UPPER ATMOSPHERE PHYSICS DATA OBTAINED AT SYOWA STATION IN 1992

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1. Introduction

This data book summarizes upper atmosphere physics data acquired by the 33rd Japanese Antarctic Research Expedition (JARE-33) with the "Upper Atmosphere Physics Monitoring (UAPM) System" at Syowa Station in 1992. Another Japanese Station, Asuka, which operation started in 1986, was closed in December, 1991. Observation items at Syowa Station in 1992 are as follows:

1) Geomagnetism :
- H-, D- and Z-components of magnetic variations
- Total force of the geomagnetic field
- H-, D- and Z-components of magnetic pulsations

2) ELF-VLF wave :
- Intensities at 0.35, 0.75, 1.2, 2, 4, 8, 30, 60 and 95 kHz
- Wide-band (0-10 kHz) signal of ELF-VLF emissions

3) Ionosphere :
- Cosmic noise absorption at 30 MHz, observed with a wide-beam and an imaging riometers.

4) Aurora :
- All sky camera :
  Panchromatic auroral images recorded on black and white films and color films.
- Fixed direction Tilting-filter photometer :
  Intensity and Doppler shift variation of Hβ emission in the magnetic zenith direction. Wave length range 482.5 - 488.5 nm is scanned in 1 s.
- Fixed direction Multi-channel photometer :
  Intensity variation in the magnetic zenith direction at following seven wave lengths: N_2^+ 1NG: 427.8 nm; OI: 557.7, 630.0, 777.4, 844.6 nm; OH airglow: 732.0 nm; Na: 589.3 nm.

- All sky SIT-TV camera :
  Panchromatic black and white TV images of auroras.
- Multicolor All-sky Imaging System (MAIS) :
  Monochromatic auroral images simultaneously observed at two different wave lengths. Combinations of the wave lengths are as follows:
  427.8 nm (N_2^+ 1NG) / 630.0 nm (OI);
  486.1 nm (Hβ) / 481.8 nm (background);
  484.0 nm (Hβ) / 557.7 nm (OI);
  736.9 nm (OH airglow $4P_1$) / 740.1 nm ($5P_1$);
  739.1 nm (background) / 732.0 nm (OH airglow);
  589.3 nm (Na airglow) / 608.8 nm (background)

An outline of the observation system is given in Section 2. Section 3 describes specifications of the observation instruments and the data acquisition systems. Observation periods are also listed in Section 3. Format of the compiled digital data is shown in Section 4. Summary plots in the period of January 1-December 31, 1992 are given in Appendix.

All sky camera film data, magnetograms and summary plots of the monitoring data are available to users on request. The request should be addressed to:

World Data Center C2 for Aurora
National Institute of Polar Research
9-10, Kaga 1-chome, Itabashi-ku,
Tokyo 173, Japan.

Digital and analog data described here are available to researchers who will do collaborative studies with the upper atmosphere physics group of NIPR. The request should be addressed to:

Upper Atmosphere Physics Research Division
National Institute of Polar Research
9-10, Kaga 1-chome, Itabashi-ku,
Tokyo 173, Japan.

2. Upper Atmosphere Physics Monitoring (UAPM) System

A real-time digital data acquisition system for upper atmosphere physics observation was constructed at Syowa Station in January 1981 (Sato *et al.*, 1984). Data obtained from the system have been collected and published annually in the JARE Data Reports (Upper Atmosphere Physics) (Sato *et al.*, 1984 ; Fujii *et al.*, 1985; Sakurai *et al.*, 1985 ; Ono *et al.*, 1986; Yamagishi *et al.*, 1987;

Kikuchi *et al.*, 1988; Miyaoka *et al.*, 1990; Sato *et al.*, 1991; Kadokura *et al.*, 1992; Ono *et al.*, 1993; Fujii *et al.*, 1994). This report is the 12th of this series.

A block diagram of the system is shown in Fig. 1. The sensors for measuring weak natural electromagnetic waves such as ELF-VLF emissions, the three components of ULF magnetic pulsations and cosmic radio noise absorption (CNA) have been placed at a remote station on West Ongul Island, located about 5 km from Syowa Station in order to avoid man-made electromagnetic interference. Data of the magnetic pulsations and CNA are transmitted continuously to Syowa Station by a PCM telemeter in VHF band. Wide-band signals of ELF-VLF emissions are transmitted to Syowa Station through an FM telemeter in UHF band.

At the remote station, the electric power which drives all the instruments has been supplied by a solar battery system with maximum output power of 530 W since February 1985. An additional solar battery system with maximum power of 365 W was installed in January 1987 to reinforce the original battery system. The solar battery system consists of eighteen rechargeable car batteries (200 Ah each), five solar panels and three controllers in total. During winter when no sunlight is available, these batteries are charged manually about once a month by using a 10 kVA diesel-engine dynamo, which was installed in 1992 instead of the previous 16 kVA one.

The fluxgate and proton magnetometer sensors are placed at Syowa Station on East Ongul Island, about 150 m apart from the Data Processing Building. All the auroral photometric instruments are placed on the roof of the building, and the data acquisition facilities are installed inside the building. All the outputs obtained from the observation instruments except the auroral photometric ones are transferred to the matrix terminal board and then recorded with pen recorders, analog data recorders and a computer system. These data have been recorded simultaneously with two sets of the TEAC DR-200 digital data logger systems since January 1987. An 8 mm video tape recorder is used to record wide-band VLF emissions, and 24-hour data can be stored on one volume of 8 mm video tape.

Universal time (UT) is supplied from a precise time-keeping system. This system consists of an NNSS satellite timing receiver, a quartz frequency standard with a stability of 2×10^{-11}/day, and time code generators. The time code generators supply the IRIG-A, -B and slow codes for analog data recorders and the 36-bit BCD code for the digital recording systems, respectively. The absolute accuracy of this system is estimated to be about 1 ms.

3. Specifications of Instruments

3.1. Geomagnetism

(1) *Magnetogram*

Magnetic variations were measured by a three-axis fluxgate magnetometer. Full scale ranges were +1250 to -3750 nT for H-component and ± 2500 nT for D- and Z- components, respectively, with the frequency response of DC–2 Hz and noise levels less than 0.5 nT. The magnetometer data

were recorded in digital form at the sampling rate of 1 Hz. The H-component data were also recorded on a chart recorder and an R-950L long-term analog data recorder.

(2) *Total force of the geomagnetic field*

Due to the pro-longed trouble with the proton magnetometer since January 1991, the total force observations were made only about once per month in 1992, using the other portable proton magnetometer, which was unable to be linked with the UAPM system. The results are listed in Table 1.

(3) *ULF magnetic pulsations*

The H-, D-, and Z-components of ULF magnetic pulsations are detected by three sets of search coil magnetometers. The search coil sensors have copper wires (0.4 mmø, 40000 turns each) wound around permalloy cores (1 cm in diameter x 100 cm in length). Measurable intensity range of the magnetometer is 0.001–5 nT/s and the frequency response is 0.001–3 Hz. The search coil magnetometers are installed at the remote station on West Ongul Island. The output signals transmitted by the PCM telemeter are recorded on an R-950L long-term analog data recorder, a chart recorder and a digital data recorder. The sampling frequency of the digital data is 1 Hz for each component.

(4) *Base line of the magnetic field and K-index*

Base line values of the magnetic field were observed about once per month during a magnetically quiet day. K-indices are calculated for every 3-hour interval measuring the maximum deviations of the H- and D-component magnetic fields from the quiet-day baselines. The definition of the K-indices at Syowa Station is as follows:

K-index		Deviation	K-index		Deviation
0	:	0 – 25 nT	5	:	350 – 600 nT
1	:	25 – 50	6	:	600 – 1000
2	:	50 – 100	7	:	1000 – 1660
3	:	100 – 200	8	:	1660 – 2500
4	:	200 – 350	9	:	2500 and more

The ordinary magnetogram is also available on chart papers with a recording speed of 5 cm/hr. The sensitivity of each component on the chart papers is about 100 nT/cm. Tables 1 and 2 give the baseline values and K-indices at Syowa Station in February 1992 – January 1993. Inquiries or requests for the data copies of the magnetic field measurements should be addressed to World Data Center C2 for Aurora in NIPR.

3.2. ELF-VLF waves

The natural ELF-VLF wave receiving system at the remote station has consisted of a triangle-shaped three turn loop antenna (10 m in height, 20 m in the bottom side), a pre-amplifier and a main amplifier with gains of 60 and 40 dB, respectively. The ELF-VLF wave intensities at the frequency bands of 0.35, 0.75, 1.2, 2, 4, 8, 30, 60, 95 kHz were obtained from wide band waveforms using a 9-channel filter bank and a detector. The ELF-VLF emissions within the intensity range of 10^{-17} to 10^{-13} W/m^2 Hz were detectable with this system. These data were recorded continuously in digital form at the sampling rate of 1 Hz. Some of the wide-band ELF-VLF signals up to 10 kHz were recorded on 8 mm video tape recorders. The wide-band recording was usually executed during 9:00 - 13:00 UT on Sunday - Friday, and 24 hour recording was executed during September 14 - October 3 which was the conjugate observation period between Syowa and Iceland.

3.3. Ionosphere

Cosmic noise absorption at 30 MHz was observed with a wide-beam and a Multi-beam-imaging riometers. The former riometer has been installed at the remote station on West Ongul Island since 1981, and the latter was newly installed at Syowa Station on East Ongul Island in 1992 instead of the previous Multi-Beam Riometer (MBR). Beam half-width of the wide-beam riometer is 60°. The imaging riometer consists of 8x8 array antenna which forms 64 narrow beams within the field of view of about 90°. Details of the imaging riometer are described in Yamagishi *et al.*(1992). Receivers used in both riometer systems are the riometer made by La Jolla Science, which bandwidth and time constant are 150 kHz and 0.25 s, respectively. The wide-beam riometer data were recorded in digital form at the sampling rate of 1 Hz in the UAPM system, and the imaging riometer data were collected with an independent personal computer system and recorded in digital form on a magnetic optical disk.

Observations of the ionospheric vertical soundings, the cosmic noise absorption (20, 30 and 45 MHz), the CW field strength (8 and 10 MHz) and the VHF auroral radar (50 MHz) were carried out continuously by other observation systems at Syowa Station, and the observational results have been published in another JARE Data Reports (Ionosphere). Inquiries and requests for the data copies are to be addressed to:

World Data Center C2 for Ionosphere
Communications Research Laboratory
Ministry of Posts and Telecommunications
2-1, Nukui-Kitamachi 4-chome, Koganei-shi,
Tokyo 184, Japan.

3.4. Aurora

(1) *All-sky camera*

Black-and-white and color all sky auroral images were observed by using a 35 mm cine-pulse camera with a fish-eye lens of f/1.4 and an exposure time of 7 s. The observations were carried out

during clear nights in 1992, as given in Table 3. Inquiries or requests for the all sky data copies should be addressed to World Data Center C2 for Aurora in NIPR.

(2) *Fixed direction Tilting-filter photometer*

Intensity and Doppler shift variations of auroral Hβ emission in the magnetic zenith direction were observed using a fixed direction tilting-filter photometer, which was newly installed in 1992. This photometer has an interference filter of which central wave length is 488.3 nm and half width is 0.36 nm. By tilting this filter every one second, this photometer can observe the Hβ emission in the wave length range of 482.5 nm–488.5 nm every one second. Field of view of this photometer is 1°. Observed data were recorded by a digital data logger at the sampling rate of 25 Hz.

(3) *Fixed direction Multi-channel photometer*

A multi-channel photometer fixed to the magnetic zenith direction, which was first installed by JARE-31 in 1990, was re-installed in 1992. Considering the co-observation with MAIS, following seven filtering wave lengths were chosen: 427.8, 557.7, 589.3, 630.0, 732.0, 777.4 and 844.6 nm. Field of view of this photometer is 1°. Observed data were recorded by a digital data logger together with the tilting-filter photometer data at the sampling rate of 25 Hz.

(4) *All-sky SIT-TV camera*

Auroral images were obtained with a black-and-white SIT all-sky TV camera. Observed images were recorded in NTSC format on an S-VHS VTR in real time and an Optical Video Disk (OVD) at the rate of 1 image per 1–10 s. One volume of OVD can store 54,000 auroral still images.

(5) *Multi-color All-sky Imaging System (MAIS)*

A new type of monochromatic all-sky TV camera was installed in 1992. This camera has 6 pairs of interference filters and can observe two monochromatic all-sky auroral images at two different wave lengths simultaneously. Combination of the wave lengths in each pair was chosen from different observation purpose as follows:

1. Electron aurora mode : 427.8 nm (N_2^+1NG) / 630.0 nm (OI)
2. Proton aurora (Hβ) mode : 486.1 nm (Hβ) / 481.8 nm (background)
3. Proton aurora (Hβ) mode : 484.0 nm (Hβ) / 557.7 nm (OI)
4. OH airglow mode : 736.9 nm ($4P_1$) / 740.1 nm ($5P_1$)
5. OH airglow mode : 739.1 nm (background) / 732.0 nm
6. Na airglow mode : 589.3 nm / 608.8 nm (background)

All these 6 pairs are put on a same filter turret, and one or two of them are selected according to the observation mode at each night. Proton aurora mode and OH airglow mode use two pairs of filters, which are changed in rotation automatically under control of a personal computer.

Periods of the auroral observation except the all-sky camera are shown in Table 4.

4. Compiled Digital Tape Format

Data have been digitally recorded continuously since 1981. A similar recording system has been used in Iceland for the geomagnetic conjugate observations. The specifications of the compiled digital tapes are as follows:

Tracks	: 9
Record density	: 6250 BPI
Record format	: FB
Block length	: 28848 bytes
Logical record length	: 48 bytes
Label	: Non-label
Filing	: Multi-file (1 file/day)

24 kinds of upper atmospheric data are recorded every 1 s in the following sequence:

Word No.	Observation item	Word No.	Observation item
1	H-component of magn. field	13	VLF 8 kHz
2	D-component of magn. field	14	VLF 30 kHz
3	Z-component of magn. field	15	VLF 60 kHz
4	H-component of ULF waves	16	VLF 95 kHz
5	D-component of ULF waves	17	Total magn. force
6	Z-component of ULF waves	18	NA
7	CNA (30 MHz)	19	NA
8	VLF 350 Hz	20	NA
9	VLF 750 Hz	21	NA
10	VLF 1.2 kHz	22	NA
11	VLF 2 kHz	23	NA
12	VLF 4 kHz	24	NA

Each datum, 12 bit A/D converted value, is recorded in the 2 byte binary form of signed 2's complement. A set of these 24 words makes a logical record of 48 bytes; the 10-min data make a block of 28848 bytes. A file contains one day of data (144 blocks) and a volume contains one month of data (28-31 files), as shown in Fig. 2. At the beginning of each block, the starting time of the observation period is written in the following format (48 bytes):

Sequence	Item	
1	Year	(2 bytes)
2	Total day	(2 bytes)
3	Hour	(2 bytes)

4	Minute	(2 bytes)
5	Station code	(4 bytes)
6	Space	(36 bytes)

The magnetic field data recorded on a compiled tape can be transformed to physical quantities by the following relations:

H-component of the geomagnetic field variation (nT)	= DATA*2500/2048 – 1250
D- and Z-component of the geomagnetic field variation (nT)	= DATA*2500/2048
H-component of ULF waves (nT/s)	= DATA/141
D-component of ULF waves (nT/s)	= DATA/158
Z-component of ULF waves (nT/s)	= DATA/316

For CNA and VLF data, individual calibration values are required to transform MT data. Inquiries on these data should be addressed to the Upper Atmosphere Physics Research Division of NIPR. For more detailed information on the compiled data, see Uchida *et al.* (1988). These compiled data are also recorded on an Optical Disk (OD) at the sampling rate of 0.5 Hz together with the data from three Iceland stations for conjugate studies. One volume of the OD can store the data obtained at the four stations during one year. Softwares to handle the OD data are also available to researchers. Details of the OD conjugate data base are described in Yamagishi (1990).

A computer system of the Information Science Center is available to collaborative researchers of NIPR. The center has also been providing various kinds of software such as tape-to-tape copy, displays and spectrum analysis program to the researchers.

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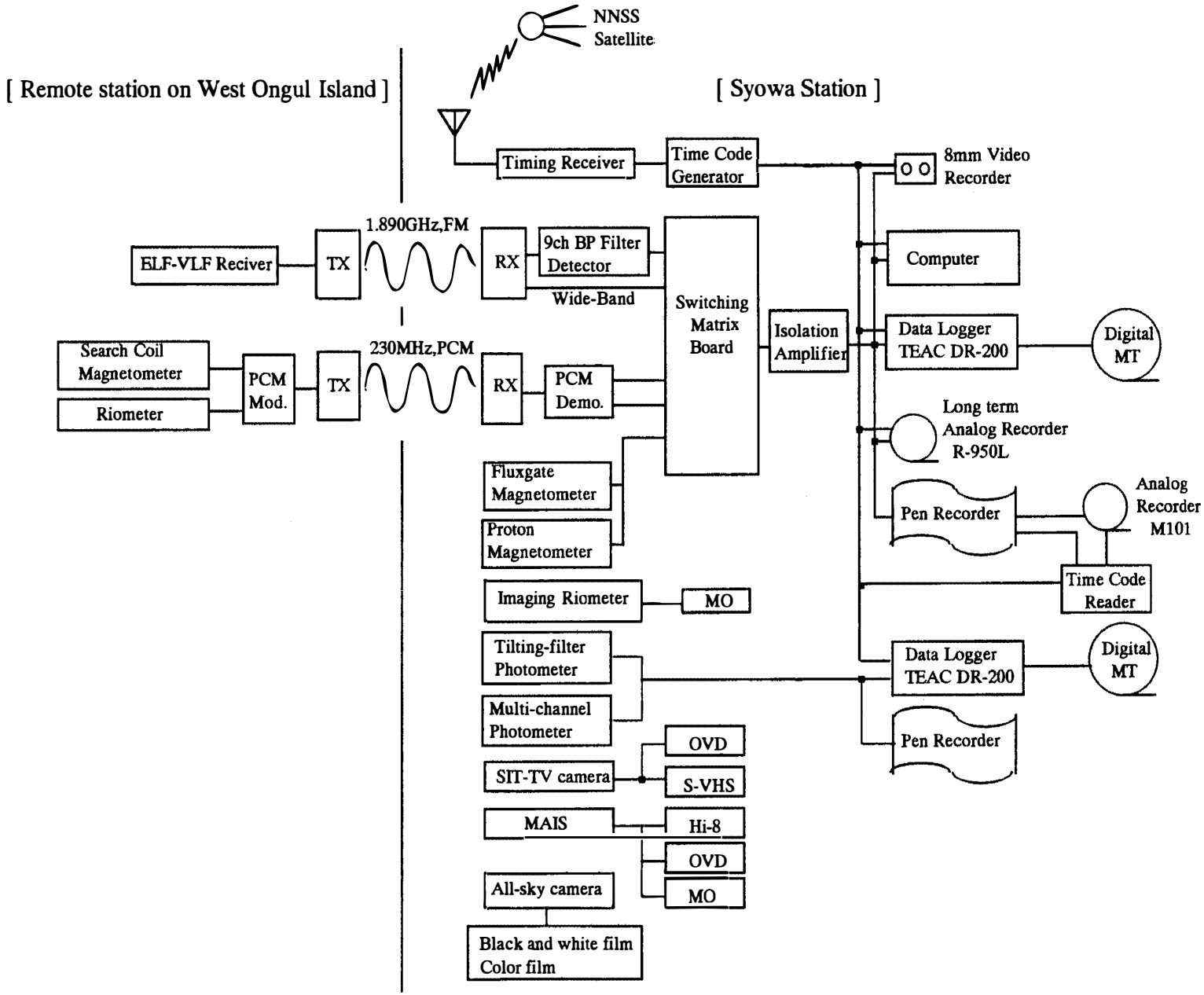


Fig. 1. Block diagram of the "Upper Atmosphere Physics" monitoring system at Syowa Station.

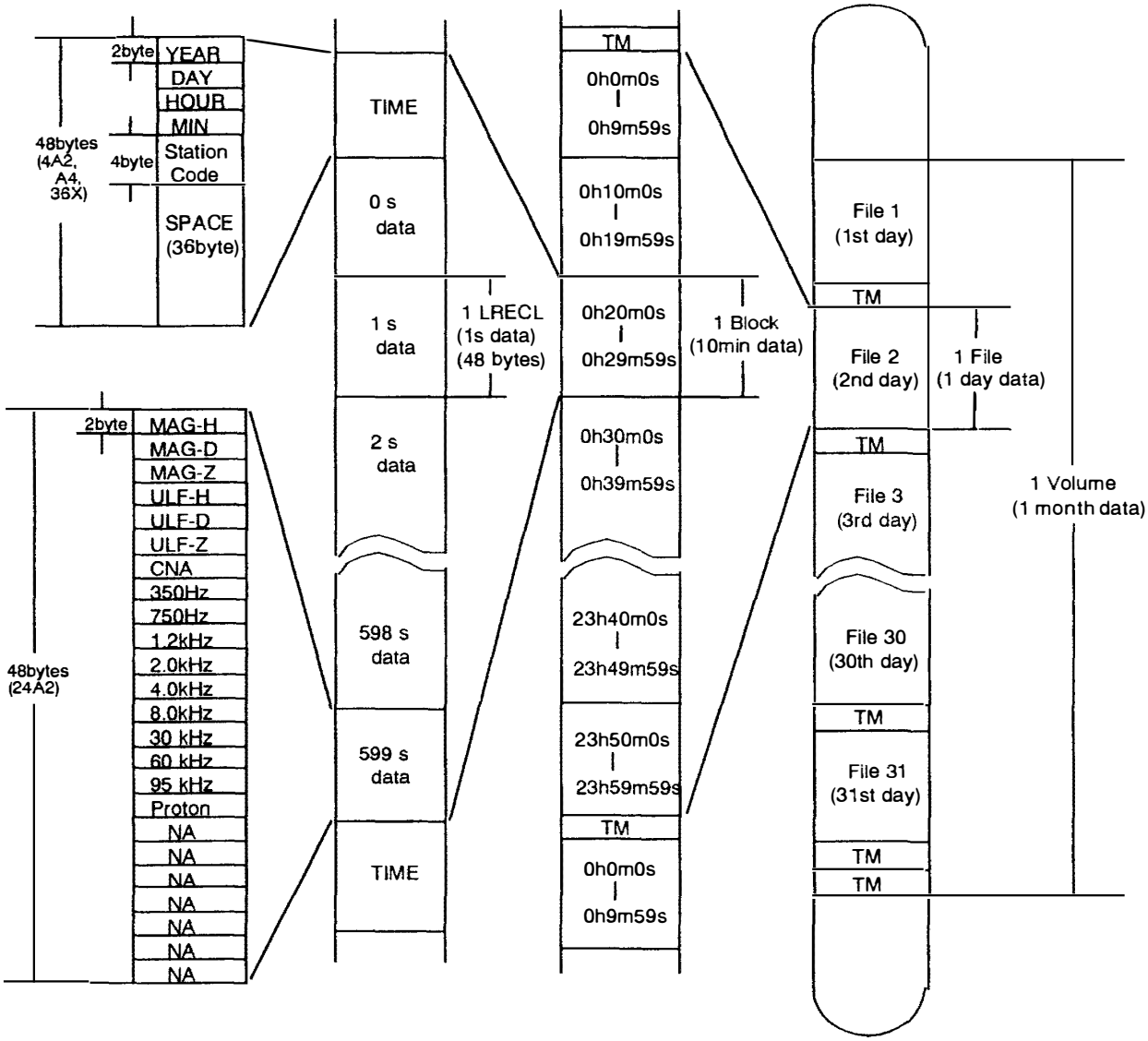


Fig. 2. The structure of the compiled digital tape format for Syowa Station.

Table 1. Baseline values of the geomagnetic field at Syowa Station in February 1992 – January 1993.

DATA	TIME (UT)	TOTAL INT. (nT)	HORI-ZONAL INT. (nT)	VERTICAL INT. (nT)	DECLINATION	DIP ANGLE
FEB. 28 1992	16h 17m	43869.4	19039.6	-39522.6	-47° 28.6′	-64° 16.7′
	16h 33m	43870.3	19040.0	-39523.2	-47° 27.9′	-64° 16.7′
	16h 46m	43875.0	19049.5	-39523.9	-47° 27.1′	-64° 16.0′
	16h 59m	43874.0	19038.4	-39528.1	-47° 27.6′	-64° 17.0′
	16h 38m	43872.2	19041.9	-39524.4	-47° 27.8′	-64° 16.6′
APR. 18	14h 02m	43870.0	19164.5	-39462.6	-47° 34.6′	-64° 5.8′
	14h 12m	43862.2	19198.9	-39437.2	-47° 35.6′	-64° 2.5′
	14h 27m	43887.2	19234.0	-39448.0	-47° 21.6′	-64° 0.4′
	14h 36m	43875.1	19184.2	-39458.7	-47° 24.3′	-64° 4.3′
	14h 19m	43873.6	19195.4	-39451.6	-47° 29.0′	-64° 3.3′
APR. 30	13h 01m	43859.6	19079.5	-39492.3	-47° 28.8′	-64° 12.8′
	13h 10m	43856.0	19073.0	-39491.4	-47° 28.7′	-64° 13.3′
	13h 27m	43841.4	19070.1	-39476.6	-47° 27.8′	-64° 13.0′
	13h 35m	43855.1	19076.6	-39488.6	-47° 28.1′	-64° 12.9′
	13h 18m	43853.0	19074.8	-39487.2	-47° 28.3′	-64° 13.0′
MAY. 31	13h 01m	43838.0	19090.5	-39463.0	-47° 34.0′	-64° 11.1′
	13h 09m	43833.3	19085.6	-39460.1	-47° 33.1′	-64° 11.3′
	13h 21m	43838.4	19085.8	-39465.7	-47° 33.2′	-64° 11.5′
	13h 27m	43839.4	19091.7	-39463.9	-47° 33.2′	-64° 11.0′
	13h 14m	43837.3	19088.4	-39463.2	-47° 33.4′	-64° 11.2′
JUL. 4	10h 13m	43828.2	19085.4	-39454.5	-47° 33.3′	-64° 11.1′
	10h 19m	43829.9	19091.0	-39453.7	-47° 33.4′	-64° 10.7′
	10h 29m	43831.0	19087.8	-39456.4	-47° 33.9′	-64° 11.0′
	10h 34m	43830.9	19088.3	-39456.1	-47° 33.6′	-64° 11.0′
	10h 24m	43830.0	19088.1	-39455.2	-47° 33.6′	-64° 11.0′
JUL. 31	08h 11m	43799.8	19090.5	-39420.4	-47° 26.7′	-64° 9.6′
	08h 18m	43800.6	19092.6	-39420.3	-47° 26.5′	-64° 9.5′
	08h 30m	43806.6	19090.4	-39428.1	-47° 27.2′	-64° 9.9′
	08h 37m	43818.0	19097.9	-39437.2	-47° 23.9′	-64° 9.7′
	08h 24m	43806.3	19092.9	-39426.5	-47° 26.1′	-64° 9.6′

DATA	TIME (UT)	TOTAL INT. (nT)	HORI-ZONAL INT. (nT)	VERTICAL INT. (nT)	DECLINATION	DIP ANGLE
AUG. 27	11h 24m	43816.5	19077.4	-39455.4	-47° 28.6′	-64° 11.4′
	11h 31m	43815.2	19080.9	-39442.3	-47° 29.4′	-64° 11.0′
	11h 45m	43830.4	19083.4	-39457.9	-47° 31.8′	-64° 11.4′
	11h 52m	43840.6	19089.0	-39466.6	-47° 31.2′	-64° 11.3′
	11h 38m	43825.7	19082.7	-39453.0	-47° 30.3′	-64° 11.3′
SEP. 30	11h 15m	43815.1	19066.7	-39449.0	-47° 30.9′	-64° 12.3′
	11h 21m	43833.4	19094.5	-39455.9	-49° 32.3′	-64° 10.5′
	11h 33m	43836.1	19081.0	-39465.4	-47° 31.9′	-64° 11.8′
	11h 40m	43850.8	19090.3	-39477.2	-47° 32.2′	-64° 11.6′
	11h 28m	43833.8	19083.1	-39461.9	-47° 31.8′	-64° 11.5′
OCT. 22	11h 45m	43801.1	19078.5	-39427.7	-47° 31.2′	-64° 10.7′
	11h 51m	43800.2	19076.4	-39427.8	-47° 33.1′	-64° 10.8′
	12h 01m	43802.6	19075.1	-39431.0	-47° 31.0′	-64° 11.0′
	12h 08m	43803.2	19078.0	-39430.3	-47° 30.9′	-64° 10.8′
	11h 57m	43801.8	19077.0	-39429.2	-47° 31.5′	-64° 10.9′
NOV. 26	11h 10m	43835.3	19105.2	-39452.8	-47° 30.2′	-64° 9.7′
	11h 18m	43842.6	19112.4	-39457.5	-47° 32.2′	-64° 9.3′
	11h 30m	43833.8	19112.3	-39447.7	-47° 30.7′	-64° 9.0′
	11h 37m	43829.8	19101.4	-39448.5	-47° 28.4′	-64° 9.8′
	11h 24m	43835.4	19107.8	-39451.6	-47° 30.4′	-64° 9.4′
DEC. 23	10h 36m	43796.7	19088.5	-39418.0	-47° 24.1′	-64° 9.7′
	10h 43m	43792.7	19089.0	-39413.3	-47° 24.1′	-64° 9.5′
	10h 56m	43784.7	19081.8	-39407.9	-47° 23.2′	-64° 9.8′
	11h 02m	43796.9	19094.0	-39415.6	-47° 23.8′	-64° 9.2′
	10h 49m	43792.8	19088.3	-39413.7	-47° 23.8′	-64° 9.5′
JAN. 18 1993	13h 51m	43799.6	19093.6	-39418.7	-47° 31.2′	-64° 9.3′
	14h 03m	43805.0	19091.6	-39425.6	-47° 32.0′	-64° 9.7′
	14h 18m	43849.9	19123.0	-39460.4	-47° 31.8′	-64° 8.7′
	14h 24m	43872.3	19140.5	-39476.8	-47° 30.2′	-64° 8.0′
	14h 08m	43831.7	19112.2	-39445.4	-47° 31.3′	-64° 8.9′

JAN. 27	10h 32m	43783.2	19097.8	-39398.5	-47° 38.2′	-64 8.3
	10h 40m	43780.1	19099.6	-39394.2	-47° 38.4′	-64 8.1
	10h 52m	43763.8	19084.5	-39282.4	-47° 35.2′	-64 8.8
	11h 00m	43765.6	19085.0	-39385.2	-47° 35.0′	-64 8.8
	10h 46m	43773.2	19091.7	-39390.3	-47° 36.7′	-64 8.5

Table 2. K-indices at Syowa Station in February 1992 – January 1993.

	1992																							1993
	FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		JANUARY	
1	**43	5555	2553	1234	2552	2222	2233	2243	5522	2222	4542	1353	5432	2224	3222	2222	5643	3453	3211	2347	5434	4534	3333	2334
2	5654	4465	3432	2333	2232	2353	4442	2222	2222	2223	2642	2223	3222	2223	2232	2555	2222	2233	5652	2233	4421	2343	4434	4445
3	4775	4456	4433	1323	2343	3543	2222	2234	2222	2222	3222	2222	2222	2222	4664	4646	5322	2334	5563	2234	3433	3443	6653	3456
4	4533	3345	3333	2333	3333	3222	5532	2323	2222	2223	2222	2222	2222	2344	6563	3347	5521	0011	3334	4435	4433	3445	634*	4346
5	3333	3212	2332	2433	4233	2225	2422	2222	3222	2222	4522	2222	6655	3235	5654	2344	2110	0123	4332	3333	5321	2212	3543	4345
6	2332	3322	3332	2122	4563	2222	2222	2222	2222	2222	3422	2222	3333	3343	6532	2345	5522	2233	4422	4545	3221	2442	4433	3344
7	5534	4423	2333	1444	3454	2333	2222	2255	2322	2245	2222	2222	5554	3443	4433	3344	2422	2222	4322	2455	1232	4236	4534	3455
8	4444	6643	2333	2222	5432	2252	4564	4466	7654	3567	2222	2222	4554	3355	4533	3334	5411	1133	4221	2235	4443	4555	5332	3456
9	5575	5655	4334	2342	3332	2123	4432	3466	6443	3224	2222	2222	5223	2243	6645	6355	2223	3443	3565	5424	5423	5535	5532	3444
10	4653	5532	3533	2334	3222	2222	6676	5577	3443	2322	2222	2233	4222	3233	7565	4576	2232	2125	3332	2432	3423	2555	3454	4323
11	3323	2234	4533	3344	2222	2222	7864	3466	3522	3467	2111	1111	5433	2335	6652	3454	4312	4455	4533	2333	4332	2333	3223	4545
12	4433	3313	3542	2222	2232	2222	5522	2245	7443	4522	2332	2225	4532	2222	4221	2233	5544	4333	5432	3336	3321	3234	5432	2333
13	4443	2112	3433	2121	2232	2222	5553	4335	2332	2355	4443	3334	2222	2435	2232	2223	6421	3455	3223	3334	4521	2224	3321	2435
14	2333	3232	2232	2122	2232	2222	3222	2222	4222	2233	4533	2242	5332	3422	3333	2234	5342	2257	2422	3443	5321	2344	4533	4445
15	2211	1100	2233	2222	3233	2222	2222	2222	5522	2334	5522	2222	2232	2245	4532	2333	6454	4346	3322	4536	5422	3233	5332	3443
16	2332	1113	2233	3444	2222	2222	2222	2222	4422	2222	2223	3355	3332	2223	3332	2333	6533	2324	4331	1235	3431	0112	4521	3334
17	2334	3222	5333	3343	1110	0101	2222	2223	2222	2222	5111	2211	4222	2223	6675	3476	2322	3344	4331	2234	1133	3754	3452	3333
18	5432	2344	4343	2222	1133	4235	4311	1126	3322	3356	2222	2222	3222	2224	5543	3246	5321	3345	4221	1442	3312	1454	3322	2436
19	4332	2334	2222	2222	4432	2246	6532	2443	4223	2232	3222	2223	3222	2234	5433	2233	6432	4434	2422	3222	3222	3333	4533	3354
20	4545	5566	2222	2122	5532	2344	5322	2234	2222	2223	3322	2344	5653	3222	3222	2225	5521	1124	2220	1133	3342	3442	3233	4422
21	7767	4322	2233	3435	4532	2222	4222	2235	6222	2224	2222	3443	2222	2552	3121	1126	4121	1225	4531	0122	2234	3444	3421	2222
22	6653	3345	4532	2254	5532	2333	4664	4453	5422	2223	4455	3346	3343	4467	6632	2234	4221	2224	3333	4445	3322	3321	2221	2234
23	4542	2236	6542	3355	4222	2325	2220	0354	4422	2244	5544	2346	6773	3366	4432	2232	4321	1123	4653	3544	1323	3221	3221	1224
24	4443	3445	5632	2466	5532	2333	5432	2223	5653	2344	4322	3334	4432	2244	2222	2223	2211	0114	3332	3434	2332	2330	3432	2341
25	7664	3444	6542	2233	4432	2223	3322	2233	5534	3333	3222	2332	2322	2223	4332	2222	5211	1224	4324	4333	1114	2223	2223	4444
26	4453	3675	4532	2244	3422	2242	2222	2224	3333	2223	2222	2222	5442	2233	5332	2232	5422	1245	4532	2133	3321	1021	6443	3344
27	5456	4563	3322	2246	5232	2233	4323	2323	4322	2234	2222	2225	3432	2353	2332	2222	6633	4544	2332	3223	1111	0134	3432	3334
28	2332	3224	5442	2234	4232	2222	3333	3333	3343	3324	5652	3224	3222	2235	2333	2556	4333	3444	3322	2333	3232	5765	3532	2222
29	5534	4543	5553	2354	2222	2223	4553	3344	7643	4456	2222	2224	5433	2235	4775	4446	4533	3456	2222	3332	5664	4434	3211	1124
30			3532	2235	3322	2222	4442	3334	6753	2326	4322	2244	3222	2232	5443	3566	4532	3445	2222	4466	3322	3321	4521	2336
31			6532	2233			4432	2222			4232	2225	2222	2222			4323	3333			3232	4422	6665	4466

Table 3. Observation periods of a 35 mm all-sky camera at Syowa Station in 1992.

Date	Hours (Universal Time)			K-Index	
	h m s	h m s	h m s		
MAR.7			21 38 00	2333	1444
8	-02 20 07			2333	2222
15			22 31 00	2233	2222
16	-00 29 37			2233	3444
26		19 47 00	-22 56 37	4532	2244
28			20 00 00	5442	2234
29	-00 59 37		20 59 47	5553	2354
30	-00 59 47			3532	2235
APR.2			19 43 00	2232	2353
3	-01 59 47			2343	3543
19			21 41 00	4432	2246
20	-04 10 27			5532	2344
29		19 54 00	-23 09 47	2222	2223
30			23 17 00	3322	2222
MAY 1	-03 29 47		19 17 00	2233	2243
2	-02 59 37		22 46 00	4442	2222
3	-02 59 37		17 57 00	2222	2234
4	-02 54 07			5532	2323
7	00 37 00	-03 29 37	17 12 00	2222	2255
			-23 29 07	2222	2255
8			17 42 00	4564	4466
9	-00 10 27			4432	3466
10			15 53 00	6676	5577
11	-02 59 07			7864	3466
12			18 32 00	5522	2245
13	-03 58 07			5553	4335
29		16 50 00	-22 16 07	4553	3344
30		16 24 00	-20 33 37	4442	3334
JUNE4		23 16 00	-23 55 37	2222	2223
8	01 28 00	-05 49 37	17 00 00	7654	3567
9	-05 59 57		20 16 00	6443	3224
10	-01 11 07			3443	2322
12		16 12 00	-21 52 07	7443	4522
22	00 27 00	-05 59 37	23 09 00	5422	2223
23	-06 00 07			4422	2244
24		17 15 00	-22 35 27	5653	2344
26			17 49 00	3333	2223
27	-05 59 47		17 45 00	4322	2234
28	-05 59 37		16 01 00	3343	3324
29	-00 05 57		19 34 00	7643	4456
30	-06 00 07			6753	2326
JULY1	00 52 00	-05 30 07	19 37 00	4542	1353

Date	Hours (Universal Time)			K-Index	
	h m s	h m s	h m s		
			-21 41 17	4542	1353
2			19 00 00	2642	2223
3	-05 59 37		19 01 00	3222	2222
4	-01 10 07			2222	2222
5		04 11 00	-05 59 37	4522	2222
6	02 37 00	-05 30 07	22 48 00	3422	2222
7	-05 29 07			2222	2222
8		00 42 00	-05 30 07	2222	2222
20		17 02 00	-23 38 47	3322	2344
21			15 52 00	2222	3443
22	-05 29 47		20 53 00	4455	3346
23	-05 29 47		20 53 00	5544	2346
24	-02 15 07			4322	3334
27			21 32 00	2222	2225
28	-05 29 37	21 49 00	-23 14 27	5652	3224
29			22 40 00	2222	2224
30	-00 18 47			4322	2244
31			17 21 00	4232	2225
AUG.1	-01 36 57		21 07 00	5432	2224
2	-01 59 57			3222	2223
7		00 36 00	-01 59 57	5554	3443
15			22 19 00	2232	2245
16	-01 59 47			3332	2223
17			22 51 00	4222	2223
18	-01 59 47		22 14 00	3222	2224
19	-01 59 47			3222	2234
20	00 46 00	-03 29 57	22 13 00	5653	3222
21	-03 29 37	17 06 00	-23 55 37	2222	2552
22			23 15 00	3343	4467
23	-03 29 47		18 22 00	6773	3366
24	-03 09 57			4432	2244
27			16 51 00	3432	2353
28	-03 02 37			3222	2235
30			22 48 00	3222	2232
31	-03 29 37		22 44 00	2222	2222
SEP.1	-02 56 07			3222	2222
2			21 22 00	2232	2555
3	-03 10 07	16 26 00	-23 26 27	4664	4646
12			17 43 00	4221	2233
13	-02 53 57			2232	2223
14			19 28 00	3333	2234
15	-01 58 37		18 30 00	4532	2333

Date	Hours (Universal Time)									K-Index	
	h	m	s	h	m	s	h	m	s		
16	-01	29	57				18	09	00	3332	2333
17	-01	59	57				17	02	00	6675	3476
18	-01	29	57	17	02	00	-18	06	57	5543	3246
19							18	13	00	5433	2233
20	-01	29	57	20	44	00	-23	00	07	3222	2225
21				20	17	00	-22	27	37	3121	1126
23				21	00	00	-22	51	07	4432	2232
24				22	30	00	-22	51	07	2222	2223
29							19	02	00	4775	4446
30	-00	59	57				23	12	00	5443	3566
OCT.1	-01	00	07							5643	3453
2							19	06	00	2222	2233
3	-00	29	57				20	18	00	5322	2334
4	-01	29	57							5521	0011
14							20	40	00	5342	2257
15	-00	29	57							6454	4346
16				22	07	00	-22	55	57	6533	2324

Table 4. Periods of auroral observation, except the all-sky camera, at Syowa Station in 1992. In the MAIS column, "E", "P", "OH" and "Na" denote the electron aurora, proton aurora, OH airglow and Na airglow mode observations, respectively. In the other columns, "O" shows that the observation was executed with the instrument.

	DATE	MAIS	SIT camera	Multicolor photometer	Tilting-filter photometer
1	March 1-2	E	O	-	-
2	March 2-3	E	O	-	-
3	March 3-4	E	O	-	-
4	March 6-7	OH	O	O	-
5	March 7-8	OH	O	O	-
6	March 8-9	P	O	O	-
7	March 9-10	-	O	O	-
8	March 12-13	E	O	O	-
9	March 13-14	OH	O	O	-
10	March 14-15	Na	O	O	-
11	March 15-16	P	O	O	-
12	March 23-24	-	O	-	-
13	March 25-26	-	O	-	-
14	March 26-27	E	O	-	-
15	March 28-29	OH, E	O	-	-
16	March 29-30	E	O	-	-
17	April 2-3	E	O	-	-
18	April 12-13	Na	O	-	-
19	April 18-19	-	O	-	-
20	April 19-20	-	O	-	-
21	April 23-24	-	O	-	-
22	April 24-25	-	O	-	-
23	April 25-26	-	O	-	-
24	April 26-27	Na	O	-	-
25	April 29-30	OH, P	O	-	-
26	April 30-May 1	P	O	-	-
27	May 1-2	OH, P	O	-	-
28	May 2-3	Na	O	-	-
29	May 3-4	OH, E	O	-	-
30	May 4-5	P	O	-	-
31	May 5-6	P, OH	O	-	-
32	May 6-7	Na, P	O	-	-
33	May 7-8	OH, P	O	O	-
34	May 8-9	P	O	O	-
35	May 10-11	E	O	O	-
36	May 29-30	P	O	O	-
37	May 30-31	P	O	O	-
38	June 2-3	Na	O	O	-
39	June 3-4	OH	O	O	-
40	June 4-5	OH	O	O	-
41	June 7-8	E	O	O	-
42	June 8-9	E, P	O	O	O
43	June 9-10	E, P	O	O	O
44	June 21-22	Na, P	O	O	O
45	June 22-23	Na	O	O	O
46	June 23-24	Na	O	O	O
47	June 24-25	P	O	O	O
48	June 26-27	P	O	O	O
49	June 27-28	P	O	O	O
50	June 28-29	P	O	O	O
51	June 29-30	P	O	O	O
52	June 30-July 1	P	O	O	O

	DATE	MAIS	SIT camera	Multicolor photometer	Tilting-filter photometer
53	July 1-2	P	O	O	O
54	July 2-3	P	O	O	O
55	July 3-4	OH	O	-	-
56	July 4-5	P	O	O	O
57	July 5-6	P	O	O	O
58	July 6-7	E, Na	O	O	O
59	July 18-19	OH	O	O	O
60	July 19-20	P	O	O	O
61	July 20-21	P	O	O	O
62	July 21-22	P	O	O	O
63	July 26-27	OH	O	O	O
64	July 27-28	P	-	-	-
85	July 28-29	P	O	O	O
66	July 29-30	P	O	O	O
67	July 31-Aug. 1	P	O	O	O
68	August 1-2	P	O	O	O
69	August 6-7	-	O	O	O
70	August 16-17	E	O	O	O
71	August 17-18	OH	O	O	O
72	August 18-19	E	O	O	O
73	August 19-20	E	O	O	O
74	August 20-21	E	O	O	O
75	August 21-22	E	O	O	O
76	August 22-23	P	O	O	O
77	August 23-24	P	O	O	O
78	August 25-26	Na	O	-	-
79	August 27-28	P	O	O	O
80	August 30-31	P, Na	O	O	O
81	Aug. 31-Sep. 1	Na, E	O	O	O
82	Sep. 1-2	Na	O	O	-
83	Sep. 2-3	P	O	O	-
84	Sep. 3-4	E	O	O	-
85	Sep. 14-15	Na, E	O	O	-
86	Sep. 15-16	E	O	O	-
87	Sep. 16-17	P	O	O	-
88	Sep. 17-18	P	O	O	-
89	Sep. 19-20	P	O	O	-
90	Sep. 20-21	Na, P	O	O	-
91	Sep. 21-22	OH, E	O	O	-
92	Sep. 24-25	Na	O	O	-
93	Sep. 29-30	E	O	O	-
94	Sep. 30-Oct. 1	-	O	-	-
95	Oct. 2-3	E	O	O	-
96	Oct. 3-4	Na	-	O	-
97	Oct. 13-14	-	O	-	-
98	Oct. 14-15	E	O	O	-
99	Oct. 15-16	E	O	O	-
100	Oct. 18-19	-	O	-	-
101	Oct. 24-25	Na	-	O	-

Appendix

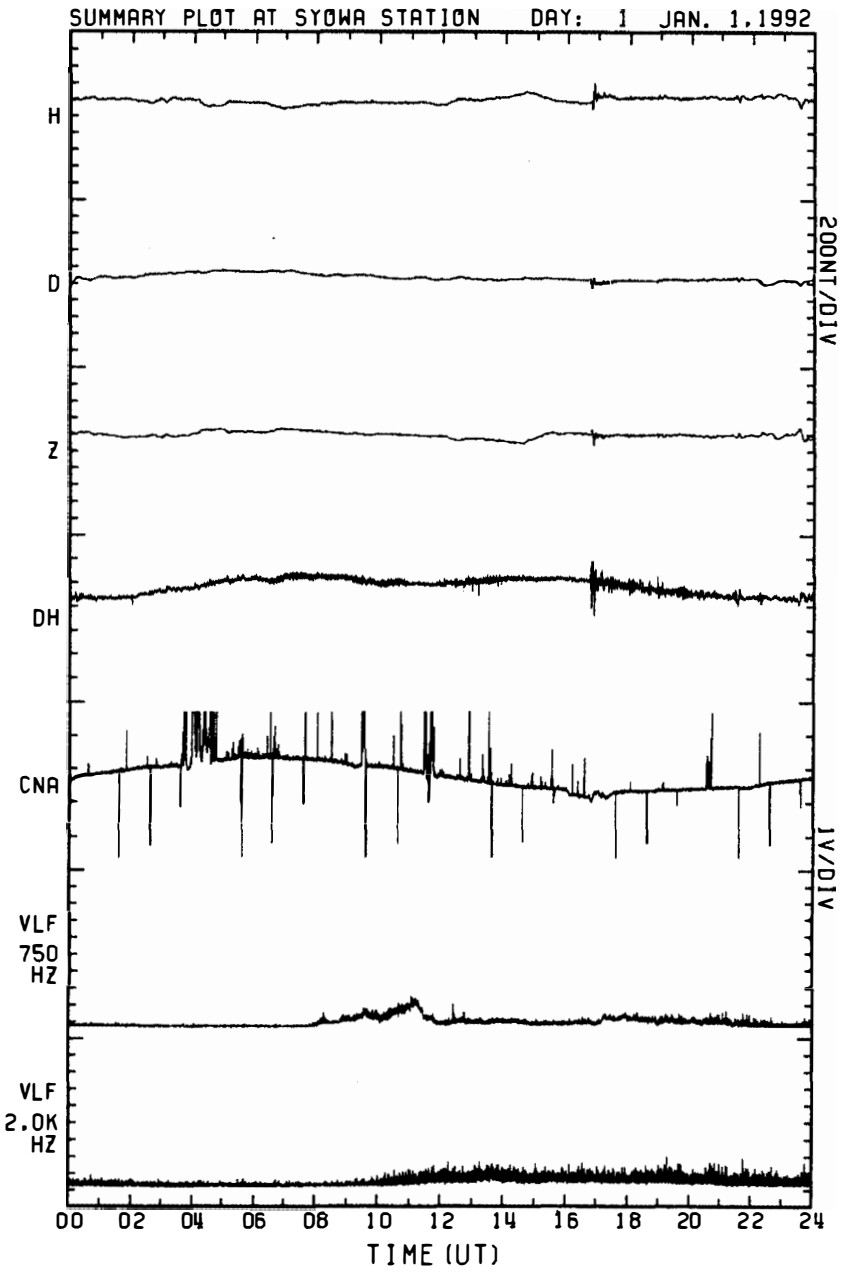
Summary plots of the Upper Atmosphere Physics Monitoring data in 1992

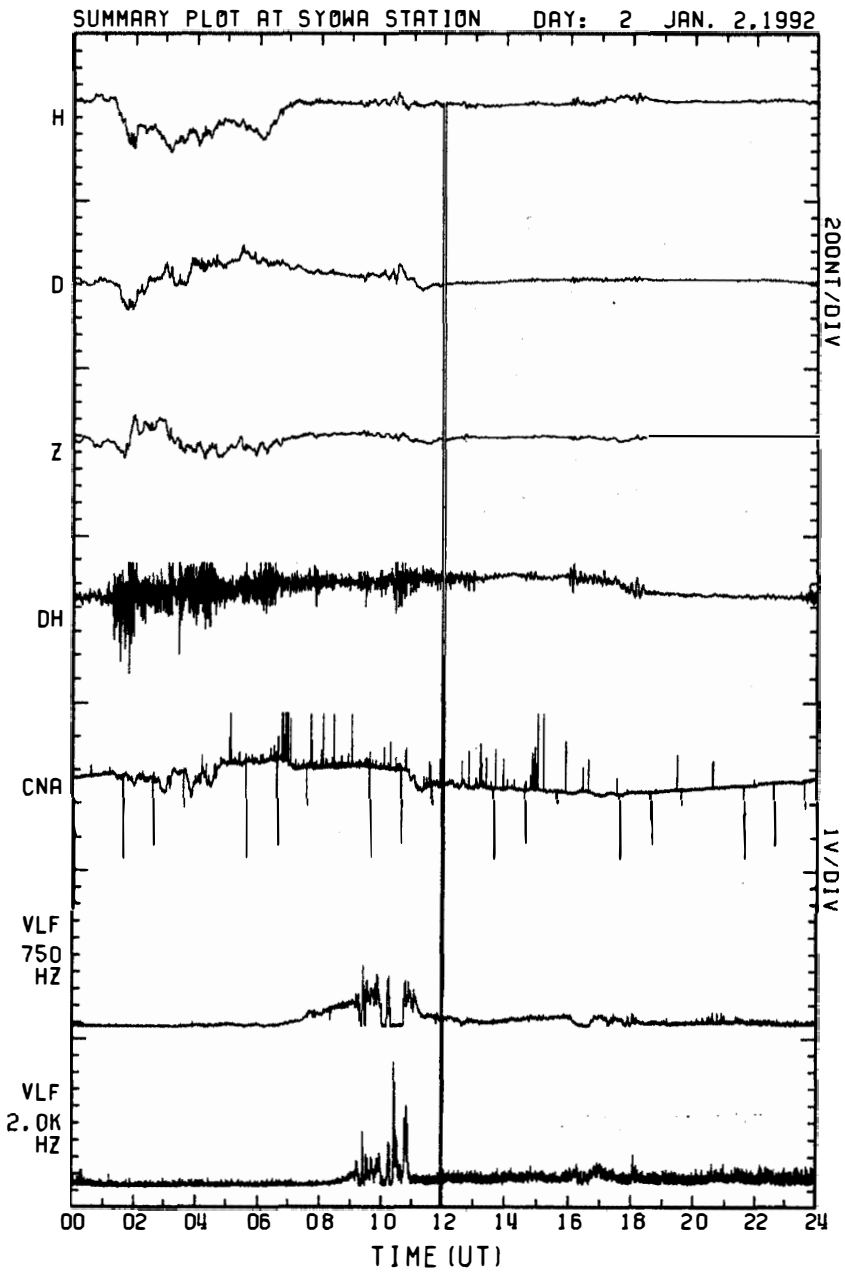
- **Plotted data from top:**

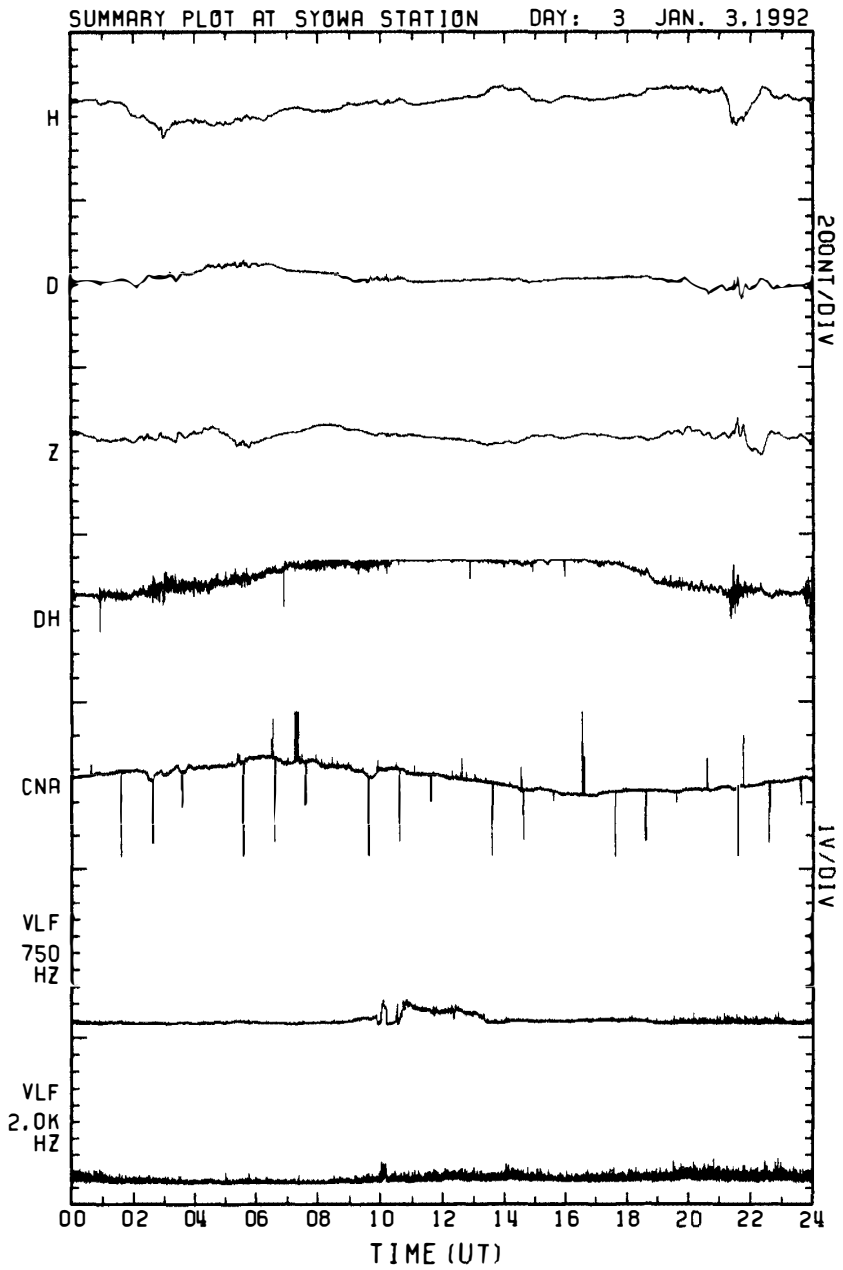
H	:	**northward component of the magnetic variation**
D	:	**westward component of the magnetic variation**
Z	:	**downward component of the magnetic variation**
DH	:	**northward component of the ULF magnetic pulsation**
CNA	:	**output of the wide-beam 30 MHz riometer**
VLF 750Hz	:	**intensity of 750 Hz VLF wave**
VLF 2.0 kHz	:	**intensity of 2.0 kHz VLF wave**

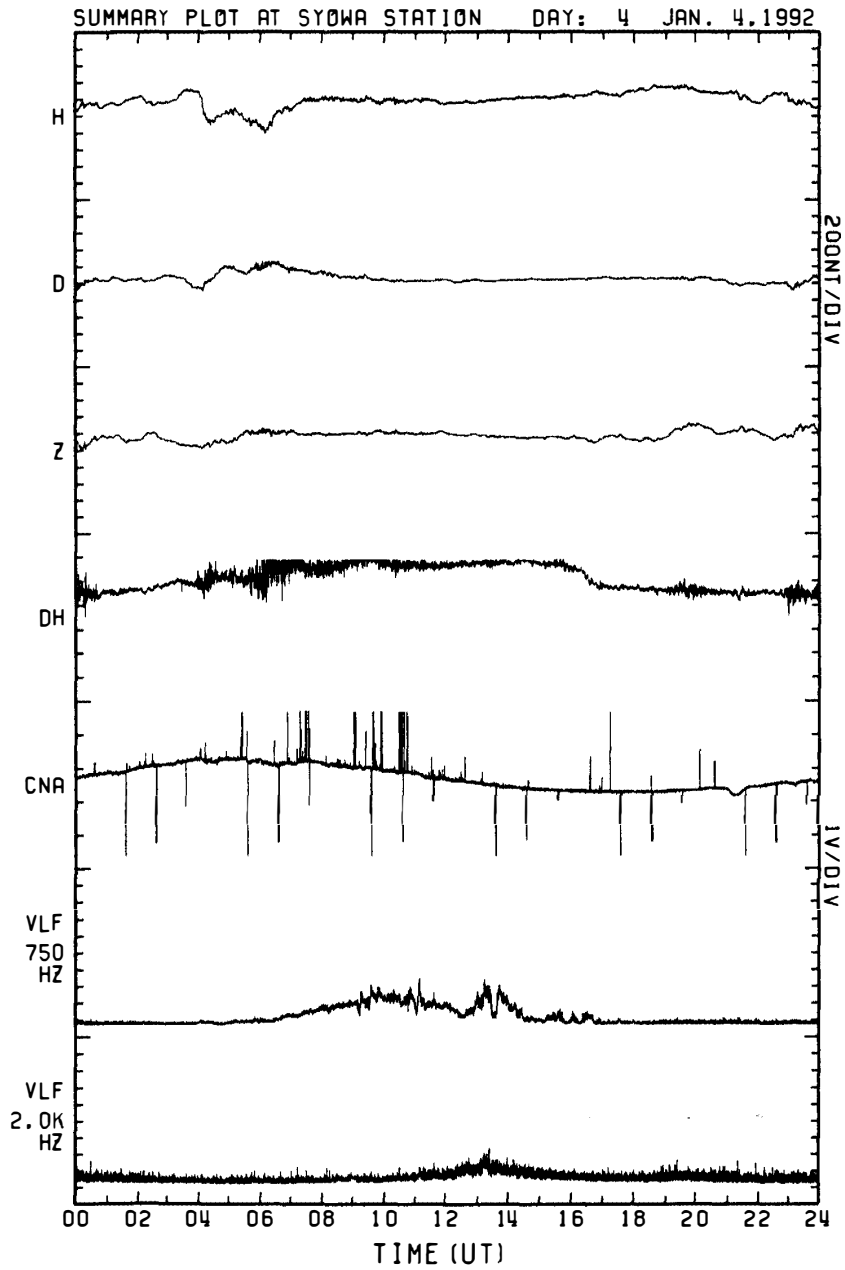
- **Plotting vertical scale:**

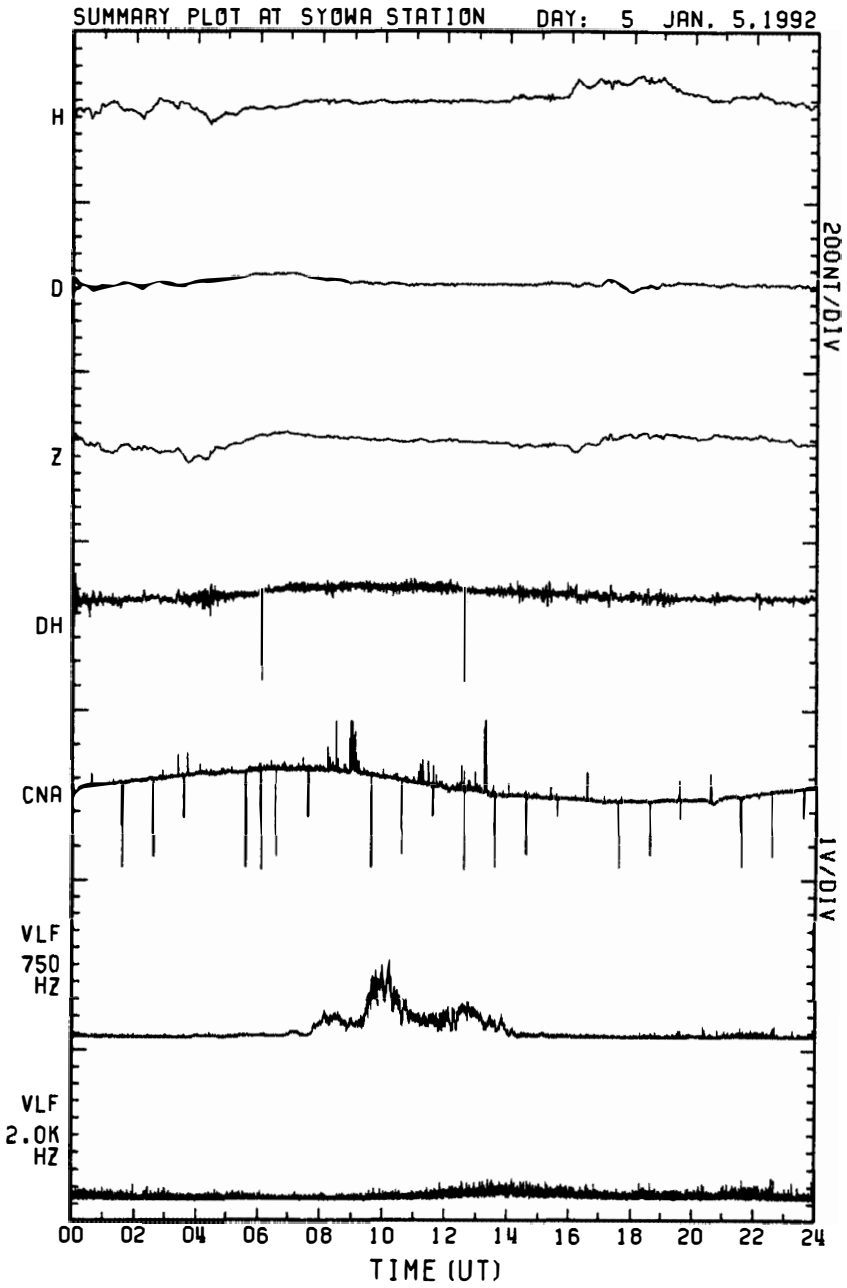
H, D, Z	:	**200 nT/div**
others	:	**1.0 V/div**

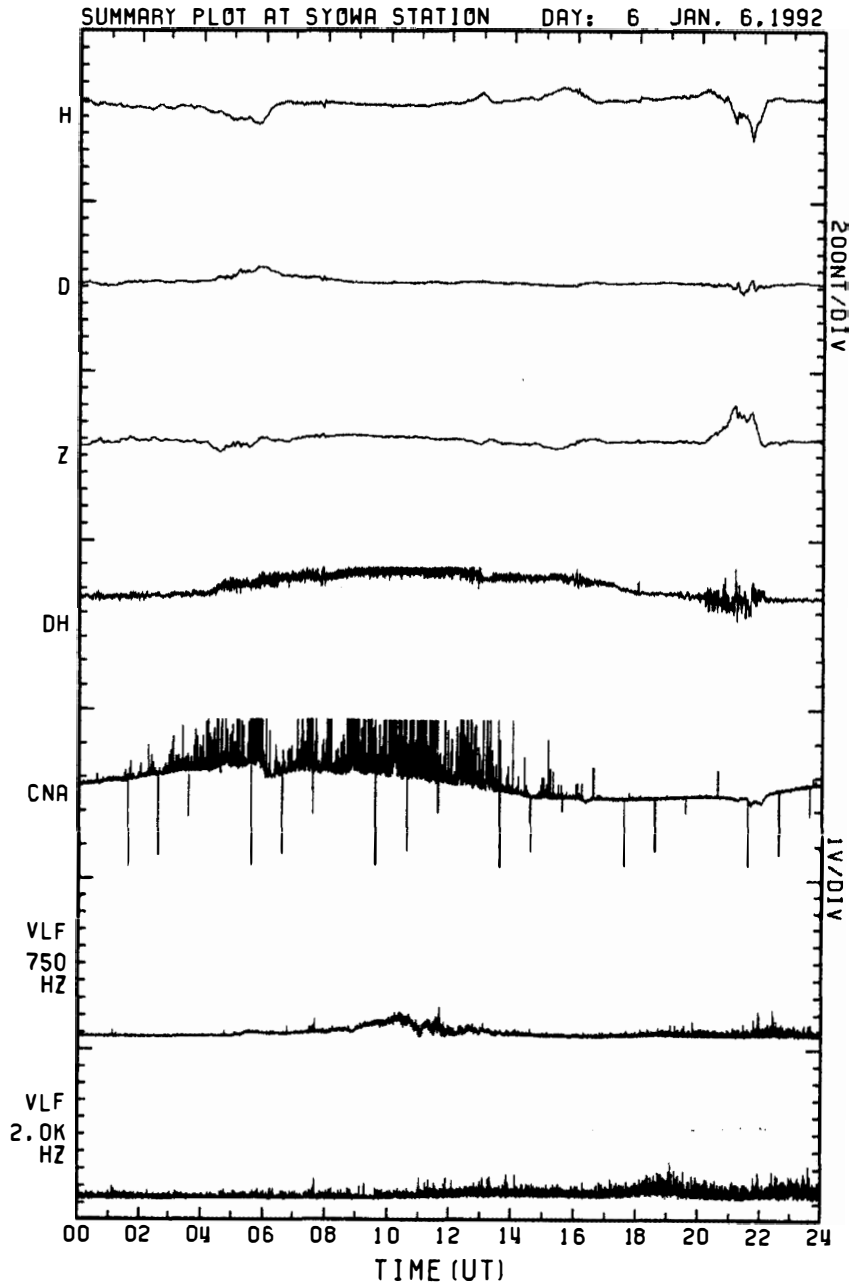

SUMMARY PLOT AT SYOWA STATION DAY: 1 JAN. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

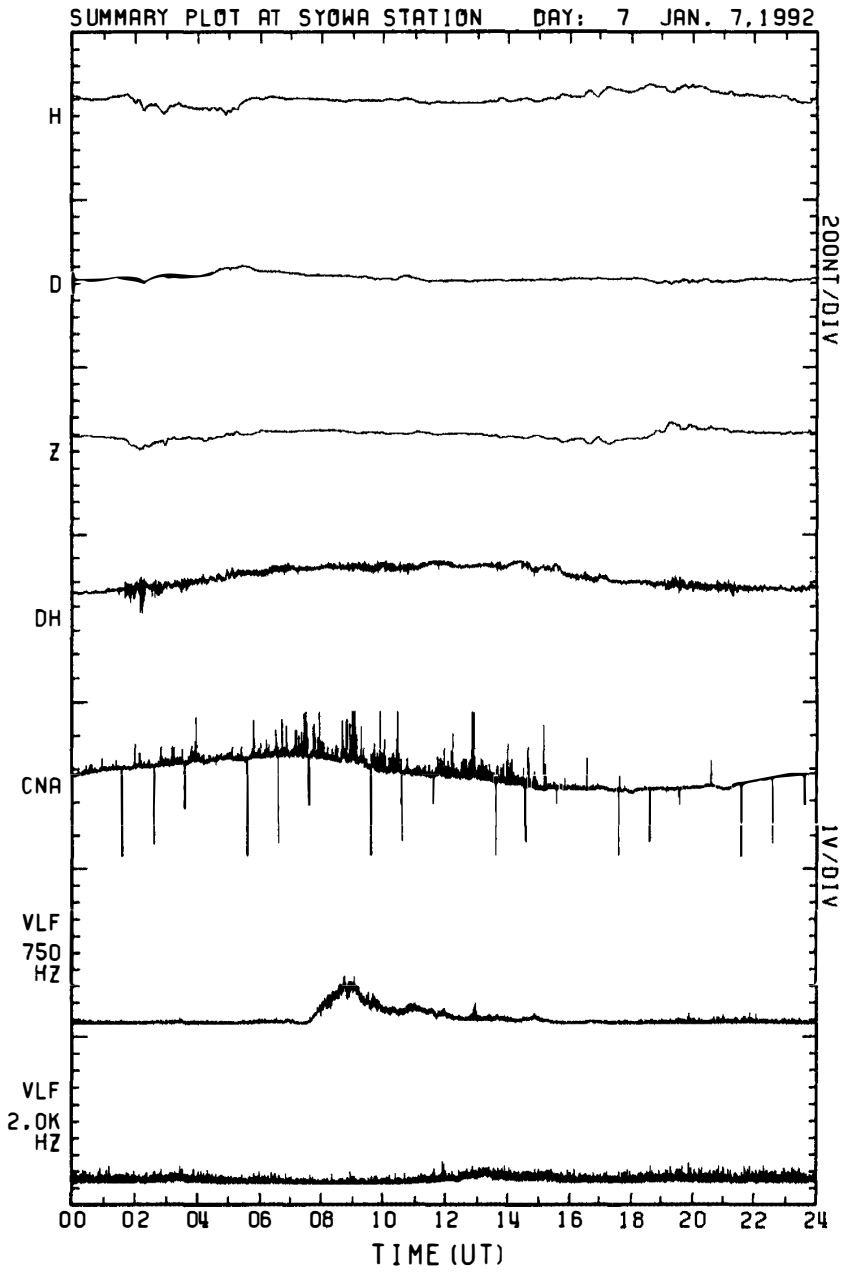

SUMMARY PLOT AT SYOWA STATION DAY: 2 JAN. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

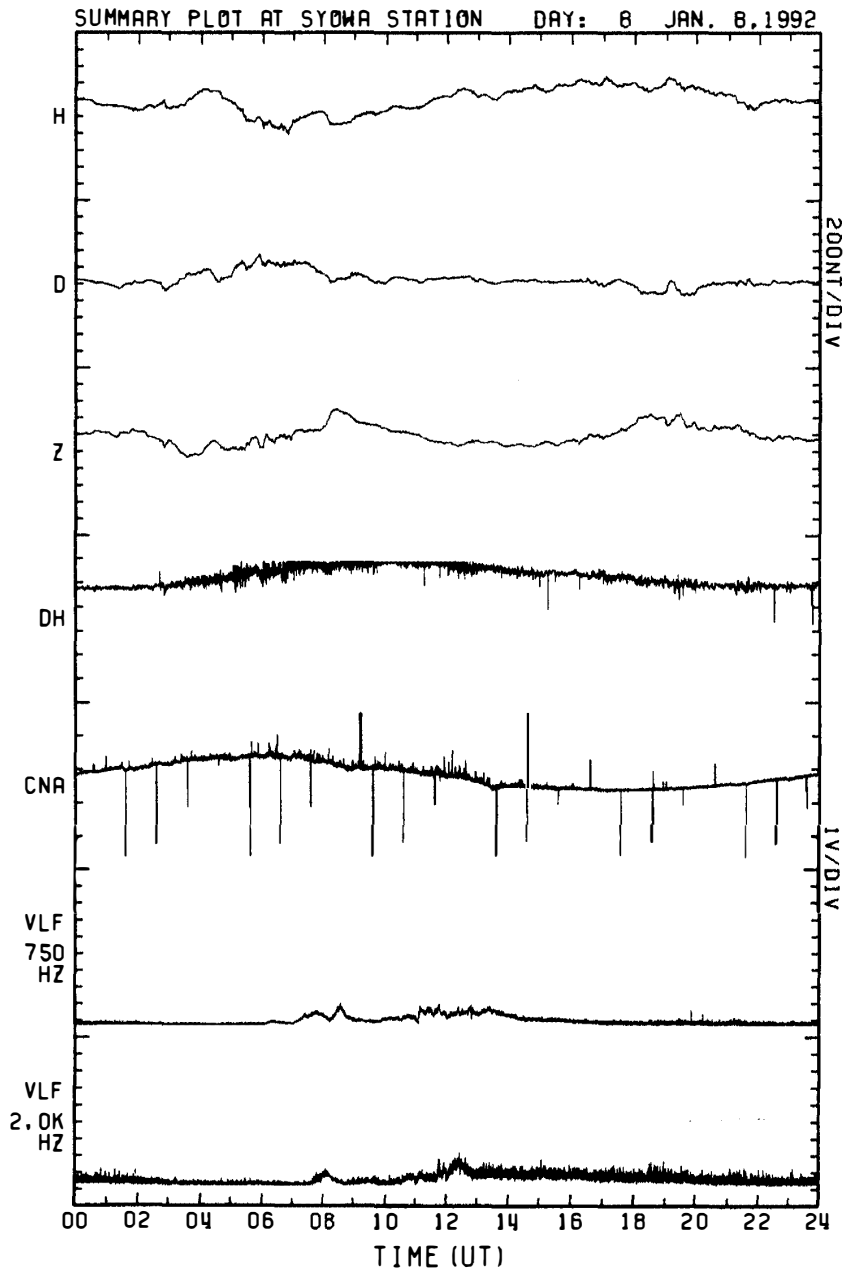

SUMMARY PLOT AT SYOWA STATION DAY: 3 JAN. 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

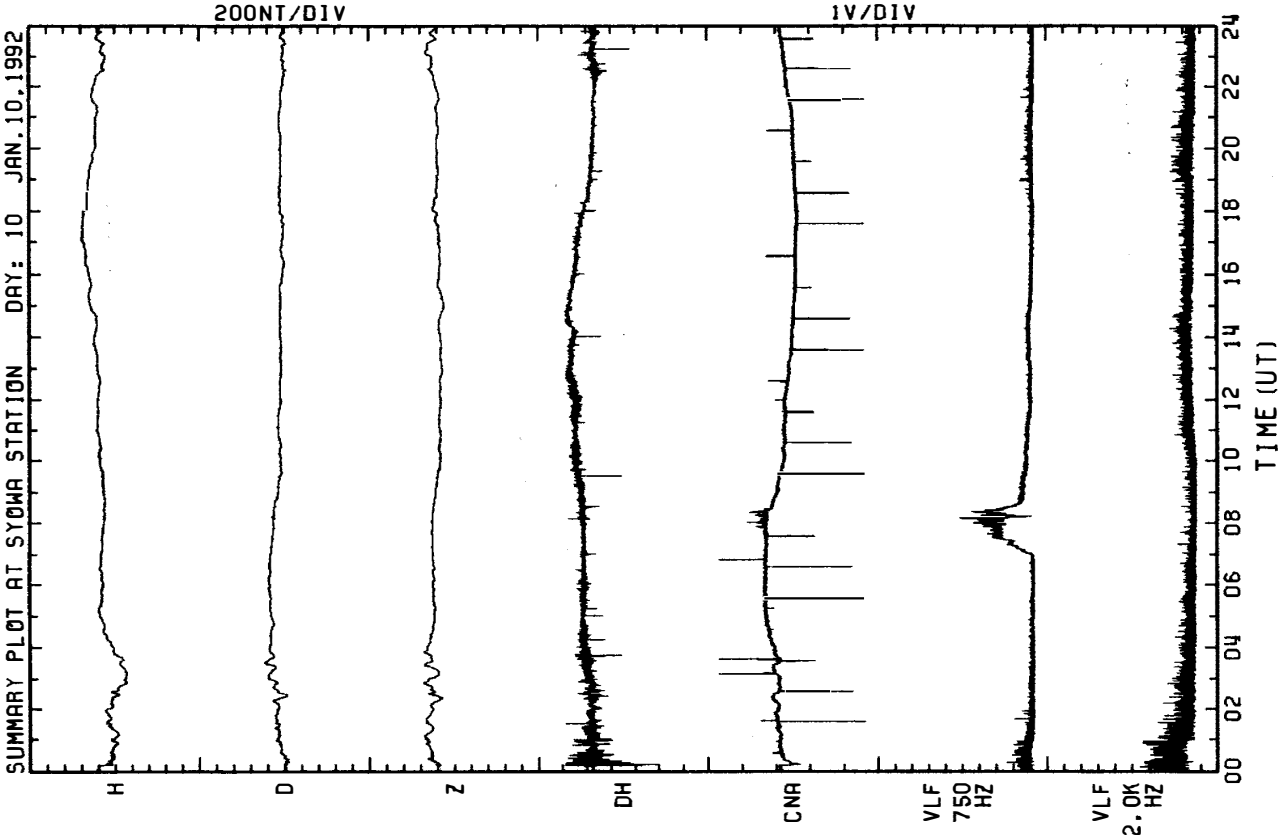

SUMMARY PLOT AT SYOWA STATION DAY: 4 JAN. 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

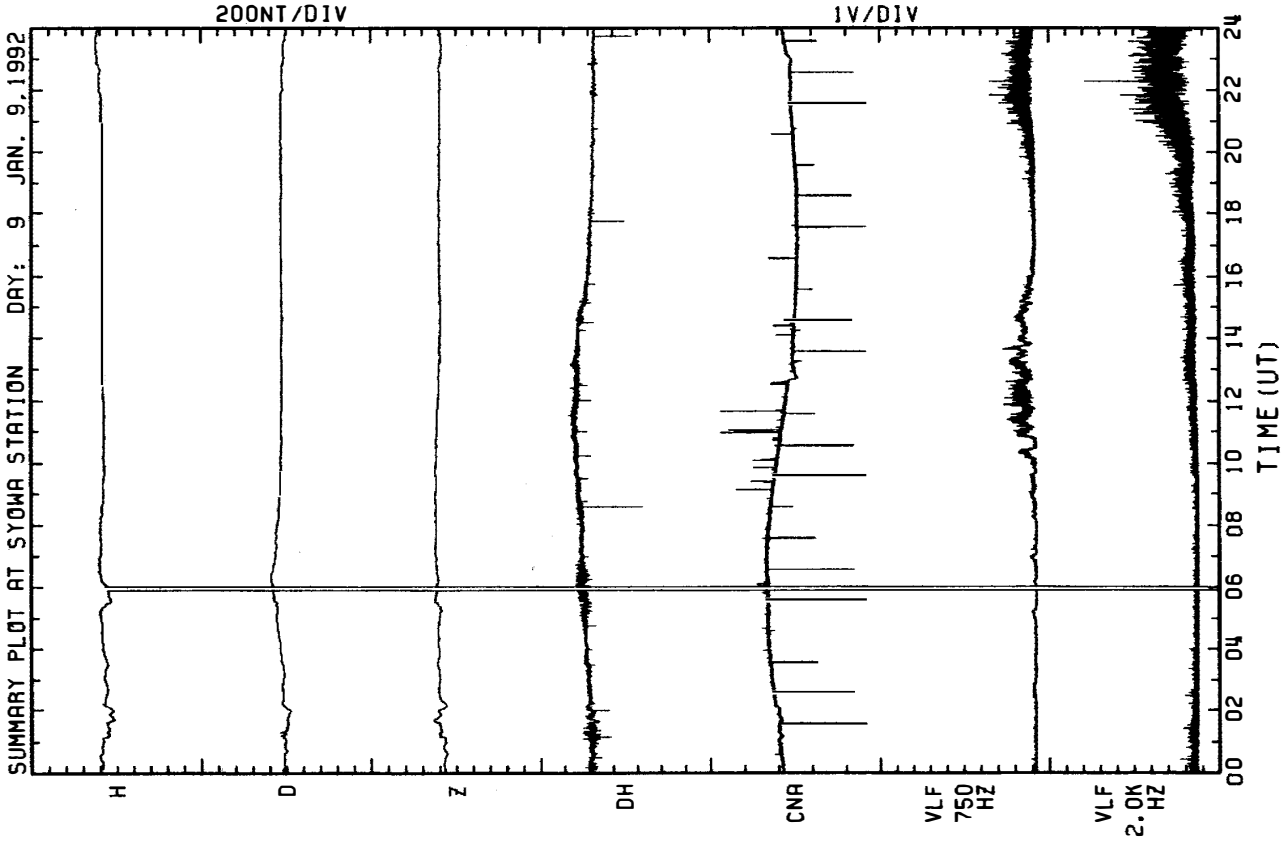

SUMMARY PLOT AT SYOWA STATION DAY: 5 JAN. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

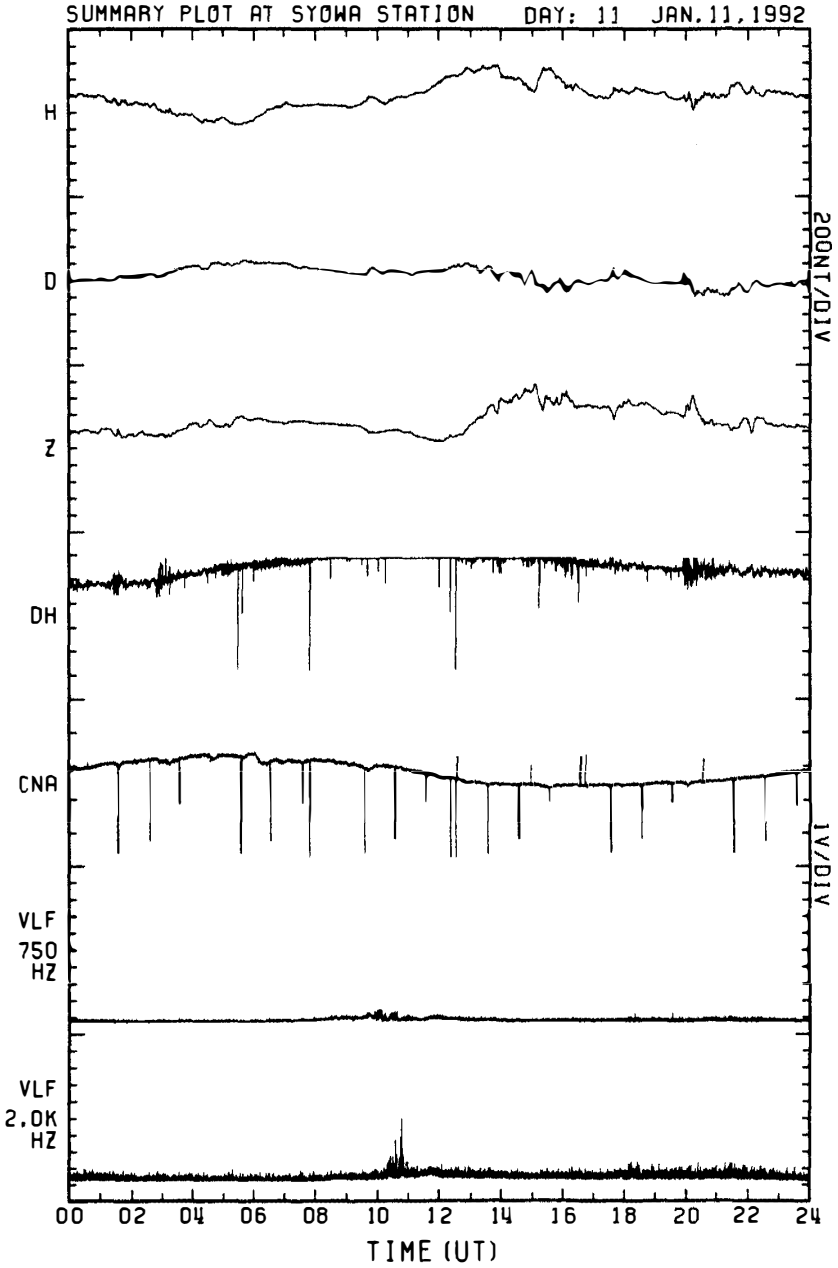

SUMMARY PLOT AT SYOWA STATION DAY: 6 JAN. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

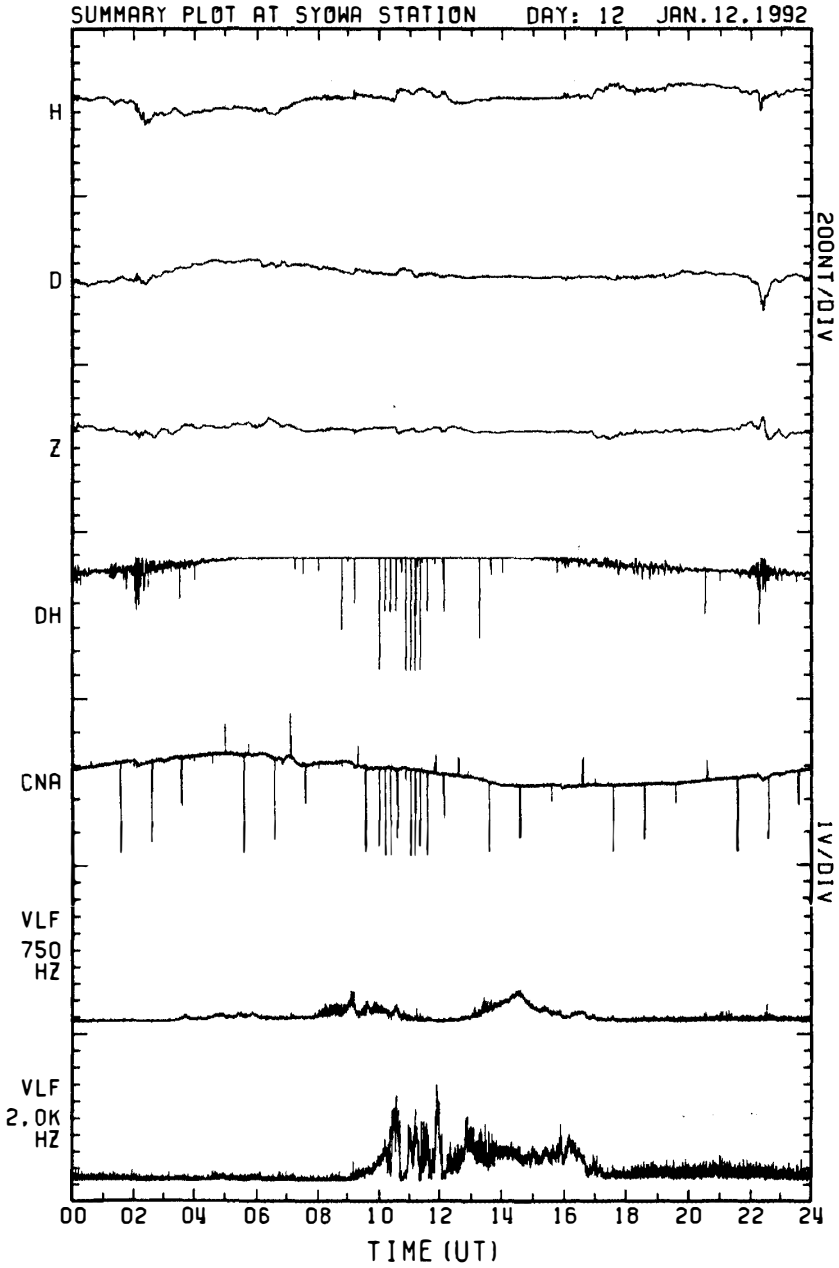

SUMMARY PLOT AT SYOWA STATION DAY: 7 JAN. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

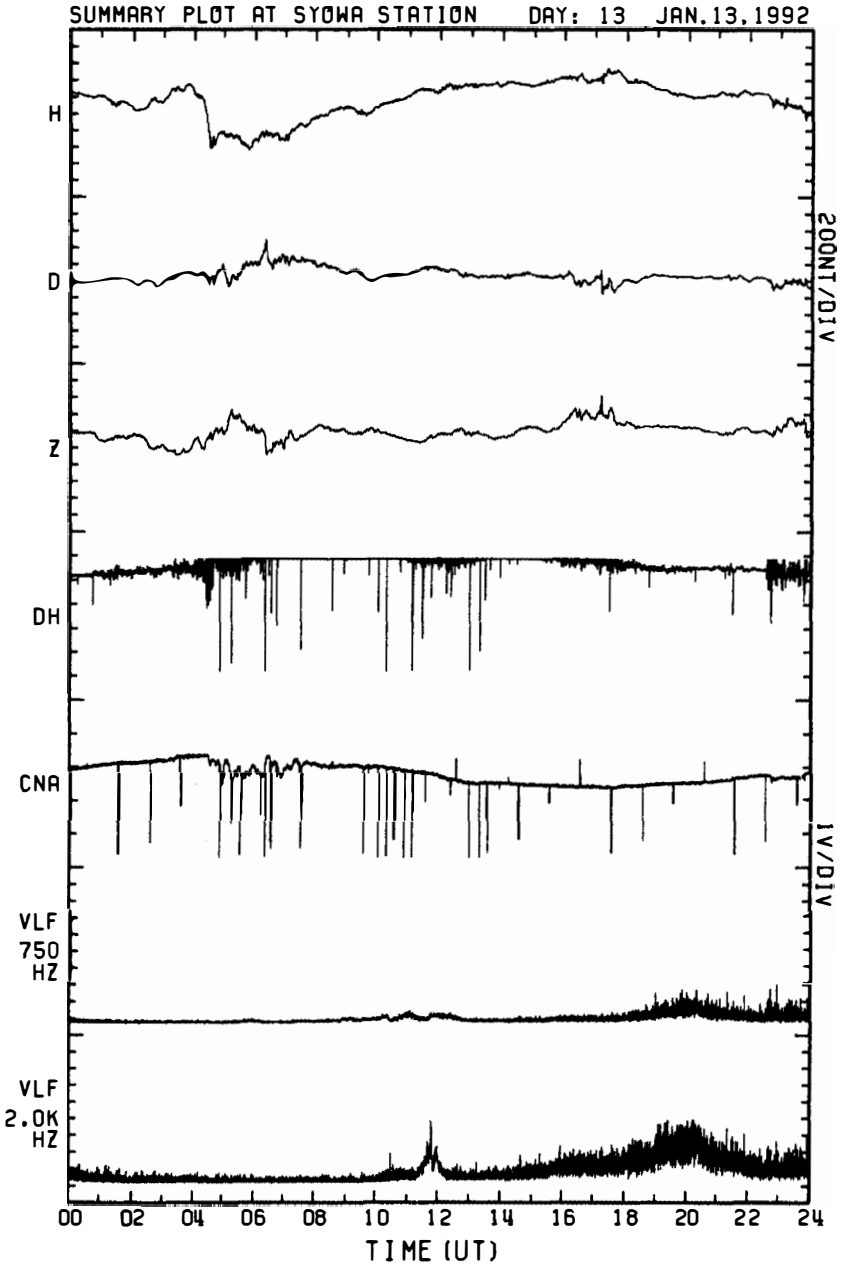

SUMMARY PLOT AT SYOWA STATION DAY: 8 JAN. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

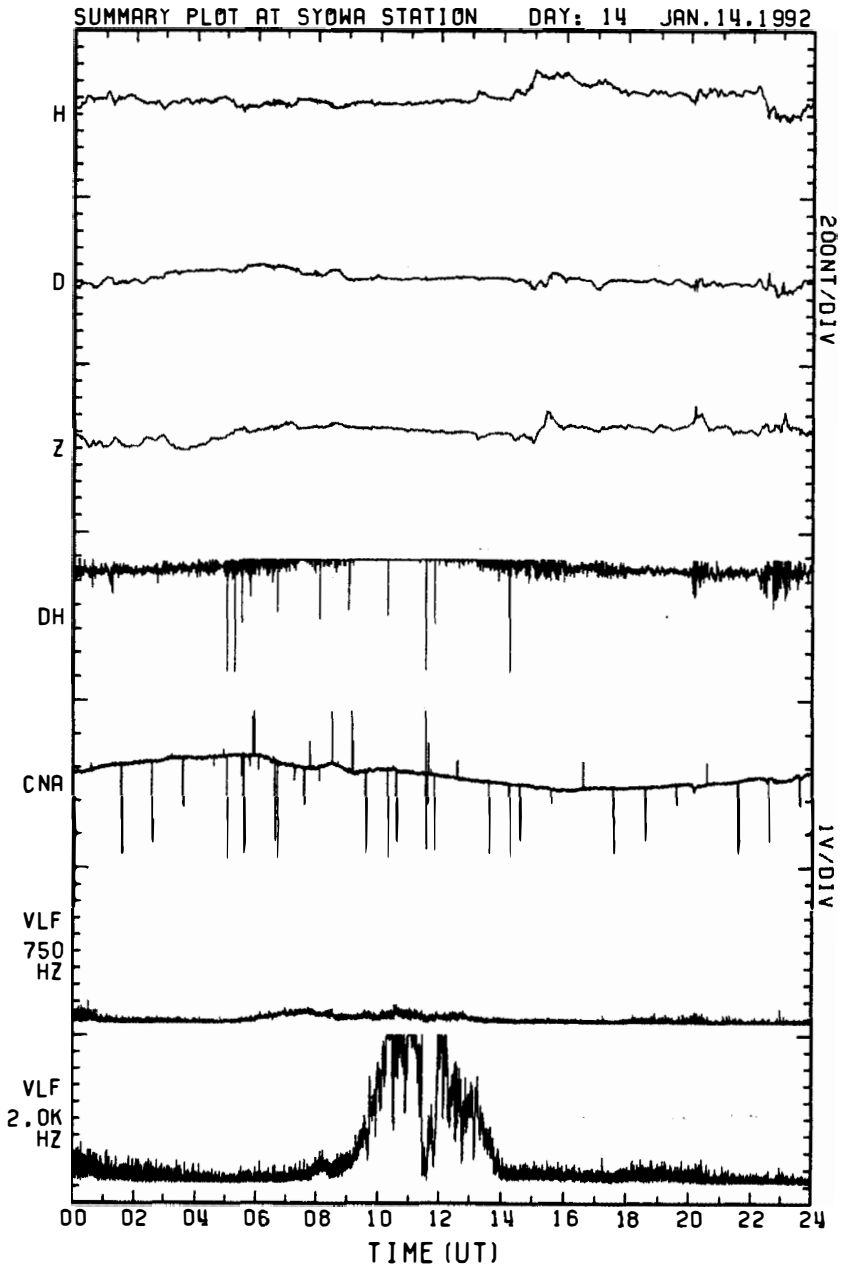

SUMMARY PLOT AT SYOWA STATION DAY: 10 JAN.10,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

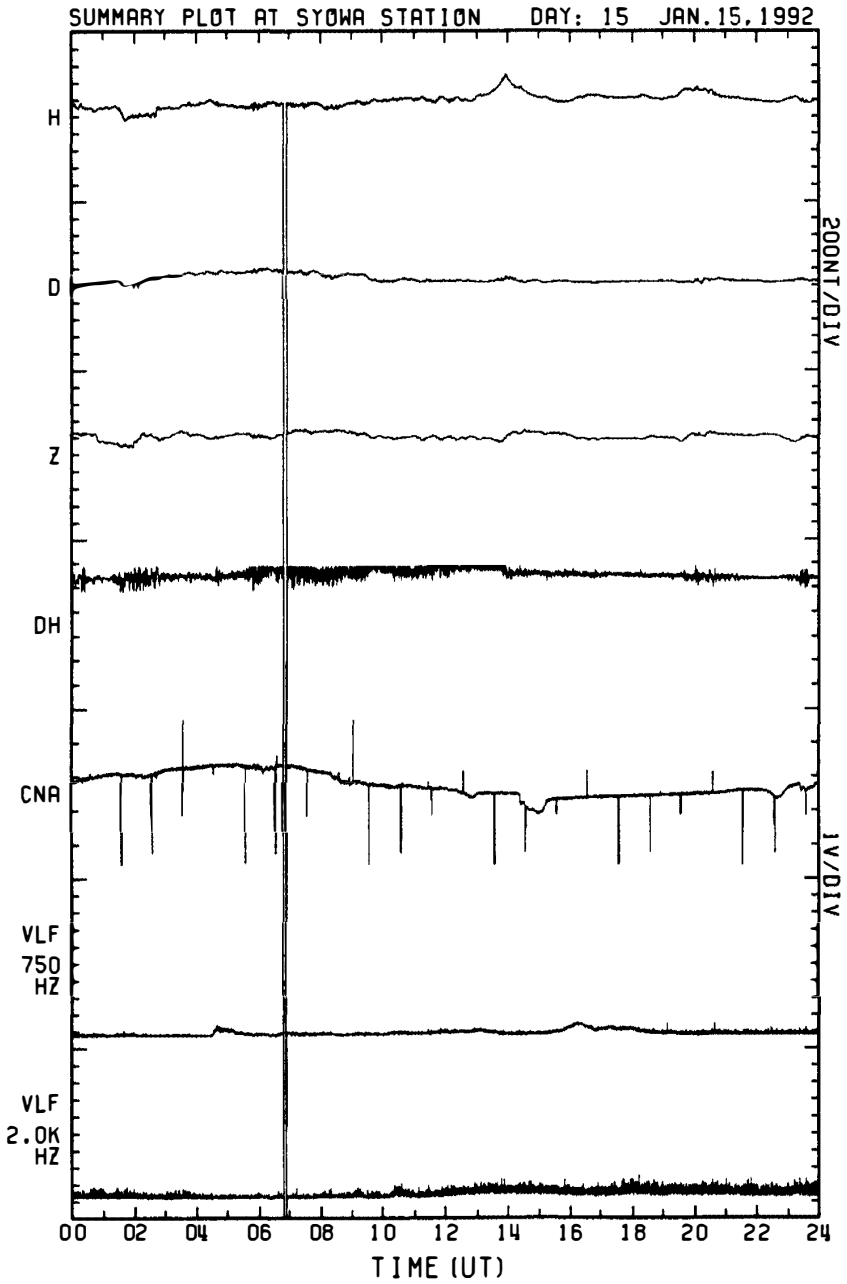

SUMMARY PLOT AT SYOWA STATION DAY: 9 JAN. 9,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

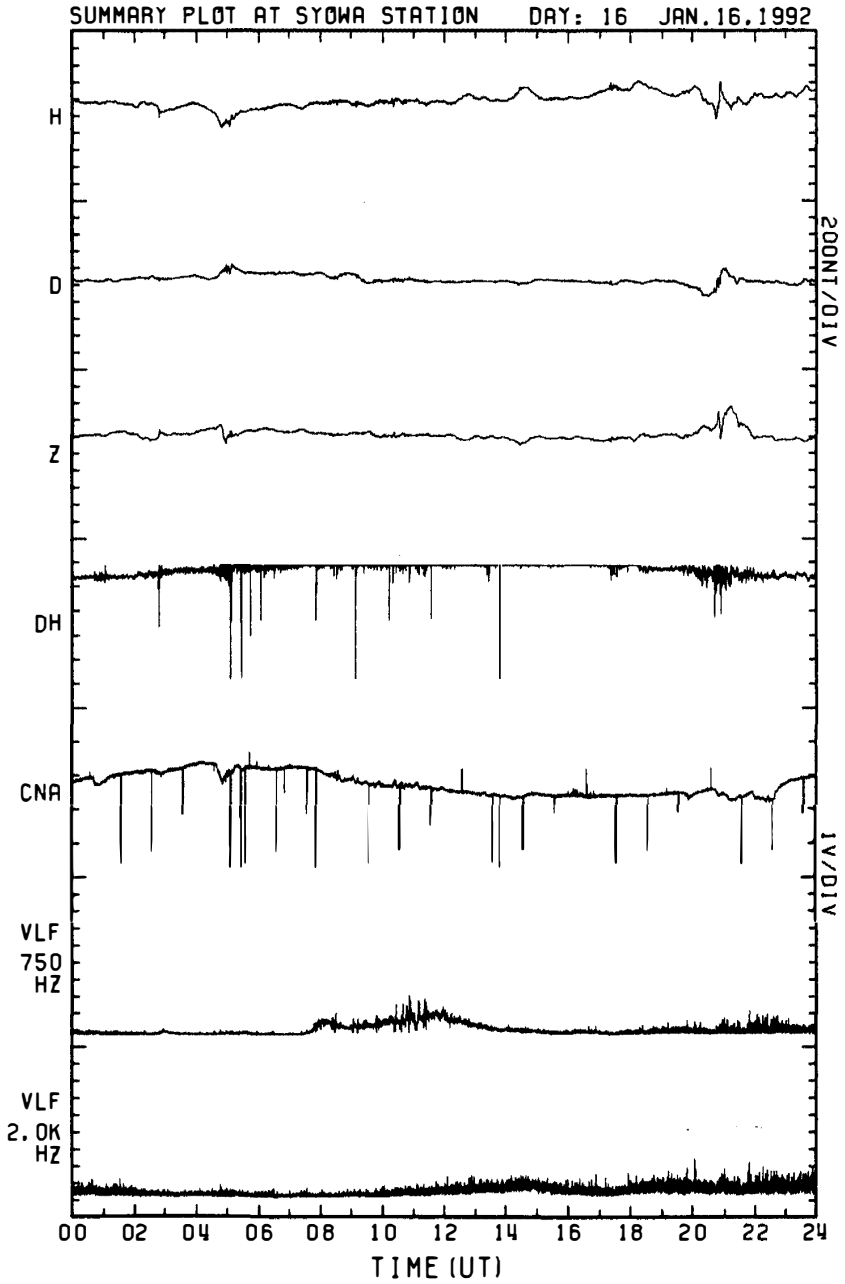

SUMMARY PLOT AT SYOWA STATION DAY: 11 JAN.11,1992
H
D
Z
200NT/DIV
DH
CNA
1V/DIV
VLF
750
HZ
VLF
2.0K
HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

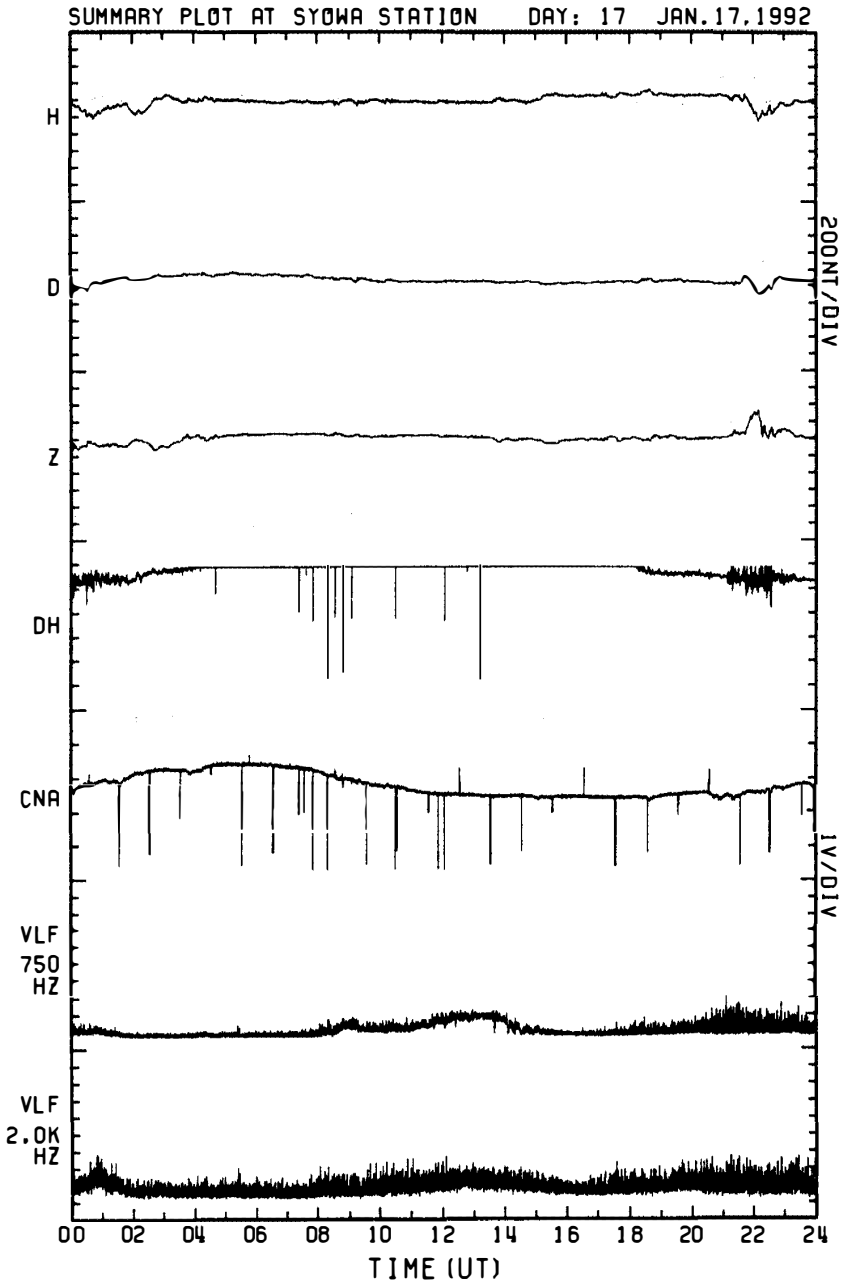

SUMMARY PLOT AT SYOWA STATION DAY: 12 JAN.12,1992
H
D
Z
200NT/DIV
DH
CNA
1V/DIV
VLF
750
HZ
VLF
2.0K
HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

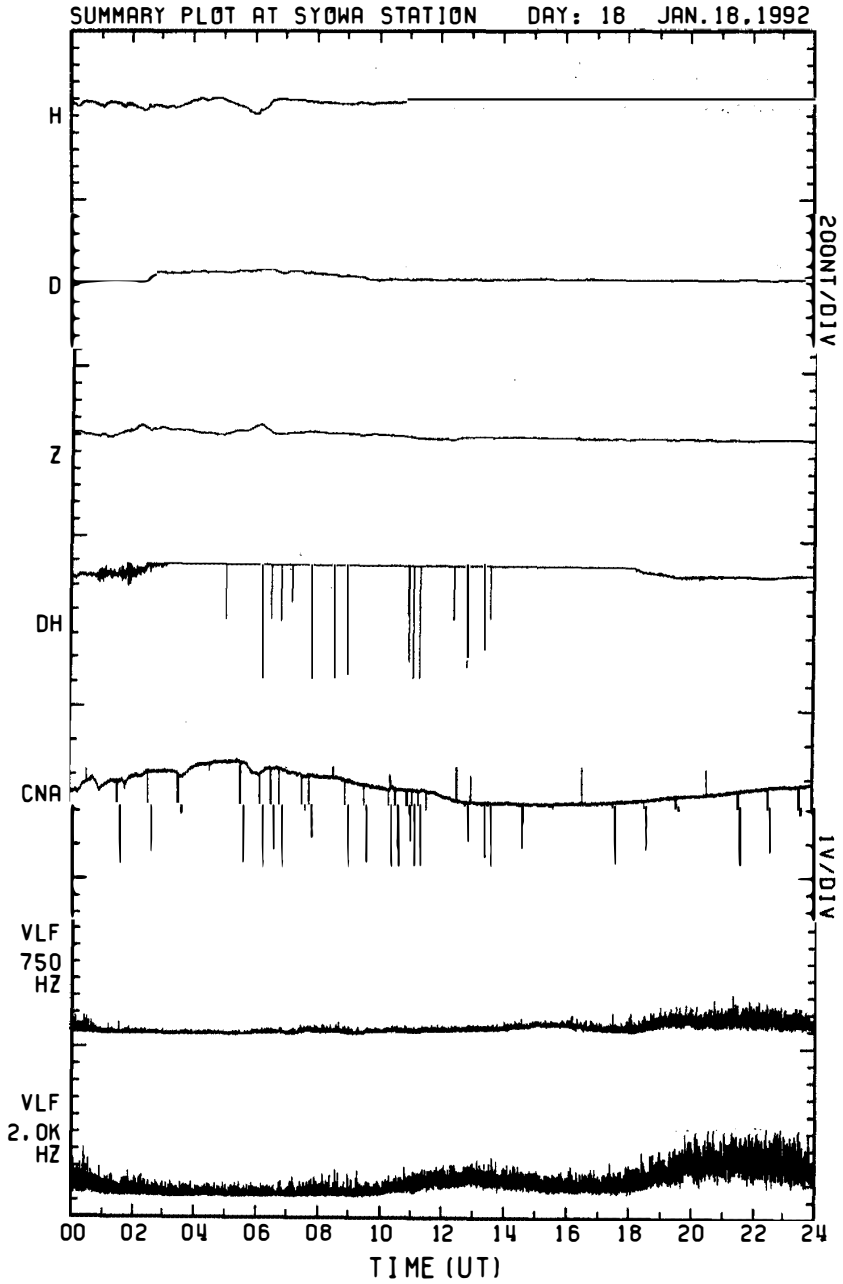

SUMMARY PLOT AT SYOWA STATION DAY: 13 JAN.13.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

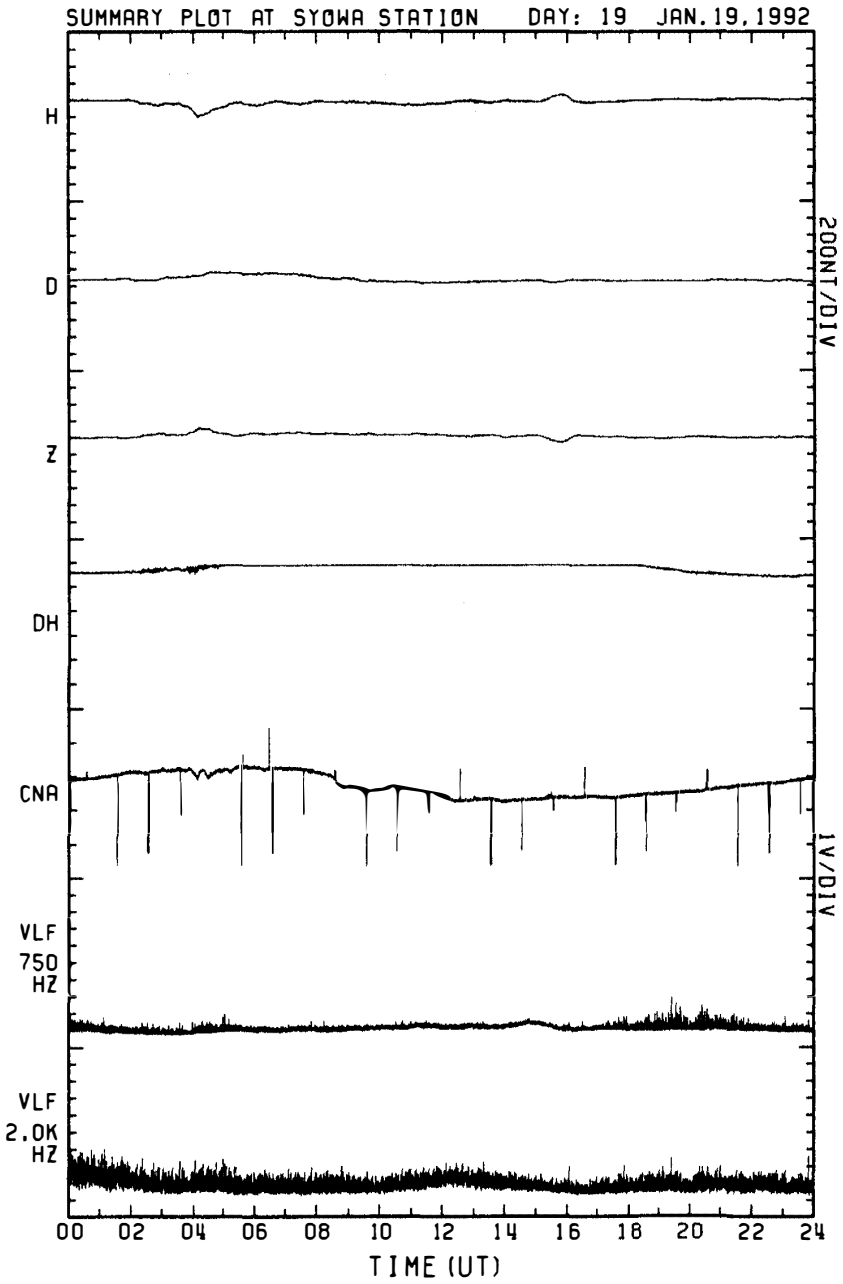

SUMMARY PLOT AT SYOWA STATION DAY: 14 JAN.14.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

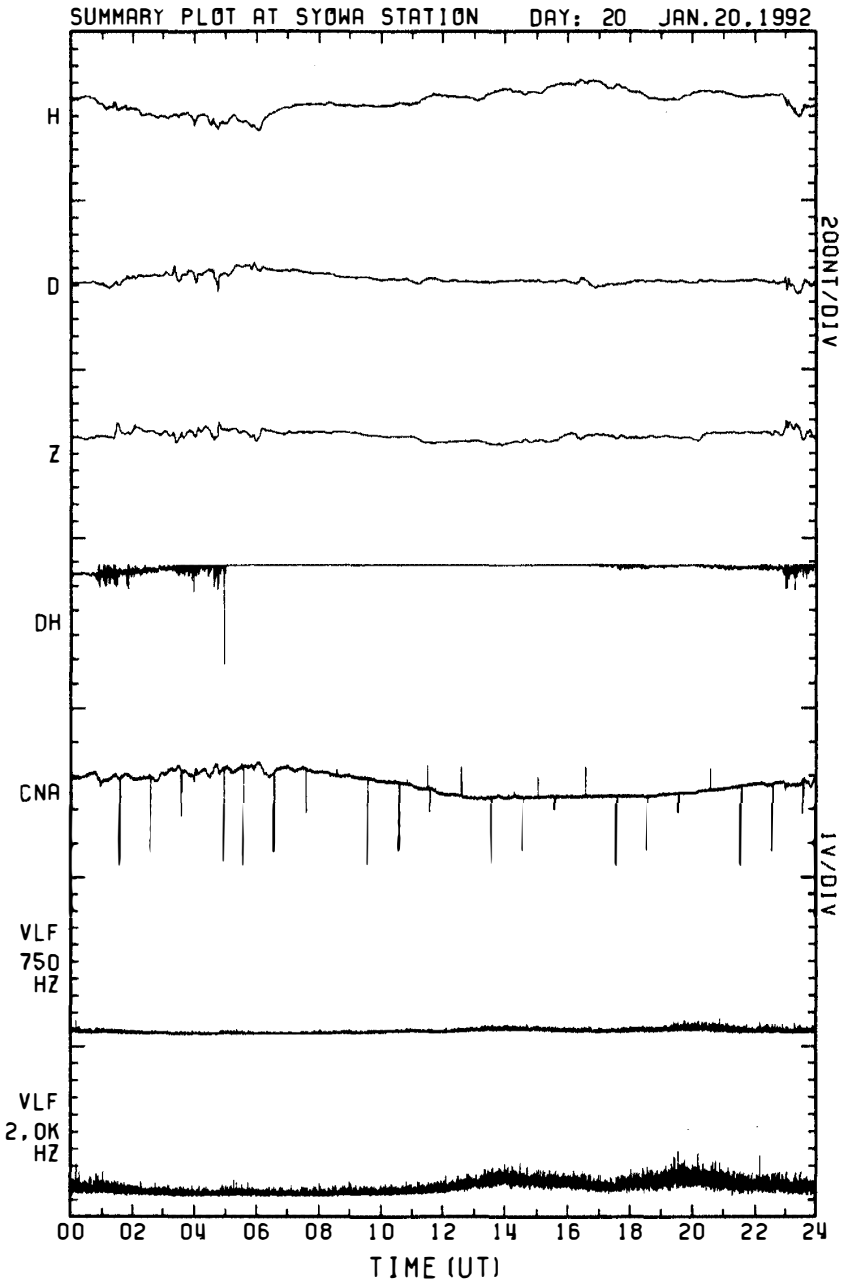

SUMMARY PLOT AT SYOWA STATION DAY: 15 JAN.15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

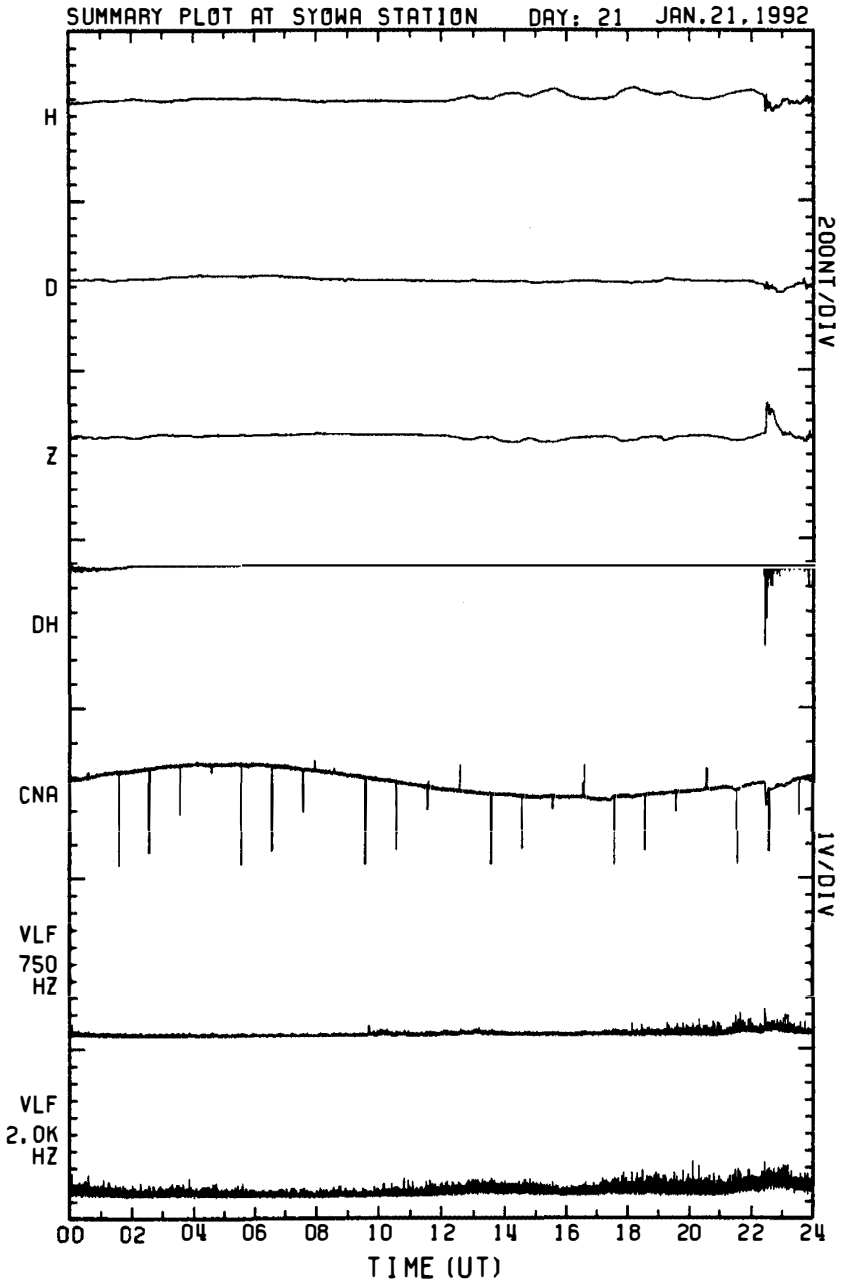

SUMMARY PLOT AT SYOWA STATION DAY: 16 JAN.16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

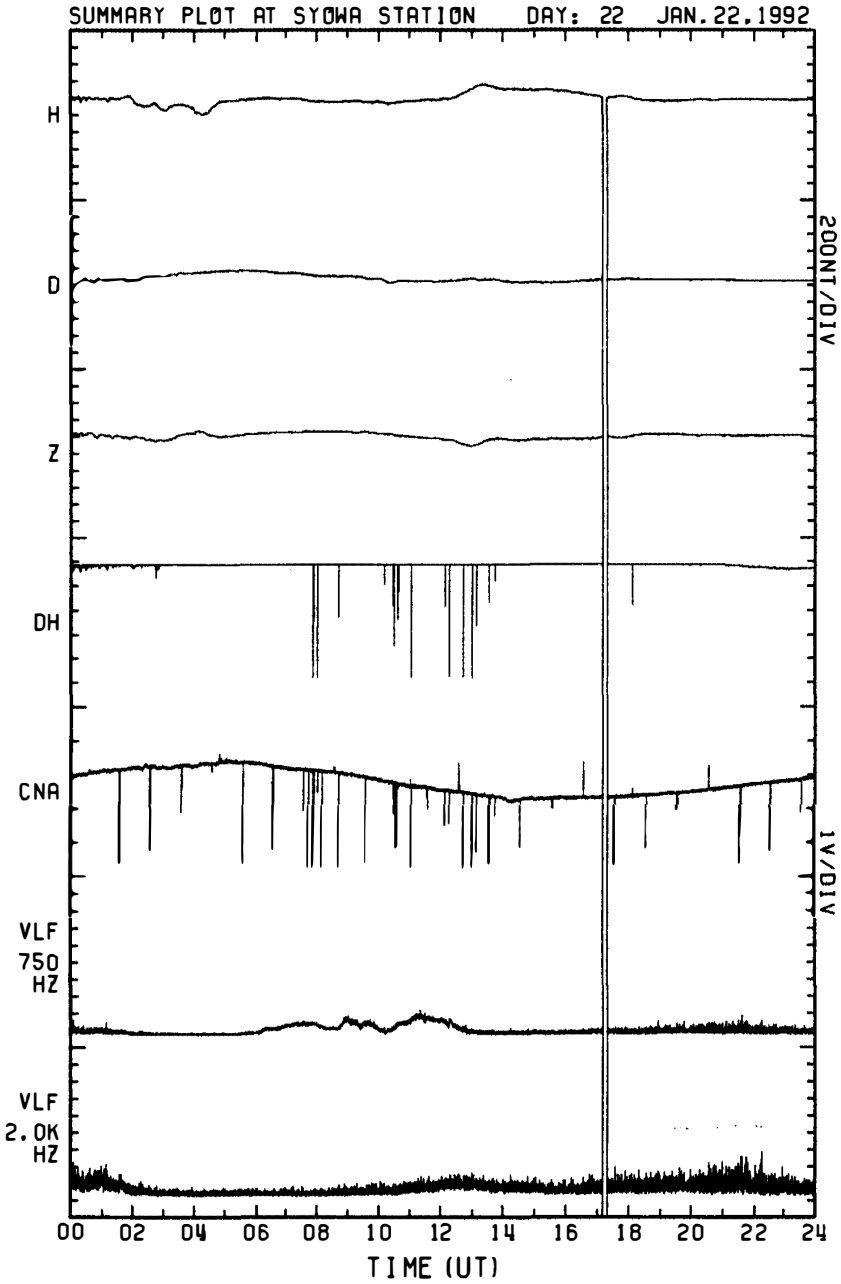

SUMMARY PLOT AT SYOWA STATION DAY: 17 JAN.17.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

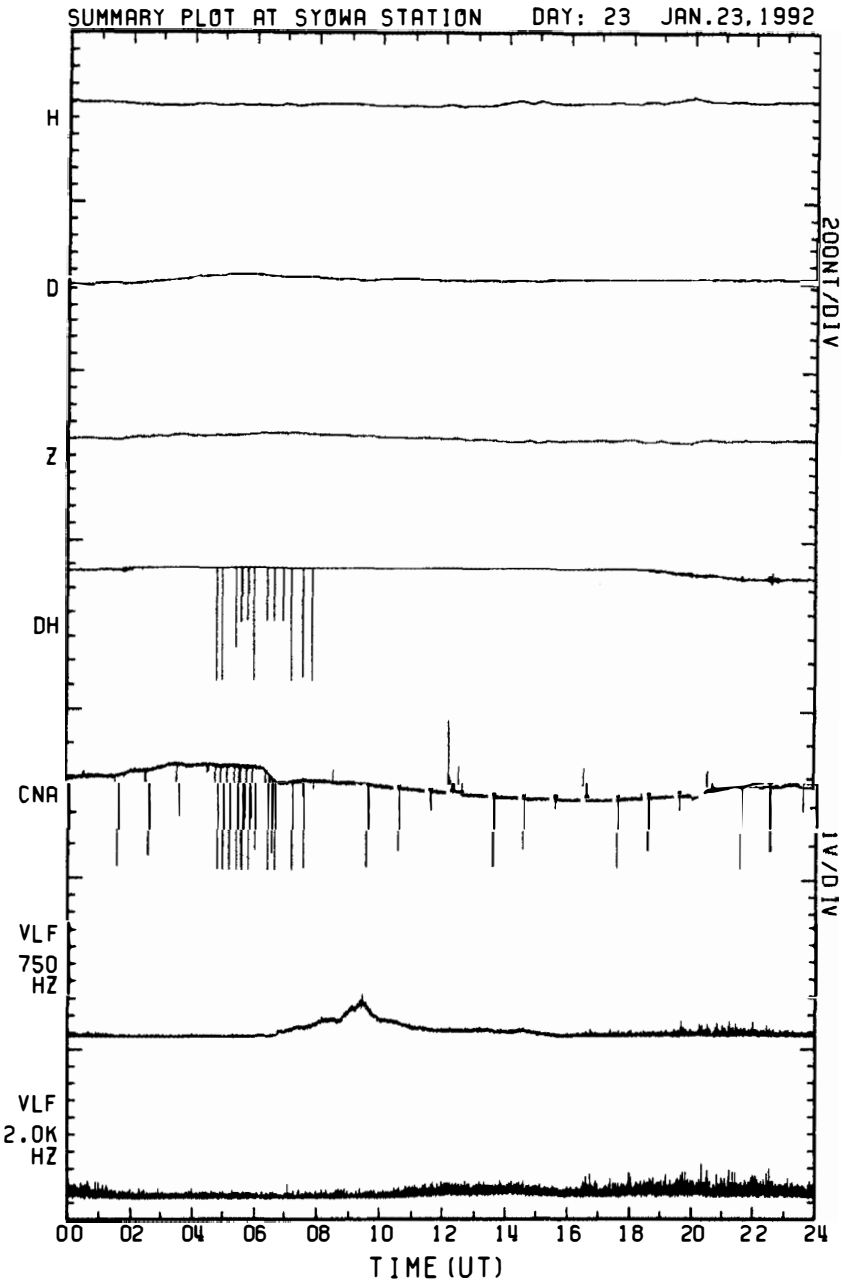

SUMMARY PLOT AT SYOWA STATION DAY: 18 JAN.18.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

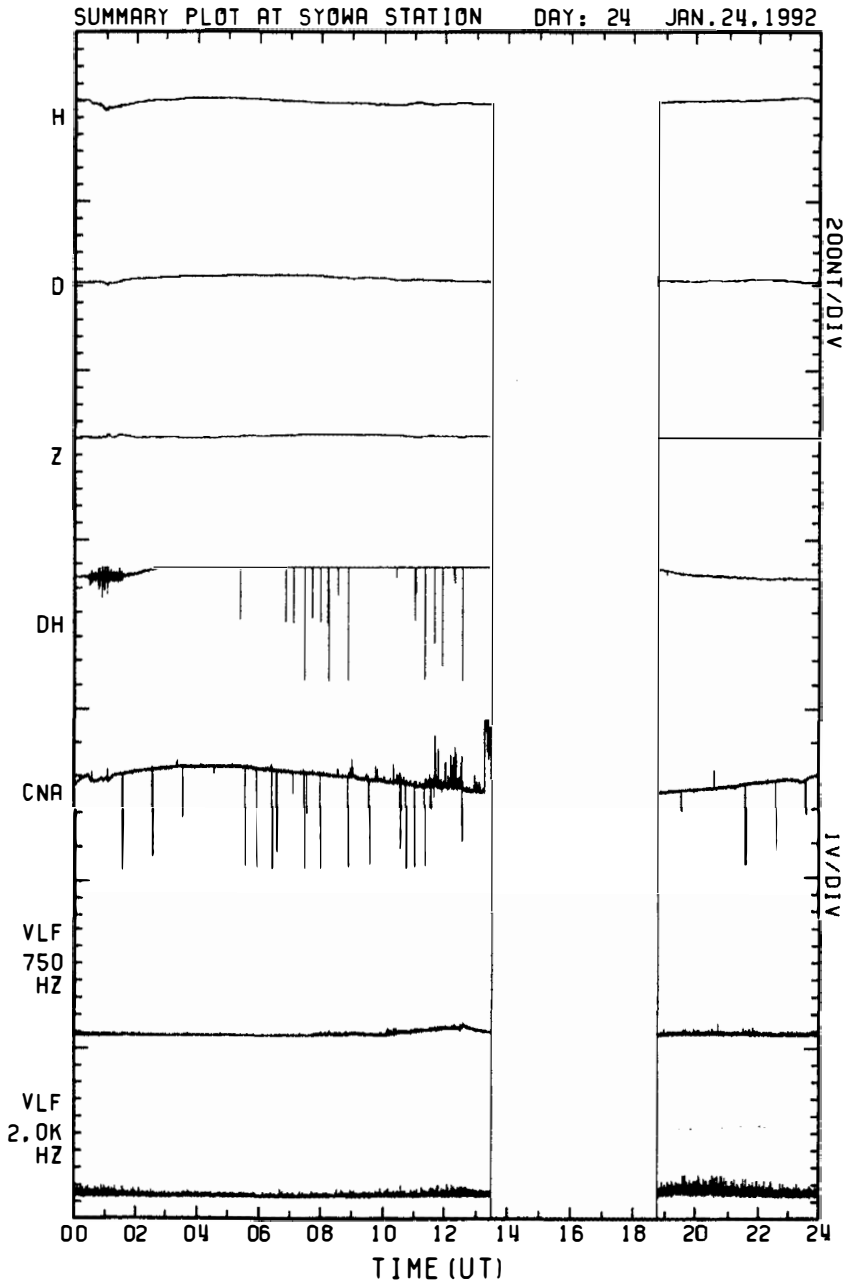

SUMMARY PLOT AT SYOWA STATION DAY: 19 JAN.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

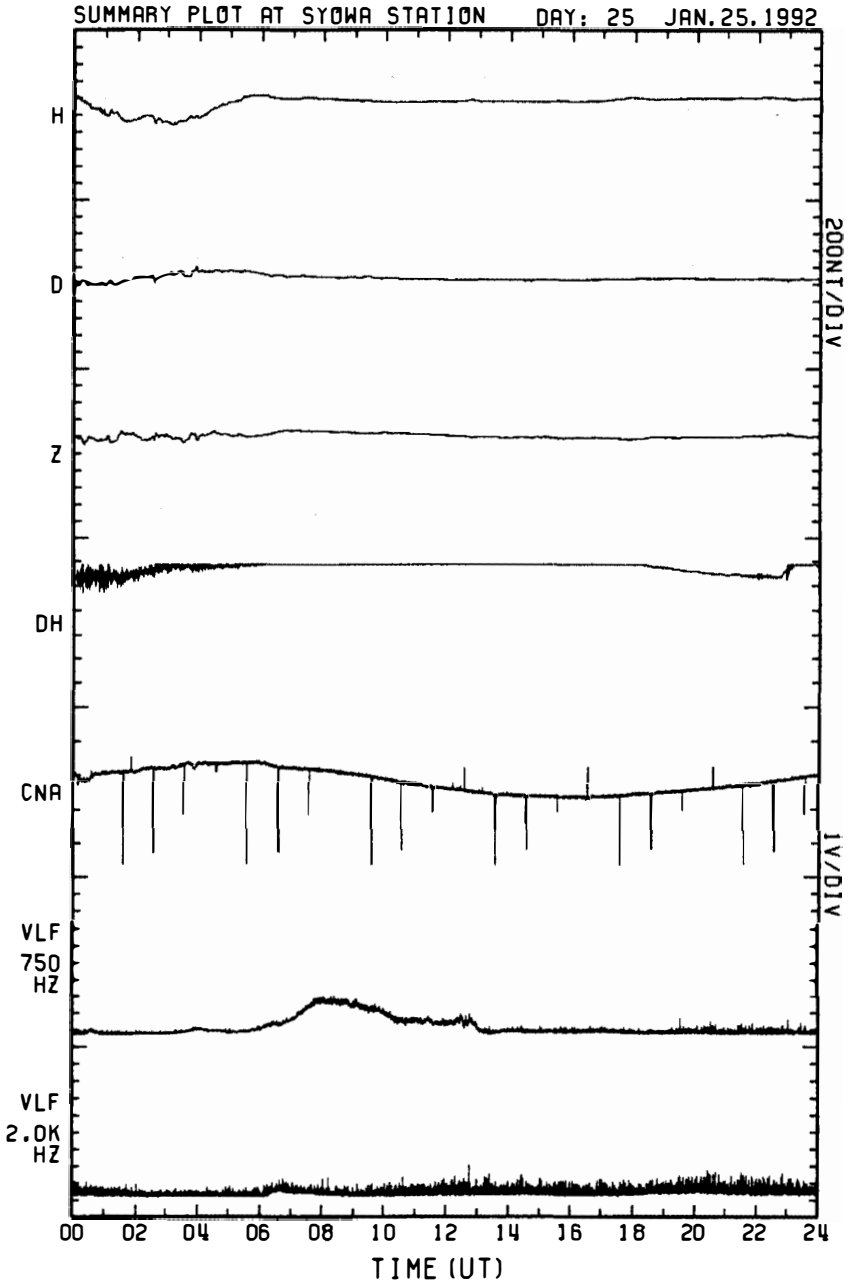

SUMMARY PLOT AT SYOWA STATION DAY: 20 JAN.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

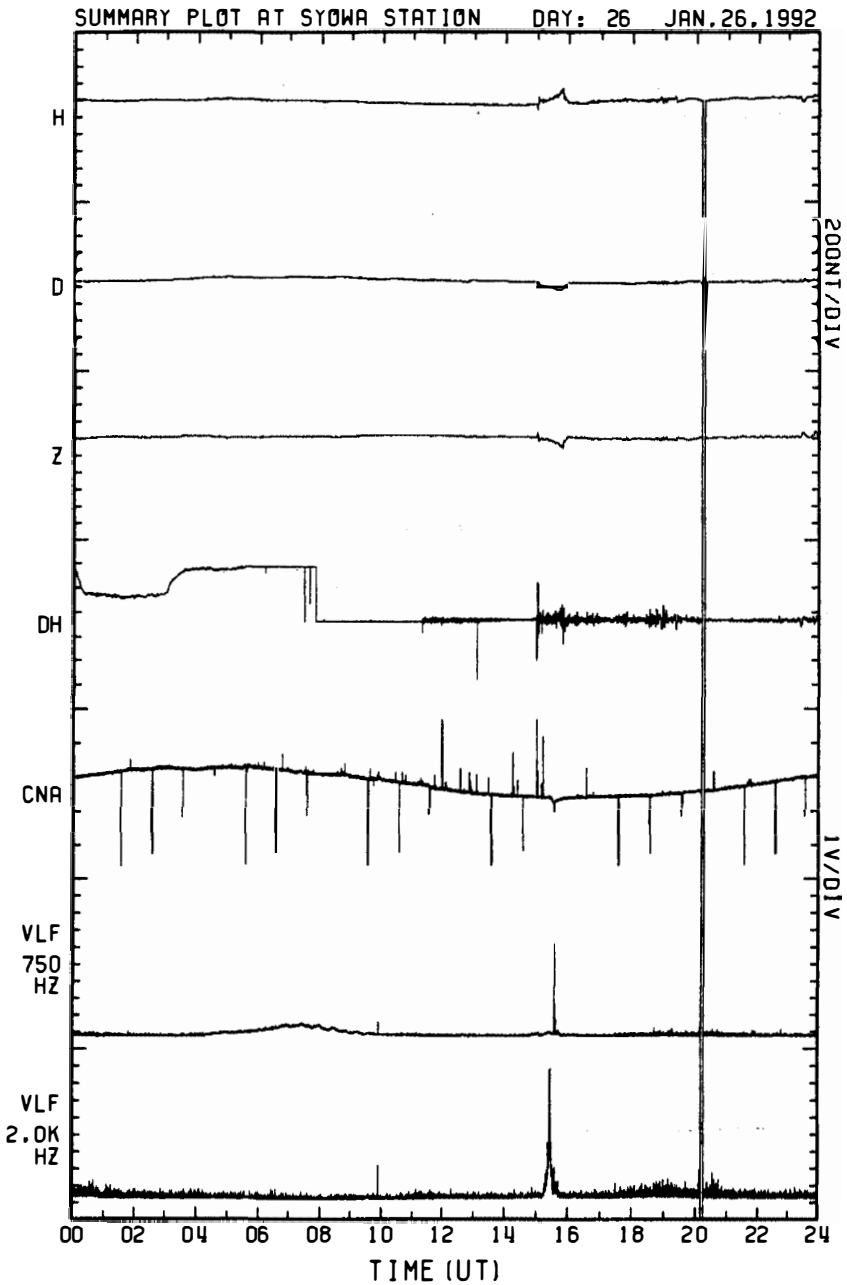

SUMMARY PLOT AT SYOWA STATION DAY: 21 JAN.21,1992
H
D
Z
200NT/DIV
DH
CNA
1V/DIV
VLF
750
HZ
VLF
2.0K
HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

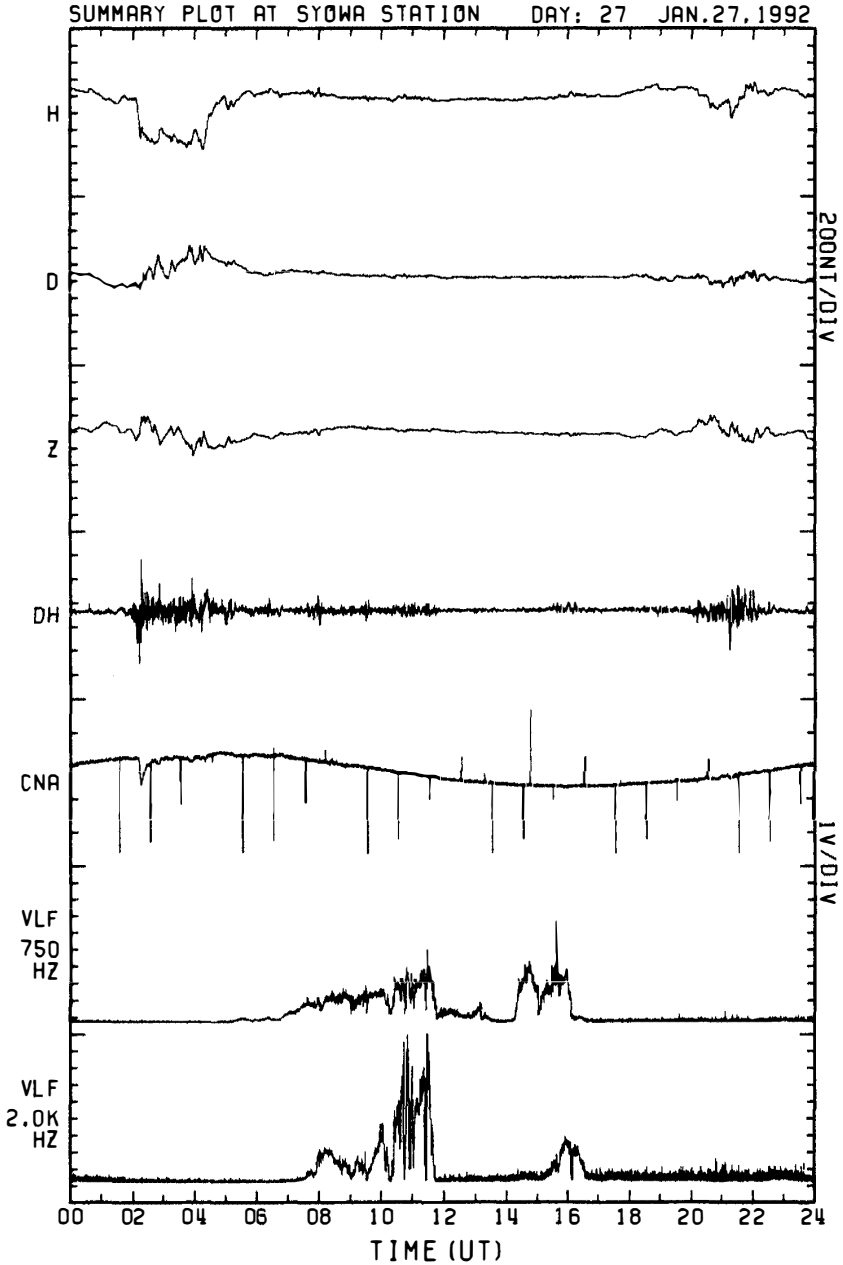

SUMMARY PLOT AT SYOWA STATION DAY: 22 JAN.22,1992
H
D
Z
200NT/DIV
DH
CNA
1V/DIV
VLF
750
HZ
VLF
2.0K
HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

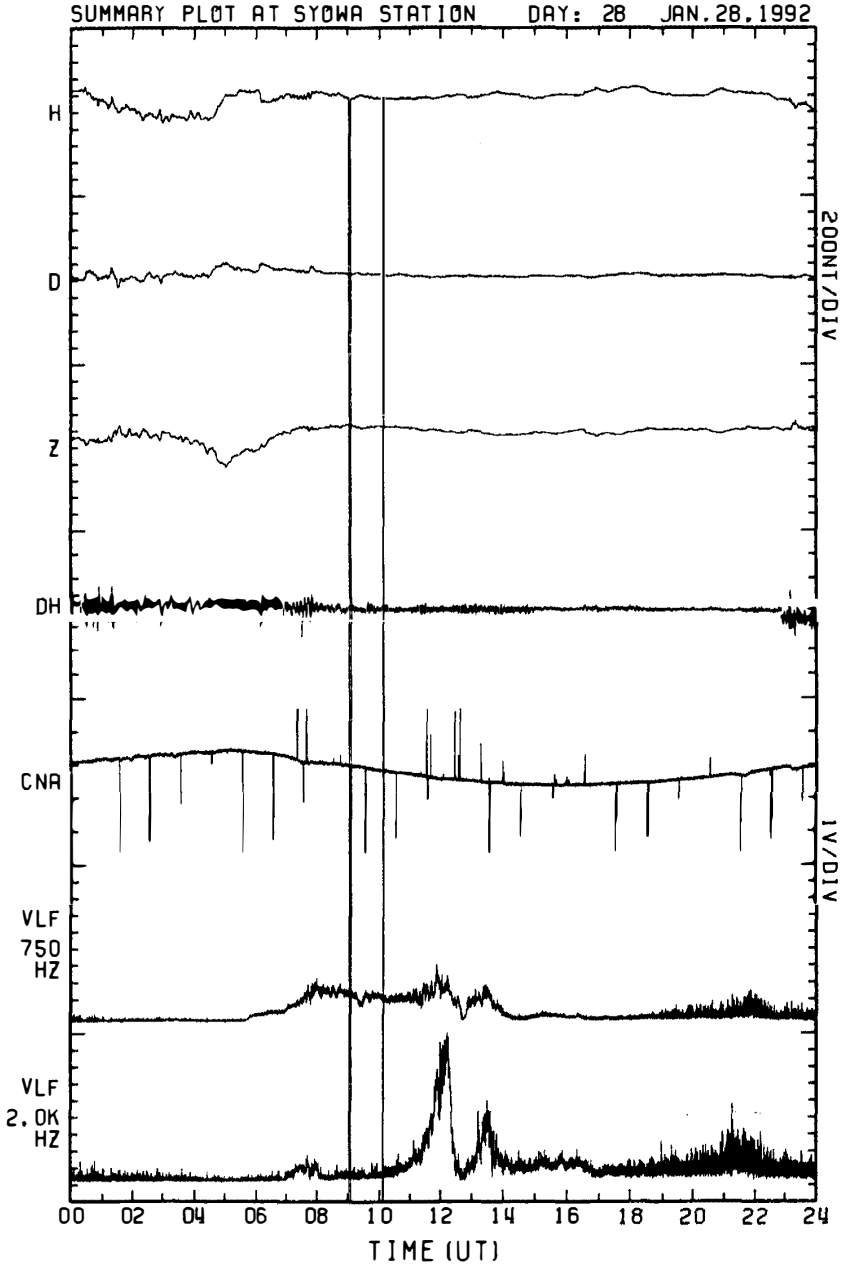

SUMMARY PLOT AT SYOWA STATION DAY: 23 JAN.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

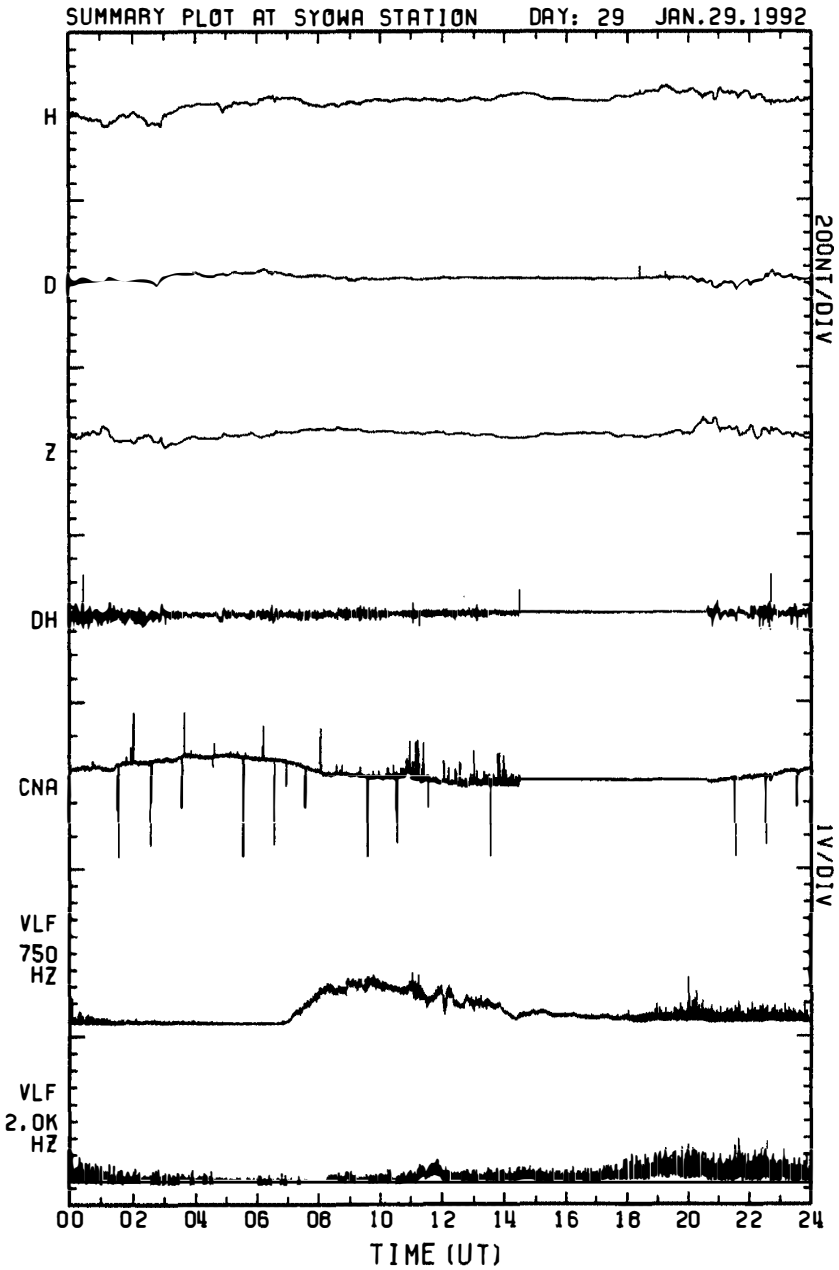

SUMMARY PLOT AT SYOWA STATION DAY: 24 JAN.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

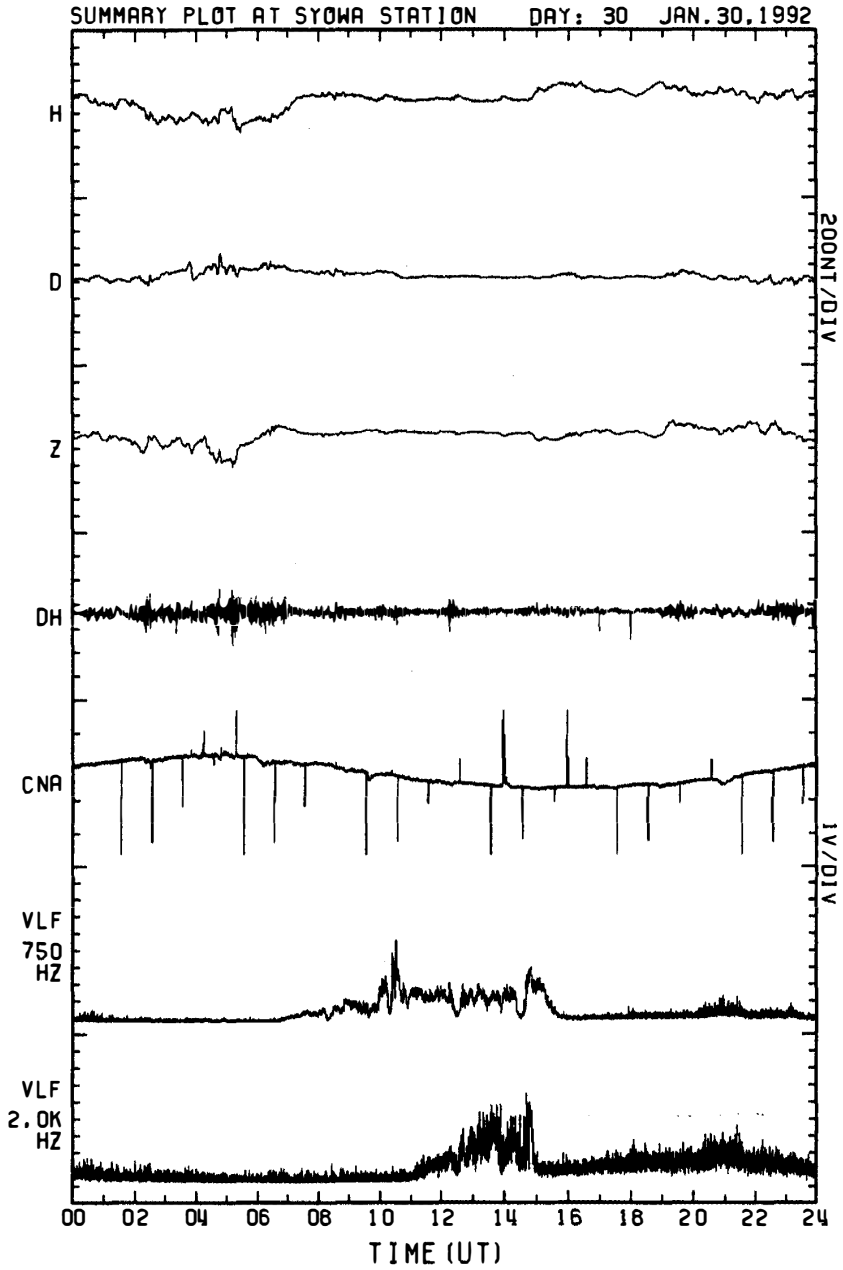

SUMMARY PLOT AT SYOWA STATION DAY: 25 JAN.25.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

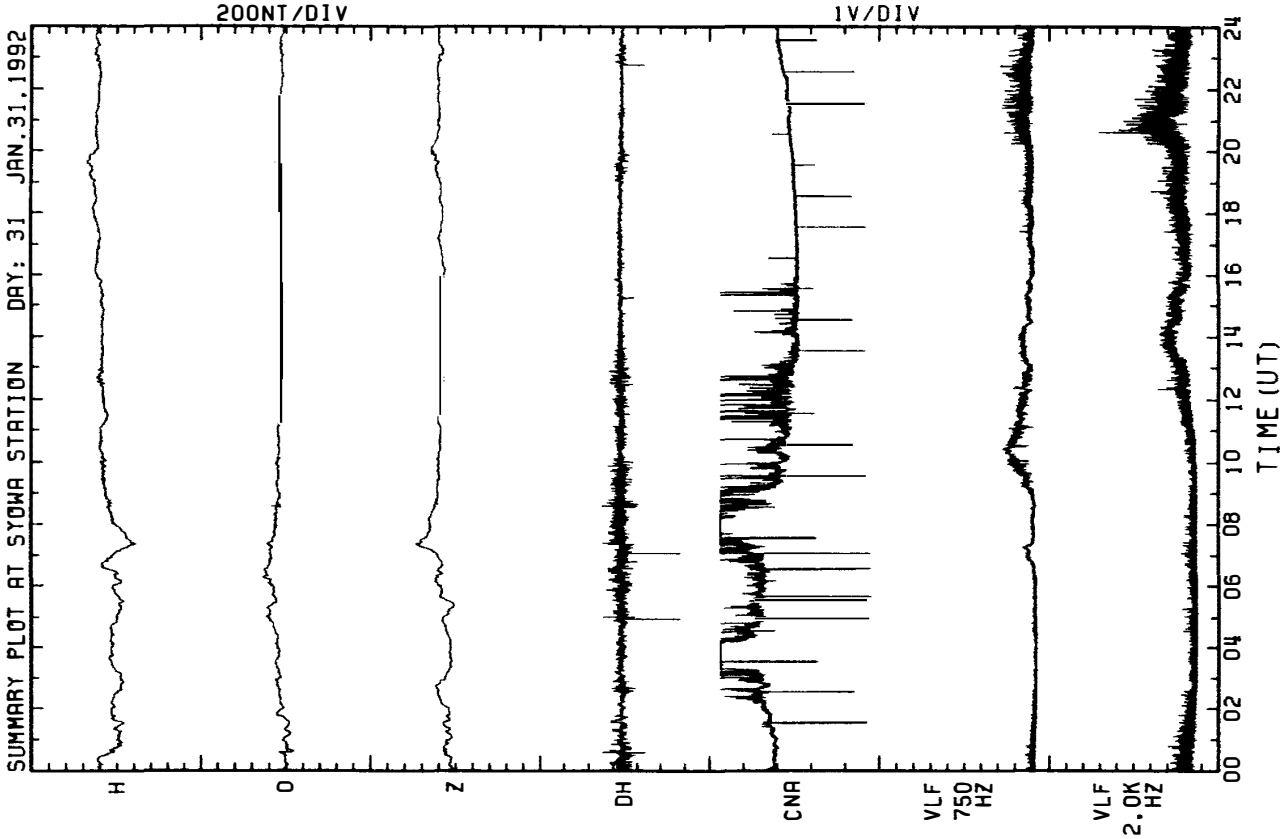

SUMMARY PLOT AT SYOWA STATION DAY: 26 JAN.26.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

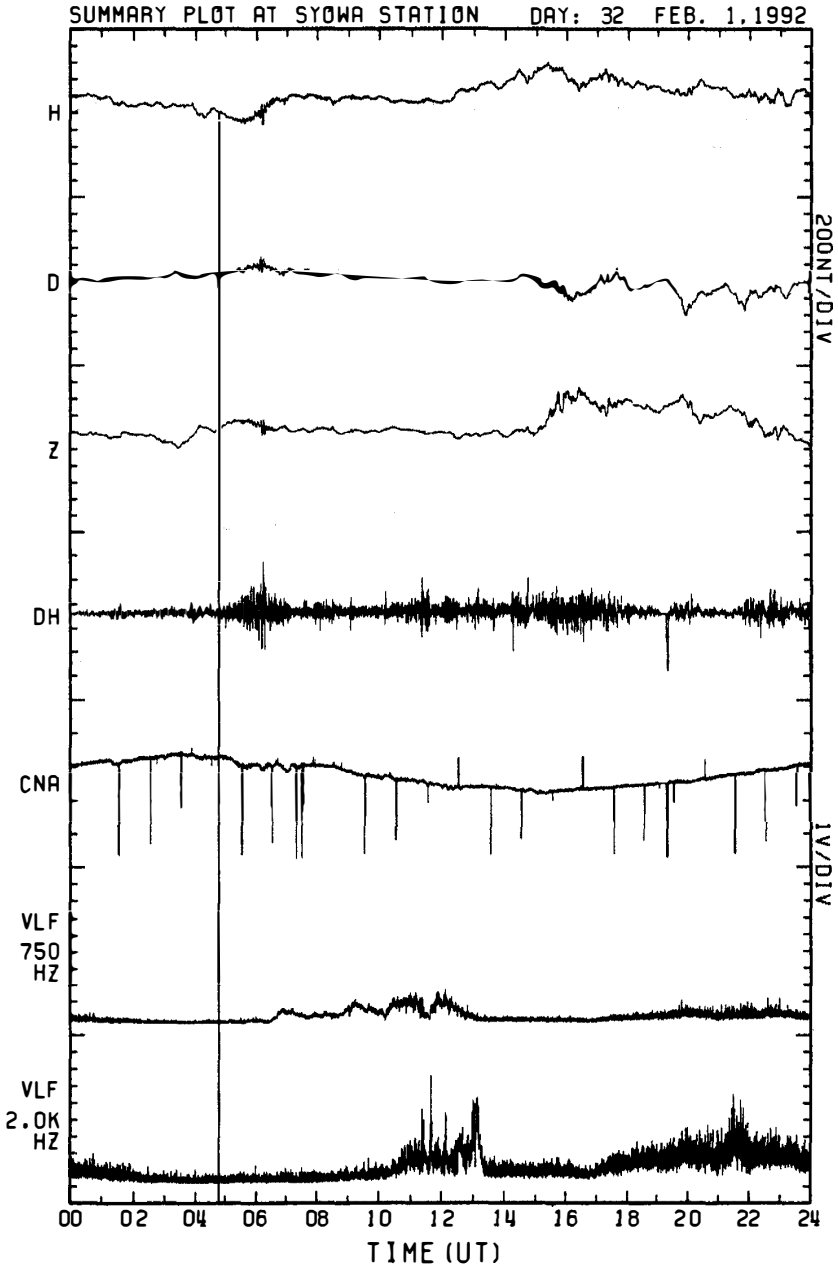

SUMMARY PLOT AT SYOWA STATION DAY: 27 JAN.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

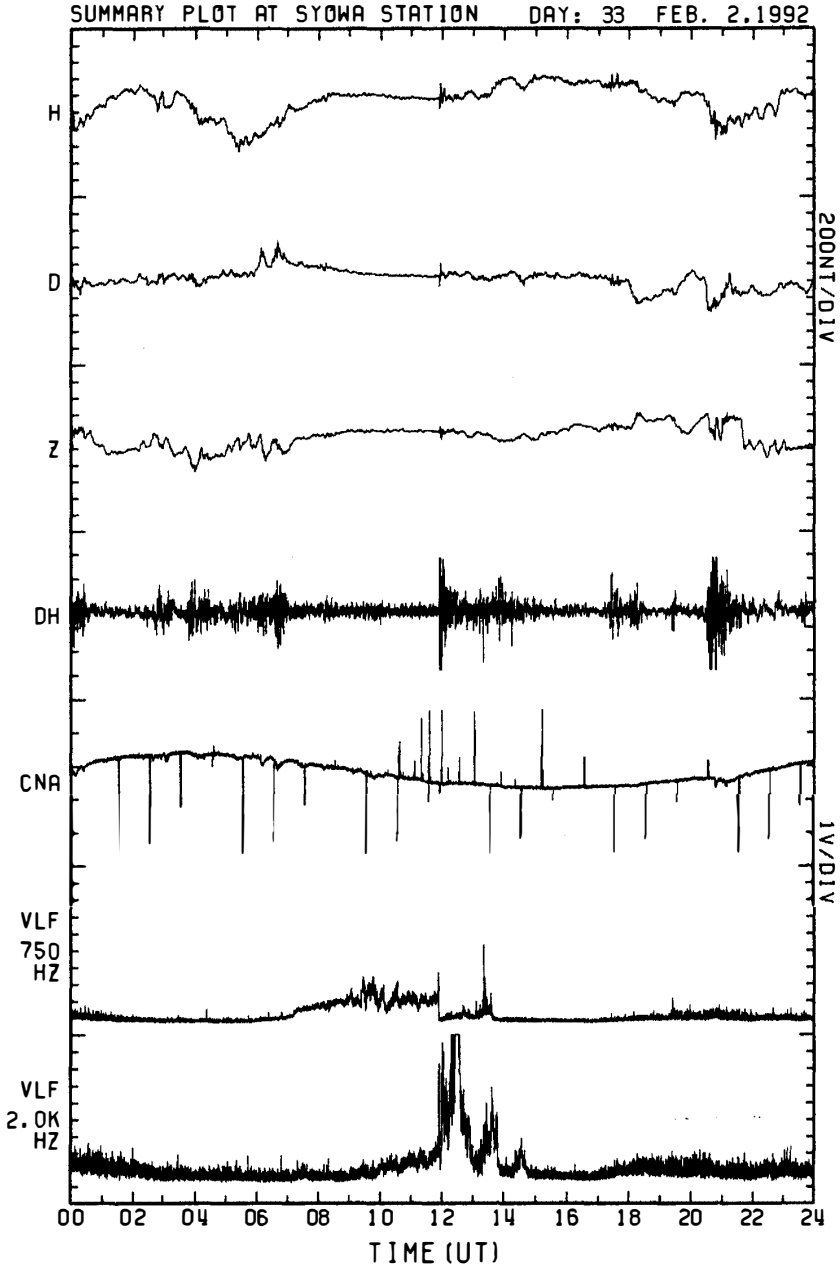

SUMMARY PLOT AT SYOWA STATION DAY: 28 JAN.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

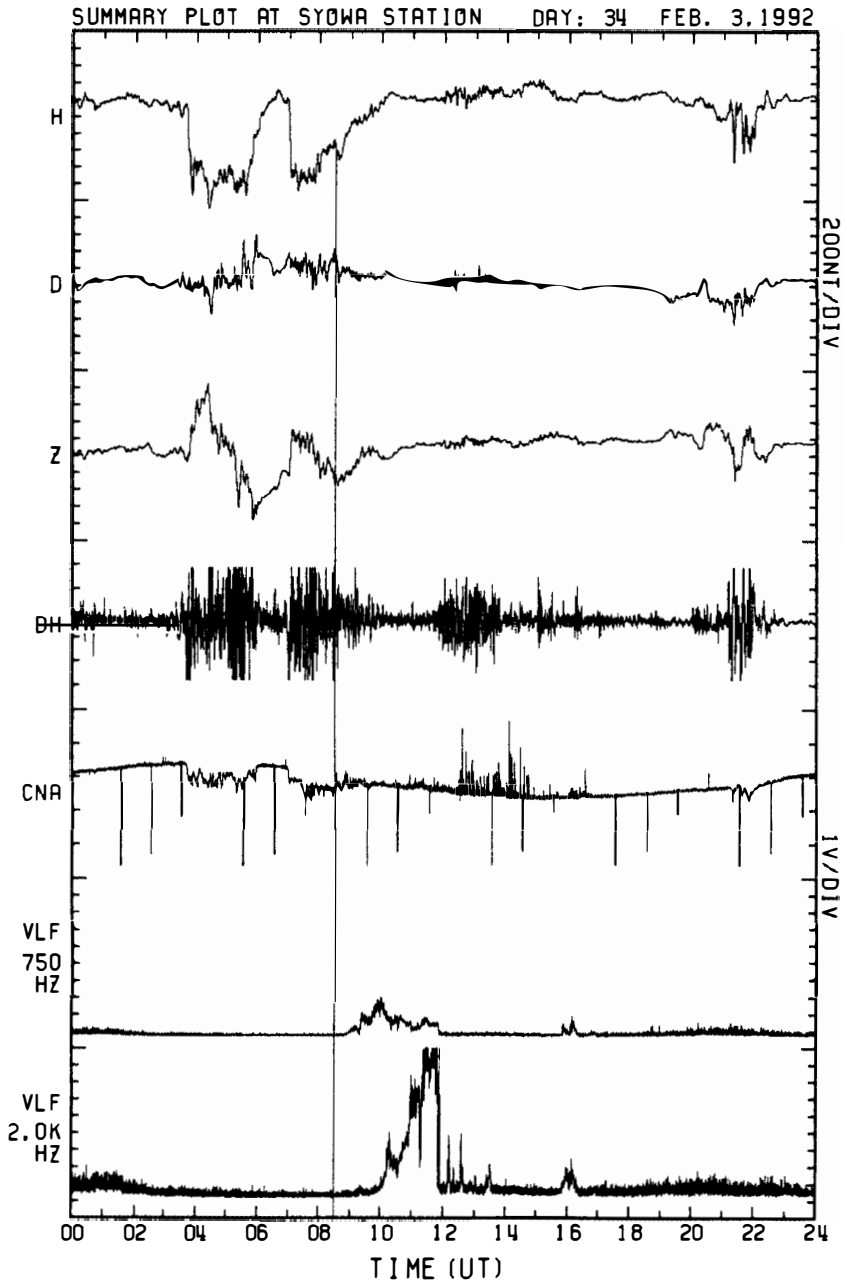

SUMMARY PLOT AT SYOWA STATION DAY: 29 JAN.29.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

