

7-1 地震予知計画にもとづく地磁気全磁力観測, 1978年～1979年 Observation of Geomagnetic Total Intensity under the Project of Earthquake Prediction Research, 1978-1979

地震予知研究計画・地磁気研究グループ
Geomagnetic Research Group on Earthquake Prediction

地磁気観測所における1978年から1979年までのプロトン磁力計による全磁力夜間値(0時40分, 50分, 1時00分, 10分, 20分)を整理収録したものである。

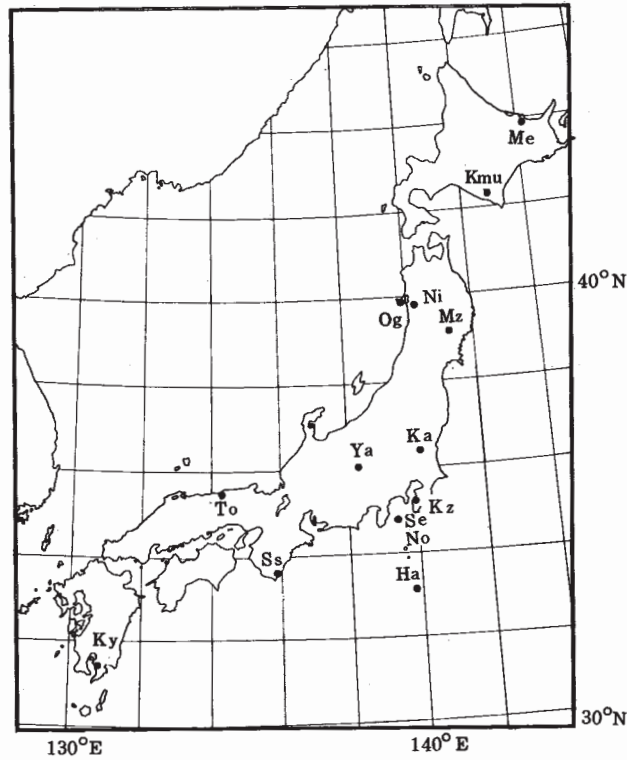
第2表は, この期間における各地磁気観測所の全磁力全月平均値, 静穏日月平均値, 及び柿岡との全磁力差の全月平均値, 静穏日月平均値である。

第2図と第3図は各観測所の全月平均値と静穏日月平均値, 第4図と第5図は各観測所と柿岡の全磁力差の全月平均値と静穏日月平均値を図示したものである。

なお, 1973年から1979年までは国土地理院で収集, 整理を行ったが1980年以降は地磁気観測所で処理することになった。

参 考 文 献

- 1) 地震予知研究計画・地磁気研究グループ: 地震予知研究計画にもとづく地磁気全磁力観測, 連絡会報, 9 (1973), 109 - 126,
- 2) 地震予知研究計画・地磁気研究グループ: 地震予知研究計画にもとづく地磁気全磁力観測, 連絡会報, 12 (1974), 151 - 160.
- 3) 地震予知研究計画・地磁気研究グループ: 地震予知研究計画にもとづく地磁気全磁力観測, 連絡会報, 24 (1980), 256 - 271.



第1図 観測所の分布

Fig. 1 Locations of stations.

第1表 観測所の分布

Table 1 Locations of stations.

Stations	Geographic		Geomagnetic ^{*)}		Institutions
	Long.	Lat.	Long.	Lat.	
Me 女 満 別	144° 12'	43° 55'	209.1°	34.2°	気象庁・地磁気観測所
Kmu 上 杵 白	142 58	42 14	207.6	32.3	北大・理学部
Og 男 鹿	139 47	39 54	205.8	29.8	東北大・理学部
Ni 仁 別	140 16	39 48	206.3	29.7	東北大・理学部
Mz 水 沢	141 12	39 07	207.2	29.1	国土地理院
Ka 柿 岡	140 11	36 14	206.7	26.2	気象庁・地磁気観測所
Kz 鹿 野 山	139 58	35 15	206.6	25.2	国土地理院
No 伊豆大島 野 増	139 22	34 44	206.1	24.6	東大・震研
Se 伊豆大島 泉 津	139 25	34 47	206.1	24.6	東大・震研
Ha 八 丈 島	139 48	33 07	206.7	23.0	水 路 部
Ya 八 ケ 岳	138 27	36 04	205.1	25.8	東大・震研
Ss 下 里	135 56	33 35	203.1	23.2	水 路 部
To 鳥 取	134 14	35 31	201.4	25.0	京大・防災研
Ky 鹿 屋	130 53	31 25	198.8	20.7	気象庁・地磁気観測所

*) Based on geomagnetic poles for IGRF 1965.0 (69.76°W, 78.56°N).

第2表 各観測所における地磁気全磁力の全日、静穏日の月平均値、及び柿岡を基準とした各々の磁力差の月平均値

Table 2 Monthly means of the total intensity of all days, magnetically quiet days at each station and difference from that at Kakioka.

