REPORT UAG-73

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Solar-Terrestrial Physics

AURORAL ELECTROJET MAGNETIC ACTIVITY INDICES AE(11-12) FOR JANUARY - JUNE 1975

August 1979

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August 1979

Published by World Data Center A for
Solar-Terrestrial Physics, NOAA, Boulder, Colorado
and printed by

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ENVIRONMENTAL DATA AND INFORMATION SERVICE
Boulder, Colorado, USA 80303

SUBSCRIPTION PRICE: $25.20 a year; $17.30 additional for foreign mailing; single copy price varies.*
Checks and money orders should be made payable to the Department of Commerce, NOAA/NGSDC.
Remittance and correspondence regarding subscriptions should be sent to the National Geophysical and Solar–Terrestrial Data Center, NOAA, Boulder, CO 80303.

*PRICE THIS ISSUE $1.75

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ABSTRACT

The Auroral Electrojet index (AE) is discussed and a brief description is given of the derivation of 11-12 station 1.0-min AE indices for January-June 1975. Tables are given of hourly average indices for each day, of the stations making the main contribution to the hourly indices, and of the average monthly quiet-time level of horizontal fields (H) at each magnetic observatory. Graphs of the index variations are included for each day of the first half of 1975 and for the frequency and amplitude of extreme variations at each site.

SECTION I. GENERAL DISCUSSION

1. Derivation of AE (11-12) Indices for January-June 1975

Introduction. The Auroral Electrojet index (AE) is designed to provide a global, quantitative measure of auroral zone magnetic activity produced by enhanced ionospheric currents flowing below and within the auroral oval. Ideally, it is the total range of deviation at an instant of time from quiet day values of the horizontal magnetic field (H) around the auroral oval. Defined and developed by Davis and Sugiura [1966], AE has been usefully employed both qualitatively and quantitatively as a correlative index in the studies of substorm morphology, in the behavior of communication satellites, in radio propagation and radio scintillation, and in the coupling between the interplanetary magnetic field and the Earth's magnetosphere. For these varied uses, AE possesses advantages over other geomagnetic indices or at least shares their advantageous properties. In particular it can

(1) be derived on an instantaneous basis or from averages of variations computed over any selected interval;

(2) be a quantitative index which, in general, is directly related to the processes producing the observed magnetic variations;

(3) be well suited to present computer processing techniques because its method of derivation is relatively simple, digital, and objective and;

(4) be used to study either individual events or statistical aggregates.

These indices are derived in response to indications of need as voiced by the scientific user community in journal articles, at meetings, in resolutions of national and international groups, and in personal communications. This report is one means of communicating a summary of the derived indices for 1 year and is the thirteenth such compilation published by the World Data Center A (WDC-A) for Solar-Terrestrial Physics [Allen, 1972; Allen *et al.*, 1973, 1974a, 1974b, 1974c, 1975a, 1975b, 1975c, 1976, 1977a, 1977b, 1977c and 1977d]. Computer listings or digital magnetic tapes of detailed 2.5-min* indices and microfilm graphs of their variations can be obtained from WDC-A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado 80303, USA. Detailed lists of available indices are given, along with cost of acquisition information in Report UAG-49, *Catalog of Standard Geomagnetic Variation Data,* WDC-A for Solar-Terrestrial Physics, August 1975.

Definition of AE Indices. In practice, AE and associated indices may be defined by describing a graphical technique of derivation that is still used to generate preliminary sets of indices for single events (see Fig. 1). Magnetogram copies for a given UT-day are collected from a select group of auroral zone magnetic observatories. A quiet-time H (horizontal intensity of the Earth's field) reference level is selected for each site and subtracted from the instantaneous H values for that location. The resulting time series of ΔH values for all locations are superposed graphically upon a common zero level and with a common amplitude scale and time base. Connecting successive positive extreme values produces an upper envelope for the set of overlapping traces, and connecting the negative extreme values produces a bounding lower envelope. At any instant, the amplitude of the upper envelope is designated AU and that of the lower envelope is AL. The range between them is defined as AE and their mean is AO. In general, AU is a function of the current flowing in the eastward-directed auroral electrojet, while AL is similarly related to the westward auroral electrojet.

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*(more recently 1.0-min)

Observatory Selection for January-June 1975 AE (11-12). To provide comparable AE indices from year to year, data for the same Northern Hemisphere auroral zone observatories have been used for the derivation of AE(10) for 1966 (Report UAG-37) and 1967 (Report UAG-33); AE (11) for the years 1968 (Report UAG-29), 1969 (Report UAG-31), 1970 (Report UAG-22), 1971 (Report UAG-39), 1972 (Report UAG-45), 1973 (Report UAG-47), 1974 (Report UAG-59) and the first 6 months of 1975 in this report are listed below in Table 1 along with their abbreviations, geographic and geomagnetic coordinates, and time of Local Geomagnetic Midnight (LGM). The station locations are shown relative to the geomagnetic pole (extended geocentric dipole axis) in Figure 2.

Table 1. Observatories Used for the Derivation of 1966 and 1967 AE(10)** and 1968, 1969, 1970, 1971, 1972, 1973, 1974 AE(11) and 1975 AE(11-12)

	Observatory	Abbreviation	Geographic Coord. N. Lat.°	E. Long.°	Geomagnetic Coord. N. Lat.°	E. Long.°	LGM* UT
1.	Leirvogur	LR	64.18	338.30	70.22	71.04	2351
2.	Narssarssuaq**	NAS	61.20	314.16	71.21	36.79	0210
3.	Great Whale River	GWR	55.27	282.22	66.58	347.36	0526
4.	Fort Churchill	FC	58.80	265.90	68.70	322.77	0704
5.	Yellowknife	YEK	62.40	245.60	69.00	292.80	0902
6.	College	CO	64.87	212.17	64.63	256.52	1133
7.	Barrow	BW	71.30	203.25	68.54	241.15	1235
8.	Cape Wellen #	UE	66.17	190.17	61.79	237.10	1250
9.	Tixie Bay #	TI	71.58	129.00	60.44	191.41	1551
10.	Cape Chelyuskin	CC	77.72	104.28	66.26	176.46	1650
11.	Dixon Island #	DI	73.55	80.57	63.02	161.57	1748
12.	Abisko	AI	68.36	18.82	66.04	115.08	2052
13.	Sodankyla**	SO	67.37	26.63	63.76	119.99	2032

* Local Geomagnetic Midnight (LGM) at equinox.
Geomagnetic coordinates and time calculated for inclined geocentric dipole field.
** No records available for 1966 and 1967 from NAS, and SO substituted for AI in the 1966 and 1967 AE(10) derivations.
\# Sometimes given as: Cape Uelen, Tiksi Bay and Dikson Island, respectively.

The choice of observatories was based upon a desire to achieve a nearly uniform longitudinal coverage and also to span a range of latitudes so that even contracted oval substorm effects might be recorded. Another consideration was that the magnetograms should come from established observatories whose records would continue to be available on a timely basis through the World Data Center system. Naturally, such a choice involved some compromise between the wish to use as much data as possible and the high cost of digitizing analog magnetograms. Statistical summaries are kept with each derivation, showing the relative contribution of each observatory to the indices to identify possible instances of duplication and to reveal inadequately represented regions.

Although we have been able to use the same set of stations for recent years, for earlier years the number of stations providing records changed from time to time. Prior to 1968, the station at Narssarssuaq (NAS) did not exist, and there was no nearby substitute. During most years there have been intervals of varying length for which one or two of the network stations did not produce magnetograms. Further, it is hoped that additional stations may eventually be added to the network to fill longitude gaps. For these reasons we have chosen to indicate the number of contributing stations parenthetically, following the index letters, e.g., AE(10). The daily graphs of variations in 1.0-min AU, AL, AE and AO indices included in this report (Section III) show in the upper right corner the number of contributing stations during the month. If no value is given in the table of monthly average quiet-time H values (Section II-2), this indicates that records from that station were not available for use in the derivation of AE indices. This is also shown by the label on the graphs which reflects the reduced number of contributing stations. Intervals of lost records shorter than 1 month are not indicated.

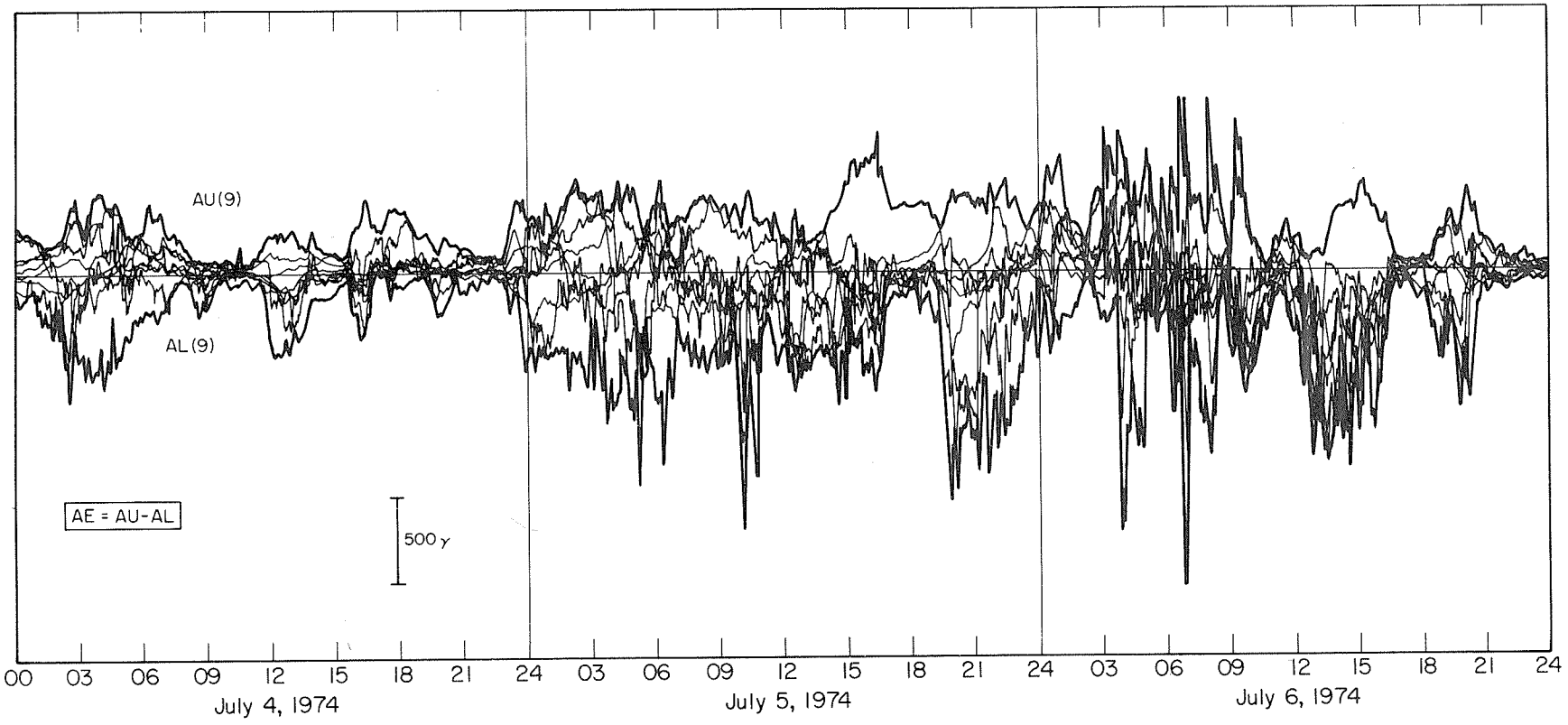

Fig. 1. Preliminary AU(9) and AL(9) by graphical superposition. Graphically derived AU(9) and AL(9) indices are formed by superposing ΔH traces from nine auroral zone observatories onto a common zero level. The AE index at any instant is AU minus AL.

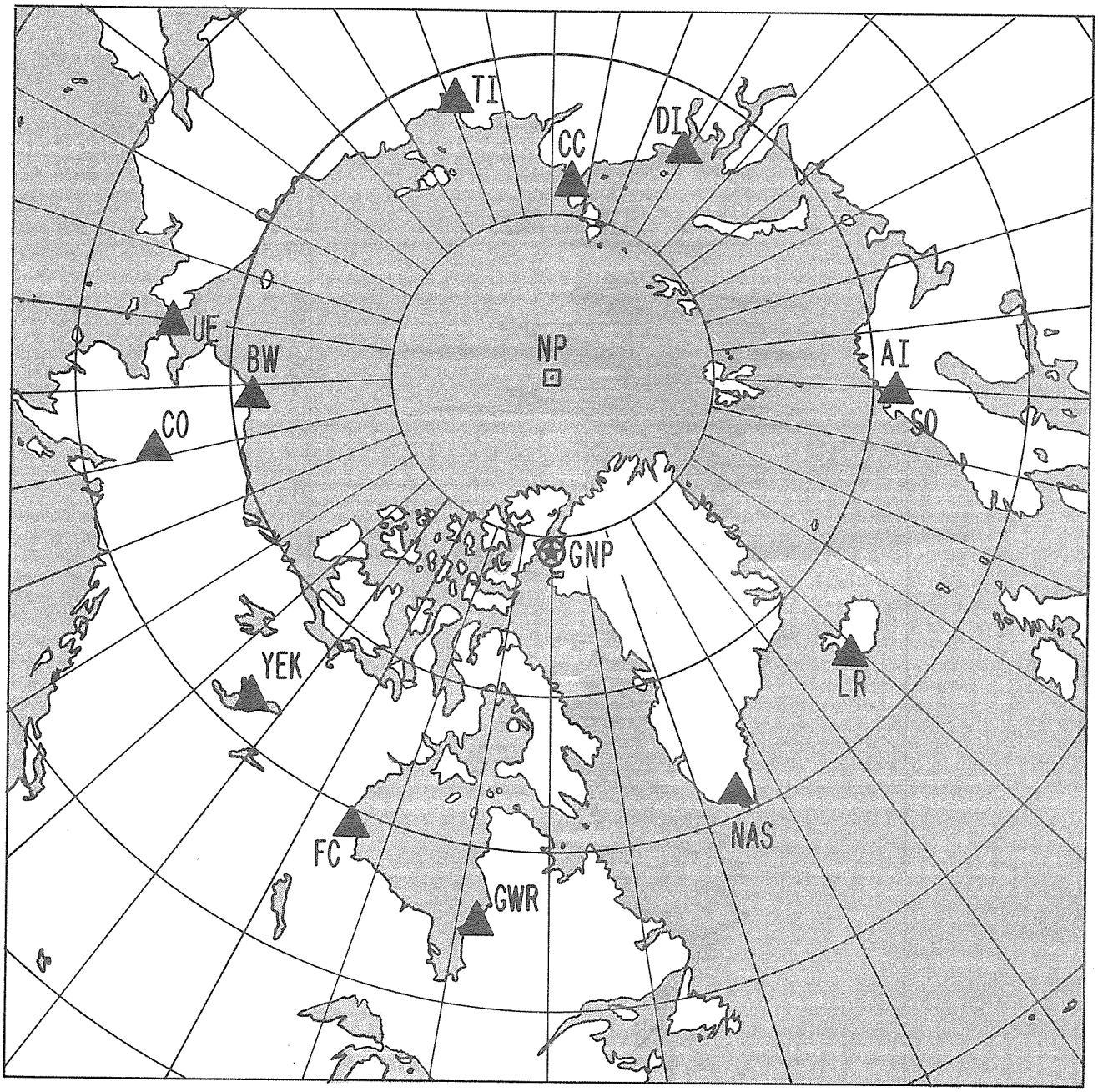

Fig. 2. Observatories whose records were used in the derivation of 1966 and 1967 AE(10) and 1968, 1969, 1970, 1971, 1972, 1973, 1974 AE(11) and 1975 AE(11-12) are shown as filled triangles. Their abbreviations correspond to the list given in Table 1. The map is a polar equal-area projection centered on the north geomagnetic pole (extended geocentric dipole axis). The north geographic pole is indicated by a star inscribed in a circle.

Analysis of AE(11) index data for the years 1968 through 1970 suggests that an optimum station distribution would include locations just equatorward of the instantaneous auroral oval during the local evening hours which most often supplied AU (around 1800 LGT) and others directly under the oval during the early morning hours following Local Geomagnetic Midnight when most AL values are supplied (around 0300 LGT). [Note: LGT = Local Geomagnetic Time.]

Computation of AE(11-12) Indices. The same technique of computation used for all prior AE derivations has been followed with the 1975 derivation. It is described in detail in *Report UAG-22* [Allen, 1972]. A constant quiet-time H reference level was computed for each month for each station. It is the average of all 1.0-min H values for the 5 International Quiet Days of that station-month. The quiet-time reference values were then subtracted from the 1.0-min H scalings of each station and the 11 (or 12) resulting H-deviation time series were compared. At each 1.0-min data interval the extreme positive and negative H deviations were identified and designated AU(11) and AL(11) respectively. According to their definitions, AE(11) = AU(11) - AL(11) and AO(11) is the mean of AU(11) and AL(11). These are the basic AE data. In addition, hourly average values of each index were computed and simple statistical information was collected.

Daily graphs of variations of all four 1.0-min indices (AU,AL,AE and AO) prepared from 35-mm microfilm are reproduced in this report in Section III. Also in Section III are monthly stacked plots of commonscale H (or X)component variations, of station frequency of AU and AL contribution, and of the cumulative (i.e. "total") amplitude of variations. Monthly summaries of hourly average values, daily averages, and hourly averages for special groups of days were prepared and are given in Section II. Also derived were tables showing the frequency of selection of each station for AU and AL and giving the times at which each station supplied the extreme deviations. These results are the basis for monthly sets of tables of stations supplying AU and AL for each hour.

2. Precautionary Notes

Problems in Derived AE(11) Indices. Users of these indices should be aware of the following points that may affect the interpretation of index information contained in this report. Three potential sources of misleading or unreliable indices are

(1) the working definition of AE used in the derivation of the indices,

(2) the character of the magnetogram records and

(3) the digitization and data manipulation processes.

At an AE observatory an increased deviation from quiet-time H may be the same for either an enhanced electrojet current or for a constant current that moves closer to the fixed observatory location. Given a necessarily limited number of contributing observatories and an index based exclusively upon variations in the H component, it is not always possible to distinguish between these two alternatives. If an event is of sufficient magnitude and extent so as to be observed simultaneously at several locations or if it is of sufficient duration to be recorded by successive observatories rotating into the critical longitude sectors, then such ambiguity may be resolved.

Effects of low-amplitude electrojet variations of short duration that occur during otherwise quiet intervals when the auroral oval is contracted may be imperfectly recorded. If such small events occur over sectors between widely separated observatories, they could be missed entirely, although past experience does not suggest that this happens frequently. Also, during very large magnetic disturbances, the auroral oval may expand equatorward below the ring of stations used to derive AE. Thus, times of low AE may not guarantee a total absence of magnetic activity over the polar cap, and during large magnetic storms, the indices are of questionable reliability.

At the observatories, any problem that causes the H trace to be unstable or that causes loss of the record during disturbed times must inevitably affect the AE indices derived for such intervals. In general, periods of component drift at an observatory become relatively obvious when they reach an amplitude sufficient to obscure genuine variations recorded at other locations. Although efforts are made to salvage useful information during these intervals, sometimes the only solution has been elimination of that observatory's records until instrumental adjustments appear to have corrected the problem.

A more serious problem arising from the character of the magnetograms is any time for which the H trace is effectively lost. This can occur because the trace moves off the recording paper in response to a large magnetic variation, poor recording of a rapidly moving trace, or confusion of multiple traces on a magnetogram. At such times, unless there exist back-up low sensitivity magnetograms from auxiliary systems at that location, the number of contributing stations is reduced. When the H trace is suddenly lost at a critically located station that was supplying either AU or AL, then some other station having the next most extreme H deviation at that instant begins to take the place of the lost data source and becomes the key to the affected index. Although such intervals are not usually noticeable in the graphs of AE variations, they commonly have the effect of producing a large bay-like feature in the affected AU or AL trace. An example of the effect of such data loss may be seen in the AU trace for 21 July 1970 (cf. Report UAG-22) beginning around 1330 UT. These characteristically-shaped spurious events have been dubbed "missing data effects" (mdes), and any suspected mdes in the 1975 graphs can best be checked by reference to the original magnetograms of the critical stations listed in Section II for those times.

Sometimes our technique of selecting a constant quiet-day H reference level for each station-month of data may produce low-amplitude month-end discontinuities in AU or AL. Also, quiet-time departures of station values from their monthly average may produce intervals having elevated AU or AL values but appearing relatively quiet. Such index discontinuities and intervals of higher noise level are considered relatively insignificant compared to the amplitude of substorm effects to be seen in the indices.

In spite of extensive quality control efforts, we expect that some errors will escape notice and be published or otherwise distributed. We request that anyone detecting questionable values in 1975 AE (11-12) or other AE indices please communicate with WDC-A for Solar-Terrestrial Physics concerning this matter. As necessary, corrections will be distributed to the user community on either a case-by-case basis or in future UAG Reports in this series.

3. Acknowledgments

We continue to acknowledge the support, advice and assistance provided by A.H. Shapley and by the many scientist-users of these indices. AE indices are the result of an international cooperative effort involving observatories of six countries, the World Data Center system, and the staff of the National Geophysical and Solar-Terrestrial Data Center. In particular we wish to acknowledge the numerous scientists who have shared with us information concerning their uses of AE indices.

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SECTION II. TABLES

1. Explanation

Table of Monthly Quiet-Time H Reference Values. The monthly quiet-time H reference values are given for each observatory in Table 2. These values are the base from which H deviations were derived and they are computed as the average of all 1.0-min digitized H values from the internationally adopted 5 Quiet Days for each month. The given values are in nanoTesla units and are absolute in the sense that they include the applied scale value and provisional baseline used for each observatory's magnetograms. Although subsequent changes in adopted baselines may shift the reference values slightly, they should not affect the derived indices because the method of derivation eliminates the H baseline provided it is constant for the month.

Tables of Hourly Mean Indices. These tables contain monthly listings of average hourly indices for each day: AE, AL, AU and AO. These hourly values were computed as the mean of the 1.0-min instantaneous values. The first hour of each day covers the data interval from 0000-0059 UT. All times are given in Universal Time and the indices are given in nanoTeslas. AE is always positive and although AU is positive most of the time, it may become negative during the main phase period of large storms when H is depressed globally by an enhanced ring current. Sometimes AU may briefly become negative as a result of missing data effects (See Section I-2). AL is almost always negative, and during most substorm events, it will exceed AU in absolute value. Consequently, AO is usually negative, and it provides a measure of the unequal amplitude of AU and AL effects.

Tables of Observatories Supplying Hourly AU and AL. As described above, the hourly average indices are computed from the 1.0-min instantaneous indices derived for that hour. Each pair of instantaneous values of AU and AL arises from H deviations at only two stations and the station pair contributing these extremes may change from one 1.0-min interval to the next. To associate a single station with values of hourly AU or AL some convention must be adopted as a basis for selection. We have chosen to designate the station having the maximum average H deviation during an hour as the source of hourly AU. Likewise, the station having the most negative H deviation is designated as the source of hourly AL. Within a disturbed hour it is common for one station pair to be the most frequent contributors of AU and AL and also to provide the greatest average deviations in H. There are times, however, when this does not hold. This is the case during an hour that is quiet until near the end or one that has only its first few values disturbed. Here the table will list the stations that provided AU and AL for the short disturbed portion of the hour rather than those stations providing AU and AL for the longer undisturbed portion of the hour. In effect, the listed station pairs are the same stations that would have supplied AU and AL had the indices been derived from hourly scalings of H instead of from averages of 1.0-min values.

These tables serve to illustrate the nonuniform frequency of contribution of AU and AL for different stations of the network. They also illustrate the systematic grouping in Universal Time of the time of most frequent station contribution of AU and AL. Graphs corresponding to these tables are found in Section III-3.

Table 2. Monthly Quiet-Time H Reference Values (Units: Gammas = nT)

Observatory Name	Year	Jan	Feb	Mar	Apr	May	Jun
1. Leirvogur	1975	12300	12301	12305	12310	12316	12327
2. Narssarssuaq	1975	11890	11884	11905	11908	11918	11929
3. Great Whale River	1975	9696	9706	9707	9719	9734	9746
4. Fort Churchill	1975	7273	7271	7296	7294	7292	7300
5. Yellowknife	1975	7572	7541	7569	7578	7577	7581
6. College	1975	13042	13038	13112	13043	13040	13046
7. Barrow	1975						9851
8. Cape Wellen	1975	14248	14248	14251	14254	14251	14254
9. Tixie Bay	1975	7919	7921	7925	7914	7914	7921
10. Cape Chelyuskin	1975	3519	3526	3523	3532	3521	3531
11. Dixon Island	1975	6494	6496	6504	6508	6502	6497
12. Abisko	1975	11816	11812	11816	11819	11821	11825

3. TABLES OF HOURLY AVERAGE AE INDICES

JANUARY 1975 AE INDICES VALUES ARE EXPRESSED IN GAMMAS

	UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
	01	181	138	086	143	133	062	042	099	087	113	064	058	040	078	116	114	174	086	043	047	034	037	037	046	086
Q	02	044	059	073	050	030	025	021	024	028	037	046	028	020	045	112	117	049	048	090	196	116	046	034	028	057
	03	029	021	020	021	025	028	039	040	101	269	141	091	146	236	209	195	100	187	286	189	194	191	085	205	127
D	04	371	295	185	214	285	329	396	405	271	269	335	833	424	606	1210	915	857	417	225	152	249	618	456	357	445
	05	229	259	317	199	272	299	412	486	437	384	347	469	689	204	163	477	542	500	386	312	654	432	239	122	368
	06	274	137	070	127	187	087	075	056	149	075	172	425	613	313	190	401	292	375	802	629	1019	739	815	556	357
D	07	1163	1062	544	324	218	177	410	429	228	282	358	393	387	122	108	073	105	123	045	044	046	024	017	060	281
D	08	049	054	110	172	296	440	175	451	562	442	364	526	461	366	734	691	748	638	541	747	393	121	107	109	387
	09	102	101	058	100	173	220	168	103	220	312	188	169	265	116	163	179	134	227	098	028	041	095	054	028	139
	10	036	085	068	026	041	093	159	053	069	121	211	034	044	027	023	024	024	018	016	025	048	035	028	031	056
Q	11	061	030	051	049	027	028	088	050	087	139	241	161	030	017	018	044	033	039	045	050	041	018	012	031	058
Q	12	043	037	065	056	028	017	019	014	013	022	028	039	028	020	022	023	022	022	077	107	084	046	035	036	038
D	13	084	397	287	170	301	309	278	301	379	490	246	390	197	554	554	207	115	622	877	465	576	396	415	331	373
D	14	349	275	362	429	376	236	151	351	255	318	289	401	559	719	916	600	728	784	811	967	585	512	326	483	491
	15	437	342	266	111	147	140	101	048	096	115	138	194	114	120	134	135	083	195	205	326	461	549	290	430	216
	16	331	077	079	096	076	053	036	087	034	068	106	431	267	594	685	812	340	337	302	411	464	426	596	449	298
	17	370	219	256	233	323	273	280	347	541	401	323	259	605	167	120	251	144	613	416	217	279	708	519	508	349
	18	427	327	182	207	424	274	152	136	093	276	512	262	111	248	605	207	156	124	095	324	351	137	180	095	246
	19	109	191	264	185	119	084	119	096	109	083	176	344	105	072	131	114	049	108	216	130	074	077	100	059	130
	20	080	372	237	126	115	099	081	114	072	051	038	031	042	033	043	042	085	244	383	418	344	260	301	231	160
	21	159	135	049	028	024	017	016	015	038	090	079	070	088	176	231	136	081	231	332	173	029	035	025	024	095
	22	013	025	018	039	038	053	077	061	028	026	032	044	069	056	204	220	221	636	289	063	055	185	265	197	121
	23	200	184	085	074	065	075	102	094	085	070	171	138	116	457	218	098	278	301	173	166	462	199	173	305	179
	24	237	191	244	394	208	051	019	022	072	078	193	282	093	038	021	041	231	305	113	055	168	098	033	023	134
Q	25	022	025	056	048	017	019	026	024	020	026	032	034	034	026	033	039	252	264	053	042	084	027	026	049	053
Q	26	169	325	125	031	017	022	036	026	137	062	051	082	127	191	084	069	123	036	069	076	028	052	037	031	084
	27	028	051	069	058	116	105	172	087	102	337	694	573	379	145	096	109	647	370	360	628	417	125	137	175	249
	28	225	607	307	197	121	068	082	163	208	106	120	158	291	306	228	083	106	058	148	070	116	121	064	061	167
	29	066	068	122	237	137	066	049	051	055	057	122	369	362	103	018	019	030	092	150	150	030	024	038	034	102
	30	069	060	051	047	033	086	168	198	068	156	089	064	048	058	057	087	045	040	111	225	251	349	259	185	117
	31	104	038	031	024	058	078	074	028	020	031	062	414	260	086	029	017	158	745	304	306	612	264	270	088	171
	MEAN	196	200	153	136	143	126	130	144	150	171	193	251	226	203	241	211	224	283	260	250	268	224	193	173	198
5Q	MEAN	068	095	074	047	024	022	038	028	057	057	080	069	048	060	054	058	096	082	067	094	071	038	029	035	057
5D	MEAN	403	417	298	262	295	298	282	387	339	360	318	509	406	473	704	497	511	517	500	475	370	334	264	268	395

FEBRUARY 1975 AE INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	171	204	302	446	602	566	301	190	361	326	486	995	803	691	572	309	525	855	886	315	342	344	352	485	476
02	459	272	368	323	163	147	246	354	110	175	625	467	442	404	455	357	217	348	290	251	375	145	090	066	298
03	095	101	153	291	343	239	229	128	085	081	062	121	076	310	272	186	128	156	232	138	035	044	051	055	150
04	152	047	125	092	119	172	045	025	065	069	029	088	213	348	225	107	177	421	100	033	047	103	175	345	138
05	296	147	233	221	085	085	150	154	199	174	209	482	651	332	080	143	420	743	287	146	222	277	188	135	252
Q 06	160	135	133	106	168	096	045	090	254	200	118	100	040	031	069	113	158	116	173	169	168	129	068	074	121
07	134	080	240	162	149	252	290	189	133	428	364	361	449	360	228	163	539	779	561	174	234	261	309	232	295
Q 08	137	127	148	213	253	187	225	221	251	096	095	170	091	051	051	048	048	028	023	027	034	034	029	063	110
09	105	359	399	233	205	190	148	055	034	032	022	020	015	022	018	065	156	199	129	129	097	175	242	397	144
D 10	452	443	152	216	477	580	496	459	379	204	089	212	430	253	589	453	427	761	237	116	173	954	609	372	397
D 11	405	868	724	315	254	231	300	247	121	118	290	393	388	248	296	725	574	800	657	522	545	948	522	450	456
D 12	380	480	334	318	222	330	551	474	713	339	583	772	402	536	418	184	811	959	536	325	608	652	440	385	490
13	459	403	273	264	205	212	301	166	084	215	203	269	434	412	559	304	184	621	540	455	699	476	297	332	349
14	574	307	345	162	186	225	088	128	437	298	096	570	385	104	076	289	742	403	382	523	521	331	319	414	329
15	358	194	136	076	183	245	242	317	202	099	138	177	308	339	532	281	293	497	317	571	280	244	679	624	306
16	386	323	195	150	135	132	236	444	151	177	416	594	331	160	342	635	737	860	926	386	151	205	315	546	372
17	173	108	084	162	170	174	360	163	227	312	391	277	264	201	248	154	090	420	378	171	094	305	432	333	237
18	345	414	356	224	209	344	397	207	074	059	069	076	288	356	223	276	204	129	242	274	452	494	299	204	259
19	182	084	072	117	220	164	170	172	318	378	427	534	231	052	045	035	031	027	168	281	331	118	255	266	195
Q 20	244	063	058	094	072	051	026	073	248	330	178	038	035	024	020	020	020	018	029	134	241	146	185	204	106
21	191	084	064	121	136	120	096	135	163	142	162	164	100	097	155	192	162	167	271	211	047	035	046	053	130
Q 22	063	153	233	141	059	041	032	027	039	092	098	166	112	173	245	297	202	290	227	098	048	095	102	090	130
D 23	131	281	221	067	107	102	292	150	171	376	499	1436	573	239	562	1003	865	524	190	074	044	070	100	312	350
24	356	352	378	154	086	082	042	035	046	058	056	035	366	451	305	414	565	207	151	214	217	313	195	152	218
25	156	192	348	246	268	594	466	186	323	280	240	322	479	614	256	171	286	106	115	063	078	174	161	226	265
26	180	126	288	225	049	053	043	107	079	101	125	165	166	191	256	067	114	211	190	171	074	035	032	033	128
Q 27	035	026	029	024	057	169	171	087	040	036	032	026	029	030	081	158	045	026	028	032	039	039	054	052	056
28	062	080	084	148	160	058	094	063	275	166	071	034	038	039	079	120	107	062	061	294	295	401	143	152	129
MEAN	244	230	231	190	191	209	217	180	199	191	220	324	291	252	259	260	315	383	297	225	232	270	239	252	246
5Q MEAN	128	101	120	116	122	109	100	100	166	151	104	100	061	062	093	127	095	096	096	092	106	089	088	097	104
5D MEAN	308	455	347	272	332	362	388	304	349	273	389	762	519	393	487	535	640	780	501	270	342	594	405	401	433

MARCH 1975 AE INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	109	378	359	195	129	158	258	822	575	272	411	240	077	136	077	080	403	616	552	573	542	367	155	074	315
02	157	470	312	172	127	241	279	204	222	229	106	129	183	084	088	043	052	163	253	199	289	209	226	142	191
03	255	194	058	055	093	177	079	037	028	048	047	032	103	144	108	178	283	310	242	086	205	348	293	210	151
04	088	132	335	273	212	079	186	256	101	089	132	101	048	096	081	030	027	080	053	040	053	057	121	258	122
05	131	152	295	532	433	503	506	351	457	562	1009	797	432	144	619	731	511	510	400	659	275	133	429	452	459
06	174	102	101	163	214	280	270	562	593	776	488	468	636	296	536	609	764	999	488	120	263	493	188	061	402
Q 07	092	134	071	073	035	036	052	037	038	028	022	023	018	015	023	020	021	017	014	011	016	021	017	023	036
Q 08	025	017	015	017	017	016	014	012	011	012	013	018	023	020	022	025	023	018	011	017	041	027	026	026	019
09	028	024	019	031	063	054	051	024	024	026	028	027	033	027	029	042	042	088	046	055	253	089	219	822	089
D 10	800	1042	864	367	414	345	620	646	596	900	629	833	845	978	774	986	885	770	952	1008	932	515	421	705	743
D 11	550	547	1274	1028	495	430	469	663	596	482	654	669	464	785	556	434	542	474	230	412	292	790	489	563	579
D 12	365	341	316	594	421	270	125	451	578	608	852	559	586	519	484	745	587	364	496	591	804	542	817	615	526
13	342	322	387	218	147	113	166	183	287	378	279	423	275	566	589	432	403	723	1044	626	325	189	775	502	404
14	168	120	119	196	155	443	510	453	309	116	247	466	349	794	679	363	452	472	313	521	516	331	877	386	390
15	288	501	353	191	211	296	346	273	380	281	235	407	628	335	219	503	586	246	374	427	260	461	349	229	349
16	157	201	240	271	200	273	337	254	661	804	460	496	677	604	212	453	602	296	091	062	080	076	087	269	328
17	400	207	320	310	241	081	068	155	342	464	361	272	149	062	073	262	133	069	081	234	167	227	262	661	233
18	563	363	163	060	129	122	258	171	288	305	144	385	420	245	288	466	863	456	578	590	468	461	295	136	342
19	203	164	171	136	104	107	079	202	177	171	232	215	188	292	340	198	126	157	291	253	249	389	384	252	212
20	174	064	061	082	090	340	372	410	330	244	223	411	459	578	554	499	250	560	377	267	268	276	426	221	314
Q 21	159	094	047	033	038	055	061	076	020	020	052	078	046	023	017	021	044	018	023	022	024	027	032	036	044
Q 22	036	034	026	020	027	028	029	037	026	033	039	028	025	029	026	024	028	037	031	025	021	022	046	202	037
23	242	209	215	329	348	469	445	373	374	149	146	434	204	195	087	084	071	075	123	173	069	025	064	042	206
24	051	031	043	038	051	061	053	044	108	221	533	653	611	428	618	703	341	470	132	103	273	156	077	035	243
Q 25	020	080	077	107	062	054	049	169	076	043	069	118	385	159	062	024	051	192	206	061	044	036	046	030	093
26	035	029	053	234	198	094	054	082	094	197	437	703	541	274	169	158	105	125	233	397	406	147	059	176	208
D 27	242	266	282	207	153	159	105	178	268	304	448	413	685	703	1007	1204	1384	1186	861	487	215	165	211	416	481
D 28	218	134	160	138	361	393	382	650	681	298	542	841	584	874	490	617	508	348	572	672	482	424	598	141	463
29	098	166	337	419	224	300	793	433	516	541	552	790	594	428	412	343	319	832	312	172	135	187	119	131	381
30	346	174	172	211	096	082	112	210	173	140	178	360	238	110	113	045	056	039	136	125	195	297	144	336	170
31	460	518	525	484	261	159	203	168	158	043	041	160	260	418	205	149	356	223	407	458	057	044	053	152	248
MEAN	225	233	251	232	185	201	236	277	293	283	310	373	347	334	308	338	349	353	320	305	265	243	268	268	283
5Q MEAN	066	072	047	050	036	038	041	066	034	027	039	053	099	049	030	023	033	056	057	027	029	027	033	063	045
5D MEAN	435	466	579	467	369	319	340	518	544	518	625	663	633	772	662	797	781	628	622	634	545	487	507	488	558

APRIL 1975 AE INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	183	126	040	032	054	034	104	331	277	208	164	137	086	061	117	061	137	234	071	060	059	082	072	054	116
02	060	075	084	069	029	036	041	043	037	033	036	040	040	031	024	031	040	046	075	086	095	206	192	087	064
03	195	290	201	155	043	039	047	120	144	070	056	053	042	034	105	148	085	031	065	093	212	238	086	074	109
04	056	149	186	248	096	029	038	041	190	271	140	088	069	185	116	121	117	079	098	090	354	435	199	360	156
05	332	241	101	090	038	031	041	147	183	135	054	073	033	030	020	039	089	419	494	210	192	314	318	182	159
06	154	252	136	122	080	148	138	121	266	301	240	167	181	136	174	391	265	100	046	044	118	652	263	104	192
07	136	112	064	048	085	067	122	086	047	057	073	493	729	183	043	083	076	199	768	668	597	687	462	517	267
D 08	339	296	311	341	163	267	373	407	340	625	433	263	715	565	907	884	700	727	602	808	390	097	062	091	446
D 09	338	617	858	786	817	677	624	523	477	553	650	459	543	571	523	547	533	1500	701	976	748	884	857	616	682
D 10	448	388	758	906	776	446	323	346	424	628	378	627	463	200	071	165	252	492	733	291	138	518	768	314	452
D 11	231	720	530	333	545	548	510	317	366	631	651	1042	991	332	315	624	414	290	429	308	165	225	438	443	475
12	276	203	217	154	194	215	474	232	228	756	735	648	371	318	336	590	401	297	396	237	132	693	1045	675	409
D 13	817	753	450	303	355	251	349	861	347	126	199	157	230	226	452	120	074	068	146	388	366	455	647	581	363
14	393	677	580	562	576	427	390	082	059	180	248	188	208	256	297	248	264	181	188	355	283	166	245	236	304
15	117	137	160	062	107	102	046	053	092	088	133	234	136	108	209	224	205	385	260	157	214	158	145	198	155
16	318	309	133	182	115	063	071	092	161	067	144	182	080	031	025	043	082	132	181	111	114	045	036	039	115
Q 17	045	066	114	070	036	046	040	040	061	216	168	084	108	059	029	045	182	258	073	029	023	029	030	035	079
18	034	027	031	038	053	044	036	049	056	039	068	197	408	219	176	146	098	116	317	234	135	086	112	274	125
Q 19	269	159	114	065	169	198	099	054	101	217	181	128	294	146	156	079	050	054	032	028	049	030	037	046	115
20	038	034	037	035	029	040	034	059	148	279	344	165	083	374	331	453	518	984	904	1117	1177	1065	712	510	395
21	477	442	529	158	057	049	040	040	058	063	125	159	131	161	207	589	345	219	562	287	055	074	086	043	207
22	188	300	132	064	164	430	404	318	239	090	089	046	048	199	231	121	104	223	426	290	302	271	591	259	230
23	193	479	398	184	226	295	378	263	481	285	1045	342	215	140	112	334	809	355	371	240	439	448	307	254	358
24	594	427	311	318	204	171	290	416	145	179	693	220	133	080	144	179	276	293	235	265	478	316	249	228	285
25	179	191	072	131	273	131	075	081	170	207	100	040	061	108	219	181	159	092	075	049	039	052	054	216	123
26	582	315	098	095	056	040	040	039	049	084	106	195	155	081	093	096	099	221	323	130	142	196	159	071	144
Q 27	081	044	071	208	415	193	071	040	041	059	177	088	086	052	056	053	037	040	048	045	044	049	056	070	089
Q 28	064	185	098	049	041	047	052	061	047	041	039	032	031	024	016	015	031	025	045	051	038	047	074	052	050
Q 29	048	051	036	035	040	044	048	045	053	063	166	065	049	030	017	022	029	055	078	037	032	031	037	047	048
30	043	042	045	045	055	049	094	105	349	308	189	066	049	037	087	121	074	057	042	069	082	086	212	165	103
MEAN	241	270	230	196	196	172	180	180	188	229	261	223	226	166	187	225	218	272	293	258	240	288	285	228	227
5Q MEAN	101	101	087	085	140	106	062	048	061	119	146	079	114	062	055	043	066	086	055	038	037	037	047	050	076
5D MEAN	435	555	581	534	531	438	436	491	391	513	462	510	588	379	454	468	395	615	522	554	361	436	554	409	403

MAY 1975 AE INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	064	043	039	033	064	091	106	136	222	196	112	085	113	195	294	238	162	176	277	291	168	166	097	170	147
02	265	185	142	176	194	311	197	427	443	500	198	171	342	483	459	449	513	436	518	564	557	240	535	586	370
03	479	477	610	840	708	505	557	433	201	142	181	555	515	700	529	187	065	120	162	274	267	222	289	489	396
04	441	262	282	130	140	443	277	350	292	156	187	177	313	185	055	085	086	156	333	237	217	382	583	657	268
D 05	700	566	609	622	523	236	223	796	505	533	512	309	217	236	273	168	077	462	751	552	734	785	741	612	489
D 06	826	500	562	987	735	301	292	571	661	630	309	361	347	286	347	267	609	377	438	418	396	663	446	393	488
D 07	338	309	217	146	102	117	106	350	356	265	422	460	490	419	915	884	499	220	514	249	101	138	439	330	349
08	364	229	390	223	312	234	410	261	280	228	191	233	266	149	093	127	158	241	329	478	572	575	490	348	299
09	270	399	518	210	106	065	246	366	198	285	447	189	227	360	347	426	200	162	332	419	295	362	386	815	318
10	423	373	685	1008	668	442	510	445	489	294	203	204	562	307	205	219	138	172	164	252	360	399	250	071	368
Q 11	050	050	057	081	070	072	064	036	037	073	063	037	041	046	026	039	055	034	051	064	058	033	027	027	050
Q 12	028	030	040	050	064	105	086	073	049	050	049	039	031	023	023	031	040	045	035	038	046	040	039	040	046
13	038	043	051	081	062	043	057	049	056	117	150	199	059	048	033	026	026	050	069	293	329	459	531	458	139
14	423	313	467	567	445	425	357	327	220	325	614	693	500	279	186	167	140	154	155	272	224	289	190	073	325
Q 15	047	056	097	090	072	152	235	143	074	063	056	038	049	066	078	135	077	084	075	045	046	032	032	038	078
D 16	041	053	068	206	395	296	371	999	762	430	156	159	798	476	251	156	158	330	239	125	089	155	515	468	321
17	346	190	157	160	345	447	322	108	503	592	370	214	234	585	286	135	189	265	099	078	045	045	049	060	243
18	106	120	157	292	331	269	224	239	283	191	217	115	176	197	200	120	075	088	147	316	101	183	203	242	191
19	337	522	485	388	232	510	280	311	325	269	172	044	041	030	042	035	041	041	040	106	315	324	108	073	211
D 20	118	293	247	472	384	376	769	464	650	975	181	082	113	052	126	224	353	133	086	073	041	041	073	081	267
21	092	229	272	197	186	304	110	123	210	174	122	374	339	381	154	072	051	066	069	271	395	344	169	144	202
22	167	146	053	032	132	329	249	387	317	353	572	346	266	344	351	129	088	231	192	093	087	080	261	372	232
23	114	053	037	034	052	268	378	237	153	353	258	277	091	036	035	084	062	133	291	355	180	062	055	077	153
24	091	061	083	063	062	055	172	203	080	110	149	211	089	045	057	043	065	077	064	062	055	093	236	230	102
25	188	268	280	239	076	080	073	065	079	173	193	125	144	151	193	200	161	365	629	728	817	879	720	670	312
26	626	564	709	501	695	554	396	499	446	208	285	363	100	038	036	042	072	061	069	047	063	054	045	042	271
27	045	053	055	056	091	149	137	247	147	139	228	210	244	233	231	172	166	176	254	279	326	191	103	078	167
Q 28	094	081	118	151	113	085	032	029	051	045	059	052	041	034	024	083	073	057	148	089	044	050	051	049	069
29	061	240	299	310	180	153	450	568	442	478	233	067	055	047	037	146	321	657	331	270	378	391	119	135	265
30	252	099	059	038	046	234	389	291	208	193	129	150	190	213	266	114	053	043	078	066	082	113	184	160	151
Q 31	099	115	086	074	036	034	045	031	035	036	046	046	050	094	137	123	066	090	123	165	172	158	154	103	088
MEAN	243	223	256	273	246	248	261	309	283	277	228	212	227	217	203	172	156	184	228	244	244	256	262	261	238
5Q MEAN	064	066	080	089	071	090	092	062	049	053	055	042	042	053	058	082	062	062	086	080	073	063	061	051	066
5D MEAN	405	344	341	487	428	265	352	636	587	567	316	274	393	294	382	340	339	304	406	283	272	356	443	377	382

JUNE 1975 AE INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	314	215	114	086	046	098	178	138	137	139	229	261	397	541	303	373	397	299	602	289	166	314	260	487	266
D 02	597	502	503	518	940	579	179	490	839	632	149	169	173	386	440	441	561	387	240	283	332	581	297	242	436
03	272	233	231	121	132	243	368	422	448	323	274	268	506	533	307	150	179	106	195	346	233	197	222	442	281
04	336	365	467	213	271	458	383	374	298	219	195	198	161	097	248	228	299	235	130	148	272	361	203	289	269
05	500	341	185	197	278	104	055	216	140	082	091	268	098	214	255	327	223	383	550	235	216	345	309	151	240
06	197	333	512	459	331	350	207	156	314	209	101	088	103	122	365	373	263	309	425	193	077	133	175	213	250
07	294	173	096	145	199	206	314	339	448	156	114	098	048	048	042	075	065	047	059	081	266	378	121	079	162
Q 08	075	076	077	062	067	078	162	137	115	122	147	129	119	223	249	161	048	046	033	038	077	110	168	155	111
09	078	083	192	402	176	072	054	096	079	175	188	112	112	069	058	029	059	078	070	047	044	078	073	062	104
Q 10	086	188	144	138	106	065	061	082	138	152	140	177	217	206	226	223	178	156	115	112	135	127	190	228	150
11	314	279	221	163	223	440	545	519	535	749	602	465	241	158	124	092	057	075	213	094	150	145	195	173	282
D 12	172	308	311	468	203	072	142	328	260	287	572	487	672	521	225	103	241	807	572	449	187	385	417	215	350
13	213	519	252	127	332	571	294	167	317	307	300	421	532	476	416	149	081	207	458	436	220	193	180	175	306
14	127	112	136	130	133	190	416	472	361	401	295	217	311	375	235	158	135	131	341	274	133	063	054	081	220
15	074	136	192	132	149	321	286	335	376	664	348	129	051	086	190	529	607	560	493	100	232	441	487	326	302
16	526	337	379	491	373	289	457	343	398	635	827	565	240	304	482	579	302	442	382	197	143	243	516	213	403
17	129	148	171	143	069	074	242	199	328	553	370	224	500	171	198	197	360	135	193	258	297	419	350	411	256
18	561	463	440	366	579	553	451	159	046	086	125	153	250	177	304	431	230	166	279	168	248	112	067	149	273
19	271	301	250	179	134	187	418	492	466	414	334	364	540	282	210	230	146	160	277	371	154	171	339	269	290
20	098	150	175	099	043	057	097	102	160	123	118	193	267	117	072	064	071	080	090	227	277	219	146	120	132
21	102	079	406	483	167	055	050	144	395	484	307	151	177	145	118	152	236	524	435	170	213	443	304	407	256
22	218	196	140	137	176	156	139	191	371	315	289	268	191	166	090	051	043	040	050	096	162	127	056	090	157
Q 23	095	052	064	072	160	156	087	055	042	037	041	078	128	102	059	068	106	048	091	101	048	120	138	081	085
Q 24	057	068	149	049	027	026	045	073	091	131	129	085	047	040	035	030	025	037	050	056	052	054	061	057	061
25	069	065	059	049	056	062	060	077	092	073	073	127	102	159	180	239	247	124	127	232	296	345	384	335	151
26	335	374	335	199	413	168	134	131	229	180	082	157	285	178	075	092	117	055	054	081	106	061	063	055	165
Q 27	060	071	068	074	088	137	104	057	053	063	056	055	054	048	049	087	060	083	077	056	068	106	137	140	077
28	147	093	042	039	036	038	153	340	204	161	141	157	298	176	125	095	049	042	043	045	045	046	081	078	111
D 29	087	085	175	138	109	189	330	095	106	084	089	080	076	126	309	519	792	425	227	640	942	675	357	448	296
D 30	555	675	626	417	451	225	196	514	452	297	563	379	257	127	131	172	282	292	429	304	237	441	589	335	373
31																									
MEAN	232	234	237	210	216	207	220	241	275	275	243	217	238	212	204	214	215	216	243	204	201	248	231	217	227
5Q MEAN	075	091	100	079	090	092	092	081	088	101	103	105	113	124	124	114	083	074	073	073	076	103	139	132	096
5D MEAN	345	357	346	325	350	233	205	313	359	288	320	275	315	340	282	322	455	442	414	393	373	479	384	345	344

4. TABLES OF HOURLY AVERAGE AL INDICES

JANUARY 1975 AL INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-133	-048	-009	-093	-087	-025	-010	-031	-042	-082	-038	-020	-014	-041	-070	-060	-120	-041	-017	-030	-019	-018	-023	-027	-046
Q 02	-021	-029	-035	-016	-005	-001	-004	-007	-009	-016	-029	-013	-007	-024	-077	-081	-021	-019	-068	-161	-084	-011	-005	-004	-031
03	-014	-004	-002	-002	-002	-002	-003	-007	-060	-183	-096	-053	-115	-175	-103	-091	-039	-149	-234	-114	-090	-092	-021	-138	-075
D 04	-251	-214	-142	-172	-248	-243	-243	-221	-104	-140	-187	-579	-301	-505	-957	-718	-711	-252	-083	-070	-162	-486	-341	-276	-317
05	-122	-164	-236	-108	-137	-193	-223	-350	-309	-272	-223	-360	-540	-107	-102	-379	-445	-384	-273	-238	-519	-344	-136	-080	-260
06	-217	-101	-037	-086	-148	-037	-034	-023	-101	-047	-116	-340	-439	-196	-128	-346	-235	-291	-658	-535	-794	-503	-609	-448	-270
D 07	-851	-837	-462	-274	-117	-041	-247	-211	-086	-155	-245	-283	-286	-071	-045	-034	-091	-098	-025	-029	-034	-016	-012	-024	-191
D 08	-010	-016	-059	-132	-252	-335	-134	-223	-375	-191	-216	-386	-279	-245	-538	-539	-479	-435	-394	-619	-303	-053	-066	-069	-265
09	-040	-043	-022	-066	-135	-181	-111	-070	-164	-237	-130	-114	-171	-068	-109	-114	-114	-206	-086	-014	-023	-075	-044	-013	-098
10	-024	-079	-066	-015	-022	-067	-148	-031	-044	-065	-176	-016	-021	-008	-008	-015	-017	-014	-012	-018	-040	-024	-019	-021	-040
Q 11	-048	-020	-042	-043	-018	-019	-077	-037	-061	-104	-176	-094	-015	-007	-008	-026	-020	-027	-036	-042	-034	-009	-005	-017	-041
Q 12	-039	-028	-048	-040	-018	-003	-010	-004	-002	000	-002	-009	-010	-009	-011	-013	-012	-009	-059	-080	-041	-001	-003	-005	-019
D 13	-026	-349	-198	-090	-215	-215	-101	-134	-190	-258	-086	-187	-078	-361	-377	-082	-048	-417	-652	-284	-412	-213	-251	-166	-225
D 14	-130	-082	-291	-333	-223	-153	-072	-224	-145	-193	-181	-263	-387	-546	-740	-398	-483	-611	-612	-781	-439	-403	-237	-378	-346
15	-365	-233	-146	-024	-079	-039	-010	-007	-037	-042	-049	-120	-039	-039	-077	-053	-026	-077	-067	-184	-380	-433	-156	-343	-126
16	-218	-026	-030	-048	-022	-007	004	-019	-004	-021	-047	-338	-206	-484	-509	-534	-172	-162	-197	-271	-328	-250	-443	-317	-194
17	-216	-074	-127	-158	-233	-149	-180	-223	-387	-287	-240	-162	-483	-076	-062	-172	-075	-448	-332	-148	-202	-529	-398	-386	-239
18	-338	-162	-060	-102	-289	-197	-074	-082	-036	-187	-410	-180	-040	-180	-489	-106	-098	-060	-067	-226	-236	-073	-123	-048	-161
19	-069	-132	-195	-107	-066	-017	-063	-046	-021	-015	-102	-233	-014	-023	-090	-056	-017	-082	-185	-097	-043	-046	-065	-012	-075
20	-037	-309	-170	-060	-063	-031	-041	-064	-020	-022	-011	-004	-006	-008	-010	-010	-063	-215	-321	-325	-265	-125	-201	-090	-103
21	-057	-037	-002	-004	-004	-003	-005	-002	-024	-063	-040	-041	-042	-112	-151	-068	-048	-181	-292	-127	-007	-011	-009	-009	-056
22	-005	-010	-003	-017	-020	-040	-063	-043	-001	-006	-007	-008	-019	-020	-134	-077	-143	-454	-157	-034	-018	-101	-203	-101	-070
23	-070	-023	003	-016	-021	-035	-071	-064	-047	-028	-101	-087	-066	-321	-108	-040	-220	-234	-127	-106	-374	-116	-099	-212	-108
24	-149	-110	-207	-372	-143	-013	003	-003	-014	-019	-132	-229	-050	-013	-006	-014	-197	-252	-084	-040	-134	-085	-009	-004	-095
Q 25	-005	-006	-037	-027	-002	-005	-014	-014	-005	-009	-010	-008	-003	-001	-003	-009	-216	-231	-026	-016	-057	-008	-004	-023	-031
Q 26	-104	-219	-023	006	003	001	-010	-007	-113	-031	-020	-053	-073	-119	-039	-026	-089	-014	-051	-055	-002	-023	-011	-002	-045
27	-004	-015	-032	-017	-081	-071	-150	-027	-031	-205	-371	-260	-149	-029	-041	-049	-426	-260	-216	-458	-210	-017	-047	-083	-135
28	-172	-447	-172	-065	-012	-025	-040	-111	-159	-057	-046	-087	-193	-141	-089	-013	-087	-044	-115	-039	-058	-061	-015	-008	-094
29	-011	-012	-052	-133	-038	-003	000	-002	-003	-003	-070	-266	-239	-052	-005	-005	-007	-047	-096	-118	-009	-002	-015	-010	-050
30	-034	-027	-013	002	-004	-070	-149	-155	-033	-063	-023	-008	-003	-018	-017	-051	-012	-015	-081	-192	-187	-274	-199	-122	-073
31	-046	-010	-007	-003	-037	-069	-060	000	-001	-003	-021	-316	-186	-045	-010	-003	-075	-519	-175	-195	-502	-146	-171	-051	-110
MEAN	-123	-125	-094	-084	-088	-074	-075	-079	-085	-097	-116	-165	-144	-130	-165	-135	-155	-202	-187	-182	-194	-147	-127	-112	-129
5Q MEAN	-043	-060	-037	-024	-008	-005	-023	-014	-038	-032	-047	-035	-022	-032	-028	-031	-072	-060	-048	-071	-044	-010	-006	-010	-033
5D MEAN	-254	-300	-230	-200	-211	-197	-159	-203	-180	-187	-183	-340	-266	-346	-531	-354	-362	-363	-353	-357	-270	-234	-181	-183	-268

FEBRUARY 1975 AL INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	-064	-125	-230	-366	-439	-375	-147	-107	-256	-203	-334	-891	-679	-511	-410	-206	-413	-697	-701	-231	-239	-277	-264	-370	-356
02	-343	-197	-290	-243	-051	-091	-155	-225	-017	-086	-448	-331	-337	-305	-370	-277	-158	-282	-232	-174	-300	-089	-050	-031	-212
03	-055	-064	-097	-247	-235	-116	-148	-066	-015	-028	-014	-081	-050	-225	-175	-114	-084	-117	-188	-105	-012	-015	-020	-025	-096
04	-123	-024	-095	-058	-083	-151	-005	000	-042	-046	-010	-041	-169	-277	-157	-073	-143	-374	-058	-003	-018	-033	-104	-272	-098
05	-211	-086	-157	-157	-033	-039	-113	-120	-138	-121	-138	-398	-518	-221	-037	-091	-333	-587	-211	-087	-132	-222	-100	-081	-180
Q 06	-112	-095	-086	-061	-120	-021	-002	-066	-204	-158	-069	-053	-009	-002	-029	-065	-067	-069	-130	-108	-101	-086	-026	-030	-074
07	-097	-037	-192	-107	-096	-199	-174	-086	-044	-281	-280	-247	-284	-257	-167	-114	-447	-594	-388	-089	-119	-173	-182	-150	-200
Q 08	-079	-064	-078	-167	-190	-125	-168	-128	-156	-047	-063	-151	-075	-035	-032	-038	-023	-011	-004	-006	-010	-014	-003	-017	-070
09	-041	-282	-285	-083	-104	-131	-104	-014	-003	-003	-004	-006	-005	-008	-003	-032	-116	-146	-058	-070	-013	-081	-155	-308	-086
D 10	-205	-241	-067	-149	-274	-358	-300	-253	-117	-029	000	-094	-301	-145	-488	-344	-311	-592	-134	-050	-090	-829	-453	-245	-253
D 11	-243	-705	-507	-195	-202	-130	-151	-092	-039	-038	-166	-253	-282	-140	-232	-479	-410	-553	-511	-387	-400	-783	-429	-315	-318
D 12	-252	-372	-213	-231	-127	-159	-341	-277	-394	-139	-379	-551	-277	-417	-330	-092	-644	-792	-329	-165	-426	-480	-295	-262	-331
13	-344	-337	-198	-172	-133	-105	-207	-076	-011	-114	-094	-167	-339	-312	-437	-204	-121	-483	-437	-322	-545	-368	-184	-224	-247
14	-435	-210	-207	-059	-114	-134	-026	-054	-312	-200	-027	-433	-301	-041	-026	-176	-524	-271	-255	-403	-422	-213	-226	-302	-224
15	-260	-115	-046	-022	-127	-204	-137	-221	-084	-015	-053	-114	-220	-273	-460	-205	-184	-372	-209	-399	-147	-128	-524	-490	-209
16	-263	-184	-066	-034	-036	-065	-142	-261	-061	-085	-258	-480	-213	-076	-256	-500	-499	-646	-733	-221	-055	-124	-203	-446	-246
17	-106	-055	-031	-081	-105	-088	-206	-046	-095	-225	-306	-138	-175	-128	-190	-077	-040	-320	-307	-115	-052	-208	-341	-249	-154
18	-225	-291	-272	-112	-104	-226	-261	-092	-025	-017	-031	-028	-197	-227	-135	-210	-119	-056	-155	-212	-328	-366	-161	-083	-164
19	-089	-004	-008	-016	-172	-109	-109	-081	-138	-229	-277	-286	-141	-024	-003	-007	-005	-003	-122	-205	-259	-051	-182	-206	-114
Q 20	-196	-020	-020	-041	-022	-007	-003	-039	-150	-215	-117	-001	-002	002	003	000	-003	000	-006	-096	-176	-091	-125	-113	-060
21	-076	-009	-011	-047	-102	-081	-041	-048	-108	-047	-064	-058	-036	-044	-072	-096	-096	-089	-194	-157	-007	000	-010	-013	-063
Q 22	-026	-100	-169	-088	000	000	-001	000	-012	-064	-043	-106	-063	-086	-170	-228	-148	-219	-154	-056	-010	-026	-038	-034	-077
D 23	-049	-182	-127	-007	-022	-048	-248	-089	-048	-252	-422	-1131	-387	-107	-339	-739	-614	-354	-096	-034	-012	-027	-058	-257	-235
24	-282	-271	-311	-092	-046	-046	-009	-009	-016	-020	-024	-016	-296	-375	-219	-288	-440	-137	-066	-114	-144	-247	-106	-078	-152
25	-102	-119	-276	-192	-207	-460	-346	-082	-210	-182	-186	-260	-414	-494	-168	-115	-238	-061	-058	-024	-017	-067	-090	-147	-188
26	-096	-053	-158	-145	-009	-012	-018	-079	-042	-038	-050	-092	-103	-136	-190	-023	-087	-176	-161	-147	-051	-011	-006	-005	-079
Q 27	-005	-001	-005	-001	-022	-159	-155	-057	-016	-013	-013	-005	-003	-008	-040	-106	-011	-007	-006	-004	-014	-008	-011	-016	-029
28	-031	-045	-045	-102	-118	-028	-060	-038	-255	-134	-043	-009	-008	-010	-038	-098	-076	-025	-012	-165	-215	-297	-070	-077	-083
MEAN	-158	-153	-152	-117	-118	-131	-135	-097	-107	-108	-140	-229	-210	-174	-185	-178	-227	-287	-211	-148	-154	-190	-158	-173	-164
SQ MEAN	-084	-056	-072	-072	-071	-062	-066	-058	-108	-099	-061	-063	-030	-026	-054	-087	-050	-061	-060	-054	-062	-045	-041	-042	-061
SD MEAN	-163	-325	-229	-190	-213	-214	-237	-164	-171	-132	-260	-584	-385	-264	-360	-372	-478	-598	-354	-173	-233	-479	-300	-290	-298

