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Solar-Geophysical Data

(Comprehensive Reports)

NUMBER 317 - PART II
DATA FOR
JULY 1970
JUNE 1970
& MISCELLANEA

DATA COMPILED BY AERONOMY AND SPACE DATA CENTER
BOULDER, COLORADO

WASHINGTON, D.C.
JANUARY 1971

SOLAR-GEOPHYSICAL DATA

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Edited by:
Miss Hope I. Leighton under the supervision of
Miss J. Virginia Lincoln, Aeronomy and Space Data Center.

For obtaining bulletins on a data exchange basis, send request to World Data Center A, Upper Atmosphere Geophysics, NOAA, Boulder, Colorado 80302.

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*CRPL-FB 135 through 269
IER-FB 270 through 298
299 Part I or 299 Part II to number of current issue

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	1969 Sep	Oct	Nov	Dec	1970 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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15,400, 8800, 4995, 2695, 1415, 606, 245 MHz Adj. Solar Flux (AFCRL)	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317
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Cosmic Ray Protons (Pioneers 8 & 9)	--	--	--	305	306	307	308	309	310	311	312	313	314	315	316	317
Cosmic Ray Protons (ATS-1)	--	--	--	--	306	307	308	309	310	311	312	313	314	315	316	317
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21 cm Solar Scans (Fleurs)	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317
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* Solar Wind for December 1965 - December 1966 published in SGD-306
and for January 1967 - October 1967 in SGD-305.

** Frequency range extended to 10-1000 MHz on March 1, 1970 and to 10-2000 MHz on May 1, 1970.

*** Frequency range extended to 8-4000 MHz on March 1, 1970.

****Frequency range changed to 24-48 MHz on July 12, 1970.

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For explanations of the data contained herein see "Descriptive Text" published in February 1970.

SOLAR FLARES
Confirmed
JULY 1970

OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
210 LOCK	01	0023	0037	0028	N22	E00	.328	10808	1.0	14	--F								3
211 LOCK	01	0105	0130	0112	N23	W03	.348	10808	30.8	25	--F								3
GRP31212	01	0110	0125	0115	S05	E38	.626	10812	3.9	15	-N				.73				3 3 2 3
LOCK	01	0105	0126	0115	S06	E38	.629	10812	3.9	21	-N								
VORO	01	0109	0123	0114	S04	E38	.624	10812	3.9	14	-B		C	0114	.93	1.20		85	E
CRON	01	0115	0127		S04	E38	.624	10812	3.9	12	-F	2	V		.52				
GRP31213	01	0151	0202	0155	S06	E37	.616	10812	3.9	11	-B				1.35				3 3 2 4
LOCK	01	0150	0202	0154	S08	E37	.622	10812	3.9	12	-B								
CRON	01	0152	0205	0155	S04	E38	.624	10812	3.9	13	-B	2	V		.72				
SIBE	01	0152	0158	0156	S05	E37	.613	10812	3.9	6	1N		P	0156	1.98	2.50		80	CD
GRP31215	01	0218	0228	0220	S10	E83	.994	10815	7.3	10	1F				1.69				3 2 2 4
SIBE	01	0214	0225	0220	S10	E85	.997	10815	7.5	11	2F		C	0220	1.82			78	CDH
CRON	01	0222	0230		S09	E80	.987	10815	7.1	8	1F	3	V		1.55				
CULG	01	0230E	0301D	0253	S07	E77	.976	10815	6.9	31D	1N		P	0253	1.13				HR
GRP31216	01	0424	0429	0425	N08	E35	.577	10813	3.8	5	--F				.59				2 2 2 4
CRON	01	0423	0427		N07	E35	.575	10813	3.8	4	-F	3	V		.41				
KODA	01	0424	0431	0425	N08	E34	.562	10813	3.7	7	-N		P	0424	.77	.77	1.68		CD
GRP31223	01	0655	0725	0659	N20	W09	.330	10808	30.6	30	-B				1.08				6 6 4 8
BUCA	01	0650	0730		N21	W09	.345	10808	30.6	40	-N		C	0656	1.10	1.20			
TEHR	01	0655E	0715D	0658	N19	W09	.316	10808	30.6	20D	1B								KZ
ABST	01	0655	0804	0656	N21	W08	.338	10808	30.7	69	-N		C	0656	1.79	1.90		66	FV
ISTA	01	0655	0724	0656	N20	W09	.330	10808	30.6	29	-B								
ISTA	01	0655	0724	0704	N20	W09	.330	10808	30.6	29	-B								
CRON	01	0656	0719	0700	N20	W08	.323	10808	30.7	23	-N	3	V		.72				
CATA	01	0700	0725D	0705	N20	W10	.338	10808	30.5	25D	-B			0705	.69	.74		245	
GRP31226	01	0855	0919	0859	N20	W10	.338	10808	30.6	24	--N				.69				3 3 3 8
MONT	01	0854	0915	0858	N20	W12	.355	10808	30.5	21	-N		C	0858	.62				
CRIM	01	0856	0920D	0900	N20	W11	.346	10808	30.5	24D	-N		C	0900	.63	.70			D
CRON	01	0856	0922		N19	W08	.308	10808	30.8	26	-N	2	V		.83				
GRP31229	01	1058	1145	1106	N19	W12	.341	10808	30.6	47	1N				2.35				6 6 5 7
MONT	01	1055	1145	1103	N20	W13	.364	10808	30.5	50	1B		C	1103	2.06				
CAPE	01	1058	1145	1105	N18	W12	.329	10808	30.6	47	1N		C	1105	1.93	2.10			H
CATA	01	1100	1150	1105	N20	W11	.346	10808	30.6	50	1B			1105	3.48	3.70		309	
ONDR	01	1100E	1146		N20	W14	.373	10808	30.4	46D	2N		V	1105			3.30		CDHJ
CAPS	01	1103E	1128D		N17	W13	.327	10808	30.5	25D	-N	2	S	1113	1.80	1.90		190	H
RAMY	01	1106E	1138	1109U	N20	W11	.346	10808	30.6	32D	1N		C		2.48				F
GRP31231	01	1335	1409	1339	S06	E33	.561	10812	4.0	34	--F				.72				3 2 1 5
RAMY	01	1334	1411	1337	S06	E34	.575	10812	4.1	37	-F		C		.72				DE
BOUL	01	1335	1406	1340	S05	E32	.543	10812	4.0	31	-N	2	V						
MONT	01	1343E	1415	1410	S08	E35	.596	10812	4.2	32D	-N		C	1410	.52				
4 STATIONS REPORTING GROUP 31232.					3 STATIONS OBSERVING AND NOT REPORTING.														
GRP31232	01	1354	1440	1417	S06	W16	.313	10807	30.4	46	-N				1.07				4 4 3 7
MONT	01	1346	1455	1418	S07	W15	.308	10807	30.4	69	-B		C	1418	.62				
BOUL	01	1352	1429	1416	S07	W15	.308	10807	30.5	37	-N	3	V						
CATA	01	1355	1435	1415	S06	W17	.328	10807	30.3	40	-F			1415	1.16	1.23		137	
RAMY	01	1415	1441	1417	S05	W15	.291	10807	30.5	26	-N		C		1.44				F
31232	01	1350	1433	1355	S06	W15	.299	10807	30.5	43	*-N				.57				2 2 2 4
MONT	01	1346	1455	1355	S07	W15	.308	10807	30.4	69	-B		C	1355	.62				K
RAMY	01	1353	1410	1355	S05	W15	.291	10807	30.5	17	-F		C		.52				DE
GRP31233	01	1416	1437	1421	N23	W10	.380	10808	30.8	21	-N				.93				3 3 2 7
RAMY	01	1416	1441	1421	N22	W12	.381	10808	30.7	25	-N		C		.83				DE
BOUL	01	1416	1430	1420	N22	W10	.366	10808	30.8	14	-N	3	V						
MONT	01	1417	1440	1422	N24	W08	.383	10808	1.0	23	-B		C	1422	1.03				
GRP31236	01	1459	1527	1502	S07	E32	.551	10812	4.0	28	-B				.89				6 6 5 7
MONT	01	1455	1515	1458	S08	E34	.582	10812	4.2	20	-B		C	1458	.52				
RAMY	01	1457	1532	1459	S06	E34	.575	10812	4.2	35	-N		C		1.03				F
CATA	01	1500	1539	1500	S07	E33	.565	10812	4.1	30	-B			1500	1.27	1.54		219	Z
BOUL	01	1500	1525D	1503	S05	E32	.543	10812	4.0	25D	-N	3	V						
LOCA	01	1500	1520	1506	S08	E31	.541	10812	4.0	20	-B		V	1506	.63	.80			
CAPS	01	1500E	1538D		S08	E30	.527	10812	3.9	38D	-N	3	P	1505	1.00	1.20		160	
GRP31237	01	1508	1534	1515	N22	W05	.338	10808	1.3	26	--N				.92				4 4 3 8
MONT	01	1501	1520	1506	N24	E01	.361	10808	1.7	19	-B		C	1506	.83				
RAMY	01	1507	1534	1512	N23	W05	.354	10808	1.3	27	-F		C		1.13				DE
CAPS	01	1510	1545D		N19	W07	.301	10808	1.1	35D	-F	3	V	1511	.80	.80		155	
BOUL	01	1515	1537	1517	N22	W08	.353	10808	1.0	22	-N	3	V						

SOLAR FLARES
Confirmed
JULY 1970

OBSERV-ATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP31239	01	1622	1642	1625	S06	E33	.561	10812	4.2	20	--N				.72				3 3 1 6
RAMY	01	1622	1639	1625	S06	E34	.575	10812	4.2	17	-F		C		.72				DE
LOCK	01	1622	1640	1626	S07	E33	.565	10812	4.2	18	-N								
BOUL	01	1623	1646	1625	S05	E31	.529	10812	4.0	23	-N	3	V						
GRP31241	01	1707	1731	1710	S07	E32	.551	10812	4.1	24	--N				.72				3 3 1 4
LOCK	01	1705	1722	1709	S07	E33	.565	10812	4.2	17	-F								
BOUL	01	1708	1737	1710	S05	E30	.515	10812	4.0	29	-N	3	V						
MCMA	01	1708E	1735D		S08	E32	.555	10812	4.1	27D	-N		P	1708	.72	.90			E
GRP31242	01	1711	1731	1715	N24	W06	.373	10808	1.3	20	--F				.72				2 2 1 3
MCMA	01	1710E	1731		N22	W07	.347	10808	1.2	21D	-F		P	1714	.72	.80			E
BOUL	01	1712	1730	1715	N25	W05	.385	10808	1.3	18	-F	3	V						
GRP31243	01	1749	1755	1751	N05	E34	.559	10813	4.3	6	--F								2 2 0 3
LOCK	01	1748	1755	1751	N05	E32	.530	10813	4.1	7	-F								H
BOUL	01	1749	1754	1750	N05	E35	.573	10813	4.4	5	-N	3	V						
244 LOCK	01	1805	1840	1812	N10	E79	.981	10814	7.7	35	--F								3
245 LOCK	01	1811	1824	1815	S10	E73	.960	10815	7.2	13	--F								3
246 LOCK	01	1843	1905	1850	S06	W81	.989	10800	25.7	22	--F								H 2
GRP31247	01	1946	2005	1949	S10	E73	.960	10815	7.3	19	-N								2 2 0 2
LOCK	01	1945	2004	1949	S10	E73	.960	10815	7.3	19	-N								
BOUL	01	1946	2005	1949	S10	E72	.955	10815	7.2	19	-N	2	V						
248 LOCK	01	2009	2019	2011	N09	E31	.521	10813	4.2	10	--F								H 2
GRP31249	01	2022	2139	2041	N18	W16	.371	10808	30.6	77	1B				.36				4 2 1 4
LOCK	01	2021	2135	2032	N18	W16	.371	10808	30.6	74	1B								
BOUL	01	2022	2143	2028	N18	W16	.371	10808	30.6	81	1N	2	V						
RAMY	01	2103E	2122D	2103U	N19	W18	.405	10808	30.5	19D	1N		C		2.17				DE
MCMA	01	2115E	2136D		N18	W18	.395	10808	30.5	21D	-N		P	2115	.36	.40			D
251 LOCK	01	2132	2139	2133	S07	W22	.408	10807	30.2	7	--F								3
253 BOUL	01	2349	0006	2353	S09	E72	.955	10815	7.4	17	--F	1	V						2
GRP31255	02	0027	0112	0046	S07	E28	.495	10812	4.1	45	-N				2.27				2 2 1 2
CULG	02	0023	0113	0045	S07	E28	.495	10812	4.1	50	1N			0045	2.27	2.53			K
CULG	02	0023	0113	0039	S07	E28	.495	10812	4.1	50	1N		C	0039	2.06	2.30			
LOCK	02	0030	0110	0047	S06	E28	.490	10812	4.1	40	-N								
256 SIBE	02	0212	0226	0214	N09	E75	.965	10814	7.7	14	1F		P	0214	.66			65	D 1
GRP31257	02	0356	0427	0359	S08	E27	.486	10812	4.2	31	-B				1.59				2 2 2 4
KODA	02	0356	0427	0359	S07	E26	.466	10812	4.1	31	1B		P	0409	2.55	2.60	1.48		CEK
MANI	02	0358E	0420D		S08	E28	.500	10812	4.3	22D	-N	1		0400	.62	.71			
GRP31258	02	0510	0541	0520	N19	W21	.439	10808	30.6	31	-N				1.83				3 3 3 5
CULG	02	0425	0509	0449	N20	W21	.449	10808	30.6	44	1N		C	0449	2.06	2.20			
ABST	02	0502E	0540	0515	N18	W21	.430	10808	30.6	38D	-N		P	0515	1.79	2.00		65	E
CULG	02	0513	054..	0521	N20	W21	.449	10808	30.6	29	1B		C	0521	2.37	2.53			
CATA	02	0515	0540	0525	N20	W22	.460	10808	30.6	25	-N			0525	1.33	1.50		174	T
GRP31260	02	0645	0709	0648	N20	W23	.472	10808	30.6	24	1F				2.10				7 6 4 9
HTPR	02	0643	0710	0648	N20	W25	.496	10808	30.4	27	1F		C	0648	2.58	2.90			
ABST	02	0644	0715	0647	N20	W24	.484	10808	30.5	31	1N		C	0647	2.25	2.50		58	E
CRIM	02	0645E	0654D		N19	W22	.451	10808	30.6	9D	-F		C	0649	1.34	1.51			E
BUCA	02	0645	0720		N20	W22	.460	10808	30.6	35	1F		C	0648	2.21	2.50			
TEHR	02	0645E	0705D	0648	N19	W23	.464	10808	30.6	20D	2N								ZH
ISTA	02	0646	0655		N20	W26	.508	10808	30.3	9	-F								
CAPS	02	0657E	0705D		N18	W24	.468	10808	30.5	8D	-F	3	V	0659	.60	.70		150	
TEHR	02	0707	0735D		N22	W19	.446	10808	30.9	28D	2F								
GRP31268	02	0934	1008	0939	N19	W25	.488	10808	30.5	34	-N				1.98				7 7 7 7
MONT	02	0933	1005	0940	N17	W25	.474	10808	30.5	32	-B		C	0940	1.55				
CANR	02	0934	1005	0936	N19	W25	.488	10808	30.5	31	-B	3	V		1.03	1.20			
CATA	02	0935	1010	0945	N21	W23	.481	10808	30.7	35	-B			0945	1.73	1.97		219	T
CAPE	02	0935	1015	0936	N18	W25	.481	10808	30.5	40	-N		C	0936	1.21	1.40			V
HTPR	02	0935	1010	0940	N20	W25	.496	10808	30.5	35	1N		C	0940	3.09	3.50			
KHAR	02	0936E	1003		N19	W26	.501	10808	30.5	27D	1F		P	0947	3.97	4.50	1.80		EH
CAPS	02	0948E	1010D		N18	W24	.468	10808	30.6	22D	-N	2	V	0949	1.30	1.40		165	

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7 STATIONS REPORTING GROUP 31269.							0 STATIONS OBSERVING AND NOT REPORTING.												
GRP31269	02	1004	1056	1028	S07	E22	.409	10812	4.1	52	-N				1.46				5 5 5 7
CAPE	02	1002	1055	1025	S07	E23	.423	10812	4.1	53	-N		C	1025	1.29	1.40			
MONT	02	1004	1100	1030	S07	E21	.394	10812	4.0	56	-N		C	1030	.83				
CATA	02	1005	1055D	1030	S08	E22	.415	10812	4.1	50D	1N			1030	1.86	2.05		191	Z
HTPR	02	1021	1045	1025	S08	E23	.429	10812	4.2	24	-N		C	1025	1.44	1.60			
RAMY	02	1029E	1105	1030U	S06	E22	.402	10812	4.1	36D	-N		C		1.86				F
31269	02	1013	1111	1020	S06	E24	.432	10812	4.2	58	*-N				.95				2 2 2 7
CAPS	02	1010E	1111D		S05	E25	.442	10812	4.3	61D	-N	2	V	1013	.60	.70		160	
CANR	02	1016	1110	1020	S07	E22	.409	10812	4.1	54	-N	3	V		1.29	1.30			
GRP31272	02	1222	1238	1226	N22	W23	.490	10808	30.8	16	--N				.79				4 4 4 9
MCMA	02	1222	1238	1226	N22	W22	.479	10808	30.9	16	-N		C	1226	.57	.60			E
CANR	02	1222	1235		N22	W22	.479	10808	30.9	13	-F	2	V		.41	.40			
RAMY	02	1223	1238	1225	N23	W22	.489	10808	30.9	15	-N		C		1.13				F
MONT	02	1225E	1240		N19	W26	.501	10808	30.6	15D	-N		C	1225	1.03				
GRP31273	02	1234	1245	1235	S15	E78	.982	10815	8.4	11	-N				.62				6 6 4 10
MONT	02	1233	1245	1235	S15	E77	.979	10815	8.3	12	-N		C	1235	.62				
RAMY	02	1233	1242	1235	S14	E78	.982	10815	8.4	9	-N		C						DE
CANR	02	1233	1240		S13	E77	.978	10815	8.3	7	-N	2	V		.21	.60			
MCMA	02	1234	1243	1236	S17	E78	.983	10815	8.4	9	-N		C	1236					D
CAPE	02	1234	1245	1236	S14	E80	.988	10815	8.5	11	-F		C	1236	.92				
HTPR	02	1234	1253	1235	S14	E77	.979	10815	8.3	19	-N		C	1235	.72				
GRP31274	02	1244	1320	1255	N20	W26	.508	10808	30.6	36	-N				1.53				8 8 7 10
MONT	02	1241	1313D	1250	N19	W26	.501	10808	30.6	32D	-B		C	1250	1.24				
MCMA	02	1242	1319	1256	N22	W22	.479	10808	30.9	37	-B		C	1256	.83	.90			EL V
RAMY	02	1242	1320	1253U	N20	W25	.496	10808	30.7	38	-N		C		1.24				FH
CANR	02	1243	1316		N19	W27	.513	10808	30.5	33	-N	2	V		1.13	1.30			
CAPE	02	1244	1330	1259	N20	W27	.521	10808	30.5	46	1N		C	1259	1.79	2.10			H
CATA	02	1245	1320	1255	N20	W26	.508	10808	30.6	35	-B			1255	1.39	1.61		209	
BOUL	02	1245	1320	1258	N19	W29	.538	10808	30.4	35	1N	2	V						
HTPR	02	1251	1315	1255	N20	W25	.496	10808	30.7	24	1N		C	1255	3.09	3.30			
GRP31275	02	1305	1324	1310	S08	E22	.415	10812	4.2	19	--F				.75				4 4 4 9
RAMY	02	1303	1319	1306	S08	E22	.415	10812	4.2	16	-N		C		.52				F
MCMA	02	1305	1325	1308	S08	E22	.415	10812	4.2	20	-F		C	1308	.41	.40			E
HTPR	02	1305	1335	1315	S08	E24	.444	10812	4.3	30	-F		C	1315	1.55	1.60			
CANR	02	1305	1315		S07	E20	.380	10812	4.0	10	-F	2	V		.52	.50			
GRP31276	02	1333	1348	1336	S10	E60	.876	10815	7.1	15	--N				.31				4 4 3 11
BOUL	02	1324	1333	1325	S09	E68	.932	10815	7.7	9	-F	2	V						
BOUL	02	1330	1348	1336	S08	E57	.847	10815	6.8	18	-N	2	V						
CANR	02	1333	1348		S09	E60	.874	10815	7.1	15	-N	1	V		.21	.40			
RAMY	02	1334	1349	1336	S08	E58	.856	10815	6.9	15	-N		C		.41				DE
MCMA	02	1335	1339D	1336	S13	E58	.864	10815	6.9	4D	-N		C	1336	.31	.60			E
GRP31284	02	1558	1619	1607	S07	E22	.409	10812	4.3	21	--F				.89				5 5 3 6
RAMY	02	1556	1620	1604	S06	E22	.402	10812	4.3	24	-F		C		.31				DE
BOUL	02	1557	1613	1608	S05	E21	.382	10812	4.2	16	-F	3	V						
CANR	02	1557	1618		S07	E22	.409	10812	4.3	21	-N	1	V		.62	.70			
LOCK	02	1600	1615	1605	S08	E20	.387	10812	4.2	15	-F								
HTPR	02	1600	1630	1610	S08	E23	.429	10812	4.4	30	-F		C	1610	1.75	1.90			
GRP31285	02	1608	1627	1615	S02	E02	.093	10810	2.8	19	--N				.70				4 4 2 6
LOCK	02	1607	1624	1612	S01	E00	.069	10810	2.7	17	-F								
CANR	02	1607	1630		S03	E03	.116	10810	2.9	23	-N	2	V		.83	.80			
BOUL	02	1609	1628	1616	S02	E02	.093	10810	2.8	19	-N	3	V						
RAMY	02	1609	1625D	1616	S02	E01	.088	10810	2.7	16D	-N		C		.57				DE
GRP31287	02	1758	1815	1807	N19	W29	.538	10808	30.6	17	-B				1.65				2 2 1 4
LOCK	02	1757	1925	1805	N18	W29	.532	10808	30.6	88	-B								K
HTPR	02	1758	1815	1809	N20	W28	.533	10808	30.6	17	-N		C	1809	1.65	1.90			
31287	02	1807	1921	1835	N20	W29	.545	10808	30.6	74	*1B				1.81				4 4 2 4
LOCK	02	1757	1925	1836	N18	W29	.532	10808	30.6	88	1B								
BOUL	02	1800	1917	1834	N19	W31	.563	10808	30.4	77	1N	3	V						
MCMA	02	1813E	1907D	1835	N21	W29	.552	10808	30.6	54D	1B		C	1835	2.06	2.40			V
HTPR	02	1816	1830D		N20	W26	.508	10808	30.8	14D	-N		C	1830	1.55	1.80			
288 LOCK	02	1830	1900	1840	S07	E17	.337	10812	4.0	30	--F								3
289 BOUL	02	2039	2101	2041	N22	W22	.479	10808	1.2	22	-N	2	V						2

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GRP31290	02	2213	2228	2218	S08	E18	.359	10812	4.3	15	--N				.59				3 3 2 4
VORO	02	2212	2234	2221	S06	E17	.329	10812	4.2	22	-B		C	2221	.56	.60		77	E
MCMA	02	2213	2229	2218	S08	E14	.305	10812	4.0	16	-F		C	2218	.62	.60			EH
BOUL	02	2213	2220	2215	S10	E22	.430	10812	4.6	7	-F	2	V						
GRP31291	02	2216	2234	2220	N08	E12	.224	10813	3.8	18	--N				.39				3 3 2 4
BOUL	02	2215	2240	2221	N10	E12	.239	10813	3.8	25	-F	2	V						
VORO	02	2216	2234	2221	N08	E12	.224	10813	3.8	18	-B		C	2221	.46	.50		86	EJ
MCMA	02	2217	2227	2218	N05	E11	.194	10813	3.8	10	-F		C	2218	.31	.30			E
292 MCMA	02	2253	2300D		S08	E14	.305	10812	4.0	7D	--F		C	2259	.25	.25			4
6 STATIONS REPORTING GROUP 31293. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31293	02	2314	0035	2321	S07	E17	.337	10812	4.2	81	1B				3.76				3 3 2 3
BOUL	02	2313	0021	2319	S07	E15	.309	10812	4.1	68	1B	2	V						
CULG	02	2314	0050	2323	S07	E17	.337	10812	4.2	96	2B		C	2323	5.57	5.72			FH
VORO	02	2315	0033	2320	S07	E18	.351	10812	4.3	78	1B		C	2320	1.94	2.10		178	EHJ
31293	02	2332	0036	2341	S08	E16	.332	10812	4.2	64	*1N				4.69				3 2 2 6
MITK	02	2332E	0036D	2341	S07	E16	.323	10812	4.2	64D	2N		C	2341	8.04	8.50			FH
MANI	02	2341E	2349D		S09	E17	.354	10812	4.3	8D	-N	1		2342	1.34	1.38			
CRON	02	2354	0030		S08	E15	.318	10812	4.1	36	-F	2	V		1.75				
GRP31297	03	0122	0153	0129	S08	E15	.319	10812	4.2	31	-N				1.52				2 2 2 3
CULG	03	0117	0209D	0128	S07	E14	.296	10812	4.1	52D	1N		P	0128	2.37	2.30			
SIBE	03	0126	0137	0130	S08	E15	.319	10812	4.2	11	-N		P	0130	.66	.70		84	CEZ
31297	03	0202	0218	0206	S08	E15	.319	10812	4.2	16	*1N				2.22				3 3 2 6
CRON	03	0132	0228		S09	E14	.316	10812	4.1	56	1F	2	V		2.06				
KODA	03	0159	0207		S08	E15	.319	10812	4.2	8	1B		P	0159	2.37	2.40			CE
BOUL	03	0204	0206D	0206	S07	E17	.338	10812	4.4	2D	-F	1	V						
GRP31305	03	0633	0735	0638	S08	E10	.257	10812	4.0	62	--F				.52				3 1 1 9
HTPR	03	0633	0715	0638	S07	E08	.222	10812	3.9	42	-F		C	0638	.52	.50			
MONT	03	0705	0724	0707	S06	E08	.209	10812	3.9	19	-N		C	0707	.83				
ISTA	03	0717	0755		S09	E11	.281	10812	4.1	38	-F								
GRP31306	03	0702	0727	0705	N10	E58	.848	10814	7.6	25	-N				.76				6 6 5 10
BUCA	03	0700	0725		N10	E59	.857	10814	7.7	25	-N		P	0710	.55	1.10			
ABST	03	0700	0730	0704	N07	E61	.873	10814	7.9	30	1N		C	0704	1.79	3.50			E
MONT	03	0701	0720	0705	N11	E57	.839	10814	7.6	19	-N		C	0705	.52				
CRON	03	0705	0730		N11	E58	.848	10814	7.6	25	-N	3	V		.62				
ISTA	03	0705	0724		N10	E54	.809	10814	7.3	19	-N								
CAPS	03	0709E	0732D		N10	E60	.865	10814	7.8	23D	-N	3	V	0713	.30	.60		164	
GRP31309	03	0850	0906	0852	S10	W50	.782	10807	29.6	16	-N				.69				6 5 5 8
HTPR	03	0848	0910	0852	S10	W50	.782	10807	29.6	22	-N		C	0852	.93	1.50			
ABST	03	0850E	0854D	0851	S08	W48	.756	10807	29.8	4D	-N		P	0851	.90	1.40		65	DV
CRIM	03	0850	0859D	0852	S09	W51	.791	10807	29.5	9D	-N		C	0852	.90	1.48			D
CAPS	03	0851E	0925D		S08	W40	.661	10807	30.4	34D	-B	3	V	0856	.40	.50		212	
CANR	03	0852	0852D		S11	W50	.785	10807	29.6		-N	2	V		.31				
CRON	03	0852	0901		S10	W50	.782	10807	29.6	9	-F	2	V		.41				
GRP31312	03	1033	1048	1034	S08	E09	.246	10812	4.1	15	-N				1.12				4 4 4 7
HTPR	03	1032	1050	1033	S07	E08	.222	10812	4.0	18	-N		C	1033	1.75	1.70			
RAMY	03	1032E	1048	1034U	S07	E09	.233	10812	4.1	16D	-N		C		1.13				DE
CANR	03	1034	1044		S08	E09	.246	10812	4.1	10	-N	2	V		.62	.60			
CATA	03	1035	1050	1035	S08	E08	.236	10812	4.0	15	-B			1035	.98	1.01		219	T
GRP31314	03	1136	1150	1138	S06	E07	.199	10812	4.0	14	--N				.62				4 4 4 8
RAMY	03	1135	1150	1137	S05	E07	.185	10812	4.0	15	-N		C		.83				F
HTPR	03	1136	1200	1139	S05	E05	.165	10812	3.9	24	-F		C	1139	1.03	1.00			
CANR	03	1136	1143		S07	E08	.222	10812	4.1	7	-N	2	V		.31				
CAPS	03	1138E	1146D		S08	E09	.246	10812	4.2	8D	-N	3	V	1139	.30	.30		170	
GRP31317	03	1310	1337	1316	S07	E07	.212	10812	4.1	27	--N				.81				6 6 5 8
HTPR	03	1300E	1350D		S07	E07	.212	10812	4.1	50D	-N		C	1312	.93	.90			
BOUL	03	1309	1331D	1314	S07	E07	.212	10812	4.1	22D	-N	2	V						
RAMY	03	1310	1330	1313	S07	E07	.212	10812	4.1	20	-F		C		.72				DE
CATA	03	1310	1335	1320	S07	E06	.203	10812	4.0	25	-N			1320	1.04	1.07		191	T
MCMA	03	1313E	1340D		S08	E07	.226	10812	4.1	27D	-N		C	1320	.72	.70			E
CANR	03	1318	1336		S08	E07	.226	10812	4.1	18	-N	2	V		.62				
GRP31319	03	1400	1416	1406	S12	E08	.293	10812	4.2	16	--F				.78				2 2 2 8
MONT	03	1400	1415	1406	S14	E09	.330	10812	4.3	15	-N		C	1406	.83				
RAMY	03	1402E	1417	1405	S13	E07	.301	10812	4.1	15D	-F		C		.72				DE
MONT	03	1415	1430	1417	S08	E09	.246	10812	4.3	15	-N		C	1417	.52				

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GRP31320	03	1435	1450	1443	S12	E09	.301	10812	4.3	15	--N				.68				3 3 2 8
MONT	03	1435	1447D	1440	S14	E09	.330	10812	4.3	12D	-N		C	1440	.83				
RAMY	03	1436E	1451	1442	S12	E08	.293	10812	4.2	15D	-F		C		.52				DE
BOUL	03	1438	1453	1447	S11	E09	.287	10812	4.3	15	-N	3	V						
GRP31321	03	1451	1505	1455	S07	E07	.212	10812	4.1	14	--N				.69				4 4 3 9
RAMY	03	1450	1501D	1454	S06	E07	.199	10812	4.1	11D	-N		C		.72				DE
MONT	03	1450E	1457D		S08	E09	.246	10812	4.3	7D	-N		C	1450	.52				
CANR	03	1450	1512		S07	E07	.212	10812	4.1	22	-N	2	V		.83	.80			
BOUL	03	1452	1501	1456	S06	E05	.180	10812	4.0	9	-N	3	V						
GRP31322	03	1548	1617	1554	N23	W37	.656	10808	30.9	29	-N				.66				5 5 4 7
RAMY	03	1547	1612	1553	N22	W36	.639	10808	1.0	25	-F		C		.21				DE
BOUL	03	1547	1615	1553	N22	W37	.651	10808	30.9	28	-N	3	V						
CANR	03	1547	1620		N21	W36	.634	10808	1.0	33	-N	2	V		.93	1.10			
MCMA	03	1548E	1616		N25	W39	.688	10808	30.7	28D	-N		C	1550	.62	.80			E
CATA	03	1550	1620	1555	N23	W39	.678	10808	30.7	30	-N			1555	.87	1.19		193	
GRP31323	03	1556	1612	1600	N13	E54	.812	10814	7.7	16	--F				.47				2 2 2 7
RAMY	03	1555	1616	1559	N13	E55	.822	10814	7.8	21	-F		C		.41				DE
HTPR	03	1556	1607	1600	N12	E53	.801	10814	7.6	11	-F		C	1600	.52	.80			
GRP31325	03	1625	1647	1630	N22	W33	.605	10808	1.2	22	-N				.83				5 4 3 7
CANR	03	1615	1647		N22	W32	.593	10808	1.3	32	-N	2	V		.62	.70			
BOUL	03	1626	1738	1629	N22	W33	.605	10808	1.2	72	-N	3	V						
RAMY	03	1628	1649	1631	N22	W33	.605	10808	1.2	21	-N		C		.93				DE
CATA	03	1630	1645	1630	N23	W33	.611	10808	1.2	15	-N			1630	.93	1.18		200	
HUAN	03	1707E	1735	1731	N12	W40	.651	10808	30.7	28D	-F	1	C	1731	.31	.40			E
GRP31326	03	1655	1709	1659	S08	E05	.210	10812	4.1	14	-B				.99				5 5 4 6
BOUL	03	1654	1708	1658	S07	E04	.188	10812	4.0	14	-B	3	V						
RAMY	03	1654	1710	1658	S07	E07	.212	10812	4.2	16	-B		C		1.03				DE
CATA	03	1655	1710	1700	S08	E05	.210	10812	4.1	15	-B			1700	.98	1.01		219	
HTPR	03	1656	1704D		S08	E05	.210	10812	4.1	8D	-N		C	1659	1.24	1.20			
MCMA	03	1658E	1705D		S08	E05	.210	10812	4.1	7D	-B		P	1658	.72	.70			E
GRP31327	03	1715	1729	1719	S09	E41	.677	10815	6.8	14	--B				.65				3 3 2 4
CANR	03	1710	1728		S10	E43	.704	10815	6.9	18	-B	2	V		.93	1.20			
BOUL	03	1718	1730D	1719	S08	E41	.674	10815	6.8	12D	-B	3	V						
HUAN	03	1718	1730	1719	S10	E40	.668	10815	6.7	12	-B	2	C	1719	.37	.50			E
GRP31328	03	1730	1751	1734	S05	E05	.165	10812	4.1	21	--F				.25				2 2 1 5
BOUL	03	1729	1752	1731	S06	E07	.199	10812	4.3	23	-N	3	V						
HUAN	03	1730	1750	1737	S04	E03	.134	10812	4.0	20	-F	1	C	1737	.25	.25			E
31329	03	1802	1814	1808	S07	E03	.182	10812	4.0	12	--F				.37				2 2 1 5
HUAN	03	1800	1809D	1808	S07	E03	.182	10812	4.0	9D	-N	1	C	1808	.37	.40			D
LOCK	03	1804	1814	1808	S06	E02	.161	10812	3.9	10	-F								
GRP31330	03	1840	1902	1843	S08	E07	.226	10812	4.3	22	-N				1.60				3 3 2 6
CANR	03	1822	1852	1842	S08	E08	.236	10812	4.4	30	-B	2	V		1.34	1.40			
RAMY	03	1839E	1915	1842U	S08	E07	.226	10812	4.3	36D	-N		C		1.86				F
LOCK	03	1840	1900	1845	S07	E07	.212	10812	4.3	20	-F								
GRP31331	03	1930	1959	1937	S08	E07	.226	10812	4.3	29	-B				1.45				4 4 2 5
LOCK	03	1929	1949	1939	S08	E05	.210	10812	4.2	20	-N								
RAMY	03	1929	2003	1934	S08	E06	.218	10812	4.3	34	-B		C		1.86				F
BOUL	03	1930	2000D	1939	S07	E10	.245	10812	4.6	30D	-N	3	V						
MCMA	03	1932	2003D	1936	S09	E07	.241	10812	4.3	31D	-B		C	1936	1.03	1.10			E
GRP31332	03	1948	2000	1951	S13	E04	.285	10812	4.1	12	--F				.52				2 2 1 5
LOCK	03	1947	2002	1952	S13	E03	.281	10812	4.0	15	-F								H
RAMY	03	1948	1958	1950	S12	E04	.269	10812	4.1	10	-F		C		.52				DE
GRP31333	03	2005	2026	2008	S09	E08	.250	10812	4.4	21	--N				.72				2 2 1 5
MCMA	03	2004	2027D	2007	S09	E08	.250	10812	4.4	23D	-N		C	2007	.72	.70			
LOCK	03	2005	2025	2009	S08	E07	.226	10812	4.4	20	-N								
GRP31334	03	2006	2029	2016	N19	E90	1.000	10821	10.6	23	1F								2 2 0 3
LOCK	03	2005	2029	2015	N20	E90	1.000	10821	10.6	24	1F								H
BOUL	03	2006	2020D	2017	N18	E90	1.000	10821	10.6	14D	1N	2	V						
GRP31335	03	2028	2045	2030	S07	E03	.182	10812	4.1	17	--N				.72				3 3 1 4
LOCK	03	2027	2045	2030	S07	E00	.175	10812	3.9	18	-N								
MCMA	03	2028	2053D	2029	S07	E05	.195	10812	4.2	25D	-N		P	2029	.72	.70			EK
BOUL	03	2029	2038	2030	S06	E03	.166	10812	4.1	9	-N	2	V						

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GRP31336	03	2105	2119	2108	S07	E01	.176	10812	4.0	14	--F								2 2 0 4
BOUL	03	2104	2117	2106	S06	E02	.161	10812	4.0	13	-N	2	V						
LOCK	03	2105	2120	2110	S07	E00	.175	10812	3.9	15	-F								
GRP31337	03	2147	2202	2151	S07	E03	.182	10812	4.1	15	--N				.62				3 3 1 4
BOUL	03	2145	2203	2151	S06	E02	.161	10812	4.1	18	-N	2	V						
LOCK	03	2147	2200	2150	S07	E02	.178	10812	4.1	13	-N								
MCMA	03	2148	2156D	2151	S08	E04	.204	10812	4.2	8D	-B		C	2151	.62	.60			E
GRP31339	03	2318	2341	2325	S07	E02	.178	10812	4.1	23	--F								2 2 0 2
LOCK	03	2315	2349	2325	S07	E00	.175	10812	4.0	34	-N								
BOUL	03	2320	2337	2325	S06	E01	.159	10812	4.0	17	-F	1	V						
LOCK	03	2340	2345	2341	S09	E04	.220	10812	4.3	5	-F								
GRP31340	03	2347	2359	2348	S10	E39	.656	10815	6.9	12	--N				.52				2 2 1 4
BOUL	03	2344	0001	2348	S10	E38	.643	10815	6.8	17	-N	1	V						
CRON	03	2350	2356		S09	E40	.665	10815	7.0	6	-N	1	V		.52				
GRP31342	04	0003	0013	0006	N12	E50	.769	10814	7.8	10	--F								2 2 0 3
LOCK	04	0001	0017	0006	N12	E50	.769	10814	7.8	16	-F								
BOUL	04	0004	0009	0005	N12	E50	.769	10814	7.8	5	-N	1	V						
GRP31343	04	0018	0029	0020	S11	E38	.648	10815	6.9	11	--N				.52				3 3 1 3
LOCK	04	0017	0027	0020	S15	E37	.655	10815	6.8	10	-N								
CRON	04	0018	0030	0019	S09	E40	.665	10815	7.0	12	-N	1	V		.52				
BOUL	04	0018	0029D	0020	S10	E38	.644	10815	6.9	11D	-F	1	V						
344 LOCK	04	0032	0042	0036	S08	E00	.194	10812	4.0	10	--F								2
GRP31345	04	0045	0054	0052	S06	W03	.168	10812	3.8	9	--F				.41				2 2 1 2
LOCK	04	0044	0058	0052	S05	W05	.167	10812	3.7	14	-F								H
CRON	04	0045	0050		S06	W01	.160	10812	4.0	5	-N	3	V		.41				
346 LOCK	04	0055	0105	0100	N28	W42	.732	10808	30.9	10	--F								2
GRP31347	04	0105	0116	0107	S06	W01	.160	10812	4.0	11	-N				1.24				2 2 1 2
LOCK	04	0103	0114	0107	S06	E00	.160	10812	4.0	11	-N								
CRON	04	0107	0117		S06	W01	.160	10812	4.0	10	-N	3	V		1.24				
GRP31348	04	0105	0123	0112	N16	E21	.412	10813	5.6	18	--F				.83				2 2 1 2
LOCK	04	0103	0120	0112	N14	E21	.397	10813	5.6	17	-F								
CRON	04	0107	0125		N18	E20	.416	10813	5.5	18	-N	3	V		.83				
349 CRON	04	0225	0233	0227	S08	W01	.195	10812	4.0	8	--F	3	V		.93				2
353 TACH	04	0424	0430	0425	S06	W02	.163	10812	4.0	6	-N		C	0425	1.65	1.68	2.14	69	ETY 3
GRP31354	04	0523	0532	0525	S07	W03	.184	10812	4.0	9	-F				1.48				3 2 2 6
CATA	04	0510	0525	0510	S07	W02	.180	10812	4.1	15	-B			0510	.58	.57		229	
ABST	04	0521	0531	0525	S06	W04	.174	10812	3.9	10	1N		C	0525	2.25	2.20		68	E
CRON	04	0525	0532		S08	W02	.197	10812	4.1	7	-F	3	V		.71				
GRP31356	04	0534	0549	0540	N12	E46	.724	10814	7.7	15	1N				1.52				5 5 5 6
CRON	04	0530	0549		N12	E45	.712	10814	7.6	19	-N	3	V		.93				
CATA	04	0535	0550	0540	N12	E46	.724	10814	7.7	15	1B			0540	1.44	2.09		251	
CULG	04	0535	0551D	0540	N12	E45	.712	10814	7.6	16D	1B		P	0540	2.06	2.80			V
TACH	04	0536	0544	0540	N14	E46	.727	10814	7.7	8	1N		C	0540	1.83	2.64	2.02	75	DY
ABST	04	0536	0550	0539	N10	E46	.721	10814	7.7	14	-N		C	0539	1.35	1.90		58	E
GRP31360	04	0647	0712	0651	S08	E45	.722	10815	7.7	25	--F				.69				4 4 3 7
HTPR	04	0647	0705	0649	S07	E44	.708	10815	7.6	18	-F		C	0649	.31	.40			E
ABST	04	0647	0705	0655	S08	E45	.722	10815	7.7	18	-F		P	0655	1.35	1.90			EK
TEHR	04	0647	0730D	0649	S09	E46	.737	10815	7.7	43D	1N								
CRON	04	0647E	0706		S08	E45	.722	10815	7.7	19D	-N	2	V		.41				
GRP31362	04	0734	0750	0738	S09	E35	.601	10815	6.9	16	--N				.47				3 3 3 7
HTPR	04	0733	0738	0735	S09	E37	.627	10815	7.1	5	-F		C	0735	.31	.40			E
CANR	04	0734	0738		S08	E33	.570	10815	6.8	4	-N	2	V		.52				
CATA	04	0735	0815	0740	S09	E35	.601	10815	6.9	40	-N			0740	.58	.73		191	
GRP31364	04	0800	0815	0800	N23	W49	.781	10808	30.7	15	--B				.60				3 2 2 7
CATA	04	0800	0815	0800	N24	W48	.774	10808	30.7	15	-B			0800	.58	.90		224	
CANR	04	0801	0814		N22	W50	.788	10808	30.6	13	-N	2	V		.62				
CRON	04	0801	0808	0801	N12	W51	.780	10808	30.5	7	-N	2	V		.62				

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GRP31366	04	0906	0926	0914	S07	W04	.190	10812	4.1	20	--N				.94				4 4 4 6
CANR	04	0903	0915		S06	W03	.168	10812	4.2	12	-N	2	V		.41				
CATA	04	0905	0925	0905	S07	W03	.184	10812	4.2	20	-N			0905	.93	.95		200	
HTPR	04	0911	0916	0914	S08	W05	.212	10812	4.0	5	-N		C	0914	.83	.80			
KHAR	04	0917E	0945D		S07	W04	.190	10812	4.1	28D	-F		P	0917	1.60	1.60	1.80		
CANR	04	0919	0919D		S07	W03	.184	10812	4.2		-N	2	V		.41				
HTPR	04	0940	0948	0944	S08	W06	.220	10812	4.0	8	-F		C	0944	.83	.80			
GRP31370	04	1028	1042	1032	S08	E34	.584	10815	7.0	14	--F				.24				2 2 2 7
HTPR	04	1025	1034	1028	S08	E33	.570	10815	6.9	9	-F		C	1028	.31	.40			E
CATA	04	1030	1050	1035	S08	E34	.584	10815	7.0	20	-N			1035	.17	.21		200	
GRP31372	04	1149	1157	1151	S06	W09	.222	10812	3.8	8	--N				.46				4 4 4 7
CAPS	04	1147E	1156D		S06	W07	.200	10812	4.0	9D	-N	3	V	1148	.50	.50		170	
CANR	04	1147	1147D		S04	W12	.242	10812	3.6		-B	2	V		.41				
CATA	04	1150	1200	1150	S07	W10	.246	10812	3.7	10	-N			1150	.29	.30		158	
HTPR	04	1150	1155	1152	S05	W08	.198	10812	3.9	5	-F		C	1152	.62	.60			
GRP31375	04	1334	1349	1337	N22	W41	.695	10808	1.5	15	-N				.79				3 3 3 7
HUAN	04	1330	1350	1337	N21	W44	.723	10808	1.3	20	-F	1	C	1337	.25	.40			E
HUAN	04	1332	1355	1337	N20	W40	.675	10808	1.6	23	-F	1	C	1337	.25	.30			D
CANR	04	1336	1345		N23	W42	.710	10808	1.4	9	-N	2	V		.93				
CAPS	04	1341E	1353D		N23	W38	.666	10808	1.7	12D	1N	3	V	1343	1.20	1.70		160	
GRP31377	04	1348	1409	1358	N11	W11	.232	10813	3.8	21	-N				1.15				4 4 3 7
BOUL	04	1347	1410	1358	N11	W11	.232	10813	3.7	23	-N	2	V						
HTPR	04	1348	1408	1358	N10	W10	.209	10813	3.8	20	-F		C	1358	1.03	1.00			E
CAPS	04	1348E	1545D		N12	W10	.229	10813	3.8	117D	-N	3	V	1349	1.60	1.60		160	
MCMA	04	1351E	1351D		N10	W11	.223	10813	3.8		-N		P	1351	.83	.80			E
GRP31380	04	1513	1520	1516	S07	W09	.235	10812	4.0	7	--N				.72				5 4 3 8
CANR	04	1458	1506		S06	W07	.200	10812	4.1	8	-F	3	V		.62	.60			
CANR	04	1458	1506		S06	W07	.200	10812	4.1	8	-F	3	V		.62	.60			
MONT	04	1459E	1525	1515	S05	W08	.198	10812	4.0	26D	-B		C	1515	.83				
LOCK	04	1512	1525	1515	S07	W09	.235	10812	4.0	13	-N								
HTPR	04	1513	1523	1516	S07	W09	.235	10812	4.0	10	-N		C	1516	1.03	1.00			
HUAN	04	1515	1522	1516	S07	W08	.224	10812	4.0	7	-N	1	C	1516	.31	.30			E
GRP31381	04	1615	1630	1617	S07	W09	.235	10812	4.0	15	--F				.50				5 5 3 8
LOCK	04	1612	1624	1617	S07	W10	.246	10812	3.9	12	-F								
HUAN	04	1615	1630	1616	S07	W09	.235	10812	4.0	15	-F	2	C	1616	.25	.25			D
CANR	04	1615	1637		S06	W08	.211	10812	4.1	22	-N	2	V		.62	.60			
HTPR	04	1616	1625	1618	S07	W09	.235	10812	4.0	9	-F		C	1618	.62	.60			E
BOUL	04	1616	1634	1617	S06	W08	.211	10812	4.1	18	-F	2	V	1617		.50			
GRP31386	04	1809	1830	1818	S08	E30	.529	10815	7.0	21	--N				.62				3 3 1 5
BOUL	04	1805	1821	1815	S08	E30	.529	10815	7.0	16	-N	2	V	1815		.50			
LOCK	04	1808	1837	1820	S08	E30	.529	10815	7.0	29	-F								
CANR	04	1813	1833		S07	E30	.524	10815	7.0	20	-N	3	V		.62	.60			
GRP31388	04	1838	1945	1857	S07	W07	.214	10812	4.3	67	-N				.74				5 5 3 5
LOCK	04	1837	1940	1905	S07	W07	.214	10812	4.3	63	1F								
CANR	04	1837	1853D	1853	S07	W09	.235	10812	4.1	16D	-B	3	V		1.24	1.20			
CANR	04	1837	1837D		S07	W09	.235	10812	4.1		-N	3	V		.83	.80			
BOUL	04	1839E	1947	1858	S06	W05	.181	10812	4.4	68D	1N	3	V	1841		1.50			
HUAN	04	1840	1935	1850	S07	W06	.205	10812	4.3	55	-N	2	C	1850	.37	.40			D
HUAN	04	1844	1916	1858	S08	W07	.228	10812	4.3	32	-F	2	C	1858	.37	.40			D
MCMA	04	1846E	1958D		S07	W07	.214	10812	4.3	72D	-N		P	1849	.62	.60			E
GRP31389	04	1843	1859	1848	S19	W04	.383	10822	4.5	16	--F				.55				4 4 3 5
CANR	04	1840	1857		S17	W02	.347	10822	4.6	17	-N	1	V		.93	.90			
HUAN	04	1844	1900	1849	S20	W04	.399	10822	4.5	16	-F	2	C	1849	.31	.30			E
BOUL	04	1845	1900	1847	S18	W04	.367	10822	4.5	15	-F	3	V	1847		1.00			
MCMA	04	1846E	1852D		S22	W05	.433	10822	4.4	6D	-F		P	1849	.41	.50			E
4 STATIONS REPORTING GROUP 31390.							0 STATIONS OBSERVING AND NOT REPORTING.												
GRP31390	04	1955	2130	2009	S06	W07	.200	10812	4.3	95	1N				.37				3 3 1 4
HUAN	04	1955	2059D	2008	S07	W07	.214	10812	4.3	64D	-B	2	P	2008	.37	.40			E
BOUL	04	1955	2115	2004	S06	W07	.200	10812	4.3	80	-N	2	V	2004		2.00			
LOCK	04	1955	2145	2016	S05	W08	.198	10812	4.2	110	1B								K
LOCK	04	1955	2145	2052	S05	W08	.198	10812	4.2	110	2F								
31390	04	2001	2059	2022	S08	W08	.237	10812	4.2	58	*-B				1.28				2 2 2 4
HUAN	04	2001	2059D	2024	S08	W08	.237	10812	4.2	58D	-N	2	P	2024	.50	.50			E
MCMA	04	2009E	2049D	2019	S07	W07	.214	10812	4.3	40D	1B		C	2019	2.06	2.10			E

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GRP31391	04	2312	2331	2317	S19	W08	.399	10812	4.4	19	-N				.93				3 3 1 4
LOCK	04	2310	2330	2317	S20	W08	.414	10812	4.4	20	-N								
BOUL	04	2314	2340	2316	S18	W07	.379	10812	4.4	26	-N	1	V	2316		1.00			
CRON	04	2320E	2322		S19	W10	.411	10812	4.2	2D	-N	1	V		.93				
GRP31394	05	0307	0334	0315	S20	W09	.421	10812	4.5	27	1N				1.68				5 5 4 5
CULG	05	0305	0329D	0315	S20	W10	.427	10812	4.4	24D	1B		P	0315	2.17	2.31			G
MANI	05	0308E	0316D		S20	W10	.427	10812	4.4	8D	-F	1		0312	1.03	1.15			
TACH	05	0309	0339	0315	S20	W09	.421	10812	4.5	30	1N		C	0315	2.28	2.55	1.57	69	E
CRON	05	0312E	0343		S20	W09	.421	10812	4.5	31D	-N	3	V		1.24				
SIBE	05	0314E	0323		S21	W08	.431	10812	4.5	9D	1F		V						EC
GRP31400	05	0730	0741	0731	S10	E20	.406	10815	6.8	11	--F				.26				3 3 2 8
MONT	05	0729	0735	0730	S10	E22	.432	10815	7.0	6	-N		C	0730	.31				
HTPR	05	0731	0734	0732	S10	E17	.367	10815	6.6	3	-F		C	0732	.21	.20			
TEHR	05	0734E	0754D		S11	E20	.415	10815	6.8	20D	1F								
GRP31402	05	0748	0811	0750	S20	W13	.447	10812	4.4	23	-N				1.42				6 6 6 10
MONT	05	0745	0810	0748	S20	W13	.447	10812	4.3	25	-B		C	0748	1.03				
HTPR	05	0748	0802	0752	S20	W15	.463	10812	4.2	14	-N		C	0752	1.55	1.50			
CRON	05	0748E	0810		S20	W10	.427	10812	4.6	22D	-N	3	V		1.24				
CRIM	05	0749E	0800D		S20	W13	.447	10812	4.4	11D	-F		C	0753	1.62	1.80			E
CATA	05	0750	0825	0750	S20	W13	.447	10812	4.4	35	-B			0750	1.73	1.94		204	
BUCA	05	0750	0810		S20	W13	.447	10812	4.4	20	-N		C	0752	1.32	1.40			
GRP31403	05	0757	0814	0808	S15	W10	.355	10812	4.6	17	-1N				.88				3 3 2 9
CANR	05	0752	0812		S12	W11	.322	10812	4.5	20	-N	2	V		1.24	1.30			
TEHR	05	0753E	0810D		S20	W09	.421	10812	4.7	17D	2N								HG
MONT	05	0806	0815	0808	S12	W11	.322	10812	4.5	9	-N		C	0808	.52				
GRP31408	05	0901	0918	0904	S11	W16	.365	10812	4.2	17	--N				.61				3 3 3 8
MONT	05	0859	0920	0902	S12	W16	.376	10812	4.2	21	-N		C	0902	.83				
CATA	05	0900	0910D	0905	S10	W15	.342	10812	4.3	10D	-N			0905	.69	.74		191	
CRON	05	0905	0915		S10	W17	.367	10812	4.1	10	-N	2	V		.31				
GRP31410	05	1010	1024	1012	S10	W13	.318	10812	4.4	14	--F				.79				4 3 3 8
HTPR	05	1010	1017	1013	S10	W15	.342	10812	4.3	7	-F		C	1013	1.13	1.10			
CATA	05	1010	1030	1010	S10	W14	.330	10812	4.4	20	-N			1010	.63	.68		191	
CAPS	05	1010E	1024D		S09	W11	.283	10812	4.6	14D	-F	3	V	1012	.60	.60		155	
RAMY	05	1019	1040	1026U	S10	W14	.330	10812	4.4	21	-F		C		.36				FH
GRP31412	05	1138	1206	1146	S04	W37	.611	10810	2.7	28	-N				.90				7 7 6 8
CAPS	05	1132	1214		S04	W38	.625	10810	2.6	42	-B		P	1137	1.00	1.30		246	
CATA	05	1135	1210	1150	S02	W37	.607	10810	2.7	35	-N			1150	1.04	1.31		191	
KHAR	05	1136E	1200D		S04	W36	.598	10810	2.8	24D	1F		P				1.20		E
RAMY	05	1142	1202	1145	S04	W36	.598	10810	2.8	20	-N		C		.98				F
CANR	05	1142	1210	1143	S04	W36	.598	10810	2.8	28	-B	2	V		.62	.80			
HTPR	05	1143	1155	1146	S03	W38	.622	10810	2.6	12	-N		C	1146	.93	1.10			
MCMA	05	1144E	1210		S05	W36	.600	10810	2.8	26D	-B		C	1145	.83	1.10			E
GRP31417	05	1433	1514	1438	N10	E28	.479	10814	7.7	41	-N				1.78				8 8 6 9
MCMA	05	1431	1515	1437	N08	E27	.458	10814	7.6	44	-B		C	1437	1.55	1.80			E
RAMY	05	1431	1528	1437	N10	E26	.449	10814	7.6	57	-N		C		1.96				F
HTPR	05	1432	1500	1437	N10	E28	.479	10814	7.7	28	-N		C	1437	1.34	1.50			U
BOUL	05	1433	1509	1436	N12	E34	.570	10814	8.2	36	-N	3	V						
CANR	05	1433	1500	1436	N12	E27	.471	10814	7.6	27	-N	3	V		1.96	2.00			
CATA	05	1435	1515	1445	N10	E27	.464	10814	7.6	40	1N			1445	3.25	3.64		182	
HUAN	05	1435	1500	1437	N09	E26	.446	10814	7.6	25	-B	2	C	1437	.62	.70			E
CAPS	05	1442E	1543D		N10	E31	.522	10814	7.9	61D	-N	1	P					189	
7 STATIONS REPORTING GROUP 31418. 2 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31418	05	1439	1513	1445	N09	W25	.430	10813	3.7	34	-N				1.31				6 6 5 9
RAMY	05	1437	1550	1448	N08	W24	.412	10813	3.8	73	-N		C		1.75				UF
CANR	05	1438	1500	1441	N07	W26	.441	10813	3.7	22	-N	2	V		.88	.90			
BOUL	05	1439	1501	1445	N09	W28	.476	10813	3.5	22	-F	3	V						
MCMA	05	1440	1528	1446	N08	W25	.428	10813	3.7	48	-N		C	1446	1.55	1.80			E
CATA	05	1440	1535	1445	N08	W25	.428	10813	3.7	55	1N			1445	2.02	2.24		193	
HUAN	05	1440	1500	1442	N12	W23	.413	10813	3.9	20	-N	1	C	1442	.37	.40			E
31418	05	1440	1550	1507	N08	W22	.381	10813	4.0	70	*-F				.31				3 3 1 9
RAMY	05	1437	1550	1507	N08	W24	.412	10813	3.8	73	-F		C		.31				
CAPS	05	1442E	1548D		N09	W22	.384	10813	4.0	66D	-N	1	P						
BOUL	05	1502	1530D	1506	N07	W21	.362	10813	4.1	28D	-F	3	V						

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GRP31422	05	1631	1655	1635	S02	W42	.673	10810	2.5	24	--F				.36				5 5 3 9
LOCK	05	1628	1650	1635	S00	W42	.670	10810	2.5	22	-F								
BOUL	05	1630	1720D		S02	W43	.686	10810	2.5	50D	-F	3	V						
MCMA	05	1631	1648	1635	S02	W42	.673	10810	2.5	17	-F		C	1635	.41	.50			E
RAMY	05	1631	1651	1635	S02	W41	.660	10810	2.6	20	-F		C		.36				DE
CANR	05	1633	1645	1635	S03	W41	.662	10810	2.6	12	-N	2	V		.31	.40			
GRP31423	05	1655	1721	1659	N10	W27	.464	10813	3.7	26	-N				1.28				8 8 6 8
LOCK	05	1653	1714	1658	N11	W27	.467	10813	3.7	21	1N								
CANR	05	1654	1718	1656	N07	W27	.456	10813	3.7	24	-N	2	V		1.03	1.10			
MCMA	05	1655	1730	1659	N09	W27	.461	10813	3.7	35	-B		C	1659	.93	1.00			E
CATA	05	1655	1705D	1700	N11	W26	.453	10813	3.8	10D	-B			1700	1.62	1.82		263	
RAMY	05	1655	1716	1659	N10	W27	.464	10813	3.7	21	-N		C		1.39				F
HUAN	05	1655	1720	1659	N12	W27	.471	10813	3.7	25	-B	1	C	1659	.62	.70			E
HTPR	05	1655	1715	1700	N10	W27	.464	10813	3.7	20	1N		C	1700	2.06	2.20			E
BOUL	05	1658E	1737	1700	N10	W27	.464	10813	3.7	39D	-N	3	V						
GRP31425	05	1839	1917	1845	S19	W20	.496	10812	4.3	38	-N				1.52				5 5 4 5
LOCK	05	1838	1920	1847	S19	W20	.496	10812	4.3	42	1F								
CANR	05	1839	1842D	1842	S21	W17	.492	10812	4.5	3D	-N	2	V		1.80	1.80			
MCMA	05	1840	1920	1846	S19	W20	.496	10812	4.3	40	-N		C	1846	1.29	1.50			E
RAMY	05	1840E	1932	1846	S20	W20	.507	10812	4.3	52D	1N		C		2.68				F
HUAN	05	1840	1855	1844	S17	W22	.496	10812	4.1	15	-F	1	C	1844	.31	.40			E
GRP31426	05	1842	1850	1843	N09	W27	.461	10813	3.8	8	--N				.26				2 2 2 5
RAMY	05	1841	1852	1843	N09	W28	.476	10813	3.7	11	-N		C		.26				DE
CANR	05	1842	1848	1843	N08	W25	.428	10813	3.9	6	-N	2	V		.26	.30			
GRP31427	05	1846	1911	1851	S09	E22	.425	10815	7.4	25	--F				.74				4 4 3 5
RAMY	05	1845	1912	1849U	S08	E22	.417	10815	7.4	27	-F		C		.67				F
LOCK	05	1846	1906	1852	S09	E23	.438	10815	7.5	20	-F								
CANR	05	1847	1847D		S10	E20	.406	10815	7.3		-N	3	V		.72	.70			
MCMA	05	1853E	1915		S08	E24	.446	10815	7.6	22D	-N		C	1853	.83	.80			E
GRP31428	05	2037	2050	2040	S04	W30	.513	10812	3.6	13	--F				.26				2 2 1 4
LOCK	05	2037	2050	2041	S03	W30	.510	10812	3.6	13	-F								H
RAMY	05	2037	2050	2039	S05	W30	.516	10812	3.6	13	-F		C		.26				DEH
3 STATIONS REPORTING GROUP 31429. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31429	05	2040	2049	2042	S10	E10	.286	10815	6.6	9	--B				.44				3 3 2 4
RAMY	05	2040	2051	2042	S10	E10	.286	10815	6.6	11	-B		C		.57				DE
LOCK	05	2040	2048	2042	S10	E10	.286	10815	6.6	8	-B								V
MCMA	05	2041	2047	2042	S10	E10	.286	10815	6.6	6	-B		C	2042	.31	.30			E
429 RAMY	05	2045E	2051	2046	S08	E23	.432	10815	7.6	6D	*-F		C		.46				DE 3
GRP31431	05	2206	2309	2216	N11	W15	.288	10813	4.8	63	1N				2.06				3 3 2 4
VORO	05	2206	2313	2219	N11	W15	.288	10813	4.8	67	-B		C	2219	1.85	1.90		99	EJ
LOCK	05	2206	2305	2216	N12	W15	.296	10813	4.8	59	1F								S
RAMY	05	2206	2227D	2213	N11	W14	.274	10813	4.9	21D	1N		C		2.27				FU
GRP31432	05	2353	2358	2355	S05	W32	.545	10812	3.6	5	-N				.84				2 2 1 4
VORO	05	2352	2356	2353	S06	W31	.535	10812	3.7	4	-B		C	2353	.84	.98		77	D
LOCK	05	2353	0000	2356	S03	W32	.539	10812	3.6	7	-F								
GRP31435	06	0137	0148	0140	N21	W76	.969	10808	30.4	11	-F				.67				2 2 2 5
MANI	06	0136	0142D	0140	N21	W73	.956	10808	30.6	6D	-N	2		0140	.62	1.40			
CRON	06	0138	0148	0139	N21	W79	.980	10808	30.1	10	1F	3	V		.72				
GRP31440	06	0315	0327	0316	S13	E08	.313	10815	6.7	12	--N				.57				2 2 2 5
CRON	06	0315	0327	0316	S10	E08	.269	10815	6.7	12	-N	3	V		.62				
MANI	06	0316E	0318D		S16	E08	.357	10815	6.7	2D	-N	1		0317	.52	.55			
442 KODA	06	0432	0446	0433	S04	W49	.761	10810	2.5	14	--F		C	0432	1.00	1.00	2.00		CD 3
GRP31448	06	0749	0755	0751	S06	W36	.604	10812	3.6	6	-N				.50				5 5 3 10
ABST	06	0748E	0753	0750	S06	W36	.604	10812	3.6	5D	-F		P	0750	.90	1.10		45	D
CATA	06	0750	0755	0750	S05	W37	.614	10812	3.6	5	-N			0750	.29	.37		162	
TEHR	06	0750	0758D	0752	S06	W35	.590	10812	3.7	8D	1B								
CAPS	06	0751E	0755D		S06	W35	.590	10812	3.7	4D	-B	2	S						
CRON	06	0752E	0754		S06	W35	.590	10812	3.7	2D	-F	3	V		.31				
GRP31449	06	0801	0825		S22	W17	.505	10822	5.1	24	--F				1.08				3 3 2 10
TEHR	06	0801E	0820D		S22	W19	.522	10822	4.9	19D	-F								
CANR	06	0806	0806D		S23	W17	.518	10822	5.1		-N	2	V		.72	.80			
CRON	06	0812E	0830		S22	W16	.497	10822	5.1	18D	-F	3	V		1.44				

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GRP31453	06	1006	1030	1015	N21	W81	.986	10808	30.3	24	1N				.63				5 3 2 9
LOCA	06	1000	1030	1010	N22	W80	.983	10808	30.4	30	1N		V	1010	1.05				
ABST	06	1011	1031	1020	N23	W90	1.000	10808	29.7	20	1N		C	1020	1.79				E
CANR	06	1011	1013		N22	W84	.993	10808	30.1	2	-N	1	V		.21	.80			
CATA	06	1015	1030	1015	N26	W90	1.000	10808	29.7	15	1N			1015	.58			182	
HURB	06	1018E	1029	1020	N20	W80	.983	10808	30.4	11D	1N						1.87		A
CANR	06	1023	1023D		N22	W85	.995	10808	30.1		-N	1	V		.21	.80			
GRP31455	06	1128	1153	1132	S09	E14	.320	10815	7.5	25	--N				.65				6 6 6 9
RAMY	06	1128	1153D	1133	S09	E14	.320	10815	7.5	25D	-N		C		.72				DE
MCMA	06	1128	1200	1132	S09	E14	.320	10815	7.5	32	-B		C	1132	.52	.50			E
ABST	06	1128	1156	1132	S09	E15	.332	10815	7.6	28	-F		C	1132	.90	1.00		48	E
HTPR	06	1128	1147	1132	S10	E14	.331	10815	7.5	19	-N		C	1132	.93	.90			E
CANR	06	1129	1150	1130	S09	E13	.308	10815	7.5	21	-B	2	V		.41	.40			
MEUD	06	1138E	1149D		S09	E15	.332	10815	7.6	11D	-F		C	1140	.41	.40			E
GRP31456	06	1203	1218	1205	S10	E02	.234	10815	6.7	15	--N				.80				8 8 7 11
ABST	06	1202	1220	1204	S10	E02	.234	10815	6.7	18	-N		C	1204	1.79	1.80		55	EJ
MCMA	06	1203	1219	1205	S10	E02	.234	10815	6.7	16	-N		C	1205	.62	.60			E
BOUL	06	1203	1217	1206	S09	E01	.215	10815	6.6	14	-N	1	V						
CANR	06	1203	1210	1204	S10	E02	.234	10815	6.7	7	-B	2	V		.52	.50			
HTPR	06	1203	1220	1208	S10	E01	.232	10815	6.6	17	-N		C	1208	.93	.90			E
MEUD	06	1204E	1218		S10	E02	.234	10815	6.7	14D	-N		C	1205	.62	.60			CE
RAMY	06	1204E	1221	1205	S10	E02	.234	10815	6.7	17D	-N		C		.62				DE
CAPS	06	1207E	1218D		S12	E06	.284	10815	7.0	11D	-F	3	V	1207	.50	.50		147	
GRP31457	06	1212	1232	1217	S23	W20	.542	10822	5.0	20	-N				.89				7 7 6 9
MCMA	06	1205	1235D	1216	S25	W20	.565	10822	5.0	30D	-N		C	1216	.57	.70			E
RAMY	06	1209	1237D	1214	S22	W20	.531	10822	5.0	28D	-F		C		.52				DE
ABST	06	1209	1231	1216	S24	W20	.553	10822	5.0	22	1N		C	1216	1.79	2.10		68	EJ
HTPR	06	1210	1235	1220	S23	W22	.559	10822	4.9	25	-F		C	1220	1.13	1.30			
BOUL	06	1214	1233	1217	S22	W20	.531	10822	5.0	19	-N	1	V						
MEUD	06	1215	1226	1216	S23	W19	.534	10822	5.1	11	-F		C	1216	.62	.70			E
CANR	06	1221	1229		S23	W20	.542	10822	5.0	8	-N	2	V		.72	.80			
11 STATIONS REPORTING GROUP 31459. 2 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31459	06	1302	1348	1312	S06	W32	.549	10812	4.1	46	1B				1.81				9 9 7 11
MCMA	06	1258	1350D	1314	S06	W33	.563	10812	4.1	52D	-B		C	1314	1.39	1.70			E
RAMY	06	1301	1345	1312	S06	W33	.563	10812	4.1	44	1B		C		2.50				DE
CANR	06	1302	1341	1305	S06	W36	.604	10812	3.8	39	-B	2	V		1.24	1.40			
BOUL	06	1303	1357	1311	S07	W31	.539	10812	4.2	54	1N	3	V						
HTPR	06	1303	1345	1315	S06	W32	.549	10812	4.1	42	-B		C	1315	1.34	1.60			E
MEUD	06	1303	1345	1315	S07	W32	.553	10812	4.1	42	1N		C	1315	2.06	2.40			F
ABST	06	1303	1315D	1311	S06	W34	.577	10812	4.0	12D	1N		P	1311	2.33	2.80		65	E
HURB	06	1305E	1353	1311	S05	W33	.559	10812	4.1	48D	1N						2.32		
CAPS	06	1308E	1345D		S08	W27	.489	10812	4.5	37D	-B	3	V	1309	1.80	2.00		204	
31459	06	1322	1355	1323	S07	W33	.567	10813	4.1	33	*1N				2.55				2 2 2 11
HERS	06	1322E	1330D	1322E	S06	W36	.604	10813	3.9	8D	1N		S	1325	2.37	2.80			E
LOCA	06	1323E	1355	1323	S08	W30	.530	10813	4.3	32D	1N		V	1323	2.73	3.10			
GRP31464	06	1443	1457	1447	N21	W84	.993	10808	30.3	14	--F				.21				4 4 2 11
RAMY	06	1439	1447D	1445	N21	W85	.995	10808	30.2	8D	-F		C		.31				DE
CANR	06	1442	1450	1444	N21	W83	.991	10808	30.4	8	-N	1	V		.10	.30			
LOCK	06	1443	1453	1446	N21	W83	.991	10808	30.4	10	-F								H
BOUL	06	1446	1509	1453	N22	W85	.995	10808	30.2	23	-F	1	V						
GRP31467	06	1531	1545	1535	N08	W40	.643	10813	3.6	14	--F				.41				3 3 1 10
RAMY	06	1527	1540	1530	N12	W41	.662	10813	3.6	13	-F		C		.41				DE
LOCK	06	1532	1543	1537	N08	W41	.657	10813	3.6	11	-F								
BOUL	06	1534	1549	1537	N06	W39	.629	10813	3.7	15	-N	3	V						
RAMY	06	1534	1543	1537	N06	W42	.668	10813	3.5	9	-F		C		.31				DE
GRP31470	06	1652	1711	1656	S05	W52	.795	10810	2.8	19	--N				.47				6 6 3 8
LOCK	06	1650	1715	1657	S03	W54	.813	10810	2.7	25	-N								
MEUD	06	1650	1705		S04	W53	.804	10810	2.7	15	-N		C	1655	.52	.80			E
BOUL	06	1651	1713	1655	S05	W49	.762	10810	3.0	22	-N	2	V						
MCMA	06	1651	1714	1656	S05	W52	.795	10810	2.8	23	-N		C	1656	.52	.80			E
CANR	06	1652	1710	1655	S05	W55	.825	10810	2.6	18	-N	2	V		.36	.60			
RAMY	06	1657	1701D		S05	W48	.751	10810	3.1	4D	-N		V						DE
GRP31473	06	1728	1746	1733	S10	E11	.297	10815	7.6	18	--F				.51				6 6 4 7
LOCK	06	1726	1742	1732	S10	E11	.297	10815	7.6	16	-F								
MCMA	06	1728	1750D	1737	S11	E12	.321	10815	7.6	22D	-N		C	1737	.52	.50			E
BOUL	06	1728	1748	1730	S09	E11	.285	10815	7.6	20	-F	2	V						
RAMY	06	1728	1740	1730	S09	E11	.285	10815	7.6	12	-F		C		.52				DE
HTPR	06	1728	1756	1735	S10	E10	.287	10815	7.5	28	-F		C	1735	.62	.60			E
CANR	06	1728	1740		S08	E10	.261	10815	7.5	12	-N	2	V		.36	.40			

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GRP31474	06	1903	1918	1908	S05	W52	.795	10810	2.9	15	--F				.93				2 2 1 5
LOCK	06	1903	1917	1908	S04	W55	.824	10810	2.7	14	-F								
RAMY	06	1906E	1918	1908	S05	W48	.751	10810	3.2	12D	-N		V		.93				DE
GRP31475	06	1951	2013	1956	N09	W41	.658	10813	3.8	22	-N				.57				4 4 2 4
LOCK	06	1950	2010	1956	N09	W42	.670	10813	3.7	20	-N								
BOUL	06	1951	1958	1953	N10	W39	.633	10813	3.9	7	-N	1	V	1953		1.50			
MCMA	06	1951	2028	1956	N08	W43	.682	10813	3.6	37	-N		C	1956	.72	1.00			E
RAMY	06	1956E	2015	1958U	N10	W40	.646	10813	3.8	19D	-N		V		.41				DE
476 LOCK	06	1952	2003	1956	N23	W90	1.000	10808	30.1	11	--F								3
477 LOCK	06	2015	2030	2020	S08	W90	1.000	10807	30.1	15	--F								3
478 RAMY	06	2042	2049	2045	N22	W90	1.000	10808	30.1	7	--F		C		.41				DE 3
4 STATIONS REPORTING GROUP 31480.						0 STATIONS OBSERVING AND NOT REPORTING.													
GRP31480	06	2135	2234	2140	N22	W90	1.000	10808	30.1	59	1B				.93				3 3 1 3
LOCK	06	2130	2230	2140	N21	W90	1.000	10808	30.1	60	1B								V
RAMY	06	2137	2237	2140	N22	W90	1.000	10808	30.2	60	1B		C		.93				DE
MCMA	06	2138	2143	2140	N23	W90	1.000	10808	30.2	5	-B		C	2140					A
31480	06	2146	2225	2156	N22	W90	1.000	10808	30.2	39	*-B				.52				3 3 1 5
RAMY	06	2137	2237	2156	N22	W90	1.000	10808	30.2	60	-B				.52				
BOUL	06	2148	2212	2155	N20	W89	.999	10808	30.2	24	1B	1	V	2155		4.00			
MCMA	06	2152	2154D		N23	W90	1.000	10808	30.2	2D	-N		C						A
GRP31482	06	2332	2341	2334	N07	W43	.681	10813	3.8	9	--N								2 2 0 4
LOCK	06	2330	2342	2334	N07	W45	.706	10813	3.6	12	-N								
BOUL	06	2333	2340	2334	N07	W41	.656	10813	3.9	7	-N	1	V	2334		.50			
GRP31483	06	2343	2358	2347	S12	W07	.291	10815	6.5	15	--F				.31				2 1 1 3
LOCK	06	2343	2357	2347	S15	W08	.342	10815	6.4	14	-F								
CRON	06	2353	2359		S09	W05	.231	10815	6.6	6	-F	2	V		.31				
GRP31484	07	0006	0017	0007	S08	W05	.217	10815	6.6	11	--N				.62				2 2 1 4
CRON	07	0005	0017	0006	S09	W05	.233	10815	6.6	12	-N	2	V		.62				
BOUL	07	0007	0016	0007	S07	W05	.202	10815	6.6	9	-N	1	V	0007		1.00			
GRP31490	07	0630	0657	0633	N09	W50	.766	10813	3.5	27	-N				1.07				9 8 7 12
ABST	07	0628	0655	0631	N08	W52	.787	10813	3.4	27	-N		C	0631	.90	1.40		58	D
HTPR	07	0629	0650	0633	N09	W50	.766	10813	3.5	21	-F		C	0633	.83	1.20			
MEUD	07	0629	0700	0634	N10	W50	.766	10813	3.5	31	-N		C	0634	1.03	1.60			
BUCA	07	0630	0655		N09	W52	.787	10813	3.4	25	-N		C	0634	.66	1.00			
MANI	07	0630E	0656	0632	N08	W50	.765	10813	3.5	26D	-N	2		0632	.83	1.27			
CAPS	07	0630E	0658D		N05	W47	.730	10813	3.7	28D	-F	3	V	0632	1.20	1.90		158	
TEHR	07	0630	0655D		N09	W50	.766	10813	3.5	25D	-N								
KODA	07	0632	0709	0637	N10	W51	.777	10813	3.4	37	1F		C	0652	2.04	2.50	2.00		CEK
CRON	07	0640E	0641D		N09	W49	.754	10813	3.6	1D	1F	2	V		1.75				
GRP31492	07	0652	0708	0655	S09	W09	.265	10815	6.6	16	--F				.79				5 5 4 12
TEHR	07	0650	0715D	0655	S09	W08	.256	10815	6.7	25D	-F								E
ABST	07	0650	0708	0655	S08	W09	.252	10815	6.6	18	-F		C	0655	.97	.90		46	E
HTPR	07	0652	0705	0655	S09	W09	.265	10815	6.6	13	-N		C	0655	.93	.90			E
MANI	07	0653	0702D	0656	S09	W10	.275	10815	6.5	9D	-F	2		0656	.72	.76			
MEUD	07	0653	0705	0655	S10	W10	.289	10815	6.5	12	-F		C	0655	.52	.50			E
GRP31494	07	0829	0840	0830	S11	W12	.322	10815	6.5	11	--F				.54				4 4 3 14
HTPR	07	0827	0838	0831	S11	W12	.322	10815	6.5	11	-F		C	0831	.62	.60			
TEHR	07	0828E	0845D	0829	S11	W11	.312	10815	6.5	17D	-F								
TEHR	07	0828	0830D		S11	W09	.293	10815	6.7	2D	-F								
CATA	07	0830	0840	0830	S11	W12	.322	10815	6.5	10	-N			0830	.58	.60		170	
MEUD	07	0830	0835	0830	S11	W12	.322	10815	6.5	5	-F		C	0830	.41	.40			E
GRP31500	07	1125	1137	1127	N09	W54	.808	10813	3.4	12	--N				.55				3 3 3 11
RAMY	07	1124	1135	1128	N08	W53	.797	10813	3.5	11	-N		C		.31				DE
MONT	07	1125	1140	1126	N08	W56	.828	10813	3.3	15	-N		C	1126	.83				
MCMA	07	1127E	1136D		N10	W54	.809	10813	3.4	9D	-N		P	1127	.52	.90			E
GRP31508	07	1654	1715	1659	S09	W14	.321	10815	6.7	21	--F				.62				3 3 3 8
MCMA	07	1652	1714	1659	S10	W15	.344	10815	6.6	22	-N		C	1659	.72	.70			E
RAMY	07	1654	1722	1700	S08	W13	.298	10815	6.7	28	-F		C		.72				DE
CANR	07	1655	1710	1657	S09	W14	.321	10815	6.7	15	-F	2	V		.41	.40			
GRP31511	07	1743	1801	1746	N16	E43	.695	10821	11.0	18	--F				.52				4 4 3 8
CANR	07	1742	1800	1745	N17	E44	.710	10821	11.0	18	-F	2	V		.31	.40			
RAMY	07	1743	1814	1746	N15	E42	.681	10821	10.9	31	-F		C		.62				DE
BOUL	07	1744	1749	1745	N15	E45	.717	10821	11.1	5	-N	1	V	1745		1.00			
MCMA	07	1744	1800D	1749	N15	E42	.681	10821	10.9	16D	-N		C	1749	.62	.90			E

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GRP31514	07	1846	1912	1858	S11	W19	.404	10815	6.4	26	--N				.78				3 3 2 5
RAMY	07	1844	1915	1900	S11	W18	.391	10815	6.4	31	-N		C		1.03				DE
MCMA	07	1846	1912	1857	S12	W20	.426	10815	6.3	26	-N		C	1857	.52	.60			E
LOCK	07	1847	1910	1857	S11	W19	.404	10815	6.4	23	-N								
GRP31516	07	1921	1953	1926	S11	W10	.302	10815	7.1	32	--F				.62				2 2 2 4
RAMY	07	1918	1957	1926	S10	W10	.289	10815	7.1	39	-F		C		.72				DE
MCMA	07	1923	1948		S11	W09	.293	10815	7.1	25	-F		C	1935	.52	.50			E
GRP31517	07	2023	2051	2027	S11	W10	.302	10815	7.1	28	-N				1.09				2 2 2 4
MCMA	07	2023	2055	2027	S11	W09	.293	10815	7.2	32	-N		C	2027	.83	.90			E
RAMY	07	2023	2047	2026	S10	W10	.289	10815	7.1	24	-N		C		1.34				F
GRP31518	07	2143	2159	2146	N11	W02	.135	10814	7.8	16	--F				.54				2 2 2 2
RAMY	07	2142	2159	2146	N11	W02	.135	10814	7.8	17	-F		C		.62				DE
MCMA	07	2144	2159D	2146	N10	W02	.118	10814	7.8	15D	-N		C	2146	.45	.45			E
519 MANI	08	0323E	0327D	0325	S08	W10	.264	10815	7.4	4D	--N	2		0325	.83	.84			2
520 CRON	08	0401E	0418		S10	W14	.333	10815	7.1	17D	--F	3	V		.83				2
GRP31521	08	0432	0456	0439	S03	W76	.971	10810	2.5	24	1F				.78				3 3 3 3
TACH	08	0432	0453	0439	S02	W77	.975	10810	2.4	21	1F		C	0439	1.00		2.09	57	E
CRON	08	0433E	0501		S04	W77	.976	10810	2.4	28D	1F	3	V		.83				
MANI	08	0437E	0455		S02	W75	.967	10810	2.6	18D	-F	1		0442	.52	1.14			
GRP31524	08	0631	0729	0635	N20	E17	.396	10821	9.5	58	1F				2.34				5 4 4 11
CATA	08	0630	0730	0635	N20	E17	.396	10821	9.5	60	1N			0635	2.02	2.21		188	
CRON	08	0631	0736		N21	E17	.407	10821	9.5	65	1F	2	V		2.58				
MANI	08	0632	0720		N21	E17	.407	10821	9.5	48	1F	2		0645	2.37	2.74			
CAPS	08	0643E	0940		N18	E17	.375	10821	9.6	177D	1N	3	P	0644	2.40	2.60		190	BFG
MONT	08	0741E	0810		N21	E13	.367	10821	9.3	29D	-N		C	0741	.72				
11 STATIONS REPORTING GROUP 31525. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31525	08	0727	0743	0732	N16	E34	.583	10821	10.9	16	-N				.93				9 9 6 12
CATA	08	0725	0735	0725	N16	E34	.583	10821	10.9	10	-B			0725	.46	.57		246	
WEND	08	0727	0738		N15	E33	.566	10821	10.8	11	-N								
MANI	08	0728	0750	0732	N17	E35	.600	10821	10.9	22	-N	2		0732	1.24	1.60			
CAPE	08	0728	0750	0732	N17	E34	.587	10821	10.9	22	-F		C	0732	1.38	1.70			
HTPR	08	0728	0737	0730	N16	E34	.583	10821	10.9	9	-F		C	0730	.31	.40			
ABST	08	0728	0747D	0733	N16	E34	.583	10821	10.9	19D	1F		P	0733	1.79	2.20		45	E
TEHR	08	0730E	0745D	0732	N17	E35	.600	10821	10.9	15D	1N								E
HURB	08	0731E	0737	0732	N17	E34	.587	10821	10.9	6D	1F						1.86		
MONT	08	0741E	0750		N16	E34	.583	10821	10.9	9D	-N		C	0741	.41				E
31525	08	0734	0753	(0743)	N14	E35	.589	10821	10.9	19	*-N				.82				3 2 2 12
CRON	08	0734E	0752		N15	E34	.579	10821	10.9	18D	-N	2	V		1.24				
CAPS	08	0741E	0754		N13	E36	.599	10821	11.0	13D	-N	3	V	0743	.40	.50		170	C
MONT	08	0741E	0810		N18	E22	.437	10821	10.0	29D	-N		C	0741	.62				
GRP31528	08	0904	0933	0908	S09	W20	.400	10815	6.9	29	-N				1.11				6 6 6 13
MONT	08	0902	0925	0905	S08	W23	.434	10815	6.7	23	-N		C	0905	1.03				
CAPE	08	0904	0935	0906	S09	W19	.387	10815	7.0	31	-N		C	0906	1.01	1.10			
MANI	08	0904	0935	0906	S08	W20	.392	10815	6.9	31	-F	2		0906	1.24	1.27			
CATA	08	0905	0935	0915	S08	W20	.392	10815	6.9	30	-N			0915	1.16	1.26		186	
CAPS	08	0906	0932D		S10	W19	.396	10815	7.0	26D	-N	3	V	0908	1.10	1.20		182	
CRON	08	0913E	0933		S10	W19	.396	10815	7.0	20D	-F	2	V		1.13				
GRP31529	08	0914	0923	0915	N07	W66	.912	10813	3.4	9	--F				.31				3 3 2 15
MONT	08	0913	0920	0915	N08	W67	.919	10813	3.4	7	-N		C	0915	.21				
CRON	08	0913E	0928		N06	W66	.912	10813	3.4	15D	-F	2	V		.41				
ISTA	08	0916	0920D		N08	W65	.905	10813	3.5	4D	-F								
GRP31538	08	1519	1543	1523	S10	W20	.409	10815	7.1	24	--N				.84				6 6 4 10
MONT	08	1510	1531D	1519	S08	W19	.378	10815	7.2	21D	-N		C	1519	.83				
LOCK	08	1515	1540	1522	S10	W21	.422	10815	7.1	25	-F								
MONT	08	1515	1523	1517	S10	W25	.475	10815	6.8	8	-N		C	1517	.31				H
HTPR	08	1520	1526	1522	S12	W20	.427	10815	7.1	6	-F		C	1522	.41	.40			
RAMY	08	1521	1605D	1529	S10	W20	.409	10815	7.1	44D	-N		C		.62				DE
WEND	08	1521	1543		S11	W20	.418	10815	7.1	22	-N								
CAPS	08	1523	1552D		S10	W17	.370	10815	7.4	29D	-N	3	P	1527	1.20	1.20		170	
WEND	08	1535	1548		S10	W24	.462	10815	6.8	13	-N								
GRP31539	08	1727	1752	1732	N12	W69	.932	10813	3.6	25	-N				.67				4 4 2 6
BOUL	08	1726	1758	1729	N12	W69	.932	10813	3.6	32	1N	3	V	1729		3.50			
LOCK	08	1728	1750	1732	N13	W69	.932	10813	3.6	22	-N								H
CANR	08	1728	1744	1734	N11	W68	.925	10813	3.6	16	-F	2	V		.41	.90			
RAMY	08	1729E	1757	1732U	N12	W70	.938	10813	3.5	28D	-N		C		.93				DE