MEMAM BETSU				Difference in the total intensity with reference to Kakioka				K M U				Difference in the total intensity with reference to Kakioka							
		Total intensity		all days		quiet days		all days		quiet days		all days		quiet days					
1978	Jan	49070	+11.8	49075	+3.2	3171	+4.4	3168	+1.3	1978	Jan	48506	+12.6	48510	+3.0	2607	+3.8	2604	+1.1
	Feb	49072	+7.1	49072	+11.3	3172	+4.0	3173	+6.1		Feb	48508	+8.4	48507	+12.9	2608	+3.4	2608	+4.5
	Mar	49075	+8.6	49078	+5.8	3172	+3.5	3170	+3.1		Mar	48511	+10.3	48515	+6.9	2608	+4.0	2606	+2.2
	Apr	49079	+4.5	49078	+2.2	3172	+2.3	3171	+1.5		Apr	48515	+4.9	48513	+2.6	2608	+2.2	2606	+0.7
	May	49078	+9.8	49080	+4.7	3173	+4.8	3172	+3.6		May	48513	+10.6	48515	+5.7	2609	+3.9	2607	+2.6
	Jun	49084	+5.3	49083	+3.8	3170	+3.7	3170	+1.7		Jun	48522	+3.6	48521	+3.6	2605	+2.0	2604	+1.9
	Jul	49083	+7.4	49084	+3.3	3169	+4.3	3167	+2.0		Jul	48520	+8.7	48521	+3.6	2605	+3.6	2604	+1.9
	Aug	49081	+8.7	49083	+2.9	3166	+4.2	3164	+2.0		Aug	48518	+10.1	48520	+4.0	2603	+5.4	2601	+1.8
	Sep	49075	+14.4	49082	+3.0	3169	+5.2	3166	+3.2		Sep	48512	+16.5	48520	+4.1	2606	+4.6	2603	+2.3
	Oct	49079	+6.1	49082	+2.5	3169	+3.8	3166	+2.0		Oct	48515	+7.4	48519	+3.5	2606	+3.6	2603	+1.4
	Nov	49077	+5.6	49078	+2.7	3168	+4.2	3167	+2.4		Nov	48514	+7.2	48515	+4.1	2605	+2.5	2604	+1.3
	Dec	49077	+8.6	49082	+2.7	3166	+4.5	3167	+2.4		Dec	48514	+11.0	48520	+2.3	2603	+2.9	2601	+2.6
1979	Jan	49078	+6.9	49080	+2.7	3167	+2.9	3166	+0.9	1979	Jan	48516	+8.3	48518	+2.8	2605	+2.4	2603	+0.8
	Feb	49080	+5.6	49081	+2.0	3166	+3.0	3165	+1.1		Feb	48518	+5.0	48518	+2.3	2604	+2.4	2603	+1.1
	Mar	49076	+10.2	49083	+3.4	3168	+5.1	3166	+2.2		Mar	48514	+12.4	48521	+4.2	2606	+3.6	2604	+1.7
	Apr	49083	+10.9	49079	+14.5	3167	+6.4	3168	+10.1		Apr	48521	+12.5	48517	+15.4	2605	+4.8	2604	+9.1
	May	49088	+4.9	49089	+2.9	3164	+2.5	3162	+2.0		May	48525	+5.2	48526	+3.0	2601	+2.3	2599	+2.0
	Jun	49088	+4.1	49089	+3.9	3161	+2.5	3160	+1.4		Jun	48526	+4.9	48527	+4.2	2598	+1.5	2597	+1.0
	Jul	49088	+5.2	49087	+4.2	3159	+2.4	3158	+2.2		Jul	48526	+5.8	48524	+4.9	2598	+1.6	2598	+1.2
	Aug	49085	+7.8	49085	+3.7	3160	+4.8	3159	+1.9		Aug	48523	+9.9	48523	+4.7	2599	+3.2	2598	+1.1
	Sep	49085	+6.9	49085	+5.8	3161	+4.3	3159	+4.2		Sep	48524	+6.8	48524	+7.2	2600	+4.6	2598	+2.8
	Oct	49082	+5.2	49085	+2.0	3161	+3.5	3159	+2.0		Oct	48521	+6.2	48523	+2.0	2601	+3.2	2598	+1.7
	Nov	49082	+8.4	49084	+4.7	3160	+4.0	3159	+2.8		Nov	48521	+9.4	48524	+5.6	2600	+3.3	2599	+2.0
	Dec	49082	+5.4	49084	+4.3	3156	+3.0	3154	+2.7		Dec	48525	+4.9	48525	+4.5	2597	+2.0	2596	+2.4

