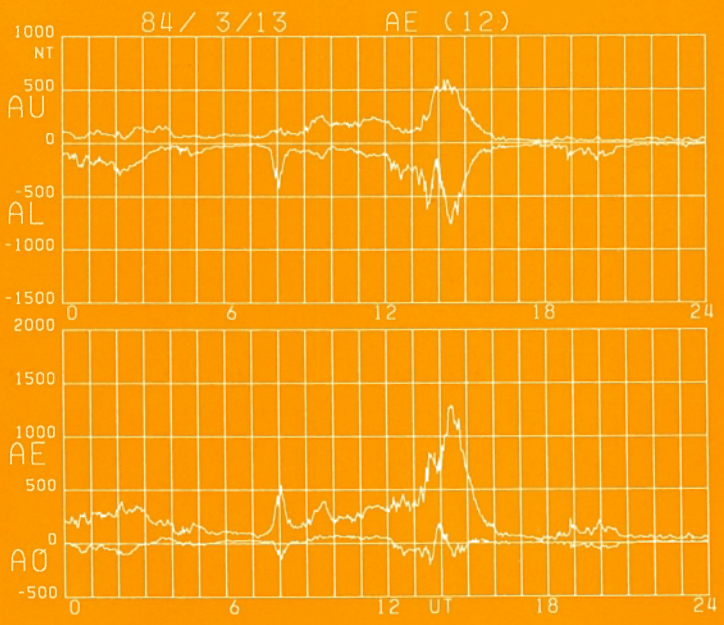
World Data Center C2 for Geomagnetism

DATA BOOK No. 15

Auroral electrojet indices (AE)
for January-June 1984



MARCH 1987

Data Analysis Center for
Geomagnetism and Spacemagnetism
FACULTY OF SCIENCE
KYOTO UNIVERSITY
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Division of
Data Collection and Processing
NATIONAL INSTITUTE OF
POLAR RESEARCH
TOKYO

SPECIAL NOTICE

The schedule of the publication of our Data Books hereafter is as follows:

Data Book	No.16:	AE indices for July - December 1984.
Data Book	No.17:	AE indices for January - June 1985.
Data Book	No.18:	AE indices for July - December 1985.

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All inquireies on the Data Book and its distribution and notices of change of address should be sent to:

World Data Center C2 for Geomagnetism
Faculty of Science, Kyoto University
Kyoto 606, Japan

- -

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DATA BOOK

No. 15

Auroral electrojet indices (AE)
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Data Analysis Center for Geomagnetism and Spacemagnetism
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PPREFACE

The Auroral Electrojet (AE) index was originally introduced by Davis and Sugiura in 1966 as a measure of global electrojet activity in the auroral zone. The AE index is now widely used for researches in geomagnetism, aeronomy, and solar-terrestrial physics. After the initial development at the NASA/Goddard Space Flight Center the calculation of the index was first performed at the Geophysical Institute of the University of Alaska, which published hourly values of the index for the years 1957 to 1964. The production of 2.5 min values was then made at the Goddard Space Flight Center for the period from September 1964 to June 1968.

After these early publications the index was regularly issued by the World Data Center A (WDC-A) in Boulder, Colorado, which published 2.5 min values for the years 1966 to 1974 and 1.0 min values for 1975 and the first 4 months of 1976.

When it became difficult for the WDC-A to continue the production of the AE index, a question was raised if the index could be produced at the WDC-C2 for Geomagnetism, which is operated by the Data Analysis Center for Geomagnetism and Spacemagnetism, Faculty of Science, Kyoto University. Responding to this request we decided to produce the index for the two years, 1978-1979, of the International Magnetospheric Study (IMS), and published 1.0 min values of the AE index for these years in the "WDC-C2 for Geomagnetism Data Book" series.

Although the International Association of Geomagnetism and Aeronomy (IAGA) recommended the continuation of the production of the AE index at the WDC-C2, the AE production could not be extended beyond IMS because of the constraints in manpower and computing capability. Increasing demands for the AE index, however, motivated us to resume its production, and we then published the Data Book No.7 for the first half of 1980. After this publication, various possibilities of financial support for the production of the index were explored by the Subcommittee on Solar Terrestrial Physics of the Special Committee for International Cooperation, Science Council of Japan. As a result, the National Institute of Polar Research (NIPR), Tokyo, offered assistance. Beginning with the Data Book No.8, the production of the AE index has been continued at the Kyoto University, but the printing and distribution of the Data Book have been done by NIPR.

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AURORAL ELECTROJET INDICES (AE)

FOR JANUARY - JUNE 1984

1. Derivation and Representation

The AE index is derived from geomagnetic variations in the horizontal component observed at selected (10-13) observatories along the auroral zone in the northern hemisphere. To normalize the data a base value for each station is first calculated for each month by averaging all the data from the station on the five international quietest days. This base value is subtracted from each value of one minute data obtained at the station during that month. Then among the data from all the stations at each given time (UT), the largest and smallest values are selected. The AU and AL indices are respectively defined by the largest and the smallest values so selected. The symbols, AU and AL, derive from the fact that these values form the upper and lower envelopes of the superposed plots of all the data from these stations as functions of UT. The difference, AU minus AL, defines the AE index, and the mean value of the AU and AL, i.e. (AU+AL)/2, defines the AO index. The term "AE indices" is usually used to represent these four indices (AU, AL, AE and AO). The AU and AL indices are intended to express the strongest current density of the eastward and westward auroral electrojets, respectively. The AE index represents the overall activity of the electrojets, and the AO index provides a measure of the equivalent zonal current.

In this report we present daily plots and hourly values of the AE indices and "contributing station" plots giving additional information on the indices. The stations that actually give the AU and AL values are named the "contributing stations" of the AU and AL indices. The pair of the AU and AL contributing stations is referred to as "the contributing stations of the AE indices". The plot identifies these AE contributing stations, and also gives information on the data availability for each station.

2. Data Used

To obtain reliable AE indices it is desirable to use as many observatories as possible. However, there are two major difficulties: One is that the distribution of the observatories in operation is not uniform along the auroral zone, and the other is that the digitization of magnetograms is a laborious task.

Table 1. List of AE(12) stations.

Observatory	Abbreviations		Geographic		Geomagnetic	
	IAGA	WDC-A	Lat. (°N)	Long.(°E)	Lat. (°N)	Long.(°E)
Abisko	ABK	AI	68.36	18.82	66.04	115.08
Dixon Island	DIK	DI	73.55	80.57	63.02	161.57
Cape Chelyuskin	CCS	CC	77.72	104.28	66.26	176.46
Tixie Bay	TIK	TI	71.58	129.00	60.44	191.41
(Cape Wellen)	CWE	UE	66.17	190.17	61.79	237.10
Barrow	BRW	BW	71.30	203.25	68.54	241.15
College	CMO	CO	64.87	212.17	64.63	256.52
Yellowknife	YKC	YEK	62.40	245.60	69.00	292.80
Fort Churchill	FCC	FC	58.80	265.90	68.70	322.77
Great Whale River	GWC	GWR	55.27	282.22	66.58	347.36
Narssarssuaq	NAQ	NAS	61.20	314.16	71.21	36.79
Leirvogur	LRV	LR	64.18	338.30	70.22	71.04

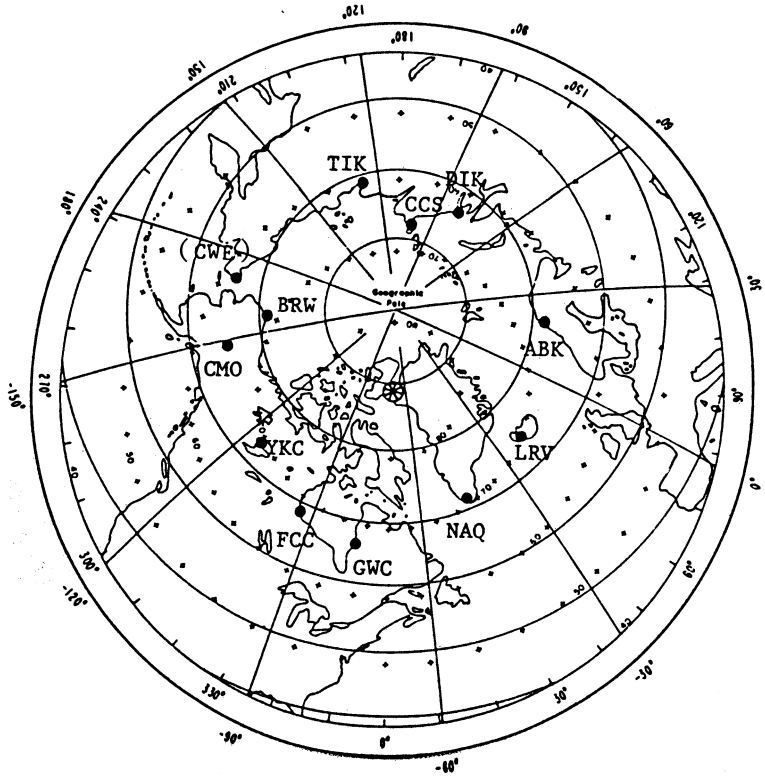

Fig. 1. Distribution of AE(12) stations.

Geographic latitude is indicated by the concentric circles of solid lines. Geomagnetic latitude is indicated by the numbered concentric circles formed by + signs. Geographic longitude is given by the outer circle of numerical values with meridians shown as solid lines every 30°. Geomagnetic longitude is given by the inner circle of numbers and the border of hash-marks at 10° intervals.

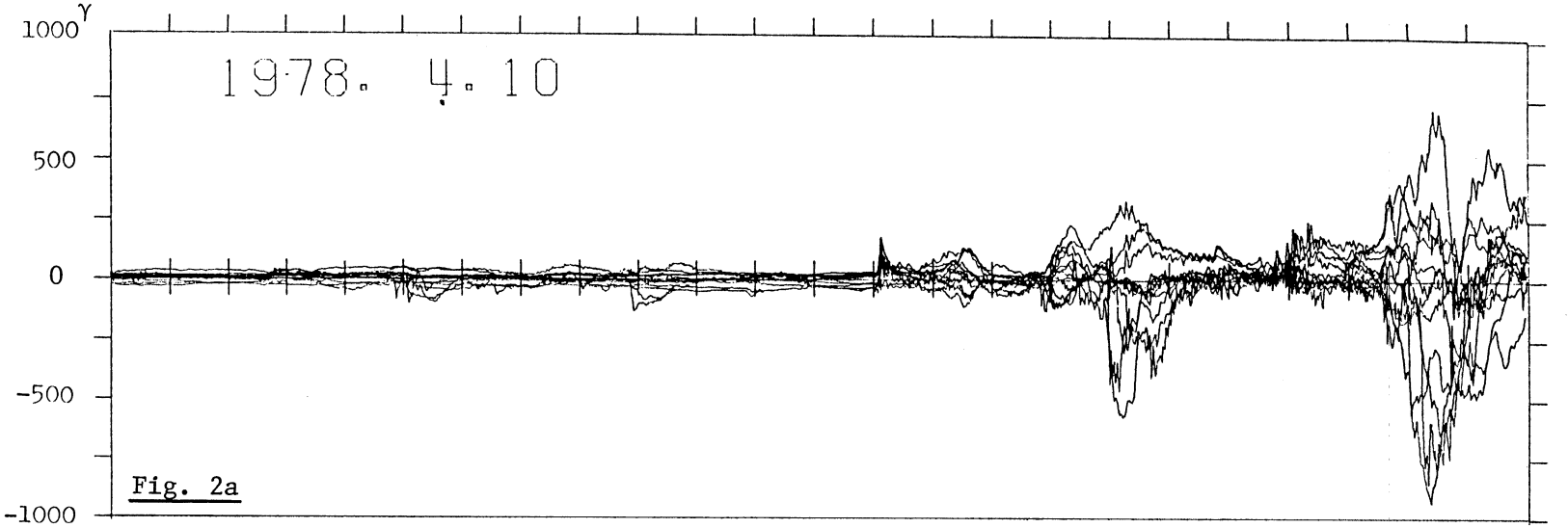

Fig. 2a

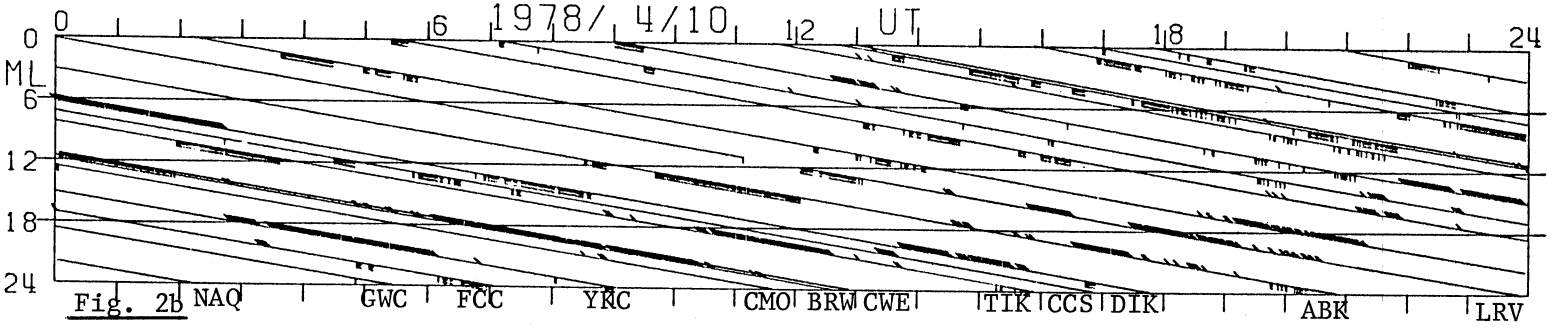

Fig. 2b

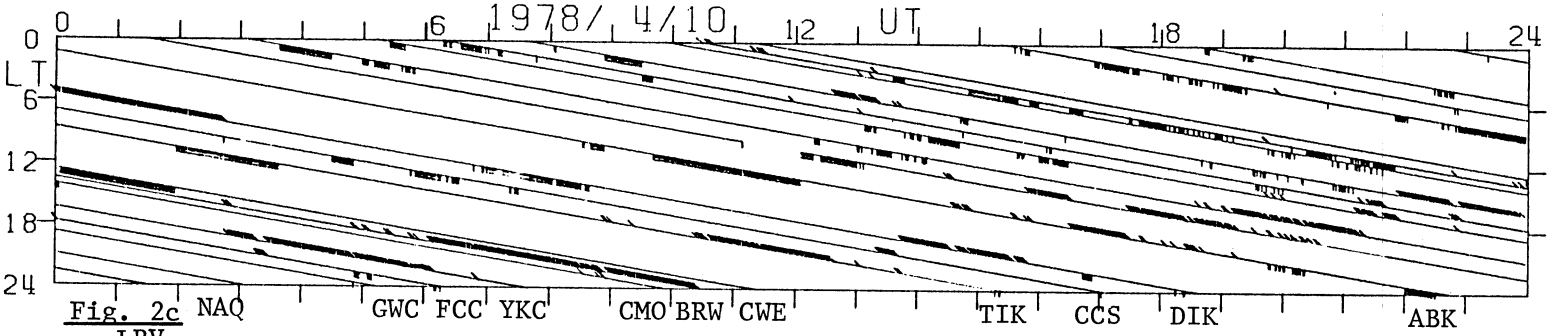

Fig. 2c

We used twelve observatories listed in Table 1. The distribution of the stations are shown in Fig. 1. Of the twelve observatories six are taking digital data; these stations are referred to as digital stations below.

Three of the digital stations, Fort Churchill, Great Whale River, and Yellowknife, give data in the X, Y, Z coordinate system. To make these data compatible with the other stations, we convert the X and Y components to the H component by $H=\sqrt{X^2+Y^2}$. If either X or Y is missing, H is also treated as being missing. For the other three digital stations, Barrow, College, and Narssarssuaq, the original digital H component data are used.

If there is any interval during which the digital recording appears faulty, the analog magnetogram is digitized whenever available. We used Abisko data digitized from analog records by the station. For the other non-digital stations the digitization was performed at this Data Center.

3. The Superposed Plot and the Plot of the Contributing Stations of the AE Indices

Figure 2a shows an example of the superposed plot of H traces from the AE stations for April 10, 1978. The upper envelope gives the AU index and the lower envelope, the AL index; Figs. 2b and 2c show sample plots of the contributing stations in geomagnetic (2b) and geographic (2c) local time, for the same day as in Fig. 2a. In these figures, the upper and lower plumes on a diagonal line for each station show the contribution of this station to the AU and AL indices, respectively. In Fig. 2b, for example, the data from Dixon Island (DIK) give the AU index from 0000 to 0240 UT and again from 1330 to 1530 UT, and the AL index from 0640 to 0830 UT. It is seen that from 1100 to 1200 UT Leirvogur (LRV) offers no data. Since Leirvogur is a key station for the AL index for this time interval, the exact AL values may be lower than was calculated for this interval.

We use geomagnetic local time (MLT) for the ordinate of the plot of the contributing stations. MLT is defined by the difference between the geomagnetic longitude of the station and the geomagnetic longitude of the meridian opposite to the subsolar point; and MLT is a function of the geomagnetic longitude of the station, the Sun's declination, and universal time. Figures 3a, 3b, and 3c show the difference between geographic local time GLT and MLT of the stations used to derive the AE indices for winter, summer and equinox, respectively. In these figures GLT is represented for each station by a straight line which runs diagonally, and MLT is shown by the top of T shaped mark (or the bottom of inverted T). The length of the vertical line of T from the diagonal line is the difference between GLT and MLT. Note that for some stations the difference between GLT and MLT is as much as 2 hours.

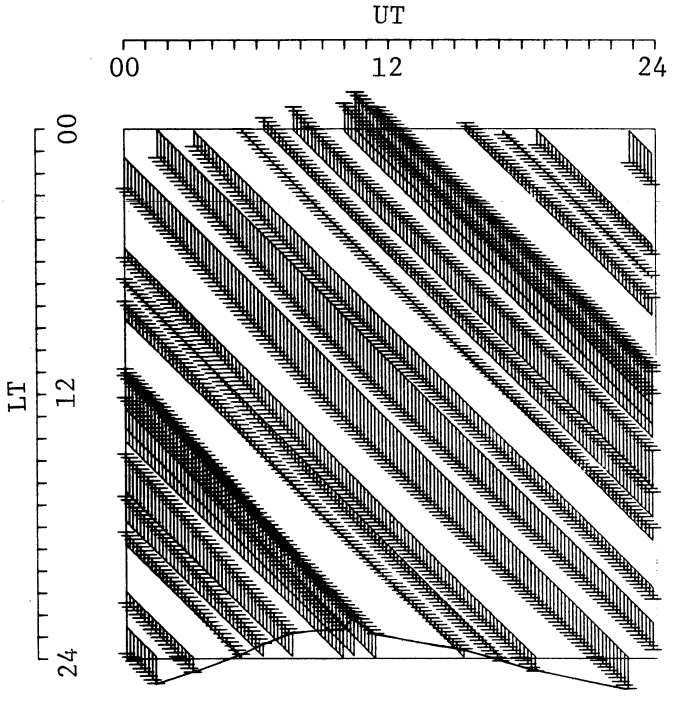

Fig. 3a Difference between GLT and MLT in winter.

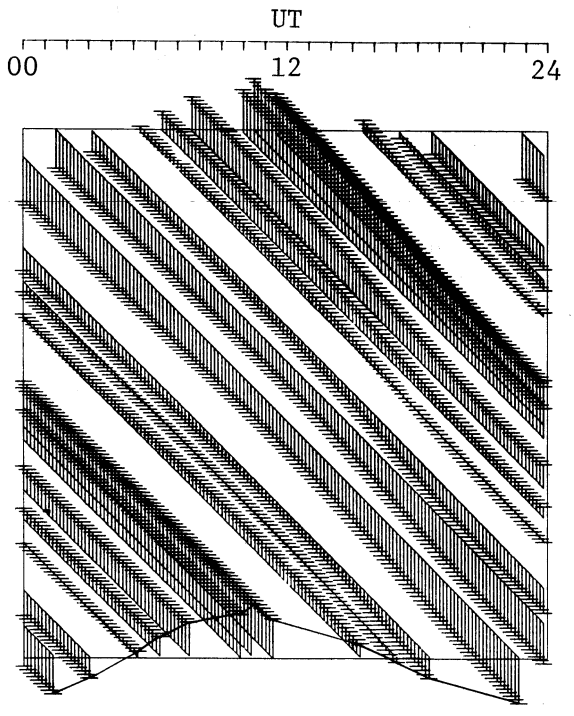

Fig. 3b Difference between GLT and MLT in summer.

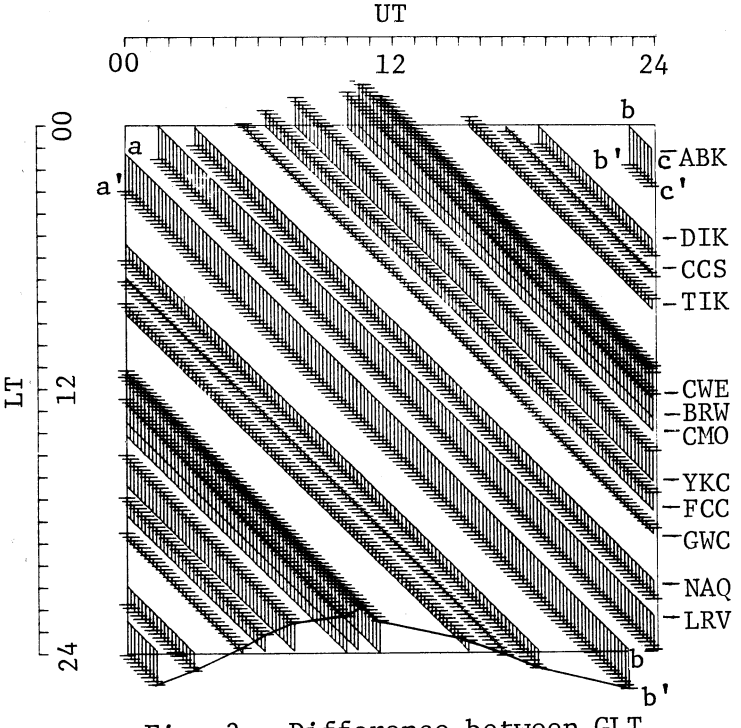

Fig. 3c Difference between GLT and MLT in equinox.

Fig. 3a, 3b and 3c show the difference between the geographic local time (GLT) and the geomagnetic local time (MLT) for winter, summer and equinox, where a-b-c (full line on the top or bottom of the vertical lines) shows the relation between UT and GLT, and a'-b'-c' (crossing of the vertical and horizontal lines) shows the relation between UT and MLT for each of the AE(12) stations.

4. Results

Monthly quiet-time H reference values for January-June 1984 are listed in Table 2. Table 3 gives hourly average values of the AE indices for each day from January to June 1984.

Daily graphs of 1.0-min AE indices (AU, AL, AE and AO) are shown in Fig. 4, and corresponding plots of the contributing stations are given in Fig. 5. Figure 6 shows the H-traces of magnetograms from AE(12) stations for each month from January to June 1984. Finally, Fig. 7 shows hourly mean values of each index for the one half year.

5. Acknowledgements

The calculation of the AE incices in this volume was made possible by the data provided by the AE stations through the World Data Centers. We thank Ms. Y. Yamamoto, Mr. T. Matsumoto and Dr. T. Iyemori of WDC-C2 for Geomagnetism for their assistance in the computation and production of plots, and also to Dr. M. Ayukawa and Dr. T. Ono of National Institute of Polar Research for their contributions to printing and distribution. We thank Dr. T. Bergmark and Mr. M. Reuter of the Geological Survey of Sweden and Dr. E. Friis-Christensen of the Danish Meteorological Institute for their special efforts in rapidly transmitting digital data.

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Table 2. Monthly quiet-time H reference values (unit in nT)

(Year 1984)

STATION	Jan.	Feb.	Mar.	Apr.	May	June	
Abisko	11723	11714	11704	11704	11715	11706	
Dixon Island	-523	-546	-525	-541	-536	-551	(HO+)
Cape Chelyuskin	391	354	369	381	372	348	(HO+)
Tixie Bay	196	119	119	117	118	108	(HO+)
Cape Wellen	91	72	84	65	69	69	(HO+)
Barrow	9723	9702	9714	9715	9719	9716	
College	12935	12923	12923	12928	12920	12928	
Yellowknife	8723	8717	8713	8735	8734	8744	
Fort Churchill	7659	7666	7657	7679	7681	7689	
Great Whale River	10845	10866	10860	10880	10888	10894	
Narssarssuaq	12183	12185	12172	12186	12199	12182	
Leirvogur	12429	12433	12413	12422	12437	12422	

(HO+) : Deviation from the H base line
on the ordinary magnetograms.

TABLE 3

Hourly average AE indices (AU, AL, AE and AO)
for January-June 1984.

AU Index (Hourly mean values, unit nT) January 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
D	1	110	121	140	202	199	244	175	188	253	135	167	98	125	217	108	47	46	112	184	114	130	158	109	119	146
	2	78	65	35	164	111	71	120	166	121	57	41	57	45	97	121	51	34	19	20	24	22	27	38	32	67
	3	33	28	44	72	75	74	72	75	132	146	143	190	105	48	99	171	305	290	229	153	80	85	80	77	117
D	4	84	101	123	133	106	129	249	306	376	223	133	240	244	121	58	73	67	78	99	150	136	80	75	137	147
D	5	74	94	123	143	110	117	99	111	107	68	46	58	102	80	49	49	35	37	38	90	70	66	91	145	83
	6	117	72	81	67	77	55	105	98	55	89	113	84	54	24	24	48	64	47	30	25	22	16	32	25	59
Q	7	31	22	24	34	39	40	44	45	43	63	70	69	53	24	29	45	32	18	30	20	20	16	21	22	36
Q	8	23	20	18	16	12	13	20	27	22	64	15	25	33	22	18	17	39	18	19	20	21	15	11	16	22
Q	9	17	13	14	21	35	31	24	28	31	16	17	31	47	27	33	25	22	16	12	17	16	40	43	25	25
	10	28	34	78	135	131	58	34	24	22	30	25	21	36	99	113	88	26	104	113	249	143	130	70	120	80
	11	93	94	91	59	40	54	53	25	61	62	54	73	73	34	19	39	43	49	57	118	110	148	130	137	71
Q	12	91	87	75	98	85	93	71	59	89	124	123	69	57	20	42	55	26	44	24	20	16	21	43	27	61
	13	27	22	36	50	68	43	42	36	63	48	29	38	65	62	86	227	111	48	92	50	36	61	74	80	62
	14	59	49	53	51	71	80	31	27	12	22	14	32	71	75	31	26	37	6	10	19	30	71	86	88	44
Q	15	60	51	66	64	35	38	93	86	157	51	28	26	32	38	41	22	37	42	26	16	21	37	46	64	49
	16	54	42	50	95	145	118	61	35	29	9	11	10	14	26	34	35	58	159	140	54	34	48	93	108	61
	17	117	97	114	161	90	57	53	108	82	70	32	32	36	47	24	25	18	25	43	63	62	39	37	36	61
	18	22	23	30	28	24	24	24	28	29	38	71	98	62	40	27	28	13	28	97	217	255	180	146	103	68
	19	99	292	258	155	179	193	144	71	110	174	134	93	104	89	113	64	33	23	9	13	38	55	51	68	107
	20	70	43	44	39	53	30	18	28	28	36	47	103	44	18	10	8	10	9	4	8	10	8	15	19	29
	21	30	49	58	59	83	84	89	119	86	108	167	60	30	34	35	20	10	13	26	64	99	68	106	96	66
	22	83	85	69	104	62	33	58	26	23	33	41	23	24	32	25	63	36	43	68	46	76	59	42	55	50
	23	49	42	44	43	43	41	25	16	19	14	7	12	16	25	35	18	46	37	22	26	45	50	61	57	33
	24	59	124	110	59	38	38	46	27	24	18	11	12	15	21	18	20	16	8	16	8	11	15	17	20	31
	25	20	20	25	35	50	88	109	94	162	108	108	116	132	114	89	41	91	172	177	125	166	117	120	123	100
	26	113	76	130	127	138	160	296	180	135	99	73	39	50	67	68	112	202	198	135	66	67	56	99	70	115
	27	51	29	46	40	36	37	30	21	26	3	10	19	36	69	58	28	50	68	93	107	75	147	194	155	59
	28	124	185	201	127	145	125	111	62	41	79	289	272	87	18	45	231	174	133	100	99	116	103	64	84	126
	29	114	100	110	51	113	91	68	133	102	99	184	173	105	81	50	26	20	27	28	28	52	62	86	79	82
D	30	112	217	148	72	146	131	114	96	72	172	195	173	94	76	119	119	243	150	132	144	160	138	129	62	134
D	31	95	66	62	46	69	40	55	54	42	42	56	77	101	125	96	144	196	199	155	81	71	78	74	120	89
	Mean	68	76	80	82	84	78	81	77	82	74	79	78	67	60	55	63	69	71	71	72	71	70	73	76	73
5Q	Mean	44	38	39	46	41	43	50	49	68	63	50	44	44	26	32	32	31	27	22	18	18	25	32	30	38
5D	Mean	95	119	119	119	126	132	138	151	170	128	119	129	133	123	86	86	117	115	121	115	113	104	95	116	119

AU Index (Hourly mean values, unit nT) February 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	124	120	127	101	104	104	100	90	96	122	96	89	63	50	51	37	31	52	54	41	54	52	34	33	76
	2	42	49	46	34	27	26	43	49	50	39	47	56	153	163	123	91	60	144	139	104	178	220	253	201	97
	3	165	195	114	82	47	29	43	50	47	24	26	34	36	38	34	36	48	18	58	146	131	171	68	29	70
D	4	147	175	144	248	298	328	313	263	191	294	281	113	197	179	283	228	264	236	107	89	82	9	76	136	195
	5	167	112	81	102	137	83	88	71	111	161	172	123	52	69	63	53	46	17	32	23	24	31	35	43	79
	6	37	57	101	104	64	72	73	72	55	75	114	94	95	108	149	125	69	42	138	128	118	122	144	153	96
	7	126	79	74	108	85	91	102	63	92	112	129	76	131	103	70	37	15	25	32	20	29	36	71	89	75
Q	8	79	74	116	45	35	36	54	86	184	88	86	74	77	65	110	78	40	48	24	36	64	99	164	168	80
	9	218	172	115	76	85	108	149	150	78	45	80	97	109	86	90	76	68	33	46	47	26	40	66	90	90
	10	86	112	75	44	58	56	72	89	107	103	144	112	219	193	218	286	272	193	143	122	181	132	97	44	132
D	11	94	78	246	176	120	132	153	145	112	105	136	148	112	82	95	106	53	57	53	75	102	139	132	119	115
	12	55	53	43	45	53	65	92	69	139	81	46	31	25	17	68	110	101	67	54	49	115	161	162	113	76
D	13	16	137	119	73	100	130	221	174	143	180	154	273	158	188	289	336	257	148	211	172	142	140	151	97	167
D	14	132	112	165	315	214	239	306	79	73	97	132	80	117	106	76	257	180	114	72	110	106	96	156	64	142
	15	178	238	100	134	102	94	131	159	104	79	114	80	37	26	29	22	13	10	10	14	27	39	34	42	76
Q	16	53	84	111	109	49	54	33	49	36	56	60	54	43	39	19	16	14	20	49	49	44	42	59	38	49
	17	49	57	48	73	111	129	86	51	23	33	69	82	46	31	20	31	16	27	26	31	41	34	41	105	52
	18	40	140	129	197	142	116	139	70	83	141	88	63	55	62	67	109	93	90	88	121	81	57	48	36	94
Q	19	36	34	36	38	39	44	38	50	44	44	41	43	68	66	72	50	38	116	89	66	60	36	54	31	51
	20	52	63	50	40	30	40	67	95	67	45	43	36	35	41	46	53	58	74	51	117	199	162	140	317	80
	21	219	97	125	109	211	190	265	239	127	113	136	135	140	143	116	151	73	68	53	48	103	132	185	150	139
Q	22	153	141	115	161	209	192	132	127	146	143	173	135	175	78	47	52	61	61	85	68	112	147	167	138	126
	23	111	116	131	80	90	148	147	227	219	203	201	139	144	88	112	56	38	45	53	78	68	57	61	48	111
	24	58	29	38	44	32	47	37	64	41	43	72	87	46	31	38	51	26	44	58	52	40	71	54	60	48
Q	25	56	61	37	32	27	28	35	46	61	109	155	124	62	40	36	23	19	18	25	25	30	120	62	42	53
	26	30	25	24	36	43	48	90	99	59	46	116	146	133	95	149	182	227	239	219	242	183	145	101	68	114
D	27	70	100	78	74	129	145	184	182	187	128	144	80	93	61	103	34	49	59	77	172	178	211	133	78	115
	28	60	68	60	59	63	64	59	79	148	162	129	60	68	75	93	65	78	16	29	46	47	38	29	25	68
	29	26	22	20	27	31	42	44	90	170	149	137	211	206	147	99	160	262	92	31	25	27	32	38	40	89
	Mean	92	96	92	95	94	99	113	106	103	104	114	99	99	85	95	100	88	74	72	79	89	95	97	89	94
5Q	Mean	75	78	83	77	71	70	58	71	94	88	103	86	85	57	56	43	34	52	54	48	62	88	101	83	71
5D	Mean	91	120	150	177	172	194	235	168	141	160	169	138	135	123	169	192	160	122	104	123	122	119	129	98	146

AU Index (Hourly mean values, unit nT) March 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	23	23	18	18	18	18	20	34	61	135	103	118	155	275	203	220	175	207	63	84	74	17	233	155	102
D	2	56	117	158	117	198	124	80	97	167	140	95	159	122	164	167	98	70	60	115	139	153	166	125	132	126
D	3	60	89	225	162	128	198	112	85	163	115	117	88	96	105	110	105	109	140	146	145	136	177	102	114	126
Q	4	123	93	90	111	93	102	136	71	147	108	43	41	26	20	31	62	48	50	25	13	16	17	17	16	62
Q	5	15	22	29	17	25	30	30	37	61	51	39	36	38	39	22	23	29	23	25	25	41	35	25	28	31
	6	26	38	83	101	132	134	194	294	220	140	85	107	53	108	139	204	153	263	180	111	171	174	133	138	141
	7	116	130	187	102	143	170	89	80	134	144	129	191	238	166	108	199	119	124	174	199	149	122	110	76	142
	8	58	124	115	133	187	147	96	120	121	103	162	125	156	81	216	215	281	270	281	178	169	164	231	175	163
	9	111	107	150	106	100	115	93	58	30	25	38	29	37	38	63	27	31	35	35	56	95	109	127	113	72
	10	128	106	118	148	96	86	106	142	154	204	122	100	52	53	80	131	182	230	186	172	141	139	152	218	135
	11	201	112	111	80	72	64	40	42	45	55	109	99	93	102	151	91	59	117	173	193	164	190	204	162	114
	12	66	67	81	114	79	102	138	39	23	35	66	74	86	87	68	50	74	138	173	146	196	197	165	146	100
	13	79	94	101	133	72	64	79	81	102	198	180	214	142	260	479	176	40	27	32	28	24	31	35	31	113
Q	14	24	22	20	32	26	34	35	57	102	103	82	49	33	32	22	27	34	39	38	35	33	25	22	21	39
	15	22	22	21	23	27	28	91	56	39	36	78	63	47	42	50	24	25	22	22	27	49	74	95	59	43
	16	51	37	24	29	100	45	87	151	116	41	41	70	77	144	252	275	52	99	98	66	57	46	38	34	85
	17	40	40	36	96	102	99	72	129	227	108	72	159	156	139	109	226	193	145	132	101	88	76	50	51	110
	18	38	46	59	56	28	40	42	66	90	201	254	167	61	48	58	44	131	123	60	76	95	114	80	81	86
	19	108	102	109	98	86	106	123	117	104	128	211	177	93	36	30	28	22	24	23	25	24	37	31	37	78
Q	20	35	39	37	31	32	31	22	30	33	38	36	42	63	33	26	28	18	18	24	21	22	24	18	21	30
Q	21	20	24	28	39	26	25	24	26	48	42	38	68	70	88	86	52	70	77	67	94	96	82	125	109	59
	22	156	92	153	118	145	115	172	232	306	160	54	38	32	22	30	83	33	105	182	145	237	109	144	155	126
	23	153	95	129	78	60	62	151	128	182	195	236	184	55	122	172	61	35	33	31	67	61	38	25	26	99
	24	39	65	89	73	66	62	33	38	40	45	89	97	112	108	68	66	29	43	42	45	45	43	130	45	63
D	25	51	107	96	86	190	157	107	119	180	188	266	208	137	161	197	269	268	196	266	185	121	98	148	116	163
	26	93	89	49	42	24	32	31	34	43	64	54	42	32	38	38	38	59	80	135	142	197	98	94	73	67
	27	130	110	86	66	72	121	88	83	135	153	105	71	126	214	147	99	131	200	201	242	218	274	206	146	143
D	28	159	167	126	188	140	236	237	125	208	289	340	280	207	185	331	213	251	186	194	306	134	14	113	66	196
D	29	109	168	213	172	156	212	181	234	215	176	169	162	66	177	135	90	194	190	153	176	104	127	223	131	164
	30	54	102	146	165	147	200	326	259	274	326	296	75	122	111	112	60	132	171	203	162	169	134	99	109	165
	31	88	103	103	94	99	130	86	104	61	97	220	219	219	150	200	148	45	21	85	143	172	188	180	175	130
	Mean	78	82	96	91	92	99	100	102	123	123	126	114	96	108	125	110	99	111	114	114	111	101	112	95	105
5Q	Mean	43	40	40	46	40	44	49	44	78	68	47	47	46	42	37	38	39	41	35	37	41	36	41	39	44
5D	Mean	87	129	163	145	162	185	143	132	186	181	197	179	125	158	188	155	178	154	174	190	129	116	142	111	154

AU Index (Hourly mean values, unit nT) April 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	101	102	128	200	158	219	274	266	235	226	347	171	144	85	121	243	229	178	154	225	196	169	153	120	185
D	2	179	93	90	124	58	109	118	151	185	205	127	191	180	190	198	189	248	365	262	246	180	105	178	211	174
	3	114	115	190	139	113	133	90	156	191	264	194	171	127	152	184	197	185	248	209	174	189	157	231	163	170
D	4	197	143	250	268	266	167	127	200	202	114	66	64	144	242	129	103	189	162	-7	63	41	-17	20	124	136
D	5	190	165	231	161	189	170	182	196	194	244	236	194	288	357	352	299	272	185	162	73	72	61	181	173	201
	6	115	155	132	133	160	69	71	142	130	142	71	74	141	87	89	81	81	130	173	168	159	110	89	61	115
	7	110	110	88	36	23	76	108	114	167	222	187	304	171	57	38	27	99	157	135	275	221	238	134	86	133
D	8	136	215	314	351	377	346	421	417	167	88	249	230	151	185	213	103	96	259	160	205	242	327	166	156	232
	9	286	184	288	278	139	118	55	34	49	60	157	168	86	80	91	67	86	106	146	131	99	77	62	51	121
	10	52	63	63	63	69	52	53	37	59	77	55	77	85	80	63	23	37	51	96	34	64	87	65	54	61
	11	175	89	65	32	27	17	78	88	57	47	152	113	72	44	34	87	67	149	133	138	119	50	41	28	79
	12	20	20	27	44	129	131	192	74	25	31	44	28	28	22	44	124	191	83	121	72	52	145	177	252	87
	13	152	80	81	69	42	21	114	99	66	43	35	55	106	76	18	34	59	144	144	54	82	72	76	28	73
	14	35	40	55	45	23	23	19	20	25	24	19	24	26	49	100	166	214	207	175	201	222	130	110	198	90
	15	87	82	41	31	53	90	87	96	64	66	46	47	18	44	47	33	28	26	43	57	26	24	25	22	49
Q	16	23	22	18	16	15	16	28	48	65	80	57	51	56	53	50	32	31	31	40	56	91	97	77	37	45
	17	45	37	21	17	15	14	13	14	12	21	39	36	37	53	51	60	44	40	54	56	72	69	70	65	40
Q	18	47	42	32	50	55	117	67	23	12	20	30	34	29	30	44	36	23	27	29	25	31	34	38	37	38
	19	46	34	35	30	28	27	43	61	75	69	49	42	43	57	65	58	64	65	65	64	113	98	69	88	58
	20	74	52	35	73	175	161	158	168	155	116	107	97	79	67	73	68	52	106	75	68	60	49	58	74	92
	21	49	74	65	52	33	35	75	113	105	87	74	71	87	62	42	69	110	111	76	54	56	70	92	119	74
Q	22	61	54	40	39	33	39	36	71	60	70	46	47	23	16	14	16	24	26	26	20	18	17	16	19	35
Q	23	21	29	29	32	22	15	20	30	35	32	43	68	57	29	44	54	92	106	144	221	148	149	196	119	72
Q	24	81	44	29	61	161	163	62	102	69	78	84	78	95	63	38	22	27	48	43	44	45	85	112	61	71
	25	59	44	53	64	66	64	45	116	49	69	56	65	109	187	383	416	348	259	425	396	289	155	85	252	169
D	26	142	207	253	252	310	199	159	289	358	272	289	208	172	247	428	579	499	443	518	415	244	336	347	265	310
	27	163	215	324	324	217	156	234	218	298	203	227	130	78	162	122	105	104	204	208	202	173	188	261	160	195
	28	165	176	110	145	131	189	186	163	200	268	219	182	195	134	75	137	203	92	38	97	123	103	73	66	145
	29	38	56	29	27	76	138	112	180	128	117	129	138	212	187	239	175	268	178	88	95	197	238	118	150	138
	30	71	47	33	106	162	211	114	41	23	13	11	11	21	46	29	20	28	18	30	30	39	225	236	136	71
	Mean	101	92	104	108	110	109	111	124	115	112	114	105	102	104	113	120	133	140	132	131	122	121	118	112	115
5Q	Mean	46	38	29	39	57	70	42	54	48	56	52	55	52	38	38	32	39	47	56	73	66	76	87	54	52
5D	Mean	168	164	227	231	240	198	201	250	221	184	193	177	187	244	264	254	260	282	219	200	155	162	178	185	210

AU Index (Hourly mean values, unit nT) May 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	235	179	184	157	77	107	141	178	139	166	233	291	246	301	309	307	307	258	270	271	284	288	241	241	225
	2	201	227	183	117	160	254	205	232	176	165	176	170	105	44	21	48	20	4	16	30	23	19	20	17	110
	3	12	18	7	2	2	8	10	31	84	63	136	76	55	63	65	48	78	72	68	127	152	149	206	274	75
	4	205	104	96	107	156	194	182	165	169	198	233	188	128	90	110	58	58	64	79	126	111	110	113	89	131
	5	119	137	140	92	112	167	156	179	161	218	237	237	277	281	251	355	364	307	280	335	260	146	173	141	213
	6	187	138	72	49	35	206	197	223	177	147	79	45	36	57	107	63	31	35	30	25	16	12	23	35	84
Q	7	49	30	16	8	9	13	8	17	25	29	106	164	97	62	40	23	18	24	30	21	18	15	16	21	36
Q	8	16	17	15	32	37	24	59	51	36	83	76	46	51	28	28	22	25	32	36	31	26	23	21	18	35
	9	17	29	34	105	65	49	132	90	73	54	43	93	90	87	145	212	155	84	80	123	120	200	160	256	104
	10	176	73	41	138	254	258	213	188	221	411	427	265	103	171	162	177	241	156	116	106	96	68	72	79	175
	11	78	52	39	45	41	37	102	102	61	69	70	107	159	58	32	35	46	60	96	130	193	137	97	126	82
	12	130	55	37	67	35	53	85	152	226	211	211	159	88	68	97	68	138	251	254	150	103	71	48	58	117
	13	65	207	270	135	58	33	52	58	114	183	100	42	43	50	58	43	27	32	36	20	18	20	14	9	70
	14	7	4	2	2	10	49	24	9	22	36	32	145	195	167	131	118	151	240	269	259	236	300	365	314	129
	15	157	129	93	43	47	78	133	303	213	253	195	142	85	66	42	58	45	37	56	82	45	40	21	28	100
Q	16	39	36	51	69	47	44	27	20	25	70	247	207	117	68	41	39	33	36	37	31	34	48	105	120	66
D	17	178	151	141	132	244	149	98	150	315	370	199	100	100	79	33	40	63	59	42	47	41	38	25	38	118
	18	34	27	39	76	92	126	101	126	120	112	113	100	93	118	117	102	107	97	142	131	206	240	287	308	126
	19	173	164	193	252	207	293	319	404	186	205	86	78	71	44	35	46	124	216	262	174	69	70	94	124	162
D	20	238	204	169	171	161	206	249	197	186	272	250	211	97	117	120	50	273	330	367	325	243	232	325	248	218
D	21	273	341	489	360	324	273	281	294	189	178	92	189	251	54	37	127	87	196	196	243	226	329	241	206	228
D	22	241	166	161	236	163	181	300	314	245	161	152	176	163	199	146	213	410	350	257	240	226	233	293	202	226
D	23	158	363	217	140	312	193	114	240	266	341	308	156	97	78	98	221	170	259	236	201	149	191	138	136	199
	24	113	82	52	65	67	155	158	164	185	239	251	184	232	211	445	462	365	234	322	180	133	103	179	210	200
	25	133	74	65	41	35	71	122	48	58	71	152	143	165	238	191	153	205	193	170	142	251	311	264	239	147
	26	77	114	179	141	156	208	189	145	85	70	127	160	127	116	84	51	29	43	89	43	23	27	18	14	96
Q	27	8	5	4	5	8	9	7	85	200	213	207	144	129	159	172	188	187	217	166	118	173	276	235	281	133
	28	219	137	108	104	92	68	73	127	171	197	159	169	155	116	104	120	108	152	198	255	229	220	221	260	157
	29	133	138	157	201	294	142	148	124	133	166	145	157	159	123	94	103	92	194	167	119	107	108	107	100	142
	30	164	233	239	199	223	193	162	242	324	228	346	307	148	53	40	107	191	148	83	158	217	267	262	201	197
Q	31	173	176	118	84	52	18	21	35	60	60	85	76	49	32	12	12	5	8	12	29	65	137	110	159	66
	Mean	129	122	116	108	115	124	131	151	149	169	170	152	126	109	108	118	133	141	143	137	132	142	144	146	134
5Q	Mean	57	52	40	39	30	21	24	41	69	91	144	127	88	69	58	56	53	63	56	46	63	99	97	119	67
5D	Mean	217	245	235	207	240	200	208	239	240	264	200	166	141	105	86	130	200	238	219	211	177	204	204	166	197

AU Index (Hourly mean values, unit nT) June 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	140	67	43	27	69	45	12	50	50	42	69	119	117	118	131	53	47	66	74	102	92	70	57	81	73
	2	135	175	128	178	219	246	231	124	143	184	209	167	160	125	124	140	152	80	79	98	141	160	145	122	153
D	3	81	73	54	48	37	26	173	184	158	141	170	246	129	348	468	293	183	337	336	150	103	90	137	68	168
D	4	67	79	137	294	251	158	78	129	265	359	255	170	214	191	72	106	146	148	171	110	111	201	299	300	180
	5	191	189	244	260	221	132	146	150	127	97	173	275	225	131	72	54	75	72	80	79	95	52	56	207	142
	6	101	57	101	100	71	183	114	95	135	90	114	128	185	148	97	48	56	64	75	118	178	108	107	83	106
	7	117	118	88	63	117	230	214	177	241	243	232	153	121	138	72	39	43	53	87	140	125	76	59	56	125
	8	42	28	31	19	14	20	17	27	33	37	65	86	105	104	129	93	93	99	81	168	285	140	154	181	85
	9	97	93	92	102	55	87	207	344	343	168	96	118	132	92	64	67	143	132	242	224	203	143	124	78	144
	10	82	137	151	200	169	152	116	103	112	165	125	98	125	118	129	150	86	99	102	61	91	168	139	148	126
	11	109	113	160	145	125	148	113	122	120	95	84	121	140	110	93	89	51	91	63	70	88	85	116	98	106
Q	12	85	118	204	213	172	170	137	94	89	135	71	119	121	93	64	42	39	37	34	40	47	49	42	35	94
Q	13	25	19	19	25	106	141	180	115	44	26	26	64	107	64	50	25	28	80	161	161	84	35	42	34	69
Q	14	35	36	52	33	42	22	39	57	108	101	75	82	79	55	85	61	59	43	58	62	65	51	46	44	58
	15	46	63	129	80	129	110	75	108	120	120	197	172	172	169	136	293	207	187	267	231	288	236	171	269	165
D	16	285	413	397	245	413	302	315	354	291	289	286	166	196	165	127	66	135	129	162	145	119	202	310	185	237
	17	129	62	50	42	31	43	53	115	210	130	62	33	63	62	71	54	41	43	46	80	111	53	43	44	70
D	18	80	84	80	74	81	64	63	71	141	179	232	174	224	440	312	350	394	391	244	223	132	105	92	130	182
D	19	173	154	86	65	146	157	164	183	214	255	289	103	90	105	207	233	230	191	252	214	255	273	242	179	186
	20	246	230	257	197	169	166	93	193	118	224	122	76	87	73	93	55	61	91	60	38	20	27	67	33	117
Q	21	62	35	11	10	6	8	3	5	10	9	16	14	15	15	17	41	54	50	73	88	158	148	170	185	50
Q	22	196	216	219	195	222	210	154	134	96	38	31	38	88	160	107	78	93	53	59	84	102	122	129	159	124
	23	178	128	104	105	157	105	109	174	92	45	18	28	24	16	31	23	38	54	40	54	206	294	344	317	112
	24	187	260	221	281	304	164	82	51	66	154	115	89	69	91	88	64	98	114	65	46	27	45	77	183	123
	25	152	135	133	122	174	119	53	100	163	103	36	33	75	97	86	55	80	53	110	113	121	101	96	68	99
	26	58	125	185	84	82	43	94	170	111	128	55	67	37	23	23	19	26	41	132	187	237	220	247	240	110
	27	191	213	244	267	288	194	141	156	145	171	210	234	201	103	70	39	25	23	28	36	54	31	62	87	134
	28	139	149	207	266	253	348	338	282	278	269	288	295	244	262	161	146	270	291	233	178	202	297	230	312	247
	29	294	255	212	139	75	72	69	49	57	163	152	120	124	112	82	59	75	97	97	89	198	201	214	211	134
	30	135	126	139	134	174	225	196	105	96	146	152	148	181	148	159	208	135	186	251	168	78	50	53	48	143
	Mean	128	131	139	133	145	136	125	134	139	143	134	124	128	129	114	101	105	113	125	118	133	127	135	139	128
5Q	Mean	80	84	101	95	109	110	102	81	69	61	43	63	82	77	64	49	54	52	77	87	91	81	85	91	79
5D	Mean	137	160	150	145	185	141	158	184	213	244	246	171	170	249	237	209	217	239	233	168	144	174	216	172	190

AL Index (Hourly mean values, unit nT) January 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
D	1	-253	-229	-641	-532	-415	-432	-370	-437	-486	-335	-325	-250	-445	-513	-264	-178	-188	-639	-672	-638	-663	-141	-177	-213	-393
	2	-240	-237	-142	-221	-114	-31	-250	-288	-108	-71	-90	-326	-228	-460	-519	-142	-91	-123	-65	-200	-81	-42	-51	-87	-175
	3	-148	-73	-107	-161	-163	-139	-94	-273	-328	-188	-240	-201	-131	-137	-659	-819	-592	-333	-285	-244	-192	-287	-161	-188	-256
D	4	-201	-189	-481	-274	-256	-201	-364	-584	-467	-63	-91	-180	-70	-91	-227	-114	-190	-231	-271	-460	-435	-204	-233	-361	-260
D	5	-361	-349	-459	-494	-107	-126	-326	-266	-272	-75	-48	-134	-597	-565	-249	-105	-148	-213	-91	-170	-65	-118	-229	-250	-242
	6	-127	-60	-78	-119	-142	-26	-55	-108	-73	-368	-280	-119	-85	-127	-394	-377	-185	-32	-30	-54	-235	-152	-15	-10	-135
Q	7	-8	-7	-19	-81	-146	-31	-25	-22	-43	-218	-183	-121	-69	-83	-107	-128	-37	-2	-6	-8	-14	-40	-50	-71	-63
Q	8	-14	-17	-15	-12	-8	-8	-22	-74	-63	-137	-25	-22	-25	-46	-49	-38	-67	-20	-13	-13	-12	-9	-8	-8	-30
Q	9	-6	-10	-15	-37	-83	-16	-25	-31	-27	-79	-47	-91	-59	-16	-23	-14	-72	-42	-15	-16	-18	-95	-85	-20	-39
	10	-11	-53	-103	-176	-97	-5	0	2	2	1	-5	-9	-73	-136	-203	-125	-13	-245	-678	-414	-87	-141	-301	-87	-123
	11	-70	-32	-49	-46	-38	-39	-19	-16	-28	-60	-40	-99	-91	-17	-21	-42	-79	-167	-210	-182	-340	-137	-70	-87	-82
Q	12	-100	-61	-32	-22	-15	-36	-26	-10	-101	-48	-27	-12	-13	-42	-35	-39	-160	-134	-27	-32	-17	-26	-81	-35	-47
	13	-28	-13	-26	-80	-69	-20	-14	-13	-10	-8	-4	-26	-76	-83	-367	-565	-238	-99	-107	-200	-103	-55	-135	-137	-103
	14	-43	-28	-33	-34	-58	-63	-7	-7	-14	-14	-20	-32	-199	-45	-27	-54	-93	-109	-43	-273	-136	-137	-43	-80	-66
Q	15	-9	-17	-42	-24	-9	-12	-40	-183	-81	-1	-5	-6	-13	-19	-176	-95	-195	-40	-45	-55	-34	-15	-80	-37	-51
	16	-10	-9	-17	-27	-34	-34	-13	-4	-3	-10	-18	-16	-14	-30	-120	-296	-214	-329	-140	-47	-23	-44	-81	-86	-68
	17	-83	-141	-220	-30	-10	-8	-21	-34	-36	-25	-2	-1	-37	-37	-46	-34	-37	-71	-107	-97	-105	-35	-2	-19	-52
	18	-13	-18	-17	-20	-10	-4	-5	-5	-7	-36	-135	-103	-7	-9	-10	-10	-13	-53	-297	-297	-180	-53	-58	-168	-64
	19	-409	-118	-71	-98	-84	-213	-155	-89	-113	-158	-297	-451	-313	-263	-347	-234	-143	-35	-21	-23	-49	-220	-280	-217	-183
	20	-75	-38	-115	-137	-210	-22	-10	-11	-34	-205	-348	-177	-28	-27	-37	-97	-83	-37	-21	-27	-41	-20	-14	-51	-78
	21	-101	-132	-53	-99	-269	-272	-151	-250	-138	-295	-470	-127	-34	-20	-27	-26	-65	-61	-130	-122	-181	-92	-51	-79	-135
	22	-132	-98	-310	-143	-62	-30	-157	-276	-104	-134	-322	-69	-76	-148	-261	-191	-88	-167	-123	-61	-185	-67	-51	-89	-139
	23	-136	-45	-39	-54	-52	-100	-63	-21	-23	-23	-17	-15	-14	-25	-58	-213	-284	-195	-53	-51	-232	-84	-69	-102	-82
	24	-102	-249	-119	-29	-20	-85	-137	-21	-3	-7	-9	-10	-11	-9	-13	-12	-13	-11	-6	-9	-4	-8	-5	-18	-38
	25	-5	-15	-21	-23	-37	-37	-19	-29	-195	-78	-75	-136	-99	-104	-67	-33	-82	-467	-288	-114	-113	-139	-116	-249	-106
	26	-206	-164	-129	-213	-244	-292	-403	-207	-142	-72	-44	-22	-33	-172	-315	-281	-289	-448	-155	-71	-83	-111	-106	-53	-177
	27	-22	-30	-94	-170	-87	-27	-14	-19	-23	-18	-64	-79	-69	-108	-230	-221	-257	-258	-199	-135	-90	-156	-188	-87	-110
	28	-63	-138	-76	-27	-133	-241	-192	-109	-46	-138	-494	-303	-59	-54	-183	-606	-456	-240	-162	-112	-273	-338	-165	-125	-197
	29	-494	-672	-101	-72	-159	-174	-104	-228	-257	-209	-387	-359	-346	-141	-44	-109	-103	-53	-35	-37	-189	-109	-159	-223	-199
D	30	-201	-320	-199	-178	-324	-209	-109	-115	-97	-280	-446	-361	-381	-301	-355	-301	-751	-492	-413	-381	-535	-208	-91	-81	-297
D	31	-116	-139	-104	-73	-171	-148	-84	-72	-186	-153	-156	-447	-593	-638	-581	-410	-830	-885	-469	-225	-266	-142	-293	-538	-322
	Mean	-122	-119	-126	-119	-116	-99	-105	-122	-113	-113	-152	-138	-138	-144	-194	-190	-195	-201	-167	-153	-160	-110	-111	-124	-139
5Q	Mean	-27	-22	-24	-35	-52	-20	-27	-64	-63	-96	-57	-50	-35	-41	-78	-62	-106	-47	-21	-24	-19	-37	-60	-34	-46
5D	Mean	-226	-245	-376	-310	-254	-223	-250	-294	-301	-181	-213	-274	-417	-421	-335	-221	-421	-492	-383	-374	-392	-162	-204	-288	-302

AL Index (Hourly mean values, unit nT) February 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-393	-214	-129	-224	-112	-130	-164	-138	-174	-290	-373	-258	-92	-48	-87	-26	-32	-226	-389	-192	-95	-5	-26	-44	-161
	2	-71	-13	-11	-14	-9	-13	-23	-53	-52	-102	-108	-107	-300	-299	-282	-288	-228	-407	-507	-589	-523	-759	-596	-336	-237
	3	-331	-482	-359	-48	-25	-29	-27	-50	-32	-13	-16	-19	-18	-22	-22	-74	-273	-168	-255	-559	-563	-541	-547	-469	-206
D	4	-698	-557	-379	-379	-514	-488	-314	-125	-106	-321	-336	-513	-555	-641	-834	-920	-593	-353	-491	-479	-454	-562	-433	-391	-476
	5	-211	-114	-64	-82	-278	-178	-81	-91	-233	-425	-442	-335	-292	-252	-195	-121	-59	-52	-17	-120	-171	-117	-17	-6	-165
	6	-25	-113	-128	-44	-18	-32	-5	-13	-10	-33	-126	-84	-41	-81	-159	-150	-29	-63	-398	-489	-425	-209	-227	-101	-125
	7	-111	-115	-51	-16	-20	-95	-40	-28	-102	-215	-57	-45	-99	-48	-9	-18	-38	-45	-80	-40	-34	-48	-237	-191	-74
Q	8	-79	-58	-52	-6	-12	-15	-32	-108	-118	-13	-27	-185	-60	-53	-163	-50	-18	-16	-12	-111	-146	-92	-120	-101	-68
	9	-102	-69	-35	-13	-29	-72	-94	-30	-5	-12	-60	-85	-86	-26	-51	-171	-33	-25	-40	-11	-27	-42	-140	-229	-62
	10	-57	-13	-4	-30	-60	-31	-24	-9	-12	-51	-326	-306	-255	-277	-393	-448	-364	-525	-435	-515	-425	-390	-393	-499	-243
D	11	-415	-266	-342	-129	-102	-85	-122	-146	-66	-163	-154	-151	-124	-265	-214	-141	-69	-119	-205	-191	-149	-137	-132	-77	-165
	12	-8	-14	-13	-94	-5	-14	-36	-171	-39	0	-9	-20	-41	-40	-123	-123	-123	-37	-12	-46	-123	-266	-321	-143	-76
D	13	-487	-198	-187	-376	-259	-310	-222	-31	-92	-346	-617	-459	-458	-512	-456	-471	-451	-507	-632	-395	-219	-175	-235	-391	-354
D	14	-408	-538	-399	-533	-335	-367	-348	-116	-80	-108	-184	-591	-772	-313	-178	-653	-407	-24	-62	-112	-429	-199	-75	-634	-328
	15	-502	-221	-53	-87	-283	-257	-110	-128	-91	-94	-300	-276	-46	-24	-25	-26	-49	-69	-92	-40	-47	-46	-89	-123	-128
Q	16	-208	-148	-110	-86	-26	-28	-5	-29	-38	-87	-194	-162	-142	-162	-101	-155	-111	-74	-314	-77	-44	-14	-55	-26	-100
	17	-92	-74	-83	-56	-129	-299	-199	-52	-53	-50	-256	-220	-55	-29	-29	-67	-93	-27	-9	-6	-45	-23	-4	-123	-86
	18	-319	-188	-126	-243	-227	-187	-177	-66	-40	-209	-291	-69	-72	-262	-481	-347	-157	-256	-209	-439	-121	0	-17	-15	-188
Q	19	-20	-28	-78	-50	-61	-39	-23	-30	-14	-108	-54	-19	-68	-142	-218	-210	-89	-332	-263	-67	0	-4	-64	-71	-86
	20	-119	-138	-33	-5	-8	-6	-33	-135	-98	-26	-11	-17	-20	-18	-19	-23	-35	-24	-36	-125	-327	-347	-231	-315	-90
	21	-185	-236	-202	-56	-205	-110	-121	-79	-42	-97	-137	-130	-153	-149	-344	-256	-55	-25	-13	-24	-119	-260	-228	-75	-138
Q	22	-109	-113	-99	-40	-63	-91	-43	-33	-76	-71	-61	-75	-123	-97	-55	-27	-234	-214	-167	-138	-206	-119	-57	-47	-98
	23	-41	-66	-111	-10	-13	-75	-398	-310	-160	-86	-98	-33	-219	-371	-143	-106	-110	-52	-81	-180	-189	-49	-134	-196	-135
	24	-243	-103	-33	-53	-49	-67	-33	-47	-28	-26	-96	-353	-78	-19	-21	-41	-191	-207	-267	-92	-61	-231	-157	-211	-113
Q	25	-53	-32	-49	-16	-8	-13	-21	-76	-203	-279	-313	-128	-87	-50	-42	-26	-32	-12	-13	-4	-4	-134	-145	-63	-75
	26	-11	-16	-9	-8	-40	-69	-129	-89	-38	-23	-103	-239	-186	-204	-348	-299	-233	-362	-346	-167	-231	-180	-301	-98	-155
D	27	-66	-88	-403	-158	-171	-336	-467	-409	-289	-308	-167	-96	-141	-178	-173	-56	-177	-266	-111	-324	-444	-610	-116	-21	-232
	28	-39	-36	-20	-103	-163	-100	-40	-50	-202	-175	-107	-51	-70	-217	-240	-228	-284	-82	-33	-64	-52	-22	-15	-15	-100
	29	-11	-11	-9	-11	-9	-15	-14	-86	-241	-182	-129	-148	-149	-160	-262	-233	-349	-168	-95	-27	-16	-8	-11	-3	-98
	Mean	-186	-146	-123	-102	-111	-122	-115	-94	-94	-134	-177	-178	-165	-171	-195	-198	-169	-163	-192	-193	-196	-192	-176	-172	-157
5Q	Mean	-93	-75	-77	-39	-34	-37	-24	-55	-89	-111	-129	-113	-96	-100	-115	-93	-96	-129	-153	-79	-80	-72	-88	-61	-85
5D	Mean	-414	-329	-342	-315	-276	-317	-294	-165	-126	-249	-291	-362	-410	-381	-371	-448	-339	-253	-300	-300	-339	-336	-198	-302	-311

AL Index (Hourly mean values, unit nT) March 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-8	-4	-13	-9	-12	-13	-11	-16	-51	-96	-18	-88	-620	-623	-291	-219	-273	-300	-96	-122	-670	-800	-580	-775	-238
D	2	-516	-375	-184	-191	-225	-203	-134	-126	-446	-294	-331	-603	-497	-596	-471	-195	-237	-159	-481	-577	-430	-45	-192	-479	-333
D	3	-242	-89	-375	-380	-246	-393	-82	-126	-309	-291	-180	-224	-156	-321	-255	-252	-206	-375	-529	-375	-501	-168	-215	-247	-272
Q	4	-278	-334	-275	-146	-153	-68	-66	-64	-211	-75	-1	-15	-59	-37	-53	-200	-243	-58	-14	-22	-30	-36	-19	-27	-103
Q	5	-19	-16	-19	-13	-8	-7	-6	-4	-16	-108	-11	-7	-21	-26	-72	-13	-3	0	-8	-6	-18	-11	-20	-20	-19
	6	-16	-15	-55	-139	-46	-155	-373	-351	-224	-112	-69	-74	-37	-237	-412	-354	-147	-326	-592	-145	-422	-690	-437	-239	-236
	7	-299	-410	-251	-427	-403	-104	-89	-204	-534	-198	-81	-173	-382	-45	-158	-396	-290	-174	-323	-290	-267	-335	-452	-197	-270
	8	-112	-258	-386	-305	-145	-185	-40	-284	-449	-141	-224	-269	-336	-514	-562	-488	-497	-546	-501	-546	-293	-330	-600	-431	-352
	9	-288	-221	-130	-271	-361	-215	-72	-25	-8	-7	-11	-25	-31	-24	-71	-51	-130	-98	-88	-64	-133	-337	-288	-52	-125
	10	-93	-300	-119	-9	-17	-39	-144	-215	-136	-130	-34	-60	-22	-119	-228	-412	-346	-300	-516	-331	-320	-133	-164	-529	-196
	11	-196	-72	-49	-48	-66	-2	-3	-2	-6	-10	-234	-289	-159	-71	-97	-75	-125	-241	-387	-364	-356	-294	-363	-107	-151
	12	-16	-40	-142	-163	-28	-141	-109	-20	-8	0	-21	-106	-140	-73	-144	-140	-134	-332	-390	-155	-95	-101	-156	-147	-117
	13	-137	-180	-222	-71	-60	-48	-21	-72	-131	-87	-54	-105	-217	-334	-526	-144	-37	-21	-45	-91	-79	-22	-12	-17	-114
Q	14	-16	-28	-34	-118	-56	-30	-28	-55	-144	-273	-155	-35	-30	-3	-20	-28	-47	-22	-63	-15	-7	-4	-10	-11	-51
	15	-17	-23	-10	-10	-6	-59	-164	-33	-11	-14	-26	-34	-23	-38	-63	-60	-16	-26	-18	-12	-30	-46	-381	-82	-50
	16	-6	-14	-22	-22	-83	-172	-249	-457	-160	-18	-18	-61	-63	-284	-635	-304	-42	-189	-212	-138	-18	-7	-5	-9	-133
	17	-28	-19	-18	-65	-318	-305	-136	-150	-271	-71	-42	-700	-682	-417	-193	-377	-339	-201	-158	-107	-43	-178	-41	-10	-203
	18	-6	-54	-86	-127	-53	-49	-35	-129	-262	-361	-487	-191	-83	-76	-153	-146	-382	-573	-183	-113	-120	-180	-142	-72	-169
	19	-203	-217	-173	-177	-107	-114	-254	-183	-62	-155	-592	-422	-23	-22	-28	-84	-72	-21	-11	-6	-24	-26	-19	-16	-126
Q	20	-75	-41	-28	-22	-39	-38	-30	-33	-77	-137	-96	-83	-57	-32	-17	-23	-26	-15	-10	-12	-9	-16	-19	-22	-40
Q	21	-23	-15	-16	-25	-14	-44	-99	-98	-49	-17	-22	-68	-65	-76	-213	-96	-78	-126	-60	-54	-81	-93	-110	-277	-76
	22	-369	-439	-220	-201	-301	-213	-269	-500	-549	-181	-70	-43	-26	-14	-19	-75	-134	-224	-263	-273	-355	-216	-277	-358	-233
	23	-291	-150	-138	-200	-11	-21	-176	-371	-327	-434	-362	-381	-419	-364	-405	-92	-83	-47	-28	-42	-76	-41	-18	-33	-188
	24	-24	-103	-146	-191	-42	-36	-28	-38	-45	-59	-99	-103	-203	-335	-215	-126	-58	-46	-62	-50	-30	-5	-103	-127	-95
D	25	-54	-233	-563	-282	-227	-314	-188	-175	-471	-694	-384	-253	-318	-683	-604	-656	-439	-339	-555	-360	-194	-89	-257	-341	-361
	26	-141	-278	-48	-71	-141	-31	-14	-72	-12	-108	-156	-33	-17	-25	-26	-36	-108	-197	-319	-116	-405	-389	-112	-106	-123
	27	-296	-161	-72	-29	-34	-230	-256	-137	-168	-333	-394	-140	-214	-450	-370	-258	-215	-271	-562	-394	-463	-577	-411	-205	-277
D	28	-202	-119	-163	-392	-265	-285	-256	-131	-369	-259	-280	-365	-187	-405	-658	-495	-508	-799	-501	-410	-624	-721	-472	-535	-392
D	29	-294	-214	-319	-312	-253	-541	-572	-532	-622	-529	-417	-280	-144	-313	-422	-190	-312	-290	-330	-430	-104	-188	-635	-512	-365
	30	-526	-302	-375	-268	-249	-297	-402	-343	-252	-271	-391	-588	-352	-140	-125	-118	-222	-610	-500	-386	-352	-409	-245	-200	-330
	31	-159	-126	-294	-246	-328	-234	-48	-97	-197	-146	-293	-529	-584	-319	-282	-169	-28	-17	-51	-242	-379	-357	-458	-695	-262
	Mean	-159	-156	-159	-159	-138	-147	-140	-162	-212	-180	-179	-204	-198	-226	-251	-202	-186	-223	-253	-201	-223	-220	-232	-221	-193
5Q	Mean	-82	-86	-74	-64	-54	-37	-45	-50	-99	-122	-57	-41	-46	-34	-75	-72	-79	-44	-31	-21	-29	-32	-35	-71	-57
5D	Mean	-261	-206	-320	-311	-243	-347	-246	-218	-443	-413	-318	-345	-260	-463	-482	-357	-340	-392	-479	-430	-370	-242	-354	-422	-344