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542 LOCK	08	1858	1913	1904	N18	W79	.980	10811	2.9	15	--F								4
GRP31543	08	2109	2119	2113	S09	W27	.496	10815	6.9	10	--F								2 2 0 3
LOCK	08	2107	2119	2113	S09	W24	.455	10815	7.1	12	-F								
BOUL	08	2110	2118	2112	S09	W29	.523	10815	6.7	8	1F	3	V	2112		2.50			
544 LOCK	08	2315	2322	2317	N18	W49	.767	10813	5.3	7	--F								3
GRP31545	08	2341	2355	2343	N10	W77	.973	10813	3.2	14	-F				.52				2 2 2 4
MANI	08	2341	2354	2343	N12	W75	.964	10813	3.4	13	-F	2		2343	.41	.96			
CRON	08	2345E	2356		N08	W78	.977	10813	3.1	11D	1N	1	V		.62				
GRP31547	09	0054	0121	0101	S07	W67	.925	10812	4.0	27	1N				1.76				5 5 3 5
CULG	09	0053	0139	0100	S07	W65	.912	10812	4.2	46	1B		C	0100	2.17				RV
BOUL	09	0054	0058	0057	S06	W68	.931	10812	3.9	4	-B	1	V						
CRON	09	0054E	0123		S08	W68	.932	10812	3.9	29D	1N	2	V		1.24				
SIBE	09	0055E	0120		S10	W70	.946	10812	3.8	25D	2F		V						D
MANI	09	0058E	0125D	0106	S05	W66	.917	10812	4.1	27D	1N	1		0106	1.86	3.73			
7 STATIONS REPORTING GROUP 31550. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31550	09	0543	0615	0545	N15	E23	.427	10821	11.0	32	-N				2.24				4 4 4 4
CRON	09	0542E	0610D	0543	N15	E23	.427	10821	11.0	28D	-N	3	V		1.44				
MANI	09	0543E	0614D	0545	N15	E24	.441	10821	11.0	31D	1N	1		0545	3.09	3.24			
CULG	09	0543E	0551D	0546	N15	E23	.427	10821	11.0	8D	1N		P	0546	2.68	2.86			L
CATA	09	0545	0615D	0545	N13	E23	.416	10821	11.0	30D	-N			0545	1.73	1.92		200	
31550	09	0559	0647	(0605)	N15	E22	.414	10821	10.9	48	*-B				.51				3 2 2 9
CAPS	09	0559E	0701		N15	E21	.400	10821	10.8	62D	-B	3	S	0604	.50	.60		190	B
HTPR	09	0600E	0645		N15	E23	.427	10821	11.0	45D	-N		C	0605	.52	.60			
ISTA	09	0615E	0636		N16	E21	.407	10821	10.8	21D	-N								
8 STATIONS REPORTING GROUP 31551. 3 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31551	09	0712	0740	0718	S08	W25	.463	10815	7.4	28	-F				1.07				5 5 3 10
MANI	09	0708	0745	0715	S06	W24	.436	10815	7.5	37	-N	2		0715	1.24	1.40			
ISTA	09	0708	0725		S08	W23	.435	10815	7.6	17	-F								
CRON	09	0711	0753		S09	W25	.469	10815	7.4	42	-F	3	V		1.03				
HURB	09	0716	0742	0721	S08	W26	.476	10815	7.4	26	1F						1.76		H
CANR	09	0716	0735		S08	W25	.463	10815	7.4	19	-F	2	V		.93	.90			
31551	09	0719	0753	0740	S06	W25	.451	10815	7.4	34	*-B				1.41				3 3 2 9
CAPS	09	0712	0759D		S06	W24	.436	10815	7.5	47D	-B	3	P	0741	1.60	1.80		212	
WEND	09	0726	0746		S07	W27	.485	10815	7.3	20	-N								
CATA	09	0740E	0755D	0740	S06	W24	.436	10815	7.5	15D	-B			0740	1.22	1.34		201	
553 LOCK	09	2125	2200	2143	S07	W90	1.000	10810	3.1	35	1N								2
GRP31554	09	2202	2245	2208	S06	W35	.592	10815	7.3	43	--F				.41				2 2 1 3
LOCK	09	2200	2245	2210	S06	W33	.564	10815	7.4	45	-F								
RAMY	09	2203	2230D	2206	S06	W33	.564	10815	7.4	27D	-F		C		.41				DE
RAMY	09	2217	2230D	2219	S07	W41	.673	10815	6.9	13D	-F		C		.31				DE
GRP31555	10	0010	0029	0013	S07	W32	.555	10815	7.6	19	-N				.93				4 4 2 4
CRON	10	0010	0027	0012	S09	W31	.551	10815	7.7	17	-N	3	V		.83				
LOCK	10	0010	0030	0013	S06	W33	.565	10815	7.5	20	-N								
MANI	10	0011	0012D		S05	W32	.547	10815	7.6	1D	-N	1		0012	1.03	1.22			
SIBE	10	0013E	0020D		S09	W32	.565	10815	7.6	7D	1F		V						E
558 LOCK	10	0030	0050	0040	S18	E90	1.000	10832	16.8	20	--F								3
GRP31567	10	0834	0902	0851	S18	E87	1.000	10832	16.9	28	1N				.85				4 3 3 9
HTPR	10	0545	0947	0604	S16	E85	.998	10832	16.6	242	1N		C	0852	.72				
MEUD	10	0832	0910	0852	S16	E85	.998	10832	16.7	38	1N		C	0852	1.03				AT
CATA	10	0835	0905D	0850	S20	E90	1.000	10832	17.1	30D	1N			0850	.69			200	
CRON	10	0841E	0850		S19	E87	1.000	10832	16.9	9D	1F	2	V		.83				
GRP31571	10	1429	1446	1433	N18	E05	.259	10821	11.0	17	--N				.52				3 3 2 10
RAMY	10	1429	1448	1433	N17	E05	.243	10821	11.0	19	-N		C		.52				DE
BOUL	10	1429	1444	1432	N18	E06	.265	10821	11.1	15	-N	2	V						
MEUD	10	1429	1435D		N18	E05	.259	10821	11.0	6D	-F		C	1431	.52	.50			
GRP31573	10	1523	1536	1528	N19	E05	.275	10821	11.0	13	--N				.57				6 6 4 9
HTPR	10	1520	1533	1527	N18	E04	.254	10821	10.9	13	-F		C	1527	.62	.60			
LOCK	10	1523	1536	1528	N19	E05	.275	10821	11.0	13	-N								
MEUD	10	1523	1534	1528	N18	E05	.259	10821	11.0	11	-F		C	1528	.72	.70			
LOCA	10	1524	1534	1526	N19	E05	.275	10821	11.0	10	-N		V	1526	.63	.70			
BOUL	10	1524	1539	1528	N18	E05	.259	10821	11.0	15	-N	2	V						
CATA	10	1525	1540	1530	N19	E06	.280	10821	11.1	15	-N			1530	.29	.30		186	

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GRP31574	10	1534	1553	1536	S06	W40	.658	10815	7.6	19	--N				1.04				4 4 2 9
BOUL	10	1530	1552	1535	S06	W40	.658	10815	7.6	22	-N	2	V						
LOCK	10	1530	1550	1537	S06	W43	.695	10815	7.4	20	-N								
CATA	10	1535	1550	1535	S07	W43	.698	10815	7.4	15	-N			1535	.58	.82		195	
CAPS	10	1540	1558D		S05	W35	.589	10815	8.0	18D	-F	2	V	1543	1.50	1.80		158	
GRP31575	10	1543	1559	1550	S18	E80	.990	10832	16.7	16	--F				.31				3 3 1 9
LOCK	10	1540	1600	1548	S20	E76	.979	10832	16.4	20	-F								
MEUD	10	1544	1552	1548	S16	E85	.998	10832	17.0	8	-F		C	1548	.31				E
BOUL	10	1545	1605	1554	S18	E80	.990	10832	16.7	20	-N	2	V						
GRP31576	10	1706	1723	1712	N18	E04	.254	10821	11.0	17	-N				1.03				3 3 1 5
BOUL	10	1703	1810	1714	N18	E04	.254	10821	11.0	67	-N	2	V						
LOCK	10	1707	1727	1712	N19	E05	.275	10821	11.1	20	-N								H
HTPR	10	1708	1718	1709	N18	E03	.250	10821	10.9	10	-N		C	1709	1.03	1.00			
GRP31577	10	1736	1759	1741	S07	W43	.698	10815	7.5	23	-N				.86				4 4 2 5
LOCK	10	1735	1753	1742	S06	W43	.695	10815	7.5	18	-N								
BOUL	10	1736	1810	1740	S06	W41	.670	10815	7.7	34	-N	2	V						
HUAN	10	1736U	1747U	1741U	S07	W43	.698	10815	7.5	11D	-F	1	C	1741	.37	.50			E
HTPR	10	1737	1753	1740	S09	W44	.716	10815	7.4	16	-N		C	1740	1.34	1.90			
GRP31579	10	1831	1851	1837	N18	E04	.254	10821	11.1	20	--N				.73				3 3 2 4
MEUD	10	1830	1843D		N18	E05	.259	10821	11.1	13D	-N		C	1836	.83	.80			E
LOCK	10	1831	1852	1835	N19	E05	.275	10821	11.1	21	-B								HV
RAMY	10	1839E	1850	1839E	N17	E02	.231	10821	10.9	11D	-N		C		.62				DE
GRP31580	10	1920	1930	1922	S10	W90	1.000	10812	4.1	10	--F								2 2 0 2
LOCK	10	1917	1929	1920	S10	W90	1.000	10812	4.1	12	-F								
BOUL	10	1922	1931	1924	S09	W90	1.000	10812	4.1	9	-N	2	V						
581 RAMY	10	2018E	2047	2018E	N12	W42	.674	10814	7.7	29D	-N		C		.93				DE 4
GRP31582	10	2019	2036	2020	N17	E03	.234	10821	11.1	17	--F				.83				2 2 1 4
BOUL	10	2019	2027	2020	N17	E03	.234	10821	11.1	8	-F	2	V	2020		.30			
RAMY	10	2020E	2044D	2020E	N17	E02	.231	10821	11.0	24D	-F		C		.83				DE
584 RAMY	10	2110E	2151D		S18	E47	.779	10829	14.4	41D	--F		C						DE 3
GRP31585	10	2134	2145	2136	S07	W47	.745	10815	7.4	11	--F								2 2 0 2
LOCK	10	2133	2150	2137	S07	W46	.733	10815	7.4	17	-F								
BOUL	10	2134	2140	2135	S06	W47	.743	10815	7.4	6	-F	2	V	2135		.50			
588 LOCK	10	2238	2252	2242	N17	E00	.228	10821	10.9	14	--F								H 3
GRP31589	10	2350	0015	2353	N18	E00	.245	10821	11.0	25	-N				1.65				5 5 3 5
CULG	10	2348	0022	2353	N19	E02	.264	10821	11.1	34	1B		C	2353	2.78	2.84			HRV
LOCK	10	2350	0022	2355	N18	E00	.245	10821	11.0	32	1N								V
CRON	10	2350	0013	2352	N18	W01	.246	10821	10.9	23	-N	1	V		.93				
MANI	10	2351	0019	2353	N18	E02	.247	10821	11.1	28	-N	2		2353	1.24	1.28			
BOUL	10	2351	2356	2353	N18	W02	.247	10821	10.8	5	-N		S	2353		1.00			
CRON	11	0014	0017D	0015	N15	E01	.193	10821	11.1	3D	-F	1	V		.31				
GRP31590	11	0026	0114	0034	S08	W47	.747	10815	7.5	48	1B				2.58				3 2 1 3
LOCK	11	0025	0110	0035	S07	W48	.756	10815	7.4	45	1B								
CULG	11	0026	0120	0033	S07	W48	.756	10815	7.4	54	1B		C	0033	2.58	4.00			R
CRON	11	0042E	0112		S09	W46	.739	10815	7.6	30D	1N	2	V		3.30				
GRP31591	11	0110	0136	0119	S18	E75	.974	10832	16.7	26	1N				.93				4 3 1 4
CULG	11	0106	0139	0120	S18	E77	.981	10832	16.8	33	1B		C	0120	.93				
CULG	11	0106	0139	0111	S18	E77	.981	10832	16.8	33	1B		C	0111	.67				JKR
SIBE	11	0108E	0135D		S18	E71	.958	10832	16.4	27D	1F		V						D
LOCK	11	0115	0135	0118	S19	E76	.979	10832	16.8	20	-N								H
CRON	11	0132E	0135		S18	E80	.990	10832	17.1	3D	-F	2	V		.52				
592 CRON	11	0231E	0249	0231	N15	W02	.195	10821	11.0	18D	--F	3	V		.62				2
GRP31593	11	0507	0524	0514	S17	E74	.970	10832	16.8	17	-N				.84				3 3 3 6
CRON	11	0506E	0521		S18	E73	.967	10832	16.7	15D	-N	3	V		.41				
HTPR	11	0507	0521	0512	S17	E74	.970	10832	16.8	14	-F		C	0512	.31				
ABST	11	0511E	0531	0515	S17	E76	.978	10832	16.9	20D	1N		P	0515	1.79			65	E
GRP31595	11	0648	0706	0650	S18	E71	.958	10832	16.6	18	-F				.55				4 4 3 11
ABST	11	0646	0720	0649	S17	E76	.978	10832	17.0	34	1F		C	0649	.90			45	E
TEHR	11	0647	0700D	0649	S19	E67	.938	10832	16.3	13D	-N								
HTPR	11	0648	0700	0650	S17	E72	.961	10832	16.7	12	-F		C	0650	.41				
TEHR	11	0648	0654D	0649	S16	E75	.973	10832	16.9	6D	1N								E
CATA	11	0650	0705D	0650	S19	E66	.932	10832	16.2	15D	-N			0650	.34			166	

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GRP31596	11	0713	0747	0718	S17	E74	.970	10832	16.9	34	-N				.74				5 5 4 10
ABST	11	0710	0746	0715	S17	E76	.978	10832	17.0	36	1N		P	0715	1.79			65	EH
HTPR	11	0712	0737	0725	S17	E71	.957	10832	16.6	25	-F		C	0725	.31				
TEHR	11	0713E	0745D	0715	S16	E75	.973	10832	16.9	32D	1B								F
BUCA	11	0715	0810		S18	E73	.967	10832	16.8	55	-N		C	0724	.55				D
CRON	11	0715E	0739		S18	E76	.978	10832	17.0	24D	-F	3	V		.31				
GRP31597	11	0738	0803	0752	N16	W03	.215	10821	11.1	25	--F				.83				4 4 2 12
TEHR	11	0735E	0800D	0745	N15	E00	.192	10821	11.3	25D	-F								
CRON	11	0738E	0805		N16	W05	.226	10821	10.9	27D	-F	3	V		1.34				
ISTA	11	0740	0800	0755	N17	W03	.232	10821	11.1	20	-F								
MONT	11	0753	0805	0755	N16	W03	.215	10821	11.1	12	-N		C	0755	.31				
GRP31598	11	0756	0816	0805	S17	E75	.974	10832	17.0	20	1N				.83				4 4 2 12
HURB	11	0753E	0819D	0804	S17	E70	.952	10832	16.6	26D	1N						2.41		
TEHR	11	0755E	0815D		S16	E75	.973	10832	17.0	20D	1N								
MONT	11	0800	0814	0805	S15	E78	.983	10832	17.2	14	-B		C	0805	.62				
CRON	11	0805E	0858		S18	E76	.978	10832	17.0	53D	1N	3	V		1.03				
31598	11	0819	0851	0825	S18	E72	.962	10832	16.7	32	*1N				1.22				8 8 5 10
ISTA	11	0715	0840		S18	E70	.953	10832	16.6	85	-N								
HTPR	11	0755	0842	0825	S17	E70	.952	10832	16.6	47	1N		C	0825	1.24				
MONT	11	0817	0842	0822	S15	E78	.983	10832	17.2	25	1B		C	0822	1.03				
CAPE	11	0818	0910	0824	S18	E74	.971	10832	16.9	52	1N		C	0824	1.29				Y
CATA	11	0820E	0845	0825	S20	E70	.955	10832	16.6	25D	-B			0825	.75			216	
TEHR	11	0822	0839D	0824	S16	E75	.973	10832	17.0	17D	2N								
ABST	11	0822	0915	0830	S17	E75	.974	10832	17.0	53	1N		C	0830	1.79			73	DR
ONDR	11	0823E	0842D	0828	S21	E66	.935	10832	16.3	19D	2B		V	0828			5.70		CJK
GRP31602	11	1302	1324	1305	N15	W05	.210	10821	11.2	22	--N				.61				4 4 3 9
CATA	11	1300	1320	1305	N14	W05	.195	10821	11.2	20	-N			1305	.58	.59		170	
BOUL	11	1302	1320	1306	N15	W06	.218	10821	11.1	18	-N	3	V						
RAMY	11	1302	1324	1304	N15	W05	.210	10821	11.2	22	-N		C		.72				DEH
MONT	11	1302	1330	1304	N16	W04	.220	10821	11.2	28	-B		C	1304	.52				E
GRP31603	11	1430	1449	1433	S07	W55	.829	10815	7.5	19	--N				.52				3 3 1 7
LOCK	11	1428	1445	1434	S06	W56	.837	10815	7.4	17	-F								
MONT	11	1430	1455	1432	S09	W52	.803	10815	7.7	25	-B		C	1432	.52				
BOUL	11	1431	1448	1433	S06	W55	.827	10815	7.5	17	-N	3	V						
MONT	11	1442	1500	1447	S12	W58	.864	10815	7.3	18	-N		C	1447	.52				
GRP31610	11	1921	1942	1922	S09	W66	.921	10815	6.9	21	--F				.31				2 2 1 4
BOUL	11	1920	1941	1921	S08	W66	.920	10815	6.9	21	-F	2	V						
MCMA	11	1921	1943D	1923	S09	W65	.914	10815	6.9	22D	-F		C	1923	.31	.80			D
GRP31611	11	1957	2006	2000	N14	W08	.222	10821	11.2	9	--N				.31				3 3 2 4
LOCK	11	1956	2007	2000	N14	W09	.232	10821	11.2	11	-N								H
RAMY	11	1957	2008	1958	N15	W07	.226	10821	11.3	11	-F		C		.31				DEH
MCMA	11	1957	2004	2001	N14	W08	.222	10821	11.2	7	-N		C	2001	.31	.30			D
GRP31614	11	2109	2121	2112	N19	W11	.318	10821	11.1	12	--F				.39				3 3 2 3
MCMA	11	2109	2118		N19	W11	.318	10821	11.1	9	-F		C	2110	.26	.30			D
RAMY	11	2109	2124	2111	N19	W11	.318	10821	11.1	15	-N		C		.52				DE
LOCK	11	2110	2120	2113	N18	W11	.305	10821	11.1	10	-F								
615 MCMA	11	2143	2155	2145	N19	W60	.870	10814	7.4	12	--F		C	2145	.31	.60			E 2
GRP31617	12	0354	0437	0358	N17	W17	.361	10821	10.9	43	-F				1.70				3 2 2 3
CULG	12	0339	0437	0346	N17	W16	.348	10821	11.0	58	1N		C	0346	3.82	3.89			L
MITK	12	0354E	0437	0358	N18	W16	.358	10821	11.0	43D	-N		C	0358	1.34	1.40			E
CRON	12	0358E	0425D		N15	W17	.342	10821	10.9	27D	1F	3	V		2.06				
GRP31620	12	1000	1010	1000	N14	W15	.307	10821	11.3	10	--N				.63				2 2 2 4
CATA	12	1000	1010	1000	N14	W17	.334	10821	11.1	10	-N			1000	.46	.49		166	
CAPS	12	1003E	1010		N13	W13	.270	10821	11.4	7D	-N	3	S	1005	.80	.80		170	
GRP31621	12	1419	1428	1420	N14	W19	.362	10821	11.2	9	--F				.33				4 4 4 7
RAMY	12	1417	1428	1419	N14	W18	.348	10821	11.2	11	-F		C		.31				DE
MCMA	12	1418	1426	1419	N14	W19	.362	10821	11.2	8	-N		C	1419	.41	.40			E
HUAN	12	1419	1422D	1421	N13	W19	.355	10821	11.2	3D	-F	2	C	1421	.25	.30			D
CATA	12	1420	1430	1420	N15	W19	.370	10821	11.2	10	-N			1420	.34	.37		174	
GRP31622	12	1614	1627	1618	N14	W21	.391	10821	11.1	13	--N				.50				5 5 3 5
LOCK	12	1613	1628	1618	N14	W21	.391	10821	11.1	15	-N								V
MCMA	12	1614	1625	1617	N14	W22	.405	10821	11.0	11	-N		C	1617	.62	.70			E
RAMY	12	1614	1626	1618	N15	W21	.397	10821	11.1	12	-N		C		.62				DE
BOUL	12	1615	1629	1617	N15	W21	.397	10821	11.1	14	-N	2	V						
HUAN	12	1615	1620D	1618	N13	W21	.384	10821	11.1	5D	-N	2	C	1618	.25	.30			E

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GRP31630	13	1428	1442	1433	N15	W81	.986	10814	7.5	14	-N				.44				5 5 2 11
HUAN	13	1425	1440	1434	N14	W82	.988	10814	7.5	15	-F	2	C	1434	.25				D
LOCA	13	1427	1440	1430	N14	W80	.983	10814	7.6	13	-N		V	1430	.63				
BOUL	13	1429	1442	1433	N15	W78	.976	10814	7.8	13	-N	2	V						
LOCK	13	1429	1441	1434	N15	W79	.979	10814	7.7	12	-N								
RAMY	13	1429	1449	1432	N18	W85	.994	10814	7.2	20	-N		C						DE
GRP31632	13	1715	1728	1721	N13	E87	.998	10838	20.2	13	-N								2 2 0 7
RAMY	13	1715	1726	1722	N11	E90	1.000	10838	20.5	11	-B		C						DE
LOCK	13	1715	1730	1720	N15	E83	.991	10838	19.9	15	-F								
GRP31634	13	1930	2000	1935	N15	W32	.549	10821	11.4	30	--F								2 1 0 5
LOCK	13	1930	2000	1935	N15	W32	.549	10821	11.4	30	-F								
BOUL	13	1935	2004	1952	N16	W31	.540	10821	11.5	29	-F	1	V						
GRP31637	13	2306	2338	2311	S19	E35	.662	10832	16.6	32	-N				1.36				4 4 2 4
CULG	13	2301	2345	2306	S19	E36	.673	10832	16.7	44	1N		C	2306	2.06	2.60			JL
LOCK	13	2303	2330	2307	S19	E38	.694	10832	16.8	27	-F								
BOUL	13	2305	2345	2311	S21	E32	.645	10832	16.4	40	-F	1	V						
VORO	13	2316	2330	2318	S18	E35	.656	10832	16.6	14	-B		C	2318	.65	.70		76	EJ
GRP31641	14	0842	0907	0851	N21	W38	.650	10821	11.5	25	-N				1.44				3 3 3 9
CAPE	14	0840	0910	0846	N22	W37	.643	10821	11.6	30	-N		C	0846	1.16	1.50			
CRON	14	0840E	0900		N20	W40	.669	10821	11.4	20D	-F	2	V		.83				
CATA	14	0845	0910	0855	N22	W37	.643	10821	11.6	25	1N			0855	2.32	3.03		166	Z
GRP31642	14	0851	0915	0900	N16	E46	.727	10833	17.8	24	--F				.78				3 3 3 9
CRON	14	0850	0915		N18	E47	.743	10833	17.9	25	-F	2	V		.52				
CATA	14	0852	0915	0900	N15	E47	.737	10833	17.9	23	-N			0900	.52	.76		200	
CAPS	14	0856E	0914D		N15	E45	.714	10833	17.7	18D	-F	3	V	0901	1.30	1.80		152	
GRP31645	14	1225	1244	1227	N22	W57	.847	10821	10.2	19	--N				.50				5 5 4 11
BOUL	14	1224	1239	1226	N22	W58	.856	10821	10.2	15	-F	1	V						
RAMY	14	1225	1228D	1226	N21	W58	.854	10821	10.2	3D	-N		C		.41				DE
MONT	14	1225	1235	1227	N23	W58	.857	10821	10.2	10	-N		C	1227	.62				
HUAN	14	1226	1242	1227	N21	W58	.854	10821	10.2	16	-F	1	P	1227	.25	.50			D
CAPS	14	1229E	1258D		N22	W53	.812	10821	10.5	29D	-N	3	V	1233	.70	1.20		170	
GRP31646	14	1309	1318	1310	N17	W47	.741	10821	11.0	9	--N				.34				3 3 2 12
RAMY	14	1307	1322	1309	N14	W47	.735	10821	11.0	15	-N		C		.36				DE
BOUL	14	1307	1316	1309	N17	W45	.718	10821	11.2	9	-F	1	V						
MONT	14	1312	1316	1313	N19	W49	.766	10821	10.9	4	-N		C	1313	.31				
GRP31647	14	1324	1337	1327	N13	W90	1.000	10814	7.8	13	-N								3 3 0 10
CAPS	14	1255E	1425D		N17	W90	1.000	10814	7.8	90D	-B	3	V						
RAMY	14	1323	1337	1327	N11	W90	1.000	10814	7.8	14	-F		C						DE
BOUL	14	1324	1336	1326	N12	W90	1.000	10814	7.8	12	-N	1	V						
GRP31648	14	1531	1538	1533	N15	E81	.985	10838	20.7	7	-N				.52				4 4 1 10
BOUL	14	1530	1539	1532	N15	E80	.982	10838	20.6	9	1N	2	V	1532		2.50			
LOCK	14	1530	1537	1533	N12	E79	.980	10838	20.6	7	-F								
RAMY	14	1531	1536	1532	N15	E78	.976	10838	20.5	5	-B		C		.52				DE
LOCA	14	1532	1540	1534	N16	E85	.995	10838	21.0	8	-N		V	1534					
GRP31650	14	1639	1653	1642	N14	W44	.700	10821	11.4	14	-N				.36				3 3 1 7
WEND	14	1638	1653		N14	W43	.688	10821	11.5	15	-N								
RAMY	14	1640	1654	1642	N14	W44	.700	10821	11.4	14	-N		C		.36				DE
BOUL	14	1640	1653	1641	N15	W44	.702	10821	11.4	13	-N	2	V	1641		1.50			
GRP31653	14	1900	1917	1907	N18	E15	.344	10830	15.9	17	--F				.77				2 2 1 3
RAMY	14	1900	1918	1906	N18	E15	.344	10830	15.9	18	-N		C		.77				F
LOCK	14	1900	1915	1907	N18	E15	.344	10830	15.9	15	-F								
GRP31660	15	1243	1340	1249	N14	E74	.959	10838	21.1	57	-N				.54				5 4 3 7
BOUL	15	1241	1338	1244	N15	E73	.954	10838	21.0	57	-N	2	V						
MCMA	15	1243	1335	1248	N14	E74	.959	10838	21.1	52	-F		C	1248	.31	1.20			E
RAMY	15	1244E	1346	1254U	N14	E75	.963	10838	21.2	62D	-N		C		.62				F
CATA	15	1245	1340	1250	N13	E73	.954	10838	21.0	55	-B			1250	.69			209	
CAPS	15	1250E	1337D		N14	E75	.963	10838	21.2	47D	-N	3	V		3.00				
GRP31663	15	2009	2028	2012	N21	E03	.291	10830	16.1	19	--F				.31				3 3 1 4
BOUL	15	2009	2033	2011	N21	E04	.295	10830	16.1	24	-F	2	V	2011		.70			
RAMY	15	2009	2030	2011	N21	E03	.291	10830	16.1	21	-F		C		.31				DE
LOCK	15	2009	2022	2013	N22	E01	.304	10830	15.9	13	-F								
GRP31664	15	2032	2055	2033	S18	E07	.396	10832	16.4	23	--F				.52				2 2 1 4
BOUL	15	2031	2046	2032	S18	E09	.407	10832	16.5	15	-F	2	V	2032		.40			
RAMY	15	2032	2103	2034	S18	E05	.388	10832	16.2	31	-F		C		.52				F

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GRP31672	16	0606	0615	0607	N17	W06	.240	10830	15.8	9	--F				.99				5 5 3 7
TEHR	16	0545E	0615D	0548	N17	W09	.265	10830	15.6	30D	1N								H
TEHR	16	0558	0558D		N17	W08	.256	10830	15.6		-F								
MANI	16	0606	0617D		N17	W04	.228	10830	16.0	11D	-F	1		0608	.77	.80			
CRON	16	0606E	0620		N16	W07	.233	10830	15.7	14D	-F	3	V		.41				
ISTA	16	0606	0610		N18	W06	.256	10830	15.8	4	-F								
ABST	16	0607E	0614D	0607	N18	W04	.244	10830	16.0	7D	-N		P	0607	1.79	1.80			E
GRP31673	16	0634	0652	0636	N14	E63	.889	10838	21.0	18	1N				.91				6 6 5 8
MANI	16	0632	0649	0636	N12	E64	.896	10838	21.1	17	-N	2		0636	.93	1.93			
ABST	16	0634	0648	0635	N14	E65	.904	10838	21.1	14	1N		C	0635	1.35	3.00		61	E
CRIM	16	0634	0644D	0637	N14	E65	.904	10838	21.1	10D	-F		C	0637	.90				E
TEHR	16	0635	0647D		N15	E58	.848	10838	20.6	12D	2N								
CRON	16	0635E	0650		N17	E63	.890	10838	21.0	15D	-N	3	V		.72				
BUCA	16	0636	0700		N12	E62	.881	10838	20.9	24	-F		C	0638	.66	1.40			E
GRP31678	16	1446	1453	1448	N18	W37	.625	10827	13.8	7	--F								2 2 0 6
LOCK	16	1445	1454	1448	N19	W37	.628	10827	13.8	9	-F								
BOUL	16	1447	1452	1447	N16	W37	.617	10827	13.8	5	-F		V	1447		.40			
GRP31679	16	1706	1718	1711	N16	W39	.643	10827	13.8	12	--N				.41				3 3 1 4
MCMA	16	1705	1717	1710	N16	W40	.655	10827	13.7	12	-N		C	1710	.41	.50			EHL
BOUL	16	1706	1719	1710	N16	W37	.617	10827	13.9	13	-N		V	1710		.50			
LOCK	16	1708	1718	1712	N16	W40	.655	10827	13.7	10	-N								H
GRP31681	16	1755	1803	1757	N16	W39	.643	10827	13.8	8	--F				.41				3 3 1 4
BOUL	16	1755	1803	1758	N16	W37	.617	10827	14.0	8	-F		V	1758		.30			
LOCK	16	1755	1802	1757	N16	W40	.655	10827	13.7	7	-F								H
MCMA	16	1756	1805	1757	N16	W40	.655	10827	13.7	9	-N		C	1757	.41	.50			EH
GRP31683	16	2022	2027	2024	N16	W40	.655	10827	13.8	5	--F				.21				3 3 1 3
LOCK	16	2020	2028	2024	N16	W40	.655	10827	13.8	8	-F								
MCMA	16	2022	2027	2024	N16	W42	.680	10827	13.7	5	-F		C	2024	.21	.30			D
BOUL	16	2023	2026	2023	N15	W37	.614	10827	14.1	3	-F		V	2023		.30			
GRP31685	16	2135	2146	2138	N10	E90	1.000	10845	23.6	11	--F								2 2 0 3
LOCK	16	2135	2147	2138	N09	E90	1.000	10845	23.6	12	-N								
MCMA	16	2135	2145	2138	N11	E90	1.000	10845	23.6	10	-F		C	2138					
GRP31695	17	0801	0817	0815	N08	E90	1.000	10845	24.1	16	-N				.40				3 3 3 9
CANR	17	0801	0811		N09	E90	1.000	10845	24.1	10	-N	1	V		.21	.80			
CRON	17	0805E	0820		N08	E90	1.000	10845	24.1	15D	1B	2	V		.52				
CATA	17	0810E	0820	0815	N06	E90	1.000	10845	24.1	10D	-F			0815	.46			126	A
8 STATIONS REPORTING GROUP 31698. 2 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31698	17	1131	1214	1148	N08	E90	1.000	10845	24.2	43	-B								3 3 0 8
CAPS	17	1100E	1219D		N06	E90	1.000	10845	24.2	79D	1B	3	P						
HTPR	17	1130	1212	1148	N08	E90	1.000	10845	24.2	42	-B		C						
MONT	17	1132	1210		N09	E90	1.000	10845	24.2	38	-B		C						
31698	17	1127	1208	1131	N08	E90	1.000	10845	24.2	41	*-N				.52				3 3 1 7
KIEV	17	1058	1330	1130	N06	E90	1.000	10845	24.2	152	1N								
MCMA	17	1126	1208	1132	N10	E90	1.000	10845	24.2	42	-B		C	1132					
CANR	17	1128	1128D		N09	E90	1.000	10845	24.2		-N	1	V		.52	2.00			
31698	17	1255	1311	1257	N10	E90	1.000	10845	24.3	16	*-N				.52				2 2 1 7
BOUL	17	1254	1303	1257	N08	E90	1.000	10845	24.3	9	-N	2	V						
RAMY	17	1255	1319D	1257	N11	E90	1.000	10845	24.3	24D	-N		C		.52				DE
31698	17	1058	1330	1058	N06	E90	1.000	10845	24.2	152	*1N				3.09				2 1 1 8
KIEV	17	1058	1330	1058	N06	E90	1.000	10845	24.2	152	1N		C	1058	3.09			60	EJL
MCMA	17	1107	1122	1114	N10	E90	1.000	10845	24.2	15	-N		C	1114					E
GRP31700	17	1409	1424	1413	N10	E90	1.000	10845	24.3	15	--F				.31				2 2 1 7
HTPR	17	1409	1420		N08	E90	1.000	10845	24.3	11	-F		C						
RAMY	17	1413E	1427D	1413E	N11	E90	1.000	10845	24.3	14D	-N		C		.31				DE
GRP31701	17	1437	1447	1441	N08	E90	1.000	10845	24.4	10	-N				.40				5 5 1 7
MCMA	17	1434	1447	1442	N10	E90	1.000	10845	24.4	13	-N		C	1442					
LOCK	17	1435	1450	1440	N07	E90	1.000	10845	24.4	15	-N								
BOUL	17	1437	1444	1441	N08	E90	1.000	10845	24.4	7	-N	2	V						
CATA	17	1440	1445D	1440	N06	E90	1.000	10845	24.4	5D	-F			1440	.40			126	A
HTPR	17	1441	1450		N08	E90	1.000	10845	24.4	9	-N		C						
706 LOCK	17	2101	2111	2104	S09	W06	.255	10834	17.4	10	--F								3
707 LOCK	17	2103	2110	2105	N17	W30	.529	10830	15.6	7	--F								3

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GRP31710	18	0324	0349	0330	S18	W25	.551	10832	16.3	25	-N				1.52				4 4 4 4
CULG	18	0322	0354	0330	S18	W24	.541	10832	16.3	32	1B		C	0330	1.86	2.16			
MANI	18	0326	0346	0329	S17	W25	.542	10832	16.3	20	-F	2		0329	1.65	1.97			
TACH	18	0331E	0344		S18	W25	.551	10832	16.3	13D	1N		C	0333	1.65	1.90		80	E
CRON	18	0333E	0350		S18	W26	.562	10832	16.2	17D	-N	3	V		.93				
GRP31712	18	0344	0411	0400	N09	E82	.989	10845	24.3	27	1N				1.12				4 3 3 4
TACH	18	0339	0415	0358	N07	E85	.995	10845	24.5	36	1N		C	0358	1.28		3.00	66	E
CRON	18	0342	0349		N10	E83	.991	10845	24.4	7	-F	3	V		.41				
CULG	18	0345	0421	0404	N10	E77	.972	10845	23.9	36	1B		C	0404	1.24				R
MANI	18	0351	0418	0357	N08	E81	.986	10845	24.2	27	-N	2		0357	.83	2.12			
GRP31714	18	0606	0625	0610	N08	E79	.980	10845	24.2	19	-F				.61				2 2 2 7
MANI	18	0603	0625	0605	N06	E78	.977	10845	24.1	22	-N	2		0605	.31	.77			
ABST	18	0608	0625	0615	N09	E80	.983	10845	24.3	17	1F		C	0615	.90			48	E
GRP31715	18	0848	0858	0849	N18	W37	.623	10830	15.6	10	-N				.65				4 3 3 6
HTPR	18	0845	0900	0850	N08	W40	.641	10830	15.4	15	-N		C	0850	1.13	1.40			
MONT	18	0847	0854	0849	N18	W36	.611	10830	15.7	7	-B		C	0849	.72				
CRON	18	0848	0903		N19	W38	.640	10830	15.5	15	-F	2	V		.62				
CANR	18	0849	0857		N18	W37	.623	10830	15.6	8	-N	2	V		.62				
5 STATIONS REPORTING GROUP 31721. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31721	18	1744	1827	1750	N08	E72	.949	10845	24.1	43	--F				.34				4 4 3 4
LOCK	18	1739	1750	1742	N03	E72	.950	10845	24.1	11	-F								
HTPR	18	1744	1825	1750	N10	E70	.937	10845	24.0	41	-F		C	1750	.41				
CANR	18	1745	1830	1757	N06	E72	.949	10845	24.1	45	-N	3	V		.31	.80			
LOCK	18	1745	1800	1749	N09	E71	.943	10845	24.1	15	-F								
RAMY	18	1747	1801D	1750	N09	E74	.959	10845	24.3	14D	-N		C		.31				DE
LOCK	18	1815	1826	1820	N04	E72	.950	10845	24.2	11	-F								
31721	18	1759	1809	1804	N06	E72	.949	10845	24.1	10	*-N								2 2 0 5
BOUL	18	1757	1807	1805	N08	E71	.943	10845	24.1	10	-N	2	V						
LOCK	18	1800	1810	1802	N04	E72	.950	10845	24.2	10	-N								
724 LOCK	18	1827	1840	1830	S21	W32	.649	10832	16.4	13	--F								3
1 STATIONS REPORTING GROUP 31725. 0 STATIONS OBSERVING AND NOT REPORTING.																			
725 LOCK	18	1855	2025	1952	N11	E67	.918	10845	23.8	90	1N								1
725 LOCK	18	1855	2025	1905	N11	E67	.918	10845	23.8	90	*-F								1
726 LOCK	18	2009	2040	2020	N19	W42	.687	10830	15.7	31	-N								1
GRP31727	18	2117	2150	2130	N18	W47	.741	10830	15.4	33	--F				.25				2 2 1 2
HUAN	18	2115E	2138D		N18	W42	.684	10830	15.7	23D	-F	1	C	2121	.25	.30			E
LOCK	18	2118	2150	2130	N17	W51	.782	10830	15.1	32	-F								S
728 HUAN	18	2140E	2151		N11	E68	.924	10845	24.0	11D	-B	1	C	2147	.57				E 2
729 LOCK	18	2316	2325	2318	N04	E69	.932	10845	24.1	9	--F								2
3 STATIONS REPORTING GROUP 31730. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31730	19	0052	0137	0055	N08	E69	.931	10845	24.2	45	1B				1.08				2 2 2 3
CRON	19	0052	0203	0053	N08	E70	.937	10845	24.3	71	1N	2	V		1.13				
CULG	19	0052	0110	0056	N07	E68	.925	10845	24.1	18	1B		C	0056	1.03				
31730	19	0051	0140	(0117)	N07	E68	.925	10845	24.1	49	*1B				1.55				2 1 1 3
MANI	19	0051	0140		N07	E68	.925	10845	24.1	49	1B	2		0117	1.55	3.20			
CULG	19	0119E	0157D	0141	N08	E68	.925	10845	24.2	38D	1B		P	0141	1.86				
GRP31732	19	0514	0539	0521	N07	E67	.918	10845	24.2	25	1N				1.00				4 4 4 4
HTPR	19	0514	0538	0517	N06	E62	.881	10845	23.9	24	1N		C	0517	1.34				
AROS	19	0515E	0530D		N09	E68	.924	10845	24.3	15D	1N		P	0524	1.03				
CRON	19	0515E	0540		N08	E70	.937	10845	24.5	25D	1N	3	V		1.03				
CATA	19	0525E	0535D	0525	N06	E66	.911	10845	24.2	10D	-B			0525	.58			224	
GRP31733	19	0542	0603	0544	N10	E66	.911	10845	24.2	21	--N				.31				2 1 1 5
HTPR	19	0542	0600	0544	N09	E63	.888	10845	24.0	18	-N		C	0544	.31				
TEHR	19	0550E	0605D		N10	E69	.931	10845	24.4	15D	-F								
GRP31739	19	1003	1017	1009	N06	E62	.881	10845	24.1	14	-N				.48				3 3 3 4
HTPR	19	1000	1015	1008	N06	E63	.889	10845	24.1	15	-N		C	1008	.41				
CATA	19	1005	1020	1010	N06	E64	.896	10845	24.2	15	-N			1010	.52	1.19		195	
CAPS	19	1009E	1015D		N06	E60	.864	10845	23.9	6D	-N	3	V	1010	.50	.80		164	

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GRP31741	19	1304	1318	1309	N18	W78	.975	10827	13.7	14	-N				.62				4 4 4 6
CANR	19	1300	1313		N18	W80	.982	10827	13.5	13	1N		V		.72	2.20			
RAMY	19	1304	1323	1308	N19	W78	.975	10827	13.7	19	-N		C		.62				DE
CATA	19	1305	1315	1310	N18	W77	.971	10827	13.8	10	-N			1310	.63			162	
HUAN	19	1307	1320	1308U	N17	W78	.975	10827	13.7	13	-B	1	C	1308	.50				D
GRP31742	19	1332	1342	1333	N09	E57	.836	10845	23.8	10	--N				.50				5 5 5 7
CANR	19	1329	1339	1332	N10	E58	.845	10845	23.9	10	-N	2	V		.36	.70			
RAMY	19	1330	1332D	1332D	N08	E58	.845	10845	23.9	2D	-N		C		.31				DE
HTPR	19	1330	1342	1333	N08	E58	.845	10845	23.9	12	-N		C	1333	.31				
CAPS	19	1335E	1340D		N08	E55	.816	10845	23.7	5D	-N	2	V	1337	1.00	1.70		164	
CATA	19	1335	1345	1335	N09	E58	.845	10845	23.9	10	-N			1335	.52	.98		155	
GRP31744	19	1436	1507	1454	N12	E59	.855	10845	24.0	31	--N				.34				3 3 2 9
BOUL	19	1434	1450	1437	N17	E59	.857	10845	24.0	16	-N	2	V						
HTPR	19	1437	1500		N08	E60	.863	10845	24.1	23	-F		C	1451	.41				
BOUL	19	1452	1517	1454	N17	E59	.857	10845	24.0	25	-N	2	V						
CANR	19	1455	1505		N10	E58	.845	10845	24.0	10	-N	2	V		.26	.50			
GRP31745	19	1459	1531	1504	N18	W50	.773	10830	15.9	32	-N				1.57				7 7 6 10
HUAN	19	1455	1530		N18	W50	.773	10830	15.9	35	-N	1	P	1511	.37	.60			E
CATA	19	1455	1540	1505	N18	W51	.783	10830	15.8	45	1N			1505	1.44	2.35		191	
CANR	19	1455	1525		N18	W51	.783	10830	15.8	30	-N	2	V		.72	1.10			
RAMY	19	1457	1527D	1502	N19	W50	.775	10830	15.9	30D	-N		C		.72				DE
WEND	19	1503E	1516D		N18	W52	.793	10830	15.7	13D	1N		P		5.16				
CAPS	19	1505E	1532D		N20	W45	.724	10830	16.3	27D	-N	2	V	1507	1.00	1.60		180	G
BOUL	19	1505	1628		N18	W50	.773	10830	15.9	83	1N	2	V						
GRP31747	19	1716	1733	1719	N02	E70	.939	10845	25.0	17	-B				.41				4 4 2 6
LOCK	19	1714	1730	1719	N01	E68	.927	10845	24.8	16	-B								
CANR	19	1717	1730	1719	N03	E71	.945	10845	25.0	13	-B	2	V		.41	1.00			
BOUL	19	1717	1738		N03	E70	.939	10845	25.0	21	-N	2	V						
RAMY	19	1718E	1723D	1718E	N02	E70	.939	10845	25.0	5D	-N		C		.41				DE
750 LOCK	19	1929	1946	1933	N07	E56	.826	10845	24.0	17	--F								2
751 RAMY	19	1946E	1958D	1946E	N19	W50	.775	10830	16.1	12D	--F		C		.52				DE 2
752 LOCK	19	2001	2011	2005	N18	W59	.858	10830	15.4	10	--F								2
GRP31753	19	2101	2119	2105	N03	E67	.919	10845	24.9	18	--F				.31				2 2 1 2
LOCK	19	2101	2115	2106	N03	E66	.912	10845	24.8	14	-F								
RAMY	19	2104E	2123	2104E	N02	E68	.927	10845	25.0	19D	-N		C		.31				DE
754 LOCK	19	2227	2330	2246	N03	E64	.898	10845	24.7	63	--F								2
GRP31755	19	2333	2342	2337	N04	E69	.932	10845	25.2	9	--F				.72				2 2 1 3
LOCK	19	2333	2343	2337	N01	E67	.920	10845	25.0	10	-F								
CRON	19	2335E	2340		N06	E71	.944	10845	25.3	5D	-N	2	V		.72				
GRP31756	19	2345	2359	2353	N04	E64	.897	10845	24.8	14	--F				.52				2 2 1 3
CRON	19	2341	2355		N07	E60	.863	10845	24.5	14	-N	2	V		.52				
LOCK	19	2349	0002	2353	N01	E67	.920	10845	25.0	13	-F								
757 LOCK	20	0040	0050	0044	N01	E67	.920	10845	25.1	10	--F								3
758 CRON	20	0135E	0202		N07	E57	.836	10845	24.3	27D	--F	3	V		.62				2
GRP31763	20	0617	0623	0619	N07	E55	.816	10845	24.4	6	-N				.53				5 5 3 8
TEHR	20	0613E	0624D	0615	N07	E54	.806	10845	24.3	11D	1N								H
ISTA	20	0615	0623	0616	N09	E61	.872	10845	24.8	8	-B								
CRON	20	0617E	0622	0617	N05	E55	.817	10845	24.4	5D	-N	3	V		1.03				
BUCA	20	0618	0622		N07	E53	.796	10845	24.2	4	-N		C	0618	.43	.70			D
CATA	20	0620	0625	0620	N09	E53	.796	10845	24.2	5	-B			0620	.14	.24		226	D
GRP31765	20	0804	0854		N18	W60	.866	10830	15.8	50	-N				1.27				3 3 3 8
WEND	20	0804E	0854D		N19	W59	.859	10830	15.9	50D	1N		P		3.09				
CRON	20	0813E	0840		N17	W60	.866	10830	15.8	27D	-F	3	V		.31				
CANR	20	0818	0818D		N18	W60	.866	10830	15.8		-N	1	V		.41				
5 STATIONS REPORTING GROUP 31770. 0 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31770	20	1109	1236	1130	N08	E55	.816	10845	24.6	87	2B				3.54				3 3 3 3
CANR	20	1108	1220	1125	N08	E56	.826	10845	24.7	72	2B	7	V		3.61	5.95			
CATA	20	1110	1230	1135	N08	E54	.806	10845	24.5	80	2B			1135	4.40	7.68		355	U
CAPS	20	1125E	1257		N08	E56	.826	10845	24.7	92D	2B	3	P	1130	2.60	5.20		440	C
31770	20	1154	1244	1158	N10	E55	.816	10845	24.6	50	*1B				1.83				2 2 2 7
RAMY	20	1154E	1244	1158U	N09	E55	.816	10845	24.6	50D	1B		C		2.17				F
HERS	20	1159E	1200D		N10	E54	.806	10845	24.5	1D	1N		S	1159	1.49	2.60			BE

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GRP31772	20	1221	1227	1222	N19	W89	.999	10827	13.8	6	--F								2 2 0 5
RAMY	20	1220	1227		N19	W90	1.000	10827	13.8	7	-F		C						DE
BOUL	20	1221	1227	1222	N19	W88	.998	10827	13.9	6	-F	1	V						
GRP31774	20	1303	1313	1306	N06	E51	.775	10845	24.4	10	--N				.65				5 5 4 7
RAMY	20	1300	1318	1304	N07	E49	.752	10845	24.2	18	-B		C		1.34				F
BOUL	20	1301	1310	1304	N08	E48	.741	10845	24.1	9	-N	1	V						
HUAN	20	1301U	1308	1304	N04	E51	.775	10845	24.4	7D	-F	1	C	1304	.21	.30			D
CAPS	20	1302E	1315D		N04	E55	.817	10845	24.7	13D	-B	3	S	1308	.30	.60		212	
CATA	20	1310	1315	1310	N07	E50	.763	10845	24.3	5	-B			1310	.75	1.17		216	
GRP31777	20	1604	1615	1608	N18	W75	.963	10830	15.0	11	--F				.31				3 3 1 5
LOCK	20	1603	1615	1607	N18	W77	.971	10830	14.9	12	-F								
RAMY	20	1605	1619	1609	N19	W74	.958	10830	15.1	14	-F		C		.31				DE
BOUL	20	1605	1612	1607	N17	W75	.963	10830	15.0	7	-F	2	V						
GRP31779	20	1659	1711	1700	N06	E47	.729	10845	24.2	12	-B				.99				4 4 2 5
RAMY	20	1657	1713	1700	N06	E47	.729	10845	24.2	16	-B		C		1.39				DE
LOCK	20	1658	1710	1701	N05	E47	.729	10845	24.2	12	-N								V
BOUL	20	1659	1710	1700	N07	E46	.717	10845	24.2	11	-N	2	V						
CATA	20	1700	1710	1700	N06	E47	.729	10845	24.2	10	-B			1700	.58	.87		251	
RAMY	20	1703	1719	1705	N06	E52	.785	10845	24.6	16	-F		C		.88				DE
BOUL	20	1703	1718	1705	N07	E51	.774	10845	24.5	15	-F	2	V						
RAMY	20	1707	1746	1721	N06	E43	.680	10845	23.9	39	-N		C		.41				DE
GRP31780	20	1814	1828	1819	N10	E44	.694	10845	24.1	14	--F				1.44				3 3 1 3
BOUL	20	1814	1829	1818	N12	E45	.708	10845	24.1	15	-N	2	V						
RAMY	20	1814	1823D	1820	N10	E43	.681	10845	24.0	9D	-F		C		1.44				DE
LOCK	20	1815	1827	1820	N09	E44	.693	10845	24.1	12	-F								
GRP31781	20	1836	1931	1850	N07	E45	.705	10845	24.2	55	--N				.46				3 3 1 3
BOUL	20	1831	1902	1844	N08	E43	.680	10845	24.0	31	-N	2	V						
RAMY	20	1838	1921D	1850	N06	E45	.705	10845	24.2	43D	-N		C		.46				DE
RAMY	20	1838	1921D	1907	N06	E45	.705	10845	24.2	43D	-N		C		.46				DE
LOCK	20	1840	1930	1855	N07	E45	.705	10845	24.2	50	-F								
BOUL	20	1847	1931	1851	N08	E48	.741	10845	24.4	44	-N	2	V						
782 RAMY	20	1936E	1952	1936E	N18	W66	.912	10830	15.9	16D	--F		C		.36				DE 3
GRP31783	20	2030	2106	2041	N05	E43	.680	10845	24.1	36	--N				.44				3 2 2 3
LOCK	20	2010	2100	2020	N07	E45	.705	10845	24.2	50	-N								
HUAN	20	2030E	2047U	2042	N04	E43	.680	10845	24.1	17D	-N	2	C	2042	.25	.30			D
RAMY	20	2039E	2106	2039E	N06	E42	.667	10845	24.0	27D	-N		C		.62				DE
784 RAMY	20	2051	2058	2053	N22	E90	1.000	10846	27.6	7	-N		C						DE 2
785 RAMY	20	2134	2138D	2137	N07	E44	.692	10845	24.2	4D	--F		C		.31				DE 2
	20	2138	2148	NO FLARE PATROL															
	20	2153	2211	NO FLARE PATROL															
	20	2213	2215	NO FLARE PATROL															
GRP31786	20	2241	2310	2245	N18	W67	.918	10830	15.9	29	--N				.31				2 2 1 4
BOUL	20	2239	2320		N18	W68	.925	10830	15.8	41	-N	1	V						
MANI	20	2243	2259	2245	N18	W65	.905	10830	16.1	16	-N	2		2245	.31	.64			
GRP31790	21	0035	0048	0035	N11	E43	.682	10845	24.2	13	--N				.44				3 3 2 7
MANI	21	0033	0044	0035	N08	E45	.705	10845	24.4	11	-N	2		0035	.26	.35			
BOUL	21	0035	0039		N18	E36	.609	10845	23.7	4	-B	1	V						
CRON	21	0037	0102		N07	E47	.729	10845	24.6	25	-N		V		.62				
GRP31792	21	0121	0140	0126	S16	W59	.883	10832	16.6	19	-N				1.24				3 3 2 7
CULG	21	0116	0144	0126	S15	W59	.881	10832	16.6	28	1N		C	0126	1.44	2.80			
CRON	21	0122E	0138		S17	W58	.877	10832	16.7	16D	-N		V		1.03				
BOUL	21	0126	0139		S16	W59	.883	10832	16.6	13	-F	1	V						
GRP31800	21	0440	0642	0505	N08	E46	.717	10845	24.6	122	1F				2.12				4 2 2 5
CULG	21	0435	0555D	0505	N10	E44	.693	10845	24.5	80D	1N		P	0505	3.61	4.90			
CRON	21	0440	0642	0449	N08	E46	.717	10845	24.6	122	1F		V		1.65				
MANI	21	0440E	0556D		N08	E45	.705	10845	24.6	76D	1N	1		0447	2.58	3.48			
CATA	21	0505E	0725D	0520	N10	E45	.706	10845	24.6	140D	1B			0520	2.32	3.28		219	K

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GRP31804	21	0720	0739	0722	N07	E40	.641	10845	24.3	19	--F				1.18				5 4 3 7
CAPS	21	0719	0741D		N06	E39	.627	10845	24.2	22D	-B	3	P	0727	.70	.90		212	
CRIM	21	0720	0730D	0722	N06	E40	.640	10845	24.3	10D	-F		C	0722	1.17	1.50			DI
BUCA	21	0720	0745		N08	E41	.654	10845	24.4	25	-F		C	0724	1.66	2.10			
ISTA	21	0720	0729		N07	E41	.654	10845	24.4	9	-F								
CRON	21	0730E	0748		N08	E41	.654	10845	24.4	18D	-F		V		1.03				
GRP31805	21	0746	0808	(0749)	S10	W27	.511	10836	19.3	22	-N				.97				6 6 5 8
BUCA	21	0740	0810		S10	W27	.511	10836	19.3	30	-N		C	0750	1.10	1.20			
CRIM	21	0741E	0800D		S12	W28	.538	10836	19.2	19D	1N		P	0750	1.80	2.10			E
CAPS	21	0744E	0808		S10	W24	.472	10836	19.5	24D	-B	3	V	0747	.60	.70		238	
CRON	21	0747E	0805		S11	W25	.493	10836	19.4	18D	-N		V		.93				
KHAR	21	0750E	0750D		S09	W27	.504	10836	19.3		-F		P						
CANR	21	0751	0751D		S10	W28	.524	10836	19.2		-B	2	V		.41				
GRP31809	21	1010	1053	1017	N17	W71	.942	10830	16.1	43	-N				1.09				3 2 2 7
CATA	21	1010	1020	1010	N21	W73	.953	10830	15.9	10	-B			1010	.52			234	T
MONT	21	1011	1045	1024	N16	W70	.936	10830	16.2	34	1B		C	1024	1.55				T
MEUD	21	1014E	1100		N17	W72	.948	10830	16.0	46D	-F		C	1017	.62				E
GRP31811	21	1058	1124	1101	N22	E85	.994	10846	27.8	26	-N				.45				4 4 3 9
RAMY	21	1046	1110	1048	N28	E88	.998	10846	28.0	24	-N		C		.41				DE
RAMY	21	1056	1118	1100	N22	E81	.984	10846	27.5	22	-N		C		.52				DE
MEUD	21	1057	1111D		N21	E85	.994	10846	27.8	14D	-F		C	1101	.31				
MONT	21	1100	1130	1102	N22	E85	.994	10846	27.8	30	-N		C	1102	.52				
ONDR	21	1100E	1103D		N20	E85	.994	10846	27.8	3D	-N		V	1101			2.20		CDG
RAMY	21	1123	1136	1126	N28	E90	.999	10846	28.2	13	-F		C		.41				DE
GRP31812	21	1217	1230	1223	N17	W75	.962	10830	15.9	13	--N				.28				3 3 3 10
MEUD	21	1210E	1223D		N17	W75	.962	10830	15.9	13D	-N		C	1213	.31				ET
HUAN	21	1220U	1227	1222	N17	W75	.962	10830	15.9	7D	-N	2	C	1222	.21				E
RAMY	21	1220	1233	1223	N17	W75	.962	10830	15.9	13	-F		C		.31				DE
GRP31813	21	1222	1241	1225	N08	E35	.572	10845	24.1	19	--F				.62				3 3 3 10
RAMY	21	1221	1233	1224	N09	E33	.545	10845	24.0	12	-F		C		.41				DE
MONT	21	1222	1240	1226	N07	E34	.557	10845	24.1	18	-N		C	1226	.72				
MCMA	21	1223E	1250	1225	N08	E37	.600	10845	24.3	27D	-F		C	1225	.72	.90			E
GRP31814	21	1238	1249	1246	N17	W74	.958	10830	16.0	11	-N				.53				5 5 4 10
HUAN	21	1230	1245	1233U	N17	W76	.967	10830	15.8	15	-F	1	C	1233	.17				D
MONT	21	1235	1242D	1237	N16	W71	.942	10830	16.2	7D	-N		C	1237	1.03				T
MCMA	21	1238	1400D	1245	N18	W75	.962	10830	15.9	82D	-N		C	1245	.41	1.00			E
MEUD	21	1241E	1248D		N17	W75	.962	10830	15.9	7D	-N		C	1241	.52				ET
BOUL	21	1244	1255	1247	N18	W73	.953	10830	16.1	11	-F	2	V						
GRP31815	21	1249	1313	1253	N21	E86	.995	10846	28.0	24	-N				.77				5 5 3 9
HUAN	21	1246	1304	1252	N19	E85	.994	10846	27.9	18	-B	2	C	1252	.25				D
RAMY	21	1247E	1329	1251	N22	E85	.994	10846	27.9	42D	-N		C		.52				DE
BOUL	21	1249	1315	1250	N23	E85	.994	10846	27.9	26	-F	2	V						
MCMA	21	1252	1305D	1257	N21	E88	.998	10846	28.1	13D	-N		C	1257					D
KIEV	21	1253	1310	1257	N20	E85	.994	10846	27.9	17	-N		C	1257	1.55			65	DJ
MCMA	21	1306	1328	1312	N21	E88	.998	10846	28.1	22	-F		C	1312					D
GRP31817	21	1342	1406	1346	N08	E36	.586	10845	24.3	24	--N				.60				11 11 10 13
MCMA	21	1339	1420	1345	N08	E36	.586	10845	24.3	41	-N		C	1345	.41	.50			EL
HUAN	21	1339	1400	1346	N06	E37	.600	10845	24.3	21	-B	2	C	1346	.21	.50			D
HTPR	21	1340	1415	1345	N08	E39	.627	10845	24.5	35	-N		C	1345	.93	1.10			
RAMY	21	1341	1414	1344	N08	E35	.572	10845	24.2	33	-N		C		1.03				DE
MONT	21	1341	1420	1343	N08	E37	.600	10845	24.3	39	-B		C	1343	.83				E
BOUL	21	1342	1406	1346	N08	E34	.558	10845	24.1	24	-N	2	V						
CAPS	21	1342E	1406D		N06	E39	.627	10845	24.5	24D	-N	3	V	1347	.50	.70		182	
MEUD	21	1343	1355	1345	N08	E36	.586	10845	24.3	12	-F		C	1345	.83	1.00			E
CATA	21	1345	1405	1350	N09	E36	.587	10845	24.3	20	-B			1350	.40	.50		204	D
CANR	21	1347	1350		N08	E35	.572	10845	24.2	3	-N	2	V		.46	.50			
HERS	21	1348E	1353D	1348E	N08	E37	.600	10845	24.3	5D	-N		S	1350	.44	.60			D
GRP31819	21	1555	1629	1600	N18	W77	.971	10830	15.9	34	-N				.83				4 4 1 9
BOUL	21	1551	1626	1557	N18	W73	.953	10830	16.2	35	-N	2	V						
RAMY	21	1554	1633D	1600	N17	W76	.967	10830	16.0	39D	-N		C		.83				DE
MCMA	21	1555	1630D	1559	N18	W77	.971	10830	15.9	35D	-N		C	1559					E
LOCK	21	1558	1625	1605	N17	W80	.982	10830	15.7	27	-F								
GRP31822	21	1726	1759	1739	N08	E35	.572	10845	24.4	33	--N				.48				6 6 4 6
BOUL	21	1705	1800	1735	N10	E34	.560	10845	24.3	55	-N	2	V	1735		.80			
MCMA	21	1718	1800	1738	N08	E34	.558	10845	24.3	42	-N		C	1738	.41	.50			E
LOCK	21	1725	1755	1740	N07	E34	.557	10845	24.3	30	-F								
CANR	21	1725	1800		N08	E33	.544	10845	24.2	35	-N	2	V		.41				
HTPR	21	1730	1748D	1737	N08	E40	.641	10845	24.7	18D	-N		C	1737	.93	1.10			
HUAN	21	1730	1743D	1743U	N06	E34	.557	10845	24.3	13D	-F	1	P	1743	.17	.20			D

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GRP31826	21	1914	1934	1919	S10	W33	.589	10836	19.3	20	--N				.29				4 4 2 4
LOCK	21	1912	1930	1918	S10	W33	.589	10836	19.3	18	-N								
MCMA	21	1914	1937	1918	S11	W33	.595	10836	19.3	23	-N		C	1918	.26	.30			E
BOUL	21	1914	1933	1917	S09	W32	.570	10836	19.4	19	-N	2	V						
HUAN	21	1914	1935	1923	S11	W33	.595	10836	19.3	21	-N	2	C	1923	.31	.40			D
827 MCMA	21	2034	2041	2036	N18	W80	.982	10830	15.9	7	--F		C	2036					E 3
GRP31828	21	2122	2135	2125	N17	W78	.975	10830	16.0	13	--F								2 2 0 3
MCMA	21	2104	2120	2108	N16	W82	.988	10830	15.7	16	-F		C	2108					E
BOUL	21	2120	2131	2125	N17	W74	.958	10830	16.3	11	-F	1	V	2125		.30			
MCMA	21	2123	2139	2125	N16	W80	.982	10830	15.9	16	-N		C	2125					D
GRP31829	21	2150	2206	2155	N17	W78	.975	10830	16.1	16	-N				.93				3 2 1 4
BOUL	21	2148	2210	2155	N17	W74	.958	10830	16.4	22	-N	1	V	2155		1.00			
MCMA	21	2152	2202		N16	W82	.988	10830	15.8	10	-N		C	2152					E
MANI	21	2208E	2226		N19	W80	.982	10830	15.9	18D	-N	1		2209	.93	2.40			
GRP31830	22	0020	0124	0032	N09	E32	.530	10845	24.4	64	2B				4.03				5 3 2 5
MANI	22	0012	0132	0033	N09	E32	.530	10845	24.4	80	1B	2		0033	3.51	4.15			
CULG	22	0023	0119	0031	N11	E32	.533	10845	24.4	56	2B		C	0031	4.54	5.28			HV
SIBE	22	0026	0047		N07	E35	.572	10845	24.6	21	2N		V						CE
CRON	22	0040E	0138		N08	E35	.572	10845	24.7	58D	2B	2	V		6.19				
BOUL	22	0105	0142		N08	E27	.454	10845	24.1	37	1N	1	V						
GRP31833	22	0204	0243	0209	N21	E75	.962	10846	27.7	39	1N				1.20				3 3 3 5
CULG	22	0204	0250	0212	N22	E71	.943	10846	27.4	46	1N		C	0212	1.44				
MANI	22	0204	0235	0207	N21	E78	.975	10846	27.9	31	1N	2		0207	1.44	3.20			
CRON	22	0205	0216D	0207	N20	E75	.962	10846	27.7	11D	1N	2	V		.72				
GRP31835	22	0427	0459	0437	N15	W17	.334	10838	20.9	32	-N				1.30				4 4 3 5
CRON	22	0427	0516		N15	W13	.280	10838	21.2	49	-N	3	V		1.24				
TACH	22	0432E	0453	0436	N16	W17	.342	10838	20.9	21D	-B		C	0436	.64	.70	3.40	120	E
ONDR	22	0434E	0453		N16	W25	.452	10838	20.3	19D	1N		V	0439			2.20		CH
KODA	22	0437E	0452	0437	N14	W14	.284	10838	21.1	15D	-N		C	0437	2.02	2.00	1.84		CDK
GRP31843	22	0803	0843	0810	N07	E22	.374	10845	24.0	40	-N				1.97				10 10 8 11
CRON	22	0801	0853	0805	N05	E25	.421	10845	24.2	52	1N	3	V		2.27				
ISTA	22	0802	0848	0807	N08	E21	.360	10845	23.9	46	1N								
CAPE	22	0802	0835D	0805	N06	E21	.357	10845	23.9	33D	-N		P	0805	1.33	1.40			
HTPR	22	0802	0851D	0808	N06	E22	.373	10845	24.0	49D	-B		C	0808	1.75	1.90			
MONT	22	0803E	0840	0815	N08	E22	.376	10845	24.0	37D	-B		C	0815	.72				
CRIM	22	0803E	0836D	0810	N06	E22	.373	10845	24.0	33D	-N		C	0810	1.63	1.80			EI
ONDR	22	0804	0826		N06	E20	.341	10845	23.8	22	1N		V	0806			2.40		CD
WEND	22	0806	0858D		N06	E21	.357	10845	23.9	52D	1N		P		5.16				
CATA	22	0812E	0845	0812	N08	E22	.376	10845	24.0	33D	-B			0812	1.44	1.56		224	
HERS	22	0816E	0835	0818	N07	E22	.374	10845	24.0	19D	-N		P	0818	1.49	1.60			E
GRP31848	22	1221	1231	1223	N08	E23	.392	10845	24.2	10	-N				.96				3 3 3 9
LVOV	22	1204	1237	1223	N06	E22	.373	10845	24.2	33	1F		C	1223	2.06	2.24		53	E
RAMY	22	1221	1231	1223	N09	E22	.378	10845	24.2	10	-N		C		.31				DE
MONT	22	1221	1225	1223	N09	E25	.425	10845	24.4	4	-N		C	1223	.52				
GRP31851	22	1343	1356	1346	N08	E24	.407	10845	24.4	13	-N				.98				5 5 5 9
HTPR	22	1340	1400	1347	N07	E25	.422	10845	24.4	20	-N		C	1340	1.55	1.60			
MCMA	22	1343	1500D	1347	N08	E23	.392	10845	24.3	77D	-N		C	1347	.93	1.00			FK
RAMY	22	1344	1354	1347	N09	E22	.378	10845	24.2	10	-N		C		.62				DE
MONT	22	1344	1355	1346	N09	E25	.425	10845	24.4	11	-N		C	1346	1.24				
CATA	22	1345	1355	1345	N08	E23	.392	10845	24.3	10	-N			1345	.58	.63		200	
GRP31853	22	1436	1500	1441	N21	E67	.919	10846	27.6	24	-N				.59				5 5 3 10
MCMA	22	1432	1515	1443	N21	E68	.925	10846	27.7	43	-N		C	1443	.36	1.00			E
RAMY	22	1432	1510D	1444	N22	E68	.926	10846	27.7	38D	-N		C		.72				F
BOUL	22	1438	1448	1438	N22	E66	.913	10846	27.6	10	-N	2	V						
LOCK	22	1440E	1450	1442	N19	E67	.918	10846	27.6	10D	-F								
CATA	22	1440	1455	1440	N19	E65	.905	10846	27.5	15	-B			1440	.69	1.65		214	
GRP31854	22	1437	1450	1440	N03	W89	1.000	10831	15.9	13	-N								3 3 0 10
RAMY	22	1435	1454	1437	N02	W88	.999	10831	16.0	19	-N		C						DE
BOUL	22	1438	1447	1442	N03	W88	.999	10831	16.0	9	-N	2	V						
LOCK	22	1440E	1448	1440	N04	W90	1.000	10831	15.9	8D	-F								

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GRP31856	22	1452	1510	1458	S10	W44	.723	10836	19.3	18	--N				.65				8 8 5 10
LOCK	22	1450	1509	1457	S10	W45	.734	10836	19.2	19	-F								
MONT	22	1450	1515	1457	S11	W43	.715	10836	19.4	25	-B		C	1457	1.24				
BOUL	22	1452	1510	1458	S10	W43	.712	10836	19.4	18	-N	2	V						
MCMA	22	1452	1507	1457	S10	W46	.745	10836	19.2	15	-N		C	1457	.31	.50			E
RAMY	22	1452	1516	1457	S10	W45	.734	10836	19.2	24	-N		C		1.13				DE
CANR	22	1453	1508		S10	W44	.723	10836	19.3	15	-N	2	V		.21	.20			
CATA	22	1455	1510	1500	S11	W46	.749	10836	19.2	15	-B			1500	.34	.52		219	D
HURB	22	1500E	1505	1501	S10	W43	.712	10836	19.4	5D	-F						1.66		G
GRP31857	22	1502	1519	1509	N03	W90	1.000	10831	15.9	17	-N								3 3 0 11
BOUL	22	1500	1517	1504	N03	W90	1.000	10831	15.9	17	-N	2	V						
MONT	22	1503	1525	1515	N02	W90	1.000	10831	15.9	22	-N		C						
LOCK	22	1504	1515	1509	N04	W90	1.000	10831	15.9	11	-F								
GRP31858	22	1535	1610	1545	N03	W90	1.000	10831	15.9	35	-N								4 4 0 12
MONT	22	1533	1605	1538	N02	W90	1.000	10831	15.9	32	-B		C						
LOCK	22	1535	1635	1550	N04	W90	1.000	10831	15.9	60	-F								
RAMY	22	1536	1558	1541	N02	W90	1.000	10831	15.9	22	-N		C						DE
BOUL	22	1536	1600	1549	N03	W90	1.000	10831	15.9	24	-N	2	V	1549		1.00			
GRP31860	22	1550	1625	1556	N09	E18	.314	10845	24.0	35	-N				1.31				9 8 7 12
BOUL	22	1547	1619	1557	N08	E18	.311	10845	24.0	32	-N	1	V	1557		2.00			
CANR	22	1549	1640	1552	N08	E18	.311	10845	24.0	51	-N	3	V		.52	.50			
CANR	22	1549	1640	1600	N08	E18	.311	10845	24.0	51	-N	3	V						
HTPR	22	1550	1620	1556	N16	E18	.356	10845	24.0	30	-N		C	1556	1.44	1.50			
RAMY	22	1551	1645D	1555	N08	E16	.279	10845	23.9	54D	-N		C		1.65				F
MCMA	22	1551	1623	1601	N07	E16	.276	10845	23.9	32	-N		C	1601	.52	.50			E
MONT	22	1551	1615	1557	N08	E19	.328	10845	24.1	24	1B		C	1557	2.06				
MEUD	22	1551	1630	1552	N07	E17	.293	10845	23.9	39	-F		C	1552	.62	.60			E
HERS	22	1552E	1610	1554	N08	E18	.311	10845	24.0	18D	1N		P	1553	2.37	2.60			E
CATA	22	1555	1625	1608	N07	E17	.293	10845	23.9	30	-B			1608	1.16	1.21		209	
GRP31861	22	1701	1722	1702	N09	E21	.362	10845	24.3	21	--F				.90				4 4 3 8
LOCK	22	1646	1725	1654	N06	E19	.325	10845	24.1	39	-N								
HTPR	22	1700	1721	1705	N16	E23	.425	10845	24.4	21	-N		C	1705	1.24	1.30			
MEUD	22	1701	1725	1703	N07	E21	.358	10845	24.3	24	-F		C	1703	.93	.90			D
MCMA	22	1703	1715	1705	N07	E20	.342	10845	24.2	12	-F		C	1705	.52	.50			E
LOCK	22	1703	1714	1707	N07	E21	.358	10845	24.3	11	-F								
862 LOCK	22	1913E	1932	1920	N22	W90	.999	10830	16.1	19D	--F								2
GRP31863	22	1940	1950	1941	N06	E18	.308	10845	24.2	10	-B				.89				3 3 2 3
MCMA	22	1939	1950	1940	N05	E18	.308	10845	24.2	11	-B		C	1940	1.03	1.10			EV
HUAN	22	1940	1948	1941	N06	E18	.308	10845	24.2	8	-B	2	C	1941	.75	.80			E
LOCK	22	1940	1953	1942	N05	E19	.324	10845	24.2	13	1N								V
LOCK	22	1950	2030	2010	N07	E15	.260	10845	24.0	40	-F								
864 MCMA	22	2041	2046	2043	N14	W24	.428	10838	21.1	5	--F		C	2043	.41	.40			E 2
GRP31868	23	0044	0102	0050	N23	E62	.885	10846	27.7	18	-N				.68				3 3 2 6
LOCK	23	0042	0102	0052	N23	E61	.878	10846	27.6	20	-N								
MANI	23	0044	0102	0049	N23	E63	.893	10846	27.8	18	-N	2		0049	.83	1.62			
MITK	23	0045	0102	0049	N24	E63	.894	10846	27.8	17	-N		C	0049	.52	1.00			D
GRP31870	23	0512	0546	0518	N06	E13	.225	10845	24.2	34	-N				1.15				7 6 5 9
ABST	23	0510	0540	0517	N05	E14	.241	10845	24.3	30	-N		P	0517	1.79	1.80			E
MITK	23	0512	0542	0517	N06	E14	.241	10845	24.3	30	-N		C	0517	1.03	1.10			E
ONDR	23	0512	0527		N06	E13	.225	10845	24.2	15	1N		V	0517			2.30		CDE
TACH	23	0512	0840	0518	N06	E13	.225	10845	24.2	208	-N		C	0518	1.19	1.20	2.25	57	E
CATA	23	0515	0550	0520	N06	E13	.225	10845	24.2	35	-B			0520	.69	.71		269	
HTPR	23	0518D	0545		N06	E10	.174	10845	24.0	27D	-B		C	0520	1.03	1.00			
MANI	23	0533E	0540D		N04	E13	.225	10845	24.2	7D	-N	1		0534	.31	.32			
GRP31871	23	0805	0820	0808	N06	E11	.191	10845	24.2	15	-N				1.26				10 10 6 14
ONDR	23	0800E	0815		N06	E12	.208	10845	24.2	15D	1N		V	0811			1.90		CD
ABST	23	0802	0814	0805	N05	E13	.224	10845	24.3	12	-N		C	0805	1.79	1.80		65	E
CAPE	23	0806	0820	0807	N06	E12	.208	10845	24.2	14	-N		C	0807	1.38	1.40			TV
CRIM	23	0806	0818D	0807	N06	E11	.191	10845	24.2	12D	-N		C	0807	1.80	1.90			DI
ISTA	23	0806	0818		N11	E11	.215	10845	24.2	12	-B								
CANR	23	0806	0818		N07	E11	.193	10845	24.2	12	-B	2	V		1.03				
WEND	23	0806	0821		N06	E11	.191	10845	24.2	15	-B								
BUCA	23	0808	0823		N05	E12	.207	10845	24.2	15	-F		C	0810	.40	.40			
CATA	23	0810E	0835	0810	N06	E11	.191	10845	24.2	25D	-B			0810	1.16	1.19		257	
HURB	23	0810E	0820D	0810	N05	E08	.139	10845	23.9	10D	-N						2.07		

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GRP31875	23	0939	1000	0942	N10	E11	.208	10845	24.2	21	-N				.91				5 5 3 9
ARCE	23	0935	0940D	0938	N08	E11	.196	10845	24.2	5D	-N		P	0938		1.20			
BUCA	23	0939	0959		N10	E11	.208	10845	24.2	20	-N		P	0940	.73	.70			
CAPE	23	0939	1000	0941	N11	E10	.200	10845	24.2	21	-N		C	0941	1.29	1.40			
HURB	23	0941E	0956D	0942	N10	E12	.223	10845	24.3	15D	1F						1.98		
CANR	23	0942	0942D		N10	E12	.223	10845	24.3		-N	2	V		.72				
CANR	23	0945	0945D		N08	E11	.196	10845	24.2		-N	2	V		.52				
GRP31877	23	1000	1039	1009	N21	E59	.860	10846	27.8	39	-F				.68				5 4 3 9
BUCA	23	0957	1044		N21	E58	.852	10846	27.8	47	-F		C	1003	.48	.90			
CANR	23	1003	1036		N23	E59	.862	10846	27.8	33	-N	2	V		.52				
CAPS	23	1004E	1024D		N22	E40	.672	10846	26.4	20D	-N	3	V	1005	.80	1.50		170	
HURB	23	1009E	1032D	1009	N21	E61	.876	10846	28.0	23D	1F						1.64		
MEUD	23	1015E	1038		N20	E59	.859	10846	27.9	23D	-N		C	1016	1.03	1.90			
10 STATIONS REPORTING GROUP 31878.							0 STATIONS OBSERVING			AND NOT REPORTING.									
GRP31878	23	1031	1136	1048	N10	E13	.239	10845	24.4	65	1N				3.11				9 8 7 10
MEUD	23	1029	1130	1048	N10	E13	.239	10845	24.4	61	1N			1048	2.06	2.10			
WEND	23	1029	1153		N08	E11	.196	10845	24.3	84	2N		P		8.25				
CAPE	23	1030	1145	1051	N11	E12	.230	10845	24.3	75	1B			1051	2.02	2.10			
CATA	23	1030	1145	1045	N09	E13	.233	10845	24.4	75	1B			1045	2.32	2.38		251	Z
HURB	23	1032E	1123D	1048	N10	E15	.270	10845	24.6	51D	2N						2.77		HV
ABST	23	1032E	1135	1047	N10	E13	.239	10845	24.4	63D	1F		C	1047	2.69	2.80		60	E
BUCA	23	1036	1215	1050	N11	E12	.230	10845	24.3	99	-N		C	1050	1.31	1.30			
CANR	23	1045	1119	1048	N10	E11	.208	10845	24.3	34	1B	3	V		3.09				
CANR	23	1045	1119	1055	N10	E11	.208	10845	24.3	34	1B	3	V		3.09				
ONDR	23	1052E	1145		N11	E13	.245	10845	24.4	53D	2N		V	1103			3.40		CEHIJ
31878	23	1026	1130	1032	N11	E11	.215	10845	24.3	64	*-N				1.35				5 5 4 10
BUCA	23	1016	1114		N13	E06	.172	10845	23.9	58	-F		C	1038	.40	.40			
CANR	23	1028	1045	1032	N10	E11	.208	10845	24.3	17	-B	7	V		1.13				
MEUD	23	1029	1130	1032	N10	E13	.239	10845	24.4	61	1N		C						
CAPE	23	1030	1145	1033	N10	E13	.239	10845	24.4	75	-N		C	1033	1.66	1.70			K
CAPS	23	1031E	1203D		N12	E13	.252	10845	24.4	92D	1B	3	P	1032	2.20	2.20		300	
GRP31879	23	1216	1227	1219	N06	E09	.157	10845	24.2	11	-N				1.02				7 7 6 11
LVOV	23	1211	1223	1218	N05	E08	.139	10845	24.1	12	1F		C	1218	2.06	2.09		66	E
ONDR	23	1215	1221		N06	E09	.157	10845	24.2	6	-N		V	1217			1.90		CD
BUCA	23	1215	1233		N05	E10	.173	10845	24.3	18	-N		C	1220	.65	.60			
CAPE	23	1217	1227	1219	N05	E09	.156	10845	24.2	10	-F		C	1219	1.24	1.30			
MEUD	23	1217	1225	1219	N04	E09	.157	10845	24.2	8	-F		C	1219	.62	.60			
CANR	23	1217	1228		N10	E10	.192	10845	24.3	11	-N	2	V		.72				
CATA	23	1220	1230	1220	N05	E09	.156	10845	24.2	10	-B			1220	.80	.82		229	
GRP31881	23	1314	1338	1316	N10	E09	.177	10845	24.2	24	--N				.74				6 6 5 10
MEUD	23	1310	1330	1315	N08	E06	.116	10845	24.0	20	-N		C	1315	.62	.60			E
LVOV	23	1312	1343	1319	N11	E08	.172	10845	24.1	31	1F		C	1319	2.06	2.08		58	E
BOUL	23	1312	1345	1315	N10	E07	.148	10845	24.1	33	-N	1	V						
CAPS	23	1314E	1350D		N12	E13	.252	10845	24.5	36D	-N	3	V	1321	.60	.60		176	
HUAN	23	1315E	1330U		N09	E07	.139	10845	24.1	15D	-F	1	C	1315	.21	.20			E
CANR	23	1322	1330		N07	E10	.176	10845	24.3	8	-N	2	V		.21	.20			
GRP31882	23	1419	1430	1422	N07	E08	.143	10845	24.2	11	--F				.42				3 3 2 11
MEUD	23	1418	1430	1420	N06	E08	.140	10845	24.2	12	-F		C	1420	.52	.50			E
CANR	23	1418	1428		N07	E09	.159	10845	24.3	10	-F	2	V		.31	.30			
BOUL	23	1421	1431	1424	N07	E06	.109	10845	24.0	10	-N	1	V						
GRP31883	23	1505	1534	1513	N24	E53	.812	10846	27.6	29	-N				.60				7 7 4 9
CANR	23	1500	1530	1511	N26	E54	.825	10846	27.7	30	-N	3	V		.52	.80			
LOCK	23	1500	1535	1512	N23	E54	.819	10846	27.7	35	-N								V
MEUD	23	1502	1540	1514	N24	E56	.839	10846	27.8	38	-N		C	1514	1.13	1.90			EL
BOUL	23	1504	1537	1512	N25	E45	.737	10846	27.0	33	-N	2	V	1512		1.00			
WEND	23	1508	1526		N23	E50	.782	10846	27.4	18	-N								
CAPS	23	1509E	1537D		N25	E57	.849	10846	27.9	28D	-N	3	V	1517	.40	.80		170	
CATA	23	1510	1530	1515	N23	E54	.819	10846	27.7	20	-N			1515	.34	.61		170	
BOUL	23	1512	1609	1530	N28	E45	.748	10846	27.0	57	1F	2	V	1530		2.50			
GRP31884	23	1545	1625	1550	N10	E11	.208	10845	24.5	40	--N				.52				4 3 1 9
BOUL	23	1516	1630	1543	N11	E13	.245	10845	24.6	74	-N	2	V	1543		2.00			
CANR	23	1540	1625	1553	N10	E10	.192	10845	24.4	45	-B	3	V		.52	.50			
LOCK	23	1550	1620	1555	N10	E10	.192	10845	24.4	30	-F								
RAMY	23	1602E	1622D	1602E	N11	E09	.186	10845	24.3	20D	-N		C		.52				F
GRP31887	23	1753	1805	1755	S13	E55	.844	10847	27.9	12	--F				.10				3 2 1 5
LOCK	23	1752	1810	1755	S14	E53	.828	10847	27.7	18	-F								
CANR	23	1753	1800		S12	E56	.850	10847	27.9	7	-N	2	V		.10				
BOUL	23	1801	1815	1806	S12	E52	.813	10847	27.7	14	-F	1	V	1806		.50			

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GRP31888	23	1831	1927	1843	N09	E09	.170	10845	24.4	56	1B				2.59				4 4 3 4
BOUL	23	1823	1950	1844	N10	E08	.163	10845	24.4	87	2B	1	V	1844		6.00			
RAMY	23	1831	1920D	1842	N08	E08	.147	10845	24.4	49D	1B		C		3.20				FU
CANR	23	1832	1851D	1845	N09	E10	.185	10845	24.5	19D	2B	3	V		3.09				
HUAN	23	1836	1910	1841	N11	E07	.159	10845	24.3	34	-B	2	C	1841	1.24	1.20			E
HUAN	23	1842	1845	1843	N06	E09	.157	10845	24.5	3	-B	2	C	1843	.25	.25			E
31888	23	1846	2021	1853	N09	E10	.185	10845	24.5	95	*1B				2.93				4 3 2 6
CANR	23	1832	1851D	1851	N09	E10	.185	10845	24.5	19D	2B	3	V		5.36				
HUAN	23	1849	2021	1850	N09	E09	.170	10845	24.5	92	-N	2	P	1850	.50	.50			E
LOCK	23	1857E	2020	1857	N10	E10	.192	10845	24.5	83D	2B								
MCMA	23	1949E	1958D		N08	E12	.213	10845	24.7	9D	-N		P	1950	.72	.70			E
890 LOCK	23	2118	2128	2123	N16	W41	.665	10838	20.8	10	--F								3
891 LOCK	23	2136	2148	2140	N19	E51	.784	10846	27.7	12	--F								3
GRP31892	23	2214	2235	2221	N19	E54	.813	10846	28.0	21	--F								2 2 0 4
LOCK	23	2207	2230	2216	N19	E53	.803	10846	27.9	23	-N								
BOUL	23	2221	2240	2225	N18	E54	.812	10846	28.0	19	-F	1	V	2225		.30			
GRP31895	24	0151	0202	0153	N20	E51	.785	10846	27.9	11	--F				.72				2 2 1 6
MITK	24	0150	0202	0151	N20	E50	.775	10846	27.8	12	-F		C	0151	.72	1.40			E
LOCK	24	0151	0202	0154	N19	E51	.783	10846	27.9	11	-F								
GRP31900	24	0321	0356	0325	N20	E50	.775	10846	27.9	35	-N				.78				3 2 2 6
MITK	24	0320	0344	0324	N20	E50	.775	10846	27.9	24	-N		C	0324	.83	1.30			E
MANI	24	0321	0343D	0325	N19	E50	.773	10846	27.9	22D	-N	2		0325	.72	1.13			
CRON	24	0339	0356		N20	E50	.775	10846	27.9	17	-F	3	V		1.03				
GRP31905	24	0925	0941	0929	N16	E47	.735	10846	27.9	16	--N				.60				3 3 2 13
CANR	24	0924	0944	0928	N17	E47	.737	10846	27.9	20	-N	3	V			.40			
CATA	24	0925	0940	0930	N16	E46	.724	10846	27.8	15	-N			0930	.58	.83		174	
CRON	24	0926	0939		N16	E47	.735	10846	27.9	13	-F	2	V		.62				
GRP31913	24	1605	1621	1609	N17	E41	.667	10846	27.7	16	--F				.52				3 3 1 6
LOCK	24	1603	1622	1608	N17	E41	.667	10846	27.7	19	-F								
HTPR	24	1605	1622D	1612	N17	E42	.679	10846	27.8	17D	-F		C	1612	.52	.60			
BOUL	24	1606	1619	1608	N18	E40	.658	10846	27.7	13	-F	2	V						
914 LOCK	24	1900	1917	1905	N24	E40	.680	10846	27.8	17	--F								3
GRP31915	24	2111	2130	2116	N11	W10	.199	10845	24.1	19	--F								2 1 0 3
LOCK	24	2111	2130	2116	N11	W10	.199	10845	24.1	19	-F								
BOUL	24	2129	2141	2130	N08	W05	.100	10845	24.5	12	-F	2	V	2130		.20			
GRP31917	24	2300	2333	2313	N18	E40	.658	10846	28.0	33	--F				.62				2 2 1 4
LOCK	24	2300	2340	2313	N16	E38	.627	10846	27.8	40	-F								
MITK	24	2309E	2331		N18	E39	.645	10846	27.9	22D	-F		C	2309	.62	.80			E
LOCK	24	2326	2335	2329	N21	E43	.702	10846	28.2	9	-F								
GRP31918	24	2319	2331	2322	N11	W12	.229	10845	24.1	12	--F				.31				2 2 1 4
LOCK	24	2319	2330	2322	N11	W12	.229	10845	24.1	11	-F								
MANI	24	2321E	2332		N11	W12	.229	10845	24.1	11D	-F	1		2323	.31	.32			
GRP31922	25	0105	0137	0122	N10	W11	.206	10845	24.2	32	--F				.41				2 2 1 5
LOCK	25	0105	0120	0109	N09	W15	.265	10845	23.9	15	-F								
LOCK	25	0115	0130	0122	N10	W11	.206	10845	24.2	15	-F								
CRON	25	0130	0143		N11	W09	.184	10845	24.4	13	-F	3	V		.41				
GRP31925	25	0437	0444	0440	N22	E39	.660	10846	28.1	7	-N				.98				2 2 2 4
MITK	25	0436	0443	0439	N22	E39	.660	10846	28.1	7	-N		C	0439	.83	1.10			E
MANI	25	0438	0444	0440	N21	E39	.656	10846	28.1	6	-N	2		0440	1.13	1.53			
6 STATIONS REPORTING GROUP 31927. 2 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31927	25	0551	0609	0554	N16	E32	.547	10846	27.6	18	--N				.52				5 3 3 8
MITK	25	0549	0614	0552	N17	E33	.565	10846	27.7	25	-N		C	0552	.52	.60			E
MANI	25	0551	0604	0555	N16	E33	.561	10846	27.7	13	-F	2		0555	.52	.63			
HTPR	25	0552	1005D	0555	N15	E30	.516	10846	27.5	253D	-N		C	0555	.52	.60			
TEHR	25	0735E	0750D		N23	E38	.652	10846	28.2	15D	-N								
BUCA	25	0823	0837		N28	E38	.677	10846	28.2	14	-F		C	0824	.40	.50			
31927	25	0559	0622	(0605)	N17	E35	.591	10846	27.9	23	*-F				.59				2 2 2 9
CRON	25	0558	0617		N16	E35	.587	10846	27.9	19	-F	2	V		.52				
BUCA	25	0600	0626		N17	E34	.578	10846	27.8	26	-N		C	0605	.66	.80			