GSIMZ

		all days		quiet days		all days		quiet days	
1978	Jan	47087	+13.0	47094	+3.8	1188	+3.1	1187	+0.8
	Feb	47088	+9.4	47087	+15.0	1188	+1.8	1188	+2.4
	Mar	47091	+9.5	47095	+7.8	1188	+2.6	1187	+1.2
	Apr	47095	+5.7	47095	+2.9	1188	+1.2	1188	+0.7
	May	47094	+12.3	47097	+6.7	1189	+2.6	1189	+1.5
	Jun	47102	+6.5	47101	+4.9	1188	+2.4	1188	+0.9
	Jul	47103	+6.0	47104	+3.8	1188	+1.5	1187	+1.1
	Aug	47101	+11.0	47104	+3.5	1186	+1.5	1186	+0.7
	Sep	47094	+17.1	47103	+4.5	1188	+2.4	1187	+1.6
	Oct	47096	+9.1	47103	+3.4	1187	+2.0	1187	+1.2
	Nov	47096	+7.7	47098	+3.9	1187	+3.2	1187	+1.1
	Dec	47097	+10.4	47104	+3.9	1186	+2.9	1185	+0.8
1979	Jan	47098	+7.8	47101	+2.6	1186	+2.1	1187	+0.6
	Feb	47101	+6.4	47102	+2.6	1186	+2.5	1187	+0.3
	Mar	47096	+12.0	47104	+5.0	1188	+3.6	1187	+0.8
	Apr	47103	+13.4	47099	+21.0	1187	+3.5	1187	+3.7
	May	47109	+5.6	47112	+3.7	1186	+1.4	1185	+0.8
	Jun	47112	+4.8	47114	+4.5	1185	+1.8	1184	+0.7
	Jul	47113	+5.7	47113	+4.6	1184	+1.7	1184	+1.9
	Aug	47109	+10.3	47110	+4.7	1184	+2.3	1183	+1.1
	Sep	47108	+10.1	47112	+10.5	1185	+2.4	1185	+3.5
	Oct	47105	+7.2	47110	+3.2	1184	+4.6	1184	+0.4
	Nov	47107	+11.1	47111	+7.0	1185	+3.4	1185	+3.9
	Dec	47110	+7.0	47113	+5.8	1183	+1.5	1183	+1.1

KAKIOKA

		all days		quiet days	
1978	Jan	45934	+15.4	45942	+4.5
	Feb	45935	+10.8	45934	+17.4
	Mar	45938	+11.5	45944	+8.9
	Apr	45942	+6.1	45942	+3.3
	May	45941	+14.2	45943	+8.1
	Jun	45950	+7.0	45949	+5.4
	Jul	45950	+10.2	45952	+4.3
	Aug	45950	+11.9	45954	+4.1
	Sep	45941	+19.4	45951	+6.0
	Oct	45945	+9.4	45951	+4.4
	Nov	45945	+9.0	45947	+5.0
	Dec	45946	+13.0	45954	+4.6
1978	Jan	45946	+9.4	45950	+3.1
	Feb	45949	+8.0	45951	+2.8
	Mar	45943	+15.1	45952	+5.5
	Apr	45951	+16.4	45947	+24.5
	May	45959	+6.9	45962	+4.1
	Jun	45962	+6.0	45964	+4.8
	Jul	45964	+6.4	45964	+5.9
	Aug	45960	+12.1	45961	+5.3
	Sep	45961	+7.1	45961	+9.8
	Oct	45956	+8.4	45961	+3.5
	Nov	45957	+12.1	45961	+7.2
	Dec	45962	+8.1	45965	+6.8

KANOZAN

		all days		quiet days		all days		quiet days	
1978	Jan	45439	+15.7	45446	+4.8	-462	+1.7	-461	+1.8
	Feb	45437	+11.5	45437	+17.8	-462	+1.4	-462	+0.7
	Mar	45441	+13.1	45447	+9.3	-462	+1.5	-461	+0.5
	Apr	45444	+6.3	45445	+3.5	-462	+0.7	-463	+0.3
	May	45444	+14.9	45445	+8.8	-463	+1.3	-463	+0.7
	Jun	45452	+7.4	45450	+5.8	-463	+1.4	-463	+0.7
	Jul	45451	+11.3	45454	+4.4	-463	+1.2	-463	+0.6
	Aug	45452	+12.2	45456	+4.1	-463	+0.7	-463	+0.5
	Sep	45442	+22.0	45452	+7.5	-463	+2.2	-463	+2.0
	Oct	45447	+10.3	45454	+4.9	-462	+0.9	-462	+0.7
	Nov	45447	+9.7	45449	+5.1	-463	+3.8	-462	+0.5
	Dec	45449	+14.3	45456	+5.1	-462	+1.4	-462	+0.7
1979	Jan	45450	+9.3	45453	+3.5	-461	+1.1	-462	+0.6
	Feb	45452	+9.3	45454	+2.6	-462	+2.0	-462	+0.6
	Mar	45446	+16.8	45456	+5.8	-462	+2.0	-461	+0.6
	Apr	45454	+17.6	45450	+25.6	-462	+1.6	-461	+1.1
	May	45461	+7.2	45464	+4.4	-463	+1.0	-463	+1.0
	Jun	45464	+6.8	45467	+5.6	-463	+1.0	-462	+0.9
	Jul	45466	+7.0	45467	+6.5	-462	+0.8	-462	+0.8
	Aug	45463	+12.2	45464	+5.5	-463	+1.2	-462	+0.7
	Sep	45463	+7.2	45464	+10.3	-463	+0.7	-463	+0.6
	Oct	45459	+9.0	45463	+3.8	-462	+1.0	-462	+0.3
	Nov	45460	+13.0	45464	+7.5	-462	+1.1	-462	+0.6
	Dec	45466	+8.9	45469	+7.1	-461	+1.1	-461	+0.8

