

77-47A

Kosmos 917

Uppsänd: 15 juni från Plesetsk

$T_n = 92.45 \text{ min}$

1	10059U	77047	A	77167.19600384	.00313189	00000-0	00000-0	0	00018
2	10059	62.7809	243.6867	0266140	118.8463	231.3074	15.57624329		21

77-48A

GOES-2

Uppsänd: 15 juni från Cape Canaveral  
 $T_n = 109.01$  min, parabelisk orbit

1	10062U	77	48	B	77167.88351635	.00000000	00000-0	00000-0	0	00016
2	10062	28.4236	244.8910	0801658	68.1487	319.5879	13.20969706			67



77-49A

Signe 3

Uppsänd: 17 juni från Kapustin Yar

$T_n = 94.39 \text{ min}$

1	10064U	77049	A	77168.26315464	.00000026	00000-0	00000-0	0	00010
2	10064	50.5753	251.8269	0053295	5.2173	7.2335	15.26792386		26

1	10064U	77049	A	77168.84997689	.00000026	00000-0	00000-0	0	00020
2	10064	50.6681	248.9625	0043300	17.7879	339.2879	15.25497053		118

77-50A

Kosmos 918

Uppsänd: 17, juni från Tyuratam

$T_n = 87.69 \text{ min}$ , 123 - 198 km!

1	10065U	77-050-A	77168.42584693	.00489760	00000-0	00000-0	0	00011
2	10065	65.1100	50.8841 0088337	14.4343	358.4595	16.32785782		21
1	10065U	77-050-A	77168.66869794	.00489760	00000-0	00000-0	0	00026
2	10065	65.0656	49.9303 0057176	15.8796	349.3348	16.42080886		65

77-51A

Kosmos 919

Uppsänd: 18 juni från Plesetsk

$T_n = 95.52 \text{ min}$

1	10070U	77-051A	77170.55636365	.00048403	00000-0	00000-0	0	00035
2	10070	71.0223	61.2662	0399538	82.2732	282.3556	15.07487177	175

77-52 A

Kosmos 920

Löpsänd: 22,2 min från Tyuratam

$T_n = 89.64 \text{ min}$

1	10086U	77052	A	77174.01280238	.00084673	00000-0	00000-0	0	00030
2	10086	64.9862		63.9602 0127784	65.9855	295.7239	16.06426377		116

77-53 A

NTS 2

Uppsänd: 23 juni från WTR

$T_n = 351.87$  mch

1	10091U	77053	A	77175.25216474	.000000000	00000-0	00000-0	0	00015
2	10091	63.1833	115.7471	6040181	157.7551	247.8306	4.09240250		22

77-54A

Molniya 1-AN

Uppsänd: 24, juni från Plesetsk

$T_n = 699.99$  min

1	10092U	77-054	A	77175.29535962	.00005000	00000-0	00000-0	0	00013
2	10092	62.9202		30.3237 7381491	280.2234	11.0242	2.05718374		15
1	10093U	77-054	B	77175.29491422	.00168112	00000-0	00000-0	0	00010
2	10093	62.9396		30.1492 0183112	60.8096	302.0382	15.71540390		18

77-55A

Kosmos 921

Uppsänd: 24, juni

Plesetsk; G20-700km

$T_n = 97.915$  min

1	10095U	77-055	A	77175.49648886	-.00002329	00000-0	00000-0	0	00011
2	10095	75.9205		82.4181	0053525	263.8134	98.3845	14.71401405	11

1	10095U	77055	A	77175.83595210	-.00002329	00000-0	00000-0	0	00032
2	10095	75.8386		81.6734	0055972	274.8223	83.7080	14.70657339	66

1	10095U	77055	A	77178.08108136	.00008263	00000-0	00000-0	0	00042
2	10095	75.8423		77.7996	0056720	269.6549	89.9103	14.70667984	396

77-56 A

Big Bird [Titan 3D]

Uppsänd: 27, juni från WTR ; 155-239 km

$T_n = 88.43 \text{ min}$

1	10111U	77056	A	77179.17887923	.00500000	00000-0	00000-0	0	00025
2	10111	97.0277	249.2895	0064367	125.5936	231.2947	16.28451284		70



77-57A

Meteor 28

Uppstånd: 29 juni från ~~WTR~~ Tycharatan

$T_a = 97.24$  min

662-593 km

1	10113U	77057	A	77181.02336576	.00108618	00000-0	00000-0	0	00027
2	10113	97.9090		72.9861 0048913	22.0672	339.4059	14.78361194		40

77-58A

Kosmos 922

$T_a = 89,54 \text{ min}$

uppsänd: 30, juni/år  
period: 205-299 km

1	10115U	77058	A	77181.69606456	.00500000	00000-0	00000-0	0	00010
2	10115	62.8146		78.2364 0071443	78.9574	284.4342	16.03233645		23

Landade: Juli 13.20

77-59A

Kosmos 923

Uppsänd: 1 juli från Plesetsk, kl. 1300 sv t.

$T_a = 101.015$  min

799-817 km

1	10120U	77059	A	77182.55413932	-.00002329	00000-0	00000-0	0	00010
2	10120	74.0500	105.8388	0013292	83.7943	276.3028	14.25525550		19

77-60A

Kosmos 924

Uppsänd: 4 juli från Plesetsk

$T_a = 95.27$  min  
513-550 km

1	10129U	77-060-A	77185.93650773	.00007021	00000-0	00000-0	0	00012
2	10129	74.0327	265.8979	0028511	358.2179	358.0593	15.11468797	19

77-61A

Kosmos 925

Uppskänd: 7,2 li från Plesetsk

$T_a = 97,098 \text{ min}$   
609-684 km

1	10134U	77-061-A	77188.70470819	.00027754	00000-0	00000-0	0	00029
2	10134	81.2142	59.9548	0018812	269.9733	88.2358	14.83028521	62

77-62A

Kosmos 926

Loppänd: 8 juli från Plezetsk; 976-1022 km

$T_a = 105.064 \text{ min}$

1	101370	77	062	A	77190.29929969	.00161629	00000-0	00000-0	0	00034
2	10137	82.9374	216.7628	0030830	274.9559	84.8097	13.70587196			74

77-63A

Kosmos 927

Uppsänd: 12 juli från Plesetsk; 153-361 km

$T_a = 89.92$  min; Landade Juli 25.2

Frekv: 19.989 MHz, två-ton

1	10139U	77063	A	77193.86651966	.00141438	00000-0	00000-0	0	00027
2	10139	72.8461		68.7140 0157636	86.0581	275.1878	16.01252249		84

77-64 A

Kosmos 928

Leppänd: 13 juli från Plesetsk; 956-1011km

$T_a = 104.84$  min

1	10141U	77	64	A	77194.63215808	.00003978	00000-0	00000-0	0	00035
2	10141	82.9776	34.4033	0023899	285.6155	72.2658	13.73522965			67



77-65 Himawari GMS/Japan

Uppskänd: 14 juli från Cape Canaveral  
Banan är parabelisk bana. Satelliten är  
Japans geostationära vädersatellit.

1	10145U	77065	C	77195.55699402	.00004540	00000-0	00000-0	0	00012
2	10145	28.5249	271.2109	0355149	164.8362	196.3175	15.49101751		20

77-66A

Kosmos 929

Uppsänd: 17 juli kl. 0900 GMT från Tyuratovm

$T_a = 89.44$  min ; 214-278 km

Frekv: 19.954, 166.0 MHz.

1	10147U	77 066 B	77198.73945208	.00064323	00000-0	00000-0	0	00011
2	10147	51.5902	77.3883 0037465	79.3617	283.9778	16.13265214		62

1	10148U	77 066 C	77198.73972765	.00064323	00000-0	00000-0	0	00010
2	10148	51.5914	77.4041 0052375	83.8962	275.3423	16.08993419		64

1	10146U	77 066 A	77198.61338138	.00064323	00000-0	00000-0	0	00015
2	10146	51.6051	78.1232 0035891	98.1220	249.5791	16.13480444		49

1	10146U	77 066 A	77198.73945208	.00064323	00000-0	00000-0	0	00021
2	10146	51.5850	77.4178 0048921	84.9717	274.0854	16.09910419		68

1	10146U	77 066 A	77199.60870207	.00215444	00000-0	00000-0	0	00037
2	10146	51.5850	72.7062 0048460	88.4993	272.6891	16.10320509		209

1	10146U	77 066 A	77203.01998525	.00233468	00000-0	00000-0	0	00040
2	10146	51.5835	54.1841 0044250	102.8471	257.4794	16.11907365		752

1	10146U	77 066 A	77206.42304730	.00273923	00000-0	00000-0	0	00052
2	10146	51.5353	35.6233 0042370	116.3164	244.5154	16.13609149		1300

1	10146U	77 066 A	77207.97581384	.00233947	00000-0	00000-0	0	00063
2	10146	51.5836	27.1960 0038882	122.6240	237.5284	16.14337832		1553

1	10146U	77 066 A	77208.40914397	.00233947	00000-0	00000-0	0	00072
2	10146	51.5333	24.8457 0043188	120.1982	239.5406	16.13393592		1621

1	10146U	77 066 A	77210.88588610	.00254031	00000-0	00000-0	0	00086
2	10146	51.5791	11.3411 0040477	129.8121	230.7654	16.14635464		2020

1	10146U	77 066 A	77211.44232003	.00264031	00000-0	00000-0	0	00092
2	10146	51.5320	8.3043 0042093	126.8903	232.8255	16.13379212		2111

1	10146U	77 066 A	77212.74296581	.00300189	00000-0	00000-0	0	00104
2	10146	51.5320	1.2054 0039269	132.2090	223.6122	16.14692998		2323

77-66A forts. 1 Kosmos 929

1	10146U	77 066 A	77214.35148847	.00261703	00000-0	00000-0	0 00113
2	10146	51.5835	352.4400 0043814	126.0505	232.9709	16.16223773	2580

1	10146U	77 066 A	77216.89039247	.00290838	00000-0	00000-0	0 00129
2	10146	51.5840	338.5967 0040301	136.7280	223.7902	16.14577771	2994

1	10146U	77 066 A	77218.68465593	.00339637	00000-0	00000-0	0 00137
2	10146	51.5821	328.7989 0037388	144.0833	216.7028	16.15775059	3289

1	10146U	77 066 A	77219.36478787	.00330710	00000-0	00000-0	0 00146
2	10146	51.5833	325.0766 0035489	146.8718	213.3969	16.16211413	3396

1	10146U	77 066 A	77221.34253008	.00349022	00000-0	00000-0	0 00151
2	10146	51.5803	314.2394 0034320	156.5286	203.9362	16.17569679	3710

1	10146U	77 066 A	77223.13334173	.00314776	00000-0	00000-0	0 00162
2	10146	51.5793	304.4366 0033537	161.9114	198.5800	16.18835517	4004

1 10146U 77 066 A 77224.98449576 .00415262 00000-0 00000-0 0 00173  
2 10146 51.5820 294.2627 0029059 172.0590 188.5343 16.20254891 4303

1 10146U 77 066 A 77226.46405462 .00472671 00000-0 00000-0 0 00182  
2 10146 51.5818 286.1129 0027013 178.4411 182.0247 16.21627619 4548

1 10146U 77 066 A 77227.01850726 .00430507 00000-0 00000-0 0 00194  
2 10146 51.5812 283.0538 0026718 180.8243 179.1687 16.22078940 4636

1 10146U 77 066 A 77228.12709760 .00480950 00000-0 00000-0 0 00207  
2 10146 51.5788 276.9308 0025506 186.5027 173.8062 16.23139717 4310

1 10146U 77 066 A 77229.48094906 .00570506 00000-0 00000-0 0 00214  
2 10146 51.5747 269.4499 0023265 188.4069 172.0218 16.24632106 5030

1 10146U 77 066 A 77230.09583993 .00570506 00000-0 00000-0 0 00223  
2 10146 51.5746 266.0642 0009705 236.1301 118.2719 16.17777270 5138

1 10146U 77 066 A 77231.08477807 .00570506 00000-0 00000-0 0 00230  
2 10146 51.5998 260.6081 0017914 219.7915 113.2459 15.85614714 5293

77-66A forts. 2

Kosmos 929

1	10146U	77 066 A	77231.40457603	.00570506	00000-0	00000-0	0	00249
2	10146	51.5829	259.0103	0004409	279.6719	79.6818	15.85608444	5348

1	10146U	77 066 A	77231.59375832	.00044168	00000-0	00000-0	0	00253
2	10146	51.5808	258.0287	0005518	280.8062	79.0687	15.85476366	5371

1	10146U	77 066 A	77232.53920120	.00022677	00000-0	00000-0	0	00266
2	10146	51.5827	253.0892	0005167	284.5040	75.3786	15.85497129	5522

1	10146U	77 066 A	77235.31237214	.00022677	00000-0	00000-0	0	00271
2	10146	51.5817	238.5862	0005248	315.8795	43.2936	15.85153000	5962

1	10146U	77 066 A	77236.44726391	.00031051	00000-0	00000-0	0	00282
2	10146	51.5819	232.6511	0005032	320.3245	39.8243	15.85239561	6147

1	10146U	77 066 A	77238.84260845	.00031051	00000-0	00000-0	0	00296
2	10146	51.5843	220.1435	0003184	22.8018	336.5102	15.83686593	6526

1	10146U	77 066 A	77239.41065160	.00075565	00000-0	00000-0	0	00303
2	10146	51.5781	217.1665	0008036	25.0342	335.1831	15.83783633	6616

1	10146U	77 066 A	77240.35704511	.00144505	00000-0	00000-0	0	00310
2	10146	51.5721	212.2255 0007434	28.7360	331.1626	15.83858642		6769

1	10146U	77 066 A	77241.49265439	.00036361	00000-0	00000-0	0	00323
2	10146	51.5857	206.3124 0009564	31.8723	327.5206	15.83891523		6940

1	10146U	77 066 A	77242.18679428	.00020761	00000-0	00000-0	0	00330
2	10146	51.5801	202.6862 0009352	34.5882	325.4673	15.83910706		7051

1	10146U	77 066 A	77243.25935550	.00032091	00000-0	00000-0	0	00340
2	10146	51.5778	197.0874 0008971	39.1891	321.0401	15.83983449		7225

1	10146U	77 066 A	77243.89022304	.00032091	00000-0	00000-0	0	00355
2	10146	51.5805	193.7985 0011211	45.0334	314.6738	15.83498497		7327

1	10146U	77 066 A	77244.39516683	.00032091	00000-0	00000-0	0	00360
2	10146	51.5713	191.1644 0011622	48.1922	312.0377	15.83552993		7409

1	10146U	77 066 A	77246.79306809	.00032607	00000-0	00000-0	0	00377
2	10146	51.5843	178.6584 0011735	54.6681	305.4760	15.83704510		7782

1	10146U	77 066 A	77250.26332841	.00032330	00000-0	14245-3	0	00382
2	10146	51.5793	160.5566 0010716	68.0318	292.2956	15.83952741		8338

1	10146U	77 066 A	77251.65124911	.00037109	00000-0	16240-3	0	00390
2	10146	51.5932	153.2994 0012946	70.4290	289.5171	15.84002074		8558

77-66A

Kosmos 929 for ts. 3

1	10146U	77 066 A	77253.10227528	.00031131	00000-0	00000-0	0 00405
2	10146	51.5772	145.7431 0010579	76.4480	283.6207	15.84071714	8786

1	10146U	77 066 A	77255.37326588	.00041610	00000-0	00000-0	0 00416
2	10146	51.5809	133.8913 0010183	84.4651	276.0168	15.84272442	9144

1	10146U	77 066 A	77258.21147976	.00040860	00000-0	00000-0	0 00421
2	10146	51.5855	119.0663 0009190	95.5690	264.5866	15.84436722	9599

1	10146U	77 066 A	77265.33693441	.00052357	00000-0	00000-0	0 00430
2	10146	51.5788	81.8444 0009043	119.8013	240.6861	15.85141435	10720

1	10146U	77 066 A	77267.79533986	.00059900	00000-0	00000-0	0 00441
2	10146	51.5804	68.9948 0009283	128.3356	231.6999	15.85366901	11118

1	10146U	77 066 A	77272.96326511	.00050718	00000-0	00000-0	0 00460
2	10146	51.5803	41.9615 0007027	148.5824	211.6174	15.85901583	11931

1	10146U	77 066 A	77274.34946301	.00034652	00000-0	00000-0	0 00479
2	10146	51.5785	34.7117 0007765	151.8443	208.2195	15.86016861	12157



1 10146U 77 066 A 77275.35757685 .00050091 00000-0 00000-0 0 00482  
2 10146 51.5811 29.4333 0007472 155.7981 204.3943 15.86119603 12317

1 10146U 77 066 A 77277.37355348 .00048896 00000-0 00000-0 0 00497  
2 10146 51.5825 18.8780 0006800 165.2482 194.8626 15.86318507 12636

1 10146U 77 066 A 77278.38145462 .00050062 00000-0 00000-0 0 00503  
2 10146 51.5851 13.6011 0006386 169.1993 190.9933 15.86437915 12794

1 10146U 77 066 A 77282.47532661 .00048119 00000-0 00000-0 0 00510  
2 10146 51.5827 352.1574 0005833 181.5792 178.7207 15.86866112 13444

1 10146U 77 066 A 77284.49033515 .00054889 00000-0 00000-0 0 00520  
2 10146 51.5799 341.5975 0006447 190.9223 169.3854 15.87096569 13760

1 10146U 77 066 A 77286.19024620 .00074725 00000-0 00000-0 0 00538  
2 10146 51.5799 332.6847 0005664 197.5976 162.5934 15.87327490 14032

1 10146U 77 066 A 77288.14167326 .00114396 00000-0 00000-0 0 00546  
2 10146 51.5777 322.4497 0005627 210.4489 149.3924 15.87539302 14342

77-66A

Kosmos 929 fonts. 4.

1 10146U 77 066 A 77289.46347883 .00065366 00000-0 23793-3 0 00550  
2 10146 51.5796 315.5137 0005629 210.6521 149.2070 15.87734115 14551

1 10146U 77 066 A 77291.41448429 .00070863 00000-0 00000-0 0 00568  
2 10146 51.5708 305.2779 0006667 213.5205 146.4143 15.87967391 14864

1 10146U 77 066 A 77293.99434957 .00026732 00000-0 00000-0 0 00571  
2 10146 51.5785 291.7295 0005718 230.3149 129.6416 15.88274485 15279

1 10146U 77 066 A 77296.32224429 .00066144 00000-0 00000-0 0 00584  
2 10146 51.5785 279.5058 0005196 239.4700 121.4962 15.88591267 15640

1 10146U 77 066 A 77297.32853084 .00063244 00000-0 00000-0 0 00599  
2 10146 51.5788 274.2163 0004633 243.4324 116.5900 15.83714237 15308

1 10146U 77 066 A 77299.27830619 .00050224 00000-0 17300-3 0 00604  
2 10146 51.5818 263.9601 0005139 251.8763 108.0562 15.88919550 16111

1 10146U 77 066 A 77301.47941324 .00050224 00000-0 00000-0 0 00613  
2 10146 51.5730 252.3917 0004211 260.5387 99.9049 15.89224438 16466

1 10146U 77 066 A 77302.23389231 .00050224 00000-0 00000-0 0 00622  
2 10146 51.5732 248.4265 0003894 263.5089 96.9182 15.89416118 16584

1 10146U 77 066 A 77302.86254346 .00070044 00000-0 00000-0 0 00632  
2 10146 51.5763 245.1240 0005156 260.5885 99.5841 15.89533103 16685

1 10146U 77 066 A 77305.25126466 .00076522 00000-0 00000-0 0 00647  
2 10146 51.5782 232.5518 0004868 275.2258 84.9814 15.89901078 17061

1 10146U 77 066 A 77306.38254197 .00076475 00000-0 00000-0 0 00653  
2 10146 51.5798 226.5927 0005023 280.4176 79.5994 15.90064745 17248

1 10146U 77 066 A 77308.70763644 .00070430 00000-0 00000-0 0 00659  
2 10146 51.5808 214.3567 0004729 287.3189 72.5428 15.90385658 17612

1 10146U 77 066 A 77311.53487214 .00085706 00000-0 00000-0 0 00673  
2 10146 51.5804 199.4552 0004836 294.3364 66.1055 15.90862250 18060

1 10146U 77066 A 77314.17273710 .00063041 -25464-4 00000-0 0 00708  
2 10146 51.5746 185.5476 0004578 304.9067 55.1467 15.91244364 18489

77-66 A

Kosmos 929 forts. 5

1	10146U	77 066 A	77322.83578162	.00053680	00000-0	00000-0	0	00723
2	10146	51.5772	139.8155 0005702	337.5537	22.2619	15.92449952		19866

1	10146U	77 066 A	77331.36754826	.00090674	00000-0	00000-0	0	00762
2	10146	51.5743	94.7069 0006965	8.8403	351.8317	15.93562394		21225

1	10146U	77 066 A	77334.31428665	.00000000	00000-0	00000-0	0	00774
2	10146	51.5784	79.1123 0008059	16.9141	342.7960	15.93958754		21696

1	10146U	77 066 A	77337.82445490	.00135164	00000-0	00000-0	0	00790
2	10146	51.5789	60.5136 0006372	30.8468	329.7331	15.94749208		22255

1	10146U	77 066 A	77346.41200383	.00112725	00000-0	00000-0	0	00849
2	10146	51.5824	15.0323 0008749	50.8822	309.3703	15.93058168		23620

1	10146U	77 066 A	77349.35963716	.00152020	00000-0	00000-0	0	00854
2	10146	51.5829	359.4185 0014247	65.9832	291.4535	15.92473229		24098

1	10146U	77 066 A	77350.99142434	.00077527	00000-0	00000-0	0	00861
2	10146	51.5761	350.8118 0014266	70.7024	288.6444	15.92700440	24356	

1	10146U	77 066 A	77352.74823742	.00087110	00000-0	00000-0	0	00874
2	10146	51.5796	341.5247 0013844	77.7252	282.6706	15.93014225	24631	

1	10146U	77 066 A	77353.43822375	.00087110	00000-0	00000-0	0	00883
2	10146	51.5893	338.1220 0006373	283.9378	318.5430	15.41026966	24744	

1	10146U	77 066 A	77353.84842248	.00054725	00000-0	00000-0	0	00892
2	10146	51.5892	336.1143 0006063	285.4404	74.5086	15.41046356	24806	

1	10146U	77 066 A	77355.46974390	.00000390	00000-0	00000-0	0	00912
2	10146	51.5793	328.1814 0006575	277.9274	81.9912	15.40989593	25057	

1	10146U	77 066 A	77354.49696401	.00013422	00000-0	00000-0	0	00907
2	10146	51.5802	332.9430 0006821	272.8042	87.0018	15.41001893	24902	

1	10146U	77 066 A	77358.45285821	.00001336	00000-0	00000-0	0	00920
2	10146	51.5753	313.5772 0006709	293.9120	66.0744	15.41007580	25517	

1	10146U	77 066 A	77359.29591129	.00002094	00000-0	00000-0	0	00937
2	10146	51.5777	309.4532 0006700	297.0009	63.0198	15.41011013	25643	

1	10146U	77 066 A	77361.82503926	.00004414	00000-0	00000-0	0	00946
2	10146	51.5790	297.0791 0006504	304.9192	55.1718	15.41034364	26038	

77-66A

Kosmos 929

for ts. 6.

1	10146U	77 066 A	77365.71594692	.00008352	00000-0	00000-0	0	00965
2	10146		51.5792 278.0387	0006856	321.6683	38.4397	15.41056466	26631

1	10146U	77 066 A 78	2.40196169	.00004659	00000-0	00000-0	0	00974
2	10146		51.5769 269.7784	0006734	327.8570	32.1944	15.41067364	26897

1	10146U	77 066 A	77363.83532581	-.00000037	00000-0	00000-0	0	00957
2	10146		51.5807 287.2400	0006856	314.7783	45.2003	15.41035428	26343

1	10146U	77 066 A 78	4.41221543	.00005754	00000-0	00000-0	0	00980
2	10146		51.5775 259.9411	0006653	335.2252	24.8900	15.41094922	27208

1	10146U	77 066 A 78	11.41540409	.00009696	00000-0	00000-0	0	00993
2	10146		51.5744 225.6608	0007604	3.4183	356.7576	15.41184423	28287

1	10146U	77 066 A 78	14.39808237	-.00003781	00000-0	00000-0	0	01002
2	10146		51.5838 211.0529	0008036	10.5709	349.2654	15.41190271	28748

1	10146U	77 066 A 78	15.50045131	-.00001344	00000-0	00000-0	0	01016
2	10146		51.5753 205.6598	0008072	14.6081	345.5582	15.41198681	28918

1 10146U 77 066 A 78 21.20645532 .00013346 00000-0 00000-0 0 01037  
2 10146 51.5756 177.7249 0008084 36.4079 323.7737 15.41244221 29794

1 10146U 77 066 A 78 19.45580313 .00002695 00000-0 00000-0 0 01020  
2 10146 51.5769 186.2951 0007483 31.8745 328.5068 15.41221584 29522

1 10146U 77 066 A 78 27.30152313 .00315912 00000-0 00000-0 0 01056  
2 10146 51.5754 147.8903 0009201 48.8944 311.9903 15.41273939 30733

1 10146U 77 066 A 78 29.20912485 .00008361 00000-0 00000-0 0 01062  
2 10146 51.5784 143.4437 0008320 58.4910 301.6421 15.41281901 30876

1 10146U 77 066 A 78 30.28393404 .00012141 00000-0 00000-0 0 01079  
2 10146 51.5796 133.2862 0008170 66.0885 293.9951 15.41307191 31194

1 10146U 77 066 A 78 32.22903782 .00027339 00000-0 22575-3 0 01087  
2 10146 51.5873 123.7603 0074859 247.8666 124.8616 15.60532581 31498

1 10146U 77 066 A 78 33.12316013 -.00082445 00000-0 -87514-3 0 01092  
2 10146 51.5844 119.2401 0073046 250.3467 108.6772 15.60398581 31634

77-67A

Kosmos 930

Uppskänd: 19 juli från Plesetsk.

$T_n = 94.59$  min  
481-514 km

1	10149U	77067	A	77200.41706328	.00007021	00000-0	00000-0	0	00013
2	10149	74.0131		75.1224 0024331	6.5525	351.5359	15.22601655		10

1	10149U	77067	A	77200.81167066	.00007021	00000-0	00000-0	0	00028
2	10149	74.0144		74.2922 0023883	1.4401	359.2939	15.23035143		76



77-68A

Kosmos 931

Uppsänd: 20 juli från Plesetsk; 604-40065km

$T_u = 724.12 \text{ min}$

1	10150U	77	068	A	77201.24755999	-.00001260	00000-0	00000-0	0	00016
2	10150	62.9581	318.6977	7386300	318.1527	4.5185	1.98852569			12

77-69A

Kosmos 932

Uppsänd: 20,21i från Tyuratam; 149-311km

Landade Aug. 2.2  $T_n = 89.09$  min

Frekv: 19.989 MHz, två-ton.

1	10153U	77069	A	77201.43443498	.00084673	00000-0	00000-0	0	00017
2	10153	65.0462		87.3779 0112113	65.2896	293.8315	16.10055653		26

1	10153U	77069	A	77202.05593296	.00084673	00000-0	00000-0	0	00029
2	10153	65.0283		85.0914 0108432	65.3757	295.6092	16.10271015		124

1	10153U	77069	A	77203.72933955	.00453094	00000-0	00000-0	0	00054
2	10153	65.0212		73.9009 0119963	53.4902	303.0706	16.16971250		397

77-70A

Kosmos 933

Uppskåd: 22 juli från Plesetsk  
384-408 km ;  $T_n = 92.46 \text{ min}$

1	10157U	77 70	A	77203.53427268	.00001088	00000-0	00000-0	0 00012
2	10157	65.8613		71.1265 0046490	351.0831	6.8256	15.55873527	28

1	10157U	77 70	A	77203.72749120	.00001088	00000-0	00000-0	0 00028
2	10157	65.8624		70.4798 0035305	351.0295	10.1212	15.57100482	58

1	10157U	77 70	A	77204.17690034	.00001088	00000-0	00000-0	0 00038
2	10157	65.8425		68.9850 0017333	341.4778	19.4192	15.57476050	122

1	10157U	77 70	A	77204.62650609	.00004466	00000-0	00000-0	0 00035
2	10157	65.8361		67.5005 0017449	342.7341	18.7640	15.57478778	192

77-71

Stationsar-Raduga 3

Uppsänd: 23 juli från Tyuratam

1	101600	77-071	B	77205.12334460	.00849396	61814-3	15369-3	0	00015
2	10160	51.4670	268.0007	0014833	285.5092	77.6979	16.31411829		41

77-72A

Kosmos 934

Uppsättnad: 27 juli från Plesetsk; 237-255km

 $T_{in} = 89.35$  (28, juli)

Frekv: 19.989 MHz, två-ton

1	10164U	77-072	A	77208.86774280	.00500000	00000-0	00000-0	0	00011
2	10164	62.8129	166.7203	0019332	296.6634	68.8855	16.11305372		22

1	10164U	77-072	A	77209.30113211	.00500000	00000-0	00000-0	0	00023
2	10164	62.8101	164.9889	0018200	289.3749	70.2480	16.11535321		98

1	10164U	77-072	A	77209.92157331	.00500000	00000-0	00000-0	0	00033
2	10164	62.8196	162.5298	0133438	204.6251	142.1021	16.07005096		196

1	10164U	77-072	A	77210.91907742	.00205635	00000-0	00000-0	0	00040
2	10164	62.8168	158.5739	0131801	204.7895	153.6799	16.07425457		351

1	10164U	77-072	A	77212.72290413	.00172063	00000-0	00000-0	0	00050
2	10164	62.8192	151.4032	0129231	205.3042	154.0129	16.08034632		647

77-73A

Kosmos 935

Uppsänd: den 29 juli från Pleseetsk. ; 217-251km

$T_u = 89.20$  min

Frekv: 19.994 MHz, FSK-PDM

1	10163U	77-073-A	77210.38861325	.00400000	00000-0	00000-0	0	00013
2	10168	81.3354	91.1797 0016763	58.3397	307.4148	16.17623729		16

1	10168U	77-073-A	77210.44953287	.00400000	00000-0	00000-0	0	00020
2	10168	81.3333	91.0697 0027061	74.8583	234.5074	16.15203780		27

1	10168U	77-073-A	77212.67965107	.00103608	00000-0	00000-0	0	00047
2	10168	81.3243	88.1225 0025506	66.8303	293.7215	16.15738612		384

1	10168U	77-073-A	77216.39478486	.00093583	00000-0	00000-0	0	00072
2	10168	81.3232	83.1983 0024267	54.3939	305.8400	16.16409743		981

77-74A

Kosmos 936

Uppsänd : 3 augusti från Plesetsk ; 219-3964m

 $T_n = 90.63 \text{ min}$ 

1	10172U	77-74 A	77215.69675900	.00500000	00000-0	00000-0	0	00010
2	10172	62.8143	112.0570 0135124	110.9092	245.2133	15.88308268		27

1	10172U	77-74 A	77216.07540941	.00500000	00000-0	00000-0	0	00020
2	10172	62.8143	110.5946 0133556	110.9791	250.4054	15.88567566		89

1	10172U	77-74 A	77216.13833337	.00157355	00000-0	00000-0	0	00038
2	10172	62.7999	110.3427 0135798	111.0152	250.4521	15.88422383		90

1	10172U	77-74 A	77217.14555321	.00065036	00000-0	00000-0	0	00044
2	10172	62.8028	106.4473 0135252	111.7423	249.3619	15.88520782		258

1	10172U	77-74 A	77220.41343946	.00068839	00000-0	00000-0	0	00067
2	10172	62.8046	93.7986 0133314	111.7566	249.6269	15.89017213		772

1	10172U	77-74 A	77232.05366850	.00091880	00000-0	00000-0	0	00099
2	10172	62.8026	48.7403	0125927	113.2218	248.7005	15.90956316	2628



77-75A

HEAO

Uppstånd: 12 augusti från Cape Canaveral; 428-447 km

$T_u = 93.16$  min

1	10217U	77-075-A	77224.45093263	.00000000	00000-0	00000-0	0	00028
2	10217	22.7578	236.8014 0014531	295.4298	64.4462	15.42098549		37

1	10217U	77-075-A	77233.18497339	.00000708	00000-0	00000-0	0	00070
2	10217	22.7569	173.0367 0015668	48.7400	311.5950	15.42161697		1399

77-76 A

Voyager 2

77-77A

Kosmos 937 parts.

1	10278U	77 077 A	77295.70651414	-.00010716	00000-0	00000-0	0	00632
2	10278	65.0437	276.1164	0011802	282.2976	77.8762	15.43414714	9178

1	10278U	77 077 A	77296.28964915	.00002413	00000-0	00000-0	0	00644
2	10278	65.0446	274.1740	0011856	282.0423	77.9538	15.43419117	9264

1	10278U	77 077 A	77297.84475261	-.00006635	00000-0	00000-0	0	00650
2	10278	65.0430	268.9888	0011727	283.6206	76.2301	15.43389895	9500

1	10278U	77 077 A	77302.25081638	.00080935	00000-0	00000-0	0	00691
2	10278	65.0475	254.2940	0011451	283.3163	76.1942	15.43485039	10182

1	10278U	77 077 A	77306.39788299	-.00006512	00000-0	00000-0	0	00710
2	10278	65.0453	240.4677	0011470	284.3626	75.7190	15.43388146	10820

1	10278U	77 077 A	77307.43463078	-.00008183	00000-0	00000-0	0	00728
2	10278	65.0432	237.0137	0011528	283.9094	76.0637	15.43371312	10982

1 10278U 77 077 A 78 64.97482671 -.00019032 00000-0 00000-0 0 01566  
2 10278 65.0447 188.5196 0012695 297.9306 62.0501 15.42812727 29894

77-77 A

Kosmos 937

Uppstånd: 24 augusti från Pleseetsk; 149-597km  
 $T_u = 92.07\text{min}$  ;  $F_{\text{rev}} = 166.0\text{MHz}$

1	10278U	77 077 A	77236.35290794	.00000000	00000-0	00000-0	0	00014
2	10278	65.0483	113.7533 0331870	64.0763	294.4136	15.64144769		14

1	10278U	77 077 A	77236.41773342	.00100000	00000-0	00000-0	0	00028
2	10278	64.9335	113.8102 0242758	94.5383	268.7589	15.51162497		24

1	10278U	77 077 A	77243.93429538	.00062038	00000-0	00000-0	0	00127
2	10278	65.0467	88.7272 0013236	272.3065	87.8180	15.43472829		1189

1	10278U	77 077 A	77245.81326230	-.00013713	00000-0	00000-0	0	00173
2	10278	65.0454	82.4626 0014303	275.2820	84.4598	15.43434747		1471

1	10278U	77 077 A	77248.79394070	-.00020603	00000-0	00000-0	0	00200
2	10278	65.0441	72.5225 0014417	272.5344	87.2997	15.43354580		1930

1	10278U	77 077 A	77250.41397213	-.00005036	00000-0	-10937-3	0	00212
2	10278	65.0400	67.1289 0014356	275.2091	84.8869	15.43335845		2188

1	10278U	77 077 A	77251.51554607	.00067511	00000-0	14794-2	0	00225
2	10278	65.0450	63.4466 0012177	274.0367	86.7416	15.43595763		2356

1	10278U	77 077 A	77253.13510882	.00067511	00000-0	00000-0	0	00247
2	10278	65.0441	58.0546 0013867	269.9245	89.4215	15.43560119		2602

1	10278U	77 077 A	77253.26479775	.00067511	00000-0	00000-0	0	00257
2	10278	65.0458	57.6251 0013533	273.5476	86.3349	15.43540534		2620

1	10278U	77 077 A	77253.78312909	.00012108	00000-0	27218-3	0	00265
2	10278	65.0008	55.8957 0013961	260.8544	98.9260	15.43504432		2701

1	10278U	77 077 A	77255.46774471	.00012108	00000-0	00000-0	0	00276
2	10278	65.0429	50.2722 0013200	273.9771	85.5105	15.43469434		2960

1	10278U	77 077 A	77258.12453380	-.00005808	00000-0	-12673-3	0	00290
2	10278	65.0399	41.4221 0013137	273.8836	86.0102	15.43320625		3379

77-77A

Kosmos 937

1 10278U 77 077 A 77258.77255109 .00077530 00000-0 00000-0 0 00309  
2 10278 65.0483 39.2556 0012099 273.2320 86.9653 15.43465718 3471

1 10278U 77 077 A 77260.39236230 -.00043453 00000-0 -10370-2 0 00328  
2 10278 65.0493 33.8422 0012530 276.3629 83.2772 15.43367300 3728

1 10278U 77 077 A 77262.40129864 -.00048453 00000-0 00000-0 0 00338  
2 10278 65.0458 27.1524 0013369 275.4806 85.2739 15.43319643 4033

1 10278U 77 077 A 77262.66035879 .00113531 00000-0 00000-0 0 00348  
2 10278 65.0529 26.2936 0013478 275.3631 84.6701 15.43412063 4071

1 10278U 77 077 A 77263.76180003 .00014440 00000-0 00000-0 0 00350  
2 10278 65.0458 22.6069 0012399 274.8974 84.3257 15.43352927 4248

1 10278U 77 077 A 77265.31711540 .00004751 00000-0 00000-0 0 00375  
2 10278 65.0453 17.4346 0012289 274.2083 86.1390 15.43449367 4485

1 10278U 77 077 A 77265.83540661 -.00001334 00000-0 00000-0 0 00382  
2 10278 65.0436 15.7061 0012096 275.9590 83.9723 15.43437692 4560

1 10278U 77 077 A 77267.77928199 .00030063 00000-0 00000-0 0 00394  
2 10278 65.0496 9.2305 0012770 276.4991 83.3075 15.43424917 4868

1 10278U 77 077 A 77269.26966703 .00030114 00000-0 00000-0 0 00413  
2 10278 65.0442 4.2588 0011389 279.7092 80.3452 15.43429660 5092

1 10278U 77 077 A 77274.32368588 -.00044439 00000-0 00000-0 0 00442  
2 10278 65.0439 347.4103 0011975 279.3914 80.7240 15.43376988 5872

1 10278U 77 077 A 77275.42526129 -.00024012 00000-0 00000-0 0 00457  
2 10278 65.0458 343.7343 0012397 278.9161 81.3083 15.43361755 6044

1 10278U 77 077 A 77276.39720998 .00011906 00000-0 00000-0 0 00462  
2 10278 65.0464 340.4949 0012599 278.4926 81.6593 15.43400011 6199

1 10278U 77 077 A 77284.49681305 .00051570 00000-0 00000-0 0 00539  
2 10278 65.0441 313.4950 0010869 284.1894 75.9862 15.43481989 7449

1 10278U 77 077 A 77285.33907373 -.00013362 00000-0 00000-0 0 00548  
2 10278 65.0439 310.6883 0011761 279.6099 80.1841 15.43445032 7576



77-78 A

Kosmos 938

Loppstånd: 24 augusti från Perseus 181-340km

$T_n = 89.70 \text{ min}$  Freqv: 19.989 MHz, två-ton

1	10281U	77-078A	77236.71689789	.00500000	00000-0	00000-0	0	00011
2	10281	62.8184	139.9372 0119857	82.0159	279.9965	16.04793339		22

1	10281U	77-078A	77238.27056135	.00425764	00000-0	00000-0	0	00043
2	10281	62.8173	133.7512 0128937	72.4976	283.7639	16.11797929		272

1	10281U	77-078A	77239.69698976	.00408867	00000-0	00000-0	0	00051
2	10281	62.8160	128.0549 0125577	72.9834	288.2506	16.12943612		507

77-79 A

Kosmos-939 - 946

Uppsättnad: 24 augusti från Plöselh ; 1455-1464 km  
 $T_u = 114.88$  min

1	10282U	77	79	A	77236.82574628	.00000064	00000-0	00000-0	0	00014
2	10282	74.0427	256.1329	0018603	67.6839	290.2725	12.62492685			17

77-80

Sirio 1

Uppsänd: 25 augusti från Cape Canaveral

1	10298U	77080	E	77238.04470800	.00000000	00000-0	00000-0	0	00016
2	10298	28.0949	151.1534	0705302	162.5518	199.5210	14.55047079		19

77-81A

Kosmos 947

Uppsänd: 27 aug. från Plesetsk ; 203-321 km

$T_h = 89.75$  min ; Freqv: 19.994 MHz, Fwd-ton.

