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On "STE DATA BOOK NO. 2, SOLAR-TERRESTRIAL OBSERVATIONS
DURING CDAW-9 INTERVALS, APRIL-MAY 1986"

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The purpose of this article is to give information about the recently published Solar-Terrestrial Environment Data Book (STE DATA BOOK) No. 2, which contains data from solar-terrestrial observations during CDAW-9 intervals (April - May 1986). The CDAW-9 is the ninth program of the international "Coordinated Data Analysis Workshop" series, sponsored by the National Space Science Data Center (NSSDC/WDC-A for Rockets and Satellites). The principal purpose of the CDAW program is to study coupling of energy into the magnetosphere and associated phenomena by using coordinated data from spacecrafts, such as Viking and DE, ground arrays, and models. The CDAW 9 intervals are as follows:

No	Date	Day of Year	Time (UT)	Features
9A	4/1/86	91	07-23	Isolated 500 nT Substorm; Onset 0900, 1900
9B	4/2-3/86	92-93	18-10	Large Substorm preceded by semi-quiet; Onsets 0100, 0220
9C	5/3/86	123	00-12	Active, Substorms at end of storm Onsets -0130, 0430, 0930
9D	5/4/86	124	09-17	900 nT Substorm; Onset -1140
9E	5/8/86	128	10-18	Isolated 600 nT Substorm; Onset 1130

A majority of data shown in the data book came from Japanese STE community. Data from several key spacecrafts are also contained. Almost all diagrams in the data book are constructed from the computer-processed data base arranged in common time scales. Data contained in the data book are:

- DATA 1: All-Sky Image of Aurora on Late May 2, 1986
- DATA 2: Sketches of Sunspots and H-Alpha Photographs
- DATA 3: Multi-Parameter Synoptic Diagrams
- DATA 4: Solar Wind Plasma Parameters at Sakigake
- DATA 5: Geomagnetic Indices
- DATA 6: Auroral-Electrojet Indices
- DATA 7: Solar Wind Plasma Parameters and Interplanetary Magnetic Elements
at IMP-J
- DATA 8: Magnetic Field Elements at AMPTE/CCE
- DATA 9: Magnetic Field Elements at GOES-5
- DATA 10: Magnetic Field Elements at GOES-6
- DATA 11: GMS Trapped-Particle Data and A Indices
- DATA 12: Geomagnetic Pulsations at Onagawa
- DATA 13: Geomagnetic Observations at 24 Stations
- DATA 14: Geomagnetic Elements at Syowa Station
- DATA 16: High-Frequency Doppler Observations and Geomagnetic Data at Kakioka
- DATA 17: Ionospheric Observations at Kokubunji

Several examples of the diagrams published in the data book are shown in Figures 1 ~ 8 in this report. The data book is now available on request to the following address:

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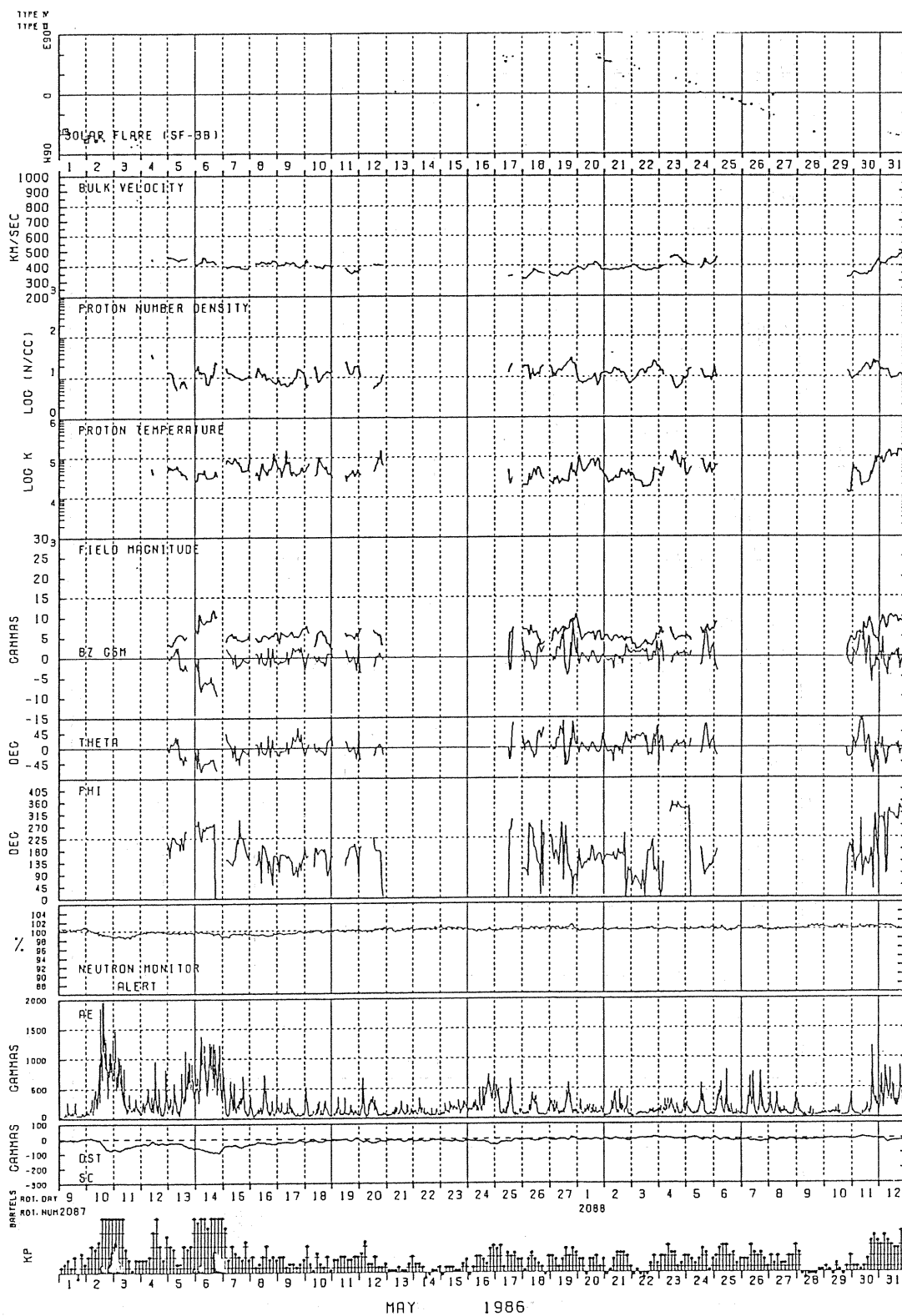


Fig. 1: Multi-parameter synoptic diagrams (DATA 3) for solar-terrestrial events in May 1986.