NOMASHI

		all days		all days	
1978	Jan	46395.5	+17.1	462	+0
	Feb	0	+0	0	+0
	Mar	46399.5	+10.9	462	+0
	Apr	46404.5	+7.3	463	+0
	May	46401.5	+15.1	461	+0
	Jun	46411.5	+6.3	462	+0
	Jul	46412.6	+11.2	463	+0
	Aug	46411.6	+13.0	462	+0
	Sep	46405.6	+9.6	465	+0
	Oct	46404.6	+12.1	460	+0
	Nov	46401.6	+16.2	457	+0
	Dec	46406.6	+13.1	461	+0
1979	Jan	46405.6	+9.8	460	+0
	Feb	46409.6	+10.4	461	+0
	Mar	46403.			

HATIZYO Total intensity Difference in the total intensity with reference to Kakioka

		all days		quiet days		all days		quiet days	
1978	Jan	0	± 0	0	± 0	0	± 0	0	± 0
	Feb	0	± 0	0	± 0	0	± 0	0	± 0
	Mar	44660	±13.3	44667	±10.9	-1243	± 2.0	-1242	± 2.2
	Apr	44665	± 6.9	44666	± 4.2	-1242	± 1.7	-1241	± 2.0
	May	44666	±16.2	44669	± 9.1	-1240	± 2.3	-1240	± 1.4
	Jun	44675	± 8.4	44673	± 6.9	-1240	± 2.7	-1241	± 2.1
	Jul	44676	±12.5	44679	± 5.2	-1239	± 2.9	-1237	± 1.6
	Aug	44677	±13.2	44682	± 5.1	-1238	± 1.6	-1238	± 1.3
	Sep	44666	±22.6	44678	± 6.8	-1240	± 3.4	-1238	± 1.4
	Oct	44670	±10.7	44677	± 4.4	-1240	± 2.1	-1239	± 1.4
	Nov	44669	±10.0	44671	± 4.2	-1241	± 1.6	-1241	± 1.5
	Dec	44670	±14.9	44679	± 6.2	-1241	± 2.3	-1240	± 1.8
1979	Jan	44668	±10.5	44673	± 3.9	-1242	± 1.7	-1242	± 1.2
	Feb	44673	± 6.8	44675	± 2.4	-1242	± 1.8	-1241	± 0.8
	Mar	44664	±18.8	44676	± 7.1	-1243	± 2.9	-1241	± 1.3
	Apr	44674	±15.0	44659	±11.4	-1243	± 1.8	-1244	± 4.4
	May	44685	± 7.4	44688	± 4.6	-1239	± 1.2	-1238	± 1.4
	Jun	44692	± 6.2	44693	± 5.7	-1237	± 1.6	-1236	± 1.2
	Jul	44694	± 7.1	44694	± 6.5	-1235	± 2.1	-1235	± 1.6
	Aug	44687	±12.7	44688	± 6.0	-1239	± 2.3	-1239	± 1.1
	Sep	44689	± 8.3	44691	±10.8	-1236	± 2.6	-1235	± 1.5
	Oct	44687	±10.8	44694	± 5.9	-1234	± 2.7	-1232	± 2.4
	Nov	44687	±13.9	44691	± 7.8	-1235	± 2.3	-1235	± 1.1
	Dec	44693	±10.0	44696	± 8.5	-1233	± 2.1	-1234	± 2.1

SIMOSATO Total intensity Difference in the total intensity with reference to Kakioka

		all days		quiet days		all days		quiet days	
1978	Jan	45705	±14.7	45713	± 3.6	-195	± 2.9	-195	± 1.2
	Feb	45705	±12.0	45704	±18.3	-195	± 2.1	-195	± 1.3