1	10299U	77081	A	77239.47779724	.01024295	00000-0	00000-0	0	00016
2	10299	72.8636	132.5885	0089089	68.0634	293.5608	16.04735154		18

1	10299U	77081	A	77239.91396454	.01024295	00000-0	00000-0	0	00021
2	10299	72.8410	131.5025	0087317	69.2397	291.2063	16.05017089		82

1	10299U	77081	A	77243.21742040	.00078750	00000-0	00000-0	0	00052
2	10299	72.8430	123.0446	0087913	59.7296	301.2339	16.05369216		610

77-82 A

Molnyia

Uppsänd: 30 (?) aug. från Plesetsk 3445-40785km

$T_h = 735.58 \text{ min}$

1	10315U	77082	A	77242.80592331	-.00001215	00000-0	00000-0	0	00011
2	10315	62.8315		200.0817 7473567	280.1442	10.7467	1.95426187		14

1	10315U	77082	A	77249.40375935	-.00000064	00000-0	00000-0	0	00042
2	10315	62.8248		198.8635 7239112	280.5557	12.0474	2.01211094		131

77-83 A

Kosmos 948

Uppsänd: 2 sept från Plesetsk ; 217-235 km

 $T_n = 89.0 \text{ kmn}$  ; Freqv: 19.980 MHz, två-två

1	10319U	77-083	A	77245.43065029	.00400000	00000-0	00000-0	0	00012
2	10319	81.3553		140.7956 0030417	63.3212	304.1359	16.15210952		13
1	10319U	77-083	A	77245.61529058	.00400000	00000-0	00000-0	0	00020
2	10319	81.3285		140.4597 0029809	62.6938	298.0652	16.15912447		41
1	10319U	77-083	A	77245.61523329	.00400000	00000-0	00000-0	0	00036
2	10319	81.3517		140.5004 0013739	62.8864	299.6030	16.18104497		46
1	10319U	77-083	A	77245.86220309	.00400000	00000-0	00000-0	0	00046
2	10319	81.3594		140.1738 0012926	61.9191	298.2136	16.18208097		88
1	10319U	77-083	A	77246.72798413	.00109456	00000-0	00000-0	0	00061
2	10319	81.3513		139.0273 0008111	82.4428	279.5292	16.19883645		222
1	10319U	77-083	A	77248.08659476	.00118824	00000-0	60141-4	0	00073
2	10319	81.3565		137.2171 0011462	84.0177	276.2811	16.20192379		442

77-84 A

Voyager 1

77-85A

Kosmos 949

Uppsänd: den 6 sept från Plesetsk; 177-325

$T_n = 89.50 \text{ min}$

1	10326U	77-085-A	77249.84189789	.00500000	00000-0	00000-0	0 00013
2	10326	62.8012	197.9918 0115231	64.7467	297.9693	16.08064351	20

1	10326U	77-085-A	77250.33904961	.00502104	13839-3	21558-3	0 00025
2	10326	62.7810	195.9724 0111882	65.1731	296.6229	16.08857862	107

1	10326U	77-085-A	77251.64363528	.00578921	18486-3	23110-3	0 00038
2	10326	62.8018	190.7536 0108120	65.4671	296.0146	16.10324643	313

1	10326U	77-085-A	77254.18726873	.00686800	00000-0	00000-0	0 00065
2	10326	62.8039	180.5954 0098094	66.0402	295.4021	16.13466837	729



77-86A

Kosmos 950

Upp den 13 sept. från Plesetsk; 205-282km

$T_u = 89,36$  min; Frekv: 19,994 MHz, F<sub>107</sub>-104

1	1035IU	77 086 A	77256.74467567	.00500000	00000-0	00000-0	0 00010
2	1035I	62.8077	169.7438 0051097	58.1583	307.7572	16.14588354	20

1	1035IU	77 086 A	77256.74376233	.00500000	00000-0	00000-0	0 00020
2	1035I	62.8064	169.7321 0051144	56.5871	304.0195	16.14642550	22

1	1035IU	77 086 A	77256.80569043	.00500000	00000-0	00000-0	0 00031
2	1035I	62.8123	169.4413 0060705	71.9933	286.4590	16.11070194	39

1	1035IU	77 086 A	77257.55073415	.00500000	00000-0	00000-0	0 00048
2	1035I	62.8132	166.4825 0057640	72.1209	287.8072	16.11431610	153

77-87A

Kosmos 951

Upp den 13 sept. från Plesetsk; 908-1017 km

 $T_u = 104.98 \text{ min}$ 

1	10352U	77 087 A	77256.89131996			00000-0	52107 3 0	00014
2	10352	82.9804	320.6159 0094404	353.8295		4.3901	13.56676113	13

1	10352U	77 087 A	77256.89168323	.00005151		00000-0	54581-2 0	00020
2	10352	82.9723	320.6177 0036744	282.8916		76.8028	13.74171919	15

1	10352U	77 087 A	77257.32855616	.00005151		00000-0	00000-0 0	00032
2	10352	82.9840	320.2867 0035401	283.2018		73.8120	13.72468140	73

77-88A

Kosmos 952

Upp den 16 sept. från Tyuratam : 251-265 km

$T_u = 89.65 \text{ min}$  ; Frekv: 166.0 MHz

1	10358U	77088	A	77259.71890249	.00489760	00000-0	00000-0	0	00015
2	10358	64.9780	246.1479	0012711	276.0344	86.9864	16.06408667		21

1	10358U	77088	A	77260.02966650	.00489760	00000-0	00000-0	0	00022
2	10358	64.9750	245.0049	0012307	290.9350	69.0455	16.06476157		74

1	10358U	77088	A	77260.40319731	.00052385	00000-0	68495-4	0	00043
2	10358	64.9736	243.6395	0010496	278.8661	81.0047	16.06366934		132

1	10358U	77 88	A	77282.52183166	.00004051	00000-0	00000-0	1	00256
2	10358	64.9224	165.2045	0065015	268.6505	90.5554	13.82934846		3647

77-89A

Kosmos 953

Upp den 16 sept. från Plesetsk ; 180-330km

$T_u = 89.58 \text{ min}$  ; Freqv = 19.989 MHz, två-ton

1	10359U	77 089 A	77259.71759234	.00500000	00000-0	00000-0	0 00016
2	10359	62.8102	162.5629 0115214	76.3870	290.3359	16.06844479	27

1	10359U	77 089 A	77261.76795605	.00252394	00000-0	92651-4	0 00057
2	10359	62.8038	154.4064 0103791	69.7744	291.1357	16.11676586	352

77-90A

Kosmos 954 forts. 1

1	10361U	77 090 A 78	19.10006596	.00935032	00000-0	00000-0	0 01024
2	10361	64.9663	147.6024	0009943	303.7413	56.7847	16.26612613 19727

1	10361U	77 090 A 78	20.45155742	.01046922	00000-0	00000-0	0 01035
2	10361	64.9669	142.4850	0008808	307.8069	52.3403	16.29302029 19048

1	10361U	77 090 A 78	21.31040733	.01174091	00000-0	00000-0	0 01045
2	10361	64.9654	139.2194	0009048	306.3044	54.2040	16.31385368 20004

1	10361U	77 090 A 78	21.86182464	.01317546	00000-0	00000-0	0 01057
2	10361	64.9667	137.1180	0010502	305.2478	54.9116	16.32837219 20177

1	10361U	77 090 A 78	22.10674790	.01401004	00000-0	00000-0	0 01067
2	10361	64.9680	136.1816	0009295	302.5458	57.5904	16.33587172 20212

1	10361U	77 090 A 78	22.47393938	.01799737	00000-0	00000-0	0 01073
2	10361	64.9622	134.7845	0004205	294.2139	66.3435	16.35090738 20275

1 10361U 77 090 A 78 22.77956714 .02362012 58030-2 26777-3 0 01087  
2 10361 64.9635 133.6142 0011351 300.0584 60.0876 16.36484908 20320

1 10361U 77 090 A 78 23.08495532 .02675166 81303-2 25904-3 0 01796  
2 10361 64.9622 132.4436 0010794 300.8342 59.0332 16.37942074 20376

1 10361U 77 090 A 78 23.57298932 .03808093 21912-1 26279-3 0 01100  
2 10361 64.9605 130.5623 0010168 296.2346 63.5153 16.40982940 20458

1 10361U 77 090 A 78 23.87750053 .04654217 57364-1 25010-3 0 01111  
2 10361 64.9587 129.3871 0009766 292.5786 67.2804 16.43633353 20501

1 10361U 77 090 A 78 24.12068806 .04066294 26290-0 25200-3 0 01125  
2 10361 64.9539 128.4395 0009053 294.6760 65.2544 16.46755343 20543

77-90A

Kosmos 954

Lipp den 18 sept. från Tyuratam; 251-2652m

$T_u = 89.65 \text{ min}$ ; Freqv: 166.0 MHz

1	10361U	77 090 A	77261.69321193	.00000000	00000-0	00000-0	0 00015
2	10361	64.9869	238.8257	0017200	264.6473	98.4442	16.06390366 25

1	10361U	77 090 A	77261.87941956	-.00863791	00000-0	-13675-2	0 00021
2	10361	65.0006	238.1453	0012741	261.8839	98.0838	16.06308925 59

1	10361U	77 090 A	77295.24996279	.00017658	00000-0	00000-0	0 00406
2	10361	64.9766	115.7270	0009851	273.0828	87.2811	16.06190705 5419

1	10361U	77 090 A	77296.37050574	.00023234	00000-0	00000-0	0 00418
2	10361	64.9762	111.6129	0009870	270.0896	89.8146	16.06423599 5594

1	10361U	77 090 A	77300.04378635	-.00095913	00000-0	00000-0	0	00435
2	10361	64.9889	98.1373	0010327	277.5581	83.4651	16.06358849	6188

1	10361U	77 090 A	77309.44307397	.00035445	00000-0	00000-0	0	00494
2	10361	64.9785	63.6403	0009992	279.6809	80.3554	16.06949939	7697

1	10361U	77 090 A	78 14.41690003	.00531576	00000-0	00000-0	0	00973
2	10361	64.9702	165.2212	0011397	299.7078	60.7353	16.20102363	18965

1	10361U	77 090 A	78 15.46587066	.00543797	00000-0	00000-0	0	00982
2	10361	64.9700	161.2908	0011992	304.1904	55.8793	16.21251170	19136

1	10361U	77 090 A	78 16.32921420	.00552645	00000-0	00000-0	0	00997
2	10361	64.9700	158.0528	0011706	301.4905	58.5558	16.22211402	19271

1	10361U	77 090 A	78 17.25365929	.00684445	00000-0	00000-0	0	01003
2	10361	64.9669	154.5702	0010933	293.6633	61.5633	16.23417509	19428

1	10361U	77 090 A	78 18.11576297	.00761059	00000-0	00000-0	0	01019
2	10361	64.9700	151.3267	0012242	305.6977	54.7084	16.24797719	19564



77-91A

Kosmos 955

Lopp den 20 sept. från Plesetsk; 030-041km

$T_u = 97.46$  min

1	10362U	77	091	A	77263.10105236	.00027754	00000-0	00000-0	0	00018
2	10362	81.2394	38.0512	0001731	31.0487	328.1551	14.77712242			18

77-92A

Ekran

Upp den 20 sept. från Tyuratam

1	10365U	77092	A	77264.48942249	-.00000377	00000-0	00000-0	0	00010
2	10365	.3995		268.5818 0005000	27.9455	332.0741	1.00934974		05

1	10366U	77092	B	77263.90445872	.00941251	00000-0	00000-0	0	00011
2	10366	51.4649		269.5635 0023135	195.1036	168.0379	16.32686845		38

77-93A

Prognose 6

Lipp den 22 sept. från ~~120~~ Tyuratam;

488-197867km

$T_h = 5668 \text{ min}$  ; Freqv = 928.4 MHz;

1	10370U	77093A	B	77265.09332554	.00599395	00000-0	00000-0	0	00019
2	10370	65.0447	49.4030	0177351	70.3258	291.0846	15.75011030		12

77-94A

Titan 3B-Agua D

Lipo 23 sept. from WTR ; 125-352km

$T_h = 89.70 \text{ min}$

1	10374U	77094	A	77266.81452453	.00500000	00000-0	00000-0	0	00011
2	10374	96.5277	337.2428	0140977	137.3062	226.1823	16.22494723		17

1	10374U	77094	A	77266.87581430	.00500000	00000-0	00000-0	0	00026
2	10374	96.4909	337.3149	0154703	157.3684	200.6178	16.15454805		23

1	10374U	77094	A	77267.06213133	.00905891	00000-0	00000-0	0	00038
2	10374	96.4867	337.4855	0151547	154.5424	205.5661	16.14591680		51

77-95A

Kosmos 956

Upp den 24 sept. från Plesetsk; 355-8634m

$T_h = 96.89 \text{ min}$

1	10375U	77 95	A	77267.48533937	.00002329	00000-0	00000-0	0	00015
2	10375	75.8385		169.1820 0365451	344.0673	14.2341	14.86739477		14

1	10375U	77 95	A	77268.22566871	.00002329	00000-0	00000-0	0	00022
2	10375	75.8346		167.8654 0363770	342.2371	16.9083	14.86856835		120

77-96A

Interkosmos 17

Uspj den 24 sept från Plesetsk; 466-514km

$T_n = 94.44 \text{ min}$

1	10376U	77-096A	77269.38409501	.00001078	00000-0	00000-0	0	00030
2	10376	82.9626	277.4101	0034785	343.8549	15.9937	15.25744059	261

1	10376U	77-096A	77297.38617951	.00012669	00000-0	00000-0	0	00196
2	10376	82.9679	251.0456	0032025	240.6863	119.1123	15.26029223	4536

77-97A

Saljut 6

förvaras i Ajour-lådan

77-98A

Kosmos 957

Upp den 30 sept. från

171-361km

 $T_h = 89.82 \text{ min}$ 

1	10385U	77-098-A	77273.46369243	.00084673	00000-0	00000-0	0	00018
2	10385	64.9730	191.4596 0140351	67.2144	292.2752	16.03135607		13

1	10385U	77-098-A	77273.52643835	.00084673	00000-0	00000-0	0	00028
2	10385	64.9970	191.1747 0143711	66.1777	295.3524	16.03064218		28

1	10385U	7-098-A	77275.08577148	.00366340	00000-0	00000-0	0	00040
2	10385	64.9758	185.4546 0142366	67.0656	294.0984	16.03659293		272

1	10385U	7-098-A	77275.64534961	.00366340	00000-0	00000-0	0	00060
2	10385	64.9819	183.4000 0149609	58.5671	303.5080	16.09445977		363

1	10385U	7-098-A	77276.39078797	.00512674	00000-0	00000-0	0	00077
2	10385	64.9753	180.6544 0145580	58.4138	303.5328	16.10257361		481



77-99A

SOYUZ 25

Lipp den 9 okt.

från Tyuratam

194-240km

20-008, 121.75, 166.0, 922.75MHz

T<sub>n</sub> = 88.78 min ; Frelv:

~~18-55-30, 166.0~~

1	10401U	77-099-A	77282.28864639	.00064323	00000-0	00000-0	0	00014
2	10401	51.6371	66.6915	0035520	73.3508	286.8747	16.20895781	37

1	10401U	77-099-A	77282.41199251	.00064323	00000-0	00000-0	0	00021
2	10401	51.5959	65.9121	0033416	282.0092	71.5516	15.94901362	56

1	10401U	77-099-A	77283.22757454	.00064323	00000-0	00000-0	0	00037
2	10401	51.6164	61.6456	0017359	294.9259	60.3398	15.76358138	189

77-100A

Kosmos 958

Lipp den 11 okt. från Plaststål 257-257km  
T<sub>n</sub> = 90.59 km

1	10403U	77100A	77284.74814789	.00500000	00000-0	00000-0	0	00018
2	10403	62.8727	198.5227 0079438	94.2969	261.3442	15.83199956		26

1	10403U	77100A	77284.74909115	.00500000	00000-0	00000-0	0	00027
2	10403	62.8126	198.5904 0070291	105.3137	256.7420	15.89434311		27

1	10403U	77100A	77284.87470790	.00500000	00000-0	00000-0	0	00034
2	10403	62.8104	198.0956 0067999	106.7047	254.4319	15.90160297		46

1	10403U	77100A	77285.62909038	.00500000	00000-0	00000-0	0	00041
2	10403	62.8177	195.2091 0077321	201.1342	134.9114	15.66028490		162

1	10403U	77100A	77285.69715417	.00500000	00000-0	00000-0	0	00055
2	10403	62.8177	194.9549 0077034	201.1463	158.6000	15.66054809		172

1	10403U	77100A	77286.27173241	.00500000	00000-0	00000-0	0	00064
2	10403	62.8093	192.7968 0078088	200.0197	158.9184	15.66155594		261

1	10403U	77100A	77286.84641877	-.00013247	00000-0	00000-0	0	00076
2	10403	62.8170	190.6721 0071626	201.6049	157.0098	15.65898656		351

1	10403U	77100A	77288.50698970	-.00005807	00000-0	00000-0	0	00092
2	10403	62.8154	184.4637	0071295	201.7607	158.2184	15.65893696	610

1	10403U	77100A	77290.48661005	-.00001270	00000-0	00000-0	0	00103
2	10403	62.8117	177.0746	0070640	201.8179	158.0355	15.65894195	928

1	10403U	77100A	77293.10432643	-.00001270	00000-0	00000-0	0	00115
2	10403	62.8127	167.2977	0080401	205.8406	154.9665	15.68348317	1332

1	10403U	77100A	77295.08117248	-.00001270	00000-0	00000-0	0	00121
2	10403	62.8191	159.8907	0050873	220.7698	137.2011	15.60434559	1641

*Fröher: 19.289 MHz, na-tou*

77-101 A

Kosmos 959

Lpp = 21 out from

146-850km

T<sub>n</sub> = 94.17 min

1	10419U	77101	A	77294.67324660	.00614246	00000-0	00000-0	0	00011
2	10419	65.8296	161.6054	0508813	64.6429	298.1296	15.23231544		43

1	10419U	77101	A	77295.06758104	.00614245	00000-0	00000-0	0	00020
2	10419	65.8348	160.3566	0511272	63.2488	300.4228	15.23036398		105

1	10420U	77101	A	77295.06777933	-.00006086	83707-4	15350-6	0	00031
2	10420	65.8343	160.3680	0515376	63.6479	301.1805	15.22237048		107

1	10420U	77101	A	77296.25047039	.01695420	00000-0	00000-0	0	00048
2	10420	65.8369	156.6040	0499559	62.6159	312.3970	15.26536618		286

1	10420U	77101	A	77297.09953805	.01582754	00000-0	00000-0	0	00054
2	10420	65.8382	153.9053	0487214	62.5174	301.9984	15.29163940		417

1	10420U	77101	A	77297.94897793	.01560958	00000-0	00000-0	0	00069
2	10420	65.8326	151.2102	0476046	61.5437	302.1972	15.31725060		542

1 10419U 77101A~~B~~ 77299.14033710 .00680079 18096-3 17462-3 0 00085  
2 10419 65.8276 147.5387 0502016 61.3995 303.8046 15.25628137 726

77-102

ISEE

Lapp 22 out from Cape Canaveral, 337-137900 km,  $T_H = 3441 \text{ km}^2$ 

1	10422U	77102	A	77295.63555556	-.00002062	00000-0	00000-0	0	00011
2	10422	28.7300		5.8315 9119040	31.0031	3.1845	0.4178657		13

1	10424U	77-102	C	77296.02434923	.00000000	00000-0	00000-0	0	00022
2	10424	28.7391		55.7585 0407461	311.3090	44.9527	15.02190487		72

1	10424U	77-102	C	77297.41980560	.00042299	00000-0	00000-0	0	00036
2	10424	28.7406		46.6155 0406309	326.1891	31.8415	15.02344170		288

77-103

Kosmos 960

Upp: 25 okt från Plesetsk; 502-546 km

$T_u = 95.13$  min

1	10431U	77103	B	77298.41488089	.00007021	00000-0	00000-0	0	00016
2	10431	74.0402	122.9134	0036276	352.5752	7.3596	15.16102126		31

77-104

Kosmos 961

Upp: 26 okt från

• 125-302km;  $T_h = 88.76$  km

1	10435U	77104	B	77299.27330611	.10000000	00000-0	00000-0	0	00014
2	10435	65.1029	147.9658	0090111	21.5088	339.2419	16.31379539		13



77-105A

Molnyia 3

App: 28 out from Plesetsk, 420-40842 km; 736.21 min

1	10455U	77 105 A	77301.63086903	-.00000261	00000-0	00000-0	0	00012
2	10455	62.7674	10.5577 7483064	280.0740	11.6221	1.95596183		29
1	10460U	77 105 D	77301.68857443	.00730427	00000-0	00000-0	0	00011
2	10460	62.7992	8.4086 0191578	129.8273	228.1448	15.77061090		103

77-106A

TRANSAT

Upp: 28 okt från WTR; 1069-1107 km;

$T_n = 107.03$  km

1	10457U	77	106	A	77302.36636225	-.00425374	00000-0	00000-0	0	00021
2	10457	89.9265	170.1135	0028897	20.2777	340.3465	13.46112336			168
1	10457U	77	106	A	77303.10973784	.00033585	00000-0	00000-0	0	00048
2	10457	89.9245	170.1184	0025632	18.7438	342.2834	13.46177928			269
1	10457U	77	106	A	77303.77851047	.00181006	00000-0	00000-0	0	00051
2	10457	89.9217	170.1139	0025448	19.5245	340.5441	13.46199813			350

77-107A

Kosmos 962

Lpp: 28 okt från Plesetsk; 968-1012 km

$T_u = 104.93 \text{ min}$

1	10459U	77107	A	77301.72503521	.00003978	00000-0	00000-0	0	00015
2	10459	82.9528	304.8863	0050007	270.1121	88.5262	13.78109926		11

1	10459U	77107	A	77301.94302912	.00003978	00000-0	00000-0	0	00021
2	10459	82.9603	304.6692	0029228	288.7922	67.0302	13.73128125		45

77-108A

Meteosat 1

Upp: 23 nov från Cape Canaveral

1	10489U	77108	A	77327.76341458	-.00000165	00000-0	00000-0	0	00016
2	10489	.7560	230.4000	0135300	237.7790	156.6587	0.98565578		10

1	10489U	77108	A	77329.37500000	-.00000284	00000-0	00000-0	0	00028
2	10489	.7330	231.2680	0093510	59.9220	191.4144	1.02027358		39

77-109A

Kosmos 963

Lapp: 24 nov från Plejelsk; 1182-12104m;  $T_h = 109.35 \text{ km}^2$

1	10491U	77109	A	77328.66479430	.00003978	00000-0	00000-0	0	00016
2	10491	82.9198	309.0481	0010436	166.8189	193.1169	13.16428315		17

1	10491U	77109	A	77328.81684351	.00003978	00000-0	00000-0	0	00024
2	10491	82.9387	308.9299	0017153	244.1457	116.3360	13.17524712		34

1	10491U	77109	A	77329.57612954	-.00007954	00000-0	00000-0	0	00038
2	10491	82.9275	308.4271	0018115	238.1411	121.9809	13.17577785		136

77-110 A

Kosmos 964

Upp: 4 dec från Oloretsk; 171-362km; 89.85min = T<sub>h</sub>

1	10498U	77 110 A	77338.55426732	.01024295	00000-0	00000-0	0	00017
2	10498	72.8840	257.8457 0148033	82.0716	279.8974	16.02790618		11

1	10498U	77 110 A	77338.67906028	.01024295	00000-0	00000-0	0	00022
2	10498	72.8871	257.5286 0146745	81.4238	280.2815	16.02934655		35

1	10498U	77 110 A	77339.67735742	.00351082	00000-0	00000-0	0	00044
2	10498	72.8869	254.9786 0144133	79.1862	281.7678	16.03547677		199

77-111A

Kosmos 965

Lepp: 8 dec från Plesetsk; 465-516 km;  $T_u = 94.44 \text{ min}$

1	10501U	77111	A	77344.08859115	.00000035	00000-0	00000-0	0	00041
2	10501	74.0321	246.8373	0037282	329.3560	30.5523	15.25433493		253

77-112 A

NOSS 2

Lapp: 8 dec från WTR; 1054-1169 km; Th = 107.50 min  
Frequ: 162.0 MHz?

1	10502U	77112	A	77344.05771548	-.00002552	00000-0	00000-0	0	00028
2	10502	63.3889		60.4836	0011355	151.8870	208.0744	13.39538455	189

1	10502U	77112	A	78 26.98269478	.00004513	00000-0	00000-0	0	00288
2	10502	63.4449		298.3171	0075517	208.5900	151.0931	13.39566476	6614



77-113 A

Soyuz 26

Upp: 10 dec från Tyuratam; 195-235km;  $T_u = 88.74 \text{ min}$

Prälv: 20-008, 121.75, 166.0, 922.75 MHz.

1	10506U	77113	A	77344.41659063	.00064323	00000-0	00000-0	0	00023
2	10506	51.6808	106.1884	0056395	261.0591	86.0924	15.95147762		64

1	10506U	77113	A	77344.73196403	.00064323	00000-0	00000-0	0	00033
2	10506	51.6227	104.4506	0053140	255.8959	103.8933	15.95373796		117

1	10506U	77113	A	77345.79671543	.00064323	00000-0	00000-0	0	00044
2	10506	51.5868	98.9341	0013089	343.4297	323.4031	15.74654455		286

1	10506U	77113	A	77346.63108780	.00037257	00000-0	00000-0	0	00053
2	10506	51.5900	94.6407	0013014	346.9965	12.9349	15.74698938		418

1	10506U	77113	A	77361.79289146	.00020457	00000-0	00000-0	0	00068
2	10506	51.5936	16.5581	0014269	42.6255	317.6958	15.75697497		2804

1 10506U 77113 A 77363.50519280 .00020509 00000-0 00000-0 0 00073  
2 10506 51.5934 7.7259 0013903 50.0291 310.1886 15.75769585 3079

1 10506U 77113 A 78 1.99302358 .00056218 00000-0 00000-0 0 00089  
2 10506 51.5859 349.7428 0012986 67.2113 295.1604 15.76322463 3627

77-114 A [Atlas-Agona D]

Leppäand: 11 Dec 41.13.00.

29.9° 87.68 min 146-188

28.2 733.2 - " 191-41002

~~1495~~

0.2 1435.1 - " 35679-35854 min

77-115 A

Kosmos 966

Upp: 12600 gram

204-296 km;  $T_u = 89.50 \text{ min}$

Frekv: 19.994 MHz, FSK-PDM

1	10510U	77115	A	77346.45952576	.00084673	00000-0	00000-0	0	00010
2	10510	65.0124	261.9072	0063097	54.7488	306.7714	16.11060775		18

1	10510U	77115	A	77346.52146009	.00084673	00000-0	00000-0	0	00025
2	10510	65.0294	261.6338	0069078	60.4921	299.4247	16.08975480		23

1	10510U	77115	A	77347.39176272	.00115200	00000-0	87589-4	0	00039
2	10510	65.0320	258.4410	0068792	60.0541	300.9361	16.09211631		166

77-116A

Kosmos 967

Lpp: 13 dec från

• 963-1005km;  $T_u = 104.77 \text{ min.}$

1	10512U	77116	A	77347.64674907	.00001746	00000-0	00000-0	0	00025
2	10512	65.8350	301.9344	0026339	304.2260	57.6583	13.76751035		09

1	10512U	77116	A	77347.86410436	.00001747	00000-0	00000-0	0	00014
2	10512	65.8258	301.4489	0064950	290.3668	69.0738	13.75623019		31

1	10512U	77116	A	77348.59290415	.00027888	00000-0	00000-0	0	00034
2	10512	65.8367	299.6115	0027187	298.1502	67.0403	13.74550952		136

1	10512U	77116	A	77357.90507836	-.00020591	00000-0	00000-0	0	00133
2	10512	65.8373	276.6111	0027903	299.5508	60.0048	13.74497810		1414

77-117 A

Meteor 2-03

Lopp: 14 dec från Merck; 856-894km;  $T_u = 10d. 48 \text{ min}$

Frekv: 137.15 MHz, APT

1	10514U	77	117	A	77348.45928282	.00000590	00000-0	00000-0	0	00011
2	10514	81.2163	249.4352	0029089	250.5596	116.2299	14.04662289			16

1	10514U	77	117	A	77348.52913039	.00000590	00000-0	00000-0	0	00024
2	10514	81.2222	249.3619	0026855	277.0018	83.2045	14.05898018			23

77-118

Sakura

Upps. den 15 dec från Cape Canaveral.

1	10517U	77118	B	77349.69819334	.00000000	00000-0	00000-0	0	00015
2	10517	28.6345		271.4687 1041539	57.1507	309.9169	12.93675098		93

77-119 A

Kosmos 968

Упп: 16 dec прѣнплесѣтск. 782-810um; T<sub>h</sub> = 100.80 min

1	10520U	77119	A	77350.24301664	-.00002329	00000-0	00000-0	0	00012
2	10520	74.0364		159.0691	0029459	333.6485	26.7393	14.30869288	16

1	10520U	77119	A	77350.66242620	-.00002329	00000-0	00000-0	0	00025
2	10520	74.0363		158.2730	0026449	335.1416	25.0027	14.34686560	73

1	10520U	77119	A	77350.94297743	-.00002329	00000-0	00000-0	0	00044
2	10520	74.0334		157.7821	0019387	350.8317	9.2647	14.29071861	116



77-120A

Kosmos 969

Loppstånd: 20 dec. från Plesetsk; 180-317 km;  $T_u = 89.45 \text{ min}$

1	10527U	77120	A	77355.51743334	.00500000	00000-0	00000-0	0	00029
2	10527	62.8127	273.3208	0103756	73.5436	286.5195	16.09662688		141

1	10527U	77120	A	77356.07664130	.00150415	00000-0	00000-0	0	00039
2	10527	62.8157	271.0823	0103579	75.2461	285.2349	16.09665817		236

77-121A

KOSMOS

970

Lappänd: 21 dec 1977 från

144-8614ms;  $T_u = 84.67m$ .

1	10531U	77121	A	77355.43466728	.00489760	00000-0	00000-0	0	00014
2	10531	65.0810	283.9683	0429161	50.4327	315.0005	15.38573925		07

1	10531U	77121	A	77355.50030522	.00489760	00000-0	00000-0	0	00033
2	10531	65.1626	283.5916	0520644	54.7764	309.7548	15.21132775		17

1	10531U	77121	A	77355.57676244	.00023007	00000-0	00000-0	0	00057
2	10531	65.8519	282.3765	0134465	113.7953	247.7118	13.56488169		24

1	10531U	77121	A	77355.65049149	.00023007	00000-0	00000-0	0	00065
2	10531	65.8467	282.1792	0129854	116.3098	245.5638	13.58084598		33

1	10532U	77121	B	77356.15852846	.00005000	00000-0	00000-0	0	00016
2	10532	65.1541	281.4913	0486199	55.7508	320.4529	15.30170400		118

77-122 A

Kosmos 971

Uppstånd: 23 dec 1977 från Plazotsk; 980-1010km

$T_h = 105.04 \text{ min}$

1	10536U	77122	A	77357.74201437	.00003978	00000-0	00000-0	0	00012
2	10536	82.9346		6.2613 0025219	269.7516	87.3569	13.73623319		19

1	10536U	77122	A	77357.81540451	.00003978	00000-0	00000-0	0	00023
2	10536	82.9442		6.1703 0016299	269.1041	90.3270	13.70729705		27

77-123 A

Kosmos 97Q

Upp: 27 dec från Plesetsk;  $F_{16} = 11724 \text{ km}$ ;  $T_u = 103.92 \text{ min}$

1	10539U	77123	A	77361.39173994	.00002329	00000-0	00000-0	0	00017
2	10539	75.8168	227.9069	0281835	290.6247	70.2707	14.97719141		15

1	10539U	77123	A	77361.39103809	.00002329	00000-0	00000-0	0	00026
2	10539	75.7144	228.0839	0281835	290.4508	67.1238	15.00898152		12

1	10539U	77123	A	77361.45760991	.00002329	00000-0	00000-0	0	00035
2	10539	75.8483	227.8172	0309148	52.2191	283.1257	13.86374158		25

1	10539U	77123	A	77361.60744766	.00002329	00000-0	00000-0	0	00045
2	10539	75.8457	227.6060	0311835	51.6588	311.0730	13.86223497		47

77-124 A

Kosmos 973

Lapp: 27 dec från

203-325km;  $T_u = 89.81$  min

Frekv: 19.994 MHz, FSK-PDM

1	10540U	77124	A	77361.44615431	.00151579	00000-0	00000-0	0	00015
2	10540	71.4475		280.1200 00806!1	55.4624	305.1720	16.06572047		12

1	10540U	77124	A	77361.81978509	-.00846226	00000-0	00000-0	0	00026
2	10540	71.4694		279.0855 0097175	60.1161	296.5024	16.03593163		75

1	10540U	77124	A	77362.19493366	.00122099	00000-0	00000-0	0	00036
2	10540	71.4498		278.0476 0092445	58.1299	303.8753	16.03979816		130

1	10540U	77124	A	77362.56895773	.00083589	00000-0	73926-4	0	00047
2	10540	71.4352		277.0096 0091711	56.3518	304.5188	16.03994257		197

1	10540U	77124	A	78 1.12328322	.00083589	00000-0	00000-0	0	00062
2	10540	71.4373		267.2218 0090053	48.8586	312.0313	16.04576537		761

1	10540U	77124	A	78 2.55708344	.00083589	00000-0	00000-0	0	00077
2	10540	71.4373		263.2668 0090062	46.0938	314.7624	16.04824766		996

1 10540U 77124 A 78 3.49203816 .00083589 00000-0 00000-0 0 00086  
2 10540 71.4339 260.6870 0090448 43.8467 316.9839 16.05004165 1148

1 10540U 77124 A 78 3.80367212 .00091720 00000-0 00000-0 0 00099  
2 10540 71.4339 259.8388 0089575 42.9405 317.9778 16.05092819 1194

77-97A

Salyut 6

Upp den 29 sep 2 kl.

från Tyuratam

Förhållningar: 214-256 km; 89,14 min; Prokv: 121,75, 192,0, 922,75/1742

1	10382U	77097	A	77272,46134529	.00941251	00000-0	00000-0	0	00019
2	10382	51.6218		118.8188 0038516	160.5674	195.2780	16.22634100		36

1	10382U	77097	A	77272,58525740	.00941251	00000-0	00000-0	0	00022
2	10382	51.5750		118,1868 0038955	141.3687	214,0323	16.17429256		55

1	10382U	77097	A	77272,95672379	.00941251	00000-0	00000-0	0	00035
2	10382	51.5273		116,1693 0030081	101.7231	252,0333	16.14341228		110

1	10382U	77097	A	77274,07225923	.00941251	00000-0	00000-0	0	00051
2	10382	51.5945		110,0326 0034443	100,1431	259,7348	16,13640062		294

1	10382U	77097	A	77274,50574508	.00941251	00000-0	00000-0	0	00066
2	10382	51,5863		107,6730 0031083	101,9079	258,0536	16,14254479		361

1	10382U	77097	A	77274,81529072	.00404751	00000-0	00000-0	0	00076
2	10382	51,5939		105,9902 0036096	103,2609	256,5764	16,14153770		414

1	10382U	77097	A	77275.43438905	.00370679	00000-0	00000-0	0	00081
2	10382	51.5934		102.6106 0035369	105.1322	255.2271	16.14583971		514

1	10382U	77097	A	77276.48631382	.00370679	00000-0	00000-0	0	00092
2	10382	51.5842		96.9248 0099335	183.1402	170.7408	15.93966624		689

1	10382U	77097	A	77277.49023020	.00182610	00000-0	00000-0	0	00106
2	10382	51.5875		91.5658 0091052	186.6714	172.7967	15.94401744		841

1	10382U	77097	A	77278.43034821	.00180407	00000-0	00000-0	0	00115
2	10382	51.5869		86.5824 0089629	190.4021	169.5630	15.94754264		999

1	10382U	77097	A	77280.37248692	.00165042	00000-0	00000-0	0	00134
2	10382	51.5876		76.2959 0006964	253.6946	96.6494	15.75034090		1307

1	10382U	77097	A	77280.75398169	.00165042	00000-0	00000-0	0	00142
2	10382	51.5876		74.3313 0006432	260.1652	99.8013	15.75117406		1363

1	10382U	77097	A	77281.33839319	.00165042	00000-0	00000-0	0	00150
2	10382	51.5909		71.0600 0006199	261.6768	97.9608	15.75103227		1463



77-97A

Salut 6

forts. 1

1	10382U	77097	A	77281.95949848	.00006283	00000-0	00000-0	0	00175
2	10382	51.5908		68.1268 0005973	259.2940	100.8178	15.75059068		1552

1	10382U	77097	A	77282.46705525	.00027987	00000-0	00000-0	0	00189
2	10382	51.5926		65.5120 0005946	261.2511	98.8435	15.75107385		1639

1	10382U	77097	A	77283.41869687	-.00033986	00000-0	00000-0	0	00193
2	10382	51.5912		60.6139 0005720	264.9156	94.9536	15.75051647		1784

1	10382U	77097	A	77285.32220811	.00025024	00000-0	00000-0	0	00200
2	10382	51.5934		50.8106 0006013	287.6409	72.6820	15.75084880		2080

1	10382U	77097	A	77286.27382571	.00036523	00000-0	00000-0	0	00214
2	10382	51.5881		45.9104 0005970	292.4410	67.6591	15.75163316		2239

1	10382U	77097	A	77288.36731157	.00036523	00000-0	00000-0	0	00225
2	10382	51.5881		35.1383 0004993	300.8203	59.1701	15.75313312		2565

1	10382U	77097	A	77290.39713939	.00037498	00000-0	00000-0	0	00237
2	10382	51.5945		24.6688 0004366	308.6601	51.3455	15.75458469		2387

1	10382U	77097	A	77291.60234393	.00083865	00000-0	00000-0	0	00249
2	10382	51.5817		18.4750 0006353	296.9680	63.0148	15.75572543		3071

1	10382U	77097	A	77292.23659034	.00043492	00000-0	00000-0	0	00255
2	10382	51.5917		15.2003 0005904	299.4216	60.4317	15.75584220		3177

1	10382U	77097	A	77295.59786050	.00012724	00000-0	00000-0	0	00261
2	10382	51.5940		357.8716 0006314	330.8381	28.9540	15.75824211		3701

1	10382U	77097	A	77296.29547758	.00037456	00000-0	00000-0	0	00279
2	10382	51.5920		354.2828 0006239	333.5214	26.5605	15.75868962		3814

1	10382U	77097	A	77297.50030577	.00028354	00000-0	00000-0	0	00288
2	10382	51.5866		348.0602 0006614	347.1990	12.8009	15.75929367		4008

1	10382U	77097	A	77299.21237963	.00028064	00000-0	17851-3	0	00290
2	10382	51.5879		339.2356 0007047	351.2120	8.8640	15.76029325		4279

77-97A

Salyut 6 forts. 2

1	10382U	77097	A	77300.22688545	.00025298	00000-0	00000-0	0	00303
2	10382	51.5953		334.0128 0006696	354.5770	5.4544	15.76069371		4431

1	10382U	77097	A	77302.76302935	.00039321	00000-0	00000-0	0	00313
2	10382	51.6044		320.9273 0006153	4.3687	356.1628	15.76283588		4834

1	10382U	77097	A	77302.88974782	.00027229	00000-0	00000-0	0	00326
2	10382	51.5895		320.2827 0006893	4.4683	355.6236	15.76275141		4850

1	10382U	77097	A	77305.42554314	.00026316	00000-0	00000-0	0	00331
2	10382	51.5929		307.2020 0006910	15.5200	344.6671	15.76424032		5257

1	10382U	77097	A	77307.45399424	.00026316	00000-0	00000-0	0	00346
2	10382	51.5929		296.7357 0006459	23.3516	336.8176	15.76538486		5574

1	10382U	77097	A	77310.43300710	.00064645	00000-0	00000-0	0	00367
2	10382	51.5950		281.3654 0005775	34.8520	325.3846	15.76771663		6046

1	10382U	77097	A	77310.87662412	.00064645	00000-0	00000-0	0	00376
2	10382	51.5922		279.0820 0007617	39.3201	320.7400	15.76805374		6117

1	10382U	77097	A	77309.35553651	.00028643	00000-0	00000-0	0	00357
2	10382	51.5921		286.9208 0006036	30.6963	329.4944	15.76650778		5873

1	10382U	77097	A	77311.63713129	.00037738	00000-0	00000-0	0	00387
2	10382	51.5891		275.1518 0006936	40.6615	319.3086	15.76825008		6233

1	10382U	77097	A	77314.23540403	.00035139	00000-0	00000-0	0	00393
2	10382	51.5948		261.7344 0006368	49.7523	310.3992	15.77007415		6643

1	10382U	77097	A	77316.76997219	.00037340	00000-0	00000-0	0	00402
2	10382	51.5882		248.6505 0006314	58.6804	301.3916	15.77191744		7040

1	10382U	77097	A	77317.40358446	.00041077	00000-0	00000-0	0	00410
2	10382	51.5913		245.3756 0006114	61.1321	299.0344	15.77245865		7146

1	10382U	77097	A	77318.22722570	.00041077	00000-0	00000-0	0	00425
2	10382	51.5856		241.1226 0006586	63.7143	296.4687	15.77321471		7279

1	10382U	77097	A	77320.25448918	.00043650	00000-0	00000-0	0	00432
2	10382	51.5883		230.6478 0006490	69.3185	291.0130	15.77522401		7598

77-97A

Salyut 6

forts. 3

1	10382U	77097	A	77322.78817670	.00037308	00000-0	00000-0	0	00441
2	10382	51.5878		217.5516	0006308	76.1699	283.8463	15.77712480	7993

1	10382U	77097	A	77323.48492851	.00037308	00000-0	00000-0	0	00450
2	10382	51.5934		213.9517	0006089	78.8640	281.2954	15.77763758	8103