AL Index (Hourly mean values, unit nT) April 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-435	-309	-360	-559	-718	-292	-274	-318	-550	-731	-276	-221	-367	-103	-190	-533	-533	-455	-178	-267	-269	-178	-153	-82	-348
D	2	-207	-585	-142	-178	-107	-97	-87	-309	-723	-613	-403	-158	-272	-401	-439	-502	-192	-526	-575	-520	-140	-95	-368	-740	-349
	3	-876	-552	-222	-345	-523	-302	-144	-349	-274	-483	-507	-214	-356	-570	-571	-380	-251	-558	-675	-818	-489	-576	-655	-422	-463
D	4	-405	-565	-518	-441	-169	-232	-219	-530	-535	-195	-139	-242	-415	-538	-134	-130	-220	-1199	-1303	-816	-994	-1206	-763	-491	-517
D	5	-430	-441	-409	-380	-389	-358	-406	-411	-458	-499	-496	-562	-445	-621	-652	-758	-692	-688	-608	-755	-675	-632	-593	-539	-537
	6	-355	-302	-168	-172	-202	-98	-90	-177	-237	-262	-78	-86	-225	-130	-118	-95	-128	-289	-265	-194	-134	-165	-99	-29	-171
	7	-96	-143	-41	-19	-14	-49	-84	-62	-94	-429	-954	-438	-186	-65	-85	-56	-149	-161	-175	-335	-238	-175	-246	-285	-191
D	8	-299	-475	-461	-483	-512	-495	-676	-637	-535	-645	-591	-720	-316	-337	-267	-291	-82	-303	-354	-318	-330	-479	-513	-676	-450
	9	-465	-716	-296	-358	-227	-184	-84	-55	-41	-37	-252	-205	-362	-449	-290	-140	-93	-70	-185	-211	-45	-20	-113	-50	-206
	10	-68	-77	-49	-131	-121	-73	-36	-43	-36	-36	-60	-49	-64	-124	-99	-66	-39	-103	-181	-25	-35	-92	-248	-108	-82
	11	-295	-414	-76	-20	-33	-38	-128	-216	-128	-61	-319	-205	-115	-82	-58	-123	-208	-240	-282	-168	-222	-51	-22	-36	-147
	12	-42	-41	-73	-62	-302	-226	-153	-55	-35	-31	-33	-24	-22	-22	-45	-133	-359	-149	-142	-56	-29	-168	-523	-419	-131
	13	-158	-39	-53	-108	-141	-29	-91	-231	-61	-18	-13	-40	-119	-93	-56	-40	-42	-193	-212	-54	-40	-42	-158	-38	-86
	14	-30	-48	-37	-81	-42	-30	-32	-30	-34	-25	-23	-30	-26	-52	-100	-286	-427	-227	-211	-217	-408	-336	-111	-398	-135
	15	-248	-117	-58	-28	-55	-140	-249	-233	-181	-289	-112	-47	-29	-43	-57	-70	-55	-28	-24	-80	-36	-16	-9	-9	-92
Q	16	-14	-23	-27	-26	-27	-31	-23	-15	-168	-42	-34	-40	-44	-30	-29	-26	-20	-17	-24	-56	-139	-135	-159	-99	-52
	17	-53	-36	-29	-25	-28	-32	-30	-27	-23	-19	-35	-31	-33	-36	-44	-73	-113	-42	-14	-18	-11	-15	-20	-15	-33
Q	18	-7	-11	-20	-22	-23	-295	-134	-46	-21	-24	-33	-41	-33	-34	-31	-36	-22	-15	-9	-6	-2	-5	-12	-12	-37
	19	-21	-11	-22	-19	-24	-32	-21	-22	-32	-33	-22	-17	-10	-15	-42	-46	-85	-24	-2	4	-41	-90	-89	-97	-34
	20	-125	-172	-48	-57	-431	-601	-829	-179	-176	-202	-222	-141	-88	-89	-189	-47	-130	-101	-8	-21	-30	-9	-45	-93	-168
	21	-167	-191	-171	-100	-41	-33	-88	-291	-294	-141	-62	-95	-184	-127	-89	-171	-279	-225	-57	-41	-117	-62	-89	-268	-141
Q	22	-173	-70	-52	-57	-31	-30	-21	-122	-57	-83	-94	-46	-24	-27	-22	-22	-18	-11	-5	-8	-16	-22	-29	-31	-45
Q	23	-22	-44	-33	-67	-53	-47	-37	-32	-35	-30	-32	-48	-60	-38	-35	-133	-198	-371	-294	-220	-140	-135	-330	-147	-108
Q	24	-41	-35	-32	-19	-125	-115	-45	-72	-56	-48	-59	-82	-63	-86	-69	-46	-28	-39	-69	-41	-37	-53	-102	-78	-60
	25	-37	-29	-41	-34	-36	-40	-25	-27	-24	-12	-17	-25	-82	-243	-785	-712	-545	-699	-693	-754	-600	-520	-622	-374	-291
D	26	-766	-426	-475	-473	-691	-632	-565	-521	-526	-739	-407	-444	-279	-481	-656	-1325	-1257	-992	-1412	-794	-506	-480	-508	-498	-660
	27	-489	-296	-479	-616	-197	-73	-181	-479	-469	-275	-230	-133	-58	-148	-141	-142	-168	-392	-440	-443	-274	-148	-436	-248	-290
	28	-177	-177	-191	-267	-229	-307	-437	-413	-459	-448	-220	-306	-343	-260	-185	-275	-376	-163	-23	-61	-156	-151	-85	-40	-240
	29	-29	-74	-46	-54	-38	-280	-234	-462	-288	-80	-203	-234	-419	-370	-439	-272	-347	-296	-95	-115	-280	-413	-180	-139	-224
	30	-57	-21	-30	-58	-289	-263	-124	-40	-55	-36	-29	-30	-30	-34	-44	-48	-44	-41	-39	-45	-38	-246	-638	-692	-124
	Mean	-219	-214	-155	-175	-193	-181	-184	-213	-220	-218	-198	-165	-168	-188	-198	-232	-236	-287	-285	-248	-215	-223	-263	-238	-213
5Q	Mean	-51	-36	-32	-38	-51	-103	-52	-57	-67	-45	-50	-51	-44	-43	-37	-52	-57	-90	-80	-66	-66	-70	-126	-73	-60
5D	Mean	-421	-498	-401	-391	-373	-362	-390	-481	-555	-538	-407	-425	-345	-475	-429	-601	-488	-741	-850	-640	-529	-578	-549	-588	-502

AL Index (Hourly mean values, unit nT) May 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-382	-165	-160	-260	-60	-104	-360	-321	-215	-236	-458	-504	-490	-643	-549	-548	-374	-361	-423	-419	-331	-392	-338	-346	-352
	2	-459	-323	-178	-192	-167	-282	-343	-278	-171	-100	-115	-326	-153	-23	-29	-40	-37	-36	-33	-41	-25	-15	-18	-19	-142
	3	-29	-23	-38	-33	-31	-33	-37	-44	-91	-52	-68	-37	-36	-48	-56	-172	-233	-225	-63	-129	-260	-235	-208	-355	-106
	4	-224	-101	-88	-99	-301	-270	-209	-160	-189	-282	-216	-391	-102	-194	-204	-106	-59	-34	-104	-236	-60	-97	-395	-139	-177
	5	-134	-281	-197	-132	-191	-144	-170	-183	-196	-259	-309	-278	-277	-453	-420	-326	-460	-430	-422	-410	-619	-135	-161	-500	-295
	6	-436	-182	-44	-19	-24	-165	-420	-225	-127	-81	-42	-60	-30	-59	-131	-102	-22	-14	-18	-27	-19	-27	-35	-40	-98
Q	7	-89	-54	-20	-21	-24	-31	-23	-18	-22	-20	-56	-214	-136	-64	-46	-23	-26	-16	-16	-26	-21	-31	-32	-26	-44
Q	8	-20	-18	-24	-45	-42	-54	-59	-45	-18	-23	-71	-65	-23	-19	-20	-23	-12	-5	-7	0	-5	-16	-19	-25	-28
	9	-15	-25	-21	-88	-141	-84	-105	-75	-80	-12	-16	-38	-71	-267	-420	-442	-150	-112	-61	-76	-145	-241	-134	-380	-133
	10	-202	-23	-25	-64	-492	-492	-183	-121	-200	-425	-397	-321	-242	-336	-313	-214	-191	-143	-151	-37	-14	-8	-21	-69	-195
	11	-189	-65	-20	-40	-25	-25	-24	-62	-37	-26	-57	-57	-86	-46	-45	-49	-62	-66	-83	-66	-105	-144	-63	-47	-62
	12	-65	-21	-19	-20	-32	-14	-32	-116	-173	-275	-252	-92	-32	-28	-44	-84	-186	-374	-245	-65	3	-18	-22	-16	-93
	13	-22	-307	-385	-247	-80	-50	-54	-45	-123	-97	-58	-24	-23	-40	-57	-20	-11	-7	-15	-10	-15	-27	-29	-29	-74
	14	-26	-21	-22	-23	-24	-29	-41	-26	-26	-35	-30	-121	-376	-414	-262	-209	-151	-435	-360	-254	-345	-266	-234	-257	-166
	15	-119	-119	-91	-64	-98	-114	-193	-395	-228	-246	-178	-157	-111	-156	-70	-27	-28	-36	-104	-45	-44	-14	-16	-23	-112
Q	16	-33	-46	-44	-57	-61	-59	-44	-33	-33	-28	-87	-148	-105	-40	-27	-13	-8	-17	-4	-7	-32	-47	-131	-89	-50
D	17	-192	-166	-95	-206	-333	-327	-54	-54	-192	-616	-221	-93	-80	-39	-25	-35	-32	-72	-23	-10	-9	-18	-22	-29	-123
	18	-31	-28	-27	-36	-69	-115	-111	-48	-49	-71	-164	-75	-75	-126	-229	-248	-255	-114	-312	-240	-269	-297	-278	-409	-153
	19	-446	-226	-166	-384	-760	-777	-641	-523	-272	-287	-77	-78	-99	-89	-87	-65	-148	-235	-521	-239	-72	-74	-67	-157	-270
D	20	-297	-368	-243	-197	-279	-313	-506	-491	-371	-423	-385	-173	-101	-194	-359	-156	-252	-789	-717	-604	-417	-179	-226	-359	-350
D	21	-245	-403	-573	-520	-474	-305	-311	-637	-428	-256	-81	-306	-437	-286	-127	-164	-126	-325	-407	-406	-232	-247	-379	-535	-342
D	22	-386	-409	-268	-268	-122	-211	-417	-653	-580	-262	-141	-240	-466	-415	-306	-389	-569	-697	-558	-363	-389	-443	-356	-490	-392
D	23	-563	-453	-410	-353	-396	-178	-121	-163	-444	-355	-383	-352	-251	-166	-115	-375	-275	-258	-435	-310	-202	-219	-420	-249	-310
	24	-248	-147	-34	-103	-90	-138	-352	-239	-202	-342	-396	-60	-234	-172	-538	-720	-572	-266	-452	-250	-65	-56	-194	-380	-260
	25	-442	-123	-20	-42	-100	-99	-137	-68	-48	-43	-67	-191	-333	-332	-373	-398	-282	-199	-302	-215	-282	-437	-394	-554	-228
	26	-131	-98	-386	-554	-379	-226	-349	-313	-131	-57	-139	-186	-141	-208	-125	-25	-22	-67	-158	-72	-20	-22	-26	-31	-161
Q	27	-32	-33	-26	-23	-22	-23	-30	-48	-199	-311	-221	-144	-187	-249	-320	-318	-252	-276	-164	-97	-129	-169	-211	-205	-154
	28	-155	-57	-48	-34	-45	-55	-61	-62	-75	-69	-83	-134	-153	-150	-158	-254	-269	-236	-284	-266	-221	-230	-285	-271	-152
	29	-85	-75	-213	-321	-406	-147	-127	-104	-123	-180	-202	-143	-97	-160	-144	-226	-249	-338	-445	-138	-71	-154	-182	-140	-186
	30	-150	-249	-314	-240	-252	-228	-427	-475	-517	-571	-482	-437	-157	-82	-66	-164	-385	-216	-56	-105	-337	-396	-261	-234	-283
Q	31	-125	-113	-68	-28	-56	-46	-15	-17	-32	-52	-103	-92	-36	-33	-28	-27	-26	-26	-23	-25	-47	-210	-164	-132	-63
	Mean	-192	-152	-137	-152	-179	-165	-192	-194	-180	-196	-179	-178	-165	-178	-183	-192	-184	-207	-224	-167	-154	-156	-171	-210	-179
5Q	Mean	-59	-52	-36	-34	-41	-42	-34	-32	-60	-86	-107	-132	-97	-81	-88	-80	-64	-68	-42	-31	-46	-94	-111	-95	-67
5D	Mean	-336	-359	-317	-308	-320	-266	-281	-399	-403	-382	-242	-232	-267	-220	-186	-223	-250	-428	-428	-338	-249	-221	-280	-332	-303

AL Index (Hourly mean values, unit nT) June 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-112	-34	-35	-16	-17	-74	-60	-19	-27	-26	-29	-40	-91	-101	-122	-64	-28	-48	-76	-53	-13	-17	-24	-36	-48
	2	-86	-140	-63	-42	-203	-292	-223	-41	-31	-45	-43	-103	-135	-158	-190	-156	-173	-71	-21	-15	-14	-56	-305	-169	-116
D	3	-21	-13	-11	-7	-13	-10	-56	-163	-184	-40	-43	-74	-45	-401	-734	-438	-202	-359	-301	-51	-21	-21	-115	-47	-141
D	4	-40	-58	-199	-271	-298	-124	-85	-74	-254	-548	-459	-188	-269	-283	-99	-96	-157	-230	-151	-31	-40	-196	-400	-438	-208
	5	-405	-306	-331	-405	-278	-177	-60	-152	-270	-82	-97	-292	-376	-254	-90	-58	-59	-85	-45	-44	-26	-11	-26	-152	-170
	6	-228	-137	-137	-350	-111	-145	-315	-165	-157	-95	-89	-166	-312	-255	-218	-82	-20	-13	-24	-51	-237	-176	-82	-75	-152
	7	-154	-250	-155	-101	-161	-308	-236	-207	-216	-349	-257	-155	-157	-310	-231	-40	0	-22	-68	-138	-120	-17	-22	-19	-154
	8	-21	-28	-37	-24	-18	-10	-10	-14	-25	-16	-85	-32	-38	-56	-31	-52	-20	0	-4	-68	-191	-73	-74	-89	-42
	9	-110	-90	-40	-100	-135	-104	-137	-521	-415	-125	-63	-86	-190	-167	-78	-45	-138	-137	-207	-301	-308	-156	-127	-77	-161
	10	-83	-118	-270	-374	-431	-272	-298	-226	-127	-116	-179	-134	-102	-219	-294	-232	-130	-150	-82	-19	-56	-216	-260	-176	-190
	11	-90	-169	-296	-218	-305	-259	-224	-233	-137	-77	-50	-37	-199	-230	-132	-92	-166	-140	-43	-19	-62	-125	-114	-73	-145
Q	12	-41	-91	-318	-438	-213	-230	-161	-84	-91	-199	-90	-92	-186	-144	-69	-15	-16	-21	-28	-38	-44	-27	-12	-13	-111
Q	13	-20	-17	-21	-16	-81	-171	-247	-79	-32	-31	-24	-30	-66	-37	-36	-31	-26	-92	-281	-176	-75	-48	-32	-28	-71
Q	14	-26	-25	-76	-20	-8	-28	-39	-20	-12	-136	-28	-17	-18	-12	-19	-47	-15	-1	-25	-44	-52	-31	-25	-30	-31
	15	-20	-43	-58	-108	-141	-104	-16	-15	-34	-57	-54	-197	-216	-217	-283	-626	-493	-299	-237	-376	-151	-85	-159	-278	-178
D	16	-453	-597	-693	-455	-548	-436	-465	-395	-450	-373	-601	-385	-356	-286	-238	-103	-205	-169	-225	-191	-143	-164	-324	-254	-354
	17	-132	-42	-37	-25	-47	-45	-33	-194	-416	-444	-112	-15	-24	-44	-151	-138	-152	-76	-67	-84	-135	-29	-29	-21	-104
D	18	-59	-71	-190	-189	-97	-34	-11	-9	-87	-183	-505	-379	-359	-613	-524	-521	-441	-457	-361	-314	-92	-53	-115	-324	-249
D	19	-350	-361	-199	-29	-79	-329	-376	-345	-244	-258	-434	-161	-152	-192	-358	-326	-267	-253	-320	-338	-436	-380	-365	-492	-293
	20	-544	-496	-479	-566	-423	-213	-134	-201	-174	-403	-145	-109	-88	-132	-139	-28	-32	-133	-36	-18	-17	-26	-45	-36	-192
Q	21	-83	-44	-33	-33	-22	-19	-23	-30	-28	-27	-27	-20	-16	-13	-20	-36	-92	-102	-149	-131	-145	-156	-165	-219	-68
Q	22	-285	-230	-278	-223	-170	-163	-214	-161	-78	-41	-25	-27	-71	-219	-294	-164	-164	-127	-109	-97	-141	-101	-130	-165	-153
	23	-170	-101	-49	-37	-82	-78	-72	-150	-74	-21	-12	-14	-13	-14	-15	-17	-22	-16	-9	-35	-172	-590	-504	-569	-118
	24	-684	-718	-564	-426	-507	-255	-56	-45	-53	-82	-208	-173	-58	-142	-116	-149	-171	-229	-69	-55	-48	-45	-52	-234	-214
	25	-116	-86	-182	-208	-266	-183	-36	-23	-109	-218	-54	-40	-87	-152	-213	-111	-155	-41	-100	-52	-165	-52	-72	-55	-116
	26	-31	-128	-242	-52	-29	-17	-38	-164	-70	-66	-85	-53	-10	-20	-14	-20	-25	-42	-172	-237	-292	-221	-302	-264	-108
	27	-385	-336	-392	-413	-224	-221	-244	-86	-109	-138	-210	-204	-172	-105	-51	-22	-13	-29	-19	-37	-44	-34	-49	-57	-150
	28	-111	-225	-193	-234	-359	-435	-287	-286	-250	-192	-252	-214	-254	-382	-231	-228	-422	-555	-635	-215	-213	-329	-246	-324	-295
	29	-266	-251	-164	-51	-31	-41	-103	-62	-13	-21	-89	-95	-98	-72	-52	-84	-110	-107	-66	-27	-203	-351	-252	-204	-117
	30	-250	-262	-226	-161	-171	-143	-174	-152	-51	-68	-261	-306	-183	-230	-308	-282	-252	-228	-263	-211	-22	-22	-29	-35	-179
	Mean	-179	-182	-198	-186	-182	-164	-147	-143	-140	-149	-153	-127	-144	-182	-178	-143	-138	-141	-139	-115	-122	-126	-148	-165	-154
5Q	Mean	-91	-81	-145	-146	-98	-122	-136	-74	-48	-86	-38	-37	-71	-85	-87	-58	-62	-68	-118	-97	-91	-72	-72	-91	-86
5D	Mean	-184	-220	-258	-190	-207	-186	-198	-197	-243	-280	-408	-237	-236	-355	-390	-296	-254	-293	-271	-185	-146	-162	-263	-311	-249

AE Index (Hourly mean values, unit nT) January 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
D	1	363	351	781	734	615	676	545	625	739	471	494	349	572	732	373	226	235	753	857	753	793	301	287	333	540
	2	319	303	178	385	226	103	370	454	230	129	132	384	274	559	642	194	125	143	85	225	104	69	89	120	243
	3	182	102	152	233	238	214	167	349	461	335	384	392	237	186	759	991	898	624	516	398	273	373	243	267	374
D	4	286	291	605	408	362	330	613	892	843	287	225	421	315	214	287	188	259	310	372	612	572	286	308	500	408
D	5	436	444	583	637	218	243	426	378	380	145	95	193	700	646	299	156	184	251	130	261	136	186	321	397	327
	6	245	133	161	186	219	81	161	207	130	458	393	204	141	152	420	426	250	81	61	80	258	169	48	36	196
Q	7	40	31	43	115	186	72	69	68	88	281	253	191	123	108	137	174	70	21	38	29	36	57	73	94	100
Q	8	38	38	33	28	20	22	43	101	86	201	40	48	60	69	67	56	107	38	33	35	34	25	20	25	53
Q	9	23	24	29	59	119	48	50	60	58	95	66	123	108	45	56	40	94	60	28	34	35	136	130	45	65
	10	40	88	182	312	228	63	35	21	19	28	31	30	110	236	317	213	40	351	792	664	231	273	373	207	203
	11	164	127	140	106	79	93	72	42	89	123	95	174	165	52	40	81	122	218	268	302	452	287	201	225	155
Q	12	192	149	108	121	101	129	97	71	191	172	151	83	71	63	77	94	187	179	52	53	34	48	125	63	109
	13	55	36	62	130	138	64	57	50	74	57	35	65	142	145	454	794	350	149	201	251	141	117	211	219	166
	14	104	78	87	86	130	143	39	34	27	37	34	65	270	121	59	81	131	116	53	293	168	210	130	168	111
Q	15	70	70	110	89	45	51	133	270	239	53	34	33	45	58	217	117	234	83	73	72	56	53	127	103	102
	16	66	52	67	122	179	153	75	40	32	21	30	26	30	56	156	333	273	490	281	103	58	93	176	195	129
	17	201	240	334	193	101	67	75	143	119	97	34	33	74	85	71	60	56	97	152	162	169	75	39	56	114
	18	36	42	48	49	35	29	29	34	36	75	206	201	70	50	38	40	26	83	395	516	437	235	205	272	133
	19	510	410	330	254	264	407	299	161	225	334	432	545	418	354	462	300	177	60	31	37	88	276	333	286	291
	20	146	81	160	177	264	53	28	40	63	241	395	280	74	46	48	106	95	47	27	37	52	29	29	71	108
	21	131	182	112	159	352	356	241	370	225	405	639	188	65	56	62	48	77	76	157	187	281	161	158	177	203
	22	216	183	380	248	125	65	215	303	128	169	363	93	100	181	287	254	124	212	193	108	262	128	94	145	191
	23	186	87	84	98	96	141	88	37	42	38	25	28	30	51	94	232	331	233	76	79	279	135	131	160	116
	24	162	374	230	88	59	123	184	49	28	26	20	23	27	31	31	33	30	21	23	18	16	24	23	38	70
	25	25	35	46	59	88	126	129	124	358	188	184	253	232	218	157	76	174	640	466	240	280	257	236	373	207
	26	320	241	260	340	382	452	700	388	277	173	119	62	83	239	385	393	493	648	292	138	151	169	206	124	293
	27	74	59	141	211	123	66	45	41	50	22	76	99	106	179	289	250	308	328	294	244	167	304	383	244	171
	28	188	324	278	155	279	367	304	171	88	218	784	576	147	73	229	838	632	375	263	211	391	441	230	209	324
	29	610	773	211	123	272	266	173	362	360	310	572	533	452	222	95	136	123	80	64	66	243	172	247	303	282
D	30	314	539	348	252	470	341	224	212	170	452	641	535	475	377	475	422	996	643	547	527	696	347	221	144	432
D	31	212	205	167	120	241	188	140	127	228	196	213	525	695	764	678	556	1027	1085	626	307	338	222	369	659	412
	Mean	192	196	208	202	201	178	187	200	196	188	232	217	206	205	250	255	265	274	240	227	233	182	186	201	213
5Q	Mean	72	62	64	82	94	64	78	114	132	160	108	95	81	68	110	96	138	76	44	44	39	63	95	66	85
5D	Mean	322	366	496	430	381	355	389	446	472	310	333	404	551	546	422	309	540	608	506	492	507	268	301	406	423

AE Index (Hourly mean values, unit nT) February 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	518	335	257	326	217	235	265	229	272	413	470	348	156	99	139	65	64	278	444	234	150	58	61	77	238
	2	114	63	58	49	37	40	67	102	102	141	156	164	455	464	406	381	289	552	648	694	701	981	850	538	336
	3	496	678	474	131	73	59	72	101	81	38	44	54	56	61	58	111	322	187	314	705	694	712	616	498	276
D	4	847	732	524	629	813	817	627	389	297	616	619	626	752	820	1118	1149	859	590	598	569	536	571	510	527	672
	5	379	227	146	184	416	262	171	164	345	588	616	459	345	322	259	175	107	69	50	144	196	148	53	51	245
	6	63	171	230	149	82	104	79	86	66	110	242	179	138	190	309	277	99	106	536	618	543	332	372	254	222
	7	237	195	126	124	105	186	143	93	196	329	188	122	231	153	80	57	55	70	112	61	64	84	309	281	150
Q	8	159	132	169	51	48	51	87	195	303	101	115	261	138	119	275	129	60	65	37	148	210	192	284	270	150
	9	321	241	150	90	115	180	244	181	84	58	141	183	197	114	143	249	102	60	87	59	53	83	208	320	153
	10	144	126	80	75	119	88	96	98	119	155	471	420	475	472	612	735	636	718	578	638	606	522	491	543	376
D	11	510	345	589	307	223	218	276	293	180	269	292	300	238	348	310	248	124	176	258	267	252	277	264	196	282
	12	64	68	57	140	58	80	129	241	179	82	56	52	67	58	192	234	226	105	67	96	240	427	483	257	152
D	13	503	336	307	450	360	441	444	206	237	527	772	734	617	700	746	807	709	656	844	568	361	316	386	489	522
D	14	540	651	565	850	550	606	654	196	154	206	317	672	890	420	255	910	587	139	135	223	536	295	232	699	470
	15	681	459	154	222	386	352	242	289	197	175	416	357	84	51	55	50	63	80	103	55	75	86	124	167	205
Q	16	262	233	222	196	76	83	38	80	76	144	256	216	186	203	121	172	126	95	364	127	88	57	114	64	150
	17	141	131	133	130	240	429	287	103	76	84	327	303	101	62	50	99	109	55	35	38	86	58	46	230	140
	18	359	329	256	441	370	304	316	137	125	352	380	133	128	325	549	457	252	346	297	560	202	56	65	52	283
Q	19	57	63	115	89	102	83	62	81	59	153	97	64	137	209	291	261	129	449	353	133	59	40	119	104	138
	20	172	202	85	46	38	47	101	231	165	72	56	55	56	60	66	77	95	99	88	243	527	509	371	632	171
	21	405	334	328	165	417	301	387	319	170	211	275	267	295	293	460	408	129	94	67	73	223	393	414	226	277
Q	22	263	254	215	203	274	284	176	160	223	215	236	212	300	176	104	80	296	276	253	207	318	267	224	185	225
	23	153	183	242	91	104	224	547	538	380	290	300	173	364	459	256	162	149	98	134	259	258	107	196	245	246
	24	302	133	72	98	83	115	71	112	70	71	169	442	125	51	60	93	218	251	326	144	101	302	212	272	162
Q	25	111	93	87	50	36	42	57	123	264	389	469	253	149	91	79	51	52	31	38	29	35	254	208	106	129
	26	42	42	34	44	84	118	220	189	99	70	221	386	319	300	498	482	461	602	567	410	415	326	403	167	271
D	27	138	189	482	233	301	482	652	592	477	438	313	178	236	240	276	91	227	326	189	496	622	822	250	100	348
	28	101	105	82	163	227	164	100	131	351	339	238	113	139	293	334	293	363	99	63	110	99	61	45	40	169
	29	38	34	31	40	40	58	58	176	412	332	267	360	357	308	363	394	612	261	127	52	43	41	49	44	187
	Mean	280	244	216	198	206	222	229	201	198	240	293	278	266	257	291	299	259	239	265	274	285	288	274	263	253
5Q	Mean	170	155	161	117	107	108	84	127	185	200	234	201	182	159	174	138	132	183	209	128	142	162	189	145	158
5D	Mean	507	450	493	493	449	512	530	335	269	411	462	502	546	505	541	641	501	377	404	424	461	456	328	402	458

AE Index (Hourly mean values, unit nT) March 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	32	28	32	27	31	32	32	51	113	232	122	208	775	898	495	439	449	508	159	206	745	817	813	932	341
D	2	573	493	344	309	424	327	215	224	615	434	428	763	620	761	639	294	308	219	596	716	583	212	318	612	459
D	3	302	179	601	543	375	593	195	212	474	407	299	313	253	427	366	357	316	516	676	521	639	346	318	362	400
Q	4	402	429	367	258	247	171	203	137	360	185	45	58	86	58	85	263	291	108	41	36	47	53	36	43	167
Q	5	35	38	48	30	34	39	37	43	79	161	51	44	60	67	94	38	33	24	33	31	59	47	45	48	51
	6	43	53	139	240	179	291	568	647	446	254	155	182	91	346	552	559	301	590	773	257	594	865	570	378	378
	7	416	541	439	531	548	274	179	285	669	344	212	365	620	211	268	596	409	299	498	489	417	458	563	274	413
	8	171	383	502	439	333	334	138	405	571	245	388	394	494	596	779	703	778	817	782	725	462	494	831	606	516
	9	400	329	282	379	462	330	166	83	39	32	49	55	69	63	135	79	162	134	124	120	228	447	417	166	198
	10	221	407	238	158	113	126	252	358	291	336	157	161	75	173	309	544	529	530	702	503	462	273	317	747	333
	11	398	186	161	129	139	66	43	45	53	66	344	388	253	175	250	166	184	359	560	558	521	484	568	270	265
	12	83	107	223	278	108	245	248	61	32	35	87	180	227	161	213	191	209	471	563	301	291	299	322	293	218
	13	216	275	324	205	133	114	101	154	234	286	236	321	361	594	1005	321	78	49	78	120	104	55	48	49	228
Q	14	41	50	54	151	83	64	65	113	248	378	237	84	64	35	42	55	81	61	102	50	40	30	33	32	91
	15	40	46	31	33	34	88	257	90	51	52	105	99	71	81	115	85	42	49	41	40	80	121	477	143	94
	16	58	52	47	52	184	219	338	609	276	60	60	131	141	429	887	580	94	288	311	205	75	54	45	45	218
	17	69	59	54	162	421	405	210	280	500	180	115	859	839	557	304	604	533	347	290	209	132	255	93	62	314
	18	44	101	146	184	81	91	78	196	354	564	742	358	145	125	212	191	513	697	244	190	217	295	223	154	256
	19	312	320	283	277	195	222	378	301	167	284	804	600	117	60	59	112	95	46	35	33	49	63	51	54	205
Q	20	112	81	66	54	71	70	54	65	112	177	132	125	120	66	43	52	44	34	35	34	31	40	37	44	71
Q	21	44	40	45	64	41	71	125	125	99	60	62	136	136	165	299	149	149	204	128	148	178	177	236	388	136
	22	526	532	374	321	448	329	441	734	856	343	125	82	59	37	50	159	168	330	446	419	593	326	423	515	360
	23	444	247	268	279	72	83	328	500	510	630	599	566	475	487	578	154	119	81	60	110	138	80	44	61	288
	24	64	169	235	265	109	99	63	77	87	106	189	201	315	443	284	192	88	90	104	96	75	49	235	173	159
D	25	106	340	660	368	418	473	295	295	653	883	651	462	456	844	801	926	707	535	822	546	317	189	406	457	526
	26	235	368	98	114	166	64	46	107	56	173	211	76	50	64	64	74	167	278	455	258	602	488	208	181	192
	27	426	272	159	96	107	352	346	222	305	487	500	213	340	665	518	358	347	472	765	636	682	851	618	352	420
D	28	363	287	291	581	406	523	494	257	578	549	622	647	395	590	989	708	760	985	696	717	758	736	586	602	588
D	29	404	384	532	485	411	754	754	767	839	706	586	443	210	490	557	281	506	481	484	607	209	317	860	644	530
	30	581	405	522	434	397	498	729	603	527	598	689	664	475	252	237	179	354	782	703	548	522	545	345	310	496
	31	248	230	398	341	429	365	135	202	260	245	514	749	804	470	482	318	74	39	137	386	552	545	638	871	393
	Mean	239	239	256	251	232	248	242	266	337	306	306	320	296	335	377	313	286	336	369	316	335	322	345	318	300
5Q	Mean	126	127	116	111	95	83	96	96	179	192	105	89	93	78	112	111	119	86	67	59	71	69	77	111	103
5D	Mean	349	336	485	457	406	534	390	351	631	595	517	525	386	622	670	513	519	547	654	621	501	360	497	535	500

AE Index (Hourly mean values, unit nT) April 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	536	412	489	760	878	513	549	585	786	959	625	393	512	188	312	778	762	633	333	494	466	348	306	203	534
D	2	387	680	233	304	166	207	206	461	909	820	532	350	452	592	637	692	441	891	837	766	320	201	546	951	524
	3	991	667	413	485	637	436	235	506	467	747	702	387	484	724	756	578	437	807	884	993	678	733	886	586	634
D	4	603	708	769	710	436	400	347	731	737	311	206	307	560	781	264	234	409	1362	1295	879	1036	1189	783	615	653
D	5	621	608	642	542	579	530	589	608	654	745	734	758	734	980	1005	1057	964	873	770	829	748	694	774	712	740
	6	471	458	302	307	363	169	162	320	367	406	151	161	367	219	207	177	210	420	439	363	294	276	189	92	287
	7	207	254	130	56	38	126	194	178	262	652	1143	744	359	123	124	85	249	318	311	611	460	414	380	371	325
D	8	435	691	777	835	891	842	1099	1055	704	735	842	952	469	523	480	395	179	562	514	524	573	806	680	833	683
	9	753	901	585	637	368	304	140	89	91	98	411	374	449	530	382	209	180	177	332	343	145	98	175	102	328
	10	121	141	113	196	191	127	90	82	97	114	116	128	150	204	164	90	77	155	278	61	99	180	314	163	144
	11	472	504	141	53	62	56	208	306	186	109	472	319	189	127	92	211	277	390	415	308	341	102	64	65	228
	12	63	63	101	107	433	359	347	130	61	63	78	53	51	45	89	258	551	232	263	130	82	314	701	672	218
	13	310	120	136	179	185	52	207	331	127	62	48	96	226	171	76	75	102	338	357	110	123	115	235	67	160
	14	66	89	93	127	66	55	52	52	60	50	43	55	53	102	202	454	642	434	387	419	631	467	222	597	226
	15	335	200	100	60	110	231	338	331	246	356	158	95	48	88	106	105	84	55	68	137	62	41	34	32	142
Q	16	37	45	45	43	44	48	52	64	234	123	92	92	101	84	80	59	52	50	65	113	231	232	236	137	98
	17	99	74	52	42	44	47	45	42	37	41	75	69	71	90	97	134	158	83	69	75	84	85	90	81	74
Q	18	55	53	53	73	79	413	202	70	34	45	64	76	63	64	77	73	47	44	39	33	34	40	51	50	76
	19	68	47	58	50	53	61	65	84	109	103	71	60	54	73	107	104	150	90	68	60	154	189	159	186	93
	20	199	226	85	132	607	763	988	349	332	320	330	239	168	158	263	116	183	208	84	89	91	58	103	167	261
	21	218	266	237	153	76	69	165	405	401	229	137	168	272	189	132	241	389	337	133	96	174	133	182	388	216
Q	22	235	124	92	97	66	70	59	195	118	153	142	94	48	44	38	39	43	38	33	29	35	39	46	51	80
Q	23	44	74	63	100	76	64	59	64	71	63	76	118	119	68	80	188	290	478	439	442	290	285	526	266	181
Q	24	123	80	63	81	287	280	108	175	127	127	145	161	160	150	107	69	56	88	113	86	83	139	214	139	132
	25	96	74	96	98	103	105	71	144	74	81	73	91	193	431	1170	1129	894	958	1119	1150	890	676	708	627	460
D	26	909	634	729	726	1003	833	726	811	885	1013	697	654	451	729	1085	1905	1757	1436	1930	1209	750	816	856	763	971
	27	653	512	804	942	415	230	417	697	768	480	458	264	137	311	264	248	272	596	650	646	449	337	697	409	486
	28	343	354	302	413	361	498	623	577	660	717	440	489	539	395	262	413	580	256	62	159	280	254	158	107	385
	29	68	130	76	82	115	420	347	643	417	198	333	374	633	559	679	447	615	474	184	210	478	652	298	289	363
	30	129	69	63	166	453	476	240	82	78	50	41	42	53	82	73	69	72	60	69	75	78	472	874	829	196
	Mean	321	308	261	285	306	292	297	338	336	332	314	272	272	294	313	354	370	428	418	381	338	346	382	351	329
5Q	Mean	98	75	63	78	110	175	96	113	116	102	103	108	98	82	76	85	97	139	137	140	134	147	214	128	113
5D	Mean	591	664	630	623	615	562	593	733	777	724	602	604	533	721	694	856	750	1024	1069	841	685	741	727	774	714

AE Index (Hourly mean values, unit nT) May 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	618	345	346	419	139	213	501	499	354	403	691	796	737	945	858	856	682	620	694	691	616	681	579	588	578
	2	661	551	363	311	329	537	549	511	348	266	291	496	259	67	52	89	58	41	50	72	49	35	39	36	253
	3	42	42	45	36	34	42	48	76	176	117	205	114	92	112	122	221	311	298	131	257	413	385	415	630	182
	4	431	206	186	207	458	465	392	326	359	482	450	580	231	285	315	165	118	99	185	364	172	207	509	229	309
	5	254	420	339	225	305	312	328	362	358	478	547	516	554	735	672	682	824	738	703	746	879	282	335	643	510
	6	624	321	117	69	60	372	619	450	305	228	122	105	67	117	239	166	54	50	48	53	36	39	58	76	183
Q	7	139	85	36	30	35	45	33	37	48	51	162	378	233	126	86	46	45	40	46	48	39	46	49	47	80
Q	8	37	36	41	79	81	79	120	98	56	107	148	112	74	49	49	47	38	38	44	32	32	40	41	44	63
	9	33	55	57	194	208	134	239	166	154	67	60	132	162	354	566	654	305	196	142	199	266	442	295	638	238
	10	379	96	68	204	747	750	398	309	422	837	825	586	345	508	476	391	433	300	269	144	110	78	95	149	372
	11	268	118	60	86	67	63	128	165	98	95	128	165	247	106	78	85	108	127	179	197	299	282	161	174	145
	12	195	77	57	89	69	68	118	269	400	487	464	253	121	97	142	153	324	625	501	216	98	90	71	75	211
	13	87	515	657	383	140	84	108	105	239	281	158	67	67	91	115	64	39	41	52	31	34	47	44	39	145
	14	34	26	25	26	35	80	67	37	49	72	63	267	572	582	393	328	303	676	630	514	582	567	601	572	296
	15	277	250	184	109	146	194	328	699	442	499	373	300	197	223	113	86	74	75	162	128	90	55	37	51	212
Q	16	73	83	97	128	109	105	73	54	59	99	335	355	223	109	69	53	42	55	42	38	67	96	236	211	117
D	17	372	319	238	340	579	478	153	204	508	987	421	194	182	119	59	76	97	131	66	58	52	57	48	67	242
	18	65	56	67	114	162	242	214	175	171	184	277	176	169	245	347	350	363	212	456	372	476	537	567	718	280
	19	621	391	361	637	968	1071	961	928	459	494	164	156	170	133	122	112	272	452	783	414	142	144	161	282	433
D	20	536	573	413	370	442	520	756	689	558	696	636	384	198	312	480	207	526	1120	1084	930	660	412	552	608	569
D	21	520	746	1063	881	799	579	593	932	618	434	173	495	688	340	164	291	214	522	604	650	459	577	622	742	571
D	22	629	576	430	506	285	393	718	968	826	424	293	416	630	615	452	603	980	1048	816	604	616	677	650	694	619
D	23	722	817	628	495	709	372	237	404	710	697	692	508	349	245	213	597	446	519	672	512	352	411	558	386	510
	24	362	230	87	170	159	294	512	404	389	582	648	245	468	385	984	1183	938	500	774	432	199	160	375	591	461
	25	576	198	86	85	136	171	260	117	107	114	219	335	499	571	565	552	487	393	472	358	535	750	659	794	377
	26	209	213	567	696	536	436	539	459	217	127	267	347	269	325	209	78	53	111	248	116	43	49	44	46	258
Q	27	41	38	31	29	31	34	38	134	400	526	430	289	318	409	494	507	440	493	331	216	303	446	448	488	288
	28	376	195	157	140	139	124	135	189	246	266	243	304	309	267	262	374	378	388	482	521	451	451	507	532	310
	29	219	215	371	523	701	291	277	229	257	347	347	301	257	283	238	330	341	532	613	258	180	264	290	242	329
	30	315	484	554	441	477	423	590	718	842	799	829	746	306	136	107	271	577	364	139	264	555	664	524	435	482
Q	31	299	290	188	114	109	66	38	53	93	112	188	168	85	65	42	39	32	35	35	54	113	349	275	292	131
	Mean	323	276	255	262	296	291	324	347	331	366	349	331	292	288	293	311	319	349	369	306	287	300	317	358	314
5Q	Mean	117	106	78	76	73	65	60	75	131	179	252	260	186	151	148	138	119	132	99	77	110	195	209	216	135
5D	Mean	555	606	554	518	562	468	491	639	644	647	443	399	409	326	273	354	452	668	648	550	427	426	486	499	502

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	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	253	103	78	43	87	121	73	69	78	69	98	160	208	219	253	118	76	114	151	156	107	89	82	118	122
	2	222	316	192	221	424	540	456	167	175	230	253	272	295	284	314	296	325	152	102	113	156	218	450	292	269
D	3	104	87	66	56	52	38	230	348	343	181	214	320	174	750	1203	733	386	697	639	202	125	112	253	116	309
D	4	107	138	337	566	549	284	164	204	520	909	714	359	484	475	172	203	304	379	323	142	152	397	700	739	388
	5	597	496	576	666	500	310	207	303	397	179	271	568	602	386	163	112	135	158	126	123	122	64	83	361	313
	6	331	195	239	452	183	330	431	261	292	185	204	294	499	403	316	130	76	78	100	169	416	286	190	159	259
	7	272	369	244	165	280	539	451	385	458	593	489	309	279	449	304	80	45	76	155	279	246	95	82	76	280
	8	64	57	70	44	33	32	28	42	59	54	150	119	144	161	160	146	114	99	86	237	478	214	229	271	129
	9	208	183	133	204	192	192	345	866	759	294	160	205	323	260	142	112	282	269	449	526	512	301	252	156	305
	10	166	257	422	575	601	425	415	330	240	282	306	233	228	338	423	383	217	251	185	80	149	385	400	325	317
	11	199	283	457	364	431	408	338	355	258	173	135	159	340	340	225	181	218	232	107	90	150	211	231	172	252
Q	12	127	210	523	652	387	401	300	179	180	335	161	211	308	237	133	58	57	59	63	79	93	76	55	49	206
Q	13	45	37	42	42	189	313	428	195	78	59	51	94	174	102	87	57	54	173	443	338	160	84	75	63	141
Q	14	63	63	130	54	51	52	79	78	121	238	104	99	98	67	104	109	75	45	84	106	118	83	73	75	90
	15	67	107	188	189	271	216	92	124	154	177	252	370	388	386	419	920	700	487	505	608	440	321	332	548	344
D	16	739	1010	1091	701	961	739	780	749	742	663	888	552	553	452	367	170	342	300	388	337	264	368	635	441	593
	17	262	105	88	67	79	90	87	310	627	575	174	49	87	107	223	192	194	119	114	166	248	83	73	66	174
D	18	140	155	270	264	179	99	75	81	230	362	739	553	584	1054	837	872	836	849	606	539	226	159	207	455	432
D	19	524	516	286	95	226	487	541	529	459	514	724	264	242	298	567	560	498	446	574	554	693	654	607	672	480
	20	791	727	737	763	593	379	227	395	292	628	268	186	176	206	233	85	95	226	97	58	38	54	113	70	310
Q	21	146	80	46	44	29	28	27	37	40	37	44	35	32	28	38	78	147	153	222	220	304	305	337	405	119
Q	22	482	447	498	419	394	375	369	296	175	80	58	65	160	380	402	242	258	181	168	182	244	224	261	326	278
	23	350	231	154	144	240	184	182	324	167	68	32	43	37	31	47	40	61	70	49	90	379	885	849	887	231
	24	872	978	786	707	811	420	139	98	119	237	324	262	127	234	205	213	269	344	136	102	76	91	130	418	337
	25	269	222	316	331	442	303	91	123	272	321	91	73	163	249	300	167	235	94	211	167	287	154	170	125	216
	26	90	253	427	137	112	61	133	335	181	195	141	121	49	43	38	40	51	83	305	424	531	442	550	505	219
	27	577	550	637	682	513	417	386	242	254	309	421	440	374	210	122	62	39	53	47	74	99	67	112	146	285
	28	251	376	402	501	612	783	626	569	528	463	542	510	499	644	393	376	693	847	869	395	416	626	477	637	543
	29	561	508	377	190	107	115	173	112	70	184	243	215	223	185	135	144	186	205	164	117	403	554	468	416	252
	30	385	389	366	296	347	370	372	258	148	214	414	455	365	379	469	491	387	414	514	381	102	74	83	84	323
	Mean	308	314	339	321	329	301	274	278	280	293	288	253	273	311	293	245	245	255	266	235	257	255	285	305	283
5Q	Mean	172	167	247	242	210	233	240	157	118	149	83	100	154	162	152	108	118	122	196	185	183	154	160	183	166
5D	Mean	322	381	410	336	393	329	358	382	458	525	655	409	407	605	629	507	473	534	506	354	292	338	480	484	440

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	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
D	1	-71	-53	-249	-164	-107	-93	-96	-123	-116	-99	-78	-75	-159	-147	-77	-65	-70	-262	-243	-261	-266	8	-33	-46	-123
	2	-80	-85	-52	-28	-1	19	-64	-60	5	-7	-24	-134	-90	-180	-198	-45	-28	-51	-22	-87	-28	-7	-6	-26	-53
	3	-57	-21	-30	-44	-43	-31	-10	-98	-97	-20	-47	-5	-12	-44	-279	-323	-143	-21	-27	-44	-55	-100	-39	-54	-69
D	4	-57	-43	-178	-69	-74	-35	-57	-138	-45	79	20	29	86	14	-84	-21	-61	-76	-85	-154	-148	-61	-78	-111	-56
D	5	-142	-126	-167	-174	1	-4	-113	-77	-82	-3	-1	-38	-247	-242	-99	-27	-56	-87	-26	-39	2	-25	-68	-51	-79
	6	-4	5	1	-25	-31	14	24	-4	-8	-139	-82	-17	-15	-51	-184	-163	-60	6	0	-14	-106	-68	7	6	-37
Q	7	11	7	1	-23	-52	4	9	11	0	-77	-55	-25	-7	-29	-38	-41	-2	7	11	5	2	-11	-14	-23	-13
Q	8	4	1	1	1	1	2	-1	-23	-19	-36	-4	1	3	-11	-15	-10	-13	-1	2	2	4	2	1	3	-4
Q	9	5	0	0	-7	-23	7	0	-1	1	-30	-14	-30	-5	5	4	5	-25	-12	-1	0	-1	-27	-20	2	-7
	10	8	-9	-12	-20	17	26	16	13	11	15	9	5	-18	-17	-44	-18	6	-70	-281	-82	28	-5	-115	16	-21
	11	11	30	20	6	1	7	16	3	16	1	6	-13	-8	7	-1	-1	-17	-58	-76	-31	-114	5	29	24	-5
Q	12	-4	12	21	37	35	28	22	23	-5	37	47	28	21	-10	3	7	-66	-44	-1	-5	0	-2	-18	-3	6
	13	0	3	4	-14	0	10	13	10	25	19	11	6	-5	-10	-139	-168	-63	-25	-7	-74	-33	3	-30	-28	-20
	14	7	10	9	7	6	8	11	9	0	3	-2	0	-63	14	1	-13	-28	-51	-16	-126	-52	-32	21	3	-11
Q	15	25	16	11	19	12	12	25	-48	37	24	10	9	9	9	-67	-36	-78	0	-9	-18	-5	10	-16	13	-1
	16	21	16	16	33	55	41	23	15	12	0	-3	-2	0	-1	-43	-130	-77	-84	0	3	5	1	5	10	-3
	17	16	-21	-52	65	39	24	15	35	22	21	14	15	0	4	-10	-4	-9	-22	-31	-16	-20	1	17	7	4
	18	3	2	5	3	6	9	9	11	10	0	-31	-2	26	14	8	8	0	-12	-99	-39	36	63	43	-32	1
	19	-154	86	93	28	46	-10	-5	-8	-1	7	-81	-178	-104	-86	-116	-84	-54	-6	-5	-4	-5	-81	-114	-73	-38
	20	-2	1	-34	-48	-77	3	3	7	-2	-84	-150	-36	7	-4	-13	-44	-36	-13	-7	-8	-15	-6	0	-15	-24
	21	-35	-41	2	-19	-92	-93	-30	-65	-25	-93	-151	-33	-1	6	3	-2	-26	-23	-51	-28	-40	-11	27	8	-34
	22	-24	-7	-119	-18	0	1	-49	-124	-40	-50	-140	-22	-25	-57	-117	-63	-25	-61	-26	-7	-53	-3	-4	-17	-44
	23	-43	-1	2	-5	-4	-28	-18	-2	-2	-4	-4	-1	0	0	-11	-96	-118	-78	-15	-12	-92	-16	-3	-22	-24
	24	-21	-62	-4	14	8	-23	-44	2	9	4	0	0	1	5	2	3	1	-1	4	0	2	2	5	0	-3
	25	7	2	1	5	6	25	45	31	-16	14	15	-9	15	4	10	3	4	-147	-55	5	26	-10	1	-63	-3
	26	-45	-43	0	-42	-52	-65	-52	-13	-3	12	14	7	7	-52	-123	-83	-42	-124	-10	-2	-7	-27	-3	8	-31
	27	13	0	-23	-64	-25	4	7	0	1	-7	-27	-29	-16	-19	-85	-96	-103	-94	-52	-13	-7	-4	3	33	-25
	28	29	22	62	49	6	-57	-40	-23	-2	-29	-101	-15	13	-17	-68	-186	-140	-52	-29	-6	-77	-117	-49	-19	-35
	29	-189	-285	4	-10	-22	-40	-17	-47	-77	-54	-101	-92	-120	-29	2	-41	-41	-12	-3	-4	-68	-23	-36	-72	-57
D	30	-43	-50	-24	-52	-88	-39	2	-9	-12	-53	-125	-93	-143	-112	-117	-90	-253	-170	-139	-117	-187	-34	18	-9	-81
D	31	-10	-35	-20	-12	-50	-53	-14	-8	-71	-55	-49	-184	-245	-256	-241	-132	-316	-342	-156	-71	-97	-31	-109	-208	-115
	Mean	-26	-21	-22	-18	-16	-10	-11	-22	-15	-19	-36	-30	-35	-41	-68	-63	-62	-64	-46	-40	-44	-19	-18	-23	-32
5Q	Mean	8	7	6	5	-5	10	11	-7	2	-16	-3	-3	4	-7	-22	-15	-36	-10	0	-3	0	-5	-13	-1	-3
5D	Mean	-64	-61	-127	-94	-63	-44	-55	-71	-65	-26	-46	-72	-141	-148	-123	-67	-151	-187	-129	-128	-139	-28	-54	-85	-90

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	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-134	-46	0	-61	-4	-13	-31	-23	-38	-83	-138	-84	-13	1	-17	5	0	-86	-166	-74	-20	23	3	-5	-42
	2	-14	17	16	9	8	6	9	-2	-1	-31	-30	-25	-72	-67	-78	-98	-83	-130	-183	-242	-172	-269	-171	-67	-69
	3	-82	-142	-122	16	10	0	7	0	7	4	4	7	8	7	5	-18	-111	-74	-97	-206	-215	-184	-239	-220	-68
D	4	-275	-190	-117	-65	-107	-79	0	68	41	-13	-27	-199	-178	-229	-274	-345	-163	-57	-191	-194	-185	-276	-177	-127	-140
	5	-21	0	8	9	-70	-47	3	-9	-60	-131	-134	-104	-118	-90	-65	-33	-6	-17	7	-47	-72	-42	8	18	-42
	6	5	-28	-13	29	22	19	33	29	22	20	-5	4	26	13	-4	-12	19	-10	-129	-179	-153	-43	-41	25	-14
	7	6	-17	10	45	31	-1	29	17	-5	-51	34	14	16	26	29	8	-10	-10	-23	-9	-2	-5	-82	-50	0
Q	8	0	7	31	18	10	9	9	-10	32	36	29	-55	8	5	-25	13	10	15	5	-37	-40	3	21	33	5
	9	57	50	39	30	27	17	26	59	35	16	9	5	11	29	19	-46	17	4	3	17	0	0	-37	-69	13
	10	13	48	35	6	0	11	23	39	47	25	-90	-96	-17	-41	-86	-80	-45	-165	-145	-195	-121	-128	-148	-227	-55
D	11	-159	-93	-47	23	9	23	15	0	22	-28	-9	-1	-6	-91	-58	-17	-7	-30	-75	-57	-23	1	0	20	-24
	12	23	18	14	-24	23	24	27	-50	49	40	17	5	-7	-10	-26	-6	-10	15	20	1	-4	-52	-79	-14	0
D	13	-235	-30	-33	-151	-78	-89	0	71	24	-83	-231	-92	-149	-161	-82	-67	-96	-179	-210	-110	-37	-16	-41	-146	-92
D	14	-137	-213	-116	-108	-60	-63	-20	-18	-3	-5	-25	-255	-327	-103	-50	-197	-113	44	4	0	-161	-51	40	-284	-92
	15	-162	8	22	22	-90	-80	10	15	5	-7	-92	-97	-4	1	1	-1	-17	-29	-40	-12	-9	-3	-26	-39	-26
Q	16	-76	-31	0	11	11	12	13	9	-1	-15	-66	-53	-48	-61	-40	-69	-47	-26	-131	-13	0	12	2	5	-25
	17	-21	-8	-17	8	-9	-84	-56	0	-14	-7	-93	-68	-4	1	-3	-17	-37	0	7	12	-1	5	18	-8	-16
	18	-138	-23	1	-22	-41	-34	-18	1	20	-34	-101	-2	-8	-100	-206	-118	-31	-82	-60	-158	-19	28	15	10	-46
Q	19	7	2	-20	-6	-10	2	6	9	14	-31	-6	11	0	-37	-72	-79	-24	-107	-86	0	30	16	-5	-19	-16
	20	-33	-37	8	16	10	16	16	-19	-15	9	15	9	6	11	13	14	11	24	7	-4	-63	-92	-45	0	-5
	21	16	-69	-37	25	2	39	71	79	41	7	-1	2	-6	-2	-113	-52	9	21	19	11	-7	-63	-21	36	0
Q	22	21	13	7	60	73	50	43	45	34	35	55	29	25	-9	-3	11	-86	-76	-40	-34	-46	13	54	45	13
	23	34	24	9	34	37	35	-124	-41	29	57	51	51	-36	-140	-14	-24	-35	-3	-13	-50	-59	3	-36	-73	-11
	24	-92	-36	2	-4	-8	-9	1	7	5	7	-11	-132	-15	5	8	4	-82	-80	-103	-19	-10	-79	-51	-75	-32
Q	25	1	13	-5	7	9	6	6	-14	-70	-84	-78	-2	-11	-4	-2	-1	-6	3	5	10	12	-6	-40	-10	-10
	26	9	4	6	13	1	-10	-19	4	9	11	5	-45	-25	-54	-99	-58	-3	-60	-62	36	-23	-17	-99	-15	-20
D	27	1	6	-162	-41	-20	-95	-140	-112	-50	-89	-11	-8	-23	-57	-34	-10	-62	-103	-16	-75	-132	-199	8	28	-58
	28	10	15	19	-21	-49	-17	9	13	-26	-6	10	4	0	-70	-72	-80	-102	-32	-1	-8	-2	7	6	4	-16
	29	6	4	5	7	10	13	14	1	-35	-16	3	31	27	-6	-80	-36	-43	-38	-31	0	5	11	13	18	-4
	Mean	-47	-25	-15	-3	-8	-11	-1	5	4	-15	-31	-39	-32	-42	-49	-48	-39	-43	-59	-56	-52	-48	-39	-41	-31
5Q	Mean	-9	0	2	18	18	15	15	7	1	-11	-13	-14	-5	-21	-28	-25	-30	-38	-49	-14	-8	7	6	10	-6
5D	Mean	-161	-104	-95	-68	-51	-60	-29	1	6	-43	-60	-111	-136	-128	-99	-127	-88	-65	-97	-87	-107	-108	-34	-101	-81

AO Index (Hourly mean values, unit nT) March 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	6	8	1	3	3	2	3	8	4	19	41	14	-232	-173	-43	0	-48	-45	-15	-17	-297	-391	-173	-309	-67
D	2	-229	-128	-12	-37	-13	-39	-26	-14	-138	-76	-117	-221	-187	-215	-151	-47	-83	-48	-182	-218	-137	60	-33	-173	-103
D	3	-90	0	-74	-108	-57	-97	14	-19	-72	-87	-31	-67	-29	-107	-72	-73	-48	-116	-190	-114	-181	4	-56	-66	-72
Q	4	-77	-119	-91	-17	-29	17	34	3	-31	16	20	12	-16	-7	-10	-68	-97	-3	5	-4	-6	-9	0	-4	-20
Q	5	-1	3	5	1	7	10	11	16	22	-28	13	14	8	5	-24	4	12	11	8	9	11	11	2	3	5
	6	4	11	13	-19	42	-10	-89	-27	-1	13	7	16	7	-64	-135	-74	3	-31	-205	-16	-124	-257	-151	-50	-47
	7	-91	-139	-31	-162	-130	32	0	-61	-199	-26	23	8	-71	60	-25	-98	-84	-24	-73	-44	-58	-105	-170	-60	-63
	8	-26	-66	-135	-85	20	-18	27	-81	-163	-19	-30	-71	-89	-215	-172	-136	-107	-137	-109	-183	-61	-82	-184	-127	-94
	9	-88	-56	9	-81	-129	-49	10	16	10	8	13	1	3	6	-4	-11	-49	-31	-25	-3	-18	-113	-79	30	-26
	10	16	-96	0	68	38	23	-18	-36	8	35	43	20	14	-32	-73	-140	-80	-35	-164	-78	-88	3	-5	-155	-30
	11	2	19	30	15	2	30	17	19	19	22	-61	-94	-32	14	26	7	-32	-61	-106	-84	-95	-51	-79	26	-18
	12	24	13	-30	-24	24	-18	14	9	7	17	22	-16	-26	6	-37	-44	-29	-96	-107	-4	50	47	4	0	-8
	13	-28	-42	-59	30	5	7	29	4	-14	54	62	54	-37	-37	-23	15	0	2	-6	-31	-27	4	10	6	0
Q	14	3	-2	-6	-42	-14	1	3	0	-20	-84	-36	6	1	14	1	0	-6	8	-12	9	12	10	5	4	-5
	15	2	0	4	5	10	-15	-36	10	13	10	25	13	11	1	-6	-17	4	-1	1	6	9	13	-142	-11	-3
	16	22	11	1	3	8	-63	-80	-152	-21	11	11	4	6	-69	-190	-14	4	-44	-56	-35	19	18	16	11	-24
	17	5	9	8	15	-107	-102	-31	-10	-22	17	14	-270	-262	-138	-41	-75	-72	-27	-12	-2	22	-50	4	19	-46
	18	15	-4	-13	-35	-12	-4	3	-30	-85	-79	-116	-11	-10	-13	-47	-50	-124	-224	-61	-17	-12	-32	-30	3	-41
	19	-47	-57	-31	-39	-10	-3	-65	-32	20	-13	-189	-121	34	6	0	-27	-24	1	6	9	0	5	5	10	-23
Q	20	-19	-1	4	4	-3	-3	-3	-1	-21	-49	-29	-19	3	0	4	2	-3	1	6	3	5	3	0	0	-4
Q	21	0	4	5	6	5	-9	-36	-35	0	12	7	0	2	5	-63	-21	-3	-23	3	19	7	-4	7	-83	-8
	22	-106	-172	-33	-41	-77	-48	-47	-133	-121	-10	-7	-2	2	3	4	3	-50	-59	-40	-63	-58	-53	-65	-101	-53
	23	-68	-27	-4	-60	24	19	-12	-120	-72	-118	-63	-98	-181	-120	-115	-15	-23	-6	1	12	-7	-1	2	-3	-44
	24	6	-19	-28	-59	11	12	2	0	-2	-6	-4	-3	-45	-113	-73	-29	-13	-1	-9	-2	6	18	13	-40	-15
D	25	-1	-62	-232	-97	-18	-77	-39	-27	-145	-252	-58	-22	-89	-260	-202	-193	-84	-71	-144	-86	-36	4	-54	-112	-98
	26	-23	-94	0	-14	-58	0	7	-18	14	-22	-50	4	7	5	5	0	-23	-58	-91	12	-103	-144	-8	-16	-27
	27	-83	-25	6	18	18	-53	-84	-26	-16	-89	-144	-34	-43	-117	-110	-79	-41	-35	-180	-74	-121	-150	-102	-28	-66
D	28	-21	23	-18	-101	-62	-24	-9	-2	-80	14	29	-42	9	-109	-163	-139	-127	-305	-152	-51	-245	-353	-179	-233	-97
D	29	-92	-22	-52	-69	-48	-164	-194	-148	-203	-175	-123	-58	-38	-68	-142	-49	-59	-49	-87	-126	0	-29	-205	-190	-100
	30	-235	-99	-113	-50	-50	-48	-37	-41	10	27	-47	-256	-114	-14	-6	-28	-44	-219	-147	-111	-90	-137	-72	-45	-82
	31	-35	-11	-95	-75	-113	-51	18	3	-67	-24	-36	-154	-182	-83	-40	-10	8	1	16	-49	-103	-84	-138	-259	-65
	Mean	-40	-36	-31	-33	-23	-23	-19	-29	-44	-28	-26	-44	-50	-59	-62	-45	-42	-55	-68	-43	-55	-59	-59	-63	-43
5Q	Mean	-18	-23	-16	-9	-6	3	1	-3	-10	-26	-5	2	0	3	-18	-16	-19	-1	2	7	5	2	2	-16	-6
5D	Mean	-86	-37	-77	-82	-39	-80	-50	-42	-127	-115	-60	-82	-66	-151	-146	-100	-80	-117	-151	-119	-119	-62	-105	-154	-94

AO Index (Hourly mean values, unit nT) April 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-166	-102	-115	-179	-279	-36	0	-25	-156	-252	34	-25	-111	-8	-34	-144	-151	-137	-12	-20	-35	-3	0	18	-81
D	2	-14	-245	-26	-26	-24	6	15	-78	-268	-203	-137	16	-45	-104	-119	-156	27	-80	-155	-136	20	5	-94	-263	-87
	3	-380	-218	-16	-102	-204	-83	-26	-95	-41	-108	-156	-21	-113	-208	-192	-91	-32	-154	-232	-321	-149	-209	-211	-128	-145
D	4	-103	-210	-133	-86	48	-31	-44	-164	-165	-40	-36	-88	-134	-147	-2	-13	-15	-517	-655	-376	-475	-611	-370	-182	-189
D	5	-119	-137	-88	-108	-99	-93	-110	-106	-131	-127	-129	-182	-77	-131	-149	-228	-209	-251	-222	-340	-300	-284	-205	-182	-167
	6	-119	-72	-17	-19	-20	-13	-9	-17	-52	-59	-3	-6	-40	-20	-13	-7	-22	-78	-45	-12	12	-26	-5	15	-27
	7	7	-16	22	8	4	13	11	25	36	-103	-383	-66	-7	-4	-22	-13	-24	-2	-19	-29	-8	30	-55	-98	-28
D	8	-80	-129	-72	-65	-66	-73	-126	-109	-183	-277	-170	-244	-81	-75	-26	-92	7	-22	-96	-56	-43	-75	-173	-259	-108
	9	-89	-265	-3	-40	-43	-32	-13	-10	3	10	-47	-18	-137	-184	-98	-35	-2	17	-19	-39	26	28	-25	0	-42
	10	-8	-7	6	-33	-25	-9	8	-2	11	20	-2	13	9	-21	-17	-20	-1	-25	-42	4	14	-2	-90	-26	-10
	11	-59	-161	-5	5	-2	-10	-24	-63	-35	-7	-83	-45	-20	-18	-11	-17	-69	-45	-74	-14	-50	0	9	-3	-33
	12	-10	-9	-22	-8	-85	-46	19	9	-4	0	5	2	3	0	0	-4	-83	-32	-9	7	10	-11	-172	-82	-21
	13	-3	20	13	-19	-49	-3	11	-65	2	12	10	6	-6	-8	-18	-2	7	-24	-33	0	20	15	-40	-4	-6
	14	2	-3	9	-17	-8	-3	-6	-4	-4	0	-1	-2	0	-1	0	-59	-105	-9	-17	-7	-92	-102	0	-99	-22
	15	-80	-17	-8	1	0	-24	-80	-67	-57	-110	-32	0	-4	0	-4	-17	-12	0	8	-11	-4	3	7	6	-21
Q	16	3	0	-3	-4	-5	-6	3	16	-51	18	11	4	5	11	10	2	5	6	7	0	-23	-18	-40	-30	-3
	17	-3	0	-3	-3	-5	-8	-7	-5	-4	1	2	2	2	7	3	-6	-33	0	19	18	30	27	24	24	3
Q	18	19	15	5	13	15	-88	-32	-10	-3	-1	-1	-3	-1	-1	5	0	0	5	9	8	14	13	12	12	0
	19	11	11	6	5	1	-1	11	19	21	17	13	11	16	20	11	6	-10	20	31	34	35	4	-9	-4	11
	20	-25	-59	-6	8	-127	-219	-334	-5	-10	-42	-57	-21	-4	-10	-57	10	-38	2	33	23	14	19	6	-8	-37
	21	-58	-57	-52	-23	-3	1	-6	-88	-94	-26	5	-11	-48	-31	-22	-50	-84	-56	9	6	-29	4	1	-74	-32
Q	22	-55	-7	-5	-8	0	4	7	-25	1	-6	-23	0	0	-5	-3	-2	2	7	10	5	1	-2	-6	-5	-4
Q	23	0	-7	-1	-17	-15	-15	-8	0	0	1	5	9	-1	-3	4	-38	-52	-131	-74	0	4	7	-66	-13	-17
Q	24	19	4	-1	20	18	23	8	14	5	14	11	-2	15	-10	-14	-11	0	4	-12	1	3	15	5	-8	5
	25	10	7	6	14	14	11	9	44	12	28	19	19	12	-27	-199	-147	-98	-219	-133	-178	-154	-182	-268	-60	-60
D	26	-311	-108	-110	-109	-189	-216	-202	-115	-83	-232	-58	-117	-52	-116	-113	-372	-378	-273	-445	-188	-130	-71	-80	-116	-174
	27	-162	-40	-77	-145	10	41	26	-129	-85	-35	-1	-1	9	7	-9	-18	-31	-93	-115	-119	-49	19	-86	-43	-47
	28	-6	0	-40	-60	-48	-58	-124	-124	-129	-89	-1	-61	-72	-62	-54	-67	-85	-35	7	17	-15	-23	-5	12	-47
	29	4	-8	-8	-13	19	-70	-60	-140	-80	18	-36	-47	-102	-90	-99	-48	-39	-58	-2	-9	-40	-86	-30	5	-42
	30	6	12	1	23	-62	-25	-4	0	-16	-10	-7	-8	-4	5	-7	-13	-7	-11	-4	-7	0	-10	-200	-277	-26
	Mean	-58	-60	-24	-32	-40	-35	-36	-43	-52	-52	-41	-29	-32	-41	-41	-55	-51	-73	-76	-57	-46	-50	-72	-62	-48
5Q	Mean	-2	1	-1	0	2	-16	-4	-1	-9	5	0	1	3	-1	0	-9	-9	-21	-12	2	0	3	-19	-8	-3
5D	Mean	-125	-165	-85	-78	-66	-81	-93	-114	-166	-175	-106	-123	-77	-114	-81	-172	-113	-228	-314	-219	-185	-207	-184	-200	-145

AO Index (Hourly mean values, unit nT) May 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	-73	7	11	-50	8	1	-108	-70	-37	-34	-112	-105	-121	-170	-118	-119	-32	-51	-75	-73	-23	-51	-48	-52	-62
	2	-128	-48	2	-36	-3	-13	-68	-23	2	32	30	-77	-23	9	-3	3	-8	-15	-7	-5	0	1	0	-1	-15
	3	-7	-2	-15	-14	-13	-12	-12	-6	-3	5	33	19	9	7	4	-61	-76	-75	3	-1	-53	-42	-1	-40	-14
	4	-9	1	3	4	-71	-37	-12	2	-10	-41	8	-101	12	-51	-46	-22	0	14	-12	-54	24	6	-140	-24	-23
	5	-7	-71	-27	-19	-38	11	-6	-2	-17	-20	-36	-21	0	-85	-84	14	-47	-60	-71	-37	-179	5	5	-179	-40
	6	-123	-21	13	14	5	20	-110	-1	23	32	17	-7	2	0	-11	-19	4	10	5	-1	-1	-7	-5	-2	-6
Q	7	-20	-11	-1	-6	-7	-8	-7	0	1	3	24	-24	-19	0	-3	0	-3	3	6	-2	-1	-7	-7	-2	-3
Q	8	-1	0	-4	-6	-2	-14	0	3	8	29	1	-9	13	4	3	0	6	12	14	15	9	3	0	-3	3
	9	1	2	5	8	-37	-16	13	7	-3	20	12	26	8	-89	-136	-114	2	-13	9	23	-12	-19	13	-61	-14
	10	-13	24	7	36	-118	-116	15	32	10	-7	14	-28	-69	-82	-74	-17	24	6	-16	34	40	29	25	4	-9
	11	-55	-6	9	2	7	5	38	19	11	20	6	24	35	5	-6	-6	-7	-2	6	31	43	-3	16	38	9
	12	31	16	8	23	1	19	26	17	25	-31	-20	32	27	19	26	-7	-23	-60	4	42	53	26	12	20	12
	13	20	-49	-57	-55	-10	-8	0	6	-4	42	20	8	9	4	0	10	7	11	10	4	1	-3	-7	-9	-2
	14	-9	-8	-9	-10	-6	9	-8	-8	-1	0	1	11	-90	-122	-64	-44	0	-96	-44	2	-54	16	64	27	-18
	15	19	5	1	-10	-24	-17	-29	-46	-7	3	7	-7	-13	-44	-13	14	8	0	-23	18	0	12	1	1	-6
Q	16	3	-4	3	5	-6	-6	-7	-5	-4	20	79	29	5	13	6	12	12	8	16	11	1	0	-12	14	8
D	17	-6	-7	22	-36	-43	-88	21	47	60	-122	-11	3	9	20	3	2	15	-6	9	17	15	9	0	4	-2
	18	1	0	5	19	11	5	-4	38	34	19	-25	11	8	-3	-55	-72	-73	-7	-84	-54	-31	-27	4	-50	-13
	19	-136	-30	13	-65	-276	-241	-160	-59	-42	-40	4	0	-13	-22	-25	-8	-11	-9	-128	-32	-1	-2	13	-16	-53
D	20	-29	-81	-36	-12	-58	-52	-127	-146	-91	-75	-66	18	-2	-37	-119	-52	10	-229	-174	-138	-86	25	49	-54	-65
D	21	14	-30	-41	-79	-74	-15	-15	-171	-118	-38	5	-58	-92	-115	-44	-18	-19	-63	-104	-81	-3	40	-68	-164	-56
D	22	-72	-120	-52	-15	20	-14	-57	-169	-166	-50	4	-32	-151	-107	-79	-87	-79	-172	-149	-60	-81	-104	-31	-143	-82
D	23	-201	-44	-95	-106	-41	7	-3	38	-88	-7	-37	-97	-76	-43	-8	-77	-52	0	-98	-54	-26	-13	-140	-56	-55
	24	-66	-31	8	-18	-11	8	-96	-37	-8	-51	-71	61	-1	18	-46	-128	-102	-15	-64	-34	33	22	-7	-84	-30
	25	-153	-24	22	0	-31	-13	-6	-9	5	13	41	-24	-83	-46	-90	-121	-38	-2	-65	-36	-15	-63	-64	-156	-40
	26	-27	7	-102	-205	-110	-8	-79	-84	-23	6	-6	-13	-7	-45	-20	12	3	-11	-33	-14	1	1	-3	-8	-32
Q	27	-11	-13	-10	-8	-6	-6	-11	18	0	-48	-7	0	-28	-44	-73	-64	-31	-29	1	10	21	52	11	37	-10
	28	30	38	30	34	23	6	5	31	47	63	37	17	0	-16	-26	-66	-79	-41	-42	-5	3	-5	-31	-5	2
	29	23	31	-27	-59	-55	-2	10	9	4	-6	-27	6	30	-18	-24	-60	-77	-70	-138	-9	17	-23	-36	-19	-21
	30	6	-7	-36	-20	-13	-17	-131	-115	-95	-171	-68	-64	-4	-13	-12	-28	-96	-33	13	26	-59	-64	0	-16	-42
Q	31	23	31	24	27	-1	-13	2	8	13	3	-9	-7	6	0	-7	-7	-10	-8	-4	2	8	-36	-26	12	1
	Mean	-31	-14	-10	-21	-31	-20	-29	-21	-15	-13	-4	-13	-19	-33	-36	-36	-24	-32	-39	-14	-11	-7	-13	-31	-22
5Q	Mean	-1	0	2	2	-4	-9	-4	4	3	1	17	-2	-4	-5	-14	-11	-5	-2	6	7	7	2	-6	11	0
5D	Mean	-58	-56	-40	-49	-39	-32	-36	-80	-80	-58	-21	-33	-62	-56	-49	-46	-25	-94	-103	-63	-36	-8	-38	-82	-52

AO Index (Hourly mean values, unit nT) June 1984

	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	1	13	16	4	5	25	-13	-23	14	11	7	19	38	12	7	4	-5	9	8	-1	24	38	26	15	22	11
	2	23	17	32	67	8	-22	3	41	55	68	82	31	12	-16	-32	-7	-10	4	28	41	63	51	-79	-23	18
D	3	29	29	20	19	11	7	57	10	-12	49	62	84	41	-26	-132	-72	-9	-11	16	48	40	34	11	9	13
D	4	12	9	-30	11	-23	16	-3	26	5	-94	-101	-8	-27	-45	-13	4	-5	-40	9	39	34	2	-50	-68	-14
	5	-106	-57	-43	-71	-27	-22	42	-1	-71	7	37	-8	-75	-61	-8	-1	8	-6	17	17	34	19	14	27	-14
	6	-63	-39	-17	-124	-19	19	-99	-34	-10	-2	12	-18	-63	-53	-60	-16	17	24	24	33	-29	-34	11	3	-22
	7	-18	-64	-32	-18	-21	-38	-10	-14	11	-52	-12	-1	-17	-85	-79	0	21	15	9	1	1	29	17	18	-14
	8	9	0	-3	-2	-1	4	2	6	3	9	-10	26	32	22	48	20	36	49	38	49	46	32	39	44	21
	9	-6	1	25	1	-39	-8	35	-88	-36	20	16	15	-28	-37	-6	10	2	-2	17	-38	-52	-6	-1	0	-8
	10	0	9	-58	-86	-129	-59	-89	-60	-7	24	-27	-17	11	-50	-81	-40	-21	-25	9	20	16	-24	-60	-14	-31
	11	9	-27	-67	-35	-89	-54	-55	-55	-8	8	16	41	-29	-59	-19	-1	-57	-23	10	25	12	-19	0	12	-19
Q	12	20	13	-56	-112	-19	-29	-11	5	-1	-32	-9	13	-32	-24	-2	13	11	7	2	0	1	10	14	10	-8
Q	13	2	0	-1	3	12	-13	-33	17	5	-1	1	16	19	12	6	-3	0	-5	-59	-7	4	-6	4	2	0
Q	14	4	4	-11	6	16	-2	0	17	47	-17	22	31	30	20	32	7	22	20	16	8	5	9	9	6	12
	15	12	9	34	-13	-5	3	29	46	42	30	70	-12	-21	-23	-73	-165	-142	-55	15	-72	67	74	5	-4	-6
D	16	-83	-92	-147	-104	-67	-66	-74	-20	-79	-42	-157	-109	-79	-60	-55	-17	-34	-19	-31	-22	-12	18	-7	-34	-58
	17	-2	9	6	7	-8	0	10	-39	-102	-156	-24	8	18	8	-39	-41	-54	-15	-9	-2	-12	10	6	10	-17
D	18	9	6	-54	-56	-7	14	25	30	26	-2	-136	-102	-67	-86	-105	-84	-23	-33	-57	-44	19	25	-11	-96	-33
D	19	-88	-103	-55	17	33	-85	-105	-80	-14	-1	-72	-29	-30	-42	-75	-46	-17	-30	-33	-61	-90	-53	-61	-156	-53
	20	-148	-132	-110	-184	-126	-23	-20	-4	-28	-88	-11	-15	0	-29	-22	12	13	-21	11	9	0	0	10	-1	-37
Q	21	-9	-4	-10	-11	-7	-4	-9	-12	-8	-8	-5	-2	0	0	-1	2	-18	-25	-36	-20	6	-4	1	-17	-8
Q	22	-44	-6	-29	-14	25	23	-29	-13	8	-1	3	5	7	-29	-92	-42	-34	-36	-24	-6	-19	9	0	-3	-14
	23	3	13	26	33	37	13	18	11	9	11	2	7	5	1	7	2	7	18	15	9	16	-147	-80	-126	-3
	24	-247	-228	-171	-72	-101	-44	12	2	5	35	-46	-41	5	-25	-14	-42	-35	-56	-1	-4	-9	0	11	-25	-45
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	26	13	-1	-27	15	26	12	27	2	20	30	-15	6	13	1	4	0	0	0	-19	-24	-27	-1	-27	-12	0
	27	-96	-60	-73	-72	31	-13	-51	34	17	16	0	14	14	-1	9	7	5	-2	4	0	4	-1	5	14	-8
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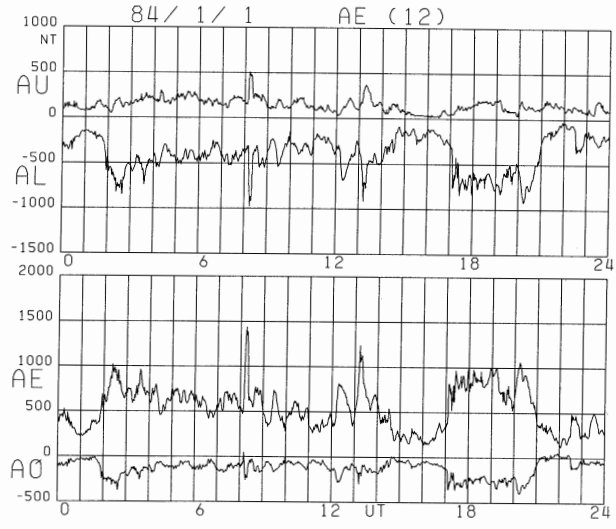
	30	-57	-67	-42	-12	1	40	10	-23	22	38	-54	-78	-1	-41	-74	-36	-57	-20	-5	-21	27	13	11	5	-17
	Mean	-25	-25	-29	-26	-17	-13	-10	-5	-1	-3	-9	-1	-8	-26	-31	-20	-16	-13	-7	1	5	0	-6	-13	-12
5Q	Mean	-5	1	-21	-25	5	-5	-16	2	10	-11	2	12	4	-4	-11	-4	-3	-7	-20	-5	0	3	5	0	-3
5D	Mean	-24	-30	-53	-22	-10	-22	-20	-6	-14	-18	-80	-32	-32	-51	-76	-43	-17	-26	-19	-8	-1	5	-23	-69	-29

FIGURE 4 (on even pages)

Daily graphs of 1.0 min AE indices (AU, AL, AE and AO) for January-June 1984. Graphs on disturbed days (Apr. 4 and Apr. 26) are reproduced on page 94.

