

## Orb-3 Nominal Open Trajectory

TIME (sec)	ALT (ft)	LONG (deg)	GDLAT (deg)	XF (ft)	YF (ft)	ZF (ft)
0.00	-32.7974	-75.4877	37.83387	4146667	-1.6E+07	12765390
10.00	122.4358	-75.4877	37.83384	4146708	-1.6E+07	12765476
20.00	852.8784	-75.4875	37.83376	4146895	-1.6E+07	12765900
30.00	2302.563	-75.4871	37.83364	4147293	-1.6E+07	12766757
40.00	4527.094	-75.4864	37.83348	4147963	-1.6E+07	12768074
50.00	7700.494	-75.4849	37.83321	4149005	-1.6E+07	12769943
60.00	12025.26	-75.4823	37.83254	4150630	-1.6E+07	12772403
70.00	17693.11	-75.4776	37.83103	4153162	-1.6E+07	12775446
80.00	24747.72	-75.4695	37.82806	4156979	-1.6E+07	12778917
90.00	33266	-75.4567	37.82266	4162562	-1.6E+07	12782585
100.00	43230.4	-75.4375	37.81373	4170435	-1.6E+07	12786121
110.00	54554.29	-75.4096	37.80008	4181249	-1.6E+07	12789125
120.00	67108.45	-75.3708	37.78056	4195748	-1.6E+07	12791186
130.00	80899.79	-75.3189	37.75428	4214561	-1.6E+07	12792041
140.00	96041.54	-75.2523	37.72038	4238243	-1.6E+07	12791504
150.00	112653.9	-75.1692	37.67789	4267369	-1.6E+07	12789358
160.00	130765.6	-75.0677	37.62561	4302622	-1.6E+07	12785262
170.00	150450.6	-74.9456	37.56229	4344736	-1.6E+07	12778880
180.00	171872.5	-74.8005	37.48659	4394513	-1.6E+07	12769897
190.00	195269.9	-74.63	37.39695	4452868	-1.6E+07	12757977
200.00	221007.8	-74.4311	37.29155	4520882	-1.6E+07	12742774
210.00	249601.6	-74.2004	37.16825	4599847	-1.6E+07	12723924
220.00	281031.5	-73.9366	37.02588	4690344	-1.6E+07	12701009
230.00	313827.9	-73.6418	36.86508	4791536	-1.6E+07	12673266
240.00	346892.3	-73.3238	36.68968	4900806	-1.6E+07	12641100
250.00	377935.9	-73.0051	36.51183	5010488	-1.6E+07	12606722
260.00	406609.2	-72.6891	36.33344	5119369	-1.6E+07	12570507
270.00	432925.4	-72.3757	36.15447	5227463	-1.6E+07	12532460
280.00	456890.4	-72.0648	35.97488	5334764	-1.6E+07	12492592
290.00	479073.3	-71.7532	35.7921	5442411	-1.7E+07	12450475
300.00	500650.8	-71.4347	35.6005	5552932	-1.7E+07	12405092
310.00	521747	-71.1081	35.39891	5666806	-1.7E+07	12356137
320.00	542331.1	-70.7727	35.18666	5784240	-1.7E+07	12303365
330.00	562319.8	-70.4283	34.96319	5905380	-1.7E+07	12246520
340.00	581659.5	-70.074	34.72742	6030562	-1.7E+07	12185212
350.00	600308.5	-69.7084	34.47781	6160300	-1.7E+07	12118906
360.00	618185.9	-69.3301	34.2126	6295166	-1.7E+07	12046969
370.00	635152.2	-68.9375	33.92992	6435725	-1.7E+07	11968701
380.00	651008.6	-68.5294	33.62795	6582488	-1.7E+07	11883360
390.00	665476.6	-68.1042	33.30473	6735950	-1.7E+07	11790125
400.00	678192.9	-67.6605	32.95814	6896611	-1.7E+07	11688064
410.00	688697.1	-67.1967	32.58574	7065023	-1.7E+07	11576085
420.00	696459.6	-66.7112	32.18502	7241665	-1.7E+07	11453037