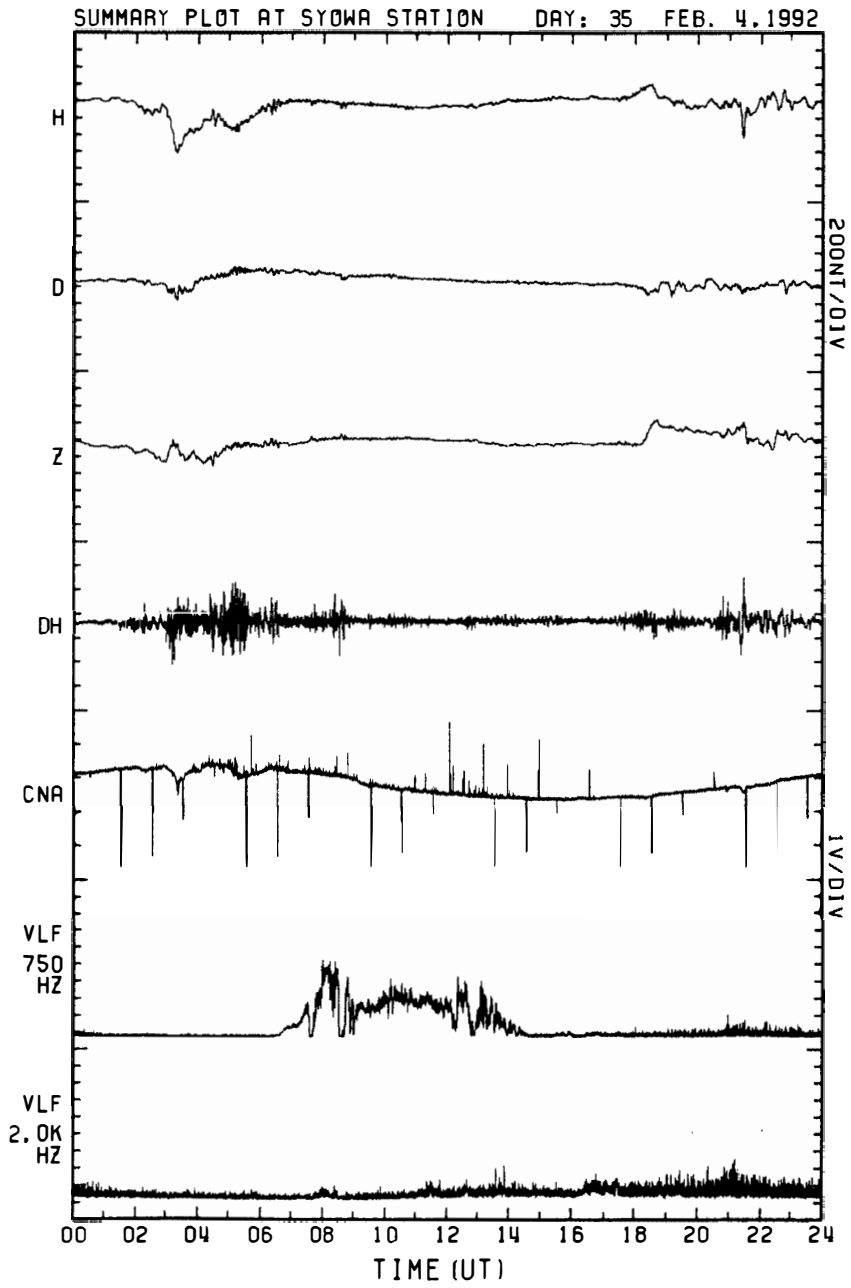

SUMMARY PLOT AT SYOWA STATION DAY: 30 JAN.30.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

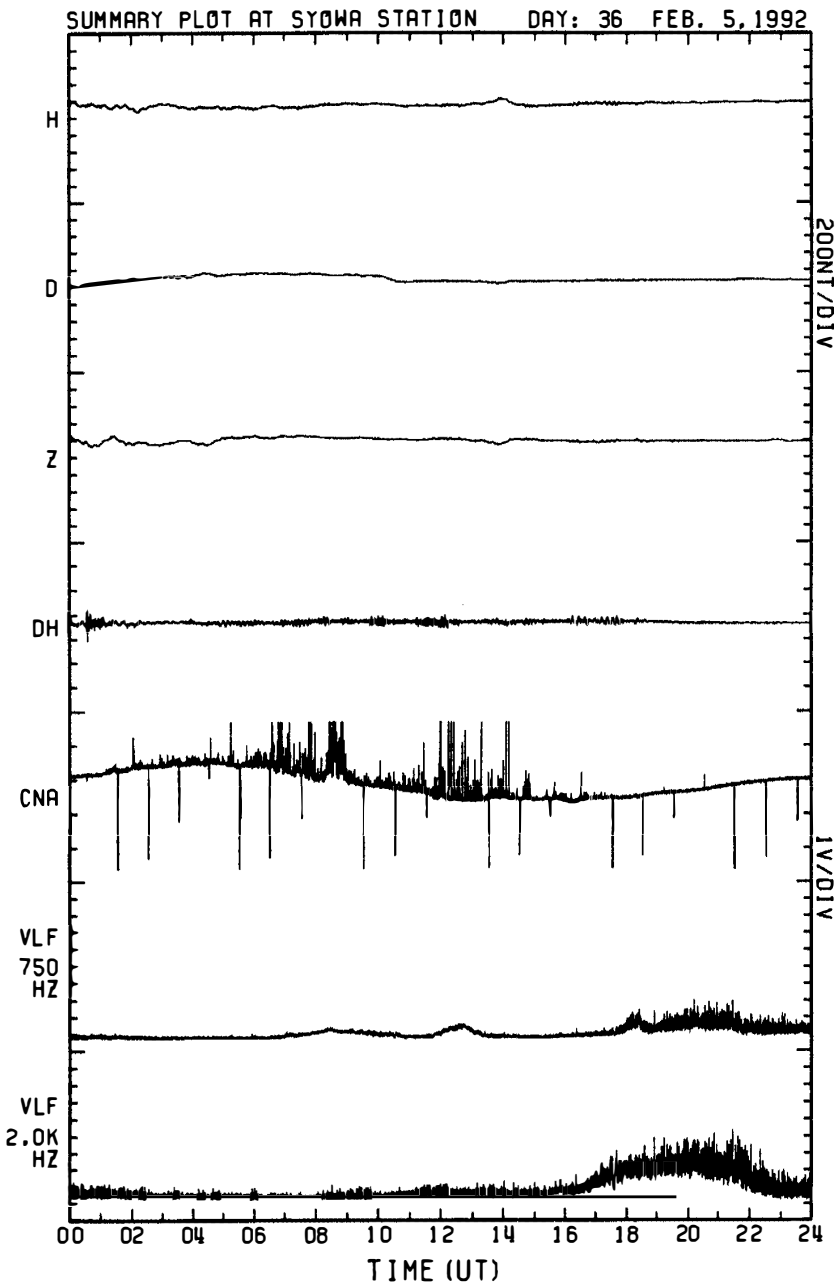

SUMMARY PLOT AT SYOWA STATION DAY: 31 JAN.31.1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

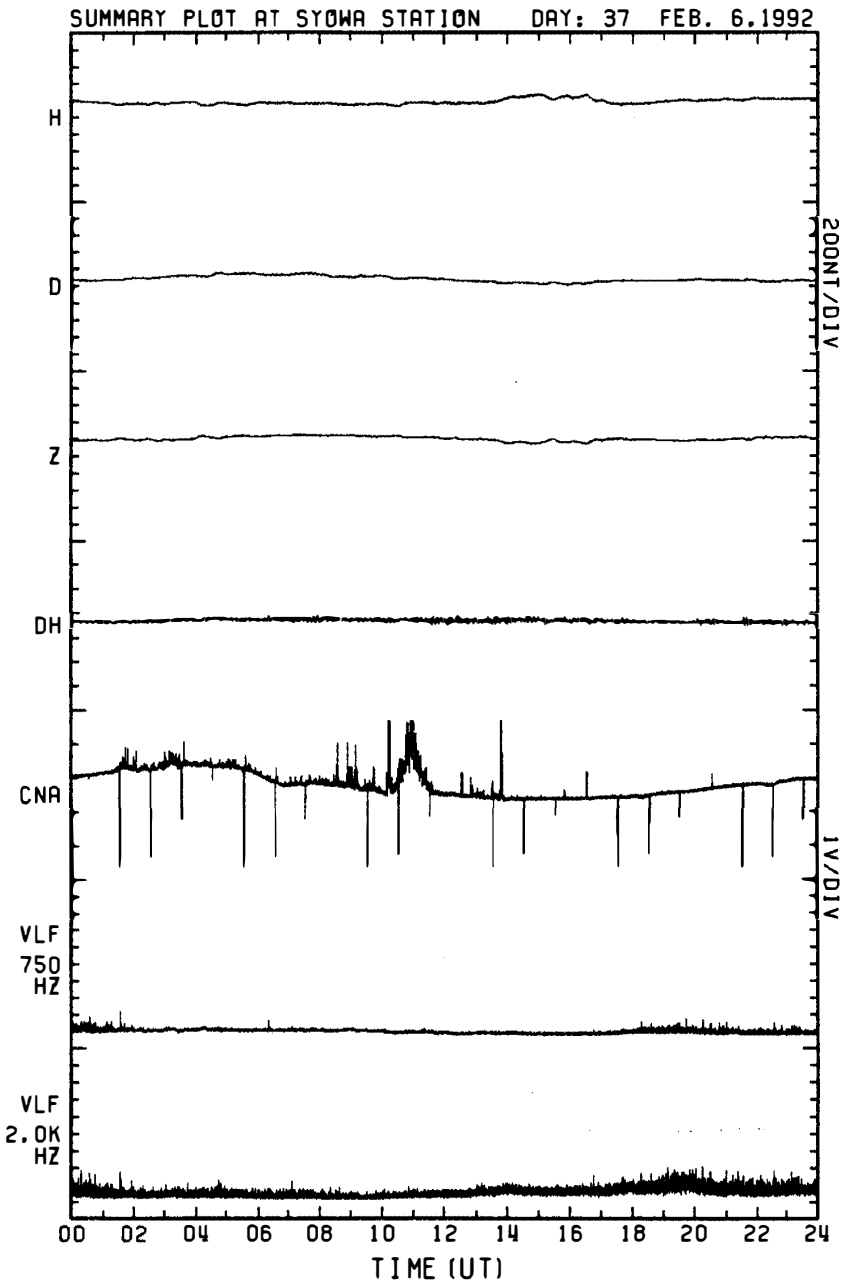

SUMMARY PLOT AT SYOWA STATION DAY: 32 FEB. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

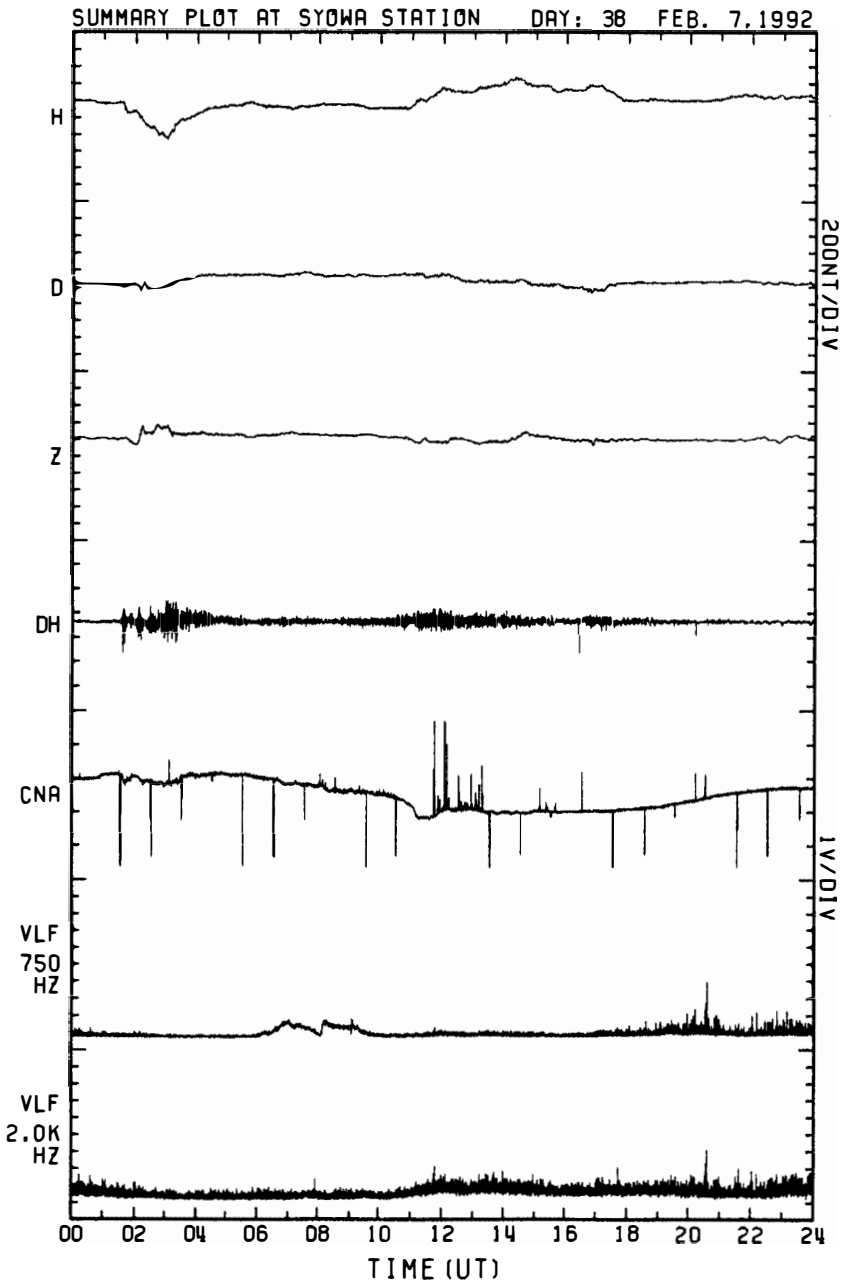

SUMMARY PLOT AT SYOWA STATION DAY: 33 FEB. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

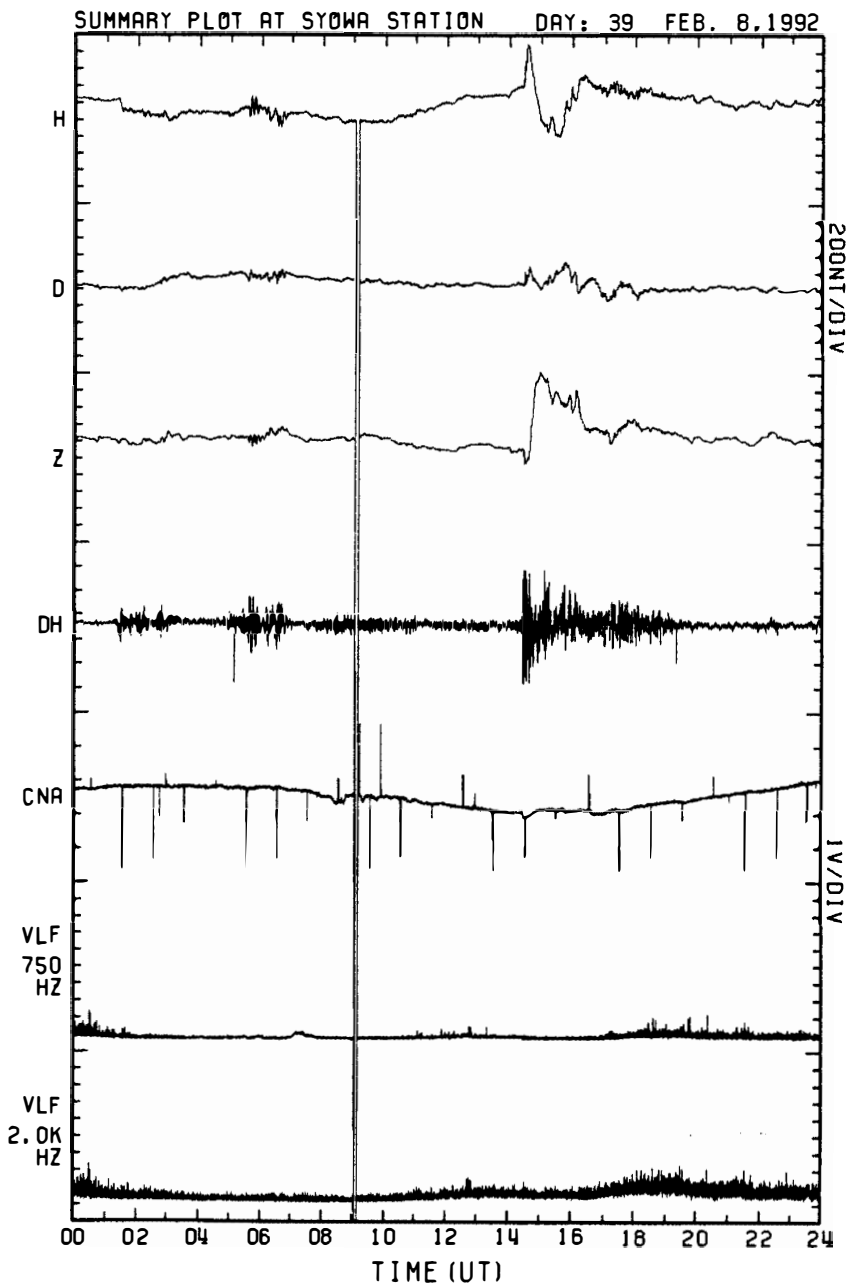

SUMMARY PLOT AT SYOWA STATION DAY: 34 FEB. 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

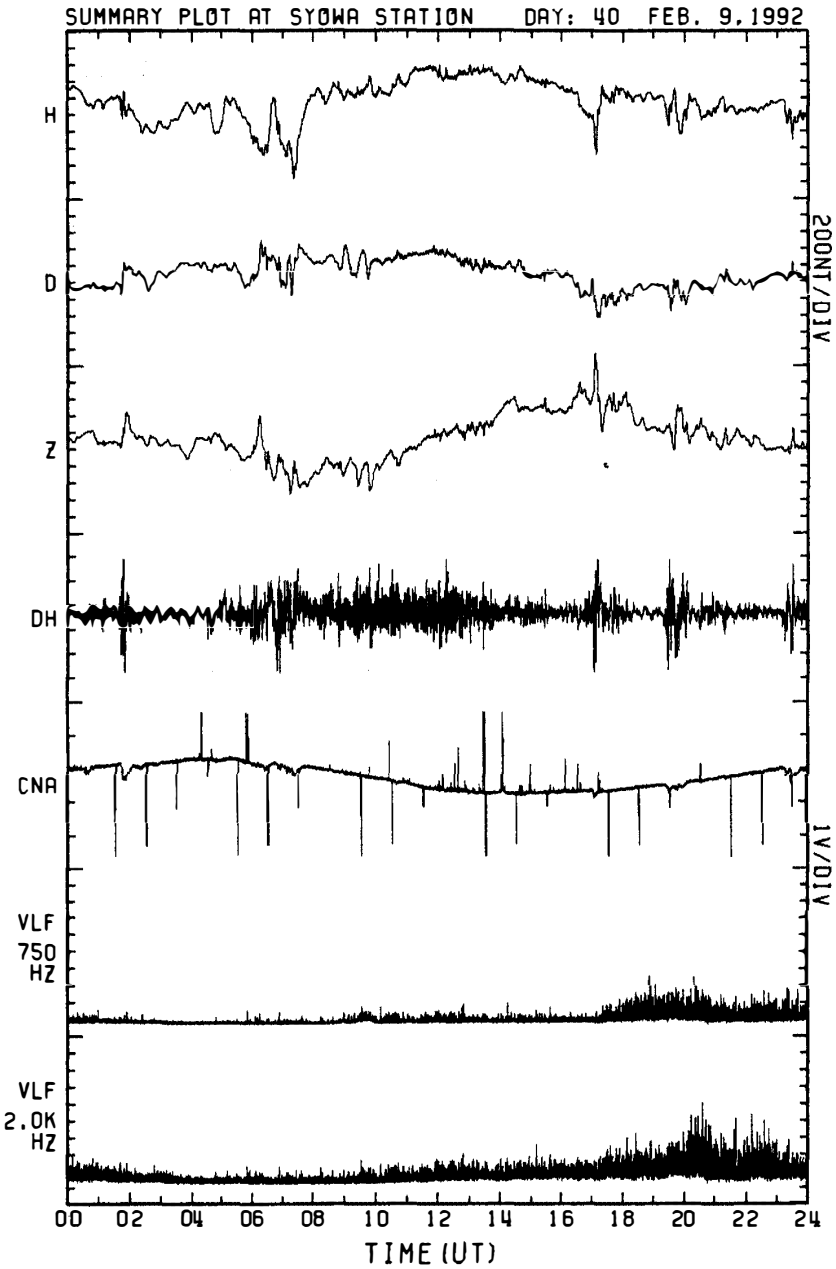

SUMMARY PLOT AT SYOWA STATION DAY: 35 FEB. 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

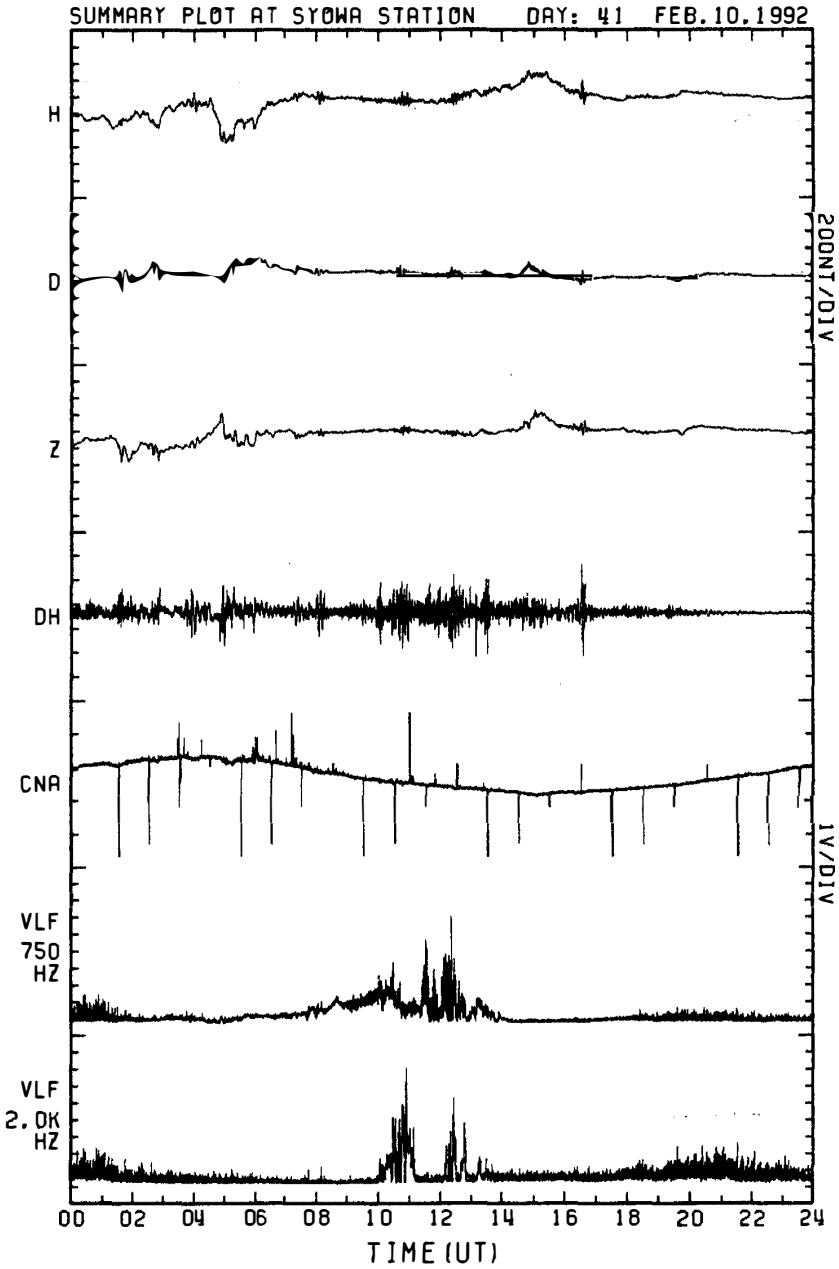

SUMMARY PLOT AT SYOWA STATION DAY: 36 FEB. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

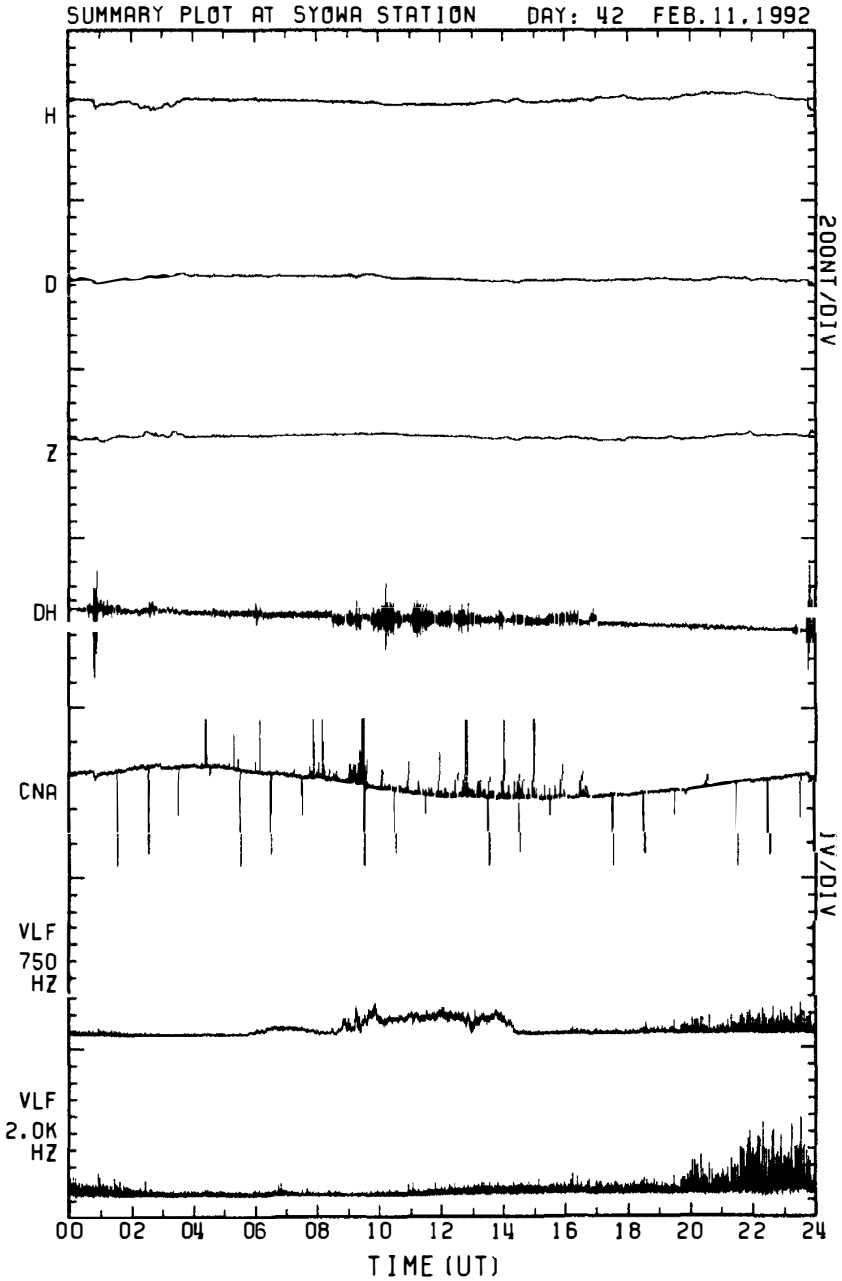

SUMMARY PLOT AT SYOWA STATION DAY: 37 FEB. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

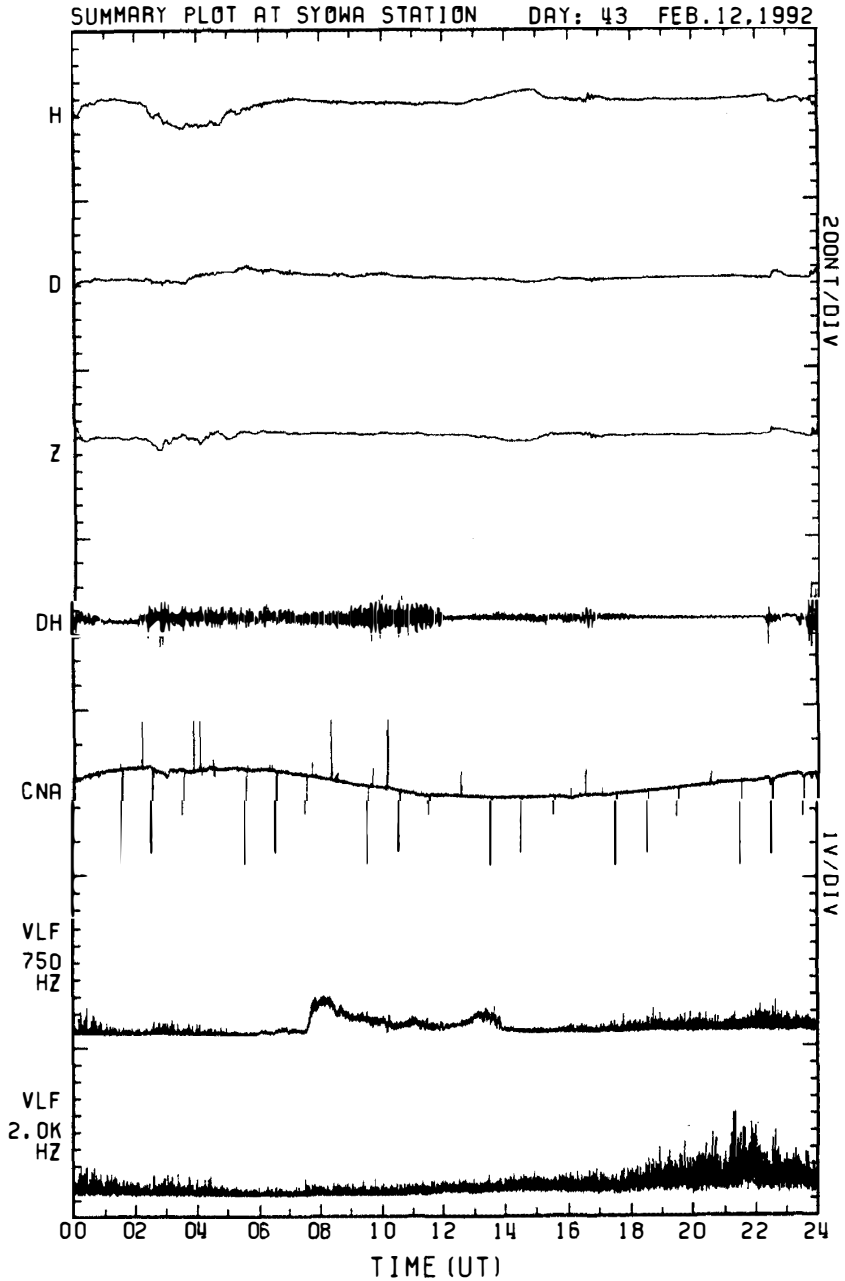

SUMMARY PLOT AT SYOWA STATION DAY: 38 FEB. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

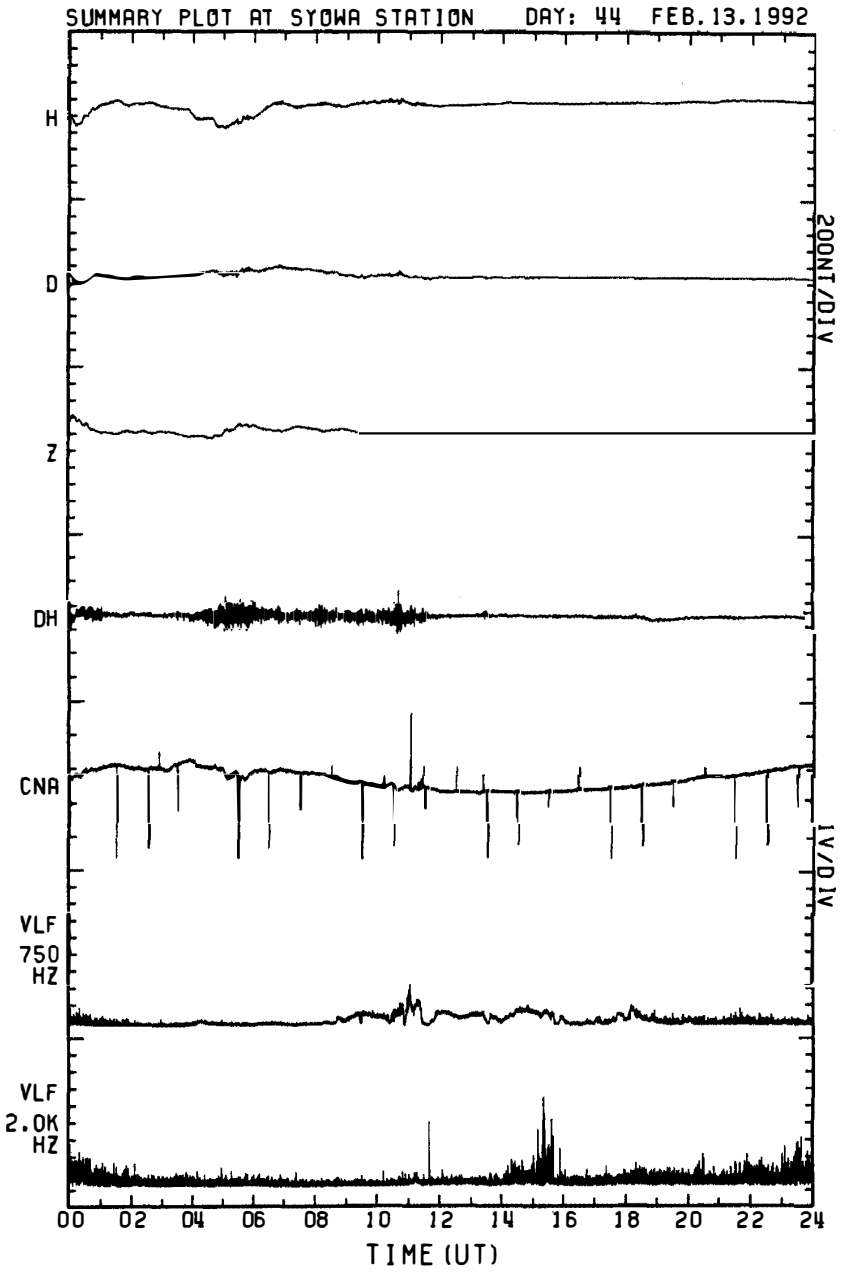

SUMMARY PLOT AT SYOWA STATION DAY: 39 FEB. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

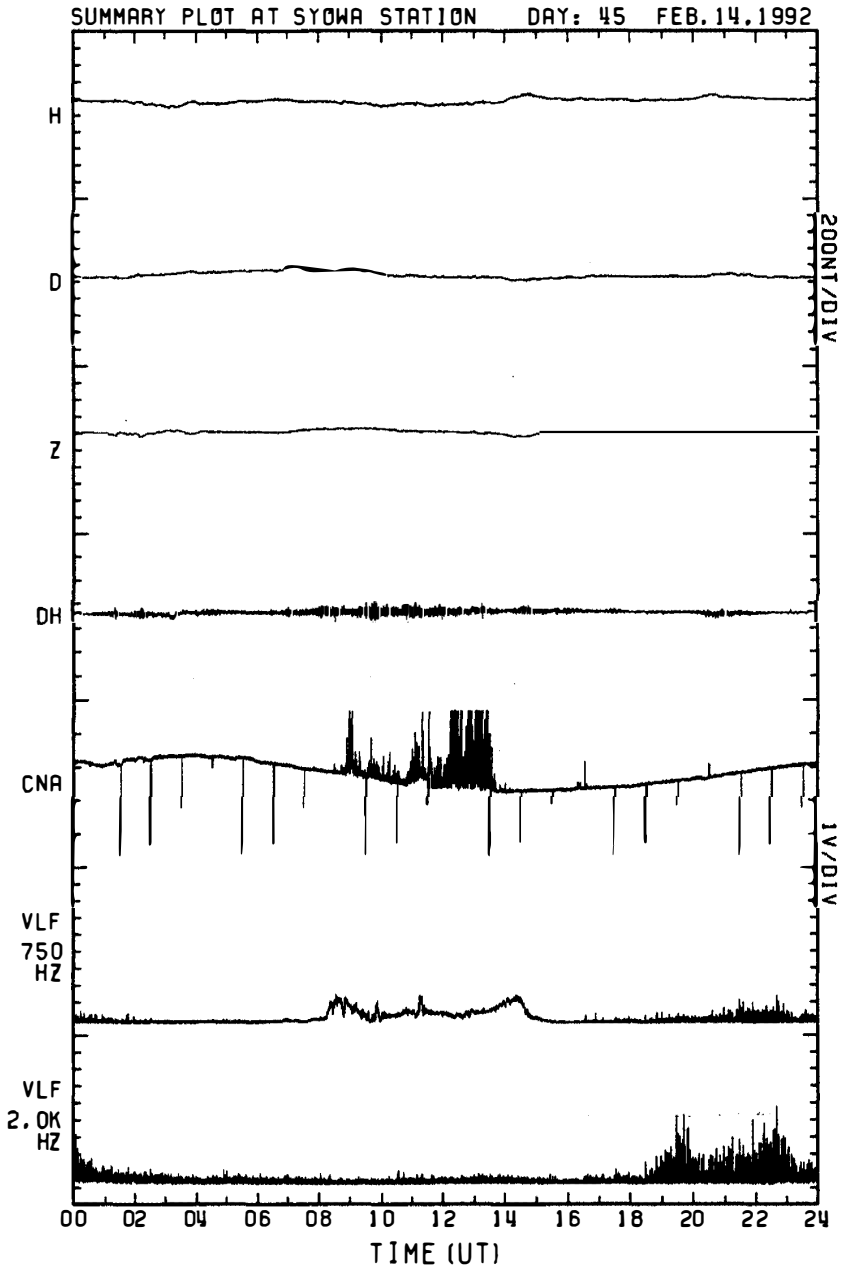

SUMMARY PLOT AT SYOWA STATION DAY: 40 FEB. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

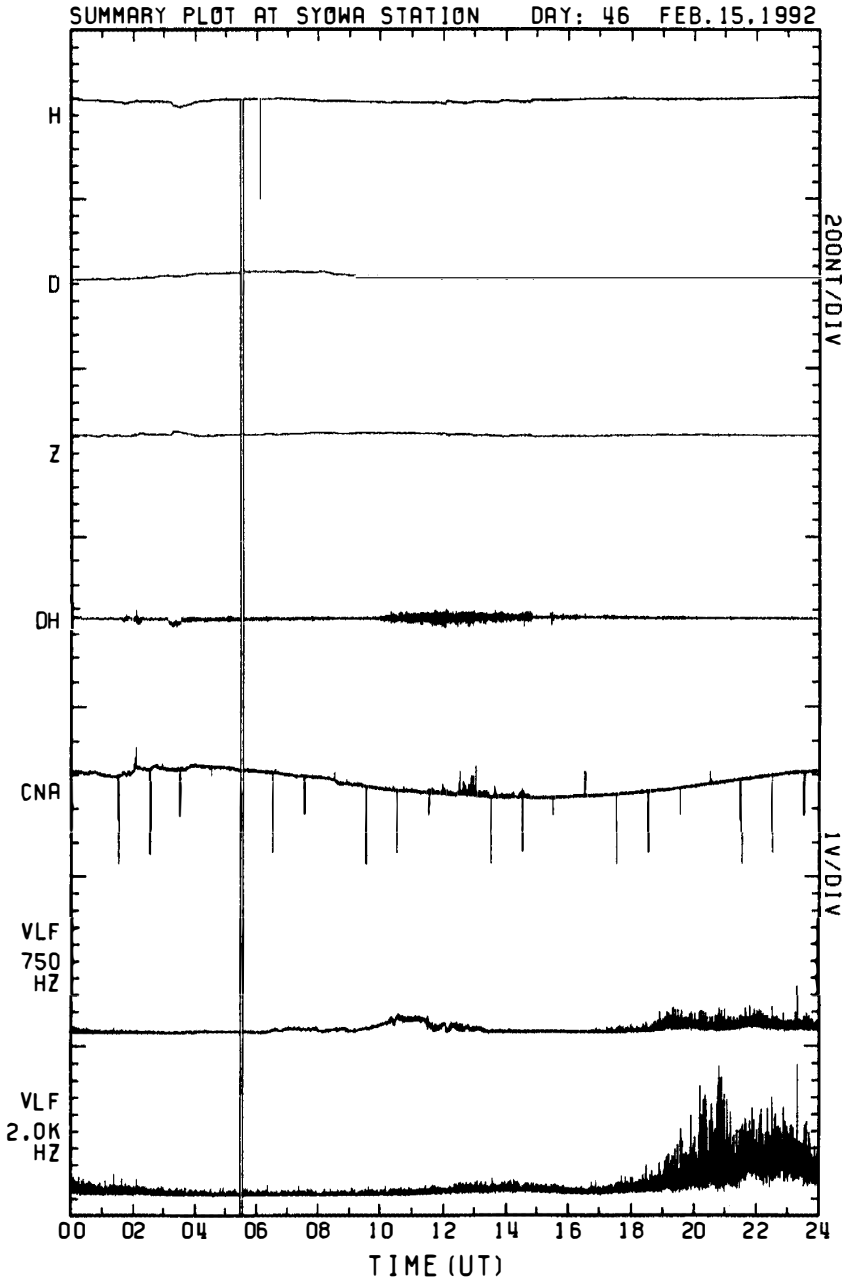

SUMMARY PLOT AT SYOWA STATION DAY: 41 FEB.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

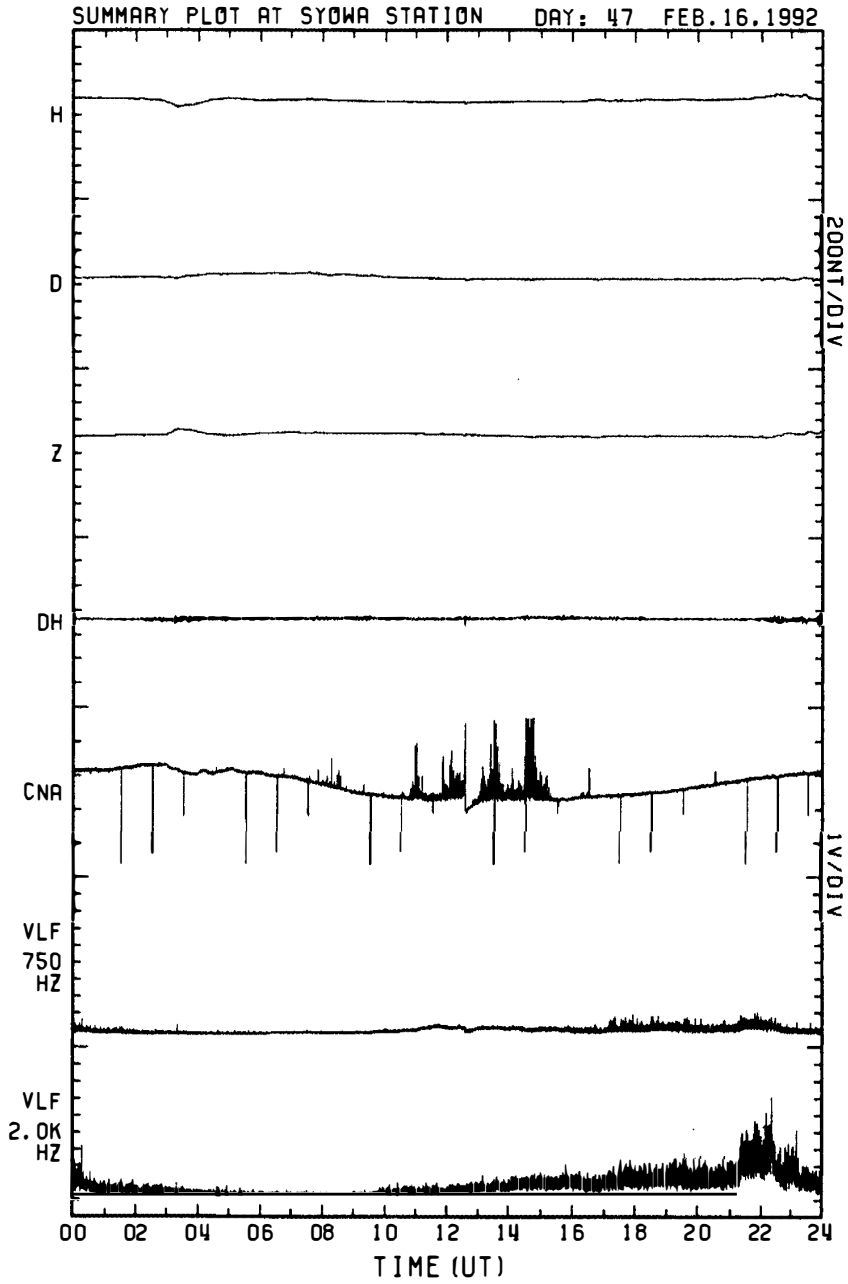

SUMMARY PLOT AT SYOWA STATION DAY: 42 FEB.11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

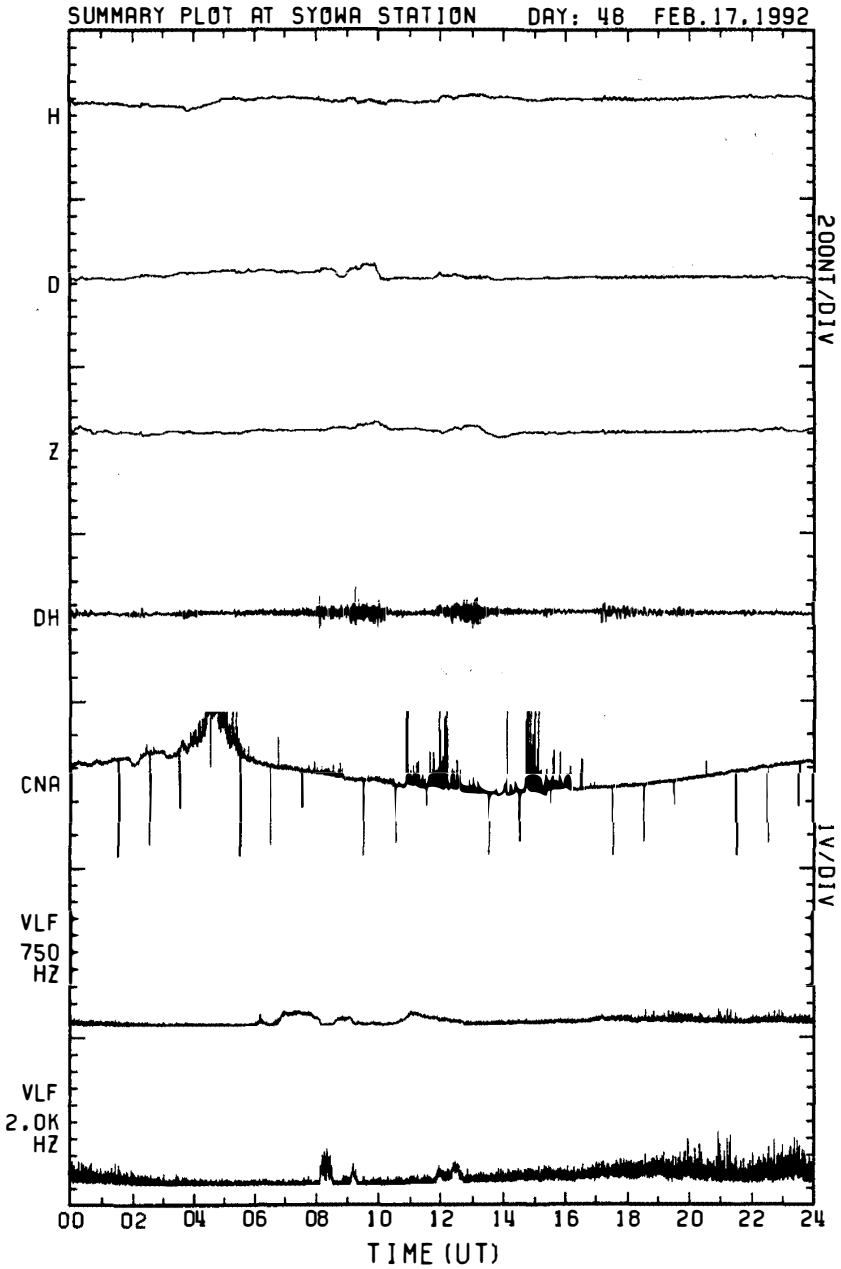

SUMMARY PLOT AT SYOWA STATION DAY: 43 FEB.12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

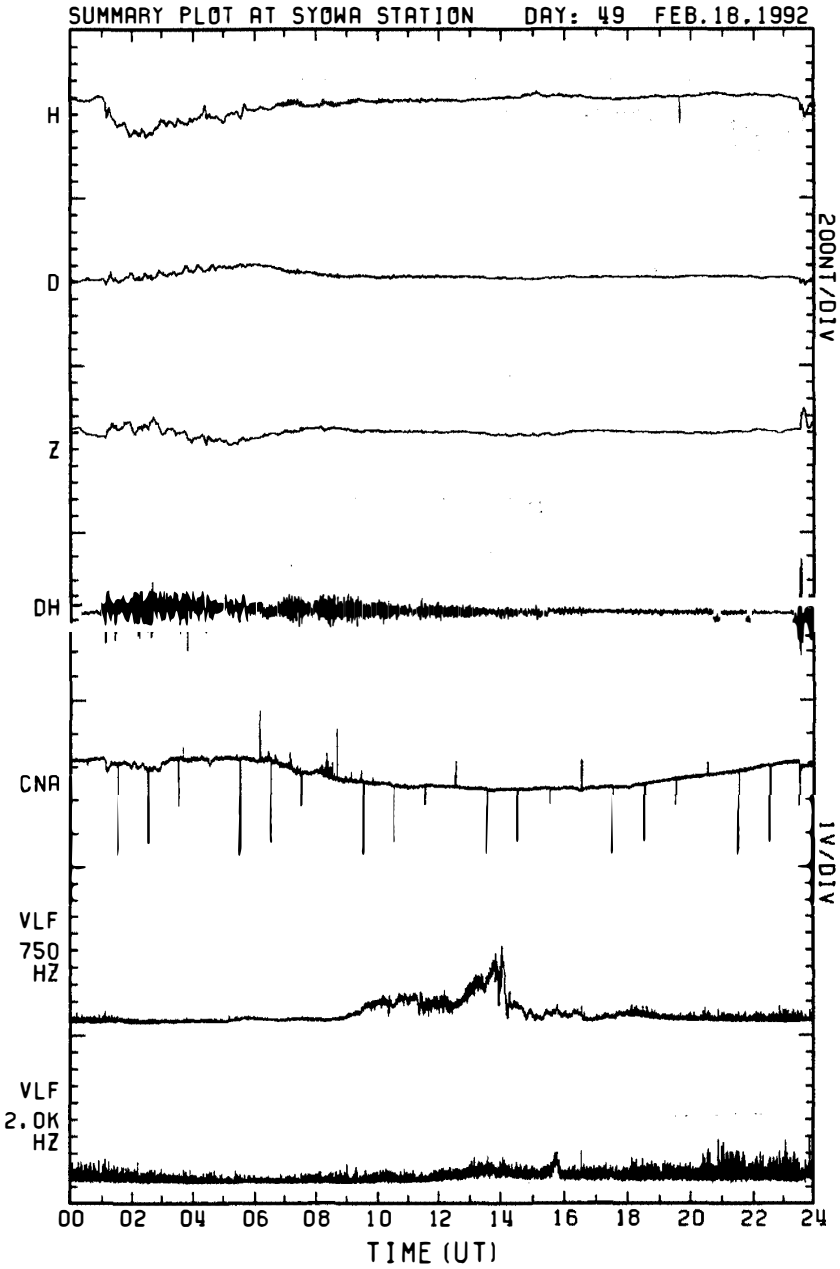

SUMMARY PLOT AT SYOWA STATION DAY: 44 FEB.13.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

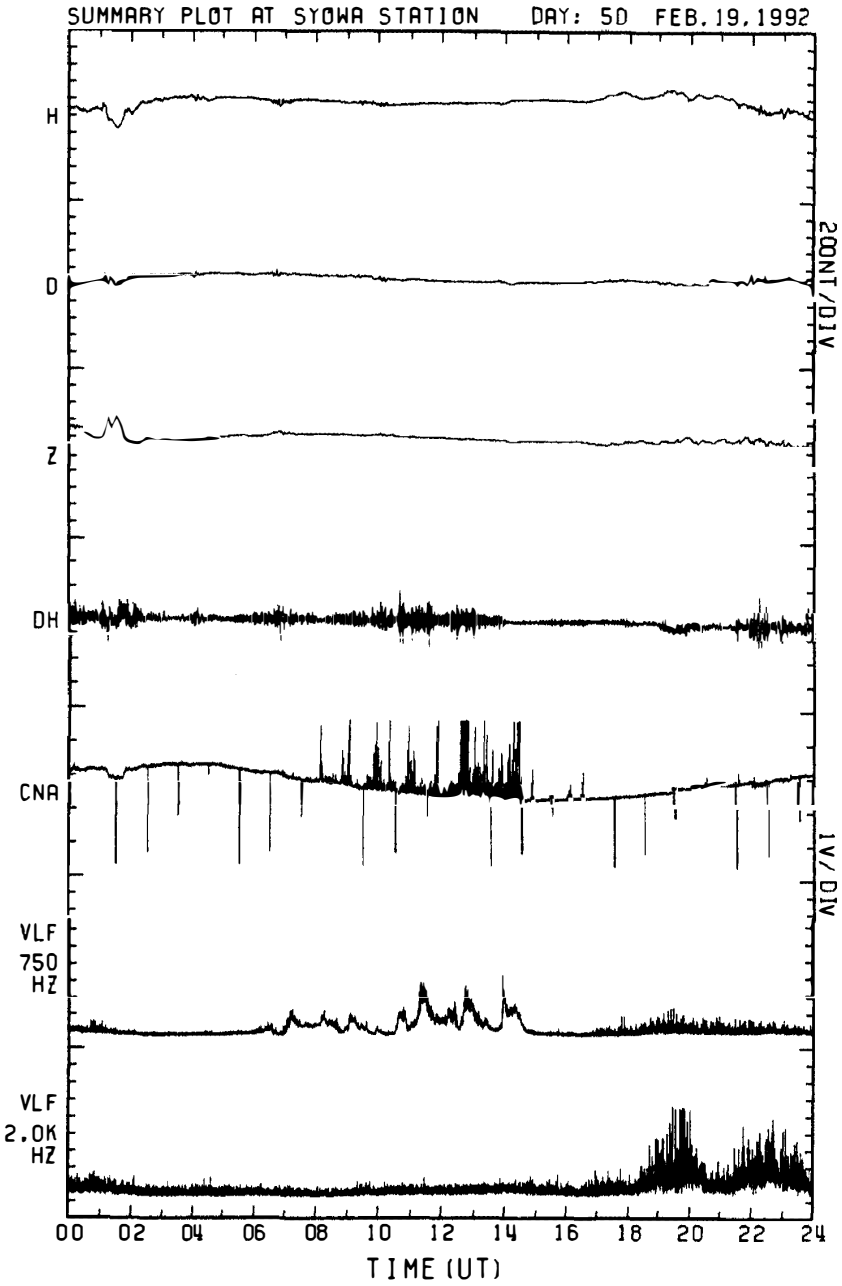

SUMMARY PLOT AT SYOWA STATION DAY: 45 FEB.14.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

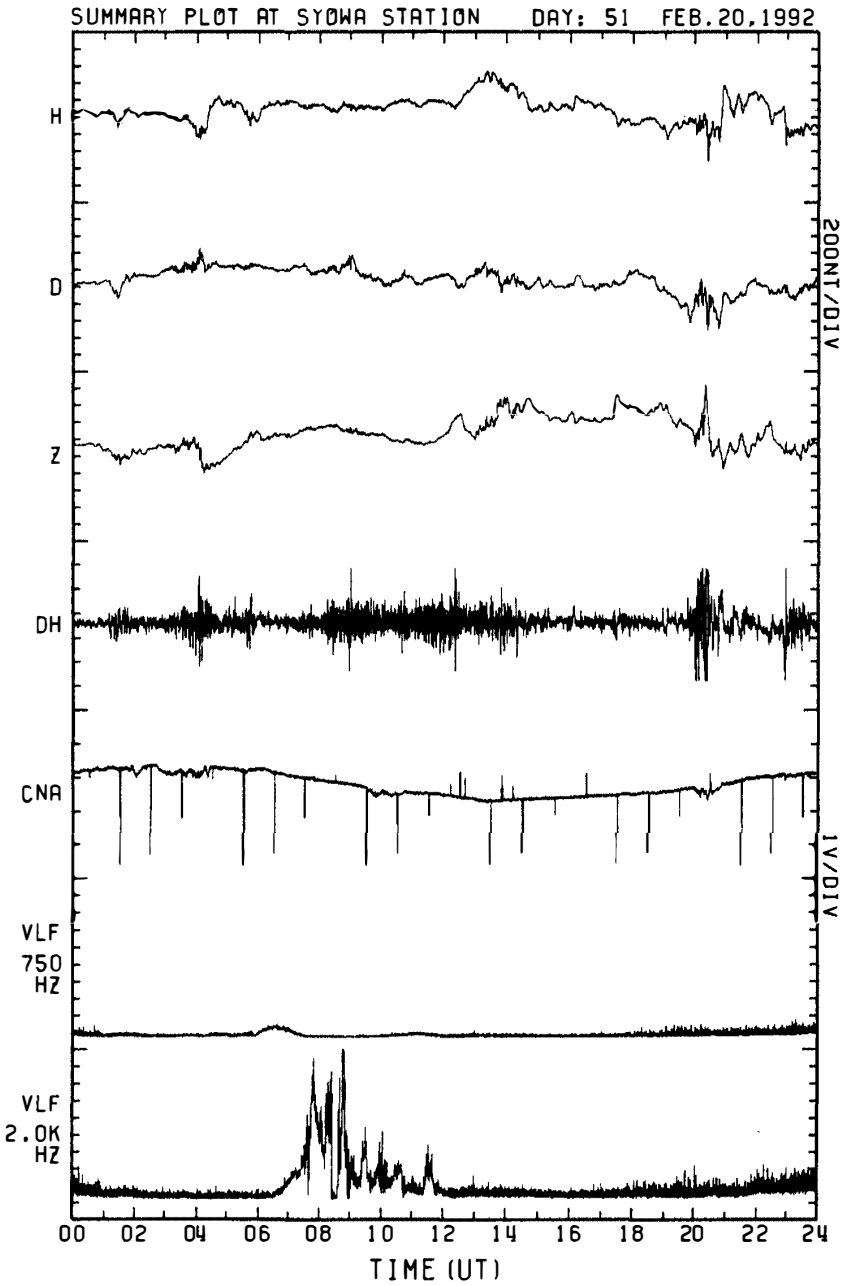

SUMMARY PLOT AT SYOWA STATION DAY: 46 FEB.15.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

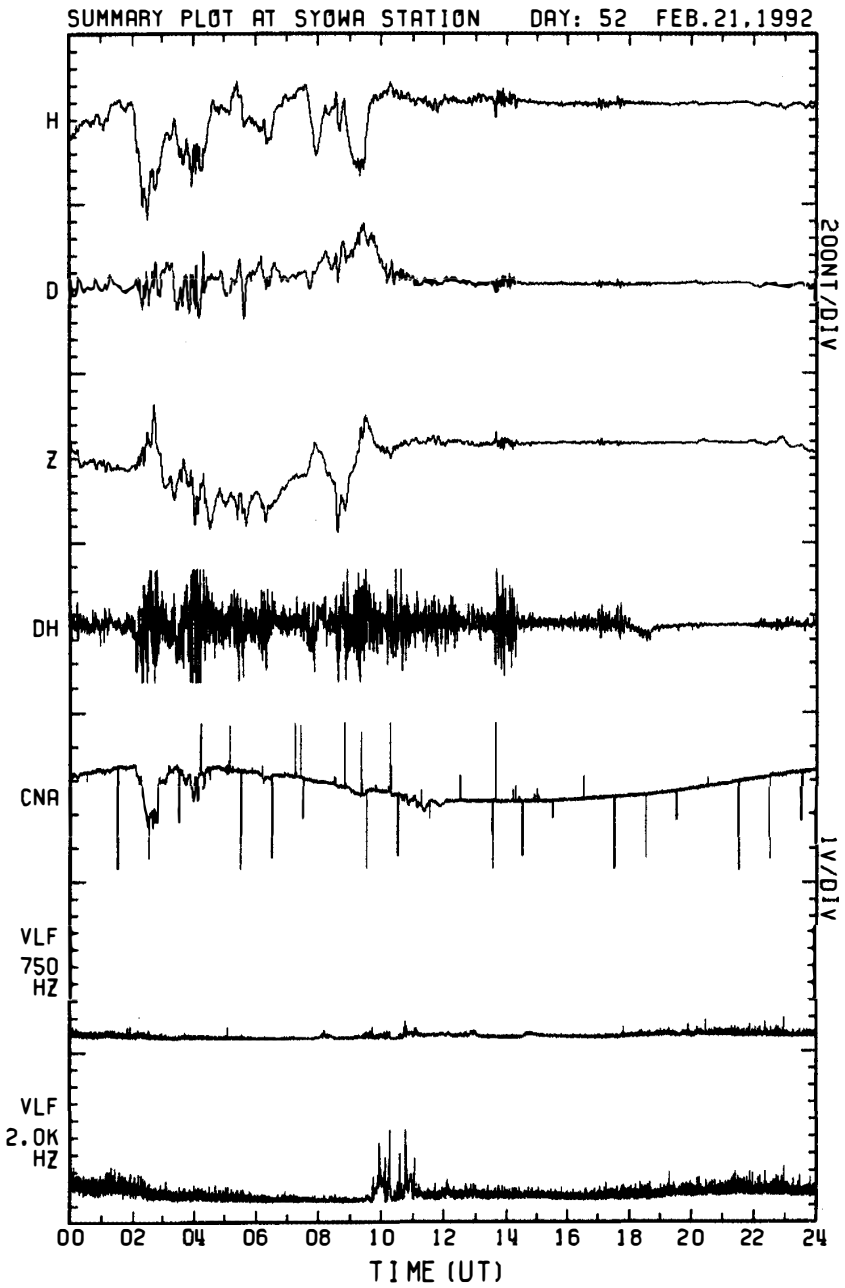

SUMMARY PLOT AT SYOWA STATION DAY: 47 FEB.16.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

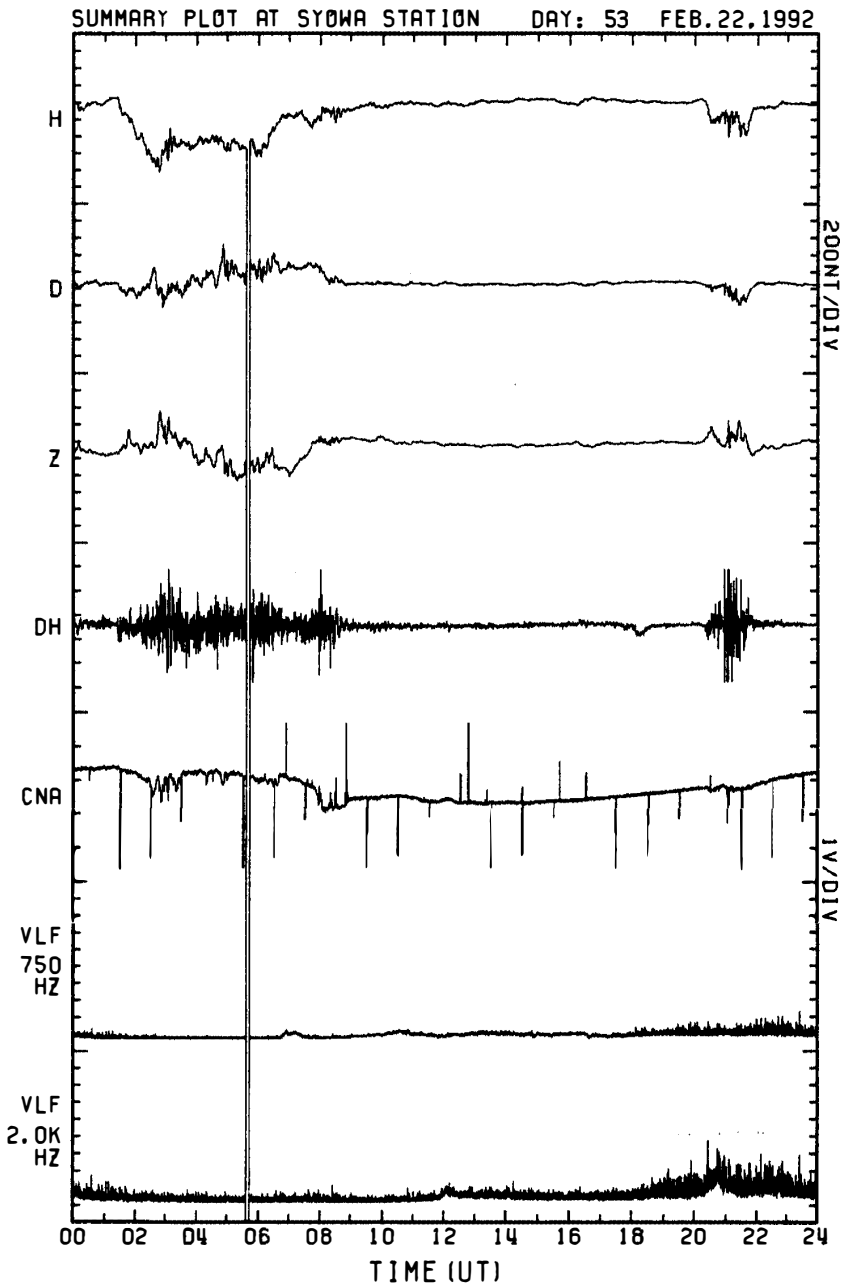

SUMMARY PLOT AT SYOWA STATION DAY: 48 FEB.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

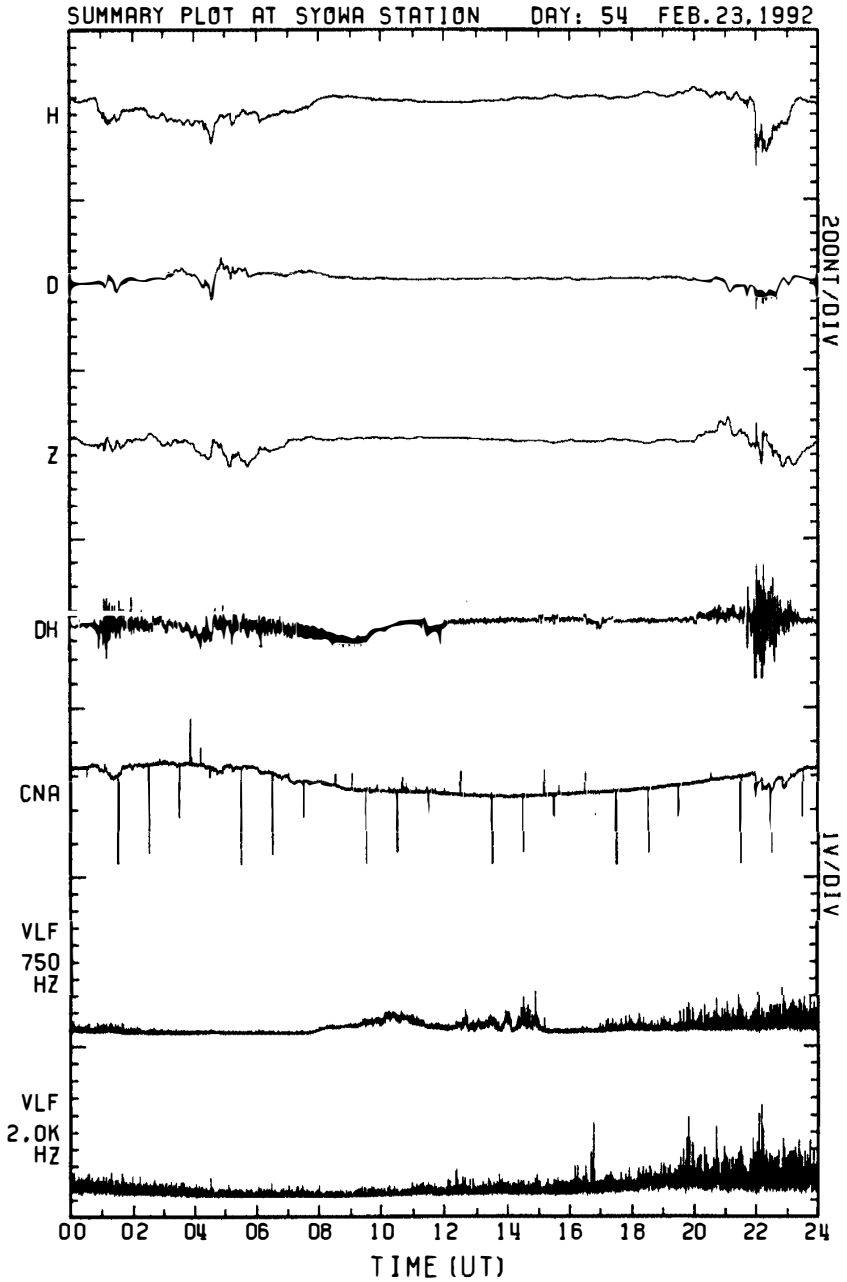

SUMMARY PLOT AT SYOWA STATION DAY: 49 FEB.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

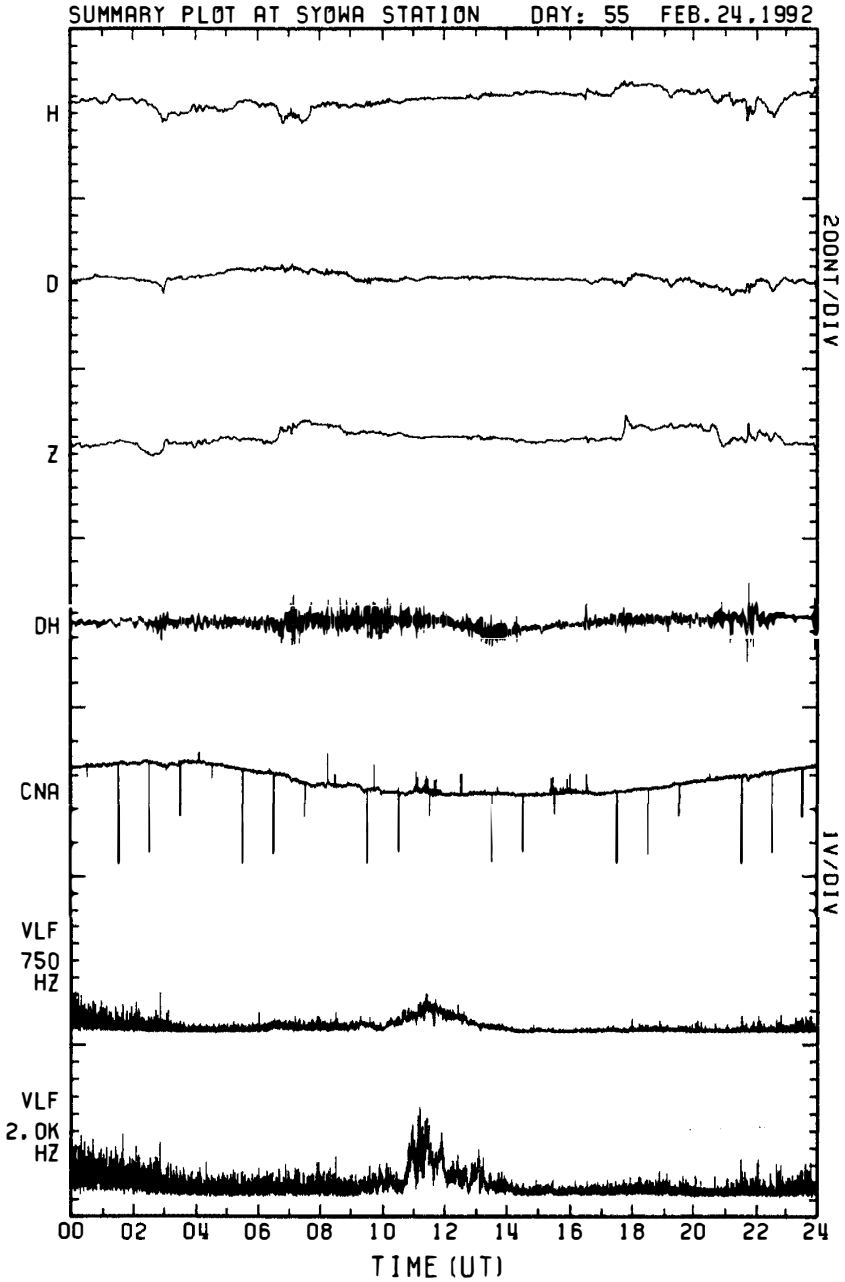

SUMMARY PLOT AT SYOWA STATION DAY: 50 FEB.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

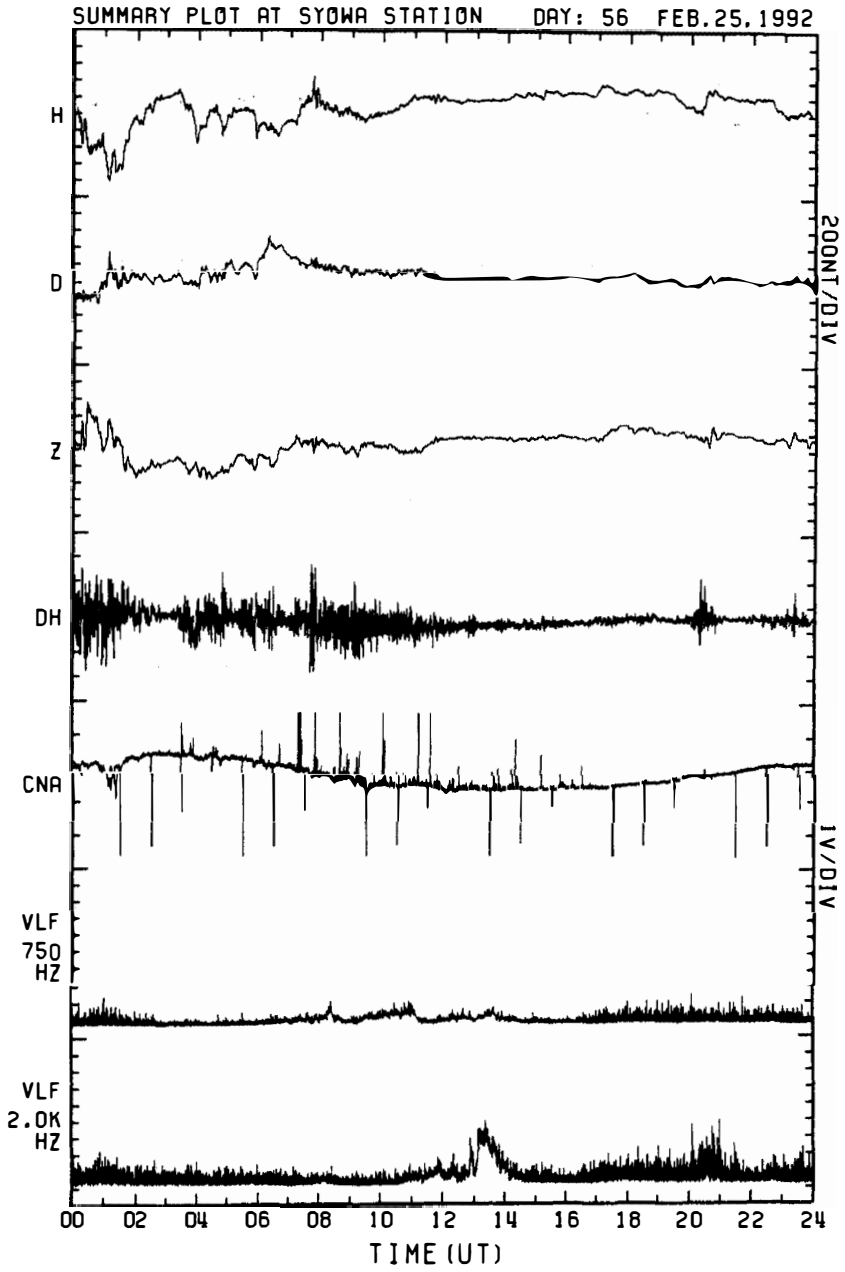

SUMMARY PLOT AT SYOWA STATION DAY: 51 FEB.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

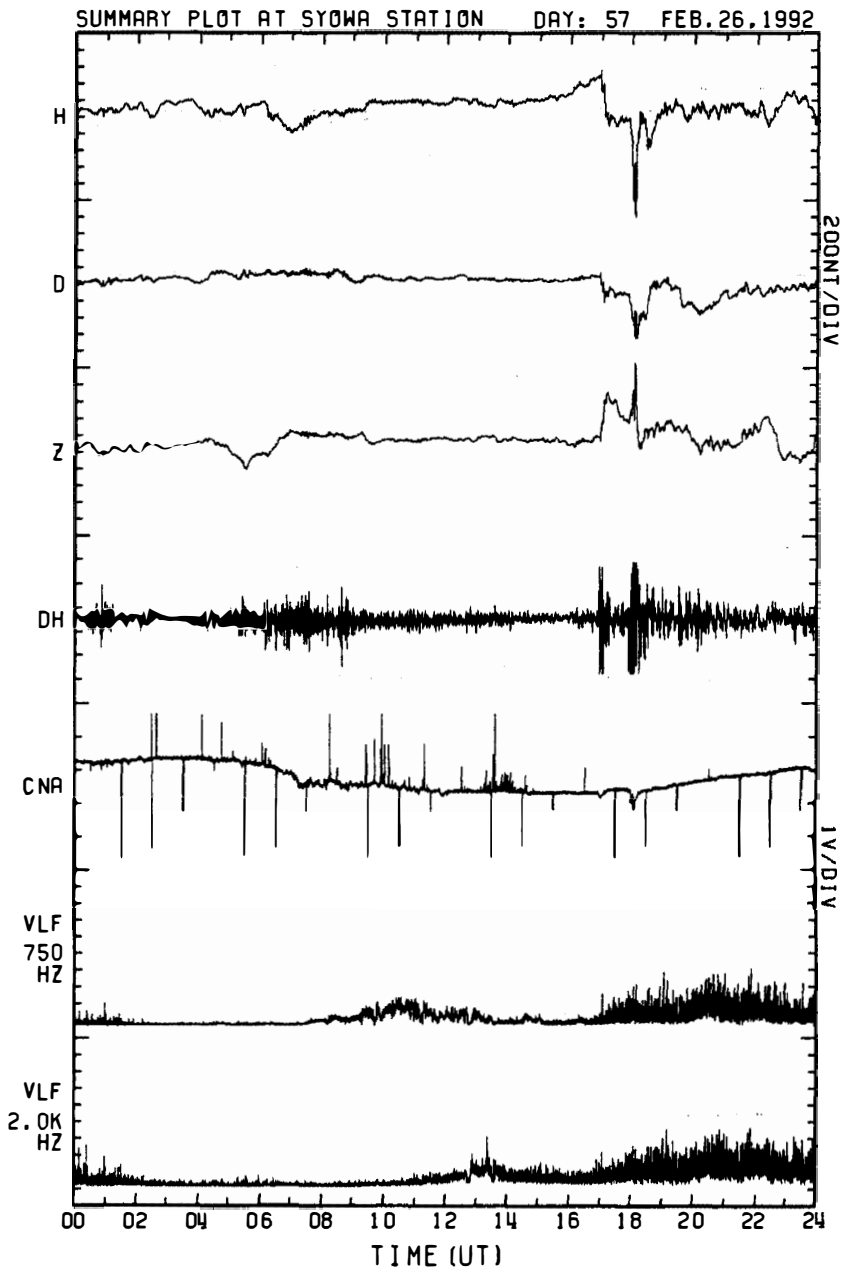

SUMMARY PLOT AT SYOWA STATION DAY: 52 FEB.21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

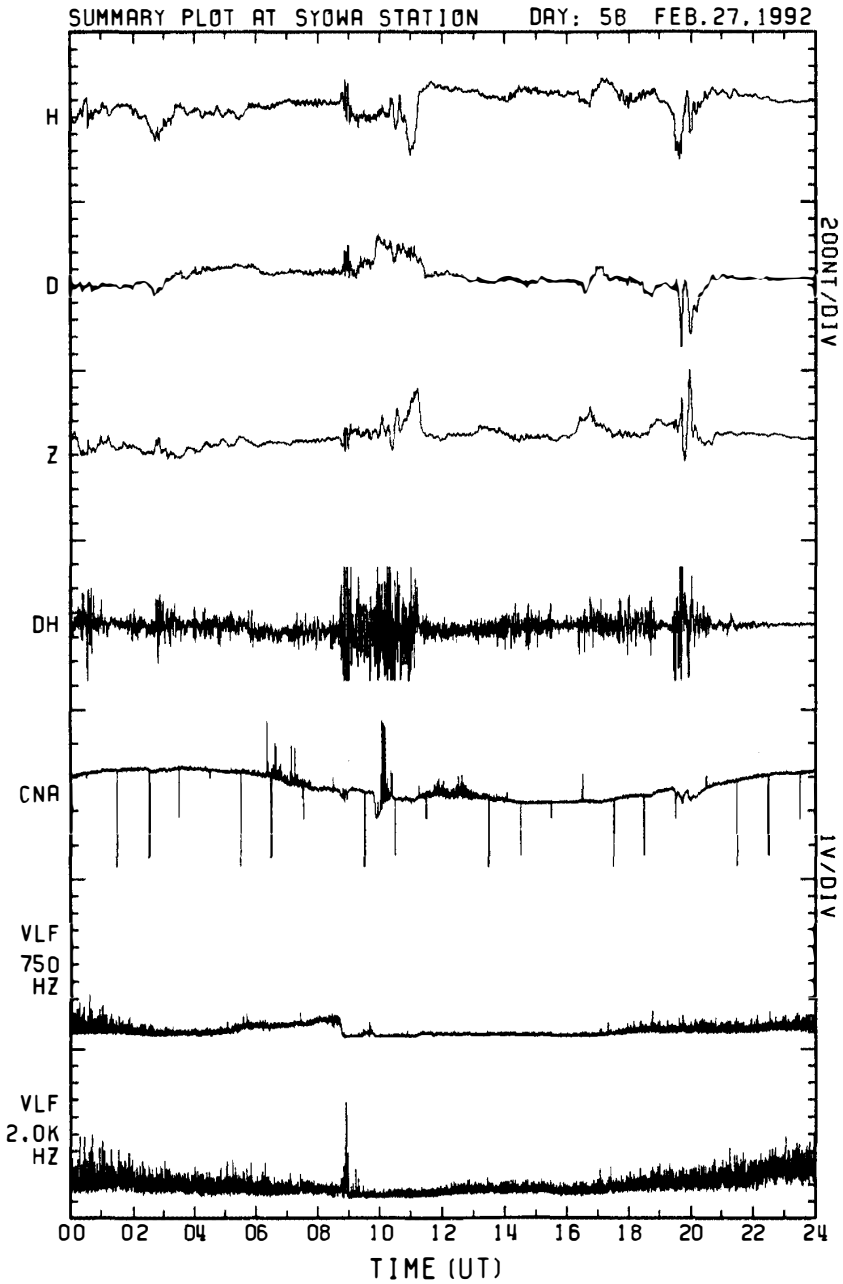

SUMMARY PLOT AT SYOWA STATION DAY: 53 FEB.22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

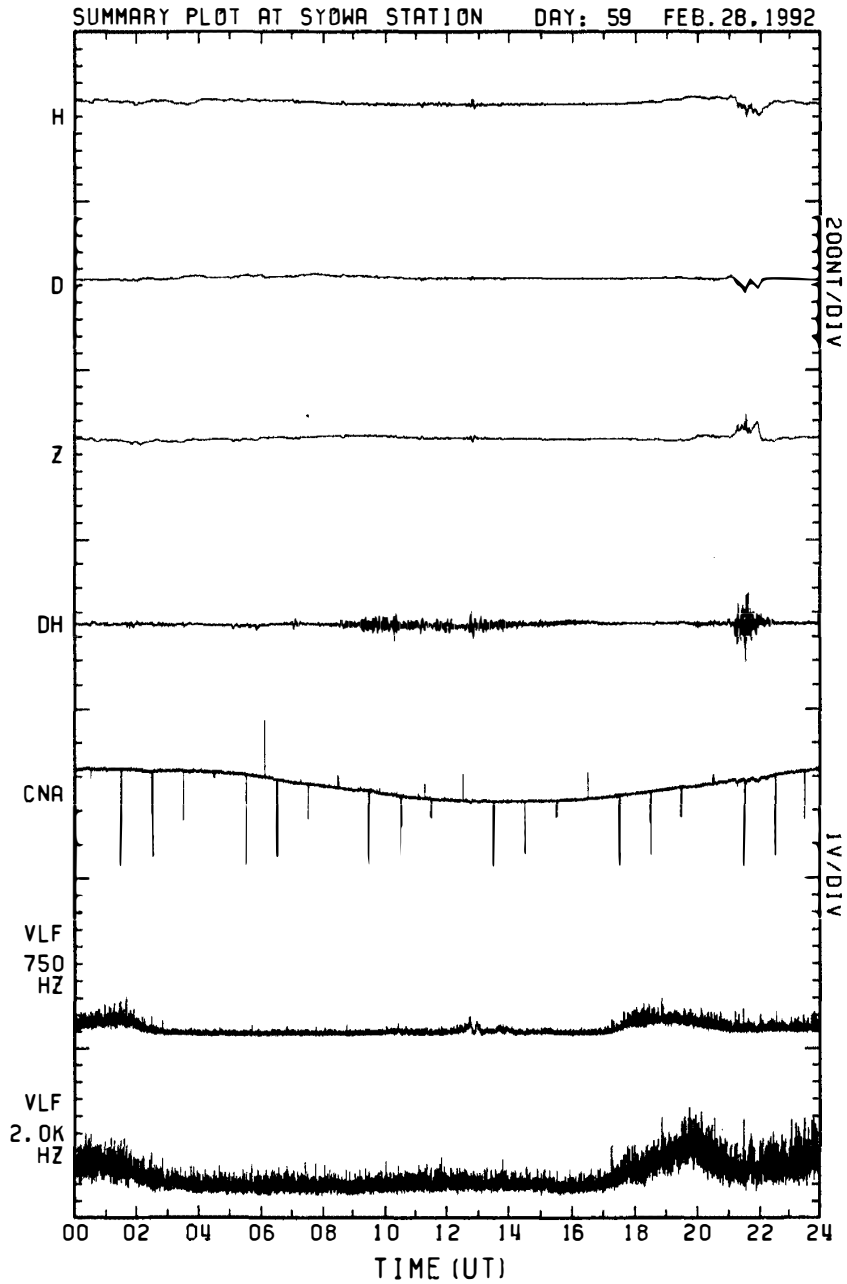

SUMMARY PLOT AT SYOWA STATION DAY: 54 FEB.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

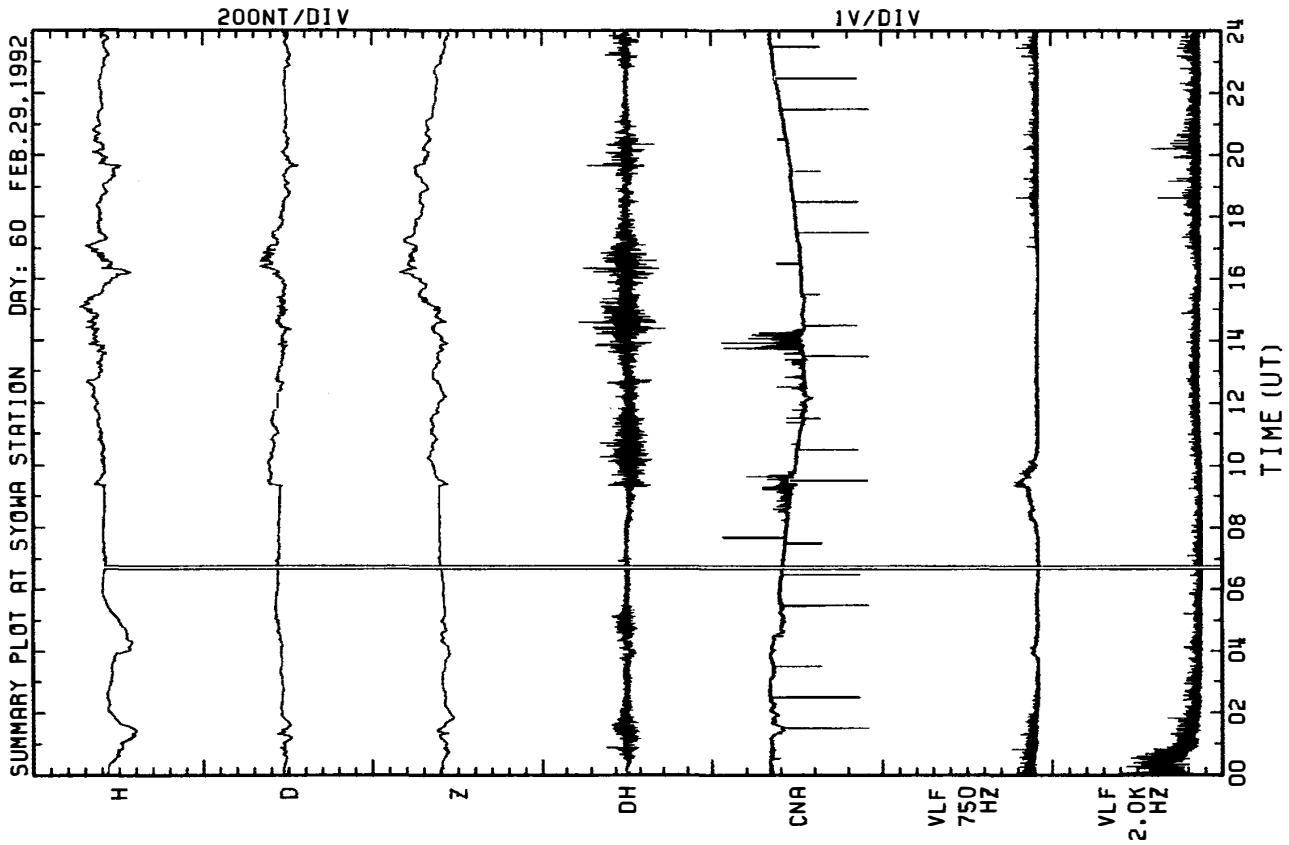

SUMMARY PLOT AT SYOWA STATION DAY: 55 FEB.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

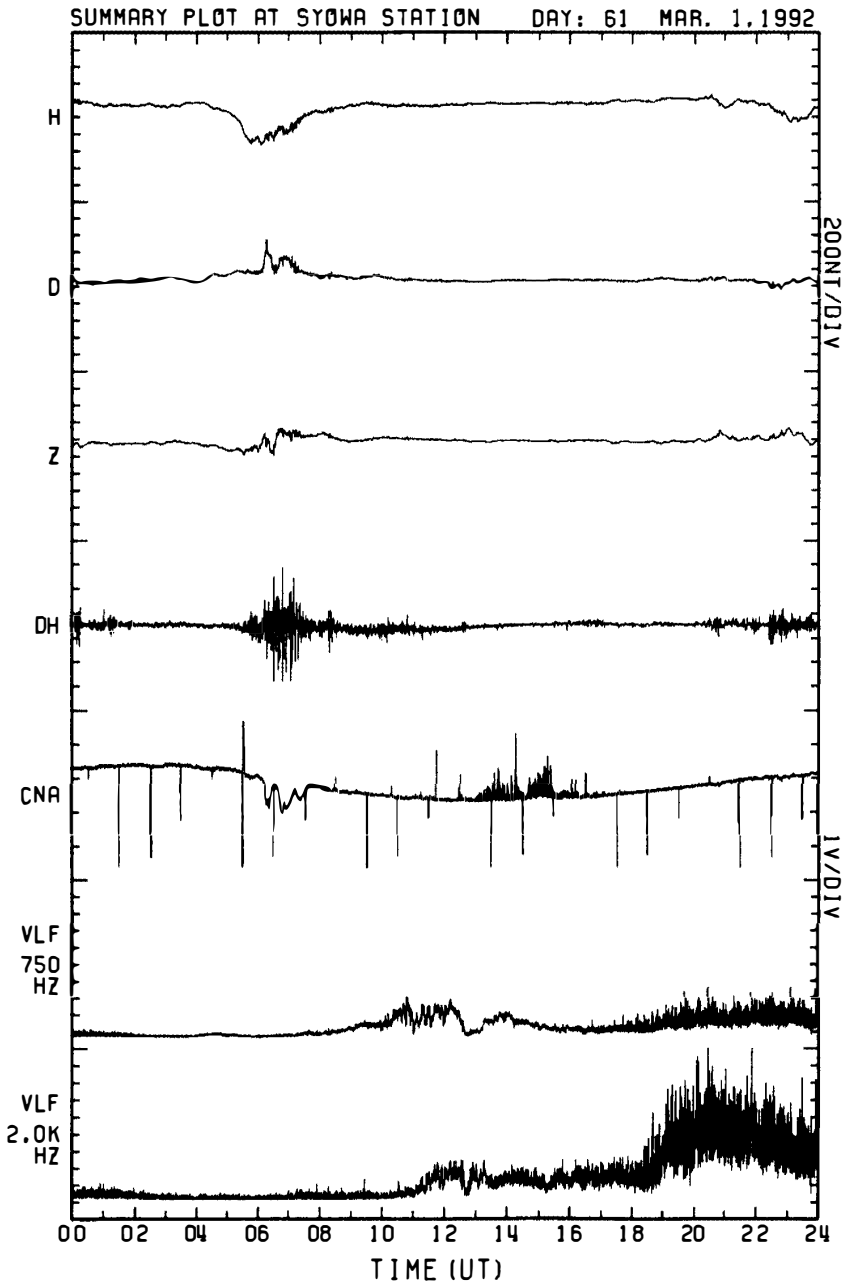

SUMMARY PLOT AT SYOWA STATION DAY: 56 FEB.25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

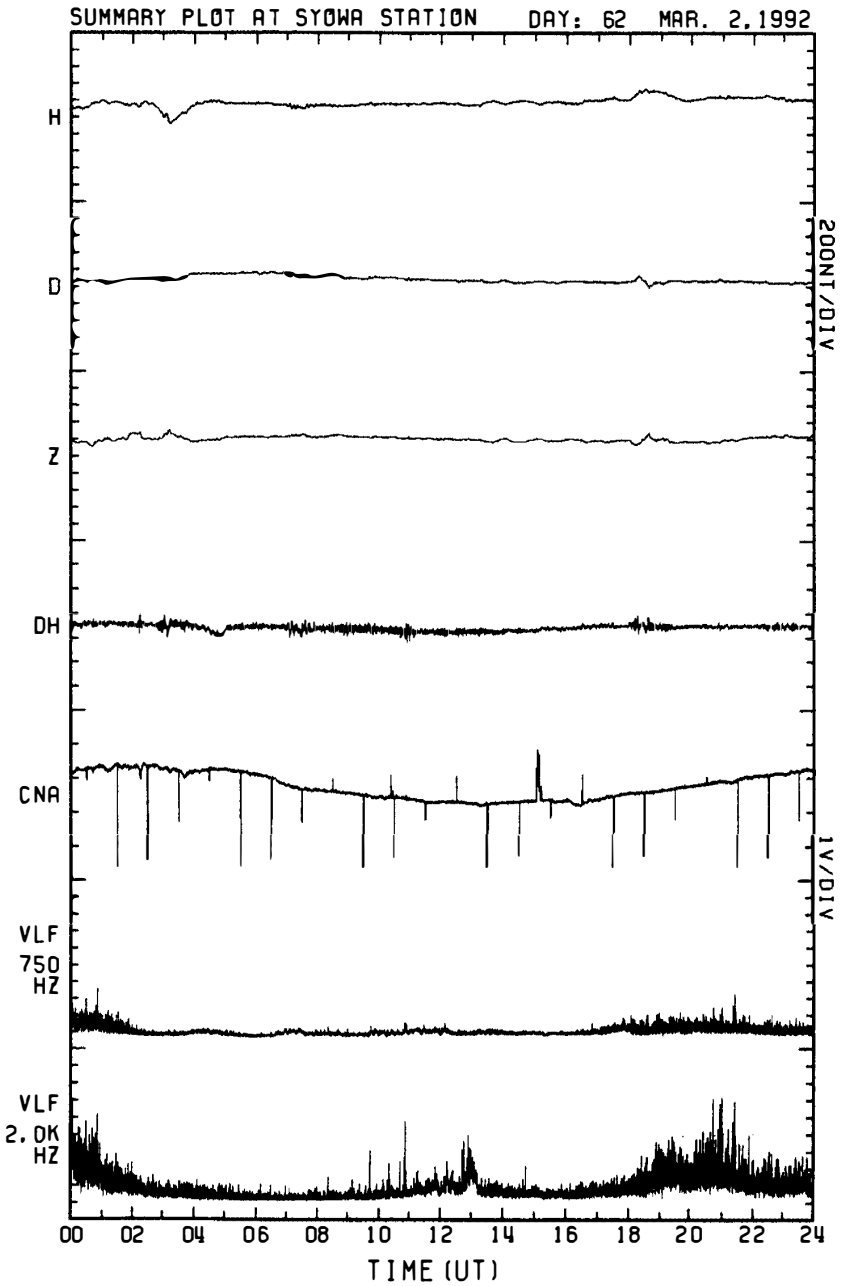

SUMMARY PLOT AT SYOWA STATION DAY: 57 FEB.26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

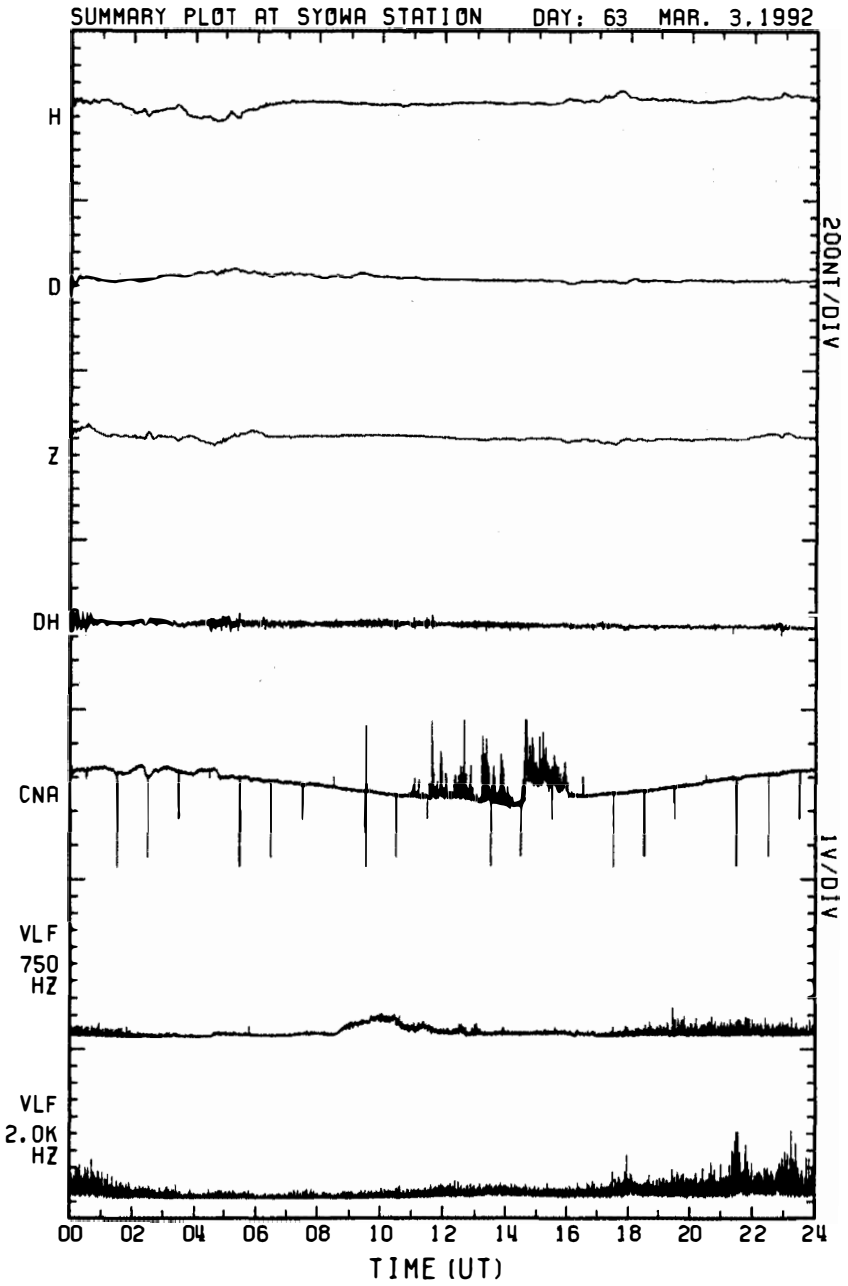

SUMMARY PLOT AT SYOWA STATION DAY: 58 FEB.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

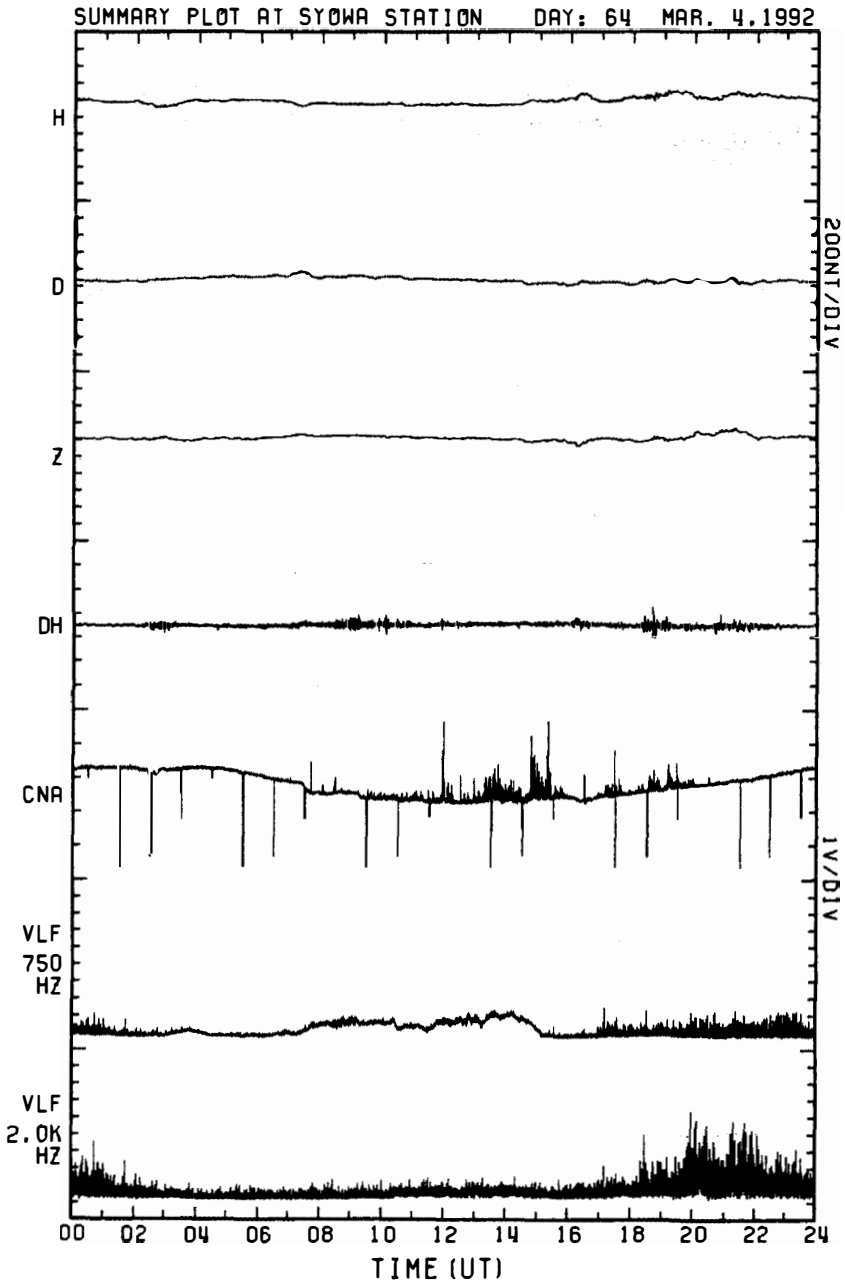

SUMMARY PLOT AT SYOWA STATION DAY: 59 FEB.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

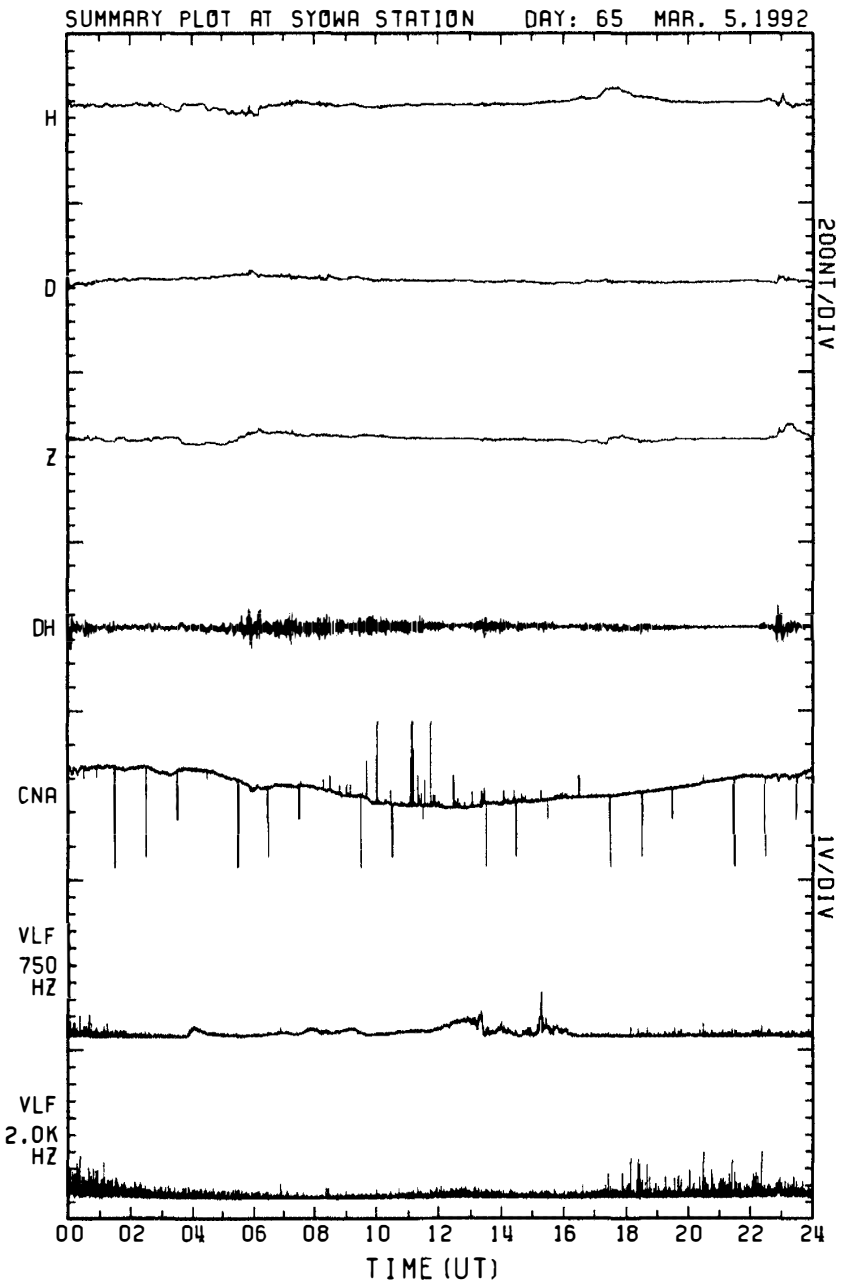

SUMMARY PLOT AT SYOWA STATION DAY: 60 FEB.29,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

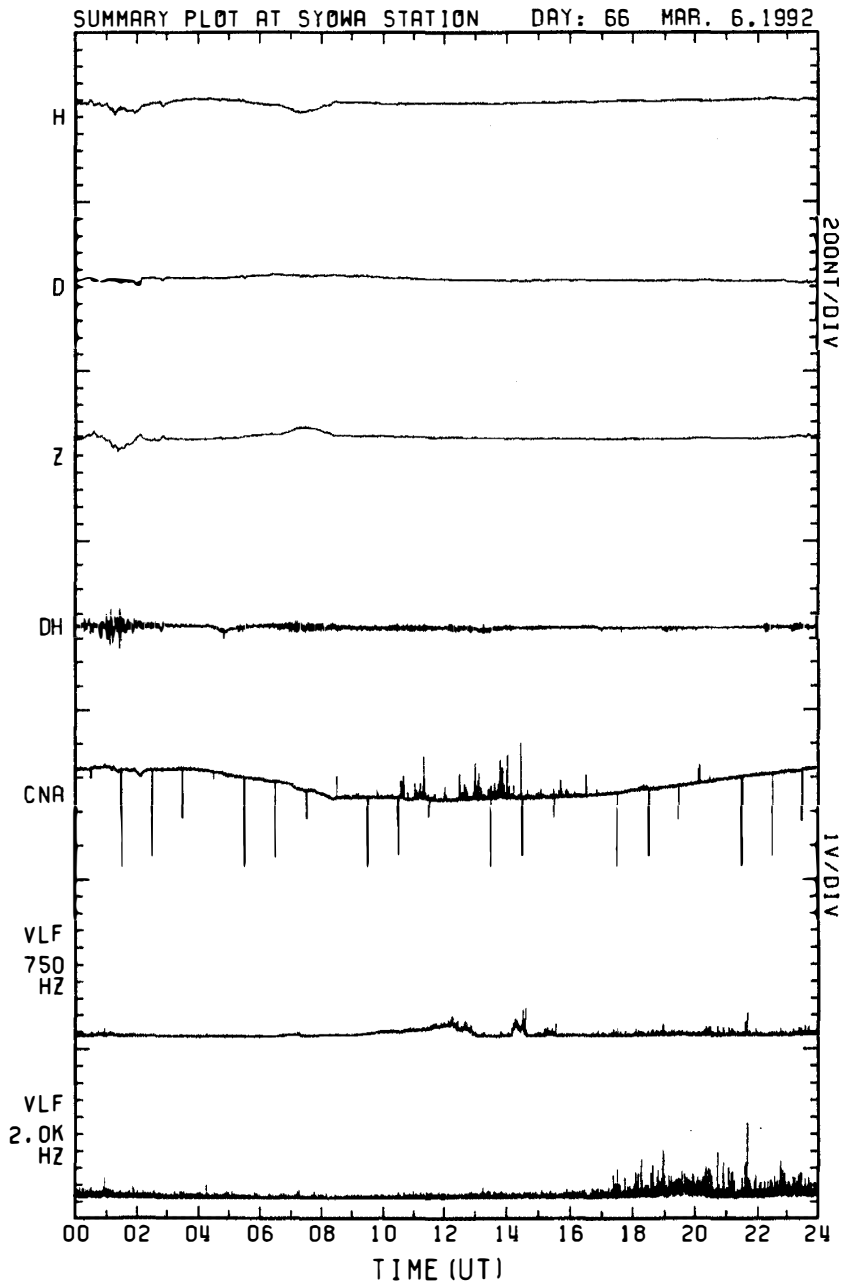

SUMMARY PLOT AT SYOWA STATION DAY: 61 MAR. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

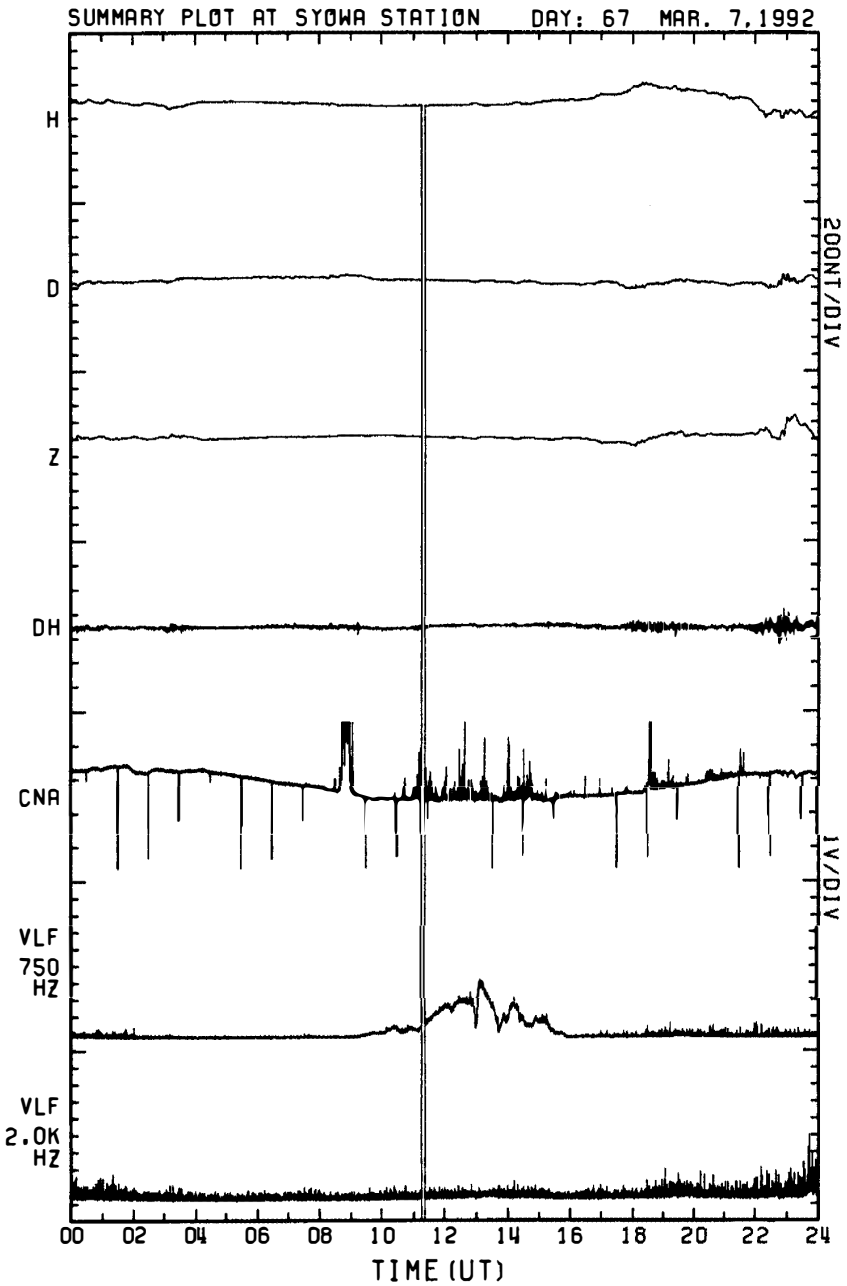

SUMMARY PLOT AT SYOWA STATION DAY: 62 MAR. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

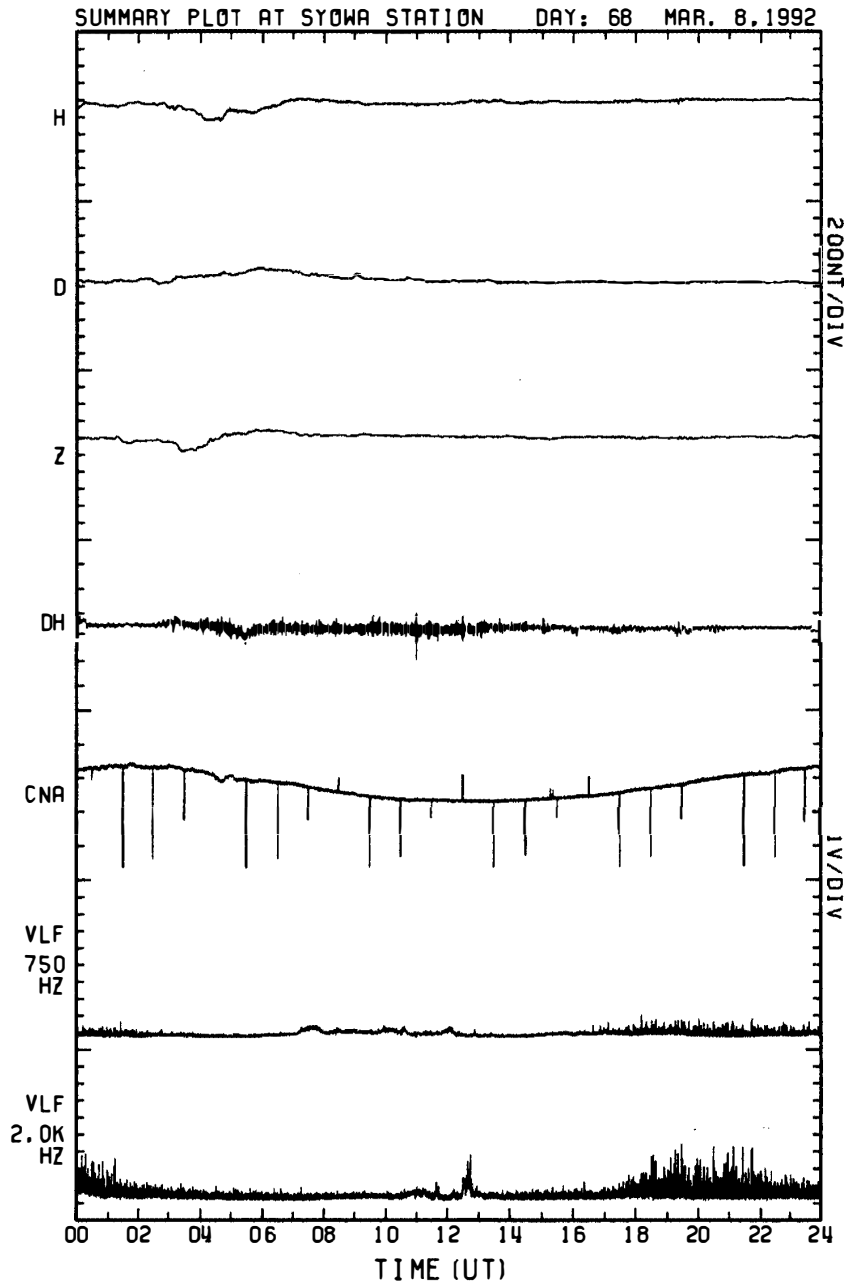

SUMMARY PLOT AT SYOWA STATION DAY: 63 MAR. 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

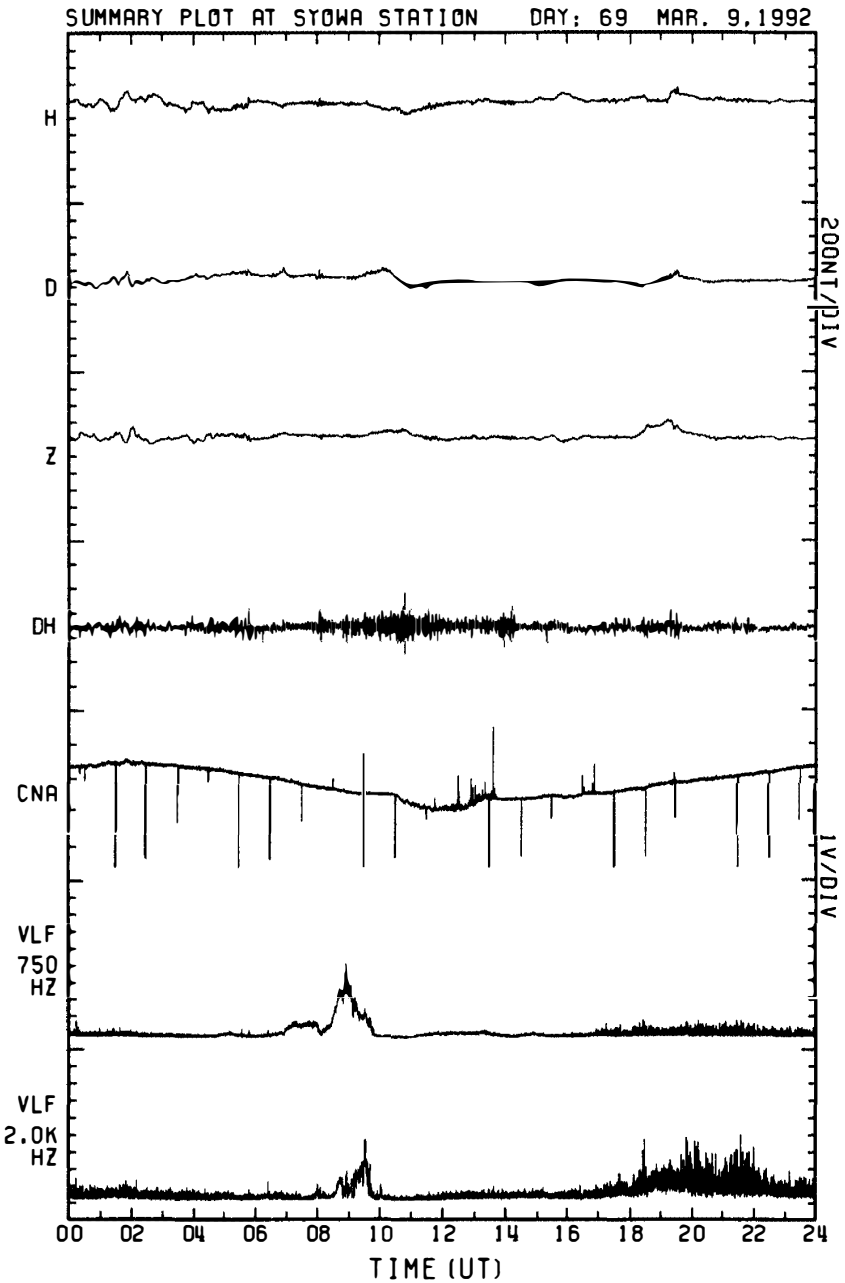

SUMMARY PLOT AT SYOWA STATION DAY: 64 MAR. 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

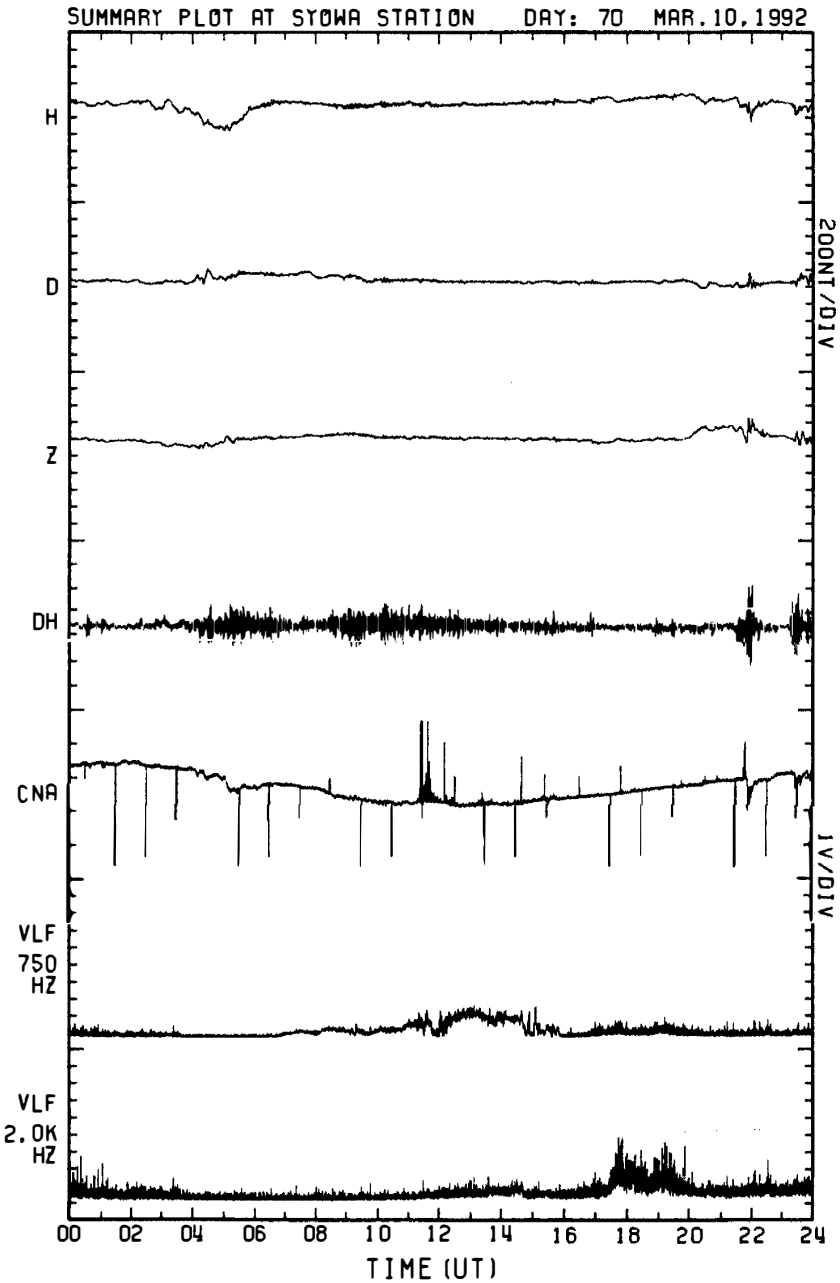

SUMMARY PLOT AT SYOWA STATION DAY: 65 MAR. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

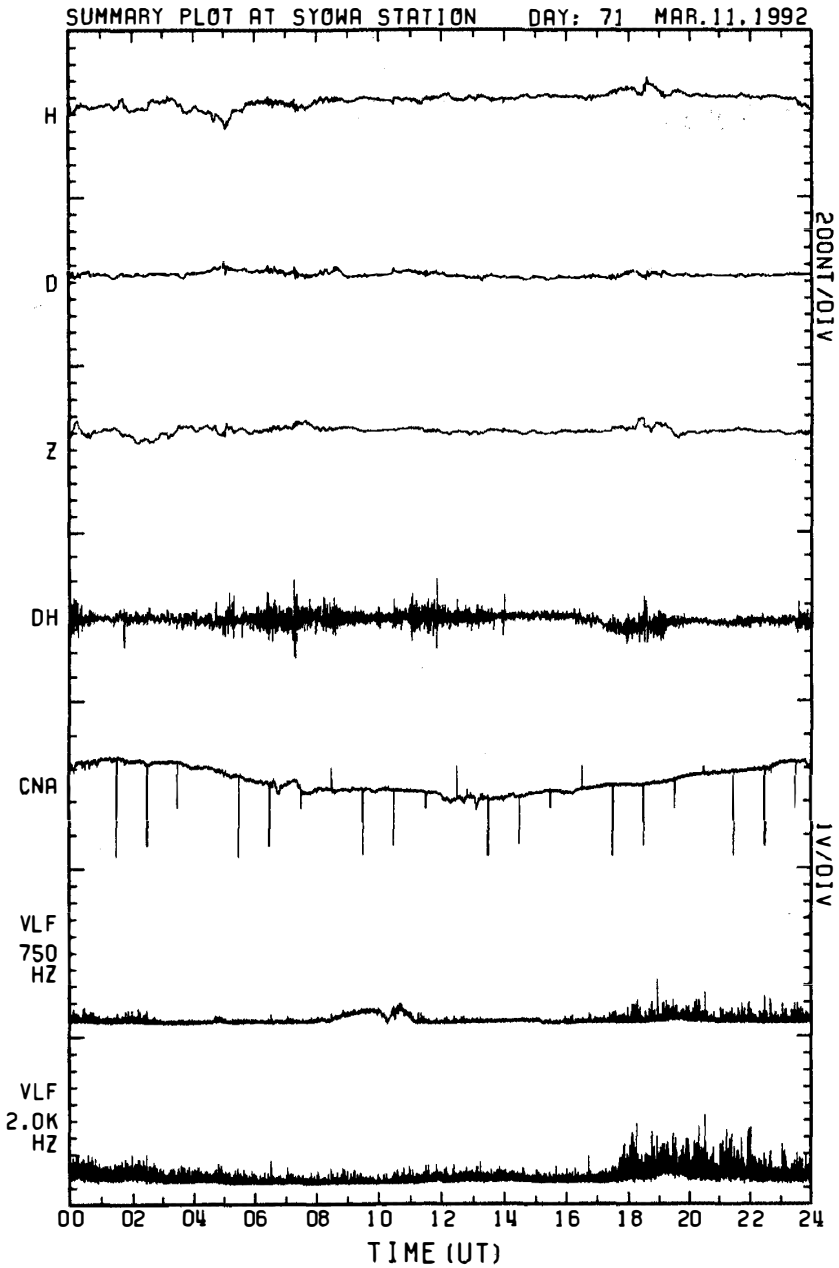

SUMMARY PLOT AT SYOWA STATION DAY: 66 MAR. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

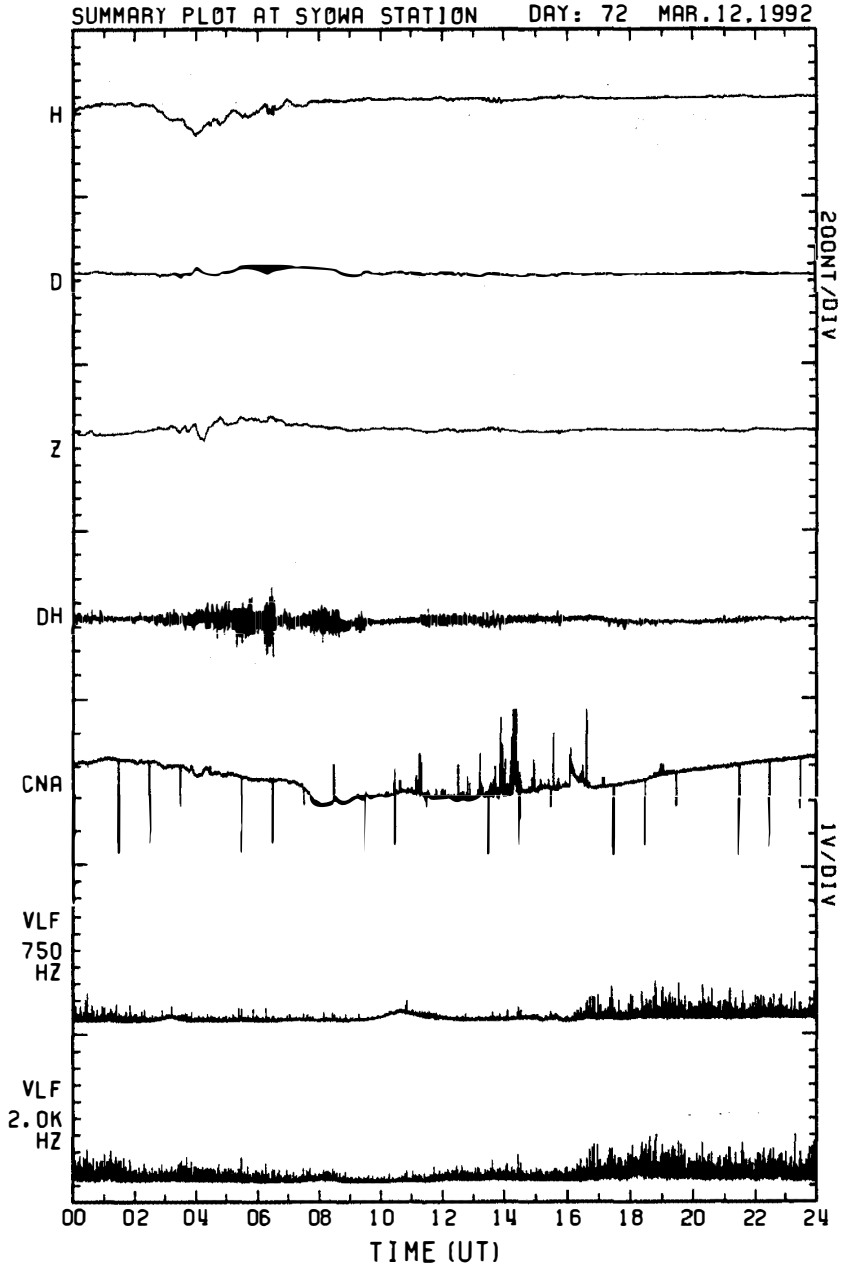

SUMMARY PLOT AT SYOWA STATION DAY: 67 MAR. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

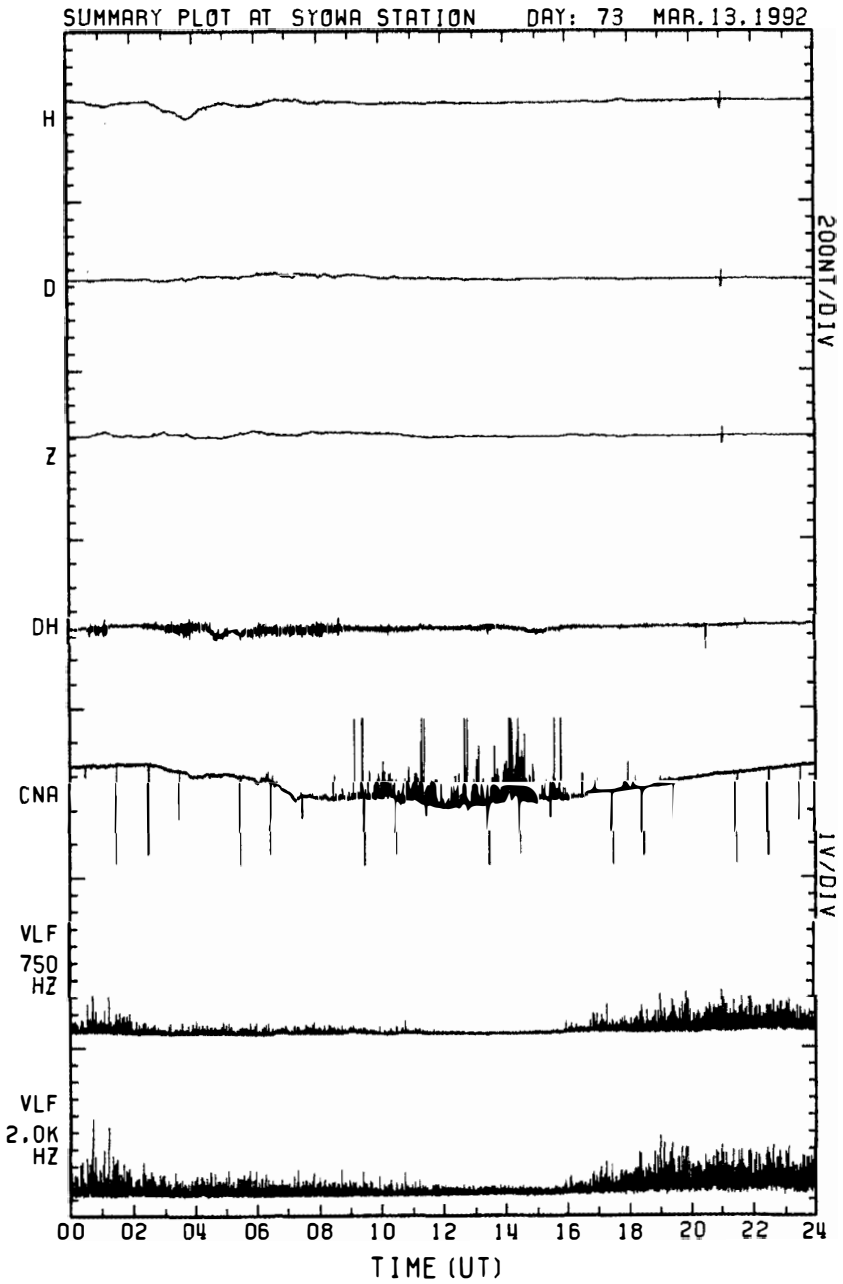

SUMMARY PLOT AT SYOWA STATION DAY: 68 MAR. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

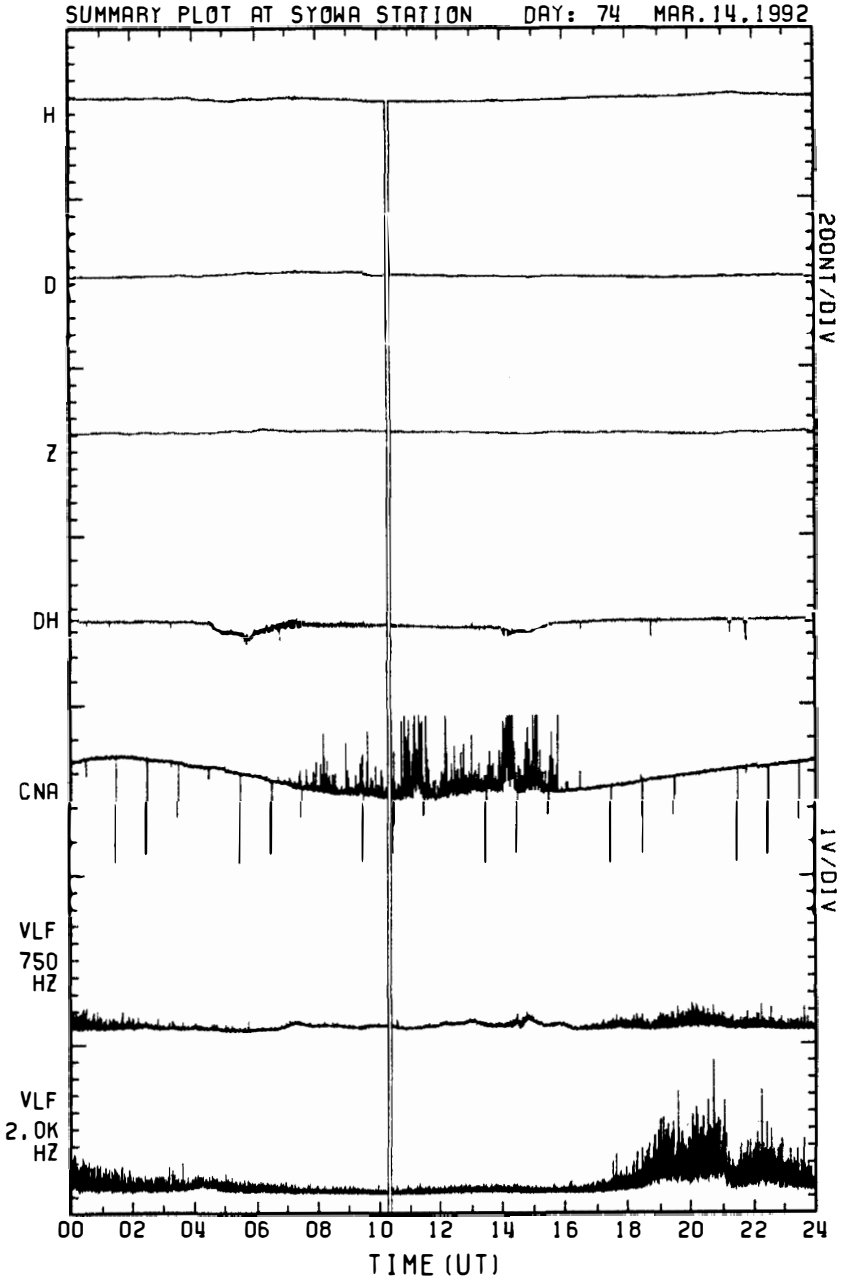

SUMMARY PLOT AT SYOWA STATION DAY: 69 MAR. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

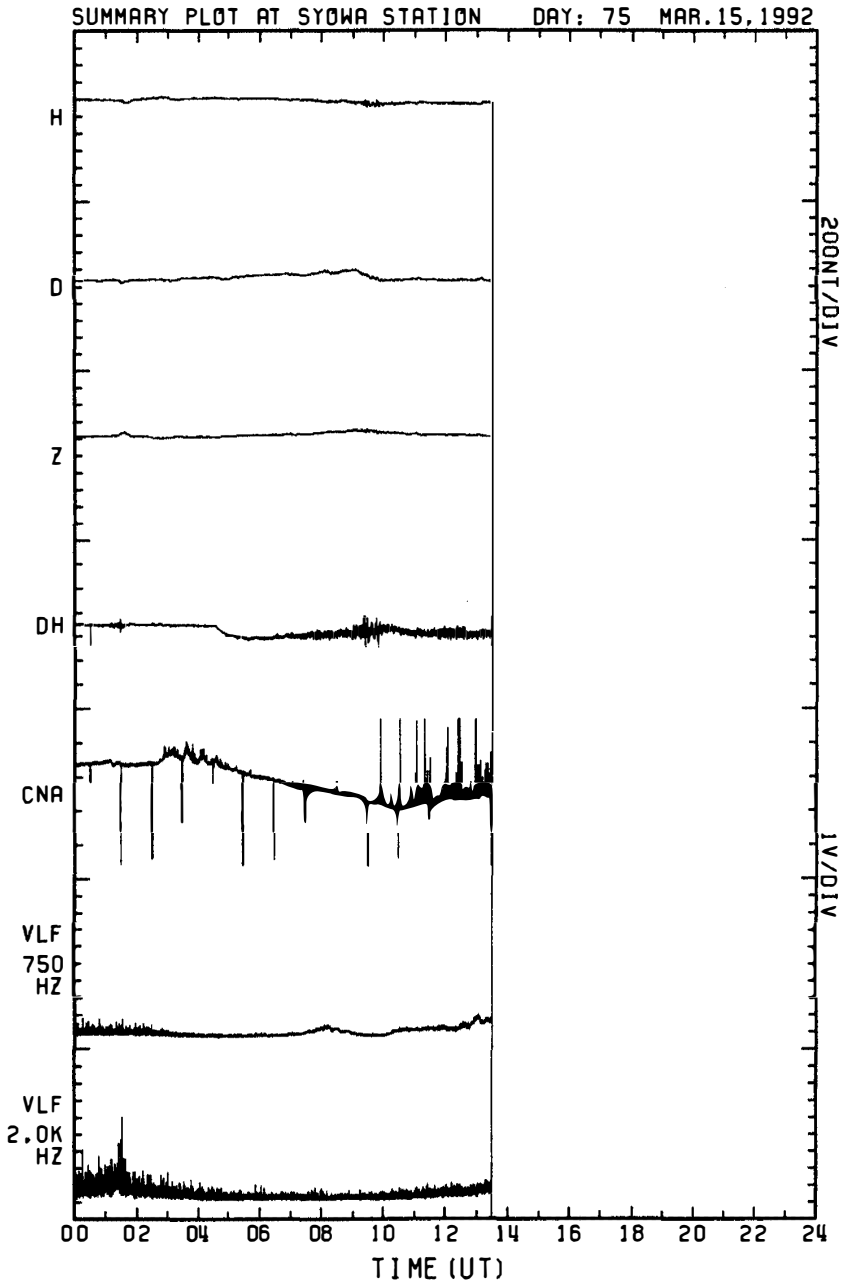

SUMMARY PLOT AT SYOWA STATION DAY: 70 MAR.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

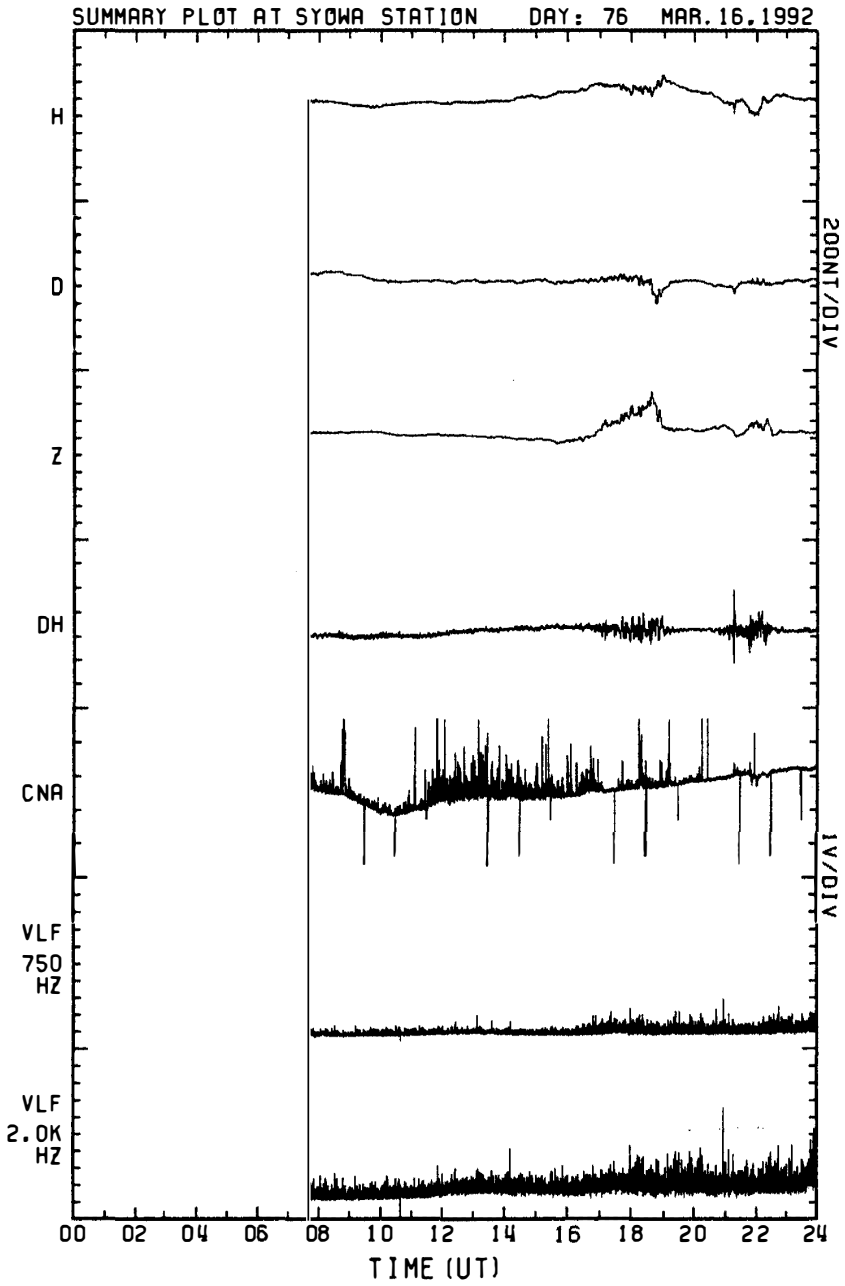

SUMMARY PLOT AT SYOWA STATION DAY: 71 MAR.11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

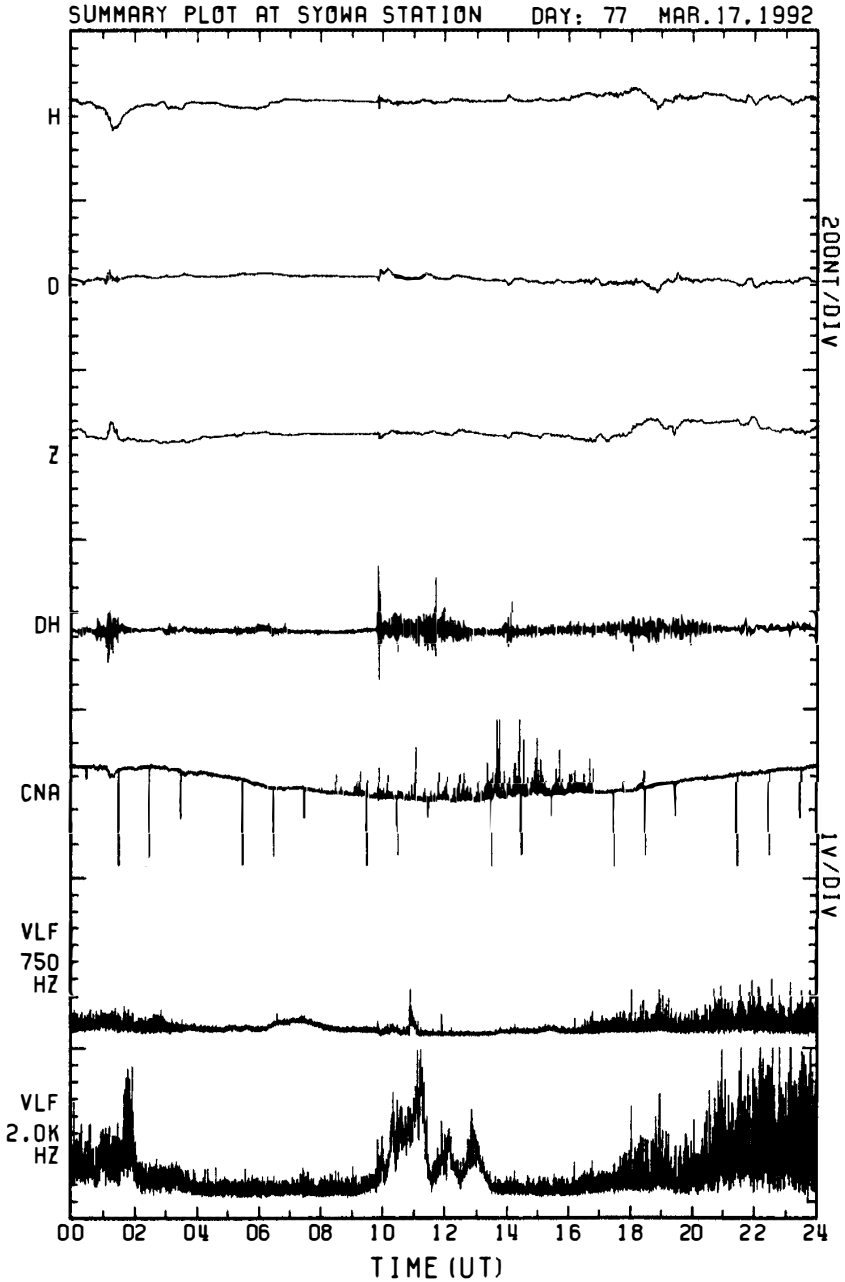

SUMMARY PLOT AT SYOWA STATION DAY: 72 MAR.12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

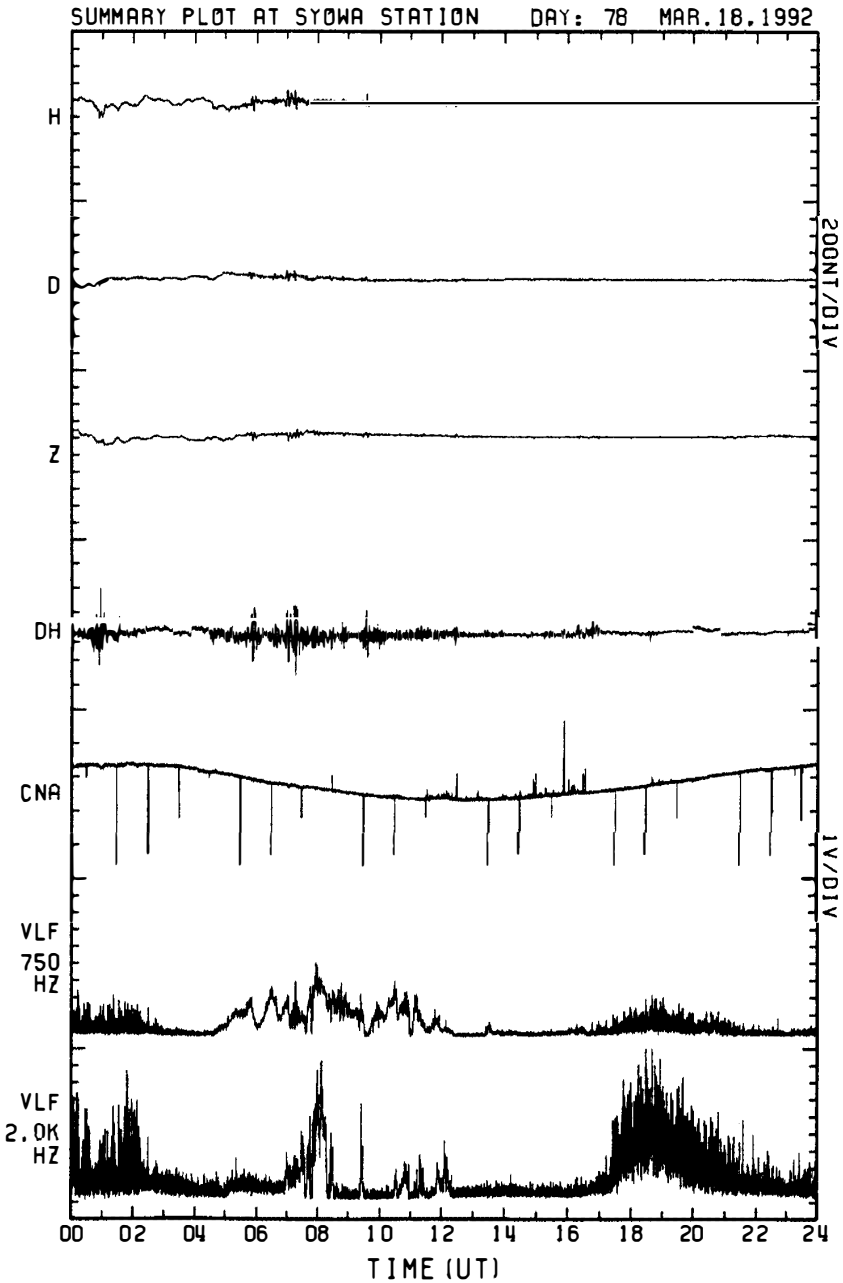

SUMMARY PLOT AT SYOWA STATION DAY: 73 MAR.13.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

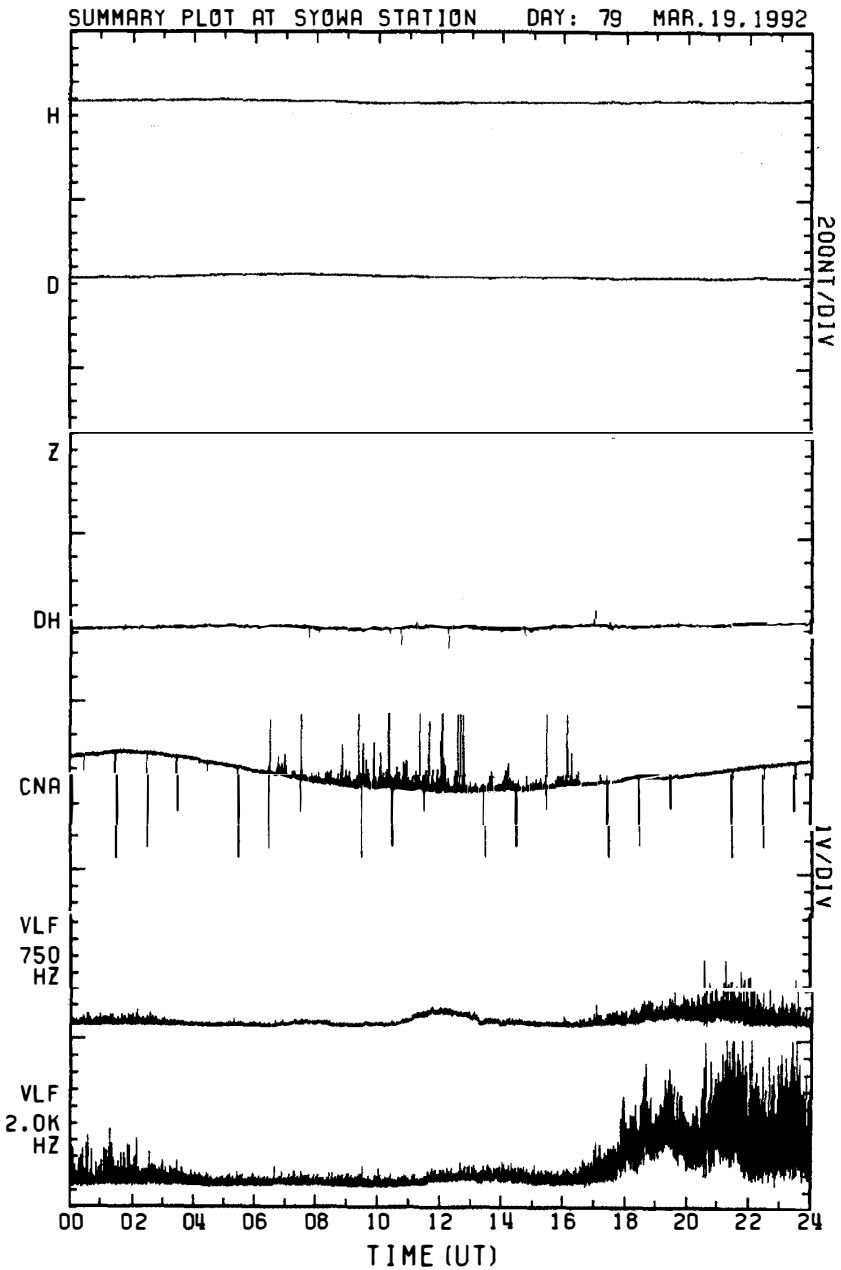

SUMMARY PLOT AT SYOWA STATION DAY: 74 MAR.14.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

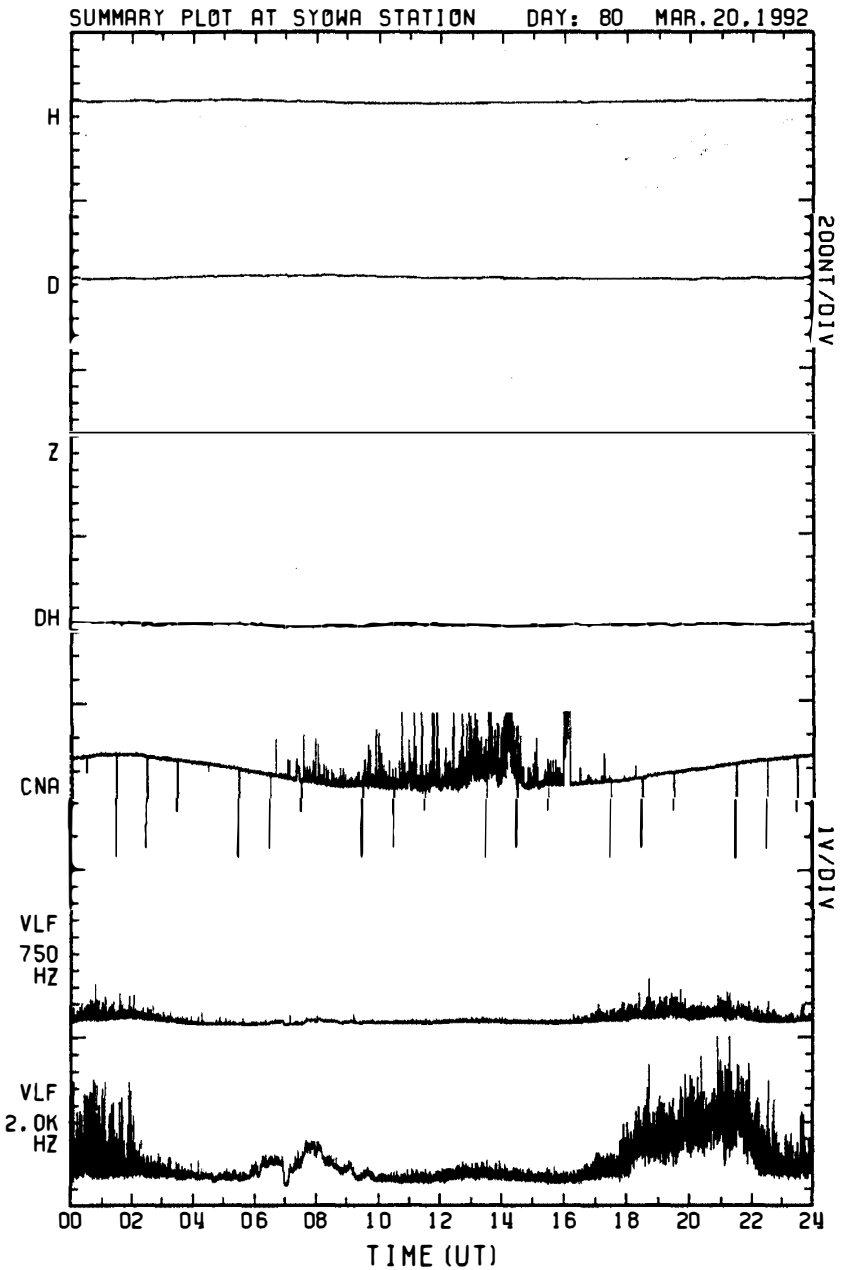

SUMMARY PLOT AT SYOWA STATION DAY: 75 MAR.15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

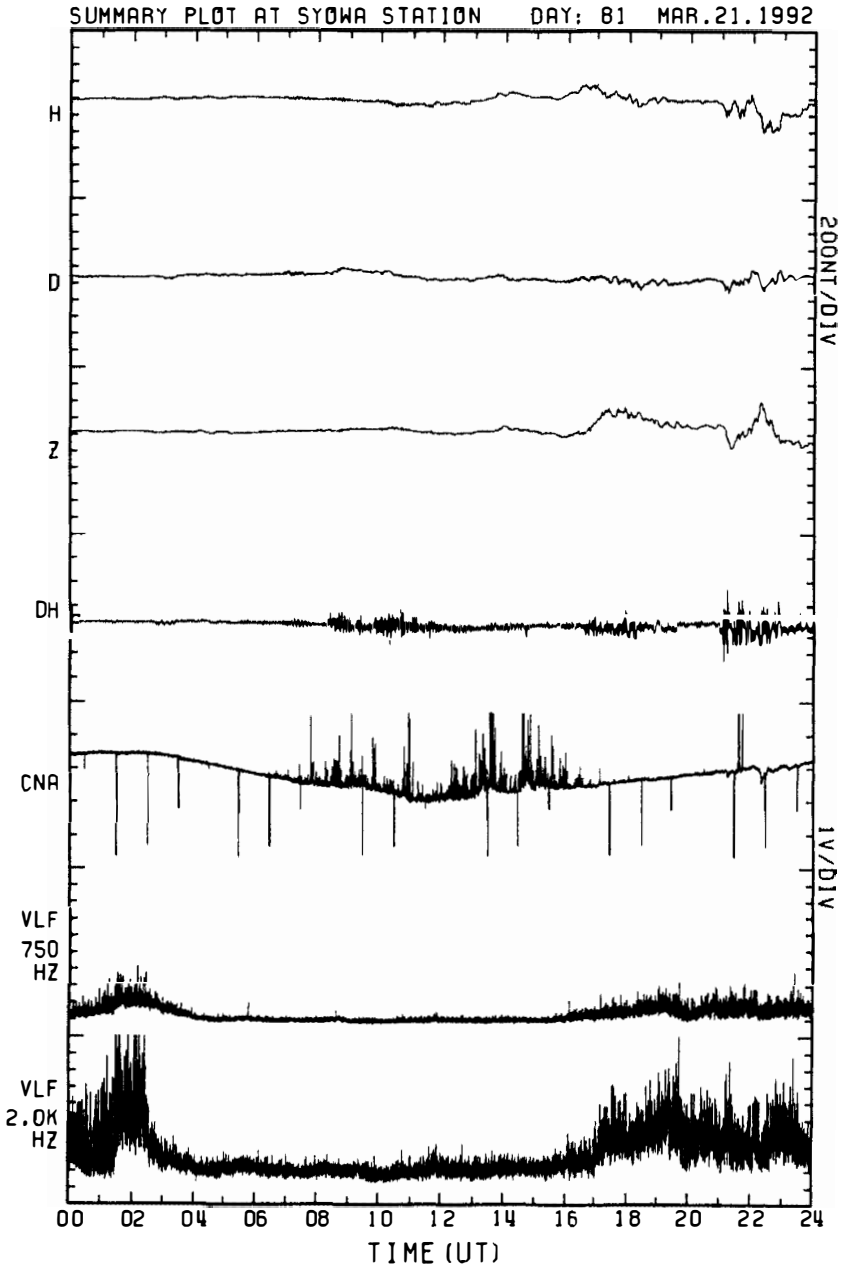

SUMMARY PLOT AT SYOWA STATION DAY: 76 MAR.16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

