

Deviation, P, east of north 16 degrees + tabulated values in minutes of arc.

January 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
1	63.2	63.1	63.0	62.4	60.7	60.1	59.6	59.1	58.1	57.7	57.9	58.5	58.9	59.0	61.6	64.9	67.7	67.6	66.9	65.7	64.7	63.5	62.5	62.3	1488.7	62.03	
2 Q	63.0	63.2	63.0	62.4	62.2	61.6	61.0	60.6	59.8	59.0	57.5	57.2	57.4	59.6	61.9	64.8	67.3	67.9	67.3	66.7	65.1	63.5	62.8	62.7	1497.9	62.41	
3	62.8	63.0	62.6	62.1	61.2	60.6	59.6	59.1	58.5	57.5	57.5	58.3	59.5	59.8	61.6	64.3	66.5	63.1	65.8	64.4	63.5	63.1	62.9	63.4	1480.7	61.70	
4	63.1	62.6	62.5	62.1	61.6	60.7	59.6	58.9	57.9	57.2	56.2	56.2	57.3	60.1	62.7	66.2	68.5	69.7	69.3	68.4	65.7	64.4	63.8	63.8	1498.5	62.44	
5	63.3	62.5	62.4	62.2	61.3	60.3	59.3	58.8	58.3	59.0	58.1	58.3	60.5	61.9	62.9	65.3	68.7	69.5	67.6	66.5	65.5	64.0	62.5	62.1	1500.8	62.53	
6 Q	62.4	63.0	62.8	62.4	61.8	61.2	60.2	59.6	58.9	58.6	58.7	59.3	60.2	60.6	60.9	62.7	65.1	66.3	65.9	65.4	64.5	63.5	63.5	63.5	1491.0	62.12	
7	63.2	62.4	62.4	62.3	61.5	61.3	59.2	57.7	56.8	56.8	57.6	59.4	60.2	60.2	60.9	62.9	65.8	67.0	65.8	66.2	66.0	65.0	64.5	64.4	1489.5	62.06	
8	63.8	63.6	63.4	62.9	62.4	61.7	61.0	59.9	58.1	57.8	58.4	59.0	60.7	62.1	63.4	64.8	66.5	66.2	64.8	63.5	62.7	62.4	62.4	63.3	1494.8	62.28	
9 Q	63.7	63.7	63.5	63.1	62.5	61.6	60.6	59.7	58.6	58.4	57.9	58.4	59.8	62.8	64.6	65.8	66.1	65.1	63.7	63.2	63.2	62.8	62.8	62.9	1494.5	62.27	
10	62.7	62.5	62.5	62.1	61.2	60.4	59.0	57.9	56.7	56.5	57.3	58.6	59.8	62.1	63.2	63.7	64.8	65.9	65.8	65.0	64.7	63.8	62.7	62.5	1481.4	61.72	
11	62.7	63.0	62.4	61.6	61.3	60.6	59.7	58.7	57.4	59.6	56.0	55.7	57.0	59.2	61.3	63.5	65.3	67.5	68.2	67.5	64.8	63.0	62.1	62.2	1480.3	61.68	
12	62.5	62.5	62.4	62.2	61.6	60.7	60.4	59.3	58.1	57.9	58.3	59.3	60.6	62.3	63.4	64.8	65.6	67.0	67.0	66.2	65.5	65.5	65.8	65.9	1504.8	62.70	
13 D	65.3	64.5	63.1	60.5	58.2	54.1	56.0	51.5	55.8	55.5	54.4	58.7	60.1	61.3	63.8	66.3	68.0	69.6	68.6	68.1	66.7	64.8	63.7	60.1	1478.7	61.61	
14 D	62.1	63.0	62.4	60.9	59.6	56.7	59.0	59.2	58.6	59.0	57.8	60.6	60.7	62.4	65.8	69.3	61.3	69.9	69.1	68.2	65.9	64.7	63.1	63.2	1502.5	62.60	
15 D	62.5	62.4	62.9	61.4	59.5	55.6	56.1	57.8	57.6	59.9	58.3	58.4	60.3	62.1	64.1	64.8	65.7	65.8	66.0	66.0	64.7	63.6	63.5	62.8	1481.0	61.74	
16	62.0	57.5	60.2	61.7	61.6	61.0	60.4	59.8	60.4	58.4	58.1	59.1	61.0	62.4	63.0	66.8	67.4	66.7	65.7	66.1	66.2	65.0	63.6	61.8	1495.9	62.33	
17	63.7	63.0	62.9	62.6	62.0	62.7	60.1	58.3	60.9	59.8	58.9	59.0	60.0	60.7	63.1	64.7	66.5	67.7	65.4	64.7	63.6	62.1	61.3	62.2	1495.9	62.33	
18	63.0	62.4	62.3	62.4	60.9	59.5	59.0	58.4	58.3	58.2	59.3	59.8	60.7	61.7	62.9	64.2	66.2	66.7	67.0	65.7	63.9	63.7	63.1	58.1	1487.4	61.98	
19	59.5	61.5	62.6	62.5	62.4	62.3	60.7	59.6	60.1	61.4	60.7	59.8	59.2	60.7	65.7	68.0	68.2	68.5	67.6	67.2	65.9	63.3	61.3	61.7	1510.4	62.93	
20	62.6	63.1	63.2	62.6	61.9	61.5	60.4	60.3	58.5	57.3	58.1	59.2	60.2	61.7	62.7	63.9	65.1	66.0	66.6	65.8	63.9	62.5	62.0	62.0	1491.1	62.13	
21	62.3	62.4	62.4	62.4	61.8	61.6	60.7	60.1	59.7	58.7	57.8	58.4	59.8	60.8	62.7	64.6	65.6	65.9	66.2	65.3	63.8	63.0	62.8	62.8	1491.6	62.15	
22	62.4	62.1	61.8	62.1	61.9	61.3	60.2	59.6	58.3	57.8	57.1	57.3	58.2	59.7	61.9	63.4	64.3	65.0	65.4	64.9	64.7	63.5	63.6	64.0	1480.5	61.69	
23	63.4	62.9	62.3	61.0	58.7	58.2	57.5	59.3	59.8	58.0	56.7	57.4	59.0	61.3	63.6	64.9	66.4	66.7	65.8	65.0	63.6	62.6	61.3	62.0	1477.4	61.56	
24	62.5	62.7	62.1	61.3	60.8	60.1	59.6	58.9	59.0	58.0	57.5	58.6	59.4	60.6	61.7	63.5	65.2	66.4	65.7	67.0	67.2	67.2	64.4	62.5	1491.9	62.16	
25	63.6	63.3	62.9	62.1	61.7	61.6	60.9	59.9	58.8	58.5	58.4	59.4	60.8	63.0	64.5	64.9	64.8	64.9	64.6	63.6	62.7	61.9	62.2	62.7	1491.7	62.15	
26	63.0	63.0	63.0	62.4	62.1	61.7	61.1	60.2	59.2	58.3	58.1	58.9	60.9	62.7	64.4	65.8	65.1	63.1	61.6	61.1	61.4	61.7	62.3	62.7	1483.8	61.82	
27 Q	62.6	62.4	62.4	62.4	62.2	61.6	61.2	60.3	59.0	58.0	57.0	57.5	58.8	60.9	64.0	66.7	68.4	68.6	67.1	65.8	64.4	63.1	62.2	61.7	1498.3	62.43	
28 Q	61.8	61.9	61.7	61.3	61.3	64.8	61.2	60.3	59.0	58.0	58.0	57.8	58.4	59.9	62.7	65.3	67.0	66.9	66.1	64.9	64.0	63.1	62.0	61.7	1489.1	62.05	
29	61.6	61.7	61.8	61.8	61.6	61.0	60.3	59.5	58.6	57.3	56.7	56.7	57.8	59.1	61.2	63.6	65.4	65.6	66.3	67.1	67.5	67.5	67.8	65.8	1493.3	62.22	
30 D	64.2	62.6	60.3	59.6	57.0	54.9	56.0	56.3	56.7	64.4	62.0	61.6	64.5	67.1	67.5	68.7	68.2	68.5	68.5	67.4	68.9	69.7	68.0	59.1	1521.7	63.40	
31 D	59.8	57.8	57.0	55.8	56.1	51.4	49.2	49.4	56.9	58.3	65.1	67.0	69.0	69.7	71.8	72.7	72.8	75.9	76.3	74.7	69.7	66.6	64.9	64.3	1532.2	63.84	
Sum.																									46298.1		
1000+	944.3	935.3	930.2	914.6	890.6	862.4	838.8	818.0	812.4	810.8	801.8	823.4	860.7	907.5	965.5								984.1	961.4	940.2		
2000+																025.8	059.5	081.2	067.7	047.3	014.6						
Mean.	62.72	62.43	62.26	61.76	60.99	60.08	59.32	58.64	58.46	58.41	58.12	58.82	60.02	61.53	63.40	65.35	66.44	67.14	66.70	66.04	64.99	64.00	63.27	62.59		62.23	

Horizontal component, H, 23000 gammas + tabulated value

January 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	356	350	351	354	348	344	342	342	337	335	328	324	320	320	316	315	318	324	320	327	331	335	342	344	8023	334.3	
02 Q	346	347	347	346	345	344	342	341	337	333	330	322	320	324	322	316	318	326	333	337	345	346	350	354	8071	336.3	
03	356	360	359	357	353	353	354	353	347	346	341	331	319	314	315	317	327	343	342	339	341	346	351	355	8219	342.5	
04	360	359	363	359	358	355	352	350	347	348	348	336	332	328	327	324	327	328	339	342	340	340	342	346	8250	343.8	
05	350	352	350	347	346	342	340	335	333	337	334	326	324	331	329	324	318	321	324	329	331	333	336	338	8030	334.6	
06 Q	344	344	345	343	341	340	340	342	341	339	335	326	320	315	313	316	331	343	347	344	343	343	344	349	8088	337.0	
07	350	351	344	350	351	353	354	348	343	341	337	324	318	320	317	318	320	315	322	331	335	337	337	337	8053	335.5	
08	338	340	340	339	339	340	338	341	336	331	328	321	316	313	315	321	333	346	353	350	345	342	339	345	8049	335.4	
09 Q	345	348	349	350	349	351	353	353	350	344	334	323	317	320	325	334	344	354	355	358	355	353	350	351	8265	344.4	
10	350	352	346	345	346	349	350	351	348	340	334	327	320	319	322	324	331	342	350	350	350	350	350	350	8196	341.5	
11	353	353	352	353	355	355	356	359	356	355	350	340	333	327	318	323	333	352	353	350	346	356	353	346	8333	347.2	
12	349	352	353	354	356	352	351	348	342	336	332	323	317	315	316	317	322	334	346	353	363	375	367	372	8245	343.5	
13 D	326	364	372	389	357	340	343	353	345	345	319	314	314	303	298	300	320	324	328	337	348	333	348	348	8117	338.2	
14 D	354	354	357	360	353	340	337	334	324	320	307	307	318	312	305	312	315	327	331	320	324	327	342	348	7928	330.3	
15 D	342	345	347	351	349	338	335	332	325	320	321	306	304	296	298	307	313	325	338	334	331	340	338	343	7878	328.2	
16	343	349	333	338	340	343	339	333	333	338	329	317	308	315	300	291	313	329	337	347	323	333	338	343	7912	329.7	
17	338	341	342	340	342	340	340	341	329	328	320	317	315	315	314	315	317	305	324	328	335	336	333	340	7895	329.0	
18	340	335	340	338	336	332	333	331	330	325	319	319	319	318	319	323	317	319	329	330	333	341	343	337	7906	329.4	
19	346	331	335	337	338	346	338	329	323	325	327	322	320	307	292	299	307	306	311	321	324	319	332	329	7764	323.5	
20	335	337	338	317	337	337	333	335	333	331	324	322	325	317	313	307	307	314	323	329	330	330	333	335	7842	326.8	
21	337	338	334	338	337	338	337	337	335	330	324	319	315	310	307	303	309	320	329	332	334	339	343	344	7889	328.7	
22	342	342	342	342	345	346	342	342	338	333	327	324	323	326	330	333	333	330	327	331	340	337	349	359	8083	336.0	
23	346	348	359	358	355	348	349	345	343	335	328	326	323	329	325	327	335	340	337	342	337	329	333	345	8142	339.2	
24	344	346	346	346	349	342	337	336	337	334	325	320	320	326	330	333	344	340	337	350	345	330	325	335	8077	336.5	
25	329	331	336	341	337	332	329	329	327	323	318	315	316	318	324	328	335	339	336	337	335	333	334	334	7915	329.8	
26	340	344	344	344	339	339	339	339	339	338	333	323	316	316	321	329	340	348	352	346	344	342	340	339	8094	337.2	
27 Q	340	340	342	343	344	346	344	343	338	335	327	315	304	301	307	320	333	332	350	352	351	347	341	337	8032	334.7	
28 Q	338	342	346	346	344	347	346	342	338	333	333	330	323	314	309	312	328	344	350	349	350	349	347	346	8106	337.8	
29	346	349	350	350	350	350	350	350	347	340	333	324	313	303	303	313	327	339	354	356	344	344	335	341	8112	338.0	
30 D	345	344	349	347	334	333	337	348	341	345	358	345	323	317	309	316	320	322	324	337	334	311	310	303	7952	331.3	
31 D	288	270	271	272	275	272	299	327	333	324	330	319	291	261	243	254	261	279	298	319	323	328	328	324	7089	295.4	
Sum	10676	10658	10682	10694	10648	10587	10579	10589	10475	10387	10233	10007	9846	9750	9682	9771	9996	10216	10399	10507	10499	10519	10537	10617	248555		
Mean	344.4	343.8	344.6	345.0	343.5	341.5	341.2	341.6	337.9	335.0	330.1	322.8	317.9	314.5	312.3	315.2	322.4	329.5	335.1	338.9	338.7	339.3	339.9	342.5		334.0	

Vertical component, Z, - (36000 + tabulated values) gammas

January 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	380	378	375	375	367	367	368	370	367	363	357	351	348	346	341	339	347	354	359	363	367	375	377	377	8711	363.0	
02 Q	375	375	371	371	370	369	369	369	367	364	359	355	350	346	343	343	343	347	355	359	367	370	372	371	8680	361.7	
03	370	370	368	367	367	368	367	365	360	355	351	347	345	339	339	343	347	355	359	363	367	371	371	371	8625	359.4	
04	371	371	371	367	364	365	363	363	359	355	351	347	339	337	334	335	339	350	356	362	364	373	373	373	8582	357.6	
05	375	375	371	368	367	365	363	359	359	355	355	352	349	347	343	344	346	353	363	370	370	369	371	371	8660	360.8	
06 Q	367	368	369	368	366	365	364	362	359	355	352	345	339	341	343	343	346	351	352	353	355	357	362	363	8545	356.0	
07	363	364	365	368	367	363	359	358	354	347	342	338	336	334	333	332	334	335	342	347	352	356	359	360	8408	350.3	
08	364	364	363	363	363	363	362	359	352	351	346	340	339	337	338	339	344	350	350	348	351	357	357	360	8460	352.5	
09 Q	360	361	363	363	363	364	364	364	359	351	342	337	333	335	337	341	347	358	361	361	357	359	359	363	8502	354.2	
10	363	364	364	365	368	370	369	367	362	352	344	338	335	335	335	335	335	338	342	346	351	357	360	364	8459	352.5	
11	364	364	363	364	365	365	365	365	361	355	348	342	337	330	330	335	338	344	349	355	354	364	367	359	8483	353.5	
12	361	361	362	363	363	362	363	363	361	359	353	342	335	335	338	339	345	352	355	360	366	373	367	370	8548	356.2	
13 D	376	373	373	368	339	351	360	356	352	342	335	334	334	331	332	337	343	344	355	369	371	382	377	383	8517	354.9	
14 D	380	380	380	373	364	354	359	356	352	348	341	343	347	339	330	330	347	359	367	373	382	380	380	380	8644	360.2	
15 D	373	374	373	371	351	348	336	351	339	333	336	337	339	335	339	343	345	350	355	357	362	371	369	370	8457	352.4	
16	370	372	364	367	367	367	359	346	339	339	343	344	341	345	334	331	346	356	362	366	359	374	380	380	8551	356.3	
17	373	371	368	367	365	351	341	343	339	353	351	347	339	336	337	342	345	343	361	365	370	372	371	373	8523	355.1	
18	372	368	371	368	364	359	362	361	359	359	354	352	349	344	343	343	345	346	355	364	369	375	383	379	8644	360.2	
19	383	371	371	367	365	360	351	351	348	348	352	351	348	337	330	337	346	349	355	359	368	371	379	375	8572	357.2	
20	374	371	368	367	367	365	363	362	350	348	351	349	347	343	339	339	344	350	358	365	369	369	369	367	8594	358.1	
21	367	368	364	364	364	363	363	361	359	356	354	351	345	341	341	340	346	355	359	356	355	357	361	364	8554	356.4	
22	365	366	363	360	363	363	361	360	356	355	354	346	339	338	339	339	344	348	346	351	359	360	371	374	8520	355.0	
23	367	369	371	369	365	359	355	355	354	353	349	341	331	332	335	335	338	342	348	355	357	355	357	361	8453	352.2	
24	361	367	362	360	360	356	356	357	356	354	346	339	337	336	336	336	338	335	339	352	355	358	369	372	8430	351.2	
25	372	369	369	366	361	359	359	359	359	358	353	347	343	342	341	341	339	344	349	355	355	355	355	355	8505	354.4	
26	359	361	363	363	361	361	361	361	359	354	350	343	339	339	342	347	356	362	364	357	355	355	355	355	8522	355.1	
27 Q	353	355	355	355	356	357	357	356	353	351	344	335	331	332	335	338	346	353	357	363	363	359	356	355	8415	350.6	
28 Q	355	356	360	359	357	357	357	356	355	351	346	343	338	331	330	335	342	350	355	357	358	359	361	360	8428	351.2	
29	359	357	356	355	355	355	357	356	355	350	343	338	334	332	334	339	346	351	359	359	356	359	356	362	8423	351.0	
30 D	368	370	364	356	352	343	350	355	349	333	325	324	325	335	342	353	357	362	369	375	379	374	393	403	8556	356.5	
31 D	389	369	363	358	350	342	339	319	308	291	301	315	323	323	325	341	346	361	380	395	392	388	386	382	8386	349.4	
Sum.	11429	11395	11363	11315	11216	11156	11122	11085	10961	10838	10728	10613	10514	10453	10438	10514	10670	10847	11036	11180	11255	11354	11423	11452	264357		
Mean.	368.7	367.6	366.5	365.0	361.8	359.9	358.8	357.6	353.6	349.6	346.1	342.4	339.2	337.2	336.7	339.2	344.2	349.9	356.0	360.6	363.0	366.2	368.5	369.4		355.3	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

February 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.		
Date																												
1	63.8	63.7	63.7	63.6	63.4	62.7	62.0	61.1	60.0	57.1	58.0	58.1	57.6	60.8	63.1	---	---	---	---	---	---	---	---	---	---	918.7	---	
2 Q	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	62.2	61.6	61.2	61.1	61.0	61.0	60.9	60.5	60.3	60.3	60.3	59.2	58.7	58.5	60.4	63.2	65.9	67.5	67.8	67.1	66.0	64.5	63.1	1432.3	---		
4	62.4	62.3	61.9	61.6	61.2	60.5	59.8	59.6	59.3	59.3	60.0	60.1	59.0	58.0	58.0	59.0	61.1	63.7	65.9	67.3	68.2	66.9	65.5	63.9	1484.5	61.85		
5	62.5	61.9	61.6	61.5	61.1	61.0	60.9	60.2	59.8	59.7	60.3	60.4	60.5	59.8	59.9	61.1	62.4	64.4	65.6	65.9	65.8	64.9	63.5	62.6	1457.3	61.97		
6	62.4	62.4	61.8	61.3	61.2	61.2	60.7	60.0	59.3	58.5	58.8	59.0	59.3	60.2	61.6	63.0	64.0	63.9	64.7	64.7	64.7	64.0	63.3	62.7	1482.7	61.78		
7	62.4	62.3	61.8	61.6	61.6	60.8	60.4	59.8	59.4	59.3	58.9	58.9	58.9	59.2	61.3	63.5	66.0	67.1	66.7	65.3	63.6	62.4	62.2	62.0	1485.4	61.89		
8 Q	62.0	62.2	62.3	62.4	61.9	61.5	60.7	60.1	59.1	58.8	58.7	59.0	59.0	59.2	60.7	62.9	65.3	66.9	67.1	66.2	64.6	63.3	62.0	61.3	1487.2	61.97		
9	60.9	61.1	61.1	61.2	61.0	60.7	59.9	59.5	58.8	57.9	57.6	57.4	57.2	57.1	58.6	62.3	65.3	68.2	69.1	68.0	65.9	63.4	63.3	66.6	1482.1	61.75		
10 D	69.0	63.0	61.7	58.5	54.2	57.2	57.1	57.4	58.0	57.8	60.1	59.7	62.3	66.1	66.1	67.0	69.0	70.4	71.6	70.9	69.9	64.0	65.4	61.7	1518.1	63.25		
11 D	61.4	61.6	60.9	60.8	62.0	61.6	59.8	59.8	60.0	61.4	62.7	61.3	61.4	61.0	62.2	65.1	68.0	68.9	69.9	70.7	69.0	67.0	64.6	61.5	1522.6	63.44		
12 D	61.8	58.0	57.2	60.4	60.0	59.1	61.1	59.5	61.0	59.2	59.0	58.9	59.7	60.0	61.4	62.4	63.5	65.8	67.9	69.0	68.1	67.0	62.5	61.5	1484.0	61.83		
13 D	60.7	60.9	60.6	60.1	60.0	58.0	60.8	60.1	60.2	60.6	60.4	60.6	60.4	61.3	61.6	63.4	66.7	67.5	68.1	69.4	67.2	65.4	63.4	61.3	1498.7	62.45		
14 D	61.4	61.9	62.2	61.8	60.8	60.6	60.7	61.6	61.7	60.2	59.8	60.1	60.1	61.5	62.9	64.2	65.4	66.7	67.9	67.2	65.8	64.4	63.4	62.6	1504.9	62.70		
15	62.5	62.5	62.5	61.9	61.6	61.5	61.3	60.4	59.7	58.9	59.0	58.8	59.1	60.8	62.4	63.2	65.0	67.0	67.0	66.0	64.7	63.2	62.2	61.6	1492.8	62.20		
16	61.8	62.1	62.3	62.4	62.0	61.5	61.2	60.7	60.0	59.0	58.9	58.8	58.7	59.4	60.8	63.0	65.7	66.8	66.2	65.7	64.4	63.4	62.6	62.4	1489.8	62.08		
17	62.0	61.8	61.8	61.7	61.6	60.8	60.8	60.5	59.9	59.6	58.8	58.5	58.6	58.9	59.9	61.8	64.3	66.5	67.3	66.2	64.5	63.2	62.4	62.1	1483.5	61.81		
18	62.1	62.1	61.7	61.5	61.5	61.0	60.7	60.3	59.7	58.8	57.8	57.7	57.9	58.9	60.7	62.7	65.9	67.6	67.5	66.2	63.6	62.3	62.2	62.4	1482.8	61.78		
19 Q	62.6	62.5	62.2	61.7	61.2	60.2	59.5	59.0	58.5	58.0	57.8	57.5	57.3	57.6	59.0	61.3	63.8	66.2	67.5	66.7	65.2	63.9	62.8	62.1	1474.1	61.42		
20	62.4	62.2	61.8	61.0	60.7	59.8	58.5	57.0	56.5	56.2	57.0	57.8	56.8	57.0	59.2	61.7	64.3	66.0	67.0	66.5	65.2	64.2	64.4	61.8	1465.0	61.04		
21	62.3	61.7	61.7	61.5	61.3	60.8	60.7	60.7	60.4	60.1	58.6	57.8	58.0	58.9	60.7	62.6	65.2	67.0	66.4	65.9	64.9	64.2	63.4	62.5	1487.3	61.97		
22	61.8	61.6	61.4	61.4	60.0	59.8	60.1	60.1	60.8	60.1	59.2	58.3	58.6	59.0	60.5	62.2	63.8	65.9	67.0	66.3	65.2	63.4	62.5	62.4	1481.4	61.72		
23	62.5	62.4	61.9	61.5	60.9	60.2	59.5	57.8	57.8	57.5	57.1	57.3	59.3	59.8	60.7	62.4	63.9	65.1	65.1	64.7	64.1	63.5	62.8	62.5	1470.3	61.26		
24 Q	62.5	62.4	62.1	61.6	61.5	61.0	60.7	60.3	59.8	59.1	59.2	59.4	59.2	59.1	59.8	61.5	63.8	65.9	66.4	65.5	64.6	63.4	62.9	63.2	1484.9	61.87		
25	63.0	61.8	61.3	61.7	61.5	60.6	60.2	60.1	60.0	60.0	59.7	59.1	57.9	58.2	59.7	61.7	64.2	66.2	67.3	67.0	65.3	63.6	62.5	62.1	1484.7	61.86		
26	61.9	62.1	61.8	61.6	60.9	59.8	58.7	59.0	59.2	60.0	59.1	58.1	57.5	58.0	59.6	62.2	64.2	66.0	66.7	66.2	65.1	63.6	62.5	61.9	1475.7	61.49		
27 Q	61.6	61.5	61.6	61.6	61.5	61.1	60.7	60.2	59.8	59.6	59.0	59.0	58.5	58.6	59.9	61.5	63.4	65.1	66.2	66.1	64.9	63.6	62.6	62.3	1479.9	61.66		
28	61.8	61.6	61.6	61.2	60.0	60.0	60.0	59.8	59.8	60.2	59.0	58.5	57.5	57.3	58.8	60.4	62.8	64.0	65.3	65.3	65.6	66.2	62.8	62.3	1471.8	61.32		
Sum.																										39512.5		
1000+	621.5	671.8	664.1	658.3	645.7	634.0	627.5	615.5	609.0	597.2	594.8	590.4	589.5	604.4	637.6	622.5	680.2	724.7	744.9	736.7	707.2	670.4	642.2	622.4				
Mean.	62.36	61.92	61.63	61.42	60.95	60.52	60.28	59.33	59.59	59.16	59.07	58.90	58.87	59.42	60.65	62.40	64.62	66.33	67.11	66.80	65.66	64.24	63.16	62.40			61.97	