1	10382U	77097	A	77325.25830997	.00040846	00000-0	00000-0	0	00466
2	10382	51.5843		204.7846	0006055	90.7401	269.3903	15.77893182	8332

1	10382U	77097	A	77326.46159475	.00028159	00000-0	00000-0	0	00479
2	10382	51.5831		198.5632	0006169	91.5877	268.4606	15.77952366	8575

1	10382U	77097	A	77328.48810409	.00028159	00000-0	00000-0	0	00485
2	10382	51.5883		188.0867	0005687	99.4310	260.7232	15.78063125	8891

1	10382U	77097	A	77329.50129680	.00023595	00000-0	00000-0	0	00493
2	10382	51.5886		182.8442	0006037	99.4669	260.6698	15.78109978	9053

1	10382U	77097	A	77330.51446624	.00032727	00000-0	00000-0	0	00505
2	10382	51.5892		177.6039	0005835	103.3890	256.8033	15.78176454	9211

1	10382U	77097	A	77332.79391144	.00032727	00000-0	00000-0	0	00514
2	10382	51.5923		165.8139	0010092	290.9369	65.2840	15.74175105	9576

1 10382U 77097 A 77334.50853650 .00032727 00000-0 00000-0 0 00521  
2 10382 51.5853 157.0054 0011676 297.7457 61.8583 15.74219460 9848

1 10382U 77097 A 77335.39731274 .00022170 00000-0 00000-0 0 00538  
2 10382 51.5865 152.4333 0011430 301.1688 58.7230 15.74242033 9985

1 10382U 77097 A 77336.41298763 .00024171 00000-0 00000-0 0 00547  
2 10382 51.5907 147.2093 0011349 305.7011 54.2782 15.74288117 10142

1 10382U 77097 A 77337.49209378 .00023837 00000-0 16302-3 0 00554  
2 10382 51.5920 141.6572 0012027 309.0077 51.0310 15.74347978 10312

1 10382U 77097 A 77338.44420124 .00023837 00000-0 00000-0 0 00560  
2 10382 51.5896 136.7575 0011569 312.2653 47.8339 15.74410398 10465

1 10382U 77097 A 77339.45973263 .00032242 00000-0 00000-0 0 00570  
2 10382 51.5896 131.5329 0011364 316.1757 43.9015 15.74485289 10623

1 10382U 77097 A 77340.41174834 .00030208 00000-0 00000-0 0 00586  
2 10382 51.5901 126.6372 0011440 321.6341 38.3552 15.74539442 10779

1 10382U 77097 A 77343.45802023 .00024289 00000-0 00000-0 0 00594  
2 10382 51.5907 110.9671 0011838 334.4801 25.4212 15.74696939 11256

1 10382U 77097 A 77343.90227336 .00025576 00000-0 17198-3 0 00603  
2 10382 51.5906 108.6796 0011838 336.1893 23.8729 15.74722373 11322

77-97A

Salyut 6

forts. 4

1	10382U	77097	A	77345.74261787	-.00110122	00000-0	-75228-3	0	00618
2	10382	51.5940		99.2133	0012575	343.3479	16.5874	15.74552175	11612

1	10382U	77097	A	77346.31386549	.00033282	00000-0	00000-0	0	00629
2	10382	51.5887		96.2734	0013147	345.8379	14.5751	15.74670578	11708

1	10382U	77097	A	77347.51955671	.00033088	00000-0	00000-0	0	00635
2	10382	51.5938		90.0677	0012957	350.4964	9.5908	15.74753448	11899

1	10382U	77097	A	77349.35979402	.00027654	00000-0	00000-0	0	00640
2	10382	51.5919		80.5983	0013466	358.1519	1.8266	15.74848453	12185

1	10382U	77097	A	77350.62884217	.00074179	00000-0	00000-0	0	00645
2	10382	51.5946		74.0624	0012392	359.7951	.5360	15.75082146	12382

1	10382U	77097	A	77352.97603359	.00026662	00000-0	00000-0	0	00656
2	10382	51.5965		61.9733	0013100	13.7093	345.0745	15.75162959	12757

1	10382U	77097	A	77355.51372627	.00045047	00000-0	00000-0	0	00670
2	10382	51.5912		48.9089	0014190	18.7958	341.5583	15.75476598	13156

1	10382U	77097	A	77355.57716091	.00054300	00000-0	00000-0	0	00675
2	10382	51.5945		48.5871 0013858	18.4470	341.9127	15.75464514		13167

1	10382U	77097	A	77357.47990989	.00054322	00000-0	34719-3	0	00688
2	10382	51.5945		38.7795 0013788	25.6354	334.0098	15.75571353		13469

1	10382U	77097	A	77358.43136013	.00021042	00000-0	00000-0	0	00692
2	10382	51.5943		33.8743 0014128	28.7919	331.0843	15.75565459		13618

1	10382U	77097	A	77359.50964333	.00021522	00000-0	00000-0	0	00700
2	10382	51.5942		28.3244 0014499	30.5624	329.5948	15.75609208		13784

1	10382U	77097	A	77365.47152151	.00027722	00000-0	00000-0	0	00731
2	10382	51.5934		357.6003 0015845	62.4545	297.9973	15.75505441		14724

10382U	77097	A	77365.78862664	.00024576	00000-0	00000-0	0	00747
10382	51.6065		355.9702 0015883	63.5459	296.6996	15.75518320		14770

1	10382U	77097	A	78 1.48633096	.00031377	00000-0	00000-0	0	00755
2	10382	51.5383		352.3689 0015863	69.4675	290.8671	15.75553668		14882

1	10382U	77097	A	77363.75884111	-.00004569	00000-0	00000-0	0	00711
2	10382	51.5894		6.4279 0014735	49.7202	310.3697	15.75776126		14450

1	10382U	77097	A	77364.39304337	-.00004569	00000-0	00000-0	0	00720
2	10382	51.5910		3.1575 0016243	58.0261	301.4562	15.75429602		14553



77-97A

Salyut 6

forts. 5

1	10382U	77097	A 78	4.40376458	.00031622	00000-0	00000-0	0	00760
2	10382	51.5900	337.3327	0015770	81.1485	279.1423	15.75747394	15344	

1	10382U	77097	A 78	6.87697191	.00035951	00000-0	00000-0	0	00773
2	10382	51.5920	324.5911	0016219	87.2100	273.6558	15.76004622	15735	

1	10382U	77097	A 78	10.55424887	.00033603	00000-0	00000-0	0	00786
2	10382	51.5951	305.6226	0015483	100.9739	259.1680	15.76251405	16314	

1	10382U	77097	A 78	13.15346787	.00019498	00000-0	12232-3	0	00797
2	10382	51.5952	292.2239	0016338	111.5007	248.3735	15.76336577	16726	

1	10382U	77097	A 78	14.16784548	.00020732	00000-0	00000-0	0	00802
2	10382	51.5952	286.9909	0016171	115.4157	244.8593	15.76378791	16888	

1	10382U	77097	A 78	15.49908005	.00019599	00000-0	00000-0	0	00815
2	10382	51.6067	280.1316	0014892	104.0482	256.3014	15.76458688	17091	

1	10382U	77097	A 78	16.25973960	.00019599	00000-0	00000-0	0	00823
2	10382	51.5920	276.1986	0015604	128.8337	232.0625	15.76724748	17217	

1	10382U	77097	A 78	19.11159392	.00073547	00000-0	00000-0	0	00830
2	10382	51.5932	261.4740	0014983	136.2417	224.2558	15.76969523		17665

1	10382U	77097	A 78	21.89962356	.00031388	00000-0	00000-0	0	00859
2	10382	51.5923	247.0781	0015732	148.3906	211.5252	15.77130443		16102

1	10382U	77097	A 78	22.46993333	.00030992	00000-0	18608-3	0	00969
2	10382	51.5923	244.1315	0015718	150.6105	209.4632	15.77144797		18198

1	10382U	77097	A 78	23.67381092	.00023316	00000-0	00000-0	0	00873
2	10382	51.5910	237.9206	0015404	155.2563	205.1790	15.77269434		18389

1	10382U	77097	A 78	25.00424423	.00018461	00000-0	00000-0	0	00884
2	10382	51.5902	231.0493	0014932	162.2879	197.7853	15.77311050		18597

1	10382U	77097	A 78	27.85517167	.00028338	00000-0	00000-0	0	00992
2	10382	51.5902	216.3190	0014489	173.3123	187.0115	15.77462142		19042

1	10382U	77097	A 78	34.12587085	.00052222	00000-0	00000-0	0	00918
2	10382	51.5905	183.8998	0012519	199.0116	160.8081	15.77933970		20032

1	10382U	77097	A 78	35.32914817	.00056034	00000-0	00000-0	0	00924
2	10382	51.5962	177.6821	0012871	203.4523	156.5448	15.78055063		20222

77-97A

Salyut 6

forts. 6

1	10382U	77097	A 78	36.46897545	-.00724200	00000-0	00000-0	0	00937
2	10382	51.5895	171.7835	0012332	207.8686	151.7236	15.77485546	20402	

1	10382U	77097	A 78	36.78557587	.00056034	00000-0	00000-0	0	00944
2	10382	51.6371	170.0969	0014300	199.4104	159.5762	15.77628351	20458	

1	10382U	77097	A 78	39.19259391	.00046284	00000-0	00000-0	0	00956
2	10382	51.6326	157.6662	0013537	210.2728	149.5053	15.77846250	20832	

1	10382U	77097	A 78	42.71259433	.00054375	00000-0	00000-0	0	00977
2	10382	51.6345	149.8138	0012934	216.1303	143.8969	15.78011275	21076	

1	10382U	77097	A 78	42.35934481	.00069807	00000-0	00000-0	0	00977
2	10382	51.6312	141.3086	0012635	222.2856	137.8400	15.78201435	21339	

1	10382U	77097	A 78	43.56204421	.00012176	00000-0	00000-0	0	00987
2	10382	51.6312	135.0904	0011937	226.9262	132.8849	15.78266366	21521	

1	10382U	77097	A 78	44.19524976	.00008931	00000-0	00000-0	0	00992
2	10382	51.6309	131.8146	0011872	229.3716	130.7282	15.78321509	21628	

1	10382U	77097	A	78	46.15798656	.00041609	00000-0	00000-0	0	01000
2	10382	51.6406			121.6687	0011724	236.9431	123.6613	15.78579227	21935

1	10382U	77097	A	78	47.42399401	.00005074	00000-0	00000-0	0	01013
2	10382	51.6317			115.1250	0012758	244.9279	115.1774	15.78645835	22130

1	10382U	77097	A	78	50.46216133	.00040696	00000-0	00000-0	0	01032
2	10382	51.6306			99.4125	0012159	256.1277	103.6025	15.78917823	22614

1	10382U	77097	A	78	51.09510692	.00069176	00000-0	00000-0	0	01044
2	10382	51.6322			96.1369	0011942	258.5725	101.4500	15.79014672	22715

1	10382U	77097	A	78	51.47481610	.00045823	00000-0	00000-0	0	01057
2	10382	51.6332			94.1728	0011720	260.0380	99.8723	15.79027537	22779

1	10382U	77097	A	78	53.49989586	.03040551	00000-0	00000-0	0	01069
2	10382	51.6289			83.6937	0011364	271.8822	88.4246	15.79256834	23094

1	10382U	77097	A	78	54.32243208	.00053926	00000-0	00000-0	0	01079
2	10382	51.6312			79.4362	0011672	276.0847	83.9835	15.79364558	23224

77-97A

Salyut 6

forts. 7.

1	10686U	77097	A	78	55.52699224	.01000000	00000-0	00000-0	0	02010
2	10686	51.6253		73	2213	0017609	244.5297	129.0022	15.30018497	23418

1	10382U	67097	A	78	55.46352653	.00053925	00000-0	00000-0	0	01009
2	10382	51.6451		73	5508-0015466		187.4318	172.6090	15.74724427	23407

1	10382U	77097	A	78	56.47985934	.00041944	00000-0	00000-0	0	01105
2	10382	51.6365		68	3308-0015003		191.3238	168.6504	15.74798024	23569

1	10382U	77097	A	78	57.36725401	.00088596	00000-0	00000-0	0	01111
2	10382	51.6369		63	7627-0014688		194.7316	165.1606	15.74849503	23708

1	10382U	77097	A	78	58.06526111	.00036415	00000-0	00000-0	0	01120
2	10382	51.6288		60	1661	0014543	197.7561	162.1387	15.74873426	23818

1	10382U	77097	A	78	59.39775612	.00038922	00000-0	00000-0	0	01135
2	10382	51.6321		53	3181	0014939	195.0487	165.0028	15.74997467	24024

1	10382U	77097	A	78	60.53975948	.00064247	00000-0	00000-0	0	01147
2	10382	51.6284		47	4459	0015009	206.5141	153.5050	15.75164559	24204

1 10382U 77097 A 78 63.39440293 .00029564 00000-0 00000-0 0 01155  
2 10382 51.6290 32.7545-0014568 220.0334 139.8619 15.75405399 24658

1 10382U 77097 A 78 66.31215774 .00062646 00000-0 00000-0 0 01166  
2 10382 51.6327 17.7347 0013839 231.2441 129.7157 15.75747142 25114

1 10382U 77097 A 78 68.53145261 .00052246 00000-0 00000-0 0 01171  
2 10382 51.6327 6.3052 0012664 239.7729 119.9551 15.75972236 25469

1 10382U 77097 A 78 68.84854163 .00052246 00000-0 00000-0 0 01184  
2 10382 51.6242 4.6702 0010422 245.7031 113.2697 15.75290291 25510

1 10382U 77097 A 78 70.37132577 .00061308 00000-0 00000-0 0 01193  
2 10382 51.6316 356.8417 0009335 246.3189 113.7552 15.75283482 25753

1 10382U 77097 A 78 71.38627544 .00059055 00000-0 38095-3 0 01204  
2 10382 51.6343 351.6206 0009304 250.2606 109.6940 15.75390412 25911

1 10382U 77097 A 78 73.79653488 .00062882 00000-0 00000-0 0 01212  
2 10382 51.6320 339.2109 0009397 259.5381 100.3444 15.75658220 26297

77-97A

Salyut 6

parts 8.

1	10382U	77097	A	78	76.07960549	.00125653	00000-0	00000-0	0	01233
2	10382	51.6346			327.4493	0011192	262.7010	99.8735	15.76381694	26655
1	10382U	77097	A	78	76.20593250	.00068532	00000-0	00000-0	0	01242
2	10382	51.6407			326.7982	0011727	264.7038	95.2628	15.76387660	26676
1	10382U	77097	A	78	79.62880611	.00047066	00000-0	00000-0	0	01262
2	10382	51.6305			309.1527	0011309	278.7748	81.4387	15.76755539	27216
1	10382U	77097	A	78	83.49440345	.00048135	00000-0	00000-0	0	01277
2	10382	51.6279			289.2146	0011574	292.3308	67.7888	15.77141743	27826
1	10382U	77097	A	78	84.44479415	.00048504	00000-0	00000-0	0	01284
2	10382	51.6302			284.3063	0012299	299.4432	60.5236	15.77232942	27974
1	10382U	77097	A	78	87.99247184	.00098921	00000-0	00000-0	0	01315
2	10382	51.6390			266.0158	0011454	315.6618	44.4458	15.77697980	28539
1	10382U	77097	A	78	89.25916655	.00051494	00000-0	00000-0	0	01327
2	10382	51.6281			259.4509	0012414	316.0484	43.4940	15.77786271	28736

1 10382U 77097 A 78 89.70259536 .00054047 00000-0 00000-0 0 01322  
2 10382 51.6263 257.1506 0012329 322.1013 37.9076 15.77841104 28802

1 10382U 77097 A 78 90.46260338 .00051878 00000-0 00000-0 0 01418  
2 10382 51.6281 253.2338 0011891 320.6891 39.4390 15.77941090 28926

1 10382U 77097 A 78 93.18556470 .00058753 00000-0 00000-0 0 01425  
2 10382 51.6312 239.1643 0012723 333.0374 27.2770 15.78285519 29355

1 10382U 77097 A 78 95.52796636 .00077911 00000-0 00000-0 0 01444  
2 10382 51.6298 227.0504 0012380 343.3921 16.6925 15.78661231 29721

1 10382U 77097 A 78 99.13552770 .00061893 00000-0 00000-0 0 01456  
2 10382 51.6306 208.3891 0013508 356.4575 3.4937 15.79173255 30295

1 10382U 77097 A 78100.46439138 .00103546 00000-0 00000-0 0 01461  
2 10382 51.6318 201.5156 0013623 358.7411 1.4686 15.79398040 30503

1 10382U 77097 A 78101.60318849 .00169801 00000-0 00000-0 0 01470  
2 10382 51.6314 195.6161 0013463 4.7143 355.2081 15.79623803 30686

1 10382U 77097 A 78102.48832311 .00078671 00000-0 00000-0 0 01482  
2 10382 51.6293 191.0243 0013353 11.1621 348.6534 15.79750207 30828



77-97A

Salyut 6

forts. 9

1	10382U	77097	A	78103.62746106	-	.00073439	00000-0	00000-0	0	01498
2	10382	51.6286		185.1283		0013614	15.1033	345.0210	15.79922830	31005

1	10382U	77097	A	78104.57619098		.00071553	00000-0	00000-0	0	01508
2	10382	51.6285		180.2116		0013598	19.2065	340.9576	15.80066565	31157

1	10382U	77097	A	78105.65130962		.00111531	00000-0	00000-0	0	01519
2	10382	51.6310		174.6392		0013793	18.4639	341.8705	15.80307097	31325

1	10382U	77097	A	78105.96744896		.00065506	00000-0	00000-0	0	01521
2	10382	51.6323		173.0017		0013842	22.2308	337.8289	15.80308509	31373

1	10382U	77097	A	78107.04242750		.00069789	00000-0	00000-0	0	01532
2	10382	51.6287		167.4262		0014228	27.0872	333.1506	15.80473879	31542

1	10382U	77097	A	78108.87591415		.00098024	00000-0	00000-0	0	01544
2	10382	51.6265		157.9153		0013771	33.6078	326.5371	15.80747949	31834

1	10382U	77097	A	78110.07697709		.00076738	00000-0	00000-0	0	01551
2	10382	51.6296		151.6885		0013816	37.6958	322.2438	15.80305713	32026

1 10382U 77097 A 78110.45628593 .00076738 00000-0 00000-0 0 01569  
2 10382 51.6276 149.7188 0014150 40.0173 320.1755 15.80965731 32088

1 10382U 77097A 78112.35239710 .00056239 00000-0 00000-0 0 01574  
2 10382 51.6279 139.8788 0014140 47.0011 313.1233 15.81214239 32381

1 10382U 77097A 78113.61634686 .00080344 00000-0 00000-0 0 01580  
2 10382 51.6279 133.3159 0014109 52.1512 308.1339 15.81393746 32584

1 10382U 77097A 78114.37461479 .00075928 00000-0 00000-0 0 01595  
2 10382 51.6270 129.3775 0014204 54.5166 305.6387 15.81492699 32707

1 10382U 77097A 78115.25922716 .00067088 00000-0 00000-0 0 01609  
2 10382 51.6281 124.7836 0014325 57.8026 302.4402 15.81624245 32843

1 10382U 77097A 78117.78630029 .00071090 00000-0 33800-3 0 01629  
2 10382 51.6279 111.6505 0014249 65.9173 294.6739 15.82003795 33248

1 10382U 77097A 78119.30216613 .00069423 00000-0 00000-0 0 01639  
2 10382 51.6305 103.7708 0013886 74.3916 285.9118 15.82232865 33482

1 10382U 77097A 78122.39643139 .00124344 00000-0 00000-0 0 01661  
2 10382 51.6291 87.6781 0013304 85.1412 272.2348 15.82818779 33978

77-97A

Salyut 6 forts. 10

1	10382U	77097A	78120.43895742	.00036564	00000-0	00000-0	0	01641
2	10382	51.6271	97.3635 0013421	82.8282	279.4901	15.82423856	33669	

1	10382U	77097A	78121.13357984	.00086860	00000-0	00000-0	0	01656
2	10382	51.6273	94.2453 0013587	79.2401	280.9673	15.82535634	33776	

1	10382U	77097A	78123.78523363	.00093961	00000-0	00000-0	0	01677
2	10382	51.6278	82.4508 0013136	93.7339	266.2643	15.83076559	34198	

1	10382U	77097A	78124.29026099	.00116606	00000-0	00000-0	0	01681
2	10382	51.6304	77.8205 0012736	95.7225	264.5796	15.83207022	34276	

1	10382U	77097A	78125.36320499	.00081431	00000-0	00000-0	0	01694
2	10382	51.6182	72.2228 0013495	98.9675	261.2132	15.83411446	34447	

1	10382U	77097 A	78125.42631447	.00092577	00000-0	00000-0	0	01709
2	10382	51.6275	71.9004 0013116	100.2337	259.9453	15.83438127	34456	

1 10382U 77097 A 78127.13014037 .00200981 00000-0 00000-0 0 01715  
2 10382 51.6313 63.0351 0012589 105.9345 254.0121 15.83730475 34729

1 10382U 77097 A 78128.13964269 .00076256 00000-0 00000-0 0 01720  
2 10382 51.6281 57.7747 0012932 109.7408 249.8784 15.83847828 34881

1 10382U 77097 A 78129.14920906 .00067589 00000-0 00000-0 0 01731  
2 10382 51.6300 52.5085 0013386 112.4049 247.8074 15.84013414 35042

1 10382U 77097 A 78130.22163826 .00109915 00000-0 00000-0 0 01743  
2 10382 51.6286 46.9164 0012777 116.6687 243.8460 15.84276722 35215

1 10382U 77097 A 78132.11365200 .00114118 00000-0 00000-0 0 01755  
2 10382 51.6294 37.0489 0011029 124.0338 235.8432 15.84629759 35515

1 10382U 77097 A 78133.12264376 .00089033 00000-0 00000-0 0 01767  
2 10382 51.6381 31.7555 0012148 123.3699 231.6528 15.84787123 35674

1 10382U 77097 A 78133.24878848 .00097106 00000-0 00000-0 0 01776  
2 10382 51.6324 31.1195 0012054 128.8387 231.0594 15.84914481 35690

1 10382U 77097 A 78134.25761805 .00092659 00000-0 00000-0 0 01781  
2 10382 51.6284 25.8563 0011230 132.7656 227.4316 15.85004588 35858

77-97A

Salyut 6

forts. 11.

1	10382U	77097	A	78135.26632711	.00096159	00000-0	00000-0	0	01796
2	10382	51.6298		20.5881 0010445	136.6984	223.4208	15.85179051		36015

1	10382U	77097	A	78136.65312656	.20096159	00000-0	00000-0	0	01805
2	10382	51.6262		13.3487 0030406	270.2199	87.2903	15.76073468		36237

1	10382U	77097	A	78137.03394736	.20096159	00000-0	00000-0	0	01813
2	10382	51.6297		11.3916 0030097	271.6796	88.1713	15.76222355		36209

1	10382U	77097	A	78137.60450958	.00063675	00000-0	00000-0	0	01823
2	10382	51.6266		8.4431 0029634	273.8773	85.8081	15.76277589		36335

1	10382U	77097	A	78139.44291935	.00054196	00000-0	00000-0	0	01839
2	10382	51.6298		353.9783 0030363	280.0187	79.5063	15.76456197		36674

1	10382U	77097	A	78140.45717292	.00040407	00000-0	00000-0	0	01841
2	10382	51.6298		353.7490 0029900	283.9217	75.7822	15.76547847		36835

1	10382U	77097	A	78144.39668668	.00064483	00000-0	00000-0	0	01851
2	10382	51.6277		333.4310 0030512	298.9636	60.8874	15.76970034		37454

1 10382U 77097 A 78144.95699214 .00052355 00000-0 00000-0 0 01861  
2 10382 51.6273 330.5394 0032488 301.9757 57.7763 15.77019566 37542

1 10382U 77097 A 78147.36479204 .00050671 00000-0 00000-0 0 01874  
2 10382 51.6280 318.1064 0030362 312.0933 47.7102 15.77262583 37929

1 10382U 77097 A 78149.20207690 .00054015 00000-0 00000-0 0 01884  
2 10382 51.6265 308.5310 0030695 319.0955 40.6973 15.77439289 38214

1 10382U 77097 A 78152.81261879 .00047770 00000-0 00000-0 0 01907  
2 10382 51.6272 289.9871 0030574 334.0025 25.8549 15.77842537 38787

1 10382U 77097 A 78153.31930543 .00057515 00000-0 00000-0 0 01913  
2 10382 51.6249 287.3679 0031319 335.3995 24.5626 15.77908850 38869

1 10382U 77097 A 78154.39590907 .00100756 00000-0 00000-0 0 01925  
2 10382 51.6249 281.8009 0031734 338.9230 21.0904 15.73082303 39035

1 10382U 77097 A 78155.09244819 .00055827 00000-0 00000-0 0 01930  
2 10382 51.6257 278.2035 0031143 341.6082 18.2436 15.78140832 39140

1 10382U 77097 A 78159.53768628 .00046595 00000-0 00000-0 0 01940  
2 10382 51.6264 254.9639 0031259 359.5628 .2709 15.78592519 39356

77-97A

Salyut 6

for ts. 12.

1	10382U	77097	A	78161.29687574	.00034732	00000-0	00000-0	0	01952
2	10382	51.6273		246.1109 0031211	5.5680	354.4359	15.78720471		40122

1	10382U	77097	A	78162.13306744	.00034732	00000-0	00000-0	0	01969
2	10382	51.6263		241.5520 0012303	346.6721	11.8131	15.73755466		40262

1	10382U	77097	A	78163.19931359	.00040087	00000-0	00000-0	0	01973
2	10382	51.6253		236.3309 0012004	350.5704	9.6014	15.73857915		40426

1	10382U	77097	A	78164.02471734	.00032535	00000-0	00000-0	0	01987
2	10382	51.6260		232.0930 0011839	353.8353	6.1945	15.73902152		40551

1	10382U	77097	A	78165.43503237	.00030963	00000-0	00000-0	0	01996
2	10382	51.6260		224.5918 0011437	359.4354	.6562	15.73993093		40783

1	10382U	77097	A	78167.38966909	.00129922	00000-0	00000-0	0	02014
2	10382	51.6279		214.3091 0012255	6.1638	353.9817	15.74131669		41082

1	10382U	77097	A	78167.96102569	.00030066	00000-0	20672-3	0	02034
2	10382	51.6271		211.8699 0011775	10.2344	349.8999	15.74142241		41174

1	10382U	77097	A	78168.08799035	.00032147	00000-0	00000-0	0	02041
2	10382	51.6271		211.2175	0011743	10.7214	349.3921	15.74148578	41193

1	10382U	77097	A	78169.10370971	.00050186	00000-0	00000-0	0	02052
2	10382	51.6221		206.2043	0012090	16.5671	343.4998	15.74215721	41354

1	10382U	77097	A	78170.05590352	.00035772	00000-0	00000-0	0	02050
2	10382	51.6248		201.1234	0012233	17.0498	342.2555	15.74263106	41572

1	10382U	77097	A	78170.30984108	.00030865	00000-0	00000-0	0	02074
2	10382	51.6275		199.8235	0012156	18.9189	341.2273	15.74272336	41542

1	10382U	77097	A	78174.05465345	.00051891	00000-0	00000-0	0	02103
2	10382	51.6212		180.5495	0006941	43.7929	317.6918	15.75012477	42134

1	10382U	77097	A	78175.38593370	.00067095	00000-0	00000-0	0	02113
2	10382	51.6257		173.6934	0007484	50.4028	300.4611	15.76424334	42345

1	10382U	77097	A	78176.46342236	.00050914	00000-0	36753-3	0	02126
2	10382	51.6253		168.1345	0007633	52.3386	297.3235	15.76553502	42519

1	10382U	77097	A	78177.28742756	.00052061	00000-0	31972-3	0	02132
2	10382	51.6243		163.8886	0007612	65.9424	294.2251	15.76643062	42644

1	10382U	77097	A	78178.30152036	.00090016	00000-0	00000-0	0	02146
2	10382	51.6236		158.6586	0007166	69.8472	290.6127	15.76866261	42603



77-97A

Salyut 6

Ports. 13

1	10382U	77097	A	78179.94923517	.20094672	00000-0	00000-0	0	02153
2	10382	51.6273	150.1606	0007040	80.3402	279.4021	15.77081264	43060	
1	10382U	77097	A	78181.34303169	.20040587	00000-0	24312-3	0	02169
2	10382	51.6264	142.9653	0006987	35.6336	274.3258	15.77223076	43299	
1	10382U	77097	A	78182.20343948	.20067145	00000-0	00000-0	0	02179
2	10382	51.6252	138.0614	0006661	39.2940	270.9807	15.77354096	43435	
1	10382U	77097	A	78182.80024433	.20049696	00000-0	00000-0	0	02182
2	10382	51.6268	135.4426	0007026	38.2730	271.3297	15.77385597	43518	
1	10382U	77097	A	78184.44734945	.20038973	00000-0	00000-0	0	02197
2	10382	51.6269	126.9399	0007095	36.3423	263.3199	15.77535373	43771	
1	10382U	77097	A	78185.27084577	.20045125	00000-0	00000-0	0	02207
2	10382	51.6297	122.6880	0006676	99.2961	260.9016	15.77614630	43974	
1	10382U	77097	A	78185.84092593	.200234204	00000-0	00000-0	0	02216
2	10382	51.6272	119.7446	0007173	30.2207	270.1808	15.77900400	43993	
1	10382U	77097	A	78186.79073431	.20036279	00000-0	00000-0	0	02224
2	10382	51.6213	114.8393	0005729	113.1536	245.4947	15.78004320	44145	

1 10382U 77097 A 78188.24732268 .20040419 00000-0 23249-3 0 02231  
2 10382 51.6284 107.3108 0005944 117.8145 242.4947 15.73148837 44373

1 10382U 77097 A 78191.22321795 .20080486 00000-0 00000-0 0 02243  
2 10382 51.6272 91.9287 0005156 125.9155 233.4789 15.78491341 44840

1 10382U 77097 A 78193.43872479 .20042929 00000-0 24032-3 0 02253  
2 10382 51.6264 80.4695 0005008 142.5453 217.0769 15.78703167 45195

1 10382U 77097 A 78194.26169653 .20042929 00000-0 00000-0 0 02267  
2 10382 51.6313 76.2072 0004710 145.7285 214.4011 15.78774226 45327

1 10382U 77097 A 78196.47696775 .20065085 00000-0 35753-3 0 02273  
2 10382 51.6293 64.7687 0005435 160.5245 199.3109 15.79032580 45679

1 10382U 77097 A 78197.42619579 .20053604 00000-0 29427-3 0 02289  
2 10382 51.6276 59.8396 0004509 157.2556 202.7553 15.79115346 45327

1 10382U 77097 A 78199.13476992 .20054941 00000-0 00000-0 0 02293  
2 10382 51.6276 50.9907 0004119 166.9753 193.0592 15.79284615 46001

1 10382U 77097 A 78199.76753673 .20049861 00000-0 27120-3 0 02373  
2 10382 51.6283 47.7194 0004681 174.5215 185.5660 15.79345005 46196

1 10382U 77097 A 78200.46354142 .20061215 00000-0 00000-0 0 02314  
2 10382 51.6270 44.1200 0004388 177.2071 132.9245 15.79434017 46301

1 10382U 77097 A 78201.41256218 .20060094 00000-0 00000-0 0 02320  
2 10382 51.6267 39.2046 0003893 130.8755 179.2060 15.79546207 46450

77-97A

Salyut 6

for ts. 74

1	10382U	77097	A	78222.30434983	.00028793	00000-0	00000-0	0	02331
2	10382	51.6264		31.9965	0003192	136.2573	173.6172	15.79627715	46670

1	10382U	77097	A	78224.26961812	.00054724	00000-0	00000-0	0	02342
2	10382	51.6273		25.4409	0003418	195.1946	165.1566	15.79789319	46670

1	10382U	77097	A	78224.44910599	.00049330	00000-0	26273-3	0	02355
2	10382	51.6261		23.4711	0003307	192.7045	167.3392	15.79813834	46933

1	10382U	77097	A	78225.39791903	.00077093	00000-0	00000-0	0	02360
2	10382	51.6204		19.5591	0002730	189.0511	171.2274	15.79929921	47039

1	10382U	77097	A	78226.42989110	.00051978	00000-0	27409-3	0	02370
2	10382	51.6247		13.3180	0002929	197.5439	162.4108	15.80019941	47244

1	10382U	77097	A	78228.68664685	.00117469	00000-0	00000-0	0	02382
2	10382	51.6220		1.5188	0002338	223.5107	136.4847	15.80302630	47670

1	10382U	77097	A	78229.38222139	.00069120	00000-0	35195-3	0	02390
2	10382	51.6253		357.9144	0002145	232.0919	127.8205	15.80371434	47719

1 10382U 77 97 A 78213.99763831 .00046124 00000-7 00000-0 0 02438  
2 10382 51.6278 333.9716 0007271 249.5560 110.4806 15.80823767 43451

1 10382U 77 97 A 78214.94586252 -.00010411 00000-0 00000-0 0 02440  
2 10382 51.6292 329.2499 0005829 256.1739 123.8689 15.80816758 48672

1 10382U 77097 A 78217.41115176 .00034744 00000-0 00000-0 0 02462  
2 10382 51.6254 316.2595 0003117 260.4648 99.7366 15.81011879 48982

1 10382U 77097 A 78217.66395625 .00027671 00000-0 17416-3 0 02472  
2 10382 51.6265 314.9620 0022256 189.9045 164.9352 15.75951297 49025

~~1 10382U 77097 A 78219.50372155 .00027324 00000-0 00000-0 0 02484  
2 10382 51.6250 305.4842 0021272 196.8487 163.1985 15.76065295 49314~~

1 10382U 77097 A 78220.45479186 .00031784 00000-0 00000-0 0 02498  
2 10382 51.6278 300.5880 0022099 198.6681 161.3916 15.76131707 49468

1 10382U 77097 A 78222.35681374 .00038816 00000-0 00000-0 0 02511  
2 10382 51.6257 290.7765 0021188 227.9844 152.3973 15.76276999 49766

1 10382U 77097 A 78222.80057380 .00041152 00000-0 00000-0 0 02521  
2 10382 51.6256 288.4837 0021077 210.3905 149.6223 15.76321077 49838

1 10382U 77097 A 78224.38539467 .00040574 00000-0 00000-0 0 02535  
2 10382 51.6277 280.3207 0020645 215.5971 144.2997 15.76440184 50082

77-97A

Salyut 6

forts. 15

1	12382U	77097	A	78225.46302192	.00027869	00000-0	00000-0	0	02541
2	10382	51.6273		274.7662	0020277	219.4973	140.4460	15.76513930	50258

1	12382U	77097	A	78226.66736898	.00041900	00000-0	00000-0	0	02551
2	10382	51.6273		268.5559	0019994	224.1332	135.8791	15.76614100	50447

1	12382U	77097	A	78228.06175162	.00035349	00000-0	00000-0	0	02564
2	10382	51.6240		261.3681	0020469	229.1562	130.6605	15.76698285	50664

1	12382U	77097	A	78229.07583596	.00034334	00000-0	00000-0	0	02579
2	10382	51.6232		256.1388	0020094	233.1016	126.7826	15.76762999	50827

1	12382U	77097	A	78229.83636413	.00034334	00000-0	00000-0	0	02581
2	10382	51.6084		252.2286	0009769	231.4549	127.5316	15.74706544	50940

1	12382U	77097	A	78231.35955368	.00052650	00000-0	00000-0	0	02595
2	10382	51.6229		244.3939	0011149	245.4968	114.6334	15.74872900	51168

1	12382U	77097	A	78232.18440907	.00108369	00000-0	00000-0	0	02607
2	10382	51.6236		240.1407	0010782	248.6752	111.4348	15.75048584	51318

1	10382U	77097	A	78233.58008891	.00130118	00000-0	83397-3	0	02615
2	10382	51.6248		232.9793	0011911	258.3822	100.9902	15.75210419	51530

1	10382U	77097	A	78233.96082514	.00130118	00000-0	00000-0	0	02629
2	10382	51.6215		231.0038	0012208	257.2430	102.9217	15.75448484	51591

1	10382U	77097	A	78235.35611263	.00027062	00000-0	00000-0	0	02633
2	10382	51.6233		223.8138	0010673	262.6139	96.5036	15.75515771	51817

1	10382U	77097	A7	7236.43448165	.00030583	00000-0	00000-0	0	02649
2	10382	51.6270		218.2575	0011183	262.7082	96.9930	15.75566690	51987

1	10382U	77097	A	78236.87850882	.00030583	00000-0	00000-0	0	02651
2	10382	51.6275		215.9723	0013712	294.7495	63.2975	15.74205868	52255

1	10382U	77097	A	78239.41802661	.00022934	00000-0	00000-0	0	02680
2	10382	51.6325		202.9430	0011759	302.1329	57.7823	15.74300189	52457

1	10382U	77097	A	78240.43366193	.00059722	00000-0	00000-0	0	02695
2	10382	51.6328		197.7165	0012115	307.5472	52.5828	15.74430988	52618

1	10382U	77097	A	78238.02148127	.00012352	00000-0	00000-0	0	02667
2	10382	51.6331		210.1123	0013416	299.1203	60.6975	15.74223044	52233

1	10382U	77097	A	78238.40238859	.00031332	00000-0	00000-0	0	02671
2	10382	51.6316		208.1552	0012420	299.5770	60.4265	15.74260813	52297

77-97A

Salyut 6

font. 16.