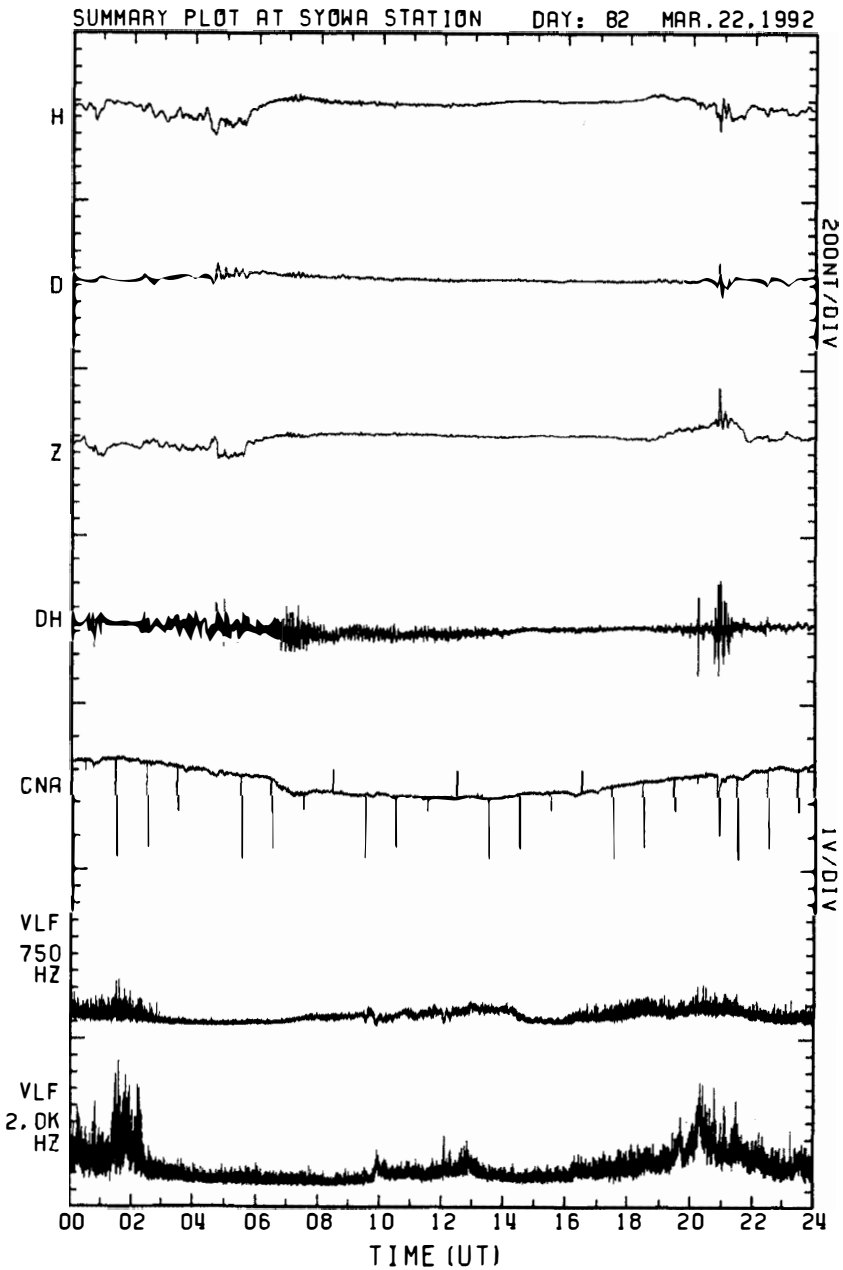

SUMMARY PLOT AT SYOWA STATION DAY: 77 MAR.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

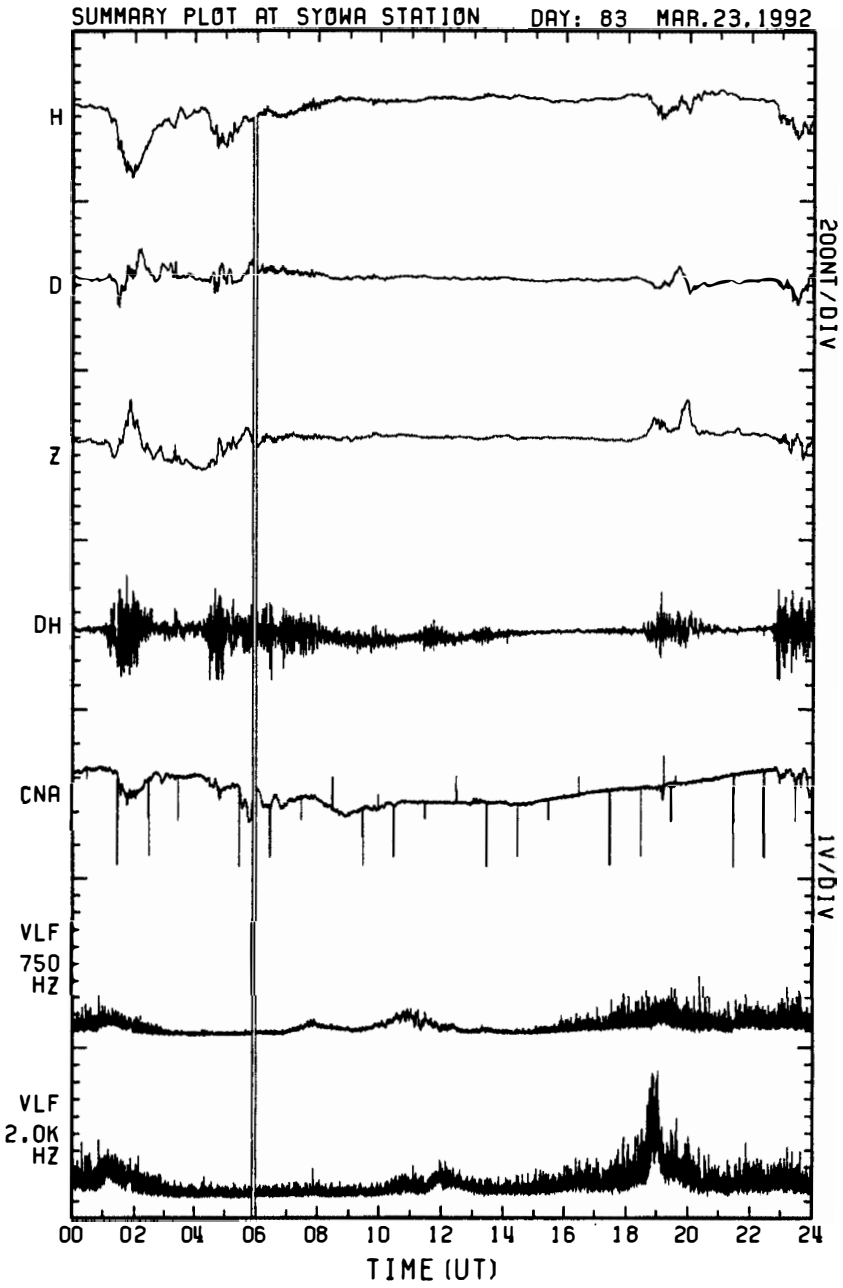

SUMMARY PLOT AT SYOWA STATION DAY: 78 MAR.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

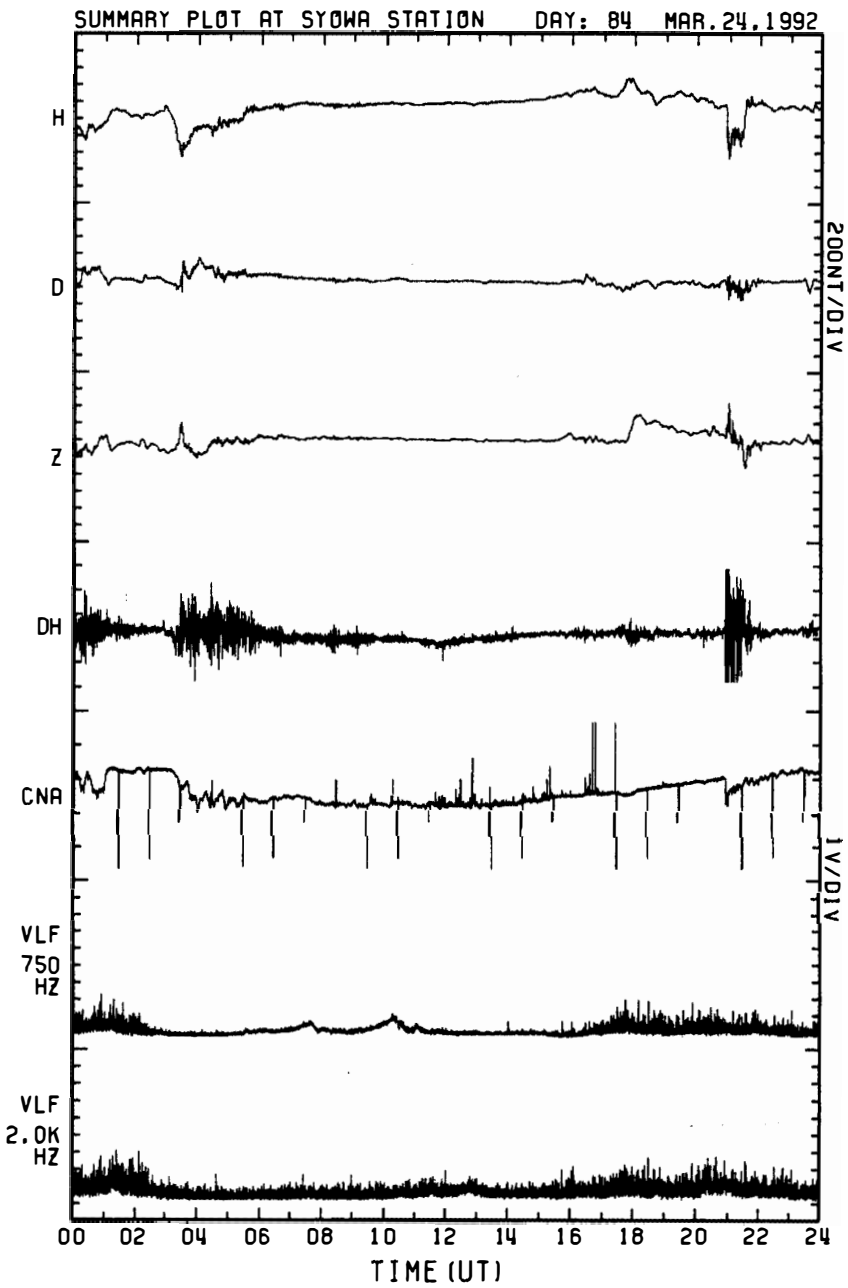

SUMMARY PLOT AT SYOWA STATION DAY: 79 MAR.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

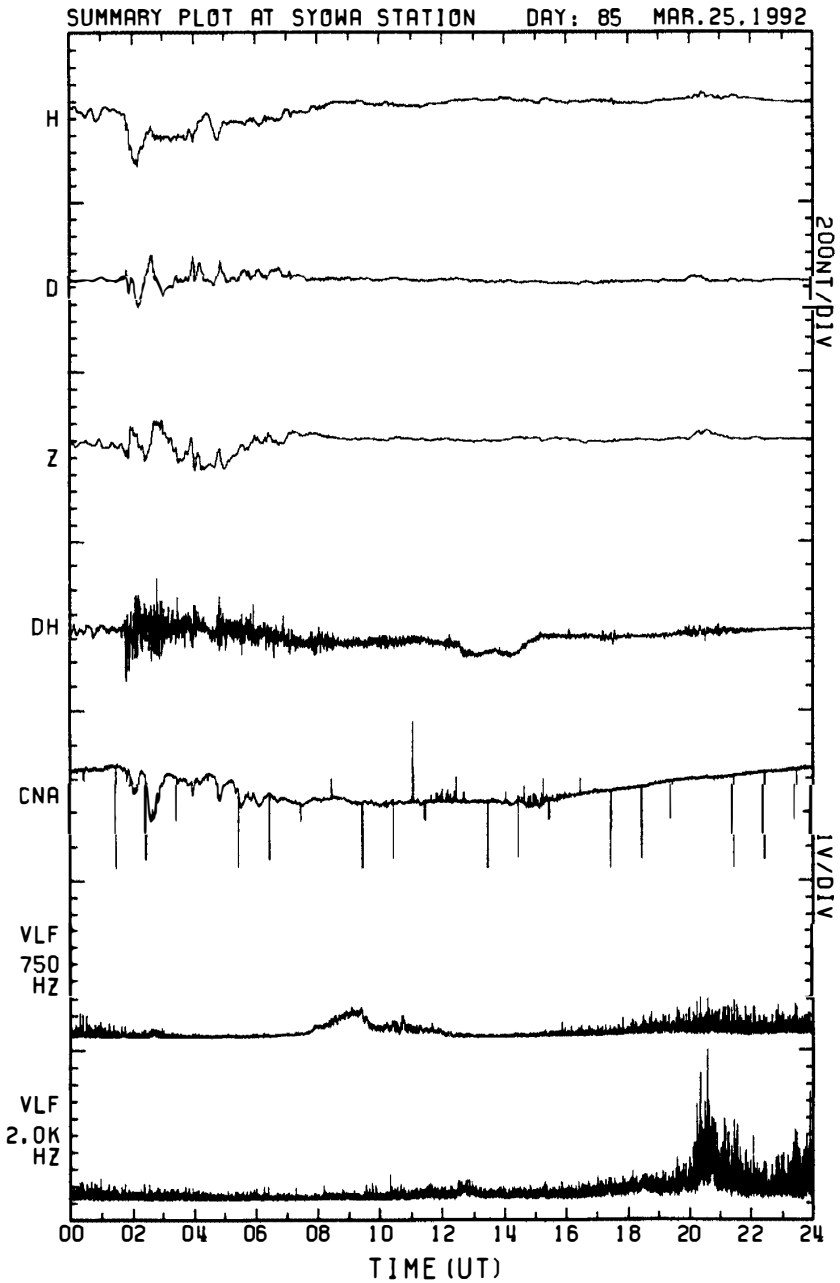

SUMMARY PLOT AT SYOWA STATION DAY: 80 MAR.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

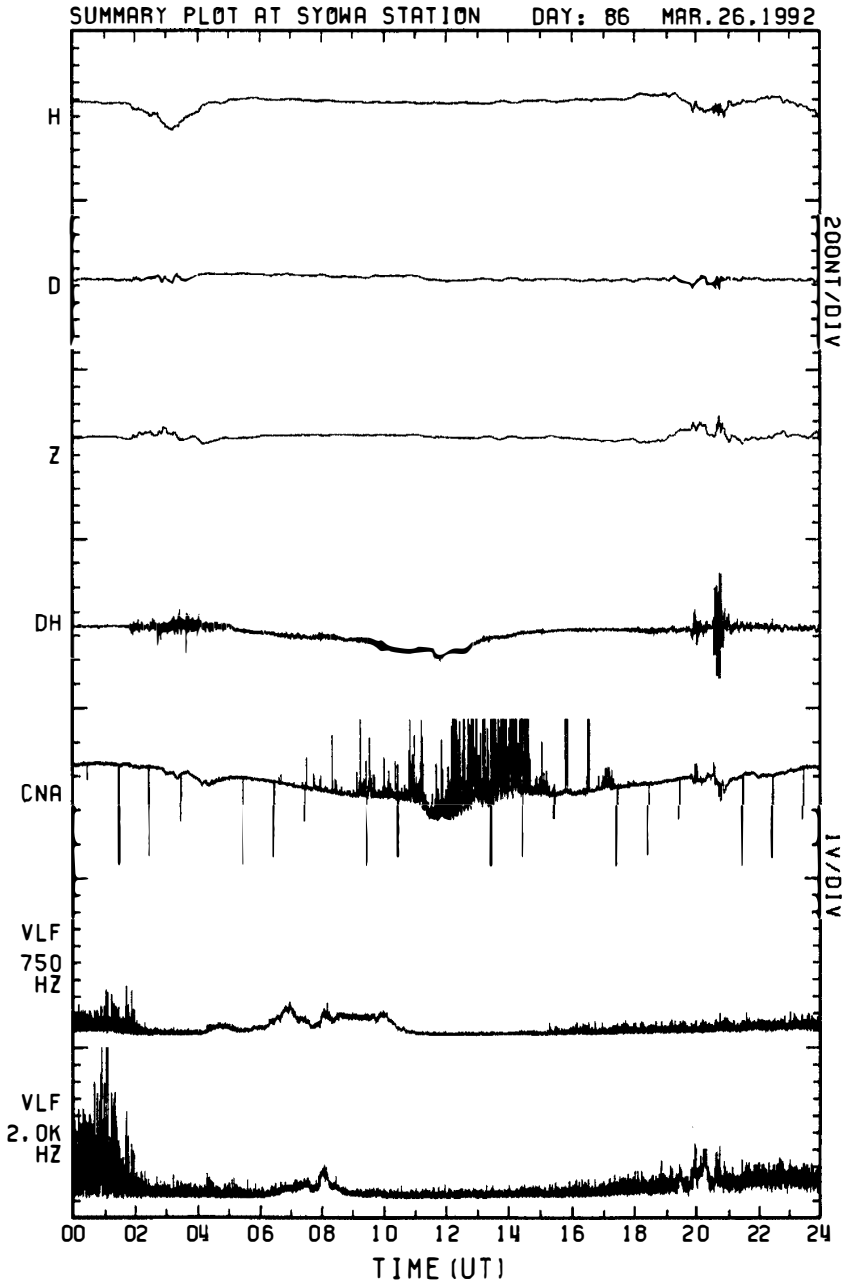

SUMMARY PLOT AT SYOWA STATION DAY: 81 MAR.21.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

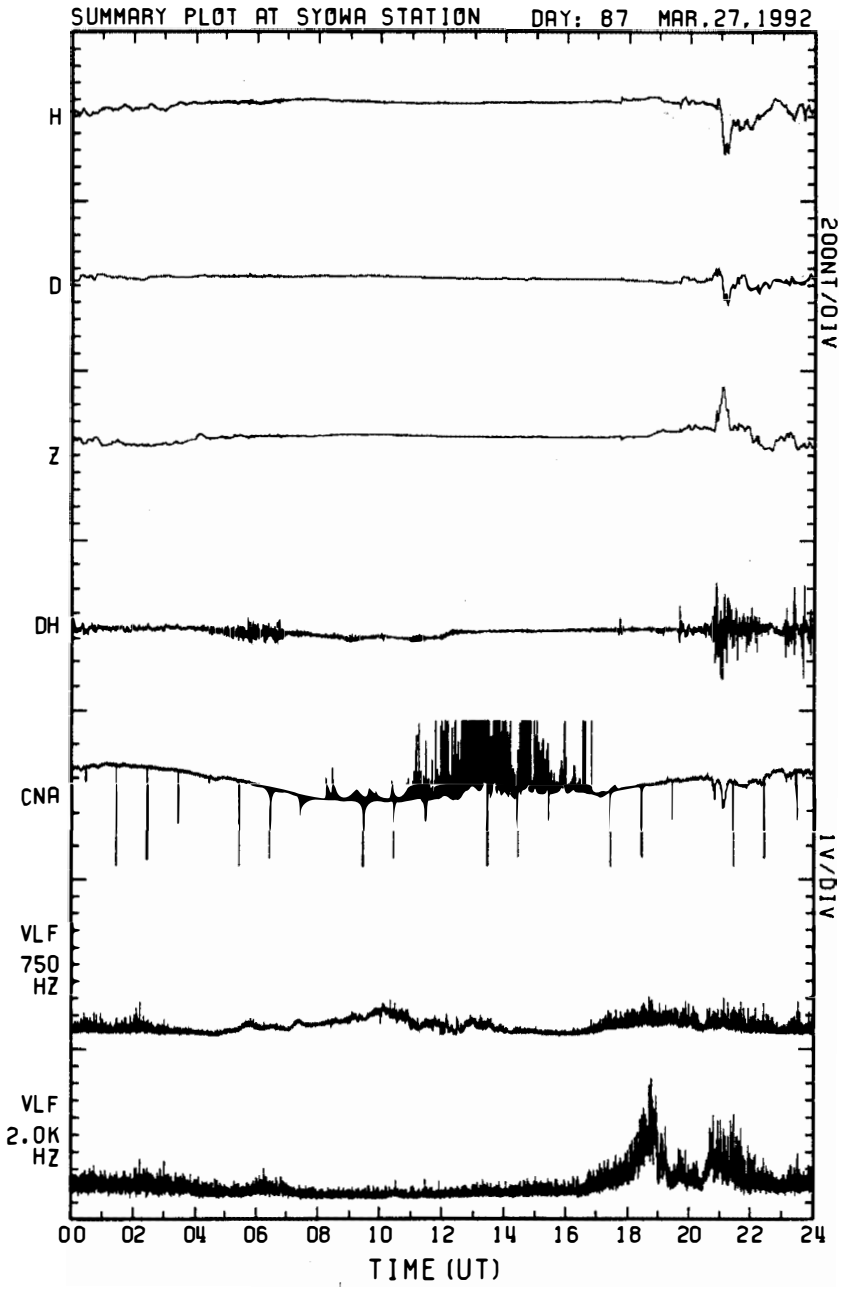

SUMMARY PLOT AT SYOWA STATION DAY: 82 MAR.22.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

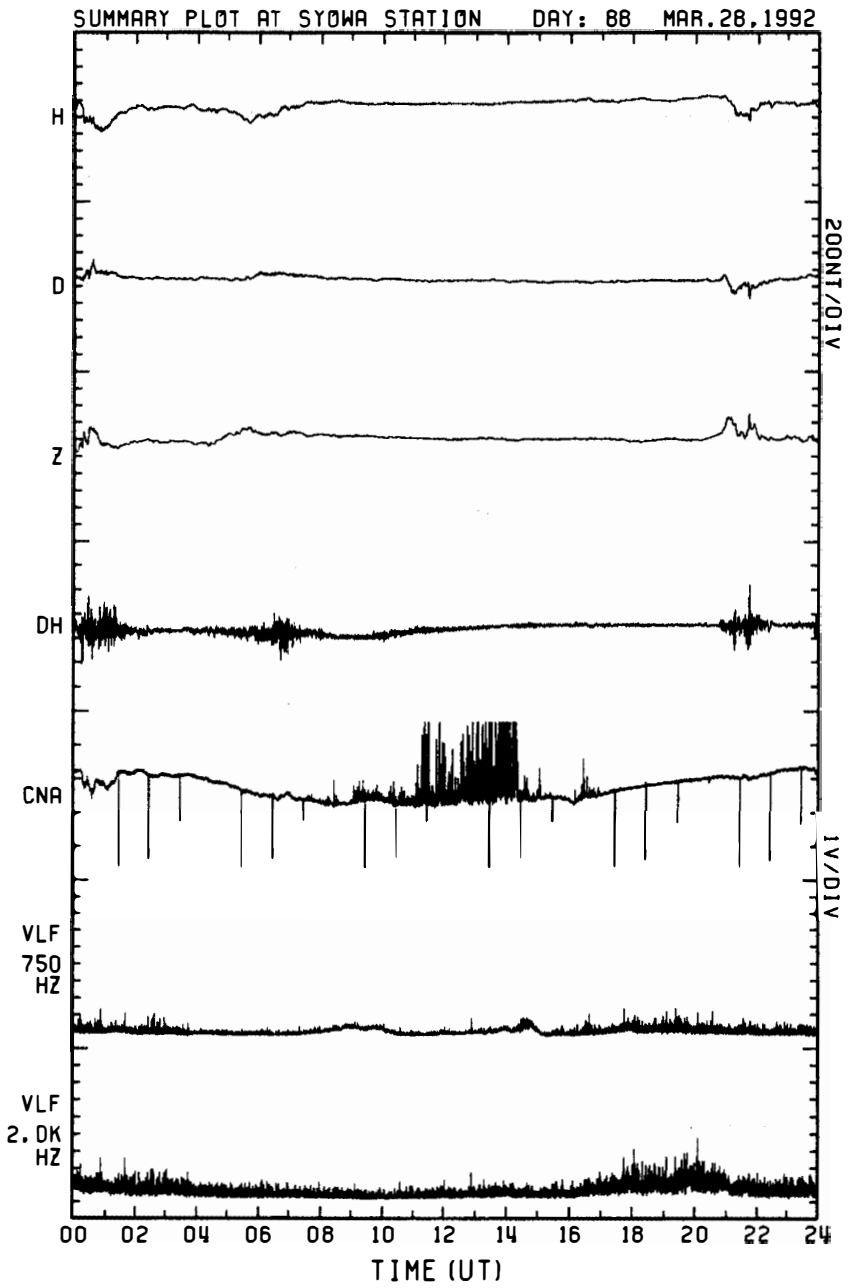

SUMMARY PLOT AT SYOWA STATION DAY: 83 MAR.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

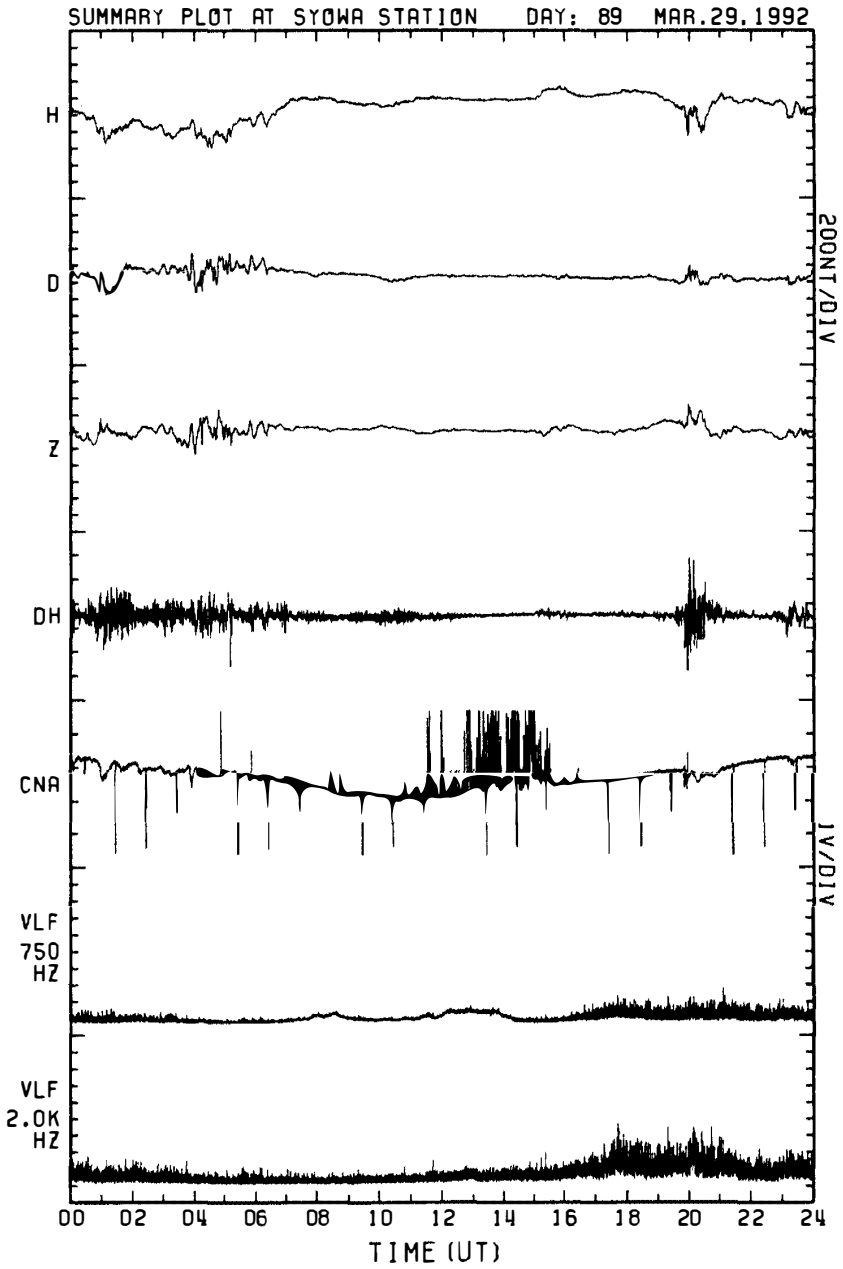

SUMMARY PLOT AT SYOWA STATION DAY: 84 MAR.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

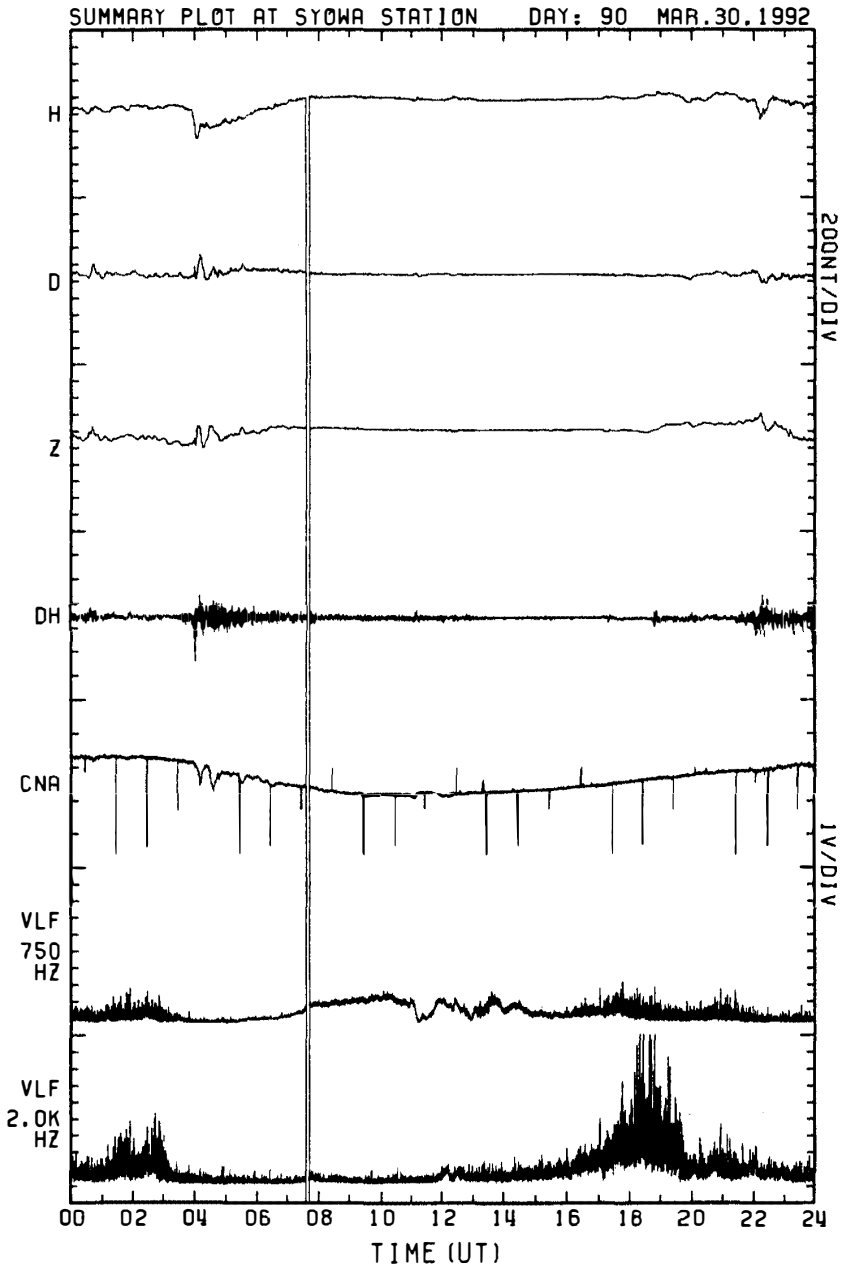

SUMMARY PLOT AT SYOWA STATION DAY: 85 MAR.25.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

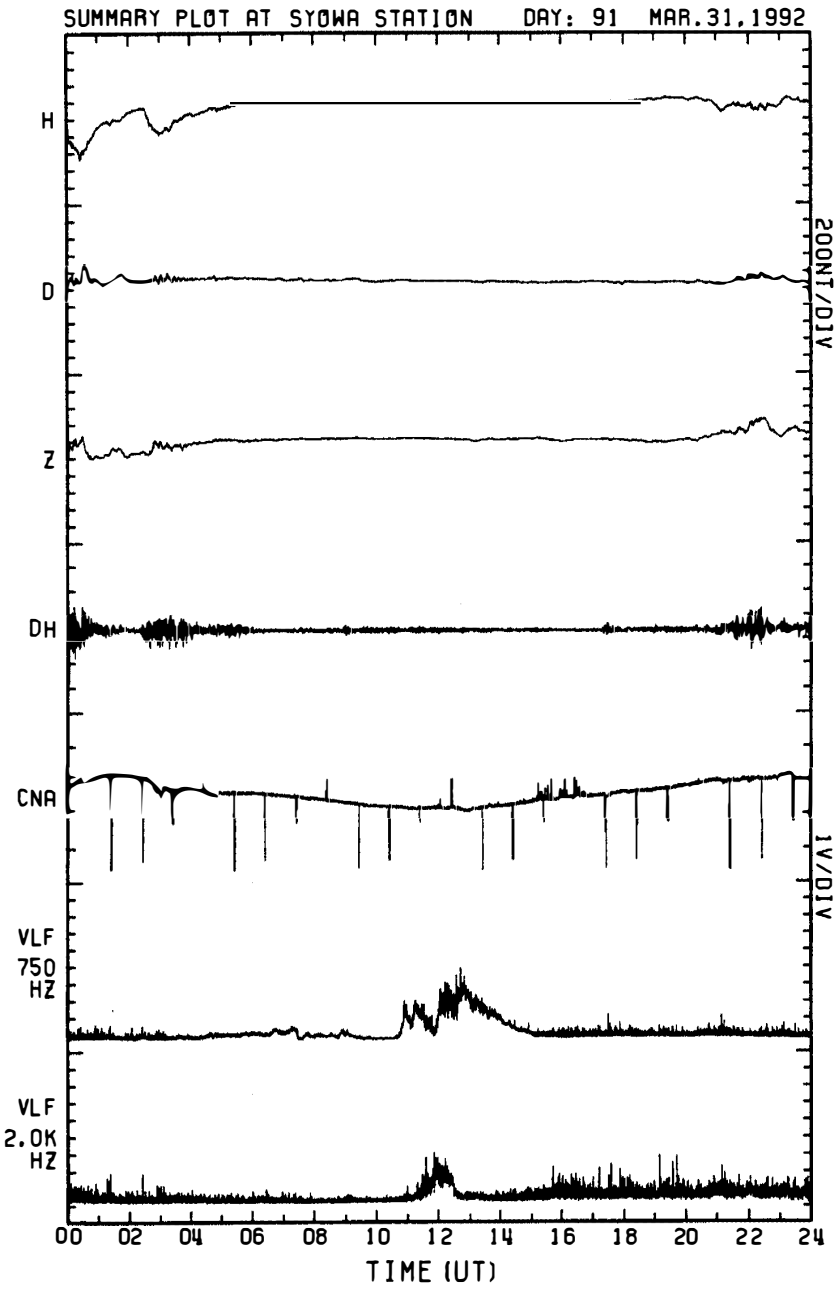

SUMMARY PLOT AT SYOWA STATION DAY: 86 MAR.26.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

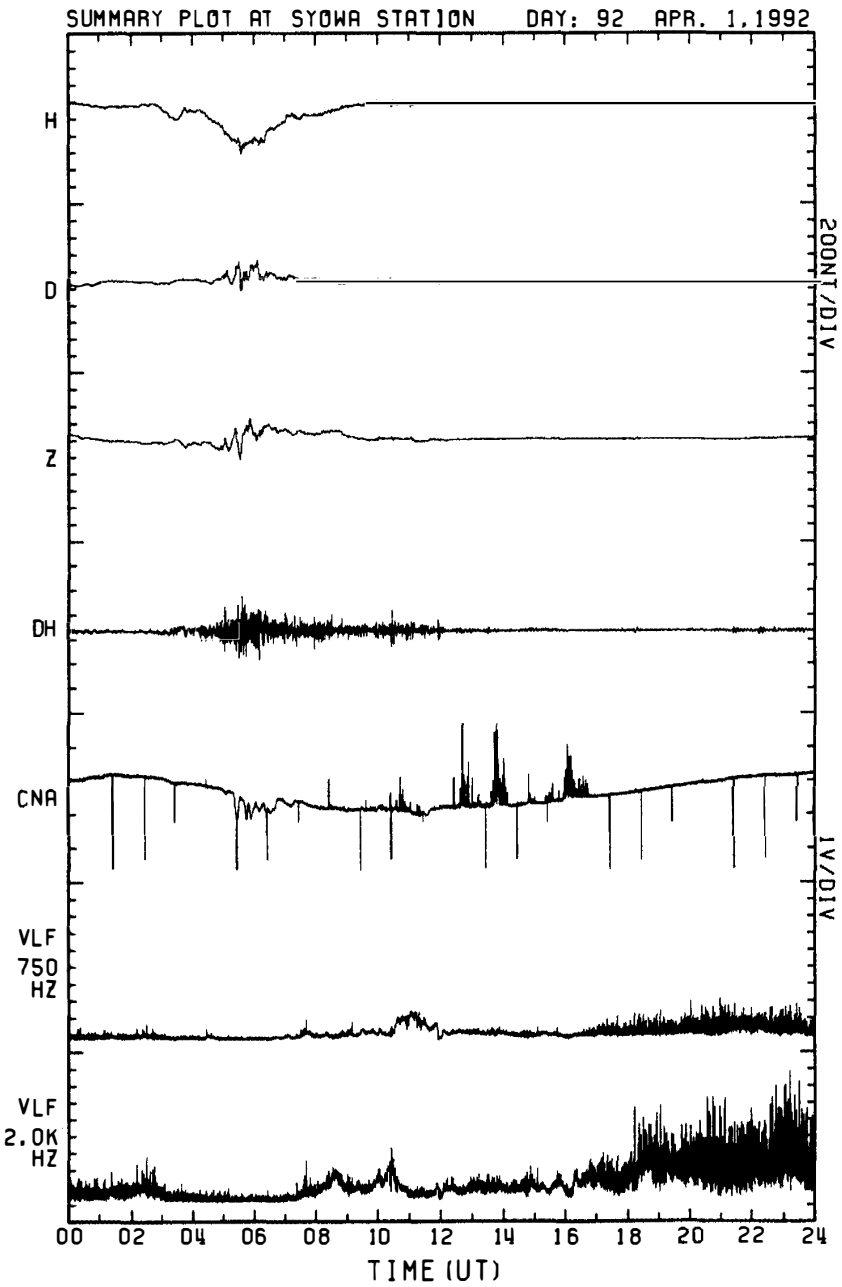

SUMMARY PLOT AT SYOWA STATION DAY: 87 MAR.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

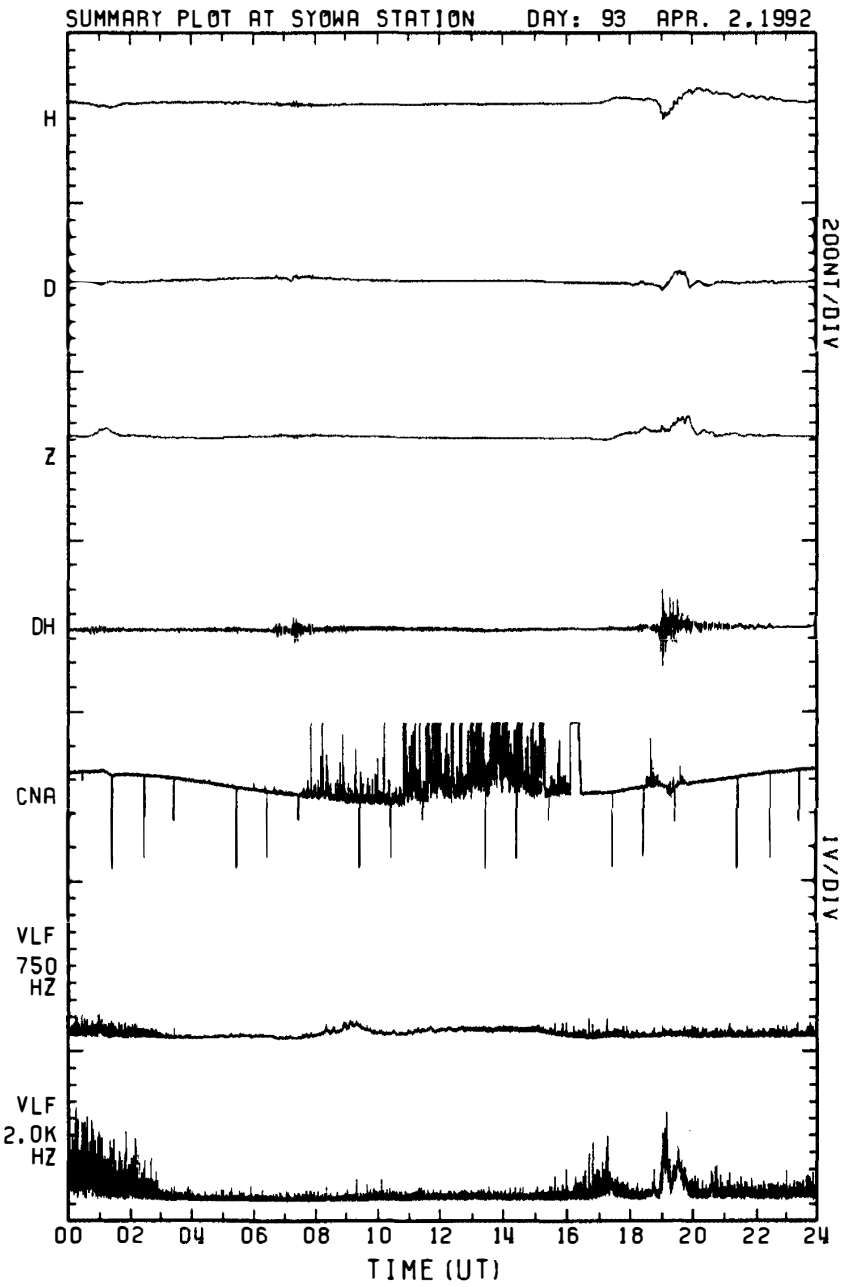

SUMMARY PLOT AT SYOWA STATION DAY: 88 MAR.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

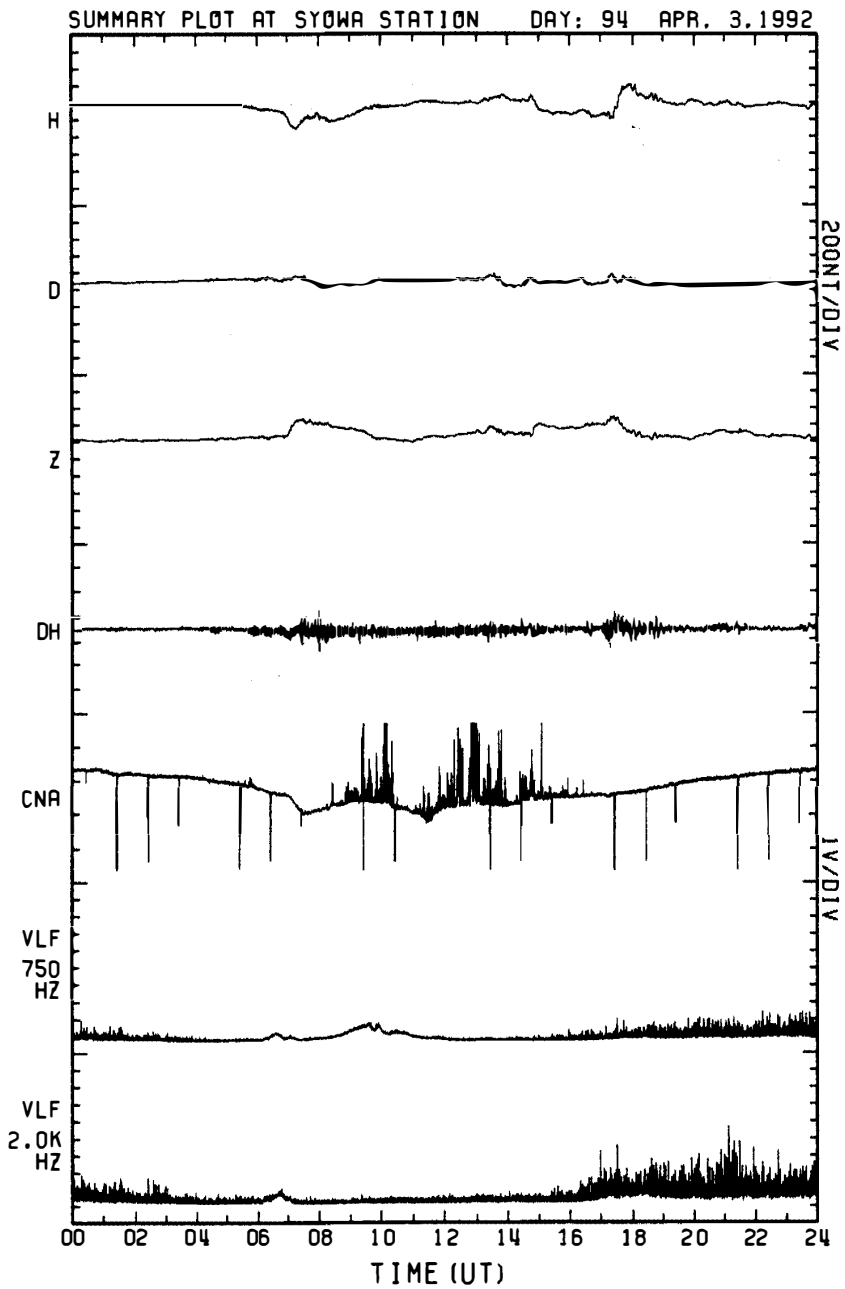

SUMMARY PLOT AT SYOWA STATION DAY: 89 MAR.29.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

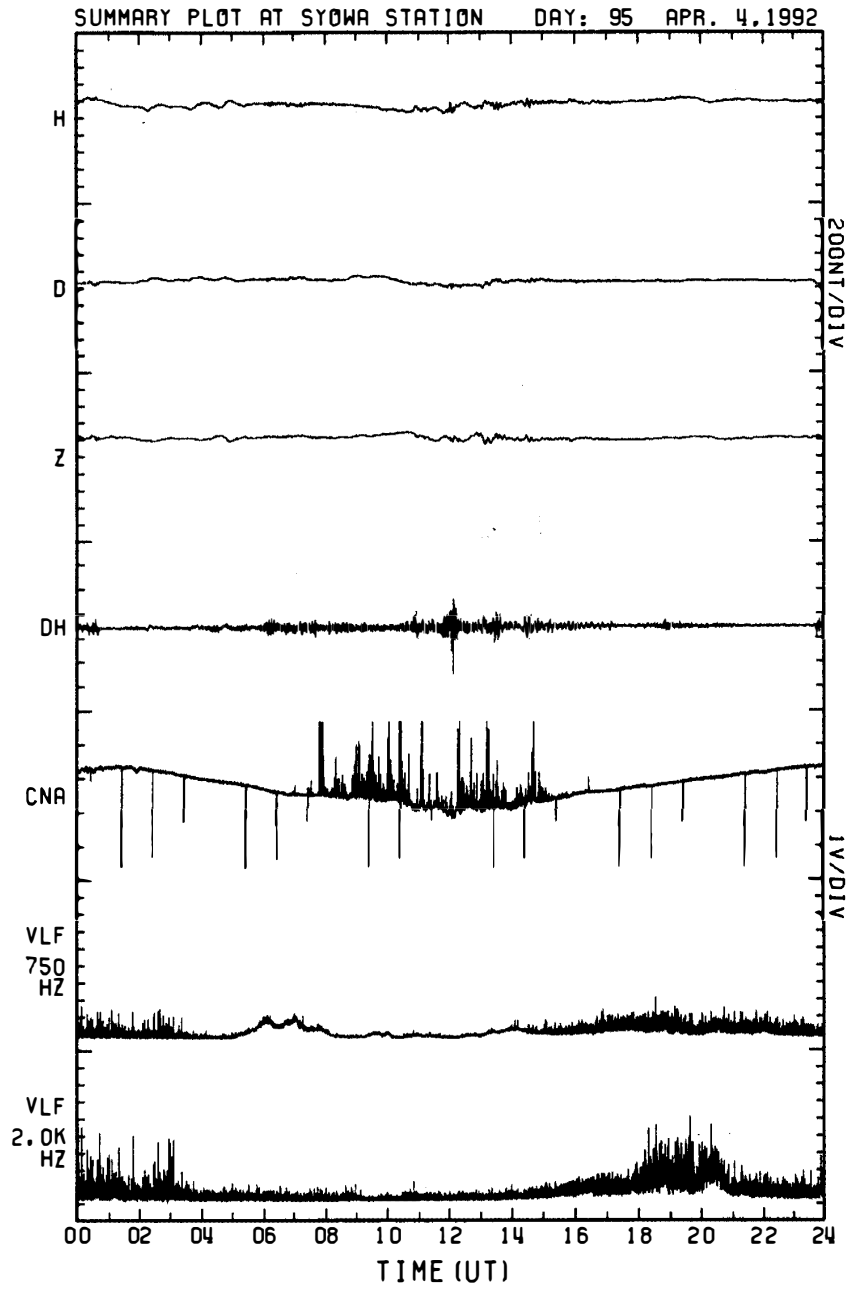

SUMMARY PLOT AT SYOWA STATION DAY: 90 MAR.30.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

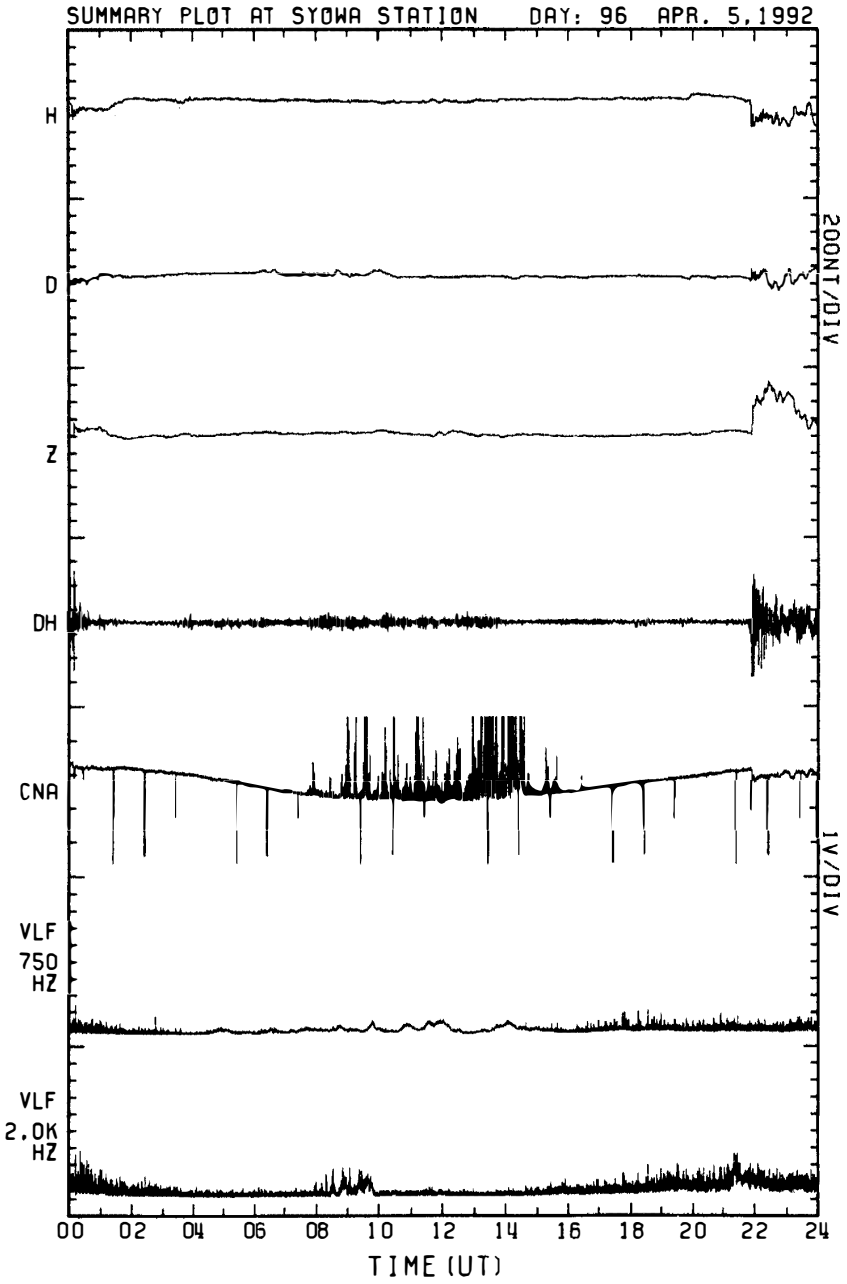

SUMMARY PLOT AT SYOWA STATION DAY: 91 MAR.31,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

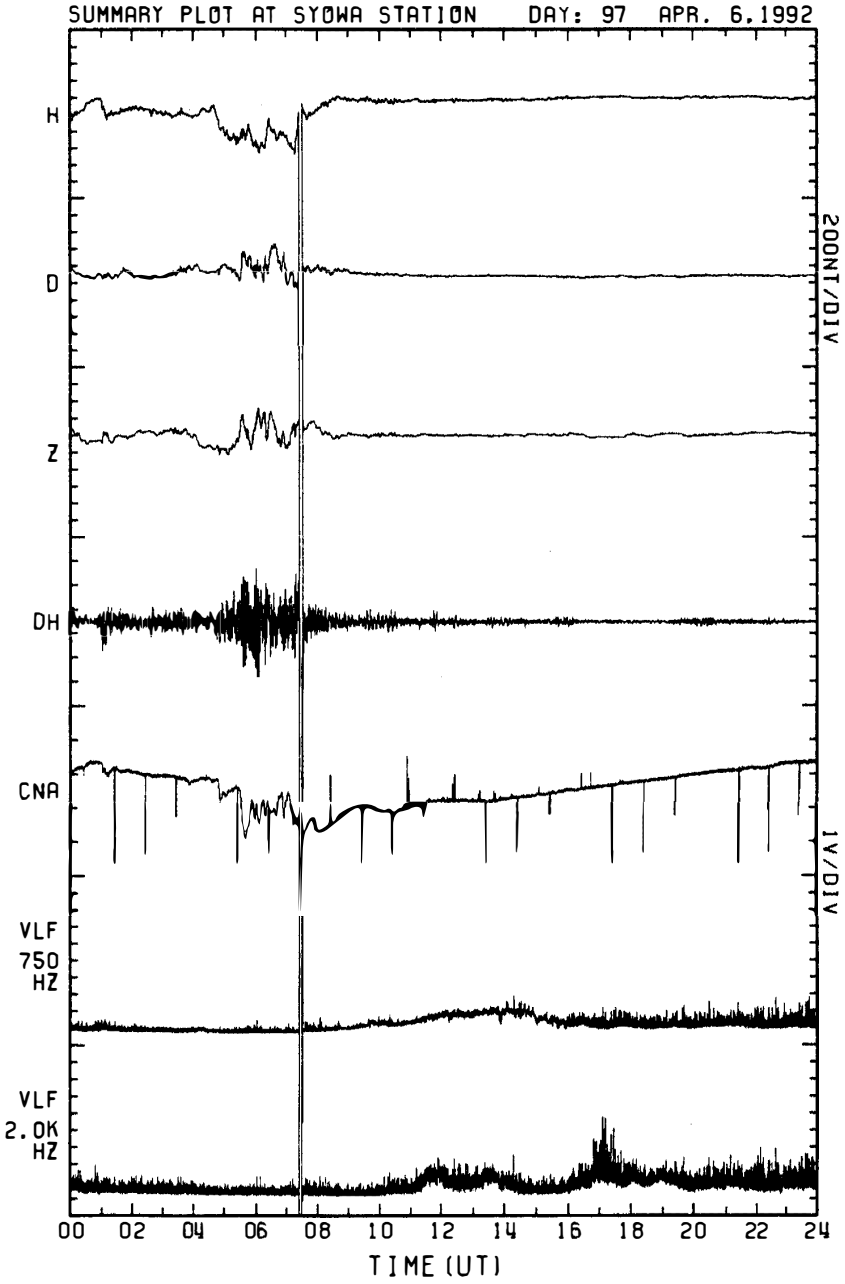

SUMMARY PLOT AT SYOWA STATION DAY: 92 APR. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

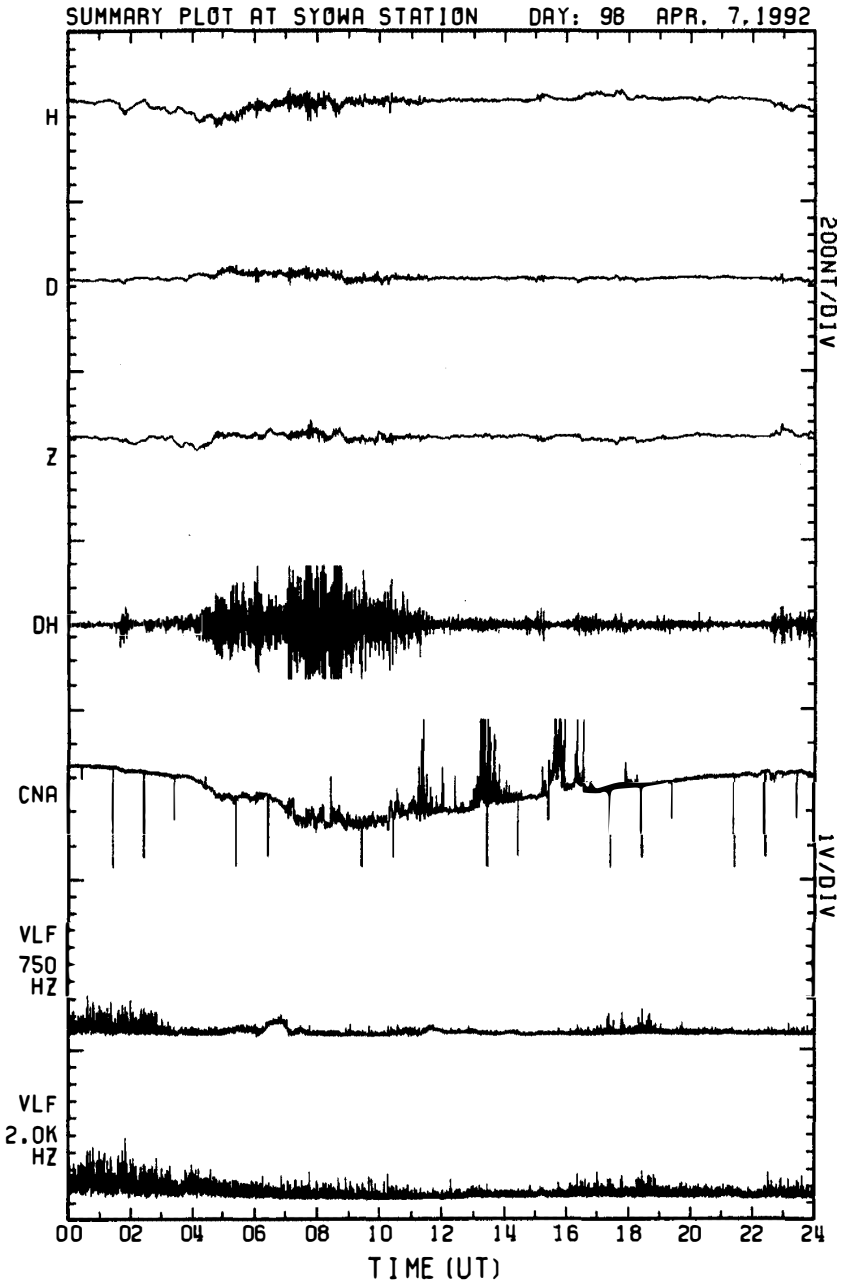

SUMMARY PLOT AT SYOWA STATION DAY: 93 APR. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

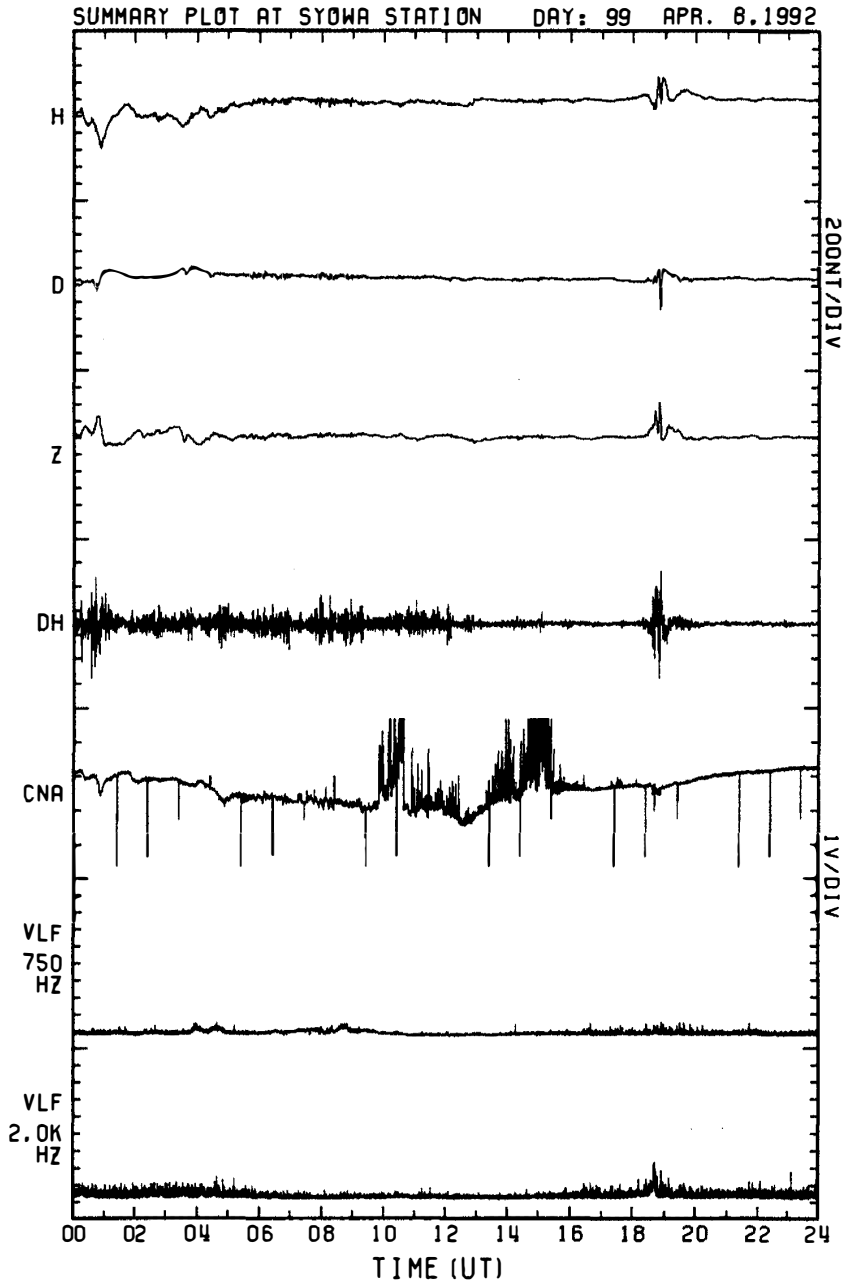

SUMMARY PLOT AT SYOWA STATION DAY: 94 APR. 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

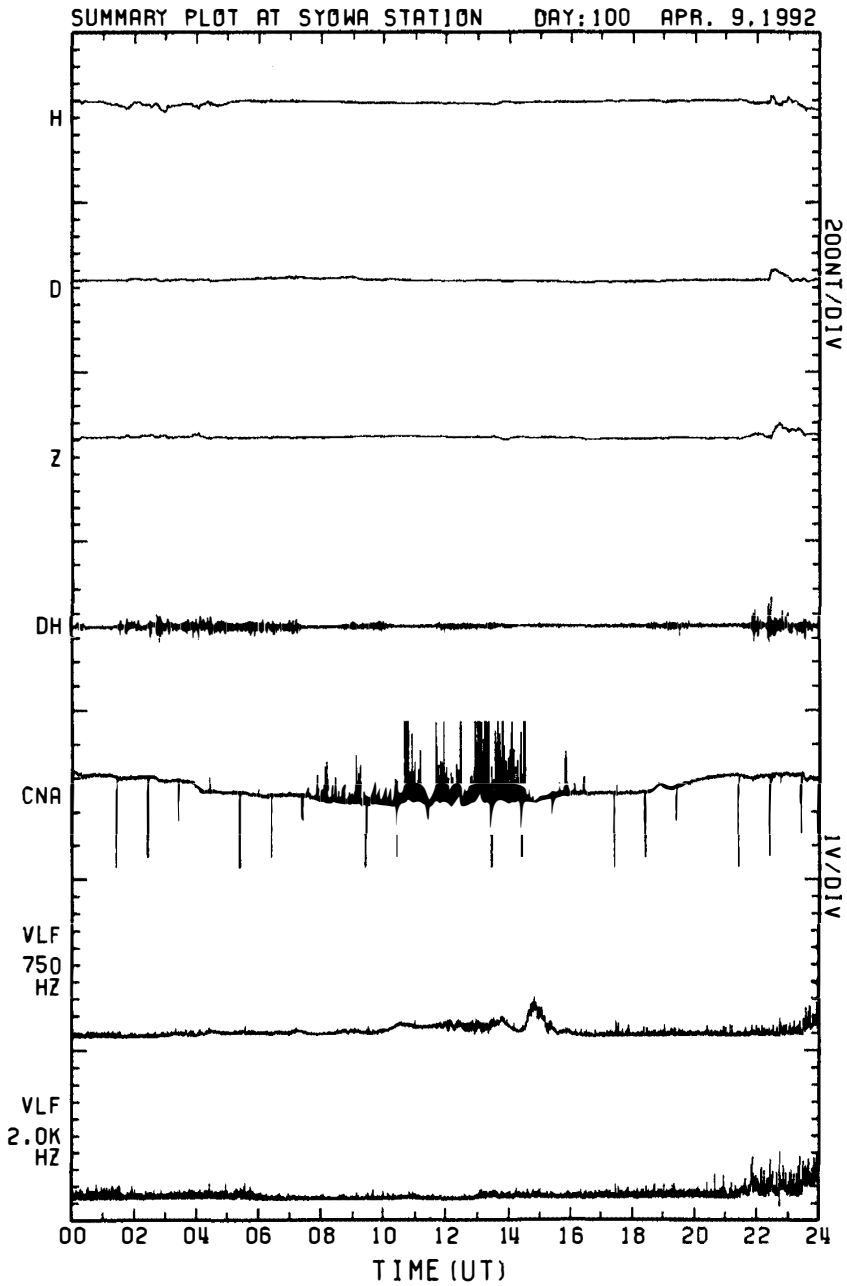

SUMMARY PLOT AT SYOWA STATION DAY: 95 APR. 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

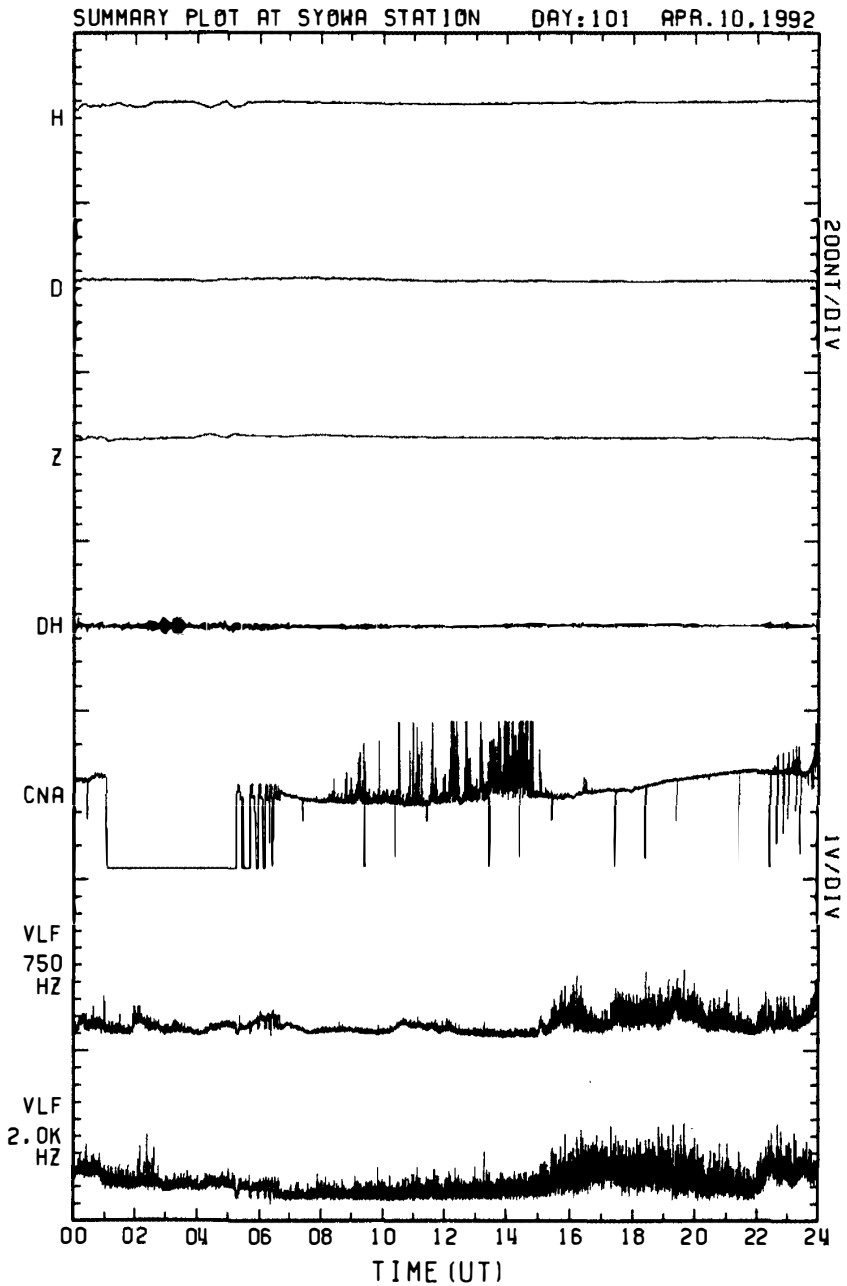

SUMMARY PLOT AT SYOWA STATION DAY: 96 APR. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

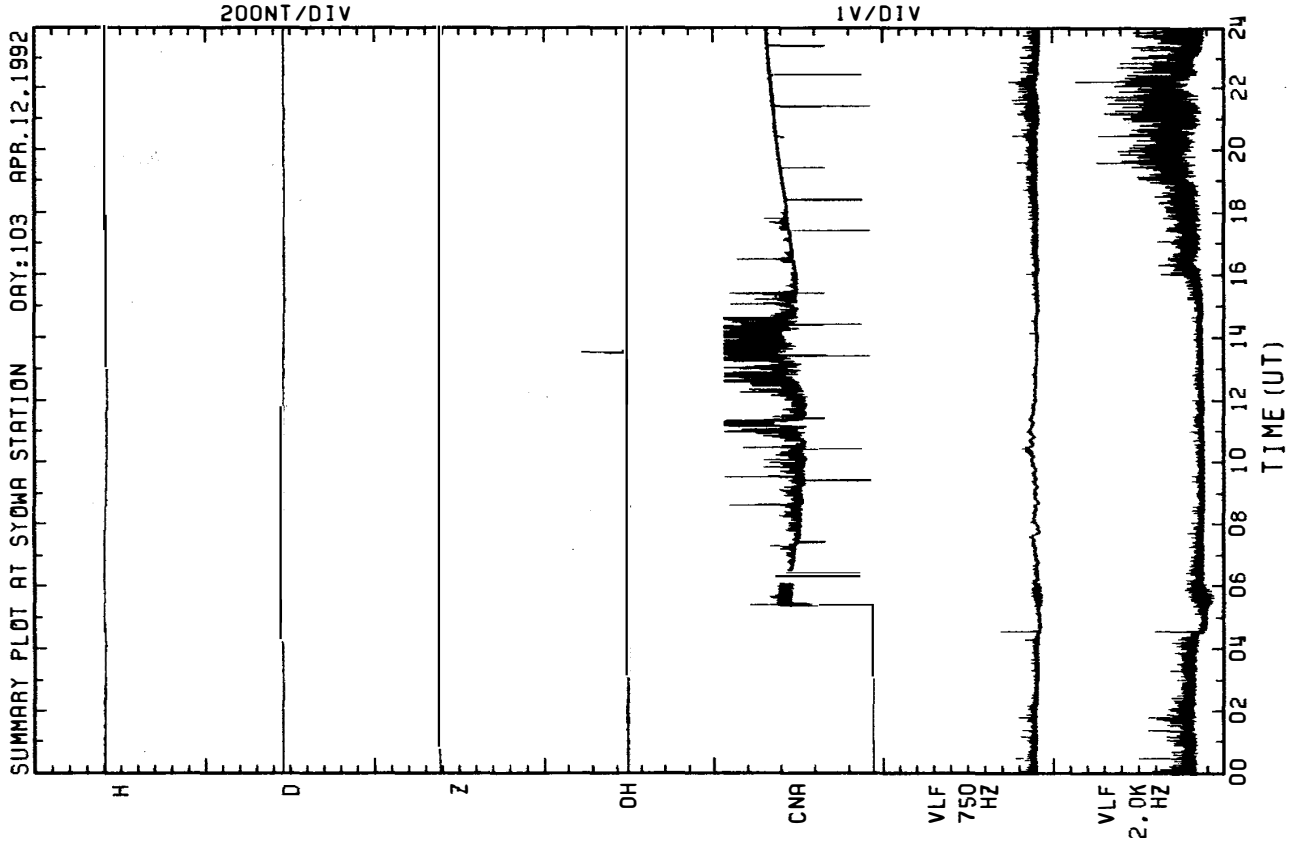

SUMMARY PLOT AT SYOWA STATION DAY: 97 APR. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

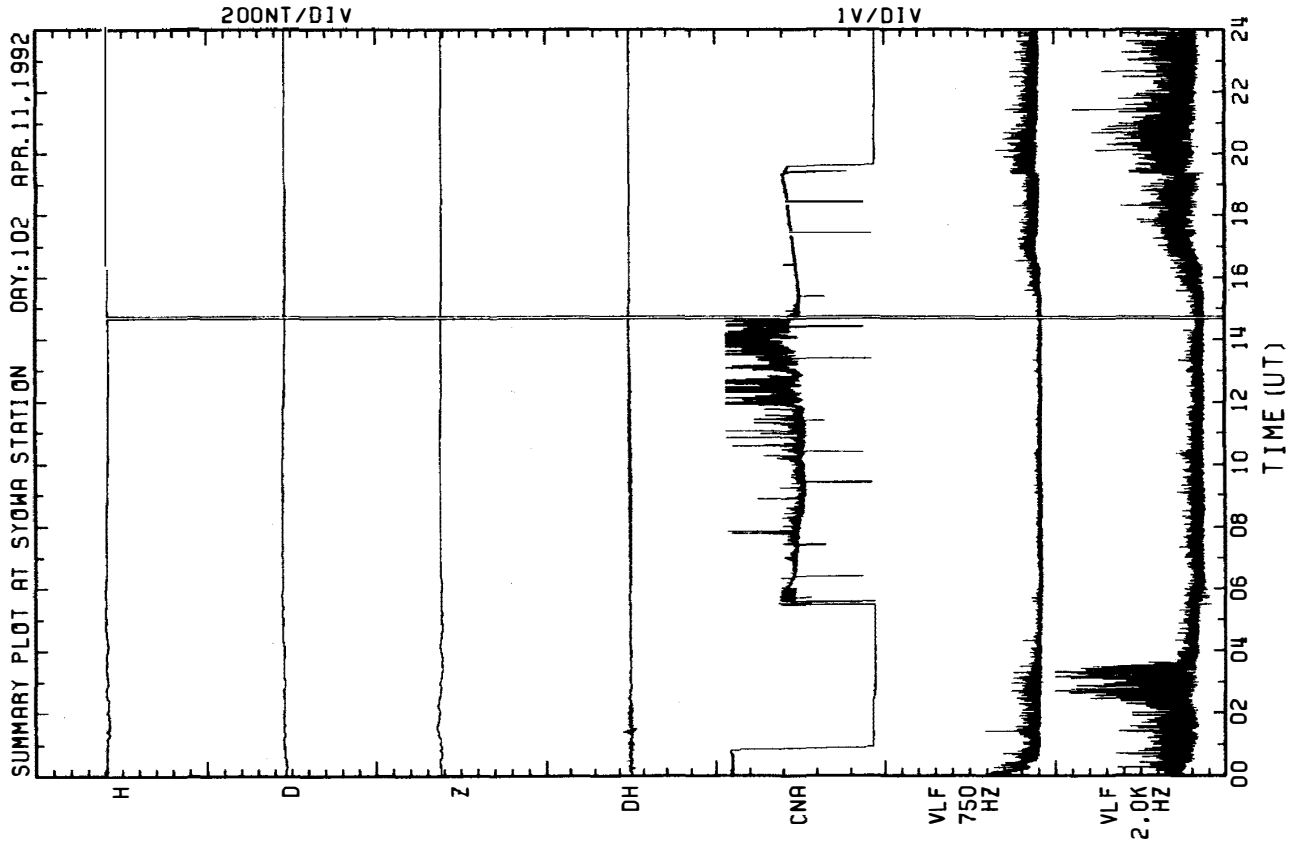

SUMMARY PLOT AT SYOWA STATION DAY: 98 APR. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

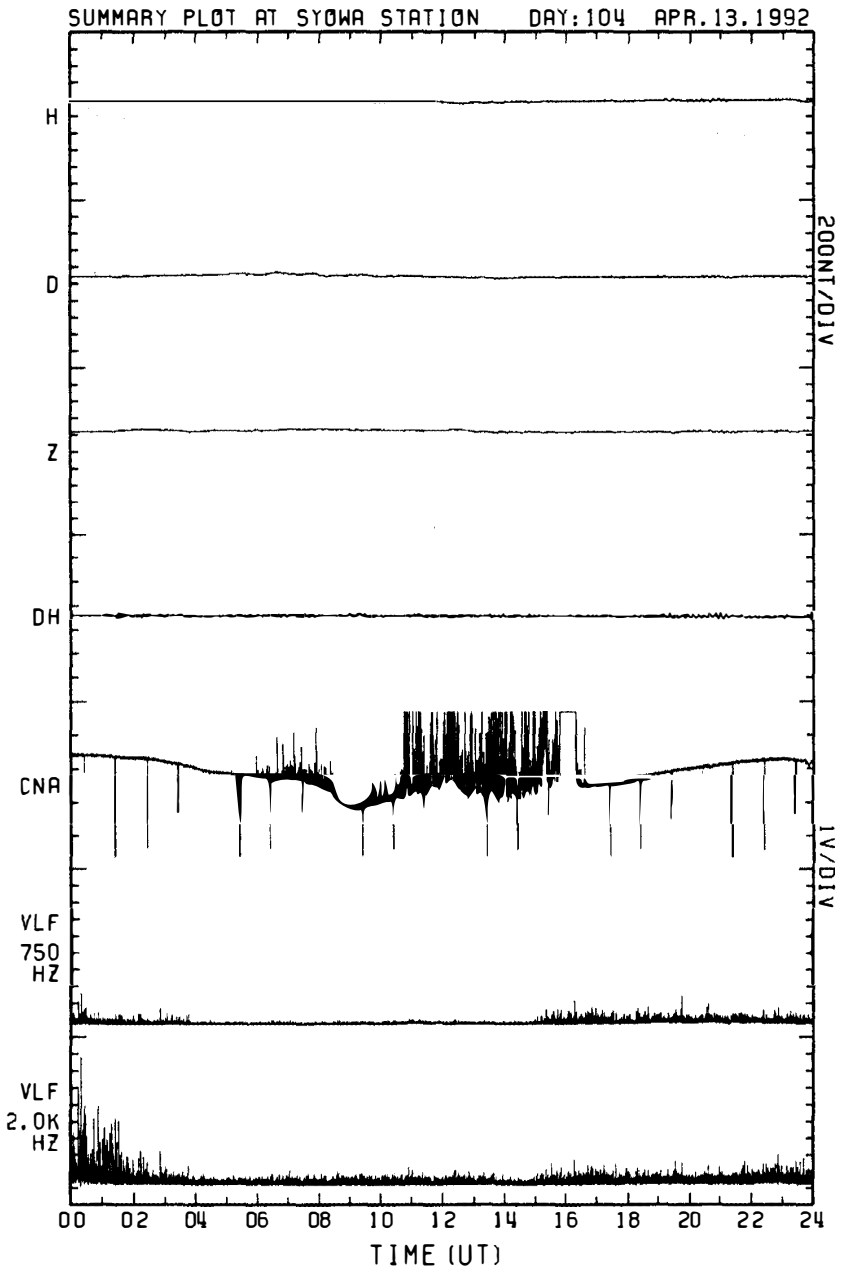

SUMMARY PLOT AT SYOWA STATION DAY: 99 APR. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

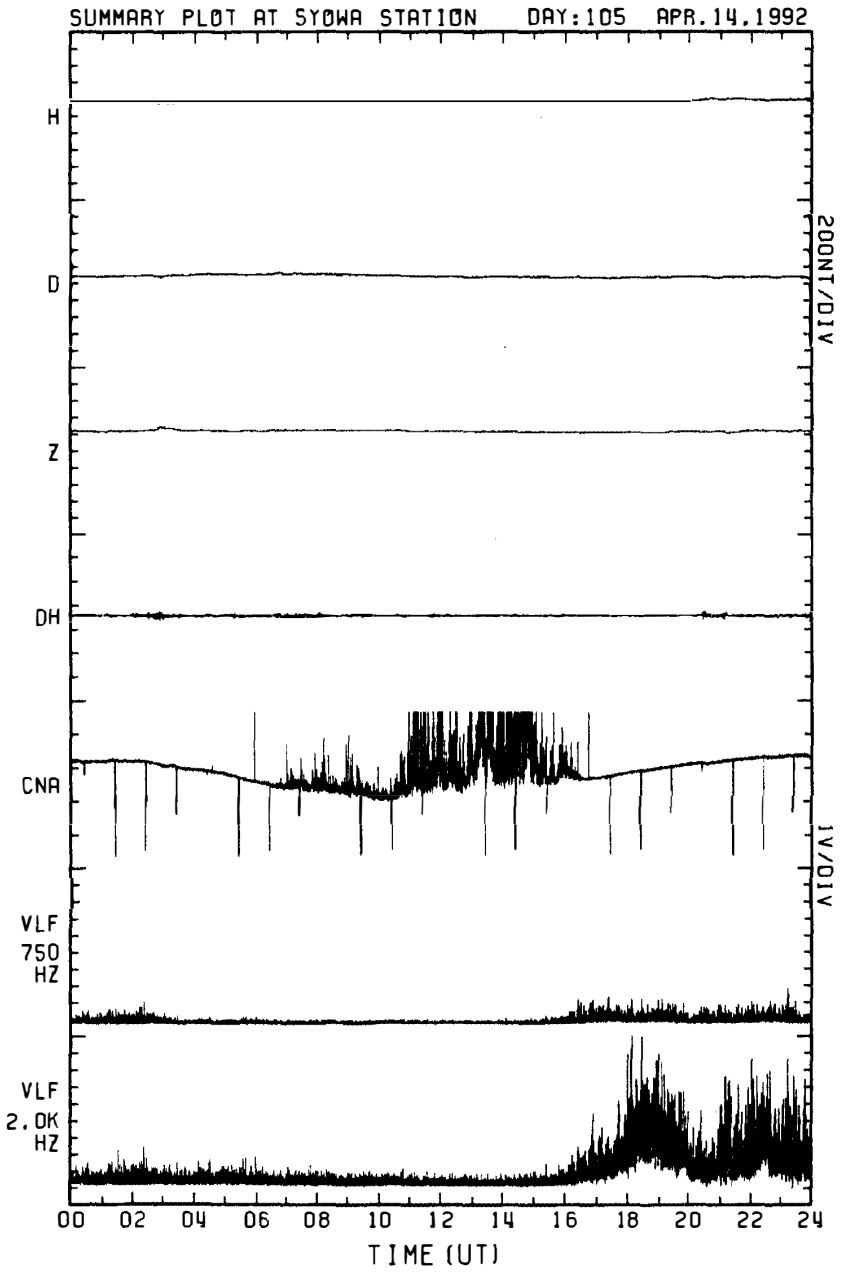

SUMMARY PLOT AT SYOWA STATION DAY:100 APR. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

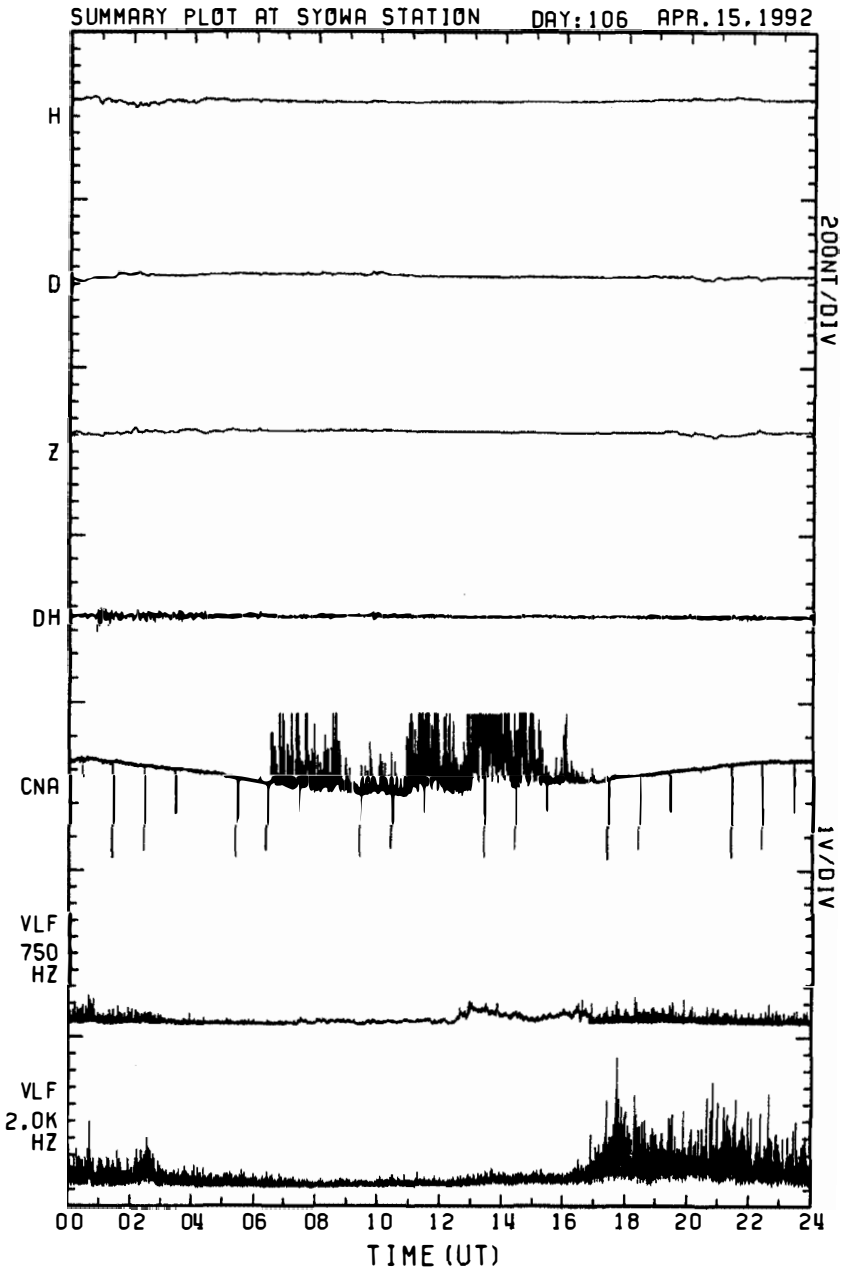

SUMMARY PLOT AT SYOWA STATION DAY:101 APR.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

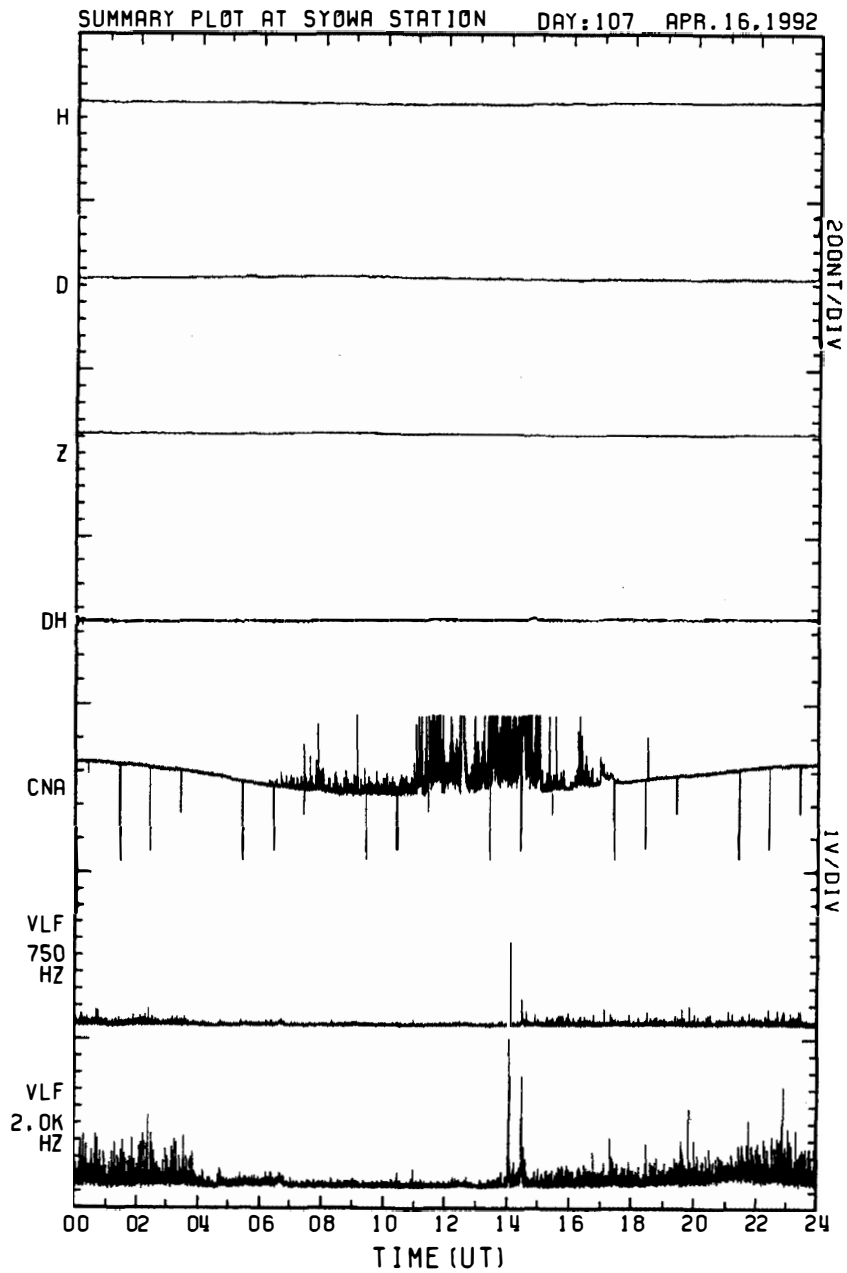

SUMMARY PLOT AT SYOWA STATION DAY:103 APR.12,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

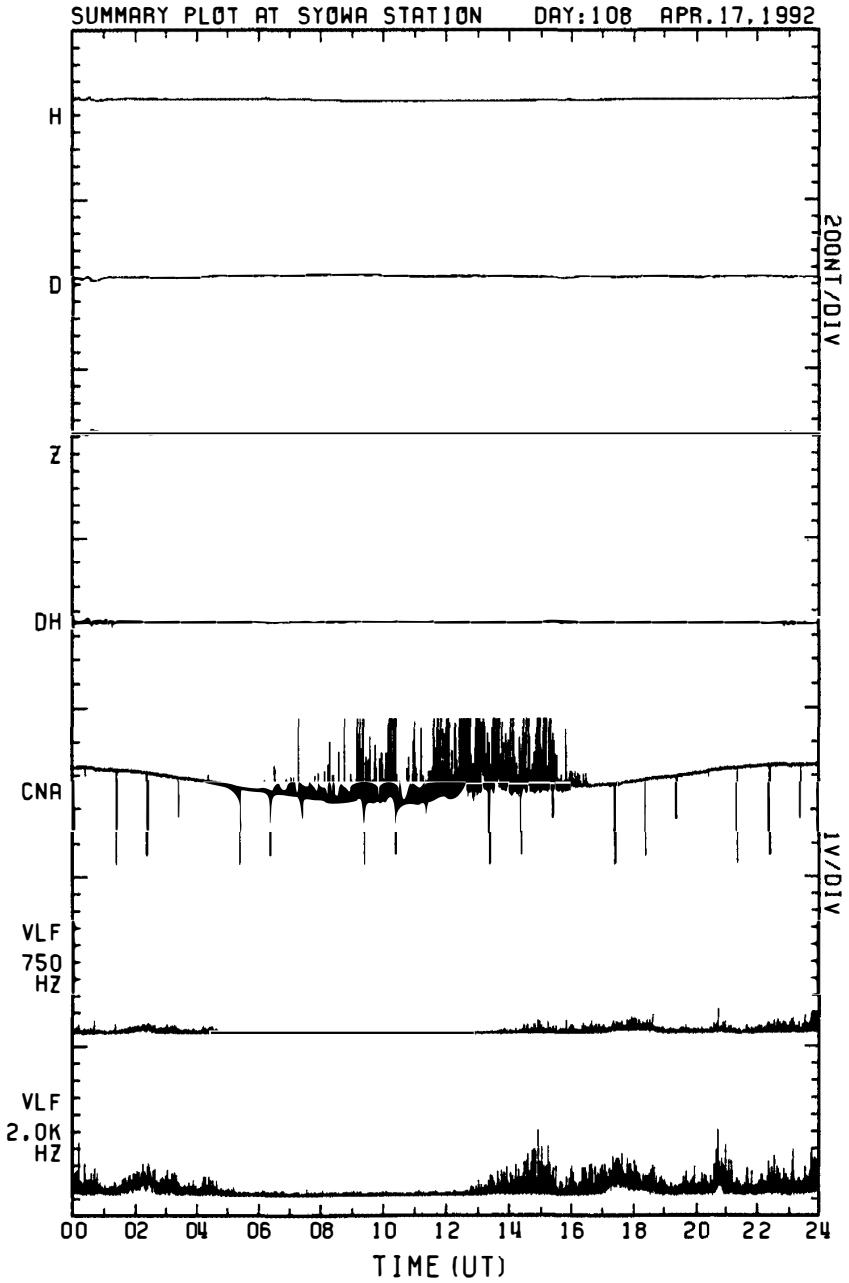

SUMMARY PLOT AT SYOWA STATION DAY:102 APR.11,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

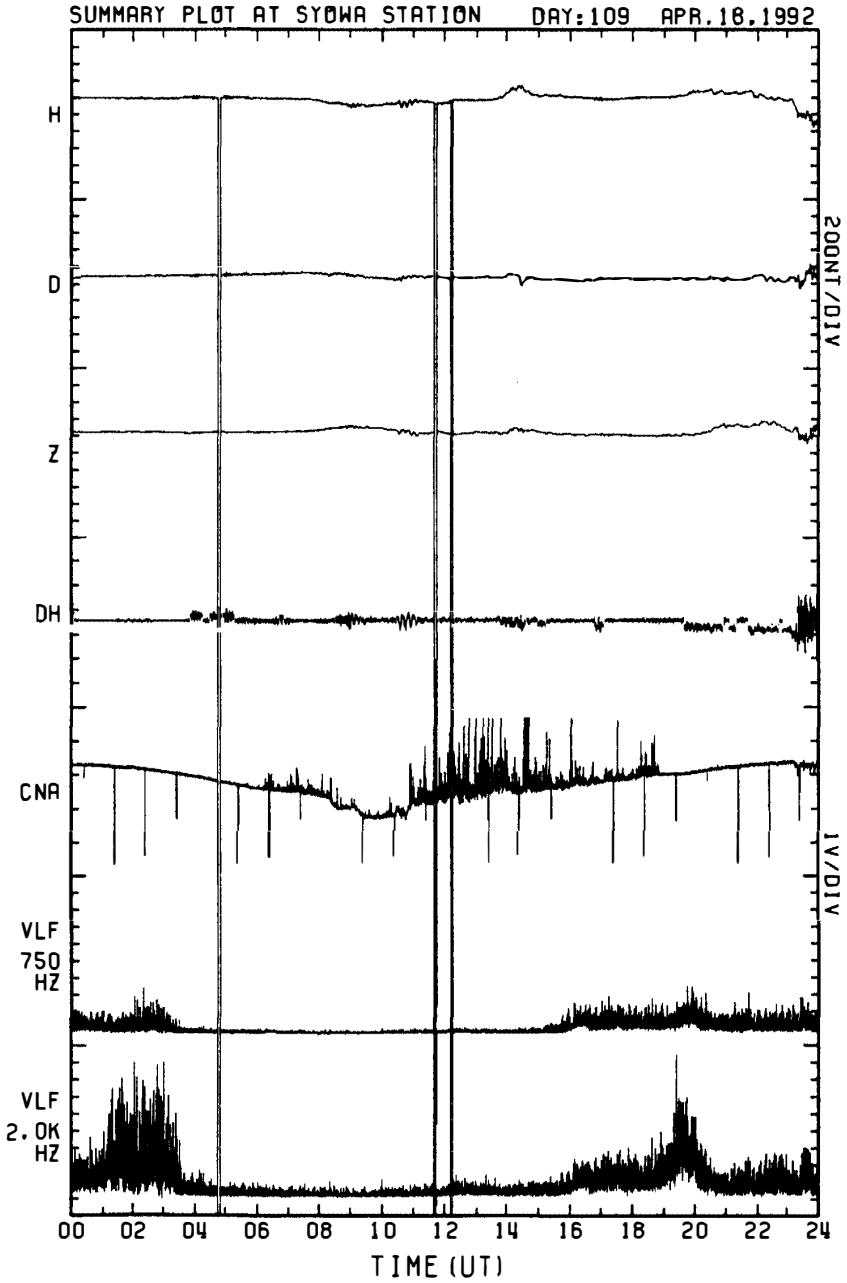

SUMMARY PLOT AT SYOWA STATION DAY:104 APR.13.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

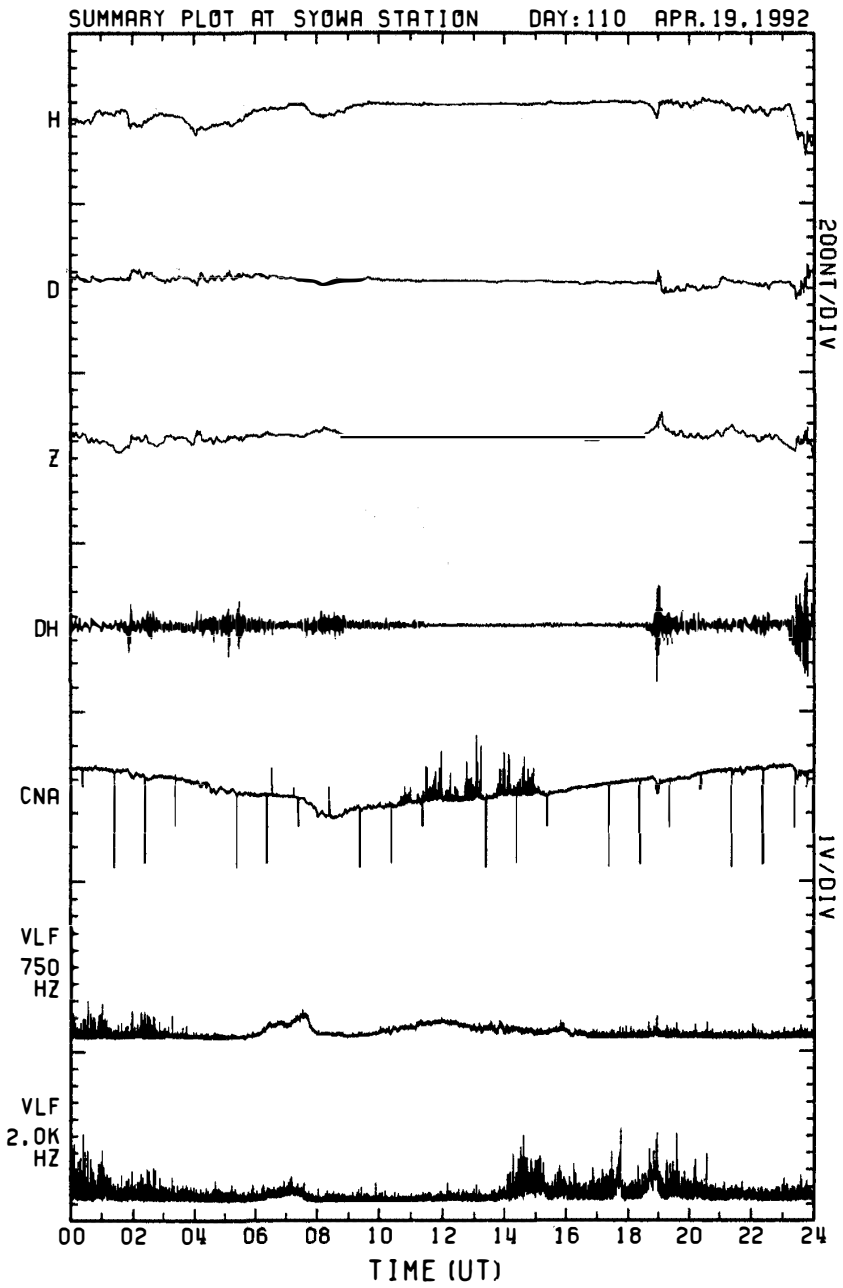

SUMMARY PLOT AT SYOWA STATION DAY:105 APR.14.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

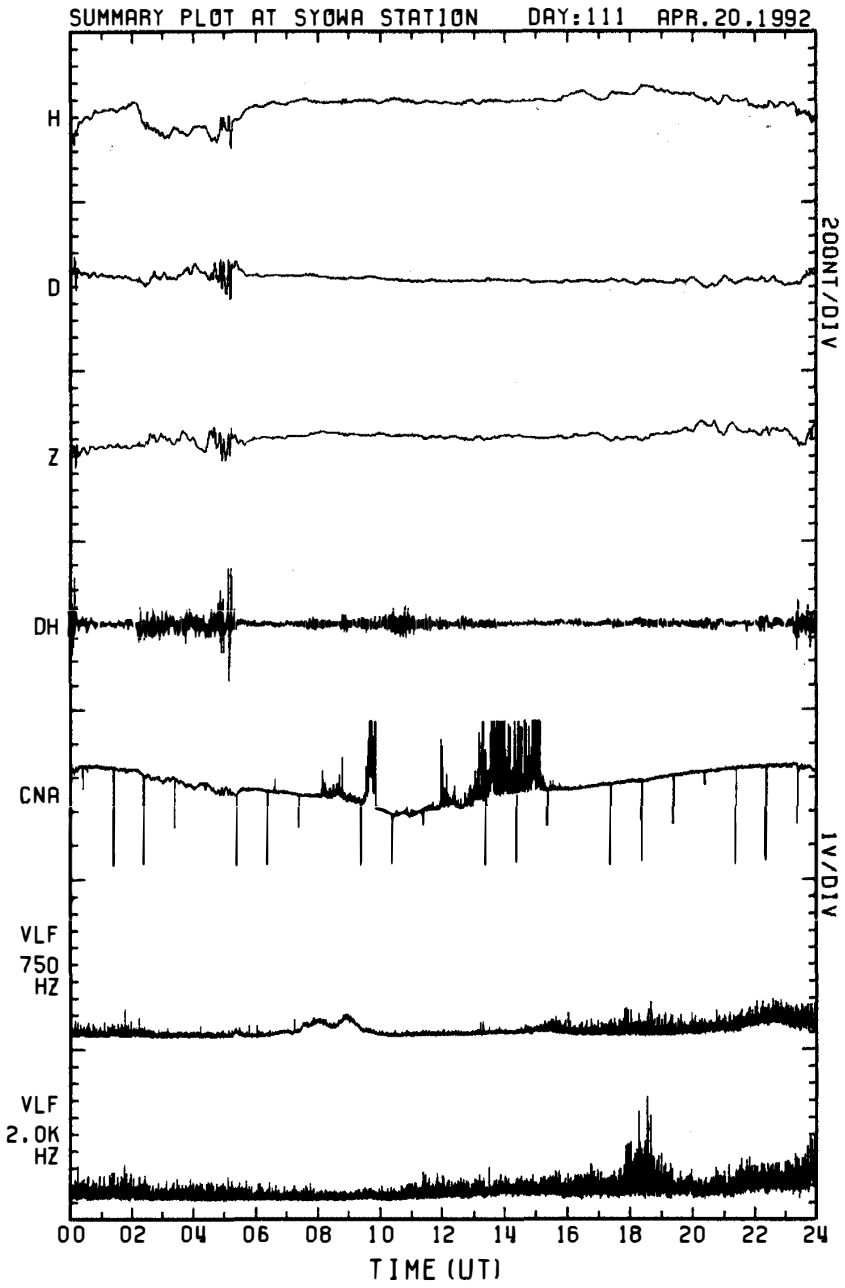

SUMMARY PLOT AT SYOWA STATION DAY:106 APR.15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

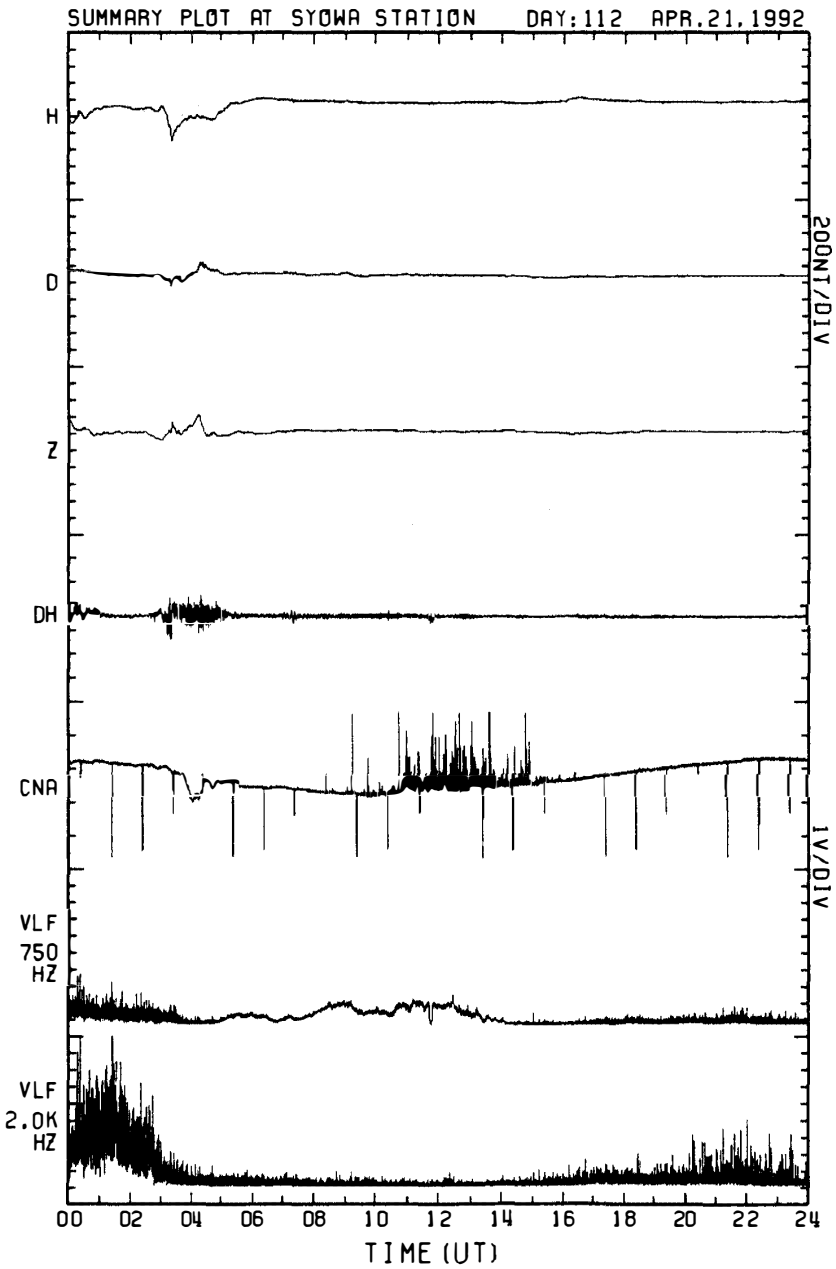

SUMMARY PLOT AT SYOWA STATION DAY:107 APR.16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

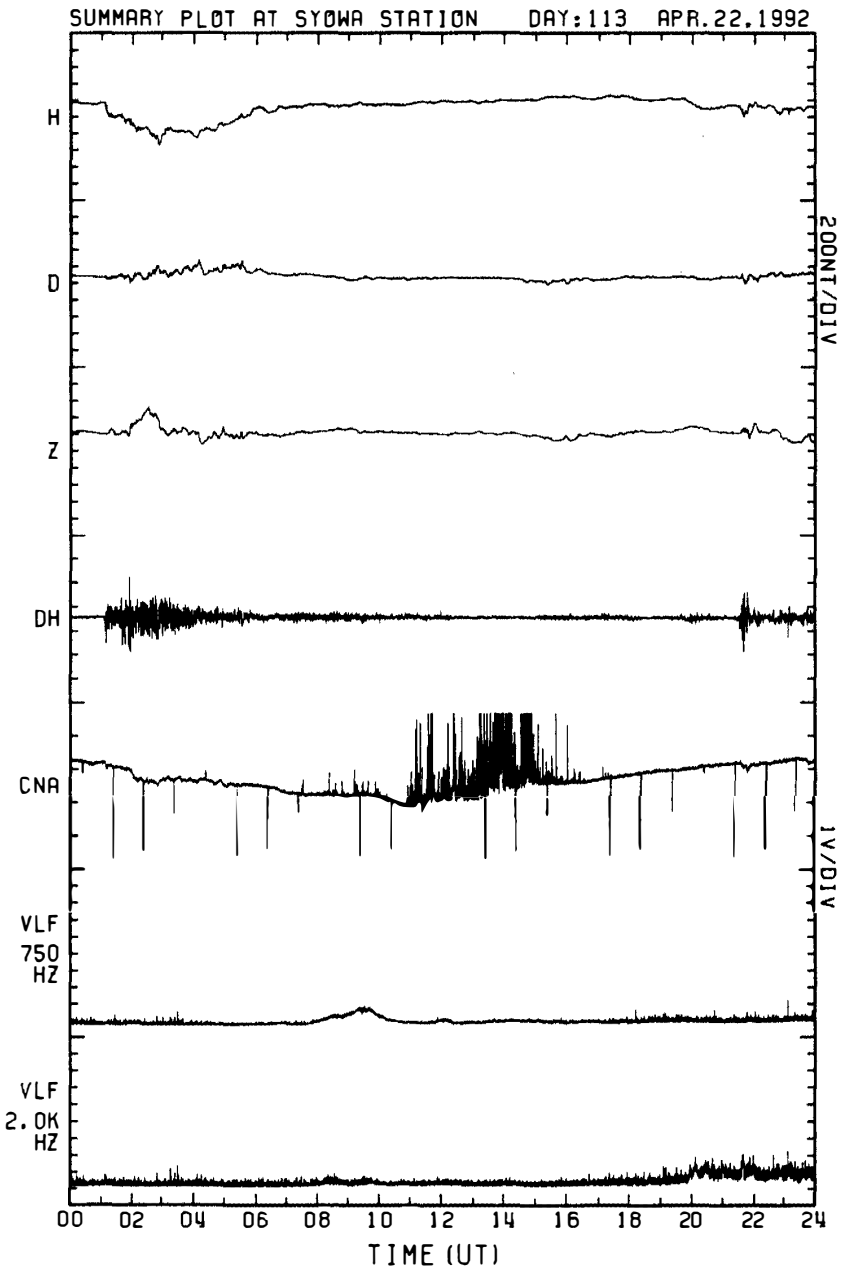

SUMMARY PLOT AT SYOWA STATION DAY:108 APR.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

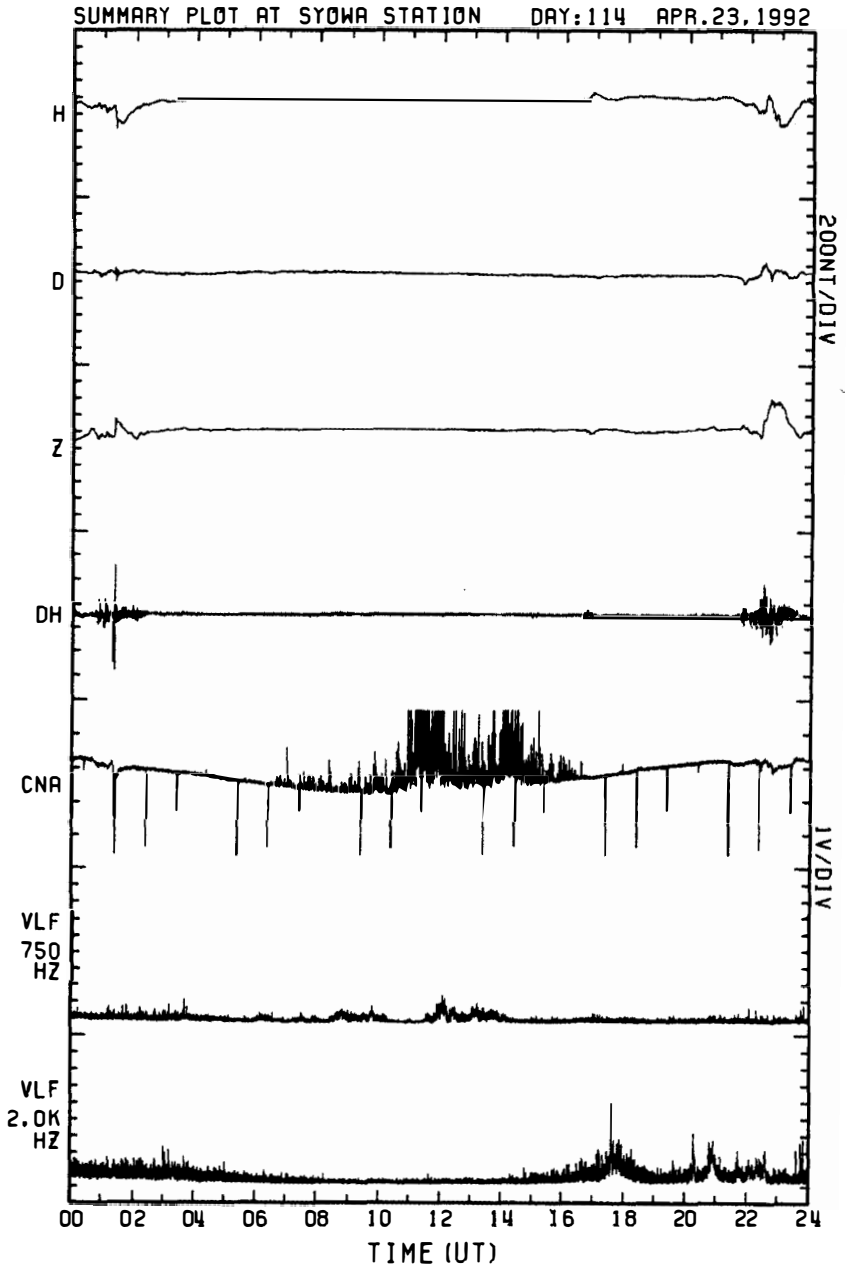

SUMMARY PLOT AT SYOWA STATION DAY:109 APR.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

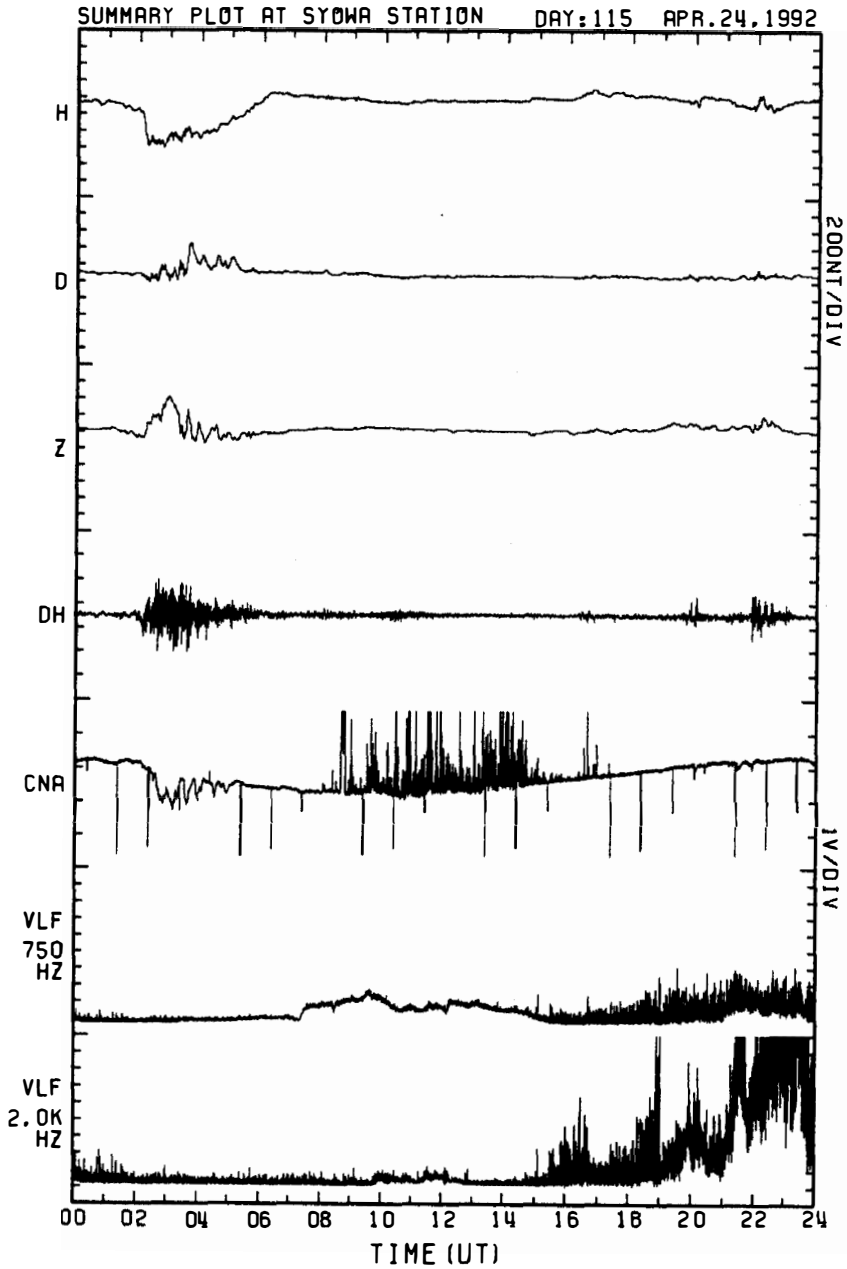

SUMMARY PLOT AT SYOWA STATION DAY:110 APR.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

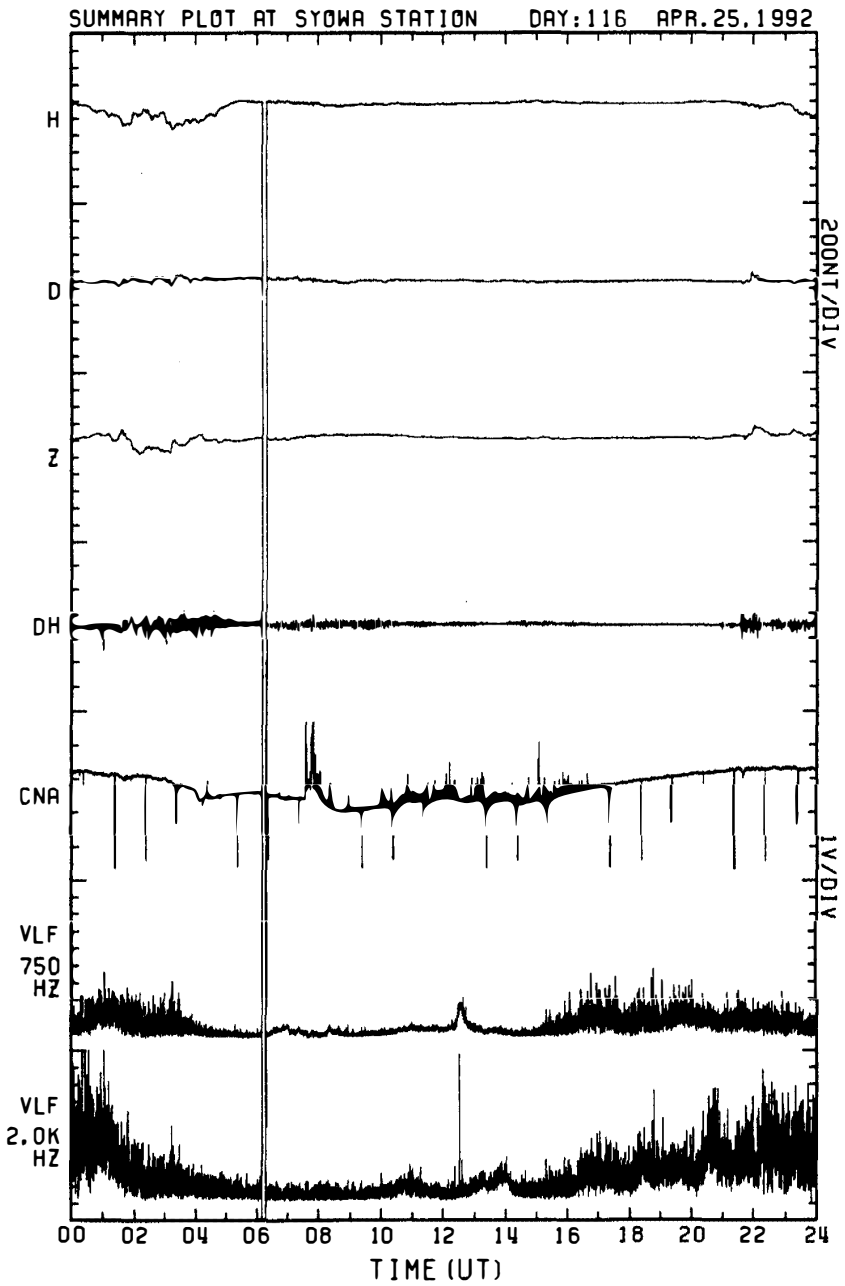

SUMMARY PLOT AT SYOWA STATION DAY:111 APR.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

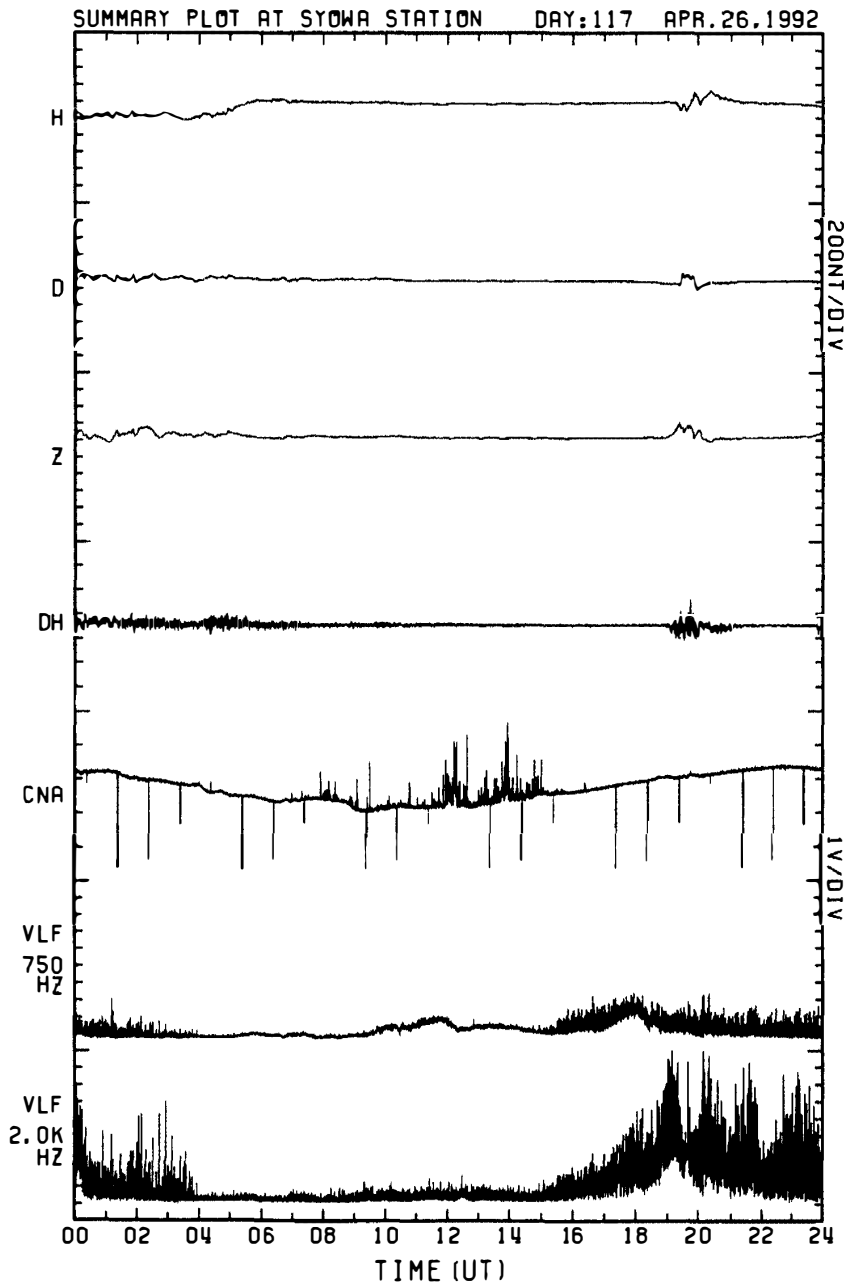

SUMMARY PLOT AT SYOWA STATION DAY:112 APR.21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

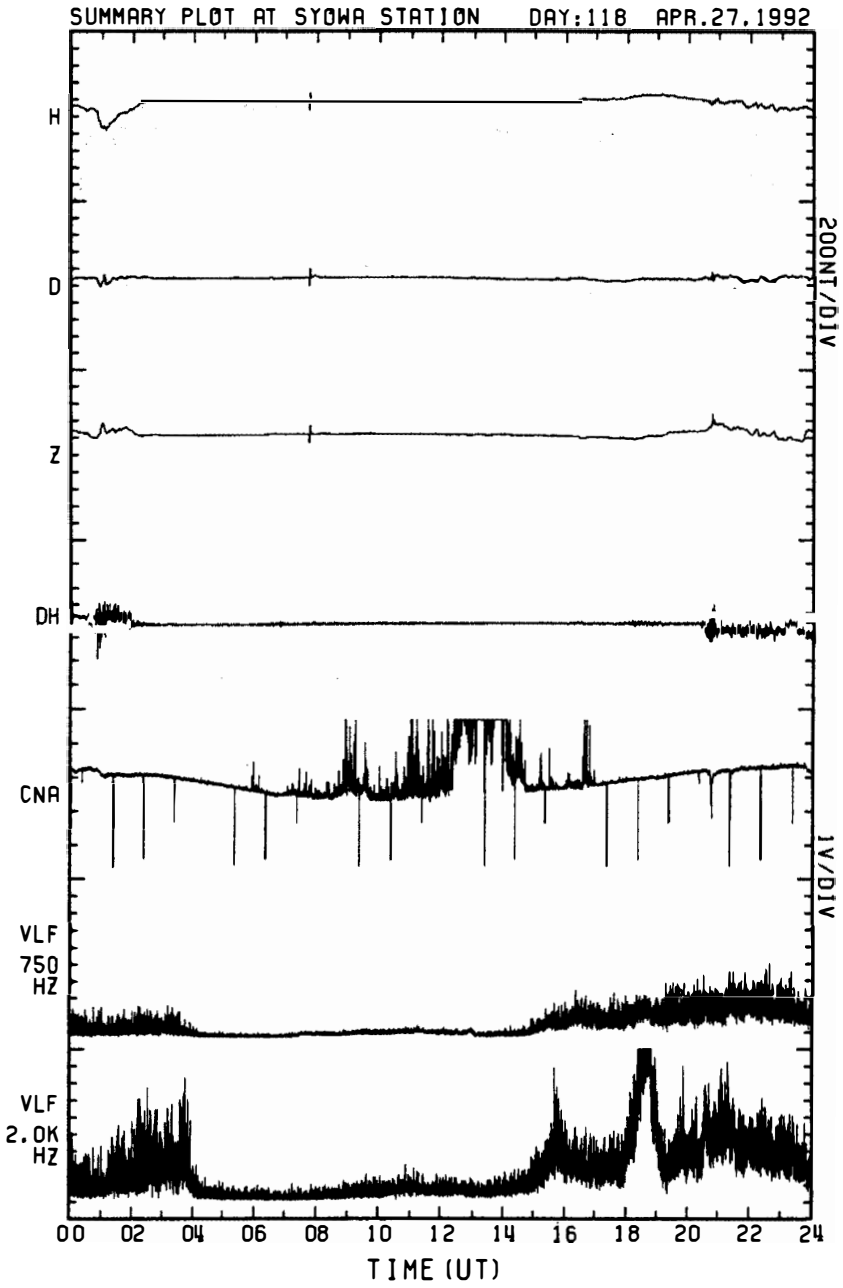

SUMMARY PLOT AT SYOWA STATION DAY:113 APR.22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

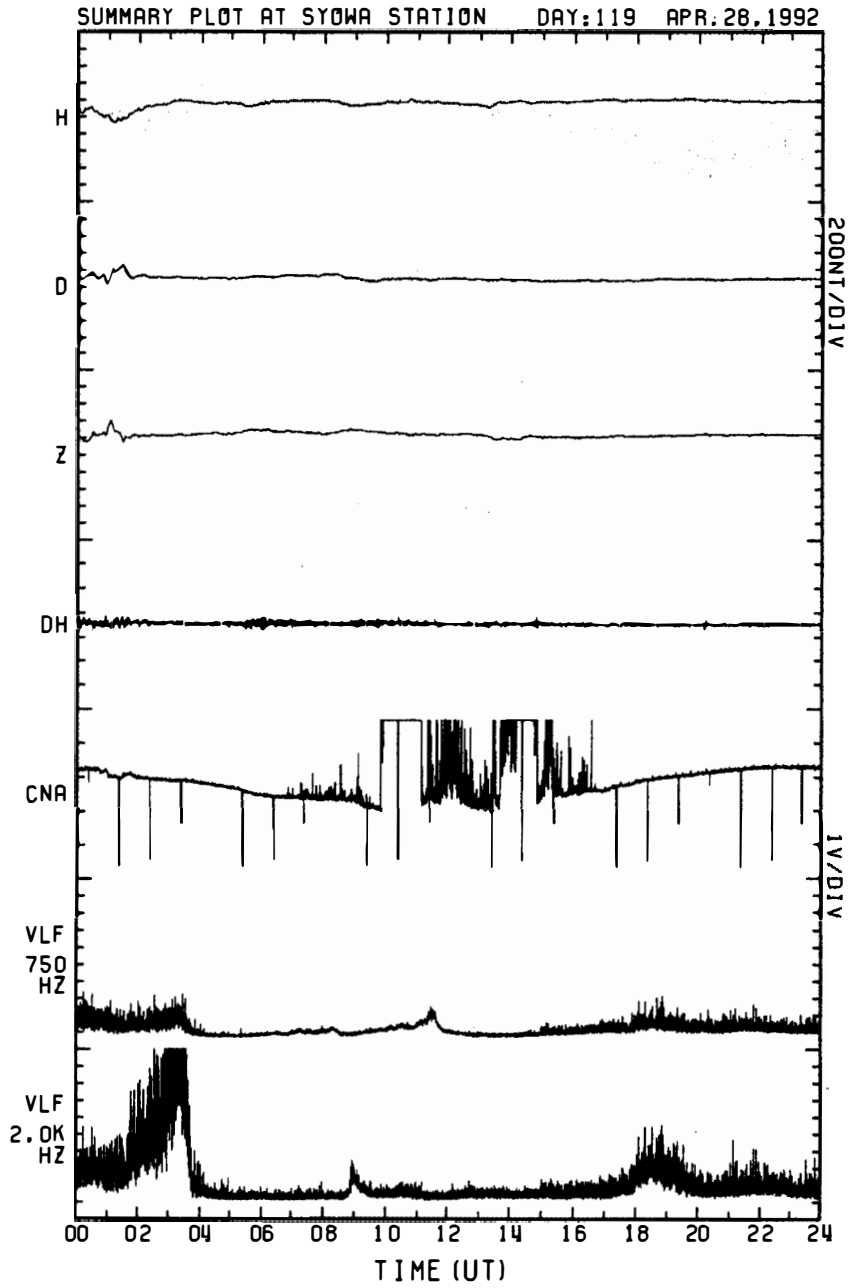

SUMMARY PLOT AT SYOWA STATION DAY:114 APR.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

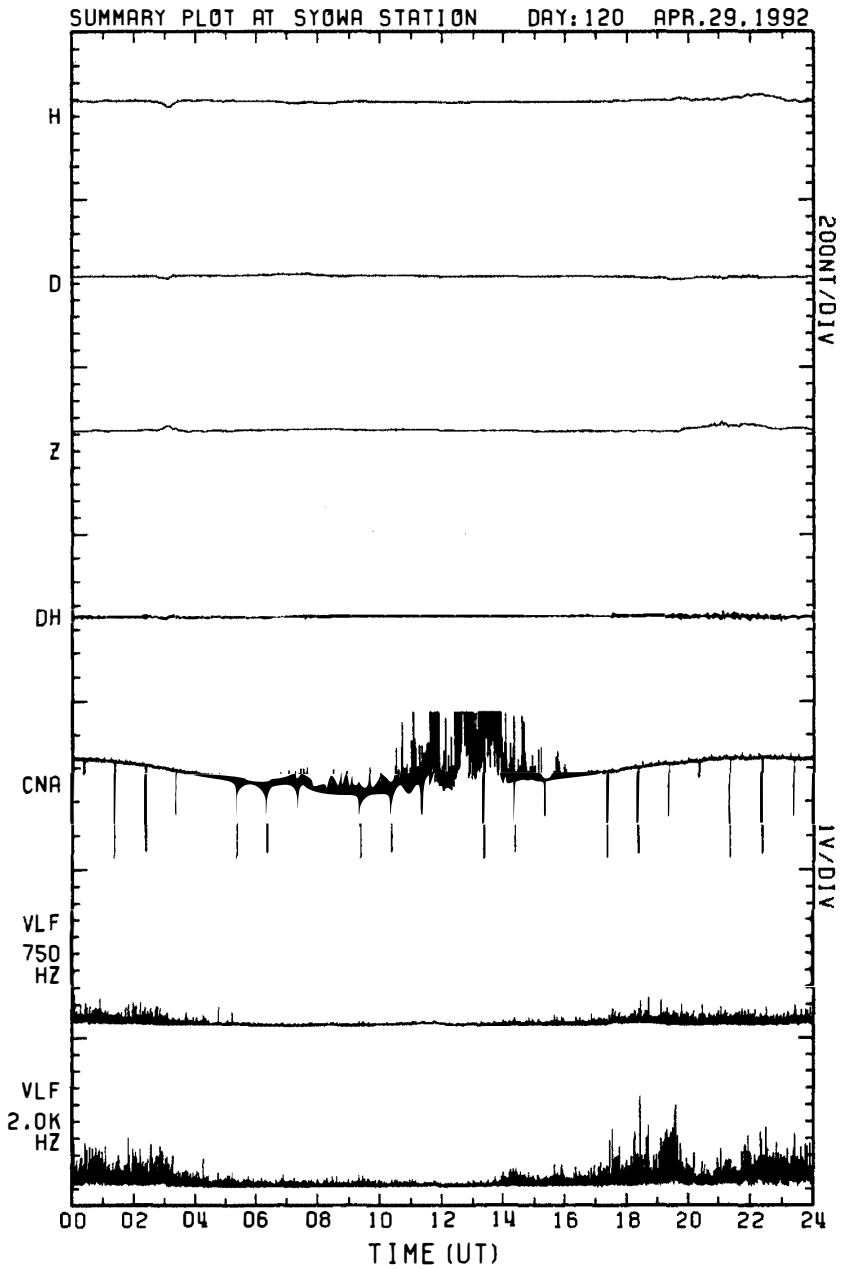

SUMMARY PLOT AT SYOWA STATION DAY:115 APR.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

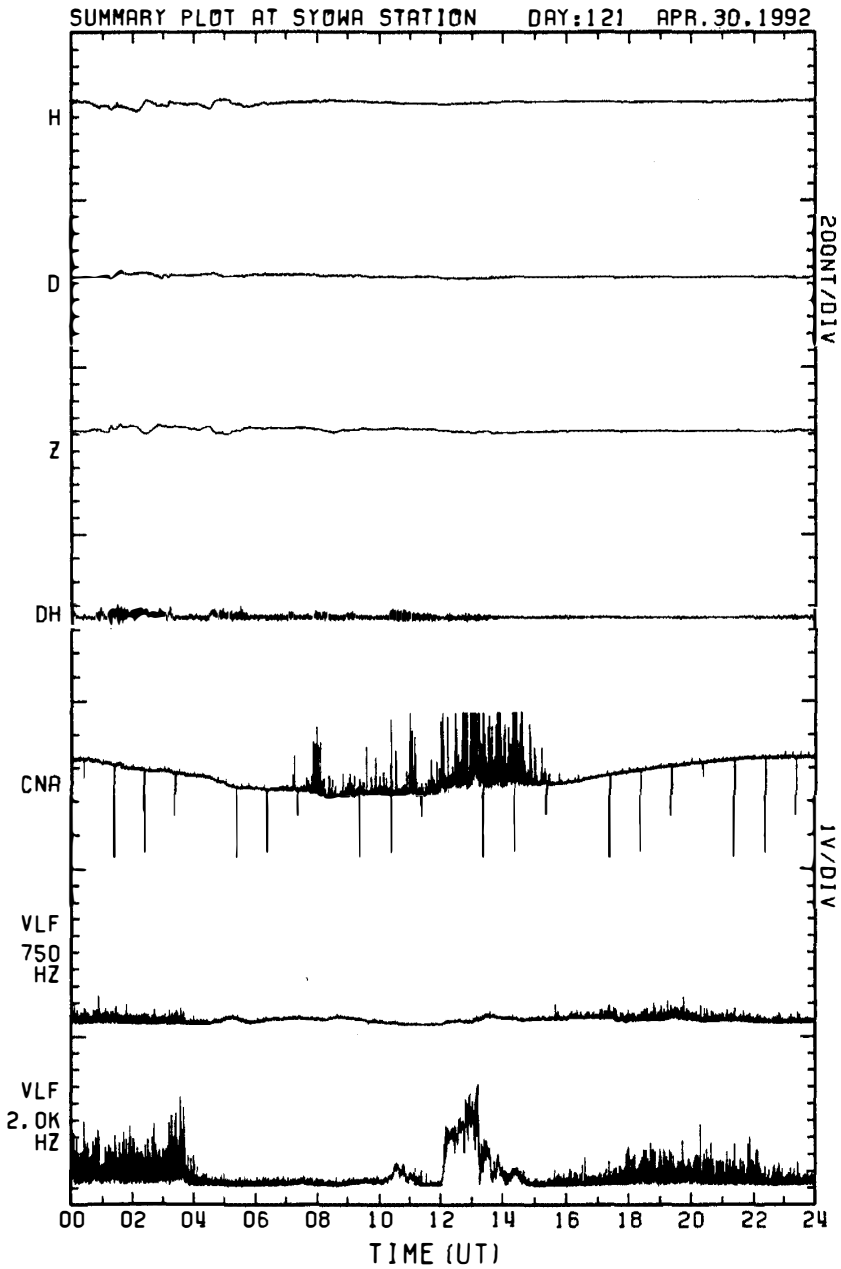

SUMMARY PLOT AT SYOWA STATION DAY:116 APR.25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

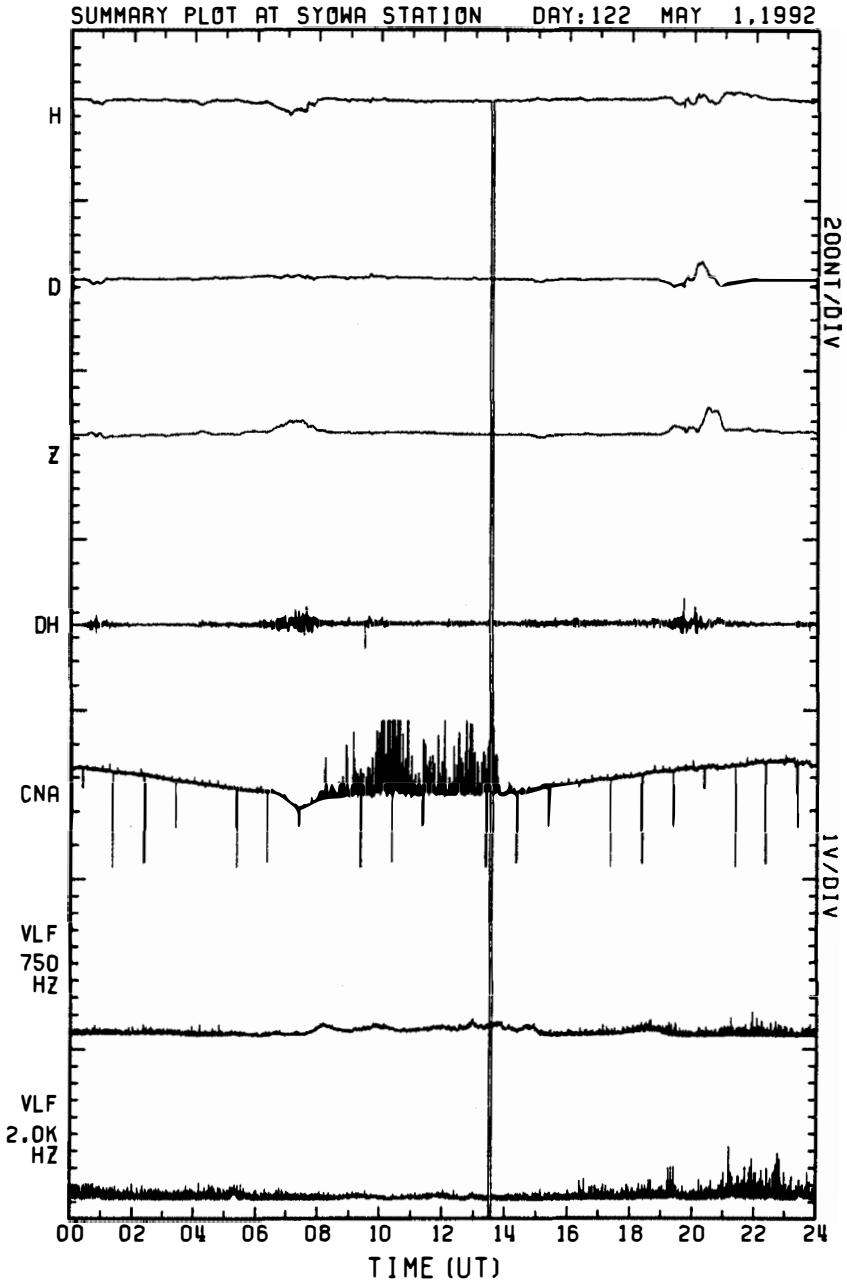

SUMMARY PLOT AT SYOWA STATION DAY:117 APR.26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

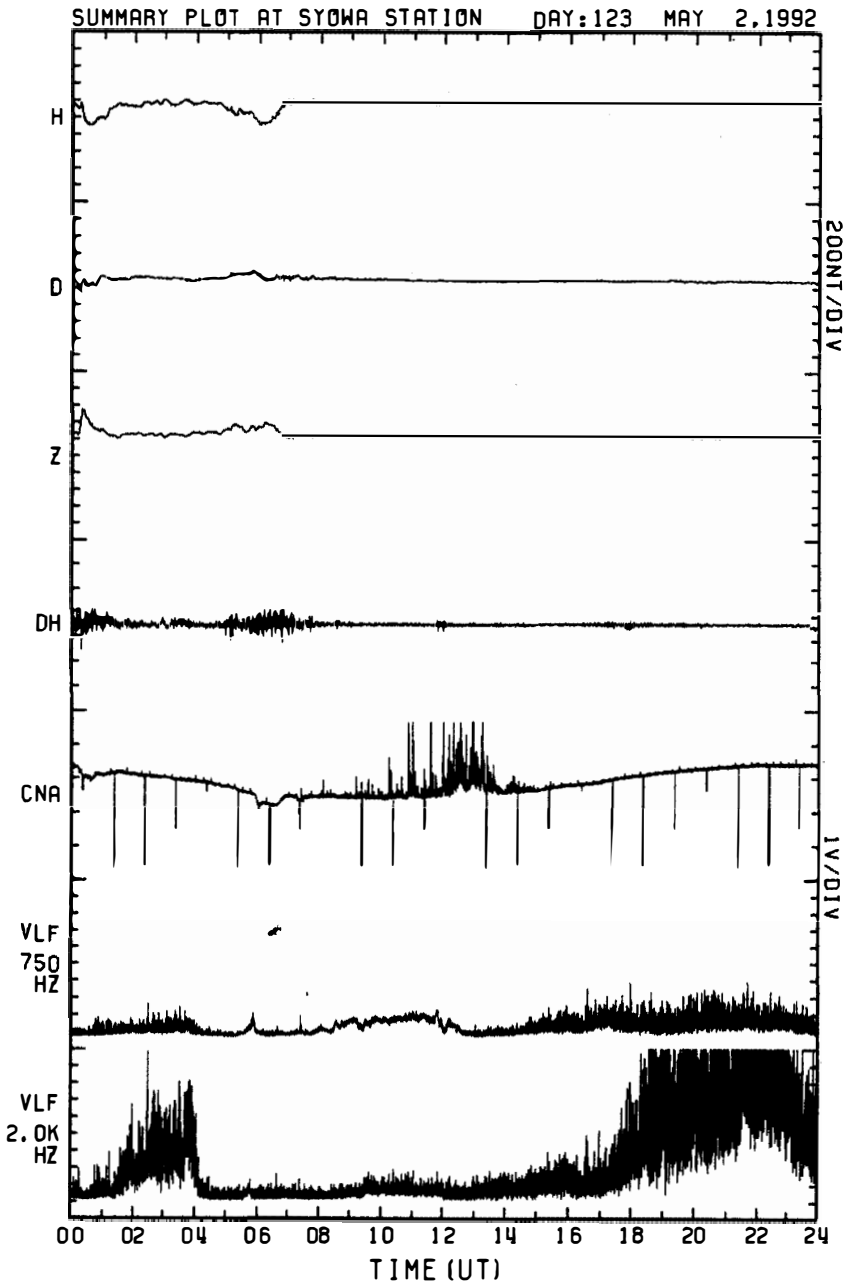

SUMMARY PLOT AT SYOWA STATION DAY:118 APR.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

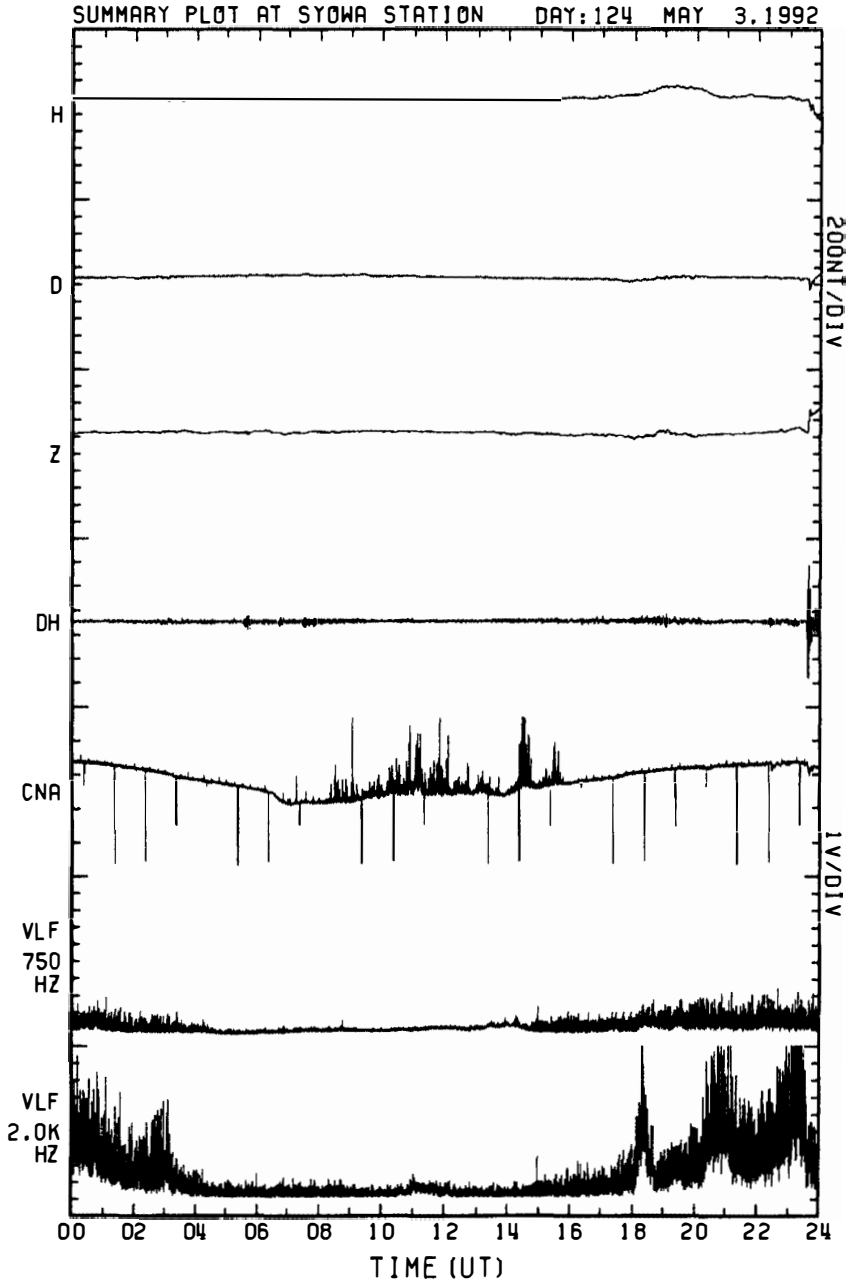

SUMMARY PLOT AT SYOWA STATION DAY:119 APR.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

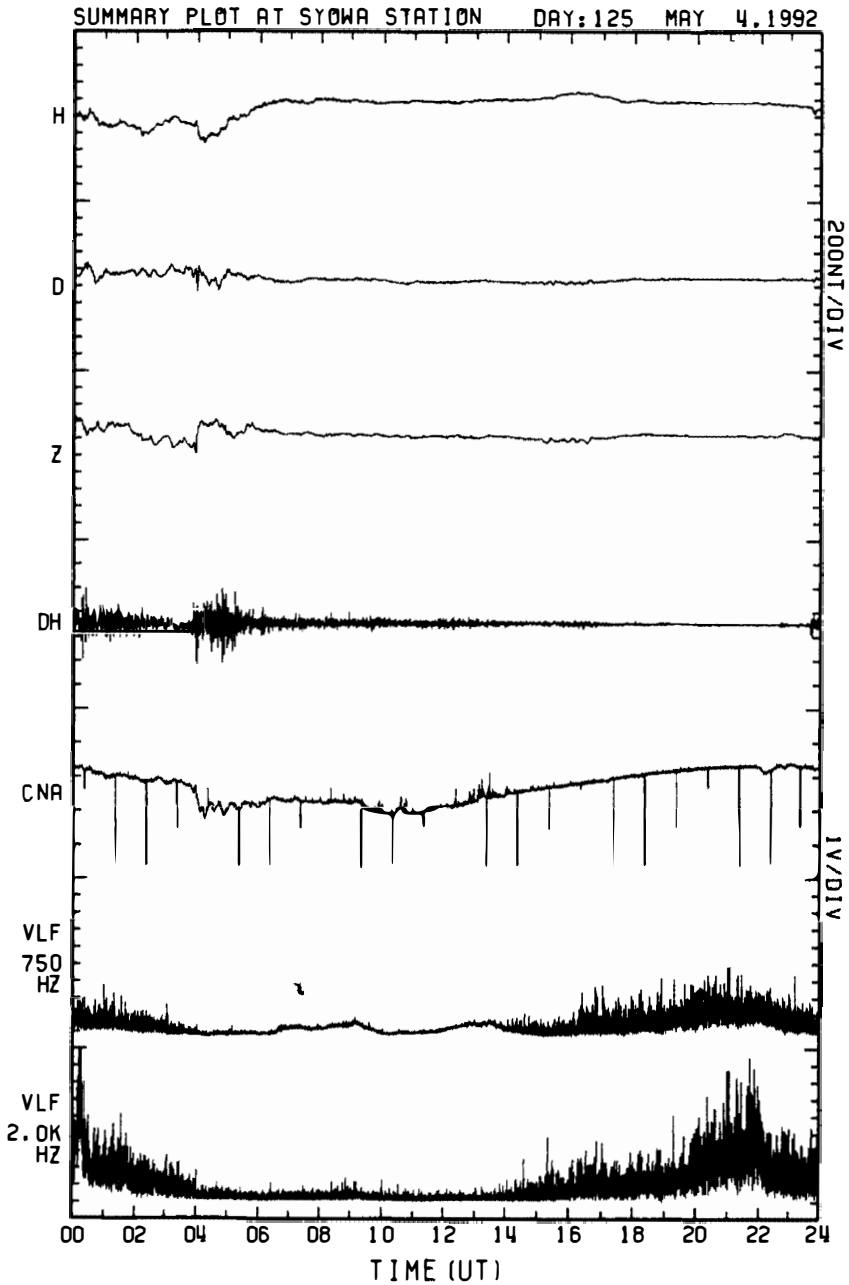

SUMMARY PLOT AT SYOWA STATION DAY:120 APR.29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

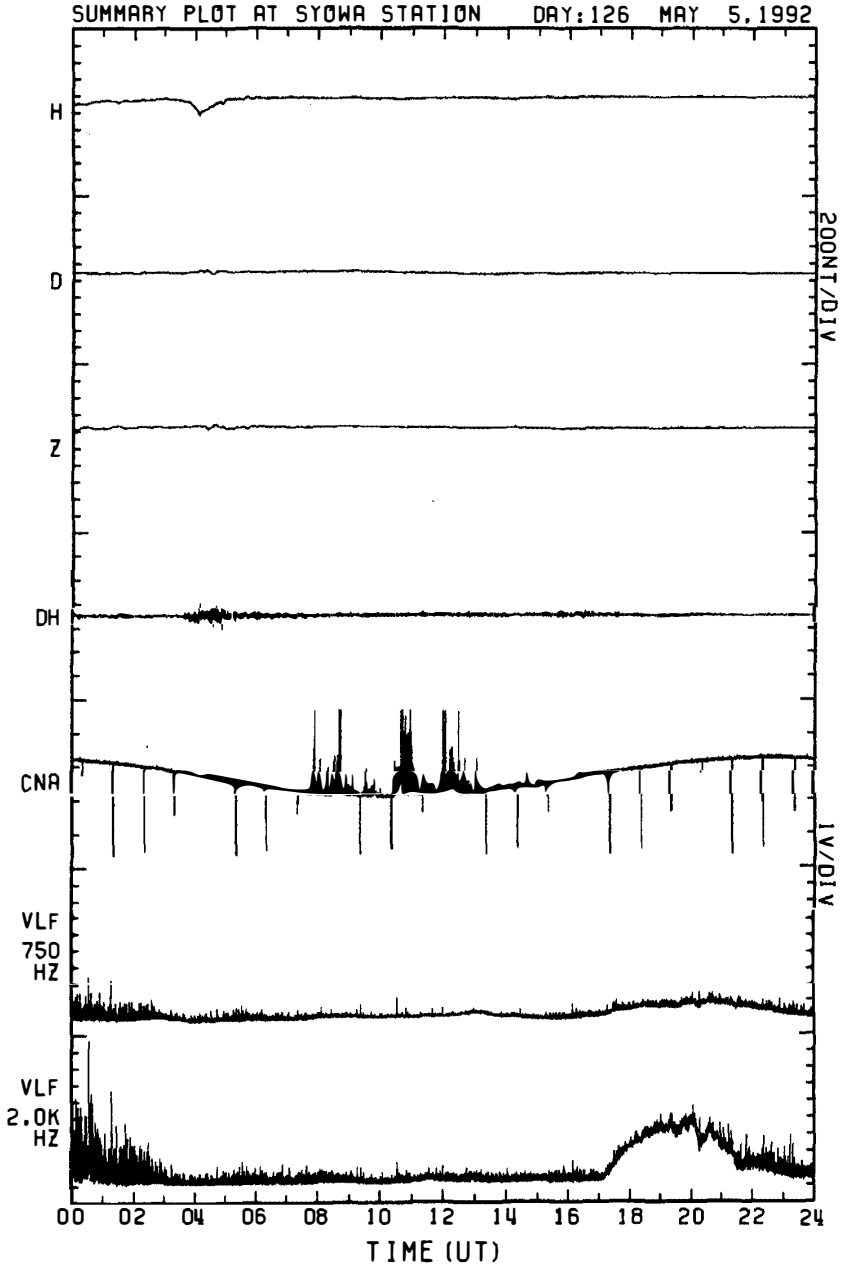

SUMMARY PLOT AT SYOWA STATION DAY:121 APR.30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

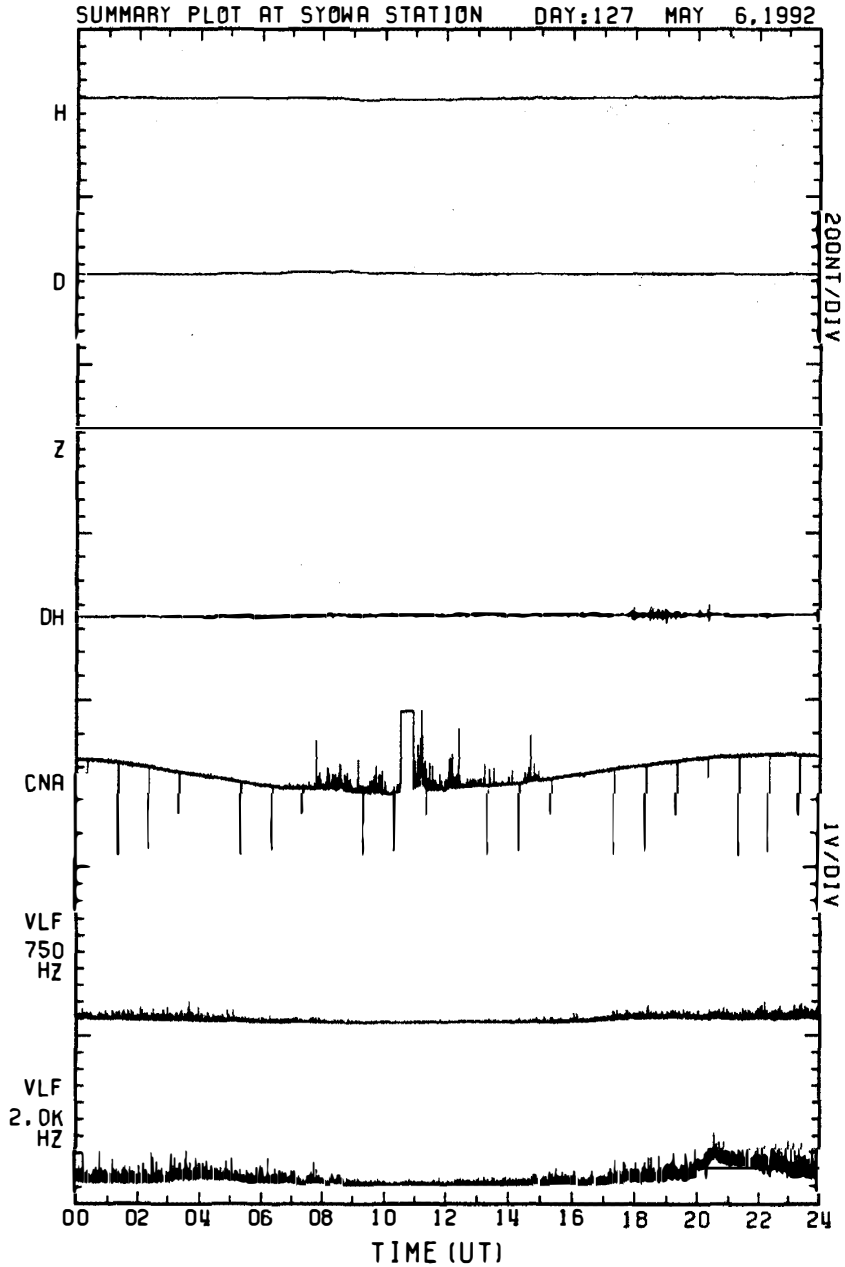

SUMMARY PLOT AT SYOWA STATION DAY:122 MAY 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

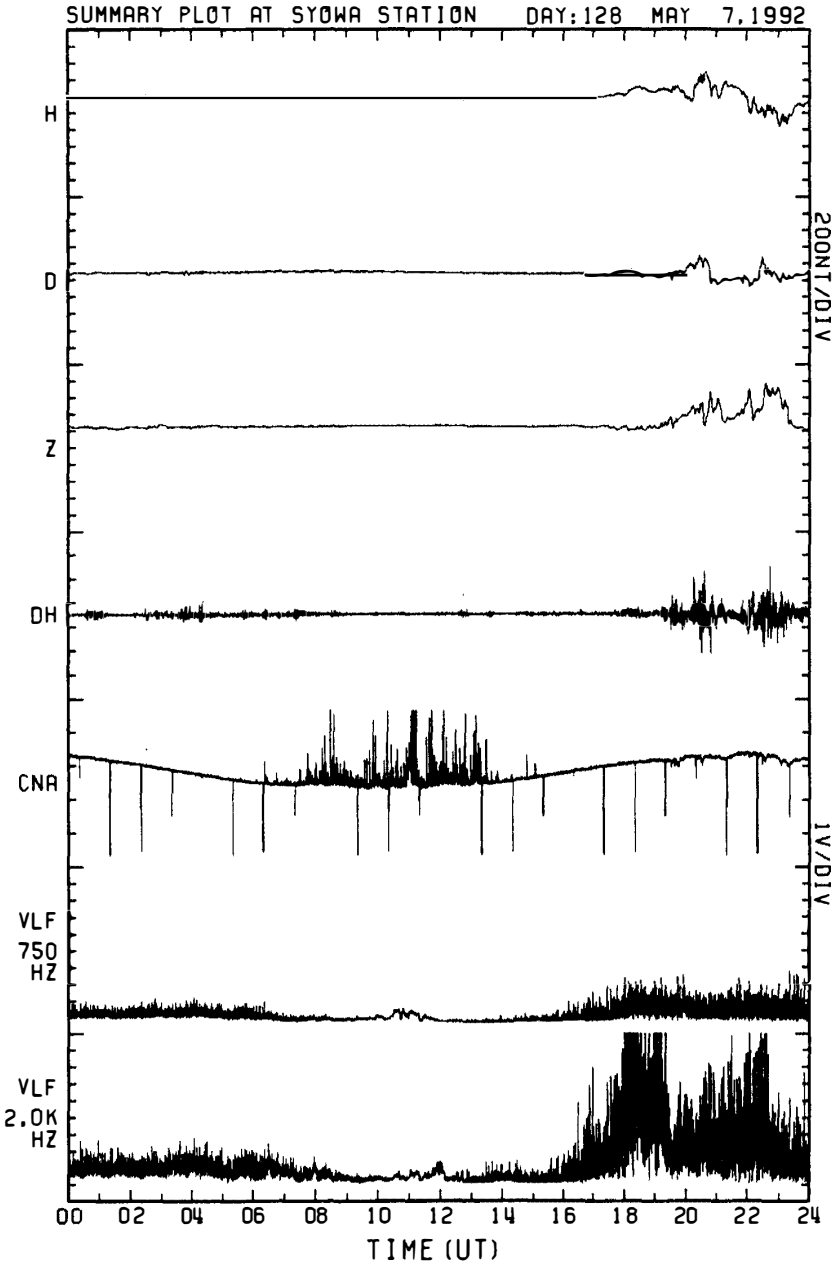

SUMMARY PLOT AT SYOWA STATION DAY:123 MAY 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