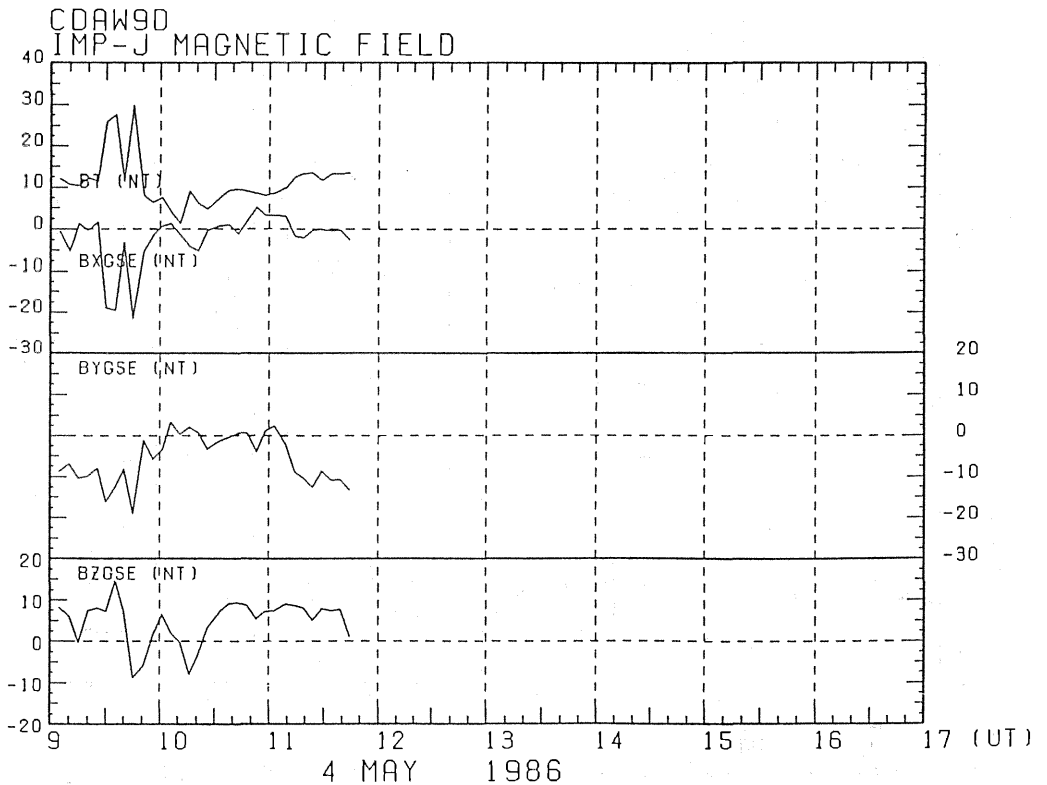
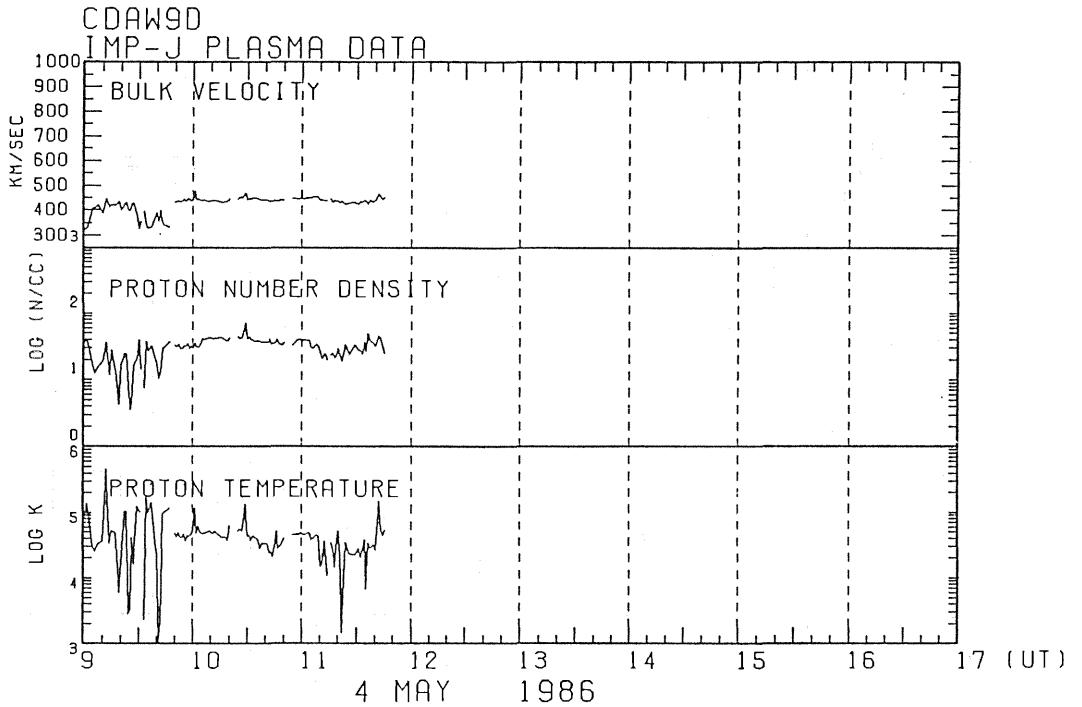


Fig. 2: Fine time resolution plasma parameters (bulk speed, proton number density, and proton temperature) and interplanetary magnetic elements (BXGSE, BYGSE, BZGSE, and total magnetic field F in nT) for IMP-J (DATA 7).