430.00	701143.3	-66.2056	31.7567	7425849	-1.7E+07	11318897

440.00	702602.6	-65.6825	31.30247	7616563	-1.7E+07	11174075
450.00	702442	-65.1529	30.83297	7810266	-1.7E+07	11022779
460.00	702216.3	-64.6282	30.36026	8003085	-1.7E+07	10869679
470.00	702002.2	-64.1088	29.88502	8194802	-1.7E+07	10715032
480.00	701805.3	-63.5947	29.40733	8385387	-1.7E+07	10558870
490.00	701628.9	-63.0857	28.92729	8574813	-1.7E+07	10401221
500.00	701474.6	-62.5818	28.44497	8763053	-1.7E+07	10242112
510.00	701342.3	-62.0828	27.96044	8950082	-1.7E+07	10081566
520.00	701232.4	-61.5886	27.47376	9135876	-1.7E+07	9919606
530.00	701145	-61.099	26.985	9320411	-1.7E+07	9756256
540.00	701080.5	-60.6141	26.49423	9503663	-1.7E+07	9591539
550.00	701039.2	-60.1336	26.0015	9685610	-1.7E+07	9425477
560.00	701021.3	-59.6574	25.50686	9866230	-1.7E+07	9258096
570.00	701026.9	-59.1855	25.01042	10045486	-1.7E+07	9089430
580.00	701055.9	-58.7177	24.5122	10223376	-1.7E+07	8919491
590.00	701108.6	-58.2539	24.01225	10399878	-1.7E+07	8748304
600.00	701185.8	-57.7939	23.51062	10574971	-1.7E+07	8575895
610.00	701287.2	-57.3378	23.00739	10748630	-1.7E+07	8402290
620.00	701413.2	-56.8853	22.5026	10920832	-1.7E+07	8227515
630.00	701564.3	-56.4364	21.99631	11091555	-1.7E+07	8051593
640.00	701740.3	-55.9909	21.48855	11260780	-1.7E+07	7874549
650.00	701941.6	-55.5489	20.97938	11428485	-1.7E+07	7696407
660.00	702168.1	-55.1101	20.46884	11594651	-1.7E+07	7517192
670.00	702419.8	-54.6745	19.95698	11759256	-1.7E+07	7336928
680.00	702697	-54.242	19.44385	11922282	-1.7E+07	7155641
690.00	702999.7	-53.8124	18.92948	12083708	-1.7E+07	6973356
700.00	703327.8	-53.3858	18.41393	12243515	-1.6E+07	6790098
710.00	703681.6	-52.9619	17.89723	12401683	-1.6E+07	6605893
720.00	704061	-52.5407	17.37943	12558195	-1.6E+07	6420766
730.00	704466	-52.1222	16.86057	12713031	-1.6E+07	6234744
740.00	704896.8	-51.7062	16.34068	12866173	-1.6E+07	6047851
750.00	705353.3	-51.2926	15.81982	13017602	-1.6E+07	5860115
760.00	705835.7	-50.8813	15.29802	13167300	-1.6E+07	5671561
770.00	706343.9	-50.4723	14.77531	13315251	-1.6E+07	5482216
780.00	706877.9	-50.0655	14.25174	13461436	-1.6E+07	5292106
790.00	707437.8	-49.6608	13.72735	13605838	-1.6E+07	5101258
800.00	708023.7	-49.258	13.20216	13748440	-1.6E+07	4909698
810.00	708635.4	-48.8572	12.67623	13889226	-1.6E+07	4717454
820.00	709273	-48.4583	12.14958	14028179	-1.6E+07	4524551
830.00	709936.5	-48.061	11.62226	14165282	-1.6E+07	4331018
840.00	710625.9	-47.6655	11.09429	14300521	-1.6E+07	4136880
850.00	711341.2	-47.2716	10.56571	14433879	-1.6E+07	3942166
860.00	712082.3	-46.8791	10.03656	14565340	-1.6E+07	3746902
870.00	712849.3	-46.4881	9.506866	14694890	-1.5E+07	3551116