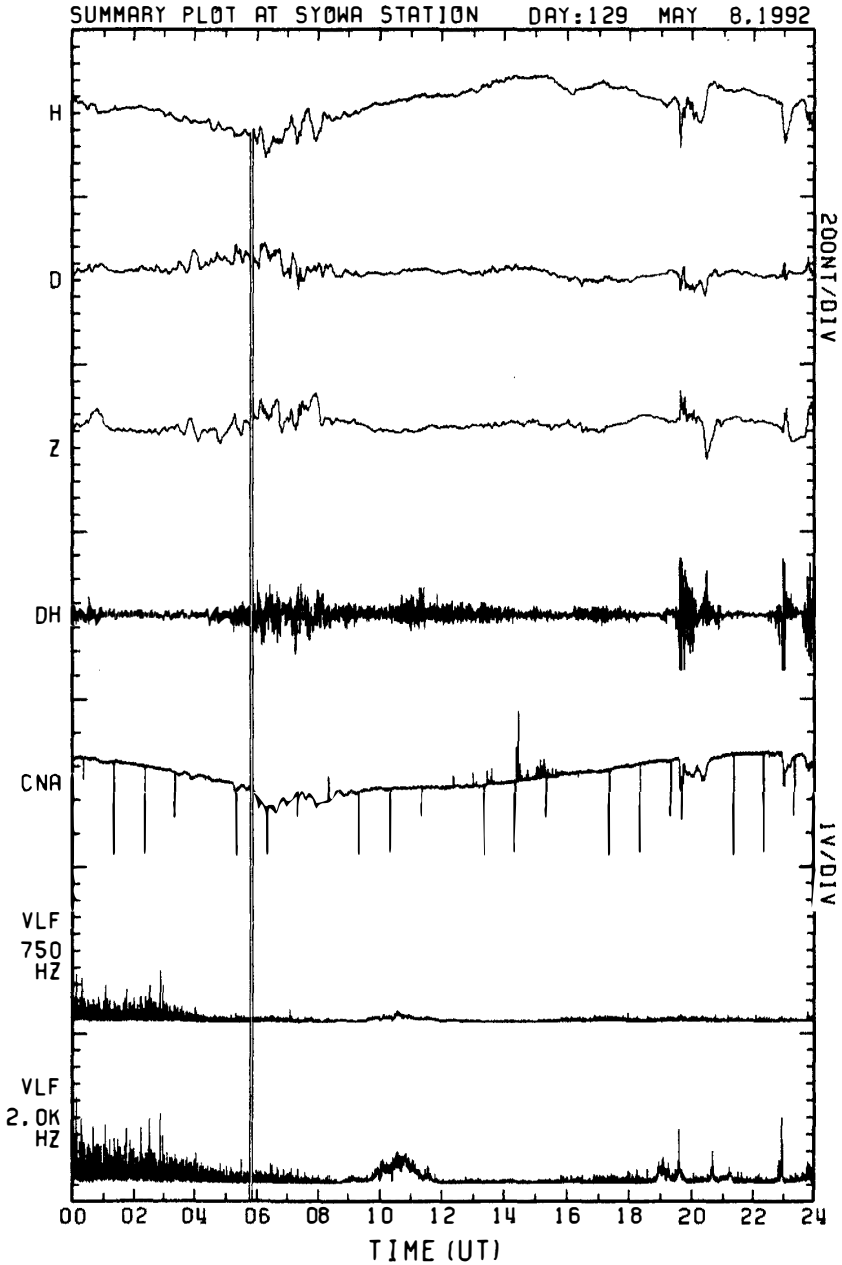

SUMMARY PLOT AT SYOWA STATION DAY:124 MAY 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

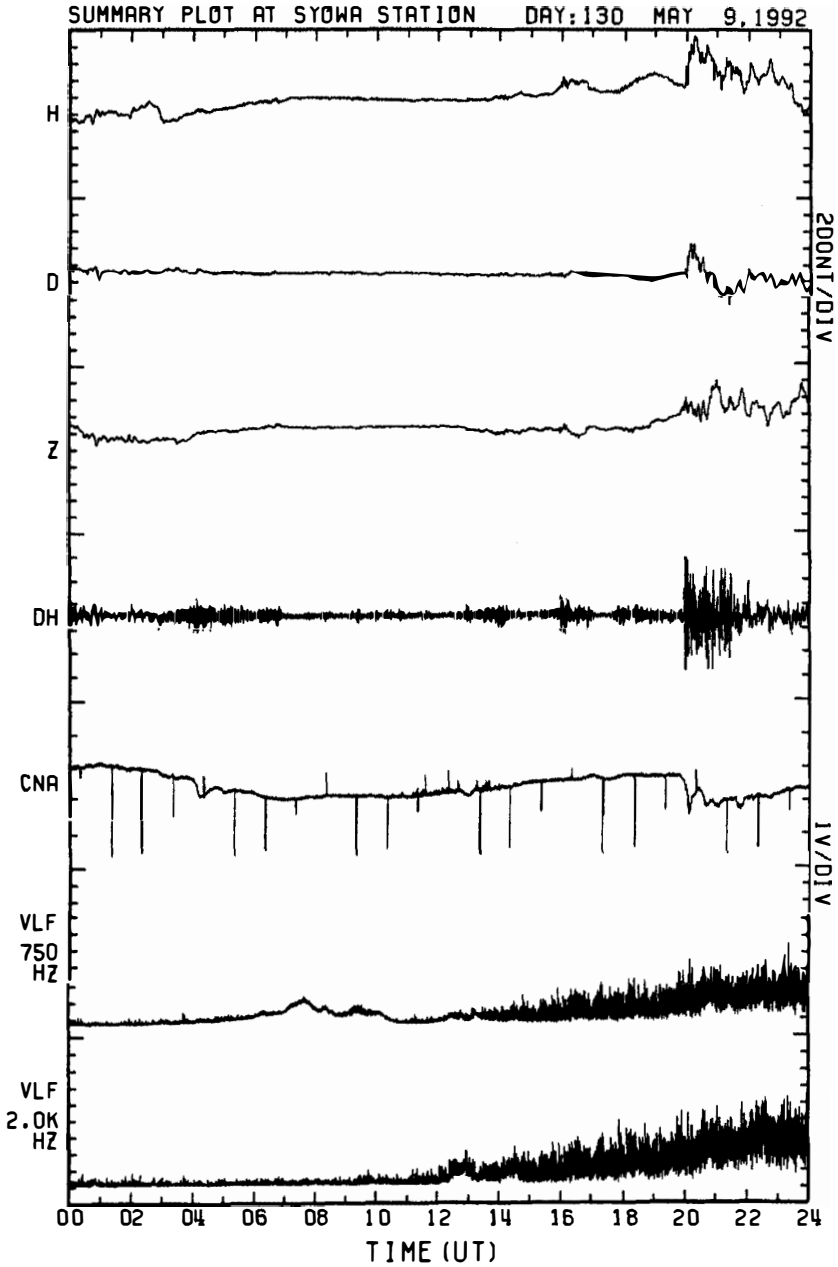

SUMMARY PLOT AT SYOWA STATION DAY:125 MAY 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

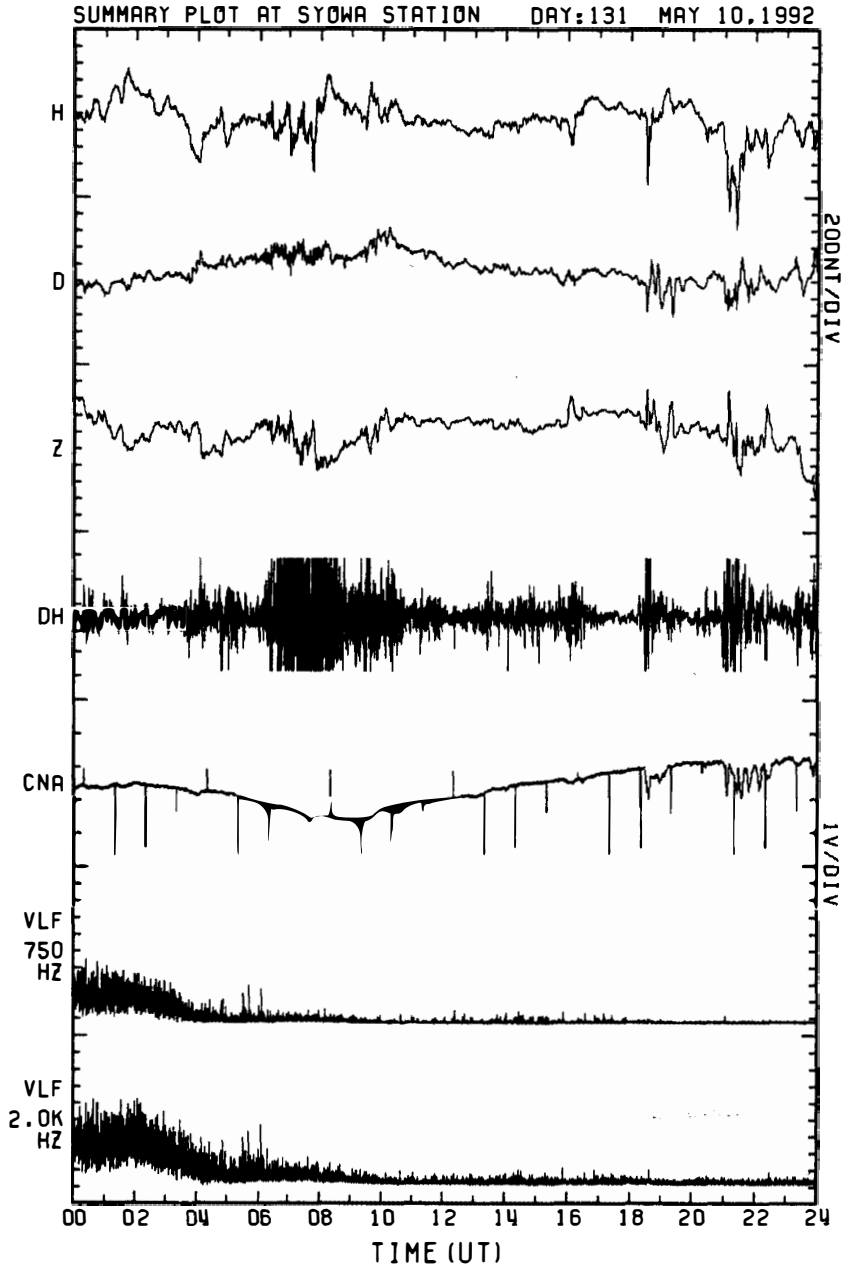

SUMMARY PLOT AT SYOWA STATION DAY:126 MAY 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

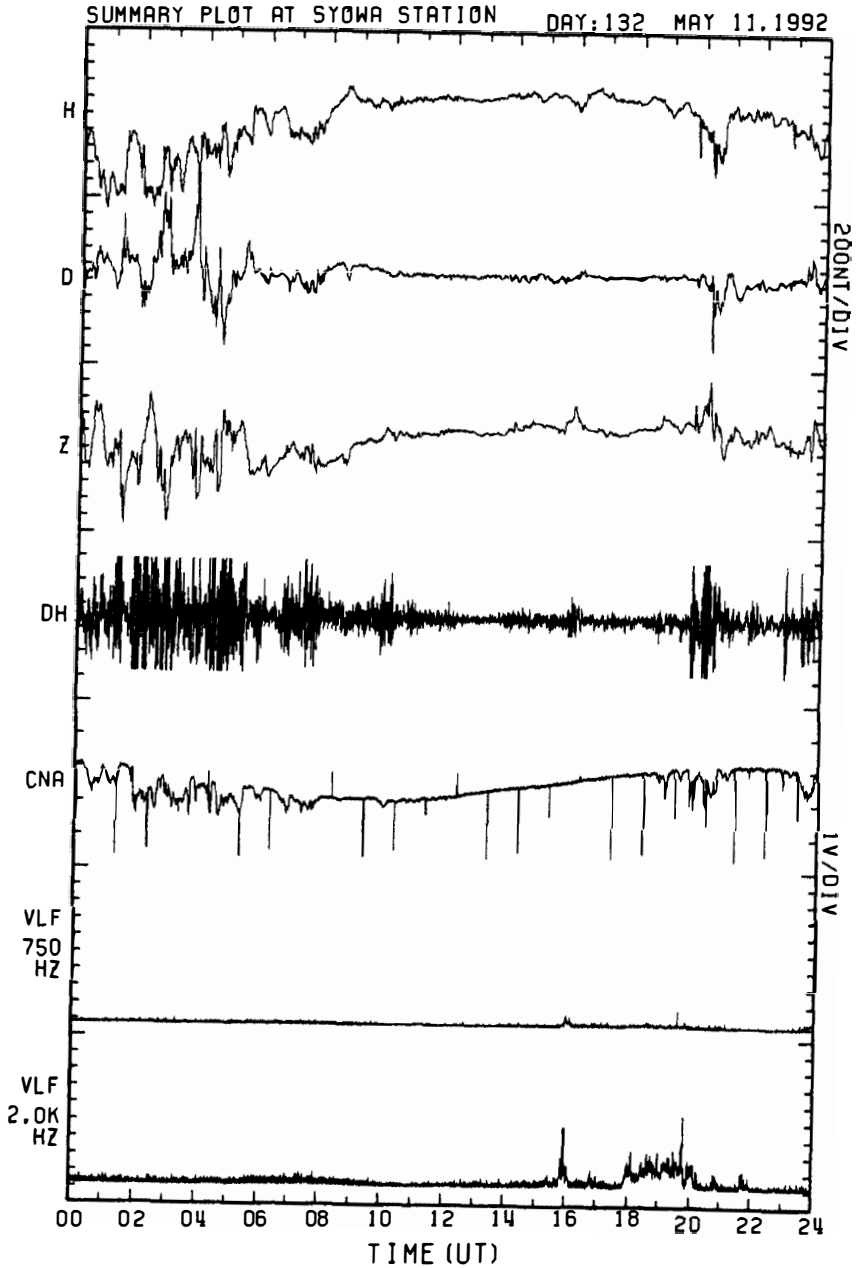

SUMMARY PLOT AT SYOWA STATION DAY:127 MAY 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

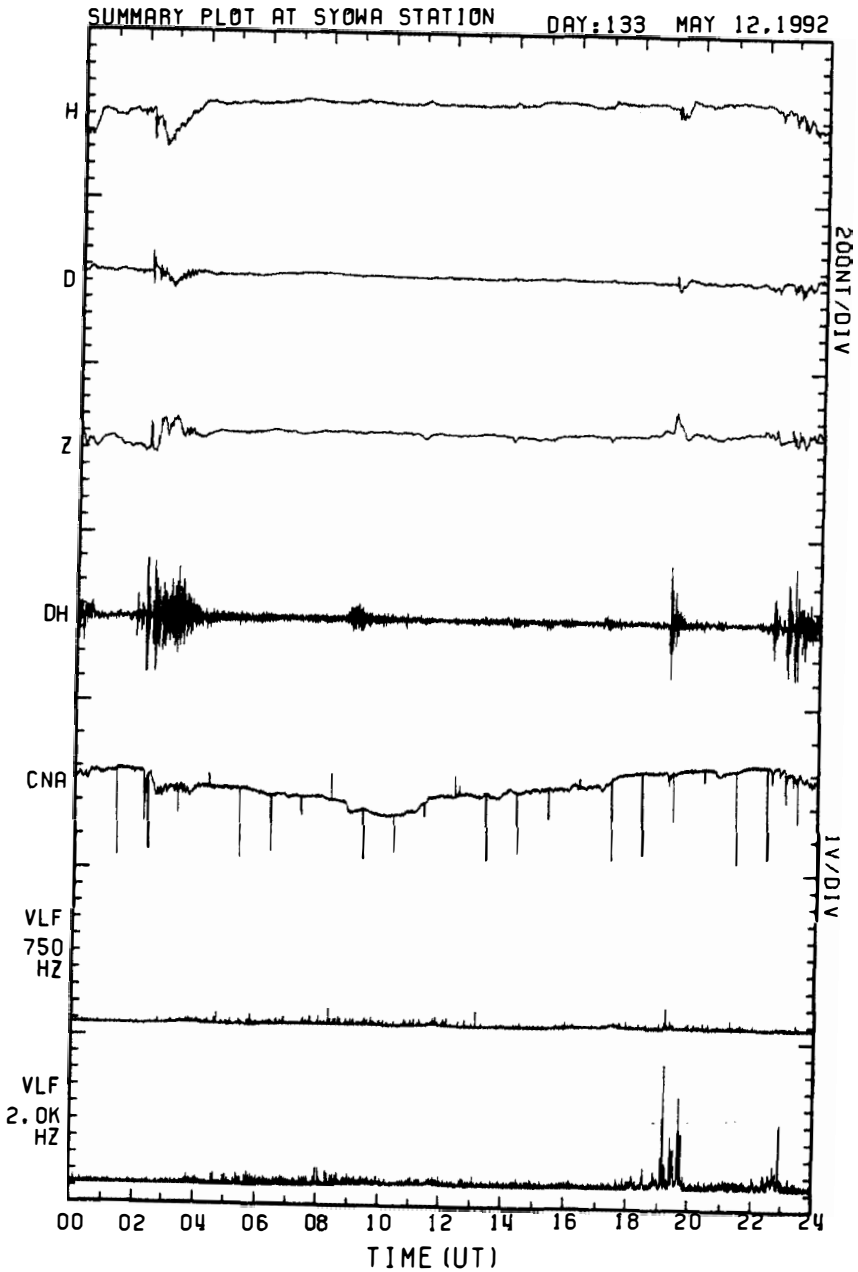

SUMMARY PLOT AT SYOWA STATION DAY:128 MAY 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

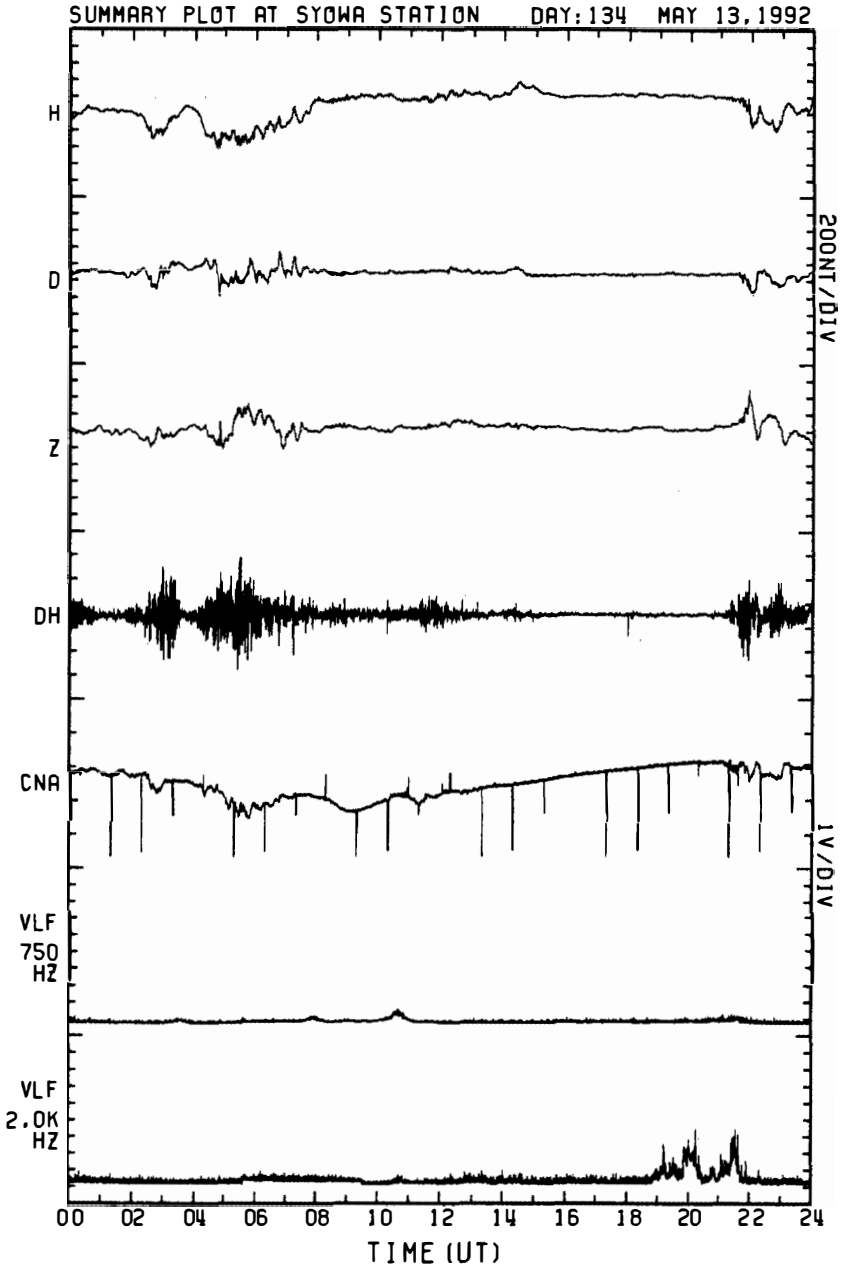

SUMMARY PLOT AT SYOWA STATION DAY:129 MAY 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

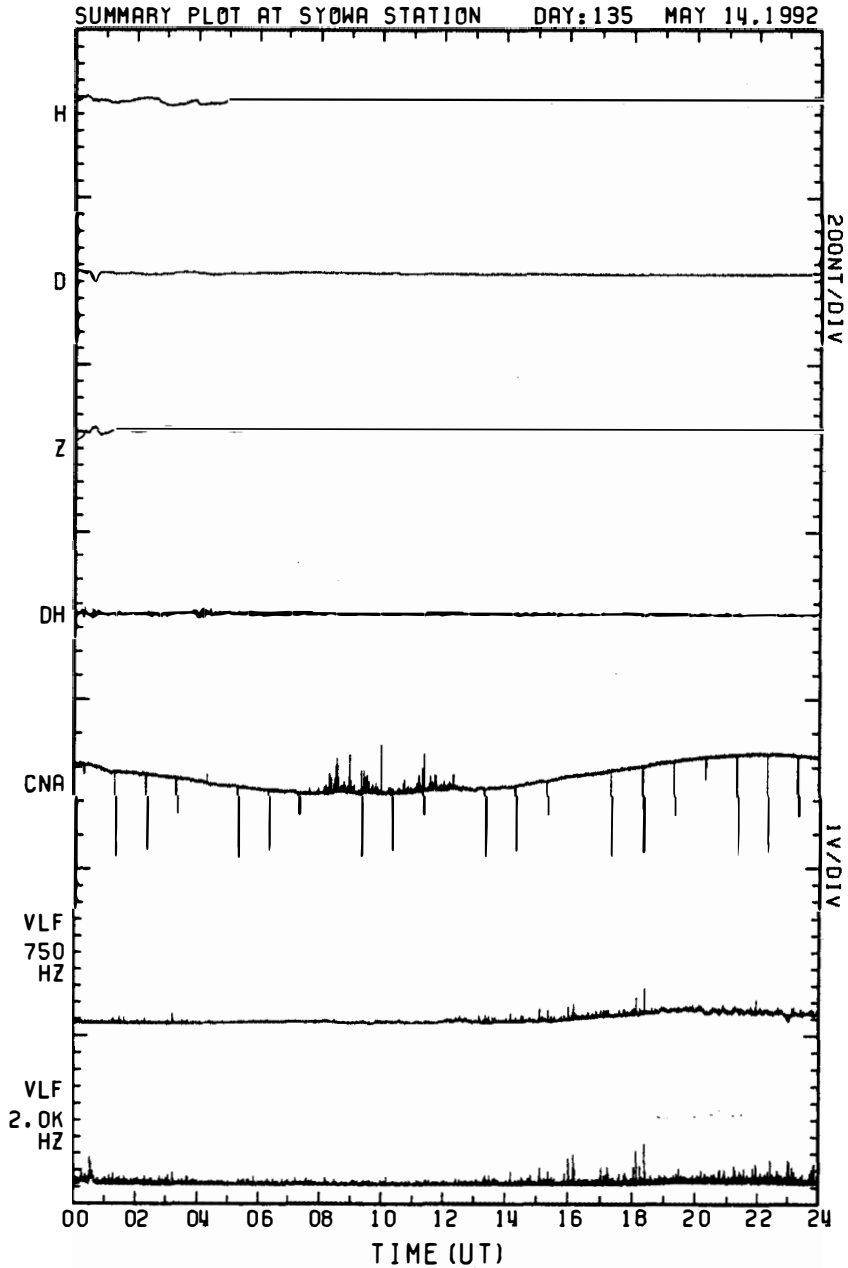

SUMMARY PLOT AT SYOWA STATION DAY:130 MAY 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

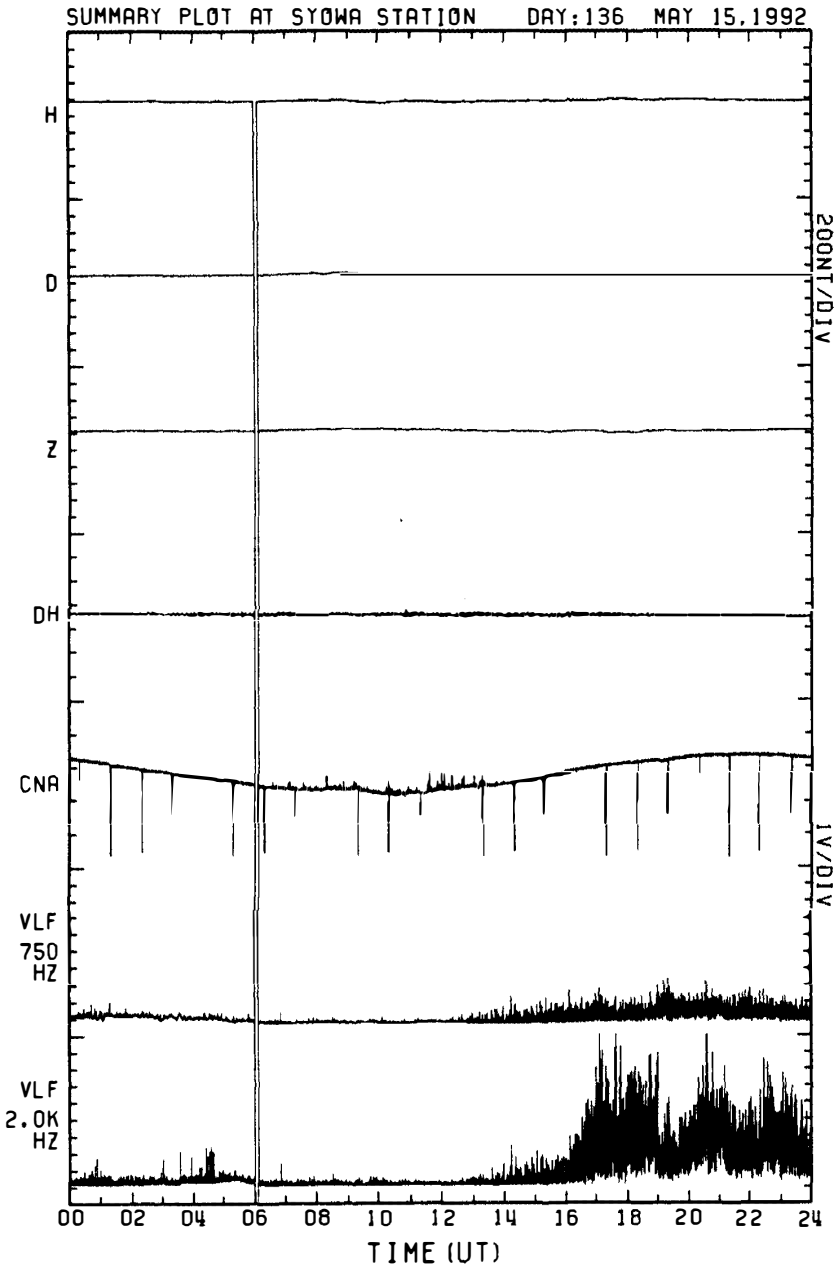

SUMMARY PLOT AT SYOWA STATION DAY:131 MAY 10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

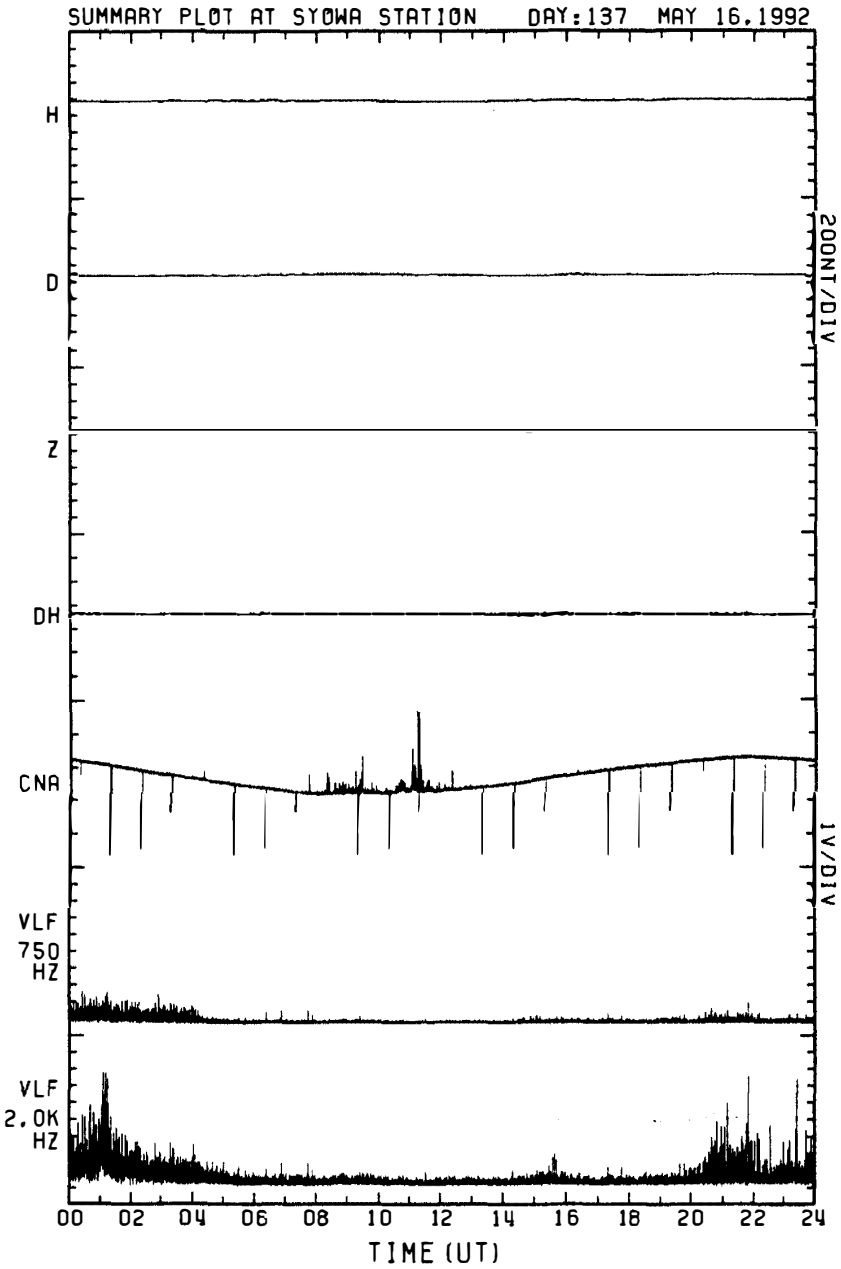

SUMMARY PLOT AT SYOWA STATION
DAY:132 MAY 11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

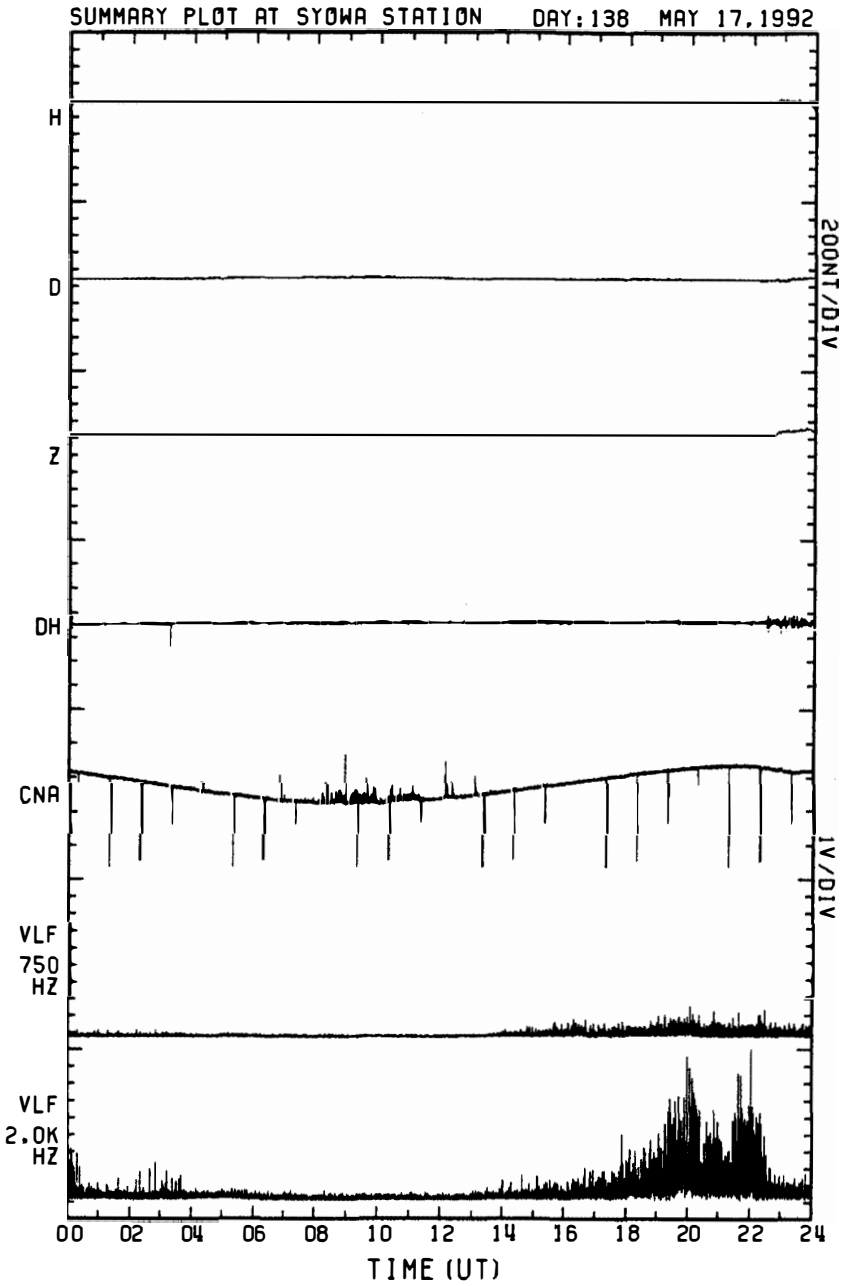

SUMMARY PLOT AT SYOWA STATION
DAY:133 MAY 12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

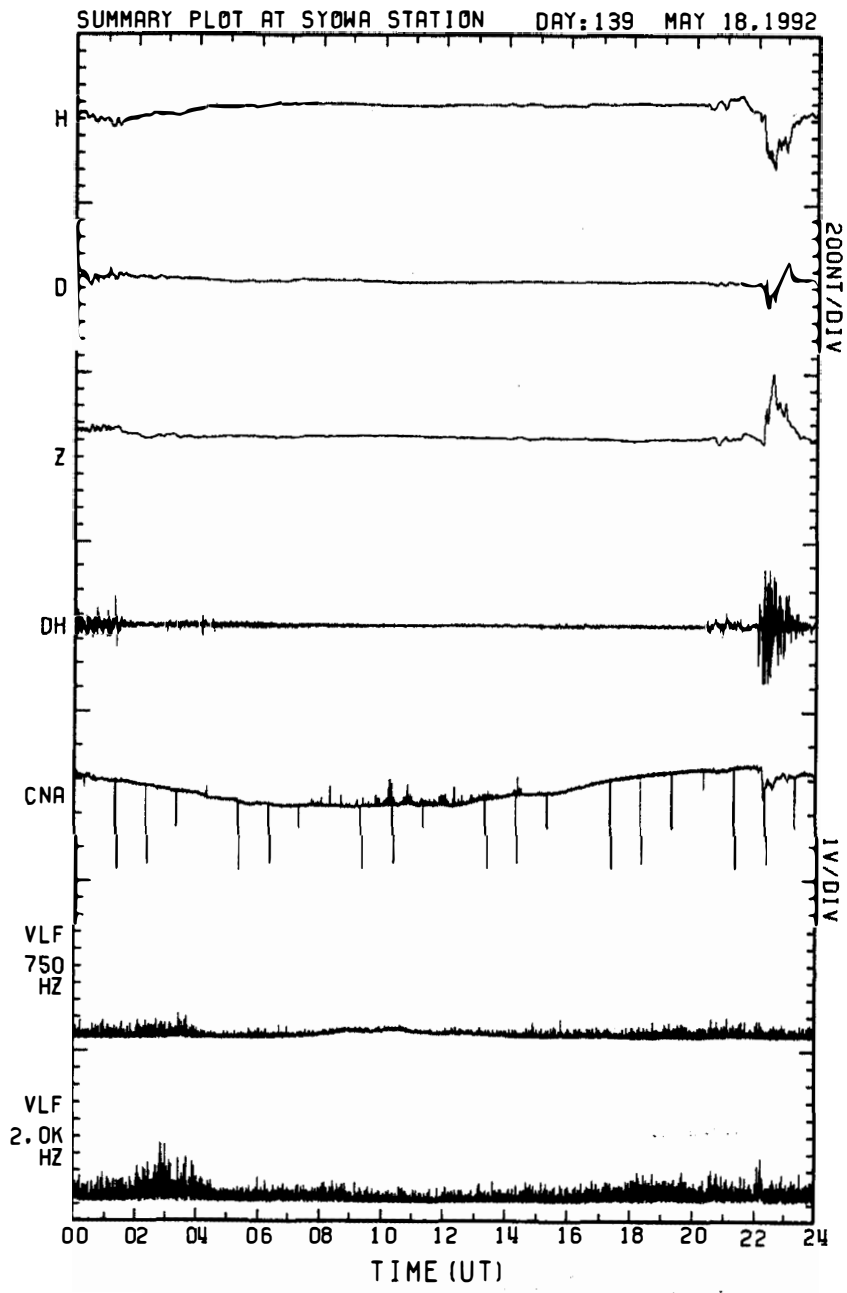

SUMMARY PLOT AT SYOWA STATION DAY:134 MAY 13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

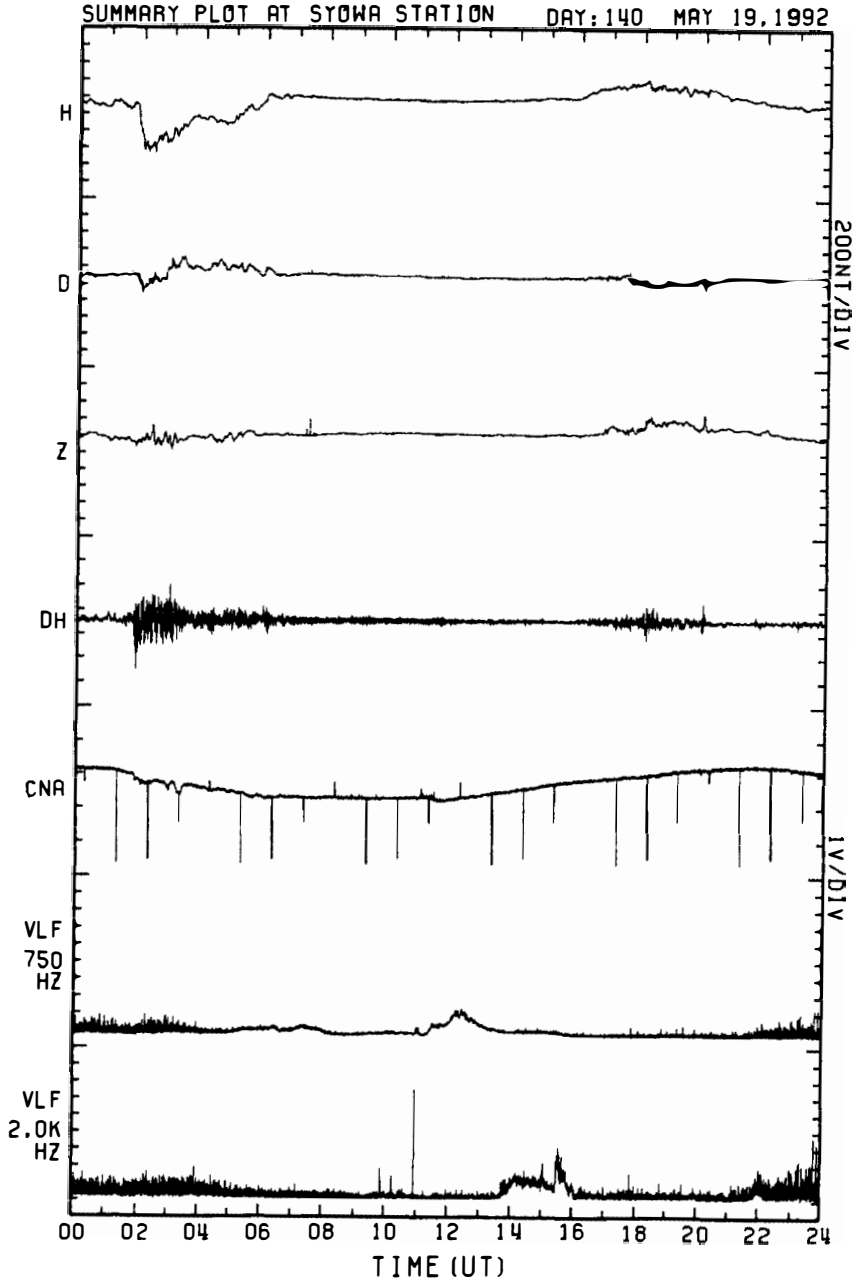

SUMMARY PLOT AT SYOWA STATION DAY:135 MAY 14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

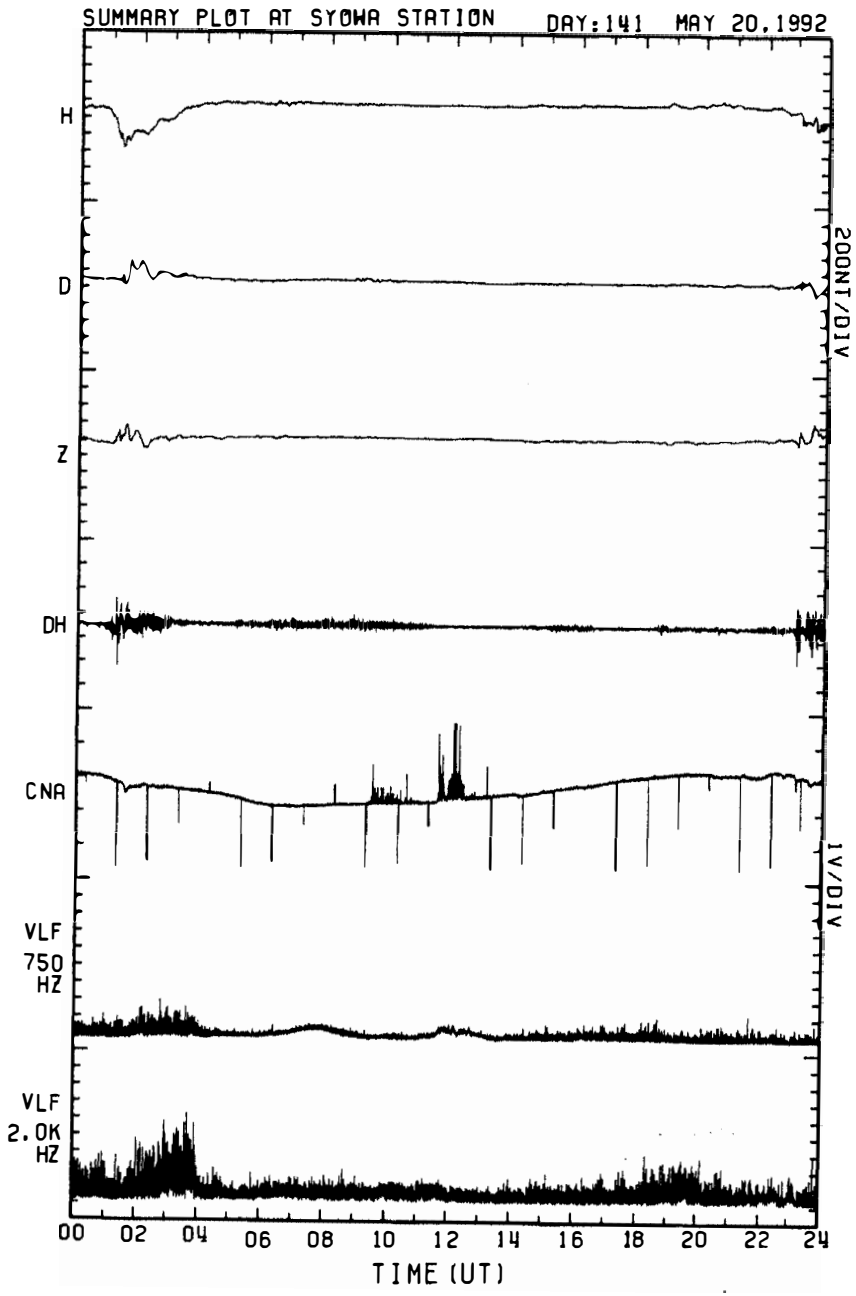

SUMMARY PLOT AT SYOWA STATION DAY:136 MAY 15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

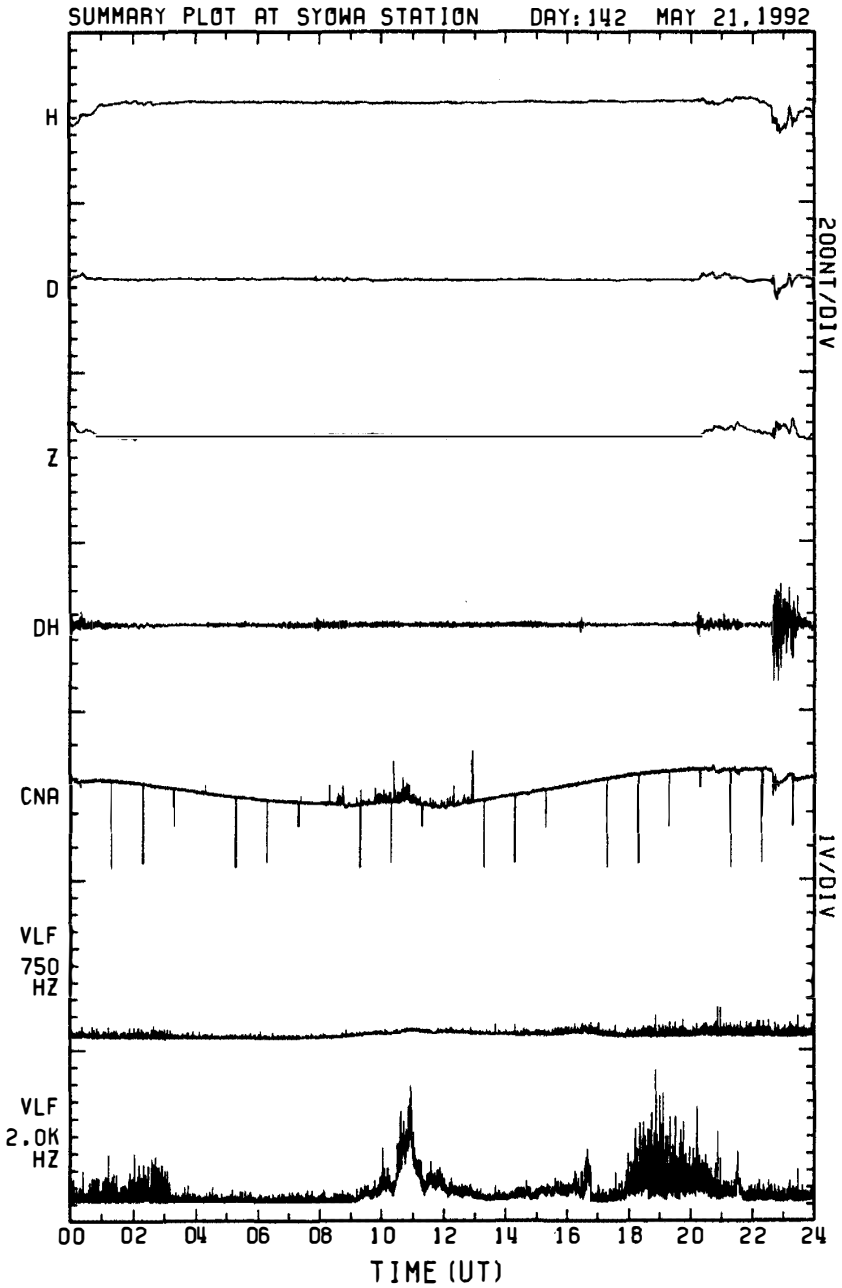

SUMMARY PLOT AT SYOWA STATION DAY:137 MAY 16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

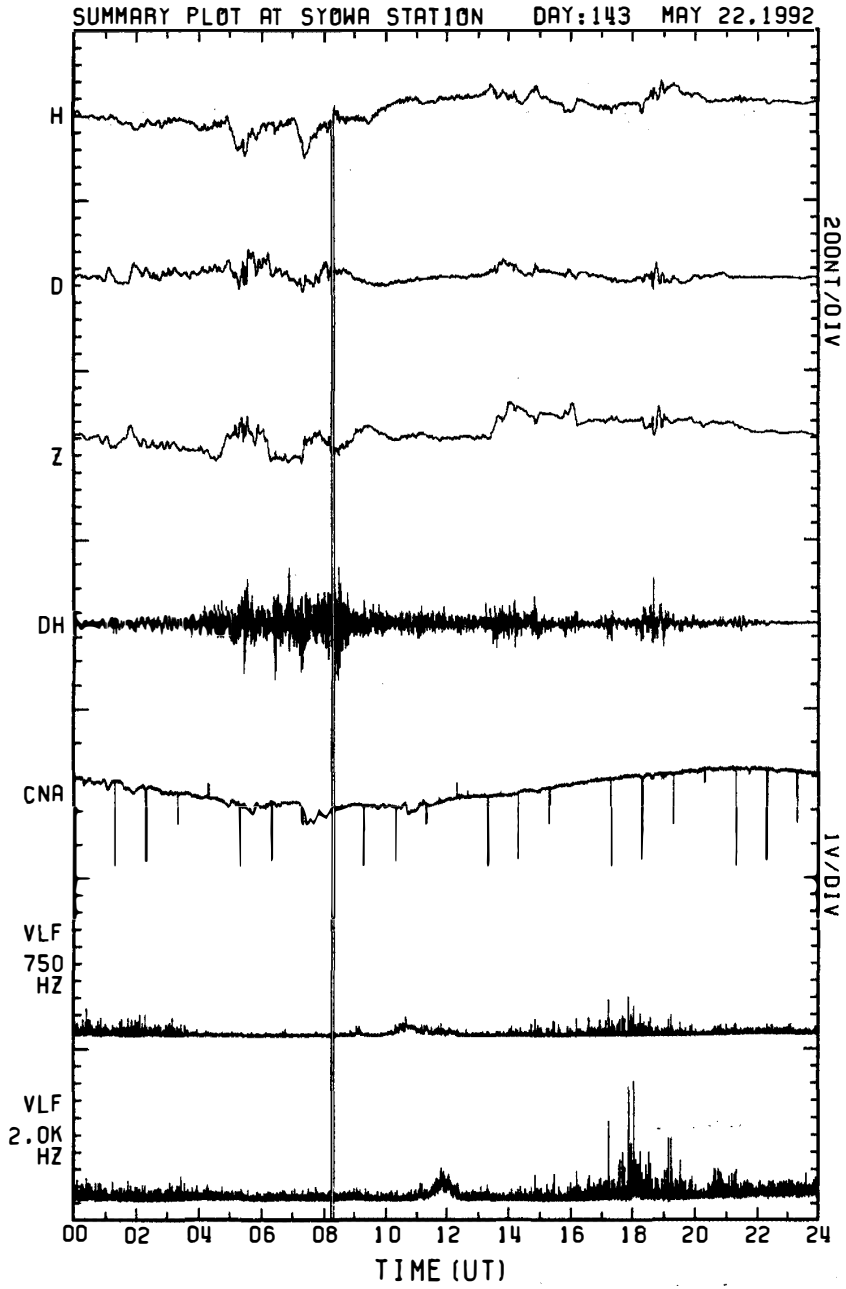

SUMMARY PLOT AT SYOWA STATION DAY:138 MAY 17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

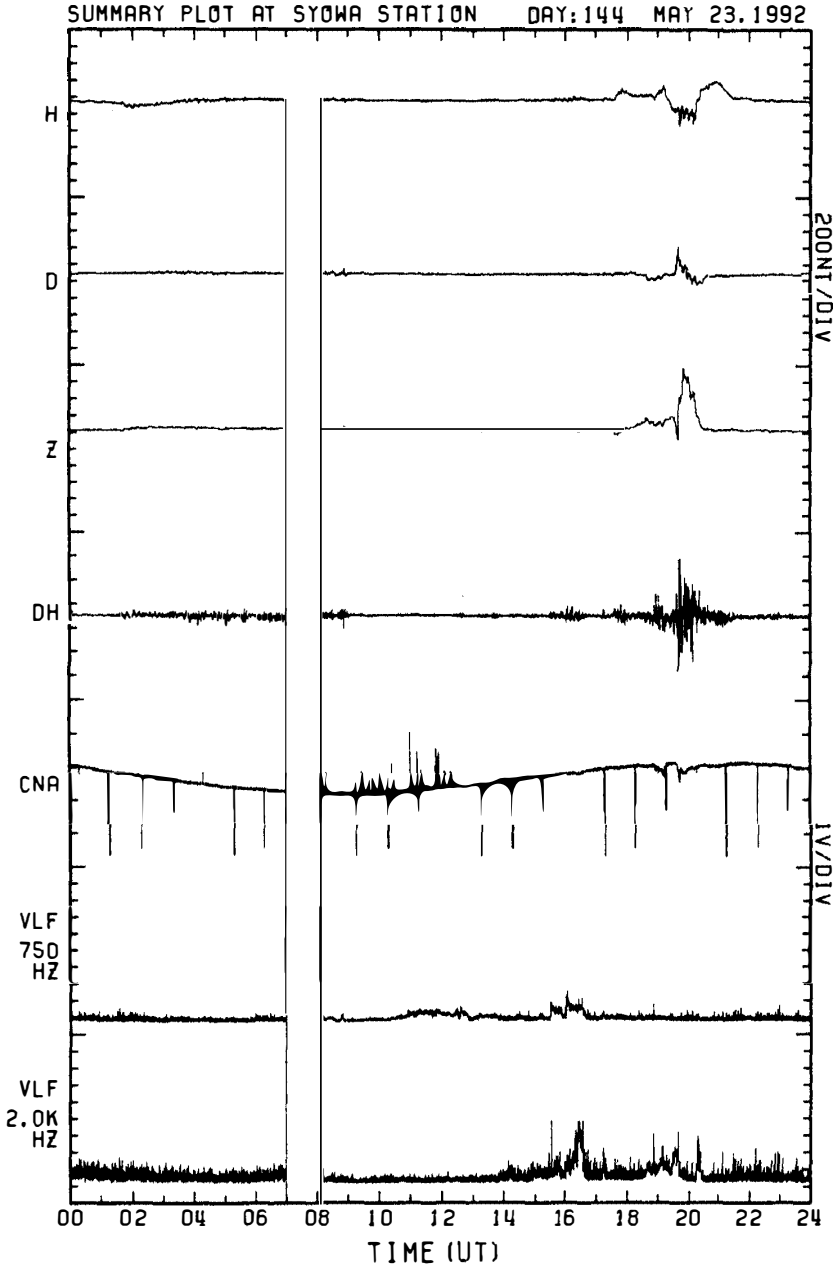

SUMMARY PLOT AT SYOWA STATION DAY:139 MAY 18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

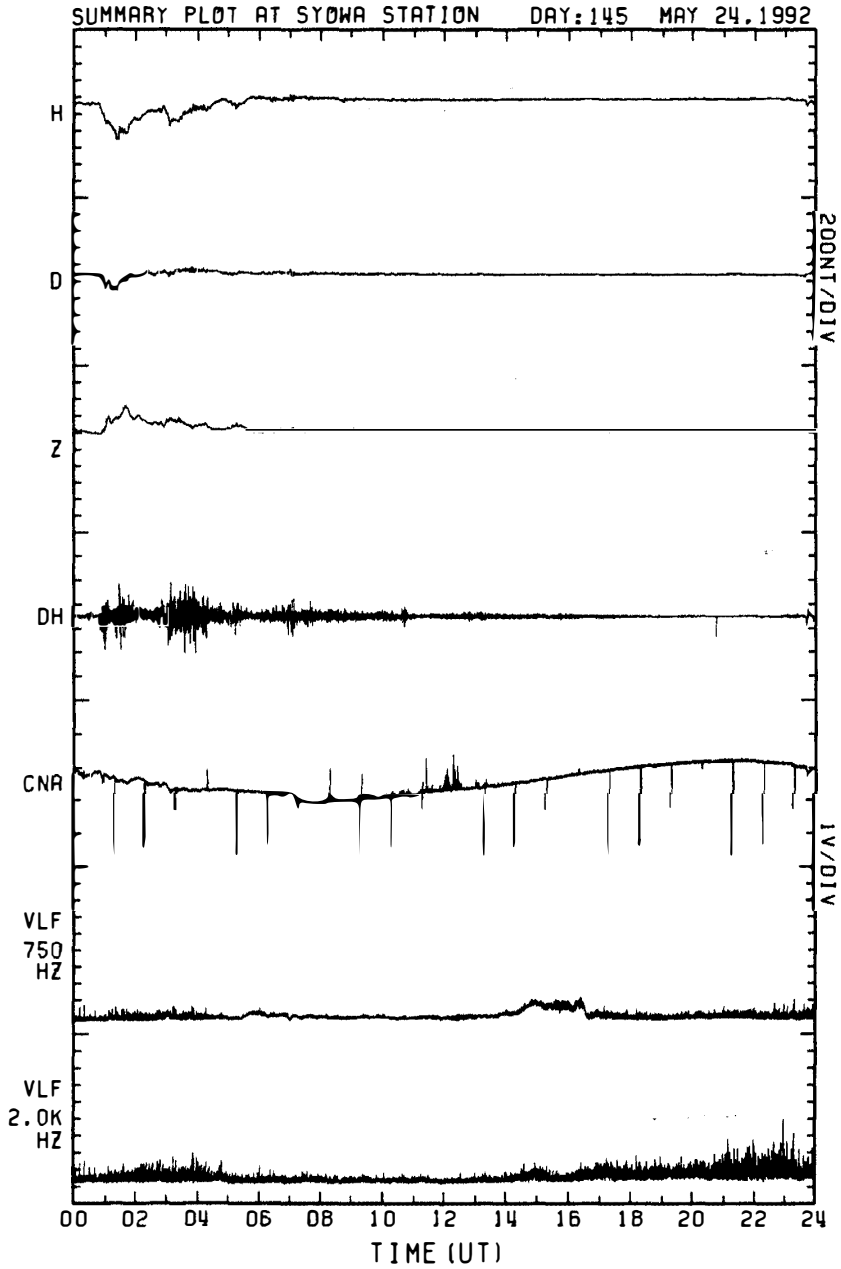

SUMMARY PLOT AT SYOWA STATION DAY:140 MAY 19,1992
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

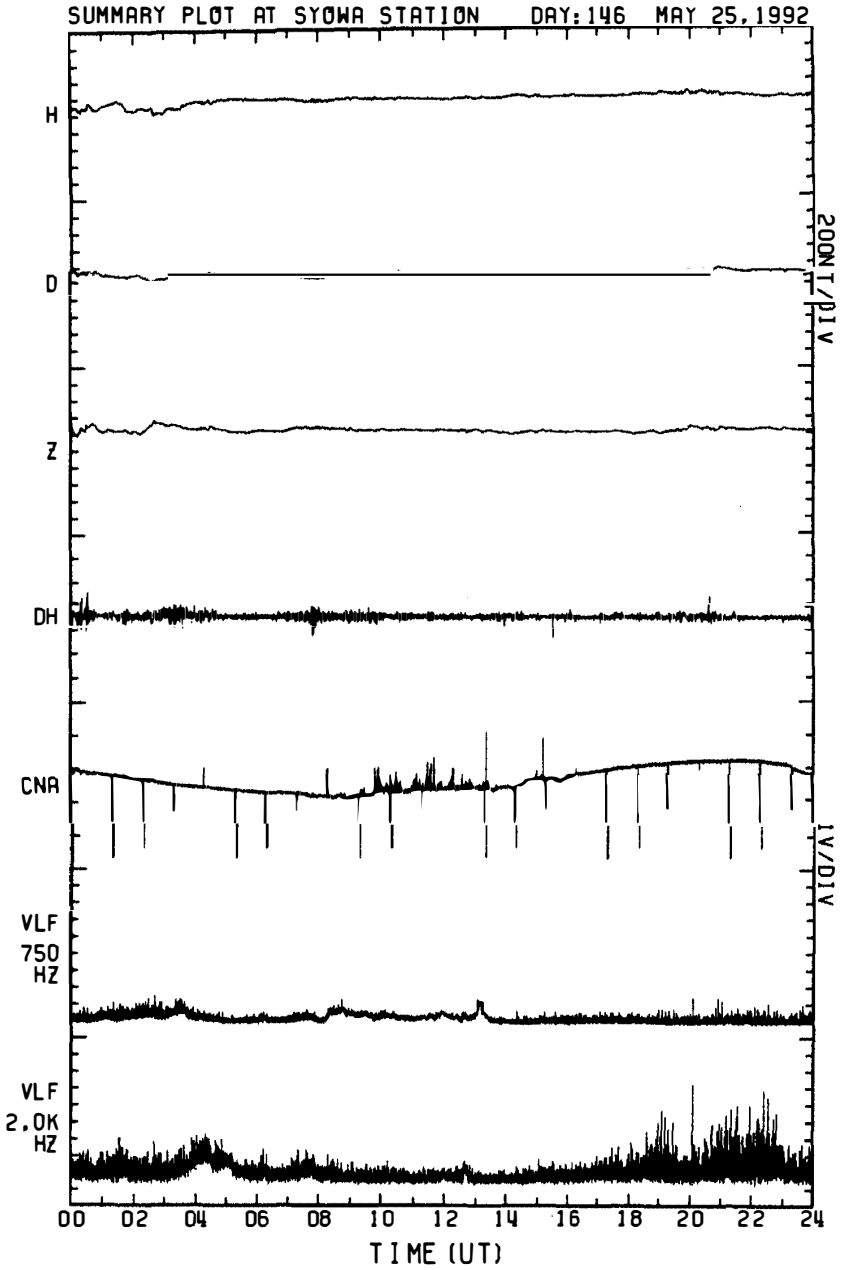

SUMMARY PLOT AT SYOWA STATION DAY:141 MAY 20,1992
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

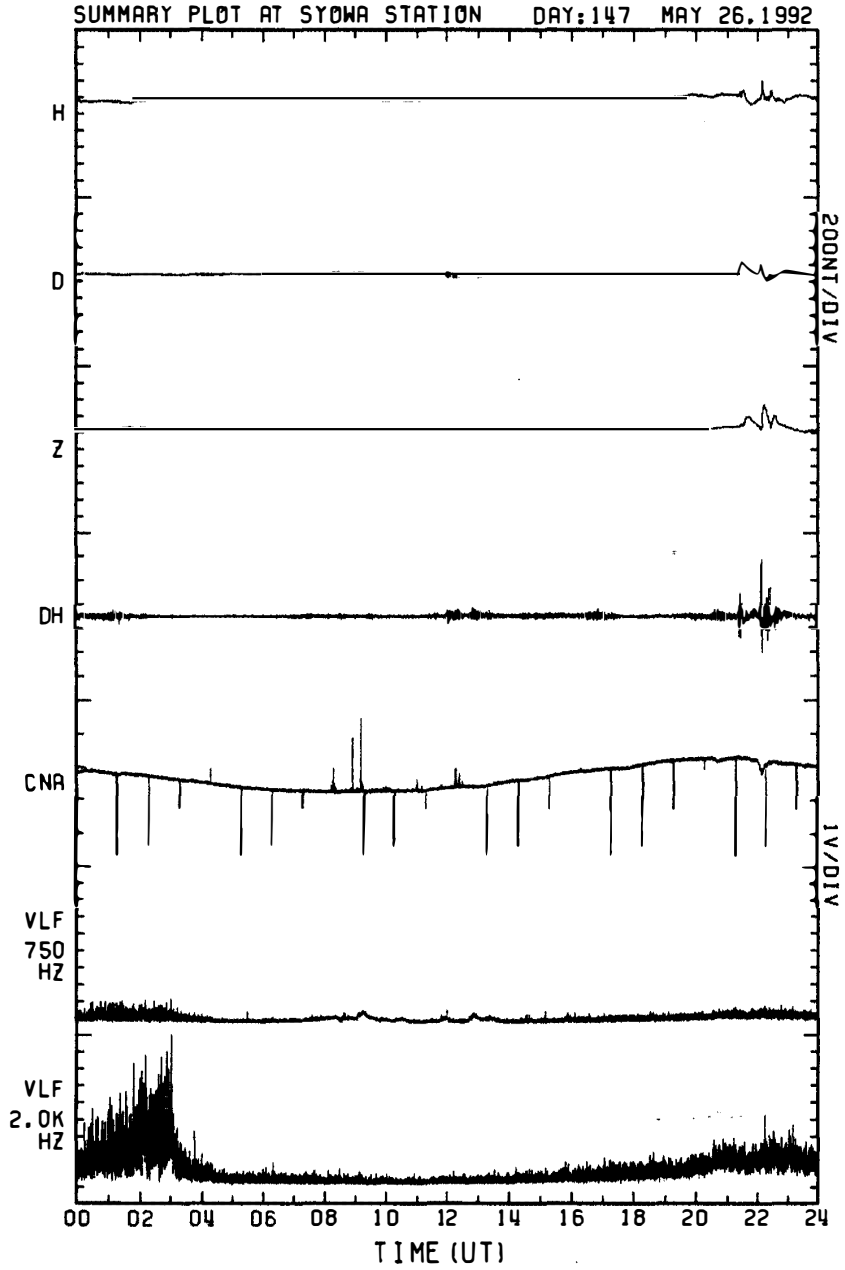

SUMMARY PLOT AT SYOWA STATION DAY:142 MAY 21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

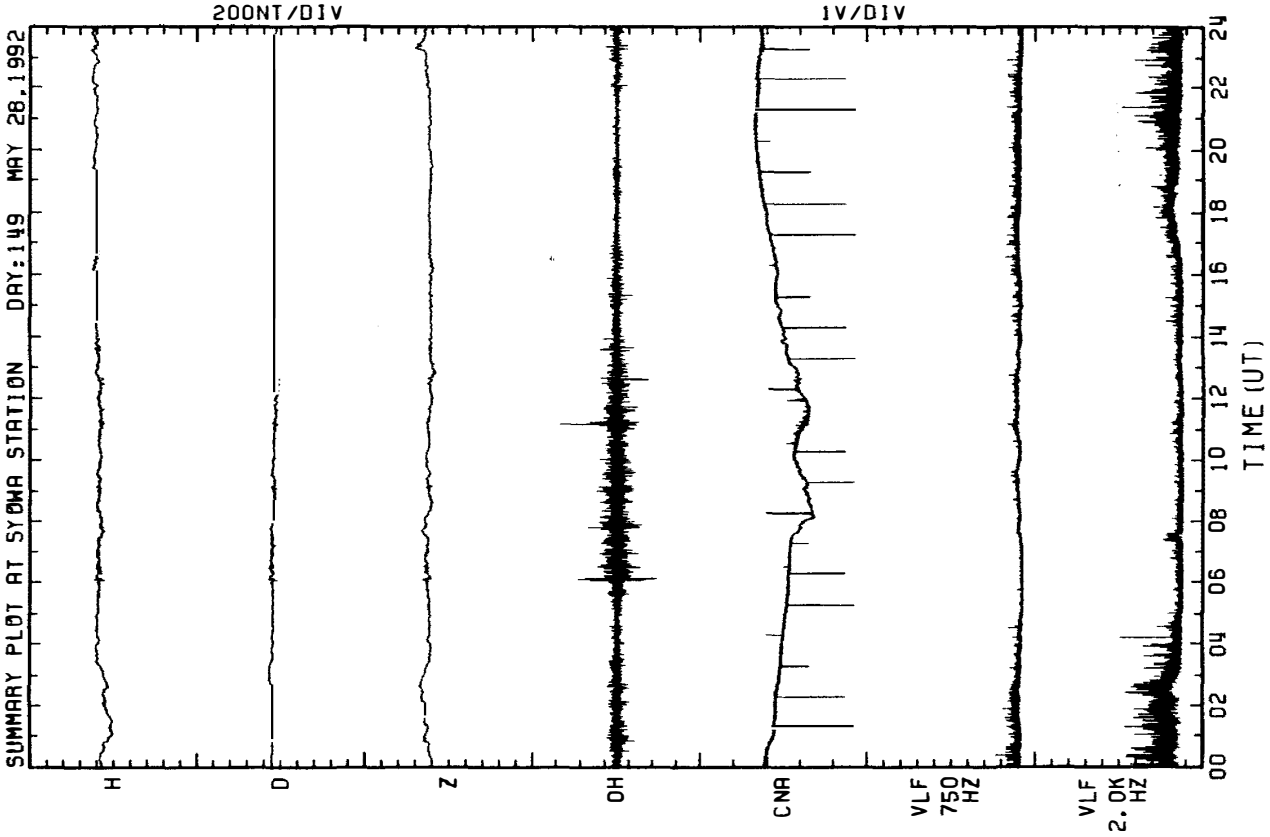

SUMMARY PLOT AT SYOWA STATION DAY:143 MAY 22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

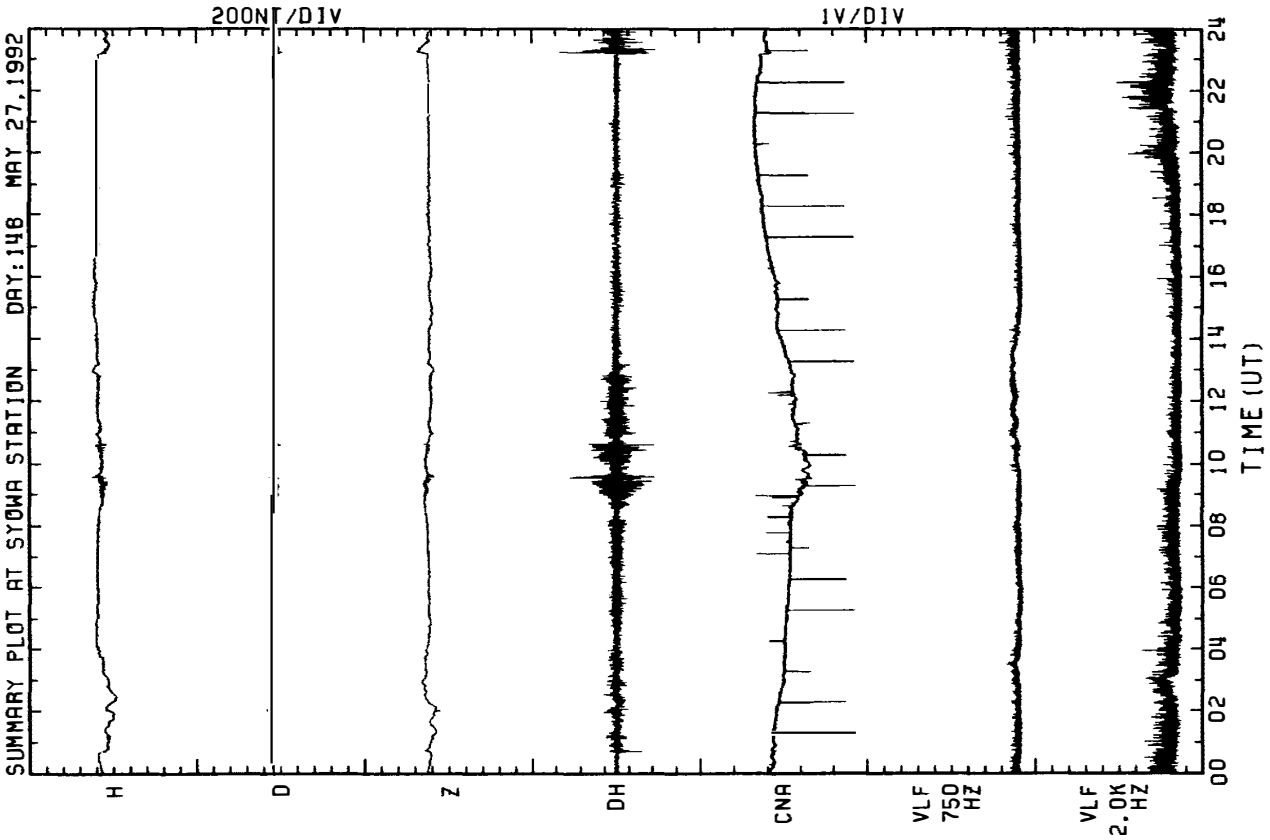

SUMMARY PLOT AT SYOWA STATION DAY:144 MAY 23.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

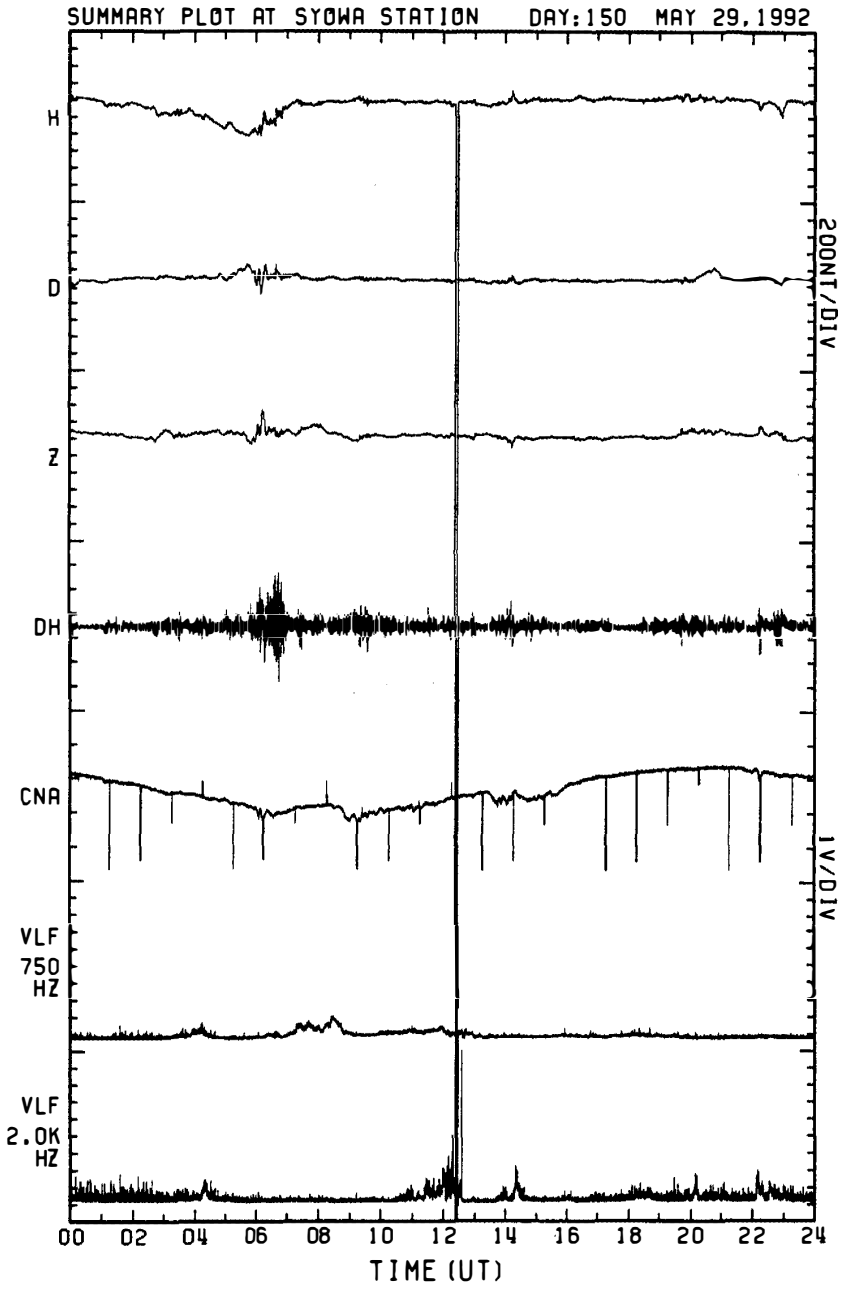

SUMMARY PLOT AT SYOWA STATION DAY:145 MAY 24.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

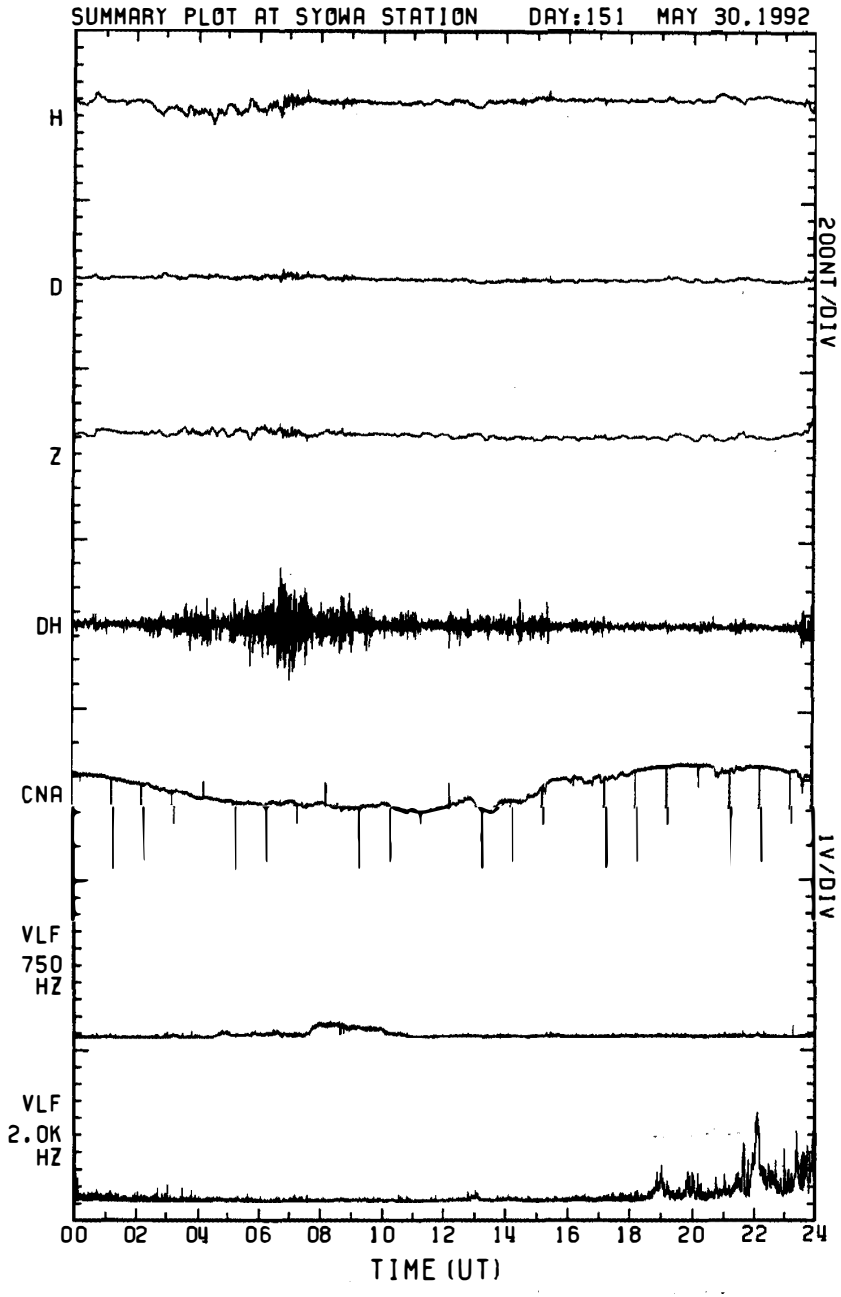

SUMMARY PLOT AT SYOWA STATION DAY:146 MAY 25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

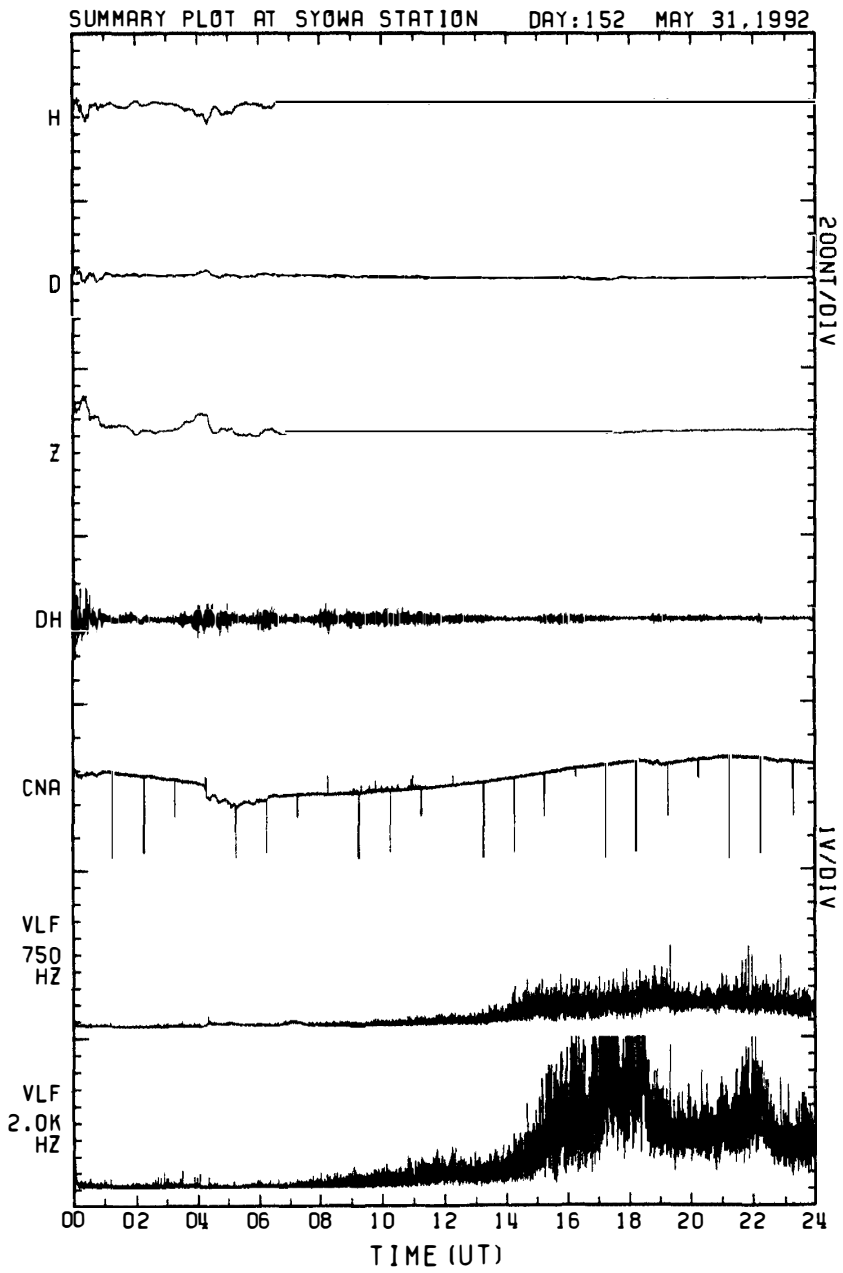

SUMMARY PLOT AT SYOWA STATION DAY:147 MAY 26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

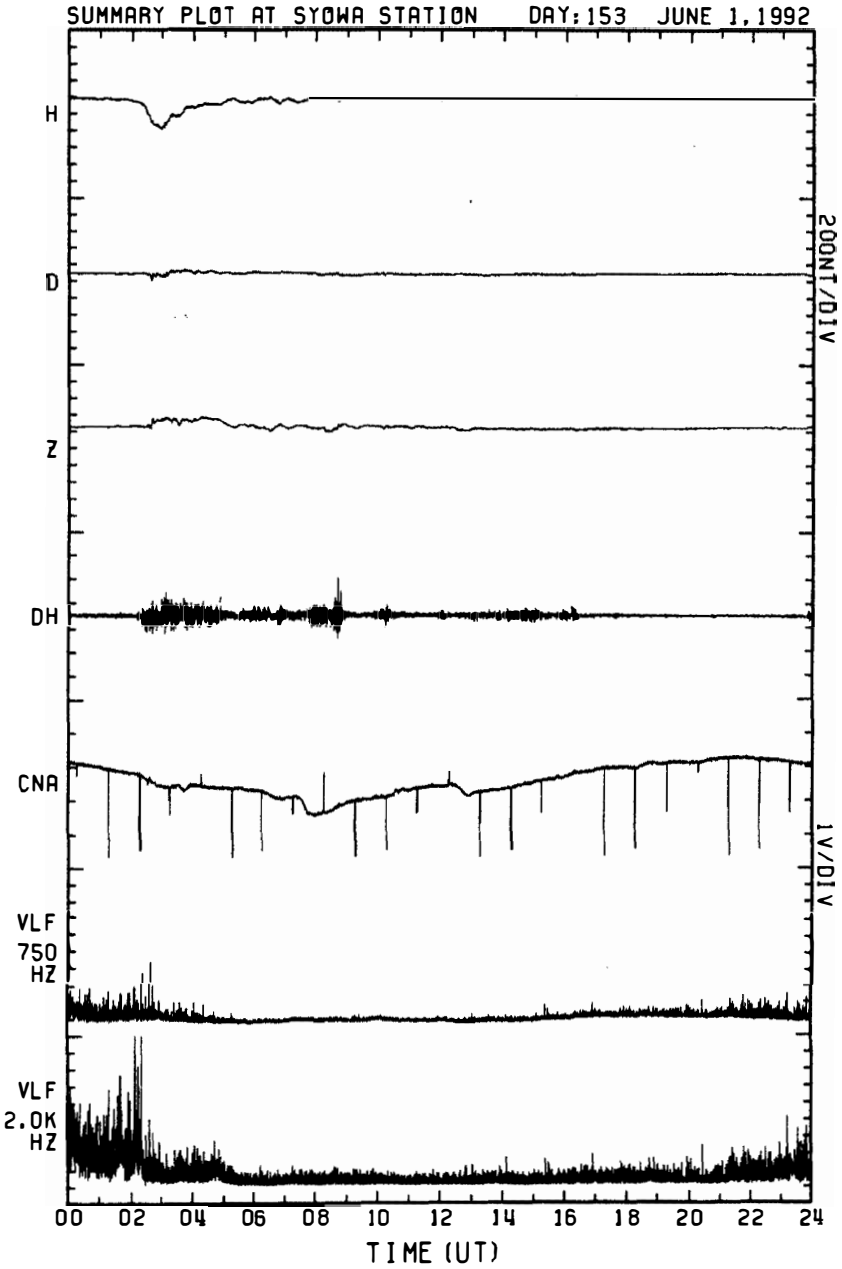

SUMMARY PLOT AT SYOWA STATION DAY:149 MAY 28,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME(UT)

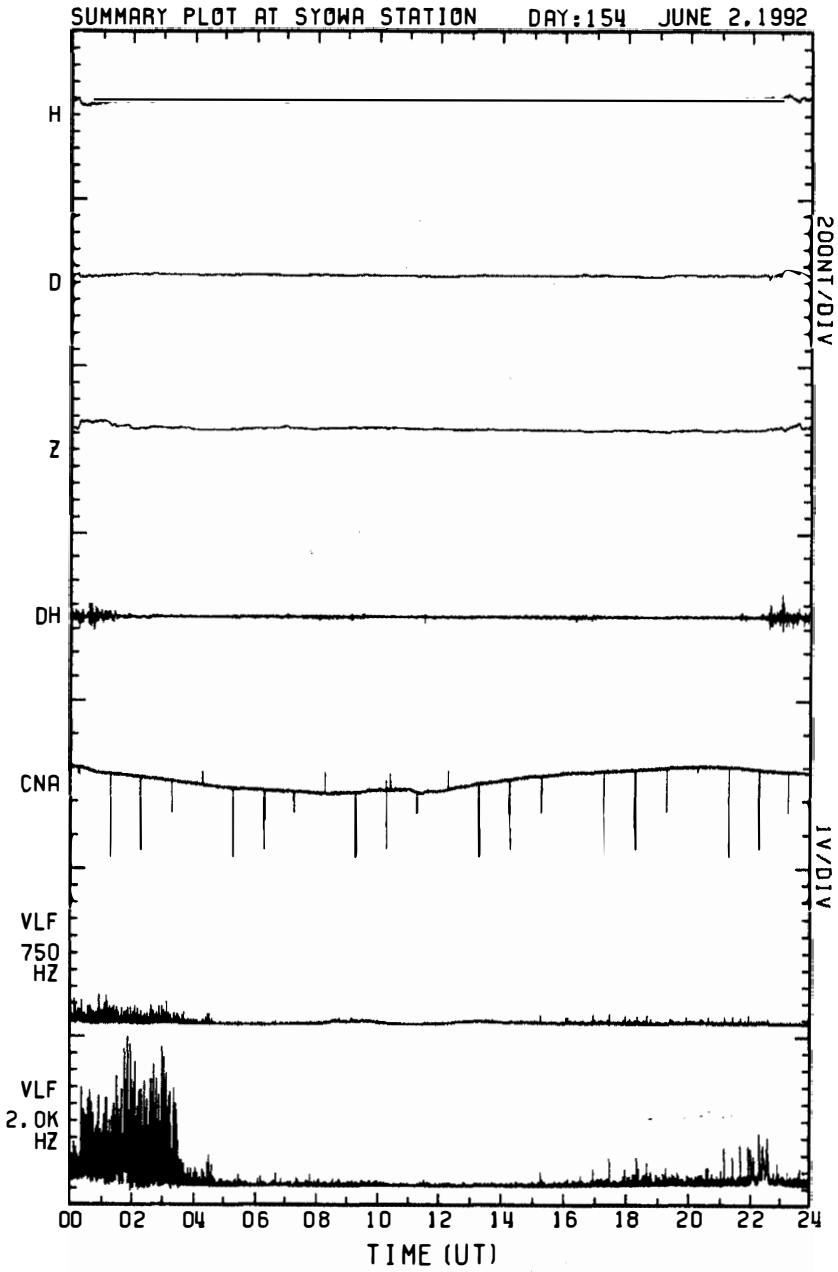

SUMMARY PLOT AT SYOWA STATION DAY:148 MAY 27,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME(UT)

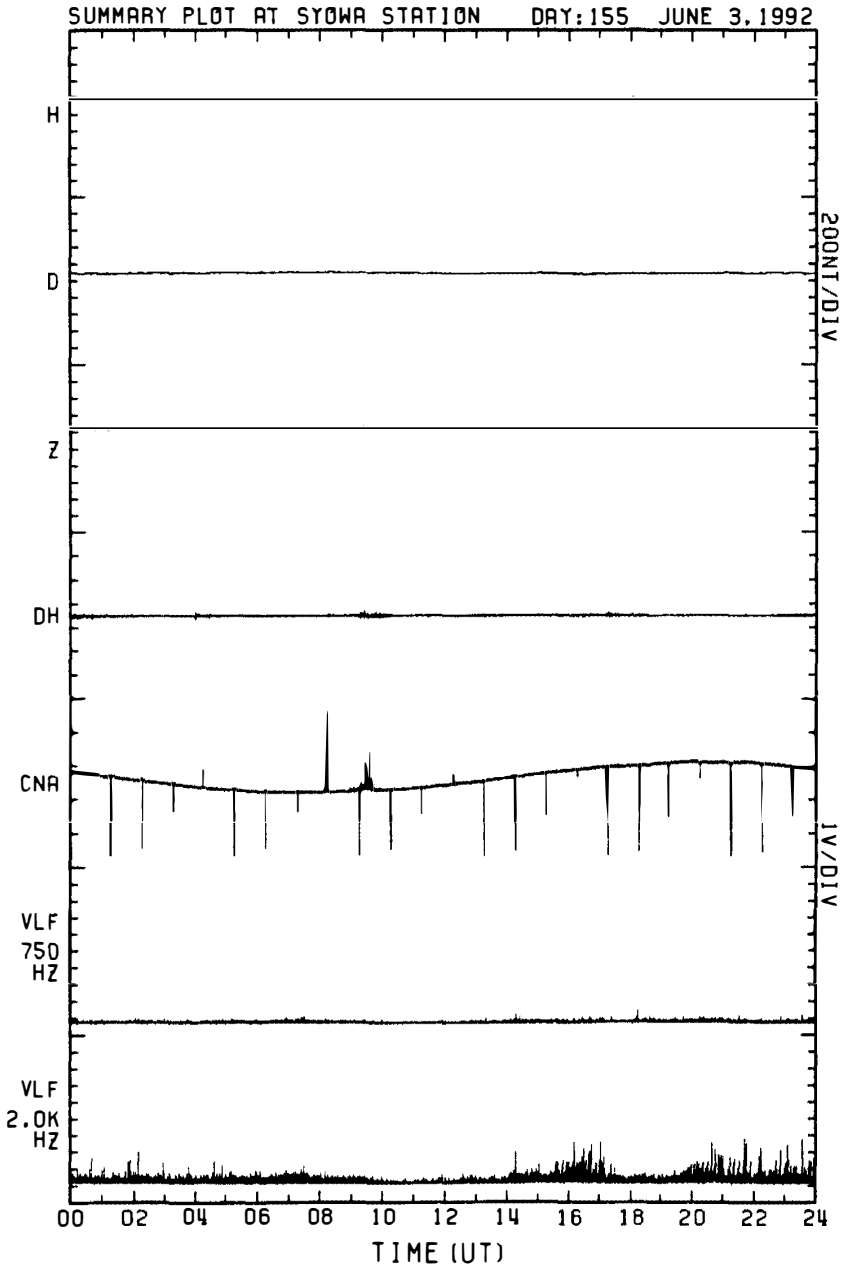

SUMMARY PLOT AT SYOWA STATION DAY:150 MAY 29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

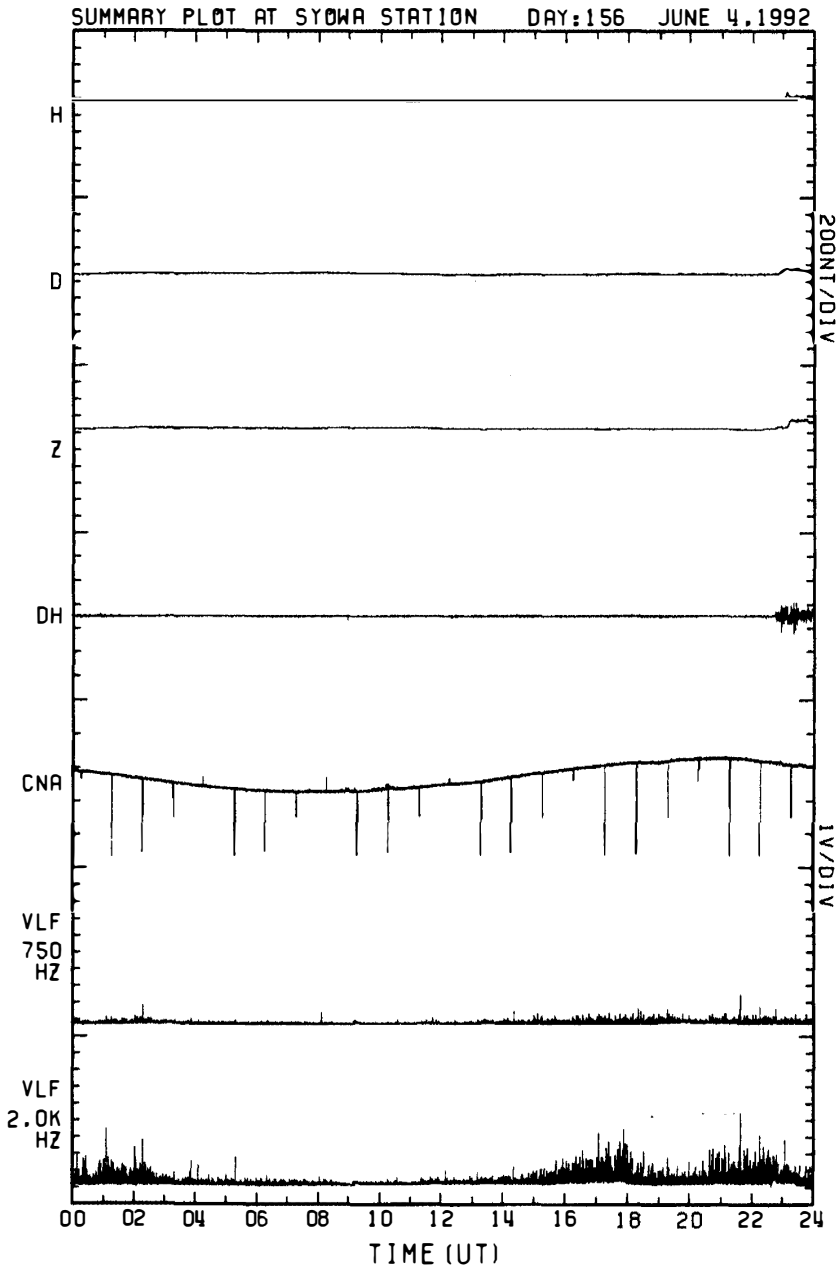

SUMMARY PLOT AT SYOWA STATION DAY:151 MAY 30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

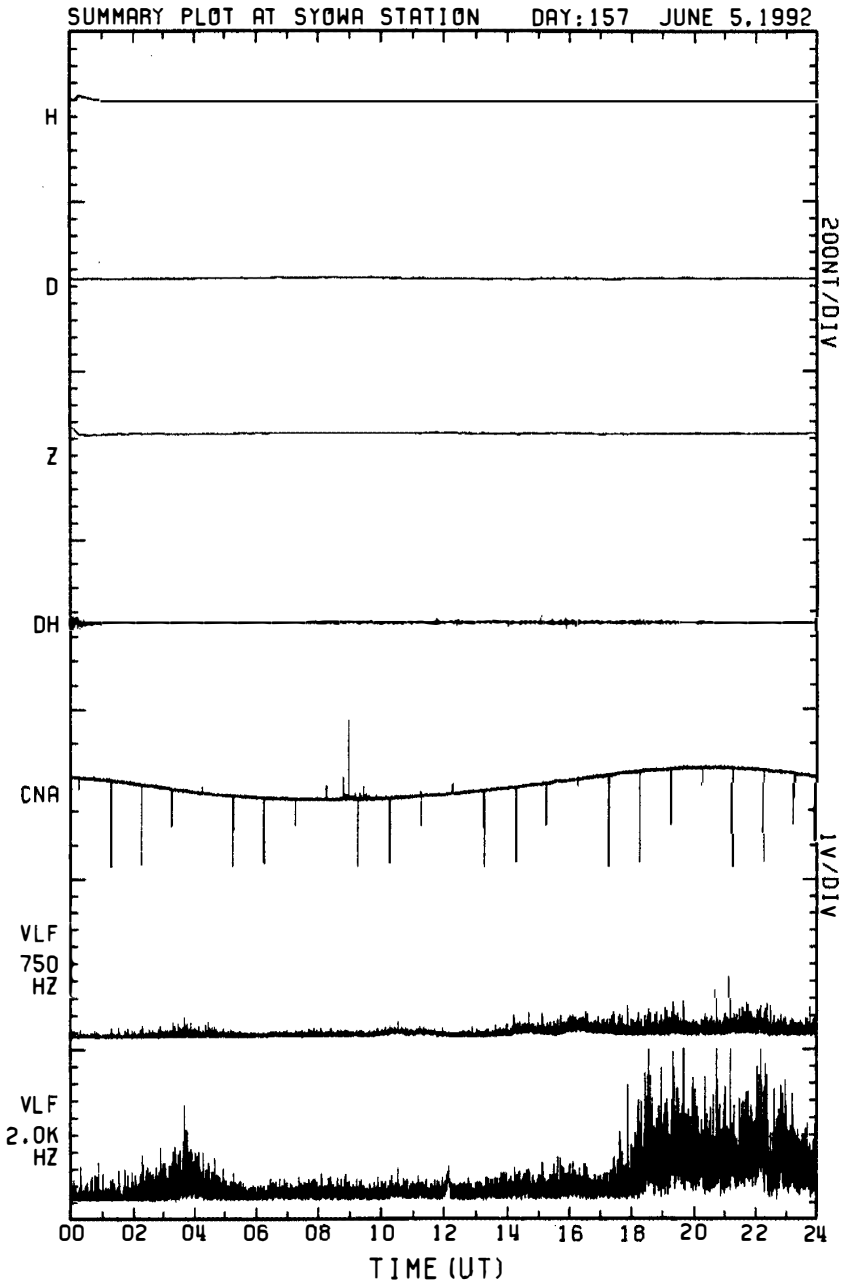

SUMMARY PLOT AT SYOWA STATION DAY:152 MAY 31,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

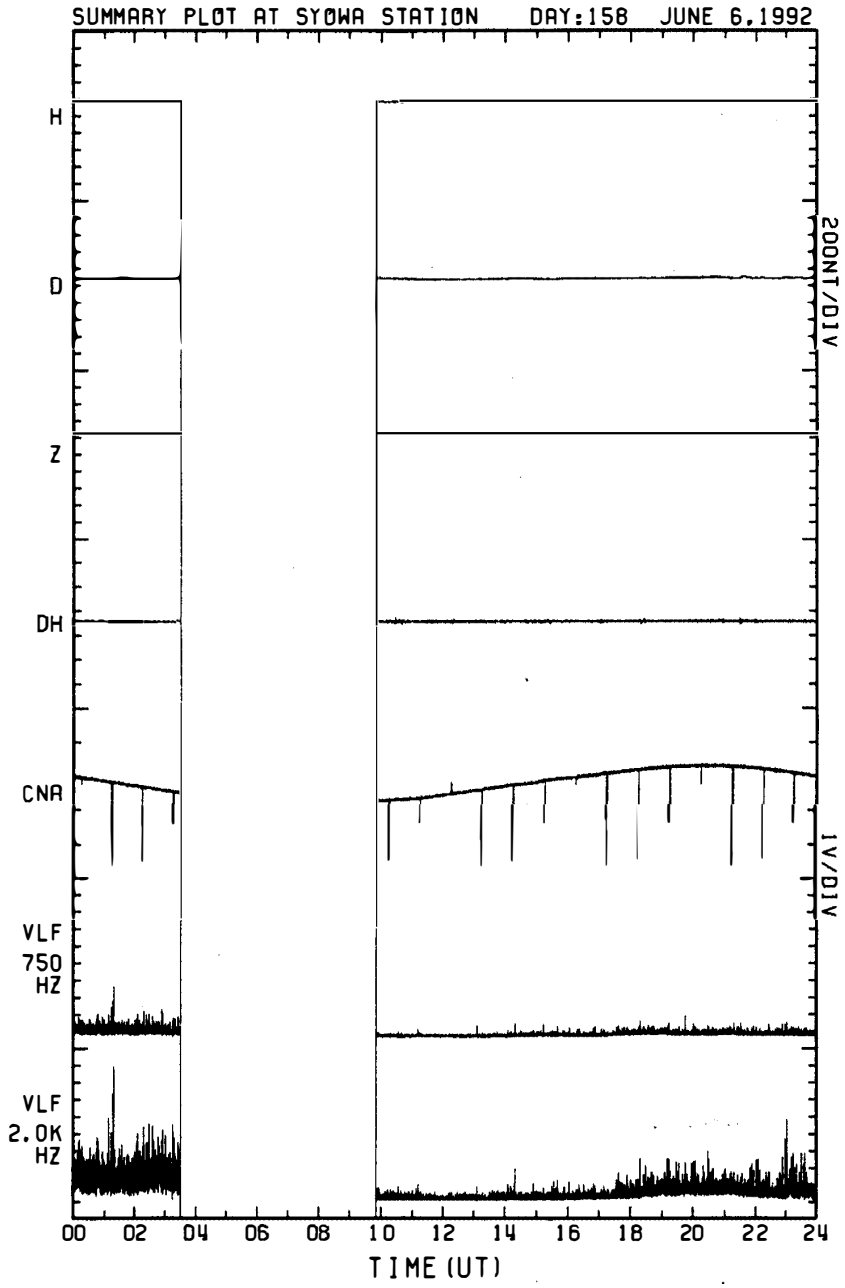

SUMMARY PLOT AT SYOWA STATION DAY:153 JUNE 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

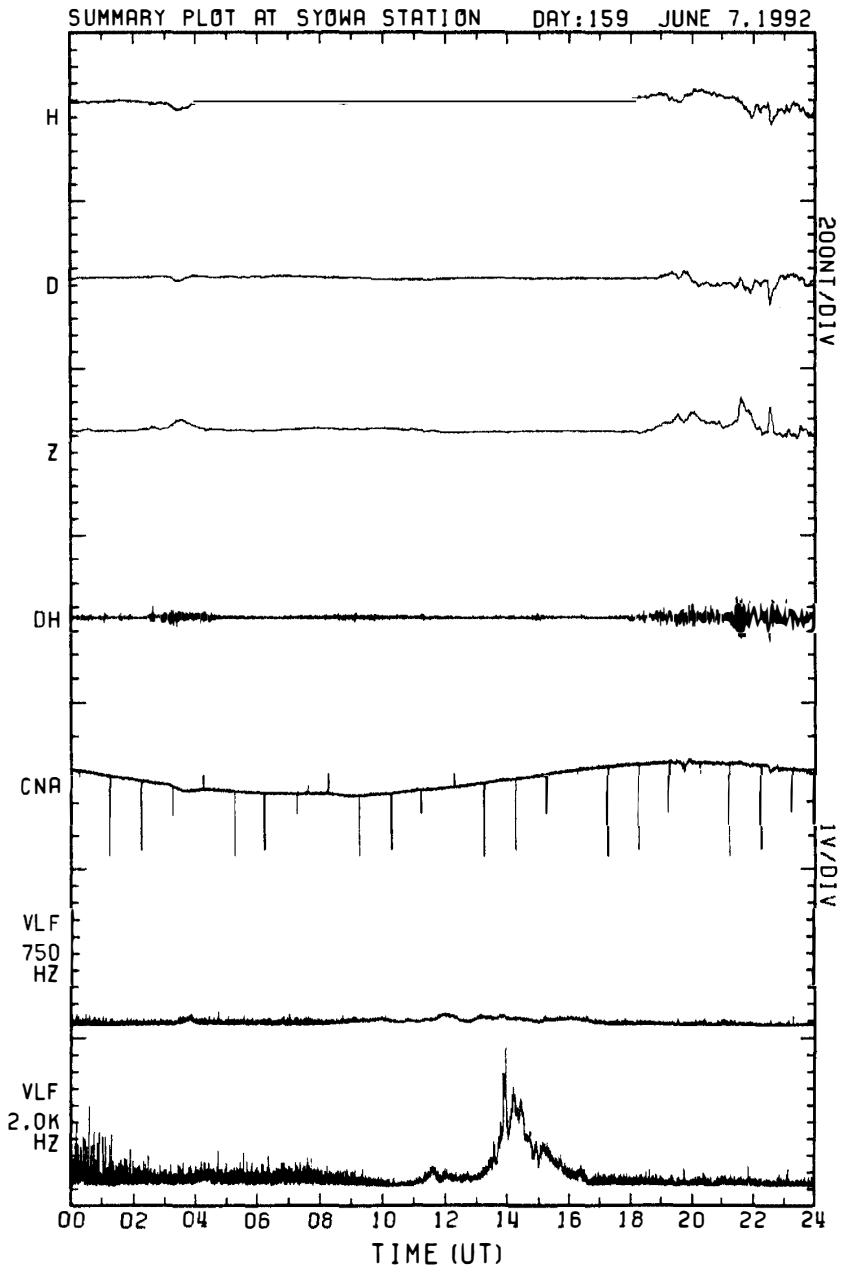

SUMMARY PLOT AT SYOWA STATION DAY:154 JUNE 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

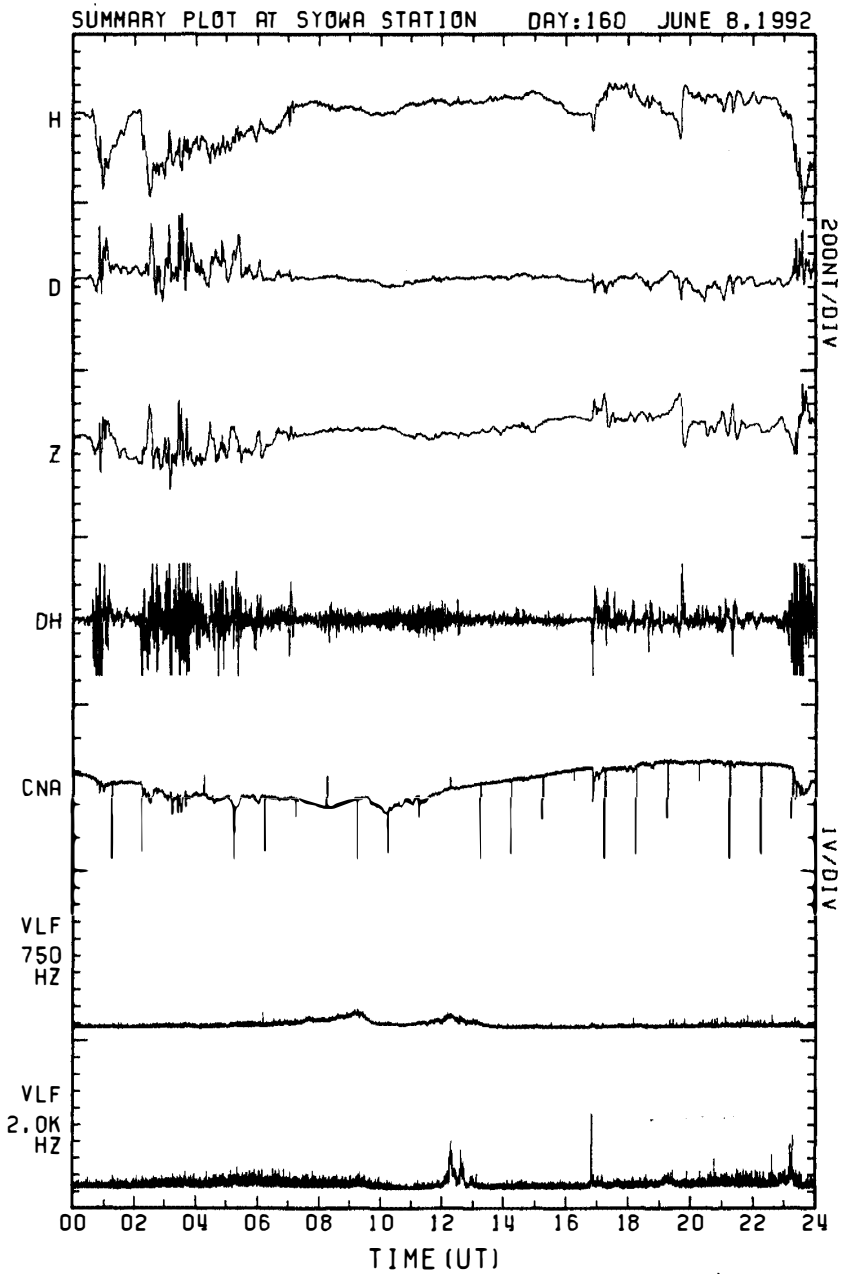

SUMMARY PLOT AT SYOWA STATION DAY:155 JUNE 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

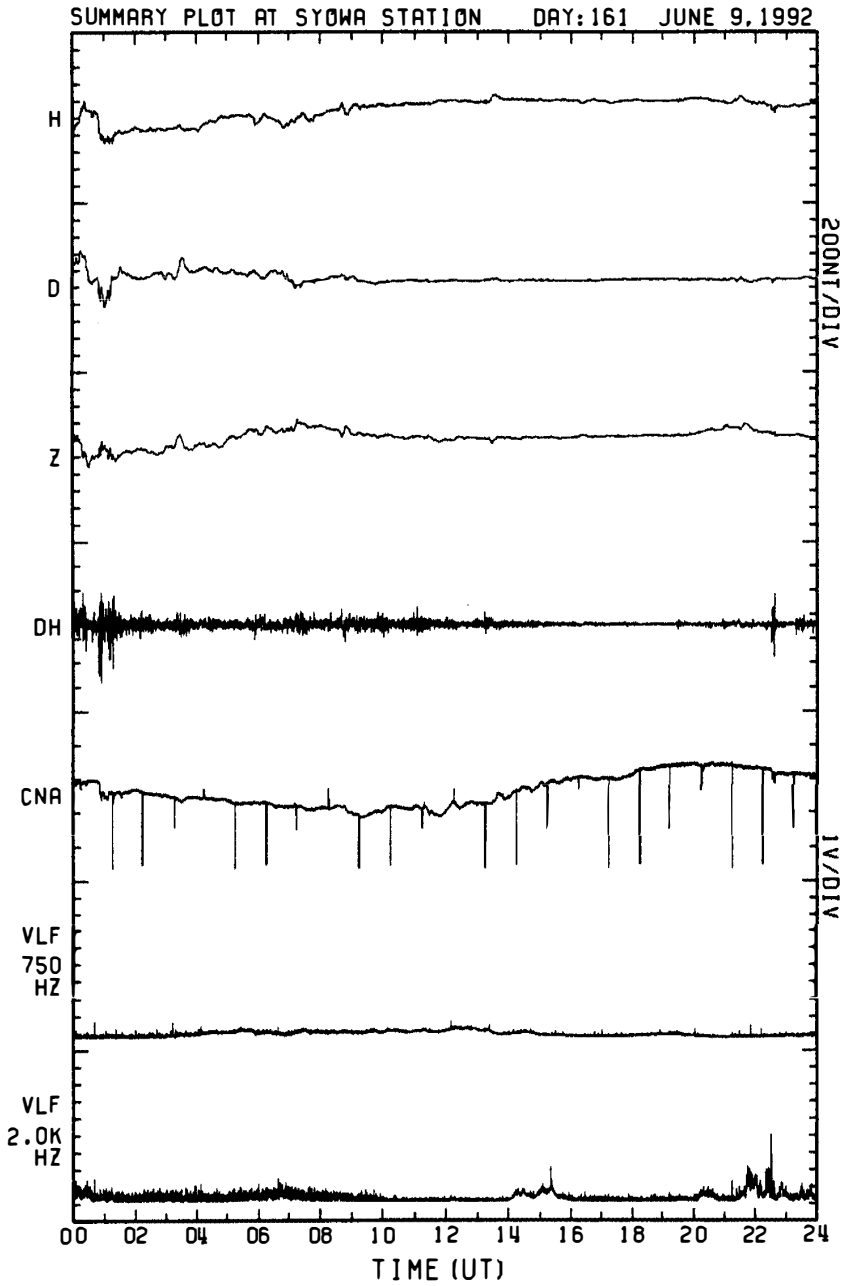

SUMMARY PLOT AT SYOWA STATION DAY:156 JUNE 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

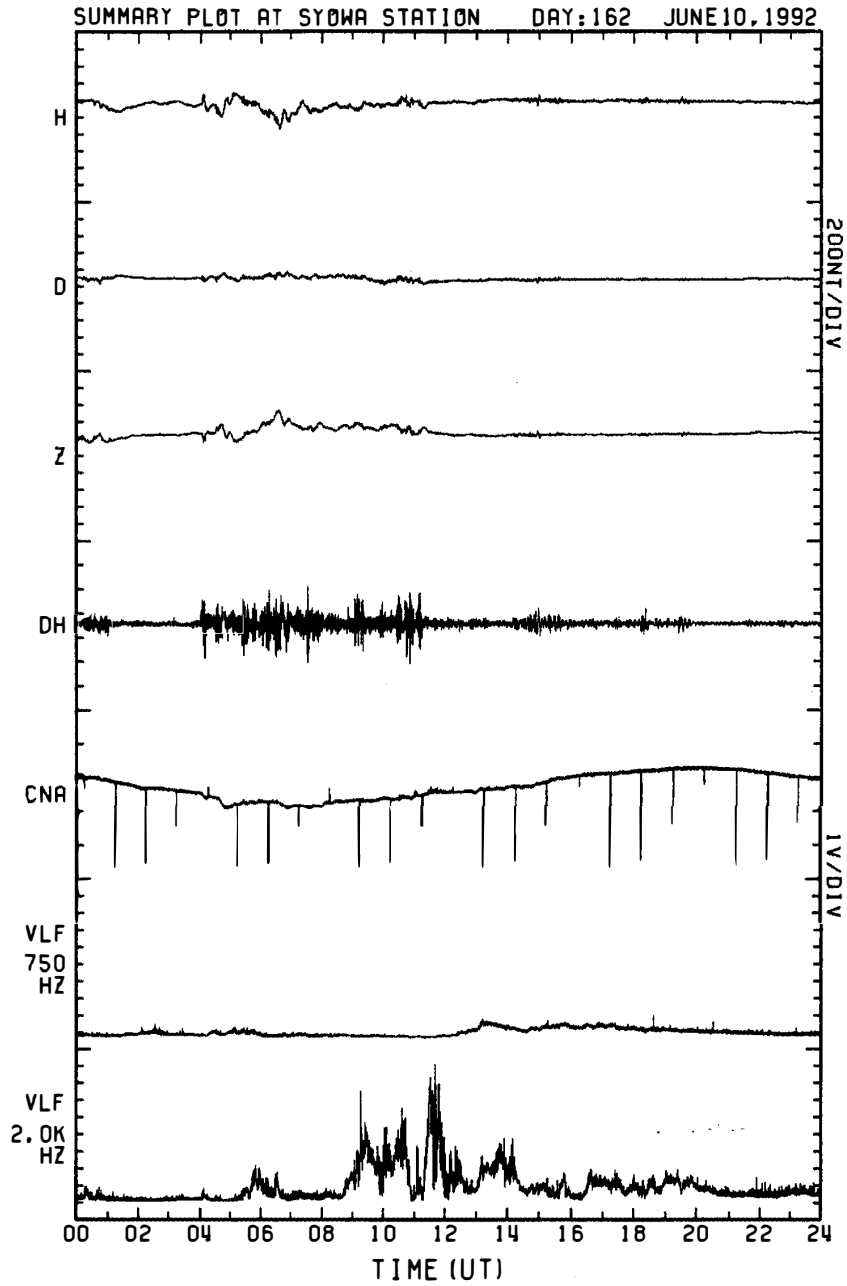

SUMMARY PLOT AT SYOWA STATION DAY:157 JUNE 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

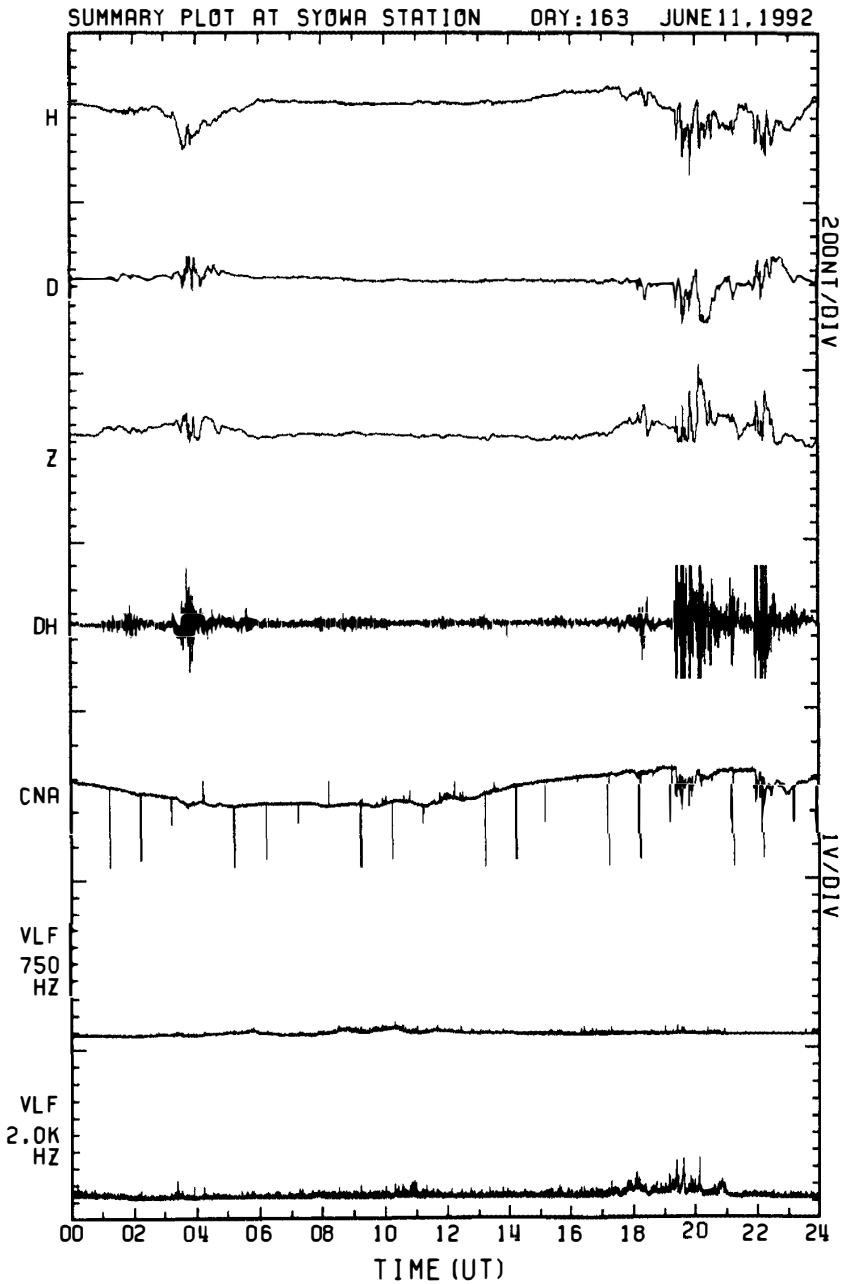

SUMMARY PLOT AT SYOWA STATION DAY:158 JUNE 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

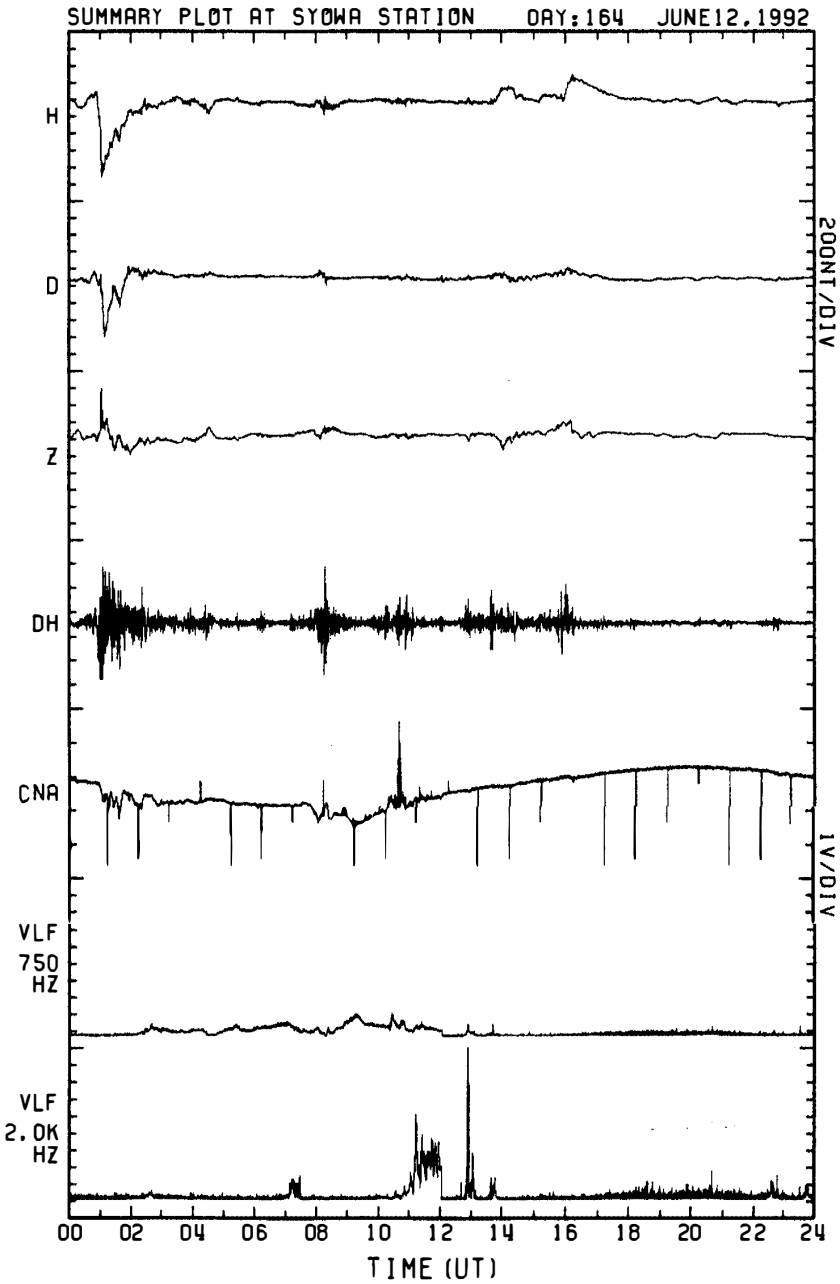

SUMMARY PLOT AT SYOWA STATION DAY:159 JUNE 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

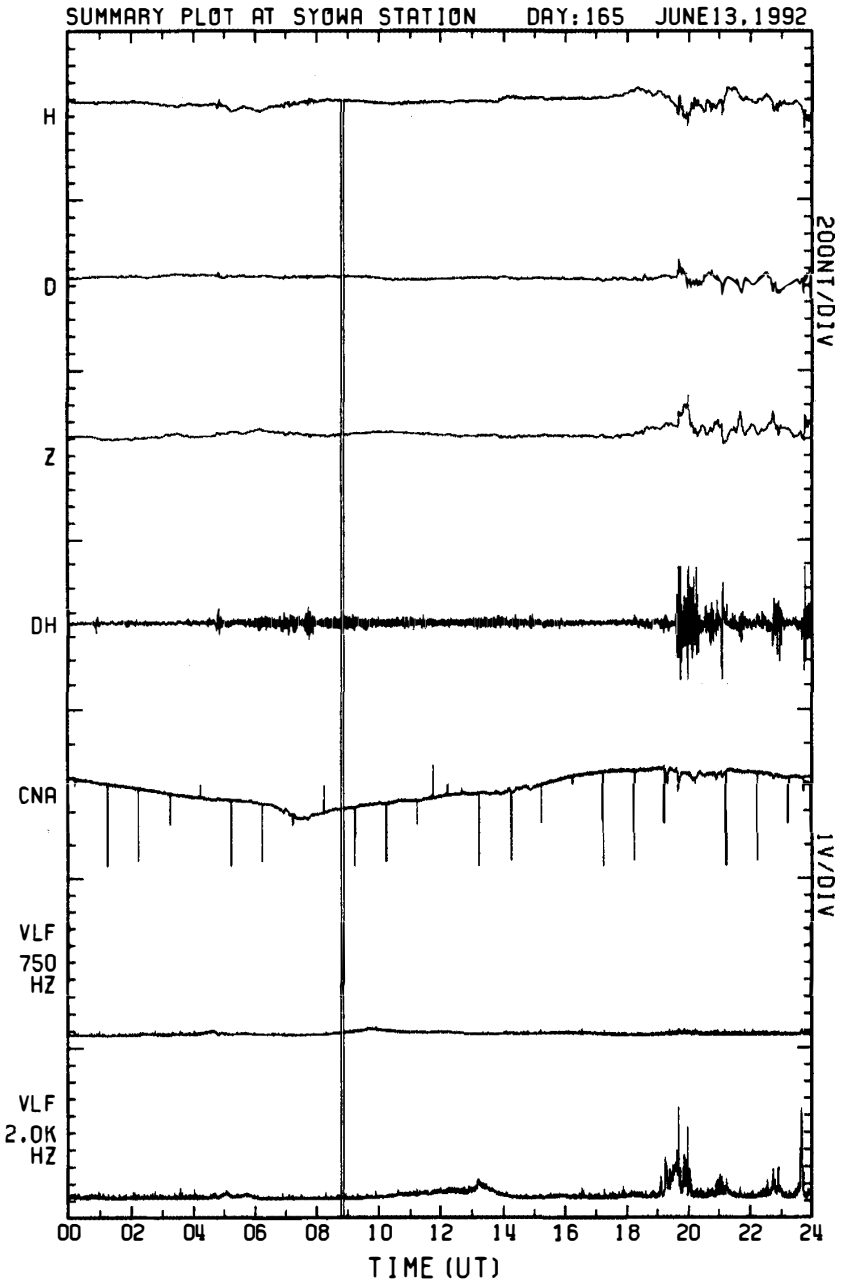

SUMMARY PLOT AT SYOWA STATION DAY:160 JUNE 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

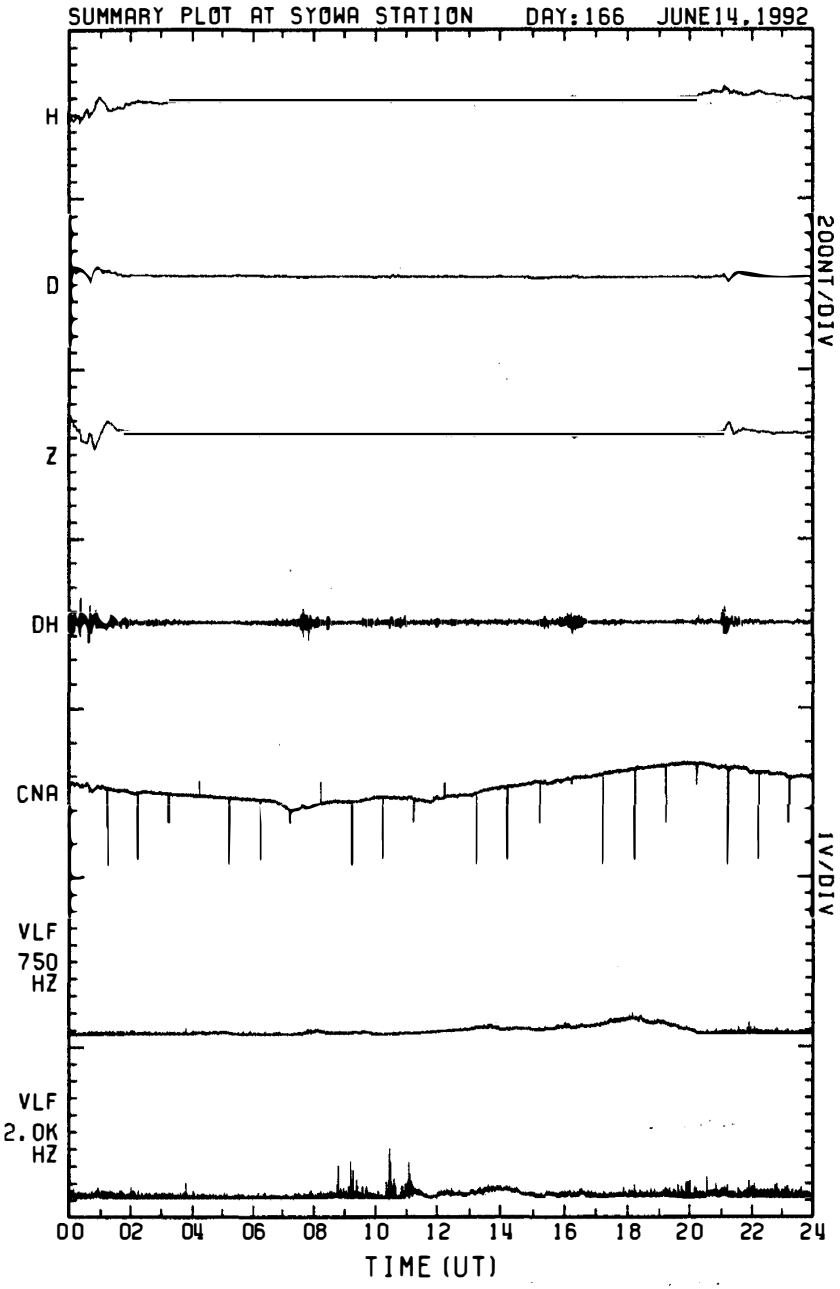

SUMMARY PLOT AT SYOWA STATION DAY:161 JUNE 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

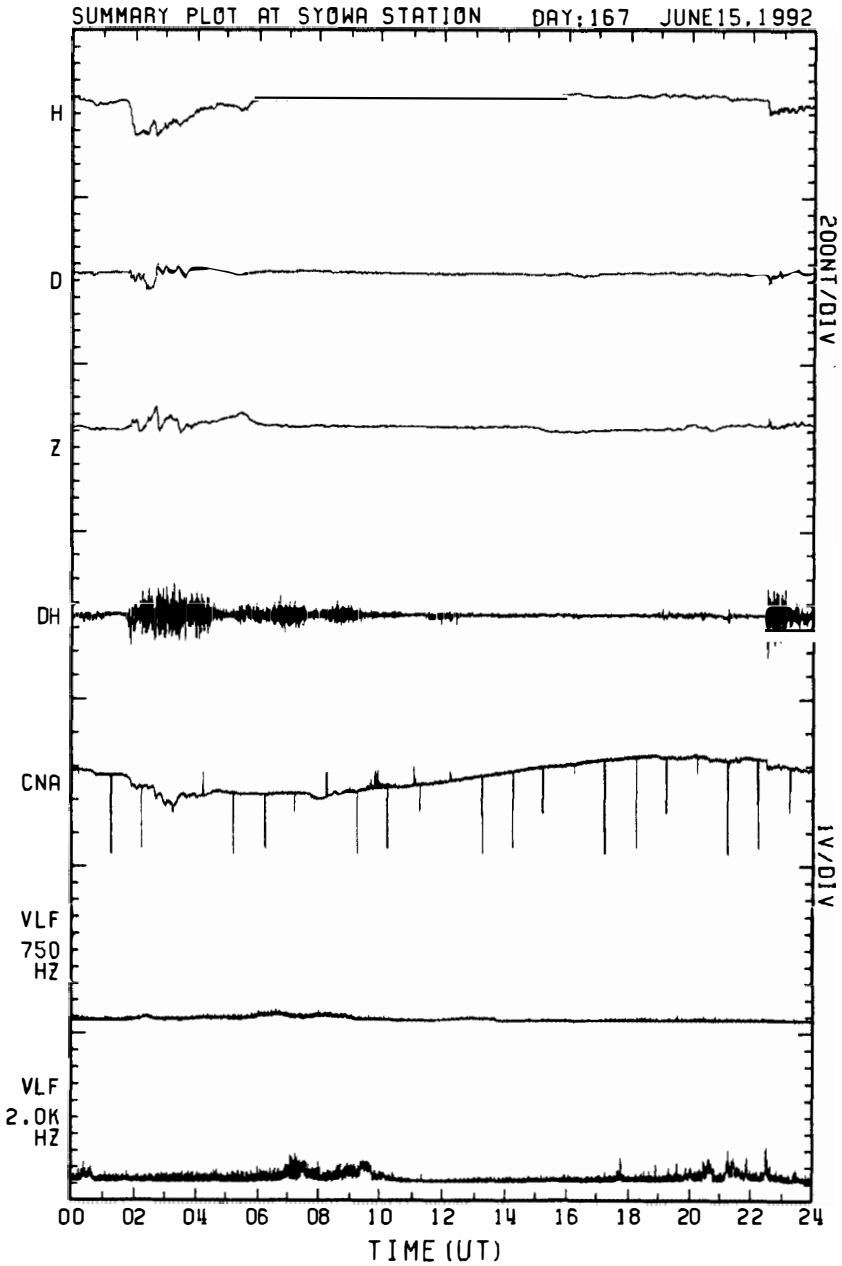

SUMMARY PLOT AT SYOWA STATION DAY:162 JUNE10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

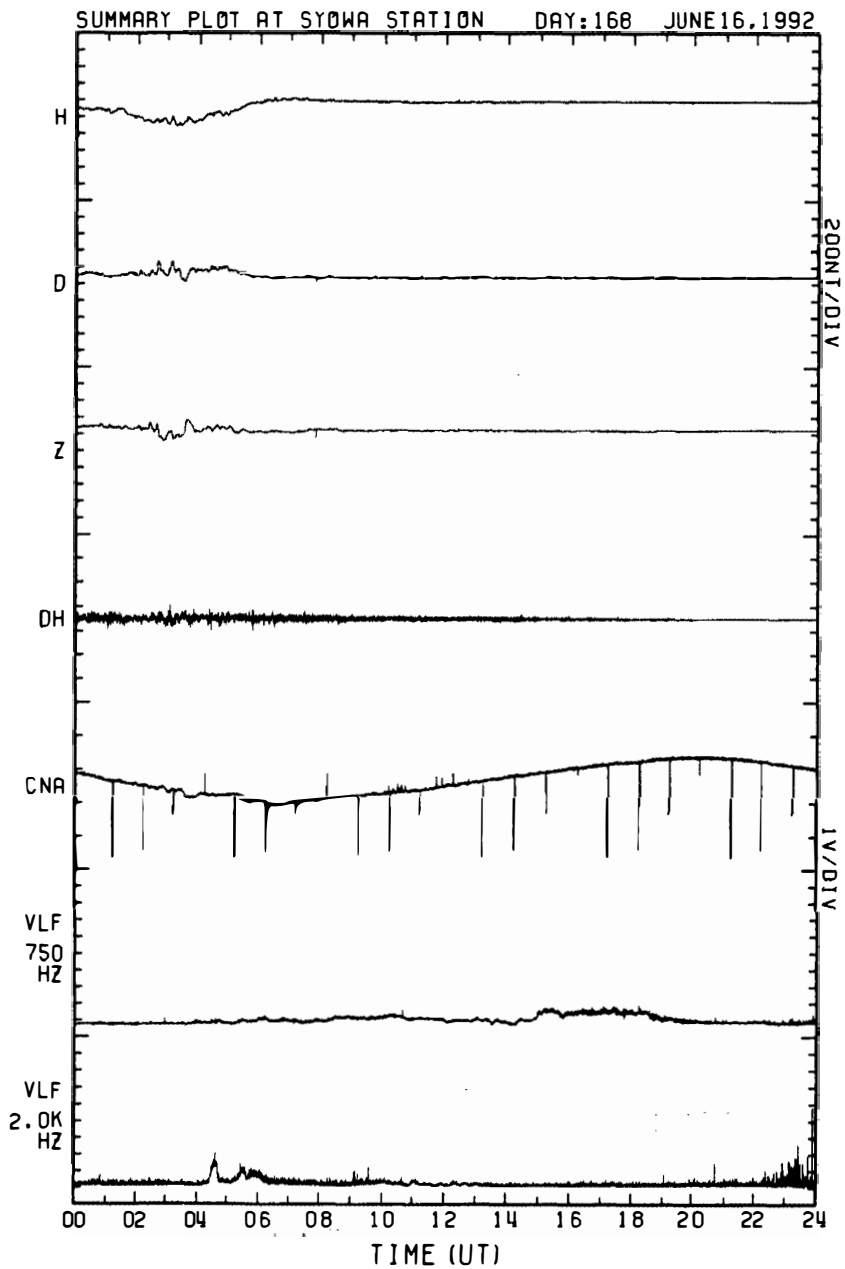

SUMMARY PLOT AT SYOWA STATION DAY:163 JUNE11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

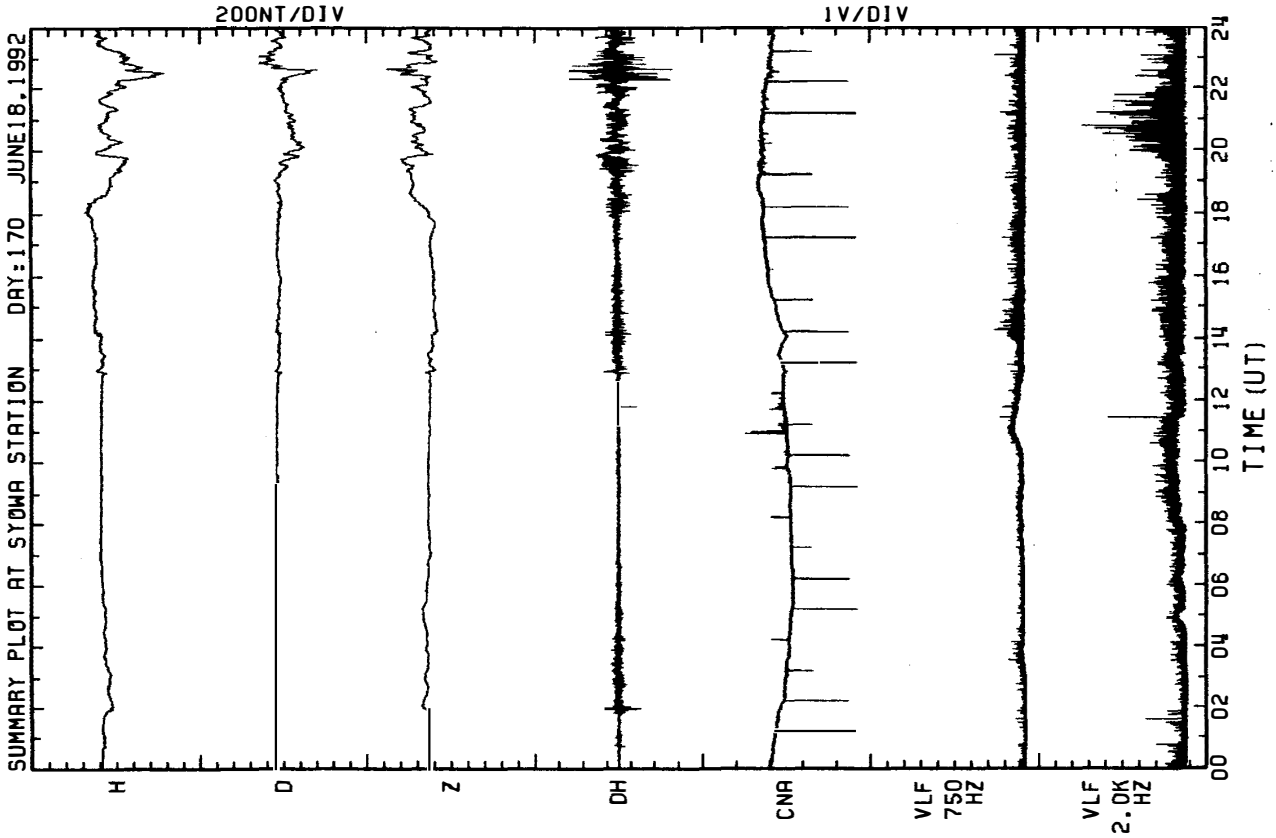

SUMMARY PLOT AT SYOWA STATION DAY:164 JUNE12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

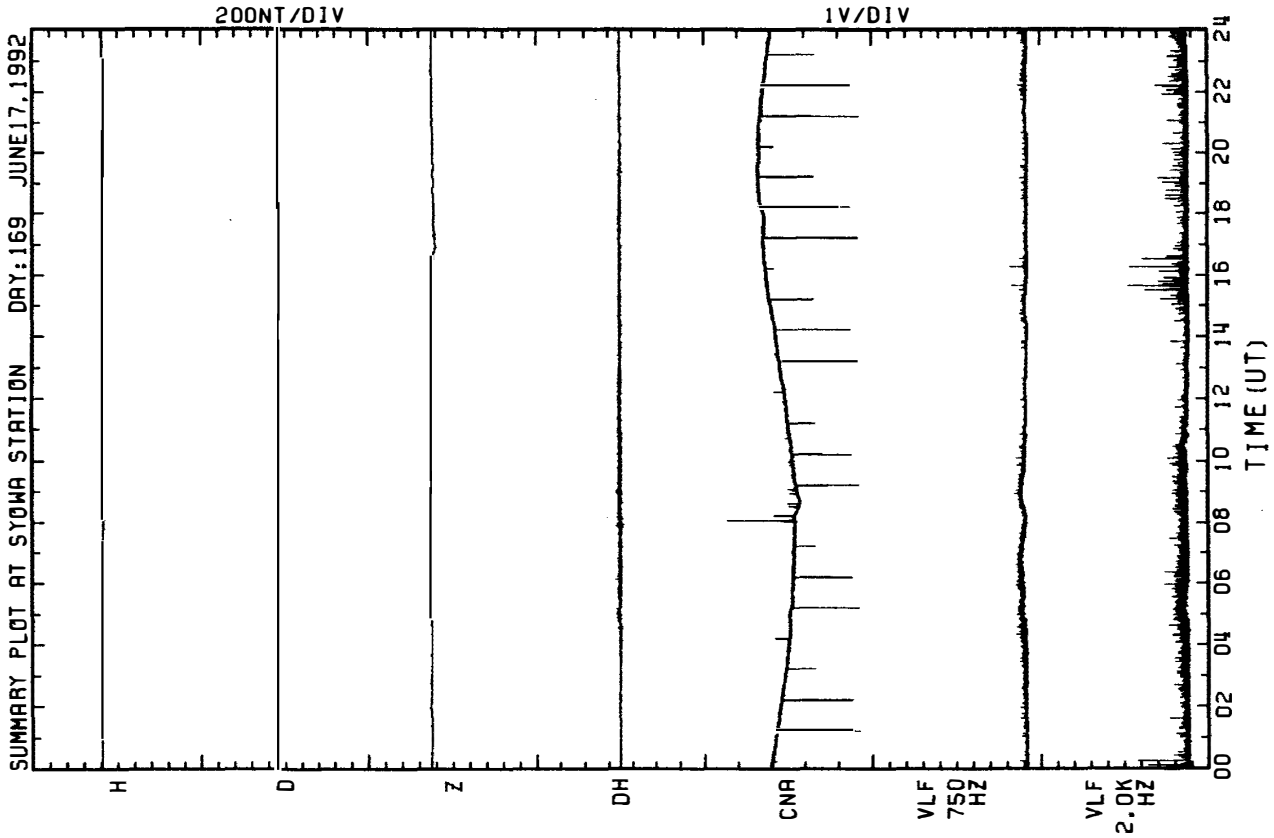

SUMMARY PLOT AT SYOWA STATION DAY:165 JUNE13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

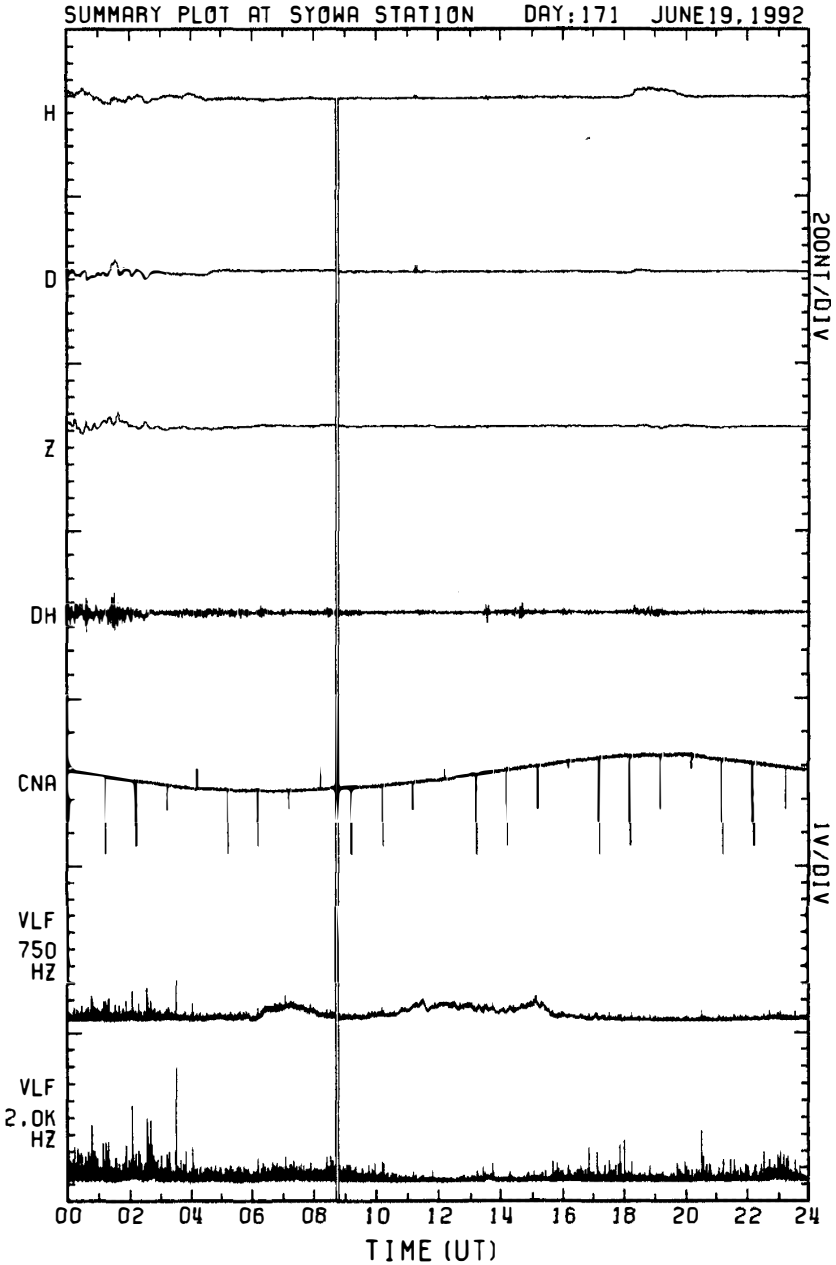

SUMMARY PLOT AT SYOWA STATION DAY:166 JUNE14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

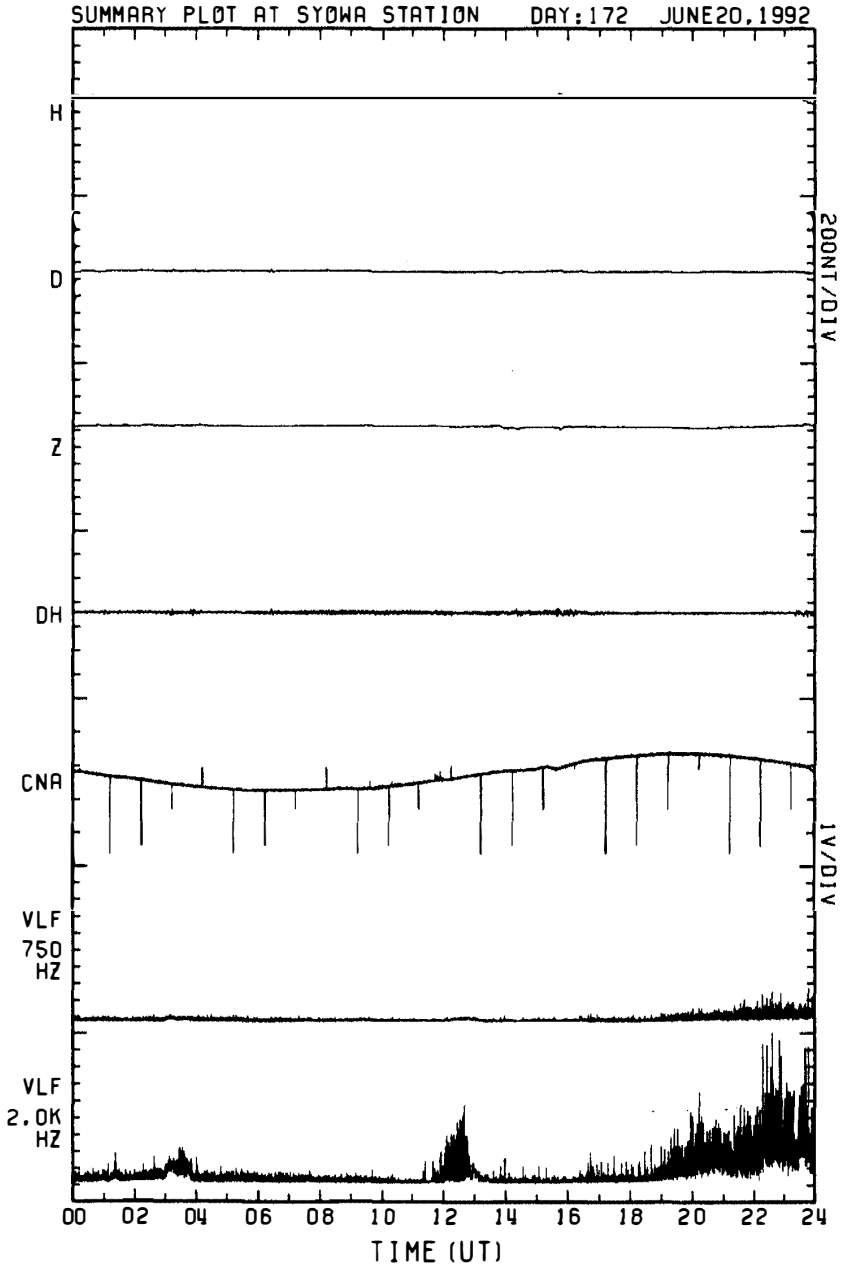

SUMMARY PLOT AT SYOWA STATION DAY:167 JUNE15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

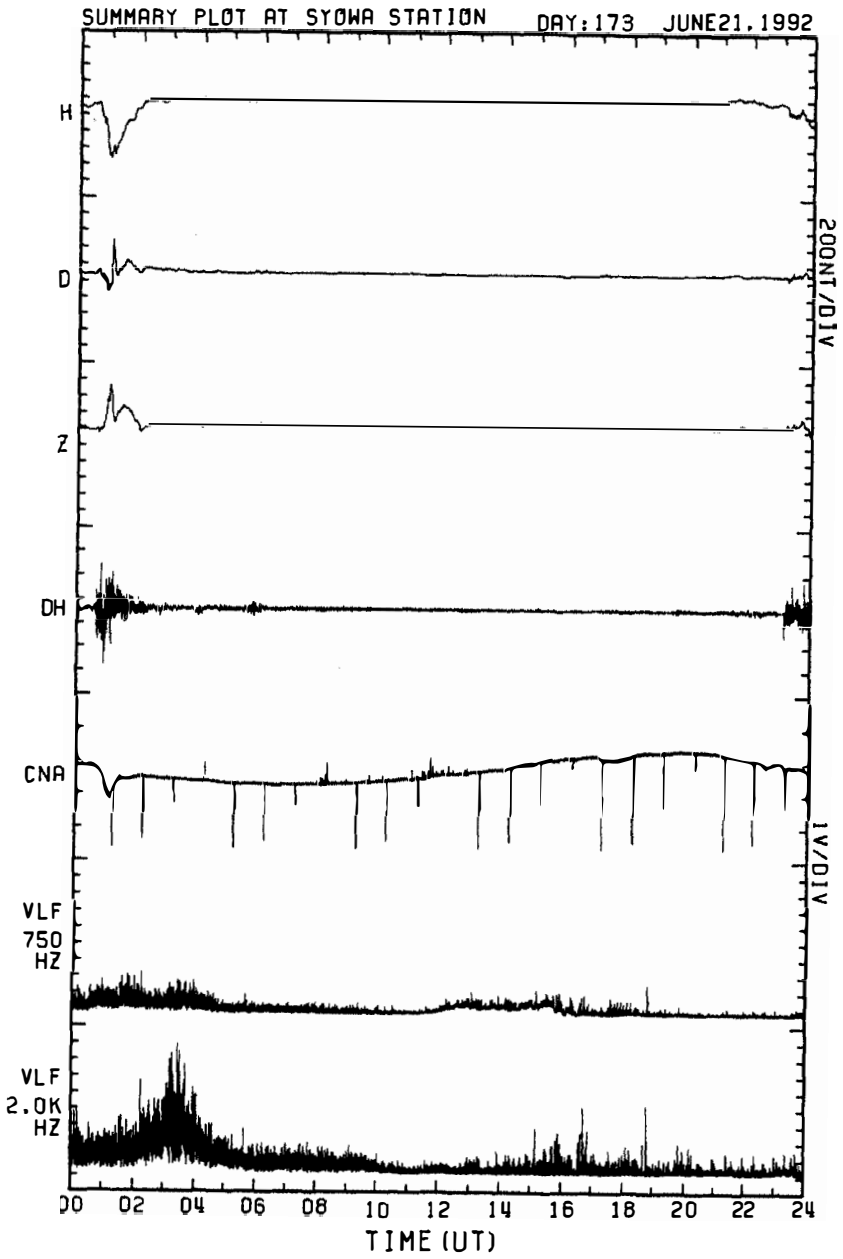

SUMMARY PLOT AT SYOWA STATION DAY:168 JUNE16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

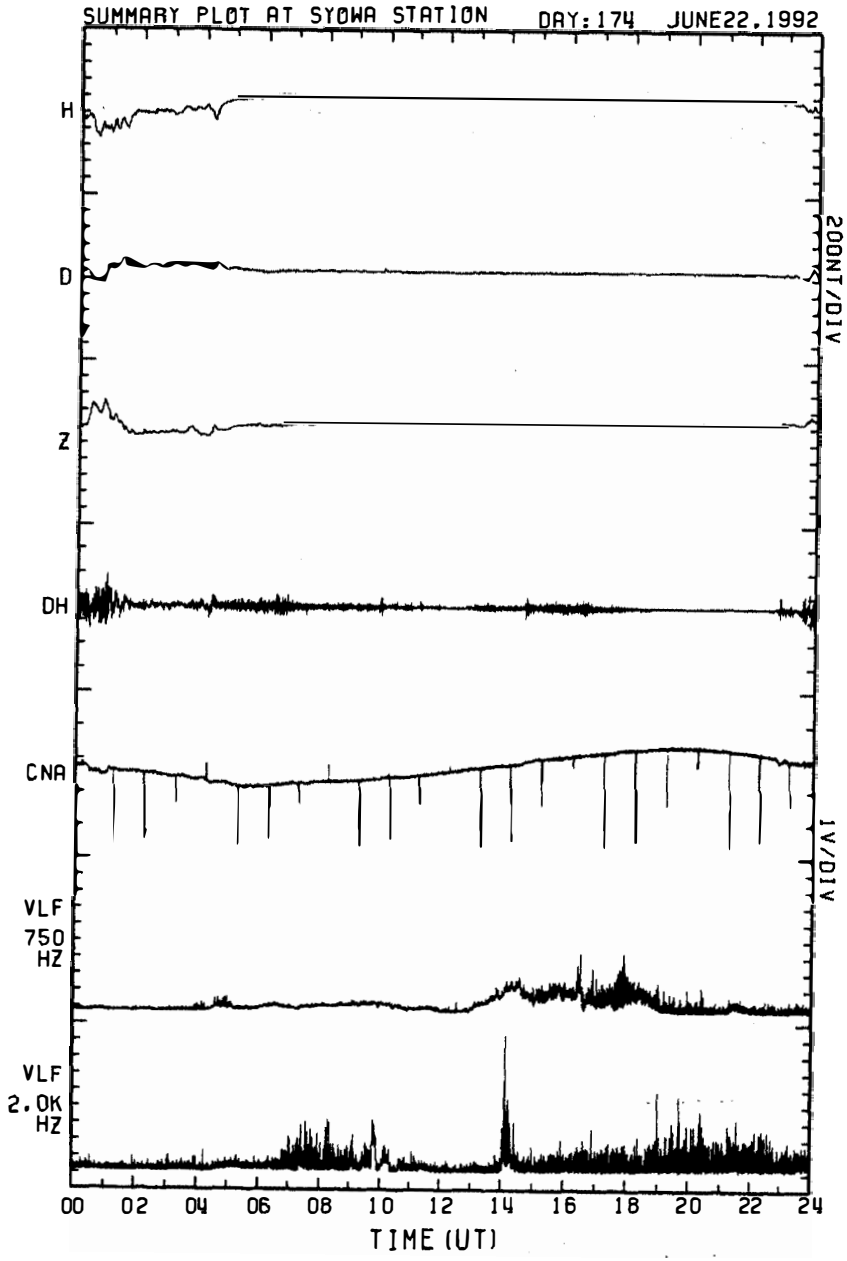

SUMMARY PLOT AT SYOWA STATION DAY:170 JUNE18,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

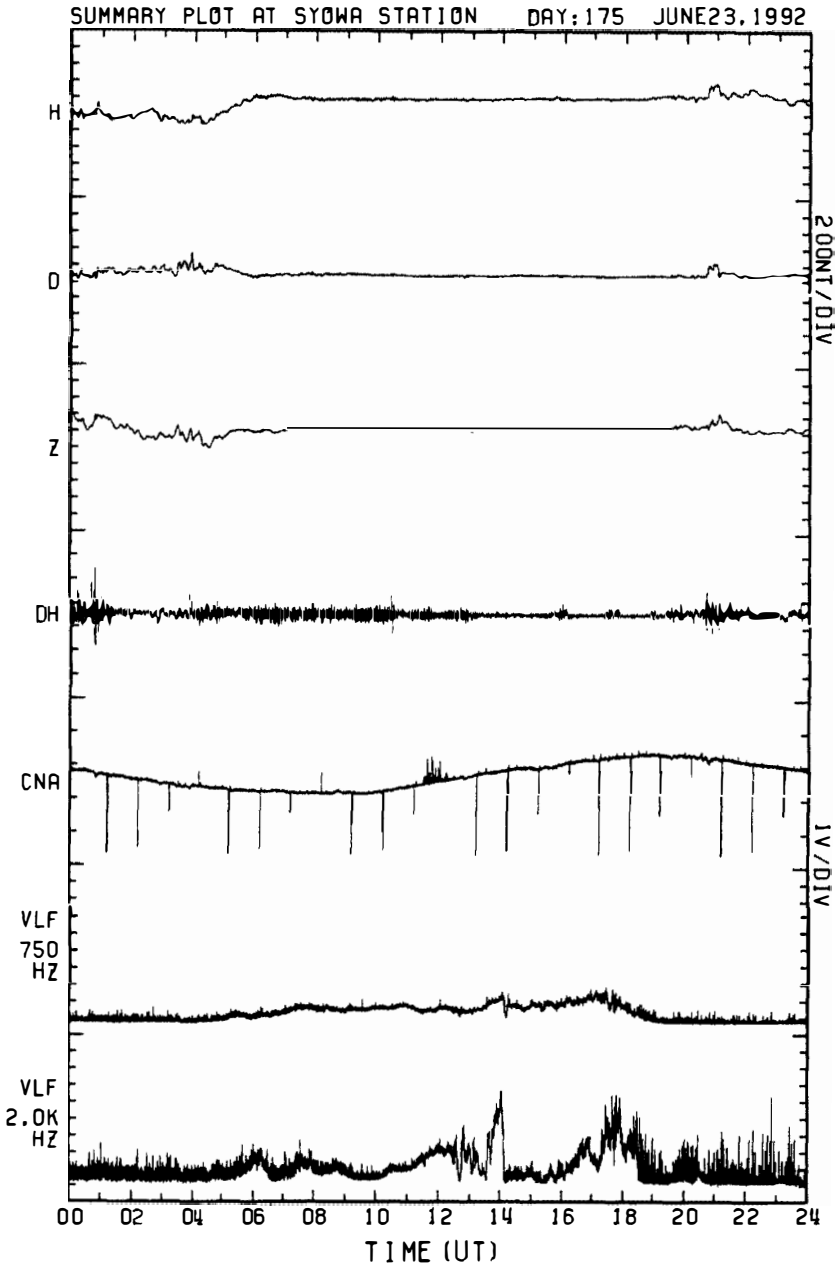

SUMMARY PLOT AT SYOWA STATION DAY:169 JUNE17,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

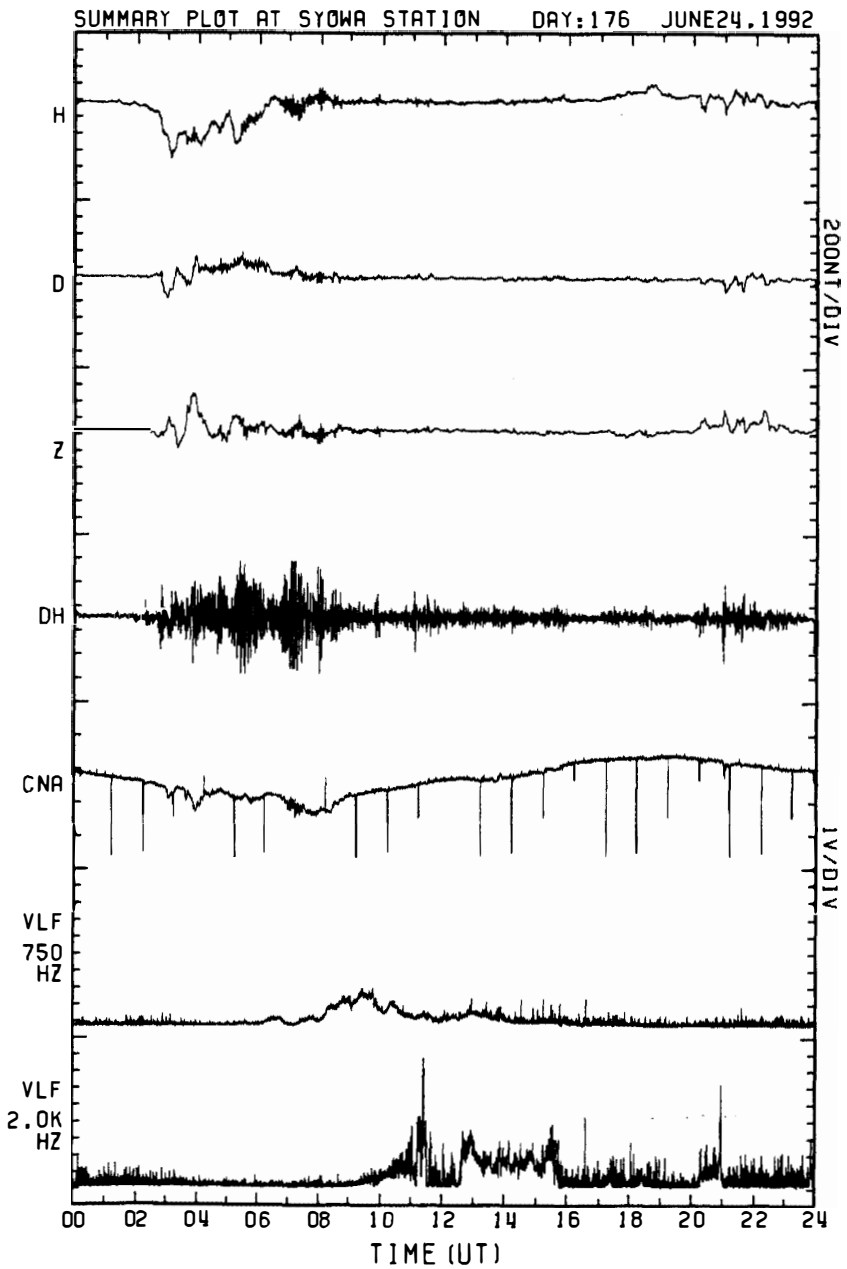

SUMMARY PLOT AT SYOWA STATION DAY:171 JUNE19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