Horizontal component, H, 25000 gammas + tabulated values

February 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01	323	325	328	330	333	333	330	326	329	324	327	330	321	319	313	---	---	---	---	---	---	329	323	334	5877	---
02 Q	334	336	335	337	337	335	333	332	331	329	331	333	326	319	308	298	292	297	309	318	325	334	336	334	7799	325.0
03	337	340	339	337	337	338	334	333	335	338	343	343	335	324	311	303	299	302	307	311	323	334	340	339	7882	328.4
04	342	343	343	344	345	342	341	341	339	337	342	349	353	352	345	334	328	316	305	316	326	332	338	337	8090	337.1
05	337	338	342	346	346	343	344	340	336	333	337	337	333	328	322	318	315	321	326	329	328	327	331	335	7992	333.0
06	338	343	346	345	347	343	340	340	338	336	334	333	326	323	324	324	320	323	327	329	331	333	335	337	8015	334.0
07	343	348	348	347	347	345	342	340	338	336	335	330	322	311	308	313	320	329	337	341	336	336	331	336	8019	334.1
08 Q	341	344	343	343	344	344	342	342	342	341	338	333	322	311	302	303	311	324	335	343	348	347	345	346	8034	334.8
09	346	348	350	350	350	350	350	350	350	350	346	339	328	315	300	296	307	325	336	350	364	360	375	350	8185	341.0
10 D	324	323	342	329	309	311	307	301	317	311	304	302	286	275	269	268	281	291	307	304	322	325	329	333	7370	307.1
11 D	340	333	333	337	340	344	339	329	329	329	324	324	319	299	291	283	282	294	304	312	319	321	323	333	7681	320.0
12 D	341	340	341	335	334	327	325	325	327	328	332	331	322	311	304	300	300	308	320	323	330	334	330	330	7798	325.0
13 D	327	333	337	347	344	339	335	339	325	323	321	323	314	313	306	284	299	288	320	308	315	328	331	327	7726	321.9
14 D	331	334	341	347	346	347	336	328	335	334	330	328	314	301	288	286	296	312	322	332	333	341	339	336	7837	326.4
15	335	339	341	341	340	340	340	333	332	328	328	319	307	286	283	291	293	299	307	324	329	332	333	331	7731	322.1
16	335	337	340	340	340	338	336	333	333	333	329	326	316	305	296	290	288	302	319	330	337	337	337	337	7814	325.6
17	337	341	344	344	344	342	341	337	335	334	335	331	318	304	296	294	302	313	328	342	345	345	341	336	7929	330.4
18	340	341	343	346	349	346	344	343	338	337	335	333	323	311	298	294	298	314	329	346	349	350	350	352	8010	333.8
19 Q	352	350	350	350	350	350	348	347	346	341	337	331	323	314	306	306	313	322	331	342	349	352	350	352	8112	338.0
20	357	358	358	356	356	359	356	344	342	337	337	337	328	319	311	311	318	324	334	337	336	337	319	317	8088	337.0
21	335	340	346	346	347	343	343	342	338	333	332	327	320	310	304	302	296	300	313	325	332	337	336	338	7885	328.5
22	341	345	344	345	342	338	339	334	336	335	332	327	317	306	297	300	305	316	322	330	340	338	341	342	7912	329.7
23	342	344	346	348	348	345	346	343	335	333	330	324	320	312	305	305	299	312	327	337	337	337	333	337	7945	331.0
24 Q	341	343	345	341	338	338	337	334	333	334	333	329	310	306	293	287	291	303	321	331	340	341	344	341	7863	327.6
25	337	340	336	340	340	337	334	332	332	332	334	336	328	315	304	295	294	307	319	332	340	340	339	339	7882	328.4
26	341	341	342	345	345	345	341	333	333	342	341	334	323	309	298	291	291	299	320	328	335	334	330	332	7873	328.0
27 Q	336	340	341	342	341	339	337	335	334	335	336	335	324	310	300	298	302	307	316	324	332	335	336	337	7872	328.0
28	341	340	341	346	340	338	337	338	340	338	340	338	329	317	305	298	303	308	320	329	338	342	348	338	7952	331.3
Sum	9474	9527	9585	9604	9579	9539	9477	9394	9378	9341	9323	9262	9016	8725	8487	8072	8143	8358	8661	8873	9039	9438	9443	9436	219174	
Mean	338.4	340.3	342.3	343.0	342.1	340.7	338.5	335.5	334.9	333.6	333.0	330.8	322.0	311.6	303.1	299.0	301.7	309.6	320.8	328.7	334.8	337.1	337.3	337.1		329.0

Vertical component, Z, - (36000 + tabulated values) gammas

February 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.		
Date																												
01	369	366	365	365	364	363	362	358	349	342	344	342	337	336	329	---	---	---	---	---	---	---	---	---	---	5291	---	
02 Q	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
03	---	371	369	364	360	358	356	357	357	354	353	352	352	345	334	331	329	334	345	353	364	372	376	374	---	8160	---	
04	371	369	365	362	361	358	357	356	355	352	349	348	350	351	348	341	334	332	333	344	354	359	366	367	---	8482	353.4	
05	366	365	363	362	361	357	356	356	352	347	346	344	344	346	346	340	336	339	345	351	354	356	361	365	---	8458	352.4	
06	365	365	363	359	359	356	354	353	352	349	346	344	343	338	336	337	337	340	341	344	349	356	357	359	---	8402	350.1	
07	364	364	361	359	358	356	356	355	353	349	348	346	343	337	335	334	336	341	349	357	360	364	361	360	---	8446	351.9	
08 Q	359	360	359	359	359	358	358	358	355	351	347	342	343	340	337	338	339	342	352	360	365	368	368	366	---	8483	353.5	
09	361	360	357	356	356	356	355	355	355	352	348	342	337	331	323	323	328	336	343	358	367	367	383	383	---	8432	351.3	
10 D	409	402	404	357	356	360	357	328	336	345	354	349	339	337	341	345	349	358	361	366	384	394	389	386	---	8706	362.8	
11 D	380	370	368	363	358	345	341	347	356	351	345	348	345	341	336	334	336	342	350	358	369	377	379	383	---	8522	355.1	
12 D	379	373	365	361	351	352	337	345	337	349	350	349	348	344	346	344	344	349	355	361	369	380	379	379	---	8546	356.1	
13 D	376	374	370	363	356	347	328	338	336	344	351	351	344	345	344	329	329	345	360	356	366	373	376	376	---	8477	353.2	
14 D	374	372	371	363	351	351	353	345	329	347	350	348	344	339	335	342	345	353	357	365	369	377	372	369	---	8521	355.0	
15	367	365	363	361	360	358	357	355	355	354	349	345	342	333	336	340	341	345	354	365	372	374	372	368	---	8531	355.5	
16	367	363	361	360	359	357	357	357	357	357	353	349	345	342	337	333	333	344	353	358	365	366	365	362	---	8500	354.2	
17	362	362	361	359	357	356	356	354	354	353	349	348	343	340	337	336	338	344	353	360	366	367	362	358	---	8475	353.1	
18	357	357	358	358	358	356	354	353	353	351	350	347	342	335	329	328	332	340	353	363	364	364	361	360	---	8423	351.0	
19 Q	358	354	354	354	354	354	353	351	351	347	344	342	339	340	334	334	333	337	343	349	356	359	359	358	---	8357	348.2	
20	361	359	357	356	354	355	352	344	344	342	340	340	337	335	335	333	332	334	343	351	356	362	357	360	---	8339	347.5	
21	364	362	362	359	358	355	351	349	346	344	342	342	341	336	334	333	333	337	347	356	362	366	363	362	---	8404	350.2	
22	360	360	358	356	354	350	349	349	347	343	347	344	338	333	331	333	334	339	344	350	358	357	357	358	---	8349	347.9	
23	355	355	355	354	354	352	350	343	344	345	345	340	335	333	332	329	329	336	345	351	354	355	354	356	---	8301	345.9	
24 Q	357	356	355	353	352	351	351	350	350	349	346	344	342	339	335	333	334	339	347	354	361	360	361	357	---	8376	349.0	
25	353	355	353	354	353	351	350	349	349	349	345	346	344	341	339	338	338	344	351	362	369	367	363	358	---	8421	350.9	
26	357	354	353	353	354	351	346	345	346	347	344	344	342	333	329	327	331	338	351	358	363	363	361	358	---	8348	347.8	
27 Q	357	357	354	353	351	349	349	349	349	349	348	347	344	338	336	334	335	340	347	354	359	360	358	357	---	8374	348.9	
28	356	353	352	353	348	348	348	349	349	344	343	344	340	334	326	319	327	329	334	344	353	360	362	356	---	8271	344.6	
Sum.	9504	9823	9776	9676	9616	9560	9493	9448	9416	9406	9376	9327	9243	9142	9060	8688	8712	8857	9056	9248	9428	9523	9522	9495	---	224395	---	
Mean.	365.5	363.8	362.1	358.4	356.1	354.1	351.6	349.9	348.7	348.4	347.3	345.4	342.3	338.6	335.6	334.1	335.0	340.6	348.3	355.7	362.6	366.3	366.2	365.2	---	---	351.7	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc.

March 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1 D	62.6	62.1	60.6	57.1	56.8	56.8	57.0	57.0	55.3	58.8	58.5	59.0	60.5	60.4	60.8	62.6	65.5	66.9	67.0	66.9	65.9	64.6	63.3	61.9		1467.9	61.16
2	60.7	61.8	61.9	61.6	61.4	60.9	61.5	60.4	60.1	59.3	59.8	58.5	59.0	59.9	61.2	63.1	64.9	66.4	66.4	65.4	64.4	63.0	62.4	61.9		1485.9	61.91
3	61.8	62.0	62.0	61.6	60.8	60.2	61.5	59.9	58.9	58.6	58.3	59.0	59.4	59.6	60.7	62.3	64.4	66.2	66.9	66.0	64.5	63.1	61.4	60.7		1479.8	61.66
4	61.0	61.6	61.6	61.4	60.7	61.1	61.0	61.2	61.4	60.6	60.0	59.8	58.9	58.7	59.4	61.4	63.6	65.8	66.2	65.3	63.7	62.5	62.0	61.8		1480.7	61.70
5	61.8	61.8	61.8	61.2	60.5	60.7	60.9	60.6	60.3	60.2	59.1	58.2	57.7	58.4	60.1	62.0	64.3	65.3	65.3	64.4	63.2	62.2	61.1	61.4		1472.5	61.35
6	61.2	61.3	61.3	60.7	59.8	59.5	60.8	60.3	59.5	59.3	58.9	58.6	58.6	58.5	58.8	60.6	62.4	65.1	66.5	66.0	65.4	63.5	62.5	62.1		1471.2	61.30
7	61.6	61.7	61.6	60.7	60.8	60.4	60.4	60.5	60.4	59.8	59.4	58.9	58.6	58.9	60.0	61.6	63.6	65.2	65.4	64.7	63.5	63.4	63.6	63.6		1478.3	61.60
8 D	63.7	61.7	59.0	59.0	61.0	60.6	58.8	56.1	52.6	57.4	56.1	58.6	61.3	60.3	60.9	64.0	66.4	68.2	68.1	69.1	69.4	65.1	64.4	64.0		1485.8	61.91
9 D	63.0	63.0	62.1	60.6	58.0	57.7	59.1	59.8	59.1	60.0	58.2	58.6	58.7	59.8	61.0	62.5	64.4	66.2	66.7	65.5	64.4	64.0	60.7	62.1		1475.2	61.47
10 D	61.0	59.0	60.4	59.0	58.1	59.8	58.2	56.8	58.7	63.2	62.7	61.5	61.8	64.3	65.6	67.0	65.8	70.3	67.3	68.2	64.3	60.7	63.6	63.9		1501.2	62.55
11 D	55.2	60.7	61.6	61.5	59.7	59.8	61.3	62.1	61.5	61.5	61.3	60.8	60.2	60.6	61.7	63.8	64.7	65.7	66.4	67.4	64.4	63.5	62.6	57.5		1485.5	61.90
12	60.5	61.1	59.0	59.8	61.6	62.5	61.5	60.2	59.9	60.8	60.6	60.7	59.8	60.3	61.5	63.3	64.1	64.6	65.7	65.3	63.7	63.0	62.6	62.5		1484.6	61.86
13	62.4	61.9	61.8	61.7	61.5	61.4	61.2	60.7	61.1	60.7	61.1	59.9	59.9	61.0	62.4	63.6	63.5	65.0	65.8	65.3	64.1	62.9	62.4	61.6		1492.9	62.20
14 Q	61.3	60.7	61.6	61.6	61.5	61.0	60.8	60.7	60.5	60.2	60.1	59.8	59.1	59.2	59.8	61.3	62.7	64.4	65.2	64.6	63.7	62.5	61.8	61.7		1475.8	61.49
15	61.8	61.6	60.7	60.6	60.1	60.6	60.8	61.0	60.8	60.9	60.6	59.9	59.0	58.9	59.5	61.4	63.8	66.2	67.0	66.1	64.4	62.5	61.8	61.8		1481.8	61.74
16 Q	61.7	61.7	61.6	61.5	61.3	61.1	60.8	60.8	60.7	60.7	60.2	59.6	58.7	58.5	59.3	61.6	63.9	65.7	65.7	64.6	63.2	62.0	61.7	61.7		1478.3	61.60
17	61.7	61.7	61.6	61.5	61.3	60.8	60.7	60.5	60.2	60.2	60.3	59.8	58.5	57.8	58.4	60.7	64.6	66.7	67.2	66.5	65.3	63.5	60.7	61.5		1481.7	61.74
18	61.5	61.0	60.7	59.1	59.0	60.7	60.8	61.6	60.7	60.1	60.1	59.8	58.7	58.9	61.4	63.5	64.7	66.0	66.2	66.2	64.8	63.5	62.5	61.3		1482.8	61.78
19	61.7	60.8	60.7	58.5	57.0	57.8	59.0	59.8	60.7	60.1	60.0	59.6	59.0	58.9	59.6	61.6	64.5	66.4	67.1	66.5	65.8	64.3	62.5	61.0		1472.9	61.37
20	61.6	60.8	60.9	61.3	61.3	60.8	60.7	60.4	60.1	59.8	59.9	59.1	58.6	58.7	59.5	61.2	62.9	64.7	65.5	65.2	64.1	63.6	63.2	63.4		1477.3	61.55
21	62.4	62.0	61.7	60.3	59.4	60.2	60.3	61.3	61.1	60.2	60.5	60.2	59.3	59.1	59.8	60.8	62.4	63.6	64.8	64.4	63.5	62.5	62.0	61.6		1473.4	61.39
22 Q	61.6	61.4	61.3	61.2	61.1	60.9	60.8	60.6	60.5	60.5	60.2	59.8	59.2	58.9	59.0	60.7	62.4	63.5	63.9	63.8	63.1	62.3	62.1	62.1		1470.9	61.29
23	61.8	61.6	61.6	60.8	60.3	59.9	59.7	58.3	59.0	58.8	58.1	60.7	58.8	59.0	61.5	63.4	63.6	64.6	64.7	65.1	64.3	63.2	62.8	62.3		1475.9	61.41
24	61.9	61.8	61.6	61.4	60.8	60.7	60.5	60.4	60.3	60.0	59.8	59.6	59.5	59.0	59.2	60.5	62.6	65.3	65.8	65.3	64.2	62.9	62.7	61.7		1477.5	61.56
25	61.6	61.4	61.3	61.3	60.9	60.7	60.8	60.7	60.5	60.3	60.0	59.8	59.0	58.9	59.8	61.8	63.8	65.3	65.8	64.5	63.1	61.8	61.6	61.3		1476.0	61.50
26 Q	61.4	61.5	61.4	61.4	61.2	60.8	60.7	60.7	60.5	60.4	60.2	59.7	58.8	58.0	58.8	60.9	64.4	66.2	66.8	65.5	63.8	62.4	61.6	61.5		1478.6	61.61
27 Q	61.3	61.4	61.0	60.7	60.7	60.6	60.7	60.7	60.7	60.6	60.3	59.8	59.0	58.9	59.6	61.7	63.9	65.1	65.4	64.4	62.8	61.8	61.6	61.5		1474.2	61.42
28	61.4	61.3	61.3	61.1	60.8	60.2	59.8	59.8	59.7	59.8	59.0	59.0	58.6	58.3	59.0	61.1	62.5	64.0	64.4	63.6	62.5	61.6	61.5	61.3		1461.6	60.90
29	60.7	60.5	60.4	59.6	59.5	60.3	60.3	59.7	59.6	59.0	59.3	59.3	59.9	60.0	60.1	61.3	62.5	63.9	64.4	63.5	62.4	61.7	61.6	61.1		1460.6	60.86
30	61.1	61.6	61.3	60.7	60.7	60.7	60.7	61.2	60.5	60.6	60.6	60.1	59.0	59.2	60.2	61.7	63.0	63.6	63.6	62.6	61.8	61.6	61.6	61.5		1469.2	61.22
31	61.6	61.6	61.4	61.3	60.7	60.0	59.8	59.6	60.5	60.1	60.1	59.7	59.2	59.8	60.8	62.5	64.2	64.9	64.4	63.3	62.0	61.4	61.6	61.8		1472.3	61.35
Sum.																										45800.3	
1000+	904.6	904.1	896.8	879.8	868.3	869.2	870.9	863.4	855.4	862.5	853.3	847.4	836.3	840.7	869.4	925.5	980.0				985.7	946.6	927.5	915.1			
2000+																			031.0	041.6	025.2						
Mean.	61.44	61.42	61.19	60.64	60.27	60.30	60.35	60.11	59.85	60.08	59.78	59.59	59.24	59.38	60.30	62.11	63.87	65.52	65.86	65.33	64.05	62.79	62.18	61.78			61.56

Horizontal component, H, 23000 gammas + tabulated value

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U.S. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01 D	333	335	330	329	330	342	344	344	325	323	326	328	323	313	305	299	290	296	313	326	331	328	333	328	7756	324.6
02	332	337	337	337	343	343	346	344	341	340	343	340	333	311	306	299	299	311	323	328	338	337	338	341	7947	331.1
03	341	342	343	346	349	339	337	345	330	338	344	336	327	318	311	306	306	322	329	332	337	328	328	330	7984	332.7
04	330	336	339	346	343	344	339	337	338	337	339	339	330	319	307	305	307	311	319	327	333	335	333	334	7921	330.0
05	336	338	340	341	341	338	337	338	337	335	336	334	326	315	309	307	310	317	329	333	333	330	332	334	7926	330.2
06	341	344	341	336	330	330	332	334	335	335	335	333	326	316	303	297	303	313	316	323	323	328	331	334	7839	326.6
07	336	338	339	339	339	337	337	334	333	333	329	325	318	311	305	304	310	324	341	343	337	342	322	316	7892	328.8
08 D	338	346	336	327	333	344	338	334	321	321	320	318	333	319	303	291	298	301	315	323	306	321	330	328	7764	323.5
09 D	339	333	331	339	335	337	326	328	327	329	326	322	316	302	294	294	293	300	315	320	325	324	309	330	7695	320.6
10 D	332	341	329	315	329	327	332	324	331	328	328	322	293	273	261	259	294	284	293	307	310	303	324	307	7446	310.2
11 D	312	322	334	339	332	329	323	325	323	322	319	319	317	310	303	299	300	308	317	315	308	321	318	322	7637	318.2
12	328	328	325	322	327	332	329	326	321	325	321	327	312	296	285	278	291	307	315	321	323	325	326	326	7616	317.3
13	326	326	327	328	329	331	333	331	332	329	320	320	314	303	284	284	293	301	310	319	321	325	324	324	7634	318.1
14 Q	328	327	326	328	328	328	325	325	324	324	323	324	319	307	297	293	293	297	306	318	327	327	328	329	7651	318.8
15	330	332	330	333	330	327	329	329	327	327	329	328	322	307	293	285	287	295	306	319	328	329	328	329	7679	320.0
16 Q	334	334	336	337	337	336	333	333	334	335	337	337	329	314	302	298	304	312	324	333	336	336	334	334	7679	328.3
17	334	335	338	339	340	340	340	340	339	340	342	342	333	319	304	297	298	310	323	336	335	330	320	324	7898	329.1
18	329	332	332	329	330	337	339	341	339	335	332	332	327	314	294	290	294	307	321	329	330	324	324	324	7785	324.4
19	324	333	336	325	329	331	332	333	334	336	336	332	326	314	301	290	295	306	317	321	330	330	324	324	7759	323.3
20	332	330	330	333	333	338	337	336	336	337	339	339	332	322	311	307	310	316	327	337	342	338	333	334	7929	330.4
21	340	341	342	340	339	335	335	333	334	333	333	333	325	315	306	303	304	311	322	330	333	332	332	332	7663	328.5
22 Q	333	334	335	335	336	334	334	334	334	334	336	337	332	325	316	309	315	325	333	339	342	341	339	340	7972	332.2
23	342	339	340	339	341	339	348	338	339	338	327	348	333	316	300	303	307	316	320	327	328	328	326	329	7911	329.6
24	329	332	331	332	333	333	331	332	332	332	332	329	328	316	307	299	302	311	322	331	335	331	328	328	7816	325.7
25	334	334	335	336	335	334	331	331	333	333	333	335	330	316	303	299	301	307	321	329	332	333	333	335	7843	326.8
26 Q	333	334	334	335	335	334	333	333	332	332	331	330	324	312	296	290	294	304	318	323	324	329	330	330	7770	323.8
27 Q	332	332	334	333	333	333	333	333	332	333	332	329	324	315	305	296	298	308	320	328	332	331	330	333	7809	325.4
28	333	336	337	339	343	346	346	345	344	341	340	340	335	324	311	309	310	317	325	332	336	335	334	331	7989	332.9
29	334	338	343	341	343	345	346	342	341	337	337	331	323	319	309	304	307	315	323	330	332	332	330	329	7931	330.5
30	329	329	331	332	333	334	333	334	331	330	331	333	325	312	299	294	300	313	326	333	333	331	332	333	7811	325.5
31	334	336	336	337	339	337	338	333	333	333	335	334	325	313	301	296	303	313	325	333	333	334	332	321	7854	327.2
Sum	10308	10368	10377	10361	10417	10414	10396	10389	10332	10305	10291	10276	10060	9688	9331	9184	9316	9578	9914	10145	10213	10218	10185	10193	242259	
Mean	332.5	334.4	334.7	334.2	336.0	335.9	335.4	335.1	333.3	332.4	332.0	331.5	324.5	312.5	301.0	296.2	300.5	309.0	319.8	327.3	329.4	329.6	328.5	328.8		325.6

Vertical component, Z, - (36000 + tabulated values) gammas

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U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01 D	354	354	354	349	347	339	335	323	318	340	343	343	339	336	333	330	322	324	338	352	359	360	362	360	8218	342.4	
02	358	356	354	351	353	351	349	346	345	344	342	341	338	331	328	326	327	332	342	350	357	355	357	377	8290	345.4	
03	353	353	351	352	348	342	340	341	338	333	338	335	335	333	331	329	331	335	342	348	354	350	354	356	8222	342.6	
04	353	353	352	349	349	349	345	347	342	340	340	342	342	339	333	331	328	332	341	349	356	357	352	352	8273	344.7	
05	352	352	352	351	349	346	346	346	346	345	345	344	340	337	333	331	334	340	349	352	353	351	351	352	8297	345.7	
06	352	353	352	349	347	345	344	344	344	343	342	342	340	337	333	328	327	331	338	349	353	356	356	354	8259	344.1	
07	354	354	352	350	350	346	345	345	345	346	345	343	340	338	334	329	329	333	338	344	346	353	354	351	8274	344.8	
08 D	366	369	358	348	354	357	347	320	315	336	339	328	329	333	326	325	329	329	344	354	360	372	369	364	8271	344.6	
09 D	367	361	357	354	349	343	344	347	345	347	344	343	338	329	328	329	329	333	344	351	356	358	354	358	8300	345.8	
10 D	357	349	343	344	351	336	323	329	330	322	325	333	320	319	319	330	349	338	355	363	368	366	371	367	8177	340.7	
11 D	365	361	357	344	336	344	344	344	344	344	347	348	344	340	336	333	334	337	342	349	358	363	362	360	8333	347.2	
12	356	355	345	346	347	345	346	345	345	347	344	345	339	334	336	336	344	349	353	359	362	362	358	356	8354	348.1	
13	352	351	351	350	350	350	349	347	345	340	340	341	343	340	333	337	343	345	348	353	357	358	357	354	8334	347.3	
14 Q	355	352	349	349	349	349	346	347	347	347	347	347	344	340	337	336	337	341	347	353	358	358	356	354	8345	347.7	
15	352	351	349	348	345	344	345	345	345	345	345	345	344	340	335	329	330	336	346	355	362	362	358	352	8308	346.2	
16 Q	352	350	349	348	346	345	344	344	345	344	344	344	341	337	333	331	333	337	344	352	356	356	352	349	8276	344.8	
17	349	349	347	347	346	345	344	344	342	343	341	342	340	337	330	324	324	333	344	354	358	359	356	353	8251	343.8	
18	353	353	350	346	347	349	347	342	335	338	341	342	341	335	329	329	332	337	345	351	357	358	356	355	8270	344.6	
19	356	356	353	347	342	336	338	342	344	345	344	342	341	335	329	323	326	333	342	347	355	358	354	354	8242	343.4	
20	356	353	350	349	348	348	347	345	344	344	343	341	317	334	331	328	328	329	336	344	350	351	345	347	8208	342.0	
21	352	349	349	347	341	341	341	339	340	340	341	342	341	340	337	334	334	337	341	348	352	350	348	346	8230	342.9	
22 Q	346	346	345	344	344	343	342	342	341	341	341	340	340	340	336	329	329	333	336	341	344	345	342	343	8173	340.5	
23	344	343	342	342	342	341	344	338	337	337	329	330	333	329	326	331	336	338	336	341	345	347	345	346	8122	338.4	
24	345	346	344	344	345	344	341	341	340	340	338	338	338	337	336	333	331	333	338	345	350	349	346	344	8186	341.1	
25	345	344	342	342	341	339	338	337	338	338	338	338	338	335	329	324	325	332	341	347	349	348	345	344	8137	339.0	
26 Q	342	341	340	340	340	339	339	337	337	337	337	337	337	333	325	320	323	332	341	346	349	349	346	344	8111	338.0	
27 Q	342	341	341	341	340	340	338	337	337	337	337	338	337	335	331	325	328	333	340	344	348	346	342	342	8120	338.3	
28	341	341	340	339	341	341	339	335	333	333	333	333	333	328	321	320	324	330	335	341	344	341	340	338	8044	335.2	
29	338	339	338	335	335	336	335	333	332	329	329	329	328	328	327	325	327	332	337	342	344	342	341	339	8020	334.2	
30	337	337	337	338	337	336	335	333	333	334	335	337	336	333	329	328	330	337	344	346	346	342	341	341	8082	336.8	
31	339	338	337	337	336	333	331	329	332	333	335	336	333	329	326	326	331	335	342	342	344	344	340	337	8045	335.2	
Sum.	10883	10850	10780	10707	10667	10642	10595	10534	10504	10532	10532	10529	10449	10371	10250	10189	10254	10376	10609	10812	10950	10966	10912	10879	254772		
Mean.	351.1	350.0	347.7	345.4	344.1	343.3	341.3	339.8	338.8	339.7	339.7	339.6	337.1	334.5	330.6	328.7	330.8	334.7	342.2	348.8	353.2	353.7	352.0	350.9		342.4	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc.

