

SUDDEN IONOSPHERIC DISTURBANCES

OCTOBER 1999

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type					Flare (UT)	X-ray Class	NOAA Region
						SWF	SEA	SPA	LF-SPA	SES			
01	0708	0722	0751	1+	3		1			1	0710	C4.1	
01	0730	0750	0820	2+	1		1				0710	C4.1	
01	0945	0946	0957	1-	3					2	0945	C5.4	
01	1000	1000U	1000D	1	1		1				No flare		
01	1449	1457	1522	1+	5					4	1449	C6.0	
02	0757	0804	0835	1+	3		1			1	0754	C2.4	
02	0958	1024	1051	1	1		1				No flare		
02	1152	1214	1256	1	1		1				No flare		
02	1421	1435	1455	2-	5					2	1418	C2.8	
02	1454	1506	1538	1	1		1				No flare		
02	1527	1600	1700	1	1		1				No flare		
02	1643	1645	1657	1-	1					1	1641	C1.5	
02	1658	1702	1715	1-	1					1	1658	C1.5	
02	1804	1818	1908	2+	3					2	1811	C3.6	8716
02	1817	1830	1911	2+	1					1	1811	C3.6	8716
03	1516	1541	1627	2+	5					2	1508	C3.0	8716
03	1702	1705	1725	1	1					1	1700	C2.8	8720
04	0645	0658	0725	1	1		1				*		
04	0725	0750	0925	3	1		1				0729	C5.0	8720
04	0902	0907	0941	2	1		1				No flare		
04	0926	0942	1030	2	1		1				*		
04	1043	1110	1130	1	1		1				No flare		
04	1522	1542	1612	2	1		1				No flare		
04	1613	1621	1649	1	1		1				No flare		
05	0538	0545	0615	2	1					1	0536	C2.8	8720
06	1021	1027	1050	1+	1			1			No flare		
06	1300	1310	1320	1	1					1	1300	C2.3	8720
06	1357	1448	1530	2	1		1				No flare		
06	1535	1545	1611	1+	5		1			2	1537	C1.5	8720
07	0750	0758	0829	1	1		1				No flare		
07	1337	1343	1417	1+	5		1			1	1330	C3.9	
08	0712	0724	0758	1	1		1				No flare		
08	1003	1030	1122	2+	3		1			1	1007	C1.7	8720
08	1246	1259	1330	2	5	1	2	1		1	1238	C6.4	8720
08	1352	1410U	1540	1	1		1				No flare		
08	1355	1459	1552	1	1		1				No flare		
09	1558	1645	1729	1+	1		1				No flare		
10	1339	1346	1400	1	1					1	1348	C2.0	8728
11	0700U	0737	0800U	1	1		1				*		
12	1310	1335	1420	2+	1					1	1310	C2.9	
13	0700	0703	0715	1-	1					1	0656	C1.6	8732
13	0738	0844	0950	1	1		1				*		
13	1336	1348	1500	1	1		1				1335	C2.8	8732
14	0651	0715	0749	2	1		1				0659	C1.6	
14	0748	0758	0842	1+	3		1			1	0745	C2.9	8731
14	0807	0815	0900	1	1		1				0745	C2.9	8731
14	0858	0903	0949	3	5	1	2	1		3	0854	X1.8	8731
14	1204	1209	1250	1	1		1				No flare		
14	1741	1750	1830	2	3					3	1738	C6.5	
15	0830	0837	0855	1	1		1				No flare		
15	0855	0918	0937	1	1		1				No flare		
15	1220	1226	1256	2+	5		3	1		3	1218	C3.7	8731
15	1445	1449	1521	2	1						1457	C5.5	8731
15	1458	1506	1537	2-	5		1			4	1457	C5.5	8731
15	1555	1600	1617	1	1					1	1551	C2.4	8731