MARCH 1975 AL INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-068	-271	-330	-149	-087	-115	-191	-688	-471	-221	-278	-144	-017	-066	-043	-053	-352	-516	-397	-413	-406	-238	-075	-030	-234
02	-106	-384	-244	-114	-073	-207	-237	-178	-160	-149	-063	-092	-152	-059	-061	-016	-029	-123	-221	-161	-249	-156	-171	-090	-146
03	-213	-167	-035	-029	-053	-161	-043	-010	-013	-035	-035	-013	-070	-085	-047	-126	-232	-265	-199	-057	-101	-288	-232	-146	-111
04	-039	-083	-266	-206	-148	-039	-147	-215	-071	-036	-078	-052	-017	-055	-047	-011	-014	-065	-023	-020	-024	-020	-067	-165	-080
05	-074	-062	-196	-472	-386	-264	-314	-145	-302	-377	-785	-600	-279	-086	-537	-563	-347	-330	-251	-537	-134	-065	-326	-346	-324
06	-087	-028	-050	-126	-174	-214	-185	-409	-459	-583	-344	-335	-485	-196	-434	-508	-520	-719	-304	-074	-188	-424	-146	-015	-292
Q 07	-065	-115	-061	-066	-022	-022	-040	-028	-031	-016	-014	-010	-009	-008	-011	-011	-011	-006	-004	-002	-001	-008	-008	-011	-024
Q 08	-010	-008	-005	-006	-006	-006	-003	-002	-002	-004	-005	-009	-014	-012	-010	-011	-010	-005	-004	-003	-024	-012	-014	-014	-008
09	-017	-014	-008	-013	-026	-015	-014	-009	-009	-014	-015	-017	-018	-016	-010	-015	-017	-060	-024	-030	-194	-044	-153	-721	-061
D 10	-750	-860	-648	-220	-232	-254	-293	-306	-320	-614	-474	-551	-573	-747	-525	-626	-699	-556	-773	-918	-796	-500	-435	-706	-557
D 11	-538	-409	-1014	-869	-345	-283	-335	-428	-465	-328	-455	-558	-359	-649	-373	-305	-380	-362	-153	-261	-186	-602	-371	-426	-436
D 12	-262	-286	-283	-512	-275	-140	-058	-345	-430	-426	-689	-404	-461	-389	-349	-489	-417	-190	-301	-427	-617	-397	-684	-587	-392
13	-286	-312	-319	-118	-108	-044	-099	-132	-180	-247	-200	-359	-207	-438	-472	-301	-288	-514	-850	-460	-211	-124	-622	-439	-305
14	-123	-075	-098	-183	-106	-381	-389	-340	-155	-066	-151	-366	-254	-657	-497	-265	-294	-337	-194	-392	-395	-233	-693	-271	-288
15	-183	-394	-263	-098	-170	-228	-257	-184	-232	-182	-144	-279	-494	-264	-141	-347	-461	-171	-243	-322	-200	-361	-248	-129	-250
16	-086	-124	-181	-206	-161	-212	-261	-140	-479	-622	-329	-327	-501	-383	-121	-336	-422	-167	-046	-024	-037	-031	-050	-182	-226
17	-302	-121	-213	-247	-184	-040	-018	-086	-181	-313	-243	-157	-068	-038	-041	-209	-073	-024	-040	-196	-119	-160	-184	-530	-158
18	-448	-219	-055	-019	-098	-103	-240	-112	-166	-185	-052	-253	-315	-164	-187	-335	-615	-261	-330	-385	-322	-289	-214	-054	-226
19	-139	-087	-070	-063	-053	-030	-046	-156	-109	-072	-100	-114	-117	-141	-239	-116	-074	-082	-165	-131	-143	-270	-307	-177	-125
20	-068	-020	-017	-039	-052	-234	-263	-203	-115	-080	-098	-297	-343	-420	-401	-315	-128	-391	-237	-131	-162	-205	-333	-159	-196
Q 21	-115	-060	-011	-013	-016	-029	-051	-061	-008	-009	-030	-042	-020	-012	-010	-012	-037	-012	-007	-005	-009	-012	-018	-023	-026
Q 22	-021	-020	-014	-011	-014	-018	-018	-019	-014	-010	-019	-012	-013	-014	-014	-011	-015	-015	-008	-002	000	000	-009	-136	-018
23	-161	-129	-144	-246	-219	-188	-138	-158	-242	-073	-064	-333	-141	-132	-054	-037	-043	-047	-095	-124	-038	001	-009	-011	-118
24	-031	-015	-012	-012	-009	-010	-013	-012	-033	-114	-349	-400	-417	-241	-358	-450	-210	-332	-060	-044	-217	-110	-043	-008	-146
Q 25	000	-030	-032	-049	-039	-014	001	-098	-032	-014	-025	-068	-304	-111	-054	-014	-014	-150	-176	-041	-018	-017	-032	-006	-056
26	-009	-015	-030	-196	-162	-030	-009	-019	-040	-063	-229	-480	-309	-170	-128	-126	-083	-081	-117	-279	-317	-087	-024	-107	-130
D 27	-167	-192	-183	-141	-089	-122	-078	-136	-173	-185	-336	-276	-551	-597	-891	-880	-1155	-1112	-623	-285	-103	-088	-158	-336	-369
D 28	-163	-085	-113	-093	-335	-288	-283	-447	-506	-208	-456	-709	-465	-685	-376	-495	-394	-267	-401	-540	-368	-353	-498	-088	-359
29	-058	-103	-259	-362	-176	-210	-645	-344	-362	-422	-387	-628	-467	-312	-355	-268	-249	-647	-219	-096	-098	-133	-056	-088	-289
30	-279	-134	-128	-168	-070	-064	-090	-171	-130	-089	-095	-283	-194	-069	-063	-018	-030	-019	-078	-080	-104	-201	-096	-244	-121
31	-364	-416	-470	-422	-194	-101	-138	-125	-098	-012	-014	-088	-171	-326	-165	-093	-282	-130	-230	-338	-013	-015	-026	-086	-180
MEAN	-169	-169	-186	-176	-132	-131	-158	-184	-193	-186	-211	-266	-252	-243	-226	-237	-255	-257	-218	-219	-187	-176	-203	-204	-202
5Q MEAN	-042	-047	-025	-029	-019	-018	-022	-042	-017	-011	-019	-028	-072	-031	-020	-012	-017	-038	-040	-011	-010	-010	-016	-038	-026
5D MEAN	-376	-366	-448	-367	-255	-217	-209	-332	-379	-352	-482	-500	-482	-613	-503	-559	-609	-497	-450	-486	-414	-388	-429	-429	-422

APRIL 1975 AL INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-189	-090	-025	-019	-041	-020	-073	-263	-237	-129	-111	-090	-057	-030	-091	-031	-101	-172	-031	-033	-028	-043	-030	-031	-082
02	-043	-056	-068	-056	-010	-019	-027	-031	-028	-023	-027	-030	-028	-023	-023	-024	-027	-028	-050	-054	-055	-128	-128	-033	-042
03	-122	-247	-156	-108	-024	-019	-027	-103	-102	-033	-022	-021	-030	-021	-060	-104	-060	-016	-033	-045	-138	-166	-038	-040	-072
04	-030	-124	-130	-227	-089	-008	-023	-021	-128	-171	-043	-018	-028	-098	-050	-078	-085	-042	-068	-040	-240	-327	-107	-247	-101
05	-293	-183	-040	-047	-021	-023	-030	-124	-128	-083	-019	-022	-021	-018	-015	-018	-046	-279	-285	-115	-075	-200	-208	-102	-100
06	-072	-226	-096	-080	-068	-131	-096	-067	-135	-149	-092	-061	-088	-071	-093	-264	-192	-067	-014	-006	-028	-473	-152	-031	-115
07	-065	-077	-022	-033	-053	-022	-085	-052	-022	-020	-026	-355	-510	-070	-004	-023	-028	-066	-515	-470	-354	-545	-409	-350	-174
D 08	-247	-258	-224	-206	-101	-182	-290	-327	-203	-476	-270	-094	-537	-440	-611	-592	-388	-436	-359	-503	-253	-039	-022	-058	-297
D 09	-294	-562	-732	-526	-651	-433	-422	-263	-309	-353	-439	-295	-387	-426	-393	-394	-332	-1290	-476	-692	-509	-633	-705	-485	-500
D 10	-450	-294	-574	-749	-596	-215	-152	-237	-298	-455	-274	-452	-310	-069	-022	-090	-181	-262	-502	-187	-058	-355	-658	-194	-318
D 11	-119	-661	-446	-264	-435	-455	-410	-196	-251	-441	-507	-887	-746	-182	-222	-475	-267	-150	-257	-187	-077	-138	-296	-326	-350
12	-170	-106	-125	-107	-145	-129	-359	-171	-132	-542	-495	-393	-199	-242	-257	-459	-286	-172	-280	-154	-066	-532	-898	-607	-293
D 13	-781	-637	-266	-202	-285	-193	-250	-664	-242	-027	-106	-088	-132	-148	-353	-050	-024	-014	-062	-208	-234	-307	-487	-459	-259
14	-291	-583	-539	-551	-444	-333	-331	-048	-022	-083	-172	-111	-123	-163	-212	-188	-154	-095	-104	-230	-200	-075	-171	-177	-225
15	-073	-071	-124	-034	-081	-087	-027	-029	-048	-033	-067	-180	-085	-067	-171	-186	-127	-269	-164	-067	-112	-078	-076	-125	-099
16	-203	-195	-063	-105	-090	-022	-054	-061	-095	-025	-085	-097	-040	-017	-014	-023	-053	-095	-133	-068	-075	-022	-021	-019	-070
Q 17	-022	-041	-086	-050	-019	-022	-024	-021	-042	-160	-130	-043	-046	-021	-009	-013	-104	-167	-027	003	000	-008	-010	-012	-045
18	-013	-008	-010	-014	-020	-017	-019	-029	-036	-026	-034	-089	-263	-146	-105	-111	-071	-066	-209	-136	-083	-047	-058	-169	-074
Q 19	-143	-060	-023	-010	-136	-186	-084	-027	-047	-121	-116	-044	-172	-064	-068	-040	-016	-008	-003	-004	-027	-008	-013	-016	-060
20	-013	-010	-012	-012	-012	-018	-015	-032	-076	-159	-203	-093	-023	-233	-244	-308	-298	-631	-593	-767	-1002	-752	-461	-395	-265
21	-353	-357	-464	-110	-023	-012	-010	-009	-018	-016	-050	-040	-031	-088	-164	-430	-217	-116	-411	-188	-017	-032	-039	-018	-134
22	-117	-236	-085	-039	-127	-352	-316	-243	-164	-047	-043	-013	-018	-124	-173	-080	-071	-173	-314	-177	-200	-165	-439	-171	-162
23	-102	-376	-321	-117	-163	-241	-279	-171	-304	-135	-815	-238	-124	-088	-068	-232	-570	-173	-228	-091	-294	-291	-214	-189	-243
24	-486	-366	-252	-275	-159	-116	-214	-307	-095	-099	-519	-121	-068	-046	-098	-131	-228	-189	-118	-173	-350	-217	-134	-146	-204
25	-132	-137	-033	-078	-250	-101	-034	-054	-096	-125	-067	-017	-020	-054	-145	-139	-107	-038	-032	-017	-014	-024	-020	-114	-077
26	-458	-225	-038	-067	-037	-021	-023	-023	-031	-048	-050	-149	-116	-054	-062	-064	-042	-149	-239	-059	-066	-123	-106	-028	-095
Q 27	-029	-022	-033	-152	-380	-151	-041	-023	-020	-022	-109	-042	-033	-028	-028	-032	-013	-014	-011	-014	-017	-020	-023	-042	-054
Q 28	-028	-141	-066	-017	-015	-023	-035	-038	-027	-025	-021	-017	-008	-006	-002	-003	-015	-013	-023	-017	-008	-007	-017	-014	-024
Q 29	-018	-026	-019	-018	-022	-022	-023	-021	-031	-027	-114	-032	-021	-012	-004	-007	-009	-025	-046	-011	-008	-008	-011	-018	-023
30	-018	-018	-022	-020	-025	-021	-074	-070	-242	-186	-107	-036	-018	-006	-033	-066	-033	-017	-012	-024	-036	-032	-107	-082	-054
MEAN	-179	-213	-170	-143	-151	-120	-128	-124	-120	-141	-171	-139	-143	-102	-126	-155	-138	-174	-187	-158	-154	-193	-202	-157	-154
5Q MEAN	-048	-058	-045	-049	-114	-081	-041	-026	-033	-071	-098	-036	-056	-026	-022	-019	-031	-045	-022	-009	-012	-010	-015	-020	-041
5D MEAN	-378	-482	-448	-389	-414	-296	-305	-337	-261	-350	-319	-363	-422	-253	-320	-320	-238	-430	-331	-355	-226	-294	-434	-304	-344

MAY 1975 AL INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-012	-010	-012	-011	-029	-053	-071	-083	-110	-069	-025	-026	-050	-107	-181	-152	-080	-078	-136	-125	-070	-082	-031	-101	-071
02	-189	-088	-053	-079	-123	-248	-110	-316	-303	-343	-092	-075	-218	-331	-292	-304	-326	-224	-298	-343	-406	-137	-358	-413	-236
03	-278	-269	-501	-710	-525	-350	-378	-270	-106	-073	-066	-295	-311	-505	-383	-116	-022	-053	-084	-161	-165	-118	-160	-311	-259
04	-300	-149	-214	-071	-081	-371	-194	-233	-198	-069	-085	-086	-189	-099	-008	-033	-059	-090	-219	-142	-102	-192	-344	-462	-166
D 05	-585	-372	-423	-497	-323	-094	-110	-517	-305	-323	-263	-146	-075	-132	-194	-105	-032	-251	-549	-358	-466	-480	-529	-419	-315
D 06	-610	-385	-431	-641	-529	-177	-155	-381	-452	-391	-195	-216	-214	-181	-227	-180	-448	-245	-310	-288	-256	-464	-321	-240	-331
D 07	-229	-227	-133	-100	-066	-089	-056	-221	-248	-147	-252	-287	-368	-280	-621	-630	-314	-099	-329	-151	-049	-057	-301	-223	-228
08	-283	-133	-313	-166	-282	-213	-370	-197	-181	-128	-085	-123	-178	-087	-040	-095	-110	-161	-184	-316	-331	-373	-312	-252	-205
09	-136	-290	-391	-123	-040	-044	-164	-280	-123	-156	-302	-115	-134	-253	-227	-283	-106	-063	-170	-302	-188	-237	-270	-629	-209
10	-265	-212	-505	-813	-470	-273	-317	-279	-378	-202	-110	-127	-424	-213	-125	-146	-070	-091	-086	-111	-209	-250	-161	-025	-244
Q 11	-019	-027	-030	-058	-050	-042	-026	-019	-017	-050	-040	-022	-015	-010	-012	-021	-037	-013	-023	-030	-033	-012	-009	-012	-026
Q 12	-015	-016	-020	-022	-031	-091	-071	-064	-038	-034	-032	-024	-015	-008	-007	-008	-013	-012	-012	-011	-020	-018	-018	-019	-026
13	-017	-014	-014	-038	-026	-012	-018	-029	-017	-027	-046	-104	-023	-011	-010	-011	-006	-008	-009	-156	-144	-278	-322	-238	-066
14	-265	-200	-294	-381	-287	-199	-164	-148	-090	-115	-362	-397	-306	-179	-113	-115	-072	-082	-075	-125	-111	-163	-100	-024	-182
Q 15	-011	-026	-060	-053	-043	-137	-201	-110	-047	-040	-031	-026	-018	-022	-041	-090	-041	-052	-044	-015	-020	-012	-010	-014	-049
D 16	-016	-020	-022	-107	-307	-202	-148	-585	-476	-217	-050	-051	-566	-339	-137	-060	-079	-142	-110	-020	-016	-048	-320	-329	-182
17	-199	-111	-077	-089	-245	-236	-229	-040	-322	-480	-275	-128	-154	-440	-175	-064	-134	-191	-053	-039	-009	-007	-012	-015	-155
18	-045	-070	-100	-251	-297	-229	-164	-153	-200	-110	-090	-055	-096	-121	-151	-081	-021	-028	-078	-230	-035	-097	-117	-135	-123
19	-202	-388	-363	-253	-156	-383	-201	-146	-149	-155	-088	-011	-016	-007	-013	000	-006	-006	-002	-012	-166	-215	-045	-004	-124
D 20	-037	-115	-138	-296	-195	-173	-540	-305	-378	-582	-099	-031	-076	-033	-090	-155	-241	-071	-018	-023	-009	-012	-032	-037	-154
21	-039	-181	-275	-169	-163	-270	-072	-073	-135	-096	-042	-250	-239	-237	-058	-011	-013	-031	-026	-133	-272	-219	-087	-094	-133
22	-104	-100	-023	-015	-083	-307	-192	-251	-156	-208	-385	-269	-180	-218	-253	-049	-033	-154	-126	-040	-033	-020	-138	-262	-150
23	-063	-021	-018	-017	-022	-204	-284	-165	-085	-189	-176	-185	-039	-002	-006	-052	-026	-089	-183	-233	-107	-012	-017	-027	-093
24	-047	-030	-046	-033	-035	-028	-120	-167	-055	-024	-061	-121	-041	-002	-010	-017	-029	-036	-025	-025	-019	-030	-142	-120	-053
25	-092	-169	-211	-168	-015	-031	-050	-047	-026	-084	-100	-049	-051	-068	-114	-106	-080	-216	-370	-446	-491	-607	-462	-447	-188
26	-437	-400	-466	-358	-532	-419	-280	-336	-274	-080	-144	-242	-029	012	004	-004	-019	-022	-020	-014	-018	-012	-006	-009	-171
27	-014	-023	-021	-017	-034	-127	-098	-161	-053	-034	-109	-117	-144	-134	-128	-101	-082	-096	-137	-141	-150	-062	-032	-019	-085
Q 28	-034	-030	-055	-103	-085	-059	-015	-015	-021	-026	-030	-029	-025	-021	-009	-042	-030	-025	-097	-050	-024	-025	-027	-025	-038
29	-024	-123	-191	-216	-152	-102	-291	-395	-250	-279	-109	-019	-010	-013	-006	-074	-163	-405	-147	-099	-220	-247	-060	-059	-152
30	-151	-045	-031	-014	-018	-178	-285	-212	-127	-110	-072	-068	-108	-131	-160	-072	-022	-009	-053	-028	-026	-046	-094	-054	-088
Q 31	-034	-050	-042	-021	-009	-013	-025	-012	-014	-014	-022	-024	-014	-049	-083	-070	-030	-045	-069	-099	-093	-089	-075	-036	-043
MEAN	-153	-139	-177	-190	-169	-173	-174	-200	-172	-157	-124	-120	-140	-136	-125	-105	-089	-100	-130	-138	-137	-149	-158	-163	-147
5Q MEAN	-023	-030	-041	-051	-044	-068	-068	-044	-027	-033	-031	-025	-017	-022	-030	-046	-030	-029	-049	-041	-038	-031	-028	-021	-036
5D MEAN	-295	-224	-229	-328	-284	-147	-202	-402	-372	-332	-172	-146	-260	-193	-254	-226	-223	-162	-263	-168	-159	-212	-301	-250	-241

JUNE 1975 AL INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	-211	-144	-062	-045	-019	-052	-101	-069	-035	-053	-101	-128	-208	-396	-211	-234	-182	-116	-352	-098	-035	-117	-122	-285	-141
D 02	-413	-308	-342	-256	-482	-389	-086	-309	-567	-409	-058	-087	-108	-262	-338	-295	-371	-259	-136	-167	-175	-371	-187	-144	-272
03	-166	-140	-141	-070	-078	-119	-261	-326	-311	-198	-166	-173	-383	-389	-224	-118	-118	-058	-098	-186	-102	-093	-124	-318	-182
04	-237	-250	-333	-147	-154	-367	-248	-192	-183	-125	-104	-112	-103	-055	-195	-156	-201	-124	-053	-066	-158	-217	-110	-177	-169
05	-452	-254	-141	-118	-164	-053	-017	-092	-052	-024	-031	-173	-055	-141	-162	-270	-148	-274	-383	-100	-097	-302	-285	-087	-161
06	-163	-250	-331	-312	-172	-157	-105	-055	-133	-069	-018	-027	-042	-060	-275	-281	-190	-198	-272	-095	-024	-065	-089	-189	-149
07	-175	-077	-040	-076	-145	-131	-189	-228	-286	-084	-039	-047	-024	-019	-023	-024	-026	-021	-031	-039	-164	-254	-062	-032	-093
Q 08	-034	-041	-032	-031	-035	-030	-072	-070	-043	-052	-073	-052	-064	-165	-195	-109	-016	-007	-012	-022	-040	-055	-084	-080	-059
09	-038	-037	-082	-298	-106	-030	-024	-041	-026	-095	-114	-059	-056	-024	-042	-010	-027	-045	-044	-024	-025	-036	-032	-030	-056
Q 10	-042	-118	-083	-079	-059	-028	-026	-023	-070	-098	-066	-089	-119	-101	-146	-182	-093	-082	-054	-048	-059	-055	-101	-114	-081
11	-192	-157	-121	-063	-092	-190	-279	-249	-297	-445	-337	-214	-106	-090	-065	-040	-009	-024	-101	-018	-036	-034	-068	-060	-137
D 12	-080	-223	-271	-406	-168	-036	-045	-168	-106	-148	-295	-275	-472	-389	-124	-027	-087	-512	-372	-250	-058	-176	-276	-129	-212
13	-133	-376	-148	-056	-171	-371	-198	-096	-194	-174	-177	-260	-385	-354	-300	-069	-038	-093	-303	-299	-112	-077	-073	-107	-190
14	-069	-069	-081	-088	-088	-113	-283	-367	-267	-248	-183	-115	-187	-261	-161	-106	-089	-065	-220	-172	-069	-017	-017	-030	-140
15	-027	-059	-131	-081	-084	-240	-171	-200	-200	-439	-237	-074	-014	-032	-113	-386	-436	-420	-355	-041	-096	-269	-338	-186	-193
16	-338	-166	-220	-296	-193	-120	-307	-217	-205	-380	-505	-348	-159	-178	-343	-428	-204	-309	-252	-105	-057	-131	-338	-132	-247
17	-048	-075	-108	-087	-032	-029	-165	-122	-198	-351	-276	-137	-334	-106	-122	-124	-270	-074	-105	-143	-149	-295	-212	-255	-159
18	-379	-298	-296	-234	-404	-401	-338	-090	-013	-016	-067	-079	-165	-103	-210	-321	-138	-066	-179	-081	-159	-050	-030	-073	-175
19	-187	-225	-174	-123	-069	-101	-286	-324	-321	-299	-208	-227	-399	-188	-135	-181	-102	-092	-155	-246	-088	-086	-222	-153	-191
20	-037	-074	-110	-060	-017	-022	-055	-064	-102	-075	-061	-083	-149	-054	-032	-033	-039	-034	-036	-105	-142	-105	-068	-043	-067
21	-049	-038	-274	-331	-110	-027	-021	-063	-244	-331	-180	-088	-086	-054	-027	-051	-127	-384	-272	-046	-077	-313	-177	-282	-152
22	-123	-097	-042	-046	-076	-076	-058	-092	-256	-204	-171	-144	-082	-102	-063	-025	-012	-011	-009	-032	-084	-075	-029	-042	-081
Q 23	-056	-021	-025	-020	-100	-094	-042	-029	-023	-022	-018	-025	-069	-052	-036	-035	-076	-022	-034	-077	-019	-068	-073	-025	-044
Q 24	-032	-051	-142	-039	-014	-014	-017	-019	-023	-032	-023	-013	-006	-014	-012	-008	000	-003	-006	-012	-022	-029	-034	-030	-025
25	-029	-028	-025	-016	-017	-020	-019	-021	-031	-024	-025	-050	-043	-104	-099	-151	-194	-069	-041	-094	-129	-207	-200	-190	-076
26	-188	-243	-208	-090	-285	-092	-043	-051	-157	-116	-029	-063	-171	-104	-027	-045	-082	-020	-015	-030	-050	-022	-024	-021	-091
Q 27	-023	-025	-023	-018	-032	-098	-078	-030	-024	-033	-026	-024	-020	-018	-017	-054	-041	-041	-040	-022	-038	-055	-067	-065	-038
28	-067	-040	-021	-019	-007	-007	-061	-247	-145	-103	-075	-075	-201	-093	-063	-052	-024	-016	-013	-014	-015	-020	-029	-018	-059
D 29	-026	-024	-068	-063	-036	-097	-237	-045	-024	-024	-029	-028	-022	-045	-181	-401	-482	-269	-077	-372	-586	-397	-229	-228	-166
D 30	-363	-462	-409	-225	-238	-145	-103	-347	-310	-181	-354	-258	-176	-075	-072	-119	-191	-183	-270	-163	-106	-240	-417	-183	-233
31																									
MEAN	-146	-146	-149	-126	-122	-122	-131	-142	-162	-162	-135	-118	-147	-134	-134	-145	-134	-130	-143	-106	-099	-141	-137	-124	-135
5Q MEAN	-037	-051	-061	-037	-048	-053	-047	-034	-037	-047	-041	-041	-056	-070	-081	-078	-045	-031	-029	-036	-036	-052	-072	-063	-049
5D MEAN	-219	-232	-230	-199	-189	-144	-114	-188	-208	-163	-167	-155	-197	-233	-185	-215	-263	-268	-241	-210	-192	-260	-246	-194	-204

TABLES OF HOURLY AVERAGE AU INDICES

JANUARY 1975 AU INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	048	089	077	050	045	037	031	068	044	031	026	038	026	037	045	054	054	045	026	016	014	019	014	019	040
Q 02	023	029	038	034	025	023	017	016	018	020	017	014	012	021	034	036	028	028	022	034	031	035	028	024	025
03	015	016	017	019	022	025	035	032	040	085	045	037	030	060	105	104	061	037	052	074	103	098	064	067	052
D 04	120	080	042	041	036	086	153	183	166	128	148	254	122	101	253	197	146	164	142	082	087	131	115	081	127
05	107	095	081	091	135	106	188	135	128	112	124	109	149	096	060	098	096	115	112	073	135	088	102	042	107
06	056	035	033	041	039	049	040	033	047	027	056	085	173	117	061	055	056	084	144	094	224	235	206	108	087
D 07	312	225	082	049	100	136	162	218	142	127	113	110	100	050	063	039	014	025	019	014	012	007	004	036	090
D 08	038	038	050	040	043	104	041	228	187	250	148	140	182	121	196	152	269	203	147	127	089	067	040	039	122
09	062	057	036	033	038	039	056	033	055	075	058	055	093	047	053	064	020	021	012	013	018	019	009	014	041
10	012	006	001	011	018	025	010	022	024	056	035	017	022	018	015	009	007	004	004	006	007	010	008	009	015
Q 11	013	010	009	005	008	009	011	013	026	035	065	067	014	010	009	017	012	011	008	007	006	009	007	013	016
Q 12	004	008	016	015	010	013	009	009	010	021	025	030	017	010	010	009	010	013	018	027	042	044	032	030	018
D 13	058	048	088	079	086	093	176	167	189	232	160	202	119	193	176	124	066	204	224	180	164	183	163	165	147
D 14	218	192	070	096	153	082	078	126	109	125	108	138	171	172	176	202	245	173	199	185	145	108	089	105	144
15	072	108	119	087	068	100	090	040	059	073	089	074	074	081	056	082	056	118	137	141	080	115	134	087	089
16	112	050	049	047	054	046	041	068	029	046	059	093	060	110	175	278	167	174	104	139	135	176	153	131	104
17	153	144	129	074	090	124	100	124	154	114	082	096	121	091	057	078	068	165	083	069	076	179	121	121	109
18	088	164	121	105	134	077	077	053	056	089	101	081	070	068	115	100	058	063	027	097	114	063	057	047	084
19	039	058	068	077	053	066	055	050	087	068	073	111	091	048	041	057	032	026	031	032	030	030	035	046	054
20	042	063	067	066	052	067	039	050	051	029	027	027	035	025	032	032	021	029	061	092	079	135	100	141	057
21	102	097	046	024	020	013	011	012	014	027	038	029	045	064	080	067	032	050	039	046	022	024	016	015	039
22	007	015	014	021	018	013	013	018	027	020	025	035	050	036	069	142	077	181	132	029	037	084	061	096	051
23	129	160	089	058	043	039	030	030	037	042	069	050	050	136	109	057	058	066	046	059	087	082	074	093	071
24	087	081	036	022	065	038	022	019	058	059	061	053	042	025	014	026	034	053	028	015	033	012	023	018	039
Q 25	016	018	019	021	015	014	011	009	015	016	022	026	031	025	029	030	035	032	027	025	026	019	022	025	022
Q 26	065	105	102	038	020	024	025	019	024	030	030	029	054	072	045	042	033	022	017	020	025	028	025	028	038
27	024	035	036	040	034	034	022	060	071	131	322	313	230	115	054	060	220	109	143	169	206	107	089	092	113
28	053	159	135	132	109	042	042	052	049	048	073	070	097	165	138	070	019	014	033	031	057	060	049	052	073
29	055	055	070	103	098	062	049	048	052	054	051	103	123	050	012	013	022	045	054	031	021	021	023	024	052
30	034	033	038	049	028	015	018	043	034	093	065	055	044	040	040	036	033	024	030	033	064	074	059	063	044
31	058	028	024	021	021	008	013	028	019	027	041	098	073	041	019	014	083	225	129	110	109	117	098	036	060
MEAN	072	074	058	051	054	052	054	065	065	074	076	085	081	072	076	076	069	081	073	067	073	077	065	060	069
5Q MEAN	024	034	037	023	016	017	015	013	019	024	032	033	026	028	025	027	024	021	018	023	026	027	023	024	024
5D MEAN	149	117	066	061	084	100	122	184	159	172	135	169	139	127	173	143	148	154	146	118	099	099	082	085	126

FEBRUARY 1975 AU INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	106	079	071	080	162	191	154	082	105	123	152	104	123	180	161	103	112	158	185	083	102	067	088	115	120
02	115	074	078	080	112	055	091	129	093	088	176	136	105	098	085	079	058	065	058	076	075	055	039	034	086
03	039	037	055	043	107	123	080	062	070	053	047	039	025	085	096	071	043	038	044	032	022	028	031	030	054
04	029	022	030	033	035	020	040	024	022	022	019	046	044	071	068	033	034	047	042	030	029	070	071	073	040
05	085	061	075	064	052	045	036	034	060	053	071	083	132	111	043	051	086	156	076	059	090	054	087	053	072
Q 06	047	039	047	045	048	075	042	024	049	041	048	047	030	028	040	047	090	046	043	061	067	042	042	044	047
07	036	043	048	054	053	053	116	102	088	146	083	113	165	102	061	048	092	184	172	085	115	087	127	081	094
Q 08	058	062	069	045	062	062	057	093	094	048	031	019	016	015	018	010	024	016	019	021	024	019	026	046	040
09	064	077	113	150	101	058	043	040	031	028	017	014	010	013	014	033	040	052	071	059	083	094	086	088	057
D 10	246	202	084	067	203	221	196	206	261	174	089	117	129	107	100	108	115	168	102	065	082	124	155	126	144
D 11	161	163	217	120	052	100	148	154	081	080	124	139	106	107	064	246	164	246	145	135	144	165	093	135	137
D 12	127	107	120	086	095	171	209	196	319	200	204	220	124	118	087	092	166	166	207	159	181	172	144	122	158
13	114	065	074	091	071	106	093	089	073	101	109	102	094	099	122	100	062	137	102	132	154	107	113	108	101
14	138	097	137	102	072	091	062	074	125	098	069	136	083	062	050	112	217	131	126	120	098	117	092	112	105
15	097	078	090	053	055	040	104	096	118	083	085	062	088	066	072	076	109	124	107	171	132	115	155	134	096
16	122	138	129	115	098	067	093	182	090	091	158	114	117	083	085	134	237	213	193	165	095	081	112	099	125
17	066	052	053	081	065	085	154	116	132	086	085	139	088	073	057	077	050	099	070	055	042	096	090	083	083
18	119	122	084	112	105	117	135	115	049	042	038	047	091	129	088	065	084	072	086	062	123	127	138	121	095
19	092	080	064	101	047	055	060	090	179	148	149	248	090	027	041	027	025	023	046	075	071	067	072	059	081
Q 20	048	043	037	053	050	043	022	033	098	114	061	037	032	026	024	020	017	018	023	037	065	055	059	090	046
21	115	075	052	074	033	039	054	086	055	095	097	106	063	052	082	095	065	078	077	054	039	035	036	039	067
Q 22	036	053	063	053	059	042	030	027	027	027	055	059	048	086	074	068	054	071	073	042	038	069	064	056	053
D 23	082	099	093	059	084	054	043	061	123	123	076	304	185	132	222	264	251	170	093	040	031	042	041	055	114
24	073	080	066	061	040	036	032	026	029	037	031	018	070	075	085	125	125	070	084	100	072	066	088	073	065
25	053	072	071	054	060	134	120	104	113	098	054	061	065	120	087	055	047	045	057	039	061	107	071	078	076
26	083	073	130	079	040	040	024	027	036	062	075	072	062	055	066	043	026	034	028	023	022	023	025	028	049
Q 27	030	024	024	022	034	010	016	030	024	023	019	021	025	022	040	052	034	018	021	028	024	030	043	036	027
28	031	034	039	046	041	030	033	024	020	032	027	024	030	029	041	021	031	036	048	128	079	103	073	075	045
MEAN	086	077	079	072	073	077	082	083	092	083	080	094	080	078	074	081	088	096	086	076	077	079	081	078	081
5Q MEAN	044	044	048	044	051	046	033	041	058	051	043	037	030	035	039	039	044	034	036	038	044	043	047	054	042
5D MEAN	144	130	117	082	119	147	150	140	178	140	129	177	133	129	127	163	162	182	146	096	108	114	104	111	134

MARCH 1975 AU INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	040	106	029	046	042	042	066	133	103	051	133	096	059	069	033	026	051	100	155	159	136	129	079	044	080
02	051	085	068	058	053	033	042	025	061	079	043	037	031	024	027	026	022	040	032	038	039	053	055	051	045
03	041	027	023	026	039	016	036	026	014	013	011	019	033	059	060	051	050	045	042	029	103	059	061	063	039
04	048	049	069	067	064	040	039	041	029	053	053	049	030	041	034	018	013	015	029	020	029	036	053	093	042
05	057	090	098	060	046	239	191	205	154	184	224	197	152	058	082	167	164	180	149	121	141	067	103	106	135
06	087	074	051	037	040	066	084	153	134	193	143	132	151	100	101	100	244	279	184	046	075	069	042	046	110
Q 07	026	019	010	007	012	013	012	009	006	012	007	013	008	007	011	009	010	010	009	008	014	013	009	012	011
Q 08	014	008	010	010	011	010	010	009	009	007	007	008	009	008	011	013	013	013	007	013	017	015	012	011	011
09	010	010	010	018	037	038	037	015	015	012	012	009	014	010	018	026	024	027	021	025	059	044	065	100	027
D 10	049	181	216	147	182	091	327	340	275	285	155	281	272	230	248	359	185	213	178	089	135	014	-014	000	185
D 11	012	137	259	159	149	146	134	235	130	153	198	111	104	135	183	129	161	111	076	151	106	188	117	136	143
D 12	103	054	032	081	146	130	067	105	148	181	163	155	124	130	134	256	169	174	194	163	187	145	132	027	133
13	055	009	068	100	039	068	067	050	106	131	078	064	068	128	117	131	115	209	193	165	113	065	152	062	098
14	044	044	021	012	048	061	120	113	154	050	096	099	094	137	181	097	158	134	118	129	121	097	184	115	101
15	104	106	090	093	041	068	088	089	147	098	091	127	133	071	078	156	125	074	130	104	060	099	101	100	099
16	071	077	059	065	038	060	076	114	181	182	130	168	175	220	091	117	180	128	044	038	043	045	036	087	101
17	098	086	106	063	056	041	050	068	160	150	117	114	080	024	031	053	060	044	040	038	048	066	077	130	075
18	115	144	108	040	031	019	017	059	121	119	092	132	105	080	101	130	248	195	248	205	145	172	081	081	116
19	064	077	100	073	050	076	033	046	068	098	131	100	070	151	101	082	052	075	125	122	106	118	076	074	086
20	105	044	044	043	038	105	108	207	215	163	124	114	116	157	152	183	121	168	140	136	106	071	093	061	117
Q 21	043	033	036	019	022	025	009	014	011	011	021	035	025	011	006	008	006	005	016	016	015	014	013	013	018
Q 22	014	014	012	009	013	010	010	018	012	023	020	016	012	015	011	012	013	021	023	022	021	022	036	066	019
23	081	079	070	082	129	281	306	214	132	076	081	100	062	062	033	046	028	027	027	048	030	026	054	030	088
24	020	015	031	026	041	050	040	031	075	107	183	252	193	187	260	253	130	138	072	059	055	046	033	026	097
Q 25	020	049	044	057	023	040	051	070	043	028	044	049	080	047	008	010	037	042	029	020	025	019	014	024	036
26	026	014	023	038	035	064	044	062	054	134	207	222	231	103	041	031	021	044	115	117	088	059	035	068	078
D 27	075	074	098	065	063	037	027	042	094	118	112	137	133	106	115	323	228	073	237	201	112	076	052	079	112
D 28	054	049	046	045	025	104	099	203	175	089	086	132	118	188	113	121	114	080	171	131	114	070	100	053	103
29	040	063	078	057	047	090	148	088	154	118	165	161	127	116	057	075	070	184	093	076	037	053	063	042	092
30	067	040	044	042	026	017	021	038	043	050	083	077	044	040	049	026	026	020	057	044	090	095	047	091	049
31	095	101	055	061	067	057	064	042	060	030	027	071	088	091	039	055	074	092	176	119	044	028	027	066	068
MEAN	056	063	065	055	053	069	078	092	099	097	098	106	095	090	081	100	094	095	101	086	078	067	064	063	081
5Q MEAN	023	025	022	020	016	020	018	024	016	016	020	024	027	018	009	010	016	018	017	016	018	017	017	025	018
5D MEAN	059	099	130	099	113	102	131	185	164	165	143	163	150	158	159	238	171	130	171	147	131	099	077	059	135

APRIL 1975 AU INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-005	036	015	013	013	013	031	067	040	078	052	046	029	030	026	029	035	061	040	027	030	039	041	022	034
02	017	018	016	013	018	016	013	011	008	009	008	010	011	008	001	006	013	017	024	032	040	077	064	055	021
03	073	042	045	047	019	019	019	016	041	037	033	032	012	012	045	044	024	014	032	048	073	072	047	034	037
04	026	024	056	021	006	021	015	019	062	099	097	070	040	086	066	043	031	036	030	049	114	108	092	113	055
05	038	058	060	042	017	008	011	022	055	052	034	050	011	011	004	021	043	140	208	095	116	113	110	080	058
06	081	026	040	042	012	016	041	054	131	152	147	105	092	065	080	127	073	033	032	038	090	179	110	073	077
07	070	035	041	014	031	044	036	033	025	036	047	137	219	113	038	060	048	132	252	198	243	142	053	166	092
D 08	092	038	086	134	062	084	083	079	137	148	163	168	177	125	295	291	311	291	243	304	136	058	039	033	149
D 09	044	054	126	259	165	243	202	260	168	200	210	163	155	145	130	153	200	210	224	283	239	251	151	131	182
D 10	-001	094	184	157	179	231	171	108	125	173	104	174	152	131	049	075	071	229	231	104	079	163	110	119	134
D 11	111	059	084	069	109	093	100	121	115	189	144	154	244	150	093	149	146	140	171	120	088	086	141	117	125
12	105	097	092	046	049	085	114	061	096	214	240	255	172	076	079	131	114	125	116	082	066	160	147	067	116
D 13	035	116	183	100	070	058	098	197	104	099	093	069	097	077	099	069	049	054	084	180	132	147	159	122	104
14	101	094	040	010	131	093	059	034	036	096	076	076	085	093	085	059	110	086	083	125	082	091	073	059	078
15	044	066	035	027	025	014	019	023	043	054	065	053	051	040	038	037	078	116	096	090	102	080	069	072	056
16	115	114	070	077	024	041	016	030	065	042	059	085	040	014	010	020	029	036	047	042	039	022	014	020	045
Q 17	022	025	027	019	016	023	016	018	018	055	037	040	062	038	020	031	078	091	046	032	023	021	020	023	033
18	021	018	021	024	032	027	016	020	019	012	033	107	145	072	071	034	026	049	107	097	051	039	054	105	050
Q 19	125	099	091	054	033	012	015	026	053	095	064	084	122	081	088	039	034	046	028	023	022	022	023	029	055
20	025	024	024	023	016	022	018	026	071	120	141	072	060	140	087	145	219	352	311	349	174	312	251	115	129
21	124	084	064	048	034	037	029	030	039	047	075	119	100	072	042	159	128	102	150	098	037	041	046	024	072
22	071	063	046	024	036	077	088	075	075	043	045	032	029	075	057	041	033	049	111	113	102	106	152	087	068
23	091	103	076	067	062	054	099	091	177	150	230	103	090	052	043	102	239	181	143	148	144	156	093	065	115
24	107	061	058	042	044	054	076	109	049	080	174	099	064	033	046	047	048	103	116	092	127	099	115	081	080
25	047	054	039	052	022	030	041	026	074	082	032	022	041	053	073	041	051	053	042	031	025	028	033	101	046
26	123	089	060	028	018	019	016	015	018	035	055	045	038	027	030	031	057	072	084	071	076	072	053	042	049
Q 27	051	022	037	056	034	042	030	016	020	036	067	046	053	024	028	021	024	026	036	030	027	029	032	027	034
Q 28	036	044	031	032	026	024	017	022	019	015	017	014	022	017	013	012	016	011	022	033	029	040	057	037	025
Q 29	030	024	017	016	017	021	025	024	022	036	052	033	027	018	013	015	020	029	032	025	024	022	026	029	025
30	024	023	023	024	029	028	020	035	106	121	081	030	030	031	053	055	041	039	030	045	046	054	105	082	048
MEAN	061	057	060	053	045	052	051	056	067	087	089	083	082	064	060	070	080	097	106	100	086	094	083	071	073
Q MEAN	053	043	041	035	025	024	021	021	026	047	047	043	057	036	032	024	034	041	033	029	025	027	032	029	034
D MEAN	056	072	133	144	117	142	131	153	130	162	143	146	165	126	133	147	155	185	191	198	135	141	120	104	138

MAY 1975 AU INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	052	033	026	021	034	038	034	053	111	126	086	059	062	087	112	086	081	097	141	165	098	083	066	069	076
02	076	096	088	096	070	063	086	111	139	156	106	096	124	151	167	145	186	212	220	220	150	102	176	172	134
03	200	207	108	130	182	155	178	163	095	069	114	260	204	195	145	070	042	067	077	113	101	104	129	177	137
04	140	113	068	058	058	071	083	117	093	086	101	090	124	085	046	052	027	065	114	095	114	190	238	194	101
D 05	115	194	185	124	200	142	112	278	200	209	248	162	142	104	079	062	045	211	202	193	268	305	212	192	174
D 06	216	115	131	345	205	123	136	189	209	238	113	144	133	104	119	087	161	132	127	130	139	198	125	152	157
D 07	109	081	083	045	035	027	050	129	108	117	169	173	121	138	293	254	184	120	184	098	052	081	138	107	121
08	080	095	076	057	030	021	039	064	098	099	106	109	088	061	053	031	047	079	144	161	240	201	177	095	094
09	133	109	126	086	066	021	082	086	075	128	144	073	092	106	119	143	094	098	162	116	106	125	116	185	108
10	158	161	180	194	198	168	192	165	111	091	092	076	138	094	080	073	067	081	078	141	150	149	088	045	124
Q 11	031	022	026	023	020	029	038	016	019	022	022	015	025	035	014	017	017	021	028	033	024	020	017	014	023
Q 12	012	014	020	028	033	013	014	008	010	015	016	014	015	015	015	022	027	032	022	026	026	021	021	021	019
13	020	028	037	043	035	030	038	020	038	089	103	094	035	036	023	015	019	042	059	136	184	181	208	220	072
14	157	112	173	185	158	225	193	178	130	209	252	295	193	100	073	051	067	071	080	147	112	125	090	048	143
Q 15	036	030	037	037	028	015	034	032	026	022	024	011	031	043	036	045	035	032	031	029	025	020	021	024	029
D 16	025	033	045	099	087	093	223	414	286	212	105	108	231	137	113	096	078	187	129	105	073	107	194	138	138
17	146	079	080	071	099	210	093	068	180	111	094	086	080	144	111	071	055	073	046	038	036	038	036	045	087
18	061	050	057	041	034	039	059	086	082	081	126	060	080	076	048	039	053	059	069	085	066	085	085	106	068
19	135	133	121	134	075	126	079	164	175	113	084	032	025	022	029	035	035	035	037	093	148	108	062	069	086
D 20	081	178	108	175	188	203	229	159	272	393	081	051	036	018	036	068	112	062	067	050	032	029	041	043	113
21	052	047	-002	027	022	033	037	049	075	077	080	124	099	143	096	061	037	034	043	138	122	125	081	049	069
22	063	045	030	016	049	021	057	135	161	145	186	076	085	125	097	080	054	077	065	053	053	060	123	109	082
23	050	031	018	017	029	063	093	071	067	164	081	092	052	033	029	032	035	044	107	122	073	050	038	049	060
24	044	030	036	029	027	026	052	035	024	085	088	089	047	042	046	026	035	041	039	037	035	063	094	109	049
25	096	098	068	071	060	049	023	017	053	088	093	075	092	082	079	094	081	148	259	282	326	271	258	222	124
26	189	164	243	143	162	135	116	162	172	128	141	121	070	051	040	038	052	038	048	033	044	042	038	033	100
27	031	030	033	039	057	022	039	086	094	104	119	092	099	099	103	070	083	079	117	137	176	128	071	059	082
Q 28	060	050	063	047	027	026	017	013	030	018	028	023	016	013	014	040	042	032	051	039	020	024	023	024	031
29	036	116	108	093	027	051	158	173	192	198	123	048	045	034	030	071	157	251	184	170	158	143	059	075	113
30	100	054	027	024	028	056	084	079	080	082	056	082	081	082	106	041	031	034	024	037	056	066	090	106	063
Q 31	064	064	043	053	027	020	019	019	021	022	024	022	035	045	053	053	035	045	054	066	078	068	079	067	045
MEAN	089	084	079	082	076	075	087	108	111	119	103	092	087	081	078	067	067	084	097	106	106	107	103	097	091
5Q MEAN	041	036	038	038	027	021	024	018	021	020	023	017	024	030	026	035	031	032	037	039	035	031	032	030	029
5D MEAN	109	120	110	158	143	118	150	234	215	234	143	128	133	100	128	113	116	142	142	115	113	144	142	126	140

JUNE 1975 AU INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	102	070	052	041	027	046	077	068	101	086	127	133	188	144	092	138	214	182	249	190	130	196	138	202	125
D 02	184	194	161	261	457	189	093	181	271	223	090	082	064	123	102	145	189	128	104	116	157	210	109	097	164
03	106	093	089	051	054	123	106	096	137	124	107	095	122	143	083	032	060	047	096	160	131	104	098	123	099
04	099	114	133	066	117	091	134	181	115	094	090	086	057	041	052	071	097	110	077	081	114	144	092	111	099
05	048	086	044	079	114	051	038	123	088	057	059	095	042	073	093	057	075	108	167	134	119	043	024	064	078
06	034	082	180	146	159	193	102	100	180	139	083	060	060	061	089	091	073	110	152	097	052	067	085	024	101
07	119	096	055	069	053	074	124	110	162	071	074	051	023	028	019	051	038	025	028	041	101	123	059	047	068
Q 08	041	035	044	031	032	048	089	066	071	070	074	076	055	057	053	052	031	039	021	016	037	055	083	075	052
09	040	046	110	103	069	042	030	054	053	079	073	053	055	044	016	018	031	032	025	023	019	041	040	031	047
Q 10	043	070	061	058	046	036	035	059	068	054	073	087	098	105	080	040	085	073	060	063	075	071	089	113	068
11	122	121	099	099	130	250	265	269	237	304	264	251	134	068	058	051	047	050	111	076	113	110	126	113	145
D 12	091	084	040	061	035	035	096	159	153	138	277	211	199	131	101	075	154	295	200	198	129	209	140	085	137
13	079	143	104	071	160	200	096	070	123	133	122	160	147	121	115	080	043	113	155	136	107	115	107	068	115
14	058	042	054	042	044	076	132	105	093	153	111	102	124	114	074	052	046	066	121	101	063	046	037	051	079
15	047	077	060	050	064	080	114	135	176	225	110	054	037	053	077	142	171	139	138	058	136	171	149	140	108
16	188	171	159	195	179	168	150	126	192	255	322	216	080	125	139	150	097	133	130	091	086	111	177	081	155
17	081	073	063	055	037	045	077	076	129	202	093	086	166	065	075	072	090	061	087	115	148	124	138	156	096
18	182	165	144	131	175	152	113	068	033	070	058	073	085	073	094	109	092	099	100	087	088	062	036	076	099
19	083	076	075	055	065	086	132	167	144	114	125	137	140	093	074	049	043	068	122	124	066	084	116	116	098
20	061	076	064	038	026	034	041	038	058	047	056	110	118	062	039	030	032	046	053	122	135	113	078	076	065
21	052	040	132	152	057	028	029	081	150	152	126	063	091	090	091	101	108	139	162	123	135	129	127	125	103
22	095	099	097	091	100	079	081	099	114	110	118	124	109	063	026	025	030	028	041	063	077	051	027	048	075
Q 23	038	031	039	051	060	062	044	025	018	014	022	052	059	049	023	033	030	025	056	024	028	052	065	056	040
Q 24	024	017	006	009	012	011	027	054	068	099	105	071	041	025	022	022	025	034	044	044	029	024	027	027	036
25	039	036	034	033	039	042	040	056	060	048	048	076	058	054	080	087	053	054	085	137	167	138	184	145	075
26	146	131	126	108	127	075	091	079	071	064	052	094	114	073	047	047	034	035	038	051	056	039	039	034	074
Q 27	037	045	045	056	056	039	025	026	028	030	029	031	033	030	031	033	019	042	037	034	030	050	069	074	039
28	080	053	020	019	029	030	091	093	058	057	066	082	096	082	062	043	025	026	029	031	030	026	051	059	052
D 29	061	061	107	074	073	091	092	050	082	059	060	051	054	080	128	118	310	155	149	267	355	277	127	220	129
D 30	191	213	217	191	212	080	092	167	142	116	208	120	080	052	059	053	090	108	158	141	130	200	172	151	139
31																									
MEAN	086	088	087	083	094	085	089	099	113	113	107	099	091	077	070	069	081	086	100	098	101	106	094	093	092
5Q MEAN	037	040	039	041	041	039	044	046	051	053	061	063	057	053	042	036	038	043	044	036	040	050	067	069	047
5D MEAN	126	124	115	126	161	088	090	125	150	124	152	119	117	106	096	106	191	174	172	182	180	218	137	151	138

6. TABLES OF HOURLY AVERAGE AO INDICES

JANUARY 1975 AO INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-042	020	033	-021	-020	006	010	017	001	-025	-006	008	005	-002	-012	-003	-032	001	004	-007	-001	000	-004	-003	-003
Q 02	000	000	001	008	010	010	006	004	004	001	-005	000	002	-001	-021	-022	003	004	-023	-062	-026	011	011	009	-003
03	000	005	007	008	009	011	015	012	-009	-049	-025	-008	-042	-057	000	006	011	-056	-090	-019	006	003	021	-035	-012
D 04	-065	-066	-049	-065	-105	-078	-045	-018	030	-006	-019	-162	-089	-201	-352	-260	-282	-043	029	005	-037	-177	-112	-097	-094
05	-007	-034	-077	-008	000	-043	-017	-107	-090	-079	-049	-125	-195	-005	-020	-140	-174	-134	-080	-082	-192	-127	-017	-018	-076
06	-080	-032	-002	-022	-054	005	003	004	-026	-019	-029	-127	-132	-039	-033	-145	-089	-103	-256	-220	-285	-134	-201	-169	-091
D 07	-269	-305	-189	-112	-008	047	-042	003	027	-014	-065	-086	-092	-010	008	002	-038	-036	-002	-007	-010	-004	-003	005	-050
D 08	013	010	-004	-045	-104	-115	-046	002	-093	029	-033	-122	-048	-061	-170	-193	-104	-115	-123	-245	-106	006	-012	-014	-071
09	011	006	007	-016	-048	-070	-027	-018	-053	-080	-035	-029	-038	-010	-027	-025	-046	-092	-036	000	-002	-027	-017	000	-028
10	-005	-036	-032	-001	-002	-020	-069	-004	-010	-004	-070	000	000	005	003	-002	-004	-004	-003	-006	-016	-006	-005	-005	-012
Q 11	-017	-004	-016	-018	-004	-004	-032	-012	-017	-034	-055	-013	000	001	000	-004	-003	-008	-013	-017	-013	000	000	-001	-012
Q 12	-017	-009	-015	-011	-003	004	000	002	003	010	011	010	003	000	000	-001	000	002	-020	-026	000	021	014	012	-000
D 13	015	-150	-054	-005	-064	-060	037	016	000	-012	036	007	020	-084	-100	020	008	-106	-213	-051	-124	-014	-043	000	-038
D 14	043	054	-110	-118	-034	-035	002	-048	-017	-033	-036	-062	-107	-186	-281	-097	-119	-218	-206	-297	-146	-147	-073	-136	-100
15	-146	-062	-013	030	-005	030	039	016	011	015	019	-022	017	021	-010	014	014	020	035	-021	-150	-158	-010	-127	-018
16	-053	011	009	000	015	018	023	024	012	012	005	-121	-072	-186	-166	-127	-002	006	-046	-065	-096	-036	-144	-092	-045
17	-031	034	000	-041	-071	-012	-039	-049	-116	-085	-078	-032	-180	007	-002	-046	-003	-141	-124	-039	-062	-174	-138	-132	-065
18	-124	001	030	001	-077	-059	001	-014	009	-048	-154	-049	014	-055	-186	-003	-020	001	-019	-064	-061	-005	-033	000	-038
19	-015	-036	-062	-015	-006	024	-003	001	032	026	-014	-060	038	012	-024	000	007	-027	-076	-032	-006	-007	-014	016	-010
20	002	-122	-051	002	-005	018	000	-006	015	003	007	011	014	008	011	010	-020	-092	-130	-116	-092	005	-050	025	-023
21	021	029	022	010	007	004	002	004	-004	-017	000	-005	001	-023	-034	000	-007	-064	-125	-040	007	006	003	002	-008
22	001	002	005	001	-001	-013	-025	-012	012	006	008	013	015	007	-032	032	-032	-136	-012	-002	009	-008	-070	-002	-010
23	028	068	046	020	011	001	-020	-016	-004	006	-015	-018	-007	-091	000	008	-080	-083	-040	-022	-143	-017	-012	-058	-018
24	-030	-014	-084	-174	-038	011	013	007	021	019	-035	-087	-003	005	004	005	-081	-099	-027	-012	-050	-036	006	006	-028
Q 25	005	005	-008	-003	006	004	-001	-002	005	003	006	009	013	011	012	010	-089	-099	000	004	-015	005	008	000	-005
Q 26	-019	-056	039	022	011	012	007	005	-043	000	004	-011	-009	-023	003	008	-027	003	-016	-017	011	002	006	013	-003
27	009	010	001	011	-023	-018	-063	016	020	-036	-024	026	040	042	006	005	-102	-075	-036	-144	-002	044	020	004	-011
28	-059	-143	-018	033	048	008	000	-029	-054	-004	013	-008	-047	012	024	028	-034	-014	-041	-004	000	000	016	021	-011
29	021	021	008	-014	029	029	024	022	024	025	-009	-081	-057	-001	003	003	007	-001	-020	-043	005	008	004	006	001
30	000	003	012	025	011	-027	-065	-055	000	015	020	023	020	010	011	-007	010	004	-025	-079	-061	-099	-069	-029	-015
31	005	008	008	008	-007	-029	-022	013	008	011	009	-109	-056	-001	004	005	003	-146	-022	-042	-196	-014	-036	-007	-025
MEAN	-026	-025	-018	-016	-017	-011	-011	-007	-010	-011	-020	-040	-031	-029	-045	-030	-043	-060	-057	-057	-060	-035	-031	-026	-030
5Q MEAN	-010	-013	000	-000	004	005	-004	-001	-010	-004	-008	-001	002	-002	-001	-002	-023	-020	-014	-024	-009	008	008	007	-004
5D MEAN	-053	-091	-081	-069	-063	-048	-019	-009	-011	-007	-023	-085	-063	-108	-179	-106	-107	-104	-103	-119	-085	-067	-049	-048	-070

FEBRUARY 1975 AO INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	021	-022	-079	-143	-138	-091	003	-012	-075	-039	-090	-393	-277	-165	-124	-051	-150	-269	-257	-073	-068	-104	-087	-126	-117
02	-113	-061	-105	-081	030	-017	-031	-047	037	001	-135	-096	-115	-103	-142	-098	-049	-108	-086	-049	-112	-016	-005	001	-063
03	-007	-013	-020	-101	-063	003	-033	-002	027	012	016	-021	-012	-069	-039	-021	-020	-039	-071	-036	005	006	005	002	-020
04	-046	000	-032	-012	-023	-065	017	011	-009	-011	004	002	-062	-102	-043	-019	-054	-163	-008	013	005	018	-016	-099	-029
05	-063	-012	-040	-046	009	002	-038	-042	-038	-033	-033	-157	-192	-055	002	-019	-123	-215	-067	-013	-020	-083	-006	-013	-054
Q 06	-032	-028	-018	-007	-035	026	019	-020	-076	-058	-010	-002	010	012	005	-009	011	-011	-043	-023	-016	-022	008	007	-013
07	-030	003	-071	-026	-020	-072	-028	007	022	-066	-098	-066	-059	-077	-053	-032	-177	-204	-107	-002	-001	-042	-027	-034	-053
Q 08	-010	000	-004	-060	-063	-031	-055	-017	-030	000	-015	-066	-029	-009	-006	-013	000	002	007	007	006	002	011	014	-015
09	011	-102	-085	033	-001	-036	-030	013	013	012	006	004	002	002	005	000	-037	-047	006	-005	034	006	-034	-109	-014
D 10	020	-019	008	-040	-034	-068	-051	-023	071	072	044	011	-085	-018	-193	-117	-097	-211	-015	007	-004	-352	-148	-059	-054
D 11	-040	-270	-144	-037	-074	-015	-001	031	020	020	-020	-056	-087	-016	-083	-116	-122	-153	-182	-125	-127	-308	-167	-089	-090
D 12	-062	-132	-046	-072	-016	006	-065	-040	-037	030	-087	-165	-076	-149	-121	000	-238	-312	-060	-003	-122	-153	-075	-070	-086
13	-114	-135	-061	-040	-030	000	-056	006	030	-006	007	-032	-122	-106	-157	-052	-029	-173	-167	-095	-195	-129	-035	-058	-073
14	-148	-056	-035	021	-021	-021	018	010	-093	-051	020	-148	-108	010	011	-032	-152	-069	-064	-141	-162	-047	-066	-094	-059
15	-081	-018	022	015	-035	-081	-016	-062	016	033	015	-026	-055	-103	-193	-064	-037	-123	-050	-114	-007	-006	-184	-177	-056
16	-070	-022	031	040	030	000	-024	-039	014	002	-050	-182	-047	003	-085	-182	-131	-216	-269	-027	019	-021	-045	-173	-060
17	-019	-001	010	000	-020	-001	-025	034	018	-069	-110	000	-043	-027	-066	000	004	-110	-118	-029	-005	-055	-125	-082	-035
18	-052	-084	-093	000	000	-054	-062	011	011	012	003	009	-053	-048	-023	-072	-017	007	-034	-074	-102	-118	-011	018	-034
19	001	037	027	042	-062	-026	-024	004	020	-040	-063	-019	-025	001	018	009	009	009	-038	-065	-093	007	-054	-073	-017
Q 20	-074	011	007	005	013	017	009	-003	-025	-050	-028	018	014	013	013	009	007	009	008	-028	-055	-017	-032	-011	-007
21	019	032	020	013	-034	-020	006	018	-026	023	016	023	013	003	004	000	-015	-005	-058	-051	015	017	012	012	002
Q 22	004	-023	-052	-017	029	021	014	012	007	-018	006	-023	-007	000	-048	-079	-046	-073	-040	-006	013	021	012	010	-012
D 23	016	-041	-016	025	030	002	-102	-013	037	-064	-173	-413	-100	012	-058	-237	-181	-091	-001	003	009	007	-008	-100	-061
24	-103	-095	-122	-015	-003	-004	011	008	006	008	003	001	-112	-149	-066	-081	-156	-032	008	-006	-035	-090	-008	-002	-043
25	-024	-023	-102	-068	-072	-163	-112	010	-048	-042	-065	-099	-174	-186	-040	-030	-095	-007	000	007	021	019	-009	-034	-056
26	-006	009	-013	-032	015	013	002	-025	-003	011	012	-009	-020	-040	-062	009	-030	-070	-066	-061	-014	005	008	011	-015
Q 27	012	011	009	010	005	-074	-069	-013	003	004	003	007	010	006	000	-027	011	005	007	011	005	010	015	009	-001
28	000	-005	-002	-027	-037	001	-013	-006	-117	-050	-007	007	010	008	001	-038	-022	005	017	-018	-067	-096	001	-001	-019
MEAN	-035	-038	-036	-022	-022	-027	-026	-007	-008	-013	-030	-068	-065	-048	-055	-049	-069	-095	-062	-036	-038	-055	-038	-047	-041
5Q MEAN	-020	-006	-012	-014	-010	-008	-016	-008	-024	-024	-009	-013	-000	004	-007	-024	-003	-014	-012	-008	-009	-001	003	006	-009
5D MEAN	-009	-097	-055	-053	-046	-033	-043	-011	003	004	-065	-203	-125	-067	-116	-104	-158	-207	-103	-038	-062	-182	-097	-089	-081

MARCH 1975 AO INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-013	-082	-149	-050	-021	-036	-062	-277	-183	-084	-071	-023	020	001	-004	-013	-150	-207	-120	-126	-134	-054	001	007	-076
02	-027	-149	-088	-027	-009	-086	-097	-076	-048	-035	-009	-027	-060	-017	-016	004	-003	-041	-094	-061	-104	-051	-057	-019	-050
03	-086	-069	-005	-001	-007	-072	-003	007	000	-010	-012	002	-018	-013	006	-037	-090	-109	-078	-013	001	-114	-085	-041	-035
04	004	-016	-098	-069	-041	000	-053	-086	-021	008	-012	-001	006	-006	-006	003	000	-025	002	000	002	007	-007	-035	-019
05	-008	013	-049	-205	-169	-012	-061	029	-073	-096	-280	-201	-063	-013	-227	-197	-091	-074	-050	-207	003	000	-110	-120	-094
06	000	022	000	-044	-067	-073	-050	-127	-161	-194	-100	-100	-166	-048	-166	-203	-137	-219	-059	-013	-056	-177	-052	015	-091
Q 07	-019	-047	-025	-029	-004	-004	-013	-009	-012	-001	-003	001	000	000	000	000	000	001	002	002	006	002	000	000	-006
Q 08	001	000	002	001	002	001	003	003	003	001	000	000	-002	-001	000	000	001	003	001	004	-003	001	-001	-001	001
09	-003	-001	001	002	005	011	011	002	003	000	-001	-003	-002	-002	003	005	003	-016	-001	-002	-066	000	-043	-309	-017
D 10	-350	-338	-216	-036	-025	-081	016	016	-022	-164	-158	-134	-150	-258	-138	-133	-256	-171	-297	-413	-330	-242	-224	-353	-186
D 11	-262	-136	-377	-355	-097	-068	-100	-096	-167	-087	-128	-223	-127	-256	-095	-087	-109	-125	-038	-054	-040	-206	-126	-145	-146
D 12	-078	-115	-125	-215	-064	-004	004	-119	-140	-122	-263	-124	-168	-129	-107	-116	-123	-008	-053	-131	-214	-126	-275	-279	-129
13	-114	-151	-124	-008	-034	011	-015	-040	-036	-057	-060	-147	-069	-154	-177	-084	-086	-152	-328	-147	-048	-029	-234	-188	-103
14	-039	-014	-038	-085	-028	-159	-133	-113	000	-007	-026	-133	-080	-259	-157	-083	-067	-101	-037	-131	-136	-067	-254	-077	-093
15	-039	-143	-085	-002	-064	-079	-083	-047	-042	-041	-026	-075	-180	-096	-031	-094	-167	-048	-056	-108	-069	-130	-072	-014	-075
16	-007	-023	-060	-070	-061	-075	-092	-012	-149	-219	-099	-079	-162	-081	-014	-109	-120	-019	-001	006	002	007	-006	-047	-062
17	-101	-017	-053	-091	-063	000	015	-008	-010	-081	-063	-021	006	-006	-004	-077	-006	009	000	-078	-035	-047	-053	-199	-041
18	-165	-037	026	010	-033	-041	-111	-026	-022	-032	019	-060	-104	-041	-042	-102	-183	-032	-040	-089	-087	-058	-066	013	-054
19	-037	-005	014	004	-001	023	-006	-054	-020	012	015	-007	-023	005	-069	-016	-010	-003	-019	-004	-018	-075	-115	-051	-019
20	018	011	012	001	-006	-064	-077	002	049	041	012	-091	-113	-131	-124	-065	-003	-111	-048	002	-027	-066	-119	-048	-039
Q 21	-035	-013	012	002	002	-001	-020	-023	001	001	-004	-003	002	000	-001	-001	-015	-003	004	005	002	001	-002	-004	-004
Q 22	-003	-002	000	000	000	-003	-003	000	000	006	000	002	000	000	-001	000	000	002	006	009	010	011	013	-034	001
23	-039	-024	-036	-081	-045	046	083	027	-054	001	008	-116	-039	-035	-009	004	-007	-010	-033	-037	-003	013	022	009	-015
24	-005	000	009	006	015	019	013	009	020	-003	-082	-073	-111	-026	-048	-097	-039	-096	006	007	-081	-032	-004	009	-024
Q 25	010	009	006	003	-007	012	026	-013	005	006	008	-009	-112	-031	-022	-001	011	-053	-073	-010	003	000	-008	008	-010
26	008	000	-003	-078	-063	016	017	021	006	035	-011	-128	-039	-033	-042	-047	-030	-018	-001	-080	-114	-014	005	-019	-026
D 27	-045	-059	-042	-037	-013	-042	-025	-047	-039	-032	-111	-069	-208	-244	-387	-278	-462	-519	-193	-042	004	-006	-053	-128	-128
D 28	-054	-017	-033	-023	-154	-091	-091	-122	-165	-059	-184	-288	-173	-248	-131	-186	-139	-093	-114	-204	-126	-140	-198	-017	-127
29	-008	-019	-090	-152	-064	-059	-247	-127	-103	-152	-110	-233	-169	-097	-148	-096	-089	-231	-063	-009	-030	-039	003	-022	-098
30	-105	-046	-041	-063	-021	-023	-034	-065	-043	-019	-005	-102	-074	-013	-006	003	-002	000	-010	-018	-007	-052	-024	-076	-035
31	-134	-157	-207	-180	-062	-021	-037	-041	-018	008	006	-008	-041	-116	-062	-018	-103	-018	-026	-108	014	006	000	-009	-056
MEAN	-056	-052	-060	-060	-039	-031	-040	-046	-046	-044	-056	-080	-078	-076	-072	-068	-080	-080	-058	-066	-054	-054	-069	-070	-060
5Q MEAN	-009	-011	-001	-005	-001	001	-001	-008	-001	003	000	-002	-022	-006	-005	-000	-001	-010	-012	002	004	003	000	-006	-003
5D MEAN	-158	-133	-159	-133	-071	-057	-039	-074	-107	-093	-169	-168	-165	-227	-172	-160	-218	-183	-139	-169	-141	-144	-175	-184	-143