YATSU

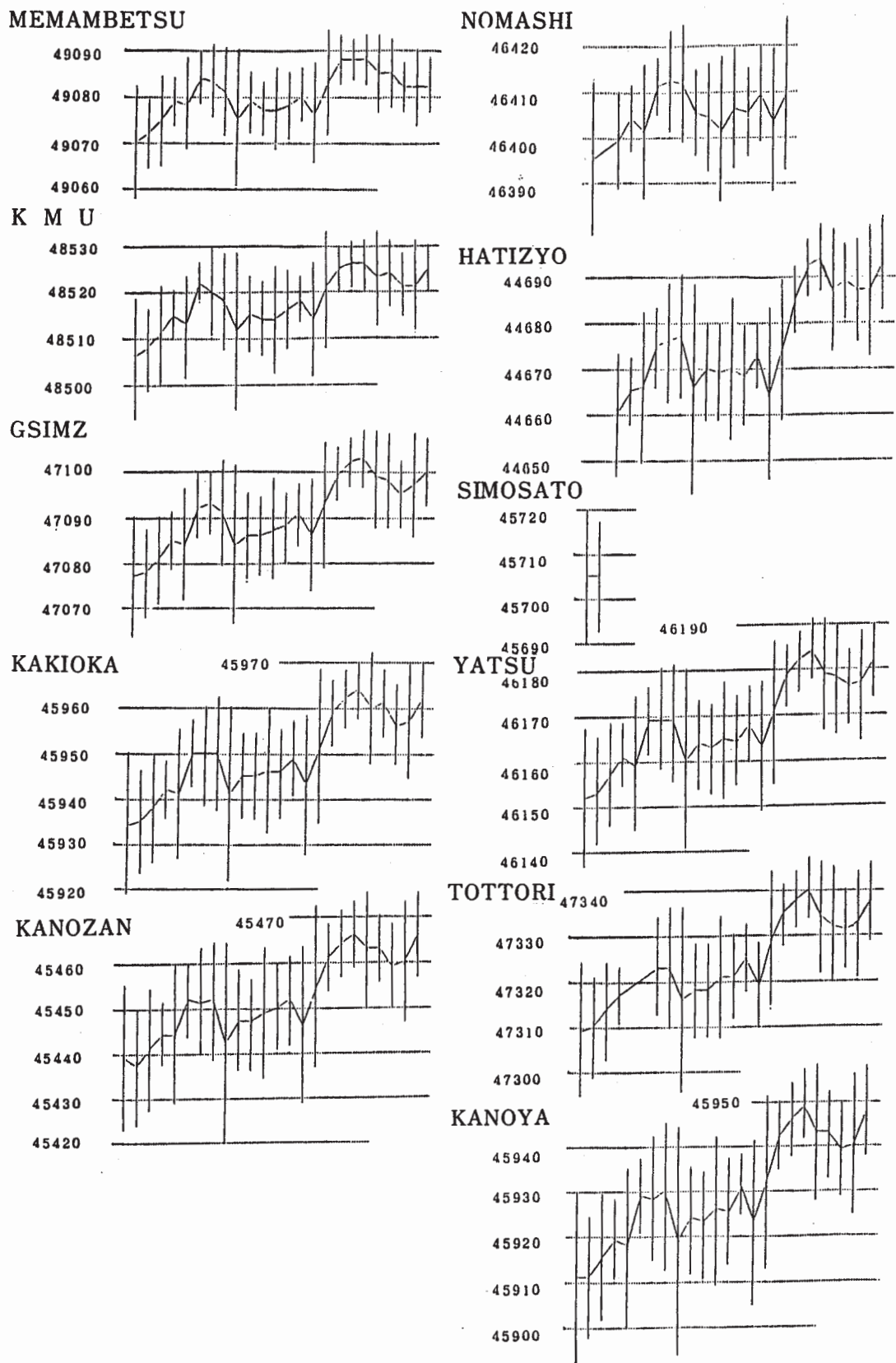
		all days		quiet days		all days		quiet days	
1978	Jan	46152	±15.0	46162	± 4.2	253	± 1.3	254	± 0.6
	Feb	46153	±11.1	46152	±17.7	254	± 1.0	253	± 0.7
	Mar	46157	±11.0	46163	± 9.2	254	± 1.5	254	± 0.4
	Apr	46161	± 6.6	46162	± 3.6	254	± 1.0	255	± 0.3
	May	46159	±14.5	46163	± 8.1	254	± 1.7	255	± 0.5
	Jun	46169	± 6.9	46168	± 5.2	255	± 1.2	254	± 0.9
	Jul	46169	±10.4	46172	± 4.4	254	± 1.4	255	± 0.5
	Aug	46169	±12.5	46173	± 4.1	254	± 1.1	255	± 0.4
	Sep	46160	±19.6	46171	± 5.8	254	± 1.1	255	± 0.5
	Oct	46164	± 9.2	46170	± 4.2	254	± 1.2	254	± 0.5
	Nov	46163	± 9.3	46166	± 5.0	253	± 1.4	254	± 0.1
	Dec	46164	±12.8	46172	± 4.4	254	± 1.2	254	± 0.5
1979	Jan	46164	± 9.1	46168	± 2.8	254	± 1.3	254	± 0.5
	Feb	46168	± 7.8	46169	± 3.0	254	± 1.3	255	± 0.6
	Mar	46163	±14.1	46171	± 5.6	255	± 1.8	254	± 0.3
	Apr	46171	±15.5	46167	±24.7	255	± 1.4	255	± 0.3
	May	46179	± 6.4	46181	± 4.3	255	± 1.0	254	± 0.4
	Jun	46182	± 5.8	46184	± 4.8	255	± 0.7	255	± 0.6
	Jul	46184	± 6.4	46185	± 6.2	255	± 0.9	255	± 1.1
	Aug	46179	±12.0	46181	± 5.4	255	± 1.5	255	± 0.5
	Sep	46178	±11.7	46181	± 9.6	254	± 1.4	254	± 1.0
	Oct	46176	± 8.4	46181	± 4.1	255	± 1.0	255	± 0.7
	Nov	46177	±11.7	46180	± 7.1	255	± 1.0	255	± 0.7
	Dec	46182	± 8.0	46185	± 6.5	255	± 1.1	255	± 0.3