FIGURE 5 (on odd pages)

Plots of the contributing station to the AU (upper plumes) and AL (lower plumes) indices, where you can see which station contributes to these indices at each UT minute.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NT
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-1500
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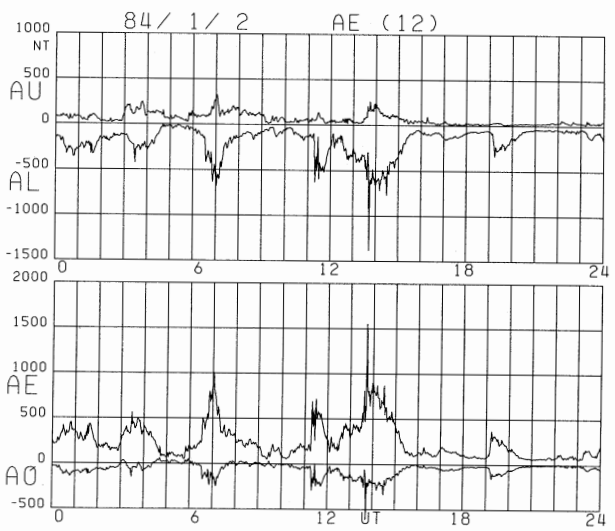
2000
1500
1000
AE
500
0
AO
-500
0 6 12 UT 18 24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AO
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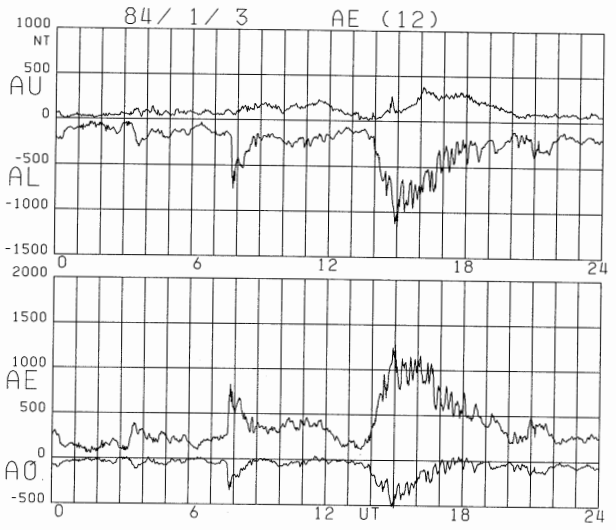
0 6 12 UT 18 24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NT
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AE
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AO
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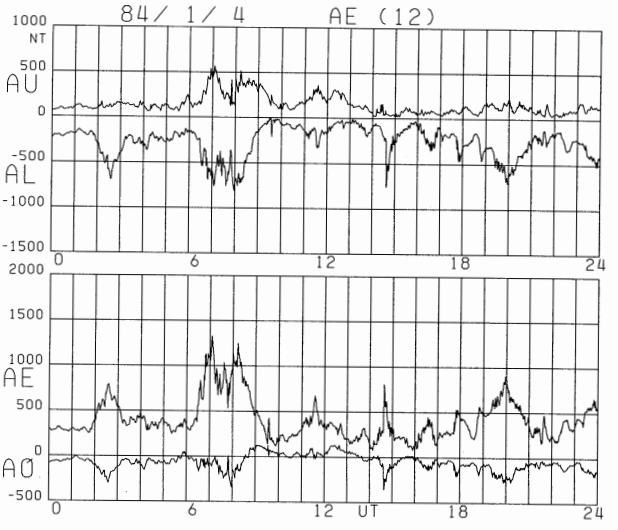
0 6 12 UT 18 24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-1500
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AE
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AO
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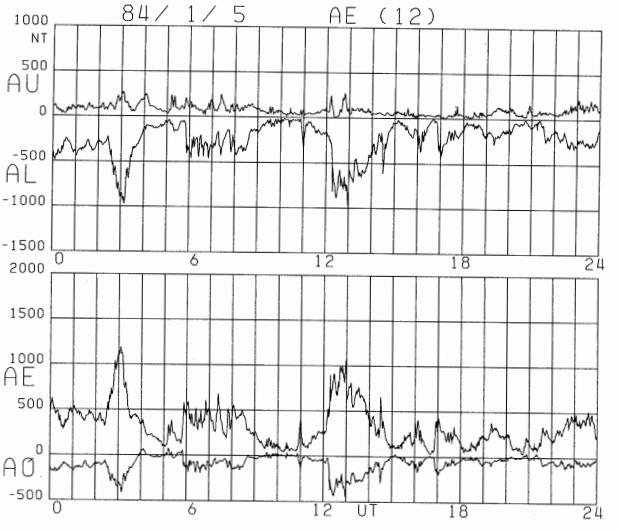
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-1500
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1000
AE
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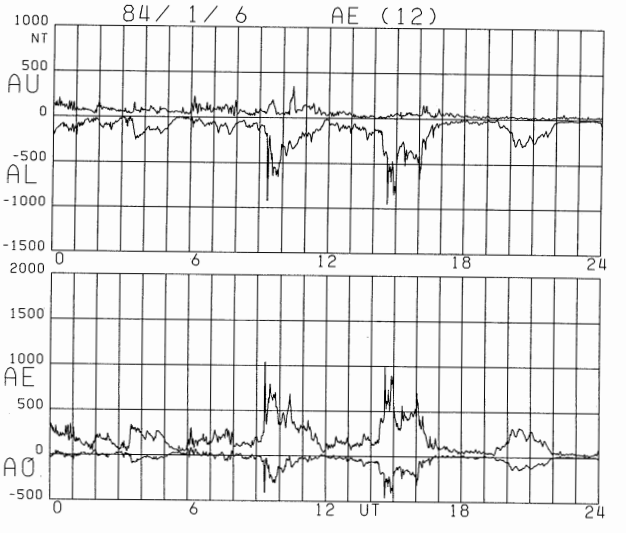
AO
-500
0 6 12 UT 18 24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-1500
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1500
1000
AE
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AO
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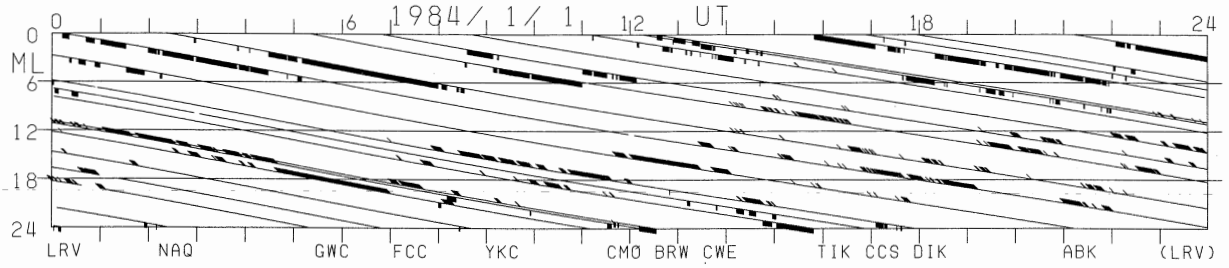
0 6 12 UT 18 24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UT
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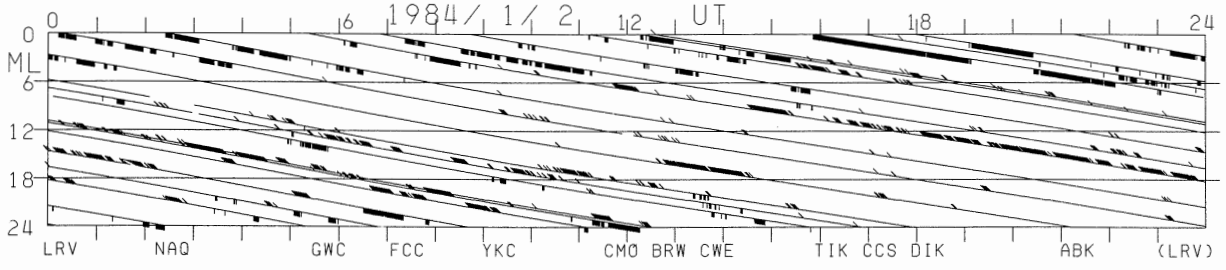
FCC
YKC
CMO BRW CWE
TIK CCS DIK
ABK
(LRV)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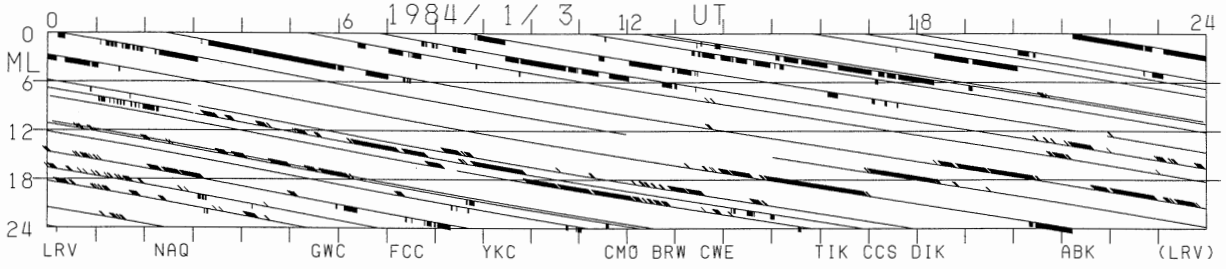
YKC
CMO BRW CWE
TIK CCS DIK
ABK
(LRV)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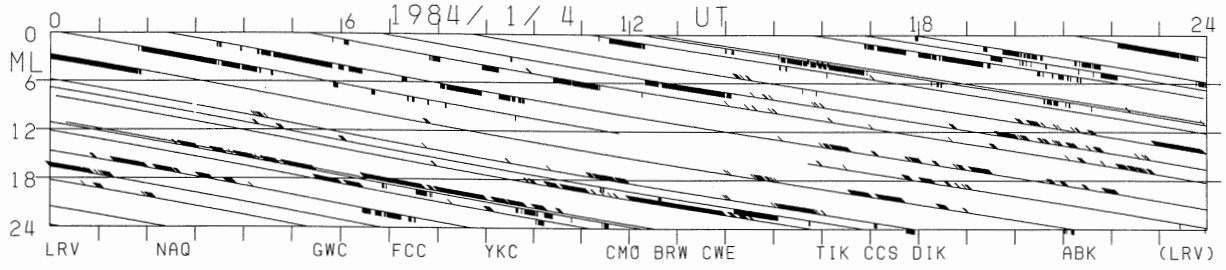
CMO BRW CWE
TIK CCS DIK
ABK
(LRV)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CMO BRW CWE
TIK CCS DIK
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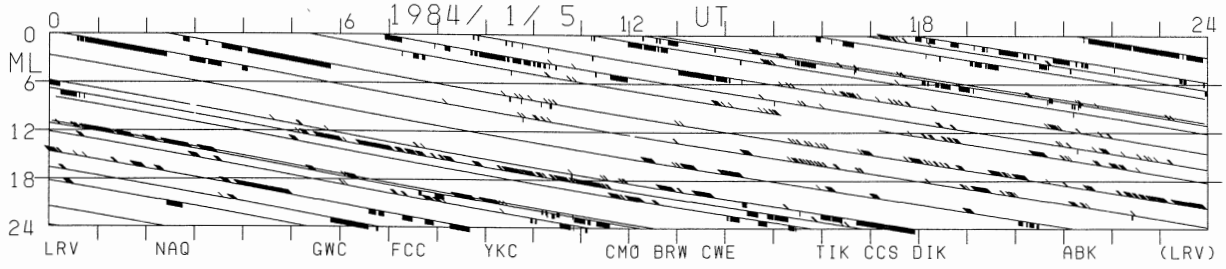
(LRV)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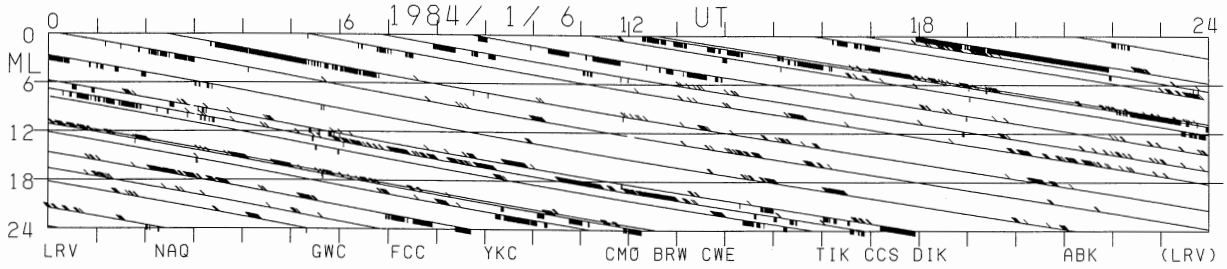
CMO BRW CWE
TIK CCS DIK
ABK
(LRV)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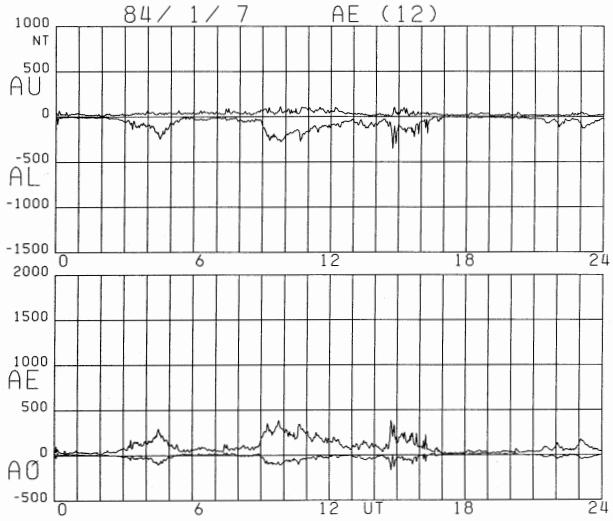
CMO BRW CWE
TIK CCS DIK
ABK
(LRV)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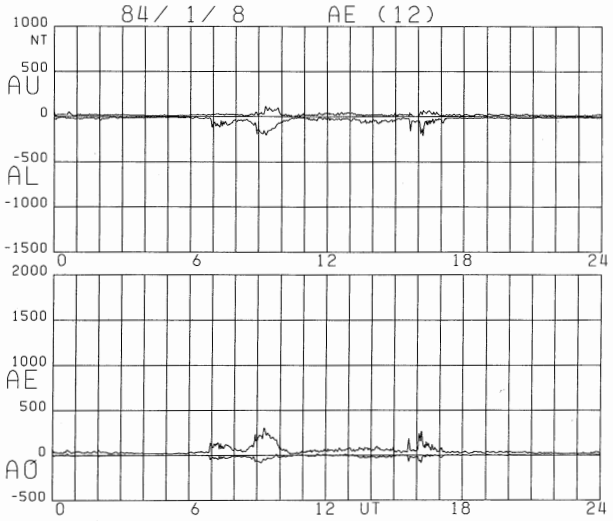
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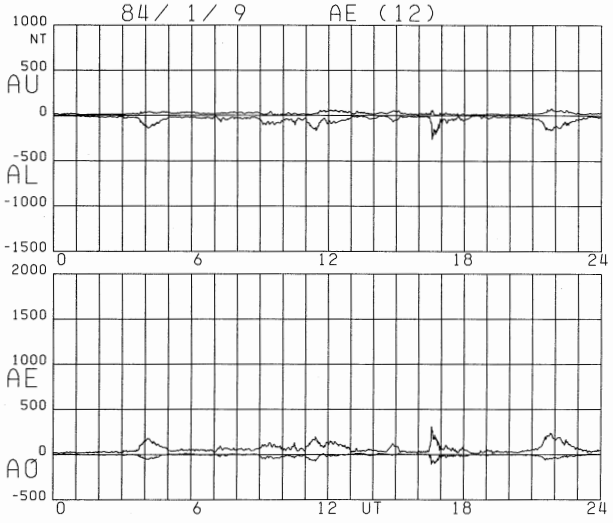
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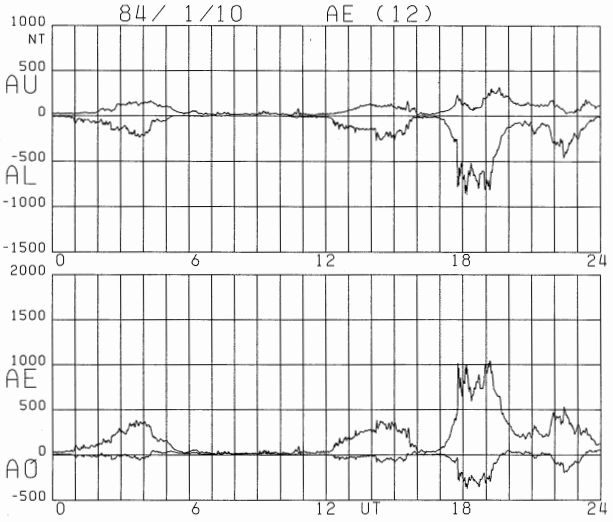
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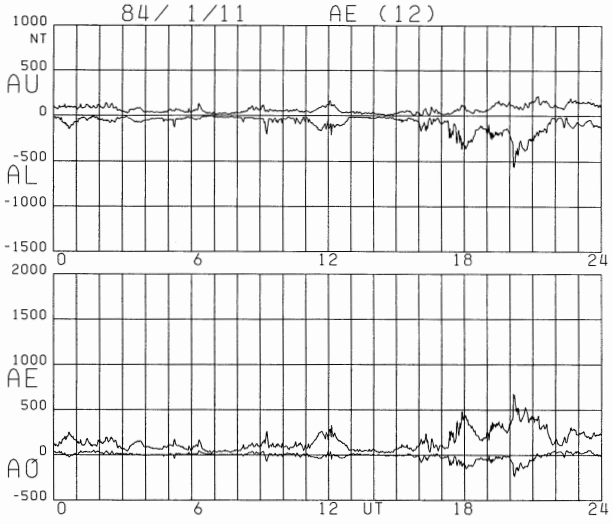
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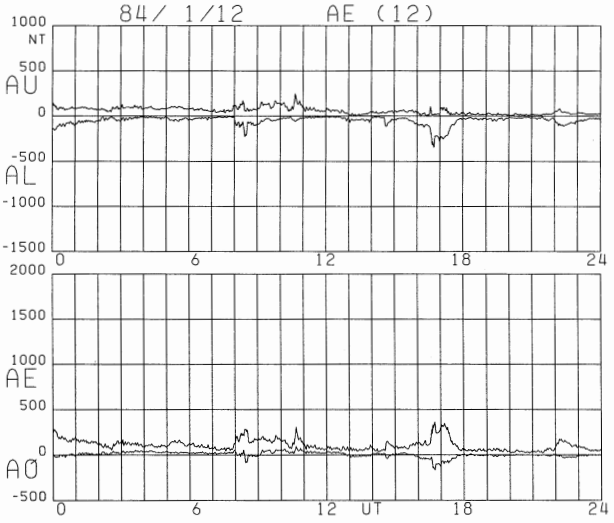
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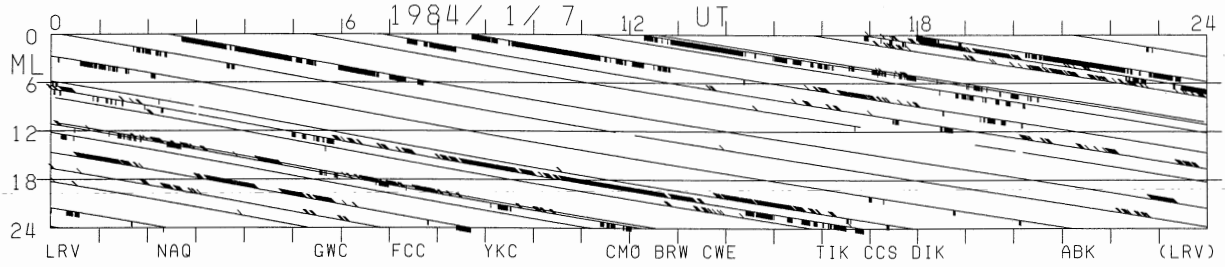
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CMO BRW CWE
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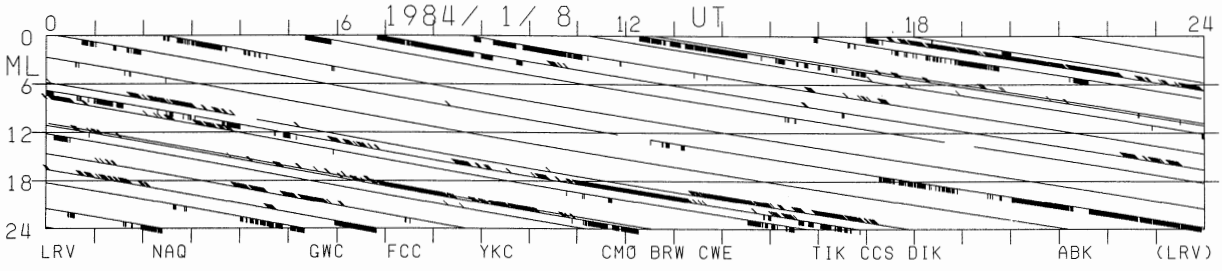
(LRV)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CMO BRW CWE
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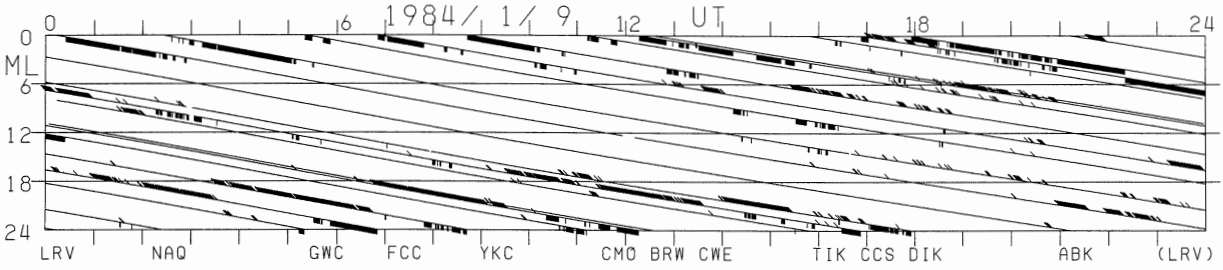
ABK
(LRV)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CMO BRW CWE
TIK CCS DIK
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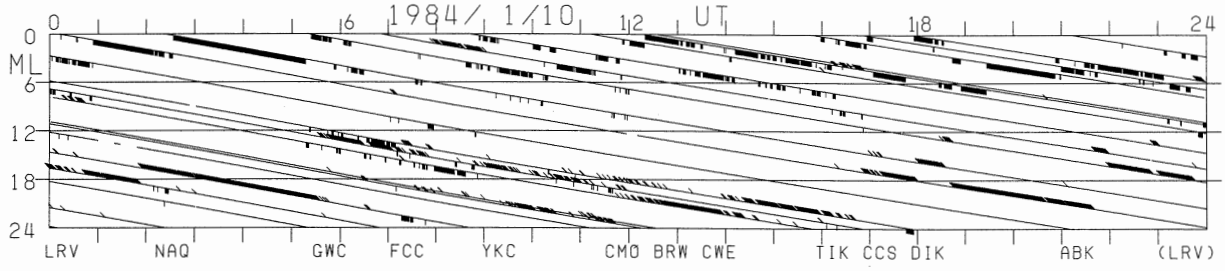
(LRV)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UT
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CMO BRW CWE
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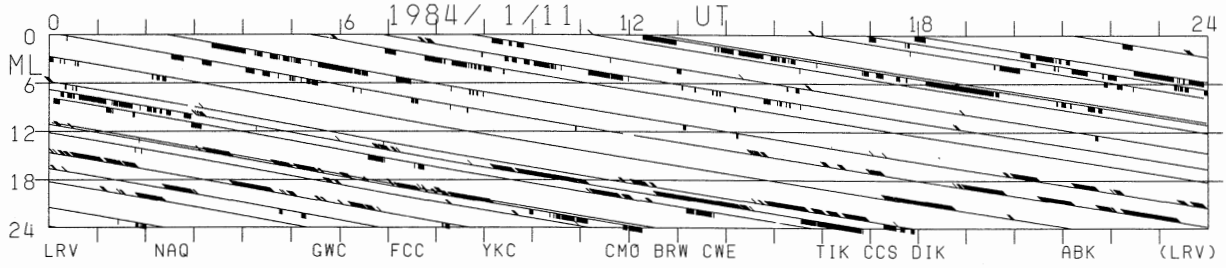
(LRV)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CMO BRW CWE
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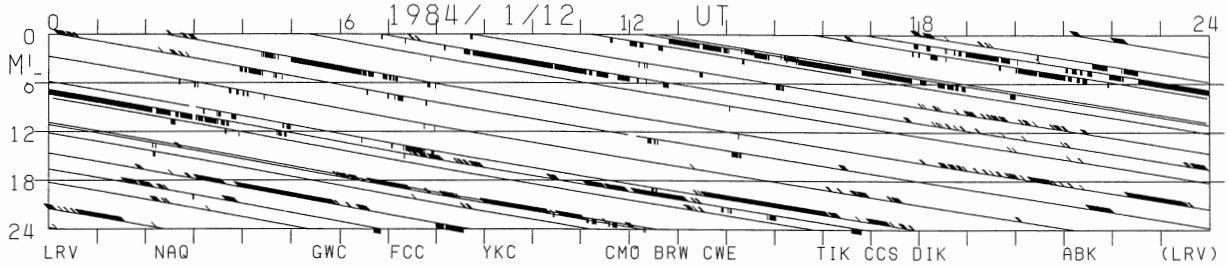
(LRV)