APRIL 1975 AO INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	-097	-026	-004	-002	-013	-003	-020	-098	-098	-025	-029	-022	-013	000	-032	-001	-033	-055	004	-003	000	-002	005	-004	-024
02	-012	-018	-026	-021	003	-001	-006	-009	-009	-006	-009	-009	-008	-007	-010	-009	-006	-005	-012	-010	-007	-025	-031	011	-010
03	-024	-102	-055	-030	-002	000	-003	-043	-030	002	005	005	-008	-004	-007	-029	-017	000	000	001	-032	-046	004	-003	-017
04	-002	-049	-036	-102	-041	006	-003	-001	-032	-035	026	025	005	-006	007	-017	-026	-003	-018	004	-062	-109	-007	-066	-023
05	-127	-062	009	-002	-001	-007	-009	-050	-036	-015	007	014	-004	-003	-005	001	-001	-069	-038	-009	020	-043	-048	-010	-020
06	004	-099	-027	-018	-027	-057	-026	-006	-001	001	027	021	001	-003	-006	-068	-059	-016	009	015	030	-146	-020	021	-019
07	002	-020	009	-009	-011	010	-023	-009	001	008	010	-108	-145	021	016	018	009	032	-131	-135	-055	-201	-177	-091	-041
D 08	-077	-109	-068	-035	-019	-048	-103	-123	-033	-163	-053	036	-179	-157	-158	-150	-038	-072	-058	-098	-058	009	008	-012	-073
D 09	-124	-253	-302	-133	-242	-094	-109	-001	-069	-076	-113	-065	-115	-140	-131	-120	-065	-539	-125	-204	-134	-190	-276	-176	-158
D 10	-226	-099	-194	-295	-207	007	009	-064	-086	-140	-084	-139	-078	030	013	-007	-054	-016	-135	-041	010	-095	-273	-036	-092
D 11	-004	-300	-181	-097	-162	-180	-154	-036	-067	-125	-181	-366	-250	-015	-064	-162	-060	-005	-042	-033	005	-026	-077	-104	-112
12	-032	-004	-016	-030	-047	-021	-122	-055	-017	-163	-127	-068	-013	-082	-088	-163	-085	-023	-081	-035	000	-185	-375	-269	-088
D 13	-372	-260	-041	-050	-106	-067	-075	-232	-068	036	-006	-009	-017	-035	-126	009	012	019	010	-014	-050	-079	-163	-168	-077
14	-094	-244	-249	-270	-155	-119	-135	-007	006	006	-047	-017	-018	-035	-063	-064	-021	-004	-010	-052	-058	007	-048	-058	-073
15	-014	-002	-044	-003	-027	-036	-003	-003	-002	010	-001	-063	-016	-013	-066	-074	-024	-076	-033	011	-004	000	-003	-026	-021
16	-043	-039	003	-013	-032	009	-018	-015	-014	008	-013	-005	000	-001	-002	-001	-012	-029	-043	-013	-017	000	-003	000	-012
Q 17	000	-007	-029	-015	-001	000	-003	-001	-011	-052	-046	-001	007	008	005	009	-013	-037	009	017	011	006	004	005	-006
18	003	004	005	004	005	004	-001	-004	-008	-007	000	008	-058	-037	-017	-038	-021	-008	-050	-019	-015	-004	-002	-031	-012
Q 19	-008	019	033	021	-051	-086	-034	000	002	-012	-025	020	-024	008	009	000	009	019	012	009	-002	006	004	006	-003
20	005	007	005	005	001	001	001	-002	-002	-019	-030	-010	018	-046	-078	-081	-039	-139	-141	-208	-413	-219	-104	-139	-068
21	-113	-136	-199	-030	005	012	009	010	010	015	012	039	034	-007	-060	-135	-044	-006	-130	-044	009	004	003	003	-031
22	-022	-086	-019	-007	-045	-137	-113	-083	-044	-001	000	009	005	-024	-057	-019	-018	-061	-101	-031	-048	-029	-143	-041	-046
23	-005	-136	-122	-025	-050	-093	-089	-039	-063	007	-291	-067	-016	-017	-012	-064	-165	004	-042	028	-074	-066	-060	-061	-063
24	-189	-152	-096	-116	-057	-030	-068	-098	-022	-009	-172	-010	-001	-006	-025	-041	-089	-042	-001	-040	-111	-059	-009	-032	-061
25	-042	-041	002	-012	-113	-035	003	-013	-010	-021	-017	002	010	000	-035	-049	-027	007	005	006	005	001	006	-006	-016
26	-167	-067	010	-019	-009	000	-003	-003	-006	-006	002	-051	-038	-013	-015	-016	007	-038	-077	005	004	-025	-026	006	-023
Q 27	011	000	001	-047	-172	-054	-005	-003	000	007	-020	002	009	-002	000	-005	005	005	012	007	004	004	003	-007	-010
Q 28	004	-048	-017	007	005	000	-009	-008	-003	-004	-001	000	006	005	005	004	000	000	000	007	009	016	019	011	000
Q 29	005	000	-001	000	-001	000	000	001	-004	003	-030	000	002	003	004	003	005	002	-006	006	007	006	007	005	001
30	002	002	000	001	001	003	-026	-017	-067	-032	-013	-002	005	012	009	-005	003	010	009	010	004	010	-001	000	-003
MEAN	-059	-078	-055	-045	-052	-034	-038	-034	-026	-027	-041	-028	-030	-019	-033	-042	-029	-038	-040	-029	-034	-049	-059	-042	-040
5Q MEAN	002	-007	-003	-007	-044	-028	-010	-002	-003	-012	-024	004	000	004	005	002	001	-002	005	009	006	008	007	004	-003
5D MEAN	-161	-204	-157	-122	-147	-076	-086	-091	-065	-094	-087	-109	-128	-063	-093	-086	-041	-123	-070	-078	-045	-076	-156	-099	-102

MAY 1975 AO INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
01	019	011	006	004	002	-007	-018	-015	000	028	030	016	006	-010	-033	-032	000	009	002	019	014	000	017	-015	002
02	-056	003	017	008	-026	-092	-011	-102	-081	-092	006	010	-046	-089	-062	-079	-069	-006	-039	-061	-128	-017	-090	-120	-051
03	-038	-030	-195	-289	-171	-097	-099	-053	-005	-002	023	-017	-053	-154	-118	-023	009	006	-003	-023	-031	-007	-015	-067	-061
04	-079	-018	-072	-006	-011	-149	-055	-057	-052	008	008	001	-032	-007	018	009	-015	-012	-052	-023	005	000	-052	-133	-032
D 05	-235	-088	-118	-186	-061	024	000	-119	-052	-056	-007	008	033	-014	-057	-021	006	-020	-173	-082	-099	-087	-158	-113	-070
D 06	-196	-135	-149	-147	-161	-026	-009	-095	-121	-076	-040	-036	-040	-038	-054	-046	-143	-056	-091	-078	-058	-133	-097	-043	-086
D 07	-060	-072	-024	-027	-015	-031	-002	-046	-069	-015	-041	-056	-123	-070	-163	-187	-064	010	-072	-026	001	012	-081	-058	-053
08	-101	-019	-118	-054	-125	-096	-165	-066	-041	-014	010	-006	-045	-012	006	-032	-031	-040	-019	-077	-045	-085	-066	-078	-055
09	-001	-089	-132	-018	012	-011	-040	-096	-024	-013	-078	-021	-020	-073	-053	-069	-006	017	-003	-092	-040	-055	-076	-221	-050
10	-053	-025	-162	-309	-135	-052	-062	-056	-133	-055	-008	-025	-143	-059	-022	-036	-001	-005	-003	014	-029	-049	-036	009	-060
Q 11	005	-002	-001	-017	-014	-006	005	-001	000	-013	-008	-003	005	012	000	-001	-010	003	002	001	-004	003	003	000	-002
Q 12	-001	000	000	002	001	-038	-028	-027	-013	-009	-007	-004	000	003	003	006	006	009	004	007	003	001	001	000	-003
13	001	006	011	002	004	008	009	-004	010	031	028	-004	006	012	006	002	006	017	024	-009	020	-047	-056	-008	003
14	-053	-043	-060	-097	-064	013	014	015	019	047	-054	-050	-056	-039	-019	-031	-002	-005	002	011	000	-019	-004	011	-019
Q 15	012	001	-011	-007	-007	-060	-083	-038	-010	-008	-003	-006	005	010	-002	-022	-002	-010	-006	006	002	003	005	004	-009
D 16	004	006	011	-004	-109	-053	037	-085	-094	-002	027	028	-167	-100	-011	018	000	022	009	041	028	029	-063	-095	-022
17	-026	-016	001	-008	-072	-012	-067	014	-071	-184	-090	-020	-036	-147	-032	003	-039	-058	-003	000	013	015	011	014	-034
18	007	-009	-021	-104	-131	-094	-052	-033	-059	-014	017	002	-008	-022	-051	-020	016	015	-004	-072	014	-006	-016	-014	-027
19	-033	-127	-120	-059	-040	-128	-060	008	012	-020	-001	010	004	007	007	017	014	014	017	040	-009	-053	008	032	-019
D 20	021	031	-014	-060	-003	015	-155	-072	-052	-094	-009	009	-019	-007	-026	-043	-063	-004	024	013	011	008	004	003	-020
21	005	-066	-138	-070	-070	-118	-017	-011	-029	-009	018	-063	-069	-046	018	024	011	001	008	002	-074	-046	-002	-022	-032
22	-020	-027	003	000	-017	-142	-067	-057	002	-031	-099	-095	-047	-046	-077	015	010	-038	-030	006	009	019	-007	-076	-034
23	-006	005	000	000	003	-070	-094	-046	-009	-012	-047	-046	006	015	011	-009	004	-022	-038	-055	-016	019	009	010	-016
24	-001	000	-004	-001	-003	000	-033	-065	-015	030	013	-016	003	019	017	004	003	002	007	005	007	016	-023	-005	-002
25	001	-035	-071	-048	022	009	-013	-014	013	001	-003	012	020	006	-017	-005	000	-033	-055	-081	-082	-167	-101	-112	-031
26	-123	-118	-111	-107	-184	-141	-081	-087	-050	023	-001	-060	020	032	022	016	016	007	013	009	012	014	015	011	-036
27	008	003	005	010	011	-052	-029	-037	019	035	004	-012	-022	-017	-012	-015	000	-008	-009	-002	013	032	019	020	-002
Q 28	012	010	004	-028	-028	-016	000	000	004	-003	-001	-002	-003	-003	002	-001	005	003	-023	-005	-002	000	-001	000	-003
29	005	-003	-041	-061	-062	-025	-066	-110	-028	-039	006	014	017	010	011	-001	-003	-076	018	035	-031	-051	000	007	-020
30	-025	004	-002	004	004	-060	-100	-066	-023	-014	-007	006	-013	-024	-026	-015	004	012	-014	004	014	010	-001	025	-013
Q 31	014	006	000	015	008	003	-002	002	003	003	000	000	010	-001	-014	-008	002	000	-007	-016	-007	-010	002	015	001
MEAN	-032	-027	-049	-054	-047	-049	-043	-046	-031	-018	-010	-014	-026	-027	-023	-019	-011	-008	-017	-016	-016	-021	-027	-033	-028
5Q MEAN	008	003	-002	-007	-008	-023	-022	-013	-003	-006	-004	-003	003	004	-002	-005	000	001	-006	-001	-002	-001	002	004	-003
5D MEAN	-093	-052	-059	-085	-070	-014	-026	-083	-078	-049	-014	-009	-063	-046	-062	-056	-053	-010	-061	-026	-023	-034	-079	-061	-050

JUNE 1975 AO INDICES VALUES ARE EXPRESSED IN GAMMAS

UT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
D 01	-054	-036	-004	-002	003	-003	-011	000	032	016	012	002	-010	-125	-059	-047	016	032	-051	046	046	039	007	-041	-008
D 02	-114	-056	-090	002	-012	-099	003	-063	-147	-092	015	-002	-022	-068	-117	-074	-090	-065	-015	-025	-008	-080	-038	-023	-053
03	-030	-023	-025	-009	-011	001	-077	-114	-086	-036	-029	-038	-130	-122	-069	-042	-028	-005	-001	-013	014	005	-013	-097	-041
04	-069	-067	-099	-040	-018	-137	-057	-005	-033	-015	-007	-012	-022	-007	-071	-042	-051	-006	011	007	-022	-035	-009	-033	-035
05	-201	-083	-048	-019	-025	000	010	015	017	016	013	-038	-006	-033	-034	-106	-036	-082	-108	016	010	-129	-130	-011	-041
06	-063	-083	-075	-082	-006	017	-001	022	023	034	032	016	008	000	-092	-095	-058	-043	-059	000	013	001	-002	-082	-024
07	-027	009	007	-003	-045	-028	-032	-059	-061	-006	017	001	000	004	-001	013	005	002	-001	000	-031	-065	-001	007	-012
Q 08	003	-003	005	000	-001	009	008	-002	013	009	000	011	-004	-053	-070	-028	007	015	004	-002	-001	000	000	-002	-003
09	000	004	013	-097	-018	005	003	006	012	-008	-020	-002	000	009	-012	003	002	-006	-009	000	-002	002	003	000	-005
Q 10	000	-024	-010	-010	-006	003	004	017	000	-021	003	-001	-010	002	-032	-070	-003	-004	002	007	007	008	-005	000	-006
11	-034	-018	-011	018	019	029	-007	010	-029	-069	-036	018	013	-010	-003	005	018	012	004	028	038	037	029	026	004
D 12	004	-069	-115	-172	-066	000	025	-004	023	-004	-009	-031	-136	-128	-011	024	033	-108	-086	-026	035	016	-067	-021	-037
13	-026	-116	-021	007	-005	-085	-051	-013	-035	-020	-027	-050	-119	-115	-092	005	002	009	-073	-081	-002	018	017	-019	-037
14	-005	-013	-013	-022	-021	-018	-075	-130	-086	-046	-035	-006	-031	-073	-043	-026	-021	000	-049	-034	-002	014	009	010	-030
15	009	008	-035	-015	-009	-079	-028	-032	-012	-106	-063	-009	011	010	-017	-121	-132	-140	-108	008	019	-049	-094	-023	-042
16	-074	002	-030	-050	-007	023	-078	-045	-006	-062	-091	-065	-039	-026	-101	-138	-053	-087	-061	-006	013	-009	-080	-025	-046
17	016	-001	-021	-015	002	007	-043	-022	-034	-074	-091	-025	-083	-020	-023	-025	-089	-006	-009	-013	000	-085	-036	-049	-031
18	-098	-066	-075	-050	-114	-124	-111	-010	009	026	-004	-003	-039	-014	-057	-105	-022	016	-039	002	-035	005	003	001	-038
19	-051	-074	-049	-033	-001	-007	-076	-078	-088	-092	-040	-044	-129	-047	-030	-065	-029	-011	-016	-060	-010	000	-052	-018	-046
20	011	001	-022	-010	004	006	-006	-012	-021	-013	-002	013	-015	003	003	-001	-003	005	008	008	-003	004	005	016	-001
21	001	000	-070	-089	-026	000	004	009	-046	-089	-026	-012	002	017	031	024	-009	-122	-055	038	029	-091	-024	-078	-024
22	-013	000	027	022	011	001	011	003	-070	-046	-026	-009	013	-019	-018	000	008	008	015	014	-003	-012	-001	002	-003
Q 23	-009	004	006	014	-019	-015	000	-001	-002	-003	002	013	-004	-001	-006	000	-022	001	010	-026	004	-008	-003	015	-002
Q 24	-003	-016	-067	-014	000	-001	004	017	022	032	040	028	016	005	004	006	012	014	018	015	003	-002	-003	-001	005
25	005	003	004	008	010	011	010	017	014	011	011	012	007	-024	-009	-031	-070	-007	021	021	019	-034	-007	-022	-001
26	-020	-055	-040	009	-078	-008	023	014	-042	-025	011	015	-028	-015	009	000	-023	007	011	010	002	008	007	006	-008
Q 27	006	009	010	018	011	-029	-026	-002	001	-001	001	003	006	005	006	-010	-010	000	-001	006	-003	-002	001	004	000
28	006	006	000	000	010	011	014	-076	-043	-022	-004	003	-052	-005	000	-004	000	004	007	008	007	002	010	020	-004
D 29	016	018	019	005	018	-003	-072	002	029	017	015	010	015	017	-026	-141	-085	-056	035	-052	-115	-059	-051	-003	-019
D 30	-085	-124	-095	-016	-013	-032	-005	-089	-083	-031	-072	-068	-047	-011	-006	-032	-049	-037	-055	-011	012	-019	-122	-016	-046
31																									
MEAN	-030	-029	-031	-022	-014	-018	-021	-021	-024	-024	-014	-009	-028	-028	-032	-037	-026	-022	-022	-004	001	-017	-022	-015	-021
SQ MEAN	-001	-006	-011	002	-003	-007	-002	006	007	003	009	011	001	-008	-020	-020	-003	005	007	000	002	-001	-002	003	-001
SD MEAN	-047	-053	-057	-037	-014	-027	-012	-031	-029	-019	-008	-018	-040	-063	-044	-054	-035	-047	-034	-014	-006	-021	-054	-021	-032

7. TABLES OF OBSERVATORIES SUPPLYING HOURLY AU AND AL

TABLE OF OBSERVATORIES SUPPLYING HOURLY AU BASED ON MEAN VALUE

JANUARY 1975 AU = MAXIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	FC	GWR	GWR	YEK	YEK	YEK	YEK	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	DI	YEK	AI	AI	LR	YEK	NAS
Q 2	NAS	FC	FC	NAS	FC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	CC	AI	AI	DI	DI	FC
3	FC	DI	DI	TI	FC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	AI	NAS	NAS	NAS	LR	LR	FC
D 4	GWR	GWR	CO	CO	TI	CC	CC	CC	CC	CC	DI	DI	DI	AI	AI	LR	LR	AI	NAS	NAS	NAS	GWR	FC	GWR
5	LR	GWR	CO	CO	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	LR	LR	NAS	LR	NAS	NAS	GWR	FC	NAS	FC
6	FC	FC	DI	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	AI	AI	LR	NAS	FC	GWR	GWR	GWR	CO
D 7	CO	CO	CO	CO	DI	LR	CC	CC	CC	CC	DI	DI	DI	DI	DI	DI	CO	LR	DI	NAS	FC	DI	DI	FC
D 8	FC	FC	TI	TI	CO	CC	CO	CO	CO	CO	DI	DI	DI	DI	AI	NAS	LR	LR	GWR	GWR	NAS	FC	FC	FC
9	FC	FC	DI	CC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	LR	NAS	NAS	CO	FC	FC	FC	FC
10	FC	CC	TI	DI	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	DI	LR	CO	FC	FC	FC	TI	FC	FC
Q11	FC	TI	DI	TI	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	NAS	CO	CO	CO	TI	TI	TI
Q12	TI	TI	DI	UE	CC	CC	TI	TI	CC	CC	CC	CC	CC	CC	DI	CC	CC	CC	NAS	UE	AI	LR	LR	NAS
D13	GWR	TI	GWR	GWR	CO	CO	CO	CO	UE	UE	UE	TI	DI	AI	AI	DI	NAS	LR	NAS	LR	GWR	GWR	GWR	GWR
D14	GWR	GWR	GWR	CO	CC	CO	CO	CC	CC	CC	DI	TI	DI	AI	LR	AI	LR	LR	GWR	LR	FC	GWR	FC	FC
15	GWR	GWR	GWR	GWR	CO	CC	CC	CC	CC	CC	CC	TI	DI	DI	DI	DI	NAS	AI	AI	LR	FC	GWR	GWR	GWR
16	FC	FC	FC	CO	GWR	CC	CC	CC	CC	CC	CC	DI	DI	AI	AI	AI	AI	AI	LR	LR	GWR	GWR	GWR	GWR
17	GWR	GWR	CO	CO	CO	FC	CC	CC	DI	DI	CC	DI	AI	DI	DI	FC	DI	LR	FC	FC	FC	FC	NAS	GWR
18	CO	GWR	GWR	GWR	CC	CC	CC	CC	CC	DI	DI	CC	CC	DI	AI	DI	DI	DI	NAS	NAS	NAS	NAS	GWR	NAS
19	GWR	GWR	GWR	GWR	GWR	CC	CC	CC	CC	CC	DI	DI	CC	DI	DI	DI	NAS	NAS	AI	FC	FC	FC	FC	LR
20	FC	FC	FC	FC	CO	CC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	LR	LR	AI	AI	NAS	LR	LR	NAS
21	NAS	GWR	GWR	DI	NAS	CC	TI	CC	CC	CC	CC	CC	DI	DI	DI	DI	NAS	AI	AI	LR	DI	FC	DI	NAS
22	TI	FC	FC	FC	FC	TI	CC	CC	FC	CC	CC	CC	CC	DI	DI	DI	AI	AI	AI	AI	NAS	NAS	FC	GWR
23	GWR	DI	FC	CC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	AI	AI	AI	NAS	NAS	NAS	FC	FC
24	GWR	GWR	DI	CO	FC	FC	LR	LR	CC	CC	CC	DI	CC	CC	CC	LR	AI	AI	FC	FC	NAS	NAS	DI	DI
Q25	CC	FC	FC	FC	DI	CC	CC	DI	DI	CC	CC	CC	CC	CC	DI	DI	AI	NAS	FC	NAS	LR	NAS	FC	FC
Q26	FC	FC	FC	FC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	CC	CC	AI	LR	LR	NAS	NAS
27	FC	FC	FC	GWR	GWR	CC	CO	CO	CC	TI	TI	TI	DI	TI	NAS	NAS	AI	NAS	NAS	LR	NAS	LR	NAS	FC
28	GWR	FC	GWR	FC	GWR	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	NAS	AI	AI	LR	LR	LR	LR	LR
29	LR	FC	LR	FC	FC	FC	LR	LR	LR	CC	CC	DI	TI	TI	TI	NAS	NAS	NAS	AI	AI	NAS	FC	FC	NAS
30	NAS	FC	FC	FC	FC	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	NAS	AI	AI	FC	LR	FC	LR
31	NAS	NAS	DI	DI	CC	DI	CC	CC	CC	CC	CC	DI	DI	CC	CO	CO	AI	LR	AI	LR	NAS	NAS	FC	LR

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9
*BW = BARROW	71 18.2	-156 44.9	68.5	241.1
CC = C.CHELYUSKIN	77 43.0	104 17.0	66.2	176.4
CO = COLLEGE	64 51.6	-147 50.2	64.6	256.5
GWR= GREAT WHALE R.	55 16.0	-77 47.0	66.5	347.4
DI = DIXON ISLAND	73 32.6	80 33.7	63.0	161.5
FC = FT.CHURCHILL	58 48.0	-94 06.0	68.7	322.8
LR = LEIRVOGUR	64 11.0	-21 42.0	70.2	71.0
NAS= NARSSARSSUAQ	61 06.0	-45 12.0	71.0	37.0
TI = TIXIE BAY	71 35.0	129 00.0	60.4	191.4
UE = CAPE WELLEN	66 09.8	-169 50.1	61.7	237.0
YEK= YELLOWKNIFE	62 24.0	245 36.0	69.0	292.8

*THE ONLY OBSERVATORY NOT PROVIDING DATA FOR THIS MONTH.

TABLE OF OBSERVATORIES SUPPLYING HOURLY AL BASED ON MEAN VALUE

JANUARY 1975 AL = MINIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	AI	AI	AI	LR	LR	NAS	NAS	GWR	GWR	FC	FC	YEK	YEK	CC	CC	CC	CC	CC	GWR	DI	CC	CC	CC	CC
Q 2	CC	AI	CC	AI	AI	AI	GWR	GWR	GWR	FC	YEK	YEK	GWR	YEK	CC	CC	GWR	GWR	DI	DI	DI	CC	AI	CO
3	LR	LR	NAS	GWR	NAS	GWR	GWR	GWR	GWR	FC	FC	FC	CO	CC	TI	TI	TI	DI	DI	DI	DI	DI	CC	AI
D 4	AI	LR	LR	LR	NAS	NAS	NAS	NAS	GWR	GWR	CO	CO	CO	CO	CC	UE	DI	TI	TI	TI	TI	DI	DI	CC
5	CC	NAS	LR	LR	GWR	GWR	GWR	GWR	GWR	CO	CO	CO	CO	CC	UE	TI	CC	TI	TI	TI	DI	DI	CC	LR
6	LR	LR	NAS	NAS	GWR	GWR	FC	GWR	FC	FC	FC	CO	CO	CC	CC	CC	TI	DI	DI	TI	TI	TI	DI	AI
D 7	DI	LR	AI	AI	GWR	FC	GWR	GWR	GWR	CO	CO	CO	CO	CC	CC	GWR	CC	DI	CC	CC	CC	LR	UE	AI
D 8	LR	LR	NAS	LR	GWR	GWR	GWR	FC	GWR	GWR	CO	CC	UE	UE	UE	UE	TI	TI	TI	AI	DI	TI	CC	AI
9	AI	AI	NAS	GWR	GWR	GWR	GWR	GWR	FC	FC	FC	FC	CO	CO	CC	CC	TI	DI	CC	CC	DI	DI	CC	LR
10	NAS	NAS	NAS	NAS	NAS	FC	GWR	FC	FC	FC	FC	AI	CO	UE	GWR	GWR	GWR	GWR	GWR	DI	DI	CC	CC	LR
Q11	LR	CC	NAS	NAS	GWR	GWR	GWR	NAS	FC	FC	FC	FC	NAS	NAS	GWR	CC	CC	DI	DI	DI	DI	CC	AI	CC
Q12	LR	LR	NAS	NAS	GWR	GWR	GWR	GWR	AI	UE	UE	LR	LR	NAS	GWR	GWR	GWR	GWR	CC	DI	DI	UE	UE	AI
D13	CC	LR	LR	AI	LR	LR	NAS	NAS	NAS	GWR	GWR	CO	CC	CO	CO	CC	TI	DI	DI	TI	TI	TI	TI	CC
D14	CC	CC	AI	LR	NAS	LR	GWR	FC	GWR	GWR	FC	CO	CO	CO	CO	FC	TI	TI	DI	DI	TI	DI	CC	AI
15	AI	AI	LR	LR	GWR	GWR	GWR	GWR	GWR	GWR	GWR	CO	FC	FC	CC	CC	CC	DI	CC	DI	DI	DI	TI	AI
16	AI	CC	LR	LR	NAS	GWR	UE	GWR	GWR	GWR	FC	CO	FC	FC	CO	UE	TI	TI	DI	TI	TI	AI	DI	AI
17	CC	CC	GWR	LR	NAS	NAS	NAS	GWR	GWR	GWR	FC	FC	CO	CO	CC	CC	CC	DI	DI	DI	TI	AI	CC	CC
18	AI	CC	LR	NAS	NAS	NAS	GWR	GWR	GWR	GWR	FC	FC	FC	CO	CO	CC	CC	CC	TI	TI	AI	TI	AI	AI
19	LR	LR	LR	NAS	NAS	DI	GWR	GWR	GWR	UE	GWR	CO	CO	CO	CC	CC	CC	DI	DI	CC	DI	DI	CC	AI
20	AI	LR	LR	NAS	NAS	NAS	GWR	FC	FC	FC	UE	AI	CO	CO	CO	CO	TI	DI	DI	DI	DI	DI	DI	CC
21	CC	AI	UE	CO	LR	LR	LR	LR	FC	FC	FC	FC	FC	CC	CO	CC	CC	DI	DI	DI	CO	UE	CC	CO
22	UE	UE	UE	NAS	NAS	FC	GWR	FC	UE	AI	FC	FC	FC	UE	CC	CC	TI	TI	TI	CC	UE	DI	DI	CC
23	CC	AI	UE	NAS	NAS	GWR	GWR	FC	FC	FC	FC	FC	FC	CO	CC	TI	TI	TI	TI	TI	DI	CC	CC	AI
24	AI	LR	LR	NAS	NAS	NAS	AI	CO	GWR	GWR	GWR	FC	FC	AI	UE	CC	CC	CC	CC	DI	DI	DI	CC	UE
Q25	AI	AI	NAS	NAS	CO	NAS	FC	FC	AI	AI	FC	FC	LR	CO	CO	CC	TI	DI	TI	UE	DI	CC	CC	CC
Q26	CC	LR	LR	CO	AI	NAS	GWR	GWR	FC	FC	FC	FC	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	CC	AI
27	AI	NAS	NAS	NAS	NAS	NAS	NAS	GWR	GWR	GWR	GWR	FC	FC	LR	FC	DI	DI	TI	TI	TI	TI	TI	CC	AI
28	AI	LR	LR	LR	NAS	NAS	GWR	GWR	FC	FC	FC	FC	FC	FC	CC	CC	DI	TI	CC	DI	AI	AI	CC	CC
29	AI	AI	NAS	NAS	NAS	NAS	CO	CO	CO	FC	FC	FC	FC	FC	FC	CO	TI	DI	TI	DI	CO	CO	CC	AI
30	AI	LR	LR	CO	NAS	GWR	FC	FC	FC	GWR	FC	FC	AI	CO	CC	CC	TI	TI	DI	DI	DI	DI	DI	CC
31	CC	AI	AI	UE	NAS	NAS	FC	UE	UE	FC	FC	CO	FC	FC	AI	GWR	TI	TI	TI	TI	DI	TI	DI	CC

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9
*BW = BARROW	71 18.2	-156 44.9	68.5	241.1
CC = C.CHELYUSKIN	77 43.0	104 17.0	66.2	176.4
CO = COLLEGE	64 51.6	-147 50.2	64.6	256.5
GWR= GREAT WHALE R.	55 16.0	-77 47.0	66.5	347.4
DI = DIXON ISLAND	73 32.6	80 33.7	63.0	161.5

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
FC = FT.CHURCHILL	58 48.0	-94 06.0	68.7	322.8
LR = LEIRVOGUR	64 11.0	-21 42.0	70.2	71.0
NAS= NARSSARSSUAQ	61 06.0	-45 12.0	71.0	37.0
TI = TIXIE BAY	71 35.0	129 00.0	60.4	191.4
UE = CAPE WELLEN	66 09.8	-169 50.1	61.7	237.0
YEK= YELLOWKNIFE	62 24.0	245 36.0	69.0	292.8

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TABLE OF OBSERVATORIES SUPPLYING HOURLY AU BASED ON MEAN VALUE

FEBRUARY 1975

AU = MAXIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D 1	YEK	YEK	YEK	CO	CO	CO	CO	CC	LR	DI	DI	AI	AI	AI	AI	AI	AI	NAS	FC	LR	FC	FC	YEK	YEK
2	FC	YEK	YEK	CO	YEK	YEK	CC	CO	YEK	DI	DI	DI	DI	AI	NAS	NAS	NAS	AI	AI	NAS	YEK	NAS	FC	YEK
3	YEK	FC	YEK	YEK	YEK	YEK	CC	CO	CC	CC	CC	CC	DI	DI	DI	LR	NAS	NAS	NAS	NAS	DI	YEK	YEK	NAS
4	NAS	YEK	YEK	YEK	YEK	YEK	FC	YEK	CC	CC	NAS	CC	DI	DI	DI	AI	AI	NAS	NAS	YEK	YEK	NAS	LR	FC
5	YEK	YEK	YEK	YEK	YEK	YEK	CC	CC	CC	CC	DI	DI	DI	DI	FC	LR	AI	AI	FC	NAS	NAS	FC	YEK	YEK
Q 6	YEK	YEK	FC	YEK	CC	YEK	YEK	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	NAS	AI	NAS	NAS	YEK	NAS	NAS
7	FC	YEK	YEK	YEK	YEK	CO	CC	CO	CC	TI	DI	DI	DI	DI	DI	LR	LR	LR	LR	LR	NAS	FC	FC	FC
Q 8	FC	YEK	YEK	YEK	CC	CC	CC	CC	CC	LR	CC	DI	CC	FC	FC	YEK	LR	NAS	NAS	NAS	NAS	LR	YEK	YEK
9	FC	YEK	YEK	YEK	YEK	YEK	CO	LR	YEK	YEK	YEK	YEK	FC	YEK	DI	LR	NAS	DI	NAS	AI	AI	NAS	FC	YEK
D10	YEK	YEK	YEK	CO	CO	UE	UE	UE	UE	UE	TI	TI	DI	TI	LR	NAS	LR	LR	NAS	LR	FC	FC	YEK	YEK
D11	YEK	CO	CO	YEK	TI	CC	CC	CC	CC	CC	CC	DI	DI	DI	AI	AI	AI	LR	NAS	NAS	FC	FC	YEK	YEK
D12	YEK	YEK	YEK	CO	CO	CO	CO	CO	TI	TI	DI	DI	DI	AI	AI	TI	LR	NAS	NAS	NAS	FC	FC	FC	FC
13	YEK	YEK	YEK	YEK	CO	CC	CC	CC	CC	CC	DI	DI	DI	DI	AI	DI	YEK	LR	NAS	NAS	FC	FC	NAS	FC
14	YEK	YEK	YEK	YEK	CO	CC	CC	CC	CC	CC	CC	DI	DI	FC	LR	AI	AI	NAS	NAS	NAS	FC	YEK	FC	FC
15	FC	FC	NAS	YEK	CO	CC	CC	CO	CC	CC	CC	DI	DI	AI	AI	LR	LR	LR	NAS	NAS	LR	FC	FC	YEK
16	YEK	YEK	YEK	YEK	YEK	CC	CO	CO	LR	CC	DI	DI	DI	AI	LR	AI	LR	NAS	NAS	NAS	LR	NAS	NAS	FC
17	YEK	FC	YEK	YEK	YEK	CC	CO	FC	CO	CC	TI	TI	DI	DI	TI	DI	NAS	LR	NAS	AI	NAS	NAS	FC	FC
18	YEK	YEK	YEK	YEK	CO	CC	CO	CO	CO	CC	NAS	NAS	DI	DI	DI	LR	DI	YEK	NAS	FC	NAS	NAS	LR	FC
19	FC	LR	FC	YEK	CO	CC	CO	CO	CC	CC	DI	DI	TI	CO	FC	YEK	YEK	LR	NAS	NAS	NAS	LR	FC	YEK
Q20	YEK	FC	YEK	YEK	YEK	YEK	YEK	CC	CO	CC	CC	YEK	YEK	YEK	YEK	YEK	YEK	NAS	NAS	NAS	NAS	NAS	FC	FC
21	FC	NAS	YEK	YEK	YEK	YEK	YEK	CO	CO	CO	CC	CC	TI	TI	TI	DI	AI	AI	NAS	AI	NAS	YEK	YEK	YEK
Q22	FC	FC	YEK	YEK	FC	YEK	YEK	YEK	CO	CO	CC	DI	TI	TI	TI	AI	NAS	AI	LR	AI	NAS	NAS	NAS	FC
D23	FC	YEK	FC	FC	YEK	YEK	CO	CC	CO	UE	TI	AI	DI	DI	AI	AI	AI	AI	AI	NAS	NAS	NAS	FC	FC
24	YEK	YEK	YEK	YEK	YEK	CO	YEK	YEK	YEK	CO	CO	NAS	DI	DI	LR	AI	AI	AI	LR	NAS	NAS	NAS	LR	FC
25	FC	YEK	YEK	YEK	CO	CC	CO	CO	CC	CC	DI	DI	DI	AI	DI	LR	FC	NAS	NAS	NAS	NAS	NAS	NAS	FC
26	FC	YEK	YEK	YEK	YEK	YEK	LR	LR	CC	CC	CC	TI	TI	DI	DI	FC	NAS	LR	NAS	NAS	FC	FC	YEK	YEK
Q27	YEK	YEK	YEK	YEK	YEK	YEK	CC	CC	LR	NAS	NAS	FC	FC	FC	DI	DI	DI	NAS	NAS	NAS	NAS	NAS	NAS	NAS
28	FC	FC	FC	YEK	YEK	YEK	YEK	LR	LR	CC	NAS	FC	YEK	TI	DI	NAS	NAS	AI	NAS	NAS	NAS	FC	FC	FC

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9
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FEBRUARY 1975

AL = MINIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D 1	AI	LR	LR	LR	LR	LR	NAS	YEK	CO	CO	CO	CO	CO	UE	UE	TI	TI	TI	DI	TI	AI	AI	AI	AI
2	LR	LR	LR	LR	NAS	NAS	YEK	FC	FC	FC	CO	CO	CO	CC	CC	CC	TI	TI	DI	DI	DI	CC	CC	CC
3	AI	LR	LR	LR	NAS	NAS	NAS	NAS	FC	FC	FC	FC	YEK	CC	CC	CC	TI	TI	DI	DI	CC	CC	CC	CC
4	DI	DI	LR	NAS	NAS	NAS	UE	UE	FC	FC	YEK	CO	YEK	YEK	YEK	TI	DI	DI	TI	TI	DI	CC	AI	AI
5	AI	CC	LR	NAS	NAS	NAS	FC	FC	FC	FC	CO	CO	CO	YEK	CC	CC	TI	DI	TI	DI	DI	AI	CC	AI
Q 6	LR	LR	NAS	NAS	NAS	NAS	UE	YEK	FC	FC	FC	CO	YEK	UE	CC	CC	CC	CC	DI	DI	AI	DI	CC	AI
7	LR	LR	LR	NAS	NAS	NAS	NAS	FC	FC	CO	YEK	FC	CO	CO	YEK	TI	DI	CC	TI	TI	AI	AI	AI	AI
Q 8	AI	LR	LR	LR	NAS	NAS	NAS	FC	YEK	FC	FC	YEK	YEK	YEK	CC	CC	CC	CC	CC	CC	CC	CC	UE	CC
9	CC	LR	NAS	LR	NAS	NAS	NAS	FC	CO	AI	AI	LR	LR	LR	CO	CO	CC	CC	CC	DI	TI	TI	DI	AI
D10	CC	CC	LR	LR	LR	FC	LR	NAS	NAS	YEK	CC	CO	CO	CO	CO	CO	CO	DI	TI	TI	DI	DI	DI	DI
D11	LR	LR	NAS	AI	LR	NAS	YEK	NAS	FC	FC	CO	CO	CO	YEK	YEK	TI	TI	TI	DI	TI	TI	AI	DI	AI
D12	AI	AI	AI	LR	FC	FC	YEK	NAS	NAS	NAS	CO	CO	FC	UE	CO	CC	TI	TI	TI	TI	AI	DI	DI	NAS
13	LR	AI	LR	LR	FC	NAS	YEK	NAS	NAS	YEK	YEK	CO	CO	CO	CC	TI	TI	DI	TI	TI	DI	CC	CC	CC
14	LR	AI	LR	LR	LR	FC	NAS	NAS	YEK	YEK	FC	CO	CO	YEK	YEK	TI	TI	TI	TI	TI	TI	AI	LR	AI
15	AI	LR	UE	LR	FC	NAS	NAS	NAS	NAS	FC	CO	CO	CO	CO	CC	CC	TI	DI	TI	TI	DI	AI	AI	AI
16	AI	AI	AI	FC	LR	NAS	NAS	FC	FC	FC	CO	YEK	CO	UE	CC	CO	TI	DI	DI	TI	AI	AI	AI	AI
17	AI	CC	CC	LR	NAS	NAS	NAS	YEK	YEK	FC	FC	CO	CC	CC	CC	CC	CC	DI	DI	DI	DI	DI	DI	CC
18	CC	LR	LR	LR	NAS	NAS	NAS	NAS	YEK	CO	CO	FC	CO	YEK	YEK	CC	CC	TI	DI	DI	DI	DI	AI	AI
19	AI	UE	UE	LR	NAS	NAS	NAS	NAS	CO	CO	YEK	FC	FC	YEK	TI	TI	TI	TI	DI	DI	DI	CC	AI	AI
Q20	LR	UE	NAS	NAS	NAS	NAS	DI	YEK	YEK	YEK	YEK	AI	LR	LR	CC	CC	CC	CC	CC	DI	DI	CC	CC	CC
21	CC	UE	LR	LR	NAS	NAS	NAS	FC	YEK	YEK	FC	FC	CO	YEK	YEK	CC	YEK	TI	DI	DI	CC	UE	CC	CC
Q22	AI	LR	LR	NAS	CC	CC	NAS	DI	FC	YEK	FC	CO	YEK	CO	YEK	TI	TI	TI	TI	DI	CC	DI	DI	AI
D23	CC	NAS	LR	NAS	NAS	FC	FC	NAS	NAS	NAS	FC	CO	CO	FC	TI	DI	DI	TI	TI	TI	UE	AI	AI	AI
24	AI	LR	LR	LR	NAS	NAS	DI	AI	DI	AI	FC	AI	CO	CO	YEK	TI	TI	TI	TI	AI	AI	AI	AI	AI
25	LR	LR	LR	NAS	FC	FC	NAS	NAS	CO	CO	CO	CO	CO	CO	YEK	TI	DI	CC	TI	DI	CC	AI	DI	AI
26	AI	LR	LR	NAS	NAS	TI	YEK	YEK	FC	YEK	YEK	FC	YEK	CC	CC	CC	DI	DI	DI	DI	CC	CO	UE	UE
Q27	UE	UE	CC	CC	NAS	NAS	YEK	FC	YEK	YEK	YEK	AI	AI	NAS	CC	CC	CC	CC	YEK	CO	DI	CC	CC	CC
28	LR	LR	NAS	NAS	NAS	GWR	GWR	GWR	FC	FC	YEK	DI	AI	GWR	YEK	YEK	CC	GWR	GWR	DI	TI	DI	AI	AI

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
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MARCH 1975 AU = MAXIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	YEK	YEK	YEK	YEK	YEK	CC	CC	CC	CC	CC	DI	TI	GWR	FC	DI	LR	AI	NAS	NAS	NAS	GWR	GWR	NAS	LR
2	FC	YEK	YEK	YEK	CO	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	YEK	AI	NAS	AI	NAS	NAS	NAS	FC	NAS
3	YEK	FC	FC	CO	YEK	AI	YEK	YEK	TI	CC	CC	CC	CC	DI	DI	AI	AI	AI	NAS	NAS	NAS	NAS	FC	FC
4	YEK	FC	YEK	YEK	GWR	YEK	CO	CC	CC	CC	CC	CC	CC	DI	DI	FC	DI	NAS	NAS	NAS	NAS	NAS	NAS	GWR
5	FC	FC	YEK	CO	CO	CO	UE	CC	TI	TI	DI	DI	TI	CC	LR	LR	LR	LR	NAS	NAS	LR	FC	FC	FC
6	GWR	GWR	YEK	YEK	CC	CC	CO	CC	DI	DI	TI	DI	DI	DI	AI	LR	LR	LR	NAS	CO	FC	FC	FC	DI
Q 7	CO	FC	CO	AI	CO	CC	CC	CC	CC	CC	NAS	CC	CC	CC	CO	AI	CO	DI	CO	NAS	FC	NAS	NAS	NAS
Q 8	NAS	NAS	FC	FC	CO	FC	FC	TI	FC	TI	TI	CO	TI	TI	AI	LR	CC	CC	AI	NAS	NAS	LR	NAS	NAS
9	NAS	NAS	FC	FC	GWR	FC	FC	TI	TI	CO	FC	CC	CC	CC	DI	DI	NAS	NAS	NAS	AI	LR	FC	FC	GWR
D10	GWR	CO	CO	CO	CO	UE	UE	UE	UE	TI	DI	AI	AI	AI	AI	AI	LR	LR	GWR	GWR	GWR	CC	GWR	CO
D11	CO	CO	UE	UE	UE	DI	UE	TI	DI	DI	DI	DI	DI	AI	AI	AI	LR	NAS	NAS	NAS	NAS	GWR	GWR	GWR
D12	GWR	GWR	UE	CO	CC	CC	LR	CC	TI	DI	DI	DI	AI	DI	AI	LR	NAS	LR	NAS	NAS	GWR	GWR	GWR	GWR
13	FC	UE	DI	GWR	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	AI	LR	LR	LR	GWR	LR	NAS	NAS	GWR	GWR
14	GWR	DI	FC	DI	CC	CC	CC	CC	CC	CC	CC	DI	DI	AI	AI	AI	LR	LR	LR	GWR	FC	FC	GWR	GWR
15	YEK	YEK	YEK	GWR	YEK	CC	CC	CC	CC	CC	CC	DI	DI	AI	AI	AI	NAS	NAS	LR	NAS	FC	GWR	NAS	NAS
16	YEK	YEK	YEK	YEK	CO	CO	CC	CC	DI	DI	TI	TI	TI	DI	DI	AI	AI	AI	CO	LR	LR	LR	YEK	FC
17	YEK	YEK	CO	CO	CO	LR	CC	CC	CC	CC	CC	CC	CC	CC	DI	LR	YEK	NAS	NAS	NAS	NAS	NAS	FC	FC
18	YEK	GWR	GWR	YEK	CC	CO	CC	CC	CO	CC	CC	DI	DI	DI	DI	AI	LR	NAS	LR	NAS	GWR	GWR	FC	GWR
19	YEK	FC	GWR	YEK	YEK	GWR	CO	CO	CO	CC	CC	CC	DI	DI	DI	DI	LR	AI	LR	NAS	NAS	GWR	GWR	GWR
20	GWR	DI	YEK	YEK	YEK	CO	CO	CO	CO	CO	DI	TI	DI	DI	AI	AI	LR	NAS	LR	LR	NAS	FC	FC	FC
Q21	GWR	NAS	CC	YEK	YEK	YEK	LR	CO	NAS	CC	CC	CC	CC	CC	CO	CO	DI	AI	NAS	NAS	NAS	LR	NAS	NAS
Q22	NAS	NAS	NAS	NAS	AI	CO	CO	CO	CO	CO	CO	CO	CO	UE	CO	CO	CO	CO	NAS	NAS	NAS	NAS	NAS	GWR
23	GWR	YEK	YEK	CO	CO	CO	CO	CO	UE	CC	CC	DI	CC	DI	DI	DI	CO	NAS	NAS	NAS	NAS	NAS	NAS	NAS
24	DI	YEK	GWR	GWR	GWR	GWR	YEK	YEK	CO	CC	TI	DI	TI	AI	AI	AI	AI	LR	NAS	NAS	NAS	GWR	TI	CC
Q25	CC	YEK	GWR	YEK	YEK	CO	CO	CO	CO	CO	CC	CC	TI	TI	TI	CO	LR	LR	NAS	GWR	GWR	GWR	GWR	YEK
26	CC	CC	YEK	YEK	YEK	YEK	YEK	YEK	CO	CO	TI	DI	DI	DI	DI	AI	AI	NAS	NAS	NAS	NAS	NAS	NAS	GWR
D27	YEK	YEK	YEK	YEK	GWR	CC	CC	CO	CC	CC	DI	TI	DI	LR	LR	LR	LR	LR	LR	NAS	NAS	GWR	YEK	YEK
D28	GWR	YEK	NAS	YEK	CC	CC	CC	TI	DI	TI	DI	DI	AI	AI	AI	AI	LR	AI	NAS	NAS	NAS	GWR	GWR	YEK
29	NAS	YEK	YEK	CC	CC	CO	CC	CC	CC	DI	DI	DI	DI	DI	AI	NAS	NAS	LR	NAS	NAS	NAS	GWR	NAS	GWR
30	GWR	YEK	YEK	YEK	YEK	CO	CC	CC	CC	CC	CC	DI	DI	CC	DI	DI	LR	NAS	NAS	NAS	NAS	NAS	GWR	GWR
31	YEK	YEK	YEK	CO	CO	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	LR	LR	NAS	NAS	NAS	GWR	GWR	NAS	YEK

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG	IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
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2	LR	LR	LR	NAS	NAS	GWR	GWR	FC	GWR	FC	FC	CO	CO	CO	CC	CC	CC	DI	DI	DI	DI	DI	LR	AI
3	LR	LR	NAS	NAS	NAS	GWR	GWR	FC	FC	FC	YEK	YEK	CO	CO	CO	CC	TI	DI	DI	DI	DI	DI	AI	AI
4	LR	LR	LR	NAS	NAS	NAS	GWR	GWR	FC	FC	CO	YEK	YEK	CO	YEK	GWR	GWR	DI	CC	CC	DI	CC	DI	DI
5	CC	CC	LR	LR	LR	LR	NAS	FC	CO	GWR	CO	YEK	YEK	YEK	CO	CO	TI	TI	TI	DI	TI	DI	LR	LR
6	AI	CO	LR	GWR	GWR	NAS	NAS	GWR	GWR	CO	CO	FC	CO	CO	CO	CO	CO	TI	TI	DI	DI	DI	LR	NAS
Q 7	NAS	NAS	NAS	NAS	GWR	FC	FC	FC	FC	FC	AI	AI	LR	GWR	GWR	GWR	GWR	GWR	FC	DI	CO	DI	CO	CO
Q 8	UE	UE	TI	TI	TI	CC	DI	CC	DI	NAS	AI	LR	NAS	NAS	NAS	GWR	GWR	GWR	DI	CO	CC	CC	CO	CO
9	CO	UE	TI	NAS	NAS	DI	DI	DI	DI	AI	AI	LR	NAS	NAS	GWR	GWR	GWR	TI	DI	DI	DI	CC	AI	AI
D10	LR	AI	AI	AI	LR	LR	LR	GWR	NAS	CO	CO	GWR	CO	UE	CO	UE	CO	UE	AI	TI	TI	TI	TI	LR
D11	AI	AI	NAS	LR	GWR	LR	LR	CO	GWR	GWR	CO	CO	CO	CO	CC	DI	TI	TI	TI	TI	TI	LR	AI	AI
D12	LR	LR	GWR	LR	LR	GWR	GWR	GWR	GWR	GWR	CO	CO	CC	CO	CO	CO	CO	TI	DI	TI	TI	AI	DI	LR
13	CC	AI	LR	NAS	NAS	CO	GWR	GWR	GWR	CO	CO	CO	CO	CO	CC	CO	TI	TI	TI	TI	AI	AI	AI	AI
14	CC	CO	LR	NAS	NAS	GWR	NAS	NAS	GWR	FC	FC	CO	CO	CO	CO	CO	TI	TI	TI	TI	AI	AI	DI	AI
15	AI	LR	LR	CO	LR	GWR	GWR	GWR	GWR	YEK	FC	CO	CO	CO	CO	DI	DI	TI	TI	DI	DI	AI	AI	AI
16	LR	LR	LR	GWR	NAS	NAS	GWR	GWR	NAS	YEK	FC	GWR	CO	CO	CO	CO	YEK	TI	TI	DI	DI	AI	AI	AI
17	AI	AI	GWR	LR	LR	DI	GWR	GWR	GWR	YEK	CO	CO	FC	YEK	CC	CC	CC	DI	DI	DI	DI	DI	AI	AI
18	AI	LR	LR	TI	FC	GWR	GWR	GWR	GWR	FC	FC	CO	CO	YEK	YEK	CO	CO	TI	TI	TI	TI	AI	DI	AI
19	LR	LR	LR	LR	FC	FC	FC	FC	GWR	FC	FC	FC	FC	CO	CO	CC	TI	TI	TI	DI	DI	AI	AI	AI
20	AI	CO	TI	NAS	NAS	GWR	GWR	GWR	GWR	GWR	GWR	CO	CO	CO	CO	CO	TI	TI	TI	TI	DI	DI	DI	AI
Q21	AI	LR	UE	NAS	NAS	GWR	GWR	YEK	DI	AI	YEK	YEK	YEK	NAS	GWR	GWR	CC	CC	YEK	YEK	CO	CO	CO	CO
Q22	CO	CO	UE	TI	CC	CC	CC	CC	CC	AI	AI	AI	LR	LR	LR	GWR	GWR	GWR	GWR	GWR	GWR	YEK	CC	AI
23	AI	LR	LR	LR	LR	LR	NAS	NAS	GWR	GWR	CO	CO	YEK	YEK	YEK	TI	TI	DI	DI	DI	DI	AI	CC	CO
24	CO	UE	UE	TI	CC	DI	DI	DI	GWR	GWR	GWR	GWR	CO	CO	TI	UE	TI	DI	TI	DI	AI	AI	LR	NAS
Q25	CO	LR	LR	LR	NAS	NAS	AI	YEK	GWR	AI	CO	CO	CO	YEK	YEK	YEK	YEK	TI	CC	CC	CC	AI	AI	AI
26	UE	UE	NAS	NAS	NAS	NAS	DI	DI	GWR	GWR	GWR	CO	CO	CO	YEK	TI	TI	TI	TI	DI	DI	AI	AI	LR
D27	LR	LR	LR	LR	NAS	YEK	YEK	GWR	GWR	GWR	CO	CO	CO	CO	CO	CO	CO	CO	CO	TI	TI	LR	LR	LR
D28	AI	LR	LR	LR	GWR	NAS	NAS	YEK	GWR	GWR	CO	CO	UE	CO	CO	DI	TI	TI	TI	DI	DI	AI	AI	LR
29	LR	LR	LR	NAS	NAS	GWR	GWR	GWR	GWR	CO	GWR	CO	CO	YEK	CO	TI	TI	DI	TI	AI	AI	DI	AI	AI
30	LR	NAS	NAS	NAS	NAS	GWR	GWR	GWR	YEK	YEK	YEK	CO	CO	YEK	YEK	CC	CC	DI	DI	DI	DI	DI	LR	LR
31	LR	LR	LR	LR	LR	NAS	GWR	YEK	GWR	DI	LR	CO	CO	CO	CO	CO	DI	DI	DI	DI	UE	CO	CO	LR

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9
*BW = BARROW	71 18.2	-156 44.9	68.5	241.1
CC = C.CHELYUSKIN	77 43.0	104 17.0	66.2	176.4
CO = COLLEGE	64 51.6	-147 50.2	64.6	256.5
GWR= GREAT WHALE R.	55 16.0	-77 47.0	66.5	347.4
DI = DIXON ISLAND	73 32.6	80 33.7	63.0	161.5
FC = FT.CHURCHILL	58 48.0	-94 06.0	68.7	322.8
LR = LEIRVOGUR	64 11.0	-21 42.0	70.2	71.0
NAS= NARSSARSSUAQ	61 06.0	-45 12.0	71.0	37.0
TI = TIXIE BAY	71 35.0	129 00.0	60.4	191.4
UE = CAPE WELLEN	66 09.8	-169 50.1	61.7	237.0
YEK= YELLOWKNIFE	62 24.0	245 36.0	69.0	292.8

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TABLE OF OBSERVATORIES SUPPLYING HOURLY AU BASED ON MEAN VALUE

APRIL 1975 AU = MAXIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	FC	FC	AI	AI	AI	CO	CO	CC	CO	CC	CC	CC	CC	DI	DI	DI	LR	NAS	NAS	NAS	NAS	NAS	NAS	NAS
2	GWR	GWR	FC	FC	GWR	NAS	NAS	NAS	GWR	GWR	GWR	GWR	CC	CC	UE	UE	DI	NAS	AI	NAS	NAS	NAS	NAS	NAS
3	GWR	CC	CC	GWR	LR	GWR	GWR	CO	CO	CO	CC	CC	CC	DI	DI	DI	AI	AI	NAS	NAS	NAS	NAS	NAS	GWR
4	GWR	GWR	GWR	GWR	AI	NAS	NAS	CC	CO	CC	CC	CC	DI	DI	DI	AI	LR	LR	AI	NAS	NAS	NAS	NAS	GWR
5	GWR	GWR	GWR	GWR	LR	UE	CO	CO	CC	CC	CC	CC	CC	CC	TI	DI	LR	AI	LR	NAS	NAS	NAS	GWR	GWR
6	GWR	DI	GWR	GWR	AI	CO	CO	CO	CC	CC	CC	CC	TI	DI	DI	AI	AI	NAS	NAS	NAS	NAS	GWR	GWR	NAS
7	GWR	GWR	GWR	CO	GWR	GWR	CC	CO	CC	CC	CC	DI	DI	DI	CO	LR	CO	LR	NAS	NAS	GWR	GWR	GWR	GWR
D 8	GWR	CO	CO	DI	CC	CO	CC	CO	CC	DI	TI	TI	DI	AI	AI	LR	LR	NAS	LR	GWR	GWR	NAS	DI	GWR
D 9	CO	CO	CO	CO	CO	UE	UE	JE	TI	DI	DI	DI	AI	AI	AI	AI	NAS	GWR	NAS	GWR	GWR	GWR	GWR	GWR
D10	GWR	CO	CO	CO	CO	CO	CO	CC	CC	TI	DI	DI	DI	DI	DI	LR	AI	NAS	NAS	LR	NAS	GWR	GWR	GWR
D11	YEK	YEK	CO	YEK	CO	CC	CC	CO	CC	DI	AI	AI	AI	DI	AI	LR	NAS	LR	NAS	NAS	NAS	NAS	GWR	GWR
12	GWR	YEK	YEK	YEK	YEK	CO	CC	CO	CC	DI	DI	TI	TI	DI	LR	AI	AI	LR	NAS	NAS	NAS	GWR	GWR	GWR
D13	CO	CO	CO	CO	CO	CC	CC	DI	TI	CO	CC	CC	DI	AI	AI	DI	NAS	DI	NAS	LR	NAS	GWR	GWR	GWR
14	YEK	CO	CO	CO	CO	CC	CO	LR	LR	CC	CC	DI	DI	DI	DI	LR	LR	LR	LR	NAS	GWR	NAS	GWR	GWR
15	YEK	GWR	YEK	GWR	YEK	YEK	YEK	CC	CC	CC	CC	CC	CC	DI	DI	AI	LR	AI	NAS	NAS	NAS	NAS	NAS	GWR
16	GWR	GWR	YEK	YEK	YEK	YEK	TI	CO	CC	CC	CC	CC	CC	CC	UE	DI	LR	NAS	NAS	NAS	NAS	NAS	NAS	GWR
Q17	GWR	GWR	GWR	GWR	YEK	YEK	YEK	YEK	CC	CC	CC	CC	CC	CC	CO	CC	LR	AI	LR	NAS	NAS	NAS	NAS	NAS
18	NAS	GWR	GWR	YEK	YEK	YEK	YEK	CO	CO	GWR	CC	TI	TI	DI	DI	DI	LR	LR	LR	LR	LR	LR	GWR	GWR
Q19	GWR	GWR	GWR	YEK	YEK	CO	CO	CO	CO	CC	CC	TI	DI	DI	DI	CC	CC	LR	AI	GWR	LR	GWR	GWR	GWR
20	GWR	GWR	GWR	GWR	GWR	YEK	YEK	CO	CC	CC	CC	CC	CC	DI	DI	AI	AI	LR	LR	GWR	GWR	GWR	GWR	YEK
21	YEK	CO	CO	YEK	GWR	LR	NAS	TI	CO	CO	TI	TI	TI	TI	LR	LR	AI	LR	NAS	NAS	GWR	NAS	NAS	NAS
22	YEK	YEK	YEK	YEK	CO	CO	CO	CC	CC	YEK	GWR	CO	CC	DI	DI	DI	NAS	NAS	NAS	NAS	LR	FC	FC	FC
23	YEK	YEK	YEK	YEK	CO	CC	CO	CC	CC	CC	DI	TI	TI	TI	DI	LR	LR	AI	NAS	NAS	NAS	GWR	GWR	YEK
24	YEK	YEK	YEK	CO	YEK	CO	CO	CC	CC	CC	DI	CC	DI	CC	DI	AI	LR	NAS	NAS	LR	FC	NAS	FC	GWR
25	YEK	YEK	GWR	YEK	CO	YEK	YEK	CO	CC	CC	CC	CC	CC	DI	DI	AI	AI	NAS	NAS	NAS	GWR	NAS	NAS	FC
26	YEK	GWR	YEK	YEK	AI	YEK	FC	YEK	NAS	CC	CC	CC	CC	CC	DI	LR	LR	LR	NAS	NAS	NAS	NAS	FC	YEK
Q27	YEK	FC	FC	YEK	CO	CC	YEK	TI	NAS	CC	CC	CC	CC	DI	DI	NAS	LR	NAS	NAS	NAS	NAS	NAS	NAS	FC
Q28	FC	FC	FC	FC	FC	YEK	YEK	YEK	YEK	GWR	GWR	GWR	CC	CC	CO	CO	DI	NAS	NAS	NAS	NAS	NAS	NAS	NAS
Q29	GWR	GWR	GWR	YEK	YEK	YEK	YEK	YEK	CO	CC	CC	CC	CC	CC	TI	LR	DI	NAS	NAS	LR	NAS	NAS	NAS	FC
30	NAS	YEK	YEK	YEK	YEK	YEK	CO	CO	CO	CC	CC	CC	CC	FC	DI	DI	DI	LR	LR	NAS	NAS	NAS	FC	FC

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9
*BW = BARROW	71 18.2	-156 44.9	68.5	241.1
CC = C.CHELYUSKIN	77 43.0	104 17.0	66.2	176.4
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IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
FC = FT.CHURCHILL	58 48.0	-94 06.0	68.7	322.8
LR = LEIRVOGUR	64 11.0	-21 42.0	70.2	71.0
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TI = TIXIE BAY	71 35.0	129 00.0	60.4	191.4
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TABLE OF OBSERVATORIES SUPPLYING HOURLY AL BASED ON MEAN VALUE