1	10382U	77097	A	78241.38568473	.00282773	20020-2	00020-0	0	02729
2	10382	51.6316		192.8232	0011461	309.6290	52.4655	15.74595051	52764

1	10382U	77097	A	78242.84526263	.00027035	00000-0	18213-3	0	02711
2	10382	51.6318		185.3237	0011978	311.1249	48.2823	15.74642448	52993

1	10382U	77097	A	78243.98770378	.00049910	00000-0	00020-0	0	02735
2	10382	51.6338		179.4473	0011705	315.4990	44.6198	15.74738777	53176

1	10382U	77097	A	78245.57429729	.00078566	20020-0	30000-0	0	02742
2	10382	51.6338		171.2996	0012027	317.7941	42.7561	15.75033855	53429

1	10382U	77097	A	78245.82778896	.00257584	20020-0	20020-0	0	02753
2	10382	51.6391		169.9916	0010652	331.0525	29.2342	15.75328541	53467

1	10382U	77097	A	78246.14490894	.00257584	20020-0	00020-0	0	02769
2	10382	51.6403		168.3547	0013245	322.0669	37.9125	15.75475624	53519

1	10382U	77097	A	78246.58889236	.00035320	20020-0	00020-0	2	02773
2	10382	51.6317		166.2634	0012760	318.6063	41.2810	15.75401325	53552

1	10382U	77097	A	78247.73071265	.00039536	20020-0	00020-0	0	02789
2	10382	51.6322		160.1901	0012764	321.5738	32.4300	15.75487125	53766

1	10382U	77097	A	78249.69659973	.00057414	00000-0	00000-0	0	02824
2	10382	51.6328	150.2685	0013532	322.5943	36.9848	15.75977532		54073

1	10382U	77097	A	78248.68212249	.00221070	00000-0	00000-0	0	02822
2	10382	51.6312	155.2902	0013423	333.4464	26.7992	15.75816576		53914

1	10382U	77097	A	78249.06256160	.00233571	00000-0	00000-0	0	02815
2	10382	51.6313	153.3280	0013189	329.9249	30.0799	15.75988159		53977

1	10382U	77097	A	78251.15502344	.00053472	00000-0	33776-3	0	02837
2	10382	51.6269	142.5663	0013212	335.7607	23.5851	15.75853722		54303

1	10382U	77097	A	78253.81827581	.00051918	00000-0	32381-3	0	02951
2	10382	51.6319	128.8322	0013241	345.0678	14.8981	15.76154170		54727

1	10382U	77097	A	78254.38890558	.00050708	00000-0	00000-0	0	02865
2	10382	51.6302	125.8964	0012991	347.2574	12.7897	15.76208140		54818

1	10382U	77097	A	78255.40328388	.00044894	00000-0	00000-0	0	02876
2	10382	51.6288	120.6669	0013520	350.7600	9.2880	15.76298920		54979

1	10382U	77097	A	78256.41760870	.00072142	00000-0	00000-0	0	02882
2	10382	51.6338	115.4476	0012994	353.5107	6.6499	15.76442819		55134

1	10382U	77097	A	78257.49518995	.00056691	00000-0	00000-0	0	02892
2	10382	51.6311	109.8984	0012337	357.6497	2.2927	15.76546729		55326



77-97A

Salyut 6

forts. 17

1	10382U	77097	A	78258.57275149	.00047219	00000-0	00000-0	0	02900
2	10382	51.6340		104.3400 0012390	558.7484	1.5638	15.76715703		55477

1	10382U	77097	A	78259.84026797	.00146076	00000-0	86443-3	0	02915
2	10382	51.6337		97.7976 0013247	5.3030	354.9468	15.76973285		55679

1	10382U	77097	A	78260.53726543	.00041028	00000-0	00000-0	0	02923
2	10382	51.6348		94.2070 0013212	2.7947	357.6180	15.77212570		55785

1	10382U	77097	A	78262.50127631	.00049970	00000-0	29487-3	0	02933
2	10382	51.6327		84.2701 0013735	11.0855	349.1562	15.77409443		56093

1	10382U	77097	A	78264.33836291	.00055049	00000-0	00000-0	0	02947
2	10382	51.6313		74.5763 0012960	18.1722	341.9845	15.77599676		56384

1	10382U	77097	A	78265.35183703	.00054742	00000-0	00000-0	0	02953
2	10382	51.6298		69.3479 0014988	19.6679	340.5214	15.77728956		56549

1	10382U	77097	A	78266.87181815	.00072530	00000-0	00000-0	0	02972
2	12382	51.6322		61.5008 0014169	22.7381	337.3348	15.77923735		56789

1	10382U	77097	A	78268.01169727	.00066188	00000-0	00000-0	0	02989
2	10382	51.6239		55.6167 0014483	29.6661	330.3984	15.78121172		56963

1	10382U	77097	A	78266.17521875	.00087969	00000-0	00000-0	0	02968
2	10382	51.6298		65.0947 0014608	22.8423	337.4874	15.77901777		56679

1	10382U	77097	A	78270.48107919	.00092753	00000-0	00000-0	0	03009
2	10382	51.6294		42.8411 0015005	33.6345	326.8516	15.78549572		57352

1	10382U	77097	A	78271.68376445	.00115308	00000-0	62867-3	0	03019
2	10382	51.6344		36.6207 0014921	38.1444	322.3524	15.78854305		57542

1	10382U	77097	A	78273.26588211	.00074248	00000-0	00000-0	0	03027
2	10382	51.6331		28.4434 0013340	43.6623	316.0713	15.79024609		57797

1	10382U	77097	A	78274.40507412	.00093820	00000-0	00000-0	0	03036
2	10382	51.6304		22.5517 0012037	46.4762	313.8618	15.79250991		57975

1	10382U	77097	A	78276.30317937	.00056788	00000-0	00000-0	0	03041
2	10382	51.6347		12.7165 0013731	49.3798	310.4765	15.79501703		58275

1	10382U	77097	A	78278.32767821	.00076698	00000-0	40308-3	0	03057
2	10382	51.6309		2.2307 0014177	59.0056	301.5318	15.79813995		58594

1	10382U	77097	A	78279.21316506	.00087800	00000-0	00000-0	0	03066
2	10382	51.6333		357.6520 0013578	58.9005	301.3012	15.79956756		58739

77-97A

Salyut 6

forts. 18

1	10382U	77097	A	78280.03538033	.00087800	00000-0	00000-0	0	03070
2	10382	51.6360	353.4010	0017686	78.6069	279.4389	15.77988379		58860

1	10382U	77097	A	78280.60571812	.00085998	00000-0	48675-3	0	03085
2	10382	51.6395	350.4513	0016972	81.8974	278.3534	15.78067766		58950

1	10382U	77097	A	78281.49224037	.00057396	00000-0	00000-0	0	03096
2	10382	51.6365	345.8712	0016329	85.3133	274.8368	15.78153265		59090

1	10382U	77097	A	78282.69533237	.00076890	00000-0	00000-0	0	03106
2	10382	51.6370	339.6512	0016612	89.1373	271.1857	15.78318307		59282

1	10382U	77097	A	78284.46800742	.00069289	00000-0	00000-0	0	03116
2	10382	51.6370	330.4879	0015463	95.9730	264.1686	15.78559195		59567

1	10382U	77097	A	78285.48087891	.00063980	00000-0	00000-0	0	03124
2	10382	51.6400	325.2514	0016290	99.5745	260.6967	15.78697006		59729

1	10382U	77097	A	78290.35379738	.00077266	00000-0	00000-0	0	03166
2	10382	51.6352	300.0389	0015972	116.3849	243.8658	15.79469667		60492

1	12382U	77097	A	78292.75774361	.00065137	00000-0	00000-0	0	03173
2	12382	51.6352	297.5908	0014406	125.6722	234.7655	15.79881666		60877
1	10382U	77097	A	78293.51901304	.00116894	00000-0	00000-0	0	03191
2	10382	51.6382	283.6749	0027056	39.8410	270.6762	15.75995384		60990
1	12382U	77097	A	78293.83603044	.00116894	00000-0	00000-0	0	03208
2	10382	51.6444	282.0594	0002557	326.1312	29.3959	15.69475196		61048
1	10382U	77097	A	78294.85552283	.00070054	00000-0	00000-0	0	03217
2	10382	51.6366	276.8498	0001544	330.0178	29.8294	15.69598472		61202
1	10382U	77097	A	78295.93786724	.00066980	00000-0	00000-0	0	03219
2	10382	51.6378	271.3264	0001329	336.3586	23.7305	15.69740783		61377
1	10382U	77097	A	78298.35685660	.00055526	00000-0	00000-0	0	03231
2	10382	51.6374	258.9816	0000854	335.0741	25.1180	15.69993940		61752
1	10382U	77097	A	78298.35684523	.00066980	00000-0	00000-0	0	03245
2	10382	51.6319	258.9829	0001809	13.7934	346.3066	15.69989679		61755
1	10382U	77097	A	78300.64809656	.00078997	00000-0	00000-0	0	03259
2	10382	51.6397	247.2356	0002549	207.7063	152.5991	15.70333313		62112
1	12382U	77097	A	78302.23887769	.00079227	00000-0	00000-0	0	03276
2	10382	51.6399	239.1610	0001228	343.8653	16.0388	15.70530374		62364
1	10382U	77097	A	78301.66621117	.00080524	00000-0	00000-0	0	03266
2	10382	51.6398	242.0776	0000399	22.3496	337.7193	15.70503642		62276

77-97A

Salyut 6

forts. 19

1	10382U	77097	A	78304.21124142	.00294740	00000-0	00000-0	0	03285
2	10382	51.6410	229.0703	0007561	286.1073	73.7729	15.70996055		62675

1	10382U	77097	A	78305.16526393	.00294740	00000-0	00000-0	0	03295
2	10382	51.6340	224.2181	0003007	32.1505	325.3772	15.70613990		62829

1	10382U	77097	A	78306.56513235	.00294740	00000-0	00000-0	0	03303
2	10382	51.6342	217.0529	0003321	343.1193	14.7837	15.70753902		63048

1	10382U	77097	A	78307.26525485	.00286735	00000-0	67812-3	0	03312
2	10382	51.6412	213.4820	0002026	35.4224	324.1946	15.70826596		63158

1	10382U	77097	A	78308.85564766	.00047221	00000-0	00000-0	0	03324
2	10382	51.6386	205.3488	0002196	34.8837	324.8838	15.70994534		63402

1	10382U	77097	A	78310.57311736	.00063550	00000-0	00000-0	0	03337
2	10382	51.6386	196.5671	0001508	41.4340	318.9269	15.71226024		63670

1	10382U	77097	A	78312.92610882	.00057140	00000-0	00000-0	0	03341
2	10382	51.6374	184.5309	0002435	49.3060	310.5774	15.71438576		64041

1	10382U	77097	A	78313.62563318	.00067513	00000-0	00000-0	0	03356
2	10382	51.6350	180.9497	0002096	51.9779	308.2225	15.71599606		64156

1	10382U	77097	A	78314.51579461	.00050648	00000-0	00000-0	0	03363
2	10382	51.6354	176.3907	0001586	55.3801	304.6500	15.71680680	64296	

1	10382U	77097	A	78315.53310670	.00057407	00000-0	00000-0	0	03372
2	10382	51.6364	171.1907	0002225	44.8591	31".2695	15.71800057	64453	

1	10382U	77097	A	78317.12247123	.00074039	00000-0	00000-0	0	03382
2	10382	51.6358	163.0526	0001824	61.0284	299.0893	15.71999938	64701	

1	10382U	77097	A	78318.83872866	.00052799	00000-0	00000-0	0	03399
2	10382	51.6333	154.2632	0000747	67.5857	292.2397	15.72168948	64977	

1	10382U	77097	A	78320.49133489	.00047656	00000-0	00000-0	0	03403
2	10382	51.6310	145.7973	0002198	59.8291	300.1626	15.72317309	65234	

1	10382U	77097	A	78321.50824446	.00044369	00000-0	00000-0	0	03415
2	10382	51.6300	140.5867	0002565	50.7900	309.2744	15.72399932	65393	

1	10382U	77097	A	78323.79605620	.00041194	00000-0	30211-3	0	03423
2	10382	51.6352	128.8688	0002415	62.7655	297.2731	15.72587778	65753	

1	10382U	77097	A	78326.33776133	.00040539	00000-0	00000-0	0	03437
2	10382	51.6351	115.8406	0001528	72.4857	287.7825	15.72823566	66153	

1	10382U	77097	A	78328.43434011	.00040158	00000-0	00000-0	0	03444
2	10382	51.6379	105.0917	0002356	67.0648	293.2209	15.73023481	66482	

77-97A

Salyut 6

forts. 20

1	10382U	77097	A	78329.76837226	.00014830	00000-0	00000-0	0	03455
2	10382	51.6379		98.2498 0001902	72.1684	288.1164	15.73150052		66693

1	10382U	77097	A	78330.21300728	.00092379	00000-0	00000-0	0	03464
2	10382	51.6362		95.9717 0002118	76.7547	283.5713	15.73319159		66763

1	10382U	77097	A	78330.91162778	.00066247	00000-0	00000-0	0	03479
2	10382	51.6376		92.3888 0002092	81.0996	278.9260	15.73396507		66875

1	10382U	77097	A	78331.80090397	.00068891	00000-0	00000-0	0	03481
2	10382	51.6360		87.8189 0002136	70.2900	289.7546	15.73496440		67016

1	10382U	77097	A	78333.51545130	.00044144	00000-0	00000-0	0	03498
2	10382	51.6402		79.0207 0002596	73.2887	286.5421	15.73654893		67288

1	10382U	77097	A	78335.03951902	.00007968	00000-0	00000-0	0	03500
2	10382	51.6421		71.1946 0002026	79.1262	281.0790	15.73774340		67528

1	10382U	77097	A	78336.05547608	.00030614	00000-0	00000-0	0	03512
2	10382	51.6350		65.9860 0001925	100.9926	259.5726	15.73926204		67686

1	10382U	77097	A	78336.56333136	.00062984	00000-0	00000-0	0	03523
2	10382	51.6361		63.3776 0002025	82.5135	277.7026	15.74019793		67766

1 10382U 77097 A 78338.21390888 .00198173 00000-0 00000-0 0 03535  
2 10382 51.6284 54.8964 0001144 38.8415 271.1738 15.74292991 69024

1 10382U 77097 A 78338.78518456 .00093004 00000-0 00000-0 0 03548  
2 10382 51.6284 51.9604 0000186 91.0330 268.7997 15.74325547 68115

1 10382U 77097 A 78339.22955337 .00065175 00000-0 00000-0 0 03550  
2 10382 51.6259 49.6781 0002263 98.7848 261.1465 15.74328738 68182

1 10382U 77097 A 78347.35196487 .00062272 00000-0 39099-3 0 03574  
2 10382 51.6355 7.9192 0003108 97.4143 262.6124 15.75305866 69462

1 10382U 77097 A 78342.91063937 .00060666 00000-0 00000-0 0 03567  
2 10382 51.6358 30.7627 0002306 89.2365 270.6635 15.74780813 68769

1 10382U 77097 A 78349.19152143 .00059786 00000-0 38369-3 0 03587  
2 10382 51.6406 359.4525 0003082 104.5389 255.7157 15.75556496 69754

1 10382U 77097 A 78352.29903869 .00055774 00000-0 00000-0 0 03593  
2 10382 51.6370 342.4534 0002999 121.3354 239.0215 15.75951664 70240

1 10382U 77097 A 78354.39135725 .00061403 00000-0 00000-0 0 03613  
2 10382 51.6337 331.6653 0002854 118.1723 242.0989 15.76249866 70577

1 10382U 77097 A 78352.42580994 .00062519 00000-0 00000-0 0 03605  
2 10382 51.6329 341.9006 0002939 121.8724 238.2635 15.75974856 70262



77-97A

Salyut 6

forts. 21

1	10382U	77097	A	79355.91280932	.00060786	00000-0	00000-0	0	03622
2	10382	51.6330		323.8422 0003436	126.5295	233.5805	15.76436802		70818

1	10382U	77097	A	79359.71572729	.00073767	00000-0	44572-3	0	03636
2	10382	51.6365		304.2273 0003378	141.8969	217.9817	15.76867865		71418

1	10382U	77097	A	79362.18708133	.00063171	00000-0	00000-0	0	03645
2	10382	51.6347		291.4785 0003130	153.7476	205.0302	15.77171283		71809

1	10382U	77097	A	79363.70772839	.00076761	00000-0	45277-3	0	03656
2	10382	51.6329		293.6304 0003219	154.5575	205.6577	15.77403072		72045

1	10382U	77097	A	79364.21451612	.00075059	00000-0	00000-0	0	03668
2	10382	51.6353		281.0156 0002940	161.7471	198.3421	15.77472381		72124

1	10382U	77097	A	79 1.24150958	.00077316	00000-0	00000-0	0	03677
2	10382	51.6361		270.5418 0001756	167.7462	192.5290	15.77794574		72440

1	10382U	77097	A	79 2.50813150	.00083971	00000-0	00000-0	0	03683
2	10382	51.6359		264.0044 0002886	173.9496	196.1822	15.77995101		72540

1	10382U	77097	A	79 4.21786525	.00090791	00000-0	00000-0	0	03586
2	10382	51.6392		255.1826 0000000	104.8174	255.3661	15.78286192		72912

1 10382U 77097 A 79 5.35747948 .00074003 00000-0 00000-0 0 03697  
2 10382 51.6355 249.3040 0001660 214.1249 146.0334 15.78486282 73090

1 10382U 77097 A 79 6.68687064 .00090942 00000-0 00000-0 0 03708  
2 10382 51.6349 242.4008 0000829 219.2926 141.0215 15.78743888 73309

1 10382U 77097 A 79 7.19320632 .00101452 00000-0 00000-0 0 03715  
2 10382 51.6337 239.7858 0002558 201.9580 158.1224 15.78834703 73388

1 10382U 77097 A 79 7.63625927 .00087404 00000-0 00000-0 0 03725  
2 10382 51.6313 237.4925 0002310 203.9372 156.2166 15.78900139 73457

1 10382U 77097 A 79 9.40827440 .00092275 00000-0 00000-0 0 03739  
2 10382 51.6325 228.3285 0002209 221.6881 138.4606 15.79227712 73730

1 10382U 77097 A 79 10.42066831 .00096343 00000-0 51741-3 0 03744  
2 10382 51.6371 223.0820 0002330 206.7334 153.3328 15.79414468 73398

1 10382U 77097 A 79 11.43295589 .00096155 00000-0 00000-0 0 03752  
2 10382 51.6297 217.8474 0002295 217.8190 142.1319 15.79572754 74054

1 10382U 77097 A 79 12.44516107 .00085662 00000-0 00000-0 0 03767  
2 10382 51.6273 212.6007 0002325 231.2050 128.7622 15.79723877 74216

1 10382U 77097 A 79 13.71027928 .00053281 00000-0 00000-0 0 03772  
2 10382 51.6330 206.0546 0002294 244.7667 115.2098 15.79888175 74411

77-97A

Salyut 6

forts. 22

1	10382U	77097	A	79	14.34879940	.00075189	00000-0	00000-0	0	03784
2	10382	51.6295	200.1505	0002838	249.3319	110.9553	15.30077871	74592		

1	10382U	77097	A	79	15.35470889	.00080213	00000-0	00000-0	0	03795
2	10382	51.6314	197.5311	0002665	250.2507	109.8319	15.80163751	74675		

1	10382U	77097	A	79	19.52777160	.00074183	00000-0	00000-0	0	03802
2	10382	51.6348	175.8936	0002611	281.9744	78.0617	15.80824276	75337		

1	10382U	77097	A	79	21.29765619	.00084651	00000-0	00000-0	0	03817
2	10382	51.6340	166.7278	0002710	292.9927	67.3386	15.81146458	75613		

1	10382U	77097	A	79	24.52037320	.00097265	00000-0	00000-0	0	03823
2	10382	51.6321	149.9699	0003024	314.5342	45.8324	15.81766092	76129		

1	10382U	77097	A	79	29.32025939	.00108599	00000-0	00000-0	0	03844
2	10382	51.6325	125.0173	0003874	339.0164	21.1658	15.82804762	76880		

1	10382U	77097	A	79	29.63592273	.00107101	00000-0	00000-0	0	03857
2	10382	51.6349	123.3595	0005260	8.7940	351.3113	15.82862936	76935		

1	123820	77097	A	79	31.65589676	.00126280	00000-0	00000-0	0	03863
2	12382	51.6424		112.8525	0003940	343.2922	16.7928	15.83305764		77255

1	123820	77097	A	79	33.35978224	.00096656	00000-0	00000-0	0	03869
2	12382	51.6317		103.9890	0004379	.3458	359.6285	15.83688447		77525

1	123820	77097	A	79	34.81099179	.00118145	00000-0	00000-0	0	03872
2	12382	51.6281		96.4188	0003733	3.2990	357.0660	15.84049738		77756

1	123820	77097	A	79	36.51405860	.00123879	00000-0	00000-0	0	03880
2	12382	51.6317		87.5387	0004119	11.4714	348.5734	15.84456127		79024

1	123820	77097	A	79	37.77534677	.00115909	00000-0	00000-0	0	03894
2	12382	51.6332		80.9681	0004087	18.9430	341.1142	15.84750855		78225

1	123820	77097	A	79	38.46896291	.00129989	00000-0	00000-0	0	03909
2	12382	51.6351		77.3473	0004074	20.1805	339.9885	15.84943257		78333

1	123820	77097	A	79	39.35159867	.00123655	00000-0	00000-0	0	03914
2	12382	51.6326		72.7316	0003109	23.6263	336.4520	15.85154034		78475

1	123820	77097	A	79	40.54929552	.00130159	00000-0	00000-0	0	03921
2	12382	51.6292		66.4840	0004048	31.0020	329.1633	15.85474601		78666

1	123820	77097	A	79	42.06180738	.00129035	00000-0	00000-0	0	03937
2	12382	51.6286		68.5796	0004999	36.0414	323.2518	15.85886461		78903

77-97A

Salyut 6

forts. 23

1	10382U	77097	A	79	44.14087676	.00151762	00000-0	00000-0	0	03948
2	10382	51.6317			47.7074	0004118	44.7513	315.6668	15.86513460	79231
1	10382U	77097	A	79	45.84122940	.00141037	00000-0	00000-0	0	03955
2	10382	51.6321			38.8101	0004557	46.8089	313.0813	15.86972463	79531
1	10382U	77097	A	79	46.28204426	.00145854	00000-0	00000-0	0	03966
2	10382	51.6325			36.5007	0004262	55.1265	305.0223	15.87105430	79574
1	10382U	77097	A	79	48.42241776	.00151696	00000-0	00000-0	0	03975
2	10382	51.6323			25.2868	0004226	63.2053	296.9587	15.87751970	79912
1	10382U	77097	A	79	48.73709867	.00146224	00000-0	00000-0	0	03981
2	10382	51.6283			23.6406	0003825	64.4329	295.6943	15.87838966	79968
1	10382U	77097	A	79	49.30348980	.00152897	00000-0	00000-0	0	03994
2	10382	51.6312			20.6705	0004165	67.0906	293.0695	15.88022754	80057
1	10382U	77097	A	79	50.31023953	.0020959	00000-0	00000-0	0	04002
2	10382	51.6279			15.3928	0002873	71.0288	289.2457	15.88415254	80211
1	10382U	77097	A	79	51.12799231	.00183142	00000-0	00000-0	0	04017
2	10382	51.6322			11.0975	0003171	80.6306	279.3456	15.88688914	80342

1	10382U	77097	A	79	53.39322933	.00215318	00000-0	00000-0	0	04032
2	10382	51.6358	359.2140	0008243	84.9789	275.0057	15.98276626	80702		

1	10382U	77097	A	79	51.88277452	.00183142	00000-0	00000-0	0	04027
2	10382	51.5960	7.2315	0013879	46.6999	312.4417	15.87753437	80461		

1	10382U	77097	A	79	54.14920454	.00210912	00000-0	00000-0	0	04043
2	10382	51.6336	355.2575	0009081	81.8051	279.2684	15.88562322	80820		

1	10382U	77097	A	79	55.59481721	.00187523	00000-0	00000-0	0	04066
2	10382	51.6327	347.6663	0008314	90.3265	269.7218	15.89098902	81056		

1	10382U	77097	A	79	56.22365024	.00194989	00000-0	00000-0	0	04079
2	10382	51.6291	344.3644	0007326	92.7902	267.4100	15.89345085	81158		

1	10382U	77097	A	79	57.22953373	.00150768	00000-0	00000-0	0	04088
2	10382	51.6245	339.0804	0009564	96.2858	263.7328	15.89660937	81316		

1	10382U	77097	A	79	57.66959181	.00193678	00000-0	61883-3	0	04096
2	10382	51.6259	336.7471	0009858	112.8130	247.5378	15.89870058	81388		

1	10382U	77097	A	79	58.54943976	.00196876	00000-0	00000-0	0	04105
2	10382	51.6331	332.1340	0008470	116.2534	243.9499	15.90222162	81523		

1	10382U	77097	A	79	60.24578706	.00170439	00000-0	00000-0	0	04119
2	10382	51.6313	323.2162	0007831	119.1481	240.6183	15.90783290	81791		

1	10382U	77097	A	79	60.68556940	.00170439	00000-0	00000-0	0	04123
2	10382	51.6237	320.9285	0000795	326.4063	31.9528	15.33615516	81966		

1	10382U	77097	A	79	61.82157914	.00117353	00000-0	00000-0	0	04135
2	10382	51.6286	314.9835	0021407	326.7024	33.9895	15.84112549	82045		

77-97A

Salyut 6

forts. 24

1	10382U	77097	A	79	62.26302467	.00124593	00000-0	00000-0	0	04143
2	10382	51.6301			312.6789	0021293	329.2601	31.7272	15.84229500	82115
1	10382U	77097	A	79	63.33527963	.00140422	00000-0	00000-0	0	04153
2	10382	51.6273			307.0953	0021693	333.7969	26.1829	15.84511838	82289
1	10382U	77097	A	79	64.09204860	.00143764	00000-0	60868-3	0	04164
2	10382	51.6334			303.1365	0021697	335.6593	24.2829	15.84709354	82403
1	10382U	77097	A	79	64.09205761	.00146093	00000-0	00000-0	0	04173
2	10382	51.6283			303.1407	0021687	335.6551	24.3401	15.84712078	82405
1	10382U	77097	A	79	65.35311303	.00122384	00000-0	00000-0	0	04184
2	10382	51.6292			296.5539	0020140	340.5731	19.2835	15.85010745	82600
1	10382U	77097	A	79	66.42487361	.00143126	00000-0	00000-0	0	04191
2	10382	51.6296			290.9655	0021719	344.1281	15.9797	15.85314013	82777
1	10382U	77097	A	79	66.99215584	.00146771	00000-0	00000-0	0	04200
2	10382	51.6180			287.9940	0022755	345.2005	14.8473	15.85486369	82861
1	10382U	77097	A	79	69.26072870	.00151266	00000-0	00000-0	0	04219
2	10382	51.6307			276.1335	0019961	354.0610	5.8604	15.86159446	93227

1	10382U	77097	A 79	71.40237283	.00150976	00000-0	00000-0	0	04227
2	10382	51.6271	264.9382	0020604	2.0000	357.8480	15.86831123	83561	
1	10382U	77097	A 79	72.09510231	.00156641	00000-0	00000-0	0	04235
2	10382	51.6280	261.3160	0020777	3.5965	356.4514	15.87033463	83670	
1	10382U	77097	A 79	72.22104722	.00152837	00000-0	00000-0	0	04248
2	10382	51.6280	260.6534	0020611	4.0919	356.0186	15.87067987	83690	
1	10382U	77097	A 79	73.60612243	.00134443	00000-0	00000-0	0	04252
2	10382	51.6262	253.3987	0022004	10.3163	349.8917	15.87558903	83910	
1	10382U	77097	A 79	75.24241722	.00209899	00000-0	00000-0	0	04268
2	10382	51.6273	244.8152	0021196	16.0995	343.9069	15.88154312	84177	
1	10382U	77097	A 79	75.74579663	.00247775	00000-0	00000-0	0	04277
2	10382	51.6337	242.1616	0021970	17.0645	343.2229	15.88442287	84258	
1	10382U	77097	A 79	76.81509793	.00176472	00000-0	00000-0	0	04286
2	10382	51.6294	236.5662	0021943	17.1176	342.4946	15.88754909	84421	
1	10382U	77097	A 79	77.19257592	.00159138	00000-0	00000-0	0	04299
2	10382	51.6279	234.5851	0021386	18.5961	341.5542	15.88864343	84482	
1	10382U	77097	A 79	80.27346189	.00171919	00000-0	00000-0	0	04317
2	10382	51.6278	218.3972	0021026	30.1147	330.0929	15.89895443	84974	



77-97A

Salyut 6

parts 25

1 10382U 77097 A 79 79.70774783 .00179009 00000-0 00000-0 0 04305  
 2 10382 51.6305 221.3741 0021873 27.8922 332.3546 15.89703832 84887

1 10382U 77097 A 79 80.71341640 .00168199 00000-0 00000-0 0 04319  
 2 10382 51.6285 216.0832 0021784 32.9034 327.2813 15.90044784 85043

1 10382U 77097 A 79 82.72414075 .00241439 00000-0 00000-0 0 04325  
 2 10382 51.6291 205.4989 0020845 39.5327 321.0931 15.90912190 85364

1 10382U 77097 A 79 83.35213637 .00211502 00000-0 00000-0 0 04335  
 2 10382 51.6251 202.1922 0019577 42.1005 318.0671 15.91163381 85462

1 10382U 77097 A 79 84.41966549 .00212595 00000-0 00000-0 0 04344  
 2 10382 51.6269 196.5698 0020920 44.8142 315.4039 15.91614660 85631

1 10382U 77097 A 79 86.67929126 .00244487 00000-0 00000-0 0 04350  
 2 10382 51.6197 184.6364 0021251 52.0119 308.5984 15.92682355 85990

1 10382U 77097 A 79 87.43207486 .00226584 00000-0 00000-0 0 04362  
 2 10382 51.6266 180.6805 0020785 55.1691 305.0235 15.93012698 86117

1 10382U 77097 A 79 89.37621079 .00236512 00000-0 59866-3 0 04375  
 2 10382 51.6208 170.3963 0021744 61.7373 298.6196 15.93915650 86427

1	10382U	77097	A	79	89.68966539	.00236512	00000-0	00000-0	0	04386
1	11305U	79025	A	79	89.61045019	.00211301	00000-0	00000-0	0	86474
1	10382U	77097	A	79	90.25713133	.00156011	00000-0	00000-0	0	04397
2	10382	51.6244			165.7870	0045674	85.3202	275.0608	15.87718144	86567
1	10382U	77097	A	79	91.13825960	.00158036	00000-0	00000-0	0	04408
2	10382	51.6239			161.1647	0044525	88.7721	271.8899	15.88010528	86704
1	10382U	77097	A	79	92.45957666	.00194416	00000-0	00000-0	0	04416
2	10382	51.6259			154.2299	0044054	93.8234	267.1715	15.88561586	86918
1	10382U	77097	A	79	92.64822343	.00218088	00000-0	00000-0	0	04423
2	10382	51.6223			153.2401	0043748	94.5622	266.0474	15.88653967	86949
1	10382U	77097	A	79	93.02561946	.00219098	00000-0	00000-0	0	04436
2	10382	51.6245			151.2819	0009840	308.7603	37.0605	15.76363210	87004
1	10382U	77097	A	79	93.47185094	.00070793	00000-0	00000-0	0	04441
2	10382	51.6317			148.9960	0011469	313.7162	46.1271	15.76406426	87074
1	10382U	77097	A	79	94.16917508	.00050133	00000-0	-31276-3	0	04452
2	10382	51.6305			145.3925	0011440	316.3460	43.3133	15.76283514	87181
1	10382U	77097	A	79	95.31028661	.00097478	00000-0	00000-0	0	04474
2	10382	51.6309			139.5074	0008601	329.0557	31.1742	15.76599873	87367
1	10382U	77097	A	79	96.13421414	.00087044	00000-0	00000-0	0	04487
2	10382	51.6299			135.2636	0009536	332.6149	27.4551	15.76759482	87491

77-97A

Salyut 6

forts. 26

1 10382U 77097 A 79 96.83134479 .00087044 00000-0 00000-0 0 04497  
 2 10382 51.6493 131.7060 0014019 199.2687 159.0594 15.73249126 87601

1 10382U 77097 A 79 97.27631018 .00037105 00000-0 00000-0 0 04502  
 2 10382 51.6285 129.3914 0013786 254.6714 105.1338 15.73234305 87679

1 10382U 77097 A 79 98.41967057 .00070866 00000-0 00000-0 0 04516  
 2 10382 51.6297 123.5259 0013426 259.0491 101.1277 15.73412622 87859

1 10382U 77097 A 79 99.43579436 .00076765 00000-0 53222-3 0 04521  
 2 10382 51.6297 118.3086 0013379 262.9571 97.0180 15.73571323 88017

1 10382U 77097 A 79 100.45184771 .00072738 00000-0 00000-0 0 04530  
 2 10382 51.6288 113.0936 0012719 266.8491 93.0765 15.73716773 88176

1 10382U 77097 A 79 102.73761145 .00089703 00000-0 00000-0 0 04551  
 2 10382 51.6179 101.3634 0012057 275.3902 85.5194 15.74368090 88535

1 10382U 77097 A 79 103.62604384 .00073914 00000-0 00000-0 0 04568  
 2 10382 51.6229 96.7881 0012331 276.0110 83.8735 15.74487190 88676

1 10382U 77097 A 79 104.32420179 .00066887 00000-0 00000-0 0 04576  
 2 10382 51.6246 93.1936 0011988 280.1464 79.7739 15.74571504 88785

1	10382U	77097	A	79105.46654957	.00077127	00000-0	00000-0	0	04586
2	10382	51.6262		87.3176 0012064	282.7704	77.3396	15.74766961		88961

1	10382U	77097	A	79106.35490487	.00078351	00000-0	00000-0	0	04592
2	10382	51.6242		82.7624 0012020	288.6979	71.2846	15.74911619		89109

1	10382U	77097	A	79107.30664809	.00066737	00000-0	00000-0	0	04606
2	10382	51.6249		77.8622 0012067	291.8037	68.2094	15.75057864		89252

1	10382U	77097	A	79108.38518722	.00078500	00000-0	00000-0	0	04619
2	10382	51.6288		72.3093 0012558	295.3522	64.7219	15.75236834		89425

1	10382U	77097	A	79109.46358455	.00086700	00000-0	00000-0	0	04626
2	10382	51.6210		66.7564 0012439	284.9386	75.1551	15.75414061		89592

1	10382U	77097	A	79110.09788103	.00064122	00000-0	00000-0	0	04639
2	10382	51.6279		63.4936 0012230	302.1148	57.7226	15.75474683		89695

1	10382U	77097	A	79116.75561385	.00092573	00000-0	00000-0	0	04663
2	10382	51.6428		29.2096 0012181	327.9108	31.1494	15.76599036		90746

1	10382U	77097	A	79118.46700279	.00092767	00000-0	00000-0	0	04676
2	10382	51.6280		20.3738 0012140	333.5086	26.3496	15.76871515		91014

1	10382U	77097	A	79121.06496248	.00097976	00000-0	57527-3	0	04681
2	10382	51.6286		6.9696 0012277	339.3306	20.4602	15.77321345		91424

1	10382U	77097	A	79122.14198331	.00102856	00000-0	00000-0	0	04699
2	10382	51.6304		1.4147 0012211	344.2240	15.6800	15.77489864		91591

77-97A

Salyut 6

forts. 27

1	10382U	77097	A	79123.34554669	.00078817	00000-3	00000-0	0	04703
2	10382	51.6301		355.1943	0011842	349.0383	10.8280	15.77661604	91785

1	10382U	77097	A	79124.61234375	.00052983	00000-0	00000-0	0	04710
2	10382	51.6314		348.6507	0011858	349.8519	10.1356	15.77914820	91987

1	10382U	77097	A	79125.62569875	.00069490	00000-0	00000-0	0	04720
2	10382	51.6313		343.4108	0012024	354.3609	5.4472	15.77873165	92144

1	10382U	77097	A	79126.38572440	.00079839	00000-0	00000-0	0	04735
2	10382	51.6279		339.4882	0011578	357.2872	2.8295	15.77997420	92265

1	10382U	77097	A	79127.14563310	.00115204	00000-0	00000-0	0	04744
2	10382	51.6293		335.5652	0011600	358.0000	2.1734	15.78175132	92384

1	10382U	77097	A	79128.28530943	.00119528	00000-0	00000-0	0	04750
2	10382	51.6323		329.6666	0011436	2.7653	357.1316	15.78396009	92568

1	10382U	77097	A	79129.80467194	.00093352	00000-0	00000-0	0	04763
2	10382	51.6289		321.8083	0010298	12.1037	347.5806	15.78645544	92807

1	10382U	77097	A	79130.37445196	.00095555	00000-0	00000-0	0	04773
2	10382	51.6274		318.8652	0011498	10.2594	349.7819	15.78732940	92893

1 10382U 77097 A 79131.70363766 .00067880 00000-0 00000-0 0 04784  
2 10382 51.6254 311.9979 0011991 10.7754 349.0502 15.79892391 93172

1 10382U 77097 A 79134.29828889 .00082566 00000-0 00000-0 0 04804  
2 10382 51.6291 298.5648 0011921 21.7999 338.3246 15.79340092 93519

1 10382U 77097 A 79135.43716824 .00100382 00000-0 00000-0 0 04814  
2 10382 51.6291 292.6678 0011028 26.2014 333.9652 15.79553015 93696

1 10382U 77097 A 79136.63912911 .00067034 00000-0 00000-0 0 04829  
2 10382 51.6253 296.4376 0013160 27.2435 332.9246 15.79760889 93885

1 10382U 77097 A 79138.22046619 .00084176 00000-0 00000-0 0 04836  
2 10382 51.6238 278.2570 0012965 32.3373 329.0659 15.80042274 94130

1 10382U 77097 A 79139.66314088 .00060472 00000-0 00000-0 0 04846  
2 10382 51.6279 275.9608 0012651 34.0521 326.0981 15.80084111 94206

1 10382U 77097 A 79140.43387985 .00085249 00000-0 00000-0 0 04850  
2 10382 51.6250 265.7793 0011749 40.9063 319.6685 15.80402619 94488

1 10382U 77097 A 79143.02596013 .00085249 00000-0 00000-0 0 04858  
2 10382 51.6295 253.3452 0005077 339.2381 17.9715 15.77856065 04897

1 10382U 77097 A 79143.27979771 .00085249 00000-0 00000-0 0 04877  
2 10382 51.6251 252.0303 0005948 338.1913 21.9060 15.77925110 94936

1 10382U 77097 A 79144.41968855 .00035901 00000-0 00000-0 0 04886  
2 10382 51.6246 246.1375 0005810 343.5623 16.3773 15.78037372 95114

77-97A

Salyut 6

forts. 28

1	103820	77097	A	79145.05297258	.00074253	00000-0	00000-0	0	04893
2	10382	51.6240		242.8662 0006024	344.6885	15.5144	15.78158332		95214

1	103820	77097	A	79147.52222334	.00065794	00000-0	00000-0	0	04902
2	10382	51.6261		230.0902 0005630	357.4823	2.4925	15.78493699		95602

1	103820	77097	A	79149.23145369	.00058318	00000-0	00000-0	0	04919
2	10382	51.6239		221.2560 0006659	3.1614	356.8524	15.78695637		95870

1	103820	77097	A	79150.18094245	.00065082	00000-0	00000-0	0	04928
2	10382	51.6246		216.3486 0006417	5.5173	354.5895	15.78815915		96025

1	103820	77097	A	79153.15547246	.00058103	00000-0	31750-3	0	04938
2	10382	51.6238		200.9553 0006833	19.1810	340.7917	15.79172424		96496

1	103820	77097	A	79155.74978452	.00058103	00000-0	00000-0	0	04944
2	10382	51.6303		187.5261 0018172	57.8725	301.1841	15.76542661		96900

1	103820	77097	A	79156.57396354	.00072906	00000-0	00000-0	0	04960
2	10382	51.6266		183.2748 0019459	54.3614	305.9150	15.76737293		97038

1	103820	77097	A	79160.51949085	.00140033	00000-0	00000-0	0	04983
2	10382	51.6317		163.1194 0008986	276.2375	84.3535	15.70706235		97658

1	10382U	77097	A	79161.34642159	.00040967	00000-0	00000-0	0	04993
2	10382	51.6298	158.8992	0008004	279.3851	80.0556	15.70688526	97789	
1	10382U	77097	A	79162.30084971	.00047747	00000-0	00000-0	0	05008
2	10382	51.6262	154.0135	0008540	282.2945	77.7785	15.70788897	97935	
1	10382U	77097	A	79164.33653172	.00045635	00000-0	37455-3	0	05010
2	10382	51.6254	143.6219	0007621	314.7923	42.5077	15.69840864	98251	
1	10382U	77097	A	79165.03721968	.00045635	00000-0	00000-0	0	05021
2	10382	51.6214	140.0352	0007350	317.4724	41.4807	15.69378664	98368	
1	10382U	77097	A	79166.31089680	.00080516	00000-0	00000-0	0	05039
2	10382	51.6219	133.5301	0005105	328.2236	32.3371	15.69786628	98568	
1	10382U	77097	A	79169.17533712	.00033492	00000-0	00000-0	0	05059
2	10382	51.6298	118.9167	0005798	337.5888	22.4748	15.69990772	99012	
1	10382U	77097	A	79170.70293119	.00039739	00000-0	00000-0	0	05065
2	10382	51.6237	111.1188	0005828	347.9921	12.1268	15.70108618	99251	
1	10382U	77097	A	79174.20319765	.00037671	00000-0	00000-0	0	05074
2	10382	51.6229	93.2359	0005649	359.1591	.6934	15.70359716	99800	
1	10382U	77097	A	79176.30314824	.00035178	00000-0	00000-0	0	05089
2	10382	51.6224	82.5044	0005687	5.1526	354.9953	15.70519329100139		
1	10382U	77097	A	79177.44845590	.00047752	00000-0	00000-0	0	05096
2	10382	51.6235	76.6551	0005586	10.1622	350.0126	15.70632857100310		



77-97A

Salyut 6

forts. 29

1 10382U 77097 A 79178.14831156 .00043830 00000-0 00000-0 0 05102  
 2 10382 51.6235 73.0773 0005303 12.8336 347.2458 15.70687412100420

1 10382U 77097 A 79182.09261102 -.00053643 00000-7 00000-7 0 05119  
 2 10382 51.6272 52.2103 0005187 24.1539 336.9376 15.70848516101043

1 10382U 77097 A 79183.04690913 .00066728 00000-0 00000-0 0 05124  
 2 10382 51.6184 48.0286 0005459 27.7986 332.6384 15.70981021101191

1 10382U 77097 A 79184.44621538 .00079350 00000-0 00000-0 0 05132  
 2 10382 51.6282 40.8659 0006334 31.8695 327.9607 15.71108880101410

1 10382U 77097 A 79187.96961334 .00033023 00000-0 00000-0 0 05163  
 2 10382 51.6263 23.1590 0007253 326.2372 33.5444 15.55408303101965

1 10382U 77097 A 79190.34675661 .00024565 00000-0 00000-0 0 05176  
 2 10382 51.6253 11.2828 0007687 338.2430 21.5519 15.55512964102336

1 10382U 77097 A 79193.36616295 .00028108 00000-0 00000-0 0 05187  
 2 10382 51.6290 356.1871 0007051 349.5147 10.3537 15.55640034102809

1 10382U 77097 A 79200.11131593 .00021717 00000-0 32289-3 0 5297  
 2 10382 51.6256 322.4828 0010166 34.2016 325.9629 15.55040386103827

1 10382U 77097 A 79201.20243191 .00167543 00000-0 22961-2 0 5304  
2 10382 51.6315 317.0005 0005000 3.6998 356.4032 15.56272494103991

1 10382U 77097 A 79201.45927862 .00009379 00000-0 13706-3 0 5316  
2 10382 51.6269 315.7289 0011320 10.2042 349.9554 15.56335674104038

1 10382U 77097 A 79202.80768841 -.00016498 00000-0 -22704-3 0 5327  
2 10382 51.6303 308.9805 0012152 20.5198 339.2837 15.56263103104241

1 10382U 77097 A 79203.12882027 .00003795 00000-0 56204-4 0 5334  
2 10382 51.6196 307.3787 0010503 15.7211 344.5818 15.56319237104296

1 10382U 77097 A 79201.45927862 .00009379 00000-0 13706-3 0 5349  
2 10382 51.6269 315.7289 0011320 10.2042 349.9554 15.56335674104038