880.00	713642.3	-46.0985	8.97668	14822511	-1.5E+07	3354838
890.00	714460.9	-45.7102	8.446024	14948190	-1.5E+07	3158093
900.00	715305.1	-45.3231	7.91493	15071912	-1.5E+07	2960908

910.00	716174.6	-44.9371	7.383443	15193663	-1.5E+07	2763315
920.00	717069	-44.5521	6.851588	15313429	-1.5E+07	2565338
930.00	717987.9	-44.1682	6.319402	15431196	-1.5E+07	2367008
940.00	718931.7	-43.7852	5.786908	15546953	-1.5E+07	2168347
950.00	719900.1	-43.403	5.254143	15660684	-1.5E+07	1969387
960.00	720892.4	-43.0215	4.721138	15772378	-1.5E+07	1770153
970.00	721909	-42.6408	4.187922	15882023	-1.5E+07	1570674
980.00	722949.8	-42.2606	3.654524	15989608	-1.5E+07	1370976
990.00	724014.9	-41.8811	3.120977	16095120	-1.4E+07	1171087
1000.00	725104	-41.5019	2.587312	16198549	-1.4E+07	971035.9
1010.00	726217	-41.1232	2.05356	16299884	-1.4E+07	770849.9
1020.00	727353.8	-40.7448	1.519751	16399112	-1.4E+07	570557.1
1030.00	728514.2	-40.3666	0.985916	16496223	-1.4E+07	370185.2
1040.00	729698	-39.9886	0.452086	16591208	-1.4E+07	169762.2
1050.00	730905.2	-39.6107	-0.08171	16684055	-1.4E+07	-30684.1
1060.00	732135.4	-39.2329	-0.61544	16774755	-1.4E+07	-231126
1070.00	733388.5	-38.855	-1.14907	16863298	-1.4E+07	-431535
1080.00	734664.3	-38.477	-1.68257	16949675	-1.3E+07	-631883
1090.00	735962.6	-38.0989	-2.21592	17033877	-1.3E+07	-832144
1100.00	737283.2	-37.7205	-2.74908	17115895	-1.3E+07	-1032288
1110.00	738625.8	-37.3417	-3.28202	17195721	-1.3E+07	-1232288
1120.00	739990.3	-36.9626	-3.81471	17273347	-1.3E+07	-1432117
1130.00	741376.3	-36.583	-4.34712	17348764	-1.3E+07	-1631746
1140.00	742783.6	-36.2029	-4.87922	17421966	-1.3E+07	-1831148
1150.00	744212.1	-35.8221	-5.41098	17492945	-1.3E+07	-2030295

## Orb-3 Nominal Middle Trajectory

TIME (sec)	ALT (ft)	LONG (deg)	GDLAT (deg)	XF (ft)	YF (ft)	ZF (ft)
0.000	-32.7974	-75.4877	37.83387	4146667	-1.6E+07	12765390
10.000	122.4363	-75.4877	37.83384	4146708	-1.6E+07	12765476
20.000	852.9193	-75.4875	37.83376	4146889	-1.6E+07	12765901
30.000	2302.697	-75.4872	37.83365	4147276	-1.6E+07	12766758
40.000	4527.197	-75.4864	37.83347	4147939	-1.6E+07	12768073
50.000	7700.264	-75.485	37.83317	4148979	-1.6E+07	12769932
60.000	12025	-75.4825	37.83238	4150589	-1.6E+07	12772358
70.000	17694.04	-75.478	37.83063	4153078	-1.6E+07	12775329
80.000	24751.36	-75.4703	37.82716	4156805	-1.6E+07	12778659
90.000	33270.71	-75.4583	37.82086	4162223	-1.6E+07	12782070
100.000	43228.83	-75.4403	37.81045	4169816	-1.6E+07	12785175
110.000	54535.52	-75.4145	37.79455	4180195	-1.6E+07	12787518
120.000	67068.5	-75.3785	37.77182	4194064	-1.6E+07	12788638
130.000	80861.33	-75.3306	37.74128	4212011	-1.6E+07	12788260