1984/ 1/12
UT
0
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ML
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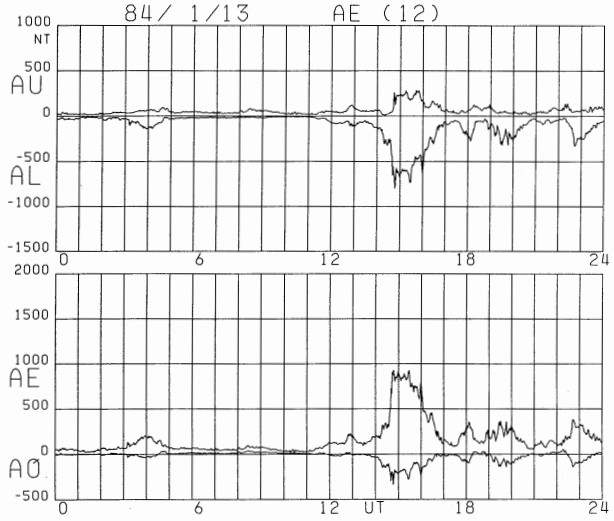
CMO BRW CWE
TIK CCS DIK
ABK
(LRV)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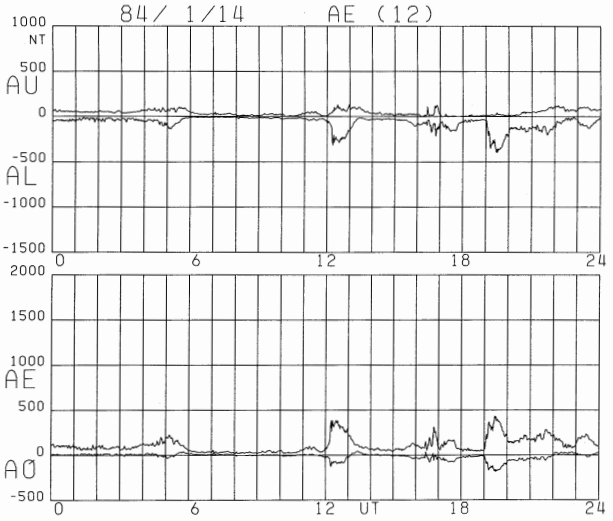
0 6 12 UT 18 24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AO
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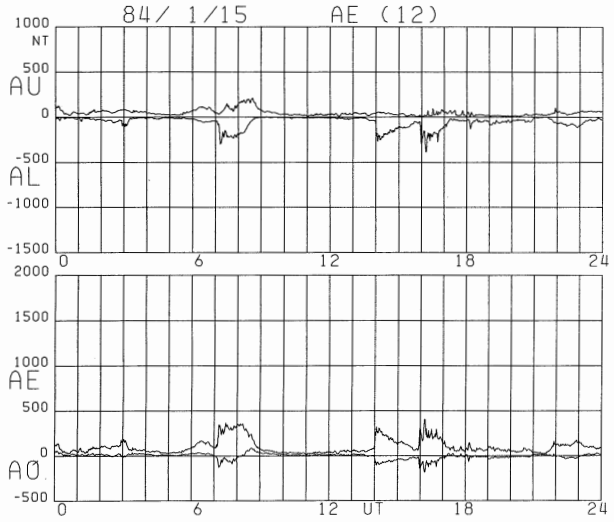
0 6 12 UT 18 24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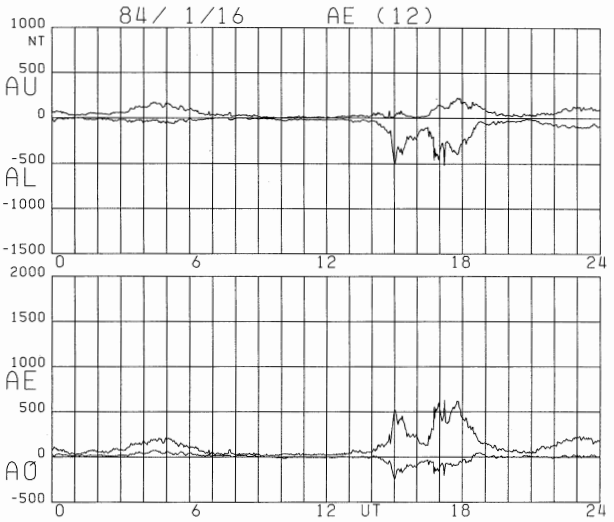
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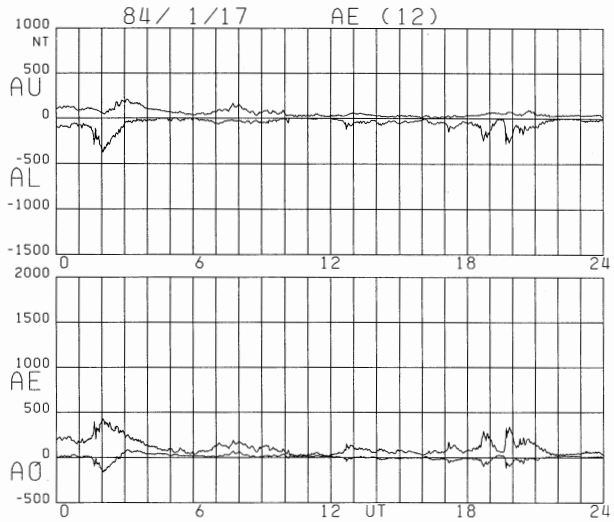
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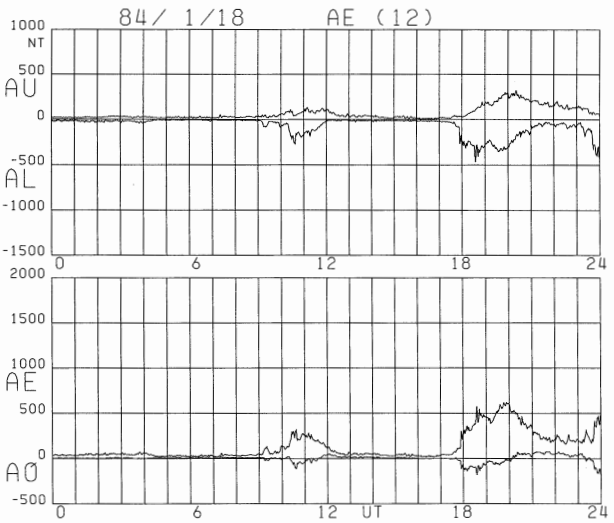
0 6 12 UT 18 24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AO
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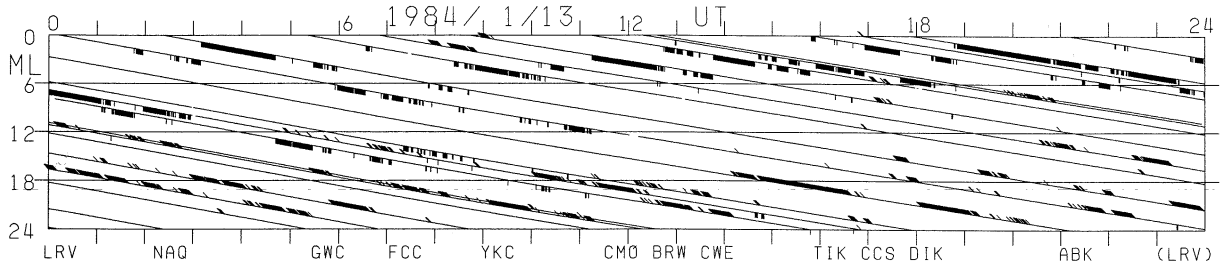
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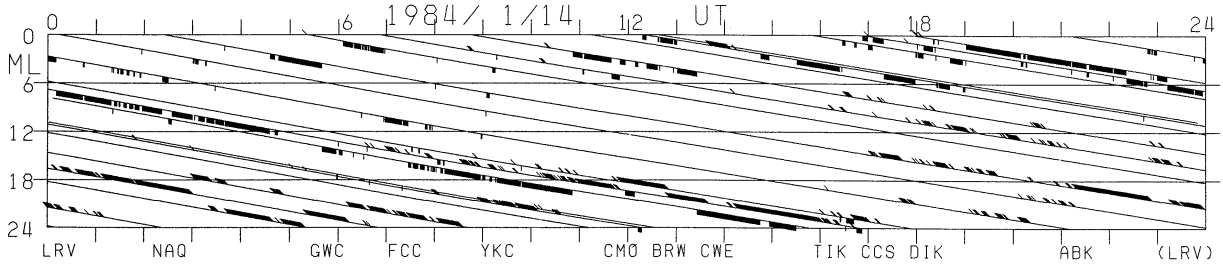
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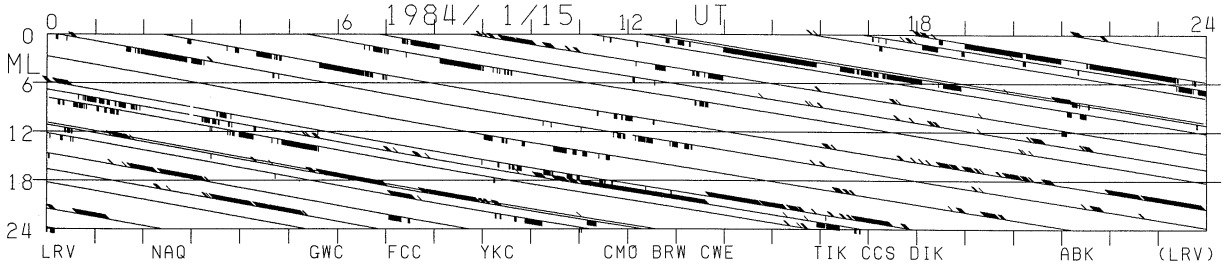
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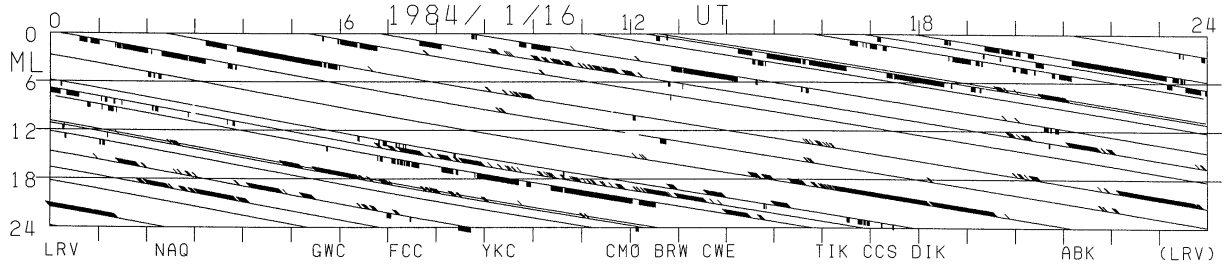
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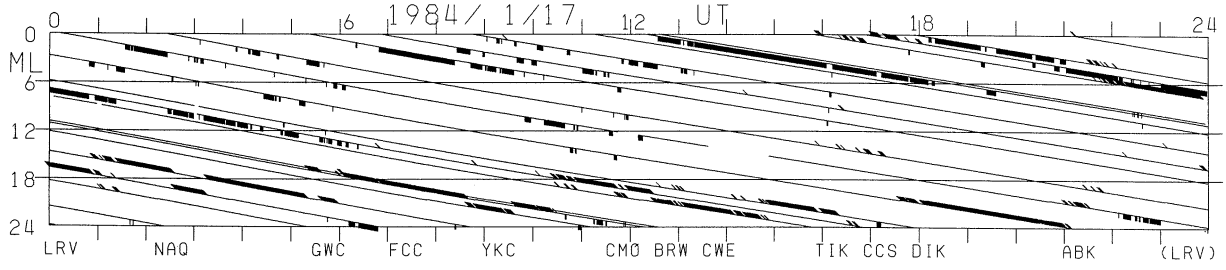
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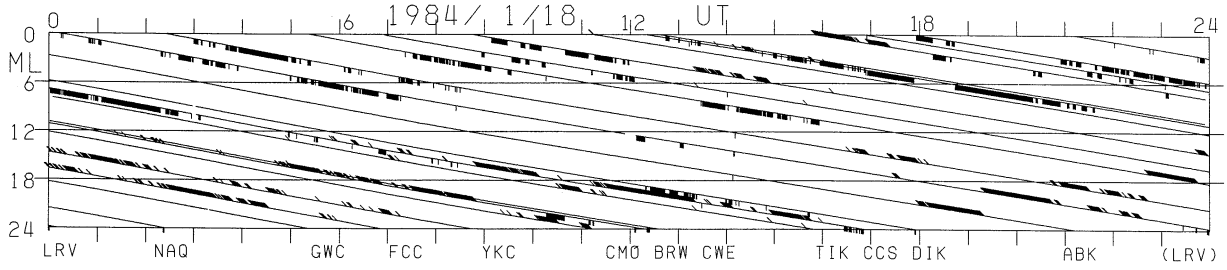
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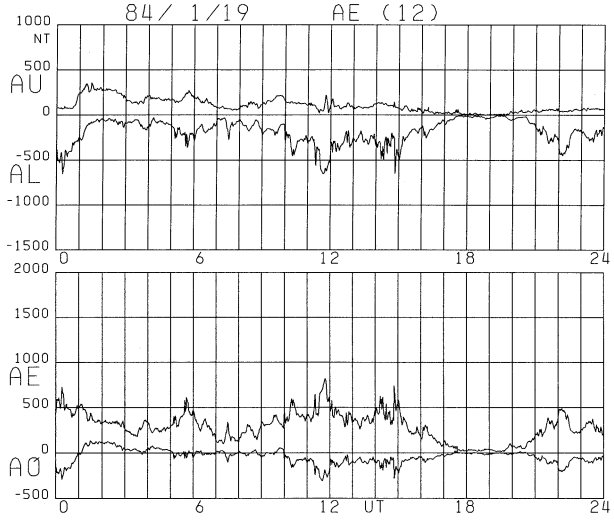
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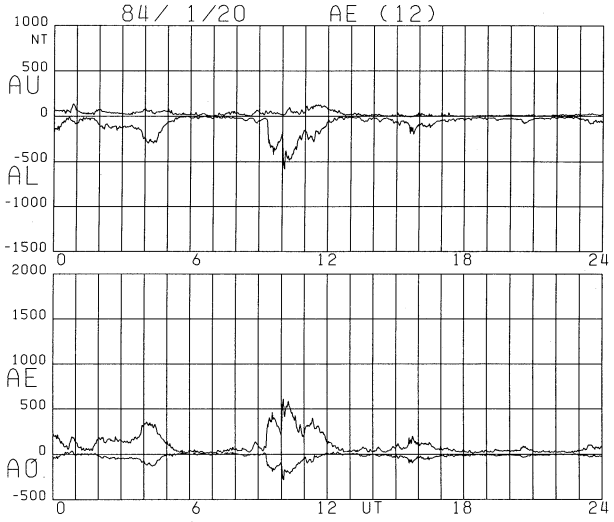
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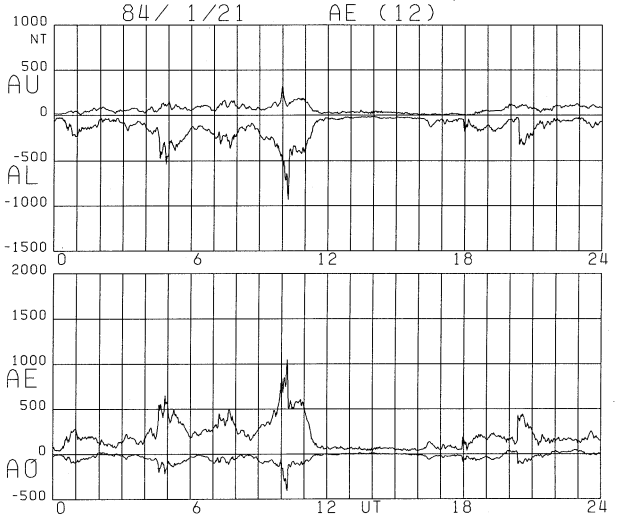
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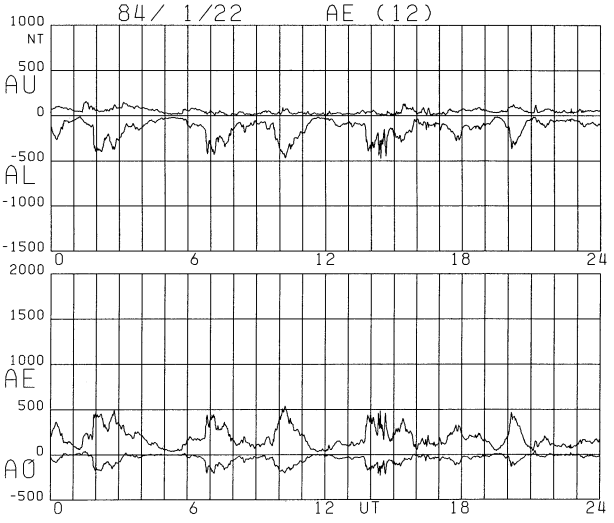
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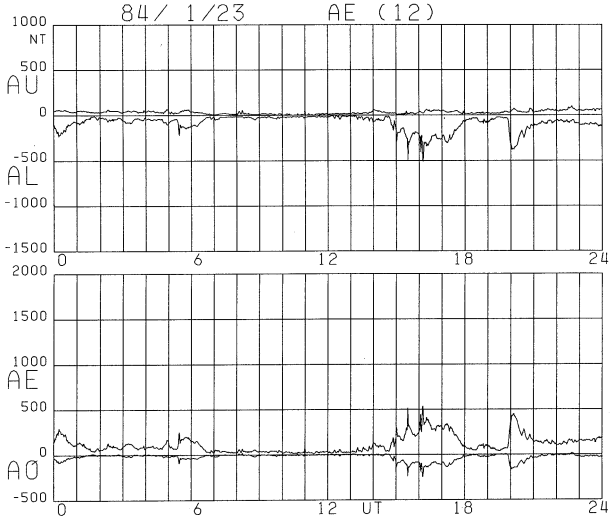
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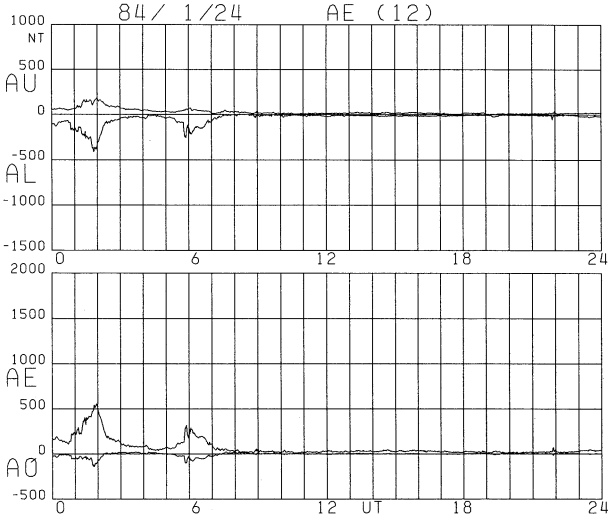
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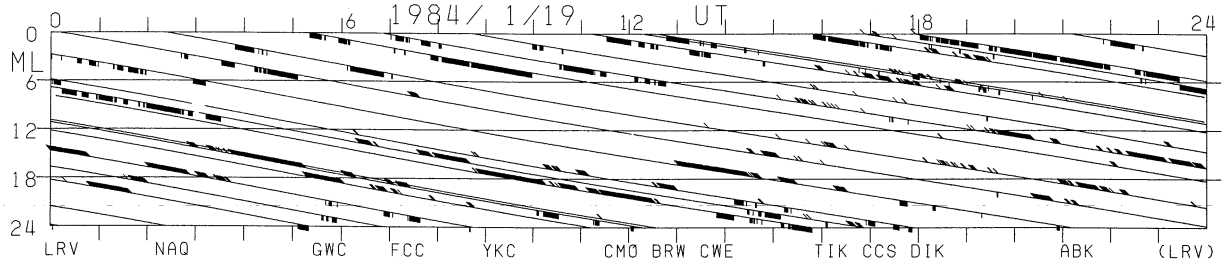
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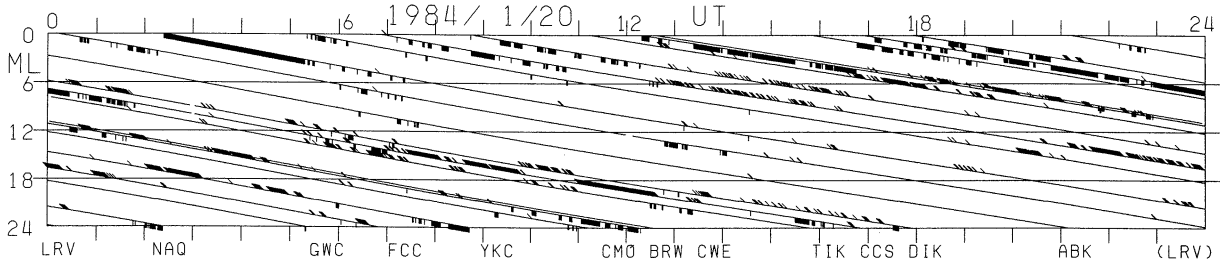
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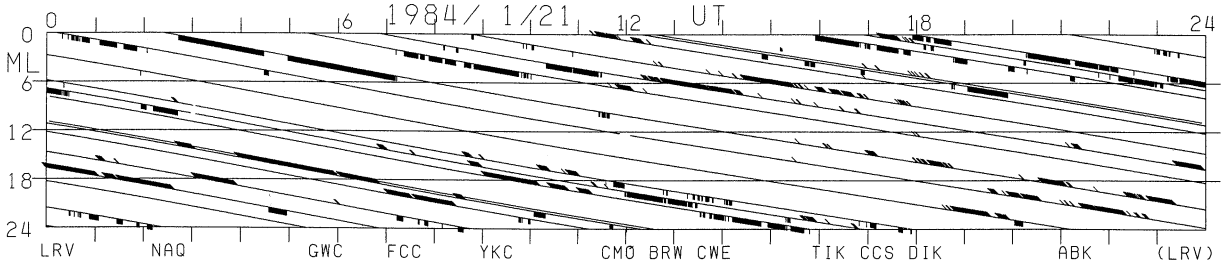
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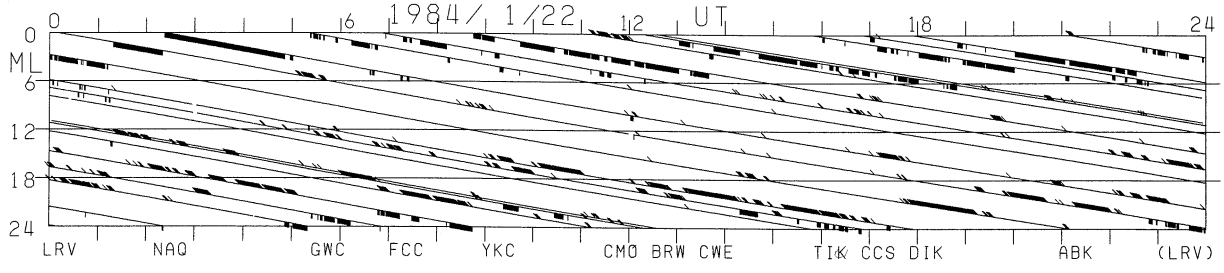
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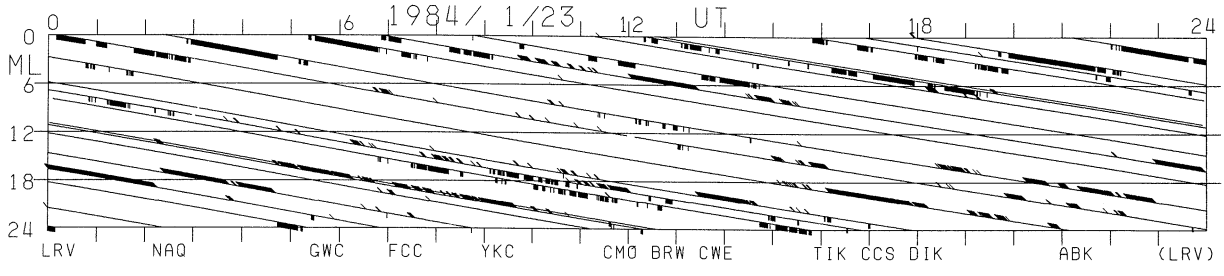
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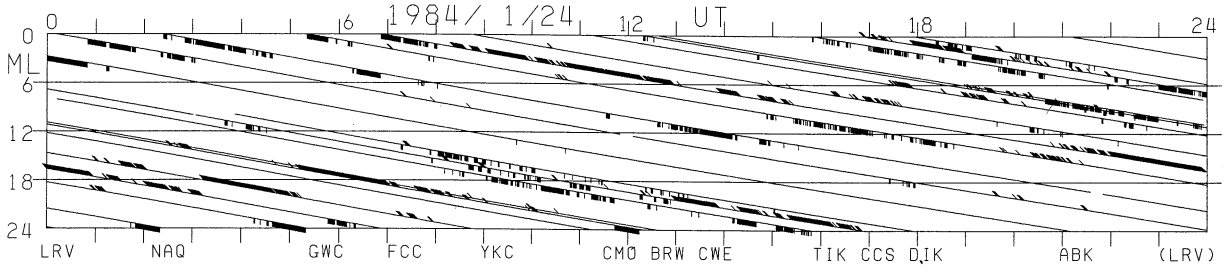
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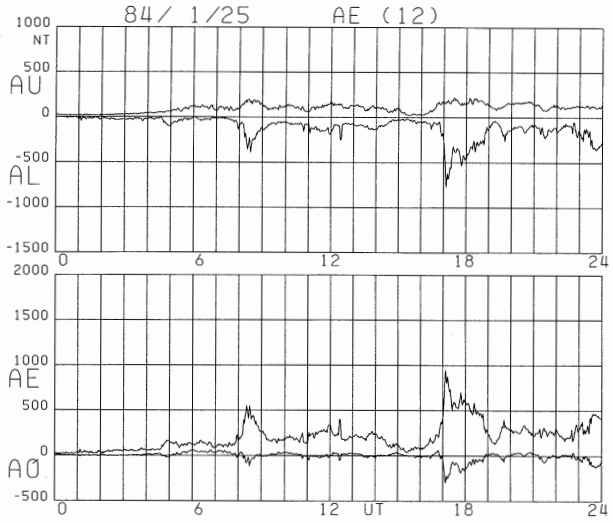
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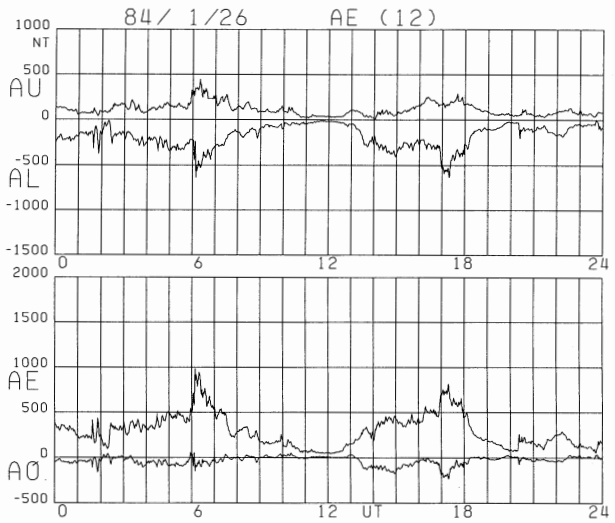
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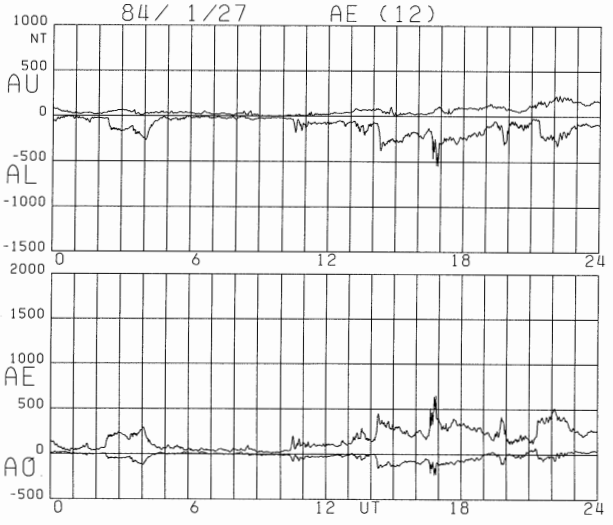
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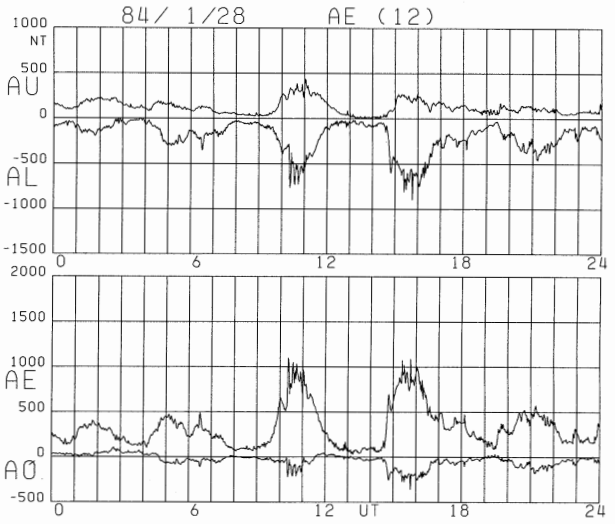
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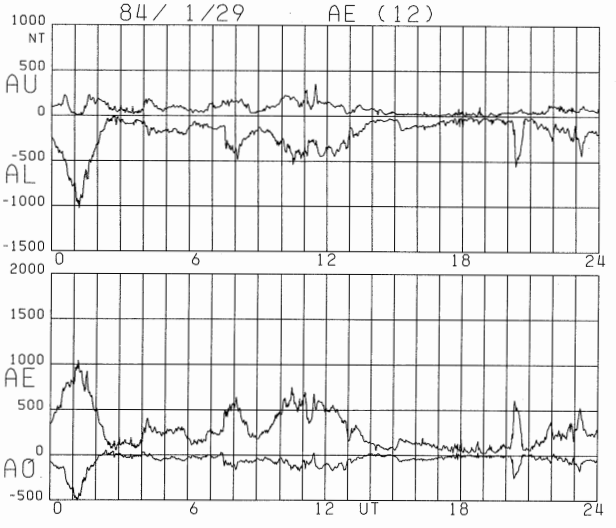
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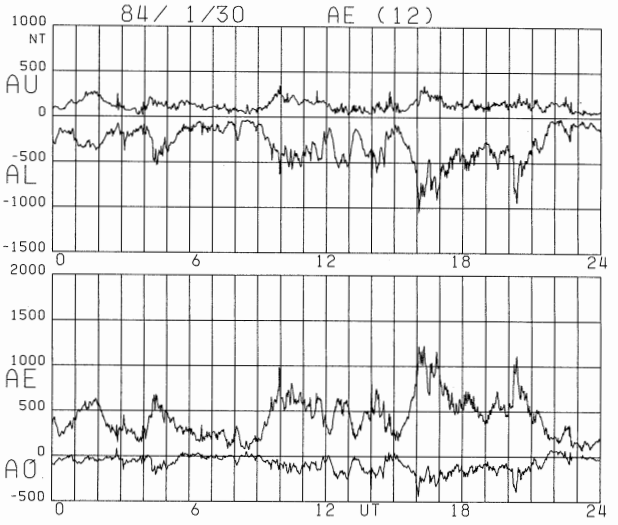
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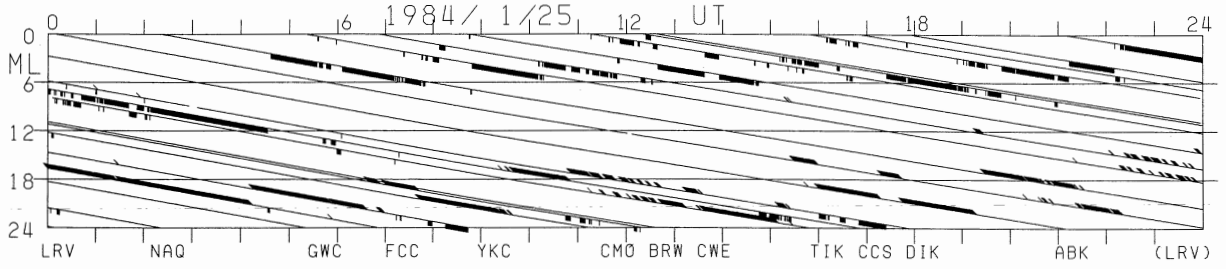
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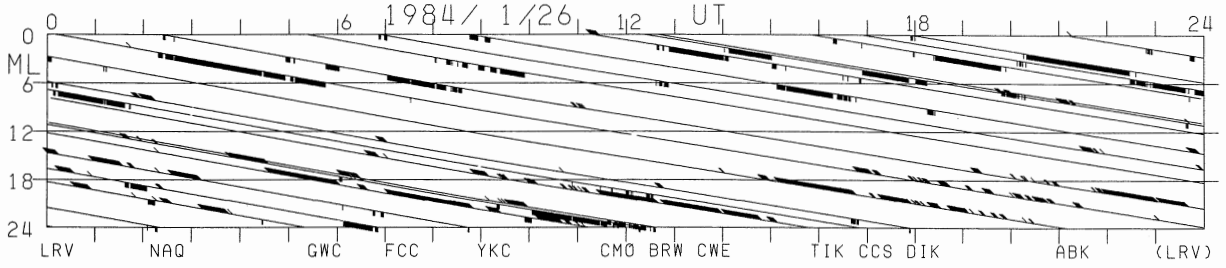
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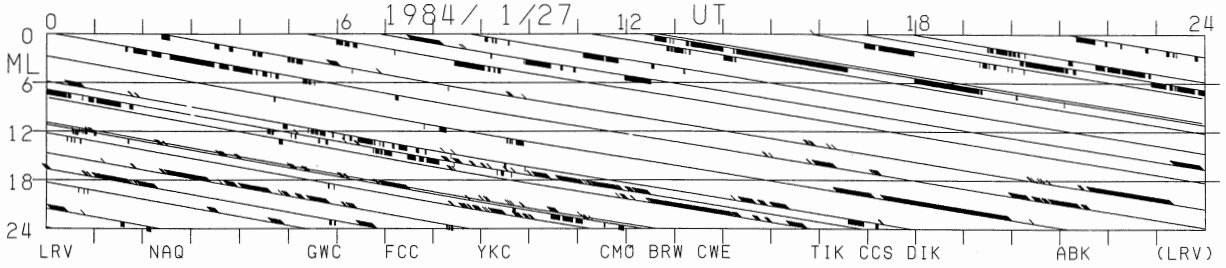
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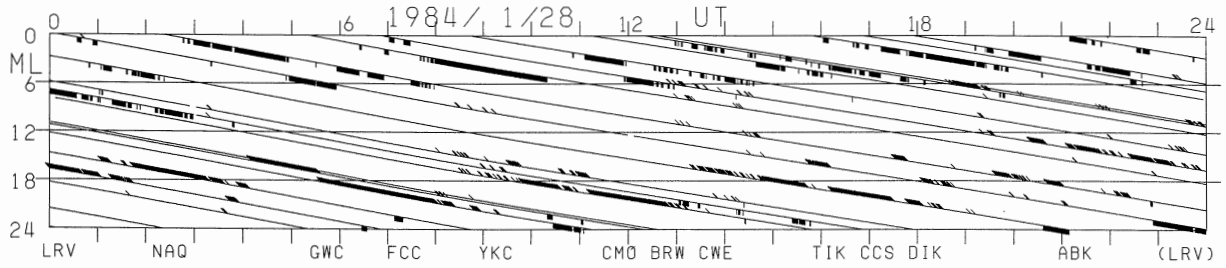
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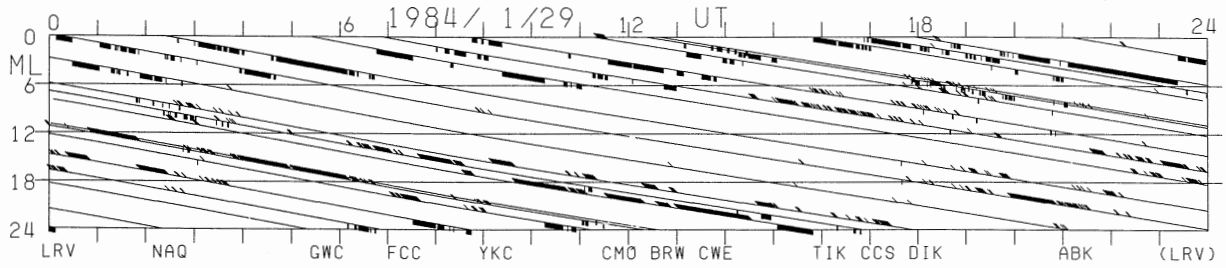
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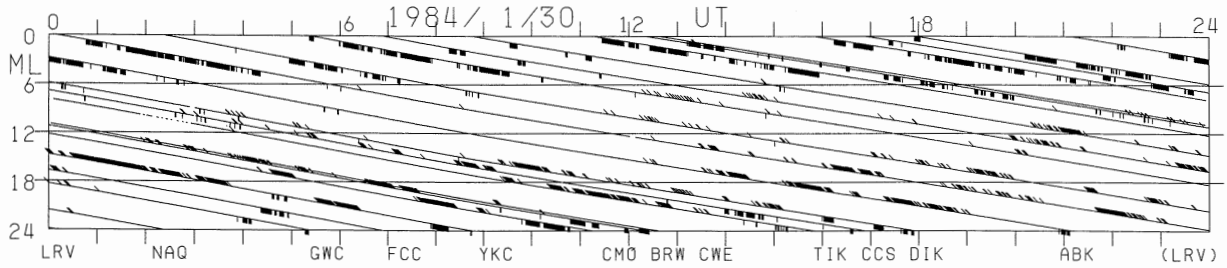
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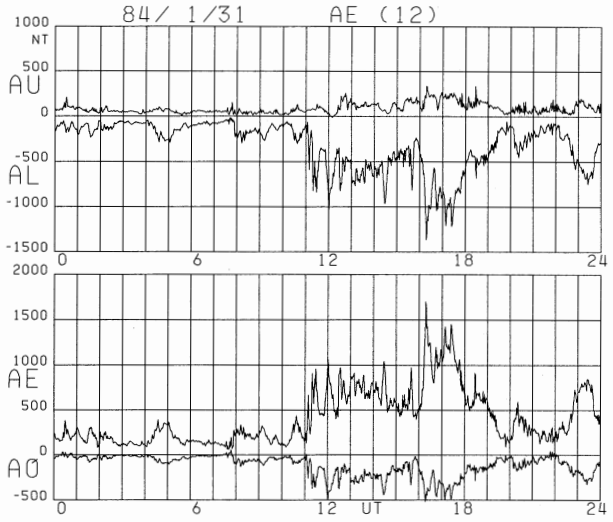
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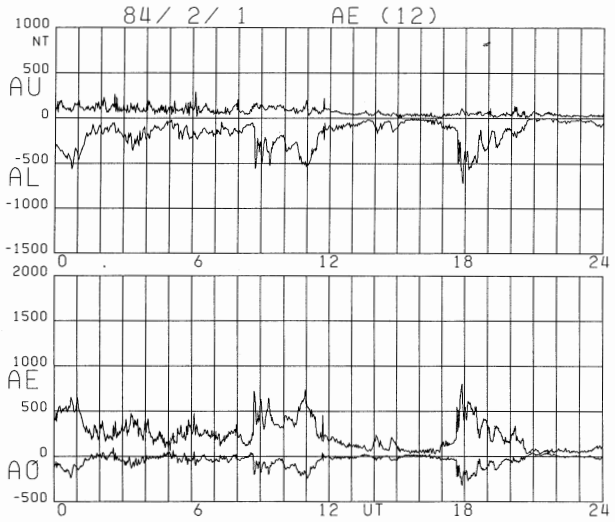
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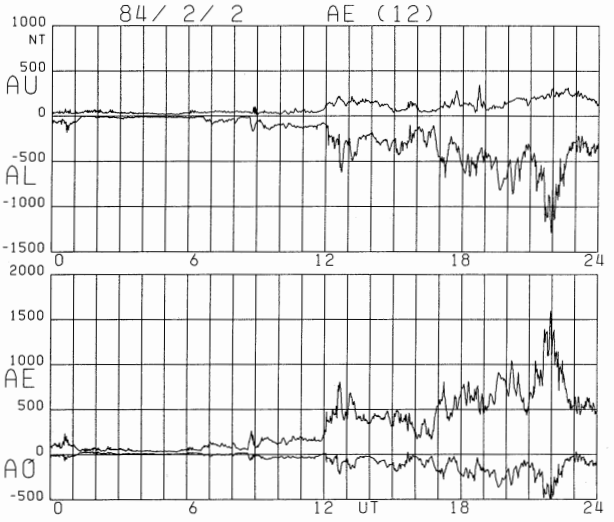
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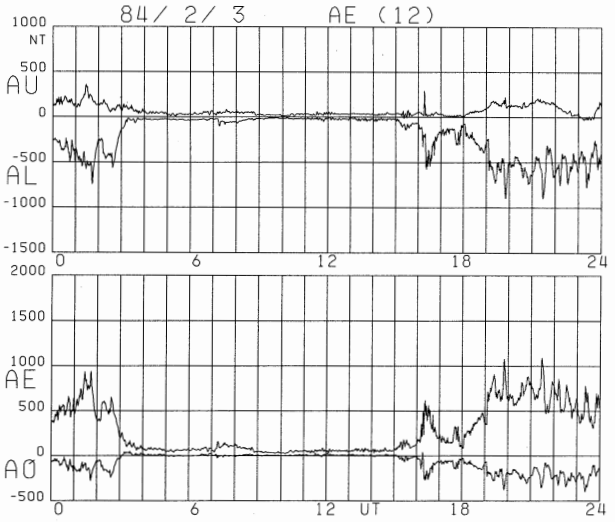
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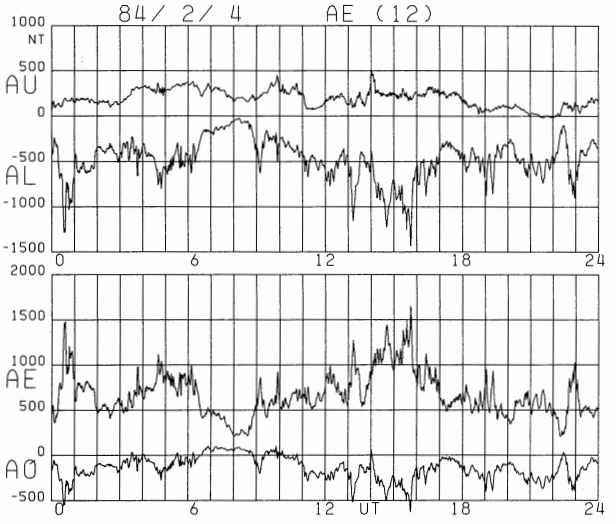
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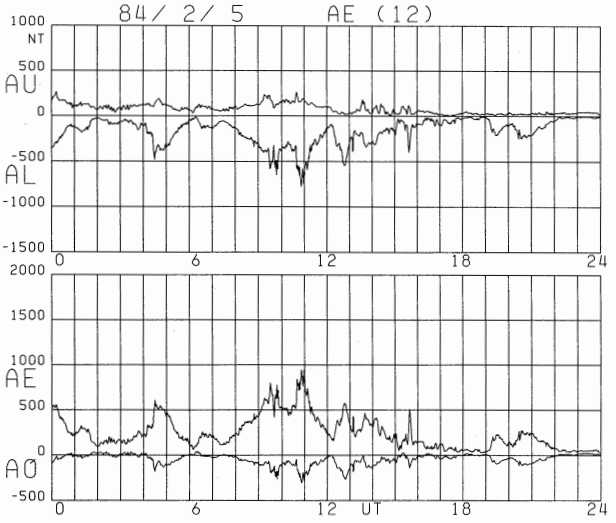
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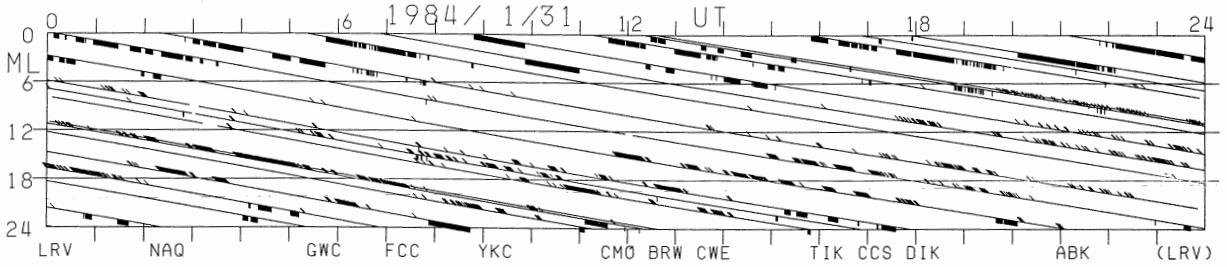
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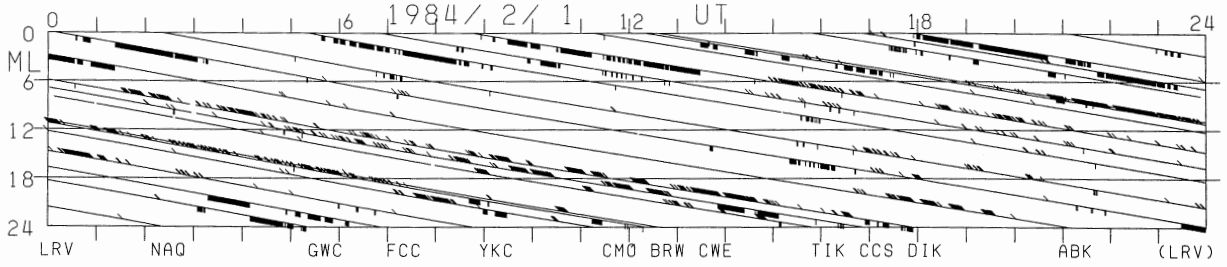
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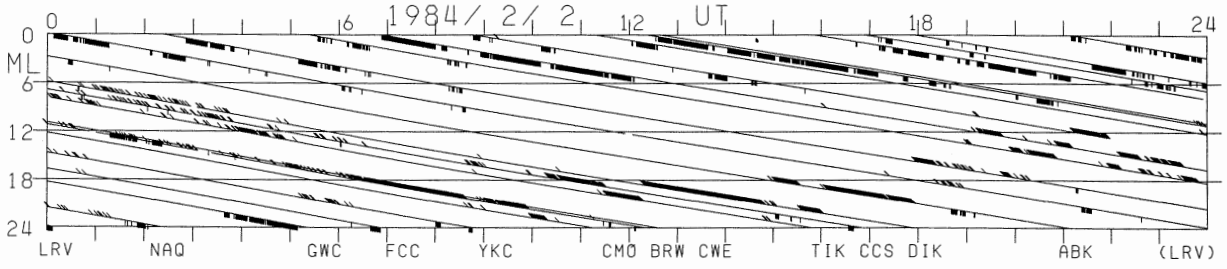
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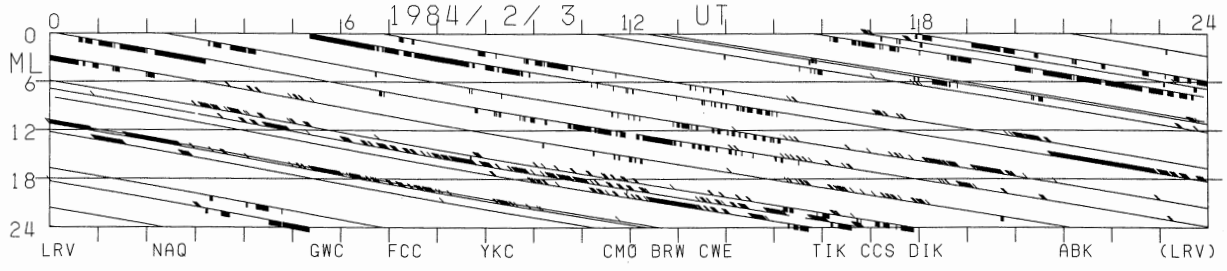
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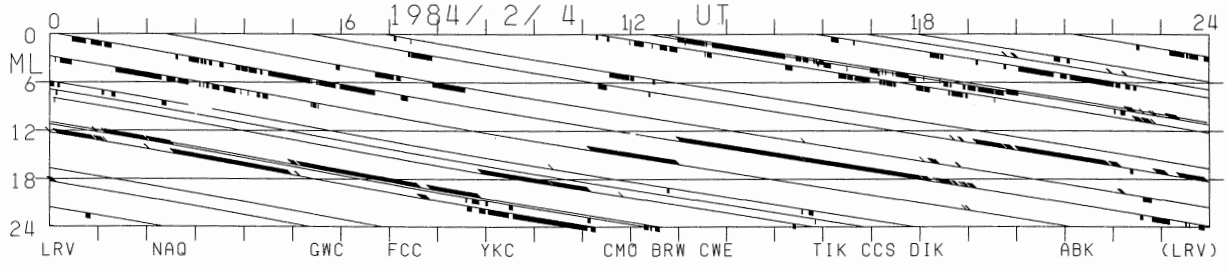
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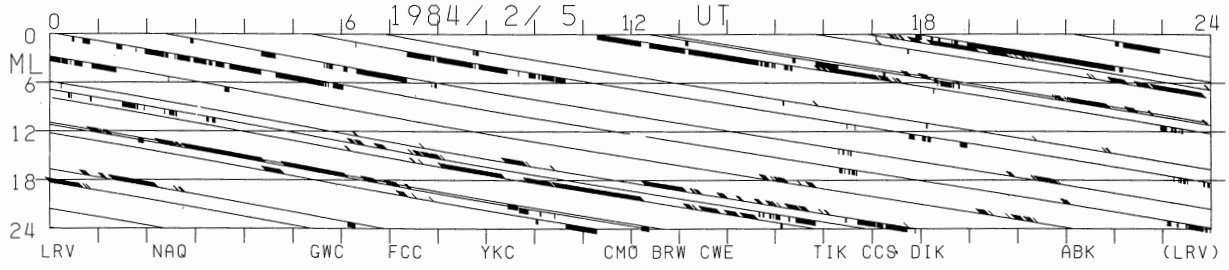
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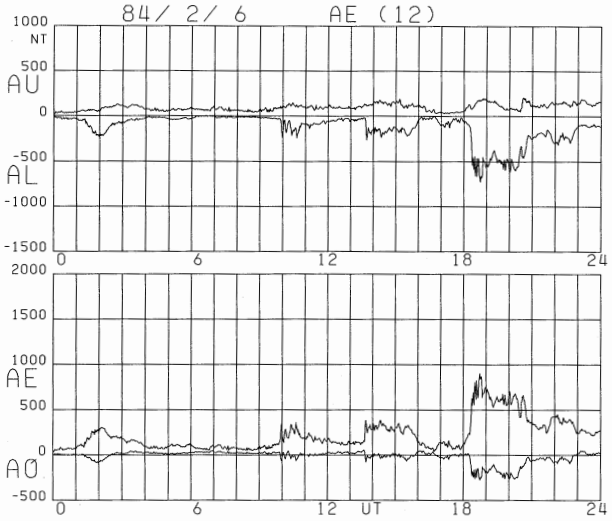
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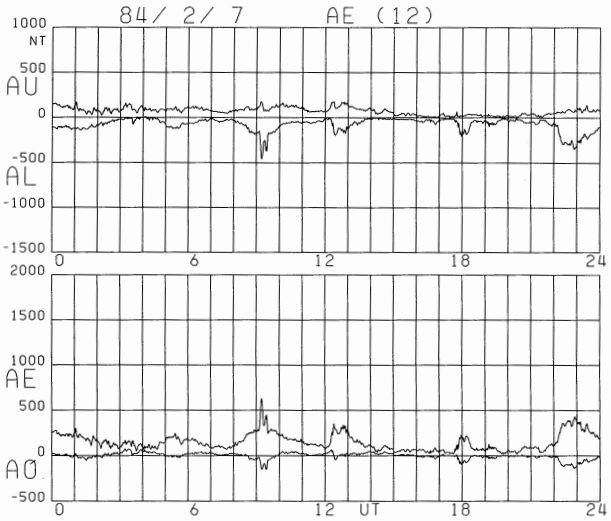
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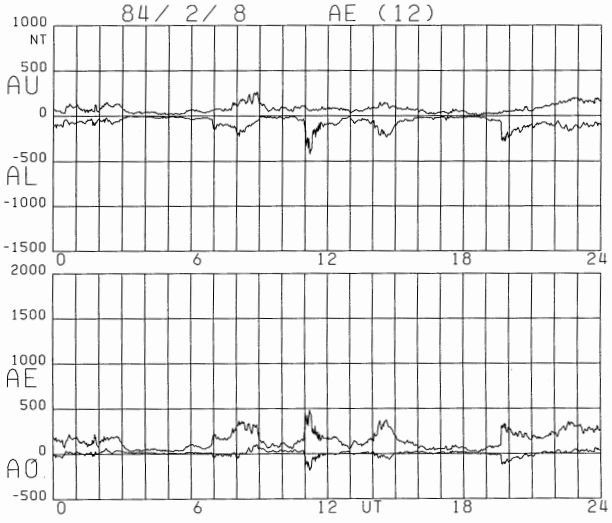
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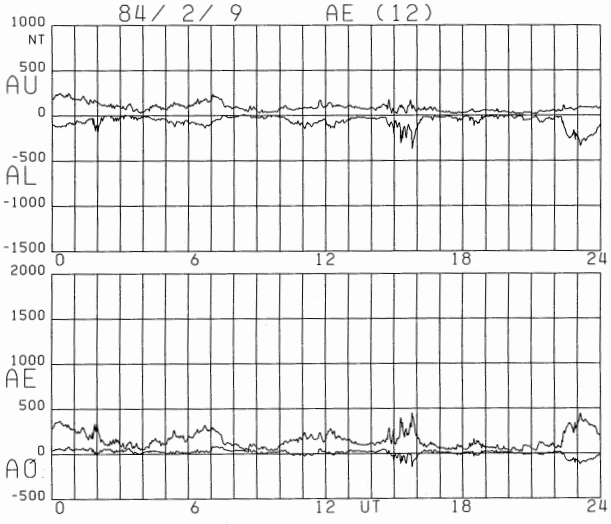
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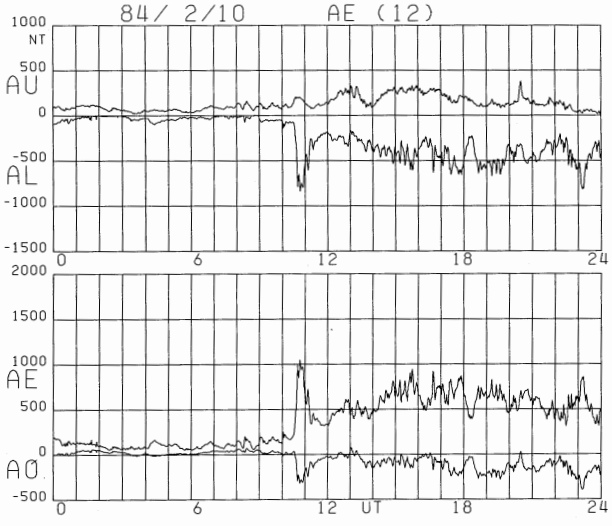
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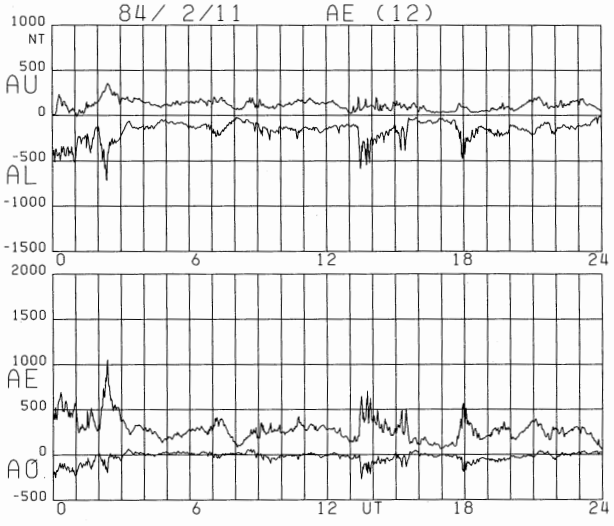
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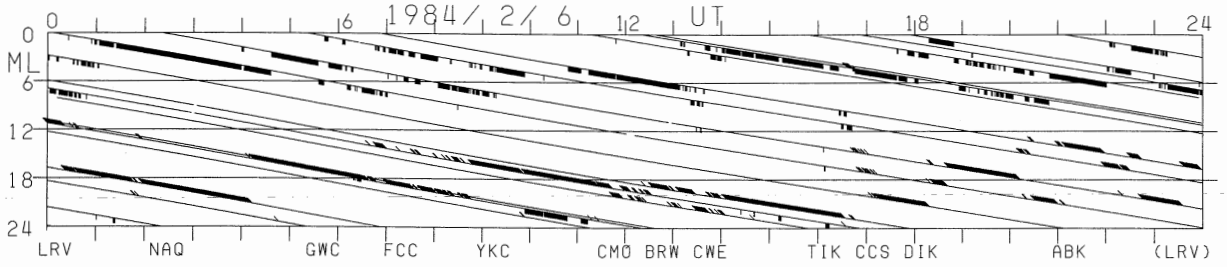
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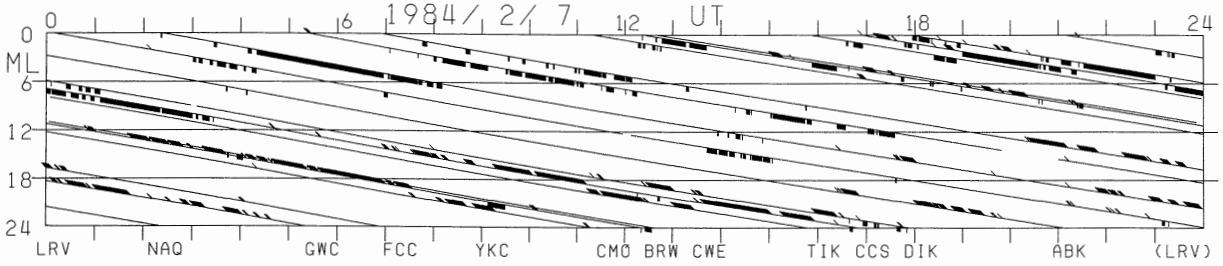
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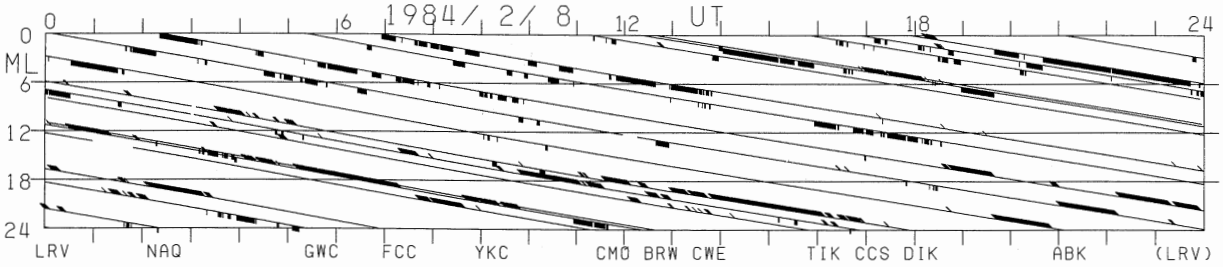
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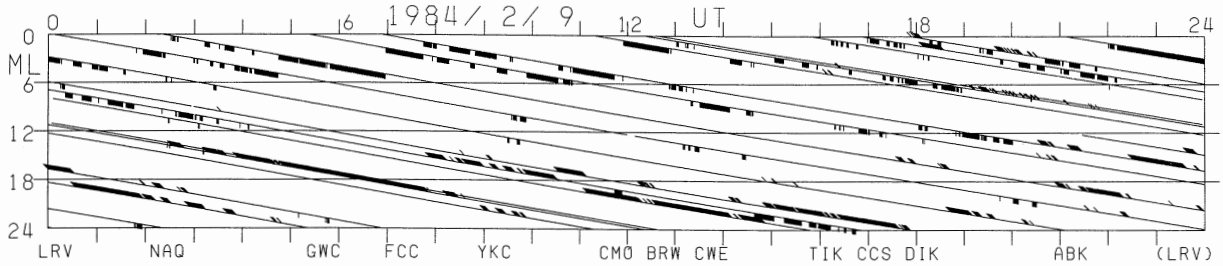
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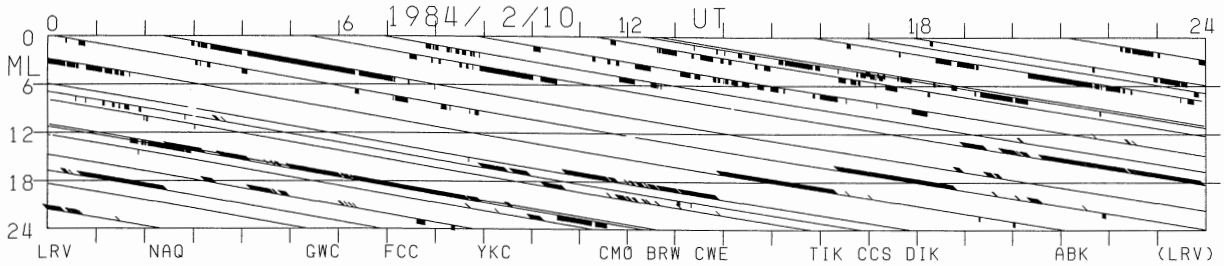
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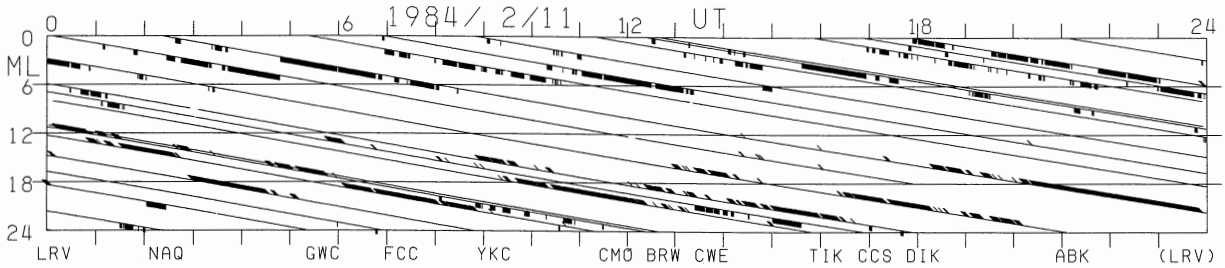
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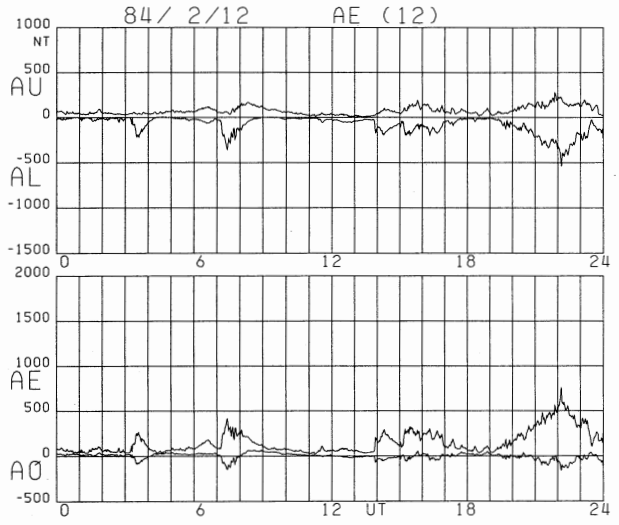
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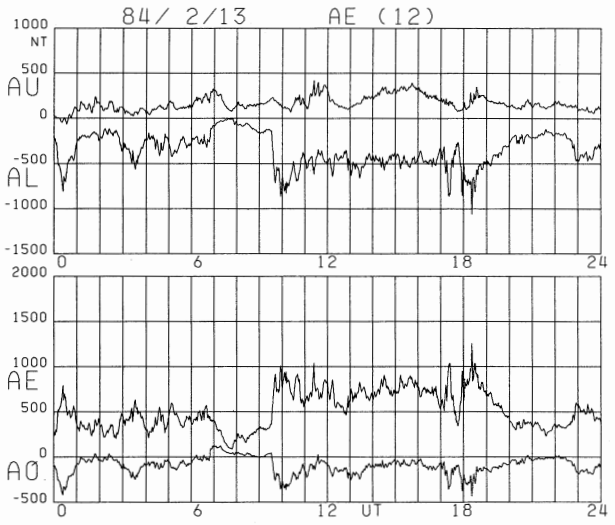
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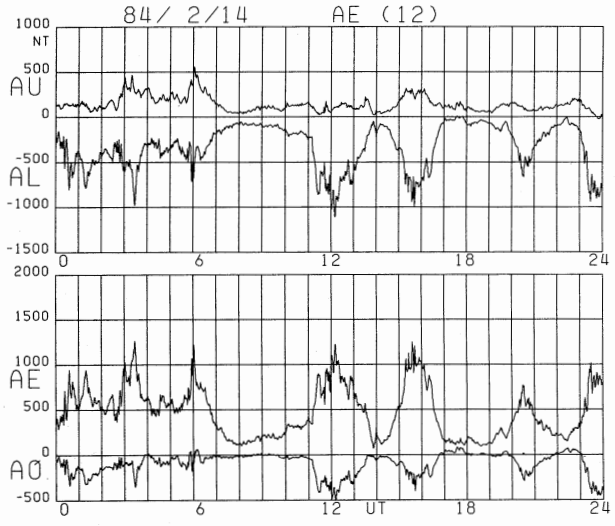
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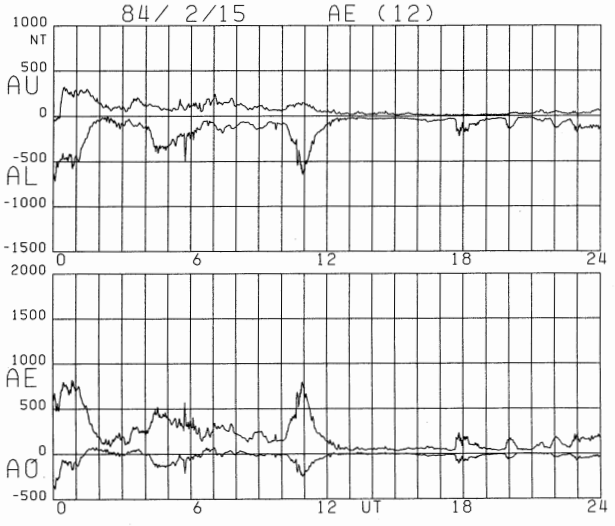
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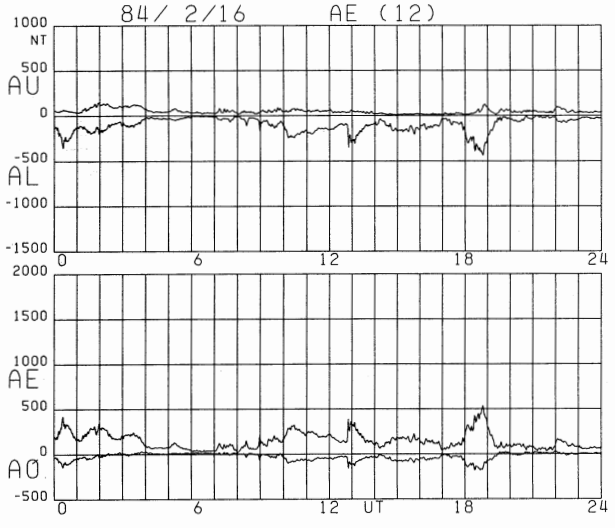
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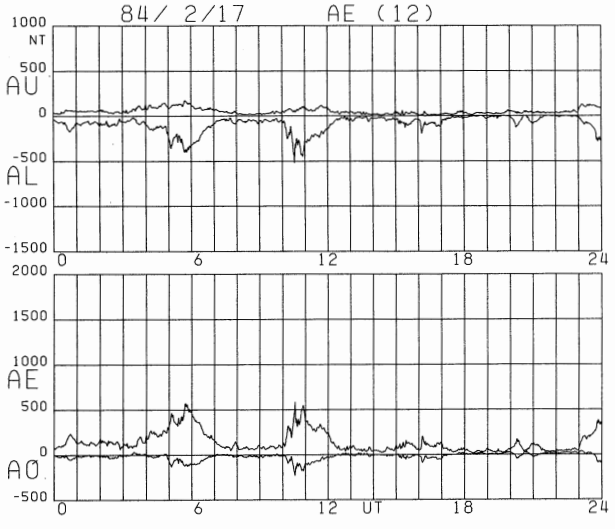
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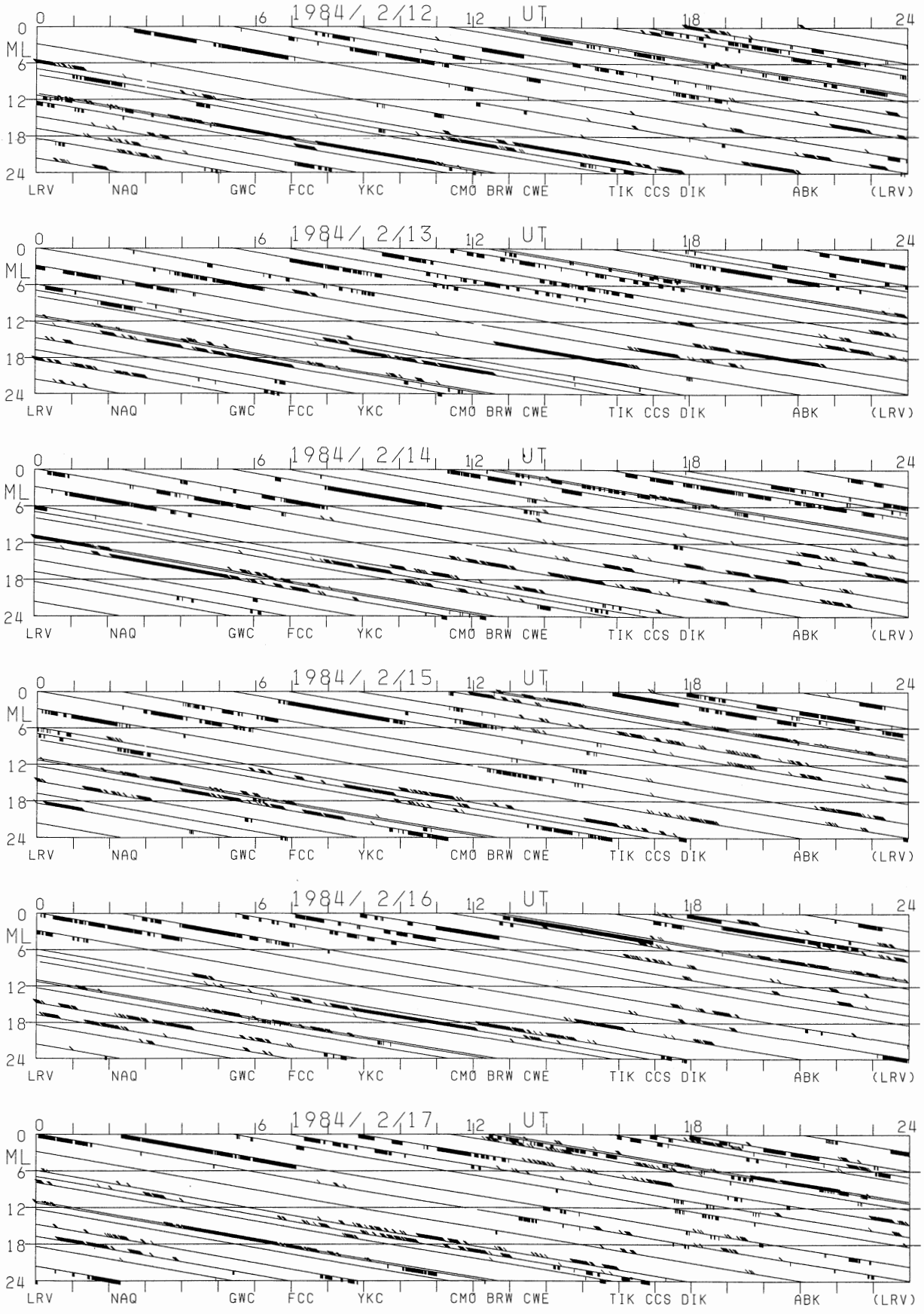
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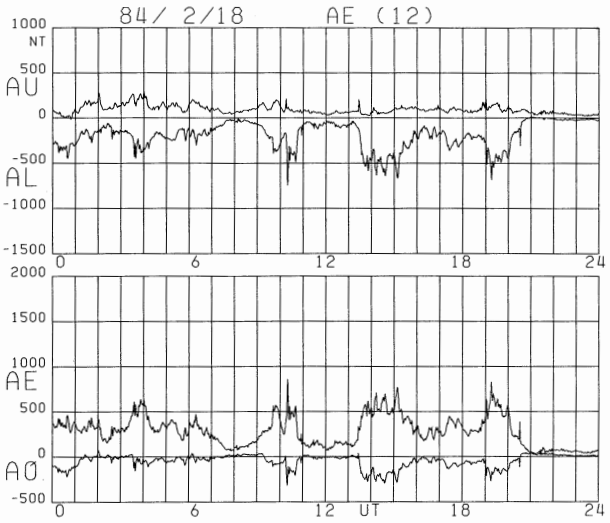
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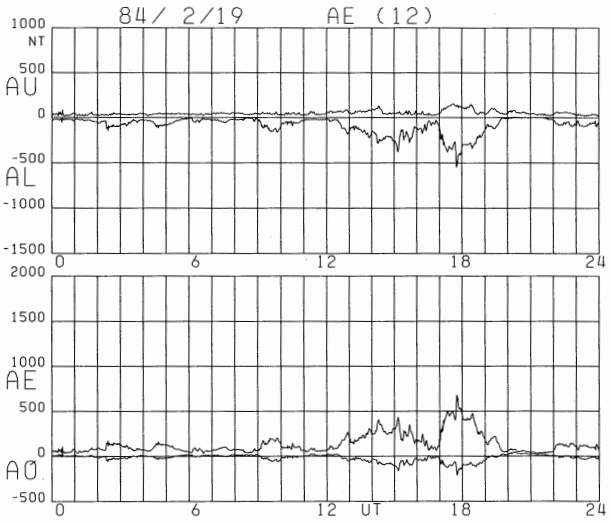
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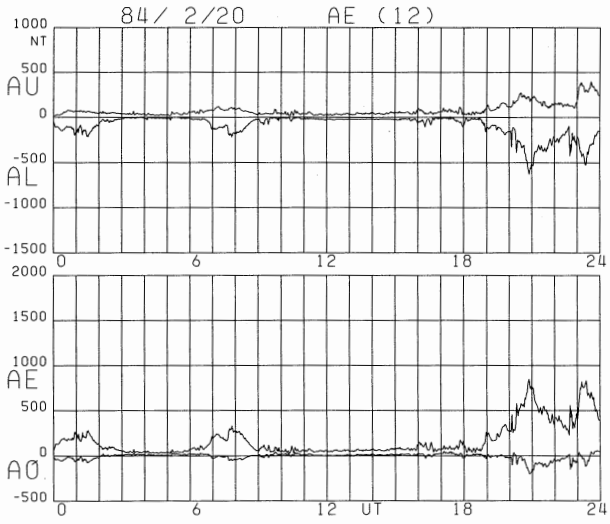
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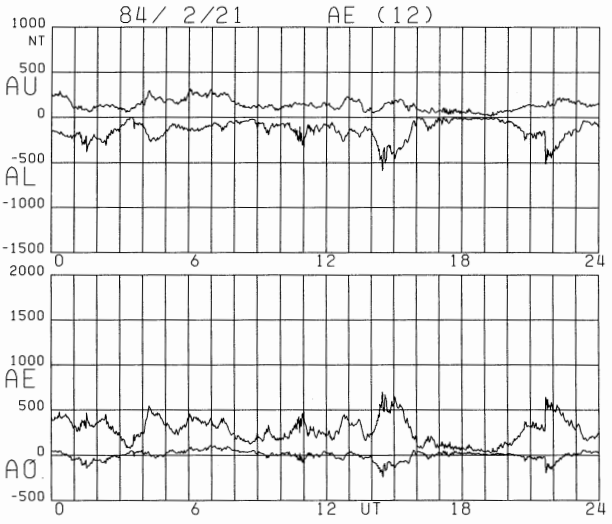
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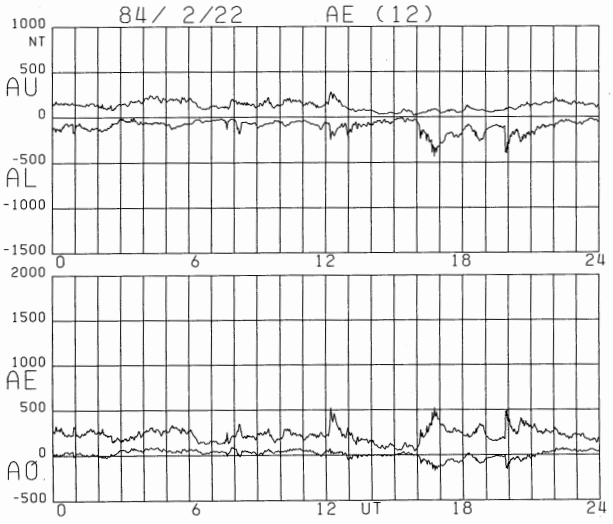
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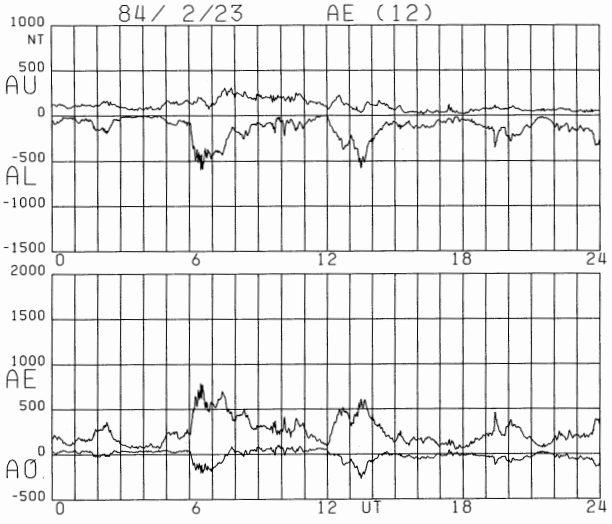
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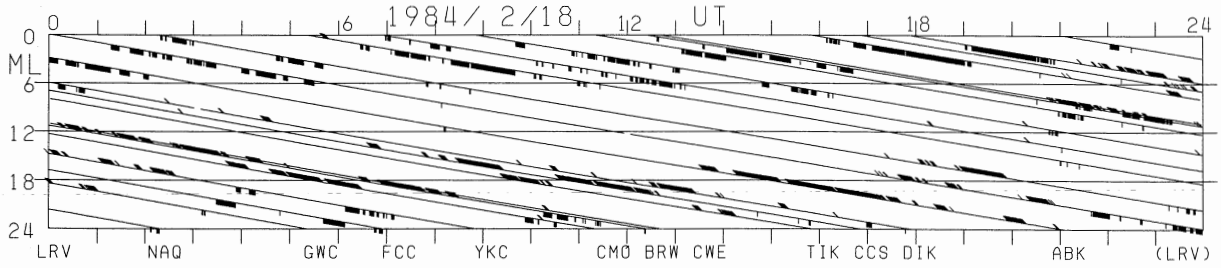
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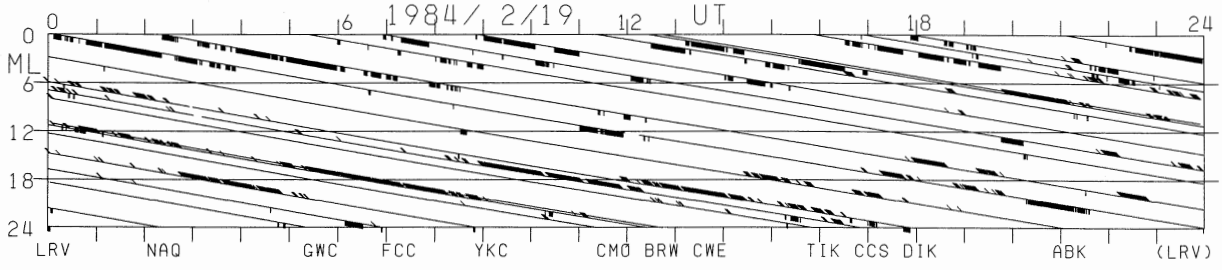
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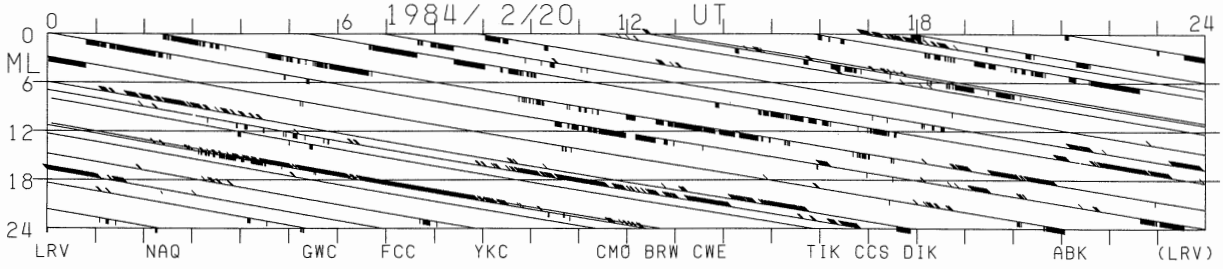
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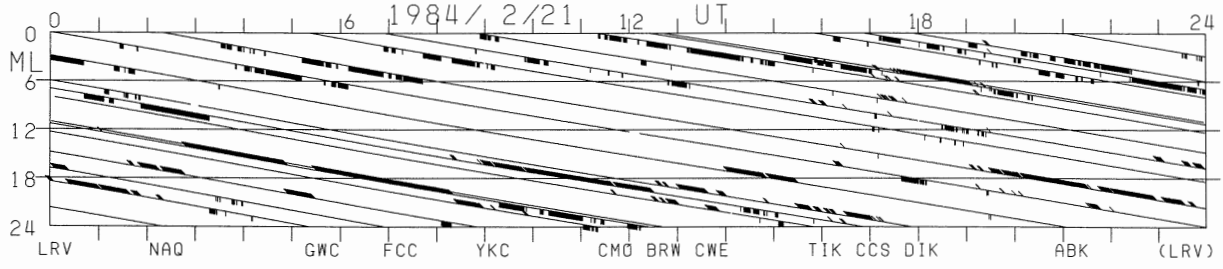
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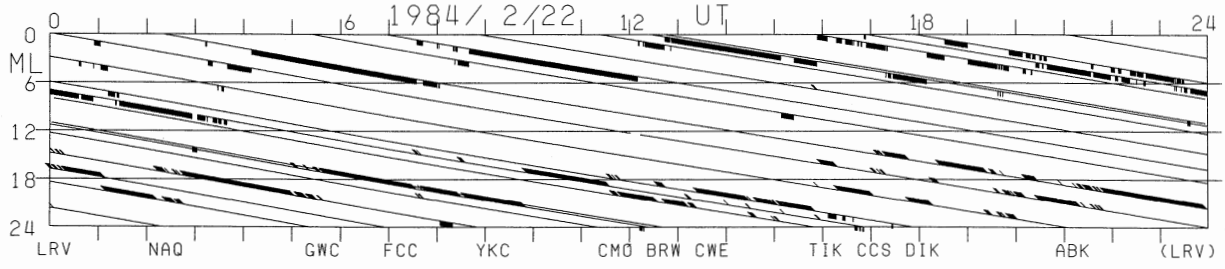
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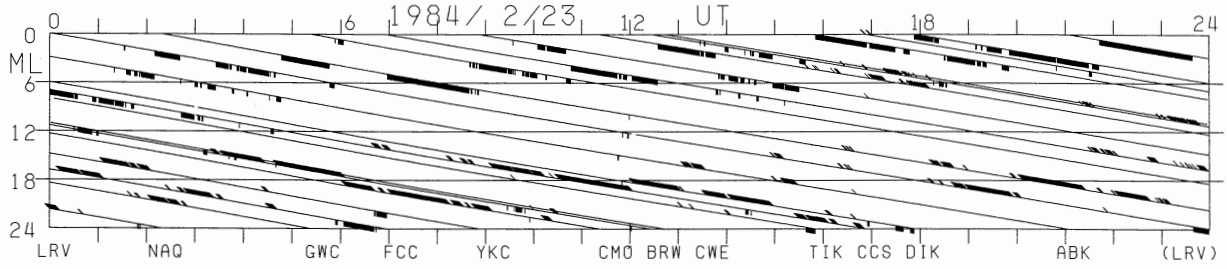
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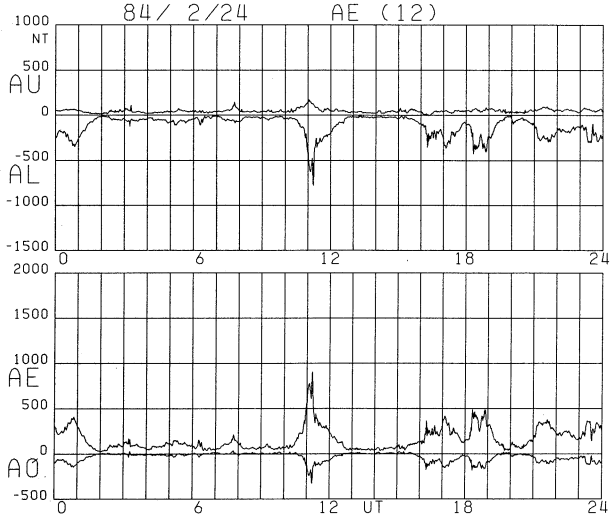
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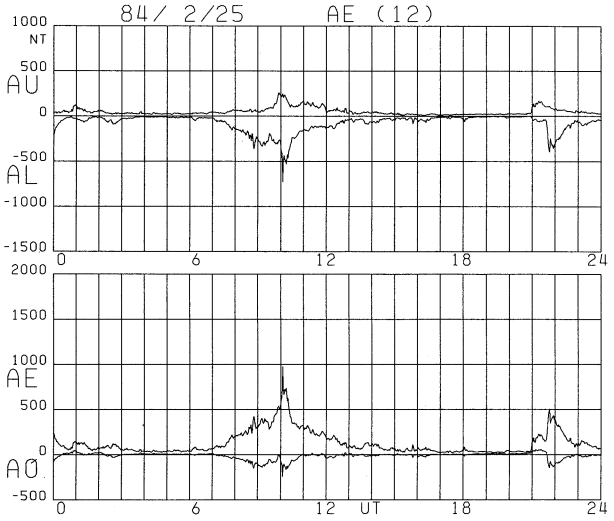
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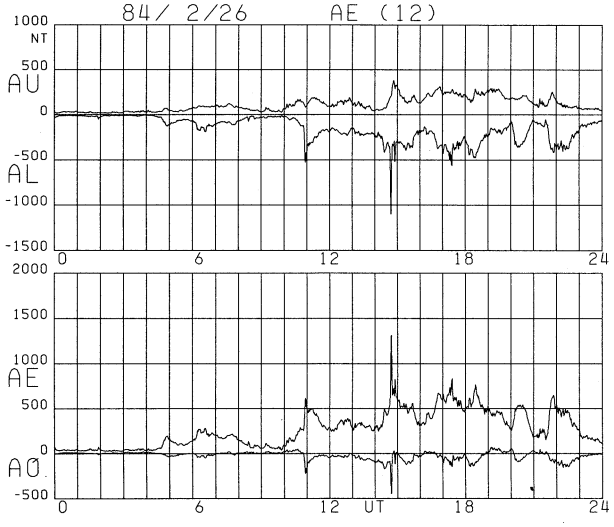
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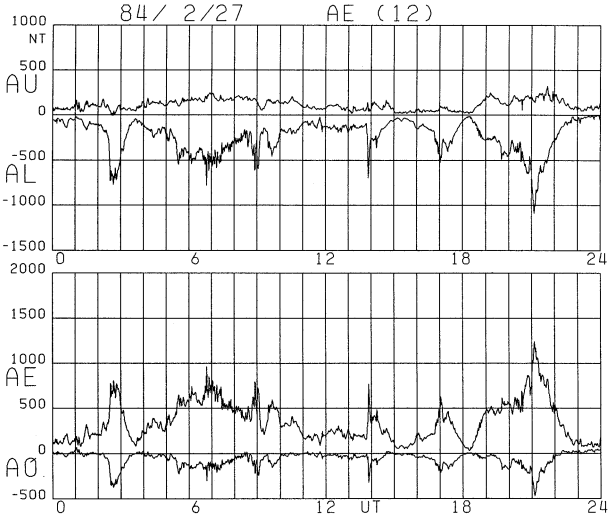
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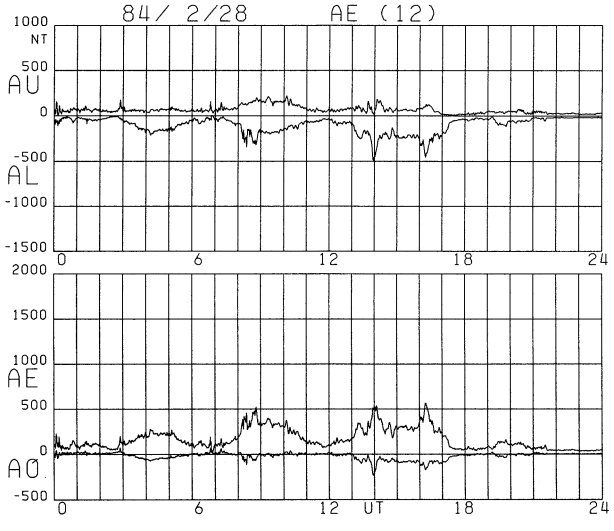
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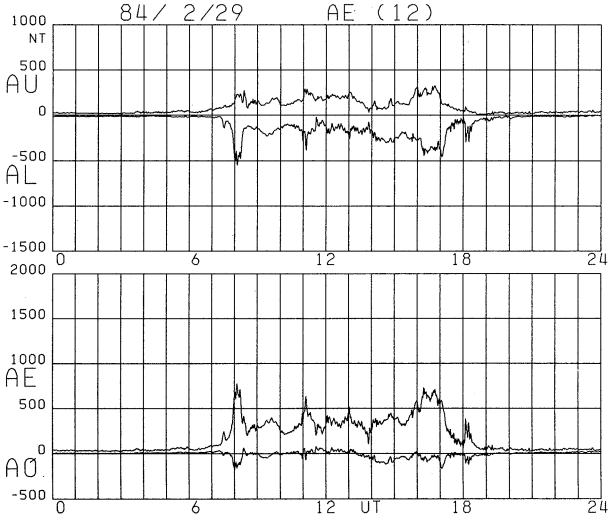
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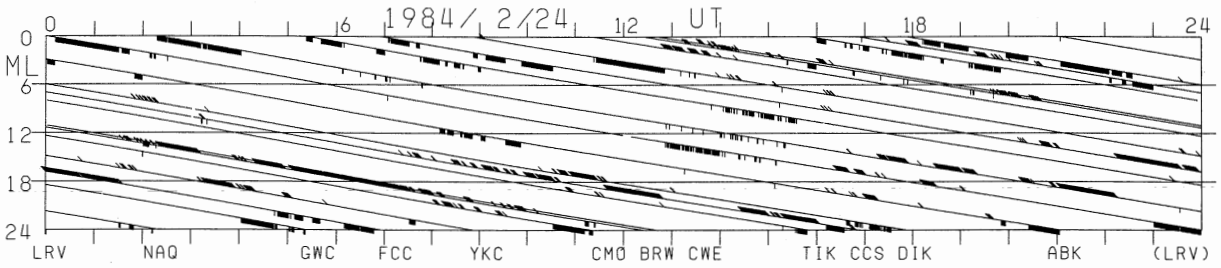
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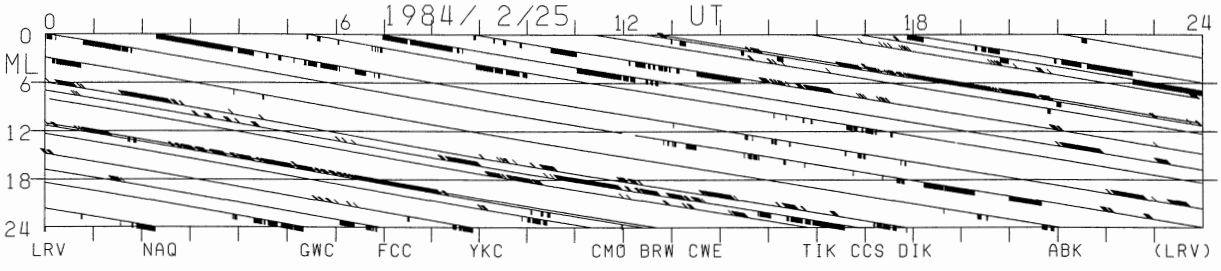
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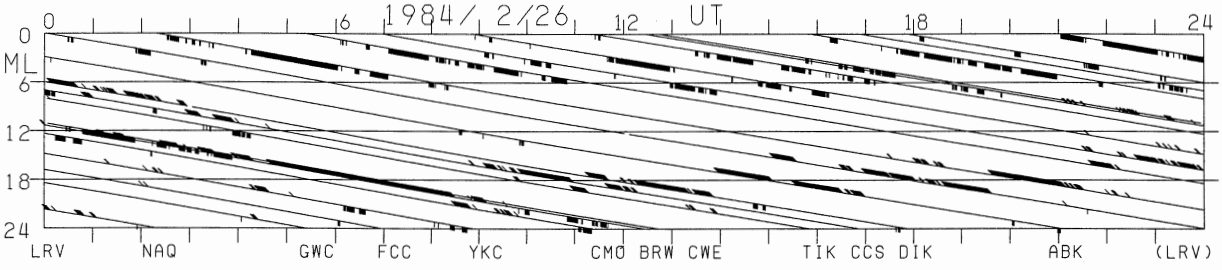
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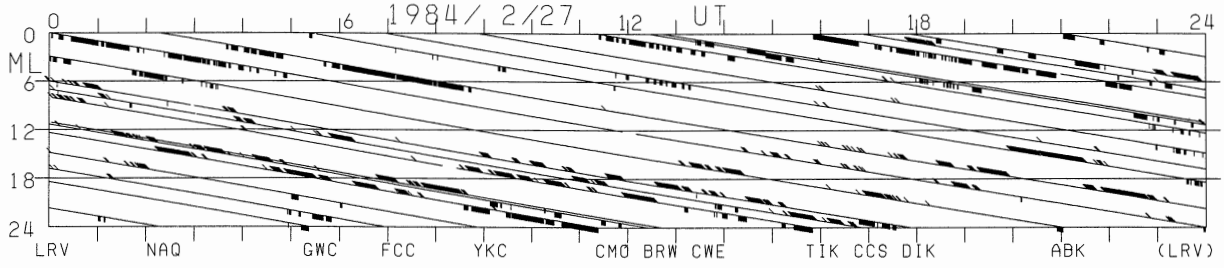
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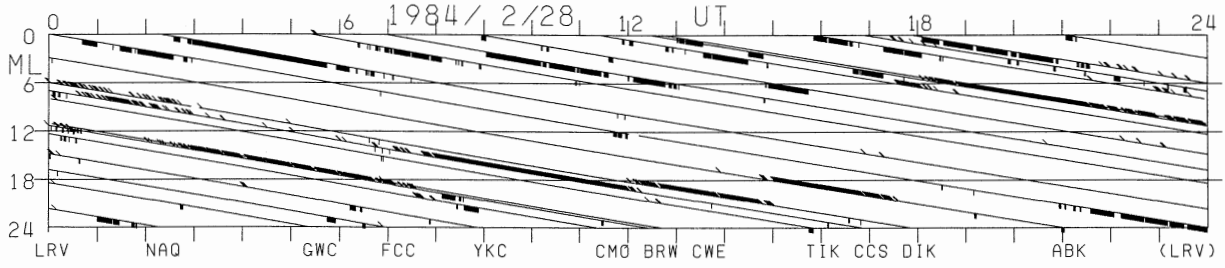
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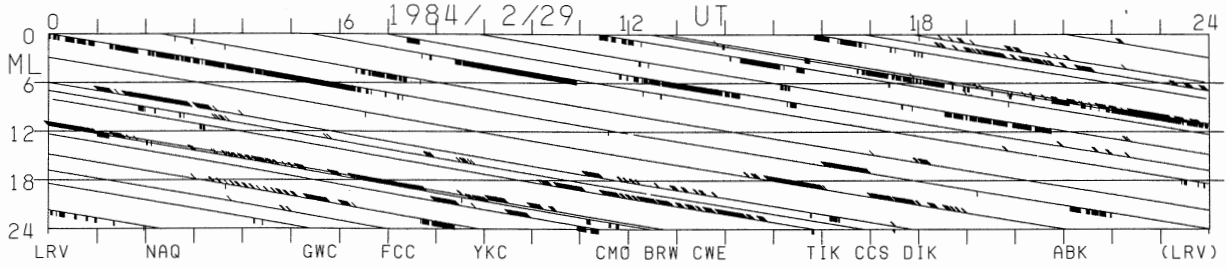
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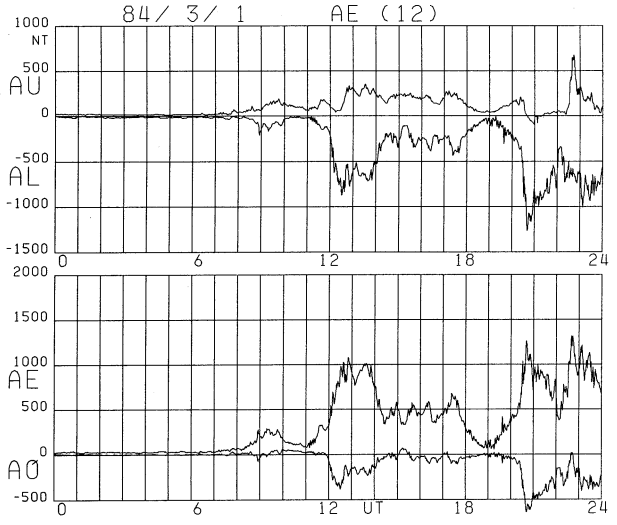
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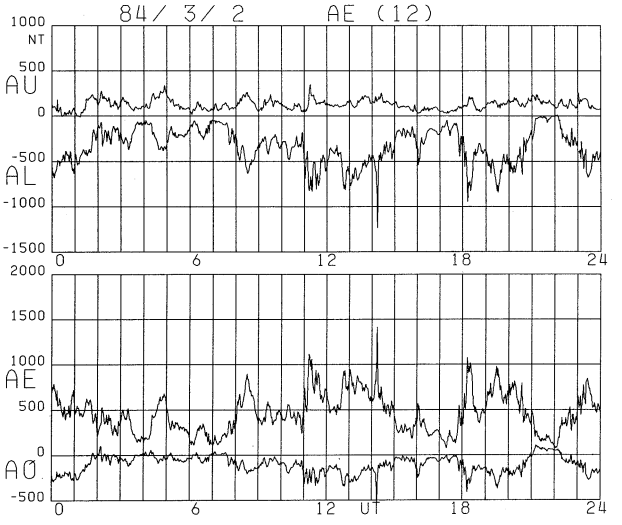
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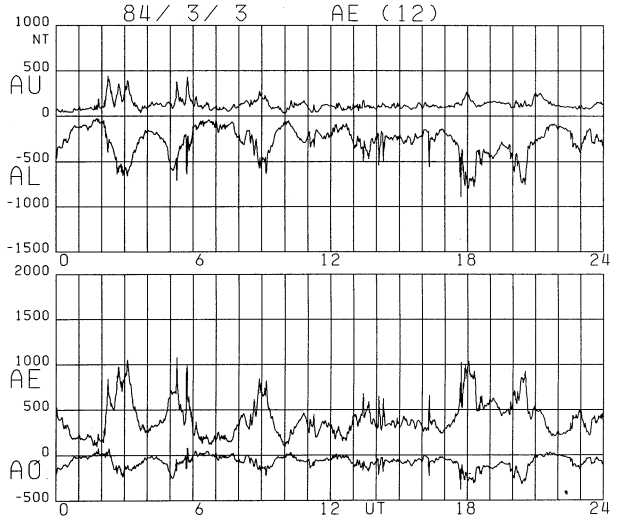
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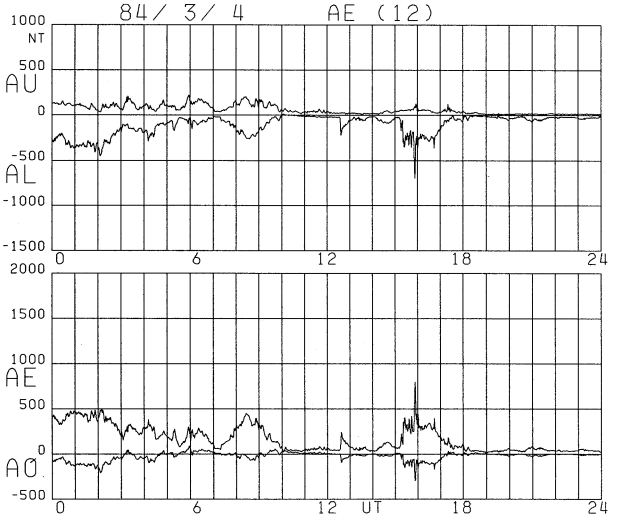