1 10382U 77097 A 79203.77088695 .00022907 00000-0 32313-3 0 5356  
2 10382 51.6252 304.1665 0014481 13.9498 346.1892 15.56378311104394

1 10382U 77097 A 79204.09193097 .00000929 00000-0 16400-4 0 5366  
2 10382 51.6290 302.5551 0012549 15.5857 344.4202 15.56320650104447

1 10382U 77097 A 79206.21081362 .00055880 00000-0 77199-3 0 5382  
2 10382 51.6265 291.9625 0011599 25.4964 334.6598 15.56529475104776

1 10382U 77097 A 79205.56877030 .00046988 00000-0 65239-3 0 5408  
2 10382 51.6284 295.1723 0012533 19.1169 341.0477 15.56457048104671

1 10382U 77097 A 79207.43063127 .00041542 00000-0 57510-3 0 5415  
2 10382 51.6251 285.8503 0012358 28.9897 330.9808 15.56594469104964

77-97A

Salyut 6

for ts. 30

1	10382U	77097	A	79208.58629726	.00022115	00000-0	31013-3 0	5421
2	10382	51.6269		280.0681 0012166	28.1881	331.9718	15.56597587105145	
1	10382U	77097	A	79208.58629726	.00022115	00000-0	31013-3 0	5432
2	10382	51.6269		280.0681 0012166	28.1881	331.9718	15.56597587105145	
1	10382U	77097	A	79208.65049813	.00021940	00000-0	30767-3 0	5444
2	10382	51.6271		279.7455 0012308	28.2907	331.8761	15.56600197105150	
1	10382U	77097	A	79209.74190274	.00015539	00000-0	21980-3 0	5458
2	10382	51.6275		274.2918 0012533	30.9693	329.1999	15.56616662105326	
1	10382U	77097	A	79212.37403579	.00018161	00000-0	25565-3 0	5475
2	10382	51.6226		261.1139 0013900	38.8602	320.8847	15.56613188105733	
1	10382U	77097	A	79212.50251563	.00021646	00000-0	30317-3 0	5488
2	10382	51.6268		260.4734 0013899	41.3062	318.8969	15.56623649105755	
1	10382U	77097	A	79214.17164911	.00021604	00000-0	30177-3 0	5504
2	10382	51.6185		252.1162 0013678	45.7451	314.4715	15.56696440106011	
1	10382U	77097	A	79217.06037581	.00015703	00000-0	22068-3 0	5533
2	10382	51.6197		237.6517 0013759	55.9707	304.1652	15.56782630106465	

1 10382U 77097 A 79220.27731715 .00024002 00000-0 33151-3 0 5579  
2 10382 51.6230 222.5427 0013945 65.5819 294.7666 15.56927059106931

1 10382U 77097 A 79220.52660014 .00025399 00000-0 34994-3 0 5589  
2 10382 51.6202 220.2927 0014045 69.0628 291.1966 15.56953805107000

1 10382U 77097 A 79221.48936125 .00025268 00000-0 34765-3 0 5608  
2 10382 51.6206 215.4712 0013748 71.8400 288.3881 15.57000999107157

1 10382U 77097 A 79221.93867083 -.00029343 00000-0 -39720-3 0 5611  
2 10382 51.6225 213.2250 0014135 73.4156 285.8389 15.56934724107224

1 10382U 77097 A 79222.00285695 .00019322 00000-0 26752-3 0 5670  
2 10382 51.6203 212.9010 0014738 74.6163 285.6957 15.56999973107236

1 10382U 77097 A 79222.51632895 .00013392 00000-0 18782-3 0 5640  
2 10382 51.6207 210.3272 0013780 71.5132 288.7653 15.56994992107312

1 10382U 77097 A 79223.60740591 .00067745 00000-0 90969-3 0 5664  
2 10382 51.6154 204.8583 0015608 75.9826 284.2900 15.57146453107481

1 10382U 77097 A 79225.14765963 .00019616 00000-0 26982-3 0 5708  
2 10382 51.6183 197.1468 0014292 83.4029 276.7961 15.57167258107721

1 10382U 77097 A 79226.23865462 .00020780 00000-0 28488-3 0 5712  
2 10382 51.6170 191.6785 0014460 88.3108 271.9712 15.57216152107895

1 10382U 77097 A 79226.23865462 .000220780 00000-0 28488-3 0 5734  
2 10382 51.6170 191.6785 0014460 88.3108 271.9712 15.57216152107895

77-97A

Salyut 6

forts. 31

1	10382U	77097	A	79227.00873612	.00022490	00000-0	30729-3 0	5758
2	10382	51.6272		187.8206 0014288	90.4759	269.8205	15.57257456108012	

1	10382U	77097	A	79228.42041926	.00023496	00000-0.	31978-3 0	5788
2	10382	51.6169		180.7487 0014421	96.5511	263.2715	15.57325534108239	

1	10382U	77097	A	79228.54868050	.00262513	00000-0	33468-2 0	5797
2	10382	51.6086		180.1203 0011286	105.1016	255.1226	15.57812355108251	

1	10382U	77097	A	79228.67697727	.00416747	00000-0	54106-2 0	5806
2	10382	51.6507		179.5039 0015423	100.6773	259.6394	15.58096384108278	

1	10382U	77097	A	79228.93350256	-.04111187	00000-0	-57040-1 0	5914
2	10382	51.6276		178.1917 0014061	100.5104	258.9864	15.56317522108312	

1	10382U	77097	A	79229.25559377	.01253266	00000-0	13312-1 0	5831
2	10382	51.6206		176.5611 0011146	104.5335	264.8318	15.59363133108366	

1	10382U	77097	A	79229.76662210	-.00035554	00000-0	-44164-3 0	5849
2	10382	51.6208		173.9899 0006609	123.3751	236.7866	15.59391270108445	

1	10382U	77097	A	79229.89479202	.00816957	00000-0	89591-2 0	5855
2	10382	51.6108		173.3512 0008243	124.2321	235.8822	15.59967893108462	

1 10382U 77097 A 79230.59969849 -.00018252 00000-0 -22382-3 0 5888  
2 10382 51.6230 169.8007 0006957 137.8192 222.3349 15.59431055108575

1 10382U 77097 A 79233.99574145 .00032960 00000-0 40883-3 0 5893  
2 10382 51.6237 152.7230 0006863 153.8940 205.9729 15.59693441109104

1 10382U 77097 A 79234.44429285 .00032376 00000-0 40133-3 0 5909  
2 10382 51.6219 150.4695 0006647 154.2705 205.8594 15.59722500109174

1 10382U 77097 A 79235.59754584 .00029303 00000-0 36308-3 0 5926  
2 10382 51.6224 144.6711 0006521 157.9469 202.1503 15.59788728109356

1 10382U 77097 A 79237.19921271 .00028743 00000-0 35504-3 0 5938  
2 10382 51.6202 136.6127 0006642 164.8224 195.2779 15.59880024109601

1 10382U 77097 A 79238.41641051 .00032732 00000-0 40195-3 0 5956  
2 10382 51.6159 130.4889 0006581 170.4665 189.6639 15.59966379109793

1 10382U 77097 A 79238.80077061 .00040332 00000-0 49865-3 0 5967  
2 10382 51.6168 128.5563 0006393 173.5612 186.5613 15.60002775109855

1 10382U 77097 A 79239.24918189 .00033792 00000-0 41372-3 0 5974  
2 10382 51.6180 126.2968 0006617 173.3179 186.7844 15.60026821109922

1 10382U 77097 A 79241.29896619 .00035684 00000-0 43399-3 0 5989  
2 10382 51.6149 115.9845 0006618 188.7319 171.4157 15.60176084110245

1 10382U 77097 A 79243.41257339 .00038429 00000-0 46377-3 0 6008  
2 10382 51.6163 105.3476 0006343 195.0922 164.9806 15.60342617110571

77-97A

Salyut 6

forts. 32

1	10382U	77097	A	79247.38312111	.00031938	00000-0	39326-3	0	6034
2	10382	51.6180		85.3548	0006295	209.5158	150.5632	15.60584242111194	
1	10382U	77097	A	79248.15153483	.00031527	00000-0.	37776-3	0	6248
2	10382	51.6201		81.4876	0006247	212.8371	147.2050	15.60531165111318	
1	10382U	77097	A	79249.43217428	.00032006	00000-0	33211-3	0	6059
2	10382	51.6205		75.0359	0006420	220.5513	139.4664	15.60714972111519	
1	10382U	77097	A	79277.36833277	.00051991	00000-0	55701-3	0	6365
2	10382	51.6218		291.0704	0005949	347.5031	12.5952	15.63291365115970	
1	10382U	77097	A	79278.67148848	.00051876	00000-0	55424-3	0	6383
2	10382	51.6231		287.5134	0005902	349.9099	10.1763	15.63363205116081	
1	10382U	77097	A	79280.26945103	.00051299	00000-0	54470-3	0	6413
2	10382	51.6207		279.4326	0006371	359.1332	0.9165	15.63523635116337	
1	10382U	77097	A	79280.97251204	.00062312	00000-0	65676-3	0	6422
2	10382	51.6167		275.8774	0006359	359.9282	0.2634	15.63630569116448	
1	10382U	77097	A	79281.35595546	.00062564	00000-0.	65821-3	0	6437
2	10382	51.6198		273.9393	0005915	1.9527	358.1457	15.63678046116508	

1 10382U 77097 A 79282.44236867 .00063405 00000-0 66332-3 0 6451  
2 10382 51.6187 268.4407 0006070 7.4612 352.6776 15.63814028116673

1 10382U 77097 A 79283.72037599 .00076684 38356-4 00000-0 0 06475  
2 10382 51.6237 261.9741 0008394 23.2151 336.9180 15.63984941116871

1 10382U 77097 A 79245.46193033 .00032310 00000-0 38943-3 0 6019  
2 10382 51.6180 95.0315 0006138 203.3336 156.4665 15.50463084110895

*Gamla!*

1 10382U 77097 A 79246.35852203 .00031055 00000-0 37334-3 0 6023  
2 10382 51.6166 90.5172 0006183 206.3711 153.6759 15.60515504111238

1 10382U 77097 A 79284.29543490 .00059732 00000-0 62021-3 0 6481  
2 10382 51.6221 259.0637 0006050 16.4000 343.6998 15.64031608116966

1 10382U 77097 A 79285.38160054 .00061234 00000-0 63206-3 0 6502  
2 10382 51.6203 253.5643 0006229 19.8777 340.2711 15.64167912117132

1 10382U 77097 A 80156.37780093 .00062400 00000-0 45298-3 0 8004  
2 10382 51.6177 279.5020 0010489 153.1452 207.0263 15.72711802138524

1 10382U 77097 A 80103.46092875 .00085050 00000-0 52895-3 0 8570  
2 10382 51.6247 37.3077 0007821 271.8054 88.1148 15.76196850145944

1 10382U 77097 A 80103.46092875 .00085050 00000-0 52895-3 0 8581  
2 10382 51.6247 37.3077 0007821 271.8054 88.1148 15.76196850145944



77-97A

Salyut 6

forts. 33

1	10382U	77097	A	80104.22172474	.00085556	00000-0	52995-3 0	8592
2	10382	51.6234		33.3895 0007652	275.7430	84.2935	15.76331855146068	
1	10382U	77097	A	80104.28511596	.00092605	00000-0	57105-3 0	8603
2	10382	51.6240		33.0636 0007903	273.8975	86.1296	15.76355733146070	
1	10382U	77097	A	80105.17259026	.00089772	00000-0	55014-3 0	8619
2	10382	51.6255		28.4896 0007917	279.7612	80.2123	15.76508609146212	
1	10382U	77097	A	80105.17259679	.00089655	00000-0	54943-3 0	8624
2	10382	51.6256		28.4895 0007909	279.6915	80.3194	15.76508449146219	
1	10382U	77097	A	80106.25013378	.00083144	00000-0	50642-3 0	8638
2	10382	51.6257		22.9335 0007820	284.0494	75.9023	15.76679855146381	
1	10382U	77097	A	80107.32756468	.00085524	00000-0	51637-3 0	8641
2	10382	51.6262		17.3744 0007868	288.2589	71.7486	15.76865781146553	
1	10382U	77097	A	80108.21475938	.00127949	00000-0	75841-3 0	8657
2	10382	51.6257		12.8024 0007892	239.0994	71.1099	15.77112279146691	
1	10382U	77097	A	80109.35517505	.00090230	00000-0	53397-3 0	8660
2	10382	51.6276		6 9159 0007799	292.2363	67.5138	15.77297301146870	

1 10382U 77097 A 80110.62209240 .00290435 00000-0 53003-3 0 8678  
2 10382 51.6245 0.3769 0007805 298.4052 60.5892 15.77514405147071

1 10382U 77097 A 80111.25573799 .00085147 00000-0 49730-3 0 8684  
2 10382 51.6257 357.1027 0007731 299.2639 60.9593 15.77616659147178

1 10382U 77097 A 80112.45913907 .00100401 00000-0 57781-3 0 8702  
2 10382 51.6249 350.8859 0008195 303.7341 56.4711 15.77376245147362

1 10382U 77097 A 80112.45918907 .00100401 00000-0 57781-3 0 8704  
2 10382 51.6249 350.8859 0008195 303.7341 56.4711 15.77876245147362

1 10382U 77097 A 80113.40910112 .00095365 00000-0 54809-3 0 8716  
2 10382 51.6251 345.9769 0008135 308.9198 51.0109 15.78042741147516

1 10382U 77097 A 80114.29564883 .00090130 00000-0 51265-3 0 8728  
2 10382 51.6247 341.3963 0008172 309.0392 50.9047 15.79182283147657

1 10382U 77097 A 80115.11879977 .00088154 00000-0 49837-3 0 8739  
2 10382 51.6258 337.1420 0008375 311.7754 48.2354 15.78323715147789

1 10382U 77097 A 80115.43544750 .00071929 00000-0 49837-3 0 8744  
2 10382 51.6233 335.5357 0023021 232.9259 126.9637 15.73416067147834

1 10382U 77097 A 80115.31653409 .00094734 00000-0 65520-3 0 8756  
2 10382 51.6292 333.5636 0021979 232.3137 127.5869 15.73412728147896

1 10382U 77097 A 80116.26111418 .00086975 00000-0 60068-3 0 8767  
2 10382 51.6272 331.2750 0021852 231.9871 128.0066 15.73483982147968

77-97A

Salyut 6

forts. 34

1 10382U 77097 A 80117.40423122 .00080870 00000-0 55514-3 0 8770  
 2 10382 51.6277 325.4025 0021527 237.2477 122.6135 15.73664230148149

1 10382U 77097 A 80118.22974052 .00071414 00000-0 48897-3 0 8785  
 2 10382 51.6275 321.1641 0021628 240.8490 118.9628 15.73769692148278

1 10382U 77097 A 80119.30917866 .00071881 00000-0 48897-3 0 8794  
 2 10382 51.6271 315.6230 0021581 244.8413 115.0090 15.73920013148448

1 10382U 77097 A 80120.19809987 .00055342 00000-0 37746-3 0 3815  
 2 10382 51.6260 311.0548 0021420 248.4455 111.4563 15.73969942148582

1 10382U 77097 A 80120.39640677 .00127576 00000-0 84769-3 0 8828  
 2 10382 51.6198 307.4747 0021381 251.1225 108.7456 15.74229973148699

1 10382U 77097 A 80121.97543912 .00087550 00000-0 58000-3 0 8840  
 2 10382 51.6262 301.9257 0021995 256.6030 102.9861 15.74438371148860

1 10382U 77097 A 80122.41978974 .00071529 00000-0 47494-3 0 3855  
 2 10382 51.6267 299.6388 0021515 259.1252 100.7324 15.74480103148933

1 10382U 77097 A 80123.43526465 .00069654 00000-0 46007-3 0 3868  
 2 10382 51.6250 294.4186 0021332 253.5491 96.2725 15.74617146149096

1 10382U 77097 A 80124.19682027 .00069759 00000-0 45862-3 0 8874  
 2 10382 51.6251 290.5019 0021477 266.5527 93.2898 15.74720958149210

1 10382U 77097 A 80128.19411737 .00072561 00000-0 46506-3 0 8912  
2 10382 51.6228 269.9385 0021404 283.7262 76.1299 15.75228743149844

1 10382U 77097 A 80129.20907193 .00072992 00000-0 46506-3 0 8929  
2 10382 51.6246 264.7179 0021352 287.1598 72.6198 15.75424446150000

1 10382U 77097 A 80126.22737245 .00069371 00000-0 45058-3 0 8892  
2 10382 51.6257 280.0589 0021429 274.9558 84.8758 15.75000869149535

1 10382U 77097 A 80130.22395307 .00081571 00000-0 51482-3 0 8935  
2 10382 51.6242 259.4922 0021211 291.9556 68.4892 15.75599806150163

1 10382U 77097 A 80131.17526966 .00085036 00000-0 53254-3 0 8947  
2 10382 51.6248 254.5939 0021211 296.9011 62.9735 15.75761118150313

1 10382U 77097 A 80132.35014481 .00079835 00000-0 49032-3 0 8954  
2 10382 51.6231 249.3873 0021162 300.3467 59.4934 15.75946526150509

1 10382U 77097 A 80133.39467792 .00082180 00000-0 50698-3 0 8962  
2 10382 51.6240 243.1588 0021158 304.8864 55.0122 15.75114538150669

1 10382U 77097 A 80134.34569657 .00059582 00000-0 36805-3 0 8976  
2 10382 51.6258 238.2600 0021484 307.9365 51.7966 15.76204103150814

1 10382U 77097 A 80135.23330781 .00075263 00000-0 46013-3 0 3986  
2 10382 51.6257 233.6864 0021266 311.3247 48.6793 15.75351629150954

77-97A

Salary + 6

forts. 35

1	10382U	77097	A	80136.24756064	.70076726	00000-0	46572-3	0	9990
2	10382	51.6251	228.4575	0021228	315.0979	44.8268	15.76506284151113		

1	10382U	77097	A	80137.26172898	.00073534	00000-0	44393-3	0	9006
2	10382	51.6260	223.2235	0021093	319.2250	40.6883	15.76650164151278		

1	10382U	77097	A	80137.89561310	.00050736	00000-0	44393-3	0	9017
2	10382	51.6228	219.9674	0014918	270.2087	89.7203	15.72484337151377		

1	10382U	77097	A	80139.23010983	.00035358	00000-0	25830-3	0	9031
2	10382	51.6263	213.1223	0017567	273.4948	86.6753	15.72681196151587		

1	10382U	77097	A	80140.18315975	.00058025	00000-0	41757-3	0	9050
2	10382	51.6242	209.2336	0017531	276.2836	83.6144	15.72808682151731		

1	10382U	77097	A	80141.19972438	.00060208	00000-0	43067-3	0	9068
2	10382	51.6237	203.0221	0017630	280.4582	79.4525	15.72932907151897		

1	10382U	77097	A	80142.40679306	.00049820	00000-0	35565-3	0	9084
2	10382	51.6237	196.8513	0017437	284.0431	75.8836	15.73063348152083		

1	10382U	77097	A	80143.42319017	.00049822	00000-0	35413-3	0	9109
2	10382	51.6242	191.6173	0017289	287.9352	72.0505	15.73165103152246		

1 10382U 77097 A 80143.93137272 .03871913 00000-0 16888-1 0 9112  
2 10382 51.6222 189.0117 0018537 273.8976 86.8259 15.74661311152323

1 10382U 77097 A 80143.99470019 .00174628 00000-0 69571-3 0 9126  
2 10382 51.6238 188.6846 0016608 277.6460 82.2653 15.74428456152331

1 10382U 77097 A 80144.31225474 .00028490 00000-0 19437-3 0 9133  
2 10382 51.6240 187.0535 0016104 277.7563 82.1151 15.74433392152380

1 10382U 77097 A 80145.26408728 .00069312 00000-0 45134-3 0 9148  
2 10382 51.6227 182.1580 0015933 279.8448 80.3756 15.74587879132530

1 10382U 77097 A 80146.21603428 .00076329 00000-0 50396-3 0 9159  
2 10382 51.6219 177.2613 0015634 283.5496 76.4331 15.74742101152681

1 10382U 77097 A 80148.11981168 .00083439 00000-0 54214-3 0 9174  
2 10382 51.6228 167.4720 0015634 292.0802 87.9105 15.75075701152980

1 10382U 77097 A 80149.19812467 .00084094 00000-0 54214-3 0 9189  
2 10382 51.6243 161.9225 0015690 295.3527 84.5538 15.75250163153158

1 10382U 77097 A 80149.19812467 .00084094 00000-0 54214-3 0 9190  
2 10382 51.6243 161.9225 0015690 295.3527 84.5538 15.75250163153158

1 10382U 77097 A 80149.89601391 .00059074 00000-0 38343-3 0 9206  
2 10382 51.6256 158.3314 0015567 301.4301 58.5176 15.75239253153263

1 10382U 77097 A 80150.21320809 .00043325 00000-0 28263-3 0 9219  
2 10382 51.6240 156.6980 0015603 301.2363 58.6948 15.75254468153312

77-97A

Salary 6

font 36

1	10382U	77097	A	80150.91108223	.00042077	00000-0	28263-3	0	9224
2	10382	51.6219	153.1083	0011276	306.8411	53.1555	15.74679119153420		

1	10382U	77097	A	80151.22839025	.00037188	00000-0	24965-3	0	9233
2	10382	51.6226	151.4788	0012452	305.3299	54.6944	15.74730303153472		

1	10382U	77097	A	80152.18026277	.00055332	00000-0	36676-3	0	9240
2	10382	51.6228	146.5828	0012286	308.9486	51.1429	15.74847521153624		

1	10382U	77097	A	80152.43406418	.00057210	00000-0	37850-3	0	9250
2	10382	51.6234	145.2779	0012172	309.6976	50.2989	15.74879212153665		

1	10382U	77097	A	80153.19549145	.00060594	00000-0	39886-3	0	9260
2	10382	51.6233	141.3614	0012049	311.8984	48.1237	15.74976474153789		

1	10382U	77097	A	80154.33753714	.00043896	00000-0	28957-3	0	9281
2	10382	51.6235	135.4857	0011985	316.3452	43.5108	15.75064606153964		

1	10382U	77097	A	80155.16235040	.00062424	00000-0	40675-3	0	9290
2	10382	51.6259	131.2384	0012509	322.4629	37.6454	15.75187661154096		

1	10382U	77097	A	80156.17735946	.00042601	00000-0	27730-3	0	9306
2	10382	51.6252	126.0205	0012249	322.5508	37.7479	15.75381256154253		

1 10382U 77097 A 80172.40241769 .00074950 00000-2 43306-3 0 9528  
2 10382 51.6287 42.3496 0011796 13.5591 346.5697 15.77852040156811

1 10382U 77097 A 80173.47906225 .00071142 00000-2 40900-3 0 9539  
2 10382 51.6291 36.7867 0011323 18.2585 341.8773 15.77993358156985

1 10382U 77097 A 80174.17565790 .00078969 00000-3 45069-3 0 9541  
2 10382 51.6279 33.1899 0011190 20.1160 340.0959 15.78117310157097

1 10382U 77097 A 80175.25209255 .00074965 00000-2 42526-3 0 9561  
2 10382 51.6279 27.6262 0011309 24.4516 335.6395 15.78270010157263

1 10382U 77097 A 80177.27807267 .00067058 00000-0 37561-3 0 9572  
2 10382 51.6264 17.1518 0011140 29.6372 330.4109 15.78541243157585

1 10382U 77097 A 80179.24042386 .00077662 00000-0 42916-3 0 9586  
2 10382 51.6265 7.0016 0011150 35.8571 324.3282 15.78841357157895

1 10382U 77097 A 80179.99990826 .00108128 00000-0 58908-3 0 9590  
2 10382 51.6265 3.0704 0011115 38.6955 321.4841 15.79024607158019

1 10382U 77097 A 80180.18976791 .00102308 00000-0 55733-3 0 9604  
2 10382 51.6265 2.0927 0011439 39.4170 320.7442 15.79054731158045

1 10382U 77097 A 80183.48019386 .00036326 00000-0 19899-3 0 9633  
2 10382 51.6305 345.0535 0011318 51.1002 309.1060 15.79361368158567



77-97A

Sallyut 6

font. 38

1	10382U	77097	A	80182.40457282	.00077716	00000-0	41900-3	0	9620
2	10382	51.6280		350.6279 0011153	46.4049	313.7700	15.793860	20158396	

1	10382U	77097	A	80184.51901882	.00254727	00000-0	13159-2	0	.9651
2	10382	51.6249		339.1615 0011523	50.9824	309.2202	15.797390	77158749	

1	10382U	77097	A	80185.18829584	.00141098	00000-0	73624-3	0	9663
2	10382	51.6304		336.2123 0013101	54.4294	305.4954	15.798231	77158834	

1	10382U	77097	A	80186.01067556	.00053599	00000-0	28464-3	0	9670
2	10382	51.6277		331.9552 0012125	54.2579	305.9550	15.798508	86158968	

1	10382U	77097	A	80186.32694286	.00089748	00000-0	47150-3	0	9690
2	10382	51.6240		330.3138 0011561	53.6153	306.5915	15.798913	12159013	

1	10382U	77097	A	80186.20043701	.00109226	00000-0	56985-3	0	9685
2	10382	51.6317		330.9713 0012913	55.7129	304.6217	15.729795	93158995	

1	10382U	77097	A	80187.21243455	.00048611	00000-0	25739-3	0	9702
2	10382	51.6281		325.7257 0011832	58.0552	301.9849	15.799626	01159151	

1	10382U	77097	A	80189.23632958	.00059489	00000-0	31039-3	0	9723
2	10382	51.6272		315.2379 0011876	64.3758	295.9621	15.801993	22159475	

1 10382U 77097 A 80190.18487901 .00056126 00000-0 29186-3 0 9731  
2 10382 51.6273 310.3179 0011748 68.4705 291.7024 15.80297918159623

1 10382U 77097 A 80191.25986335 .00061296 00000-0 31634-3 0 9746  
2 10382 51.6261 304.7459 0011851 72.3051 287.9127 15.80426460159796

1 10382U 77097 A 80191.25986385 .00061296 00000-0 31634-3 0 9768  
2 10382 51.6261 304.7459 0011851 72.3051 287.9127 15.80426460159796

1 10382U 77097 A 80191.25986385 .00061296 00000-0 31634-3 0 9757  
2 10382 51.6261 304.7459 0011851 72.3051 287.9127 15.80426460159796

1 10382U 77097 A 80192.33475008 .00073693 00000-0 37606-3 0 9773  
-2 10382 51.6261 299.1691 0011934 75.8805 294.4554 15.80597543159964

1 10382U 77097 A 80193.21983523 .00067952 00000-0 34552-3 0 9786  
2 10382 51.6275 294.5767 0012112 77.5673 282.5823 15.80704162160106

1 10382U 77097 A 80193.21983523 .00067952 00000-0 34552-3 0 9797  
-2 10382 51.6275 294.5767 0012112 77.5673 282.5823 15.80704162160106

1 10382U 77097 A 80194.23135407 .00066440 00000-0 33608-3 0 9804  
2 10382 51.6280 289.3301 0011909 81.1827 279.1471 15.80830773160269

1 10382U 77097 A 80195.24273325 .00058783 00000-0 29626-3 0 9815  
2 10382 51.6259 284.0823 0011977 95.0842 275.1538 15.80957261160426

1 10382U 77097 A 80197.32849547 .00062900 00000-0 31294-3 0 9833  
2 10382 51.6261 273.2589 0011671 92.5850 267.6678 15.81214814160754

77-97A

Salyut 6

font. 39

1	11893U		80197.19908221	.00189220	00000-0	71818-3 0	24
2	11893	51.6226	273.1256	0009237	53.1744	297.0204	15.86489622160730

1	10382U	77097	A	80198.15005924	.00065417	00000-7	32355-3 0	9844
2	10382	51.6266	268.9940	0011823	94.5382	265.7018	15.81324956160882	

1	10382U	77097	A	80199.22432773	.00066301	00000-0	32575-3 0	9868
2	10382	51.6258	263.4152	0011671	98.2855	261.9316	15.81465150161056	

1	10382U	77097	A	80199.95632191	.00058229	00000-0	32575-3 0	9874
2	10382	51.6289	260.1389	0011359	34.2317	325.9416	15.78680599161157	

1	10382U	77097	A	80200.17282414	.00058451	00000-0	32575-3 0	9889
2	10382	51.6252	258.4982	0010114	29.9668	330.2589	15.78782623161201	

1	10382U	77097	A	80200.99562766	.00058844	00000-0	32575-3 0	9897
2	10382	51.6263	254.2215	0010968	33.7146	326.4551	15.78914149161337	

1	10382U	77097	A	80201.24879249	.00074845	00000-0	41190-3 0	9907
2	10382	51.6233	252.9303	0009773	27.7924	332.3891	15.78967910161377	

1	10382U	77097	A	80202.19810954	.00003590	00000-0	21527-4 0	9913
2	10382	51.6212	248.0149	0009466	34.8532	325.4452	15.79089986161523	

1 10382U 77097 A 80203.21063860 .00069796 00000-0 37968-3 0 9929  
2 10382 51.6210 242.7775 0009401 39.5008 322.0054 15.79256466161682

1 10382U 77097 A 80203.78009476 .00054542 00000-0 36210-3 0 9937  
2 10382 51.6331 239.8447 0010268 262.4900 97.4934 15.74849845161775

1 10382U 77097 A 80204.22427456 .00054739 00000-0 36210-3 0 9948  
2 10382 51.6160 237.5470 0011474 267.5035 92.5018 15.74912441161841

1 10382U 77097 A 80207.26962691 .00055626 00000-0 36210-3 0 9979  
2 10382 51.6242 221.8790 0011145 277.2555 82.7140 15.75280235162324

1 10382U 77097 A 80208.22116357 .00055894 00000-0 36210-3 0 9984  
2 10382 51.6217 216.9823 0011397 284.5247 75.4321 15.75384892162476

1 10382U 77097 A 80209.23606831 .00058593 00000-0 37687-3 0 9996  
2 10382 51.6236 211.7560 0010792 286.2206 73.9181 15.75539719162635

1 10382U 77097 A 80210.18741819 .00044987 00000-0 28961-3 0 08  
2 10382 51.6201 206.8565 0010955 289.2427 70.7231 15.75630329162782

1 10382U 77097 A 80211.26559154 .00043727 00000-0 28085-3 0 16  
2 10382 51.6236 201.3067 0010741 293.8972 65.9961 15.75698855162959

1 10382U 77097 A 80212.95105583 .00035688 00000-0 22966-3 0 36  
2 10382 51.6269 193.1462 0010526 301.0449 58.9517 15.75755080163206

1 10382U 77097 A 80213.29492281 .00058236 00000-0 37070-3 0 42  
2 10382 51.6250 190.8585 0010652 303.7418 56.2270 15.75781859163278

77-97A

Salyut 6

font. 40

1 10382U 77097 A 80214.24621998 .00053784 00000-0 34128-3 0 56  
2 10382 51.6259 185.9557 0010869 306.9539 53.0375 15.75885035163429

1 10382U 77097 A 80215.07049064 .00026506 00000-0 16782-3 0 65  
2 10382 51.6223 181.7004 0010856 299.7528 60.2392 15.76295880163551

1 10382U 77097 A 80215.07049064 .00026506 00000-0 16782-3 0 76  
2 10382 51.6223 181.7004 0010856 299.7528 60.2392 15.76295880163551

1 10382U 77097 A 80216.27500853 .00043367 00000-0 26993-3 0 87  
2 10382 51.6248 175.4959 0010889 304.2530 55.8936 15.76417527163748

1 10382U 77097 A 80217.22583690 .00044541 00000-0 27600-3 0 95  
2 10382 51.6247 170.5931 0010898 308.0594 51.9515 15.76504583163899

1 10382U 77097 A 80218.17663864 .00046432 00000-0 28637-3 0 106  
2 10382 51.6246 165.6930 0010721 311.1642 48.8569 15.76595895164044

1 10382U 77097 A 80219.25414566 .00039850 00000-0 24565-3 0 112  
2 10382 51.6254 160.1365 0010741 316.2959 43.6742 15.76676768164216

1	10382U	77097	A	80220.20485758	.00039993	00000-0	24565-3	0	129
2	10382	51.6255	155.2348	0010664	319.2206	-40.8236	15.76758918134368		

1	10382U	77097	A	80220.90203981	.00039857	00000-0	24565-3	0	132
2	10382	51.6265	151.6379	0010648	321.8586	38.1662	15.76685508164474		

1	10382U	77097	A	80222.16960372	.00050600	00000-0	30858-3	0	159
2	10382	51.6253	145.1025	0011120	326.9662	32.9685	15.76809376164674		

1	10382U	77097	A	80223.24698130	.00042243	00000-0	25761-3	0	161
2	10382	51.6249	139.5442	0011134	331.1353	28.8113	15.76889168134945		

1	10382U	77097	A	80224.19757040	.00076763	00000-0	45954-3	0	173
2	10382	51.6249	134.6416	0011209	336.3350	23.8939	15.77056208154998		

1	10382U	77097	A	80225.21135160	.00056427	00000-0	33817-3	0	181
2	10382	51.6241	129.4085	0010937	338.9945	20.9358	15.77157691165159		

1	10382U	77097	A	80225.90831816	.00180800	00000-0	10478-2	0	199
2	10382	51.6204	125.8298	0011571	351.3132	8.7667	15.77397004155269		

1	10382U	77097	A	80226.22507050	.00144324	00000-0	83935-3	0	209
2	10382	51.6266	124.1792	0011641	347.4900	12.5680	15.77463506155310		

1	10382U	77097	A	80226.73188935	.00126880	00000-0	74005-3	0	216
2	10382	51.6243	121.5615	0009226	347.5218	12.5554	15.77463071165394		

1	10382U	77097	A	80227.61880254	.00023693	00000-0	14292-3	0	238
2	10382	51.6266	116.9807	0010411	349.4473	10.6418	15.77467499165533		

77-97A

July 4+6

font 41

1	10382U	77097	A	80229.20259975	.00060542	00000-0	35578-3 0	263
2	10382	51.6257		108.8040 0010951	357.1926	3.1967	15.77571264165780	

1	10382U	77097	A	80230.15269929	.00062115	00000-0	36322-3 0	272
2	10382	51.6247		103.8978 0010663	0.7670	359.3317	15.77688053165938	

1	10382U	77097	A	80231.16611564	.00068822	00000-0	39894-3 0	283
2	10382	51.6243		98.6635 0010501	3.6347	356.5275	15.77834325166094	

1	10382U	77097	A	80231.86277160	.00058254	00000-0	33776-3 0	293
2	10382	51.6234		95.0637 0010511	6.2979	353.7476	15.77900302166202	

1	10382U	77097	A	80233.25602517	.00064723	00000-0	37129-3 0	312
2	10382	51.6243		87.8607 0010410	11.8898	348.3399	15.78093007166422	

1	10382U	77097	A	80234.26914903	.00069565	00000-0	39551-3 0	320
2	10382	51.6241		92.6226 0011147	13.5538	346.6504	15.78253087166563	

1	10382U	77097	A	80234.58572325	.00059055	00000-0	33584-3 0	337
2	10382	51.6247		80.9945 0010855	13.9968	346.2105	15.78316148166638	

1	10382U	77097	A	80235.26216537	.00074151	00000-0	41816-3 0	340
2	10382	51.6249		77.3882 0012476	16.9296	343.2554	15.78427867166744	

1 10382U 77097 A 80236.23178390 .00079305 00000-0 44337-3 0 355  
2 10382 51.6246 72.4804 0010865 20.3249 339.8243 15.79578836156895

1 10382U 77097 A 80237.18131637 .00069192 00000-0 38567-3 2 365  
2 10382 51.6249 67.5699 0010696 23.6962 336.3867 15.79702085167042

1 10382U 77097 A 80238.19408789 .00060458 00000-0 33628-3 2 370  
2 10382 51.6253 62.3310 0010676 27.1464 332.9414 15.79817211167200

1 10382U 77097 A 80239.20679141 .00057463 00000-0 31807-3 0 387  
2 10382 51.6254 57.3908 0010707 30.0961 330.0447 15.79932046167361

1 10382U 77097 A 80240.28270102 .00049247 00000-0 27242-3 2 391  
2 10382 51.6228 51.5202 0010735 35.7823 324.1853 15.79010608167534

1 10382U 77097 A 80241.23202732 .00067198 00000-0 36753-3 0 425  
2 10382 51.6258 46.6093 0010839 36.7255 323.4464 15.79131997167686

1 10382U 77097 A 80243.25694855 .00055735 00000-0 30277-3 2 421  
2 10382 51.6241 36.1275 0011241 42.6026 317.5681 15.79351538168001

1 10382U 77097 A 80244.20603307 .00056030 00000-0 30291-3 0 435  
2 10382 51.6251 31.2140 0011133 46.3820 313.8048 15.79457673168151

1 10382U 77097 A 80245.21831719 .00043965 00000-0 23748-3 0 440  
2 10382 51.6259 25.9729 0010950 48.2737 311.9750 15.79583026168315

1 10382U 77097 A 80246.16725659 .00061840 00000-0 32995-3 0 457  
2 10382 51.6261 21.0574 0010988 53.1156 307.1633 15.79709107168467



77-97A

Salyut 6

forts 42

1	10382U	77097	A	80247.17936091	.00064544	00000-0	34196-3 0	463
2	10382	51.6258		15.8122 0011085	55.8538	304.3821	15.79844641168624	
1	10382U	77097	A	80248.06488584	.00065033	00000-0	34782-3 0	479
2	10382	51.6254		11.2239 0011018	58.0558	302.1609	15.79963312168764	
1	10382U	77097	A	80249.07890669	.00053804	00000-0	34782-3 0	484
2	10382	51.6358		6.0587 0009495	266.9227	93.0698	15.75478187168924	
1	10382U	77097	A	80249.20576394	.00053993	00000-0	34782-3 0	495
2	10382	51.6358		5.4055 0009491	267.4096	92.5818	15.75556551168946	
1	10382U	77097	A	80249.20576394	.00053993	00000-0	34782-3 0	507
2	10382	51.6358		5.4055 0009491	267.4096	92.5818	15.75556551168946	
1	10382U	77097	A	80249.84001778	.00065163	00000-0	41829-3 0	519
2	10382	51.6249		2.0788 0009265	274.2478	85.6175	15.75563820169048	
1	10382U	77097	A	80250.22059313	.00065311	00000-0	41829-3 0	527
2	10382	51.6247		2.1195 0009266	275.7875	84.2071	15.75613818169105	
1	10382U	77097	A	80251.23534114	.00065053	00000-0	42054-3 0	532
2	10382	51.6253		354.8932 0009185	278.5779	81.4178	15.75747773169266	

1 10382U 77097 A 80252.18658872 .00066815 00000-0 42301-3 0 547  
2 10382 51.6257 349.9943 0009057 283.1590 76.8270 15.75973349169415

1 10382U 77097 A 80253.26457754 .00067321 00000-0 42343-3 0 553  
2 10382 51.6244 344.4379 0009079 287.2112 72.7833 15.76019950169581

1 10382U 77097 A 80255.23004640 .00070385 00000-0 43676-3 0 572  
2 10382 51.6263 334.3144 0009234 297.5048 62.4994 15.76307024169896

1 10382U 77097 A 80256.18095447 .00070987 00000-0 43790-3 0 586  
2 10382 51.6259 329.4124 0009158 302.3861 57.5927 15.76437913170048

1 10382U 77097 A 80256.68807200 .00070066 00000-0 43103-3 0 585  
2 10382 51.6250 326.7971 0009150 304.4599 55.5041 15.76505977170122

1 10382U 77097 A 80257.25856313 .00071303 00000-0 43692-3 0 597  
2 10382 51.6233 323.8561 0009428 308.0732 51.9202 15.76584489170217

1 10382U 77097 A 80258.20930961 .00071731 00000-0 43690-3 0 600  
2 10382 51.6248 318.9541 0008991 310.0723 49.9900 15.76724026170364

1 10382U 77097 A 80259.11051947 .00062483 00000-0 37735-3 0 620  
2 10382 51.6237 309.1464 0008820 319.1875 40.7617 15.76972889170666

1 10382U 77097 A 80260.23727328 .00060851 00000-0 36743-3 0 632  
2 10382 51.6235 308.4928 0009043 319.1130 40.9125 15.76984662170683

1 10382U 77097 A 80277.22594469 .00078253 00000-0 44214-3 0 669  
2 10382 51.6239 220.9109 0004685 268.0069 92.2581 15.78417694173368

77-97A

Salyut 6

for ts. 43

1	12382U	77097	A	80260.87119648	.00056808	00000-0	36743-3	0	640
2	12382	51.6350	305.2606	0013144	259.9801	99.9717	15.75385860	170788	

1	10382U	77097	A	80260.99808966	.00019134	00000-0	00000-0	0	30679
2	10382	051.6461	304.5527	0009932	256.8806	103.1739	15.74806130	170808	

1	10382U	77097	A	80261.18846383	.00030937	00000-0	20839-3	0	664
2	10382	51.6240	303.5929	0009288	257.0173	103.0173	15.74795479	170839	

1	10382U	77097	A	80262.96514888	.00054207	00000-0	00000-0	0	00709
2	10382	051.6165	294.4581	0009825	269.0279	091.0251	15.75002700	171118	