TOTTORI

		all days		quiet days		all days		quiet days	
1978	Jan	47309	±14.7	47318	± 4.3	1410	± 2.1	1411	± 0.8
	Feb	47310	±10.7	47308	±17.3	1410	± 1.9	1409	± 1.8
	Mar	47314	±10.6	47320	± 9.4	1411	± 2.5	1411	± 0.8
	Apr	47317	± 6.2	47317	± 2.7	1411	± 1.6	1410	± 1.4
	May	0	± 0	0	± 0	0	± 0	0	± 0
	Jun	0	± 0	0	± 0	0	± 0	0	± 0
	Jul	47323	±10.2	47327	± 4.5	1409	± 2.1	1410	± 0.7
	Aug	47323	±12.9	47328	± 3.9	1409	± 1.9	1410	± 0.7
	Sep	47316	±20.0	47326	± 5.9	1409	± 1.5	1410	± 0.7
	Oct	47318	±10.3	47326	± 4.2	1409	± 2.2	1410	± 0.7
	Nov	47318	± 9.7	47322	± 4.5	1409	± 2.5	1410	± 0.7
	Dec	47321	±12.8	47329	± 4.8	1410	± 1.8	1411	± 0.7
1979	Jan	47321	± 9.1	47326	± 3.0	1410	± 2.5	1412	± 0.7
	Feb	47325	± 7.2	47327	± 3.1	1411	± 2.4	1412	± 0.9
	Mar	47319	± 9.1	47327	± 5.1	1412	± 2.2	1411	± 0.8
	Apr	47329	±14.8	47337	± 4.5	1411	± 2.6	1411	± 0.8
	May	47335	± 6.4	47338	± 4.4	1411	± 1.6	1411	± 0.8
	Jun	47338	± 5.9	47340	± 4.8	1412	± 1.4	1411	± 0.9
	Jul	47340	± 6.3	47341	± 5.7	1412	± 1.8	1412	± 1.5
	Aug	47334	±12.2	47336	± 5.5	1410	± 2.6	1410	± 0.8
	Sep	47332	±12.5	47336	± 9.8	1409	± 2.2	1410	± 0.8
	Oct	47331	± 8.5	47336	± 4.2	1410	± 1.4	1411	± 0.9
	Nov	47333	±11.7	47336	± 6.9	1410	± 1.6	1411	± 1.1
	Dec	47338	± 8.2	47341	± 6.7	1411	± 1.7	1412	± 0.4