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U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1	62.6	61.6	57.6	57.9	58.9	49.7	53.3	57.6	59.2	61.1	61.6	59.9	59.1	59.8	60.9	62.5	63.6	64.1	64.0	63.4	62.4	62.0	61.8	61.8	1446.4	60.27	
2	61.7	61.6	61.5	60.9	60.8	60.9	60.7	60.6	60.6	60.4	60.2	59.8	59.4	59.3	60.0	61.6	63.3	64.4	65.1	63.8	62.8	62.5	62.5	61.8	1476.2	61.51	
3	59.2	61.2	61.4	60.9	60.7	60.7	60.7	60.0	60.8	61.7	60.7	60.1	59.2	59.0	59.5	60.8	62.7	64.4	64.7	63.5	62.5	61.9	62.1	61.7	1470.1	61.25	
4 D	61.7	61.4	60.9	61.2	60.7	60.5	59.7	59.8	59.9	58.0	58.1	57.9	57.1	58.8	60.9	63.0	64.0	65.4	66.0	66.9	64.2	64.5	63.7	64.7	1479.0	61.62	
5 D	62.6	58.9	57.9	57.3	59.6	58.7	57.5	58.5	60.1	61.4	61.6	61.8	60.6	61.5	62.4	64.5	65.5	65.9	65.6	63.3	63.4	63.3	60.7	56.7	1469.3	61.22	
6 D	59.9	61.6	61.6	61.2	61.3	60.7	60.7	60.6	64.5	61.3	60.0	61.7	61.0	60.8	62.3	63.6	65.0	64.5	64.3	63.7	62.4	61.7	59.9	61.6	1485.9	61.91	
7	61.5	60.6	60.6	60.6	60.4	59.9	62.1	62.8	62.2	64.4	61.9	60.7	60.7	60.7	61.3	63.6	65.3	65.2	64.5	63.4	62.4	62.1	62.1	61.3	1490.3	62.10	
8	60.8	61.2	61.0	61.5	61.3	61.6	61.0	60.7	60.7	60.8	60.8	60.3	59.7	59.5	60.0	61.5	62.9	64.4	64.3	62.5	61.7	61.7	61.6	61.5	1473.0	61.38	
9	62.1	61.8	61.6	61.1	59.9	59.0	60.4	61.6	61.5	60.8	61.0	60.7	59.9	59.8	60.6	61.6	63.7	65.3	64.7	63.6	62.7	62.4	62.3	61.9	1480.0	61.67	
10 Q	61.8	61.7	61.5	61.3	61.0	61.3	61.3	61.3	61.1	60.9	60.7	60.3	59.3	59.8	60.6	62.3	63.6	64.6	64.7	63.4	62.3	61.6	61.5	61.4	1479.3	61.64	
11 Q	61.4	61.2	61.2	61.3	61.1	61.0	60.8	60.8	60.6	60.7	60.7	60.1	59.6	59.3	59.9	61.6	62.9	63.5	63.4	62.6	61.7	61.5	61.2	61.2	1469.3	61.22	
12	59.5	59.8	60.8	60.7	60.7	60.5	60.6	61.5	60.6	60.9	62.5	60.6	59.5	59.0	60.7	62.5	63.6	64.1	64.6	63.5	63.4	63.2	62.6	61.9	1477.3	61.55	
13	61.7	60.8	59.9	58.8	59.8	60.8	60.7	60.2	59.7	59.9	60.7	61.5	60.8	61.3	62.4	63.6	64.7	64.9	64.5	65.3	64.0	63.6	63.9	63.0	1486.5	61.94	
14 D	56.0	59.9	60.0	59.8	60.4	61.2	60.8	60.8	60.7	60.4	61.7	60.7	60.7	62.6	64.3	67.0	66.7	64.5	64.0	64.4	63.0	62.2	61.7	55.7	1479.2	61.63	
15	59.8	58.8	54.8	59.6	59.9	60.3	59.3	62.5	57.5	59.0	60.1	60.8	61.7	62.5	62.4	62.6	63.5	63.7	64.2	63.4	62.5	62.3	61.8	61.8	1464.8	61.03	
16	58.8	60.7	59.3	59.0	60.8	61.0	60.8	61.0	61.4	61.7	61.6	61.5	60.6	60.1	60.9	62.1	63.6	64.8	64.6	63.1	62.0	61.7	62.0	62.3	1475.4	61.48	
17	61.9	60.8	59.2	59.8	60.6	60.4	60.4	61.1	61.7	61.5	61.2	60.8	60.1	59.2	60.1	61.9	63.4	64.5	64.7	63.7	62.4	62.2	62.6	62.7	1476.9	61.54	
18	—	62.0	61.1	60.5	60.7	60.8	60.7	60.6	60.8	61.7	61.2	60.3	60.0	59.8	60.6	62.2	63.4	64.3	64.9	64.3	64.5	63.6	62.6	60.8	1421.6	—	
19	58.7	60.8	61.4	60.2	59.8	59.9	59.9	57.9	59.0	60.0	60.0	59.9	59.9	59.8	60.6	61.7	63.2	64.1	64.3	62.6	62.1	61.7	61.8	61.9	1461.2	60.88	
20	59.9	62.3	61.6	61.3	60.9	60.7	60.7	61.0	59.4	59.3	59.4	59.8	60.1	61.0	61.6	63.7	65.3	64.4	63.9	63.3	62.6	62.2	62.2	62.1	1478.7	61.61	
21 Q	61.8	61.7	61.5	61.5	61.4	61.4	61.3	61.2	61.3	61.4	61.2	61.2	61.0	60.9	61.6	62.8	64.1	64.6	63.9	62.8	62.4	62.2	62.1	61.9	1487.2	61.97	
22	61.7	60.4	58.8	60.9	61.3	61.2	61.2	61.3	61.3	61.3	60.8	60.7	60.4	59.8	60.4	61.9	63.4	63.9	63.5	62.7	62.5	63.9	62.1	62.4	1477.8	61.58	
23	62.6	62.4	59.3	56.0	55.1	58.2	59.4	59.5	59.4	58.8	61.5	61.7	61.4	60.8	60.8	61.9	63.0	64.1	64.4	63.5	62.4	61.9	61.9	61.9	1461.9	60.91	
24 Q	61.9	61.7	61.6	61.5	61.4	61.3	61.2	61.3	64.9	61.3	61.2	61.2	60.6	60.1	60.6	61.6	62.5	63.1	62.7	62.3	61.7	61.6	61.6	61.7	1480.6	61.69	
25	60.7	59.7	60.6	60.4	59.9	59.9	60.2	60.4	60.8	61.1	60.9	60.7	60.2	59.6	59.9	60.2	62.1	63.0	63.1	62.8	62.3	61.5	61.9	60.0	1461.9	60.91	
26	59.7	60.7	60.7	59.0	56.4	58.6	60.7	61.3	61.2	61.2	61.0	60.7	60.4	59.8	60.1	61.5	62.8	63.6	63.3	62.4	60.8	61.2	61.6	62.0	1460.7	60.86	
27	61.7	61.1	60.7	59.0	59.4	60.4	58.5	60.6	61.2	61.7	62.3	61.5	62.0	61.6	61.7	63.0	63.2	63.6	63.5	65.5	63.5	62.4	62.1	62.1	1482.3	61.76	
28 Q	61.8	61.6	61.5	61.3	61.1	60.8	60.7	60.7	60.7	60.7	60.8	60.8	60.6	60.1	60.7	62.1	63.2	63.5	63.0	62.4	61.7	61.6	61.6	61.6	1474.6	61.44	
29	61.6	61.5	61.3	60.8	59.0	59.0	60.4	60.8	60.8	60.8	60.9	60.7	60.1	59.6	60.4	61.7	62.6	63.4	62.7	62.2	61.6	61.3	61.2	61.3	1465.7	61.07	
30 D	61.5	61.1	60.4	60.7	60.7	60.8	60.9	61.0	60.8	60.8	60.7	60.2	59.5	59.7	60.4	60.6	61.7	62.4	62.6	62.4	68.7	67.3	64.1	63.9	1482.9	61.79	
Sum.																									44176.0		
1000+	766.6	830.6	811.3	806.0	805.0	801.2	806.6	819.2	824.4	825.0	827.0	818.6	805.2	805.6	828.6	871.2	908.5	926.2	923.7	902.7	882.6	872.8	860.8	846.6			
Mean.	60.92	61.02	60.38	60.20	60.17	60.04	60.22	60.64	60.81	60.83	60.90	60.62	60.17	60.19	60.95	62.37	63.62	64.21	64.12	63.42	62.75	62.43	62.03	61.55		61.44	

Horizontal component, H, 25000 gammas + tabulated value

April 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01	320	315	313	326	327	314	307	314	318	325	325	321	318	313	308	303	304	308	318	324	325	324	325	328	7525	317.7
02	329	333	334	327	329	328	327	326	327	327	328	328	324	316	306	303	307	309	305	314	319	321	321	324	7712	321.3
03	327	326	330	331	335	333	331	326	324	327	330	332	327	317	306	301	299	306	319	325	326	327	331	332	7768	323.7
04	333	330	329	330	334	335	345	344	347	346	339	337	328	314	300	303	312	327	329	320	326	337	334	333	7912	329.7
05	316	311	321	311	334	323	317	314	310	312	307	312	307	298	296	289	292	305	301	315	317	317	308	311	7444	310.2
06	318	321	324	330	329	327	327	329	321	321	319	307	317	308	290	293	296	301	308	311	314	304	308	318	7541	314.2
07	321	326	326	325	327	325	327	329	326	320	321	318	308	297	290	281	283	301	316	321	321	321	321	311	7562	315.1
08	319	325	324	325	325	329	324	322	322	321	321	320	312	303	295	291	294	300	307	315	321	321	321	321	7578	315.8
09	324	324	325	325	334	319	318	319	321	321	322	320	313	302	291	289	291	291	307	318	321	317	321	321	7554	314.8
10	322	322	323	324	324	324	323	324	325	325	325	321	312	301	295	295	298	308	317	321	321	321	324	326	7621	317.5
11	327	329	327	329	329	328	328	327	327	328	328	326	320	311	302	297	304	313	321	327	326	326	327	326	7733	322.2
12	316	322	328	331	333	331	327	333	331	329	333	334	324	313	296	291	300	308	318	317	316	311	317	321	7680	320.0
13	321	320	328	324	324	327	326	325	327	321	325	334	335	321	307	305	301	308	304	305	301	285	288	289	7551	314.6
14	278	301	314	325	324	326	325	325	326	319	322	321	315	311	291	290	297	307	312	311	309	306	310	314	7479	311.6
15	295	303	327	308	314	321	309	326	318	316	318	316	308	304	305	307	305	308	314	314	316	316	320	317	7505	312.7
16	317	316	308	313	321	321	320	320	321	325	326	323	320	313	304	301	302	308	316	320	316	320	318	315	7584	316.0
17	310	313	333	323	322	324	330	322	323	323	326	324	327	308	299	299	306	308	312	318	324	326	322	328	7650	318.8
18	318	315	317	324	325	326	326	327	326	325	329	328	323	318	305	301	306	309	308	308	304	290	300	316	7574	315.6
19	312	316	320	325	334	337	336	330	326	320	323	321	317	312	309	311	313	313	318	324	322	322	322	326	7709	321.2
20	328	328	327	326	325	329	321	321	329	326	326	325	322	312	301	295	307	313	317	316	313	314	316	316	7653	318.9
21	318	319	321	321	320	320	319	321	321	323	325	321	312	305	298	300	303	308	309	317	318	318	317	317	7571	315.5
22	319	305	303	312	317	317	316	317	318	323	326	327	323	314	306	303	304	309	312	316	311	301	317	318	7534	313.9
23	317	314	301	295	295	302	309	314	334	321	319	321	314	310	302	295	295	300	309	314	315	314	314	315	7436	309.8
24	316	317	318	318	318	318	320	321	321	321	322	321	320	312	302	299	301	309	318	321	320	319	319	320	7591	316.3
25	320	326	326	330	331	334	333	329	327	329	330	330	326	317	308	306	306	311	316	317	318	312	313	316	7711	321.3
26	317	319	316	321	325	322	322	324	326	328	329	329	326	317	310	308	309	316	320	320	318	308	314	316	7660	319.2
27	316	321	322	323	317	327	321	313	316	324	332	334	331	326	318	315	312	317	317	308	312	317	318	317	7674	319.8
28	320	322	324	325	325	324	322	323	325	326	326	326	323	317	312	311	313	320	326	326	325	325	325	325	7736	322.3
29	327	328	328	330	334	330	325	325	326	326	328	329	328	321	311	308	312	318	322	325	325	326	326	327	7785	324.4
30	327	327	329	328	329	329	328	328	329	330	334	335	333	323	318	328	334	332	338	335	316	324	331	329	7894	328.9
Sum	9548	9591	9666	9685	9760	9750	9709	9718	9738	9728	9764	9741	9613	9354	9081	9018	9106	9291	9454	9543	9536	9490	9548	9593	229025	
Mean	318.3	319.7	322.2	322.8	325.3	325.0	323.6	324.0	324.6	324.3	325.5	324.7	320.4	314.8	303.0	300.6	303.5	309.4	315.1	318.1	317.9	316.3	318.3	319.8		318.0

Vertical component, Z, - (36000 + tabulated values) gammas

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U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	342	343	342	345	346	321	321	336	338	339	340	341	339	336	333	330	331	334	338	343	346	346	346	347	8125	338.5	
02	346	347	346	342	341	340	340	339	340	340	340	340	340	339	336	331	332	332	331	339	343	346	347	348	8165	340.2	
03	346	347	346	345	343	338	336	334	336	338	340	343	342	339	335	332	331	335	342	347	348	347	346	345	8181	340.9	
04 D	344	343	342	343	342	342	344	340	338	330	333	335	334	327	318	323	331	335	335	335	342	350	347	351	8104	337.7	
05 D	351	348	343	337	319	314	329	331	334	333	335	342	338	337	334	328	334	342	342	351	351	348	347	347	8115	338.1	
06 D	346	347	346	339	340	339	336	331	312	331	338	331	343	339	332	333	336	340	346	350	354	350	351	352	8162	340.1	
07	351	348	346	345	344	342	338	330	331	327	335	342	341	339	337	331	334	347	355	359	356	351	350	346	8225	342.7	
08	347	347	346	346	343	342	339	341	341	340	341	342	342	341	338	337	337	339	343	351	351	351	347	347	8239	343.3	
09	345	344	344	344	338	332	337	339	339	340	342	343	343	339	337	337	335	335	344	352	353	349	348	347	8206	341.9	
10 Q	346	345	344	343	343	342	342	342	341	341	342	343	343	339	337	336	337	341	346	350	351	348	347	346	8235	343.1	
11 Q	344	343	342	342	340	340	339	339	339	339	338	339	339	337	334	332	335	339	345	347	347	346	345	343	8173	340.5	
12	338	342	343	343	342	339	338	338	336	335	334	336	337	335	331	331	334	335	339	342	343	342	344	346	8123	338.5	
13	345	343	342	337	338	339	339	337	335	330	334	337	337	333	327	328	331	337	338	343	346	344	347	351	8118	338.2	
14 D	347	355	352	351	347	347	344	343	342	336	337	339	338	334	327	327	338	343	349	351	351	350	351	343	8242	343.4	
15	338	344	336	339	343	340	324	319	321	333	338	338	337	339	340	339	336	338	343	346	347	347	348	346	8119	338.3	
16	343	343	341	341	343	342	340	339	339	340	340	340	342	338	333	333	333	335	342	349	346	346	345	344	8177	340.7	
17	345	345	340	337	338	337	335	338	338	338	340	342	342	339	355	332	333	333	337	345	349	347	344	337	8166	340.2	
18	339	344	344	344	343	342	339	339	337	335	337	341	341	339	331	335	331	335	335	342	342	343	348	351	8157	339.9	
19	343	348	347	346	342	317	327	319	326	331	336	338	337	335	331	331	331	331	339	345	343	342	342	342	8069	336.2	
20	343	340	339	338	337	339	338	331	327	328	331	333	334	327	326	324	331	337	341	341	340	342	341	342	8050	335.4	
21 Q	342	342	341	340	339	338	337	337	337	338	338	337	335	332	331	331	334	338	340	346	346	343	341	341	8124	338.5	
22	342	335	336	342	341	339	338	338	338	340	340	340	339	335	331	327	330	334	338	342	339	337	345	343	8109	337.9	
23	342	342	339	329	324	336	332	322	310	318	330	335	338	338	335	332	331	335	341	347	346	343	342	342	8029	334.5	
24 Q	342	341	340	339	339	338	338	338	337	337	337	336	338	338	335	332	335	338	343	343	341	339	339	338	8121	338.4	
25	338	339	338	335	333	331	331	331	331	332	333	332	334	333	329	327	328	331	335	337	338	335	336	337	8044	335.2	
26	337	338	335	334	326	330	332	334	334	335	334	334	334	332	328	328	331	334	336	339	339	334	336	339	8013	333.9	
27	337	337	335	331	327	325	316	323	327	331	330	330	327	323	325	327	326	331	333	328	335	338	337	336	7915	329.8	
28 Q	337	337	336	335	334	333	331	331	331	331	331	331	331	331	329	326	327	330	334	336	335	335	335	334	7981	332.5	
29	334	333	332	332	328	325	324	326	327	328	328	330	331	330	327	324	326	329	333	335	335	334	334	332	7917	329.9	
30 D	331	331	330	329	328	327	326	327	327	328	330	331	331	327	325	328	324	320	326	326	318	332	336	336	7874	328.1	
Sum.	10271	10281	10233	10193	10131	10056	10030	10012	9989	10022	10082	10121	10127	10050	9967	9912	9963	10063	10189	10307	10321	10305	10312	10299	243236		
Mean.	342.4	342.7	341.1	339.8	337.7	335.2	334.3	333.7	333.0	334.1	336.1	337.4	337.6	335.0	332.2	330.4	332.1	335.4	339.6	343.6	344.0	343.5	343.7	343.3		337.8	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

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U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1 D	63.0	62.0	54.7	52.6	58.4	62.5	62.8	63.6	64.7	65.0	65.8	63.2	61.7	61.5	61.9	62.5	65.1	65.2	64.1	63.0	63.3	63.4	59.8	61.7	1491.5	62.15	
2 D	62.3	56.6	56.4	59.8	61.2	60.4	63.1	61.8	61.4	61.9	66.3	62.3	61.7	61.3	62.0	62.5	63.5	62.5	61.9	62.5	61.7	61.6	61.5	61.9	1478.1	61.59	
3	62.5	62.3	60.7	61.6	60.8	59.9	58.8	60.4	58.6	60.1	61.5	61.5	61.7	61.8	61.7	61.8	62.6	63.2	63.0	62.4	62.6	61.8	56.7	60.0	1468.0	61.17	
4 D	59.9	57.0	58.5	62.4	59.9	60.6	59.1	61.3	66.5	64.7	61.5	63.6	62.1	62.1	62.5	63.9	64.5	63.8	63.5	63.4	63.0	62.7	60.2	59.0	1485.7	61.90	
5	60.0	61.9	61.6	61.7	58.0	59.1	61.3	62.1	50.6	60.1	61.9	62.3	61.9	61.5	61.3	61.9	62.7	63.5	62.5	62.2	61.6	61.6	61.9	61.7	1474.9	61.45	
6	61.9	61.3	57.9	58.6	56.1	57.3	59.9	60.4	61.8	62.1	61.5	61.0	60.7	60.5	60.8	61.8	62.7	63.4	62.8	62.4	62.4	61.9	62.1	61.8	1463.2	60.97	
7	61.7	61.6	61.1	61.0	61.0	61.2	61.5	60.8	60.8	60.7	61.7	61.3	60.8	60.4	60.0	60.9	62.3	62.7	62.6	62.4	62.0	61.7	61.7	61.7	1473.6	61.40	
8	58.0	60.5	61.0	59.5	60.8	62.2	61.2	60.4	62.0	62.9	61.6	61.5	60.8	60.7	61.6	61.6	62.0	62.4	62.5	62.4	61.8	61.6	60.4	61.7	1471.1	61.30	
9	62.2	61.2	60.7	59.5	59.9	59.1	60.4	58.2	59.5	62.6	62.1	61.4	61.7	61.8	61.5	62.3	62.6	63.0	62.9	63.0	63.0	62.4	62.8	61.0	1474.8	61.45	
10	61.5	59.5	56.7	56.2	60.2	61.2	60.2	59.0	59.8	60.6	62.3	62.6	61.5	61.3	61.6	63.0	63.5	63.5	63.5	63.4	60.9	62.0	61.3	59.1	1464.4	61.12	
11	56.9	57.1	59.5	59.0	61.5	61.2	61.9	62.1	61.6	63.5	64.2	63.2	63.5	62.4	62.3	62.5	63.2	63.2	63.0	62.6	62.5	62.4	60.7	59.9	1479.9	61.66	
12	61.6	56.5	59.0	59.8	60.7	60.6	61.6	61.8	63.2	61.5	61.3	61.7	61.5	61.2	61.6	61.7	62.3	62.8	62.6	62.5	61.7	60.6	62.5	61.8	1472.1	61.34	
13 D	60.7	54.1	57.5	58.0	56.9	57.1	57.3	61.5	62.7	62.7	62.6	66.1	64.5	62.6	62.4	62.5	63.2	63.6	63.4	62.5	62.3	60.6	58.5	60.8	1464.1	61.00	
14	58.0	60.7	60.8	59.3	56.7	58.5	59.8	59.8	60.5	61.6	62.4	61.7	62.5	61.6	61.5	62.0	63.1	63.6	63.2	62.4	62.1	61.8	60.3	60.2	1464.1	61.00	
15	61.5	61.6	61.4	60.9	59.4	59.7	59.1	62.1	61.3	61.3	61.4	61.3	61.5	61.0	61.2	61.8	63.0	63.4	62.8	62.5	61.9	61.8	61.9	61.6	1475.4	61.48	
16 Q	61.7	57.7	59.4	60.8	60.8	61.0	61.4	61.5	61.5	61.2	61.6	61.5	61.1	60.7	60.7	61.3	62.4	62.6	62.5	62.1	61.7	61.6	61.7	61.6	1470.1	61.25	
17	61.7	61.5	60.7	60.6	60.7	60.6	59.9	60.2	60.8	60.6	61.3	61.6	60.8	60.5	60.8	61.6	62.5	62.8	62.6	61.7	61.5	61.3	61.5	61.5	1469.3	61.22	
18 Q	61.7	61.7	61.2	61.0	61.0	61.2	61.2	61.0	61.2	60.8	61.0	61.2	60.7	60.2	60.5	61.3	61.8	62.1	61.9	61.3	61.0	60.9	61.2	61.2	1468.3	61.18	
19	61.3	61.2	61.2	61.0	60.8	60.7	60.1	59.7	59.5	60.6	60.7	60.4	60.1	60.7	61.0	61.9	62.6	63.4	62.8	62.4	62.4	63.9	63.9	65.6	1477.9	61.58	
20	64.7	61.7	60.1	57.0	57.6	58.7	59.4	60.2	60.7	61.5	61.3	61.2	61.0	61.0	61.3	61.7	62.1	62.4	62.4	61.6	61.3	61.2	61.2	61.2	1462.5	60.94	
21	61.5	61.6	61.4	61.0	61.0	60.8	60.8	60.8	61.0	61.0	61.0	60.8	60.7	60.6	60.7	61.4	62.0	62.4	62.1	62.1	61.8	61.7	61.2	61.0	1470.4	61.27	
22 Q	61.2	61.2	60.9	60.8	60.7	60.4	60.6	60.8	61.3	61.3	61.3	60.8	60.8	61.1	61.0	61.6	62.3	62.4	61.6	61.0	60.8	60.7	60.8	60.9	1466.3	61.10	
23 Q	61.0	60.9	60.8	60.8	60.7	60.7	60.7	60.8	60.9	61.5	60.8	60.8	60.6	60.6	60.9	61.7	62.3	62.4	61.7	61.3	61.0	60.9	61.0	61.0	1465.8	61.08	
24 Q	61.1	61.0	60.9	60.8	60.7	60.7	60.7	60.7	60.9	61.1	61.0	61.1	60.7	60.6	60.8	61.6	61.8	61.9	61.6	61.0	60.6	60.4	60.5	60.6	1462.8	60.95	
25	60.6	60.6	60.6	60.5	60.4	60.2	60.1	60.4	60.6	60.7	60.8	60.7	61.5	61.3	61.8	61.6	61.9	61.9	61.6	61.5	62.1	61.0	61.0	60.8	1464.2	61.01	
26	59.3	59.1	58.3	58.0	60.1	61.7	61.3	60.8	61.0	60.7	61.2	61.2	61.0	61.1	61.3	61.8	62.4	62.3	61.7	61.6	61.3	61.5	61.7	59.5	1459.9	60.83	
27	60.6	61.0	60.8	60.9	61.2	61.2	60.7	61.0	60.8	61.3	61.3	61.0	61.1	61.0	61.3	62.0	62.6	62.4	61.8	61.1	60.4	60.5	60.9	60.6	1467.5	61.15	
28	60.5	61.0	59.9	55.1	53.2	56.5	58.9	56.2	60.6	61.7	61.7	60.9	61.8	61.4	61.3	61.9	62.3	62.4	62.3	61.7	61.7	61.5	61.7	61.6	1447.8	60.32	
29 D	61.7	61.4	56.7	52.1	57.4	61.6	60.2	61.6	61.4	61.2	61.7	61.9	61.9	62.1	62.1	62.3	62.4	62.5	62.4	61.7	61.3	61.5	61.6	61.7	1462.4	60.93	
30	61.7	61.5	59.3	57.2	58.0	56.3	57.4	61.3	61.7	61.3	61.5	62.4	61.5	61.7	61.7	62.4	62.6	62.8	62.5	61.6	61.6	61.6	61.7	61.6	1462.9	60.95	
31	61.6	61.6	61.4	61.5	61.3	61.0	60.1	59.5	60.3	60.8	61.0	61.9	61.9	62.8	62.5	62.4	62.4	62.4	62.4	62.4	62.3	62.6	60.9	63.4	62.6	1480.6	61.69
Sum.																										45559.6	
1000+	893.6	868.6	851.1	839.0	847.1	863.9	871.5	881.8	899.2	908.6	917.3	914.1	905.3	899.1	903.6	921.3	942.7	948.9	938.2	925.6	915.9	909.0	897.3	896.9			
Mean.	61.08	60.28	59.71	59.32	59.58	60.13	60.37	60.70	61.26	61.57	61.85	61.74	61.46	61.26	61.41	61.98	62.67	62.87	62.52	62.12	61.80	61.58	61.20	61.19		61.24	