1	10382U	77097	A	80263.72650178	.00055660	00000-0	36576-3	0	599
2	10382	51.6255	290.5376	0009037	270.9247	89.0640	15.75092990	171230	

1	10382U	77097	A	80265.24910606	.00058168	00000-0	37896-3	0	729
2	10382	51.6250	282.7014	0009014	276.0790	83.9286	15.75273381	171472	

1	10382U	77097	A	80266.20064291	.00051635	00000-0	33587-3	0	732
2	10382	51.6255	277.8055	0008974	281.9151	78.0033	15.75360074	171626	

1	10382U	77097	A	80267.21557781	.00039376	00000-0	25689-3	0	742
2	10382	51.6236	272.5811	0008945	287.2195	72.6021	15.75414483	171789	

1 10382U 77097 A 80269.18191128 .00055435 00000-0 35584-3 0 766  
2 10382 51.6235 262.4575 0008938 292.0540 68.1330 15.75634879172094

1 10382U 77097 A 80270.32282861 .00059984 00000-0 35584-3 0 784  
2 10382 51.6221 256.5778 0005343 247.0395 113.0221 15.77428706172275

1 10382U 77097 A 80271.27306454 .00066770 00000-0 39309-3 0 795  
2 10382 51.6222 251.6693 0005183 251.3919 108.6914 15.77556480172426

1 10382U 77097 A 80272.22322962 .00071875 00000-0 42000-3 0 807  
2 10382 51.6218 246.7513 0004971 254.2927 175.7548 15.77696807172579

1 10382U 77097 A 80273.23660992 .00081159 00000-0 43967-3 0 812  
2 10382 51.6234 241.5282 0004925 257.6902 102.4058 15.77866187172739

1 10382U 77097 A 80274.18656133 .00084434 00000-0 48478-3 0 828  
2 10382 51.6239 236.6210 0004950 259.0347 101.0245 15.78027346172882

1 10382U 77097 A 80275.26306106 .00087955 00000-0 50038-3 0 838  
2 10382 51.6251 231.0566 0004971 259.5782 100.4966 15.78219109173052

1 10382U 77097 A 80275.64299286 .00087750 00000-0 50038-3 0 844  
2 10382 51.6237 229.1005 0004088 265.5350 94.5185 15.73172210173114

1 10382U 77097 A 80276.21287222 .00040662 00000-0 23447-3 0 850  
2 10382 51.6242 226.1470 0004622 258.0756 101.9904 15.78237021173208

77-97A

Salyut 6

forts. 44

1	10382U	77097	A	80278.11223034	.00076806	00000-0	43154-3 0	370
2	10382	51.6223	216.3262	0004512	271.4967	98.5309	15.78550146173506	

1	10382U	77097	A	80278.11223034	.00076806	00000-0	43154-3 2	370
2	10382	51.6223	216.3262	0004512	271.4967	98.5309	15.79550146173506	

1	10382U	77097	A	80279.18834511	.00077422	00000-0	43154-3 0	384
2	10382	51.6225	217.7596	0004618	272.3925	87.7140	15.78723495173678	

1	10382U	77097	A	80280.20111427	.00102727	00000-0	56326-3 2	394
2	10382	51.6249	205.5214	0004751	278.2563	82.0873	15.78974393173839	

1	10382U	77097	A	80281.21362451	.00111290	00000-0	60347-3 0	905
2	10382	51.6231	200.2835	0005045	285.4085	74.6241	15.79185274173992	

1	10382U	77097	A	80282.18277519	.00147631	00000-0	78500-3 0	911
2	10382	51.6257	195.3686	0004893	295.7267	64.5451	15.79492678174142	

1	10382U	77097	A	80283.11128571	.00143547	00000-0	71083-3 0	932
2	10382	51.6235	190.4556	0009396	270.6276	89.4041	15.81017182174298	

1	10382U	77097	A	80283.93291507	.00115163	00000-0	56778-3 0	940
2	10382	51.6235	186.1913	0009201	273.8940	86.0452	15.81210805174427	

1 10382U 77097 A 80284.18571915 .00124231 00000-0 30955-3 0 951  
2 10382 51.6241 184.8771 0009555 274.3760 85.6264 15.31277995174461

1 10382U 77097 A 80284.94395697 .00349077 00000-0 16210-2 0 957  
2 10382 51.6279 180.9352 0008283 274.7218 85.2561 15.81799888174581

1 10382U 77097 A 80285.19665465 .00301427 00000-0 14047-2 0 973  
2 10382 51.6279 179.5250 0008394 278.7350 81.1984 15.81895559174529

1 10382U 77097 A 80285.63883760 .00163209 00000-0 77129-3 0 988  
2 10382 51.6225 177.3284 0010088 272.1635 87.6038 15.81954721174694

1 10382U 77097 A 80286.33369616 .00212452 00000-0 98249-3 0 997  
2 10382 51.6296 173.7201 0012030 275.6658 84.3447 15.82246399174800

1 10382U 77097 A 80286.46004631 .00087598 00000-0 41600-3 0 1007  
2 10382 51.6233 173.0583 0009825 281.6797 78.3104 15.82119178174825

1 10382U 77097 A 80287.15481711 .00105809 00000-0 49719-3 0 1018  
2 10382 51.6249 169.4453 0010179 278.9725 81.0443 15.82265805174930

1 10382U 77097 A 80290.12261922 .00113327 00000-0 51580-3 0 1045  
2 10382 51.6229 154.0053 0010198 292.2055 67.8298 15.82918037175404

1 10382U 77097 A 80291.13264313 .00117987 00000-0 53037-3 0 1050  
2 10382 51.6241 148.7468 0010556 295.7379 64.3014 15.83160450175567

1 10382U 77097 A 80292.20562072 .00105400 00000-0 47013-3 0 1067  
2 10382 51.6227 143.1587 0010616 299.9312 59.9350 15.83368594175733

77-97A

Salyut 6

forts. 45

1	12382U	77097	A	80294.22496236	.00121989	00000-0	53204-3	0	1098
2	12382	51.6224		132.6400	0010716	307.8277	52.1968	15.83861479176053	

1	12382U	77097	A	80295.23438284	.00115877	00000-0	49864-3	0	1098
2	12382	51.6237		127.3760	0010696	311.5896	48.3668	15.84086657176213	

1	12382U	77097	A	80298.19878827	.00119302	00000-0	49700-3	0	1127
2	12382	51.6215		111.9080	0010222	321.6853	38.4019	15.84760422176683	

1	12382U	77097	A	80299.20763080	.00120161	00000-0	49371-3	0	1134
2	12382	51.6219		106.6462	0010935	327.7440	32.4515	15.85033064176841	

1	12382U	77097	A	80303.24143426	.00117745	00000-0	46225-3	0	1151
2	12382	51.6237		85.5693	0011543	343.4879	16.5693	15.85972876177483	

1	12382U	77097	A	80301.22483168	.00122555	00000-0	49181-3	0	1156
2	12382	51.6219		96.1104	0011362	335.7836	24.3151	15.85506751177160	

1	12382U	77097	A	80302.42225149	.00115758	00000-0	45888-3	0	1159
2	12382	51.6231		89.8524	0011371	340.0354	19.9922	15.85782334177353	

1	12382U	77097	A	80303.24143426	.00117745	00000-0	46225-3	0	1162
2	12382	51.6237		85.5693	0011543	343.4879	16.5693	15.85972876177483	

1 10382U 77097 A 80303.93450793 .00121560 00000-0 47297-3 0 1165  
2 10382 51.6240 81.9462 0011675 346.0602 14.0125 15.86141643177596

1 10382U 77097 A 80305.25743941 .00147009 00000-0 55930-3 0 1173  
2 10382 51.6225 75.0270 0011927 352.1746 8.0049 15.86516391177905

1 10382U 77097 A 80306.39109239 .00162651 00000-0 60676-3 0 1189  
2 10382 51.6219 69.0944 0011601 354.4758 5.6593 15.86877793177988

1 10382U 77097 A 80307.33540572 .00177406 00000-0 60676-3 0 1198  
2 10382 51.6163 64.1670 0007384 355.9887 4.1058 15.82653108178132

1 10382U 77097 A 80308.21596747 .00219153 00000-0 73206-3 0 1213  
2 10382 51.6238 59.5244 0006500 354.7711 5.4357 15.89024406178279

1 10382U 77097 A 80309.22202912 .00171985 00000-0 56761-3 0 1221  
2 10382 51.6228 54.2369 0005987 359.2094 0.8213 15.89393299178434

1 10382U 77097 A 80310.29077812 .00181112 00000-0 58561-3 0 1233  
2 10382 51.6236 48.6168 0006230 3.0648 357.0558 15.89772387178606

1 10382U 77097 A 80311.29640643 .00175686 00000-0 55871-3 0 1243  
2 10382 51.6250 43.3306 0006284 5.5969 354.4646 15.90113866178769

1 10382U 77097 A 80314.24911139 .00192224 00000-0 57603-3 0 1277  
2 10382 51.6246 27.7864 0006957 17.3035 342.7590 15.91227061179236

1 10382U 77097 A 80315.25382652 .00194583 00000-0 57163-3 0 1283  
2 10382 51.6257 22.4922 0006902 20.8209 339.2919 15.91606944179391



77-97A

Salyu+6

font 46

1 10382U 77097 A 80316.38383279 .00196214 00000-0 56367-3 0 1293  
 2 10382 51.6250 16.5328 0007005 24.7161 335.3804 15.92033769179573

1 10382U 77097 A 80316.38383279 .00196214 00000-0 56367-3 7 1305  
 2 10382 51.6250 16.5328 0007005 24.7161 335.3804 15.92033769179573

1 10382U 77097 A 80317.26252125 .00202913 00000-0 57192-3 0 1310  
 2 10382 51.6243 11.8982 0007020 28.6282 331.5200 15.92382789179715

1 10382U 77097 A 80319.26648761 .00202138 00000-0 55823-3 0 1325  
 2 10382 51.6236 6.5977 0007086 32.4698 327.6398 15.92774224179879

1 10382U 77097 A 80319.20748996 .00198499 00000-0 53821-3 0 1321  
 2 10382 51.6238 1.6275 0007149 35.7584 324.3358 15.93133001180022

1 10382U 77097 A 80320.33641471 .00196560 00000-0 52120-3 0 1336  
 2 10382 51.6237 355.6621 0007318 39.8947 320.1978 15.93558640130204

1 10382U 77097 A 80331.98344887 .00249756 30959-4 51423-3 0 1343  
 2 10382 51.6236 293.8554 0006019 88.1889 278.4192 15.98694238132068

1 10382U 77097 A 80322.09187525 .00201557 00000-0 51423-3 0 1356  
 2 10382 51.6199 346.3743 0006595 43.7874 316.3488 15.94280896190481

1 10382U 77097 A 80322.90654165 .00155297 00000-0 51423-3 0 1365  
2 10382 51.6177 342.0740 0010631 227.7540 132.2565 15.89313204190617

1 10382U 77097 A 80323.28379072 .00160003 00000-0 51423-3 0 1370  
2 10382 51.6234 340.0797 0011870 229.2545 131.2395 15.89866913130675

1 10382U 77097 A 80324.28928686 .00160093 00000-0 50629-3 0 1389  
2 10382 51.6222 334.7940 0011679 234.2158 125.7898 15.90188174180837

1 10382U 77097 A 80326.29984469 .00131178 00000-0 40525-3 0 1402  
2 10382 51.6179 324.2089 0010985 240.0591 119.7530 15.90743174181150

1 10382U 77097 A 80327.30492235 .00147236 00000-0 44656-3 0 1412  
2 10382 51.6189 318.9126 0010662 243.8467 116.3035 15.91060645151315

1 10382U 77097 A 80328.24693365 .00156224 00000-0 46598-3 0 1428  
2 10382 51.6174 313.9476 0010577 249.0385 111.0131 15.91360193181460

1 10382U 77097 A 80329.25156350 .00186909 00000-0 54449-3 0 1436  
2 10382 51.6175 308.6478 0010366 255.1081 104.0195 15.91740511181628

1 10382U 77097 A 90331.26006310 .00206452 00000-0 57532-3 0 1454  
2 10382 51.6206 298.0499 0009981 259.7379 100.4878 15.92550602181942

1 10382U 77097 A 80332.82841004 .00219655 00000-0 59560-3 0 1478  
2 10382 51.6114 289.7697 0010673 268.0079 91.9707 15.93028361182193

1 10382U 77097 A 80333.26749678 .00207230 00000-0 55802-3 0 1483  
2 10382 51.6141 287.4475 0010081 265.8710 94.0940 15.93200424132265

77-97A

Salyut 6

font. 47

1 10382U 77097 A 80335.27401690 .00214706 00000-0 54883-3 0 1502  
 2 10382 51.6150 276.8337 0007990 268.8864 91.3122 15.94196656132581

1 1038 U 77097 A 80336.21413 43 .00230134 00000-0 57405-3 0 1511  
 2 1038 - 51.6159 271.8612 0007873 7 .2746 87.7756 15.94620039192735

1 10382U 77097 A 80337. 7931564 .00255 11 00000-0 61529-3 0 15 6  
 2 1038 51.6150 66. 173 0008047 75.1955 84.9779 15.95164669182900

1 10382U 77097 A 80338.71985601 .00238060 00000-0 00000-0 0 0 21556  
 2 10382 51.6141 258.5623 0006969 280.4417 79.5763 15.95835551183131

1 10382U 77097 A 80338.97033048 .00240915 00000-0 00000-0 0 0 01577  
 2 10382 51.6180 257.2464 0009266 275.8472 083.2148 15.95967690183179

1 10382U 77097 A 80339.15816574 .00244051 00000-0 00000-0 0 0 01565  
 2 10382 51.6173 256.2507 0006019 291.9941 78.0346 15.96058045193204

1 10382U 77097 A 80340.15978637 .00245560 00000-0 00000-0 0 0 01594  
 2 10382 51.6183 250.9335 0005299 280.3286 79.7080 15.96553258193362

1 10382U 77097 A 80341.22364501 .00326582 00000-0 70013-3 0 1535  
 2 10382 51.6165 245.2872 0007801 289.0529 70.9957 15.97197533193538

1 17382U 77097 A 80342.28711969 .00259702 00000-0 54605-3 0 1602  
2 17382 51.6163 239.6274 0007718 297.6045 72.4070 15.97690767193702

1 17382U 77097 A 80342.56238161 .00249306 00000-0 54605-3 0 1612  
2 17382 51.6103 237.6355 0007514 308.2517 50.9523 15.96977234193768

1 17382U 77097 A 80343.28823823 .00217361 00000-0 47211-3 0 1628  
2 17382 51.6189 234.3070 0006696 306.0293 54.7097 15.97210271193861

1 17382U 77097 A 80344.86337760 .00324112 00000-0 12270-2 0 1666  
2 17382 51.6251 226.7463 0053027 103.3256 257.3669 15.84059261194119

1 17382U 77097 A 80345.05263714 .00446720 00000-0 16619-2 0 1677  
2 17382 51.6086 225.0634 0052877 104.0616 256.6273 15.84168837194141

1 17382U 77097 A 80345.24189861 .00062388 00000-0 24681-3 0 1682  
2 17382 51.6189 224.0840 0051177 101.9699 258.7094 15.84056362194177

1 17382U 77097 A 80345.43115440 .00062094 00000-0 24681-3 0 1590  
2 17382 51.6144 223.0999 0049239 102.9814 257.7802 15.84118180194206

1 17382U 77097 A 80343.60155443 .00117867 00000-0 47211-3 0 1631  
2 17382 51.6086 232.6538 0049023 92.5489 268.1129 15.83736420193916

1 17382U 77097 A 80344.04321207 .00201266 00000-0 78127-3 0 1641  
2 17382 51.6166 230.3399 0051393 97.3764 263.3408 15.83958725193985

1 17382U 77097 A 80346.82030948 .00136579 00000-0 54098-3 0 1744  
2 17382 51.6153 216.8729 0054281 105.3522 255.3401 15.83480903134429

77-97A

Salyut 6

forts. 48

1	10382U	77097	A	80345.58346633	.00132443	00000-0	51269-3	0	1707
2	10382	51.6178		221.7985	0050326	104.2521	256.5656	15.84278392	194241
1	10382U	77097	A	80345.93572963	.00219300	00000-0	83269-3	0	1716
2	10382	51.6141		220.4758	0050361	104.9601	255.6986	15.84441939	194289
1	10382U	77097	A	80346.31412804	.00202678	00000-0	76506-3	0	1723
2	10382	51.6170		218.4963	0050563	106.1922	254.4105	15.84582246	194345
1	10382U	77097	A	80347.32515048	.00146180	00000-0	57440-3	0	1753
2	10382	51.6162		213.2438	0054002	107.3075	253.3636	15.93637393	194508
1	10382U	77097	A	80347.57779502	.00104230	00000-0	57440-3	0	1768
2	10382	51.6090		211.9489	0028449	113.4928	247.0119	15.78272222	194540
1	10382U	77097	A	80348.27423495	.00135866	00000-0	73005-3	0	1777
2	10382	51.6165		208.3288	0030447	115.1559	245.0452	15.78359405	194659
1	10382U	77097	A	80349.03398929	.00116099	00000-0	63007-3	0	1794
2	10382	51.6169		204.3979	0030158	117.8467	242.3788	15.78498982	194770
1	10382U	77097	A	80350.36337195	.00109371	00000-0	58223-3	0	1790
2	10382	51.6178		197.5227	0030030	123.2109	236.9998	15.78746319	194986

1 10382U 77097 A 80353.21128101 .00106087 00000-3 55530-3 0 1926  
2 10382 51.6188 182.7816 0029430 134.3299 225.9976 15.79349683195432

1 10382U 77097 A 80351.24952519 .00114975 00000-0 61191-3 0 1909  
2 10382 51.6163 192.9359 0029811 126.4525 233.9031 15.78937941135124

1 10382U 77097 A 80352.19882165 .00009422 00000-0 57789-3 0 1911  
2 10382 51.6181 188.0239 0029592 130.5719 229.7352 15.79135495195276

1 10382U 77097 A 80354.28686465 .00104843 00000-0 54375-3 0 1831  
2 10382 51.6177 177.2106 0029133 138.3193 221.9690 15.79568848185603

1 10382U 77097 A 80356.37431119 .00121760 00000-0 61546-3 0 1854  
2 10382 51.6151 166.3926 0028736 146.2337 214.2299 15.80082869135931

1 10382U 77097 A 80357.32287958 .00115096 00000-0 57771-3 0 1861  
2 10382 51.6164 161.4739 0029155 149.6740 210.4816 15.80282629186089

1 10382U 77097 A 80358.27138231 .00109453 00000-0 54061-3 0 1974  
2 10382 51.6165 156.5559 0027890 153.3768 206.7434 15.80467264196234

1 10382U 77097 A 80360.29446610 .00106920 00000-0 52338-3 0 1896  
2 10382 51.6155 146.0578 0027327 161.1046 199.0483 15.80888058186550

1 10382U 77097 A 80361.30580332 .00112911 00000-0 54669-3 0 1907  
2 10382 51.6171 140.8096 0027088 165.2717 194.9073 15.81110600186718

1 10382U 77097 A 80359.21965970 .00107951 00000-0 53330-3 0 1888  
2 10382 51.6163 151.6355 0027784 157.2369 222.2775 15.80666843196383

77-97A

Salyut 6

font. 49

1 10382U 77097 A 80362.63295024 .00112013 00000-0 53570-3 0 1919  
 2 10382 51.6168 133.9192 0026438 169.9312 190.1951 15.81404499126922

1 10382U 77097 A 80363.39121484 .00102891 00000-0 48915-3 0 1922  
 2 10382 51.6186 129.9820 0026159 172.9620 187.2020 15.81577747137046

1 10382U 77097 A 80364.21256851 .00122026 00000-0 57261-3 0 1938  
 2 10382 51.6179 125.7118 0026099 176.0101 184.1949 15.81789270187170

1 10382U 77097 A 80366.36020267 .00127374 00000-0 58320-3 0 1956  
 2 10382 51.6157 114.5451 0025483 184.4214 175.6839 15.82317496137514

1 10382U 77097 A 81 1.30745413 .00121039 00000-0 54911-3 0 1969  
 2 10382 51.6164 109.6158 0025364 188.3938 171.6219 15.82538725187660

1 10382U 77097 A 81 2.25458890 .00126019 00000-0 56535-3 0 1972  
 2 10382 51.6161 104.6877 0024792 191.8768 168.2002 15.32781404187817

1 10382U 77097 A 81 3.26469325 .00123190 00000-0 54676-3 0 1980  
 2 10382 51.6166 99.4310 0024503 196.0335 163.9897 15.83026136197979

1 10382U 77097 A 81 5.22133663 .00122465 00000-0 53222-3 0 2007  
2 10382 51.6158 89.2422 0023793 203.2834 156.7060 15.83499957188287

1 10382U 77097 A 81 6.35713251 .00113034 00000-0 48665-3 0 2011  
2 10382 51.6160 83.3224 0023285 207.6886 152.1996 15.33746914182462

1 10382U 77097 A 81 7.30360734 .00108942 00000-0 45496-3 0 2029  
2 10382 51.6157 78.3884 0023179 211.2337 148.7015 15.83948459189615

1 10382U 77097 A 81 10.20521676 .00106775 00000-0 44327-3 0 2052  
2 10382 51.6176 63.2561 0022584 222.8892 137.0462 15.84553480189070

1 10382U 77097 A 81 11.21420402 .00105430 00000-0 43373-3 0 2067  
2 10382 51.6183 57.9901 0022225 226.9620 132.9145 15.84759700189235

1 10382U 77097 A 81 12.22306955 .00096093 00000-0 39213-3 0 2078  
2 10382 51.6161 52.7242 0021991 231.1085 128.7908 15.84970969189393

1 10382U 77097 A 81 12.22306955 .00096093 00000-0 39213-3 0 2078  
2 10382 51.6161 52.7242 0021991 231.1085 128.7908 15.84970969189393

1 10382U 77097 A 81 13.29482429 .00096395 00000-0 38912-3 0 2083  
2 10382 51.6169 47.1270 0021720 235.4954 124.4037 15.85204248189568

1 10382U 77097 A 81 14.24037272 .00099002 00000-0 39535-3 0 2097  
2 10382 51.6183 42.1888 0021950 238.9488 121.0203 15.85411374189713

1 10382U 77097 A 81 14.80761893 .00099567 00000-0 39535-3 0 2100  
2 10382 51.6169 39.2268 0021417 242.0384 117.8441 15.85541991189802



77-97A

Salyut 6

forts. 50

1	10382U	77097	A	81	15.24879461	.00098610	00000-0	38969-3	0	2119
2	10382	51.6170			36.9176	0021644	242.7258	117.1781	15.85635799	189973.

1	10382U	77097	A	81	16.06804857	.00092917	00000-0	36464-3	0	2120
2	10382	51.6182			32.6365	0021320	246.2294	113.9748	15.85812218	190006

1	10382U	77097	A	81	16.25708474	.00099431	00000-0	33900-3	0	2135
2	10382	51.6171			31.6481	0021180	246.8205	113.0679	15.35854631	190033

1	10382U	77097	A	81	17.32825671	.00120823	00000-0	45508-3	0	2147
2	10382	51.6184			26.0468	0021224	250.4252	109.5481	15.86109846	190206

1	10382U	77097	A	81	18.02124930	.00110946	00000-0	42496-3	0	2153
2	10382	51.6170			22.4179	0020933	253.3609	106.4647	15.86253371	190319

1	10382U	77097	A	81	19.21814082	.00105509	00000-0	39984-3	0	2178
2	10382	51.6164			16.1564	0020815	257.9404	101.9112	15.86494989	190502

1	10382U	77097	A	81	20.28887976	.00109977	00000-0	41178-3	0	2181
2	10382	51.6165			10.5529	0020619	262.0936	97.7923	15.86730136	190678

1 10382U 77097 A 81 21.23350917 .00111950 00000-0 41485-3 0 2193  
2 10382 51.6167 5.6060 0020406 265.4216 94.4527 15.36940898190826

1 10382U 77097 A 81 22.24097690 .00113413 00000-0 41556-3 0 2279  
2 10382 51.6172 0.3273 0020264 269.8255 90.0508 15.37168583190985

1 10382U 77097 A 81 23.24829912 .00118963 00000-0 43079-3 0 2217  
2 10382 51.6177 355.0546 0020005 273.4177 86.4421 15.37396820191149

1 10382U 77097 A 81 25.26248652 .00126586 00000-0 44568-3 0 2234  
2 10382 51.6185 344.4963 0019876 280.1733 79.7137 15.37896418191462

1 10382U 77097 A 81 27.27594957 .00149132 00000-0 50617-3 0 2265  
2 10382 51.6169 333.9334 0019212 285.6262 74.2703 15.39626063191782

1 10382U 77097 A 81 28.72261760 .00098430 00000-0 41922-3 0 2295  
2 10382 51.6039 326.3551 0047282 288.5417 71.0453 15.32683421192015

1 10382U 77097 A 81 29.29086590 .00156118 00000-0 65342-3 0 2307  
2 10382 51.6173 323.3840 0044437 289.6782 69.7911 15.32752775192101

1 10382U 77097 A 81 30.17475111 .00119124 00000-0 50461-3 0 2319  
2 10382 51.6176 313.7912 0044452 292.5504 66.3605 15.329265521 2242

1 10382U 77097 A 81 32.26917664 .00059185 00000-0 44503-3 0 2359  
2 10382 51.6164 308.0075 0008907 50.1497 309.3154 15.71922889192579

1 10382U 77097 A 81 30.23792057 .00112234 00000-0 47621-3 0 2327  
2 10382 51.6177 313.4522 0044176 2 3.0760 66.5500 15.329348051 2253

77-97A

Satyut 6

forts. 51

1 10382U 7707 A 81 30.74336151 .00068753 00000-0 52019-3 0 2335  
 2 10382 51.6000 315.8345 0008558 43.1356 317.2302 15.71719979192333

1 10382U 77097 A 81 34.23982408 .00064031 00000-0 47581-3 0 2373  
 2 10382 51.6167 297.9154 0008539 57.6691 302.4548 15.72175157192983

1 10382U 77097 A 81 33.41348742 .00075362 00000-0 56071-3 0 2361  
 2 10382 51.6171 302.1497 0008746 53.2137 306.9899 15.72078106192754

1 10382U 77097 A 81 36.27369817 .00059441 00000-0 43769-3 0 2397  
 2 10382 51.6167 287.4914 0008317 66.3284 293.8669 15.72423699193201

1 10382U 77097 A 81 39.19673491 .00071749 00000-0 51753-3 0 2429  
 2 10382 51.6142 272.5034 0007859 75.5249 293.7505 15.72932152193552

1 10382U 77097 A 81 40.34040219 .00062713 00000-0 45109-3 0 2433  
 2 10382 51.6141 266.6371 0007754 80.7315 279.5037 15.72057679193840

1 10382U 77097 A 81 37.09986242 .00062251 00000-0 45597-3 0 2401  
 2 10382 51.6159 283.2533 0008300 69.3491 290.8496 15.72528691193335

1 10382U 77097 A 81 38.05305874 .00064521 00000-0 45374-3 0 2417  
 2 10382 51.6159 278.3670 0008121 72.6593 287.5591 15.72557621193485

1 10382U 77097 A 81 41.48390964 .00060357 00000-0 43197-3 0 2442  
2 10382 51.6150 260.7698 0008027 84.3306 275.3021 15.73089487194025

1 10382U 77097 A 81 41.99213724 .00055932 00000-0 00000-0 0 02453  
2 10382 051.6129 258.1550 0007811 087.0471 273.2077 15.73135453194101

1 10382U 77097 A 81 45.29503115 .00059143 00000-0 41619-3 0 2450  
2 10382 51.6151 241.2145 0007597 97.4738 262.7497 15.73496700194522

1 10382U 77097 A 81 46.24753699 .00059157 00000-0 41456-3 0 2476  
2 10382 51.6160 236.3214 0007458 100.9698 259.1841 15.73600853194779

1 10382U 77097 A 81 47.39069315 .00053992 00000-0 37596-3 0 2499  
2 10382 51.6150 230.4511 0007551 104.8994 255.2210 15.73718027194959

1 10382U 77097 A 81 50.24793034 .00059679 00000-0 40997-3 0 2519  
2 10382 51.6146 215.7743 0007078 112.1435 248.0228 15.74058705195404

1 10382U 77097 A 81 51.26368148 .00061193 00000-0 41789-3 0 2520  
2 10382 51.6141 210.5536 0007060 115.7572 244.4003 15.74133381195561

1 10382U 77097 A 81 43.27968866 .00053330 00000-0 40481-3 0 2494  
2 10382 51.6134 225.3845 0007582 107.5164 252.6917 15.73926152195092

1 10382U 77097 A 81 49.23209723 .00067118 00000-0 39473-3 0 2506  
2 10382 51.6141 220.9925 0007319 110.6520 249.5143 15.73935496195240

1 10382U 77097 A 81 52.40530969 .00055291 00000-0 37599-3 0 2537  
2 10382 51.6144 204.6824 0006725 115.4645 243.7107 15.74326265195741

77-97A

Salyut 6

forts. 52

1 10382U 77097 A 81 53.29494841 .00055579 00000-0 37599-3 0 2543  
 2 10382 51.6147 200.1121 0006709 120.1237 240.0965 15.74448036195839

1 10382U 77097 A 81 54.24697611 .00073679 00000-0 53216-3 0 2551  
 2 10382 51.6149 195.2183 0006621 123.1851 237.0498 15.74599377195035

1 10382U 77097 A 81 55.26235513 .00077527 00000-0 51476-3 0 2560  
 2 10382 51.6136 189.9951 0006365 125.5073 234.5050 15.74748007196192

1 10382U 77097 A 81 56.27766043 .00073045 00000-0 51476-3 0 2575  
 2 10382 51.6114 184.7741 0005531 127.6332 232.5042 15.74904751196359

1 10382U 77097 A 81 57.22943577 .00091124 00000-0 50431-3 0 2586  
 2 10382 51.6145 179.8725 0006147 130.3809 229.7757 15.75073043196501

1 10382U 77097 A 81 51.22725252 .00084540 00000-0 59663-3 0 2539  
 2 10382 51.6144 159.3156 0010065 223.2290 131.7092 15.73253295197131

1 10382U 77097 A 81 52.24352354 .00089925 00000-0 52940-3 0 2542  
 2 10382 51.6150 154.0982 0009780 234.9478 125.0435 15.73428133197299

1 10382U 77097 A 81 53.25966787 .00060337 00000-0 42291-3 0 2550  
 2 10382 51.6157 143.3817 0009445 239.3882 120.2295 15.73563754197451

1 17382J 77097 A 91 54.27575554 .00085059 00000-0 59797-3 0 2667  
2 10382 51.6125 143.5325 0009340 243.0997 117.0402 15.73746253197514

1 17382U 77097 A 81 55.29167340 .00102723 00000-0 70149-3 0 2673  
2 10382 51.6145 133.4455 0009366 247.7228 112.3281 15.73952162197774

1 17382U 77097 A 91 57.25968544 .00098179 00000-0 59518-3 0 2693  
2 10382 51.6122 129.3309 0009156 254.9217 105.7545 15.74238063198067

1 17382U 77097 A 91 58.21190595 .00088686 00000-0 59424-3 0 2733  
2 17382 51.6120 123.4345 0009025 259.5735 100.4296 15.74457375198238

1 17382U 77097 A 91 59.22728291 .00081110 00000-0 54057-3 0 2719  
2 10382 51.6123 118.2145 0009026 263.5433 96.3986 15.74616322198391

1 17382U 77097 A 91 71.25793895 .00083598 00000-0 54378-3 0 2732  
2 10382 51.6121 107.7572 0008689 270.7251 89.2823 15.74957710198711

1 17382U 77097 A 91 73.47843613 .00047421 00000-0 31073-3 0 2745  
2 10382 51.6133 96.3379 0008464 275.0179 83.6744 15.75231305199065

1 17382U 77097 A 91 74.30313129 .00090771 00000-0 53259-3 0 2759  
2 10382 51.6107 92.0947 0008997 278.5978 81.4059 15.75439611199192

1 17382U 77097 A 91 75.25455114 .00070344 00000-0 45469-3 0 2769  
2 10382 51.6096 87.1969 0007944 279.3913 81.0116 15.75399816199345

1 17382U 77097 A 91 75.25455114 .00070344 00000-0 45469-3 0 2769  
2 10382 51.6096 87.1969 0007944 279.3913 81.0116 15.75399816199345

77-97A

Salyut 6

font 53

1 10332U 77097 A 81 75.33284117 .00291139 00000-0 17207-2 0 2777  
 2 10332 51.5161 81.6461 0003124 276.1077 33.3935 15.75914798199514

1 10332U 77097 A 81 77.34806334 .00264450 00000-0 17207-2 0 2799  
 2 10332 51.6332 76.4319 0010628 241.9153 118.0930 15.74528585199671

1 10332U 77097 A 81 77.34806334 .00264450 00000-0 17207-2 0 2801  
 2 10332 51.6332 76.4319 0010628 241.9153 118.0930 15.74528585199671

1 10332U 77097 A 81 79.04619233 .00070092 00000-0 46777-3 0 2917  
 2 10332 51.6318 72.8409 0010523 244.7560 115.2351 15.74623044199797

1 10332U 77097 A 81 30.45755223 .00080929 00000-0 52942-5 0 2354  
 2 10332 51.6318 60.4401 0010535 249.7671 110.2399 15.74993288200160

1 10332U 77097 A 81 81.29235374 .00075235 00000-0 49740-3 0 2365  
 2 10332 51.6316 56.1965 0010296 252.6693 137.2651 15.75114277200295

1 10332U 77097 A 81 82.36036433 .00076315 00000-0 49442-3 0 2374  
 2 10332 51.6326 50.6480 0010179 257.7485 102.2277 15.75277470200465

1 10332U 77097 A 81 83.05367946 .00074373 00000-0 47411-5 0 2386  
 2 10332 51.6286 47.0566 0010750 256.9931 102.9793 15.75627455200571

1 10332U 77097 A 81 84.32692731 .00095229 00000-0 59340-3 0 2908  
2 10332 51.6345 17.5296 0017647 263.0215 96.3196 15.75890521200770

1 10332J 77097 A 81 85.34149612 .00105351 00000-0 65450-3 0 2908  
2 10332 51.6323 35.3013 0010804 266.7412 94.2153 15.75095199200931

1 10332J 77097 A 81 86.29251530 .00110152 00000-0 67741-3 0 2928  
2 10332 51.6314 37.4016 0010582 268.9077 91.1216 15.75311122201085

1 10332U 77097 A 81 86.29251530 .00110152 00000-0 67741-3 0 2939  
2 10332 51.6314 37.4016 0010582 268.9077 91.1216 15.75311122201085

1 10332U 77097 A 81 89.27308916 .00092077 00000-0 63582-3 0 2939  
2 10332 51.6327 15.0564 0009376 4.9258 355.1094 15.73738154201559

1 10332U 77097 A 81 90.28904362 .00092842 00000-0 63582-3 0 2991  
2 10332 51.6326 9.8392 0009742 9.1556 351.0120 15.73935465201713

1 10332U 77097 A 81 91.24136418 .00093529 00000-0 63582-3 0 3004  
2 10332 51.6322 4.9519 0008843 15.2016 345.0300 15.74127338201864

1 10332U 77097 A 81 91.55833154 .00082901 00000-0 63582-3 0 3016  
2 10332 51.6420 3.3499 0009477 106.2432 253.9501 15.71321333201913

1 10332U 77097 A 81 92.25837533 .00133978 00000-0 10129-2 0 3023  
2 10332 51.6347 359.7413 0008162 105.3975 254.7071 15.71438137202023

1 10332U 77097 A 81 93.21221017 .00102543 00000-0 77427-3 0 3035  
2 10332 51.6348 354.9513 0009100 117.4453 249.5455 15.71609426202177



77-97A

Salyut 6

font 54

1 12382U 77097 A 91 96.26330196 .00102958 00000-0 75782-3 0 3074  
 2 12382 51.6332 339.2341 0007726 123.6320 235.5427 15.72217429202554

1 12382U 77097 A 91 97.15361169 .00105506 00000-0 77007-3 0 3086  
 2 12382 51.6332 334.6775 0007548 126.3160 233.3588 15.72404441207793

1 12382U 77097 A 91 93.04332137 .00100461 00000-0 72867-3 0 3093  
 2 12382 51.6322 332.1176 0007411 130.3975 230.0658 15.72574070202932

1 12382U 77097 A 91100.26714072 .00103745 00000-0 73743-3 0 3113  
 2 12382 51.6330 319.7174 0007314 141.1786 213.9729 15.73036022203289

1 12382U 77097 A 91100.39413406 .00105844 00000-0 75107-3 0 3123  
 2 12382 51.6331 319.0555 0007313 142.6341 217.4542 15.73056645203305

1 12382U 77097 A 91101.15643240 .00111707 00000-0 73509-3 0 3155  
 2 12382 51.6319 314.1565 0007127 146.5236 213.6537 15.73241097203428

1 12382U 77097 A 91103.18885563 .00137120 00000-0 94055-3 0 3154  
 2 12382 51.6320 303.7270 0006714 155.7711 204.5676 15.73746767203749

1 12382U 77097 A 91104.20472499 .00125855 00000-0 95595-3 0 3160  
 2 12382 51.6315 298.5107 0006622 159.7402 200.2974 15.73939101203905

1 10382U 77097 A 81102.10922613 .00107353 00000-0 73337-3 0 3149  
2 10382 51.6323 309.2599 0006863 148.5331 211.5090 15.73434595203573

1 10382U 77097 A 81105.22049717 .00120659 00000-0 31309-3 0 3172  
2 10382 51.6315 293.2925 0006508 133.1161 196.9295 15.74220501204061

1 10382U 77097 A 81106.29959209 .00122335 00000-0 31309-3 0 3193  
2 10382 51.6304 287.7472 0006330 171.7550 189.3622 15.74479510204234

1 10382U 77097 A 81107.12467019 .00119259 00000-0 73935-3 0 3190  
2 10382 51.6302 293.5075 0006015 176.7209 193.3770 15.74647217204365

1 10382U 77097 A 81109.21870847 .00103022 00000-0 67187-3 0 3213  
2 10382 51.6299 272.7359 0005738 184.9645 175.1161 15.75051367204696

1 10382U 77097 A 81108.26691314 .00102737 00000-0 67597-3 0 3204  
2 10382 51.6295 277.6326 0005714 180.9629 179.9521 15.74959452204547

1 10382U 77097 A 81109.21870847 .00103022 00000-0 67187-3 0 3220  
2 10382 51.6299 272.7359 0005738 184.9645 175.1161 15.75051367204696

1 10382U 77097 A 81111.24874681 .00114919 00000-0 73349-3 0 3230  
2 10382 51.6301 262.2909 0005397 194.1900 165.9901 15.75501268205017

77-97A

Salyut 6

forts. 55

1 103820 77097 A 81112.25351522 .00122835 00000-0 77455-3 0 3248  
 2 10382 51.6307 257.0644 0005073 197.7973 152.2853 15.75751408205179

1 103820 77097 A 81113.21472780 .00155597 00000-0 95270-3 0 3252  
 2 10382 51.6314 252.1372 0004787 200.5010 159.7944 15.75072884205324

1 103820 77097 A 81114.22908391 .00100111 00000-0 62055-3 0 3275  
 2 10382 51.6298 246.9394 0004756 211.0635 143.5134 15.75227962205437

1 103820 77097 A 81115.24343298 .00120772 00000-0 73940-3 0 3292  
 2 10382 51.6298 241.7125 0004705 215.8553 144.1470 15.75433242205642

1 103820 77097 A 81116.25767677 .00122024 00000-0 73940-3 0 3292  
 2 10382 51.6278 235.4855 0004480 219.9045 140.0728 15.75653755205804

1 103820 77097 A 81117.20835487 .00113532 00000-0 53335-3 0 3307  
 2 10382 51.6279 231.5903 0004346 231.9935 127.7984 15.75831760205950

1 103820 77097 A 81118.22233445 .00117501 00000-0 69992-3 0 3312  
 2 10382 51.6272 225.3521 0004229 235.3477 124.7244 15.77069772206112

1 103820 77097 A 81120.13630624 .00106812 00000-0 52503-3 0 3323  
 2 10382 51.6279 215.2153 0004195 246.6329 113.1330 15.77474316206427

1 103820 77097 A 81121.19994091 .00107125 00000-0 50383-3 0 3332  
2 10382 51.6291 210.9812 0004110 251.6912 109.1121 15.77671376205593

1 103820 77097 A 81123.22563131 .00101895 00000-0 53165-3 0 3359  
2 10382 51.6294 200.5141 0003959 259.9899 91.0424 15.73087109205905

1 103820 77097 A 81124.23976942 .00102945 00000-0 53222-3 0 3369  
2 10382 51.6292 195.2765 0004067 272.5543 87.4823 15.73290773207061

1 103820 77097 A 81122.21335065 .00105214 00000-0 51549-3 0 3345  
2 10382 51.6278 205.7481 0004143 259.0622 100.9558 15.77977253205749