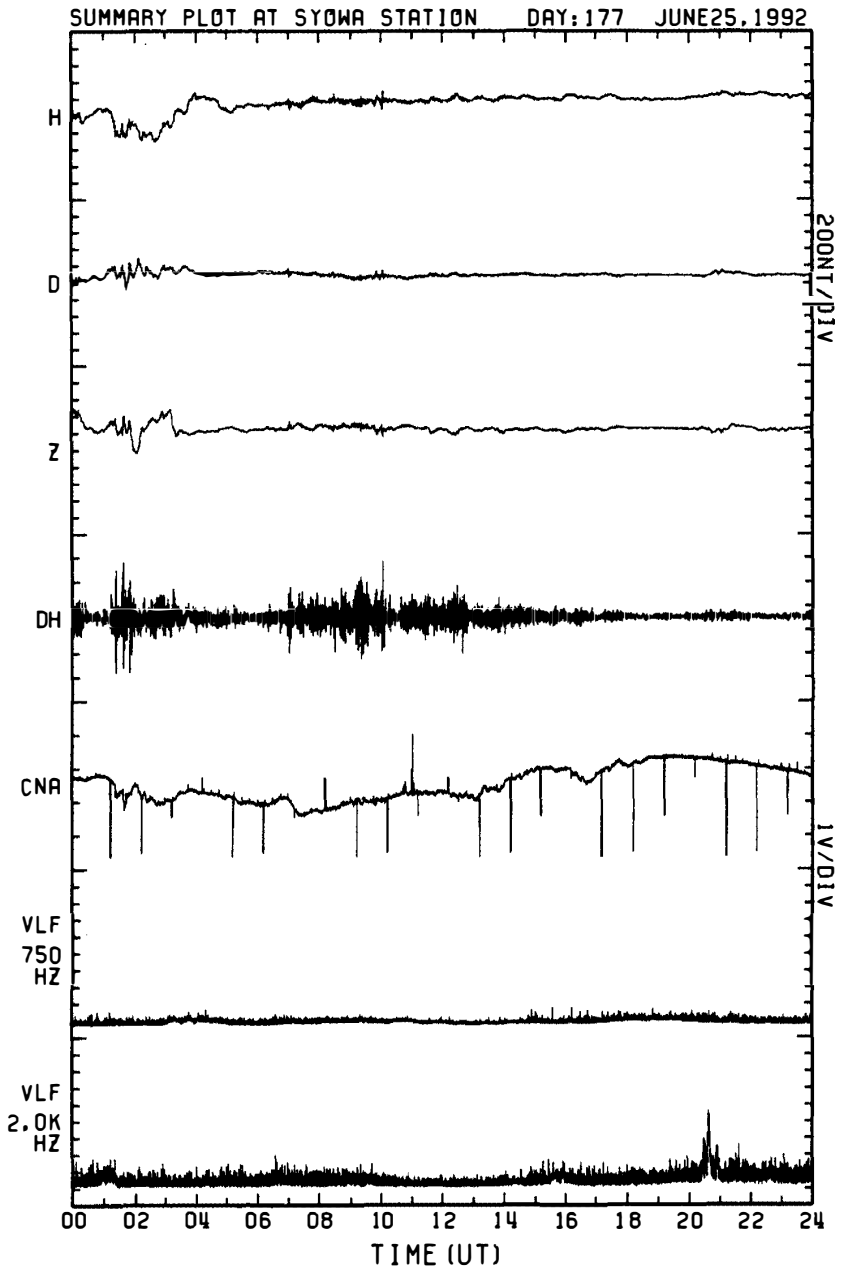

SUMMARY PLOT AT SYOWA STATION DAY:172 JUNE20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

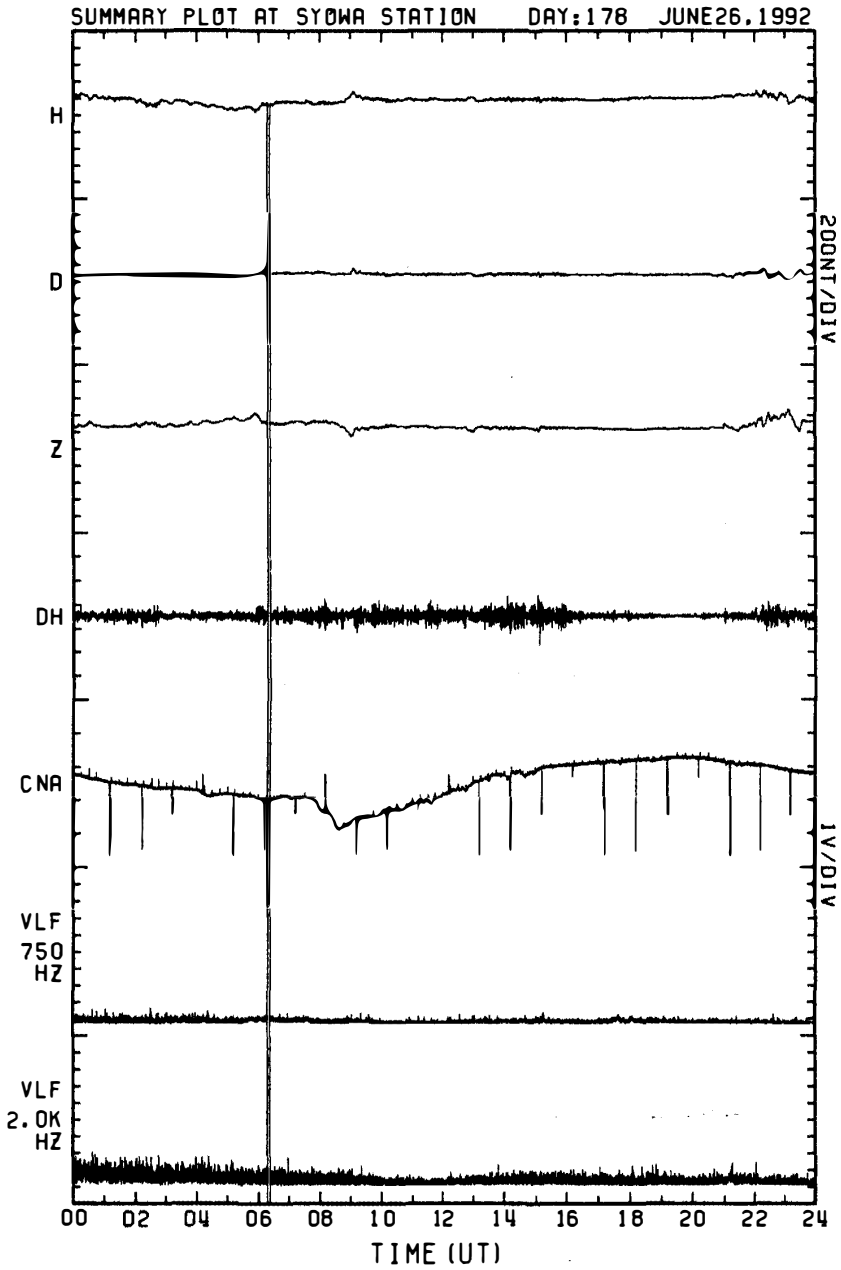

SUMMARY PLOT AT SYOWA STATION DAY:173 JUNE21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

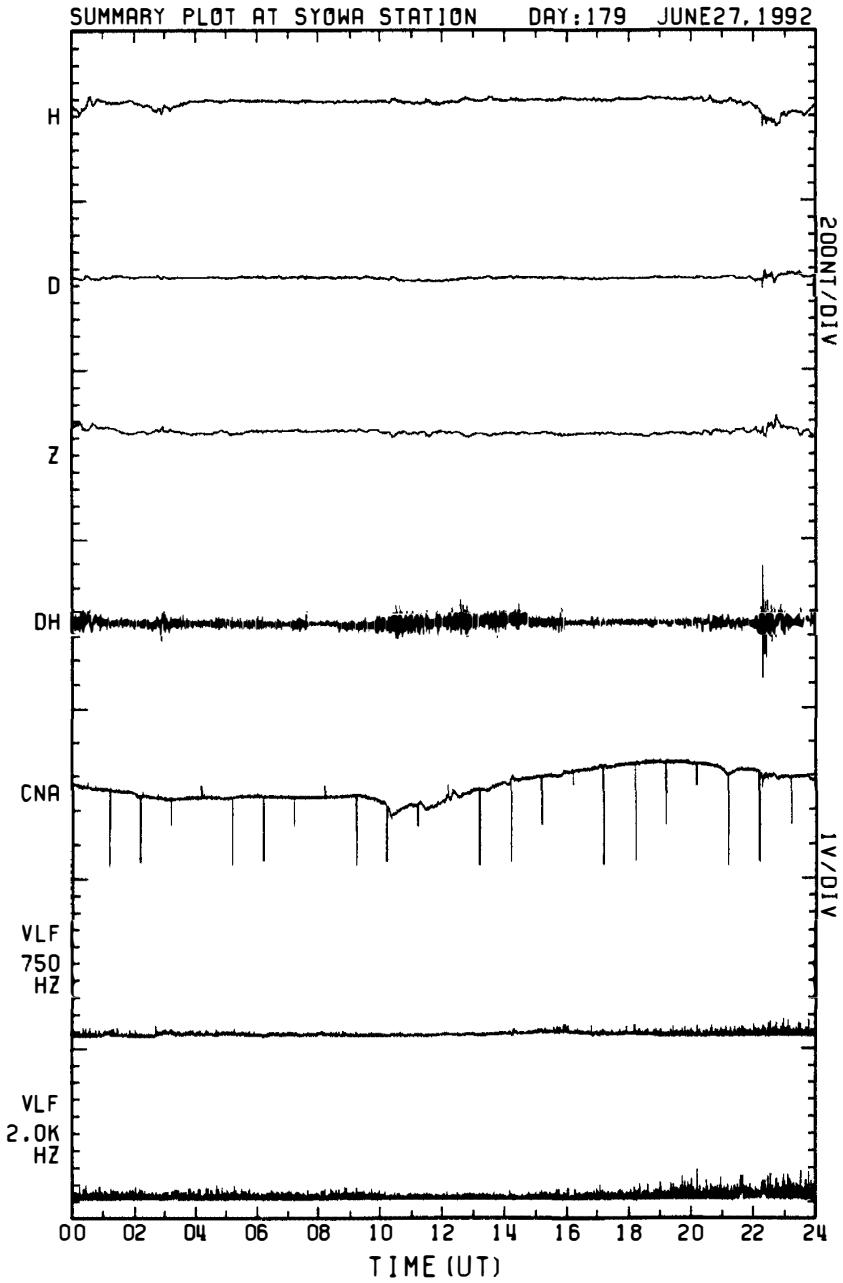

SUMMARY PLOT AT SYOWA STATION DAY:174 JUNE22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

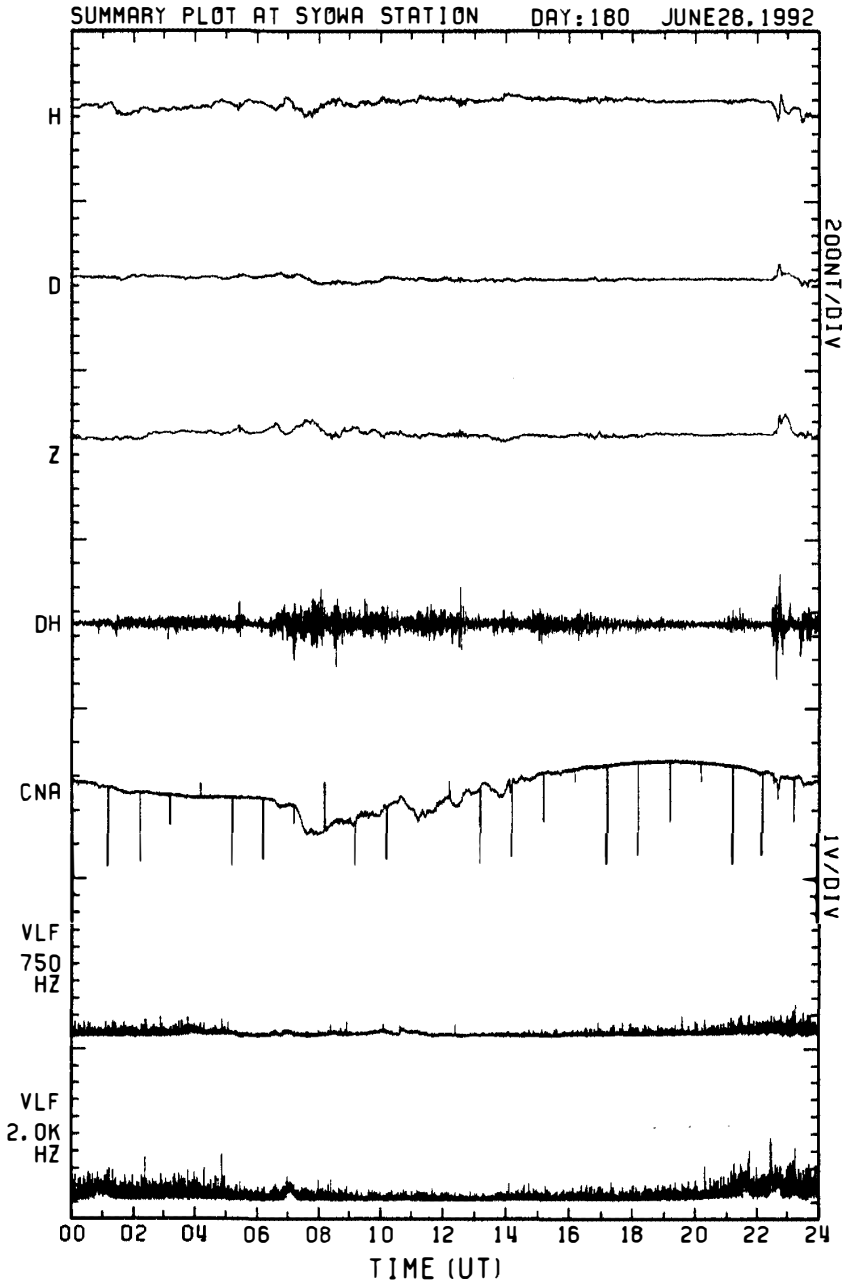

SUMMARY PLOT AT SYOWA STATION DAY:175 JUNE23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

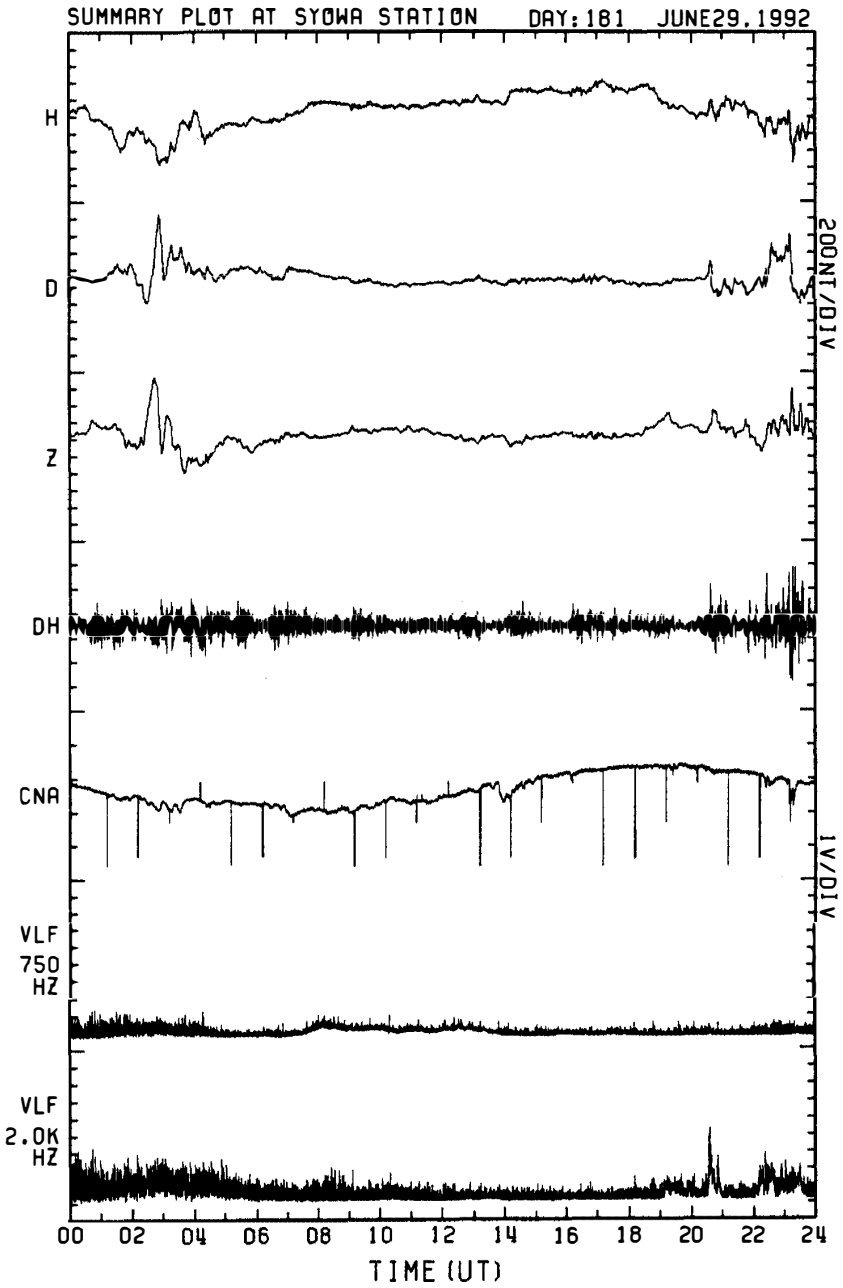

SUMMARY PLOT AT SYOWA STATION DAY:176 JUNE24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

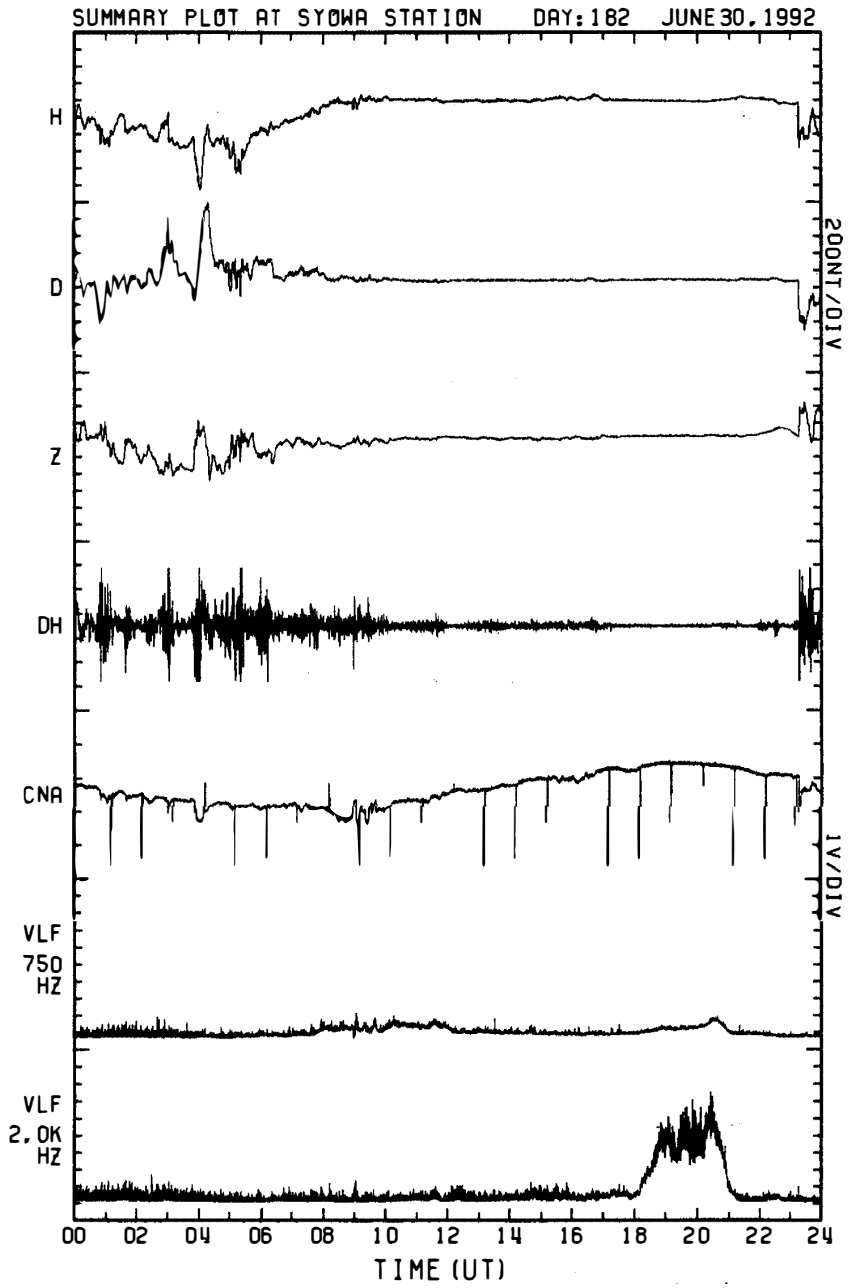

SUMMARY PLOT AT SYOWA STATION DAY:177 JUNE25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

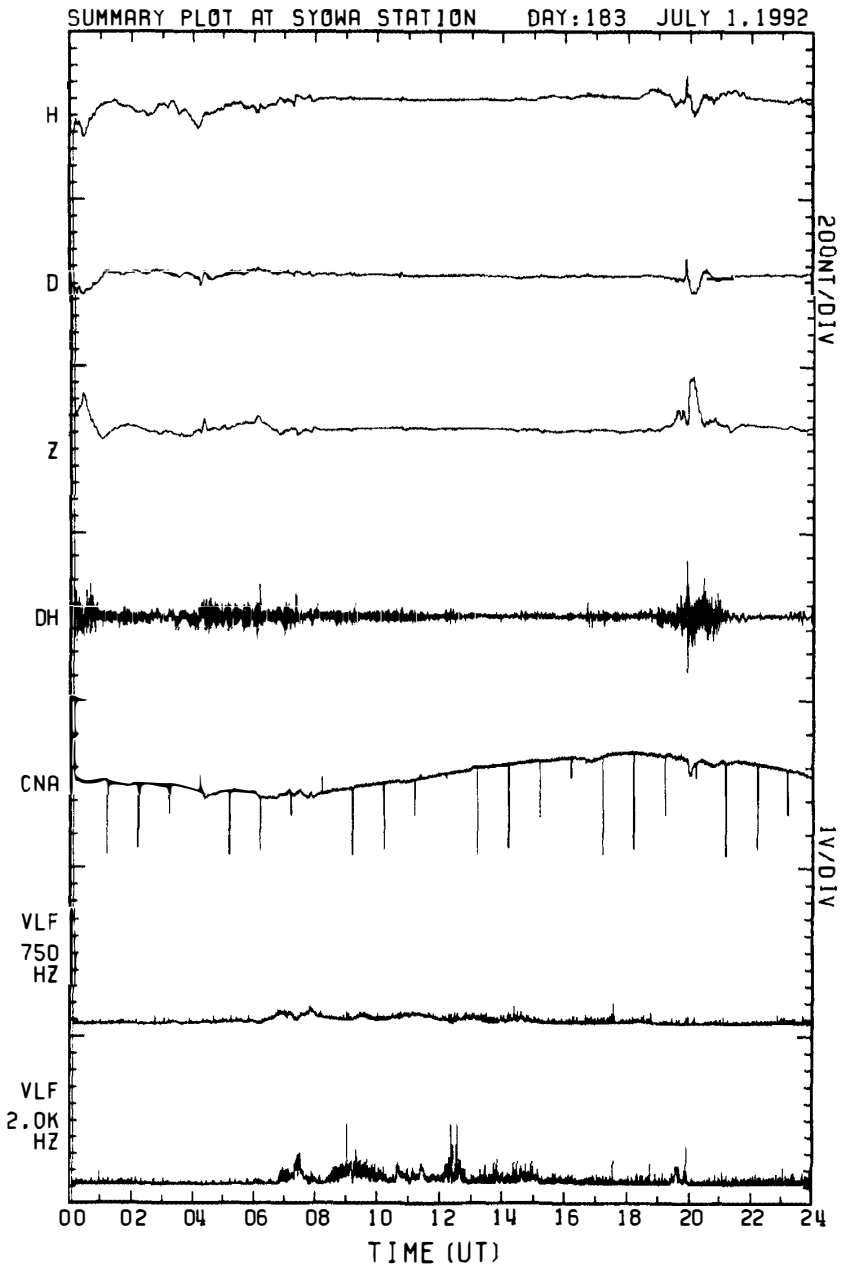

SUMMARY PLOT AT SYOWA STATION DAY:178 JUNE26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

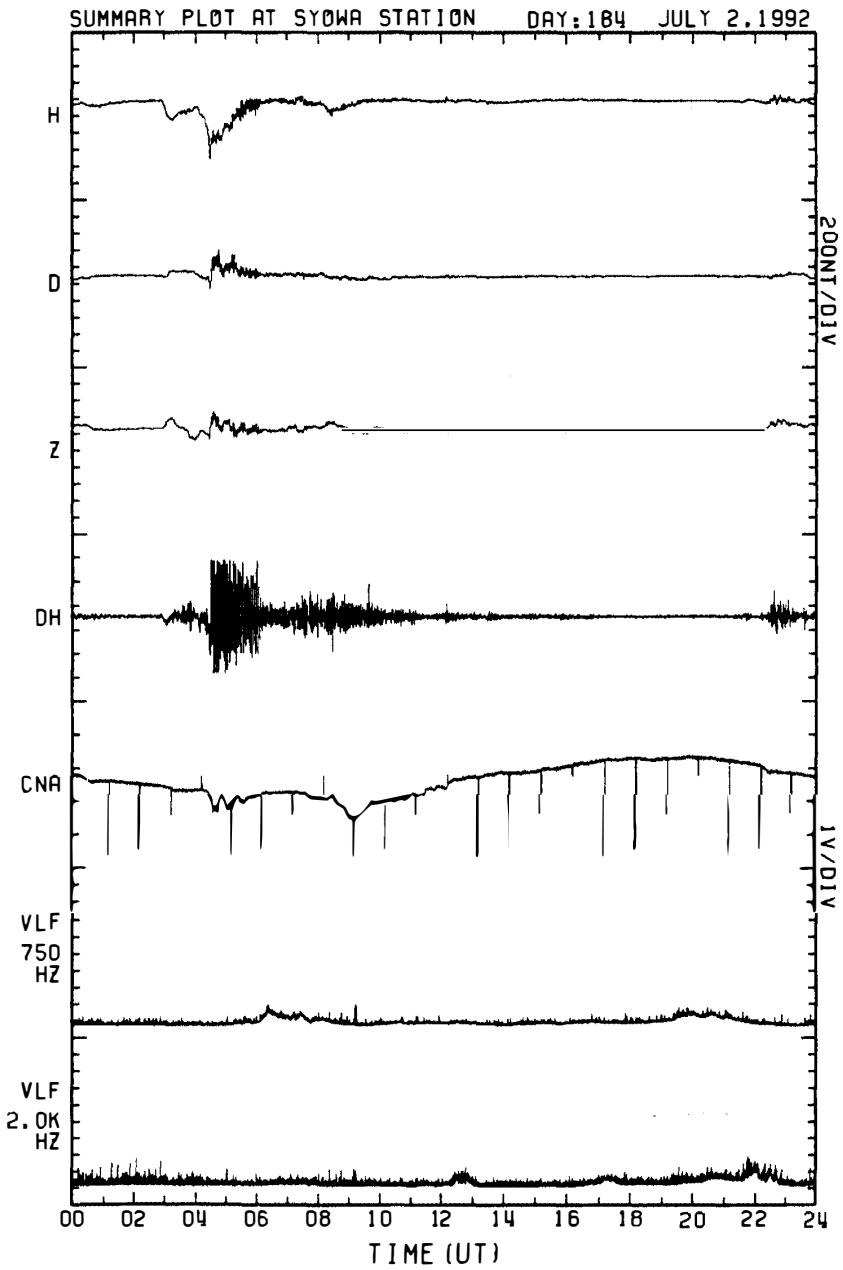

SUMMARY PLOT AT SYOWA STATION DAY:179 JUNE27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

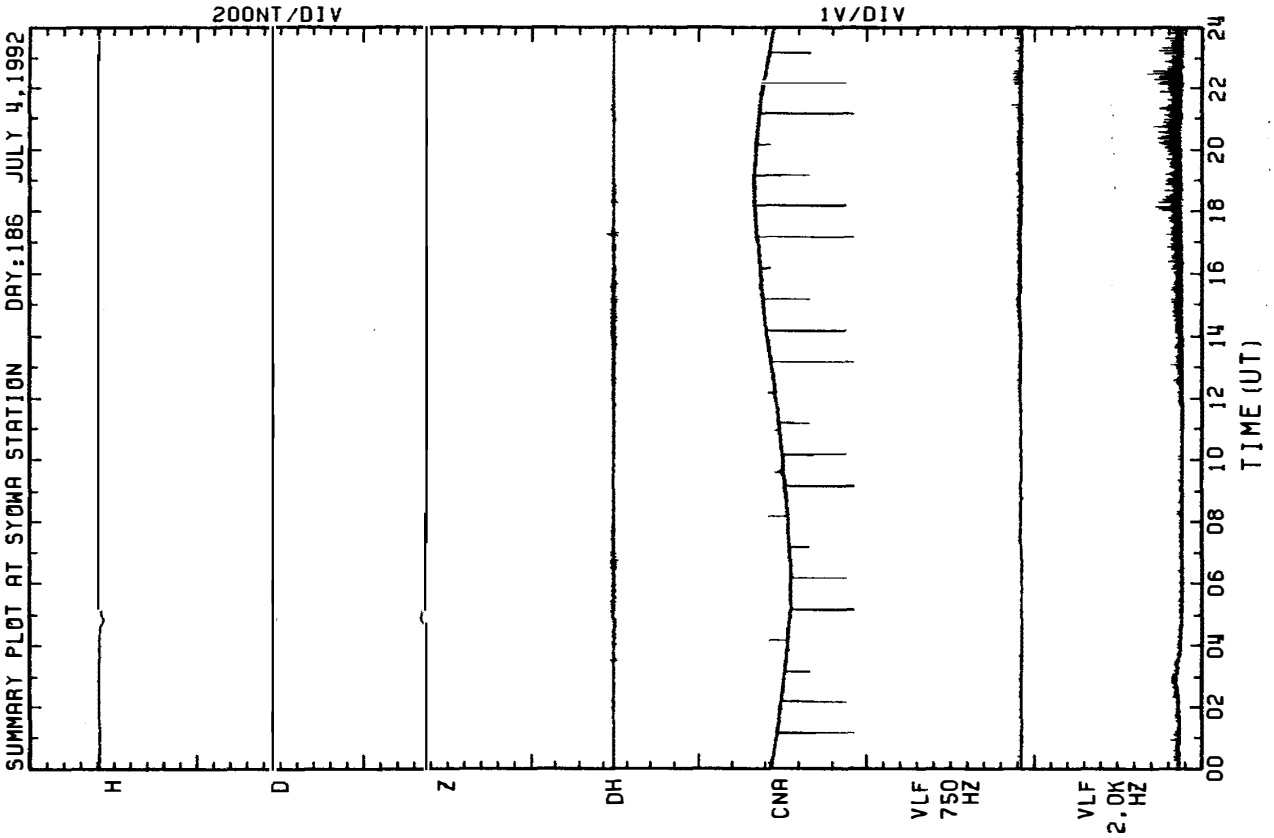

SUMMARY PLOT AT SYOWA STATION DAY:180 JUNE28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

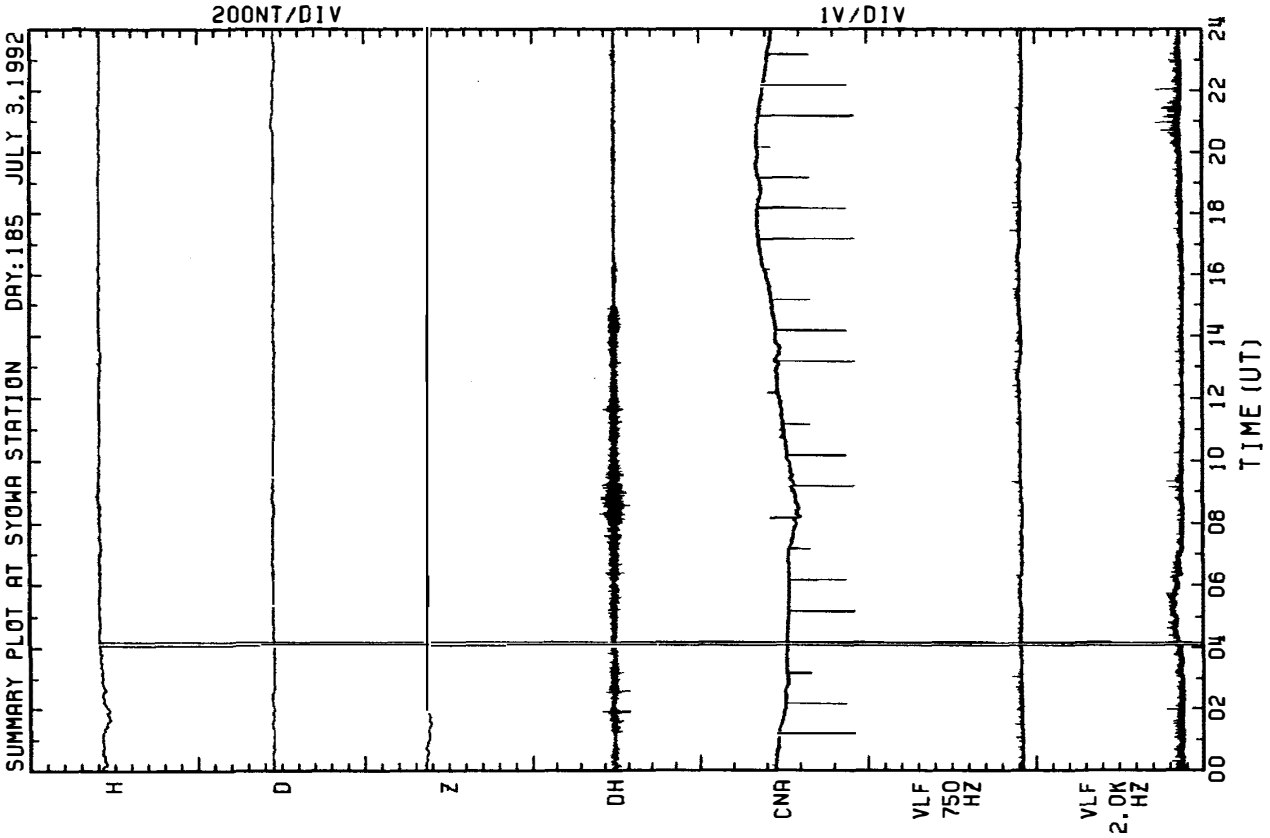

SUMMARY PLOT AT SYOWA STATION DAY:181 JUNE29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

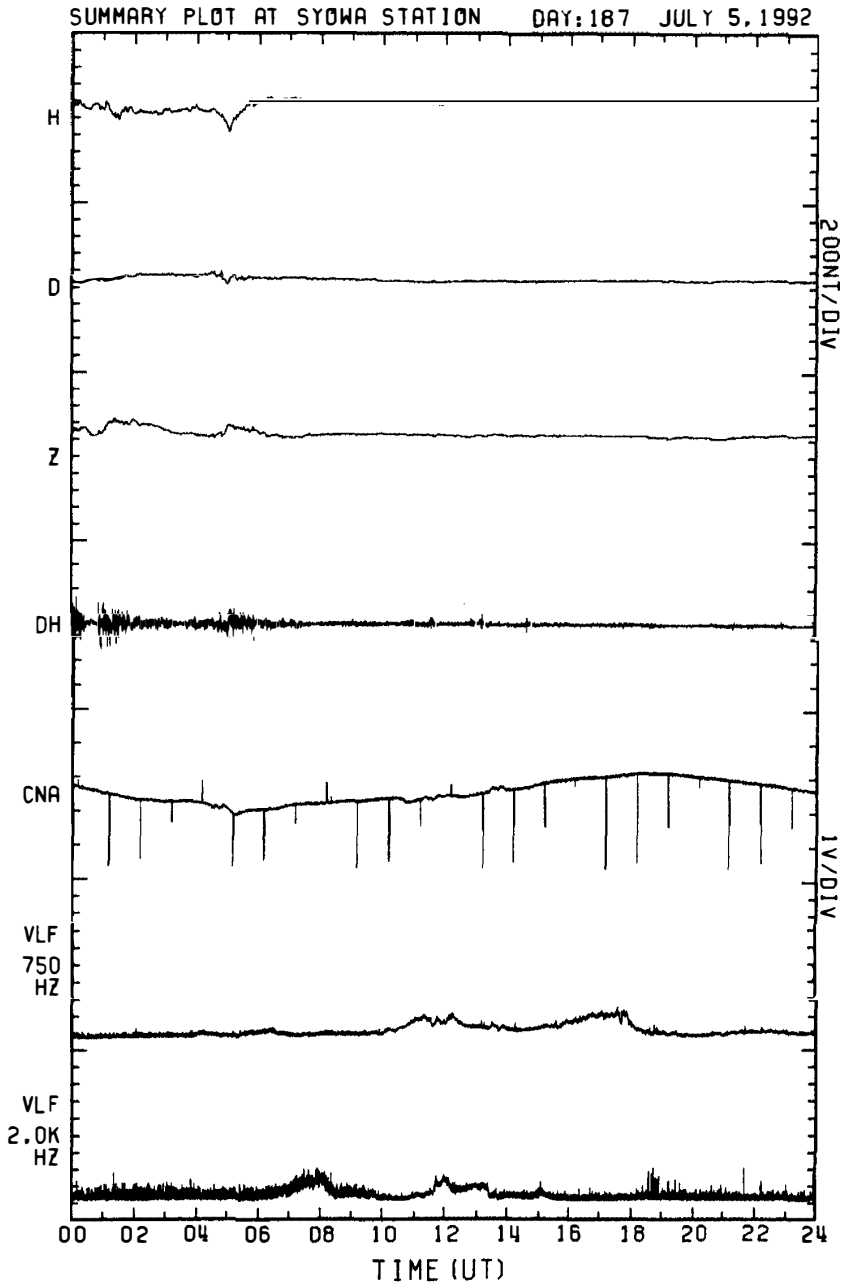

SUMMARY PLOT AT SYOWA STATION DAY:182 JUNE30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

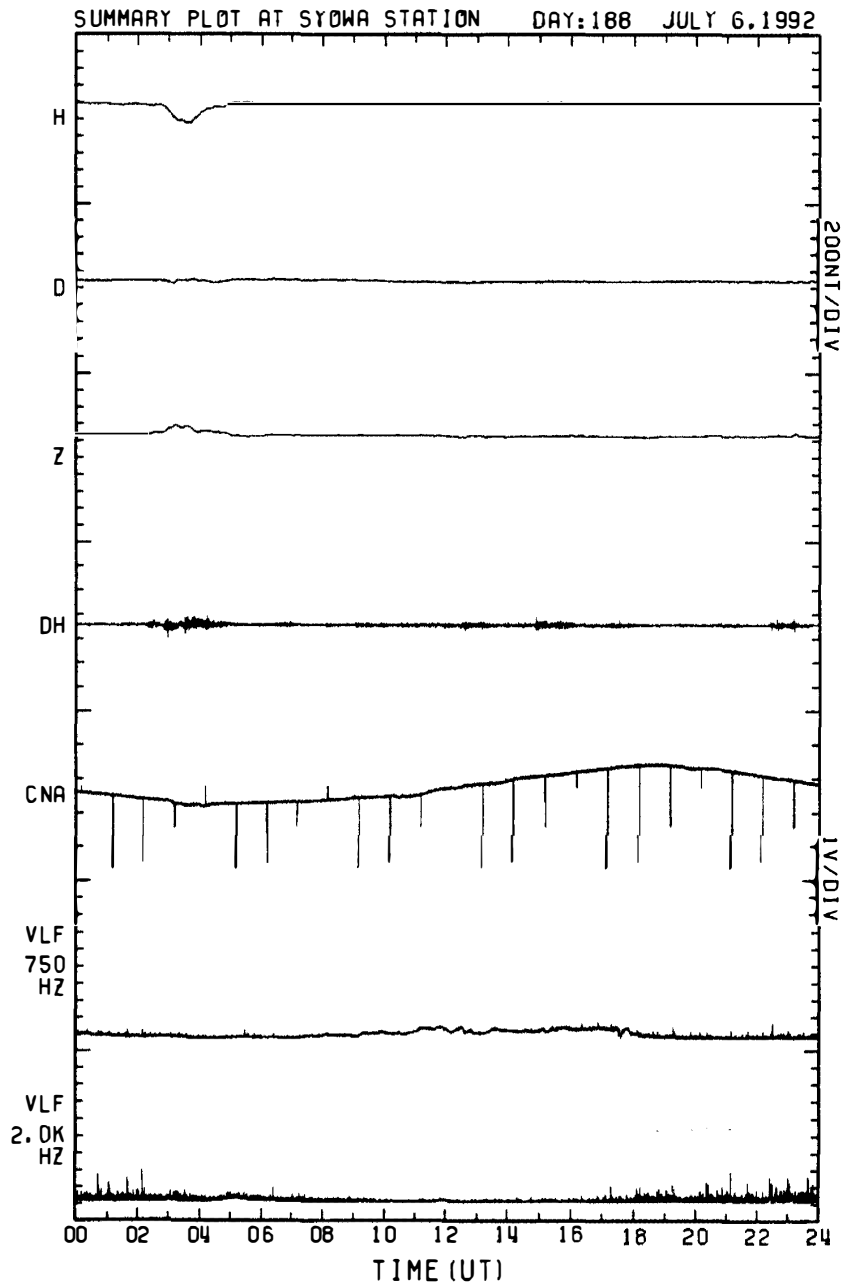

SUMMARY PLOT AT SYOWA STATION DAY:183 JULY 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

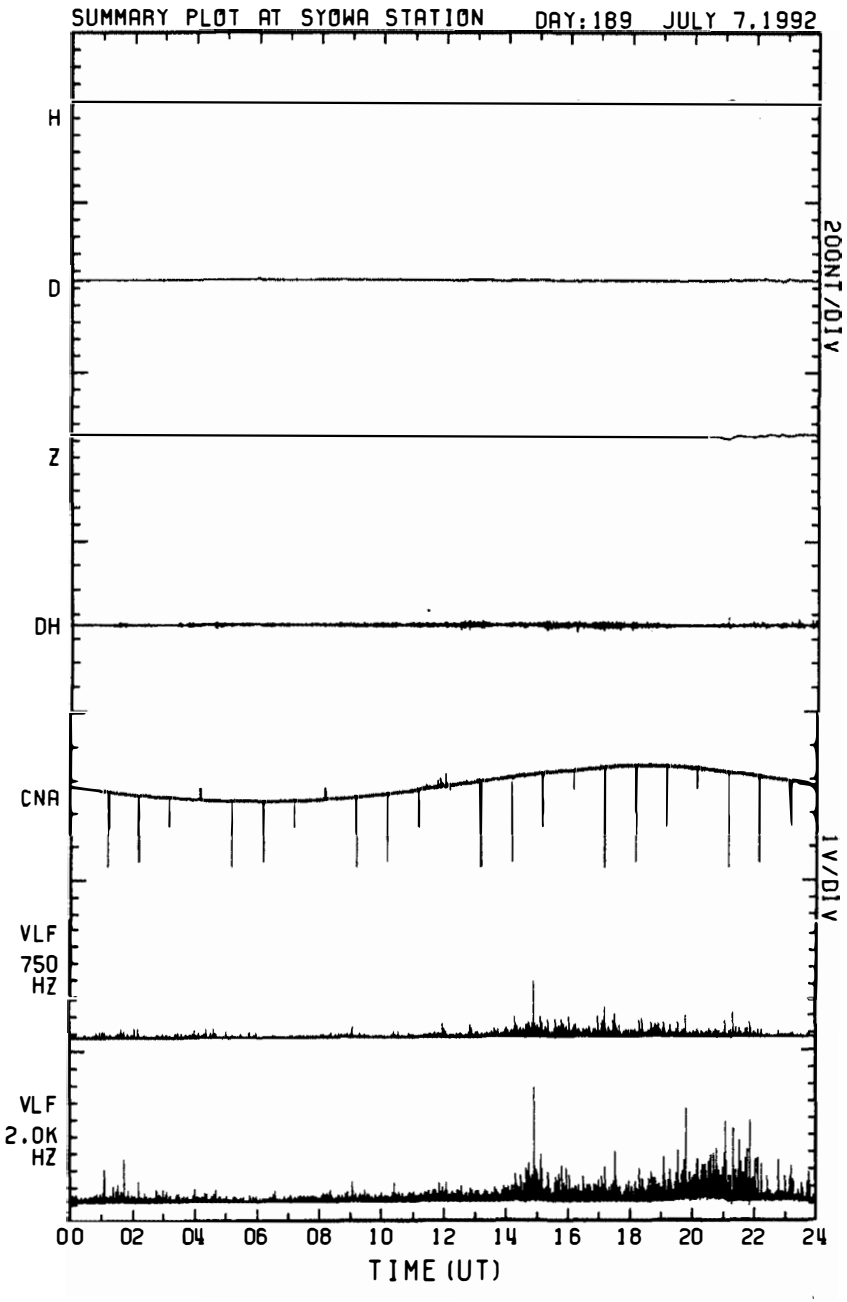

SUMMARY PLOT AT SYOWA STATION DAY:184 JULY 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

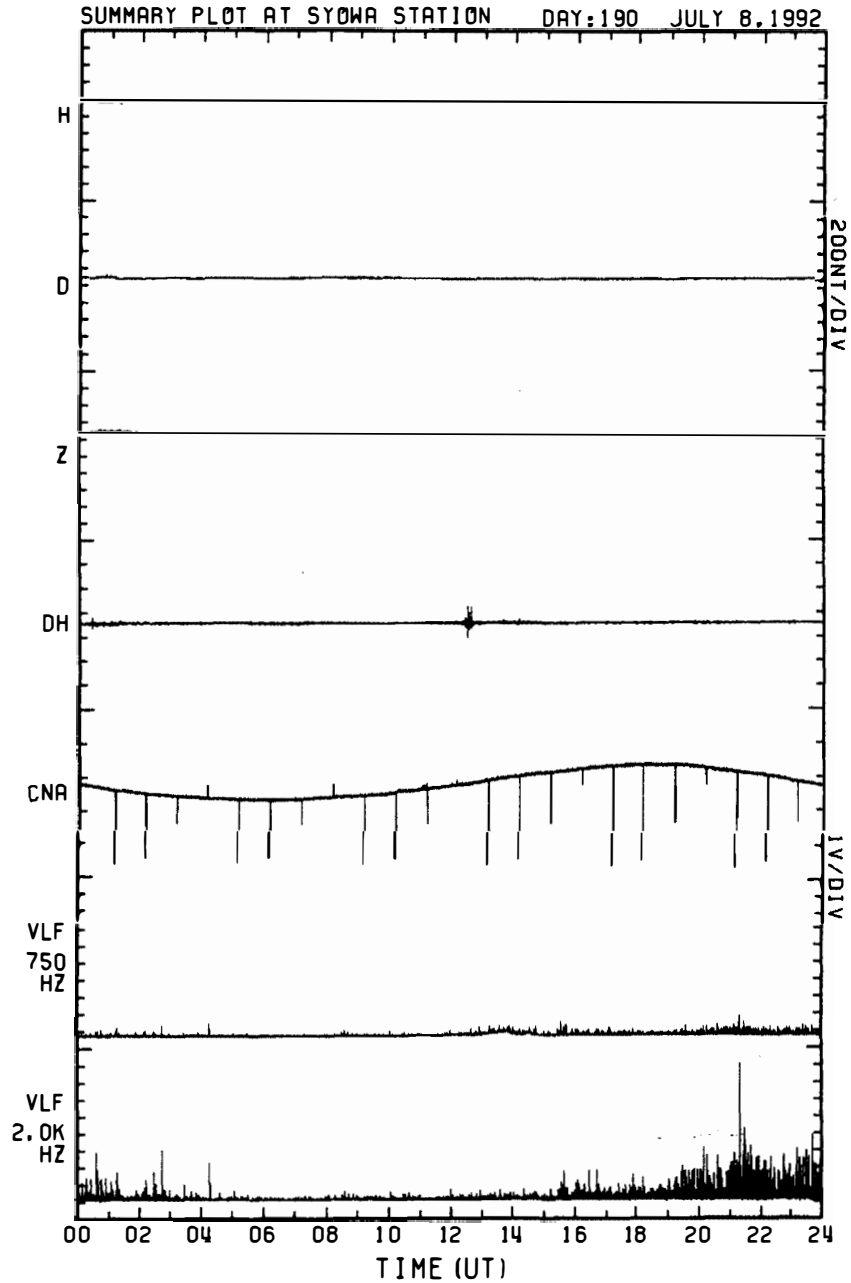

SUMMARY PLOT AT SYOWA STATION DAY:186 JULY 4,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

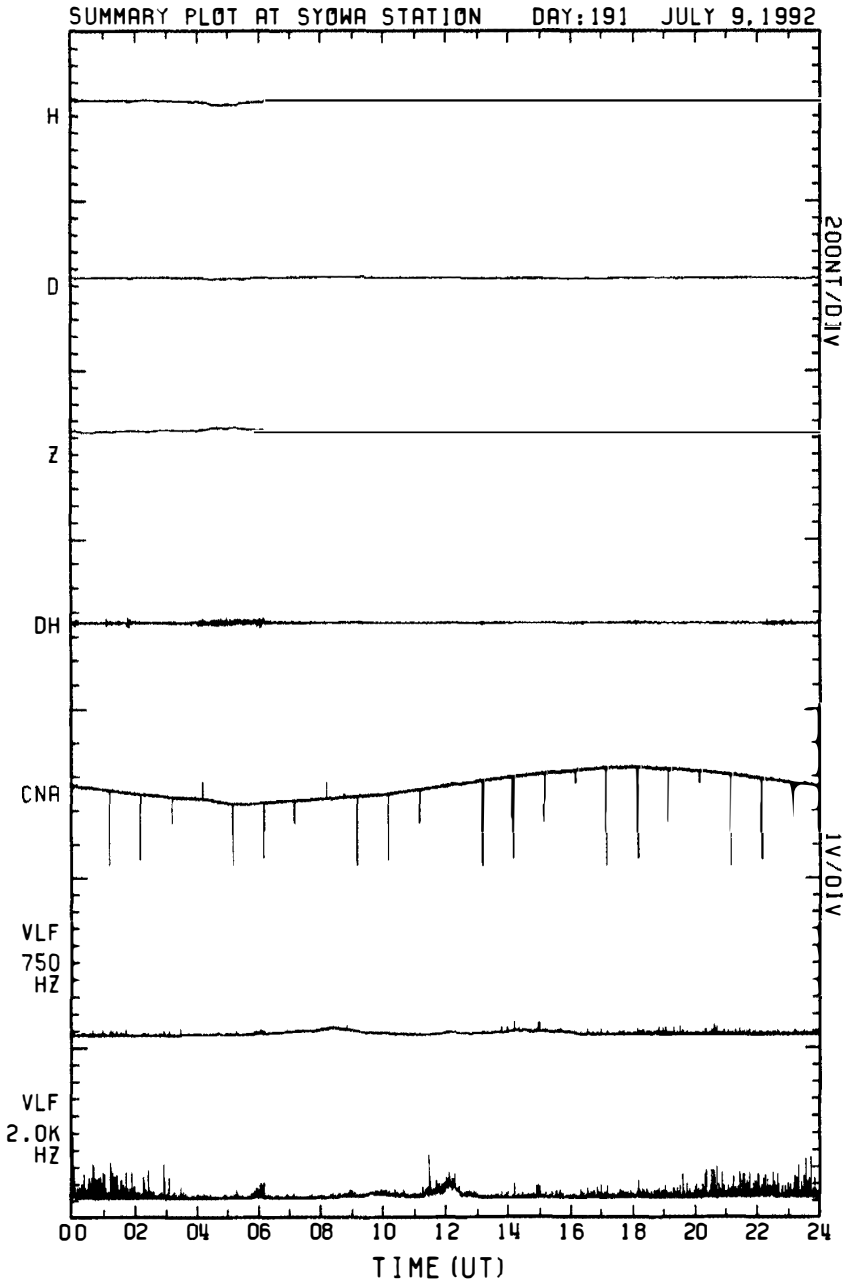

SUMMARY PLOT AT SYOWA STATION DAY:185 JULY 3,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

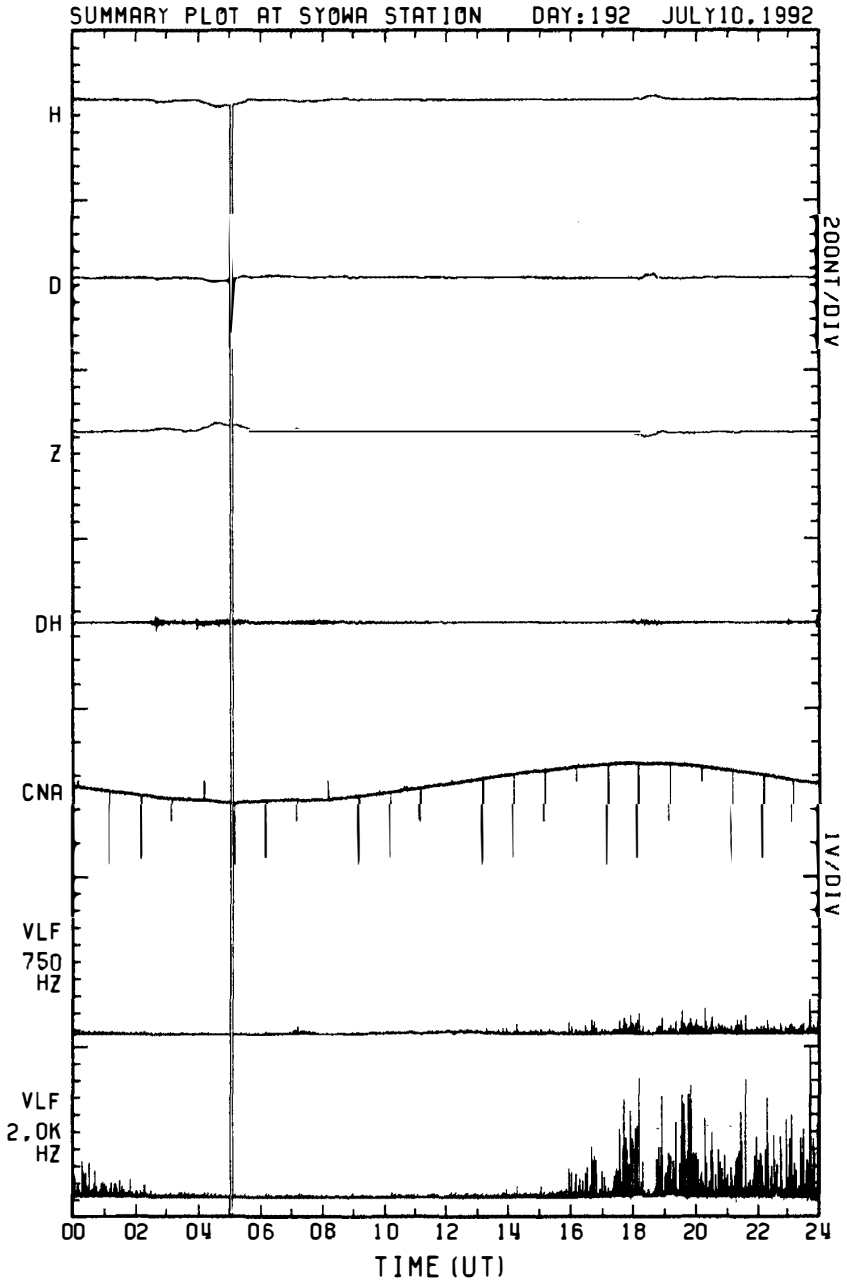

SUMMARY PLOT AT SYOWA STATION DAY:187 JULY 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

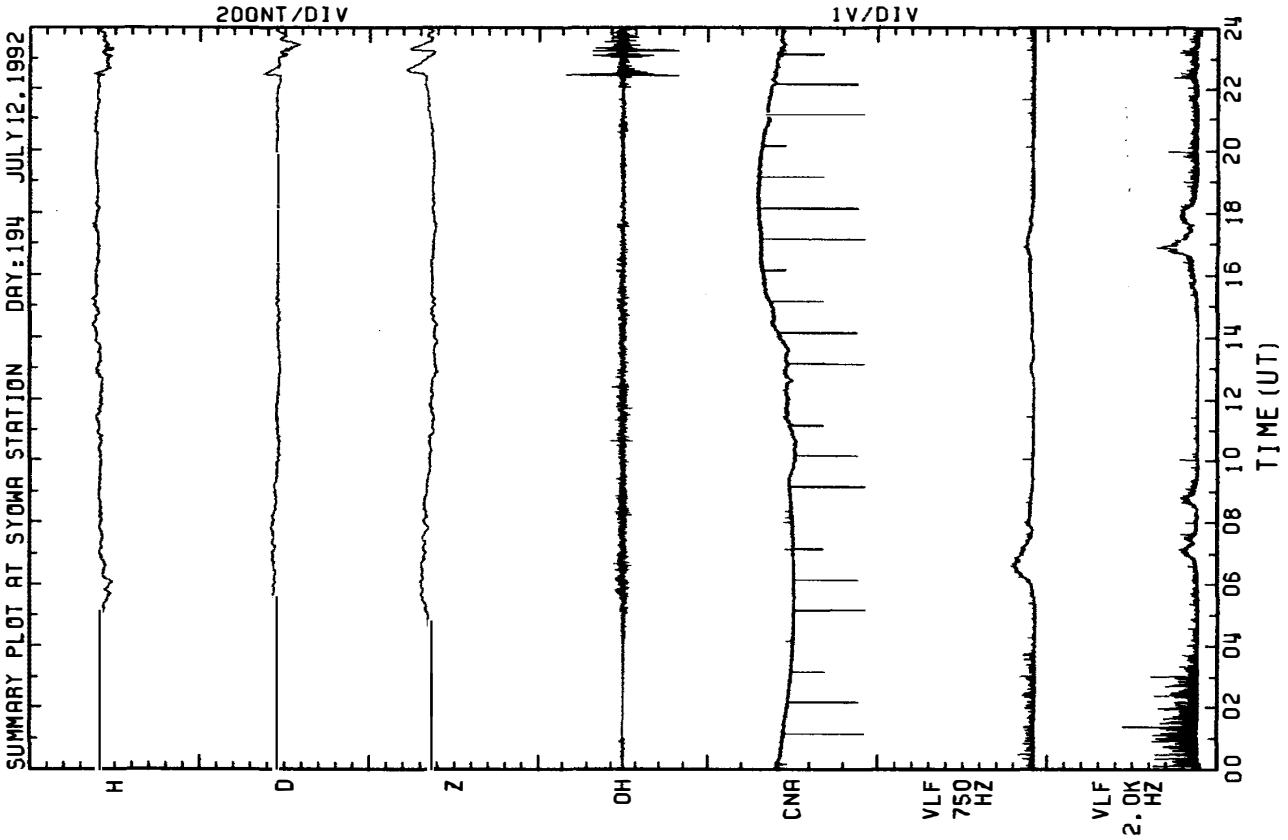

SUMMARY PLOT AT SYOWA STATION DAY:188 JULY 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

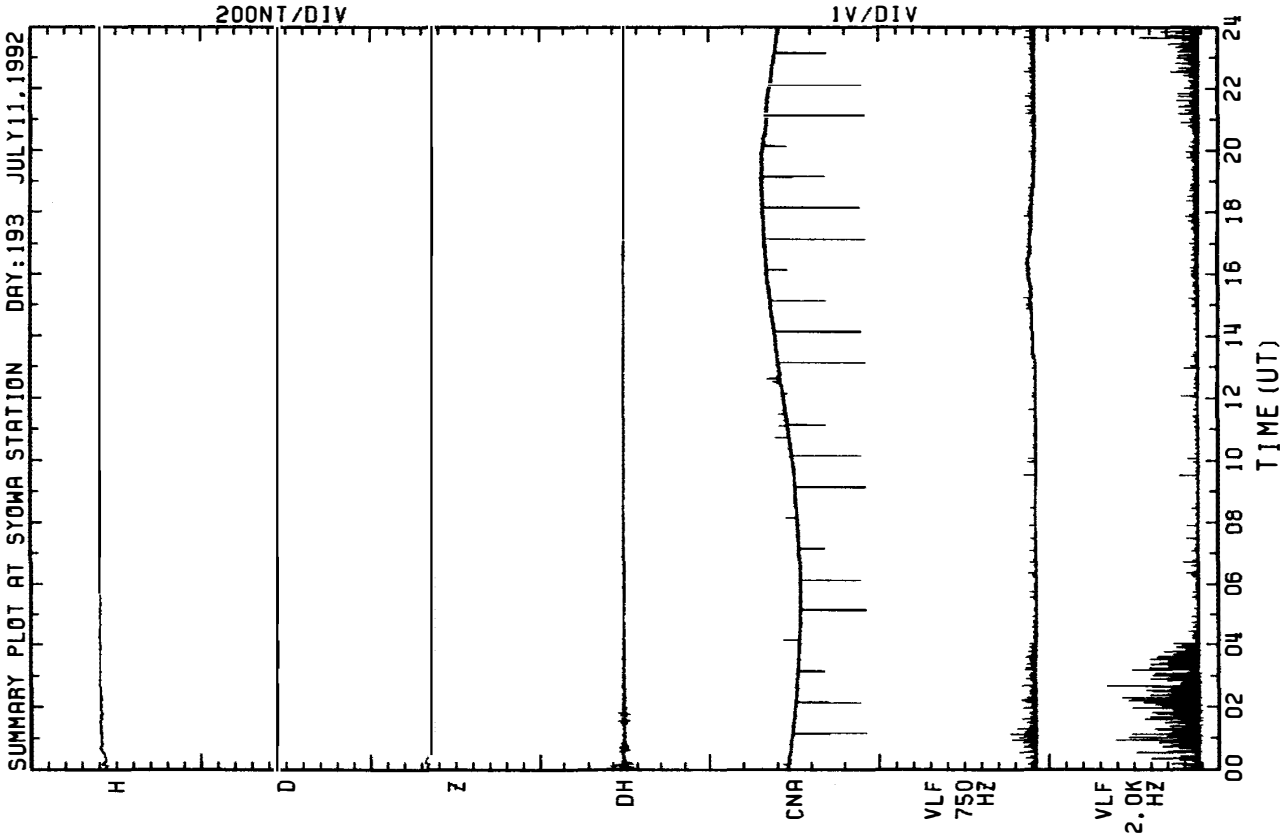

SUMMARY PLOT AT SYOWA STATION DAY:189 JULY 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

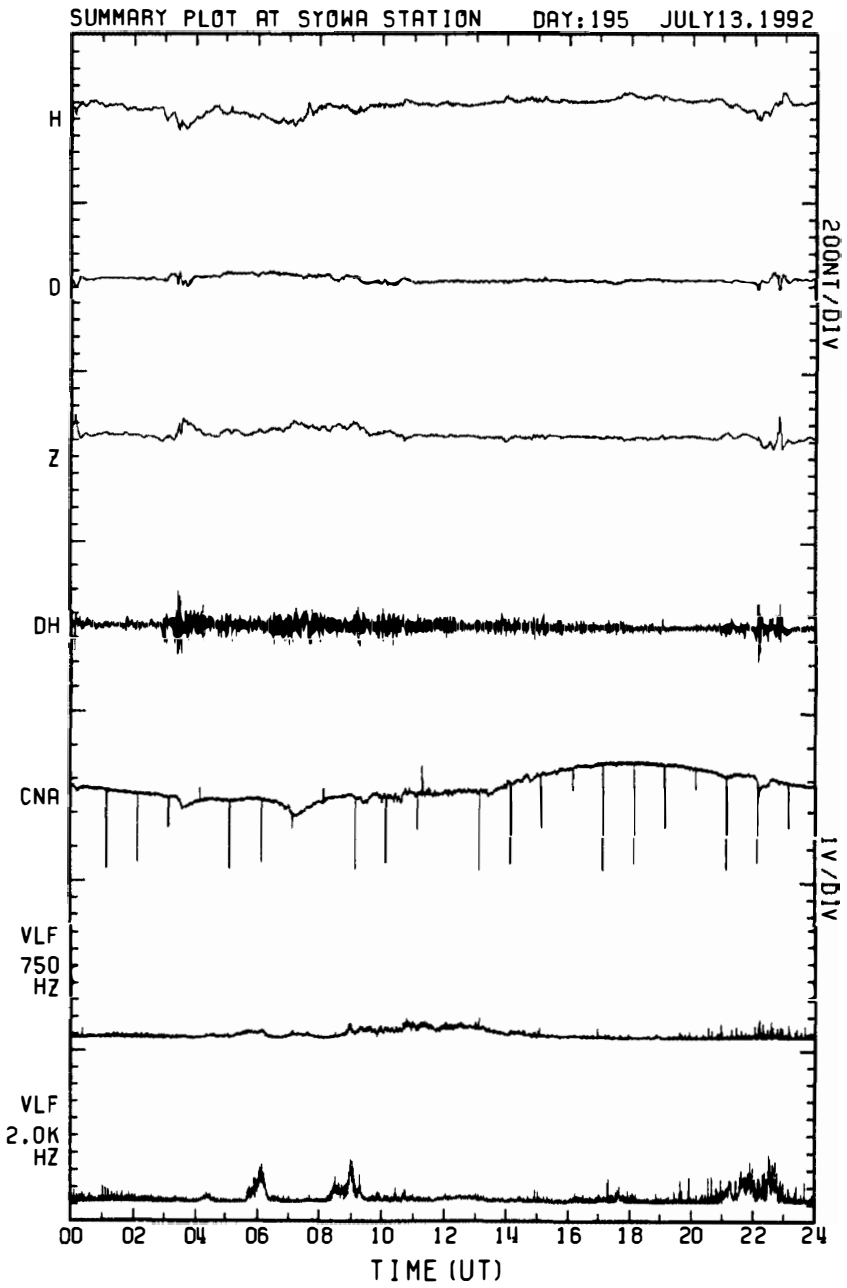

SUMMARY PLOT AT SYOWA STATION DAY:190 JULY 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

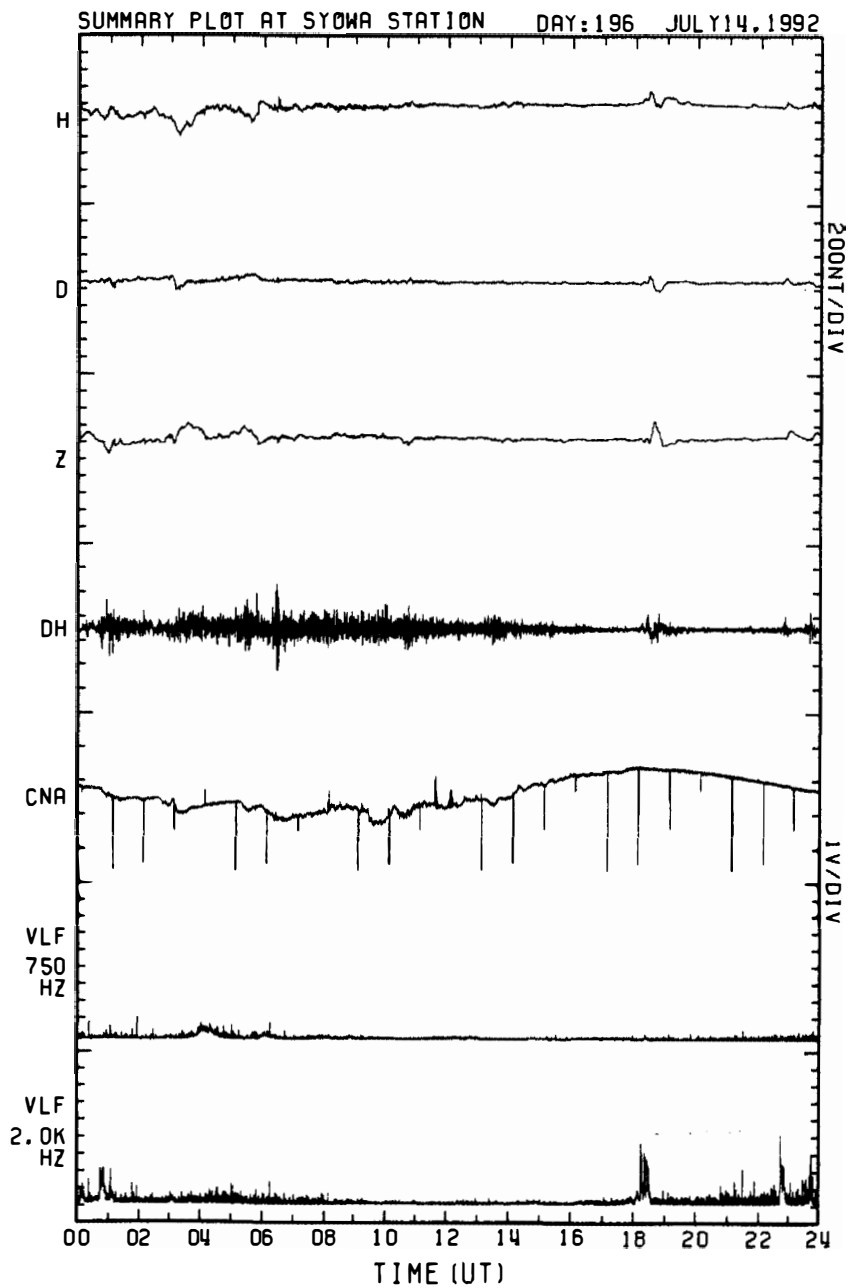

SUMMARY PLOT AT SYOWA STATION DAY:191 JULY 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

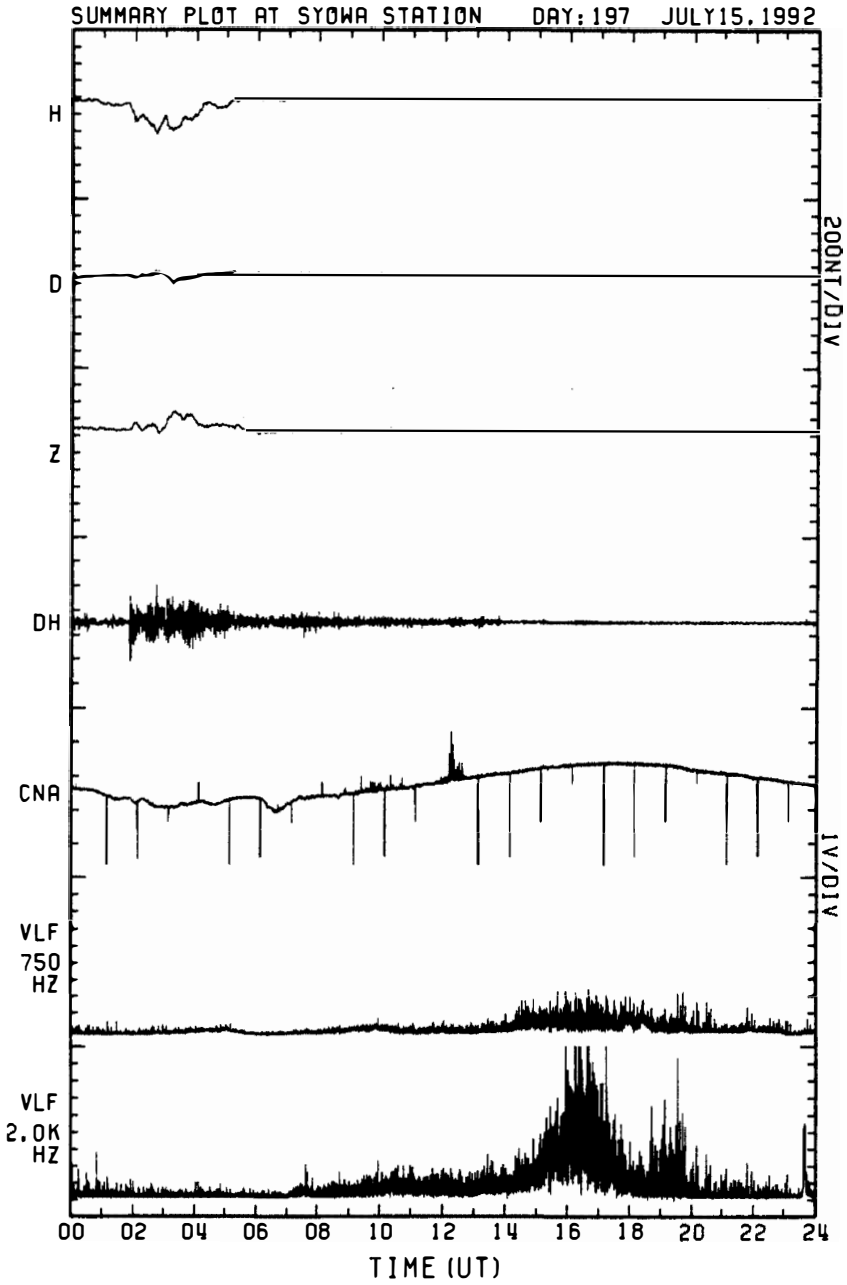

SUMMARY PLOT AT SYOWA STATION DAY:192 JULY10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

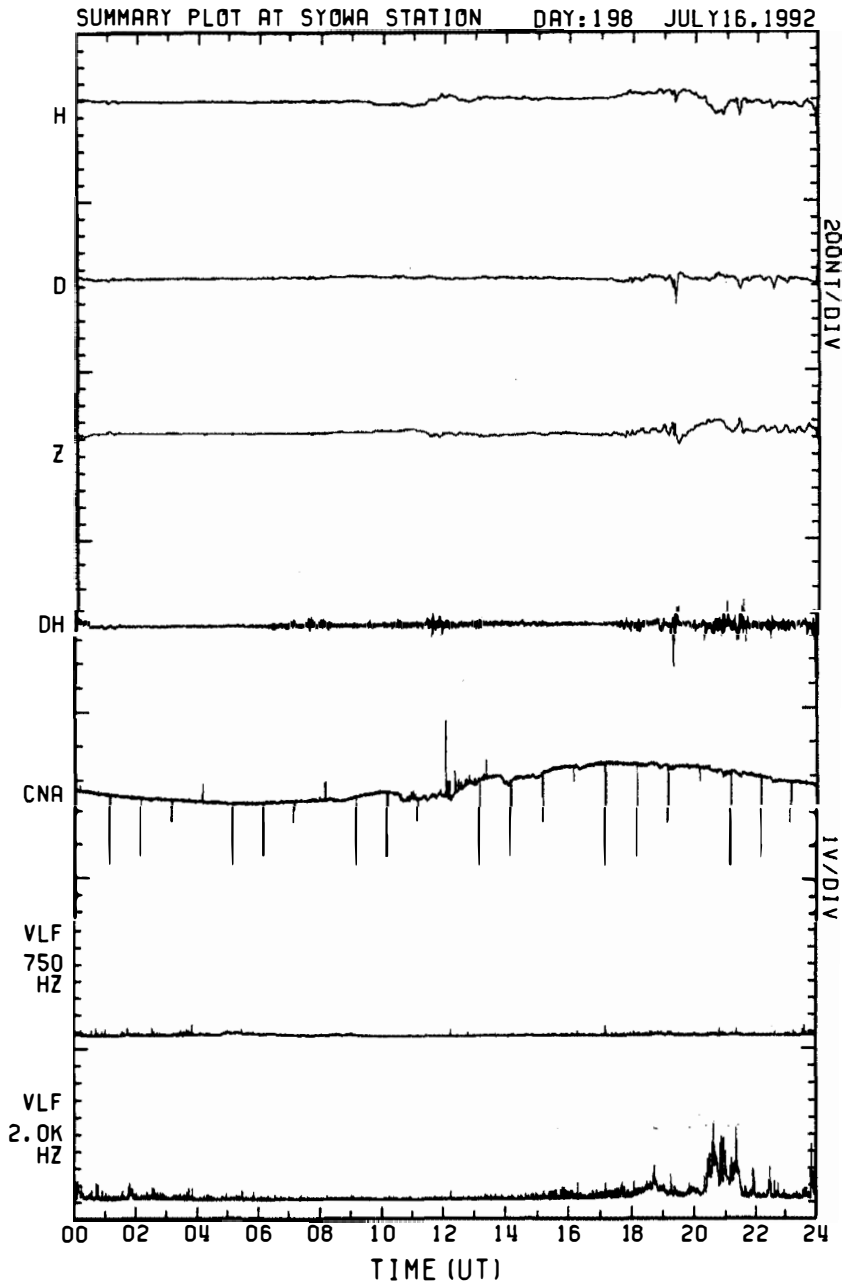

SUMMARY PLOT AT SYOWA STATION DAY:194 JULY12,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

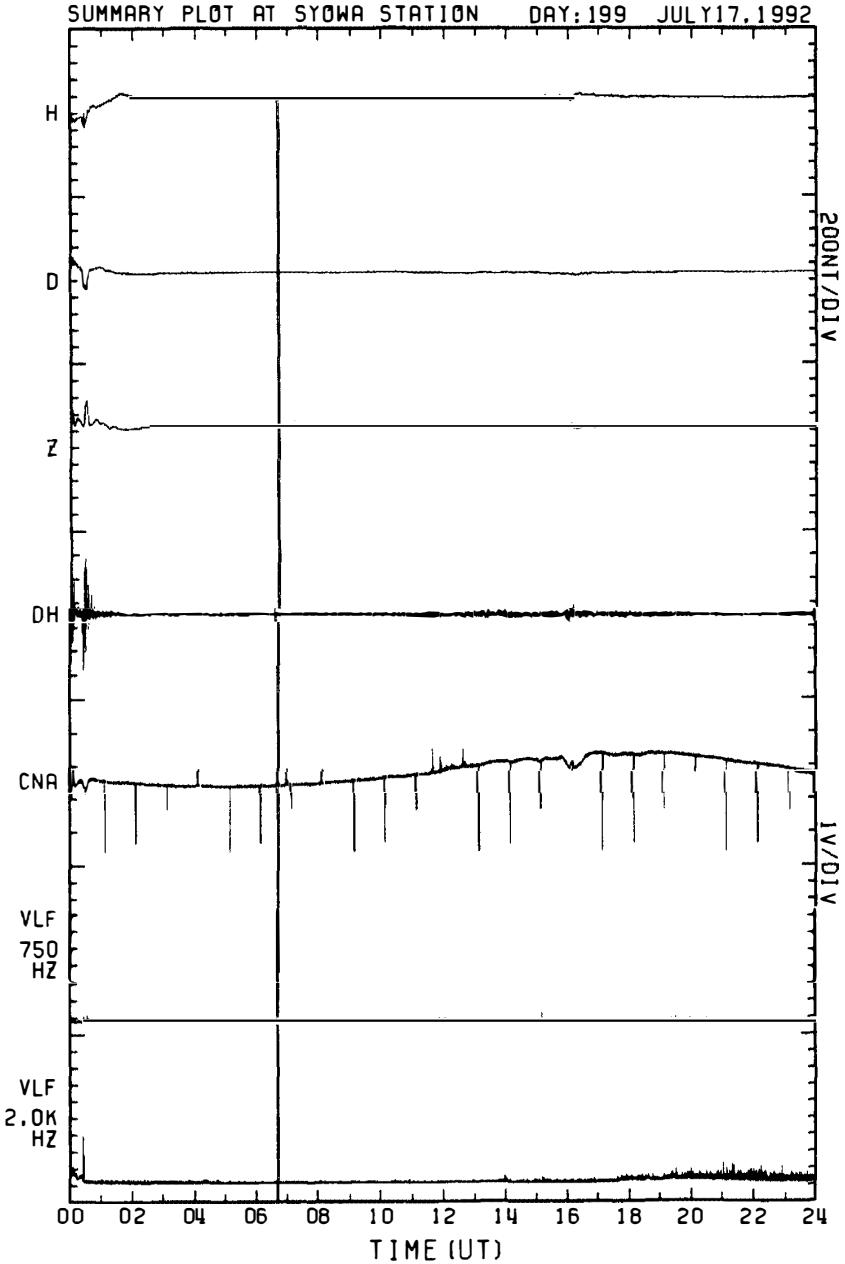

SUMMARY PLOT AT SYOWA STATION DAY:193 JULY11,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

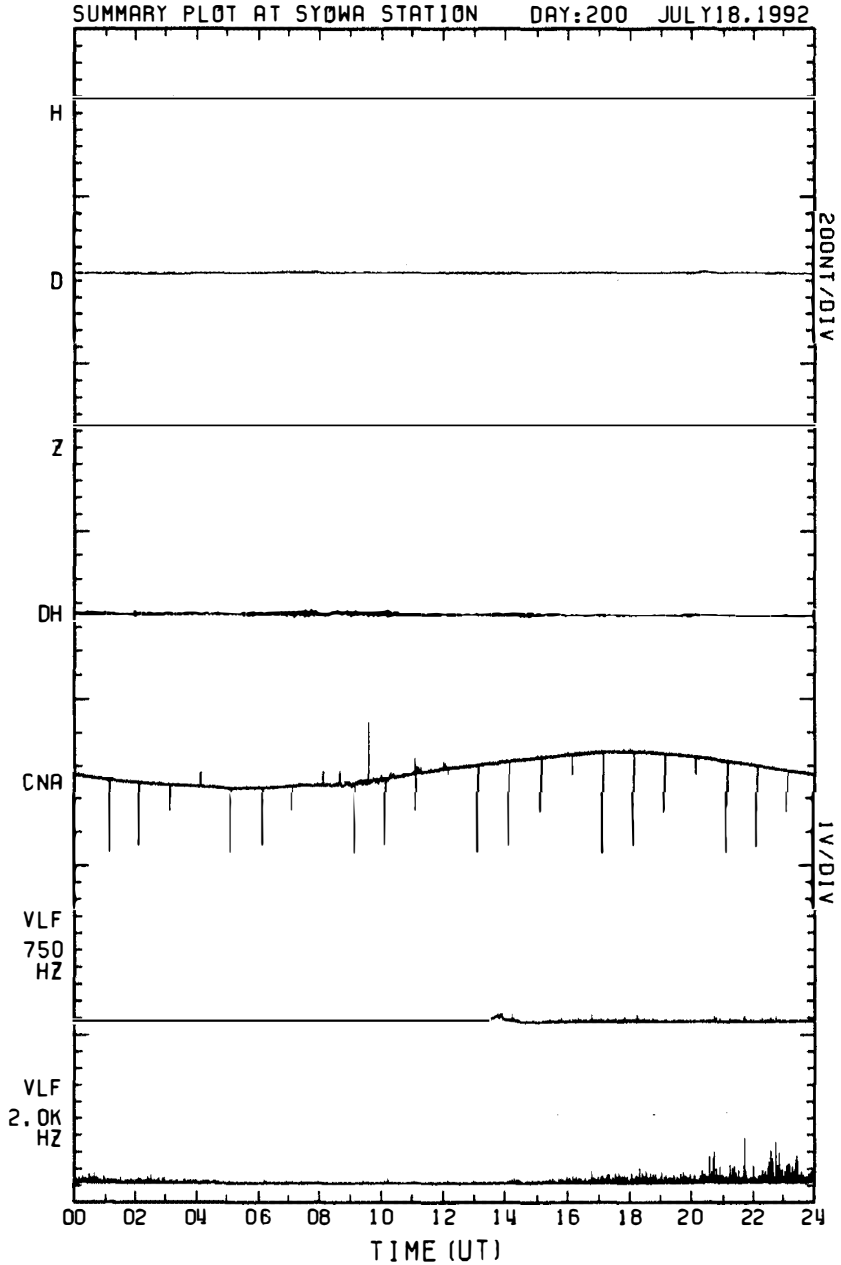

SUMMARY PLOT AT SYOWA STATION DAY:195 JULY13.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

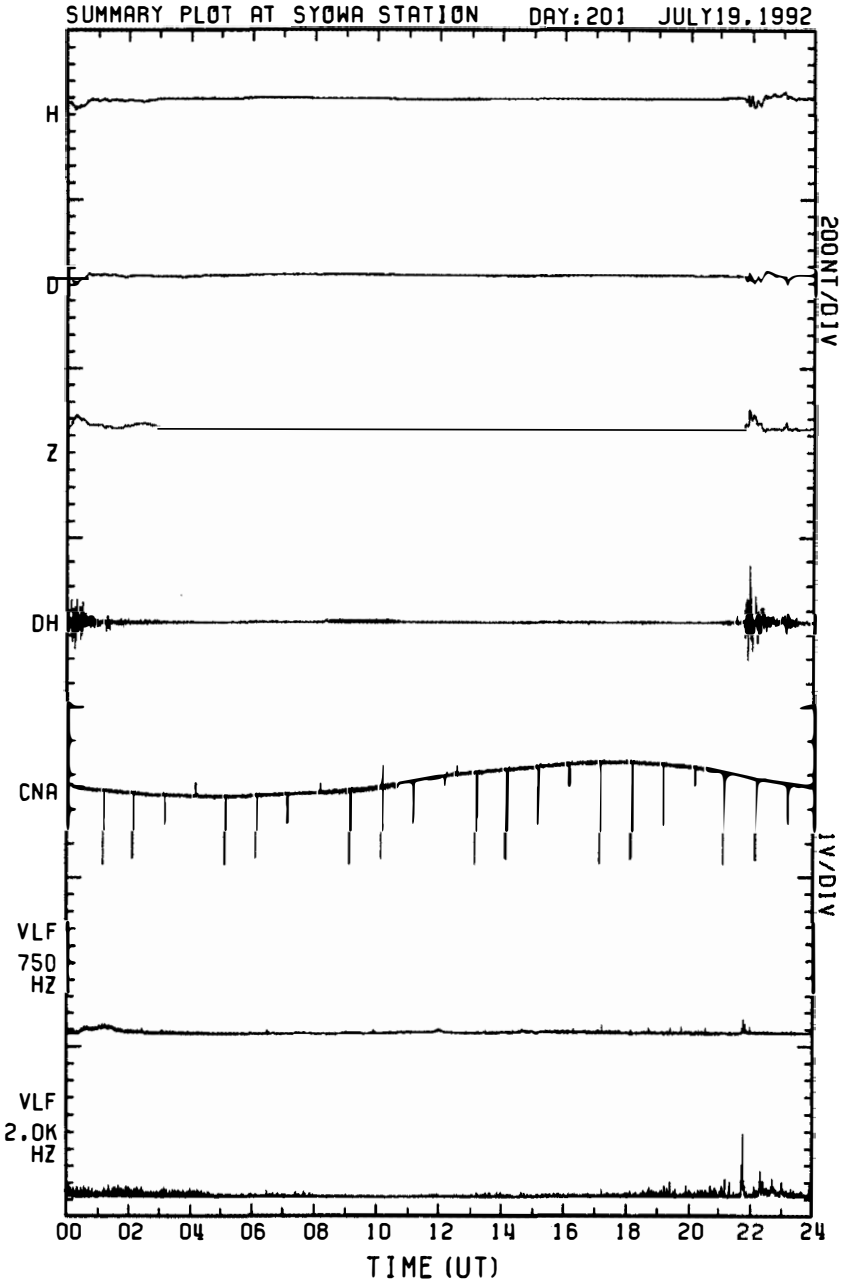

SUMMARY PLOT AT SYOWA STATION DAY:196 JULY14.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

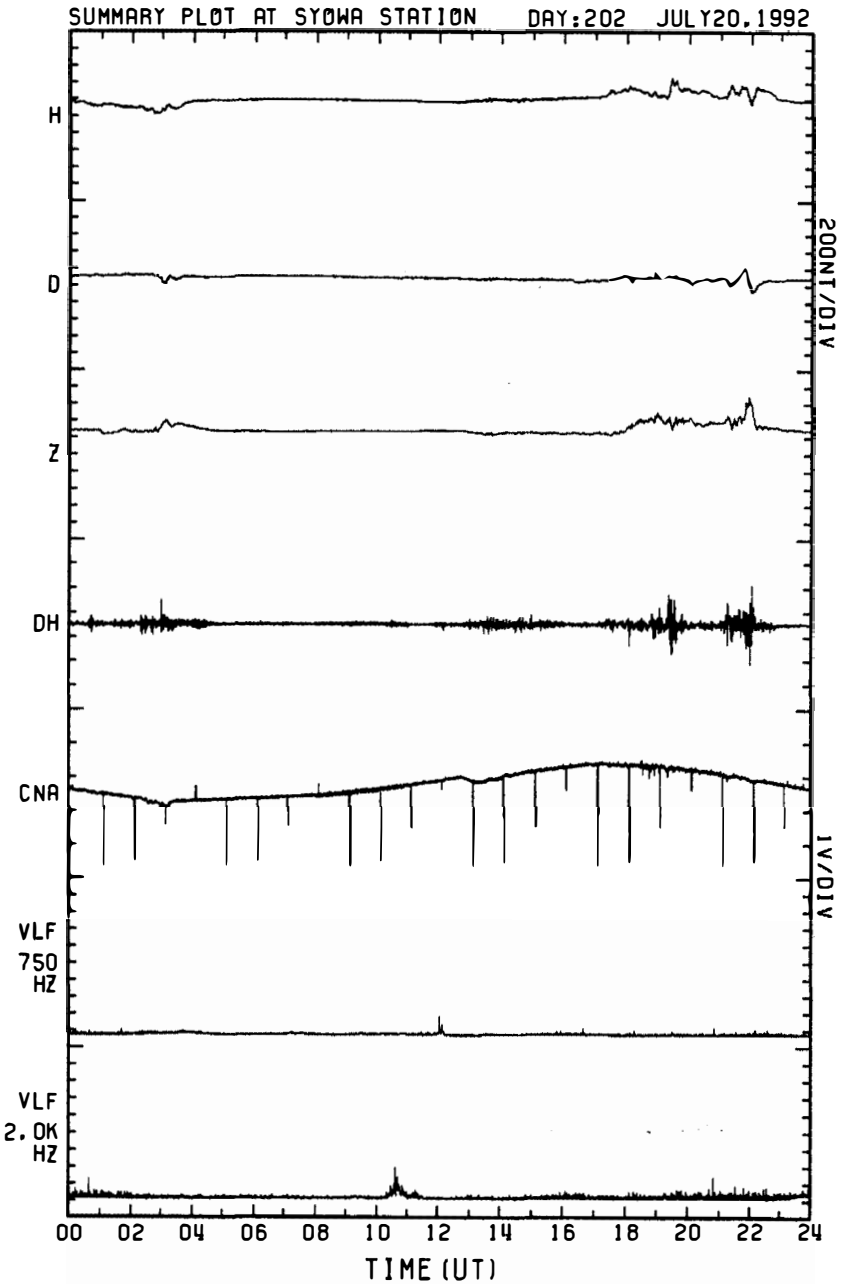

SUMMARY PLOT AT SYOWA STATION DAY:197 JULY15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

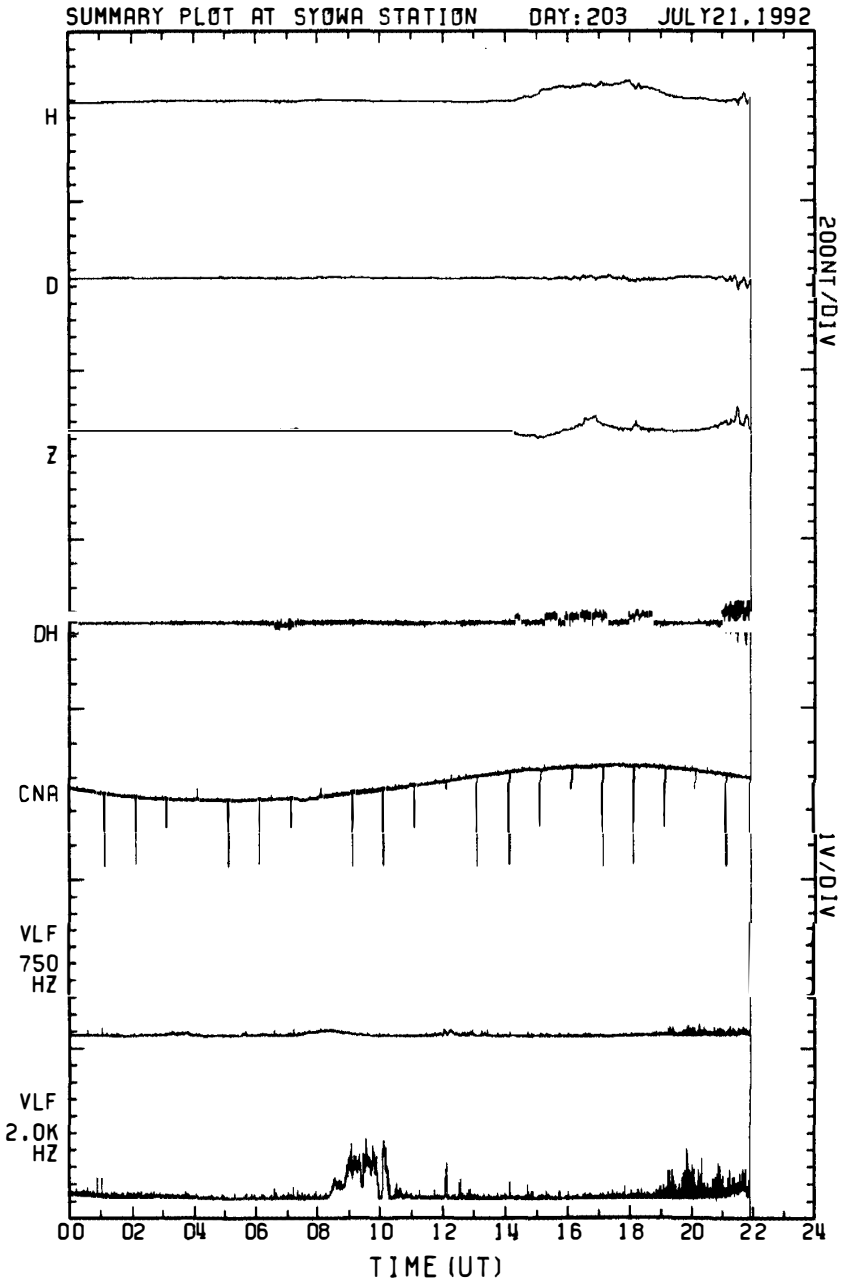

SUMMARY PLOT AT SYOWA STATION DAY:198 JULY16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

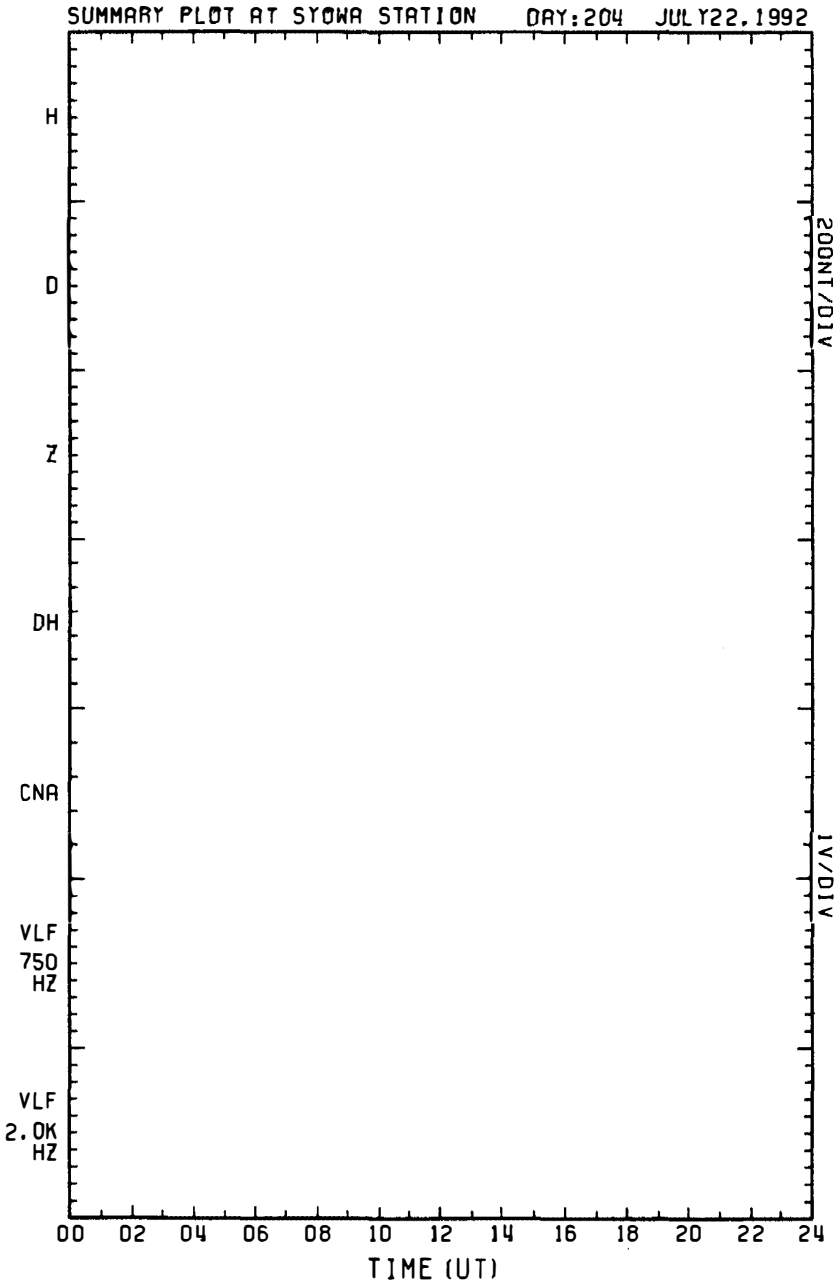

SUMMARY PLOT AT SYOWA STATION DAY:199 JULY17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

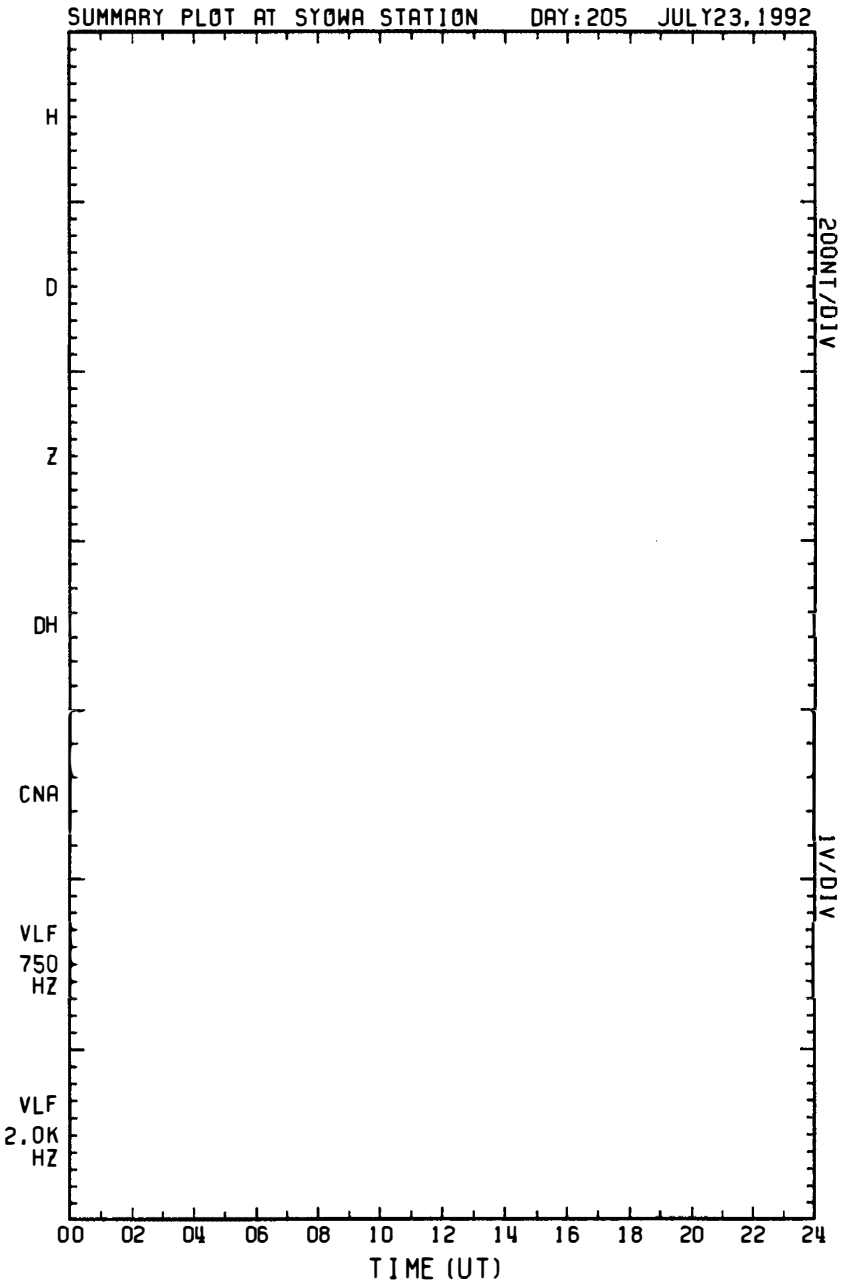

SUMMARY PLOT AT SYOWA STATION DAY:200 JULY18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

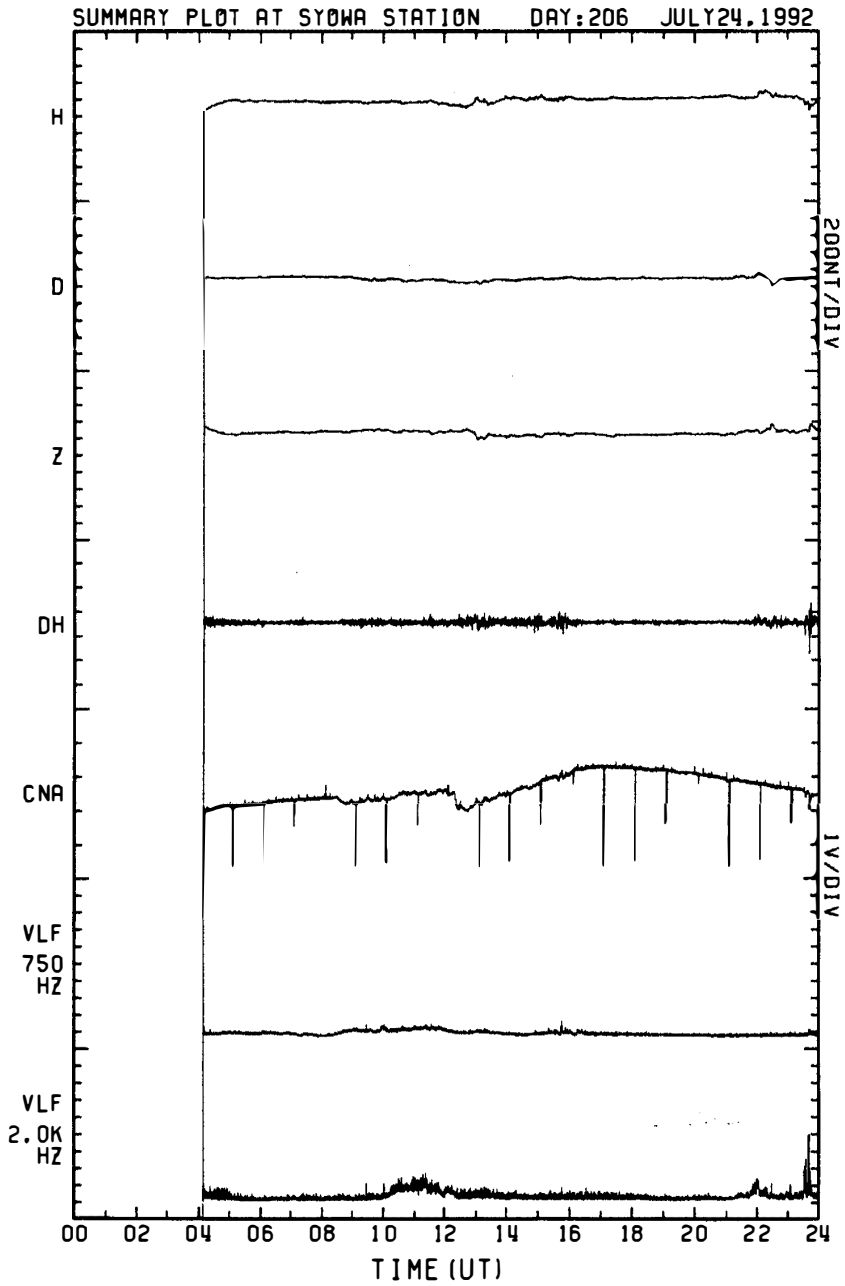

SUMMARY PLOT AT SYOWA STATION DAY:201 JULY19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

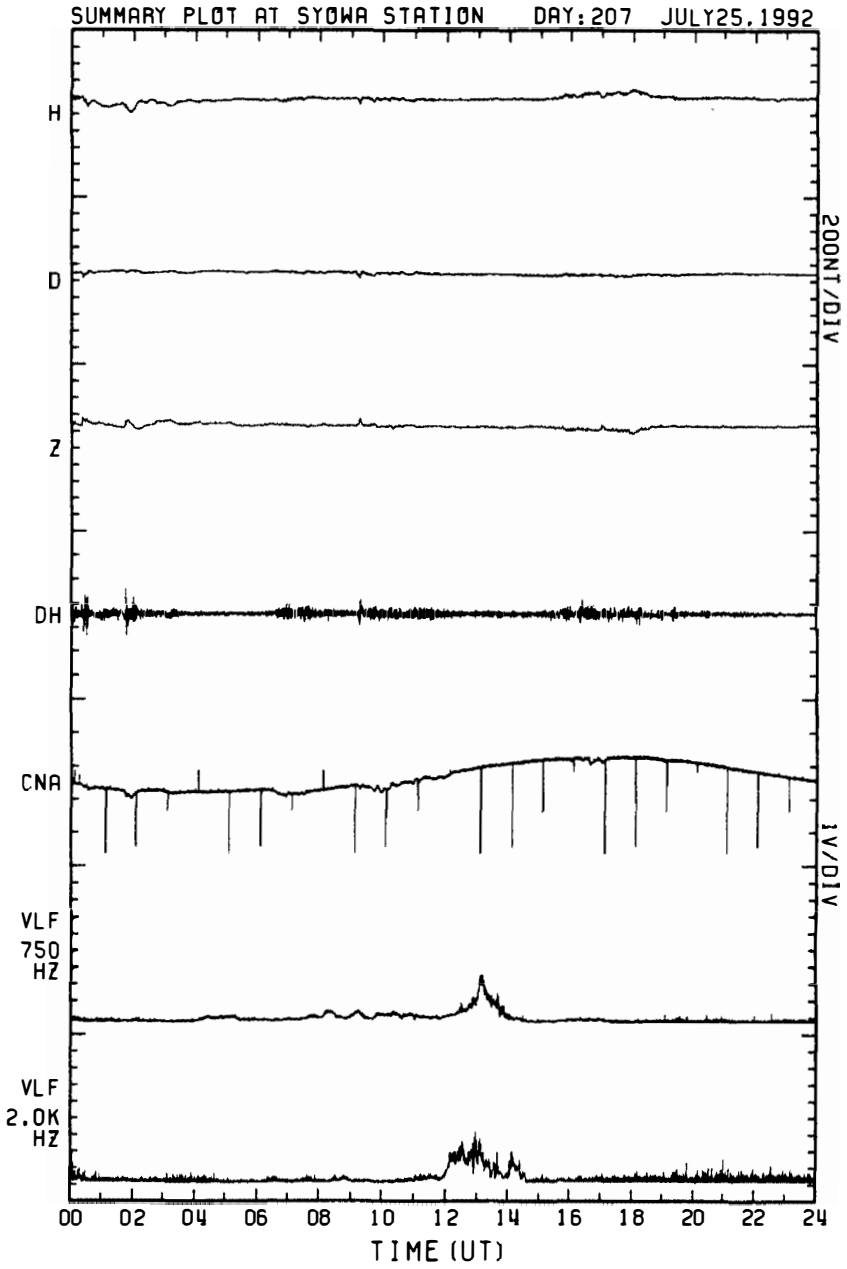

SUMMARY PLOT AT SYOWA STATION DAY:202 JULY20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

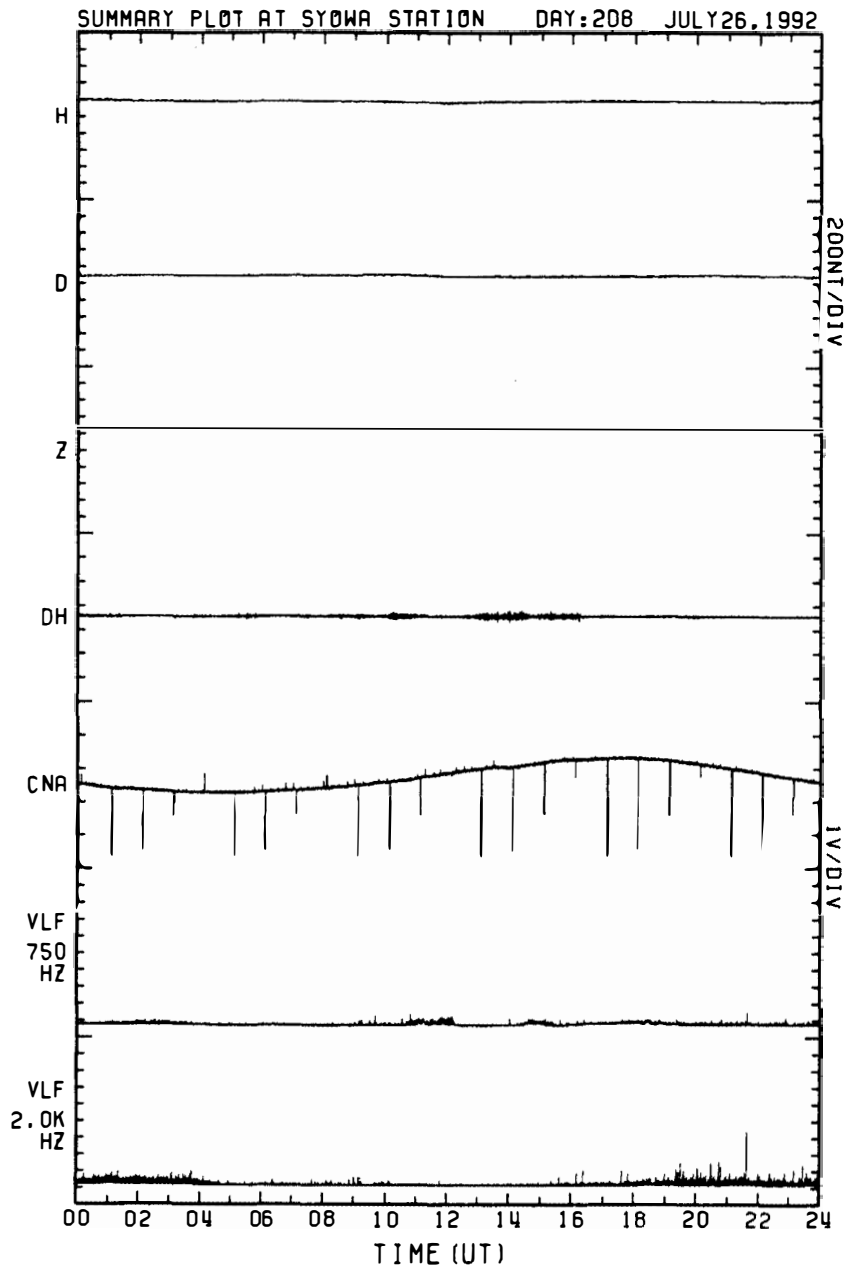

SUMMARY PLOT AT SYOWA STATION DAY:203 JULY21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

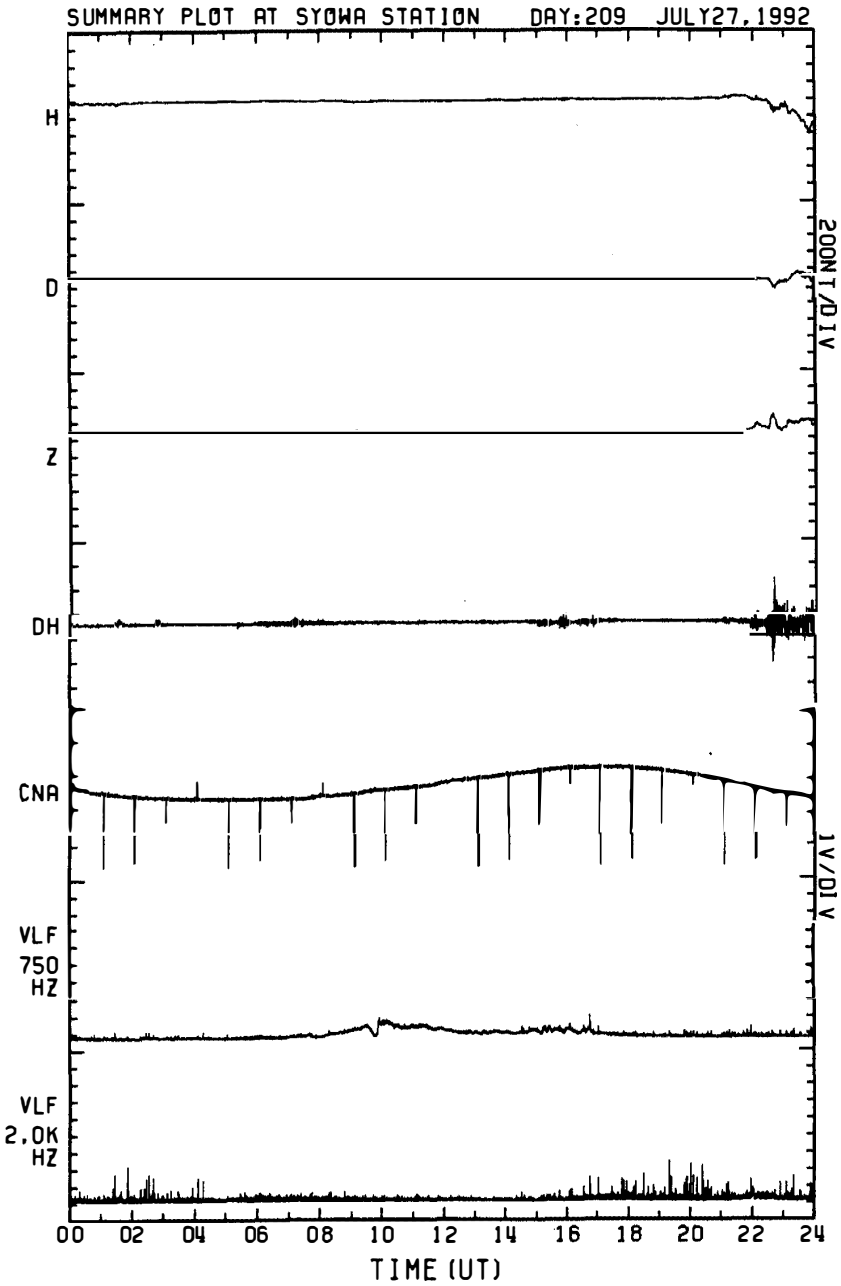

SUMMARY PLOT AT SYOWA STATION DAY:204 JULY22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

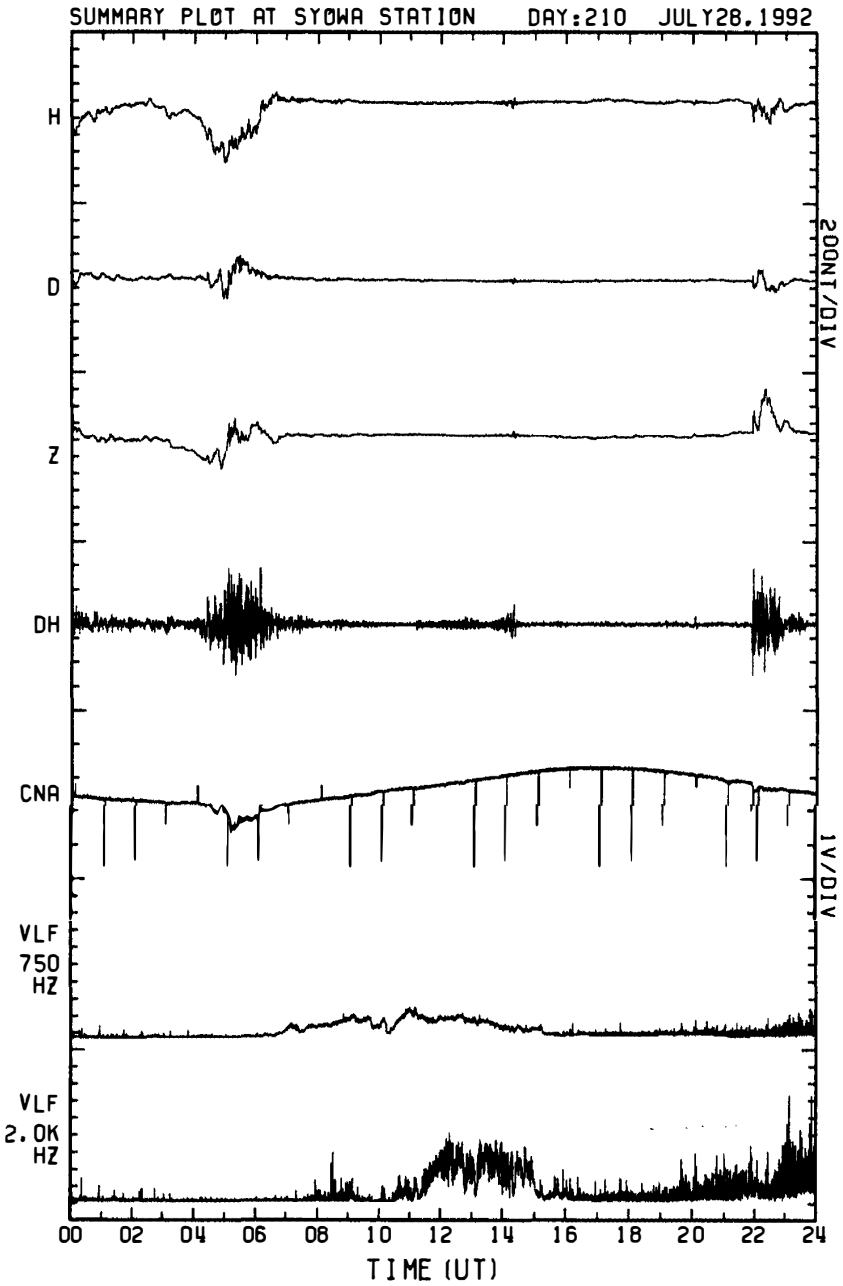

SUMMARY PLOT AT SYOWA STATION DAY:205 JULY23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

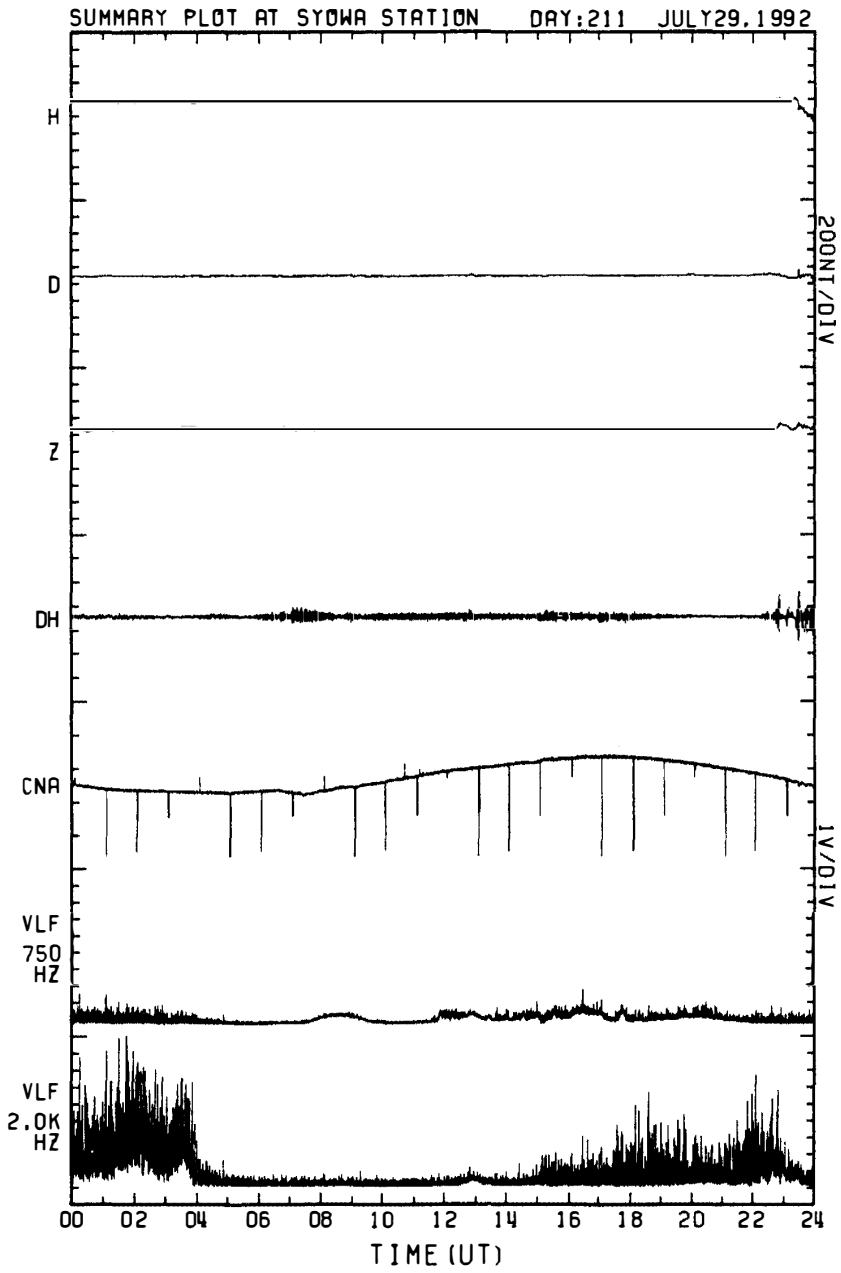

SUMMARY PLOT AT SYOWA STATION DAY:206 JULY24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

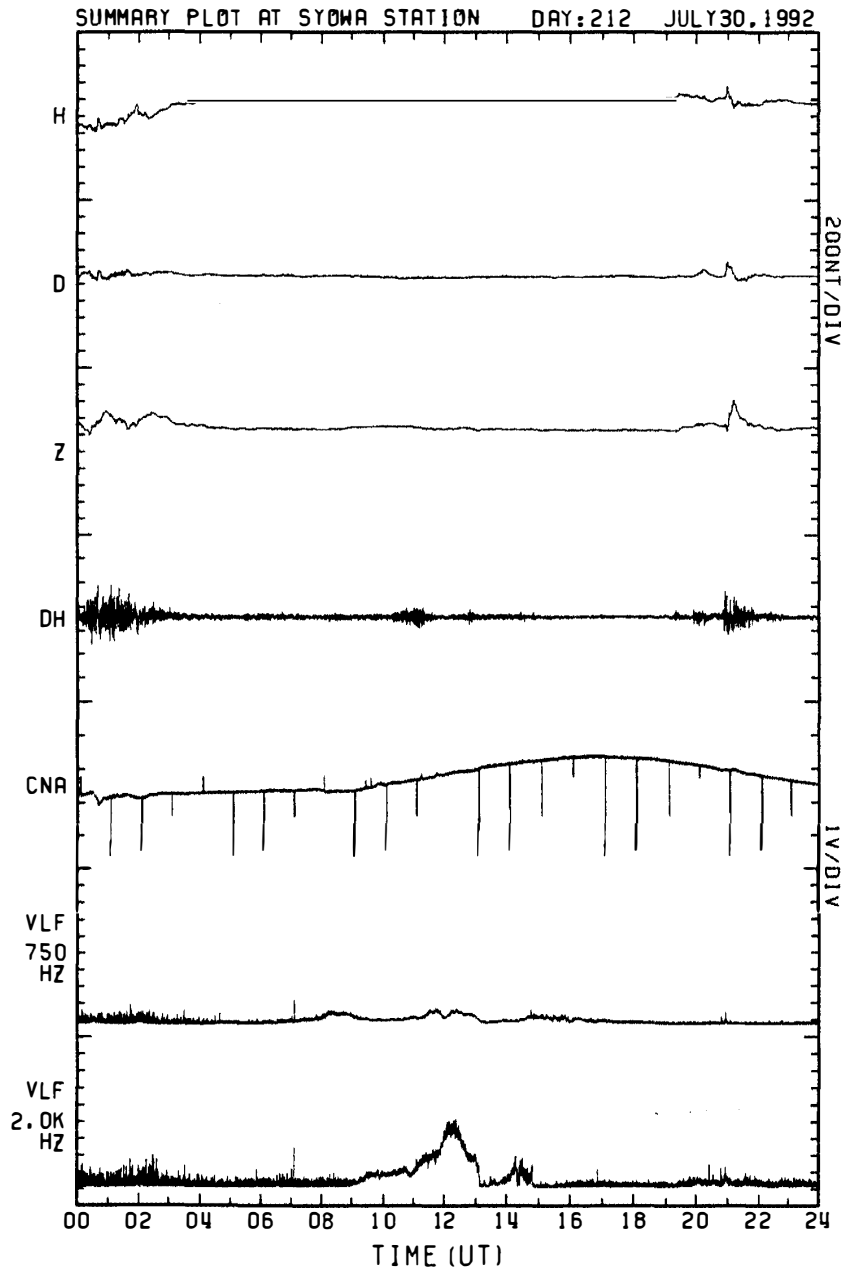

SUMMARY PLOT AT SYOWA STATION DAY:207 JULY25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

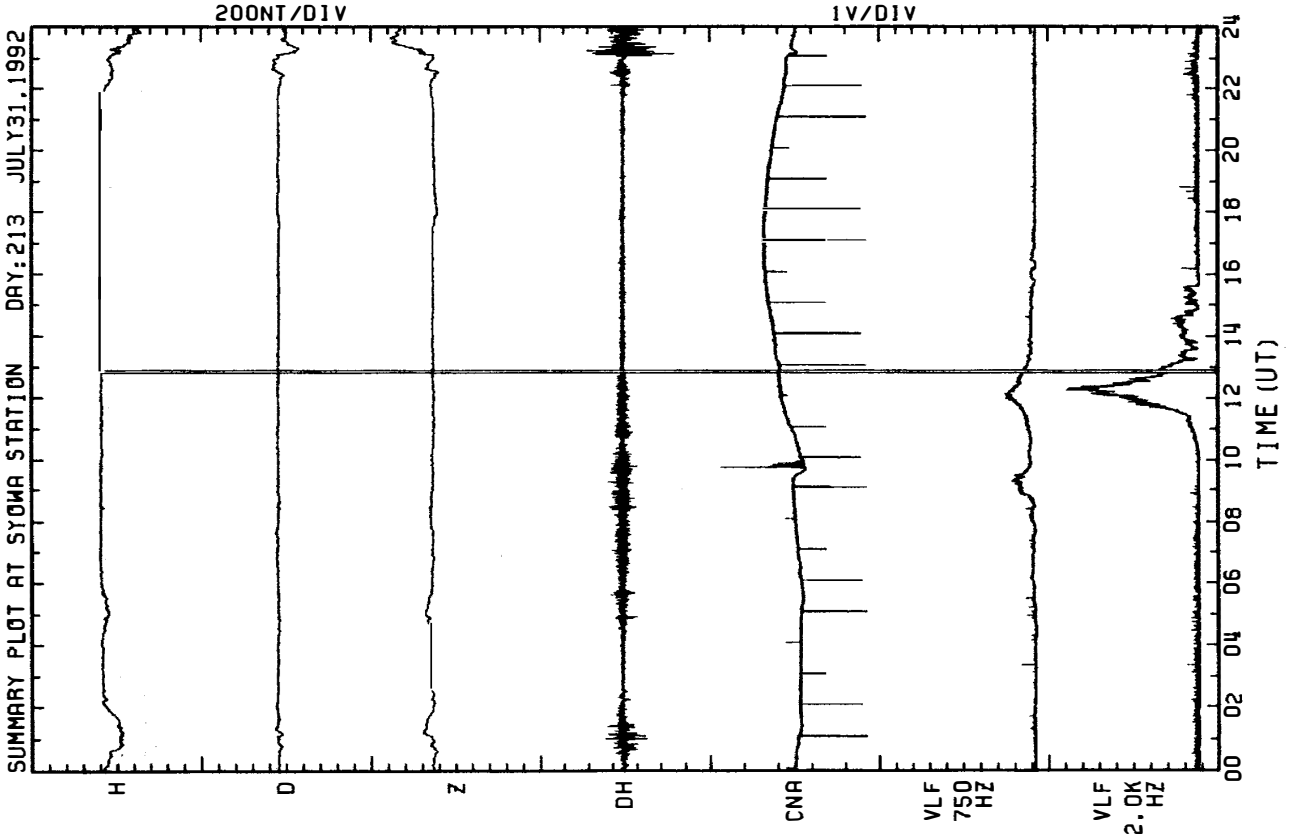

SUMMARY PLOT AT SYOWA STATION DAY:208 JULY26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

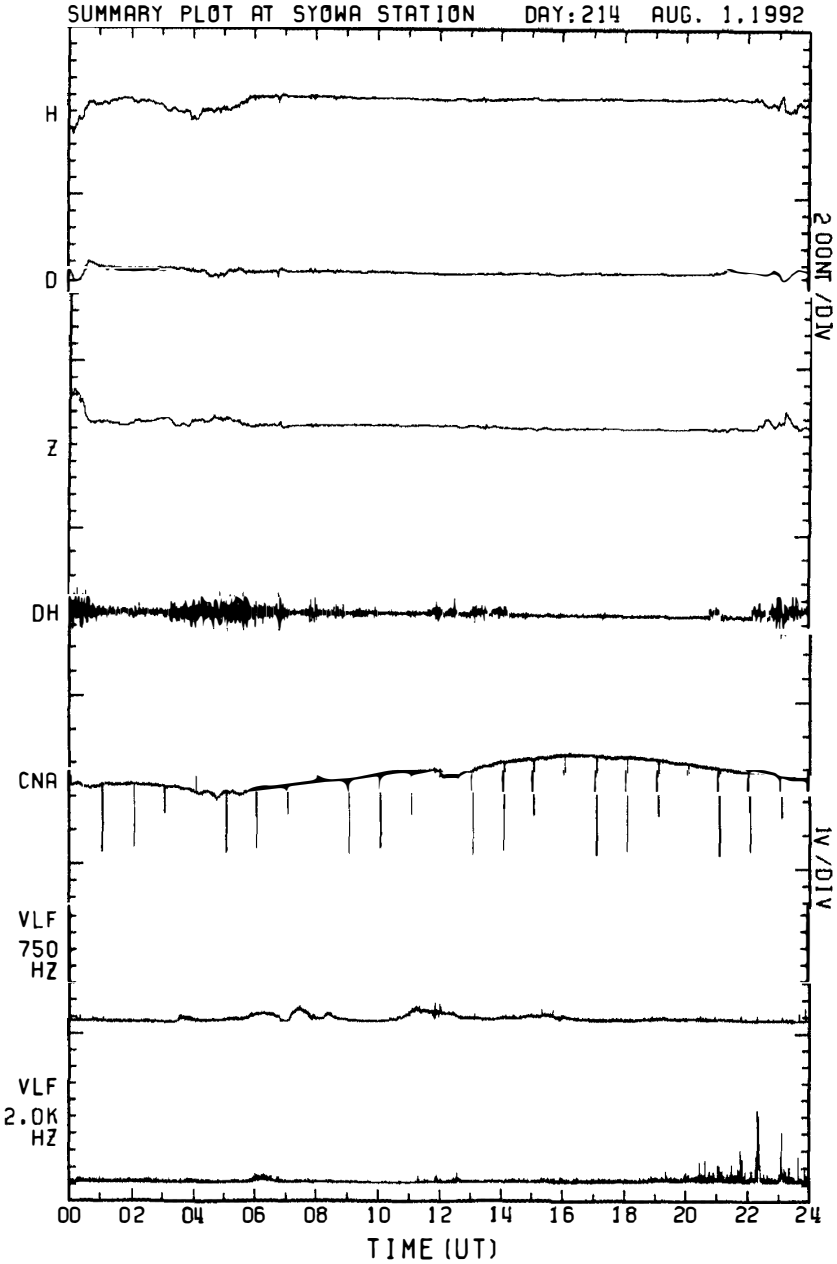

SUMMARY PLOT AT SYOWA STATION DAY:209 JULY27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

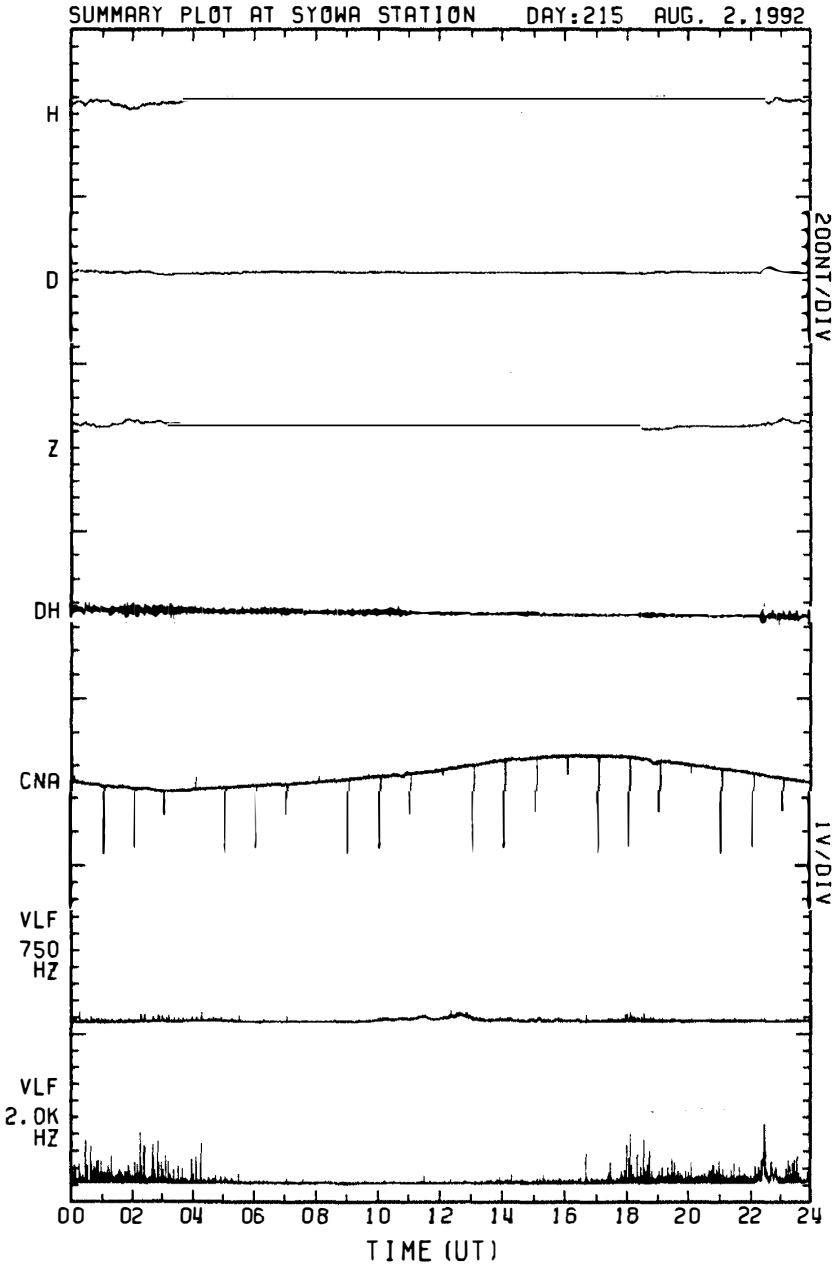

SUMMARY PLOT AT SYOWA STATION DAY:210 JULY28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

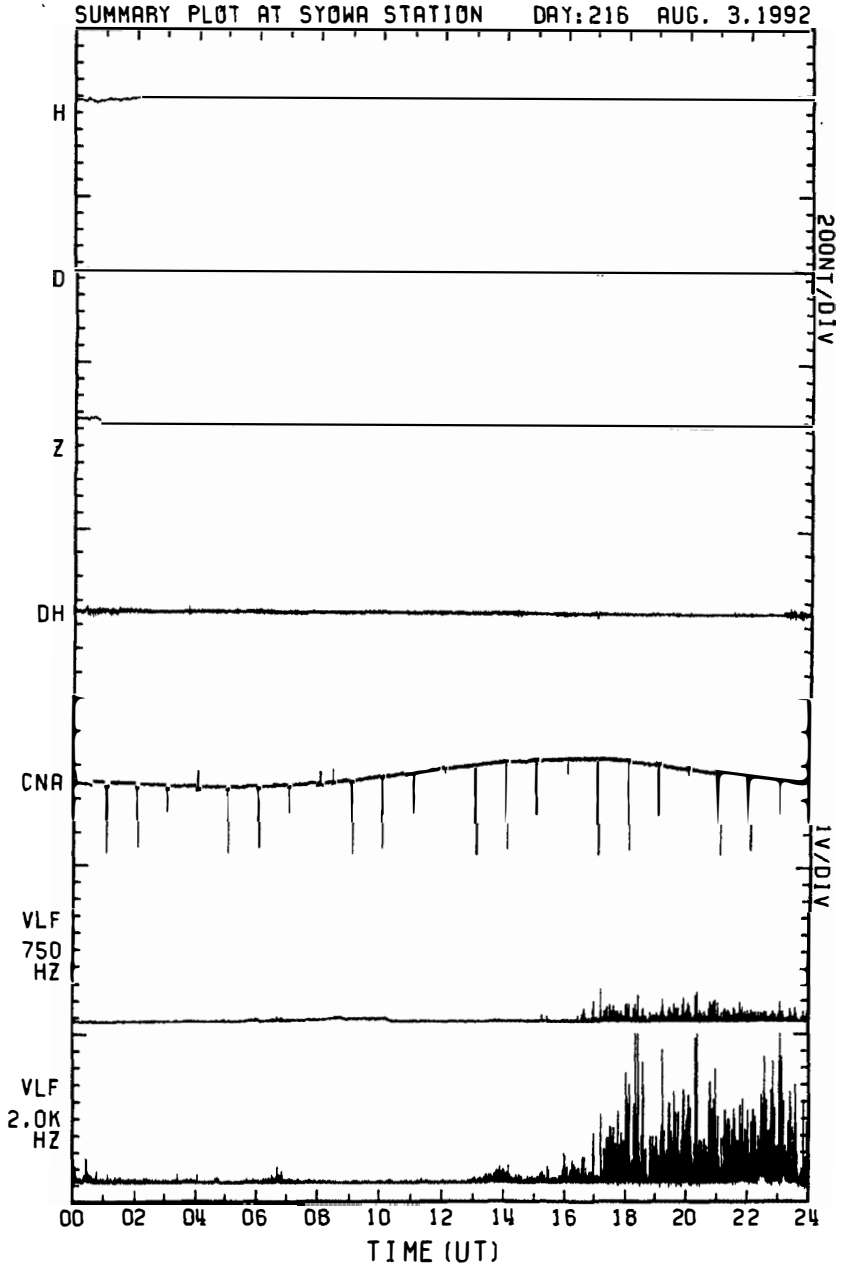

SUMMARY PLOT AT SYOWA STATION DAY:211 JULY29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

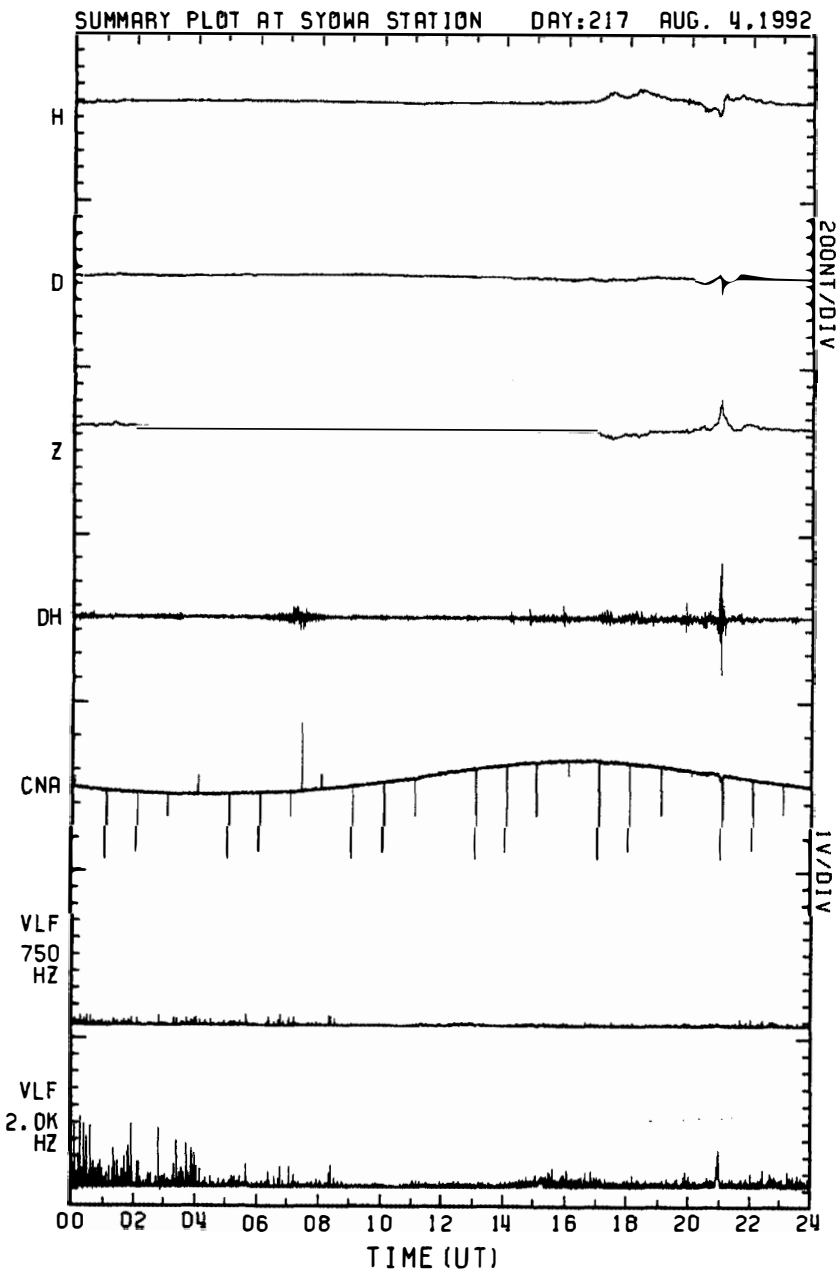

SUMMARY PLOT AT SYOWA STATION DAY:212 JULY30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

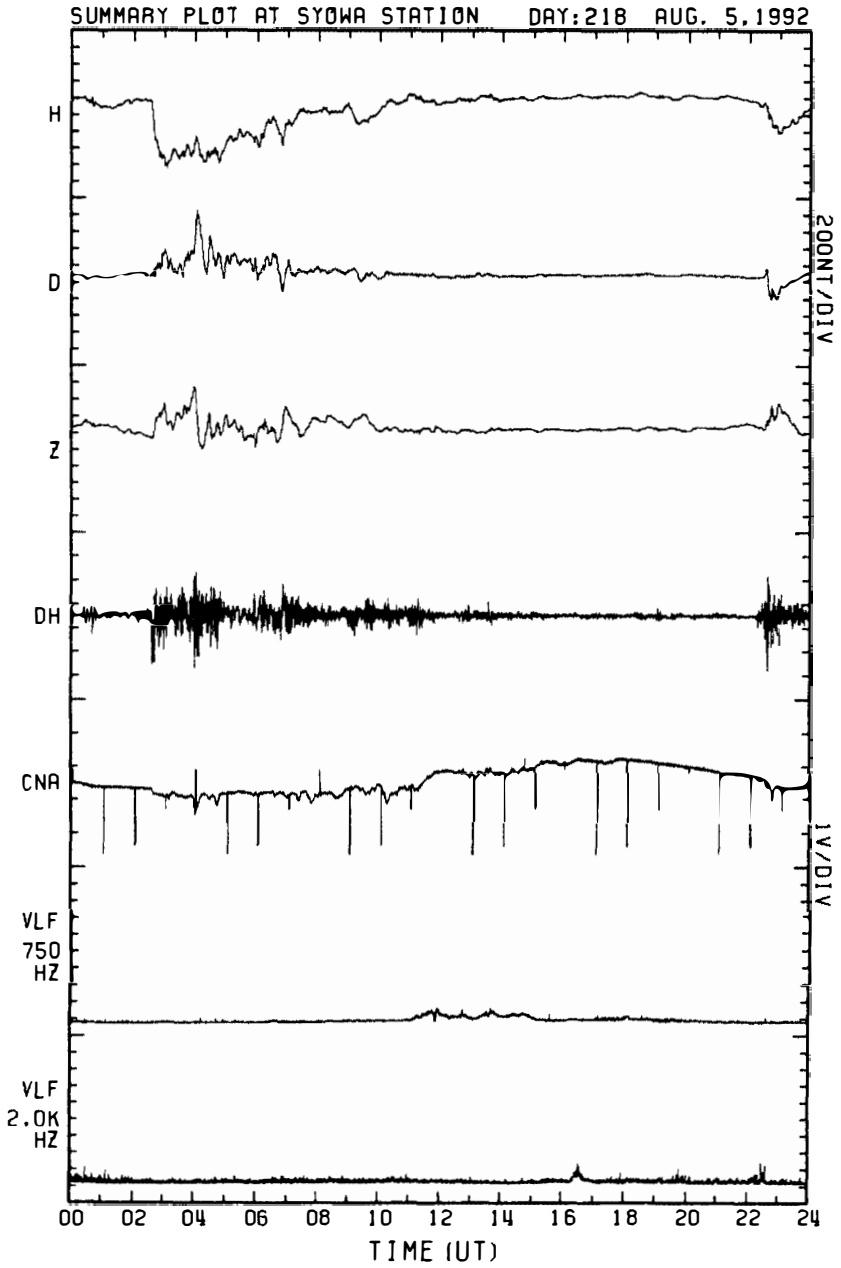

SUMMARY PLOT AT SYOWA STATION DAY:213 JULY31,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

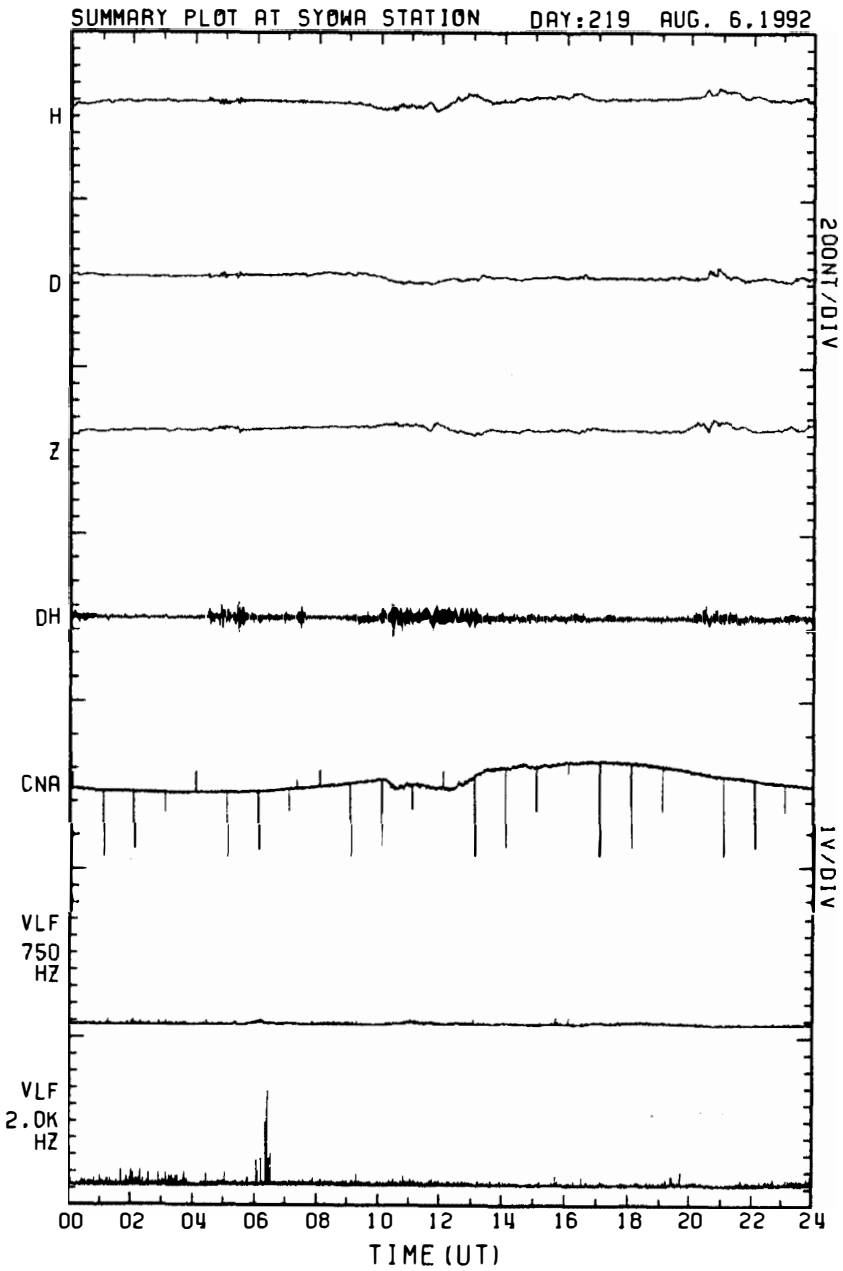

SUMMARY PLOT AT SYOWA STATION DAY:214 AUG. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

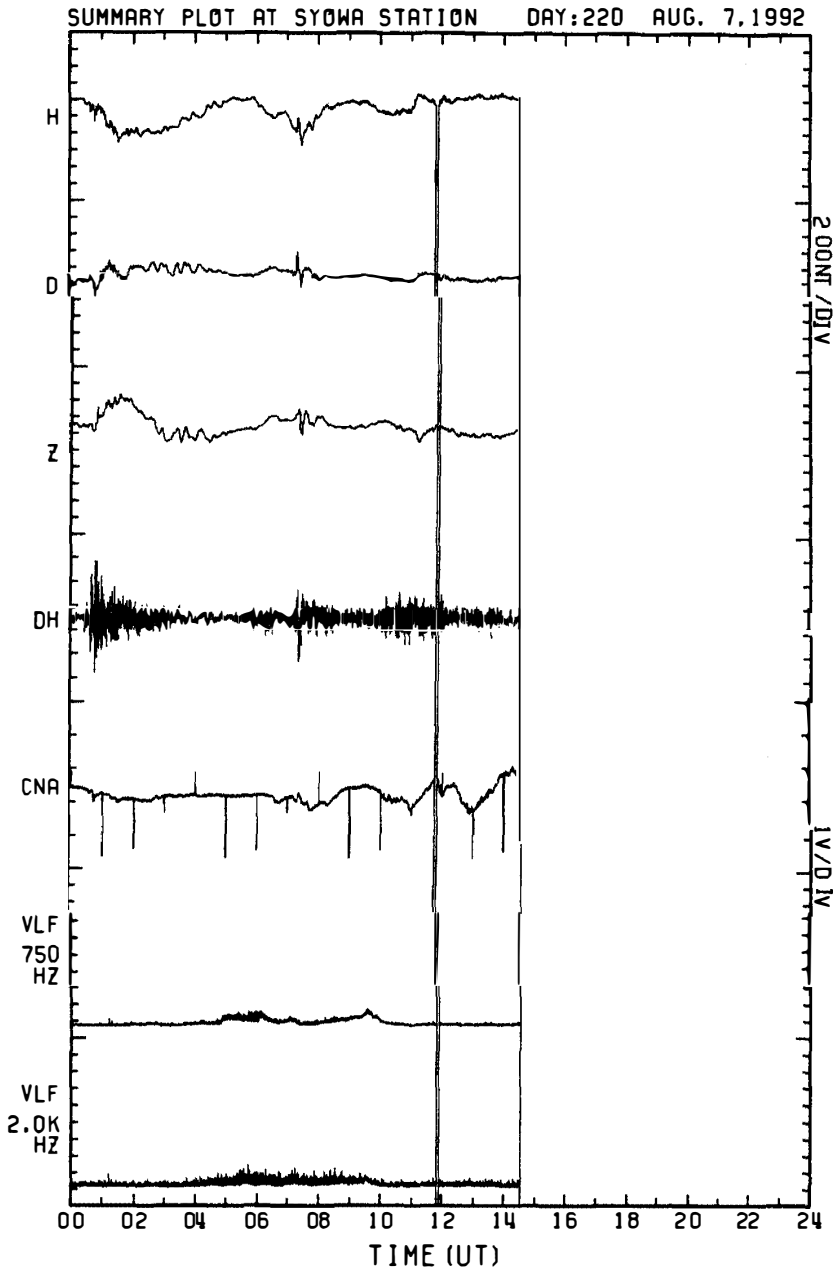

SUMMARY PLOT AT SYOWA STATION DAY:215 AUG. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

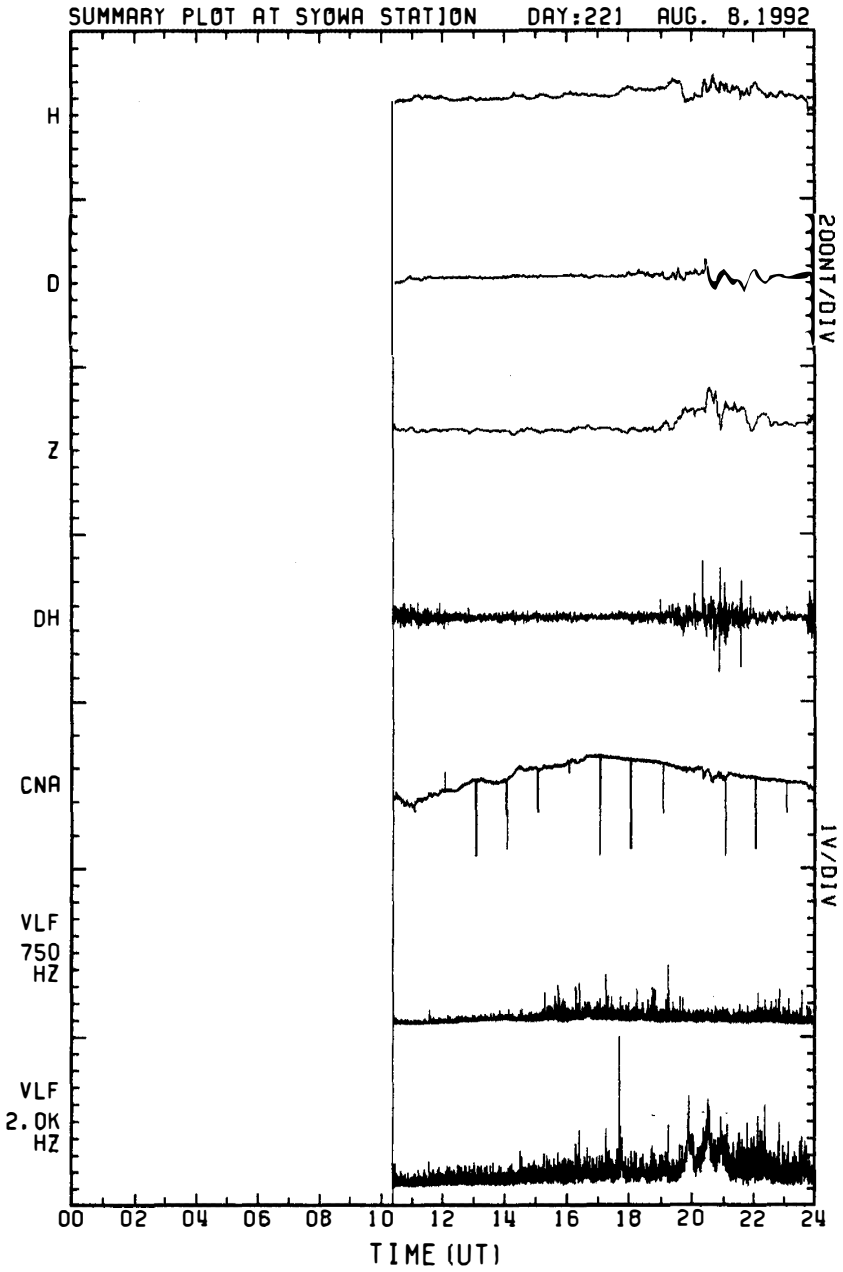

SUMMARY PLOT AT SYOWA STATION DAY:216 AUG. 3.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

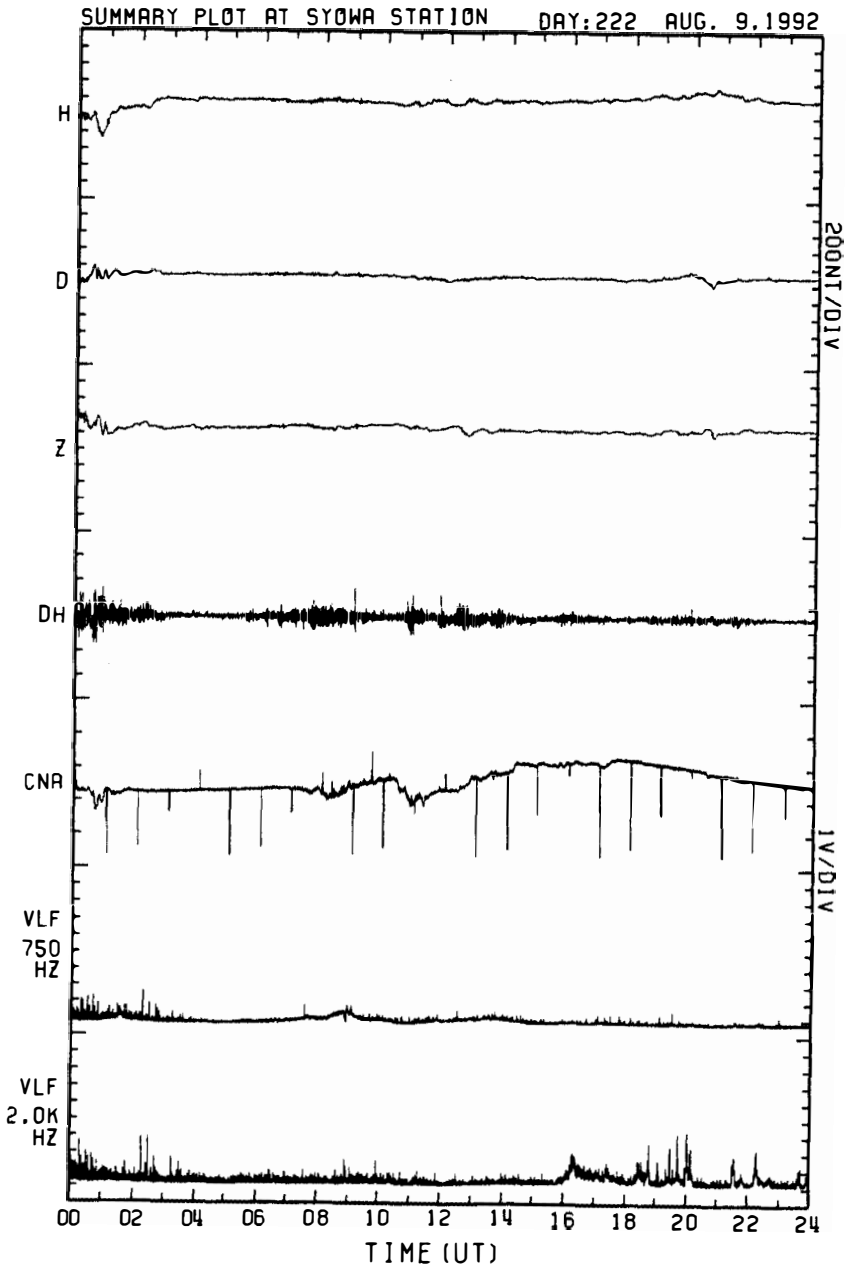

SUMMARY PLOT AT SYOWA STATION DAY:217 AUG. 4.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

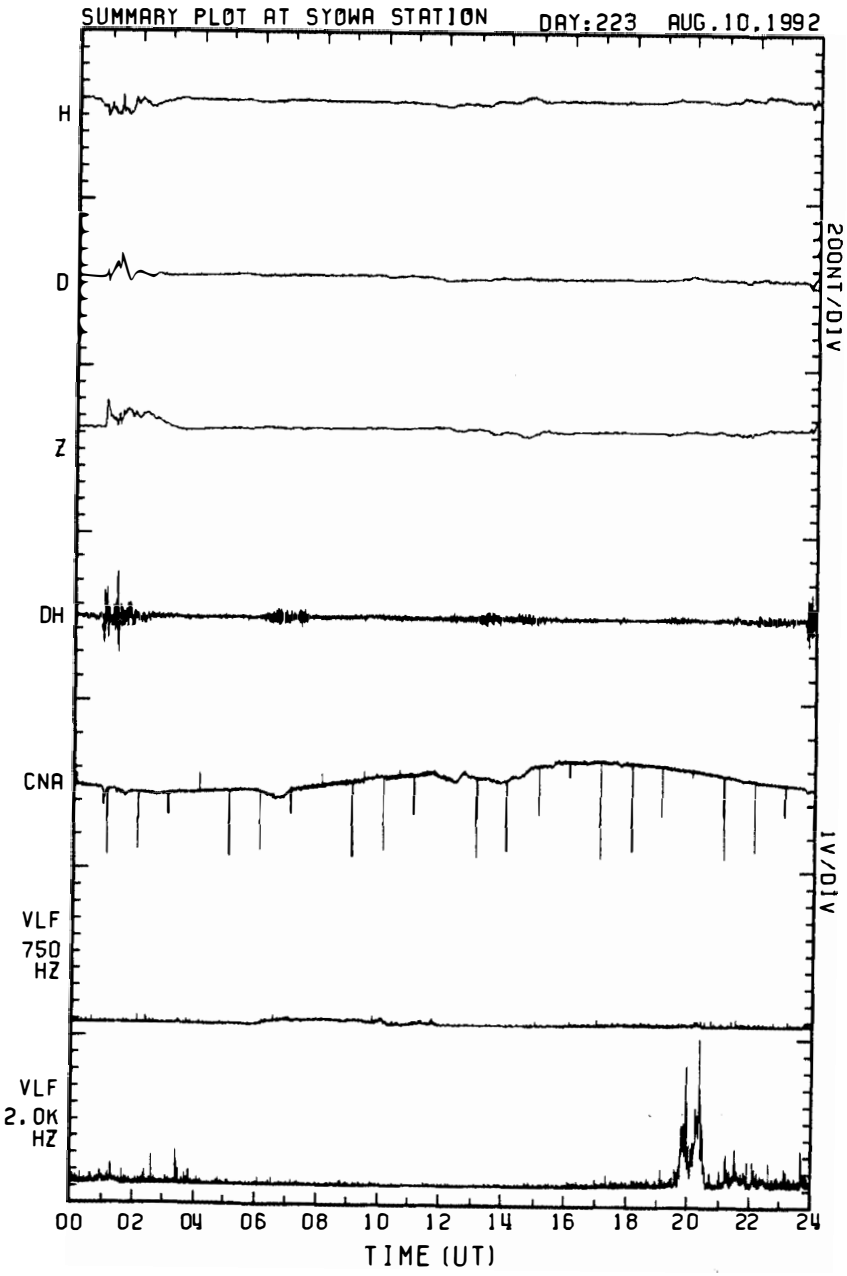

SUMMARY PLOT AT SYOWA STATION DAY:218 AUG. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