Horizontal component, H, 23000 gammas + tabulated value

May 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01 D	322	323	273	265	293	308	310	306	302	299	305	308	312	301	301	299	289	293	307	310	311	304	294	303	7238	300.7
02 D	307	319	308	308	313	319	321	314	312	316	316	318	308	304	295	295	298	296	309	313	315	316	321	324	7465	311.0
03	325	314	316	317	312	309	308	326	312	315	317	321	316	312	309	308	301	298	306	310	305	301	307	295	7460	310.8
04 D	315	317	291	307	310	316	324	313	334	338	317	315	314	307	296	291	294	296	304	307	307	307	310	308	7438	309.9
05	303	307	309	321	318	306	312	310	319	315	316	319	315	312	307	304	306	304	315	317	316	317	317	317	7502	312.6
06	315	315	323	318	333	307	310	310	311	315	320	321	319	312	303	296	301	309	314	315	306	311	317	316	7517	313.2
07	317	317	316	316	316	315	321	321	318	320	321	326	324	319	309	304	307	315	316	315	311	311	316	317	7589	316.2
08	307	306	314	313	317	321	320	317	316	323	325	328	325	314	305	304	307	313	317	322	317	309	309	317	7566	315.2
09	317	323	327	334	326	325	340	317	318	322	324	322	317	304	302	299	304	310	315	307	297	310	303	296	7559	315.0
10	306	305	299	293	307	310	320	317	310	310	312	315	317	315	307	300	295	296	305	295	303	305	288	291	7325	305.2
11	302	293	297	309	311	311	311	313	315	316	321	321	305	298	301	296	297	304	307	308	305	307	299	297	7344	306.0
12	301	296	305	308	313	312	314	317	318	317	319	317	315	318	310	304	305	316	317	316	305	301	307	307	7458	310.8
13 D	297	300	307	310	304	307	304	307	310	312	304	298	303	306	294	294	299	304	309	310	310	303	307	294	7293	303.9
14	286	297	305	328	308	299	301	317	315	315	328	311	312	306	300	296	298	302	310	311	311	308	296	302	7362	306.8
15	307	313	314	316	317	324	315	312	312	312	311	312	311	308	303	300	303	307	308	307	311	307	303	299	7432	309.7
16 Q	307	317	309	312	314	315	315	316	317	316	314	314	313	311	307	304	304	310	314	316	314	312	311	309	7491	312.1
17	312	314	317	318	318	321	321	321	321	320	323	329	327	326	322	318	318	317	322	321	321	317	316	316	7676	319.8
18 Q	315	316	315	314	316	315	317	316	317	317	317	320	321	322	319	318	317	319	321	321	321	321	321	319	7635	318.1
19	321	321	321	322	322	322	321	321	321	320	323	325	325	320	313	311	309	313	317	320	317	309	304	301	7619	317.5
20	277	291	307	303	300	299	301	309	309	312	315	316	317	316	312	312	314	319	324	324	322	321	322	322	7464	311.0
21	321	317	317	318	319	318	319	319	321	322	325	325	325	325	322	319	318	317	317	311	312	316	319	321	7663	319.3
22 Q	321	321	320	321	319	317	317	316	318	322	325	325	324	321	316	314	314	319	322	322	323	322	322	322	7683	320.1
23 Q	322	322	323	322	321	321	322	315	325	329	330	330	329	323	317	315	316	321	322	322	325	325	325	326	7748	322.8
24 Q	325	325	325	322	323	322	322	322	322	323	325	325	325	321	316	313	317	322	326	328	330	329	328	329	7765	323.5
25	330	331	329	331	334	334	332	331	331	329	333	330	330	323	319	313	312	313	316	312	317	320	320	320	7790	324.6
26	298	290	295	297	312	321	321	317	317	319	319	320	321	318	313	312	315	317	317	317	316	311	311	307	7501	312.5
27	312	315	316	315	317	326	317	317	319	320	322	321	319	316	314	316	320	322	324	326	333	332	328	322	7689	320.4
28	316	321	313	300	295	312	310	305	308	315	314	311	314	311	311	310	315	317	316	321	319	317	318	316	7505	312.7
29 D	315	312	312	322	289	306	305	312	306	304	303	302	304	304	305	305	310	312	312	312	315	313	312	312	7404	308.5
30	305	308	329	304	302	321	318	305	307	308	306	304	306	306	305	307	307	310	309	308	314	312	312	311	7424	309.3
31	312	312	312	312	312	313	316	310	309	316	322	326	315	308	312	308	307	315	321	320	307	298	300	307	7490	312.1
Sum	9636	9678	9664	9696	9711	9772	9805	9769	9790	9837	9872	9879	9828	9707	9565	9485	9517	9626	9759	9764	9735	9692	9663	9643	233095	
Mean	310.8	312.2	311.7	312.8	313.3	315.2	316.3	315.1	315.8	317.3	318.4	318.7	317.0	313.1	308.5	306.0	307.0	310.5	314.8	315.0	314.1	312.6	311.7	311.1		313.3

Vertical component, Z, - (36000 + tabulated values) gammas

May 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01 D	333	335	316	319	332	336	328	319	310	310	322	337	338	335	335	333	324	326	339	342	342	339	339	343	7932	330.5	
02 D	342	335	324	334	334	315	310	324	331	321	310	320	331	334	327	328	331	330	339	339	339	339	339	340	7916	329.8	
03	339	338	339	336	331	331	333	332	326	330	331	331	330	330	331	331	328	327	334	339	335	334	328	326	7970	332.1	
04 D	334	321	319	333	329	319	308	295	300	301	308	327	332	335	331	331	335	335	339	341	340	339	339	336	7827	326.1	
05	335	338	338	334	322	325	327	322	327	326	331	333	331	333	333	331	330	328	336	338	336	336	334	334	7958	331.6	
06	333	332	330	327	307	308	320	323	327	331	332	331	331	331	330	326	328	333	337	337	330	334	335	335	7888	328.7	
07	335	335	333	331	331	331	331	328	329	328	327	330	331	331	328	326	328	330	334	334	333	332	334	335	7945	331.0	
08	331	331	334	328	331	329	328	327	321	326	330	331	331	330	328	329	330	328	331	335	331	327	330	334	7911	329.6	
09	333	334	334	327	325	324	305	300	315	314	311	322	322	324	328	327	330	331	333	330	327	335	334	331	7796	324.8	
10	335	333	326	321	331	331	324	315	321	323	327	331	333	333	331	326	326	328	334	331	336	337	331	333	7897	329.0	
11	330	323	314	326	316	327	328	326	324	323	322	327	324	331	333	331	333	335	335	335	334	335	331	331	7874	328.1	
12	335	331	332	331	331	328	323	319	321	326	329	329	329	331	326	326	326	331	331	331	329	330	332	333	7890	328.8	
13 D	331	327	328	330	304	299	319	326	323	314	320	312	326	338	334	334	335	335	337	337	335	331	331	329	7835	326.5	
14	328	336	333	323	308	313	---	---	---	---	---	320	327	330	331	330	329	331	334	335	334	332	328	331	6233	---	
15	334	334	331	329	322	318	310	318	322	325	326	326	326	327	327	324	323	326	327	328	331	331	330	328	7823	326.0	
16 Q	331	328	326	328	327	326	326	326	326	325	326	326	327	327	326	326	327	331	331	331	330	328	327	327	7859	327.5	
17	328	328	328	327	326	324	322	324	326	323	323	322	321	323	324	323	324	325	328	328	326	325	324	324	7796	324.8	
18 Q	325	326	326	324	324	324	324	323	323	323	323	325	326	327	326	323	322	324	324	324	324	325	324	322	7781	324.4	
19	319	319	318	319	319	319	318	315	314	315	319	318	318	318	318	318	318	318	322	323	322	318	319	324	7648	318.7	
20	331	334	330	318	322	322	322	324	323	324	324	324	324	323	323	322	321	321	322	322	322	321	319	321	7759	323.3	
21	321	319	319	319	319	319	318	318	318	318	319	319	318	319	318	318	318	318	318	315	316	318	319	321	7642	318.4	
22 Q	319	319	318	318	317	316	315	315	316	317	318	318	318	318	318	318	319	321	321	320	319	318	318	317	7631	318.0	
23 Q	317	317	317	317	315	315	315	315	315	315	314	315	315	317	316	316	317	319	319	319	319	318	318	318	7598	316.6	
24 Q	316	315	315	314	314	315	314	314	314	314	315	315	315	315	315	315	318	319	320	321	320	318	317	315	7583	316.0	
25	314	314	312	312	314	314	310	310	310	309	310	308	310	308	310	311	313	315	318	316	319	319	318	318	7513	313.0	
26	310	311	315	315	319	314	314	315	317	316	315	315	316	317	316	315	318	318	318	319	318	316	317	315	7579	315.8	
27	318	318	317	316	316	314	311	314	314	315	315	314	314	314	313	314	315	317	318	319	321	318	315	314	7574	315.6	
28	314	315	311	302	302	313	314	305	303	298	302	310	316	317	316	314	315	315	316	318	318	317	318	318	7487	312.0	
29 D	318	317	315	292	299	316	298	305	313	313	315	315	315	316	316	318	318	318	318	318	319	318	318	318	7526	313.6	
30	317	319	311	298	293	285	281	304	314	314	311	313	316	317	317	318	318	319	318	318	320	321	318	317	7477	311.5	
31	318	318	317	316	315	315	311	310	313	314	314	311	308	310	316	315	315	318	319	319	312	313	319	322	7558	314.9	
Sum.	10124	10100	10026	9964	9895	9885	9507	9511	9556	9551	9589	9975	10019	10059	10041	10017	10032	10070	10150	10162	10137	10122	10104	10110	238706		
Mean.	326.6	325.8	323.4	321.4	319.2	318.9	316.9	317.0	318.5	318.4	319.6	321.3	323.2	324.5	323.9	323.1	323.6	324.8	327.4	327.8	327.0	326.5	325.9	326.1		323.0	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

June 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.
1	61.9	60.6	60.0	60.7	57.2	57.1	59.9	60.4	59.7	62.1	61.5	58.4	60.8	61.0	62.3	62.4	63.1	62.4	62.3	62.2	62.3	62.3	62.3	61.2	1464.1	61.00
2	60.7	61.2	60.1	60.5	59.1	61.1	59.9	59.9	60.8	60.6	60.8	61.5	63.4	61.7	62.1	63.5	63.2	63.6	63.0	62.2	61.7	61.5	61.5	61.3	1474.9	61.45
3	61.3	61.6	60.8	60.2	58.8	58.9	58.9	59.7	60.2	60.8	60.7	61.6	61.7	61.8	61.8	62.2	62.5	62.5	62.4	62.0	61.7	61.5	61.5	61.5	1466.6	61.11
4 Q	61.6	61.3	61.2	61.2	61.2	61.0	61.1	61.7	61.1	61.1	61.2	61.3	61.4	61.1	61.5	61.6	62.1	62.3	61.9	61.8	61.3	61.3	61.3	61.4	1474.0	61.42
5 Q	61.5	61.5	61.3	61.3	61.0	61.2	61.3	61.5	61.6	61.5	61.5	61.6	61.5	61.5	61.6	61.7	62.3	61.6	61.7	61.5	61.3	61.2	61.0	61.2	1474.9	61.45
6	61.3	60.9	60.8	60.8	60.8	61.0	61.0	61.0	61.0	61.0	60.9	60.8	60.7	60.6	60.6	60.7	61.4	61.3	60.7	61.8	64.3	68.0	67.4	67.0	1485.8	61.91
7 D	59.9	57.3	48.9	52.4	50.3	54.5	62.3	64.3	63.4	63.6	64.3	63.6	64.5	64.8	63.6	63.9	64.1	64.1	63.2	62.8	62.8	62.7	56.1	61.5	1458.9	60.79
8	62.3	62.3	61.7	61.0	61.5	61.9	62.5	61.6	62.4	61.0	62.3	62.4	62.8	62.8	62.6	63.0	63.3	62.8	62.4	62.4	62.4	62.1	57.8	58.9	1486.2	61.92
9	61.5	62.5	60.7	60.4	60.7	60.7	61.0	60.1	61.0	62.4	61.9	63.7	63.0	62.4	61.9	62.1	62.6	62.6	62.7	62.1	61.6	61.7	61.8	61.2	1482.6	61.78
10	61.5	61.0	61.5	60.9	60.8	60.9	61.4	61.5	61.6	61.6	62.5	61.5	61.9	61.7	62.1	62.4	62.5	62.5	62.3	61.2	60.8	61.5	61.5	61.7	1478.8	61.61
11	60.8	61.1	60.7	60.6	60.4	58.8	59.5	60.8	61.3	61.3	61.6	61.9	61.7	61.7	61.6	61.8	61.8	62.1	62.2	61.7	61.5	61.3	60.8	61.7	1468.7	61.20
12	61.4	61.3	61.0	60.0	59.1	60.4	61.2	61.3	61.2	61.5	61.7	61.7	61.6	61.5	61.5	61.7	62.3	62.5	62.4	61.9	61.5	61.6	61.5	61.6	1473.4	61.39
13	61.7	61.7	58.7	59.9	60.2	60.7	60.9	61.6	60.9	61.0	60.9	60.7	61.5	61.3	61.7	62.1	62.4	62.6	62.3	61.7	61.5	61.4	61.5	61.6	1470.7	61.28
14	61.7	59.8	61.7	61.2	61.0	61.0	61.0	61.0	61.1	60.8	60.8	61.2	61.3	61.6	62.0	62.3	61.9	62.4	62.3	61.7	61.5	61.2	61.3	61.2	1473.0	61.38
15	61.4	60.4	60.6	60.7	59.7	58.2	55.2	57.9	59.1	59.8	60.4	60.7	61.5	61.5	61.7	62.3	62.6	62.5	62.4	62.2	62.3	62.6	61.8	61.8	1459.3	60.80
16 Q	61.4	61.2	61.0	60.8	60.8	60.8	61.0	61.0	61.3	61.3	61.2	61.2	61.0	61.2	60.9	61.5	61.8	62.2	61.9	61.4	61.0	61.0	61.1	61.2	1469.2	61.22
17	61.3	61.6	61.3	61.0	60.6	60.1	61.0	59.9	60.8	58.4	59.9	61.9	63.7	64.8	65.3	64.4	64.4	63.9	64.3	64.4	63.7	62.9	61.5	62.7	1493.8	62.24
18 D	61.7	61.2	61.3	58.2	57.3	58.2	56.2	57.5	60.1	61.5	61.6	61.0	61.4	63.6	63.6	64.1	63.4	63.5	64.7	65.9	66.1	66.7	66.9	66.7	1492.4	62.18
19	62.8	61.5	60.3	59.3	58.0	60.6	60.2	61.4	61.9	61.8	61.9	61.9	61.9	61.9	62.4	62.7	63.0	62.4	62.3	62.5	61.7	62.5	62.3	62.5	1479.7	61.65
20	59.8	57.7	57.9	59.9	59.8	59.9	61.4	62.4	59.8	60.3	61.5	64.4	62.4	62.4	62.7	62.6	62.5	62.5	62.3	62.1	61.7	61.3	61.5	61.7	1470.5	61.27
21	58.8	60.6	60.7	60.5	61.3	59.8	60.8	60.7	61.7	62.4	60.8	61.0	61.4	61.3	61.6	62.1	62.1	61.8	61.5	61.0	60.8	61.0	61.2	61.5	1466.4	61.10
22 Q	61.4	61.3	60.8	60.8	61.0	60.7	59.5	59.8	59.7	61.3	61.5	61.6	61.5	61.2	61.6	61.9	62.4	62.4	61.9	61.5	61.2	61.2	61.3	61.0	1468.5	61.19
23 Q	61.2	60.7	60.1	60.7	60.5	60.1	60.8	60.7	61.0	61.3	61.6	61.5	61.4	61.4	61.6	62.0	62.4	62.1	61.3	61.0	61.0	61.0	61.0	61.0	1467.4	61.14
24	57.9	57.9	57.8	57.9	57.9	57.6	57.9	57.1	57.3	57.6	57.7	57.6	57.8	58.1	58.2	59.6	60.1	59.7	58.7	57.9	58.0	58.1	57.9	57.9	1394.2	58.09
25 D	58.6	58.6	57.0	58.4	58.4	56.5	60.0	56.1	58.0	58.2	60.4	61.3	61.3	62.0	62.5	61.7	62.3	61.0	62.0	61.4	62.0	62.4	65.7	65.7	1451.5	60.48
26 D	63.0	55.9	58.8	59.0	57.8	60.7	59.0	60.3	63.2	60.2	61.7	61.7	62.1	62.1	62.3	62.4	62.4	62.5	61.7	61.9	61.3	60.7	60.4	61.9	1463.0	60.96
27 D	61.7	61.5	58.9	54.6	54.2	59.0	58.6	59.2	61.5	59.9	60.4	62.8	63.1	61.9	62.1	62.1	62.4	62.3	62.1	61.8	60.1	61.6	61.7	59.7	1453.2	60.55
28	60.0	61.7	61.3	60.7	60.6	59.5	58.7	60.6	62.4	62.6	61.2	60.8	61.4	61.7	62.1	61.9	62.2	62.4	62.3	61.5	61.7	62.2	62.1	61.7	1473.3	61.39
29	62.1	61.3	60.1	60.6	60.8	60.8	60.3	62.1	61.7	61.1	60.8	61.2	61.3	61.1	61.5	62.2	63.3	62.5	61.8	60.7	61.2	61.0	60.8	59.6	1469.9	61.25
30	59.3	59.8	60.7	61.7	61.5	61.7	60.7	59.7	60.1	59.9	60.1	62.0	61.2	62.0	62.3	62.1	62.1	61.8	61.6	59.7	61.6	61.1	61.3	58.5	1462.5	60.94
Sum.																									44067.4	
1000+	831.5	817.1	797.9	795.9	782.3	793.4	803.2	812.8	826.9	827.9	835.3	844.5	852.2	853.9	859.3	867.0	874.9	870.8	864.6	853.9	851.6	856.6	845.8	848.1		
Mean.	61.05	60.57	59.93	59.86	59.41	59.78	60.11	60.43	60.90	60.93	61.18	61.48	61.74	61.80	61.98	62.23	62.50	62.36	62.15	61.80	61.72	61.89	61.53	61.60		61.20

Horizontal component, H, 23000 gammas + tabulated value

June 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01	309	306	302	304	308	300	304	306	307	320	333	324	311	307	307	302	303	306	310	311	310	305	305	305	7405	308.5
02	312	307	311	313	302	317	311	306	309	311	311	312	319	315	308	306	305	311	313	309	311	314	314	313	7460	310.8
03	311	309	310	312	307	303	309	307	307	313	319	318	312	313	311	311	311	312	311	311	312	311	313	311	7464	311.1
04 Q	309	311	311	311	311	310	311	317	315	314	315	315	313	311	305	306	307	313	315	314	313	313	313	314	7487	312.0
05 Q	313	312	311	311	313	311	311	311	314	315	316	316	316	313	311	311	314	316	316	315	313	314	314	314	7521	313.4
06	313	315	315	316	316	316	316	317	318	321	324	328	329	328	327	330	333	337	340	315	285	285	276	256	7556	314.8
07 D	197	202	259	219	245	241	272	268	282	285	286	294	295	297	290	289	284	285	276	289	290	281	259	297	6482	270.1
08	296	296	297	297	293	297	305	299	305	310	311	308	302	301	299	298	298	299	301	294	289	292	281	278	7146	297.8
09	276	294	296	294	307	304	303	299	295	297	307	301	302	304	302	297	295	298	301	304	303	302	302	301	7184	299.3
10	300	302	298	302	306	307	303	305	307	309	312	311	311	308	305	301	298	300	304	306	303	298	302	301	7299	304.1
11	305	310	311	304	305	320	307	309	310	311	311	311	312	310	307	307	313	311	312	315	315	313	310	309	7448	310.3
12	309	307	306	317	304	305	305	307	307	307	309	310	309	308	307	306	304	304	308	310	310	308	307	305	7379	307.5
13	301	296	301	297	303	307	308	311	313	313	315	314	312	305	301	302	303	311	313	311	311	311	312	314	7385	307.7
14	314	307	310	309	309	308	307	307	307	307	309	306	306	302	303	306	309	315	316	315	314	311	311	310	7418	309.1
15	309	307	309	307	307	313	301	297	304	301	301	313	305	303	301	303	308	311	311	308	299	300	308	309	7335	305.6
16 Q	310	311	308	307	307	307	307	307	307	307	307	308	308	307	305	304	307	311	316	315	314	312	313	312	7417	309.0
17	307	298	306	307	313	311	314	315	319	329	322	320	307	294	295	293	294	295	298	298	300	295	298	298	7326	305.1
18 D	300	301	300	293	271	289	293	284	292	295	301	304	307	303	307	310	299	284	280	264	259	263	263	259	6921	288.4
19	268	283	294	284	284	289	293	297	301	302	301	302	302	305	305	306	313	315	315	310	311	307	307	298	7192	299.7
20	268	261	251	285	288	290	295	310	300	302	303	315	309	309	305	302	301	299	304	301	300	302	300	302	7102	296.1
21	299	295	301	297	315	307	306	306	308	317	311	311	312	311	307	308	310	311	312	312	311	311	308	311	7397	308.2
22 Q	308	311	305	307	307	311	315	311	311	307	308	309	311	309	308	307	308	311	311	311	311	311	305	303	7416	309.0
23 Q	306	306	307	307	306	307	308	307	309	310	311	314	314	311	309	306	311	316	317	315	311	311	311	311	7445	310.2
24	311	309	309	311	318	325	328	324	325	331	334	334	327	324	324	319	324	327	324	322	318	319	319	318	7724	321.8
25 D	314	309	301	299	296	306	318	301	301	306	308	308	308	308	308	311	321	322	324	324	308	264	303	281	7349	306.2
26 D	265	268	254	267	275	272	272	278	303	285	280	280	282	286	287	287	290	293	293	295	293	287	290	291	6773	282.2
27 D	292	289	281	294	280	274	284	282	297	287	291	291	295	292	291	291	293	293	293	284	276	293	290	285	6918	288.2
28	288	289	298	293	295	297	288	289	285	293	298	298	294	293	293	297	297	292	286	296	294	294	292	293	7032	293.0
29	293	293	289	293	293	295	292	298	297	298	298	299	300	298	298	293	293	293	287	288	297	293	293	289	7060	294.2
30	289	278	285	287	293	293	299	295	290	293	297	298	303	296	296	290	295	297	286	281	298	288	288	283	6988	291.2
Sum	8892	8882	8936	8944	8979	9032	9085	9070	9145	9196	9249	9272	9233	9171	9122	9101	9141	9188	9193	9143	9069	9008	9007	8971	218029	
Mean	296.4	296.1	297.9	298.1	299.3	300.8	302.8	302.3	304.8	306.5	308.3	309.1	307.8	305.7	304.1	303.4	304.7	306.3	306.4	304.8	302.3	300.3	300.2	299.0		304.3

Vertical component, Z, - (36000 + tabulated values) gammas

June 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	323	321	319	320	318	313	316	317	315	310	297	294	305	314	317	316	318	319	322	322	321	319	319	322	7577	315.7	
02	322	318	318	315	309	311	308	310	316	316	316	316	310	314	314	314	315	319	321	318	319	321	320	320	7580	315.8	
03	320	319	319	317	313	315	314	313	317	320	320	318	317	319	318	318	318	319	318	319	318	319	319	318	7625	317.7	
04 Q	317	318	318	319	317	317	315	307	310	316	317	318	318	317	316	315	317	319	321	321	319	318	318	318	7606	316.9	
05 Q	318	318	317	317	318	317	315	315	317	317	318	318	318	318	318	318	319	319	319	318	315	315	314	314	7610	317.1	
06	314	314	315	315	314	314	314	313	313	314	314	315	315	315	314	315	314	314	314	301	294	317	321	326	7529	313.7	
07 D	322	330	287	269	303	316	287	280	313	332	334	321	334	321	321	321	327	330	326	335	333	329	326	338	7635	318.1	
08	335	331	327	323	324	323	319	318	318	312	310	318	318	322	324	323	325	326	326	322	322	326	321	322	7735	322.3	
09	323	319	317	318	310	305	315	315	315	319	320	317	322	325	324	323	323	324	326	326	326	323	323	322	7680	320.0	
10	322	320	319	319	320	319	318	318	319	318	316	316	318	319	319	318	318	318	318	322	323	322	321	322	7664	319.3	
11	321	320	319	316	317	310	310	315	315	317	317	317	317	318	317	317	318	318	318	319	319	319	318	318	7610	317.1	
12	318	318	318	315	310	313	314	315	315	315	315	315	315	315	315	316	315	316	318	319	319	319	318	318	7584	316.0	
13	317	317	315	317	318	319	319	318	314	310	309	310	313	312	313	315	316	319	320	319	318	318	318	318	7582	315.9	
14	318	315	317	316	315	315	314	314	314	314	312	311	312	314	314	314	318	319	319	318	318	317	316	315	7569	315.4	
15	315	315	315	315	314	294	285	304	309	310	310	314	315	315	314	315	315	318	317	315	311	314	319	319	7487	312.0	
16 Q	318	317	315	315	315	314	314	313	313	314	314	314	315	315	314	315	316	317	318	317	315	314	314	314	7560	315.0	
17	311	311	314	314	313	310	310	306	303	298	299	301	300	301	307	311	314	315	318	319	321	321	322	322	7461	310.9	
18 D	321	319	318	314	310	318	314	311	315	318	319	318	318	314	314	315	311	307	310	310	320	323	330	337	7604	316.8	
19	346	343	333	319	321	322	319	322	322	321	319	319	319	319	319	319	320	319	316	316	318	318	318	315	7722	321.8	
20	313	313	313	323	319	318	310	297	301	305	308	311	315	318	318	318	317	314	317	317	316	316	315	315	7527	313.6	
21	314	314	314	312	308	304	307	310	307	304	310	312	314	314	314	313	314	314	314	315	314	312	311	312	7477	311.5	
22 Q	312	312	310	311	310	308	306	305	306	308	310	310	312	312	311	314	314	314	315	315	315	313	310	310	7463	311.0	
23 Q	311	311	310	311	310	309	310	310	310	310	310	311	312	311	310	313	314	314	315	314	311	311	311	311	7470	311.2	
24	314	313	313	313	313	308	305	307	308	310	310	309	311	310	310	306	309	311	313	312	311	313	313	312	7454	310.6	
25 D	310	311	314	315	307	304	284	284	305	311	313	314	312	307	310	316	316	316	316	316	305	294	323	318	7421	309.2	
26 D	324	309	308	318	297	315	314	296	289	298	312	316	318	318	319	316	316	316	316	316	316	313	315	316	7491	312.1	
27 D	315	314	312	302	291	291	305	300	305	302	307	308	308	310	311	312	314	314	314	310	309	316	316	313	7399	308.3	
28	316	316	316	311	311	308	303	307	293	307	316	312	311	311	311	311	312	312	311	316	316	315	312	313	7467	311.1	
29	314	314	312	312	312	312	309	307	307	311	311	312	312	311	311	306	307	310	310	312	316	312	313	312	7465	311.0	
30	312	310	315	316	312	305	298	300	304	308	308	308	309	309	308	307	311	314	309	310	312	312	313	311	7421	309.2	
Sum.	9556	9520	9457	9417	9369	9347	9271	9247	9308	9365	9391	9393	9433	9438	9445	9450	9481	9504	9519	9510	9489	9498	9528	9539	226475		
Mean.	318.5	317.3	315.2	313.9	312.3	311.6	309.0	308.2	310.5	312.2	313.0	313.1	314.4	314.6	314.8	315.0	316.0	316.8	317.3	317.0	316.3	316.6	317.6	318.0		314.5	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