APRIL 1975

AL = MINIMUM DELTA-H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	LR	LR	CO	NAS	NAS	DI	FC	FC	FC	FC	CO	FC	FC	FC	CC	FC	DI	CC	DI	CC	CC	DI	CC	LR
2	LR	LR	NAS	NAS	CC	DI	DI	DI	DI	DI	AI	LR	LR	LR	FC	GWR	FC	FC	DI	DI	DI	DI	DI	AI
3	LR	LR	NAS	NAS	GWR	DI	DI	GWR	GWR	DI	AI	LR	LR	LR	CC	CC	CC	GWR	DI	DI	DI	DI	CC	LR
4	LR	NAS	NAS	NAS	NAS	DI	DI	GWR	GWR	GWR	GWR	AI	CO	CO	CO	DI	CC	CC	DI	DI	DI	DI	CC	AI
5	AI	LR	NAS	NAS	CO	DI	GWR	GWR	GWR	GWR	AI	LR	LR	LR	GWR	GWR	TI	TI	TI	TI	DI	DI	DI	CC
6	LR	NAS	NAS	NAS	NAS	GWR	GWR	GWR	GWR	GWR	GWR	CO	CO	CO	CO	CO	TI	TI	TI	UE	TI	DI	TI	CC
7	LR	LR	TI	NAS	NAS	DI	GWR	GWR	AI	AI	AI	CO	CO	CO	DI	TI	TI	TI	DI	TI	TI	TI	TI	LR
D 8	AI	AI	LR	GWR	NAS	GWR	GWR	GWR	GWR	CO	CO	GWR	CO	CO	DI	CO	CO	TI	TI	TI	DI	CC	LR	LR
D 9	AI	LR	LR	LR	LR	LR	LR	NAS	NAS	GWR	GWR	UE	CO	CO	CO	TI	CO	DI	TI	TI	TI	TI	DI	AI
D10	AI	AI	LR	LR	LR	LR	GWR	GWR	GWR	CO	CO	CO	CO	CO	CC	TI	TI	TI	TI	CC	DI	AI	DI	DI
D11	CC	LR	LR	NAS	NAS	GWR	GWR	NAS	GWR	GWR	GWR	CO	CO	YEK	YEK	CC	TI	TI	TI	DI	AI	AI	DI	DI
12	LR	LR	LR	NAS	NAS	NAS	GWR	GWR	GWR	CO	GWR	YEK	YEK	CC	TI	CO	TI	TI	DI	DI	DI	AI	AI	CC
D13	AI	AI	AI	LR	GWR	YEK	NAS	GWR	GWR	AI	CO	CO	CO	CC	CC	TI	YEK	YEK	DI	DI	DI	DI	AI	AI
14	AI	LR	LR	NAS	NAS	GWR	NAS	NAS	DI	YEK	YEK	YEK	CO	CC	YEK	YEK	TI	TI	TI	DI	DI	CC	AI	LR
15	LR	LR	NAS	NAS	NAS	NAS	NAS	GWR	GWR	YEK	YEK	YEK	YEK	YEK	YEK	CC	TI	TI	TI	TI	AI	DI	CC	CC
16	LR	LR	LR	NAS	GWR	GWR	GWR	GWR	GWR	AI	YEK	YEK	YEK	LR	AI	YEK	CC	DI	CC	CC	CC	CO	CO	CO
Q17	CO	NAS	NAS	NAS	CC	CC	DI	DI	YEK	YEK	YEK	YEK	YEK	AI	LR	YEK	TI	CC	TI	YEK	YEK	CO	UE	UE
18	CO	CO	TI	TI	NAS	CC	DI	DI	DI	AI	AI	CO	YEK	NAS	NAS	NAS	NAS	TI	DI	CC	CC	NAS	CC	NAS
Q19	LR	LR	LR	CC	GWR	GWR	GWR	GWR	GWR	GWR	GWR	AI	CO	CO	YEK	YEK	TI	YEK	DI	DI	DI	CO	CO	UE
20	UE	UE	TI	TI	TI	CC	DI	GWR	GWR	GWR	CO	YEK	NAS	CO	CO	YEK	TI	TI	TI	TI	TI	TI	TI	AI
21	AI	AI	LR	NAS	NAS	DI	DI	DI	NAS	NAS	NAS	NAS	CO	CO	CO	CO	TI	TI	DI	DI	TI	CC	AI	UE
22	LR	LR	LR	NAS	NAS	GWR	GWR	GWR	GWR	AI	CO	AI	AI	CO	CO	YEK	DI	DI	DI	DI	DI	AI	AI	CC
23	LR	LR	LR	NAS	LR	GWR	GWR	NAS	GWR	GWR	CO	YEK	YEK	YEK	YEK	TI	CO	TI	TI	AI	AI	DI	AI	LR
24	NAS	LR	LR	GWR	NAS	NAS	YEK	GWR	GWR	GWR	CO	CO	YEK	YEK	YEK	TI	TI	DI	TI	DI	DI	DI	DI	LR
25	LR	NAS	NAS	NAS	GWR	GWR	DI	YEK	GWR	GWR	YEK	AI	YEK	CO	YEK	YEK	TI	CC	DI	DI	CO	CC	CO	CC
26	LR	LR	NAS	GWR	GWR	CC	DI	DI	DI	FC	FC	YEK	YEK	YEK	CC	CC	YEK	CC	CC	CC	DI	AI	AI	UE
Q27	CC	TI	NAS	GWR	GWR	NAS	FC	DI	DI	AI	YEK	YEK	YEK	YEK	CC	CC	CC	DI	CC	CC	CC	CC	CC	LR
Q28	UE	NAS	NAS	TI	CC	CC	CC	DI	DI	AI	AI	AI	AI	NAS	LR	GWR	YEK	CC	DI	DI	CC	UE	CC	TI
Q29	TI	NAS	CC	CC	CC	CC	DI	DI	DI	AI	YEK	YEK	YEK	AI	LR	GWR	GWR	CC	CC	CC	CO	CO	UE	TI
30	UE	UE	TI	CC	CC	CC	GWR	GWR	GWR	GWR	FC	FC	AI	LR	YEK	CC	CC	DI	DI	DI	DI	CC	CC	CC

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MAY 1975 AU = MAXIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	FC	DI	FC	YEK	YEK	YEK	CO	CO	CO	CO	CO	CC	DI	DI	DI	DI	LR	LR	LR	NAS	NAS	NAS	FC	FC
2	FC	FC	FC	YEK	YEK	CO	CC	CO	CO	TI	TI	TI	DI	AI	LR	LR	LR	LR	LR	GWR	FC	GWR	FC	GWR
3	FC	YEK	YEK	CO	CO	CO	CO	CO	CC	CC	DI	AI	AI	AI	AI	DI	NAS	AI	NAS	LR	FC	FC	FC	GWR
4	YEK	YEK	YEK	YEK	YEK	CC	CO	CC	CC	CC	TI	TI	DI	AI	CC	LR	AI	NAS	NAS	NAS	NAS	FC	FC	GWR
5	CO	YEK	CO	CO	CC	CO	CC	TI	CC	TI	TI	TI	TI	DI	DI	DI	AI	LR	NAS	GWR	GWR	GWR	GWR	YEK
6	CO	YEK	CO	CO	CO	CO	CO	TI	TI	TI	TI	TI	TI	AI	LR	LR	LR	LR	NAS	NAS	FC	GWR	FC	YEK
Q 7	FC	YEK	YEK	YEK	CC	AI	CC	CO	CC	CC	DI	TI	TI	AI	LR	NAS	AI	LR	NAS	NAS	NAS	FC	FC	FC
Q 8	YEK	YEK	CO	YEK	CO	CO	CC	CC	CC	CC	CC	DI	CC	DI	DI	LR	LR	NAS	NAS	LR	GWR	FC	FC	DI
9	YEK	YEK	YEK	YEK	YEK	YEK	CC	CC	CC	CC	TI	CC	CC	TI	AI	LR	LR	LR	LR	NAS	NAS	FC	FC	GWR
D10	GWR	YEK	CO	CO	CO	CC	CO	CC	CC	CC	CC	DI	DI	AI	LR	AI	LR	LR	NAS	NAS	FC	GWR	FC	NAS
D11	DI	YEK	FC	YEK	YEK	YEK	YEK	YEK	TI	CC	CC	CC	CC	CC	TI	DI	NAS	LR	LR	LR	LR	NAS	NAS	DI
D12	FC	YEK	FC	YEK	YEK	YEK	CO	TI	UE	TI	YEK	TI	TI	TI	CC	CC	CC	CC	CC	LR	NAS	LR	DI	DI
13	DI	YEK	YEK	YEK	YEK	YEK	YEK	YEK	CC	CC	CC	CC	CC	CC	CC	UE	NAS	NAS	NAS	NAS	NAS	FC	FC	FC
14	YEK	YEK	CO	CO	CO	CO	CO	CO	TI	TI	TI	TI	DI	DI	DI	DI	AI	LR	LR	NAS	NAS	FC	FC	DI
15	DI	FC	FC	YEK	YEK	CO	CC	CC	CC	CC	CC	CC	CC	CC	DI	DI	LR	NAS	NAS	LR	NAS	LR	DI	FC
16	FC	FC	FC	YEK	CO	YEK	CO	UE	TI	CC	CC	DI	AI	AI	AI	AI	LR	LR	NAS	NAS	NAS	FC	GWR	GWR
17	YEK	YEK	YEK	YEK	CO	CO	CC	CC	CC	CC	CC	CC	DI	AI	DI	DI	LR	LR	NAS	NAS	NAS	NAS	NAS	FC
18	FC	GWR	YEK	YEK	CO	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	LR	NAS	NAS	LR	NAS	GWR	FC	FC	FC
19	FC	YEK	YEK	YEK	CO	CO	CO	CC	CC	TI	TI	NAS	NAS	NAS	NAS	CC	NAS	NAS	NAS	NAS	NAS	NAS	FC	DI
20	FC	YEK	YEK	CO	CO	CO	CC	CC	TI	DI	CO	CC	CC	NAS	LR	LR	LR	LR	NAS	FC	FC	FC	NAS	FC
Q21	FC	FC	CO	CO	CO	CC	CC	CO	CC	CC	CC	DI	DI	DI	DI	DI	CO	NAS	CC	NAS	NAS	FC	FC	FC
Q22	FC	DI	FC	GWR	CO	CO	CC	CC	CC	CC	DI	TI	DI	DI	AI	LR	NAS	NAS	LR	NAS	FC	FC	FC	FC
23	FC	DI	FC	FC	FC	CO	CC	CC	CC	CC	CC	CC	CC	CC	DI	LR	NAS	NAS	NAS	NAS	NAS	FC	FC	FC
24	FC	FC	FC	FC	YEK	YEK	CO	CO	CO	CC	CC	CC	CC	CC	CC	NAS	NAS	LR	LR	LR	NAS	FC	FC	FC
Q25	FC	YEK	YEK	YEK	FC	YEK	CO	CO	CC	CC	CC	CC	CC	DI	DI	DI	AI	LR	NAS	GWR	GWR	GWR	FC	YEK
26	YEK	CO	CO	YEK	CO	CO	CO	CC	CC	CC	CC	CC	CC	CC	CC	CO	NAS	NAS	LR	NAS	NAS	NAS	DI	DI
D27	FC	FC	FC	FC	YEK	CO	CO	CO	CO	CO	CC	TI	DI	DI	DI	DI	NAS	LR	LR	NAS	NAS	NAS	NAS	DI
D28	FC	FC	YEK	YEK	YEK	YEK	YEK	TI	CC	CC	CC	CC	CC	CC	CC	LR	DI	NAS	NAS	NAS	NAS	FC	DI	NAS
29	FC	YEK	YEK	YEK	YEK	CC	CC	CC	CC	CC	CC	GWR	FC	CC	CC	LR	LR	LR	NAS	NAS	NAS	GWR	GWR	FC
30	FC	FC	DI	FC	YEK	CO	CC	CC	CC	CC	CC	CC	CC	DI	DI	DI	AI	NAS	NAS	NAS	NAS	NAS	FC	FC
31	FC	FC	YEK	FC	FC	GWR	YEK	GWR	GWR	GWR	GWR	GWR	CC	CC	DI	DI	LR	LR	NAS	NAS	NAS	NAS	FC	FC

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG	IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9	FC = FT.CHURCHILL	58 48.0	-94 06.0	68.7	322.8
*BW = BARROW	71 18.2	-156 44.9	68.5	241.1	LR = LEIRVOGUR	64 11.0	-21 42.0	70.2	71.0
CC = C.CHELYUSKIN	77 43.0	104 17.0	66.2	176.4	NAS= NARSSARSSUAQ	61 06.0	-45 12.0	71.0	37.0
CO = COLLEGE	64 51.6	-147 50.2	64.6	256.5	TI = TIXIE BAY	71 35.0	129 00.0	60.4	191.4
GWR= GREAT WHALE R.	55 16.0	-77 47.0	66.5	347.4	UE = CAPE WELLEN	66 09.8	-169 50.1	61.7	237.0
DI = DIXON ISLAND	73 32.6	80 33.7	63.0	161.5	YEK= YELLOWKNIFE	62 24.0	245 36.0	69.0	292.8

*THE ONLY OBSERVATORY NOT PROVIDING DATA FOR THIS MONTH.

TABLE OF OBSERVATORIES SUPPLYING HOURLY AL BASED ON MEAN VALUE

MAY 1975 AL = MINIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	UE	UE	TI	TI	GWR	GWR	GWR	GWR	GWR	GWR	AI	AI	FC	CO	YEK	YEK	TI	TI	TI	TI	DI	DI	AI	LR
2	LR	LR	NAS	LR	LR	GWR	NAS	YEK	GWR	GWR	GWR	FC	FC	CO	YEK	YEK	DI	TI	TI	TI	AI	AI	AI	CC
3	LR	LR	LR	LR	LR	AI	NAS	NAS	GWR	AI	CO	CO	CO	CO	CO	YEK	TI	TI	TI	CC	DI	CC	LR	LR
4	LR	LR	GWR	GWR	NAS	GWR	GWR	GWR	GWR	GWR	FC	FC	FC	YEK	GWR	YEK	CC	TI	DI	DI	DI	DI	DI	AI
5	AI	AI	AI	LR	LR	LR	NAS	FC	GWR	GWR	GWR	FC	FC	CO	YEK	YEK	YEK	DI	DI	TI	TI	AI	AI	AI
6	LR	LR	LR	LR	LR	NAS	NAS	GWR	GWR	CO	CO	CO	CO	FC	YEK	YEK	DI	TI	TI	TI	TI	AI	AI	CC
Q 7	LR	LR	LR	LR	YEK	GWR	GWR	GWR	GWR	GWR	CO	CO	FC	YEK	CO	YEK	TI	TI	TI	TI	CC	AI	AI	AI
Q 8	LR	LR	GWR	GWR	GWR	GWR	GWR	GWR	GWR	GWR	CO	CO	YEK	YEK	YEK	DI	DI	DI	DI	DI	AI	AI	AI	LR
9	AI	LR	LR	NAS	NAS	NAS	NAS	GWR	GWR	GWR	YEK	FC	YEK	CO	CO	TI	TI	TI	TI	DI	DI	CC	AI	AI
D10	LR	LR	GWR	LR	LR	LR	NAS	NAS	GWR	GWR	FC	CO	CO	YEK	YEK	YEK	CC	TI	TI	TI	DI	AI	AI	UE
D11	TI	TI	NAS	NAS	GWR	GWR	DI	DI	AI	FC	FC	AI	LR	LR	GWR	CC	CC	YEK	DI	DI	CC	CO	CO	UE
D12	UE	TI	TI	TI	GWR	GWR	FC	FC	AI	AI	AI	AI	LR	NAS	FC	GWR	YEK	YEK	YEK	CO	CC	CO	UE	UE
13	UE	TI	TI	NAS	NAS	CC	NAS	DI	AI	AI	FC	YEK	AI	LR	LR	GWR	YEK	YEK	CO	DI	DI	AI	CC	CC
14	AI	AI	AI	NAS	LR	NAS	NAS	NAS	GWR	GWR	GWR	GWR	FC	FC	CO	YEK	TI	DI	TI	AI	DI	DI	DI	UE
15	TI	NAS	NAS	NAS	NAS	GWR	GWR	FC	FC	FC	YEK	AI	NAS	YEK	YEK	CC	CC	CC	CC	CC	CC	UE	CO	TI
16	UE	TI	TI	LR	LR	NAS	NAS	YEK	GWR	GWR	AI	FC	UE	YEK	YEK	YEK	TI	TI	DI	DI	CO	AI	AI	AI
17	AI	LR	LR	LR	NAS	GWR	GWR	GWR	YEK	FC	FC	FC	CO	CO	CC	YEK	DI	DI	DI	DI	CO	TI	TI	TI
18	LR	LR	LR	GWR	GWR	GWR	GWR	GWR	GWR	FC	CO	YEK	YEK	CO	YEK	YEK	CC	DI	DI	DI	DI	DI	CC	LR
19	LR	LR	LR	NAS	NAS	NAS	NAS	NAS	NAS	GWR	CO	DI	DI	DI	YEK	AI	YEK	YEK	DI	UE	TI	AI	DI	TI
20	LR	AI	AI	LR	LR	NAS	YEK	GWR	GWR	CO	GWR	FC	FC	CO	YEK	YEK	DI	CC	CC	DI	DI	TI	AI	AI
Q21	LR	LR	LR	NAS	GWR	FC	GWR	GWR	GWR	FC	FC	CO	CO	FC	FC	GWR	TI	DI	DI	DI	DI	DI	AI	AI
Q22	LR	NAS	NAS	TI	GWR	FC	GWR	GWR	GWR	GWR	FC	FC	FC	FC	CO	TI	TI	DI	DI	DI	DI	UE	LR	LR
23	LR	TI	TI	TI	TI	GWR	GWR	GWR	FC	GWR	FC	FC	FC	NAS	GWR	CC	TI	DI	DI	DI	CC	TI	TI	TI
24	LR	NAS	NAS	NAS	NAS	GWR	GWR	GWR	GWR	AI	CO	YEK	YEK	LR	FC	YEK	YEK	YEK	CC	CC	DI	CC	CC	CC
Q25	LR	LR	LR	NAS	NAS	GWR	GWR	GWR	GWR	YEK	FC	FC	FC	FC	YEK	YEK	YEK	TI	TI	TI	TI	TI	AI	AI
26	AI	AI	LR	LR	GWR	GWR	NAS	NAS	GWR	GWR	CO	CO	YEK	AI	YEK	YEK	YEK	YEK	YEK	YEK	CO	UE	UE	TI
D27	TI	TI	TI	TI	LR	GWR	GWR	GWR	GWR	AI	CO	CO	FC	FC	YEK	YEK	YEK	TI	TI	DI	DI	CC	CC	TI
D28	LR	TI	LR	NAS	NAS	NAS	DI	DI	AI	AI	LR	LR	LR	LR	LR	YEK	YEK	YEK	DI	CC	CO	CO	UE	UE
29	TI	LR	NAS	LR	NAS	NAS	GWR	GWR	GWR	GWR	FC	DI	LR	NAS	YEK	YEK	YEK	DI	TI	TI	DI	AI	CC	LR
30	LR	TI	NAS	TI	NAS	GWR	GWR	FC	GWR	FC	FC	YEK	YEK	YEK	YEK	YEK	YEK	DI	DI	DI	DI	DI	CC	CC
31	LR	NAS	NAS	TI	CC	DI	DI	DI	DI	LR	LR	LR	NAS	YEK	YEK	YEK	YEK	CC	DI	DI	DI	CC	CC	TI

IDENTIFICATION	GEOGRAPHIC LAT	GEOGRAPHIC LONG	GEOMAGNETIC LAT	GEOMAGNETIC LONG
AI = ABISKO	68 21.5	18 49.4	66.0	114.9
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JUNE 1975 AU = MAXIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D 1	YEK	YEK	BW	YEK	YEK	BW	BW	BW	BW	BW	CC	DI	DI	DI	DI	LR	AI	AI	LR	NAS	NAS	GWR	GWR	YEK
D 2	YEK	YEK	BW	BW	CO	CO	BW	CC	TI	TI	CC	CC	DI	DI	DI	LR	LR	LR	LR	LR	FC	GWR	FC	FC
3	YEK	YEK	YEK	BW	BW	BW	BW	CC	CC	CC	CC	CC	DI	AI	DI	DI	LR	NAS	NAS	NAS	NAS	FC	FC	FC
4	FC	YEK	BW	BW	BW	BW	BW	CC	CC	CC	CC	CC	TI	DI	LR	LR	LR	NAS	LR	NAS	FC	FC	FC	FC
5	BW	BW	BW	BW	BW	BW	BW	BW	CO	CC	CC	CC	DI	DI	DI	DI	LR	NAS	NAS	LR	NAS	NAS	NAS	NAS
6	BW	BW	BW	BW	BW	BW	BW	BW	CC	CC	CC	CC	CC	DI	AI	LR	LR	LR	NAS	NAS	BW	NAS	NAS	NAS
7	FC	FC	FC	YEK	BW	BW	BW	BW	CC	CC	CC	CC	CC	CC	DI	DI	DI	DI	LR	LR	NAS	NAS	NAS	DI
Q 8	DI	YEK	YEK	YEK	YEK	BW	BW	BW	BW	CC	CC	CC	CC	DI	DI	DI	CO	BW	BW	LR	NAS	NAS	NAS	FC
9	FC	YEK	YEK	BW	YEK	YEK	BW	BW	BW	CC	CC	CC	CC	CC	CO	CO	LR	LR	LR	LR	LR	NAS	FC	FC
Q10	FC	FC	FC	YEK	YEK	YEK	YEK	BW	BW	CC	CC	CC	DI	DI	DI	AI	AI	LR	LR	NAS	NAS	NAS	FC	FC
11	FC	FC	FC	YEK	BW	BW	CO	CO	CC	TI	TI	DI	DI	DI	CC	CO	CO	NAS	LR	LR	LR	NAS	NAS	FC
D12	FC	FC	FC	CO	CO	LR	CO	CC	CC	DI	TI	DI	DI	DI	AI	CO	LR	LR	NAS	NAS	NAS	GWR	FC	FC
13	YEK	YEK	YEK	YEK	BW	BW	BW	BW	CC	CC	CC	DI	DI	AI	AI	DI	NAS	NAS	NAS	NAS	NAS	FC	FC	FC
14	FC	FC	FC	YEK	BW	BW	BW	CC	CC	CC	CC	CC	DI	DI	DI	AI	AI	NAS	NAS	NAS	NAS	FC	DI	FC
15	FC	FC	YEK	YEK	BW	BW	BW	BW	CC	DI	CC	CC	CC	CC	DI	AI	AI	LR	LR	NAS	NAS	GWR	GWR	FC
16	YEK	YEK	YEK	BW	BW	BW	BW	BW	CC	DI	DI	DI	TI	DI	DI	AI	LR	LR	LR	LR	NAS	FC	FC	FC
17	FC	FC	YEK	BW	YEK	YEK	BW	BW	CC	DI	TI	CC	DI	DI	DI	AI	AI	NAS	LR	NAS	NAS	GWR	FC	FC
18	YEK	YEK	YEK	BW	BW	BW	BW	BW	FC	CC	CC	CC	CC	DI	AI	AI	LR	NAS	LR	NAS	NAS	NAS	DI	FC
19	FC	FC	YEK	YEK	BW	BW	BW	CC	CC	CC	CC	DI	DI	AI	DI	AI	AI	NAS	LR	LR	NAS	FC	FC	FC
20	FC	FC	FC	FC	FC	YEK	BW	BW	BW	BW	CC	CC	CC	CC	CO	NAS	NAS	NAS	NAS	NAS	NAS	NAS	FC	FC
21	FC	FC	BW	BW	YEK	YEK	YEK	CC	CC	CC	CC	CC	NAS	NAS	NAS	NAS	NAS	LR	LR	NAS	NAS	NAS	FC	FC
22	FC	YEK	NAS	NAS	NAS	NAS	NAS	NAS	CC	NAS	TI	DI	CC	CC	CC	CO	CO	NAS	LR	NAS	NAS	NAS	NAS	FC
Q23	FC	YEK	YEK	YEK	BW	BW	YEK	YEK	YEK	BW	CC	CC	CC	CC	DI	AI	AI	LR	LR	AI	NAS	NAS	NAS	NAS
Q24	NAS	DI	DI	BW	BW	BW	BW	BW	BW	CC	BW	CC	CC	TI	TI	TI	LR	LR	NAS	LR	NAS	NAS	DI	DI
25	FC	FC	FC	FC	YEK	YEK	YEK	BW	BW	BW	CC	CC	CC	CC	DI	DI	AI	AI	NAS	NAS	NAS	FC	FC	FC
26	FC	YEK	YEK	YEK	BW	YEK	BW	BW	BW	CC	TI	CC	DI	CC	CC	DI	DI	LR	LR	NAS	NAS	NAS	NAS	NAS
Q27	FC	FC	YEK	YEK	YEK	YEK	BW	BW	TI	TI	TI	TI	CC	TI	TI	DI	TI	NAS	LR	NAS	NAS	NAS	NAS	FC
28	FC	YEK	YEK	YEK	YEK	YEK	BW	BW	BW	BW	CC	CC	DI	CC	DI	DI	CO	BW	NAS	NAS	NAS	NAS	FC	FC
D29	FC	YEK	YEK	YEK	YEK	BW	BW	YEK	BW	BW	BW	YEK	YEK	TI	TI	AI	AI	AI	NAS	GWR	GWR	GWR	FC	YEK
D30	YEK	BW	BW	BW	CO	BW	BW	CC	CC	CC	DI	CC	CC	CC	CC	AI	LR	NAS	NAS	NAS	NAS	FC	FC	FC

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TABLE OF OBSERVATORIES SUPPLYING HOURLY AL BASED ON MEAN VALUE

JUNE 1975

AL = MINIMUM DELTA H

UT	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D 1	LR	NAS	NAS	NAS	TI	GWR	FC	FC	FC	FC	FC	FC	CO	CO	BW	YEK	BW	BW	BW	TI	TI	DI	CC	DI
D 2	LR	LR	LR	LR	LR	NAS	NAS	NAS	GWR	FC	FC	FC	CO	CO	BW	YEK	YEK	TI	TI	TI	AI	AI	AI	CC
3	AI	LR	LR	NAS	GWR	GWR	GWR	GWR	GWR	GWR	GWR	YEK	CO	BW	BW	BW	BW	DI	DI	DI	AI	DI	CC	LR
4	LR	LR	LR	NAS	NAS	GWR	NAS	GWR	GWR	CO	CO	FC	FC	YEK	BW	BW	BW	BW	TI	DI	DI	AI	AI	LR
5	LR	LR	LR	NAS	NAS	NAS	NAS	NAS	NAS	NAS	NAS	BW	BW	BW	BW	BW	BW	BW	BW	TI	DI	AI	DI	CC
6	LR	LR	LR	LR	LR	NAS	NAS	NAS	NAS	CO	AI	AI	CO	CO	CO	BW	BW	BW	DI	DI	TI	CC	CC	CC
7	LR	LR	TI	NAS	GWR	GWR	GWR	GWR	GWR	FC	FC	FC	YEK	YEK	BW	BW	BW	YEK	CC	DI	DI	DI	CC	TI
Q 8	TI	TI	TI	NAS	GWR	GWR	GWR	FC	GWR	FC	FC	FC	YEK	YEK	BW	BW	GWR	DI	YEK	CO	BW	CC	CC	CC
9	TI	TI	LR	NAS	NAS	CC	DI	YEK	AI	YEK	YEK	YEK	YEK	YEK	BW	GWR	BW	BW	CC	TI	CO	CC	TI	TI
Q10	TI	NAS	NAS	NAS	NAS	TI	FC	DI	YEK	FC	FC	FC	FC	FC	YEK	YEK	TI	BW	DI	DI	DI	DI	CC	AI
11	LR	LR	NAS	NAS	NAS	NAS	NAS	NAS	NAS	GWR	GWR	GWR	FC	FC	YEK	BW	AI	YEK	BW	TI	TI	CC	AI	LR
D12	AI	AI	LR	LR	LR	NAS	GWR	GWR	GWR	GWR	GWR	CO	CO	FC	BW	TI	TI	DI	BW	TI	TI	DI	DI	CC
13	LR	LR	LR	NAS	GWR	GWR	GWR	GWR	GWR	GWR	GWR	CO	CO	CO	YEK	BW	BW	TI	DI	DI	DI	CC	CC	LR
14	LR	NAS	NAS	GWR	GWR	GWR	GWR	GWR	GWR	GWR	BW	FC	CO	BW	YEK	YEK	BW	BW	BW	CC	CC	TI	TI	TI
15	TI	LR	NAS	NAS	GWR	GWR	GWR	GWR	NAS	GWR	FC	FC	YEK	YEK	YEK	CO	BW	BW	BW	CC	DI	DI	CC	CC
16	AI	AI	LR	LR	GWR	NAS	GWR	GWR	GWR	CO	CO	FC	FC	FC	YEK	YEK	BW	DI	BW	DI	DI	AI	AI	AI
17	CC	LR	LR	GWR	GWR	DI	GWR	GWR	GWR	CO	FC	FC	CO	YEK	YEK	TI	TI	BW	BW	TI	DI	DI	AI	AI
18	LR	LR	LR	LR	GWR	GWR	GWR	GWR	AI	AI	BW	BW	BW	YEK	CC	CC	BW	BW	DI	DI	DI	CC	UE	CC
19	LR	LR	NAS	NAS	NAS	GWR	GWR	GWR	YEK	FC	FC	CO	CO	BW	YEK	YEK	BW	BW	BW	DI	CC	CC	DI	LR
20	LR	LR	NAS	NAS	TI	NAS	GWR	YEK	FC	FC	FC	FC	BW	YEK	YEK	BW	BW	BW	DI	DI	CC	CC	CC	CC
21	LR	TI	NAS	LR	NAS	GWR	CC	GWR	GWR	FC	FC	FC	FC	BW	YEK	YEK	BW	BW	BW	CC	DI	DI	CC	AI
22	LR	LR	LR	LR	GWR	GWR	GWR	GWR	GWR	GWR	FC	FC	FC	YEK	YEK	DI	DI	CC	YEK	BW	DI	CC	CC	CC
Q23	LR	TI	CC	CC	NAS	NAS	FC	DI	AI	LR	LR	YEK	YEK	YEK	YEK	BW	BW	CC	BW	DI	CC	CC	CC	UE
Q24	CC	NAS	NAS	NAS	CC	DI	AI	AI	AI	NAS	AI	AI	AI	BW	BW	BW	BW	BW	CC	CO	CO	CO	UE	UE
25	TI	TI	TI	CC	CC	DI	DI	DI	DI	AI	AI	FC	FC	YEK	YEK	BW	BW	BW	DI	DI	DI	DI	AI	AI
26	LR	LR	LR	LR	GWR	GWR	GWR	GWR	GWR	GWR	AI	CO	BW	YEK	YEK	BW	BW	GWR	YEK	DI	DI	CO	CO	UE
Q27	UE	TI	CC	CC	NAS	GWR	GWR	DI	AI	AI	AI	LR	LR	LR	GWR	BW	BW	YEK	DI	CC	CC	CC	CC	CC
28	LR	CC	CC	CC	CC	CC	GWR	GWR	FC	FC	FC	FC	BW	YEK	BW	BW	GWR	GWR	GWR	CC	CO	UE	CC	UE
D29	LR	CC	NAS	NAS	NAS	GWR	GWR	FC	LR	LR	LR	LR	LR	YEK	YEK	YEK	YEK	BW	TI	TI	TI	CC	CC	AI
D30	LR	LR	LR	LR	LR	GWR	NAS	YEK	GWR	GWR	CO	CO	YEK	BW	BW	YEK	DI	BW	BW	DI	CC	DI	AI	CC

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SECTION III. GRAPHS OF INDICES, STATISTICAL DATA AND MAGNETOGRAMS

1. Explanation

Daily Graphs of 1.0-min Auroral Electrojet Indices. The following graphs are prints of computer-drawn plots of variations of the 1.0-min indices AU, AL, AE and AO for each day of January-June 1975. Dates on the graphs are given as year/month/day: (75/04/12) is 12 April 1975. Number of stations used for index derivations during each month is indicated in the upper right corner as, for example AE(11). Universal Time is indicated along the horizontal axis. Note that hour "1" in the tables in Section II refers to the interval from 0000-0100 UT on the graphs. The graph scale on which AU and AL are plotted is -1500 to 1000 nanoTeslas; that of AE and AO is -500 to 1000 nanoTeslas.

During some very disturbed intervals, the AO trace reached the lower limit of the microfilm plotting frame. Also, during large disturbances it is common for the AL and AE traces to overlap and become difficult to distinguish. It was not practical to change graph scales for such short, disturbed intervals and users interested in those times are encouraged to request listings of 1.0-min index values.

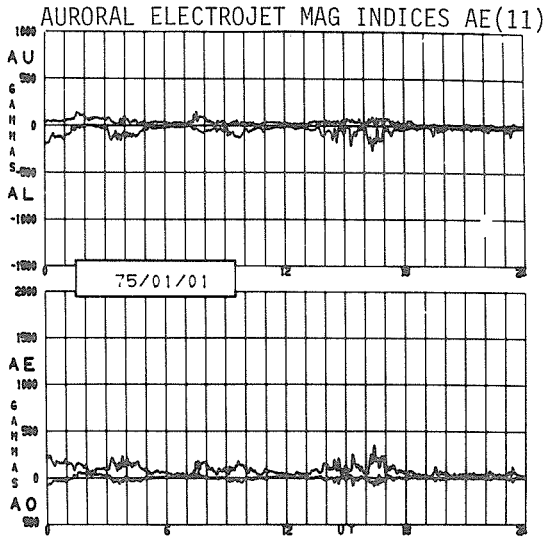
Stacked Common Scale Magnetograms. The following six graphs display the condensed stacked plots of the H (or X) 1-min variations for all stations for each month. Amplitude scales are given below each figure, corresponding to the centimeter scale at the lower right. Station abbreviations, component, north polar distance and east longitude are given for each station providing data for at least part of each month.

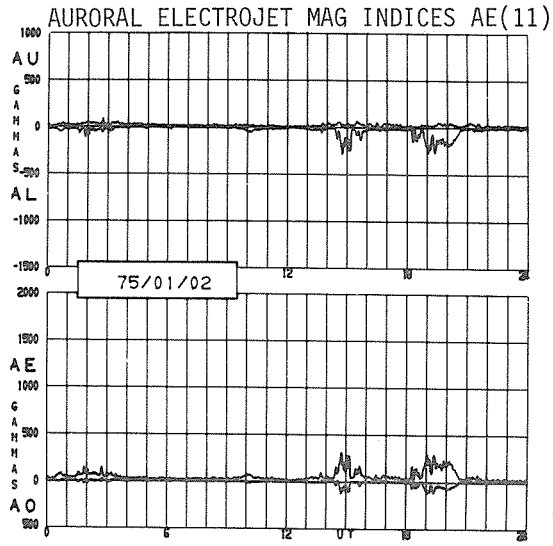
Frequency of AU and AL Provision by Station and Total Amplitude of Most Positive and Most Negative H Variations. Figures 3-26 display for each month statistical information concerning the time and frequency with which each station gives 1-min AU and AL indices and the total (cumulative) amplitude of extreme magnetic variations at those times when the stations were giving the indices. The curves were smoothed with an 11-point running mean. Arrows mark the UT time of Local Geomagnetic Midnight at each site. The UT day is shown twice so that patterns of systematic occurrence of extreme variations at the critically located sites will not be interrupted by day-end.

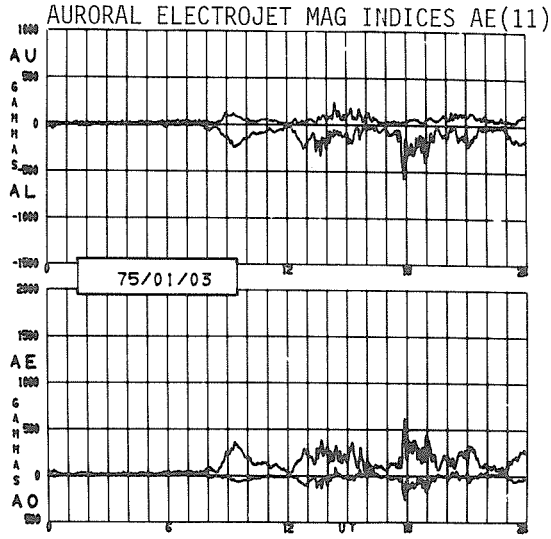
It is evident that the time at which AU is most frequently derived from each site, peaks some 6 h before Local Geomagnetic Midnight but that substorm related AU may occur frequently over a 6- to 9-h interval centered on 1800 LGT. Also, the larger amplitude positive variations occur during those hours when the sites are most often the source of AU.

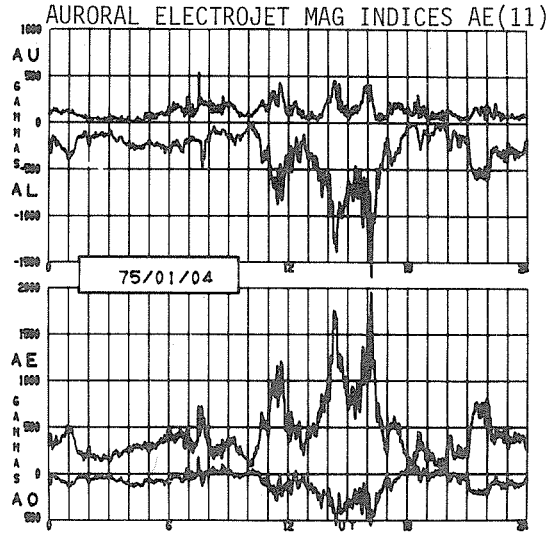
For AL, each site is most often in the critical position beneath the westward electrojet around 3 h after Local Geomagnetic Midnight. The larger negative H variations also occur most frequently around 0300 LGT. A few pre-midnight and midnight large-amplitude events, however, often appear to complicate this simple pattern. The College Observatory site is somewhat exceptional, because it, more than all the other AE stations is optimally located to monitor large AL-producing events during several hours about Local Geomagnetic Midnight.

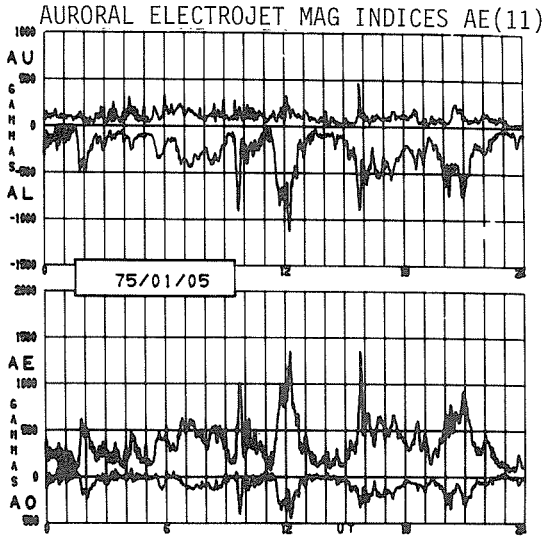
1. Daily Graphs of 1.0-min Auroral Electrojet Indices