140.000	96057.73	-75.2692	37.70198	4234547	-1.6E+07	12786189
150.000	112740.9	-75.1927	37.65274	4262237	-1.6E+07	12782124
160.000	130939.8	-75.0992	37.5922	4295728	-1.6E+07	12775670
170.000	150731	-74.9867	37.51892	4335713	-1.6E+07	12766436
180.000	172280	-74.8532	37.43136	4382949	-1.6E+07	12754049
190.000	195827.3	-74.6963	37.32776	4438303	-1.6E+07	12738103
200.000	221740	-74.5134	37.20606	4502796	-1.6E+07	12718177
210.000	250535.9	-74.3015	37.06385	4577651	-1.6E+07	12693813
220.000	282195.6	-74.0592	36.89983	4663414	-1.6E+07	12664544
230.000	315246.7	-73.7886	36.71483	4759277	-1.6E+07	12629646
240.000	348580.6	-73.497	36.51332	4862752	-1.6E+07	12589700
250.000	379886.5	-73.2051	36.30931	4966571	-1.6E+07	12547466
260.000	408812	-72.9158	36.10501	5069584	-1.6E+07	12503406
270.000	435370.6	-72.6292	35.90034	5171807	-1.7E+07	12457523
280.000	459567.8	-72.3449	35.69528	5273232	-1.7E+07	12409831
290.000	481793.6	-72.0613	35.48841	5374569	-1.7E+07	12360150
300.000	503495	-71.7709	35.27419	5478619	-1.7E+07	12307637
310.000	524938.3	-71.4721	35.05111	5586107	-1.7E+07	12251968
320.000	546109.6	-71.1641	34.81851	5697287	-1.7E+07	12192906
330.000	566922.6	-70.8465	34.57586	5812318	-1.7E+07	12130204
340.000	587311.9	-70.5185	34.32223	5931522	-1.7E+07	12063513
350.000	607233.5	-70.1787	34.05623	6055429	-1.7E+07	11992338
360.000	626603.2	-69.8253	33.77621	6184646	-1.7E+07	11916079
370.000	645266.5	-69.4568	33.48043	6319783	-1.7E+07	11834059
380.000	662988.7	-69.0716	33.16712	6461392	-1.7E+07	11745547
390.000	679435.8	-68.6681	32.8345	6609992	-1.7E+07	11649734
400.000	694170.8	-68.2447	32.48059	6766094	-1.7E+07	11545705
410.000	706645	-67.7995	32.1032	6930242	-1.7E+07	11432403
420.000	716193.6	-67.3308	31.69987	7102972	-1.7E+07	11308631
430.000	722334.8	-66.8394	31.27068	7283776	-1.7E+07	11174101

440.000	724730.8	-66.3285	30.81729	7471489	-1.7E+07	11029135
450.000	724722.2	-65.8064	30.34675	7663398	-1.7E+07	10876667
460.000	724518.3	-65.2882	29.87239	7854710	-1.7E+07	10722132
470.000	724322.2	-64.7752	29.39558	8044943	-1.7E+07	10566076
480.000	724140.3	-64.2674	28.91641	8234067	-1.7E+07	10408528
490.000	723976.3	-63.7645	28.43496	8422055	-1.7E+07	10249519
500.000	723832.6	-63.2665	27.9513	8608880	-1.7E+07	10089074
510.000	723710.2	-62.7733	27.46549	8794516	-1.7E+07	9927218
520.000	723608.9	-62.2848	26.97762	8978940	-1.7E+07	9763973
530.000	723529	-61.8008	26.48773	9162129	-1.7E+07	9599364
540.000	723470.9	-61.3212	25.99588	9344058	-1.7E+07	9433414
550.000	723434.8	-60.846	25.50215	9524706	-1.7E+07	9266146
560.000	723421	-60.3749	25.00657	9704051	-1.7E+07	9097584
570.000	723429.5	-59.908	24.50924	9882060	-1.7E+07	8927761
580.000	723460.4	-59.4451	24.0102	10058722	-1.7E+07	8756695