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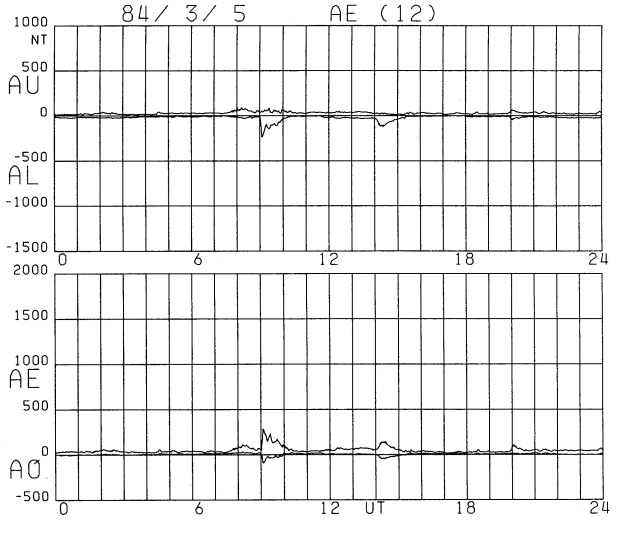
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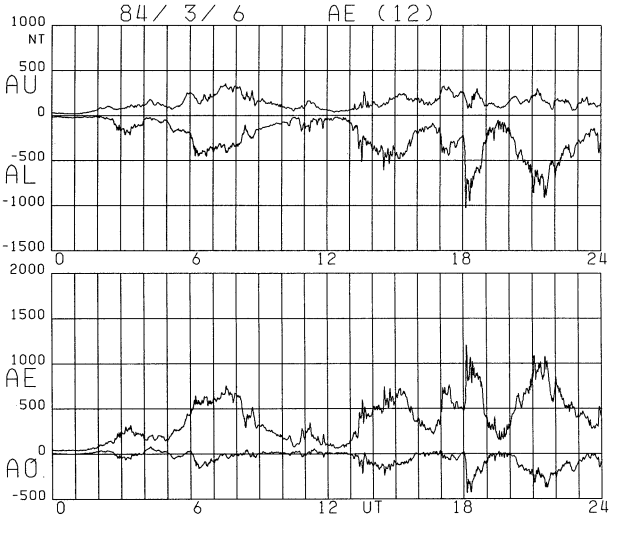
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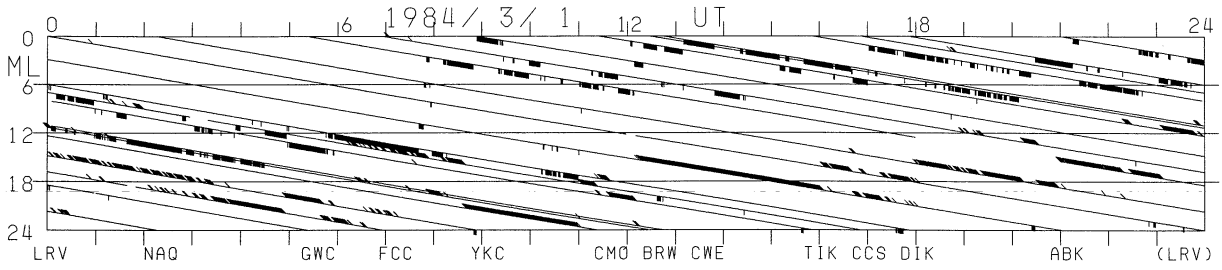
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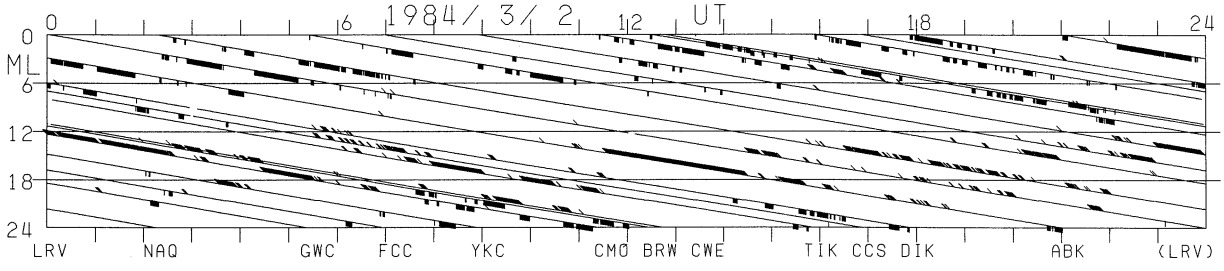
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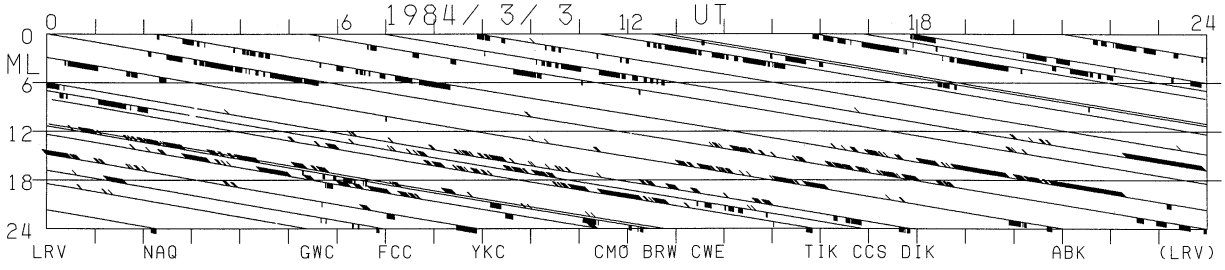
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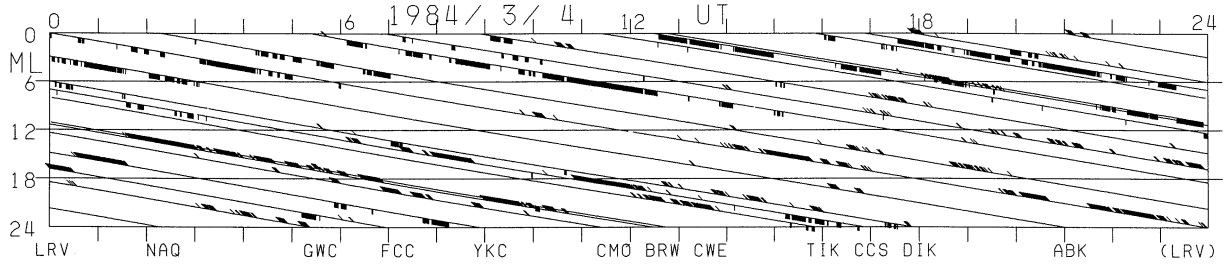
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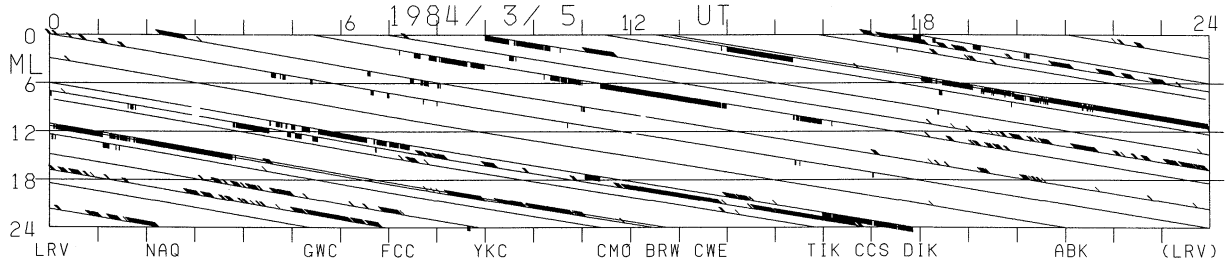
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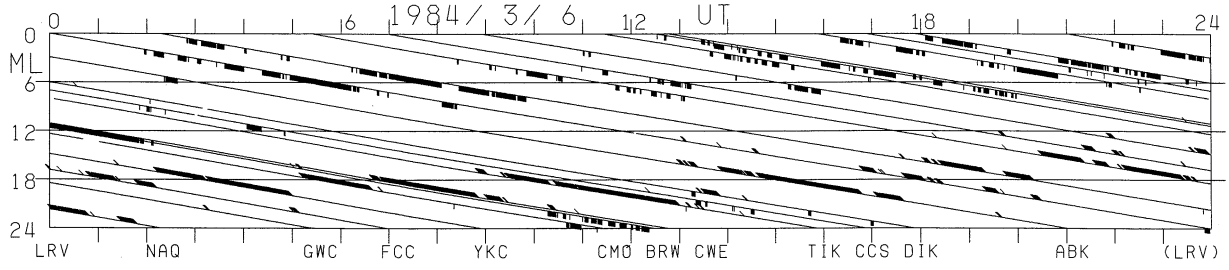
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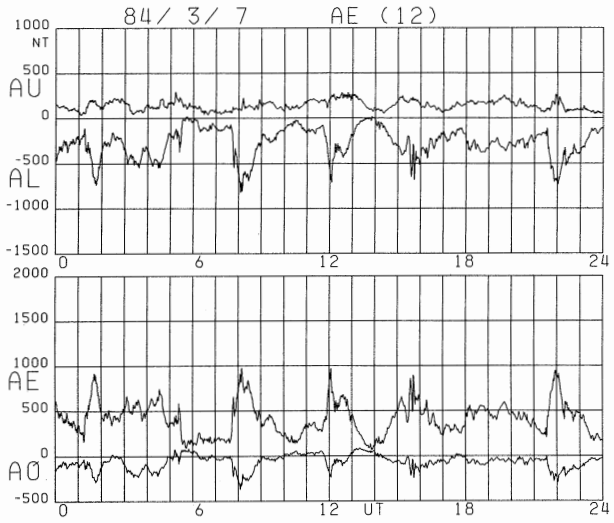
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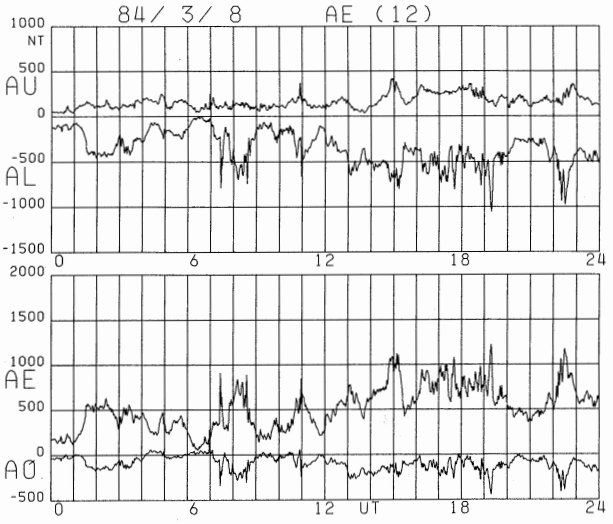
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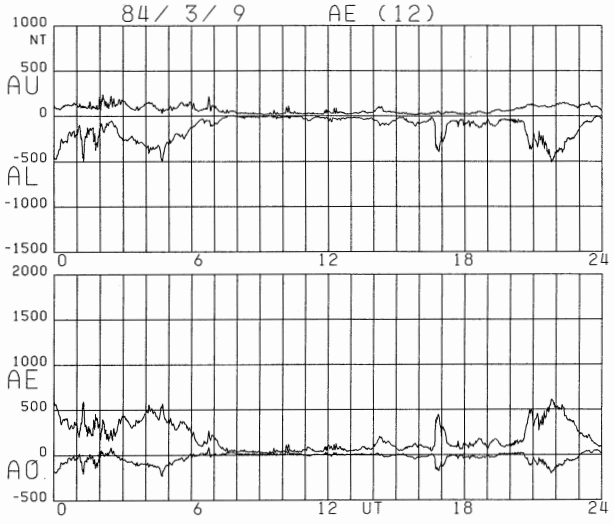
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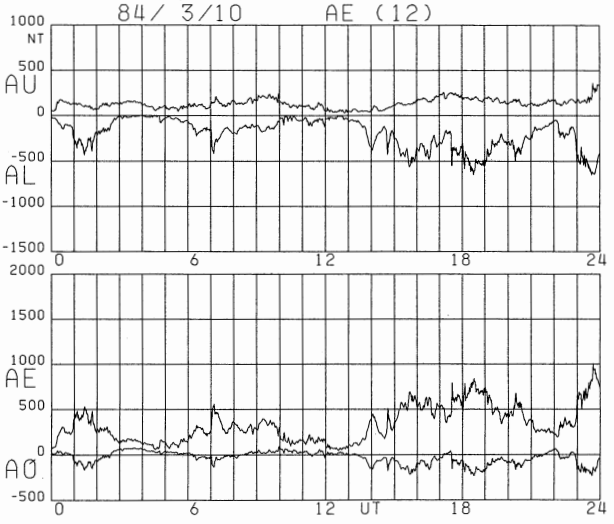
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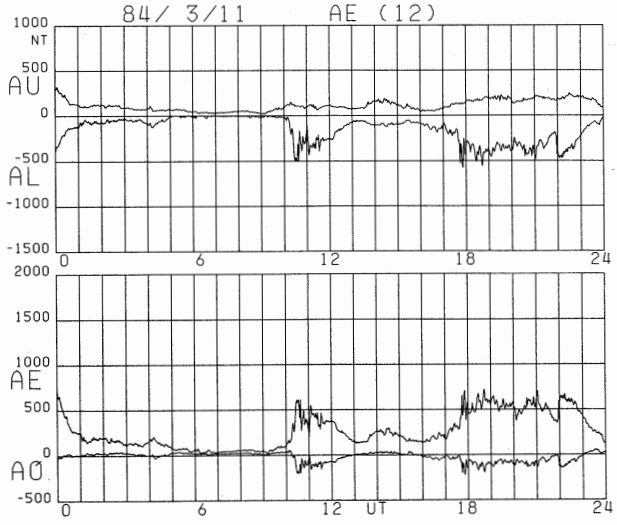
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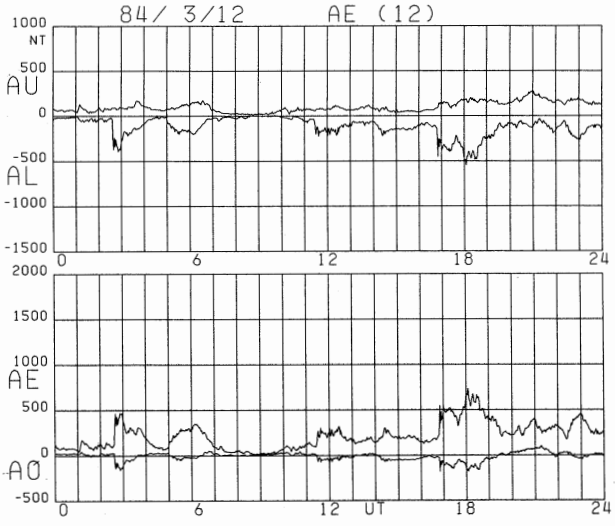
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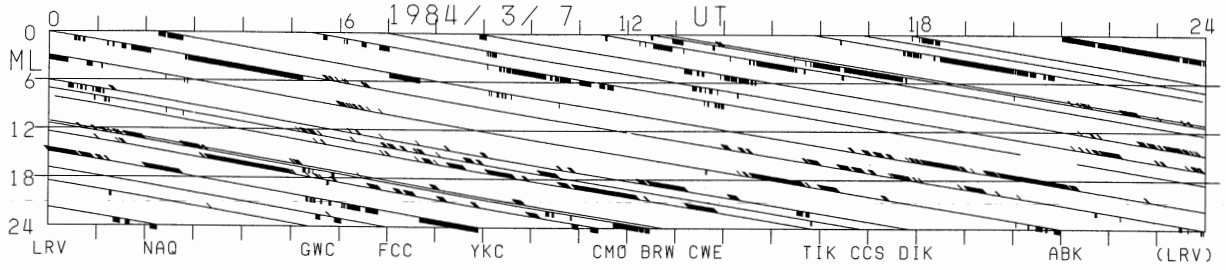
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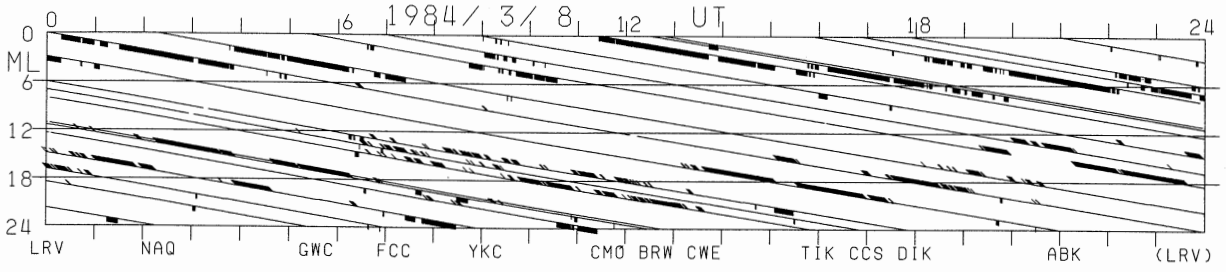
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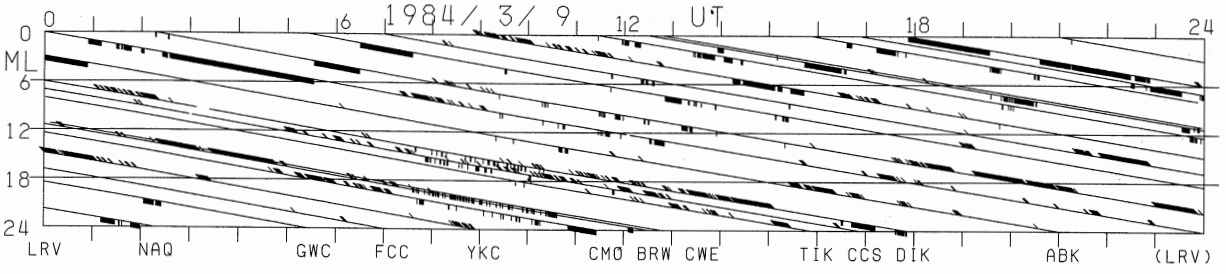
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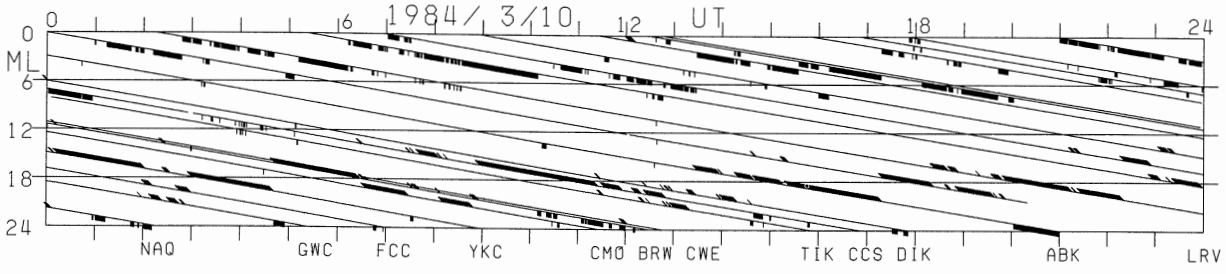
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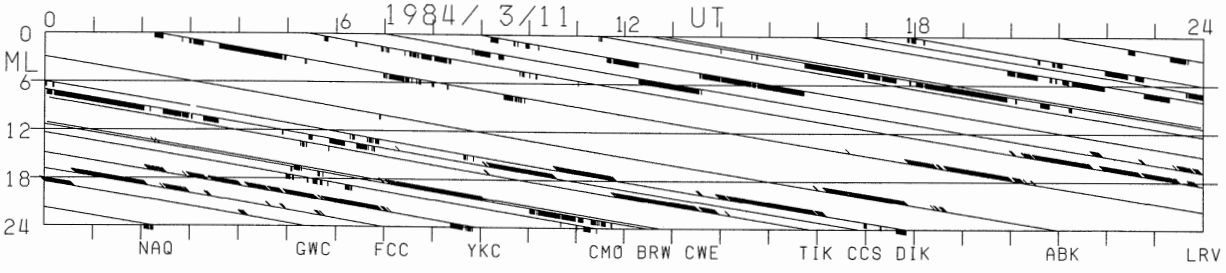
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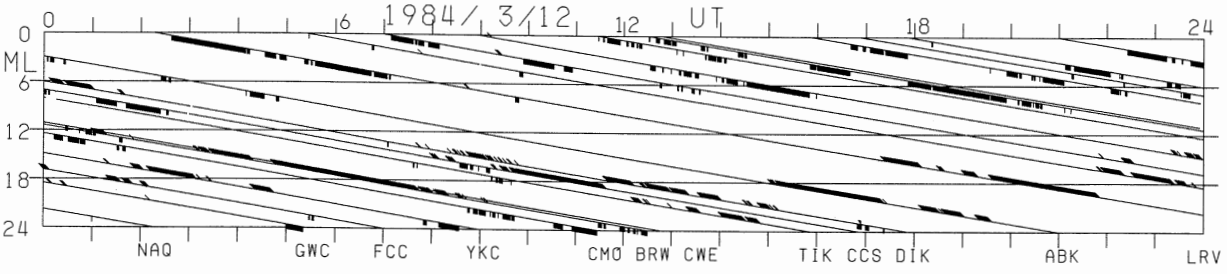
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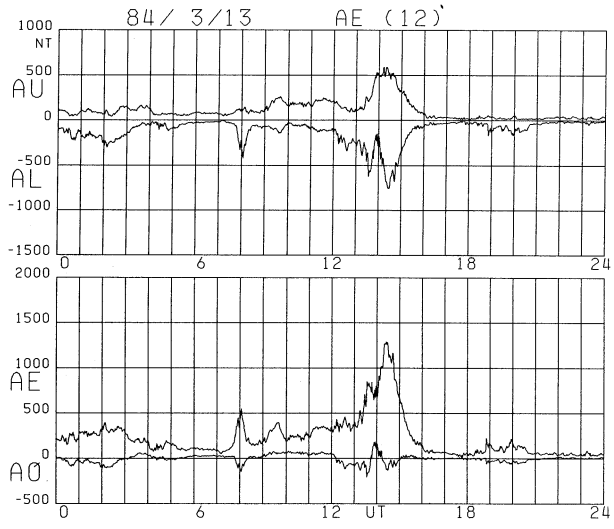
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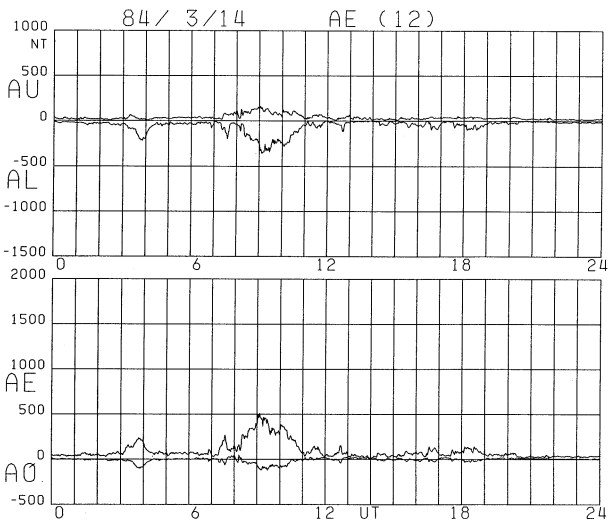
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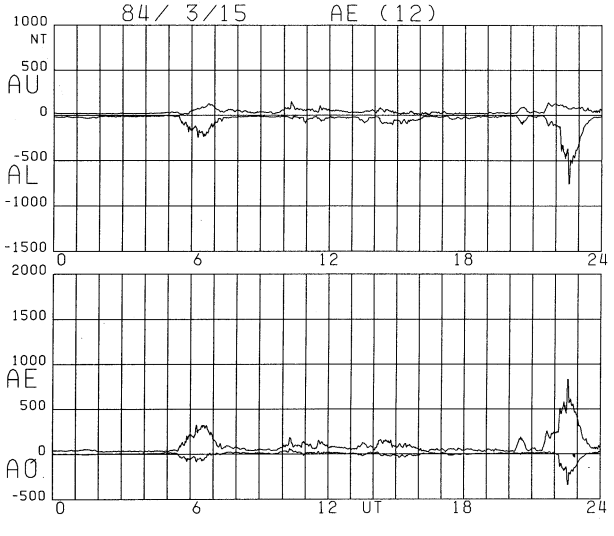
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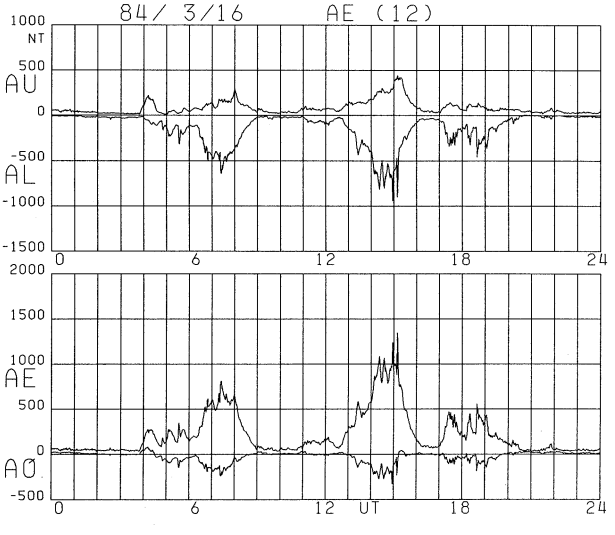
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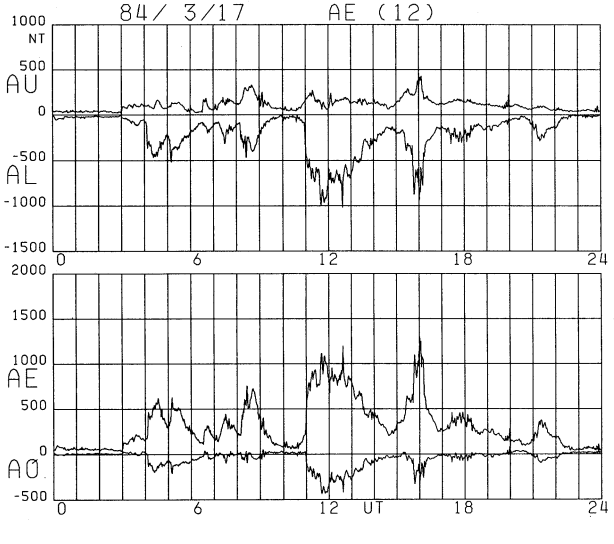
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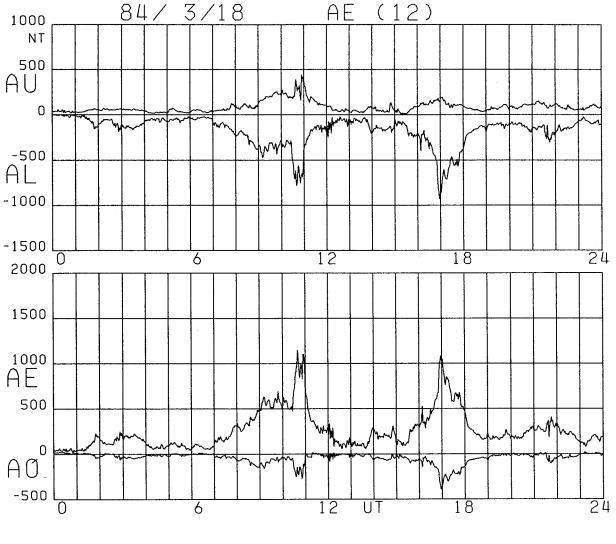
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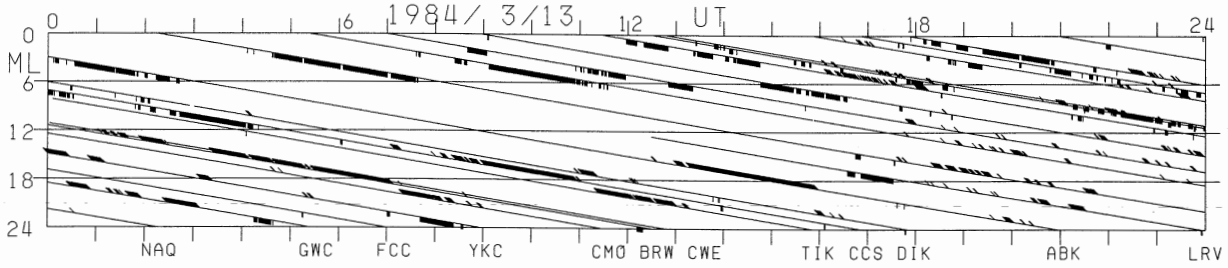
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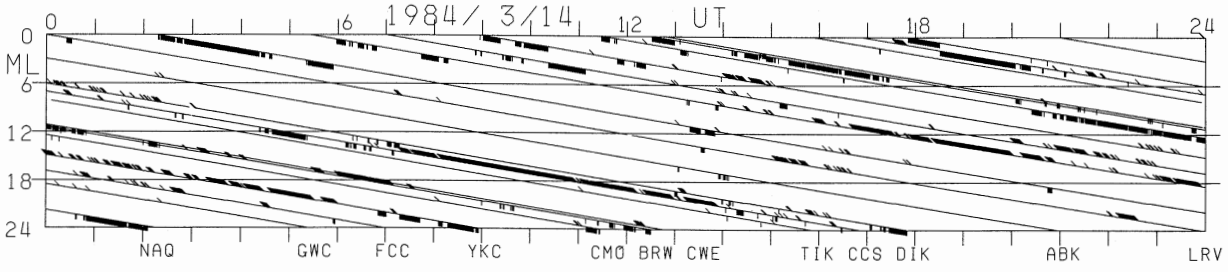
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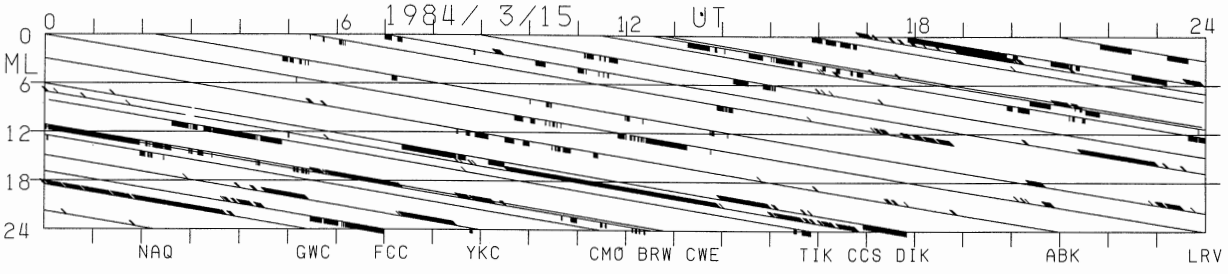
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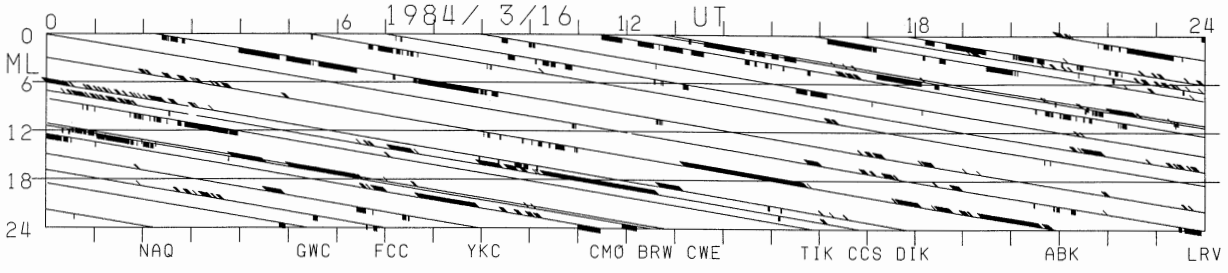
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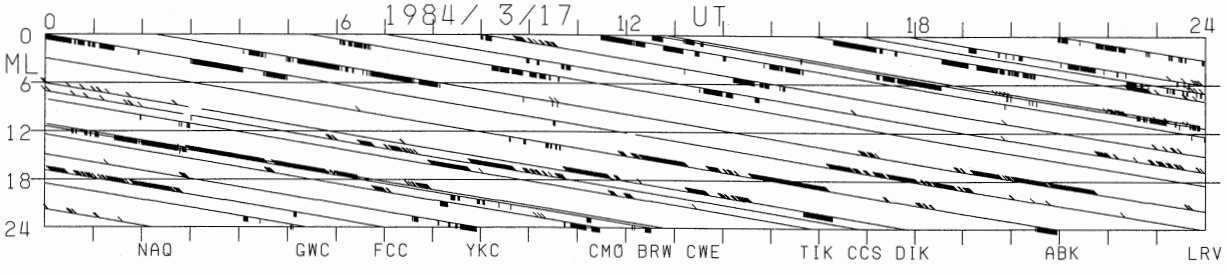
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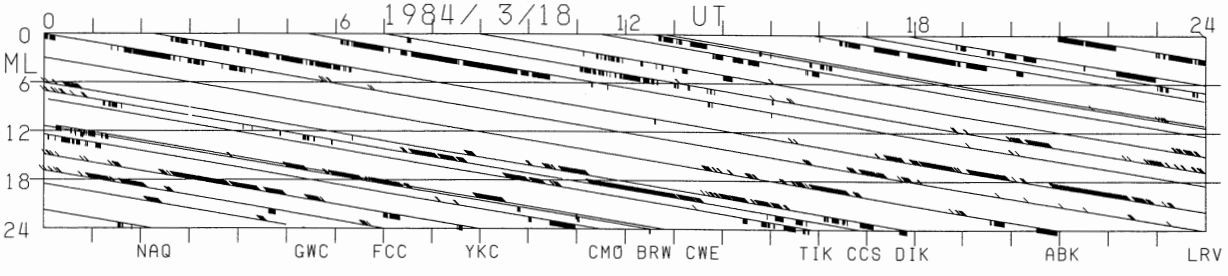
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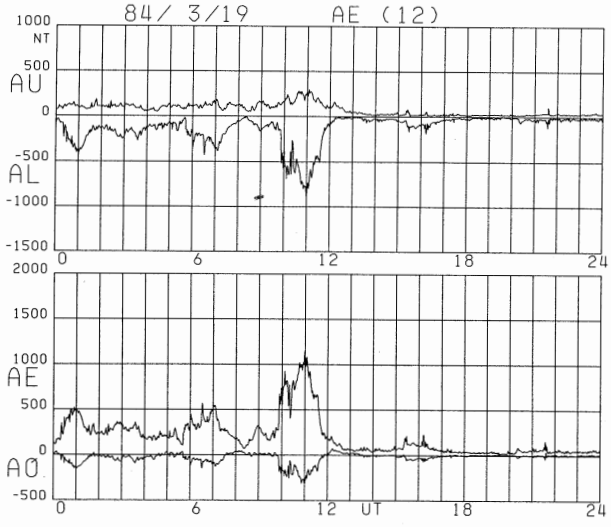
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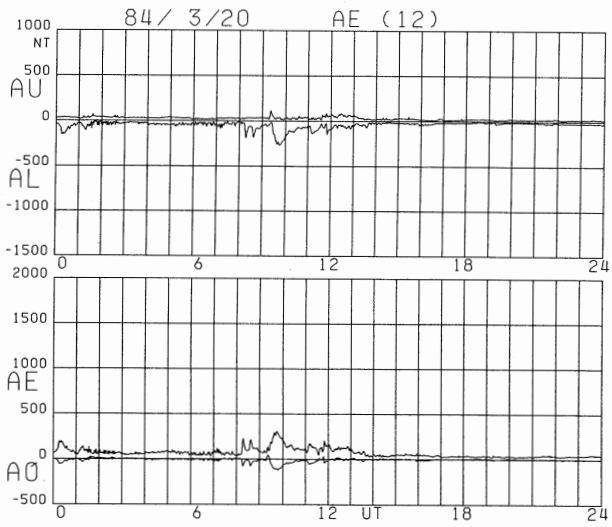
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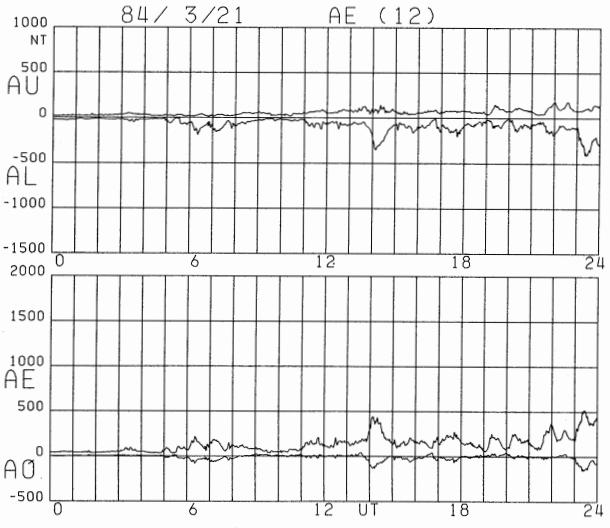
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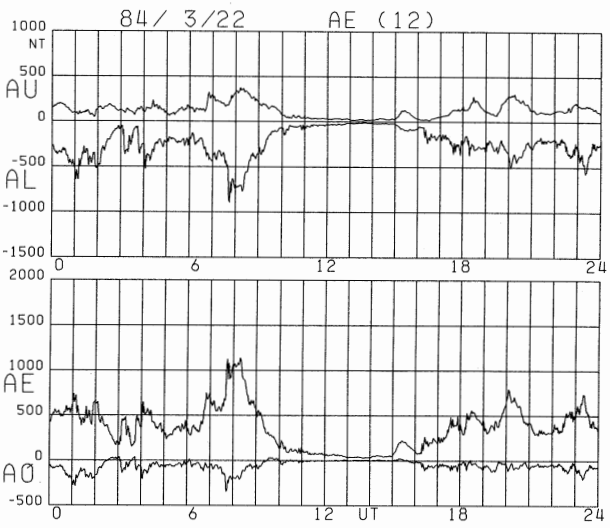
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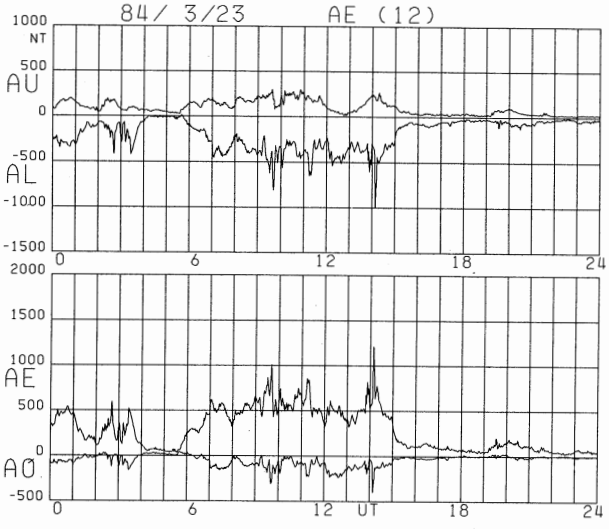
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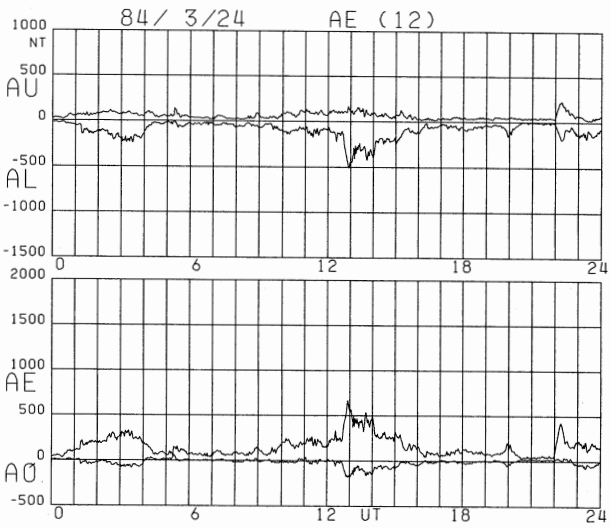
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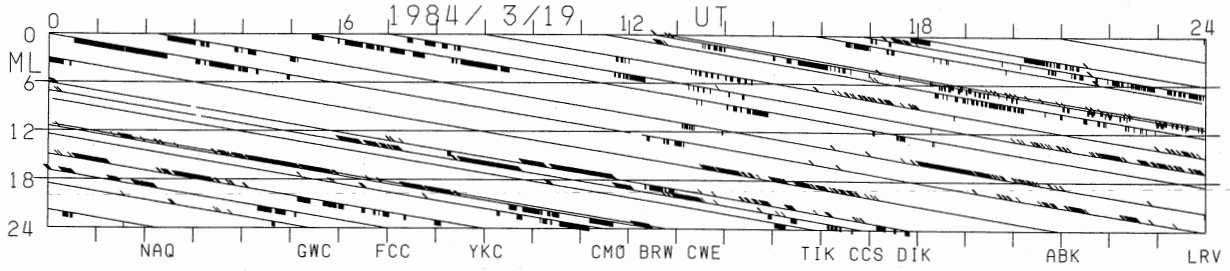
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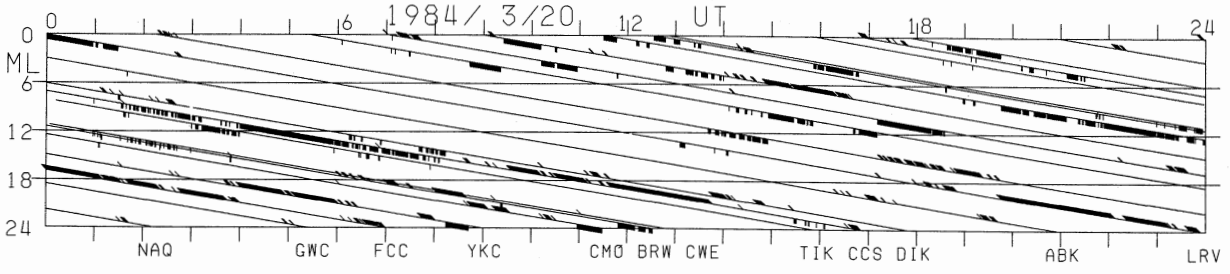
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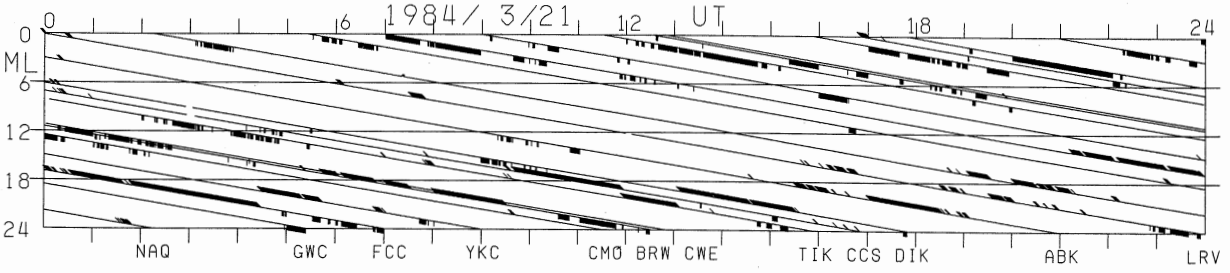
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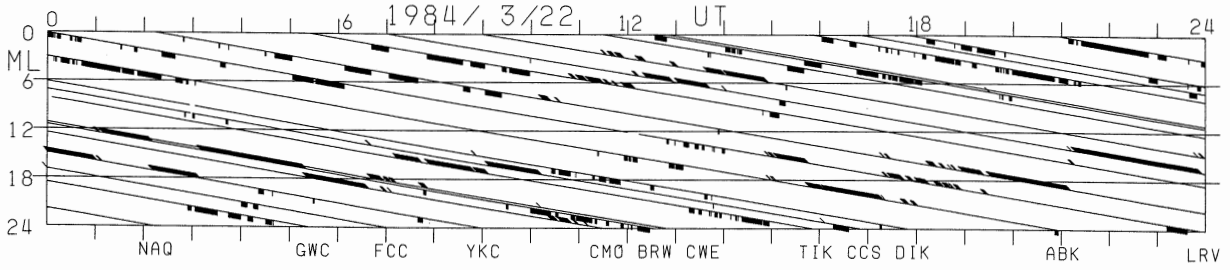
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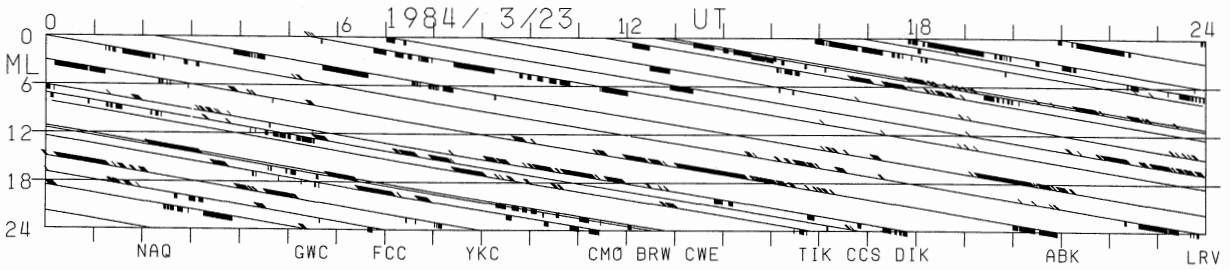
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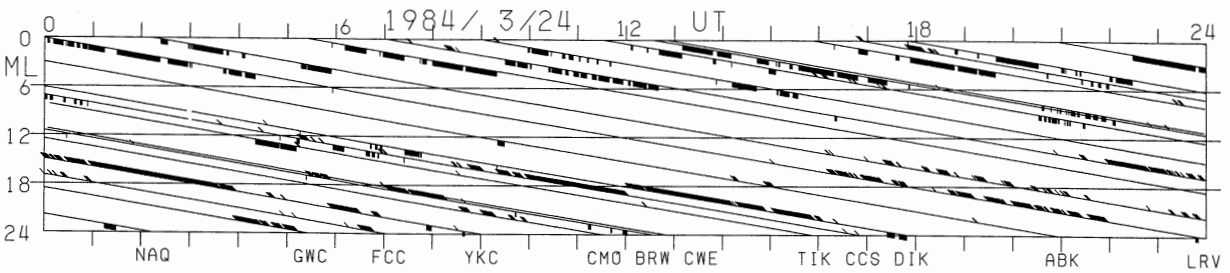
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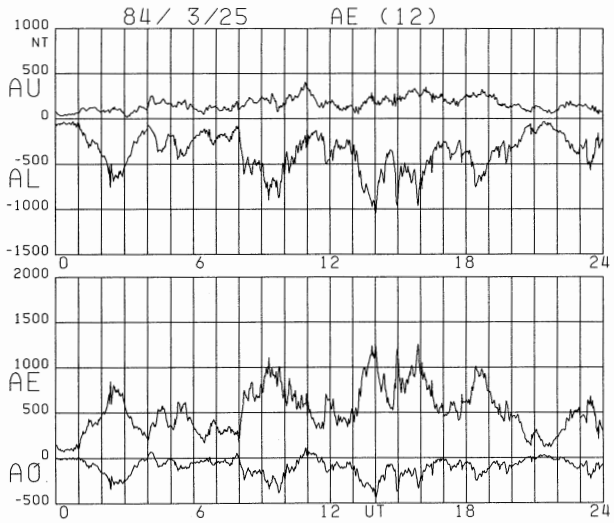
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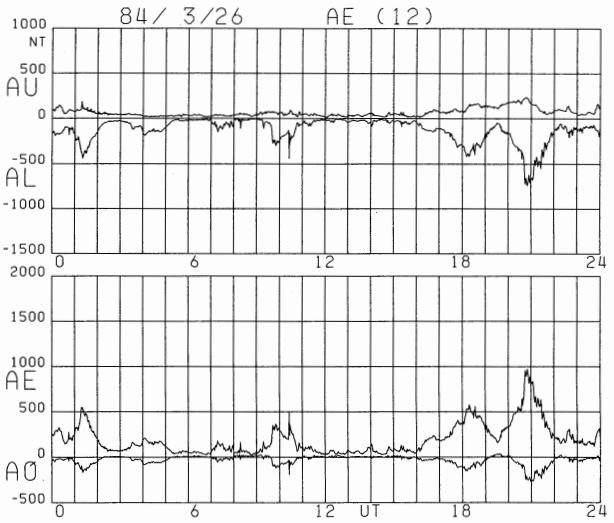
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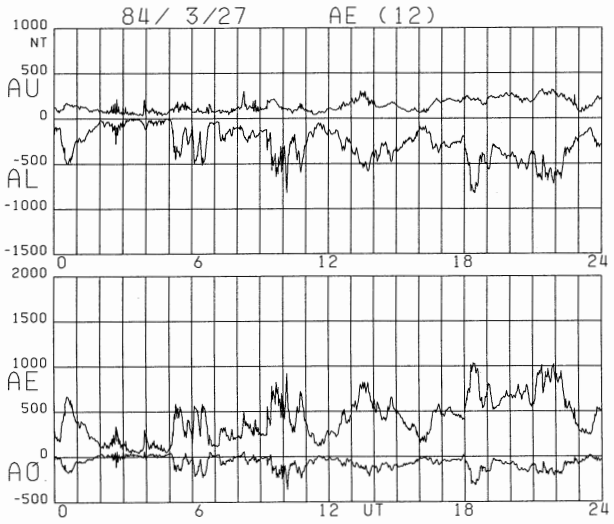
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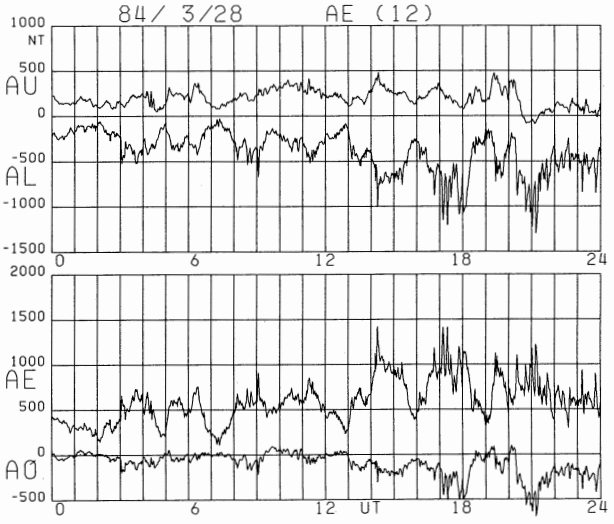
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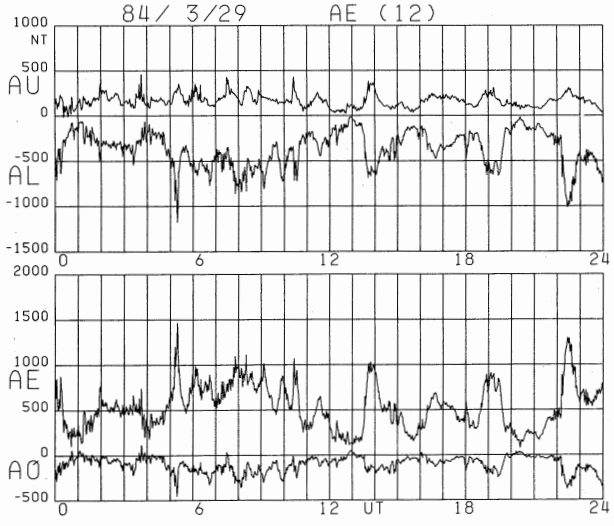
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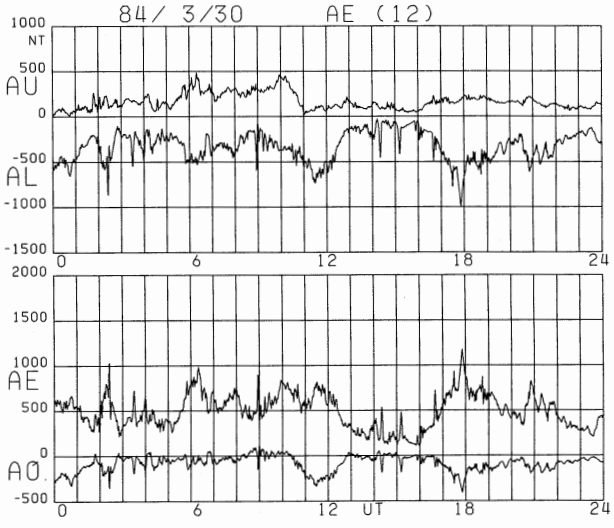
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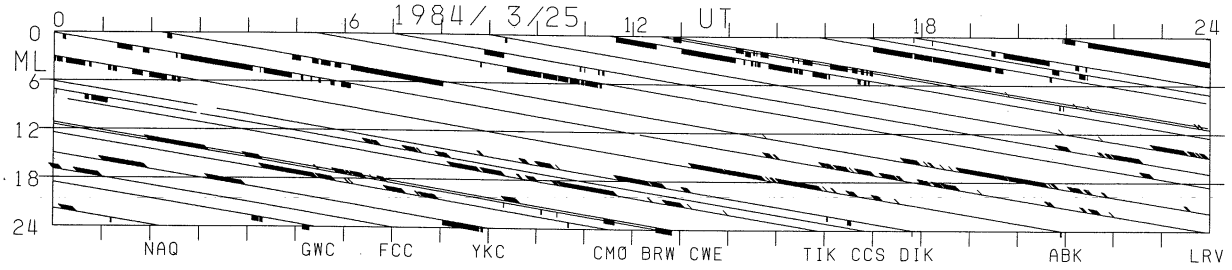
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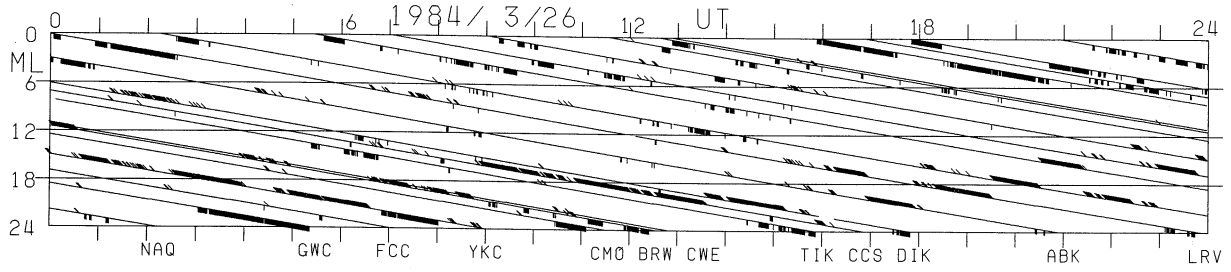
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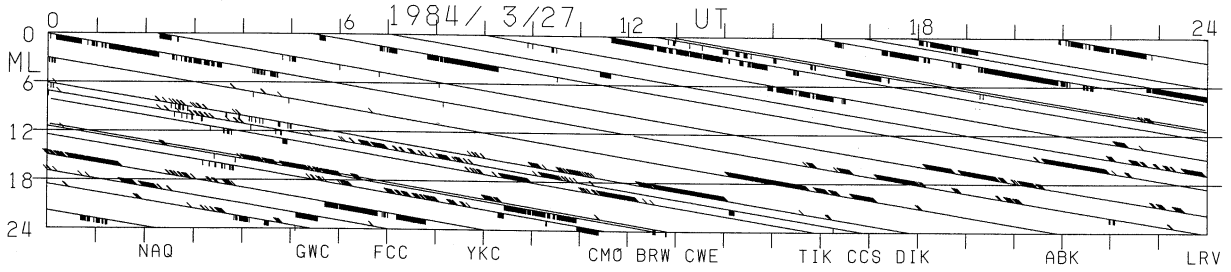
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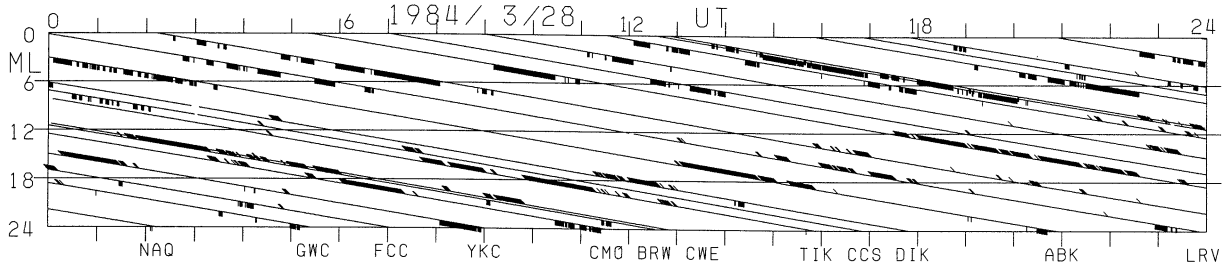
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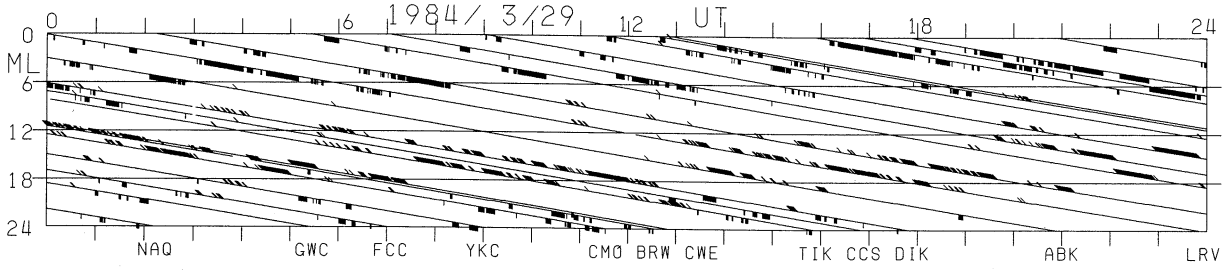
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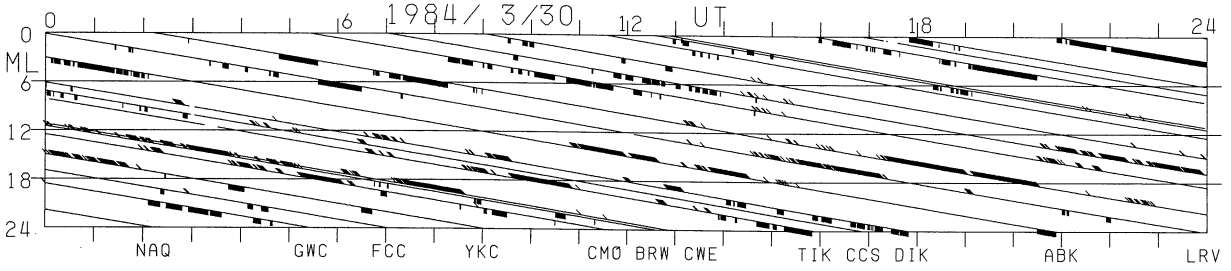
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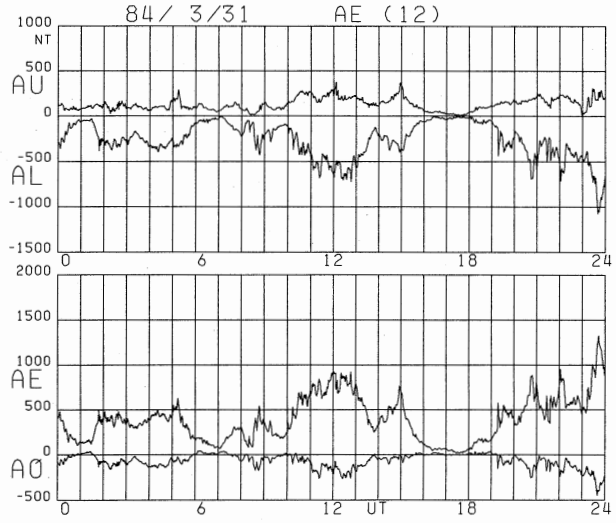
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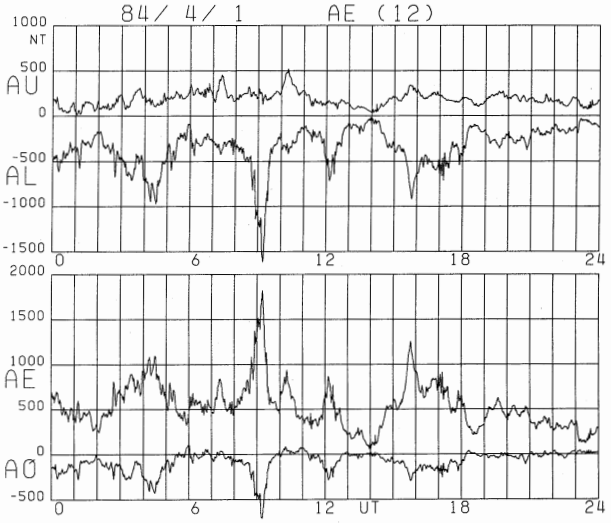
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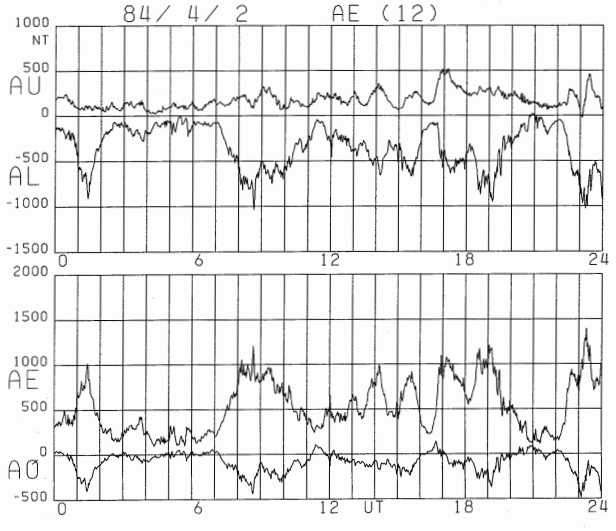
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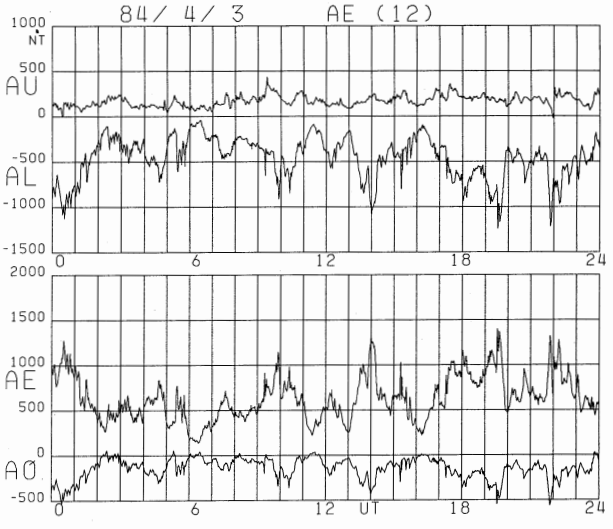
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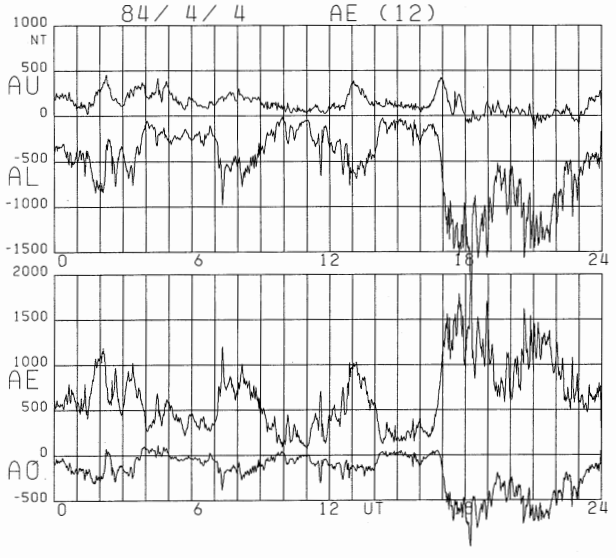
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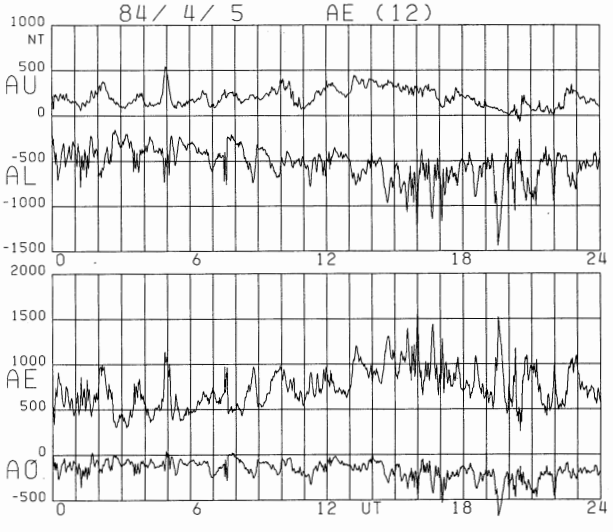
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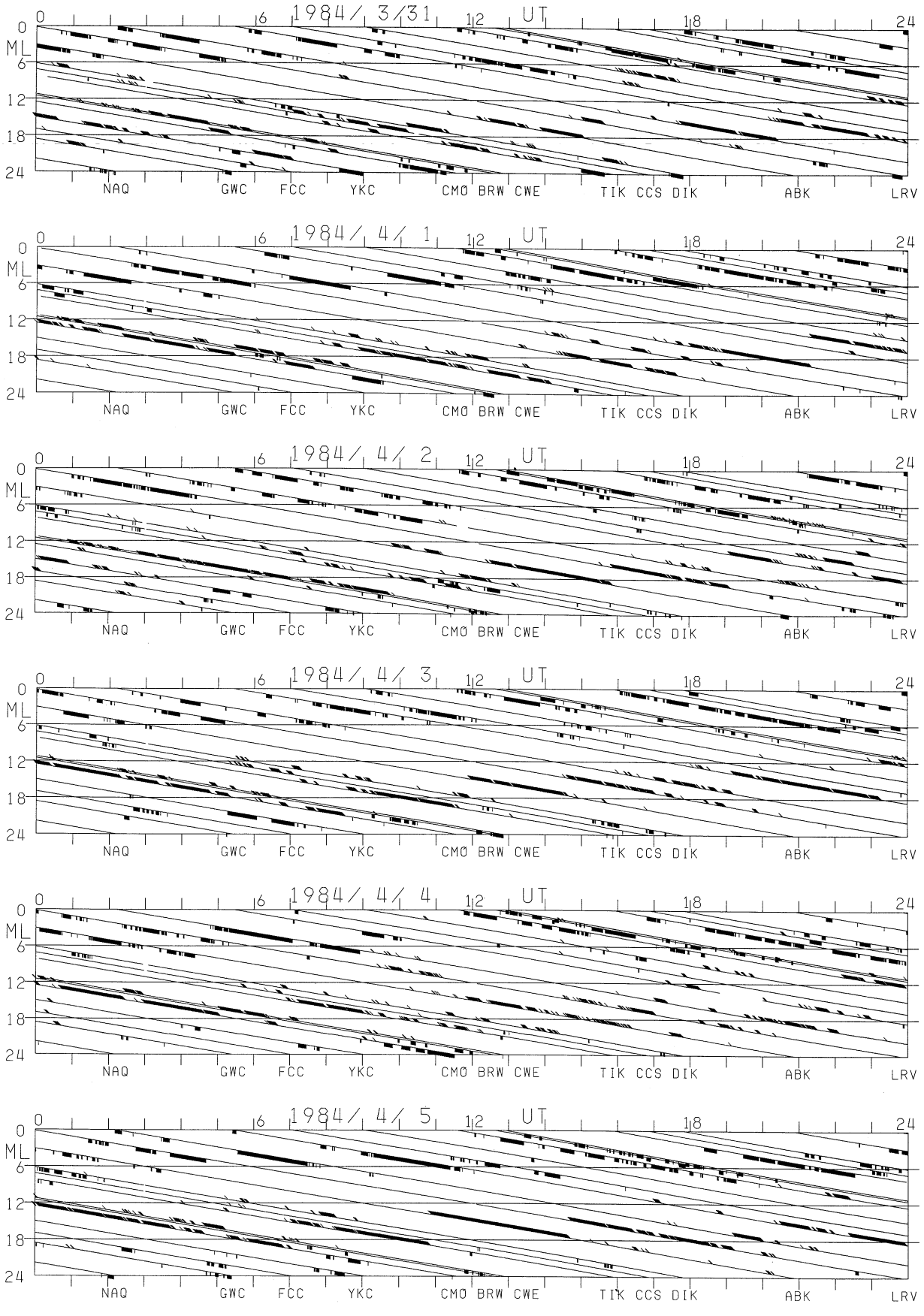
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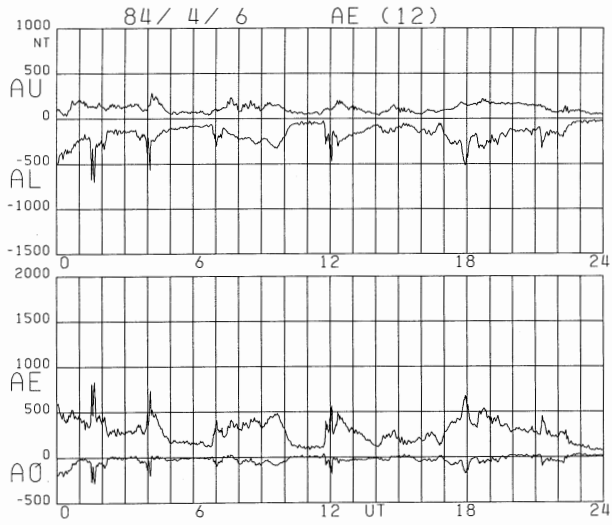
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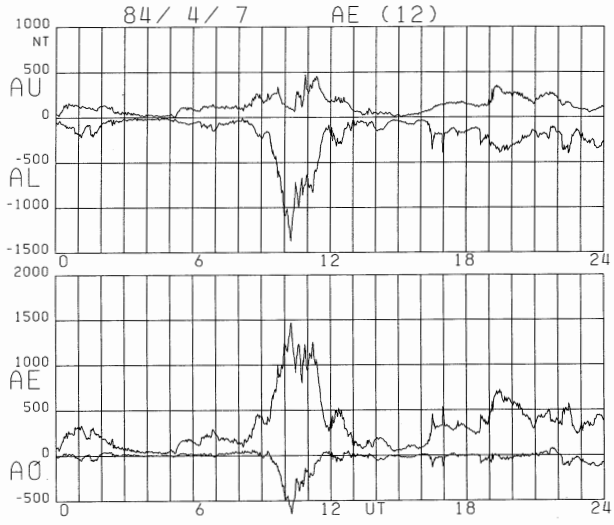
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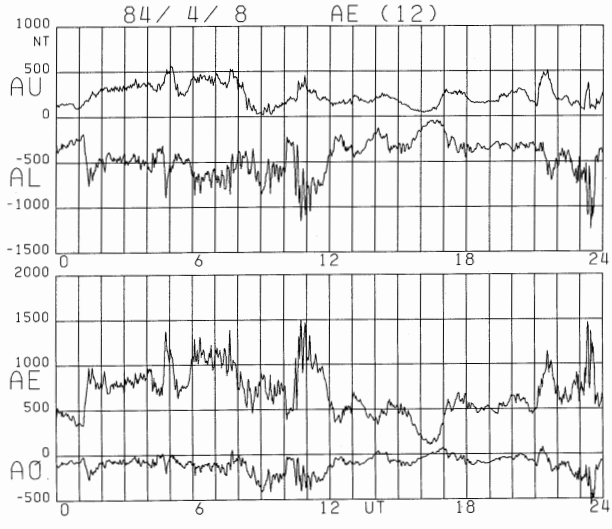
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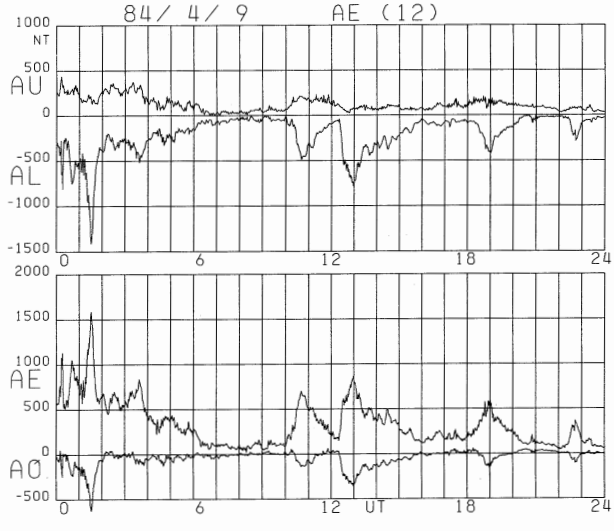
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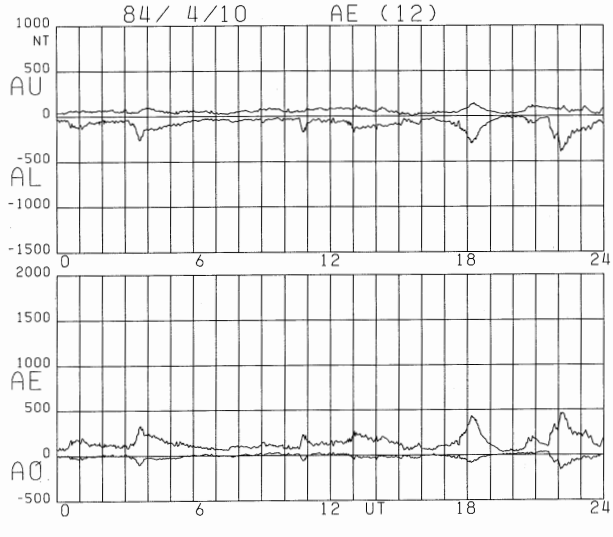
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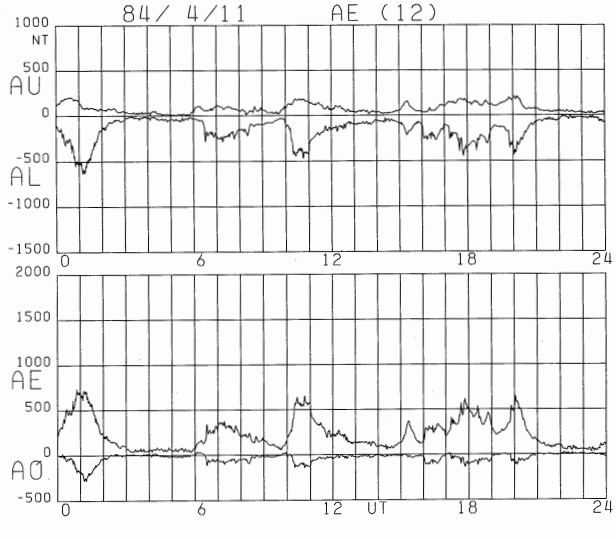
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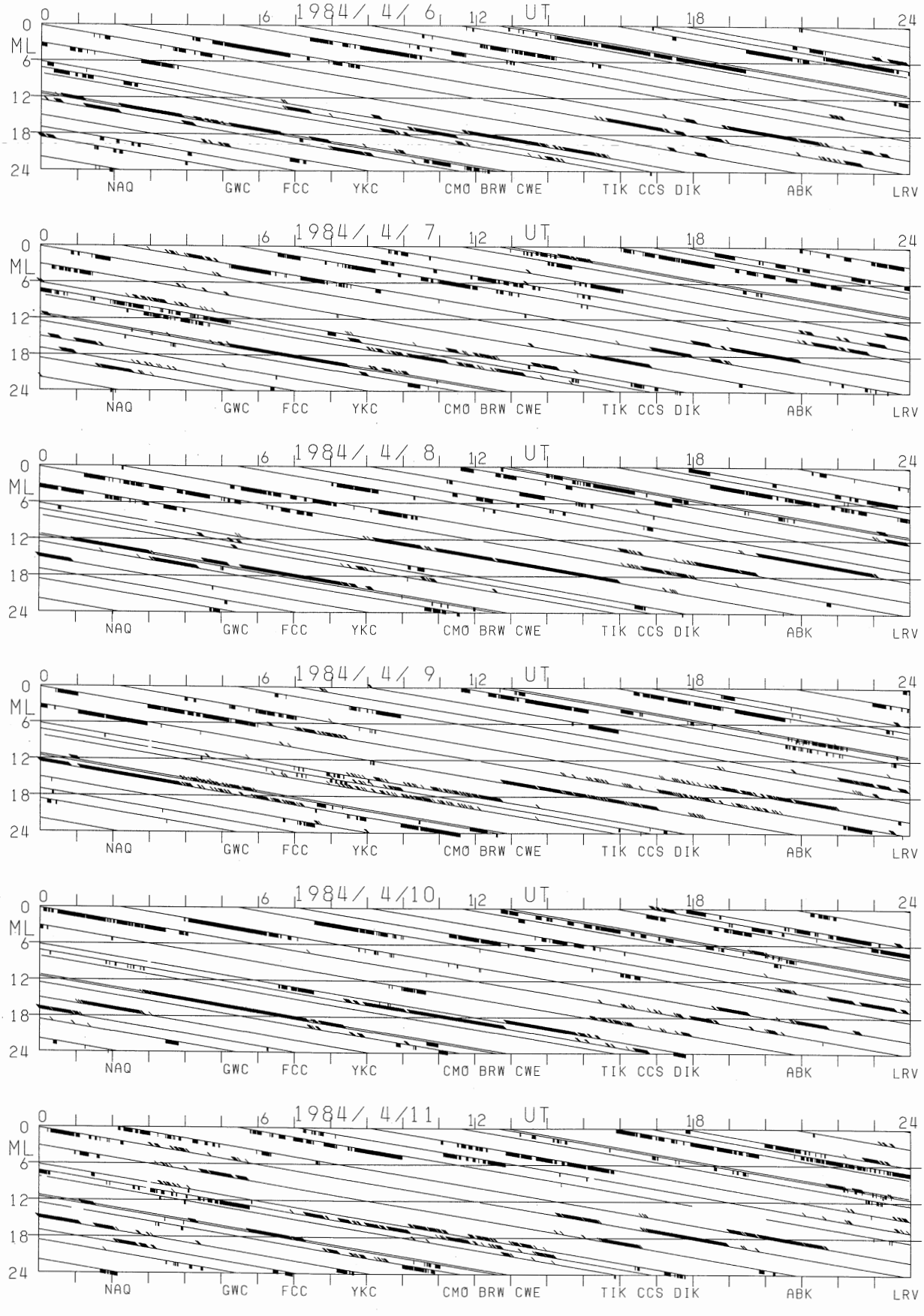
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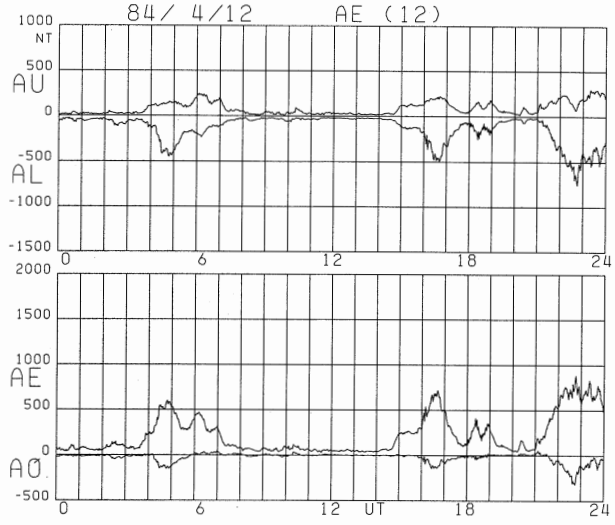
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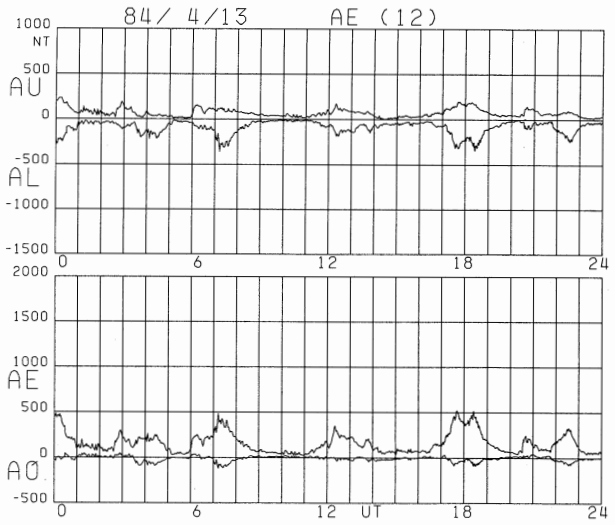
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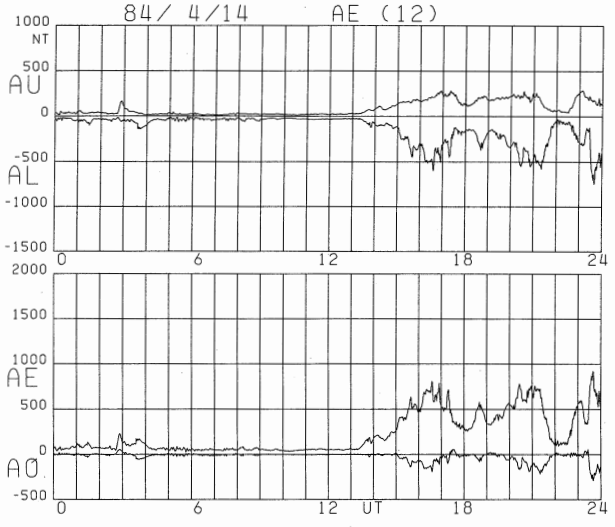
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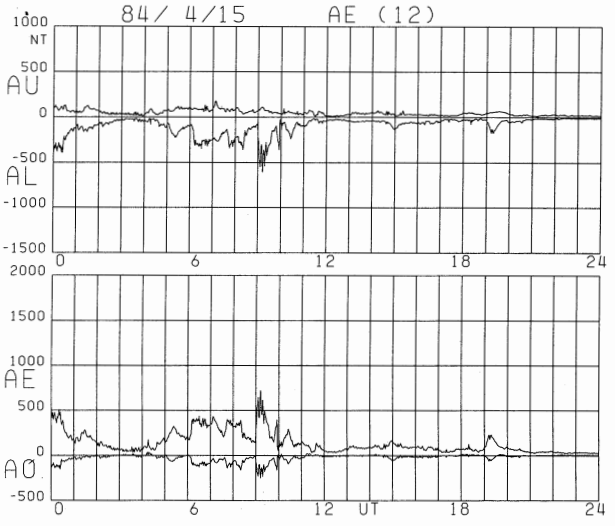
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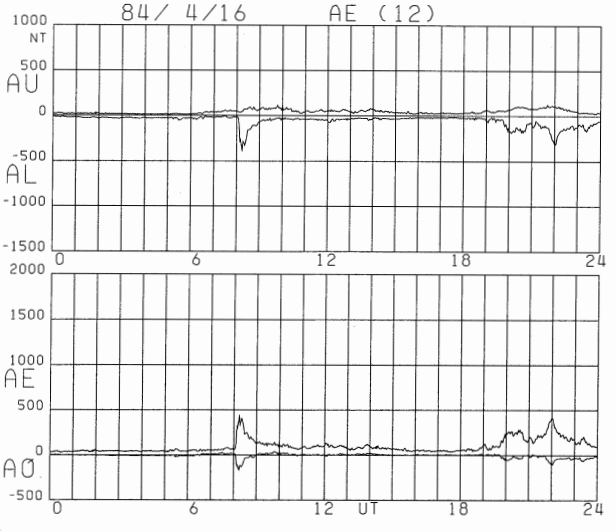
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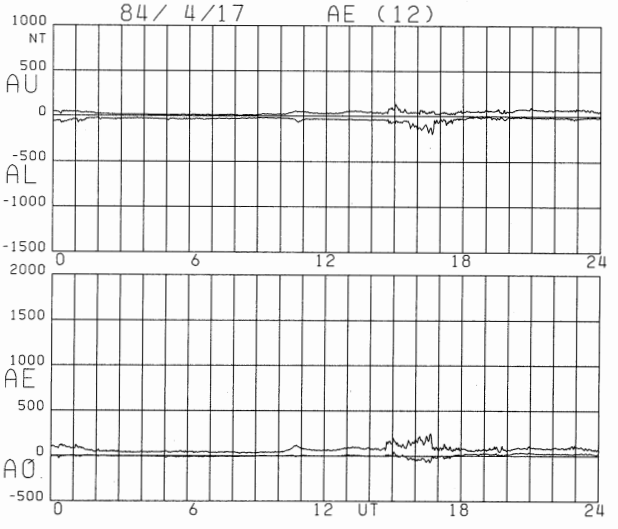
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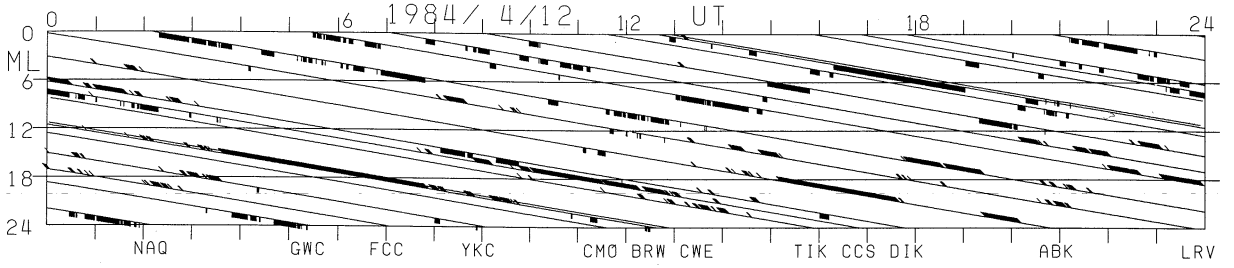
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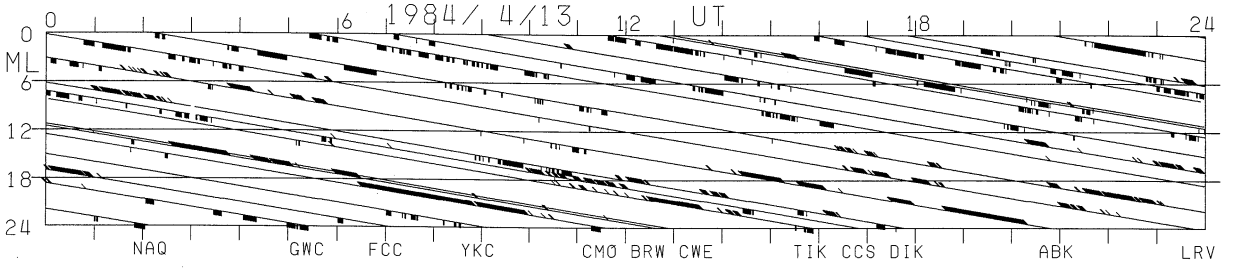
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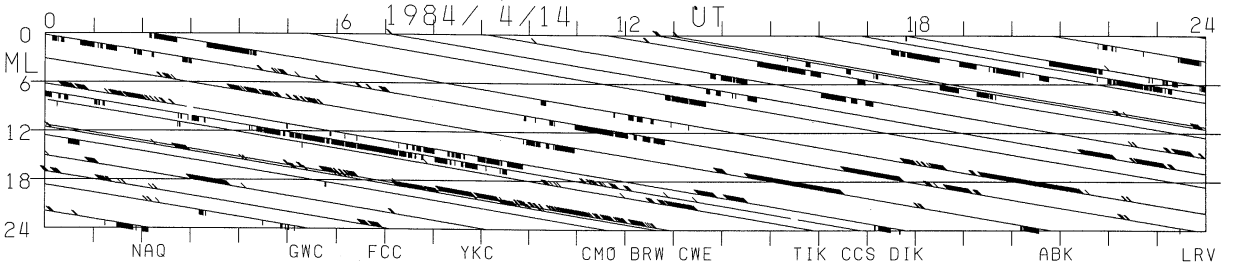
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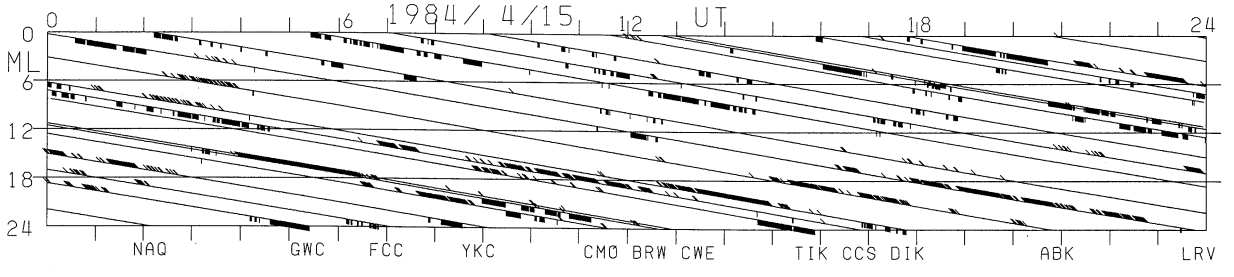
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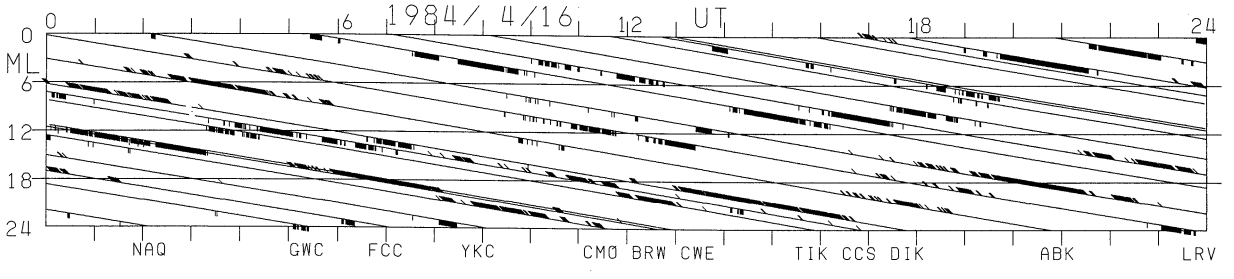
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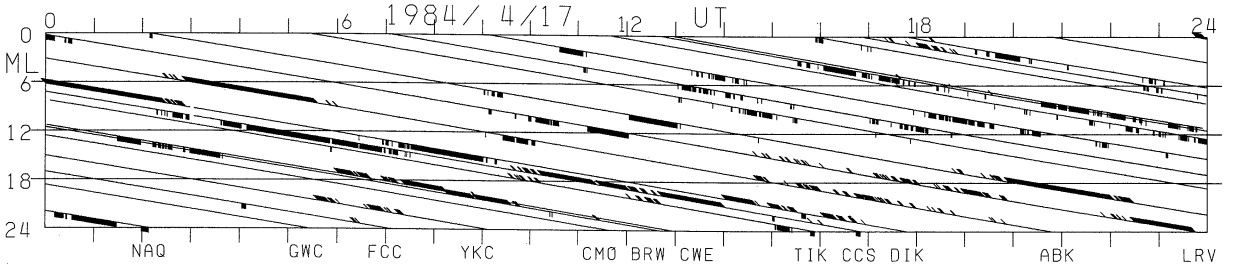
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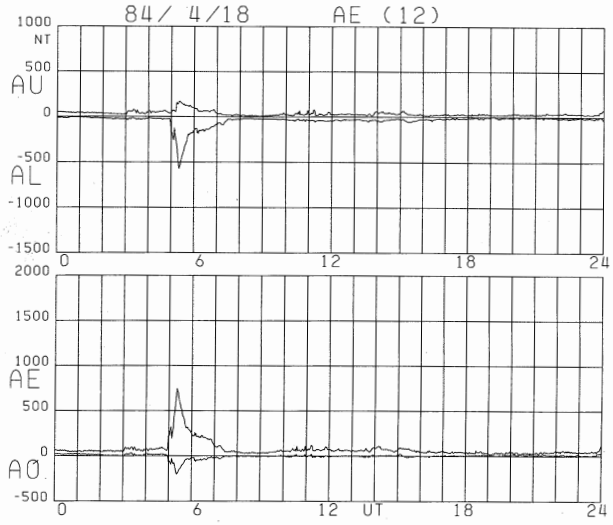
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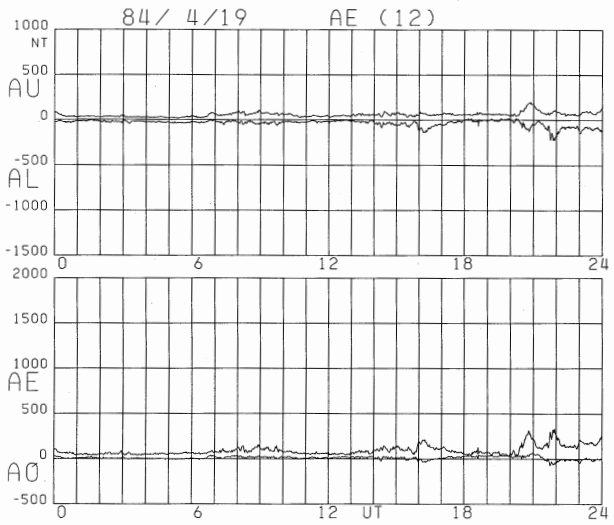
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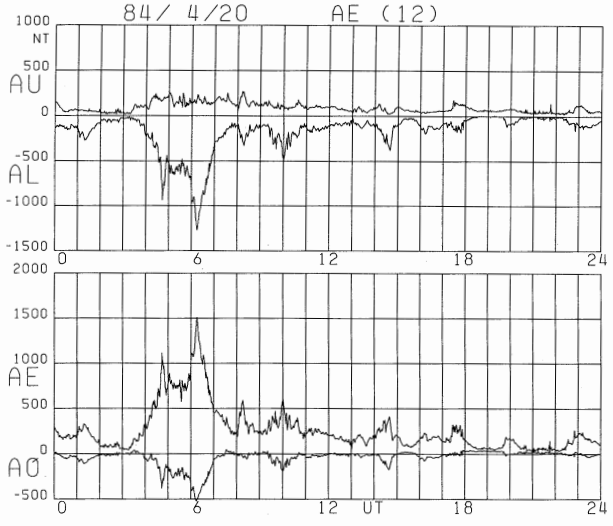
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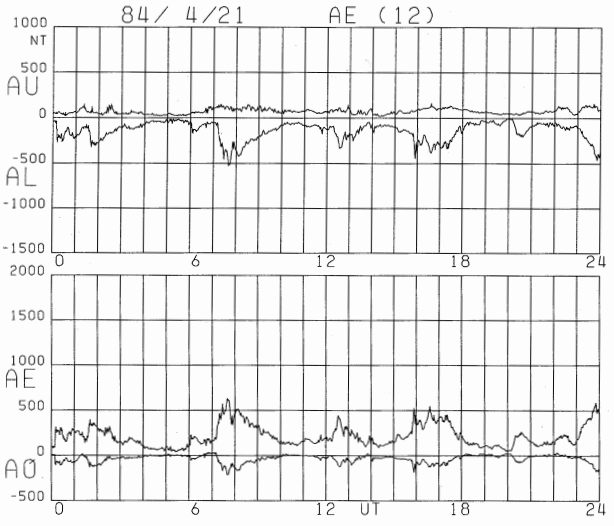
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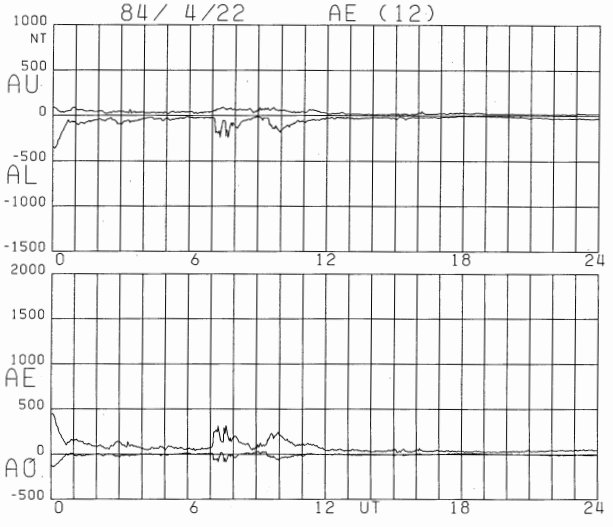
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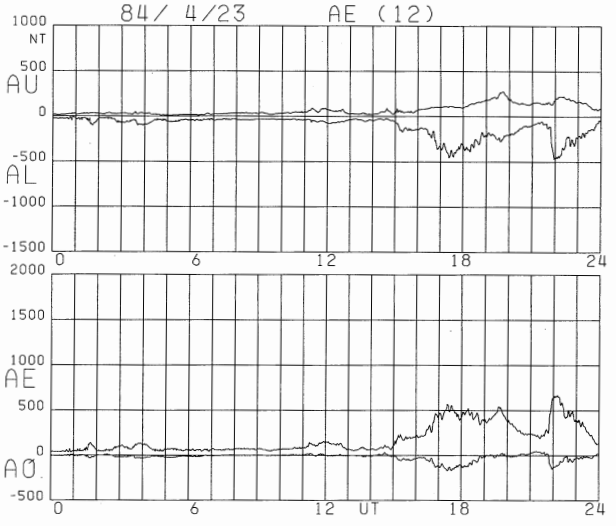
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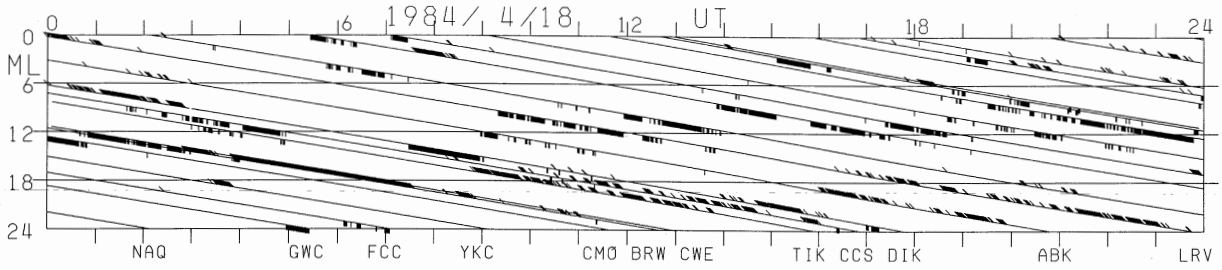
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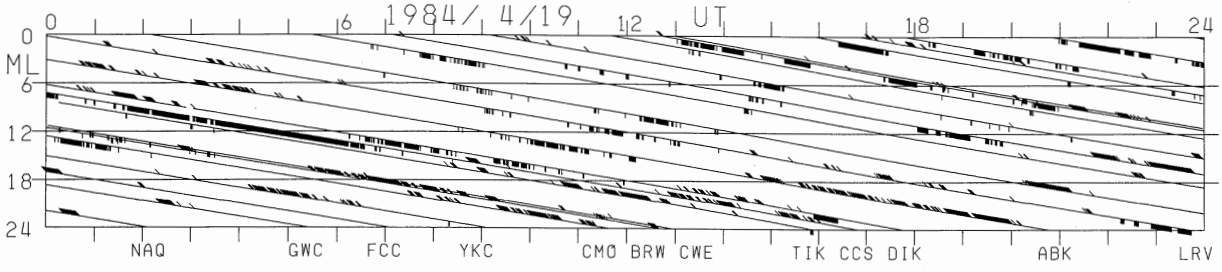
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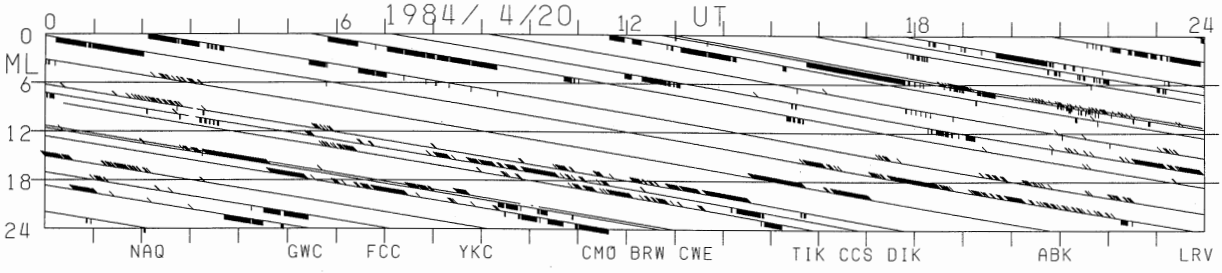
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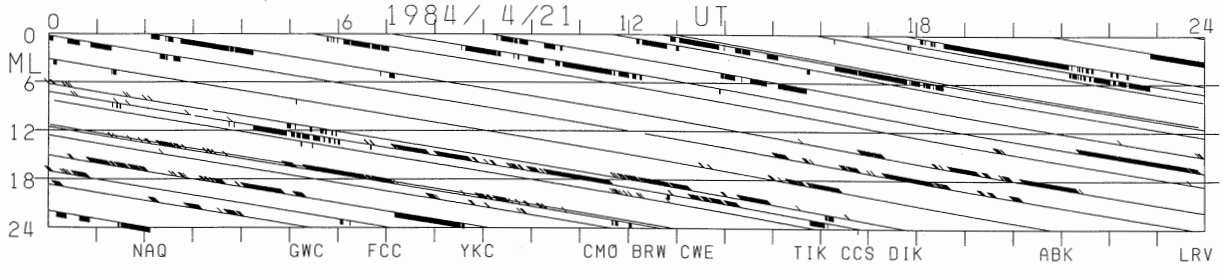
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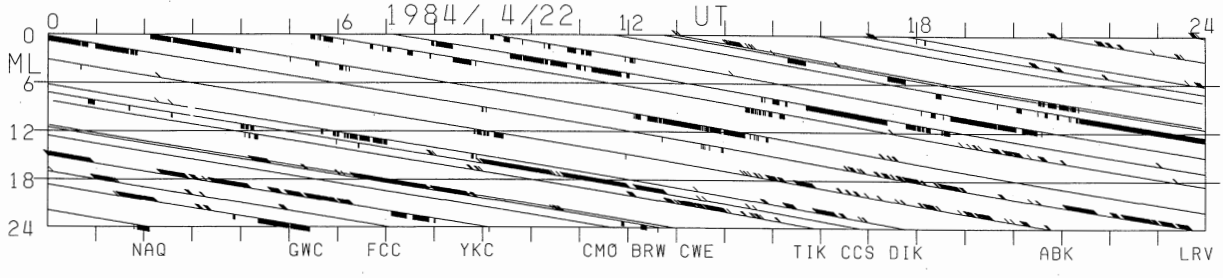
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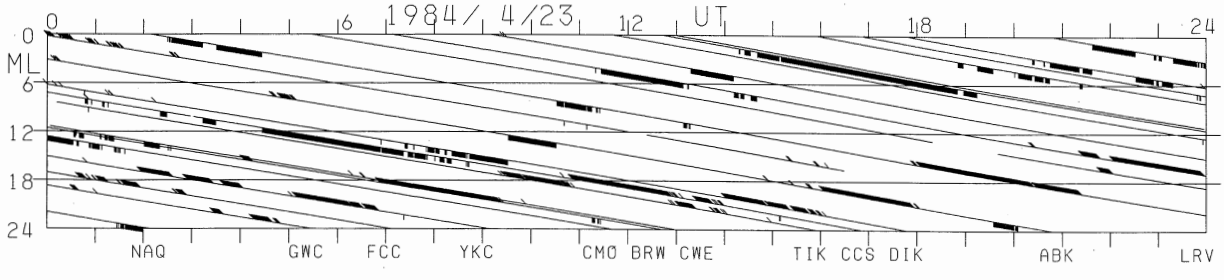
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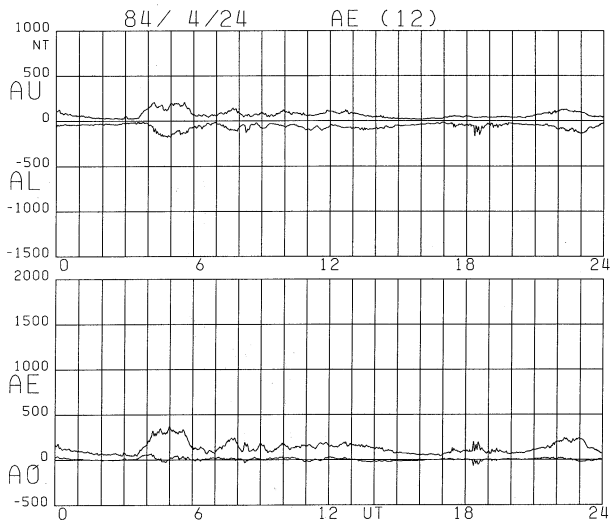
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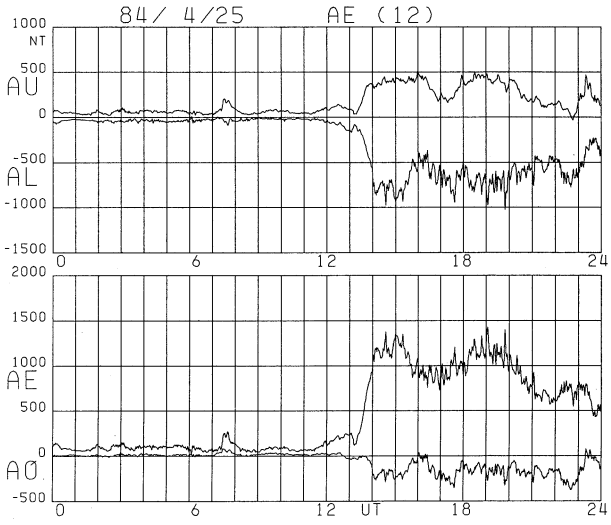
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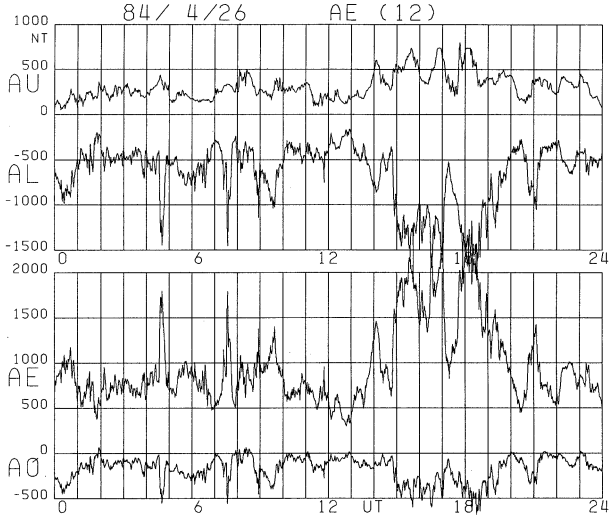
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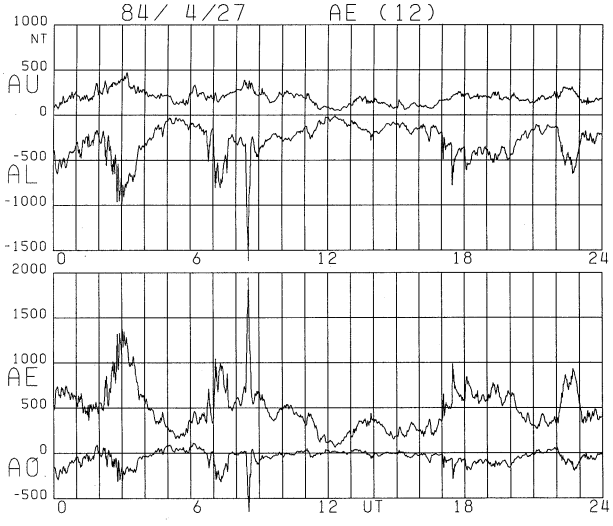