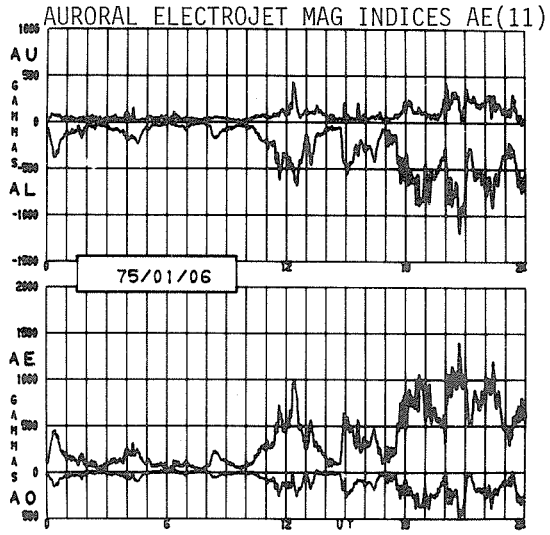


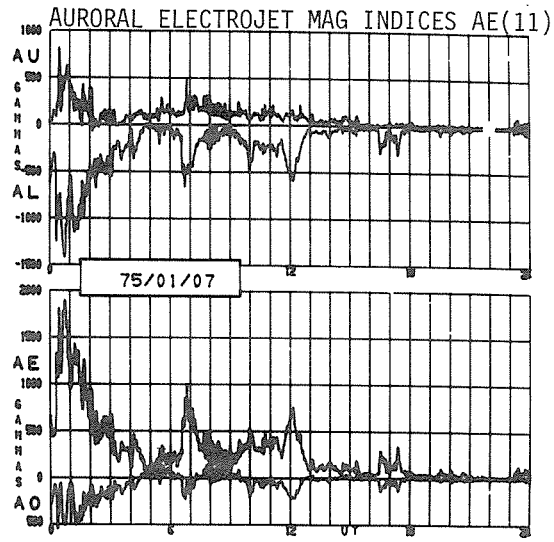








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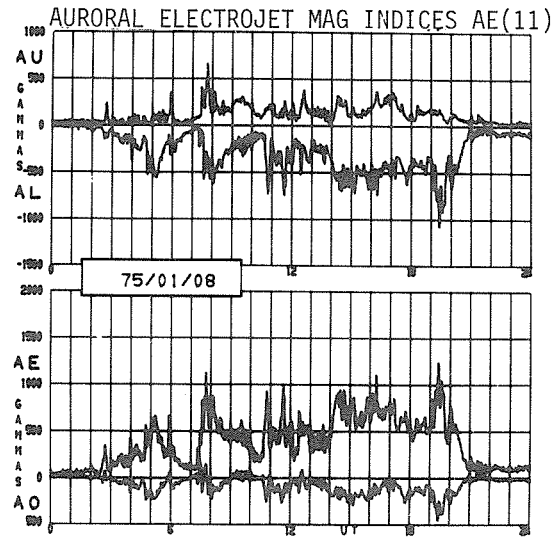
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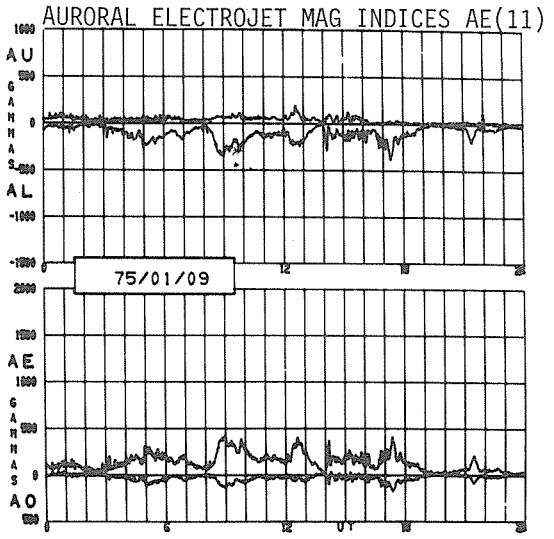
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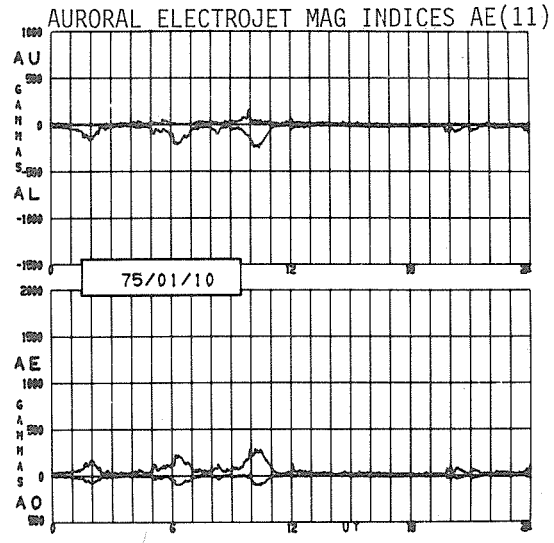
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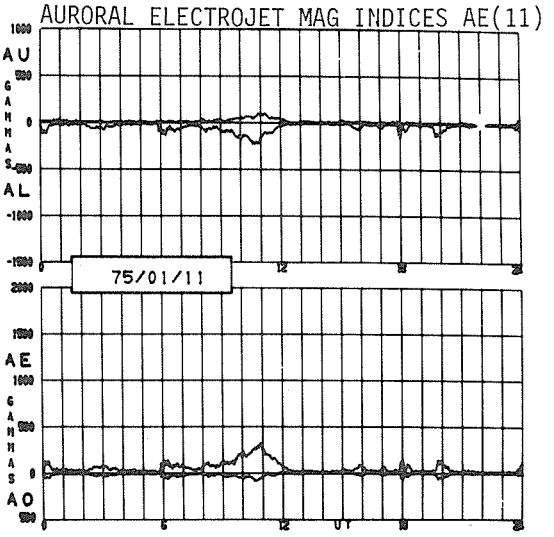
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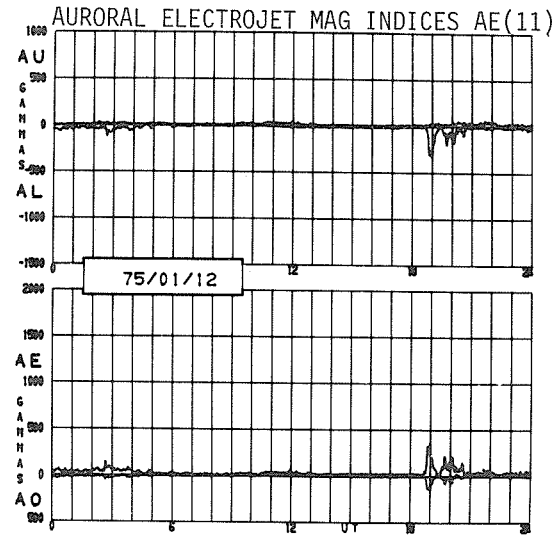
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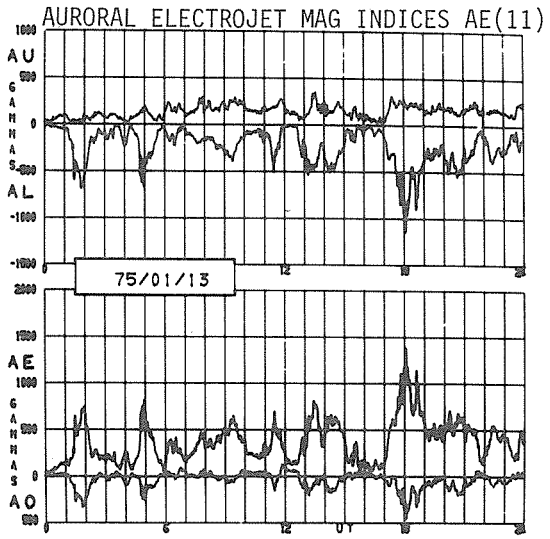
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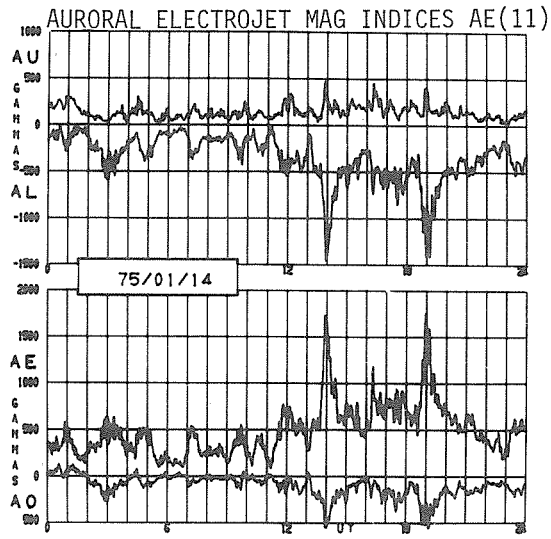
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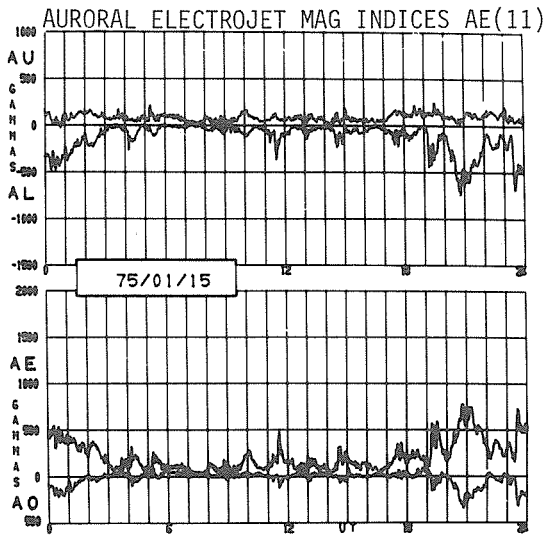
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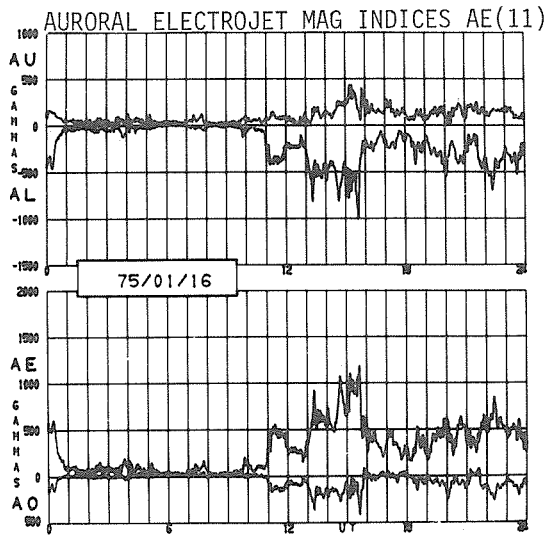
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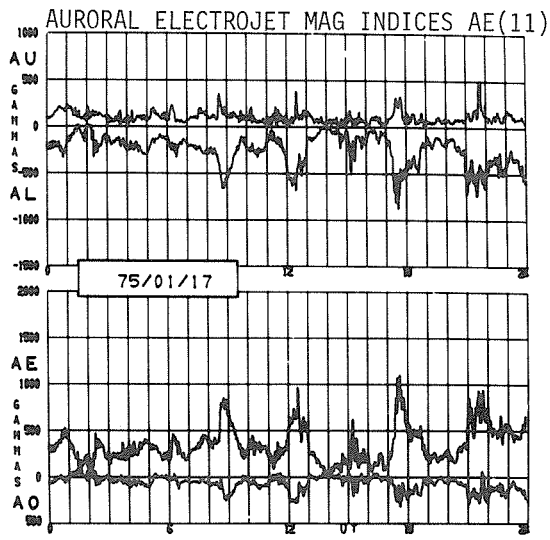
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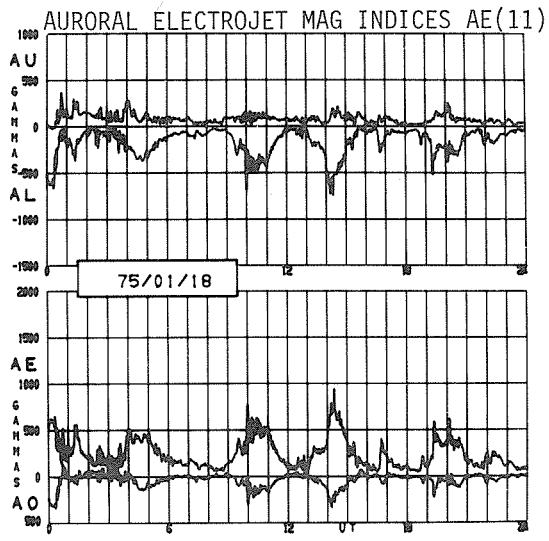
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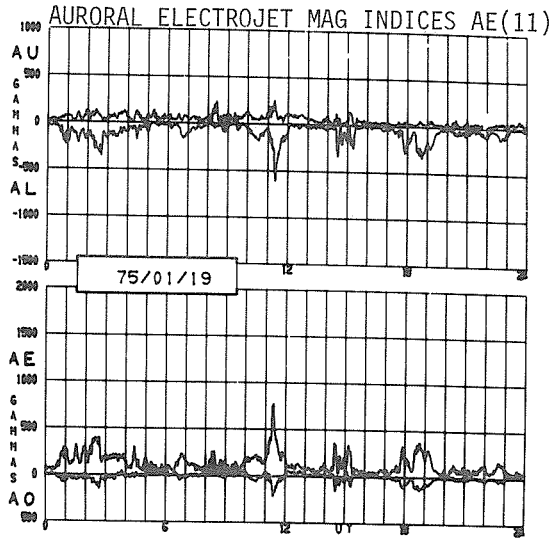
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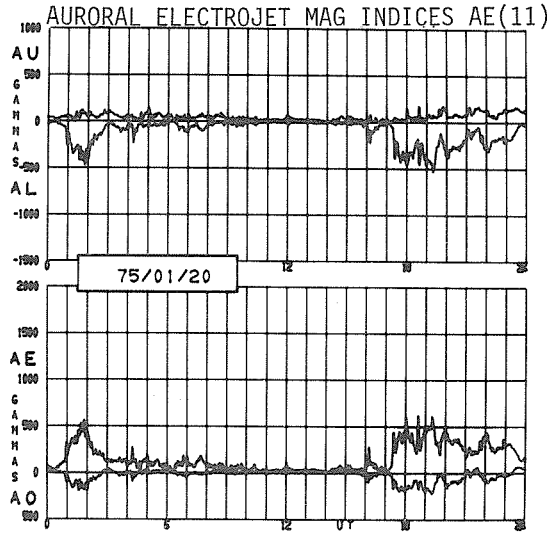
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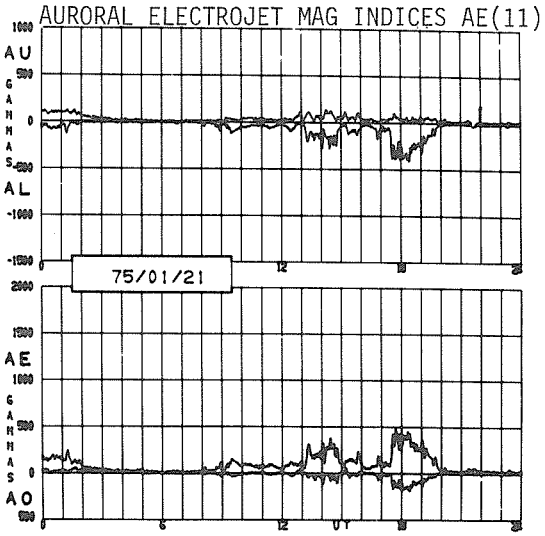
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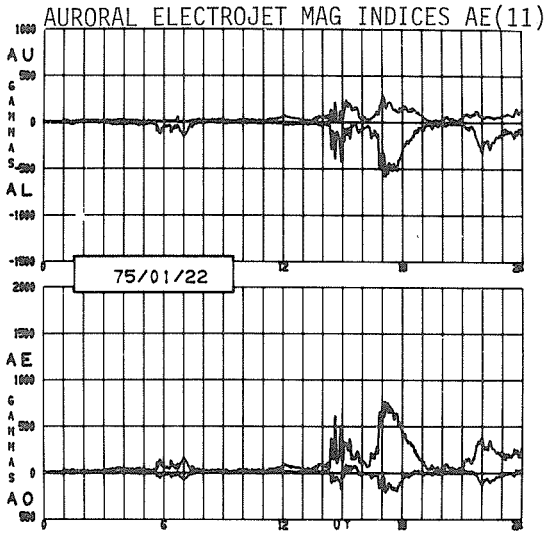
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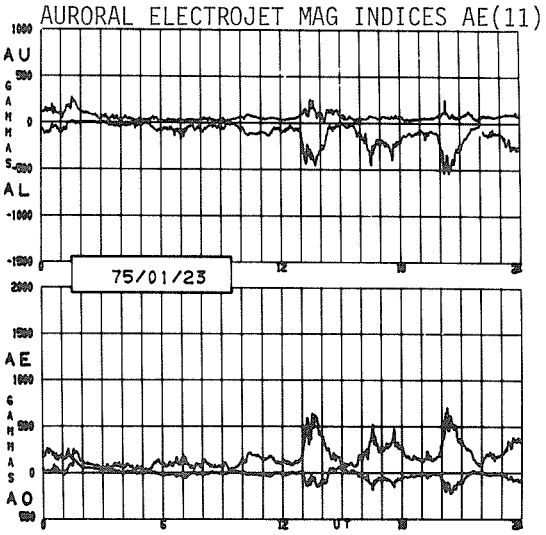
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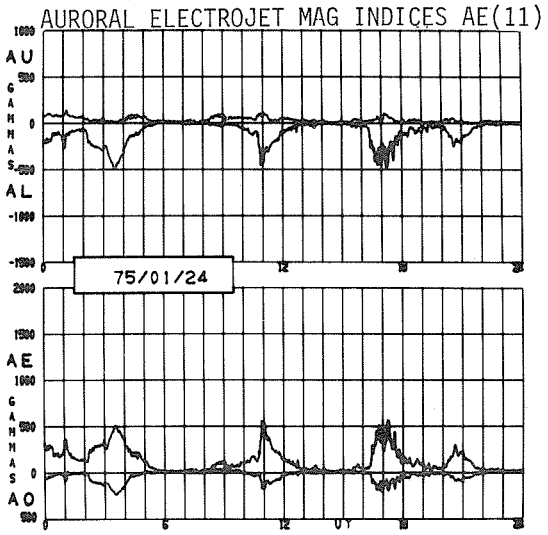
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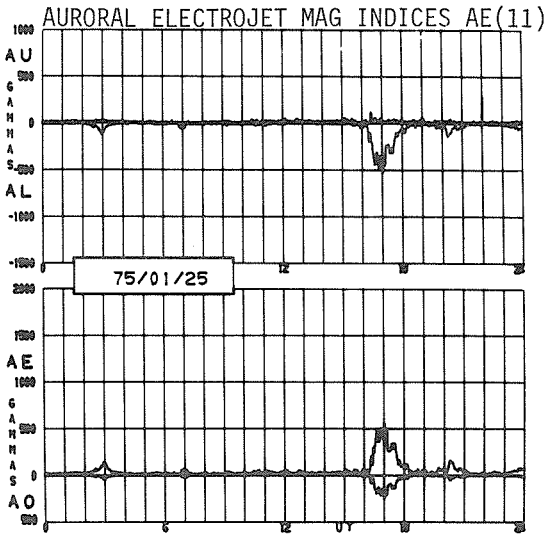
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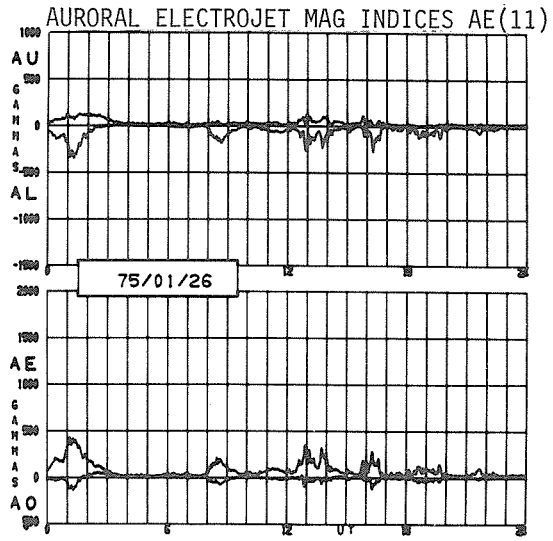
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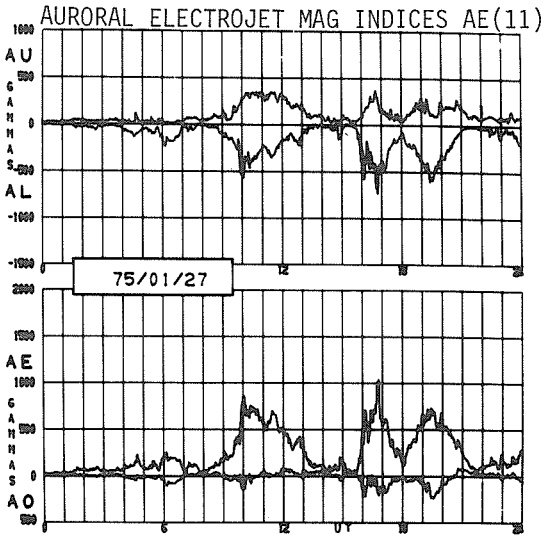
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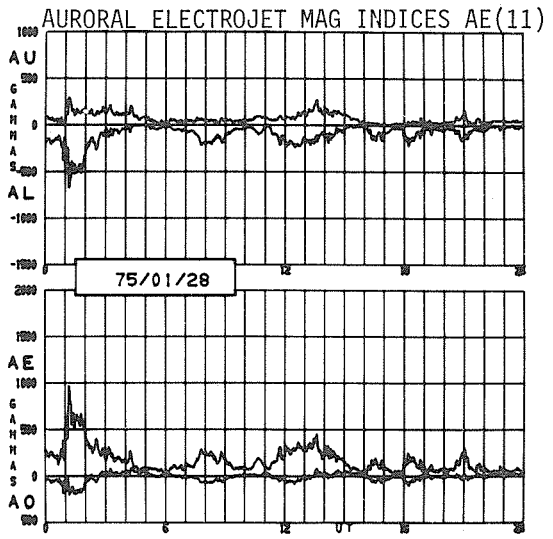
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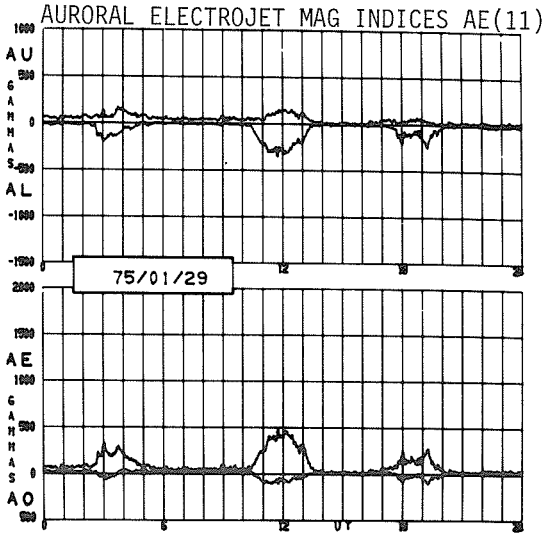
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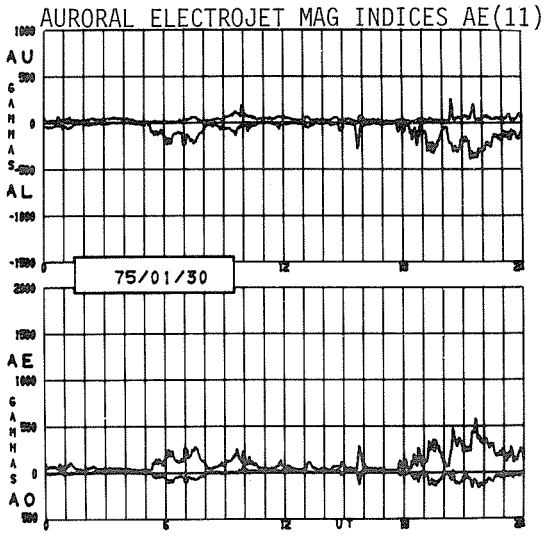
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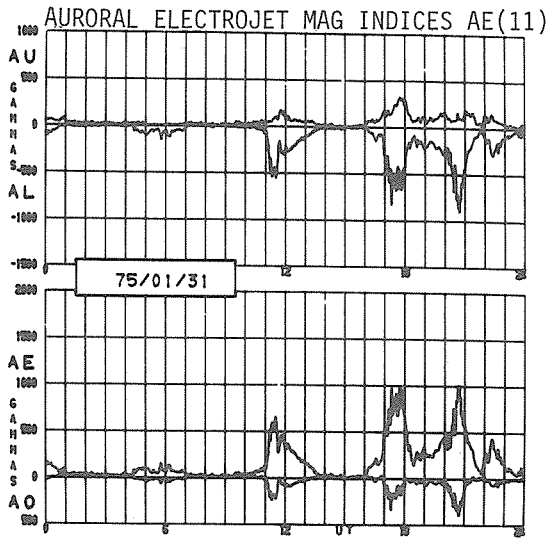
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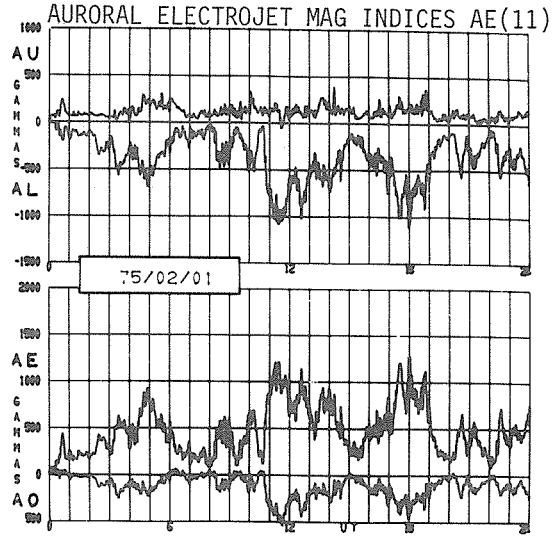
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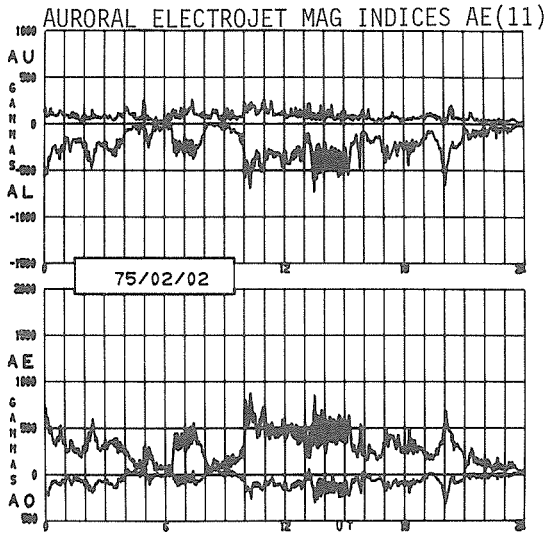
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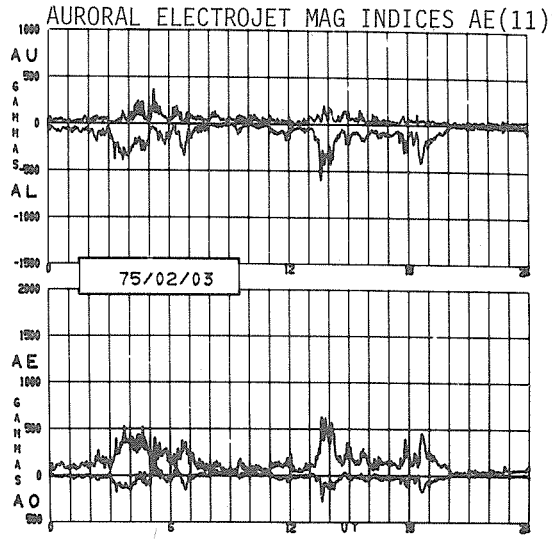
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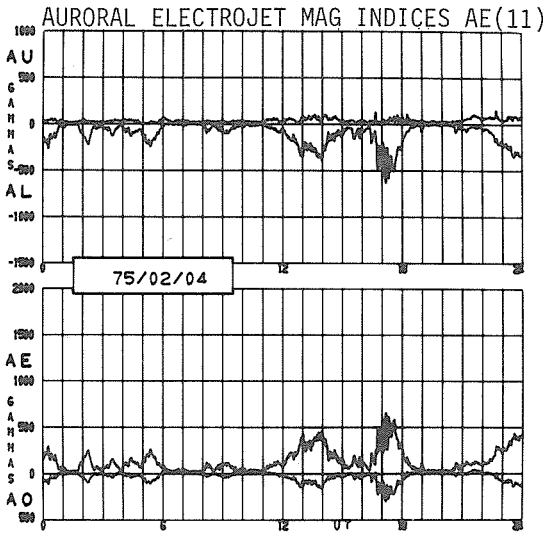
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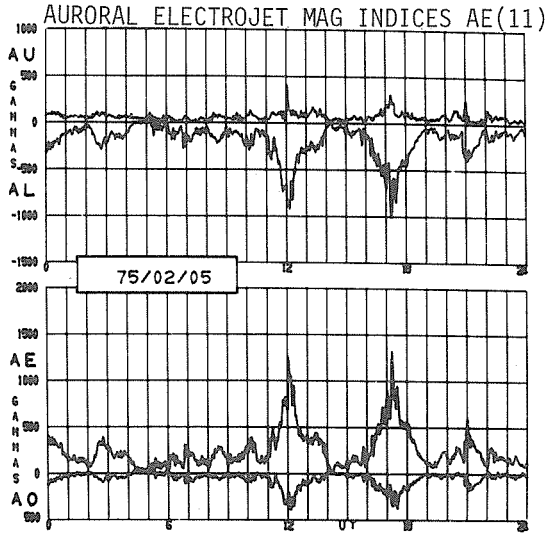
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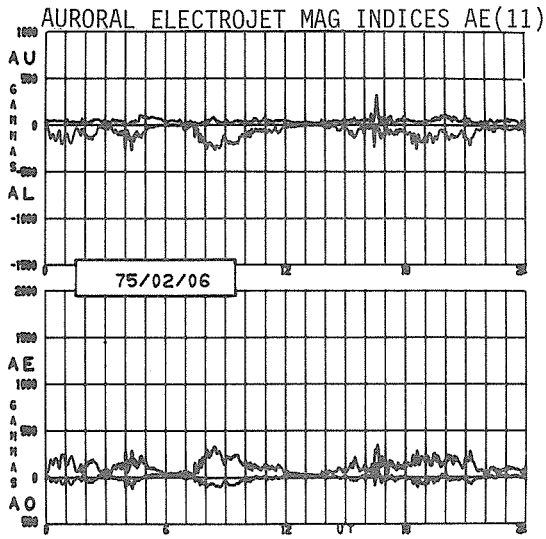
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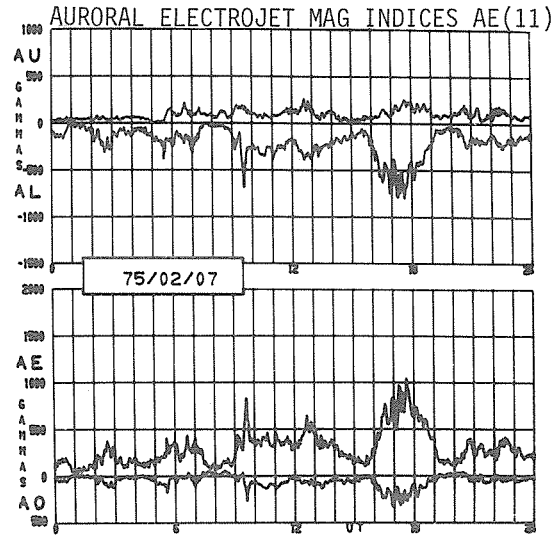
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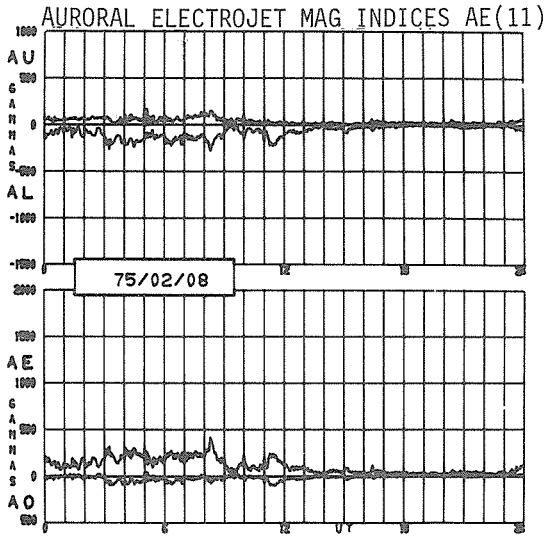
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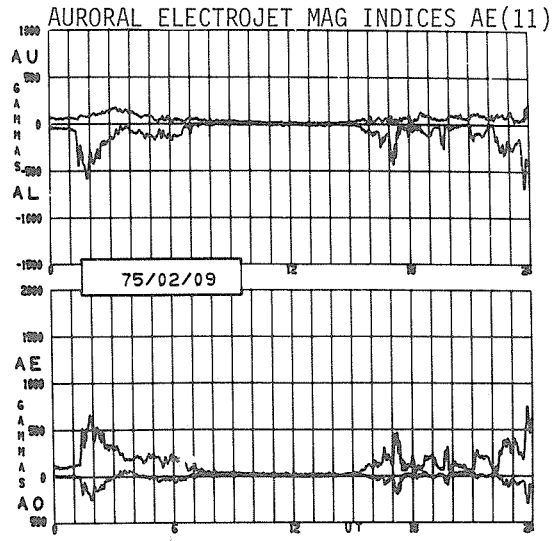
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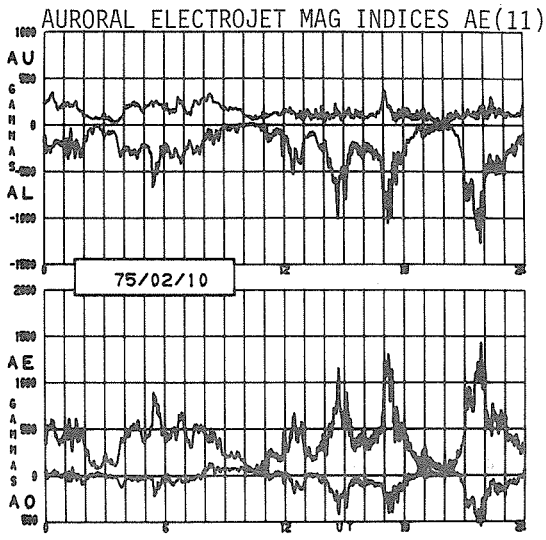
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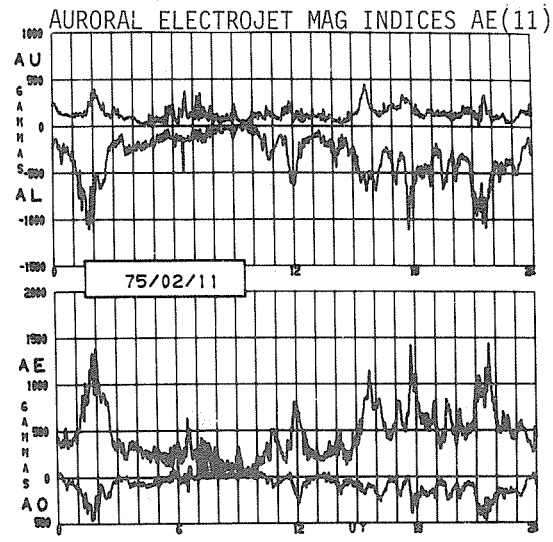
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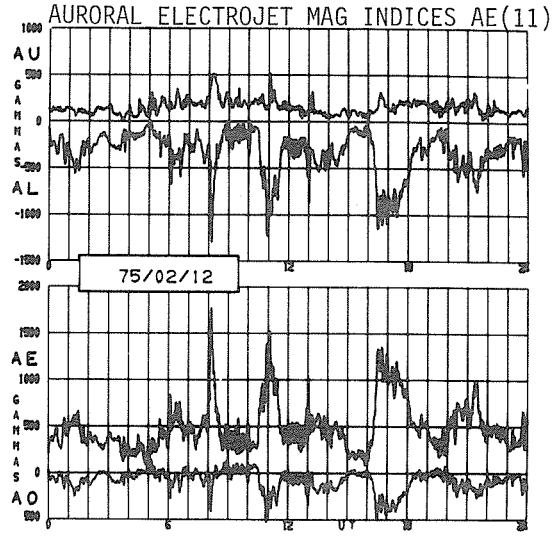
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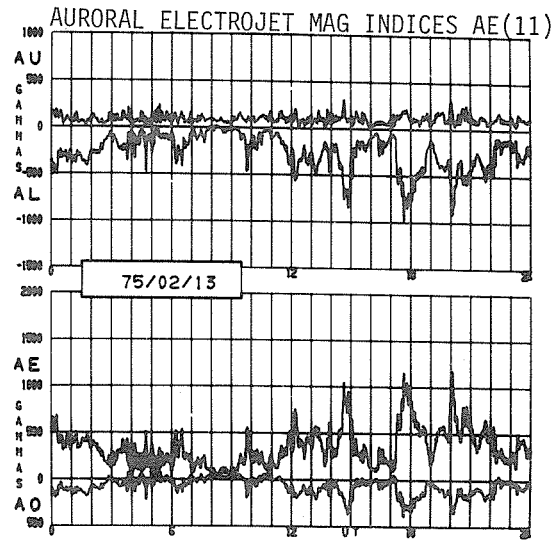
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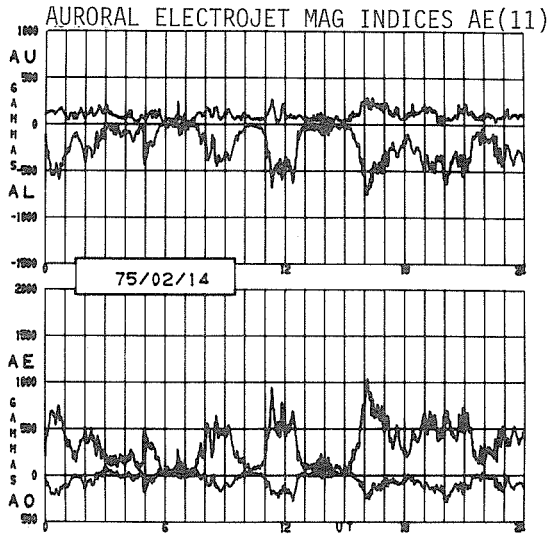
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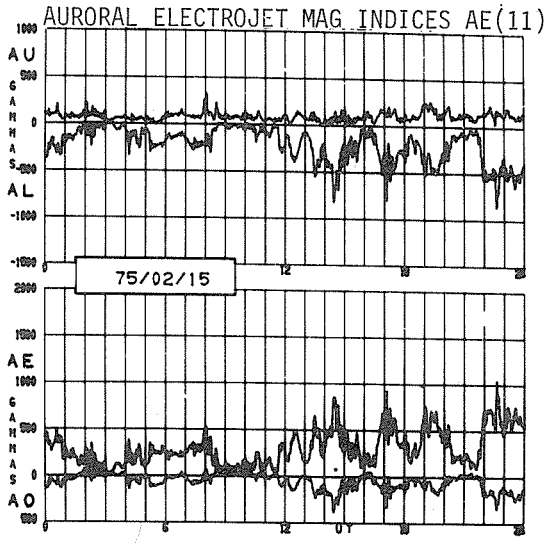
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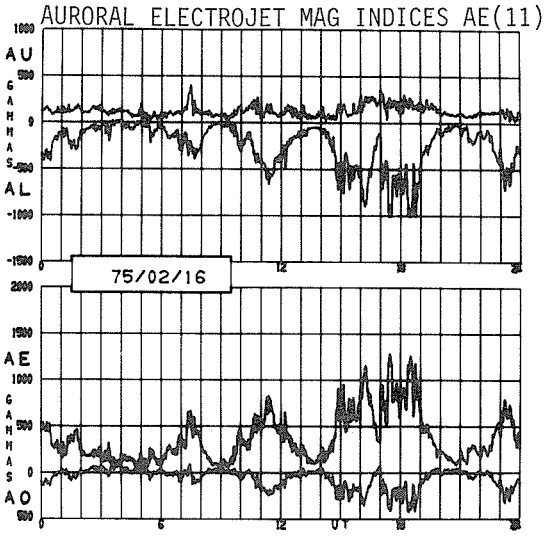
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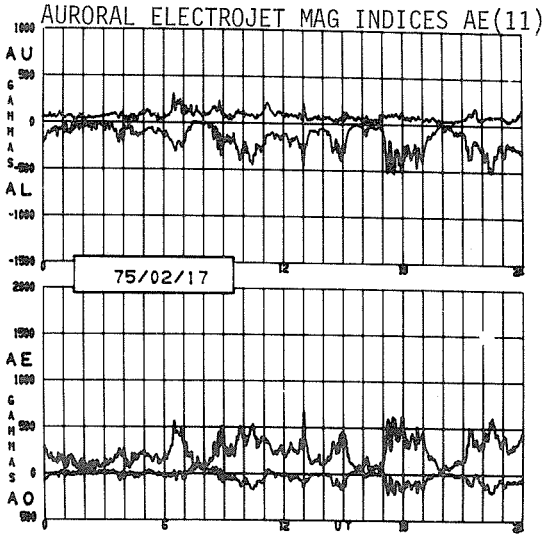
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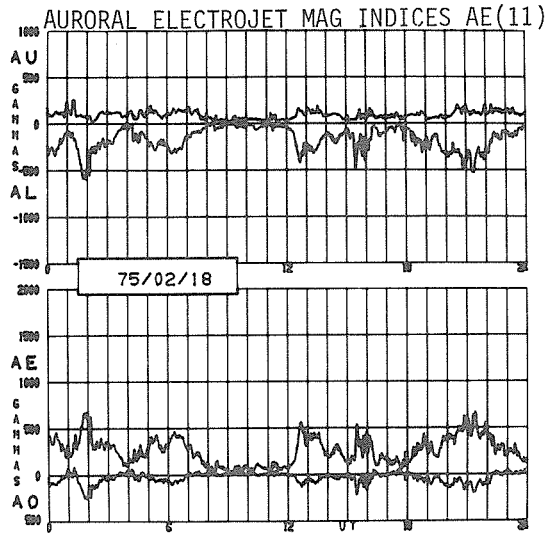
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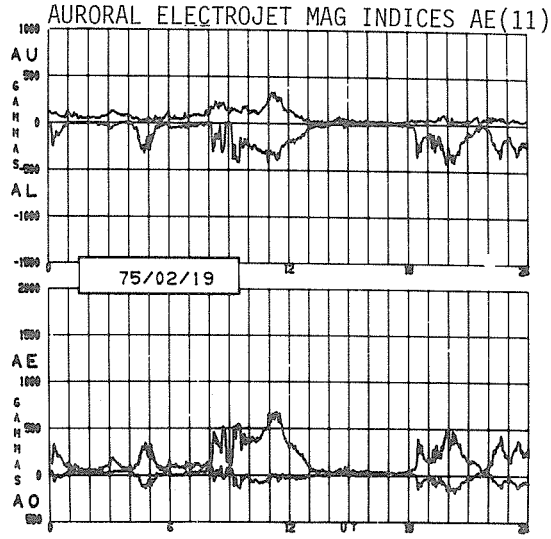
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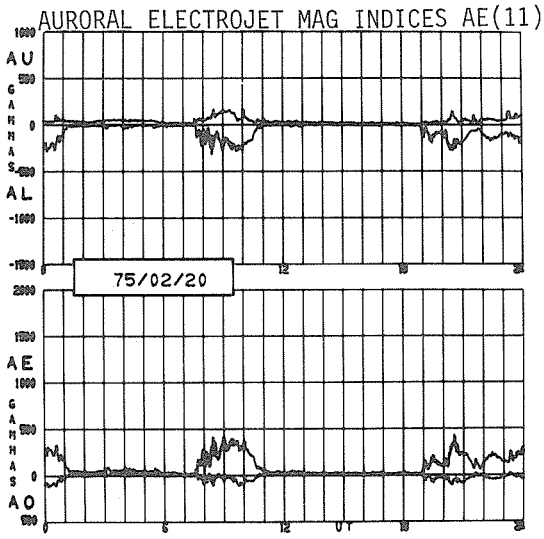
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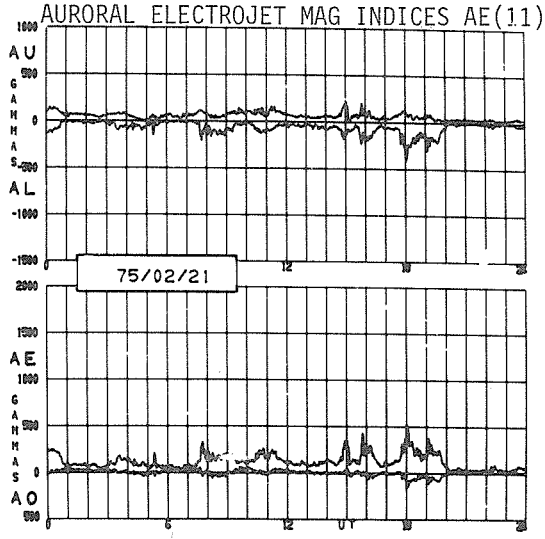
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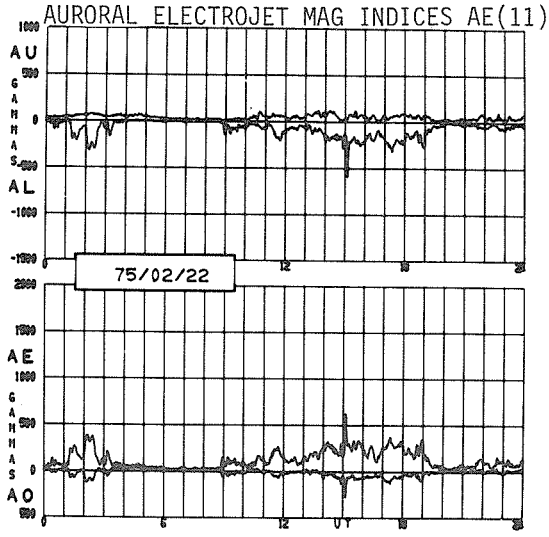
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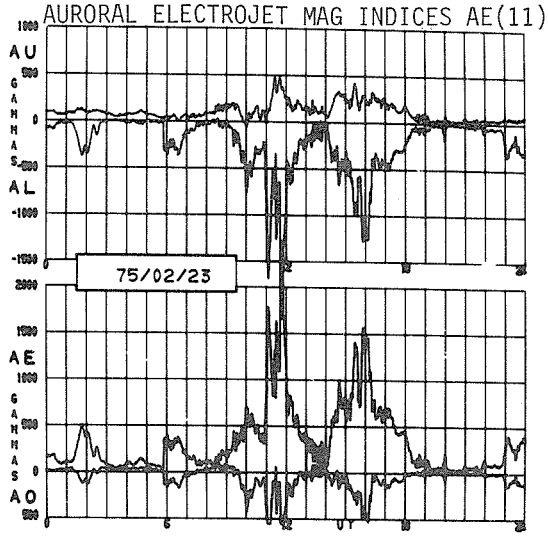
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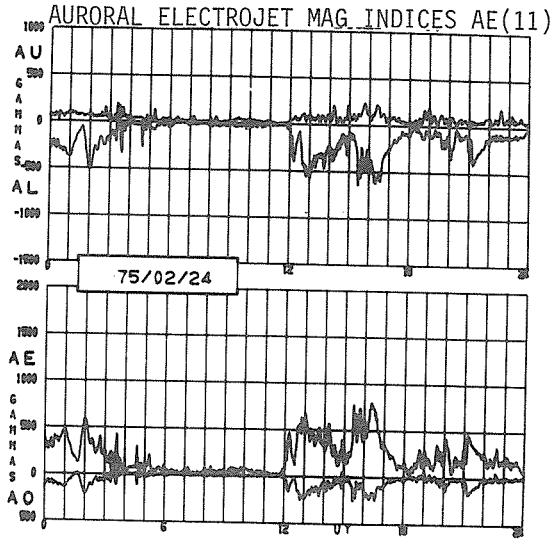
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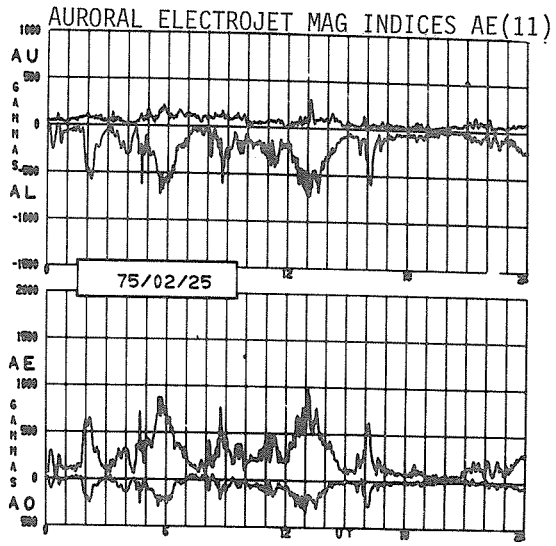
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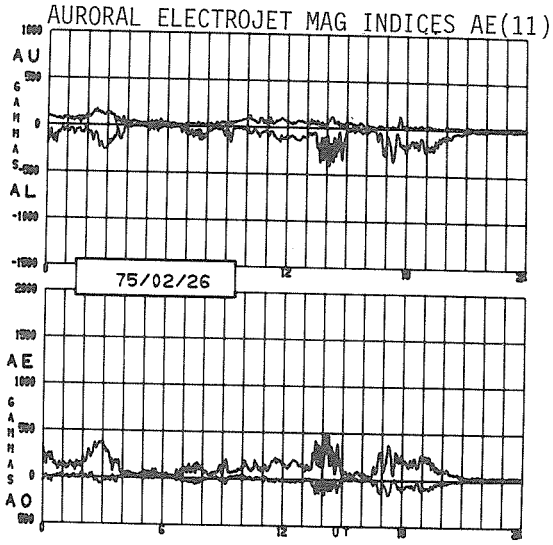
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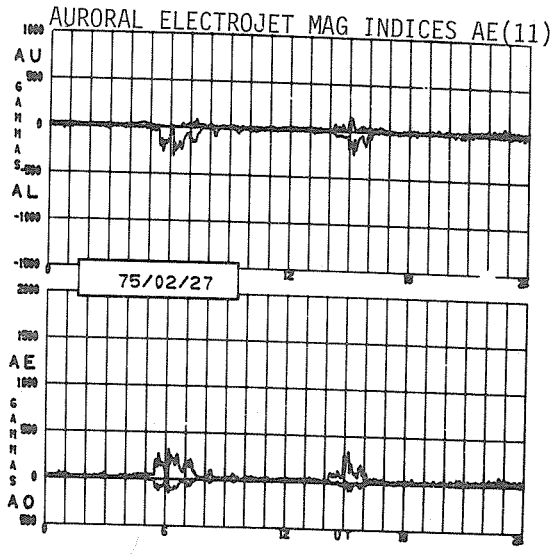
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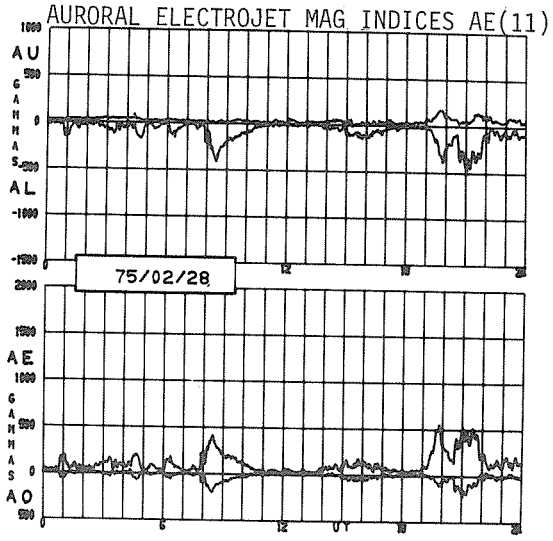
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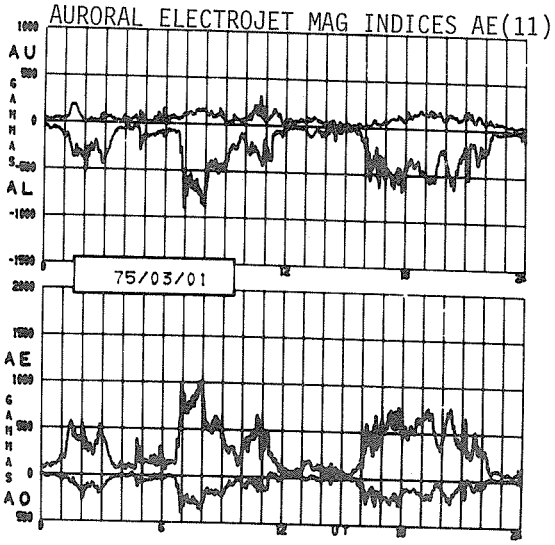
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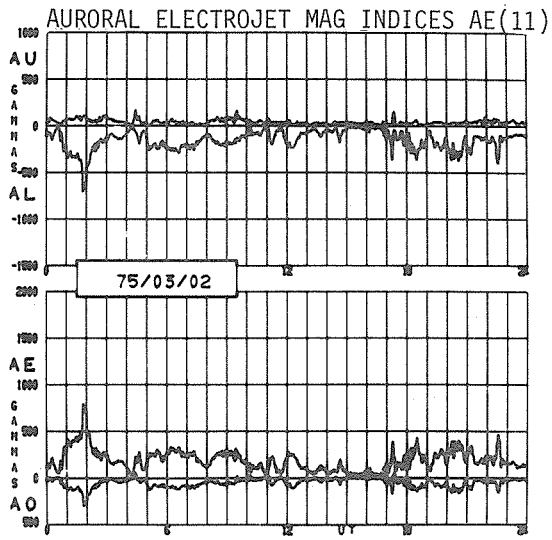
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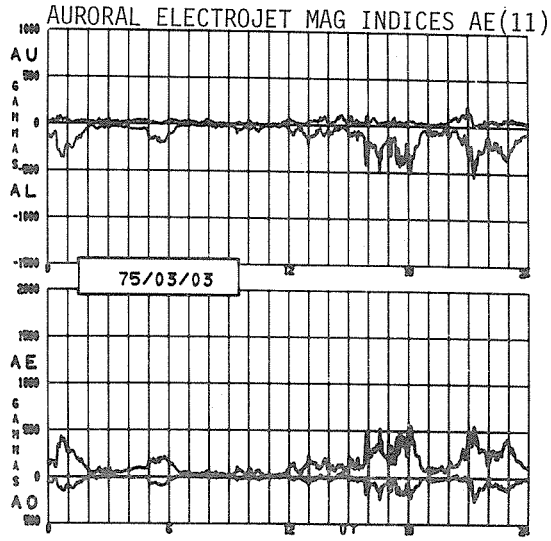
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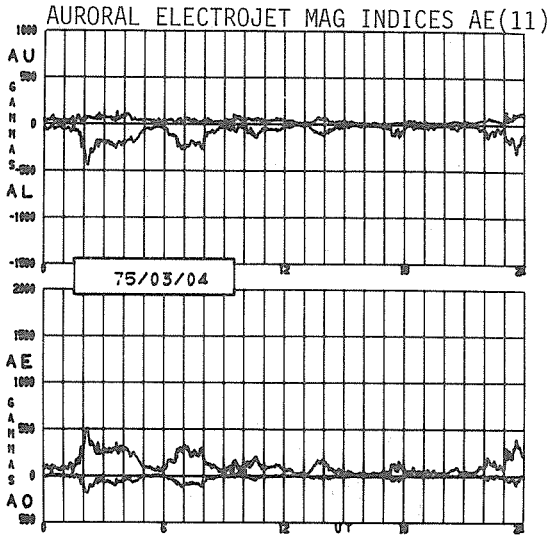
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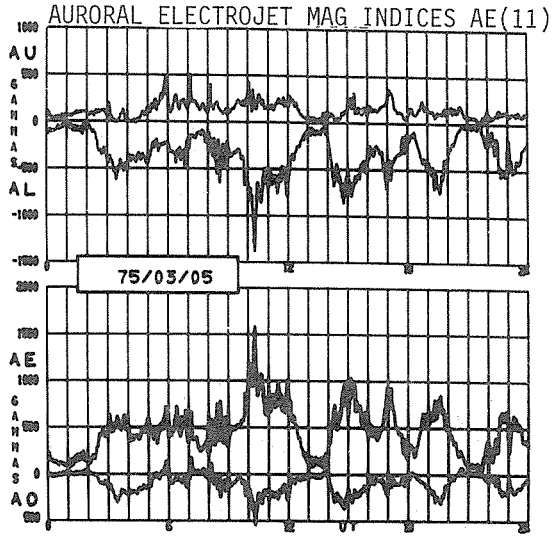
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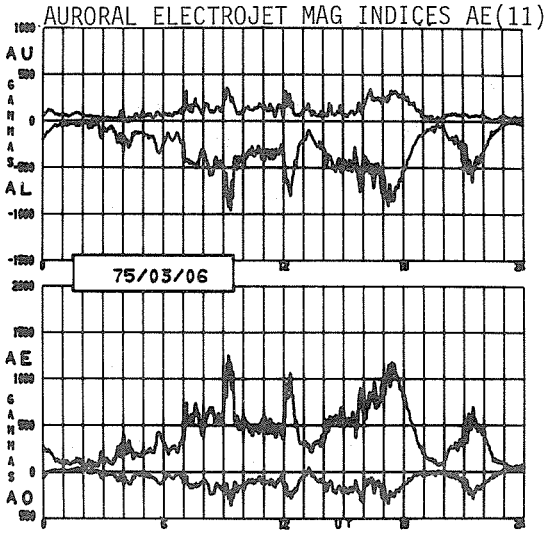
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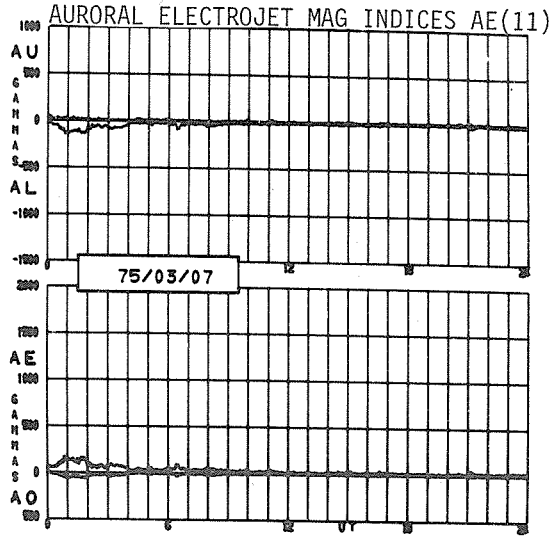
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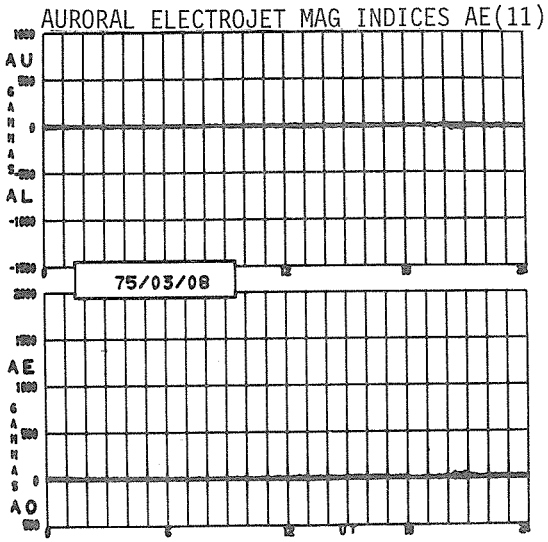
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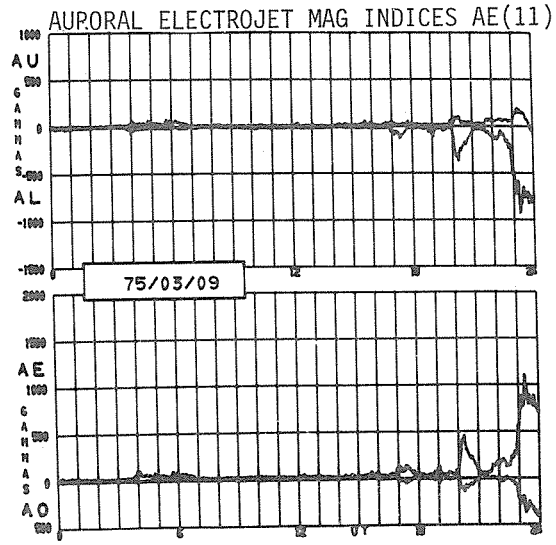
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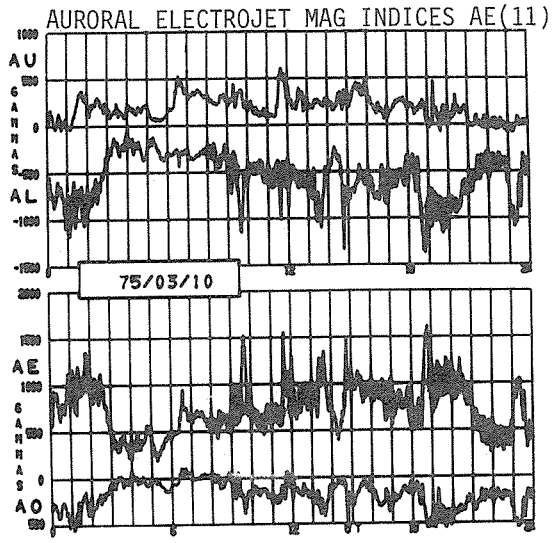
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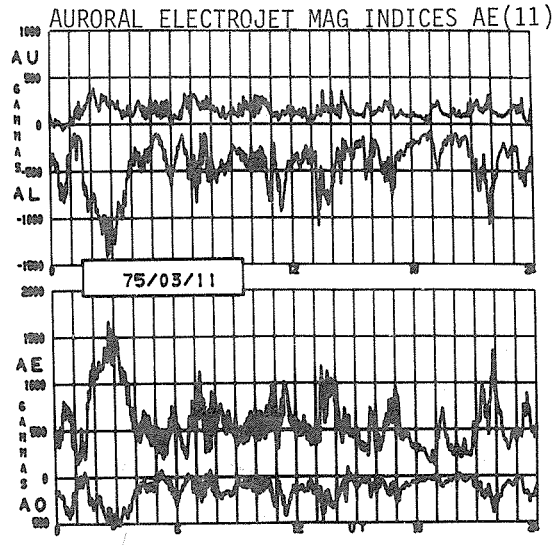
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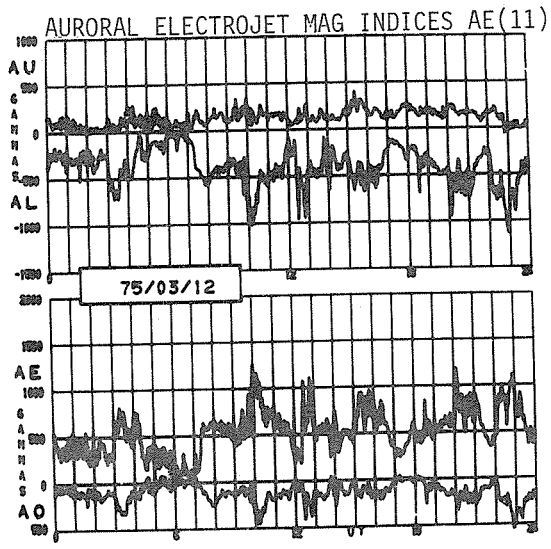
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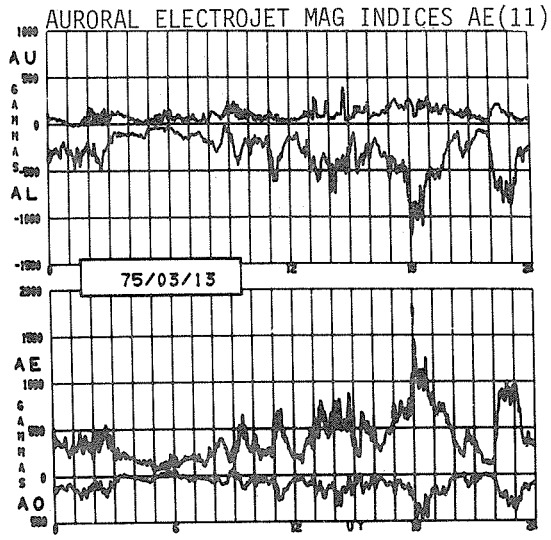
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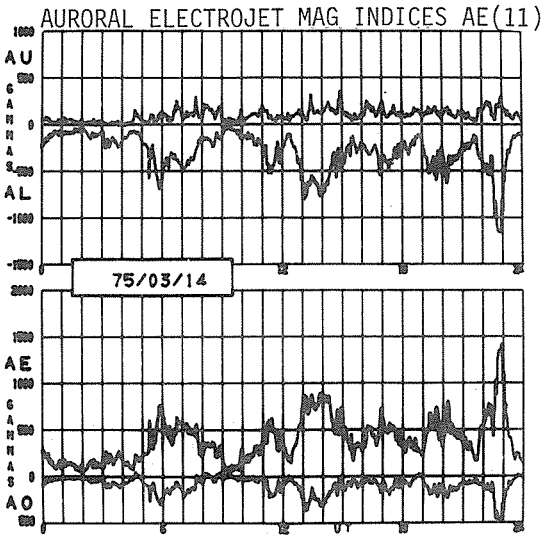
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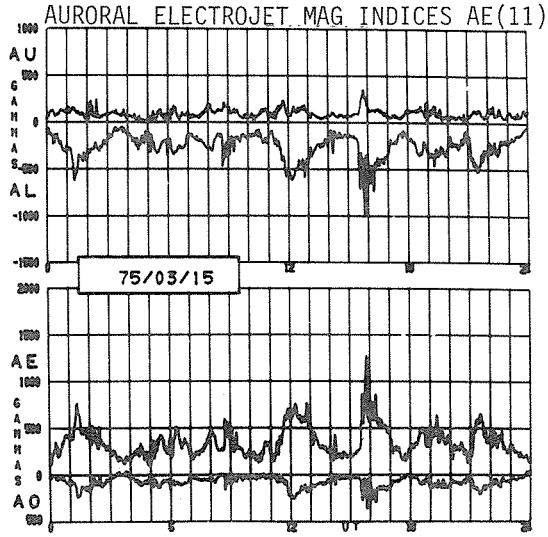
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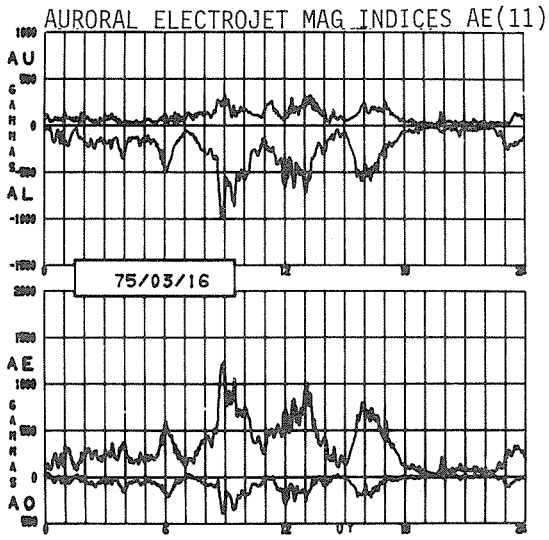
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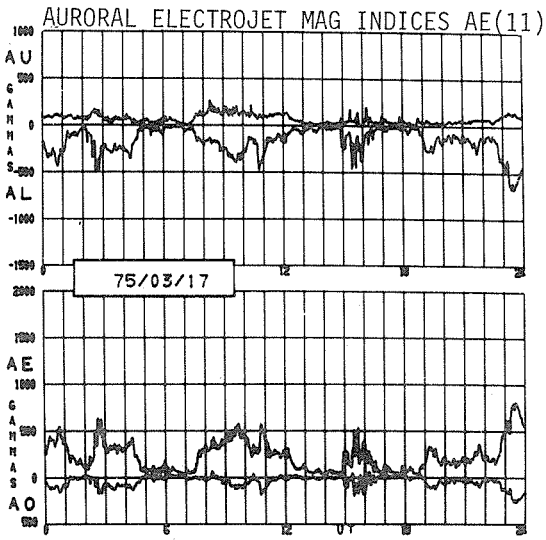
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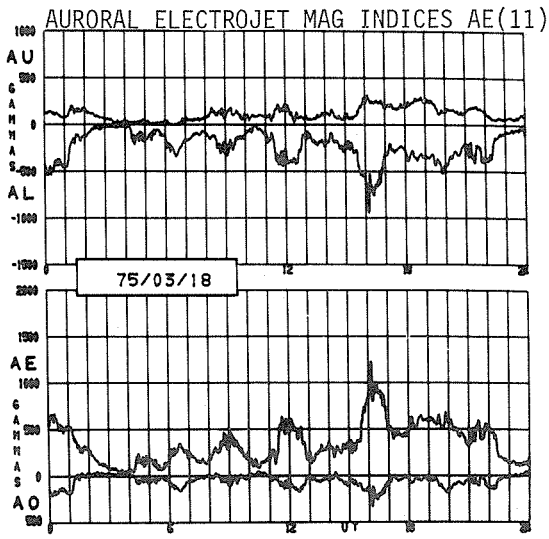
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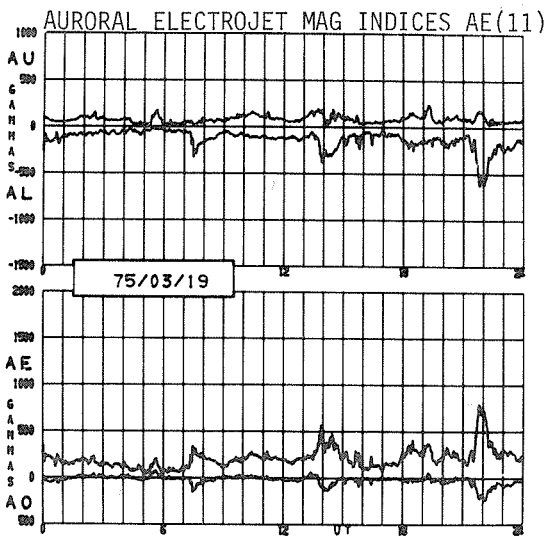
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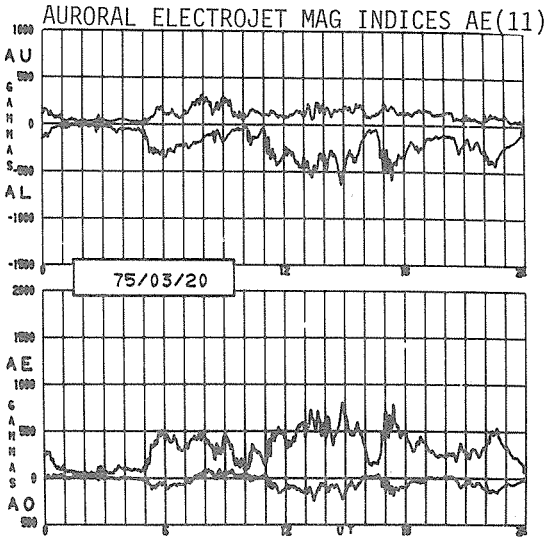
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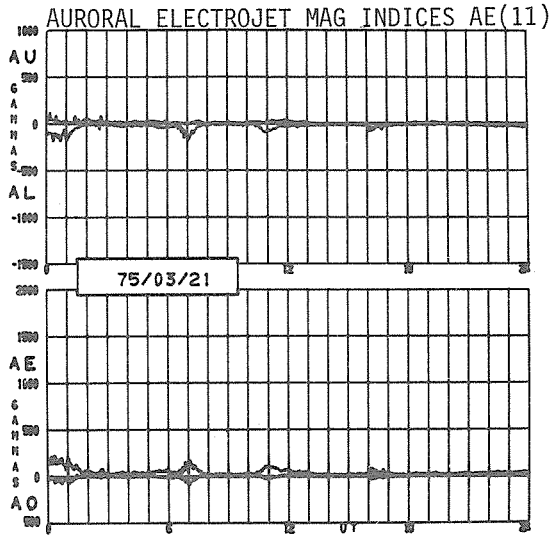
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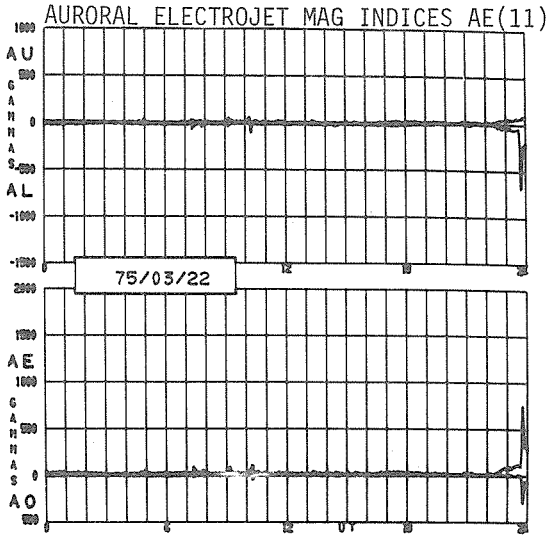
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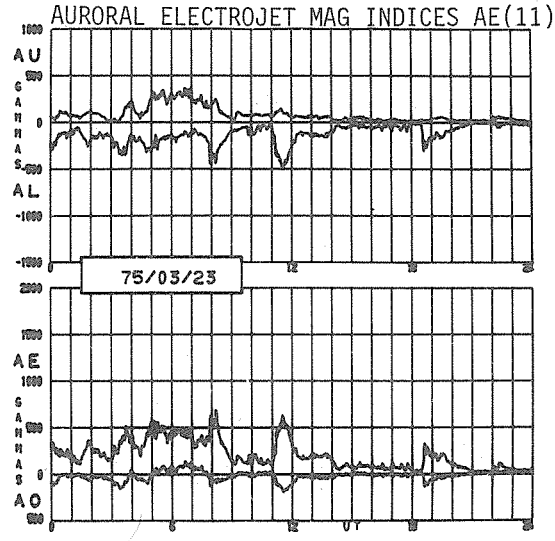
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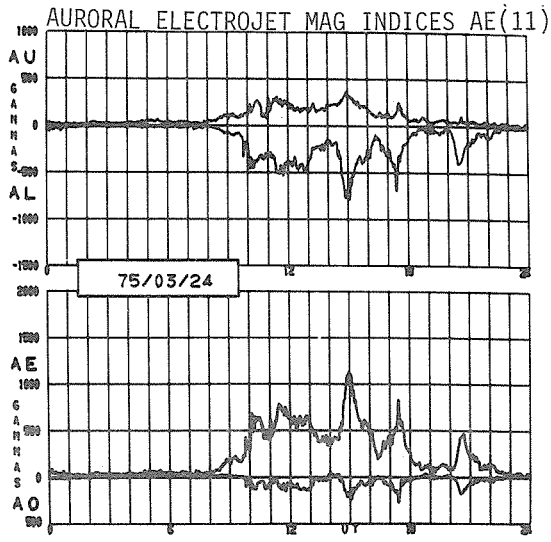
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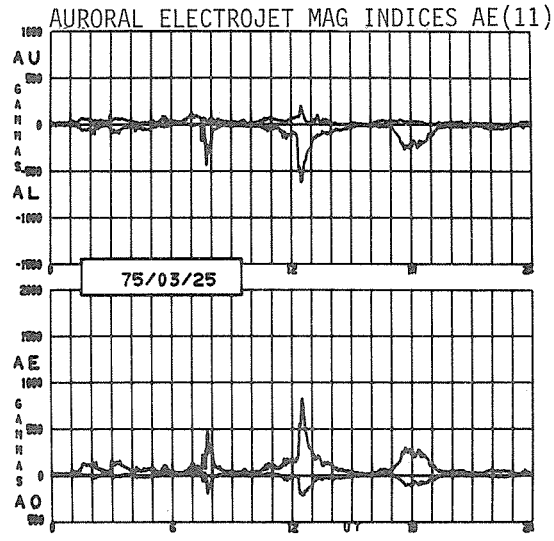
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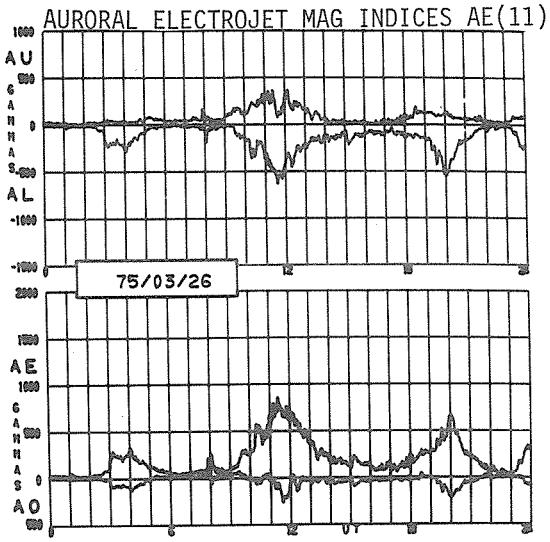
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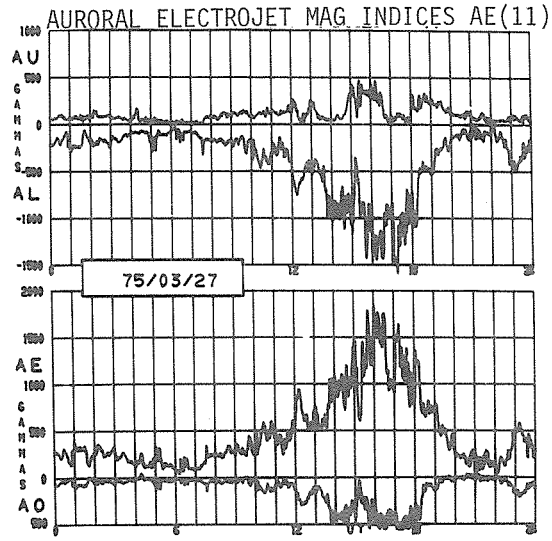
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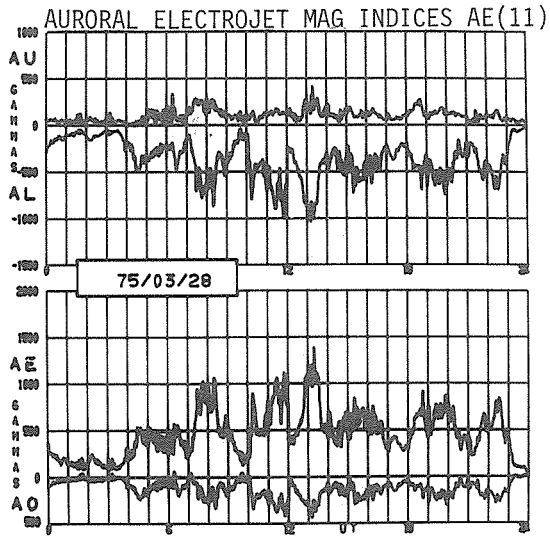
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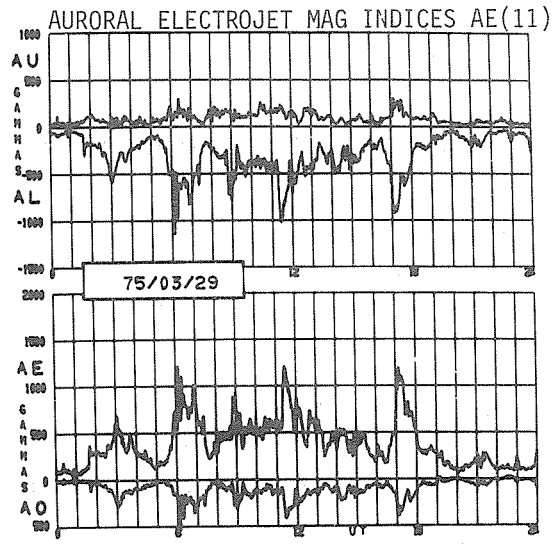
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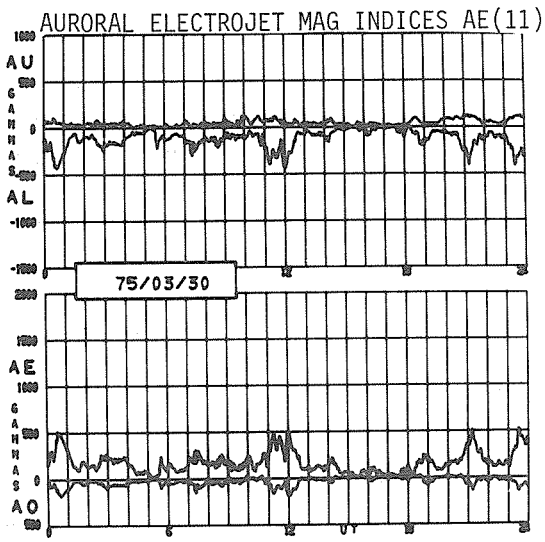
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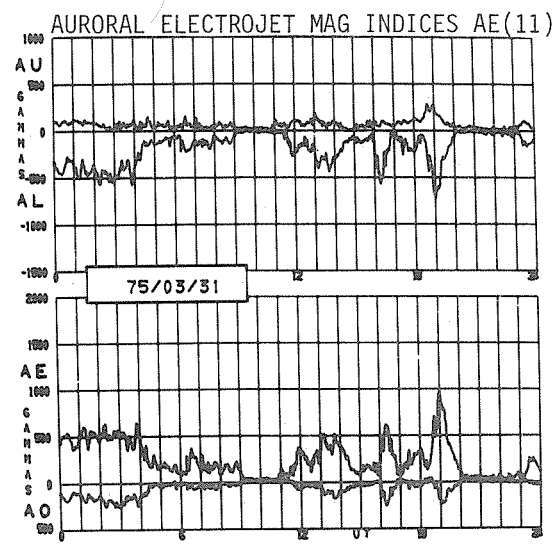
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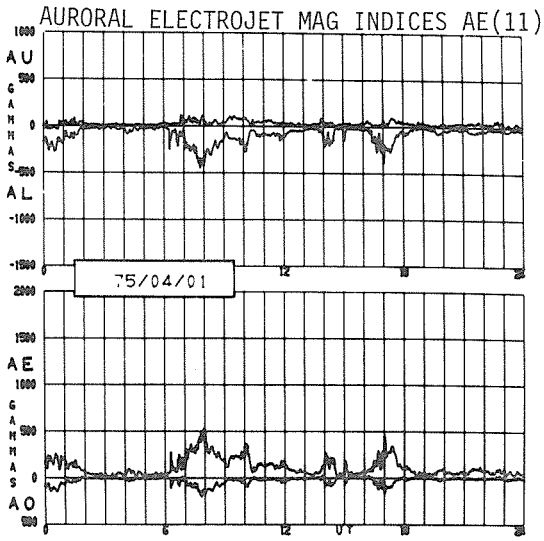
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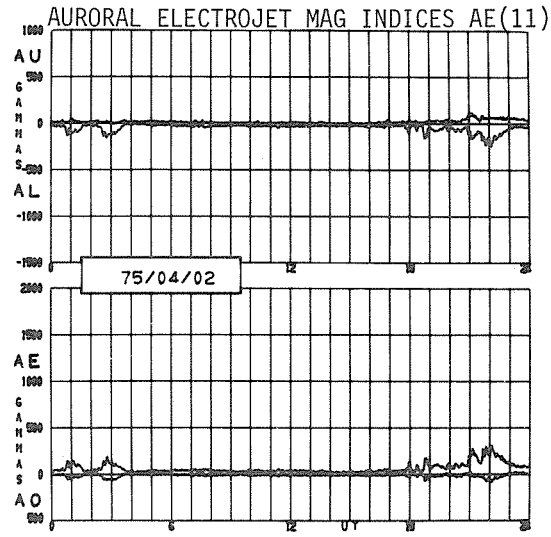
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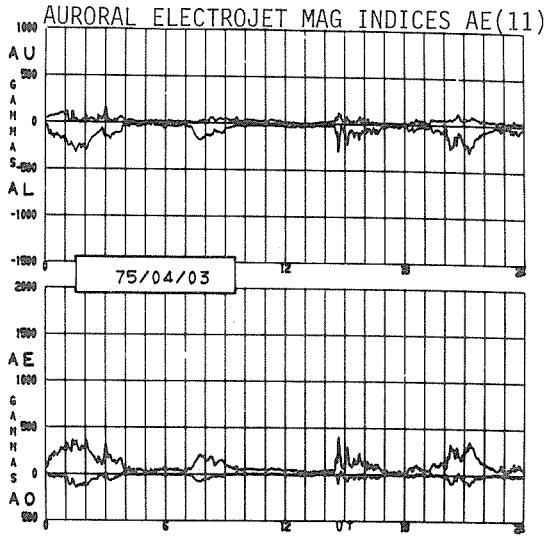
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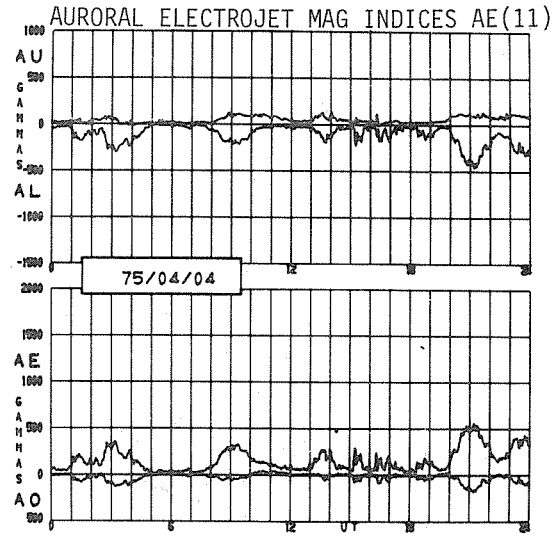
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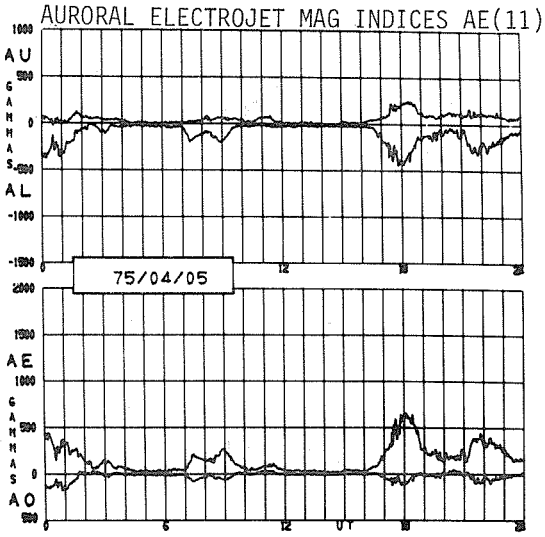
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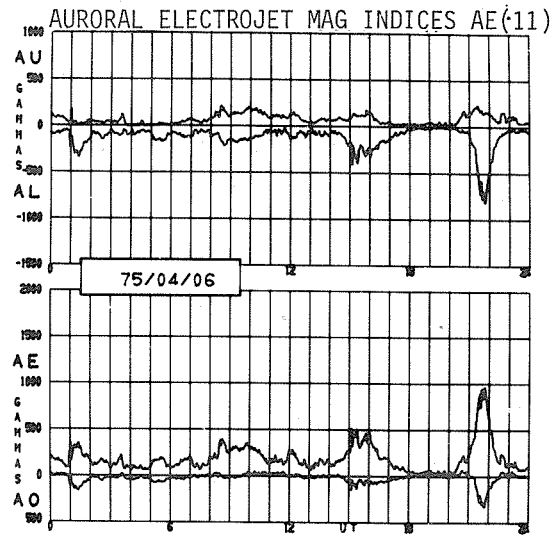
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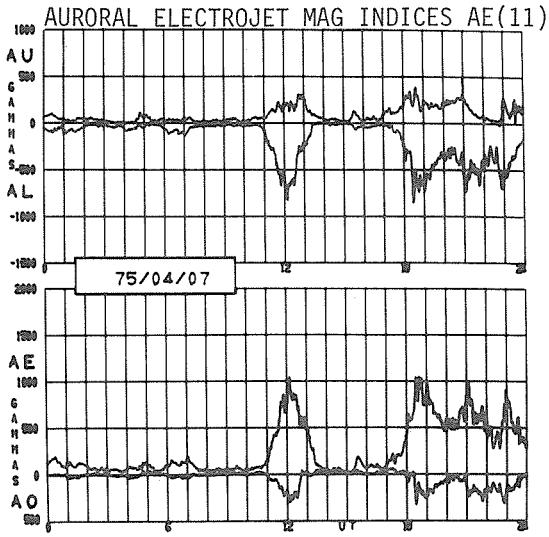
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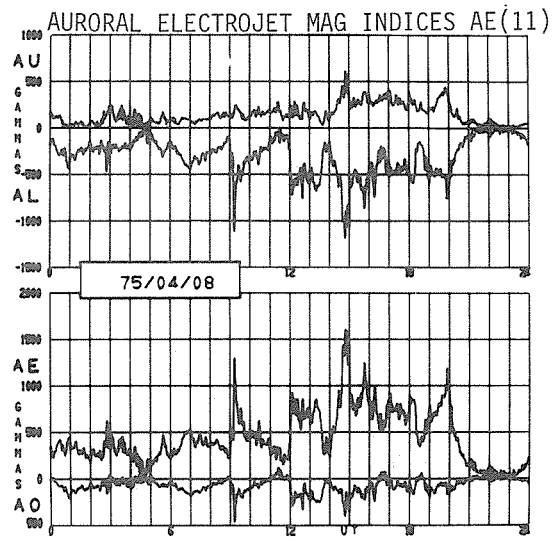
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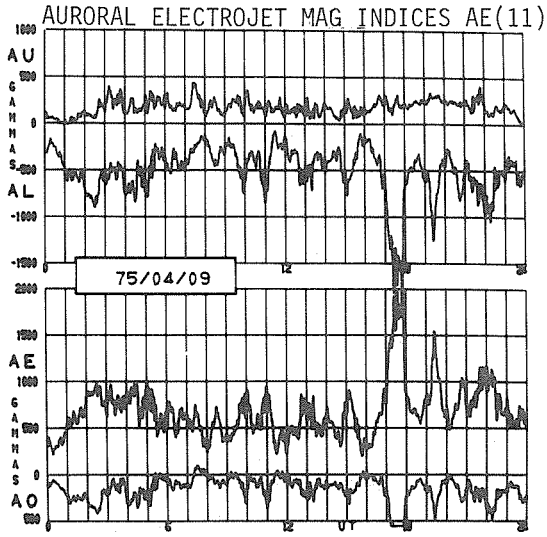
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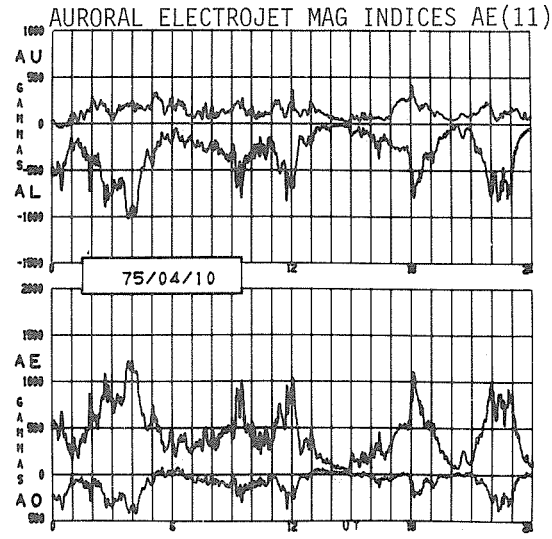
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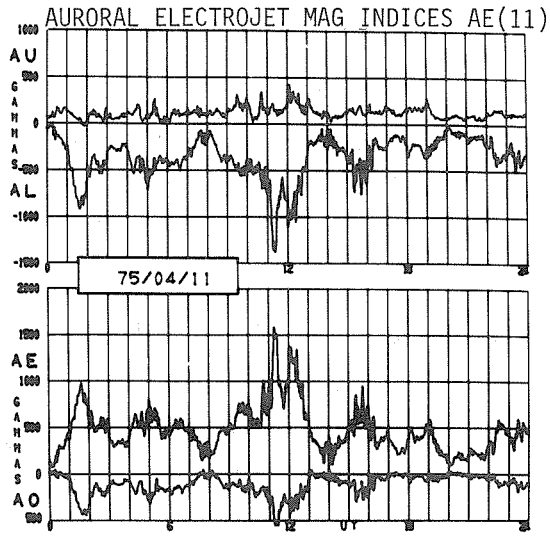
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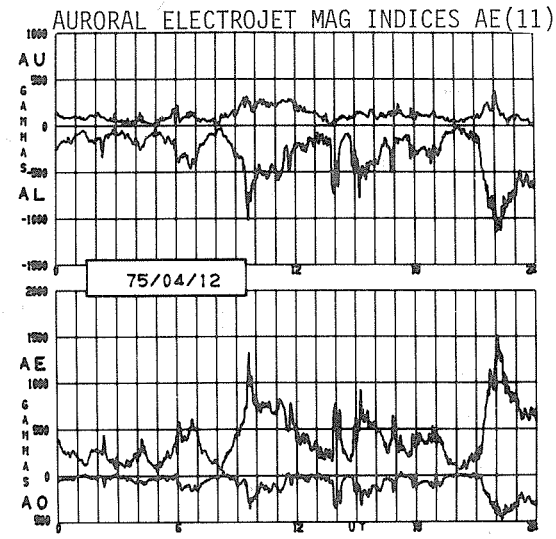
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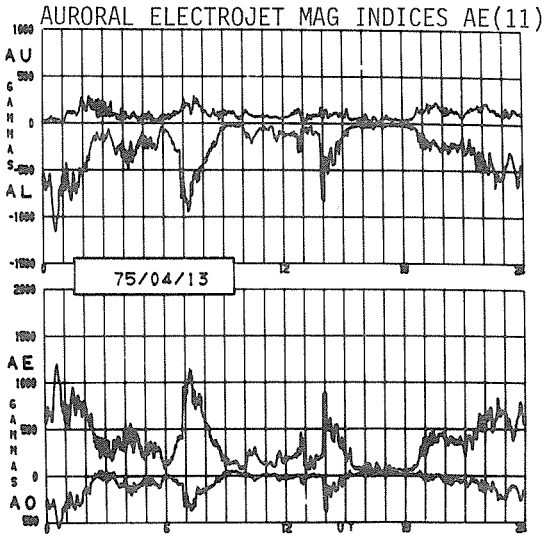
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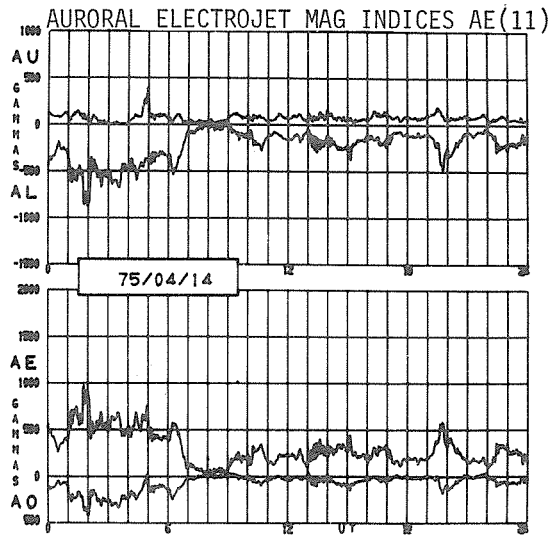
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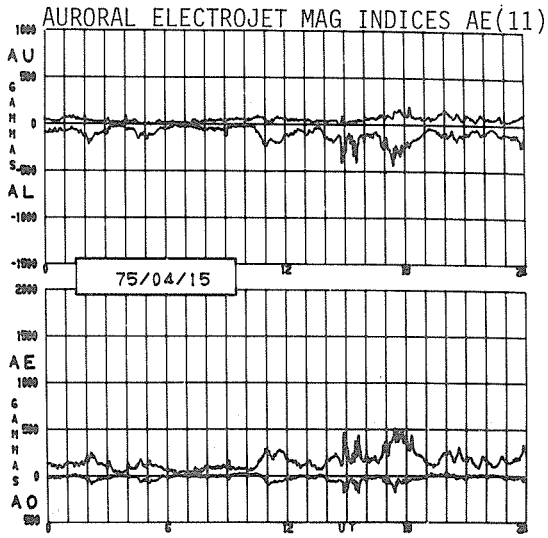
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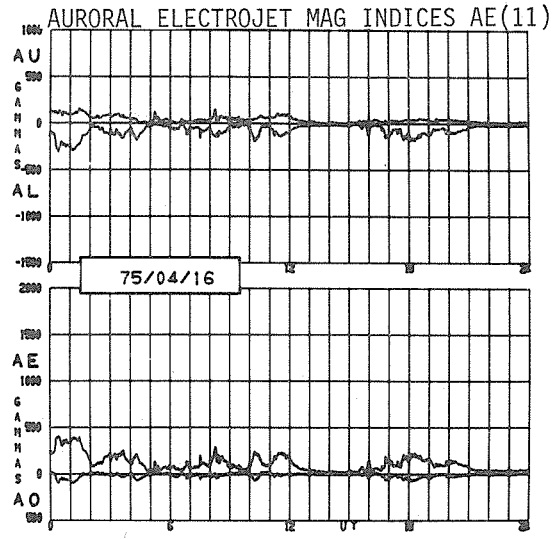
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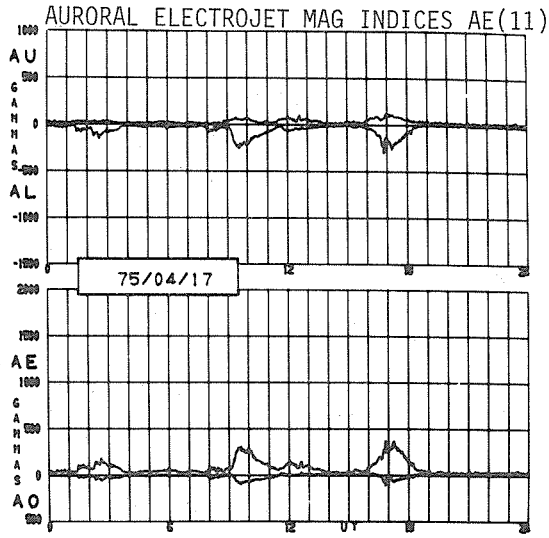
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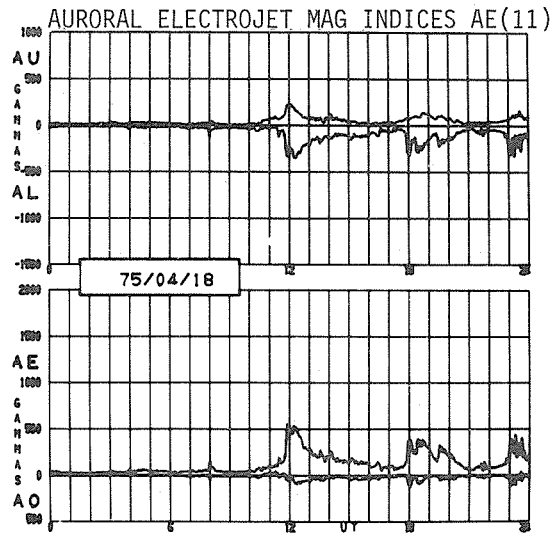
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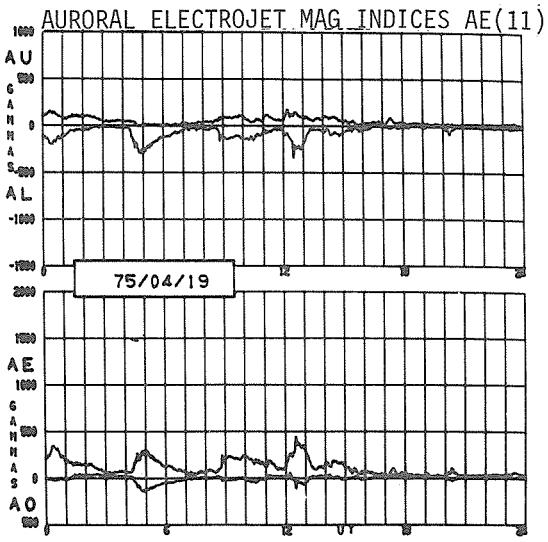
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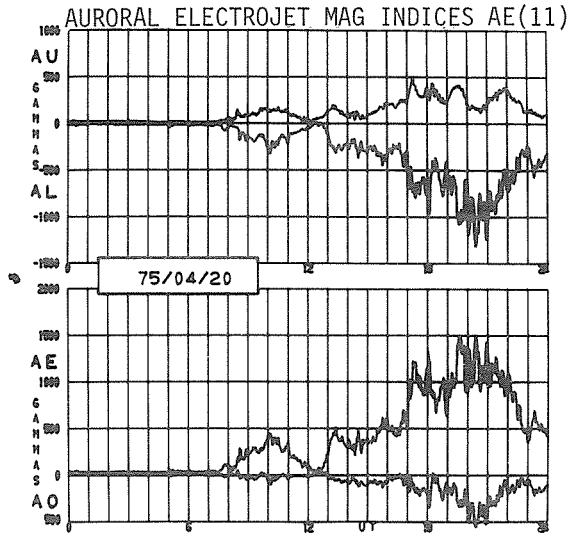
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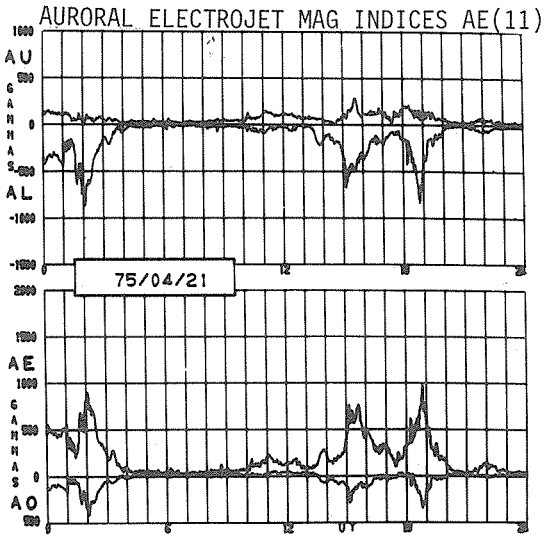
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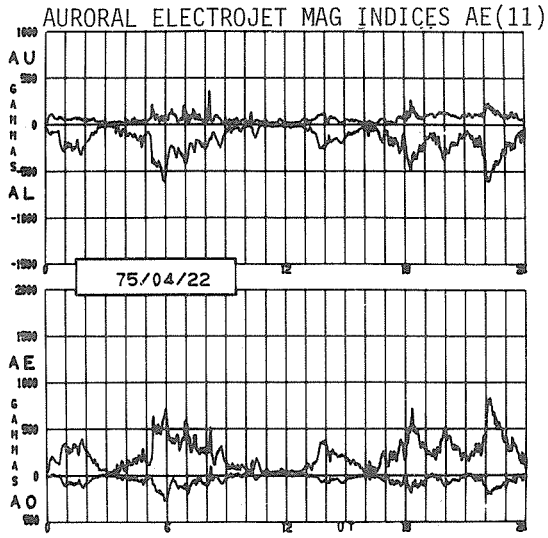
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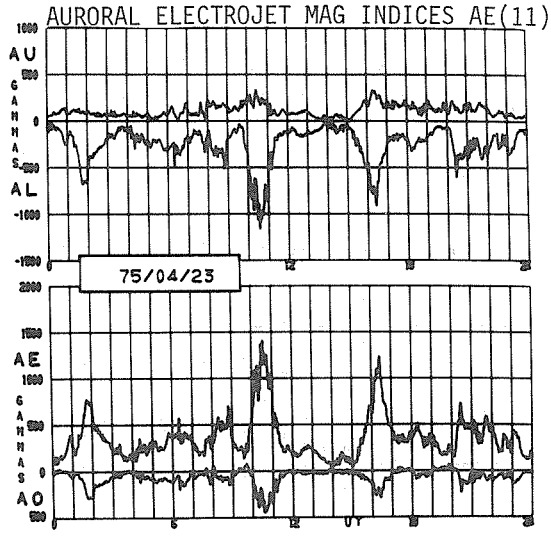
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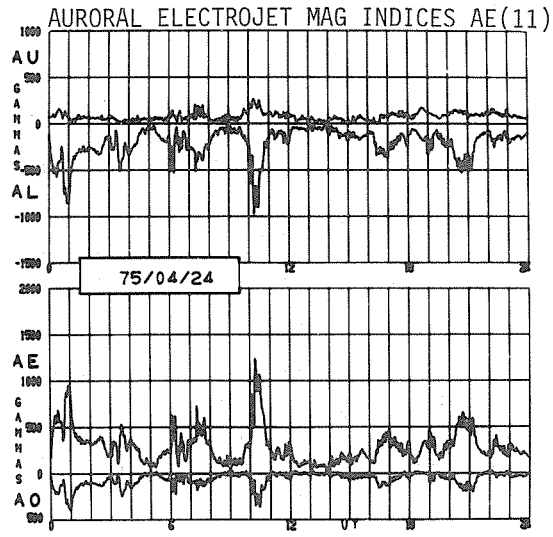
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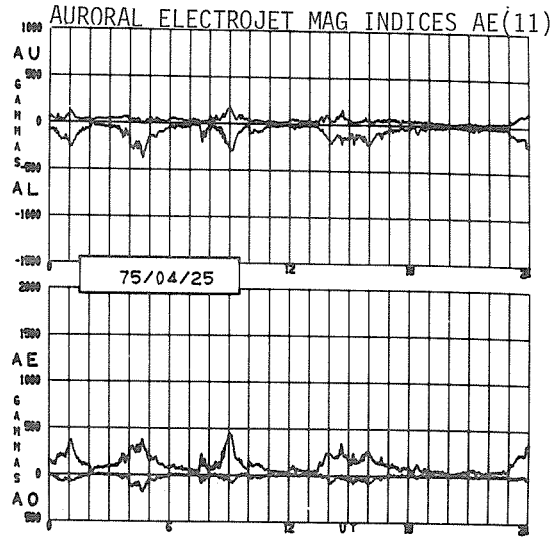
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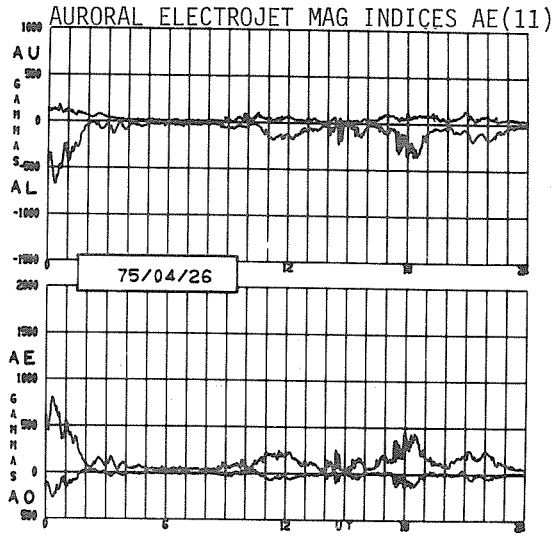
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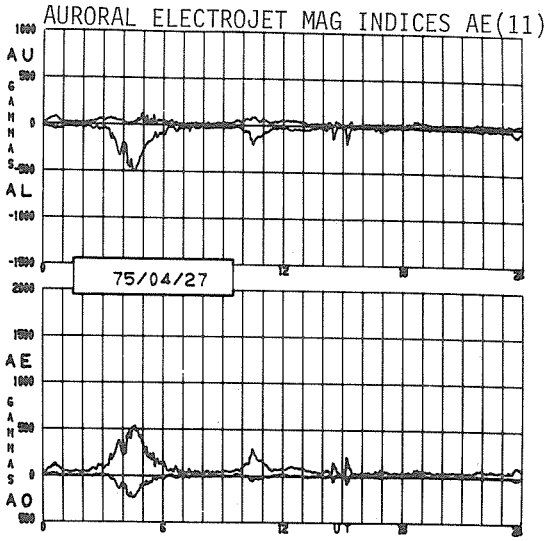
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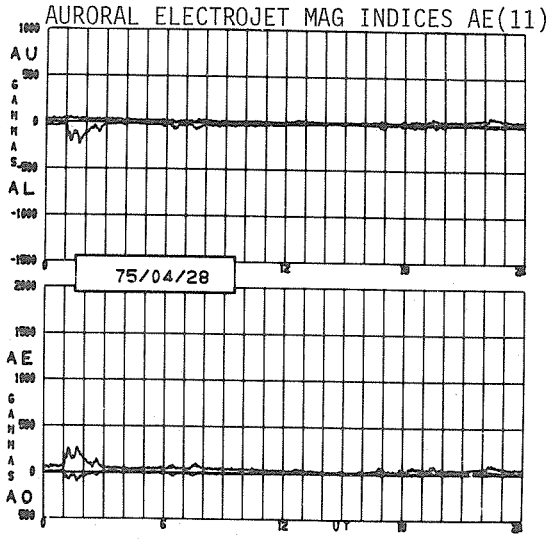
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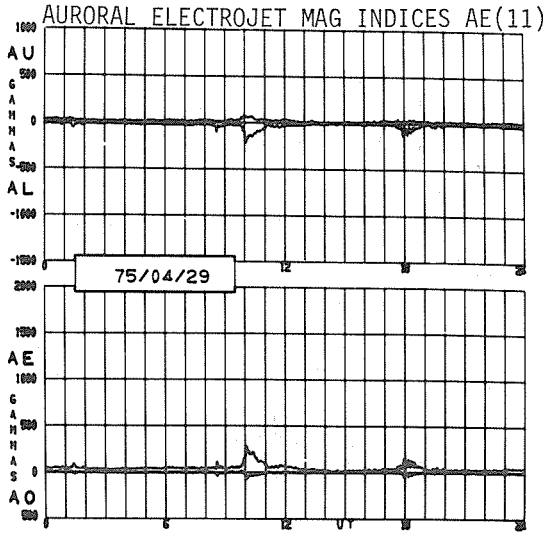
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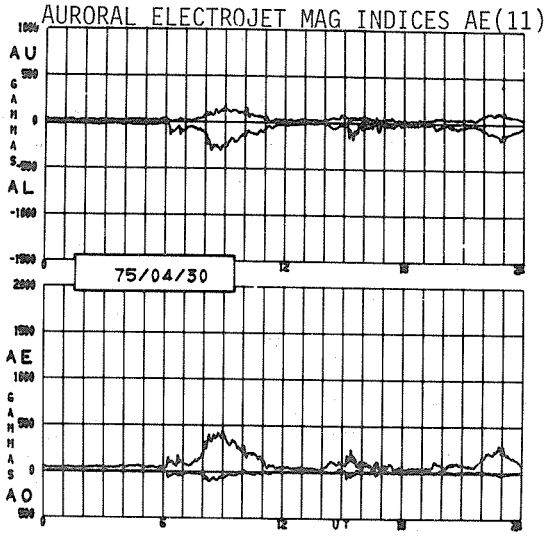
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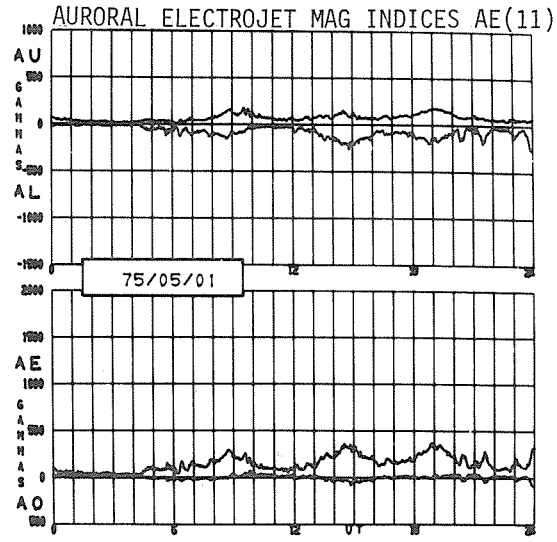
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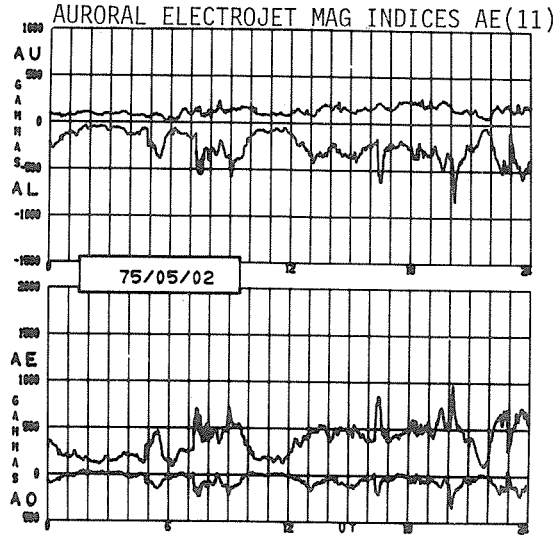
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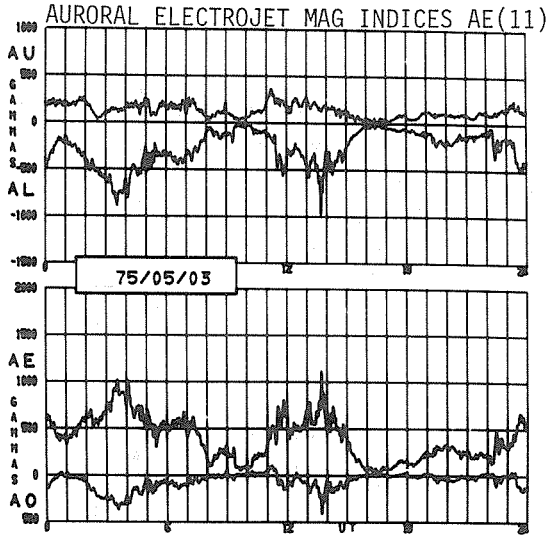
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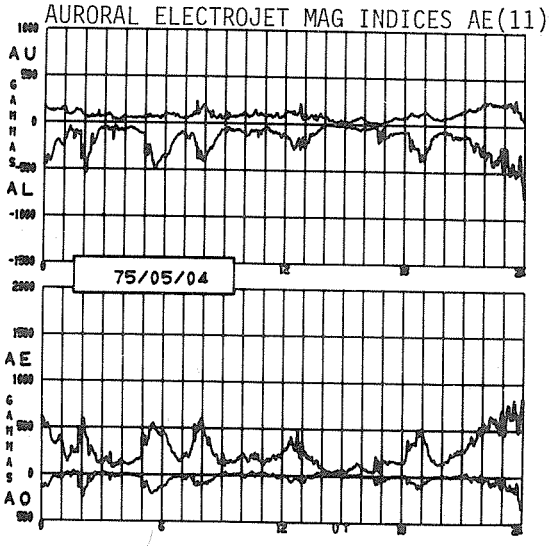
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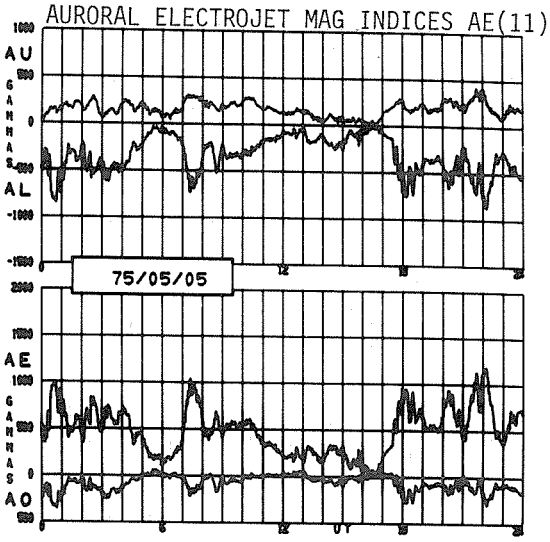
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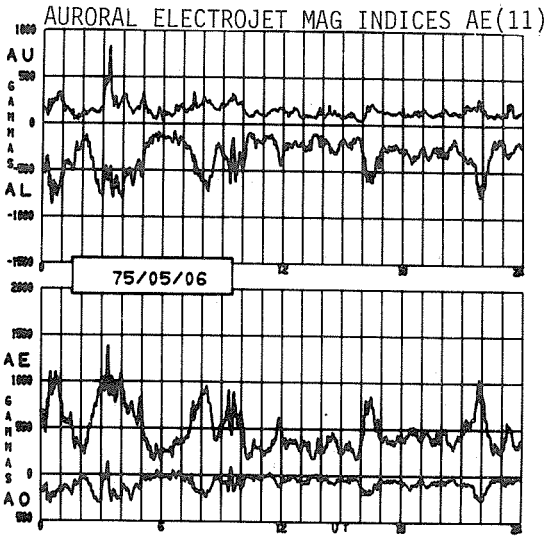
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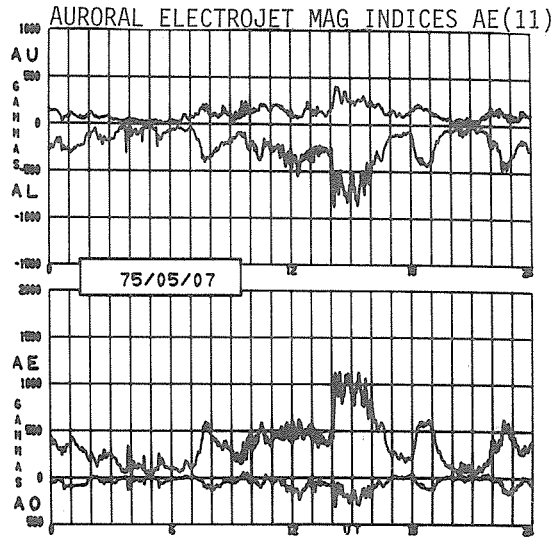
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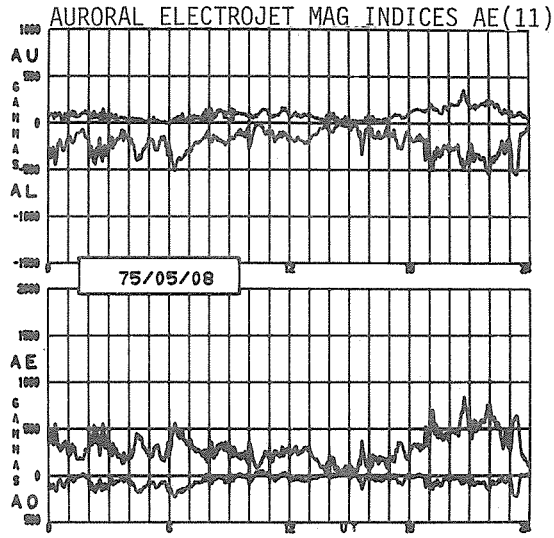
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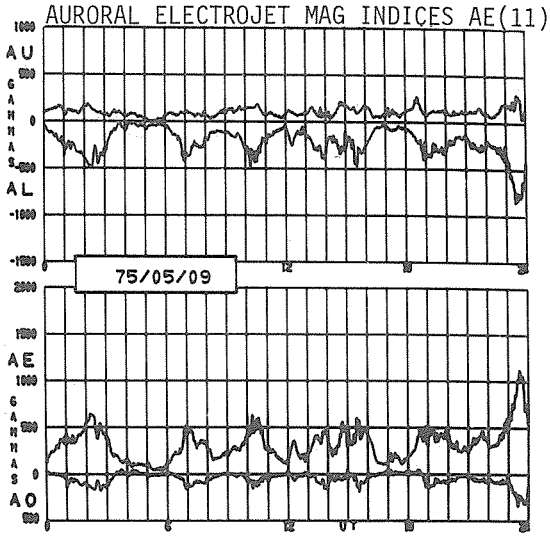
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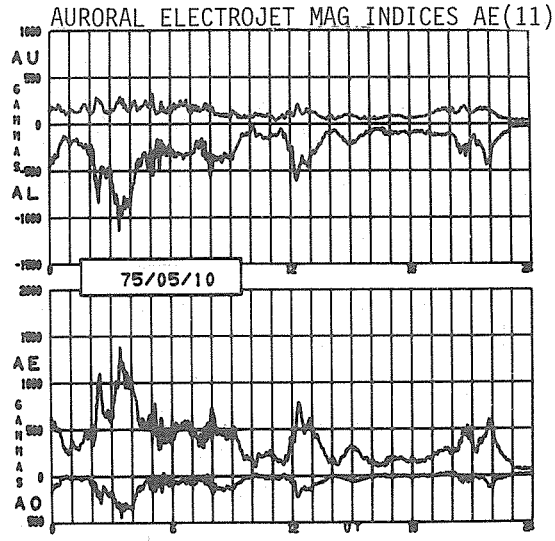
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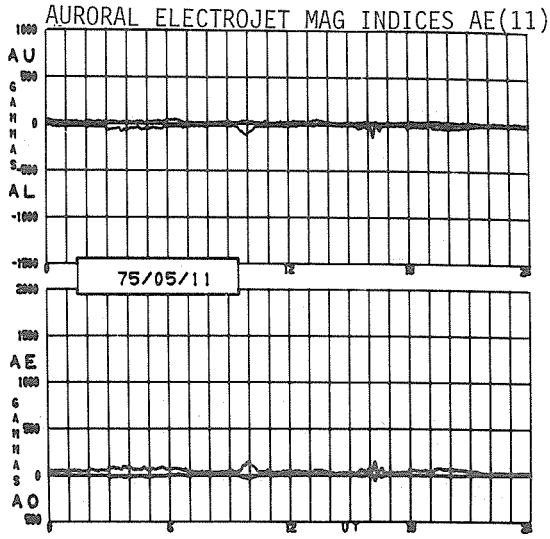
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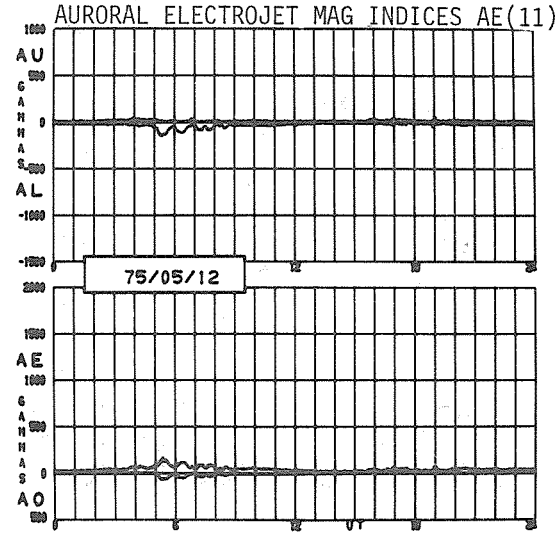
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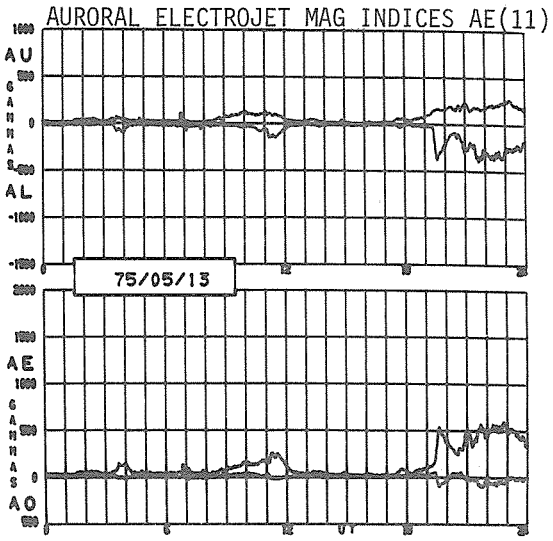
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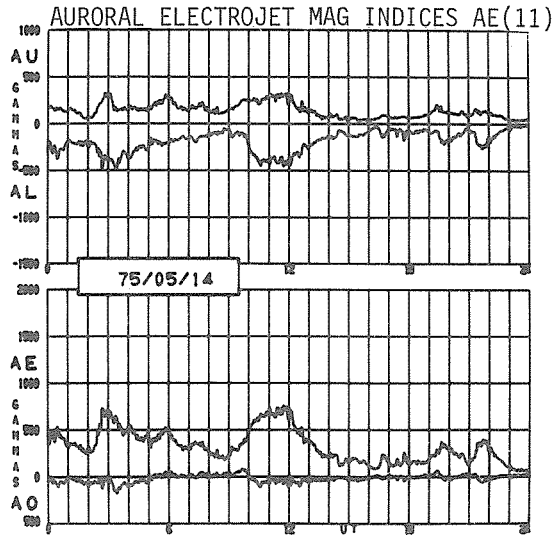
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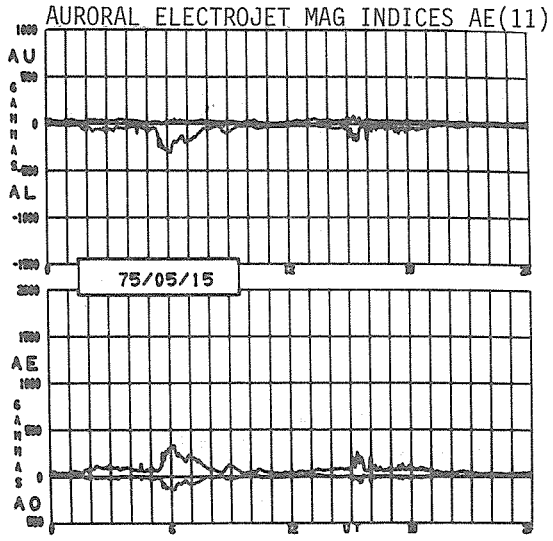
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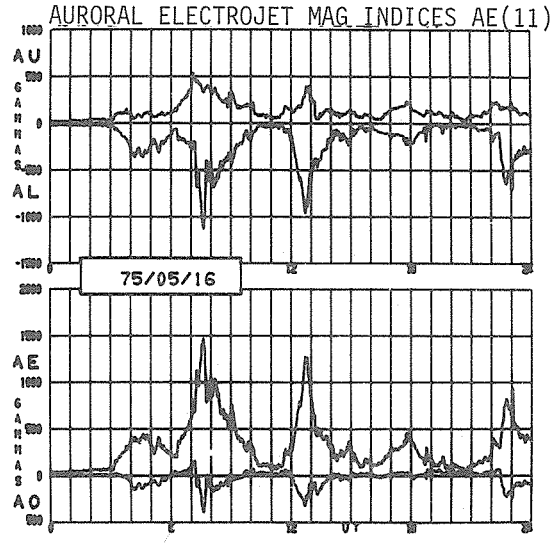
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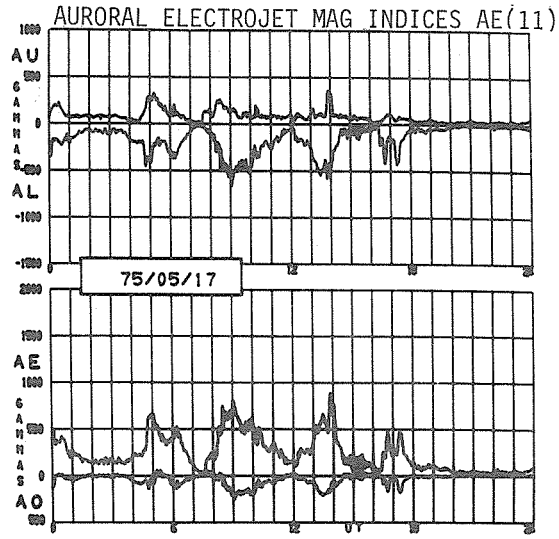
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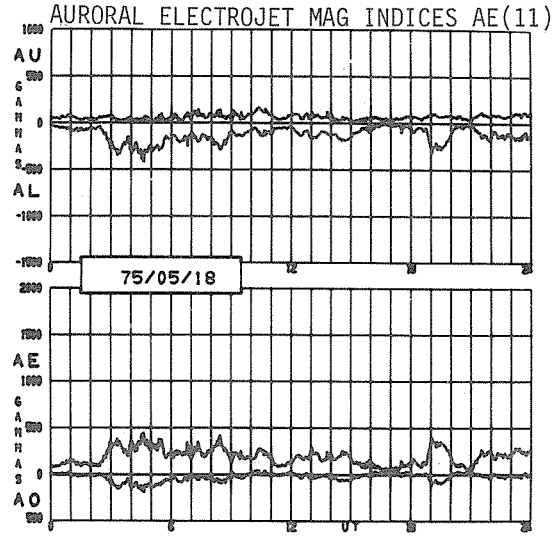
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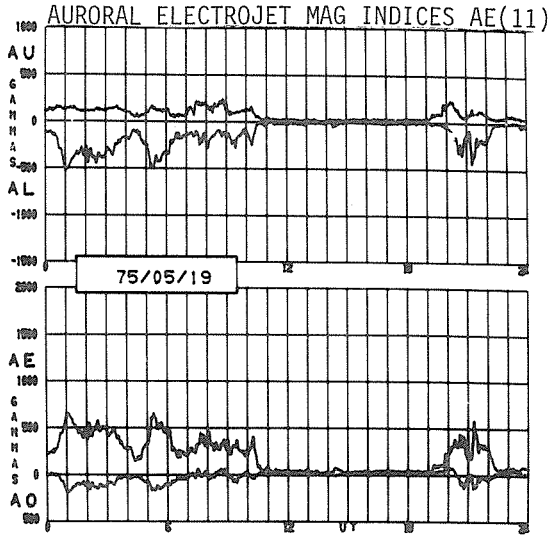
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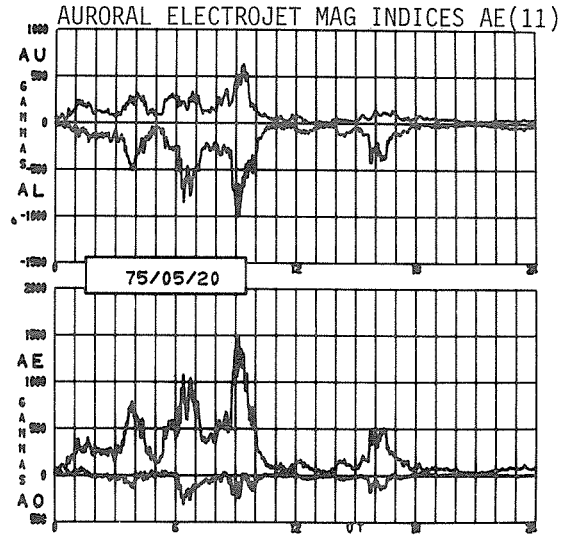
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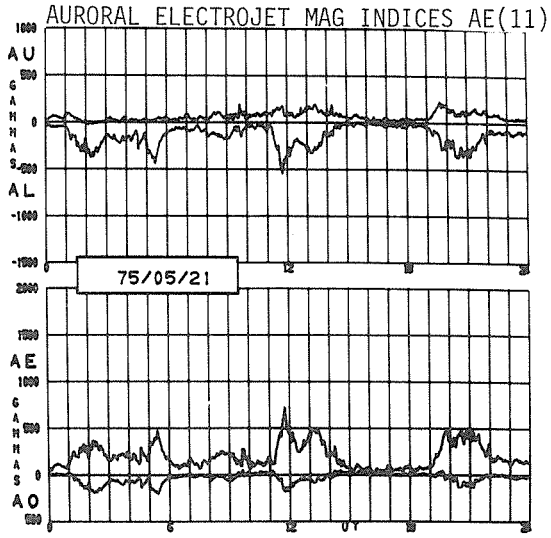
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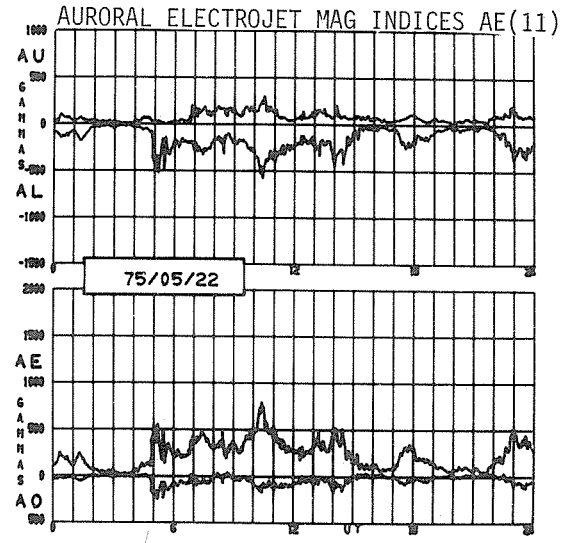
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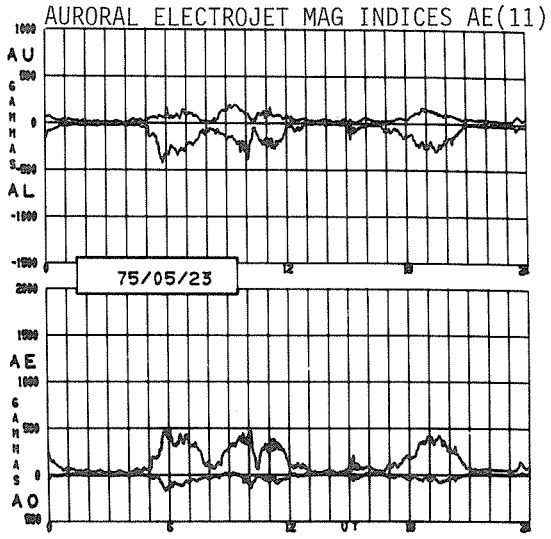
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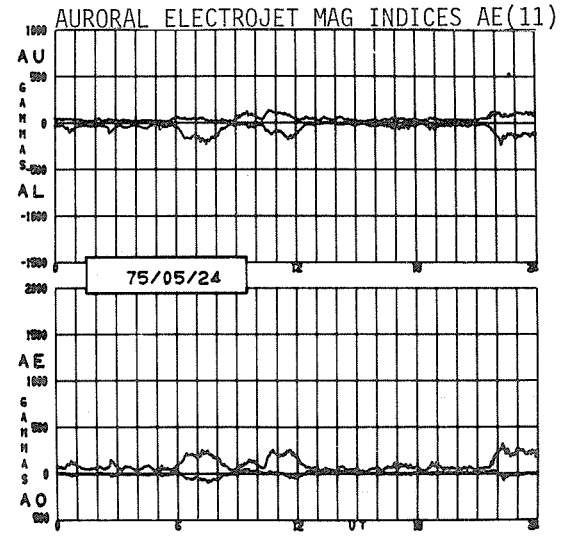
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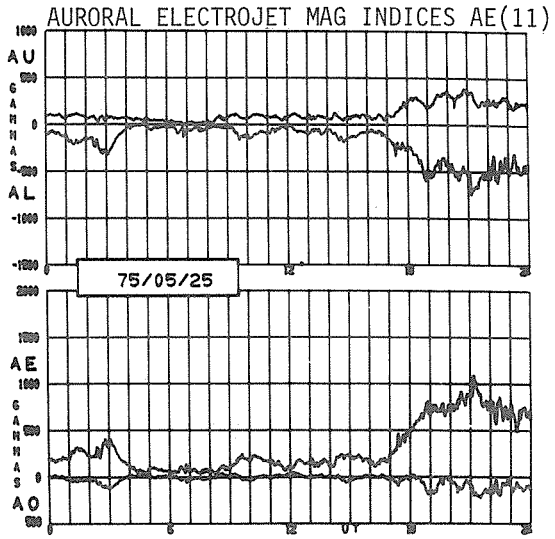
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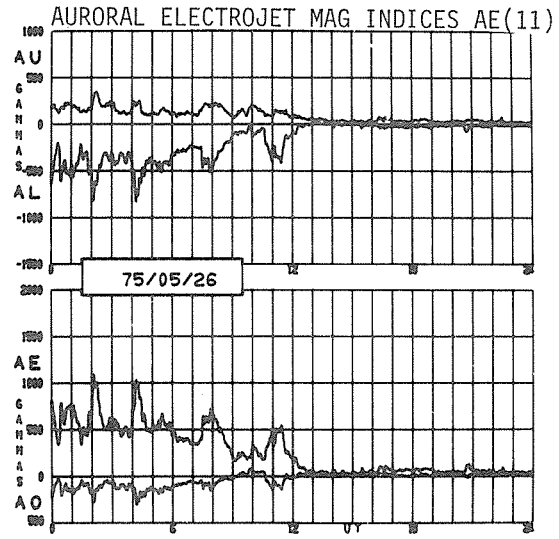
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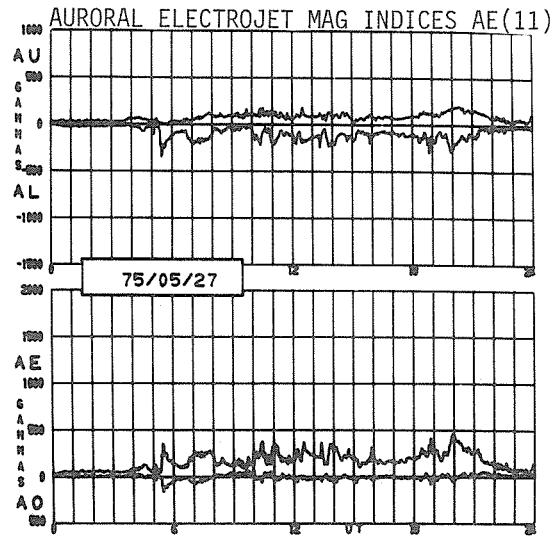
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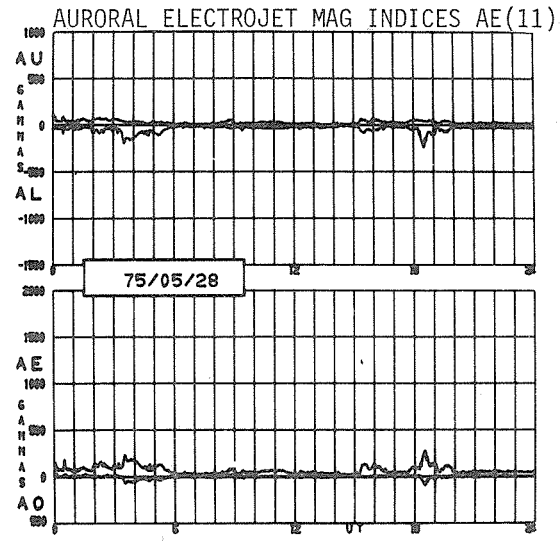
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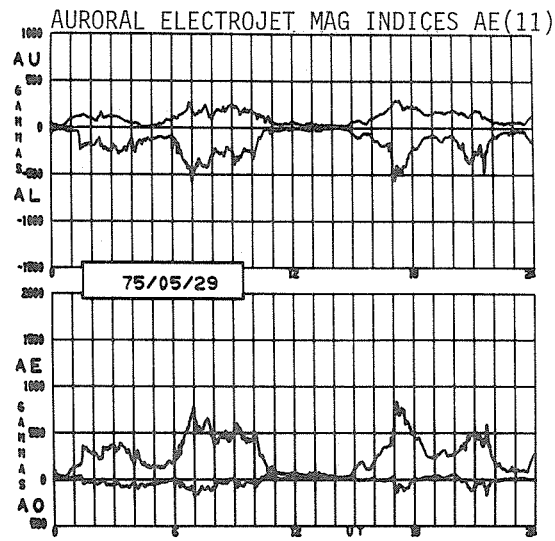
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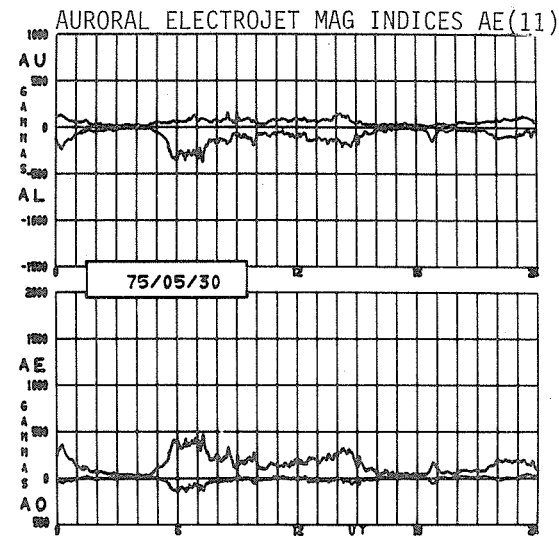
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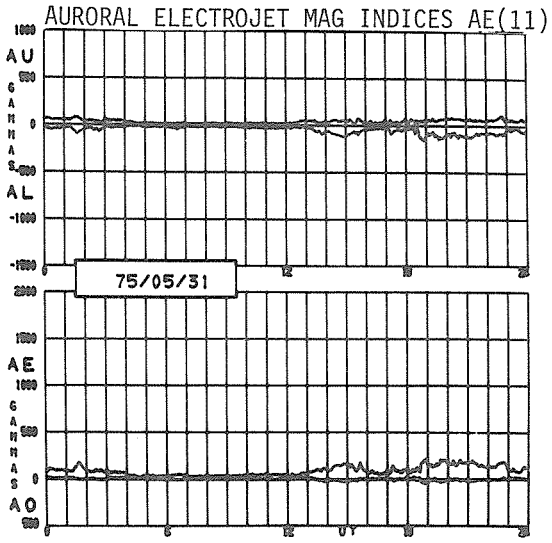
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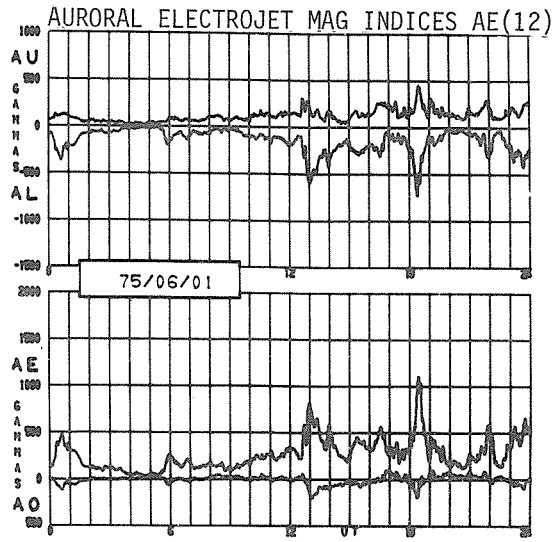
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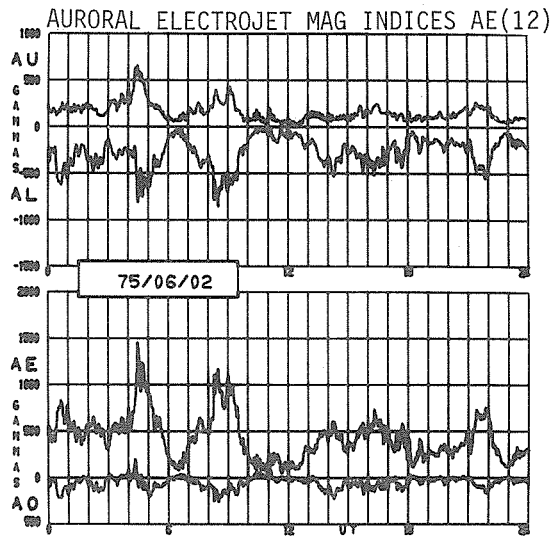
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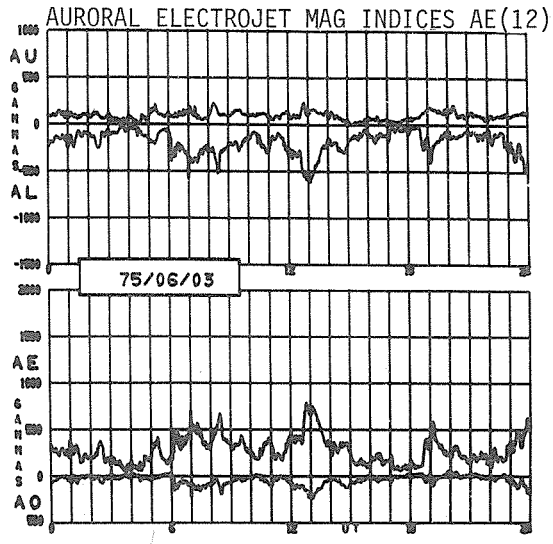
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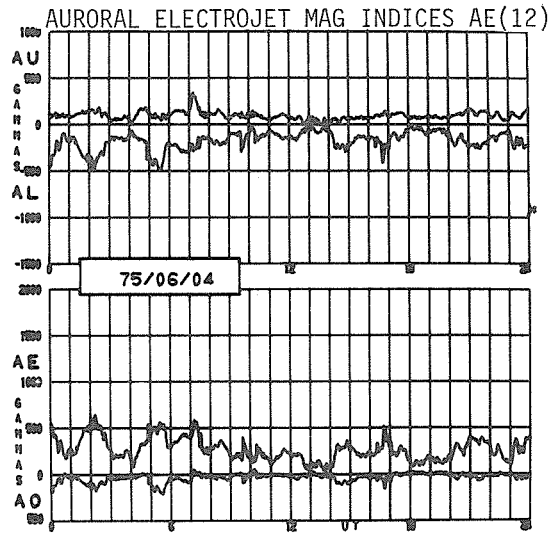
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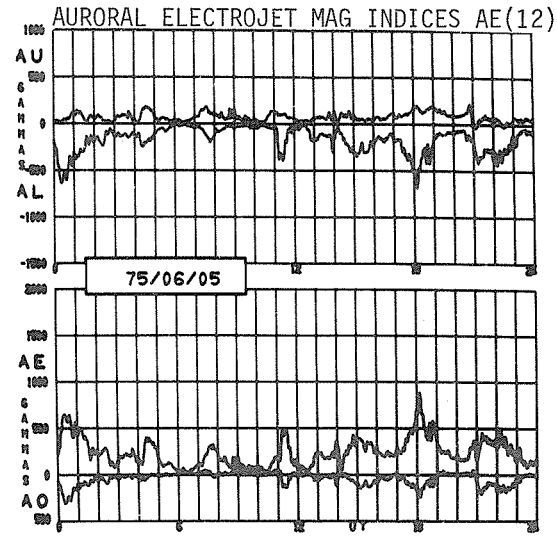
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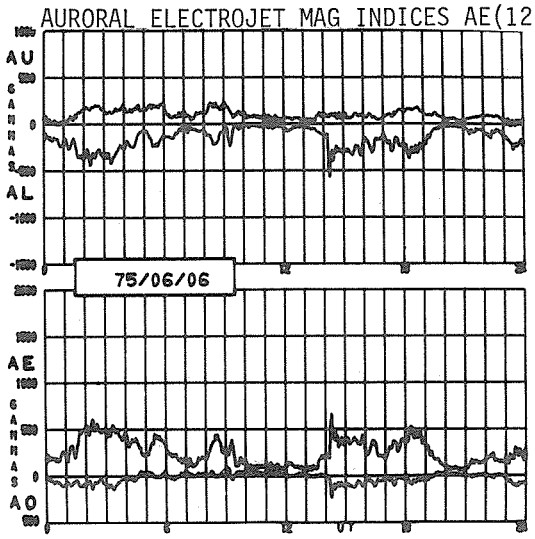