590.000	723513.7	-58.9861	23.50948	10234022	-1.7E+07	8584407
600.000	723590.1	-58.5308	23.00715	10407939	-1.7E+07	8410923
610.000	723689.7	-58.0791	22.50326	10580447	-1.7E+07	8236269
620.000	723812.6	-57.631	21.99787	10751524	-1.7E+07	8060472
630.000	723959.3	-57.1864	21.49103	10921150	-1.7E+07	7883555
640.000	724129.9	-56.7452	20.98277	11089302	-1.7E+07	7705542
650.000	724324.4	-56.3072	20.47316	11255963	-1.7E+07	7526459
660.000	724543	-55.8723	19.96222	11421110	-1.7E+07	7346330
670.000	724785.7	-55.4406	19.45001	11584724	-1.7E+07	7165179
680.000	725052.6	-55.0118	18.93658	11746786	-1.7E+07	6983033
690.000	725343.8	-54.5859	18.42196	11907275	-1.7E+07	6799915
700.000	725659.3	-54.1627	17.90619	12066174	-1.7E+07	6615852
710.000	725999.2	-53.7423	17.38933	12223462	-1.7E+07	6430868
720.000	726363.5	-53.3245	16.8714	12379121	-1.7E+07	6244991
730.000	726752.3	-52.9091	16.35246	12533134	-1.7E+07	6058245
740.000	727165.6	-52.4962	15.83253	12685480	-1.7E+07	5870656
750.000	727603.5	-52.0857	15.31167	12836143	-1.6E+07	5682251
760.000	728065.9	-51.6774	14.7899	12985104	-1.6E+07	5493055
770.000	728553	-51.2712	14.26727	13132347	-1.6E+07	5303096
780.000	729064.6	-50.8671	13.74381	13277853	-1.6E+07	5112399
790.000	729601	-50.4651	13.21957	13421607	-1.6E+07	4920992
800.000	730162	-50.0649	12.69457	13563590	-1.6E+07	4728900
810.000	730747.7	-49.6666	12.16886	13703787	-1.6E+07	4536150
820.000	731358.1	-49.27	11.64246	13842180	-1.6E+07	4342770
830.000	731993.1	-48.8751	11.11543	13978756	-1.6E+07	4148786
840.000	732652.9	-48.4818	10.58778	14113496	-1.6E+07	3954225
850.000	733337.3	-48.09	10.05956	14246386	-1.6E+07	3759115
860.000	734046.3	-47.6996	9.530792	14377411	-1.6E+07	3563482
870.000	734780	-47.3106	9.00152	14506556	-1.6E+07	3367354
880.000	735537.8	-46.9229	8.471781	14633802	-1.6E+07	3170760
890.000	736319.8	-46.5364	7.941604	14759136	-1.6E+07	2973727
900.000	737126.2	-46.151	7.411019	14882547	-1.5E+07	2776281

910.000	737956.9	-45.7667	6.880068	15004017	-1.5E+07	2578454
920.000	738811.1	-45.3833	6.348777	15123533	-1.5E+07	2380269
930.000	739689.2	-45.0009	5.817186	15241083	-1.5E+07	2181758
940.000	740590.9	-44.6193	5.285315	15356653	-1.5E+07	1982944
950.000	741516.4	-44.2385	4.753198	15470232	-1.5E+07	1783856
960.000	742465.2	-43.8583	4.220872	15581804	-1.5E+07	1584523
970.000	743437.4	-43.4788	3.68836	15691359	-1.5E+07	1384970
980.000	744432.7	-43.0998	3.155694	15798887	-1.5E+07	1185225
990.000	745451	-42.7213	2.622905	15904375	-1.5E+07	985316.2
1000.000	746491.8	-42.3432	2.090023	16007811	-1.5E+07	785270.7
1010.000	747554.6	-41.9653	1.557079	16109184	-1.4E+07	585116.6