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GRP31928	25	0607	0644	0615	N10	W12	.222	10845	24.4	37	--N				.84				7 6 5 10
BUCA	25	0605	0655		N11	W12	.228	10845	24.4	50	-N		C	0614	1.66	1.70			
MITK	25	0605	0645	0615	N10	W12	.222	10845	24.4	40	-F		C	0615	.83	.90			D
MANI	25	0607	0637D	0615	N11	W13	.244	10845	24.3	30D	-F	2		0615	.41	.42			
CRON	25	0609	0643		N09	W12	.216	10845	24.4	34	-N	3	V		.72				
CATA	25	0610	0635	0615	N11	W12	.228	10845	24.4	25	-N			0615	.58	.60		186	
ISTA	25	0620E	0640		N09	W14	.249	10845	24.2	20D	-N								
TEHR	25	0645E	0652D		N11	W07	.157	10845	24.8	7D	-F								
GRP31930	25	0818	0837	(0824)	N19	E33	.573	10846	27.8	19	--N				.32				3 3 1 9
ISTA	25	0815	0835		N18	E33	.569	10846	27.8	20	-B								
CANR	25	0818	0838		N20	E33	.578	10846	27.8	20	-N	2	V			1.10			
BUCA	25	0820	0839		N20	E32	.566	10846	27.7	19	-F		C	0824	.32	.40			
GRP31931	25	0844	0856	0845	N17	E32	.551	10846	27.8	12	-N				1.48				6 6 5 9
CANR	25	0841	0903	0843	N18	E31	.543	10846	27.7	22	-B	3	V			.80			
KIEV	25	0842	0851	0845	N21	E36	.620	10846	28.1	9	1N		C	0845	2.06	2.60		75	DJ
CAPE	25	0843	0850	0845	N16	E31	.534	10846	27.7	7	-N		C	0845	1.21	1.40			V
KHAR	25	0845E	0900D		N17	E32	.551	10846	27.8	15D	1N		P	0845	1.70	2.10	1.80		
CATA	25	0845	0850	0845	N17	E31	.538	10846	27.7	5	-B			0845	.63	.75		246	
CAPS	25	0845E	0904D		N15	E32	.544	10846	27.8	19D	1N	3	P	0847	1.80	2.10		182	H
GRP31932	25	0853	0936	0858	N07	W17	.292	10845	24.1	43	-N				1.47				5 5 4 9
BUCA	25	0849	1000		N06	W15	.258	10845	24.2	71	-F		C	0902	1.14	1.10			
CANR	25	0853	0945	0855	N08	W18	.311	10845	24.0	52	-N	3	V			1.80			
CATA	25	0855	0920	0900	N07	W17	.292	10845	24.1	25	-B			0900	1.39	1.46		221	
CRON	25	0855	0920		N05	W18	.308	10845	24.0	25	-N	3	V		1.86				
CAPS	25	0856E	0917D		N08	W15	.261	10845	24.2	21D	-B	3	P	0858	1.50	1.50		196	
GRP31933	25	1039	1047	1040	N22	E35	.613	10846	28.1	8	-B				1.18				6 6 5 8
KIEV	25	1037	1043	1040	N16	E32	.547	10846	27.8	6	1N		C	1040	2.06	2.40		65	DJ
CAPE	25	1038	1045	1040	N22	E36	.624	10846	28.1	7	-B		C	1040	1.47	1.90			
CANR	25	1038	1044	1039	N23	E34	.606	10846	28.0	6	-B	3	V			.60			
HTPR	25	1039D	1043D		N22	E35	.613	10846	28.1	4D	-B		C	1040	1.24	1.50			
BUCA	25	1039	1055		N22	E36	.624	10846	28.1	16	-N		C	1039	.32	.40			
CATA	25	1040	1050	1040	N24	E34	.612	10846	28.0	10	-B			1040	.80	1.03		232	
GRP31936	25	1329	1401	1332	S02	E54	.813	10850	29.6	32	-N				.77				7 5 4 9
RAMY	25	1328	1355D	1336U	N01	E53	.799	10850	29.5	27D	-N		C		.93				DE
CANR	25	1328	1345		N07	E54	.806	10850	29.6	17	-F	2	V			.50			
HUAN	25	1328	1400	1331	S01	E57	.841	10850	29.8	32	-N	1	C	1331	.57	1.00			E
BOUL	25	1329	1358	1331	S02	E52	.793	10850	29.5	29	-N	1	V						
CATA	25	1330	1400	1335	S02	E53	.803	10850	29.5	30	-B			1335	.75	1.25		214	
CAPS	25	1334E	1355D		S00	E53	.801	10850	29.5	21D	-N	3	V	1335	.40	.70		170	
HTPR	25	1335D	1405		S04	E54	.816	10850	29.6	30D	1N		C	1336	1.34	2.10			
GRP31937	25	1344	1406	1348	N17	E27	.484	10846	27.6	22	--F				.65				3 3 2 9
RAMY	25	1342	1419D	1346	N18	E27	.490	10846	27.6	37D	-F		C		.46				DE
HTPR	25	1344	1400	1350	N15	E27	.474	10846	27.6	16	-F		C	1350	.83	.90			
BOUL	25	1345	1358	1349	N18	E27	.490	10846	27.6	13	-F	1	V						
GRP31938	25	1407	1416	1410	N16	E27	.479	10846	27.6	9	--F				.71				3 3 3 8
RAMY	25	1342	1419D	1411	N18	E27	.490	10846	27.6	37D	-F				.83				
HTPR	25	1407	1420	1410	N15	E27	.474	10846	27.6	13	-N		C	1410	1.13	1.20			
HUAN	25	1407	1410	1408	N16	E27	.479	10846	27.6	3	-F	1	C	1408	.17	.20			D
GRP31939	25	1424	1439	1427	N16	E27	.479	10846	27.6	15	--N				.49				4 4 3 9
HTPR	25	1422	1440	1429	N15	E27	.474	10846	27.6	18	-N		C	1429	.93	1.00			
BOUL	25	1424	1440	1428	N18	E25	.463	10846	27.5	16	-N	2	V						
HUAN	25	1424	1435	1425	N16	E27	.479	10846	27.6	11	-F	1	C	1425	.14	.20			D
CATA	25	1425	1440	1425	N16	E27	.479	10846	27.6	15	-B			1425	.40	.46		209	D
GRP31941	25	1826	1919	1835	N25	E27	.538	10846	27.8	53	-B				.86				5 5 2 5
HUAN	25	1824	1935	1829	N25	E27	.538	10846	27.8	71	-B	2	C	1829	.88	1.10			E
LOCK	25	1825	1920	1834	N24	E27	.531	10846	27.8	55	1N								
MCMA	25	1826	1930D	1833	N25	E27	.538	10846	27.8	64D	-B		C	1833	.83	1.00			EL
CANR	25	1826	1910	1837	N25	E27	.538	10846	27.8	44	-B	2	V			.80			
BOUL	25	1828	1859	1843	N27	E26	.544	10846	27.7	31	1N	1	V	1843		2.50			
GRP31944	25	2110	2117	2112	N22	E30	.552	10846	28.1	7	--F								2 2 0 3
LOCK	25	2109	2117	2112	N22	E30	.552	10846	28.1	8	-F								
BOUL	25	2111	2117	2112	N22	E30	.552	10846	28.1	6	-F	2	V	2112		.50			
2 STATIONS REPORTING GROUP 31945. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31945	25	2121	2146	2125	N13	W18	.332	10845	24.5	25	--F								2 2 0 3
BOUL	25	2119	2146	2123	N13	W17	.317	10845	24.6	27	-N	2	V	2123		.40			
LOCK	25	2123	2145	2126	N13	W19	.347	10845	24.5	22	-F								
945 BOUL	25	2128	2155	2130	N25	W28	.550	10845	23.8	27	*-F	2	V	2130		.50			3

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946 LOCK	25	2208	2215	2210	S09	E69	.941	10853	31.1	7	--F								3
947 LOCK	25	2240	2300	2245	N05	W30	.498	10845	23.7	20	-N								2
GRP31948	25	2304	2318	2308	S11	E70	.948	10853	31.2	14	1N				1.13				3 3 1 4
LOCK	25	2300	2317	2307	S12	E70	.949	10853	31.2	17	-N								
CULG	25	2302	2319	2307	S12	E71	.954	10853	31.3	17	1B		C	2307	1.13				R
BOUL	25	2309	2317	2309	S08	E70	.946	10853	31.2	8	1N	1	V	2309		3.50			
GRP31949	25	2312	2325	2316	N06	E47	.729	10851	29.5	13	-N				.83				3 3 1 4
BOUL	25	2311	2323	2317	N07	E45	.704	10851	29.3	12	-N	1	V	2317		1.50			
LOCK	25	2312	2325	2315	N06	E46	.717	10851	29.4	13	-F								
MANI	25	2314	2326		N06	E49	.752	10851	29.6	12	-N	1		2316	.83	1.26			
GRP31954	26	0243	0304	0252	N11	W28	.474	10845	24.0	21	--F				.62				3 3 3 4
MITK	26	0237	0312D	0254	N13	W28	.480	10845	24.0	35D	-F		C	0254	.52	.60			D
MANI	26	0244E	0301D		N11	W29	.489	10845	23.9	17D	-F	1		0245	.31	.36			
CRON	26	0247	0259	0249	N09	W27	.455	10845	24.1	12	-F	3	V	0249	1.03				
GRP31956	26	0254	0352	0259	N05	E44	.692	10851	29.4	58	-F				1.09				3 2 2 4
MITK	26	0253	0350	0303	N06	E44	.692	10851	29.4	57	-N		C	0303	.93	1.30			E
CRON	26	0254	0353	0255	N04	E44	.693	10851	29.4	59	-F	3	V	0255	1.24				
MANI	26	0325E	0340		N05	E43	.680	10851	29.4	15D	-N	1		0327	.52	.68			
GRP31957	26	0353	0417	0356	N16	E21	.394	10846	27.7	24	-N				.98				2 2 2 5
MITK	26	0352	0420	0358	N17	E20	.388	10846	27.7	28	-N		C	0358	.83	.90			E
CRON	26	0353	0414	0354	N14	E22	.396	10846	27.8	21	-N	3	V	0354	1.13				
GRP31958	26	0527	0607	0534	S23	E24	.598	10847	28.0	40	1N				2.30				9 5 5 9
CULG	26	0504	0549D	0536	S22	E24	.588	10847	28.0	45D	1B		P	0536	3.30	4.00			HL
CRON	26	0510	0625		S22	E22	.570	10847	27.9	75	-F	3	V		1.75				
MITK	26	0522	0612	0533	S23	E25	.607	10847	28.1	50	1N		C	0533	2.17	2.70			E
CATA	26	0525	0615	0535	S23	E25	.607	10847	28.1	50	1B			0535	1.73	2.15		214	
MANI	26	0528	0600	0532	S25	E23	.611	10847	28.0	32	-N	2		0532	1.55	1.92			
TACH	26	0531	0601	0534	S23	E25	.607	10847	28.1	30	1N		C	0534	2.73	3.44	2.62	69	E
TEHR	26	0543E	0610D		S21	E20	.542	10847	27.7	27D	2N								F
CAPS	26	0557E	0630D		S21	E23	.569	10847	28.0	33D	1N	3	S	0559	2.30	3.20		182	B
ISTA	26	0600E	0630		S20	E14	.482	10847	27.3	30D	1N								
9 STATIONS REPORTING GROUP 31960.					1 STATIONS OBSERVING AND NOT REPORTING.														
GRP31960	26	0637	0748	0644	N07	W33	.542	10845	23.8	71	1B				2.84				5 5 4 8
TEHR	26	0635	0705D	0640	N06	W29	.483	10845	24.1	30D	1B								Z
TEHR	26	0635	0725D	0640	N05	W30	.498	10845	24.0	50D	-B								Z
CRON	26	0637	0752	0638	N06	W33	.542	10845	23.8	75	-N	3	V	0638	2.99				
TEHR	26	0637	0716D	0645	N08	W28	.468	10845	24.2	39D	2B								W
TEHR	26	0637	0642D	0642	N04	W33	.543	10845	23.8	5D	-B								
MITK	26	0638	0750	0648	N09	W33	.544	10845	23.8	72	1B		C	0648	4.23	4.90			E
CAPS	26	0643E	0753D		N05	W35	.572	10845	23.7	70D	1B	3	P	0650	2.70	3.80		339	
MANI	26	0649E	0735		N08	W33	.543	10845	23.8	46D	-N	1		0649	1.44	1.72			
31960	26	0640	0810	0702	N08	W32	.528	10845	23.9	90	*1B				3.11				4 4 3 8
CATA	26	0640	0750D	0700	N08	W32	.528	10845	23.9	70D	1B			0700	2.55	3.04		216	F
ABST	26	0646E	0838D	0703	N07	W34	.557	10845	23.7	112D	2N		P	0703	5.38	6.20		78	E
ISTA	26	0655E	0750		N09	W32	.529	10845	23.9	55D	1B								
BUCA	26	0700E	0820		N09	W30	.500	10845	24.0	80D	-N		C	0701	1.39	1.60			
GRP31961	26	0754	0836	0805	N06	E41	.653	10851	29.4	42	-B				1.04				6 5 4 9
MANI	26	0737E	0820D		N05	E40	.641	10851	29.3	43D	-F	1		0737	.62	.79			
CAPS	26	0740E	0844D		N06	E38	.613	10851	29.2	64D	-B	3	S	0800	.70	.90		277	
CRON	26	0752	0843		N04	E43	.680	10851	29.6	51	-N	3	V		1.03				
MITK	26	0755	0830D	0805	N07	E41	.653	10851	29.4	35D	-B		C	0805	1.44	2.00			E
ISTA	26	0755	0825	0804	N06	E43	.679	10851	29.6	30	-B								
CATA	26	0805E	0840	0805	N06	E41	.653	10851	29.4	35D	-B			0805	.98	1.31		266	
GRP31965	26	1238	1307	1241	N08	W36	.586	10845	23.8	29	--N				.77				5 5 4 8
CANR	26	1236	1310		N10	W38	.615	10845	23.7	34	-F	2	V			.80			
BUCA	26	1237	1310D		N08	W32	.528	10845	24.1	33D	-F		C	1240	.81	.90			
MCMA	26	1239	1300D	1241	N07	W37	.599	10845	23.8	21D	-N		C	1241	.26	.30			E
RAMY	26	1239	1320	1241	N08	W37	.600	10845	23.8	41	-N		C		1.55				DE
CATA	26	1240	1255	1240	N07	W36	.585	10845	23.8	15	-B			1240	.46	.57		229	D
GRP31969	26	1331	1345	1334	N12	W24	.417	10845	24.8	14	--N				.39				3 3 3 8
RAMY	26	1326	1350	1333	N13	W24	.421	10845	24.8	24	-N		C		.52				DE
MCMA	26	1332	1337D	1334	N12	W24	.417	10845	24.8	5D	-N		C	1334	.26	.30			D
CATA	26	1335	1340	1335	N11	W24	.413	10845	24.8	5	-N			1335	.40	.45		182	

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GRP31975	26	1834	1855	1840	N14	W27	.469	10845	24.7	21	--N				.48				3 3 2 4
LOCK	26	1833	1852	1839	N13	W28	.480	10845	24.7	19	-N								
MCMA	26	1835E	1856		N12	W25	.432	10845	24.9	21D	-N		C	1847	.46	.50			E
HUAN	26	1835	1856	1841	N16	W27	.478	10845	24.7	21	-F	2	P	1841	.50	.60			E
976 LOCK	26	1913	1919	1915	N05	E31	.513	10851	29.1	6	--F								2
GRP31977	26	1942	2015	1946	N12	W28	.477	10845	24.7	33	--F				.49				2 2 2 3
RAMY	26	1941	2015D	1944	N12	W28	.477	10845	24.7	34D	-F		C		.52				DE
MCMA	26	1943	2004D	1947	N12	W28	.477	10845	24.7	21D	-N		C	1947	.46	.50			E
GRP31978	26	2018	2045	2024	N05	E33	.543	10851	29.3	27	--F				.87				4 4 3 4
LOCK	26	2017	2041	2025	N05	E31	.513	10851	29.2	24	-N								
HUAN	26	2018	2045	2024	N05	E33	.543	10851	29.3	27	-F	1	C	2024	.45	.50			E
MCMA	26	2020E	2038D		N06	E34	.557	10851	29.4	18D	-F		C	2020	.62	.70			E
RAMY	26	2022E	2050D	2022E	N05	E32	.528	10851	29.2	28D	-N		C		1.55				DE
979 LOCK	26	2115	2135	2124	N09	W41	.654	10845	23.8	20	--F								1
GRP31980	26	2258	2335	2310	N13	W32	.537	10845	24.6	37	--F				.31				2 1 1 4
LOCK	26	2258	2335	2310	N13	W32	.537	10845	24.6	37	-F								
CRON	26	2321	2343	2322	N06	W28	.467	10845	24.9	22	-F	1	V	2322	.31				
GRP31983	27	0020	0040	0028	S10	E55	.838	10853	31.1	20	-F				1.75				2 2 1 6
CULG	27	0016	0042	0027	S10	E55	.838	10853	31.1	26	1N		C	0027	1.75	3.06			S
LOCK	27	0024	0037	0028	S10	E54	.828	10853	31.1	13	-F								
GRP31984	27	0047	0110	0052	N01	E35	.577	10851	29.7	23	-B				.93				2 2 1 4
LOCK	27	0047	0110	0053	N01	E34	.562	10851	29.6	23	-N								
VORO	27	0047	0054D	0050	N01	E35	.577	10851	29.7	7D	-B		C	0050	.93	1.12		93	D
5 STATIONS REPORTING GROUP 31985.							0 STATIONS OBSERVING AND NOT REPORTING.												
GRP31985	27	0118	0222	0129	N05	E30	.498	10851	29.3	64	1N				1.79				4 4 3 4
MITK	27	0101E	0220	0128	N06	E30	.498	10851	29.3	79D	1B		C	0128	1.96	2.30			EH
LOCK	27	0113	0154D	0125	N05	E29	.483	10851	29.2	41D	1N								
CRON	27	0122	0223	0134	N04	E32	.529	10851	29.5	61	-N				1.24				
MANI	27	0124E	0206D		N05	E29	.483	10851	29.2	42D	1N	1		0127	2.17	2.48			
31985	27	0122	0223	(0145)	N05	E31	.513	10851	29.4	61	*-N				2.01				2 2 2 4
CRON	27	0122	0223		N04	E32	.529	10851	29.5	61	-N	3	V		1.44				
CULG	27	0145E	0223		N06	E30	.498	10851	29.3	38D	1N		P	0145	2.58	2.86			HL
GRP31990	27	0650	0659	0653	N10	E51	.774	10852	31.1	9	-N				.85				6 6 6 10
CATA	27	0650	0700	0655	N08	E50	.763	10852	31.0	10	-N			0655	.69	1.08		200	
MANI	27	0650	0700	0652	N10	E52	.785	10852	31.2	10	-N	2		0652	.93	1.48			
MITK	27	0650	0655	0652	N10	E50	.763	10852	31.0	5	-N		C	0652	.83	1.30			D
CRON	27	0650	0701	0652	N10	E51	.774	10852	31.1	11	-N	3	V		.72				
CRIM	27	0651	0657D	0652	N10	E51	.774	10852	31.1	6D	-N		C	0652	.90	1.40			DJ
HTPR	27	0651	0700	0654	N09	E50	.763	10852	31.0	9	-N		C	0654	1.03	1.60			
GRP31991	27	0653	0702	0655	S03	E29	.502	10850	29.5	9	--F				.68				4 4 4 10
MANI	27	0651	0701D	0654	S03	E30	.517	10850	29.5	10D	-F	1		0654	.41	.49			
HTPR	27	0652	0705	0655	S03	E25	.444	10850	29.2	13	-N		C	0655	.72	.80			
CATA	27	0655	0700	0655	S03	E29	.502	10850	29.5	5	-N			0655	.46	.54		186	
CRON	27	0655	0702	0656	S02	E31	.527	10850	29.6	7	-F	3	V		1.13				
GRP31994	27	0808	0838	0816	S09	E51	.797	10853	31.2	30	-N				1.26				6 6 5 8
CRON	27	0801	0836		S09	E51	.797	10853	31.2	35	-N	3	V		1.03				
HTPR	27	0811	0840	0816	S08	E50	.784	10853	31.1	29	1N		C	0816	1.75	2.20			
ABST	27	0811	0835	0812	S08	E54	.824	10853	31.4	24	1F		C	0812	1.35	2.20		45	EZ
CRIM	27	0813E	0821D		S08	E51	.794	10853	31.2	8D	-F		P	0815	.99	1.60			EJ
CATA	27	0815E	0840	0820	S11	E50	.792	10853	31.1	25D	-B			0820	1.16	1.88		229	
ARCE	27	0825E	0840		S08	E50	.784	10853	31.1	15D	-F		C	0825		.70			
GRP31995	27	0717	0738	0717	N11	W36	.588	10845	24.6	21	-F				2.68				2 2 1 8
CRON	27	0717	0845	0717	N10	W37	.601	10845	24.5	88	1F	3	V		2.68				
ISTA	27	0717	0738		N12	W35	.576	10845	24.7	21	-F								
31995	27	0721	0838	0754	N11	W38	.616	10845	24.5	77	*1N				4.45				5 3 3 6
CAPS	27	0715E	0815D		N12	W27	.461	10845	25.3	60D	-B	3	P	0716	.60	.70		200	F
CRON	27	0717	0845		N10	W37	.601	10845	24.5	88	1N				3.71				
HTPR	27	0725	0830	0747	N12	W40	.643	10845	24.3	65	1B		C	0747	4.23	5.10			
CRIM	27	0742E	0820D		N11	W37	.602	10845	24.5	38D	2N		C	0746	5.40	6.90			EIJ
ABST	27	0755E	0830	0801	N12	W40	.643	10845	24.3	35D	1N		P	0801	3.14	3.90			E
31995	27	0815	0852	0830	N09	W41	.654	10845	24.3	37	*1N				2.66				3 2 1 8
CATA	27	0815E	0855	0830	N13	W38	.619	10845	24.5	40D	1N			0830	2.66	3.38		195	
ARCE	27	0825E	0850		N09	W42	.667	10845	24.2	25D	1N		C	0825		3.60			
CRON	27	0835	0852		N06	W43	.679	10845	24.1	17	-F				1.13				

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1970 JUL	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP31996	27	1003	1013	1006	N10	E48	.740	10852	31.0	10	--F				.83				2 2 1 5
HTPR	27	1002	1014	1007	N10	E48	.740	10852	31.0	12	-F		C	1007	.83	1.20			
CANR	27	1003	1011	1005	N10	E48	.740	10852	31.0	8	-N	2	V			.20			
GRP31998	27	1135	1158	1140	S02	E27	.469	10850	29.5	23	-F				1.86				3 2 1 4
CANR	27	1134	1153		S02	E28	.484	10850	29.6	19	-N	2	V			.70			
HTPR	27	1135	1203	1140	S02	E25	.439	10850	29.4	28	-F		C	1140	1.86	2.00			
CAPS	27	1138E	1159D		S12	E32	.591	10850	29.9	21D	-N	3	V	1144	.70	.80		176	
GRP31999	27	1243	1253	1246	S07	E48	.760	10853	31.1	10	--F				.41				3 3 1 7
HTPR	27	1243	1256	1246	S08	E50	.784	10853	31.3	13	-F		C	1246	.41	.60			
BOUL	27	1243	1251	1245	S06	E45	.723	10853	30.9	8	-F	2	V						
CANR	27	1243	1252		S07	E50	.782	10853	31.3	9	-N	2	V			.30			
GRP32000	27	1339	1352	1341	N16	E00	.184	10846	27.6	13	--N				.28				5 5 3 9
RAMY	27	1336	1346D	1341	N16	W01	.185	10846	27.5	10D	-F		C		.31				DE
MCMA	27	1339	1351	1343	N16	W01	.185	10846	27.5	12	-N		C	1343	.21	.20			DH
HTPR	27	1339	1350	1341	N17	E01	.202	10846	27.6	11	-F		C	1341	.31	.30			
CANR	27	1339	1352		N17	E02	.204	10846	27.7	13	-N	2	V						
BOUL	27	1340	1356	1340	N14	E01	.151	10846	27.6	16	-N	2	V	1340		.40			
GRP32001	27	1423	1434	1425	S02	E26	.454	10850	29.5	11	--F				.29				3 3 2 12
MCMA	27	1421	1434	1425	S02	E26	.454	10850	29.5	13	-N		C	1425	.26	.30			D
BOUL	27	1424	1434	1425	S02	E25	.439	10850	29.5	10	-F	2	V	1425		.40			
RAMY	27	1425	1426D	1425U	S02	E26	.454	10850	29.6	1D	-F		C		.31				DE
GRP32003	27	1450	1507	1458	N16	E00	.184	10846	27.6	17	--F				.31				3 3 1 12
RAMY	27	1448	1507	1456U	N17	W02	.204	10846	27.5	19	-F		C		.31				DE
BOUL	27	1449	1458	1449	N14	E01	.151	10846	27.7	9	-F	2	V	1449		.20			
LOCK	27	1453	1510	1458	N17	E00	.201	10846	27.6	17	-F								H
BOUL	27	1459	1504	1500	N14	E01	.151	10846	27.7	5	-N	2	V						
GRP32004	27	1454	1515	1457	N07	W51	.774	10845	23.8	21	-N				.85				10 10 6 12
HTPR	27	1449	1510	1458	N08	W52	.785	10845	23.7	21	1F		C	1458	1.86	2.70			
LOCK	27	1453	1508	1458	N08	W53	.795	10845	23.6	15	-N								
BOUL	27	1453	1529	1456	N09	W50	.763	10845	23.9	36	-N	2	V	1456		2.00			
MCMA	27	1454	1510	1457	N02	W53	.798	10845	23.6	16	-N		C	1457	.52	.80			E
CANR	27	1454	1521		N08	W49	.751	10845	23.9	27	-N	2	V						
AROS	27	1455	1508	1457	N06	W52	.785	10845	23.7	13	-N		P	1457	.83	1.30			
HUAN	27	1455	1505	1456	N09	W52	.785	10845	23.7	10	-F	1	C	1456	.31	.50			D
CATA	27	1455	1510	1455	N06	W51	.774	10845	23.8	15	-B			1455	.52	.83		211	
RAMY	27	1455	1527D	1458	N07	W52	.785	10845	23.7	32D	-N		C		1.03				DE
ARCE	27	1501	1525		N08	W52	.785	10845	23.7	24	1F		C	1501		2.10			I
BOUL	27	1517	1528	1520	N13	W41	.658	10845	24.6	11	-N	2	V						
GRP32006	27	1658	1713	1701	S08	E48	.763	10853	31.3	15	--F				.35				6 6 4 7
HUAN	27	1657	1710	1659	S08	E49	.774	10853	31.4	13	-F	2	C	1659	.25	.40			D
BOUL	27	1657	1714	1700	S07	E48	.760	10853	31.3	17	-F	2	V	1700		.40			
LOCK	27	1657	1712	1700	S08	E48	.763	10853	31.3	15	-N								H
MCMA	27	1658	1714		S06	E49	.769	10853	31.4	16	-N		C	1705	.31	.50			DH
HTPR	27	1658	1715	1700	S08	E47	.752	10853	31.2	17	-N		C	1700	.41	.60			
MEUD	27	1659	1710	1704	S08	E47	.752	10853	31.2	11	-F		C	1704	.41	.60			D
MEUD	27	1659	1710	1700	S08	E47	.752	10853	31.2	11	-F								D
GRP32010	27	1728	1737	1731	S07	E48	.760	10853	31.3	9	--F				.38				5 5 3 7
BOUL	27	1726	1738	1731	S06	E47	.746	10853	31.3	12	-F	2	V						
MCMA	27	1728	1737	1731	S06	E49	.769	10853	31.4	9	-N		C	1731	.26	.40			E
LOCK	27	1728	1735	1730	S08	E48	.763	10853	31.3	7	-F								
HTPR	27	1728	1738	1732	S08	E47	.752	10853	31.3	10	-N		C	1732	.52	.70			
MEUD	27	1730E	1735	1731	S08	E47	.752	10853	31.3	5D	-F		C	1731	.36	.50			D
GRP32012	27	1814	1835	1818	S01	E24	.420	10850	29.6	21	-B				1.07				6 6 4 6
RAMY	27	1812	1835	1815	S02	E23	.409	10850	29.5	23	-B		C		.77				DE
LOCK	27	1814	1837	1820	S00	E23	.400	10850	29.5	23	-B								D
BOUL	27	1814	1839	1817	S01	E24	.420	10850	29.6	25	-N	2	V	1817		1.50			
HTPR	27	1814	1830D	1819	S02	E27	.469	10850	29.8	16D	1B		C	1819	1.96	2.10			
MCMA	27	1815	1839	1818	S01	E24	.420	10850	29.6	24	-B		C	1818	1.03	1.10			F
HUAN	27	1815	1830	1818	S01	E23	.404	10850	29.5	15	-N	2	C	1818	.50	.50			E
GRP32013	27	1908	1923	1909	S07	E48	.760	10853	31.4	15	--N				.28				4 4 2 4
BOUL	27	1907	1936	1909	S06	E47	.746	10853	31.3	29	-N	2	V	1909		.40			
LOCK	27	1907	1920	1910	S08	E48	.763	10853	31.4	13	-N								
MCMA	27	1908	1922D	1909	S06	E49	.769	10853	31.5	14D	-N		C	1909	.31	.50			E
HUAN	27	1908	1915	1909	S08	E47	.752	10853	31.3	7	-B	2	C	1909	.25	.40			D
LOCK	27	1930	1955	1940	S08	E48	.763	10853	31.4	25	-F								
GRP32014	27	2006	2014	2009	N12	W43	.682	10845	24.6	8	--F				.21				2 2 1 3
MCMA	27	2006	2012	2008	N10	W43	.680	10845	24.6	6	-N		C	2008	.21	.30			E
LOCK	27	2006	2015	2010	N13	W43	.683	10845	24.6	9	-F								

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GRP32015	27	2008	2022	2011	S08	E47	.752	10853	31.4	14	--F				.28				3 3 2 3
MCMA	27	2006	2023	2010	S07	E46	.738	10853	31.3	17	-F		C	2010	.31	.40			D
HUAN	27	2009	2020	2010	S08	E47	.752	10853	31.4	11	-N	2	C	2010	.25	.40			D
LOCK	27	2010	2023	2012	S08	E48	.763	10853	31.4	13	-F								
GRP32016	27	2009	2015	2012	N05	E22	.373	10851	29.5	6	--B				.33				3 3 2 3
MCMA	27	2009	2014	2011	N05	E22	.373	10851	29.5	5	-B		C	2011	.41	.50			D
LOCK	27	2009	2017	2012	N05	E22	.373	10851	29.5	8	-N								H
HUAN	27	2010	2014	2012	N04	E23	.390	10851	29.6	4	-B	2	C	2012	.25	.30			D
GRP32017	27	2017	2024	2020	N07	W53	.795	10845	23.9	7	--F				.26				2 2 1 3
LOCK	27	2016	2025	2020	N07	W52	.785	10845	23.9	9	-F								
MCMA	27	2017	2023	2019	N06	W53	.796	10845	23.9	6	-N		C	2019	.26	.30			D
018 HUAN	27	2018	2053	2027	N15	W12	.263	10846	26.9	35	--F	2	C	2027	.25	.30			D 3
GRP32021	27	2138	2155	2141	N05	E22	.373	10851	29.6	17	--N				.36				2 2 1 3
LOCK	27	2138	2155	2141	N05	E22	.373	10851	29.6	17	-N								H
MCMA	27	2140E	2152D		N05	E22	.373	10851	29.6	12D	-N		C	2140	.36	.60			EL
GRP32022	27	2157	2216	2159	N13	W45	.707	10845	24.5	19	-N				.76				3 3 2 5
RAMY	27	2156	2214D	2157	N14	W44	.696	10845	24.6	18D	-F		C		.41				DE
VORO	27	2157	2222	2158	N10	W46	.717	10845	24.5	25	-B		C	2158	1.11	1.55		85	EJ
LOCK	27	2158	2212	2201	N14	W45	.708	10845	24.5	14	-F								
GRP32023	27	2159	2225	2205	S07	E45	.726	10853	31.3	26	-B				1.83				4 4 3 4
RAMY	27	2156	2214D	2204U	S07	E44	.715	10853	31.2	18D	-N		C		.52				DE
LOCK	27	2200	2220	2206	S08	E46	.741	10853	31.4	20	-N								
VORO	27	2202	2218	2205	S06	E45	.723	10853	31.3	16	1B		C	2205	2.40	3.41		102	EJ
CULG	27	2204E	2236		S07	E44	.715	10853	31.2	32D	1B		P	2205	2.58	2.18			
GRP32025	27	2337	2345	2339	N12	W46	.718	10845	24.5	8	-N				1.20				2 2 1 5
VORO	27	2336	2342	2337	N10	W46	.717	10845	24.5	6	-B		C	2337	1.20	1.68		85	EJ
LOCK	27	2337	2347	2340	N14	W45	.708	10845	24.6	10	-F								
GRP32028	28	0039	0055	0040	N06	E18	.308	10851	29.4	16	-N				1.20				3 3 1 5
LOCK	28	0037	0054	0041	N06	E20	.340	10851	29.5	17	-F								
VORO	28	0037	0051	0039	N06	E19	.324	10851	29.5	14	-B		C	0039	1.20	1.25		74	EJ
BOUL	28	0042	0100		N05	E16	.275	10851	29.2	18	-N	1	V						
GRP32029	28	0056	0112	0102	S07	E46	.738	10853	31.5	16	-N								2 2 0 5
BOUL	28	0055	0109	0059	S07	E45	.727	10853	31.4	14	-B	1	V						
LOCK	28	0056	0115	0105	S07	E46	.738	10853	31.5	19	-F								
GRP32030	28	0434	0446	0438	N13	W50	.764	10845	24.4	12	--N				.43				2 2 2 4
TACH	28	0427	0446	0438	N15	W51	.777	10845	24.4	19	-N		C	0438	.45	.70	1.95	66	D
CRON	28	0440	0445		N11	W48	.741	10845	24.6	5	-N	3	V		.41				
GRP32031	28	0459	0521	0506	S07	E40	.667	10853	31.2	22	-N				.77				3 3 3 6
HTPR	28	0458	0530	0505	S07	E40	.667	10853	31.2	32	-N		C	0505	.83	1.10			
TACH	28	0500	0514	0503	S07	E41	.679	10853	31.3	14	-N		C	0503	.73	.98	1.86	57	E
CATA	28	0505E	0520	0510	S07	E40	.667	10853	31.2	15D	-B			0510	.75	1.00		219	
GRP32032	28	0618	0645	0621	N05	E16	.275	10851	29.5	27	--N				.84				6 5 4 9
MITK	28	0615	0633	0618	N05	E16	.275	10851	29.5	18	-F		C	0618	.62	.60			E
HTPR	28	0616	0651	0620	N05	E17	.291	10851	29.5	35	-N		C	0620	.62	.70			
AROS	28	0616E	0630D		N05	E16	.275	10851	29.5	14D	-N		P	0620	1.24	1.30			
CATA	28	0620	0630D	0625	N04	E15	.259	10851	29.4	10D	-B			0625	.87	.90		209	
ISTA	28	0622	0640		N06	E17	.291	10851	29.5	18	-N								
TEHR	28	0635E	0655D		N04	E14	.242	10851	29.3	20D	1F								
GRP32033	28	0638	0706	0644	S08	E39	.658	10853	31.2	28	1F				1.72				4 4 2 10
TEHR	28	0635E	0705D	0640	S09	E38	.650	10853	31.1	30D	1F								
HTPR	28	0635	0707	0648	S07	E38	.642	10853	31.1	32	1F		C	0648	1.65	2.10			
ABST	28	0641	0710	0644	S08	E38	.646	10853	31.1	29	1N		C	0644	1.79	2.40		58	E
ISTA	28	0642	0700		S07	E41	.679	10853	31.4	18	-F								
GRP32035	28	0805	0837	0809	N05	E15	.258	10851	29.5	32	-B				.87				4 4 3 12
CATA	28	0805	0835	0810	N03	E14	.245	10851	29.4	30	-B			0810	1.39	1.43		219	
HTPR	28	0805	0830	0807	N05	E16	.275	10851	29.5	25	-N		C	0807	.62	.60			
CAPS	28	0807E	0851D		N06	E16	.274	10851	29.5	44D	-N	3	V	0810	.60	.60		182	
ARCE	28	0815E	0830D		N05	E15	.258	10851	29.5	15D	-B		P	0815		1.70			TI

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GRP32036	28	0812	0826	0816	N12	W51	.775	10845	24.5	14	-N				.61				7 7 3 12
WEND	28	0810	0824		N14	W51	.776	10845	24.5	14	-B								
HTPR	28	0812	0829	0817	N13	W50	.764	10845	24.6	17	-F		C	0817	.31	.50			
ABST	28	0812	0825	0816	N13	W53	.796	10845	24.4	13	-N		C	0816	.90	1.50		68	D
CRIM	28	0812	0821D	0817	N12	W51	.775	10845	24.5	9D	-N		C	0817	.62	1.00			D
ISTA	28	0813	0825		N12	W50	.764	10845	24.6	12	-F								
HURB	28	0814E	0825D	0815	N12	W50	.764	10845	24.6	11D	1N						2.31		
ONDR	28	0816E	0825D		N11	W52	.785	10845	24.4	9D	-F		V	0817			1.50		DF
8 STATIONS REPORTING GROUP 32037. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP32037	28	1003	1029	1008	N05	E13	.224	10851	29.4	26	-N				1.54				8 8 6 9
HTPR	28	0952	1030	1004	N05	E16	.275	10851	29.6	38	-B		C	1004	1.24	1.20			
ARCE	28	0955	1000D		N04	E13	.226	10851	29.4	5D	-N		P	1000		1.00			
CATA	28	0955	1030D	1010	N03	E13	.228	10851	29.4	35D	-B			1010	1.27	1.31		204	
WEND	28	1001	1016		N06	E14	.241	10851	29.5	15	1F		V		3.09				
CAPS	28	1004E	1050D		N06	E14	.241	10851	29.5	46D	-B	3	V	1008	.80	.80		228	
MEUD	28	1010E	1025		N05	E12	.207	10851	29.3	15D	-N		C	1012	.72	.70			E
LOCA	28	1010E	1030	1010	N04	E13	.226	10851	29.4	20D	1N		S	1010	2.10	2.20			
CANR	28	1018	1025		N06	E12	.207	10851	29.3	7	-N	2	V			1.30			
037 CATA	28	1005	1030D	1010	N04	E07	.124	10851	28.9	25D	*-N			1010	.14	.15		197	DZ 8
GRP32038	28	1105	1115	1108	N12	W53	.796	10845	24.5	10	--N				.58				4 4 3 6
MEUD	28	1105	1115	1107	N11	W53	.795	10845	24.5	10	-F		C	1107	.52	.80			D
CANR	28	1105	1113		N11	W57	.835	10845	24.2	8	-N	2	V			.60			
HTPR	28	1106	1117	1108	N13	W51	.775	10845	24.6	11	-N		C	1108	.41	.70			
CAPS	28	1107E	1115D		N11	W50	.763	10845	24.7	8D	-N	3	V	1110	.80	1.30		180	
7 STATIONS REPORTING GROUP 32040. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP32040	28	1217	1247	1224	N05	E12	.207	10851	29.4	30	-N				.94				6 6 3 8
HTPR	28	1213	1245	1222	N05	E12	.207	10851	29.4	32	-N		C	1222	1.24	1.20			
MEUD	28	1216	1235D		N05	E11	.190	10851	29.3	19D	-F		C	1222	.72	.70			E
BOUL	28	1217	1247	1220	N05	E14	.241	10851	29.6	30	-N	1	V						
CANR	28	1217	1245		N06	E11	.190	10851	29.3	28	-N	2	V			1.10			
CATA	28	1220	1250	1230	N04	E13	.226	10851	29.5	30	-N			1230	.87	.89		200	Z
ONDR	28	1222E	1247		N04	E13	.226	10851	29.5	25D	1N		V	1223			2.40		CEFHJ
32040	28	1220	1251	1240	N04	E15	.259	10851	29.6	31	*-B				1.20				2 2 1 8
CAPS	28	1220E	1257D	1240	N05	E15	.258	10851	29.6	37D	-B	3	P	1221	1.20	1.20		196	
CANR	28	1241	1244		N02	E15	.265	10851	29.7	3	-N	2	V			.20			
GRP32041	28	1230	1247	1234	N11	W53	.795	10845	24.5	17	-N				.96				7 7 5 9
BOUL	28	1228	1245	1236	N11	W51	.774	10845	24.7	17	-N	2	V						
MEUD	28	1228	1235D	1231	N11	W54	.806	10845	24.5	7D	-N		C	1231	.62	1.00			
HTPR	28	1228	1247	1233	N13	W51	.775	10845	24.7	19	-N		C	1233	.52	.80			
CATA	28	1230	1250	1232	N11	W54	.806	10845	24.5	20	-B			1232	.58	.99		245	
CAPS	28	1230E	1246D		N11	W50	.763	10845	24.8	16D	-F	3	P	1231	.80	1.30		164	
SANM	28	1230E	1248		N12	W55	.816	10845	24.4	18D	1B	1	P	1239	2.27	3.86			D
CANR	28	1235	1245	1237	N11	W57	.835	10845	24.2	10	-B	2	V			.60			
GRP32042	28	1259	1318	1304	N12	W53	.796	10845	24.6	19	--N				.49				8 7 4 9
CANR	28	1257	1325	1300	N13	W57	.835	10845	24.3	28	-B	3	V			.40			
HTPR	28	1259	1320	1304	N13	W52	.786	10845	24.6	21	-F		C	1304	.41	.70			
MEUD	28	1259	1314	1304	N12	W54	.806	10845	24.5	15	-N		C	1304	.41	.70			D
BOUL	28	1259	1321	1301	N11	W51	.774	10845	24.7	22	-N	2	V	1301		1.50			
ONDR	28	1300	1316	1307	N12	W55	.816	10845	24.4	16	-B		V	1307			2.70		CDFJ
CATA	28	1300	1315D	1305	N14	W55	.817	10845	24.4	15D	-N			1305	.52	.91		191	
CAPS	28	1300E	1315D		N11	W50	.763	10845	24.8	15D	-B	3	V	1301	.60	1.00		237	
SANM	28	1312E	1335		N11	W56	.825	10845	24.3	23D	1F	1	P	1320	1.62	2.82			D
GRP32043	28	1328	1341	1330	S07	E38	.642	10853	31.4	13	--F				.31				3 3 2 10
MCMA	28	1327	1338D	1328	S07	E37	.629	10853	31.3	11D	-N		C	1328	.21	.30			D
HTPR	28	1327	1340	1329	S07	E40	.667	10853	31.6	13	-F		C	1329	.41	.70			
BOUL	28	1331	1341	1332	S06	E37	.625	10853	31.3	10	-F	2	V						
GRP32045	28	1445	1520	1451	N06	E08	.139	10851	29.2	35	-N				.80				10 9 5 13
ARCE	28	1440	1520	1448	N06	E08	.139	10851	29.2	40	-B		C	1448		1.80			
CANR	28	1444	1513		N06	E05	.087	10851	29.0	29	-N	2	V			.80			
HTPR	28	1445	1530		N05	E10	.173	10851	29.4	45	-N		C	1500	1.03	1.00			
LOCA	28	1446	1513	1449	N04	E09	.158	10851	29.3	27	-N		V	1449	1.05	1.10			
BOUL	28	1446	1515	1454	N09	E06	.121	10851	29.1	29	1N	2	V	1454		3.00			
MCMA	28	1447	1511D	1453	N07	E09	.158	10851	29.3	24D	-N		C	1453	.72	.70			E
MEUD	28	1447	1450D		N05	E07	.122	10851	29.1	3D	-F		C	1450	.41	.40			E
CAPS	28	1450E	1525D		N06	E12	.207	10851	29.5	35D	-N	3	V	1451	.60	.60		170	
LOCK	28	1452E	1515	1452	N05	E08	.139	10851	29.2	23D	-F								
MEUD	28	1458E	1459D		N05	E07	.122	10851	29.1	1D	-F		C	1458	.62	.60			E
AROS	28	1500E	1525		N06	E09	.156	10851	29.3	25D	1N		P	1502	2.68	2.70			

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GRP32046	28	1526	1550	1530	N10	W58	.844	10845	24.3	24	-N				.52				5 5 2 11
ARCE	28	1524	1536	1527	N11	W58	.844	10845	24.3	12	-F		C	1527		.90			K
AROS	28	1524	1530D	1527	N10	W57	.835	10845	24.4	6D	-F		P	1527	.41	.80			
CANR	28	1525	1554		N08	W59	.854	10845	24.2	29	-N	2	V			1.30			
BOUL	28	1527	1556	1529	N09	W58	.844	10845	24.3	29	1N	2	V	1529		3.00			
LOCA	28	1529	1555	1535	N10	W56	.825	10845	24.4	26	-B		V	1535	.63	1.00			
32046	28	1533	1552	1544	N11	W54	.806	10845	24.6	19	*-N				.94				5 5 2 13
WEND	28	1525	1550		N12	W55	.816	10845	24.5	25	-N								
ARCE	28	1540	1550	1544	N12	W55	.816	10845	24.5	10	-B		C	1544		1.70			
ONDR	28	1541E	1557		N10	W55	.815	10845	24.5	16D	1N		V	1542			2.20		CFJ
CAPS	28	1544E	1554D		N11	W51	.774	10845	24.8	10D	-N	3	V	1545	.90	1.50		170	
SANM	28	1545E	1550		N11	W56	.825	10845	24.5	5D	-N	1	P	1549	.97	1.78			E
GRP32048	28	1544	1602	1550	N25	W10	.371	10846	27.9	18	--N				.73				10 10 7 14
CANR	28	1537	1614		N17	W13	.295	10846	27.7	37	-N	2	V			.60			
WEND	28	1538	1552		N27	W09	.394	10846	28.0	14	-N								
HTPR	28	1540	1605	1549	N25	W08	.358	10846	28.1	25	-B		C	1549	.31	.30			
LOCA	28	1541	1605	1545	N26	W09	.379	10846	28.0	24	-B		V	1545	.63	.70			
MEUD	28	1541	1554D	1546	N27	W10	.400	10846	27.9	13D	-N		C	1546	.46	.50			D
MEUD	28	1541	1554D	1546	N27	W10	.400	10846	27.9	13D	-N		C	1546	.46	.50			D
MCMA	28	1544E	1550D		N27	W11	.406	10846	27.8	6D	-B		P	1550	.31	.30			D
CAPS	28	1545E	1605D		N26	W08	.373	10846	28.1	20D	-B	3	V	1551	.90	1.00		220	
SANM	28	1545E	1553D		N27	W11	.406	10846	27.8	8D	-B	1	P	1549	1.29	1.41			D
HURB	28	1551E	1600D	1553	N25	W11	.378	10846	27.8	9D	1F						1.87		
AROS	28	1553	1610	1558	N25	W11	.378	10846	27.8	17	-N		P	1558	1.24	1.30			
051 BOUL	28	1945	2002	1947	N02	E03	.080	10851	29.0	17	--F	2	V	1947		.50			2
GRP32052	28	2012	2109	2018	N15	W15	.302	10846	27.7	57	-N				.62				2 2 1 3
BOUL	28	2012	2105	2018	N14	W15	.293	10846	27.7	53	1N	1	V	2018		2.50			
MCMA	28	2017E	2112D		N16	W14	.298	10846	27.8	55D	-N		C	2020	.62	.60			E
GRP32053	28	2029	2051	2036	N19	W57	.839	10845	24.6	22	1N				1.03				2 1 1 3
MCMA	28	2029	2051	2036	N19	W57	.839	10845	24.6	22	1N		C	2036	1.03	2.10			E
BOUL	28	2030	2100	2044	N09	W60	.862	10845	24.4	30	1B	1	V	2044		4.00			
GRP32054	28	2103	2113	2106	N05	E06	.104	10851	29.3	10	--F				.72				2 2 1 3
MCMA	28	2100	2112	2106	N06	E07	.122	10851	29.4	12	-F		C	2106	.72	.80			E
BOUL	28	2105	2114	2105	N04	E08	.141	10851	29.5	9	-N	1	V	2105		1.50			
BOUL	28	2114	2126	2116	N02	E03	.080	10851	29.1	12	-N	1	V	2116		1.00			
GRP32056	28	2214	2309	2232	N24	W66	.913	10845	24.0	55	-F				2.27				2 2 1 3
CULG	28	2207	2328	2234	N24	W63	.892	10845	24.2	81	1N		C	2234	2.27				GSU
LOCK	28	2220	2250	2230	N24	W69	.931	10845	23.8	30	-F								
057 LOCK	28	2245	2300	2249	N06	E06	.104	10851	29.4	15	--F								3
GRP32058	28	2247	2305	2253	N15	W59	.854	10845	24.5	18	-N				.52				2 2 1 3
LOCK	28	2247	2305	2253	N11	W60	.862	10845	24.4	18	-N								
MCMA	28	2250E	2255D		N19	W58	.848	10845	24.6	5D	-N		C	2251	.52	1.00			E
060 BOUL	28	2340	0005	2354	N06	E06	.104	10851	29.4	25	--F	1	V						2
GRP32061	29	0035	0053	0037	N06	E06	.104	10851	29.5	18	-N				1.09				2 2 2 2
MITK	29	0035	0050	0037	N06	E06	.104	10851	29.5	15	-N		C	0037	1.24	1.20			D
CRON	29	0041	0056		N05	E06	.105	10851	29.5	15	-N	2	V		.93				
GRP32062	29	0154	0304	0217	N13	W63	.887	10845	24.4	70	1N				3.33				4 3 3 4
CRON	29	0150	0300	0215	N10	W60	.862	10845	24.6	70	1N				2.48				
CRON	29	0150	0300	0155	N11	W62	.879	10845	24.4	70	-N	3	V		.93				
CULG	29	0153	0307	0222	N20	W63	.889	10845	24.4	74	1N		C	0222	2.37				
MITK	29	0157E	0237D	0210	N12	W77	.971	10845	23.3	40D	-N		C	0210	.52				E
KODA	29	0159	0225D	0213	N10	W65	.902	10845	24.2	26D	1N		C	0203	5.15	5.10	2.36		CEK
GRP32063	29	0320	0344	0327	N07	W72	.948	10845	23.7	24	-N				.41				2 1 1 4
CRON	29	0320	0344	0327	N07	W72	.948	10845	23.7	24	-N	2	V		.41				
TACH	29	0328E	0339D		S07	W73	.961	10845	23.7	11D	1F		S	0331	.81	2.60	2.20	57	CE
GRP32065	29	0521	0544	0527	S13	W20	.457	10847	27.7	23	-N				1.16				4 4 4 9
AROS	29	0518	0545	0528	S13	W20	.457	10847	27.7	27	1N		P	0528	2.27	2.60			
TACH	29	0521E	0540		S13	W19	.446	10847	27.8	19D	-N		C	0527	.64	.70	2.10	54	E
CRON	29	0521	0540	0524	S12	W21	.458	10847	27.6	19	-N	3	V		1.03				
CATA	29	0525	0550	0530	S12	W20	.446	10847	27.7	25	-N			0530	.69	.78		188	
GRP32068	29	0613	0706	0615	N06	E00	.008	10851	29.3	53	-N				2.14				4 4 4 10
CATA	29	0555	0715	0615	N07	E00	.025	10851	29.2	80	-N			0615	1.39	1.39		186	T
CAPS	29	0610E	0704D		N06	E00	.008	10851	29.3	54D	-N	3	V	0611	1.20	1.20		176	F
AROS	29	0614E	0633D		N06	E01	.019	10851	29.3	19D	1B		P	0617	3.92	3.90			
CRON	29	0614	0658		N06	E00	.008	10851	29.3	44	1F	3	V		2.06				

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GRP32069	29	0658	0708	0701	S06	E27	.490	10853	31.3	10	--F				.87				4 2 2 9
HTPR	29	0658	0705	0701	S07	E27	.496	10853	31.3	7	-N		C	0701	.93	1.00			
CAPS	29	0659E	0710D		S04	E27	.479	10853	31.3	11D	-F	3	V	0703	.80	.90		158	
CRON	29	0700	0712	0701	S08	E28	.516	10853	31.4	12	-N	3	V		.41				
CATA	29	0700	0710	0700	S06	E38	.638	10853	1.1	10	-B			0700	.46	.54		232	
GRP32070	29	0752	0819	0757	N07	E00	.025	10851	29.3	27	-N				1.57				10 10 6 11
CRON	29	0749	0826	0755	N06	E00	.008	10851	29.3	37	-N	3	V		1.13				
HERS	29	0751E	0805D	0755	N06	E00	.008	10851	29.3	14D	-N		C	0753	1.78	1.80			E
ONDR	29	0752E	0811D		N13	E00	.130	10851	29.3	19D	1N		V	0756			2.30		CHJ
WEND	29	0752	0818		N05	W01	.020	10851	29.3	26	1N		P		3.09				
ARCE	29	0753	0800D	0753	N06	E00	.008	10851	29.3	7D	-F		C	0753		.80			E
HTPR	29	0753	0815	0756	N05	W02	.036	10851	29.2	22	-B		C	0756	1.55	1.50			
CANR	29	0754	0812		N05	W01	.020	10851	29.3	18	-N	1	V			.50			
CAPS	29	0757E	0826D		N07	E02	.043	10851	29.5	29D	-N	3	V	0758	1.00	1.00		189	
HURB	29	0758E	0808D	0759	N06	W02	.036	10851	29.2	10D	-N						1.76		
CATA	29	0800E	0815	0805	N06	E00	.008	10851	29.3	15D	-B			0805	.87	.87		269	T
GRP32071	29	0800	0815	0802	S07	E27	.496	10853	31.4	15	-N				1.29				7 7 5 11
HERS	29	0758	0805D	0800	S07	E28	.509	10853	31.4	7D	-N		C	0800	1.03	1.20			E
CANR	29	0758	0808		S07	E26	.482	10853	31.3	10	-N	1	V			.30			
WEND	29	0758	0809		S07	E27	.496	10853	31.4	11	1N		P		3.09				
HTPR	29	0800	0810	0802	S07	E27	.496	10853	31.4	10	-B		C	0802	.93	1.00			H
CAPS	29	0801E	0826D		S05	E27	.484	10853	31.4	25D	-N	3	V	0802	1.00	1.10		176	
HURB	29	0803E	0811D	0803	S08	E27	.502	10853	31.4	8D	-F						1.75		
CRON	29	0803	0826		S08	E27	.502	10853	31.4	23	-N	3	V		.41				
GRP32075	29	0935	0945	0937	S08	E26	.489	10853	31.3	10	-N				.95				6 6 4 9
AROS	29	0932	0943	0936	S12	E25	.506	10853	31.3	11	-N		P	0936	1.65	1.90			
CANR	29	0933	0945	0936	S07	E26	.482	10853	31.3	12	-B	2	V			.30			
ONDR	29	0933E	0947		S08	E25	.475	10853	31.3	14D	1N		V	0939			2.20		CDHJ
HTPR	29	0934	0943	0938	S07	E26	.482	10853	31.3	9	-N		C	0938	.83	.90			
CAPS	29	0938E	0942D		S04	E27	.479	10853	31.4	4D	-F	3	V	0939	.90	1.00		152	H
CRON	29	0939	0946		S08	E26	.489	10853	31.4	7	-N	2	V		.41				
GRP32077	29	1039	1057	1045	S07	E25	.468	10853	31.3	18	-N				1.00				4 4 3 8
CANR	29	1036	1054		S07	E27	.496	10853	31.5	18	-N	3	V						
HTPR	29	1040	1100	1045	S07	E26	.482	10853	31.4	20	-N		C	1045	1.03	1.10			
CATA	29	1040	1100	1045	S06	E25	.462	10853	31.3	20	-N			1045	.93	1.05		191	
KIEV	29	1040	1055	1044	S07	E23	.441	10853	31.2	15	-N		C	1044	1.03	1.10		60	DJ
GRP32079	29	1100	1138	1113	N05	W02	.036	10851	29.3	38	-B				1.54				6 6 4 8
CANR	29	1050	1155		N05	W02	.036	10851	29.3	65	-N	3	V						
CATA	29	1055	1130D	1110	N06	W02	.036	10851	29.3	35D	-B			1110	1.04	1.04		263	T
CAPS	29	1055E	1152D	1115	N06	W01	.019	10851	29.4	57D	-B	3	V	1117	.90	.90		280	
HTPR	29	1100	1135	1115	N04	W02	.044	10851	29.3	35	-B		C	1115	1.65	1.60			
KIEV	29	1110	1127	1113	N05	W03	.053	10851	29.2	17	1N		C	1113	2.58	2.60		70	EJ
HURB	29	1110E	1130D	1112	N05	W04	.070	10851	29.2	20D	1N						2.08		
GRP32081	29	1147	1151	1150	S07	E25	.468	10853	31.4	4	--F				.34				3 3 2 9
CANR	29	1146	1151		S07	E24	.455	10853	31.3	5	-F	2	V			.20			
HTPR	29	1148	1152	1150	S07	E25	.468	10853	31.4	4	-N		C	1150	.41	.50			
MCMA	29	1148E	1151		S06	E26	.476	10853	31.4	3D	-F		P	1148	.26	.30			D
GRP32083	29	1154	1222	(1208)	N05	W02	.036	10851	29.3	28	--N				.72				3 3 2 10
MCMA	29	1145E	1225D		N05	W03	.053	10851	29.3	40D	-N		C	1206	.83	.80			E
CANR	29	1203	1215		N05	W03	.053	10851	29.3	12	-N	3	V			.60			
CAPS	29	1207E	1225D		N06	E01	.019	10851	29.6	18D	-B	3	S	1210	.60	.60		196	
GRP32084	29	1427	1440	1429	N05	W04	.070	10851	29.3	13	--N				.55				6 6 3 9
LOCK	29	1425	1442	1428	N05	W04	.070	10851	29.3	17	-N								
MCMA	29	1425	1439	1428	N05	W05	.087	10851	29.2	14	-B		C	1428	.41	.40			EV
RAMY	29	1426	1442	1430	N05	W03	.053	10851	29.4	16	-N		C		.62				DE
HTPR	29	1427	1438	1430	N05	W04	.070	10851	29.3	11	-N		C	1430	.62	.60			
CANR	29	1427	1437		N05	W03	.053	10851	29.4	10	-N	2	V			.70			
BOUL	29	1429	1444	1429	N05	W05	.087	10851	29.2	15	-N	2	V	1429		.50			
GRP32085	29	1429	1447	1431	S12	E24	.494	10853	31.4	18	--F				.41				4 4 2 9
LOCK	29	1427	1445	1430	S14	E25	.524	10853	31.5	18	-F								
RAMY	29	1427	1443D	1430	S10	E22	.452	10853	31.3	16D	-F		C		.52				DE
CATA	29	1430	1445D	1430	S13	E23	.491	10853	31.3	15D	-N			1430	.29	.33		158	
BOUL	29	1431	1450	1435	S12	E25	.506	10853	31.5	19	-F	2	V	1435		1.50			

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GRP32090	29	1840	1850	1842	S08	E23	.448	10853	31.5	10	--N				.29				5 5 2 6
LOCK	29	1838	1850	1842	S08	E22	.435	10853	31.4	12	-N								H
RAMY	29	1839	1850D	1842	S08	E22	.435	10853	31.4	11D	-N		C		.31				DE
MCMA	29	1840	1850	1843	S06	E23	.434	10853	31.5	10	-N		C	1843	.26	.30			D
CANR	29	1840	1851		S07	E23	.441	10853	31.5	11	-N	2	V			.60			
CANR	29	1840	1851		S07	E23	.441	10853	31.5	11	-N	2	V			.60			
BOUL	29	1844	1851		S09	E26	.496	10853	31.7	7	-F	2	V						
GRP32091	29	1921	1945	1923	N05	W06	.105	10851	29.4	24	-N				1.04				4 4 2 5
RAMY	29	1918	1927D	1922	N04	W07	.124	10851	29.3	9D	-N		C		1.86				DE
LOCK	29	1919	1950	1923	N04	W06	.108	10851	29.4	31	-N								
HUAN	29	1920	1929	1924	N04	W06	.108	10851	29.4	9	-F	2	C	1924	.21	.20			E
BOUL	29	1925	1957		N06	W04	.070	10851	29.5	32	1N	1	V						
092 LOCK	29	1952	1959	1955	S08	E22	.435	10853	31.5	7	--F								3
093 LOCK	29	2013	2020	2015	S08	E22	.435	10853	31.5	7	--F								3
094 LOCK	29	2120	2135	2124	N15	W75	.962	10845	24.3	15	--F								2
GRP32095	29	2159	2210	2202	S01	W05	.143	10850	29.5	11	--F				.41				2 2 1 2
LOCK	29	2159	2208	2202	S00	W05	.130	10850	29.5	9	-F								
MCMA	29	2159	2211	2201	S01	W04	.133	10850	29.6	12	-N		C	2201	.41	.40			E
096 LOCK	29	2311	2327	2317	N12	E04	.132	10852	30.3	16	--F								1
GRP32097	29	2337	2358	(2356)	N22	W28	.525	10846	27.9	21	-N				.72				2 2 1 3
LOCK	29	2337	2358		N23	W28	.532	10846	27.9	21	-N								
MITK	29	2355E	2358D		N21	W28	.519	10846	27.9	3D	-N		P	2356	.72	.80			E
098 LOCK	29	2352	0030	0008	N09	W83	.991	10845	23.8	38	--F								S 2
GRP32099	30	0107	0138	0112	N11	E02	.100	10852	30.2	31	1N				3.13				3 3 2 3
LOCK	30	0100	0140	0112	N10	E03	.092	10852	30.3	40	1N								S
VORO	30	0110E	0128		N12	E02	.116	10852	30.2	18D	1B		C	0111	3.88	3.86		98	E
CRON	30	0111	0145		N11	E02	.100	10852	30.2	34	1N	3	V		2.37				
GRP32101	30	0629	0705	(0635)	N13	E76	.967	10860	5.0	36	-F				.43				2 2 2 8
BUCA	30	0625	0715		N14	E74	.957	10860	4.8	50	-F		C	0635	.55				D
CRON	30	0632	0654		N12	E78	.975	10860	5.1	22	-N	3	V		.31				
GRP32109	30	1055	1113	1058	N11	W79	.979	10845	24.5	18	-N				.62				3 3 1 7
MONT	30	1053	1105	1058	N12	W78	.975	10845	24.6	12	-B		C	1058	.62				
CANR	30	1055	1113		N10	W80	.982	10845	24.5	18	-F	2	V			1.20			
HTPR	30	1058	1120		N10	W80	.982	10845	24.5	22	-N		C						
GRP32112	30	1137	1211	1143	S05	E13	.289	10853	31.5	34	--N				.68				4 4 3 7
CANR	30	1132	1212		S07	E13	.311	10853	31.5	40	-N	3	V			.60			
MONT	30	1139	1210	1142	S05	E15	.315	10853	31.6	31	-B		C	1142	.83				
RAMY	30	1140	1205	1143	S05	E12	.276	10853	31.4	25	-F		C		.52				DE
CAPS	30	1143E	1215D		S04	E13	.278	10853	31.5	32D	-F	3	P	1147	.70	.80		158	
GRP32114	30	1203	1219	1208	N14	W39	.633	10846	27.6	16	--N				.41				3 3 2 9
RAMY	30	1200	1220	1206	N14	W39	.633	10846	27.6	20	-F		C		.41				DE
MONT	30	1204	1220	1209	N15	W38	.622	10846	27.7	16	-N		C	1209	.41				
CANR	30	1205	1216		N14	W40	.646	10846	27.5	11	-N	3	V			.30			
GRP32117	30	1244	1253	1248	N12	W83	.990	10845	24.3	9	1N				1.31				7 7 5 12
MONT	30	1242	1255	1247	N12	W80	.982	10845	24.5	13	-B		C	1247	.83				
CANR	30	1243	1253	1246	N13	W82	.988	10845	24.4	10	-B	3	V			.90			
BOUL	30	1243	1255	1248	N10	W80	.982	10845	24.5	12	1N	2	V						
RAMY	30	1243	1255	1248	N11	W85	.995	10845	24.2	12	-N		C		.46				DE
SANM	30	1244	1252	1249	N13	W88	.998	10845	23.9	8	2B	1	C		2.27				A
CAPE	30	1245	1252	1249	N12	W83	.990	10845	24.3	7	1N		C	1249	1.75				
LVOV	30	1245	1252	1248	N12	W80	.982	10845	24.5	7	1F		C	1248	1.24	2.82		50	
GRP32118	30	1251	1305	1252	S14	E14	.407	10853	31.6	14	--N				.52				4 4 2 12
RAMY	30	1249	1310	1251	S13	E12	.376	10853	31.4	21	-N		C		.52				DE
MONT	30	1249	1301	1252	S18	E17	.484	10853	31.8	12	-N		C	1252	.52				
BOUL	30	1251	1306	1253	S12	E11	.354	10853	31.4	15	-N	2	V						
CANR	30	1253	1303		S13	E14	.395	10853	31.6	10	-N	3	V			.60			
GRP32120	30	1402	1411	1404	S14	W36	.653	10847	27.9	9	--N				.46				5 5 3 11
CANR	30	1401	1413		S17	W35	.660	10847	28.0	12	-N	2	V			.60			
RAMY	30	1402	1408	1403	S15	W35	.647	10847	28.0	6	-N		C		.31				DE
SANM	30	1402	1409	1403	S15	W36	.659	10847	27.9	7	-N	1	C		.65	.87			CD
BOUL	30	1403	1414	1404	S10	W40	.679	10847	27.6	11	-N	2	V	1404		.30			
MONT	30	1404	1410	1406	S15	W36	.659	10847	27.9	6	-N		C	1406	.41				

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GRP32125	30	1540	1611	1544	S01	W17	.313	10850	29.4	31	--N				.36				3 3 1 10
RAMY	30	1539	1618	1542	S01	W17	.313	10850	29.4	39	-N		C		.36				DE
LOCK	30	1540	1600	1545	S00	W18	.323	10850	29.3	20	-F								
CANR	30	1541	1615		S01	W15	.282	10850	29.5	34	-N	2	V			.40			
GRP32126	30	1541	1614	1544	N03	W23	.392	10851	28.9	33	-F				2.04				4 4 2 10
RAMY	30	1540	1615	1543	N03	W23	.392	10851	28.9	35	-N		C		.83				DE
CANR	30	1540	1625		N03	W24	.408	10851	28.9	45	-N	2	V			1.00			
BOUL	30	1542	1605	1544	N02	W21	.363	10851	29.1	23	1F	2	V	1544		2.50			
SANM	30	1542	1612	1544	N02	W24	.410	10851	28.9	30	1F	1	C		3.24	3.57			F
GRP32128	30	1648	1711	1651	S07	E06	.241	10853	31.2	23	--F				.21				3 3 1 7
LOCK	30	1646	1710	1652	S08	E05	.250	10853	31.1	24	-F								
RAMY	30	1648	1706	1650	S07	E06	.241	10853	31.1	18	-F		C		.21				DE
BOUL	30	1650	1716	1651	S06	E06	.226	10853	31.2	26	-F	3	V	1651		.50			
GRP32129	30	1653	1710	1655	N05	W19	.324	10851	29.3	17	--F				.31				3 3 1 7
LOCK	30	1652	1703	1656	N04	W20	.342	10851	29.2	11	-F								
RAMY	30	1652	1705	1654	N05	W19	.324	10851	29.3	13	-F		C		.31				DE
BOUL	30	1654	1722	1655	N06	W17	.291	10851	29.4	28	-F	3	V	1655		1.50			
GRP32130	30	1703	1712	1704	N14	W82	.987	10845	24.6	9	--B				.21				2 2 1 6
RAMY	30	1703	1712	1704	N14	W83	.990	10845	24.5	9	-B		C		.21				DE
BOUL	30	1703	1712	1704	N14	W81	.985	10845	24.6	9	-N	3	V						
GRP32134	30	1807	1844	1810	S07	E06	.241	10853	31.2	37	-N				2.14				4 4 2 6
LOCK	30	1800	1842	1812	S08	E05	.250	10853	31.1	42	-N								
RAMY	30	1805	1845	1808	S07	E06	.241	10853	31.2	40	-N		C		1.03				F
SANM	30	1810E	1837		S08	E04	.245	10853	31.1	27D	1B	1	P	1814	3.24	3.33			F
BOUL	30	1813	1850		S06	E07	.234	10853	31.3	37	1N	1	V	1813		3.00			
GRP32135	30	1927	2204	2119	S22	W37	.714	10847	28.0	157	1N				1.34				4 3 1 4
BOUL	30	1927	2208	2110	S21	W37	.707	10847	28.0	161	1N	2	V	2110		4.50			
LOCK	30	2104	2200	2114	S22	W38	.723	10847	28.0	56	1N								
MCMA	30	2108E	2204		S23	W37	.721	10847	28.1	56D	1B		C	2113	1.34	2.10			E
RAMY	30	2132E	2132D	2132D	S21	W36	.698	10847	28.2		1B		C		1.96				FU
GRP32136	30	2122	2200	2134	N05	W22	.373	10851	29.2	38	--F				.52				2 1 1 4
MCMA	30	2122	2200D	2134	N05	W22	.373	10851	29.2	38D	-F		C	2134	.52	.60			E
RAMY	30	2128	2132D	2129	N06	W12	.207	10851	30.0	4D	-F		C		.31				DE
GRP32137	30	2229	2235	2231	S07	E07	.249	10853	31.5	6	--F				.26				2 2 1 3
LOCK	30	2229	2236	2231	S07	E06	.241	10853	31.4	7	-F								
MCMA	30	2232E	2233		S07	E07	.249	10853	31.5	1D	-F		P	2233	.26	.30			D
GRP32138	30	2256	2330	2302	S07	E05	.235	10853	31.3	34	-N				1.86				4 4 2 4
CULG	30	2252	2348	2301	S05	E06	.211	10853	31.4	56	1N		C	2301	2.68	2.60			H
MCMA	30	2253	2305D	2303	S07	E07	.249	10853	31.5	12D	-N		C	2303	1.03	1.00			E
LOCK	30	2253	2325	2301	S08	E04	.245	10853	31.3	32	1N								
BOUL	30	2306	2318		S06	E03	.208	10853	31.2	12	-N	1	V						
GRP32141	31	0056	0125	0101	N06	W22	.373	10851	29.4	29	--F								2 2 0 4
LOCK	31	0053	0130	0100	N05	W22	.373	10851	29.4	37	-F								
BOUL	31	0058	0120	0101	N06	W22	.373	10851	29.4	22	-F	1	V						
142 CRON	31	0211	0226		N05	W21	.357	10851	29.5	15	--F	3	V		.83				2
GRP32146	31	0703	0718	0707	N06	W28	.467	10851	29.2	15	-N				1.96				8 8 5 13
WEND	31	0658	0716		N05	W28	.468	10851	29.2	18	1N		P		4.13				
CATA	31	0700	0725D	0710	N06	W28	.467	10851	29.2	25D	-B			0710	.93	1.05		251	
CAPE	31	0703	0720	0706	N05	W28	.468	10851	29.2	17	1N		C	0706	1.93	2.20			
CRIM	31	0703	0711D	0706	N05	W29	.483	10851	29.1	8D	-N		C	0706	1.17	1.30			E
ISTA	31	0704	0716		N06	W28	.467	10851	29.2	12	-F								
BUCA	31	0705	0720		N06	W28	.467	10851	29.2	15	-F		C	0708	1.66	1.80			
HURB	31	0705E	0715D	0705	N07	W29	.482	10851	29.1	10D	1F						1.87		
CANR	31	0707	0715		N06	W29	.482	10851	29.1	8	-N	1	V			.70			
GRP32147	31	0820	0857	0825	N06	W27	.452	10851	29.3	37	-N				1.20				7 7 5 10
HTPR	31	0817	0855	0825	N05	W28	.468	10851	29.2	38	-N		C	0825	1.13	1.20			
CAPE	31	0819	0850	0823	N07	W27	.452	10851	29.3	31	-N		C	0823	1.47	1.60			F
CRIM	31	0819E	0840D		N07	W29	.482	10851	29.2	21D	-F		C	0823	1.26	1.40			E
CANR	31	0819	0848		N06	W26	.436	10851	29.4	29	-B	2	V						
CAPS	31	0820E	0915D		N05	W25	.421	10851	29.5	55D	-N	3	V	0821	.80	.90		182	
CRON	31	0823	0855		N05	W27	.452	10851	29.3	32	-N	2	V		1.34				
ARCE	31	0825	0900D	0827	N06	W26	.436	10851	29.4	35D	-B		C	0827		1.60			

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GRP32149	31	1140	1158	1144	S08	W04	.246	10853	31.2	18	-N				1.14				7 6 5 11
RAMY	31	1138	1200	1142	S07	W04	.230	10853	31.2	22	-N		C		.83				F
CATA	31	1140	1155	1147	S07	W05	.236	10853	31.1	15	-N			1147	.87	.90		200	
HTPR	31	1140	1155	1144	S08	W05	.252	10853	31.1	15	-N		C	1144	1.34	1.30			
MEUD	31	1140	1142D		S08	W05	.252	10853	31.1	2D	-N		C	1142	1.34	1.30			E
CAPE	31	1140	1155	1142	S08	W04	.246	10853	31.2	15	-N		C	1142	1.33	1.40			F
ONDR	31	1141E	1152D		S09	W02	.256	10853	31.3	11D	1B		V	1143			2.50		CE
CAPS	31	1150E	1203D		S08	W04	.246	10853	31.2	13D	1F	2	V						
GRP32151	31	1329	1352	1332	S13	W50	.799	10847	27.8	23	-N				1.20				6 6 5 9
RAMY	31	1327	1350	1329	S14	W52	.821	10847	27.7	23	-N		C		.62				DE
BOUL	31	1328	1343	1330	S14	W50	.803	10847	27.8	15	-N	2	V	1330		1.50			
CAPE	31	1328	1400	1332	S12	W52	.816	10847	27.7	32	-N		C	1332	1.10	1.90			
MONT	31	1330E	1345	1333	S12	W49	.786	10847	27.9	15D	-B		C	1333	1.03				
CAPS	31	1330E	1349D		S10	W46	.748	10847	28.1	19D	-N	3	V	1331	1.00	1.60		164	
SANM	31	1333	1406	1334	S13	W52	.818	10847	27.7	33	1B	1	C		2.27	3.86			D
GRP32154	31	1345	1528	1400	N16	W54	.808	10846	27.5	103	--F				.31				3 3 2 9
RAMY	31	1335	1542	1403	N15	W54	.807	10846	27.5	127	-F		C		.31				DE
BOUL	31	1349	1410	1403	N14	W57	.835	10846	27.3	21	-F	2	V	1403		.50			
MONT	31	1351	1400	1353	N17	W52	.789	10846	27.7	9	-N		C	1353	.31				
MONT	31	1402	1420	1403	N17	W52	.789	10846	27.7	18	-N		C	1403	.31				
MONT	31	1504	1515	1506	N17	W52	.789	10846	27.7	11	-N		C	1506	.31				
RAMY	31	1532	1542	1534	N21	W50	.774	10846	27.9	10	-F		C		.26				DE
GRP32155	31	1407	1427	1415	N07	W28	.467	10851	29.5	20	--N				.62				3 3 1 8
MONT	31	1404	1425	1413	N07	W29	.482	10851	29.4	21	-B		C	1413	.62				E
BOUL	31	1405	1429	1417	N08	W27	.452	10851	29.6	24	-N	2	V	1417		1.00			
CANR	31	1412	1428		N06	W29	.482	10851	29.4	16	-N	2	V			.70			
GRP32157	31	1642	1700	1654	N05	W34	.557	10851	29.1	18	--F				1.24				2 2 2 5
SANM	31	1637	1704	1659	N05	W35	.571	10851	29.1	27	1F	2	C		2.27	2.77			E
RAMY	31	1647	1655	1649	N05	W33	.543	10851	29.2	8	-F		C		.21				DE
GRP32158	31	1814	1833	1818	S13	W54	.837	10847	27.7	19	-N				1.46				6 6 3 6
RAMY	31	1811	1832	1815	S14	W54	.839	10847	27.7	21	-N		C		.52				DE
BOUL	31	1811	1831	1813	S13	W54	.837	10847	27.7	20	-N	2	V	1813		2.00			
SANM	31	1813E	1824D		S14	W54	.839	10847	27.7	11D	2B	2	P	1820	3.24	5.94			E
CANR	31	1815	1836		S12	W54	.834	10847	27.7	21	-N	1	V			1.70			
MCMA	31	1816E	1834		S14	W55	.848	10847	27.6	18D	-B		C	1819	.62	1.20			E
LOCK	31	1817	1830	1820	S12	W55	.843	10847	27.6	13	-N								
SANM	31	1830E	1845		S13	W54	.837	10847	27.7	15D	1B	2	P	1830	1.94	3.56			D
GRP32161	31	2130	2145	2131	N13	E55	.816	10860	5.0	15	--F				.31				2 2 1 4
RAMY	31	2124	2146D	2127	N12	E55	.815	10860	5.0	22D	-N		C		.31				DE
BOUL	31	2135	2143	2135	N14	E55	.816	10860	5.0	8	-F	2	V	2135		1.80			
GRP32163	31	2326	2335	2327	N14	E54	.806	10860	5.0	9	--F								2 2 0 3
LOCK	31	2325	2337	2327	N13	E55	.816	10860	5.1	12	-F								
BOUL	31	2327	2332	2327	N14	E53	.796	10860	5.0	5	-N	2	V	2327		.50			

In the importance column "--" signifies the subflare has been confirmed by the ESSA grouping program but is not included in the I.A.U. Quarterly Bulletin on Solar Activity nor are these subflares included in the Flare Index below.

DAILY FLARE INDICES

Date	Flare Index	HR OBS	Date	Flare Index	HR OBS	Date	Flare Index	HR OBS
700701	79.12	24.0	700711	51.54	24.0	700721	56.95	24.0
700702	222.47	24.0	700712	15.25	24.0	700722	150.26	24.0
700703	63.47	24.0	700713	11.63	24.0	700723	118.45	24.0
700704	64.69	24.0	700714	13.90	24.0	700724	3.21	24.0
700705	102.55	24.0	700715	1.54	24.0	700725	56.17	24.0
700706	35.43	24.0	700716	4.37	24.0	700726	87.54	24.0
700707	12.31	24.0	700717	2.53	24.0	700727	144.18	24.0
700708	46.97	24.0	700718	30.00	24.0	700728	97.30	24.0
700709	52.25	24.0	700719	28.57	24.0	700729	149.75	24.0
700710	42.52	24.0	700720	82.15	23.5	700730	137.64	24.0
						700731	53.58	24.0

When no Flare Index is given, it is 0 for that day.