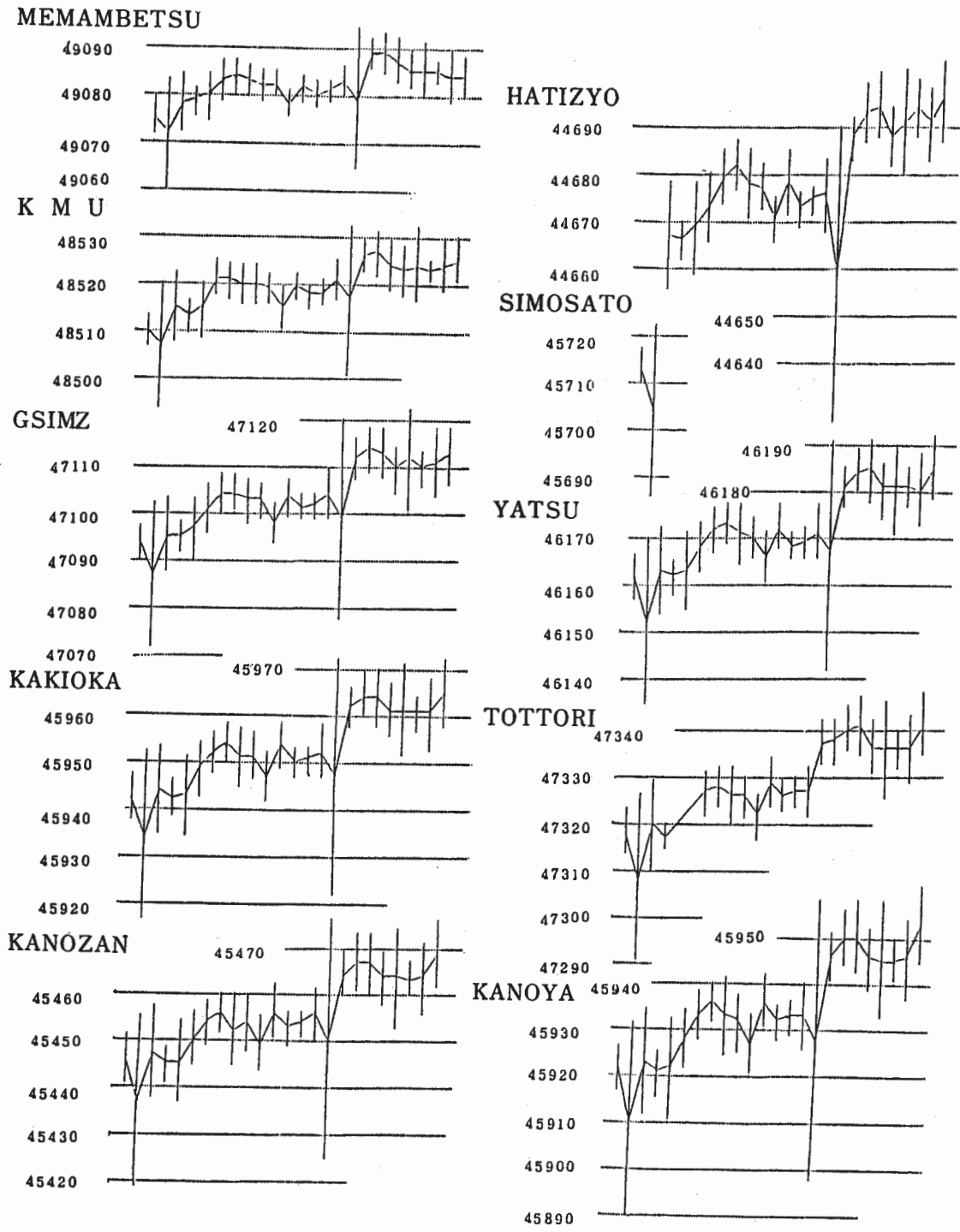
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		all days		quiet days		all days		quiet days	
1978	Jan	45913	±18.7	45922	± 4.6	12	± 3.5	15	± 0.7
	Feb	45911	±13.0	45910	±21.0	11	± 2.6	11	± 3.7
	Mar	45915	±13.4	45923	±11.0	12	± 2.2	14	± 2.2
	Apr	45919	± 7.9	45921	± 4.4	12	± 2.2	14	± 1.3
	May	45918	±17.8	45922	±10.5	12	± 4.3	14	± 2.5
	Jun	45929	± 8.1	45928	± 5.6	14	± 2.7	15	± 1.7
	Jul	45928	±13.8	45933	± 5.2	14	± 4.6	16	± 1.8
	Aug	45930	±15.3	45936	± 4.2	15	± 4.0	17	± 1.7
	Sep	45919	±24.9	45933	± 7.8	13	± 5.5	17	± 1.9
	Oct	45924	±11.9	45932	± 5.4	14	± 2.9	16	± 1.1
	Nov	45923	±11.5	45927	± 6.0	13	± 3.9	16	± 1.1
	Dec	45926	±16.1	45936	± 5.5	15	± 3.3	18	± 1.1
1979	Jan	45925	±11.6	45932	± 3.4	15	± 2.8	17	± 0.8
	Feb	45931	± 6.5	45933	± 3.5	16	± 2.2	17	± 1.1
	Mar	45923	±18.2	45933	± 7.1	15	± 3.4	16	± 1.9
	Apr	45932	±18.9	45928	±30.0	16	± 3.3	16	± 5.0
	May	45942	± 7.8	45946	± 5.2	19	± 1.6	19	± 1.3
	Jun	45946	± 8.2	45950	± 5.6	19	± 2.9	21	± 1.3
	Jul	45949	± 7.5	45950	± 7.3	20	± 2.2	21	± 2.2
	Aug	45943	±15.0	45946	± 6.7	18	± 3.6	19	± 1.7
	Sep	45943	± 9.5	45945	±12.4	17	± 4.1	19	± 2.7
	Oct	45939	±10.1	45945	± 4.3	18	± 2.1	20	± 0.9
	Nov	45940	±15.2	45946	± 8.6	19	± 3.3	20	± 1.8
	Dec	45948	±10.0	45953	± 2.5	21	± 2.5	23	± 1.5