1020.000	748639.6	-41.5878	1.024103	16208483	-1.4E+07	384881.5
1030.000	749746.7	-41.2104	0.491126	16305697	-1.4E+07	184593.4
1040.000	750875.7	-40.8332	-0.04182	16400817	-1.4E+07	-15720.1
1050.000	752026.6	-40.4559	-0.57471	16493832	-1.4E+07	-216031
1060.000	753199	-40.0787	-1.10751	16584731	-1.4E+07	-416312
1070.000	754392.9	-39.7013	-1.64019	16673506	-1.4E+07	-616535
1080.000	755608	-39.3238	-2.17272	16760148	-1.4E+07	-816673
1090.000	756844.3	-38.946	-2.70507	16844646	-1.4E+07	-1016698
1100.000	758101.5	-38.5679	-3.23721	16926994	-1.3E+07	-1216581
1110.000	759379.5	-38.1894	-3.76911	17007181	-1.3E+07	-1416296
1120.000	760678.3	-37.8104	-4.30074	17085201	-1.3E+07	-1615815
1130.000	761997.6	-37.431	-4.83206	17161045	-1.3E+07	-1815110
1140.000	763337.3	-37.0509	-5.36306	17234706	-1.3E+07	-2014154
1150.000	764697.3	-36.6701	-5.89369	17306177	-1.3E+07	-2212919

## Orb-3 Nominal Close Trajectory

TIME (sec)	ALT (ft)	LONG (deg)	GDLAT (deg)	XF (ft)	YF (ft)	ZF (ft)
0.000	-32.7974	-75.4877	37.83387	4146667	-1.6E+07	12765390
10.000	122.4359	-75.4877	37.83384	4146708	-1.6E+07	12765476
20.000	852.8871	-75.4875	37.83375	4146894	-1.6E+07	12765900
30.000	2302.613	-75.4872	37.83363	4147288	-1.6E+07	12766754
40.000	4527.246	-75.4864	37.83345	4147953	-1.6E+07	12768066
50.000	7700.819	-75.485	37.83312	4148984	-1.6E+07	12769919
60.000	12026.11	-75.4826	37.83223	4150572	-1.6E+07	12772315
70.000	17697.45	-75.4783	37.83025	4153005	-1.6E+07	12775223
80.000	24761.41	-75.4712	37.82635	4156608	-1.6E+07	12778433
90.000	33291.68	-75.4601	37.81928	4161796	-1.6E+07	12781628
100.000	43263.64	-75.4438	37.8076	4169005	-1.6E+07	12784374
110.000	54589.67	-75.4205	37.78975	4178795	-1.6E+07	12786168
120.000	67147.36	-75.3881	37.76423	4191830	-1.6E+07	12786493
130.000	80947.68	-75.3448	37.72985	4208685	-1.6E+07	12785008
140.000	96101.43	-75.2892	37.6855	4229856	-1.6E+07	12781446
150.000	112727.5	-75.22	37.62993	4255848	-1.6E+07	12775504
160.000	130858.4	-75.1354	37.56163	4287254	-1.6E+07	12766744
170.000	150565.3	-75.0337	37.479	4324721	-1.6E+07	12754720
180.000	172010.7	-74.913	37.38031	4368951	-1.6E+07	12738997
190.000	195431.1	-74.7713	37.26361	4420751	-1.6E+07	12719107
200.000	221189.3	-74.6061	37.12662	4481072	-1.6E+07	12694549
210.000	249797.7	-74.4148	36.96667	4551055	-1.6E+07	12664776
220.000	281233.3	-74.1963	36.78235	4631201	-1.6E+07	12629274
230.000	314022.7	-73.9525	36.57468	4720731	-1.6E+07	12587357
240.000	347062.5	-73.6899	36.34872	4817309	-1.6E+07	12539781
250.000	378062.2	-73.4271	36.12023	4914152	-1.7E+07	12489842
260.000	406672.8	-73.167	35.89167	5010187	-1.7E+07	12438086
270.000	432907.5	-72.9095	35.66295	5105429	-1.7E+07	12384517