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OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
214 CRON	01	0205	0222	0208	N22	W03	.332	10808	30.9	17	-F	2	V		.21				3
217 TEHR	01	0530E	0548D		S03	E20	.356	10810	2.7	18D	-N								Z 7
GRP31218	01	0530	0547		S08	E38	.635	10812	4.1	17	-F								1 1 0 7
TEHR	01	0530E	0545D		S09	E37	.626	10812	4.0	15D	-F								Z
TEHR	01	0530E	0547D		S07	E39	.645	10812	4.2	17D	-F								Z
219 TEHR	01	0540	0550D		S04	E24	.422	10810	3.0	10D	-F								6
220 TEHR	01	0550	0600D	0553	S02	E22	.383	10810	2.9	10D	-F								7
GRP31221	01	0615	0645		S06	E36	.602	10812	4.0	30	1N								1 1 0 9
TEHR	01	0615E	0615D		S07	E37	.619	10812	4.0		1N								Z
TEHR	01	0615E	0645D		S06	E36	.602	10812	4.0	30D	-N								
GRP31222	01	0653	0657	0655	S07	E38	.632	10812	4.1	4	1F								2 2 0 9
TEHR	01	0653	0655D	0655	S07	E37	.619	10812	4.1	2D	2N								
ISTA	01	0653	0657		S07	E39	.645	10812	4.2	4	-F								
224 ISTA	01	0738E	0750		S07	E39	.645	10812	4.2	12D	-F								9
225 CRIM	01	0825E	0829D		S08	E38	.635	10812	4.2	4D	-F		P	0825	.30	.40			DI 7
227 CRON	01	0908	0922		N05	W45	.706	10803	28.0	14	-N	2	V		.31				7
228 MONT	01	1032	1038		N20	W12	.355	10808	30.5	6	-N		C	1032	.83				7
GRP31230	01	1237	1245	1239	S03	E18	.324	10810	2.9	8	-F				.87				2 2 1 6
BOUL	01	1234	1245	1237	S02	E18	.320	10810	2.9	11	-F	1	V						
CATA	01	1240	1245	1240	S03	E17	.309	10810	2.8	5	-N			1240	.87	.91		186	
234 RAMY	01	1427	1442	1430	N11	E35	.583	10813	4.2	15	-F		C		.52				DE 6
235 MONT	01	1445	1450	1446	N18	W12	.329	10808	30.7	5	-B		C	1446	.52				6
238 LOCK	01	1548	1615	1555	S07	E33	.565	10812	4.1	27	-F								7
GRP31240	01	1649	1705	1657	N12	E79	.980	10814	7.6	16	-F								2 2 0 6
RAMY	01	1649	1704D	1652	N12	E79	.980	10814	7.6	15D	-F		C						DE
BOUL	01	1701E	1705	1701	N11	E78	.977	10814	7.6	4D	-F	3	V						
250 LOCK	01	2106	2115	2111	S10	E29	.524	10812	4.1	9	-F								4
252 BOUL	01	2344E	2346		S06	E26	.461	10812	3.9	2D	-F	1	V						3
254 BOUL	01	2354	0018D	2357	S06	E26	.461	10812	3.9	24D	-B	1	V						2
259 CATA	02	0520	0535	0525	N09	E70	.938	10814	7.5	15	-N			0525	.14			200	5
261 TEHR	02	0645E	0645D		S06	E24	.432	10812	4.1		-F								9
262 TEHR	02	0707	0725D		N14	W34	.578	10820	29.7	18D	1F								10
263 TEHR	02	0716E	0725D		N11	E22	.395	10813	4.0	9D	-F								11
264 TEHR	02	0725	0740D	0735	S08	E24	.444	10812	4.1	15D	-F								10
265 HTPR	02	0825	0845	0834	S05	W30	.515	10807	30.1	20	-F		C	0834	1.13	1.20			10
266 HTPR	02	0848	0920	0905	N11	E68	.926	10814	7.5	32	-F		C	0905	.62				9
267 MONT	02	0914	1000	0935	S07	E22	.409	10812	4.0	46	-N		C	0935	.83				7
270 CANR	02	1012	1020		S09	E61	.883	10815	7.0	8	-F	2	V		.26	.50			7
GRP31271	02	1158	1207	1202	S08	W30	.528	10807	30.2	9	-F				.24				2 2 2 9
RAMY	02	1157	1208	1202	S08	W29	.514	10807	30.3	11	-F		C		.26				DE
CANR	02	1158	1206		S07	W30	.523	10807	30.2	8	-N	2	V		.21	.20			
GRP31277	02	1352	1405	1358	S07	E20	.380	10812	4.1	13	-F				.36				2 1 1 10
RAMY	02	1352	1405	1358	S07	E20	.380	10812	4.1	13	-F		C		.36				DE
HTPR	02	1400	1435		S08	E24	.444	10812	4.4	35	-F		C	1410	1.75	1.90			
GRP31278	02	1404	1412	1408	S09	E68	.932	10815	7.7	8	-F				.21				2 2 1 9
BOUL	02	1404	1413	1408	S09	E68	.932	10815	7.7	9	-F	3	V						
RAMY	02	1404	1410	1407	S09	E68	.932	10815	7.7	6	-F		C		.21				DE

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OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP31279	02	1416	1429	1419	N22	W25	.513	10808	30.7	13	-N				.41				2 2 1 9
RAMY	02	1416	1427	1419	N22	W24	.501	10808	30.8	11	-N		C		.41				DE
BOUL	02	1418E	1430	1419	N21	W26	.516	10808	30.6	12D	-N	3	V						
GRP31280	02	1424	1434	1427	N15	E40	.659	10813	5.6	10	-N				.31				2 2 1 9
RAMY	02	1423	1434	1428	N15	E40	.659	10813	5.6	11	-N		C		.31				DE
BOUL	02	1424	1433	1426	N15	E40	.659	10813	5.6	9	-N	3	V						
281 BOUL	02	1442	1447	1443	N04	W59	.856	10803	28.2	5	-F	3	V						8
GRP31282	02	1512	1523	1514	N20	W28	.533	10808	30.5	11	-F				.26				2 2 1 7
BOUL	02	1512	1527	1515	N19	W28	.526	10808	30.5	15	-F	3	V						
RAMY	02	1512	1518	1513	N20	W27	.521	10808	30.6	6	-N		C		.26				DE
GRP31283	02	1552	1622	1557	N22	W24	.501	10808	30.9	30	-F				.31				2 2 1 7
RAMY	02	1552E	1619	1559U	N22	W25	.513	10808	30.8	27D	-F		C		.31				DE
BOUL	02	1552	1625	1554	N22	W22	.479	10808	1.0	33	-N	3	V						
286 BOUL	02	1636	1645	1637	N11	E66	.913	10814	7.6	9	-F	3	V						5
294 VORO	03	0047	0116	0051	N21	W20	.446	10808	1.5	29	-B		C	0051	.46	.50		66	E 6
295 CULG	03	0047	0143D	0104	S08	W49	.767	10807	29.4	56D	1N		P	0104	1.44	2.31			6
296 CRON	03	0152	0207		N12	E60	.866	10814	7.6	15	-F	2	V		.52				5
298 CRON	03	0301	0310	0302	S01	W06	.126	10810	2.7	9	-F	3	V		.52				5
299 CRON	03	0306	0320	0307	S06	E11	.246	10812	4.0	14	-F	3	V		.21				6
300 CRON	03	0325	0337	0326	N12	E61	.875	10814	7.7	12	-N	3	V		.52				5
301 CRON	03	0342	0400	0346	S06	E11	.246	10812	4.0	18	-F	3	V		.21				5
302 CRON	03	0532	0535		S07	E12	.270	10812	4.1	3	-F	3	V		.52				7
303 HTPR	03	0600	0625	0605	S10	W50	.782	10807	29.5	25	-F		C	0605	.83	1.30			9
304 HTPR	03	0621	0630	0622	N10	E07	.170	10813	3.8	9	-F		C	0622	.93	.90			8
GRP31307	03	0758	0805		N15	E58	.851	10814	7.7	7	-F				.41				2 2 1 8
ISTA	03	0758	0805		N13	E59	.858	10814	7.8	7	-F								
CANR	03	0801	0801D		N16	E56	.834	10814	7.5		-N	2	V		.41	.50			
GRP31308	03	0835	0850	0836	S08	E09	.246	10812	4.0	15	-N				.83				2 2 2 8
HTPR	03	0833	0850	0836	S07	E08	.222	10812	4.0	17	-N		C	0836	1.13	1.10			
CANR	03	0837	0837D		S08	E10	.257	10812	4.1		-N	2	V		.52	.50			
310 CANR	03	0901	0901D		S08	E10	.257	10812	4.1		-N	2	V		.62	.60			7
311 HTPR	03	0925	0940	0927	S07	E08	.222	10812	4.0	15	-F		C	0927	.52	.50			5
GRP31313	03	1109	1141	1133	N12	E51	.780	10814	7.3	32	-N				.42				2 2 2 8
RAMY	03	1109	1137	1112	N13	E57	.840	10814	7.7	28	-F		C		.31				DE
RAMY	03	1109	1137	1128	N13	E57	.840	10814	7.7	28	-F		C		.41				
MONT	03	1136	1145	1138	N11	E45	.711	10814	6.9	9	-B		C	1138	.52				E
315 MONT	03	1208	1230	1212	N12	E43	.688	10814	6.7	22	-N		C	1212	.52				7
316 RAMY	03	1212	1225	1218	N11	E02	.142	10813	3.7	13	-F		C		.31				DE 7
GRP31318	03	1347	1400	1349	N22	W38	.662	10808	30.7	13	-N				.31				2 2 1 9
BOUL	03	1346	1407	1349	N22	W36	.639	10808	30.9	21	-N	3	V						
MONT	03	1347	1353	1349	N21	W39	.669	10808	30.6	6	-N		C	1349	.31				
324 CANR	03	1615	1640		S08	E06	.218	10812	4.1	25	-F	2	V		.93	.90			6
4 STATIONS REPORTING GROUP 31329. 1 STATIONS OBSERVING AND NOT REPORTING.																			
GRP31329	03	1732	1811	1755	S08	E06	.218	10812	4.2	39	-N				1.03				3 3 2 5
CANR	03	1727	1820		S08	E08	.236	10812	4.3	53	-B	2	V		1.03	1.10			
MCMA	03	1737E	1931D		S08	E05	.210	10812	4.1	114D	-N		C	1755	1.03	1.10			EK
LOCK	03	1752	1802	1755	S08	E05	.210	10812	4.1	10	-F								
338 BOUL	03	2159	2225	2204	S02	W14	.257	10810	2.9	26	-F	1	V						3
341 CRON	03	2350	2359		S03	W20	.357	10810	2.5	9	-N	1	V		1.03				4
350 CRON	04	0235	0258	0240	S08	E00	.194	10812	4.1	23	-N	3	V		.52				3

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1970 JUL	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
351 CRON	04	0258	0305		S13	W64	.910	10807	29.3	7	-N	3	V		.52				4
352 CRON	04	0338	0346		S08	W03	.201	10812	3.9	8	-F	3	V		.41				3
355 TACH	04	0530	0535	0532	S10	E55	.832	10815	8.4	5	-N		C	0532	.83	1.54	1.73	54	D 6
357 TEHR	04	0630E	0645D		S07	W05	.197	10812	3.9	15D	1F								6
GRP31358	04	0632	0643	0634	S09	E38	.640	10815	7.1	11	-F				.83				2 2 1 6
HTPR	04	0632	0640	0634	S09	E38	.640	10815	7.1	8	-F		C	0634	.83	1.00			
TEHR	04	0635E	0645D		S08	E38	.636	10815	7.1	10D	1N								
359 TEHR	04	0645	0730D	0648	S02	W21	.368	10810	2.7	45D	-F								7
361 TEHR	04	0650	0730D		N22	W50	.788	10808	30.5	40D	1F								6
GRP31363	04	0753	0806		S07	E40	.659	10815	7.3	13	-N				.62				2 2 2 7
CANR	04	0752	0804		S06	E42	.681	10815	7.5	12	-N	2	V		.41				
CRON	04	0753	0807		S08	E38	.636	10815	7.2	14	-N	2	V		.83				
365 ABST	04	0833	0840	0834	S11	E32	.572	10815	6.8	7	-F		P	0834	.90	1.10			DZ 7
GRP31367	04	0910	0923	(0916)	N23	W46	.751	10808	30.9	13	-F				1.56				2 2 2 6
KHAR	04	0910E	0920D		N24	W48	.774	10808	30.8	10D	1F		P	0917	2.61	4.10	2.10		
CAPS	04	0915E	0923D		N22	W44	.727	10808	1.1	8D	-F	3	V	0915	.50	.80		142	
368 KHAR	04	0943E	1005		N22	W43	.716	10808	1.2	22D	-F		P	0950	1.13	1.60	1.50		E 6
369 KHAR	04	0945E	1030D		N12	E42	.676	10814	7.6	45D	1F		P	0950	1.70	2.30	1.80		6
371 RAMY	04	1107E	1112	1108U	N10	W08	.182	10813	3.9	5D	-N		V		.36				DE 6
373 CANR	04	1233	1244		S07	W06	.205	10812	4.1	11	-N	2	V		.52				7
374 CANR	04	1253	1255		N17	E90	1.000	10821	11.3	2	-N	1	V		.10				7
376 CANR	04	1336	1342		N10	W09	.195	10813	3.9	6	-F	2	V		.52				7
378 BOUL	04	1358	1430	1406	N16	E90	1.000	10821	11.3	32	1N	3	V						5
379 CANR	04	1435	1446		S05	W07	.187	10812	4.1	11	-N	2	V		.62	.60			6
382 CANR	04	1622	1628		N08	W12	.223	10813	3.8	6	-N	1	V		.31	.30			7
383 CANR	04	1648	1704		S10	W06	.250	10812	4.2	16	-N	3	V		.52	.50			6
384 CANR	04	1711	1720		S05	W09	.211	10812	4.0	9	-N	2	V		.52	.50			5
385 BOUL	04	1759	1811	1800	S06	W09	.222	10812	4.1	12	-F	2	V	1800		.30			5
387 HTPR	04	1815	1830	1818	S08	W09	.248	10812	4.1	15	-F		C	1818	.93	1.00			E 5
392 BOUL	05	0008	0012	0009	S10	W67	.927	10807	30.0	4	-F	2	V	0009		.80			5
393 CRON	05	0128	0148	0131	S09	E25	.466	10815	6.9	20	-N	2	V		.52				3
395 CRON	05	0331	0344		N16	E80	.983	10821	11.1	13	1F	3	V		.62				3
396 CRON	05	0340	0352	0341	N08	W23	.397	10813	3.4	12	-F	3	V		.31				3
397 TEHR	05	0645E	0645D		S08	W13	.295	10812	4.3		-F								6
398 CRON	05	0655	0715		S09	W05	.229	10812	4.9	20	-N	3	V		.31				7
399 CRON	05	0704E	0725		N22	W70	.941	10806	30.0	21D	-F	3	V		.72				7
401 MONT	05	0735	0740	0737	S20	W13	.447	10812	4.3	5	-N		C	0737	.83				10
GRP31404	05	0812	0825	0813	S10	W72	.956	10807	29.9	13	-N				.31				2 2 2 9
MONT	05	0812	0825	0813	S11	W75	.970	10807	29.7	13	-N		C	0813	.41				
CANR	05	0817	0817D		S08	W69	.938	10807	30.2		-N	1	V		.21	.40			
405 MONT	05	0825	0845	0827	N20	W65	.909	10808	30.5	20	-N		C	0827	.62				E 10
406 MONT	05	0847	0852	0850	S13	E38	.657	10815	8.2	5	-N		C	0850	.83				H 8
407 MONT	05	0850	0901	0854	S09	E20	.397	10815	6.9	11	-N		C	0854	.31				8
409 MONT	05	0920	0936D	0925	N20	W66	.916	10808	30.4	16D	-N		C	0925	1.03				9

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OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
411 RAMY	05	1022	1029	1024	N08	W22	.381	10813	3.8	7	-F		C		.62				DEH 9
413 RAMY	05	1224	1233	1228	N16	E74	.960	10821	11.1	9	-F		V		.41				DE 8
414 BOUL	05	1307E	1317	1307	N25	W73	.957	10808	30.1	10D	-F	1	V						8
415 BOUL	05	1310E	1329	1313	S08	W68	.932	10807	30.4	19D	-F	1	V						8
416 BOUL	05	1356E	1428	1358	S04	W38	.625	10810	2.7	32D	1F		V						9
GRP31419	05	1531	1555	1534	S11	E10	.299	10815	6.4	24	-F				.31				2 2 1 9
RAMY	05	1530	1547	1533	S13	E10	.327	10815	6.4	17	-N		C		.31				DEH
BOUL	05	1531	1602	1535	S08	E10	.260	10815	6.4	31	-F	3	V						
420 RAMY	05	1540	1554	1545	N15	E70	.939	10821	10.9	14	-F		C		.21				DE 9
421 RAMY	05	1604	1612	1607	S13	E10	.327	10815	6.4	8	-F		C		.31				DE 8
GRP31424	05	1802	1818	1804	S04	W41	.664	10810	2.7	16	-F				.62				3 2 1 6
RAMY	05	1800	1819D	1804U	S04	W38	.625	10810	2.9	19D	-F		C		.46				DE
LOCK	05	1800	1815	1804	S02	W41	.660	10810	2.7	15	-F								
CANR	05	1803	1820		S06	W40	.656	10810	2.8	17	-F	2	V		.62	.70			
430 LOCK	05	2146	2154	2149	S04	W31	.527	10812	3.6	8	-F								4
433 LOCK	06	0005	0015	0008	S08	W06	.223	10814	5.6	10	-F								5
434 CRON	06	0131E	0138		N12	W55	.820	10811	1.9	7D	-N	3	V		.41				5
436 CRON	06	0139	0142		S11	E07	.275	10815	6.6	3	-F	3	V		.52				5
437 CRON	06	0213	0223		S09	E09	.264	10815	6.8	10	-F	3	V		.52				4
438 CRON	06	0216	0226		N23	W79	.980	10808	30.2	10	-F	3	V		.31				4
439 CRON	06	0310E	0315		N09	W32	.534	10813	3.7	5D	-F	3	V		.31				5
441 CRON	06	0347E	0401		S10	E07	.260	10815	6.7	14D	-N	3	V		.62				4
443 CATA	06	0525	0535	0525	S10	E18	.381	10815	7.6	10	-N			0525	.14	.16		195	5
444 TEHR	06	0640E	0640D		S10	E04	.241	10815	6.6		1F								E 8
445 TEHR	06	0704E	0706D		N17	E54	.816	10821	10.3	2D	-F								G 9
446 TEHR	06	0715E	0745D		S03	W48	.748	10810	2.7	30D	2F								9
447 TEHR	06	0743E	0743D		N10	W37	.606	10813	3.5		1F								10
GRP31450	06	0807	0828	0810	S10	E05	.247	10815	6.7	21	-F				.72				2 2 1 10
TEHR	06	0807	0816D	0810	S10	E05	.247	10815	6.7	9D	-F								
CRON	06	0812E	0828		S10	E05	.247	10815	6.7	16D	-F	3	V		.72				
451 CAPS	06	0859E	0929D		S04	W45	.714	10810	3.0	30D	-B	3	V	0903	.30	.40		196	10
452 CANR	06	1003	1020		S23	W18	.525	10822	5.1	17	-F	2	V		.72	.80			8
454 RAMY	06	1118	1126	1120	S22	W19	.522	10822	5.0	8	-F		C		.31				DE 9
458 RAMY	06	1300	1311	1301	S22	W19	.522	10822	5.1	11	-F		C		.52				DE 11
460 CANR	06	1303	1317		S23	W11	.477	10825	5.7	14	-N	2	V		.41	.40			11
461 BOUL	06	1409	1417	1412	N18	E56	.836	10821	10.8	8	-F	2	V						11
462 CATA	06	1420E	1425D	1420	S04	W32	.542	10812	4.2	5D	-N			1420	.52	.62		158	12
GRP31463	06	1427	1443	1432	N11	W39	.635	10813	3.7	16	-F				.41				2 2 1 11
BOUL	06	1427	1445	1428	N09	W38	.618	10813	3.8	18	-N	2	V						
RAMY	06	1427	1441	1435	N12	W40	.650	10813	3.6	14	-F		C		.41				DE
465 BOUL	06	1529	1537	1530	S04	W49	.761	10810	3.0	8	-N	3	V						10
GRP31466	06	1530	1550	1540	S10	E01	.232	10815	6.7	20	-F								2 2 0 10
BOUL	06	1527	1534	1529	S12	E06	.284	10815	7.1	7	-F	2	V						
LOCK	06	1533	1550	1538	S10	W01	.232	10815	6.6	17	-F								
BOUL	06	1538	1549	1541	S09	E01	.215	10815	6.7	11	-N	3	V						
468 BOUL	06	1532	1540	1534	N22	E56	.842	10821	10.8	8	-N	3	V						10

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GRP31469	06	1551	1605	1555	S19	W29	.592	10812	4.5	14	-N				.31				2 2 1 10
RAMY	06	1550	1605	1554	S18	W31	.606	10812	4.3	15	-N		C		.31				DE
BOUL	06	1552	1604	1555	S19	W27	.570	10812	4.6	12	-N	3	V						
471 LOCK	06	1704	1722	1710	N23	W90	1.000	10820	30.0	18	-F								7
472 RAMY	06	1710E	1724	1710E	S09	E12	.296	10815	7.6	14D	-F		C		.31				DE 7
479 LOCK	06	2052	2106	2056	S11	W06	.269	10815	6.4	14	-F								4
481 CULG	06	2226	2315	2245	N10	W43	.684	10813	3.7	49	1N		C	2245	1.75	2.38			3
485 MANI	07	0143	0155	0145	S06	W43	.694	10812	3.8	12	-F	2		0145	.31	.43			4
486 CRON	07	0210E	0217		S11	W09	.293	10815	6.4	7D	-N	3	V		.41				4
487 CRON	07	0256E	0303		N19	W85	.995	10808	30.7	7D	-N	3	V		.31				4
488 TEHR	07	0556	0603D		N16	W88	.999	10808	30.6	7D	-F								A 9
GRP31489	07	0622	0640	0631	S09	E03	.222	10815	7.5	18	-F				.41				2 2 1 12
HTPR	07	0619	0640	0631	S09	E03	.222	10815	7.5	21	-F		C	0631	.41	.40			E
TEHR	07	0624	0635D		S09	E03	.222	10815	7.5	11D	-F								
491 TEHR	07	0630	0730D	0634	N17	E49	.765	10821	10.9	60D	-B								H 12
GRP31493	07	0807	0846	0810	S06	W45	.718	10812	4.0	39	-F				1.35				2 1 1 14
ABST	07	0807	0846	0810	S06	W45	.718	10812	4.0	39	-F		C	0810	1.35	1.80		45	E
TEHR	07	0815E	0830D	0825	S08	W44	.712	10812	4.0	15D	1N								
495 MONT	07	0933	0940	0935	N08	W50	.765	10813	3.6	7	-N		C	0935	.52				12
496 ISTA	07	1030	1045D		S07	W44	.709	10812	4.1	15D	1N								14
497 MONT	07	1100	1113	1105	S09	W47	.749	10812	3.9	13	-N		C	1105	.72				14
498 MONT	07	1114	1125	1116	S02	W67	.922	10810	2.4	11	-N		C	1116	.31				13
GRP31499	07	1115	1131	1118	S12	W14	.356	10815	6.4	16	-F				.36				2 2 2 13
RAMY	07	1114	1131D	1117	S11	W14	.344	10815	6.4	17D	-F		C		.41				DE
MONT	07	1116	1130	1118	S12	W13	.345	10815	6.5	14	-N		C	1118	.31				
501 MONT	07	1146	1149	1147	S11	W42	.698	10812	4.3	3	-N		C	1147	.21				10
502 MONT	07	1152	1205	1153	S11	W42	.698	10812	4.3	13	-N		C	1153	.21				12
503 MONT	07	1209	1215	1211	S05	W53	.805	10812	3.5	6	-N		C	1211	.52				H 11
504 MONT	07	1500	1513	1502	S08	W49	.768	10812	3.9	13	-B		C	1502	.31				13
505 MONT	07	1502	1520D	1516	S05	W53	.805	10812	3.7	18D	-N		C	1516	.31				H 14
GRP31506	07	1648	1711	1652	N24	W90	1.000	10808	31.0	23	-F								2 2 0 8
LOCK	07	1648	1710	1652	N23	W90	1.000	10808	31.0	22	-N								H
RAMY	07	1652E	1711		N24	W90	1.000	10808	1.0	19D	-F		C						DE
GRP31507	07	1652	1706	1654	N08	W56	.828	10813	3.5	14	-F				.52				2 2 2 8
RAMY	07	1652	1705	1654	N08	W56	.828	10813	3.5	13	-F		C		.52				DE
MCMA	07	1652	1706	1654	N08	W55	.818	10813	3.6	14	-N		C	1654	.52	.90			E
509 BOUL	07	1713	1719	1715	N10	W56	.828	10813	3.5	6	-F	1	V						8
510 RAMY	07	1721	1732		N22	W90	1.000	10808	1.0	11	-F		C						DE 8
512 LOCK	07	1749	1810	1756	N23	W90	1.000	10808	1.0	21	-F								7
513 RAMY	07	1844	1908	1852	N06	W56	.827	10813	3.6	24	-F		C		.41				DE 6
515 WEND	07	1848	1908D		S07	W53	.808	10812	3.8	20D	1N		V		3.09				6
522 TEHR	08	0558E	0605D		N09	W62	.881	10813	3.6	7D	-F								9
GRP31523	08	0605	0626	(0608)	N23	E23	.493	10821	10.0	21	-F				.93				2 1 1 9
MANI	08	0605E	0626		N25	E24	.522	10821	10.1	21D	-F	1		0608	.93	1.07			
TEHR	08	0615E	0615D		N20	E21	.442	10821	9.8		1F								GT
GRP31526	08	0806	0834	0809	N15	W39	.644	10813	5.4	28	-N				.41				2 2 2 13
MONT	08	0806	0815	0809	N15	W39	.644	10813	5.4	9	-N		C	0809	.41				H
CRON	08	0810E	0852		N14	W38	.628	10813	5.5	42D	-N	2	V		.41				

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527 MONT	08	0832	0844	0834	N11	W67	.919	10813	3.3	12	-N		C	0834	.72				H 13
530 MONT	08	0933	1000	0945	N25	W90	1.000	10808	1.6	27	-N		C						12
531 RAMY	08	1037	1058	1041	N17	E10	.286	10821	9.2	21	-F		C		.41				DE 10
GRP31532	08	1106	1119	1112	N14	W68	.926	10813	3.4	13	-F				.31				2 2 2 11
MONT	08	1103	1115	1111	N13	W67	.919	10813	3.4	12	-N		C	1111	.31				
RAMY	08	1109	1122	1113	N15	W68	.926	10813	3.4	13	-F		C		.31				DE
GRP31533	08	1134	1202	1137	S09	W19	.387	10815	7.1	28	-F				.62				2 2 2 11
MONT	08	1133	1205	1135	S08	W19	.378	10815	7.1	32	-N		C	1135	.52				
RAMY	08	1135	1158	1139	S09	W19	.387	10815	7.1	23	-F		C		.72				DE
GRP31534	08	1204	1232	1209	N13	W13	.274	10814	7.5	28	-N				.52				2 2 2 10
MONT	08	1204	1220	1207	N13	W15	.302	10814	7.4	16	-B		C	1207	.62				E
RAMY	08	1208E	1243	1211	N12	W11	.238	10814	7.7	35D	-F		C		.41				DE
535 MONT	08	1310	1320	1313	S10	W17	.370	10815	7.3	10	-N		C	1313	.21				9
536 RAMY	08	1432	1445	1435	N18	E08	.282	10821	9.2	13	-F		C		.31				DES 10
537 RAMY	08	1438E	1503	1444	S21	W47	.790	10822	5.1	25D	-F		C		.83				DE 9
540 BOUL	08	1731	1750	1732	N17	W78	.976	10811	2.9	19	-F	3	V	1732		.50			6
GRP31541	08	1732	1747	1732	S09	W19	.387	10815	7.3	15	-F				.62				2 2 1 6
RAMY	08	1729E	1748	1729E	S09	W19	.387	10815	7.3	19D	-F		C		.62				DE
BOUL	08	1734	1745	1735	S08	W18	.364	10815	7.4	11	-F	3	V	1735		.30			
546 CRON	09	0043E	0048D		N08	W74	.960	10813	3.5	5D	-N	2	V		.31				3
GRP31548	09	0339	0354	0342	N12	W21	.381	10814	7.6	15	-F				.57				2 2 2 5
MANI	09	0339	0354D	0342	N13	W20	.372	10814	7.7	15D	-F	2		0342	.41	.43			
CRON	09	0343E	0353E		N10	W21	.371	10814	7.6	10D	-F	3	V		.72				
549 CULG	09	0515	0551D	0523	S10	W89	1.000	10810	2.5	36D	1F		P	0523	.52				A 5
GRP31552	09	1109	1121	1110	S08	W27	.490	10815	7.4	12	-N				.66				2 2 2 6
CANR	09	1107	1116		S08	W27	.490	10815	7.4	9	-N	2	V		.52	.50			
CATA	09	1110	1125	1110	S07	W26	.471	10815	7.5	15	-N			1110	.80	.92		191	
556 CRON	10	0010E	0015		N18	E78	.976	10830	15.9	5D	-F	3	V		.21				4
557 CRON	10	0013	0020	0013	N11	W30	.509	10814	7.8	7	-F	3	V		.41				4
GRP31559	10	0325	0344	0328	S10	W44	.719	10815	6.8	19	-F				.57				2 2 2 6
MANI	10	0325E	0347	0328	S09	W43	.704	10815	6.9	22D	-F	2		0328	.62	.87			
CRON	10	0330E	0340		S10	W44	.719	10815	6.8	10D	-F	3	V		.52				
560 CRON	10	0432E	0436		S19	E90	1.000	10832	16.9	4D	-N	3	V		.31				5
561 MANI	10	0508E	0517	0510	S08	W44	.713	10815	6.9	9D	-F	2		0510	.52	.73			9
562 ISTA	10	0605	0624		N18	E90	1.000	10833	17.0	19	-N								9
GRP31563	10	0616	0625	0619	N15	E10	.257	10821	11.0	9	-F				1.24				2 2 2 9
ABST	10	0616	0629D	0619	N15	E10	.257	10821	11.0	13D	-F		P	0619	1.35	1.30		50	E
CRON	10	0616E	0620		N15	E09	.247	10821	10.9	4D	-F	2	V		1.13				
564 TEHR	10	0655E	0715D		N15	E21	.399	10821	11.9	20D	-F								10
565 ISTA	10	0734	0745		S11	W85	.997	10812	3.9	11	-F								9
566 MONT	10	0826	0840	0829	S10	W51	.795	10815	6.5	14	-N		C	0829	.31				9
568 ONDR	10	0853E	0910		N15	E77	.972	10830	16.1	17D	1N		V	0857			3.10		C 10
569 BOUL	10	1348	1403	1358	N18	E06	.265	10821	11.0	15	-F		V						9
570 BOUL	10	1404	1419	1406	N18	E06	.265	10821	11.0	15	-N		V						9
GRP31572	10	1512	1523	1514	S17	E83	.995	10832	16.9	11	-F				.41				2 2 1 12
BOUL	10	1512	1521	1514	S18	E81	.992	10832	16.7	9	-N	2	V						
MEUD	10	1513E	1525		S16	E85	.998	10832	17.0	12D	-F		C	1513	.41				B
578 RAMY	10	1807	1820	1808	S16	E82	.993	10832	16.9	13	-F		C						DE 6
583 RAMY	10	2036	2054	2039	N19	E62	.886	10830	15.5	18	-F		C		.31				DE 4

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586 RAMY	10	2142	2147	2144	N16	E01	.212	10821	11.0	5	-F		V		.31				DE 3
587 RAMY	10	2152	2210	2153	N16	E01	.212	10821	11.0	18	-F		V		.52				DE 3
594 CRON	11	0521	0535	0521	N16	W04	.220	10821	10.9	14	-F	3	V		.41				7
GRP31599	11	0824	0840	0827	N16	W04	.220	10821	11.1	16	-F				.52				2 2 1 10
MONT	11	0824	0840	0827	N16	W05	.226	10821	11.0	16	-N		C	0827	.52				
TEHR	11	0824E	0827D		N16	W03	.215	10821	11.1	30	-F								
600 CRON	11	0845E	0902		S11	W59	.871	10815	6.9	17D	-F	3	V		.52				10
601 MONT	11	1251E	1310		S12	W56	.847	10815	7.3	19D	-N		C	1251	.83				E 10
604 MONT	11	1506	1515	1509	S13	W67	.931	10815	6.6	9	-N		C	1509	.31				6
605 MONT	11	1557	1610	1559	N16	W08	.249	10821	11.1	13	-N		C	1559	.52				H 6
606 HUAN	11	1636	1645		S19	E62	.907	10832	16.3	9	-F	1	P	1638	.14				D 6
607 RAMY	11	1715	1722	1717	N15	W06	.218	10821	11.3	7	-F		C		.15				DEH 6
608 RAMY	11	1845	1850	1846	N15	W06	.218	10821	11.3	5	-F		C		.21				DE 5
609 RAMY	11	1915	1925	1919	S19	E59	.886	10832	16.2	10	-F		V		.26				DE 5
612 RAMY	11	2008	2020	2010	N20	E33	.587	10827	14.3	12	-F		V		.26				DE 4
613 RAMY	11	2029E	2046	2034	N16	W09	.258	10821	11.2	17D	-N		C		.72				DE 4
616 LOCK	12	0025	0035	0029	N19	W14	.347	10821	11.0	10	-N								H 4
618 ISTA	12	0615	0641		S08	W61	.883	10815	7.7	26	-F								7
619 TEHR	12	0815E	0819D	0819	S18	E55	.853	10832	16.5	4D	-F								6
623 RAMY	12	2006	2030	2010	S07	W73	.960	10815	7.4	24	-F		C		.52				F 4
624 BOUL	12	2252	2324	2257	S08	W82	.992	10815	6.8	32	-N	1	V						4
625 CRON	13	0219E	0223		N19	W21	.428	10821	11.5	4D	-F	3	V		.52				3
626 TEHR	13	0612	0630D		N02	W14	.244	10828	12.2	18D	-F								HG 8
GRP31627	13	1034	1119	1048	S17	E45	.757	10832	16.8	45	-F				1.10				2 2 2 8
CATA	13	1025	1125	1045	S13	E46	.752	10832	16.9	60	-N			1045	1.16	1.77		197	
RAMY	13	1042	1112	1050	S16	E45	.753	10832	16.8	30	-F		C		1.03				DE
RAMY	13	1117	1148	1123	S24	E43	.771	10832	16.7	31	-F		C		.62				DE
628 CATA	13	1120	1150	1125	N23	W43	.715	10821	10.2	30	-N			1125	.87	1.25		166	7
GRP31629	13	1428	1448	1433	S08	W81	.989	10815	7.5	20	-N								2 2 0 11
RAMY	13	1427	1446	1433	S07	W82	.992	10815	7.5	19	-N		C						DE
BOUL	13	1429	1450	1433	S08	W80	.987	10815	7.6	21	-N	2	V						
GRP31631	13	1600	1607	1602	N18	E30	.537	10830	15.9	7	-F				.21				2 2 1 7
BOUL	13	1600	1607	1603	N18	E29	.524	10830	15.8	7	-F	2	V						
RAMY	13	1601E	1602D	1601D	N18	E30	.537	10830	15.9	1D	-F		C		.21				DE
633 RAMY	13	1728	1749	1731	N11	E57	.837	10833	18.0	21	-F		C		.41				DE 7
635 RAMY	13	2035	2105D	2037	N15	E29	.508	10830	16.0	30D	-F		C		.72				DE 4
GRP31636	13	2218	2228	2222	N19	E06	.276	10827	14.4	10	-F				.72				2 2 1 8
RAMY	13	2217	2228D	2222	N19	E08	.289	10827	14.5	11D	-F		C		.72				DE
LOCK	13	2218	2227	2221	N19	E04	.265	10827	14.2	9	-F								
638 BOUL	13	2340	2354	2342	N18	E27	.498	10830	16.0	14	-F	1	V						4
639 BOUL	14	0145	0159	0148	S18	E64	.919	10836	18.9	14	-F	1	V						6
640 ISTA	14	0650	0702		S15	E90	1.000	10837	21.0	12	-N								10
643 RAMY	14	1125	1147	1129U	S15	E31	.591	10832	16.8	22	-F		C		.57				F 7
644 RAMY	14	1128	1143	1131	N20	E17	.389	10830	15.8	15	-N		C		.36				DE 7
649 WEND	14	1531	1540		N15	E52	.791	10833	18.5	9	-N								10

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GRP31651	14	1650	1708	1652	N18	E16	.356	10830	15.9	18	-F				.31				2 2 1 7
BOUL	14	1650	1703	1652	N18	E16	.356	10830	15.9	13	-F	2	V	1652		.50			
RAMY	14	1650	1712	1652	N18	E16	.356	10830	15.9	22	-F		C		.31				DE
652 BOUL	14	1821	1828	1822	N19	W49	.766	10821	11.1	7	-F	2	V						5
654 CRON	15	0345E	0355		S17	E20	.486	10832	16.7	10D	-F	3	V		.21				5
655 TEHR	15	0535E	0700D		N20	W71	.944	10821	9.9	85D	-F								7
GRP31656	15	0547	0629	0556	S17	E17	.456	10832	16.5	42	-F				1.35				2 2 1 7
TEHR	15	0540E	0643D	0555	S17	E17	.456	10832	16.5	63D	-N								H
ABST	15	0554	0615	0556	S16	E17	.444	10832	16.5	21	-F		C	0556	1.35	1.40		46	E
GRP31657	15	0734	0749	0736	N22	W65	.908	10821	10.4	15	-F				.31				2 2 1 10
MONT	15	0734	0742	0736	N25	W70	.940	10821	10.1	8	-N		C	0736	.31				
ISTA	15	0735	0755		N19	W59	.860	10821	10.9	20	-F								
GRP31658	15	0754	0818	0755	S19	E12	.440	10832	16.2	24	-B				.72				2 2 2 11
MONT	15	0753	0825	0755	S18	E11	.420	10832	16.2	32	-B		C	0755	1.03				E
CRON	15	0755	0810		S19	E13	.448	10832	16.3	15	-N	3	V		.41				
659 BOUL	15	1225	1234	1228	N21	W74	.959	10821	10.0	9	-F	2	V						6
GRP31661	15	1535	1559	1537	N19	W75	.963	10821	10.0	24	-F				.26				2 2 1 9
RAMY	15	1535	1607	1538	N18	W75	.963	10821	10.0	32	-F		C		.26				DE
BOUL	15	1535	1551	1535	N20	W75	.963	10821	10.0	16	-F	2	V	1535		.50			
662 RAMY	15	1610	1625	1611	N21	W75	.963	10821	10.0	15	-F		C		.31				DE 7
665 BOUL	15	2338	2349	2340	N18	E28	.509	10833	18.1	11	-F	1	V						4
666 BOUL	16	0042	0053	0045	N18	E00	.235	10830	16.0	11	-F	1	V						5
667 BOUL	16	0117	0127	0120	N16	E58	.849	10838	20.4	10	-N	1	V						4
668 CRON	16	0243E	0255		N15	W31	.534	10827	13.8	12D	-F	2	V		.21				3
669 TEHR	16	0525E	0530D		N16	W29	.511	10827	14.1	5D	-F								H 7
670 TEHR	16	0540E	0540D		N18	W29	.522	10827	14.1		-F								8
671 TEHR	16	0545E	0622D	0602	N16	W29	.511	10827	14.1	37D	1F								8
674 TEHR	16	0647	0650D	0650	N18	E00	.235	10830	16.3	3D	1F								H 9
675 MANI	16	0654E	0710		N19	W01	.253	10830	16.2	16D	-F	1		0655	.21	.21			9
676 CRON	16	0723E	0750		N19	W03	.257	10830	16.1	27D	-F	3	V		.31				7
677 BOUL	16	1304	1314	1304	N16	W37	.617	10827	13.8	10	-F		V						7
680 BOUL	16	1722	1743	1735	N04	W47	.730	10843	13.2	21	-F		V						4
682 BOUL	16	1809	1820	1810	S06	E07	.217	10834	17.3	11	-F		V	1810		.70			4
684 BOUL	16	2046	2055	2048	N16	W38	.630	10827	14.0	9	-F		V						4
686 BOUL	16	2200	2208	2203	N04	W50	.764	10843	13.2	8	-F		V	2203		.50			5
687 BOUL	16	2328	2351	2328	N04	W52	.786	10843	13.1	23	-N		V						4
688 LOCK	17	0110	0123	0115	N18	W43	.696	10827	13.8	13	-F								4
689 CRON	17	0325	0335D	0328	N14	E53	.799	10838	21.1	10D	-F	3	V		.83				3
690 CRON	17	0419E	0428D		N08	E90	1.000	10845	23.9	9D	1N	3	V		.52				2
691 CRON	17	0453E	0453D		N18	W47	.742	10827	13.7		-F	3	V		.93				4
692 MANI	17	0502E	0510		N09	W46	.718	10827	13.8	8D	-F	1		0502	.41	.61			5
693 MANI	17	0554E	0605		N09	W46	.718	10827	13.8	11D	-F	1		0554	.52	.76			5
694 ISTA	17	0722	0745		N20	E90	1.000	10845	24.1	23	-N								6
696 CRIM	17	0833E	0902D		N08	E90	1.000	10845	24.1	29D	-N		C	0836	.31				D 8
697 CANR	17	0954	1008		N09	E90	1.000	10845	24.2	14	-N	1	V		.21	.80			6

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GRP31699	17	1349	1355	1350	N09	E90	1.000	10845	24.3	6	-F		C						2 2 0 8
MCMA	17	1348	1355	1350	N10	E90	1.000	10845	24.3	7	-F		C	1350					D
BOUL	17	1349	1355	1350	N08	E90	1.000	10845	24.3	6	-N	2	V						
702 MCMA	17	1742	1815	1750	S14	E18	.434	10836	19.1	33	-F		C	1750	.52	.60			E 4
703 BOUL	17	1807	1840	1815	N08	E87	.998	10845	24.3	33	-N	2	V	1815		2.00			4
704 BOUL	17	1821	1830	1823	N19	W44	.711	10827	14.5	9	-F	1	V	1823		.50			4
705 BOUL	17	1902	1907	1902	N06	E88	.999	10845	24.4	5	-N		S	1902		.50			3
708 MCMA	17	2221	2234	2225	N20	W52	.797	10827	14.0	13	-F		C	2225	.26	.40			D 5
709 MANI	18	0021	0049	0023	S17	W24	.531	10832	16.2	28	-F	2		0023	.62	.73			5
711 MANI	18	0331	0355		N14	E37	.611	10838	20.9	24	-F	2		0332	1.03	1.31			5
713 CRON	18	0349	0402		N19	W58	.851	10827	13.8	13	-N	3	V		.52				4
716 RAMY	18	1206E	1217	1206E	S16	E61	.897	10844	23.1	11D	-F		C		.52				DE 11
GRP31717	18	1354	1414	1400	S18	W31	.616	10832	16.3	20	-F				.73				2 2 2 10
MONT	18	1354	1410	1355	S18	W32	.627	10832	16.2	16	-N		C	1355	.62				
RAMY	18	1404E	1417D	1404E	S18	W29	.594	10832	16.4	13D	-F		C		.83				DE
718 LOCK	18	1447	1456	1450	N20	W39	.655	10830	15.7	9	-F								10
719 LOCK	18	1530	1540	1533	N04	E72	.950	10845	24.0	10	-F								6
720 HTPR	18	1543	1600	1550	N09	W42	.668	10830	15.5	17	-F		C	1550	.93	1.30			6
722 RAMY	18	1745E	1801D	1747	N26	W66	.917	10827	13.8	16D	-F		C		.31				DE 5
723 LOCK	18	1758	1812	1800	N13	E31	.526	10838	21.1	14	-F								5
731 CRON	19	0433E	0439		N08	E70	.937	10845	24.4	6D	1F	3	V		1.03				2
734 TEHR	19	0610E	0640D		N07	E67	.918	10845	24.3	30D	-F								9
735 TEHR	19	0620E	0630D		N16	E23	.427	10838	21.0	10D	-F								9
736 TEHR	19	0620E	0630D		N19	W40	.663	10830	16.3	10D	-F								9
GRP31737	19	0745	0810		N16	E23	.427	10838	21.0	25	-F								1 1 0 7
TEHR	19	0745E	0810D		N15	E23	.420	10838	21.0	25D	-F								
TEHR	19	0745E	0810D		N18	E24	.454	10838	21.1	25D	-F								
738 MONT	19	0900	0915	0905	N16	E19	.372	10838	20.8	15	-N		C	0905	.62				6
740 HTPR	19	1025	1040		N18	W75	.963	10827	13.8	15	-N		C						4
743 LOCK	19	1406E	1427	1406	N20	W50	.777	10830	15.8	21D	-N								7
GRP31746	19	1630	1648	1631	S20	W48	.801	10832	16.1	18	-F				.44				2 2 2 7
RAMY	19	1629	1649	1631	S20	W47	.792	10832	16.2	20	-F		C		.62				DE
CANR	19	1630	1647		S20	W48	.801	10832	16.1	17	-F	2	V		.26	.40			
748 RAMY	19	1747	1804	1749	N05	E60	.864	10845	24.2	17	-F		C		.31				DE 5
749 RAMY	19	1803	1822D	1805	N09	E60	.863	10845	24.3	19D	-N		C		.41				DE 5
759 CRON	20	0217	0226		N15	E09	.234	10838	20.8	9	-F	3	V		.41				4
760 CRON	20	0257	0302		N07	E61	.872	10845	24.7	5	-F	3	V		.41				3
761 CRON	20	0344E	0353		N03	E65	.905	10845	25.0	9D	-F	4	V		.31				3
GRP31762	20	0510	0600		N08	E50	.763	10845	24.0	50	-N				.69				2 2 1 7
TEHR	20	0505E	0532D	0510	N08	E51	.774	10845	24.0	27D	1N								Z
TEHR	20	0512	0535D	0515	N10	E58	.845	10845	24.6	23D	-N								
TEHR	20	0513	0535D	0515	N11	E55	.817	10845	24.3	22D	-N								
CATA	20	0535	0600D	0540	N08	E48	.741	10845	23.8	25D	-N			0540	.69	1.04		191	Z
TEHR	20	0537	0545D		N08	E49	.752	10845	23.9	8D	-F								
764 TEHR	20	0710E	0800D		N07	E53	.796	10845	24.3	50D	1N								10
766 CANR	20	0910	0910D		N18	W60	.866	10830	15.9		-N	1	V		.41				6

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767 CAPS	20	0913E	0917D		N15	W58	.847	10830	16.0	4D	-N	2	V	0914	.40	.70			6
GRP31768	20	1002	1009	1004	N14	W39	.636	10833	17.5	7	-F				.31				1 1 1 5
MEUD	20	1002	1009	1004	N14	W39	.636	10833	17.5	7	-F		C	1004	.31	.40			E
MEUD	20	1002	1009	1004	N14	W39	.636	10833	17.5	7	-F		C	1004	.31	.40			E
MEUD	20	1002	1009	1004	N14	W39	.636	10833	17.5	7	-F		C	1004	.31	.40			E
769 MEUD	20	1057	1100D		N10	W80	.983	10827	14.5	3D	-F		C	1100	.31				D 5
771 HURB	20	1144E	1242D	1151	S15	E30	.584	10844	22.7	58D	1N						2.30		H 5
773 MEUD	20	1246	1252	1248	N10	W82	.989	10827	14.4	6	-N		C	1248	.52				8
775 MEUD	20	1404E	1407		S15	W35	.642	10834	18.0	3D	-F		C	1404	.31	.40			5
776 MEUD	20	1456	1505	1457	N12	E73	.953	10855	26.1	9	-F		C	1457	.41				D 4
778 RAMY	20	1640	1649	1643	N07	E52	.785	10845	24.6	9	-F		C		.21				DE 4
787 BOUL	20	2322	2337	2323	N18	E36	.610	10845	23.7	15	-N	1	V						4
788 BOUL	20	2331	2358	2333	S08	E11	.290	10844	21.8	27	-N	1	V						4
789 CRON	21	0034E	0100		N18	W70	.937	10830	15.8	26D	-N		V		.41				7
791 CRON	21	0105E	0128		S10	W23	.459	10836	19.3	23D	-F		V		1.55				5
GRP31793	21	0143	0154	0148	N19	W68	.925	10830	16.0	11	-N				.36				2 2 2 7
CRON	21	0140	0150		N19	W70	.937	10830	15.8	10	-N		V		.41				
MANI	21	0145	0158	0148	N19	W66	.912	10830	16.1	13	-N	2		0148	.31	.66			
794 KODA	21	0200E	0207D		N08	E41	.654	10845	24.2	7D	-N		P	0201	.85	.85			D 7
795 CRON	21	0211E	0213D		N19	W72	.948	10830	15.7	2D	-N		V		.31				6
796 MANI	21	0213	0230	0216	N22	E88	.998	10846	27.7	17	-F	2		0216	.31	.80			6
GRP31797	21	0223	0237	0225	N07	E41	.654	10845	24.2	14	-F				.52				2 2 2 6
MANI	21	0223	0236	0225	N07	E41	.654	10845	24.2	13	-F	2		0225	.52	.68			
CRON	21	0223	0231	0224	N07	E38	.614	10845	23.9	8	-N		V		.52				
CRON	21	0235	0238		N07	E45	.705	10845	24.5	3	-N		V		.41				
798 CRON	21	0332E	0343		N20	E88	.998	10846	27.7	11D	-N		V		.31				3
799 CRON	21	0424E	0440		N19	W73	.953	10830	15.7	16D	-F		V		.83				3
801 CULG	21	0453	0511	0501	N20	E88	.998	10846	27.8	18	1N		C	0501	.52				4
GRP31802	21	0656	0732	(0704)	N19	W72	.948	10830	15.9	36	-F				.88				2 2 2 8
CRON	21	0656E	0732		N18	W73	.953	10830	15.8	36D	1F		V		1.44				
MANI	21	0703E	0709D		N19	W70	.937	10830	16.0	6D	-F	1		0704	.31	.66			
803 CRON	21	0656E	0716		N04	W69	.932	10831	16.1	20D	-F		V		.72				8
806 CRON	21	0817E	0832		N15	E85	.994	10846	27.7	15D	-F		V		.31				5
807 MEUD	21	0848	0856	0848	N07	E38	.614	10845	24.2	8	-F		C	0848	1.13	1.20			E 7
808 CRON	21	0909	0921	0909	N07	E45	.705	10845	24.8	12	-F		V		.21				7
810 RAMY	21	1041	1053	1044	N07	E40	.641	10845	24.4	12	-F		C		.52				DE 7
GRP31816	21	1317	1339	1320	N20	W78	.975	10830	15.7	22	-F				.52				2 2 1 9
BOUL	21	1316	1338	1320	N23	W78	.975	10830	15.7	22	-N	2	V						
RAMY	21	1317	1340	1319	N16	W78	.975	10830	15.7	23	-F		C		.52				DE
GRP31818	21	1510	1527	1510	N23	E80	.981	10846	27.6	17	-N				.21				2 2 1 12
RAMY	21	1509	1528	1510	N22	E84	.992	10846	27.9	19	-N		C		.21				DE
BOUL	21	1510	1526	1510	N23	E76	.967	10846	27.3	16	-N	2	V						
GRP31820	21	1605	1622		N19	E78	.975	10846	27.5	17	-N				.10				2 2 1 9
MEUD	21	1605E	1622D		N17	E78	.975	10846	27.5	17D	-N		C						E
CANR	21	1607	1614		N21	E77	.971	10846	27.4	7	-N	1	V		.10	.30			
GRP31821	21	1630	1636	1632	N18	W75	.962	10830	16.1	6	-N								2 2 0 9
BOUL	21	1628	1635	1631	N18	W73	.953	10830	16.2	7	-N	2	V						
MCMA	21	1631	1637	1632	N18	W77	.971	10830	15.9	6	-N		C	1632					E
823 LOCK	21	1837	1847	1840	N09	E37	.601	10845	24.6	10	-F								5

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OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
824 LOCK	21	1841	1850	1845	S00	E90	1.000	10850	28.5	9	-F								5
825 BOUL	21	1904	1908	1905	N17	W70	.936	10830	16.5	4	-F	2	V	1905		.40			4
831 MANI	22	0154	0205	0156	N07	E17	.293	10845	23.4	11	-N	2		0156	.31	.32			5
832 KODA	22	0200	0217	0214	S13	E74	.969	10847	27.6	17	-N		P	0200	1.67	1.70	1.80		CDK 5
834 CRON	22	0357E	0427		S10	W03	.263	10844	21.9	30D	-F	3	V		1.13				4
836 CRON	22	0454E	0510		N07	E29	.483	10845	24.4	16D	-N	3	V		.31				4
837 KODA	22	0544	0547	0547	S13	E73	.964	10847	27.7	3	-N		P	0544	1.67	1.70	1.72		CDK 6
838 CAPS	22	0612E	0624D		N05	E31	.513	10845	24.6	12D	-N	3	V	0614	.40	.50		170	7
839 ISTA	22	0655	0750		S14	E74	.969	10847	27.8	55	1F								9
840 BUCA	22	0730	0800		N03	W85	.996	10831	15.9	30	-N		C	0735	.43				D 10
841 ISTA	22	0734	0810D		N23	E73	.953	10846	27.8	36D	-F								10
842 ISTA	22	0740	0800D		N19	W83	.990	10830	16.1	20D	1F								10
GRP31844	22	0859	0916	0902	N18	W88	.998	10830	15.8	17	-N				2.00				2 2 2 8
CRIM	22	0859E	0906D	0902	N17	W90	1.000	10830	15.6	7D	-N		P	0902	.90				DV
WEND	22	0904E	0916		N18	W86	.996	10830	15.9	12D	1N		V		3.09				
GRP31845	22	0905	0945	0915	N08	E23	.392	10845	24.1	40	-B				1.86				2 2 2 9
WEND	22	0904E	0922D		N07	E23	.390	10845	24.1	18D	1N		V		3.09				
CATA	22	0905	0945	0915	N08	E23	.392	10845	24.1	40	-B			0915	.63	.69		229	
846 CAPS	22	0956E	1010D		N05	E27	.452	10845	24.4	14D	-N	3	V	0958	1.70	1.90		182	5
847 MONT	22	1043	1048	1045	N09	E31	.515	10845	24.8	5	-N		C	1045	.31				8
849 RAMY	22	1225	1240		N03	W87	.998	10831	16.0	15	-F		V						DE 10
850 RAMY	22	1243	1310D	1247	N02	W87	.998	10831	16.0	27D	-F		C						DE 7
GRP31852	22	1428	1440	1429	N09	E25	.425	10845	24.5	12	-N				.52				2 1 1 10
MONT	22	1428	1440	1429	N09	E25	.425	10845	24.5	12	-N		C	1429	.52				
RAMY	22	1439	1457	1443	N08	E28	.469	10845	24.7	18	-F		C		.93				DE
855 RAMY	22	1443	1457	1446	N02	E90	1.000	10850	29.4	14	-N		C						DE 9
859 BOUL	22	1539	1548	1540	S13	E72	.960	10847	28.1	9	-N	2	V	1540		.20			12
865 BOUL	22	2127	2203	2131	N07	E14	.243	10845	23.9	36	-F	1	V	2131		1.00			5
866 MANI	22	2210E	2223D		N05	E11	.190	10845	23.7	13D	-N	1		2211	.52	.53			7
867 BOUL	22	2215	2220	2217	S14	E56	.854	10847	27.1	5	-F	1	V	2217		.40			7
869 MANI	23	0237	0240D	0238	N10	E14	.254	10845	24.2	3D	-N	2		0238	.52	.53			5
872 CANR	23	0822	0822D		N22	E58	.853	10846	27.7		-N	2	V		.41				13
873 HURB	23	0826E	0834	0826	N21	E60	.868	10846	27.9	8D	-F						1.87		12
874 ARCE	23	0937	0940D		N07	E60	.863	10849	27.9	3D	-F		P	0938		.90			I 9
876 WEND	23	0959	1039		S16	E57	.868	10847	27.7	40	1N		P		4.13				9
880 BOUL	23	1305	1321	1305	S10	E90	1.000	10850	30.3	16	1F	1	V						10
885 BOUL	23	1552	1602	1554	S13	E53	.826	10847	27.6	10	-N	2	V	1554		.50			8
GRP31886	23	1619	1652	1636	N11	E09	.186	10845	24.4	33	-F				.14				2 1 1 8
HUAN	23	1619	1652		N11	E09	.186	10845	24.4	33	-F	2	C	1621	.14	.14			D
RAMY	23	1634	1641	1636	N12	E16	.297	10845	24.9	7	-F		C		.52				DE
889 MCMA	23	1949E	1953D		S14	E55	.846	10847	28.0	4D	-N		P	1950	.36	.60			D 4
893 BOUL	23	2357	0019	0000	S13	E50	.797	10847	27.7	22	-N	1	V						6
894 MANI	24	0049	0100	0051	S14	E49	.791	10847	27.7	11	-F	2		0051	.72	1.16			7
896 MANI	24	0229	0246	0232	S07	W31	.548	10844	21.8	17	-F	2		0232	1.03	1.25			5

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OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
GRP31897	24	0304	0400	0341	S14	E48	.781	10847	27.7	56	-N				.31				2 1 1 6
CRON	24	0304	0400	0341	S14	E48	.781	10847	27.7	56	-N	3	V	0341	.31				
MANI	24	0350E	0415D		S15	E47	.774	10847	27.7	25D	-N	1		0352	.52	.81			
898 CULG	24	0313	0400	0325	N08	E81	.986	10852	30.2	47	1N		C	0325	.62				6
899 MANI	24	0320	0338	0326	S10	W70	.947	10836	18.9	18	-F	2		0326	.31	.68			6
901 CRON	24	0511	0535		S14	E48	.781	10847	27.8	24	-F	3	V		.93				6
902 CRON	24	0606	0626	0610	N16	E48	.747	10846	27.9	20	-F	3	V	0610	1.03				12
GRP31903	24	0657	0711	0659	N20	E46	.733	10846	27.7	14	-N				.62				2 2 2 11
MITK	24	0656	0708	0659	N20	E46	.733	10846	27.7	12	-N		C	0659	.52	.70			E
CRON	24	0657	0713	0658	N20	E45	.722	10846	27.7	16	-N	3	V	0658	.72				
904 CANR	24	0913	0933	0916	N08	W10	.179	10845	23.6	20	-F	3	V			1.00			12
906 CANR	24	0941	0946	0942	N07	W15	.259	10845	23.3	5	-N	3	V			.40			11
907 CANR	24	0958	1013		N19	E45	.719	10846	27.8	15	-F	3	V			.70			11
908 CANR	24	1159	1250		N07	W08	.142	10845	23.9	51	-F	3	V			.70			7
909 CANR	24	1203	1216	1205	S14	E44	.739	10847	27.8	13	-N	3	V			.70			9
910 CANR	24	1210	1217	1212	N13	E04	.153	10845	24.8	7	-N	3	V			.30			7
911 BOUL	24	1310	1317	1311	S08	E90	1.000	10853	31.3	7	-F	2	V						8
912 BOUL	24	1534	1542	1536	N06	W14	.241	10845	23.6	8	-N	2	V						9
916 MCMA	24	2206E	2208D		S14	E36	.650	10847	27.6	2D	-F		P	2206	.41	.50			E 4
919 LOCK	24	2342	2354	2346	N15	E37	.611	10846	27.8	12	-F								4
920 LOCK	25	0022	0028	0025	N21	E43	.702	10846	28.2	6	-F								4
921 MANI	25	0102E	0107D	0106	S16	E36	.662	10847	27.7	5D	-F	2		0106	.31	.41			5
923 MANI	25	0210	0224	0212	N17	E37	.617	10846	27.9	14	-F	2		0212	.31	.38			3
924 CRON	25	0308	0331		N15	E35	.584	10846	27.8	23	-F	3	V		1.03				4
926 MANI	25	0530	0535	0532	N18	E35	.595	10846	27.9	5	-N	2		0532	.21	.25			5
929 TEHR	25	0725E	0725D		N11	W07	.157	10845	24.8		1F								T 10
934 RAMY	25	1259	1309	1304	N18	E27	.490	10846	27.6	10	-F		C		.46				DE 7
GRP31935	25	1315	1337	1321	N11	W13	.244	10845	24.6	22	-F				.21				2 2 1 7
RAMY	25	1309	1329D	1317	N10	W13	.238	10845	24.6	20D	-F		C		.21				DE
BOUL	25	1321	1337	1325	N12	W13	.251	10845	24.6	16	-F	1	V						
940 BOUL	25	1646	1655	1649	N18	E27	.490	10846	27.7	9	-F	2	V						9
942 RAMY	25	1958	2025	2000	N18	E23	.436	10846	27.6	27	-F		V		.52				DE 4
943 BOUL	25	2042	2103	2046	N04	E48	.741	10851	29.5	21	-F	1	V	2046		1.00			3
950 BOUL	25	2321	2325	2321	N07	W26	.437	10845	24.0	4	-N	1	V						4
951 CRON	25	2331	2351		S22	E44	.777	10847	29.3	20	-F	2	V		1.03				5
952 CRON	25	2343	2351		S14	E39	.685	10847	28.9	8	-F	2	V		.31				5
953 LOCK	26	0010	0030	0015	N06	E46	.717	10851	29.5	20	-F								4
955 CRON	26	0250	0301	0251	N15	E23	.416	10846	27.8	11	-F	3	V	0251	1.03				4
959 TEHR	26	0600E	0610D	0604	N06	E41	.653	10851	29.3	10D	-F								10
962 CANR	26	1021	1027	1023	N07	E39	.627	10851	29.4	6	-N	2	V			.50			8
963 RAMY	26	1156	1226	1207	N17	E85	.994	10856	1.9	30	-F		C		.72				DE 8
964 RAMY	26	1226	1240	1229	S08	E26	.487	10847	28.5	14	-F		C		.31				DE 9
966 CAPS	26	1240E	1252D		N05	E32	.528	10851	28.9	12D	-F		V	1241	.60	.70		158	8

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OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
967 RAMY	26	1253	1310	1257	N11	E53	.796	10852	30.5	17	-F		C		.93				DE 8
968 MCMA	26	1303	1410D	1315	N06	E38	.613	10851	29.4	67D	-F		C	1315	.52	.70			EKT 9
970 MCMA	26	1423	1445	1425	N07	E16	.276	10846	27.8	22	-F		C	1425	.52	.50			E 8
971 RAMY	26	1423	1445D	1426	N15	E17	.331	10846	27.9	22D	-F		C		.83				DE 8
972 RAMY	26	1432	1501	1440	N01	E39	.632	10851	29.5	29	-N		C		.83				DE 8
973 RAMY	26	1558E	1605D	1558E	N12	W30	.506	10845	24.4	7D	-F		C		.41				DE 8
974 LOCK	26	1730	1750	1735	N06	E33	.542	10851	29.2	20	-F								5
981 CRON	26	2314	2350		N06	E47	.729	10852	30.5	36	1N	1	V		1.55				5
982 LOCK	26	2328	0000	2337	N06	E29	.483	10851	29.2	32	-F								4
GRP31986	27	0231	0302	(0232)	S01	E37	.609	10850	29.9	31	-F				.62				2 1 1 5
MANI	27	0231E	0245		S00	E35	.579	10850	29.7	14D	-F	1		0232	.62	.77			
CRON	27	0245	0318		S02	E39	.638	10850	30.0	33	-F	3	V		.41				
987 TEHR	27	0628E	0635D	0629	N10	W37	.601	10845	24.5	7D	-N								10
GRP31988	27	0629	0649	0637	N06	E27	.452	10851	29.3	20	-F				.71				2 2 2 9
CAPS	27	0625E	0635D		N05	E25	.421	10851	29.1	10D	-F	3	V	0627	1.00	1.10		158	
MANI	27	0633	0649	0637	N06	E28	.467	10851	29.4	16	-F	2		0637	.41	.47			
989 CRON	27	0650	0701	0651	N11	W35	.575	10845	24.7	11	-F	3	V		.83				10
992 ISTA	27	0655E	0702		N06	E27	.452	10851	29.3	7D	-F								10
993 HTPR	27	0722	0745	0731	N05	E22	.373	10851	29.0	23	-F		C	0731	1.03	1.10			8
997 CANR	27	1054	1059	1055	S00	E28	.477	10850	29.6	5	-N	2	V			.30			6
GRP32002	27	1448	1453	1449	S04	E51	.786	10853	31.4	5	-F								2 2 0 12
LOCK	27	1447	1452	1448	S01	E52	.791	10853	31.5	5	-F								
BOUL	27	1448	1454	1449	S07	E49	.771	10853	31.3	6	-F	2	V	1449		.40			
005 CAPS	27	1501E	1541D		S08	E52	.805	10853	31.5	40D	-N	3	S	1506	.30	.60		189	11
007 BOUL	27	1700	1712	1701	N07	E48	.740	10852	31.3	12	-F	2	V	1701		.40			7
008 BOUL	27	1715	1719	1717	N14	W46	.720	10845	24.3	4	-N	2	V	1717		.30			7
GRP32009	27	1719	1727	1722	N16	W01	.185	10846	27.6	8	-F								2 2 0 7
LOCK	27	1718	1730	1722	N18	W02	.221	10846	27.6	12	-F								
BOUL	27	1720	1724	1721	N14	E00	.150	10846	27.7	4	-F	2	V	1721		.50			
011 HTPR	27	1750	1800	1752	S08	E47	.752	10853	31.3	10	-F		C	1752	.41	.60			6
019 HUAN	27	2028	2043	2032	N08	W61	.871	10841	23.3	15	-B	1	P	2032	.75	1.50			E 3
020 HUAN	27	2103	2110	2105	N04	E07	.124	10851	28.4	7	-F	1	P	2105	.31	.30			D 4
024 BOUL	27	2309	0003		S07	E45	.726	10853	31.3	54	-N	1	V						5
026 BOUL	28	0008	0012		S07	E45	.727	10853	31.4	4	-N	1	V						5
027 LOCK	28	0020	0045	0030	N13	W45	.707	10845	24.6	25	-F								4
034 HTPR	28	0725	0748	0735	N05	E16	.275	10851	29.5	23	-F		C	0735	.52	.50			11
039 CANR	28	1135	1146		S01	E12	.235	10850	29.4	11	-F	1	V			.50			7
044 BOUL	28	1408	1417	1410	N06	E12	.207	10851	29.5	9	-F	2	V						12
047 BOUL	28	1543	1609	1544	N09	W25	.423	10855	26.8	26	-N	2	V						13
GRP32049	28	1614	1659	1638	N05	W62	.881	10845	24.0	45	-B				.65				2 2 1 8
SANM	28	1614E	1702D		N04	W63	.889	10845	24.0	48D	-B	1	P	1630	.65	1.43			D
BOUL	28	1635	1655	1638	N04	W61	.873	10845	24.1	20	-N	2	V	1638		1.00			
SANM	28	1644	1702D		N07	W64	.896	10845	23.9	18D	1N	1	P	1652	1.77	4.04			E
050 BOUL	28	1811	1825	1812	N13	W54	.806	10845	24.7	14	-F	2	V	1812		.30			4
055 BOUL	28	2125	2146	2126	N05	E07	.122	10851	29.4	21	-N	1	V	2126		.80			1

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE 1970 JUL	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
059 BOUL	28	2337	2351		S07	E32	.563	10853	31.4	14	-N	1	V						4
064 TACH	29	0423E	0432		S08	E31	.556	10853	31.5	9D	-N		C	0427	.91	.10	2.50	54	E 4
GRP32066	29	0535	0549	0536	S08	E28	.516	10853	31.3	14	-F				.68				2 2 2 11
HTPR	29	0532	0543	0536	S07	E27	.496	10853	31.3	11	-N		C	0536	.83	.90			
CRON	29	0537	0555		S08	E28	.516	10853	31.3	18	-F	3	V		.52				
067 ONDR	29	0600E	0615		S08	E28	.516	10853	31.4	15D	-B		V	0606			2.50		CDH 9
072 HTPR	29	0849	0855	0853	S07	E27	.496	10853	31.4	6	-F		C	0853	.41	.50			10
073 CANR	29	0854	0900	0855	N08	W76	.968	10845	23.7	6	-N	1	V			.50			11
GRP32074	29	0905	0925	0907	S08	E26	.489	10853	31.3	20	-N				.41				2 2 1 10
CRON	29	0905	0925	0907	S08	E25	.475	10853	31.3	20	-F	2	V		.41				
ONDR	29	0906E	0917D		S08	E26	.489	10853	31.3	11D	-B		V	0912			3.30		CDJ
GRP32076	29	1004	1018	1005	N12	W70	.936	10845	24.2	14	-N								2 2 0 8
CANR	29	1004	1019	1005	N08	W75	.963	10845	23.8	15	-N	2	V			.30			
ONDR	29	1009E	1015D		N13	W68	.923	10845	24.3	6D	1N		V	1011			2.40		CDH
CANR	29	1009	1016	1011	N14	W68	.923	10845	24.3	7	-N	2	V			.30			
078 CANR	29	1042	1053		N08	W77	.972	10845	23.7	11	-F	3	V			.50			8
GRP32080	29	1113	1143	1116	N11	W73	.953	10845	24.0	30	1N								2 1 0 8
ONDR	29	1113E	1143D	1116	N13	W68	.923	10845	24.4	30D	1N		V	1116			2.80		CEHJ
CANR	29	1124	1133		N08	W77	.972	10845	23.7	9	-F	3	V						
082 MCMA	29	1148E	1210D		S23	W16	.538	10847	28.3	22D	-F		C	1150	.62	.70			E 9
GRP32086	29	1451	1456	1452	N14	W68	.923	10845	24.5	5	-F								2 2 0 9
LOCK	29	1450	1455	1452	N14	W69	.929	10845	24.4	5	-F								
BOUL	29	1451	1456	1452	N13	W67	.916	10845	24.6	5	-F	2	V	1452		1.00			
087 LOCK	29	1527	1537	1530	S07	E21	.413	10853	31.2	10	-F								8
088 LOCK	29	1704	1712	1706	N26	W27	.543	10846	27.7	8	-F								5
089 LOCK	29	1752	1800	1755	N26	W27	.543	10846	27.7	8	-F								6
100 MANI	30	0626E	0642D		S01	E80	.985	10867	5.3	16D	-N	1		0627	.31	.80			9
102 CRON	30	0711	0715		N14	W35	.580	10846	27.7	4	-F	3	V		.62				9
103 MONT	30	0747	0805	0752	N15	W02	.166	10852	30.2	18	-B		C	0752	.72				9
104 MONT	30	0938	0950	0940	N15	W37	.609	10846	27.6	12	-N		C	0940	.41				12
3 STATIONS REPORTING GROUP 32105. 7 STATIONS OBSERVING AND NOT REPORTING.																			
GRP32105	30	0953	1014	0957	S06	E15	.325	10853	31.5	21	-F				.62				2 2 1 10
CANR	30	0952	1018		S07	E14	.323	10853	31.5	26	-F	2	V						
MONT	30	0954	1010	0957	S05	E15	.315	10853	31.5	16	-N		C	0957	.62				
32105	30	0952	1018	1010	S06	E13	.299	10853	31.4	26	*-F				.87				2 2 1 9
CANR	30	0952	1018		S07	E14	.323	10853	31.5	26	-F	2	V						
CATA	30	0955E	1015D	1010	S05	E11	.264	10853	31.2	20D	-F			1010	.87	.90		144	
GRP32106	30	1001	1011	1004	N15	W39	.635	10846	27.5	10	-N				.41				2 2 1 10
MONT	30	1000	1010	1004	N15	W37	.609	10846	27.6	10	-N		C	1004	.41				
CANR	30	1001	1011		N14	W40	.646	10846	27.4	10	-N	2	V						
107 CANR	30	1007	1015		N12	W81	.985	10845	24.3	8	-N	2	V			.50			9
GRP32108	30	1039	1052	1042	N12	W80	.982	10845	24.4	13	-N				.41				2 2 1 8
MONT	30	1038	1051	1042	N12	W78	.975	10845	24.6	13	-N		C	1042	.41				
CANR	30	1039	1053		N12	W82	.988	10845	24.3	14	-N	2	V			.50			
110 RAMY	30	1125	1139	1129	N14	W39	.633	10846	27.6	14	-F		C		.21				DE 7
111 RAMY	30	1129	1143	1132	S15	W35	.647	10847	27.9	14	-F		C		.26				DE 7
113 RAMY	30	1159	1217	1205	N05	W90	1.000	10845	23.7	18	-F		C		.26				DE 8
115 CANR	30	1226	1235		N13	W82	.988	10845	24.4	9	-N	3	V			.90			13
GRP32116	30	1231	1243	1233	N24	W29	.550	10846	28.3	12	-F				.42				2 2 2 13
RAMY	30	1227	1245	1230	N19	W27	.493	10846	28.5	18	-F		C		.31				DE
MONT	30	1234	1240	1236	N28	W30	.591	10846	28.3	6	-N		C	1236	.52				E

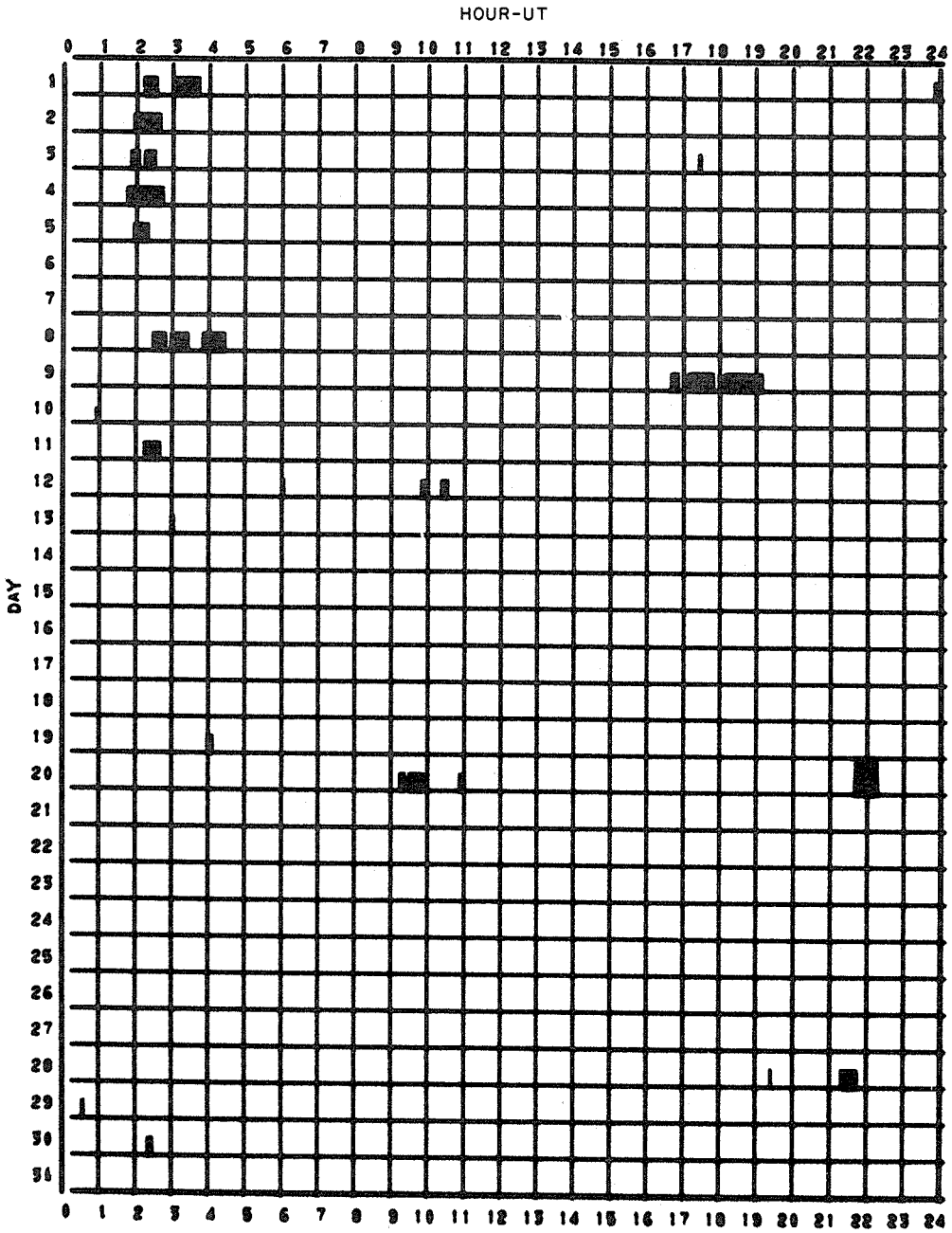
SOLAR FLARES
Unconfirmed
JULY 1970

OBSERVATORY	OBSERVED UT DATE 1970 JUL	START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	TYPE	MEASUREMENTS TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	REMARKS
119 BOUL	30	1338	1356	1339	S06	E11	.275	10853	31.4	18	-F	2	V	1339		.50			11
GRP32121	30	1419	1437	1424	N12	W84	.993	10845	24.3	18	-N				.41				2 2 1 11
RAMY	30	1419	1439	1424	N13	W88	.998	10845	24.0	20	-N		C		.41				DE
BOUL	30	1419	1434	1424	N11	W80	.982	10845	24.6	15	1N	2	V	1424		2.50			
122 MONT	30	1445	1500	1452	N15	W40	.648	10846	27.6	15	-N		C	1452	.52				11
123 RAMY	30	1452	1519	1456	N12	E72	.947	10860	5.0	27	-F		C		.41				DE 11
124 LOCK	30	1524	1530	1526	S06	E09	.254	10853	31.3	6	-F								10
GRP32127	30	1602	1623	1605	N13	E69	.929	10860	4.8	21	-F				.31				2 2 1 9
BOUL	30	1558	1625	1601	N14	E66	.909	10860	4.6	27	-F	2	V						
RAMY	30	1605	1621	1608	N12	E72	.947	10860	5.1	16	-N		C		.31				DE
GRP32131	30	1708	1755	1711	N06	W20	.340	10851	29.2	47	-F				.62				2 1 1 8
RAMY	30	1708	1755	1711	N06	W20	.340	10851	29.2	47	-F		C		.62				F
SANM	30	1712E	1734D		N05	W20	.341	10851	29.2	22D	1N	1	P	1724	2.91	3.11			F
132 SANM	30	1712E	1734D		N12	E70	.936	10860	5.0	22D	1N	1	P	1714	.97				E 7
133 RAMY	30	1758	1830	1801	N12	E73	.952	10860	5.2	32	-F		C		.21				DE 4
139 CRON	30	2341	0017		N22	W30	.549	10846	28.7	36	1N	3	V		2.17				3
140 CRON	30	2343	0026		N12	W82	.988	10845	24.8	43	1F	3	V		.52				4
143 CRON	31	0323	0345		N12	W90	1.000	10845	24.4	22	-F	3	V		.41				3
144 CRON	31	0344	0351D	0351	N13	W90	1.000	10845	24.4	7D	1N	3	V						4
145 KODA	31	0359	0410		N04	W26	.438	10851	29.2	11	-N		P	0409	1.43	1.40			D 5
148 CAPS	31	0944E	0946D		N26	W42	.706	10846	28.3	2D	-F	3	V	0945	.90	1.30		130	9
150 RAMY	31	1228	1300	1230	N06	W29	.482	10851	29.3	32	-F		C		.21				DE 10
GRP32152	31	1339	1403	1341	N17	W53	.799	10846	27.6	24	-F				.31				2 2 1 9
RAMY	31	1335	1418	1341	N15	W54	.807	10846	27.5	43	-F		C		.31				DE
CANR	31	1342	1347		N12	W54	.805	10846	27.5	5	-N	2	V			.50			
CANR	31	1343	1348		N24	W51	.791	10846	27.7	5	-N	2	V			.70			
153 MONT	31	1343	1353	1348	N07	W29	.482	10851	29.4	10	-N		C	1348	.62				9
156 MONT	31	1526	1540D	1529	N07	W30	.498	10851	29.4	14D	-N		C	1529	.41				11
159 RAMY	31	1942	1958D	1947	S14	W56	.857	10847	27.6	16D	-F		C		.62				F 4
160 LOCK	31	2055	2115	2105	S01	W43	.688	10851	28.6	20	-F								S 4
162 CRON	31	2322	2342		S09	E03	.259	10857	1.2	20	-F	1	V		1.75				3

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

JULY 1970



Observatories included in total patrol:

Abastumani	Carnarvon	Huancayo	Lockheed	Ondrejov
Arcetri	Catania	Hurbanovo	Lvov	Ramey
Arosa	Crimee	Istanboul	Manila	San Miguel
Boulder	Culgoora	Kharkov	McMath-Hulbert	Siberie
Bucharest	Gran Canaria	Kiev	Meudon	Tachkent
Capetown	Haute Provence	Kodaikanal	Mitaka	Tehran
Capri-S (Sweden)	Herstmonceux	Locarno	Monte Mario	Voroshilov
				Wendelstein

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1970

JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
1	9400 TYKW	5	0010	0025.5	100	6.0	3.0		
	3750 TYKW	5	0020	0043	130	5.0	3.0		
	3750 TYKW	5	0024	0025.2	3	3.0	1.0		
	9400 TYKW	5	0057	0058.3	3	4.0	2.0		
	3750 TYKW	5	0057	0058.3	3	2.0	1.0		
	3750 TYKW	5	0109	0109.6	1.5	3.0	1.0		
	2695 MANI	4	0109.2	0109.6	1.8	8.4	2.1		
	2695 PENT	3	0109	0109.5	.8	10.2	6.1		
	2000 TYKW	5	0109	0109.4	1.5	4.0	1.0		
	1415 MANI	2	0109.2	0109.6	1.8	3.0	1.5		
	1000 TYKW	5	0109	0109.6	3	4.0	1.0		
	606 MANI	4	0109.2	0109.5	1.8	14.3	5.1		
	4995 MANI	22	0113.5	0114.5	9.7	6.0	3.0		
	2695 MANI	22	0113.5	0114.5	9.7	4.2	2.1		
	1415 MANI	4	0113.5	0114.5	9.7	44.7	7.5		
	606 MANI	4	0113.5	0114.5	9.7	11.2	3.1		
	3750 TYKW	5	0114	0114.6	2	3.0	1.0		
	2695 PENT	2	0114	0115.7	1	6.8	3.4		
	2000 TYKW	5	0114	0114.4	1.5	26.0	5.0		
	1000 TYKW	45	0114	0114.4	1	23.0	8.0		
	200 HIRA	41	0149	0156	15	390.0			
	3750 TYKW	45	0150	0150.5	2	3.0	1.0		
	2695 PENT	1	0150	0150.5	2	6.8	2.0		
	1000 TYKW	45	0150	0150.4	2	32.0	7.0		
	606 MANI	4	0150	0150.5	1.5	12.2	5.1		
	9400 TYKW	5	0153	0154.2	2	28.0	8.0		
	9400 TYKW	29	0153	0154.2	10	5.0	2.0		
	8800 MANI	4	0153.6	0154.3	4.4	21.2	9.1		
	4995 MANI	4	0153.6	0154.4	2.9	30.0	15.0		
	3750 TYKW	5	0153.5	0154.3	2	24.0	9.0		
	2695 MANI	4	0153.2	0154.4	3.3	25.2	13.5		
	2000 TYKW	45	0153	0153.9	3	22.0	10.0		
	1415 MANI	46	0153.2	0154.9	4.8	63.0	29.8		
	1000 TYKW	45	0153	0154.8	3	125.0	30.0		
	606 MANI	4	0153.2	0154.9	3.3	56.0	25.5		
	1000 TYKW	41	0212.8	0213.1	1.5	10.0	2.0		
	200 HIRA	6	0212	0212.5	2	440.0	110.0		
	9400 TYKW	5	0250	0327	180	8.0	4.0		
	3750 TYKW	5	0250	0327	180	4.0	2.0		
	2000 TYKW	5	0326.9	0327.1	.8	3.0	1.0		
	9400 TYKW	5	0345	0345.5	2	7.0	2.0		
	100 GORK	6	0432.9	0433.7	1.1	750.0			
	100 GORK	6	0454.5	0454.9	.5	40.0	20.0		
	200 GORK	6	0455.9	0456	.3	30.0	15.0		
	100 GORK	41	0639	0639.2	7.2	50.0			
	100 GORK		0639	0642.6		50.0			
	100 GORK		0639	0646		50.0			
	9100 GORK	1	0651.4	0652.2	1.9	22.0	7.0		
	9400 TYKW	5	0655.3	0655.6	2 D	21.0	6.0		
	9100 GORK	1	0655.4	0655.7	2.8	25.0	9.0		
	3750 TYKW	5	0655.3	0655.8	1.5	3.0	1.0		
	8800 MANI	4	0656.4	0656.7	.8	15.3	3.1		
	4995 MANI	4	0656.4	0656.7	.8	12.0	3.0		
	234 POTS	45	0657.8	0657.9	2.5	500.0	50.0		
	234 POTS	45	0730.8	0730.9	.1	200.0	70.0		
	9400 TYKW	5	0731	0731.6	2	10.0	3.0		
	9100 GORK	1	0731.5	0731.8	2.1	23.0	5.0		
	9400 TYKW	5	0734	0735	6	16.0	4.0		
	9100 GORK	1	0734.6	0734.9	3.5	21.0	5.8		
	260 ONDR	44	0530		640	110.0D			
	100 GORK	44	0821 U		279 D		5.0		
	600 UCCL	2	0911	0911.8	3	8.0	3.0		
	606 SGMR	1	1057.3	1100.3	5.2	1.3	.5		
	245 SGMR	6	1057.3	1059.2	26	910.0	5.6		
	100 GORK	6	1057.1	1057.3	.5	30.0	15.0		
	15400 SGMR	3	1058.4	1059.9	32	32.8	12.4		
	9500 BERL	45	1058.5	1100	38.2	26.0	6.2		
	9100 GORK	4	1058.6	1100	9.3	44.0	12.0		
	8800 SGMR	3	1058.4	1059.9	30.7	28.6	9.0		
	4995 SGMR	3	1058.6	1101.5	23.3	20.0	7.5		
	2950 GORK	20	1058.8	1101.8	14.2	11.0	4.0		
	2695 SGMR	3	1058.4	1101.4	27	7.0	2.9		
	1415 SGMR	20	1058.4	1103.2	13.1	3.2	.9		
	237 TRST	41	1058.5	1058.7	1.6	1140.0			
	234 POTS	45	1058.7	1058.8	1.4	1500.0	75.0		
	200 GORK	6	1058.7	1058.7	.3	350.0	150.0		
	113 POTS	45	1058.7	1058.8	1.4	2800.0	200.0		
	100 GORK	41	1101.6	1102 U	10.5	50.0D			
	100 GORK		1101.6	1104.9		50.0			
	100 GORK		1101.6	1107.2		50.0			
	100 GORK		1101.6	1112.2		2000.0			
	200 GORK	41	1106.7	1107.8	2.6	40.0			
	200 GORK		1106.7	1109.1		20.0			
	2800 OTTA	22	1157	1205	30	6.0	3.0		
	600 UCCL	1	1303	1304	1.2	5.0	2.0		
	606 SGMR	1	1303.1	1303.8	1.7	4.6	1.6		
	245 SGMR	6	1303.1	1304.2	1.7	52.0	2.1		
	9100 GORK	20	1304.9	1306	23.7	13.0	5.8		
	600 UCCL	1	1307.5	1309	3.5	6.0	3.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1970

JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	930 BORD	5	1353	1353.4	1	86.0	1.0		
	930 BORD	41	1405	1406.5	2	9.0	2.0		
	2800 OTTA	20	1415	1417	15	3.0	1.5		
	18 BOUL	6	1426	1429	4			1	
	18 MCMA	6	1427	1429	3			2	
	408 SANM	45	1442	1442.7	1.7	23.5	7.5		
	15400 SGMR	3	1457.9	1458.6	7	7.9	2.8		
	9500 BERL	22	1457.7	1458.6	15 U	19.0	5.0		
	8800 SGMR	3	1457.1	1458.5	12	21.3	7.8		
	4995 SGMR	1	1457.8	1458.7	7.2	5.0	1.6		
	408 SANM	42	1613.6	1614	11.4	34.0	5.0		
	2800 OTTA	21	1650	1815	160	7.4	4.0		
	408 SANM	45	1722	1722.3	1.7	52.5	6.5		
	600 UCCL	1	1722.5	1723.5	1.5	10.0	6.0		
	600 UCCL	3	1843		.5	13.0	6.0		
	2700 PENN	24	1946.9	2051		13.5			
	18 BOUL	6	2009	2011	3			1	
	18 MCMA	6	2009	2011	5			1	
	18 MCMA	6	2018	2026	9			3	
	18 BOUL	6	2019	2026	8			3	
	2800 OTTA	20	2020	2027	170	13.0	6.5		
	2695 SGMR	20	2020	2027.8	19.1	12.0	6.0		
	1415 SGMR	4	2020.2	2027.6	13.4	25.5	11.3		
	2700 PENN	20	2021.6	2027.2	26.5	13.8	4.9		
	606 SGMR	4	2021.7	2028.3	10.6	27.3	12.5		
	245 SGMR	6	2021	2027.3	10.3	130.0	50.0		
	200 HIRA	6	2021	2023	8	15.0	5.0		
	100 HIRA	6	2021	2022.5	8	330.0	50.0		
	960 PENN	45	2023	2027.8	11.6	18.5	6.8		
	100 HIRA	27	2035	2050	164	20.0	15.0		
	200 HIRA	27	2047	2050	50	10.0	5.0		
	2800 OTTA	1	2131.5	2132	1	2.0	1.0		
	9400 TYKW	5	2353	2356.5	20	12.0	6.0		
2	9400 TYKW	45	0019	0025.8	13	12.0	3.0		
	9400 TYKW	45	0035	0037.5	20	10.0	6.0		
	3750 TYKW	45	0035	0049	60	6.0	3.0		
	2695 PENT	20	0035	0050	75	6.0	3.0		
	2000 TYKW	45	0035	0048	35	5.0	2.0		
	1000 TYKW	45	0035	0044	20	5.0	2.0		
	606 MANI	4	0036.3	0036.7	3.5	9.5	4.2		
	200 HIRA	27	0036	0110	110	50.0	20.0		
	606 MANI	4	0041.8	0043.9	8.1	10.5	3.2		
	1415 MANI	4	0042.7	0044.9	6.3	7.8	1.6		
	100 HIRA	27	0048	0119	94	70.0	40.0		
	9400 TYKW	45	0220	0256.5	70	9.0	3.0		
	3750 TYKW	5	0220	0256	90	7.0	2.0		
	2000 TYKW	5	0300	0312	50	4.0	2.0		
	100 GORK	44	0307 E		53		10.0		
	200 GORK	44	0442		41		5.0		
	200 GORK	41	0505	0505.1	2.4	15.0			
	200 GORK		0505	0506.4		20.0			
	200 GORK		0505	0507.1		15.0			
	100 GORK	41	0505	0505.3	2.7	50.0			
	100 GORK		0505	0506.4		40.0			
	100 GORK		0505	0507.5		40.0			
	3750 TYKW	5	0510	0520	30	6.0	2.0		
	200 GORK	6	0516.3	0517.2	1.7	50.0	25.0		
	100 HIRA	6	0516	0517.4	3	450.0	120.0		
	100 GORK	6	0516.5	0517.4U	2.5	50.0D			
	9100 GORK	1	0539.2	0539.6	2.5	8.7	3.1		
	9100 GORK	20	0544.9	0551.7	14.1	13.0	5.8		
	234 POTS	45	0648.3	0648.3	.3	175.0	10.0		
	100 GORK	6	0656.7	0657.2	.8	50.0	25.0		
	200 GORK	6	0657	0657.1	.6	40.0	20.0		
	100 GORK	41	0724	0725.8	3.4	55.0			
	100 GORK		0724	0726.7		2500.0			
	200 GORK	41	0725.1	0725.7	1.8	50.0			
	200 GORK		0725.1	0726.6		750.0			
	113 POTS	45	0725.8	0726.8	1.5	350.0	70.0		
	100 HIRA	6	0725.5	0727	2	390.0	70.0		
	9500 BERL	1	0726.8E	0726.8		10.0			
	234 POTS	45	0727.2	0728.1	1.2	200.0	10.0		
	200 GORK	41	0732.5	0732.7	1.6	80.0			
	200 GORK		0732.5	0733.1		40.0			
	100 GORK	41	0732.5	0733.4	12.8	50.0D			
	100 GORK		0732.5	0741.1U		50.0D			
	9500 BERL	1	0733.4E	0733.4		10.0			
	113 POTS	45	0749.5	0749.8	2	300.0	30.0		
	237 TRST	42	0817.6	0819.2	1.8	500.0D			
	234 POTS	41	0818	0818	1.3	1000.0	60.0		
	113 POTS	41	0818	0818.1	1.3	3500.0	250.0		
	100 HIRA	6	0818	0818.4	.5	460.0D	140.0D		
	100 HIRA	6	0818.8	0819.4	.7	340.0	60.0		
	23 POTS	41	0818	0818.2	1.5	13000.0	1500.0		
	260 ONDR	44	0530	0818	630	110.0D			
	200 GORK	44	0654.8		65 D		5.0		
	245 SGMR	44	0915 E		890 D				
	9500 BERL	1	0936.1E	0936.1		4.5			
	237 TRST	42	1002.3	1003.5	2.5	510.0			