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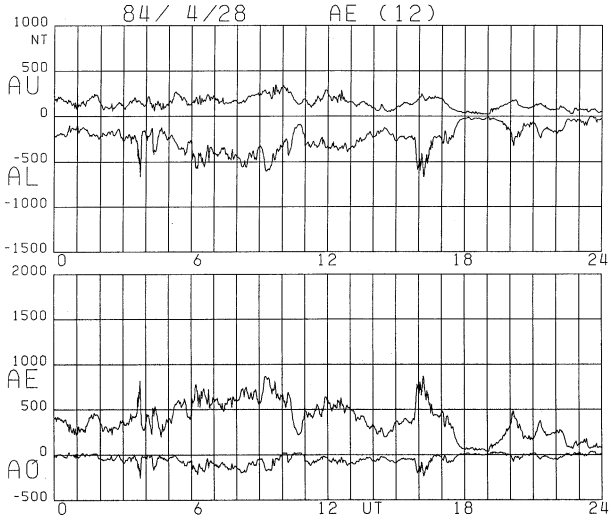
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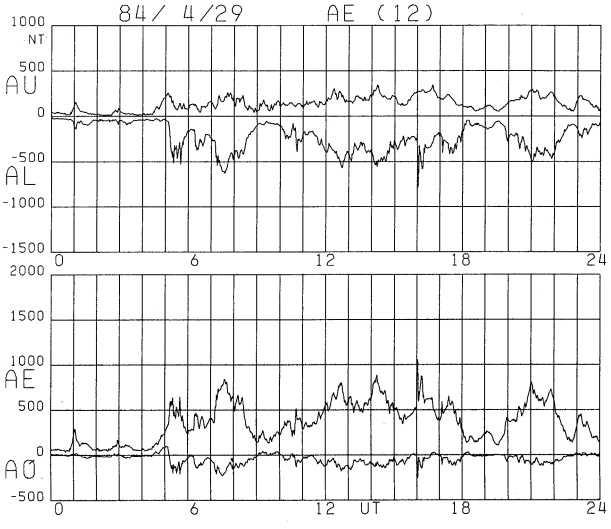
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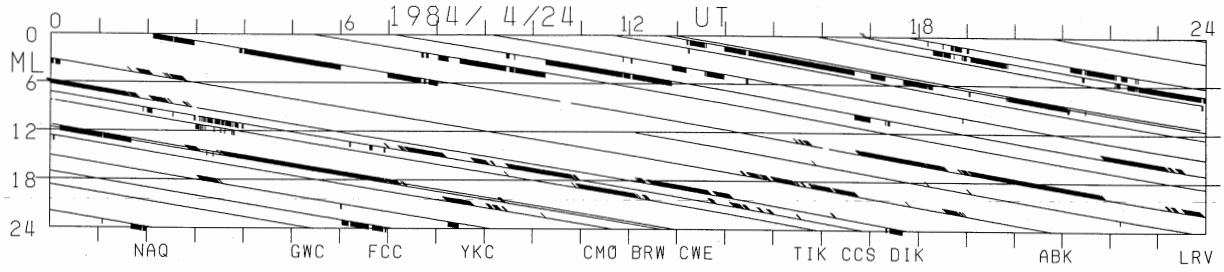
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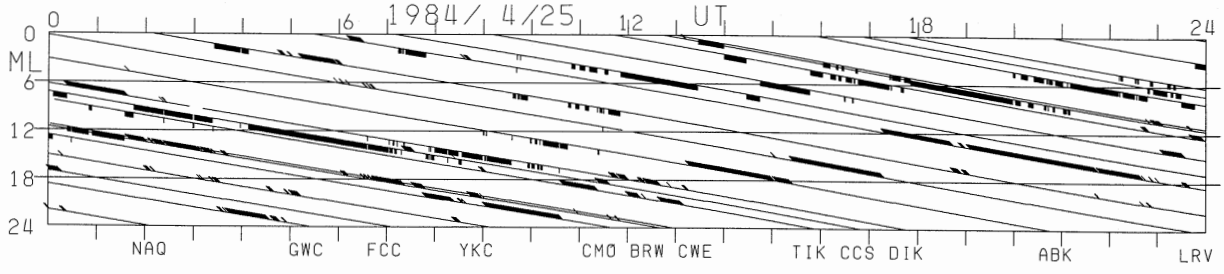
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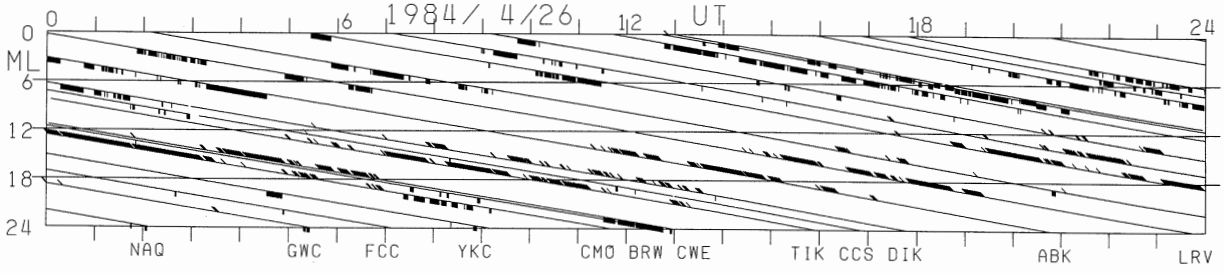
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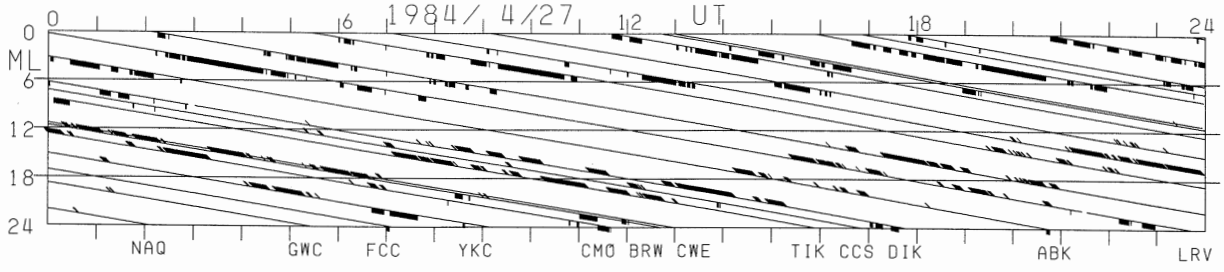
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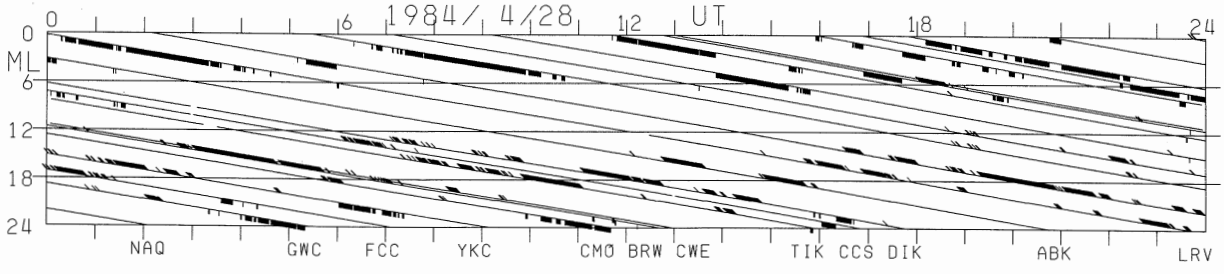
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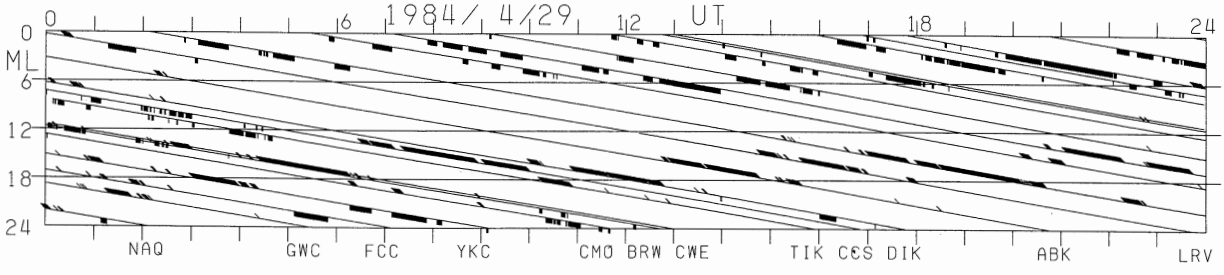
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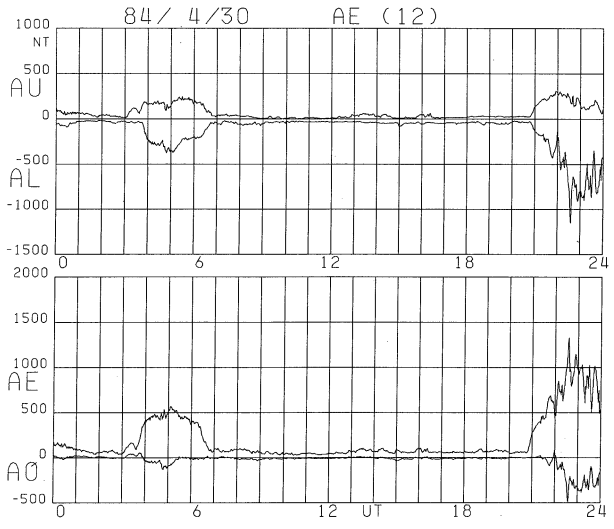
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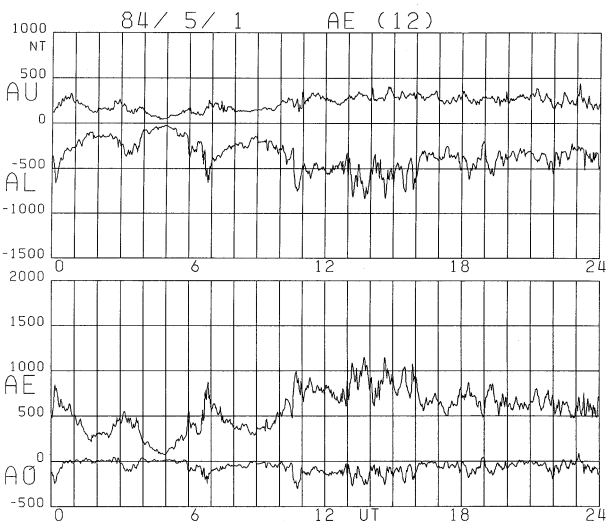
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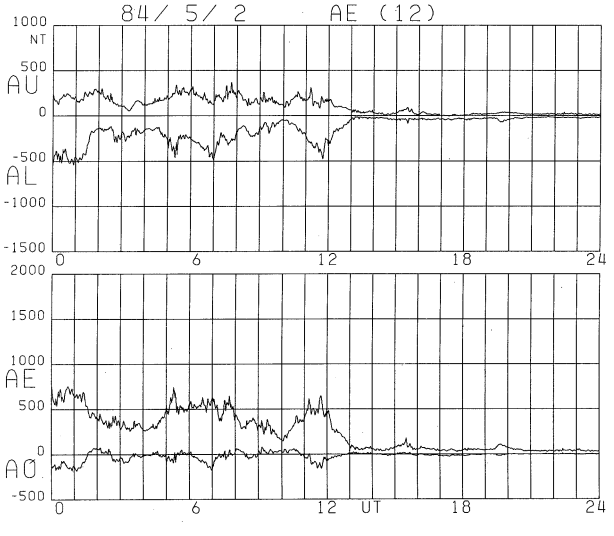
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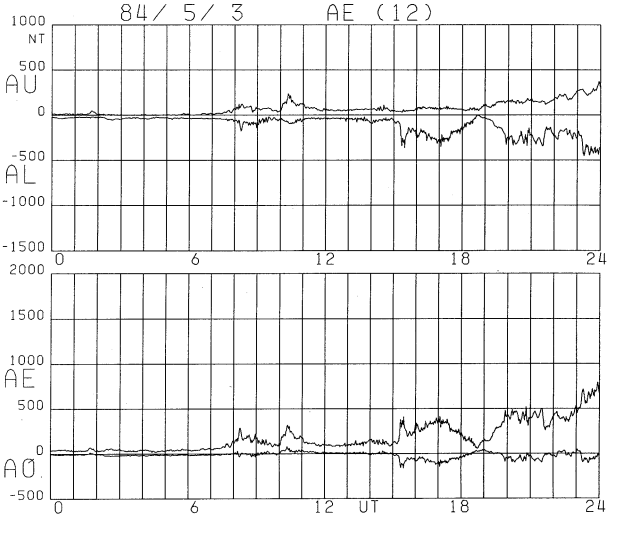
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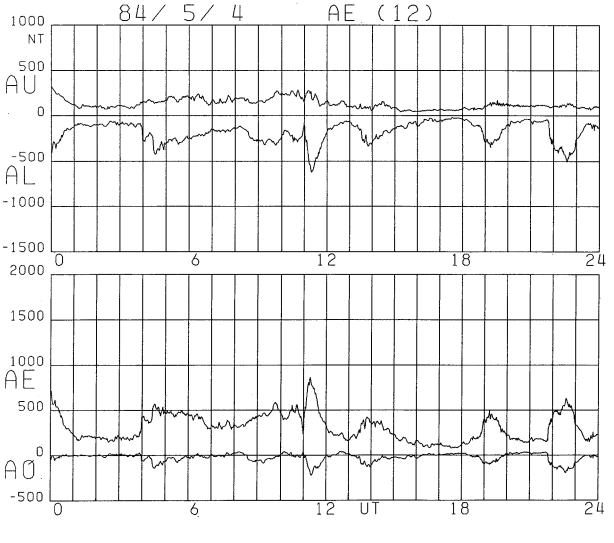
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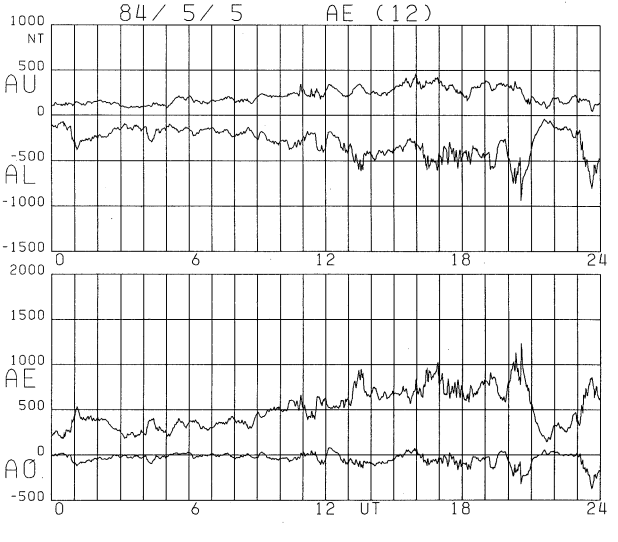
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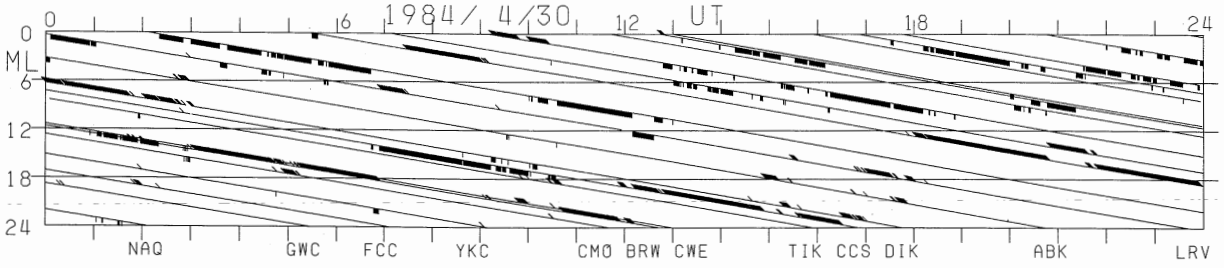
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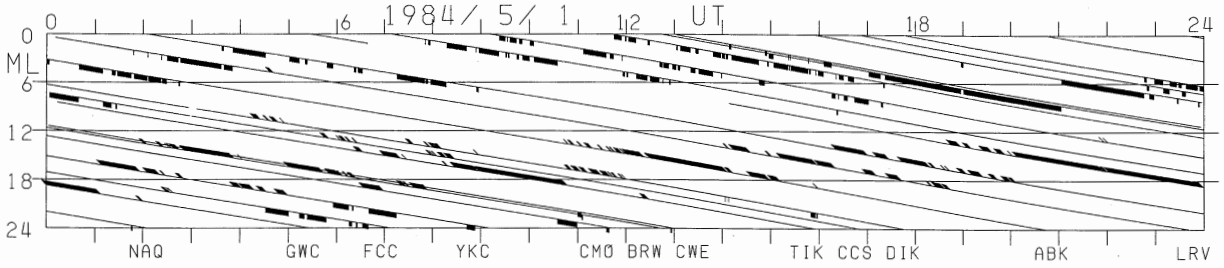
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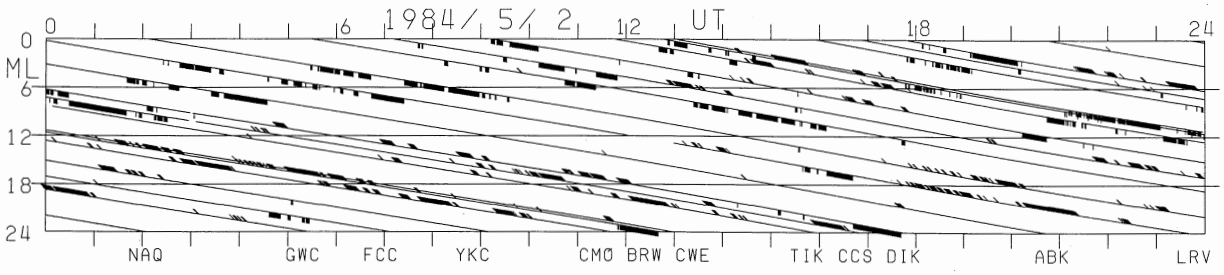
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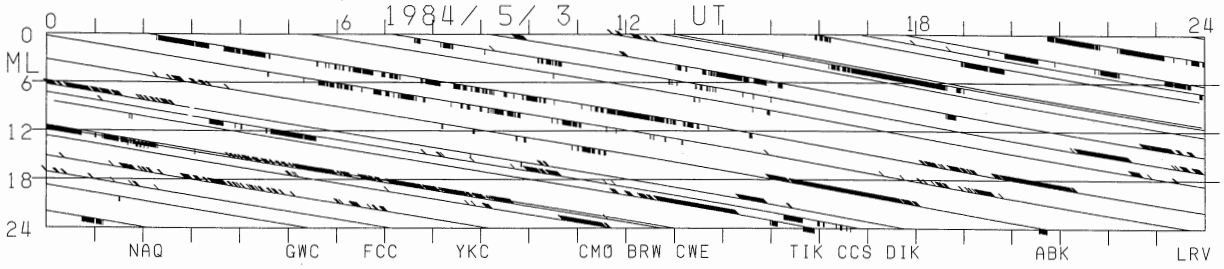
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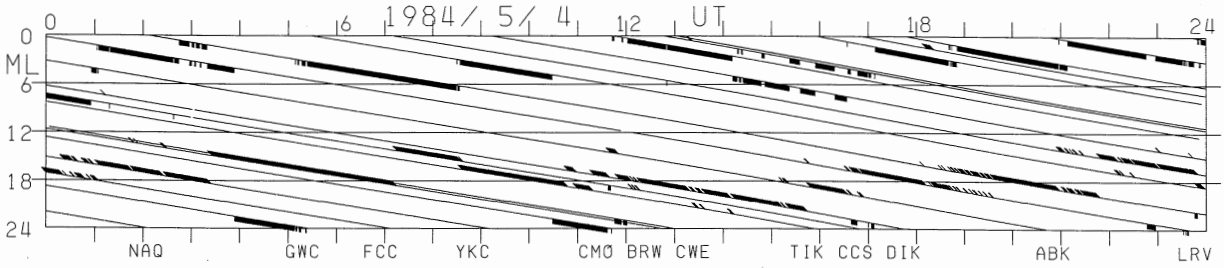
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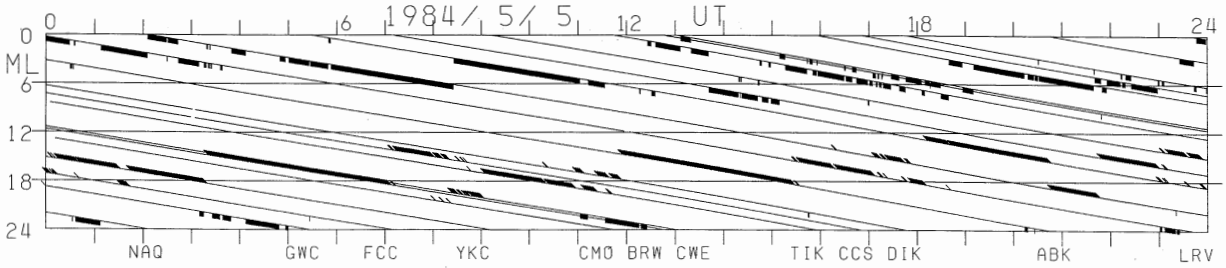
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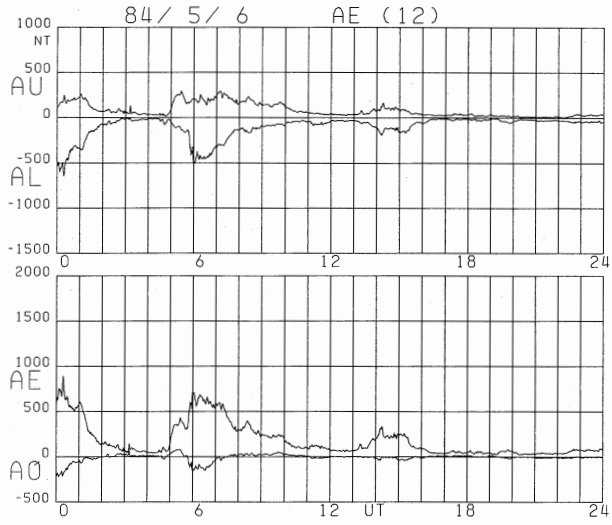
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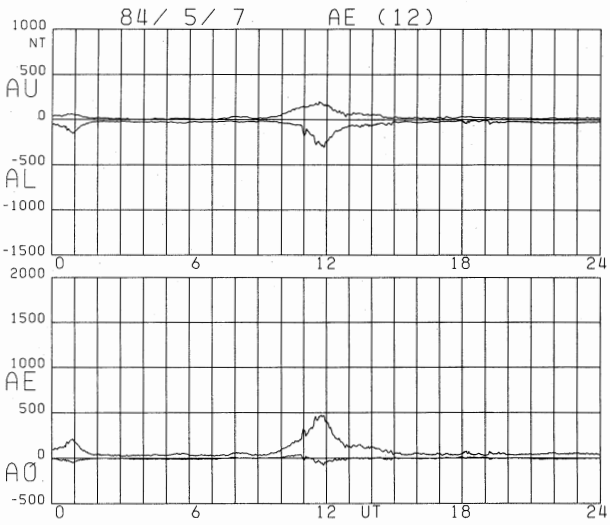
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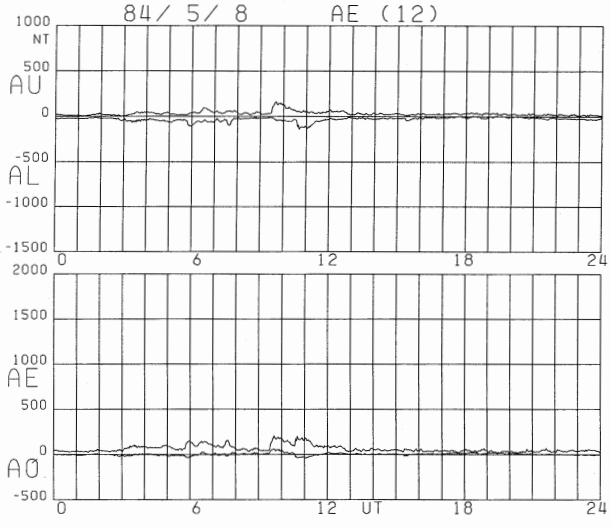
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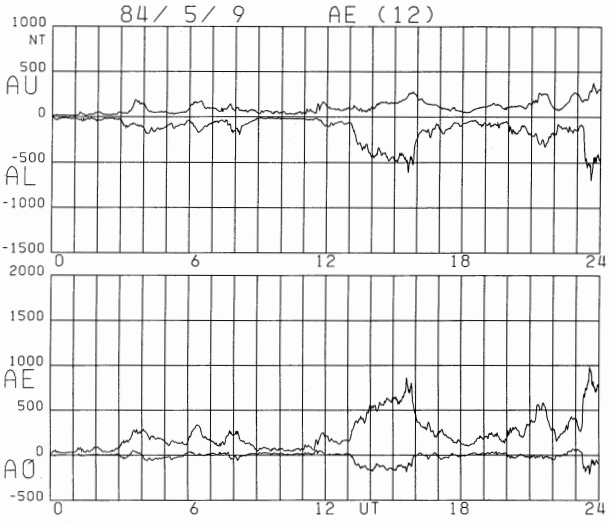
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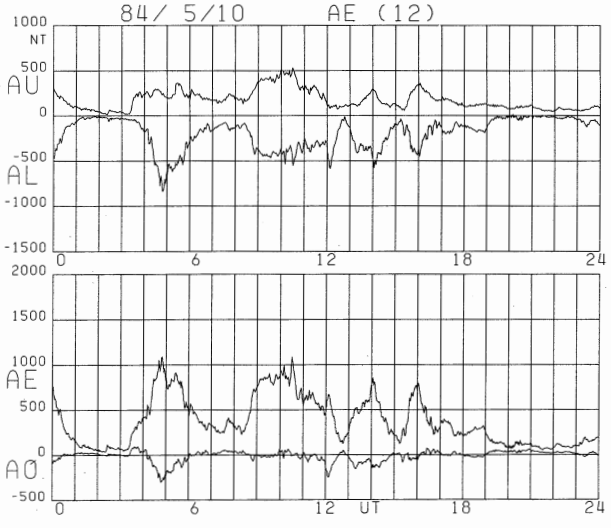
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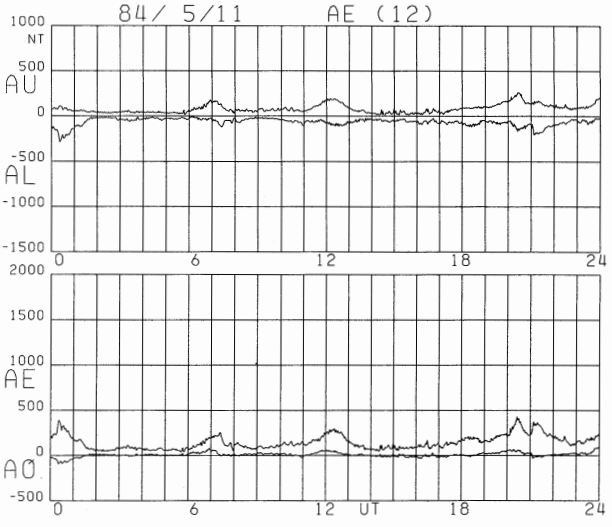
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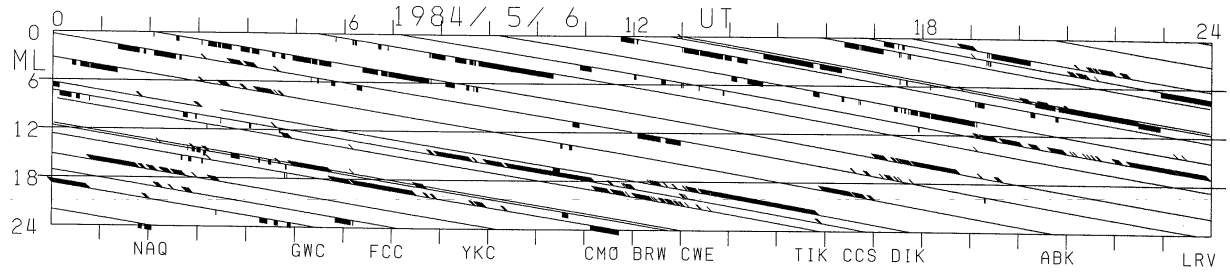
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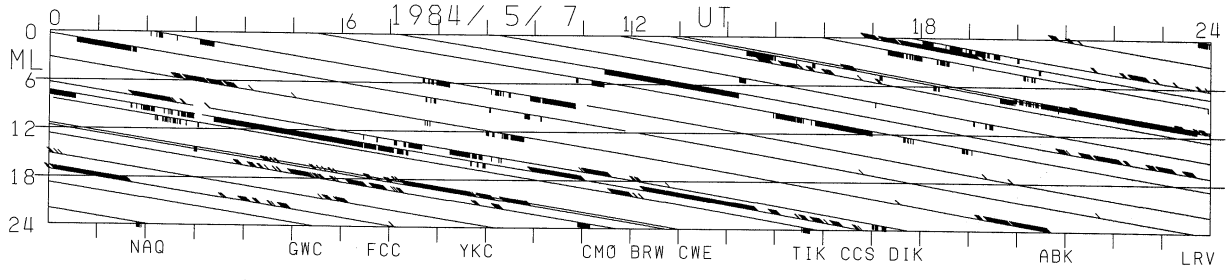
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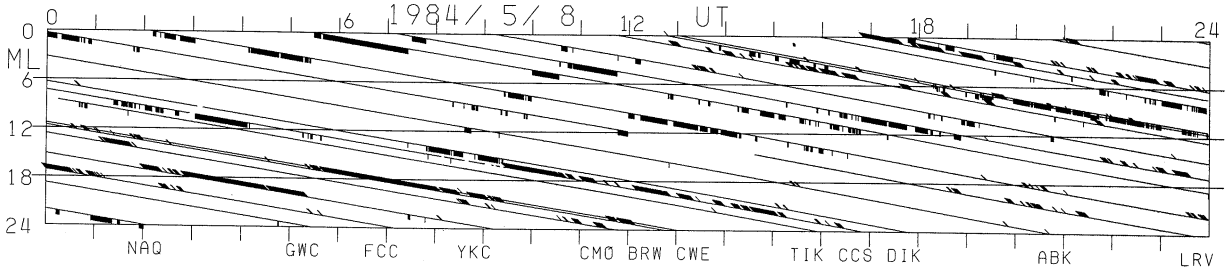
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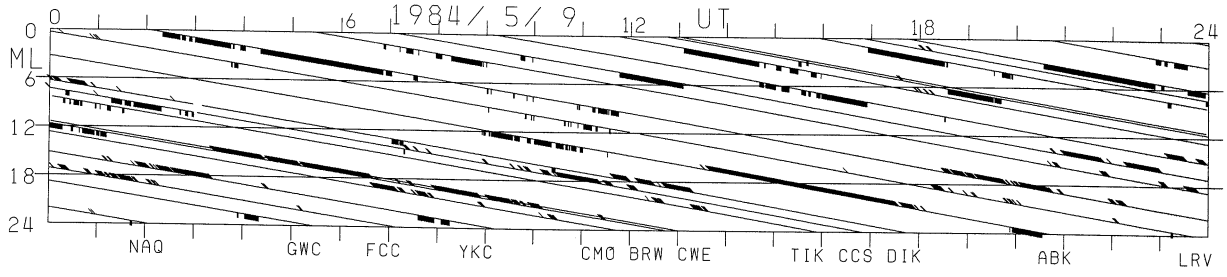
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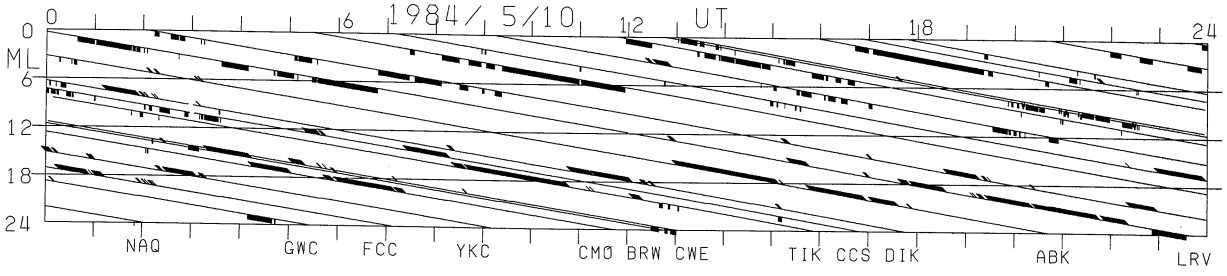
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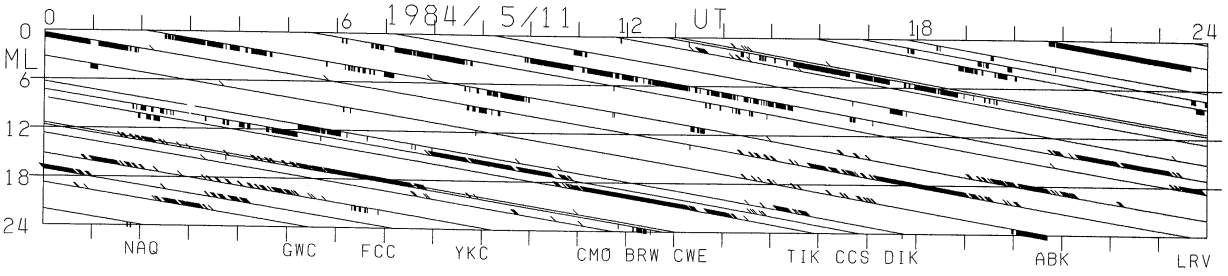
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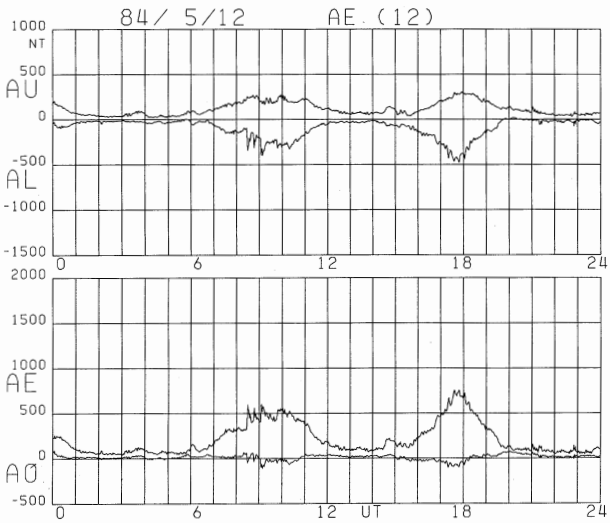
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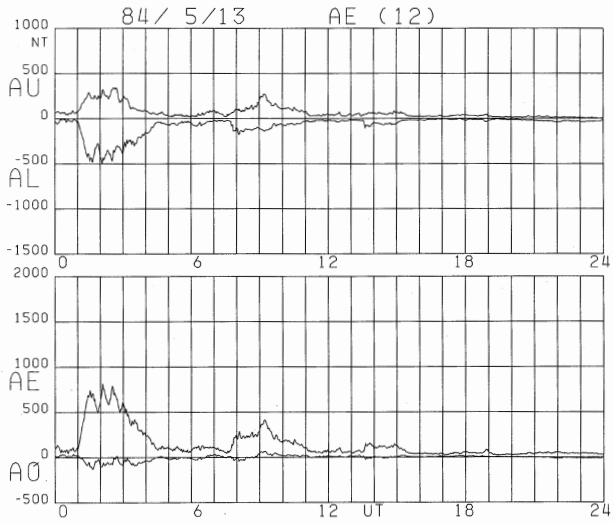
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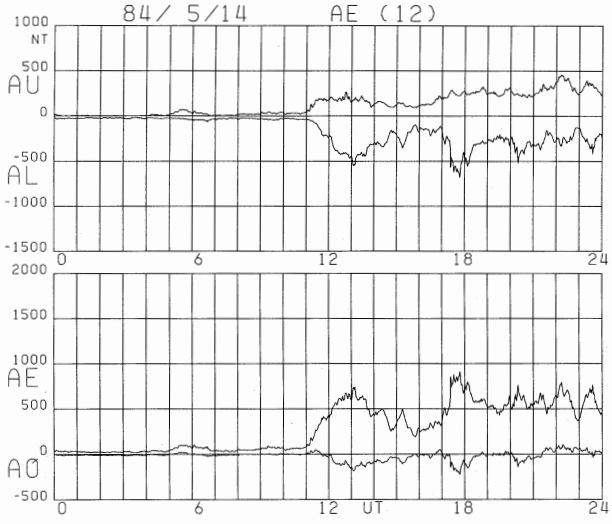
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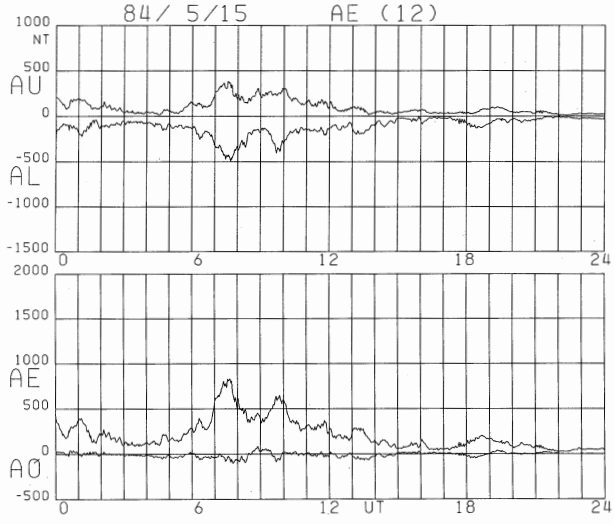
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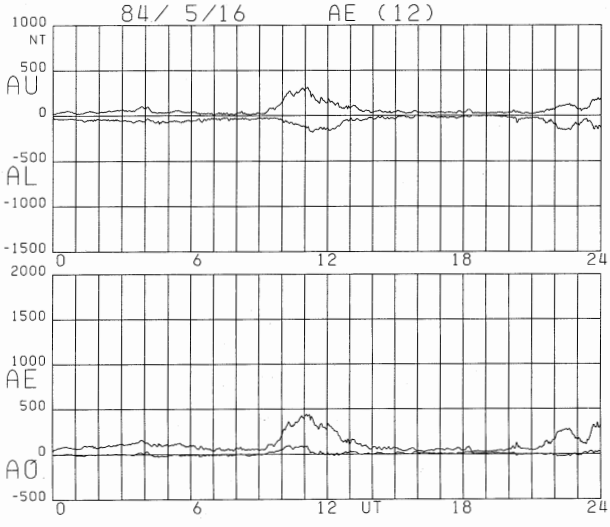
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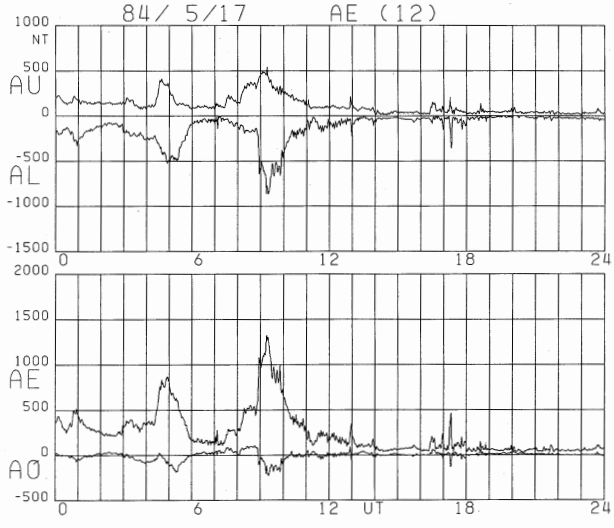
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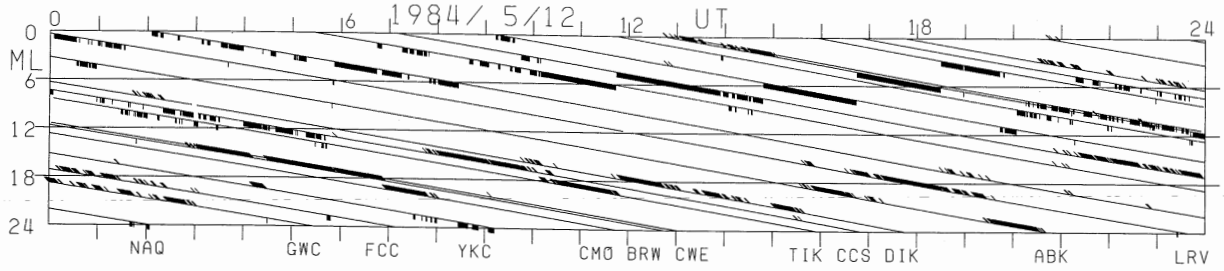
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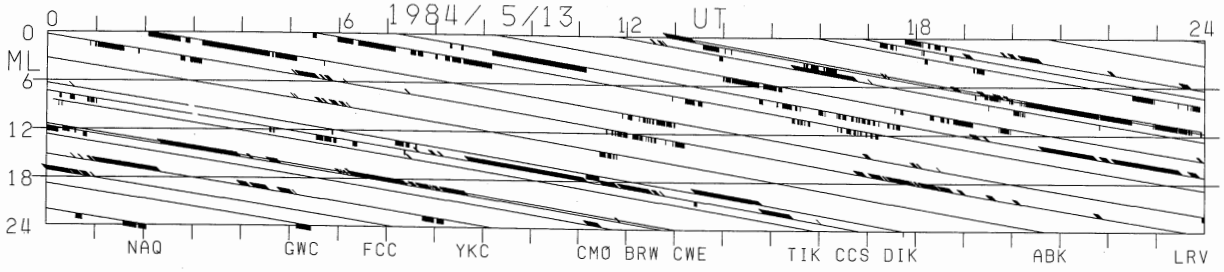
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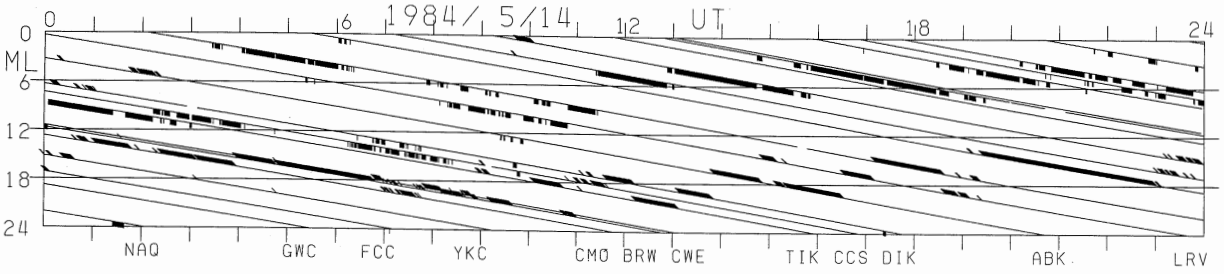
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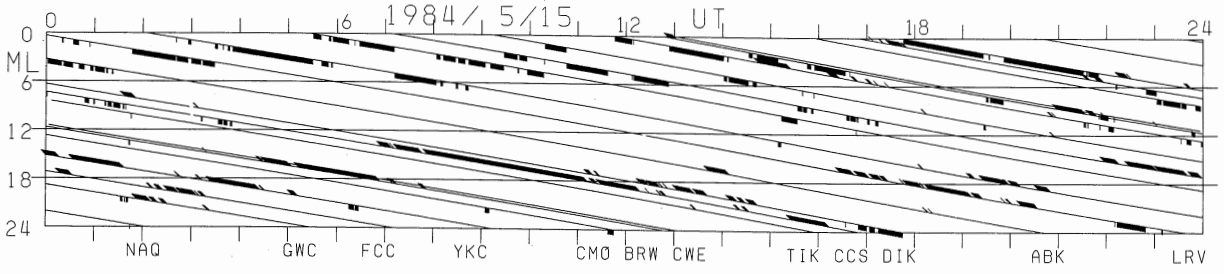
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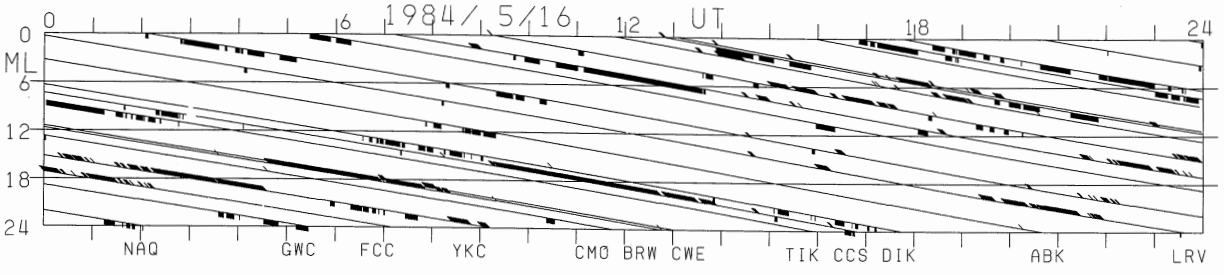
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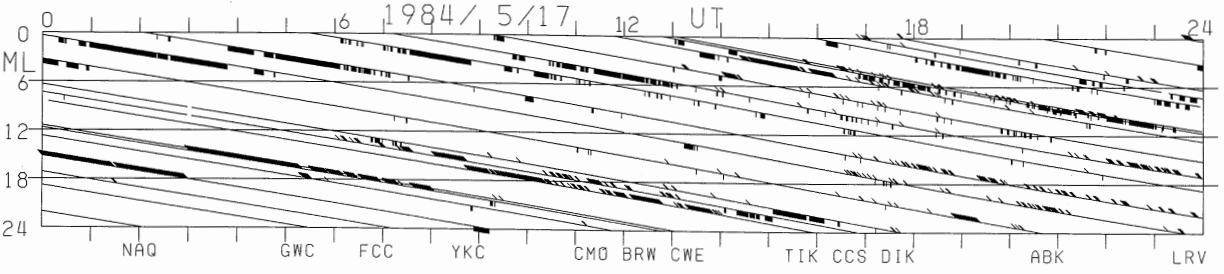
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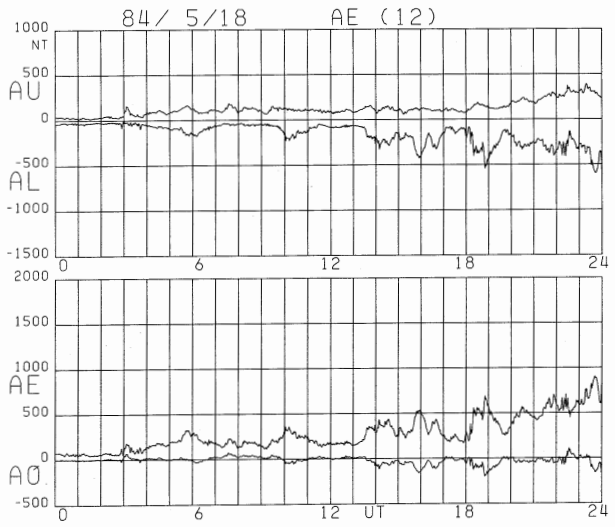
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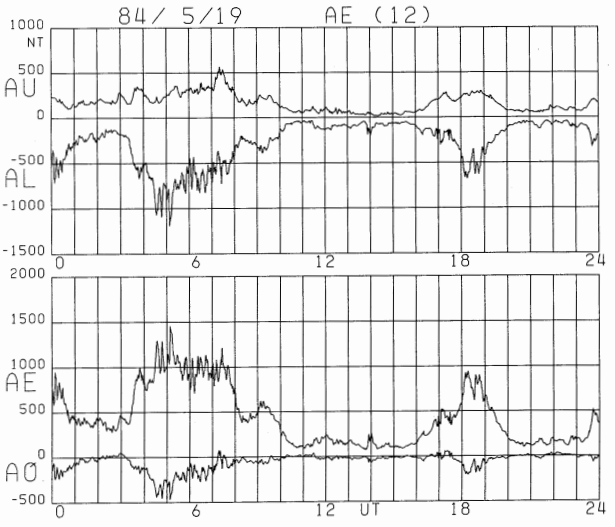
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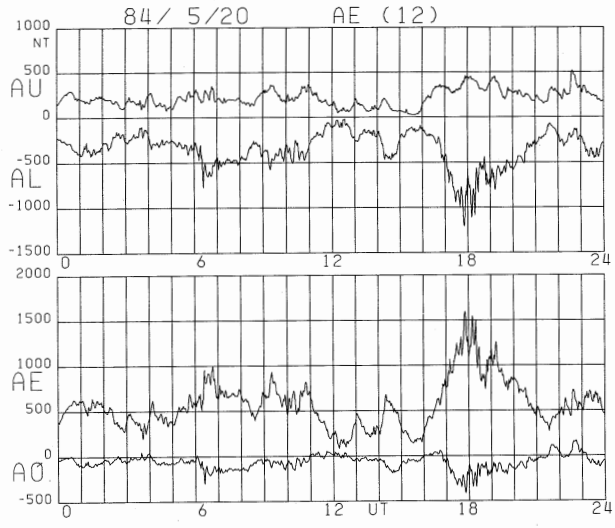
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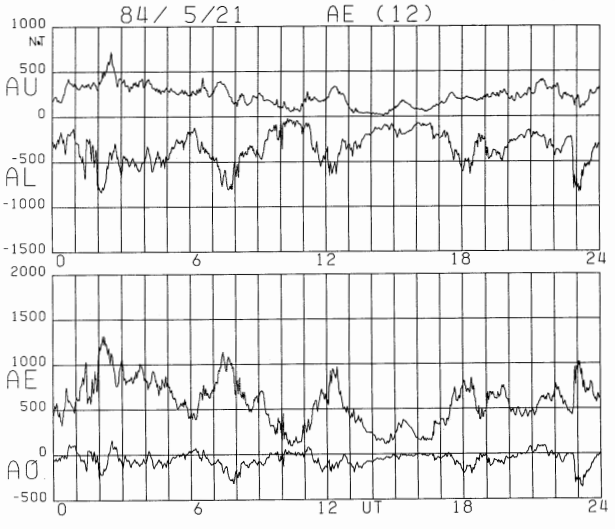
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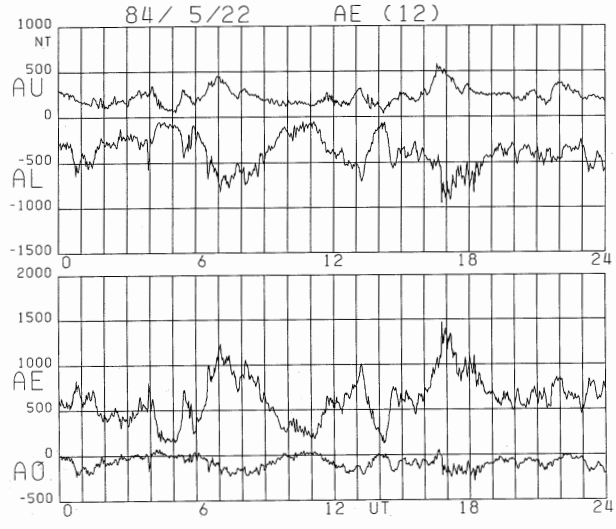
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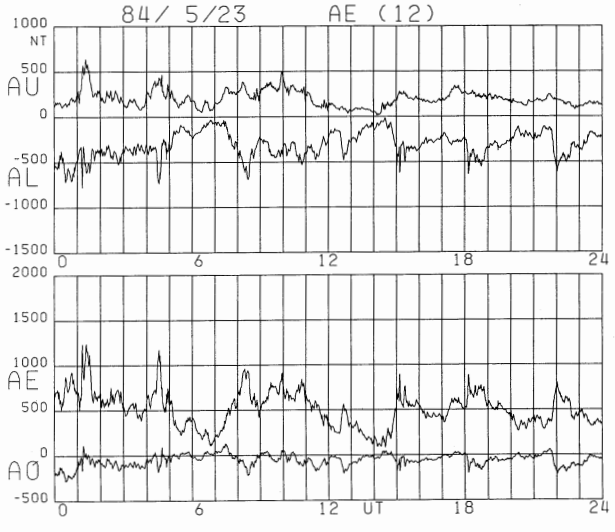
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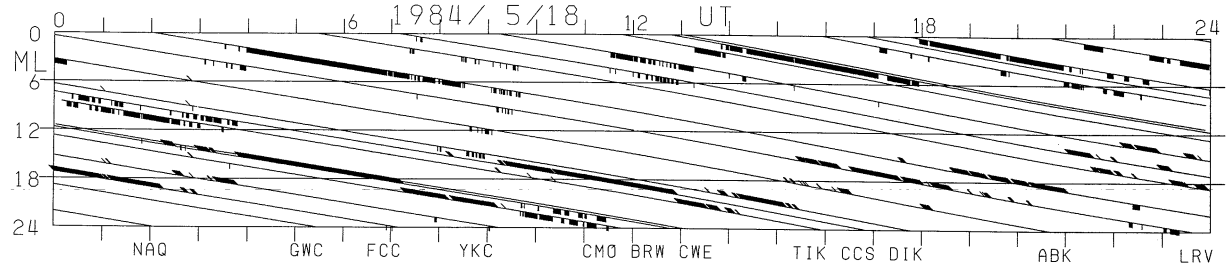
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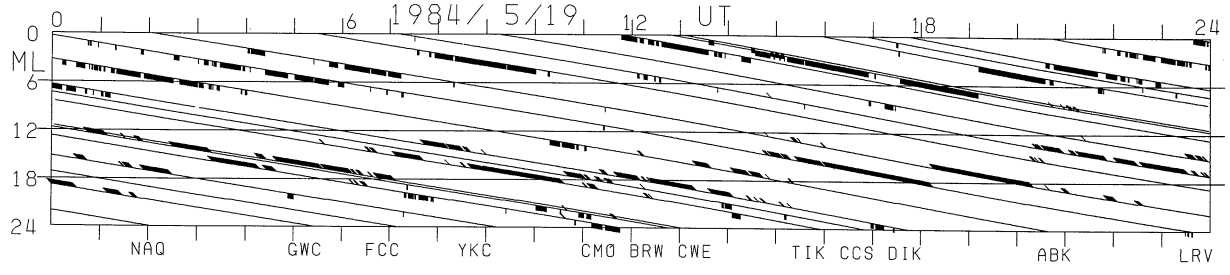
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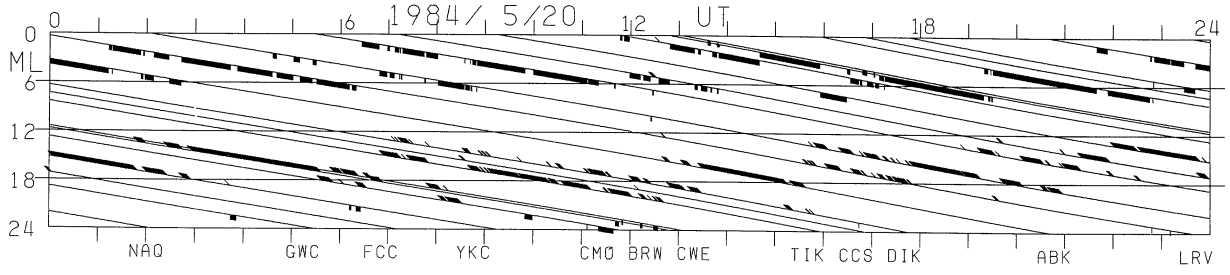
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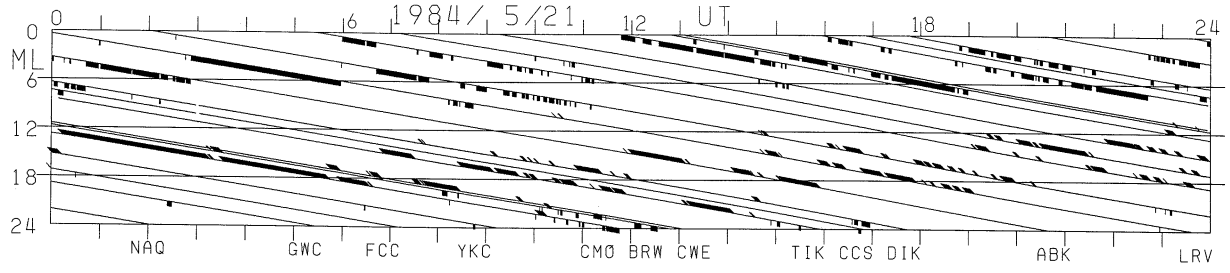
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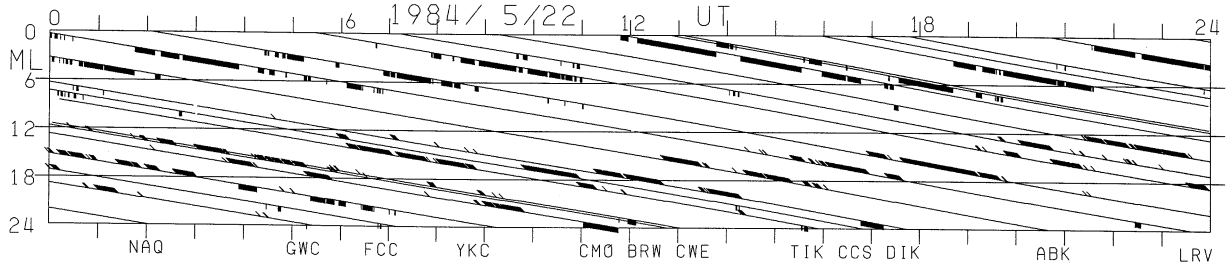
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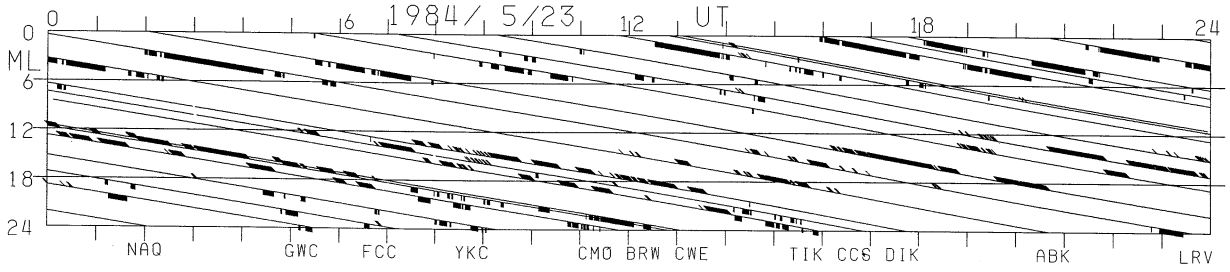
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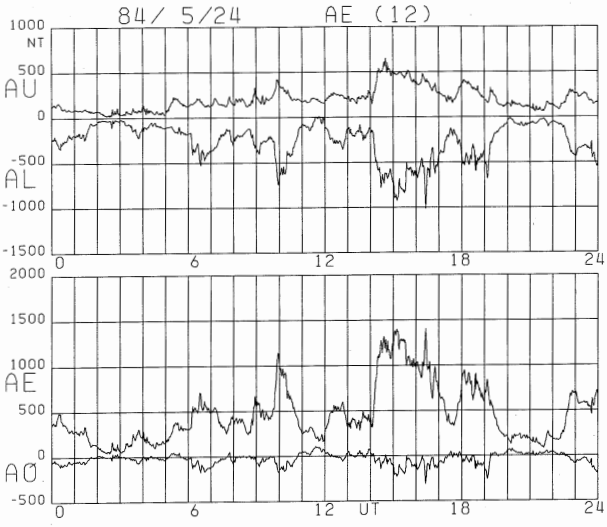
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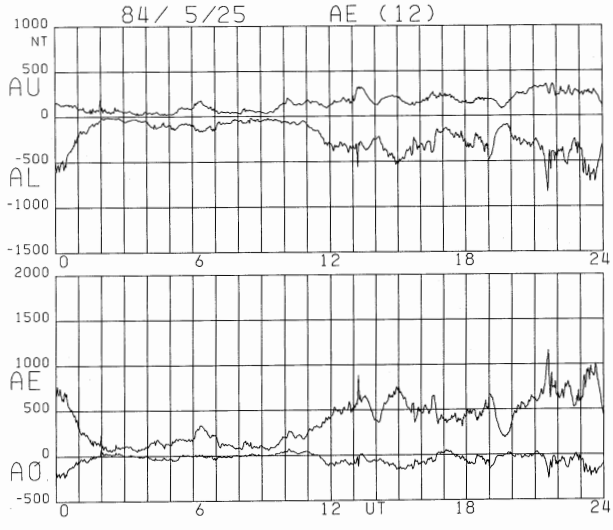
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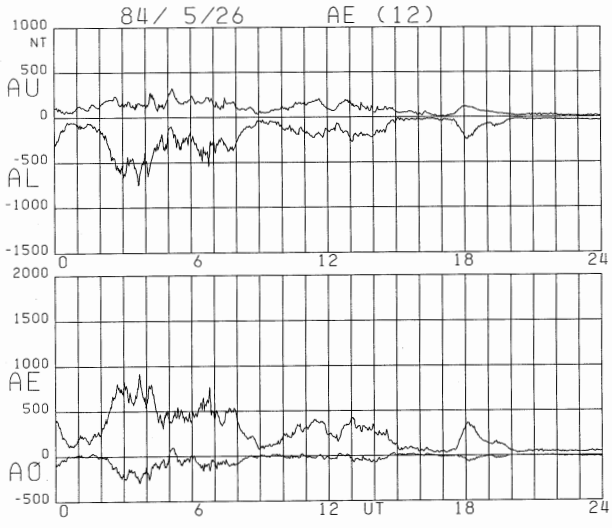
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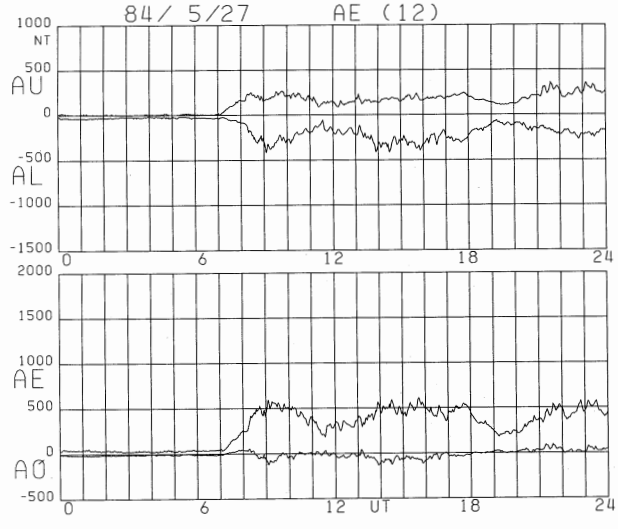
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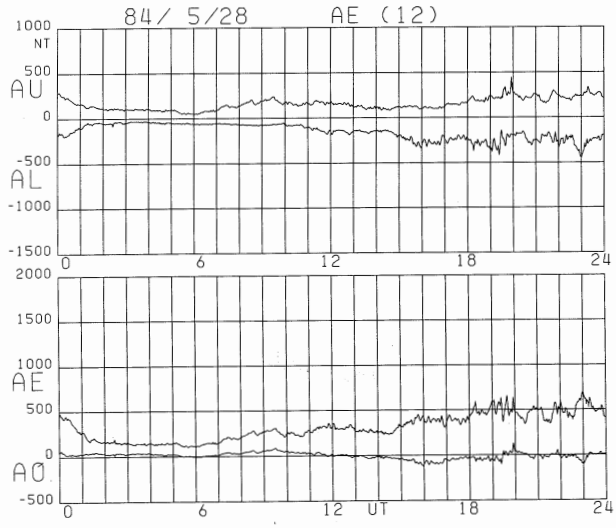
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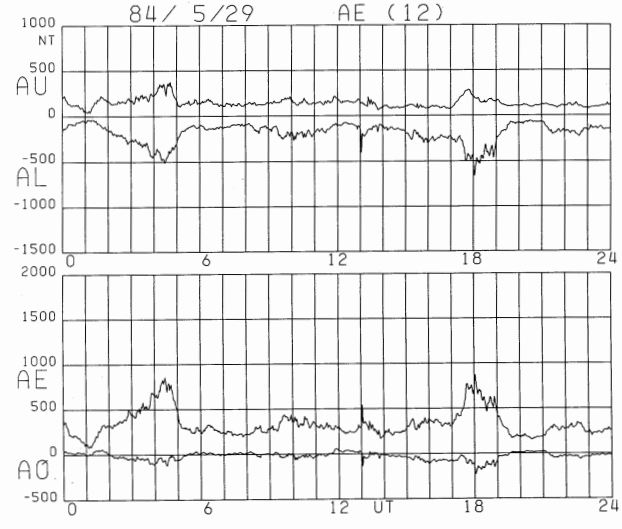
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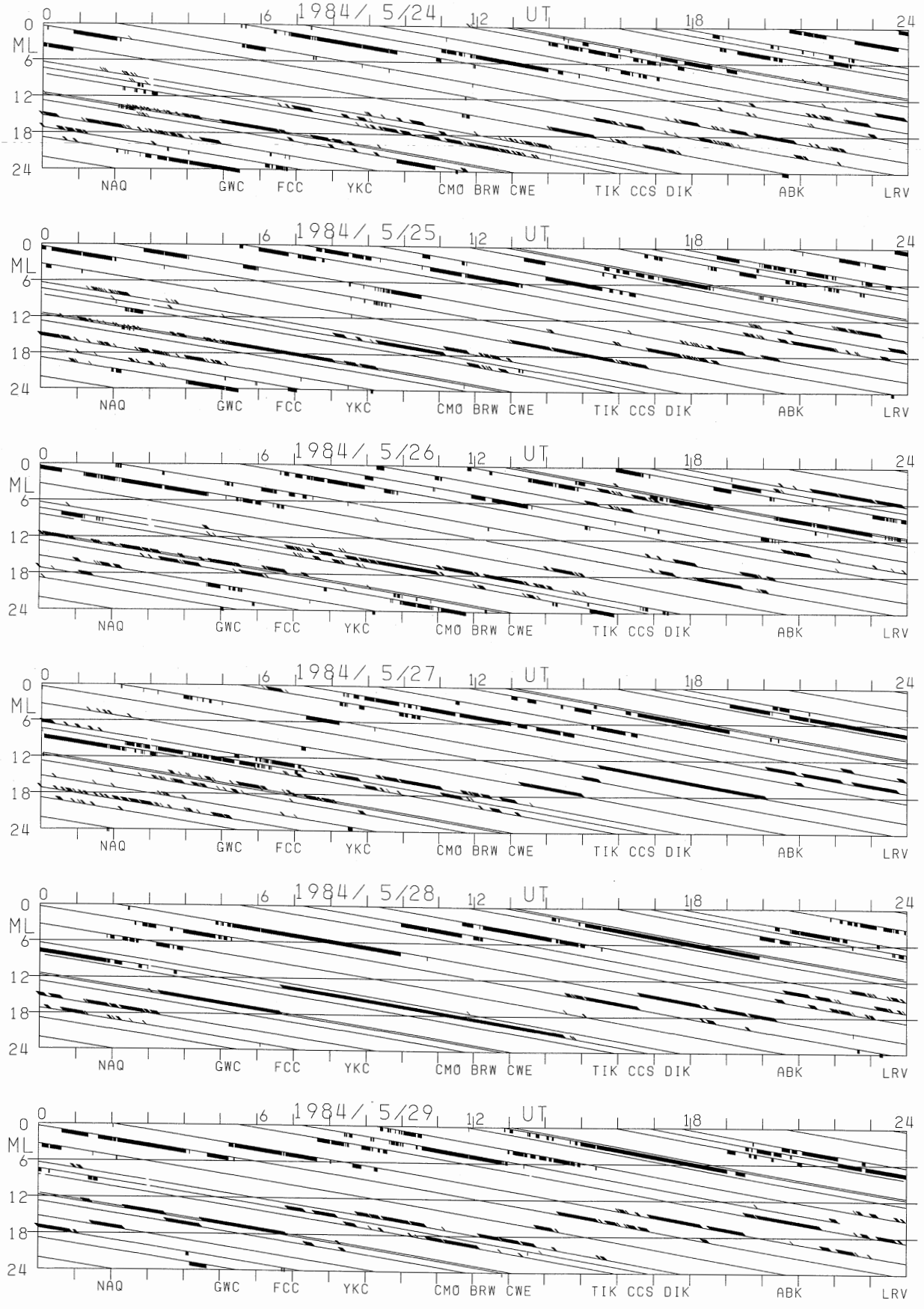
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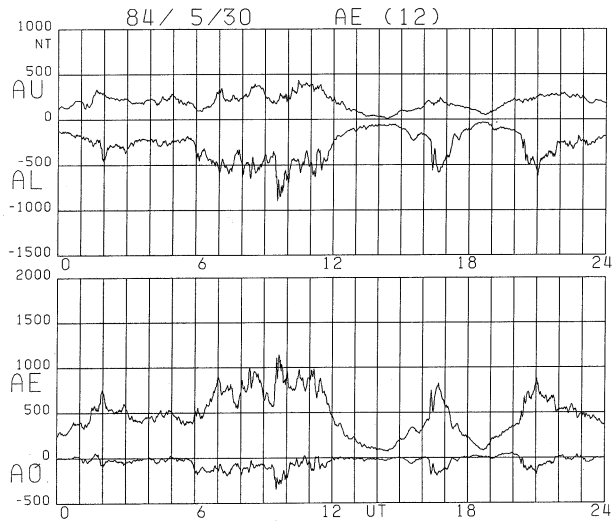
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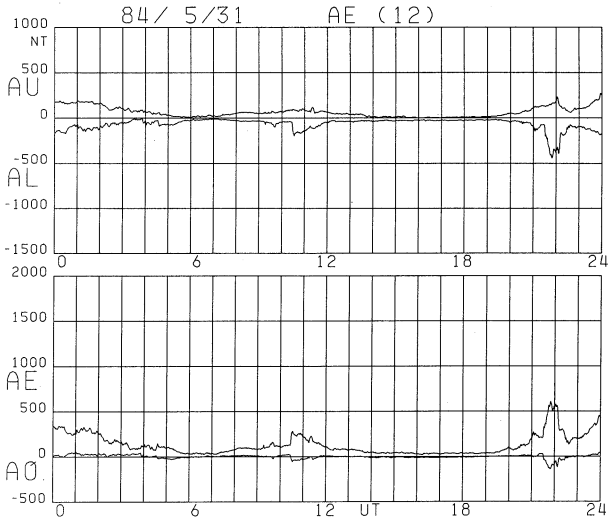
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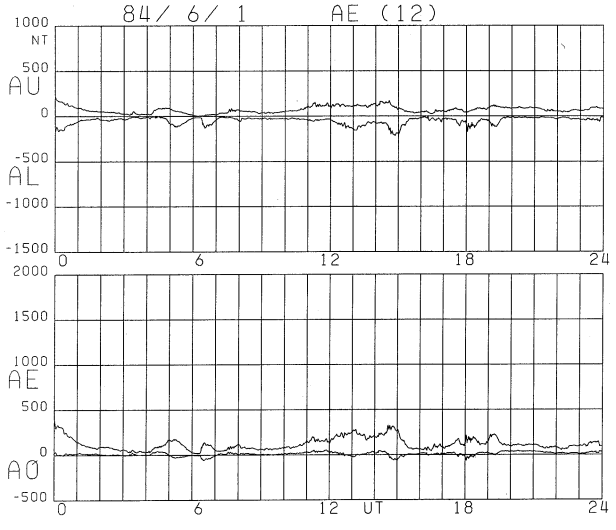
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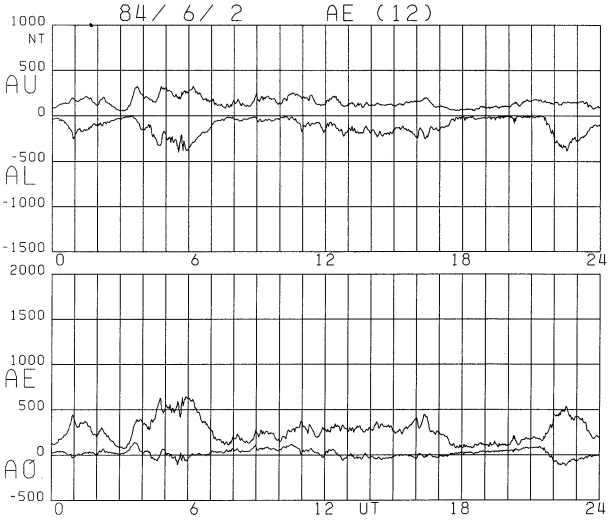
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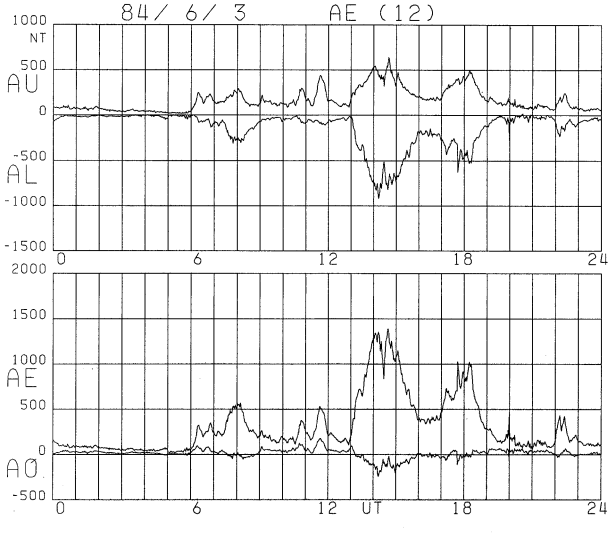
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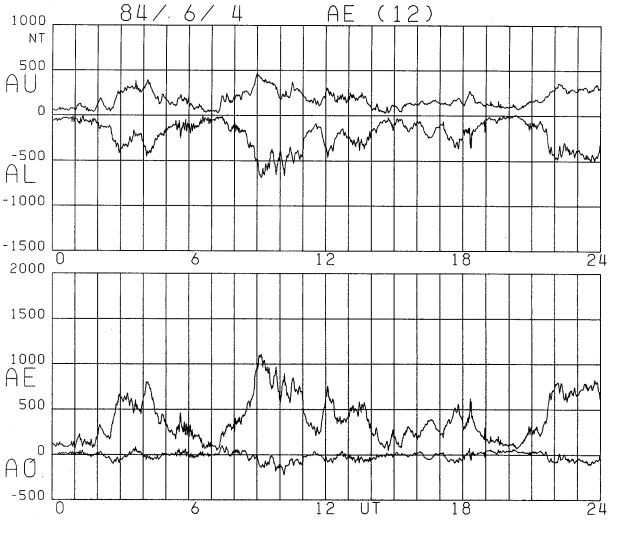
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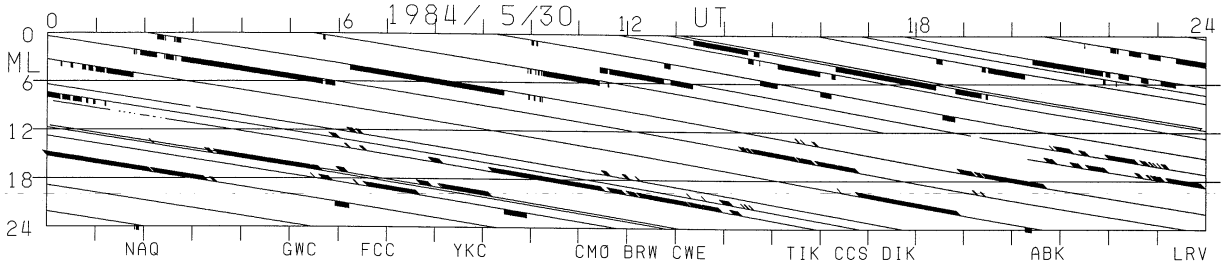
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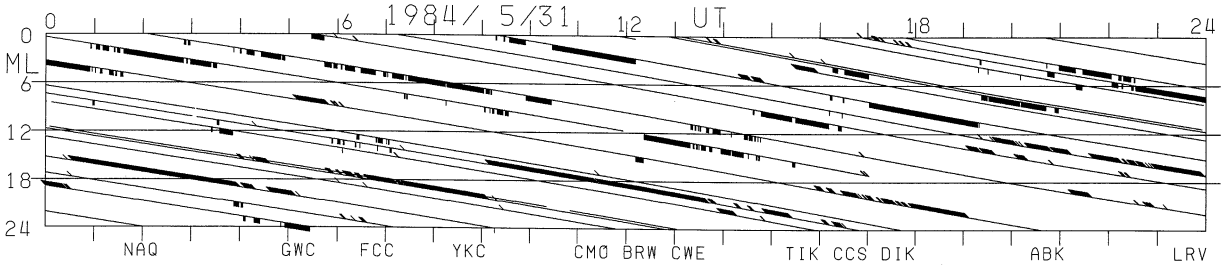
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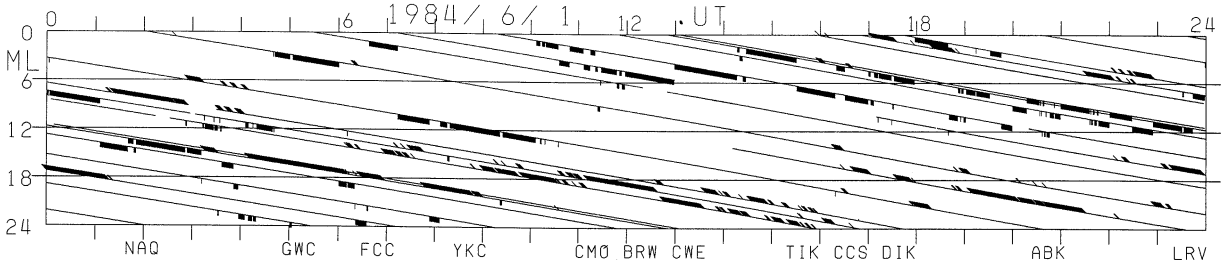
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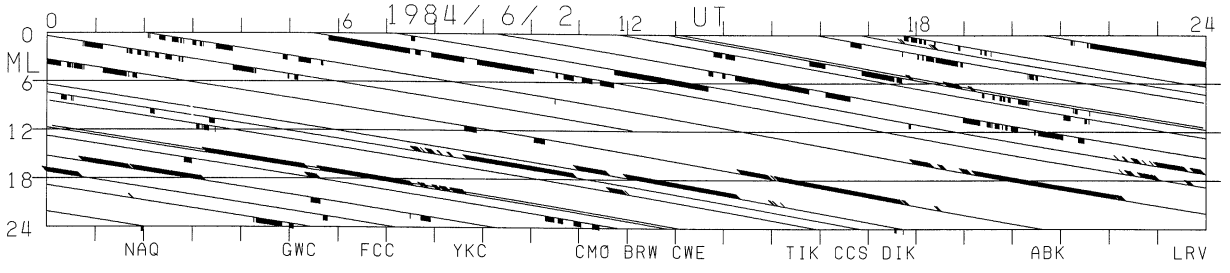
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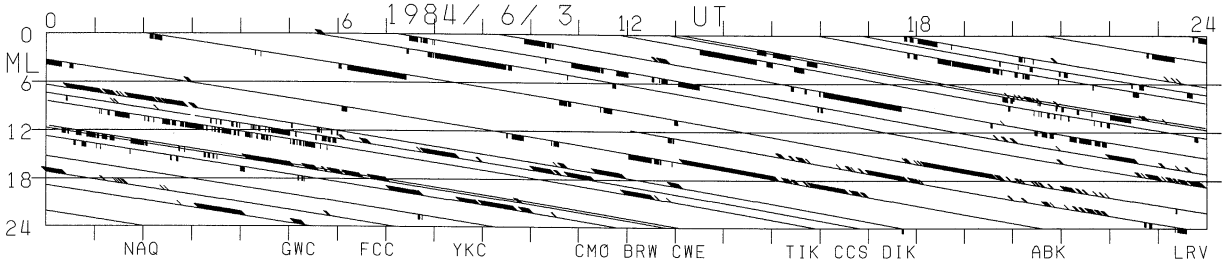
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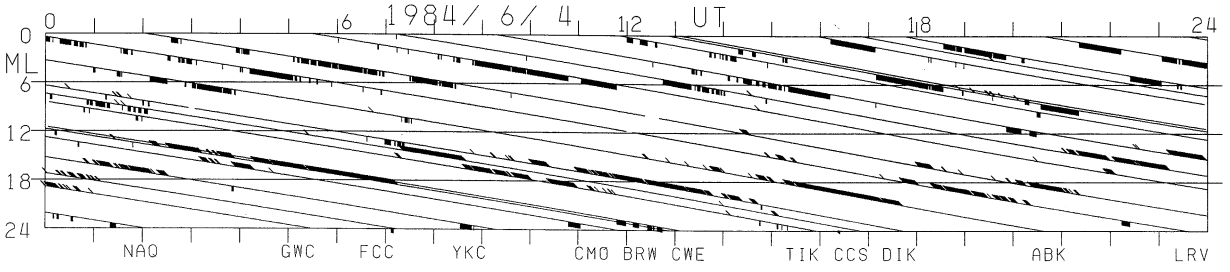
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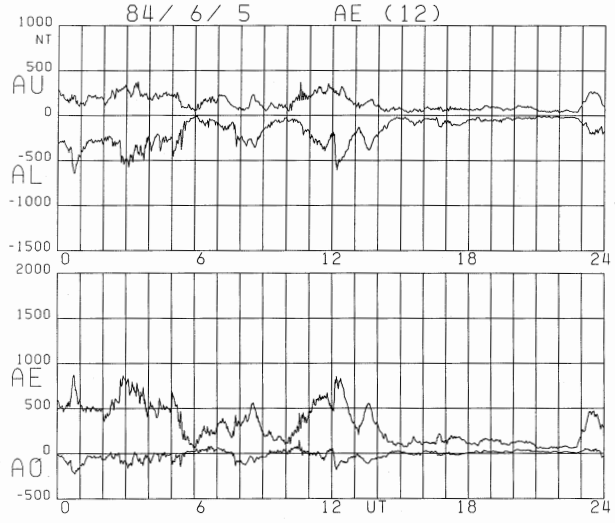
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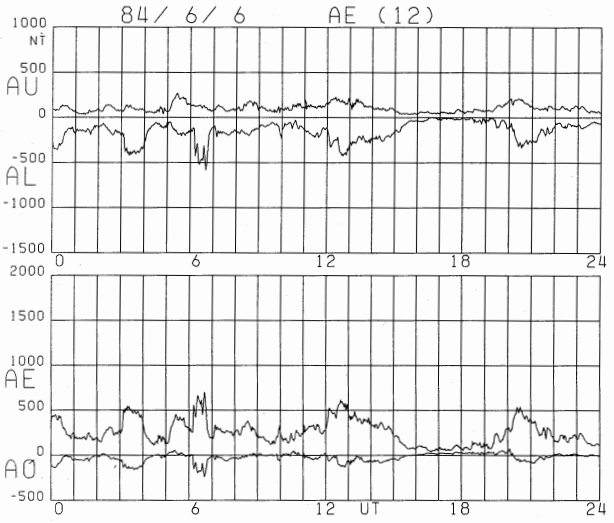
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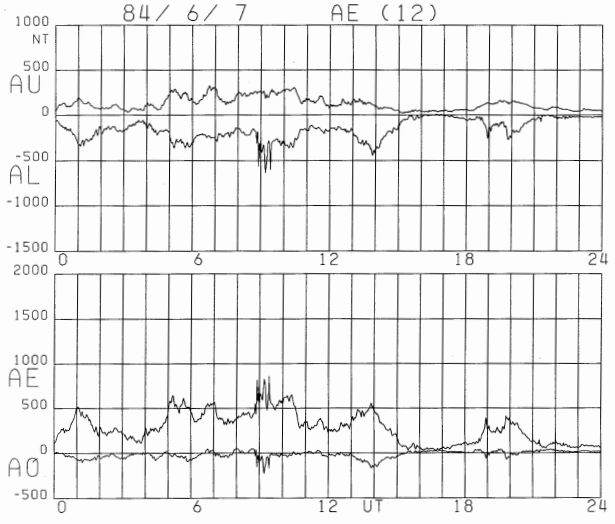
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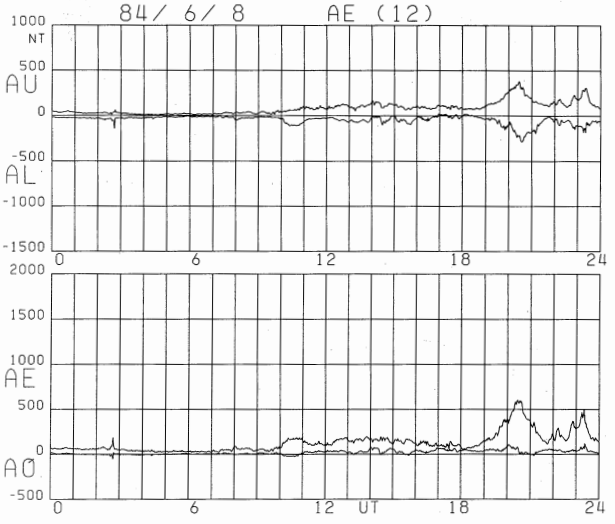
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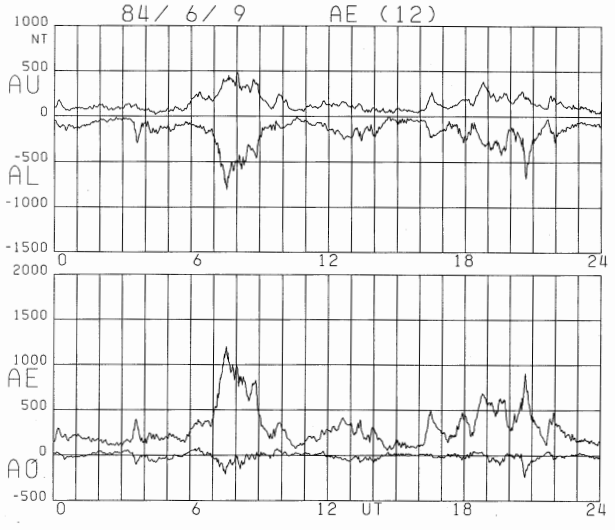
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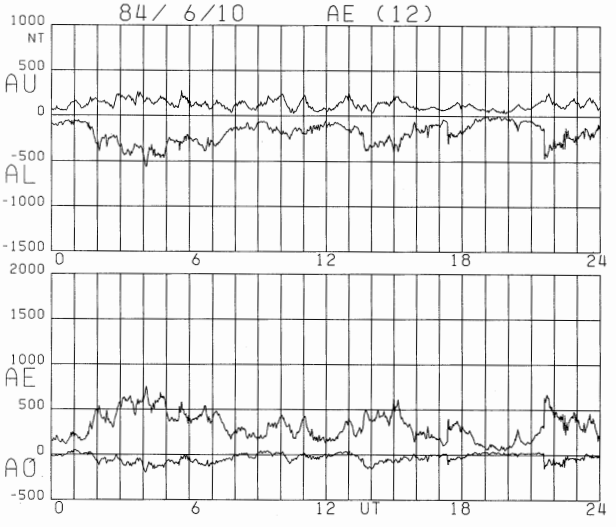
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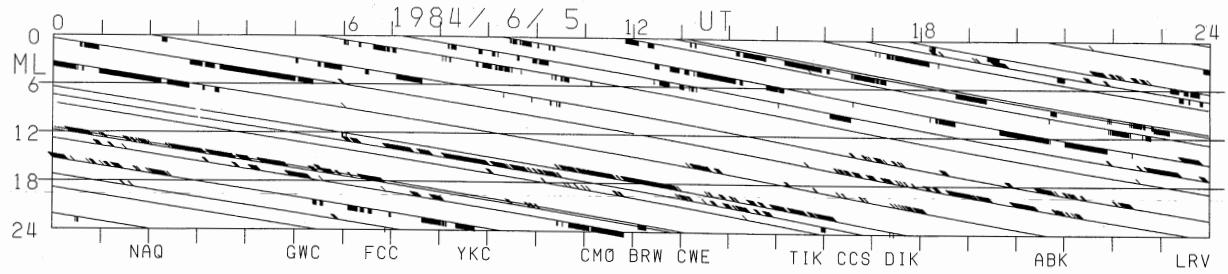
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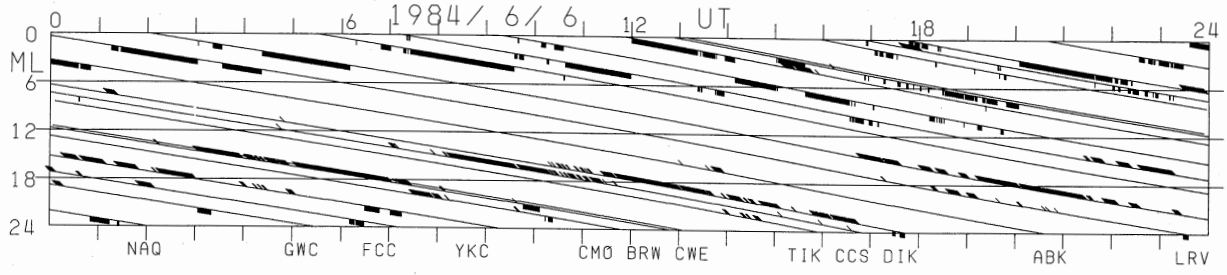
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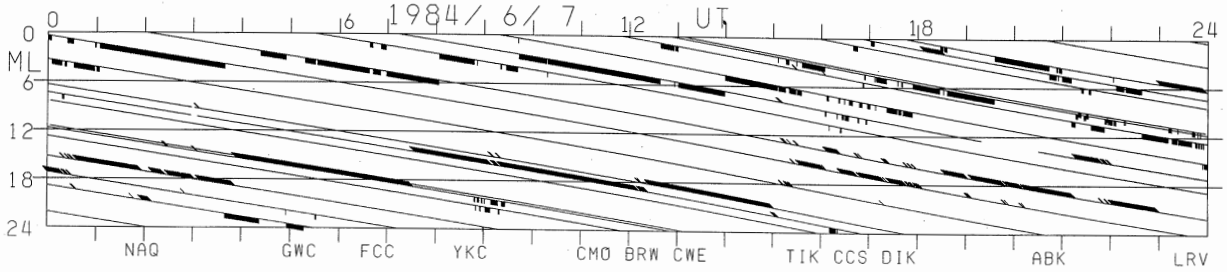
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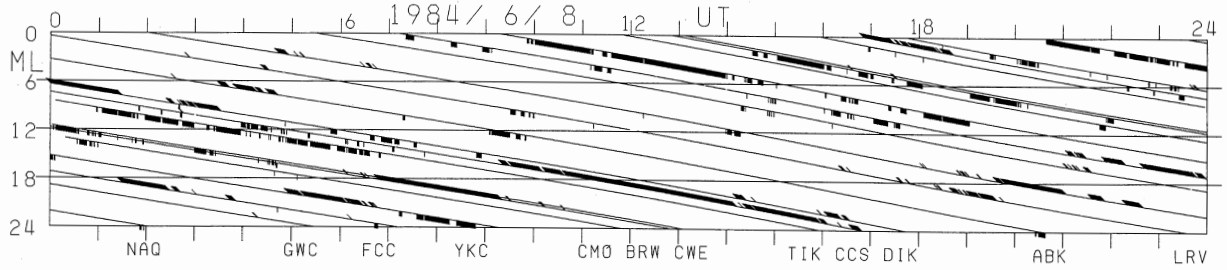
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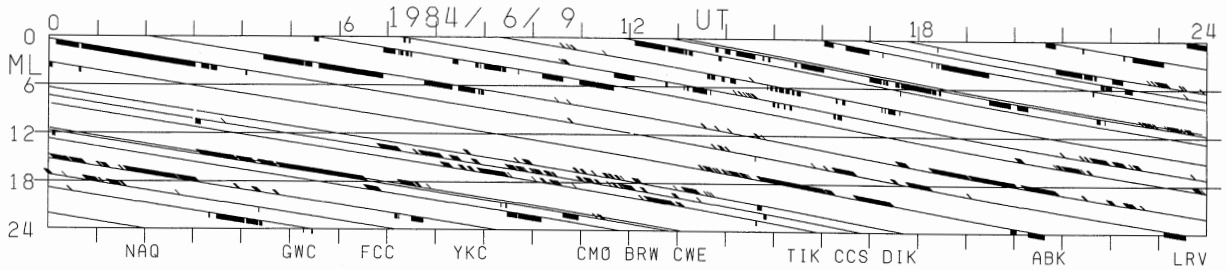
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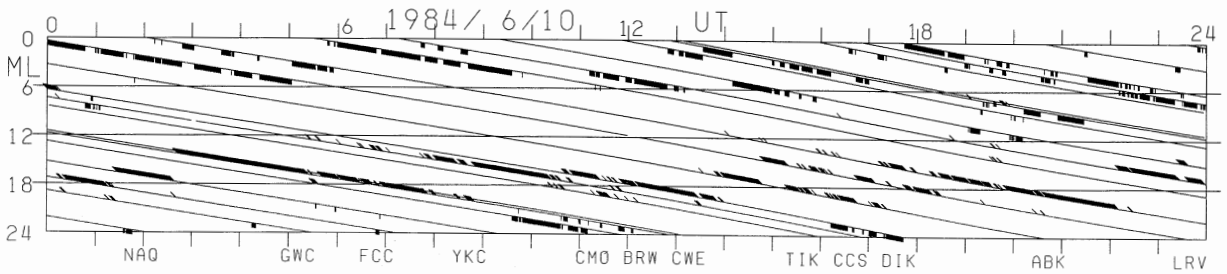
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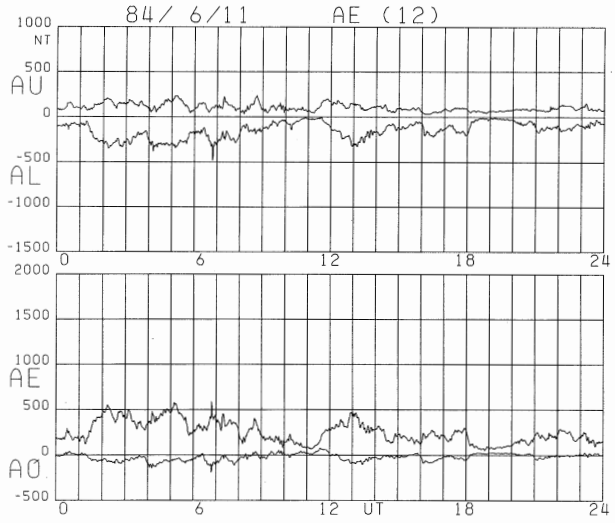
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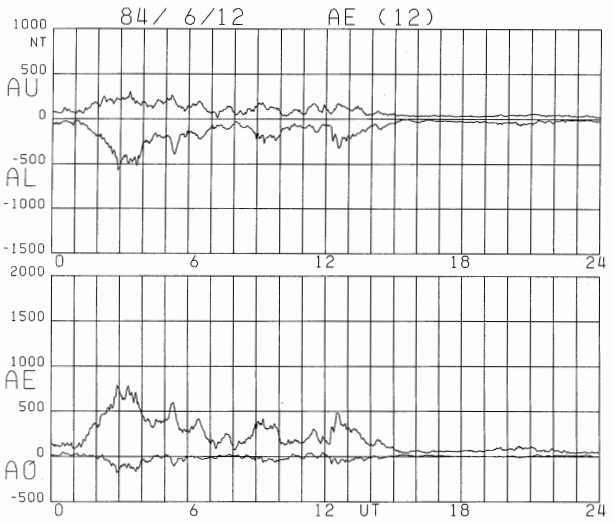
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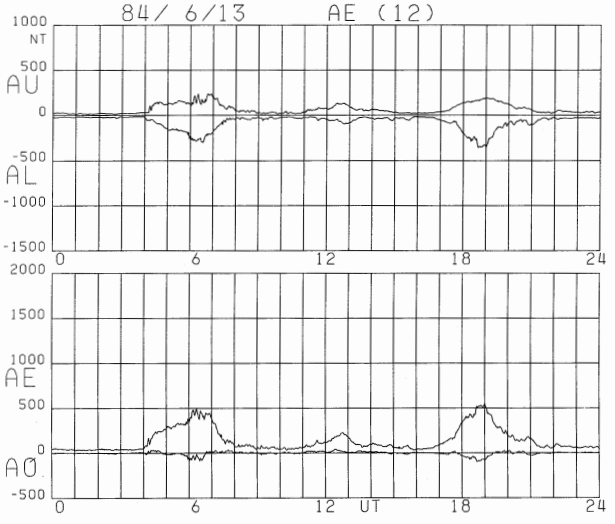
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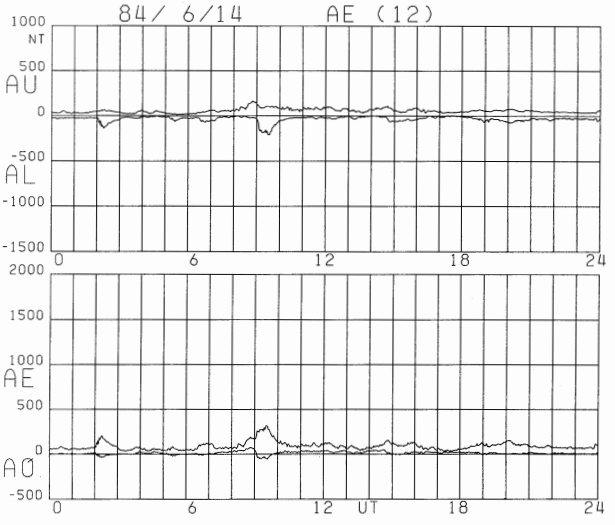
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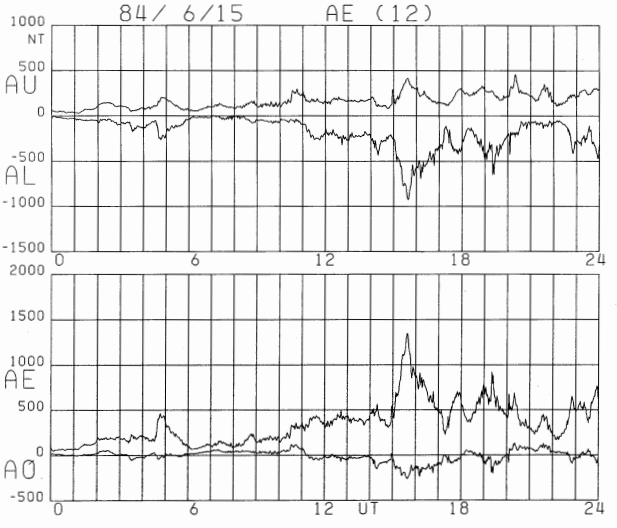
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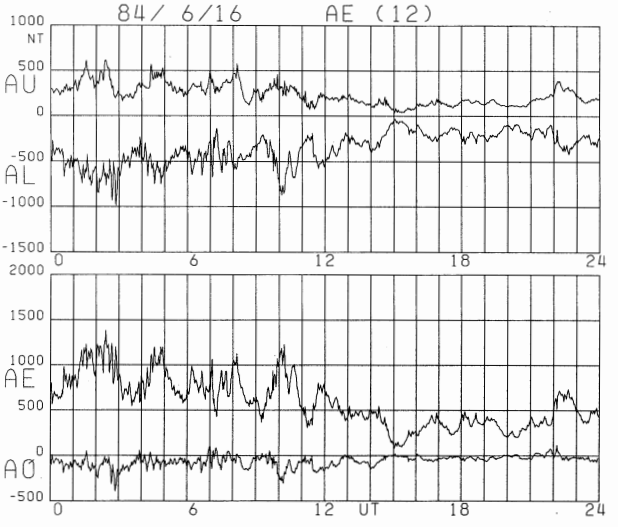
0 6 12 UT 18 24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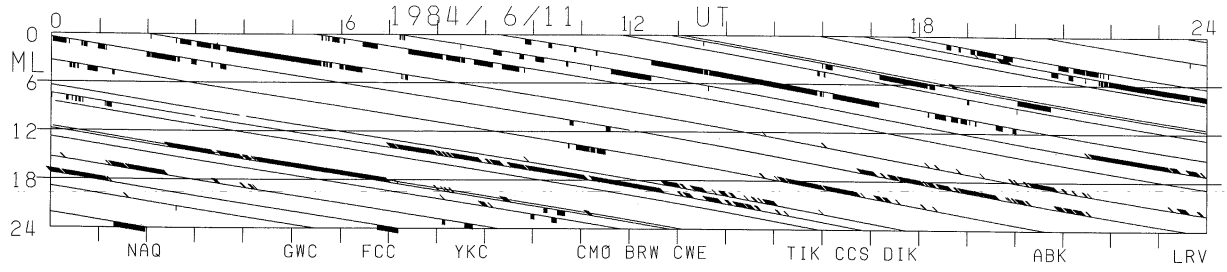
0 6 12 UT 18 24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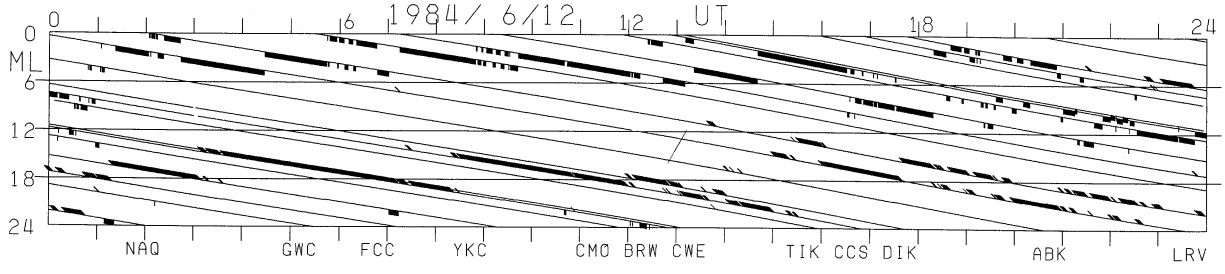
GWC
FCC
YKC
CMO BRW CWE
TIK CCS DIK
ABK
LRV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UT
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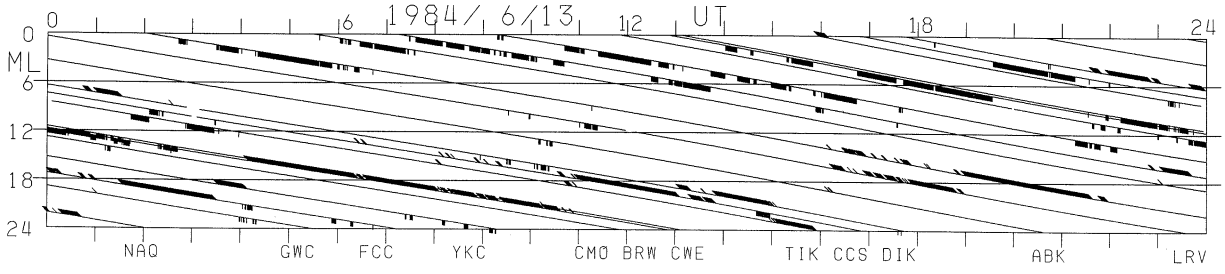
ABK
LRV