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						SWF	SEA	SPA	LF-SPA	SES			
16	1021	1045	1209	2	1		1				No flare		
16	1100	1103	1113	2	5			1		1	1055	C3.7	8728
16	1338	1442	1447	2	1		1				No flare		
16	1942	1947	2019	2-	3					3	1940	C3.1	
17	0735	0737	0800	1	1					1	0731	C1.3	8731
17	0800	0804	0815	1-	1					1	0758	C1.5	
17	1003	1007	1025	3-	5			1		2	No flare		
17	1018	1030	1116	1	1		1				No flare		
17	1200	1215	1253	1	1		1				No flare		
17	1500	1515	1530	1	1		1				1458E		8728
17	1821	1830	1904	2	1					1	*		
17	1834	1842	1933	2+	3					2	1832	C3.6	
18	0840	0905	0925	2	1					1	0840	C1.5	
18	1210	1240	1320	1	1		1				*		
19	0313	0323	0345	1+	1					1	0305	C5.1	
19	0702	0712	0729	1	1		1				0658	C3.1	8732
19	0912	0924	0937	1-	3		1			2	0911	C3.0	8732
19	1008	1018	1036	1	1		1				1002		8731
19	1035	1040	1050	1-	1					1	1034	C2.5	8732
19	1043	1125	1211	1	1		1				No flare		
19	1307	1321	1347	1	1		1				1322	C1.3	8732
19	1403	1408	1424	1	3					2	1359	C2.7	8737
19	1405	1436	1452	1	1		1				*		
19	1928	1940	2023	2+	3					4	1926	C8.7	8732
19	2023E	2025	2049	1+	1					1	2021	C3.1	8732
19	2157	2204	2304	2+	3					2	2156	C7.3	8732
20	0559	0613	0715	2+	1					1	0553	M1.7	8731
20	0704	0715	0733	1	1		1				0647E		8731
20	0925	0930	0940	1-	1					1	0925	C2.2	8739
20	1355	1405	1410	1-	1					1	1357	C1.3	
21	0840	0914	0958	2	1		1				0841	C2.3	8732
21	1003	1014	1030	1+	3		1			1	1001	C2.1	8739
21	1225	1235	1245	1	1					1	1226	C1.8	
21	1303	1311	1330	1	1		1				*		
21	1331	1344	1403	1+	5		1			2	1330	C3.5	8732
21	1447	1450	1515	1+	1					1	1446	C2.3	8732
21	1904	1909	1931	1+	3					4	1906	C4.1	
21	1952	1954	2028	2-	3					3	1953	C6.1	
22	0700	0728	0810	1	1		1				No flare		
22	0912	0915	0921	2	5		2	1		2	0910	C4.8	8732
22	1335	1347	1450	1	1		1				1404	C3.4	8732
22	1340	1406	1447	2	1		1				1404	C3.4	8732
22	1925	1930	1950	1	1					1	1924	C2.7	8739
23	1136	1202	1247	2	1		1				No flare		
23	1245	1255	1300	1	1					1	1243	C2.4	8741
23	1314	1348	1426	2	1		1				*		
23	1428	1438	1554	2	1					1	1425		8739
23	1724	1730	1825	2+	1					1	1725	C4.1	
23	1914	1918	1956	2	3					2	1913	C5.3	
23	2152	2157	2219	1+	1					1	2148	C2.7	
24	0919	0955	1015	2	1		1				0940	C1.5	
25	0630	0634	0704	1+	3		1			1	0626	M1.7	8741
25	0727	0757	0830	1	1		1				0736	C2.3	8739
25	0940	0955	1000	1	1					1	0941	C1.2	8739
25	1440	1450	1515	2	1					1	1440	C1.2	
25	1925	1935	2040	2+	1					1	1928	C4.8	8737
25	1933	1950	2012	2	1					1	1928	C4.8	8737

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						SWF	SEA	SPA	LF-SPA	SES			
26	0445	0450	0507	1-	1					1	0443	C4.0	8739
26	0728	0739	0815	2	3					2	0729	M1.2	8739
26	0836	0839	0846	1	1					1	No flare		
26	0902	0916	0950	1+	3					3	0901	C5.3	
26	0913	0930	0937	1	3						0901	C5.3	
26	1152	1155	1214	2+	5		2	1		2	1149	C6.5	8739
26	1837	1844	1928	2	3					4	1838	M2.3	8739
26	1857	1909	2012	2+	1					1	1838	M2.3	8739
26	2107	2119	2231	2+	3					2	2109	M3.7	
27	0426	0430	0445	1	1					1	0426	C5.3	8742
27	0716	0724	0807	2	3		2				*		
27	0904	0907	0921	1-	3	1				2	0856	C2.2	8739
27	0909	0926	0948	3-	5		1	1		2	0908	M1.0	
27	1053	1117	1146	1	1		1				No flare		
27	1158	1207	1326	1	1		1				1159E		8739
27	1327	1336	1400	3	5	1	1	1		1	1324	M1.8	8737
27	1330	1346	1432	2-	5		1			3	1324	M1.8	8737
27	1520	1534	1625	2	5		1			4	1518	M1.4	
27	1530	1615	1658	3	1					1	1518	M1.4	
28	0817	0831	0846	1	1		1				0828		8747
28	1440	1445	1455	1-	1					1	1439	C1.6	8747
29	1100	1110	1120	1	1					1	1101	C2.5	8739
29	1230	1234	1306	1	1		1				1225	C2.5	8747
29	1400	1407	1430	1	1		1				No flare		
29	1704	1707	1744	2-	3					2	1703	C2.1	8739
29	2005	2014	2037	2-	3					2	2004	C1.6	8747
30	0749	0809	0836	1+	3		2				*		
31	0655	0705	0735	2	3		1			1	0650	C7.6	8749
31	1712	1717	1730	1-	1					1	1716	C3.4	8747

* = no flare patrol.

OBSERVATORIES REPORTING FOR OCTOBER 1999

Cambridge, England, UK	SES	Rimavska Sobota, Slovakia	SEA
Edenvale, Rep of S. Africa	SES	Rochester, New Hampshire, USA	SES
Houston, Texas, USA	SES	Sofia, Bulgaria	SES
Hudson, Ohio, USA	SES	Sun City Center, FL, USA	SES
Louisville, Kentucky, USA	SES	Tucson, Arizona, USA	SES
Marlboro, Massachusetts, USA	SES	Upice, Czech Republic	SEA
Nerja, Spain	SES	Vlasim, Czech Republic	SEA
New Milford, New York, USA	SES	Ziar nad Hronom, Slovakia	SEA
Panska Ves, Czech Republic	SES, SEA, SWF	Zilina, Slovakia	SEA
Parma, Ohio, USA	SES		

Observations are not necessarily continuous.