479	337.416	- 0 19 44.76	0.99997137
6092	872722 4	3587049.96	4789326.99	1093.99	1093335.013	1459789.785	333.449	- 0 19 50.55	0.99996170
6093	872713 3	3587091.68	4801818.96	1086.98	1093347.731	1463597.345	331.313	- 0 17 57.82	0.99996167
6094	872736 2	3571416.97	4803307.98	929.90	1088570.068	1464051.199	283.434	- 0 17 43.65	0.99996622
6095	862736 2	3539854.69	4804269.70	1114.66	1078949.867	1464344.335	339.750	- 0 17 33.52	0.99997707
6096	WEB CITY F.S. ECC.	3633811.91	4834373.25	1048.66	1107588.084	1473519.914	319.632	- 0 13 5.63	0.99995140
9600	FOD A	3665229.62	4736022.10	1135.58	1117164.223	1443542.423	346.127	- 0 27 57.32	0.99994737
9601	HUBBARD WEST BASE	3531702.62	4957510.36		1076465.113	1511052.179		+ 0 5 26.44	0.99998014
9602	2 85 24	3539237.98	4888725.23		1078761.893	1490086.431		- 0 4 52.91	0.99997720
9603	D 3	3545493.50	4772847.27	1134.22	1080668.579	1454766.759	345.712	- 0 22 16.83	0.99997504
9604	ET 1 HK	3556338.97	4683263.50	1121.90	1083974.285	1427461.569	341.957	- 0 35 44.79	0.99997144
9605	ALLEN	3551790.37	4604362.28		1082587.871	1403412.431		- 0 47 35.22	0.99997337
9606	EAGLE	3708644.82	4811972.40		1130397.201	1466692.121		- 0 16 31.46	0.99994537
9607	B 28	3715170.75	478746.71	1135.37	1132386.309	1455564.911	346.060	- 0 21 33.28	0.99994544
9608	THOR	3710645.37	4757336.92		1131006.970	1450039.192		- 0 24 47.28	0.99994538
9609	L 2 RESET	3693340.00	4746542.99	1135.14	1125732.284	1446749.198	345.990	- 0 26 24.01	0.99994558
9610	TJEBBEN	3648194.68	4622565.20		1111971.963	1408960.690		- 0 45 2.61	0.99994949
9611	15 MK	3684023.96	4651586.62	1234.63	1122892.748	1417806.437	376.317	- 0 40 43.88	0.99994602
9612	E 13	3639127.88	4682462.25	1170.41	1109208.395	1427217.347	356.742	- 0 35 59.82	0.99995072
9613	B 13	3644411.90	4714721.61	1120.97	1110818.968	1437050.022	341.673	- 0 31 8.49	0.99994988
9614	ET 2 HK	3556287.49	4709422.82	1146.04	1083958.593	1435434.948	349.314	- 0 31 49.05	0.99997137
9615	34 WMC	3555679.96	4802877.83	1129.48	1083773.418	1463920.091	344.265	- 0 17 46.79	0.99997135
9616	29 WMC	3571448.77	4788720.95	1113.59	1088579.761	1459605.064	339.424	- 0 19 55.20	0.99996623
9617	27 WMC	3603276.68	4785949.10	1095.70	1098280.928	1458760.204	333.970	- 0 20 21.90	0.99995758
9618	J 32	3645647.47	4735910.95	1029.64	1111195.570	1443508.544	313.834	- 0 27 56.89	0.99994967
9620	ET 4 HK	3597794.09	4747652.59	1127.58	1096609.830	1447087.402	343.687	- 0 26 7.36	0.99995897