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
2	930 BORD	5	1013	1013.2	1	10.0	2.0		
	9500 BERL	45	1016.6	1022.7	26.4	25.0	9.0		
	9400 SLOU	45	1017	1021	9	20.0			
	9100 GORK	22	1018.6	1019.9	12.9	18.0	9.5		
	237 TRST	42	1018.9	1019.5	3	1300.0			
	234 POTS	45	1019.2	1019.6	.7	500.0	60.0		
	237 TRST	41	1049.8	1050.4	1.9	470.0			
	234 POTS	45	1057.5	1057.9	1.6	250.0	20.0		
	600 UCCL	8	1106.5		.2	18.0	9.0		
	2800 OTTA	20	1110	1150	65	4.2	2.1		
	200 GORK	44	1112 E		108 D		5.0		
	100 GORK	44	1112 E		108 D		5.0		
	100 GORK	6	1242.7	1243	1.2	40.0D			
	23 POTS	41	1242.9	1243.3	7.9	15000.0	500.0		
	234 POTS	45	1254	1254.5	1.3	450.0	30.0		
	9400 HUAN	5	1303.3	1304.8	3.6	11.8	5.9		
	9100 GORK	20	1303.4	1305	19.3	20.0	6.1		
	234 POTS	45	1317.6	1317.8	.7	250.0	60.0		
	9400 HUAN	5	1407.6	1441	62.7	7.9	4.9		
	2800 OTTA	20	1410	1415	50	3.0	1.5		
	600 UCCL	2	1518	1518.5	2.5	8.0	3.0		
	9400 HUAN	5	1552.4	1603.6	86	15.7	5.2		
	2800 OTTA	20	1555	1605	60	4.8	2.4		
	408 SANM	40	1602.1	1610.1	12.9	47.0			
	408 SANM	45	1651.5	1652.6	1.8	23.5	2.0		
	2800 OTTA	21	1700	1840	180	16.0	5.4		
	15400 SGMR	3	1731.3	1731.7	2.4	56.0	19.1		
	9400 HUAN	5	1731	1731.7	2.8	15.7	7.2		
	8800 SGMR	3	1731.4	1731.7	2.4	11.8	4.4		
	18 BOUL	42	1756	1848	144			3	
	9400 HUAN	5	1758.5	1855.1	86.5	27.5	15.9		
	2800 OTTA	1	1758	1758.5	1	5.8	2.9		
	245 SGMR	8	1758.3	1758.4	.5	1550.0	750.0		
	18 MCMA	42	1758	1849	144			3	
	18 BOUL	41	1808	1812	7			3	
	18 MCMA	41	1808	1811	8			3	
	408 SANM	45	1820	1831.2	18.6	73.0	7.0		
	606 SGMR	22	1821.4	1830.7	16.1	27.1	10.8		
	15400 SGMR	20	1822.5	1834	34.8	10.4	5.2		
	245 SGMR	6	1822	1832.7	16.3	105.0	35.0		
	18 BOUL	41	1823	1828	10			3	
	8800 SGMR	20	1824.9	1833.5	38.9	14.0	7.0		
	4995 SGMR	20	1824.7	1833.6	39.2	25.0	12.5		
	2695 SGMR	22	1824.4	1833.4	37.6	28.3	13.2		
	18 MCMA	41	1824	1827	11			3	
	600 UCCL	4	1825	1826.2	2	12.0	5.0		
	2700 PENN	3	1828	1833.3	40 D	45.4			
	2800 OTTA	3	1830	1833	7	24.0	8.0		
	1415 SGMR	22	1830.2	1833.4	10	17.9	8.2		
	960 PENN	45	1830.2	1830.9	15	15.0	3.7		
	600 UCCL	4	1830.5	1831	11	36.0	15.0		
	18 BOUL	48	1839	1848	10			3	
	18 MCMA	6	1842	1849	9			3	
	18 BOUL	6	1854	1858	6			2	
	18 MCMA	6	1856	1858	4			2	
	15400 SGMR	3	1911.4	1911.9	3.1	21.5	10.0		
	9400 HUAN	5	1911.2	1911.9	3.2	17.7	8.8		
	8800 SGMR	3	1911.3	1912	3	16.8	7.9		
	2800 OTTA	24	2035		5	2.2			
	2800 OTTA	4	2122.2	2122.4	.8	13.0	6.0		
	2800 OTTA	24	2250		15	2.8			
	3750 TYKW	45	2311	2318.2	100	96.0	20.0		
	2800 OTTA	4	2312	2318	9	65.0	24.0		
	2000 TYKW	45	2312	2319.2	95	25.0	8.0		
	9400 TYKW	45	2314	2319.2	80	85.0	30.0		
	8800 SGMR	4	2315.5	2320	17.2	58.0	23.2		
	4995 SGMR	45	2315.5	2318.4	17.6	110.0	52.0		
	2695 SGMR	45	2315.5	2319.4	17.9	77.0	35.0		
	606 SGMR	4	2315.6	2318.5	7	35.3	15.6		
	15400 SGMR	4	2316	2317.8	12	36.5	18.1		
	8800 MANI	4	2316.5	2318.2	12.5	67.0	30.6		
	4995 MANI	46	2316.2	2319.4	9.4	137.0	45.8		
	2695 MANI	46	2316.2	2319.4	11.8	92.0	36.0		
	1415 SGMR	4	2316.5	2319.4	6.4	11.5	5.3		
	606 MANI	46	2316.8	2318.7	10.8	50.0	19.6		
	1415 MANI	4	2317.3	2319.4	5.9	15.5	4.7		
	2800 OTTA	30	2321		85	22.0	11.0		
	2695 PENT	21	2330	2345	40	9.2	4.6		
	8800 MANI	4	2333.9	2341.2	45.3	30.6	10.2		
	4995 MANI	4	2333.9	2341.2	43.2	45.8	15.3		
	2695 MANI	4	2333.9	2341.2	42.1	19.8	.5.4		
	606 MANI	4	2333.8	2333.9	47.5	42.0	18.9		
	2695 PENT	40	2334	2335.8	4	14.0			
	1415 MANI	4	2334.2	2339.2	31.9	23.9	6.4		
	2695 PENT	45	2339	2341.5	4	12.2	6.1		
3	8800 MANI	4	0023.2	0025.2	2.4	24.5	6.1		
	4995 MANI	4	0023.2	0025.2	7.4	30.5	9.2		
	2695 MANI	4	0024.3	0026	9.8	12.6	1.8		
	3750 TYKW	5	0101	0102	3	2.0	1.0		

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3	3750 TYKW	29	0104		14	1.0	1.0		
	3750 TYKW	5	0118	0126	9	20.0	6.0		
	9400 TYKW	5	0120	0126	8	23.0	8.0		
	2000 TYKW	5	0120	0130	50	4.0	2.0		
	2695 PENT	20	0124	0126	28 D	8.0			
	9400 TYKW	29	0128		60	12.0	6.0		
	1415 MANI	1	0203.9	0204.7	3	3.0	1.5		
	4995 MANI	1	0206	0206.1	.8	6.0	3.0		
	2695 MANI	1	0206	0206.2	.8	3.6	1.8		
	3750 TYKW	5	0243	0246	8	2.0	1.0		
	950 GORK	40	0256.1	0256.4	1.5	3.6			
	3750 TYKW	5	0305.5	0306.2	1.5	3.0	1.0		
	650 GORK	4	0324.8	0326	2.5	29.0			
	950 GORK	1	0325.9	0326.1	.5	2.1	1.0		
	200 GORK	6	0325.2	0325.8	1.2	100.0	50.0		
	3750 TYKW	5	0330	0340	40	2.0	1.0		
	200 GORK	6	0338.8	0338.8	.2	100.0	50.0		
	100 GORK	6	0340.5	0341.1	1.3	1500.0			
	200 GORK	6	0409.4	0409.6	.3	150.0	70.0		
	100 GORK	24	0427	0434.5	27	2000.0	400.0		
	200 GORK	41	0451	0452	6.7	100.0			
	200 GORK		0451	0456.2		100.0			
	200 GORK		0451	0457		200.0			
	200 GORK	6	0516	0516.2	1.2	100.0	50.0		
	9400 TYKW	5	0526	0526.4	2	5.0	2.0		
	3750 TYKW	5	0526	0526.4	5	3.0	1.0		
	200 HIRA	6	0555	0558.5	4	490.0	130.0		
	200 GORK	6	0558.4	0558.7	1.2	250.0D			
	100 HIRA	6	0558.5	0558.8	1.5	300.0	150.0		
	100 GORK	6	0558.4	0558.7	.8	1500.0	200.0		
	200 GORK	44	0618 E		102		5.0		
	100 GORK	41	0630	0631.3	14.3	30.0D			
	100 GORK		0630	0633.6		30.0			
	100 GORK		0630	0635.8		25.0			
	100 GORK		0630	0639.4		30.0D			
	100 GORK		0630	0644		30.0			
	606 MANI	4	0915.6	0920.6	6	40.8	10.2		
	100 GORK	44	0230 E		210		200.0		
	200 GORK	44	0231 E		209 D		10.0		
	260 ONDR	44	0530	0827.5	610	95.0D			
	245 SGMR	44	0916 E		889 D				
	1415 MANI	3	0919.4	0920	2.9	14.9	6.0		
	3750 TYKW	29	1027		65	11.0	6.0		
	9400 SLOU	4	1030.8	1032.2	5	56.6			
	9100 GORK	21	1030.8	1033.6	18.4	28.0	12.0		
	9500 BERL	4	1031	1032.5	12	42.0			
	19000 SLOU	3	1032	1032.1	.6	31.0			
	9100 GORK	3	1032	1032.3	1.6	35.0	12.5		
	9500 BERL	20	1127.5	1136.4	13 U	14.0	4.5		
	234 POTS	41	1127.8	1131.2	4	250.0	5.0		
	8800 SGMR	4	1135.8	1137	6.2	8.6	2.0		
	2695 SGMR	2	1135.9	1137	3.9	6.0	1.5		
	930 BORD	45	1135	1136.8	2	37.0	2.0		
	4995 SGMR	2	1136.1	1137	2.2	5.6	1.5		
	1415 SGMR	4	1136.9	1136.9	.3	23.5	4.0		
	930 BORD	5	1213	1213.3	1	12.0	2.0		
	2800 OTTA	21	1535	1548	85	3.6	1.8		
	600 UCCL	1	1602.3		.2	8.0	4.0		
	600 UCCL	8	1615		.3	21.0	10.0		
	2800 OTTA	1	1622	1624	6	4.2	2.1		
	2800 OTTA	1	1629	1630	3	4.6	2.3		
	930 BORD	45	1629	1629.6	1	21.0	2.0		
	18 BOUL	6	1633	1637	5			2	
	18 MCMA	6	1633	1637	5			3	
	9400 HUAN	5	1653.3	1656.8	13.2	11.0	4.8		
	408 SANM	41	1705	1719.6	48	210.0	33.5		
	2800 OTTA	23	1710		325	8.8	4.4		
	2700 PENN	24	1712.8	2018.3		14.7			
	245 SGMR	48	1716.5	1719.5	8.7	1400.0	380.0		
	606 SGMR	4	1717	1719.3	6.2	76.0	21.0		
	237 TRST	41	1717.1	1720	3.6	1500.0			
	8800 SGMR	1	1718.4	1718.6	4.1	3.0	1.5		
	4995 SGMR	1	1718.8	1719.2	2.4	6.2	3.1		
	2800 OTTA	45	1718	1718.5	4	8.2	4.1		
	2700 PENN	20	1718.4	1718.8	15.9	10.8	5.7		
	2695 SGMR	1	1718.4	1718.6	2.4	5.0	2.5		
	1415 SGMR	1	1718.2	1718.8	4	7.3	3.6		
	960 PENN	45	1718	1720	4.6	45.4	8.8		
	600 UCCL	4	1718.5	1720.5	3.5	72.0	30.0		
	2800 OTTA	22	1725	1728	10	5.8	2.6		
	9400 HUAN	5	1726.4	1857.3	174	16.6	10.4		
	9400 HUAN	5	1726.8	1728.1	3	20.2	8.0		
	9400 SLOU	4	1727	1728.2	5	32.0			
	15400 SGMR	3	1752.4	1753.1	8.2	17.7	7.1		
	9400 SLOU	3	1752.7	1753.2	4	34.0			
	9400 HUAN	5	1752.3	1753	4	27.6	10.1		
	8800 SGMR	3	1752.1	1753.2	6.9	20.0	7.8		
	408 SANM	40	1820.6	1824.8	34.4	340.0	5.5		
	2700 PENN	20	1821.1	1825.4	14.8	14.4	4.1		
	18 BOUL	42	1821	1843	29			3	

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3	18	MCMA	42	1821	1844	24			3	
	2695	SGMR	20	1822	1825.1	14	8.4	3.8		
	8800	SGMR	40	1823.8	1826	5	28.5	11.0		
	2800	OTTA	1	1823	1825.2	9	9.6	3.2		
	18	BOUL	41	1825	1829	7			2	
	18	MCMA	41	1828	1830	5			2	
	9400	HUAN	45	1831.8	1835.3	13	14.7	8.7		
	9400	HUAN		1831.8	1840.8		14.7			
	8800	SGMR	40	1832	1841	16.9	11.4	5.0		
	18	BOUL	48	1836	1843	11			3	
	2800	OTTA	21	1838	1844	20	8.0	4.0		
	2700	PENN	3	1838.3	1842	19.5	41.5	9.8		
	2695	SGMR	45	1839.5	1841.9	11.2	25.2	10.0		
	18	MCMA	6	1839	1844	6			3	
	15400	SGMR	1	1840.4	1841.5	6.6	5.9	2.9		
	4995	SGMR	45	1840.4	1841.9	8.1	26.0	10.2		
	2800	OTTA	4	1840.5	1842	4	25.0	12.5		
	1415	SGMR	1	1840.5	1841	6.6	4.7	2.2		
	960	PENN	1	1840	1841.1	4.9	3.1	1.7		
	606	SGMR	45	1840.5	1841	2.7	6.3	2.0		
	600	UCCL	2	1840.5	1841.5	1.5	5.0	2.0		
	18	BOUL	6	1920	1922	3			1	
	18	MCMA	6	1920	1922	3			1	
	2695	SGMR	45	1929.8	1936.3	7.2	33.6	12.0		
	9400	HUAN	45	1930.3	1931.8	6.4	46.0	23.5		
	9400	HUAN		1930.3	1935.4		31.3			
	2800	OTTA	21	1930	1937	30	9.6	4.8		
	2700	PENN	3	1930.9	1936.3	22	44.8	9.4		
	18	BOUL	6	1930	1935	6			3	
	15400	SGMR	3	1931.4	1931.8	13.6	20.7	8.5		
	10700	PENN	3	1931.5	1931.9	26.1	32.2	6.9		
	8800	SGMR	45	1931.3	1931.8	5.4	39.9	16.0		
	4995	SGMR	45	1931.4	1931.9	5.2	36.4	12.5		
	2800	OTTA	3	1931.8	1932	1	16.0	8.0		
	1415	SGMR	46	1931.7	1936.4	5.3	150.0	30.0		
	960	PENN	45	1931.6	1936.3	11.3	284.0	9.4		
	600	UCCL	4	1931	1936.5	7.5	120.0D			
	606	SGMR	46	1931.7	1936.3	10.1	180.0	35.0		
	100	HIRA	45	1931.5	1932	5	500.0D	130.0D		
	18	MCMA	6	1931	1935	6			3	
	2800	OTTA	45	1934.5	1936.3	2	22.0	5.6		
	15400	SGMR	29	1936.7	1936.7	27.5	14.3	7.1		
	9400	HUAN	29	1936.7	1936.7	38	18.4	7.6		
	8800	SGMR	29	1936.6	1936.6	22.4	18.2	9.1		
	18	BOUL	6	1936	1938	5			1	
	4995	SGMR	29	1937	1937	23.8	8.4	4.2		
	2695	SGMR	29	1937	1937	22.7	4.2	2.1		
	18	MCMA	6	1937	1938	2			1	
	2700	PENN	1	2009.2	2009.3	.5	3.6	2.2		
	9400	HUAN	5	2048.2	2104.3	43.5	7.4	3.4		
	2695	PENT	21	2325	2342	35	3.6	1.8		
	3750	TYKW	5	2326	2334	30	4.0	2.0		
	9400	TYKW	45	2340	2340.4	6	34.0	7.0		
	8800	MANI	4	2340.3	2340.4	.7U	27.5	9.2U		
	8800	SGMR	3	2340.1	2340.3	.6	28.5	11.0		
	4995	MANI	4	2340.3	2340.4	.7U	31.4	9.4U		
	4995	SGMR	3	2340.2	2340.3	.8	52.0	21.0		
	3750	TYKW	5	2340	2340.4	1.5	58.0	10.0		
	2695	MANI	4	2340.3	2340.4	.7U	9.0	1.8U		
	2695	SGMR	3	2340.3	2340.4	.4	20.0	8.0		
	2695	PENT	3	2340	2340.3	1	16.6	4.0		
	2000	TYKW	5	2340.3	2340.4	1	52.0	13.0		
	1415	MANI	4	2340.2	2340.3	.8U	45.6	15.2U		
	1415	SGMR	3	2340.2	2340.4	.8	47.0	19.0		
	3750	TYKW	29	2341.5		5	3.0	2.0		
	606	SGMR	3	2342.2	2342.4	.6	12.6	4.8		
	9400	TYKW	29	2346		10	4.0	2.0		
	2695	PENT	8	2359.5	2359.5		4.4			
	2000	TYKW	5	2359.3	2359.7	1	3.0	1.0		
4	3750	TYKW	5	0018	0018.7	2	3.0	1.0		
	9400	TYKW	5	0033	0033.8	4	4.0	2.0		
	9400	TYKW	5	0104	0105.2	9	8.0	3.0		
	3750	TYKW	5	0104	0108	9	2.0	1.0		
	9400	TYKW	5	0122	0123.2	4	5.0	2.0		
	3750	TYKW	45	0220	0240	55	7.0	3.0		
	9400	TYKW	5	0222	0228	10	3.0	1.0		
	9400	TYKW	5	0245	0250	25	3.0	1.0		
	200	GORK	6	0303.9	0304.3	1.1	100.0	50.0		
	200	GORK	6	0326.5	0326.9	.8	150.0			
	9400	TYKW	45	0335	0354	80	20.0	6.0		
	3750	TYKW	45	0335	0402	90	6.0	2.0		
	9100	GORK	20	0423.6	0424.2	5.9	17.0	6.2		
	650	GORK	20	0709.4	0746.9	46.9	4.7	1.8		
	600	UCCL	20	0718		38	7.0	3.0		
	23	POTS	5	0754.8	0755	.9	4000.0	1500.0		
	600	UCCL	20	0755.5		40	7.0	4.0		
	9500	BERL	3	0800.5	0801.3	5.5	20.0	4.4		
	9100	GORK		0800.8						
	8800	MANI	4	0800.3	0801.1	30.2	21.4	9.2		

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22}Wm^{-2}Hz^{-1}$ PEAK	MEAN	INT	REMARKS
4	4995 MANI	4	0800.3	0801.1	13.8	37.7	15.7		
	9500 BERL	4	0902	0942	86 U	20.0	5.3		
	200 GORK	44	0257 E		420		5.0		
	100 GORK	44	0300 E		180 D		300.0		
	260 ONDR	41	0600	1025	370	60.0			
	100 GORK	44	0600 E		175 D		50.0		
	245 SGMR	44	0916 E		894 D				
	240 KIEL	44	1030 E	1030		200.0	10.0		
	420 KIEL	44	1232 E	1232		280.0	10.0		
	600 UCCL	1	1059.2		.3	9.0	5.0		
	9500 BERL	3	1128.4E	1128.4		11.0			
	2800 OTTA	4	1210	1400	130	6.4	3.2		
	408 SANM	45	1305.2	1305.6	1.3	31.5	3.0		
	930 BORD	5	1401	1401.4	1	8.0	1.0		
	2800 OTTA	20	1430	1434	80	4.6	2.3		
	8800 SGMR	22	1453.3	1455.9	10.7	9.4	3.5		
	4995 SGMR	1	1455	1456.5	2.6	4.8	2.0		
	8800 SGMR	23	1511	1513.1	13	5.9	2.0		
	9400 HUAN	5	1515.7	1516.2	3.5	20.6	7.5		
	8800 SGMR	3	1515.9	1516.2	3.1	20.7	5.0		
	15400 SGMR	3	1516	1516.2	.5	13.0	4.0		
	9400 SLOU	3	1516	1516.1	7	52.0			
	930 BORD	45	1618	1619	2	45.0	2.0		
	2800 OTTA	1	1652.8	1653	1	3.8	1.4		
	18 BOUL	6	1821	1823	2			2	
	18 MCMA	6	1822	1823	2			2	
	18 BOUL	6	1835	1837	3			1	
	408 SANM	43	1840		4		7.0		
	606 SGMR	4	1841	1843	2.7	26.2	10.2		
	245 SGMR	6	1841.1	1842.5	3	40.9	3.9		
	600 UCCL	4	1843	1843.2	.8	22.0	10.0		
	18 BOUL	6	1846	1848	3			2	
	18 MCMA	6	1846	1848	3			2	
	600 UCCL	1	1850.5		.5	10.0	5.0		
	2700 PENN	24	1909.4	2050		26.8			
	2800 OTTA	21	1810	2050	230	23.0	10.0		
	9400 HUAN	5	1820.3	2049.3	184.9U	48.7	22.7		
	10700 PENN	20	1914.9	2049.3	149	40.5	20.5		
	600 UCCL	3	1920		.3	12.0	6.0		
	2800 OTTA	1	1952	1952.5	5	6.4	3.2		
	18 BOUL	41	1957	2006	10			3	
	18 MCMA	41	1958	2005	9			3	
	606 SGMR	45	1959.2	2005.3	10.8	20.5	6.9		
	2800 OTTA	4	2001	2003	10	38.0	13.8		
	245 SGMR	6	2001.8	2013	14.7	30.2	6.5		
	18 BOUL	6	2001	2006	6			3	
	18 MCMA	6	2001	2005	5			3	
	8800 SGMR	3	2002	2003.2	6	12.8	4.8		
	4995 SGMR	45	2002.3	2005.5	6	18.7	6.8		
	2695 SGMR	45	2002.2	2003.2	9.9	28.7	9.8		
	1415 SGMR	2	2002.2	2005.8	8.8	6.1	2.2		
	100 HIRA	6	2002	2003.5	4	140.0	20.0		
	2700 PENN	3	2003 U	2003.1	6 D	27.0	11.4		
	960 PENN	45	2003 U	2003.2	6 D	14.4	4.4		
	8800 SGMR	20	2012.6	2027	30.4	18.0	6.5		
	960 PENN	45	2012	2028.3	34	84.8	7.6		
	4995 SGMR	20	2015.3	2027.5	27.7	28.6	10.4		
	15400 SGMR	20	2016	2027	21	17.1	6.2		
	1415 SGMR	20	2017.4	2028	25.6	51.2	18.0		
	606 SGMR	4	2017.8	2027.2	22.7	16.6	5.8		
	18 BOUL	6	2017	2020	4			2	
	2800 OTTA	45	2018	2027.8	18	30.0	15.0		
	2800 OTTA	45	2018	2024	8	27.0			
	2800 OTTA	45	2026	2027.8	10	30.0			
	2695 SGMR	45	2018.3	2027.9	18.6	33.6	12.0		
	2700 PENN	3	2020	2028.3	14	57.3	18.3		
	245 SGMR	6	2020.3	2028.9	15.2	27.3	4.2		
	100 HIRA	27	2034.5	2102	70.5	60.0	25.0		
	18 BOUL	41	2050	2054	17			3	
	18 BOUL	6	2050	2054	7			3	
	18 MCMA	41	2050	2054	8			2	
	18 BOUL	6	2120	2124	6			3	
	18 MCMA	6	2121	2124	5			2	
	606 SGMR	1	2122.9	2123	.3	1.9	.7		
	245 SGMR	6	2122.1	2123	2.9	62.0	15.6		
	100 HIRA	6	2122	2123	2	420.0	65.0		
	606 MANI	3	2319.8	2320.2	.8	9.0	3.4		
5	9400 TYKW	5	0044	0046.5	7	5.0	2.0		
	9400 TYKW	5	0210	0320	140 U	6.0	3.0		
	3750 TYKW	5	0231	0315	100	10.0	5.0		
	650 GORK	40	0303.8		23.5	3.8			
	237 TRST	41	0524.6	0524.7	.4	70.0			
	200 HIRA	6	0524.5	0524.5	1	340.0	40.0		
	9500 BERL	1	0821.7E	0821.7		8.4			
	9500 BERL	1	0827.3E	0827.3		7.0			
	930 BORD	45	0827	0827.6	1	18.0	2.0		
	930 BORD	5	0908	0908.4	1	9.0	1.0		
	600 UCCL	1	1006.3		.2	4.0	2.0		
	600 UCCL	1	1023		.2	7.0	3.0		

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	536 ONDR	45	1200	1205.5	6	75.0			
	2800 OTTA	20	1435	1450	50	4.8	2.4		
	9400 HUAN	5	1437	1446.7	36.5	5.7	2.9		
	930 BORD	45	1443	1444.2	2	15.0	2.0		
	237 TRST	45	1509.3	1509.7	.9	75.0	25.0		
	237 TRST	42	1528.9	1531.2	3	65.0			
	237 TRST	45	1628.5	1628.9	.5	240.0	70.0		
	2800 OTTA	1	1655	1656	4	9.6	2.8		
	237 TRST	41	1718.7	1719	1	130.0			
	18 BOUL	41	1836	1845	10			1	
	18 MCMA	41	1837	1845	9			1	
	2800 OTTA	20	1840	1855	80	6.8	3.4		
	18 BOUL	6	1906	1911	9			3	
	18 MCMA	6	1907	1910	6			3	
	18 MCMA	41	1923	1924	10			2	
	18 MCMA	6	1923	1924	3			2	
	600 UCCL	3	1943		.2	16.0	8.0		
	100 HIRA	6	2024.7	2025.8	2	550.0D	320.0D		
	18 BOUL	41	2024	2027	7			2	
	18 BOUL	6	2024	2027	4			2	
	18 MCMA	41	2024	2027	6			2	
	18 MCMA	6	2024	2027	4			2	
	960 PENN	45	2040.7	2041.7	2.4	9.5	2.2		
	606 SGMR	4	2040.3	2042	2	12.0	4.5		
	245 SGMR	7	2040.3	2041.4	5.4	7200.0	1700.0		
	200 HIRA	45	2040.5	2042	2	720.0	210.0		
	100 HIRA	45	2040.5	2041.5	3	550.0D	370.0D		
	2800 OTTA	2	2041	2041.5	1.5	7.0	3.5		
	2700 PENN		2041.4	2042	1.4	5.0	2.6		
	100 HIRA	6	2046	2046.2	.5	550.0D	400.0D		
	100 HIRA	6	2146	2147	1	450.0	40.0		
	18 BOUL	6	2146	2148	3			1	
	18 MCMA	6	2146	2148	3			2	
6	200 HIRA	6	0121	0121.6	1	60.0	20.0		
	9400 TYKW	5	0137	0137.7	2	15.0	3.0		
	4995 MANI	3	0137.4	0137.8	2.6	12.2	3.1		
	3750 TYKW	5	0137.4	0137.7	2	3.0	1.0		
	2695 MANI	1	0137.4	0137.8	2.6	3.7	1.8		
	2695 PENT	1	0137.8	0138	2	2.4	1.2		
	2000 TYKW	5	0137.4	0137.7	2	4.0	1.0		
	1415 MANI	3	0137.4	0137.8	2.6	10.9	4.7		
	1000 TYKW	5	0137.4	0137.8	3	6.0	2.0		
	606 MANI	4	0137.4	0137.6	2.6	8.7	3.3		
	200 HIRA	45	0137	0137	1	1400.0	450.0		
	100 HIRA	45	0137.5	0138	2.5	540.0D	360.0D		
	200 HIRA	6	0139.4	0139.6	1	450.0	110.0		
	100 HIRA	6	0139.5	0140.2	1	460.0	110.0		
	200 HIRA	6	0144.5	0144.9	1	350.0	15.0		
	200 HIRA	6	0157.5	0157.5	.5	100.0	40.0		
	100 HIRA	6	0157.5	0158	.8	80.0	15.0		
	200 HIRA	6	0246	0246.3	1	135.0	40.0		
	100 HIRA	6	0246	0246.8	1.5	165.0	60.0		
	200 HIRA	6	0255.2	0255.2	.5	40.0	20.0		
	2000 TYKW	5	0303.9	0304.1	.7	3.0	1.0		
	1000 TYKW	5	0303.7	0304.1	1	3.0	1.0		
	200 HIRA	6	0303	0303.9	1	410.0	70.0		
	100 HIRA	6	0303	0304	2	540.0D	310.0D		
	100 GORK	6	0315.9		.6	25.0D			
	200 HIRA	6	0316	0316	1	850.0	280.0		
	100 HIRA	6	0316	0316.5	.8	140.0	60.0		
	3750 TYKW	5	0344.8	0345.1	1	4.0	2.0		
	100 HIRA	6	0344.7	0345.4	1.3	540.0D	260.0D		
	200 HIRA	6	0345	0345	.5	210.0	50.0		
	9400 TYKW	5	0346.5	0347.3	2	5.0	2.0		
	100 GORK	6	0350.4	0350.5	.3	30.0	15.0		
	200 HIRA	6	0404	0404	.5	40.0	20.0		
	100 HIRA	6	0404	0404.6	1	180.0	60.0		
	200 GORK	42	0433.7	0433.8	102	300.0			
	200 GORK		0433.7	0527.6		350.0			
	200 GORK		0433.7	0615.5		350.0			
	200 HIRA	6	0433.5	0433.5	1	300.0	20.0		
	200 HIRA	6	0436.5	0436.5	1	110.0	45.0		
	100 HIRA	6	0436.7	0437.3	1	330.0	110.0		
	100 GORK	42	0436.7	0437.2	500	300.0			
	100 GORK		0436.7	1205		20.0D			
	200 HIRA	6	0438.5	0439	1	80.0	30.0		
	100 HIRA	6	0439	0439.2	.8	360.0	70.0		
	200 HIRA	6	0440	0440	1	240.0	55.0		
	100 HIRA	6	0440	0440.7	1	220.0	50.0		
	237 TRST	45	0511.7	0512.1	.6	130.0	30.0		
	200 HIRA	6	0511.5	0511.5	.5	70.0	40.0		
	237 TRST	41	0526.8	0527.5	1.2	4120.0			
	200 HIRA	6	0526.5	0527	1.5	1300.0	60.0		
	100 HIRA	6	0527	0527.5	1	540.0	70.0		
	200 HIRA	6	0543	0543.1	.5	130.0	60.0		
	237 TRST	42	0558.4	0603.2	17.6	250.0			
	9400 TYKW	5	0606	0606.8	3	14.0	4.0		
	9100 GORK	1	0606.5	0607	1.7	15.0	7.0		
	8800 MANI	4	0606.6	0606.9	3.3	15.5	6.2		

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6	200 HIRA	6	0612.9	0613	1	90.0	50.0		
	100 HIRA	6	0612.7	0613	1.3	540.0	90.0		
	200 HIRA	6	0615.2	0615.2	1	520.0	75.0		
	100 HIRA	6	0615.2	0615.6	1	120.0	70.0		
	237 TRST	5	0721.3	0721.4	.1	80.0	25.0		
	237 TRST	41	0753.4	0754.1	1.2	160.0			
	200 GORK	41	0924.6	0924.6	2.9	15.0			
	200 GORK		0924.6	0927.2		80.0			
	113 POTS	41	0924.6	0924.6	2.8	400.0	20.0		
	23 POTS	41	0924.7	0927.4	3	1000.0	100.0		
	237 TRST	42	1011.7	1016.2	18	140.0			
	260 ONDR	45	1105.5	1105.5	1	100.0			
	200 GORK	6	1105.9	1106	.6	250.0	100.0		
	237 TRST	41	1106.9	1106.9	.5	460.0			
	2950 GORK	45	1127.9	1129.7	32.8	24.0	12.8		
	2950 GORK		1127.9	1132.2		20.2			
	4995 SGMR	3	1128	1132.2	6.5	15.9	6.8		
	2800 OTTA	45	1128	1129.5	6	15.0	6.2		
	2700 PENN	3	1128.5	1129.7	6	18.1	7.5		
	2695 SGMR	3	1128.3	1129.4	4.8	13.2	5.8		
	1415 SGMR	1	1128.3	1129.6	5	5.9	2.9		
	960 PENN	28	1128.6	1129.1	3.3	2.6	1.8		
	930 BORD	45	1128	1132	7	66.0	2.0		
	9500 BERL	20	1129 U	1133	6 U	11.0	4.3		
	960 PENN	45	1131.9	1132.1	5.7	35.5	3.9		
	650 GORK	4	1132	1132.4	.9	15.4	7.0		
	2950 GORK	29	1133.6	1133.6	27.1	8.6	3.8		
	200 GORK	41	1150.3	1152.3	3.6	250.0			
	237 TRST	42	1151.9	1152.3	3.6	460.0			
	15400 SGMR	3	1202.7	1203.1	1.5	12.0	4.4		
	9500 BERL	3	1202.5	1203	2.2	17.0	5.1		
	9400 HUAN	5	1202.5	1203.1	4.9	21.2	6.7		
	9100 GORK	3	1202.5	1203.1	3.2	30.0	8.8		
	8800 SGMR	3	1202.7	1202.9	1.8	17.1	7.0		
	4995 SGMR	1	1202.9	1203.3	1	7.4	2.7		
	2950 GORK	2	1202.8	1203.3	3.8	7.7	2.9		
	2695 SGMR	1	1202.8	1203.6	1.7	3.5	1.3		
	1415 SGMR	3	1202.7	1203.2	.8	8.3	3.5		
	930 BORD	45	1202	1203.3	5	36.0	3.0		
	650 GORK	4	1202.5	1203.3	3.7	8.4	4.0		
	606 SGMR	4	1202.7	1203.3	2	7.5	2.9		
	260 ONDR	45	1202		8	125.0D			
	245 SGMR	7	1202.3	1205.7	3.8	295.0	19.5		
	237 TRST	42	1202.6	1203	3.4	3370.0			
	200 GORK	41	1202.7	1203.2	2.8	300.0D			
	200 GORK		1202.7	1205.3		30.0			
	600 UCCL	1	1203	1204	5.5	9.0	3.0		
	9400 HUAN	5	1300.6	1321.4	44.6	11.6	5.8		
	2800 OTTA	23	1300	1307	80	13.0	6.5		
	2695 SGMR	20	1301.8	1309.9	30.3	20.7	8.2		
	245 SGMR	6	1302.7	1305.4	17.2	15.2	2.6		
	2700 PENN	3	1303.9	1310.9	14.1	16.7	4.5		
	1415 SGMR	20	1303.5	1309.9	31.9	8.8	3.4		
	4995 SGMR	20	1304.5	1309.9	27.8	9.0	3.5		
	606 SGMR	20	1304	1311.1	10.8	4.0	1.5		
	960 PENN	1	1309	1310.9	2.6	2.8	1.1		
	9500 BERL	20	1310	1319	24 U	14.0	3.4		
	2800 OTTA	3	1310.5	1310.9	1	13.0	6.5		
	260 ONDR	41	1331.5	1409	89	130.0D			
	237 TRST	42	1359.8	1411.1	15.3	1700.0			
	245 SGMR	48	1408.2	1408.5	4.1	850.0	19.5		
	234 POTS	41	1408.6	1411	2.7	950.0	30.0		
	113 POTS	41	1408.6	1411.1	4	350.0	50.0		
	18 MCMA	6	1410	1413	4			2	
	237 TRST	45	1443.5	1444.1	1.2	85.0	25.0		
	606 SGMR	1	1448.1	1448.3	.6	4.6	1.4		
	245 SGMR	48	1448.1	1448.5	.6	510.0	200.0		
	600 UCCL	1	1453		.6	7.0	4.0		
	408 SANM	45	1507.3	1508	1.7	23.5	5.0		
	600 UCCL	1	1508.3		.7	7.0	3.0		
	237 TRST	41	1532.8	1533	7.2	200.0			
	237 TRST	45	1628.1	1628.2	.4	250.0	60.0		
	9400 HUAN	5	1635.2	1704.3	47.8	5.8	2.9		
	18 BOUL	42	1753	1822	53			2	
	18 MCMA	42	1756	1838	43			1	
	18 BOUL	6	1814	1822	9			2	
	18 BOUL	6	1833	1836	4			2	
	2800 OTTA	2	1951	1952.5	6	3.4	1.7		
	18 BOUL	6	1952	2005	14			3	
	18 BOUL	41	2023	2029	7			2	
	2800 OTTA	2	2053	2055.5	5	3.2	1.6		
	18 BOUL	6	2135	2138	4			2	
	9400 HUAN	45	2136.1	2138.9	8.7	152.2	114.2		
	9400 HUAN		2136.1	2141.7		350.5			
	8800 SGMR	45	2136.3	2141.7	9.9	395.0	145.0		
	4995 SGMR	45	2136.1	2141.8	9.7	175.0	43.2		
	2800 OTTA	46	2136	2140.8	9	31.0	15.0		
	2800 OTTA	46	2136	2139	4	22.0			
	2800 OTTA	46	2140	2140.8	5	31.0			
	2695 SGMR	45	2136.3	2140.8	9.5	20.2	7.6		

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	100 HIRA	45	2136	2143	14.5	560.0D	180.0D		
	18 MCMA	6	2136	2138	3			3	
	15400 SGMR	45	2137	2141.8	10	190.0	63.0		
	200 HIRA	45	2140	2140.5	2.5	490.0	200.0		
	8800 MANI	4	2141.1U	2141.8U	8.9U	310.0U	92.0U		
	4995 MANI	4	2141.1U	2141.8U	8.9U	125.0U	31.0U		
	9400 HUAN	29	2144.8	2144.8	25.1	25.0	19.3		
	2800 OTTA	20	2230	2258	50	5.6	2.8		
7	606 MANI	3	0131.4	0131.5	.3	29.1	11.2		
	237 TRST	42	0546.5	0546.6	2.9	440.0			
	237 TRST	45	0611.4	0611.6	.5	110.0	20.0		
	200 GORK	6	0611.4	0611.6	.5	100.0	50.0		
	100 GORK	6	0611.5	0611.7	.5	20.0D			
	100 HIRA	45	0624.8	0625.2	2	460.0	95.0		
	100 GORK	6	0806.2	0806.5	1	15.0			
	237 TRST	42	0828.5	0828.8	13.5	660.0			
	234 POTS	45	0828.4	0828.8	1.4	400.0	80.0		
	200 HIRA	45	0828	0829	3	630.0	130.0		
	200 GORK	6	0828.3	0828.7	.9	250.0D			
	113 POTS	45	0828.4	0829	1.2	1000.0	200.0		
	100 HIRA	45	0828.5	0829	2	280.0	60.0		
	100 GORK	41	0828.3	0828.7	2.4	20.0			
	100 GORK		0828.3	0830.6		15.0			
	200 GORK	6	0840.8	0841.2	.9	50.0	20.0		
	100 GORK	6	1012	1012.1	.3	15.0	10.0		
	100 GORK	41	1114.4	1116.4	12.5	20.0D			
	100 GORK		1114.4	1119.1		20.0D			
	100 GORK		1114.4	1123.8		20.0D			
	100 GORK		1114.4	1126.7		20.0D			
	200 GORK	41	1115.8	1119	11.6	250.0			
	200 GORK		1115.8	1123.9		250.0			
	200 GORK		1115.8	1126.5		250.0			
	237 TRST	42	1118	1118.7	12	390,0			
	234 POTS	41	1118.5	1119	8.1	200.0	1.0		
	808 ONDR	5	1150	1152.5	6				
	1420 KIEL	5	1151	1152	2	100.0	30.0		
	9500 BERL	1	1152.2	1152.9	1.5	7.8	2.2		
	2950 GORK	1	1152.8	1153	.6	11.4	5.7		
	2800 OTTA	3	1152.5	1153	1.5	10.8	2.8		
	930 BORD	45	1152	1153.4	2	18.0	2.0		
	260 ONDR	44	0600		410	120.0D			
	245 SGMR	44	0918 E		889 D				
	100 GORK	44	1127		36 D		5.0		
	100 GORK	44	1224 E		36 D		5.0		
	240 KIEL	44	1248 E	1248		2000.0D	20.0		
	408 SANM	3	1248.7	1249	.6	78.0	26.0		
	600 UCCL	3	1249.4		.4	11.0	5.0		
	260 ONDR	44	1420	1524.5	100	70.0			
	2700 PENN	1	1504.5	1505.9	2.5	7.1	2.2		
	2800 OTTA	1	1505.5	1505.8	.8	5.8	2.9		
	960 PENN	45	1505.4	1505.6	5.8	29.0	1.3		
	930 BORD	45	1505	1505.5	2	116.0	2.0		
	600 UCCL	1	1505.5		.3	9.0	4.0		
	600 UCCL	1	1517.5		.8	5.0	3.0		
	9400 HUAN	5	1640.5	1641.5	2.5	99.9	49.0		
	9400 HUAN	29	1643	1643	4.1	15.7	6.3		
	600 UCCL	1	1643.5		.3	6.0	3.0		
	9400 SLOU	4	1648	1651.5	17	169.0			
	19000 SLOU	3	1649	1651.6	5	51.6			
	245 SGMR		1649.6 U		6,9U	U	U		
	237 TRST	42	1649.7	1650.6	7.5	640.0			
	18 BOUL	42	1649	1655	27			3	
	18 BOUL	6	1649	1655	7			3	
	18 MCMA	42	1649	1655	28			3	
	18 MCMA	48	1649	1655	10			3	
	10700 PENN	45	1650.5	1651.5	4.2	108.0	29.7		
	9500 BERL	4	1650.5	1651.5	4.5	100.0U			
	8800 SGMR	4	1650.5	1651.4	3.5	120.0	25.0		
	4995 SGMR	4	1650.5	1651.4	3.8	150.0	30.0		
	2800 OTTA	4	1650.8	1651.2	4.2	58.0	29.0		
	2700 PENN	3	1650.5	1651.5	15.7	108.0	18.9		
	2695 SGMR	4	1650.5	1651.4	5.1	93.0	20.0		
	1420 KIEL	5	1650	1652	7	60.0	20.0		
	1415 SGMR		1650.5U	U	4.5U	50.0D	U		
	960 PENN	3	1650.5	1651	12.8	77.1	8.7		
	606 SGMR		1650.5U	U	4.5U	18.3D	U		
	600 UCCL	3	1650	1650.8	15	100.0	15.0		
	408 SANM	27	1650	1653	7.1	10.5	5.0		
	8800 SGMR	29	1654	1654	16.9	5.3	2.0		
	4995 SGMR	29	1654.3	1654.3	16.5	10.0	4.0		
	2800 OTTA	29	1655		15	9.6	3.2		
	2695 SGMR	29	1655.6	1655.6	14.9	9.2	3.0		
	1415 SGMR	29	1655	1655	15	13.8	4.0		
	606 SGMR	29	1655	1655	15	9.2	3.0		
	18 BOUL	6	1713	1715	3			2	
	18 MCMA	6	1713	1715	4			2	
	237 TRST	45	1715.1	1715.2	.1	780.0	300.0		
	18 BOUL	41	1739	1745	11			2	
	2800 OTTA	20	1740	1745	20	2.8	1.0		

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	18 MCMA	41	1740	1745	6			2	
	18 BOUL	6	1743	1745	3			2	
	18 MCMA	6	1743	1745	3			2	
	9400 HUAN	5	1818.8	1908.1	128.9	11.7	7.2		
	18 MCMA	42	1844	1858	16			3	
	18 BOUL	41	1845	1859	15			3	
	606 SGMR	40	1854	1857	4.5	19.5	4.5		
	18 MCMA	6	1854	1858	6			3	
	2800 OTTA	20	1855	1857	15	3.6	1.4		
	600 UCCL	41	1855	1858.5	4	38.0			
	18 BOUL	6	1855	1859	5			3	
	4995 SGMR	2	1856.8	1856.9	3	3.5	1.0		
	2695 SGMR	2	1856.7	1857	.7	3.8	1.5		
	1415 SGMR	3	1858.1	1858.2	.9	38.7	7.0		
	2800 OTTA	20	2000	2030	60	4.0	2.0		
	18 BOUL	6	2200	2202	3			1	
	18 MCMA	6	2200	2202	3			1	
8	3750 TYKW	45	0030	0036.3	30	5.0	2.0		
	100 GORK	44	0321 E		195		5.0		
	9400 TYKW	5	0425	0437	40	6.0	3.0		
	3750 TYKW	5	0425	0432	30	6.0	2.0		
	100 GORK	24	0443.1		35	30.0D	20.0		
	100 GORK	41	0552.1	0552.6	5.7	30.0D			
	100 GORK		0552.1	0555.4		30.0			
	100 GORK		0552.1	0557.3		30.0D			
	100 GORK	41	0616.9	0617	9.9	30.0			
	100 GORK		0616.9	0620.1		30.0			
	100 GORK		0616.9	0625		30.0D			
	113 POTS	45	0659.1	0659.8	1.5	140.0	20.0		
	100 GORK	6	0659.1	0700.3U	1.6	2000.0			
	113 POTS	45	1354.4	1357.4	4.8	175.0	20.0		
	18 MCMA	6	1354	1357	6			2	
	2700 PENN	1	1355	1357.6	4.4	2.8	1.7		
	960 PENN	1	1355.7	1357.5	3.8	1.7	1.0		
	18 BOUL	6	1510	1512	3			1	
	18 MCMA	6	1510	1512	3			1	
	408 SANM	40	1522.5	1717	192.5	110.0			
	600 UCCL	41	1851.7	1852	.8	18.0	3.0		
	1415 SGMR	4	1858.9	1859.1	.6	17.6	4.0		
	606 SGMR	2	1858.9	1859.1	.6	6.6	1.5		
	245 SGMR	6	1858.9	1859.1	.6	14.6	3.0		
	18 BOUL	6	1905	1907	3			1	
	18 MCMA	6	1905	1907	3			1	
	2800 OTTA	20	1950	1955	75	2.2	1.1		
	18 BOUL	6	2130	2132	3			1	
	18 MCMA	6	2130	2132	3			1	
9	3750 TYKW	45	0052	0055.3	10	25.0	8.0		
	9400 TYKW	45	0053	0055.3	6	28.0	11.0		
	4995 MANI	4	0053.9	0054.7	7.1	34.1	9.3		
	606 MANI	4	0053.3	0054.7	7.2	74.0	16.8		
	8800 MANI	4	0054.1	0055.2	8.7	33.7	9.2		
	2800 OTTA	46	0054	0055.8	5	16.0	8.0		
	2695 MANI	4	0054	0055.2	6	25.9	6.0		
	2000 TYKW	45	0054	0055.1	5	12.0	3.0		
	1415 MANI	1	0054	0055.2	7	6.3	1.6		
	1000 TYKW	45	0054	0057	10	8.0	5.0		
	9400 TYKW	29	0059		60	10.0	5.0		
	2800 OTTA	29	0059		45	2.8	1.4		
	3750 TYKW	29	0102		50	4.0	2.0		
	100 GORK	41	0542.4	0544.1	6	30.0			
	100 GORK		0542.4	0546.4		40.0			
	100 GORK		0542.4	0548.4		40.0			
	100 GORK	41	0553	0553.7	1.9	15.0			
	100 GORK		0553	0554.4		10.0			
	9400 TYKW	5	0631	0631.6	3	10.0	3.0		
	3750 TYKW	5	0711.3	0711.6	1	3.0	1.0		
	2950 GORK	1	0711.2	0711.8	1.5	8.7	3.1		
	1000 TYKW	5	0711.3	0711.7	.7	9.0	2.0		
	240 KIEL	44	1100	1307		500.0	20.0		
	260 ONDR	45	1120	1219	60	40.0			
	260 ONDR	41	1320	1419	160	55.0			
	9400 HUAN	5	1921.7	1938.4	45	7.9	5.2		
	18 BOUL	41	2127	2130	12			1	
	18 MCMA	41	2127	2130	12			1	
	100 HIRA	6	2317	2317.2	1	160.0	60.0		
10	600 UCCL	1	0728.5		.3	5.0	3.0		
	600 UCCL	3	0908.5		.5	12.0	6.0		
	600 UCCL	2	0943	0943.3	1.6	5.0	3.0		
	260 ONDR	41	0950	1220	170	45.0			
	600 UCCL	1	0955.8	0956	.8	4.0	2.0		
	245 SGMR	43	1003		192				
	234 POTS	45	1056.4	1056.4	.1	300.0	50.0		
	100 GORK	6	1103.5	1103.6	.5	50.0	25.0		
	600 UCCL	1	1128.8		.3	4.0	2.0		
	600 UCCL	1	1140		.2	5.0	2.0		
	600 UCCL	1	1144.2		.2	9.0	5.0		
	100 GORK	6	1155.5	1155.6	.4	40.0	20.0		

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	100 GORK	6	1207.6	1208.2	1	40.0	20.0		
	100 GORK	6	1218.6	1220.	2.4	40.0D			
	113 POTS	45	1219	1219.5	1.8	140.0	25.0		
	23 POTS	45	1219.9	1219.9	.6	4000.0	1000.0		
	23 POTS	5	1305.7	1305.9	.4	1000.0	300.0		
	237 TRST	42	1427.3	1428.8	4.2	110.0			
	260 ONDR	45	1452	1453.5	3	60.0			
	2800 OTTA	24	1520		10	3.2			
	2800 OTTA	2	1708.3	1709.3	2	6.0	3.0		
	237 TRST	41	1744.9	1748.8	6.7	130.0			
	18 BOUL	41	1744	1746	7			1	
	18 BOUL	6	1744	1746	3			1	
	18 MCMA	41	1744	1747	9			2	
	18 MCMA	6	1744	1747	4			2	
	2800 OTTA	31	1832	1840	30	2.2	1.1		
	8800 SGMR	2	1833.8	1835.8	3.3	6.4	2.0		
	4995 SGMR	40	1833.8	1835.8	2.9	21.7	6.0		
	606 SGMR	2	1833.3	1834.2	1.8	2.6	1.0		
	600 UCCL	2	1833.5	1834.8	2	9.0	3.0		
	2800 OTTA	45	1834.8	1835.9	2	7.8	3.6		
	2695 SGMR	40	1834	1837	2.9	8.4	3.0		
	2800 OTTA	24	2015		5	2.2			
	245 SGMR	43	2233.6		86.4D				
	2800 OTTA	2	2239.4	2239.5	1.5	4.2	2.1		
	2695 PENT	29	2326		9	4.2	2.1		
	8800 MANI	4	2351.9	2352.4	5.1	39.3	18.1		
	3750 TYKW	45	2351	2352.6	5	56.0	20.0		
	2695 MANI	4	2351.8	2352.4	4.3	38.6	17.4		
	2695 PENT	46	2351	2353	5	34.0	17.0		
	2000 TYKW	45	2351	2352.9	8	19.0	6.0		
	1415 MANI	3	2351.8	2352.6	3.3	10.9	4.7		
	9400 TYKW	45	2352	2352.8	5	20.0	12.0		
	4995 MANI	4	2352.3	2352.6	4.2	62.0	26.6		
	1000 TYKW	5	2352	2352.7	3	5.0	2.0		
	606 MANI	4	2352.3	2352.5	2.1	20.2	9.9		
	3750 TYKW	29	2356		20	6.0	2.0		
	9400 TYKW	29	2357		15	4.0	2.0		
	8800 MANI	29	2357	2357	16.5	21.1	9.1		
11	2695 PENT	21	0025		85 D	6.6			
	9400 TYKW	5	0028	0035	210	26.0	10.0		
	4995 MANI	4	0028.2	0030.7	2.8	41.3	17.7		
	2695 MANI	4	0028.2	0030.7	13.1	21.2	9.7		
	2695 PENT	4	0028	0031	9	17.8	10.0		
	2000 TYKW	45	0028	0029	13	30.0	9.0		
	1415 MANI	4	0028.2	0033	5.6	29.5	12.4		
	1000 TYKW	5	0029	0033	7	12.0	3.0		
	606 MANI	4	0032.5	0032.7	1.4	12.3	4.5		
	3750 TYKW	45	0033.6E	0033.6	20 D	47.0	10.0		
	2695 PENT	29	0037		23	6.6	3.3		
	2000 TYKW	29	0041		220	6.0	5.0		
	3750 TYKW	29	0053.6E		210	8.0	6.0		
	1415 MANI	4	0054.5	0054.6	.9	12.4	4.7		
	606 MANI	4	0054.5	0054.6	1.2	12.3	4.6		
	4995 MANI	3	0229.9	0230	.7	9.0	3.0		
	3750 TYKW	5	0229.8	0230	1	25.0	4.0		
	2695 MANI	1	0229.9	0230	.7	5.9	2.0		
	2000 TYKW	5	0229.8	0230	1	8.0	2.0		
	100 GORK	41	0503.9	0504.6	3.7	40.0D			
	100 GORK		0503.9	0506.3		40.0			
	100 HIRA	6	0504	0505	1.5	50.0	15.0		
	8800 MANI	4	0505.4	0505.6	1.6	21.3	9.1		
	4995 MANI	3	0505.4	0505.6	1.6	15.0	6.0		
	3750 TYKW	45	0505	0505.6	5	6.0	2.0		
	100 HIRA	6	0506	0506.5	1	50.0	10.0		
	950 GORK	4	0516.8	0516.8	.5	34.0	8.6		
	100 GORK	6	0524	0524.5	.6	40.0			
	650 GORK	4	0528.2	0529	1	8.4	4.0		
	113 POTS	45	0648.5	0649.4	1.6	400.0	70.0		
	100 HIRA	45	0648.5	0649.5	2	180.0D	50.0D		
	100 GORK	6	0648.2	0649.3	1.6	1500.0			
	23 POTS	45	0648.5	0649.4	1.8	25000.0	4000.0		
	8800 MANI	1	0649.2	0649.3	1.4	6.1	3.0		
	4995 MANI	1	0649.2	0649.3	1.4	6.0	3.0		
	3750 TYKW	5	0649	0649.3	1	3.0	1.0		
	2695 MANI	1	0649.2	0649.3	1.4	3.9	2.0		
	100 GORK	41	0733.5	0734.4	3.8	50.0D			
	100 GORK		0733.5	0736.4		50.0			
	100 HIRA	6	0734	0734.5	1.5	90.0	40.0		
	100 GORK	24	0844.4	0853.8	20.4	50.0	25.0		
	600 UCCL	1	0933.5		.3	5.0	2.0		
	600 UCCL	1	0945		.3	4.0	2.0		
	600 UCCL	2	0955	0955	.8	6.0	2.0		
	930 BORD	41	1005	1006	1	8.0	1.0		
	245 SGMR	43	1159		84.5				
	237 TRST	42	1246	1246.3	3.4	270.0			
	237 TRST	41	1302.2	1303.8	1.7	230.0			
	600 UCCL	41	1303.1		1.2	5.0	2.0		
	600 UCCL	20	1315	1317.5	14	9.0	6.0		
	23 POTS	45	1321.4	1321.6	.3	30000.0	7500.0		

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	600	UCCL	4	1449.5	1449.7	1.5	20.0	8.0		
	245	SGMR	6	1508.5	1509.2	1.1	30.8	6.0		
	237	TRST	45	1556.3	1556.7	.6	100.0	30.0		
	600	UCCL	3	1701.4		.3	23.0	11.0		
	930	BORD	45	1703	1703.3	1	24.0	2.0		
	18	BOUL	6	1703	1705	3			1	
	18	MCMA	6	1703	1706	3			2	
	237	TRST	42	1704.2	1705.5	2.2	160.0			
	18	BOUL	41	1806	1808	4			1	
	18	MCMA	41	1811	1814	5			1	
	245	SGMR	6	1845.4	1845.6	.9	46.0	8.0		
	9400	HUAN	5	1936.5	1948.6	30.5	7.7	3.2		
	245	SGMR	6	1957.4	2000.6	3.8	188.0	22.0		
	18	BOUL	41	1957	1959	5			1	
	18	MCMA	41	1957	1959	5			2	
	18	MCMA	6	1957	1959	3			2	
	2800	OTTA	26	2000		15	5.0			
	18	BOUL	6	2009	2015	8			2	
	18	MCMA	6	2029	2032	5			1	
	18	BOUL	41	2110	2130	34			3	
	18	BOUL	6	2123	2130	8			3	
12	100	GORK	41	0311.9	0312.7	4.5	15.0			
	100	GORK		0311.9	0314.2U		60.0			
	9400	TYKW	5	0330	0352	50	6.0	3.0		
	3750	TYKW	5	0330	0350	50	4.0	2.0		
	2000	TYKW	5	0340	0344	30	4.0	2.0		
	1000	TYKW	5	0340	0344	15	3.0	1.0		
	420	KIEL	6	0955	0956	2	130.0	50.0		
	240	KIEL	6	0955	0956	3	5000.0	150.0		
	1420	KIEL	5	0956	0956	1	80.0	20.0		
	1415	SGMR	4	0956.5	0956.6	.6	51.0	10.0		
	950	GORK	1	0956.6	0956.7	.4	5.2	2.6		
	650	GORK	2	0956.7	0956.8	.5	2.3	1.2		
	600	UCCL	1	0956.5		.3	8.0	4.0		
	606	SGMR	1	0956.6	0956.7	.2	5.2	1.5		
	260	ONDR	45	0956.5	0956.5	3.5	140.0			
	245	SGMR	48	0956.2	0956.3	2	910.0	72.0		
	237	TRST	42	0956.6	0956.7	4.3	2800.0			
	234	POTS	45	0956.5	0956.6	.9	900.0	150.0		
	200	GORK	6	0956.5	0956.7	1	250.0D			
	113	POTS	41	0956.5	0956.6	7.7	7000.0	500.0		
	100	GORK	6	0956.5	0956.7	.8	60.0D			
	23	POTS	41	0956.6	0956.9	7.5	700000.0	5000.0		
	600	UCCL	1	1007.2		.6	7.0	3.0		
	600	UCCL	8	1159.2			120.0D			
	237	TRST	42	1224.6	1231.5	7.3	120.0			
	245	SGMR	41	1243.7	1244.3	10.5	9.0	1.5		
	536	ONDR	5	1319	1319	.5	115.0			
	245	SGMR	41	1332.5	1339.5	8.7	122.0	10.0		
	237	TRST	42	1332.8	1339.9	8.5	190.0			
	113	POTS	45	1339.5	1340	1.4	200.0	25.0		
	23	POTS	45	1339.9	1340.1	.7	5000.0	1200.0		
	18	MCMA	6	1339	1341	3			1	
	260	ONDR	45	1416.5	1419	3.5	110.0			
	245	SGMR	6	1416.3	1418.4	3.2	210.0	20.0		
	237	TRST	42	1416.8	1417.2	2.9	240.0			
	234	POTS	41	1416.8	1418.7	2.6	175.0	6.0		
	113	POTS	41	1416.8	1419.1	3.2	500.0	50.0		
	18	MCMA	6	1417	1420	4			1	
	600	UCCL	1	1417.2	1417.4	1	10.0	5.0		
	606	SGMR	4	1418.3	1418.6	.5	42.9	8.0		
	600	UCCL	4	1418.8	1419.1	.8	42.0	26.0		
	536	ONDR	45	1419	1419	1	100.0			
	245	SGMR	6	1425.7	1425.8	.6	51.0	5.0		
	245	SGMR	43	1433.6		565.4D				
	408	SANM	40	1500	1709.8	150	22.0			
	1415	SGMR	8	1522.8	1522.8	.3	79.0	10.0		
	606	SGMR	8	1522.7	1522.7	.3	62.0	6.0		
	245	SGMR	6	1522	1522.7	1.1	205.0	13.0		
	18	BOUL	6	1536	1539	4			1	
	18	MCMA	6	1541	1544	4			1	
	600	UCCL	1	1605.8	1606.1	.8	4.0	2.0		
	600	UCCL	41	1611.5	1616.8	10.5	72.0	7.0		
	606	SGMR	41	1615.8	1616.1	5.8	72.8	28.0		
	245	SGMR	7	1615.7	1617.2	5.8	357.0	140.0		
	237	TRST	41	1615.7	1616.1	4.8	460.0			
	18	BOUL	6	1615	1619	5			2	
	408	SANM	45	1616.1	1616.6	2.5	410.0	31.5		
	18	MCMA	48	1616	1620	17			3	
	18	MCMA	6	1804	1805	2			1	
	2695	SGMR	3	1935.4	1936.1	1.2	13.4	4.2		
	1415	SGMR	3	1935.4	1935.6	.4	29.3	9.6		
	606	SGMR	45	1935.4	1935.7	1	12.4	5.0		
	2800	OTTA	20	1945	2015	80	2.8	1.4		
	1415	SGMR	45	2017.8	2018.5	.8	12.0	4.8		
	606	SGMR	45	2017.6	2017.8	1.1	24.8	9.3		
13	100	HIRA	45	0844	0845.4	3	170.0	45.0		
	100	HIRA	6	0934	0934.2	1	150.0	40.0		

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	100 HIRA	45	0936.8	0938	2	200.0D	100.0D		
	237 TRST	41	1125.3	1125.6	1.2	130.0			
	113 POTS	45	1125.2	1125.6	1.2	150.0	15.0		
	100 GORK	6	1125.2	1125.7	1.2	1000.0			
	600 UCCL	1	1436.2		.2	9.0	7.0		
	237 TRST	45	1458.5	1458.7	.5	170.0	40.0		
	600 UCCL	1	1509.9		.2	7.0	5.0		
	600 UCCL	1	1517.5		.3	6.0	3.0		
	600 UCCL	8	1530.2		.5	120.0	60.0		
	600 UCCL	2	1723.5	1724.6	2	7.0	4.0		
	8800 SGMR	1	1723.6	1724	2	2.9	1.5		
	4995 SGMR	3	1723.6	1723.9	2.5	10.5	5.2		
	2800 OTTA	1	1723.5	1724	1.5	6.8	3.4		
	2695 SGMR	1	1723.5	1723.9	2.3	5.6	2.8		
	930 BORD	45	1723	1724.2	2	9.0	2.0		
	245 SGMR	7	1725	1725.6	1.5	1070.0	200.0		
	237 TRST	45	1725.2	1726.5	2	720.0	270.0		
	9400 HUAN	5	1923.7	1940.9	36.3	5.6	2.7		
	18 BOUL	6	1934	1936	4			1	
14	100 GORK	6	0308.4	0311.6	5.4	50.0	25.0		
	237 TRST	45	0618.1	0618.2	.5	240.0	50.0		
	3750 TYKW	45	0626	0630.6	12	9.0	3.0		
	9400 TYKW	45	0627	0630.6	10	10.0	3.0		
	2000 TYKW	5	0627	0630.7	7	3.0	1.0		
	100 GORK	48	0635.8	0637.5	6	3000.0			
	100 HIRA	45	0636	0637.5	12	200.0	35.0		
	650 GORK	46	0714.5	0715.5	6.5	17.6	7.2		
	650 GORK		0714.5	0719		8.2			
	600 UCCL	4	0714.8	0716	6.5	19.0	9.0		
	408 SANM	42	1306.5	1307	43	78.0	9.0		
	600 UCCL	1	1307.5	1307.9	1	4.0	2.0		
	408 SANM	45	1637.7	1640	3	16.5	3.5		
	245 SGMR	6	1639.5	1640.2	1.2	67.0	33.0		
	408 SANM	42	1910	1927.7	18.3	118.0	15.0		
15	600 UCCL	3	0711		.3	18.0	9.0		
	2800 OTTA	45	1243	1246.9	7	8.8	3.0		
	4995 SGMR	20	1244.9	1246.8	10.2	8.4	4.2		
	2950 GORK	1	1244.4	1246.7	3.9	6.0	3.0		
	2695 SGMR	1	1245.9	1246.8	1.4	6.9	3.4		
	600 UCCL	1	1247.6		.3	7.0	3.0		
	600 UCCL	1	1303.8		.2	10.0	5.0		
	9400 HUAN	5	1357.2	1358.4	19.2	7.7	4.3		
	9400 HUAN	5	1425.8	1702.6	187.2	7.7	5.3		
	18 MCMA	6	1640	1642	3			1	
	237 TRST	45	1647.4	1647.5	.2	75.0	25.0		
16	237 TRST	45	0549	0549.1	.2	170.0	45.0		
	600 UCCL	1	0806.3		.3	23.0	11.0		
	600 UCCL	1	0820		.2	6.0	3.0		
	100 GORK	6	0944.2	0944.6	.6	40.0	10.0		
	600 UCCL	1	0946		.4	10.0	5.0		
	650 GORK	3	0946.2	0946.5	.5	19.5	10.7		
	600 UCCL	1	0951		.2	5.0	3.0		
	113 POTS	5	0951	0951	.2	150.0	50.0		
	100 GORK	6	0951	0951.1	.2	25.0	10.0		
	600 UCCL	41	1100.4	1101	.8	33.0	10.0		
	600 UCCL	3	1139.2		.5	18.0	9.0		
	600 UCCL	41	1434		1	5.0	2.0		
	600 UCCL	3	1746.3		.2	36.0	18.0		
	600 UCCL	3	1755.2		.3	27.0	14.0		
	600 UCCL	3	1756.3		.3	25.0	12.0		
	18 MCMA	6	1801	1803	3			1	
17	100 GORK	6	0551.6	0551.7	.2	60.0	25.0		
	237 TRST	41	0734.9	0735.1	.9	140.0			
	100 GORK	6	0735	0735.1	.3	80.0D			
	100 GORK	41	0738.9	0739.1	1.3	40.0			
	650 GORK	1	0739.6	0739.7	.4	2.2	1.1		
	100 GORK	41	0926.7	0926.8	2.5	50.0			
	100 GORK		0926.7	0928.9		50.0D			
	100 GORK	6	0938.4	0938.8	.7	25.0			
	8800 SGMR	1	1552.8	1553.9	4.4	6.1	3.0		
	4995 SGMR	1	1552.8	1553.9	3.2	6.6	3.3		
	2695 SGMR	1	1553.1	1554.8	4.4	5.2	2.6		
	18 MCMA	6	1646	1647	2			1	
18	9400 TYKW	5	0200.5	0201	1.5	5.0	2.0		
	9400 TYKW	5	0320	0330	55	5.0	3.0		
	3750 TYKW	45	0320	0346.8	55	7.0	2.0		
	100 GORK	44	0354		51		5.0		
	600 UCCL	41	0817	0822.5	11	15.0	3.0		
	600 UCCL	2	0847.5	0848.6	1.2	6.0	2.0		
	234 POTS	45	0847.9	0848.2	.6	175.0	20.0		
	113 POTS	45	0847.4	0848.9	2.6	350.0	80.0		
	23 POTS	45	0847.6	0848.2	2	5000.0	1000.0		
	100 HIRA	45	0848	0848.5	2	240.0	70.0		
	930 BORD	5	1047	1047.5	1	23.0	2.0		
	9500 BERL	3	1230.2	1230.4	.8	22.0	6.0		

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	9500 BERL	3	1235.3	1235.9	1.1	15.0	5.5		
	2800 OTTA	23	1730	2115	360	9.2	4.6		
	18 MCMA	41	1740	1742	5			1	
	2700 PENN	24	1746.4	2113		14.0			
	10700 PENN	20	1751.5	1757	28.2	8.0	4.3		
	2700 PENN	45	1755.5	1756.8	2.6	37.7	4.0		
	2800 OTTA	40	1756	1757	2	16.0			
	10700 PENN	20	1859.3	1900.5	14.3	14.0	4.8		
	8800 SGMR	22	1859.8	1900.8	15	12.2	4.0		
	4995 SGMR	22	1859.9	1900.9	12.4	17.3U	9.2U		
	2700 PENN	20	1859.2	1900.5	14.7	8.7	2.4		
	2800 OTTA	1	1900	1901	2	5.4	2.4		
	18 MCMA	6	1900	1901	2			1	
	18 MCMA	41	1958	2002	5			1	
	2800 OTTA	1	2048.5	2049.1	4	2.2	1.1		
	18 MCMA	6	2049	2051	3			1	
	245 SGMR	43	2050.5		199.5D				
	200 HIRA	27	2050	2110	92	20.0	5.0		
	18 MCMA	6	2116	2118	3			1	
	9400 TYKW	5	2330	2440	210	13.0	8.0		
	3750 TYKW	5	2330	2440	210	14.0	8.0		
19	2695 PENT	21	0000 E	0130	150 D	12.8			
	3750 TYKW	5	0021	0021.6	1	3.0	1.0		
	9400 TYKW	5	0029	0029.2	1	20.0	7.0		
	8800 MANI	3	0029	0029.5	1	9.1	3.1		
	3750 TYKW	5	0029	0029.3	1	3.0	1.0		
	2695 PENT	1	0029	0029.5	1	2.0	1.0		
	1000 TYKW	5	0029	0029.3	1	2.0	1.0		
	200 HIRA	6	0031	0031.5	1	45.0	20.0		
	100 HIRA	6	0031	0031.4	1	110.0	70.0		
	9400 TYKW	45	0051	0052.8	7	90.0	25.0		
	8800 MANI	28	0051.6	0051.7	.2	30.3	15.2		
	8800 MANI	45	0051.8	0053	5.4	69.2	24.3		
	4995 MANI	45	0051.6	0053	5.6	32.2	14.7		
	3750 TYKW	45	0051	0052.8	6	14.0	5.0		
	2695 MANI	1	0051.6	0053.1	5.6	5.9	1.9		
	2695 PENT	1	0052	0053	3	5.4	2.7		
	1415 MANI	3	0052.8	0052.9	4.4	9.3	3.1		
	1000 TYKW	41	0054	0054.7	3	4.0	1.0		
	100 HIRA	6	0054	0054.5	5	90.0	15.0		
	3750 TYKW	29	0057		9	3.0	2.0		
	9400 TYKW	29	0058		13	10.0	6.0		
	3750 TYKW	45	0106	0116	16	144.0	20.0		
	8800 MANI	4	0110	0115.2	13.5	204.0	91.0		
	4995 MANI	4	0110	0115.3	9.5	248.0	117.0		
	2695 MANI	4	0110	0116.2	9.5	71.5	29.8		
	9400 TYKW	45	0111	0115.2	11	250.0	60.0		
	2695 PENT	4	0111	0116	19	75.0	19.0		
	2000 TYKW	45	0113	0116.2	9	29.0	12.0		
	1415 MANI	22	0113.2	0115.2	50	9.3	3.1		
	606 MANI	4	0113.2	0115.2	15.8	14.7	8.4		
	1000 TYKW	5	0114.5	0115.3	5	18.0	5.0		
	200 HIRA	6	0114.2	0115	1.5	45.0	20.0		
	100 HIRA	45	0115	0115.3	2	260.0D	120.0D		
	4995 MANI	29	0119.5	0119.5	38.5	44.0	11.7		
	2695 MANI	29	0119.5	0119.5	44.3	17.8	4.0		
	9400 TYKW	29	0122		30	15.0	8.0		
	3750 TYKW	29	0122		35	16.0	5.0		
	2000 TYKW	29	0122		15	4.0	2.0		
	9400 TYKW	5	0135.5	0136.3	1.5	12.0	4.0		
	3750 TYKW	5	0135.5	0136.3	2	5.0	2.0		
	2000 TYKW	5	0152	0154	5	4.0	2.0		
	2000 TYKW	29	0157		16	1.0	1.0		
	200 HIRA	6	0235.5	0236.8	2.5	190.0	15.0		
	100 HIRA	45	0235	0236.5	3	210.0	95.0		
	9400 TYKW	5	0236	0237	3	15.0	4.0		
	8800 MANI	3	0236.2	0236.5	1	15.5	6.2		
	4995 MANI	1	0236.2	0236.5	1	3.0	.9		
	100 GORK	44	0257 E		423		10.0		
	9400 TYKW	5	0340	0517.4	200	21.0	7.0		
	3750 TYKW	5	0340	0355	40	3.0	2.0		
	100 HIRA	45	0402	0402.2	2	270.0D	180.0D		
	3750 TYKW	5	0423	0530	165	8.0	4.0		
	200 GORK	20	0424.9	0425.3	.8	30.0			
	100 HIRA	45	0424.8	0425	1.2	270.0D	120.0D		
	100 GORK	6	0424.9	0425.3	.5	200.0			
	950 GORK	3	0455	0455.3	.4	96.0	48.0		
	100 GORK	20	0514.6		2	50.0			
	950 GORK	3	0725.9	0726	.4	30.0	15.0		
	100 GORK	20	0738.5	0738.7	.9	100.0			
	18 MCMA	41	1002	1003	8			1	
	9500 BERL	22	1003.7	1008	7.3	11.0	3.5		
	930 BORD	45	1005	1005.6	1	39.0	2.0		
	18 MCMA	6	1048	1050	3			1	
	10700 PENN	3	1306.3	1306.4	9.2	73.7	3.3		
	10700 PENN	40	1420.7		27.8				
	10700 PENN	3	1642	1642.5	1.7	13.0	4.9		
	18 MCMA	6	1953	1954	2			1	
	2800 OTTA	22	2010	2355	360 D	11.2			

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20	606 MANI	4	0007.7	0012.3	5.3	33.6	5.6		
	200 HIRA	41	0007	0011.8	7	180.0			
	100 HIRA	45	0007.5	0008	6.5	300.0D	55.0D		
	100 HIRA		0007.5	0009.6		300.0D			
	100 HIRA		0007.5	0012.5		300.0D			
	8800 MANI	4	0009	0010	4.9	9.1	3.1		
	1415 MANI	3	0009.8	0009.9	.3	30.0	7.9		
	3750 TYKW	5	0040.9	0041.1	2	3.0	1.0		
	9400 TYKW	5	0124	0125.5	5	7.0	3.0		
	3750 TYKW	5	0257.5	0258.2	1.5	3.0	1.0		
	500 HIRA	6	0257.7	0258	1	160.0	70.0		
	2000 TYKW	5	0258	0258.2	1	3.0	1.0		
	1000 TYKW	5	0258	0258.2	1	2.0	1.0		
	100 GORK	44	0345		195		5.0		
	100 GORK	41	0410.8	0411.2	3.6	50.0			
	100 GORK		0410.8	0414.4		500.0			
	200 GORK	20	0411	0411.3	.4	10.0	5.0		
	200 GORK	41	0414.3	0415.3	1.3	30.0			
	606 MANI	46	0513.7	0513.8	3.3	230.0	90.0		
	9400 TYKW	5	0615.5	0616.4	4	70.0	10.0		
	9100 GORK	3	0615.9	0616.5	2.4	85.0	22.0		
	3750 TYKW	5	0615.5	0616.4	4.5	59.0	10.0		
	2950 GORK	3	0615.9	0616.5	2.3	88.0	44.0		
	1420 KIEL	5	0615	0616	2	50.0	20.0		
	950 GORK	4	0615.4	0616.5	3	18.0	3.0		
	650 GORK	4	0615.9	0616.1	2.5	69.0	35.0		
	500 HIRA	45	0615.8	0616.3	2	260.0	60.0		
	420 KIEL	6	0615	0615	3	160.0	40.0		
	240 KIEL	6	0615	0615	3	85.0	20.0		
	100 HIRA	45	0615	0616.2	7	310.0D	90.0D		
	100 GORK	41	0615	0616.7	7.3	500.0			
	100 GORK		0615	0617.7		20000.0			
	100 GORK		0615	0621.1		5000.0			
	17000 TOKO	45	0616.3	0616.5	.5	33.0			
	8800 MANI	3	0616	0616.4	2	112.0	45.4		
	4995 MANI	3	0616	0616.4	2	91.0	30.0		
	2695 MANI	3	0616	0616.4	2	89.0	29.0		
	2000 TYKW	5	0616	0616.4	2	130.0	15.0		
	1415 MANI	4	0616	0616.4	2	41.0	16.4		
	1000 TYKW	5	0616	0616.6	1	14.0	5.0		
	606 MANI	4	0616	0616.4	2	78.0	28.0		
	237 TRST	41	0616.3	0616.6	3	1100.0			
	200 HIRA	45	0616	0617.5	4	340.0	35.0		
	200 GORK	41	0616.4	0616.7	3.2	150.0			
	200 GORK		0616.4	0617.7		350.0			
	600 UCCL	41	0616.5	0617	2	81.0	20.0		
	100 GORK	44	0700		360		10.0		
	600 UCCL	1	0820.6		.2	8.0	4.0		
	9500 BERL	1	0835.6E	0835.6		5.1			
	100 HIRA	27	0854	0910	56	220.0	100.0		
	9500 BERL	2	0913.5	0914.2	2	9.2	3.3		
	950 GORK	2	1057.5	1100	4.3	8.7	3.6		
	650 GORK	2	1057	1100	5.3	4.2	1.6		
	600 UCCL	4	1057.5	1058.5	6	15.0	5.0		
	8800 SGMR	28	1106	1121	15	116.0	55.0		
	2800 OTTA	28	1106	1108.2	6	13.0	9.0		
	9500 BERL	46	1107.5	1123.7	200 U	3500.0D			
	4995 SGMR	28	1107.2	1118.5	13.9	200.0	90.0		
	2695 SGMR	28	1107.5	1109.7	14.8	145.0	70.0		
	600 UCCL	41	1107.5	1108.3	3	45.0	10.0		
	606 SGMR	28	1107.9	1114.5	7.1	44.0	22.0		
	245 SGMR	28	1108.8	1121	13.4	54.0	27.0		
	2950 GORK	46	1109.2E	1114.2	78.4E	100.0			
	2950 GORK		1109.2E	1119.8		238.0			
	2950 GORK		1109.2E	1122.6		2400.0D			
	650 GORK	1	1109.9	1110.2	.9	5.2	2.6		
	420 KIEL	48	1109	1133	36	2000.0D	150.0		
	808 ONDR	45	1110		30				
	536 ONDR	45	1110		30	380.0D			
	260 ONDR	45	1110		40	120.0D			
	1420 KIEL	45	1111	1122	34	850.0	230.0		
	930 BORD	45	1111	1124	36	403.0	80.0		
	240 KIEL	48	1111	1122	34	1500.0	250.0		
	9400 SLOU	47	1112.5		65	3200.0D			
	9100 GORK	45	1112.3	1122 U	31.3	8600.0D			
	2800 OTTA	4	1112	1124	36	1900.0	725.0		
	1415 SGMR	28	1112.5	1122.1	9.8	68.0	34.0		
	950 GORK	46	1112.5	1117.1	34.5	77.0			
	950 GORK		1112.5	1121.4		100.0			
	950 GORK		1112.5	1123.4		438.0			
	650 GORK	46	1112.5	1116.2	32.5	90.0			
	650 GORK		1112.5	1117.4		200.0			
	650 GORK		1112.5	1123.3		216.0			
	237 TRST	47	1112.6	1127.9	60	1290.0			
	234 POTS	45	1112 U	1123 U	58 U	250.0	30.0		
	600 UCCL	47	1112.8	1118	33 U	621.0	93.0		
	225 HARS	45	1113	1123.5	53	260.0D	40.0		
	960 PENN	45	1114	1130.3	36.6	86.9	38.8		
	200 GORK	6	1114.7	1114.8	.5	100.0	50.0		
	100 GORK	49	1114.4		75	30000.0			

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JULY 1970

JUL. 1970	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	MEAN	INT	REMARKS
20	100	GORK	6	1114.4	1115.	1.6	40.0			
	10700	PENN	47	1115 E		25 D	3300.0D			
	2700	PENN	47	1115 E		38 D	850.0D			
	606	SGMR	47	1115	1116.9	30.5	800.0	238.0		
	71000	SLOU	47	1119 U	1125 U	12 U	2220.0			
	19000	SLOU	47	1119	1123	27	5440.0			
	200	GORK	48	1119	1127.6	19	400.0D			
	8800	SGMR	47	1121	1122.5	24	11000.0	4000.0		
	4995	SGMR	47	1121.1	1123.4	28.4	4900.0	2800.0		
	113	POTS	45	1121.5U	1123 U	38 U	1300.0	80.0		
	9100	GORK		1122.9	1122.9		7350.0			
	9100	GORK		1122.9	1125.1		6840.0			
	2695	SGMR	47	1122.3	1123.9	22.7	1852.0	1030.0		
	1415	SGMR	47	1122.3	1123.4	25.6	710.0	200.0		
	245	SGMR	49	1122.2	1123.3	35.5	1050.0	400.0		
	23	POTS	45	1122 U	1123 U	28 U	150000.0	3000.0		
	18	MCMA	6	1122	1124	3			1	
	10700	PENN	29	1138.8	1138.8	122	256.0	128.0		
	9400	HUAN		1140.7E		96.1U				
	9100	GORK	29	1143.6	1143.6	23.6	125.0	53.0		
	8800	SGMR	29	1145	1145	51	42.7	21.5		
	4995	SGMR	29	1145.5	1145.5	37.5	37.8	18.9		
	2695	SGMR	29	1145	1145	74.7	22.5	11.2		
	2950	GORK	29	1148	1148	57	26.0	13.0		
	2800	OTTA	30	1148		265	26.0	6.6		
	2700	PENN	29	1153.5	1153.5	107	26.8	13.4		
	600	UCCL	1	1208.5		.2	7.0	4.0		
	600	UCCL	2	1213	1214	1	5.0	2.0		
	9400	HUAN	5	1300.9	1301.3	1.3	9.6	7.2		
	9400	HUAN		1300.9	1301.6		13.4			
	8800	SGMR	3	1301	1301.6	6.6	15.5	6.2		
	4995	SGMR	1	1301.6	1301.7	4.4	5.5	2.7		
	8800	SGMR	1	1446.9	1447.1	1.3	7.3	3.6		
	4995	SGMR	3	1446.5	1447.2	2.5	16.7	7.0		
	2800	OTTA	1	1446	1447.1	3	6.0	2.0		
	2700	PENN	1	1446.8	1447.3	1.8	6.8	1.2		
	2695	SGMR	1	1446.8	1447.1	1	4.0	2.0		
	600	UCCL	2	1446.8	1447.6	1.5	4.0	2.0		
	2800	OTTA	1	1520	1521	3	3.4	1.7		
	2700	PENN	1	1520.4	1520.9	3.2	3.4	1.9		
	600	UCCL	3	1521		.3	27.0	13.0		
	600	UCCL	2	1554.5	1555	1.2	8.0	6.0		
	9400	HUAN	5	1635.1	1707.9	64.9	17.2	9.8		
	2800	OTTA	24	1635		20	4.5			
	600	UCCL	1	1640.5		.3	5.0	3.0		
	2700	PENN	24	1645.6	1955.5		13.3			
	2800	OTTA	21	1656	1714	65	4.4	2.2		
	960	PENN	45	1658.9	1700.6	2 D	29.6			
	15400	SGMR	3	1659.5	1700.5	4.4	8.0	3.0		
	10700	PENN	20	1659.5	1700.6	15.5	9.8	3.0		
	8800	SGMR	3	1659.5U	1700.7U	10.5U	30.5U	13.5U		
	4995	SGMR	3	1659.5U	1700.8U	14.6U	32.4U	14.0U		
	2800	OTTA	3	1659	1702	3	14.0	5.0		
	2700	PENN	3	1659.1	1700.2	10.7	20.0	2.8		
	2695	SGMR	3	1659.5U	1700.3U	15.5U	22.5U	9.0U		
	1415	SGMR	1	1659.7	1700.3	2.3	5.1	2.5		
	606	SGMR	1	1659.6	1700	3.4	3.3	1.6		
	245	SGMR	6	1659.3	1700.1	1.7	6.0	2.0		
	18	MCMA	6	1659	1701	3			1	
	600	UCCL	2	1700	1703.5	4.5	7.0	2.0		
	600	UCCL	1	1849.5	1850	.8	8.0	4.0		
	9400	HUAN	5	1852.3	1907	43	7.7	3.6		
	2800	OTTA	21	1900	1910	20	8.8	4.4		
	18	MCMA	6	1902	1907	8			3	
	2700	PENN	1	1903.7	1905.4	7.8	5.9	2.8		
	1415	SGMR	3	1903.8	1906	9	7.7	3.0		
	960	PENN	45	1903.6	1905.2	6.6	22.0	3.4		
	15400	SGMR	3	1904.7	1906.1	12.8	21.4	8.8		
	10700	PENN	20	1904.6	1906.1	46	22.5	7.6		
	8800	SGMR	45	1904.4	1905.3	13	18.9	8.0		
	4995	SGMR	3	1904.6	1905.4	8.7	10.8	3.6		
	606	SGMR	1	1904.6	1905.8	2.4	6.7	3.0		
	600	UCCL	2	1905		1.5	4.0	1.0		
	9400	HUAN	5	1905	1905.5	1.8	17.2	12.2		
	9400	HUAN		1905	1906.2		21.1			
	2800	OTTA	1	1905	1906	2	2.8	1.4		
	2695	SGMR	1	1905	1905.6	6.6	4.5	2.2		
	10700	PENN	20	2009.8	2017.6	57.9	38.3	10.1		
	8800	SGMR	20	2010.3	2017.7	30.8	33.6	16.8		
	2800	OTTA	21	2010	2022	90	7.8	3.4		
	15400	SGMR	20	2011.3	2017.7	29.5	26.8	13.4		
	2695	SGMR	20	2011.3	2017.9	28.7	13.5	6.7		
	4995	SGMR	20	2012.4	2017.8	24.2	21.6	10.8		
	2700	PENN	20	2012.7	2017.6	30.2	16.0	4.0		
	9400	HUAN	5	2013.8E	2021.8	38 U	17.2	9.0		
	245	SGMR	44	2013		227 D				
	1415	SGMR	46	2014.4	2017.8	9.6	250.0	50.0		
	9400	HUAN	5	2015.8	2017.6	3.3	30.6	17.6		
	9400	HUAN		2015.5	2018.1		28.7			
	2800	OTTA	22	2015.5	2017.7	4	11.0	5.2		

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	960 PENN	45	2015.6	2034.4	53.4	13.2	3.9		
	606 SGMR	40	2015	2017.3	11	16.8	7.0		
	18 MCMA	42	2016	2138	98			1	
	200 HIRA	27	2022	2113	118	20.0	10.0		
	2800 OTTA	20	2200	2340	180	4.2	2.1		
	100 HIRA	45	2334	2334.3	1.5	290.0D	110.0D		
21	2800 OTTA	20	0115	0135	40	2.8	1.4		
	9400 TYKW	45	0300	0447	240	95.0	17.0		
	3750 TYKW	45	0300	0447.2	240	69.0	12.0		
	200 GORK	20	0342.9	0343.4	.7	20.0	10.0		
	100 GORK	20	0342.9	0343.5	1.3	700.0D			
	9100 GORK	21	0408.3	0419.2	105	51.0	17.0		
	9100 GORK	4	0416.3	0417.3	33	69.0	24.0		
	2950 GORK	21	0437.4	0449.3	129	45.0	17.0		
	606 MANI	46	0438.6	0441	24.6	690.0	210.0		
	8800 MANI	4	0439.9	0447.2	68.8	92.0	30.6		
	4995 MANI	4	0439.9	0447.2	68.8	123.0	45.0		
	2695 MANI	4	0439.9	0447.4	68.8	36.0	12.0		
	1415 MANI	46	0439.9	0513.8	68.8	126.0	47.4		
	2000 TYKW	45	0440	0508	140	37.0	10.0		
	1000 TYKW	41	0440	0458.1	70	295.0	35.0		
	950 GORK	41	0440	0447.3	59.8	470.0			
	950 GORK		0440	0458.3		748.0			
	950 GORK		0440	0515.1		89.0			
	950 GORK		0440	0525.8		183.0			
	650 GORK	46	0440.7	0441.9	38.3	61.0			
	650 GORK		0440.7	0447		173.0D			
	500 HIRA	45	0442	0447.5	14	300.0	10.0		
	100 GORK	49	0442.5	0524.6	170	650.0D			
	600 UCCL	4	0443.5	0448	21	180.0	20.0U		
	100 GORK	48	0444.6	0447.7	3.4	30000.0			
	17000 TOKO	45	0445	0447.1	16	82.0			
	2950 GORK	3	0446.4	0447.7	2.4	42.0	17.0		
	612 TOKO	45	0446.5	0447	3.2	139.0			
	100 HIRA	45	0446.8	0457	1.3	320.0D	230.0D		
	2950 GORK	1	0449.8	0450.1	.9	7.0	3.5		
	2950 GORK	4	0452.2	0453.3	3.2	22.0			
	2950 GORK	1	0458.6	0459.6	2.4	15.0	7.0		
	650 GORK	46	0509.9	0516.2	32.1	104.0			
	650 GORK		0509.9	0523.5		128.0			
	650 GORK		0509.9	0528		320.0D			
	650 GORK		0509.9	0537.5		210.0			
	606 MANI	46	0512.5	0528	29.6	415.0	105.0		
	600 UCCL	4	0515	0515.5	2	28.0	8.0		
	600 UCCL	46	0519	0537.5	25	360.0	70.0U		
	500 HIRA	45	0521	0528	18	160.0	30.0		
	612 TOKO	45	0522.8	0537	18.6	440.0			
	225 HARS	45	0526.5	0533	16	145.0	80.0		
	200 GORK	24	0528	0533.5	12.3	20.0			
	100 GORK	44	0310 E		530 D		10.0		
	200 HIRA	27	0450	0533	93	50.0	5.0		
	260 ONDR	41	0540		620	40.0			
	245 SGMR	44	0929 E		866 D				
	100 GORK	24	1150.4		69 D	700.0U			
	950 GORK	41	0547.8	0547.9	2.5	5.6			
	950 GORK		0547.8	0549.8		4.8			
	950 GORK		0547.8	0550		6.7			
	600 UCCL	2	0548.5	0549.4	.8	11.0	4.0		
	650 GORK	3	0549.2	0549.3	.3	10.3	5.1		
	100 GORK	41	0600.4	0601.3	5.4	10000.0			
	100 GORK		0600.4	0604.3		20000.0			
	200 GORK	3	0601.2	0604.4	5.3	100.0			
	600 UCCL	4	0603.5	0604.2	3.5	14.0	7.0		
	2000 TYKW	5	0654.9	0655	.5	3.0	1.0		
	1415 MANI	3	0654.8	0655	.6	12.6	4.7		
	1000 TYKW	5	0654.5	0655	1	15.0	5.0		
	950 GORK	41	0654.8	0655	2.5	13.5			
	950 GORK		0654.8	0657		3.4			
	650 GORK	1	0655	0655.2	.7	3.0	1.5		
	2000 TYKW	5	0702.5	0702.8	1	3.0	1.0		
	1415 MANI	3	0702.5	0702.8	.6	15.8	4.7		
	1000 TYKW	5	0702	0702.8	2	10.0	3.0		
	950 GORK	3	0702.4	0702.7	1.5	7.1	2.0		
	650 GORK	1	0702.2	0703	.8	1.4	0.6		
	606 MANI	4	0702.4	0704	1	12.6	4.2		
	9100 GORK	3	0719.3	0719.9	1.4	26.0	13.0		
	600 UCCL	22	0736	0746	20	54.0	8.0		
	1000 TYKW	45	0743	0746.1	10	23.0	3.0		
	950 GORK	40	0743	0746	9.5	200.0			
	930 BORD	45	0743	0746	10	28.0	2.0		
	650 GORK	40	0743.5	0744.5	1.6	4.0			
	650 GORK	40	0745	0746	9	12.0			
	100 GORK	6	0752.8	0753.8	2.2	500.0			
	100 GORK		0752.8	0754.7		200.0			
	200 GORK	6	0753.5	0753.7	.6	20.0	10.0		
	8800 MANI	3	0846.5	0847.4	1.3	27.6	12.2		
	9100 GORK	3	0847	0847.5	1.4	31.0	10.0		
	2950 GORK	20	0858.6	0932.8	73.1	15.7	7.0		
	100 GORK	41	0903	0904.9	18	700.0			