1 103820 77097 A 81125.18940422 .00113359 00000-0 53390-3 0 3379  
2 10382 51.6260 190.3682 0003931 275.1423 84.9282 15.73501217207217

1 103820 77097 A 81126.51883201 .00093526 00000-0 51907-3 0 3397  
2 10382 51.6269 193.4920 0003796 273.6723 81.3792 15.73749030207424

1 103820 77097 A 81127.27836319 .00003959 00000-0 23742-4 0 3393  
2 10382 51.6253 179.5544 0003935 296.8359 73.2165 15.73912165207547

1 103820 77097 A 81127.78466949 .00128595 00000-0 59886-3 0 3405  
2 10382 51.6274 176.9447 0003954 290.3494 59.7368 15.79079731207627

1 103820 77097 A 81127.54922803 .00110231 00000-0 59886-3 0 3417  
2 10382 51.6539 175.6506 0014335 98.9029 261.3504 15.75551127207633

1 103820 77097 A 81133.30093805 .00095315 00000-0 57799-3 0 3479  
2 10382 51.6267 149.5217 0010697 106.7576 253.4485 15.75687228208492

77-97A

Salyu + 6

forts. 56

1 10382U 77097 A 81134.19822891 .00093727 00000-0 59343-3 0 3483  
 2 10382 51.6263 143.9440 0010916 111.5124 248.7378 15.75865866208633

1 10382U 77097 A 81128.16534750 .00110514 00000-0 59386-3 0 3429  
 2 10382 51.6284 174.9756 0011849 87.4100 272.3256 15.75653899207687

1 10382U 77097 A 81129.11632639 .00084456 00000-0 53332-3 0 3436  
 2 10382 51.6262 170.0835 0010846 95.0727 265.0812 15.75913994207637

1 10382U 77097 A 81130.19465416 .00073574 00000-0 46139-3 0 3449  
 2 10382 51.6221 164.5253 0011220 98.2588 262.0577 15.75819491208005

1 10382U 77097 A 81131.27252081 .00102765 00000-0 53418-3 0 3455  
 2 10382 51.6255 159.9772 0010824 101.0582 259.3462 15.75257856208173

1 10382U 77097 A 81132.22340670 .00101347 00000-0 51945-3 0 3463  
 2 10382 51.6248 154.0777 0010862 103.8766 256.4345 15.75479742208327

1 10382U 77097 A 81135.20214163 .00089036 00000-0 53221-3 0 3492  
 2 10382 51.6257 138.7137 0010939 115.3627 244.2633 15.77035312208793

1 10382U 77097 A 81138.17984952 .00083195 00000-0 48612-3 0 3523  
2 10382 51.6272 123.3437 0010399 125.0909 235.0067 15.77582998209263

1 10382U 77097 A 81139.25667306 .00103783 00000-0 59820-3 0 3534  
2 10382 51.6268 117.7837 0010423 130.3893 229.3573 15.77798320209433

1 10382U 77097 A 81140.27002873 .00023214 00000-0 13786-3 0 3542  
2 10382 51.6272 112.5488 0009923 133.1908 229.9710 15.77843744209598

1 10382U 77097 A 81137.16629805 .00098353 00000-0 57595-3 0 3517  
2 10382 51.6266 129.5752 0010581 121.7415 238.5019 15.77426753209105

1 10382U 77097 A 81138.17984952 .00083195 00000-0 48612-3 0 3523  
2 10382 51.6272 123.3437 0010399 125.0909 235.0067 15.77582998209263

1 10382U 77097 A 81140.58698107 .00039801 00000-0 30831-3 0 3557  
2 10382 51.6277 110.9186 0025922 30.6037 329.5467 15.70935389209642

1 10382U 77097 A 81141.15947745 .00215139 00000-0 16123-2 0 3561  
2 10382 51.6294 107.9907 0025001 30.3394 329.3990 15.71122328209739

1 10382U 77097 A 81143.19500869 .00090354 00000-0 53250-3 0 3595  
2 10382 51.6333 97.5799 0025366 32.0937 329.4160 15.71250960210057

1 10382U 77097 A 81143.19500869 .00090354 00000-0 53250-3 0 3595  
2 10382 51.6333 97.5799 0025366 32.0937 329.4160 15.71250960210057

1 10382U 77097 A 81144.27611132 .00058631 00000-0 44467-3 0 3629  
2 10382 51.6325 92.0506 0023993 37.0029 323.1628 15.71380162210223

77-97A

Salyut 6

forts. 57

1 10382U 77097 A 81145.15542638 .00058838 00000-0 51795-3 0 3615  
 2 10382 51.6312 87.4930 0023702 40.0869 320.1920 15.71512659210367

1 10382U 77097 A 81145.73375905 .00068340 00000-0 51795-3 0 3621  
 2 10382 51.6258 84.5658 0024798 42.7886 317.5036 15.71307436210450

1 10382U 77097 A 81145.26595601 .00068324 00000-0 51795-3 0 3631  
 2 10382 51.6259 83.9223 0024516 44.3918 315.9039 15.71311296210479

1 10382U 77097 A 81147.20150875 .00007445 00000-0 58618-4 0 3642  
 2 10382 51.6341 77.0880 0024370 50.0629 310.2722 15.71342507210682

1 10382U 77097 A 81149.21999982 .00057423 00000-0 43309-3 0 3654  
 2 10382 51.6342 71.8805 0024939 53.1142 307.2106 15.71492281210842

1 10382U 77097 A 81149.17233269 .00059969 00000-0 44920-3 0 3663  
 2 10382 51.6339 66.9988 0024727 55.7240 303.5223 15.71607647210999

1 10382U 77097 A 81150.19017320 .00061569 00000-0 45933-3 0 3675  
 2 10382 51.6337 61.7920 0024532 60.3846 299.9588 15.71731522211154

1 10382U 77097 A 81151.20743399 .00056809 00000-0 42252-3 0 3683  
2 10382 51.6342 56.5833 0024344 64.2554 296.0510 15.71841198211316

1 10382U 77097 A 81153.17817244 .00058937 00000-0 43421-3 0 3703  
2 10382 51.6331 46.4935 0024279 71.6393 298.6608 15.72071008211629

1 10382U 77097 A 81154.19522580 .00059656 00000-0 43687-3 0 3711  
2 10382 51.6328 41.2862 0024224 74.7702 285.5911 15.72191951211796

1 10382U 77097 A 81155.21218990 .00060321 00000-0 43973-3 0 3722  
2 10382 51.6334 36.0783 0023908 78.6123 281.7179 15.72303633211944

1 10382U 77097 A 81155.29263970 .00060600 00000-0 43973-3 0 3730  
2 10382 51.6321 30.5433 0023853 82.9741 277.3294 15.72413338212112

1 10382U 77097 A 81157.18237230 .00059389 00000-0 42972-3 0 3751  
2 10382 51.6317 25.9818 0023719 86.2815 274.0025 15.72492488212256

1 10382U 77097 A 81158.19915561 .00046247 00000-0 33505-3 0 3765  
2 10382 51.6326 20.7688 0023473 90.7560 269.5272 15.72577277212419

1 10382U 77097 A 81159.15234892 .00051445 00000-0 37042-3 0 3770  
2 10382 51.6321 15.8835 0023402 94.7425 265.5467 15.72677724212566

1 10382U 77097 A 81160.23253638 .00055571 00000-0 39746-3 0 3783  
2 10382 51.6321 10.3468 0023379 98.9126 261.4792 15.72800900212732

1 10382U 77097 A 81161.18556852 .00046641 00000-0 33361-3 0 3793  
2 10382 51.6329 5.4610 0023185 101.5297 258.7499 15.72879901212886



77-97A

Salyut 6

for 12.58

1 10382U 77097 A 81162.20210763 .00044735 00000-0 31913-3 0 3801  
 2 10382 51.6334 0.2493 0023051 104.8878 255.4434 15.72968719213044

1 10382U 77097 A 81163.21858044 .00050756 00000-0 35965-3 0 3814  
 2 10382 51.6323 355.0372 0023032 109.4429 250.9184 15.73068060213203

1 10382U 77097 A 81165.18790569 .00045940 00000-0 32394-3 0 3831  
 2 10382 51.6328 344.9378 0022588 116.1320 244.1835 15.73247939213517

1 10382U 77097 A 81165.95002942 .00045251 00000-0 31817-3 0 3844  
 2 10382 51.6333 341.0279 0022520 118.9499 241.3601 15.73314559213633

1 10382U 77097 A 81164.29850107 .00047504 00000-0 33573-3 0 3826  
 2 10382 51.6325 349.4987 0022714 112.7605 247.5456 15.73168181213370

1 10382U 77097 A 81166.20409889 .00044855 00000-0 31516-3 0 3850  
 2 10382 51.6333 339.7240 0022481 119.8919 240.4306 15.73336999213673

1 10382U 77097 A 81167.22032970 .00045026 00000-0 31516-3 0 3867  
 2 10382 51.6333 334.5100 0022198 124.4489 235.9904 15.73434322213839

1 10382U 77097 A 81168.23647532 .00051717 00000-0 35931-3 0 3876  
 2 10382 51.6335 329.2947 0022054 126.8973 233.3886 15.73551004213992

1 10382U 77097 A 81169.18906140 .00059034 00000-0 40713-3 0 3889  
2 10382 51.6332 324.4034 0021949 130.1765 230.1631 15.73670447214146

1 10382U 77097 A 81170.20506661 .00053156 00000-0 35559-3 0 3892  
2 10382 51.6328 319.1879 0021887 134.6061 225.6646 15.73771032214303

1 10382U 77097 A 81170.39556277 .00059803 00000-0 40997-3 0 3907  
2 10382 51.6323 319.2072 0021821 135.2074 225.1010 15.73907755214337

1 10382U 77097 A 81171.41144975 .00041003 00000-0 29138-3 0 3916  
2 10382 51.6344 312.9872 0021797 138.4315 221.8462 15.73949950214493

1 10382U 77097 A 81172.17332941 .00036421 00000-0 25038-3 0 3927  
2 10382 51.6342 309.0819 0020957 139.9146 220.2745 15.73992371214616

1 10382U 77097 A 81172.74473020 .00011605 00000-0 30432-4 0 3932  
2 10382 51.6345 306.1521 0020652 143.0541 217.1885 15.74031555214709

1 10382U 77097 A 81173.13913145 .00043625 00000-0 29727-3 0 3945  
2 10382 51.6342 303.8635 0020708 144.2135 216.0387 15.74117048214779

1 10382U 77097 A 81174.26833085 .00052772 00000-0 35545-3 0 3959  
2 10382 51.6331 298.3208 0020743 148.5810 211.6528 15.74235045214942

1 10382U 77097 A 81175.22049456 .00053674 00000-0 35098-3 0 3962  
2 10382 51.6319 293.4276 0020655 152.1661 209.0343 15.74336684215093

77-97A

Salary 6

forts 59

1 10382U 77097 A 81176.17250196 .00050217 00000-0 33677-3 0 3975  
 2 10382 51.6310 288.5323 0020539 156.0412 204.1183 15.74427735215249

1 10382U 77097 A 81177.13812977 .00050412 00000-0 33677-3 0 3984  
 2 10382 51.6320 283.3123 0019598 159.0030 201.2259 15.74540730215402

1 10382U 77097 A 81178.26700907 .00057855 00000-0 33307-3 0 3998  
 2 10382 51.6311 277.7671 0019802 163.7145 196.4418 15.74682470215574

1 10382U 77097 A 81179.21890422 .00056908 00000-0 37516-3 0 4009  
 2 10382 51.6321 272.8754 0019705 167.6235 192.5259 15.74792694215725

1 10382U 77097 A 81180.10742531 .00029935 00000-0 21998-3 0 4024  
 2 10382 51.6353 269.3177 0024319 145.9573 214.2991 15.72434878215865

1 10382U 77097 A 81180.17097785 .00805435 00000-0 52950-2 0 4035  
 2 10382 51.6294 267.9843 0023929 147.7735 212.4870 15.72509145215877

1 10382U 77097 A 81180.42517822 .00332971 00000-0 23119-2 0 4047  
 2 10382 51.6317 266.6675 0023705 148.8459 211.3950 15.72524168215913

1 10382U 77097 A 81180.93351684 .00072229 00000-0 51370-3 0 4059  
 2 10382 51.6306 264.0742 0024227 150.5793 209.3755 15.72572188215992

1 10382U 77097 A 81181.05082598 .00062410 00000-0 51970-3 0 4051  
2 10382 51.6378 253.4450 0036905 125.1700 234.2720 15.59631982216019

1 10382U 77097 A 81181.18823897 -.00164204 00000-0 -14145-2 0 4079  
2 10382 51.6326 262.7751 0035940 126.3223 234.1050 15.59551997216032

1 10382U 77097 A 81181.95273560 .00031435 00000-0 25558-3 0 4080  
2 10382 51.6304 259.8781 0035409 128.6297 231.7908 15.59532437216150

1 10382U 77097 A 81182.20754029 .00033542 00000-0 23291-3 0 4099  
2 10382 51.6287 257.5940 0035185 129.4841 230.9232 15.59647532216194

1 10382U 77097 A 81183.22692586 .00006517 00000-0 55329-4 0 4102  
2 10382 51.6300 252.3873 0035075 133.0897 227.2809 15.59691576216353

1 10382U 77097 A 81184.19239139 .00015391 00000-0 13245-3 0 4113  
2 10382 51.6303 247.5183 0034806 136.7923 223.7185 15.59757136216507

1 10382U 77097 A 81185.20158339 .00024938 00000-0 21064-3 0 4120  
2 10382 51.6284 242.3212 0034735 140.7702 219.6379 15.59814224216569

1 10382U 77097 A 81186.22074604 .00024998 00000-0 21064-3 0 4132  
2 10382 51.6290 237.1262 0034743 144.5651 215.7621 15.59856214216929

1 10382U 77097 A 81186.22074604 .00024998 00000-0 21064-3 0 4143  
2 10382 51.6290 237.1262 0034743 144.5651 215.7621 15.59856214216929

1 10382U 77097 A 81186.53923125 .00095577 00000-0 71021-3 0 4159  
2 10382 51.6307 235.5045 0034939 146.4155 213.9167 15.59913947216970

77-97A

Saly4+6

forts. 60

1 10382U 77097 A 81197.23935023 .00030622 00000-0 25609-3 0 4163  
 2 10382 51.6293 231.9316 0034641 148.2919 211.9307 15.63928383216939

1 10382U 77097 A 81198.19629526 .00029208 00000-0 23579-3 0 4183  
 2 10382 51.6294 227.0595 0034767 151.9931 209.2814 15.63932253217137

1 10382U 77097 A 81199.21434825 .00028322 00000-0 23620-3 0 4190  
 2 10382 51.6297 221.8640 0034586 155.9385 204.4212 15.69041100217292

1 10382U 77097 A 81190.23336615 .00027323 00000-0 22767-3 0 4205  
 2 10382 51.6291 215.6669 0034409 159.7773 200.4247 15.69096750217450

1 10382U 77097 A 81192.20752670 .00021499 00000-0 17962-3 0 4229  
 2 10382 51.6300 206.6005 0034388 167.1409 193.0458 15.69200977217762

1 10382U 77097 A 81193.16296780 .00021542 00000-0 17962-3 0 4233  
 2 10382 51.6287 201.7315 0034244 170.8199 189.3758 15.69253904217912

1 10382U 77097 A 81194.24542964 .00026155 00000-0 21619-3 0 4247  
 2 10382 51.6291 196.2083 0034356 174.8125 185.3824 15.69322374218080

1 10382U 77097 A 81195.20058326 .00023091 00000-0 19101-3 0 4257  
 2 10382 51.6273 191.3351 0034270 178.3906 181.7440 15.69376773218233

1 10382U 77097 A 81196.21937636 .00023126 00000-0 19101-3 0 4260  
2 10382 51.6312 186.1413 0033999 182.5317 177.5468 15.59439699213364

1 10382U 77097 A 81197.23814369 .00027356 00000-0 22427-3 0 4274  
2 10382 51.6299 180.9420 0034049 186.2293 173.8647 15.59501360218555

1 10382U 77097 A 81198.19319143 .00032425 00000-0 25395-3 0 4283  
2 10382 51.6268 176.0693 0034140 189.8359 170.2249 15.59538047219705

1 10382U 77097 A 82799.21186335 .00034549 00000-0 23002-3 0 4299  
2 10382 51.5267 170.8719 0034063 193.5160 166.5023 15.59640826219862

1 10382U 77097 A 81199.91217354 .00039215 00000-0 31521-3 0 4300  
2 10382 51.6268 157.2948 0033793 196.3923 163.6672 15.59709687218974

1 10382U 77097 A 81200.23047342 .00044355 00000-0 35625-3 0 4317  
2 10382 51.6288 165.6733 0033829 197.7435 162.2501 15.59746742219029

1 10382U 77097 A 81200.23047342 .00044355 00000-0 35625-3 0 4329  
2 10382 51.6288 165.6733 0033828 197.7435 162.2501 15.59746742219029

1 10382U 77097 A 81201.18537856 .00035759 00000-0 23790-3 0 4333  
2 10382 51.6290 160.7996 0033666 201.2555 158.7048 15.59807269219178

1 10382U 77097 A 81202.26755396 .00041463 00000-0 33135-3 0 4340  
2 10382 51.6277 155.2738 0033780 205.2577 154.7177 15.59901212219341

1 10382U 77097 A 81202.26755396 .00041463 00000-0 33135-3 0 4340  
2 10382 51.6277 155.2738 0033780 205.2577 154.7177 15.59901212219341

77-97A

Saly 4+6

for ts. 61

1 10382U 77097 A 81203.22234997 .00037184 00000-0 29688-3 0 4350  
 2 10382 51.6275 150.3987 0033916 208.8947 150.9867 15.59968439219495

1 10382U 77097 A 81204.30442082 .00037292 00000-0 29689-3 0 4367  
 2 10382 51.6286 144.8755 0033669 213.1344 146.7559 15.70049131219665

1 10382U 77097 A 81204.81360788 .00041460 00000-0 32368-3 0 4372  
 2 10382 51.6272 142.2735 0033632 215.0563 144.8475 15.70098955219747

1 10382U 77097 A 81205.19547796 .00055697 00000-0 43805-3 0 4381  
 2 10382 51.6293 140.3273 0033589 216.3283 143.5480 15.70156642219807

1 10382U 77097 A 81205.83191114 .00051471 00000-0 40433-3 0 4392  
 2 10382 51.6288 137.0772 0033578 218.9626 140.8785 15.70218960219908

1 10382U 77097 A 81206.21376323 .00051564 00000-0 40433-3 0 4407  
 2 10382 51.6297 135.1273 0033719 220.2348 139.5988 15.70254566219953

1 10382U 77097 A 81207.16834931 .00050513 00000-0 39482-3 0 4412  
 2 10382 51.6298 130.2479 0033512 224.1005 135.7199 15.70349594220110

1 10382U 77097 A 81208.25012148 .00065239 00000-0 50419-3 0 4437  
 2 10382 51.6303 124.7220 0033572 229.2502 131.5754 15.70508506220280

1 10382U 77097 A 81209.14091481 .00053979 00000-0 41746-3 0 4445  
2 10382 51.6300 120.1703 0033160 231.8515 127.8506 15.70599469220426

1 10382U 77097 A 81210.22255690 .00045733 00000-0 35308-3 0 4452  
2 10382 51.6309 114.6443 0033689 235.8347 123.3706 15.70678500220598

1 10392U 77097 A 81210.60440169 .00040953 00000-0 35308-3 0 4466  
2 10382 51.6227 112.6918 0025475 235.9601 123.9976 15.68415271220657

1 10392U 77097 A 81211.56014669 .00029031 00000-0 35308-3 0 4479  
2 10382 51.6247 107.3223 0020349 107.3913 252.9407 15.59158802220800

1 10392U 77097 A 81212.20108249 .00025083 00000-0 35308-3 0 4486  
2 10382 51.6302 104.6054 0020198 110.6727 249.6504 15.59208654220904

1 10392U 77097 A 81214.25203012 .00010479 00000-0 13590-3 0 4496  
2 10382 51.6312 94.2995 0019942 119.4217 242.1029 15.59290604221221

1 10382U 77097 A 81215.21331728 .00000813 00000-0 13310-4 0 4504  
2 10382 51.6307 89.4694 0019893 122.3331 237.9975 15.59334463221374

1 10382U 77097 A 81216.55913805 .00026977 00000-0 33707-3 0 4515  
2 10382 51.6290 82.7043 0019833 126.3384 234.0950 15.59405742221587

1 10382U 77097 A 81216.55913805 .00026977 00000-08 33707-3 0 4526  
2 10382 51.6290 82.7043 0019833 126.3384 234.0950 15.59405742221587

1 10382U 77097 A 81217.13586404 .00027007 00000-0 33707-3 0 4539  
2 10382 51.6274 79.3030 0019830 128.9229 231.3537 15.59437339221672



77-97A

Salary 6

forts. 62

1 10392U 77097 A 81220.33987915 .00023024 00000-0 29704-3 0 4543  
 2 10392 51.6281 63.6981 0019552 140.3101 219.9205 15.59574191222173

1 10392U 77097 A 81220.33987915 .00023024 00000-0 29704-3 0 4554  
 2 10392 51.6291 63.6981 0019552 140.3101 219.9205 15.59574191222173

1 10392U 77097 A 81221.30103038 .00021254 00000-0 25511-3 0 4565  
 2 10392 51.6284 58.8662 0019620 144.4084 215.9268 15.59611889222326

1 10392U 77097 A 81222.19907709 .00021293 00000-0 25511-3 0 4573  
 2 10392 51.6309 54.3599 0019620 148.1599 212.0544 15.59650683222462

1 10392U 77097 A 81224.24939313 .00026901 00000-0 33184-3 0 4594  
 2 10392 51.6309 44.0493 0019433 156.0153 204.2067 15.59757437222780

1 10392U 77097 A 81225.08126746 .00030590 00000-0 37553-3 0 4602  
 2 10392 51.6300 39.8633 0019297 158.7183 201.4573 15.59812052222910

1 10392U 77097 A 81227.19541319 .00030735 00000-0 37553-3 0 4626  
 2 10392 51.6292 29.2292 0019309 167.2770 192.8625 15.59933175223243

1 10392U 77097 A 81228.22039211 .00027956 00000-0 34153-3 0 4639  
 2 10392 51.6292 24.0731 0018891 171.2076 188.9323 15.59996803223409

1 10382U 77097 A 81230.20615216 .00032877 00000-0 39825-3 0 4656  
2 10382 51.6298 14.0922 0018749 179.0156 181.0689 15.60135263223713

1 10382U 77097 A 81231.23099499 .00035959 00000-0 43363-3 0 4666  
2 10382 51.6311 8.9278 0018716 182.4880 177.5956 15.60208403223972

1 10382U 77097 A 81232.19174109 .00042870 00000-0 51351-3 0 4670  
2 10382 51.6303 4.0900 0018755 186.5758 173.5515 15.60297874224029

1 10382U 77097 A 81233.28050500 .00047035 00000-0 56080-3 0 4683  
2 10382 51.6305 358.6152 0018050 189.3072 170.7295 15.60393903224193

1 10382U 77097 A 81234.24113973 .00043967 00000-0 52342-3 0 4692  
2 10382 51.6302 353.7790 0017462 194.0360 166.0237 15.60477213224346

1 10382U 77097 A 81235.39382159 .00049245 00000-0 58219-3 0 4709  
2 10382 51.6293 347.9748 0017913 197.7975 162.2915 15.60597252224523

1 10382U 77097 A 81234.94557097 .00046171 00000-0 00200-0 0 04712  
2 10382 051.6322 350.2285 0018116 196.6504 163.4547 15.60547323224451

1 10382U 77097 A 81235.39382159 .00049245 00000-0 58219-3 0 4710  
2 10382 51.6293 347.9748 0017913 197.7975 162.2915 15.60597252224523

1 10382U 77097 A 81236.22624044 .00061057 00000-0 71652-3 0 4727  
2 10382 51.6308 343.7878 0017562 200.7295 159.3062 15.60707634224659

1 10382U 77097 A 81237.25069912 .00056031 00000-0 65574-3 0 4742  
2 10382 51.6299 338.6277 0017427 205.0502 154.9816 15.60816616224810

77-97A

Salyut 6

forts. 63

1 10382U 77097 A 81237.44277321 .00055357 00000-0 64780-3 0 4757  
 2 10382 51.6295 337.6553 0017011 206.6579 153.3401 15.60833336224845

1 10382U 77097 A 81237.44277321 .00055357 00000-0 64780-3 0 4759  
 2 10382 51.6295 337.6553 0017011 206.6578 153.3401 15.60833336224845

1 10382U 77097 A 81238.21106014 .00053823 00000-0 62965-3 0 4779  
 2 10382 51.6290 333.7960 0017416 208.4571 151.5401 15.60914185224965

1 10382U 77097 A 81238.65921222 .00055647 00000-0 00000-0 0 0 4795  
 2 10382 51.6335 331.5349 0017729 208.0000 152.0003 15.60959651225033

1 10382U 77097 A 81239.17136141 .00052611 00000-0 61184-3 0 4781  
 2 10382 51.6299 328.9513 0017220 212.4456 147.5156 15.61011315225119

1 10382U 77097 A 81240.19555518 .00053059 00000-0 61468-3 0 4792  
 2 10382 51.6304 323.7995 0016978 216.6209 142.9759 15.61117955225275

1 10382U 77097 A 81241.34782575 .00057881 00000-0 66607-3 0 4803  
 2 10382 51.6296 317.9877 0016859 220.4864 139.4930 15.61253701225450

1 10382U 77097 A 81242.56392572 .00059789 00000-0 63375-3 0 4827  
 2 10382 51.6303 311.8562 0016982 224.9760 134.9895 15.61398219225649

1 10382U 77097 A 81243.20393239 .00050193 00000-0 57409-3 0 4837  
 2 10382 51.6343 308.6328 0017115 229.7772 130.1663 15.61465925225743

1 10382U 77097 A 81245.25177302 .00046509 00000-0 52975-3 0 4856  
2 10382 51.6292 298.3050 0016557 236.7767 123.1126 15.51668257226059

1 10382U 77097 A 81246.21162325 .00053734 00000-0 50688-3 0 4872  
2 10382 51.6272 293.4600 0016413 240.7925 119.1885 15.51777541226217

1 10382U 77097 A 81247.17139478 .00053960 00000-0 50688-3 0 4882  
2 10382 51.6264 288.6203 0016760 243.4975 116.4149 15.51878502226367

1 10382U 77097 A 81248.19507319 .00049035 00000-0 55054-3 0 4901  
2 10382 51.6326 293.4578 0016572 248.3280 111.5103 15.51969015226523

1 10382U 77097 A 81250.24215645 .00051224 00000-0 57013-3 0 4920  
2 10382 51.6293 273.1285 0015950 255.6187 103.6475 15.52134621226847

1 10382U 77097 A 81251.26573039 .00051189 00000-0 56749-3 0 4936  
2 10382 51.6295 267.9603 0015921 259.7159 100.2053 15.52299917227003

1 10382U 77097 A 81252.16125535 .00054529 00000-0 50159-3 0 4948  
2 10382 51.6286 263.4445 0015800 263.9386 95.9331 15.52357744227149

1 10382U 77097 A 81254.20788602 .00052911 00000-0 57790-3 0 4967  
2 10382 51.6285 253.1117 0015696 270.2307 89.7073 15.52514226227451

1 10382U 77097 A 81255.23107572 .00062126 00000-0 67439-3 0 4974  
2 10382 51.6278 247.9426 0015569 275.1679 84.7518 15.52752312227528

1 10382U 77097 A 81257.21329348 .00063108 00000-0 37853-3 0 4993  
2 10382 51.6268 237.9288 0015268 282.0010 77.9589 15.52996017227932

77-97A

Salyut6

font. 64

1 10382U 77097 A 81258.23621127 .00060731 00000-0 55030-3 0 5015  
 2 10382 51.6269 232.7588 0015264 286.2176 73.6082 15.53117912228093

1 10382U 77097 A 81259.19517234 .00062073 00000-0 55137-3 0 5025  
 2 10382 51.6279 227.9123 0015192 289.5262 70.4097 15.53237920228245

1 10382U 77097 A 81260.28188401 .00062893 00000-0 55539-3 0 5034  
 2 10382 51.6285 222.4200 0015290 292.1667 67.7635 15.53372543228415

1 10382U 77097 A 81260.28188401 .00062893 00000-0 55538-3 0 5045  
 2 10382 51.6285 222.4200 0015290 292.1667 67.7635 15.53372543228415

1 10382U 77097 A 81251.24067142 .00059653 00000-0 52987-3 0 5054  
 2 10382 51.6290 217.5713 0015266 296.2446 63.6666 15.53482496229562

1 10382U 77097 A 81252.25330993 .00059935 00000-0 52987-3 0 5063  
 2 10382 51.6284 212.4019 0014943 298.3328 61.6201 15.53506287228723

1 10382U 77097 A 81264.30831361 .00063289 00000-0 55729-3 0 5085  
 2 10382 51.6276 202.0547 0014896 307.3230 52.7272 15.53885002229049

1 10382U 77097 A 81265.33066557 .00063406 00000-0 55518-3 0 5095  
 2 10382 51.6284 196.8825 0014958 310.9666 49.9862 15.54011471229201

1 10392U 77097 A 81266.16128140 .00103386 00000-0 10563-2 0 5107  
2 10392 51.6306 192.6829 0014898 313.7452 46.1119 15.64091008229334

1 10392U 77097 A 81236.22519446 .00061651 00000-0 63557-3 0 5113  
2 10392 51.6297 192.3576 0014888 313.6721 46.2987 15.64082914229347

1 10392U 77097 A 81257.24743462 .00036660 00000-0 33063-3 0 5125  
2 10382 51.6290 187.1807 0014912 318.9509 40.9361 15.64134360229503

1 10382U 77097 A 81259.20580461 .00049665 00000-0 51067-3 0 5149  
2 10382 51.6283 192.3322 0014944 322.6478 37.4235 15.64239725229656

1 10382U 77097 A 81271.27196333 .00064278 00000-0 64837-3 0 5182  
2 10382 51.6291 166.8059 0014750 332.5563 27.4945 15.64620135230132

1 10382U 77097 A 81272.22998799 .00047586 00000-0 43047-3 0 5193  
2 10382 51.6322 161.9525 0015305 336.6513 23.3631 15.64710596230292

1 10382U 77097 A 81273.25182945 .00063364 00000-0 63355-3 0 5209  
2 10382 51.6291 156.7783 0014844 339.1790 20.9451 15.64844351230444

1 10382U 77097 A 81274.27355493 .00060054 00000-0 59822-3 0 5219  
2 10382 51.6274 151.5975 0014801 342.9631 17.0530 15.64962595230605

1 10382U 77097 A 81275.48677965 .00061923 00000-0 61262-3 0 5223  
2 10382 51.6279 145.4516 0015200 348.5010 11.5664 15.65113577230796

1 10382U 77097 A 81276.13911452 .00063313 00000-0 62422-3 0 5237  
2 10382 51.6279 141.8915 0014756 350.7423 9.3162 15.65199204230904

77-97A

Salyut 6

forts. 05

1	10382U	77097	A	81277.08294244	.00062776	00000-0	51533-3 0	5245
2	10382	51.6272		137.3589 0014688	353.7148	6.3591	15.65309171231045	
1	10382U	77097	A	81278.16821802	.00061389	00000-0	59976-3 0	5259
2	10382	51.6282		131.9551 0014531	357.0758	3.0159	15.65444217231219	
1	10382U	77097	A	81279.06191958	.00055086	00000-0	53707-3 0	5276
2	10382	51.6273		127.3211 0014566	0.7647	359.3957	15.65540162231352	
1	10382U	77097	A	81280.21085694	.00055387	00000-0	53707-3 0	5289
2	10382	51.6291		121.4941 0014822	4.3031	355.8190	15.65670115231531	
1	10382U	77097	A	81282.26317352	.00070959	00000-0	57748-3 0	5309
2	10382	51.6276		111.1308 0014844	11.5200	348.6909	15.65963958231950	
1	10382U	77097	A	81283.21036041	.00066122	00000-0	52886-3 0	5315
2	10382	51.6257		106.2738 0014991	15.0287	345.0826	15.66076467232009	
1	10382U	77097	A	81284.29512102	.00064135	00000-0	50725-3 0	5335
2	10382	51.6253		100.7684 0015072	18.2093	341.9450	15.66197671232172	
1	10382U	77097	A	81285.18837393	.00074882	00000-0	70342-3 0	5353
2	10382	51.6228		96.2295 0014958	21.2650	338.9316	15.66333308232313	
1	10382U	77097	A	81286.20913711	.00066603	00000-0	52359-3 0	5370
2	10382	51.6257		91.0428 0015112	25.3179	334.8408	15.66460405232473	

1 10382U 77097 A 81286.20913711 .00066603 00000-0 62359-3 0 5381  
2 10382 51.6257 91.0428 0015112 25.3179 334.3408 15.56450405232478

1 10382U 77097 A 81287.22932290 .00066151 00000-0 63423-3 0 5395  
2 10382 51.6257 95.9561 0015091 28.1509 332.0433 15.56601528232630

1 10382U 77097 A 81288.25041067 .00073373 00000-0 57814-3 0 5400  
2 10382 51.6253 80.6685 0014896 31.4569 328.7035 15.66744973232790

1 10382U 77097 A 81291.24785719 .00076328 00000-0 69264-3 0 5439  
2 10382 51.6285 65.4387 0015094 41.7906 318.4311 15.67178727233260

1 10382U 77097 A 81292.20430431 .00074395 00000-0 67144-3 0 5442  
2 10382 51.6291 60.5775 0015278 45.1627 315.0450 15.67319843233416

1 10382U 77097 A 81293.16067038 .00076716 00000-0 68797-3 0 5452  
2 10382 51.6274 55.7138 0015198 49.1448 311.0842 15.67465096233560

1 10382U 77097 A 81294.18097411 .00056626 00000-0 67477-3 0 5455  
2 10382 51.6333 50.5296 0032154 55.3599 305.0424 15.63984163233726

1 10382U 77097 A 81295.20325011 .00038844 00000-0 57477-3 0 5453  
2 10382 51.6103 45.3359 0014742 281.4912 75.9435 15.54780225233882

1 10382U 77097 A 81295.20325011 .00038844 00000-0 57477-3 0 5483  
2 10382 51.6103 45.3359 0014742 281.4912 75.9435 15.54780225233882

1 10382U 77097 A 81295.25797116 .00038423 00000-0 57477-3 0 5504  
2 10382 51.6221 45.0352 0010916 257.2476 102.6509 15.54544169233893

1 10382U 77097 A 81297.64629875 .00057239 00000-0 84221-3 0 5531  
2 10382 51.6319 33.1704 0011064 266.7929 93.1601 15.54815734234262



77-97A

Salyut 6

forts. 66

1	10382U	77097	A	81298.22475238	.00046253	00000-0	53175-3	0	5553
2	10382	51.6319		30.2821	0010834	268.1221	91.3263	15.54964300234355	

1	10382U	77097	A	81296.23223411	.00038580	00000-0	57477-3	0	5519
2	10382	51.6301		40.2275	0010975	252.6967	97.3658	15.54652657234040	

1	10382U	77097	A	81297.19640025	.00047673	00000-0	70459-3	0	5529
2	10382	51.6289		35.4152	0010828	263.8079	96.2974	15.54771828234195	

1	10382U	77097	A	81299.25327112	.00045673	00000-0	57098-3	0	5561
2	10382	51.6291		25.1475	0010588	275.4323	84.5355	15.54963635234511	

1	10382U	77097	A	81302.27341905	.00040407	00000-0	59959-3	0	5507
2	10382	51.6309		10.0675	0010564	287.0438	72.9514	15.55203196234989	

1	10382U	77097	A	81304.26529153	.00040886	00000-0	59256-3	0	5625
2	10382	51.6310		0.1195	0010560	294.1955	65.7997	15.55371957235296	

1	10382U	77097	A	81305.29327444	.00023373	00000-0	34131-3	0	5631
2	10382	51.6297		354.9857	0010549	300.3166	59.6570	15.55436728235452	

1	10382U	77097	A	81306.19273735	.00039535	00000-0	57035-3	0	5646
2	10382	51.6298		350.4899	0010473	303.5215	56.5841	15.55524434235590	

1 10382U 77097 A 81303.35576503 .00041942 00000-0 50950-3 0 5612  
2 10382 51.5307 4.6107 0010577 291.1240 58.8801 15.55298011235159

1 10382U 77097 A 81306.19273736 .00039535 00000-0 57035-3 0 5657  
2 10382 51.6298 350.4399 0010473 303.5215 56.5841 15.55524434235592

1 10382U 77097 A 81307.28483533 .00042171 00000-0 50561-3 0 5677  
2 10382 51.6270 345.0301 0010437 308.2723 51.7284 15.55620262235767

1 10382U 77097 A 81311.26724985 .00050509 00000-0 71275-3 0 5721  
2 10382 51.5291 325.1250 0010498 325.1758 34.8603 15.55014028236389

1 10382U 77097 A 81315.24355893 .00052831 00000-0 73257-3 0 5750  
2 10382 51.6286 305.2109 0010327 340.5846 19.4750 15.56454786237002

1 10382U 77097 A 81316.21161660 .00056536 00000-0 73029-3 0 5772  
2 10382 51.6279 300.3905 0010305 344.9059 15.1851 15.56556693237150

1 10382U 77097 A 81317.23979509 .00057536 00000-0 72090-3 0 5789  
2 10382 51.6275 295.2490 0010529 349.5494 10.5457 15.56698568237314

1 10382U 77097 A 81319.22876111 .00046692 00000-0 63909-3 0 5807  
2 10382 51.6273 285.2870 0010511 356.8169 3.2640 15.56871144237625

1 10382U 77097 A 81320.31993592 .00048803 00000-0 65492-3 0 5819  
2 10382 51.6271 279.8212 0010015 1.4129 358.7242 15.56982552237790

1 10382U 77097 A 81321.28266262 .00050992 00000-0 69035-3 0 5821  
2 10382 51.6285 275.0018 0009956 3.9873 356.1245 15.57080524237943

1 10382U 77097 A 81322.24533294 .00049245 00000-0 68609-3 0 5835  
2 10382 51.6277 270.1772 0010010 8.3303 351.7676 15.57173137238096

77-97A

Saly 4+6

forts. 67

1 10382U 77097 A 81324.23467927 .00044527 00000-0 59919-3 0 5961  
 2 10382 51.6269 260.2148 0009736 15.7569 344.3645 15.573579232328409

1 10382U 77097 A 81325.19718284 .00043963 00000-0 59846-3 0 5874  
 2 10382 51.6266 255.3935 0010182 18.8548 341.2581 15.57439911238551

1 10382U 77097 A 81327.13622453 .00035795 00000-0 47932-3 0 5911  
 2 10382 51.6289 245.4253 0009661 26.5009 333.7061 15.57592551238863

1 10382U 77097 A 81328.21272858 .00056589 00000-0 74923-3 0 5921  
 2 10382 51.6232 240.2793 0009602 29.0456 331.1054 15.57699143239227

1 10382U 77097 A 81326.15963998 .00035576 00000-0 47932-3 0 5994  
 2 10382 51.6272 250.5672 0009614 26.1761 333.9302 15.57504665238706

1 10382U 77097 A 81330.39339488 .00037088 00000-0 49177-3 0 5949  
 2 10382 51.6285 229.3442 0009340 40.5719 319.5555 15.57840979236362

1 10382U 77097 A 81331.15367271 .00036127 00000-0 47936-3 0 5955  
 2 10382 51.6264 225.4827 0009250 41.9167 318.2362 15.57893337239485

1 10382U 77097 A 81333.21628169 .00035422 00000-0 45566-3 0 5989  
 2 10382 51.6292 215.1882 0009566 49.1431 311.0656 15.59034140239000

77-97A

Salary 6

forts. 67

1	10392U	77097	A	81332.12595243	.00034044	00000-0	45012-3	0	5964
2	10392	51.6280		220.6584	0009532		44.6052	315.5504	15.57957748239639
1	10392U	77097	A	81332.12585601	.00030929	00000-0	40992-3	0	5972
2	10392	51.6277		220.6585	0009522		44.4635	315.7009	15.57953797239630
1	10392U	77097	A	81335.20454330	.00036921	00000-0	48330-3	0	6006
2	10392	51.6279		205.2173	0009617		55.4219	304.7606	15.59193591240115
1	10392U	77097	A	81339.24463760	.00051594	00000-0	56336-3	0	6043
2	10392	51.6295		184.9447	0009199		70.6583	289.5990	15.59510259240745
1	10392U	77097	A	81340.27053182	.00041525	00000-0	53439-3	0	6065
2	10392	51.6271		170.7970	0009354		72.5911	287.5240	15.59535912240905
1	10392U	77097	A	81340.97583190	.00042245	00000-0	54223-3	0	6062
2	10392	51.6270		176.2553	0009357		75.3318	284.8742	15.59646513241014
1	10392U	77097	A	81340.97583125	.00042394	00000-0	54403-3	0	6072
2	10392	51.6282		176.2560	0009442		75.9005	284.3033	15.59647231241016
1	10392U	77097	A	81341.42463377	.00043697	00000-0	55965-3	0	6085
2	10392	51.6267		174.0015	0009375		77.1204	283.0856	15.59697917241790
1	10392U	77097	A	81342.25809308	.00039206	00000-0	50193-3	0	6096
2	10392	51.6263		169.9151	0009597		80.3936	279.2714	15.58746992241212