July 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1	60.3	60.6	60.1	58.7	59.9	61.2	61.5	61.5	61.3	61.2	61.2	61.5	61.5	61.1	61.3	61.6	61.7	61.9	61.7	61.3	60.9	60.8	60.8	60.9	1464.5	61.02	
2 Q	61.2	61.3	61.3	61.3	61.0	60.9	60.7	60.7	61.3	61.6	61.5	61.3	61.2	60.9	60.9	61.4	61.6	61.7	61.6	61.3	61.0	60.8	60.8	61.1	1468.4	61.18	
3 Q	61.0	61.1	59.4	60.6	60.9	60.9	61.0	61.0	61.0	61.2	61.3	61.2	60.8	60.8	61.1	61.6	62.1	62.1	61.4	60.8	60.6	60.7	60.7	60.7	1464.0	61.00	
4	60.8	60.8	60.7	60.6	58.8	57.8	56.9	58.7	60.1	60.8	60.8	60.7	60.7	61.6	61.9	62.3	62.0	61.9	61.8	63.4	64.1	67.3	66.9	65.3	1476.7	61.53	
5	61.8	61.2	59.9	56.0	57.2	57.1	58.4	55.1	61.9	61.7	61.6	61.5	61.6	61.7	61.7	61.6	61.6	61.4	61.0	60.9	60.7	60.9	61.3	62.6	1430.4	60.43	
6	59.9	58.3	55.0	57.8	62.8	52.3	55.6	59.8	62.5	60.7	61.5	61.7	61.9	62.4	62.4	62.6	61.8	62.3	61.7	61.6	61.2	61.0	61.6	61.5	1449.9	60.41	
7	61.5	61.1	57.7	56.6	60.0	60.8	60.8	60.7	60.7	63.2	61.3	61.3	61.6	61.9	62.8	63.2	63.6	62.1	61.1	60.6	60.4	60.4	60.8	60.7	1464.9	61.04	
8	61.6	60.7	59.4	59.8	58.8	59.1	58.0	59.9	61.6	62.3	61.6	61.6	61.5	61.3	61.2	61.6	61.6	61.7	61.7	61.5	61.2	61.5	60.8	61.1	1461.1	60.88	
9	60.2	57.8	56.8	56.9	57.1	57.8	59.5	60.6	61.6	63.0	61.9	61.7	61.8	61.9	61.9	62.4	62.6	62.4	61.9	61.5	61.6	61.5	59.7	1455.4	60.64		
10	60.8	61.2	61.3	61.8	59.8	59.3	62.3	60.7	62.4	62.0	61.5	61.3	61.5	61.7	62.1	62.4	62.5	62.5	61.9	61.3	61.4	60.8	61.5	61.6	1475.6	61.48	
11	60.5	60.7	60.3	60.6	60.7	59.6	59.0	59.6	60.7	61.0	61.3	61.6	61.5	61.4	61.5	61.8	62.4	62.0	61.6	60.9	60.8	60.7	61.2	61.2	1462.6	60.94	
12	60.9	61.1	61.3	60.7	61.2	61.6	61.6	61.4	61.3	61.3	61.5	61.3	61.3	61.5	61.6	61.9	62.3	62.2	61.7	61.2	60.8	60.6	60.7	60.8	1471.8	61.32	
13	61.2	59.8	60.1	59.9	60.4	60.2	61.0	61.0	60.8	60.8	61.2	61.0	61.0	60.8	60.9	61.6	61.9	62.1	61.8	61.2	61.3	60.8	60.8	60.6	1462.2	60.92	
14 Q	61.2	61.1	60.4	60.8	60.6	60.8	60.8	61.0	60.9	60.8	60.7	60.7	60.6	60.6	60.6	60.9	61.5	61.5	61.3	60.7	60.6	60.5	60.6	60.7	1459.9	60.83	
15 Q	60.7	60.6	60.8	60.1	60.1	59.9	60.4	60.5	60.6	60.7	60.7	60.7	60.9	60.8	61.1	61.5	61.9	61.9	61.6	61.1	60.7	60.4	60.4	60.4	1458.5	60.77	
16	60.7	60.8	58.1	57.9	58.4	60.8	60.7	60.5	60.4	60.7	60.7	60.7	60.8	60.8	61.2	61.7	62.1	62.3	61.6	61.3	60.6	60.3	60.7	61.5	1455.3	60.64	
17	63.5	61.6	59.0	59.0	56.2	53.1	56.0	56.4	59.0	58.0	58.6	62.3	64.7	64.7	64.1	63.9	63.6	63.5	62.7	62.1	61.7	61.9	62.2	61.9	1459.7	60.82	
18	60.8	61.3	61.3	61.0	60.6	60.6	59.0	59.9	60.1	59.7	60.6	61.7	61.7	61.6	62.3	63.6	63.3	62.8	62.1	61.6	61.6	61.7	62.5	62.6	1474.0	61.42	
19	60.9	59.7	59.5	60.7	61.2	61.2	60.8	60.8	60.9	61.0	60.8	60.9	61.6	61.6	61.7	61.7	61.7	62.3	61.9	61.4	60.8	60.8	60.8	61.3	1466.0	61.06	
20	61.3	61.3	60.8	60.7	60.4	60.7	60.7	60.7	60.8	60.8	60.8	60.8	60.7	60.6	60.6	60.8	61.5	61.7	61.5	60.8	60.8	61.0	61.5	61.3	1462.6	60.94	
21 D	61.1	60.8	60.6	60.2	58.6	59.1	58.4	56.4	55.0	56.2	56.8	60.7	69.0	63.2	64.1	64.6	67.1	65.0	62.7	63.2	61.7	62.1	61.7	61.6	1469.9	61.25	
22	61.6	61.6	61.6	61.4	60.5	61.0	60.8	56.9	56.2	61.0	60.7	60.6	62.4	63.5	63.1	63.7	63.6	63.7	63.2	61.8	61.4	61.5	61.5	61.7	1475.0	61.46	
23 D	59.9	61.0	60.7	60.4	60.2	58.9	58.1	57.7	60.6	60.1	59.5	60.7	60.8	61.5	62.3	62.4	63.6	63.4	63.7	62.7	61.6	61.3	60.4	54.6	1456.1	60.67	
24 D	60.6	59.0	58.0	49.9	56.2	56.7	62.0	61.7	58.2	62.5	62.3	61.9	63.1	64.6	63.5	63.6	64.1	64.0	63.7	62.6	61.9	61.6	60.1	61.7	1463.5	60.98	
25	61.5	61.7	60.7	56.0	57.9	59.5	57.6	59.7	61.6	60.9	61.5	61.5	61.8	62.1	62.4	62.6	62.8	63.6	62.8	61.7	61.5	61.4	61.6	61.6	1466.0	61.08	
26	61.7	61.3	60.8	59.7	57.2	59.0	59.9	58.1	61.9	61.5	61.6	62.8	61.9	62.5	63.4	62.4	62.6	62.5	62.4	62.4	61.9	61.6	61.4	61.3	1471.3	61.32	
27	57.1	52.1	59.0	59.5	58.7	58.2	61.0	61.0	63.4	62.3	61.2	61.3	61.3	62.6	62.9	62.7	62.5	62.5	62.3	61.7	61.6	61.7	61.2	60.6	1458.4	60.77	
28	59.7	57.6	59.7	60.4	61.0	61.0	63.0	61.0	60.6	62.3	61.7	61.5	61.5	61.3	61.5	61.7	61.9	62.2	62.2	61.7	61.3	61.1	61.2	61.2	1468.3	61.18	
29 Q	61.3	61.3	61.3	61.0	60.7	60.4	60.4	60.7	60.8	60.8	60.8	60.8	60.8	60.7	60.7	61.2	61.7	61.7	61.7	61.7	61.5	61.9	62.1	62.1	1468.1	61.17	
30 D	60.2	61.5	61.7	56.0	53.2	57.0	55.1	53.6	59.0	60.7	60.2	60.5	62.2	65.0	62.5	62.4	62.6	62.4	62.6	63.6	60.7	63.1	62.6	59.4	1447.8	60.32	
31 D	53.8	57.8	60.6	60.6	59.1	57.2	55.1	58.8	60.5	61.7	61.9	62.3	63.4	63.4	61.7	62.4	62.4	62.4	62.3	61.9	61.6	61.7	62.6	59.5	1454.7	60.61	
Sum.																									45363.1		
1000+	879.3	867.8	857.9	836.6	839.4	833.7	846.1	846.1	877.7	892.5	889.3	900.1	917.1	920.1	921.0	929.8	938.2	935.7	923.2	911.5	899.5	903.1	892.8				
Mean.	60.62	60.25	59.93	59.24	59.34	59.15	59.55	59.55	60.57	61.05	60.94	61.29	61.84	61.94	61.97	62.25	62.52	62.44	62.04	61.66	61.27	61.40	61.06			60.97	

Horizontal component, H, 25000 gammas + tabulated value

July 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean	
01	301	297	310	303	298	303	306	305	304	305	304	306	307	307	307	303	305	306	308	310	310	307	307	306	7325	305.2	
02 Q	305	305	305	306	305	307	306	307	307	309	312	315	315	313	310	308	309	312	314	312	309	308	309	309	7417	309.0	
03 Q	309	307	311	309	309	309	309	309	310	310	309	310	311	311	308	305	306	309	313	313	313	313	312	311	7436	309.8	
04	312	312	314	312	311	308	307	302	307	311	316	319	318	317	322	315	311	311	307	291	272	265	253	274	7287	303.6	
05	290	287	294	305	294	281	307	293	293	293	297	303	311	309	309	306	306	308	307	307	303	299	299	284	7185	299.4	
06	300	305	300	292	312	317	299	291	301	303	304	306	309	309	308	307	307	307	303	305	309	307	307	308	7316	304.8	
07	308	305	299	299	301	310	312	312	309	319	333	320	315	316	304	299	309	310	317	318	316	312	308	306	7457	310.7	
08	295	306	318	303	308	311	306	303	303	305	305	305	307	311	308	301	304	307	309	308	308	301	274	281	7287	303.6	
09	288	319	292	301	299	301	305	305	304	304	311	309	302	304	299	294	297	305	309	309	309	302	291	293	295	7238	301.6
10	297	301	306	317	308	299	307	308	306	308	309	310	312	309	305	302	303	311	312	312	307	291	290	297	7327	305.3	
11	310	311	299	308	309	306	317	305	306	307	307	307	307	306	303	300	302	308	312	310	310	309	303	301	7363	306.8	
12	300	305	302	305	311	311	311	310	310	312	314	314	314	311	308	307	311	315	319	319	316	315	314	313	7467	311.1	
13	309	309	308	308	313	309	314	313	319	314	315	316	317	317	317	312	311	312	317	316	318	315	313	313	7525	313.5	
14 Q	313	312	313	315	314	314	313	314	314	318	320	324	323	321	315	311	309	317	321	323	323	321	319	318	7605	316.9	
15 Q	317	316	316	316	314	314	314	314	317	319	320	320	320	319	315	312	314	318	322	322	321	324	325	325	7634	318.1	
16	324	315	302	320	306	314	316	315	314	315	317	319	318	313	314	317	322	323	325	326	323	323	318	317	7616	317.3	
17	310	310	301	392	299	292	280	289	309	329	298	301	307	314	298	294	298	295	301	304	302	300	296	287	7206	300.3	
18	292	296	300	301	306	304	310	306	303	299	301	304	305	305	306	304	309	313	317	315	307	303	289	282	7277	303.2	
19	292	299	311	305	305	305	307	309	309	309	311	313	311	311	307	303	304	307	309	308	311	312	312	311	7381	307.5	
20	310	310	311	311	311	311	311	313	313	313	316	320	322	322	320	319	322	325	330	331	325	322	318	315	7621	317.5	
21 D	315	311	314	316	310	305	309	319	313	312	302	304	339	320	310	290	292	293	300	291	288	297	296	295	7341	305.9	
22	297	297	297	297	296	299	303	307	298	295	301	312	305	307	297	295	289	294	298	304	304	302	301	301	7196	299.8	
23 D	298	304	304	304	304	307	307	310	300	299	303	305	304	306	304	304	304	304	305	305	298	295	280	281	7235	301.5	
24 D	292	304	292	262	263	295	293	295	295	289	294	301	294	289	299	293	289	288	295	303	304	290	299	302	7020	292.5	
25	300	300	296	300	287	298	291	299	303	301	300	302	299	298	294	295	302	300	309	309	307	295	290	288	7163	298.5	
26	287	289	291	294	295	301	306	302	301	305	301	297	305	297	293	299	298	304	307	296	293	291	297	299	7148	297.8	
27	294	299	285	301	307	294	301	303	301	300	304	302	303	300	299	295	299	304	307	304	301	298	289	287	7177	299.0	
28	296	300	287	294	298	299	307	303	301	300	304	304	306	303	298	297	297	299	302	304	305	304	304	304	7216	300.7	
29 Q	304	305	304	304	304	304	304	304	306	307	308	308	308	308	309	312	314	316	319	315	311	303	300	294	7371	307.1	
30 D	291	292	301	296	282	291	280	280	288	299	295	299	298	325	314	310	306	304	300	286	254	280	280	273	7024	292.7	
31 D	291	283	284	289	319	301	293	297	301	302	304	312	301	303	308	308	306	306	301	303	300	300	295	274	7181	299.2	
Sum	9347	9411	9367	9385	9398	9420	9451	9442	9465	9511	9535	9587	9613	9601	9508	9417	9455	9531	9615	9579	9470	9393	9290	9251	22704.2		
Mean	301.5	303.5	302.2	302.7	303.2	303.9	304.9	304.6	305.2	306.8	307.6	309.3	310.1	309.7	306.7	303.8	305.0	307.4	310.2	309.0	305.4	303.0	299.7	298.4		305.2	

Vertical component, Z, - (36000 + tabulated values) gammas

July 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.
01	314	312	311	304	307	309	308	310	310	310	309	311	311	311	311	309	310	311	312	312	312	310	310	309	7443	310.1
02 Q	309	309	309	310	309	309	309	309	307	308	311	311	311	311	309	308	308	311	311	309	308	307	308	308	7419	309.1
03 Q	308	308	307	307	307	307	307	307	308	307	307	307	308	308	308	308	308	310	311	309	308	308	307	307	7387	307.8
04	307	307	307	307	303	300	296	299	302	305	308	308	307	307	307	303	303	304	302	299	299	307	312	330	7329	305.4
05	328	321	319	311	306	294	290	281	303	311	313	315	316	315	312	311	311	311	311	311	309	307	304	308	7418	309.1
06	314	313	308	308	276	277	289	271	282	306	311	313	314	313	313	312	315	313	311	312	314	312	312	312	7321	305.0
07	311	311	307	305	310	311	311	311	305	300	302	297	304	309	304	306	312	312	314	313	312	309	307	307	7390	307.9
08	308	311	307	302	297	300	298	298	289	302	306	307	308	311	309	305	309	311	311	310	309	307	300	306	7321	305.0
09	312	307	295	296	278	292	289	300	300	300	305	307	304	310	310	308	308	311	311	312	312	308	304	308	7286	303.6
10	310	311	311	308	300	300	298	299	300	304	307	308	308	307	307	305	306	310	310	309	308	303	304	308	7341	305.9
11	311	307	304	307	302	303	296	298	303	304	304	305	306	306	307	307	307	308	311	310	307	304	302	303	7322	305.1
12	304	305	305	305	310	303	302	303	304	306	306	306	305	305	304	303	304	305	307	307	307	306	305	304	7321	305.0
13	303	302	302	302	303	302	302	300	300	300	301	301	303	302	300	299	298	300	301	302	303	302	301	300	7229	301.2
14 Q	301	301	300	301	300	301	301	302	302	304	304	303	302	301	300	298	298	301	302	302	302	301	300	300	7227	301.1
15 Q	298	299	299	299	300	299	299	299	300	301	301	301	301	300	300	300	300	302	303	303	302	302	302	300	7210	300.4
16	302	298	296	297	295	301	301	300	300	300	300	300	300	300	300	300	301	300	301	301	301	301	299	298	7192	299.7
17	300	304	301	298	295	289	292	296	295	304	279	292	296	304	303	304	308	309	311	311	310	308	307	304	7220	300.8
18	307	310	311	309	307	305	300	300	302	300	300	303	305	307	308	306	308	310	311	299	306	304	300	302	7320	305.0
19	310	310	309	306	306	304	304	304	304	304	304	304	304	305	304	304	304	305	307	306	308	307	306	305	7334	305.6
20	304	304	304	304	304	303	303	303	303	303	303	304	305	305	305	304	304	304	304	302	299	299	298	298	7269	302.9
21 D	300	301	303	303	300	298	300	299	291	290	279	280	275	273	287	292	295	306	309	307	307	311	309	308	7123	296.8
22	307	306	304	304	304	303	286	286	284	292	300	300	295	298	296	300	299	303	306	309	309	308	306	305	7210	300.4
23 D	304	305	305	305	304	297	282	286	296	299	299	300	298	299	300	302	300	301	303	305	305	305	301	304	7205	300.2
24 D	305	303	282	259	280	287	275	296	296	293	302	305	296	293	306	304	300	303	308	312	311	305	308	309	7138	297.4
25	307	307	304	299	293	281	291	287	291	302	303	302	302	302	300	303	303	302	308	308	307	302	301	303	7208	300.3
26	306	308	309	308	305	307	303	295	296	302	301	295	302	299	298	304	304	305	305	300	302	304	308	309	7275	303.1
27	306	301	298	303	286	286	293	280	291	302	304	303	303	300	302	302	305	306	307	306	304	303	301	302	7194	299.8
28	304	296	298	303	304	301	299	300	300	300	302	304	304	302	300	300	299	298	300	303	304	303	303	303	7230	301.3
29 Q	302	302	301	301	300	300	300	300	300	300	300	300	300	299	299	299	299	298	299	299	299	299	295	299	7186	299.4
30 D	301	305	307	301	291	300	299	280	268	296	300	301	292	293	295	298	299	298	296	291	288	305	307	305	7116	296.5
31 D	300	300	304	304	300	289	279	290	296	301	302	303	296	298	305	303	300	300	298	299	299	299	300	296	7161	298.4
Sum.	9503	9484	9427	9376	9282	9258	9202	9189	9228	9356	9373	9396	9381	9393	9409	9407	9425	9469	9502	9478	9466	9448	9431	9462	225345	
Mean.	306.5	305.9	304.1	302.4	299.4	298.6	296.8	296.4	297.7	301.8	302.4	303.1	302.6	303.0	303.5	303.4	304.0	305.4	306.5	305.7	305.4	304.8	304.2	305.2		302.9

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

August 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1	60.4	60.3	60.6	59.4	58.9	57.3	56.3	60.3	61.3	61.5	61.9	62.3	62.0	61.3	62.8	64.0	63.7	63.4	63.4	62.0	60.4	61.0	59.2	60.7	1464.4	61.02	
2	58.4	58.2	59.8	59.5	59.9	61.0	59.0	59.4	60.3	62.6	62.4	62.2	61.6	61.0	61.1	61.7	62.3	62.4	62.4	61.7	60.8	60.2	60.4	57.2	1455.5	60.65	
3	58.9	59.5	60.7	60.0	59.9	59.9	61.7	61.1	61.3	61.7	61.9	61.6	61.2	60.8	61.2	61.9	62.2	62.4	62.2	61.6	61.0	61.6	61.2	60.8	1466.3	61.10	
4	59.9	59.4	60.7	60.1	60.7	61.2	60.7	60.7	60.7	60.9	62.5	63.5	62.5	65.3	64.4	64.5	63.8	63.0	62.6	62.4	62.8	61.6	61.8	60.7	1486.4	61.93	
5	56.1	60.4	60.1	57.8	59.8	60.7	60.2	59.5	61.3	63.2	61.9	61.3	61.9	61.5	61.6	61.7	62.4	62.5	62.3	61.7	61.3	60.3	60.6	59.9	1460.0	60.83	
6	60.6	59.1	57.2	57.1	56.0	57.5	59.5	61.1	61.5	62.0	61.6	62.1	61.9	61.6	61.8	62.1	62.7	63.4	62.9	61.8	61.4	60.7	60.2	61.7	1457.5	60.73	
7	59.0	58.2	59.0	62.3	57.1	59.0	60.6	60.6	60.8	62.4	62.5	61.6	61.2	61.5	60.9	61.3	61.9	62.3	62.3	61.6	61.0	60.9	60.9	60.9	1459.6	60.82	
8	59.9	57.3	58.8	57.9	57.9	61.6	60.1	60.6	61.2	61.6	62.3	62.3	62.1	61.4	60.9	61.8	62.8	62.8	62.4	61.8	61.4	60.8	60.9	60.9	1461.5	60.90	
9	60.8	59.8	59.7	59.7	57.4	57.8	59.8	58.6	59.6	60.4	61.7	61.2	60.6	60.7	60.8	61.6	62.1	61.8	61.6	61.3	61.0	60.8	60.8	60.8	1450.4	60.43	
10	60.9	60.8	60.6	60.3	60.2	60.6	60.6	60.7	60.7	60.7	60.7	60.7	60.8	60.6	60.6	61.1	61.1	61.6	62.1	61.7	61.6	60.9	60.8	60.7	1461.1	60.88	
11 Q	60.7	60.7	60.7	60.7	60.7	60.8	60.7	60.7	60.7	60.7	60.7	60.7	60.2	59.7	59.9	61.0	62.4	63.3	63.3	62.3	61.6	61.5	60.9	60.7	1465.3	61.05	
12 Q	60.7	60.7	60.4	59.8	60.1	60.7	61.0	61.4	61.3	60.9	60.7	60.6	60.6	60.0	59.8	60.7	61.6	62.4	62.4	61.8	61.0	60.8	60.7	60.7	1460.8	60.87	
13 Q	60.7	60.7	60.0	59.8	60.7	60.8	60.8	60.8	60.8	60.8	60.7	60.6	60.2	60.1	60.5	61.1	61.7	61.9	61.7	61.4	61.2	60.9	61.2	60.7	1459.8	60.82	
14 Q	61.3	59.5	59.5	60.2	60.4	60.5	60.6	60.8	60.7	61.5	60.9	60.7	60.3	59.8	59.8	60.7	61.7	62.4	62.0	61.4	60.7	60.6	60.7	60.7	1457.4	60.72	
15	60.7	60.7	60.6	60.4	60.1	59.8	59.8	59.9	59.9	60.1	60.1	60.1	59.6	59.4	59.7	60.3	61.7	62.3	62.5	62.4	62.4	63.4	63.7	61.9	1461.5	60.90	
16 Q	61.0	60.7	58.6	59.7	60.4	60.4	60.1	60.4	60.7	60.7	60.7	60.5	60.0	59.7	59.9	60.8	61.7	62.5	62.5	62.0	61.3	61.2	61.1	60.8	1457.4	60.72	
17	59.8	58.6	59.7	59.9	59.7	60.1	60.1	59.9	60.6	69.7	61.0	61.2	60.2	59.7	59.9	60.8	61.8	62.3	62.4	62.4	62.4	62.5	61.8	61.6	1468.1	61.17	
18 D	61.5	61.2	59.0	57.8	56.7	57.3	55.5	57.1	58.8	57.3	57.8	61.5	60.2	65.3	67.9	62.5	63.1	63.2	63.5	63.5	62.6	63.5	62.4	62.3	1461.5	60.90	
19 D	61.6	61.4	61.0	59.5	59.1	58.7	59.8	60.3	61.2	60.7	60.9	60.8	60.3	59.9	60.4	61.8	63.4	63.6	67.6	65.9	64.8	61.5	64.1	61.5	1479.8	61.66	
20 D	56.7	59.0	51.5	47.5	48.6	49.8	46.9	53.2	61.1	62.4	63.7	65.5	67.1	65.2	64.2	64.7	65.0	64.5	64.3	62.7	62.1	61.5	61.6	62.4	1431.2	59.63	
21 D	55.1	58.2	61.3	59.7	60.8	58.9	60.6	61.6	57.1	58.1	60.1	61.6	62.1	62.5	62.6	62.7	63.3	63.2	63.5	63.4	62.7	61.0	60.8	61.2	1462.1	60.92	
22	61.7	62.2	61.5	61.3	61.3	61.0	61.9	61.5	62.5	61.4	61.2	61.5	61.4	61.2	61.5	61.9	63.0	63.6	63.5	63.0	62.5	62.2	62.1	58.3	1483.2	61.80	
23	59.7	58.6	57.3	57.0	53.7	52.8	53.4	56.2	60.6	63.0	61.5	63.4	64.9	63.6	63.9	63.7	64.3	64.1	64.3	63.6	62.6	62.4	62.4	62.8	1459.8	60.82	
24	60.2	53.3	57.1	61.3	60.9	61.6	60.8	61.9	62.3	63.4	61.8	60.9	60.6	61.3	61.7	62.6	62.5	63.6	64.0	63.5	62.8	61.7	61.9	61.7	1473.4	61.39	
25	61.5	61.5	60.8	58.2	60.8	59.1	59.7	60.0	61.2	61.5	61.3	60.9	60.7	60.1	60.0	61.1	62.5	63.2	63.4	62.7	62.1	61.7	61.9	61.9	1467.8	61.16	
26	59.9	59.6	61.5	60.7	59.4	58.6	60.2	59.9	60.7	61.4	61.3	61.2	60.7	60.6	61.3	62.0	61.9	62.6	63.4	62.6	61.8	61.6	61.4	61.5	1455.8	61.08	
27	60.9	61.0	60.7	60.4	59.7	60.7	60.7	60.4	60.6	60.7	60.7	60.7	60.0	60.1	60.7	62.3	64.4	65.4	65.3	64.5	63.6	62.1	62.6	60.4	1478.6	61.61	
28 D	56.6	59.3	60.1	59.1	58.2	59.4	60.6	62.5	61.0	62.5	64.6	66.9	63.4	61.5	62.0	62.3	62.0	63.7	64.3	64.0	60.1	60.7	59.9	58.9	1473.6	61.40	
29	60.9	59.8	56.8	58.8	60.7	61.5	62.2	61.6	61.9	64.1	67.1	61.8	60.8	60.7	62.2	62.1	62.6	63.1	63.9	63.5	63.0	62.4	61.6	61.9	1485.0	61.87	
30	60.1	60.6	61.5	59.9	59.8	61.1	61.3	60.8	60.8	61.0	60.9	61.5	60.7	60.8	61.6	62.4	63.3	63.4	64.1	64.4	62.6	61.9	61.3	60.6	1476.4	61.52	
31	57.1	57.3	58.8	60.6	60.3	61.7	61.7	61.2	61.0	60.4	61.0	60.4	59.6	60.7	62.4	63.4	64.3	63.9	63.7	63.5	62.4	61.8	61.7	55.7	1464.6	61.02	
Sum.																									45416.0		
1000+	853.3	847.6	845.6	836.4	829.9	841.9	846.9	864.7	884.2	909.3	908.1	911.8	899.4	897.6	908.0	922.6	943.2	953.8	959.8	942.1	919.0	905.7	902.6	882.5			
Mean.	59.78	59.60	59.54	59.24	59.03	59.42	59.58	60.15	60.78	61.59	61.55	61.67	61.27	61.21	61.55	62.02	62.68	63.02	63.22	62.65	61.90	61.47	61.37	60.73		61.04	