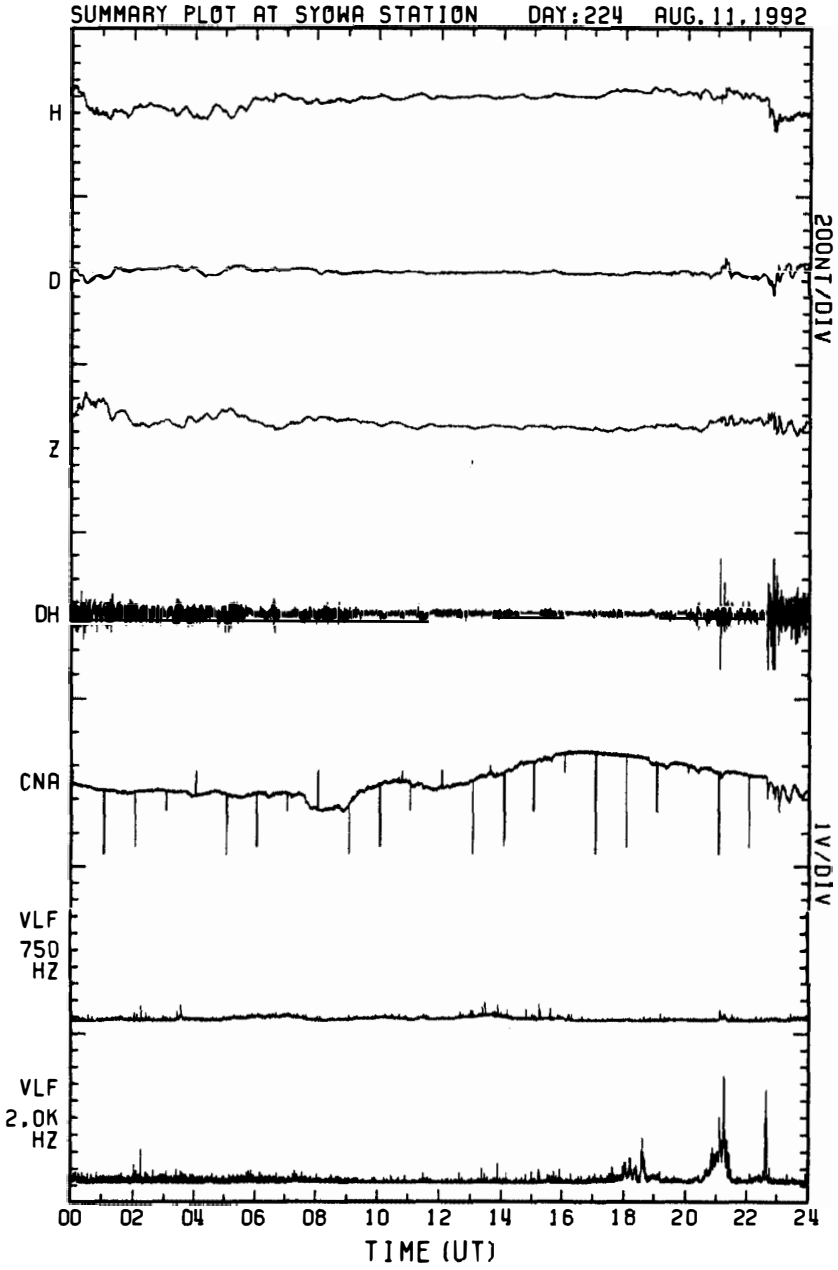

SUMMARY PLOT AT SYOWA STATION DAY:219 AUG. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

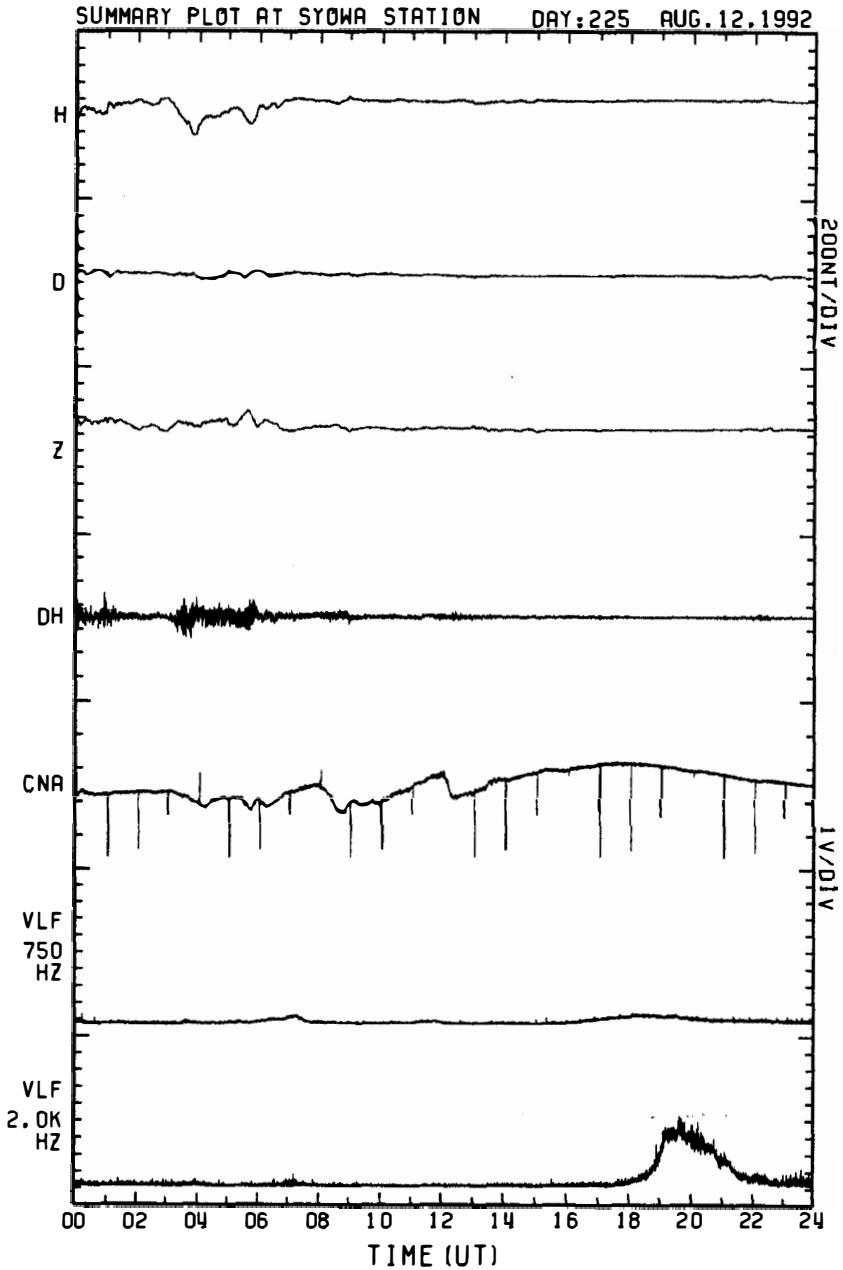

SUMMARY PLOT AT SYOWA STATION DAY:220 AUG. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

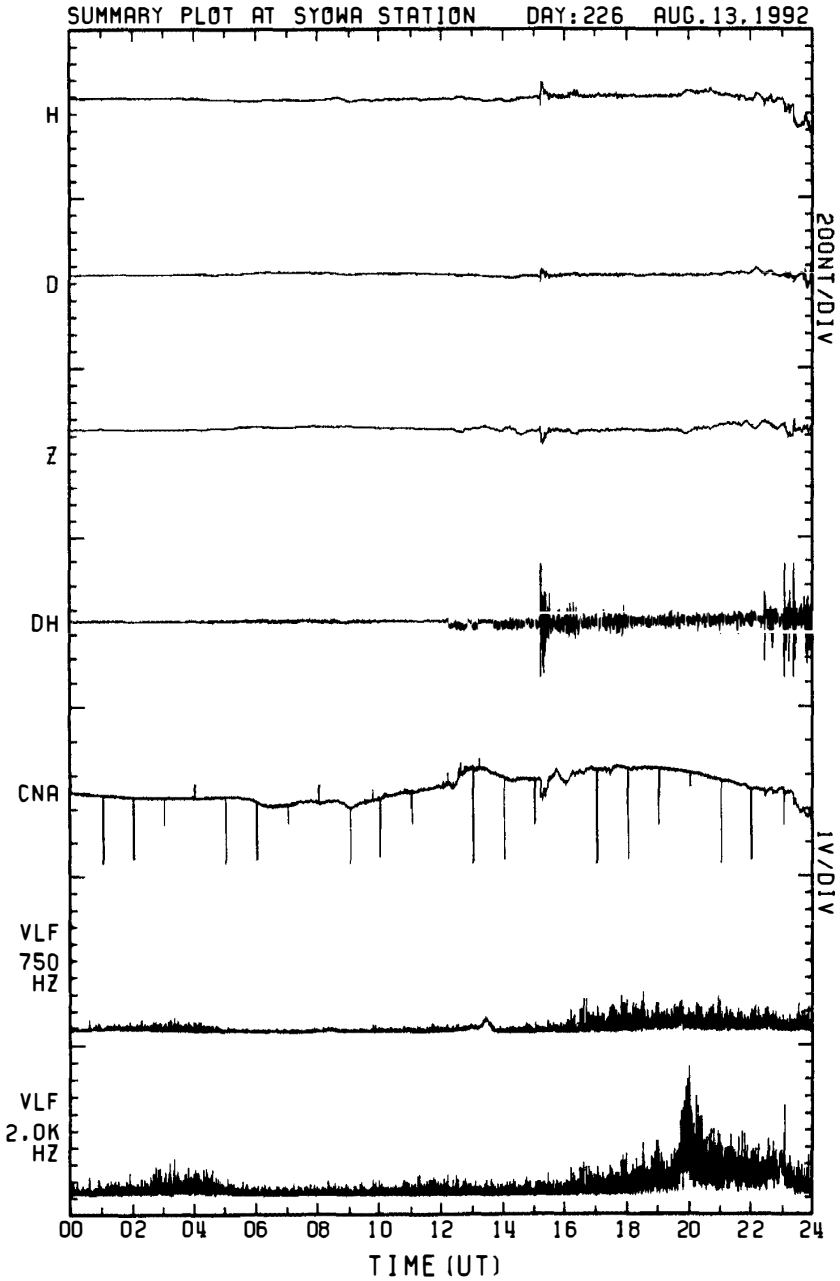

SUMMARY PLOT AT SYOWA STATION DAY:221 AUG. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

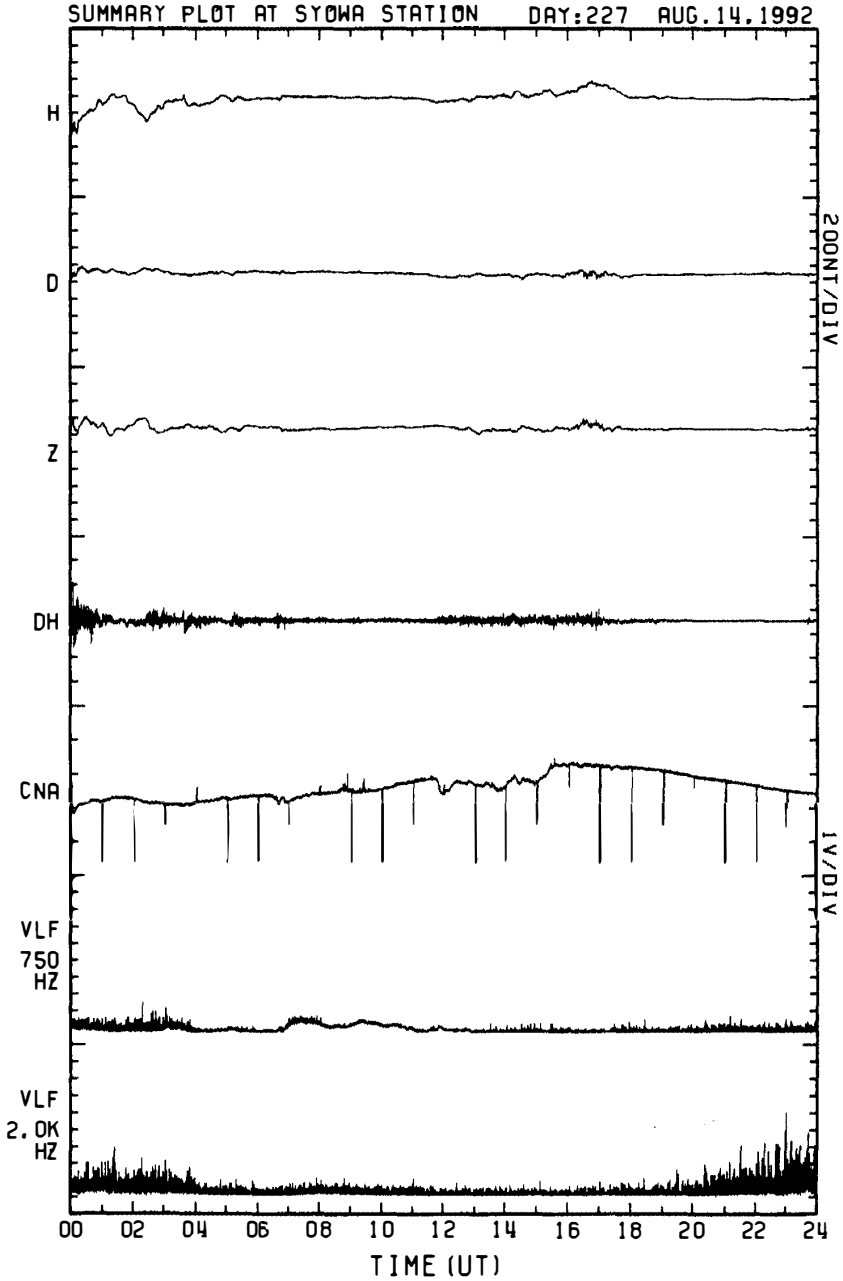

SUMMARY PLOT AT SYOWA STATION
DAY:222 AUG. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

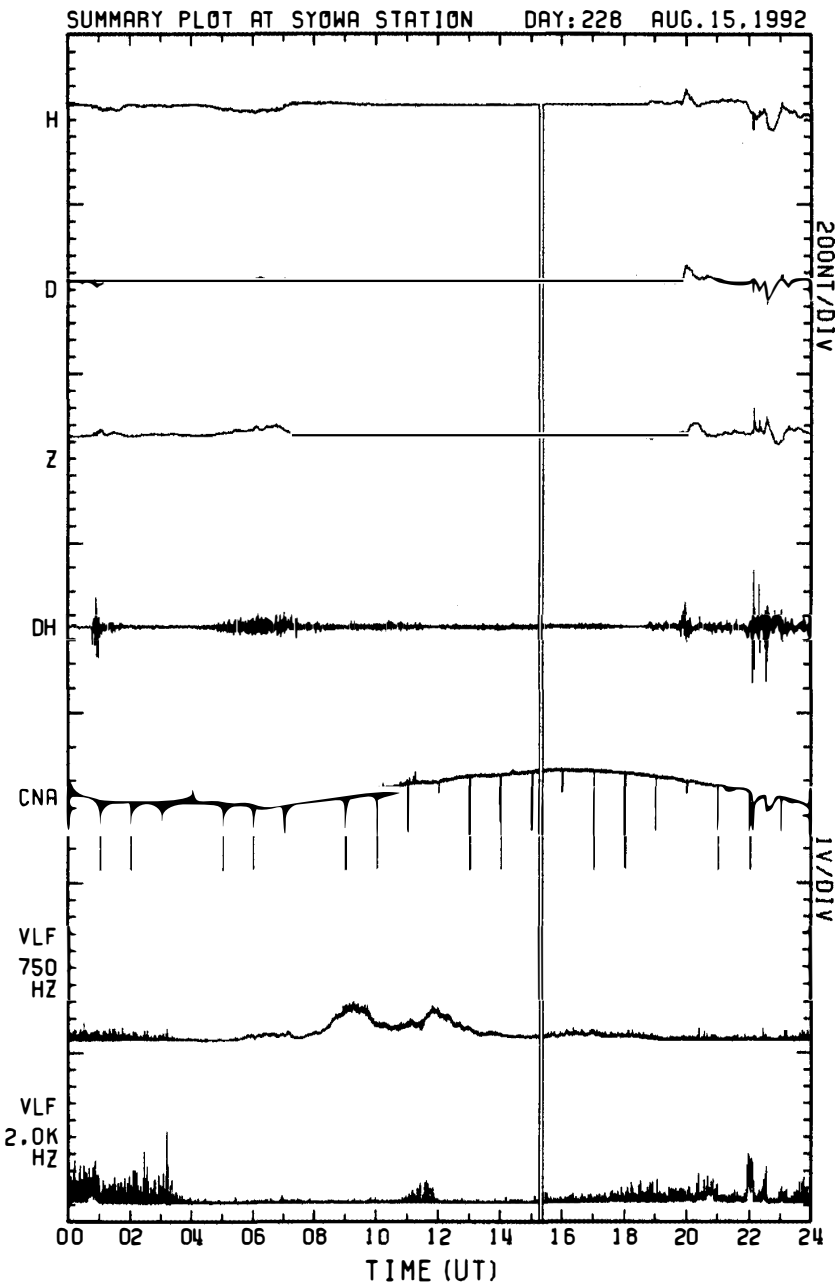

SUMMARY PLOT AT SYOWA STATION
DAY:223 AUG.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

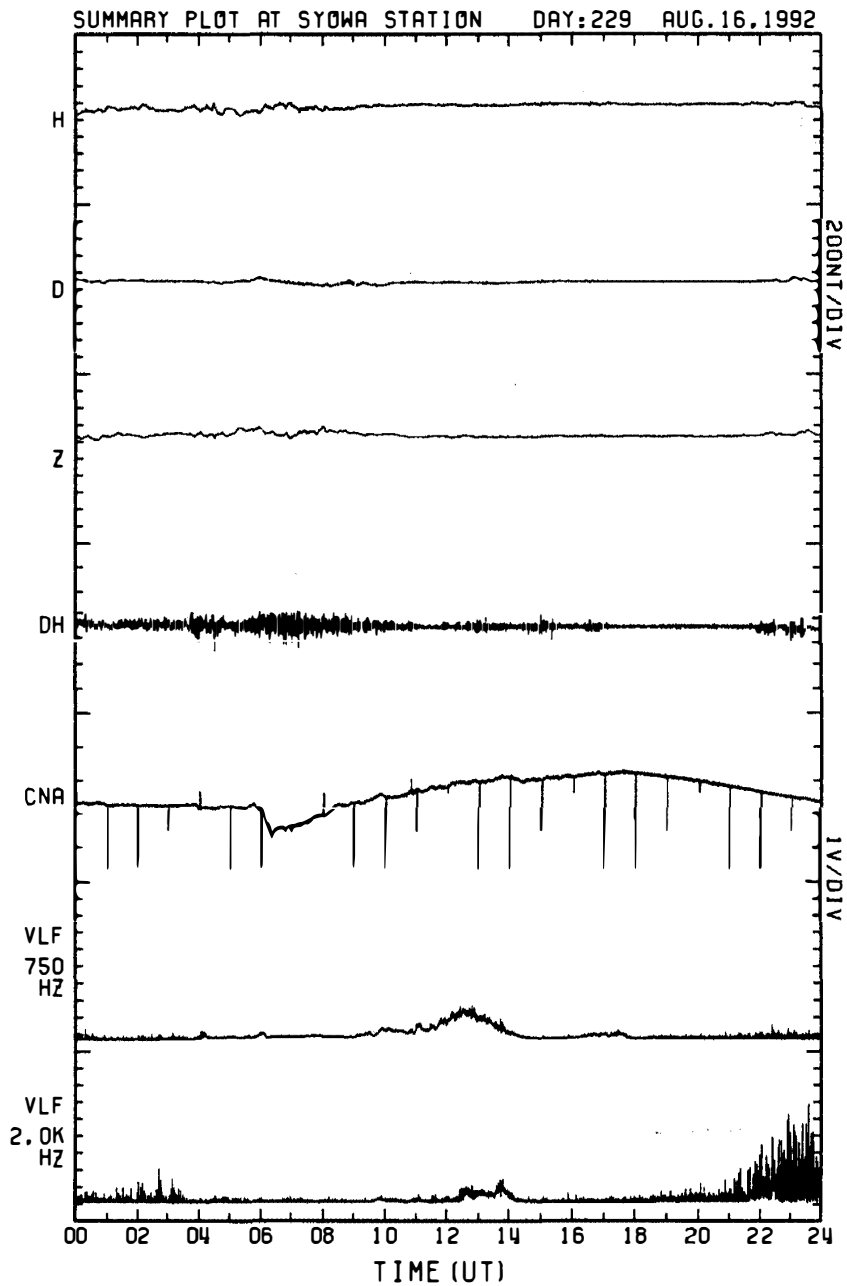

SUMMARY PLOT AT SYOWA STATION DAY:224 AUG.11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

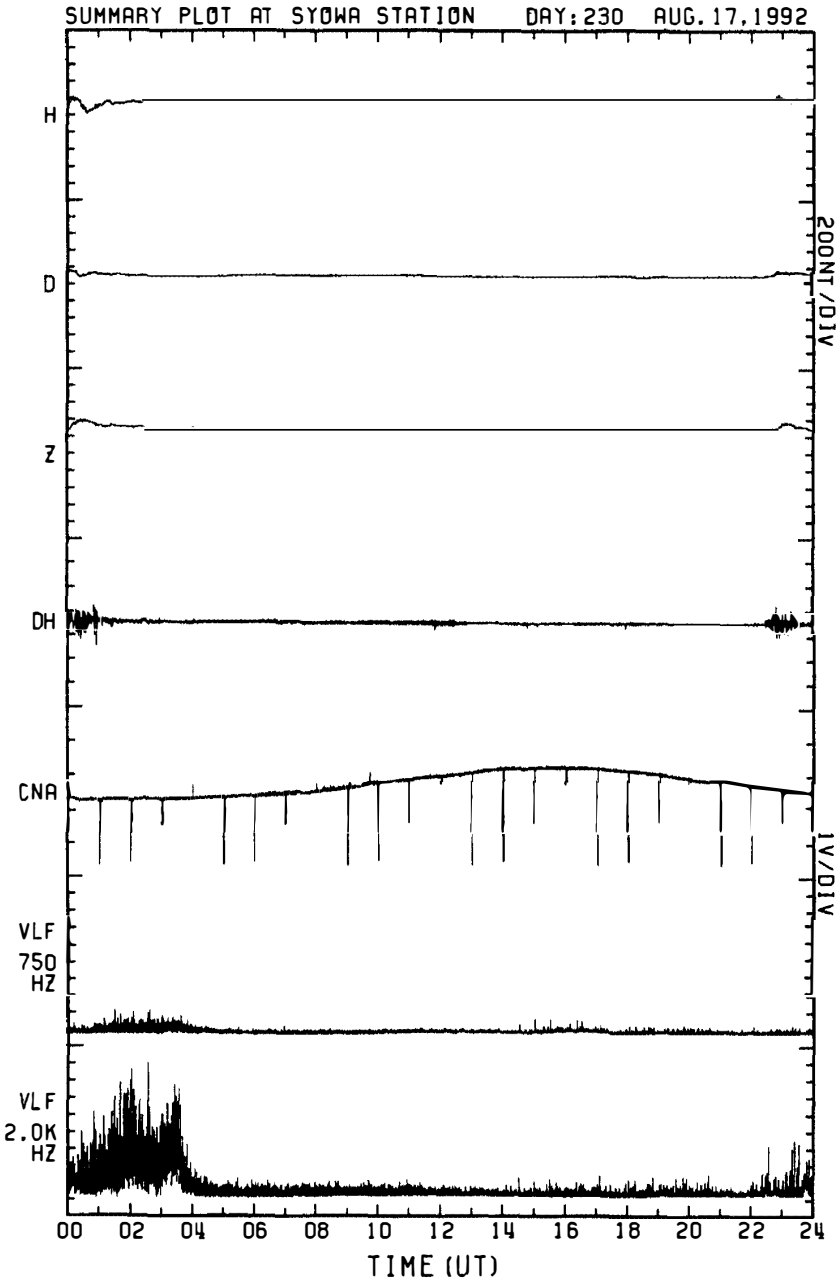

SUMMARY PLOT AT SYOWA STATION DAY:225 AUG.12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

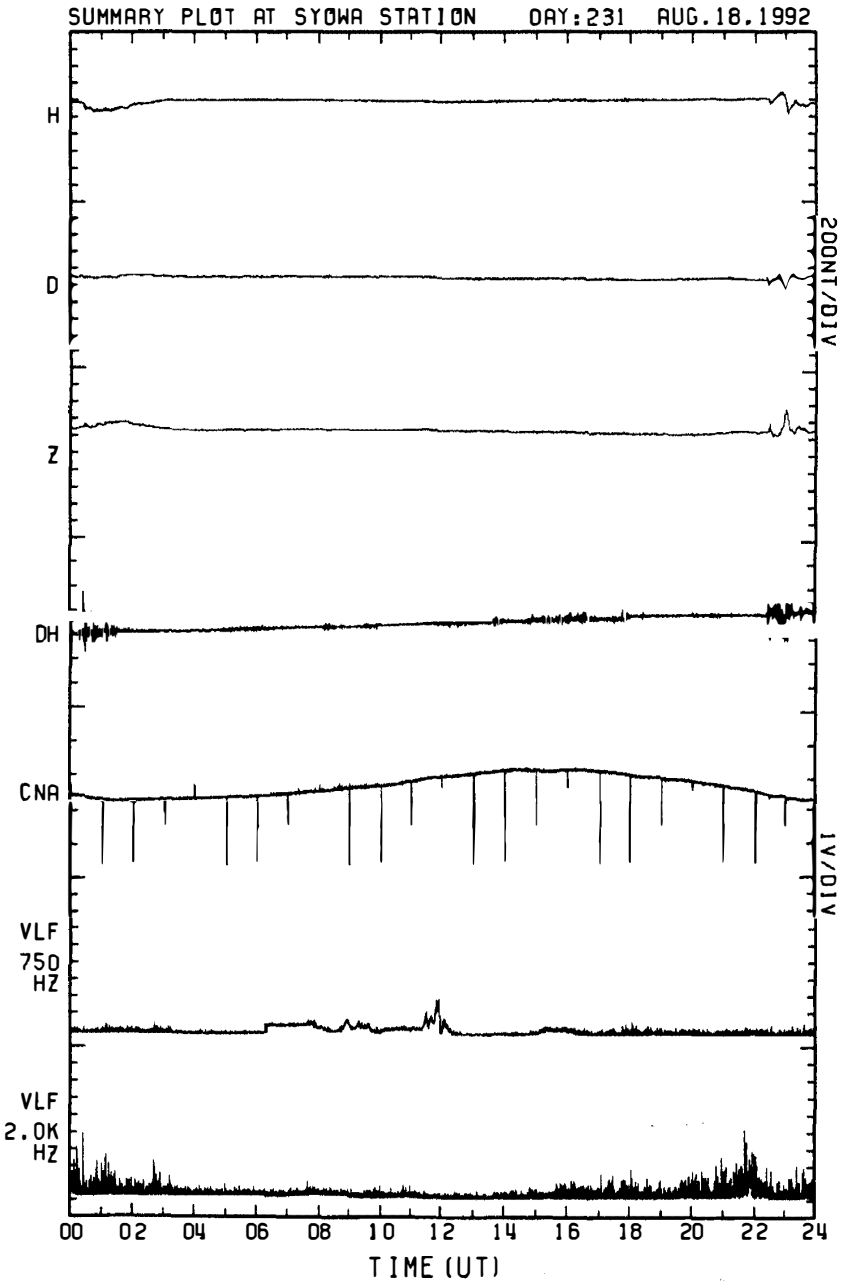

SUMMARY PLOT AT SYOWA STATION DAY:226 AUG.13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

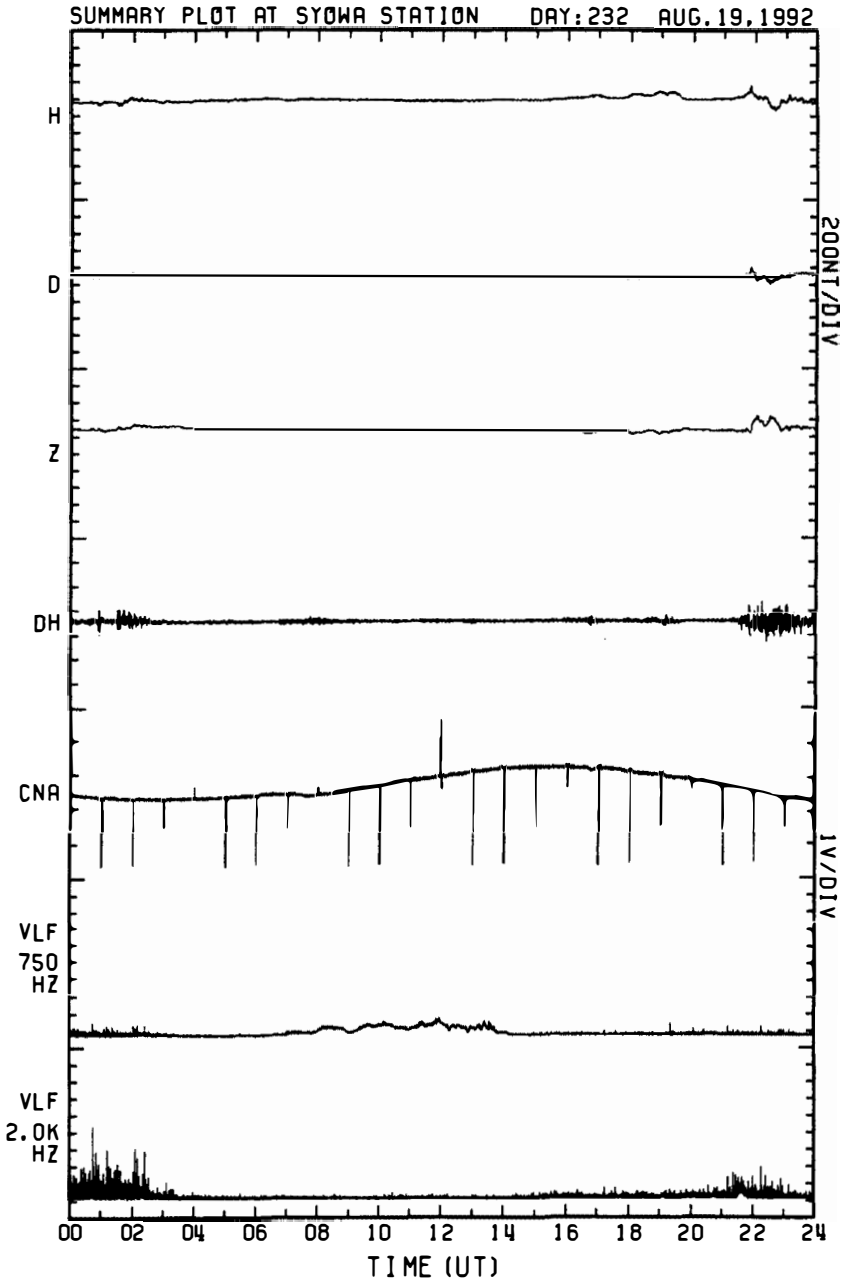

SUMMARY PLOT AT SYOWA STATION DAY:227 AUG.14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

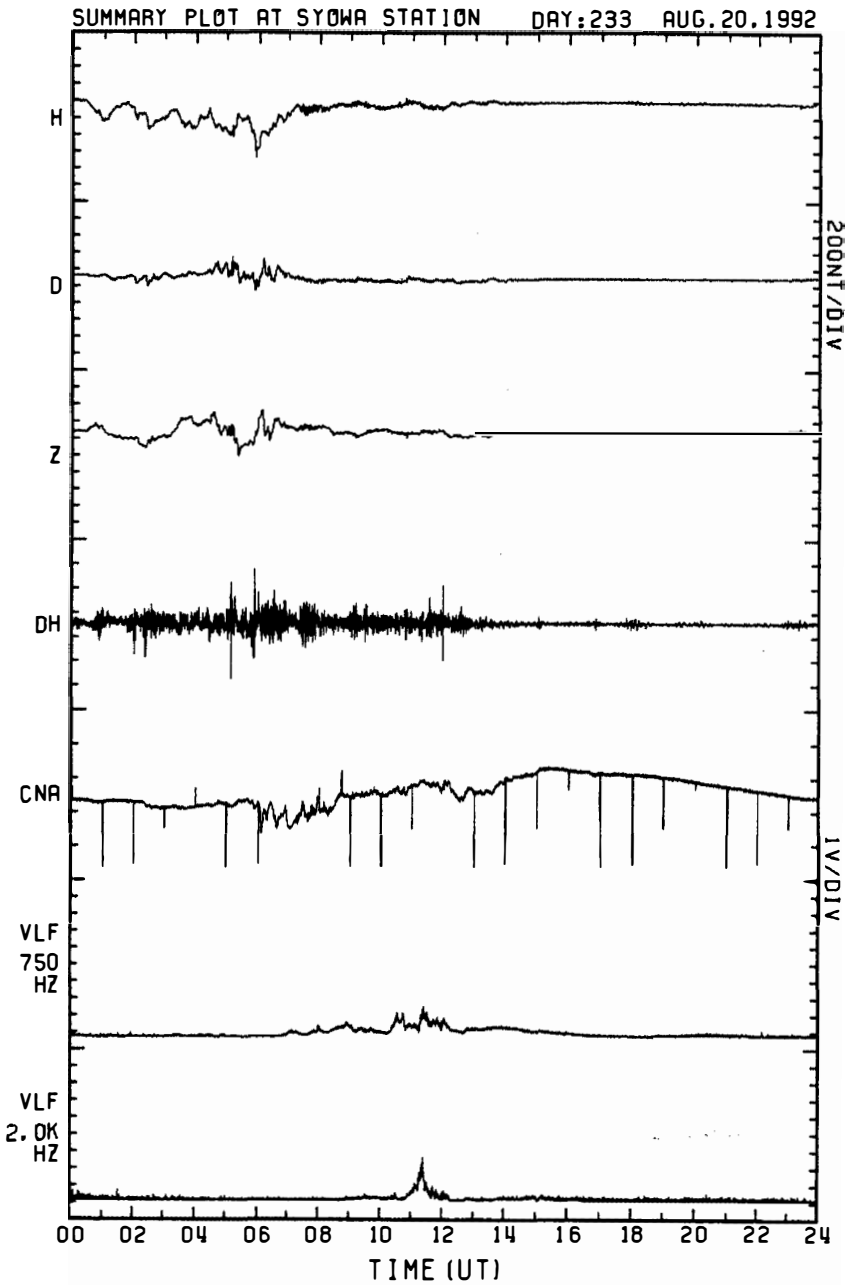

SUMMARY PLOT AT SYOWA STATION DAY:228 AUG.15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

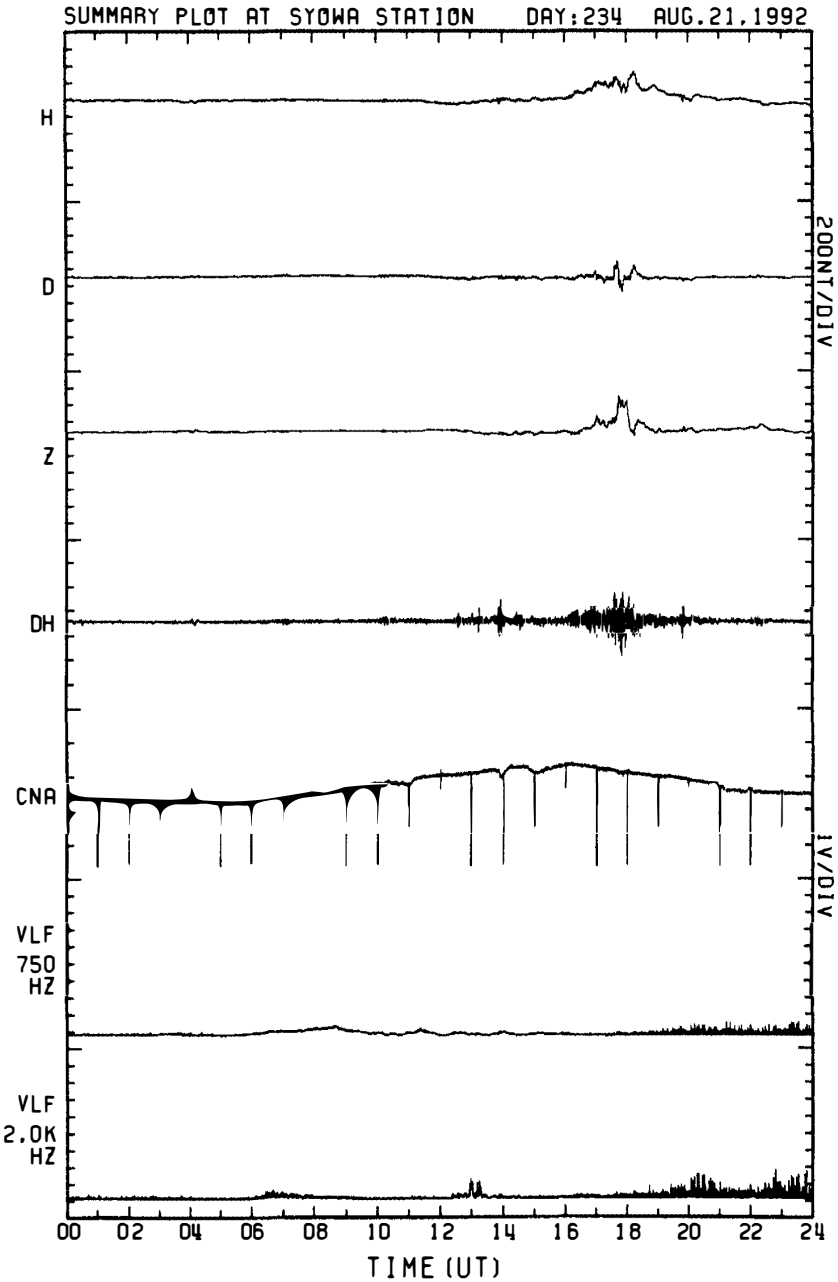

SUMMARY PLOT AT SYOWA STATION DAY:229 AUG.16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

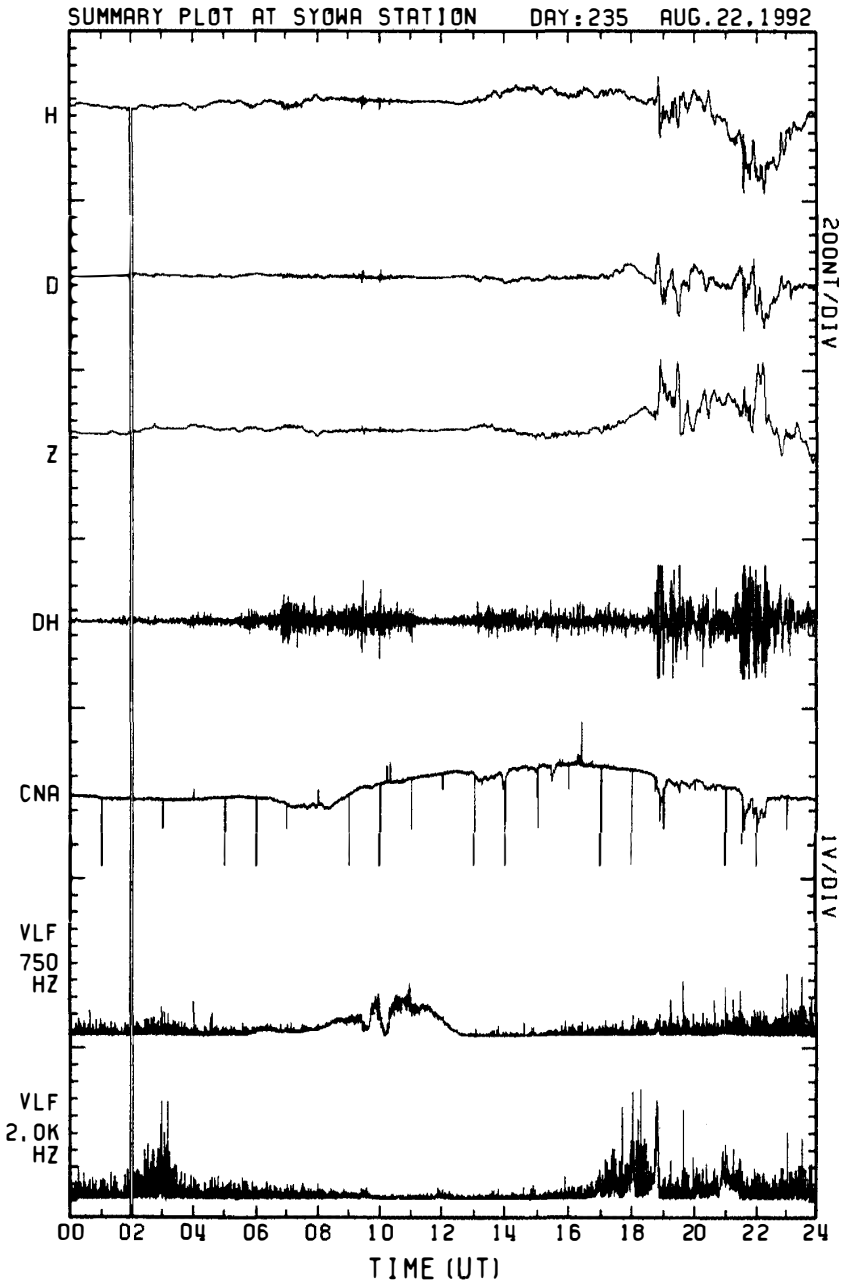

SUMMARY PLOT AT SYOWA STATION DAY:230 AUG.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

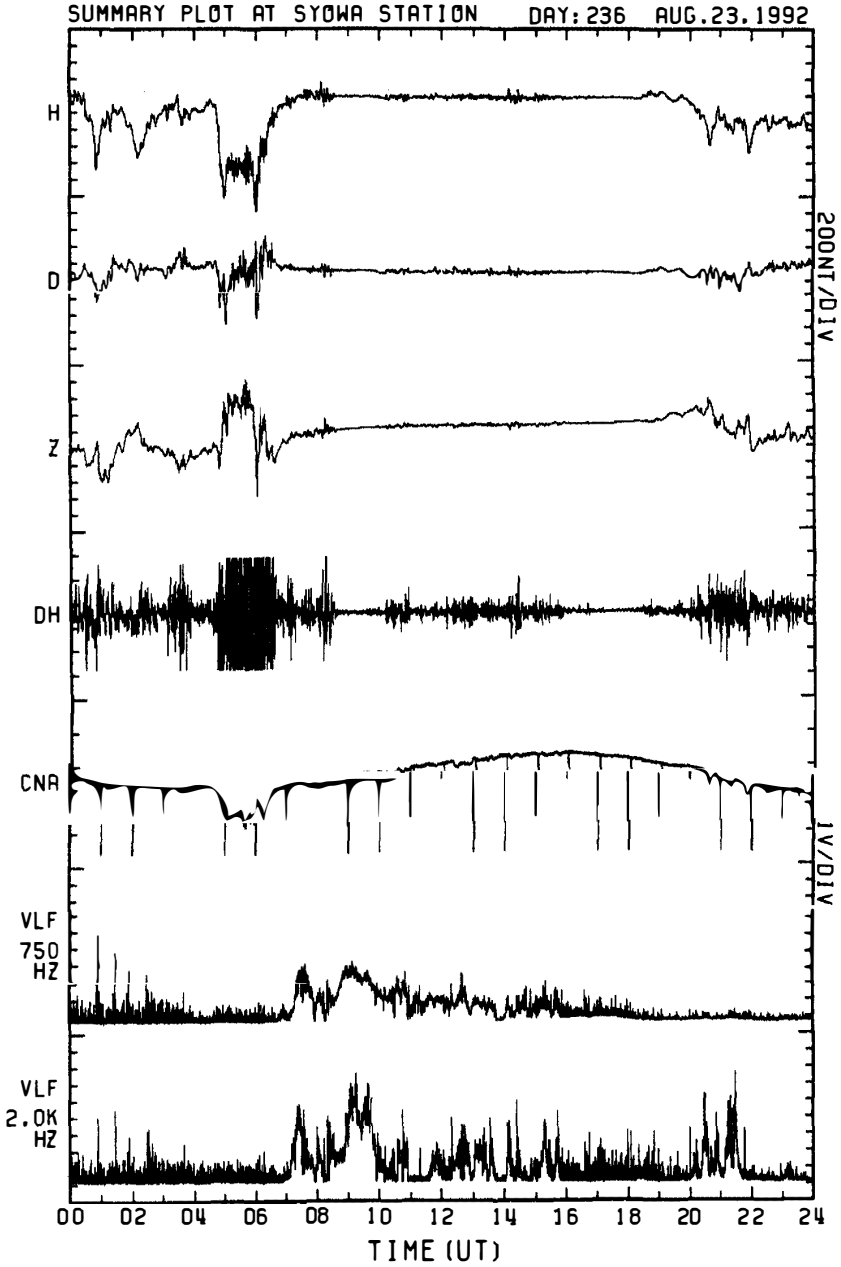

SUMMARY PLOT AT SYOWA STATION DAY:231 AUG.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

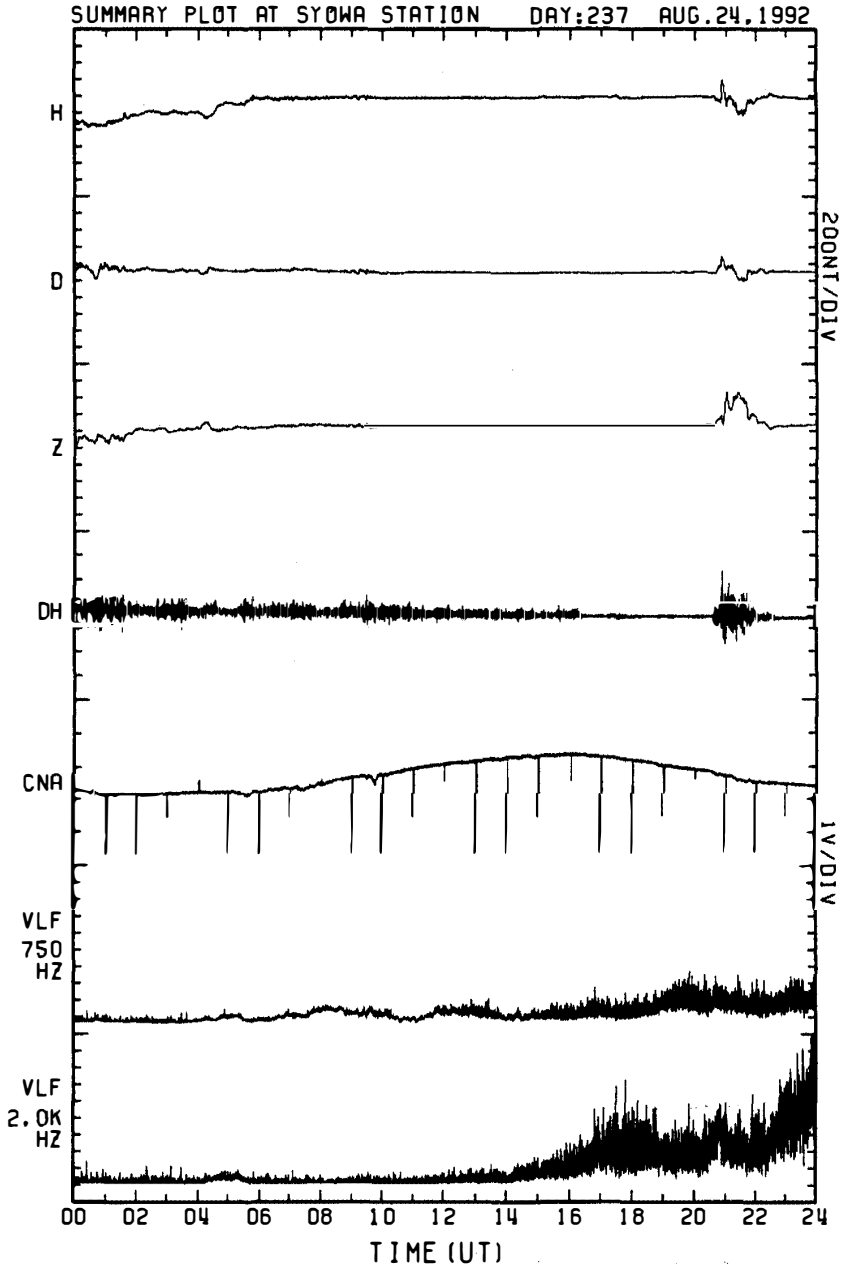

SUMMARY PLOT AT SYOWA STATION DAY:232 AUG.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

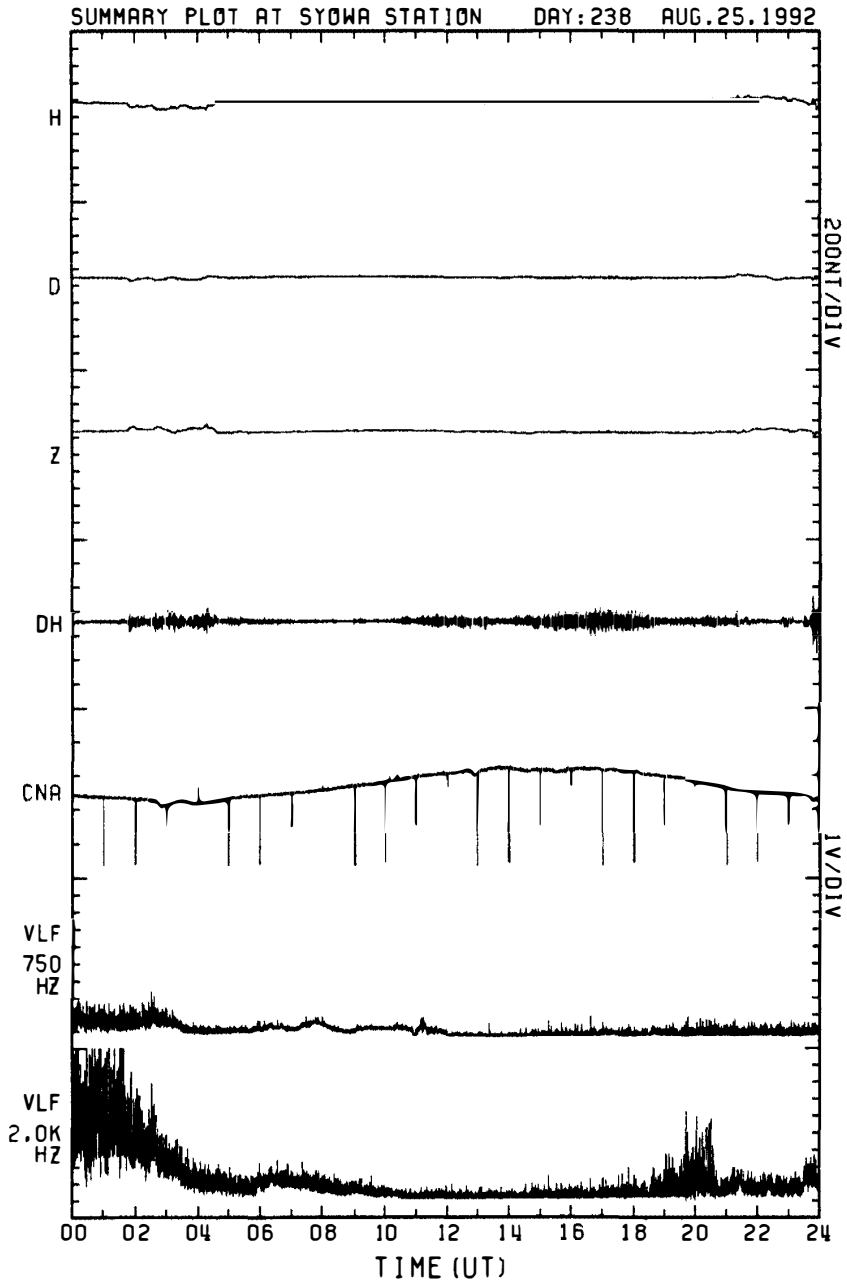

SUMMARY PLOT AT SYOWA STATION DAY:233 AUG.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

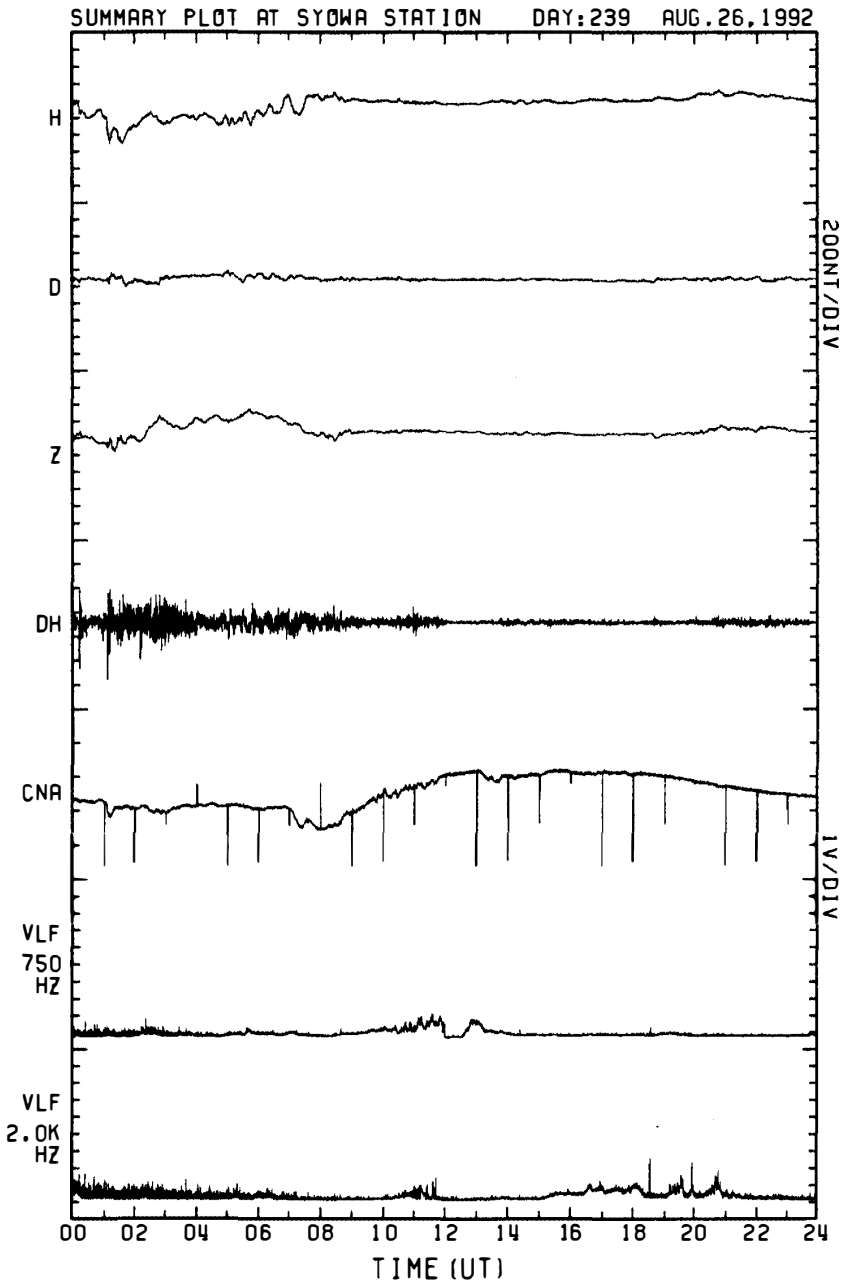

SUMMARY PLOT AT SYOWA STATION DAY:234 AUG.21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

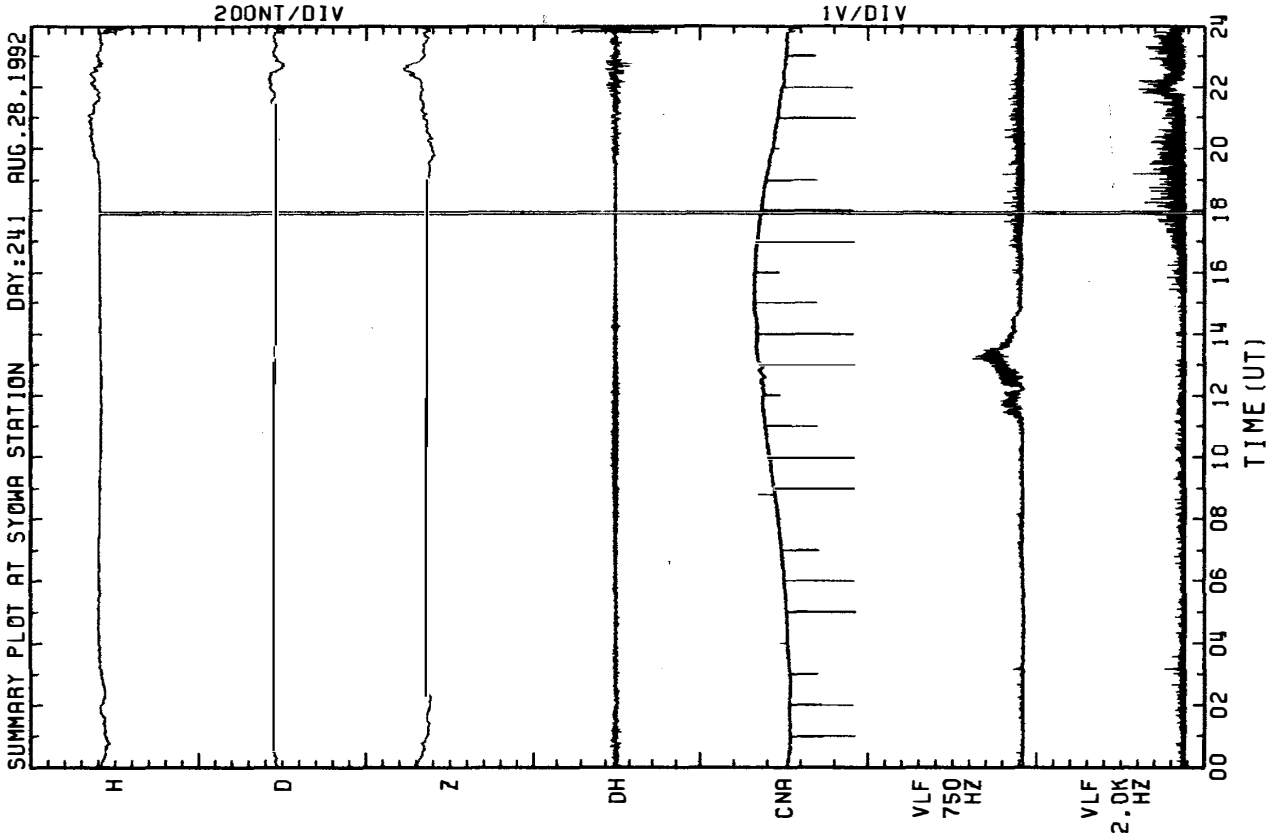

SUMMARY PLOT AT SYOWA STATION DAY:235 AUG.22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

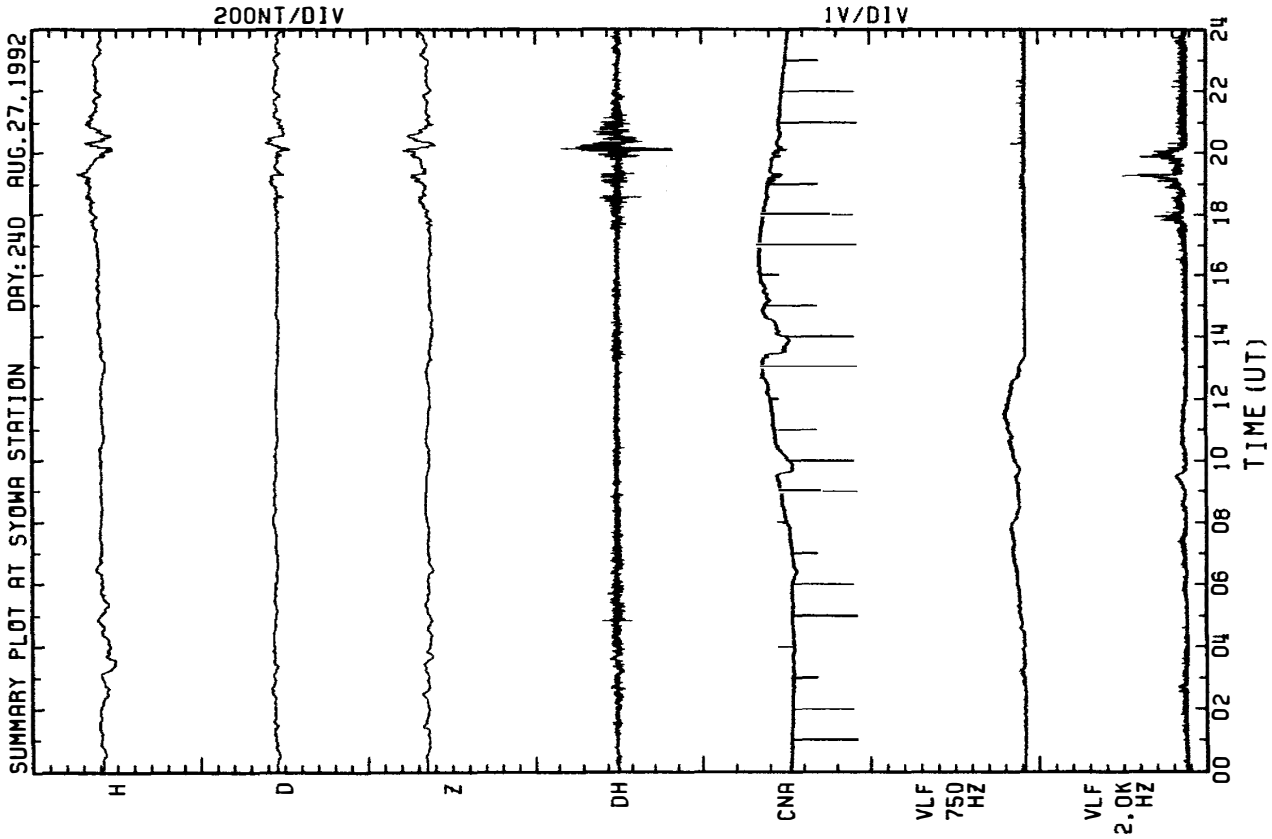

SUMMARY PLOT AT SYOWA STATION DAY:236 AUG.23.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

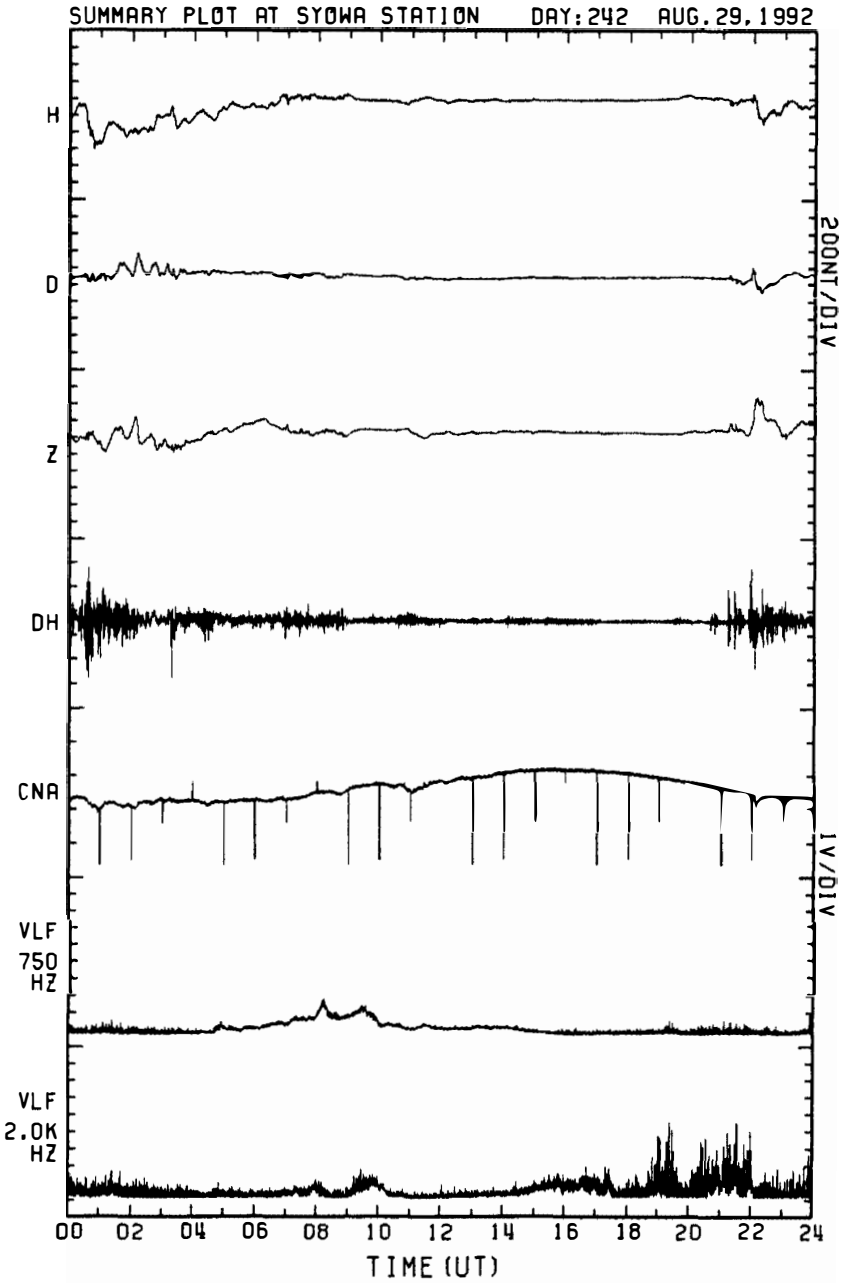

SUMMARY PLOT AT SYOWA STATION DAY:237 AUG.24.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

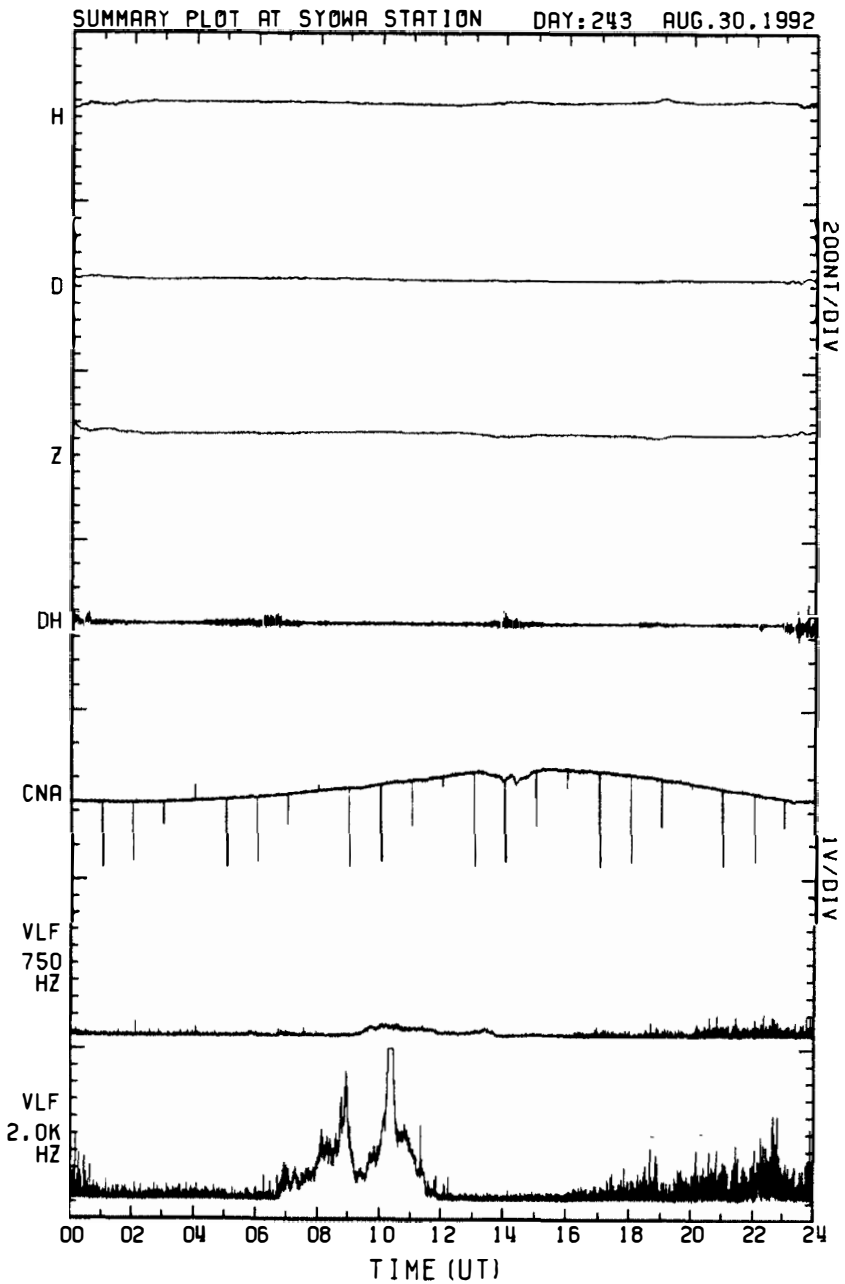

SUMMARY PLOT AT SYOWA STATION DAY:238 AUG.25.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

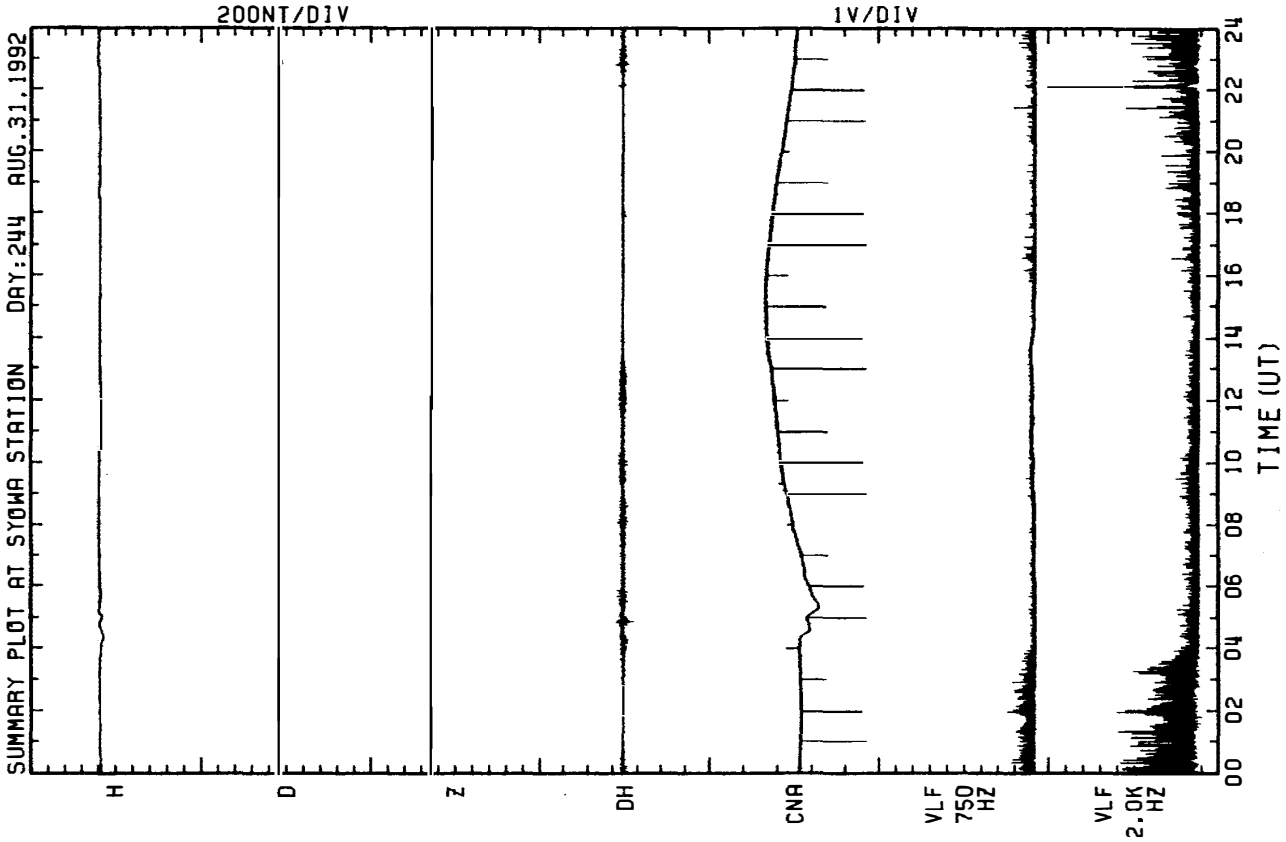

SUMMARY PLOT AT SYOWA STATION DAY:239 AUG.26.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

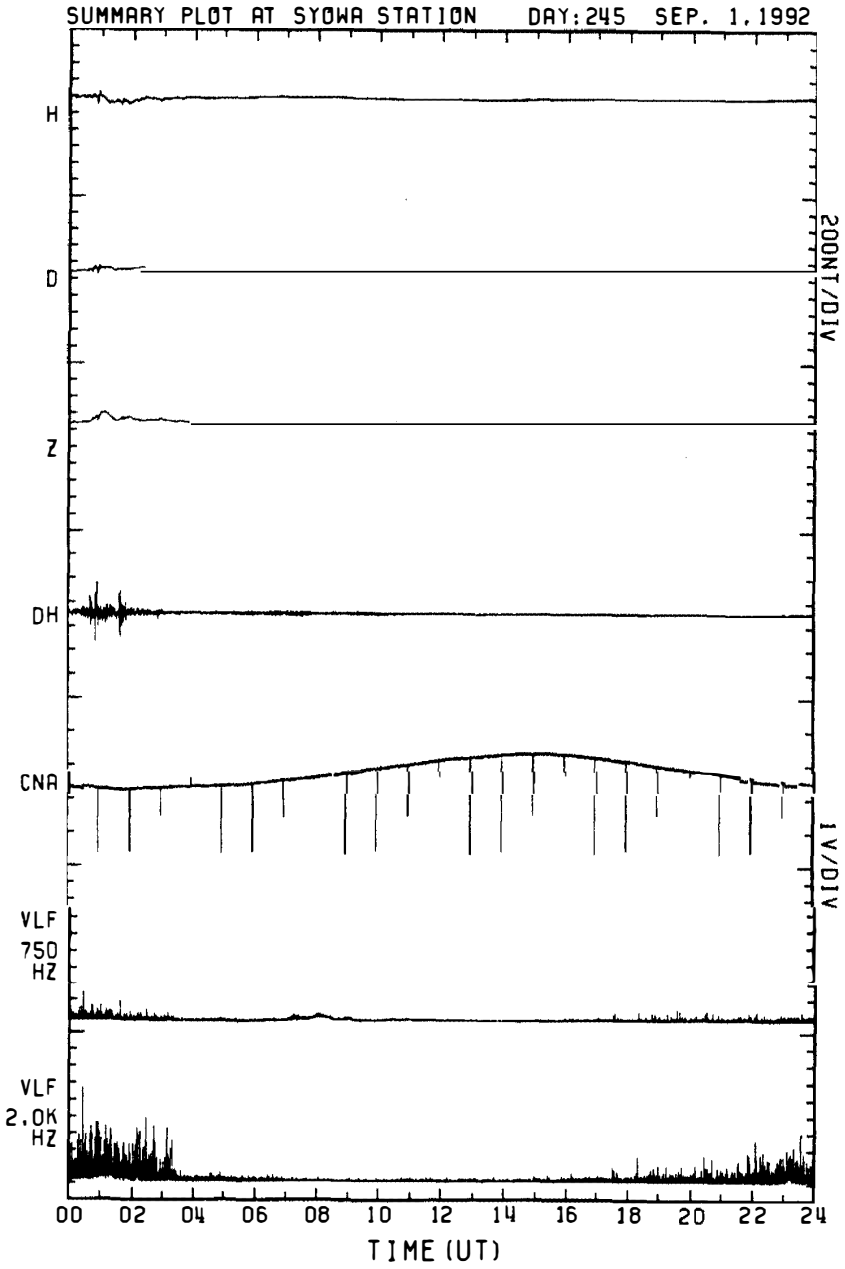

SUMMARY PLOT AT SYOWA STATION DAY:241 AUG.28,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

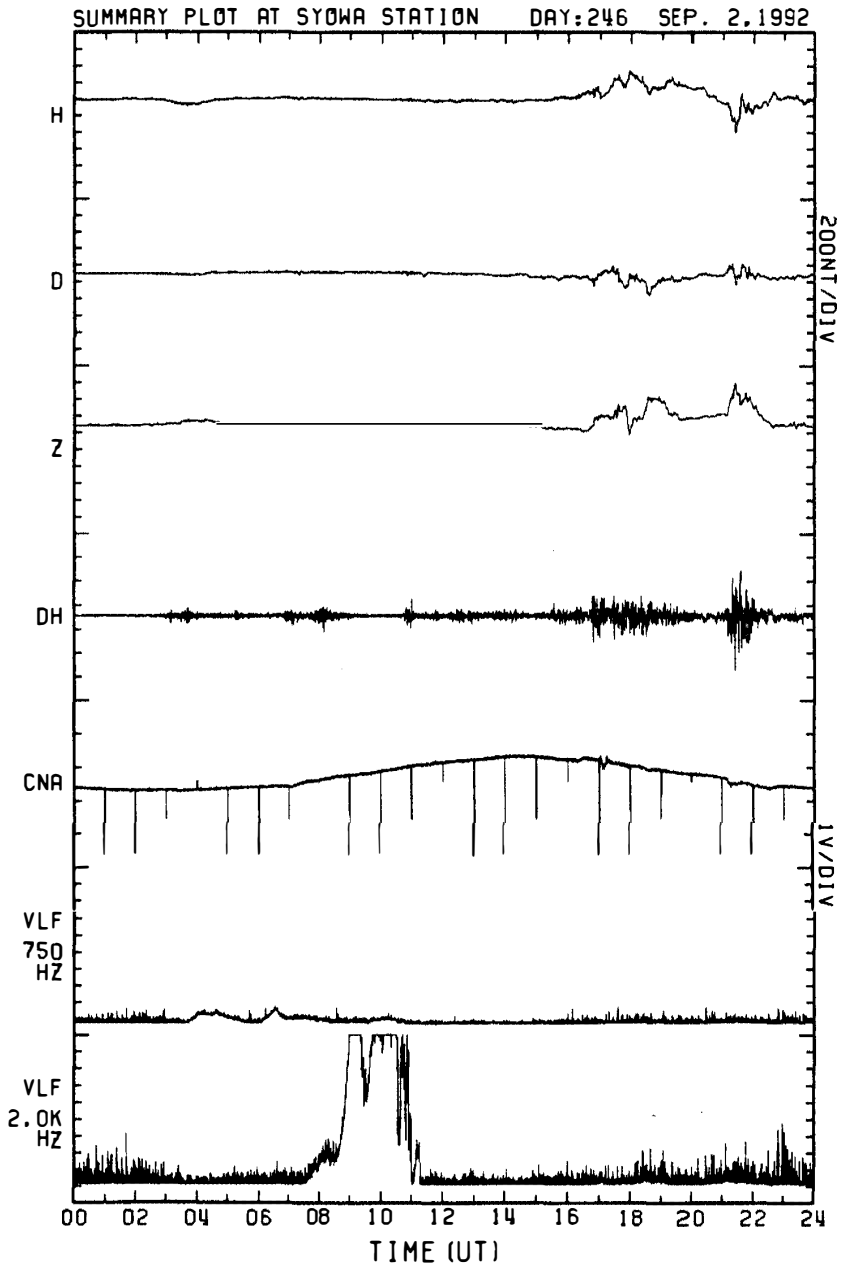

SUMMARY PLOT AT SYOWA STATION DAY:240 AUG.27,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

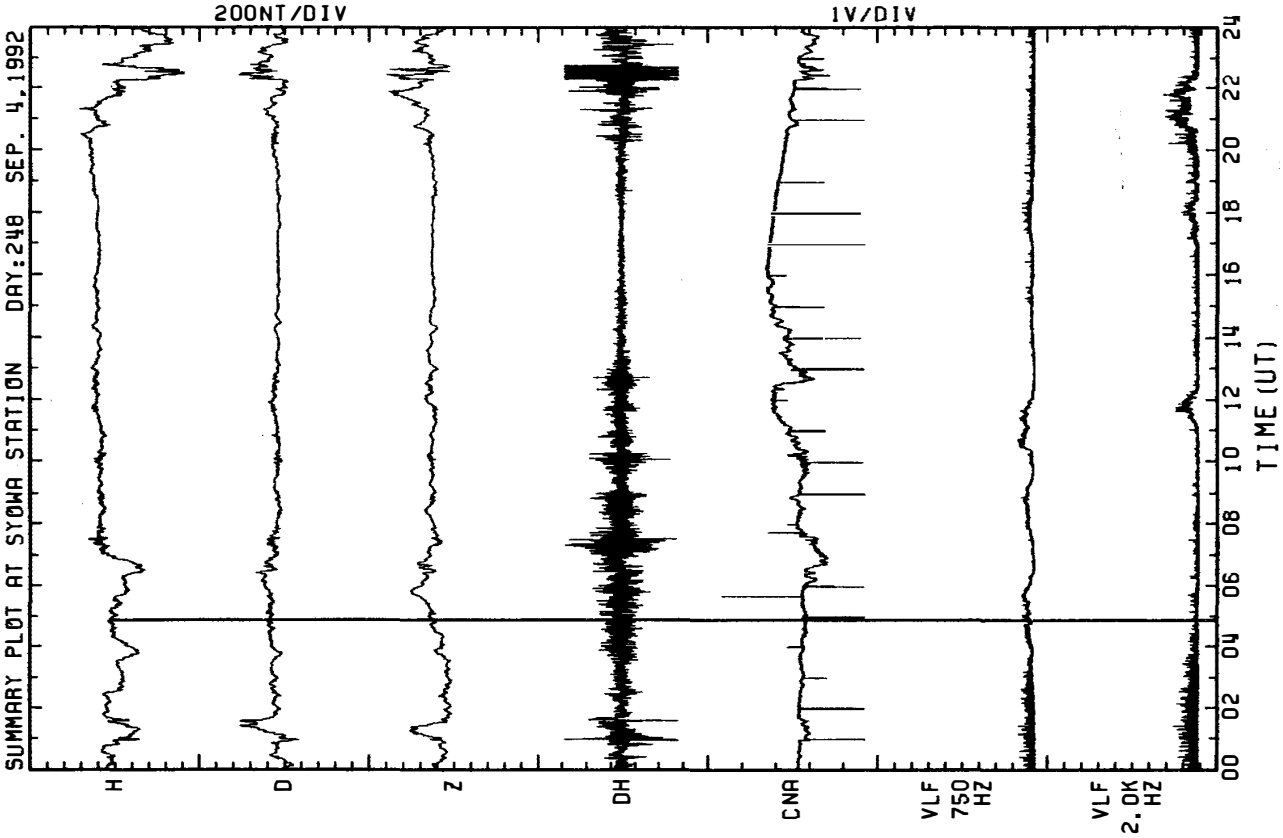

SUMMARY PLOT AT SYOWA STATION DAY:242 AUG.29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

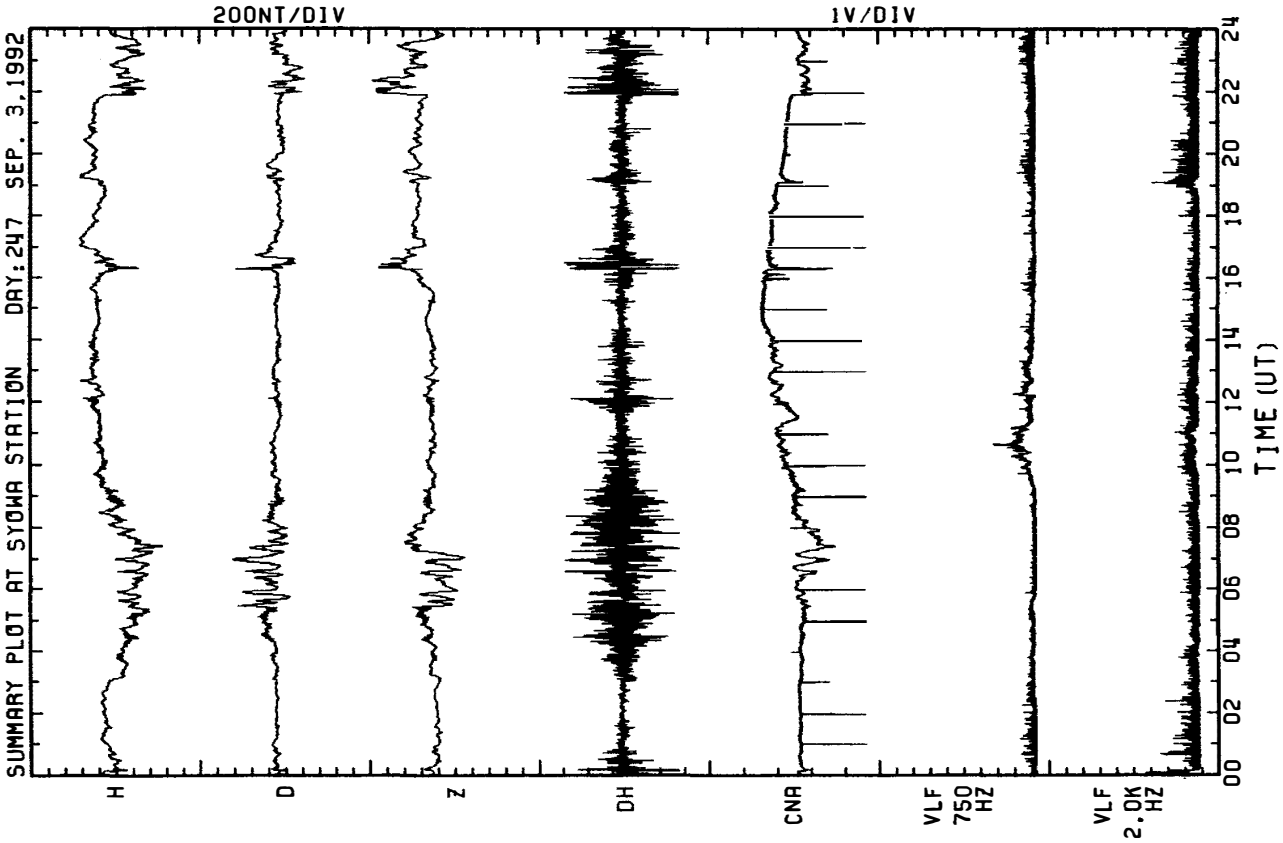

SUMMARY PLOT AT SYOWA STATION DAY:243 AUG.30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

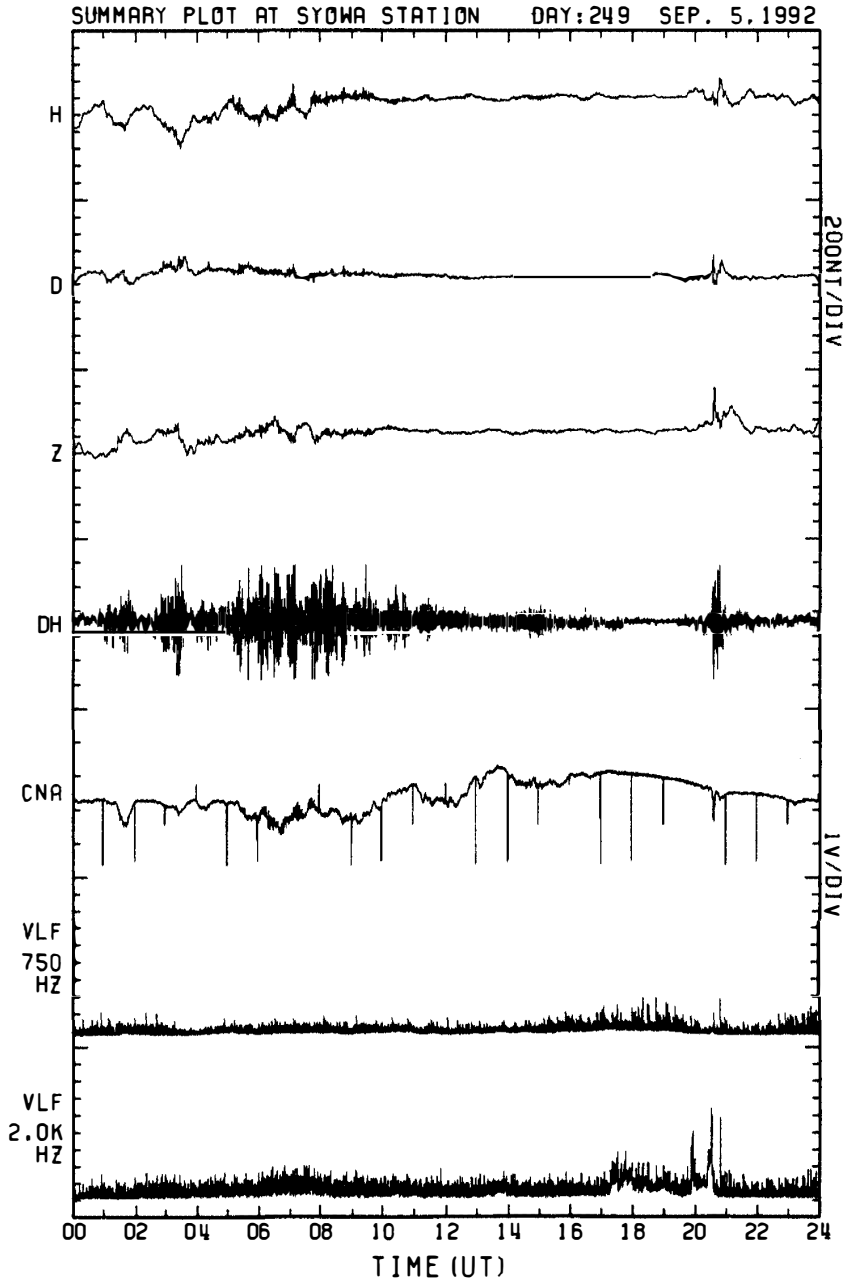

SUMMARY PLOT AT SYOWA STATION DAY:244 AUG.31,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

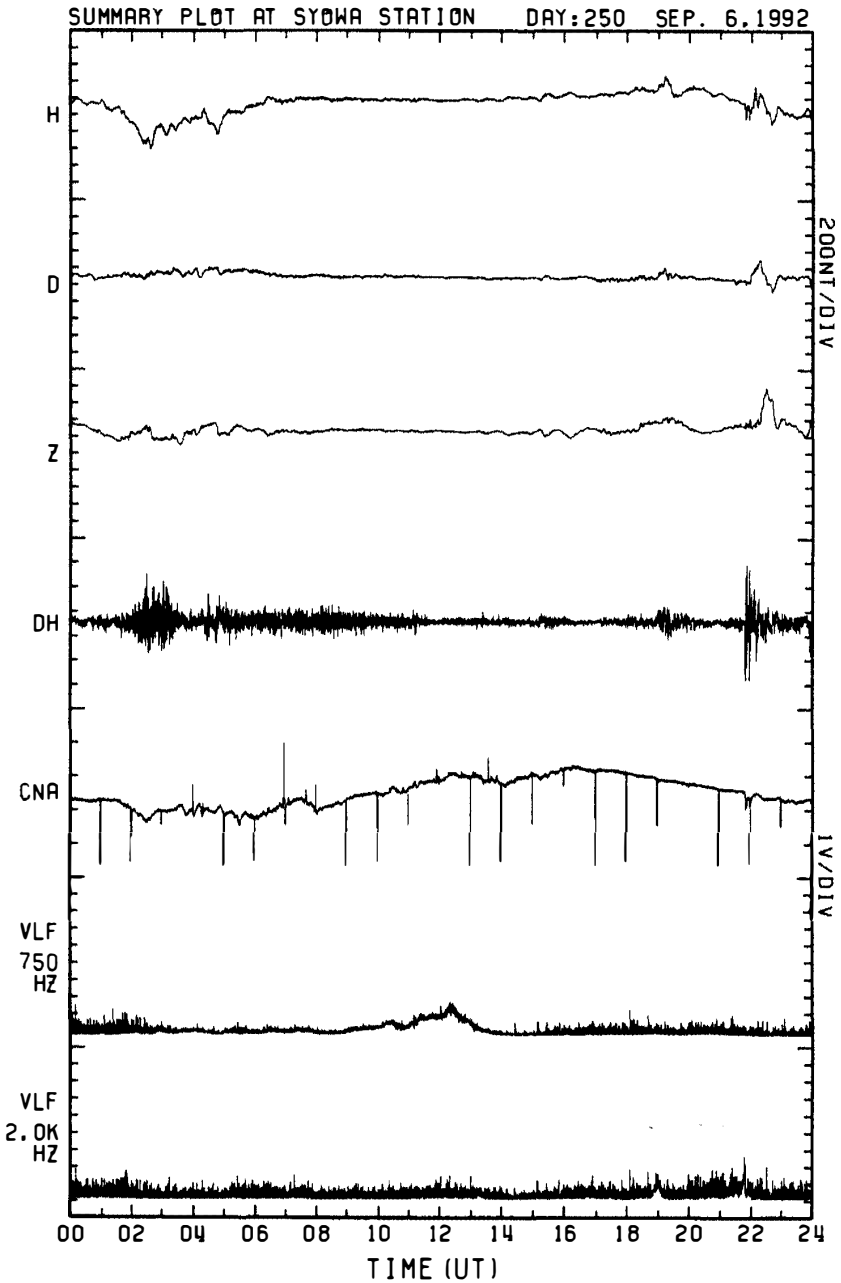

SUMMARY PLOT AT SYOWA STATION DAY:245 SEP. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

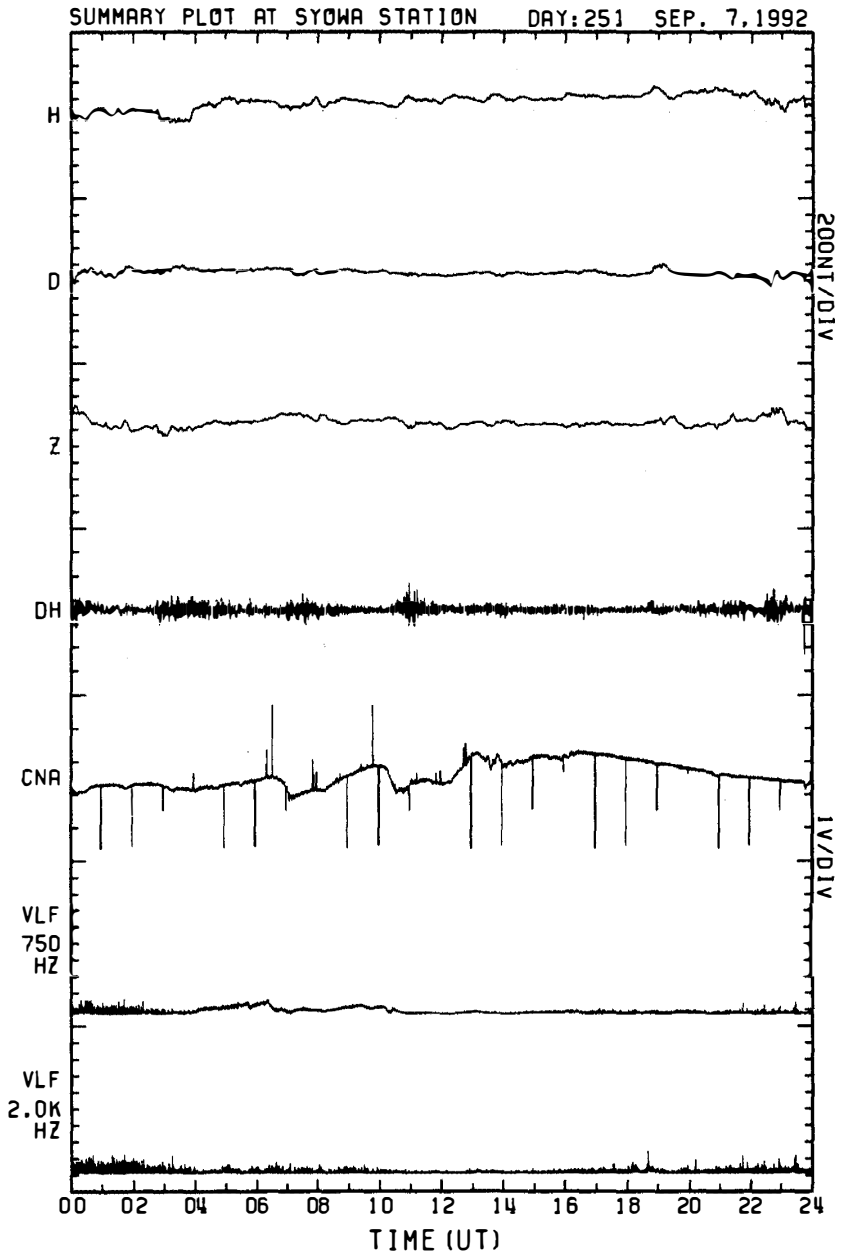

SUMMARY PLOT AT SYOWA STATION DAY:246 SEP. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

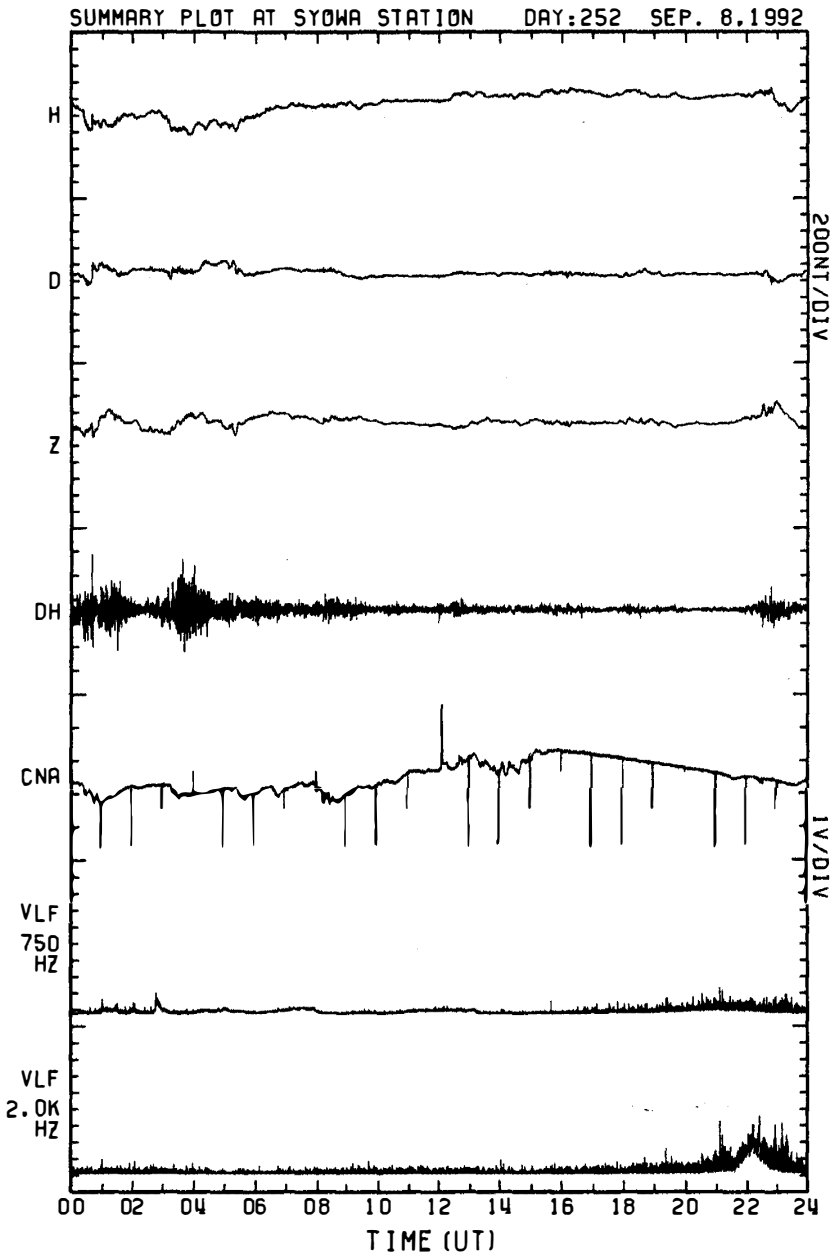

SUMMARY PLOT AT SYOWA STATION DAY:248 SEP. 4,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

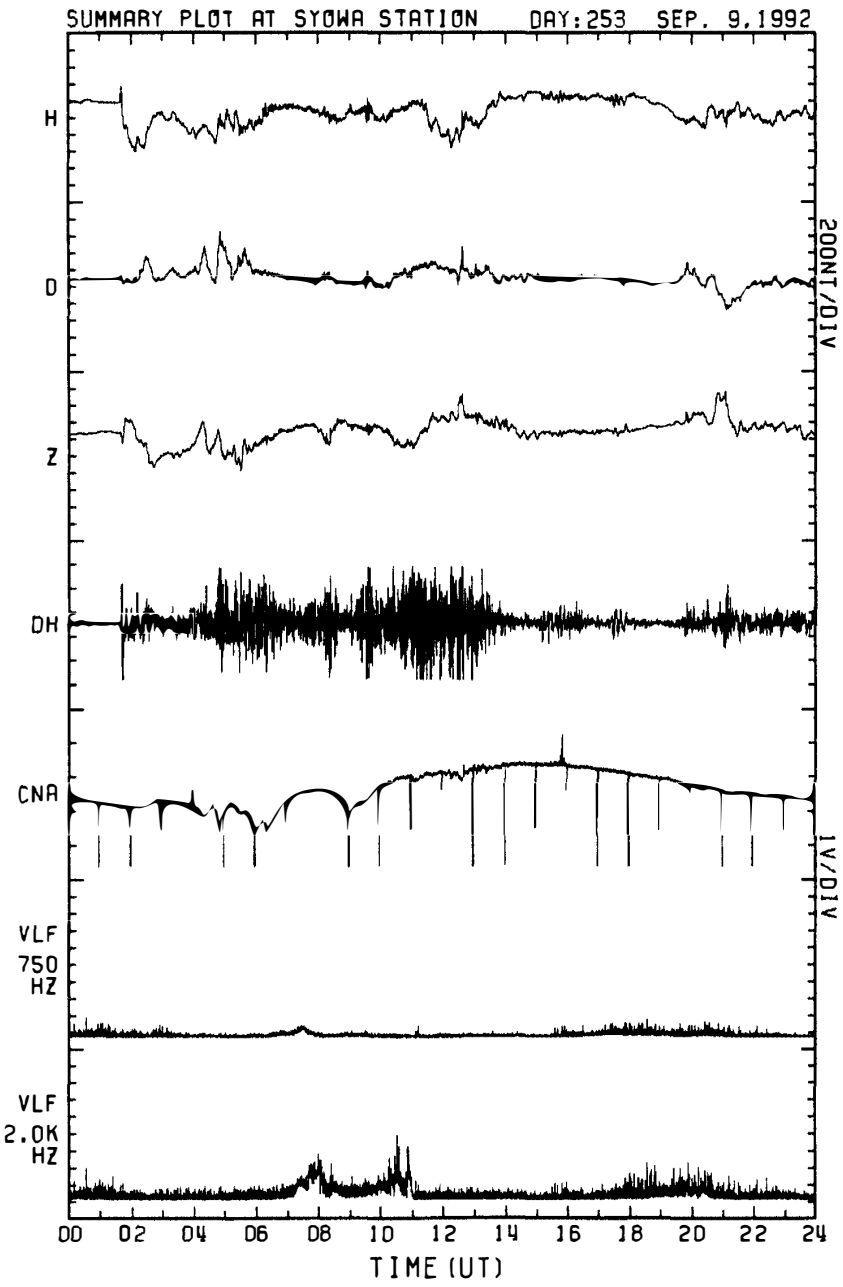

SUMMARY PLOT AT SYOWA STATION DAY:247 SEP. 3,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

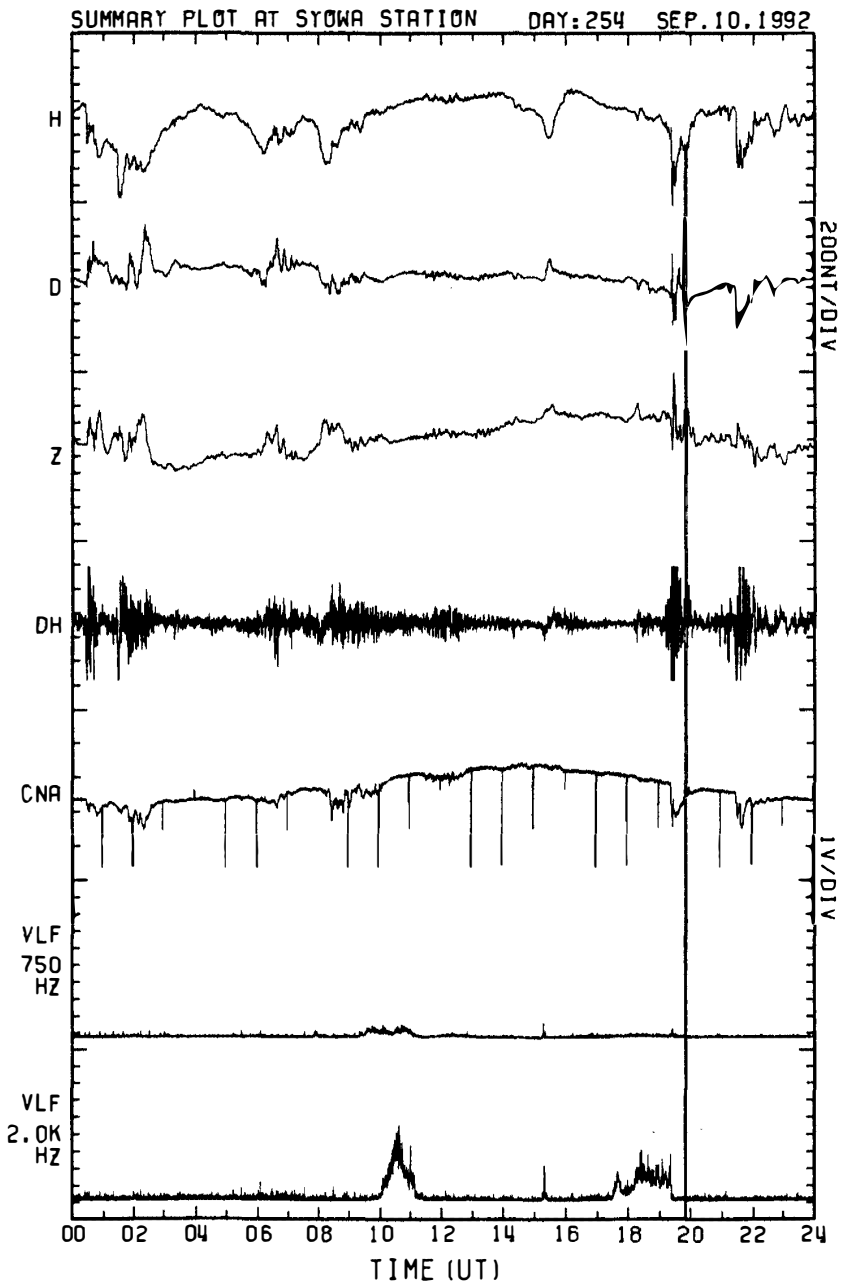

SUMMARY PLOT AT SYOWA STATION DAY:249 SEP. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

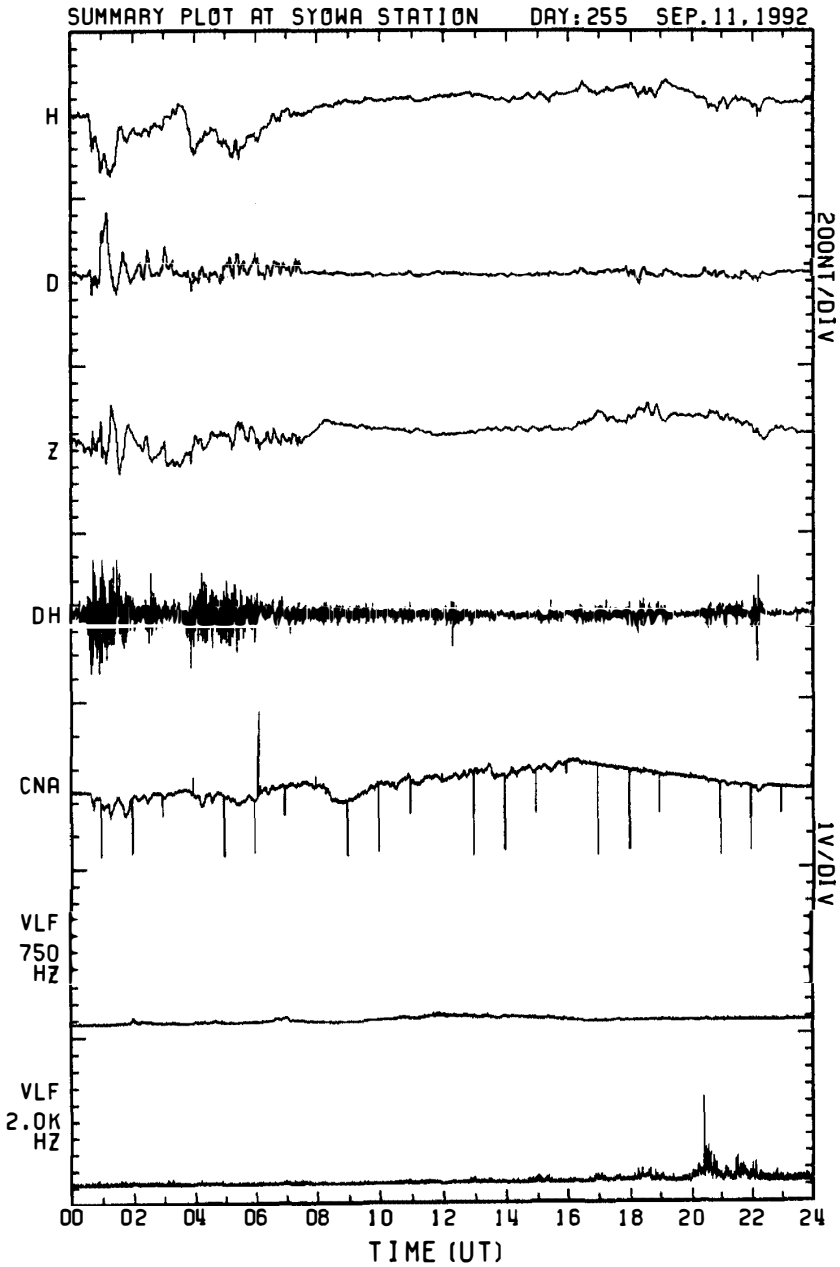

SUMMARY PLOT AT SYOWA STATION DAY:250 SEP. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

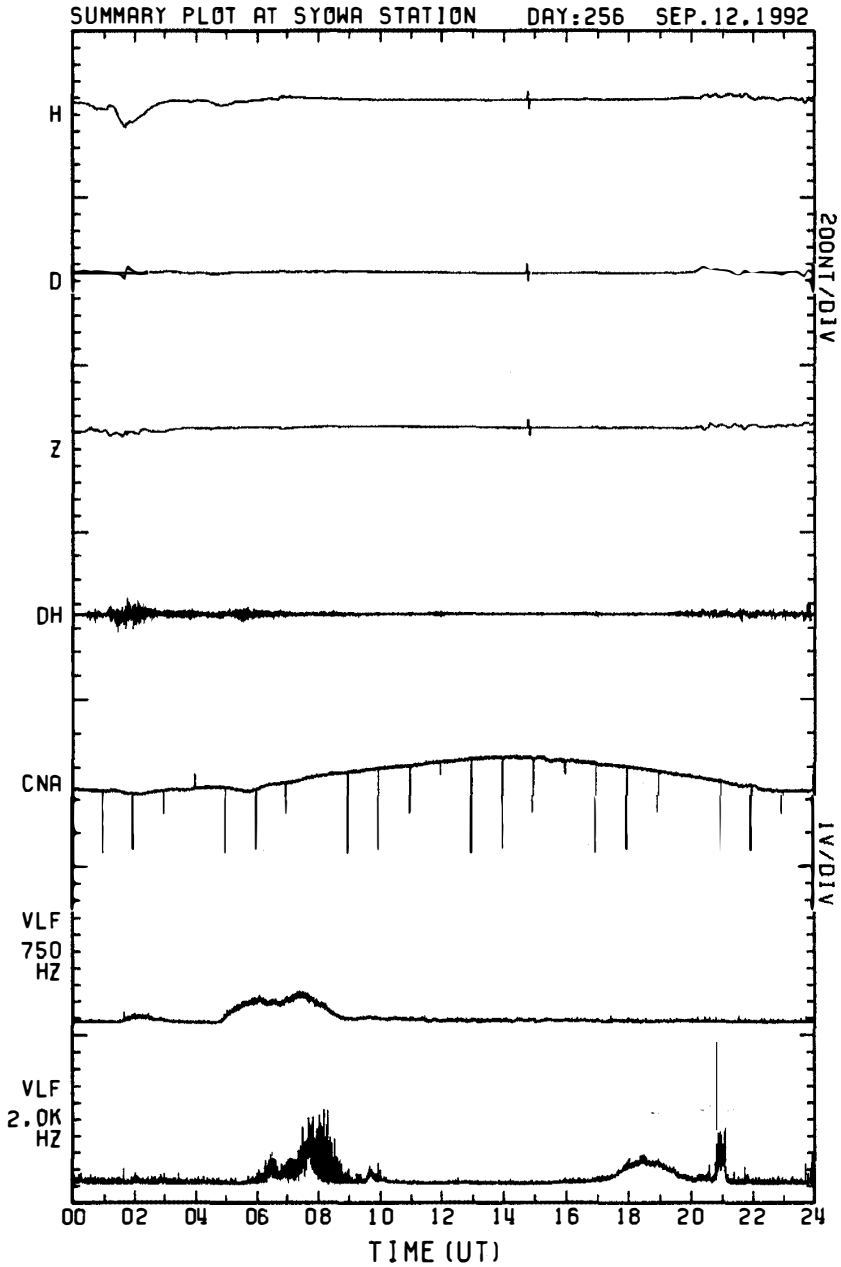

SUMMARY PLOT AT SYOWA STATION DAY:251 SEP. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

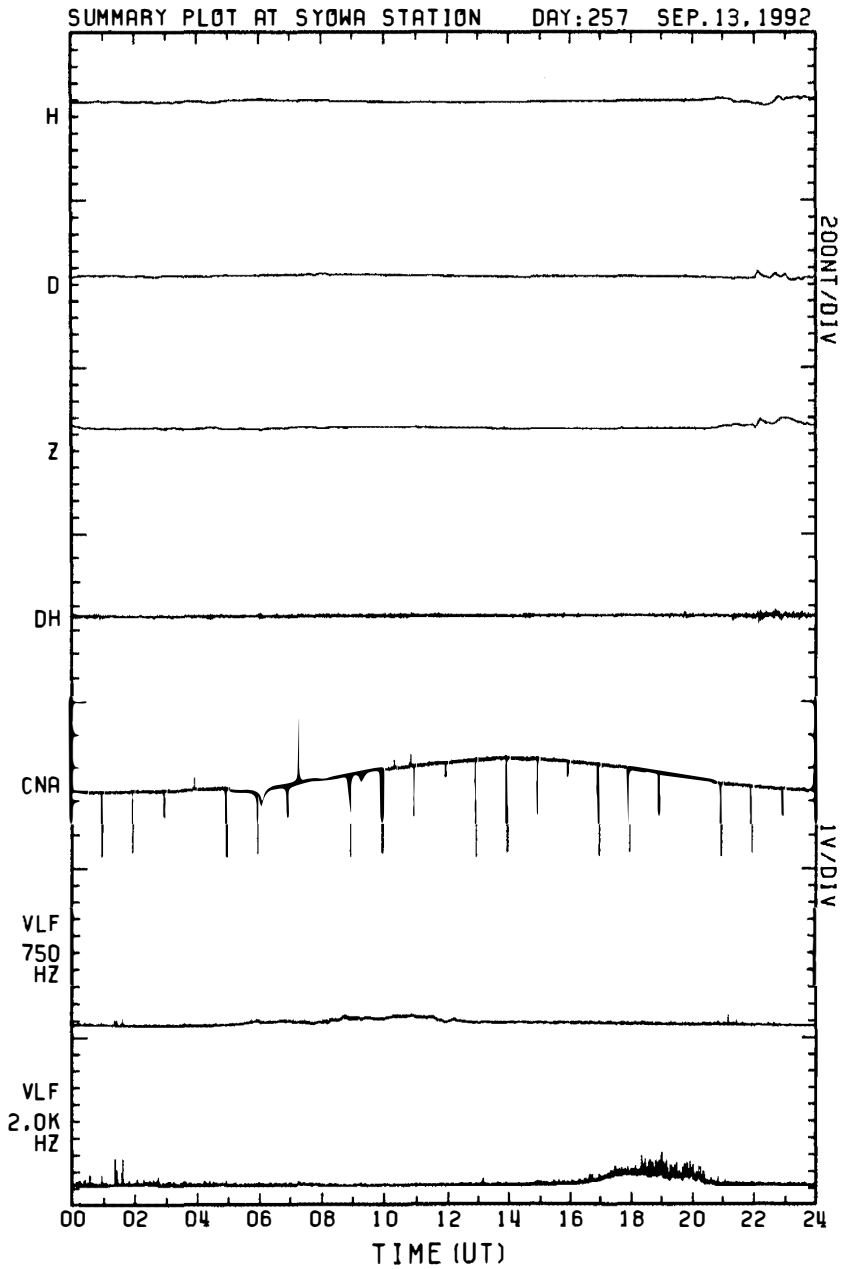

SUMMARY PLOT AT SYOWA STATION DAY:252 SEP. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

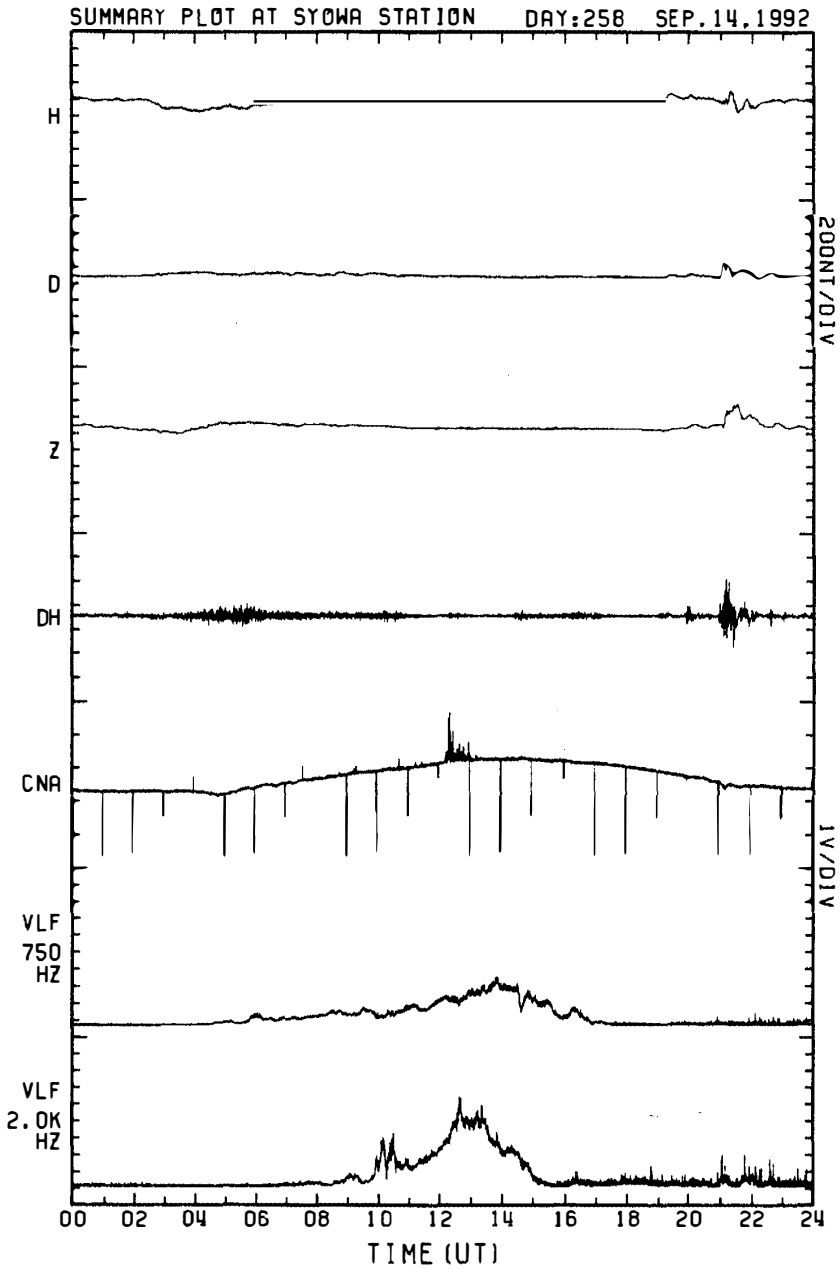

SUMMARY PLOT AT SYOWA STATION DAY:253 SEP. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

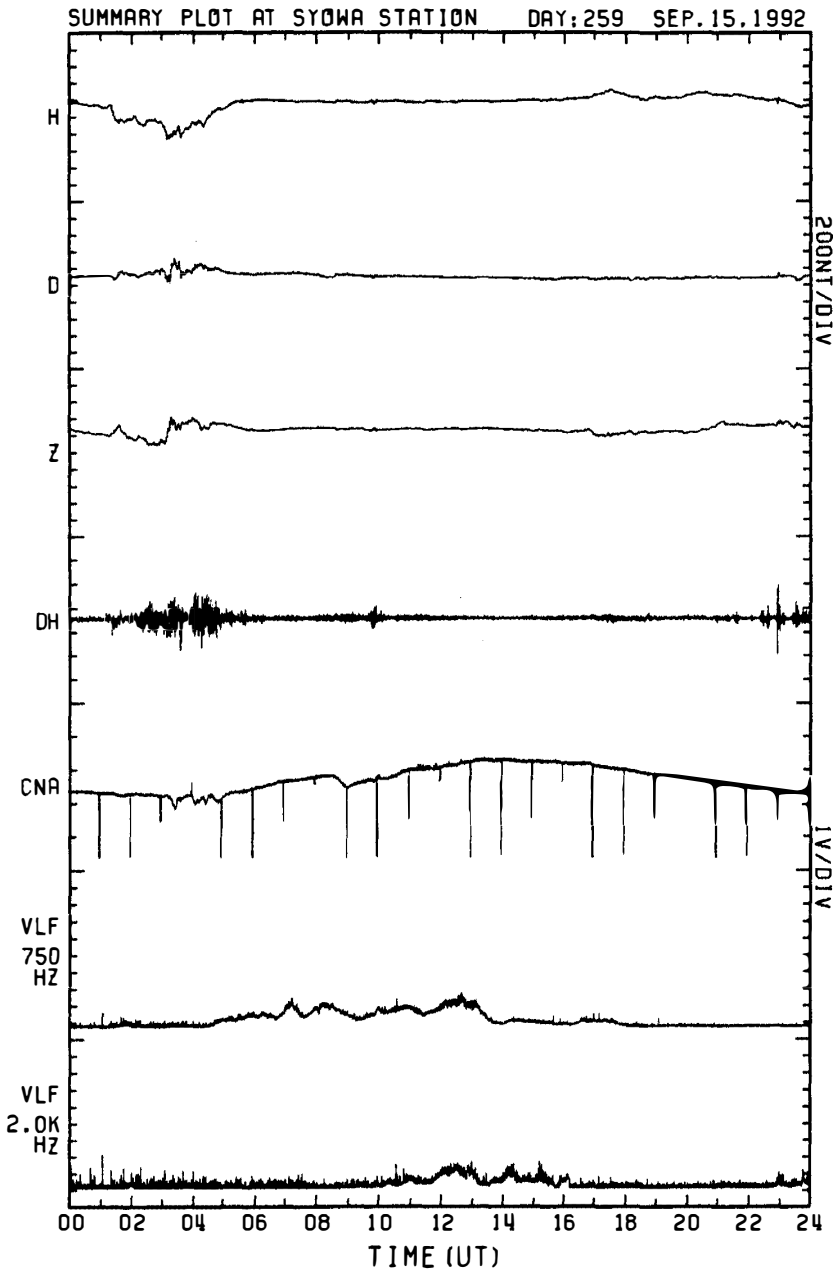

SUMMARY PLOT AT SYOWA STATION DAY:254 SEP.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

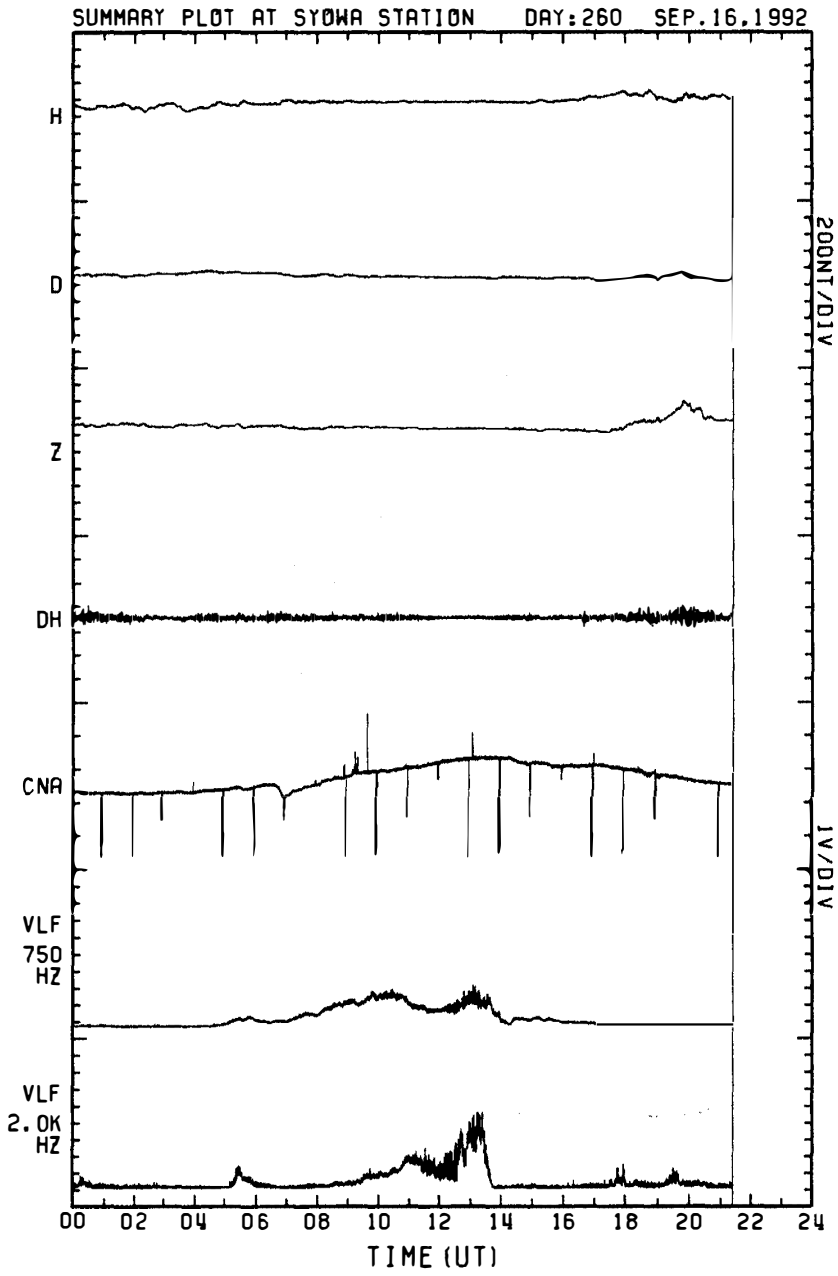

SUMMARY PLOT AT SYOWA STATION DAY:255 SEP.11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

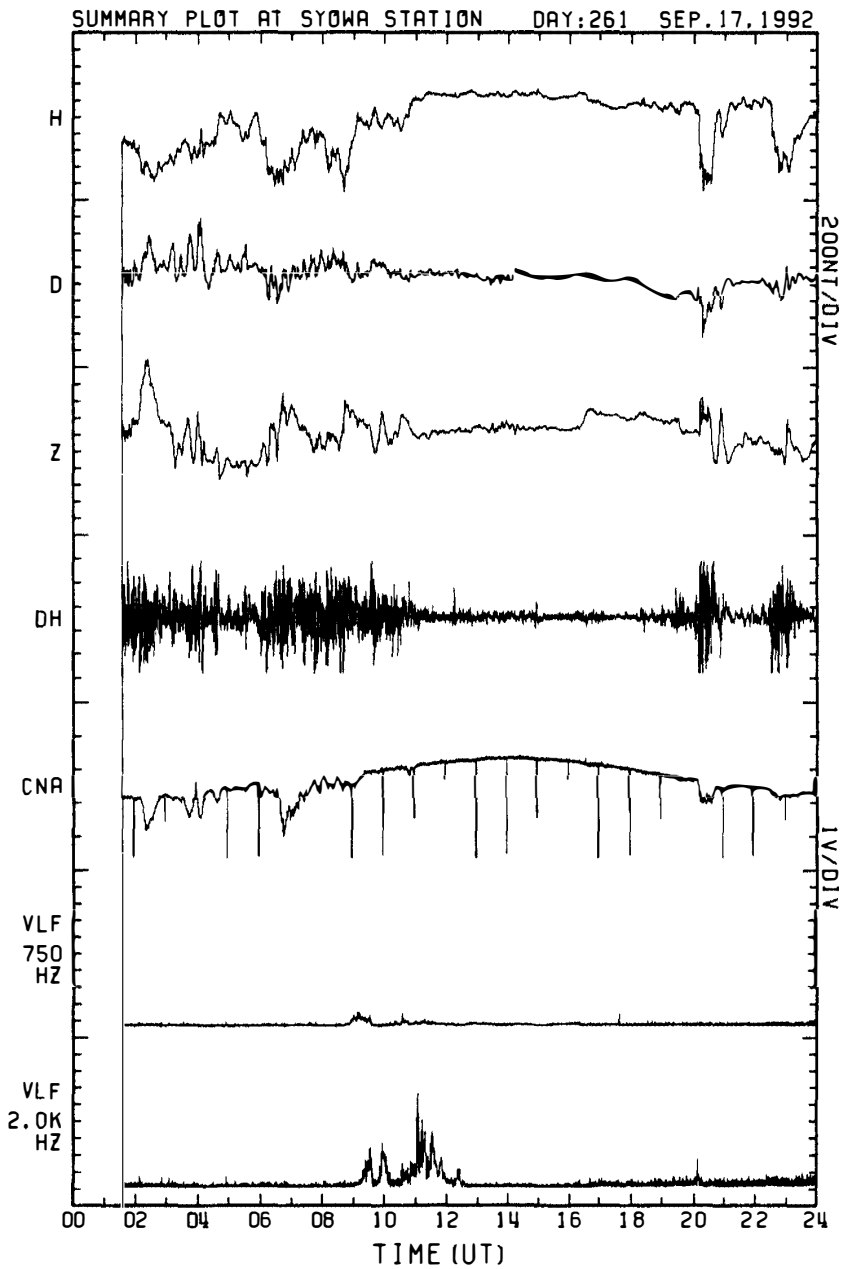

SUMMARY PLOT AT SYOWA STATION DAY:256 SEP.12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

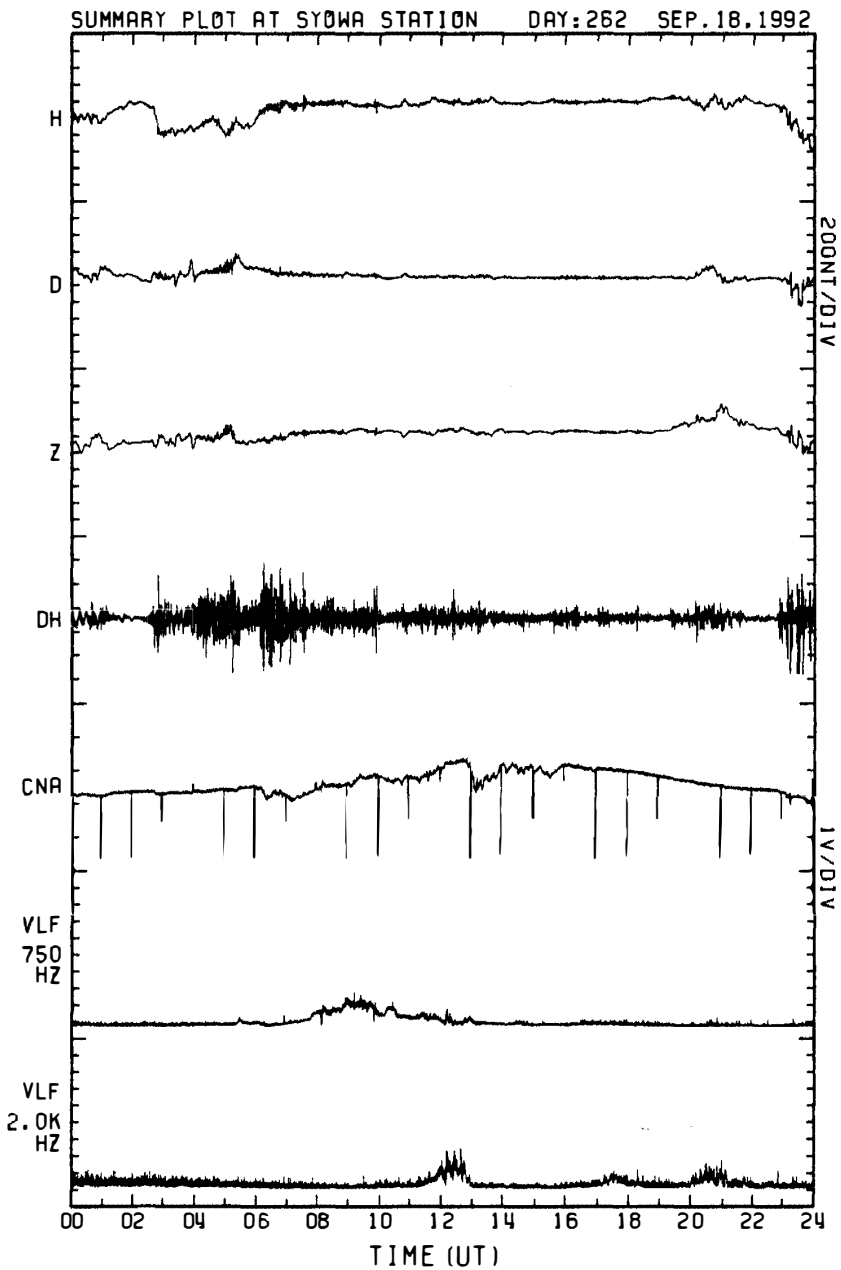

SUMMARY PLOT AT SYOWA STATION DAY:257 SEP.13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

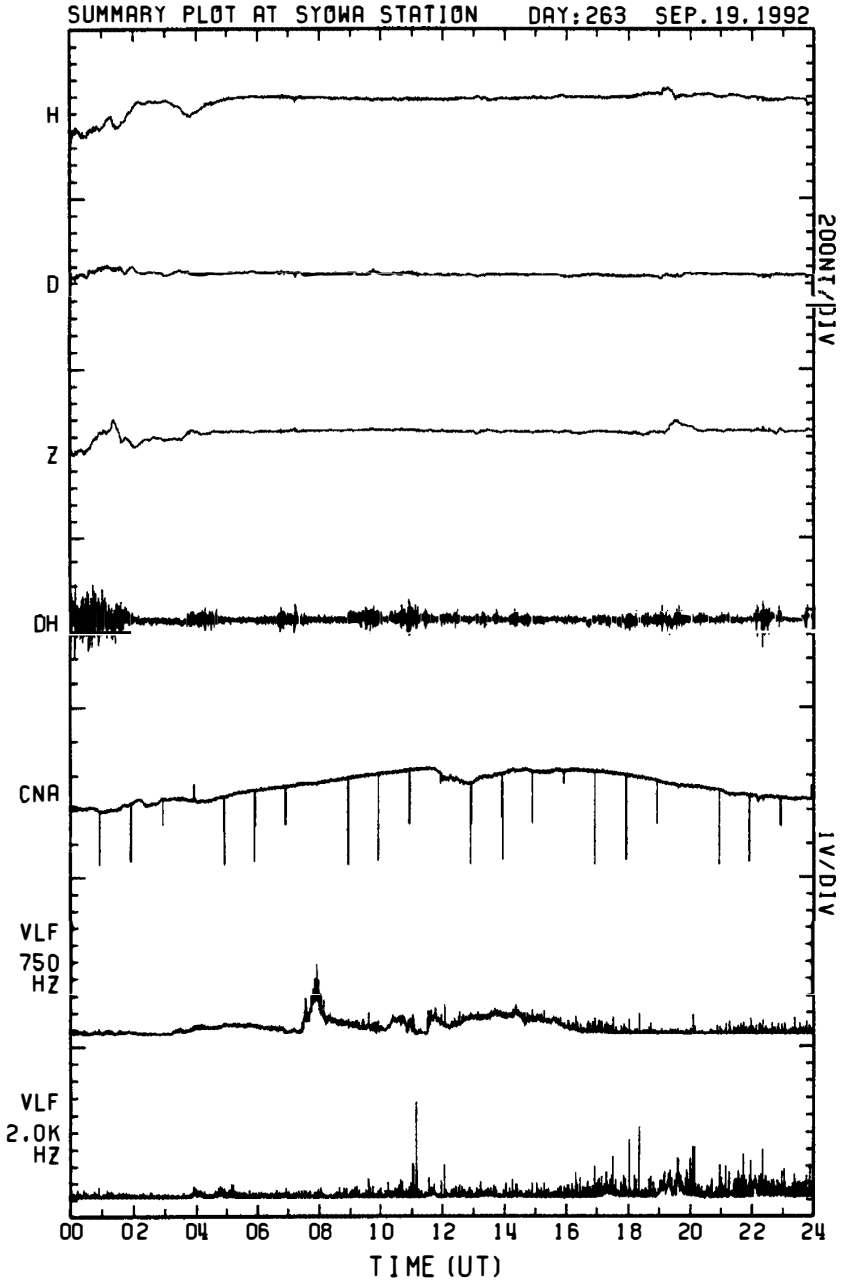

SUMMARY PLOT AT SYOWA STATION DAY:258 SEP.14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

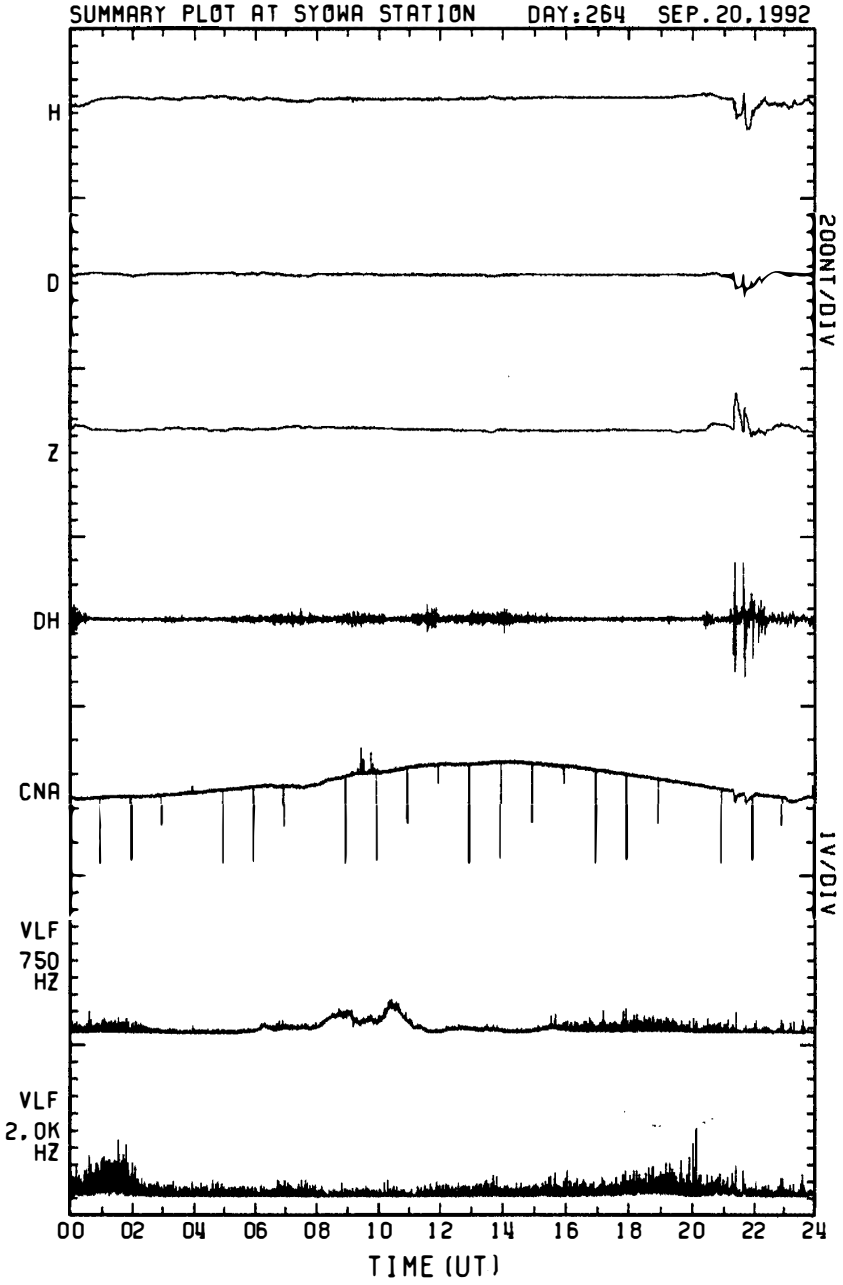

SUMMARY PLOT AT SYOWA STATION DAY:259 SEP.15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

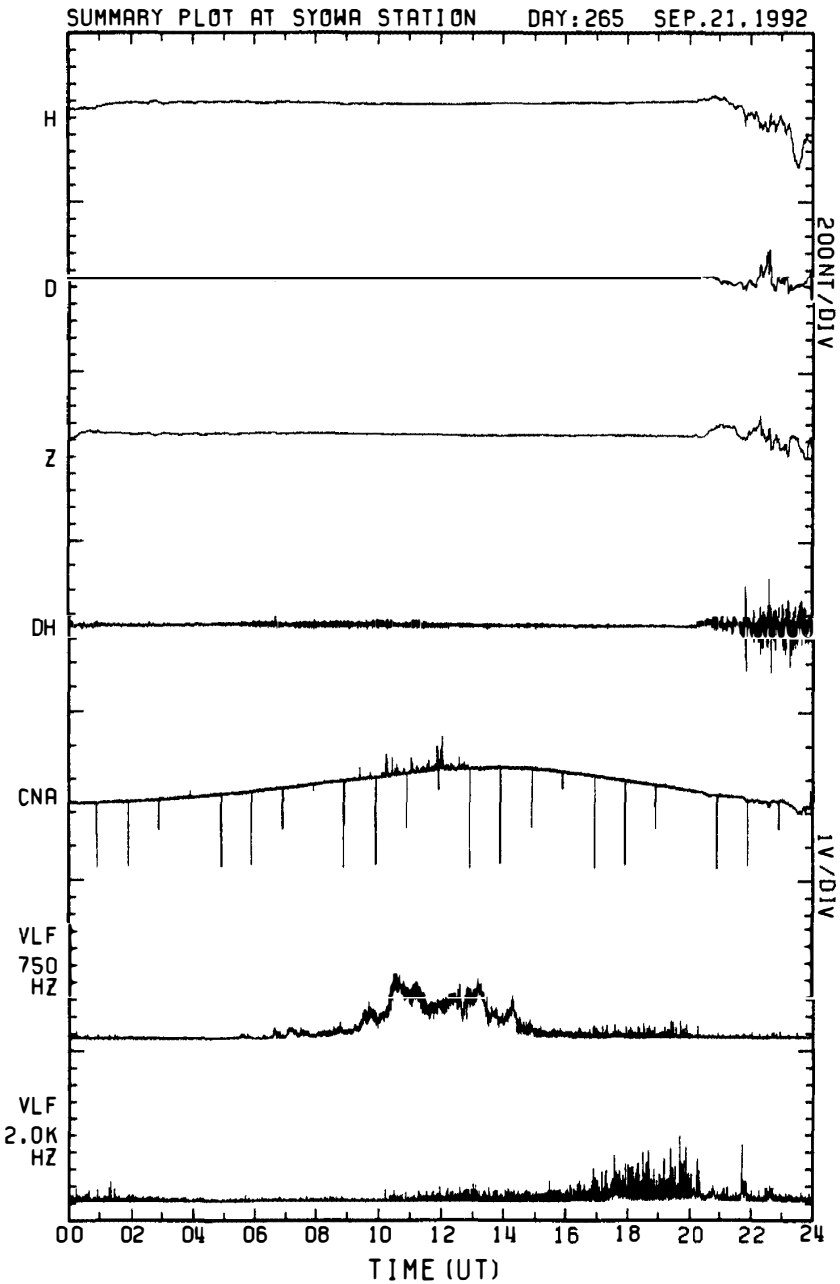

SUMMARY PLOT AT SYOWA STATION DAY:260 SEP.16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

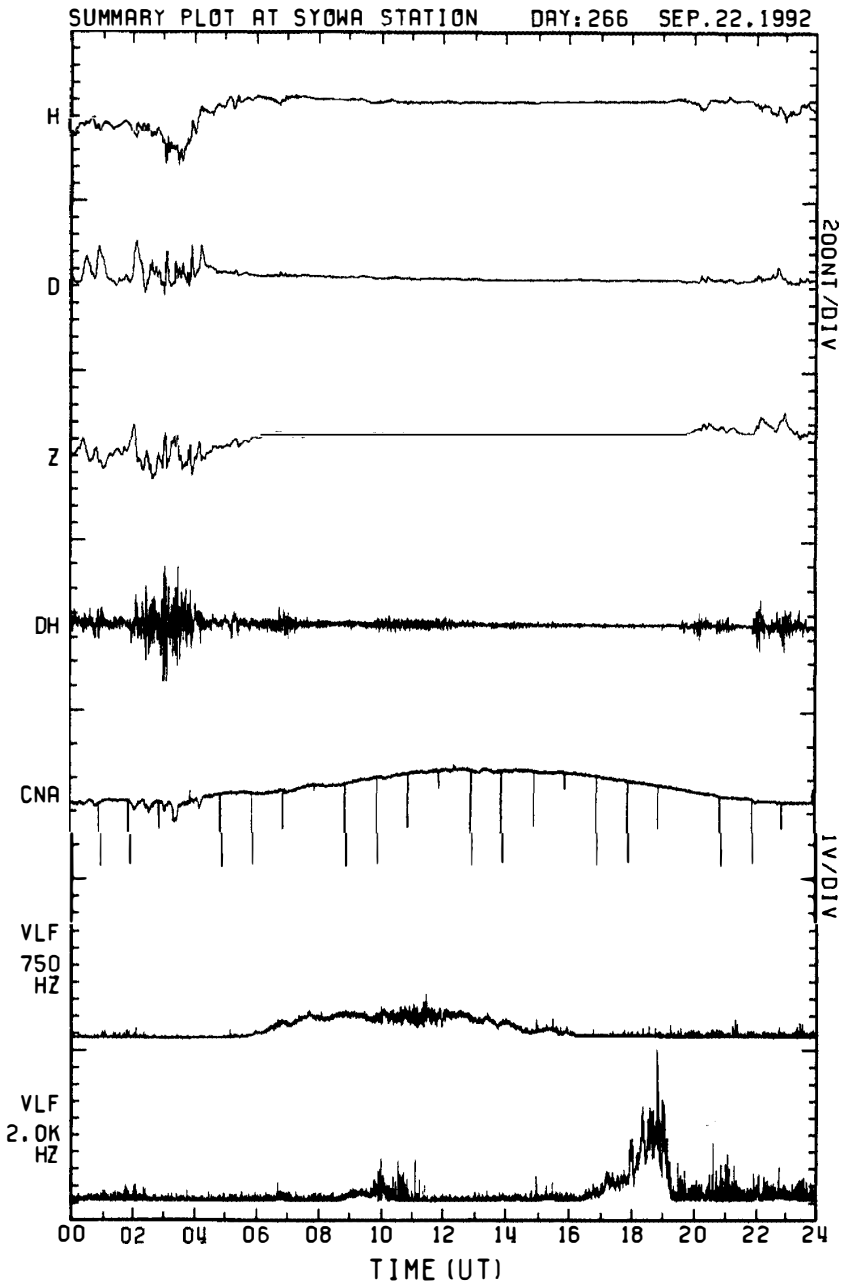

SUMMARY PLOT AT SYOWA STATION DAY:261 SEP.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

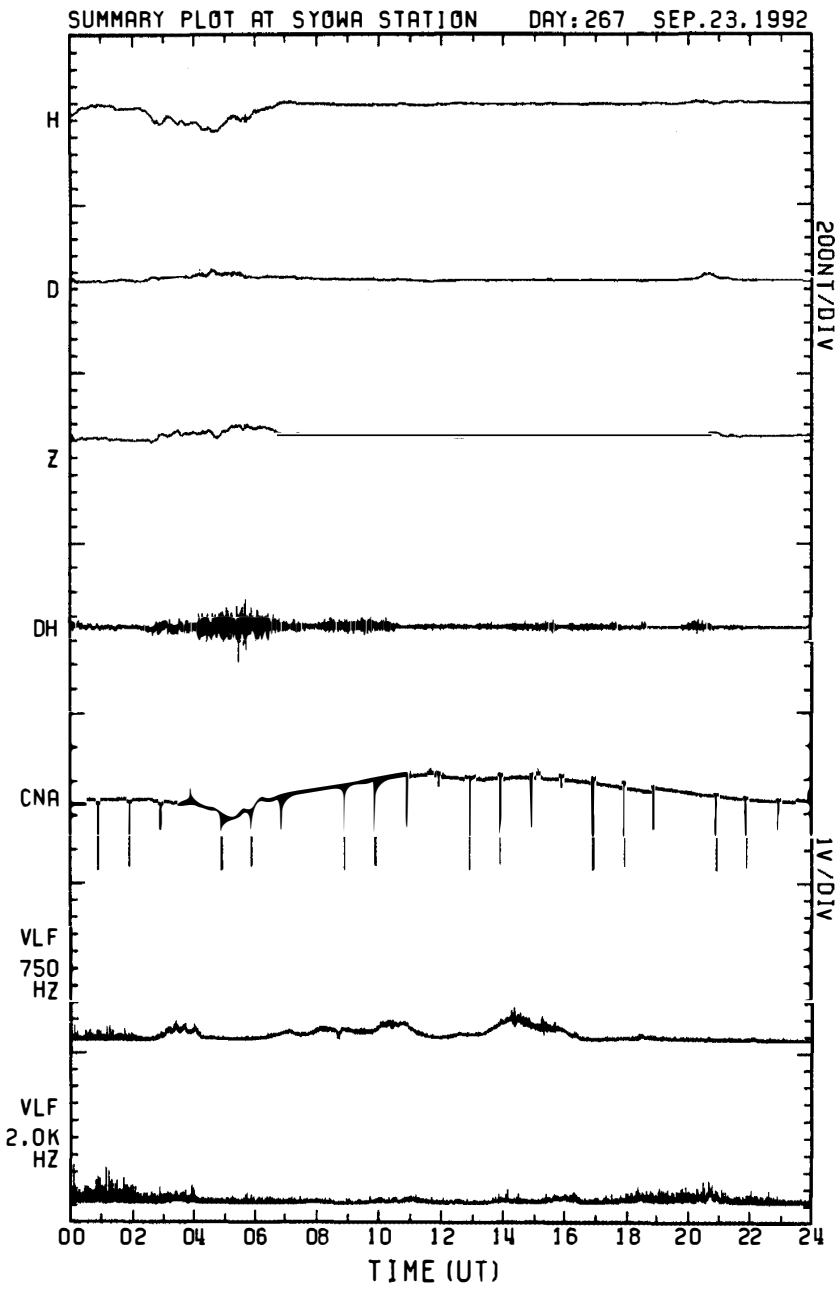

SUMMARY PLOT AT SYOWA STATION DAY:262 SEP.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

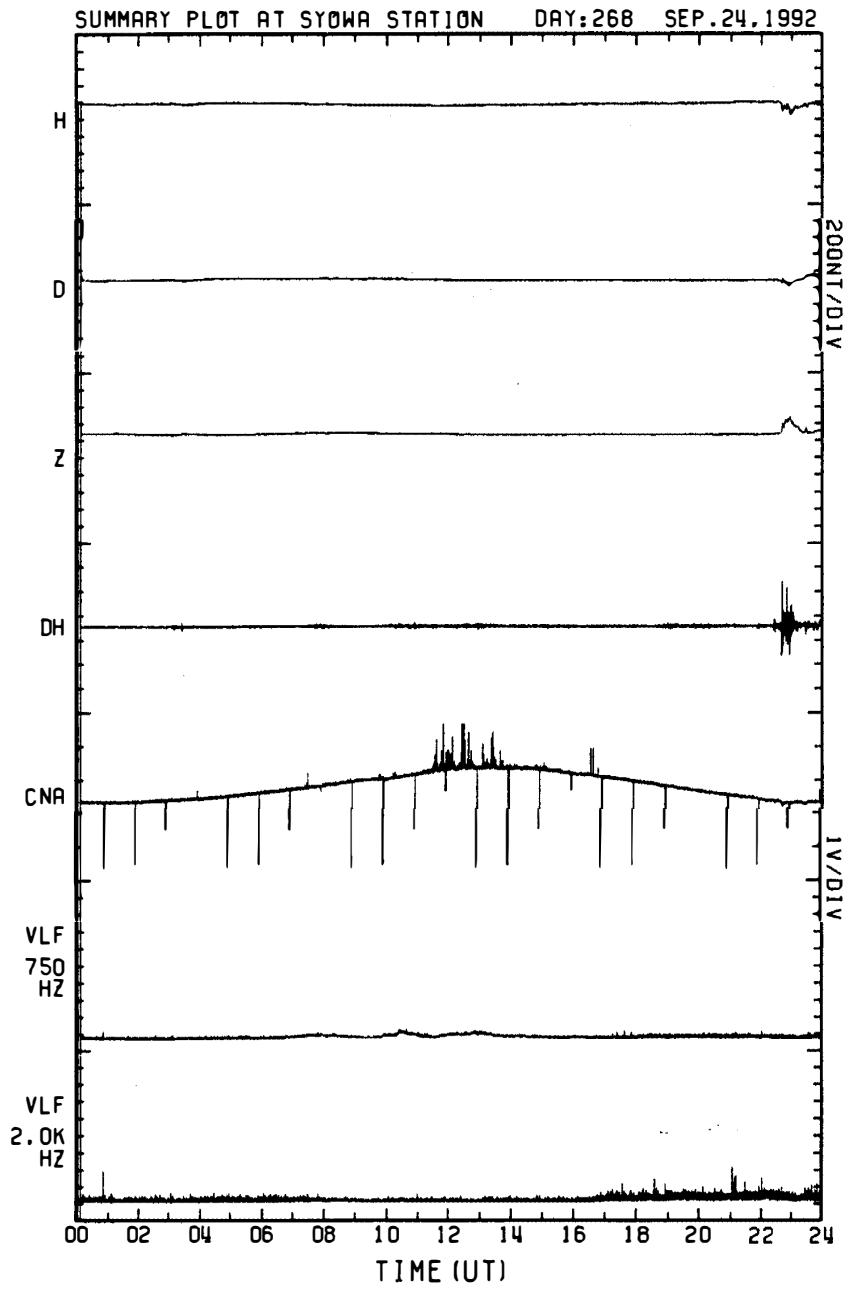

SUMMARY PLOT AT SYOWA STATION DAY:263 SEP.19.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

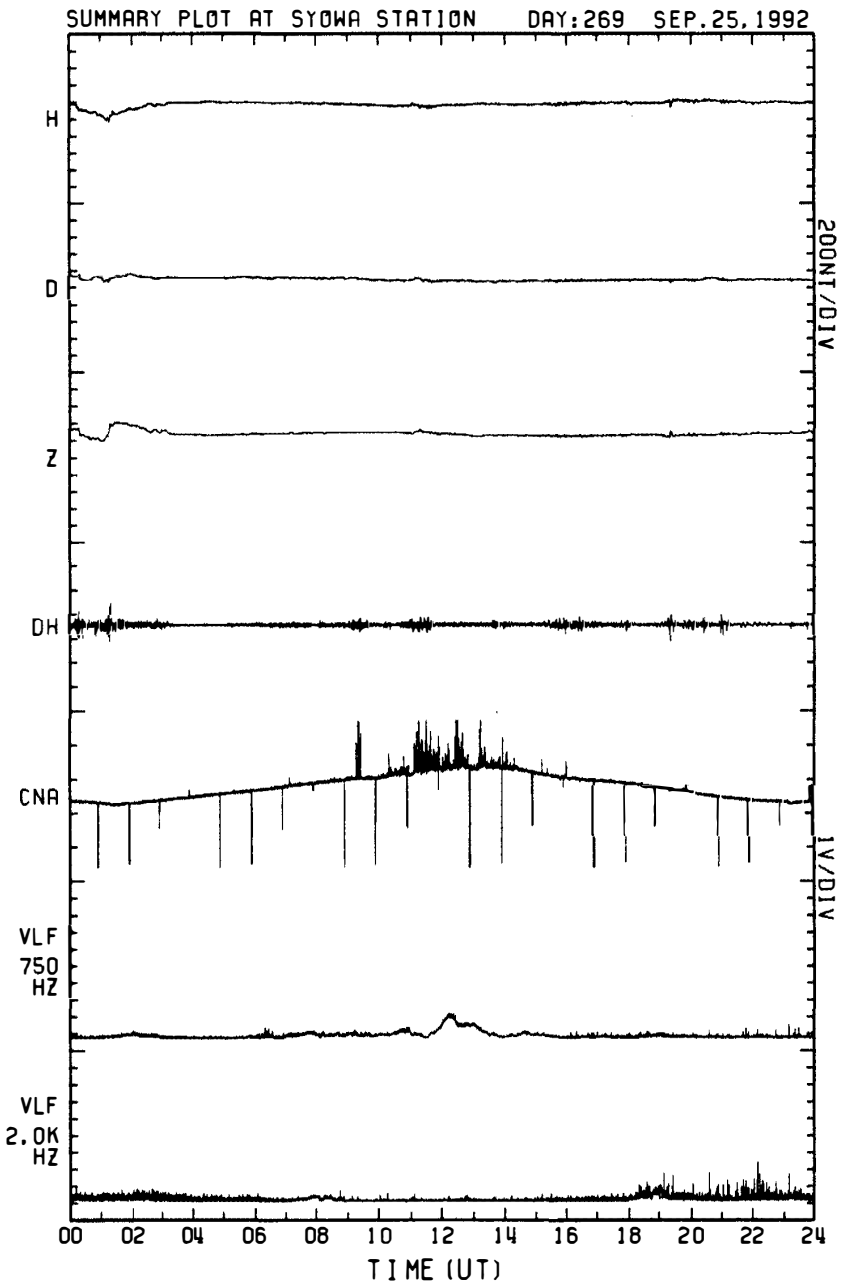

SUMMARY PLOT AT SYOWA STATION DAY:264 SEP.20.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

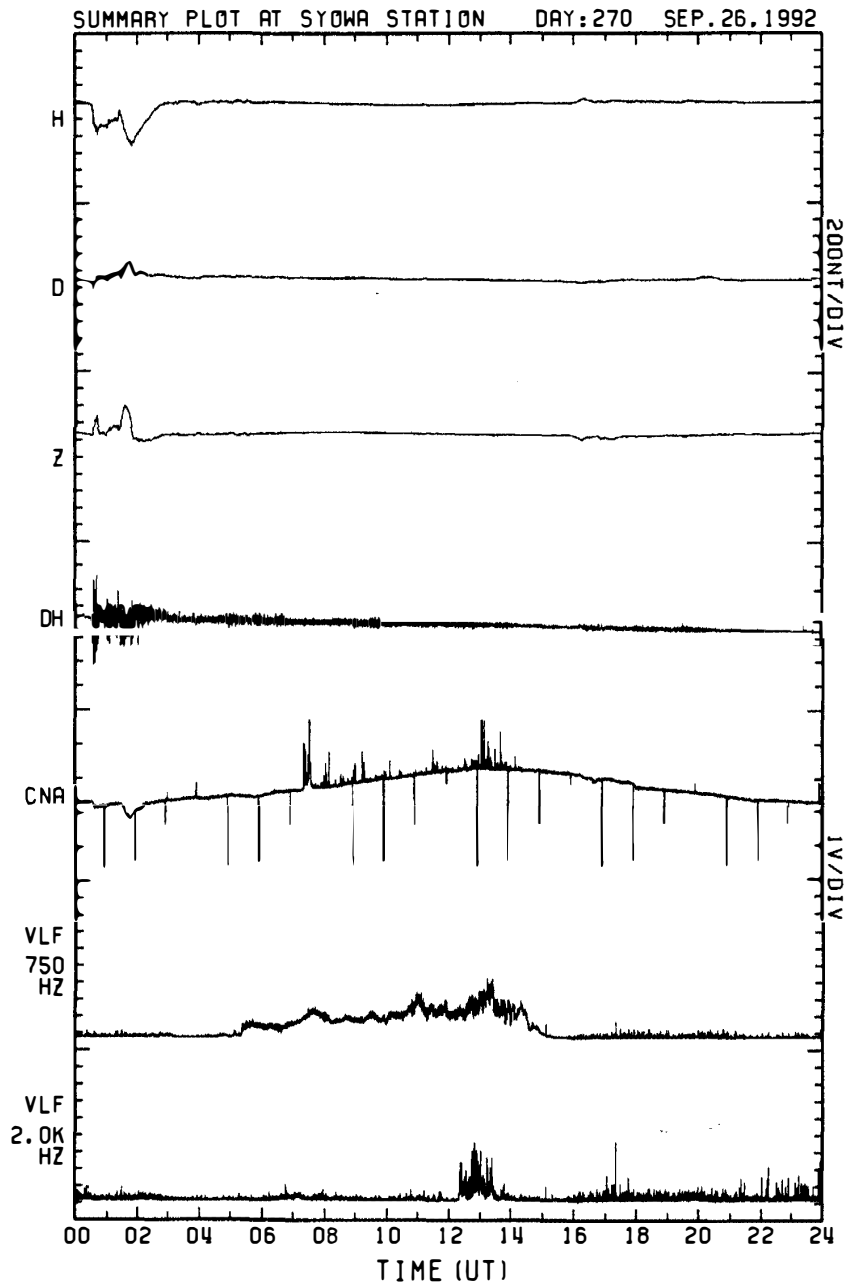

SUMMARY PLOT AT SYOWA STATION DAY:265 SEP.21.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