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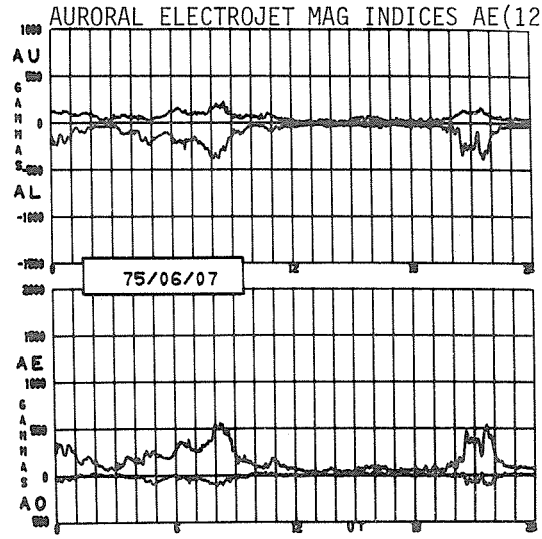

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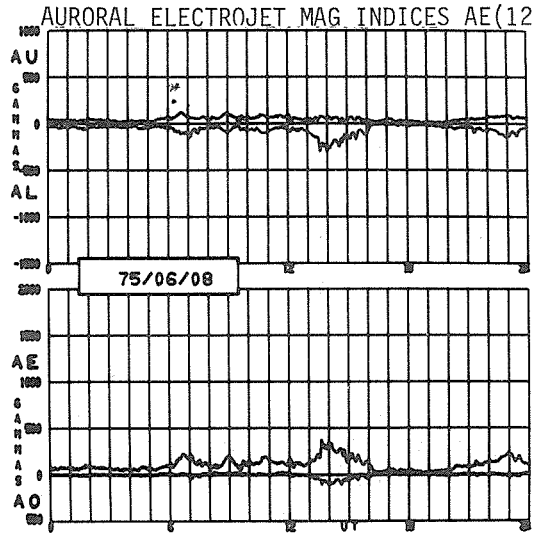

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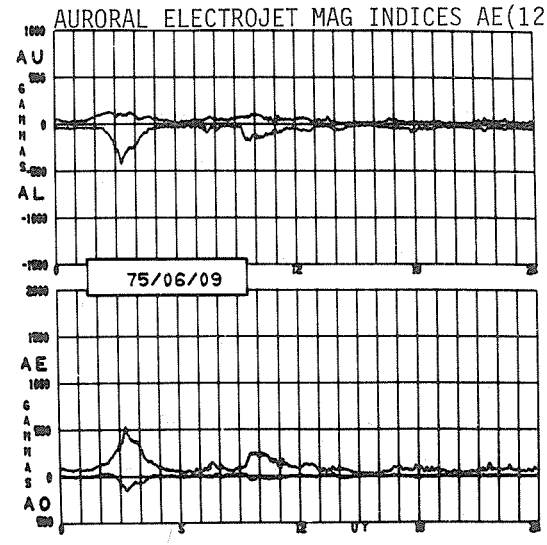

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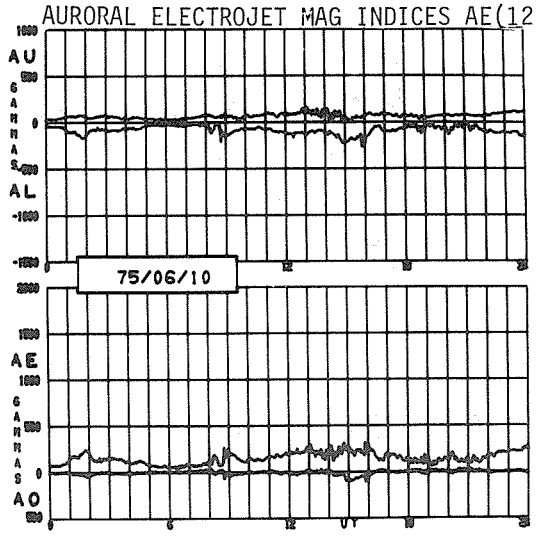

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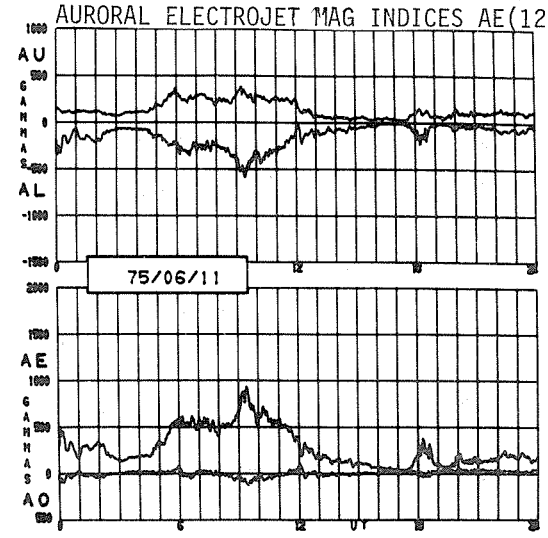