Horizontal component, H, 23000 gamma: + tabulated value

August 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01	291	296	314	307	315	302	298	299	303	306	307	311	310	305	289	282	280	286	293	290	293	287	294	293	7151	298.0
02	302	303	297	293	304	317	311	304	293	297	302	305	307	300	294	293	299	305	305	297	281	291	291	305	7196	299.8
03	299	289	303	300	302	305	305	306	304	306	309	310	310	306	301	296	299	302	306	304	296	292	290	296	7236	301.5
04	297	296	293	305	302	303	307	315	303	299	304	305	298	299	296	290	288	291	298	296	282	280	290	287	7124	296.8
05	295	296	297	289	306	305	305	301	305	307	309	306	298	301	298	298	299	304	306	305	293	282	285	288	7178	299.1
06	293	289	294	289	283	294	292	299	298	299	302	299	307	304	299	299	297	295	305	309	307	288	301	301	7143	297.6
07	306	302	284	299	302	299	302	301	300	299	305	308	308	297	296	295	299	305	306	308	306	306	305	302	7240	301.7
08	298	302	297	308	301	311	309	305	305	310	311	314	313	311	301	293	291	298	305	309	307	306	307	307	7319	305.0
09	307	308	298	292	292	299	311	305	299	304	302	307	306	303	296	294	299	302	304	306	306	309	309	311	7269	302.9
10	308	309	312	312	311	311	310	309	310	311	310	307	307	306	302	289	298	298	300	306	306	306	306	307	7351	306.3
11 Q	309	308	309	309	308	307	311	311	313	313	315	317	316	308	301	296	295	298	302	305	304	300	303	305	7363	306.8
12 Q	307	306	306	306	311	306	306	310	310	313	315	315	313	309	306	302	304	304	304	306	302	302	305	305	7373	307.2
13 Q	305	302	304	306	308	308	309	310	311	315	315	318	315	308	302	299	302	306	307	309	306	304	304	300	7373	307.2
14 Q	301	307	302	304	307	307	307	309	310	313	313	316	313	309	303	298	300	304	311	313	313	313	313	313	7399	308.3
15	314	314	315	315	316	317	316	315	314	317	319	319	318	311	308	306	304	306	308	306	255	281	281	297	7372	307.2
16 Q	300	300	302	302	305	306	307	306	306	308	310	311	311	305	299	295	293	293	299	301	301	302	301	299	7262	302.6
17	295	302	309	311	311	317	315	317	317	315	319	319	315	308	300	297	298	305	311	310	302	295	295	305	7388	307.8
18 D	302	305	297	294	294	296	299	294	312	323	313	305	311	281	295	286	284	288	292	298	301	287	288	296	7141	297.5
19 D	300	298	297	293	297	296	293	295	301	301	302	302	300	295	289	285	293	289	253	263	248	231	214	214	6749	281.2
20 D	211	220	259	235	242	229	250	256	266	267	268	279	274	285	280	277	262	278	282	287	287	272	281	280	6327	263.6
21 D	293	277	293	283	287	281	287	298	287	284	289	288	281	277	276	271	274	277	261	286	285	280	272	276	6783	282.6
22	292	289	293	293	293	292	295	293	293	297	301	298	295	291	277	275	278	283	292	296	295	287	280	268	6946	289.4
23	277	262	256	271	269	270	291	281	287	301	302	293	280	275	275	278	281	282	288	291	288	289	289	287	6763	281.8
24	280	290	269	286	291	291	289	291	291	293	293	295	295	287	277	280	280	284	289	292	289	293	293	298	6916	288.2
25	298	298	295	293	297	300	294	291	298	301	307	305	302	297	291	288	288	292	298	299	294	287	289	288	7050	295.4
26	293	300	298	302	307	302	302	296	294	299	302	300	299	294	293	293	293	293	288	297	299	298	293	289	7124	296.8
27	293	302	303	302	305	304	308	307	309	310	311	309	307	299	293	285	285	283	285	289	280	286	281	284	7120	296.7
28 D	302	304	305	299	311	310	308	308	304	303	301	327	315	297	284	280	284	279	256	276	280	269	272	294	7063	294.5
29	296	293	308	293	300	305	305	302	299	297	313	302	293	287	279	281	285	290	293	288	289	284	293	292	7067	294.5
30	293	293	296	301	299	302	302	299	300	301	301	302	294	287	281	280	276	283	289	284	290	297	301	287	7038	293.2
31	289	298	294	304	304	308	309	305	308	309	304	305	306	288	268	268	253	265	287	296	297	294	285	270	7014	292.2
Sum	9146	9158	9199	9196	9280	9300	9353	9338	9350	9418	9474	9497	9417	9230	9049	8950	8961	9068	9143	9222	9082	8998	9011	9044	220883	
Mean	295.0	295.4	296.7	296.6	299.4	300.0	301.7	301.2	301.5	303.8	305.5	306.4	303.7	297.7	291.4	288.7	289.1	292.4	294.9	297.4	293.0	290.3	290.7	291.7		296.9

Vertical component, Z, - (36000 + tabulated values) gammas

August 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	301	304	298	295	286	270	285	295	298	298	298	300	299	300	294	292	294	299	305	306	308	304	304	305	7138	297.4	
02	304	296	297	296	296	283	259	279	283	292	298	303	306	305	304	301	300	300	301	298	295	302	302	304	7104	296.0	
03	298	295	297	296	292	290	294	295	295	298	299	300	302	301	298	295	298	300	303	302	299	299	299	302	7147	297.8	
04	300	300	300	300	300	300	299	284	288	291	295	294	295	295	297	300	299	303	307	305	299	299	306	305	7161	298.4	
05	300	302	299	290	289	290	295	293	293	291	293	293	293	301	300	299	296	297	299	300	296	293	298	301	7101	295.9	
06	303	299	295	291	279	281	282	291	294	297	300	298	301	301	298	296	295	295	302	305	303	296	302	302	7106	296.1	
07	300	295	292	296	291	295	299	296	294	292	295	298	300	295	299	296	296	299	301	302	300	300	298	297	7126	296.9	
08	296	295	296	296	293	293	292	293	293	294	293	295	295	297	296	293	292	297	301	302	301	300	300	297	7105	295.8	
09	298	298	295	295	295	288	286	284	288	292	294	298	298	298	296	295	295	298	298	301	301	301	299	299	7090	295.4	
10	296	296	297	296	295	295	295	295	295	295	295	293	293	293	291	284	291	295	295	297	300	300	299	299	7080	295.0	
11 Q	298	297	296	295	295	295	295	296	296	296	296	296	296	293	289	287	288	291	295	299	298	296	299	299	7081	295.0	
12 Q	298	297	296	296	296	294	293	293	295	295	296	295	295	293	292	289	289	289	292	295	295	295	295	295	7058	294.1	
13 Q	295	295	295	295	295	295	295	295	295	295	296	296	296	294	292	290	290	293	295	295	295	294	294	293	7063	294.3	
14 Q	295	295	293	295	295	294	293	293	292	293	294	295	295	293	290	288	289	292	295	296	295	294	293	292	7039	293.3	
15	291	293	293	292	292	291	290	289	289	289	290	291	292	288	286	284	283	286	288	289	288	284	289	297	6944	289.3	
16 Q	299	298	295	295	293	293	291	291	291	291	292	292	293	292	289	286	285	287	290	293	295	293	293	292	7009	292.0	
17	291	292	295	295	293	292	287	286	286	286	286	288	291	289	288	286	286	290	293	293	291	290	293	296	6963	290.1	
18 D	296	297	293	291	291	287	282	284	284	270	275	282	286	271	280	290	291	294	298	300	300	295	298	302	6937	289.0	
19 D	303	302	299	294	293	290	291	293	295	293	293	292	293	292	289	285	288	286	275	291	294	295	309	322	7057	294.0	
20 D	308	323	292	276	292	239	232	262	293	295	298	292	293	307	312	308	301	310	314	313	312	304	308	308	7092	295.5	
21 D	307	296	295	290	283	291	285	264	259	267	290	297	293	296	296	293	298	300	302	304	304	304	304	301	303	7018	292.4
22	305	303	301	300	300	298	294	285	285	296	299	295	296	295	292	290	290	294	300	304	304	299	296	295	7116	296.5	
23	298	291	286	271	259	252	254	279	289	291	280	278	282	287	290	295	296	296	300	304	303	302	302	301	6886	286.9	
24	299	294	288	299	300	300	297	296	292	290	291	295	298	295	289	286	288	290	294	296	300	302	300	301	7080	295.0	
25	300	299	296	292	293	291	291	292	295	295	297	296	296	293	291	289	287	290	293	296	295	294	296	297	7054	293.9	
26	298	295	296	295	287	271	283	288	291	295	295	295	295	293	292	290	291	289	290	297	300	298	295	294	7013	292.2	
27	297	300	297	295	295	293	292	292	293	293	293	292	293	291	289	284	280	283	291	296	304	304	302	305	7054	293.9	
28 D	303	300	300	295	292	286	282	288	291	284	266	275	279	285	284	286	289	287	284	301	305	302	303	307	6974	290.6	
29	304	300	296	291	295	294	292	291	285	271	282	287	291	290	283	285	287	291	292	292	296	295	299	298	6987	291.1	
30	298	297	297	294	292	292	291	290	292	292	292	293	294	288	287	288	286	291	294	292	299	302	300	296	7037	293.2	
31	296	292	289	293	291	287	275	275	284	284	289	293	292	284	275	282	279	291	300	303	304	302	296	292	6948	289.5	
Sum.	9275	9236	9154	9090	9038	8910	8871	8927	8993	9001	9050	9087	9121	9095	9048	9012	9017	9103	9187	9267	9279	9238	9268	9296	218563		
Mean.	299.2	297.9	295.3	293.2	291.5	287.4	286.2	288.0	290.1	290.4	291.9	293.1	294.2	293.4	291.9	290.7	290.9	293.6	296.4	298.9	299.3	298.0	299.0	299.9		293.8	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

September 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1	56.9	60.0	59.0	59.1	59.8	60.8	61.3	60.5	61.3	65.4	63.5	61.9	60.1	60.4	60.1	60.8	62.3	63.4	63.5	63.5	62.4	61.2	61.3	60.1	1468.6	61.19	
2 Q	60.1	59.8	60.8	60.6	60.6	60.7	61.3	61.3	61.3	61.5	61.3	60.8	60.2	59.3	59.7	61.3	62.8	64.1	64.4	63.9	62.3	61.2	60.1	61.5	1470.9	61.29	
3	61.1	59.8	58.1	60.0	60.6	59.9	59.0	61.2	61.0	60.9	61.3	60.8	59.7	59.8	60.6	62.1	63.4	64.3	64.3	63.5	62.6	61.9	61.5	61.5	1468.9	61.20	
4 Q	61.0	60.7	60.6	59.8	60.4	60.7	60.9	61.0	61.5	61.6	61.4	60.8	59.6	58.9	59.5	60.6	62.6	64.1	64.2	63.2	61.7	61.7	61.0	62.1	1469.6	61.23	
5	58.9	58.3	60.4	60.7	60.8	60.8	60.8	60.8	60.7	61.0	60.7	60.4	59.7	58.9	58.9	60.6	61.9	63.0	63.6	63.2	62.5	61.8	61.6	58.1	1458.1	60.75	
6 Q	58.3	60.2	60.7	60.7	60.7	60.6	60.4	60.0	60.7	61.4	61.5	61.3	60.4	59.7	59.8	61.6	63.0	63.4	63.2	62.6	61.9	61.5	60.1	60.5	1464.2	61.01	
7 Q	61.3	61.3	61.3	60.7	60.5	60.6	60.7	60.7	60.8	60.9	60.7	60.0	59.0	59.0	59.8	61.0	61.1	62.8	63.1	62.5	61.7	61.5	61.5	61.7	1464.2	61.01	
8	61.0	60.4	57.8	56.0	56.7	59.0	55.5	58.3	60.4	59.9	59.7	61.0	64.4	62.0	60.6	60.4	61.7	62.6	63.4	63.5	63.0	62.3	62.1	61.8	1453.5	60.56	
9	61.7	61.5	58.0	54.2	53.5	59.5	59.0	60.6	60.3	61.5	61.3	60.4	60.2	61.4	63.0	61.6	62.1	62.5	63.0	62.6	62.2	61.8	61.6	61.3	1454.8	60.62	
10	61.1	60.5	60.6	58.3	60.0	60.8	60.6	60.6	61.8	60.8	60.7	60.4	60.1	59.8	60.0	61.3	62.7	63.9	64.1	63.4	61.9	61.3	62.3	61.7	1468.7	61.20	
11	59.1	56.7	59.3	56.8	59.0	60.1	60.7	60.9	60.6	63.4	62.6	60.1	60.8	59.8	60.8	62.4	64.1	65.9	67.1	66.9	63.6	64.4	62.3	59.9	1477.3	61.55	
12	60.8	54.1	57.8	59.6	59.6	60.4	59.5	58.4	61.1	62.4	60.7	60.1	59.5	59.9	60.9	61.7	63.2	64.5	64.7	64.0	62.6	61.5	61.3	61.6	1459.9	60.83	
13 Q	60.8	60.0	60.9	60.7	60.7	60.6	60.7	60.8	60.7	60.7	60.7	60.1	59.3	58.8	59.0	60.4	62.0	63.2	63.9	63.6	62.5	62.6	63.0	60.0	1465.7	61.07	
14 D	56.0	59.0	58.0	57.8	56.7	53.2	46.3	42.3	57.7	57.1	59.7	62.4	70.1	71.1	66.9	67.6	69.9	69.4	70.9	65.9	63.9	60.8	57.5	63.4	1463.6	60.98	
15	63.0	61.5	61.6	62.2	62.3	61.7	61.3	59.7	61.2	61.5	61.7	62.4	63.1	66.7	65.2	63.9	65.3	67.9	67.4	68.2	67.5	66.1	65.0	59.9	1526.3	63.60	
16	62.5	61.3	61.5	61.6	60.3	57.9	61.7	61.8	61.3	62.1	62.4	68.0	64.6	61.5	61.8	64.7	65.3	64.5	66.9	64.9	64.6	63.7	62.3	60.6	1507.8	62.83	
17	60.1	58.8	60.4	59.7	58.0	57.0	53.2	52.9	53.2	69.0	71.0	68.7	64.5	62.5	62.6	64.1	63.9	65.6	67.0	65.1	63.6	62.6	61.9	60.7	1486.1	61.92	
18	59.7	60.8	59.0	60.0	60.8	61.5	61.6	61.5	62.0	62.8	61.7	62.5	62.8	61.9	61.4	63.4	65.2	67.1	66.5	66.2	65.3	63.9	62.7	61.7	1502.0	62.58	
19	58.0	60.6	61.7	60.8	58.6	59.0	56.0	57.3	60.8	61.6	65.1	64.5	63.2	61.2	62.3	63.1	65.0	65.9	67.1	66.2	65.3	64.1	63.4	62.5	1493.3	62.22	
20	61.9	58.6	59.9	60.7	60.7	60.2	58.6	58.8	58.8	59.2	60.6	59.0	59.3	59.3	61.7	64.4	64.7	65.2	65.2	65.2	64.7	64.1	63.3	63.5	1477.6	61.57	
21	61.7	61.3	60.8	59.0	58.8	60.2	61.0	60.8	59.8	60.7	61.0	60.0	59.7	59.7	59.9	65.4	66.5	71.6	74.6	66.5	67.7	66.4	65.3	63.4	1511.8	62.99	
22 D	63.0	62.3	54.1	54.2	54.7	41.7	42.8	56.2	60.4	64.3	63.6	63.6	62.5	62.4	62.5	63.7	64.6	66.1	67.3	65.3	71.3	77.5	78.5	62.4	1485.0	61.88	
23 D	50.3	46.9	46.3	35.3	60.4	60.1	64.8	65.6	64.4	62.4	61.5	60.6	60.4	61.5	63.6	65.7	66.1	66.1	65.6	64.4	62.9	62.1	62.3	62.5	1441.8	60.08	
24	62.5	62.6	62.6	63.4	63.0	62.5	62.5	62.4	61.7	62.2	62.1	61.5	60.6	60.7	61.7	62.3	64.3	64.8	64.0	63.7	63.2	61.9	56.6	50.5	1483.3	61.80	
25 D	58.2	52.7	47.5	48.1	60.0	59.9	63.4	65.4	65.2	68.1	65.3	63.6	63.4	63.6	65.2	66.9	67.1	67.0	66.1	65.3	61.7	61.5	62.4	61.9	1489.5	62.06	
26	58.9	61.8	61.9	62.0	55.3	53.9	56.2	59.9	60.7	60.8	60.8	60.6	60.6	61.3	61.7	62.8	65.2	67.0	65.9	65.1	64.0	61.5	62.3	58.7	1468.9	61.20	
27	61.5	62.0	61.5	61.2	60.5	61.3	61.5	61.2	61.0	61.5	61.1	60.6	60.8	61.0	61.9	63.1	64.7	65.9	65.8	64.3	64.7	65.2	63.1	57.7	1493.1	62.21	
28 D	61.3	59.9	53.4	53.3	54.4	53.2	52.3	55.4	59.3	61.4	60.6	60.6	62.1	64.3	65.9	66.5	66.3	67.2	66.7	65.6	59.5	61.9	57.5	59.5	1448.1	60.34	
29	61.6	61.6	60.9	60.7	59.2	61.5	61.7	62.6	64.1	62.3	62.9	62.1	62.4	62.6	63.5	63.6	64.6	65.9	65.6	64.4	63.2	60.6	57.8	59.1	1494.5	62.27	
30	61.1	56.2	55.2	60.9	61.6	61.1	61.4	62.9	61.5	60.7	61.6	60.7	60.8	61.5	62.4	63.5	64.5	65.1	64.6	63.7	63.2	62.5	62.3	61.9	1480.9	61.70	
Sum.																									44298.0		
1000+	803.4	781.2	761.6	748.1	778.2	770.4	766.7	791.8	825.3	859.1	858.8	849.5	843.9	840.5	852.9	890.5	926.1	960.0	969.7	936.4	907.2	891.1	863.9	821.7			
Mean.	60.11	59.37	58.72	58.27	59.27	59.01	58.89	59.73	60.84	61.97	61.96	61.65	61.46	61.35	61.76	63.02	64.20	65.33	65.56	64.55	63.57	63.04	62.13	60.72		61.52	

Horizontal component, H, 23000 gammas + tabulated value

September 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01	277	284	290	302	296	302	303	302	300	297	299	307	302	285	289	282	276	277	278	284	286	287	290	286	6983	291.0
02 Q	292	290	295	295	299	298	298	297	299	301	302	302	298	290	280	275	272	280	286	290	295	284	291	303	7012	292.2
03	292	281	289	299	303	304	306	310	307	305	304	306	300	287	271	275	277	277	285	290	285	289	290	295	7027	293.8
04 Q	299	300	303	304	302	302	302	304	305	304	306	309	306	295	284	277	278	285	295	299	302	293	283	281	7118	296.6
05	288	301	293	297	298	298	298	301	302	302	307	307	314	307	300	291	286	285	294	300	297	295	297	284	7142	297.6
06 Q	281	290	302	305	306	309	308	303	300	302	303	300	296	295	279	276	278	283	291	297	298	294	292	299	7087	295.3
07 Q	303	304	305	306	306	306	306	303	302	303	305	306	302	295	293	291	292	293	298	304	304	299	293	305	7224	301.0
08	304	305	305	302	302	305	300	304	302	303	310	303	302	302	287	281	278	273	278	284	288	291	295	299	7103	296.0
09	304	304	294	287	278	305	299	297	300	298	304	304	299	281	277	281	283	284	288	293	293	290	293	296	7032	293.0
10	295	296	299	297	299	302	299	299	302	302	308	305	299	290	284	280	280	288	297	305	308	304	286	289	7113	296.4
11	293	304	298	298	298	304	299	305	308	311	327	308	299	291	278	275	272	268	280	271	291	288	290	300	7056	294.0
12	293	311	296	296	299	315	310	302	295	303	304	299	291	277	271	274	274	275	287	293	292	287	294	297	7035	293.1
13 Q	299	299	299	297	298	299	300	301	302	302	302	302	295	287	281	280	285	290	299	310	313	306	302	298	7146	297.8
14 D	282	280	272	286	311	302	289	318	279	231	251	249	250	267	249	231	232	233	232	239	267	259	274	274	6357	264.9
15	282	299	285	285	287	282	287	280	277	280	287	271	268	254	268	265	250	243	258	250	278	269	263	264	6532	272.2
16	273	275	275	288	283	278	273	287	284	278	281	292	290	279	262	241	252	263	266	232	274	276	270	267	6539	272.5
17	269	291	282	290	278	280	285	294	281	300	260	264	277	263	256	243	247	256	225	257	276	280	273	281	6508	271.2
18	275	284	286	285	283	282	284	289	287	287	293	282	281	271	257	245	225	242	260	272	281	283	285	283	6602	275.1
19	292	281	288	292	297	299	296	285	302	302	288	287	283	271	254	240	247	250	261	271	277	285	285	291	6724	280.2
20	289	280	287	287	289	290	291	282	282	282	293	298	290	276	250	255	262	272	276	280	274	267	268	267	6687	278.6
21	272	281	284	293	295	286	288	288	289	287	289	285	280	275	261	247	263	256	270	293	298	293	311	307	6791	283.0
22 D	307	306	269	262	211	168	231	245	256	256	264	257	264	255	243	234	246	255	280	274	274	222	256	229	6064	252.7
23 D	114	096	103	033	197	251	233	229	236	230	238	252	251	256	257	256	253	265	283	288	284	274	269	267	5415	225.6
24	265	265	266	266	273	271	268	270	275	272	278	270	258	250	239	231	240	252	258	246	256	244	229	202	6144	256.0
25 D	216	256	181	184	252	276	271	272	256	264	263	256	251	241	239	235	241	253	271	278	269	275	273	274	6047	252.0
26	283	288	290	291	295	277	274	274	274	277	275	267	258	250	248	248	244	239	269	284	286	277	263	257	6488	270.3
27	276	287	300	295	290	289	287	286	283	280	283	280	272	261	254	255	262	273	286	295	265	283	249	240	6631	276.3
28 D	253	274	284	232	254	251	260	276	262	268	277	267	251	225	223	225	246	265	264	271	267	263	283	287	6228	259.5
29	283	297	284	291	284	288	280	278	279	284	278	280	258	260	254	250	259	267	267	275	276	272	267	281	6592	274.7
30	281	282	284	287	289	289	289	293	289	285	282	284	274	264	259	259	266	275	284	292	293	293	292	292	6777	282.4
Sum	8332	8491	8388	8332	8554	8608	8614	8674	8615	9596	8661	8599	8459	8200	7947	7798	7866	8017	8266	8417	8547	8422	8406	8395	201204	
Mean	277.7	283.0	279.6	277.7	285.1	286.9	287.1	289.1	287.2	286.5	288.7	286.6	282.0	273.3	264.9	259.9	262.2	267.2	275.5	280.6	284.9	280.7	280.2	279.8		279.4

Vertical component, Z, - (36000 + tabulated values) gammas

September 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	298	301	297	292	293	294	293	291	288	273	281	294	292	286	293	289	285	288	291	297	300	300	300	297	7013	292.2	
02 Q	298	295	297	295	294	293	292	292	293	293	293	293	294	293	288	286	287	290	296	298	302	297	298	301	7058	294.1	
03	297	293	295	299	297	293	286	288	288	291	289	292	293	289	277	279	284	286	293	297	296	298	297	298	6995	291.5	
04 Q	298	297	297	293	290	290	291	291	290	289	289	290	290	286	281	278	280	284	293	296	298	294	289	292	6966	290.2	
05	295	293	292	293	293	293	293	292	291	289	289	289	291	289	285	280	280	281	286	293	295	295	294	292	6963	290.1	
06 Q	289	295	297	296	293	293	289	288	287	286	286	288	289	286	283	281	283	288	294	298	298	293	293	295	6968	290.3	
07 Q	293	292	290	290	290	289	287	287	286	288	289	289	289	284	281	278	277	280	285	291	292	289	286	291	6893	287.2	
08	290	290	286	282	279	256	263	282	286	288	288	283	276	277	279	277	279	277	282	288	292	294	294	294	6782	282.6	
09	294	293	290	285	270	284	286	288	286	286	288	289	285	276	275	282	285	284	286	289	289	289	291	291	6861	285.9	
10	291	291	291	288	289	289	287	285	284	286	289	288	287	285	282	281	278	281	288	293	294	294	286	289	6896	287.3	
11	290	289	288	282	283	285	285	288	286	281	279	273	279	282	277	277	276	277	287	289	304	300	301	300	6858	285.8	
12	296	289	277	289	286	279	272	275	277	286	289	288	286	281	279	279	280	280	288	293	295	292	295	293	6844	285.2	
13 Q	293	291	290	289	289	288	288	287	287	288	288	288	288	286	282	277	276	277	281	289	292	288	289	289	6880	286.7	
14 D	284	288	287	288	267	266	240	191	150	149	226	266	259	272	283	282	288	298	303	317	323	316	309	307	6459	269.1	
15	310	305	295	299	290	247	266	273	290	293	293	284	282	279	293	291	283	285	295	298	312	313	314	313	7003	291.8	
16	306	306	303	290	275	282	269	267	273	277	281	280	281	291	283	273	288	295	298	295	315	314	311	310	6963	290.1	
17	306	304	299	284	274	282	247	229	232	218	197	247	290	295	294	289	297	300	289	310	313	313	306	308	6723	280.1	
18	302	300	290	293	294	294	295	296	289	290	295	284	286	286	282	275	272	285	295	302	304	305	306	306	7026	292.8	
19	302	295	298	298	286	287	277	272	281	276	252	264	272	281	275	271	281	285	292	300	304	308	304	304	6865	286.0	
20	302	299	298	297	295	286	285	287	287	286	290	290	288	282	269	274	282	288	293	298	300	300	303	304	6983	291.0	
21	309	309	305	295	278	290	293	293	290	289	293	293	289	286	273	263	272	271	291	304	310	302	310	304	7012	292.2	
22 D	303	304	286	280	190	115	154	182	203	304	318	304	302	300	295	290	295	300	310	317	332	424	408	410	6926	288.6	
23 D	355	307	117	065	230	308	339	339	337	321	327	332	323	318	314	310	309	313	320	324	322	313	308	306	7157	298.2	
24	305	304	304	304	306	306	304	305	306	304	307	308	306	301	297	295	302	309	311	307	318	326	328	314	7377	307.4	
25 D	326	281	230	242	318	302	290	279	269	285	305	312	305	300	297	293	294	302	313	316	317	323	315	313	7127	297.0	
26	310	310	306	304	269	283	278	286	298	301	300	298	298	296	297	295	290	291	304	314	318	318	310	308	7182	299.2	
27	310	310	304	291	295	298	298	298	296	293	297	296	315	291	289	287	289	292	301	308	309	318	330	323	7238	301.6	
28 D	323	316	269	263	245	247	268	283	280	302	306	299	290	281	285	290	303	307	310	319	322	319	321	310	7058	294.1	
29	308	306	294	282	284	290	291	291	292	297	293	295	290	294	290	289	292	293	297	306	306	310	307	307	7104	296.0	
30	306	293	288	297	300	297	294	293	294	291	291	294	293	292	291	288	292	298	302	303	304	304	302	300	7107	296.1	
Sum.	9089	8946	8560	8445	8442	8406	8400	8398	8396	8500	8608	8690	8708	8645	8569	8499	8579	8685	8874	9049	9176	9249	9205	9169	209287		
Mean.	303.0	298.2	285.3	281.5	281.4	280.2	280.0	279.9	279.9	283.3	286.9	289.7	290.3	288.2	285.6	283.3	286.0	289.5	295.8	301.6	305.9	308.3	306.8	305.6		290.7	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