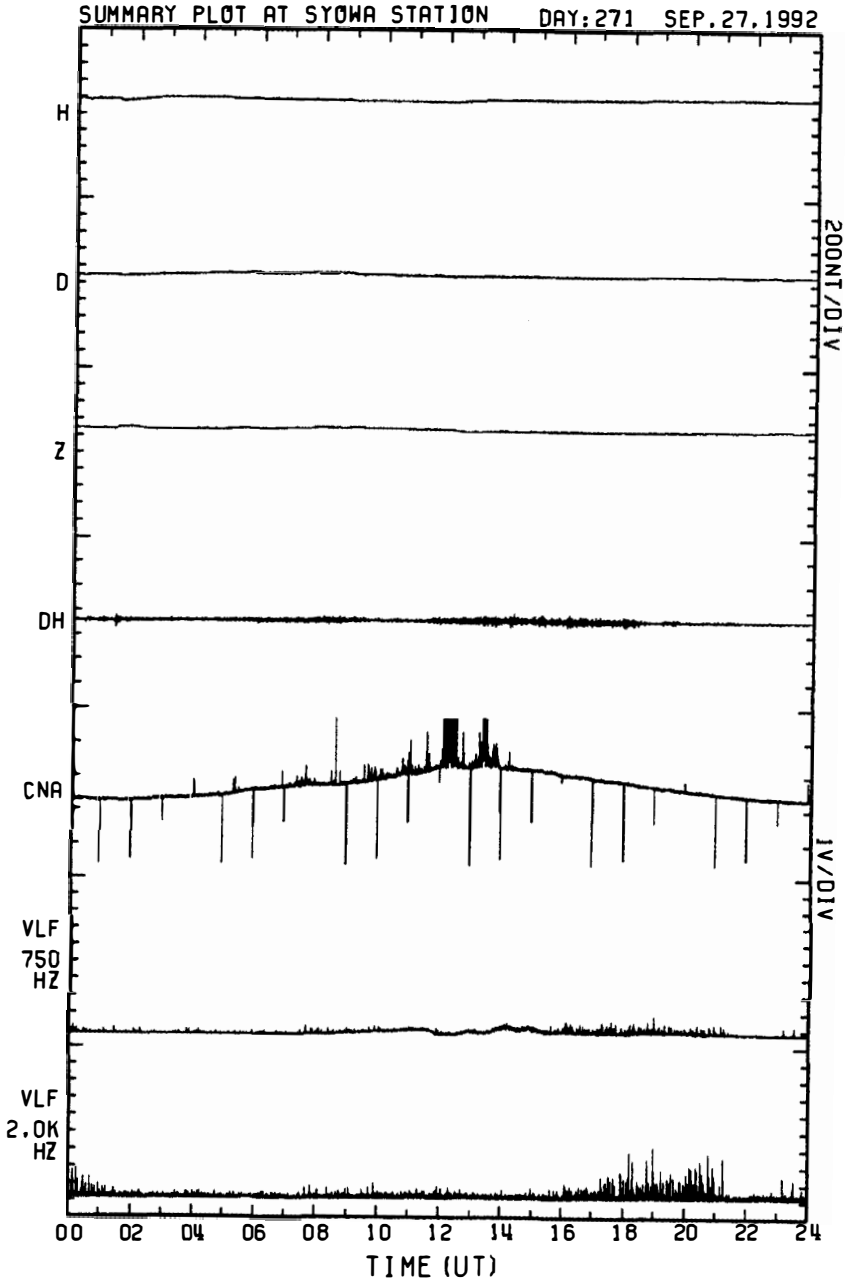

SUMMARY PLOT AT SYOWA STATION DAY:266 SEP.22.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

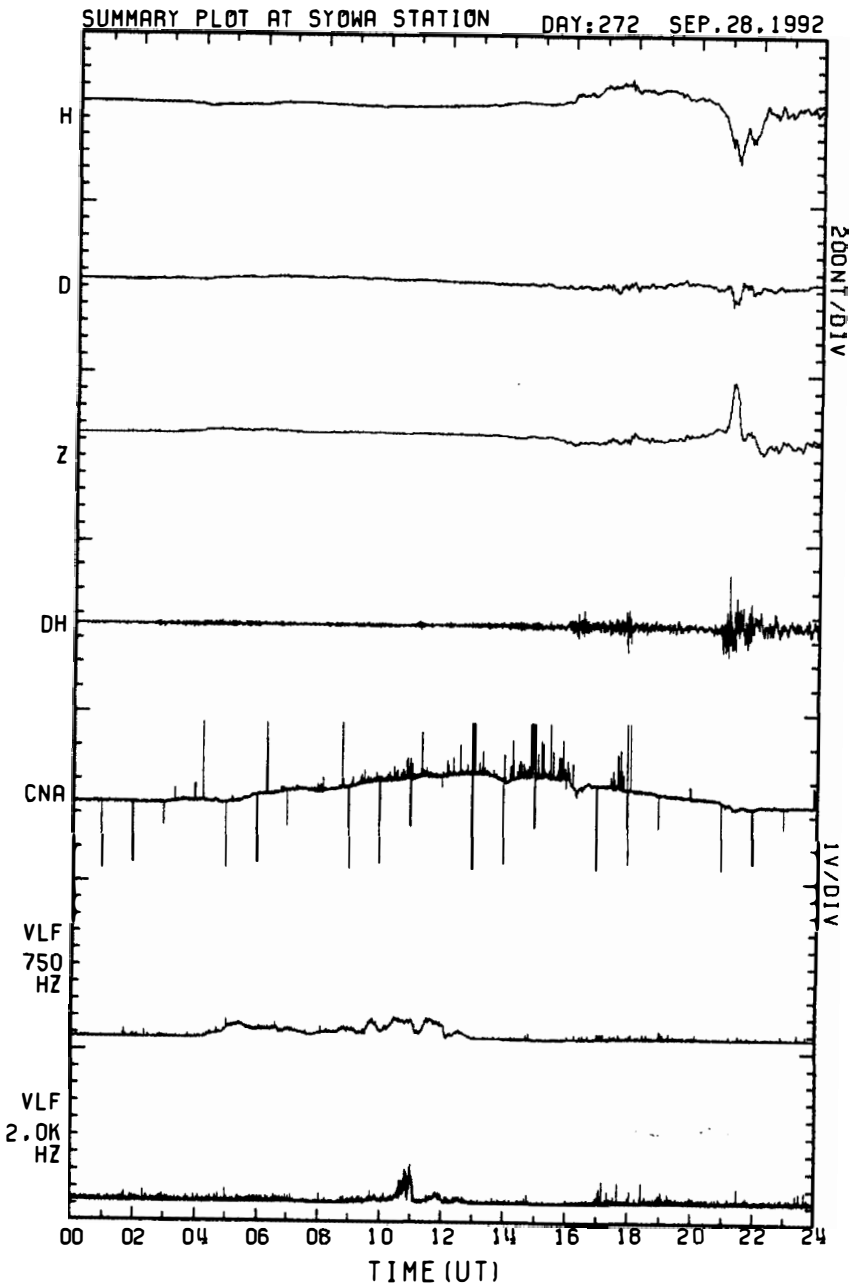

SUMMARY PLOT AT SYOWA STATION DAY:267 SEP.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

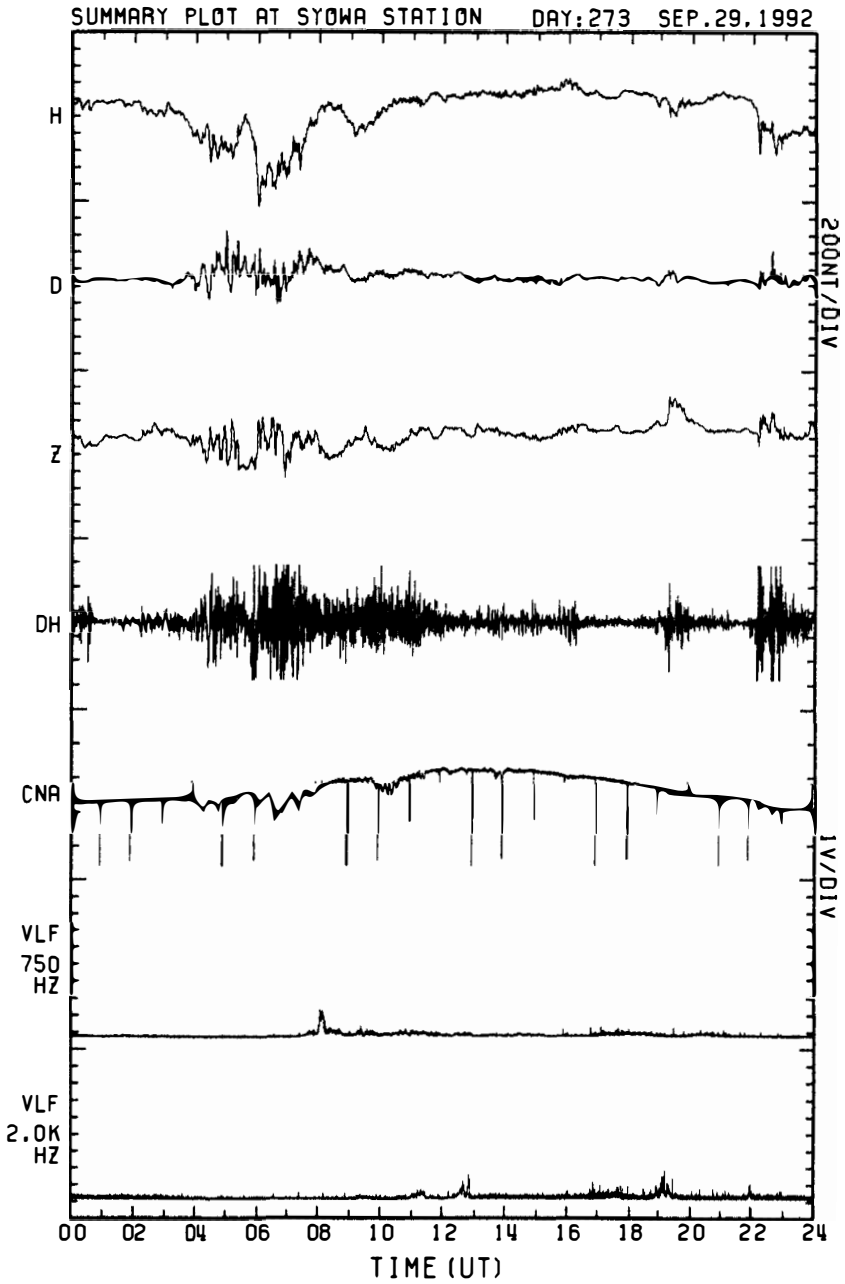

SUMMARY PLOT AT SYOWA STATION DAY:268 SEP.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

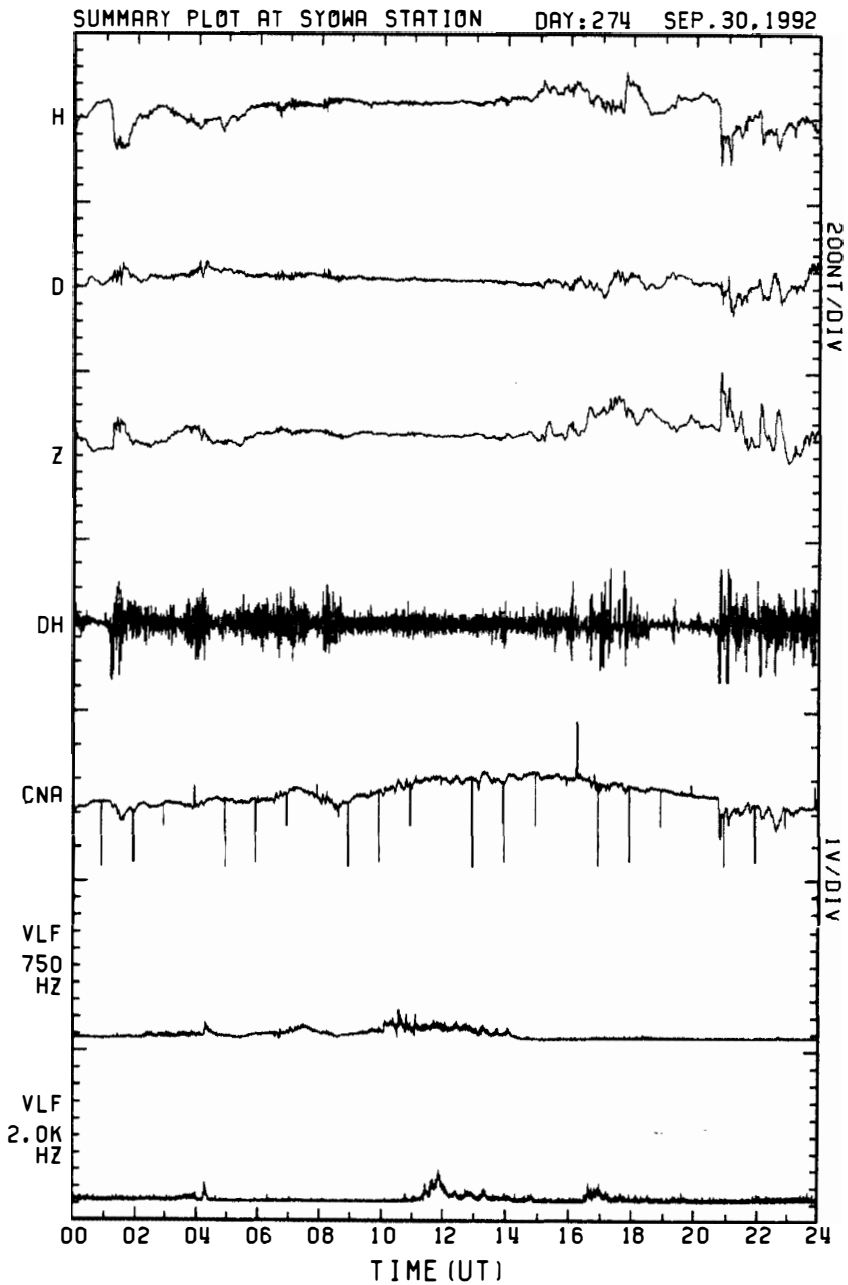

SUMMARY PLOT AT SYOWA STATION DAY:269 SEP.25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

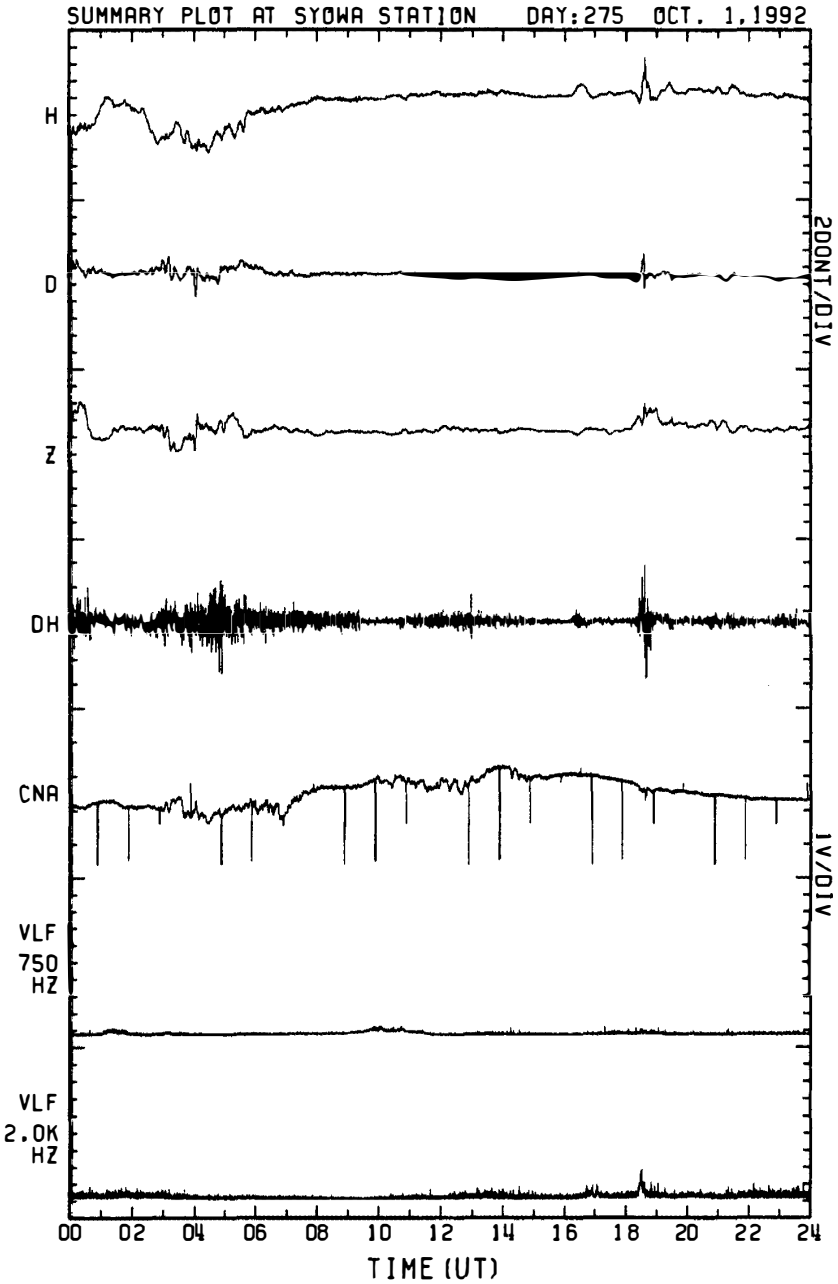

SUMMARY PLOT AT SYOWA STATION DAY:270 SEP.26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

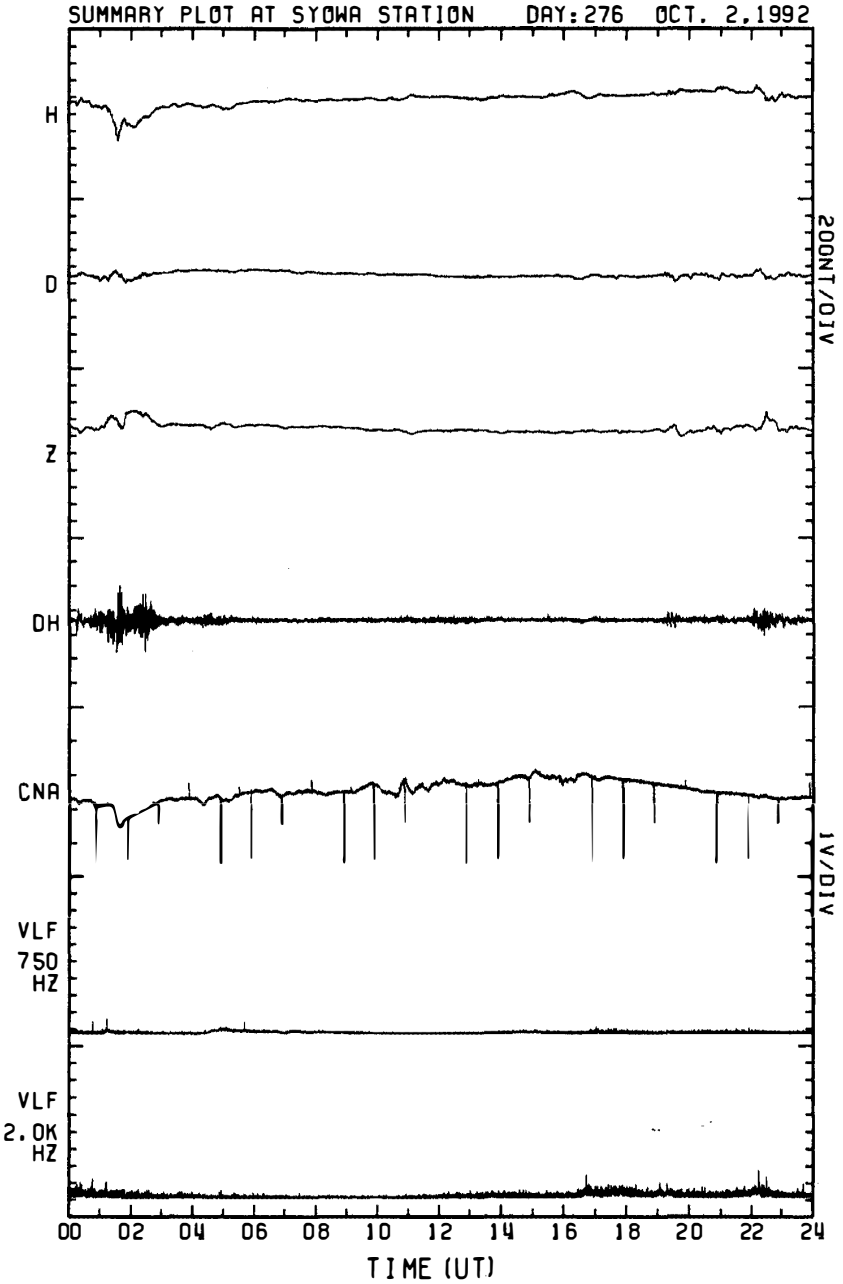

SUMMARY PLOT AT SYOWA STATION DAY:271 SEP.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

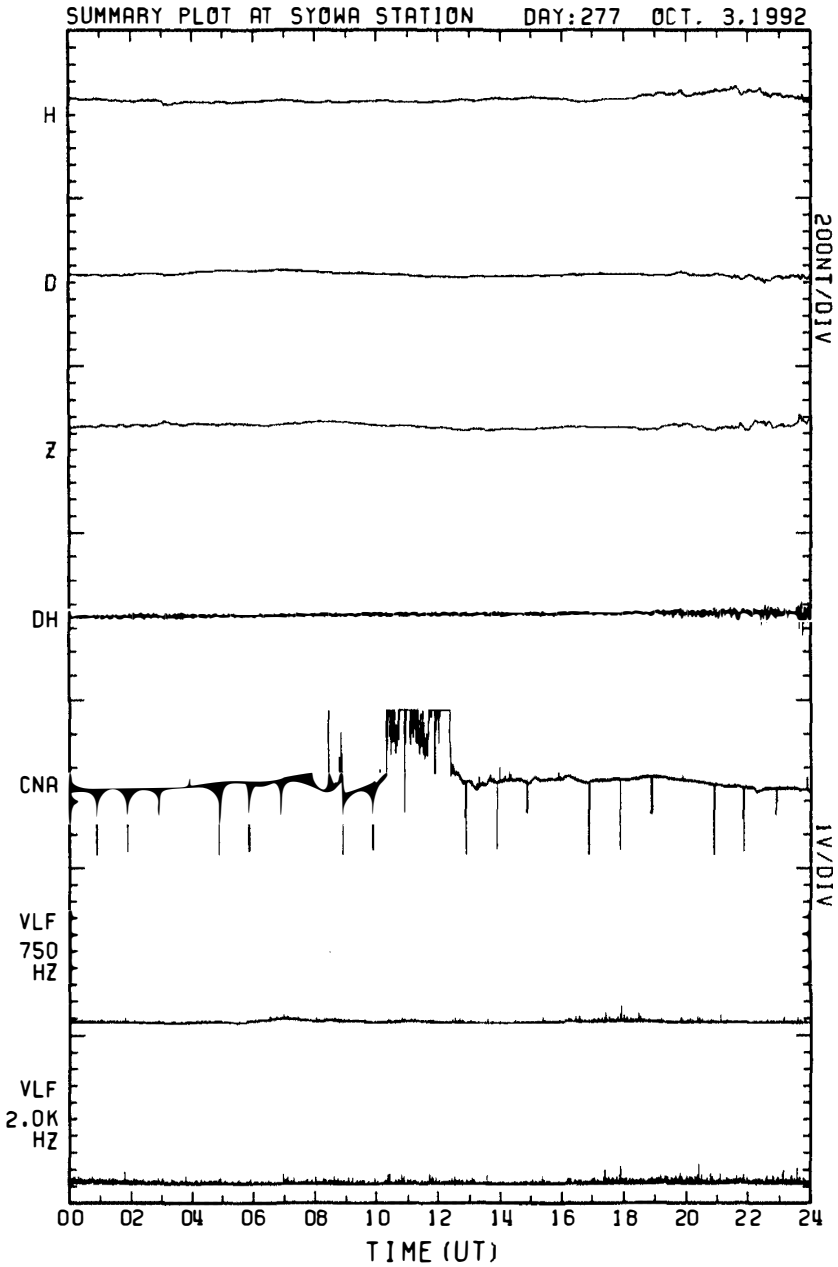

SUMMARY PLOT AT SYOWA STATION DAY:272 SEP.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

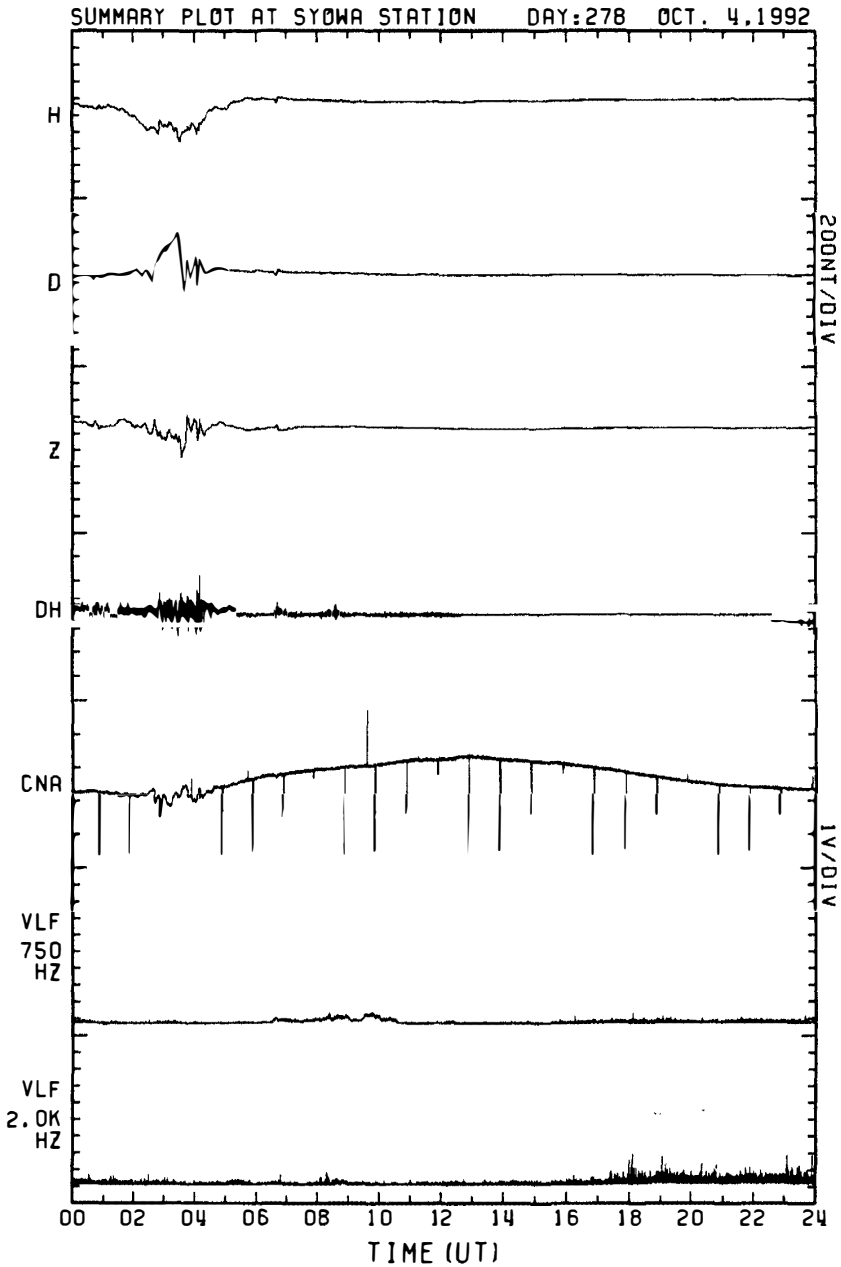

SUMMARY PLOT AT SYOWA STATION DAY:273 SEP.29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

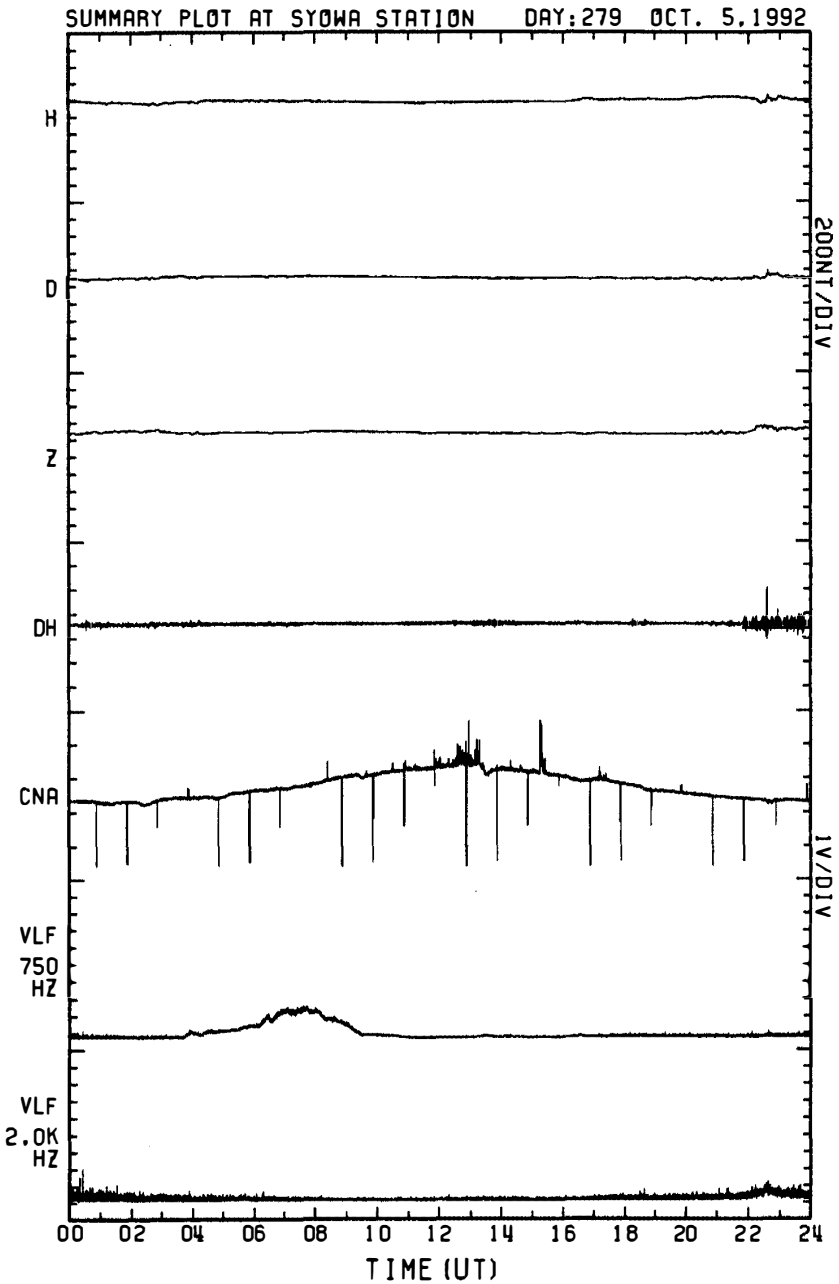

SUMMARY PLOT AT SYOWA STATION DAY:274 SEP.30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

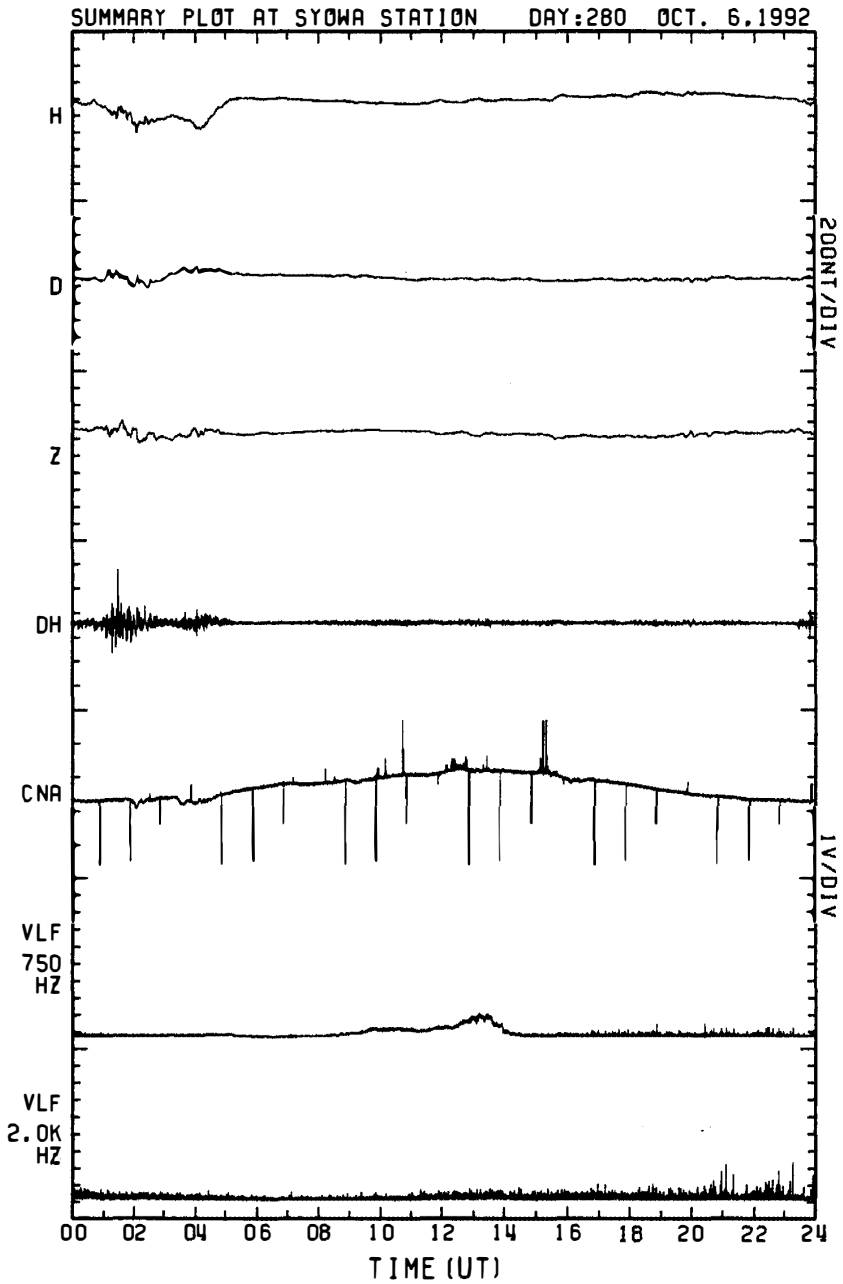

SUMMARY PLOT AT SYOWA STATION DAY:275 OCT. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

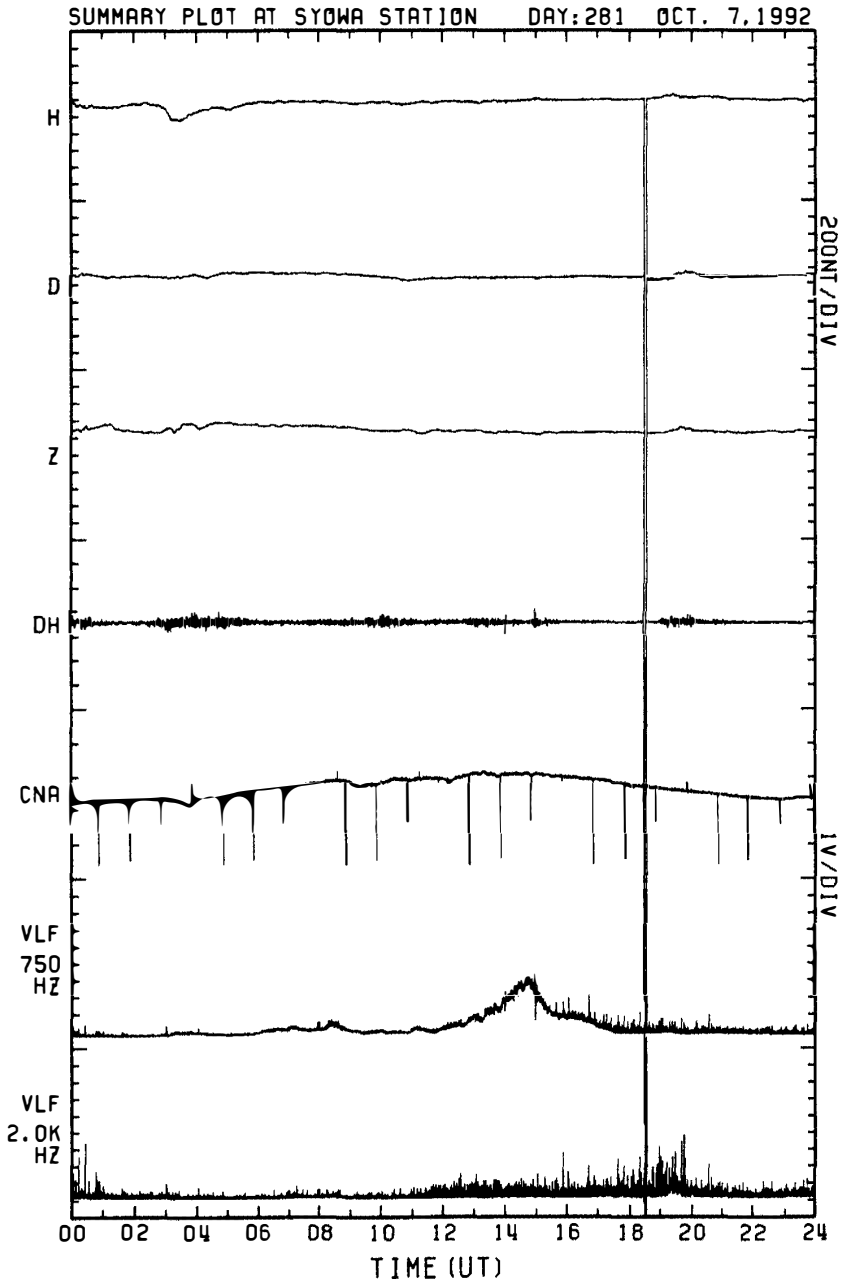

SUMMARY PLOT AT SYOWA STATION DAY:276 OCT. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

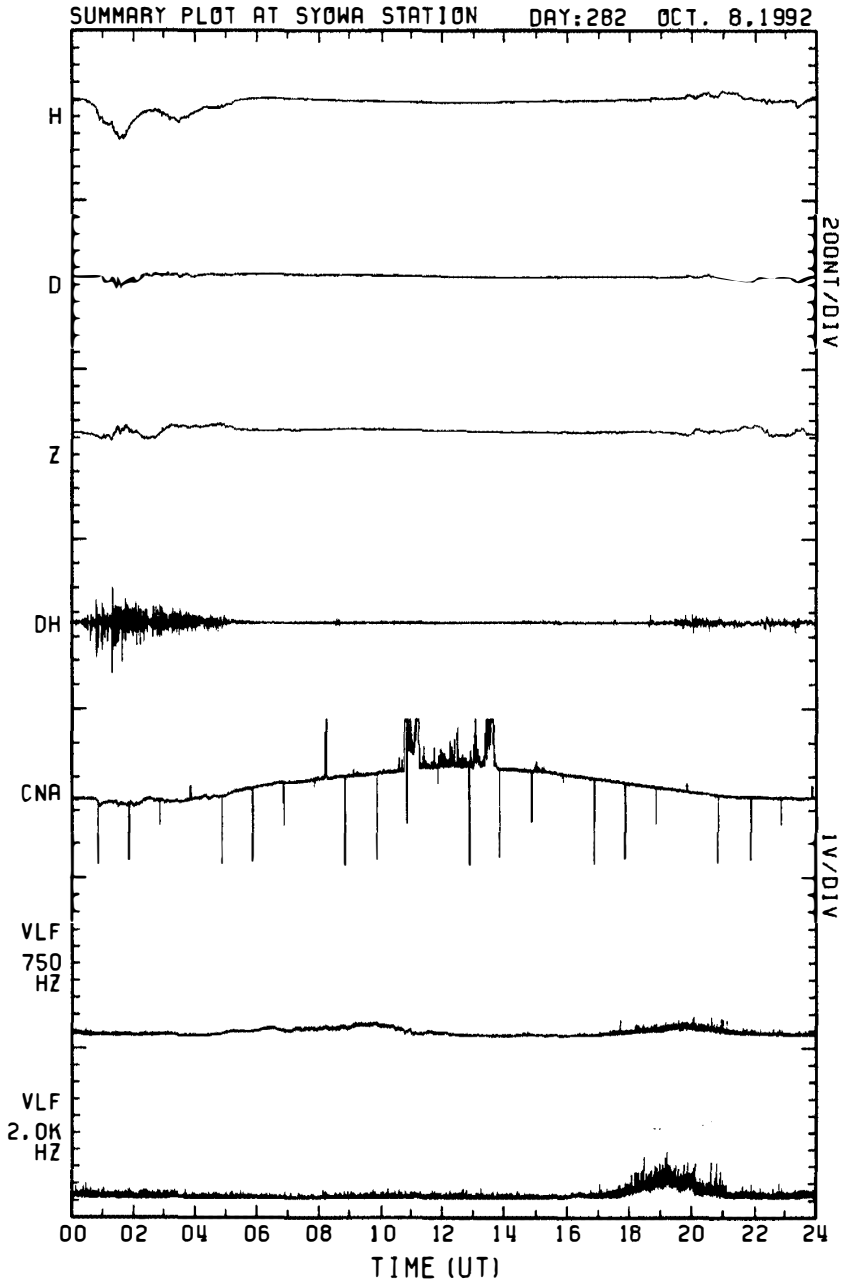

SUMMARY PLOT AT SYOWA STATION DAY:277 OCT. 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

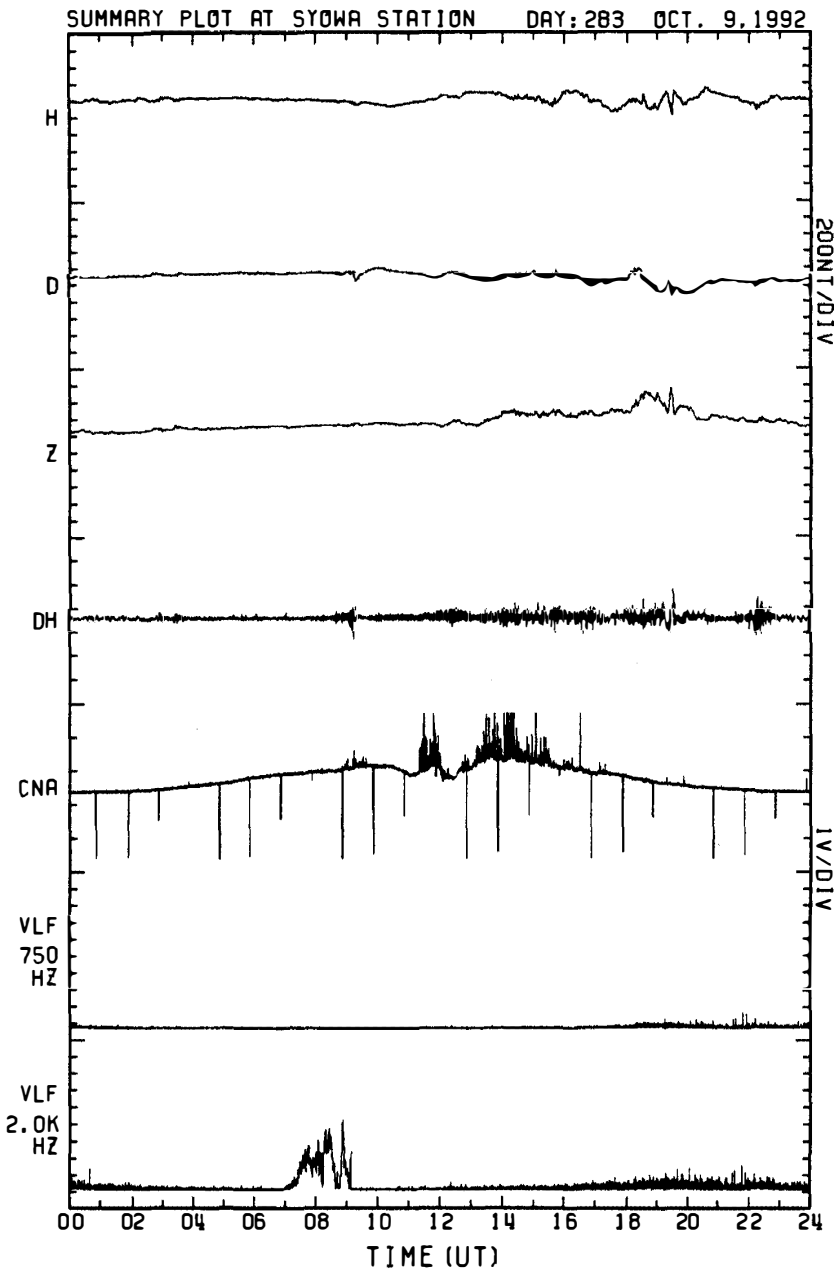

SUMMARY PLOT AT SYOWA STATION DAY:278 OCT. 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

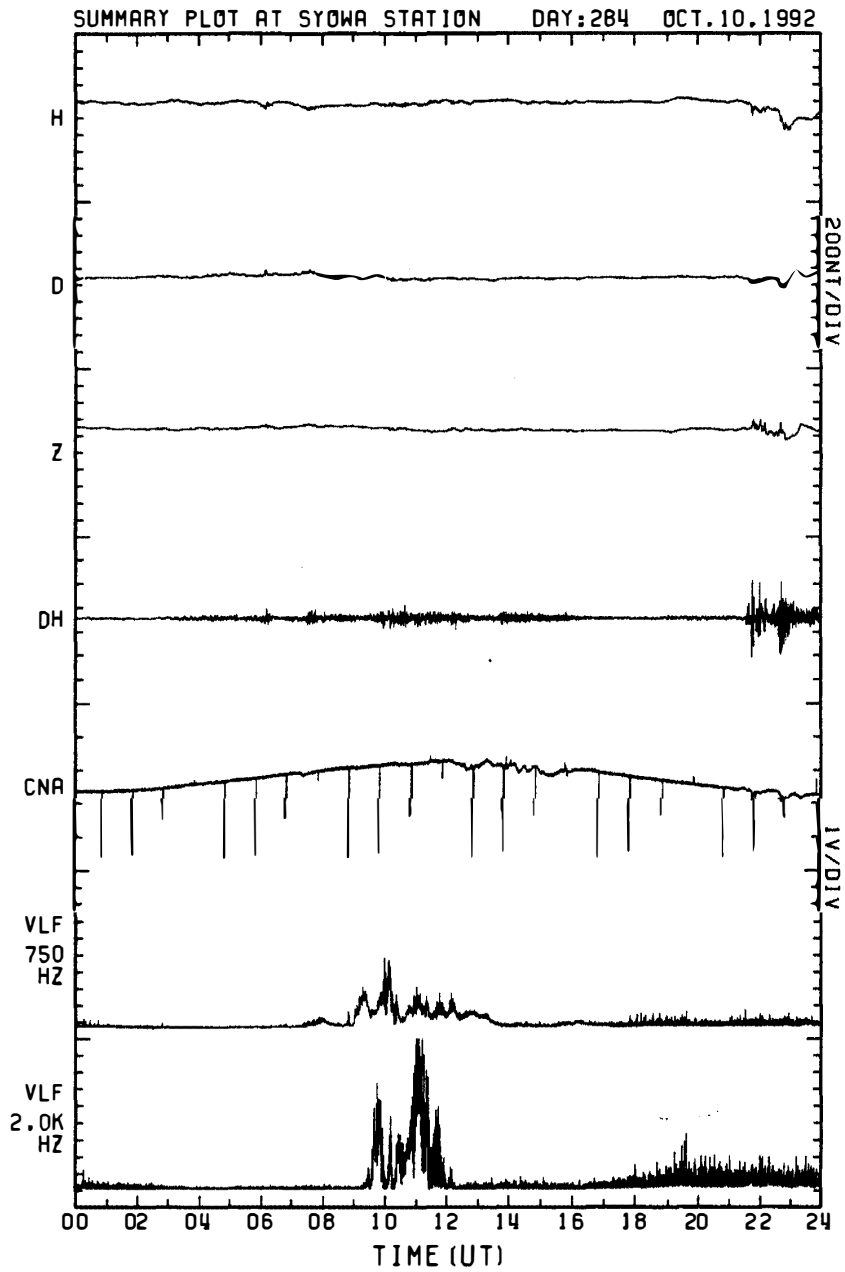

SUMMARY PLOT AT SYOWA STATION DAY:279 OCT. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

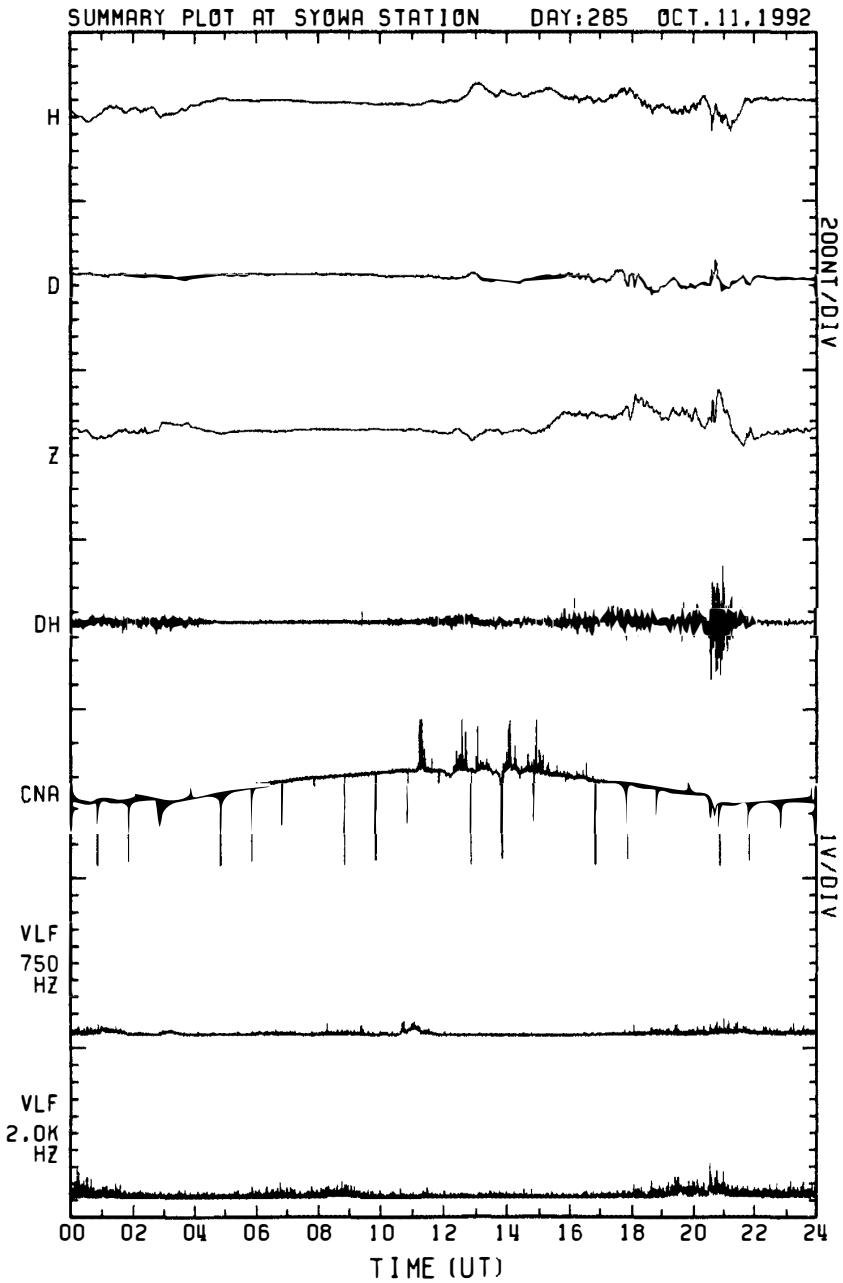

SUMMARY PLOT AT SYOWA STATION DAY:280 OCT. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

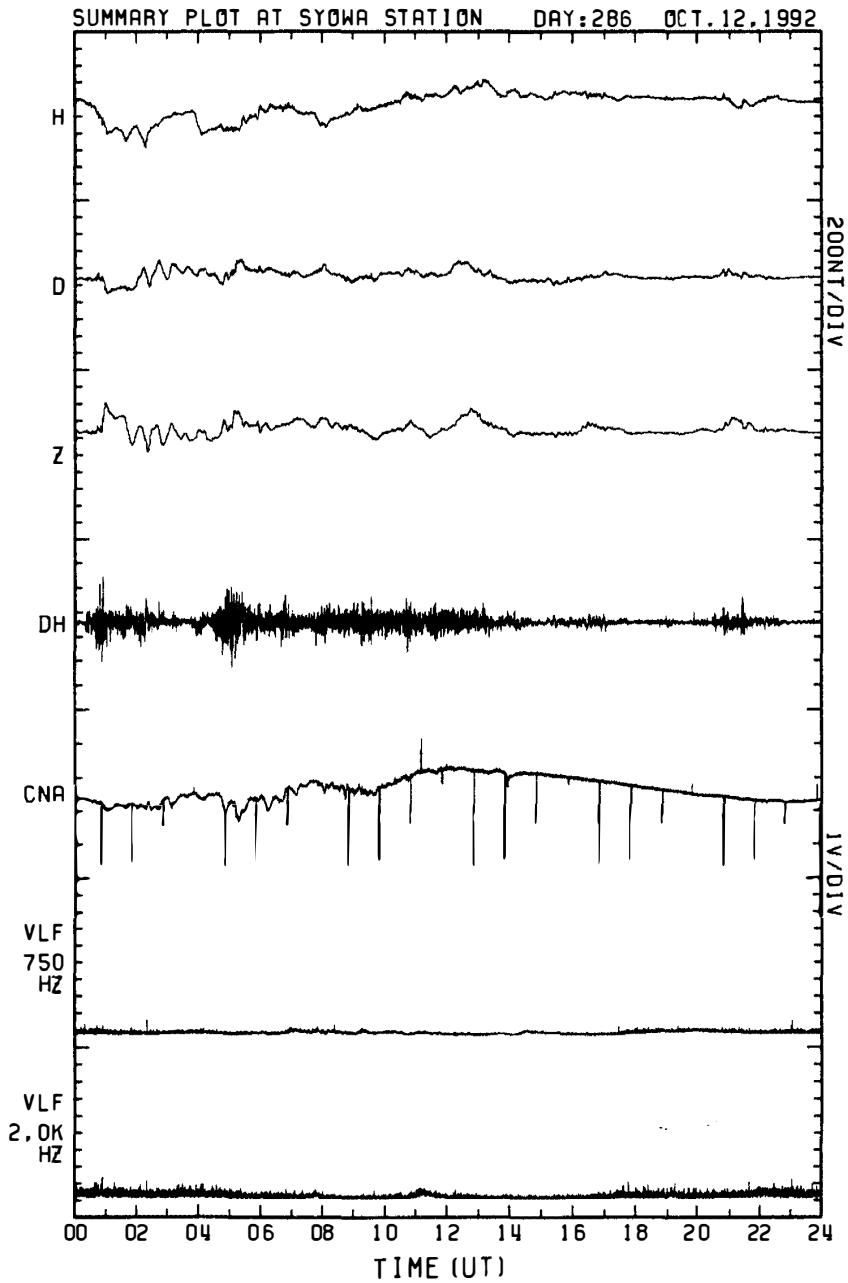

SUMMARY PLOT AT SYOWA STATION DAY:281 OCT. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

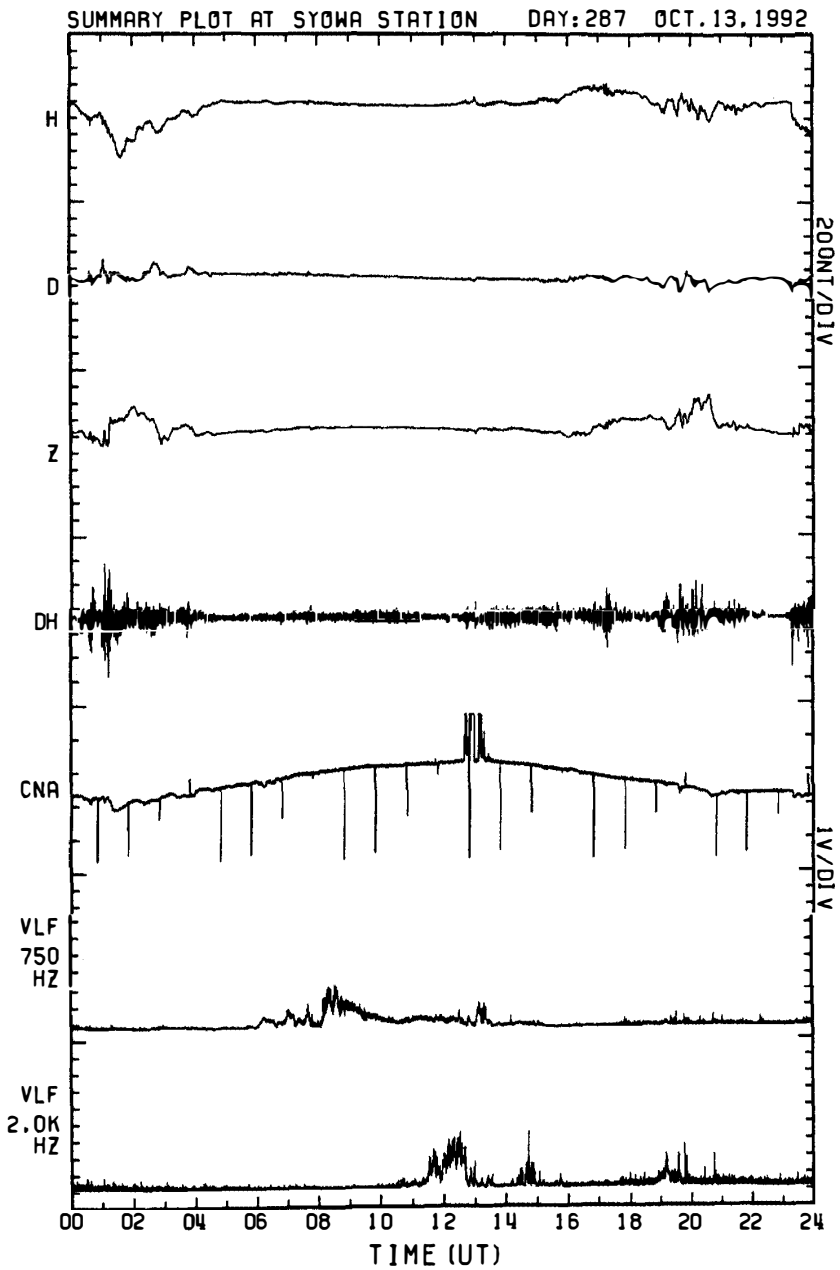

SUMMARY PLOT AT SYOWA STATION DAY:282 OCT. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

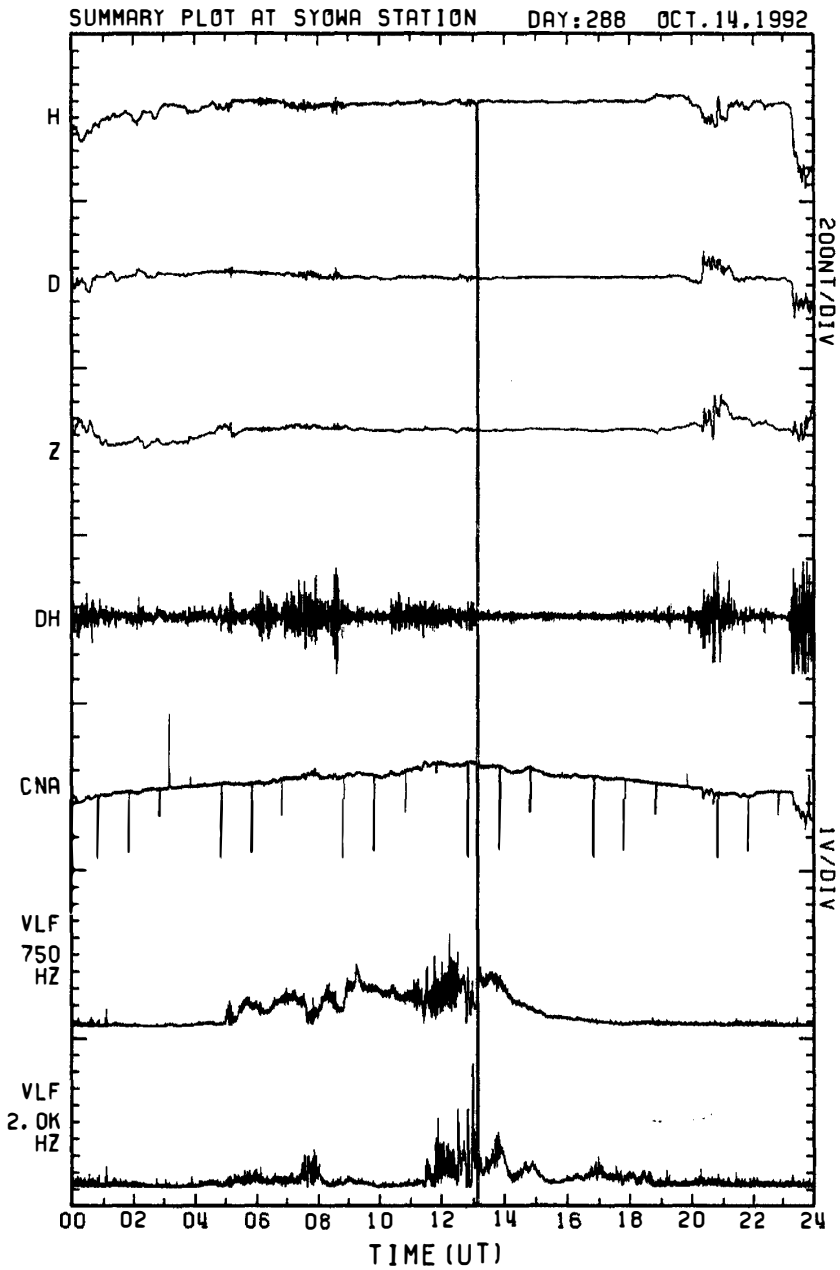

SUMMARY PLOT AT SYOWA STATION DAY:283 OCT. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

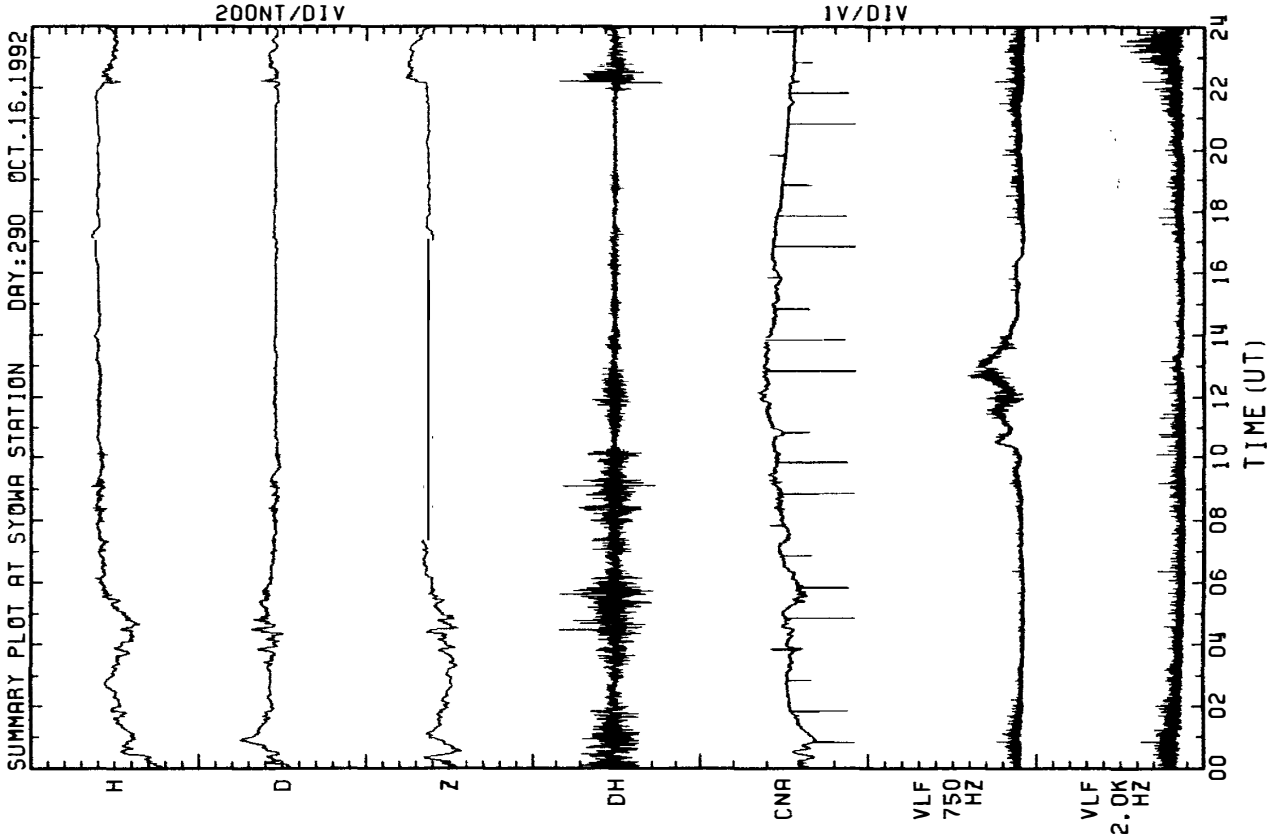

SUMMARY PLOT AT SYOWA STATION DAY:284 OCT.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

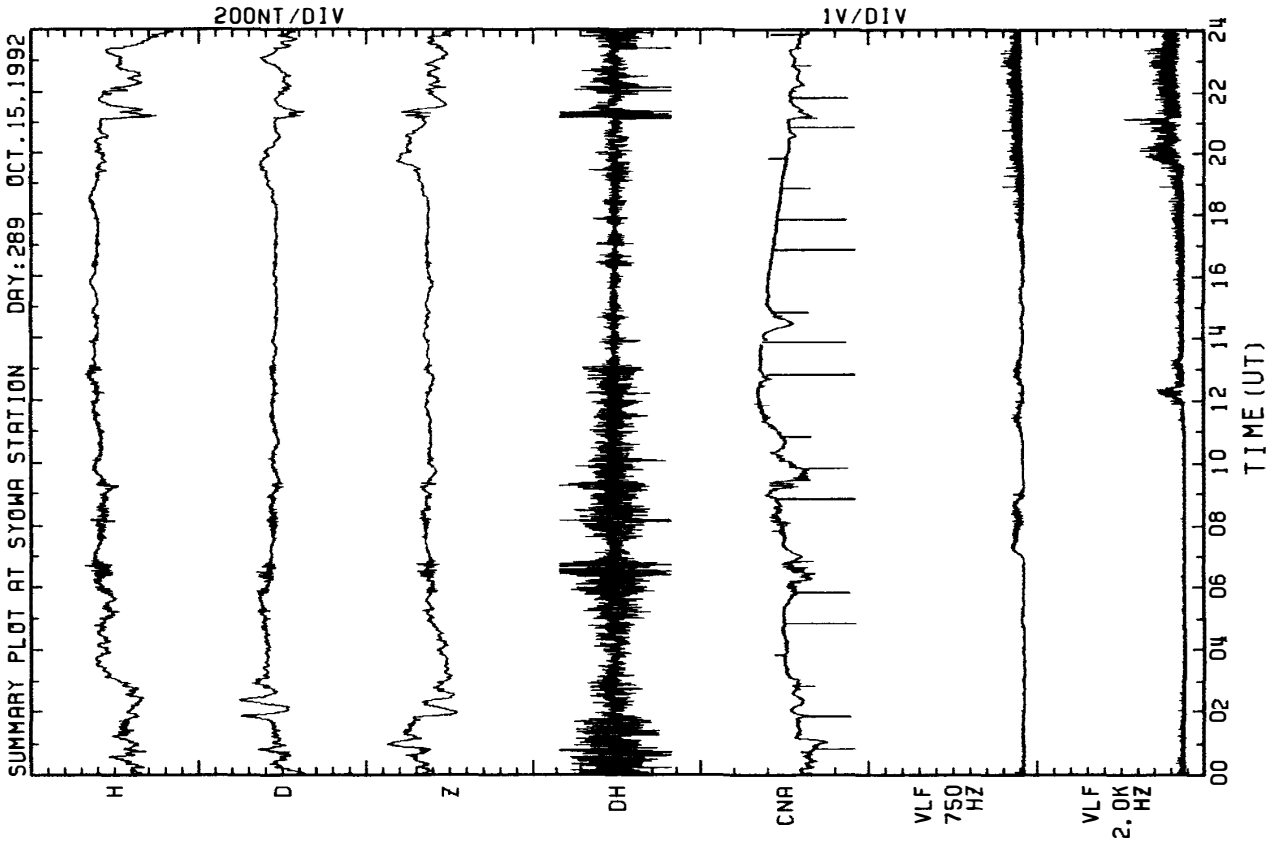

SUMMARY PLOT AT SYOWA STATION DAY:285 OCT.11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

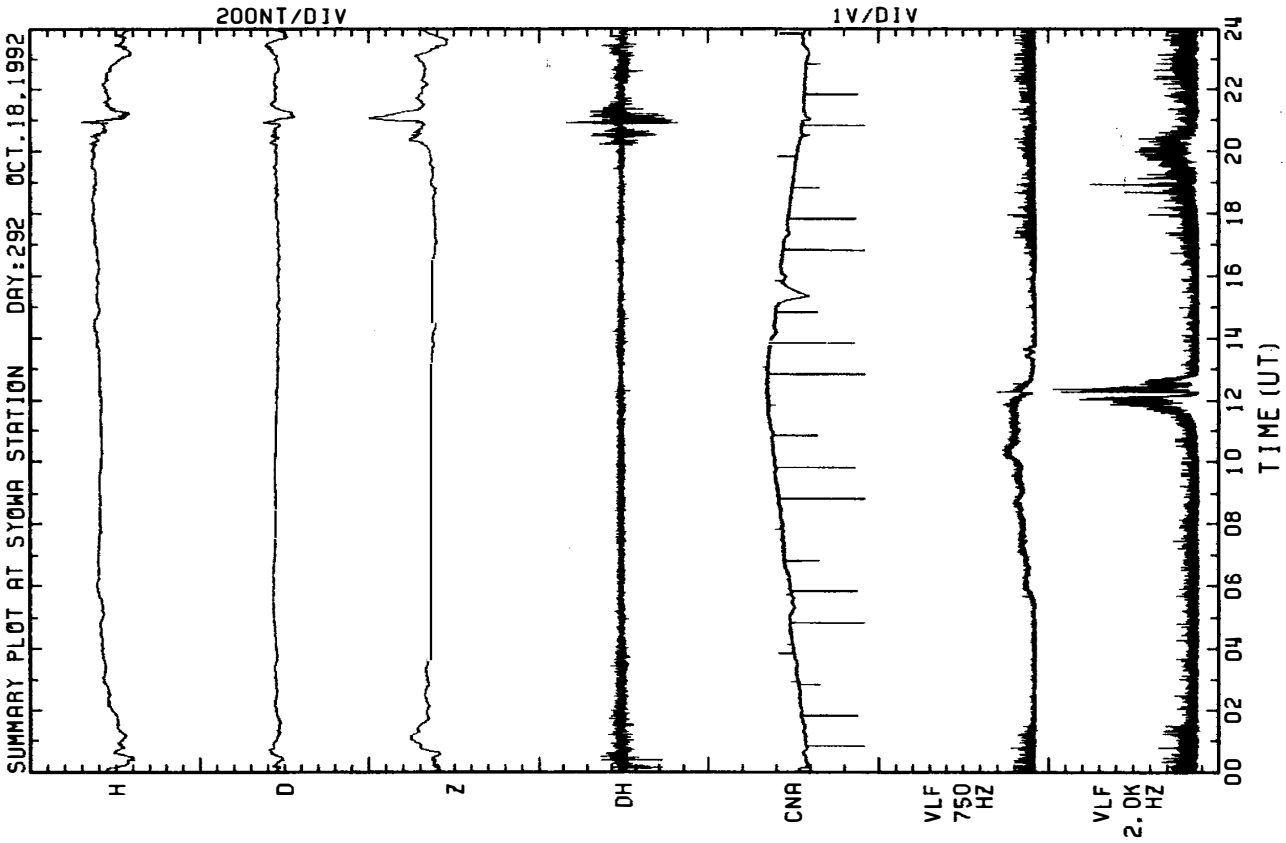

SUMMARY PLOT AT SYOWA STATION DAY:286 OCT.12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

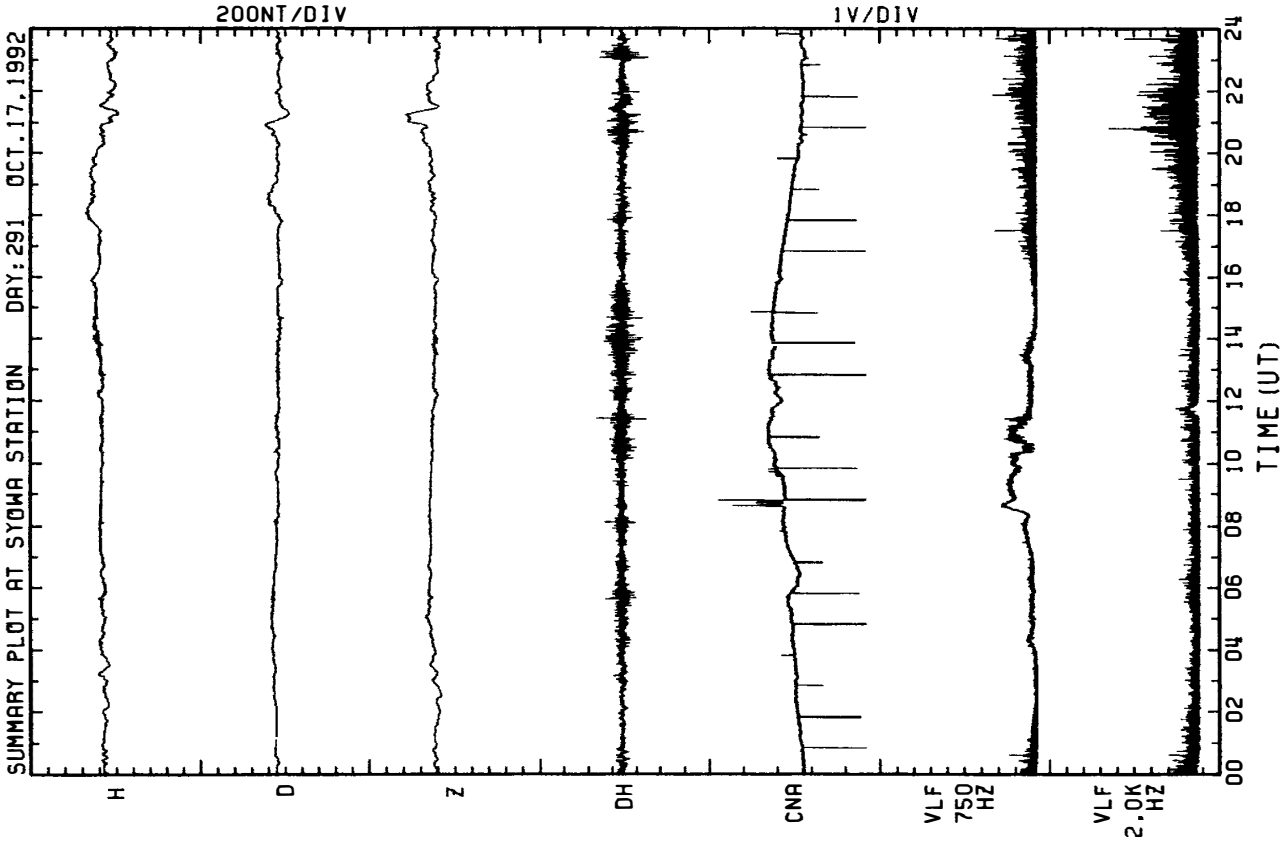

SUMMARY PLOT AT SYOWA STATION DAY:287 OCT.13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

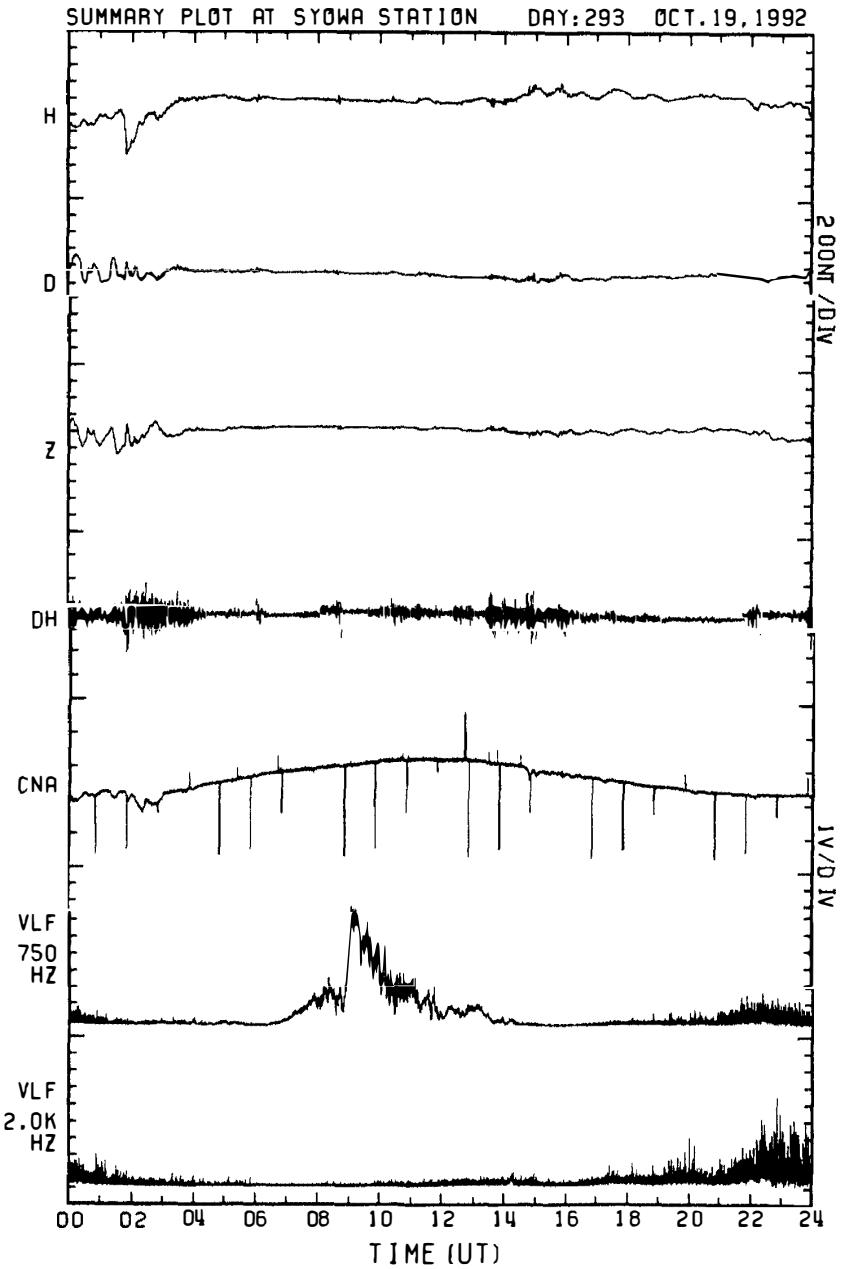

SUMMARY PLOT AT SYOWA STATION DAY:288 OCT.14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

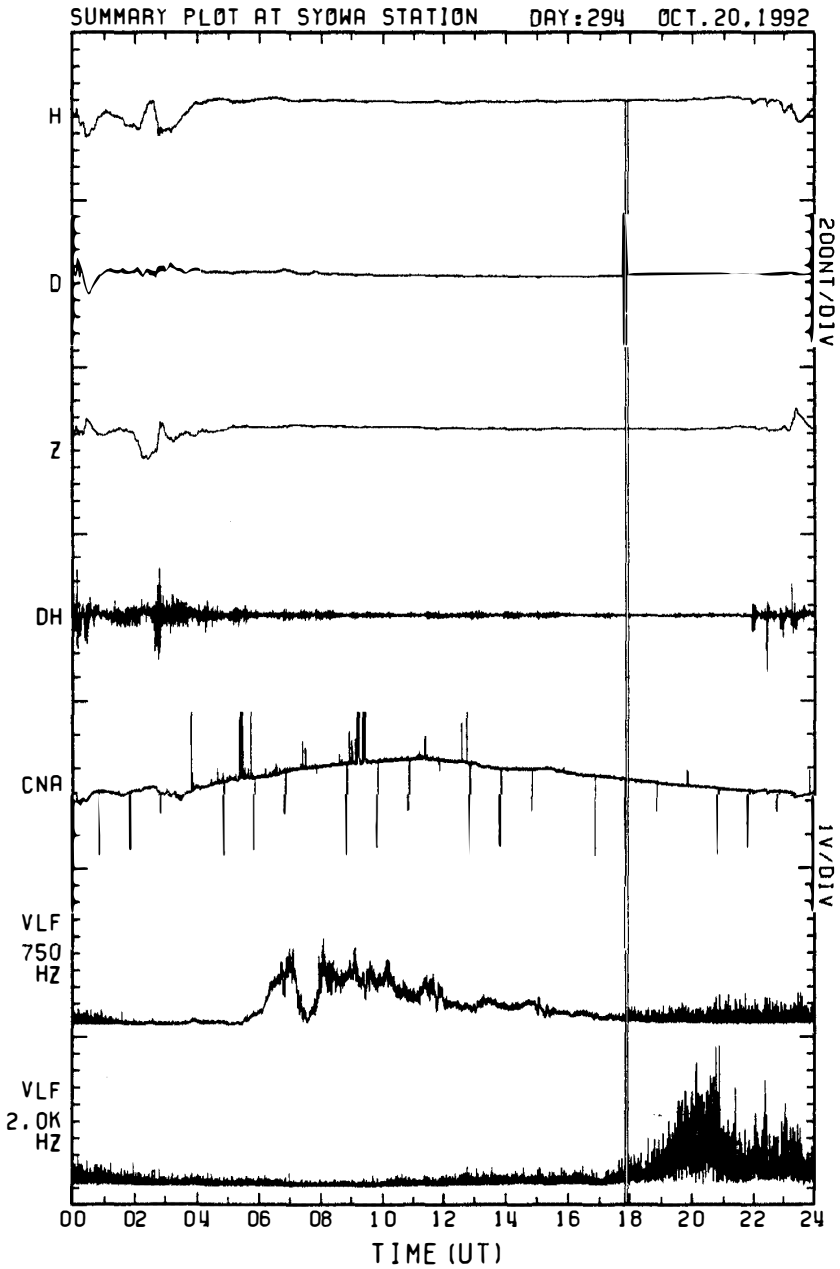

SUMMARY PLOT AT SYOWA STATION DAY:290 OCT.16,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

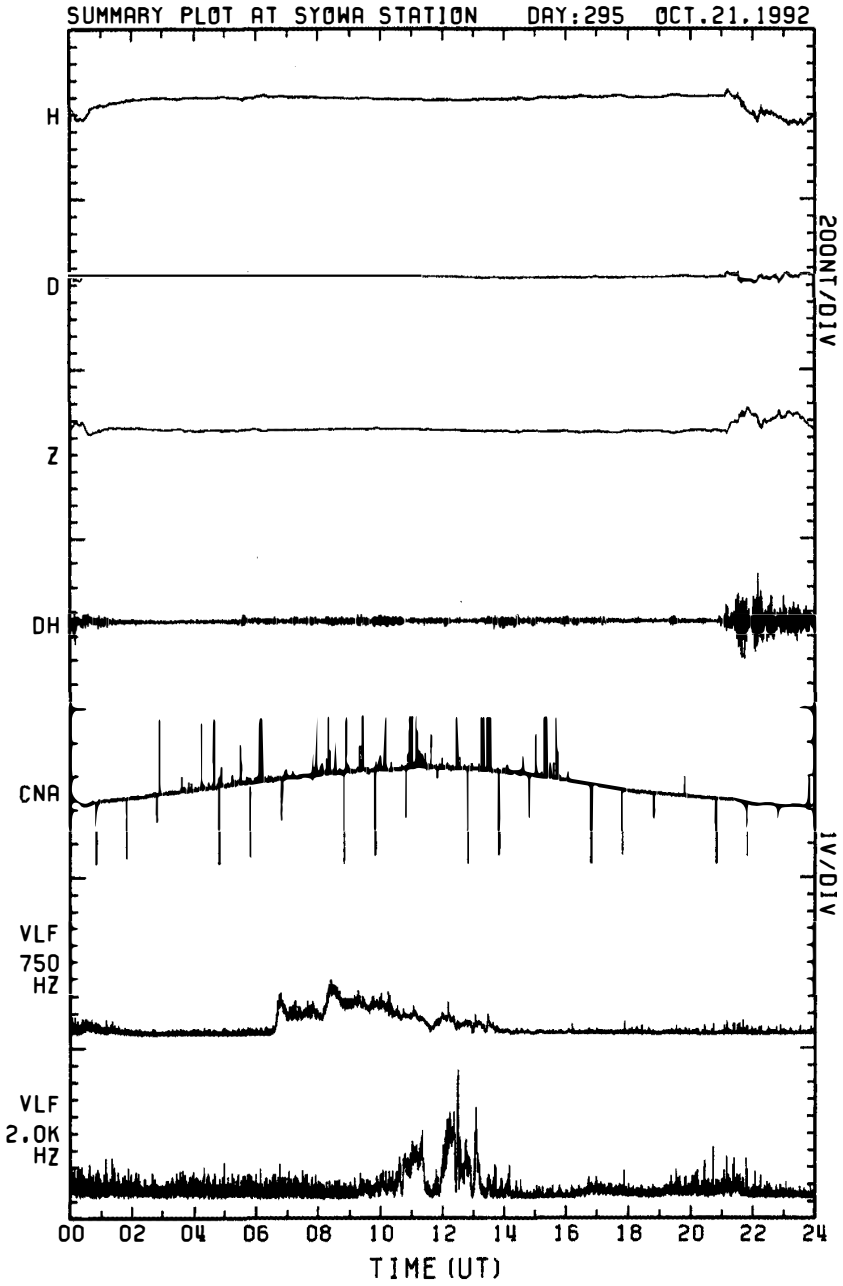

SUMMARY PLOT AT SYOWA STATION DAY:289 OCT.15,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

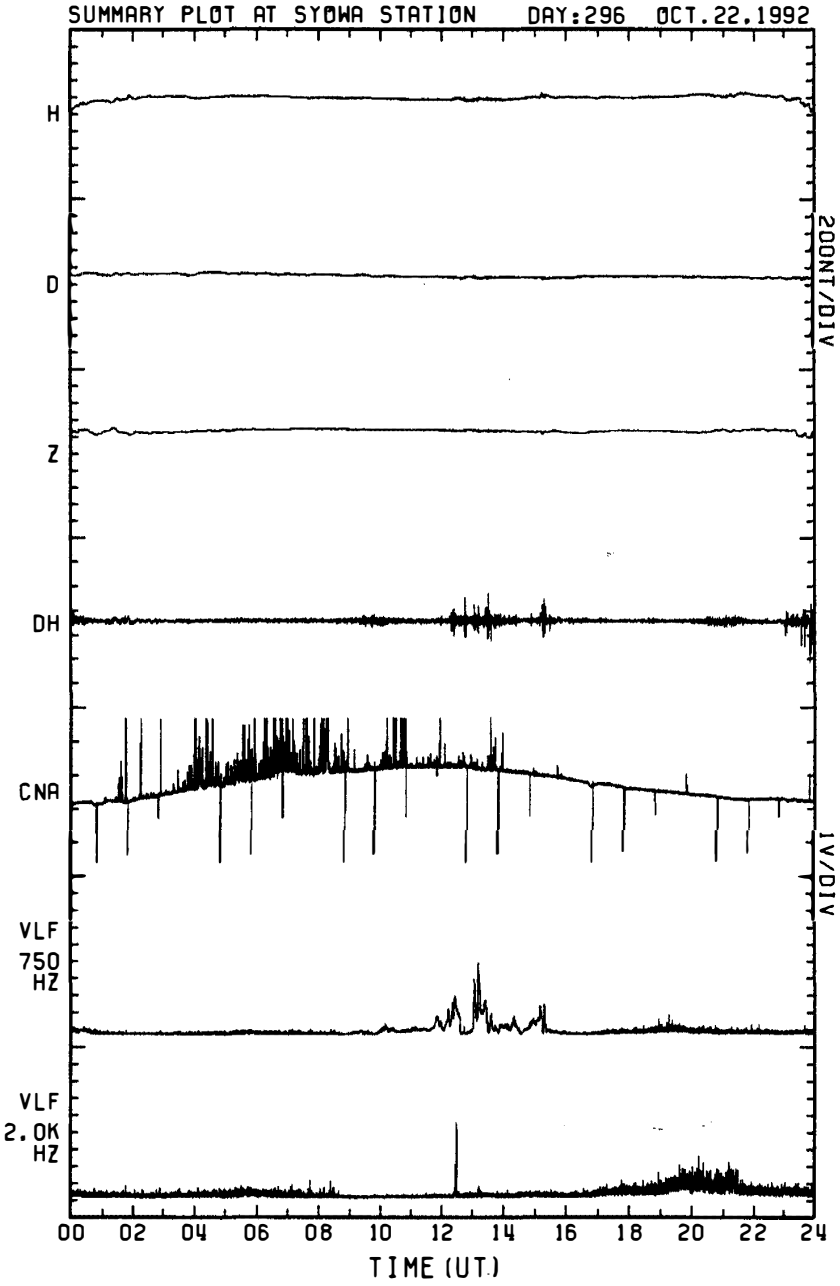

SUMMARY PLOT AT SYOWA STATION DAY:292 OCT.18,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

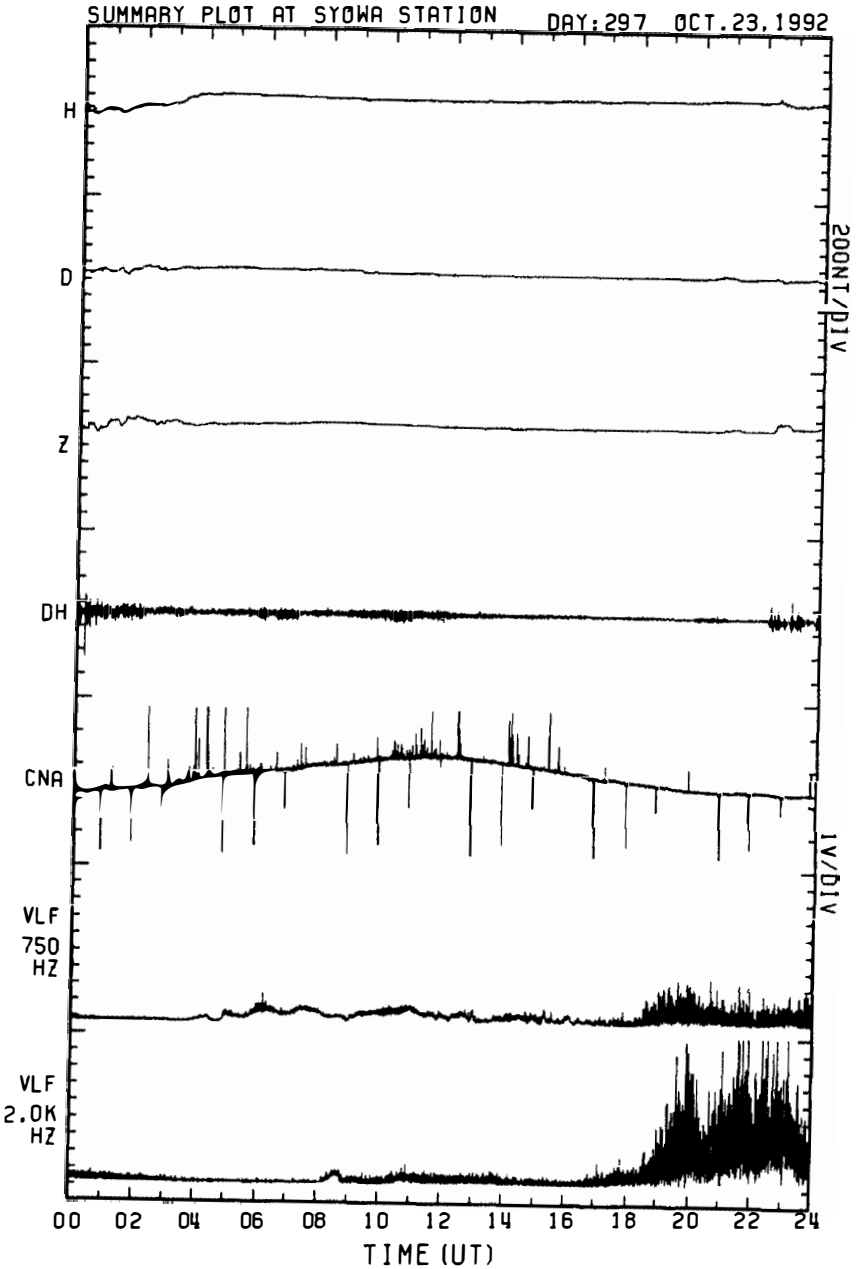

SUMMARY PLOT AT SYOWA STATION DAY:291 OCT.17,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

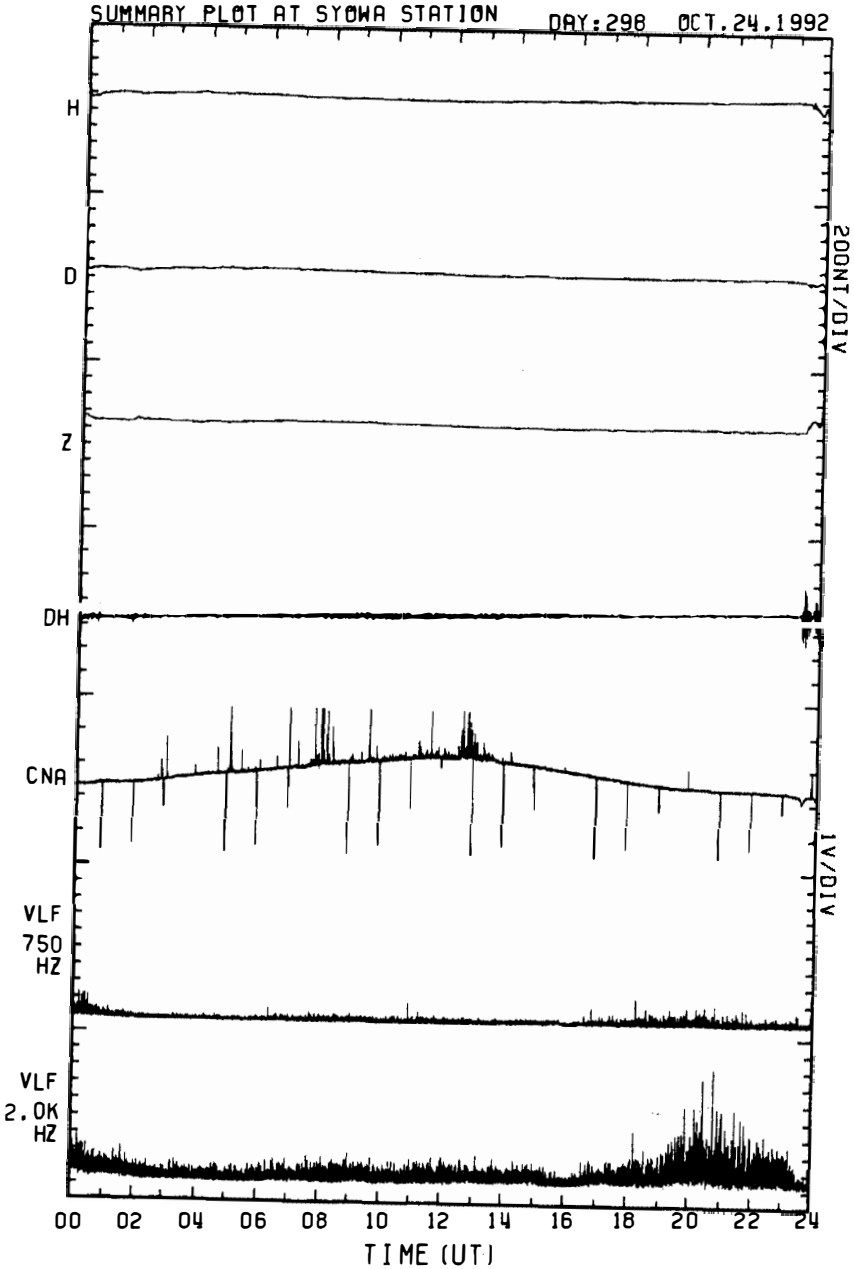

SUMMARY PLOT AT SYOWA STATION DAY:293 OCT.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

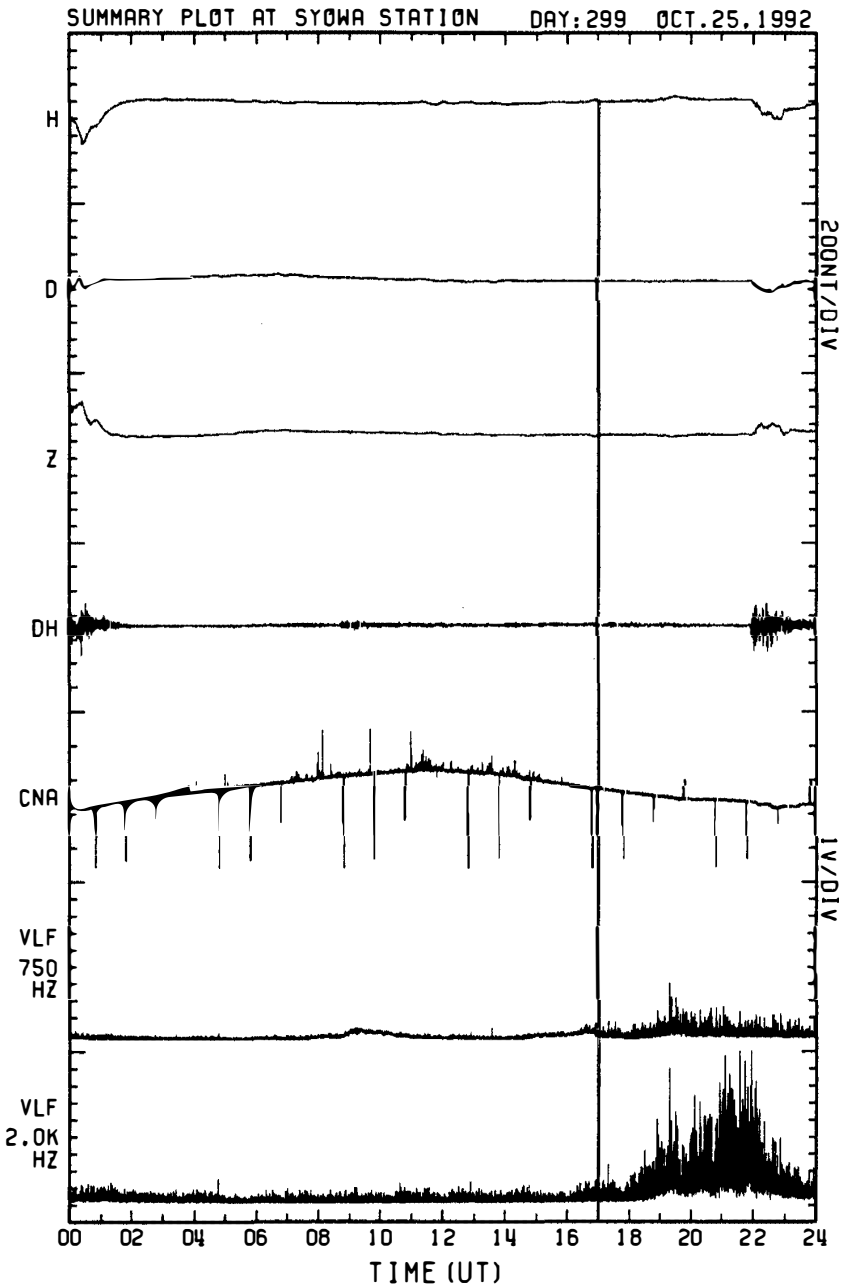

SUMMARY PLOT AT SYOWA STATION DAY:294 OCT.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

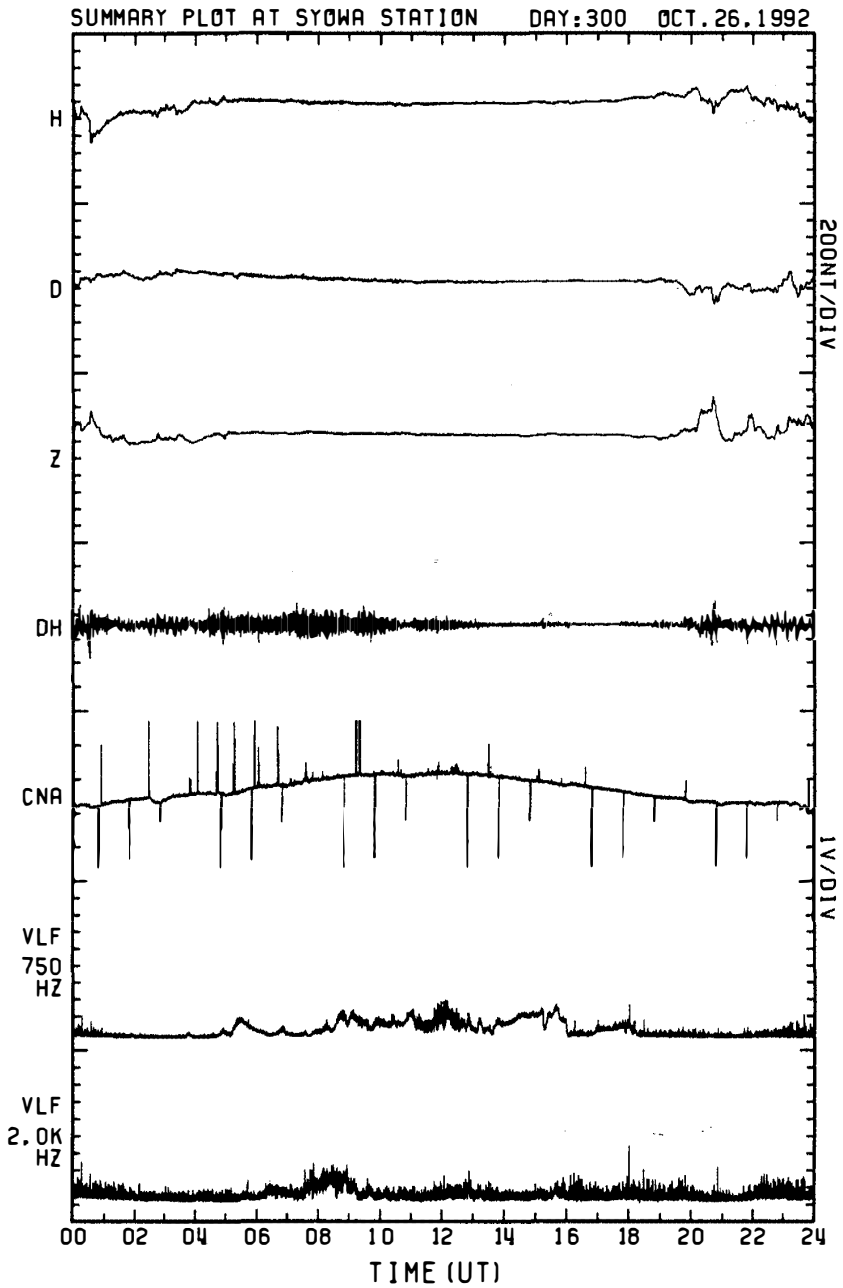

SUMMARY PLOT AT SYOWA STATION DAY:295 OCT.21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

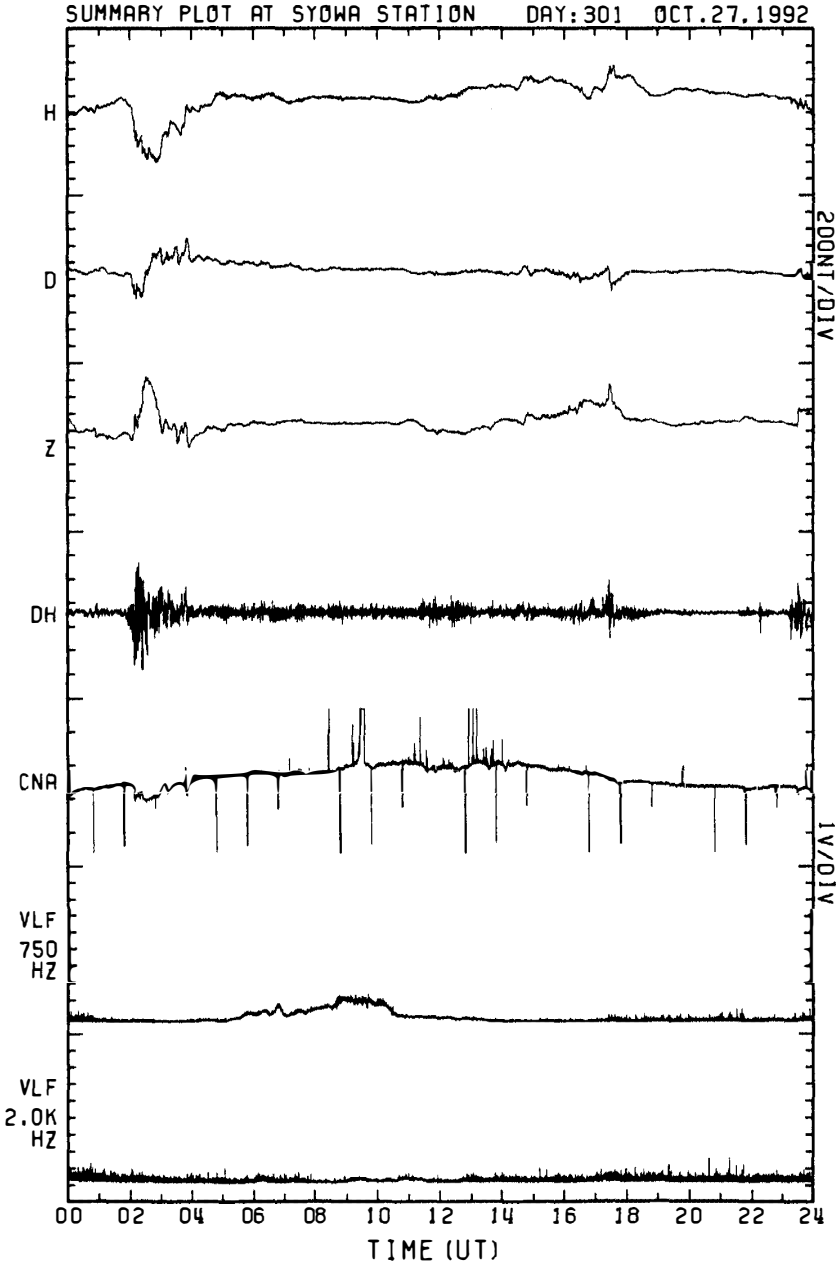

SUMMARY PLOT AT SYOWA STATION DAY:296 OCT.22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

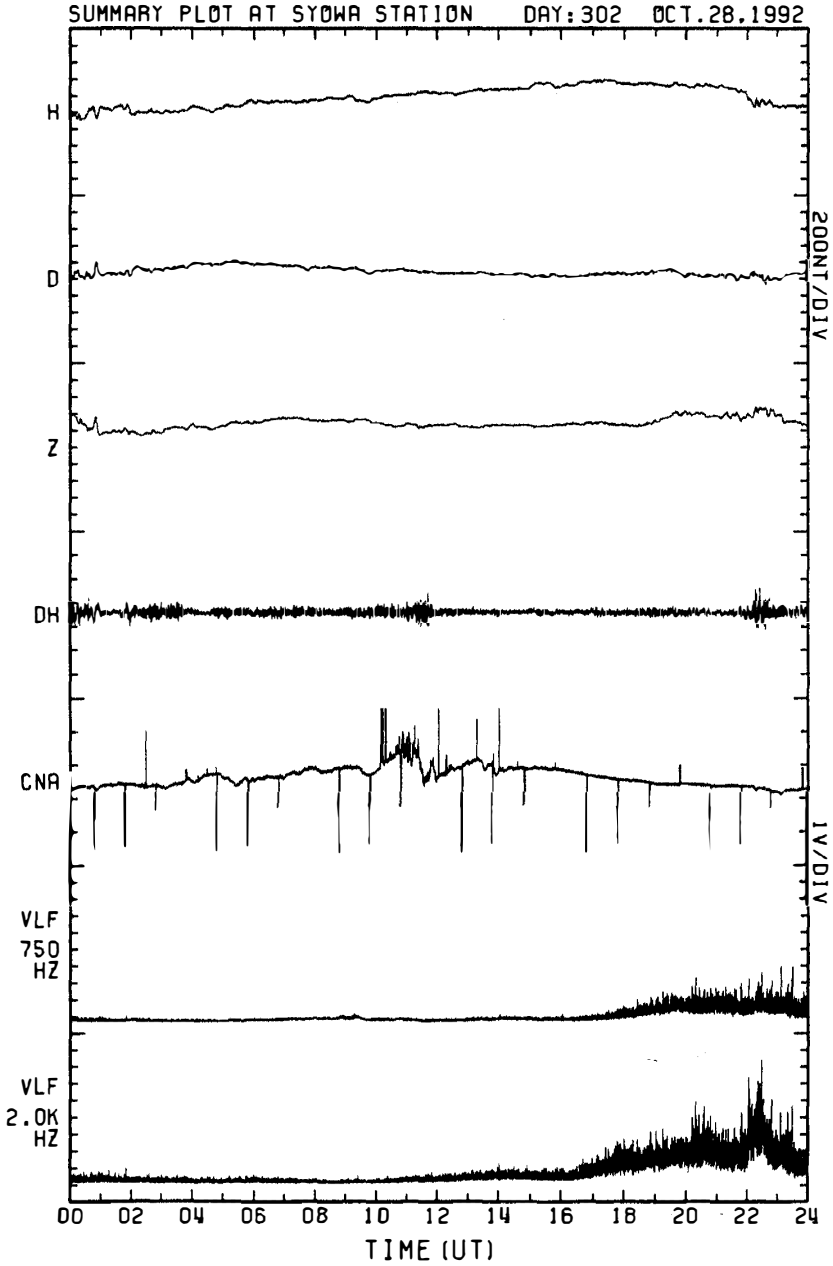

SUMMARY PLOT AT SYOWA STATION
DAY:297 OCT.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

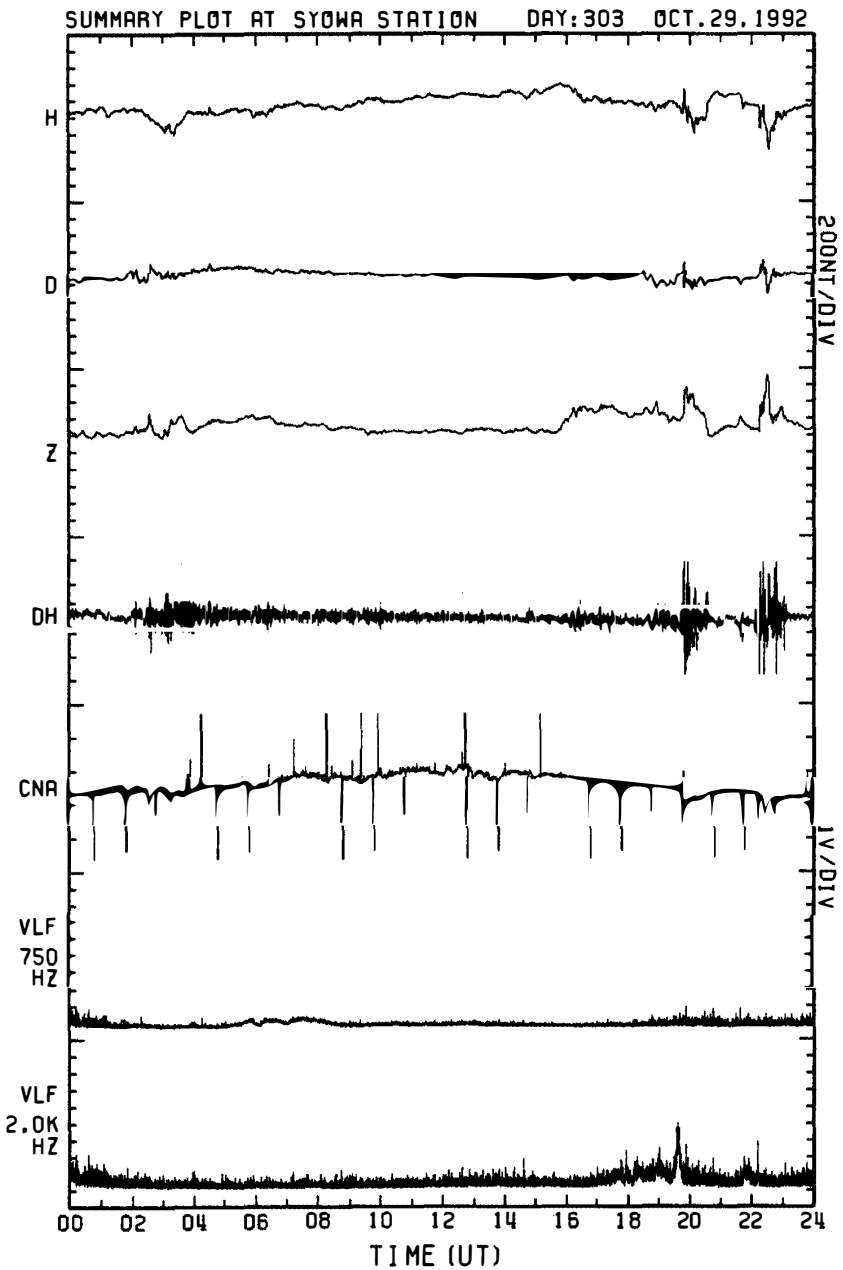

SUMMARY PLOT AT SYOWA STATION
DAY:298 OCT.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

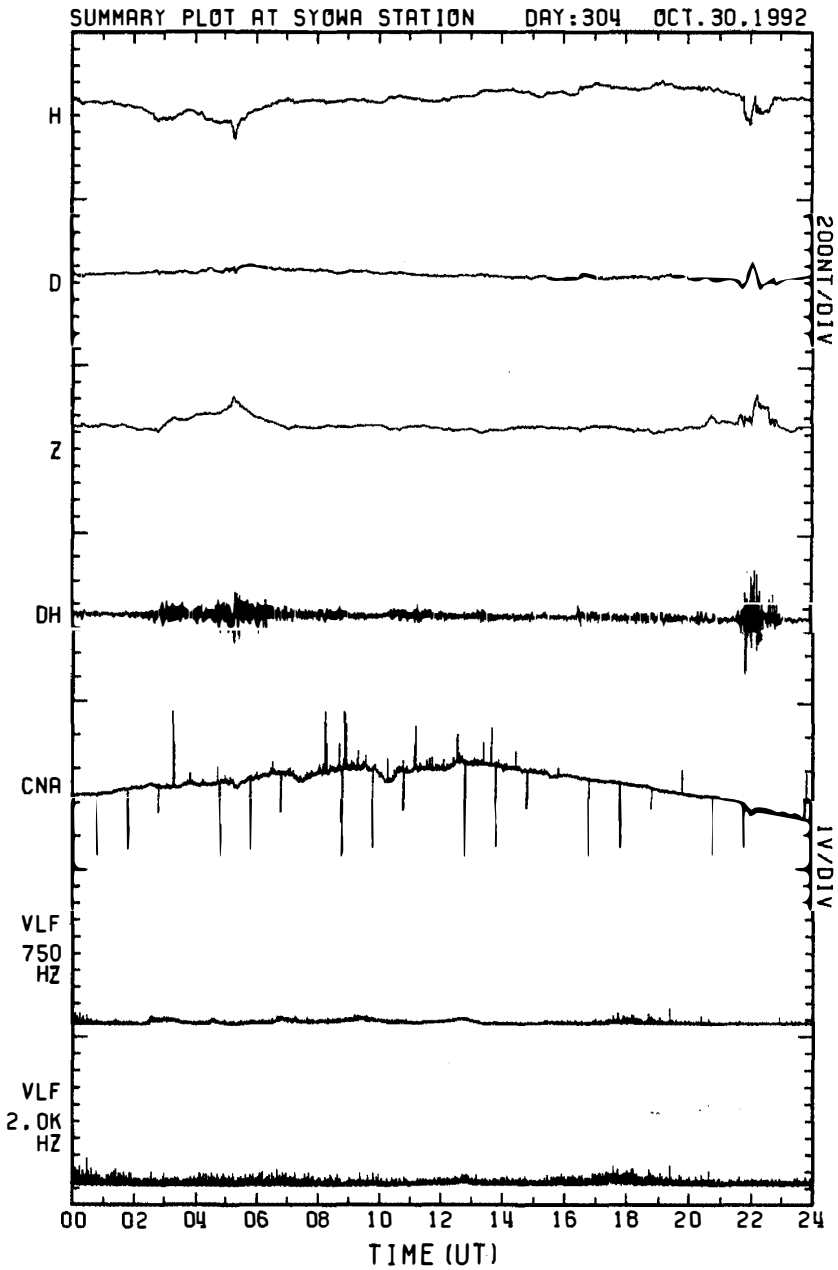

SUMMARY PLOT AT SYOWA STATION DAY:299 OCT.25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

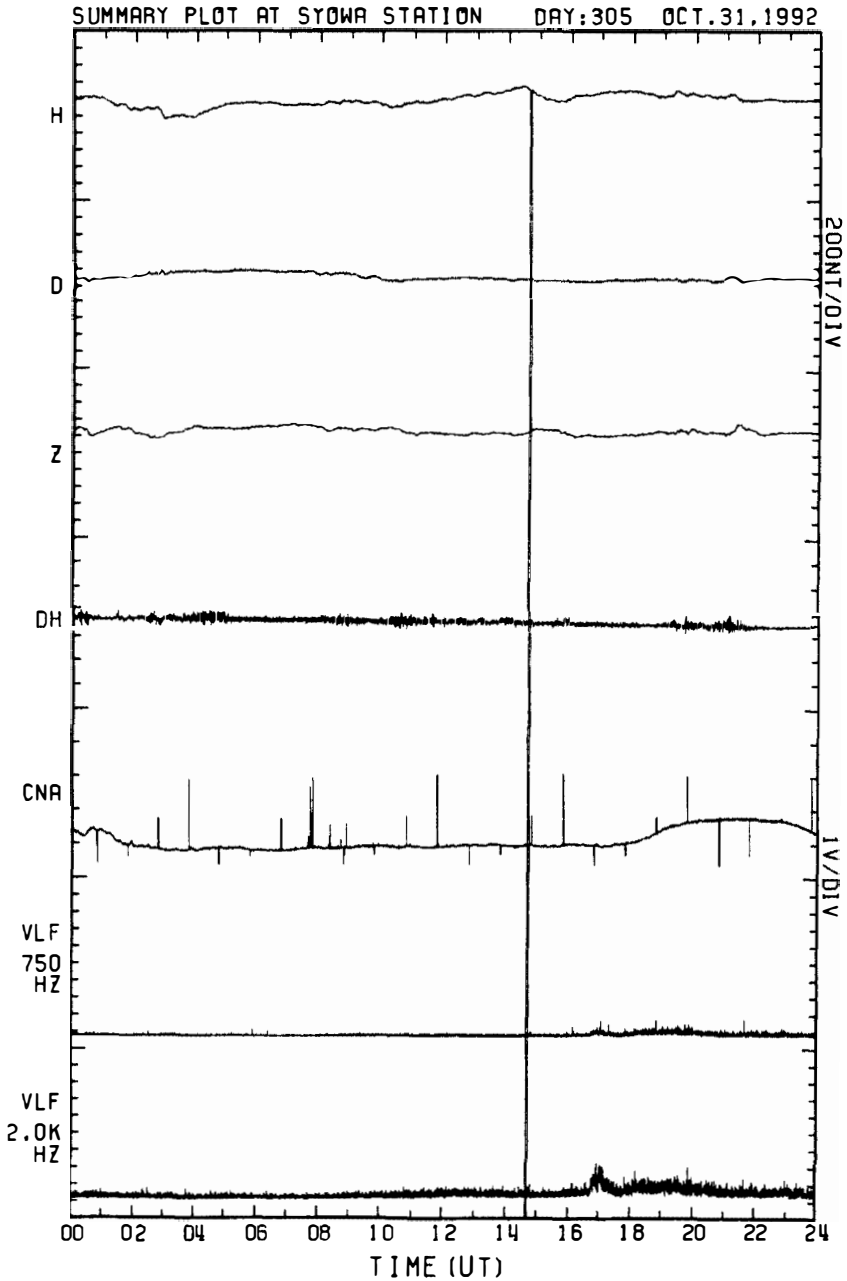

SUMMARY PLOT AT SYOWA STATION DAY:300 OCT.26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

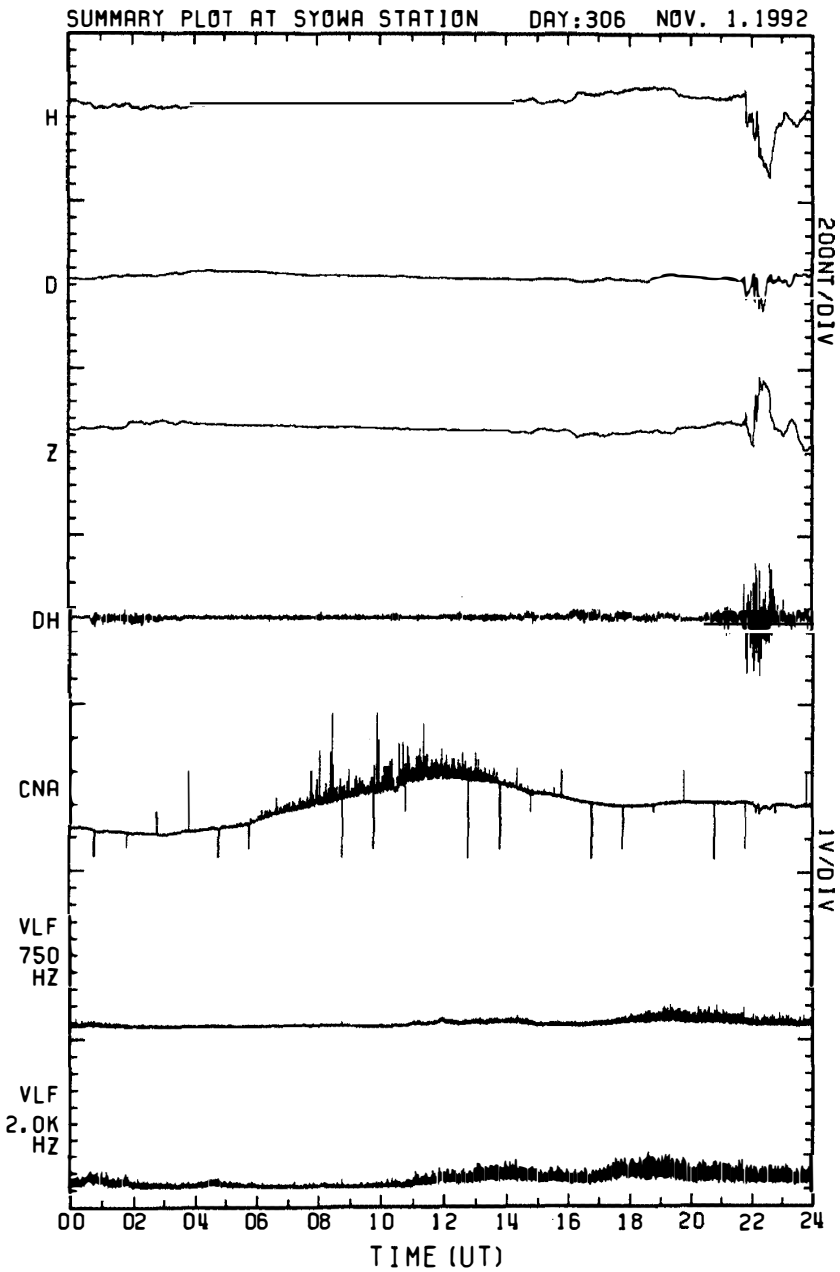

SUMMARY PLOT AT SYOWA STATION DAY:301 OCT.27.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

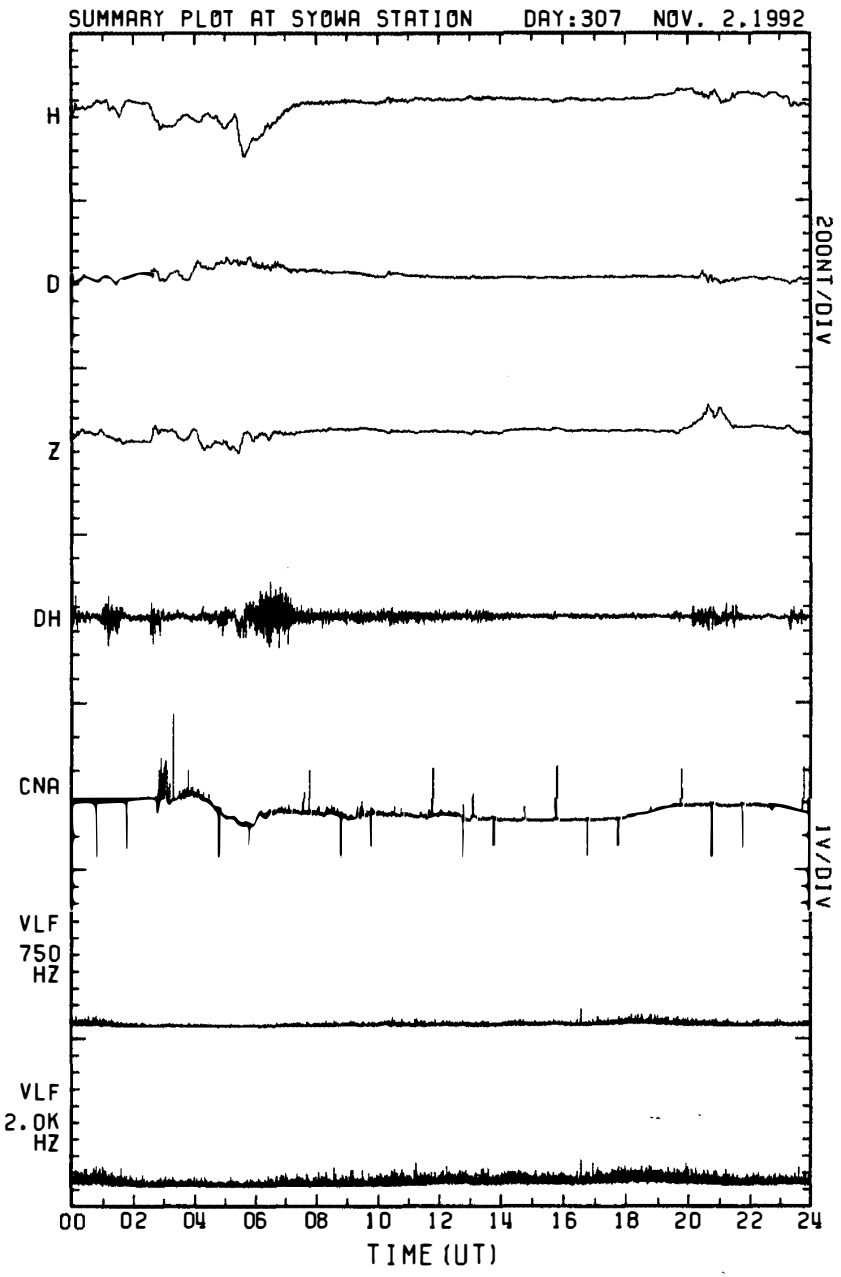

SUMMARY PLOT AT SYOWA STATION DAY:302 OCT.28.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

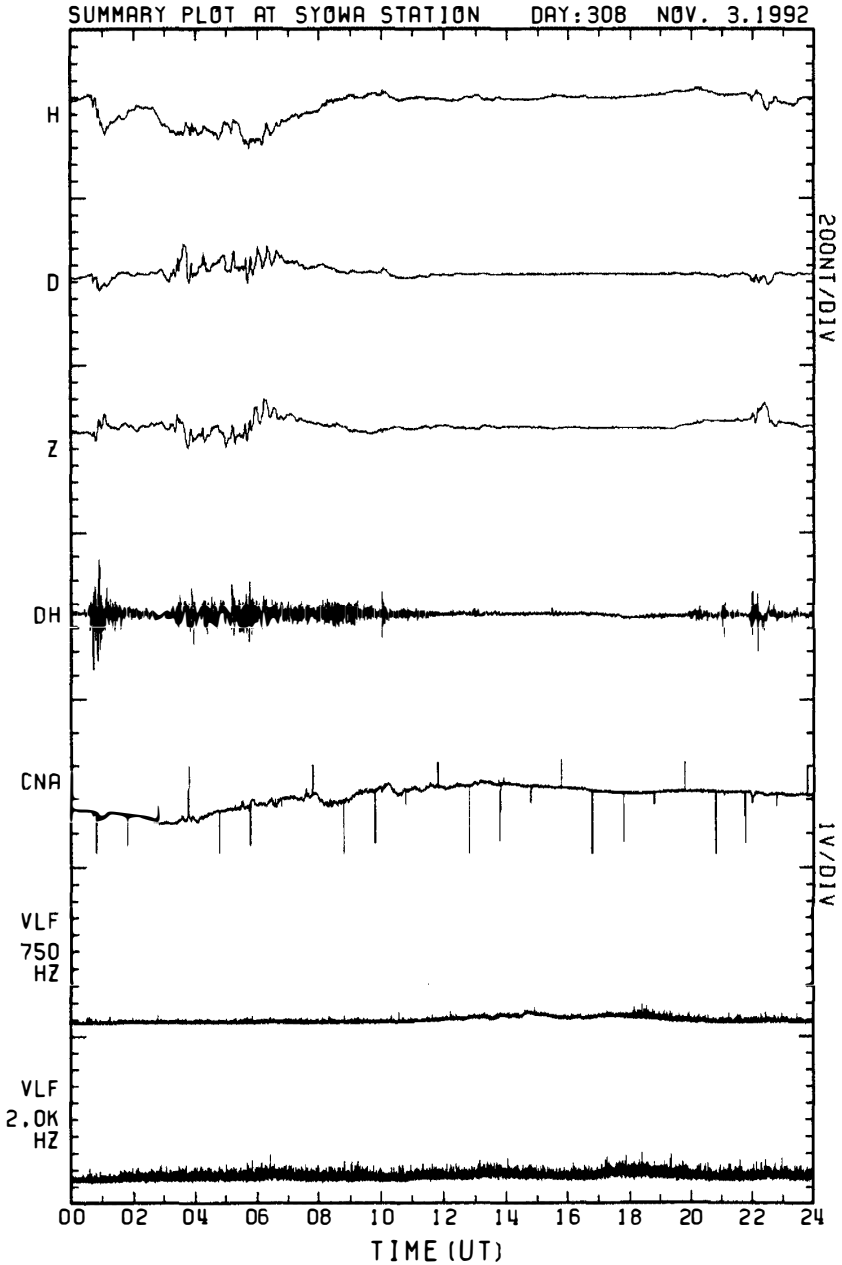

SUMMARY PLOT AT SYOWA STATION DAY:303 OCT.29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

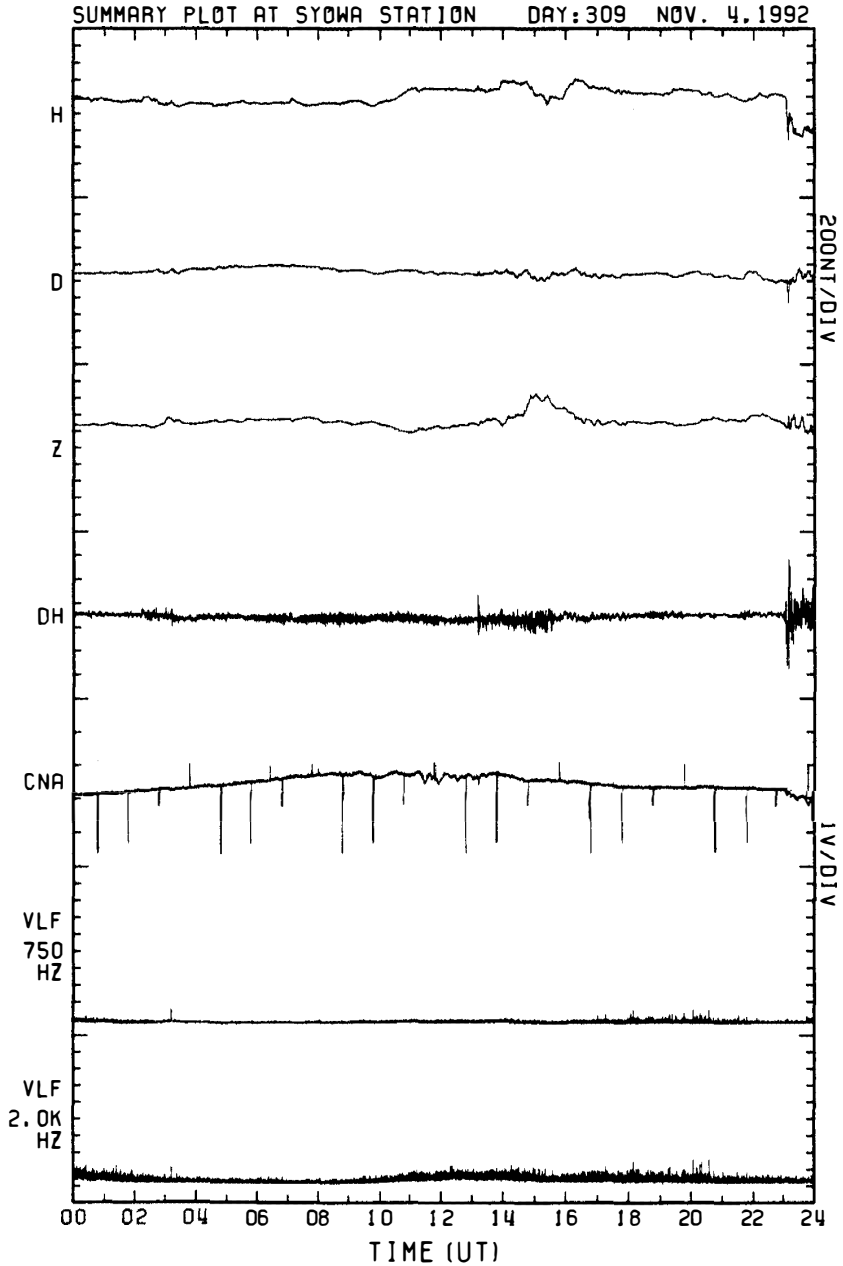

SUMMARY PLOT AT SYOWA STATION DAY:304 OCT.30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

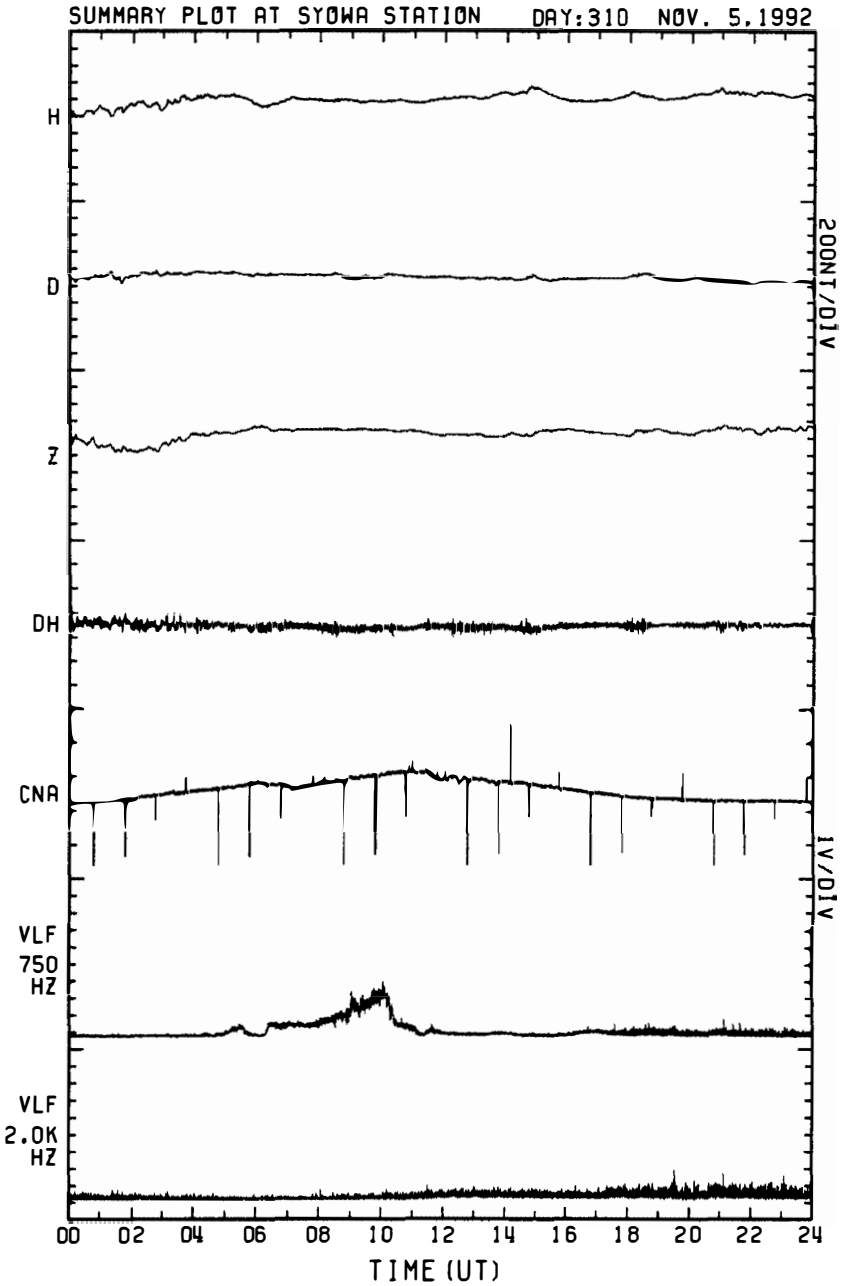

SUMMARY PLOT AT SYOWA STATION DAY:305 OCT.31,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

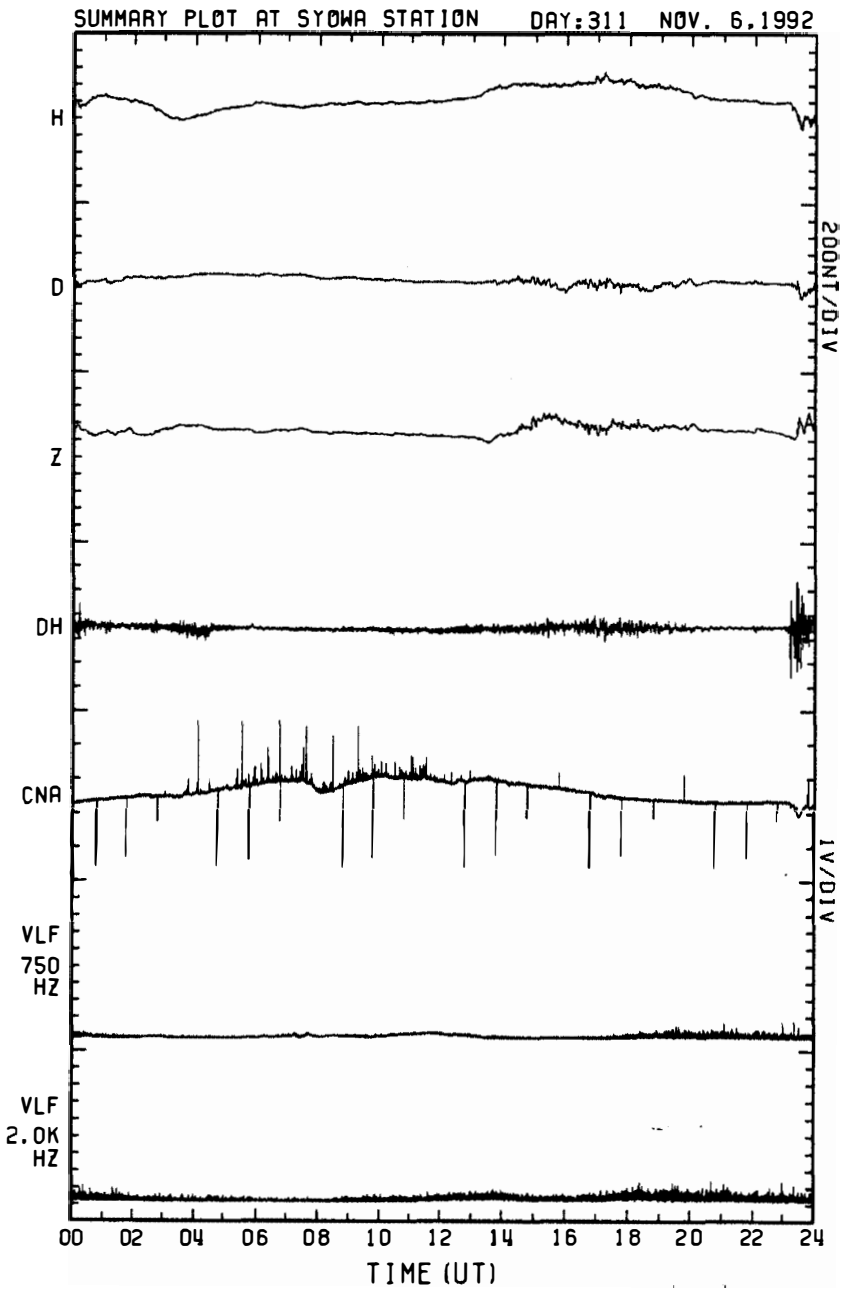

SUMMARY PLOT AT SYOWA STATION DAY:306 NOV. 1.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

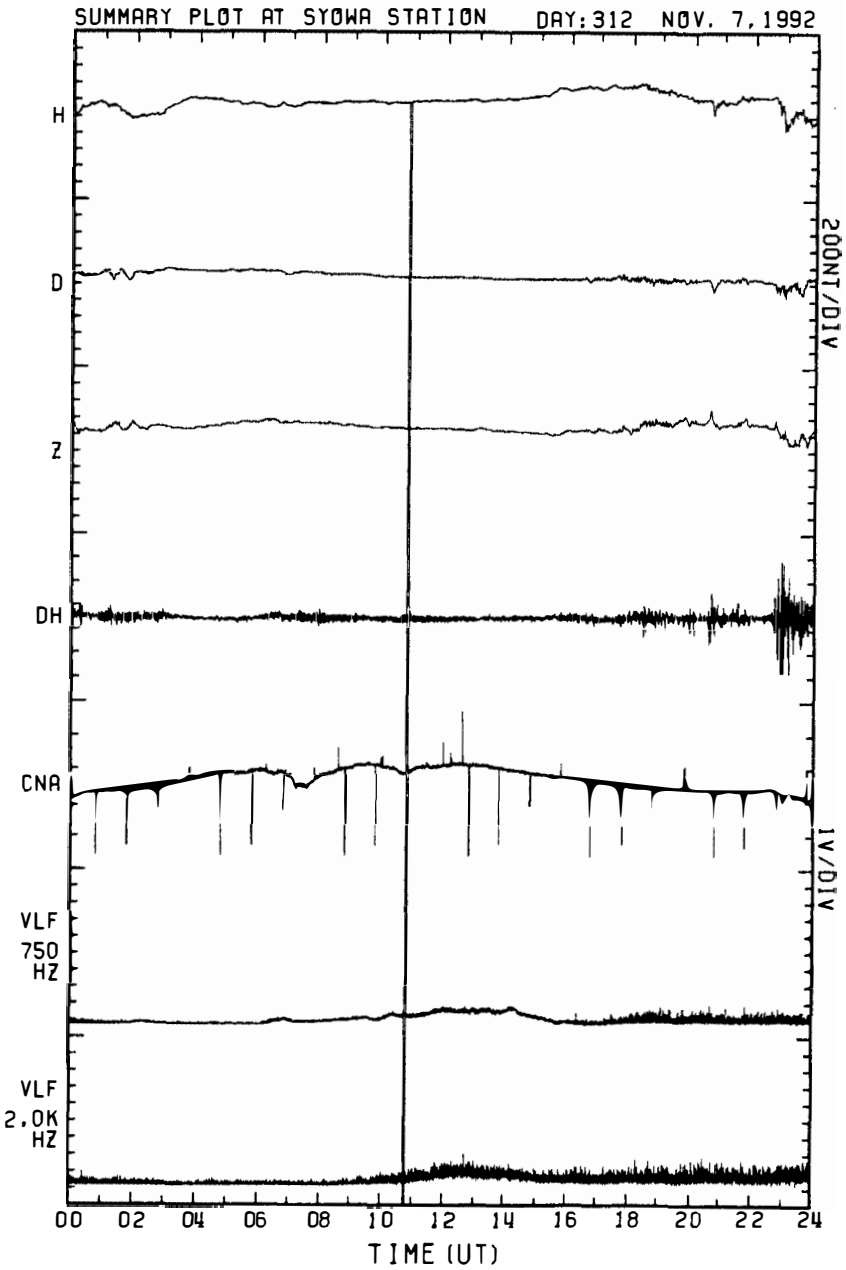

SUMMARY PLOT AT SYOWA STATION DAY:307 NOV. 2.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

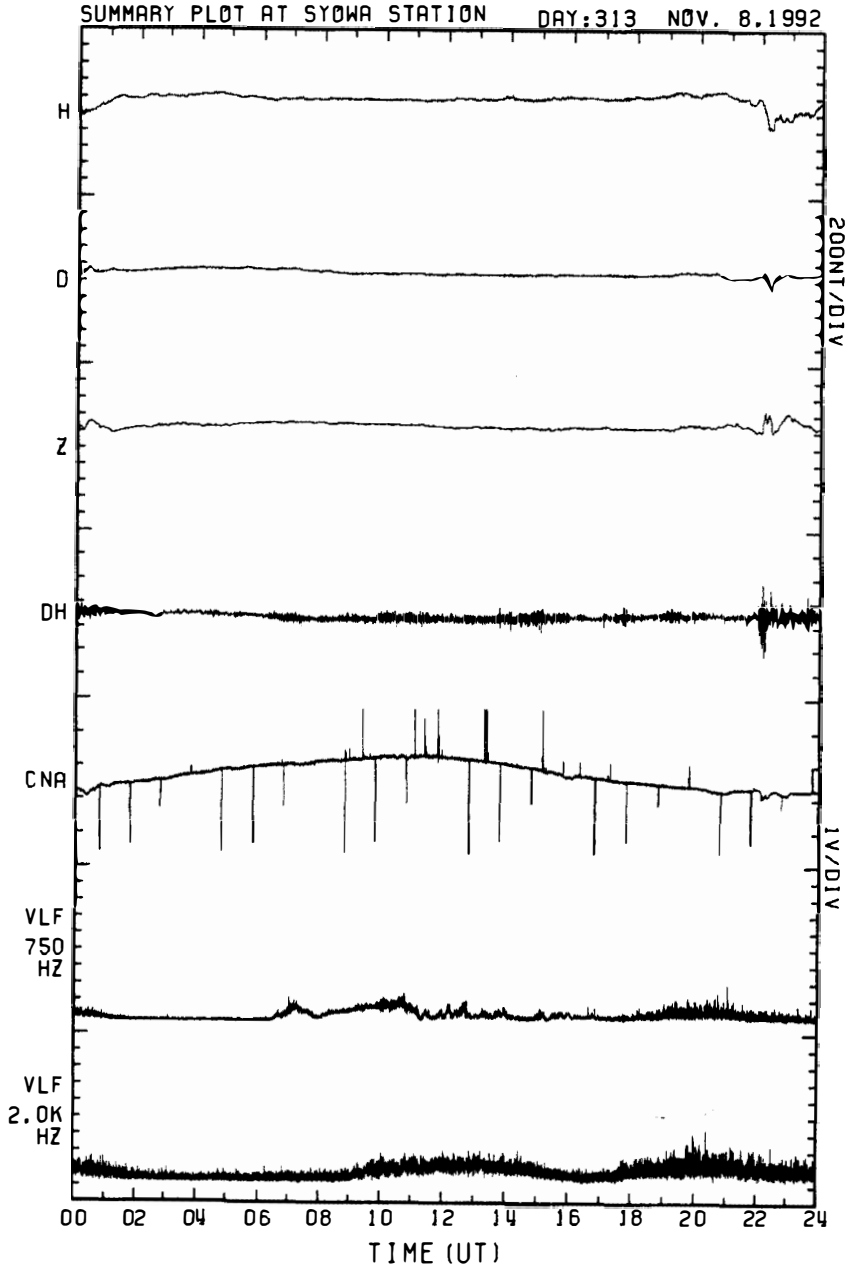

SUMMARY PLOT AT SYOWA STATION DAY:308 NOV. 3.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

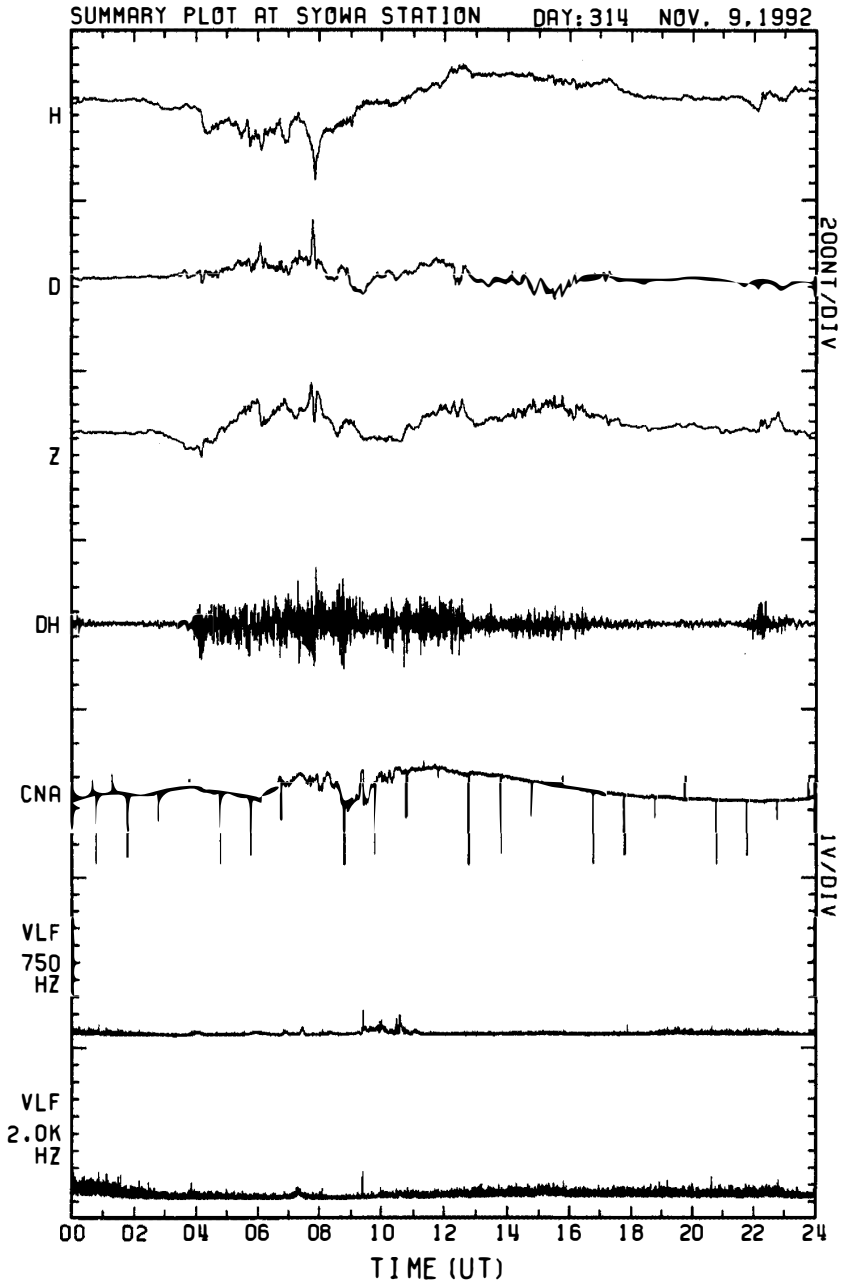

SUMMARY PLOT AT SYOWA STATION DAY:309 NOV. 4.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

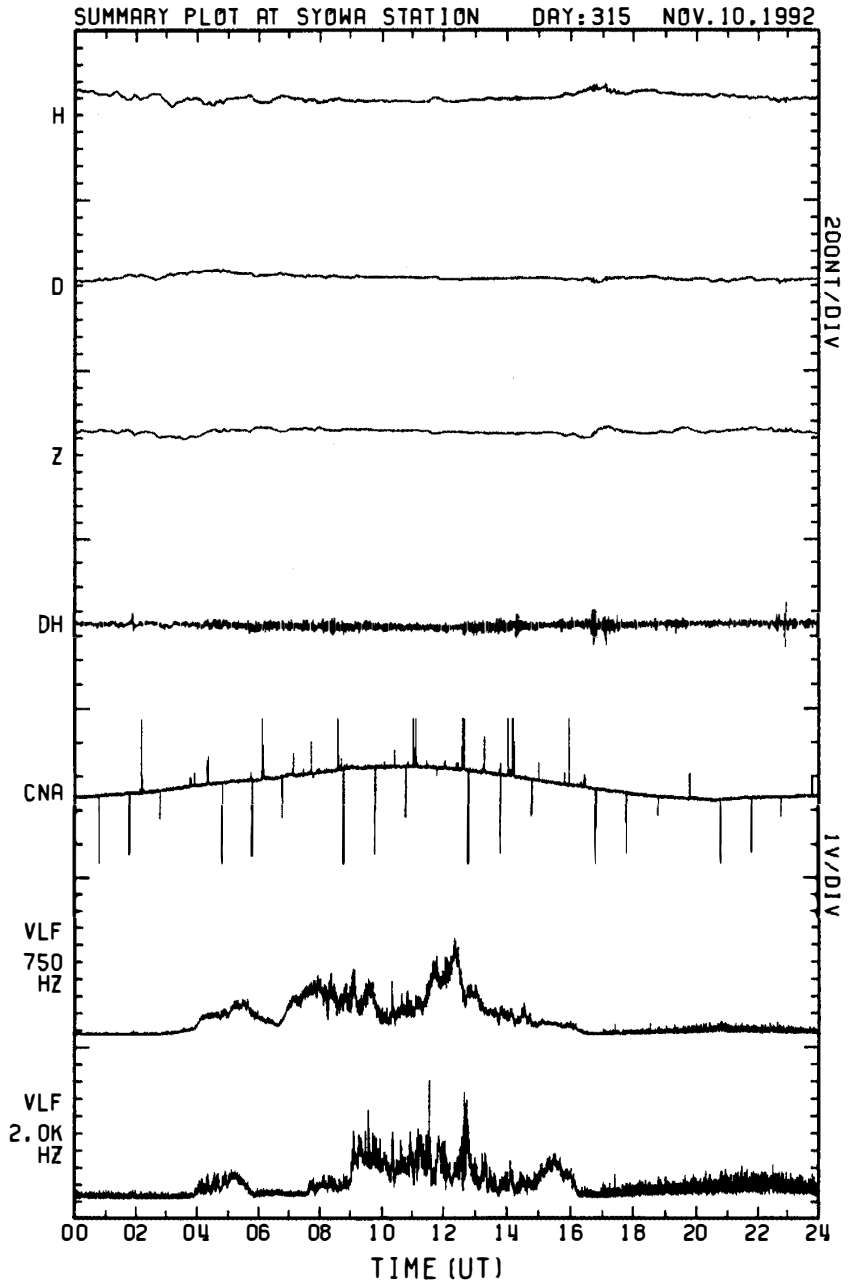

SUMMARY PLOT AT SYOWA STATION DAY:310 NOV. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

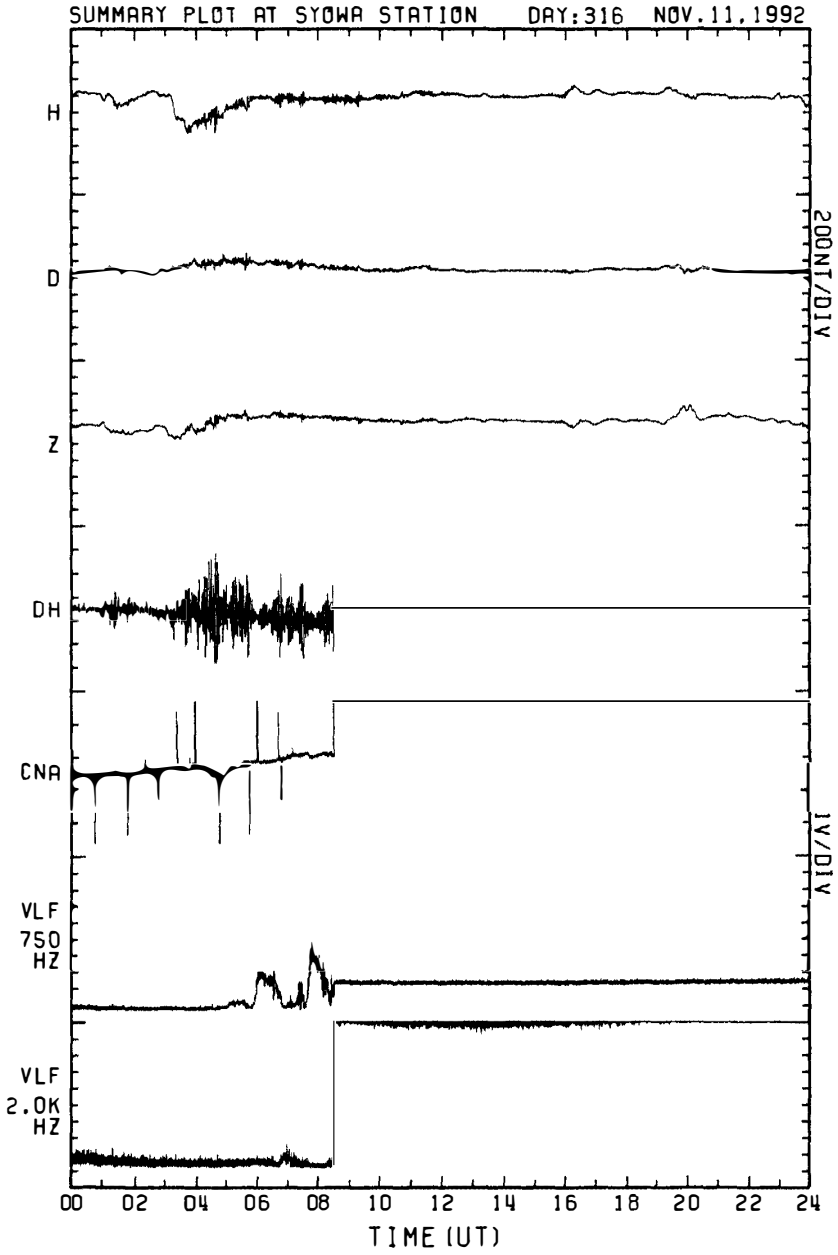

SUMMARY PLOT AT SYOWA STATION DAY:311 NOV. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

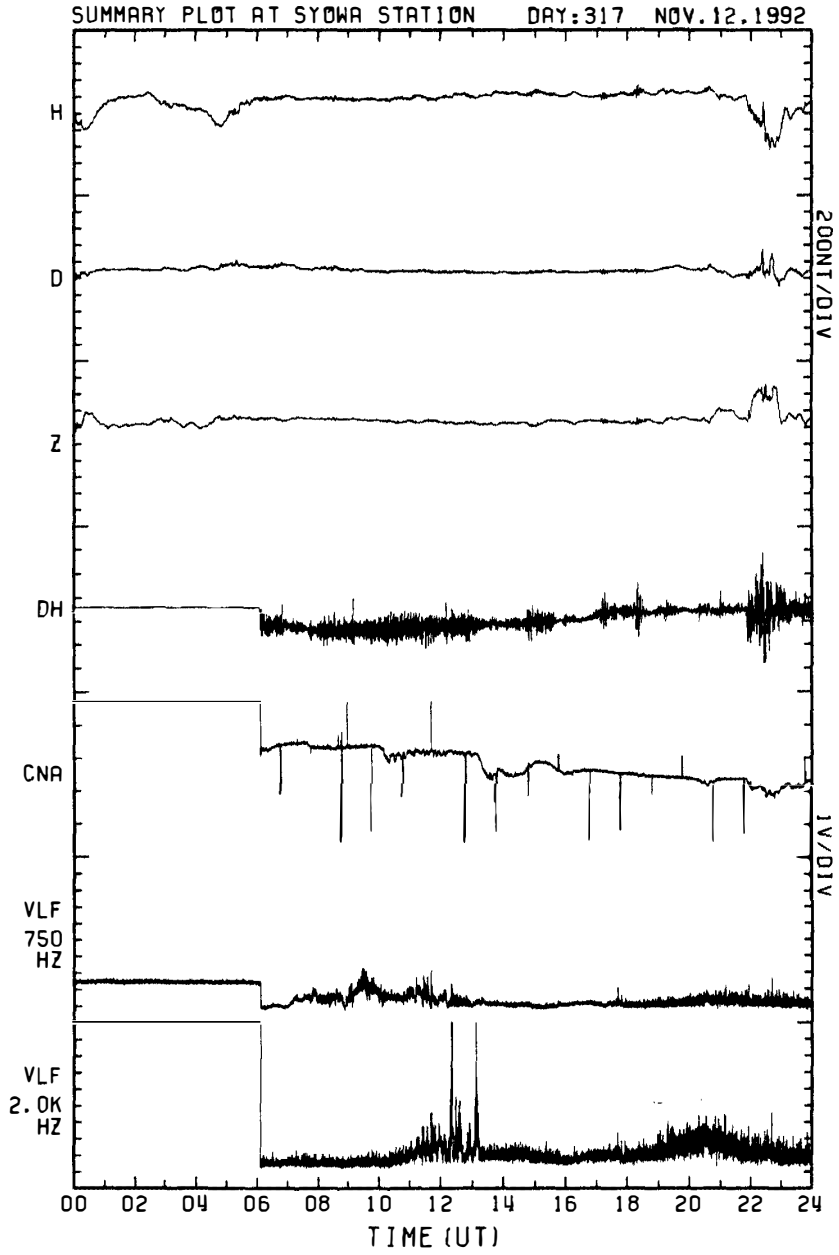

SUMMARY PLOT AT SYOWA STATION DAY:312 NOV. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

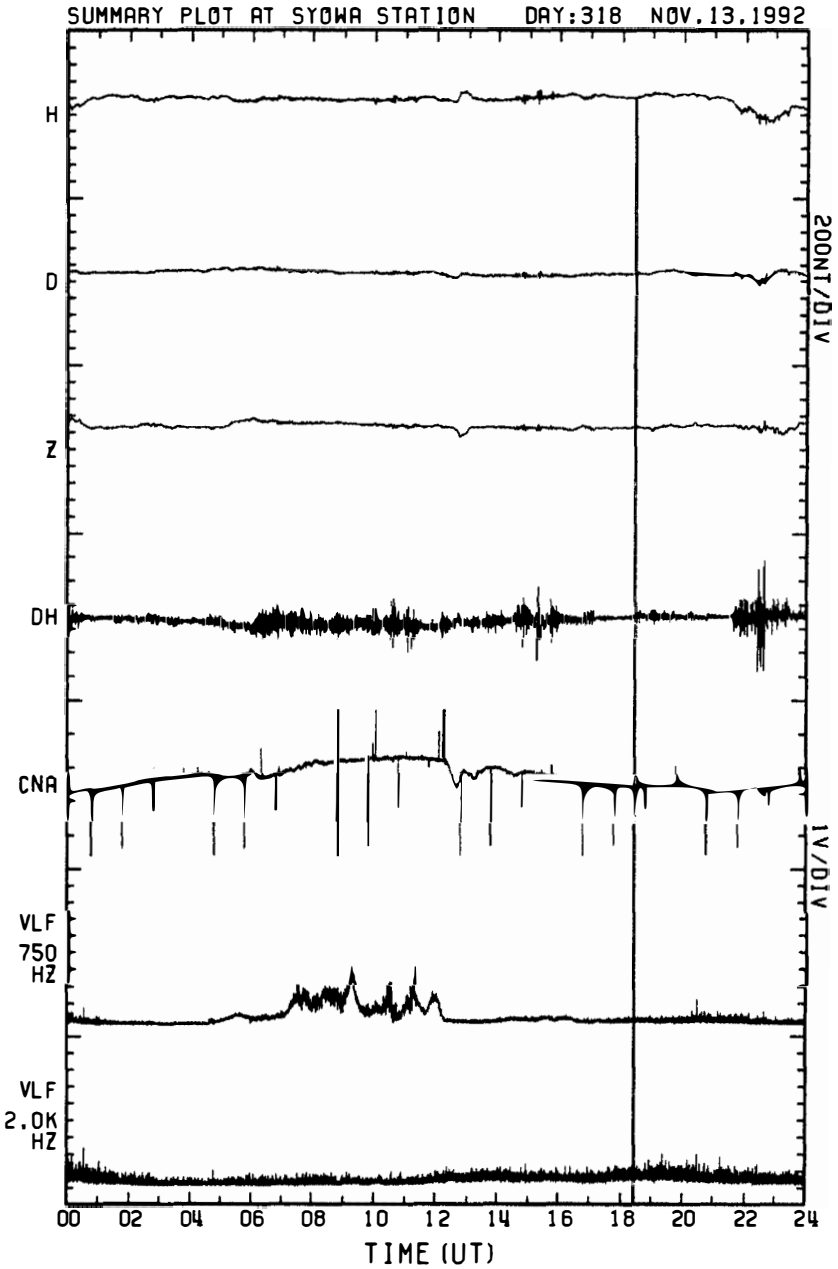

SUMMARY PLOT AT SYOWA STATION DAY:313 NOV. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