280.000	456772.3	-72.6543	35.43403	5199872	-1.7E+07	12329149
290.000	478713.7	-72.399	35.20325	5294444	-1.7E+07	12271751
300.000	500017.7	-72.1358	34.96545	5392004	-1.7E+07	12211508
310.000	520873.1	-71.8632	34.71946	5493189	-1.7E+07	12148142
320.000	541259.6	-71.5804	34.46468	5598249	-1.7E+07	12081438
330.000	561095.7	-71.287	34.20062	5707345	-1.7E+07	12011167
340.000	580325.3	-70.9821	33.92639	5820830	-1.7E+07	11937000
350.000	598909.8	-70.6642	33.64067	5939263	-1.7E+07	11858474
360.000	616776	-70.3313	33.34196	6063279	-1.7E+07	11775039
370.000	633790.5	-69.9818	33.02863	6193517	-1.7E+07	11686074
380.000	649758.7	-69.614	32.69908	6330566	-1.7E+07	11590919
390.000	664403.3	-69.2261	32.3516	6474993	-1.7E+07	11488840
400.000	677359.9	-68.8164	31.98438	6627380	-1.7E+07	11379006
410.000	688171.4	-68.3828	31.59529	6788364	-1.7E+07	11260450
420.000	696294.5	-67.9231	31.18208	6958574	-1.7E+07	11132103
430.000	701364.9	-67.4388	30.74496	7137454	-1.7E+07	10993801

440.000	703162.4	-66.9327	30.28539	7323908	-1.7E+07	10845858
450.000	703063.6	-66.4154	29.81088	7514574	-1.7E+07	10691388
460.000	702850.9	-65.9023	29.33308	7704556	-1.7E+07	10535058
470.000	702649.3	-65.3942	28.85289	7893477	-1.7E+07	10377230
480.000	702464.3	-64.8911	28.37041	8081305	-1.7E+07	10217935
490.000	702298.9	-64.3928	27.88571	8268012	-1.7E+07	10057202
500.000	702155.2	-63.8994	27.39887	8453571	-1.7E+07	9895055
510.000	702033.8	-63.4105	26.90995	8637958	-1.7E+07	9731519
520.000	701934.8	-62.9263	26.41902	8821147	-1.7E+07	9566619
530.000	701858.5	-62.4464	25.92613	9003118	-1.7E+07	9400378
540.000	701805	-61.9709	25.43135	9183846	-1.7E+07	9232820
550.000	701774.8	-61.4996	24.93473	9363309	-1.7E+07	9063967
560.000	701768.1	-61.0324	24.43633	9541485	-1.7E+07	8893845
570.000	701784.8	-60.5692	23.93623	9718340	-1.7E+07	8722489
580.000	701825.2	-60.1099	23.43447	9893868	-1.7E+07	8549912
590.000	701889.1	-59.6543	22.93109	10068051	-1.7E+07	8376140
600.000	701977.6	-59.2024	22.42615	10240867	-1.7E+07	8201196
610.000	702090.3	-58.754	21.9197	10412292	-1.7E+07	8025110
620.000	702227.6	-58.309	21.41181	10582304	-1.7E+07	7847905
630.000	702389.8	-57.8675	20.9025	10750881	-1.7E+07	7669608
640.000	702577	-57.4292	20.39184	10918004	-1.7E+07	7490242
650.000	702789.3	-56.994	19.87987	11083651	-1.7E+07	7309832
660.000	703026.7	-56.5619	19.36662	11247803	-1.7E+07	7128403
670.000	703289.4	-56.1328	18.85215	11410440	-1.7E+07	6945980
680.000	703577.4	-55.7065	18.33649	11571543	-1.7E+07	6762588
690.000	703890.7	-55.283	17.8197	11731092	-1.7E+07	6578254
700.000	704229.4	-54.8622	17.30181	11889069	-1.7E+07	6393002
710.000	704593.6	-54.444	16.78286	12045453	-1.7E+07	6206858
720.000	704983.3	-54.0283	16.26289	12200228	-1.7E+07	6019849