October 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.		
Date																												
1 Q	62.0	61.8	61.6	60.1	59.0	59.9	60.4	60.6	61.0	61.0	60.6	59.7	58.9	59.0	60.2	61.6	63.4	65.0	65.6	65.2	63.5	62.3	61.6	61.7	1475.7	61.49		
2 Q	61.7	61.6	61.5	61.3	61.0	60.8	60.7	60.7	60.5	60.4	60.1	59.7	58.9	59.0	59.9	61.3	62.5	63.6	64.3	64.4	63.6	62.6	62.1	61.7	1473.9	61.41		
3 Q	61.7	61.6	61.3	60.6	59.3	59.6	59.7	59.5	60.6	59.5	59.7	59.7	59.1	59.5	60.9	62.7	64.3	65.4	65.3	64.3	63.0	61.9	61.6	61.6	1472.2	61.34		
4	61.6	61.6	60.2	59.0	59.7	59.8	59.8	60.8	59.9	59.9	58.9	59.7	59.0	58.9	60.1	62.3	63.5	64.3	64.5	64.0	63.2	62.4	62.4	62.1	1467.6	61.15		
5	61.7	61.3	61.6	61.5	60.7	60.0	59.1	59.3	59.7	60.4	61.4	59.5	58.6	58.7	59.8	61.8	64.1	65.9	66.2	65.3	63.4	62.3	62.1	61.7	1476.1	61.50		
6	61.7	61.6	60.1	59.8	59.6	58.7	60.4	60.6	60.1	59.8	59.5	59.0	58.6	59.0	60.1	61.9	64.2	65.2	65.3	65.2	63.5	62.6	62.3	62.3	1471.1	61.30		
7	61.9	61.9	61.6	60.8	59.8	59.9	59.8	59.9	59.1	58.8	58.8	58.9	58.9	59.2	60.2	61.7	64.4	64.8	64.5	63.6	62.8	62.6	62.7	61.2	1467.8	61.16		
8	62.3	61.0	59.0	55.5	56.7	55.6	59.7	61.4	60.8	60.4	60.8	59.9	61.0	61.7	62.1	63.0	64.3	65.2	65.4	65.2	63.9	62.4	61.6	61.5	1470.4	61.27		
9	61.3	60.9	60.8	60.6	60.9	61.4	60.7	60.7	60.5	59.7	59.0	58.6	58.8	59.7	60.7	62.3	64.4	65.3	65.1	64.6	63.4	62.4	59.7	59.7	1471.2	61.30		
10	61.7	61.6	60.6	60.6	60.4	59.7	58.9	58.0	58.0	58.8	58.2	57.5	58.2	59.3	60.2	62.1	63.7	65.4	66.8	66.2	63.4	60.6	60.9	60.8	1461.6	60.90		
11	60.7	61.3	61.5	61.3	60.8	60.6	59.0	62.3	57.8	57.0	58.8	63.3	62.5	61.3	60.7	63.3	65.4	65.9	65.6	66.2	64.3	62.1	60.8	57.7	1480.2	61.68		
12 D	57.7	57.8	57.0	54.4	57.8	59.5	61.7	60.4	59.9	58.8	58.8	59.3	60.2	65.7	65.3	65.4	68.2	67.2	66.6	65.9	66.3	62.4	62.3	61.4	1480.0	61.67		
13	61.0	60.9	59.0	57.7	61.5	60.4	60.6	60.7	59.4	61.0	60.6	59.7	59.9	59.8	61.2	63.0	64.1	65.3	67.0	65.9	64.5	61.0	54.2	56.6	1465.0	61.04		
14 D	55.5	56.9	59.0	62.1	58.9	60.0	57.8	59.0	58.4	61.3	60.8	62.0	64.3	64.7	64.3	65.4	67.3	68.7	67.0	64.6	63.5	62.5	62.4	60.8	1487.2	61.97		
15	59.9	57.4	58.9	60.3	61.3	59.1	61.9	60.7	61.0	59.8	59.7	60.7	59.7	59.0	60.2	61.3	63.6	65.3	67.0	65.6	64.7	64.2	58.6	60.6	1470.5	61.27		
16	59.5	60.5	59.8	59.7	60.3	60.6	59.1	58.8	57.8	58.0	59.2	59.0	60.4	61.6	62.7	64.1	65.3	65.9	66.7	65.6	63.3	62.5	62.1	61.5	1474.0	61.42		
17	61.0	61.6	61.7	61.4	60.3	59.0	58.6	59.3	59.5	59.7	59.8	59.2	59.7	59.6	60.2	61.9	64.0	65.2	66.1	64.9	63.6	62.6	61.9	61.7	1472.5	61.35		
18	61.9	61.6	61.1	60.4	60.2	60.6	59.8	58.9	57.9	57.8	58.0	58.4	59.0	59.3	61.2	63.6	65.5	66.7	66.9	65.3	63.6	62.4	62.0	61.8	1473.9	61.41		
19	61.5	61.5	61.5	61.3	60.4	59.7	58.3	58.9	58.2	58.8	58.9	59.4	60.1	60.7	62.1	63.6	64.5	65.8	66.2	65.3	63.8	62.5	61.5	60.8	1475.3	61.47		
20	61.0	61.5	60.9	60.8	60.8	59.6	59.1	58.9	58.0	57.7	56.7	56.9	57.9	61.6	62.3	62.4	63.9	66.3	67.2	67.0	66.7	66.3	63.7	60.8	1478.0	61.58		
21	62.3	61.8	60.7	59.9	60.6	58.6	57.1	56.6	56.9	56.9	57.3	57.5	59.0	60.0	61.0	62.5	63.6	64.2	64.2	64.1	63.5	62.6	62.4	61.9	1455.2	60.63		
22 Q	61.5	60.9	60.6	59.8	59.8	59.3	59.0	58.6	58.5	58.3	58.6	58.1	58.1	58.6	58.9	60.1	61.7	63.6	64.4	64.5	63.4	62.2	61.5	61.0	1451.0	60.46		
23	60.7	60.7	60.6	60.2	59.9	59.3	58.9	58.8	58.8	58.8	58.2	57.9	57.5	57.8	58.7	59.7	61.0	62.6	63.6	63.5	63.0	62.5	61.7	61.5	1445.9	60.25		
24 D	57.2	51.7	52.0	45.9	51.3	55.4	53.5	57.7	63.0	69.1	74.9	69.2	63.2	63.9	65.9	66.7	66.7	67.2	66.3	66.8	66.5	66.3	63.2	63.0	1486.6	61.94		
25	58.6	55.4	61.2	60.7	59.8	58.7	60.8	60.1	60.4	60.1	60.6	61.0	61.6	61.9	62.0	62.6	64.1	65.4	65.6	65.3	64.9	63.5	63.0	63.0	1480.3	61.68		
26	62.4	61.0	59.0	60.1	60.7	60.8	60.4	60.5	60.2	59.9	60.5	60.8	60.9	61.5	62.1	62.5	63.4	64.4	64.4	64.4	64.4	64.3	63.9	63.4	62.4	1483.9	61.83	
27 Q	62.3	61.7	61.5	61.3	60.8	60.6	59.9	59.7	59.5	59.8	59.8	59.7	59.4	59.3	60.5	61.0	62.5	64.1	64.6	64.7	64.3	63.5	62.7	62.1	1475.3	61.47		
28	61.7	61.5	61.3	60.8	60.6	60.4	60.1	59.9	59.5	59.0	59.0	60.6	59.0	59.5	60.4	61.5	62.5	64.7	66.8	65.0	63.5	63.6	63.5	62.9	1477.3	61.55		
29 D	63.2	62.4	61.2	60.0	59.0	58.0	56.7	56.7	56.0	56.2	58.1	59.8	59.9	61.0	63.7	64.4	69.1	75.1	77.7	78.1	76.2	69.4	47.1	57.2	1506.2	62.76		
30 D	60.1	63.1	60.8	60.5	61.3	59.2	58.8	60.0	59.4	60.6	61.7	62.0	62.5	63.4	64.5	65.2	65.2	65.1	65.0	64.7	64.4	64.0	63.6	63.4	1498.5	62.44		
31	63.1	63.0	62.5	61.9	61.2	60.7	59.9	59.3	59.8	59.5	59.7	59.8	60.1	60.7	61.7	63.4	64.3	63.7	63.6	63.5	62.6	62.5	62.5	62.5	1481.5	61.73		
Sum.																									45705.9			
1000+	890.4	879.1	870.1	850.3	854.4	845.5	840.2	847.1	840.1	846.8	856.7	856.5	854.9	874.9	903.8	944.3	994.7				994.6	954.6	901.1	898.9				
2000+																										032.5	045.5	028.9
Mean.	60.98	60.62	60.33	59.69	59.82	59.53	59.36	59.58	59.36	59.57	59.89	59.89	59.84	60.48	61.41	62.72	64.34	65.56	65.98	65.45	64.34	63.05	61.33	61.25		61.43		

Horizontal component, H, 23000 gammas + tabulated value

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U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean	
Date																											
01 Q	287	288	287	286	283	285	281	280	280	282	283	280	270	258	251	252	254	262	270	281	283	283	281	283	6630	276.3	
02 Q	284	285	286	287	287	287	286	286	288	290	293	293	286	276	267	267	269	276	280	289	297	299	297	297	6852	285.5	
03 Q	297	297	297	294	293	289	288	285	288	291	290	286	276	266	257	257	269	284	294	298	298	295	294	298	6881	286.7	
04	300	299	304	292	284	289	288	295	290	294	295	288	285	278	265	262	272	280	289	292	290	288	288	289	6896	287.3	
05	292	295	296	301	304	305	308	302	296	291	307	303	294	280	266	260	264	278	291	292	299	292	291	295	7002	291.8	
06	300	296	293	292	298	293	291	291	291	291	291	287	280	272	262	262	268	274	283	298	301	299	299	300	6917	288.2	
07	302	309	313	308	309	307	302	303	298	300	299	300	294	286	275	272	271	283	298	309	314	300	291	287	7130	297.1	
08	302	296	304	299	290	284	291	290	292	293	285	288	278	274	261	256	245	270	286	296	300	294	295	296	6865	286.0	
09	296	296	296	294	297	302	297	292	290	291	290	283	273	263	256	256	266	276	282	293	293	295	284	293	6854	285.6	
10	292	300	304	308	310	310	312	302	296	299	298	289	276	270	263	262	265	274	281	289	281	281	287	291	6940	289.2	
11	292	296	299	300	305	302	293	299	306	299	306	303	303	271	257	244	234	258	271	284	288	292	267	274	6843	285.1	
12 D	271	285	270	264	281	284	296	288	279	274	280	281	253	240	256	243	235	233	262	278	246	273	283	293	6448	268.7	
13	293	295	296	296	308	301	287	285	281	278	285	285	271	267	250	244	253	264	278	277	291	277	264	284	6710	279.6	
14 D	266	249	261	284	289	297	286	283	275	271	284	270	257	251	236	235	233	238	259	272	279	283	284	283	6425	267.7	
15	287	293	294	291	294	293	294	287	286	287	289	285	279	265	247	244	250	261	273	272	291	294	283	284	6723	280.1	
16	293	289	290	287	283	284	292	296	296	294	287	278	268	262	247	246	252	256	266	270	282	290	284	284	6676	278.2	
17	289	290	292	296	296	295	282	278	278	277	277	275	267	258	249	245	249	262	279	288	292	293	293	292	6692	278.8	
18	288	288	292	292	284	282	276	278	275	277	276	273	267	255	245	237	253	274	286	288	292	292	289	288	6647	277.0	
19	291	291	292	290	281	280	277	281	281	286	288	283	276	266	252	249	257	271	288	296	295	290	290	292	6743	281.0	
20	287	294	287	286	287	283	279	282	282	286	291	284	271	259	267	266	268	269	277	291	299	298	274	280	6717	281.1	
21	296	297	295	290	279	276	274	280	279	278	284	279	274	266	259	253	259	270	281	292	296	301	305	303	6766	281.9	
22 Q	302	304	303	300	296	296	294	293	294	293	291	289	283	275	267	268	270	278	292	302	307	309	310	309	7025	292.7	
23	310	311	313	313	314	309	305	304	302	304	303	300	294	284	278	274	278	284	291	296	293	293	296	295	7144	297.7	
24 D	274	237	246	234	270	288	259	286	255	198	264	256	256	247	241	233	240	249	260	259	269	252	262	270	6105	254.4	
25	284	284	273	279	284	275	280	270	268	268	271	270	265	258	253	253	259	268	274	280	274	267	277	287	6521	271.7	
26	288	281	290	283	283	284	284	283	283	279	273	266	261	257	257	261	267	266	275	280	284	287	290	298	6660	277.5	
27 Q	296	294	296	296	293	291	291	289	284	283	283	283	275	268	264	267	271	280	282	284	290	295	292	292	6839	285.0	
28	292	293	294	296	293	292	290	289	287	286	286	287	278	271	266	270	271	278	284	271	291	295	292	289	6841	285.0	
29 D	281	290	287	281	276	274	272	274	282	279	282	275	263	250	253	266	224	229	244	254	265	227	192	216	6236	259.8	
30 D	217	233	247	247	240	244	247	247	252	251	249	253	256	254	251	253	259	264	273	272	278	281	277	274	6119	255.0	
31	274	274	275	277	279	279	279	279	274	276	274	268	262	255	253	258	268	275	282	284	280	282	284	282	6573	273.9	
Sum	8923	8929	8972	8943	8970	8960	8881	8877	8808	8746	8854	8740	8491	8202	7971	7915	7993	8284	8636	8827	8938	8897	8795	8898	208450		
Mean	287.8	288.0	289.4	288.5	289.4	289.0	286.5	286.4	284.1	282.1	285.6	281.9	273.9	264.6	257.1	255.3	257.8	267.2	278.6	284.7	288.3	287.0	283.7	287.0		280.2	

Vertical component, Z, - (36000 + tabulated values) gammas

October 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01 Q	301	300	299	297	294	295	293	293	294	295	296	296	295	291	285	286	288	292	299	306	308	306	303	301	7113	296.4	
02 Q	299	299	298	297	297	296	295	295	295	295	294	293	289	284	281	279	283	287	289	295	298	301	299	298	7036	293.2	
03 Q	297	296	295	293	291	290	291	290	288	286	287	290	290	286	278	275	279	288	295	300	302	300	297	297	6981	290.9	
04	296	295	294	287	290	292	290	289	285	286	286	285	285	284	279	279	281	285	292	296	297	296	293	293	6935	289.0	
05	295	295	295	295	296	295	294	290	287	281	281	280	279	276	274	270	272	280	289	293	300	297	294	294	6902	287.6	
06	295	292	290	290	288	287	288	289	289	289	288	286	283	279	276	274	277	283	291	299	301	298	296	295	6923	288.5	
07	293	295	295	292	290	288	287	287	286	287	284	283	279	277	275	274	271	282	288	296	300	298	295	298	6900	287.5	
08	300	298	295	259	272	272	279	285	291	290	284	284	279	280	279	278	274	287	292	299	304	302	300	298	6881	286.7	
09	295	293	291	289	289	287	287	287	288	290	290	287	283	279	277	277	281	284	288	295	297	300	294	297	6925	288.5	
10	295	295	295	295	293	291	290	285	281	279	280	278	274	272	269	271	271	275	278	286	292	297	298	297	6837	284.9	
11	295	295	292	291	289	284	280	274	264	267	274	263	259	259	266	265	264	280	287	296	301	304	297	298	6744	281.0	
12 D	296	291	263	272	285	287	279	277	281	279	278	276	272	268	285	278	277	281	295	304	302	315	311	308	6860	285.8	
13	304	301	297	285	272	264	267	279	279	281	288	288	279	280	271	274	276	278	288	292	306	309	306	311	6875	286.5	
14 D	293	280	289	297	288	275	251	256	266	273	283	274	271	277	278	279	279	285	295	310	314	310	306	304	6833	284.7	
15	303	298	292	288	281	277	275	280	287	288	284	283	284	279	274	276	277	282	288	293	304	307	304	303	6907	287.8	
16	298	293	290	284	288	288	279	273	273	269	275	275	275	279	274	278	279	284	291	294	303	307	299	297	6845	285.2	
17	295	294	294	294	288	281	276	281	286	286	287	286	281	278	274	272	271	276	286	292	297	299	299	297	6870	286.2	
18	294	292	292	288	286	286	285	286	284	284	284	281	278	275	271	271	279	287	295	299	302	301	295	294	6889	287.0	
19	294	291	291	290	287	286	284	285	284	284	283	281	279	279	276	276	279	283	292	299	302	302	299	298	6904	287.7	
20	294	295	291	289	288	287	287	287	287	288	287	280	270	266	277	275	274	271	279	292	301	308	306	310	6889	287.0	
21	308	306	302	295	288	283	284	290	291	288	284	281	276	273	273	270	272	279	285	291	294	295	295	293	6896	287.3	
22 Q	290	290	289	287	286	285	284	284	284	283	280	278	274	272	271	270	267	267	276	281	287	288	288	286	6747	281.1	
23	284	284	283	283	283	281	279	279	278	278	277	275	272	267	265	263	262	263	270	277	279	281	286	294	6643	276.8	
24 D	288	265	275	208	243	277	205	206	149	155	163	255	294	286	283	284	288	287	293	295	302	304	314	313	6232	259.7	
25	309	283	290	294	288	283	287	287	290	288	285	284	283	281	279	279	280	283	287	291	293	293	297	302	6916	288.2	
26	300	296	289	288	289	291	290	289	288	286	282	279	280	279	277	279	279	278	284	287	290	292	293	297	6882	286.8	
27 Q	293	291	291	290	288	287	286	285	283	291	281	281	280	275	272	274	272	274	276	280	285	288	289	288	6800	283.3	
28	288	288	288	288	286	285	284	284	285	285	284	281	279	275	272	271	271	274	279	279	291	295	294	295	6801	283.4	
29 D	288	293	290	286	285	283	279	279	278	272	270	270	273	265	263	271	245	259	290	342	386	378	347	331	7023	292.6	
30 D	335	336	313	289	301	302	308	306	311	306	300	298	295	291	288	288	290	293	297	297	300	302	299	298	7243	301.8	
31	297	299	298	297	298	297	295	294	290	289	288	288	288	284	283	284	287	290	291	291	292	293	293	292	6998	291.6	
Sum.	9212	9119	9046	8877	8887	8862	8738	8751	8702	8698	8687	8719	8678	8596	8545	8540	8545	8697	8925	9147	9330	9366	9286	9277	213230		
Mean.	297.2	294.2	291.8	286.4	286.7	285.9	281.9	282.3	280.7	280.6	280.2	281.2	279.9	277.3	275.6	275.5	275.6	280.5	287.9	295.1	301.0	302.1	299.5	299.2		286.6	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

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U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.
1	62.4	62.0	61.7	61.3	61.3	59.0	59.5	59.5	58.2	59.0	59.0	58.9	59.2	59.7	61.3	63.2	64.5	65.9	65.8	65.0	63.9	63.0	62.4	62.3	1478.0	61.58
2	62.0	61.8	60.6	60.4	60.6	59.8	60.2	60.6	60.4	59.4	58.6	58.0	59.1	59.5	60.9	63.0	66.4	67.1	66.5	66.0	64.8	63.0	62.5	61.6	1482.8	61.78
3	57.9	59.1	60.8	60.1	57.9	55.5	56.3	56.6	60.6	59.9	59.0	58.9	59.5	60.7	61.5	62.7	64.4	65.9	67.0	66.3	65.2	62.7	60.6	61.7	1460.8	60.87
4	61.7	61.6	61.6	61.1	60.4	58.9	58.8	59.3	58.7	58.8	59.0	59.0	59.0	59.8	61.0	62.3	64.5	65.6	66.1	65.3	63.6	62.6	61.9	61.3	1471.9	61.33
5 Q	61.3	61.5	61.5	61.3	60.8	60.6	60.0	59.5	58.6	58.0	58.3	58.8	59.0	59.7	60.7	62.0	63.6	64.7	65.0	64.5	64.1	63.4	62.6	61.9	1471.4	61.31
6	61.4	61.3	60.7	60.8	60.6	59.7	58.3	57.5	56.5	55.3	55.2	56.9	57.4	58.4	61.9	64.4	64.4	65.3	66.5	66.2	66.7	64.1	61.5	62.8	1463.2	60.97
7 D	62.1	61.2	57.5	58.2	57.9	52.7	52.0	55.7	56.4	56.4	58.8	64.4	64.5	63.1	62.8	65.3	68.7	72.0	73.9	71.5	64.7	65.7	65.4	62.5	1493.4	62.22
8 D	58.8	58.6	57.7	59.7	60.7	60.5	58.1	54.4	57.1	57.1	57.1	59.3	62.4	63.6	65.0	65.7	66.9	67.1	65.8	67.5	67.4	63.1	63.6	62.5	1479.7	61.65
9 D	59.7	57.0	57.5	59.3	60.7	59.9	58.8	59.7	59.5	59.0	59.7	59.7	61.4	64.5	63.6	64.0	67.0	67.9	69.7	68.9	69.8	62.6	63.5	61.7	1495.1	62.30
10 D	59.5	60.9	60.4	58.8	59.6	61.7	59.4	59.2	59.3	60.8	61.6	60.5	60.6	61.4	61.6	62.8	65.1	66.7	65.0	64.7	63.2	62.3	63.4	57.9	1476.4	61.52
11	60.7	58.8	59.0	58.3	57.0	57.3	58.0	60.8	60.2	59.0	59.7	59.7	59.5	59.8	60.8	62.5	64.1	64.3	66.1	66.0	64.1	62.8	62.6	60.8	1461.9	60.91
12	61.6	61.6	61.3	60.6	57.9	57.3	57.9	57.5	59.4	59.0	59.1	59.7	60.2	60.7	61.6	64.7	68.0	68.1	67.3	65.2	64.5	63.6	62.6	61.8	1481.2	61.72
13	62.0	61.6	61.3	61.0	60.7	60.6	60.4	59.7	59.0	58.2	58.8	59.1	58.9	59.7	60.7	63.2	65.4	65.7	65.0	63.4	62.1	61.6	61.6	61.7	1471.4	61.31
14	61.8	61.7	61.6	60.7	59.1	57.9	57.9	57.7	57.7	58.0	57.9	57.7	57.1	58.2	59.8	62.4	65.3	66.2	65.6	64.1	62.4	62.1	62.1	62.3	1457.3	60.72
15	62.3	62.1	60.6	60.4	59.9	58.9	58.4	57.1	57.0	57.3	57.1	57.3	58.4	59.1	60.7	62.5	64.0	63.9	63.1	62.0	61.3	61.2	61.3	61.5	1447.4	60.31
16 Q	61.3	61.2	60.1	59.9	60.1	59.7	59.3	58.4	57.7	56.8	56.4	56.7	57.8	59.5	60.8	62.5	65.6	64.5	64.4	63.5	62.5	62.1	62.1	61.9	1452.8	60.53
17	61.6	61.4	60.9	60.6	59.9	59.4	58.9	58.0	56.9	53.5	53.2	55.1	56.9	56.2	59.0	63.6	67.6	69.2	67.0	65.3	63.9	62.4	61.9	61.6	1454.0	60.58
18 Q	61.5	61.4	61.1	60.8	60.8	60.7	59.9	59.2	59.0	58.4	57.9	57.8	57.9	59.7	61.0	62.4	63.6	64.3	64.3	63.4	62.5	61.7	61.0	60.8	1461.1	60.88
19 Q	60.9	61.3	61.3	61.1	61.0	60.7	59.8	59.0	57.8	57.3	56.7	57.3	58.2	59.3	60.2	61.6	63.2	63.7	63.7	63.6	63.2	62.5	62.3	61.7	1457.4	60.72
20	61.5	61.2	60.2	57.9	59.7	60.1	59.7	58.6	58.0	57.8	57.8	58.2	59.1	59.8	61.3	62.6	64.3	65.2	65.3	65.3	64.5	63.8	63.4	62.5	1467.8	61.16
21 Q	61.6	61.2	60.8	60.6	60.1	59.7	59.1	58.0	57.1	56.7	56.7	57.4	57.9	58.8	60.9	62.3	63.7	65.4	65.2	64.3	63.0	62.1	61.8	61.9	1456.3	60.68
22	62.0	61.6	61.3	60.8	60.1	59.7	58.9	57.9	57.0	56.6	57.5	58.6	58.2	58.8	59.8	61.6	63.6	66.2	67.8	65.7	65.3	64.0	63.0	62.3	1468.3	61.18
23	61.6	59.9	58.8	59.8	60.6	60.4	59.2	58.6	58.6	57.7	56.9	57.7	58.2	60.6	61.9	63.4	64.1	63.9	64.3	63.8	63.4	62.9	62.8	62.3	1461.4	60.89
24 D	61.7	61.3	60.9	59.8	57.3	57.0	56.2	53.3	52.5	54.4	56.7	57.8	59.9	62.4	64.8	65.3	68.0	67.8	67.8	68.2	67.1	65.0	62.7	62.3	1470.2	61.26
25	61.5	59.8	60.8	60.2	59.7	56.4	58.4	58.6	57.8	58.0	58.1	58.9	60.6	61.9	62.6	63.5	65.3	66.3	66.1	65.2	64.1	63.4	62.4	61.7	1471.3	61.30
26	61.7	61.6	61.5	61.3	60.7	60.2	59.5	58.8	57.8	56.9	57.1	58.6	60.1	62.0	62.6	63.4	63.6	64.1	63.7	63.4	63.4	63.0	62.4	61.7	1469.1	61.21
27	61.3	61.2	60.7	60.0	59.7	58.8	57.9	57.8	56.7	56.9	57.8	58.6	59.3	60.6	61.0	61.7	62.5	63.7	64.3	64.0	63.6	63.2	62.8	62.2	1456.3	60.68
28	61.3	60.8	60.8	60.1	57.0	58.2	58.2	57.2	56.6	56.8	56.9	57.1	58.8	59.9	60.7	62.3	63.6	63.9	63.4	62.4	61.5	60.7	60.6	60.8	1439.6	59.98
29	61.2	61.3	61.0	59.5	59.0	58.5	58.0	57.1	59.0	55.5	54.9	56.3	57.7	59.5	61.6	63.5	63.2	63.5	63.7	63.7	63.7	63.5	63.4	61.9	1450.2	60.42
30	61.6	60.8	61.3	60.7	60.6	59.7	58.2	57.2	56.0	56.0	54.4	55.6	63.4	64.7	61.8	63.4	65.4	66.1	66.3	64.6	63.5	63.4	62.2	61.3	1468.2	61.18
Sum.																									43995.9	
1000+	837.5	826.8	815.3	805.1	791.4	769.5	755.2	742.5	737.1	724.5	727.9	749.6	779.9	811.3	843.9	893.8	947.6	974.2	975.7	953.0	923.0	887.5	872.4	851.2		
Mean.	61.25	60.89	60.51	60.17	59.71	58.98	58.51	58.08	57.90	57.48	57.60	58.32	59.33	60.38	61.46	63.13	64.92	65.81	65.86	65.10	64.10	62.92	62.41	61.71		61.10