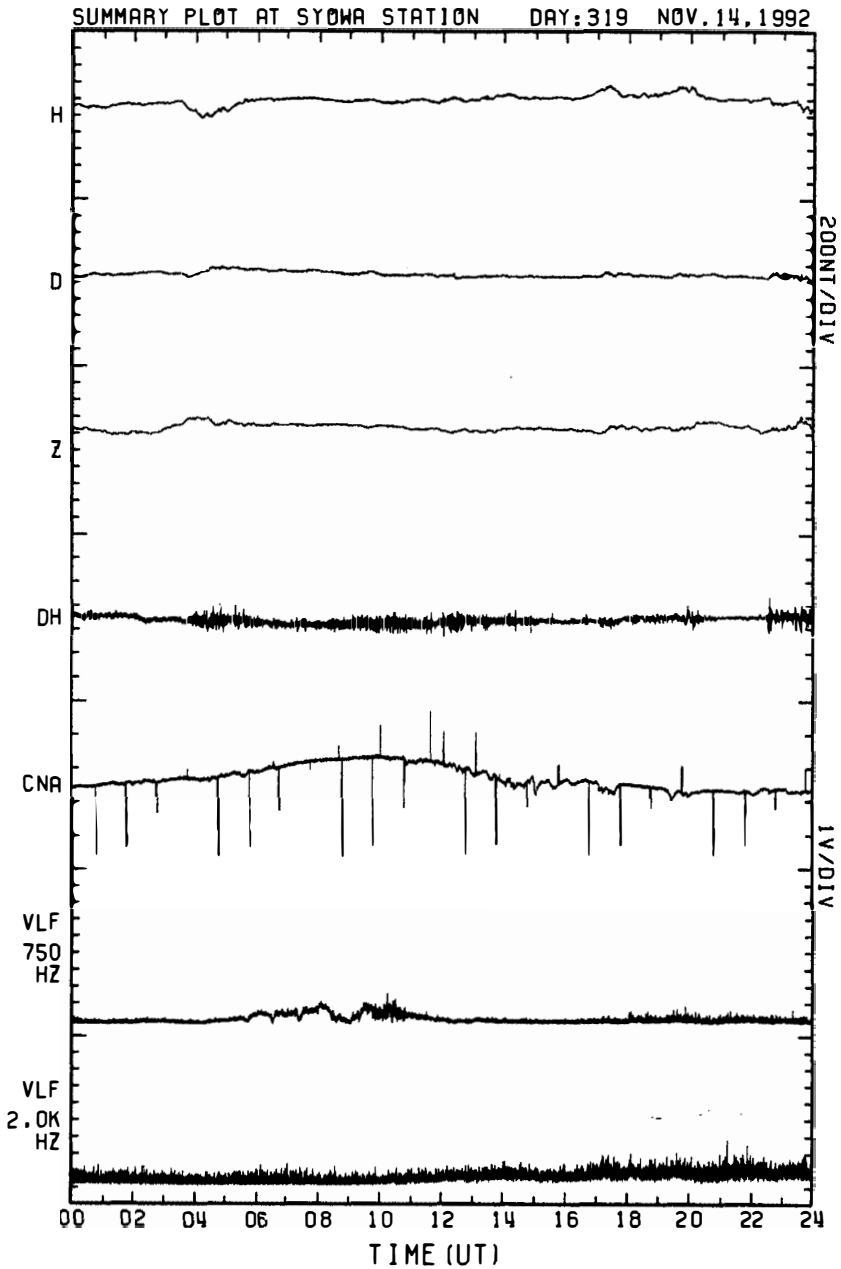

SUMMARY PLOT AT SYOWA STATION DAY:314 NOV. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

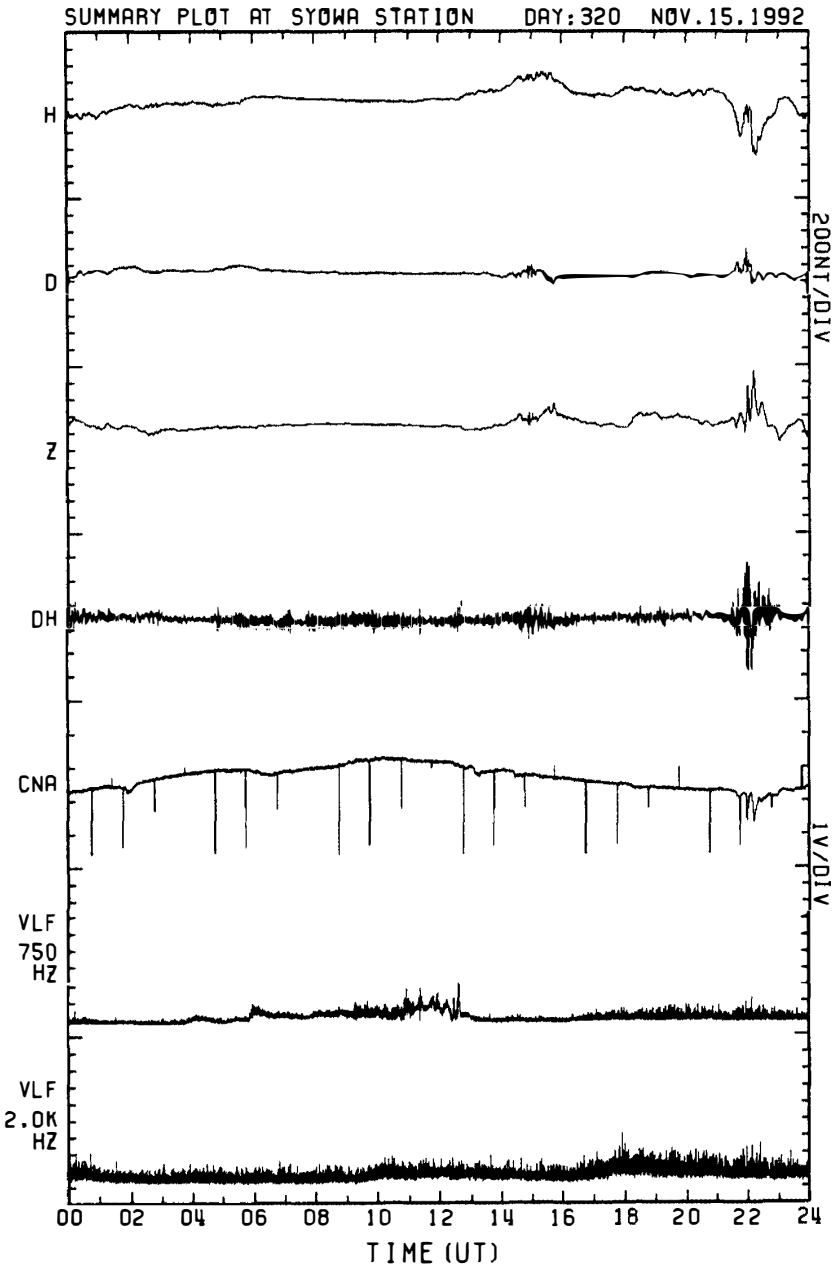

SUMMARY PLOT AT SYOWA STATION DAY:315 NOV.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

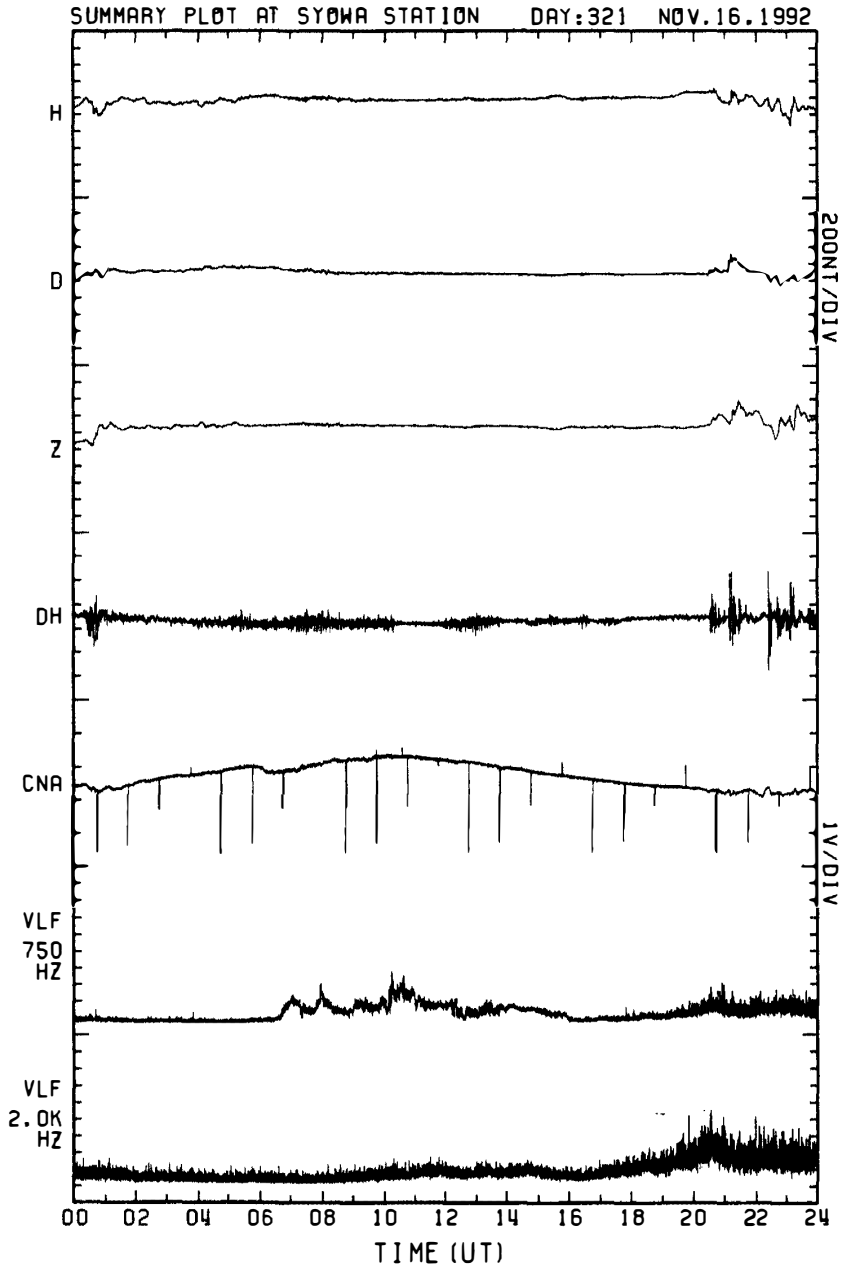

SUMMARY PLOT AT SYOWA STATION DAY:316 NOV.11.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

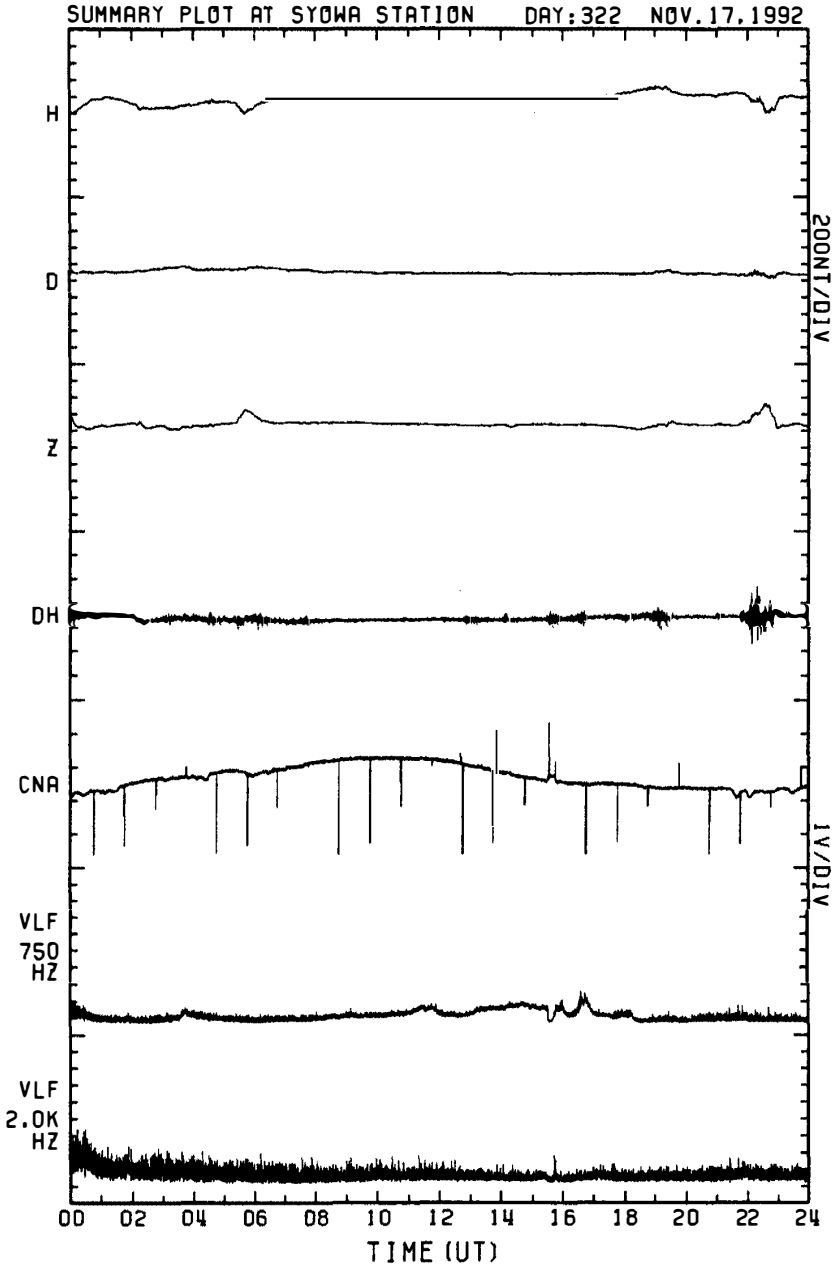

SUMMARY PLOT AT SYOWA STATION DAY:317 NOV.12.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

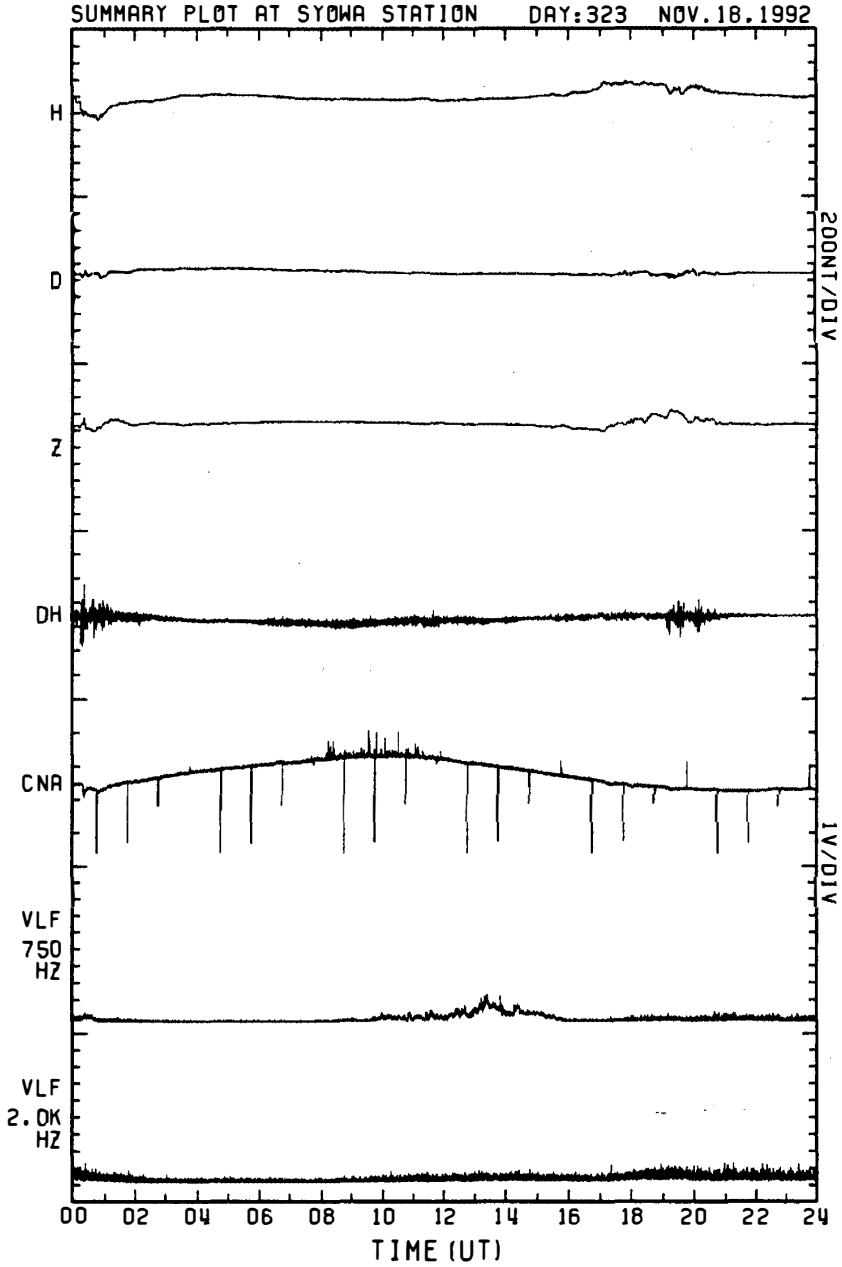

SUMMARY PLOT AT SYOWA STATION DAY:318 NOV.13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

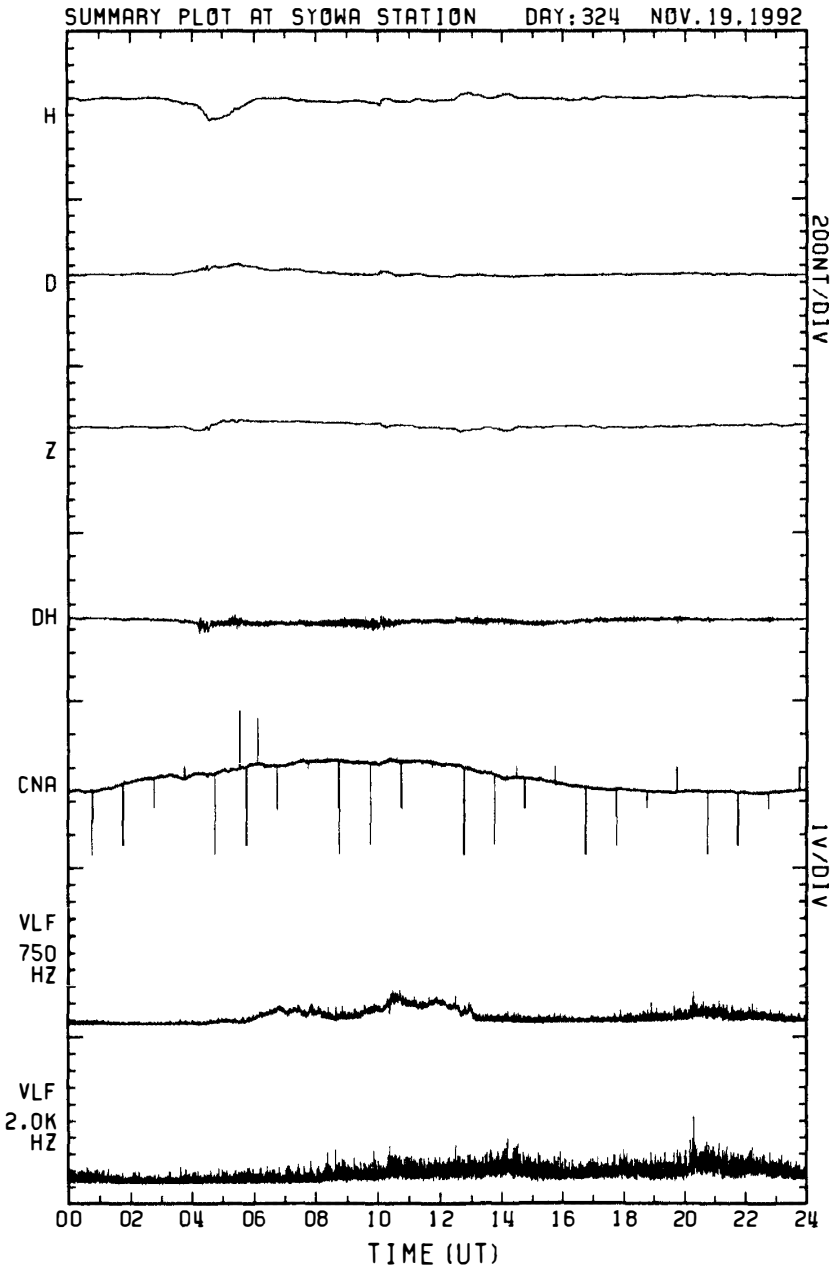

SUMMARY PLOT AT SYOWA STATION DAY:319 NOV.14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

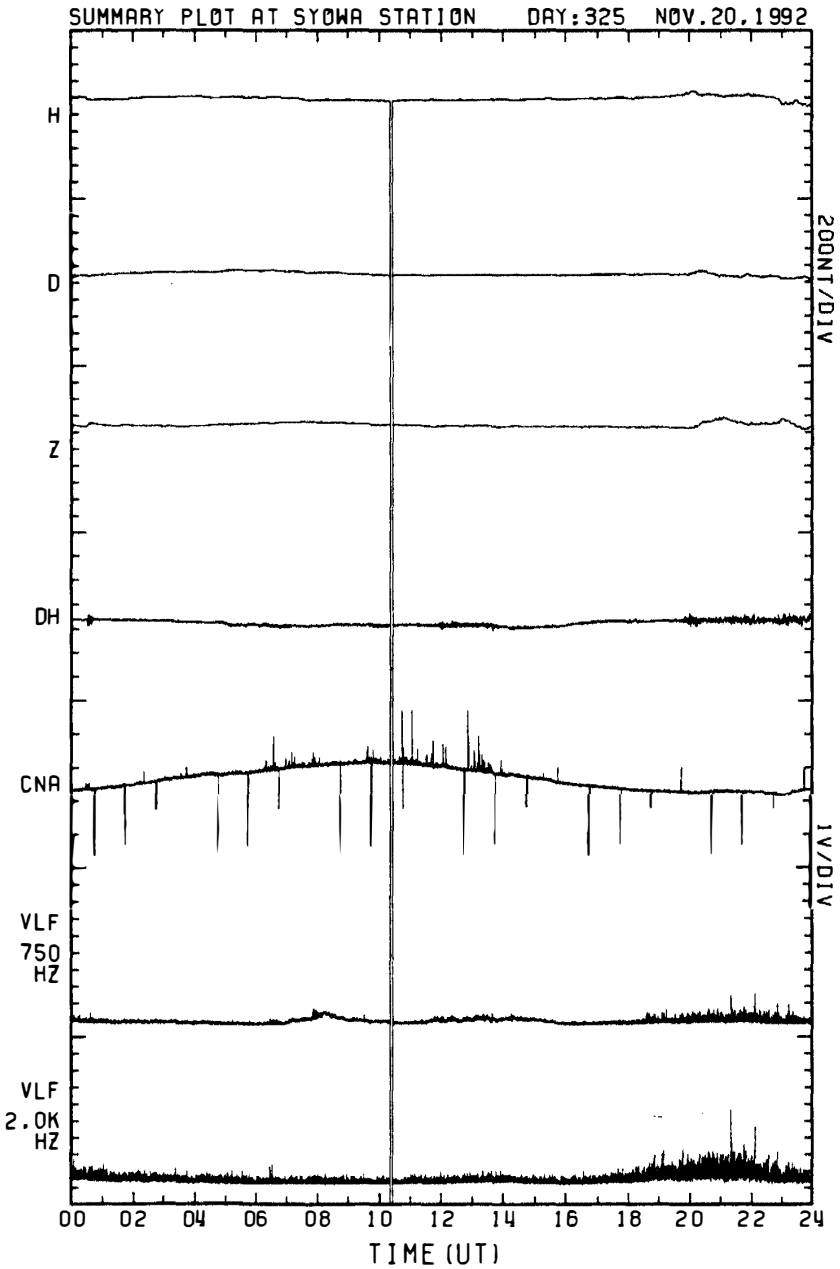

SUMMARY PLOT AT SYOWA STATION DAY:320 NOV.15.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

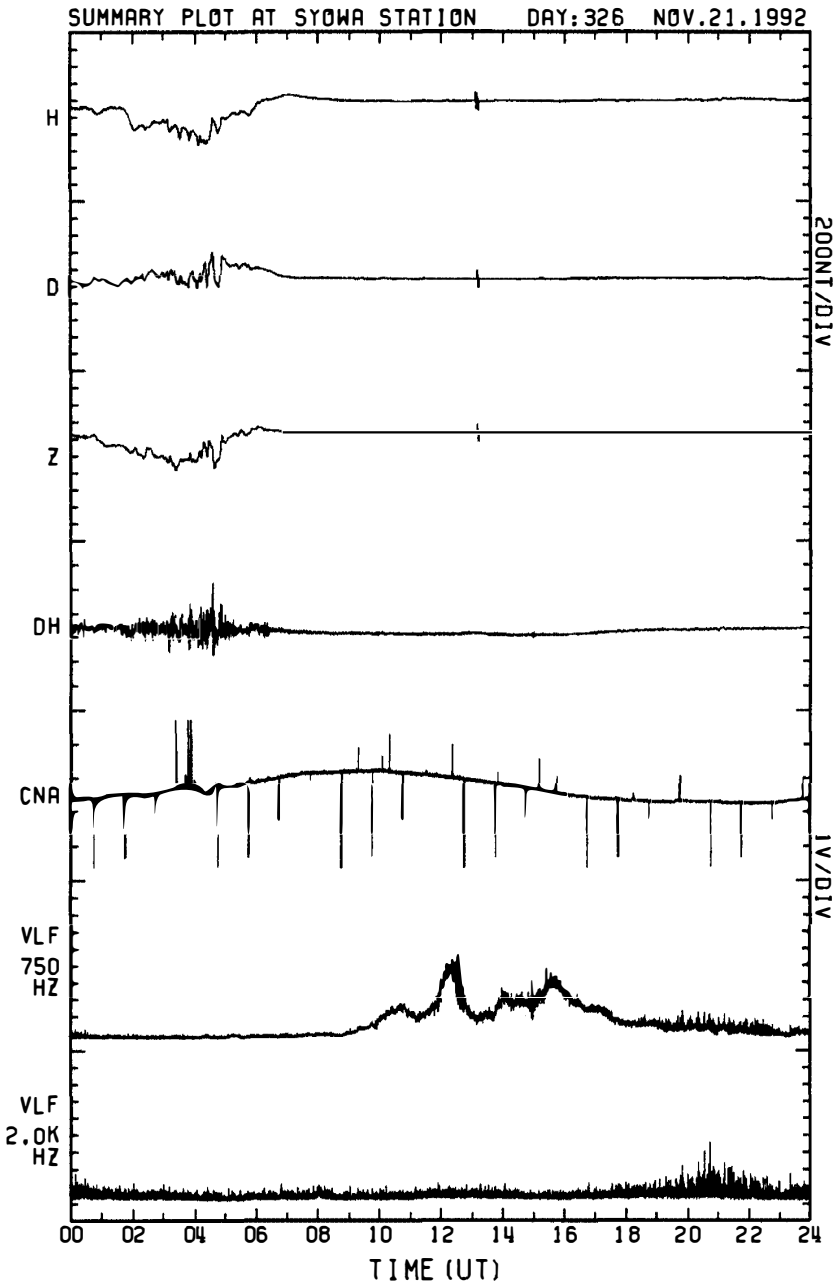

SUMMARY PLOT AT SYOWA STATION DAY:321 NOV.16.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

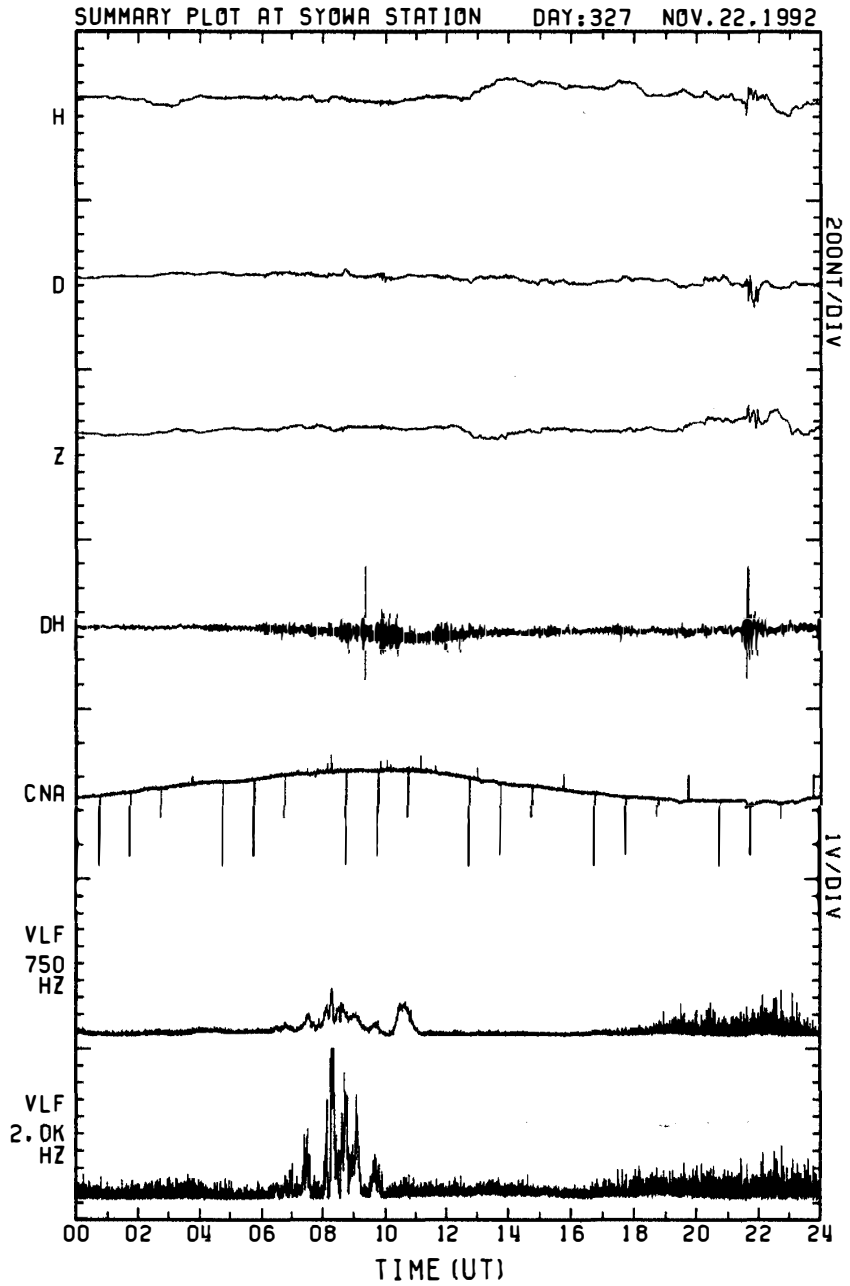

SUMMARY PLOT AT SYOWA STATION DAY:322 NOV.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

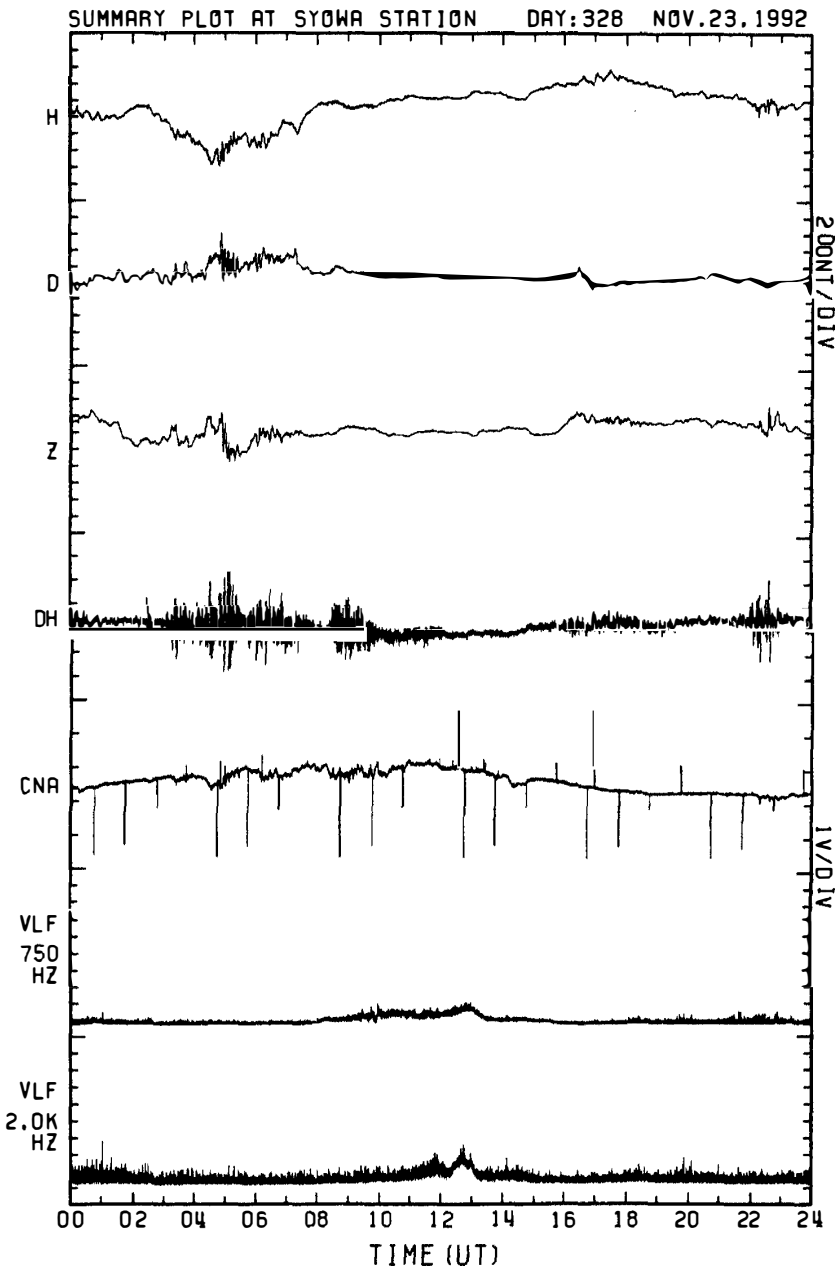

SUMMARY PLOT AT SYOWA STATION DAY:323 NOV.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

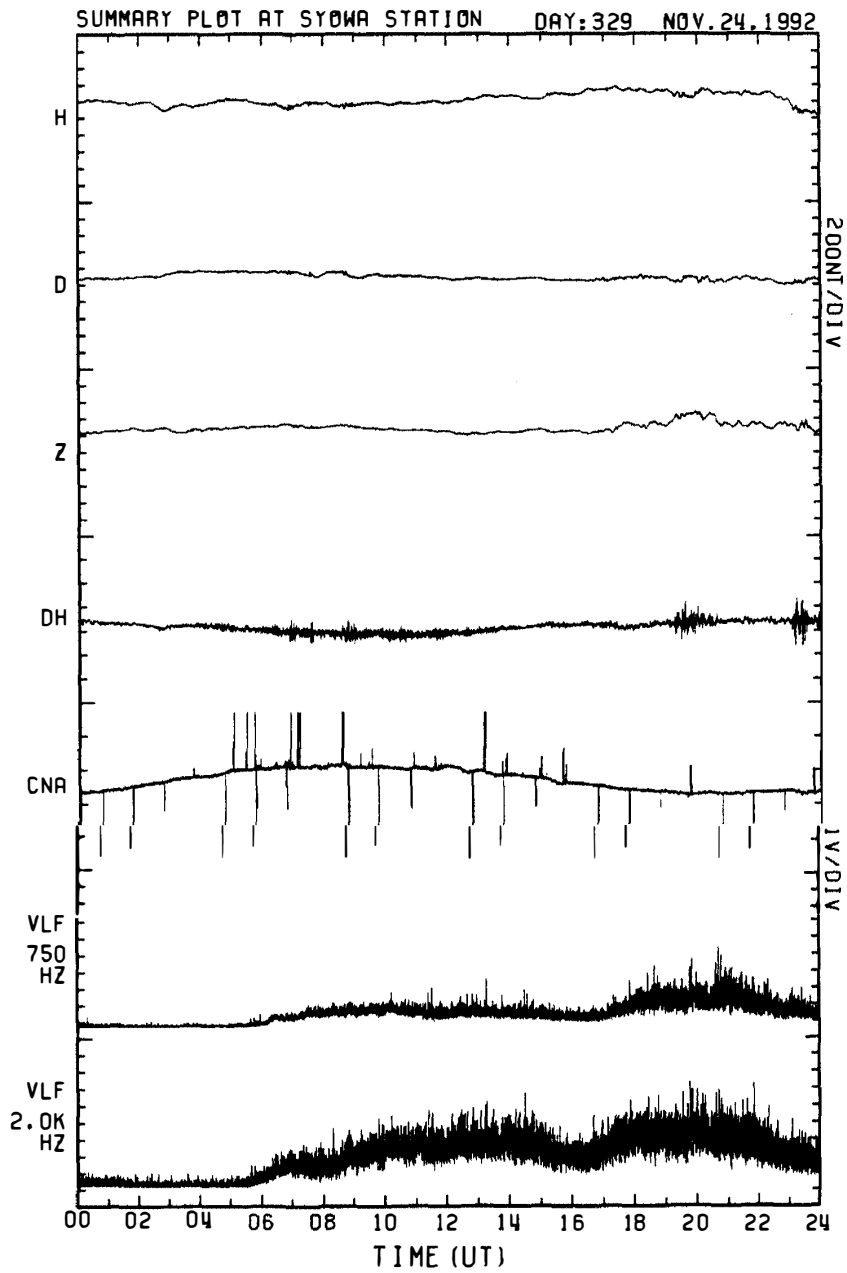

SUMMARY PLOT AT SYOWA STATION DAY:324 NOV.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

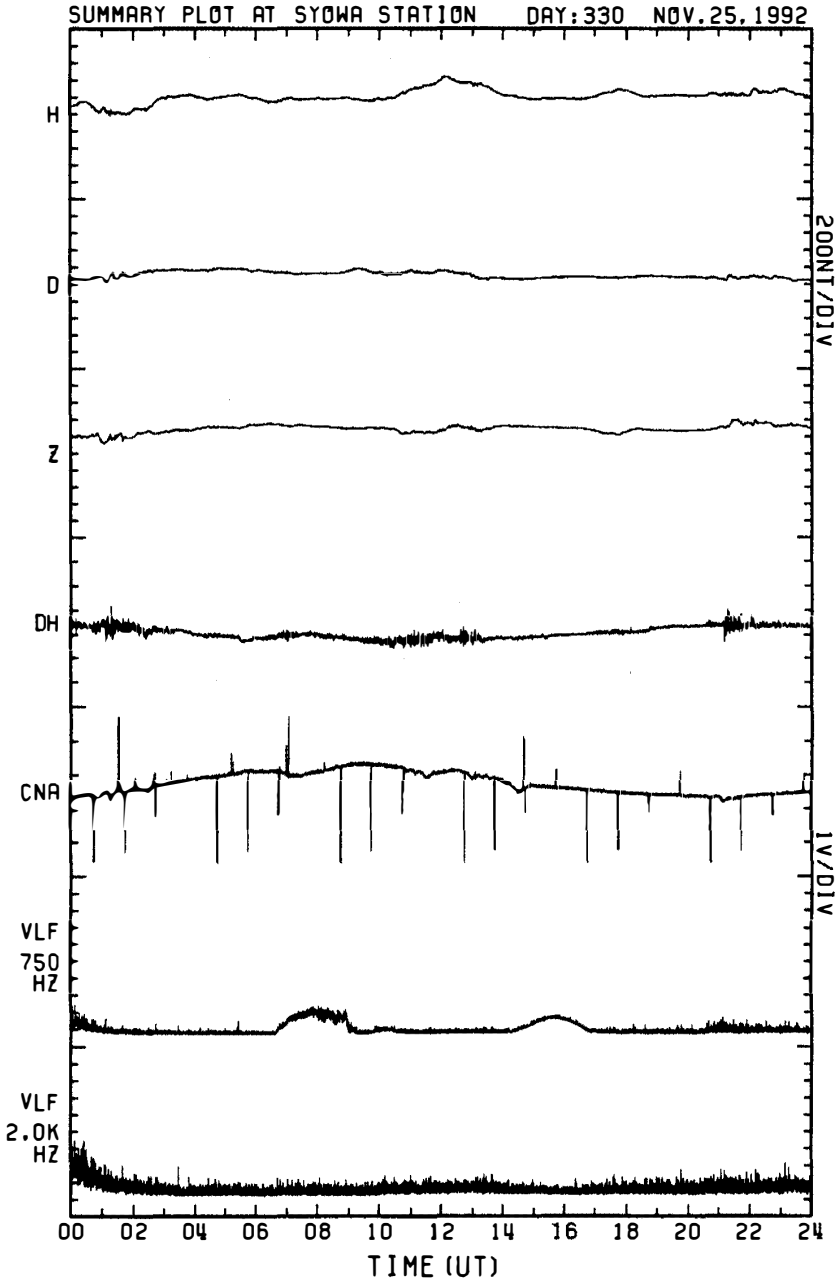

SUMMARY PLOT AT SYOWA STATION DAY:325 NOV.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

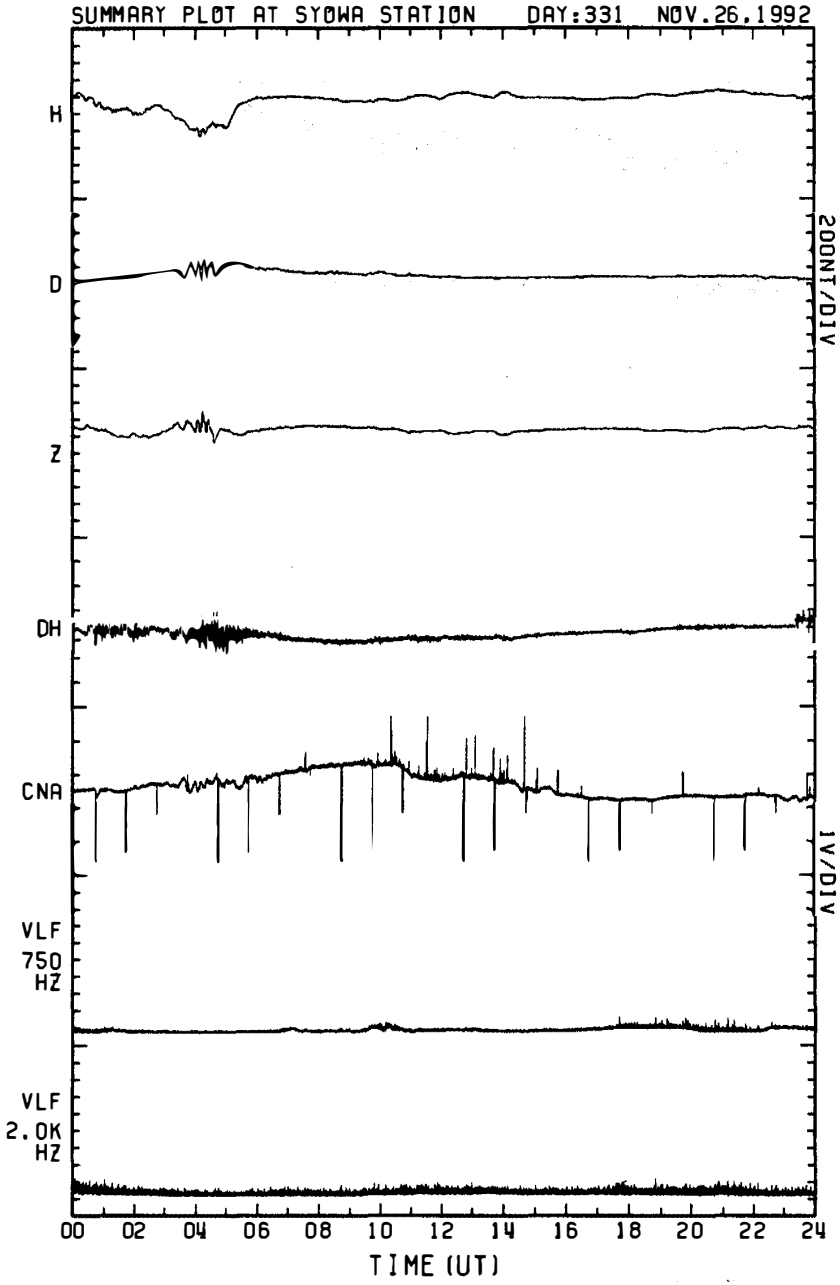

SUMMARY PLOT AT SYOWA STATION DAY:326 NOV.21.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

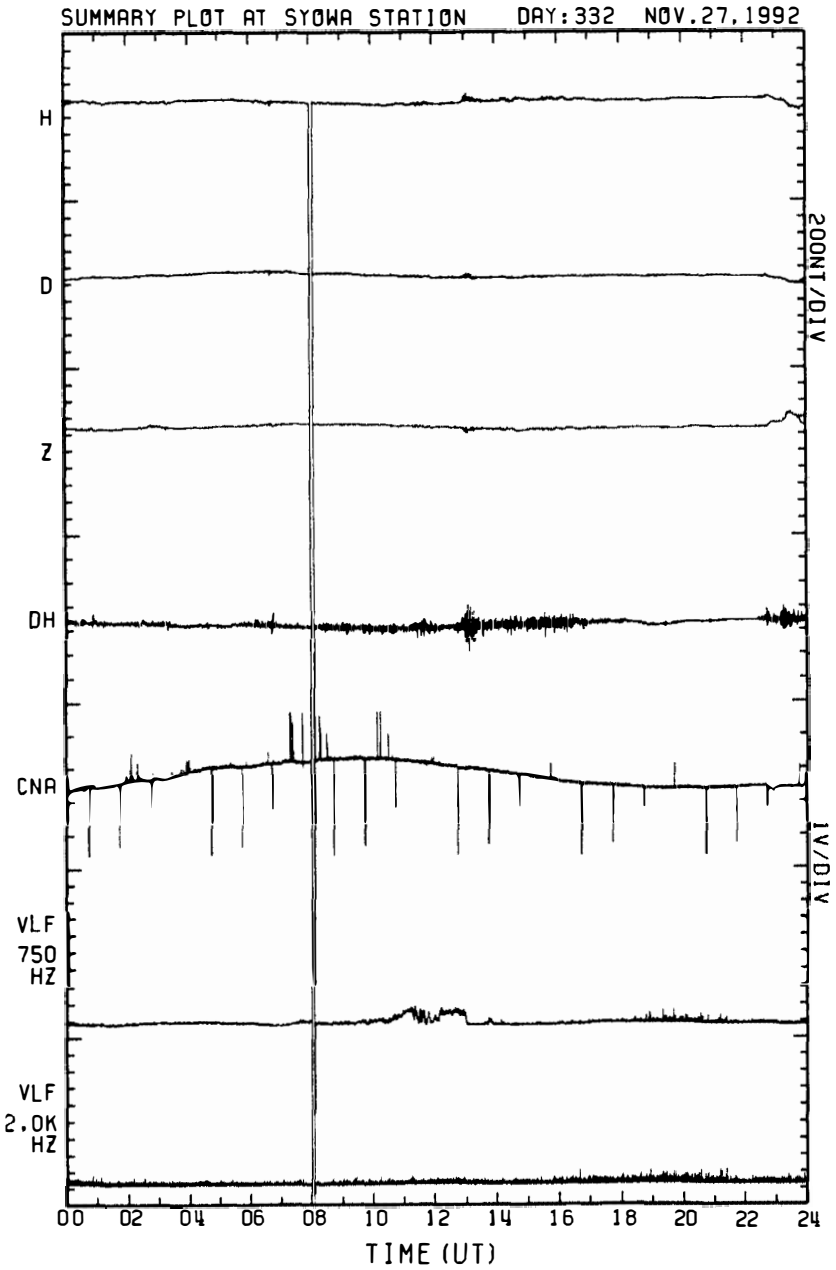

SUMMARY PLOT AT SYOWA STATION DAY:327 NOV.22.1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

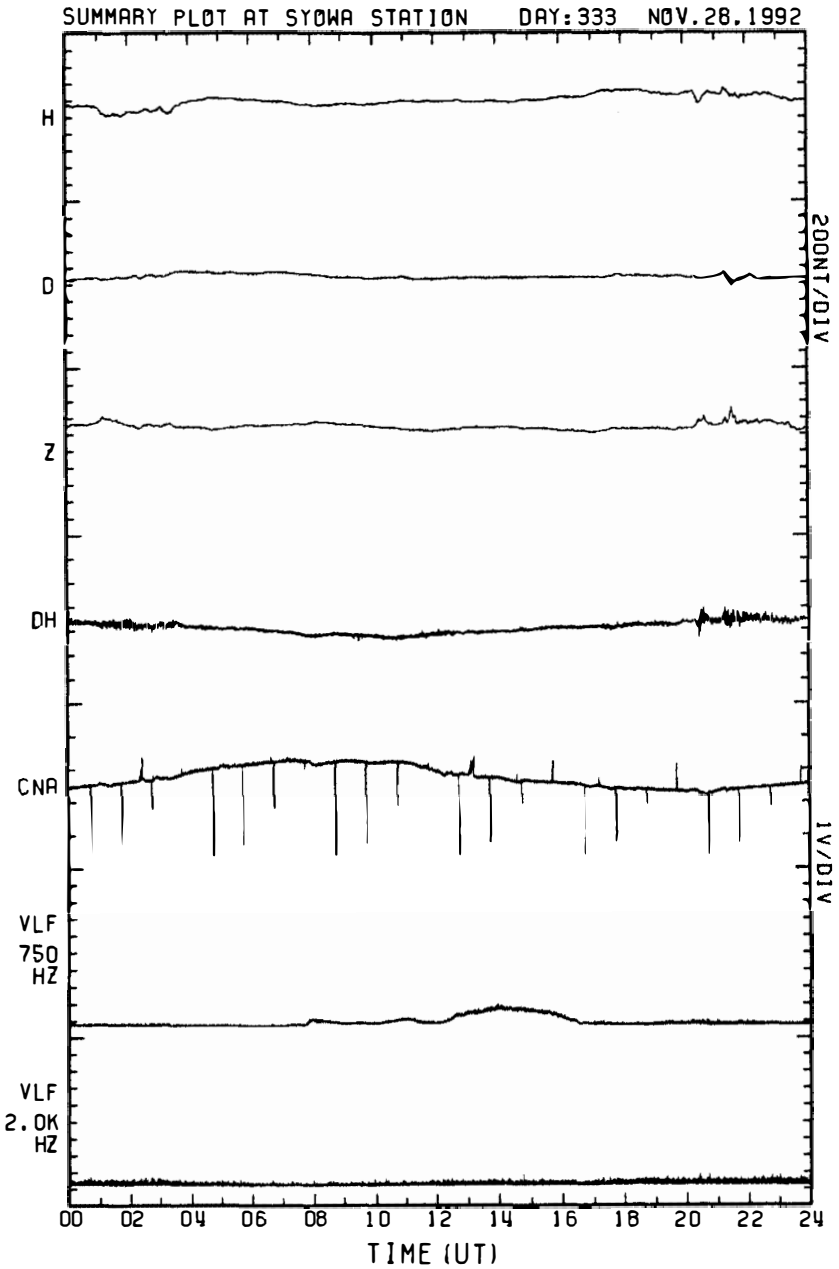

SUMMARY PLOT AT SYOWA STATION DAY:328 NOV.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

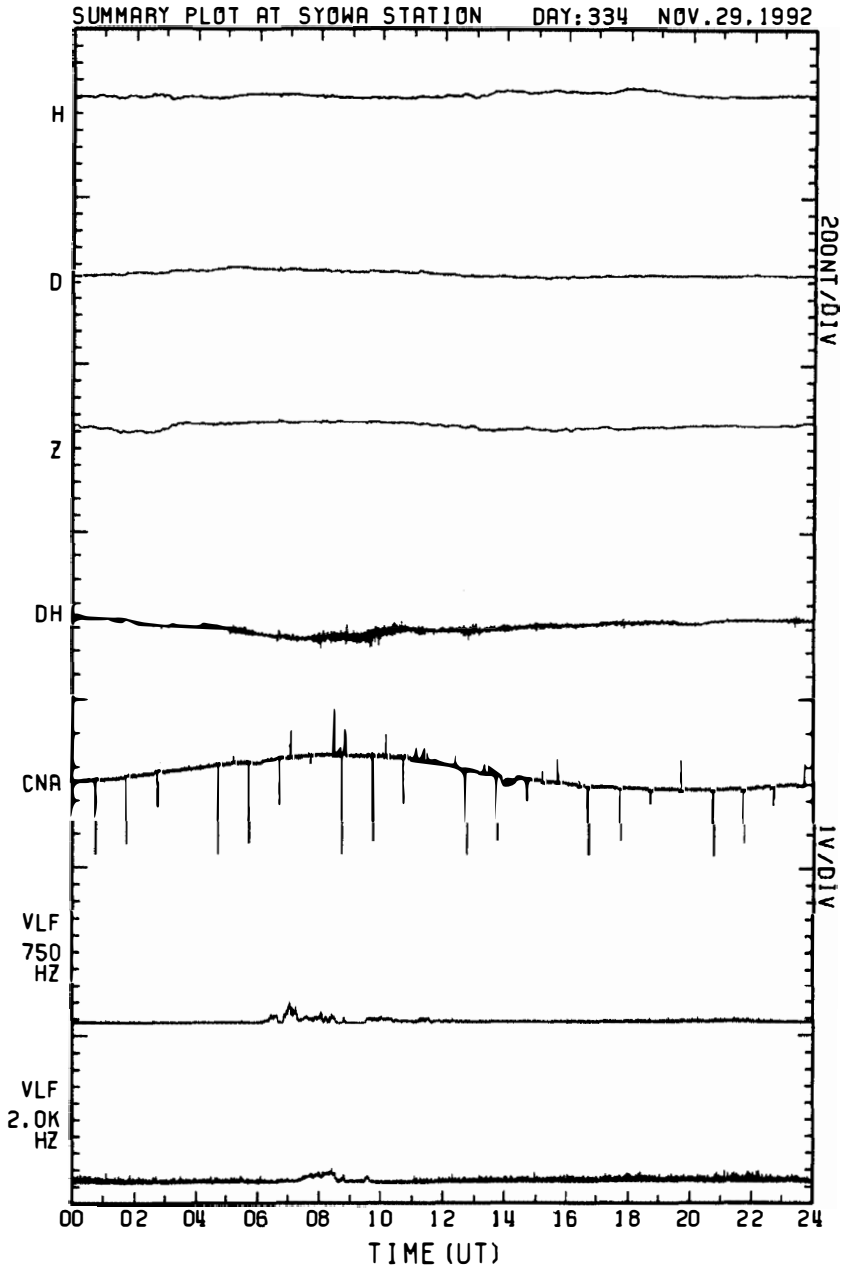

SUMMARY PLOT AT SYOWA STATION DAY:329 NOV.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

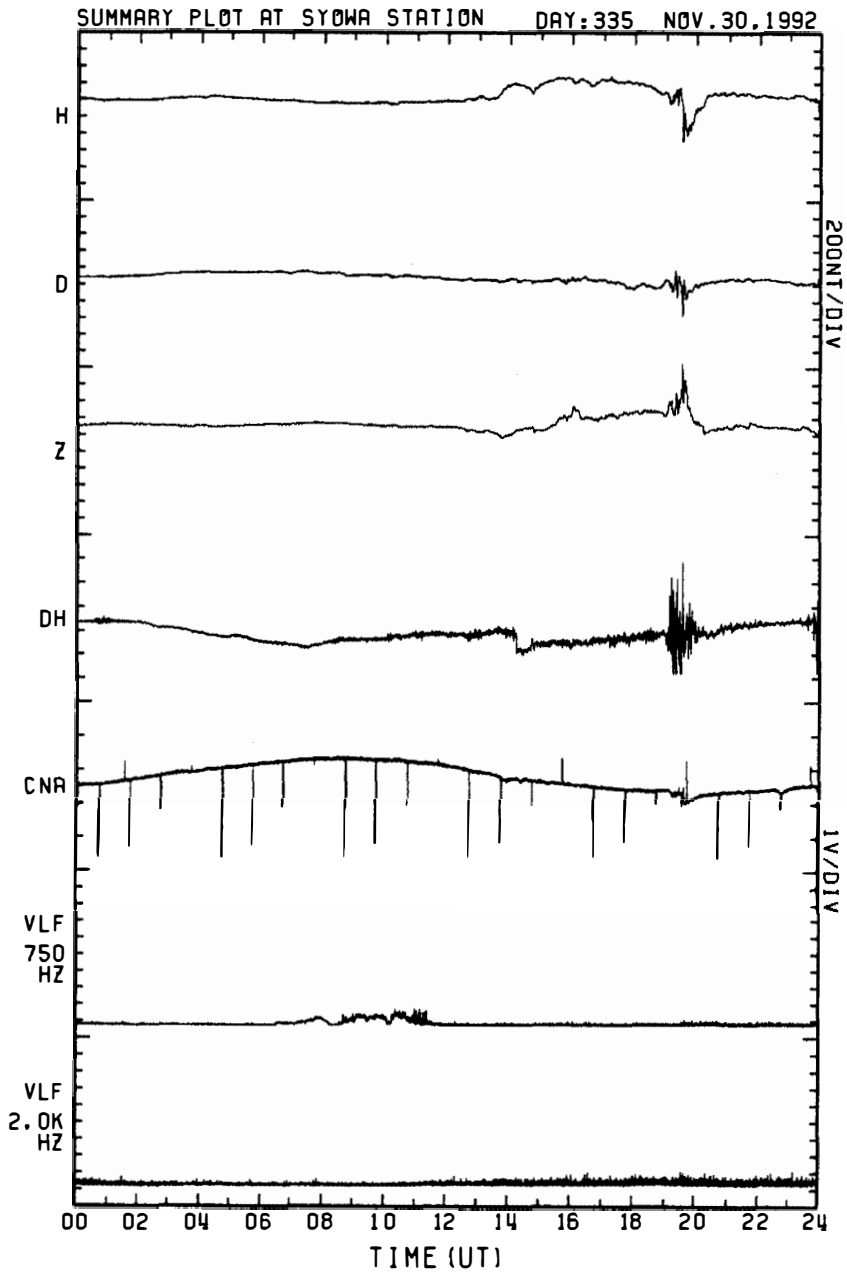

SUMMARY PLOT AT SYOWA STATION DAY:330 NOV.25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

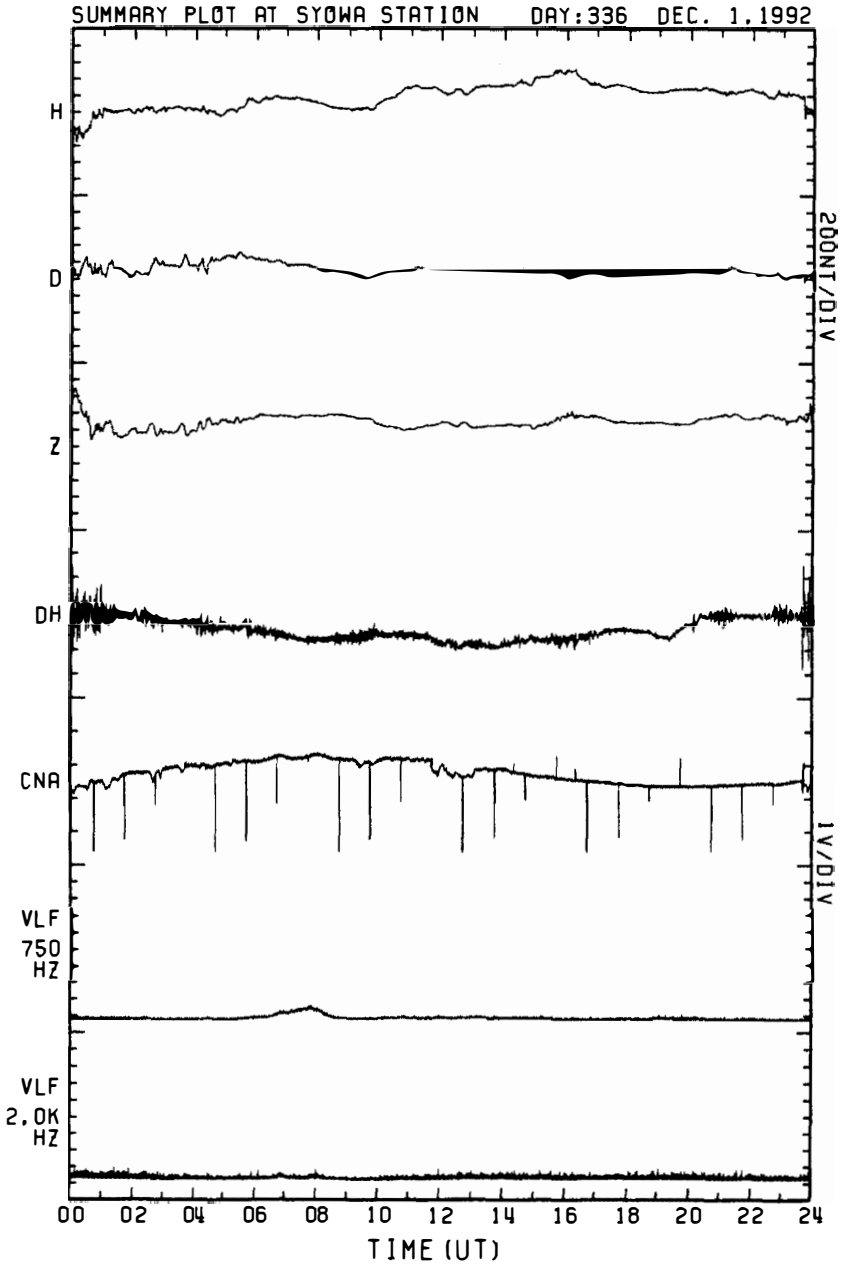

SUMMARY PLOT AT SYOWA STATION DAY:331 NOV.26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

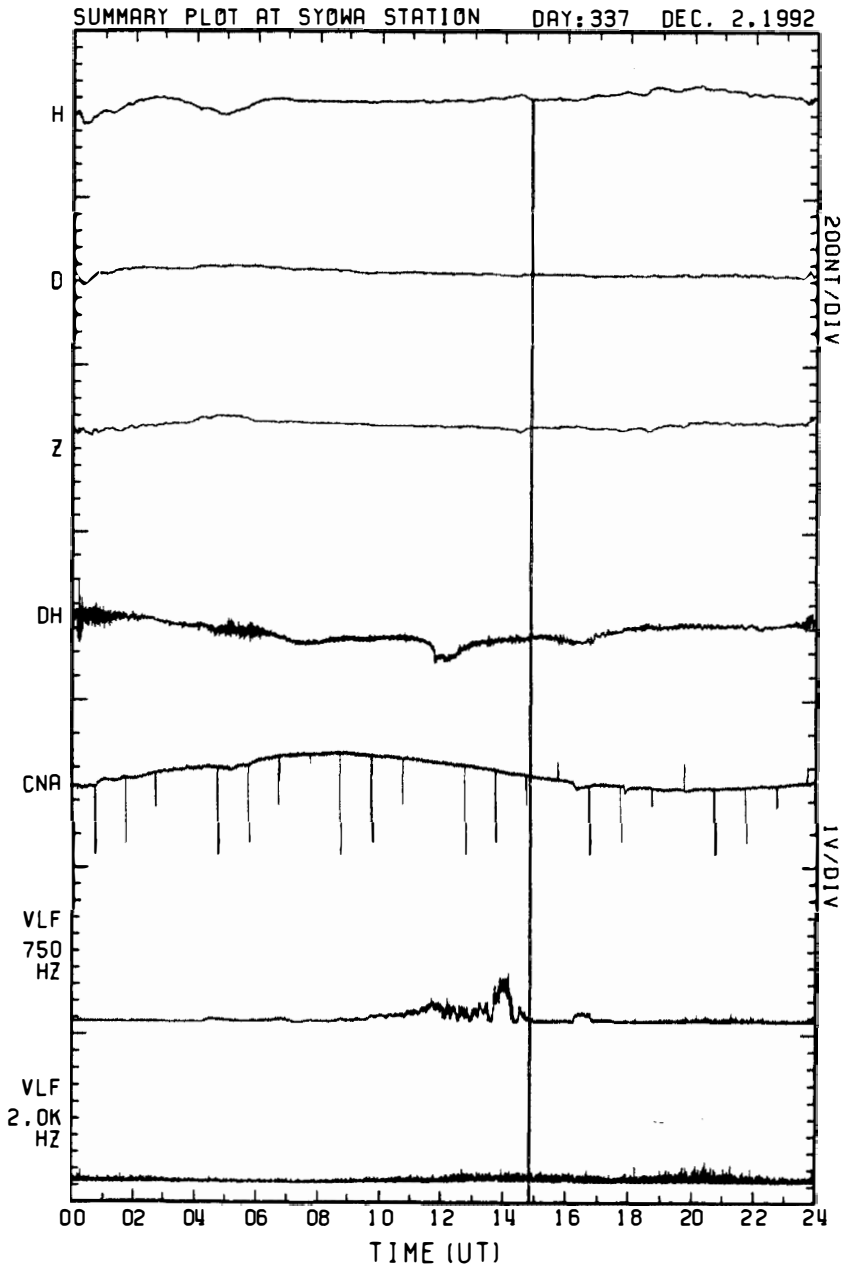

SUMMARY PLOT AT SYOWA STATION DAY:332 NOV.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

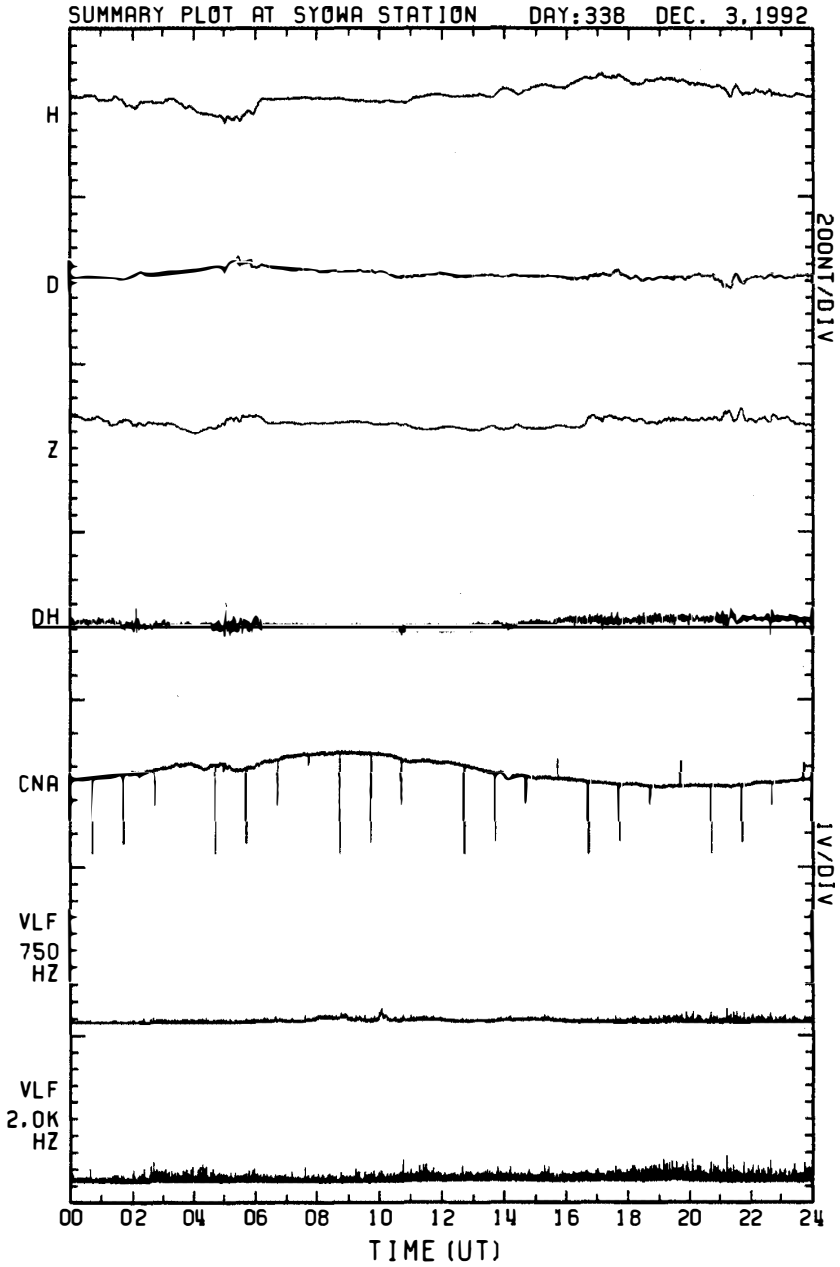

SUMMARY PLOT AT SYOWA STATION DAY:333 NOV.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

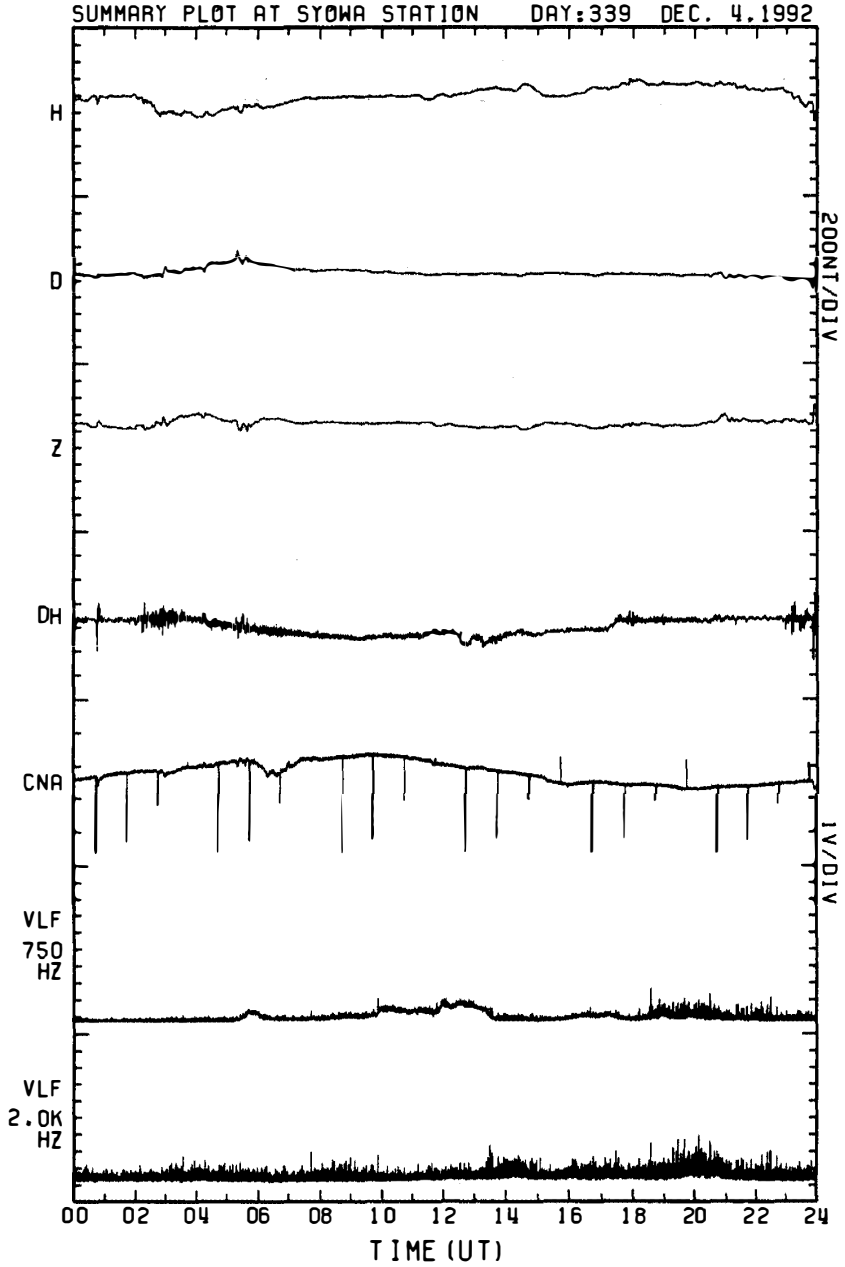

SUMMARY PLOT AT SYOWA STATION DAY:334 NOV.29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

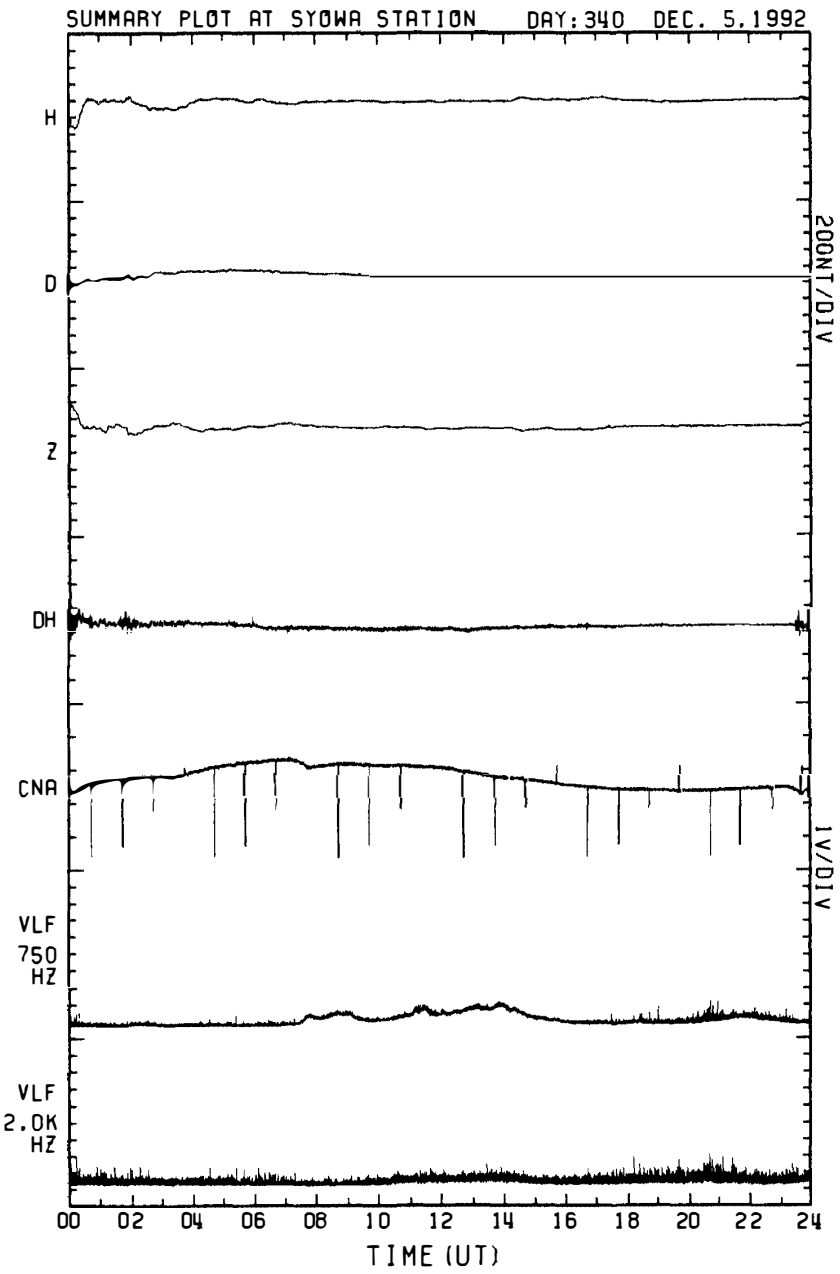

SUMMARY PLOT AT SYOWA STATION DAY:335 NOV.30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

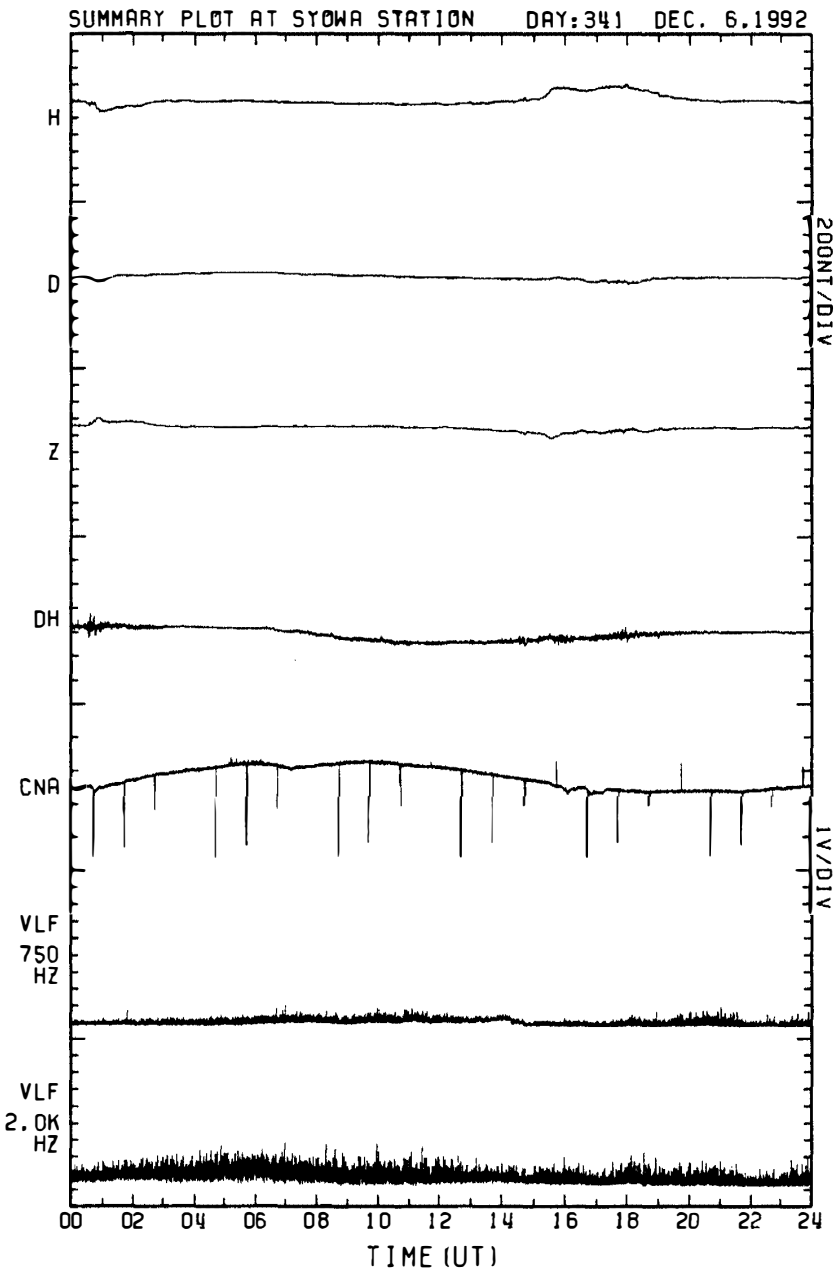

SUMMARY PLOT AT SYOWA STATION DAY:336 DEC. 1,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

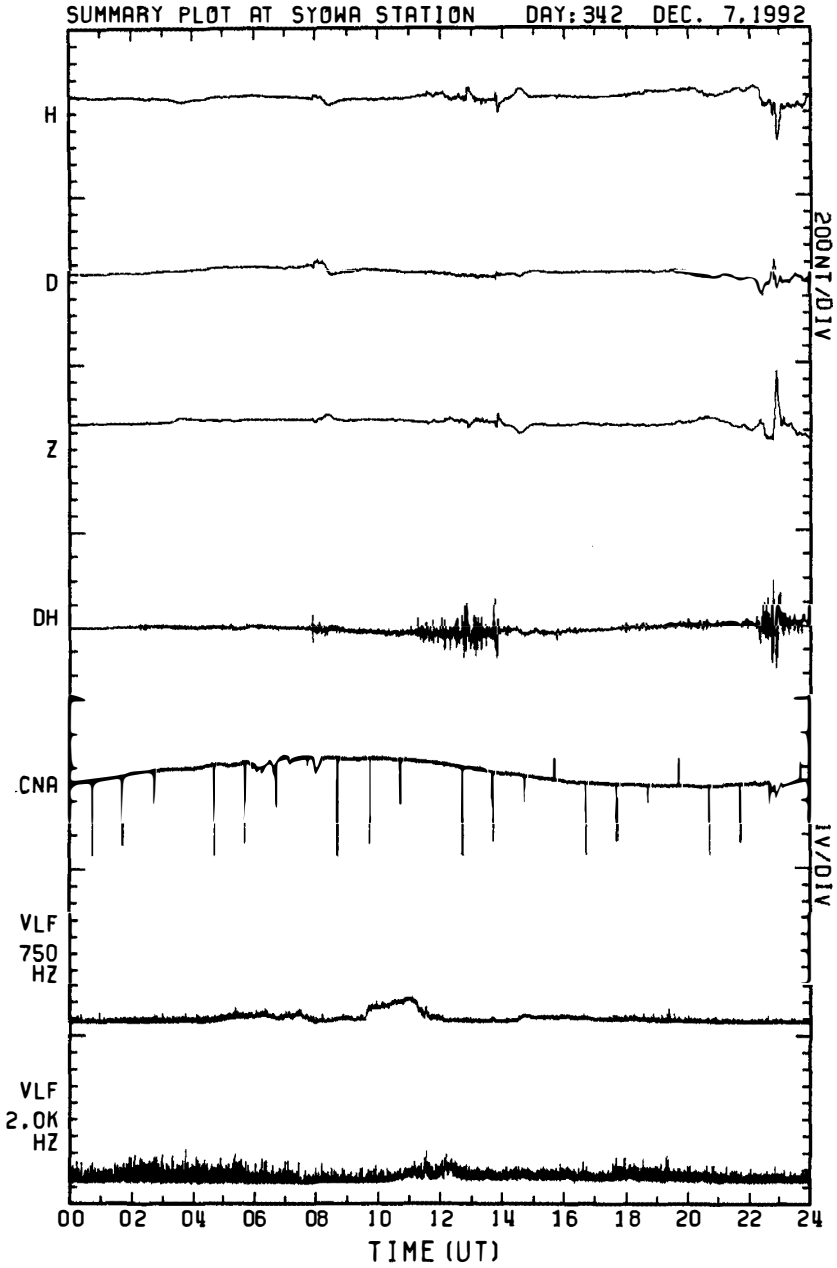

SUMMARY PLOT AT SYOWA STATION DAY:337 DEC. 2,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

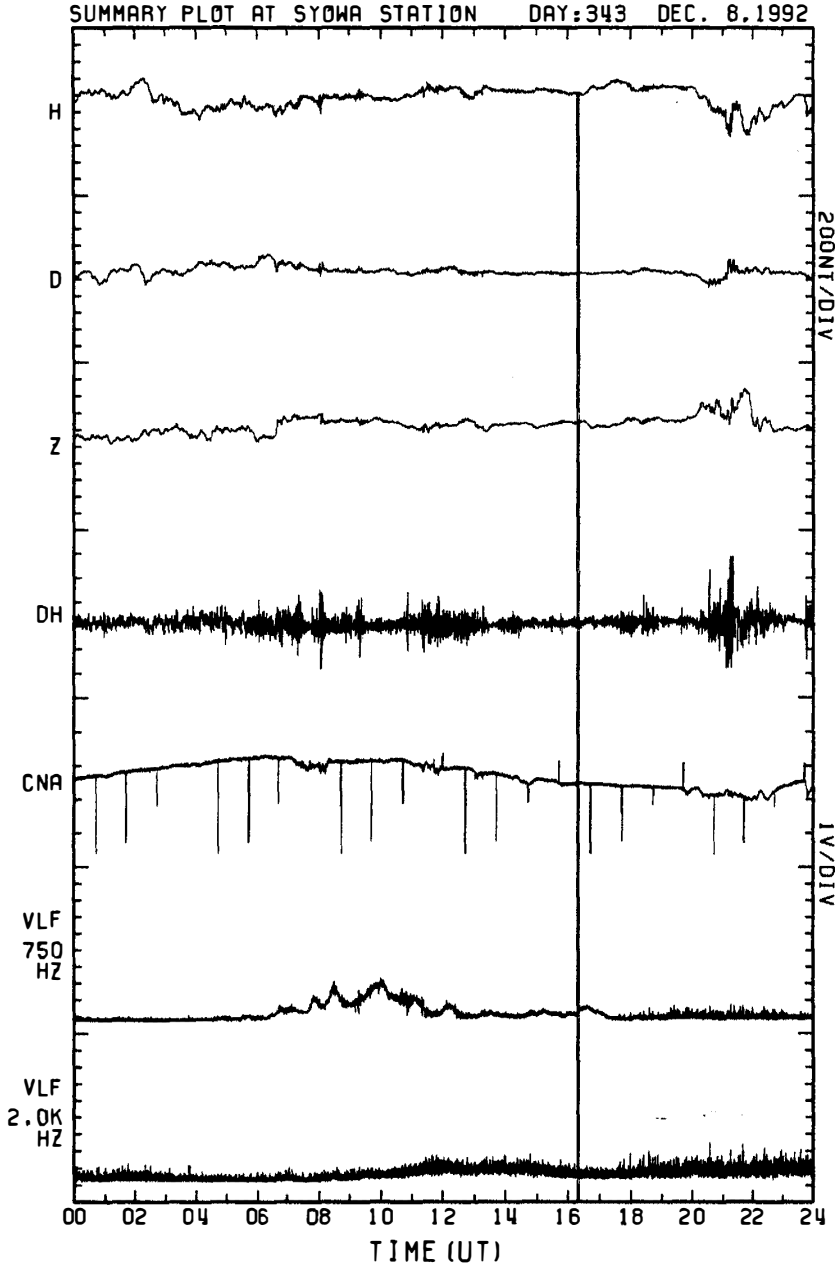

SUMMARY PLOT AT SYOWA STATION DAY:338 DEC. 3,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

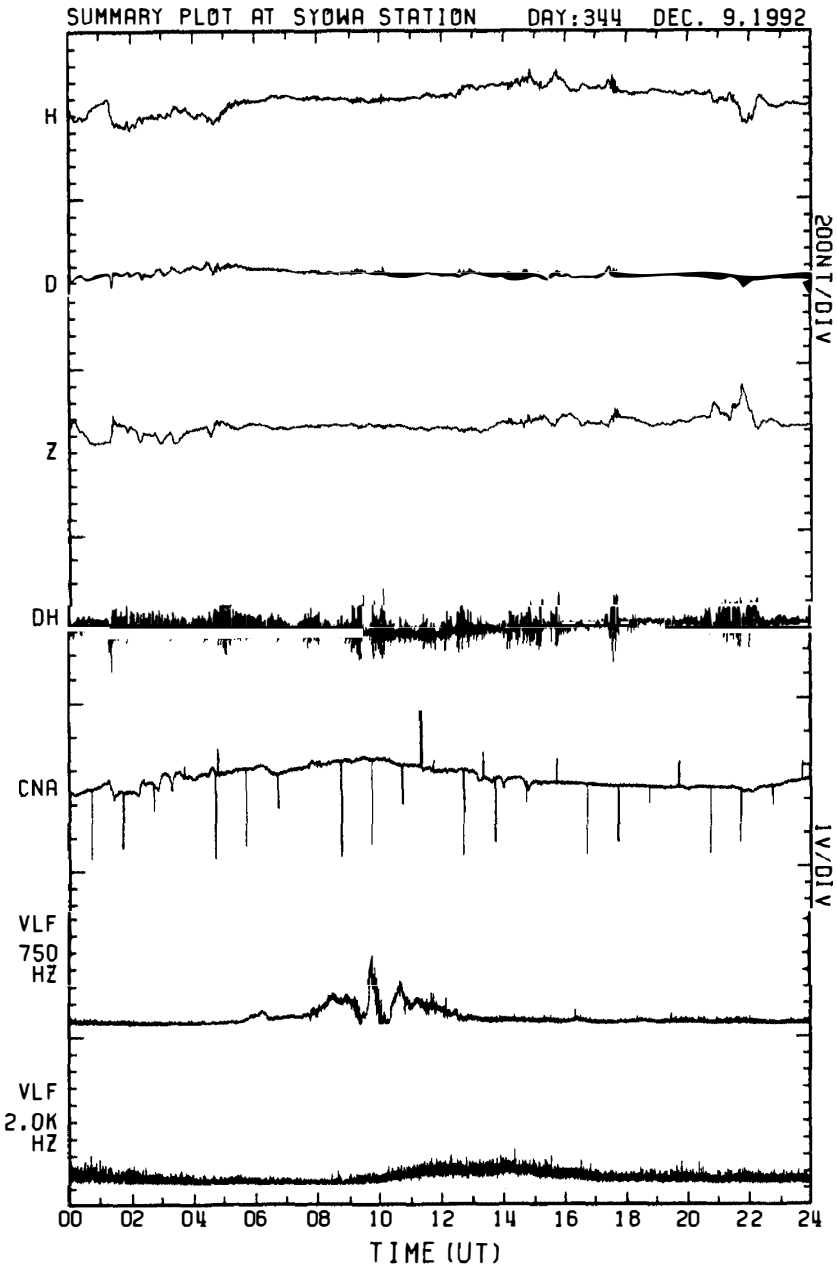

SUMMARY PLOT AT SYOWA STATION DAY:339 DEC. 4,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

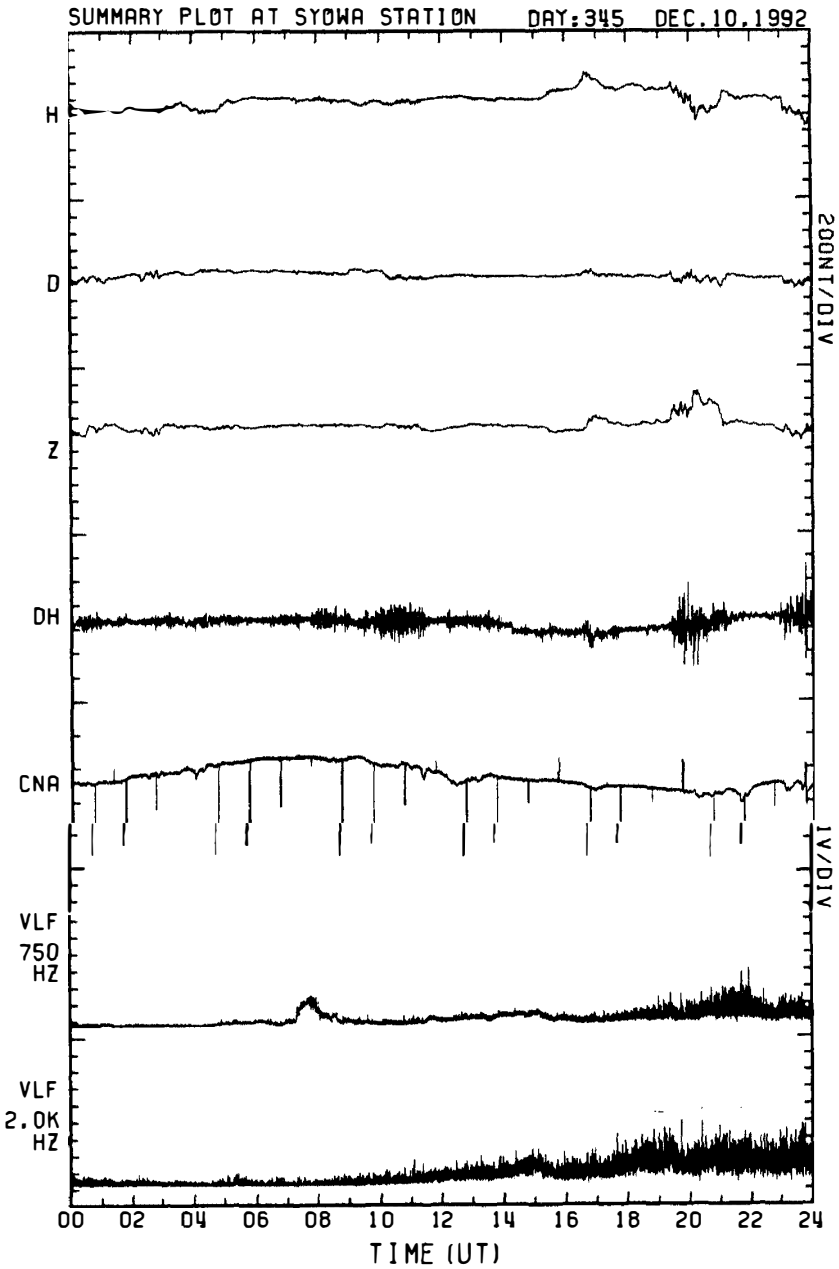

SUMMARY PLOT AT SYOWA STATION DAY:340 DEC. 5,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

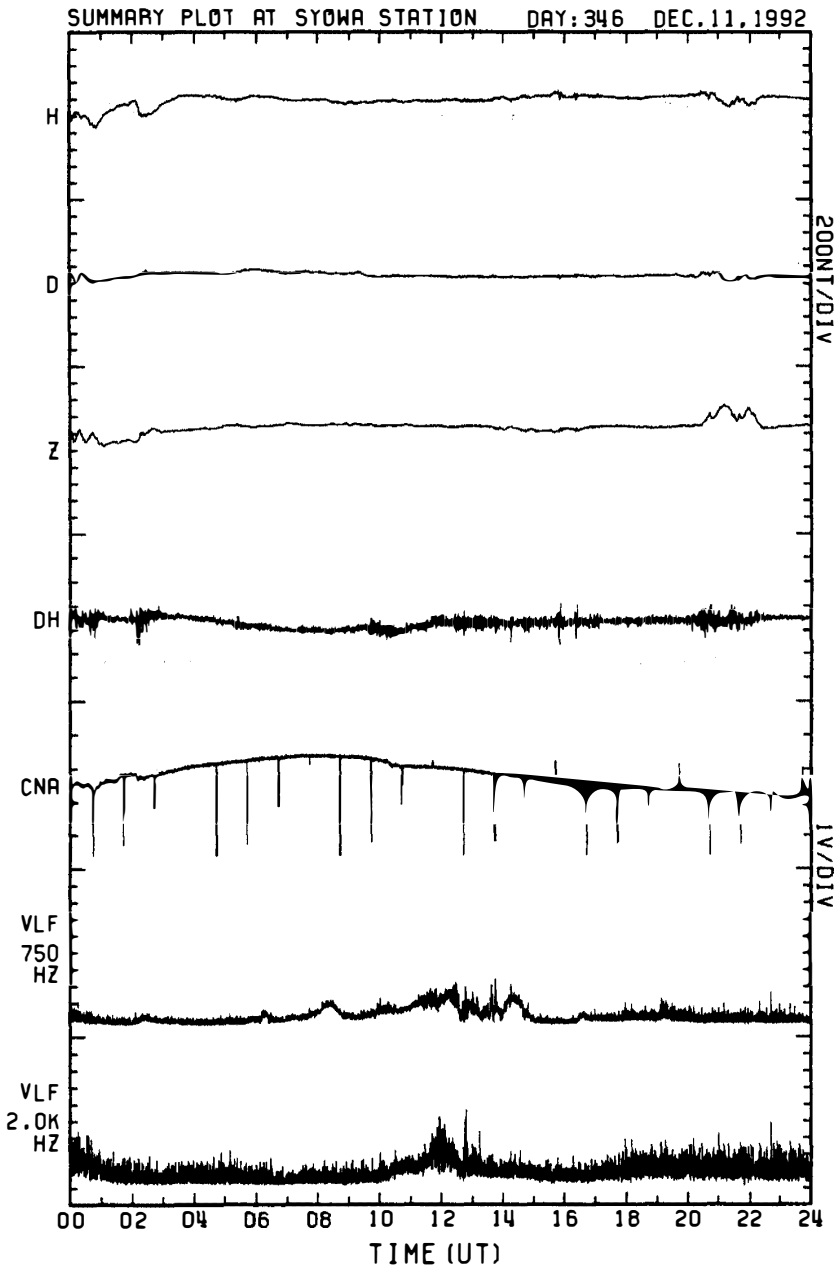

SUMMARY PLOT AT SYOWA STATION DAY:341 DEC. 6,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

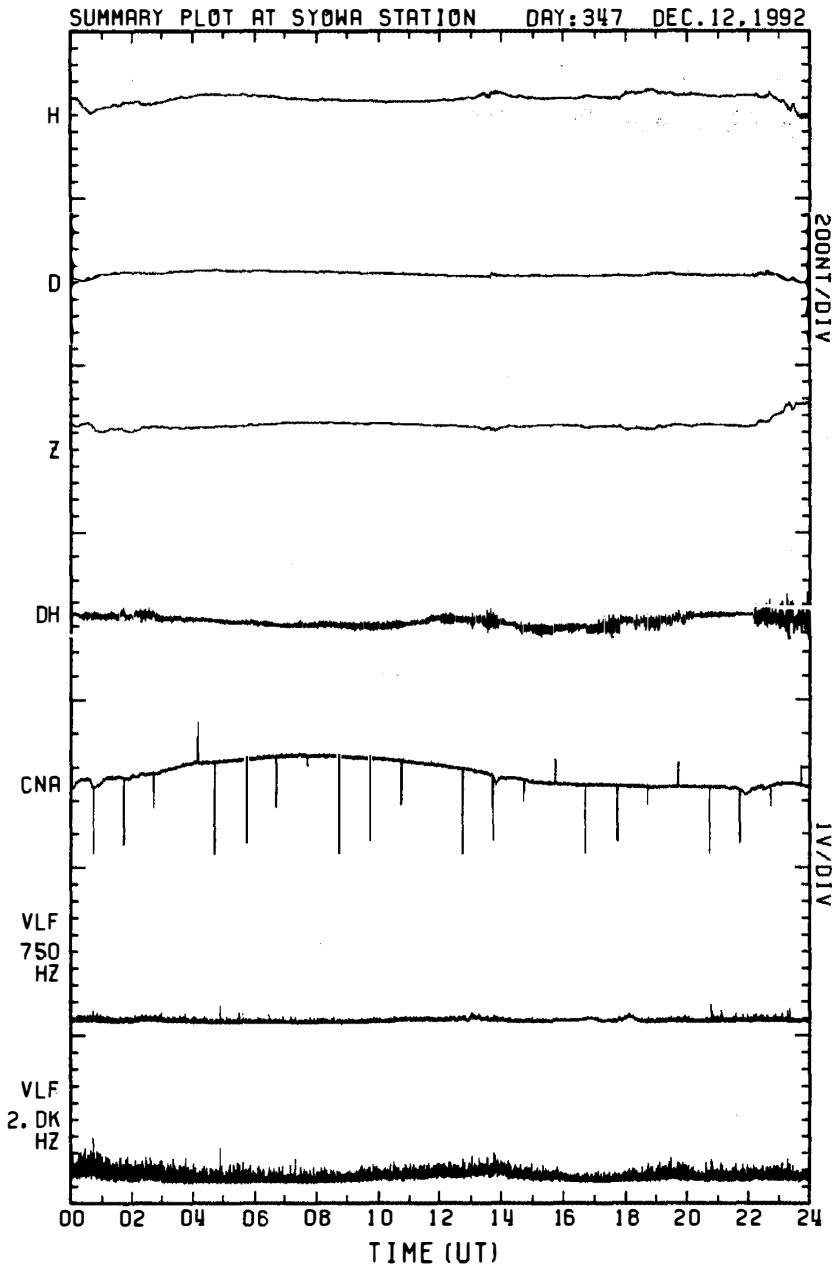

SUMMARY PLOT AT SYOWA STATION DAY:342 DEC. 7,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

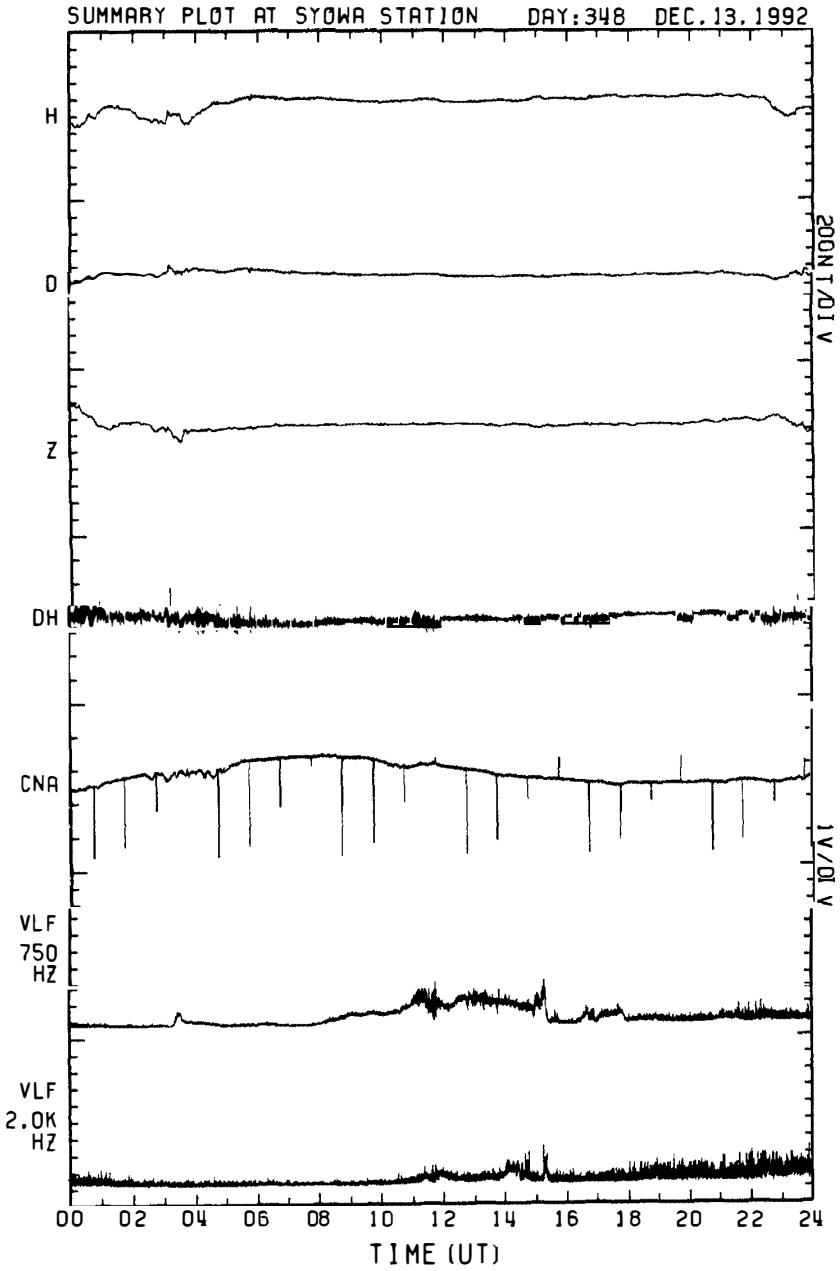

SUMMARY PLOT AT SYOWA STATION DAY:343 DEC. 8,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

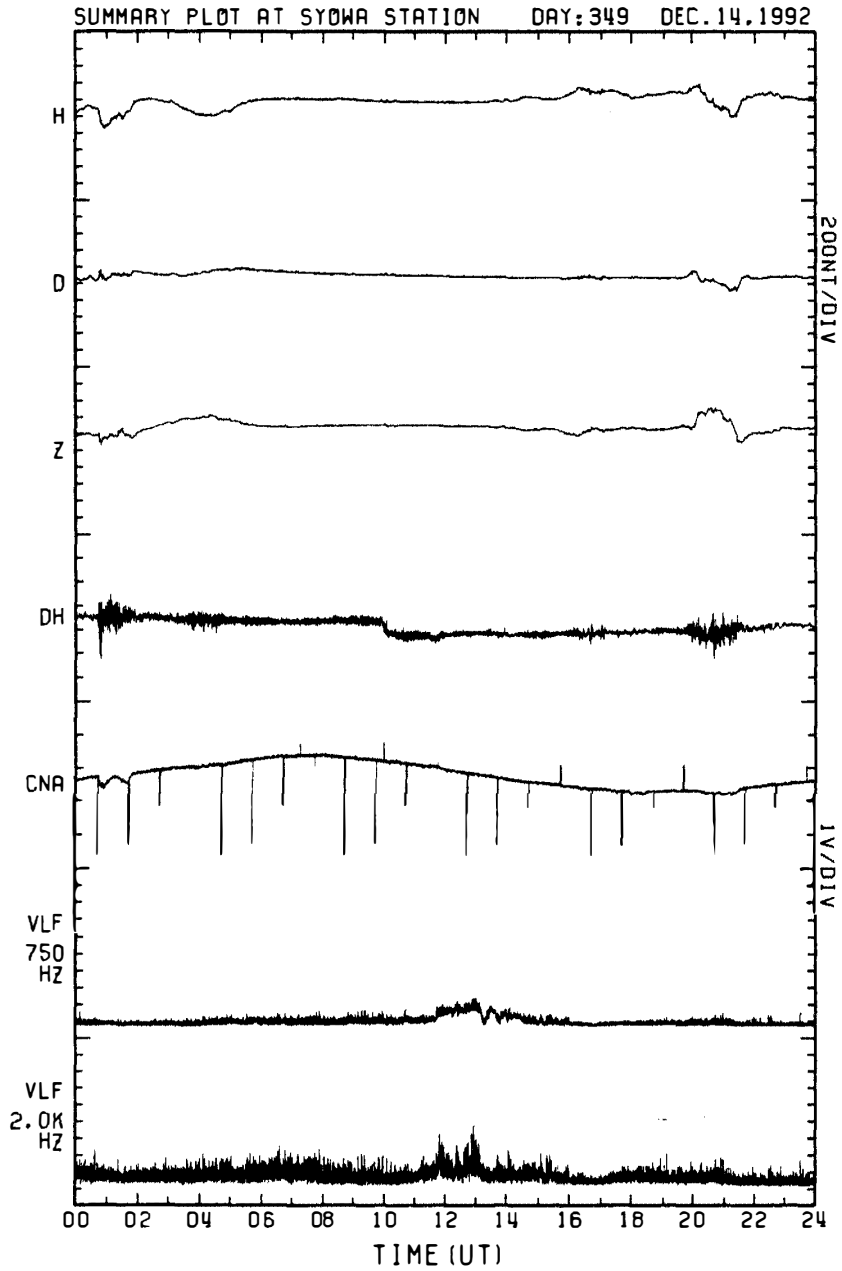

SUMMARY PLOT AT SYOWA STATION DAY:344 DEC. 9,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

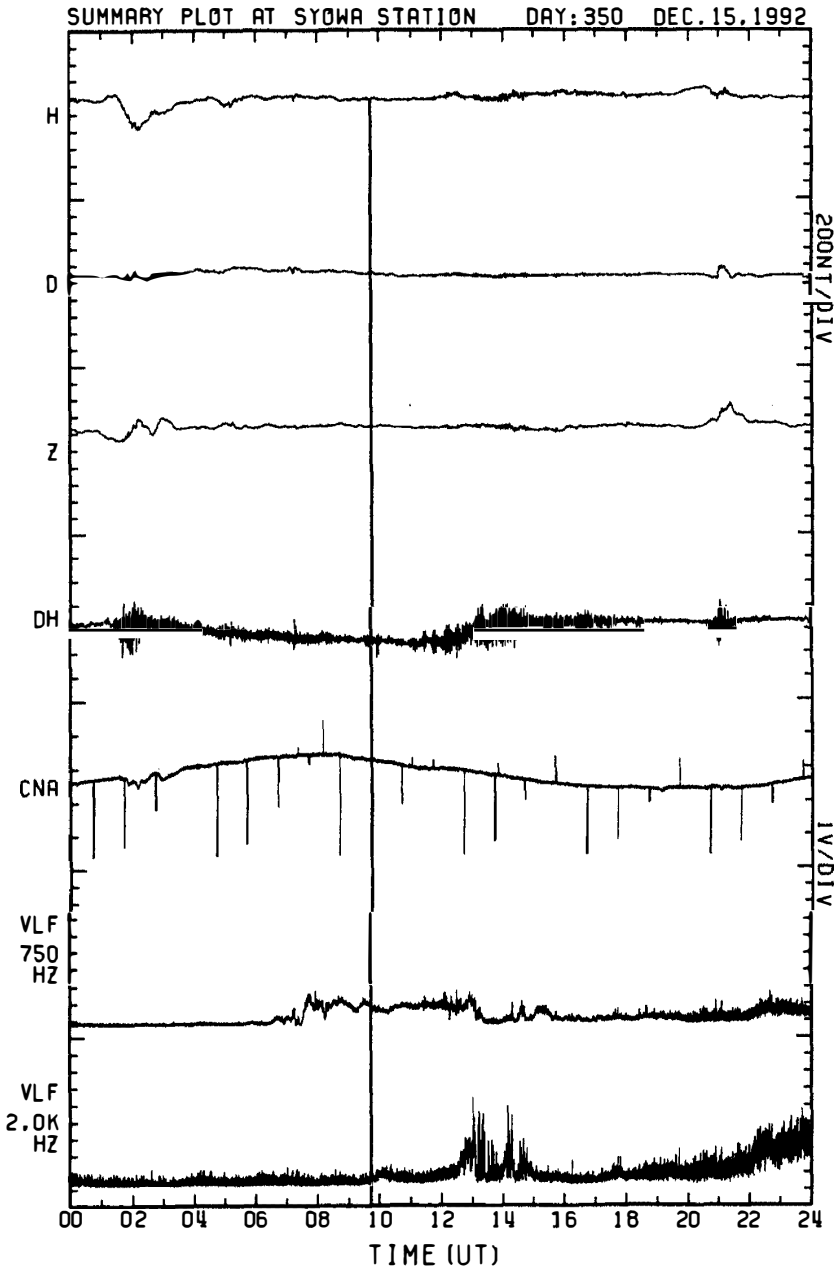

SUMMARY PLOT AT SYOWA STATION DAY:345 DEC.10,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

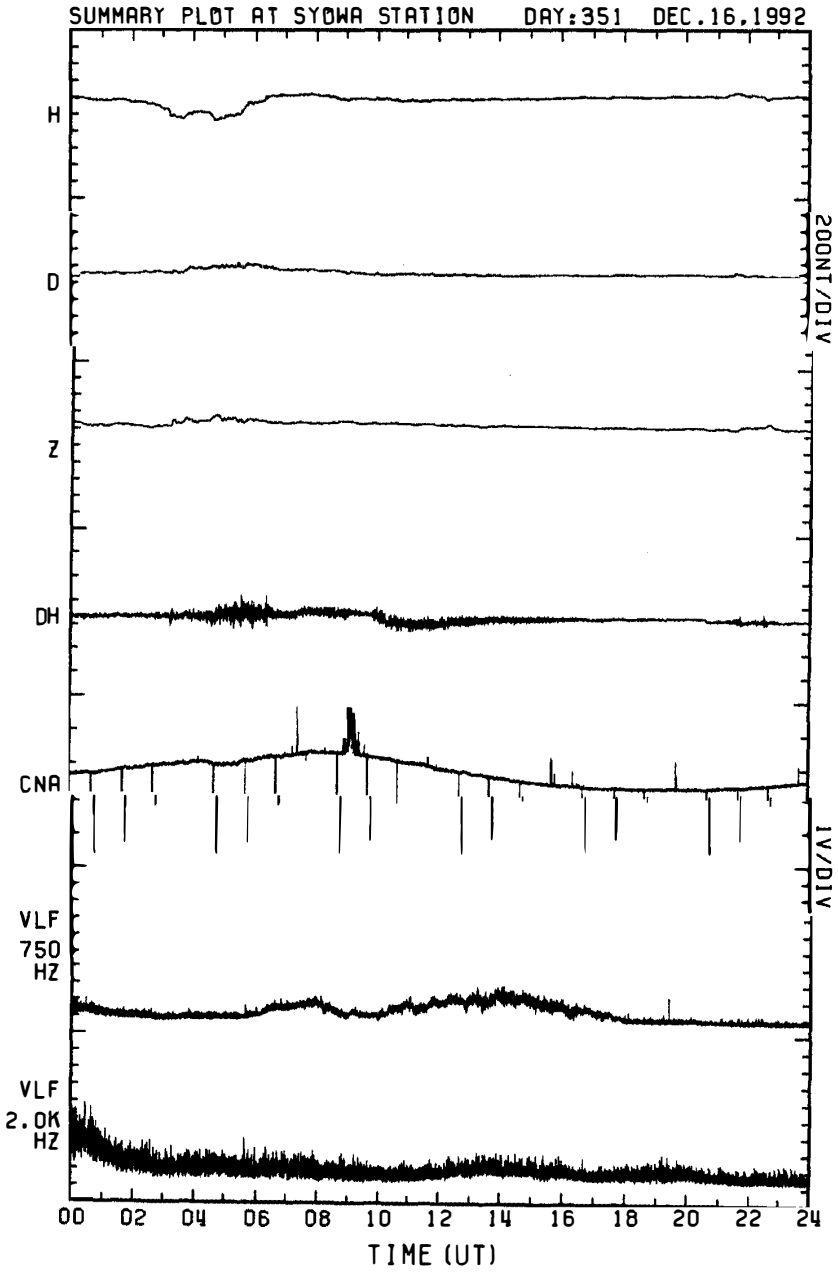

SUMMARY PLOT AT SYOWA STATION DAY:346 DEC.11,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

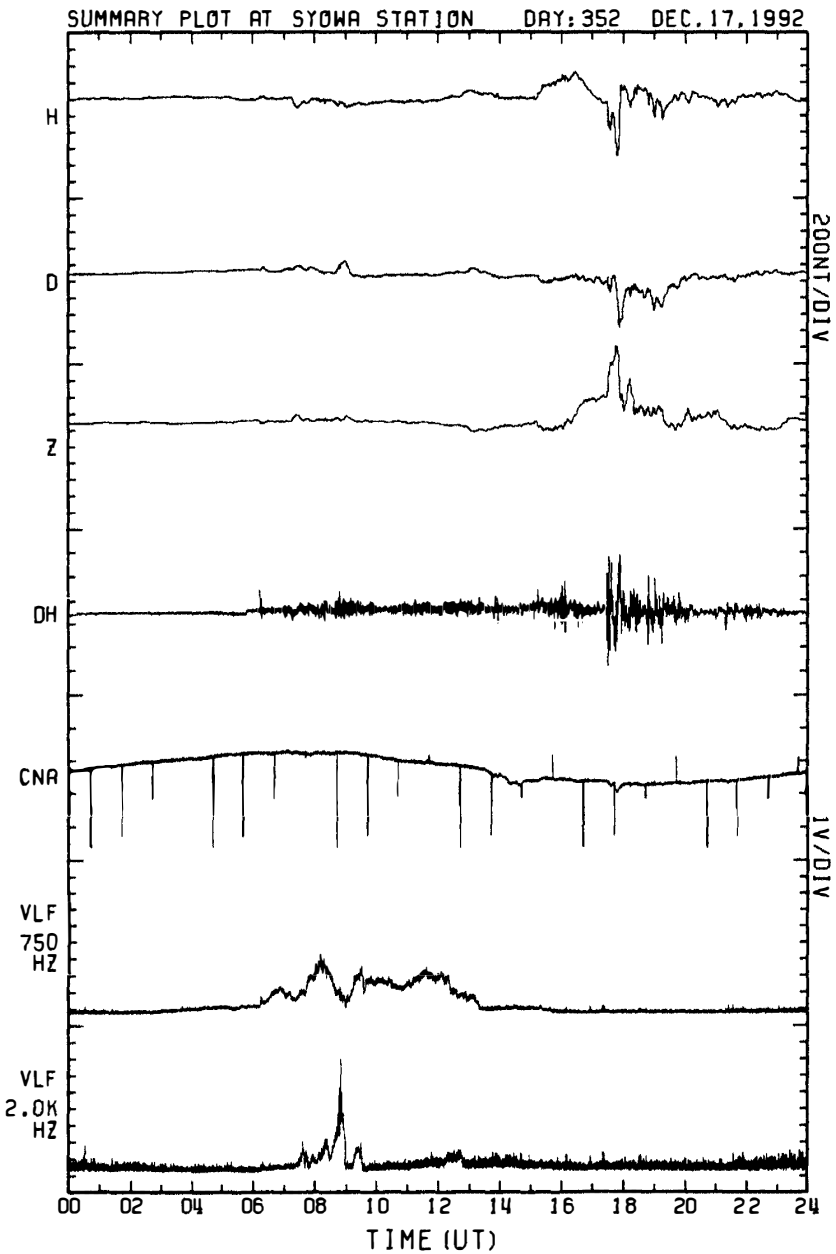

SUMMARY PLOT AT SYOWA STATION DAY:347 DEC.12,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

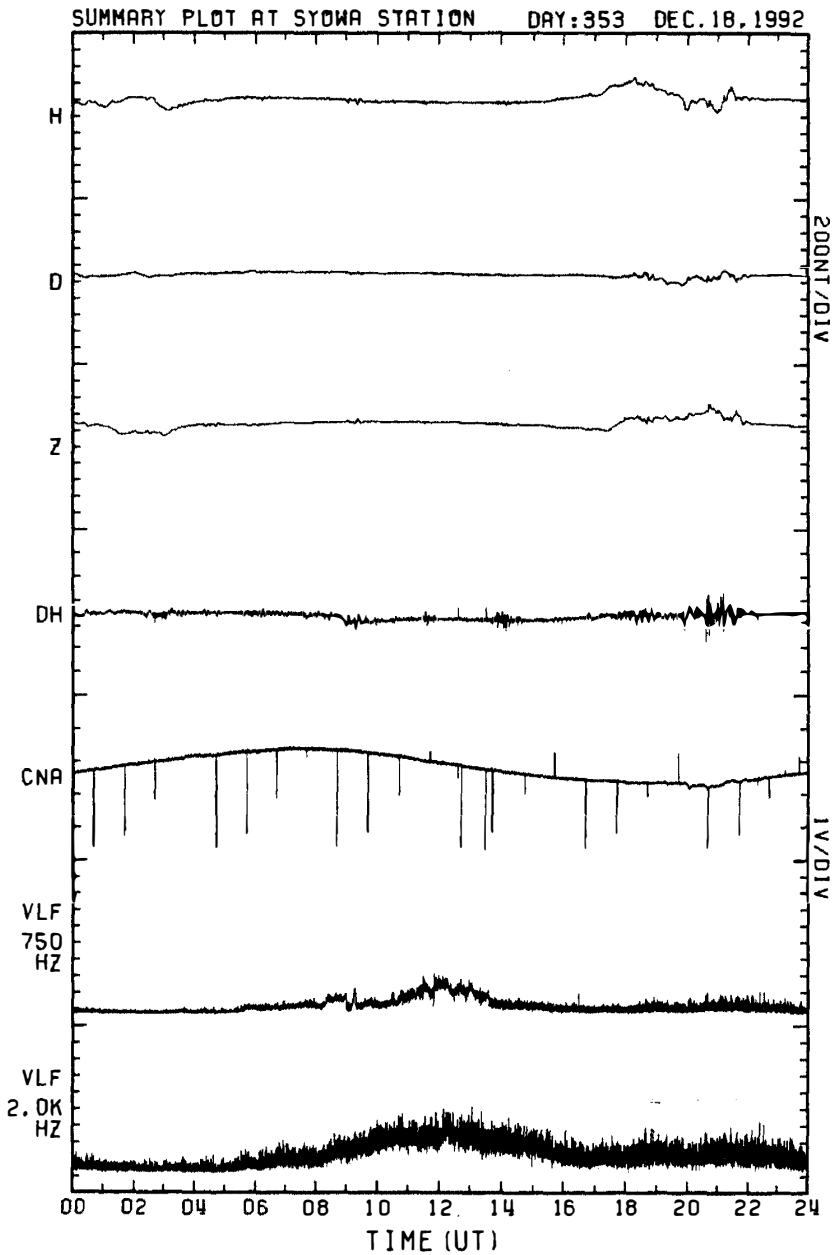

SUMMARY PLOT AT SYOWA STATION DAY:348 DEC.13,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

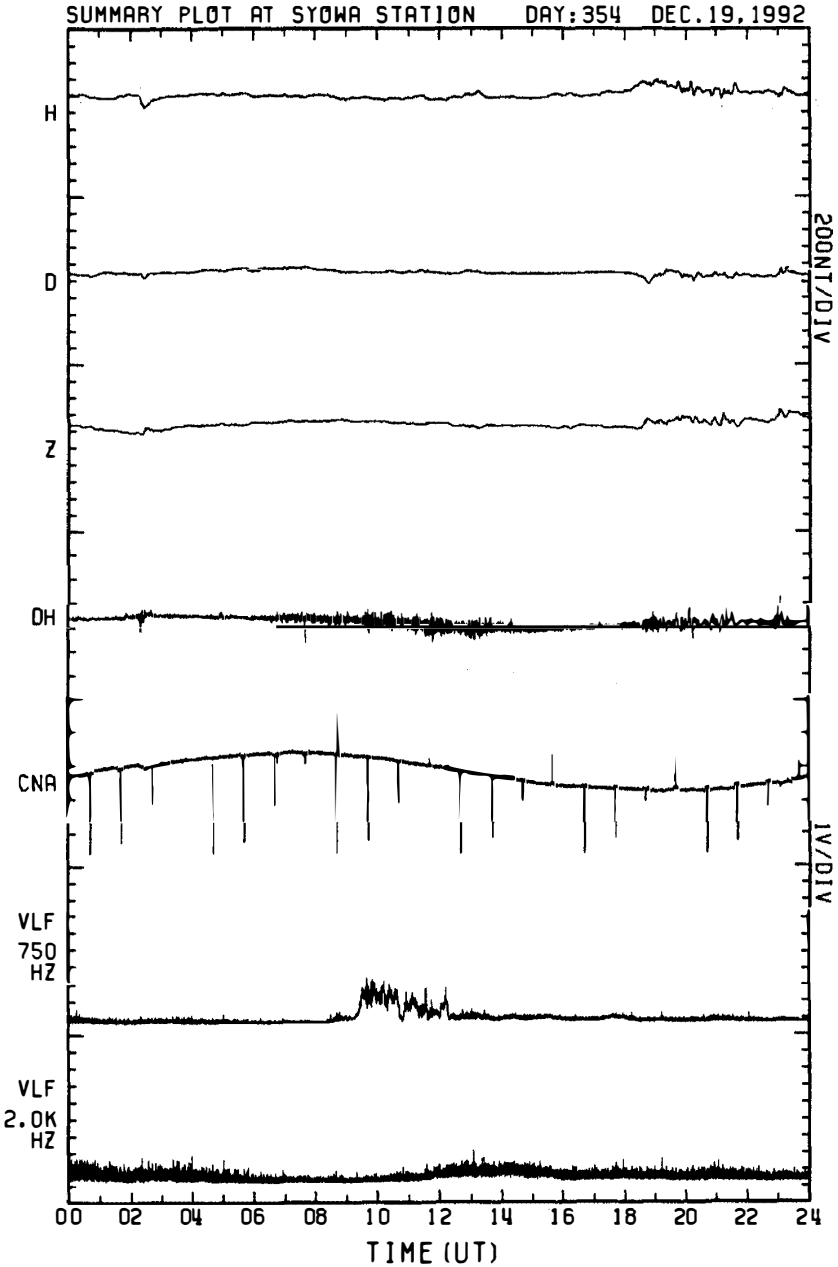

SUMMARY PLOT AT SYOWA STATION DAY:349 DEC.14,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

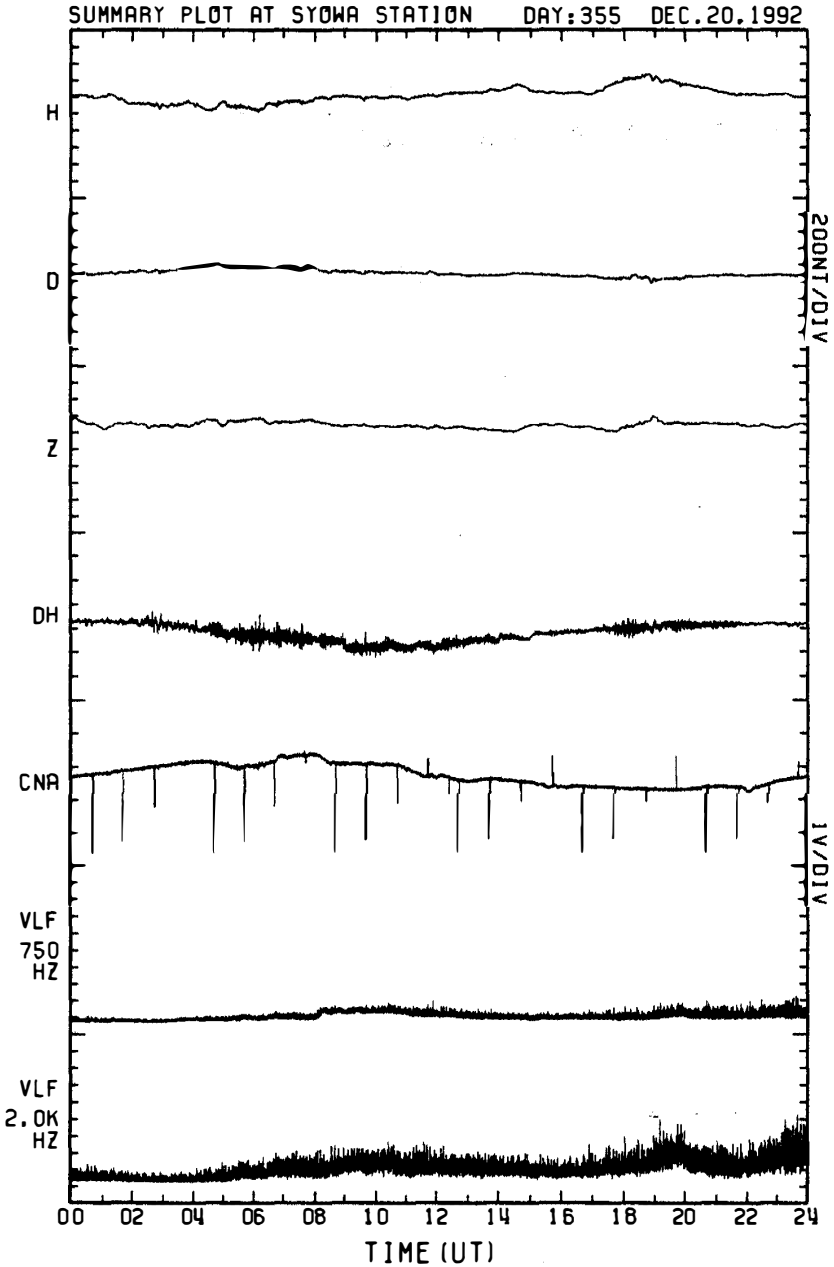

SUMMARY PLOT AT SYOWA STATION DAY:350 DEC.15,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

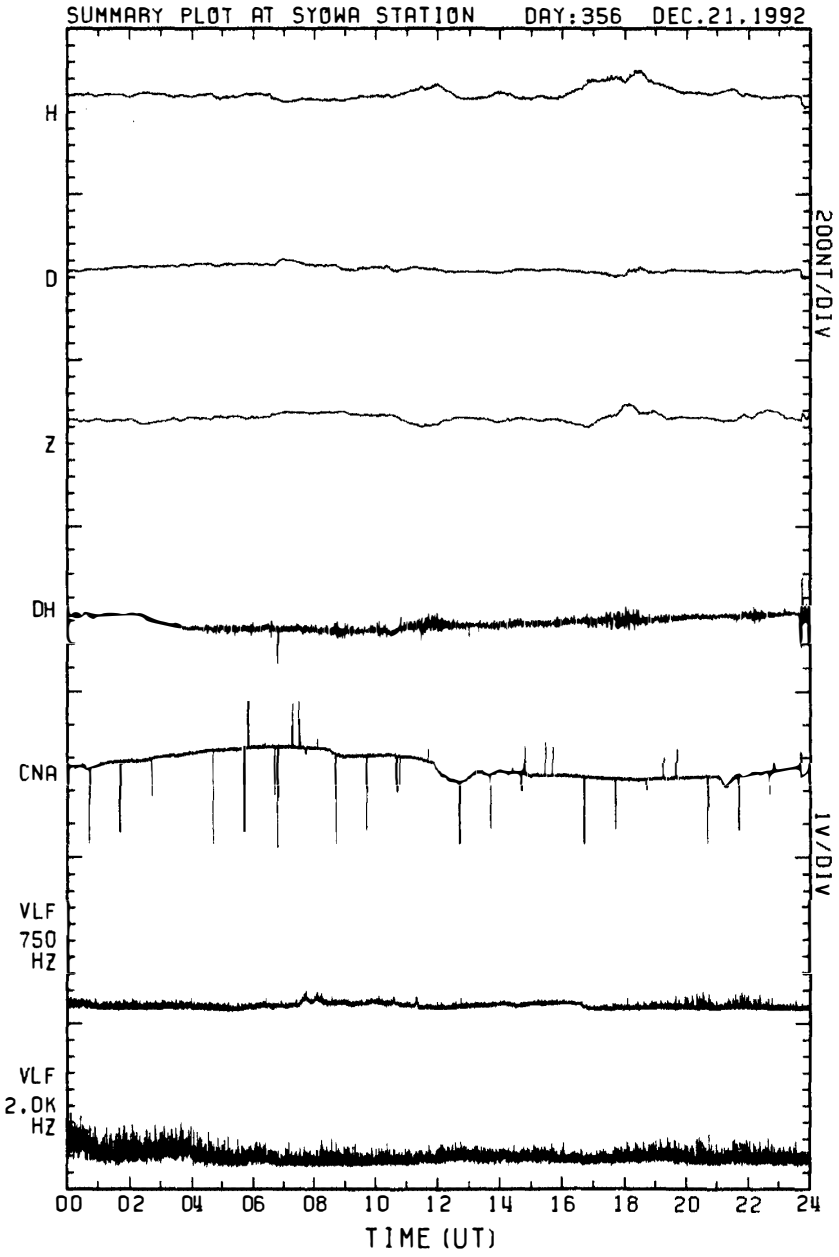

SUMMARY PLOT AT SYOWA STATION DAY:351 DEC.16,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

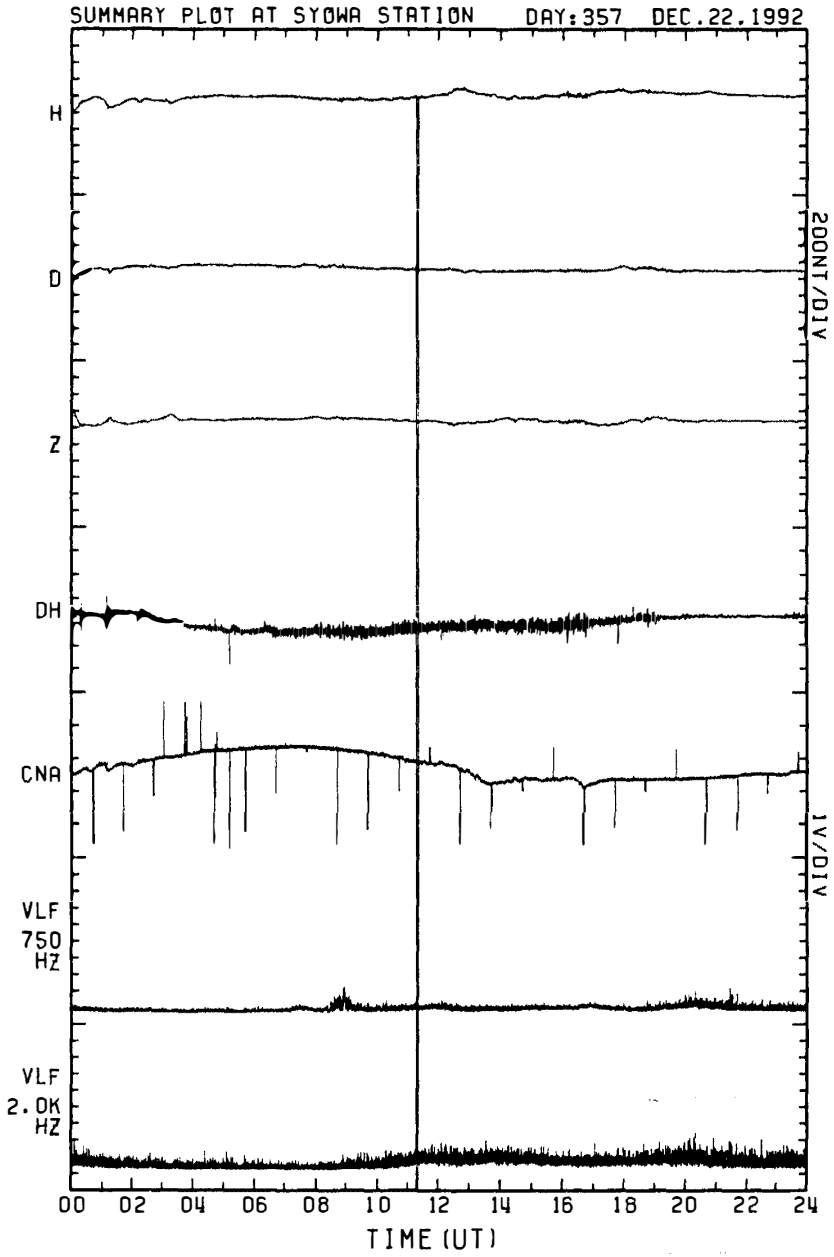

SUMMARY PLOT AT SYOWA STATION DAY:352 DEC.17,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

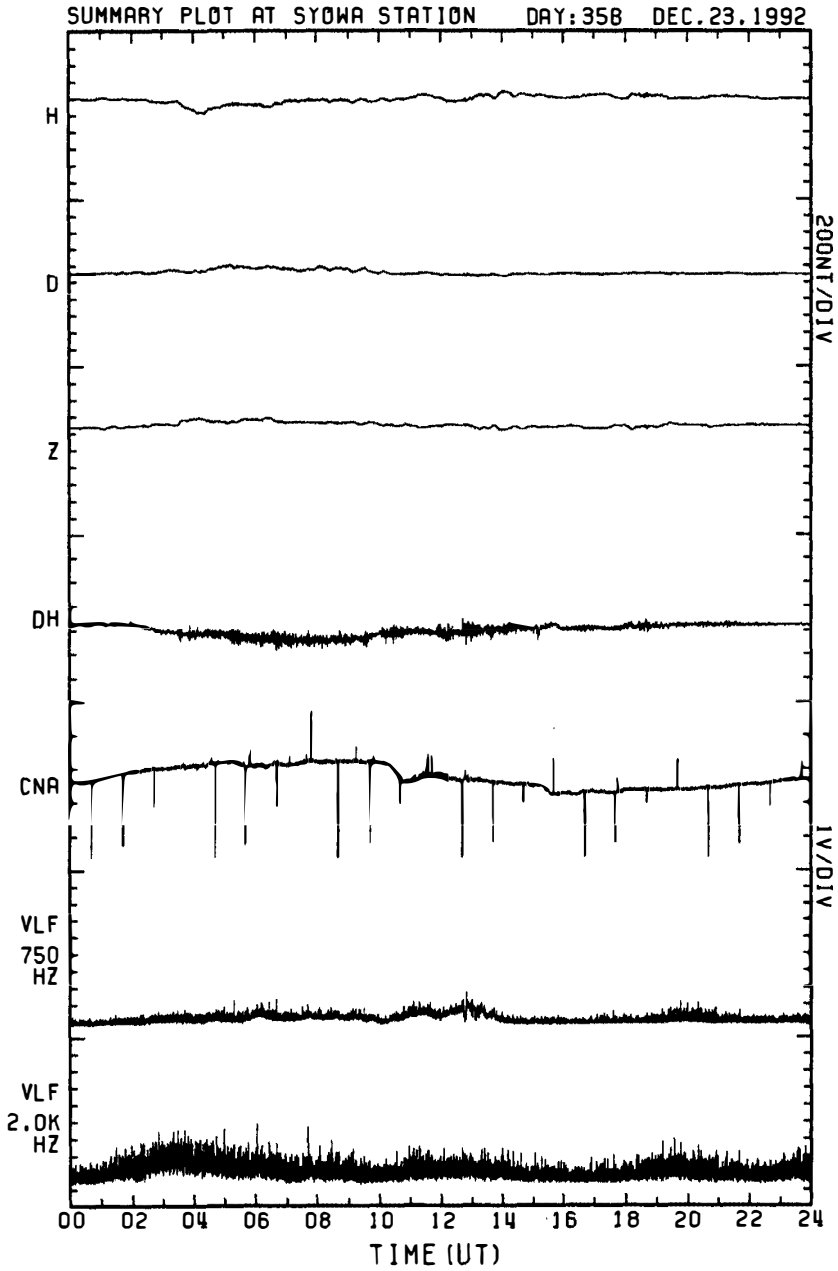

SUMMARY PLOT AT SYOWA STATION DAY:353 DEC.18,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

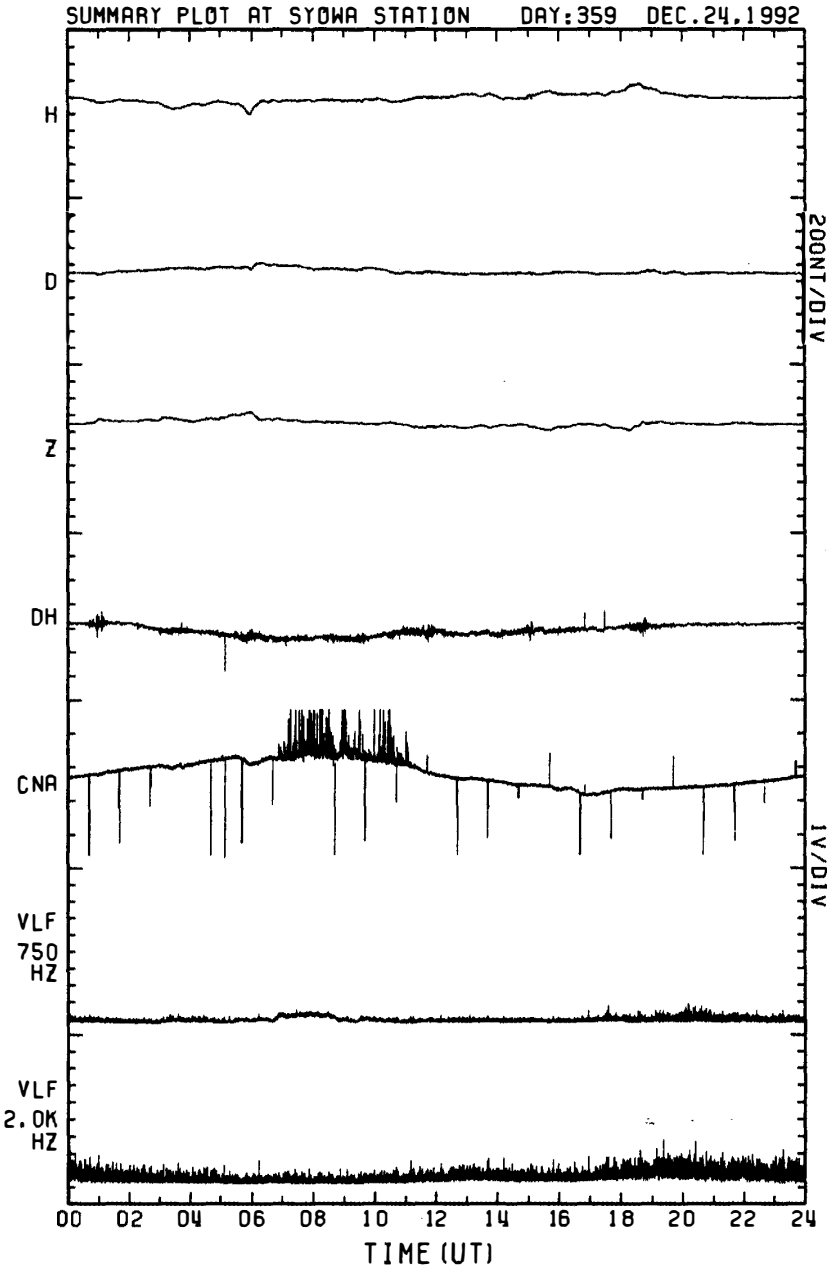

SUMMARY PLOT AT SYOWA STATION DAY:354 DEC.19,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

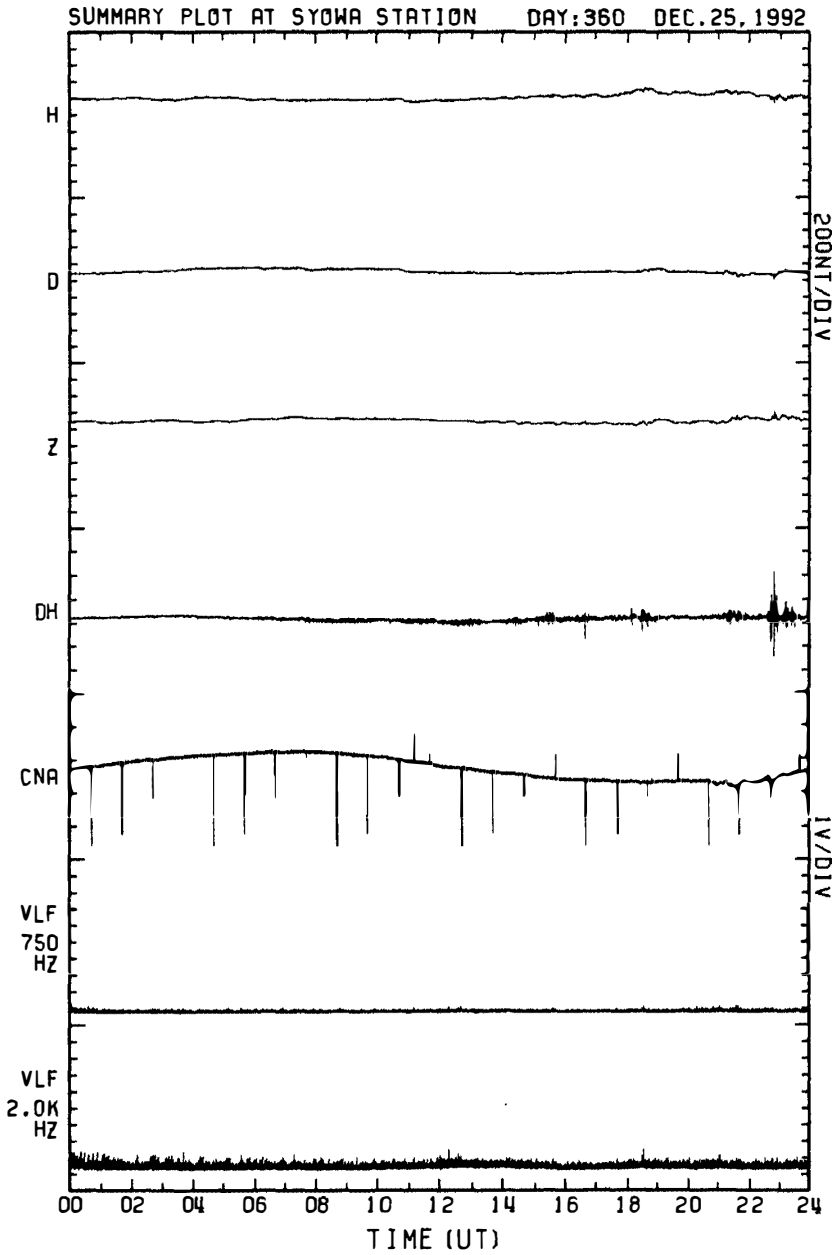

SUMMARY PLOT AT SYOWA STATION DAY:355 DEC.20,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

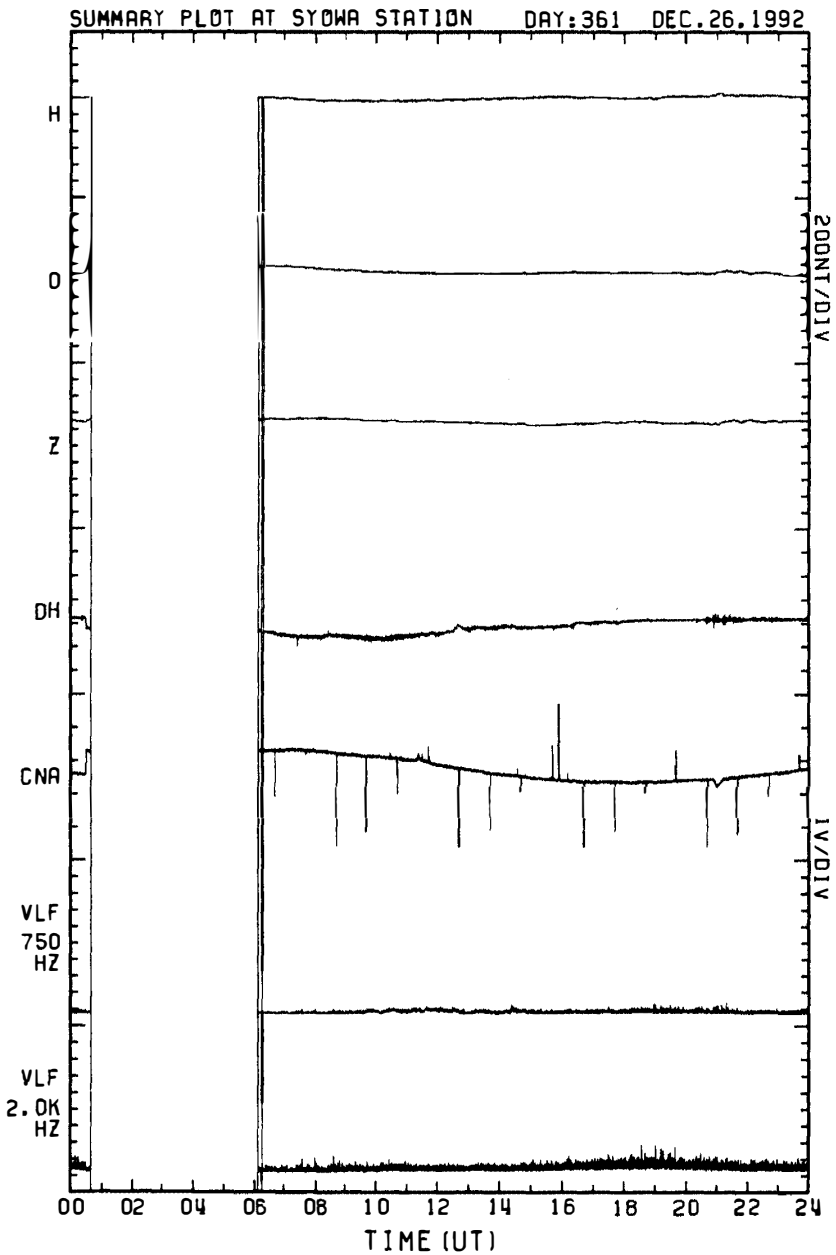

SUMMARY PLOT AT SYOWA STATION DAY:356 DEC.21,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

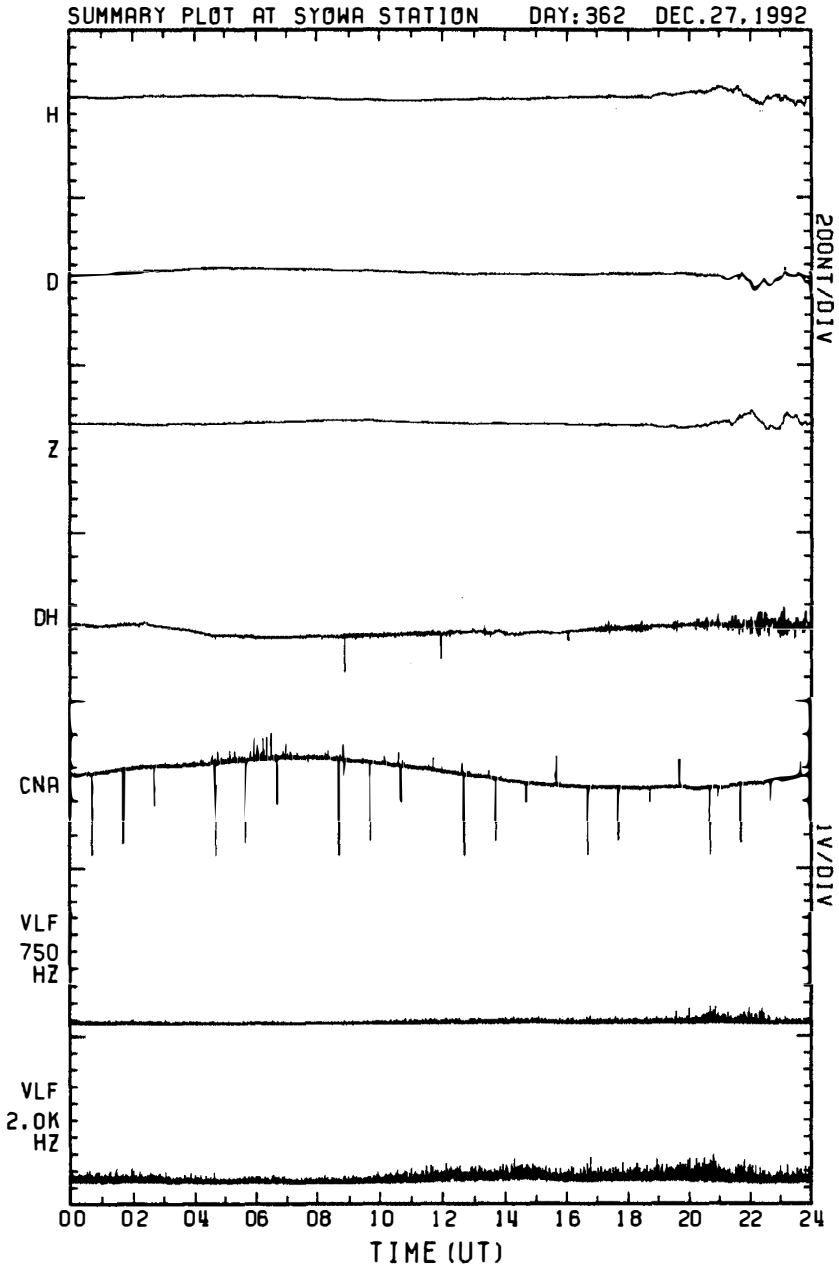

SUMMARY PLOT AT SYOWA STATION DAY:357 DEC.22,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

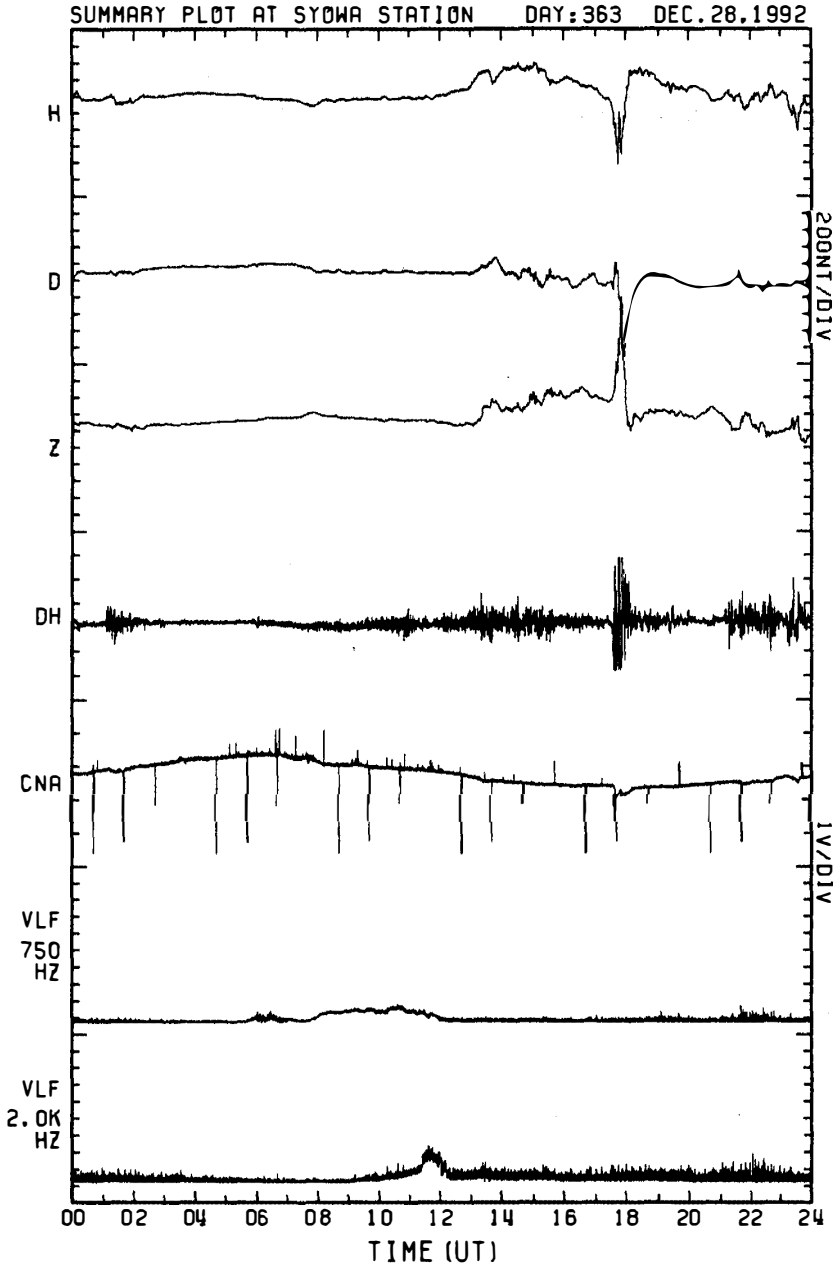

SUMMARY PLOT AT SYOWA STATION DAY:358 DEC.23,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

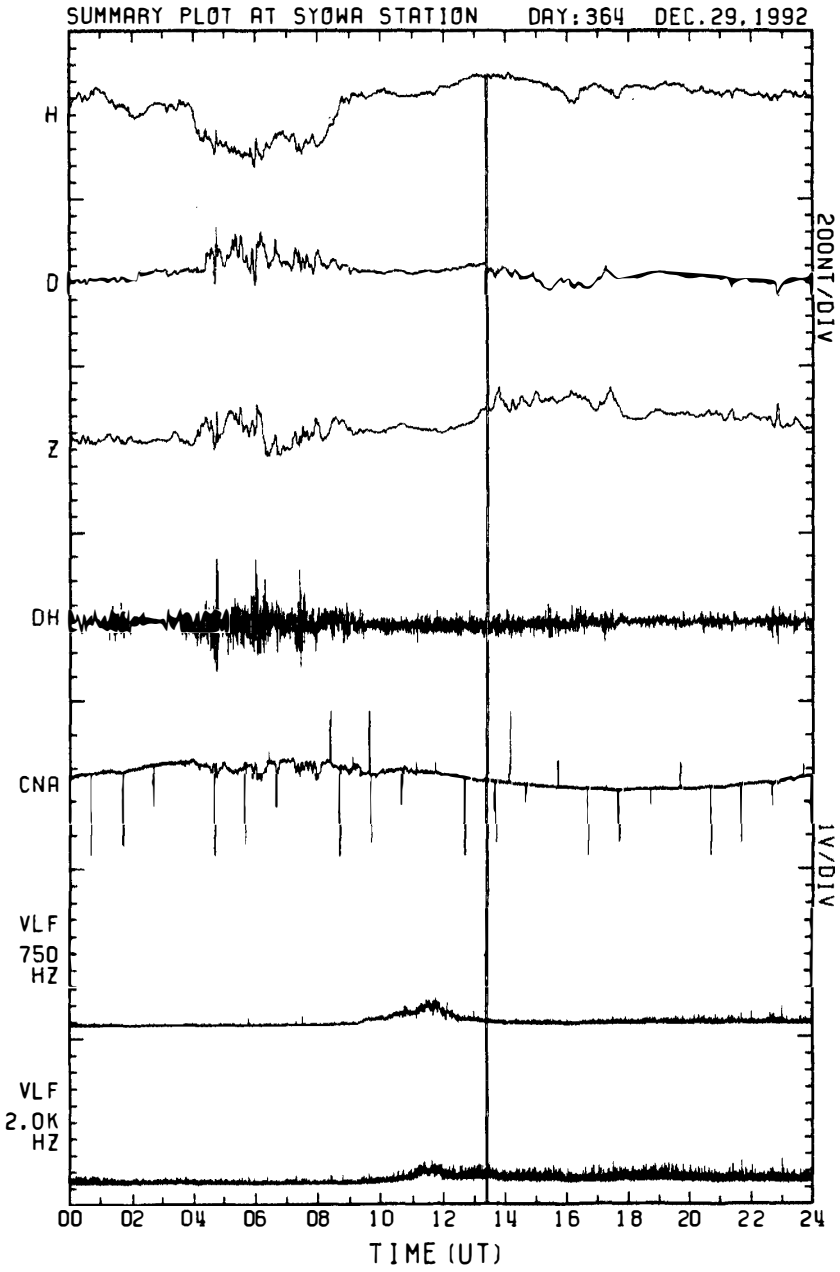

SUMMARY PLOT AT SYOWA STATION DAY:359 DEC.24,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

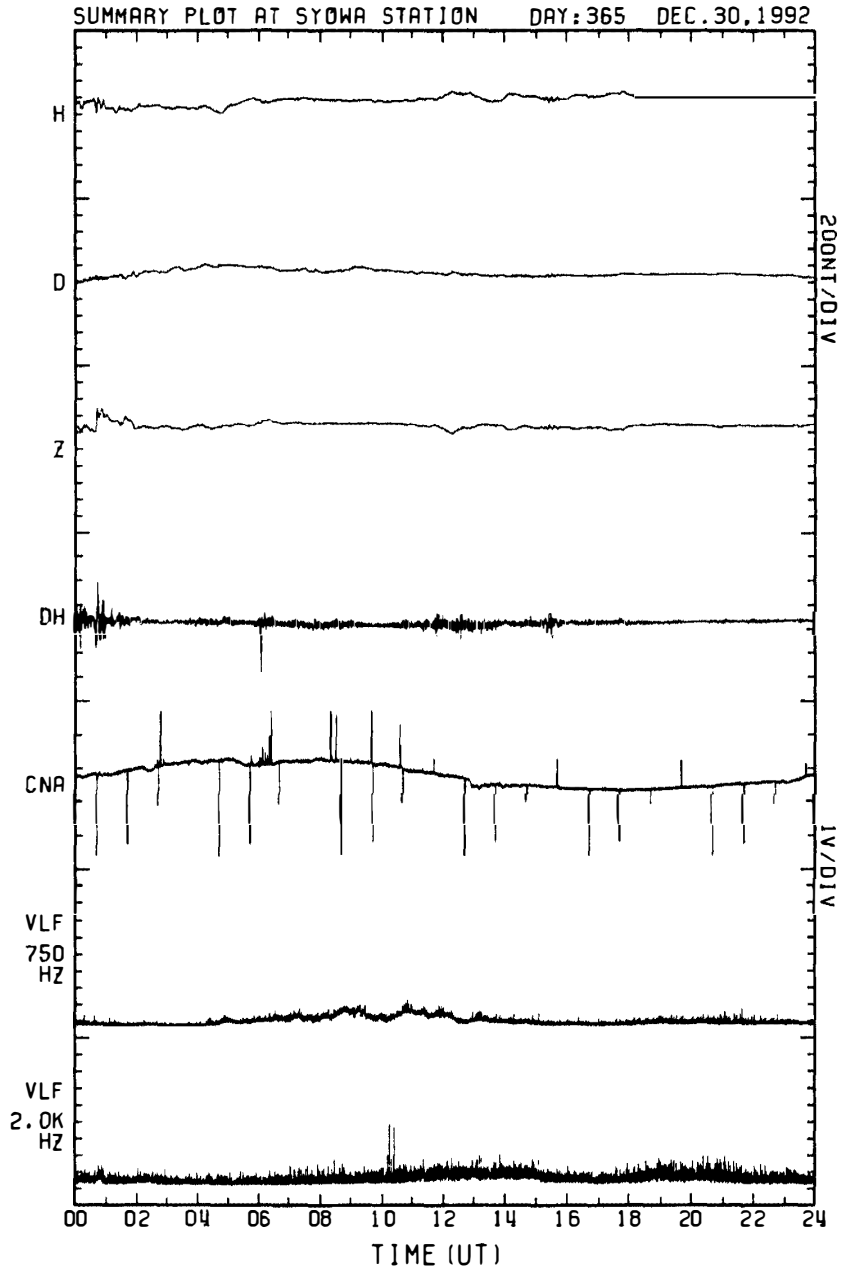

SUMMARY PLOT AT SYOWA STATION DAY:360 DEC.25,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)

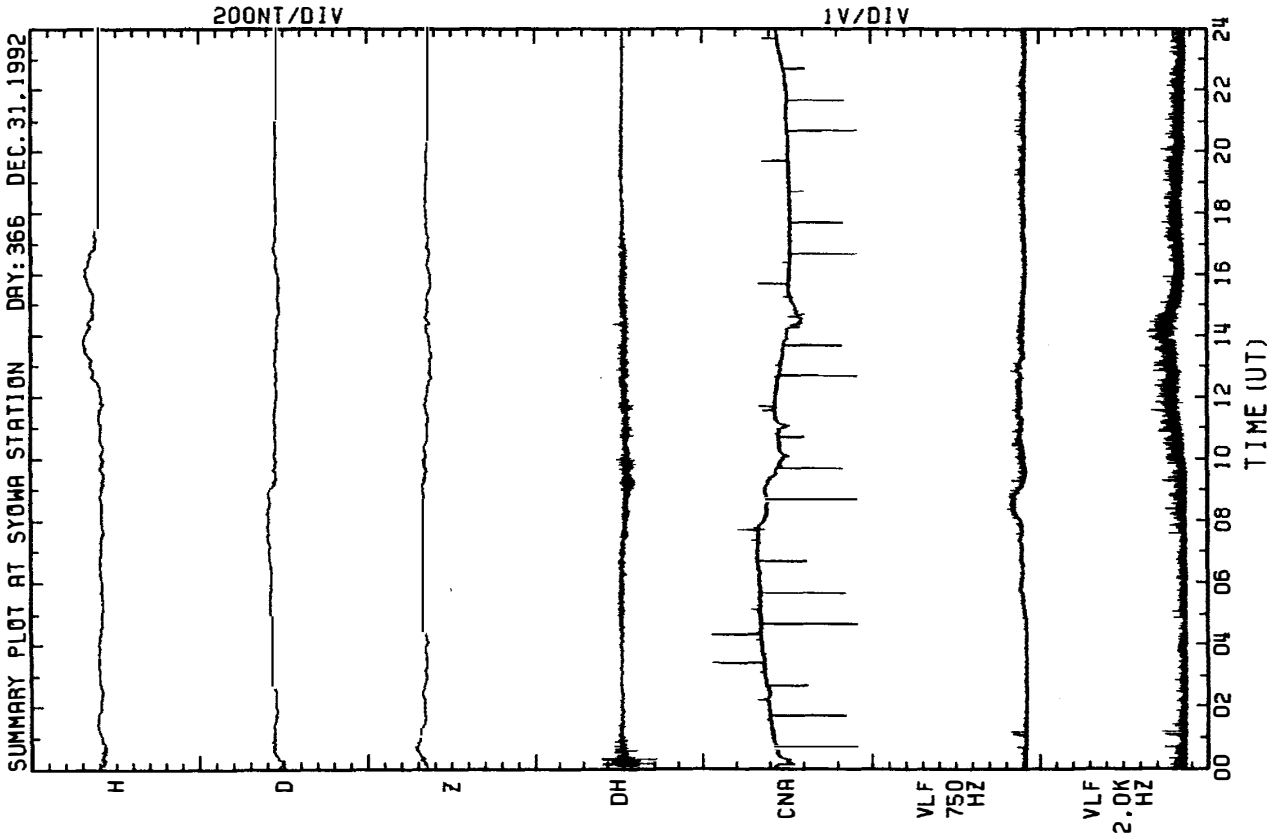

SUMMARY PLOT AT SYOWA STATION DAY:361 DEC.26,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)


SUMMARY PLOT AT SYOWA STATION DAY:362 DEC.27,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)


SUMMARY PLOT AT SYOWA STATION DAY:363 DEC.28,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)


SUMMARY PLOT AT SYOWA STATION DAY:364 DEC.29,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)


SUMMARY PLOT AT SYOWA STATION DAY:365 DEC.30,1992
H
D
Z
DH
CNA
VLF
750
HZ
VLF
2.0K
HZ
200NT/DIV
1V/DIV
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)


SUMMARY PLOT AT SYOWA STATION DAY:366 DEC.31,1992
200NT/DIV
1V/DIV
H
D
Z
DH
CNA
VLF 750 HZ
VLF 2.0K HZ
00 02 04 06 08 10 12 14 16 18 20 22 24
TIME (UT)