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
21	100 GORK		0903	0916		700.0			
	9500 BERL	1	0932.7E	0932.7		3.6			
	600 UCCL	1	1014.5	1014.8	.8	6.0	3.0		
	600 UCCL	3	1226.5		.3	15.0	7.0		
	234 POTS	45	1239.8	1239.8	.1	175.0	40.0		
	23 POTS	5	1253.6	1253.8	.5	3000.0	1000.0		
	2800 OTTA	21	1310	1730	350	9.2	4.6		
	10700 PENN	20	1319.2	1341.3	78	20.0	5.9		
	9400 HUAN	5	1324.5	1342.8	48.3	7.6	3.4		
	9400 HUAN	5	1340.8	1341.3	.9	13.3	8.3		
	9500 BERL	1	1341.2E	1341.2		8.5			
	600 UCCL	1	1442.2		.2	9.0	5.0		
	18 MCMA	42	1607	1613	7			1	
	600 UCCL	1	1634	1634.5	.4	7.0	5.0		
	10700 PENN	20	1644	1653.8	15.4	11.8	5.8		
	9400 HUAN	5	1646	1651	96.5	11.4	6.3		
	2800 OTTA	40	1646	1647	13	27.0			
	2700 PENN	45	1646.5	1647.1	19.4	36.8	7.1		
	1415 SGMR	4	1646.2	1653.7	14.2	59.0	25.2		
	960 PENN	45	1646.3	1653.7	37.7	38.8	7.2		
	606 SGMR	45	1646.2	1650.9	14.9	115.0	50.0		
	600 UCCL	45	1646.5	1651	14	144.0	40.0		
	18 MCMA	41	1646	1653	9			3	
	18 MCMA	6	1650	1653	5			3	
	600 UCCL	41	1706.5	1717.5	23	9.0	2.0		
	18 MCMA	42	1710	1719	20			3	
	18 MCMA	6	1715	1719	5			3	
	10700 PENN	3	1733.9	1735.8	7.1	12.1	6.0		
	18 MCMA	41	1800	1809	11			2	
	2700 PENN	40	1804.5		24.4				
	2695 SGMR	3	1912.8	1916.6	11.3	29.1	14.2		
	4995 SGMR	3	1913.3	1916.7	6.5	25.2	12.0		
	2800 OTTA	4	1913	1916	7	25.0	12.0		
	2700 PENN	3	1913	1916.4	20.9	39.7	5.6		
	960 PENN	20	1913.4	1916.4	13	6.2	1.5		
	606 SGMR	1	1913	1916.4	6	5.8	2.6		
	9400 HUAN	5	1914.7	1916.3	4.2	9.5	6.2		
	8800 SGMR	1	1914	1916.5	7.5	6.2	3.1		
	1415 SGMR	3	1914.3	1916.5	4.8	9.9	4.4		
	10700 PENN	41	1930.7	1931	7.8	59.2			
	2800 OTTA	2	1947	1948	1.5	3.2	1.8		
	2700 PENN	1	1947	1947.7	1.8	9.0	5.1		
	2700 PENN	1	2214.2	2214.7	1.3	4.3	1.2		
	960 PENN		2214.2	2214.5	1.2	18.5	1.8		
	15400 SGMR	4	2328.7	2329.8	3.3	87.0	42.0		
	8800 SGMR	4	2329.1	2329.9	2.5	24.8	11.0		
	4995 SGMR	4	2329.2	2330	2.3	33.6	15.2		
	2695 SGMR	4	2329.2	2330.5	3.6	15.2	7.3		
	1415 SGMR	3	2329.2	2330.2	1.8	6.1	3.0		
	606 SGMR	1	2329	2330.6	2.2	4.5	2.2		
	2695 PENT	46	2350.5	2352.5	4	12.0	4.0		
	2000 TYKW	45	2350	2353	5	175.0	20.0		
	1000 TYKW	45	2351	2353.4	4	28.0	6.0		
22	9400 TYKW	5	0011	0013	3	12.0	6.0		
	4995 MANI	4	0011.5	0013.5	4.5	20.8	7.8		
	3750 TYKW	45	0011	0013.7	5	12.0	5.0		
	2000 TYKW	45	0011.5	0013.6	4	175.0	65.0		
	1415 MANI	46	0011.5	0012.8	4.5	198.0	66.0		
	1000 TYKW	45	0011.5	0013.1	5	110.0	30.0		
	606 MANI	46	0011.5	0013.5	4.5	38.3	11.6		
	2695 PENT	22	0012	0013.5	4	18.0	4.4		
	2695 MANI	4	0013.2	0013.5	2.8	21.3	5.7		
	9400 TYKW	29	0014		6	6.0	5.0		
	3750 TYKW	29	0016		4	4.0	4.0		
	1000 TYKW	29	0016.5		5.5	2.0	2.0		
	9400 TYKW	47	0020	0030.1	21	5000.0	1090.0		
	3750 TYKW	47	0020	0031	21	2300.0	590.0		
	2695 PENT	46	0021	0032	24	880.0	285.0		
	2800 PENT	46	0021	0025.3	5.5	410.0			
	2800 PENT	46	0026.5	0032	18.5	880.0			
	2000 TYKW	47	0021.5	0027.3	16.5	1240.0	235.0		
	606 MANI	47	0021.6	0032	69.4	2700.0	770.0		
	8800 MANI	47	0022.5	0030	35.5	5750.0	1900.0		
	4995 MANI	47	0022.5	0030	42.5	7200.0	2400.0		
	2695 MANI	47	0022	0032	60	1200.0	425.0		
	1415 MANI	47	0022	0032.1	62.7	475.0	164.0		
	1000 TYKW	47	0022	0031.9	15	1040.0	225.0		
	500 HIRA	45	0023.5	0028	12	1160.0	440.0		
	200 HIRA	45	0025.5	0030.5	22	370.0	120.0		
	100 HIRA	45	0025.5	0030	21.5	1200.0D	1100.0D		
	17000 TOKO	45	0027	0030.1	13.2	3140.0			
	2695 PENT	1	0030	0035	7	4.6	2.3		
	612 TOKO	45	0031 E		2	180.0D			
	1000 TYKW	29	0037		3	8.0	8.0		
	2000 TYKW	45	0038	0045.8	42	200.0	33.0		
	17000 TOKO	29	0040.2		21	40.0			
	1000 TYKW	45	0040	0045	40	290.0	15.0		
	9400 TYKW	29	0041		80	90.0	25.0		
	3750 TYKW	29	0041		80	50.0	15.0		

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
22	2695 PENT	30	0045		55	13.0	6.0		
	2695 PENT	4	0106	0115	14	27.0	11.0		
	9400 TYKW	5	0130	0135	10	5.0	2.0		
	3750 TYKW	5	0130	0135	10	5.0	2.0		
	9400 TYKW	45	0202	0206.8	7	23.0	8.0		
	3750 TYKW	45	0203	0205.4	7	25.0	12.0		
	2000 TYKW	45	0203	0205.1	6	30.0	10.0		
	1000 TYKW	45	0203	0206.9	10	36.0	8.0		
	8800 MANI	4	0204	0207.1	7.7	28.0	10.4		
	4995 MANI	4	0204	0205.2	7	39.8	17.0		
	2695 MANI	4	0204	0205.1	7.7	36.4	16.2		
	1415 MANI	4	0204	0207	7.7	33.4	15.2		
	606 MANI	4	0205	0207	4.3	8.1	3.5		
	9400 TYKW	29	0209		70	10.0	5.0		
	2000 TYKW	29	0209		70	6.0	2.0		
	3750 TYKW	29	0210		70	6.0	3.0		
	200 GORK	6	0259.8	0259.9	1.4	100.0			
	200 GORK	41	0315	0315.3	7.3	80.0			
	200 GORK		0315	0320		90.0			
	200 GORK		0315	0321.8		90.0			
	200 GORK	41	0329.2	0330.2	1.3	60.0			
	9400 TYKW	5	0412	0412.6	1.5	5.0	2.0		
	9100 GORK	2	0412	0412.4	2.9	14.0	3.3		
	600 UCCL	3	0430.5		.2	11.0	5.0		
	100 GORK	41	0525.5	0525.9	4.3	1500.0			
	100 GORK		0525.5	0529.2		1500.0D			
	100 HIRA	45	0529	0529.5	1	320.0D	230.0D		
	100 GORK	24	0745	0815.6	69	10000.0	500.0		
	2950 GORK	4	0755.2	0757.9	4.3	32.0	8.0		
	950 GORK	46	0801.2	0807	11.9	58.0			
	950 GORK		0801.2	0810.1		18.0			
	930 BORD	45	0801	0807	13	64.0	9.0		
	9100 GORK	21	0802.7	0809.4	16.7	22.0	10.0		
	2950 GORK	46	0802.3	0805.6	25.6	57.0	13.0		
	2950 GORK		0802.3	0810.2		36.0			
	9500 BERL	3	0803	0805	37 U	46.0	10.0		
	8800 MANI	3	0803.4	0810.1	19.8	58.0	24.3		
	4995 MANI	3	0803.4	0810.1	10.6	61.5	25.8		
	2695 MANI	22	0803.4	0805.3	8.6	42.5	18.2		
	1420 KIEL	45	0803	0805	10	160.0	60.0		
	1415 MANI	4	0803.4	0805.2	9.3	90.0	35.0		
	650 GORK	46	0803.2	0807	8.1	12.0			
	650 GORK		0803.2	0810		12.0			
	606 MANI	22	0803.7	0807	13.2	15.7	6.7		
	600 UCCL	4	0804	0810.5	10	20.0	8.0		
	808 ONDR	45	0805	0805.5	5				
	9100 GORK	41	0809.4	0810.2	3.1	47.0	14.0		
	2950 GORK	29	0812	0812	15.1	13.0			
	2950 GORK	1	0908.3	0909.5	2.9	4.3	2.1		
	600 UCCL	41	0927	0928.5	1.5	8.0	2.0		
	600 UCCL	1	0940		.3	6.0	3.0		
	200 GORK	6	1004.5	1004.6	.3	200.0	100.0		
	200 GORK	6	1042.1	1042.2	.7	180.0	50.0		
	200 GORK	6	1046.8	1047.2	1.1	180.0	50.0		
	200 GORK	44	0258 E		572 D		10.0		
	100 GORK	44	0300 E		570 D		500.0		
	260 ONDR	44	0540	1358	610	65.0			
	245 SGMR	44	0930 E		860 D				
	240 KIEL	44	1047 E	1047		2000.0	20.0		
	9100 GORK	20	1115	1119	9	16.0	7.1		
	600 UCCL	41	1357.5	1358.6	.8	28.0	7.0		
	2800 OTTA	22	1425	1458	40	2.6	1.3		
	9400 HUAN	5	1544.8	1551.5	37.9	13.0	6.5		
	2800 OTTA	25	1545		10	2.8			
	15400 SGMR	1	1550.9	1551.2	4.1	6.8	3.4		
	8800 SGMR	3	1550.8	1551.6	8.3	11.3	4.2		
	4995 SGMR	3	1550.9	1551.3	8.1	12.4	4.5		
	2695 SGMR	3	1550.5	1551.7	9.2	8.6	3.8		
	1415 SGMR	1	1550.8	1551.6	3.2	6.4	3.2		
	408 SANM	45	1550.9	1551.6	1.8	44.0	7.5		
	18 MCMA	42	1550	1556	24			3	
	18 MCMA	6	1550	1556	7			3	
	2800 OTTA	2	1551	1551.8	5	5.2	2.4		
	2800 OTTA	1	1600	1600.4	2	2.2	1.1		
	1415 SGMR	3	1600	1600.4	1.4	10.1	5.0		
	606 SGMR	1	1600	1600.5	1.5	2.0	1.0		
	9400 HUAN	5	1704.7	1709.6	10.1	5.6	2.8		
	2800 OTTA	20	1745	1815	65	2.2	1.1		
	18 MCMA	41	1807	1818	12			2	
	9400 HUAN	5	1920.7	1945.2	93.5U	14.9	9.7		
	2800 OTTA	21	1935	2125	250	4.2	2.1		
	4995 SGMR	3	1938.3	1940.2	3.2	250.0	125.0		
	15400 SGMR	3	1939.8	1940.3	1.9	13.4	6.3		
	9400 HUAN	5	1939.5	1940.2	2.6	52.1	19.1		
	8800 SGMR	3	1939.5	1940.2	1.9	64.0	31.0		
	2800 OTTA	4	1939.2	1940.3	2	149.0	70.0		
	2695 SGMR	3	1939.5	1940.3	1.7	135.0	65.0		
	1415 SGMR	4	1939.5	1940.5	1.7	88.0	42.0		
	606 SGMR	4	1939.2	1941.4	3	105.0	50.0		
	245 SGMR	7	1939.5	1940	2.8	2200.0	1100.0		

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	100 HIRA	45	1939.5	1940	2	310.0D	280.0D		
	18 MCMA	41	1939	1944	8			3	
	15400 SGMR	29	1941.7	1941.7	35.1	4.7	2.4		
	8800 SGMR	29	1941.4	1941.4	29.8	6.3	3.2		
	4995 SGMR	30	1941.5	1941.5	32.8	16.5	8.3		
	2800 OTTA	30	1941.2		10	5.0	2.5		
	2695 SGMR	30	1941.2	1941.2	20.5	4.3	2.2		
	1415 SGMR	30	1941.2	1941.2	24.1	4.0	2.0		
	4995 SGMR	1	1944.9	1946	1.4	1.8	.9		
	2695 SGMR	1	1944.4	1946	2.1	5.6	2.8		
	1415 SGMR	1	1944.8	1945.9	1.8	4.3	2.2		
	100 HIRA	45	1944	1945.5	3	310.0D	120.0D		
	2800 OTTA	1	1945	1946	1.5	9.2	4.6		
	2800 OTTA	1	2029	2030.2	2	5.8	2.9		
	1000 TYKW	5	2233.5	2233.6	.5	20.0	6.0		
	2000 TYKW	5	2236	2236.8	2	3.0	1.0		
	1000 TYKW	5	2236.5	2236.8	.5	7.0	2.0		
23	9400 TYKW	45	0040	0047.9	15	10.0	2.0		
	3750 TYKW	5	0040	0047.7	25	11.0	3.0		
	2695 PENT	21	0040	0050	70	5.0	2.5		
	2000 TYKW	45	0044	0048.5	10	17.0	3.0		
	1000 TYKW	45	0044	0048	12.5	190.0	24.0		
	1415 MANI	4	0046.7	0048.8	6.1	34.1	14.0		
	4995 MANI	3	0047.4	0047.7	4.7	12.8	5.2		
	2695 MANI	3	0047.4	0047.7	1.6	11.7	3.9		
	2695 PENT	2	0047	0047.8	4	7.2	3.6		
	606 MANI	4	0047.4	0047.7	4.7	9.3	3.5		
	9400 TYKW	5	0100	0100.6	2	5.0	2.0		
	9400 TYKW	5	0133.5	0134.4	2.5	8.0	3.0		
	3750 TYKW	5	0133.5	0134.4	2	13.0	4.0		
	2695 PENT	2	0133.5	0134.5	3	5.2	2.0		
	2000 TYKW	5	0133.5	0134.5	2	2.0	1.0		
	1000 TYKW	45	0133.5	0134.6	2.5	6.0	2.0		
	3750 TYKW	5	0236	0236.8	1.5	14.0	3.0		
	200 GORK	44	0257 E		603 D		10.0		
	100 GORK	44	0257 E		603 D		170.0		
	260 ONDR	44	0540		630	100.0D			
	245 SGMR	44	0931 E		869 D				
	9100 GORK	3	0301	0301.2	.8	42.0	20.0		
	100 HIRA	45	0511	0513.5	8.5	300.0D	270.0D		
	100 GORK	41	0511.5		8	800.0D			
	200 HIRA	45	0512	0515	7	460.0	55.0		
	3750 TYKW	5	0514.8	0515.1	1	8.0	2.0		
	2950 GORK	3	0514.9	0515.3	.7	11.0	5.5		
	200 GORK	41	0514	0514.3	4.6	200.0			
	200 GORK		0514	0515.2		200.0D			
	200 GORK		0514	0517.2		150.0			
	2000 TYKW	5	0515	0515.2	1	8.0	2.0		
	1000 TYKW	5	0515	0515.2	1	7.0	2.0		
	950 GORK	1	0515	0515.3	.7	5.5	3.7		
	600 UCCL	2	0515		.6	9.0	4.0		
	650 GORK	3	0515.2	0515.2	.4	5.3	2.7		
	100 GORK	6	0529.4	0530.2	2.2	4000.0			
	23 POTS	41	0722.8	0732.6	11.4	3000.0	100.0		
	606 MANI	22	0727.7	0728	11.3	6.0	2.4		
	9500 BERL	3	0729.7E	0729.7		11.0			
	1420 KIEL	5	0805	0806	2	35.0	15.0		
	606 MANI	4	0805.5	0806.6	10.5	12.0	3.6		
	420 KIEL	6	0805	0806	2	100.0	40.0		
	113 POTS	45	0805.6	0806.3	2.7	18000.0	3000.0		
	100 GORK	41	0805.7E		2.2	600000.0			
	23 POTS	45	0805.6	0807.1	4.7	500000.0	5000.0		
	9500 BERL	3	0806.2	0806.7	1.8	15.0	5.3		
	9100 GORK	1	0806.4	0806.9	.9	22.0	7.3		
	2950 GORK	3	0806	0807	3	94.0			
	950 GORK	3	0806	0807	2.2	13.3	8.6		
	930 BORD	5	0806	0807	2	15.0	3.0		
	650 GORK	4	0806.2	0806.8	1.3	10.7	5.3		
	237 TRST	45	0806.4	0806.9	.9U	1270.0			
	234 POTS	45	0806.7E	0806.7U		1200.0U			
	200 GORK	6	0806.1	0807	1	1500.0	650.0		
	600 UCCL	3	0807	0807.5	1.5	11.0	5.0		
	650 GORK	4	0907.8	0908	.4	7.9	4.0		
	606 MANI	4	0926	0926.2	2.1	8.4	3.6		
	200 GORK	41	0927	0927.1	1.2	200.0			
	200 GORK		0927	0927.8		300.0			
	2950 GORK	2	0935.2	0935.8	1.2	6.2	3.1		
	100 GORK	6	0944.9	0945.3	1.3	500000.0			
	2950 GORK	3	0945.2	0945.5	.8	14.1	5.6		
	950 GORK	1	0945.9	0946.1	.3	2.7	1.3		
	650 GORK	2	0945.9	0946	.5	1.8	0.9		
	113 POTS	41	0945	0957.8	13.4	18000.0	450.0		
	23 POTS	41	0945	0957.9	13.4	200000.0	7000.0		
	600 UCCL	1	0946	0946.8	1	5.0	3.0		
	2950 GORK	1	0957.8	0957.9	.3	7.9	3.9		
	950 GORK	3	0957.7	0957.9	.3	44.0	22.0		
	930 BORD	5	0957	0957.8	1	63.0	1.0		
	650 GORK	3	0957.8	0957.9	.3	14.2	7.1		
	100 GORK	6	0957.2	0958 U	2.2	50.0D			

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23	600	UCCL	8	0958.5		.3	75.0	38.0		
	2950	GORK	3	1010.8	1031.4	1	22.0	6.1		
	2950	GORK	23	1024.6	1102.9	96	37.0	12.5		
	23	POTS	45	1024.4	1024.5	1.1	800.0	120.0		
	9500	BERL	3	1029	1031.3	72	28.0	5.5		
	9100	GORK	4	1029.7	1031.5	4	42.0	11.0		
	606	SGMR	1	1030.3	1030.8	1.2	5.9	2.5		
	600	UCCL	1	1030.8	1031	.7	9.0	4.0		
	420	KIEL	49	1030	1046	100	1500.0	80.0		
	1415	SGMR	4	1031.9	1032.8	2.5	33.8	6.8		
	1420	KIEL	40	1032	1048	45	140.0	30.0		
	600	UCCL	4	1034	1038	4.8	25.0	5.0		
	650	GORK	4	1034.1	1037.5	4	8.5	4.7		
	100	GORK	41	1034.5	1037.7	16.2	5000.0			
	100	GORK		1034.5	1046.3		20000.0			
	100	GORK		1034.5	1049.9		300000.0			
	950	GORK	1	1037.2	1037.7	.8	5.0	2.3		
	930	BORD	45	1037	1037.6	1	10.0	2.0		
	23	POTS	41	1037.2	1047.1	12.5	40000.0	2500.0		
	234	POTS	41	1040.8	1050.2	10	12000.0	400.0		
	237	TRST	42	1041 E	1050.2	10 D	21100.0			
	200	GORK	41	1041.7	1042.4	9.6	300.0			
	200	GORK		1041.7	1046.3		350.0			
	200	GORK		1041.7	1048.3		350.0D			
	200	GORK		1041.7	1050.2		4000.0			
	15400	SGMR	21	1044.8	1109.2	33.7	27.9	14.0		
	9100	GORK	23	1044.4	1048.4	26.6	37.0	18.0		
	8800	SGMR	21	1044.1	1103.9	34.6	16.0	8.0		
	8800	SGMR	45	1044.9	1046.3	7.6	105.0	31.4		
	4995	SGMR	21	1044.2	1103.5	34.5	16.2	8.1		
	2950	GORK	45	1044.8	1046.6	9.5	23.0	14.4		
	2950	GORK		1044.8	1050.3		41.0			
	2695	SGMR	21	1044.7	1103	38	14.1	7.0		
	1415	SGMR	21	1044.7	1107.6	38.4	9.4	4.7		
	950	GORK	46	1044.5	1047.2	6.7	58.0	18.5		
	950	GORK		1044.5	1050.3		72.0			
	930	BORD	45	1044	1046	8	202.0	23.0		
	650	GORK	46	1044.5	1046.5	75.5	83.0			
	650	GORK		1044.5	1113		60.0			
	650	GORK		1044.5	1116.2		74.0			
	606	SGMR	46	1044.6	1116.3	77.6	175.0	24.1		
	536	ONDR	45	1044.5	1111	35	245.0			
	113	POTS	41	1044.8	1050	6	14000.0	2000.0		
	9500	BERL	3	1045	1046.7	31	100.0U			
	9400	ONDR	5	1045	1046.5	2.5				
	600	UCCL	46	1045	1117	80	190.0	17.0		
	4995	SGMR	45	1045.4	1050.1	6.8	47.4	30.0		
	2695	SGMR	45	1045.1	1050.3	6.8	18.9	4.4		
	15400	SGMR	4	1046	1046.4	1.9	105.0	34.7		
	9100	GORK	3	1046	1046.4	2	129.0	33.0		
	1415	SGMR	45	1048.1	1048.9	11.9	37.4	7.8		
	9100	GORK	1	1049.9	1050.2	1.7	20.0	7.5		
	100	GORK	48	1055.2	1103	8	300000.0			
	950	GORK	46	1058	1058.2	27	45.0			
	950	GORK		1058	1059.7		47.0			
	930	BORD	45	1058	1059	25	92.0	10.0		
	23	POTS	41	1058.5	1102.8	6.3	25000.0	1000.0		
	808	ONDR	45	1100.5	1112.5	9.5				
	2800	OTTA	2	1102	1103	4.5	5.0	2.5		
	950	GORK	40	1102.1	1112.9	27.5	45.0	7.0		
	950	GORK		1102.1	1116.8		66.0			
	113	POTS	45	1102.7	1102.8	.8	13000.0	2500.0		
	100	GORK	24	1103.3		117 D	20000.0			
	240	KIEL	44	1104 E	1104		9000.0	25.0		
	2800	OTTA	26	1106		50	7.8			
	950	GORK	40	1134.7	1135.6	9.5	11.8	3.0		
	930	BORD	45	1134	1135.6	6	14.0	2.0		
	1415	SGMR	3	1157.2	1157.3	.6	9.4	3.8		
	23	POTS	41	1209.6	1219.3	11.3	10000.0	400.0		
	930	BORD	5	1213	1213.6	1	11.0	2.0		
	600	UCCL	1	1248.2		.2	10.0	5.0		
	2800	OTTA	21	1310	1315	4	5.4	2.7		
	10700	PENN	3	1321.4	1322	2.6	16.6	4.9		
	9500	BERL	3	1321.3	1322	2.4	19.0	5.8		
	9400	HUAN	5	1321.4	1321.8	1.9	18.6	5.1		
	8800	SGMR	3	1321.7	1322	2.8	27.4	9.1		
	4995	SGMR	3	1321.5	1322	3	37.2	12.3		
	2800	OTTA	1	1321.5	1322	3	5.8	2.6		
	2700	PENN	1	1321.4	1322.1	5.2	6.7	2.6		
	2695	SGMR	1	1321.7	1322.4	3.1	4.8	1.6		
	2700	PENN	1	1425.6	1426.4	2	4.2	1.7		
	960	PENN	1	1425.8	1426.3	1	2.4	1.2		
	606	SGMR	4	1425.6	1426.3	1.6	20.8	10.2		
	408	SANM	42	1425.5	1455.5	46.8	178.0			
	234	POTS	45	1425.7	1426	1.5	350.0	40.0		
	113	POTS	45	1425.8	1426.3	1.6	6000.0	1200.0		
	23	POTS	45	1425.9	1426.1	1.9	20000.0	3000.0		
	9500	BERL	1	1426 E	1426		4.4			
	600	UCCL	4	1426.3	1427.1	1.2	28.0	10.0		
	18	MCMA	41	1426	1427	4			1	

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22}Wm^{-2}Hz^{-1}$ PEAK	MEAN	INT	REMARKS
23	2700 PENN	20	1451.8	1501	23.1	5.6	2.8		
	18 MCMA	6	1452	1456	5			2	
	1420 KIEL	40	1453	1501	16	20.0	7.0		
	960 PENN	45	1453.3	1500.8	26.2	8.4	1.6		
	420 KIEL	44	1453	1455	19	420.0	40.0		
	240 KIEL	48	1453	1455	27	7000.0	60.0		
	606 SGMR	4	1454.7	1455.6	2.1	24.1	9.6		
	600 UCCL	4	1455	1456.1	17	38.0	5.0		
	23 POTS	45	1454.9	1455.1	1.9	18000.0	1800.0		
	606 SGMR	40	1459.3	1502.1	4.3	6.5	1.7		
	18 MCMA	6	1459	1504	6			3	
	1415 SGMR	40	1500	1501.6	2.8	10.4	3.5		
	930 BORD	45	1500	1502.2	3	23.0	3.0		
	600 UCCL	2	1500	1502	5	5.0	2.0		
	9500 BERL	1	1501.8E	1501.8		4.4			
	9500 BERL	1	1510 E	1510		5.0			
	2800 OTTA	21	1525	1725	445	7.4	3.7		
	600 UCCL	4	1532	1532.5	1	12.0	5.0		
	18 MCMA	42	1537	1549	18			3	
	606 SGMR	28	1538.8	1552	13.5	45.5	37.0		
	1420 KIEL	40	1539	1556	18	300.0	50.0		
	1415 SGMR	28	1539.5	1551.6	12.7	49.4	36.3		
	960 PENN	45	1539.4	1553	44.4	72.8	5.1		
	930 BORD	45	1539	1553.3	21	322.0	18.0		
	600 UCCL	4	1539	1540.5	7	18.0	6.0		
	420 KIEL	48	1539	1556	41	1800.0	120.0		
	408 SANM	41	1539	1555.3	26	745.0	102.0		
	240 KIEL	48	1539	1553	21	2000.0	100.0		
	600 UCCL	46	1546	1553.5	14	325.0	36.0		
	9400 HUAN	5	1546.4	1554.9	16.4	7.4	3.7		
	536 ONDR	45	1546.5	1555	14	375.0			
	10700 PENN	3	1547.1	1553.3	12.5	23.5	5.2		
	9500 BERL	3	1547	1553.3	13	24.0	7.5		
	4995 SGMR	28	1547	1552.3	5.5	7.2	2.3		
	2700 PENN	3	1549	1553.4	20.5	56.4	6.8		
	2695 SGMR	3	1549.5	1553.5	8.9	45.8	18.4		
	808 ONDR	45	1550	1553	6.5				
	8800 SGMR	3	1551.9	1553.3	5.6	26.9	11.0		
	9400 HUAN	5	1552.3	1553.2	1.8	22.3	9.8		
	4995 SGMR	3	1552.5	1553.4	7	39.0	15.6		
	2800 OTTA	4	1552.5	1553.2	6	40.0	10.0		
	1415 SGMR	46	1552.2	1552.9	7.8	104.7	55.3		
	606 SGMR	46	1552.3	1552.9	7.9	204.1	120.2		
	15400 SGMR	3	1553	1553.4	1.9	13.6	5.4		
	600 UCCL	3	1601.8		.2	18.0	9.0		
	18 MCMA	42	1603	1837	221			3	
	930 BORD	5	1605	1605.6	1	8.0	1.0		
	408 SANM	27	1605		25		2.0		
	930 BORD	45	1610	1611.2	5	10.0	2.0		
	1420 KIEL	5	1619	1619	1	20.0	10.0		
	1415 SGMR	40	1619.5	1620	1.5	2.1	.8		
	930 BORD	5	1619	1620	2	83.0	2.0		
	606 SGMR	40	1619.3	1620	1.7	30.6	12.1		
	600 UCCL	4	1620	1621	1.9	36.0	10.0		
	10700 PENN	1	1700.4	1701	1	3.9	2.1		
	960 PENN	41	1701	1701		55.3			
	10700 PENN	40	1712		26.2				
	4995 SGMR	47	1824.8	1845.9	31.2	1910.0	400.0		
	15400 SGMR	47	1828	1844.8	26	3160.0	700.0		
	2695 SGMR	47	1829	1844	34	1244.0	300.0		
	9400 HUAN	28	1830	1832.3	2.3	7.4	3.1		
	408 SANM	47	1830	1845.3	45	3000.0	470.0		
	10700 PENN	28	1831.8	1833	5.8	111.0	21.3		
	9400 SLOU	47	1831.5	1845	30	3750.0			
	8800 SGMR	47	1831.2	1845.3	24.8	4200.0	800.0		
	1415 SGMR	47	1831	1850.8	139.8	10600.0	7200.0		
	9500 BERL	46	1832	1845.2	30 D	1800.0D			
	9400 HUAN	45	1832.3	1842.3	23.9	487.8	568.6		
	9400 HUAN		1832.3	1845		2992.2			
	2800 OTTA	4	1832	1844	31	1040.0	155.0		
	2700 PENN	28	1832.4	1833	5.2	21.3	11.6		
	606 SGMR	47	1832.7	1844.2	153.5	27082.0	8300.0		
	18 MCMA	48	1832	1837	16			3	
	600 UCCL	47	1833	1845	37	2335.0U			
	10700 PENN	47	1837.6	1844.9	20.4	4050.0	830.0		
	2700 PENN	47	1837.6	1844	26.1	805.0	202.0		
	35000 SGMR	47	1838.6	1845	11	3450.0	700.0		
	19000 SLOU	47	1839	1844	15	1710.0			
	1420 KIEL	45	1840	1901		10000.0	100.0		
	420 KIEL	48	1840	1932		15000.0	200.0		
	240 KIEL	48	1840	1934		8000.0	300.0		
	37000 SLOU	47	1843 U	1846	5	970.0			
	225 HARS	45	1845	1846	7	730.0D	400.0		
	18 MCMA	6	1848	1853	6			3	
	35000 SGMR	29	1849.6	1849.6	17.6	230.0	38.3		
	15400 SGMR	29	1854	1854	66	92.5	12.9		
	18 MCMA	6	1854	1858	5			3	
	9400 HUAN	29	1856.2	1856.2	79.7	91.2	34.4		
	8800 SGMR	29	1856	1856	108.7	289.0	48.0		
	4995 SGMR	29	1856	1856	108.5	226.0	37.6		

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	10700 PENN	29	1858	1858	140	75.8	37.9		
	2800 OTTA	30	1903		85	25.0	12.0		
	2700 PENN	29	1903.7	1903.7	72.4	38.0	19.0		
	2695 SGMR	29	1903	1926.3	84.5	72.4	12.6		1
	408 SANM	47	1915	1926.2	25	3500.0	880.0		
	2800 OTTA	40	1917.5	1926	16	51.0			
	2700 PENN	45	1917.4	1926	16	69.9	16.8		
	600 UCCL		1918	1926 U	15 D				
24	200 GORK	44	0303 E		597		10.0		
	100 GORK	44	0305 E		595 D		3000.0U		
	260 ONDR	41	0530	1259	630	140.0D			
	245 SGMR	44	0932 E		871 D				
	200 GORK	6	1041.6	1057.7U	193	250.0D			
	3750 TYKW	5	0315	0322.7	70	14.0	3.0		
	9400 TYKW	5	0320	0325	60	6.0	3.0		
	4995 MANI	3	0322.3	0322.6	2	9.6	3.2		
	2695 MANI	1	0322.3	0322.7	2	5.9	1.9		
	2000 TYKW	5	0322	0323	3	3.0	1.0		
	100 GORK	41	0436.2	0436.3	5.6	20000.0			
	100 GORK		0436.2	0438.5		20000.0D			
	100 GORK		0436.2	0441.1		20000.0			
	200 GORK	41	0453.1	0454.3	1.4	65.0			
	100 GORK	41	0453.3	0453.7	3.2	20000.0			
	100 GORK		0453.3	0455.8		20000.0			
	200 GORK	6	0529.1	0529.5	1	190.0	40.0		
	200 GORK	6	0617.5	0618.4	1.6	100.0	20.0		
	200 GORK	6	0813.7	0814.5	1.1	210.0	40.0		
	200 GORK	6	0828.1	0829.1	2.5	250.0			
	234 POTS	45	1006.3	1006.6	.4	200.0	20.0		
	2950 GORK	1	1053.5	1054.7	2	5.9	3.0		
	100 GORK	6	1058.5	1058.9	1.4	30000.0			
	2800 OTTA	20	1120	1210	320	5.4	3.0		
	1415 SGMR	1	1153.5	1153.8	.5	5.2	2.5		
	606 SGMR	2	1153.4	1154.1	1.1	6.1	3.0		
	600 UCCL	1	1204		.3	7.0	3.0		
	2950 GORK	1	1210.4	1211.6	3	3.8	1.9		
	18 MCMA	42	1719	1730	28			1	
	2700 PENN	8	1739.9	1740	.4	12.7			
	2700 PENN	45	1919.2	1919.6	.6	163.0	33.8		
	2700 PENN	45	1957.4	2000.2	3.3	21.9	7.4		
	2800 OTTA	3	2205	2205.2	1	15.0	4.0		
	2700 PENN	40	2206.3		42.7				
	2695 PENT	24	2307		35	5.6			
	1415 MANI	4	2338.2	2340.2	9.8	12.6	5.3		
25	100 GORK	44	0257 E		132 D		350.0		
	200 GORK	44	0415		339 D		5.0		
	100 GORK	44	0509 E		348 D		60.0		
	245 SGMR	44	0933 E		867 D				
	3750 TYKW	5	0439	0439.4	2	5.0	2.0		
	2000 TYKW	5	0439	0439.6	1.5	4.0	1.0		
	1000 TYKW	5	0439.5	0439.8	1	4.0	1.0		
	950 GORK	1	0439.4	0439.8	.5	3.2	1.6		
	650 GORK	4	0439.2	0439.4	.7	80.0D			
	600 UCCL	1	0440	0440.4	.7	9.0	4.0		
	3750 TYKW	5	0502	0502.8	3	5.0	2.0		
	2950 GORK	1	0529.8		2.7	7.3U	3.5		
	3750 TYKW	5	0530	0530.2	1	6.0	2.0		
	200 GORK	41	0621.8	0621.9	60.8	15.0	9.0		
	200 GORK		0621.8	0642.3		30.0			
	200 GORK		0621.8	0657.2		15.0			
	200 GORK		0621.8	0705.8		20.0			
	100 GORK	41	0659.3	0659.7	7.6	1000.0			
	100 GORK		0659.3	0702.5		1500.0			
	100 GORK		0659.3	0706		1500.0			
	100 GORK	41	0817.1	0818.7	16	1500.0			
	100 GORK		0817.1	0826.8		1500.0			
	100 GORK		0817.1	0832.5		1500.0			
	9500 BERL	1	0842.6	0843.3	1.9	5.8	3.0		
	9100 GORK	1	0842.8	0843.1	2.2	19.0	9.0		
	8800 MANI	4	0842.5	0843.1	2.5	15.0	6.0		
	4995 MANI	4	0842.5	0843.1	2.5	25.8	6.5		
	2950 GORK	3	0842	0843	3.8	40.0	20.0		
	2695 MANI	4	0842.5	0843.1	2.5	26.0	6.5		
	1415 MANI	4	0842.5	0843.1	2.5	15.4	5.1		
	950 GORK	41	0842.6	0842.7	2	9.2			
	950 GORK		0842.6	0844.3		2.5			
	930 BORD	45	0842	0842.7	2	19.0	2.0		
	650 GORK	40	0843.8		.9	1.9			
	600 UCCL	2	0844.5		1	5.0	2.0		
	930 BORD	45	0852	0854.2	7	28.0	5.0		
	2950 GORK	20	0853.3	0854	7.7	9.7	4.8		
	2695 MANI	4	0853.8	0854.9	8.2	15.2	4.4		
	1415 MANI	4	0853.8	0854.9	8.2	15.4	5.1		
	950 GORK	3	0853.2	0854.5	6.3	23.0	6.0		
	650 GORK	4	0853.2	0854.5	4.9	6.9			
	100 GORK	42	0853	0853.4	1	1500.0	700.0		
	600 UCCL	3	0854	0855.8	3.5	11.0	8.0		
	606 MANI	4	0854.1	0854.6	7.9	9.5	3.2		

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	200 GORK	41	0855.8	0855.8	57.4	20.0	10.0		
	200 GORK		0855.8	0915.9		30.0			
	200 GORK		0855.8	0922.5		45.0			
	200 GORK		0855.8	0941.4		45.0			
	2950 GORK	20	0915.7	0933.4	22	6.7	3.3		
	100 GORK	41	0942.3	0944.5	13.3	1500.0			
	100 GORK		0942.3	0947		1500.0			
	100 GORK		0942.3	0954.9		1500.0			
	240 KIEL	6	1032	1032	7	230.0	50.0		
	234 POTS	41	1034.4	1039.1	5.1	150.0	2.0		
	23 POTS	41	1034.6	1040.2	7.2	60000.0	6000.0		
	1420 KIEL	5	1037	1037	2	30.0	10.0		
	930 BORD	45	1037	1039	3	23.0	3.0		
	606 SGMR	40	1037.4	1039.1	2.9	5.1	2.3		
	420 KIEL	6	1037	1037	2	150.0	40.0		
	1415 SGMR	3	1038.4	1039.1	1.9	14.5	6.1		
	9500 BERL	3	1039	1039.2	1.3	12.0	3.3		
	2695 SGMR	8	1039.2	1039.6	.7	21.5	9.8		
	237 TRST	45	1039	1039.1	1	230.0	60.0		
	600 UCCL	2	1039.8	1040.1	1	9.0	5.0		
	260 ONDR	45	1040	1042	4.5	90.0			
	10700 PENN	40	1229.6		27.2				
	2800 OTTA	20	1325	1330	35	3.0	1.5		
	930 BORD	45	1534	1534.5	1	13.0	2.0		
	237 TRST	41	1534.2	1534.4	1.6	870.0			
	260 ONDR	45	1535	1535	3	80.0			
	18 MCMA	42	1612	1616	7			1	
	18 MCMA	42	1618	1643	31			2	
	18 MCMA	6	1641	1643	5			2	
	18 MCMA	42	1726	1734	22			1	
	10700 PENN	41	1807.3	1807.4	.5	19.0			
	18 MCMA	42	1813	1835	35			2	
	245 SGMR	7	1824.2	1826.3	8.3	195.0	35.0		
	2800 OTTA	21	1825	1850	105	6.6	3.3		
	2695 SGMR	22	1825.7	1852.7	82.8	12.5	5.0		
	1415 SGMR	4	1825.5	1829	6	58.0	10.0		
	606 SGMR	22	1825.5	1827.6	34.5	14.3	6.0		
	600 UCCL	4	1826	1828.5	6.5	15.0	6.0		
	15400 SGMR	20	1826.7	1917.8	97.3	13.1	5.5		
	9400 HUAN	5	1826.6	1943.9	112.4	16.3	11.0		
	8800 SGMR	22	1826.7	1855.5	84.5	8.6	3.0		
	4995 SGMR	22	1826.1	1851.5	80.9	19.8	8.0		
	2800 OTTA	1	1829	1829.2	2	4.8	2.4		
	18 MCMA	6	1832	1835	5			2	
	18 MCMA	42	1922	1940	24			1	
	2800 OTTA	20	2015	2045	65	3.0	1.5		
	18 MCMA	6	2101	2104	5			1	
	18 MCMA	6	2110	2112	3			1	
	2800 OTTA	21	2220	2310	140	6.0	3.0		
	3750 TYKW	5	2238	2242.5	60	8.0	3.0		
	9400 TYKW	5	2240	2245	20	6.0	3.0		
	2800 OTTA	1	2241	2242.5	6	5.0	2.5		
	2000 TYKW	5	2241	2243	10	3.0	1.0		
	1000 TYKW	5	2241.9	2242	1.5	20.0	4.0		
	9400 TYKW	5	2310	2314	20	5.0	2.0		
26	9100 GORK	1	0235.9	0236.1	.9	11.0	6.0		
	3750 TYKW	5	0235	0310	110	5.0	2.0		
	9400 TYKW	5	0245	0310	60	8.0	4.0		
	2000 TYKW	45	0257	0303.6	8	18.0	5.0		
	100 GORK	44	0257 E		423 D		40.0		
	245 SGMR	44	0934 E		861 D				
	9400 TYKW	45	0259	0302.7	9	15.0	5.0		
	9100 GORK	2	0259.2	0302.7	6.8	22.0	9.4		
	3750 TYKW	45	0259	0303.9	6	14.0	7.0		
	1000 TYKW	5	0259.5	0259.9	1	14.0	6.0		
	650 GORK	2	0259.3	0300.1	1.5	1.8	1.1		
	2950 GORK	4	0300 E	0303.2	6.5E	27.0	10.0		
	650 GORK	21	0300.9	0304.1	8.2	1.9	1.1		
	650 GORK	4	0300.9	0303.7	3.3	4.4	2.1		
	1000 TYKW	45	0302	0303.6	3	7.0	3.0		
	950 GORK	3	0302.2	0303.6	2	6.5	2.9		
	650 GORK	1	0310	0312.1	4.7	1.8	1.1		
	3750 TYKW	5	0352	0353	3	6.0	3.0		
	3750 TYKW	29	0355		25	2.0	1.0		
	3750 TYKW	5	0440	0510	110	5.0	2.0		
	9400 TYKW	5	0450	0540	100	6.0	3.0		
	3750 TYKW	5	0528	0532.8	20	10.0	3.0		
	2950 GORK	3	0532.8	0533	1 E	9.5			
	2000 TYKW	5	0532	0533	3	4.0	2.0		
	950 GORK	1	0532.5E	0533.1	1.5	2.9			
	200 HIRA	45	0554.2	0554.5	.8	40.0	15.0		
	1420 KIEL	5	0636	0637	9				
	1415 MANI	4	0636.6	0637.5	14.4	44.5	13.7		
	950 GORK	46	0636.8	0637.8	12.7	71.0	14.3		
	950 GORK		0636.8	0638.6		40.0			
	606 MANI	4	0636.6	0638	14.4	38.2	10.9		
	420 KIEL	6	0636	0640	9	70.0	30.0		
	240 KIEL	6	0636	0644	9				
	9400 TYKW	45	0637	0639	75	20.0	10.0		

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JUL. 1970	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	9100	GORK	20	0637.7	0638.6	19.6	24.0	9.0		
	8800	MANI	4	0637.5	0638.4	13.5	44.5	11.8		
	4995	MANI	4	0637.5	0638.4	13.5	65.0	19.3		
	3750	TYKW	45	0637	0638.2	13	43.0	20.0		
	2950	GORK	45	0637.2	0638.3	72.5	47.0	14.0		
	2950	GORK		0637.2	0642.1		42.0			
	2695	MANI	4	0637.5	0638.3	13.5	38.6	9.7		
	2000	TYKW	45	0637	0638.2	13	107.0	16.0		
	1000	TYKW	45	0637	0637.8	13	78.0	17.0		
	650	GORK	46	0637	0638	11	40.0			
	650	GORK		0637	0647.6		40.0			
	500	HIRA	45	0637	0645	10.5	15.0	5.0		
	600	UCCL	22	0637.5	0639	10.5	40.0	18.0		
	100	GORK	41	0642.3	0645.5	4.6	2000.0			
	2950	GORK	29	0643.3	0645.7	66.3	23.0	12.7		
	3750	TYKW	29	0650		60	10.0	7.0		
	100	GORK	6	0652.9	0653.5	1	2000.0			
	200	GORK	41	0745.9	0747.6	18.10	60.0	30.0		
	200	GORK		0745.9	0756.6		50.0			
	200	GORK		0745.9	0800		35.0			
	9500	BERL	20	0801	0803	12.5	12.0	4.7		
	9100	GORK	1	0801.3	0802.9	5.5	16.0	5.0		
	950	GORK	3	0807.7	0808	.3	9.4	4.5		
	930	BORD	5	0807	0807.9	1	69.0	2.0		
	650	GORK	3	0809.9	0810	.3	10.0	5.0		
	2950	GORK	1	0835.2	0835.8	1.3	3.1	1.6		
	600	UCCL	3	0840.5		.3	11.0	5.0		
	2950	GORK	20	0919.4	0934.4	36.2	8.8	4.4		
	950	GORK	3	0954.1	0954.2	.3	10.6	5.3		
	200	GORK	6	0954	0954.3	.6	35.0	10.0		
	2800	OTTA	23	1230	1430	195	7.4	3.7		
	2800	OTTA	1	1238	1240	4	4.0	2.0		
	9400	HUAN	5	1357.2	1520.8	191.8	7.4	3.7		
	18	MCMA	42	1448	1552	70			3	
	606	SGMR	8	1459.4	1459.5	.2	17.4	6.7		
	18	MCMA	6	1548	1552	7			3	
	18	MCMA	42	1658	1725	39			2	
	10700	PENN	40	1719.2		20.4				
	18	MCMA	6	1721	1725	6			2	
	240	KIEL	44	1730 E	1730		350.0	40.0		
	18	MCMA	6	1806	1813	7			1	
	18	MCMA	6	1837	1840	4			2	
	2800	OTTA	24	1950		30	6.0			
	2800	OTTA	20	2019	2021	35	3.0	1.5		
	2800	OTTA	24	2110		13	2.2			
	18	MCMA	6	2145	2147	3			1	
	606	SGMR	40	2238.8	2246.6	11	15.4	4.5		
	8800	MANI	3	2239	2240	3.3	18.8	6.2		
	4995	MANI	3	2239	2240	3.3	9.9	3.3		
	2695	MANI	1	2239	2240	3.3	4.8	1.2		
	1415	MANI	1	2239	2240	3.3	1.7	.5		
	606	MANI	4	2239	2240	3.3	8.7	3.3		
	2800	OTTA	22	2240	2355	180	5.4	3.0		
	606	MANI	4	2243.5	2246.3	11	16.4	3.3		
	606	SGMR	41	2254.6	2254.7	17	34.8	5.0		
	606	MANI	4	2259.8	2300	2.2	28.3	8.7		
	606	MANI	4	2308.2	2308.4	3	18.5	5.5		
	606	MANI	1	2315	2315.2	1	3.3	1.1		
27	3750	TYKW	5	0047	0049	5	2.0	1.0		
	2695	PENT	21	0110	0117	45 D	8.4			
	3750	TYKW	45	0112	0134.4	110	26.0	5.0		
	9400	TYKW	5	0115	0134.2	115	36.0	11.0		
	2000	TYKW	45	0115	0134.4	40	31.0	6.0		
	1000	TYKW	45	0120	0134	30	88.0	10.0		
	500	HIRA	45	0120	0133.5	21	35.0	10.0		
	2695	MANI	4	0125	0134.5	22.1	21.8	7.3		
	1415	MANI	4	0125	0135.4	21.9	59.0	18.5		
	606	MANI	4	0125	0134.5	21.9	43.6	16.4		
	4995	MANI	4	0131.1	0134.5	16	16.6	3.3		
	2695	PENT	4	0132	0134.8	9	15.4	7.7		
	200	GORK	44	0300 E		600 D		10.0		
	100	GORK	44	0300 E		600 D		55.0		
	420	KIEL	44	0825	0836	27	30.0	10.0		
	245	SGMR	44	0935 E		855 D				
	3750	TYKW	5	0628	0630	3	6.0	2.0		
	1000	TYKW	45	0628	0628.2	8	12.0	4.0		
	950	GORK	41	0628.2	0628.4	5.9	12.0			
	950	GORK		0628.2	0630.1		6.8			
	950	GORK		0628.2	0632.4		5.2			
	100	GORK	42	0628.5	0629.9	3.4	900.0			
	2950	GORK	20	0629.4	0630.2	1.7	10.2	5.0		
	2695	MANI	4	0629.8	0630	.4	9.9	4.8		
	2000	TYKW	5	0629	0630	2	15.0	5.0		
	1415	MANI	3	0629.2	0629.8	2	13.4	6.7		
	606	MANI	3	0629.8	0630	1	7.6	3.3		
	9400	TYKW	45	0630	0745.8	150	57.0	13.0		
	650	GORK	1	0630	0630	.3	2.5	1.2		
	260	ONDR	41	0630	1027	510	105.0			
	600	UCCL	1	0630.5	0630.6	.3	9.0	3.0		

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JULY 1970

JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22}Wm^{-2}Hz^{-1}$ PEAK	MEAN	INT	REMARKS
27	3750 TYKW	29	0631		59	3.0	3.0		
	2000 TYKW	29	0631		10	4.0	2.0		
	950 GORK	1	0650.7	0651.2	2.2	3.8	1.9		
	234 POTS	45	0650.6	0650.8	.5	150.0	30.0		
	650 GORK	1	0651	0651.2	.8	2.0			
	237 TRST	45	0651.7	0651.9	.5	300.0	100.0		
	600 UCCL	22	0710	0756.5	215	60.0	18.0		
	2950 GORK	21	0711.7	0800 U	101	14.8			
	650 GORK	23	0713	0838	146	13.0			
	950 GORK	41	0716.5	0718.3	20.7	3.8			
	950 GORK		0716.5	0723.3		2.2			
	950 GORK		0716.5	0727.3		4.6			
	950 GORK		0716.5	0732.7		6.8			
	950 GORK		0716.5	0736.2		23.5			
	100 HIRA	45	0717.5	0747	45.5	230.0D	95.0D		
	113 POTS	45	0718 U	0749 U	40 U	2000.0	175.0		
	100 GORK	41	0718.8	0745.6	38.3	20000.0			
	100 GORK		0718.8	0749		20000.0			
	234 POTS	45	0724 U	0746 U	34 U	120.0	25.0		
	1000 TYKW	45	0729	0741.5	17	180.0	30.0		
	3750 TYKW	45	0730	0745.3	21	135.0	30.0		
	2000 TYKW	45	0730	0746	20	113.0	25.0		
	930 BORD	45	0732	0741	28	366.0	35.0		
	2950 GORK	1	0735.2	0736	2.5	6.6	3.3		
	1000 TYKW	5	0735	0736	2	20.0	7.0		
	536 ONDR	45	0737.5	0743.5	17	310.0			
	950 GORK	46	0738.9	0741.7	35.6	315.0			
	950 GORK		0738.9	0745		112.0			
	808 ONDR	45	0738.5	0739.5	6				
	9500 BERL	20	0739	0745.7	53.5	31.0	7.1		
	606 MANI	46	0739.5	0742.2	39	300.0	109.0		
	200 HIRA	45	0739	0745.5	8	140.0	30.0		
	200 GORK	48	0739.5	0745.6	8.5	125.0	25.0		
	9400 ONDR	45	0740	0742	3				
	9100 GORK	20	0740.8	0746.1	63.9	55.0	14.0		
	650 GORK	46	0740.6	0741.6	7.2	400.0D			
	650 GORK		0740.6	0742.3		210.0			
	260 ONDR	45	0740	0743.5	20	60.0			
	2950 GORK	44	0741	0741.8	9.8	12.1			
	2950 GORK		0741	0745.8		145.0			
	1415 MANI	4	0741.3	0746.2	12.1	97.0	47.0		
	600 UCCL	45	0741	0745.7	7	370.0	120.0		
	500 HIRA	45	0741	0745	17	230.0	45.0		
	8800 MANI	4	0742.2	0746	22.1	45.5	21.2		
	4995 MANI	4	0742.2	0745.9	22.8	133.0	59.0		
	2695 MANI	4	0742.2	0745.9	11.2	190.0	85.4		
	1420 KIEL	45	0746 E	0746		120.0	50.0		
	420 KIEL	48	0746 E	0746		400.0	50.0		
	240 KIEL	48	0746 E	0746		350.0	70.0		
	200 GORK	6	0748.8	0749.1	.6	230.0D			
	2000 TYKW	29	0750		30	6.0	3.0		
	3750 TYKW	29	0751		69	16.0	8.0		
	1000 TYKW	5	0812	0812.4	2	7.0	2.0		
	950 GORK	1	0817.5	0817.7	.6	2.3	1.1		
	1420 KIEL	40	0822	0836	15	200.0	50.0		
	3750 TYKW	45	0823	0827.7	10	22.0	9.0		
	2950 GORK	44	0823.2	0825.5	9.2	19.8			
	2950 GORK		0823.2	0828.1		32.0			
	2695 MANI	4	0823.3	0827.7	9.3	29.4	12.3		
	2000 TYKW	45	0823	0827.7	10	36.0	15.0		
	1415 MANI	46	0823.3	0837	15.9	67.0	23.5		
	1000 TYKW	45	0823	0827.6	10	63.0	20.0		
	950 GORK	46	0823.5	0827.7	62.2	73.0			
	950 GORK		0823.5	0829.1		81.0			
	930 BORD	45	0823	0837	19	198.0	13.0		
	100 GORK	24	0824	0848.8	141	700.0			
	606 MANI	4	0826.2	0828.6	28	24.0	10.9		
	650 GORK	4	0827	0828.8	3.5	27.0			
	950 GORK	29	0832	0838.9	53.7	11.0	4.2		
	1000 TYKW	5	0836.5	0837.1	1.5	177.0	60.0		
	950 GORK	3	0836.7	0837.2	1.4	80.0D			
	2950 GORK	20	1137.7	1145.6	58.3	13.2	3.9		
	237 TRST	45	1245.6	1245.6	.2	260.0	60.0		
	237 TRST	42	1325.3	1346.7	21.8	120.0			
	234 POTS	45	1346.7	1346.7	.2	100.0	20.0		
	113 POTS	45	1346.6	1346.8	.5	300.0	75.0		
	23 POTS	45	1346.7	1346.9	.5	10000.0	1000.0		
	18 MCMA	6	1346	1348	3			2	
	2800 OTTA	20	1420	1421	20	2.4	1.2		
	10700 PENN	40	1424.3		19.6				
	237 TRST	42	1439.2	1439.9	8.9	220.0			
	18 MCMA	6	1443	1446	4			3	
	113 POTS	45	1447.1	1447.6	1	300.0	50.0		
	23 POTS	45	1447.4	1448.6	2.2	15000.0	1500.0		
	9400 HUAN	5	1453.5	1454.6	30.5	7.4	4.9		
	2800 OTTA	3	1453.5	1554.5	1.5	16.0	8.0		
	8800 SGMR	3	1454.2	1454.5	.8	8.6	2.0		
	4995 SGMR	3	1454.2	1454.6	1.6	17.7	4.0		
	2695 SGMR	3	1454.2	1454.6	3.8	13.1	3.0		
	2800 OTTA	29	1455		20	8.4	4.2		

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JUL. 1970	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	MEAN	INT	REMARKS
	18	MCMA	6	1557	1559	3			1	
	18	MCMA	41	1658	1700	3			1	
	237	TRST	42	1718	1721.2	3.4	770.0			
	240	KIEL	44	1721 E	1721		2000.0	15.0		
	237	TRST	5	1755.5	1755.6	.3	180.0	50.0		
	2800	OTTA	1	1816	1816.5	1	3.0	1.5		
	9400	HUAN	5	1907.3	1909	11.8	9.3	3.4		
	8800	SGMR	4	1907.7	1908.8	2.8	9.2	4.3		
	4995	SGMR	4	1907.7	1908.9	2.8	13.2	6.1		
	2800	OTTA	2	1907.7	1908	2	8.2	4.1		
	2695	SGMR	1	1907.8	1908	2.6	6.3	3.0		
	600	UCCL	4	1907	1908.5	1.8				
	606	SGMR	4	1907.5	1908.5	1.6	26.4	6.6		
	18	MCMA	6	1907	1909	3			1	
	9400	HUAN	5	1927	1958.9	50.6	7.4	5.6		
	100	HIRA	45	1953.5	1953.9	1.5	250.0D	70.0D		
	100	HIRA	45	2016	2018	10	245.0	20.0		
	100	HIRA	45	2034	2035	2.5	250.0D	120.0D		
	18	MCMA	6	2034	2036	3			1	
	2800	OTTA	20	2110	2205	220	2.8	1.4		
28	2695	PENT	20	0005	0040		5.6	2.8		
	100	GORK	44	0300 E		630 D		40.0		
	200	GORK	44	0436		516 D		5.0		
	260	ONDR	44	0530	0939.5	620	45.0			
	245	SGMR	44	0936 E		854 D				
	100	GORK	6	0423.5	0423.9	.6	1100.0	400.0		
	100	GORK	41	0433.7	0434.7	2.5	1500.0D			
	23	POTS	45	0755.1	0755.2	.4	1000.0	250.0		
	4995	MANI	3	0805.9	0806.1	.8	9.9	3.3		
	2695	MANI	3	0805.9	0806.2	.8	7.4	2.5		
	930	BORD	45	0806	0807	2	79.0	2.0		
	23	POTS	41	0811.6	0816.1	16.4	40000.0	1500.0		
	650	GORK	4	0812	0813	2.7	18.0			
	9500	BERL	1	0815.9E	0815.9		9.5			
	950	GORK	4	0815.5	0816.1	1.6	41.0	8.5		
	930	BORD	45	0815	0817	4	63.0	5.0		
	23	POTS	45	0907.7	0907.8	.5	3000.0	750.0		
	234	POTS	45	0942.8	0943.4	.6	400.0	35.0		
	100	GORK	6	0954.4	0954.7U	.7	1500.0D			
	23	POTS	5	0954.6	0954.7	.5	25000.0	8000.0		
	930	BORD	41	1002	1003	1	19.0	2.0		
	23	POTS	45	1010	1010.3	.6	15000.0	3000.0		
	100	GORK	6	1149.4	1149.8	1.2	1200.0	200.0		
	100	GORK	6	1233	1234.3	.7	850.0	150.0		
	2800	OTTA	21	1255	1302	55	6.8	3.4		
	8800	SGMR	21	1257.9	1306.5	16.3	7.5	3.0		
	4995	SGMR	21	1257.4	1300.8	16.9	13.4	5.5		
	2695	SGMR	21	1258.7	1306.2	27	11.9	4.5		
	15400	SGMR	20	1259.2	1259.6	8.8	7.1	3.0		
	10700	PENN	3	1259.2	1300	8.6	16.2	5.6		
	9500	BERL	20	1259.7	1306	12.3U	9.0	3.5		
	9400	HUAN	5	1259.2	1259.7	1.3	15.5	7.4		
	9100	GORK	1	1259.3	1300	1	18.0	9.0		
	8800	SGMR	3	1259.4	1259.8	1.6	13.6	3.0		
	4995	SGMR	3	1259.4	1259.8	1.4	34.2	6.0		
	2950	GORK	3	1259.1	1300	2.8	27.0	13.0		
	2800	OTTA	3	1259	1300	2	26.0	12.0		
	2700	PENN	3	1259	1300.2	12.2	35.0	6.2		
	2695	SGMR	3	1259.5	1300	1.6	26.4	5.0		
	1415	SGMR	22	1259.4	1300	7.7	9.4	4.0		
	113	POTS	45	1259.5	1259.6	.5	350.0	70.0		
	100	GORK	6	1259.6	1259.7	.3	1900.0	550.0		
	23	POTS	41	1259.6	1303.4	6.6	15000.0	2000.0		
	18	MCMA	42	1302	1306	5			1	
	8800	SGMR	1	1333.8	1334	.2	5.2	2.0		
	4995	SGMR	1	1333.9	1334	.2	6.1	2.5		
	2695	SGMR	1	1333.8	1334	.4	3.5	1.5		
	18	MCMA	41	1406	1415	15			2	
	18	MCMA	6	1413	1415	4			2	
	930	BORD	41	1424	1425.5	2	9.0	2.0		
	10700	PENN	40	1430		64				
	8800	SGMR	21	1437.2	1454.6	63.8	7.5	3.0		
	2800	OTTA	20	1440	1455	40	4.6	2.3		
	2695	SGMR	21	1442.4	1456.5	54.6	8.8	3.5		
	4995	SGMR	21	1443.7	1457.1	59	10.4	4.2		
	9400	HUAN	5	1446	1526.8	42.8	11.6	3.9		
	23	POTS	45	1449	1449.3	.6	3000.0	750.0		
	18	MCMA	6	1449	1450	2			1	
	9500	BERL	3	1525.5	1526.8	4.5	12.0	4.6		
	2800	OTTA	3	1525.5	1527	5	10.0	4.6		
	8800	SGMR	3	1526	1526.5	2	11.8	2.9		
	4995	SGMR	3	1526.1	1526.5	1.4	25.0	6.2		
	2700	PENN	1	1526.2	1527.1	7.5	9.9	3.4		
	2695	SGMR	3	1526	1526.6	2	8.8	2.2		
	18	MCMA	6	1526	1528	3			1	
	930	BORD	45	1540	1540.6	1	9.0	2.0		
	9500	BERL	1	1806.2E	0806.2		9.5			
	240	KIEL	44	1919 E	1919		800.0	20.0		
	2800	OTTA	23	2010	2035	75	7.6	4.2		

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JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22}Wm^{-2}Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	9400 HUAN	5	2027.9	2043.5	43.8	11.6	7.1		
	2800 OTTA	3	2027	2029	5	10.0	4.8		
	15400 SGMR	3	2028.5	2029.9	1.9	10.8	5.3		
	9400 HUAN	5	2028.7	2029	1.6	25.2	14.1		
	8800 SGMR	3	2028.7	2029	2.5	28.2	12.1		
	4995 SGMR	3	2028.7	2029.1	2.8	41.3	16.5		
	2695 SGMR	3	2028.5	2030	2.1	8.0	3.5		
	18 MCMA	6	2028	2030	2			1	
	606 SGMR	4	2029.4	2029.5	.6	165.0	37.2		
	4995 SGMR	1	2100.7	2101	1.1	5.9	2.7		
	2695 SGMR	1	2100.6	2101	1	4.6	2.2		
	1415 SGMR	3	2100.7	2100.9	.5	14.6	5.3		
	606 SGMR	4	2100.2	2100.6	.8	9.8	4.5		
	9400 HUAN	5	2124.8	2126	2.5	9.7	4.9		
	2800 OTTA	4	2124.5	2126	2.5	11.8	5.6		
	8800 SGMR	3	2125.7	2126.1	1.1	10.4	4.2		
	4995 SGMR	3	2125.6	2126.2	1.3	11.8	4.8		
	2695 SGMR	3	2125.7	2126.2	1	10.1	4.0		
	1415 SGMR	4	2125.6	2126.2	1.2	14.1	6.2		
	606 SGMR	4	2125.4	2126	2.1	19.5	8.0		
	2800 OTTA	21	2210	2345	165	8.4	4.2		
	4995 MANI	1	2249.2	2249.6	.7	6.0	3.1		
	2800 OTTA	4	2249.5	2249.7	1	20.0	9.0		
	2695 MANI	3	2249.2	2249.7	.7	37.2	15.1		
	1415 MANI	1	2249.5	2249.7	.4	7.0	1.7		
	2800 OTTA	4	2435.5	2435.8	1	70.0	24.0		
29	4995 MANI	3	0035.2	0035.5	1.1	18.7	6.3		
	3750 TYKW	45	0035	0035.7	2	12.0	3.0		
	2695 MANI	4	0035.2	0035.5	1.3	42.7	17.7		
	2000 TYKW	5	0035.3	0035.7	1.5	105.0	20.0		
	1000 TYKW	45	0035.3	0035.7	1.5	29.0	6.0		
	606 MANI	4	0035.4	0035.6	.6	66.1	20.9		
	9400 TYKW	5	0150	0217	180	21.0	7.0		
	3750 TYKW	45	0150	0217.2	180	32.0	5.0		
	2000 TYKW	45	0210	0214.3	10	18.0	6.0		
	4995 MANI	4	0212.3	0215.9	10.2	22.8	6.5		
	2695 MANI	4	0212.3	0215.8	10.2	17.4	4.9		
	1415 MANI	4	0212.3	0214.8	10.2	20.9	7.0		
	606 MANI	4	0212.3	0218.1	12.8	8.2	2.7		
	100 HIRA	45	0212	0213.5	8	260.0D	190.0D		
	100 GORK	6	0305.2	0305.8	.8	35.0	10.0		
	200 GORK	44	0415	0416.9	2.6	30.0			
	100 GORK	6	0415.9	0416 U	1.9	20.0D			
	2000 TYKW	45	0522	0524	4	7.0	2.0		
	950 GORK	4	0522.9	0524	3.1	83.0			
	1000 TYKW	5	0523	0524	3	75.0	23.0		
	200 GORK	41	0529.7	0529.7	.9	10.0			
	100 GORK	6	0538	0538.4	.7	35.0D			
	260 ONDR	41	0600		540	140.0D			
	245 SGMR	44	0937 E		857 D				
	606 MANI	4	0627.1	0627.3	.5	63.0	15.8		
	600 UCCL	1	0640.3		.3	6.0	3.0		
	1420 KIEL	5	0658	0659	2	25.0	10.0		
	420 KIEL	6	0658	0659	2	300.0	100.0		
	240 KIEL	6	0658	0659	2	2000.0D	200.0		
	8800 MANI	3	0659.9	0700.1	2.1	9.1	2.9		
	4995 MANI	3	0659.9	0700.1	2.1	13.1	6.5		
	2695 MANI	3	0659.9	0700.1	2.1	7.4	2.5		
	1415 MANI	3	0659.9	0700.1	2.1	13.9	5.2		
	606 MANI	4	0659.9	0700.1	2.1	71.0	15.8		
	240 KIEL	44	0659 E	0659		2000.0D	20.0		
	100 GORK	6	0659.8	0700.3	1.5	30.0D			
	9400 TYKW	5	0700	0700.3	1	6.0	2.0		
	9100 GORK	1	0700.1	0700.3	.6	13.0	6.0		
	3750 TYKW	5	0700	0700.3	1	6.0	2.0		
	2950 GORK	3	0700	0700.2	.6	9.5	4.0		
	2000 TYKW	5	0700	0700.3	1	7.0	2.0		
	1000 TYKW	5	0700	0700.3	2	21.0	6.0		
	950 GORK	4	0700.1	0700.3	1.2	24.0	10.0		
	600 UCCL	3	0700.5	0701.2	1.2	70.0	30.0		
	234 POTS	45	0700.1	0700.1	.4	700.0	150.0		
	200 GORK	44	0700	0700.1	.5	200.0D			
	113 POTS	45	0700.1	0700.2U		14000.0U			
	23 POTS	45	0700.1	0700.3	1	250000.0	5000.0		
	950 GORK	2	0704.3	0704.5	.9	5.5			
	600 UCCL	1	0707		.2	7.0	3.0		
	9500 BERL	1	0754.3E	0754.3		6.5			
	606 MANI	4	0757.8	0759.6	2.8	68.0	15.8		
	2950 GORK	1	0759.8	0800	.6	2.2	1.0		
	950 GORK	1	0759.6	0800	.7	4.0	2.0		
	600 UCCL	41	0759.3	0801	6.5	45.0	8.0		
	500 HIRA	45	0759.3	0759.7	1	100.0	40.0		
	234 POTS	45	0759.8	0800.1	.4	700.0	150.0		
	200 HIRA	45	0759.5	0759.5	.5	240.0	110.0		
	200 GORK	44	0759.7	0759.8	.6	200.0D			
	113 POTS	45	0759.8	0800	1	2000.0	300.0		
	100 HIRA	45	0759.5		2				
	100 GORK	6	0759.4	0800 U	1.7	35.0D	15.0		
	23 POTS	45	0759.8	0800	.8	20000.0	5000.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1970

JUL. 1970	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
29	2950 GORK	20	0848.2	0918	54	16.0			
	113 POTS	41	0848.9	0849.2	3.3	600.0	50.0		
	100 GORK	44	0848.7	0849.4	3.3	35.0D			
	950 GORK	41	0849	0849.3	.9	3.1			
	950 GORK		0849	0849.7		18.7			
	930 BORD	41	0849	0849.7	2	51.0	2.0		
	606 MANI	4	0849	0849.6	3.5	315.0	28.4		
	234 POTS	41	0849.1	0849.7	2.9	800.0	15.0		
	200 HIRA	45	0849	0849.5	1.5	280.0	40.0		
	100 HIRA	45	0849	0849.3	1.5	270.0D	100.0D		
	23 POTS	41	0849	0852.1	3.6	30000.0	2000.0		
	600 UCCL	41	0850	0850.8	3.2	120.0			
	200 HIRA	45	0851	0851	1	110.0	20.0		
	100 HIRA	45	0851.5	0851.5	1	200.0	110.0		
	100 GORK	6	0922.8	0923.5U	1.2	35.0D	15.0		
	930 BORD	5	0931	0932	1	13.0	1.0		
	600 UCCL	41	0936.5	0937.5	2	11.0	4.0		
	100 GORK	6	0936.8	0937.2U	.8	35.0D			
	930 BORD	5	0937	0937.5	1	14.0	1.0		
	113 POTS	45	0937	0937.2	1	350.0	70.0		
	23 POTS	45	0937.1	0937.2	1	30000.0	4000.0		
	2950 GORK	21	1022.4	1050	45	17.0			
	9100 GORK	3	1041.9	1043.1	3	66.0	14.0		
	15400 SGMR	3	1042.5	1043.3	1.3	37.4	16.3		
	8800 SGMR	3	1042.5	1042.9	1.2	48.9	23.5		
	4995 SGMR	3	1042.5	1043	1.8	70.2	19.8		
	2950 GORK	3	1042.7	1043.1	2	35.0	13.0		
	2695 SGMR	3	1042.8	1043.2	1	25.1	11.7		
	234 POTS	41	1108.4	1108.5	11.1	250.0	1.0		
	2800 OTTA	26	1220		50	8.2			
	600 UCCL	41	1327.9	1328.5	1.5	45.0	10.0		
	2800 OTTA	20	1427	1428	45	3.0	1.5		
	600 UCCL	41	1427.8	1428.5	2.5	15.0	4.0		
	1420 KIEL	5	1456	1456	1	35.0	15.0		
	600 UCCL	3	1521		.2	23.0	11.0		
	600 UCCL	8	1549		.4	270.0	130.0		
	930 BORD	45	1551	1551.2	1	17.0	3.0		
	600 UCCL	1	1551.5		.4	9.0	5.0		
	18 MCMA	42	1611	1618	35			1	
	18 MCMA	6	1617	1618	2			1	
	930 BORD	41	1619	1620.3	2	178.0	2.0		
	600 UCCL	2	1619	1619.5	3	5.0	3.0		
	18 MCMA	6	1635	1636	2			1	
	237 TRST	42	1636.8	1645.7	9.2	440.0			
	18 MCMA	6	1644	1645	2			1	
	930 BORD	41	1646	1646.2	2	134.0	3.0		
	600 UCCL	1	1646.6		.2	4.0	2.0		
	18 MCMA	6	1739	1740	2			1	
	9400 HUAN	5	1917	1925.6	13.2	7.7	3.5		
	2800 OTTA	20	1920	1925	60	4.6	2.3		
	9400 HUAN	5	1938.9	1948.1	42.9	7.7	4.2		
	10700 PENN	8	1957.9	1958	.2	99.0D			
	2800 OTTA	21	2115	2200	90	3.2	1.6		
	2800 OTTA	40	2120	2128.5	10	2.6			
	3750 TYKW	45	2310	2328	40	14.0	3.0		
	2695 PENT	1	2326	2328.5	9	6.4	3.0		
	1000 TYKW	5	2353	2354.5	1.5	3.0	1.0		
	606 MANI	4	2355.7	2357.8	8.9	34.6	14.8		
	1000 TYKW	45	2356	2357.6	8	46.0	12.0		
	1415 MANI	3	2357.2	2357.3	1	19.6	7.1		
30	2695 PENT	20	0015	0125	90 D	4.0			
	3750 TYKW	5	0040	0115	120	4.0	2.0		
	2000 TYKW	5	0045	0115	120	5.0	2.0		
	100 HIRA	45	0111	0113.5	6	290.0D	180.0D		
	200 HIRA	27	0115	0140	248	50.0	10.0		
	100 HIRA	27	0117	0150	160	40.0	5.0		
	100 HIRA		0117	0258		20.0			
	100 GORK	44	0257 E		472 D		5.0		
	260 ONDR	41	0530	1301.5	620	110.0			
	245 SGMR	44	0938 E		859 D				
	200 GORK	41	0315	0315	.7	10.0			
	1420 KIEL	5	0552	0553	1	40.0	15.0		
	1420 KIEL	5	0648	0649	2	35.0	15.0		
	1415 MANI	2	0649.5	0649.9	.7	3.5	1.7		
	606 MANI	4	0649.5	0649.9	.7	86.0	21.6		
	237 TRST	5	0658.7	0658.7	.1	120.0	40.0		
	100 GORK	6	0705.8	0706.3U	2.6	15.0D			
	237 TRST	41	0743.5	0743.6	.3	260.0			
	600 UCCL	1	0842.6		.3	7.0	4.0		
	600 UCCL	3	0941.2		.8	45.0	20.0		
	930 BORD	45	0951	0952	2	32.0	2.0		
	600 UCCL	1	1004.5		.2	11.0	5.0		
	930 BORD	45	1016	1017	1	18.0	2.0		
	23 POTS	5	1031.1	1031.4	.6	5000.0	1500.0		
	600 UCCL	41	1027	1027	1.8	13.0	6.0		
	237 TRST	41	1128.8	1130.1	2	1330.0			
	950 GORK	1	1129.2	1129.3	.3	5.0	2.5		
	2800 OTTA	20	1130	1137	40	5.4	2.2		
	234 POTS	45	1130	1130.1	.6	500.0	80.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1970

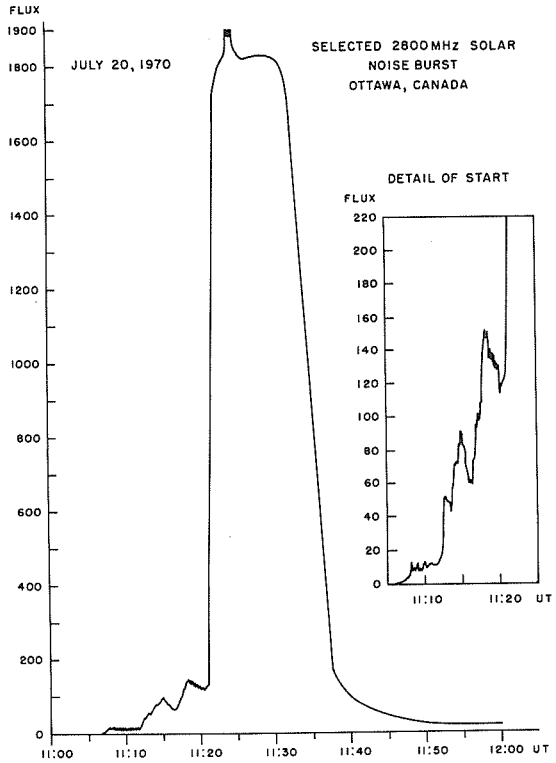
JUL. 1970	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
	200	GORK	6	1130	1130.1	.3	200.0D			
	113	POTS	45	1130	1130.2	.9	1500.0	300.0		
	23	POTS	45	1130.1	1130.4	1.3	35000.0	3500.0		
	950	GORK	1	1157.4	1157.6	.3	7.9	3.4		
	18	MCMA	42	1225	1309	99			1	
	9100	GORK	1	1245.8	1247.4	2.2	19.0	7.8		
	10700	PENN	3	1246.1	1247.4	2.3	14.4	6.5		
	9500	BERL	3	1246.3	1247.2	1.7	19.0	4.3		
	8800	SGMR	4	1246.5	1247.2	1.5	18.7	12.2		
	4995	SGMR	4	1246.4	1247.3	1.7	40.3	26.3		
	2800	OTTA	4	1246	1247.2	2	22.0	11.0		
	2700	PENN	3	1246.2	1247.4	4.9	23.5	6.7		
	2695	SGMR	4	1246.3	1246.9	1.9	19.8	6.6		
	1415	SGMR	1	1246.4	1247	1.6	5.3	2.6		
	23	POTS	5	1307	1307.2	.4	8000.0	2500.0		
	600	UCCL	41	1324	1328	9.2	11.0	3.0		
	18	MCMA	6	1400	1404	5			1	
	237	TRST	41	1401.5	1402	.8	750.0			
	240	KIEL	44	1402 E	1402		900.0	100.0		
	18	MCMA	6	1537	1540	4			2	
	2800	OTTA	20	1540	1542	25	3.0	1.5		
	2700	PENN	8	1607.6	1607.7	.3	36.8			
	18	MCMA	6	1703	1704	2			1	
	2800	OTTA	1	1704	1704.3	1	3.0	1.5		
	2800	OTTA	20	1805	1823	5	3.6	2.0		
	18	MCMA	6	1812	1814	3			1	
	9400	HUAN	5	1941.2	1945.8	34.8	7.5	4.1		
	10700	PENN	20	2104.6	2159.3	110	7.5	3.8		
	2700	PENN	20	2104.3	2112.7	42.8	21.6	6.4		
	960	PENN	45	2104.7	2105.2	.8	21.6	4.5		
	2800	OTTA	21	2105	2130	65	6.0	3.0		
	960	PENN	20	2106.7	2126.4	24.8	9.0	1.9		
	2800	OTTA	3	2111	2112.5	4	13.0	6.5		
	2800	OTTA	1	2126	2126.5	4	8.6	4.3		
	18	MCMA	6	2126	2128	3			1	
	9400	TYKW	5	2250	2258.7	120	12.0	4.0		
	15400	SGMR	4	2257.4	2258.5	3.1	11.5	6.5		
	8800	SGMR	2	2257.4	2258.4	3.3	6.2	4.3		
	3750	TYKW	45	2257	2258.7	5	11.0	4.0		
	606	SGMR	4	2257.8	2258.7	2.7	12.2	5.1		
	8800	MANI	3	2258.1	2258.5	6.1	8.8	2.9		
	4995	MANI	4	2258.1	2258.5	6.1	22.0	8.3		
	4995	SGMR	4	2258.1	2258.7	4.3	21.4	11.0		
	2800	OTTA	45	2258	2300	5	10.0	5.0		
	2695	MANI	4	2258.1	2300.1	6.1	7.8	2.6		
	2695	SGMR	3	2258.4	2300.4	3.9	19.8	9.5		
	2000	TYKW	45	2258	2300.2	10	12.0	3.0		
	1415	MANI	2	2258.1	2300	6.1	3.6	1.8		
	606	MANI	4	2258.1	2258.6	3.1	25.8	11.2		
	1415	SGMR	4	2259.9	2300.2	1.3	9.5	2.7		
	3750	TYKW	29	2302		110	5.0	4.0		
31	606	MANI	4	0117.3	0118.1	1.7	10.1	5.6		
	200	GORK	44	0312 E		588 D		5.0		
	100	GORK	44	0457		483 D		10.0		
	260	ONDR	41	0530	0534	630	45.0			
	245	SGMR	44	0939 E		856 D				
	100	GORK	6	0535	0535.5	1	45.0D			
	950	GORK	3	0646.6	0646.7	.2	16.1	0.8		
	930	BORD	45	0646	0646.5	1	31.0	2.0		
	234	POTS	41	0737.2	0740.1	4.1	175.0	4.0		
	240	KIEL	44	1002 E	1002		1000.0	30.0		
	237	TRST	42	1003.2	1003.3	2.6	1060.0			
	9500	BERL	1	1139.3E	1139.3		6.0			
	2800	OTTA	1	1140	1141.5	6	3.6	1.8		
	9500	BERL	1	1358.7	1358.9	.8	10.0	2.6		
	10700	PENN	3	1505	1505.1	.3	21.5	7.0		
	2700	PENN	8	1630.3	1630.4	.3	23.3			
	2700	PENN		1710.9	1711.1	1.3	13.6	5.1		
	2700	PENN		1743.1	1743.2	3	8.2	2.8		
	2800	OTTA	20	1745	1815	65	3.0	1.5		
	18	MCMA	6	1831	1832	2			1	
	9400	HUAN	5	1922.8	1947.5	52	5.8	4.0		
	2800	OTTA	21	2000		190	5.0	3.0		
	18	MCMA	6	2011	2012	2			1	
	15400	SGMR	4	2033.3	2034.2	3.8	12.4	2.5		
	8800	SGMR	2	2033.3	2034.2	5.9	5.6	2.0		
	4995	SGMR	2	2033.4	2034.3	4.6	6.0	2.5		
	2800	OTTA	1	2033	2035	5	5.2	2.6		
	2695	SGMR	2	2033.3	2034.8	6.1	7.0	2.5		
	1415	SGMR	40	2033	2034.5	4.5	36.7	4.5		
	606	SGMR	1	2033	2033.6	2.6	2.6	1.0		

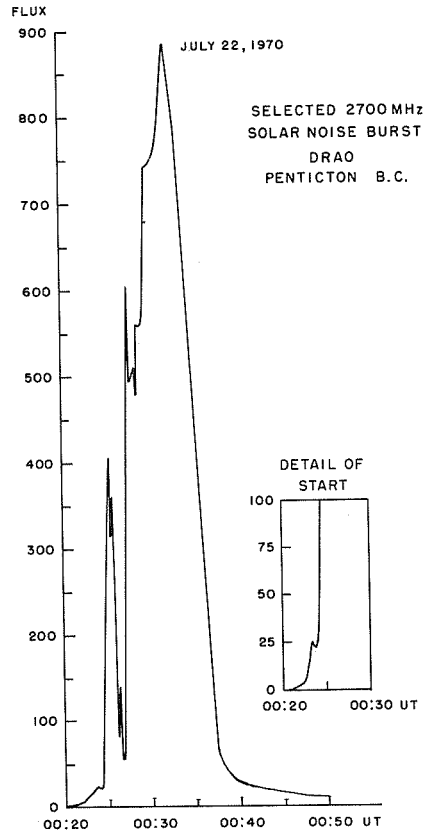
Observatories:

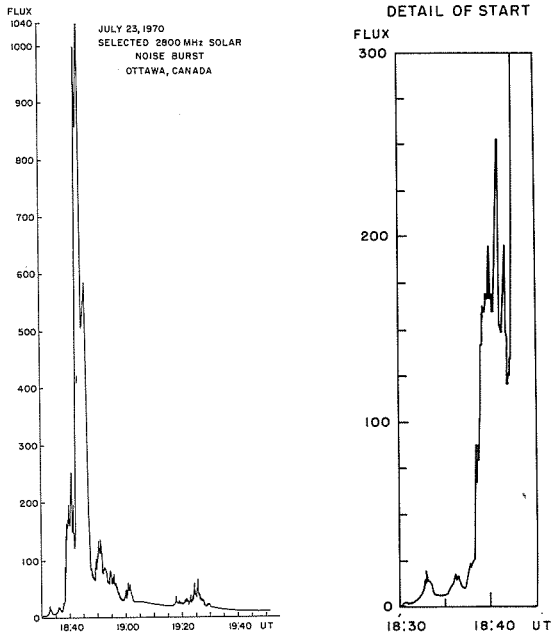
BERL = Berlin-Adlershof
BORD = Bordeaux
BOUL = Boulder
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
KIEL = Kiel
MANI = Manila
MCMA = McMath-Hulbert
NEUS = Neustrelitz
ONDR = Ondrejov
OTTA = Ottawa ARO
PENN = Penn. State Univ.
PENT = Penticton
POTS = Potsdam
SANM = San Miguel
SLOU = Slough
SGMR = Sagamore Hill
TOKO = Tokyo
TRST = Trieste
TYKW = Toyokawa
UCCL = UCCLE

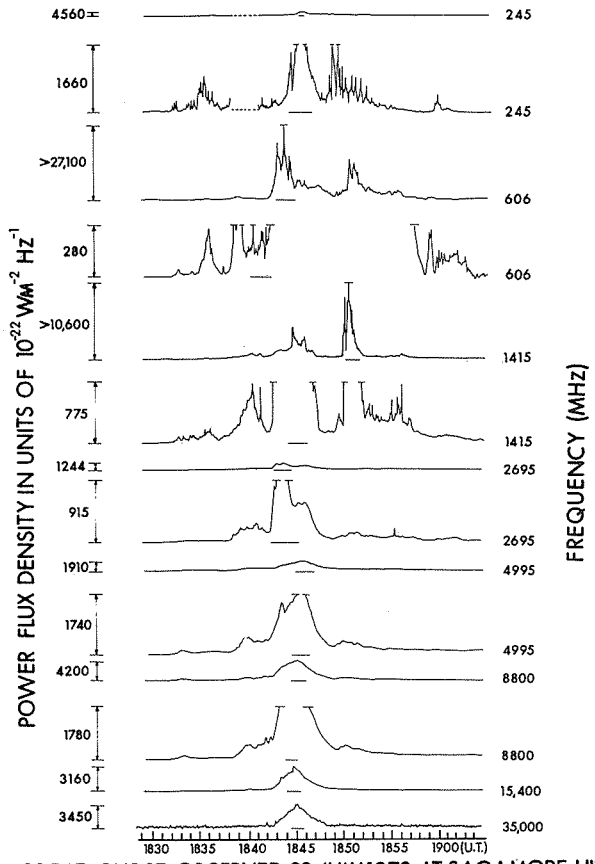
SELECTED SOLAR NOISE BURSTS

20-23 JULY 1970









GREAT BURST OBSERVED 23 JULY, 1970 AT SAGAMORE HILL RADIO OBSERVATORY, HAMILTON, MASS.