1984/ 6/13
UT
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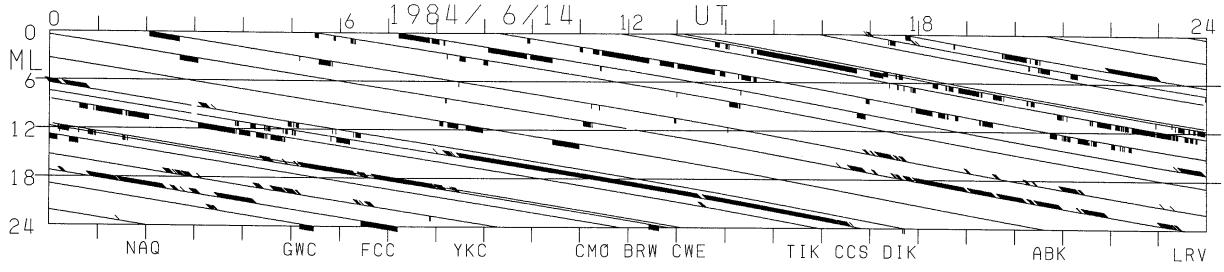
FCC
YKC
CMO BRW CWE
TIK CCS DIK
ABK
LRV


1984/ 6/14
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CMO BRW CWE
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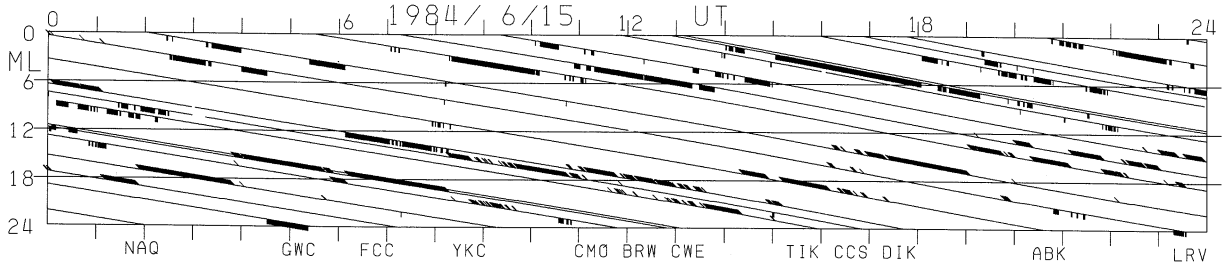
ABK
LRV