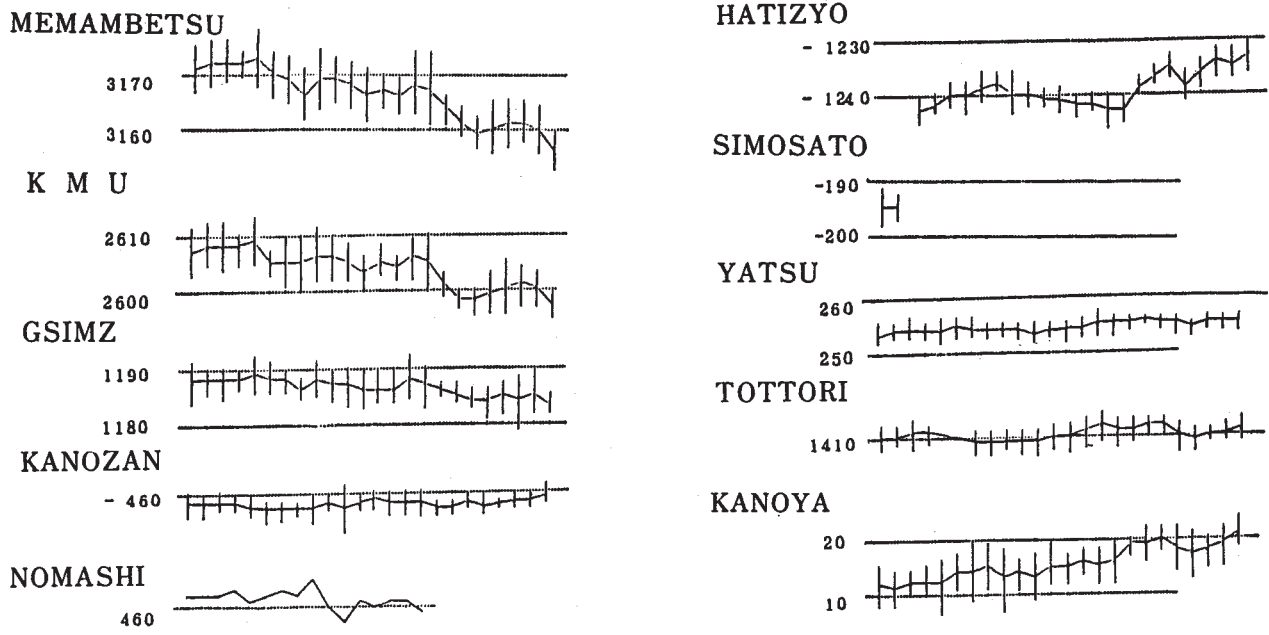
第2図 全磁力の全日月平均値

Fig. 2 Monthly means of the total intensity for all days.



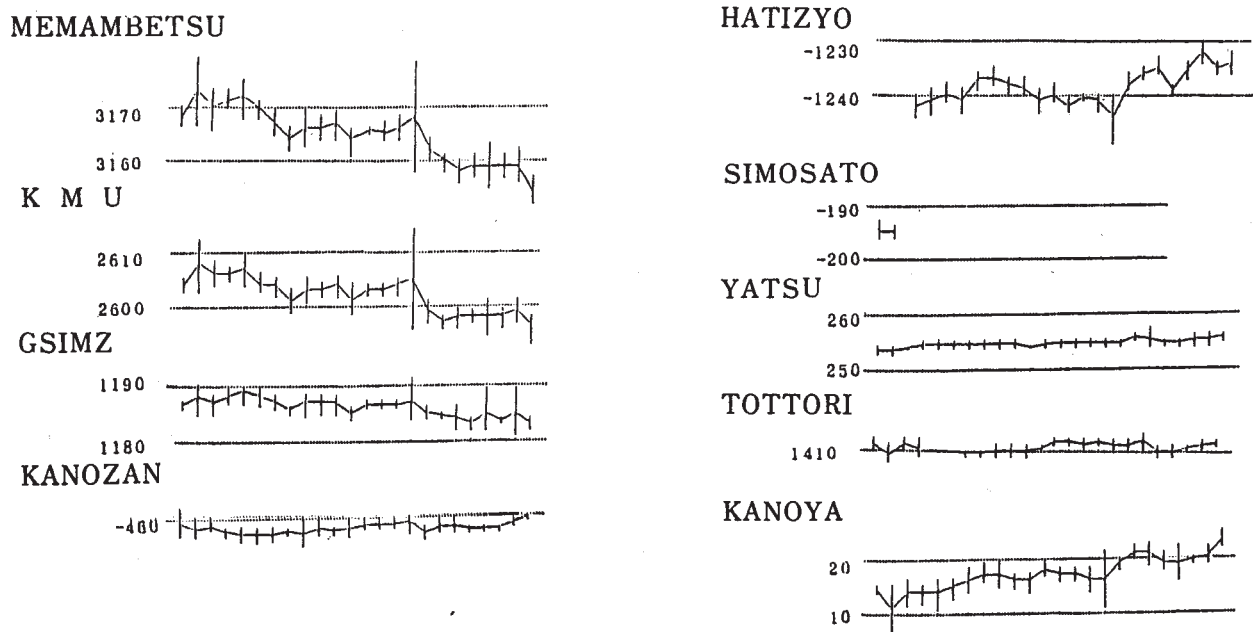
第3図 全磁力の静穏日月平均値

Fig. 3 Monthly means of the total intensity for magnetically quiet days.



第4図 柿岡を基準とした全磁力差の全月平均値

Fig. 4 Monthly means of difference in the total intensity with reference to Kakioka Magnetic Observatory on the basis of all day data.



第5図 柿岡を基準とした全磁力差の静穏日月平均値

Fig. 5 Monthly means of difference in the total intensity with reference to Kakioka Magnetic Observatory on the basis of quiet data.