Horizontal component, H, 23000 gammas + tabulated value

November 1963

U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum	Mean
01	281	281	284	280	288	290	276	287	274	272	270	267	255	247	241	247	245	262	266	273	287	283	279	282	6517	271.5
02	282	285	285	290	293	291	291	289	284	281	285	281	273	260	250	247	234	246	263	279	275	281	284	284	6613	275.5
03	283	289	287	279	279	275	277	276	275	275	274	268	261	245	244	246	254	267	274	275	284	272	284	285	6528	272.0
04	289	290	293	293	295	290	285	285	282	280	281	276	263	251	250	254	259	268	282	279	276	284	284	283	6672	276.1
05 Q	285	285	287	292	293	292	290	290	287	282	277	273	264	253	246	246	254	268	279	288	295	298	296	299	6719	280.0
06	304	302	304	309	309	314	313	302	296	294	288	287	278	264	253	258	268	283	287	290	294	277	292	293	6959	290.0
07 D	300	303	292	292	287	291	278	279	279	277	265	276	282	266	257	247	225	242	257	265	248	281	276	292	6557	273.2
08 D	296	266	302	285	281	286	280	280	271	261	256	258	247	251	242	246	248	261	277	286	266	282	284	290	6502	270.9
09 D	309	285	290	283	291	290	283	281	284	279	274	271	252	253	265	253	253	265	266	265	265	271	282	283	6593	274.7
10 D	291	291	289	285	278	293	283	276	274	267	273	274	259	253	259	257	256	266	274	285	285	296	300	286	6655	277.3
11	297	297	299	293	283	283	283	278	272	267	268	268	264	260	262	262	265	283	289	271	280	296	299	286	6705	279.4
12	293	292	295	297	288	283	280	274	275	283	271	257	248	244	251	256	259	271	280	286	292	293	294	287	6649	277.0
13	292	296	295	296	296	294	291	289	287	284	283	274	259	252	252	253	263	279	290	297	305	302	302	293	6824	284.3
14	295	295	296	300	296	294	293	293	288	284	278	269	256	247	247	253	268	283	292	296	297	300	295	297	6812	283.8
15	296	293	296	295	292	290	292	289	285	283	279	274	270	266	266	270	278	290	297	299	296	296	299	301	6892	287.2
16 Q	302	305	296	296	296	296	294	290	290	284	275	266	258	253	253	257	265	278	290	292	292	300	303	307	6838	284.9
17	306	307	308	309	306	302	299	293	294	308	310	301	290	284	265	272	278	287	289	303	301	296	294	298	7100	295.8
18 Q	296	296	297	296	292	291	285	284	283	281	283	278	268	260	260	261	269	278	282	281	291	296	303	302	6813	283.9
19 Q	300	302	300	300	300	300	297	298	292	290	283	278	269	259	255	254	262	275	286	293	298	299	304	306	6900	287.5
20	302	308	308	297	300	302	296	292	288	288	287	283	274	263	254	253	265	278	291	300	300	304	305	305	6943	289.3
21 Q	305	307	312	313	312	309	306	301	298	293	288	279	266	255	253	257	266	277	283	292	298	304	307	305	6986	291.1
22	302	302	305	307	307	305	304	296	292	288	288	290	288	284	275	271	267	275	271	278	300	296	309	313	7013	292.2
23	306	298	299	301	310	310	308	293	290	292	284	275	268	262	257	262	271	283	296	296	293	304	306	304	6968	290.3
24 D	302	306	307	315	307	302	302	302	292	291	291	294	281	259	267	259	253	260	278	284	282	288	280	266	6868	286.2
25	278	278	275	272	278	278	276	279	275	272	265	256	248	248	246	251	257	268	276	284	288	292	295	294	6529	272.0
26	295	295	296	298	298	298	293	288	290	291	285	273	267	262	263	265	272	280	286	289	294	300	302	299	6879	286.6
27	290	291	296	296	296	295	287	290	284	284	279	271	266	259	259	262	274	288	293	302	302	297	292	295	6848	285.3
28	301	301	305	302	292	294	296	292	290	287	283	277	274	273	275	270	275	282	293	293	293	296	299	297	6940	289.2
29	300	305	305	299	300	299	302	302	298	295	283	274	275	275	279	280	290	300	299	299	309	307	307	308	7090	295.4
30	298	293	298	295	298	301	306	306	303	300	292	269	245	286	286	271	262	289	274	280	290	296	294	302	6934	288.9
Sum	8876	8844	8901	8865	8841	8838	8746	8674	8572	8513	8403	8237	7968	7794	7732	7740	7855	8232	8460	8600	8676	8787	8850	8842	203846	
Mean	295.9	294.8	296.7	295.5	294.7	294.6	291.5	289.1	285.7	283.8	280.1	274.6	265.6	259.8	257.7	258.0	261.8	274.4	282.0	286.7	289.2	292.9	295.0	294.7		283.1

Vertical component, Z, - (36000 + tabulated values) gammas

November 1963

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	296	297	299	295	295	285	284	290	291	290	287	287	283	280	277	277	283	287	290	295	302	300	298	301	6969	290.4	
02	299	300	297	297	297	294	293	292	286	283	286	285	283	280	276	271	258	272	285	298	298	305	303	302	6940	289.2	
03	299	298	295	290	269	273	278	280	283	280	285	280	278	273	274	274	276	281	288	289	298	298	305	298	6842	285.1	
04	295	294	293	293	290	284	285	289	287	285	285	283	280	274	271	272	274	281	289	292	292	298	297	295	6878	286.6	
05 Q	293	291	290	292	291	291	290	290	289	286	280	278	274	272	272	270	271	277	282	286	287	290	291	293	6826	284.4	
06	295	291	289	290	289	290	289	280	274	270	268	265	264	260	255	263	267	274	281	285	294	294	299	295	6721	280.0	
07 D	295	295	287	285	281	265	260	277	284	281	262	254	263	266	269	263	249	264	288	311	315	317	305	311	6747	281.1	
08 D	295	292	293	282	284	256	228	246	272	279	277	270	263	267	265	266	264	274	284	290	289	304	301	303	6644	276.8	
09 D	302	286	283	283	287	279	277	268	275	271	275	274	263	265	281	266	265	269	283	294	306	314	314	313	6793	283.0	
10 D	307	294	269	285	278	282	286	282	282	269	273	272	270	272	274	270	270	279	290	294	296	299	304	290	6795	283.1	
11	300	293	286	282	273	272	273	268	262	270	272	275	275	269	267	267	265	273	280	278	283	296	297	292	6668	277.8	
12	292	290	289	286	278	277	279	272	274	273	265	267	270	269	267	265	264	273	235	288	289	290	292	289	6683	278.5	
13	288	290	288	288	286	285	285	283	280	278	275	272	269	266	263	259	265	275	285	291	296	294	292	286	6739	280.8	
14	285	285	286	287	285	275	280	281	279	276	270	269	266	265	266	266	268	275	283	288	291	292	289	289	6696	279.0	
15	288	286	286	285	284	283	283	281	278	275	271	269	268	268	265	265	269	278	285	288	288	285	285	285	6698	279.1	
16 Q	286	287	286	283	283	281	279	277	276	274	270	266	261	258	255	255	261	269	278	284	287	287	288	287	6618	275.8	
17	286	285	285	285	282	279	277	277	274	277	272	261	254	249	238	239	251	263	276	285	289	283	281	284	6532	272.2	
18 Q	282	281	283	281	281	279	277	277	277	274	271	268	264	261	260	262	263	269	279	284	291	290	287	285	6626	276.0	
19 Q	281	281	281	280	280	281	281	280	277	272	265	263	261	261	261	261	265	270	275	281	283	282	283	285	6590	274.6	
20	283	286	285	278	279	279	277	275	273	271	269	265	262	258	258	256	261	269	275	281	279	281	281	282	6553	273.5	
21 Q	283	283	283	282	281	279	278	276	273	269	265	259	254	249	245	244	249	255	266	276	280	281	281	280	6471	269.6	
22	276	277	279	280	280	278	278	274	272	267	262	261	261	258	253	249	247	252	255	266	286	279	233	289	6462	269.2	
23	286	284	281	280	281	281	280	280	263	260	260	254	254	253	254	257	260	265	273	276	277	281	279	278	6499	270.8	
24 D	278	281	281	284	278	276	273	268	261	261	253	254	249	226	249	248	244	258	276	290	302	316	313	302	6521	271.7	
25	301	295	289	286	285	278	273	278	269	268	270	267	262	254	256	258	263	271	277	285	290	292	289	286	6642	276.8	
26	284	283	283	283	281	281	278	274	270	268	268	264	261	259	261	265	268	270	273	276	278	281	280	280	6569	273.7	
27	276	275	281	281	279	276	272	269	265	268	267	263	258	254	257	258	259	263	266	273	276	276	276	278	6470	269.6	
28	281	279	281	279	276	277	278	279	272	267	266	263	260	258	257	255	258	263	272	276	276	277	277	276	6503	271.0	
29	278	281	280	276	276	277	278	276	271	266	258	252	249	249	247	252	260	265	266	271	277	278	280	283	6446	268.6	
30	282	277	279	276	276	277	277	276	272	267	259	245	228	259	260	252	247	259	265	272	280	281	281	284	6431	268.0	
Sum.	8672	8621	8567	8534	8465	8370	8326	8315	8261	8195	8106	8005	7907	7852	7853	7825	7864	8093	8350	8545	8675	8741	8731	8709	199582		
Mean.	289.1	287.4	285.6	284.5	282.2	279.0	277.5	277.2	275.4	273.2	270.2	266.8	263.6	261.7	261.8	260.8	262.1	269.8	278.3	284.8	289.2	291.4	291.0	290.3		277.2	

Declination, D, east of north 16 degrees + tabulated values in minutes of arc

December 1965

U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
1	61.6	61.4	60.8	60.4	59.8	59.2	58.9	58.1	57.1	57.8	57.8	58.6	59.7	60.7	61.7	63.4	64.3	64.8	65.4	64.7	63.5	62.3	61.6	61.5	1465.1	61.05	
2	61.5	60.9	60.5	60.6	59.8	58.7	57.2	56.6	56.1	56.1	56.3	57.8	59.1	60.5	61.7	64.5	65.2	66.2	67.0	65.2	63.6	62.6	62.5	63.1	1463.3	60.97	
3 D	61.6	60.8	59.7	57.5	59.5	56.8	55.1	54.4	53.2	54.3	56.2	59.5	62.4	64.8	65.3	65.3	66.3	69.1	69.2	70.2	67.0	61.3	63.3	63.2	1476.0	61.50	
4 D	63.0	62.4	61.8	60.4	59.8	59.7	60.1	59.5	57.9	58.0	58.0	57.5	59.9	61.3	62.4	63.5	66.3	68.0	65.9	65.8	63.3	64.3	65.5	59.9	1482.2	61.76	
5 D	57.0	60.6	60.7	60.9	61.4	59.8	57.8	57.7	56.9	57.8	58.7	59.7	59.3	61.2	65.3	66.8	68.1	67.2	67.6	68.2	65.3	65.2	63.5	62.0	1486.7	62.03	
6 D	60.0	61.2	60.9	60.7	61.6	59.7	—	—	—	—	—	58.4	60.7	61.9	63.4	63.5	64.5	65.4	65.2	65.2	65.1	63.1	60.7	61.3	1482.5	—	
7	61.7	60.3	59.5	60.2	60.7	60.1	60.7	59.7	59.0	59.0	59.0	59.7	61.6	63.4	64.3	66.2	67.4	67.2	66.2	64.5	63.5	63.4	63.2	62.4	1492.9	62.20	
8	60.7	61.3	61.6	61.0	59.9	57.3	54.7	54.9	56.8	57.9	58.4	57.8	59.4	61.6	62.8	64.3	65.3	64.5	64.7	63.5	63.2	61.1	61.2	62.2	1456.1	60.67	
9	62.3	62.1	61.6	61.3	60.6	58.9	57.7	57.1	56.1	56.3	58.0	59.5	60.0	61.3	62.3	63.6	65.2	65.3	64.6	63.5	62.5	61.9	61.9	62.1	1465.7	61.07	
10 Q	62.3	61.7	61.6	61.1	60.5	59.8	58.9	57.7	56.5	56.2	56.1	56.7	57.9	59.3	60.8	62.5	63.9	64.3	63.4	61.7	61.0	61.5	61.8	62.1	1449.3	60.39	
11 Q	61.7	61.5	60.8	60.4	59.8	59.0	58.5	57.8	56.5	56.1	56.1	57.0	58.9	60.6	61.7	63.5	65.2	65.0	63.4	61.5	60.8	60.7	61.3	61.9	1449.7	60.40	
12	61.9	61.5	61.0	60.7	59.9	58.9	57.7	56.6	55.4	55.2	55.1	56.2	58.1	60.6	62.8	64.5	65.6	65.8	64.5	62.8	61.8	61.6	62.0	62.6	1452.8	60.53	
13	62.7	62.4	61.2	59.5	58.2	58.9	57.9	57.5	56.7	56.1	56.1	56.4	58.4	60.4	61.7	63.5	64.7	65.9	65.3	63.7	62.5	61.3	60.6	60.8	1452.4	60.52	
14	61.6	61.6	61.3	59.9	60.1	59.8	58.9	57.1	54.9	54.8	55.2	56.4	58.0	62.4	62.6	65.3	65.8	64.4	65.3	65.3	64.7	64.4	63.2	61.9	1464.9	61.04	
15	62.0	61.9	61.6	60.7	59.7	59.0	58.4	56.9	55.5	55.4	56.7	58.0	60.2	61.0	61.6	63.2	64.3	65.2	64.4	63.7	63.4	62.6	62.5	62.3	1460.2	60.84	
16	61.7	61.2	60.5	60.4	60.1	59.8	59.0	58.2	57.7	57.0	57.1	57.9	59.1	60.6	61.8	63.9	65.7	66.9	65.6	64.3	62.4	61.3	61.3	62.0	1465.5	61.06	
17	62.3	61.9	61.5	60.7	60.4	59.8	59.6	58.0	57.0	56.7	57.0	57.2	58.2	59.5	60.8	63.6	65.9	66.9	65.9	64.1	62.4	61.3	61.5	61.5	1463.7	60.99	
18 Q	61.5	61.3	60.9	60.7	60.1	59.5	58.6	57.5	56.6	56.0	56.2	57.9	58.8	59.8	61.5	63.6	65.7	66.7	66.6	64.6	62.5	61.7	61.6	61.6	1461.5	60.90	
19	61.5	61.3	60.8	60.7	59.9	59.0	57.9	57.0	56.3	55.5	55.1	54.7	56.0	57.6	59.7	62.4	64.5	64.9	63.7	62.5	62.5	63.1	64.2	62.6	1443.4	60.14	
20 D	63.4	62.8	61.5	60.2	58.9	58.3	56.0	54.1	51.5	52.4	52.7	53.3	56.0	59.5	62.9	64.9	67.0	67.0	66.4	67.9	68.0	65.4	64.7	63.8	1458.6	60.78	
21	63.0	62.4	61.6	60.7	59.9	59.3	58.7	57.5	56.9	57.0	56.9	57.0	57.1	59.8	61.9	63.6	65.8	67.1	66.7	65.1	63.9	63.6	63.5	62.5	1473.5	61.31	
22	62.5	62.4	61.6	60.6	58.9	59.9	56.1	56.2	56.1	56.0	55.4	55.3	56.1	58.9	61.6	62.5	63.4	65.3	67.1	65.2	63.6	62.5	62.4	61.6	1447.2	60.50	
23	62.5	62.5	61.7	61.1	59.9	58.4	57.2	57.8	57.0	58.8	57.1	56.8	57.5	59.5	61.2	62.5	64.5	67.1	67.0	65.3	64.2	63.6	63.3	61.6	1468.1	61.17	
24	60.7	61.8	61.7	61.6	60.9	60.5	59.7	59.1	58.9	58.1	57.9	57.9	57.9	58.9	60.4	61.6	63.5	65.1	64.9	64.4	63.1	62.4	62.3	61.6	1464.9	61.04	
25 Q	61.6	61.6	61.1	60.7	60.0	59.1	58.9	57.9	57.8	57.0	58.7	59.6	59.8	60.5	62.5	64.5	65.2	64.4	64.4	64.2	63.8	63.3	62.6	62.5	1466.9	61.12	
26	62.0	61.6	60.8	59.8	58.2	57.1	57.4	57.8	57.4	57.9	57.9	57.8	58.2	58.6	59.8	62.4	63.7	64.0	63.5	62.5	62.3	62.4	62.4	62.4	1447.9	60.33	
27	61.9	61.6	61.4	60.3	59.7	58.5	56.2	56.2	56.8	57.3	57.1	57.5	58.8	59.8	59.8	61.5	63.4	64.2	63.5	63.5	63.5	62.8	62.4	62.1	1449.8	60.41	
28	61.6	61.3	61.2	60.7	59.5	58.5	57.8	56.2	55.2	56.4	56.0	56.2	57.0	58.6	59.0	61.2	63.4	64.5	64.3	64.4	64.4	63.5	63.5	62.7	1447.1	60.30	
29	61.6	61.6	59.9	60.4	60.4	59.7	59.0	57.9	57.9	57.0	55.2	55.5	60.9	62.7	63.5	64.7	67.1	66.6	65.3	64.4	62.6	61.7	61.6	60.6	1467.8	61.16	
30	60.7	61.3	60.7	60.7	60.0	60.4	59.9	59.1	57.9	57.1	56.7	56.1	57.0	58.9	60.7	62.5	63.5	64.3	63.5	62.4	61.6	61.5	61.5	61.5	1449.5	60.40	
31 Q	61.3	61.2	61.0	60.7	60.7	60.2	59.7	58.9	57.5	56.1	55.4	56.0	57.4	59.7	61.5	63.2	64.6	65.0	63.9	62.6	61.6	60.8	60.7	60.6	1450.3	60.43	
Sum.																									45025.5		
1000+	911.4	909.4	892.5	875.3	858.8	829.6	744.2	721.0	697.1	697.3	700.1	775.9	819.4	873.2	916.8	970.2					996.9	963.6	938.2	932.3	920.5		
2000+																	018.3	059.1	024.4								
Mean.	61.66	61.59	61.05	60.49	59.96	59.02	58.14	57.37	56.57	56.58	56.67	57.29	58.69	60.43	61.83	63.55	65.11	65.78	65.30	64.42	63.34	62.52	62.33	61.95		60.90	

Horizontal component, H, 23000 gammas + tabulated value

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U.T. Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Suz	Mean
01	296	301	303	303	303	303	300	294	291	286	278	276	275	269	264	261	272	287	295	302	304	306	304	299	6972	290.6
02	307	312	315	315	311	309	305	305	303	294	287	282	276	266	253	244	260	291	283	291	297	307	322	325	7058	294.1
03 D	321	320	316	303	315	319	304	298	291	286	274	259	253	242	240	243	252	258	281	291	287	300	296	287	6836	284.8
04 D	298	302	314	312	297	295	288	291	283	277	271	264	259	256	256	244	249	257	281	288	294	291	285	287	6739	280.8
05 D	310	296	299	299	296	298	288	284	274	267	264	268	263	247	234	248	260	275	281	281	299	280	286	294	6691	278.4
06 D	311	300	301	300	300	302	---	---	---	---	---	278	260	256	244	253	260	262	266	281	282	290	301	303	5350	---
07	305	303	306	305	308	299	295	287	283	278	273	266	245	253	260	255	273	281	280	288	288	299	299	302	6841	285.1
08	296	301	302	305	301	298	296	292	291	286	283	271	251	243	246	243	259	278	294	296	294	299	299	296	6820	284.2
09	300	298	300	299	299	295	290	290	289	281	275	278	272	266	260	263	274	287	299	295	291	291	295	296	6883	286.7
10 Q	299	299	295	296	295	295	294	294	290	285	279	271	265	264	262	265	269	280	291	295	299	294	296	299	6872	286.3
11 Q	302	302	303	303	303	300	298	295	290	287	281	274	268	265	268	273	283	296	308	309	312	309	306	305	7040	293.7
12	303	300	301	300	301	298	294	292	288	287	281	271	262	258	258	263	275	287	300	307	309	317	326	314	6992	291.3
13	309	314	322	326	317	305	308	303	293	288	283	279	271	260	256	262	272	284	293	296	302	300	299	300	7042	293.4
14	299	303	309	304	307	307	308	303	299	295	286	282	273	280	265	273	281	292	303	311	293	292	305	307	7095	295.2
15	313	311	305	301	301	301	305	299	290	284	278	275	272	271	272	267	268	277	283	290	295	300	302	305	6955	290.2
16	305	299	299	301	301	299	293	292	288	286	283	279	271	268	266	258	275	288	288	293	296	300	305	296	6929	288.7
17	296	298	299	301	301	302	300	293	288	284	279	275	275	270	264	261	264	279	288	294	298	305	307	302	6923	288.5
18 Q	305	305	305	305	305	305	305	302	298	293	288	283	280	279	274	265	268	284	292	305	309	311	303	302	7071	294.6
19	306	303	306	307	307	307	306	302	296	291	289	287	284	280	272	266	272	280	289	298	315	324	323	302	7112	296.3
20 D	309	308	317	326	324	314	305	300	285	279	271	270	268	269	276	273	278	278	288	292	290	287	298	301	7006	291.9
21	306	311	310	306	306	303	300	295	287	290	283	277	279	272	272	275	272	289	297	282	291	309	306	296	7012	292.2
22	297	301	302	308	300	297	290	290	283	277	279	274	275	271	276	274	272	288	281	275	289	302	302	299	6902	288.6
23	299	297	296	299	293	292	287	292	280	287	283	278	274	274	274	273	268	270	286	276	296	300	292	297	6863	286.0
24	302	297	296	297	297	296	290	288	284	282	280	280	275	274	275	274	276	276	280	288	288	292	289	300	6876	286.5
25 Q	300	300	299	298	297	296	295	291	286	279	280	290	292	287	276	269	268	271	273	283	286	293	301	302	6912	288.0
26	302	300	297	301	296	292	293	293	288	284	286	285	281	277	271	264	270	277	280	287	291	293	296	298	6902	287.6
27	298	302	307	297	297	299	298	295	291	291	286	284	279	276	275	271	274	279	280	285	296	301	309	315	6985	291.0
28	313	307	306	307	307	307	310	306	302	300	292	288	281	273	269	273	288	290	289	294	278	299	306	312	7097	295.7
29	314	315	310	310	311	309	308	306	303	293	284	259	267	271	266	263	257	264	272	275	283	284	291	291	6906	287.8
30	303	298	300	306	303	303	299	294	289	281	272	263	261	261	262	266	285	290	285	286	288	287	290	293	6865	286.0
31 Q	301	305	302	298	298	298	294	293	288	284	284	279	270	263	262	267	273	280	290	297	297	294	294	294	6905	287.8
Sum	9425	9408	9442	9438	9397	9343	8946	8855	8691	8562	8412	8545	8377	8261	8168	8159	8367	8675	8896	9032	9137	9256	9333	9319	213444	
Mean	304.0	303.5	304.6	304.5	303.1	301.4	298.2	295.2	289.7	285.4	280.4	275.6	270.2	266.5	263.5	263.2	270.0	279.8	287.0	291.4	294.7	298.6	301.1	300.6		288.8

Vertical component, Z, - (36000 + tabulated values) gammas

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U.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Sum.	Mean.	
Date																											
01	283	283	282	282	280	279	277	273	268	266	263	258	257	255	251	250	254	262	271	275	279	282	282	277	6489	270.4	
02	278	280	281	279	277	273	270	267	266	261	257	251	248	247	241	242	253	266	266	275	274	283	289	290	6414	267.3	
03 D	292	289	282	273	270	266	261	242	229	248	241	235	230	232	236	245	247	263	274	287	295	303	292	281	6313	263.0	
04 D	286	283	283	274	273	273	262	266	268	265	262	256	255	253	248	241	246	250	268	278	287	291	293	297	6458	269.1	
05 D	295	289	286	282	273	270	263	264	262	261	257	261	257	248	241	250	252	262	269	280	294	285	287	288	6476	269.8	
06 D	291	285	285	282	270	---	---	---	---	---	---	261	252	255	248	252	247	251	264	276	278	286	293	291	4867	---	
07	286	282	280	277	275	264	263	257	256	254	255	256	246	254	253	253	261	271	276	282	282	286	284	286	6439	268.3	
08	284	283	280	280	273	262	261	257	255	253	254	250	241	244	248	252	261	268	273	274	273	279	280	275	6360	265.0	
09	277	277	276	274	273	269	265	264	259	257	256	257	255	253	253	258	261	261	270	275	274	276	277	275	6392	266.3	
10 Q	274	273	273	274	273	273	273	270	267	264	261	255	251	249	249	248	248	257	263	265	264	262	266	269	6321	263.4	
11 Q	272	272	273	273	271	269	269	268	264	258	255	252	252	253	253	253	257	265	268	269	271	272	273	273	6355	264.8	
12	270	271	270	270	270	269	267	266	262	259	253	248	245	245	247	249	255	262	270	273	274	277	283	277	6332	263.8	
13	277	277	281	280	277	269	270	266	262	258	253	249	241	236	239	241	245	253	261	266	277	277	277	276	6308	262.8	
14	270	270	273	273	273	275	274	270	266	260	253	245	239	245	237	245	255	255	259	268	266	277	285	285	6318	263.2	
15	281	278	276	273	273	273	272	268	263	257	252	245	245	248	246	241	246	250	256	262	267	271	270	271	6284	261.8	
16	277	273	273	273	270	269	267	266	264	259	255	254	249	246	243	241	246	260	269	277	274	274	277	272	6326	263.7	
17	273	274	274	273	273	272	270	267	262	258	257	257	257	254	249	246	246	258	268	272	269	271	273	269	6342	264.3	
18 Q	271	270	270	270	270	270	269	266	262	257	252	250	246	248	247	245	246	256	260	269	270	274	273	270	6281	261.7	
19	269	267	269	268	268	270	268	265	258	255	254	249	244	241	235	233	237	250	257	256	262	268	275	265	6183	257.6	
20 D	271	271	271	274	271	262	249	233	236	237	237	232	227	227	232	233	237	243	252	262	267	269	276	274	6043	251.8	
21	272	276	274	271	269	266	262	259	253	251	248	246	243	238	238	236	236	248	259	258	266	277	277	275	6198	258.2	
22	269	270	271	273	268	265	259	258	252	249	248	243	239	236	241	239	238	248	254	262	273	275	269	266	6165	256.9	
23	266	267	266	268	266	264	262	261	249	246	248	250	248	248	245	237	232	239	258	265	274	274	269	269	6171	257.1	
24	273	271	269	269	269	266	264	261	258	256	256	254	249	246	245	243	240	245	254	259	265	270	266	271	6219	259.1	
25 Q	271	269	268	267	266	265	264	261	264	257	253	252	251	252	250	245	244	248	255	262	266	271	272	270	6243	260.1	
26	270	270	269	271	267	264	265	264	260	257	256	255	252	250	244	241	243	248	255	261	264	266	268	272	6232	259.7	
27	270	270	273	269	269	268	258	257	257	256	253	249	246	247	248	246	245	249	255	258	262	268	273	273	6219	259.1	
28	273	269	268	268	268	266	260	256	256	253	249	245	239	236	236	233	238	246	249	257	253	267	269	269	6123	255.1	
29	266	271	269	268	266	264	262	259	257	250	243	227	233	244	246	252	244	249	257	269	277	275	275	273	6196	258.2	
30	280	277	274	272	268	267	266	265	261	257	253	246	246	244	244	247	255	260	262	266	264	262	264	268	6268	261.2	
31 Q	273	273	269	266	265	265	264	262	261	250	247	246	241	238	240	243	248	253	260	263	263	264	266	262	6182	257.6	
Sum.	8560	8530	8508	8466	8394	8047	7956	7858	7757	7669	7581	7734	7624	7612	7573	7580	7663	7896	8132	8321	8424	8532	8573	8529	193519		
Mean.	276.1	275.2	274.4	273.1	270.8	268.2	265.2	261.9	258.6	255.6	252.7	249.5	245.9	245.5	244.3	244.5	247.2	254.7	262.3	268.4	271.7	275.2	276.5	275.1		262.1	