SOLAR X-RAY FLARES (2-12 A°)
SATELLITES EXPLORER 33 AND EXPLORER 35

JULY 1970

University of Iowa

Date 1970	Onset U.T.	Maximum U.T.	Peak-Ratio to Quiet Sun	Remarks and Values of Maximum Flux F (2-12 A°)
1 July	1055	1105	5	
2 July	1816	1837	4	
	2314	2349	7	Complex structure
4 July	< 2024	2039	7	Onset not observed, 0.021 erg $(cm^2\ sec)^{-1}$
6 July	1301	1316	4-	
7 July	--	< 1716	> 4	Onset and peak not observed
9 July	0053	0107	5	
11 July	< 0115	0121	8	Onset not observed
	0820	0833	8	
13 July	0629	0642	4-	
	1717	1728	4-	
16 July	0734	0746	5	
17 July	1543	1601	4	
18 July	1734	~ 1810	5	
	1859	1903	5	Rapid rise, rapid decline
19 July	0051	0059	10	0.028 erg $(cm\ sec)^{-1}$
	0110	0128	10	0.028 erg $(cm\ sec)^{-1}$
	0421	0432	4-	
	0514	0522	4	
20 July	1107	1138	73	0.151 erg $(cm\ sec)^{-1}$ Greatest peak intensity since 11 February 1970
	1657	1703	4	Rapid rise, rapid decline
	2009	2021	7	

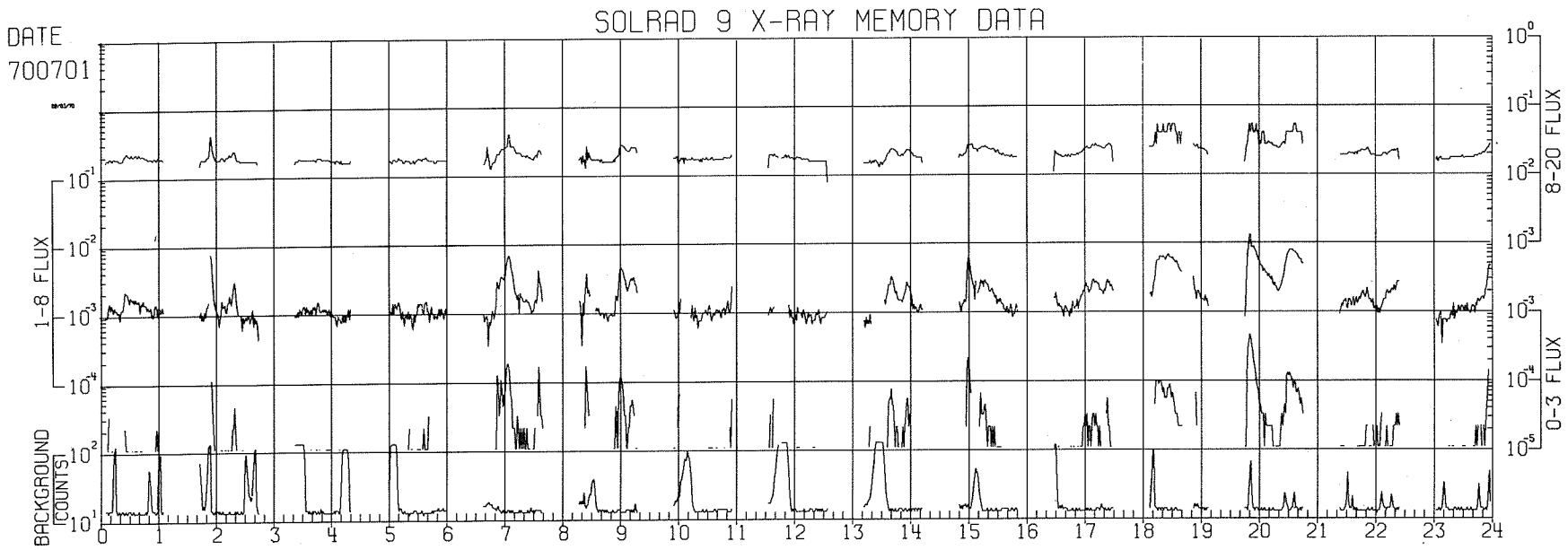
SOLAR X-RAY FLARES (2-12 A°)
SATELLITES EXPLORER 33 AND EXPLORER 35

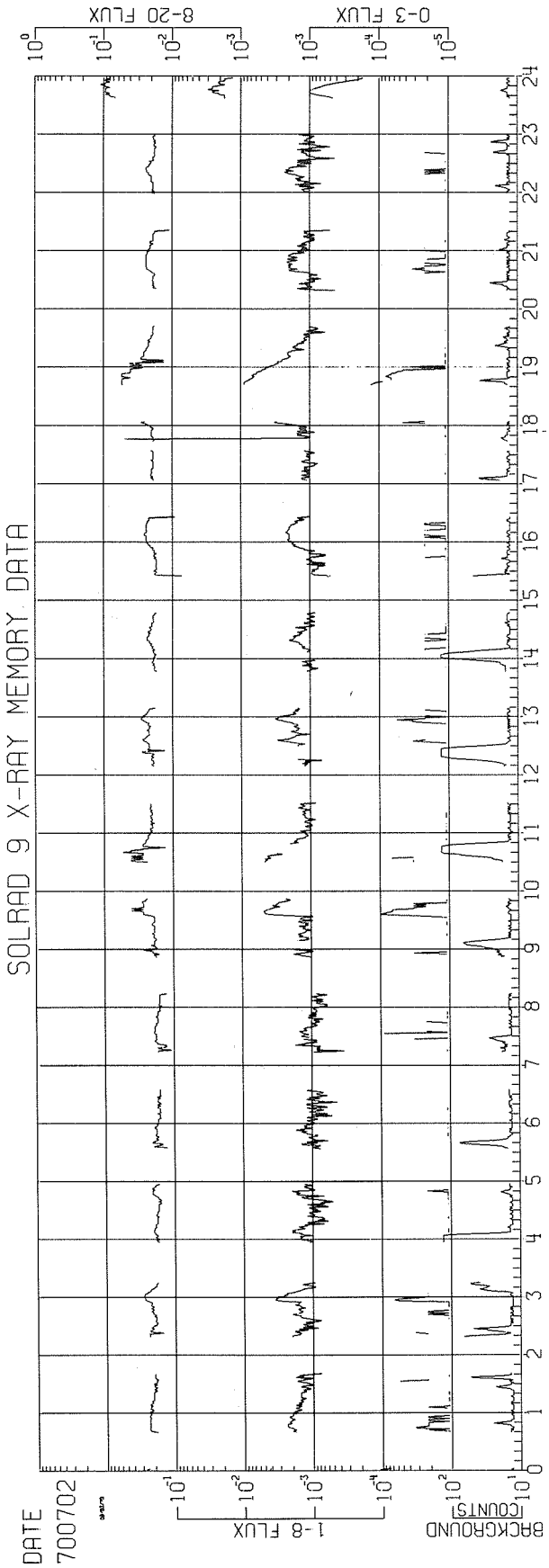
JULY 1970

Date 1970	Onset U.T.	Maximum U.T.	Peak-Ratio to Quiet Sun	Remarks and Values of Maximum Flux F (2-12 A°)
21 July	0441	> 0505	> 5	Peak not observed
	--	--	--	Also numerous small flares
22 July	0023	0036	35	0.087 erg $(cm^2\ sec)^{-1}$
23 July	1028	1032	4	
	1046	1058	9	Preceded by three flares of increasing intensity, with equally spaced peaks at 25 minute intervals
	1835	1854	31	0.065 erg $(cm^2\ sec)^{-1}$
26 July	0638	0654	5	
	0754	0804	5	
27 July	> 0129	0133	7	Onset not observed
	0721	0754	8	
28 July	2027	2035	6	
29 July	0152	0220	4	
	0752	0802	4-	
	1109	1116	5	
30 July	0002	0020	4-	

SOLAR X-RAYS MEASURED BY SATELLITE SOLRAD 9-EXPLORER 37

JULY 1970

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700702
8-20 FLUX
0-3 FLUX
1-8 FLUX
BACKGROUND
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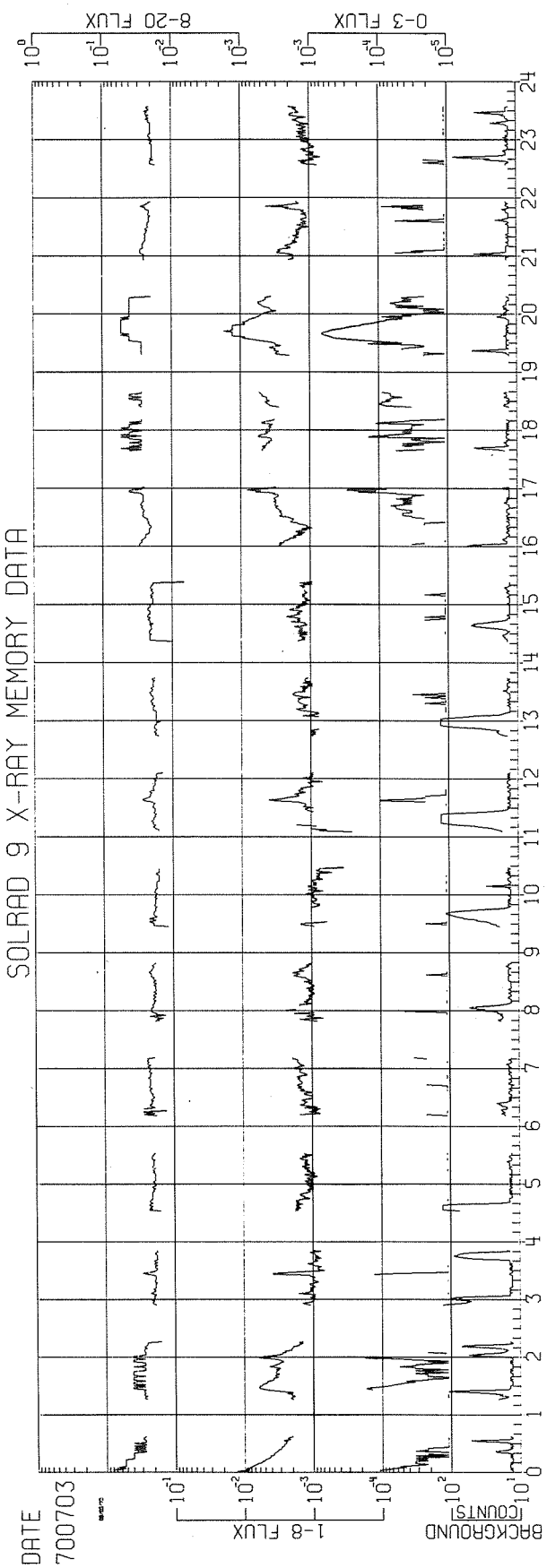
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DATE
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BACKGROUND
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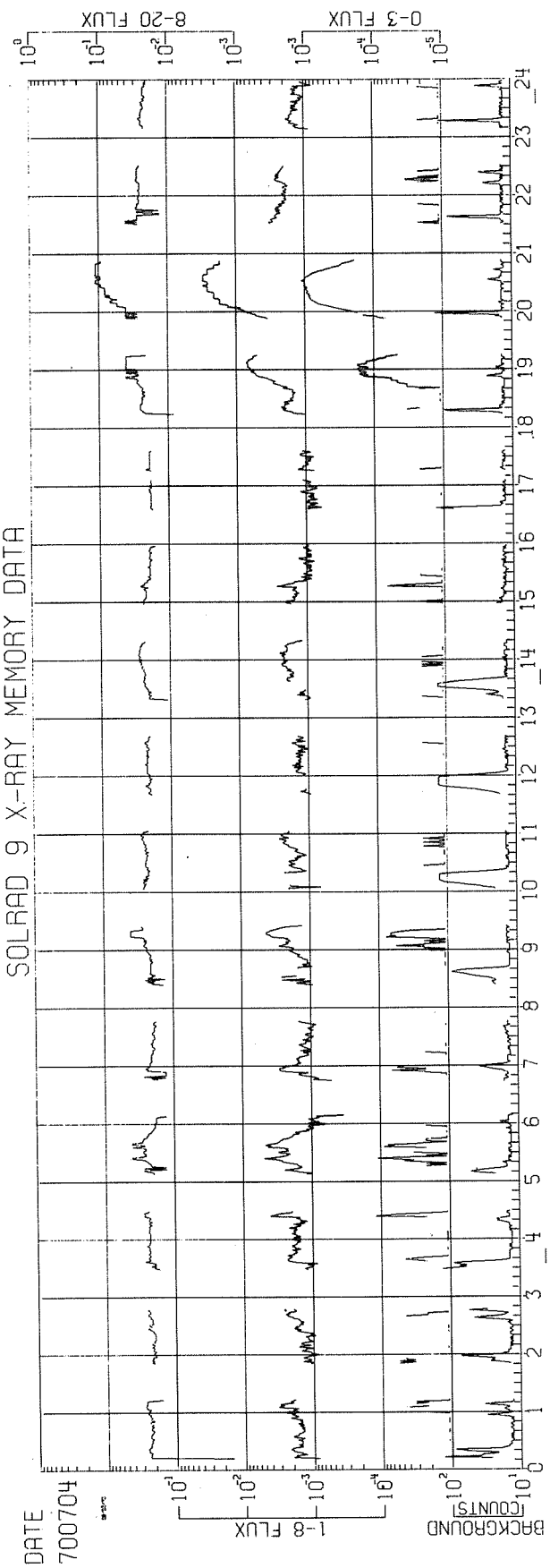
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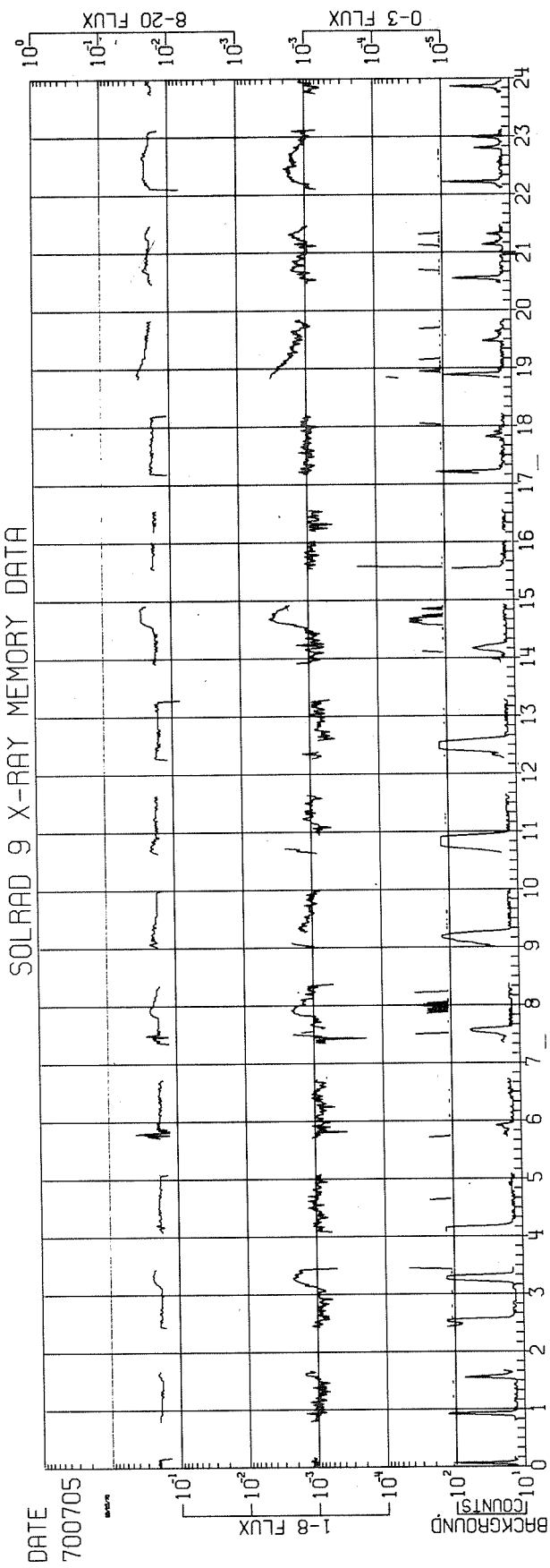
0-3 FLUX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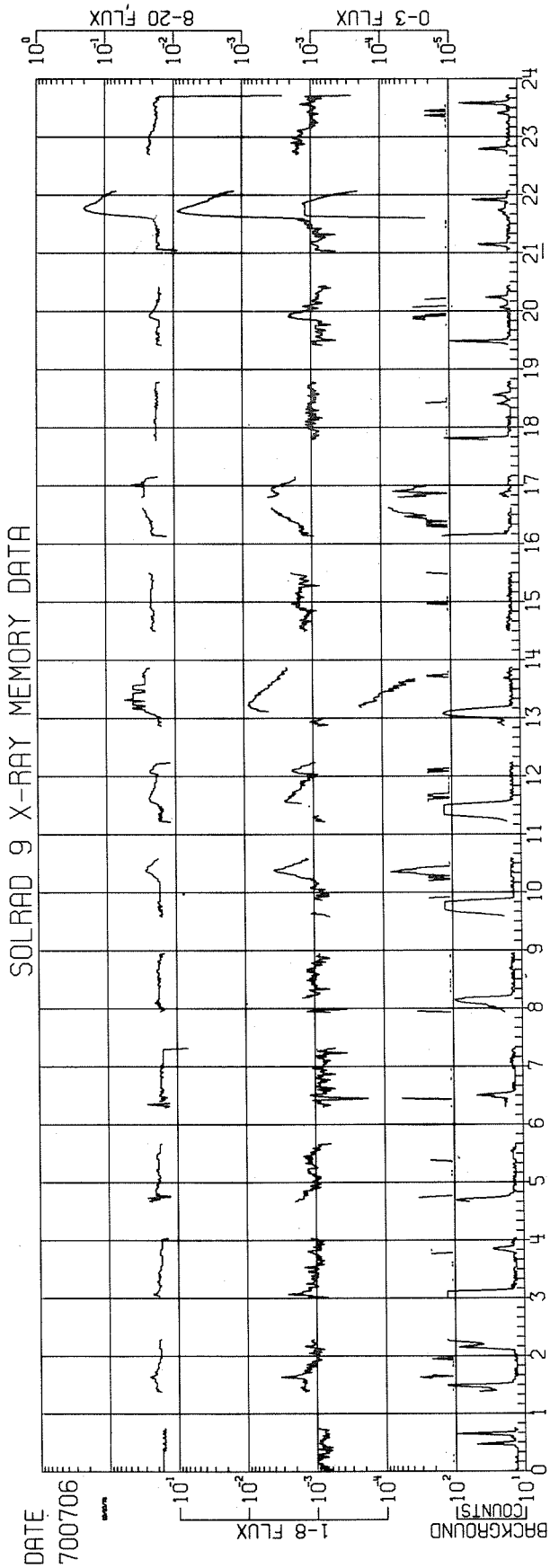
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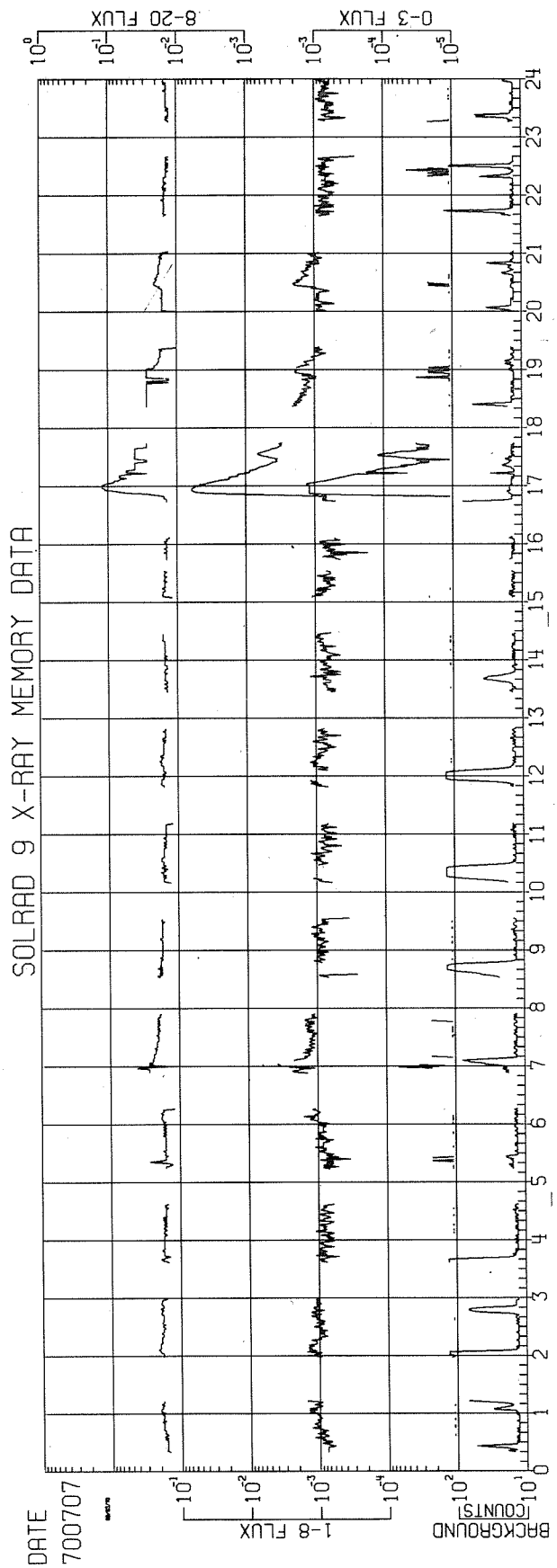
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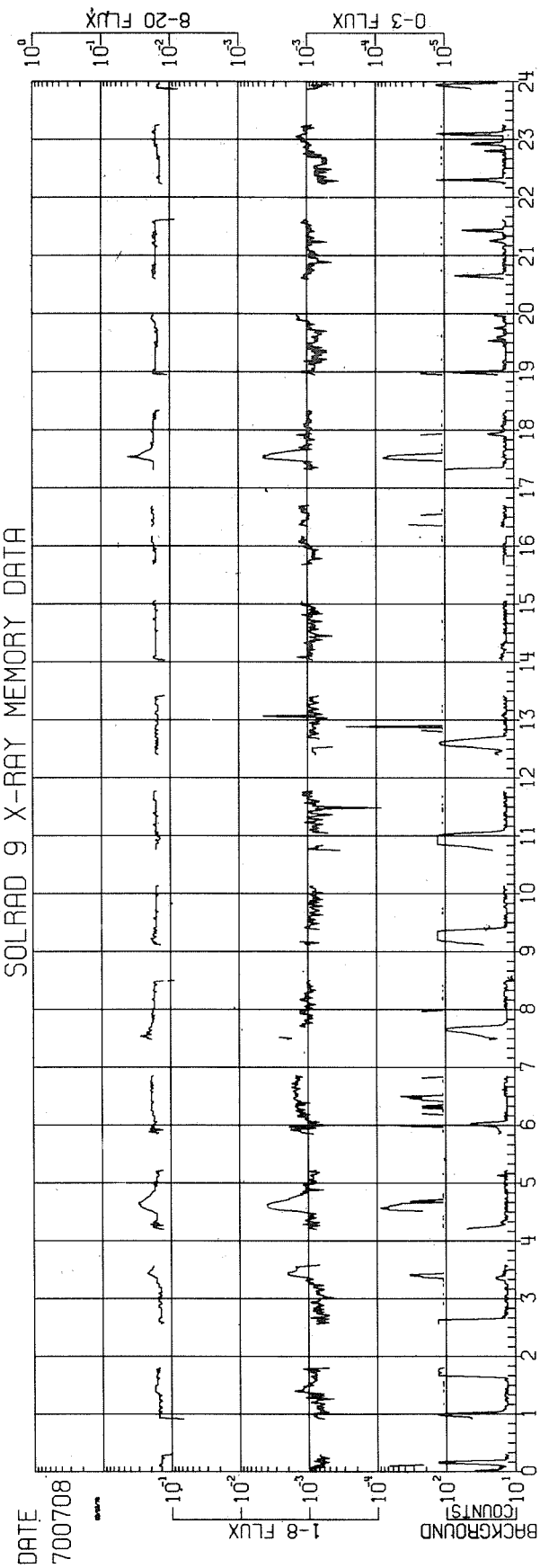
8-20 FLUX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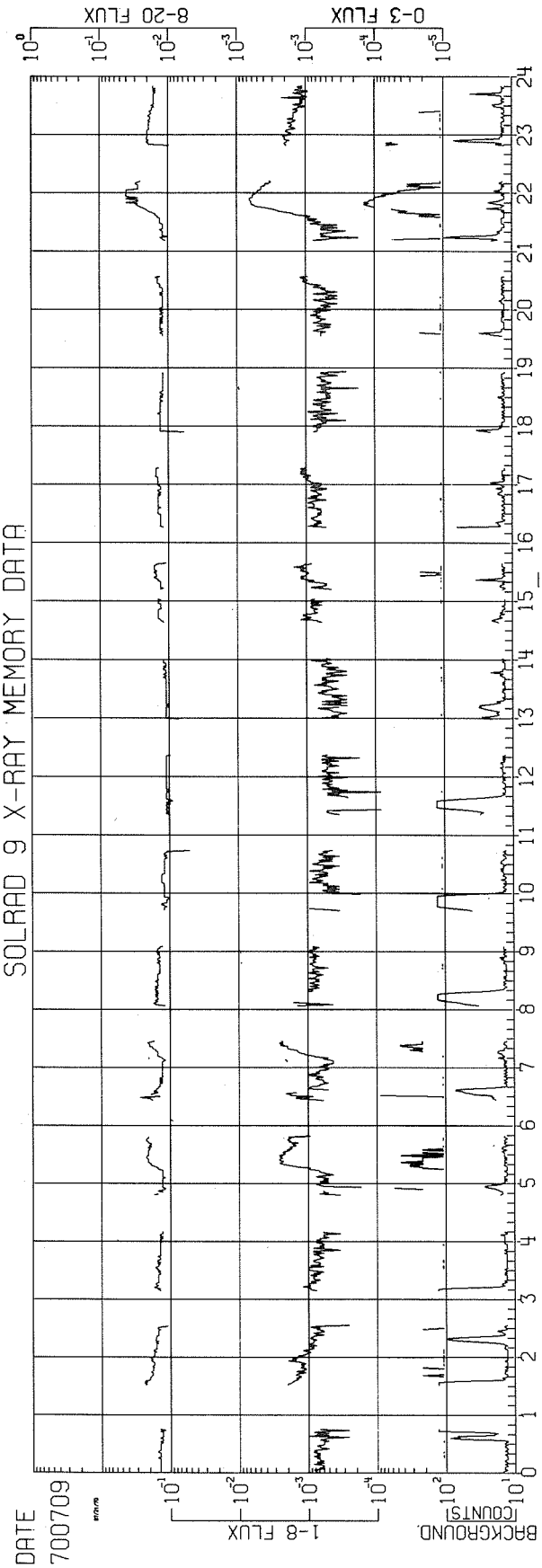
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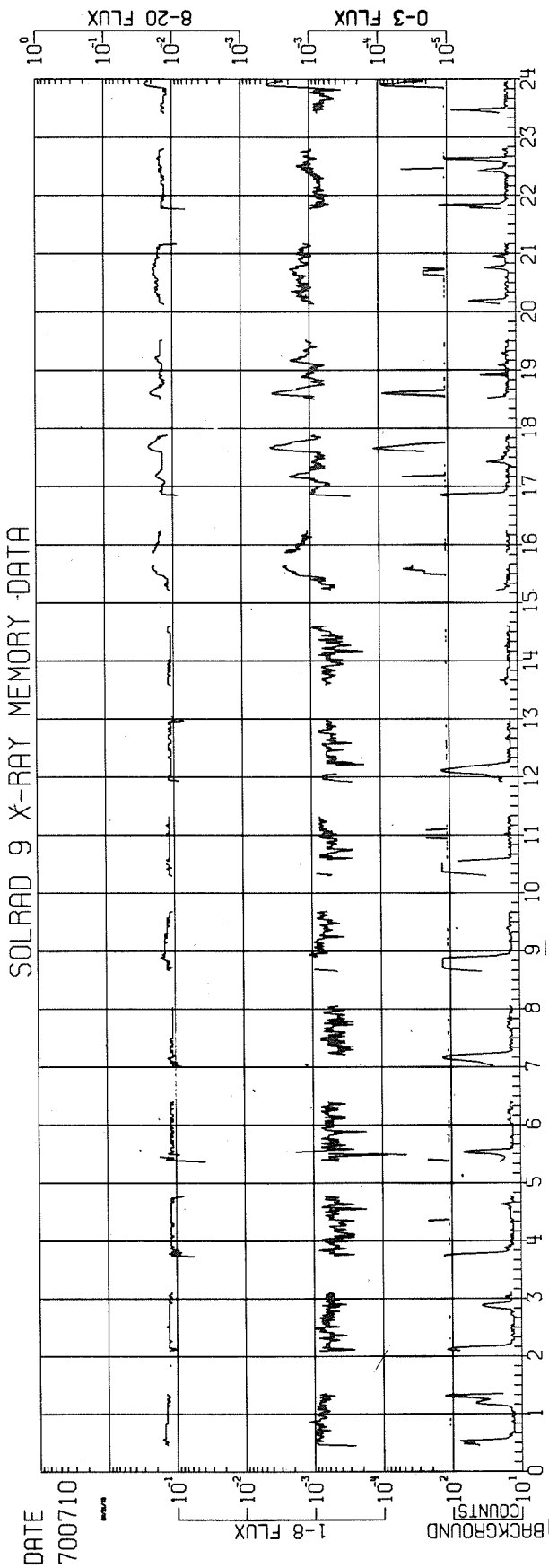
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BACKGROUND
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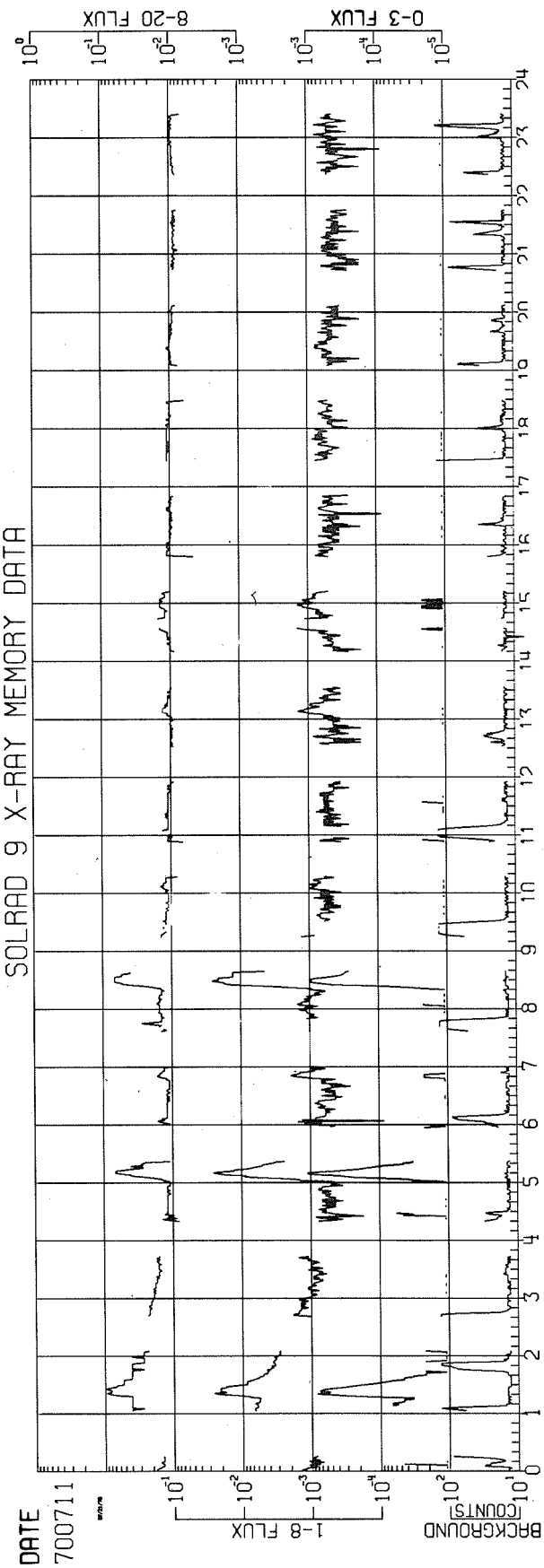
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8-20 FLUX
BACKGROUND
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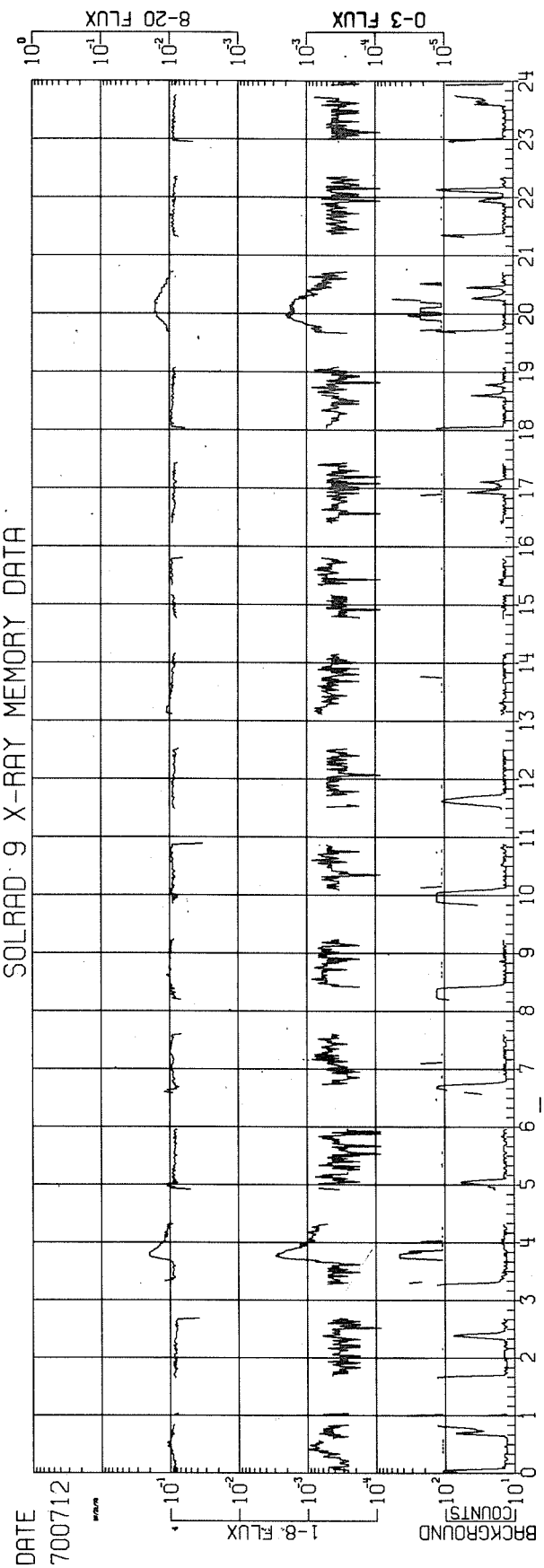
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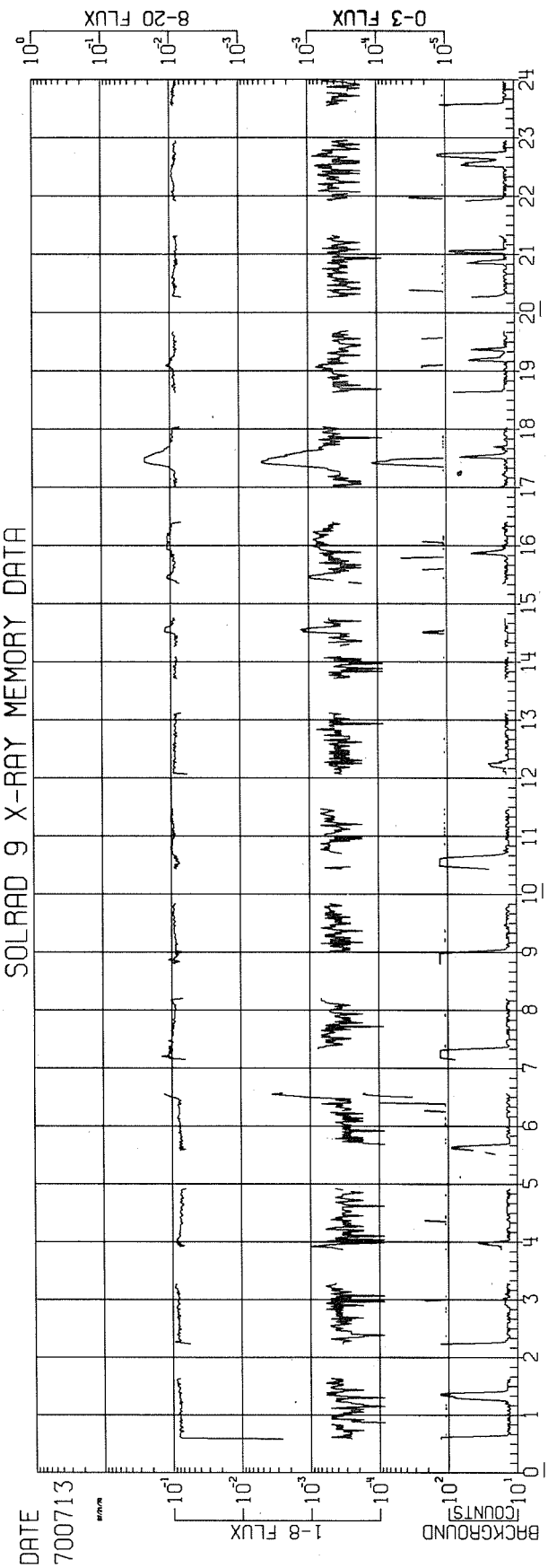
8-20 FLUX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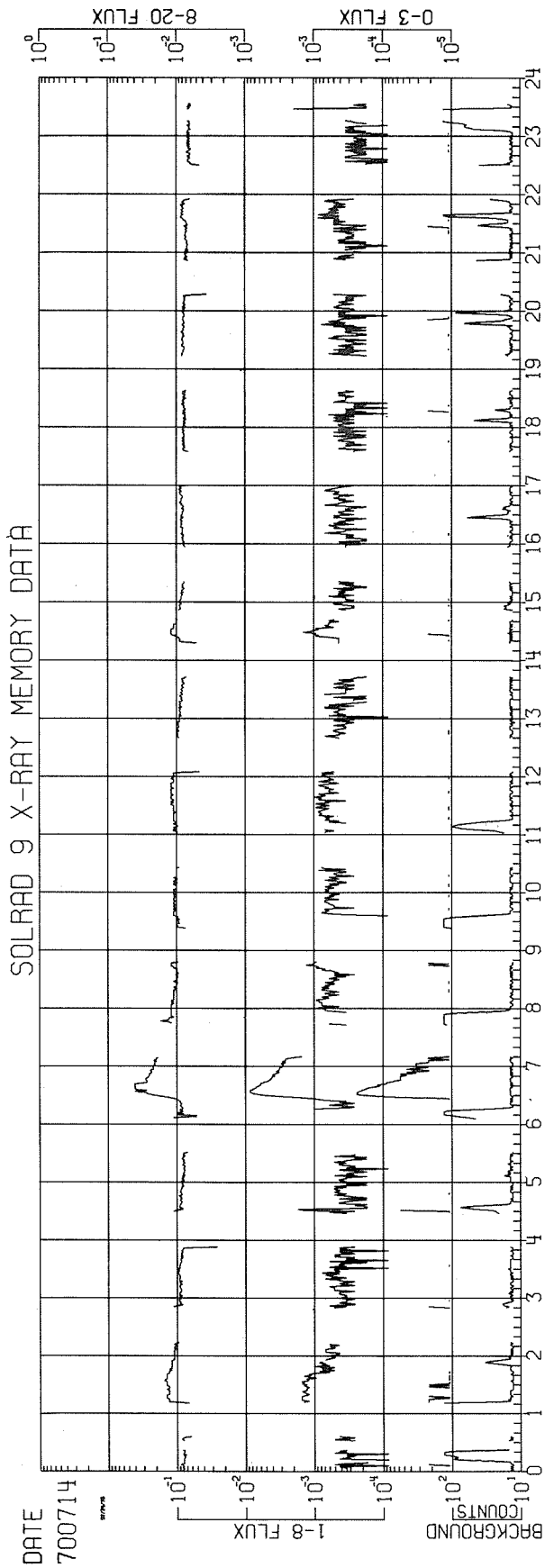
8-20 FLUX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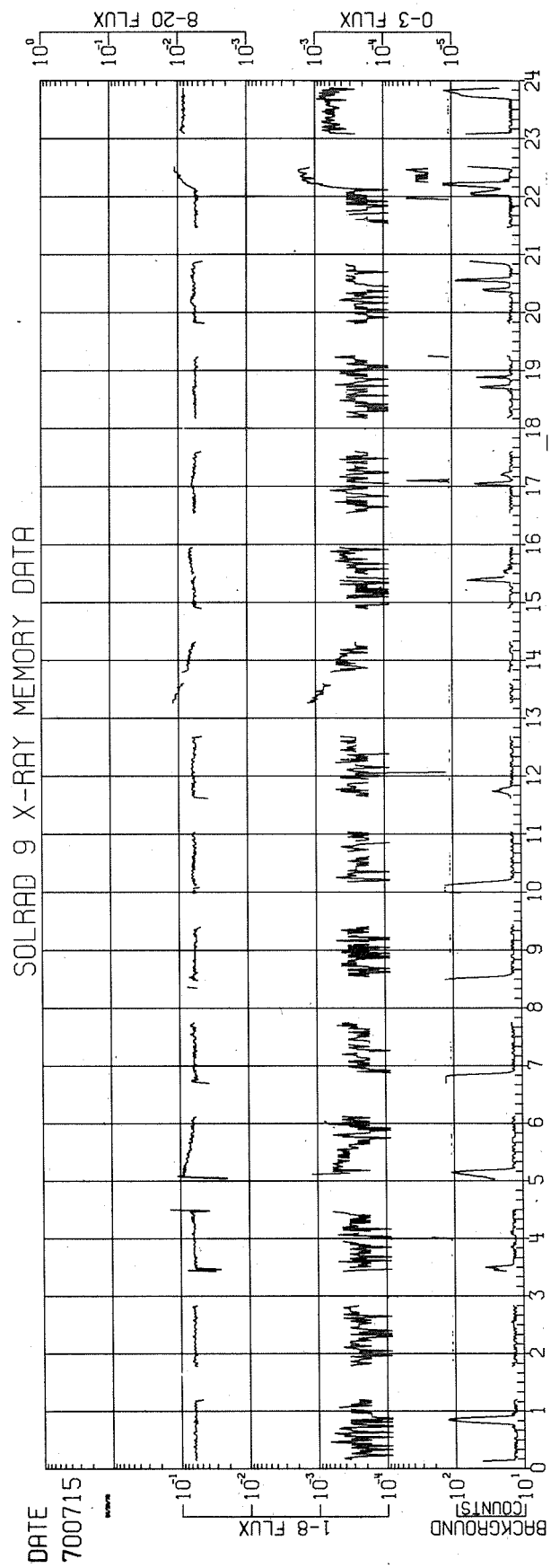
8-20 FLUX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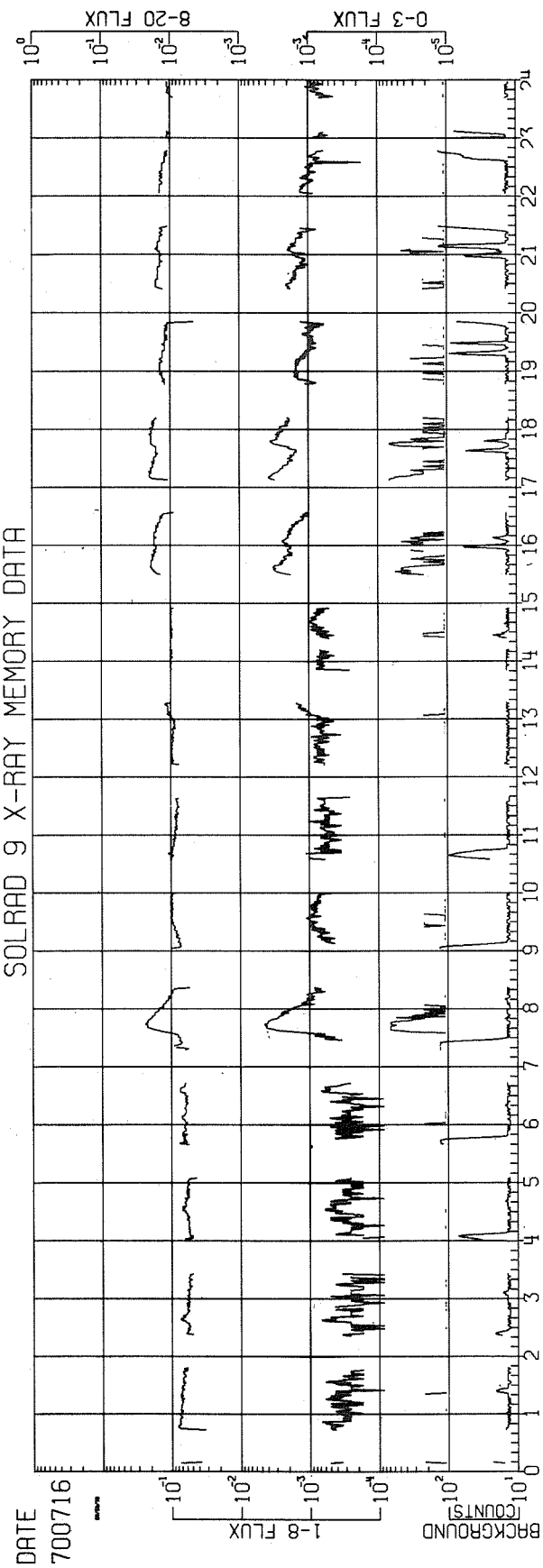
8-20 FLUX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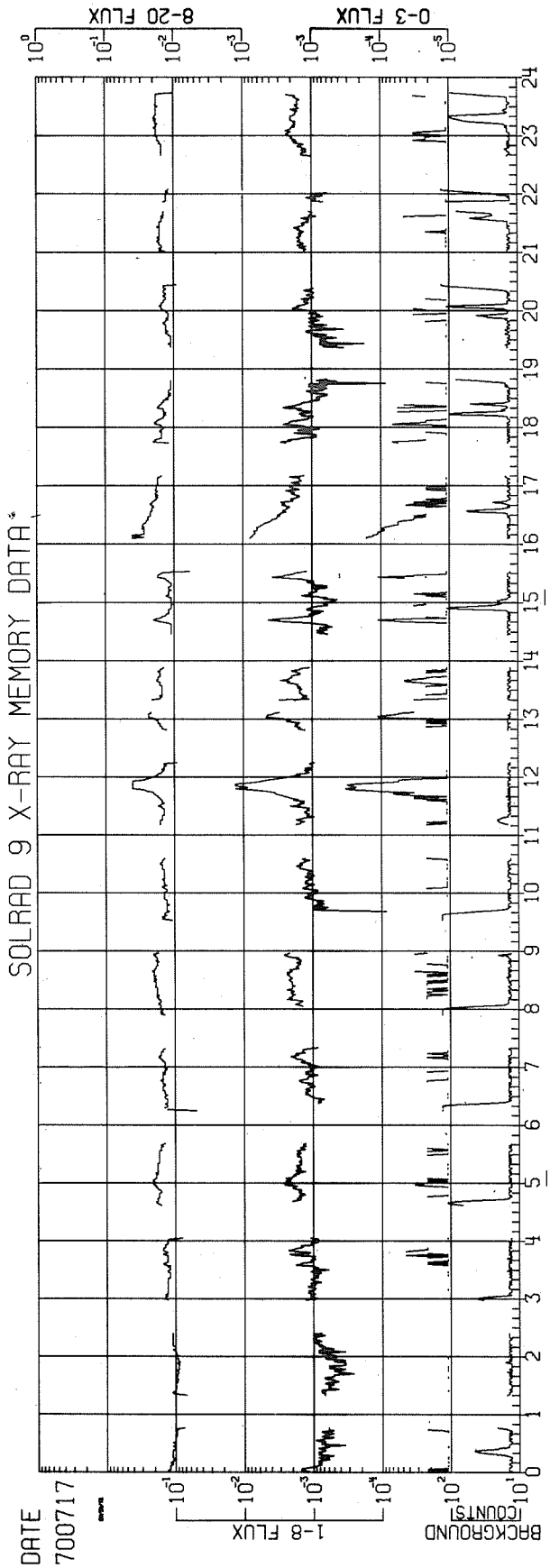
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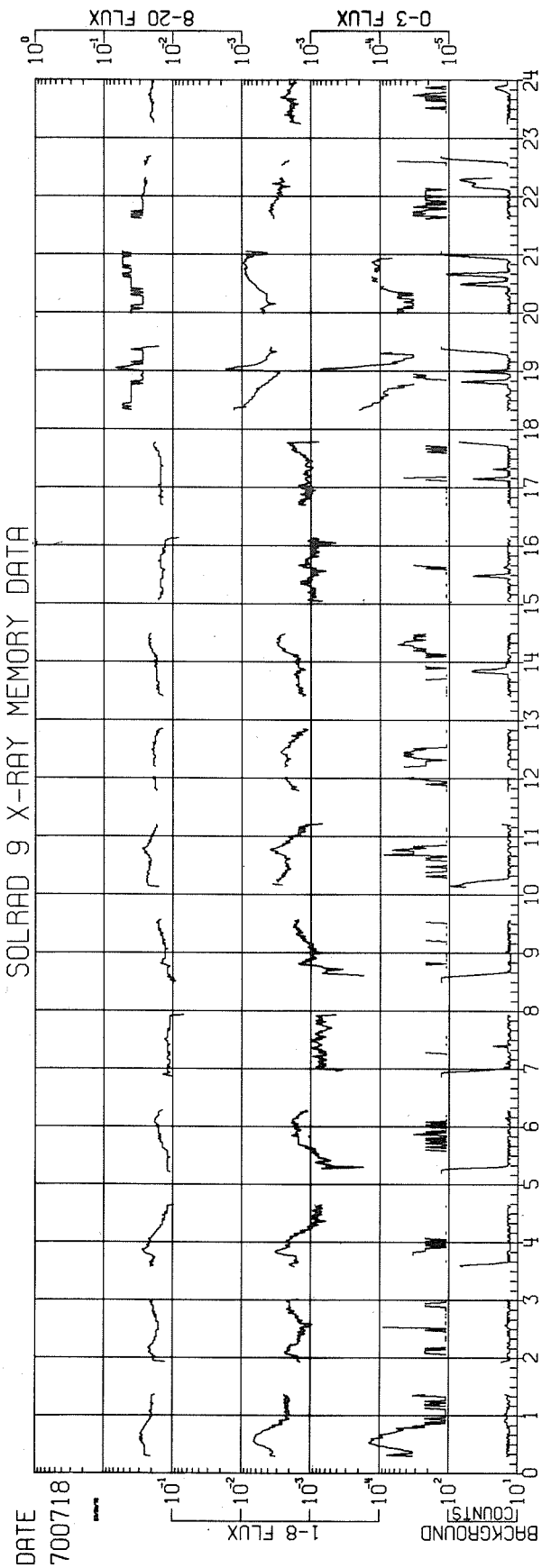
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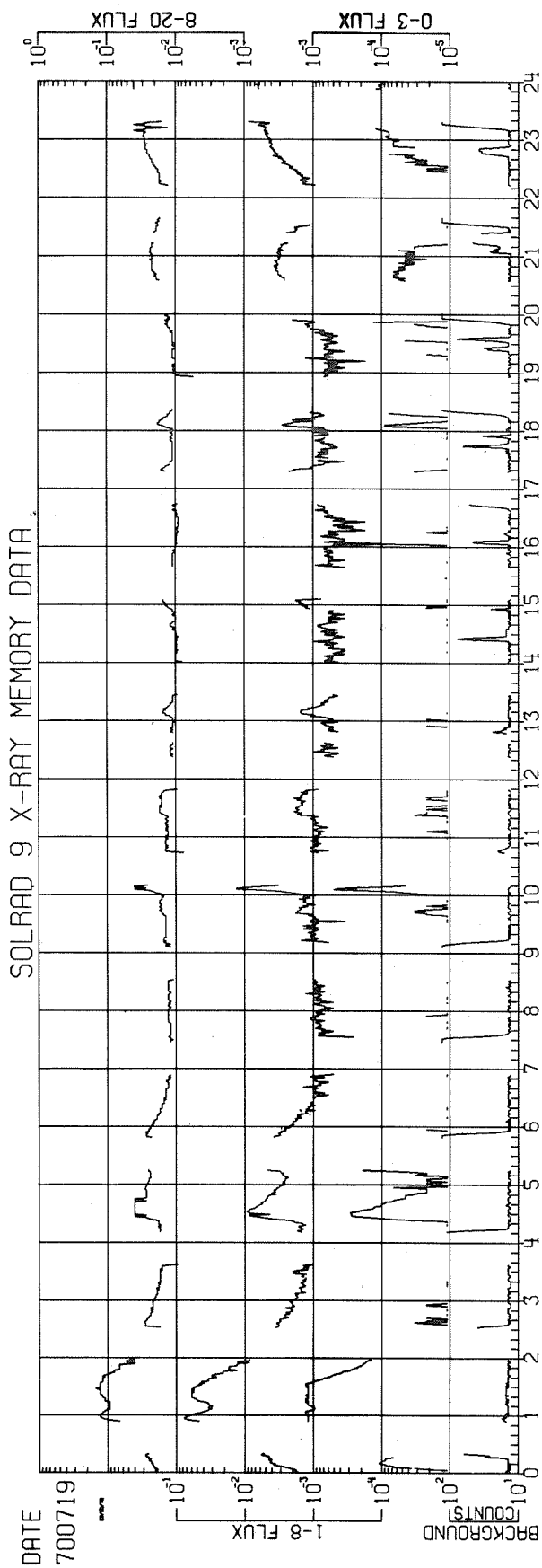
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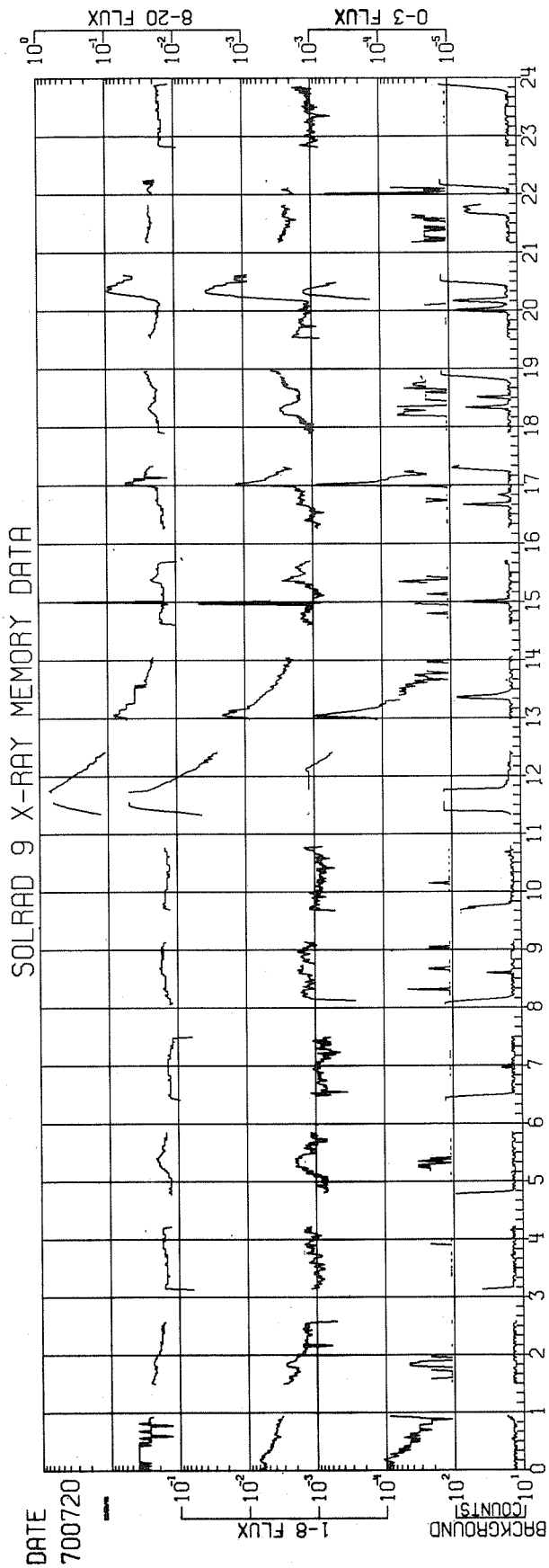
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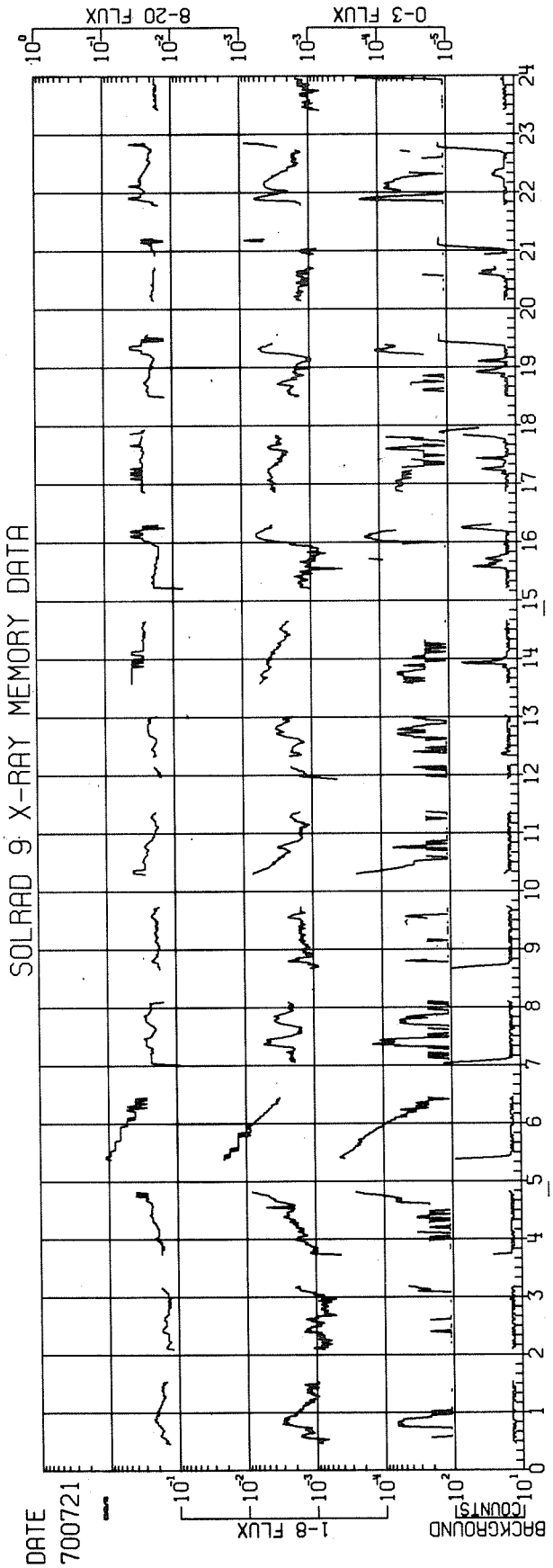
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DATE
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BACKGROUND
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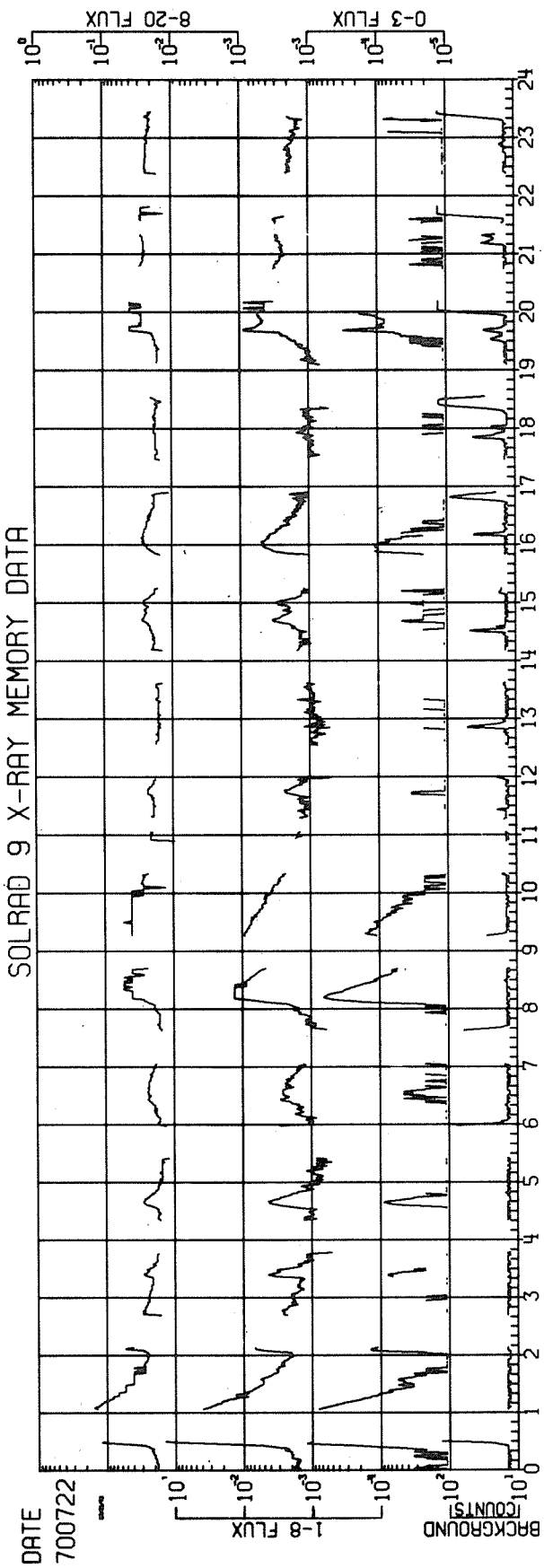
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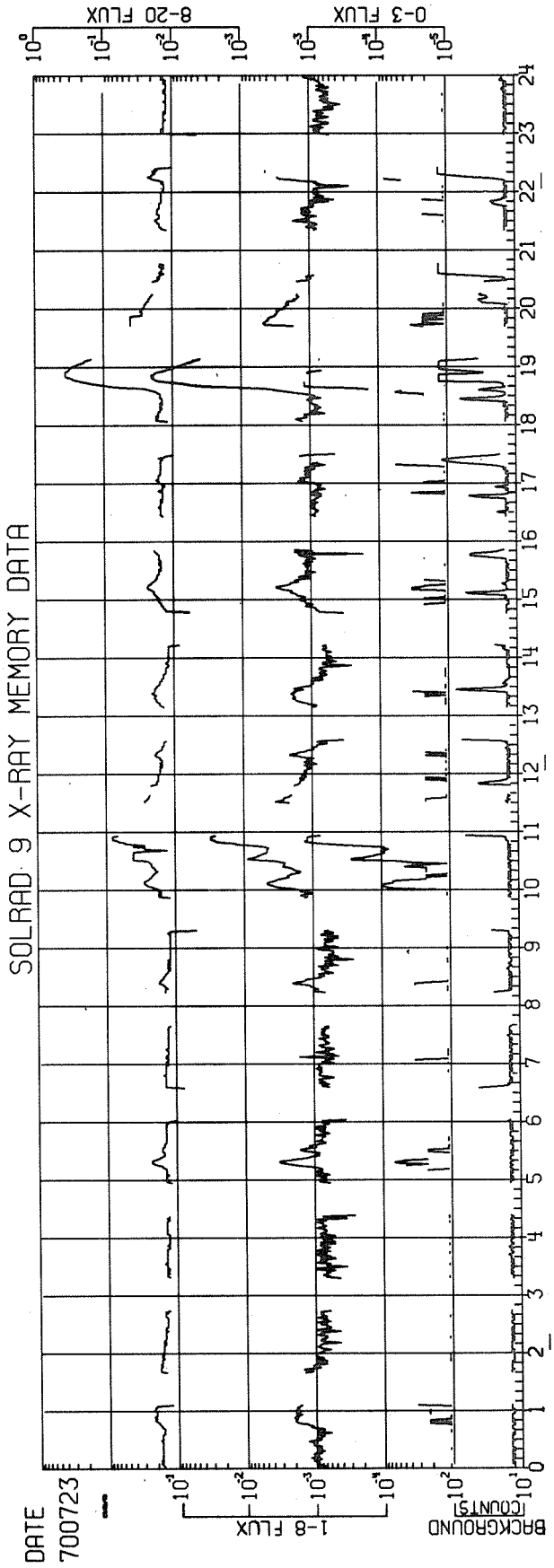
8-20 FLUX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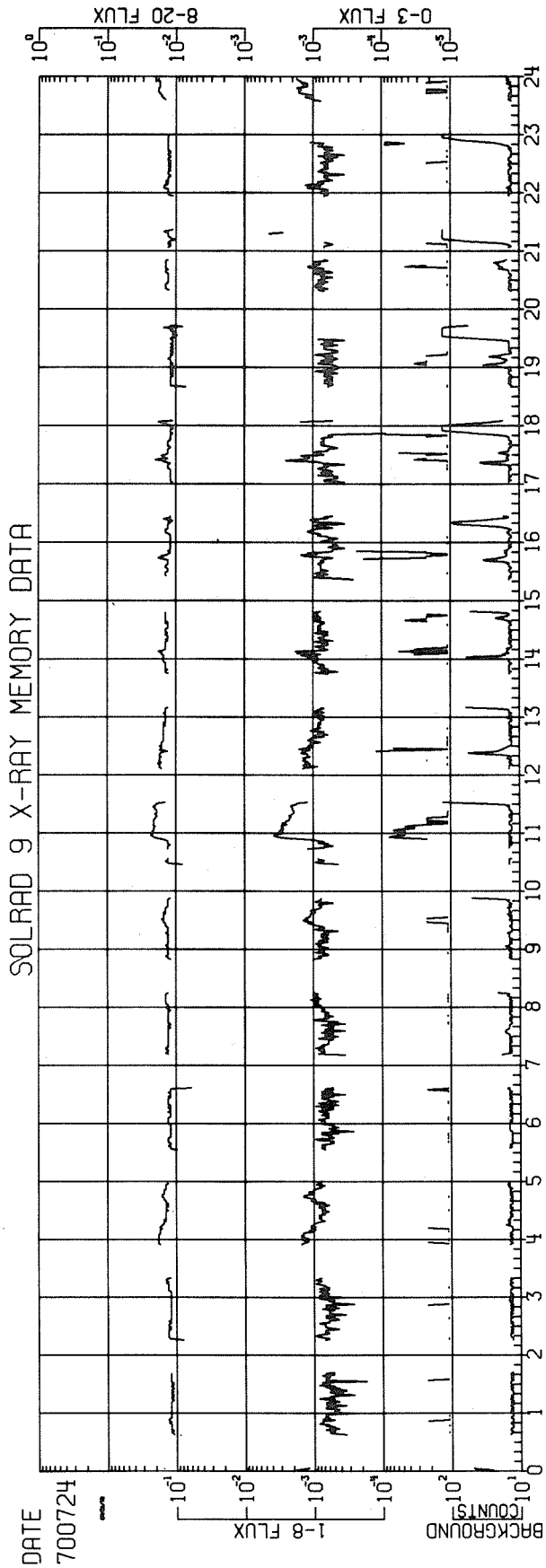
8-20 FLUX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BACKGROUND
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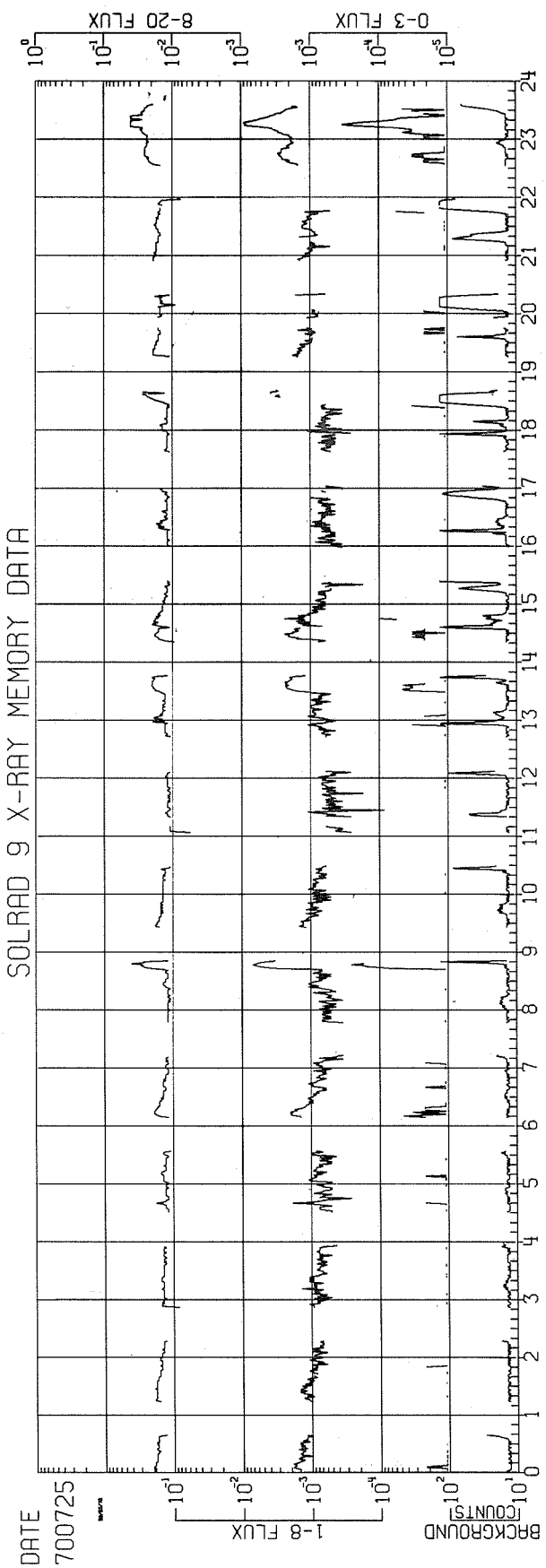
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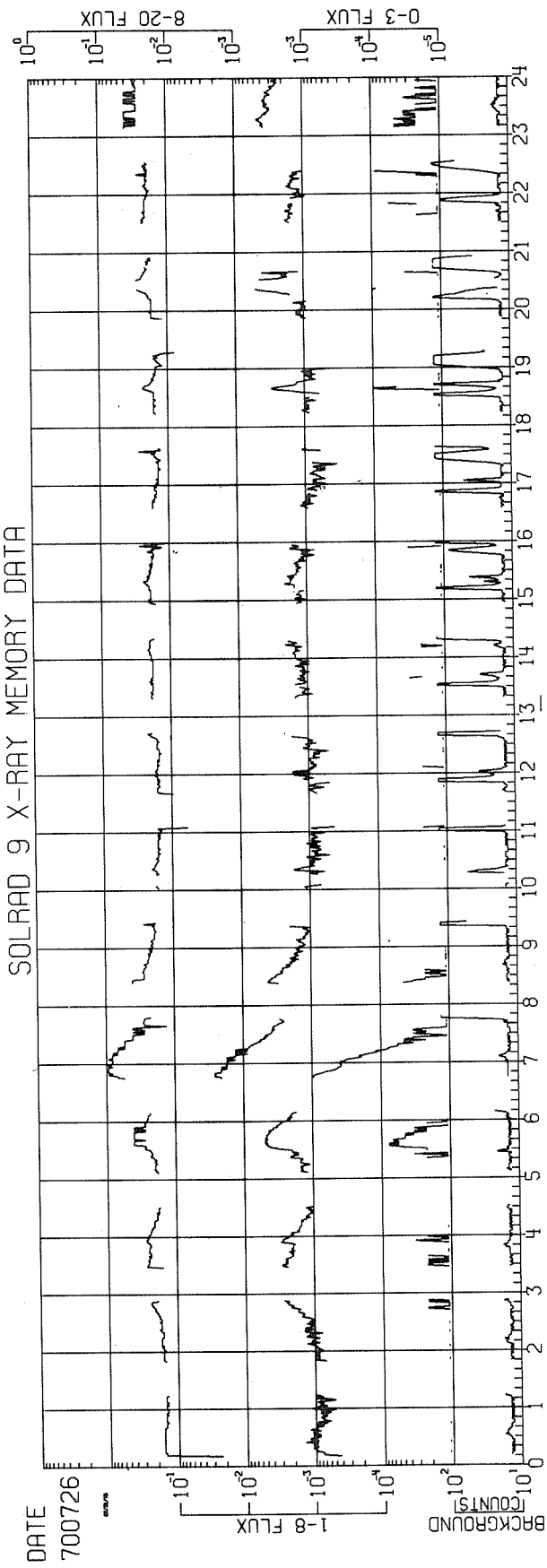
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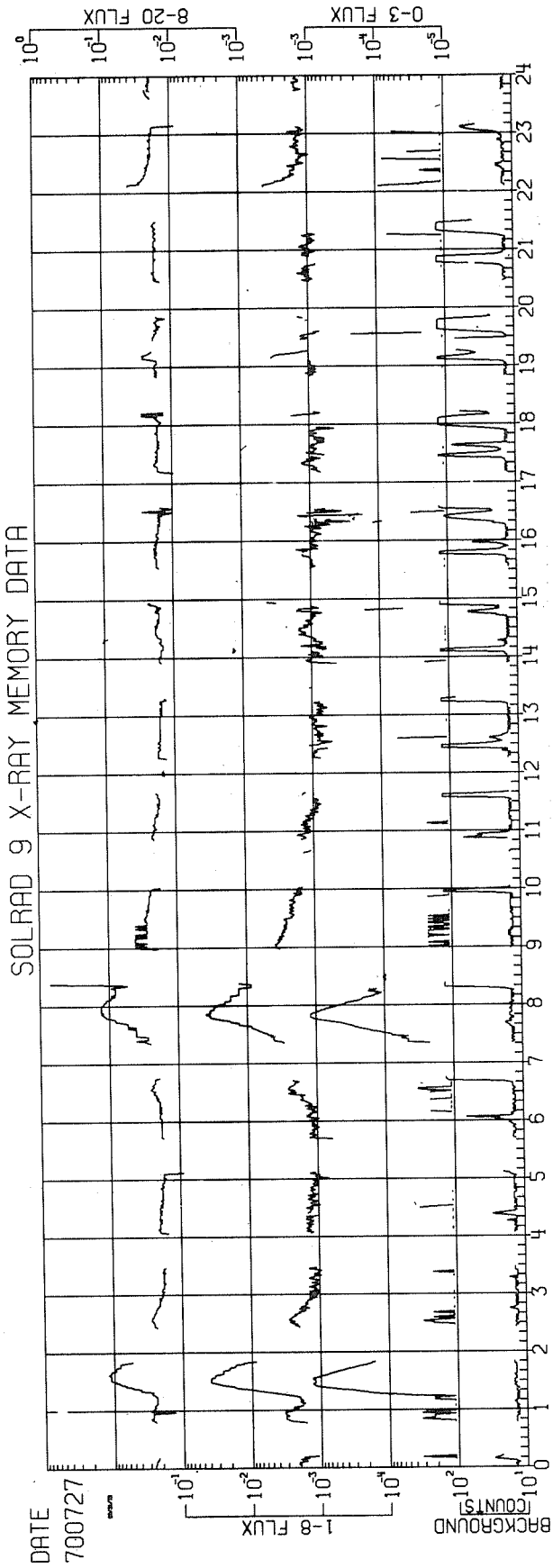
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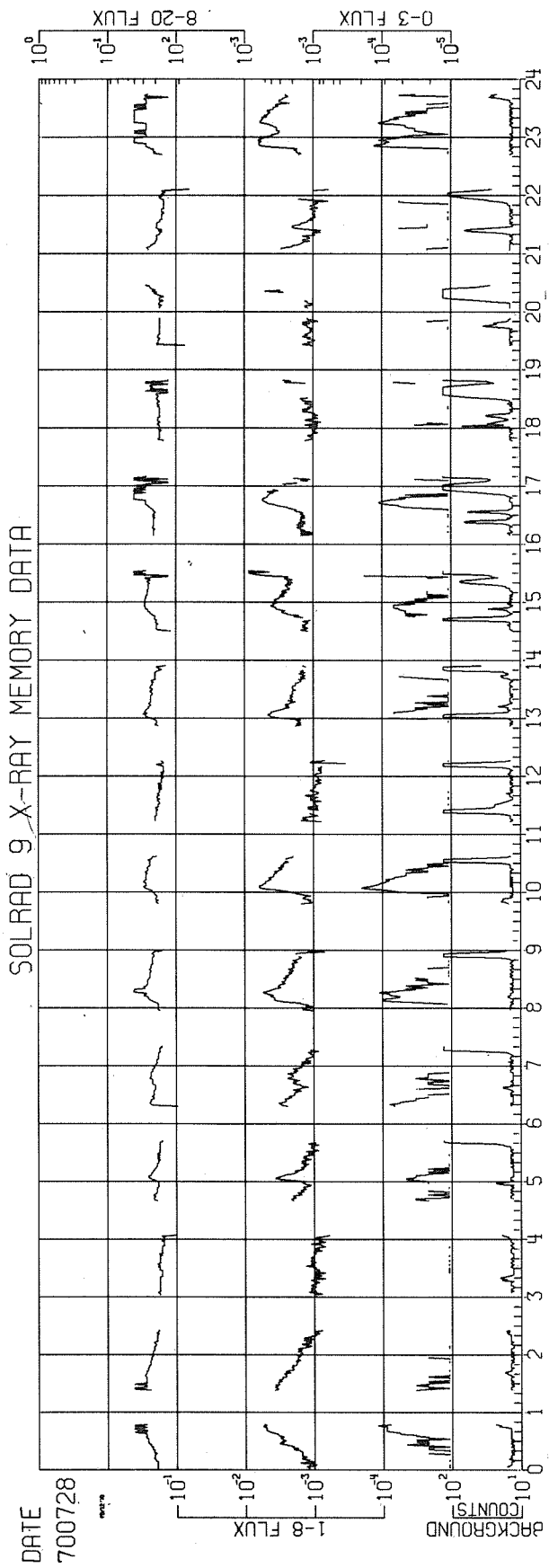
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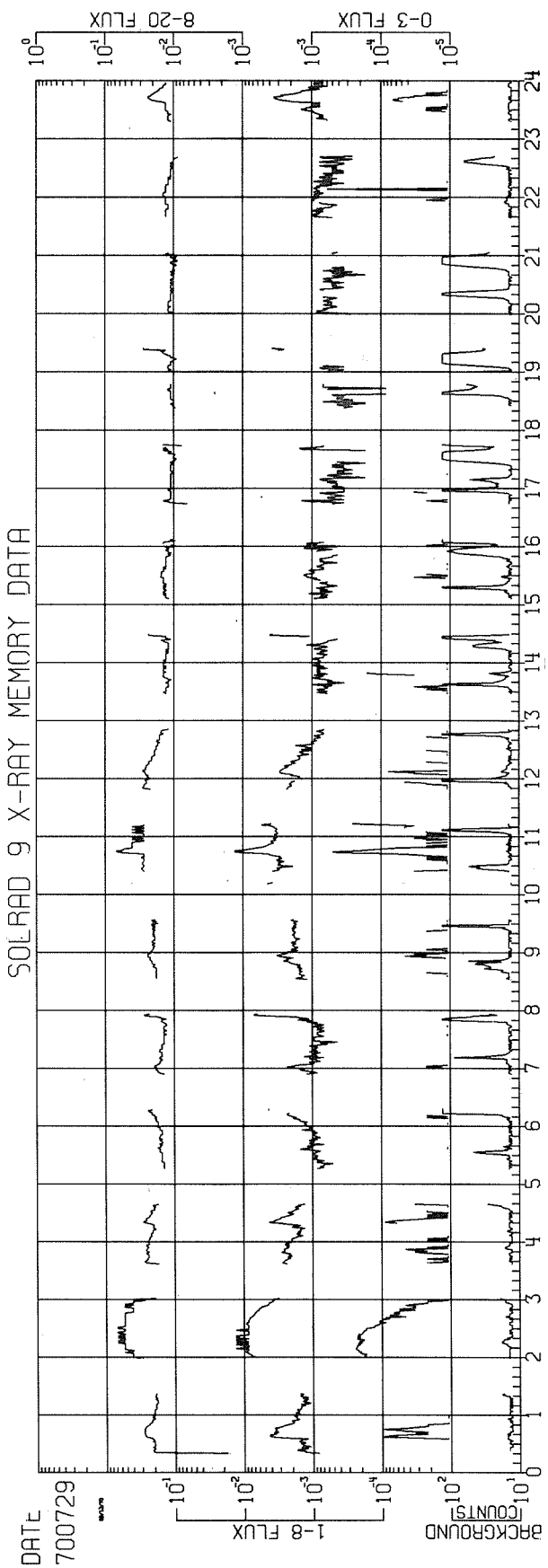
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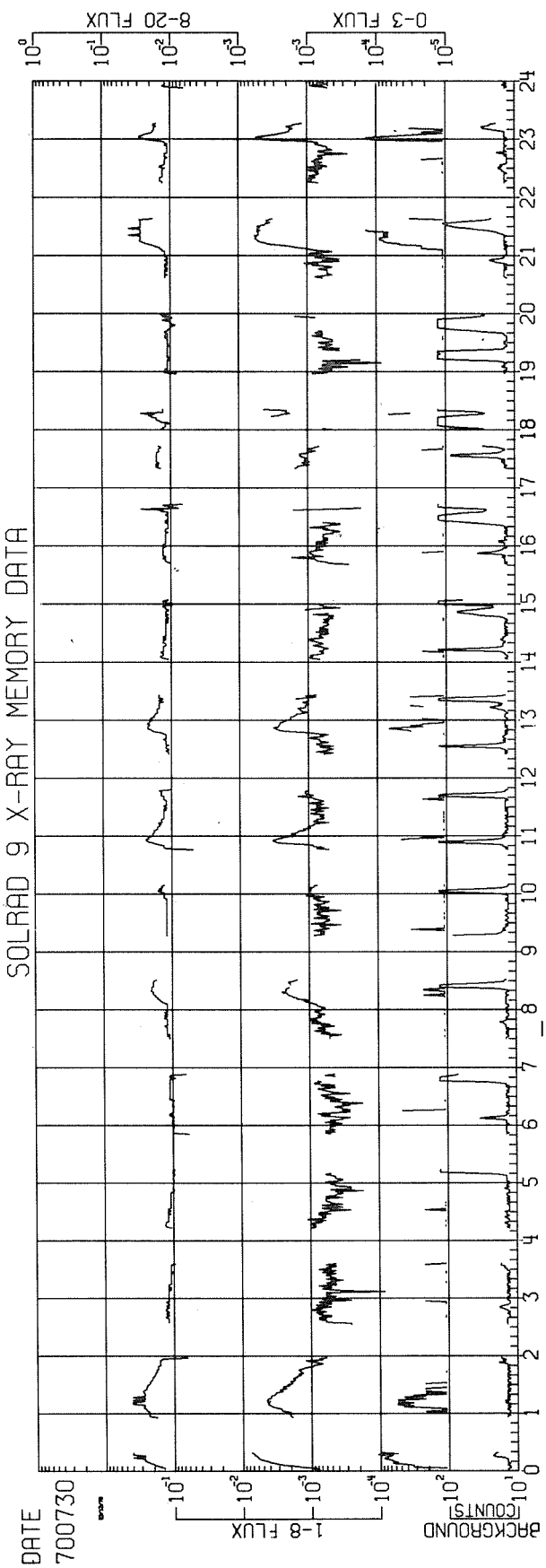
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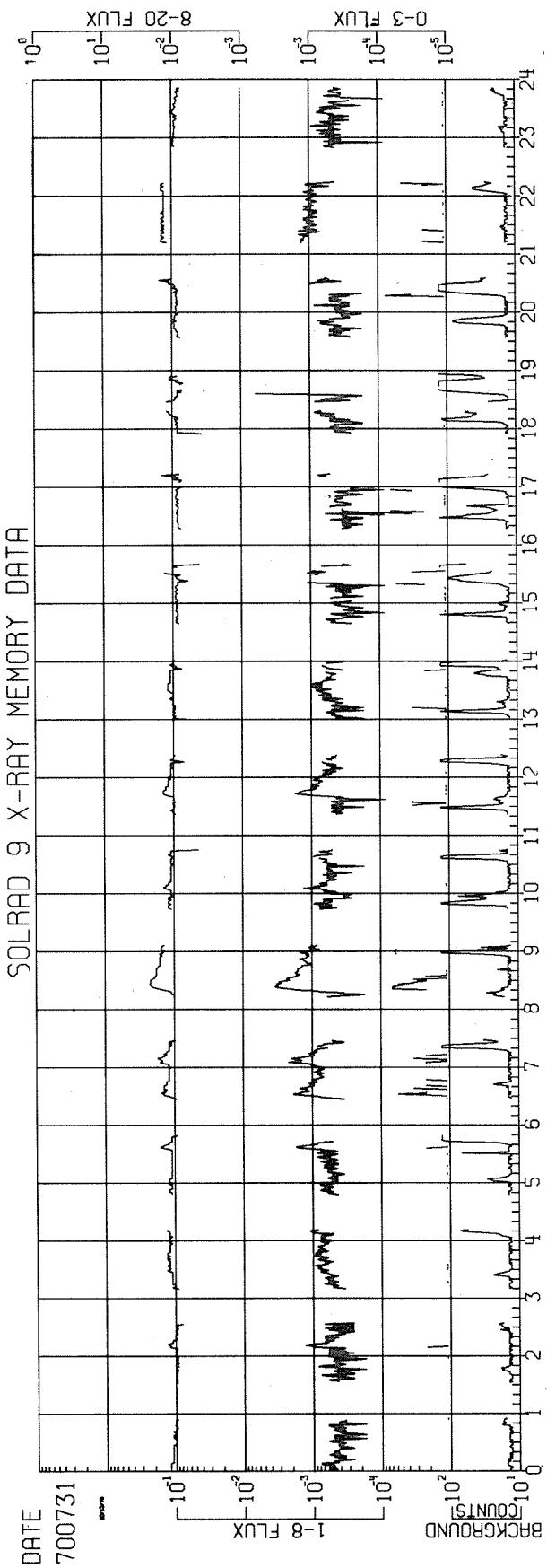
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DATE
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1-8 FLUX
BACKGROUND
[COUNTS]

SOLAR PROTONS BY SATELLITE
EXPLORER 41 (1969-53A)