1984/ 6/15
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GWC
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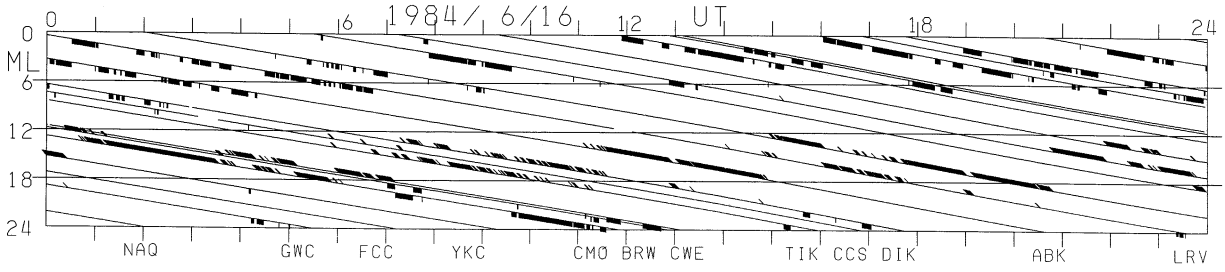
CMO BRW CWE
TIK CCS DIK
ABK
LRV


1984/ 6/16
UT
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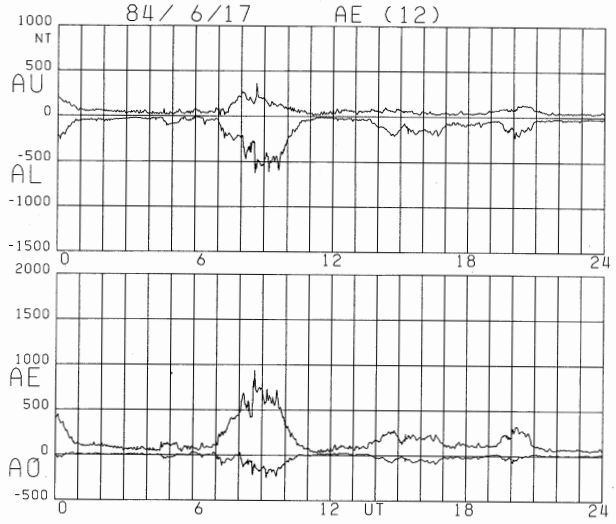
12
18
24
ML
NAQ
GWC
FCC
YKC
CMO BRW CWE
TIK CCS DIK
ABK
LRV


84/ 6/17 AE (12)
1000
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AL
-1000
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0 6 12 18 24
2000
1500
1000
AE
500
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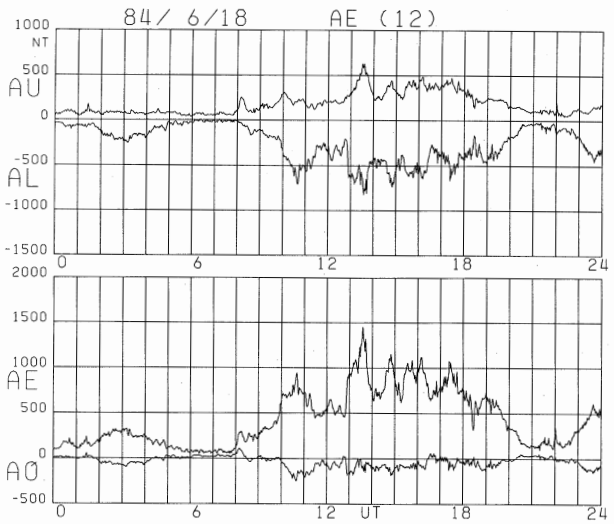
AO
-500
0 6 12 UT 18 24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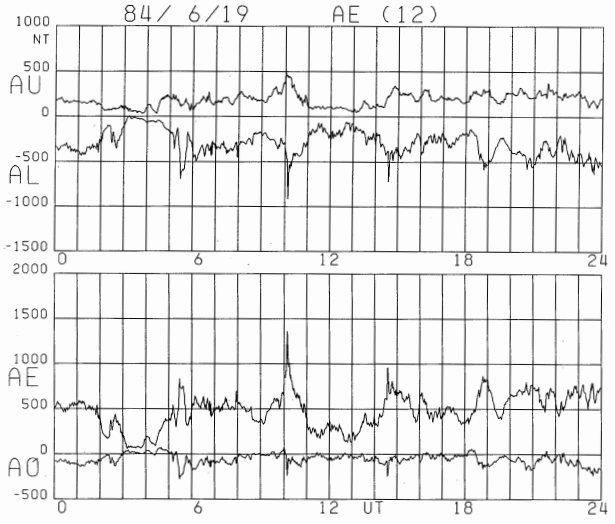
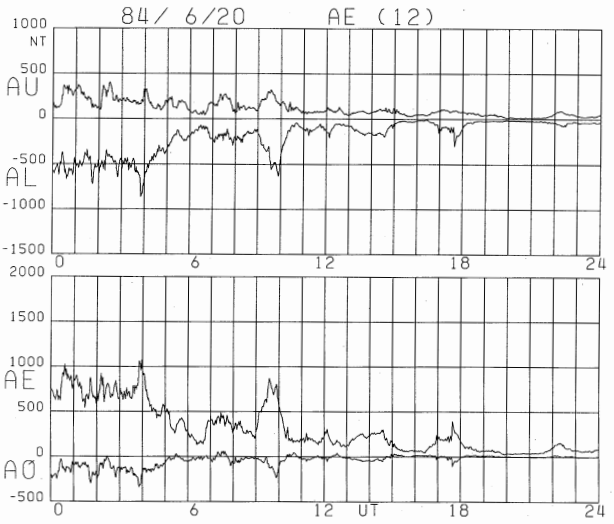
NT
500
AU
0
-500
AL
-1000
-1500
0 6 12 18 24
2000
1500
1000
AE
500
0
AO
-500
0 6 12 UT 18 24


84/ 6/19 AE (12)
1000
NT
500
AU
0
-500
AL
-1000
-1500
0 6 12 18 24
2000
1500
1000
AE
500
0
AO
-500
0 6 12 UT 18 24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NT
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AU
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2000
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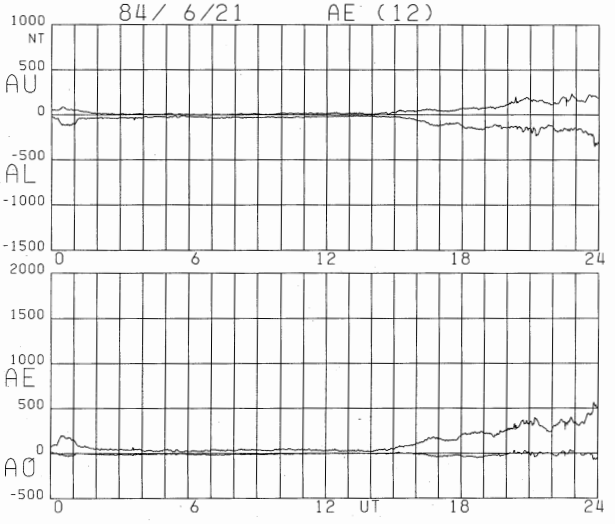
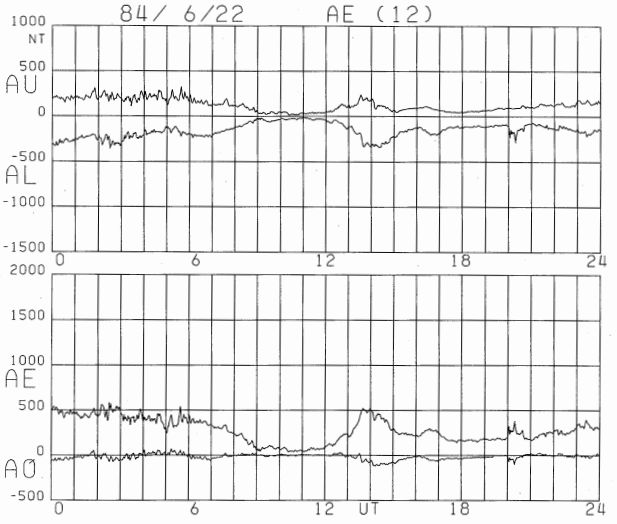
1000
AE
500
0
AO
-500
0 6 12 UT 18 24


84/ 6/21 AE (12)
1000
NT
500
AU
0
-500
AL
-1000
-1500
0 6 12 18 24
2000
1500
1000
AE
500
0
AO
-500
0 6 12 UT 18 24


84/ 6/22 AE (12)
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NT
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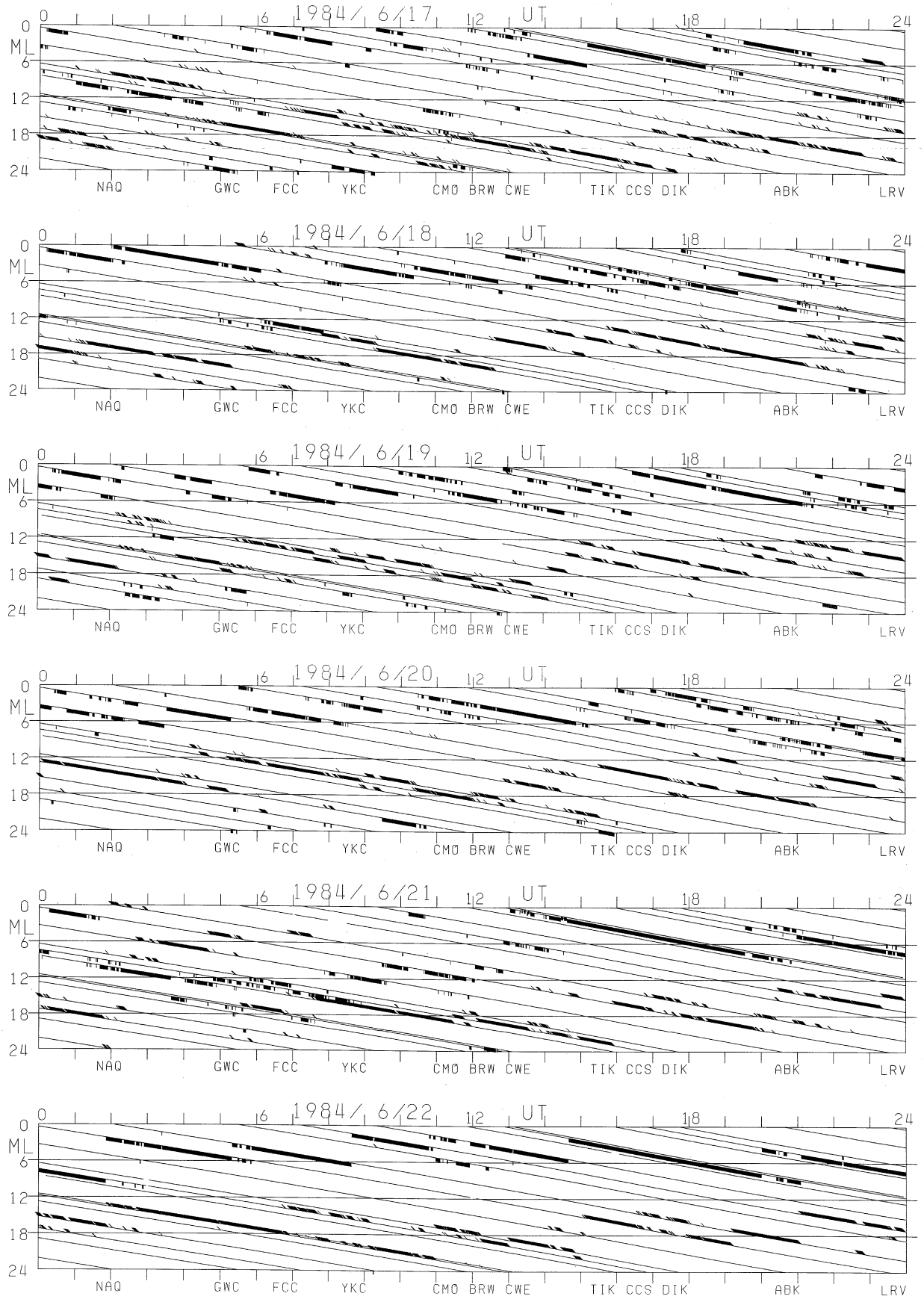
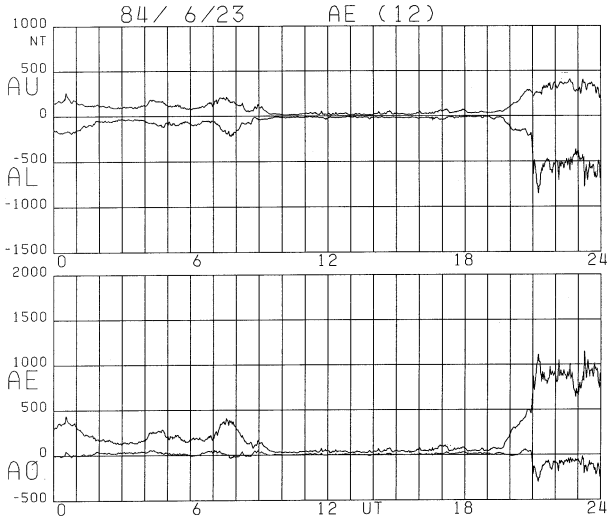
AL
-1000
-1500
0 6 12 18 24
2000
1500
1000
AE
500
0
AO
-500
0 6 12 UT 18 24


1984/ 6/17 UT
1984/ 6/18 UT
1984/ 6/19 UT
1984/ 6/20 UT
1984/ 6/21 UT
1984/ 6/22 UT
0
6
12
18
24
ML
NAQ
GWC
FCC
YKC
CMO
BRW
CWE
TIK
CCS
DIK
ABK
LRV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1000
NT
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AU
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AL
-1000
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0
6
12
18
24
2000
1500
1000
AE
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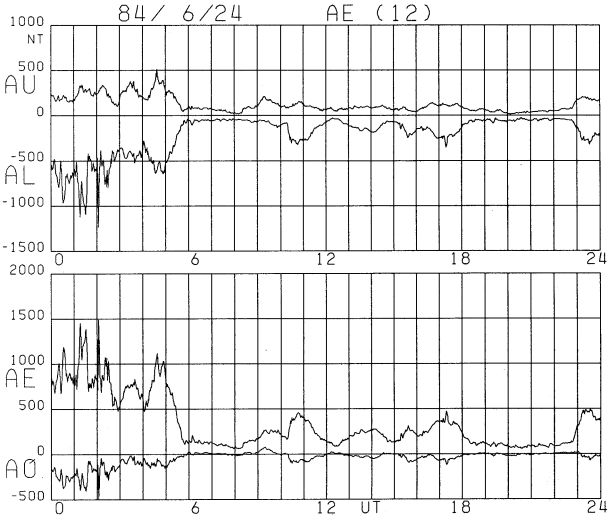
0
AØ
-500
UT


84/ 6/24 AE (12)
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NT
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AU
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12
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24
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1500
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AE
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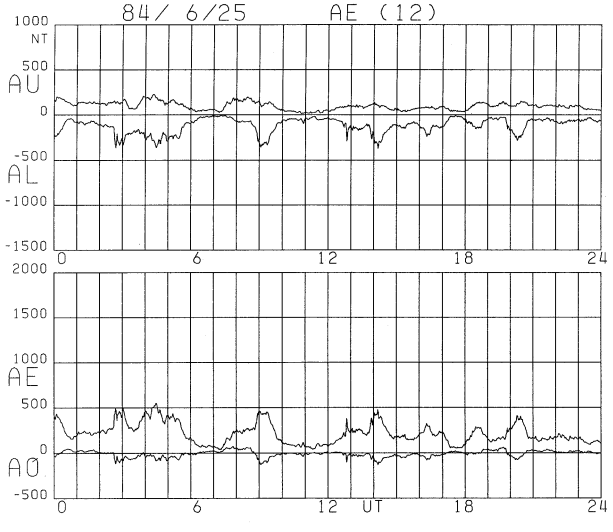
-500
UT


84/ 6/25 AE (12)
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NT
500
AU
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6
12
18
24
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1500
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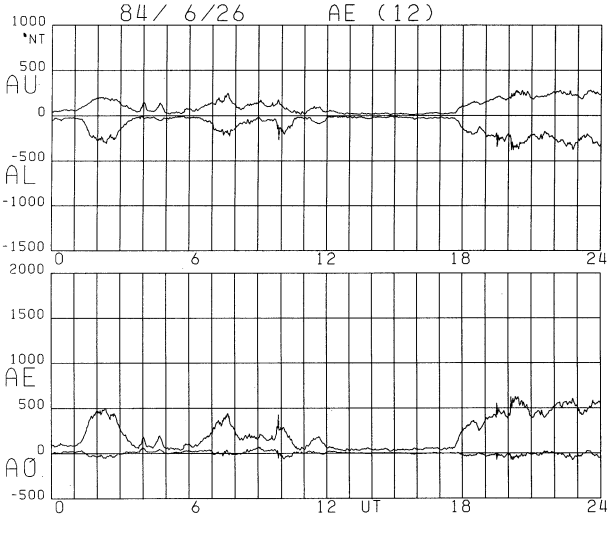
-500
UT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NT
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AU
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-500
AL
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0
6
12
18
24
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1500
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AE
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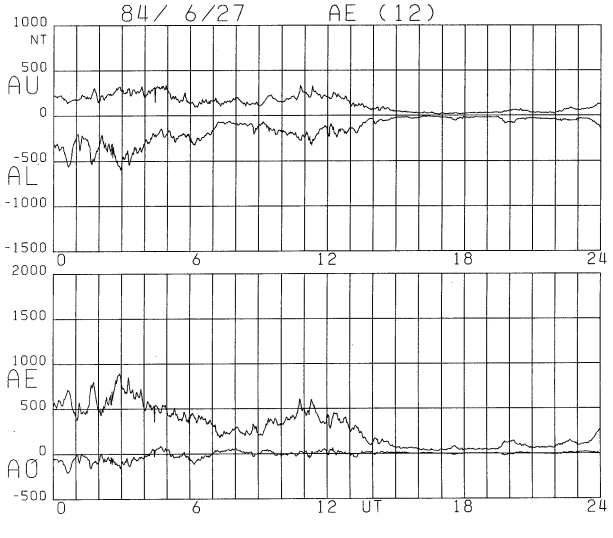
0
AØ
-500
UT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NT
500
AU
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-500
AL
-1000
-1500
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6
12
18
24
2000
1500
1000
AE
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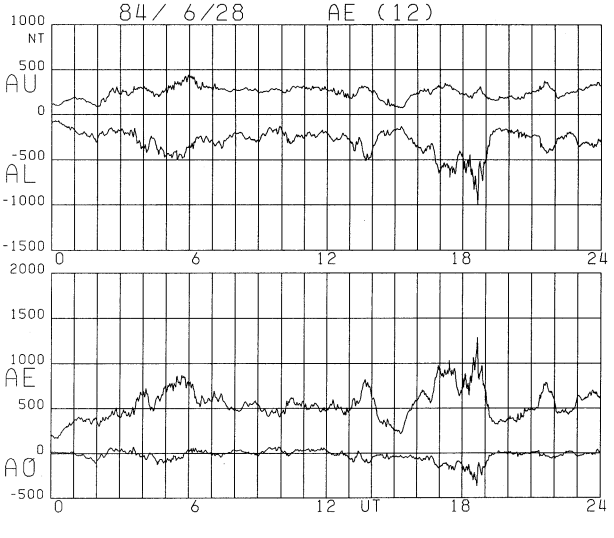
0
AØ
-500
UT


84/ 6/28 AE (12)
1000
NT
500
AU
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AL
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-1500
0
6
12
18
24
2000
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1000
AE
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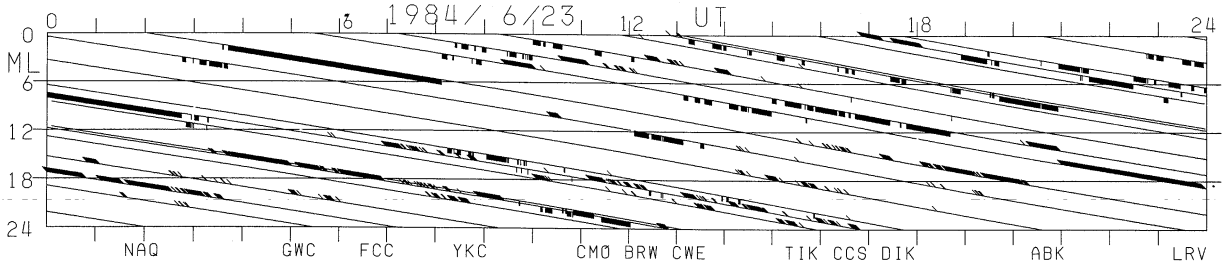
AØ
-500
UT


1984/ 6/23 UT
0
6
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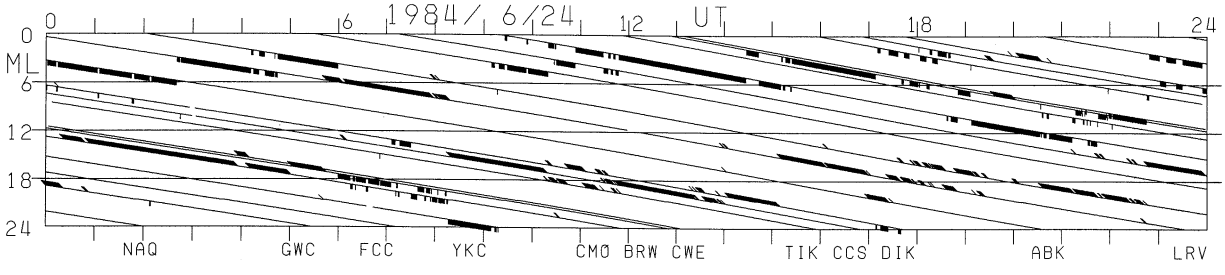
18
24
ML
NAQ GWC FCC YKC CMO BRW CWE TIK CCS DIK ABK LRV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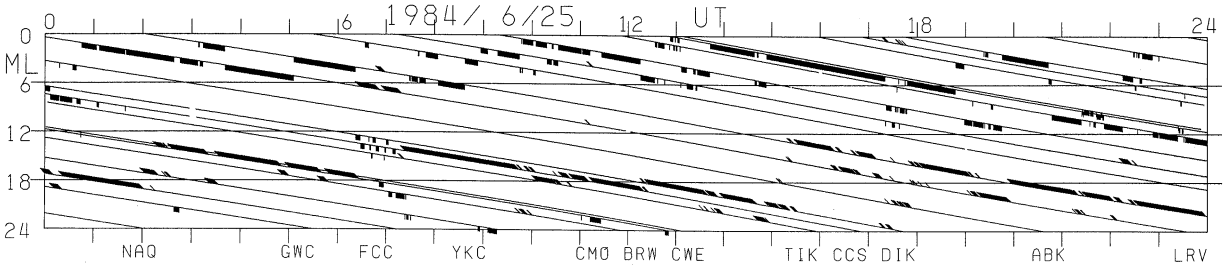
18
24
ML
NAQ GWC FCC YKC CMO BRW CWE TIK CCS DIK ABK LRV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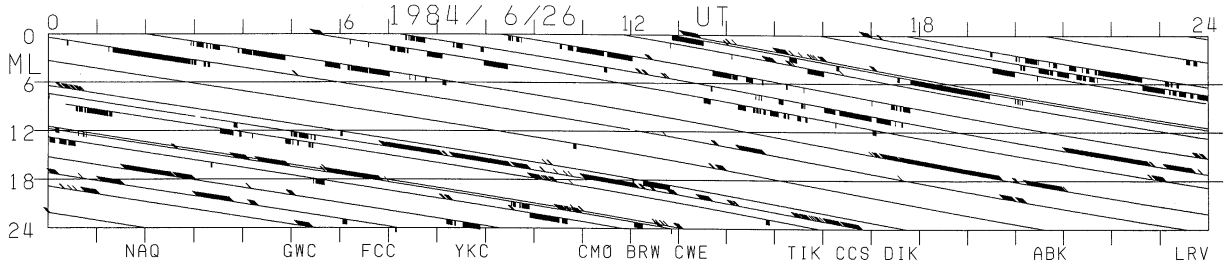
12
18
24
ML
NAQ GWC FCC YKC CMO BRW CWE TIK CCS DIK ABK LRV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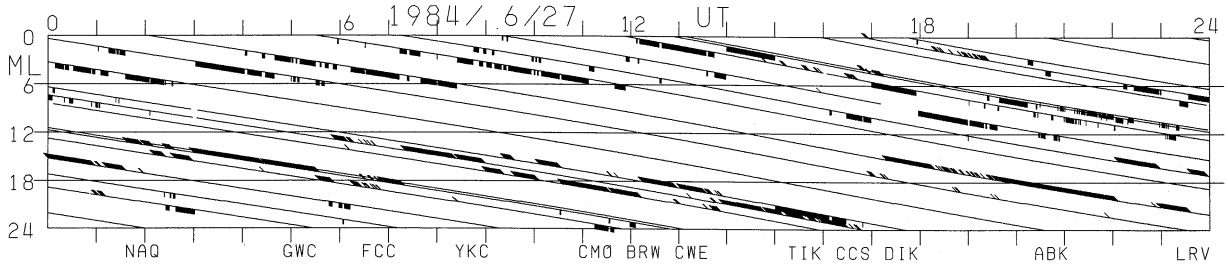
12
18
24
ML
NAQ GWC FCC YKC CMO BRW CWE TIK CCS DIK ABK LRV


1984/ 6/27 UT
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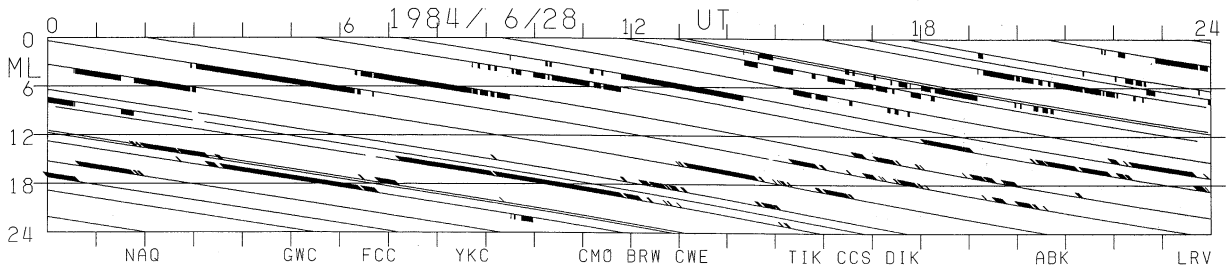
12
18
24
ML
NAQ GWC FCC YKC CMO BRW CWE TIK CCS DIK ABK LRV


1984/ 6/28 UT
0
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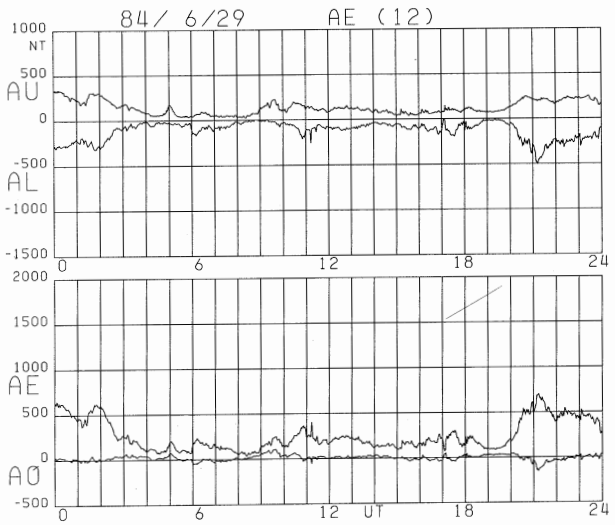
12
18
24
ML
NAQ GWC FCC YKC CMO BRW CWE TIK CCS DIK ABK LRV


84/ 6/29 AE (12)
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NT
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-1500
0 6 12 18 24
2000
1500
1000
AE
500
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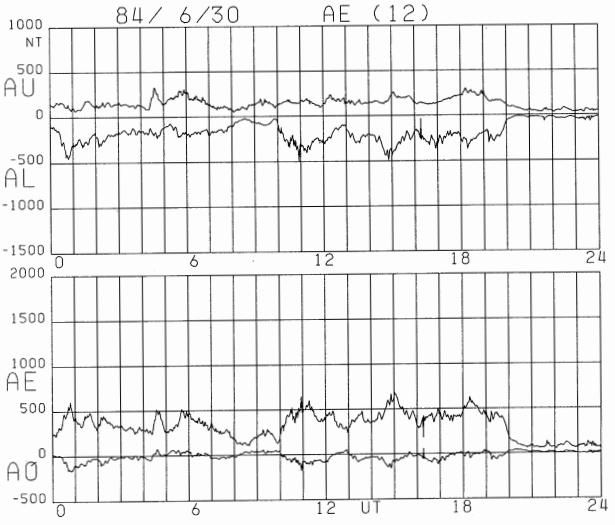
AO
-500
0 6 12 UT 18 24


84/ 6/30 AE (12)
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NT
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AU
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-1500
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2000
1500
1000
AE
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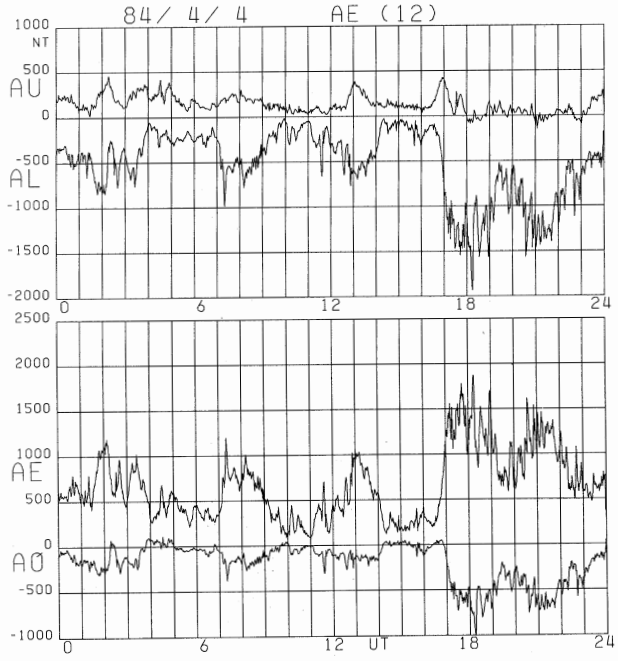
-500
0 6 12 UT 18 24


84/ 4/ 4 AE (12)
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NT
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AU
0
-500
AL
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-1500
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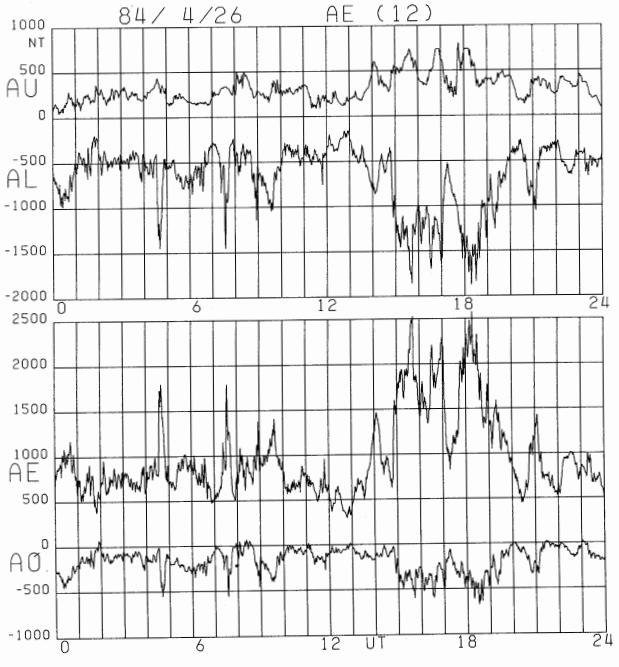
0 6 12 18 24
2500
2000
1500
1000
AE
500
0
AO
-500
-1000
0 6 12 UT 18 24


84/ 4/26 AE (12)
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NT
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AL
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0 6 12 18 24
2500
2000
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1000
AE
500
0
AO
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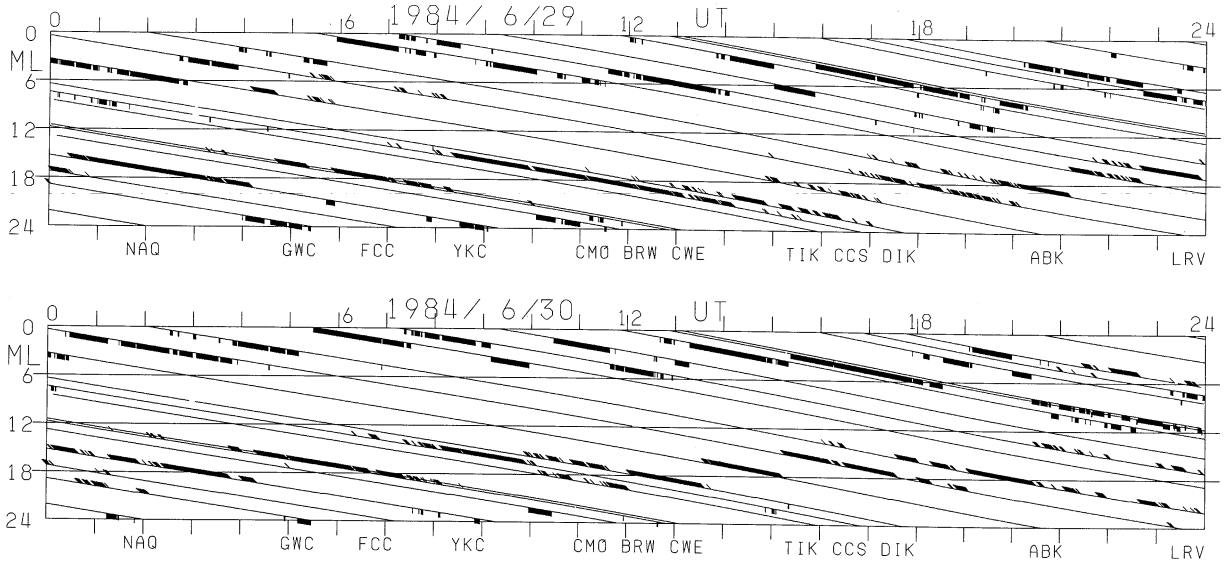
-1000
0 6 12 UT 18 24


1984/ 6/29
UT
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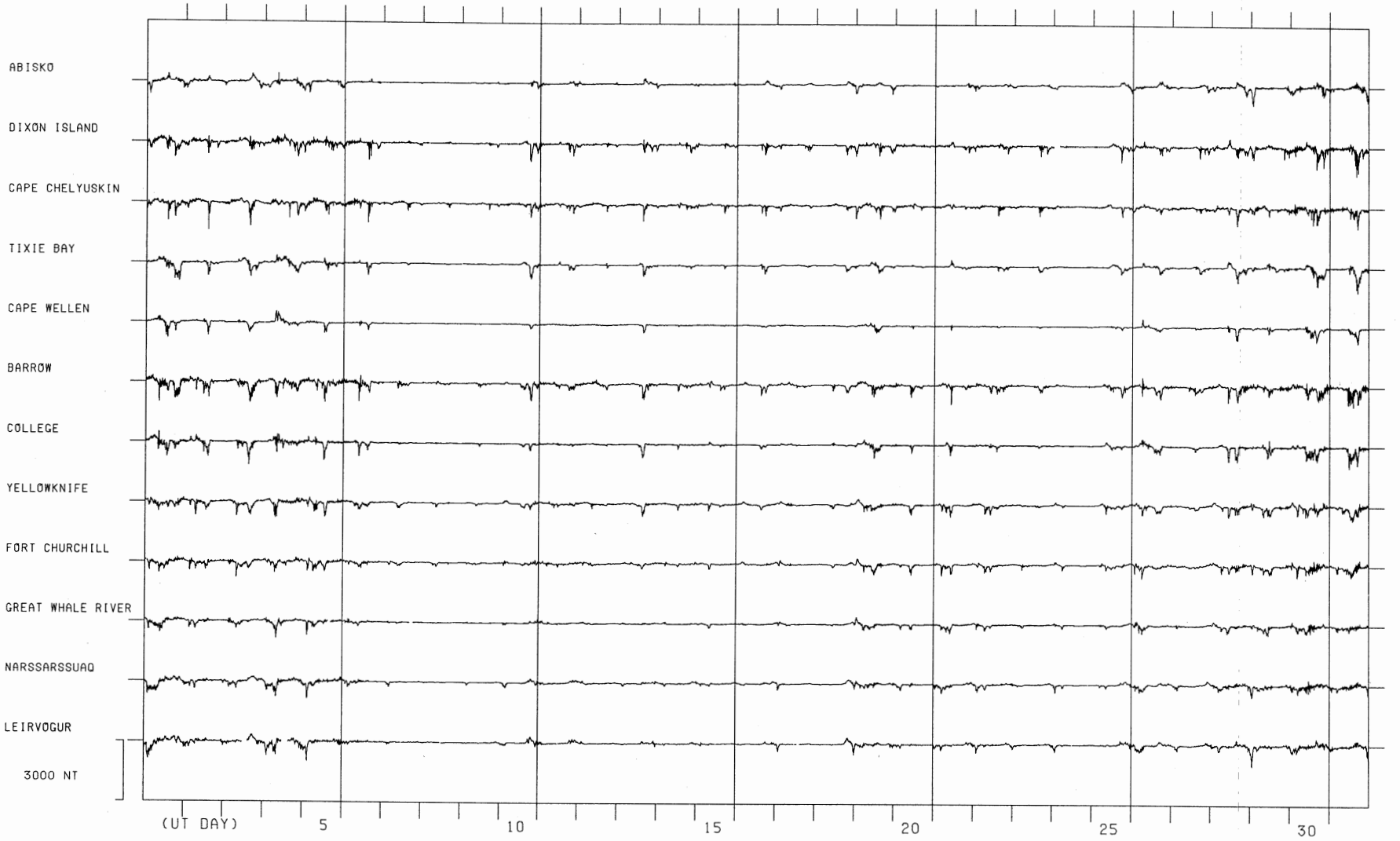
18
24
ML
NAQ
GWC
FCC
YKC
CMO BRW CWE
TIK CCS DIK
ABK
LRV

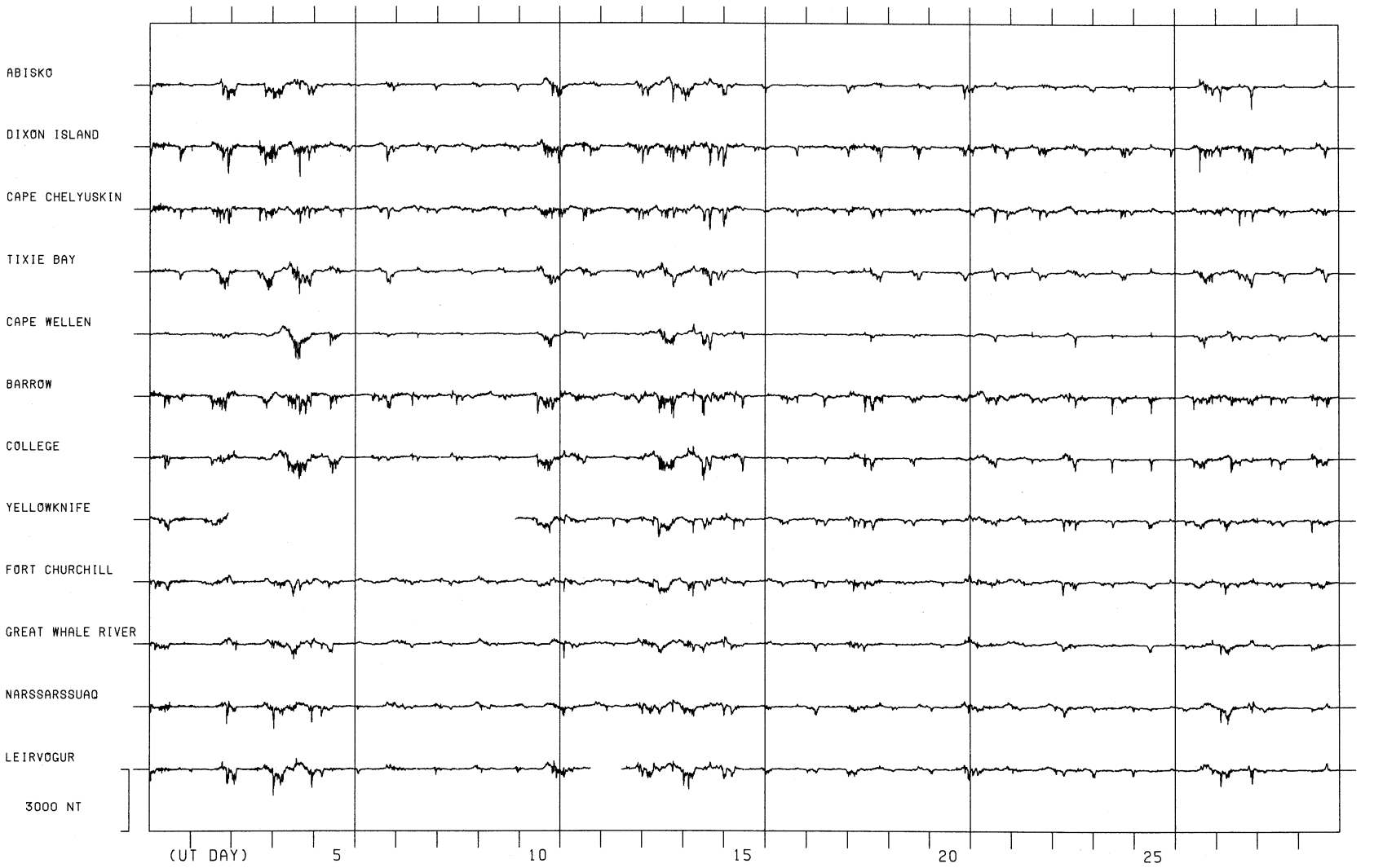
1984/ 6/30
UT
0
6
12
18
24
ML
NAQ
GWC
FCC
YKC
CMO BRW CWE
TIK CCS DIK
ABK
LRV

FIGURE 6

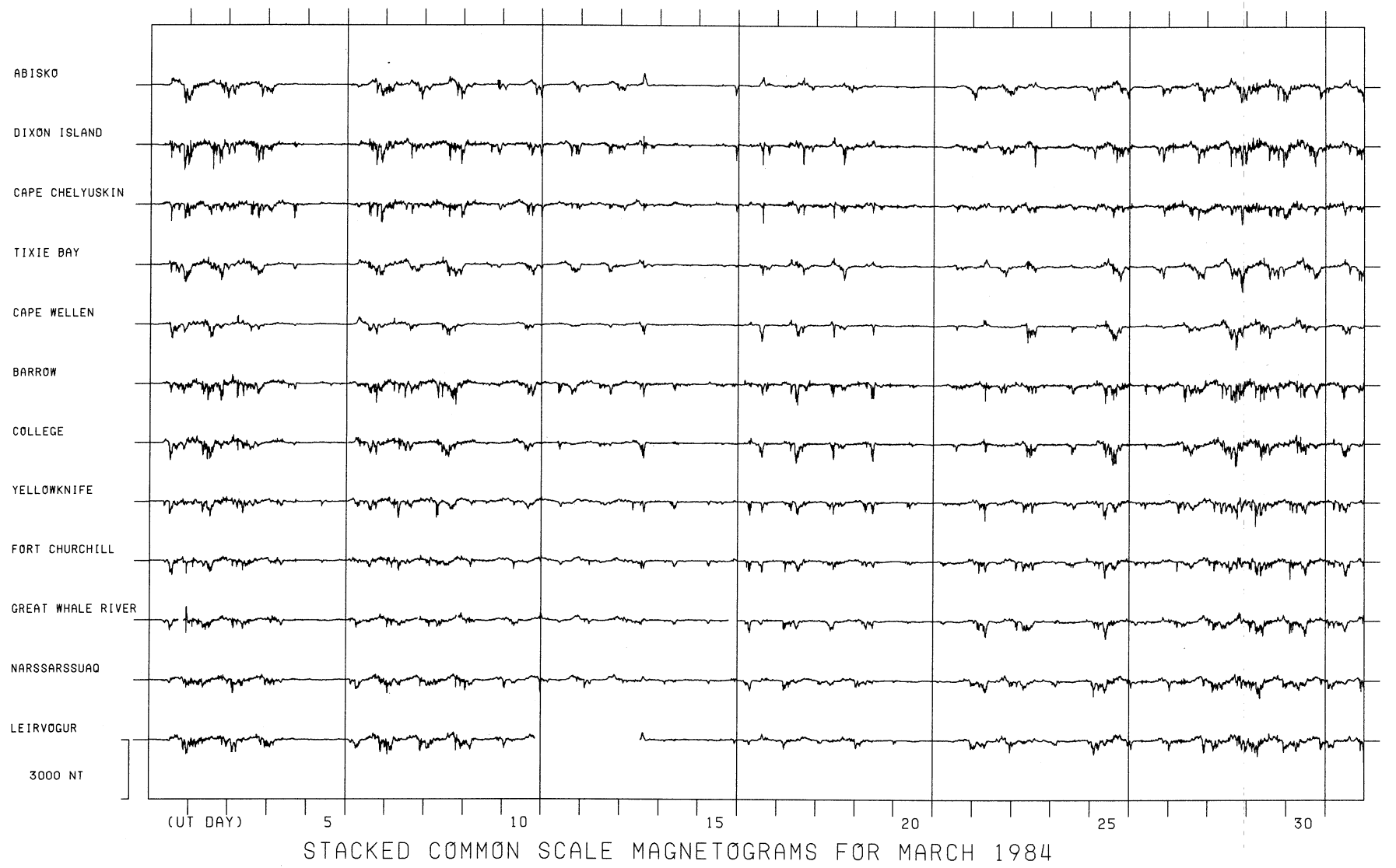
The H traces of magnetograms
from AE(12) stations
in each month
for January-June 1984.



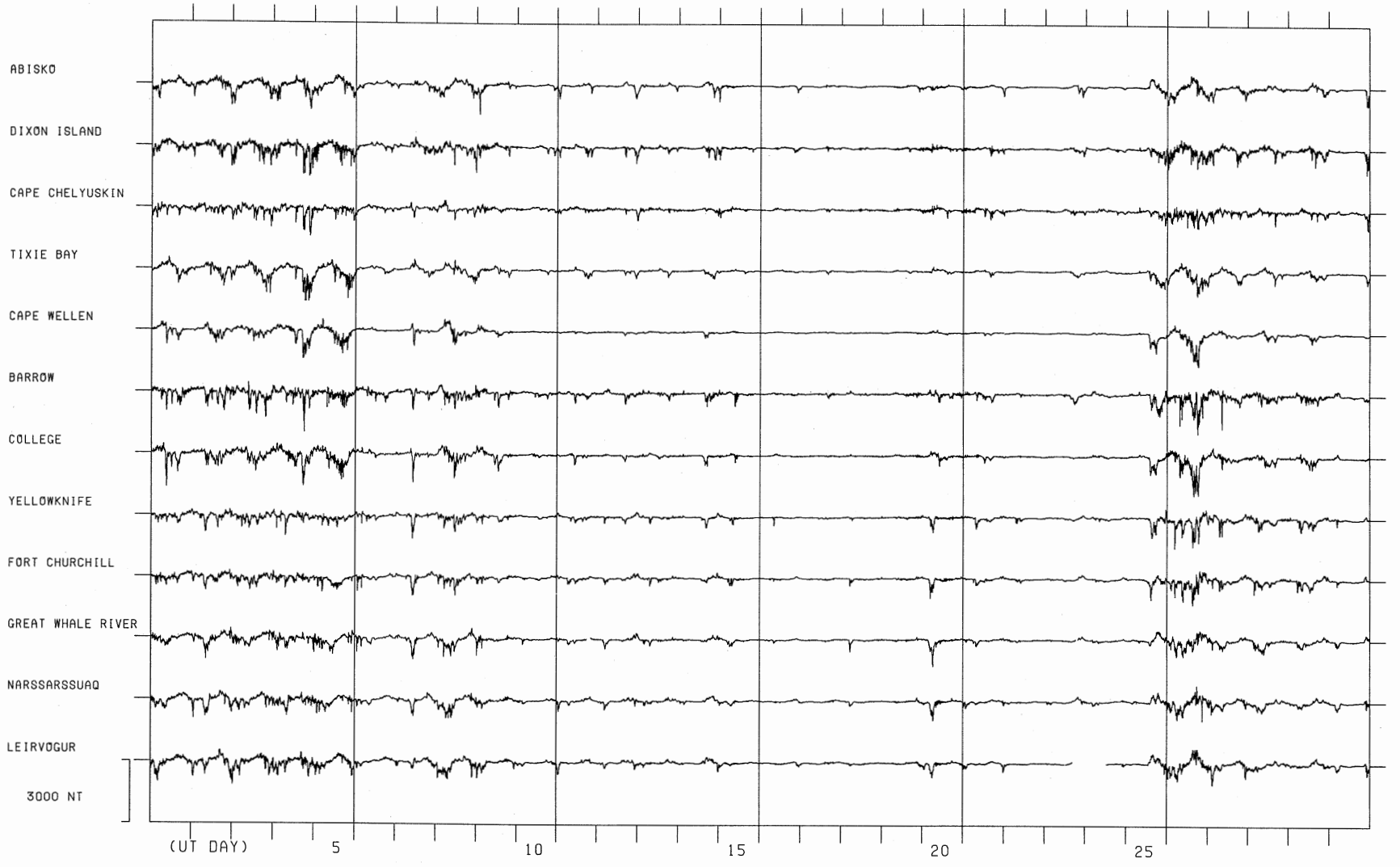
STACKED COMMON SCALE MAGNETOGRAMS FOR JANUARY 1984



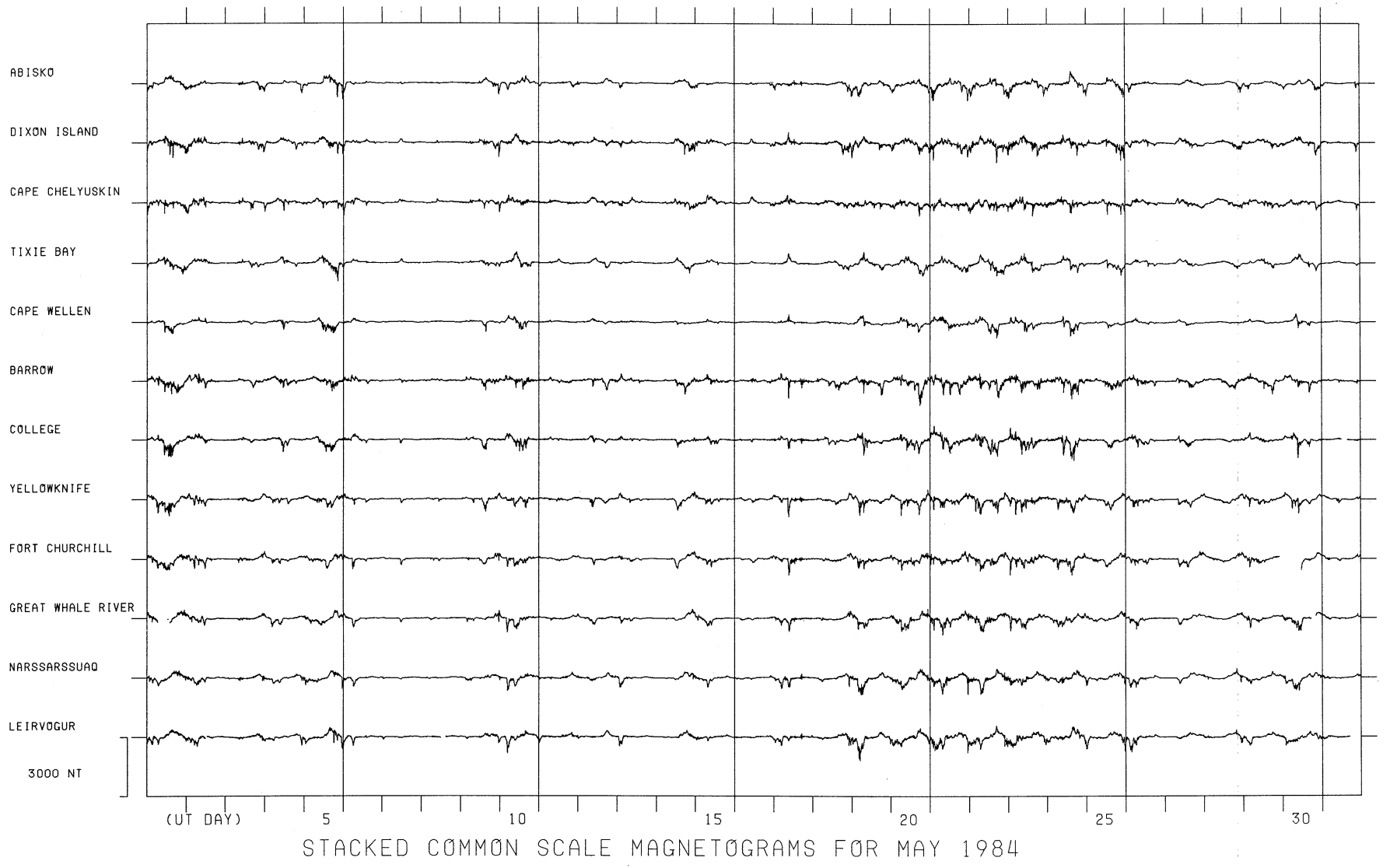
STACKED COMMON SCALE MAGNETOGRAMS FOR FEBRUARY 1984



STACKED COMMON SCALE MAGNETOGRAMS FOR MARCH 1984



STACKED COMMON SCALE MAGNETOGRAMS FOR APRIL 1984

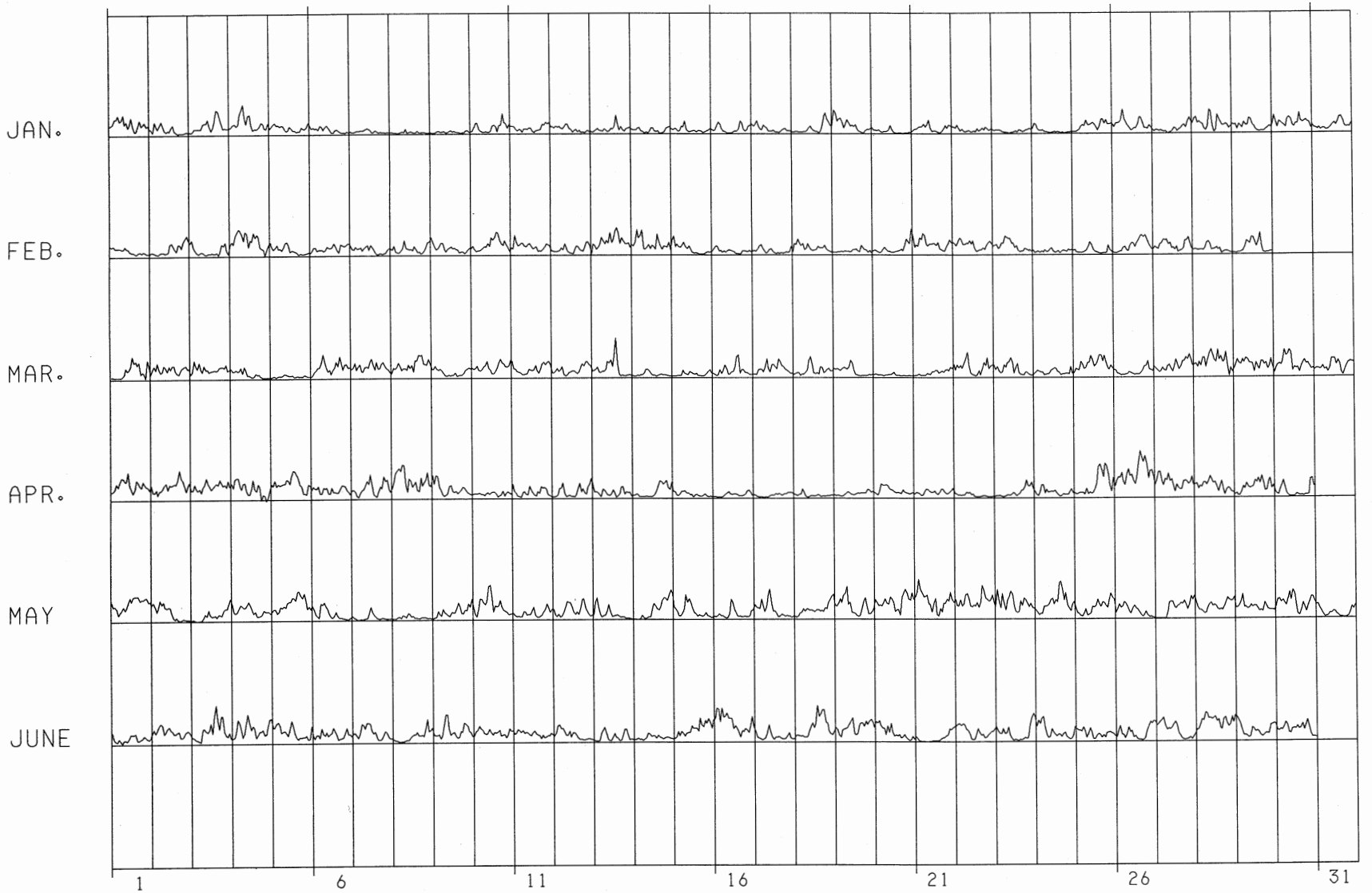


STACKED CØMMØN SCALE MAGNETØGRAMS FØR MAY 1984

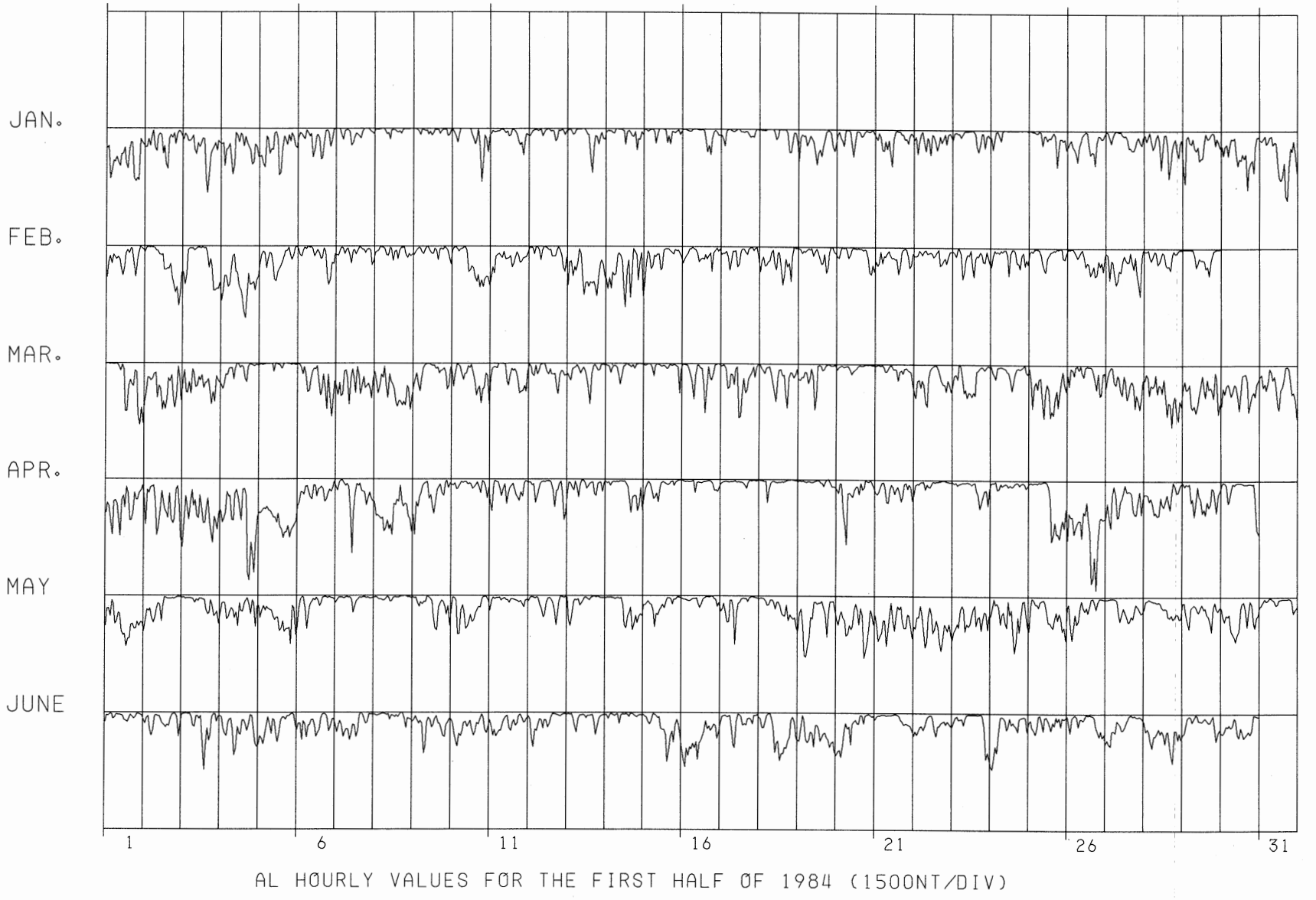
STACKED COMMON SCALE MAGNETOGRAMS FOR JUNE 1984

FIGURE 7

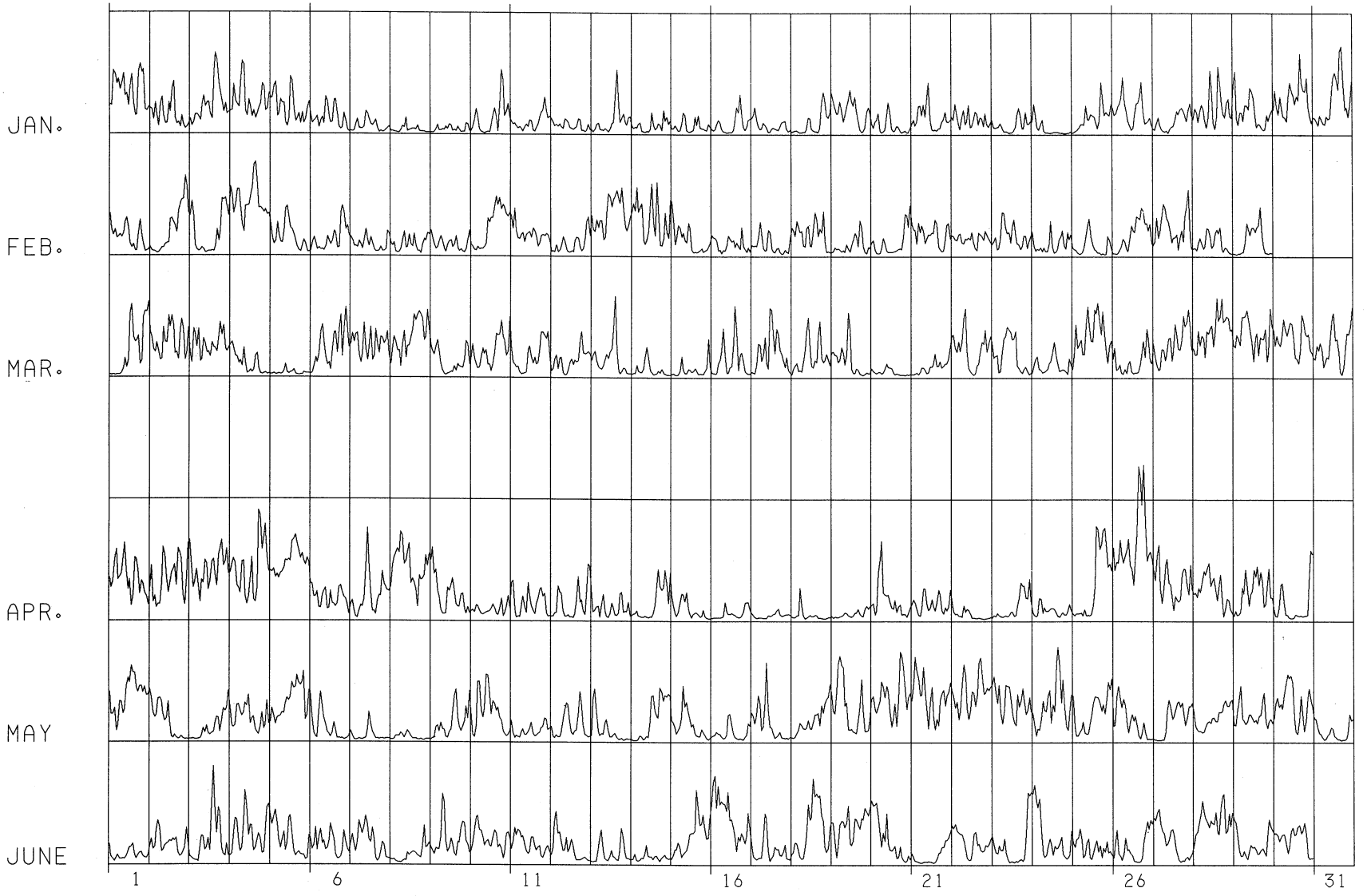
Plots of hourly values of each index
(AU, AL, AE and AO)
for January-June 1984.



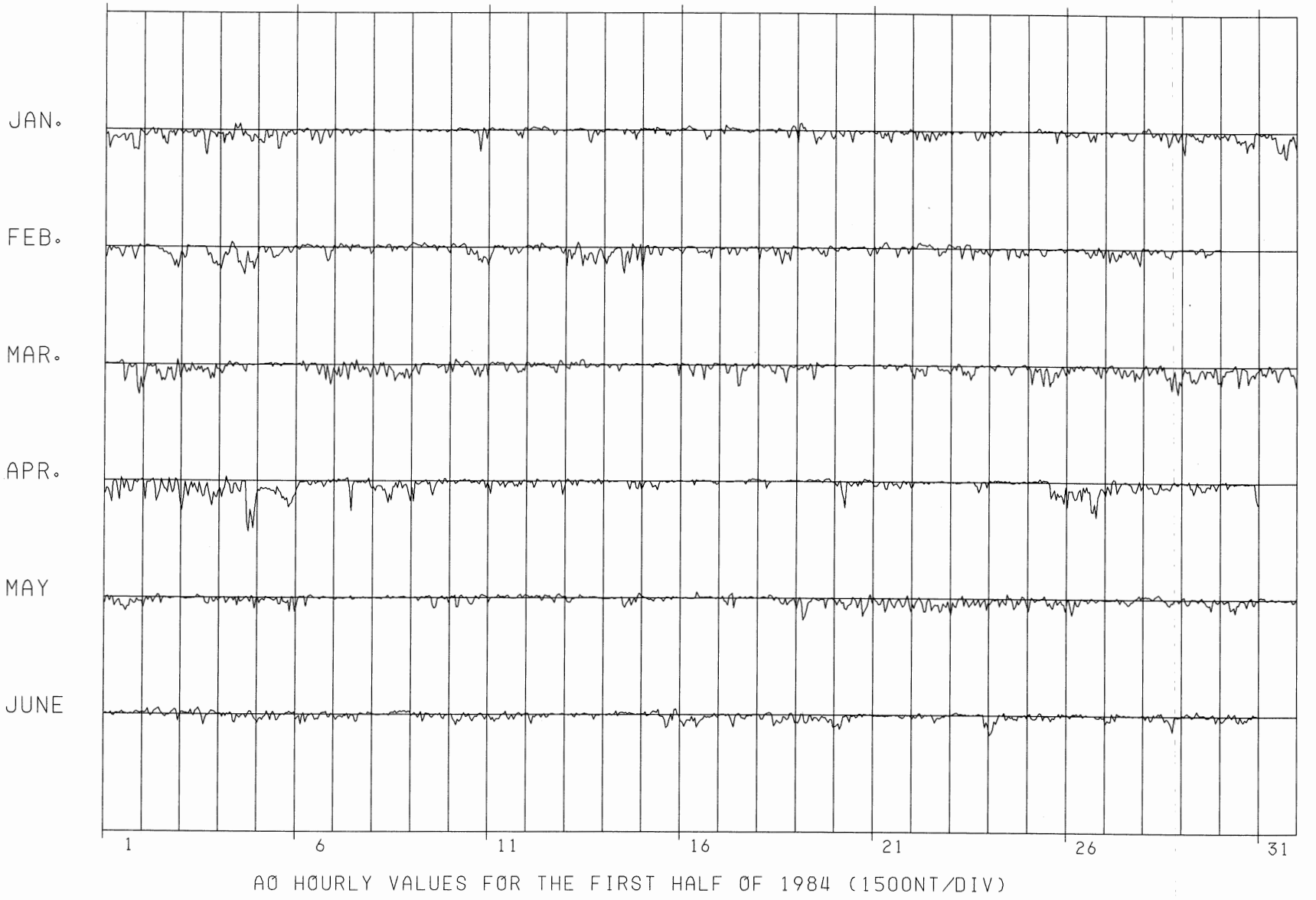
AU HOURLY VALUES FOR THE FIRST HALF OF 1984 (150ONT/DIV)



AL HOURLY VALUES FOR THE FIRST HALF OF 1984 (1500NT/DIV)



AE HOURLY VALUES FOR THE FIRST HALF OF 1984 (1500NT/DIV)



AO HOURLY VALUES FOR THE FIRST HALF OF 1984 (1500NT/DIV)

Publications by the World Data Center C2 for Geomagnetism.

1. Data Catalogue

	Published in
Data Catalogue of World Data Center C2 for Geomagnetism	1984

2. Data Book

No. 1	Equivalent current systems of the daily geomagnetic variations in December 1964	1978
No. 2	Electric fields and neutral winds in the ionospheric dynamo region as deduced from the daily geomagnetic variations in December 1964	1979
No. 3	Auroral electrojet indices (AE) for January-June 1978	1981
No. 4	Auroral electrojet indices (AE) for July-December 1978	1981
No. 5	Auroral electrojet indices (AE) for January-June 1979	1982
No. 6	Auroral electrojet indices (AE) for July-December 1979	1982
No. 7	Auroral electrojet indices (AE) for January-June 1980	1983
No. 8	Auroral electrojet indices (AE) for July-December 1980	1983
No. 9	Auroral electrojet indices (AE) for January-June 1981	1984
No.10	Auroral electrojet indices (AE) for July-December 1981	1984
No.11	Auroral electrojet indices (AE) for January-June 1983	1985
No.12	Auroral electrojet indices (AE) for July-December 1982	1985
No.13	Auroral electrojet indices (AE) for July-December 1983	1986
No.14	Auroral electrojet indices (AE) for January-June 1982	1986
No.15	Auroral electrojet indices (AE) for January-June 1984	1987

3. Others

Report of Aeromagnetic Survey in Japan	1966
Japanese WMS Magnetic Charts for 1965	1966
WMA Inventory; First Issue	1970
WMA Inventory; Second Issue	1971

(WMA: World Magnetic Archives; WMS: World Magnetic Survey)

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The publications above are available on request. The request should be sent by mail to:

WDC-C2 for Geomagnetism
Faculty of Science, Kyoto University
Kyoto 606, Japan

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