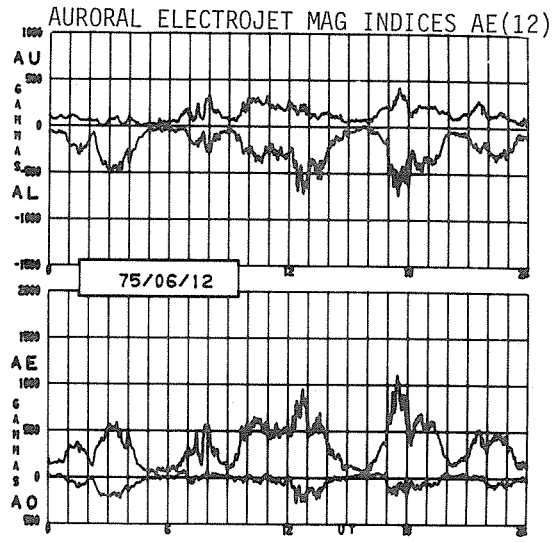
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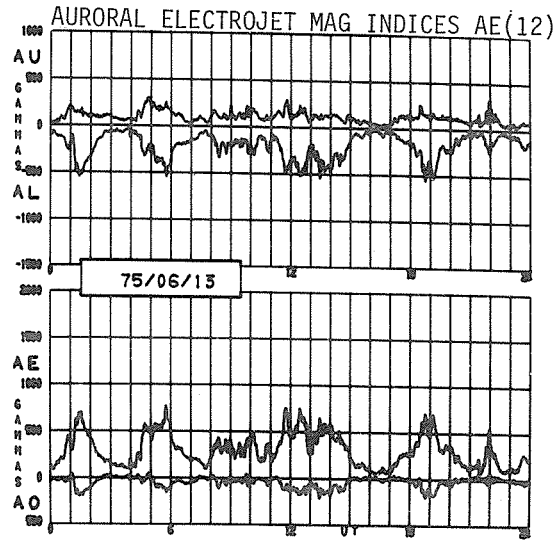
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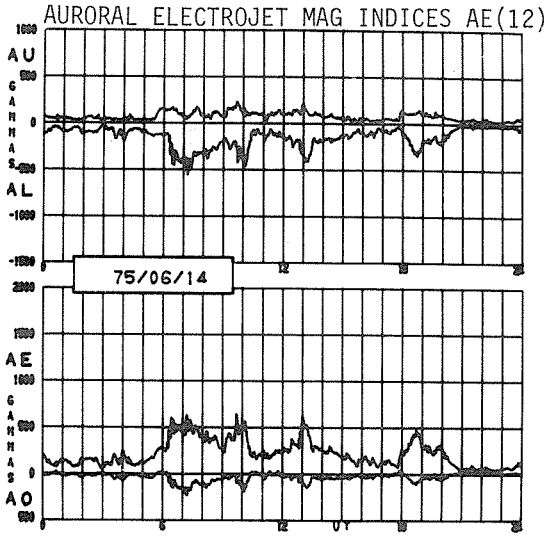
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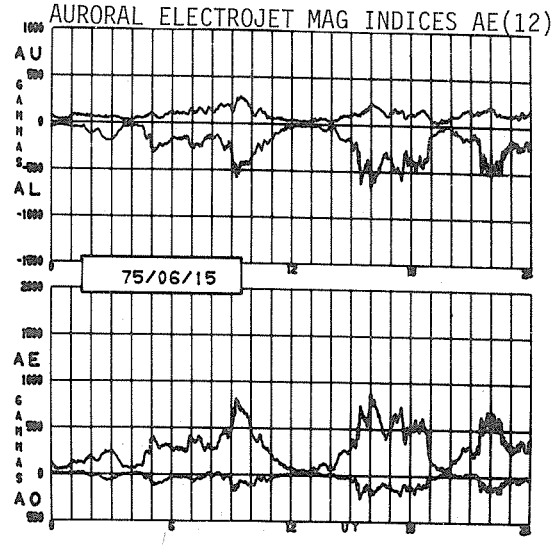
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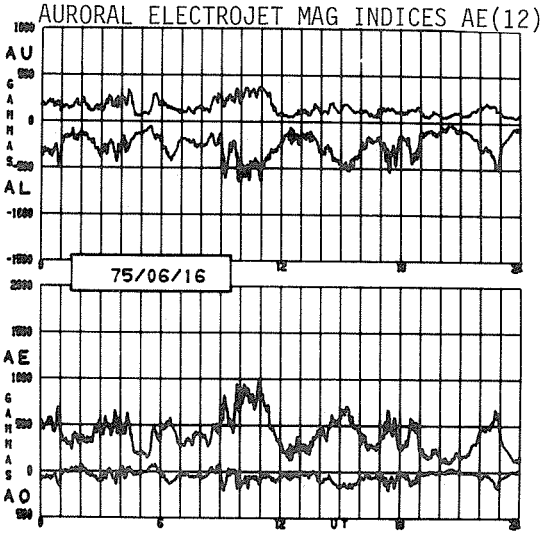
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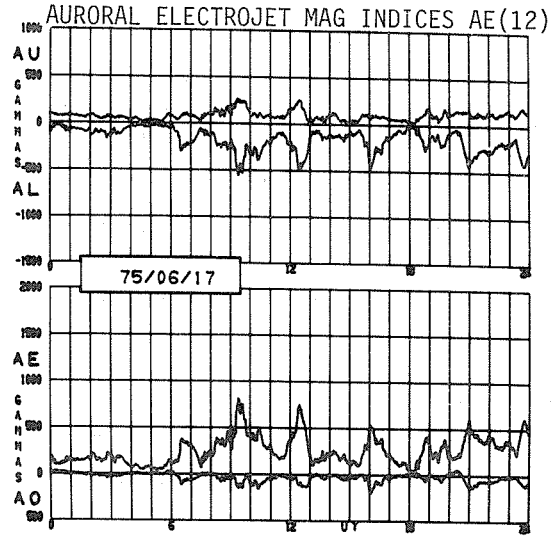
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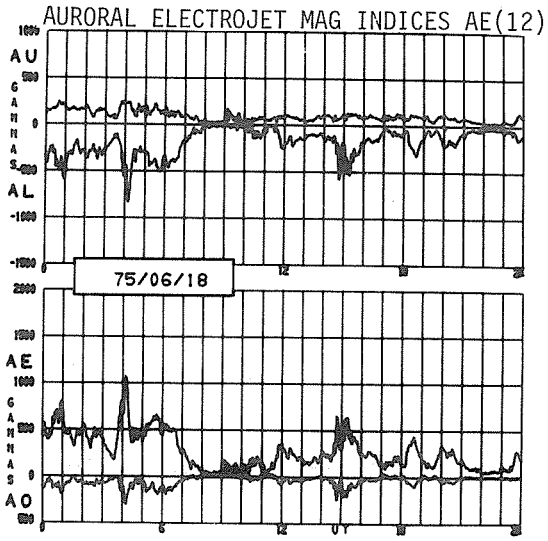
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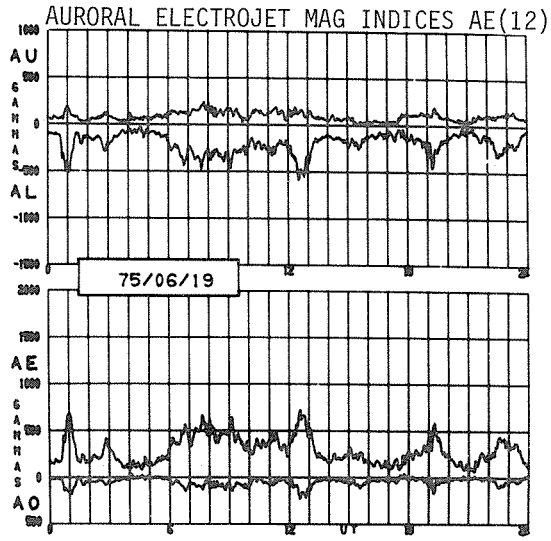
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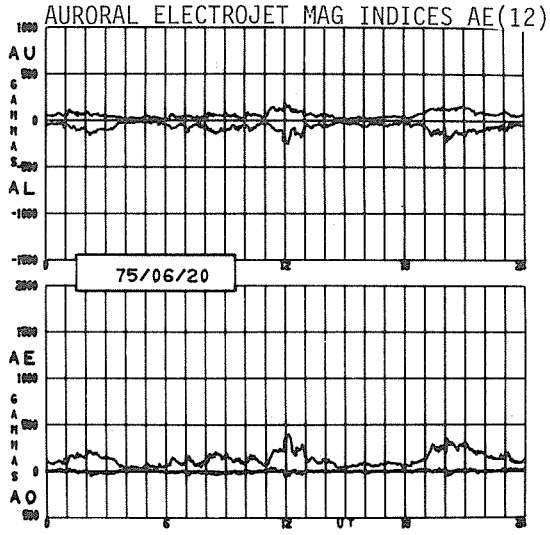
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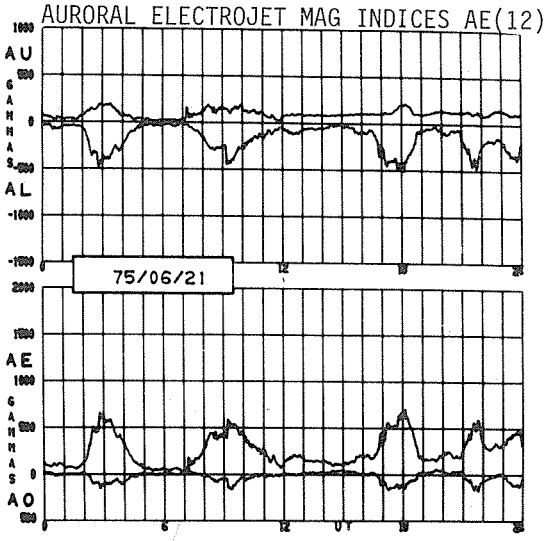
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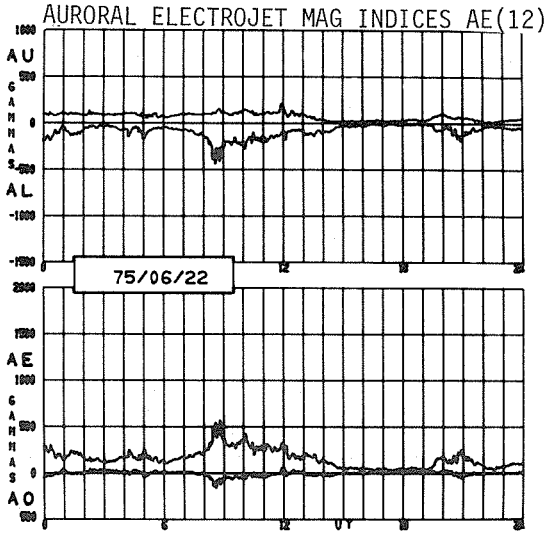
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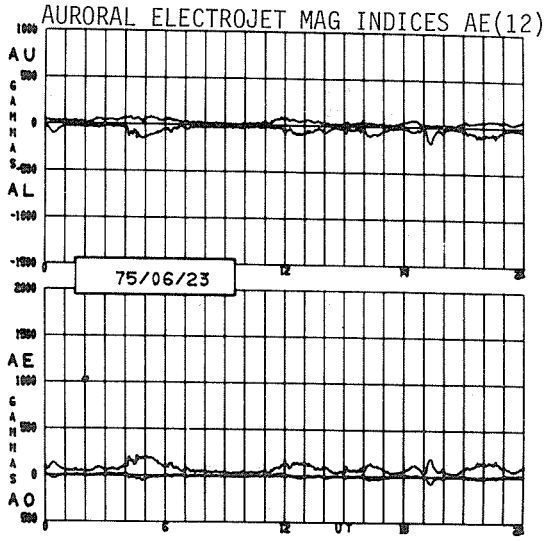
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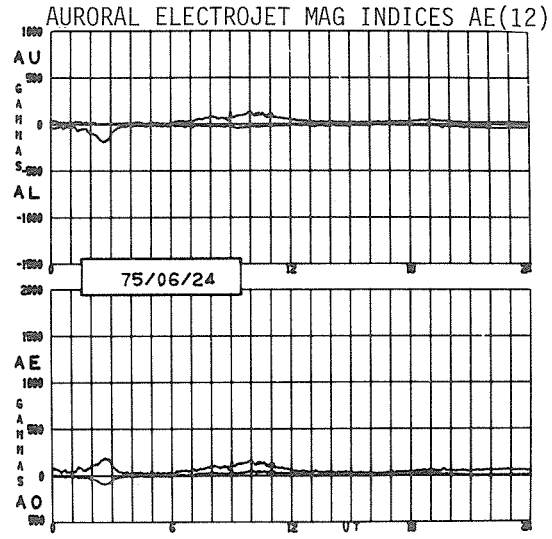
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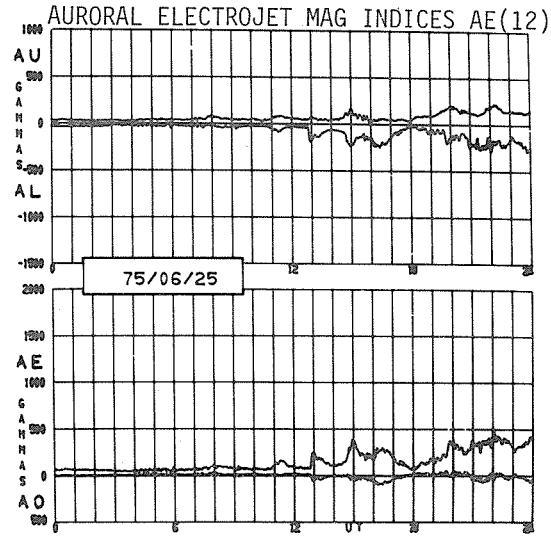
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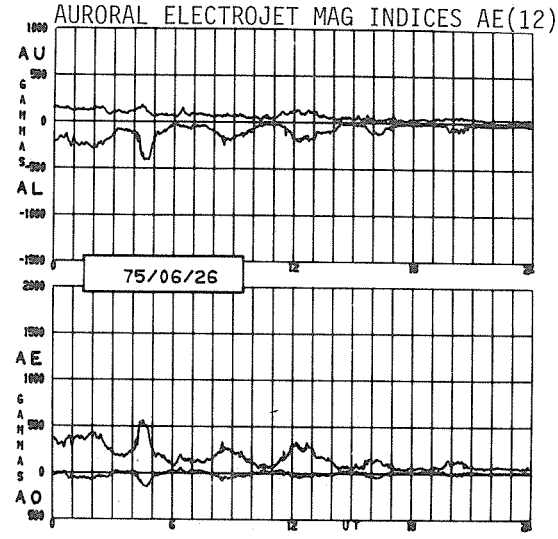
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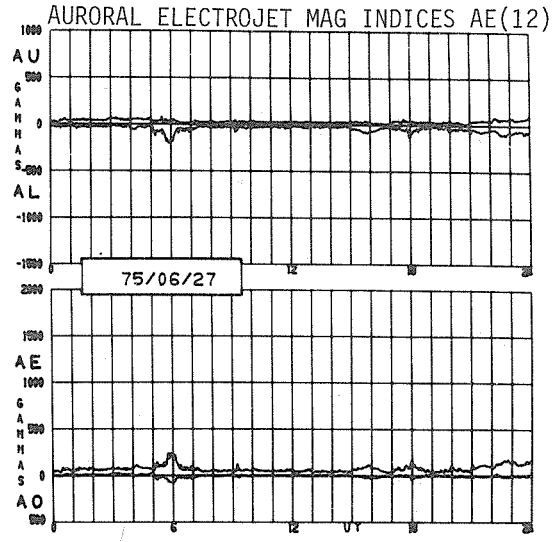
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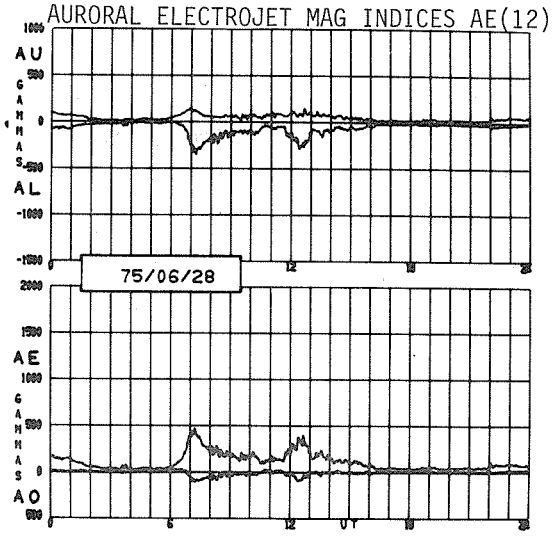
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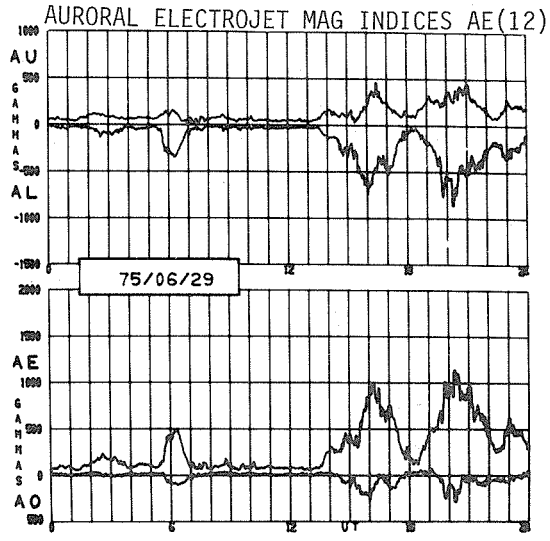
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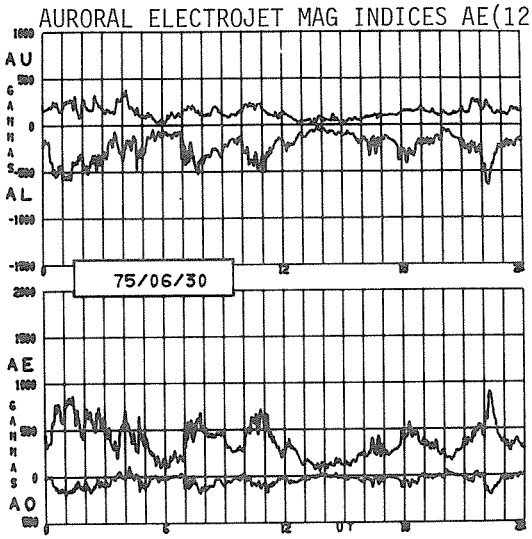
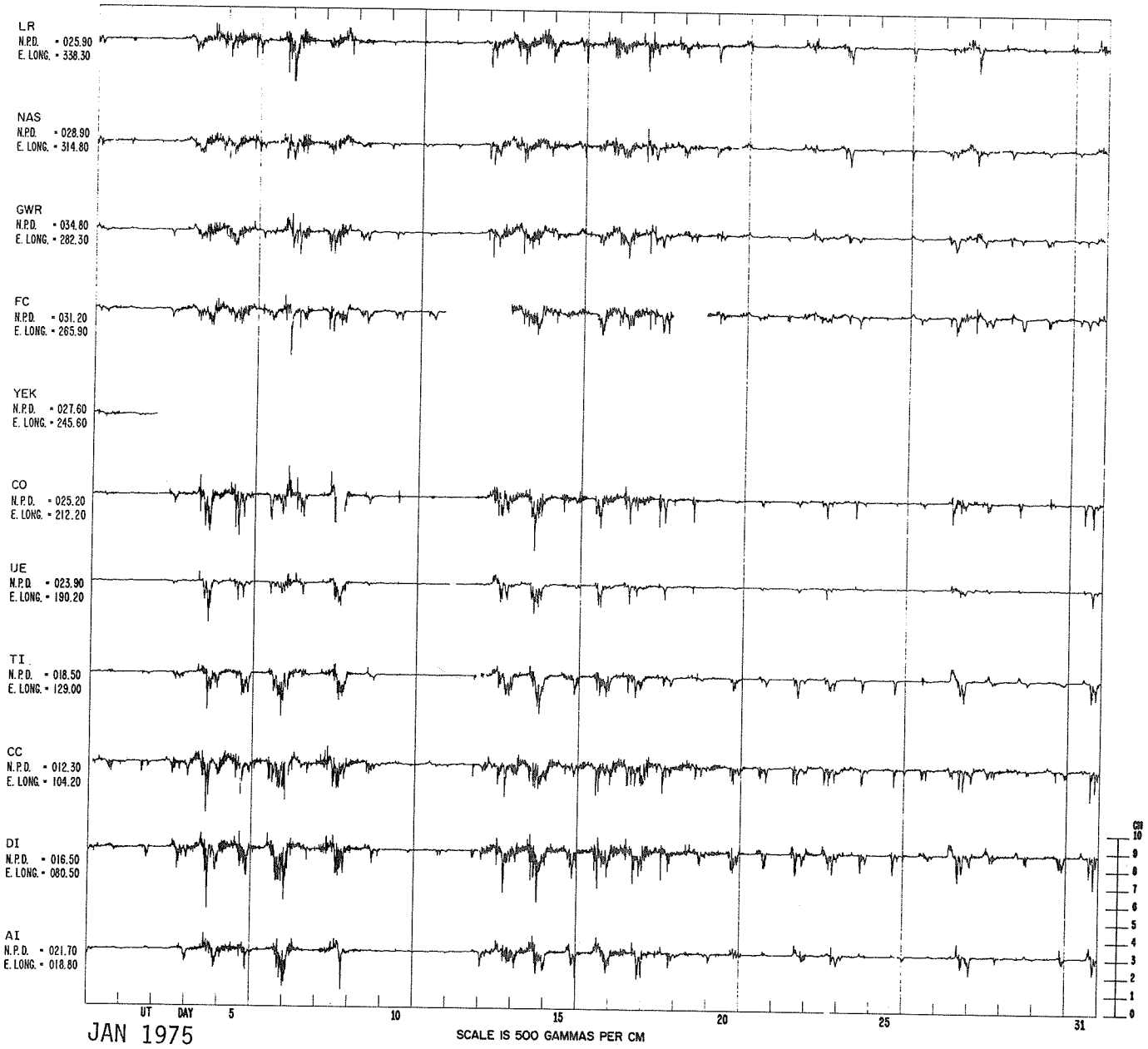
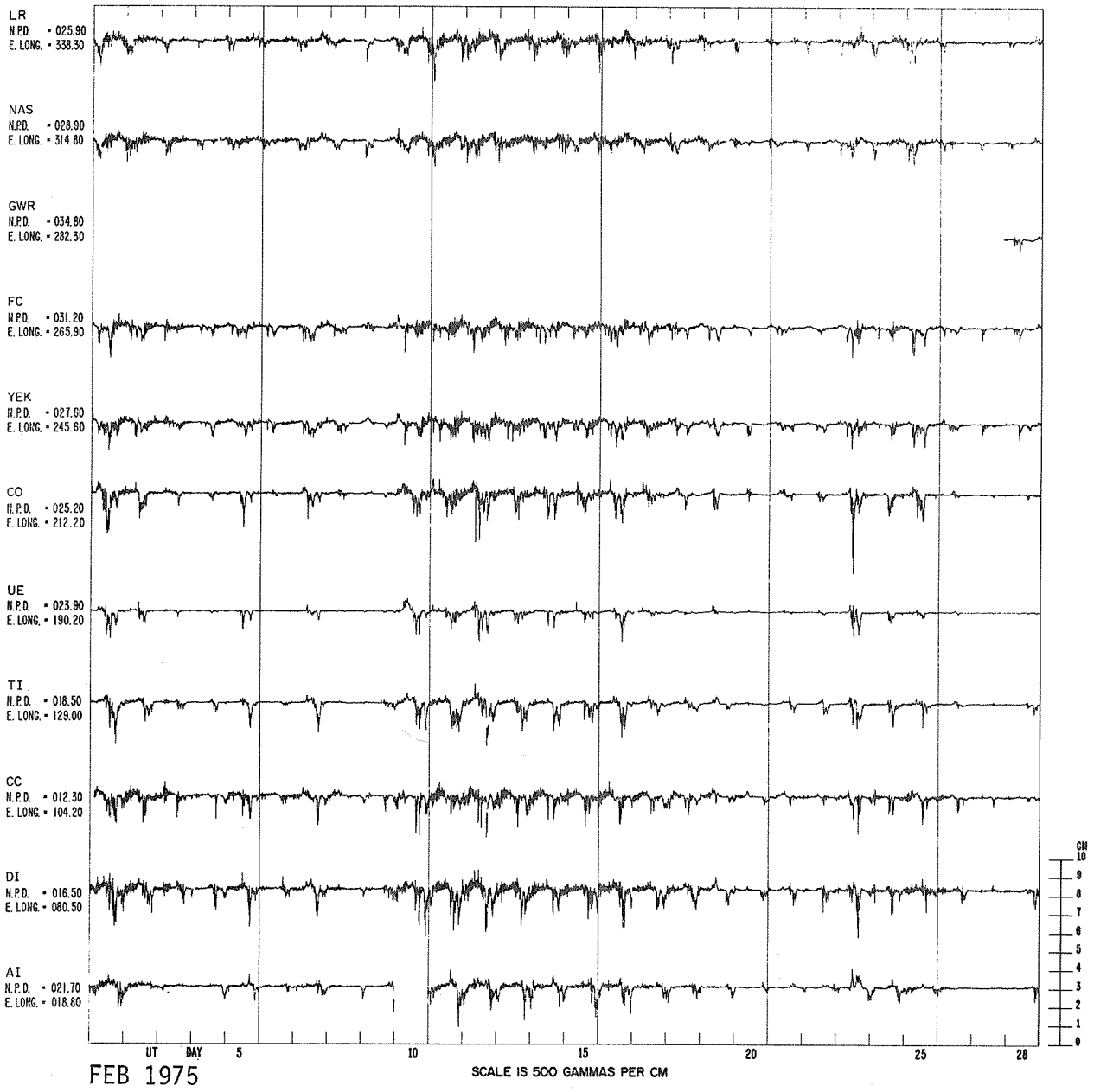


3. Stacked Common Scale Magnetograms

COMMON SCALE MAGNETOGRAMS OF H VARIATIONS FOR JANUARY 1975

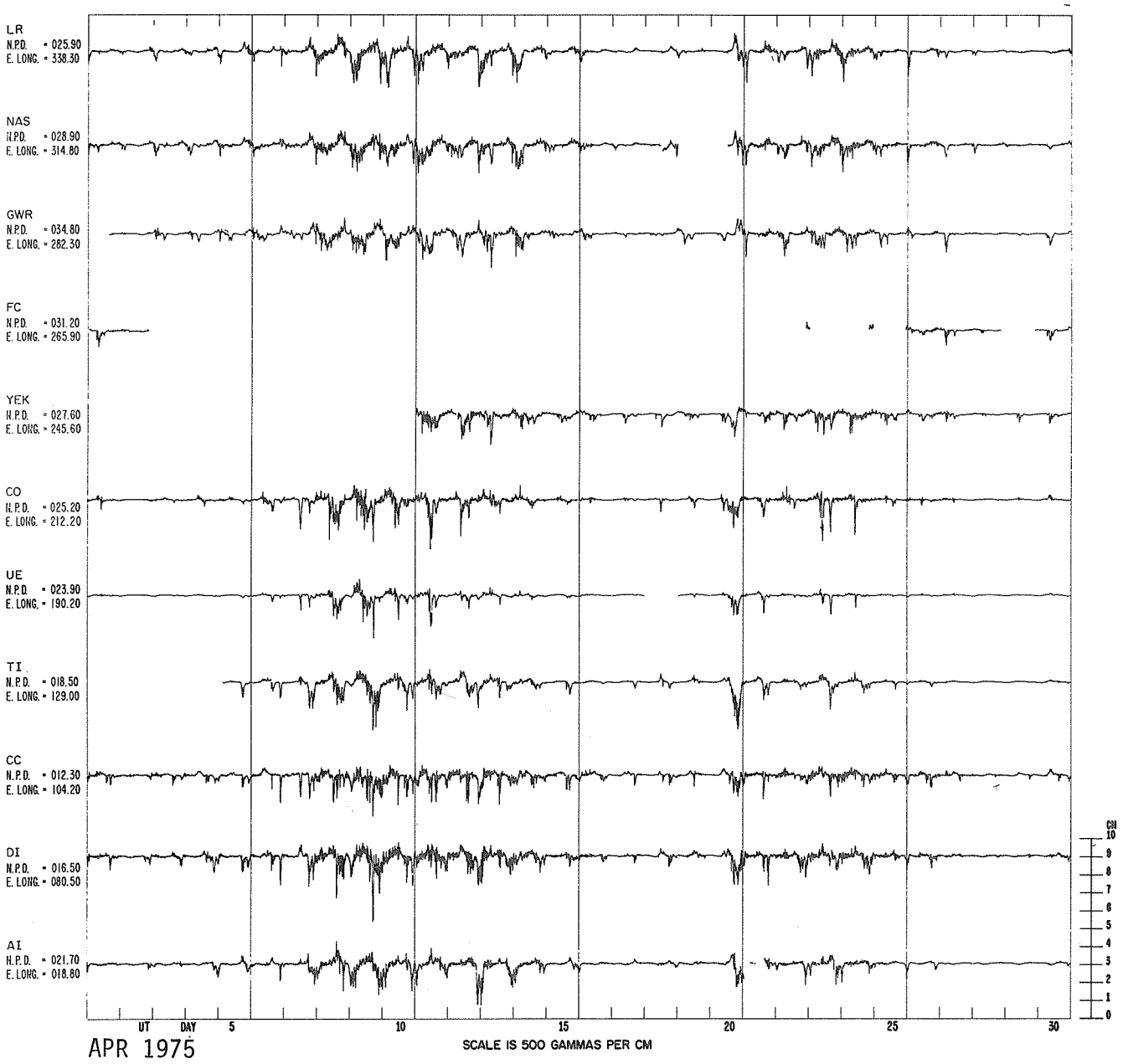


COMMON SCALE MAGNETOGRAMS OF H VARIATIONS FOR FEBRUARY 1975

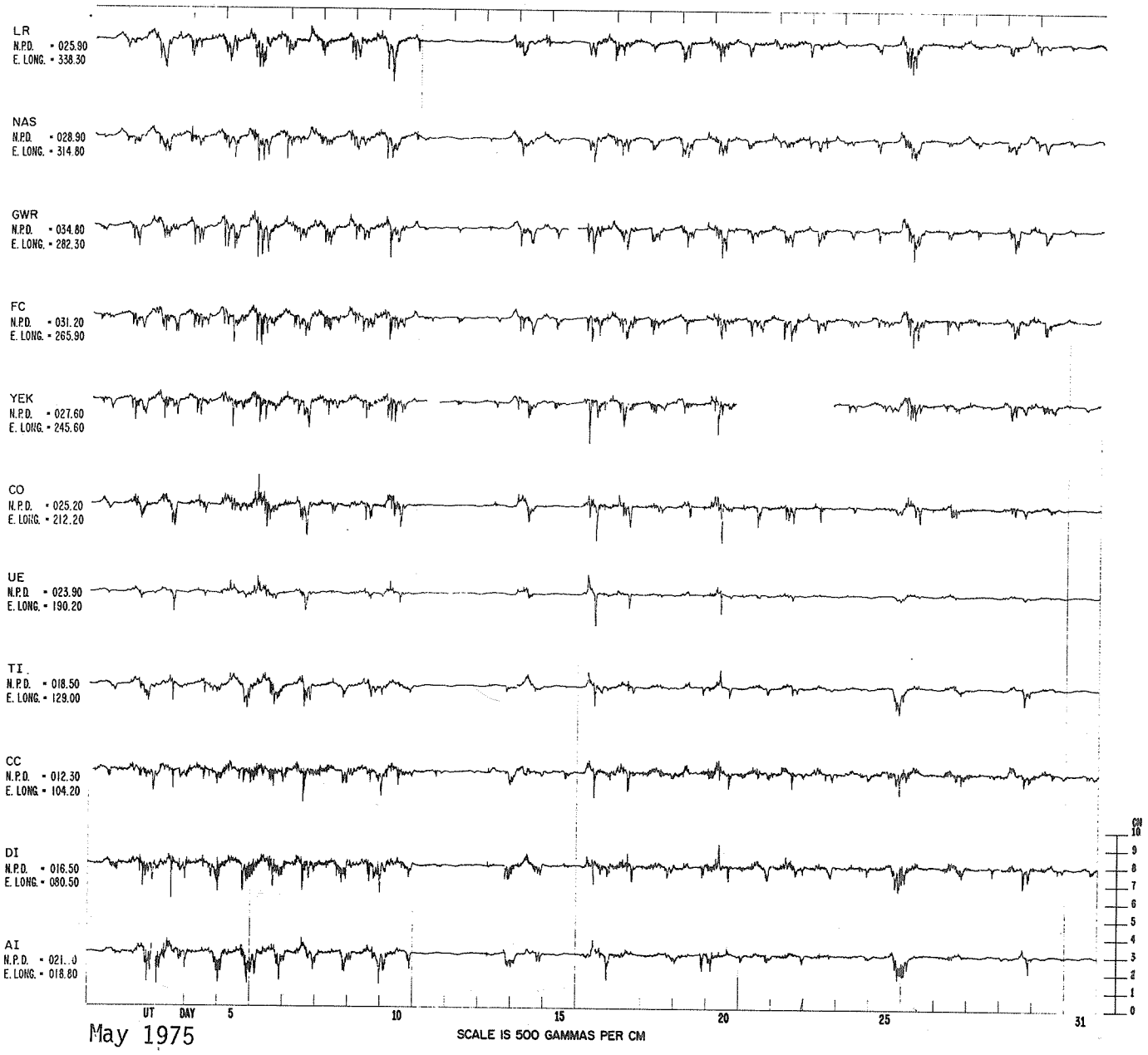


COMMON SCALE MAGNETOGRAMS OF H VARIATIONS FOR MARCH 1975

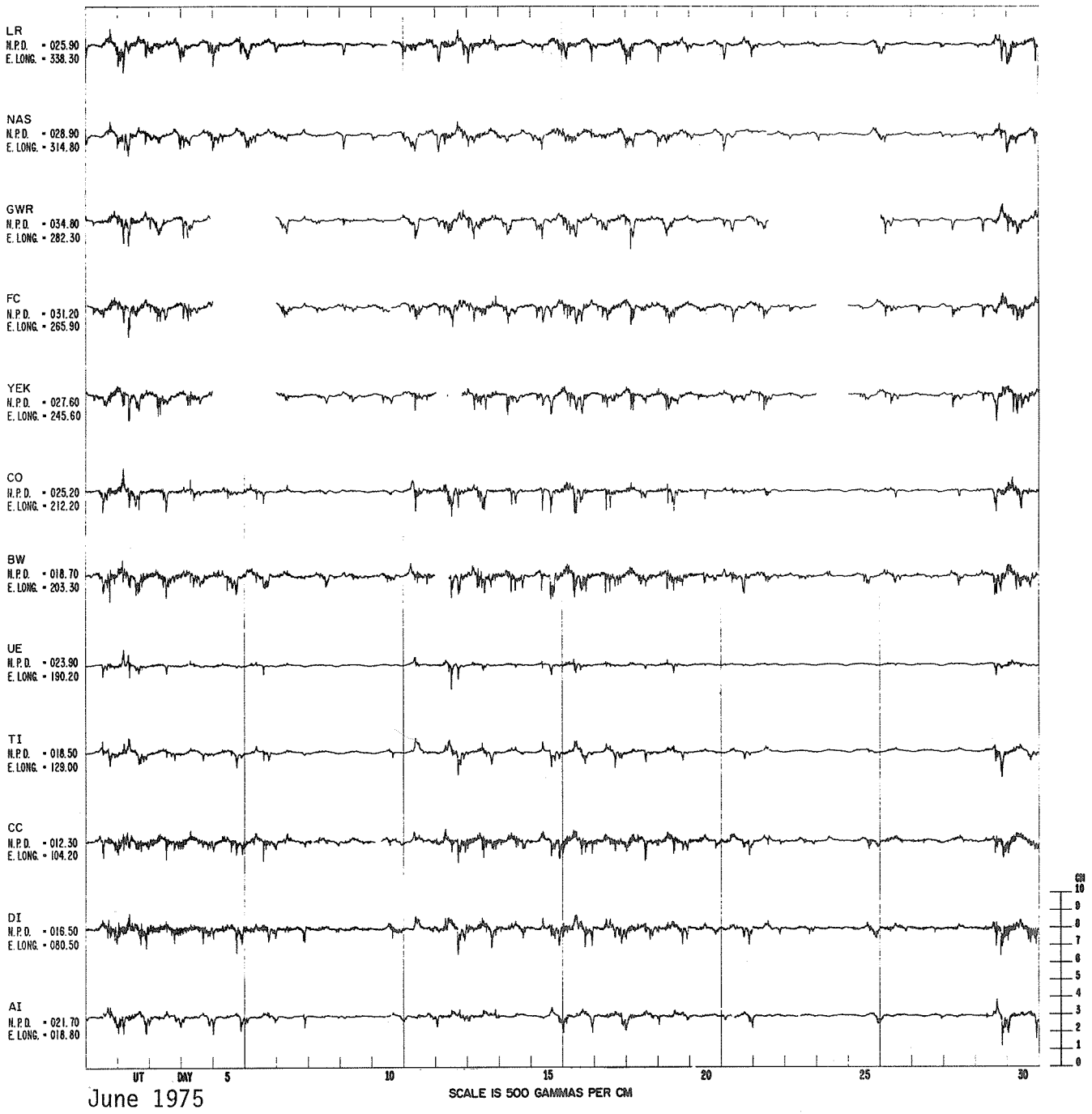
COMMON SCALE MAGNETOGRAMS OF H VARIATIONS FOR APRIL 1975



COMMON SCALE MAGNETOGRAMS OF H VARIATIONS FOR MAY 1975



COMMON SCALE MAGNETOGRAMS OF H VARIATIONS FOR JUNE 1975



4. Frequency of AU and AL Total Amplitude Plots

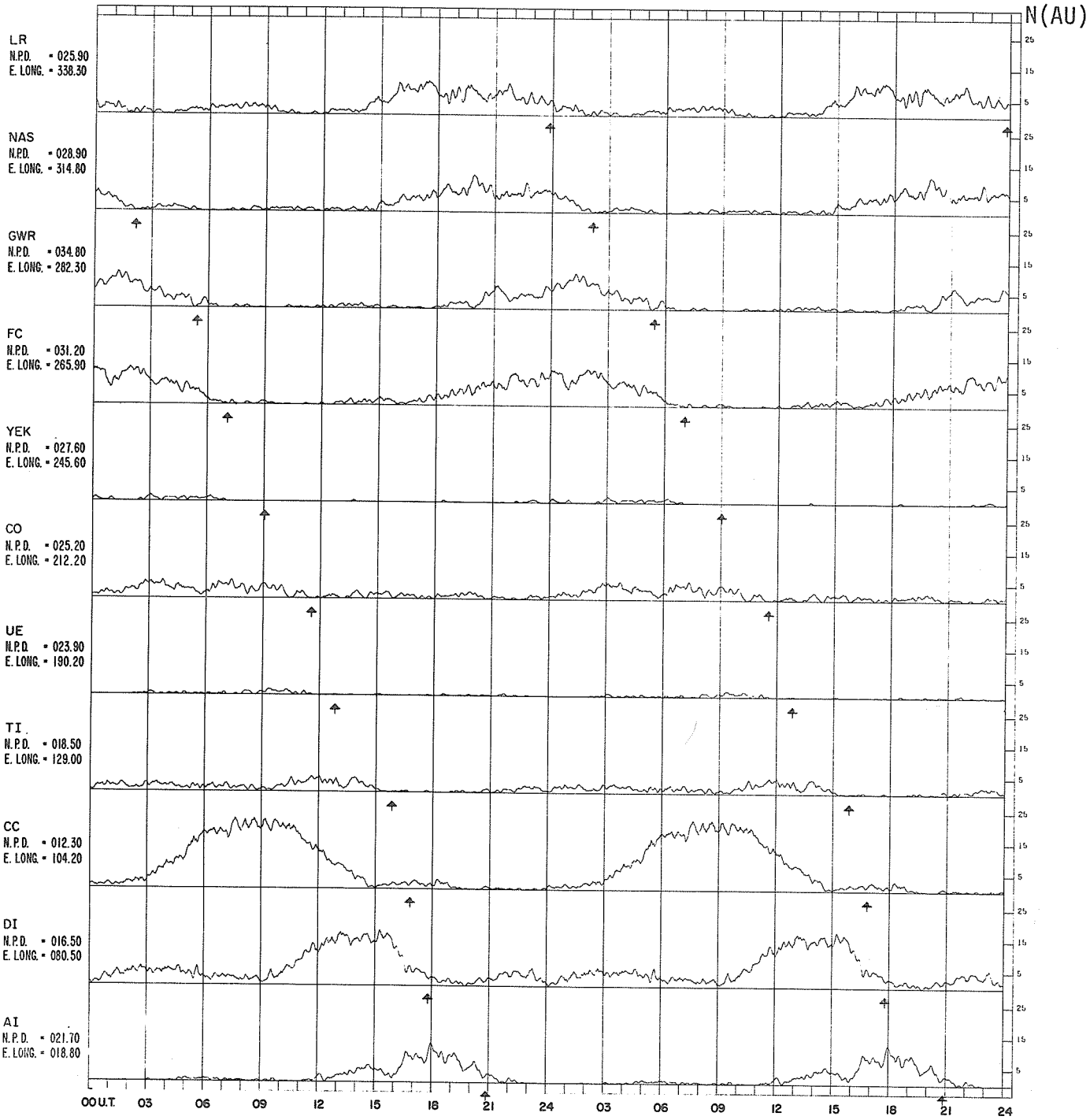


Fig. 3. Frequency of 1-min AU provision by station for January 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

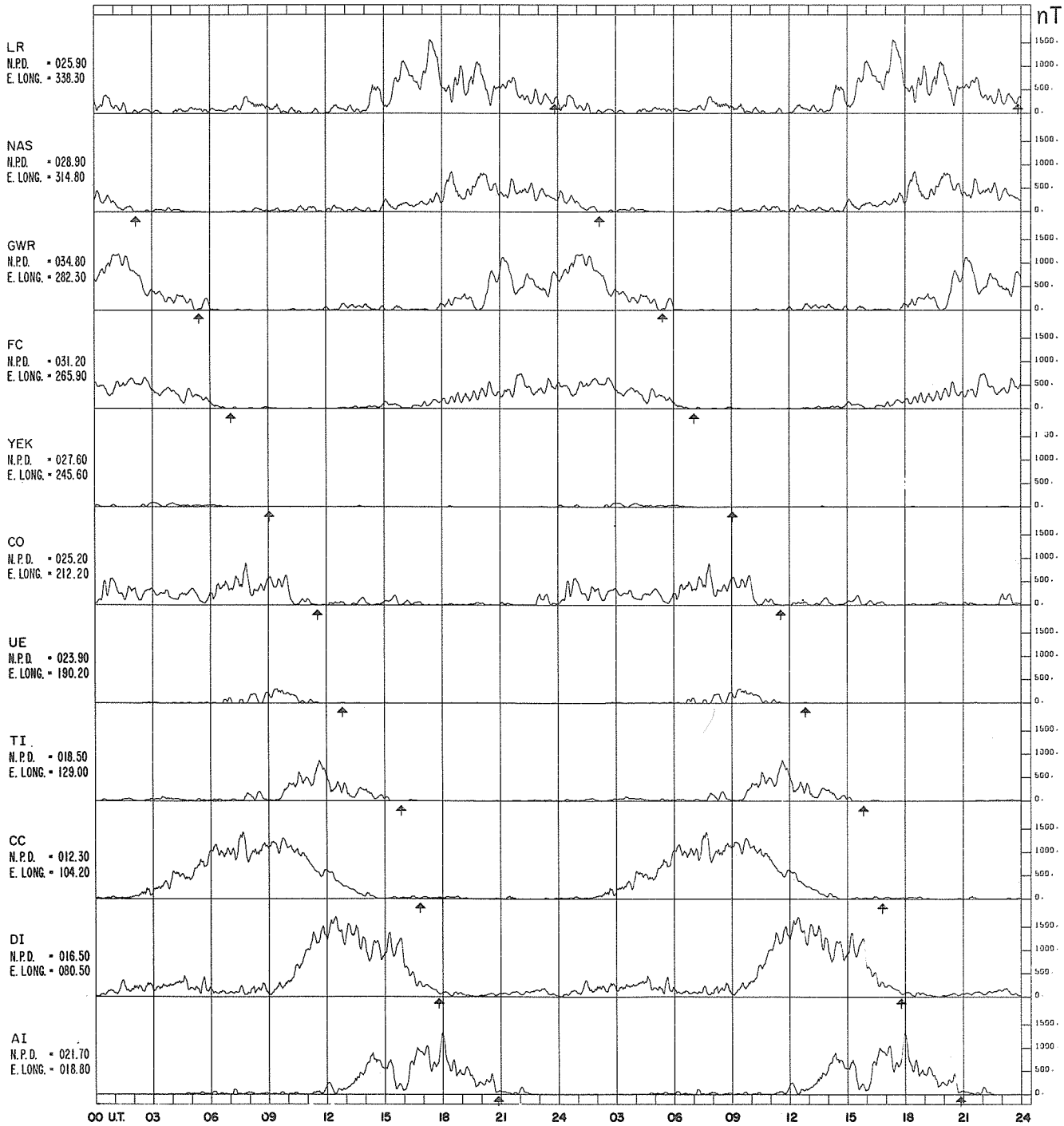


Fig. 4. Total amplitude of most positive H variations for January 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

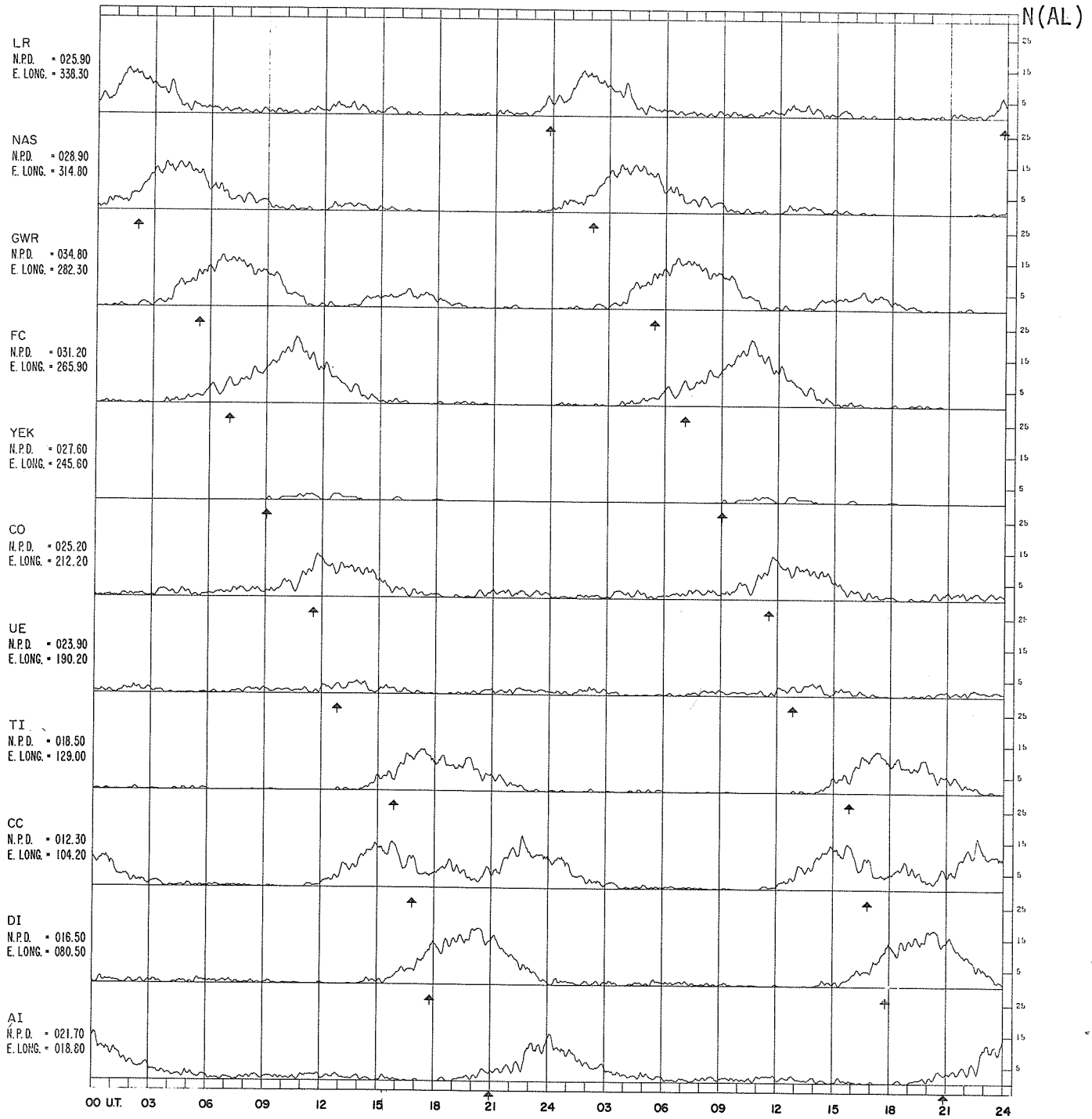


Fig. 5. Frequency of 1-min AL provision by station for January 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

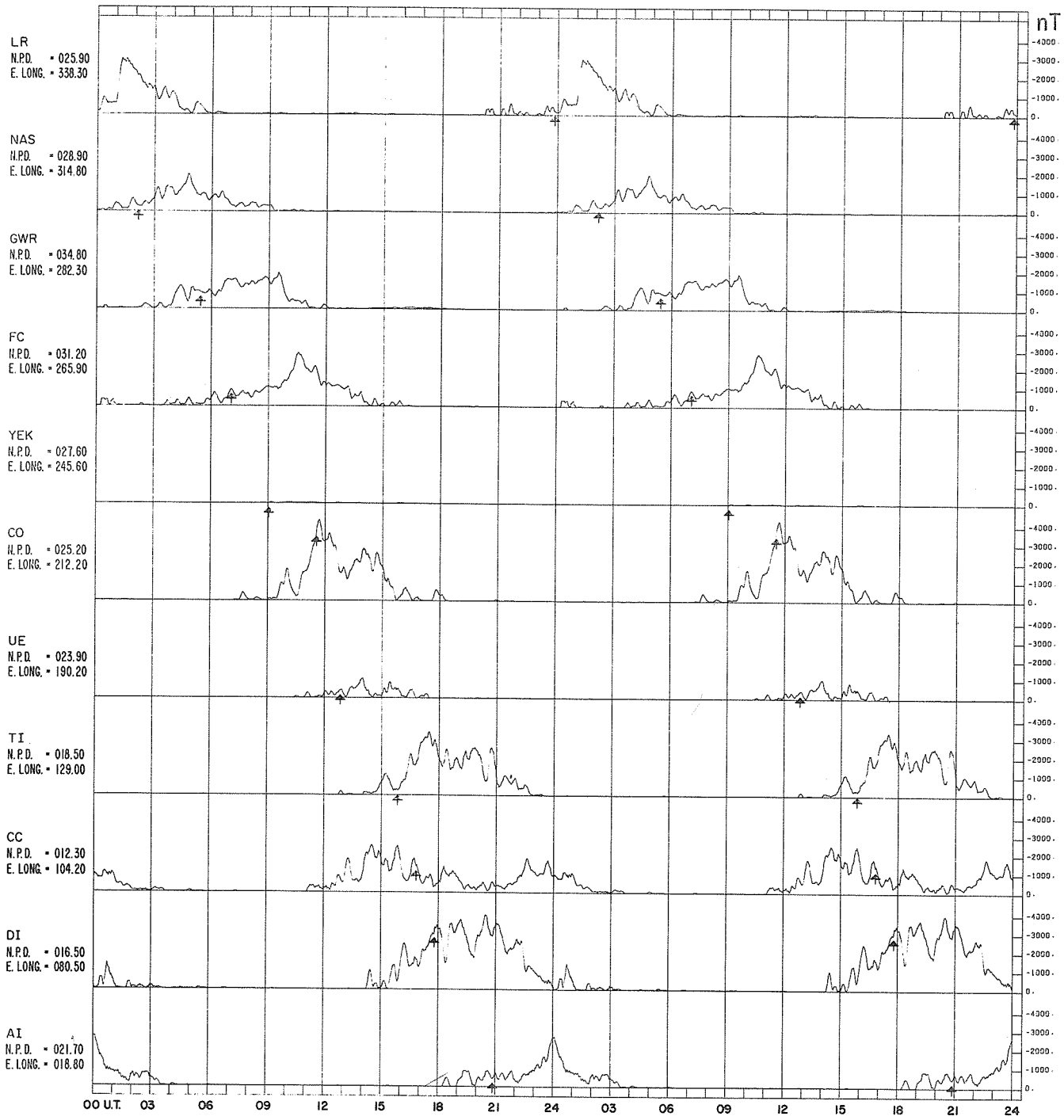


Fig. 6. Total amplitude of most negative H variations for January 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

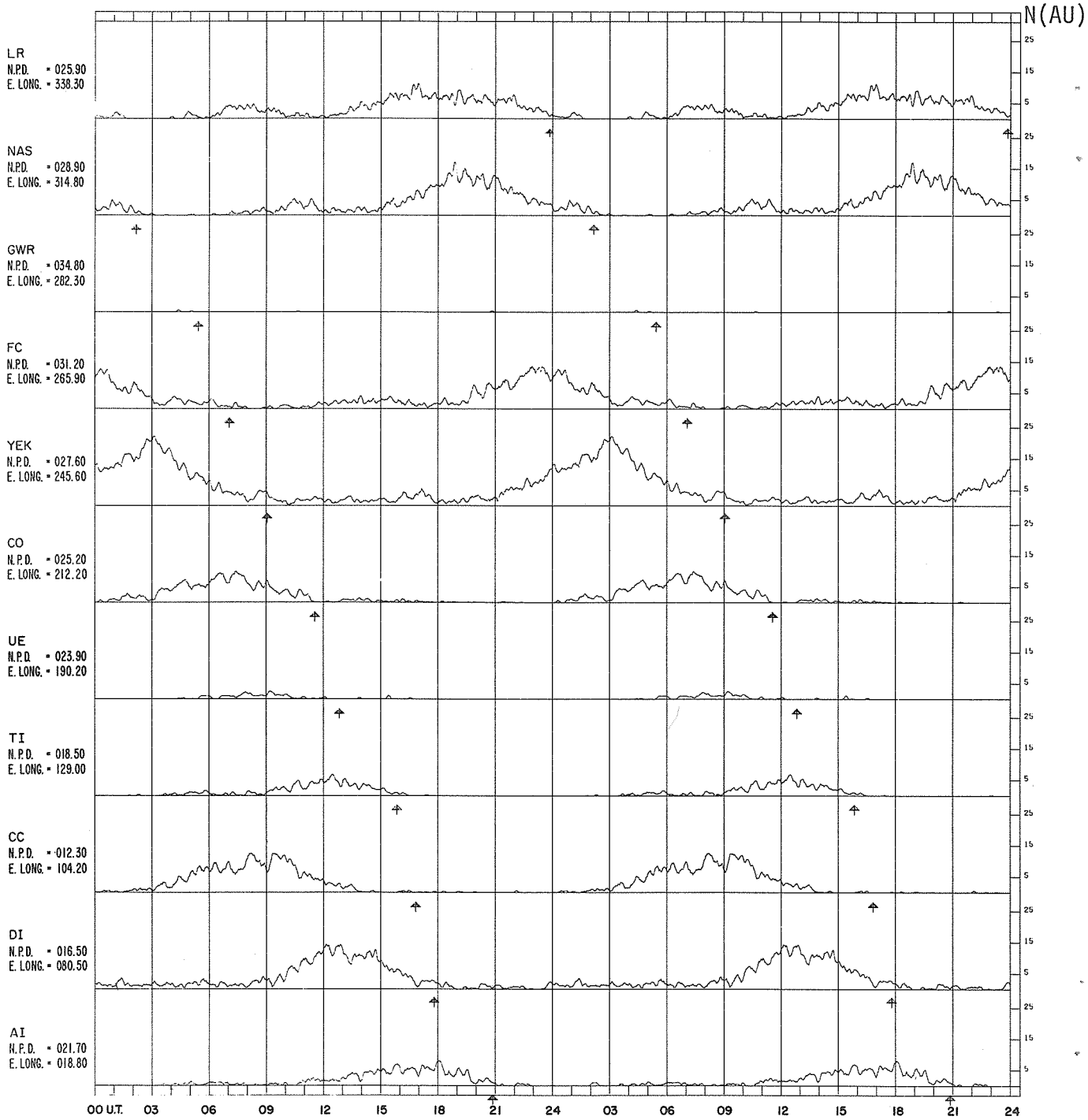


Fig. 7. Frequency of 1-min AU provision by station for February 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

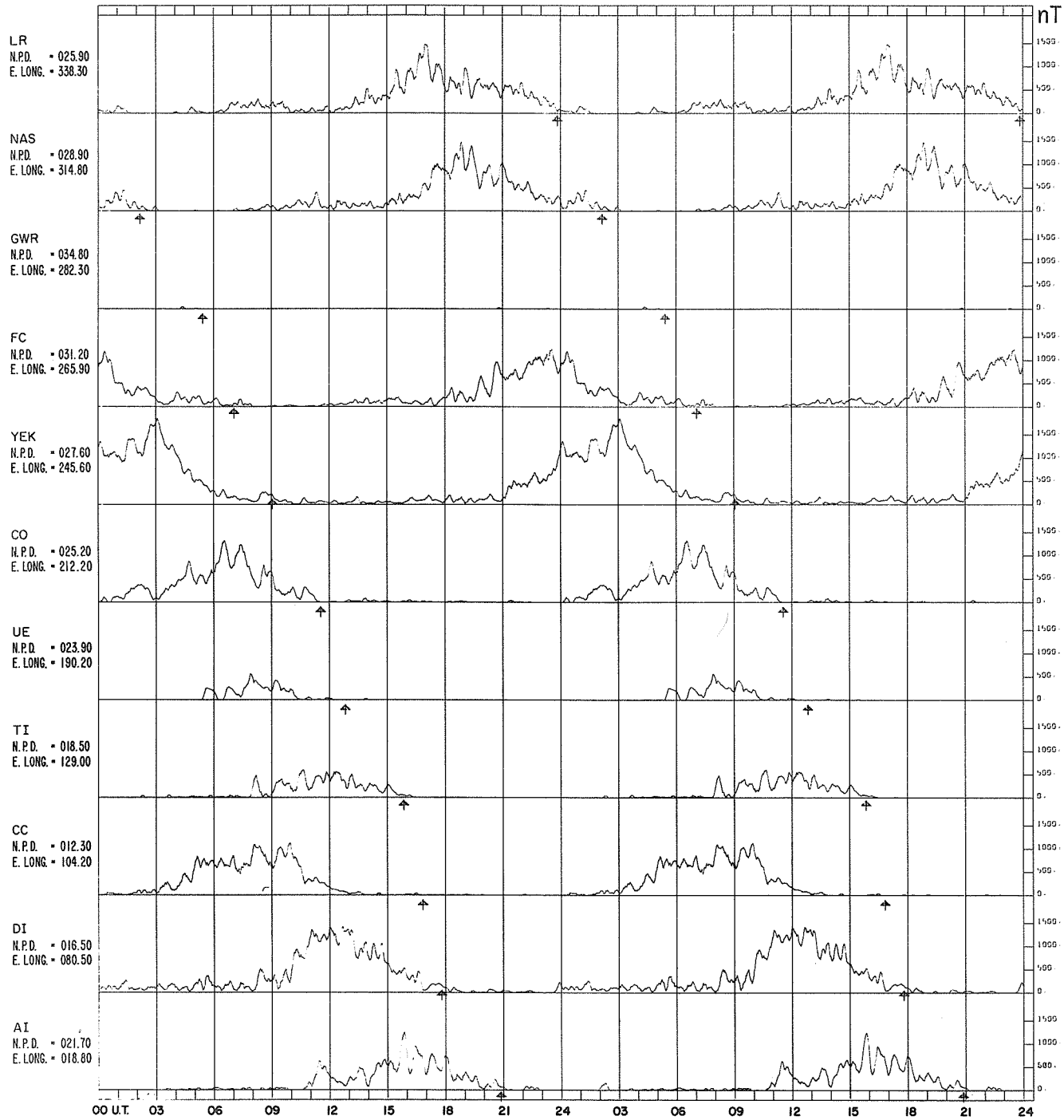


Fig. 8. Total amplitude of most positive H variations for February 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

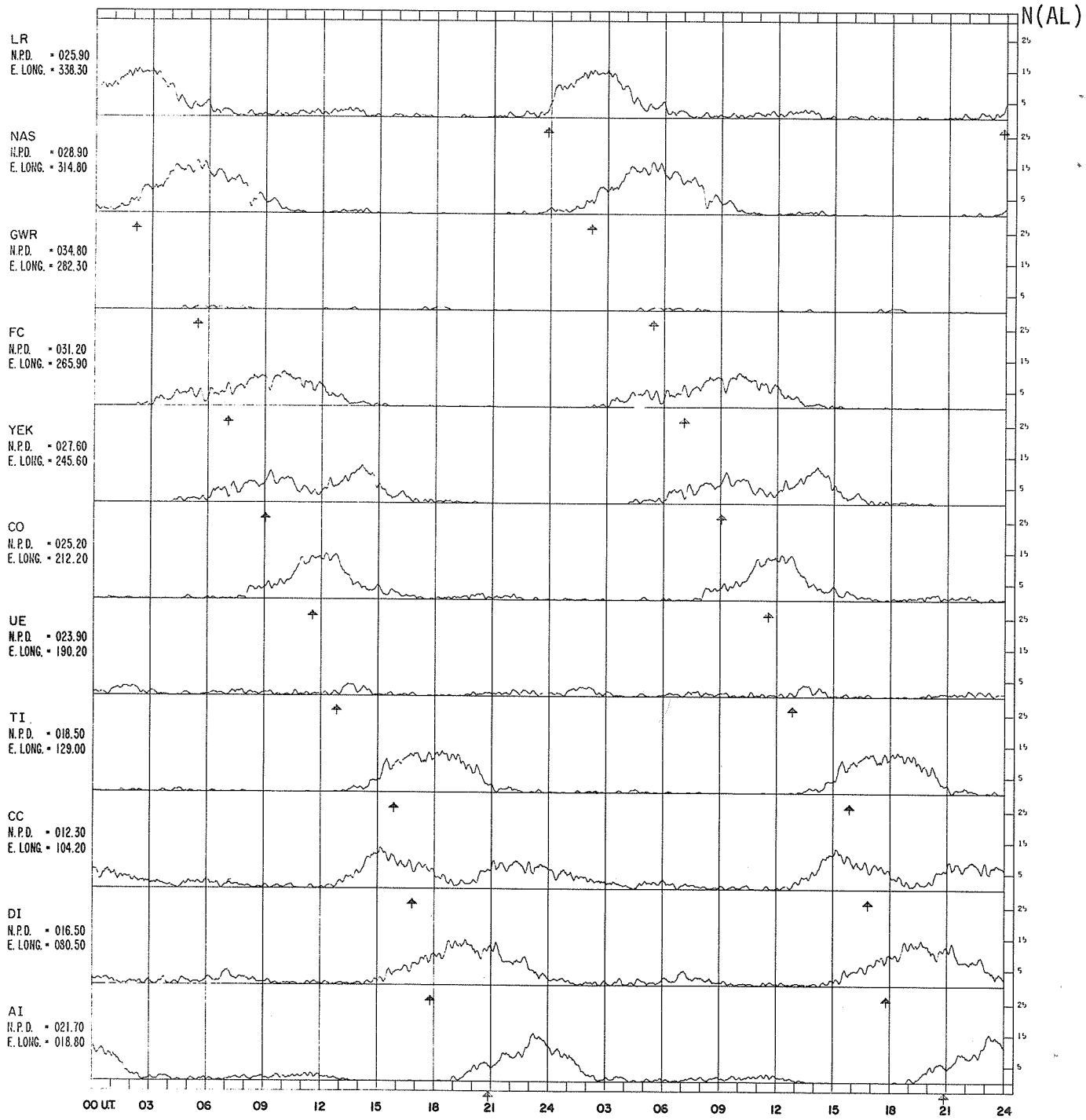


Fig. 9. Frequency of 1-min AL provision by station for February 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

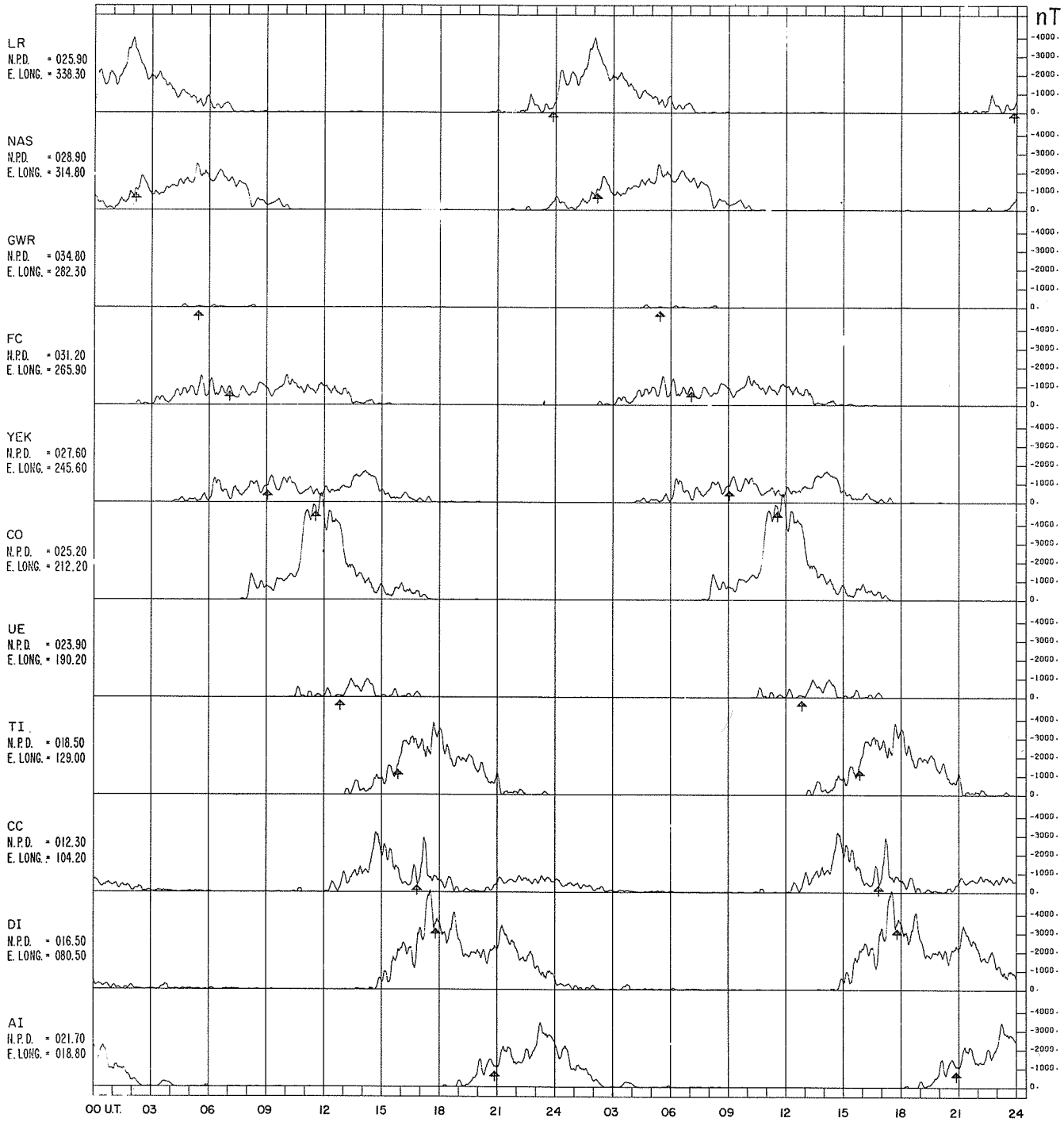


Fig. 10. Total amplitude of most negative H variations for February 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

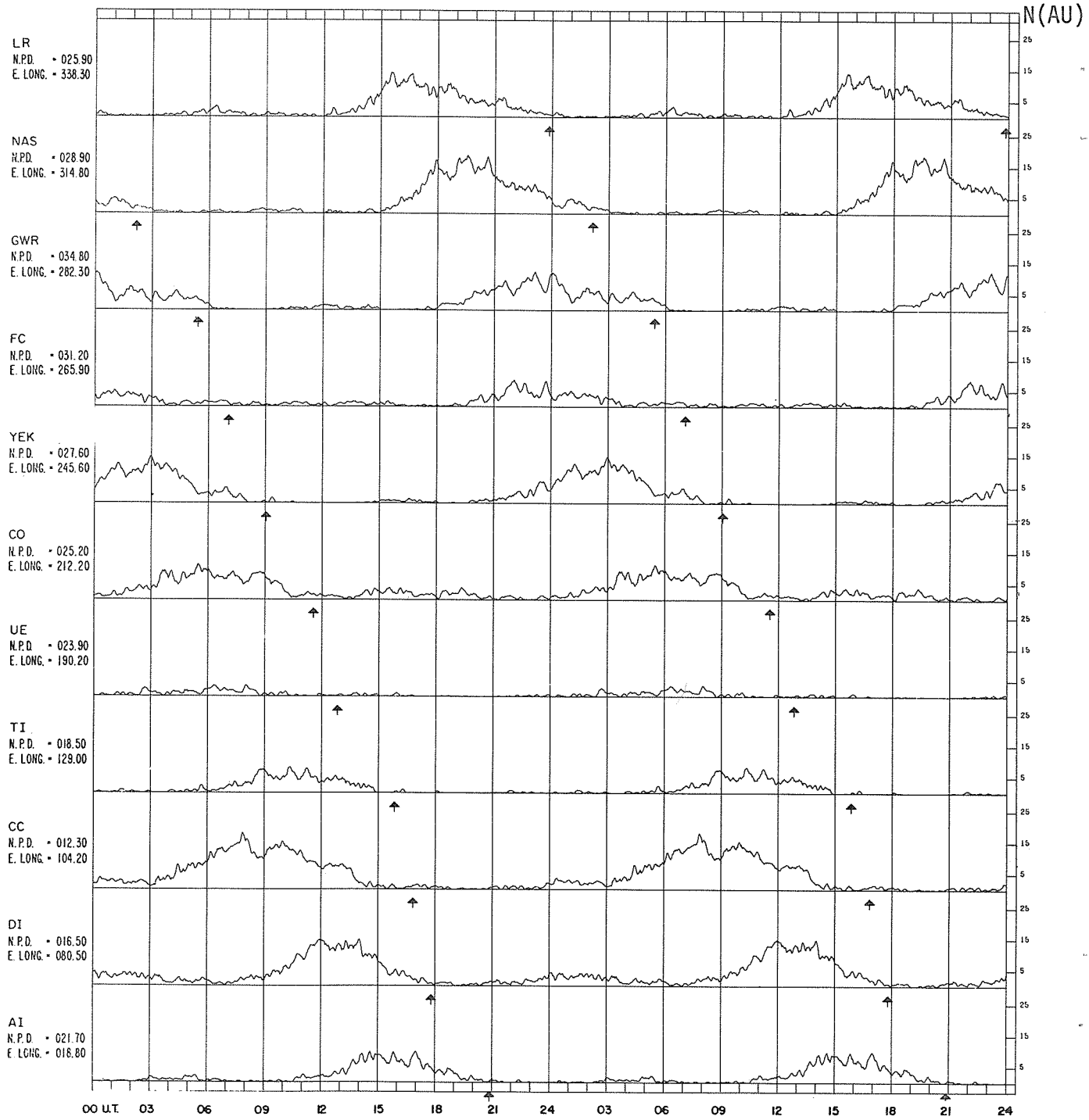


Fig. 11. Frequency of 1-min AU provision by station for March 1975. For each station an arrow marks the UT time of Local Geomagnetic midnight.