JULY 1970

PROTON ENERGY GREATER THAN 60 MEV. HOURLY AVERAGES. IMPG SOLAR PROTON MONITOR. JHU/APL AND GSFC

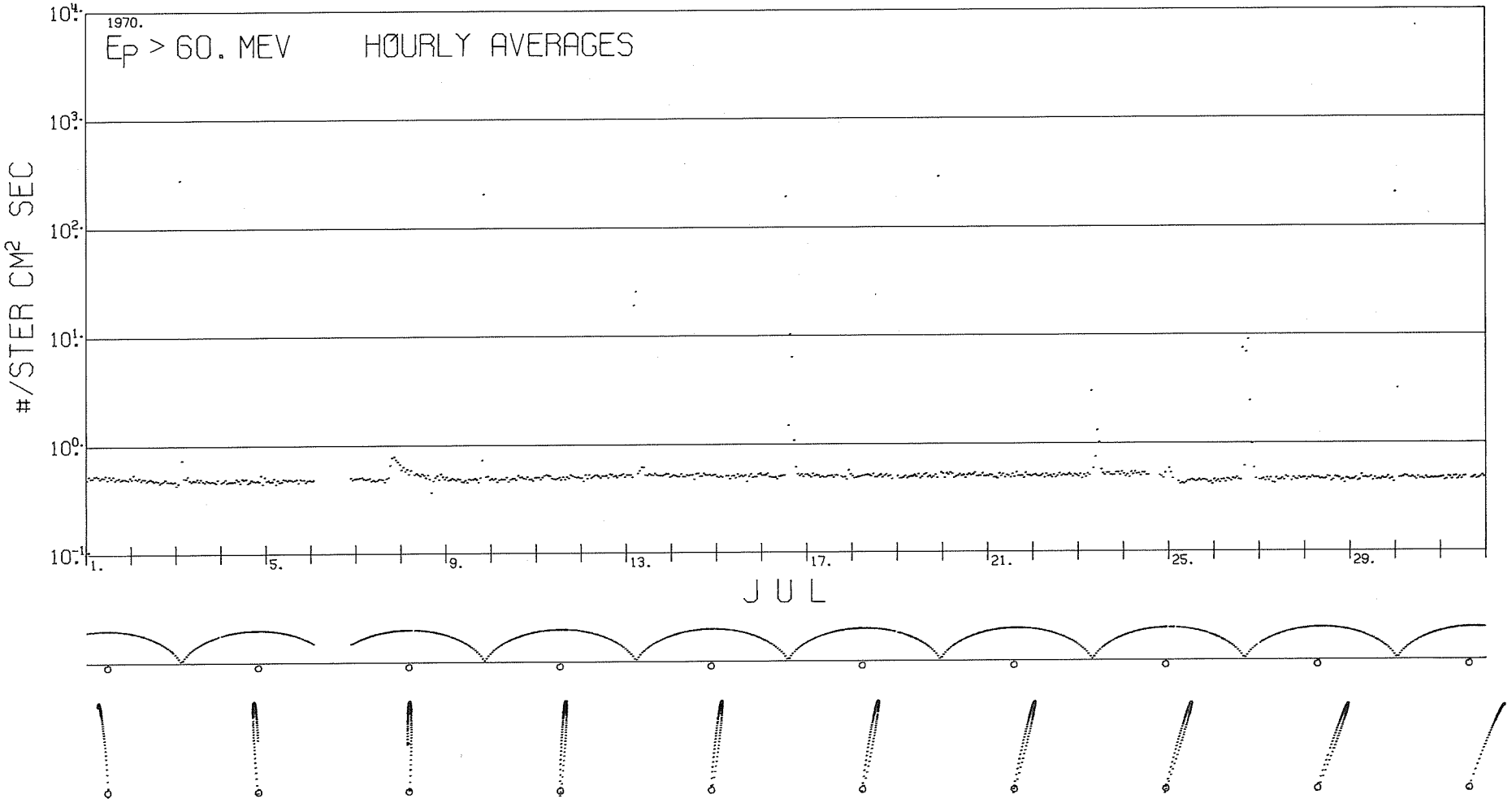
YEAR 1970

RECD WDC-UKS 11 JAN '71

DATE		DAY OF YEAR	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
7	1	182	0.49	0.53	0.51	0.51	0.53	0.54	0.52	0.50	0.52	0.52	0.54	0.49	0.53	0.51	0.53	0.49	0.50	0.51	0.49	0.50	0.50	0.49	0.49	0.52
7	2	183	0.50	0.55	0.51	0.50	0.51	0.48	0.50	0.50	0.48	0.49	0.50	0.49	0.43	0.48	0.48	0.45	0.47	0.48	0.49	0.47	0.47	0.47	0.45	0.47
7	3	184	0.43	0.45	280.	0.74	0.50	0.50	0.53	0.48	0.47	0.48	0.48	0.50	0.47	0.50	0.48	0.45	0.48	0.47	0.47	0.48	0.47	0.45	0.49	
7	4	185	0.46	0.47	0.49	0.46	0.47	0.47	0.47	0.47	0.50	0.48	0.46	0.50	0.49	0.50	0.45	0.47	0.49	0.48	0.47	0.48	0.47	0.54	0.44	0.52
7	5	186	0.48	0.48	0.47	0.47	0.50	0.44	0.48	0.46	0.47	0.49	0.49	0.43	0.49	0.49	0.48	0.48	0.49	0.45	0.50	0.48	0.48	0.45	0.48	0.49
7	6	187	0.47	0.48																				0.51	0.48	0.50
7	7	188	0.50	0.50	0.51	0.51	0.49	0.49	0.50	0.50	0.47	0.48	0.47	0.48	0.49	0.49	0.48	0.45	0.50	0.51	0.66	0.77	0.79	0.74	0.71	0.67
7	8	189	0.59	0.63	0.58	0.61	0.54	0.59		0.54	0.55	0.54	0.52	0.55	0.53	0.50	0.53	0.49	0.37	0.47	0.50	0.53	0.48	0.55	0.52	0.49
7	9	190	0.51	0.47	0.49	0.50	0.49	0.48	0.49	0.48	0.46	0.46	0.48	0.45	0.49	0.48	0.48	0.49	0.48	0.46	0.50	0.73	204.	0.51	0.52	0.48
7	10	191	0.49	0.48	0.49	0.46	0.48	0.49	0.48	0.48	0.51	0.46	0.48	0.49	0.49	0.48	0.52	0.51	0.51	0.50	0.49	0.51	0.48	0.49	0.47	0.50
7	11	192	0.50	0.50	0.48	0.50	0.52	0.53	0.52	0.52	0.49	0.49	0.48	0.49	0.50	0.48	0.51	0.48	0.51	0.49	0.53	0.52	0.51	0.50	0.51	0.50
7	12	193	0.50	0.46	0.53	0.49	0.53	0.50	0.51	0.53	0.53	0.51	0.50	0.52	0.51	0.52	0.50	0.54	0.53	0.51	0.52	0.50	0.52	0.52	0.54	0.50
7	13	194	0.53	0.53	0.52	0.50	19.3	25.9	0.54	0.58	0.62	0.62	0.52	0.52	0.54	0.52	0.52	0.54	0.53	0.52	0.52	0.52	0.53	0.54	0.54	0.50
7	14	195	0.51	0.52	0.52	0.51	0.51	0.54	0.51	0.50	0.52	0.51	0.53	0.52	0.47	0.54	0.54	0.51	0.51	0.54	0.52	0.52	0.53	0.51	0.52	0.53
7	15	196	0.51	0.49	0.51	0.50		0.51	0.51	0.48	0.51	0.51	0.49	0.53	0.50	0.52	0.50	0.52	0.45	0.51	0.53	0.49	0.50	0.50	0.53	0.54
7	16	197	0.52	0.52	0.52	0.54	0.50	0.50	0.49	0.50	0.43	0.51	0.51	0.52	0.52	190.	1.48	10.3	5.32	1.08	0.61	0.53	0.51	0.53	0.50	0.52
7	17	198	0.52	0.51	0.49	0.53	0.51	0.52	0.51	0.49	0.50	0.49	0.49	0.51	0.51	0.51	0.49	0.52	0.51		0.50	0.49	0.50	0.47	0.57	0.53
7	18	199	0.51	0.49	0.49	0.50	0.50	0.51	0.51	0.52	0.52	0.51	0.50	0.53	0.49	0.49	0.51	0.52	0.49	0.51	0.52	0.50	0.51	0.47		
7	19	200	0.51	0.48	0.48	0.49	0.51	0.48	0.49	0.50	0.50	0.51	0.50	0.53	0.43	0.50	0.52	0.53	0.49	0.50	0.48	0.50	0.52	0.43	289.	0.54
7	20	201	0.53	0.48	0.53	0.52	0.54	0.53	0.48	0.50	0.51	0.52	0.50	0.51	0.48	0.51	0.53	0.51	0.52	0.54	0.50	0.50	0.50	0.53	0.50	0.50
7	21	202	0.50	0.52	0.51	0.49	0.49	0.48	0.53	0.50	0.52	0.49	0.51	0.50	0.49	0.52	0.49	0.54	0.50	0.50	0.50	0.48	0.54	0.51	0.50	0.50
7	22	203	0.51	0.51	0.50	0.50	0.50	0.52	0.48	0.52	0.50	0.50	0.48	0.51	0.49	0.50	0.53	0.50	0.52	0.51	0.51	0.53	0.51	0.49	0.52	0.51
7	23	204	0.49	0.52	0.48	0.51	0.49	0.53	0.51	3.05	0.59	0.75	1.32	1.02	0.57	0.53	0.51	0.53	0.53	0.51	0.51	0.51	0.54	0.54	0.51	0.54
7	24	205	0.52	0.49	0.51	0.48	0.54	0.52	0.54	0.52	0.52	0.50	0.53	0.53	0.51	0.51						0.50	0.49	0.48	0.53	
7	25	206	0.59	0.53	0.47			0.44	0.42	0.43	0.42	0.43	0.45	0.45	0.45	0.45	0.44	0.45	0.46	0.44	0.46	0.45	0.45	0.43	0.44	0.41
7	26	207	0.46	0.44	0.45	0.43	0.45	0.46	0.44	0.47	0.45	0.44	0.47	0.46	0.43	0.46	0.45	7.51	0.61	6.87	9.05	2.44	0.98	0.59	0.47	
7	27	208	0.46	0.45	0.47	0.44	0.47	0.45	0.47	0.43	0.42	0.48	0.45	0.46	0.47	0.45	0.49	0.48		0.44	0.48	0.46	0.45	0.48	0.47	0.48
7	28	209	0.48	0.45	0.47	0.47	0.49	0.47	0.48	0.48	0.46	0.47	0.46	0.47	0.49	0.48	0.44	0.45	0.48	0.48	0.47	0.45	0.46	0.42	0.47	0.45
7	29	210	0.45	0.46	0.46	0.48	0.44	0.45	0.51	0.48	0.43	0.47	0.47	0.49	0.45	0.48	0.45	0.45	0.46	0.47	0.47	0.47	0.49	0.45	0.47	0.43
7	30	211	203.	3.17	0.47	0.48	0.48	0.49	0.49	0.48	0.47	0.48	0.47	0.45	0.48	0.47	0.47	0.45	0.48	0.46	0.46	0.47	0.45	0.47	0.47	0.47
7	31	212	0.48	0.48	0.45	0.46	0.48	0.48	0.46	0.48	0.49	0.45	0.48	0.46	0.43	0.49			0.46	0.47	0.48	0.46	0.47	0.43	0.50	0.48

SOLAR PROTONS BY SATELLITE
EXPLORER 41 (1969-53A)

JULY 1970



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SOLAR PROTONS BY SATELLITE
EXPLORER 41 (1969-53A)

JULY 1970

PROTON ENERGY GREATER THAN 30 MEV. HOURLY AVERAGES. IMPG SOLAR PROTON MONITOR. JHU/APL AND GSFC

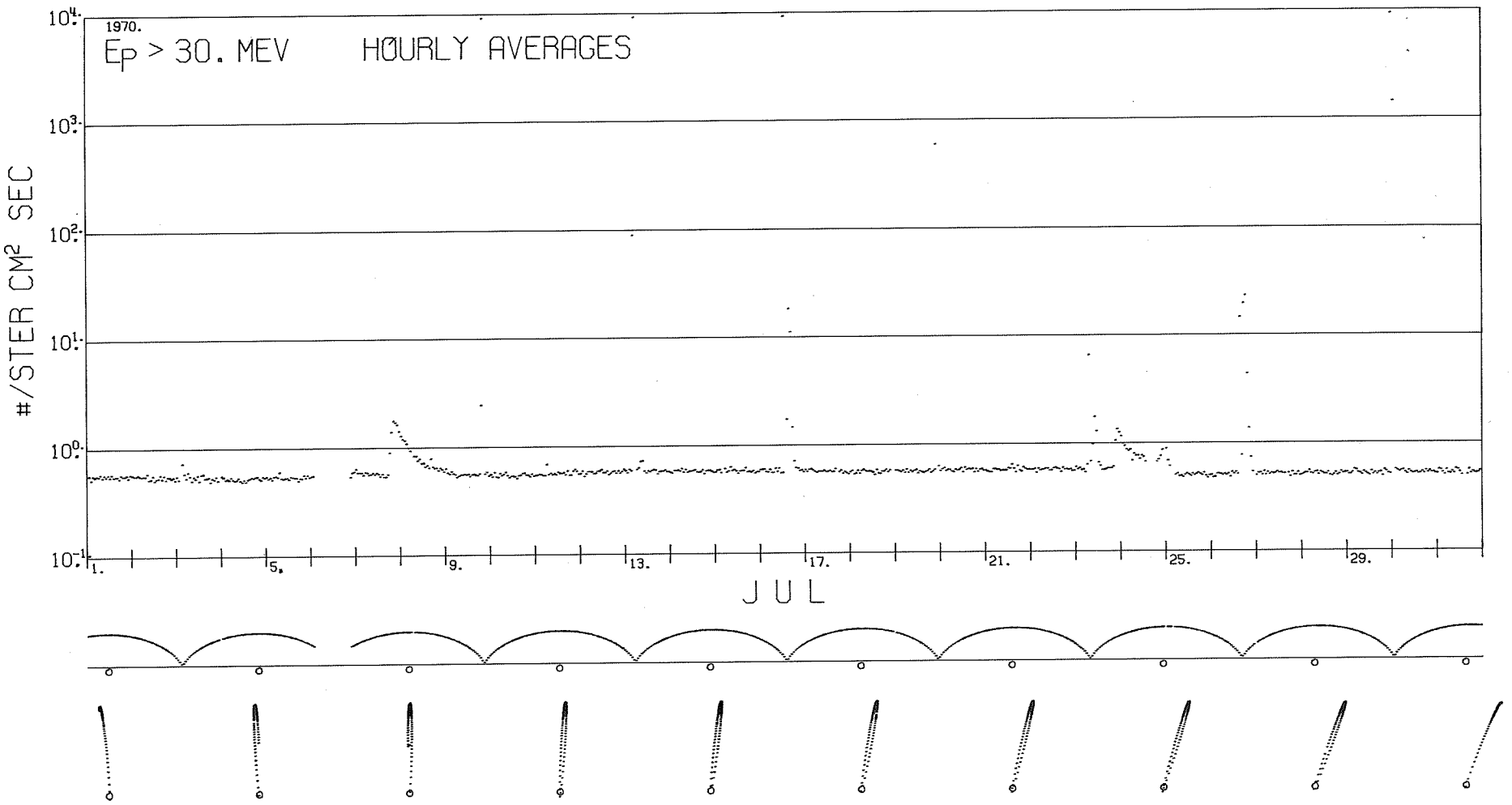
YEAR 1970

DATE		DAY OF YEAR	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
7	1	182	0.56	0.56	0.52	0.56	0.55	0.57	0.56	0.58	0.54	0.57	0.55	0.53	0.55	0.58	0.55	0.55	0.55	0.53	0.57	0.56	0.56	0.57	0.53	0.58
7	2	183	0.57	0.56	0.56	0.57	0.56	0.55	0.55	0.55	0.59	0.52	0.52	0.56	0.51	0.53	0.53	0.57	0.53	0.55	0.52	0.55	0.54	0.53	0.54	0.51
7	3	184	0.56	0.52		0.73	0.58	0.53	0.60	0.55	0.50	0.55	0.53	0.56	0.50	0.57	0.58	0.53	0.54	0.54	0.49	0.53	0.52	0.55	0.50	
7	4	185	0.56	0.54	0.51	0.52	0.51	0.54	0.52	0.50	0.51	0.53	0.50	0.49	0.51	0.49	0.52	0.53	0.54	0.53	0.54	0.55	0.52	0.51	0.55	0.53
7	5	186	0.55	0.52	0.54	0.51	0.55	0.55	0.54	0.60	0.53	0.52	0.53	0.53	0.51	0.54	0.53	0.53	0.53	0.50	0.53	0.52	0.56	0.53	0.55	0.54
7	6	187	0.55	0.55																				0.54	0.59	0.60
7	7	188	0.64	0.59	0.59	0.58	0.56	0.59	0.59	0.57	0.57	0.58	0.56	0.59	0.57	0.54	0.57	0.54	0.54	0.57	0.90	1.40	1.77	1.70	1.62	1.41
7	8	189	1.28	1.19	1.16	1.09	0.98	0.93		0.83	0.83	0.75	0.78	0.71	0.72	0.56	0.53	0.55	0.79	0.66	0.64	0.64	0.61	0.64	0.52	0.59
7	9	190	0.63	0.58	0.56	0.60	0.57	0.56	0.53	0.54	0.55	0.56	0.56	0.56	0.56	0.54	0.55	0.55	0.55	0.55	0.57	2.45	13766	0.55	0.59	0.54
7	10	191	0.56	0.53	0.58	0.53	0.52	0.57	0.55	0.56	0.58	0.55	0.52	0.54	0.54	0.53	0.51	0.54	0.55	0.57	0.57	0.55	0.55	0.53	0.56	0.54
7	11	192	0.54	0.55	0.56	0.55	0.54	0.54	0.69	0.55	0.57	0.55	0.56	0.55	0.58	0.57	0.57	0.53	0.55	0.60	0.54	0.55	0.59	0.52	0.59	0.55
7	12	193	0.56	0.59	0.53	0.56	0.58	0.58	0.58	0.56	0.56	0.59	0.59	0.61	0.57	0.57	0.59	0.55	0.56	0.58	0.59	0.57	0.59	0.55	0.58	0.61
7	13	194	0.60	0.57	0.61	0.59	89.73	0704	0.61	0.63	0.72	0.73	0.59	0.57	0.59	0.58	0.50	0.50	0.60	0.55	0.58	0.59	0.59	0.60	0.58	0.58
7	14	195	0.57	0.56	0.59	0.59	0.60	0.58	0.62	0.57	0.50	0.57	0.58	0.58	0.59	0.60	0.57	0.57	0.57	0.60	0.55	0.58	0.59	0.59	0.58	0.55
7	15	196	0.57	0.59	0.60	0.56		0.61	0.57	0.58	0.53	0.59	0.60	0.58	0.55	0.58	0.59	0.59	0.62	0.57	0.58	0.56	0.58	0.55	0.57	0.57
7	16	197	0.60	0.60	0.60	0.57	0.56	0.60	0.56	0.56	0.61	0.57	0.61	0.55	0.56	2356	4	1.73	18.3	11.0	1.46	0.71	0.62	0.61	0.58	0.59	0.55
7	17	198	0.59	0.57	0.59	0.60	0.59	0.57	0.55	0.57	0.57	0.57	0.58	0.56	0.57	0.58	0.56	0.57	0.60		0.56	0.58	0.54	0.55	0.55	0.54
7	18	199	0.56	0.58	0.53	0.54	0.58	0.54	0.57	0.59	0.57	0.56	0.57	0.57	0.55	0.53	0.59	0.54	0.54	0.56	0.57	0.59	0.56	0.58		
7	19	200	0.57	0.57	0.56	0.55	0.57	0.55	0.59	0.55	0.57	0.55	0.57	0.58	0.54	0.57	0.55	0.55	0.56	0.57	0.59	0.55	0.56	0.58	589.	0.63
7	20	201	0.56	0.59	0.60	0.57	0.58	0.58	0.56	0.55	0.58	0.57	0.58	0.60	0.55	0.61	0.58	0.59	0.58	0.59	0.55	0.59	0.55	0.58	0.59	0.57
7	21	202	0.57	0.56	0.55	0.55	0.58	0.59	0.58	0.58	0.56	0.57	0.57	0.57	0.59	0.59	0.54	0.59	0.55	0.63	0.57	0.56	0.61	0.59	0.58	0.58
7	22	203	0.57	0.57	0.59	0.54	0.59	0.57	0.58	0.58	0.59	0.59	0.56	0.57	0.59	0.60	0.59	0.58	0.55	0.60	0.58	0.58	0.57	0.58	0.55	0.55
7	23	204	0.61	0.58	0.59	0.57	0.57	0.54	0.64	6.55	0.68	0.98	1.76	1.29	0.65	0.52	0.55	0.57	0.57	0.59	0.58	0.59	0.61	1.06	1.36	1.26
7	24	205	1.16	0.99	0.94	0.87	0.84	0.87	0.69	0.80	0.77	0.76	0.71	0.77	0.74	0.67						0.67	0.70	0.76	0.87	
7	25	206	0.89	0.68	0.61			0.51	0.52	0.49	0.50	0.48	0.51	0.52	0.51	0.49	0.52	0.50	0.52	0.53	0.51	0.50	0.53	0.49	0.48	0.50
7	26	207	0.50	0.48	0.49	0.51	0.52	0.51	0.50	0.52	0.50	0.52	0.48	0.54	0.52	0.54	0.51	14.5	0.76	19.5	23.1	4.34	1.37	0.73	0.54	
7	27	208	0.50	0.52	0.53	0.50	0.54	0.50	0.53	0.51	0.52	0.52	0.52	0.54	0.52	0.53	0.52	0.52		0.52	0.48	0.54	0.50	0.50	0.53	0.50
7	28	209	0.50	0.51	0.52	0.52	0.55	0.52	0.51	0.53	0.54	0.50	0.53	0.52	0.51	0.51	0.53	0.50	0.49	0.50	0.53	0.50	0.51	0.54	0.52	0.53
7	29	210	0.53	0.51	0.51	0.53	0.56	0.55	0.53	0.52	0.50	0.53	0.52	0.51	0.49	0.54	0.51	0.52	0.51	0.52	0.53	0.49	0.56	0.54	0.52	0.51
7	30	211	9199	1408	0.56	0.55	0.53	0.55	0.55	0.52	0.51	0.55	0.53	0.51	0.52	0.53	0.51	0.52	0.53	0.52	0.55	0.52	0.54	0.52	0.53	0.51
7	31	212	0.51	0.56	0.55	0.52	0.50	0.56	0.51	0.51	0.53	0.51	0.57	0.55	0.53	0.49			0.50	0.56	0.51	0.53	0.52	0.52	0.52	0.54

SOLAR PROTONS BY SATELLITE

EXPLORER 41 (1969-53A)

JULY 1970



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SOLAR PROTONS BY SATELLITE
EXPLORER 41 (1969-53A)

JULY 1970

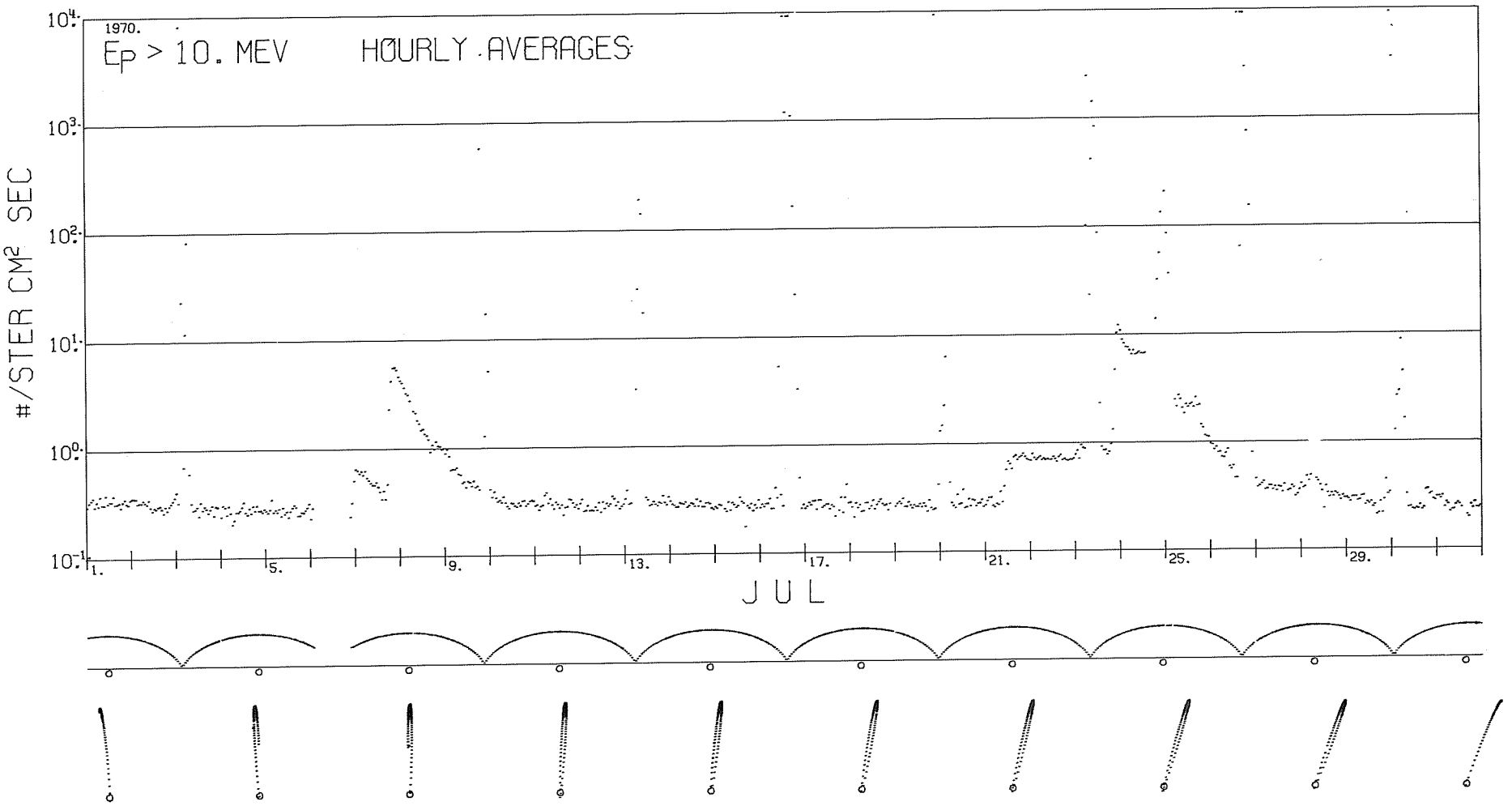
PROTON ENERGY GREATER THAN 10 MEV. HOURLY AVERAGES. IMPG SOLAR PROTON MONITOR. JHU/APL AND GSFC

YEAR 1970

DATE		DAY OF YEAR	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
7	1	182	0.30	0.33	0.35	0.36	0.30	0.34	0.31	0.38	0.31	0.31	0.39	0.32	0.34	0.34	0.38	0.32	0.32	0.33	0.30	0.33	0.35	0.32	0.31	0.35
7	2	183	0.36	0.36	0.36	0.32	0.33	0.32	0.34	0.33	0.32	0.35	0.30	0.27	0.29	0.29	0.30	0.30	0.29	0.26	0.30	0.28	0.30	0.32	0.34	0.35
7	3	184	0.41	0.32	8178	23.1	0.69	11.8	82.2	0.60	0.32	0.28	0.28	0.30	0.24	0.33	0.28	0.30	0.29	0.26	0.28	0.31	0.25	0.30	0.30	
7	4	185	0.24	0.31	0.29	0.25	0.30	0.26	0.20	0.22	0.27	0.27	0.27	0.30	0.33	0.26	0.25	0.29	0.26	0.30	0.27	0.30	0.27	0.27	0.25	0.28
7	5	186	0.27	0.26	0.28	0.35	0.26	0.28	0.26	0.28	0.24	0.29	0.25	0.27	0.24	0.27	0.29	0.31	0.29	0.24	0.25	0.26	0.25	0.27	0.29	0.31
7	6	187	0.23	0.29																				0.24	0.32	0.51
7	7	188	0.65	0.63	0.59	0.62	0.57	0.62	0.54	0.51	0.48	0.46	0.46	0.49	0.44	0.40	0.34	0.41	0.34	0.47	2.32	4.20	5.58	5.61	5.32	4.50
7	8	189	4.21	4.02	3.62	3.22	3.11	2.76		2.21	2.12	1.81	1.69	1.47	1.50	1.36	1.31	1.20	0.92	1.08	0.97	1.15	1.05	1.04	0.98	0.99
7	9	190	0.89	0.97	0.84	0.62	0.64	0.64	0.66	0.58	0.57	0.47	0.49	0.43	0.49	0.48	0.44	0.50	0.43	0.44	0.41	578.	4310	1.23	17.4	5.05
7	10	191	0.41	0.35	0.39	0.34	0.32	0.33	0.31	0.35	0.31	0.29	0.27	0.31	0.30	0.29	0.28	0.31	0.29	0.32	0.32	0.29	0.30	0.32	0.33	0.32
7	11	192	0.29	0.29	0.26	0.28	0.29	0.36	0.38	0.30	0.34	0.29	0.27	0.31	0.30	0.27	0.29	0.24	0.28	0.28	0.33	0.33	0.31	0.23	0.29	0.27
7	12	193	0.30	0.33	0.25	0.26	0.29	0.26	0.26	0.26	0.28	0.26	0.31	0.25	0.31	0.27	0.30	0.23	0.30	0.35	0.33	0.29	0.31	0.27	0.28	0.29
7	13	194	0.33	0.40	0.29	0.30	4310	5011	3.37	28.6	190.	140.	17.1	0.34	0.32	0.28	0.29	0.31	0.29	0.28	0.30	0.30	0.35	0.30	0.29	0.34
7	14	195	0.31	0.29	0.28	0.27	0.27	0.30	0.29	0.29	0.30	0.27	0.28	0.30	0.29	0.28	0.32	0.23	0.31	0.27	0.27	0.30	0.30	0.29	0.27	0.25
7	15	196	0.27	0.27	0.28	0.28		0.26	0.25	0.30	0.25	0.30	0.29	0.27	0.28	0.33	0.30	0.29	0.18	0.28	0.27	0.29	0.25	0.28	0.26	0.31
7	16	197	0.26	0.28	0.27	0.29	0.29	0.32	0.26	0.26	0.41	0.33	5.31	0.35	0.27	12234	1174	2025	3113	75	1088	159.	24.5	3.28	0.50	0.25
7	17	198	0.26	0.27	0.29	0.28	0.30	0.31	0.25	0.31	0.31	0.26	0.27	0.28	0.28	0.25	0.28	0.27	0.22		0.25	0.33	0.23	0.33	0.43	0.29
7	18	199	0.29	0.26	0.21	0.29	0.26	0.28	0.24	0.24	0.29	0.29	0.25	0.27	0.30	0.25	0.28	0.29	0.31	0.28	0.27	0.28	0.25	0.23		
7	19	200	0.27	0.28	0.29	0.28	0.32	0.26	0.26	0.29	0.27	0.26	0.27	0.25	0.25	0.28	0.25	0.28	0.26	0.24	0.30	0.26	0.25	0.25	13120	0.42
7	20	201	1.31	1.47	2.26	6.36	1.00	0.44	0.28	0.27	0.25	0.34	0.27	0.28	0.38	0.25	0.25	0.31	0.26	0.30	0.30	0.26	0.28	0.23	0.30	0.26
7	21	202	0.27	0.29	0.32	0.32	0.27	0.26	0.28	0.27	0.35	0.29	0.40	0.57	0.53	0.64	0.53	0.74	0.77	0.70	0.74	0.76	0.80	0.75	0.71	0.69
7	22	203	0.69	0.80	0.73	0.70	0.73	0.75	0.70	0.72	0.70	0.71	0.70	0.70	0.74	0.71	0.57	0.74	0.77	0.69	0.71	0.69	0.58	0.70	0.70	0.71
7	23	204	0.78	0.85	0.71	0.96	0.90	0.88	101.	2451	23.2	414.	1415	827.	85.9	2.30	0.91	0.85	0.85	0.77	0.82	0.97	1.32	4.70	10.3	12.1
7	24	205	10.8	8.86	8.21	7.58	7.52	7.07	6.48	7.08	6.48	6.63	6.84	6.50	6.58	6.68						13.8	32.0	55.9	133.	
7	25	206	206.	84.2	35.9			2.46	2.12	2.71	2.49	2.05	1.83	2.24	2.11	2.23	2.28	2.10	2.60	2.17	2.21	1.45	1.35	1.15	1.12	1.11
7	26	207	0.96	0.95	0.85	0.90	0.80	0.80	0.72	0.72	0.79	0.86	0.59	0.55	0.50	0.45	0.47	14209	63.0	1101	5133	12 2896	734.	151.	0.79	
7	27	208	0.46	0.38	0.39	0.41	0.43	0.36	0.37	0.39	0.39	0.36	0.38	0.35	0.38	0.38	0.34	0.40		0.35	0.36	0.39	0.37	0.31	0.33	0.35
7	28	209	0.41	0.37	0.38	0.48	0.43	0.49			0.45	0.43	0.39	0.35	0.24	0.39	0.33	0.31	0.33	0.31	0.33	0.32	0.31	0.29	0.31	0.30
7	29	210	0.30	0.29	0.27	0.30	0.31	0.31	0.28	0.29	0.31	0.31	0.26	0.27	0.25	0.27	0.24	0.25	0.21	0.21	0.27	0.22	0.29	0.45	0.32	0.33
7	30	211	9820	3504	1.25	2.62	2.90	8.72	4.38	1.60	0.32	0.24	0.25	0.23	0.23	0.24	0.23	0.25	0.23	0.24	0.35	0.36	0.32	0.33	0.29	0.28
7	31	212	0.30	0.30	0.29	0.31	0.24	0.27	0.26	0.22	0.23	0.23	0.25	0.25	0.25	0.24			0.20	0.19	0.25	0.24	0.27	0.24	0.24	0.25

SOLAR PROTONS BY SATELLITE
EXPLORER 41 (1969-53A)

JULY 1970



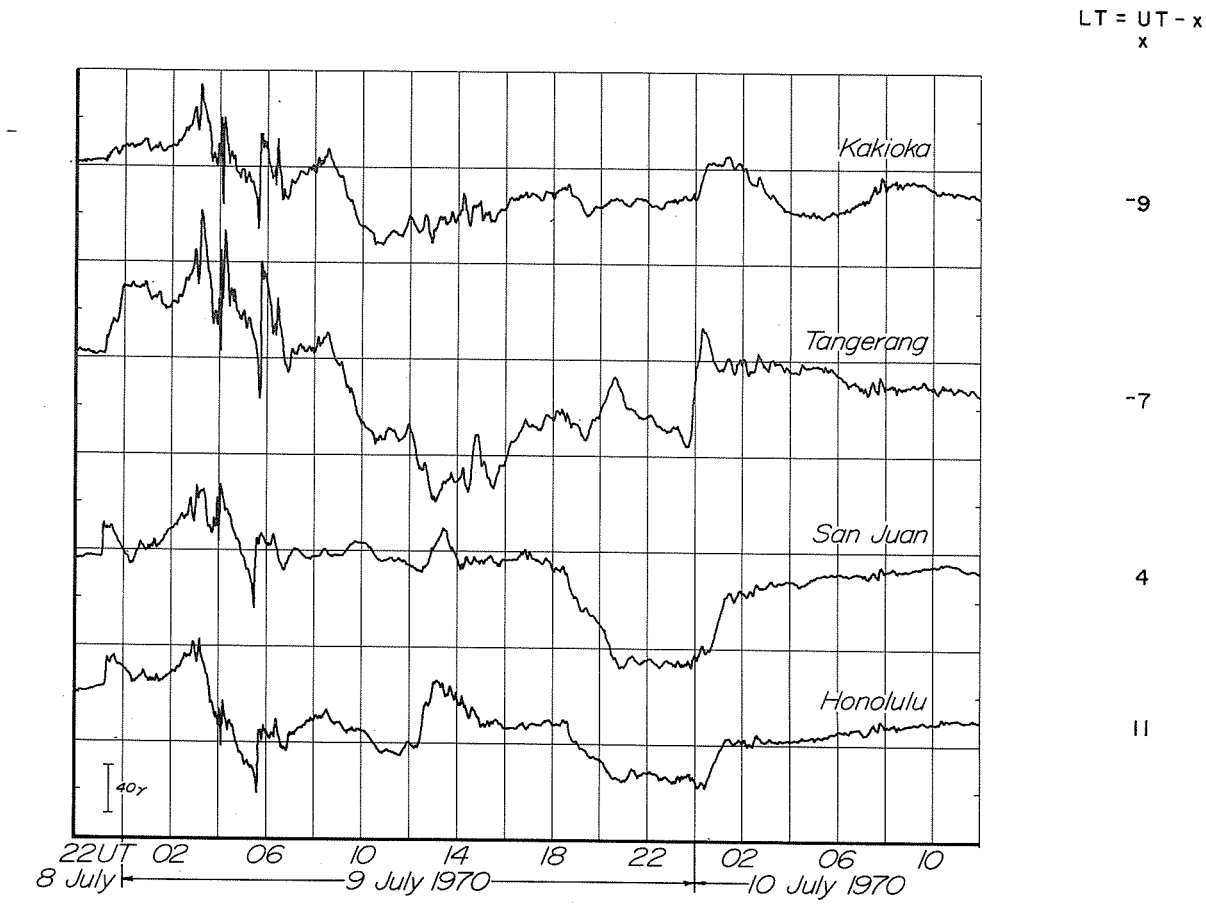
IMP G SPME

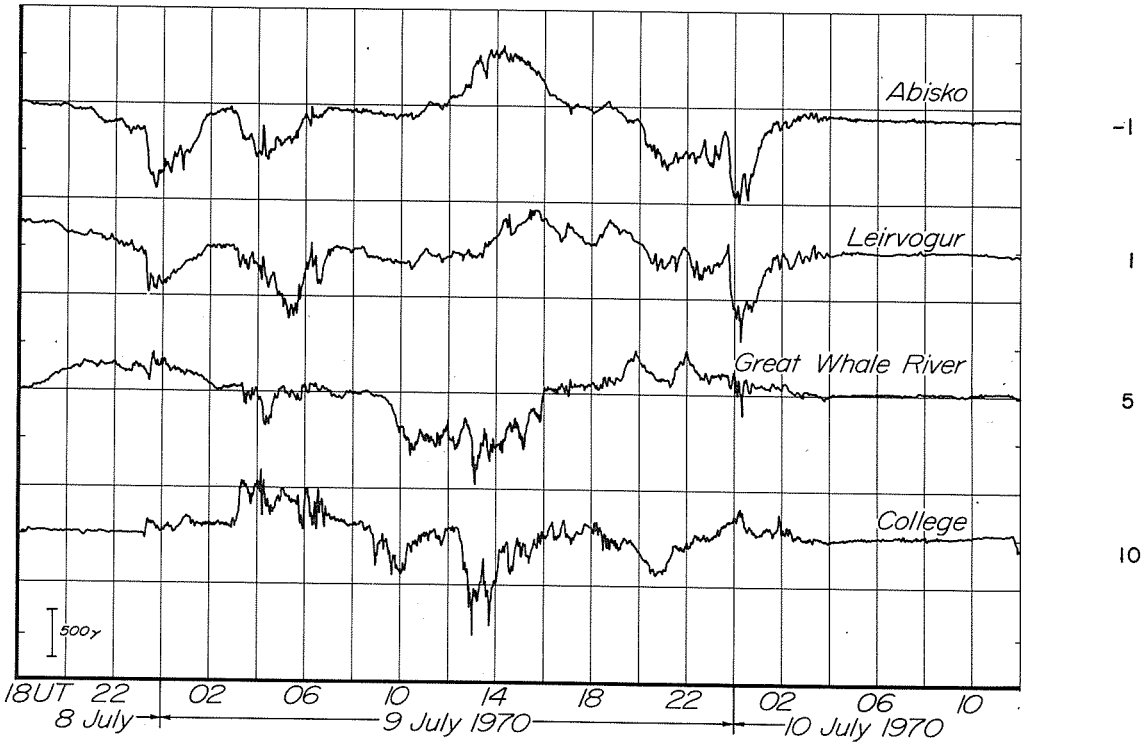
JHU/APL - NASA/GSFC

111
Jul 70

MAGNETOGRAMS OF GEOMAGNETIC STORMS

8-10 JULY 1970





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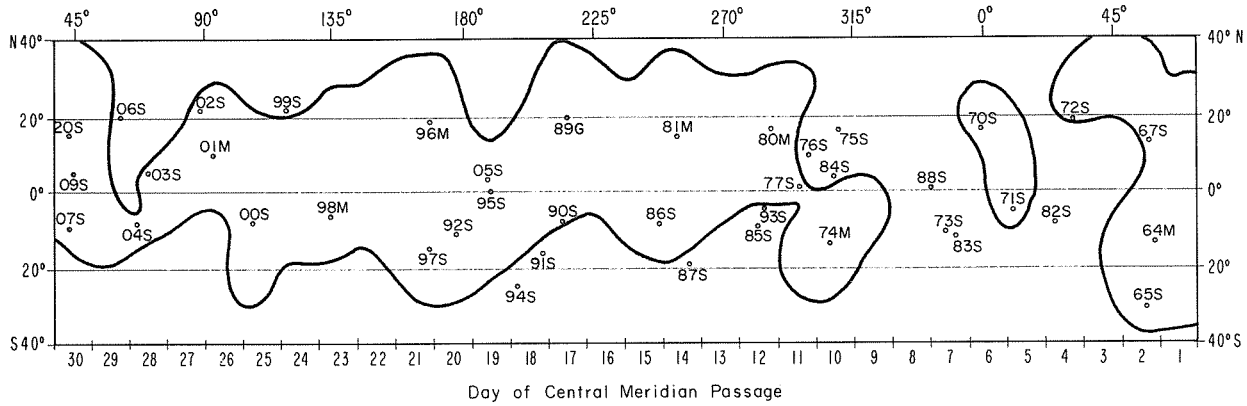
Addenda: See page 120.

For explanations of the data contained herein see "Descriptive Text" published in February 1970.

ABBREVIATED CALENDAR RECORD

JUNE 1970



June 1, 1970

FLARES 364 24.0: 2n/63; 1b/60, 1f/60; 1n/60

Bursts: cm, dm, m, Dkm

SID

X-Rays

Ap 28 — Kp: 3- 5+ 3o 5o 5- 4- 3+ 3-; sc: 0305(18)

I 7; Ip 0; Ia 0

142 10 cm flux
102 Rz

One of five most magnetically disturbed days with moderate activity all day; proton event which began May 29 on Ep >10 Mev on Explorer 41 returns to normal late in day; moderately br. green corona 7 days earlier on NE limb and 7 days later on SW limb, br. green corona 7 days later on NW limb.

June 2, 1970

FLARES 58 24.0: 2n/60; 1n/63

Bursts: cm, dm, m, Dkm

SID

X-Rays

Ap 9 — Kp: 3+ 3- 2o 2- 2- 2+ 2+ 2o; sc: 0209(18)

I 7; Ip 0; Ia 1

138 10 cm flux
92 Rz

Very br. green corona 7 days earlier on NE and SE limb, moderately br. green corona 7 days later on NW and SW limb.

CMP 10764 S13 (3) 17929 S08 (αp)4 CMP June 1
17930 S19 (βp)4 CMP June 1
17934 S12 (βγ)4
10765 S30 (2)
10767 N13 (3) 17935 N17 (αp)1

June 3, 1970

FLARES 3 24.0

Bursts: cm, dm, m, Dkm

SID

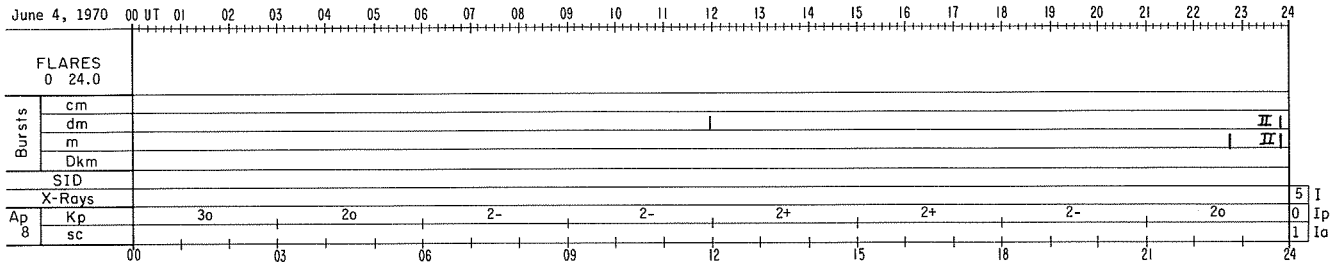
X-Rays

Ap 11 — Kp: 2o 3- 3o 2+ 3- 3- 2+ 2+; sc:

I 5; Ip 0; Ia 0

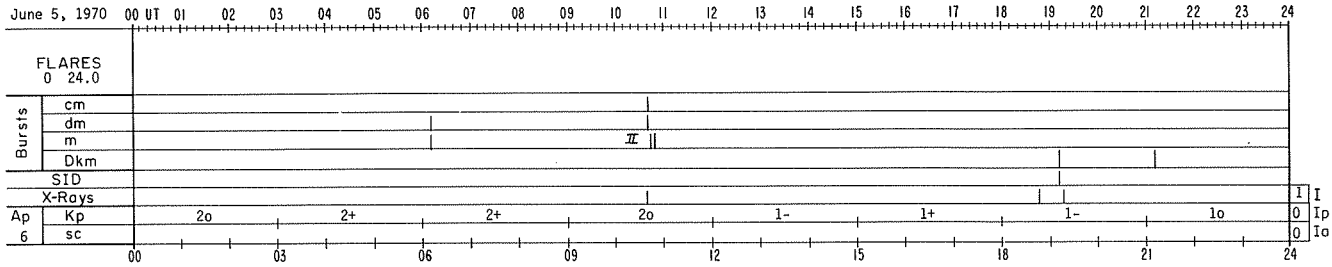
130 10 cm flux
64 Rz

Moderately br. green corona 7 days earlier on NE and SE limb and 7 days later on NW and SW limb.



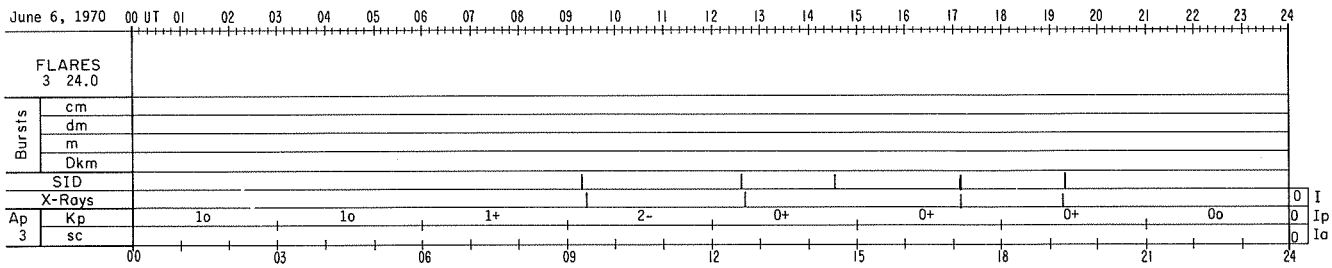
128 10 cm flux
63 Rz
CMP 10772 N19
(10782) S08

Moderately br. green corona 7 days earlier on NE limb and 7 days later on NW limb.



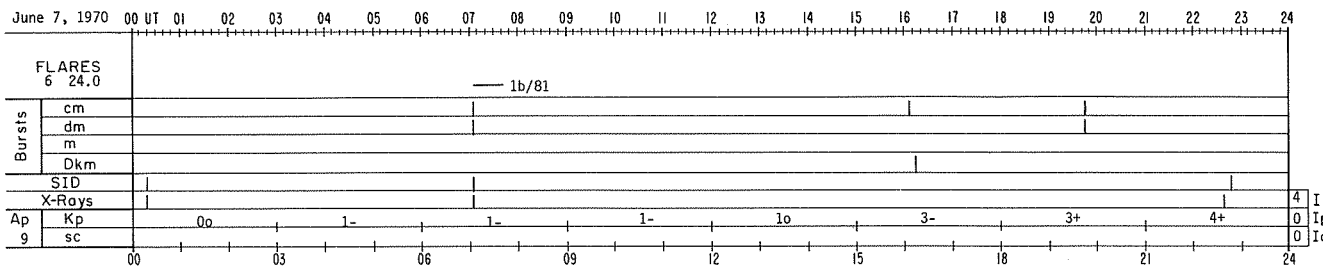
129 10 cm flux
59 Rz
CMP 10771 S05 (17943) S08 (αp)1 CMP June 4

Moderately br. green corona 7 days earlier on NE and SE limb, no coronal data 7 days later on W. limb.



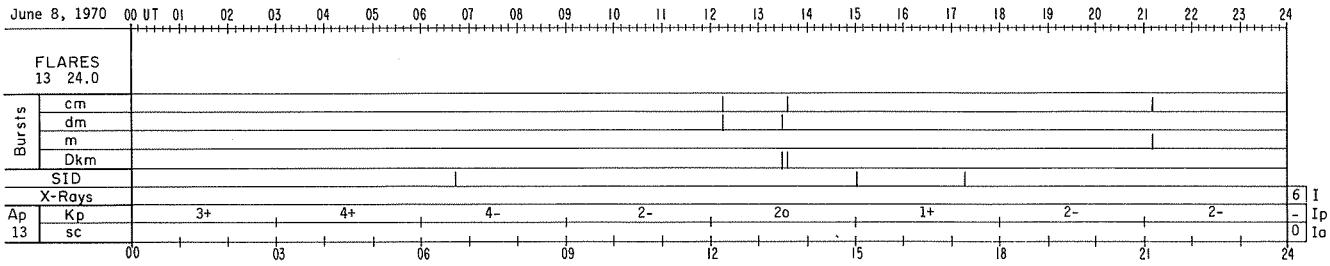
126 10 cm flux
57 Rz
CMP 10770 N17 (3) 17939 N11 (αp)1
(10770A) N17

One of five most magnetically quiet days with activity very low from 1200; br. green corona 7 days earlier on NE and SE limb, no coronal data 7 days later on W. limb.



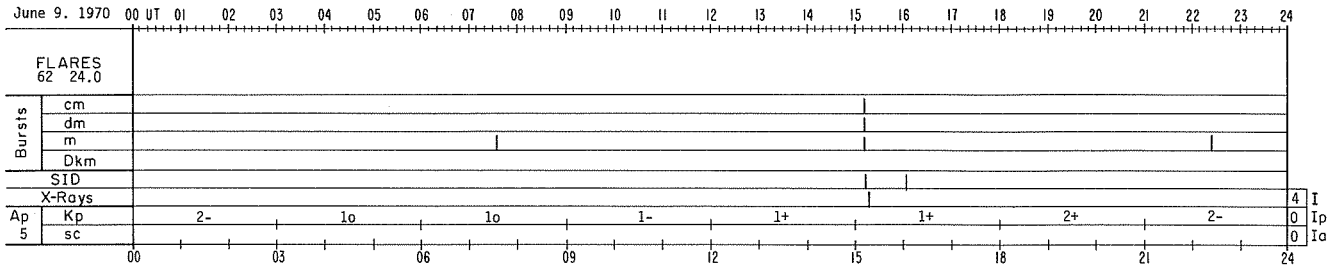
131 10 cm flux
58 Rz
CMP 10783 S12 (17946, 50) S13 (β)2
(10773) S11

Br. green corona 7 days earlier on NE limb, moderately br. green corona 7 days earlier on SE limb and 7 days later on NW and SW limb.



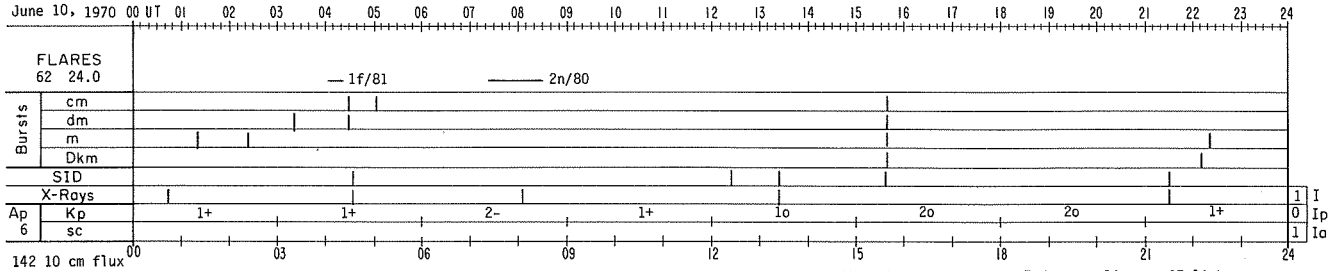
130 10 cm flux
61 Rz
CMP (10788) N01

Br. green corona 7 days earlier on NE limb, no coronal data 7 days later on W. limb.



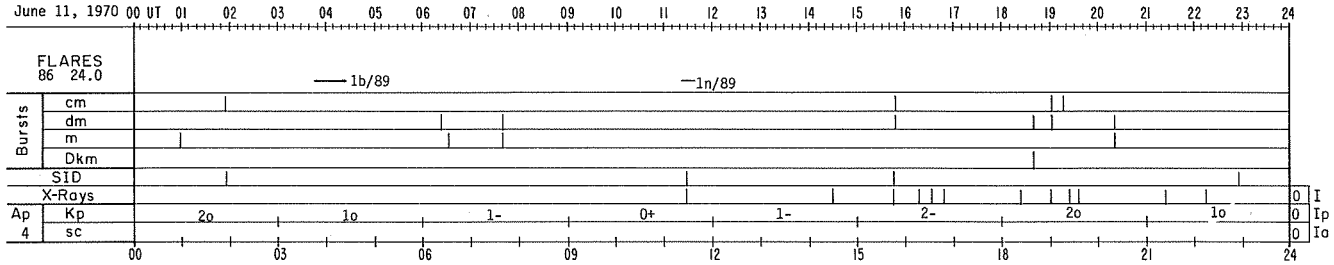
134 10 cm flux
60 Rz

One of ten most magnetically quiet days, but not outstanding; moderately br. green corona 7 days earlier on NE and SE limb, no coronal data 7 days later on W. limb.



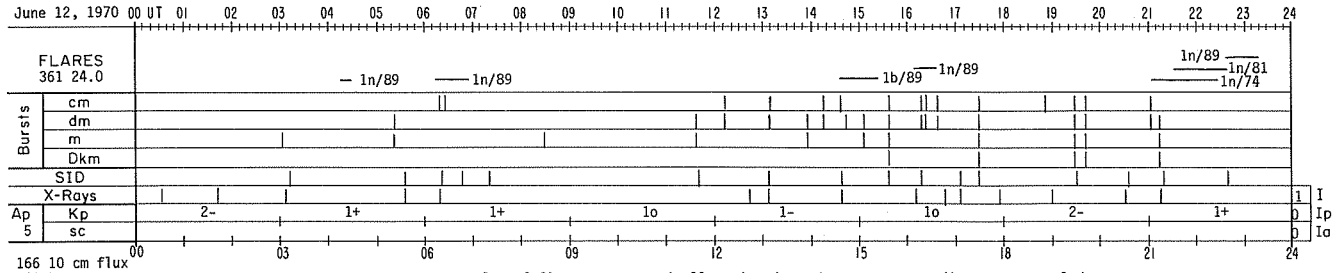
142 10 cm flux
92 Rz
CMP 10775 N17 17940, 48, 54 N14 (β)1
10784 N05
10774 S13 (2) (17937, 47) S12 (αp)1
17938 S16 (αp)4
(17949) S10 (β)1
(17951) S07 (β)1

One of ten most magnetically quiet days, but not outstanding; br. green corona 7 days earlier on SE limb and moderately br. green corona 7 days earlier on NE limb, no coronal data 7 days later on W. limb.



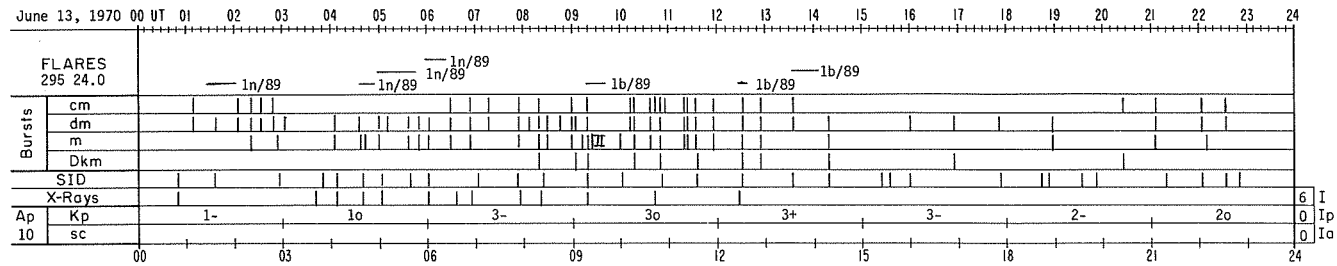
164 10 cm flux
127 Rz
CMP (10776) N10 (2)
10777 N01 (2)

One of five most magnetically quiet days; no coronal data 7 days earlier on E. limb, nor 7 days later on W. limb.



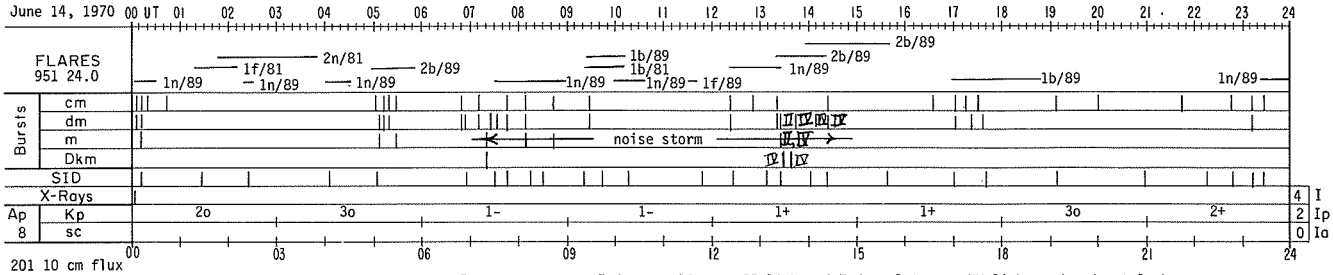
166 10 cm flux
148 Rz
CMP 10780 N17 (17941, 44) N15 (αp)2
17942 N15 (βf)3 CMP June 11
(10793) S05
10785 S09 (5)

One of five most magnetically quiet days, but not outstanding; no coronal data 7 days later on W. limb.



194 10 cm flux
160 Rz

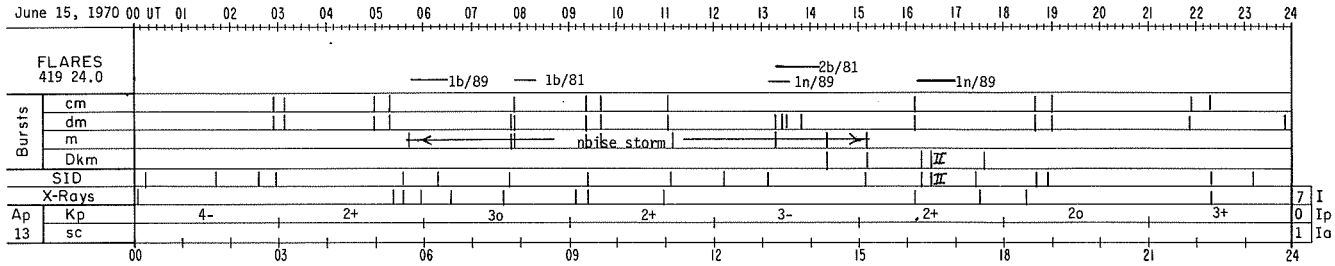
No coronal data 7 days earlier on E. limb.



201 10 cm flux
182 Rz
CMP 10787 S18 (2)
10781 N15 (5)

17945 N16 (βγ)6
17952 N14 (βγ)4 CMP June 15
17955, 60 N16 (αp)1
(17965) N09 (αp)1 CMP June 15

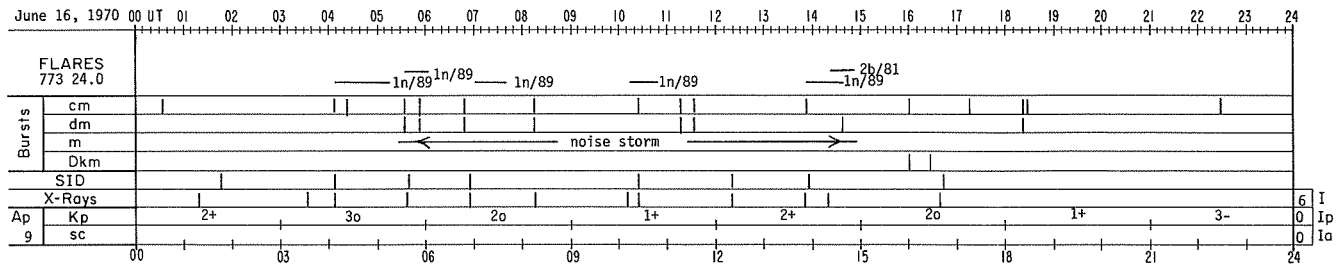
Br. green corona 7 days earlier on SE limb and 7 days later on NW limb, and moderately br. green corona 7 days earlier on NE limb and 7 days later on SW limb.



203 10 cm flux
185 Rz
CMP 10786 S08 (4)

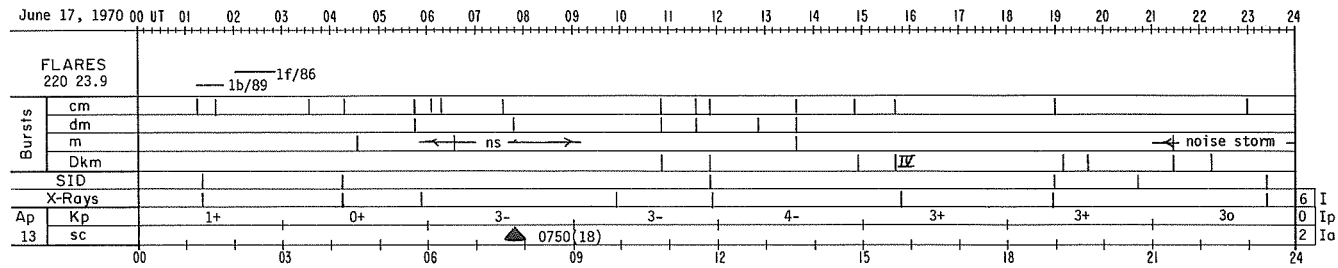
(17961) S11 (αp)1
(17962) S15 (αf)1

Very br. green corona 7 days earlier on SE limb and 7 days later on NW limb, and moderately br. green corona 7 days earlier on NE limb and 7 days later on SW limb.



192 10 cm flux
149 Rz

Br. green corona 7 days later on NW limb, moderately br. green corona 7 days earlier on SE limb.

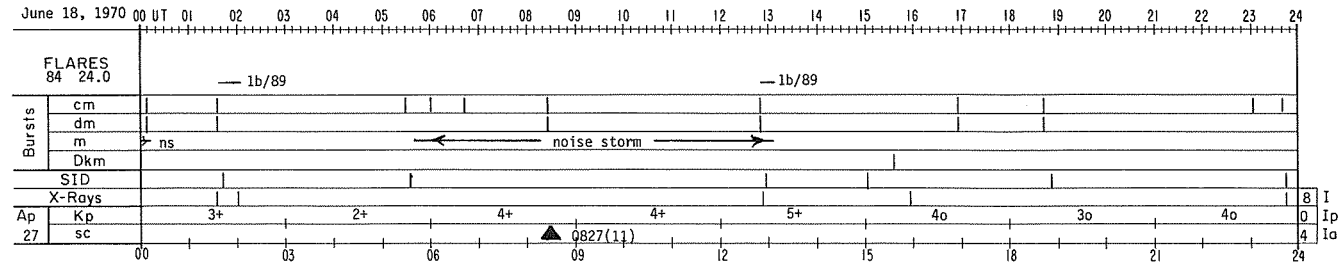


185 10 cm flux
143 Rz
CMP 10789 N20

17953 N18 (βp)6 CMP June 16
17958 N19 (βγ)5
17966 N17 (αp)1 CMP June 18

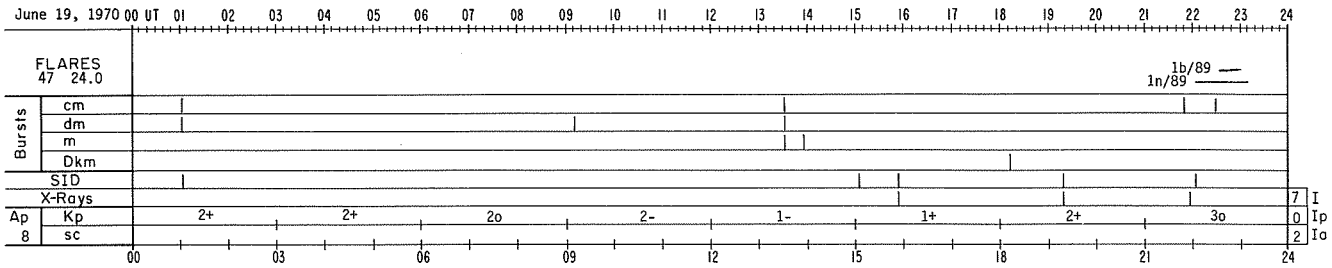
10790 S08 (2)

Br. green corona 7 days earlier on NE limb and moderately br. green corona 7 days earlier on SE limb, no coronal data 7 days later on W. limb.



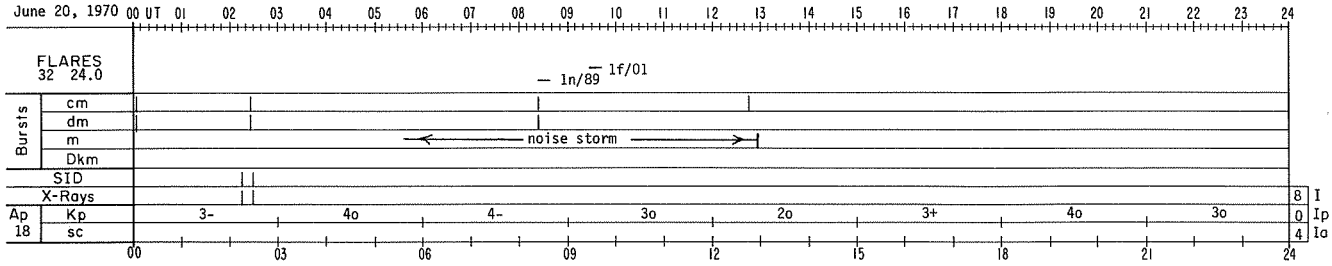
176 10 cm flux
123 Rz
CMP 10791 S16 (17956, 63) S17 (αp)1
10794 S25

One of five most magnetically disturbed days, with moderate activity after the sc at 0827; very br. green corona 7 days earlier on NE limb and moderately br. green corona 7 days earlier on SE limb, no coronal data 7 days later on W. limb.



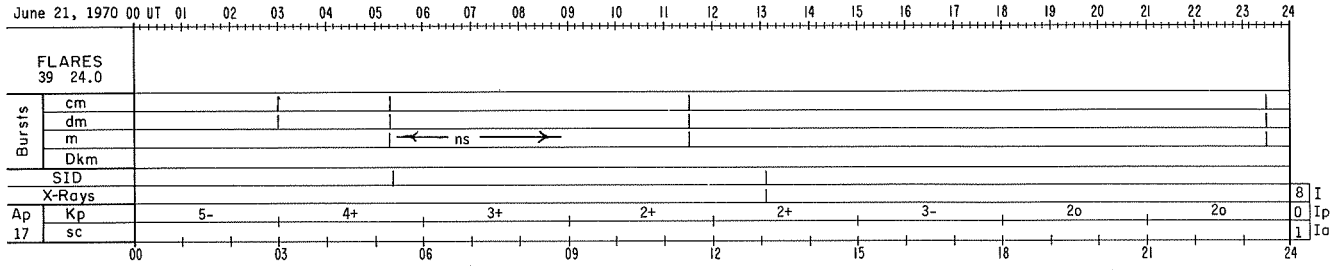
170 10 cm flux
98 Rz
CMP 10795 N00
(10805) N04 (17979) N04 (αp)3

No corona data 7 days earlier on E. limb, nor 7 days later on W. limb.



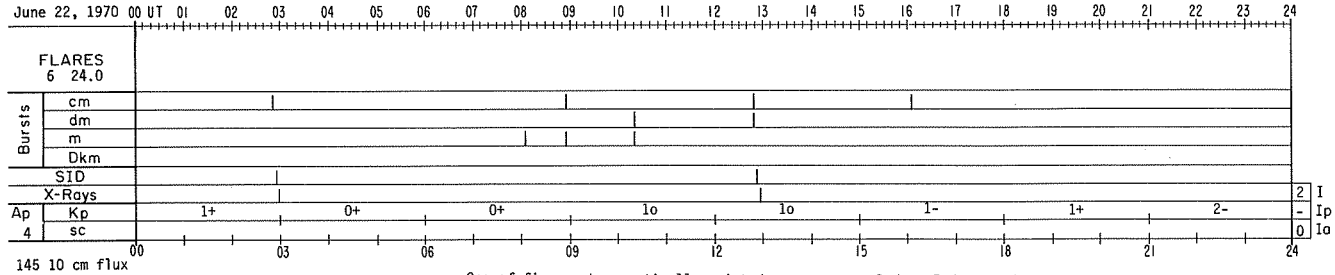
158 10 cm flux
95 Rz
CMP 10792 S12 17957 S09 (αp)5 CMP June 19
17967, 75 S12 (βp)2

One of five most magnetically disturbed days with only slight activity; no coronal data 7 days earlier on E. limb, nor 7 days later on W. limb.



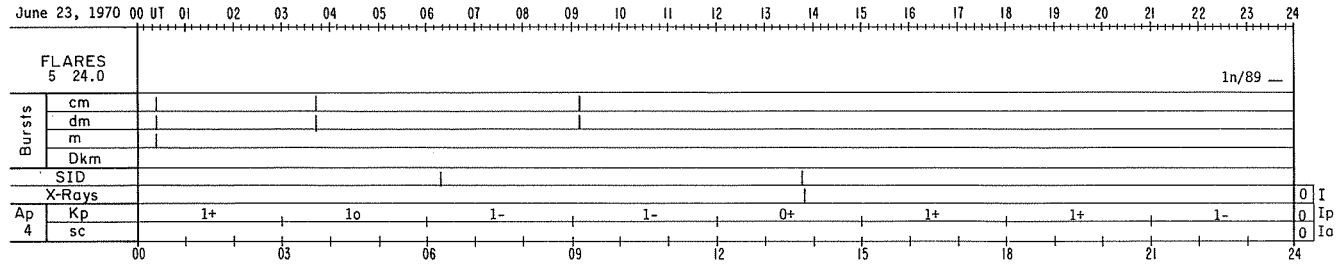
156 10 cm flux
90 Rz

One of five most magnetically disturbed days with moderate activity to 0600; br. green corona 7 days earlier on NE limb and 7 days later on SW limb, moderately br. green corona 7 days earlier on SE limb.



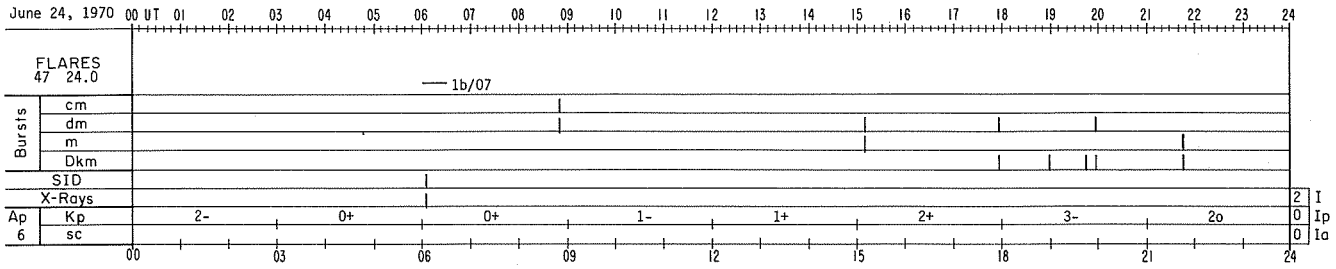
145 10 cm flux
105 Rz
CMP 10796 N19 (3) 17959 N19 (αp)5 CMP June 21
17970 N15 (αf)2 CMP June 21
17971, 81 N19 (αp)3 CMP June 23
17976 N11 (αf)2
17977 N14 (αp)1
10797 S15 (3) 17968 S15 (βp)3 CMP June 21
(17980) S13 (αf)2

One of five most magnetically quiet days; no coronal data 7 days earlier on E. limb, nor 7 days later on W. limb.



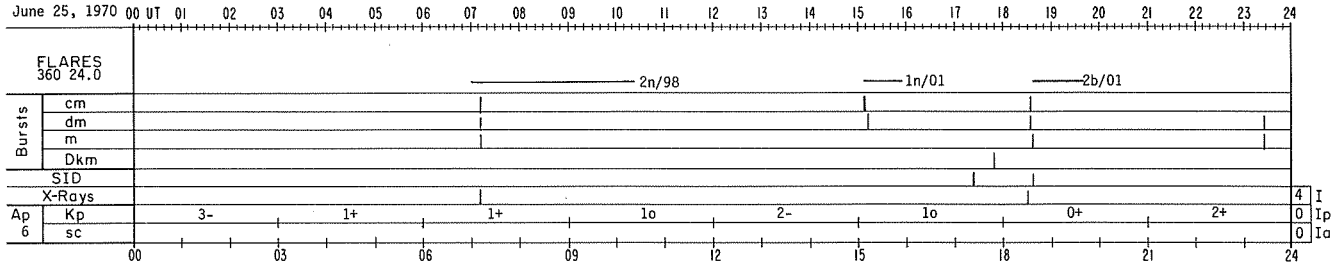
139 10 cm flux
77 Rz
CMP 10798 S07 (3) 17964 S04 (αp)5
(17982) S08 (αp)2

One of five most magnetically quiet days; no coronal data 7 days earlier on E. limb, nor 7 days later on W. limb.



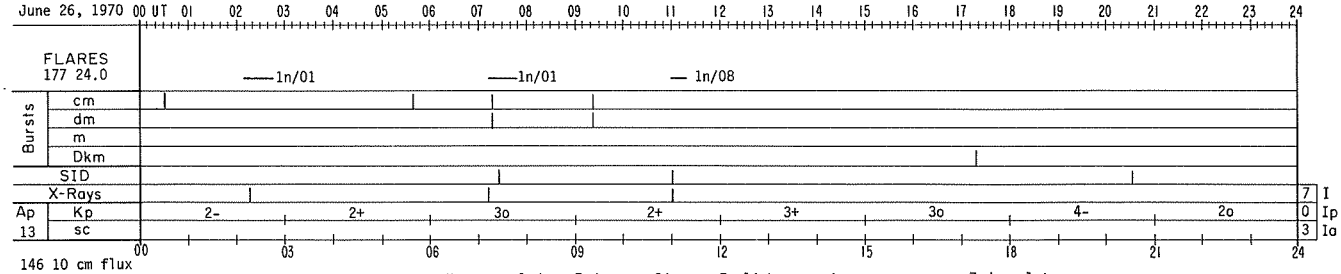
138 10 cm flux
102 Rz
CMP 10799 N22 (3) (17969) N18 (αp)2

One of ten most magnetically quiet days; no coronal data 7 days earlier on E. limb, nor 7 days later on W. limb.



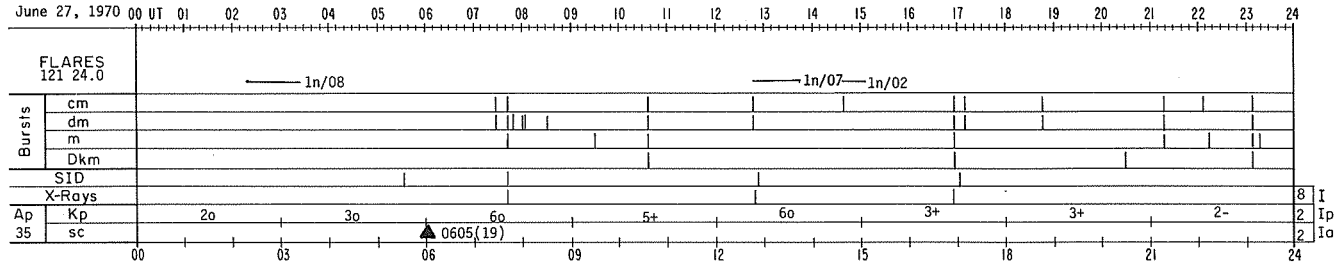
144 10 cm flux
126 Rz
CMP 10800 S09 (3) (17978) S10 (αp)1
17983, 96 S12 (βf)2
(17990, 01) S16 (αp)1
17991 S20 (β)1

One of ten most magnetically quiet days; small proton event on Ep >10 Mev on Explorer 41, begins near end of day, peaks late on June 26 and returns to normal June 28; no coronal data 7 days earlier on E. limb, very br. green corona 7 days later on NW limb and moderately br. green corona 7 days later on SW limb.



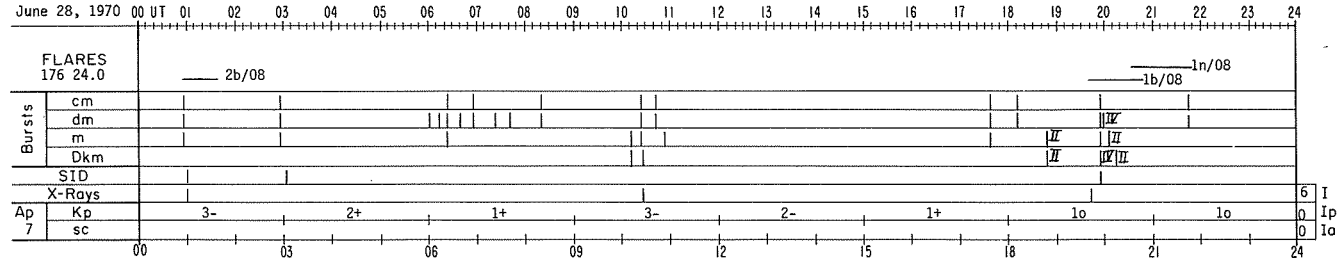
146 10 cm flux
127 Rz
CMP 10801 N10 (2) (17986) N11 (αf)2
17973 N08 (βγ)3
17987 N11 (αf)1 CMP June 27
(17988) N12 (β)1 CMP June 27
(17972) N14 (αp)1 CMP June 25

No coronal data 7 days earlier on E. limb, very br. green corona 7 days later on NW limb and moderately br. green corona 7 days later on SW limb.



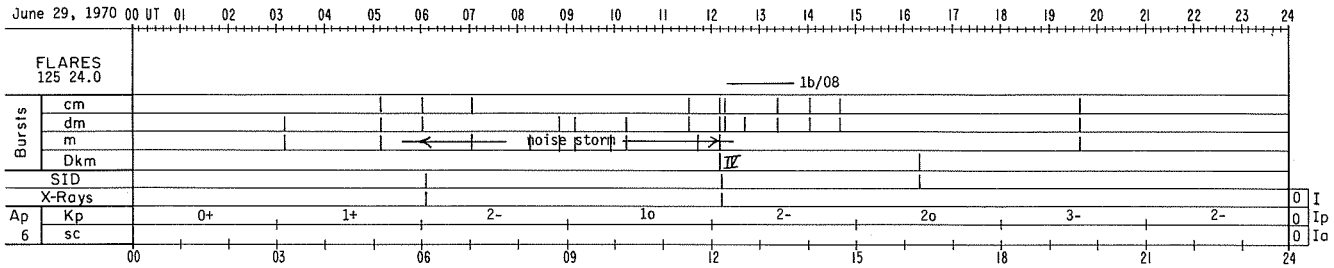
155 10 cm flux
114 Rz
CMP 10802 N22 17974 N22 (β)2 CMP June 26

One of five most magnetically disturbed days with moderately severe activity 0600 - 1500 after sc 0605; aurora overhead over N. America at ϕ = 59° 0600 - 1100, moderately br. green corona 7 days earlier on NE limb and 7 days later on SW limb, br. green corona 7 days later on NW limb.



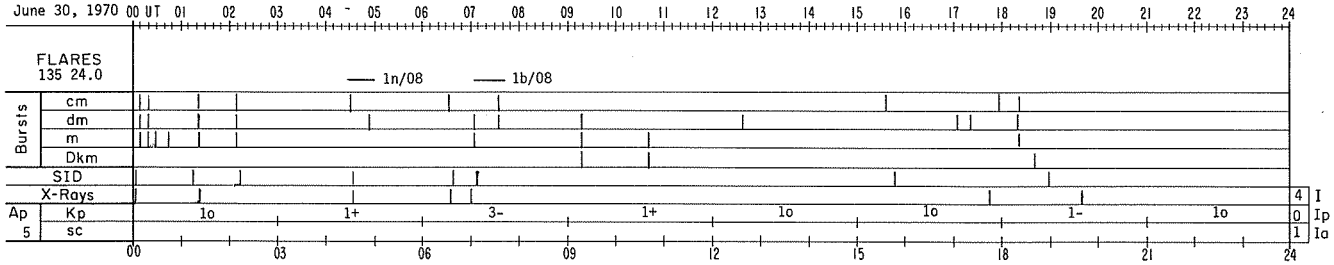
155 10 cm flux
113 Rz
CMP 10803 N05 17984, 92 N04 (βf)2
10804 S09 (4) 17997 S10 (αp)2 CMP June 29

Br. green corona 7 days earlier on NE and SE limb and 7 days later on NW and SW limb.



162 10 cm flux
122 Rz
CMP 10806 N20 (4) (17993) N20 (αf)2
18000 N21 (αp)1
(18005) N14 (βp)2

Br. green corona 7 days earlier on SE limb and 7 days later on NW and SW limb, moderately br. green corona 7 days earlier on NE limb.



169 10 cm flux
111 Rz
CMP 10809 N05
10807 S10 17985 S07 (βp)2
(10820) N15

One of ten most magnetically quiet days; br. green corona 7 days earlier on NE limb and moderately br. green corona 7 days earlier on SE limb and 7 days later on NW and SW limb.

Addenda:

Ionospheric indices (I) for May 1970

May 1	6	May 6	4	May 11	1	May 16	1	May 21	6	May 26	4
2	5	7	1	12	5	17	4	22	5	27	7
3	2	8	2	13	5	18	4	23	1	28	8
4	4	9	3	14	5	19	4	24	2	29	8
5	4	10	1	15	5	20	7	25	5	30	5
										31	5

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Sudden Commencements and Solar Flare Effects July - September 1970	122-123

For explanations of the data contained herein see "Descriptive Text" published in February 1970.

SUDDEN COMMENCEMENTS AND SOLAR-FLARE EFFECTS

July - August 1970

These reports are provided by Dr. A. Romana for the International Association of Geomagnetism and Aeronomy Commission IV: Magnetic Activity and Disturbances.

S.c.'s given by ten or more stations are underlined. Times are mean values obtained from normal magnetograms. When the names of the observatories are not given, the letters in square brackets indicate the quality of the observations.

Sudden commencements followed by a magnetic storm or a period of storminess (s.s.c.)

1970 July 01d 13h 02m: forty-three (ssc: 35 [A: 9; B: 21; C: 5]; si: 6; sfe: KS? BA?. 03d 03h 34m: thirty (ssc: 19 [A: 2; B: 6; C: 11]; si: 7; b: 1; bs: 2; bps: 1). 03d 22h 50m: sixty-two [A: 47; B: 14; C: 1]. 05d 02h 12m: MA MT SF KA KY QU BA PP? AM (bps: SS). 08d 23h 17m: fifty-six (ssc: 55 [A: 42; B: 12; C: 1]; bps: 1). 21d 07h 34m: twenty-nine (ssc: 26 [A: 3; B: 12; C: 11]; si: 3). 24d 11h 25m: thirty-four (ssc: 19 [A: 4; B: 9; C: 6]; si: 14 [A: 3; B: 6; C: 5]; b: 1). 24d 23h 50m: fifty-four (ssc: 50 [A: 31; B: 18; C: 1]; si: 4). 25d 21h 08m: SO MA IK PE (si: ME QU TE; bp: KG). 29d 00h 43m: fifty-nine (ssc: 56 [A: 17; B: 30; C: 9]; si: 2; bps: 1).

1970 August 16d 22h 04m: sixty-two [A: 55; B: 6; C: 1]. 31d 03h 34m: fifty-three (ssc: 40 [A: 5; B: 27; C: 8]; si: 13 [A: 2; B: 10; C: 1].

1970 September 01d 10h 49m: seventeen (ssc: 10 [A: 1; B: 5; C: 4]; si: 6; bp: 1). 13d 05h 43m: fifteen (ssc: 10 [A: 2; B: 5; C: 3]; si: 5).

Sudden impulses found in the magnetograms (s.i.)

1970 July 02d 05h 05m: twenty-seven (si: 15 [A: 2; B: 4; C: 9]; ssc: 9; bs: 1; bp 2). 09d 02h 54m: MA MT KA KY HO TE (ssc: GU). 09d 03h 13m: VI MT KA KY TE AM. 09d 04h 06m: thirteen [A: 10; B: 3]. 09d 05h 39m: thirteen [A: 12; B: 1]. 10d 14h 31m: MT KA KY BA MC HU AC (ssc: SJ). 10d 16h 19m: HB MT KA KY QU HU. 10d 18h 03m: seventeen [A: 5; B: 9; C: 3]. 21d 10h 02m: twenty (si: 17 [A: 10; B: 6; C: 1]; ssc: 2; bp: 1). 25d 05h 12m: fifteen (si: 14 [A: 8; B: 6]; ssc: 1). 31d 22h 11m: nineteen (si: 13 [A: 3; B: 10]; ssc: 5; bp: 1).

1970 August 06d 16h 11m: CO ME BD TE (ssc: SJ; sfe: SZ). 14d 15h 58m: WN NI BE LG PE? AE SF (sfe: MA HB SZ). 15d 21h 40m: forty-nine (si: 26 [A: 12; B: 9; C: 5]; ssc: 17 [A: 5; B: 9; C: 3]; b: 1; bs: 1; bps: 2; sfe: TE? BA).

1970 September 01d 12h 22m: seventeen (si: 14 [A: 4; B: 9; C: 1]; ssc: 2; bps: 1). 01d 12h 49m: twenty-four (si: 22 [A: 8; B: 12; C: 2]; ssc: 1; bps: 1). 28d 11h 10m: SO WN? BE FU HB SM AE KS HR? (sfe: BA). 30d 04h 47m: twenty-two (si: 17; [A: 5; B: 8; C: 4]; ssc: 5). 30d 06h 01m: twenty-one (si: 17 [A: 4; B: 11; C: 2]; ssc: 3; sfe: TN). 30d 06h 30m: BE HB SS TE PM PP LM AC.

Preliminary report on solar-flare effects (s.f.e.)

Effects confirmed by ionospheric or solar observations are underlined.

1970 July 02d 14h 09m - 14h 19m: SZ. 03d 18h 30m - 18h 36m: HU. 06d 14h 04m - 14h 16m: SZ. 07d 16h 53m - 16h 59m: HU. 07d 17h 20m - 17h 31m: SM (si: AE). 10d 21h 10m: TE. 11d 00h 28m - 00h 48m: SS. 11d 11h 30m - 12h 03m: HB. 20d 06h 16m - 06h 26m: MT KA KY. 20d 11h 16m - 12h 25m: WN SZ MC HR (si: BA; b: MB AC; bp: QU). 22d 00h 26m - 01h 55m: MY KA SS KY.

1970 August 01d 23h 19m - 23h 31m: BA (cr: PP). 04d 08h 59m - 09h 14m: NI PE. 08d 08h 15m - 08h 36m: NI. 14d 03h 57m - 04h 52m: MT KA KY. 14d 16h 13m - 16h 56m: HB HU. 15d 10h 55m - 11h 13m: HB (si: IK). 15d 11h 40m - 11h 55m: HB. 15d 14h 11m - 14h 30m: HB FR. 16d 21h 39m: AM. 18d 10h 36m - 10h 48m: SZ. 19d 03h 00m - 03d 27m: SZ . 19d 11h 13m - 11h 30m: WN WI VL HB AQ EB PE SZ MB TN HR (si: IK AE SF BA LM AC). 21d 06h 23m - 06h 35m: HB. 22d 00h 35m - 01h 00m: MT KA KY. 28d 13h 55m - 14h 05m: SZ. 29d 13h 38m - 14h 00m: MA (si: SF). 29d 18h 50m - 19h 24m: FR. 30d 08h 05m - 08h 25m: NI. 31d 10h 38m - 10h 45m: HB.

1970 September 04d 04h 04m - 04h 29m: SS (bp: SZ). 05d 15h 35m - 15h 42m: EB. 07d 14h 42m - 14h 56m: SZ HU (si: BA). 10d 15h 12m - 15h 19m: HU (si: SM). 10d 16h 11m - 16h 30m: SZ? HU. 11d 15h 00m - 15h 15m: SO. 13d 14h 16m - 14h 54m: TL? SZ. 23d 12h 11m - 12h 24m: SZ. 24d 03h 38m - 03h 54m: LG. 26d 11h 34m - 11h 45m: SZ. 26d 14h 03m - 14h 15m: HU. 29d 11h 33m - 11h 49m: EB TL (si: SO WN SF). 29d 16h 30m - 16h 48m: HU.

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