730.000	705398.7	-53.615	15.74195	12353373	-1.7E+07	5832000
740.000	705839.6	-53.2041	15.22007	12504872	-1.7E+07	5643338
750.000	706306.2	-52.7954	14.6973	12654707	-1.7E+07	5453888
760.000	706798.5	-52.3888	14.17366	12802859	-1.7E+07	5263678
770.000	707316.6	-51.9843	13.64921	12949311	-1.7E+07	5072734
780.000	707860.3	-51.5818	13.12396	13094047	-1.7E+07	4881082
790.000	708429.9	-51.1813	12.59797	13237049	-1.6E+07	4688750
800.000	709025.2	-50.7825	12.07127	13378300	-1.6E+07	4495763
810.000	709646.3	-50.3855	11.5439	13517784	-1.6E+07	4302150
820.000	710293.1	-49.9901	11.01588	13655486	-1.6E+07	4107937
830.000	710965.6	-49.5963	10.48726	13791388	-1.6E+07	3913151
840.000	711663.9	-49.204	9.958069	13925475	-1.6E+07	3717819
850.000	712387.8	-48.8132	9.428341	14057732	-1.6E+07	3521970
860.000	713137.4	-48.4237	8.898111	14188144	-1.6E+07	3325629
870.000	713912.6	-48.0354	8.367412	14316696	-1.6E+07	3128825
880.000	714713.2	-47.6484	7.836286	14443369	-1.6E+07	2931588
890.000	715539	-47.2625	7.30476	14568152	-1.6E+07	2733944
900.000	716390.2	-46.8776	6.772864	14691030	-1.6E+07	2535918



910.000	717266.2	-46.4937	6.240641	14811989	-1.6E+07	2337544
920.000	718166.8	-46.1107	5.708118	14931014	-1.6E+07	2138845
930.000	719091.8	-45.7286	5.175331	15048093	-1.5E+07	1939852
940.000	720041.3	-45.3471	4.642303	15163214	-1.5E+07	1740590
950.000	721015.1	-44.9664	4.109067	15276363	-1.5E+07	1541086
960.000	722012.6	-44.5862	3.575659	15387526	-1.5E+07	1341370
970.000	723034.3	-44.2066	3.042104	15496694	-1.5E+07	1141467
980.000	724080	-43.8275	2.508432	15603855	-1.5E+07	941405.9
990.000	725149.5	-43.4487	1.974676	15708998	-1.5E+07	741214
1000.000	726242.7	-43.0702	1.440865	15812110	-1.5E+07	540919.4
1010.000	727359.4	-42.692	0.907031	15913180	-1.5E+07	340550.1
1020.000	728499.5	-42.3139	0.373204	16012199	-1.5E+07	140133.8
1030.000	729662.8	-41.936	-0.16059	16109154	-1.4E+07	-60301.6
1040.000	730849.1	-41.558	-0.69431	16204036	-1.4E+07	-260728
1050.000	732058.3	-41.18	-1.22793	16296835	-1.4E+07	-461118
1060.000	733290.2	-40.8019	-1.76142	16387540	-1.4E+07	-661443
1070.000	734544.5	-40.4236	-2.29475	16476143	-1.4E+07	-861676
1080.000	735821.1	-40.045	-2.8279	16562635	-1.4E+07	-1061789
1090.000	737119.8	-39.6661	-3.36082	16647005	-1.4E+07	-1261753
1100.000	738440.2	-39.2868	-3.89349	16729246	-1.4E+07	-1461542
1110.000	739782.2	-38.907	-4.42587	16809349	-1.4E+07	-1661127
1120.000	741145.6	-38.5267	-4.95795	16887306	-1.3E+07	-1860480
1130.000	742530	-38.1457	-5.48967	16963110	-1.3E+07	-2059575
1140.000	743935.4	-37.7641	-6.02103	17036752	-1.3E+07	-2258384
1150.000	745361.3	-37.3817	-6.55197	17108226	-1.3E+07	-2456878