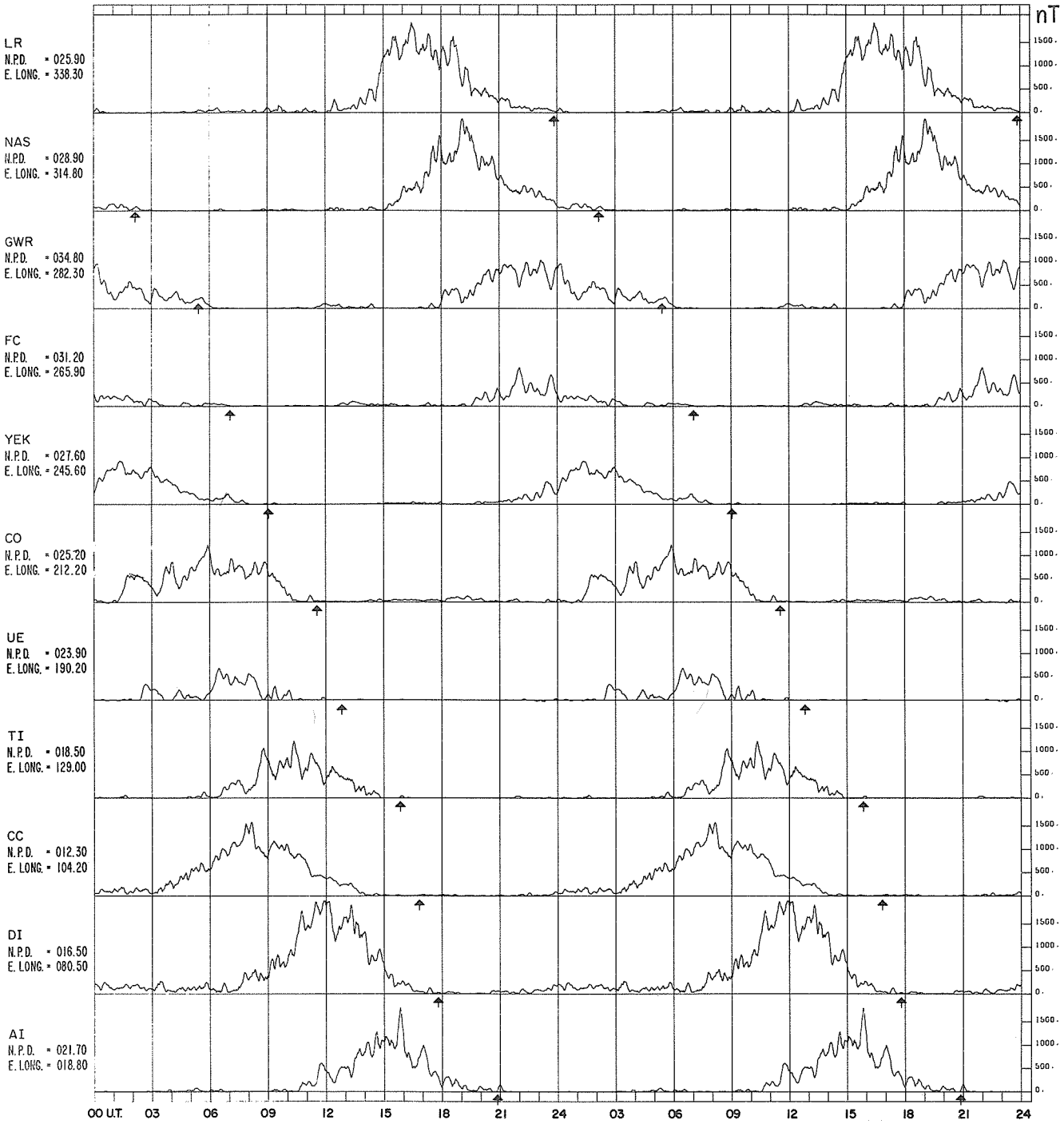


Fig. 12. Total amplitude of most positive H variations for March 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

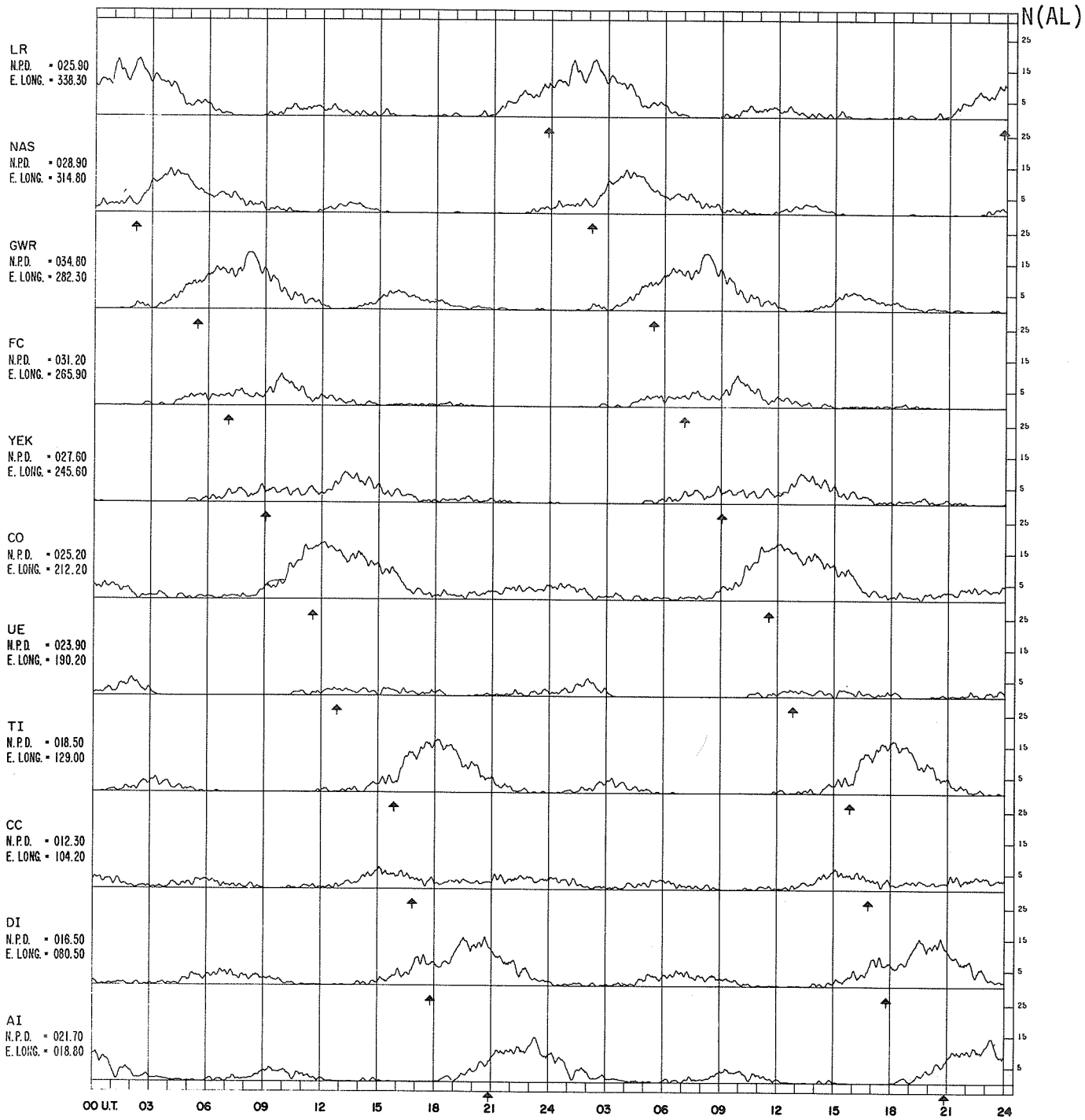


Fig. 13. Frequency of 1-min AL provision by station for March 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

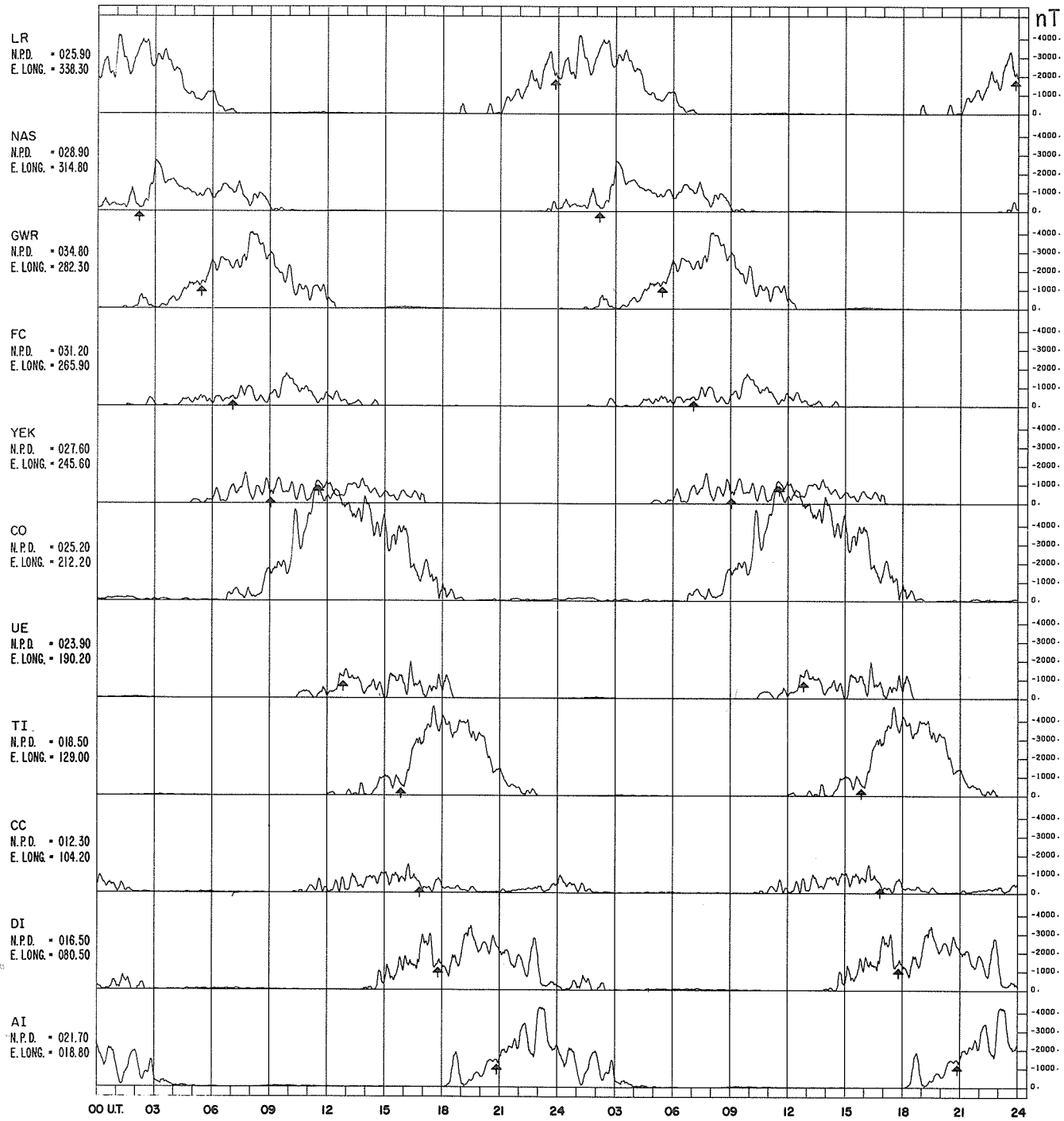


Fig. 14. Total amplitude of most negative H variations for March 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

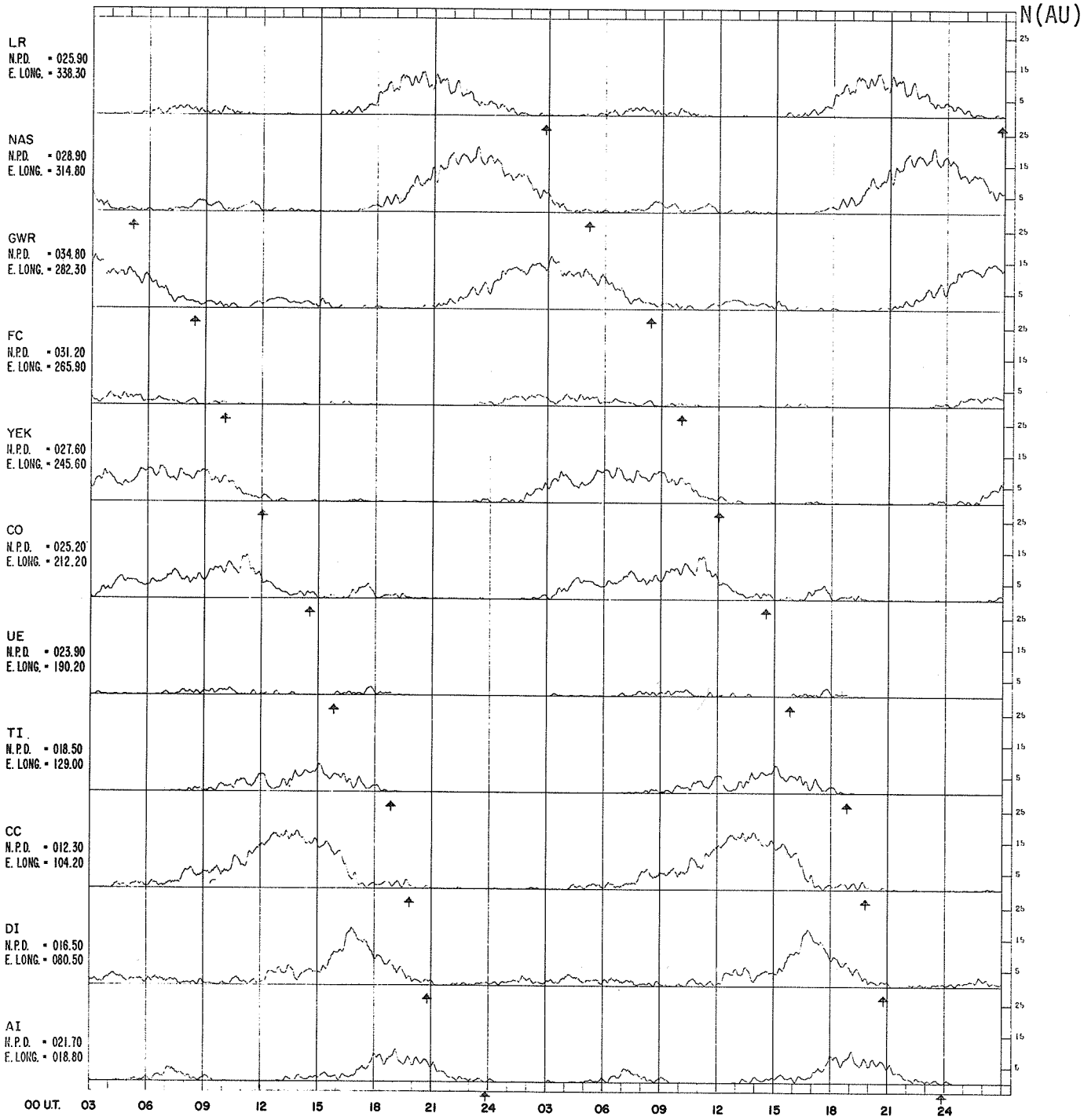


Fig. 15. Frequency of 1-min AU provision by station for April 1975. For each station and arrow marks the UT time of Local Geomagnetic Midnight.

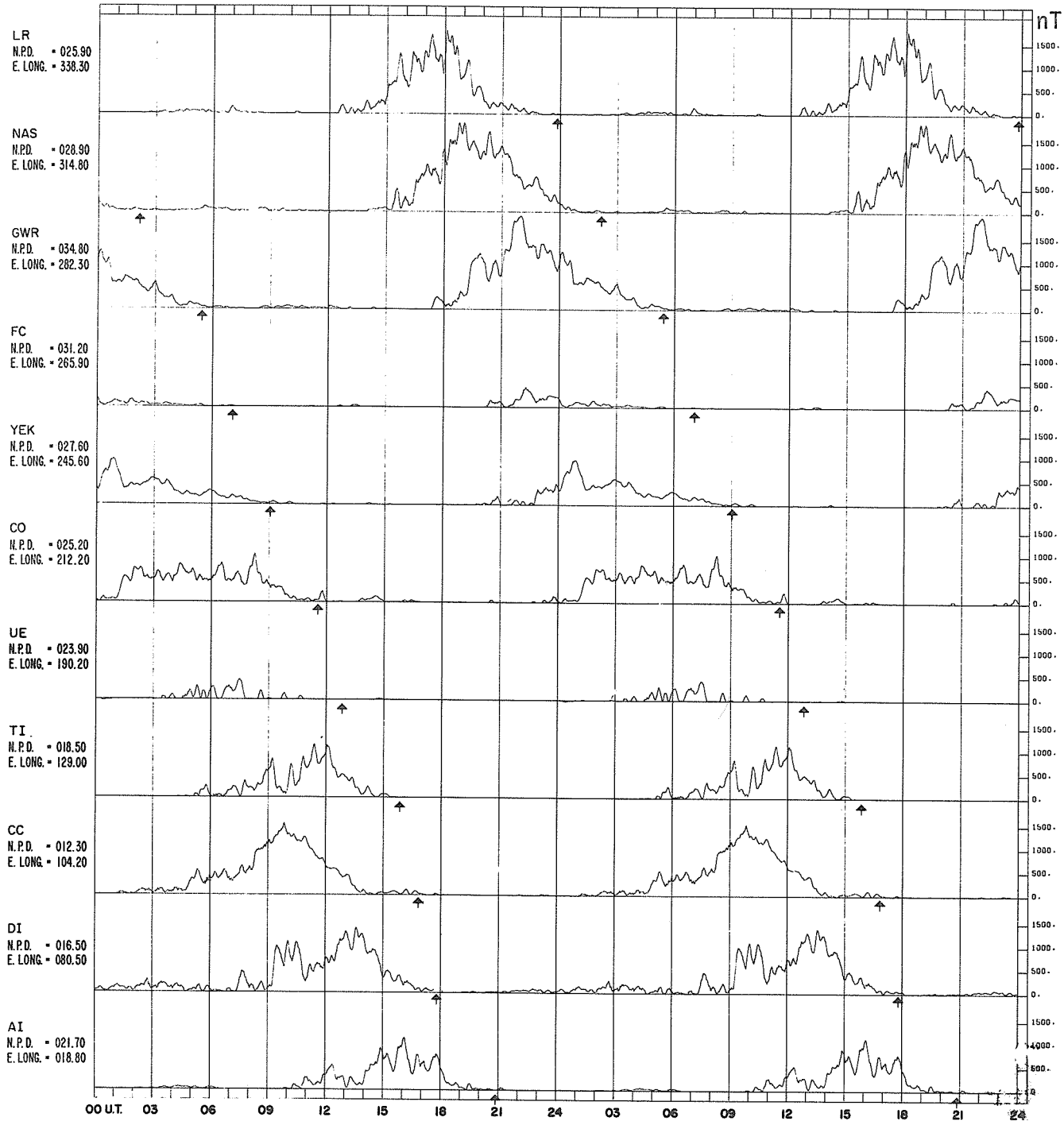


Fig. 16. Total amplitude of most positive H variations for April 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

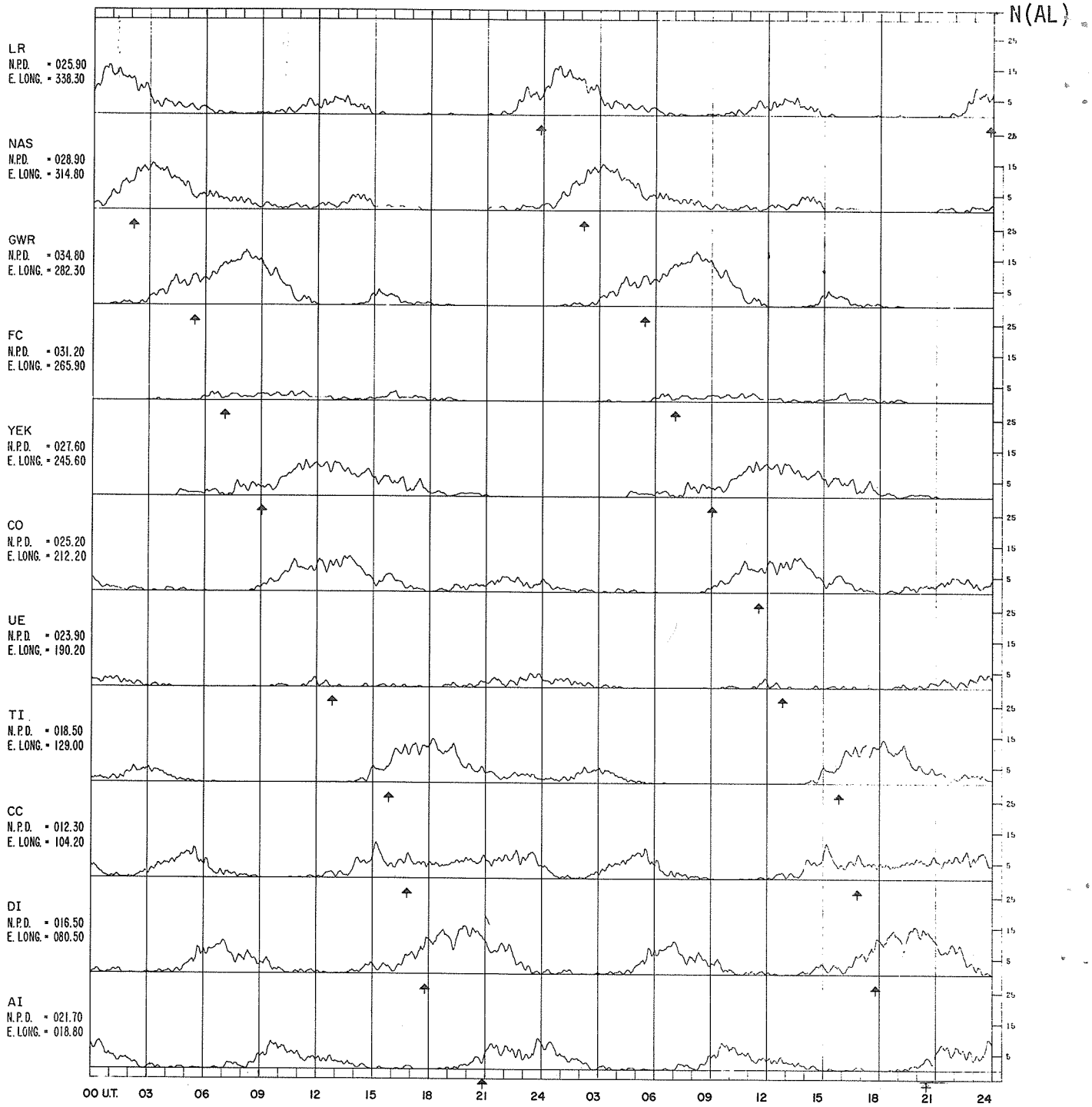


Fig. 17. Frequency of 1-min AL provision by station for April 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

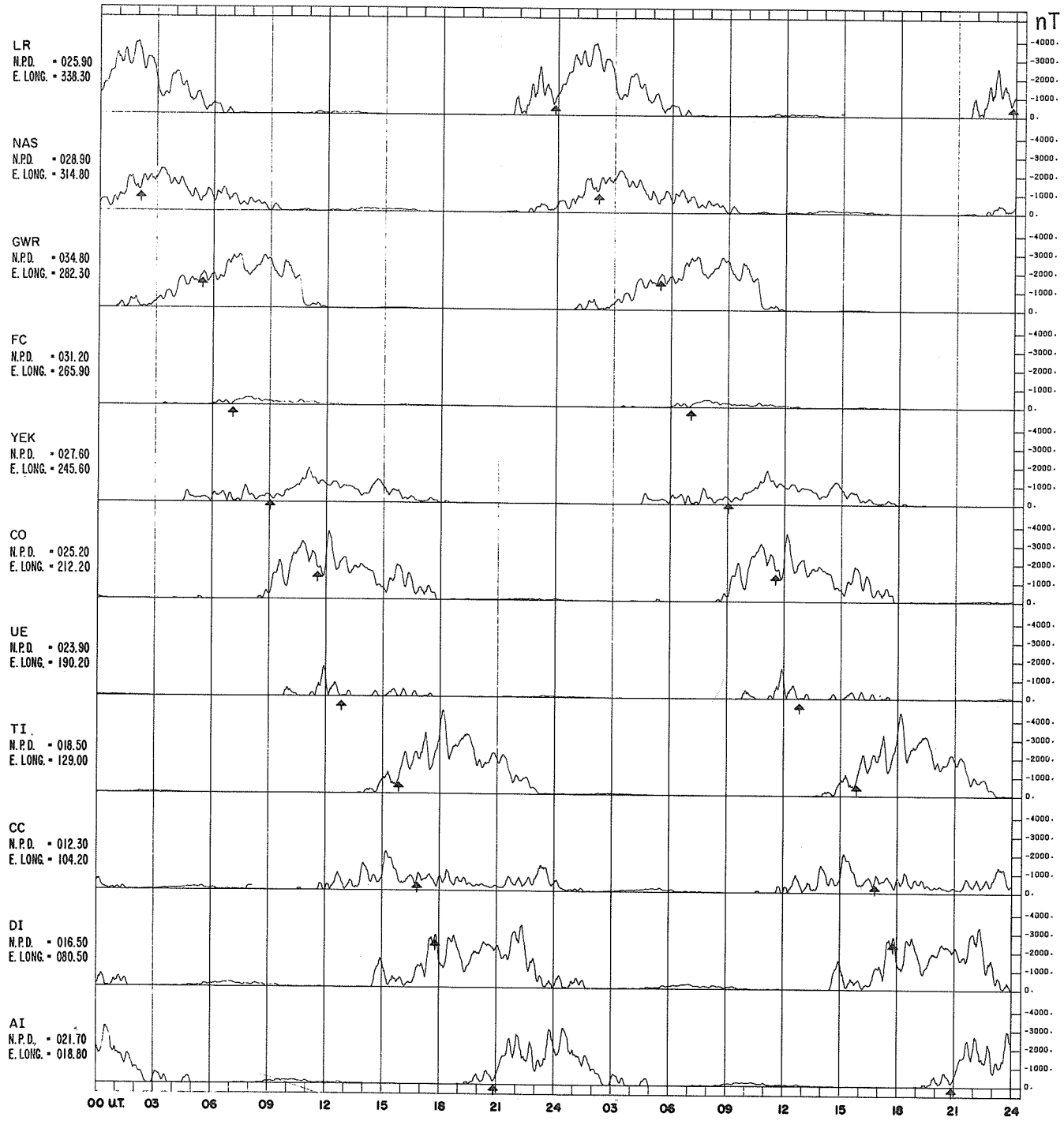


Fig. 18. Total amplitude of most negative H variations for April 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

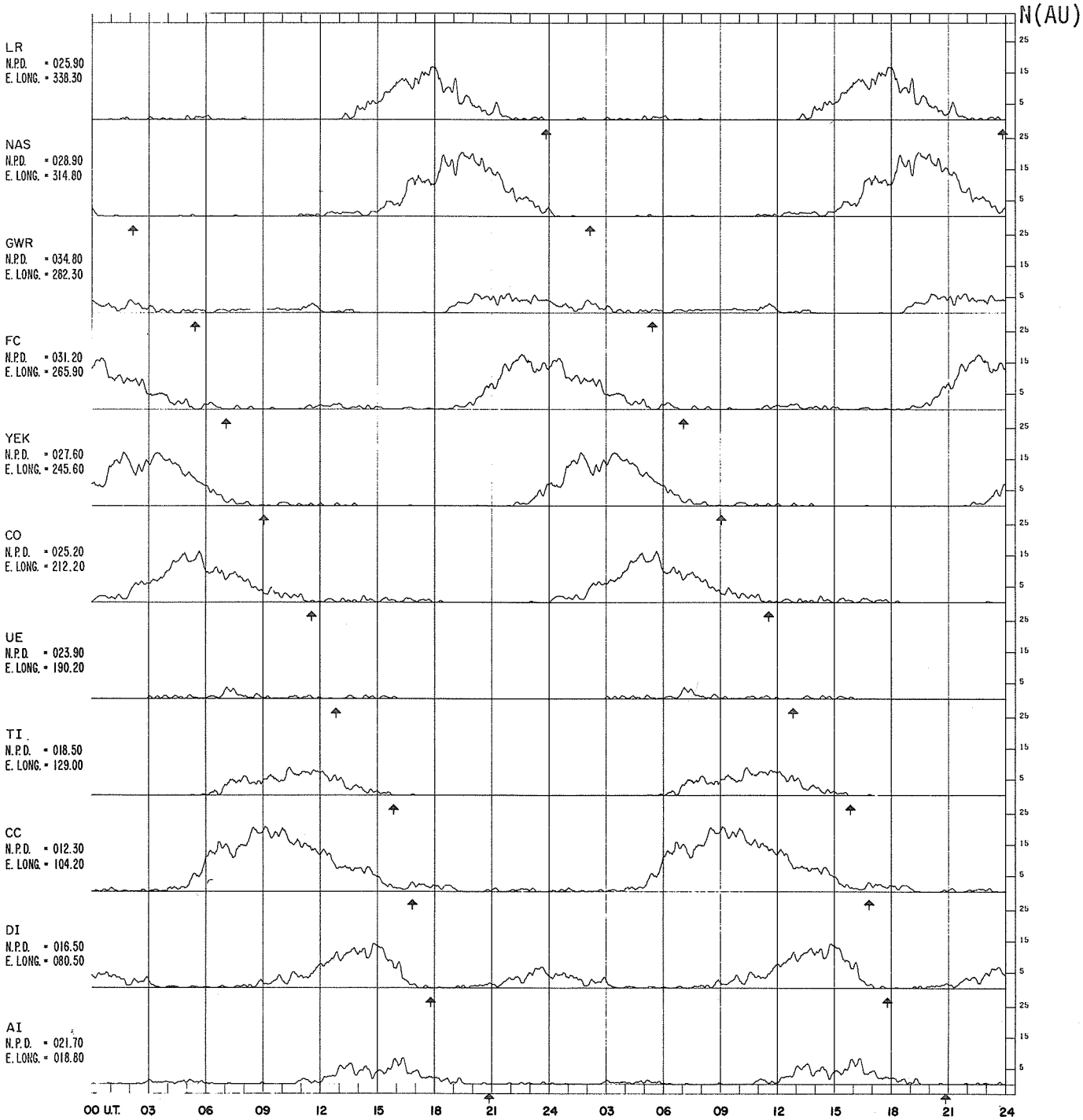


Fig. 19. Frequency of 1-min AU provision by station for May 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

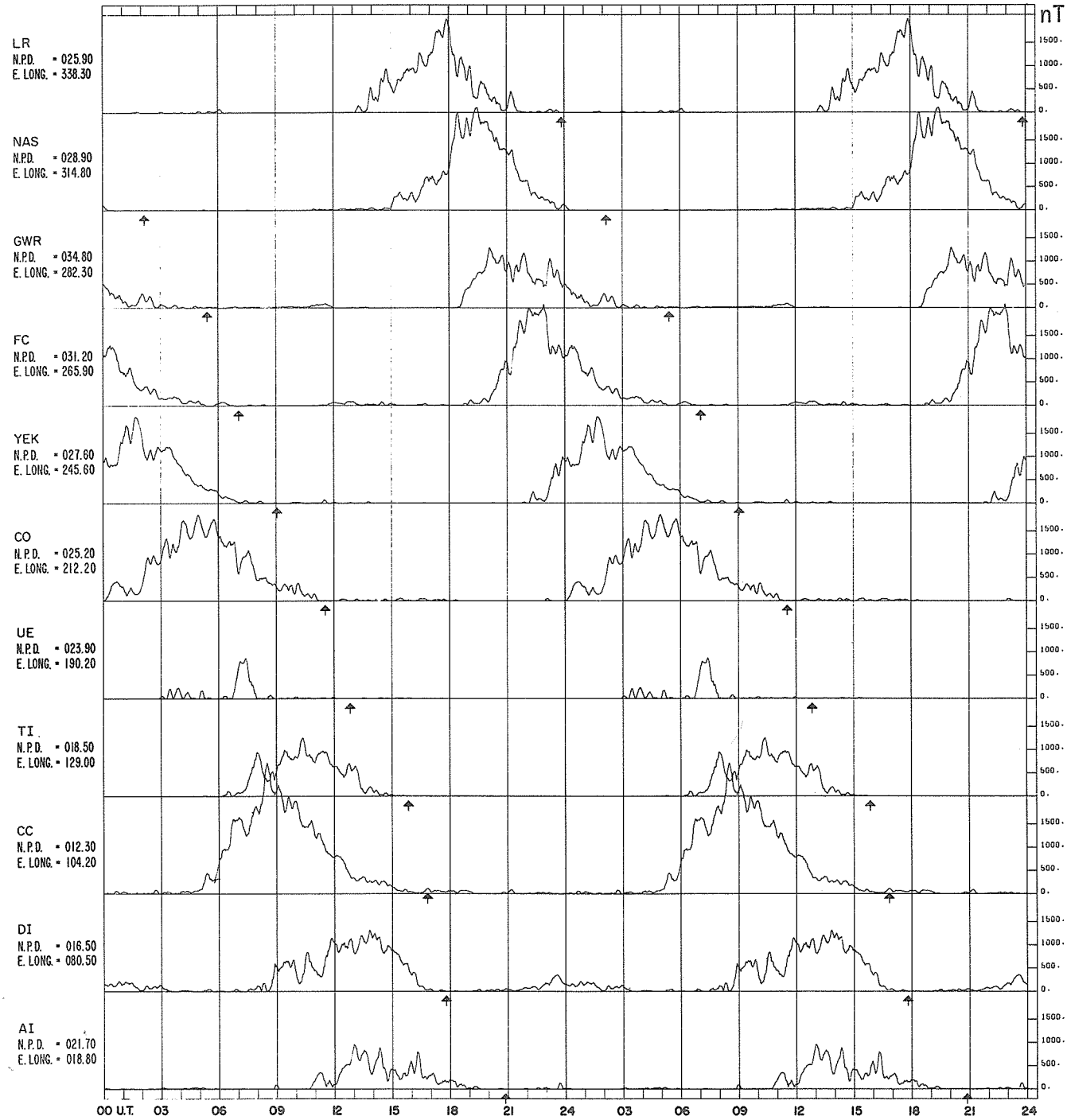


Fig. 20. Total amplitude of most positive H variations for May 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

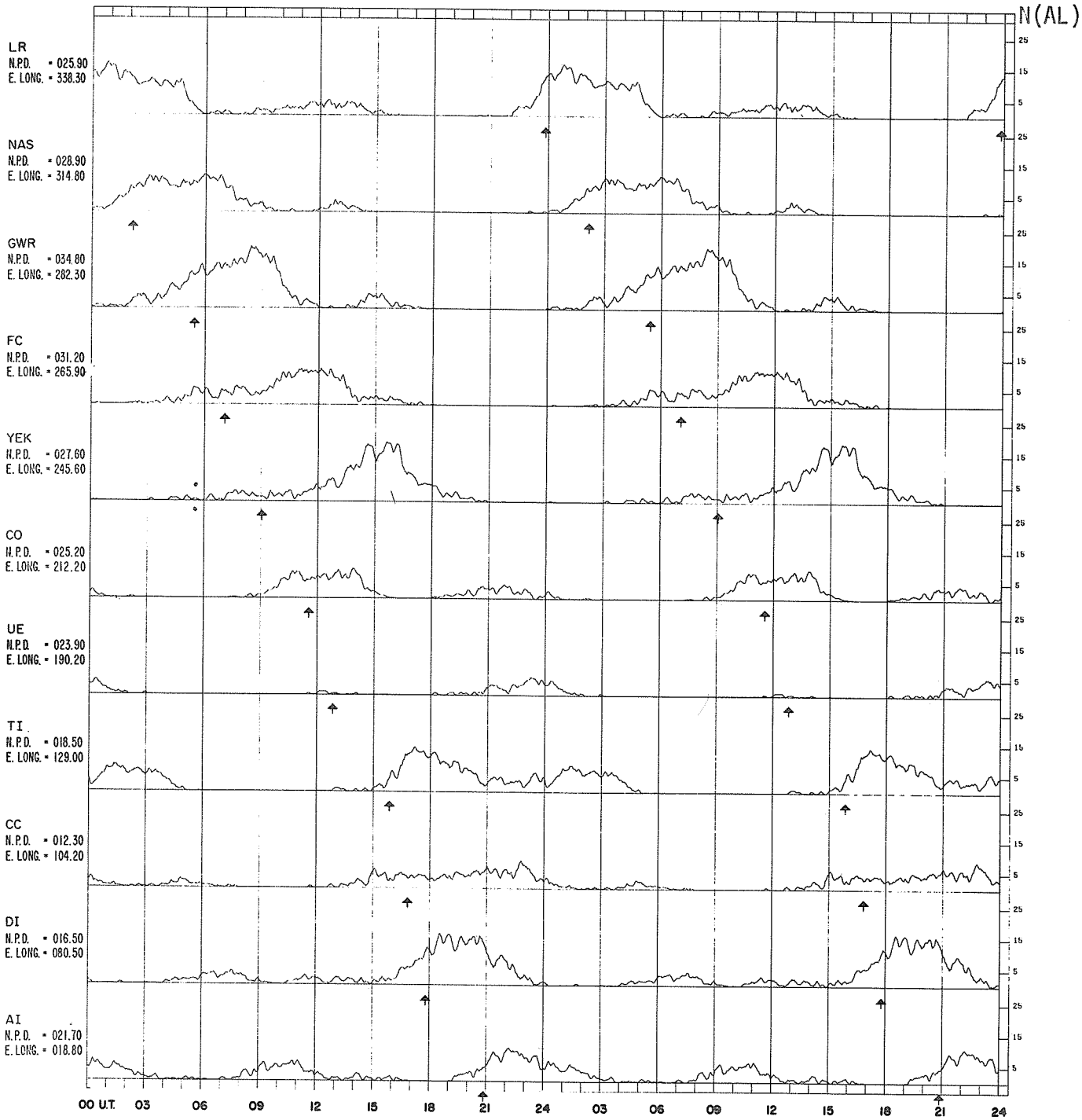


Fig. 21. Frequency of 1-min AL provision by station for May 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

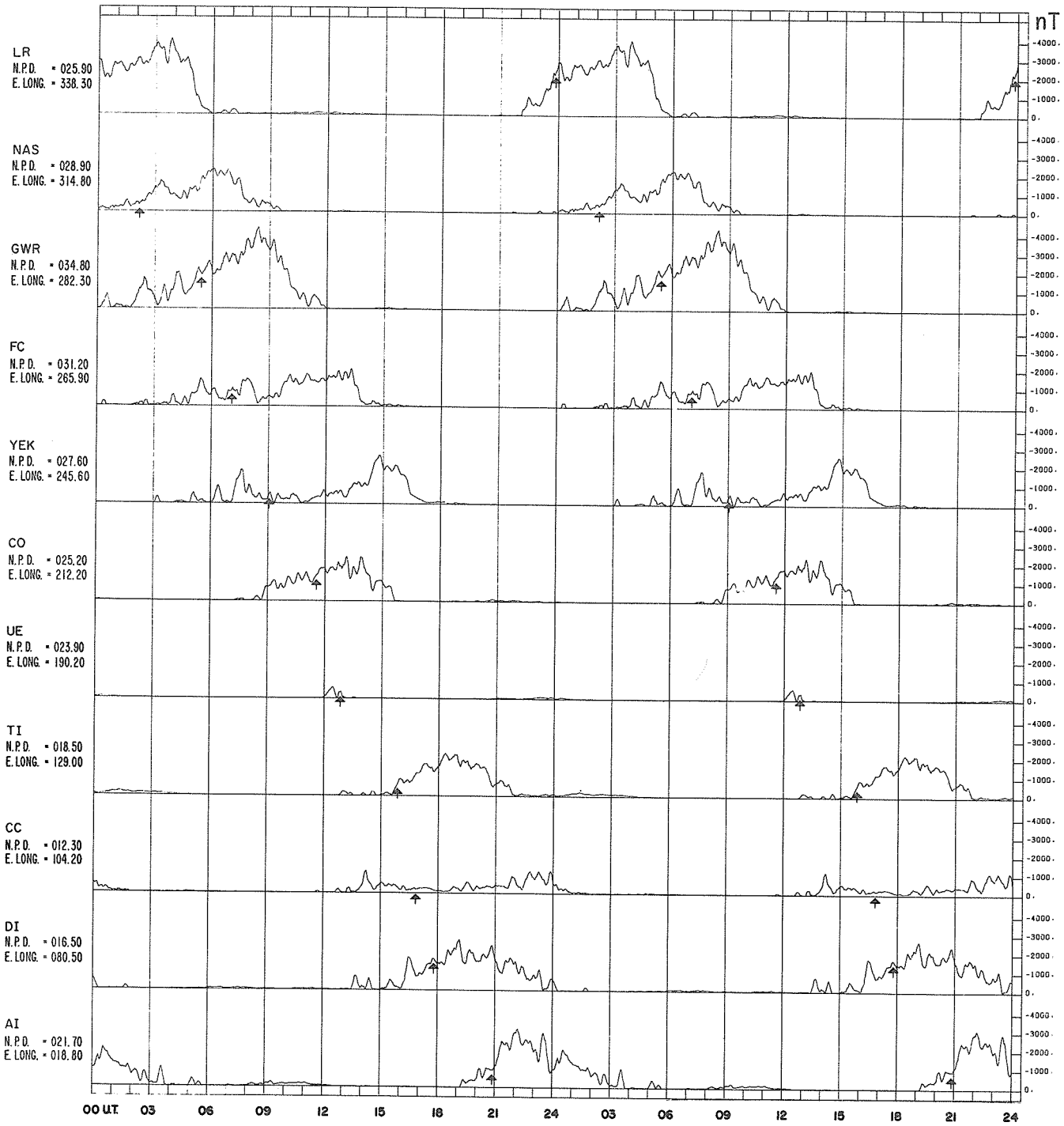


Fig. 22. Total amplitude of most negative H variations for May 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

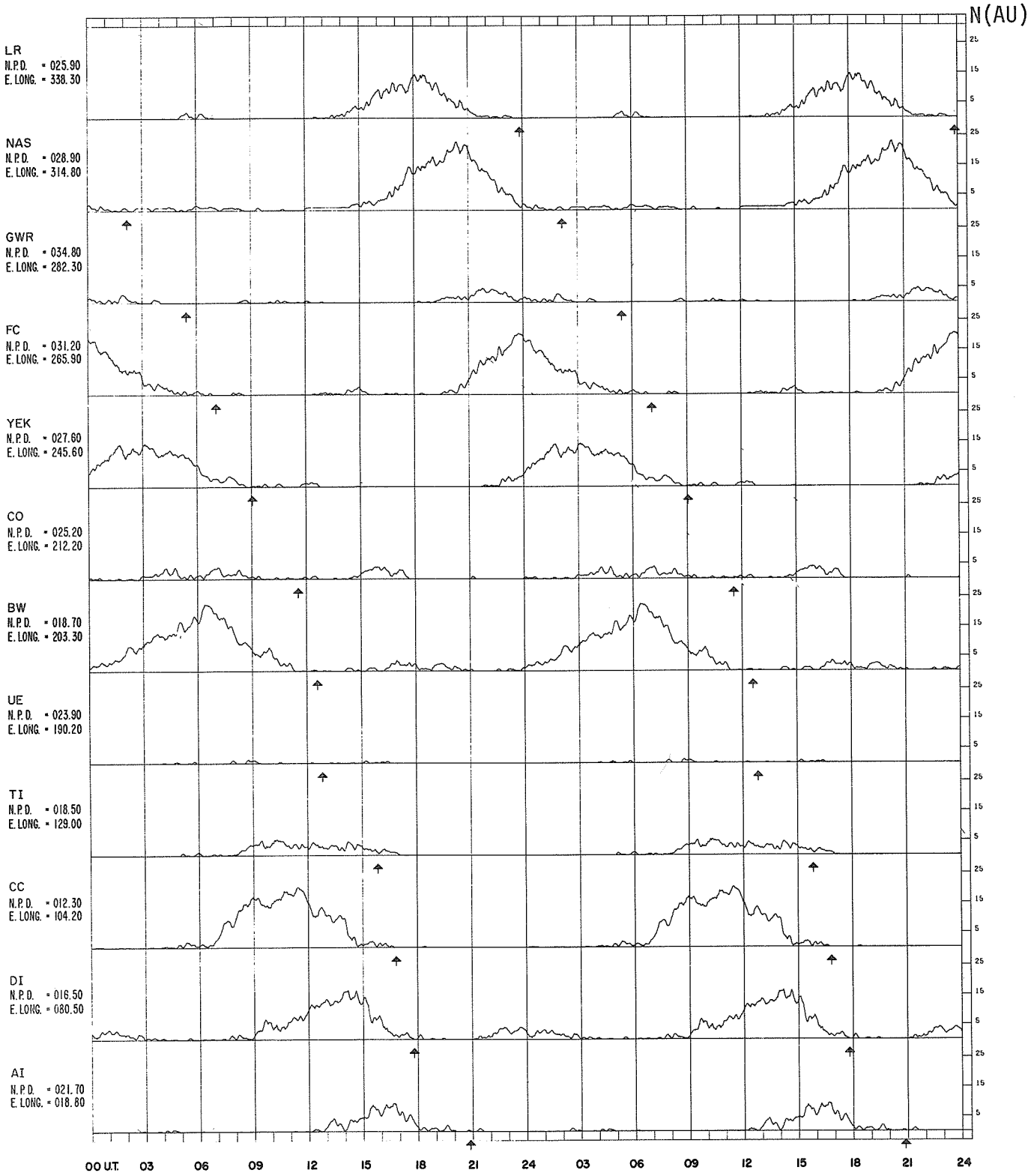


Fig. 23. Frequency of 1-min AU provision by station for June 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

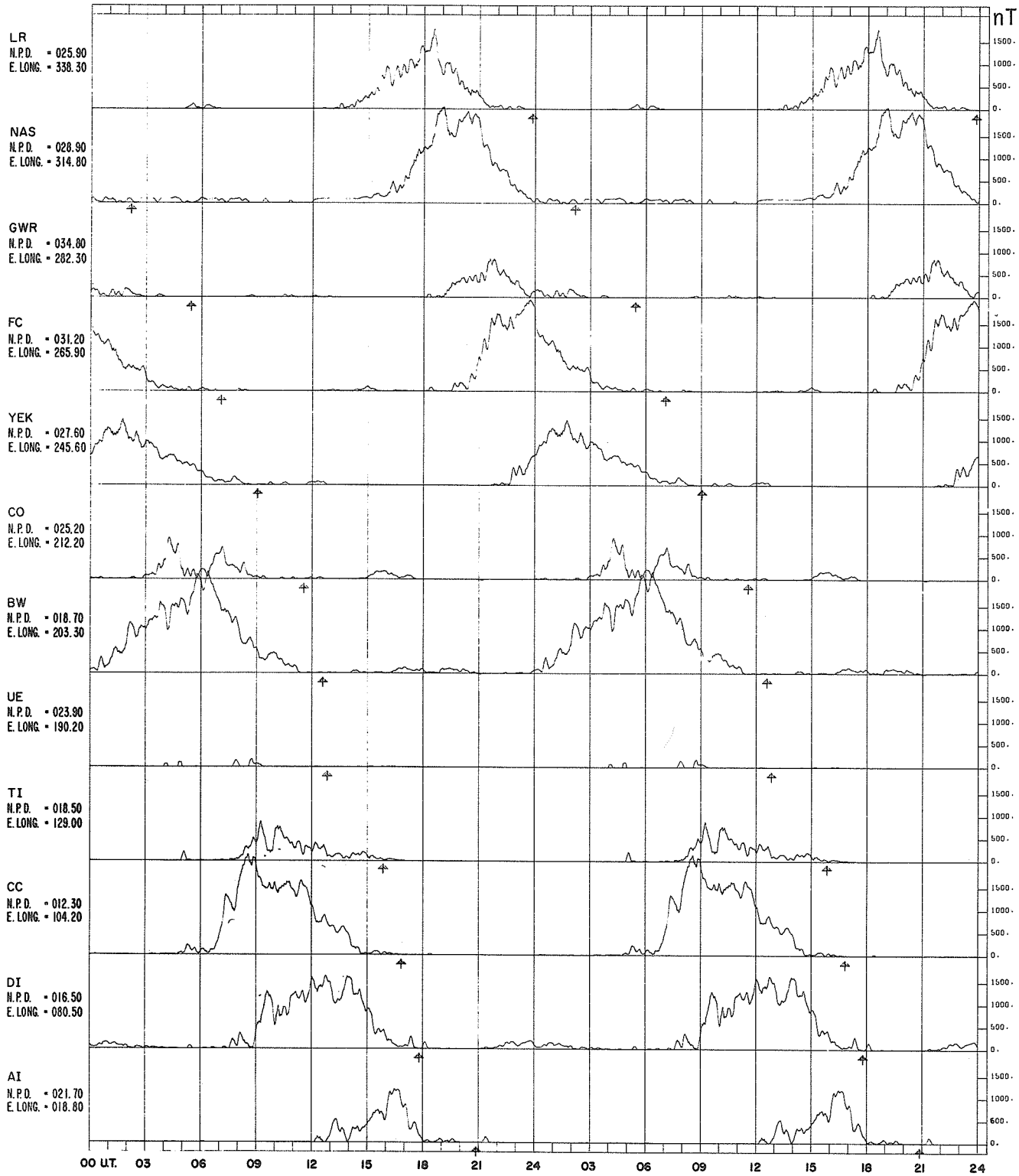


Fig. 24. Total amplitude of most positive H variations for June 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

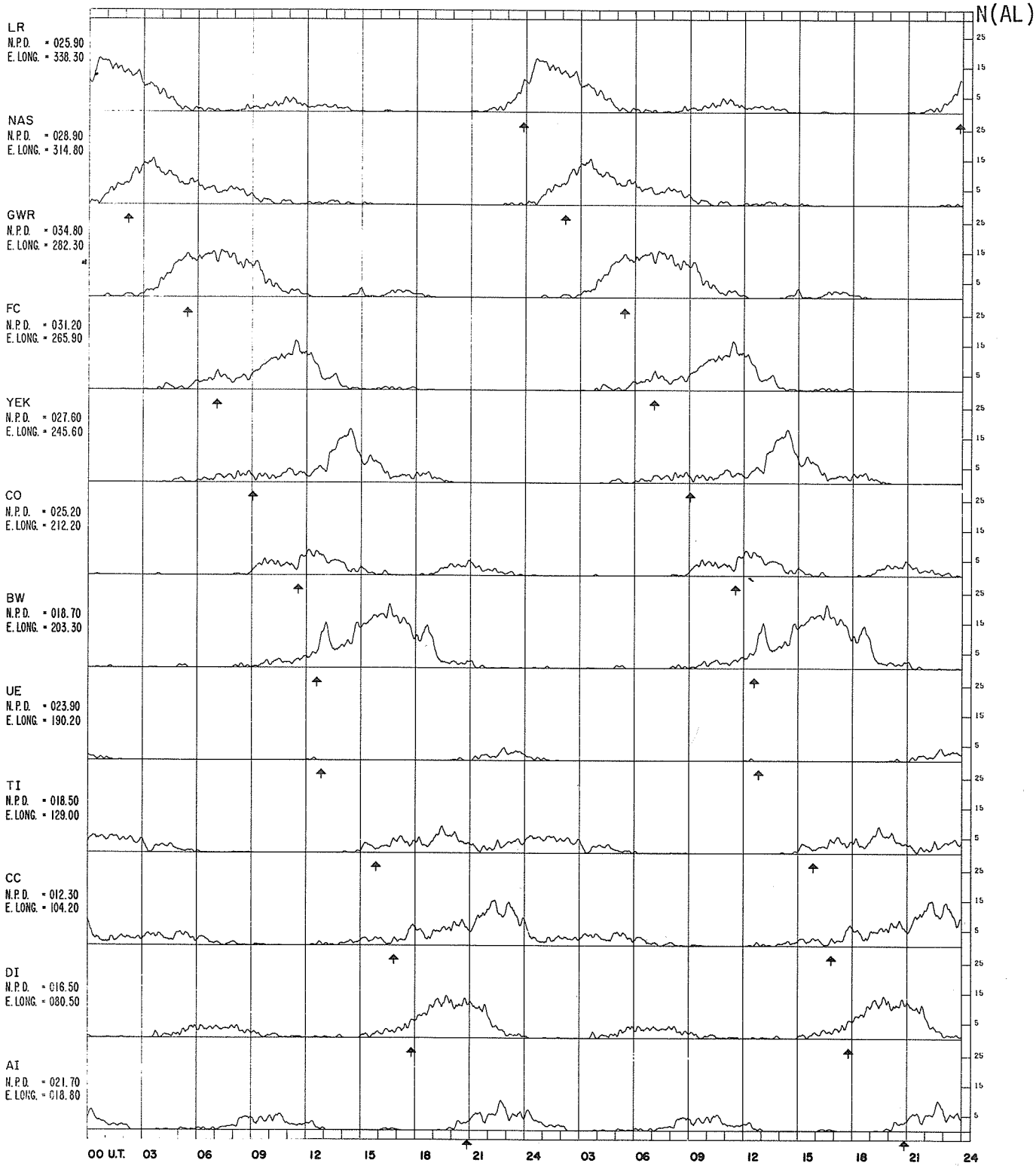


Fig. 25. Frequency of 1-min AL provision by station for June 1975. For each station and arrow marks the UT time of Local Geomagnetic Midnight.

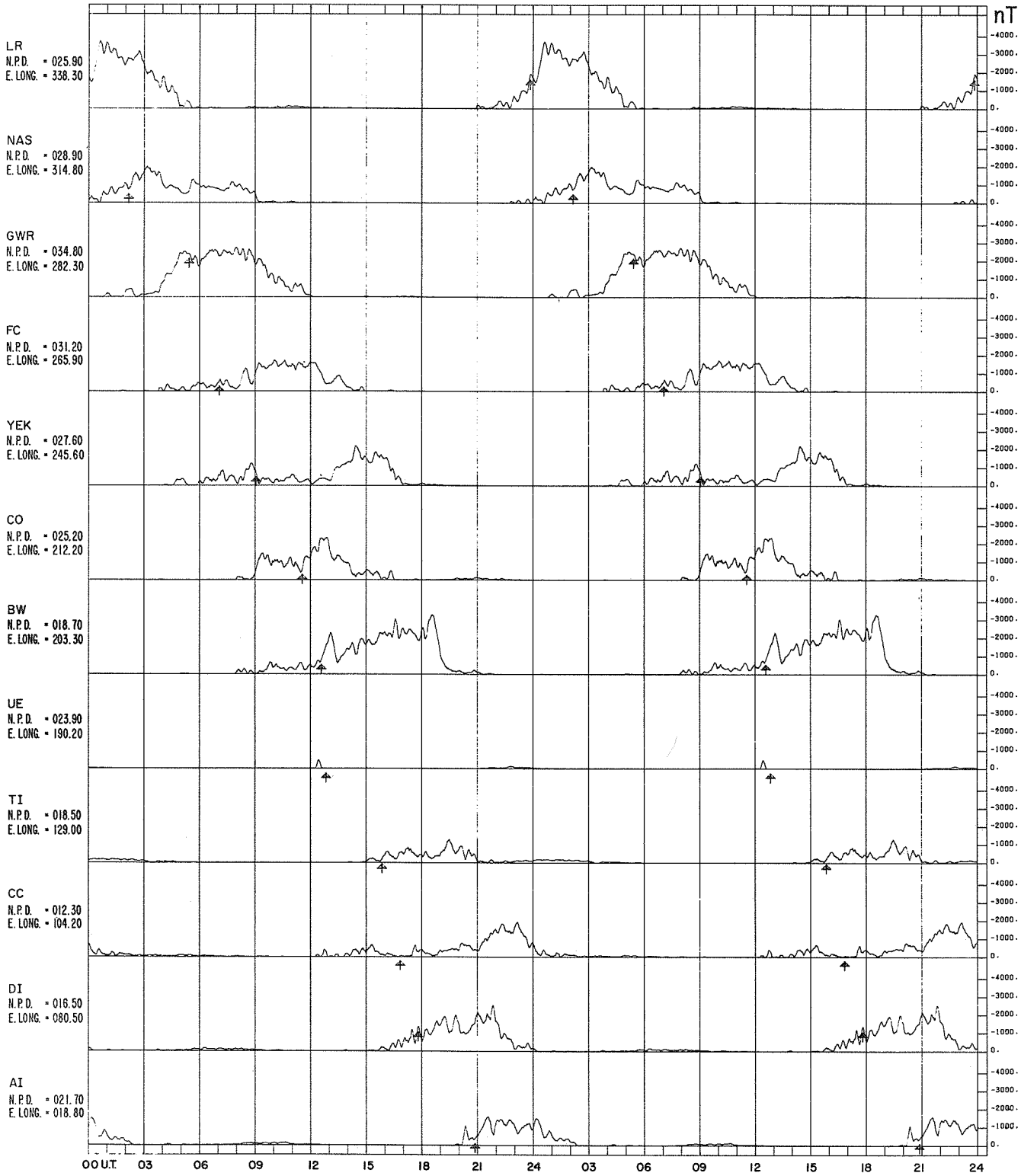


Fig. 26. Total amplitude of most negative H variations for June 1975. For each station an arrow marks the UT time of Local Geomagnetic Midnight.

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