77-97A

Salyut 6

forts, 68

1	10382U	77097	A	81343.23385559	.00043775	00000-0	55740-3	0	6103
2	10382	51.6258	164.6653	0009436	82.5847	277.6426	15.58838942241377		

1	10382U	77097	A	81343.98902104	.00050853	00000-0	64378-3	0	6119
2	10382	51.6255	161.1246	0009436	84.3097	275.9390	15.58929721241491		

1	10382U	77097	A	81344.24542687	.00051729	00000-0	65403-7	0	6127
2	10382	51.6247	159.8375	0009384	85.2986	274.8932	15.589459902241524		

1	10382U	77097	A	81345.71971806	.00056563	00000-0	70980-3	0	6140
2	10382	51.6270	152.4299	0009304	90.9859	269.2154	15.59117358241758		

1	10382U	77097	A	81346.23247808	.00054001	00000-0	67692-3	0	6157
2	10382	51.6272	149.8537	0009286	91.5925	268.6041	15.59170262241835		

1	10382U	77097	A	81348.21923942	.00054500	00000-0	67682-3	0	6173
2	10382	51.6265	139.8711	0009318	97.4116	262.3158	15.59407129242143		

1	10382U	77097	A	81347.25794824	.00054249	00000-0	67682-3	0	6160
2	10382	51.6262	144.7218	0009366	96.7822	265.4576	15.59287434241997		

1	10382U	77097	A	81349.24454123	.00054449	00000-0	67336-3	0	6186
2	10382	51.6268	134.7177	0009159	100.8238	259.3650	15.59520117242307		

1	10382U	77097	A	81350.26978813	.00048403	00000-0	59762-3	0	6195
2	10382	51.6273	129.5631	0009260	104.6365	255.5623	15.59612805242467		

1 10382U 77097 A 81351.23089532 .00048215 00000-0 59330-3 0 6203  
2 10382 51.5252 124.7290 0009278 106.7938 253.3986 15.59702092242612

1 10382U 77097 A 81358.21368092 .00031158 00000-0 37986-3 0 6283  
2 10382 51.6276 89.6060 0008578 128.0762 232.0999 15.60163138243700

1 10382U 77097 A 81358.27773402 .00031175 00000-0 38001-3 0 6293  
2 10382 51.6280 89.2841 0009611 127.7248 232.4511 15.60167449243716

1 10382U 77097 A 81356.22794849 .00032349 00000-0 39596-3 0 6264  
2 10382 51.6287 99.5988 0008617 121.5538 238.5908 15.60040522243391

1 10382U 77097 A 81357.25286301 .00030265 00000-0 37006-3 0 6267  
2 10382 51.6284 94.4377 0008791 127.4983 232.6700 15.60101785243551

1 10382U 77097 A 81364.23388410 .00046125 00000-0 54868-3 0 6364  
2 10382 51.6287 59.3083 0009427 148.6747 211.6274 15.60617858244641

1 10382U 77097 A 81366.19434496 .00050441 00000-0 59684-3 0 6364  
2 10382 51.6286 54.4715 0008546 151.9202 208.2468 15.60718128244797

1 10382U 77097 A 82 1.21879104 .00047582 00000-0 56151-3 0 6373  
2 10382 51.6237 49.3120 0008278 154.0004 206.1225 15.60815421244958

1 10382U 77097 A 82 3.20350325 .00045616 00000-0 53507-3 0 6393  
2 10382 51.6231 39.3142 0008065 160.5260 199.6195 15.60992344245262

1 10382U 77097 A 82 4.22777335 .00044976 00000-0 52582-3 0 6402  
2 10382 51.6285 34.1529 0008034 163.4915 196.6362 15.61086649245427

77-97A

Salyut 6

forts. 69

1 10382U 77097 A 82 5.25198430 .00046696 00000-0 54339-3 0 6412  
 2 10382 51.6299 28.9930 0008000 167.5153 192.6223 15.61195780245593

1 10382U 77097 A 82 7.23622191 .00040490 00000-0 46952-3 0 6439  
 2 10382 51.6266 18.9925 0008038 174.9274 195.1770 15.61345938245893

1 10382U 77097 A 82 7.42823494 .00042046 00000-0 48699-3 0 6449  
 2 10382 51.6236 18.0254 0009035 174.8619 195.2491 15.61364839245926

1 10382U 77097 A 82 6.21211894 .00041525 00000-0 46290-3 0 6426  
 2 10382 51.6236 24.1645 0007929 170.7753 189.3106 15.61262914245737

1 10382U 77097 A 82 7.42823494 .00042046 00000-0 48699-3 0 6459  
 2 10382 51.6238 18.0254 0009035 174.8619 195.2491 15.61364839245926

1 10382U 77097 A 82 11.25808489 .00034188 00000-0 39304-3 0 6499  
 2 10382 51.6273 358.6650 0007792 187.8101 172.2868 15.61554046246525

1 10382U 77097 A 82 12.22794339 .00031737 00000-0 35456-3 0 6509  
 2 10382 51.6291 353.8236 0007793 190.5597 169.5260 15.61713959246672

1 10382U 77097 A 82 15.32298610 .00027964 00000-0 31943-3 0 6529  
 2 10382 51.6290 333.1693 0007732 207.0593 153.0308 15.61930318247316

1 10382U 77097 A 82 17.21869323 .00026971 00000-0 30776-3 0 6534  
2 10382 51.6291 323.6503 0007727 208.7123 151.3317 15.61977850247450

1 10382U 77097 A 82 19.24233744 .00029881 00000-0 32826-3 0 6541  
2 10382 51.6299 323.4337 0007694 214.9665 146.3390 15.62043057247613

1 10382U 77097 A 82 19.58578026 .00032272 00000-0 35461-3 0 6564  
2 10382 51.6295 315.7036 0007553 218.3210 141.7303 15.62136726247823

1 10382U 77097 A 82 20.22549137 .00034355 00000-0 38700-3 0 6571  
2 10382 51.6297 313.4775 0007665 219.5136 140.5234 15.62130251247920

1 10382U 77097 A 82 22.20848747 .00042536 00000-0 47441-3 0 6594  
2 10382 51.6261 303.4669 0007349 230.8795 129.1980 15.62336105248235

1 10382U 77097 A 82 23.23187328 .00040556 00000-0 45125-3 0 6608  
2 10382 51.6268 299.3010 0007439 233.4651 126.5592 15.62419749248393

1 10382U 77097 A 82 24.19125739 .00039731 00000-0 44297-3 0 6613  
2 10382 51.6280 293.4587 0007393 237.5360 122.4247 15.62494030248542

1 10382U 77097 A 82 25.21455254 .00037039 00000-0 41043-3 0 6623  
2 10382 51.6273 288.2906 0007671 238.9123 121.0871 15.62566193248709

1 10382U 77097 A 82 26.23780347 .00035908 00000-0 39696-3 0 6635  
2 10382 51.6269 283.1237 0007732 243.0486 116.9682 15.62640506248863

1 10382U 77097 A 82 27.26100275 .00033554 00000-0 37049-3 0 6641  
2 10382 51.6266 277.9567 0007709 248.2357 111.7546 15.62706542249029



77-97A

Salyut 6

forts. 70

1 10382U 77097 A 82 29.17938444 .00043831 00000-0 47862-3 0 6676  
 2 10382 51.6251 268.2669 0007822 254.8967 105.1635 15.62865531249328

1 10382U 77097 A 82 30.23242234 .00043510 00000-0 47455-3 0 6688  
 2 10382 51.6258 263.0969 0007863 257.8220 102.1859 15.62954847249487

1 10382U 77097 A 82 32.24831333 .00055507 00000-0 59751-3 0 6705  
 2 10382 51.6249 252.7594 0007903 257.5185 92.4636 15.63171759249807

1 10382U 77097 A 82 32.37618147 .00012094 00000-0 13545-3 0 6710  
 2 10382 51.6180 252.1151 0007707 266.3143 93.7042 15.63128001249827

1 10382U 77097 A 82 34.29392904 .00060151 00000-0 63954-3 0 6731  
 2 10382 51.6251 242.4166 0007918 275.7995 84.2514 15.63407719250126

1 10382U 77097 A 82 35.25259528 .00054453 00000-0 57775-3 0 6747  
 2 10382 51.6249 237.5675 0008008 279.0999 80.9207 15.63507337250276

1 10382U 77097 A 82 36.27531194 .00057845 00000-0 61016-3 0 6752  
 2 10382 51.6253 232.3960 0037891 285.8039 74.2153 15.63627401250430

1 10382U 77097 A 82 37.29734912 .00050802 00000-0 63756-3 0 6764  
 2 10382 51.6239 227.2222 0008109 288.9804 71.0674 15.63756245250598

1 10382U 77097 A 82 38.25539394 .00059132 00000-0 61774-3 0 6777  
2 10382 51.6232 222.3703 0007965 292.0263 67.9495 15.63853817250741

1 10382U 77097 A 82 39.21488708 .00059560 00000-0 60915-3 0 6786  
2 10382 51.6249 217.5226 0008027 294.2994 65.7074 15.53975098250890

1 10382U 77097 A 82 40.34139097 .00055110 00000-0 57127-3 0 6799  
2 10382 51.6239 212.0257 0008092 300.6941 59.2738 15.64088091251769

1 10382U 77097 A 82 41.25945098 .00055292 00000-0 57075-3 0 6808  
2 10382 51.6234 207.1750 0008267 306.9887 53.0150 15.64192569251216

1 10382U 77097 A 82 42.34550776 .00059935 00000-0 59992-3 0 6811  
2 10382 51.6247 201.6848 0008996 309.2100 50.9057 15.64458429251380

1 10382U 77097 A 82 42.98426022 .00098022 00000-0 39400-3 0 6826  
2 10382 51.6208 198.4401 0009430 315.4479 44.2298 15.64407013251483

1 10382U 77097 A 82 43.23983622 .00064342 00000-0 55654-3 0 6830  
2 10382 51.6222 197.1481 0009226 315.2653 44.7400 15.64423108251523

1 10382U 77097 A 82 45.21997616 .00061518 00000-0 52251-3 0 6856  
2 10382 51.6248 187.1218 0008438 323.3916 35.8348 15.64648984251836

1 10382U 77097 A 82 46.24191176 .00052116 00000-0 52574-3 0 6869  
2 10382 51.6247 181.9440 0008793 327.2045 32.7587 15.64745314251991

1 10382U 77097 A 82 47.26363759 .00050775 00000-0 51137-3 0 6874  
2 10382 51.6245 176.7347 0009564 330.7572 29.2755 15.64847242252155

77-97A

Salyut 6

forts. 71

1	10382U	77097	A	82	48.34924372	.00040817	00000-0	41139-3	0	6886
2	10382	51.6246	171.2639	0009692	335.4621	24.4878	15.64924234252324			

1	10382U	77097	A	82	48.34924372	.00040817	00000-0	41139-3	0	6897
2	10382	51.6246	171.2639	0009692	335.4621	24.4878	15.64924234252324			

1	10382U	77097	A	82	49.24324117	.00044423	00000-0	44557-3	0	6904
2	10382	51.6251	156.7338	0009000	338.3103	21.3756	15.65005148252467			

1	10382U	77097	A	82	51.23637865	.00036960	00000-0	36732-3	0	6934
2	10382	51.6250	156.3775	0009401	345.3459	14.7276	15.65318831252788			

1	10382U	77097	A	82	52.94618897	.00232517	00000-0	21965-2	0	6952
2	10382	51.6188	147.9853	0016070	2.6263	357.3952	15.65575180	47503		

1	10382U	77097	A	82	53.20154175	.00003934	00000-0	41159-4	0	6963
2	10382	51.6286	146.6915	0010920	0.0534	7.3632	15.65473401	47542		

1	10382U	77097	A	82	54.09523693	.00064437	00000-0	52682-3	0	6975
2	10382	51.6292	142.1371	0009930	358.0856	2.2683	15.65624731	47689		

1	10382U	77097	A	82	55.24409476	.00055011	00000-0	53409-3	0	6993
2	10382	51.6252	136.3020	0009457	0.7446	359.3646	15.65725304	47867		

1 10382U 77097 A 82 55.24409476 .00055011 00000-0 53409-3 0 7006  
2 10382 51.6252 136.3020 0009457 0.7446 359.3646 15.65725304253406

1 10382U 77097 A 82 56.20144225 .00053749 00000-0 51993-3 0 7014  
2 10382 51.6262 131.4448 0009402 4.8675 355.2287 15.65927243253553

1 10382U 77097 A 82 57.28636534 .00058846 00000-0 56528-3 0 7025  
2 10382 51.6258 125.9386 0009721 9.2879 350.8556 15.65958305253729

1 10382U 77097 A 82 58.30736732 .00063542 00000-0 60640-3 0 7033  
2 10382 51.6257 120.7564 0009466 11.9206 348.1906 15.66093984253887

1 10382U 77097 A 82 59.32829740 .00058166 00000-0 55329-3 0 7040  
2 10382 51.6260 115.5735 0009759 16.6178 343.5111 15.66209854 48503

1 10382U 77097 A 82 60.22154731 .00054206 00000-0 51418-3 0 7059  
2 10382 51.6254 111.0380 0009934 20.5345 339.5888 15.66375460 48649

1 10382U 77097 A 82 60.92335237 .00057554 00000-0 54355-3 0 7061  
2 10382 51.6254 107.4741 0009916 23.0976 337.0633 15.66390325 48754

1 10382U 77097 A 82 61.24233711 .00064190 00000-0 60385-3 0 7076  
2 10382 51.6244 105.8536 0009824 24.1194 336.0600 15.66443410 48802

1 10382U 77097 A 82 64.24030814 .00056980 00000-0 52833-3 0 7109  
2 10382 51.6249 97.6198 0009908 35.8746 324.2962 15.66850897254818

1 10382U 77097 A 82 65.26074737 .00061005 00000-0 56202-3 0 7113  
2 10382 51.6243 95.4326 0009980 40.5006 319.7397 15.66980411 49436

77-97A

Salv4+6

forts. 72

1	10382U	77097	A	82	68.25730208	.00058763	00000-0	53416-3	0	7145
2	10382	51.6243		70.1930	0010103	51.9682	309.2460	15.67324930255604		

1	10382U	77097	A	82	67.30135047	.00054974	00000-0	50266-3	0	7134
2	10382	51.6258		75.0581	0010100	48.8826	311.2463	15.67209213		49758

1	10382U	77097	A	82	68.25730208	.00058763	00000-0	53416-3	0	7179
2	10382	51.6243		70.1930	0010103	51.9682	309.2463	15.67324930255604		

1	10382U	77097	A	82	69.21416631	.00062223	00000-0	56230-3	0	7131
2	10382	51.6247		65.3279	0010039	55.9653	304.2548	15.67447834255757		

1	10382U	77097	A	82	70.23420353	.00055149	00000-0	53505-3	0	7172
2	10382	51.6252		60.1397	0009888	60.7278	299.4963	15.67583990255913		

1	10382U	77097	A	82	71.25414974	.00057004	00000-0	51072-3	0	7131
2	10382	51.6253		54.9500	0010163	64.2568	295.3912	15.67692619256070		

1	10382U	77097	A	82	73.23011628	.00061104	00000-0	54162-3	0	7202
2	10382	51.6250		44.8918	0009967	71.3793	298.9191	15.67931615256221		

1	10382U	77097	A	82	74.24983955	.00060264	00000-0	53162-3	0	7211
2	10382	51.6259		39.7005	0009948	75.8141	283.3914	15.69053997256382		

1 10332U 77097 A 32 75.25948815 .00065104 00000-0 57892-3 0 7224  
2 10332 51.6256 34.5109 0010044 80.8480 279.3971 15.63192214256549

1 10382U 77097 A 32 76.28903632 .00063742 00000-0 55569-3 0 7239  
2 10382 51.6245 29.3173 0010091 84.9749 275.2198 15.63319876256704

1 10382U 77097 A 32 76.67135188 .00244778 00000-0 20660-2 0 7240  
2 10382 51.6289 27.3725 0009870 84.0168 275.2060 15.63419264256760

1 10332U 77097 A 32 77.13103533 .00067562 00000-0 59557-3 0 7256  
2 10332 51.6278 24.7749 0009902 87.4474 272.5101 15.63439338256940

1 10332U 77097 A 32 78.25413102 .00071733 00000-0 51715-3 0 7269  
2 10332 51.6256 10.2626 0009923 81.9519 269.3900 15.63596921257716

1 10332U 77097 A 32 80.23398625 .00063686 00000-0 54355-3 0 7282  
2 10382 51.6258 9.1911 0009736 101.4116 259.7814 15.63839282257329

1 10382U 77097 A 32 32.21348388 .00073918 00000-0 52229-3 0 7305  
2 10382 51.6252 359.1237 0009484 107.7292 252.5285 15.69117799257635

1 10392U 77097 A 32 33.23242057 .00070626 00000-0 59162-3 0 7311  
2 10392 51.6237 353.9290 0009294 109.7539 250.4099 15.69257991257796

1 10392U 77097 A 32 34.18750732 .00059395 00000-0 49575-3 0 7321  
2 10382 51.6256 349.0550 0009361 117.1283 243.0204 15.69366917257944

1 10382U 77097 A 32 86.35244549 .00063233 00000-0 52246-3 0 7341  
2 10392 51.6247 338.0116 0009262 124.1164 236.0441 15.69536776258282

77-97A

Salary 6

for ts. 73

1 10382U 77097 A 82 87.24374459 .00061995 00000-0 51028-3 0 7354  
 2 10382 51.6249 333.4522 0009069 126.7474 233.3836 15.69737595258428

1 10382U 77097 A 82 89.19864767 .00058222 00000-0 47765-3 0 7368  
 ? 10382 51.6251 323.5873 0009106 133.0253 227.1198 15.69843676258576

1 10382U 77097 A 82 89.21713776 .00055329 00000-0 46030-3 0 7375  
 2 10382 51.6259 323.3868 0008759 137.2443 222.9071 15.69956649258738

1 10382U 77097 A 82 90.23555896 .00043514 00000-0 35606-3 0 7387  
 2 10382 51.6250 318.1863 0008747 142.4076 217.7007 15.70035883258891

1 10382U 77097 A 82 91.25393750 .00059313 00000-0 43022-3 0 7390  
 2 10382 51.6238 312.9835 0008762 143.2379 216.9770 15.70159551259056

1 10382U 77097 A 82 92.23855618 .00066375 00000-0 53331-3 0 7400  
 ? 10382 51.6246 308.1075 0008756 146.3942 211.3291 15.70296599259205

1 10382U 77097 A 82 93.22673857 .00067487 00000-0 53904-3 0 7417  
 2 10382 51.6246 302.9084 0008471 153.5177 206.6354 15.70435245259362

1 10382U 77097 A 82 94.24483102 .00067138 00000-0 53336-3 0 7425  
 2 10382 51.6234 297.7050 0008147 156.9325 203.1929 15.70570142259529

1 10382U 77097 A 82 96.21718436 .00054873 00000-0 43359-3 0 7444  
2 10382 51.6225 287.6234 0008169 163.4229 196.6941 15.70776207259834

1 10382U 77097 A 82 97.29868234 .00054716 00000-0 43033-3 0 7450  
2 10382 51.6234 292.0946 0009281 169.3509 190.7551 15.70892682260004

1 10382U 77097 A 82 99.20701347 .00054275 00000-0 42330-3 0 7464  
2 10382 51.6211 272.3312 0007970 176.8253 183.2935 15.71099887260309

1 10382U 77097 A 82 99.20701347 .00054275 00000-0 42330-3 0 7475  
2 10382 51.6211 272.3312 0007970 176.8258 183.2835 15.71099887260309

1 10382U 77097 A 82100.22468425 .00061651 00000-0 47713-3 0 7484  
2 10382 51.6219 267.1270 0007762 180.7343 179.4193 15.71232984260467

1 10382U 77097 A 82102.19614202 .00076889 00000-0 53547-3 0 7513  
2 10382 51.6230 257.0396 0007523 189.8452 170.3105 15.71533518260777

1 10382U 77097 A 82102.19614202 .00076889 00000-0 53547-3 0 7513  
2 10382 51.6230 257.0396 0007523 189.8452 170.3105 15.71533518260777

1 10382U 77097 A 82103.21350552 .00066345 00000-0 50388-3 0 7529  
2 10382 51.6239 251.8332 0007558 192.9707 166.9994 15.71654030260932

1 10382U 77097 A 82104.29440848 .00068305 00000-0 51525-3 0 7539  
2 10382 51.6242 246.3010 0007267 199.4853 160.6162 15.71806619261109

1 10382U 77097 A 82105.26515617 .00069129 00000-0 51552-3 0 7552  
2 10382 51.6223 236.2055 0007056 206.9775 153.0608 15.72075343261416



77-97A

Salyut 6

forts. 74

1 10382U 77097 A 82106.25515617 .00069129 00000-0 51552-3 0 7563  
 2 10382 51.6223 236.2055 0007056 206.9775 153.3603 15.72075343261416

1 10382U 77097 A 82107.28219603 .00066681 00000-0 49486-3 0 7576  
 2 10382 51.6222 230.9981 0006791 211.8849 148.1685 15.72206616261573

1 10382U 77097 A 82110.33273775 .00059713 00000-0 43702-3 0 7600  
 2 10382 51.6206 215.3651 0006180 229.5355 131.4461 15.72585874262056

1 10382U 77097 A 82111.28595477 .00061507 00000-0 44759-3 0 7612  
 2 10382 51.6233 210.4779 0006322 229.6144 130.4436 15.72705565262202

1 10382U 77097 A 82112.23904329 .00053637 00000-0 39942-3 0 7620  
 2 10382 51.6226 205.5951 0006102 236.5995 123.4308 15.72818933262359

1 10382U 77097 A 82113.25560482 .00060554 00000-0 43637-3 0 7637  
 2 10382 51.6238 200.3802 0006074 238.7744 121.3035 15.72947442262514

1 10382U 77097 A 82114.27207024 .00050390 00000-0 35281-3 0 7644  
 2 10382 51.6236 195.1649 0006198 243.1675 116.7950 15.73041249262673

1 10382U 77097 A 82114.27207024 .00050390 00000-0 35281-3 0 7655  
 2 10382 51.6236 195.1649 0006198 243.1675 116.7950 15.73041249262673

1 10382U 77097 A 82115.22497718 .00053731 00000-0 33462-3 0 7669  
 2 10382 51.6229 190.2782 0006213 248.8982 111.1738 15.73148803262924

1 10382U 77097 A 82116.17779892 .00054026 00000-0 33459-3 0 7674  
2 10382 51.6219 185.3927 0006402 255.0199 105.0724 15.73275984262974

1 10382U 77097 A 82117.19403530 .00028614 00000-0 20550-3 0 7693  
2 10382 51.6233 180.1765 0005918 260.1301 99.3583 15.73331190253130

1 10382U 77097 A 82119.16283350 .00057273 00000-0 40135-3 0 7700  
2 10382 51.6215 170.0683 0005771 267.6872 92.3762 15.73625786263447

1 10382U 77097 A 82120.17886419 .00057590 00000-0 40135-3 0 7710  
2 10382 51.6219 164.8504 0005747 273.0798 86.9745 15.73745924263600

1 10382U 77097 A 82122.21067054 .00048362 00000-0 33467-3 0 7733  
2 10382 51.6209 154.4177 0005715 281.9376 79.0567 15.73988941263922

1 10382U 77097 A 82123.35345656 .00055387 00000-0 39014-3 0 7745  
2 10382 51.6222 148.5462 0005842 284.8237 75.2734 15.74122790264106

1 10382U 77097 A 82124.11523977 .00062955 00000-0 42918-3 0 7752  
2 10382 51.6217 144.6308 0005750 286.3377 73.7405 15.74227003264220

1 10382U 77097 A 82128.24089817 .00048630 00000-0 32715-3 0 7792  
2 10382 51.6214 123.4241 0005559 303.4047 56.6412 15.74642638264874

1 10382U 77097 A 82129.19282387 .00048191 00000-0 32296-3 0 7790  
2 10382 51.6209 118.5286 0005586 307.3458 52.7047 15.74735607265029

1 10382U 77097 A 82130.01778009 .00049006 00000-0 32715-3 0 7801  
2 10382 51.6167 114.2849 0005499 307.3984 52.6590 15.74917395265157

77-97A

Salyut 6

forts. 75

1	10382U	77097	A	82131.22340913	.00042619	00000-0	32296-3	0	7814
2	10382	51.6201		109.0932	0005494	315.9065	44.1524	15.74035940265341	
1	10382U	77097	A	82132.30205749	.00048836	00000-0	32296-3	0	7824
2	10382	51.6196		102.5274	0005243	324.4896	35.5800	15.75036732265514	
1	10382U	77097	A	82133.31719141	.00046529	00000-0	30583-3	0	7939
2	10382	51.6215		97.3098	0005209	321.3696	38.6932	15.75127875265673	
1	10382U	77097	A	82134.33226566	.00047396	00000-0	31103-3	0	7942
2	10382	51.6227		92.0871	0005486	325.3743	34.6999	15.75224096265830	
1	10382U	77097	A	82135.15692969	.00045191	00000-0	29595-3	0	7859
2	10382	51.6229		87.8465	0005424	329.7909	30.2693	15.75295818265965	
1	10382U	77097	A	82135.34728176	.00046567	00000-0	30454-3	0	7862
2	10382	51.6235		86.8676	0005385	331.3486	29.7222	15.75315787265991	
1	10382U	77097	A	82137.25024314	.00052013	00000-0	33541-3	0	7883
2	10382	51.6236		77.0706	0005136	336.4962	23.5903	15.75523351266290	
1	10382U	77097	A	82139.47006689	.00053999	00000-0	34549-3	0	7897
2	10382	51.6225		65.6395	0005159	345.2764	14.8076	15.75756143266646	

1 10382U 77097 A 82140.04082420 .00054700 00000-0 34893-3 0 7904  
2 10382 51.6228 62.7000 0005124 346.5815 13.5048 15.75819044266739

1 10382U 77097 A 82141.24568451 .00062921 00000-0 39804-3 0 7912  
2 10382 51.6223 56.4953 0005147 351.2916 8.8035 15.75952775266924

1 10382U 77097 A 82142.19692645 .00048586 00000-0 30775-3 0 7920  
2 10382 51.6231 51.5936 0005055 354.0141 6.8796 15.76030903267070

1 10382U 77097 A 82144.47934662 .00045375 00000-0 29515-3 0 7945  
2 10382 51.6236 39.8326 0005151 0.1922 359.9056 15.76242008267430

1 10382U 77097 A 82144.47934662 .00045375 00000-0 29515-3 0 7945  
2 10382 51.6236 39.8326 0005151 0.1922 359.9056 15.76242008267430

1 10382U 77097 A 82145.24012019 .00047680 00000-0 29835-3 0 7952  
2 10382 51.6246 35.9116 0005345 3.3332 356.7715 15.76315835267559

1 10382U 77097 A 82145.74728126 .00035661 00000-0 22411-3 0 7960  
2 10382 51.6231 33.2992 0005077 0.8582 359.2444 15.76354300267533

1 10382U 77097 A 82146.31781676 .00050242 00000-0 31256-3 0 7973  
2 10382 51.6245 30.3562 0005136 5.1127 354.9924 15.76425948267720

1 10382U 77097 A 82148.15606906 .00080439 00000-0 49085-3 0 7991  
2 10382 51.6224 20.8792 0005129 9.9600 350.2683 15.76673285268011

1 10382U 77097 A 82149.99398047 .00259195 00000-0 15209-2 0 8018  
2 10382 51.6251 11.4039 0006382 14.0165 346.0498 15.76950488269306

77-97A

Salary 6

for ts. 76

1	10382U	77097	A	82149.17010435	.20072253	00000-0	43915-3	0	3004
2	10382	51.6220		15.6446 0005078	13.2650	346.1767	15.75808021268177		

1	10382U	77097	A	82149.99398047	.00259195	00000-0	15208-2	0	8018
2	10382	51.6251		11.4039 0006382	14.0165	346.0498	15.76950488268306		

1	10382U	77097	A	82151.19798938	.00069605	00000-0	41864-3	0	8031
2	10382	51.6219		5.1869 0005282	20.1543	339.8588	15.77057299269496		

1	10382U	77097	A	82153.22556807	.00060253	00000-0	35976-3	0	8053
2	10382	51.6226		354.7218 0004873	23.8887	336.1211	15.77294412268819		

1	10382U	77097	A	82154.11255859	.00066097	00000-0	39213-3	0	8066
2	10382	51.6233		350.1442 0004714	24.9407	335.1673	15.77391226268958		

1	10382U	77097	A	82157.21655638	.00052176	00000-0	30661-3	0	8093
2	10382	51.6220		334.1149 0004961	32.9575	327.1322	15.77701134269449		

1	10382U	77097	A	82158.16654034	.00052410	00000-0	30661-3	0	8121
2	10382	51.6214		329.2054 0004929	37.4815	322.6518	15.77200061260600		

1	10382U	77097	A	82155.25285886	.00047503	00000-0	28221-3	0	8074
2	10382	51.6225		344.2576 0004965	27.9068	332.0921	15.77494932269136		

1	10382U	77097	A	82156.25643001	.00057883	00000-0	34092-3	0	8089
2	10382	51.6211		339.0210 0005007	30.8129	329.3385	15.77606827269295		

1	10382U	77097	A	82159.17998287	.00055514	00000-0	32269-3	0	8113
2	10382	51.6199		323.9685	0004959		37.1651	322.9697	15.77918871269754
1	10382U	77097	A	82160.38323363	.00054570	00000-0	31547-3	0	8120
2	10382	51.6205		317.7538	0004999		40.8291	319.2897	15.78049306269946
1	10382U	77097	A	82162.21957888	.00054377	00000-0	31149-3	0	8143
2	10382	51.6214		308.2619	0005015		45.0951	315.0233	15.78254709270233
1	10382U	77097	A	82163.61250920	.00057046	00000-0	32411-3	0	8152
2	10382	51.6214		301.0570	0004991		50.2407	309.9018	15.79417128270454
1	10382U	77097	A	82164.75206120	.00067143	00000-0	37765-3	0	8168
2	10382	51.6224		295.1711	0004966		54.7026	305.4453	15.79576542270633
1	10382U	77097	A	82164.75206120	.00067143	00000-0	37765-3	0	8179
2	10382	51.6224		295.1711	0004966		54.7026	305.4453	15.79576542270633
1	10382U	77097	A	82165.32179466	.00070816	00000-0	39641-3	0	8182
2	10382	51.6204		292.2214	0005156		56.5291	303.6382	15.79662280270729
1	10382U	77097	A	82166.27127844	.00068010	00000-0	37384-3	0	8191
2	10382	51.6209		287.3086	0005241		58.5522	301.5593	15.79785982270872
1	10382U	77097	A	82167.22069952	.00058682	00000-0	32627-3	0	8209
2	10382	51.6214		282.3972	0005264		59.8624	300.2003	15.79885012271024
1	10382U	77097	A	82167.22069952	.00058682	00000-0	32627-3	0	8209
2	10382	51.6214		282.3972	0005264		59.8624	300.2003	15.79885012271024
1	10382U	77097	A	82168.23336329	.00054511	00000-0	30209-3	0	8216
2	10382	51.6211		277.1572	0005254		51.7306	298.3710	15.79989091271188

77-97A

Salyut 6

Forts. 77

1 10382U 77097 A 82168.23336329 .00054511 00000-0 30208-3 0 8216  
 2 10382 51.6211 277.1572 0005254 61.7306 298.3710 15.78939091271188

1 10382U 77097 A 82169.24595620 .00049887 00000-0 27571-3 0 8229  
 2 10382 51.6208 271.9166 0005373 64.1069 296.0070 15.79086343271341

1 10382U 77097 A 82170.44832894 .00041662 00000-0 22996-3 0 8230  
 2 10382 51.6209 265.6937 0005495 57.6923 292.4270 15.79193925271538

1 10382U 77097 A 82171.27095202 .00057436 00000-0 31354-3 0 8241  
 2 10382 51.6182 261.4337 0005619 67.9661 292.1936 15.79299075271669

1 10382U 77097 A 82172.22006316 .00066050 00000-0 35757-3 0 8259  
 2 10382 51.6190 255.5176 0005474 73.1949 287.0035 15.79427403271819

1 10382U 77097 A 82173.23236286 .00060674 00000-0 32725-3 0 8261  
 2 10382 51.6191 251.2784 0005408 76.1749 283.9992 15.79543587 66434

1 10382U 77097 A 82174.18132260 .00060027 00000-0 32213-3 0 8273  
 2 10382 51.6173 246.3637 0005532 76.3470 283.4984 15.79657871 66584

1 10382U 77097 A 82175.19347635 .00047425 00000-0 25425-3 0 8289  
 2 10382 51.6207 241.1209 0005139 80.7455 279.4463 15.79781684 66747

1 10382U 77097 A 82176.25880310 .00053271 00000-0 28336-3 0 8291  
 2 10382 51.6199 235.5477 0005505 81.5018 278.6946 15.79901598 66916

1	10382U	77097	A	82177.21754950	.00057760	00000-0	30520-3	0	8305
2	10382	51.6176	230.6286	0005536	86.7038	273.4651	15.80013598	67069	
1	10382U	77097	A	82178.10298289	.00053402	00000-0	28145-3	0	8311
2	10382	51.6190	226.0397	0005347	87.8817	272.2451	15.80104084	67204	
1	10382U	77097	A	82179.17809746	.00061480	00000-0	32116-3	0	8324
2	10383	51.6191	220.4662	0005489	90.1159	269.9795	15.80239654	67377	
1	10382U	77097	A	82180.19986850	.00041521	00000-0	21758-3	0	8334
2	10382	51.6203	215.2223	0005377	94.0144	266.1261	15.80341770273073		
1	10382U	77097	A	82181.32804332	.00045547	00000-0	23692-3	0	8347
2	10382	51.6207	209.3202	0005264	93.3399	266.3127	15.80451187273250		
1	10382U	77097	A	82182.27646731	.00042794	00000-0	22191-3	0	8353
2	10382	51.6193	204.3998	0005354	102.9903	257.2848	15.80550295273409		
1	10382U	77097	A	82183.16159121	.00029466	00000-0	15367-3	0	8364
2	10382	51.6185	199.2094	0005339	104.4701	255.7140	15.80624629273547		
1	10382U	77097	A	82184.17313756	.00025574	00000-0	13338-3	0	8375
2	10382	51.6192	194.5626	0005168	106.5970	253.6671	15.80712116273702		
1	10382U	77097	A	82184.48921528	.00088781	00000-0	44952-3	0	8387
2	10382	51.6182	192.9224	0004979	106.6300	253.5650	15.80781105273759		
1	10382U	77097	A	82184.67885684	.00088726	00000-0	44952-3	0	8390
2	10382	51.6173	191.9396	0005205	107.3003	252.8221	15.80765932273788		
1	10382U	77097	A	82185.18458834	.00027561	00000-0	14286-3	0	8409
2	10382	51.6168	189.3133	0005366	113.3024	246.3105	15.80797177273869		
1	10382U	77097	A	82186.19603722	.00033328	00000-0	17129-3	0	8417
2	10382	51.6152	184.0615	0005253	117.4982	242.7266	15.80877302274020		



77-97A

Salyut 6

forts. 78

1	10382U	77097	A	82187.20741972	.00028433	00000-0	14529-3	0	8425
2	10382	51.6175	178.8137	0005156	117.1957	242.9601	15.80944378274190		
1	10382U	77097	A	82188.21875657	.00041473	00000-0	21059-3	0	8439
2	10382	51.6193	173.5639	0005204	124.9792	235.3283	15.81029395274345		
1	10382U	77097	A	82189.16692645	.00042809	00000-0	21535-3	0	8442
2	10382	51.6198	168.5439	0005209	126.2932	233.3775	15.81110424274490		
1	10382U	77097	A	82190.17804827	.00047465	00000-0	23827-3	0	8452
2	10382	51.6183	163.3940	0005252	130.2455	229.9304	15.81218002274651		
1	10382U	77097	A	82191.18920191	.00047069	00000-0	23535-3	0	8455
2	10382	51.6203	158.1438	0005017	131.8667	229.2556	15.81307498274816		
1	10382U	77097	A	82192.20030754	.00051327	00000-0	25742-3	0	8475
2	10382	51.6194	152.8931	0005259	140.2100	219.9464	15.81411337274973		
1	10382U	77097	A	82193.21133677	.00059287	00000-0	29215-3	0	8483
2	10382	51.6133	147.6398	0005008	144.1759	215.9734	15.81529023275137		
1	10382U	77097	A	82194.72773323	.00080294	00000-0	38919-3	0	8492
2	10382	51.6187	139.7622	0005175	151.6090	208.6609	15.81754689275376		
1	10382U	77097	A	82195.23311535	.00084953	00000-0	40961-3	0	8500
2	10382	51.6173	137.1351	0005491	152.2129	207.9234	15.81852613275453		
1	10382U	77097	A	82196.24381361	.00095737	00000-0	45591-3	0	8513
2	10382	51.6209	131.8821	0004960	160.5392	199.5807	15.82077080275616		

1 10382U 77097 A 82197.25439195 .00087898 00000-0 41586-3 0 8524

2 10382 51.6201 126.6270 0005181 162.2956 197.7720 15.82249380275774

1 10382U 77097 A 82198.20172283 .00089381 00000-0 41942-3 0 8538

2 10382 51.6195 121.7003 0005380 166.0254 194.0905 15.82417491275922

1 10382U 77097 A 82199.21207785 .00089249 00000-0 41505-3 0 8545

2 10382 51.6213 116.4447 0005259 172.4600 187.6446 15.82609928 65997

1 10382U 77097 A 82200.15918378 .00097766 00000-0 45003-3 0 8559

2 10382 51.6207 111.5136 0005195 177.6691 182.4561 15.82793113 66144

1 10382U 77097 A 82201.23242767 .00096269 00000-0 43893-3 0 8564

2 10382 51.6198 105.9308 0005502 184.3644 175.7359 15.83000102 66317

1 10382U 77097 A 82202.17935901 .00053881 00000-0 24789-3 0 9573

2 10382 51.6231 101.0021 0005061 193.8882 166.2306 15.83041850 66461

1 10382U 77097 A 82202.74747999 .00082126 00000-0 37342-3 0 8589

2 10382 51.6201 98.0443 0004977 192.6934 167.3890 15.83125117 66550

1 10382U 77097 A 82203.18933292 .00032407 00000-0 37342-3 0 8594

2 10382 51.6206 95.7429 0005236 195.6743 164.4010 15.83194488 66620

1 10382U 77097 A 82204.19920756 .00079540 00000-0 35503-3 0 8602

2 10382 51.6206 90.4843 0004847 204.6966 155.3419 15.83347157 66789

1 10382U 77097 A 82205.14538420 .00059092 00000-0 25605-3 0 8613

2 10382 51.6173 85.5496 0004887 209.7152 150.2996 15.83463140 66930

1 10382U 77097 A 82205.58765470 .00057953 00000-0 26505-3 0 8629

2 10382 51.6173 83.2477 0003914 194.7518 165.0491 15.83066520 67006

77-97A

Salyut 6

forts. 79

1	10382U	77097	A	82205.58765470	.00057958	00000-0	25000-3	0	8039
2	10382	51.6173		83.2477 0003914	194.7519	165.7491	15.83066520		67005
1	10382U	77097	A	82206.21894558	.00067421	00000-0	30759-3	0	8642
2	10382	51.6205		79.9538 0004014	187.9446	172.1034	15.931300370		67103
1	10382U	77097	A	82207.22987733	.00071140	00000-0	32215-3	0	8655
2	10382	51.6196		74.7374 0003963	194.1577	165.9365	15.83273656		67269
1	10382U	77097	A	82207.22987733	.00071140	00000-0	32215-3	0	8665
2	10382	51.6196		74.7074 0003863	194.1577	165.9365	15.83273656		277352
1	10382U	77097	A	82208.17559468	.00033848	00000-0	15535-3	0	8672
2	10382	51.6199		69.7752 0004107	200.7780	159.0993	15.833157432		77507
1	10382U	77097	A	82209.12234482	.00033981	00000-0	15535-3	0	8693
2	10382	51.6208		64.8446 0004097	204.6139	155.4909	15.83394185		277652
1	10382U	77097	A	82209.24855496	.00006599	00000-0	31274-4	0	8694
2	10382	51.6221		64.1869 0004257	207.5947	152.4180	15.83383885		277671
1	10382U	77097	A	82209.62452988	.01600776	15187-2	21407-2	0	8704
2	10382	51.6195		62.1911 0073905	267.7349	91.5380	16.00758469		277733
1	10382U	77097	A	82209.81176736	.00283556	45436-4	35911-3	0	8710
2	10382	51.6239		61.1853 0075129	267.5048	91.5669	16.00850922		277760

1 10382U 77097 A 82210.31114174 .00061699 00000-0 79369-4 0 8728  
2 10382 51.6203 58.5273 0074459 270.2363 88.7539 16.00929937277943