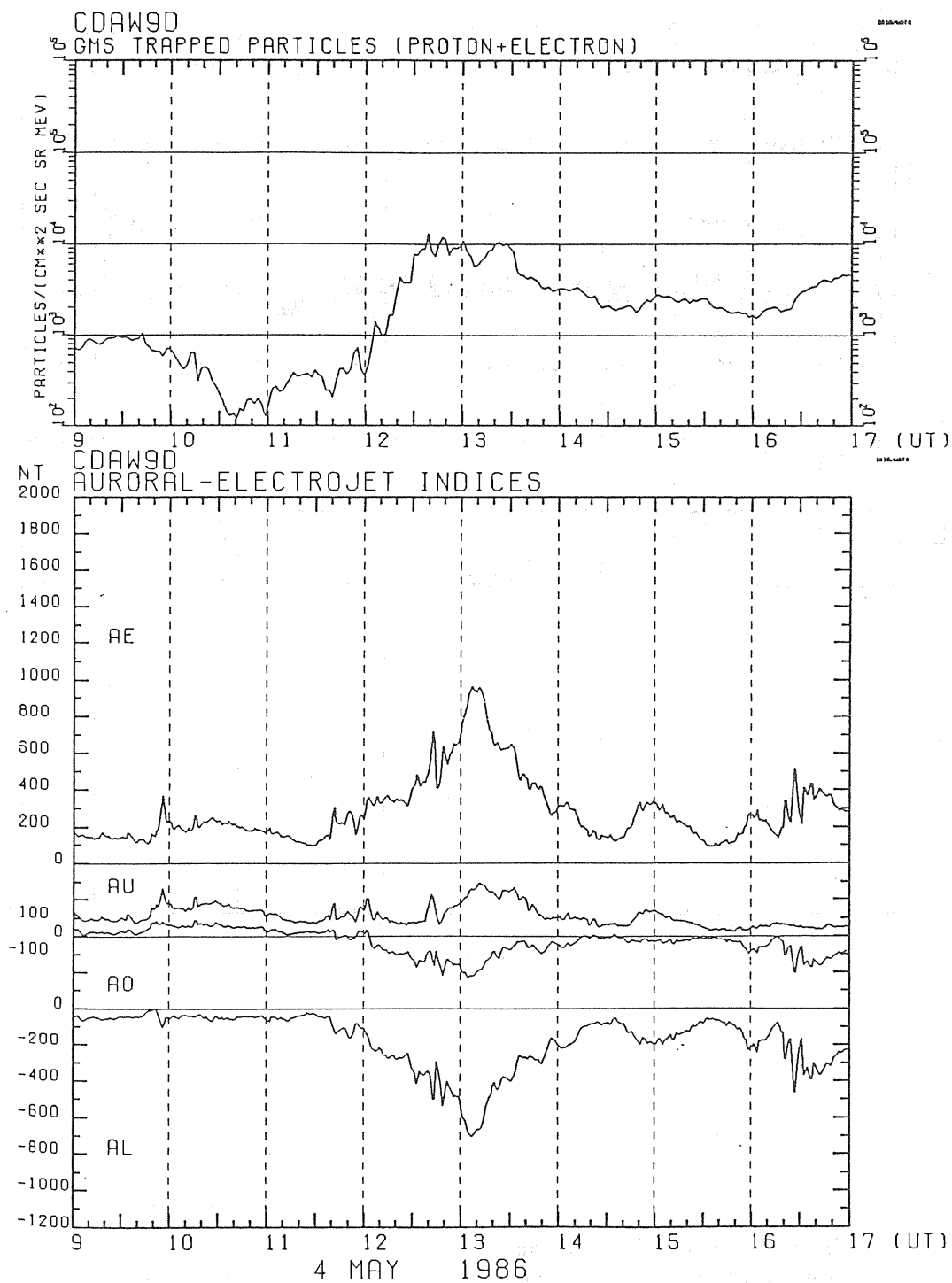
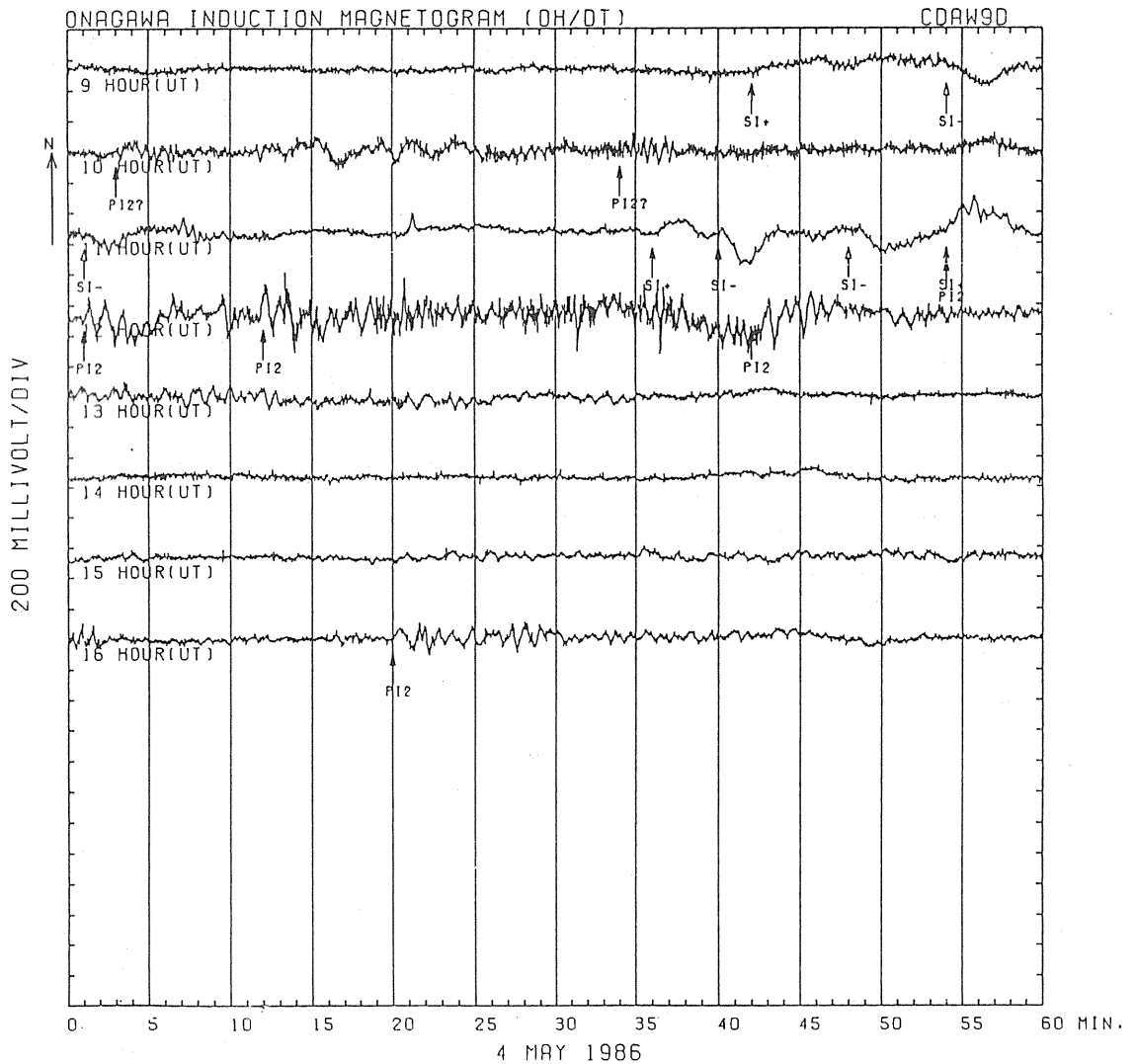


Fig. 3: GMS/SEM trapped particle flux and Auroral-Electrojet indices (DATA 11).



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1986	5	4	09	42	S1+
1986	5	4	09	54	S1-
1986	5	4	10	03	P12
1986	5	4	10	34	P12
1986	5	4	11	01	S1-
1986	5	4	11	36	S1+
1986	5	4	11	40	S1-
1986	5	4	11	48	S1-
1986	5	4	11	54	S1+
1986	5	4	11	54	P12
1986	5	4	12	01	P12
1986	5	4	12	12	P12
1986	5	4	12	42	P12
1986	5	4	16	20	P12

Fig. 4: Geomagnetic pulsations observed at Onagawa geomagnetic observatory, Tohoku University (DATA 12).

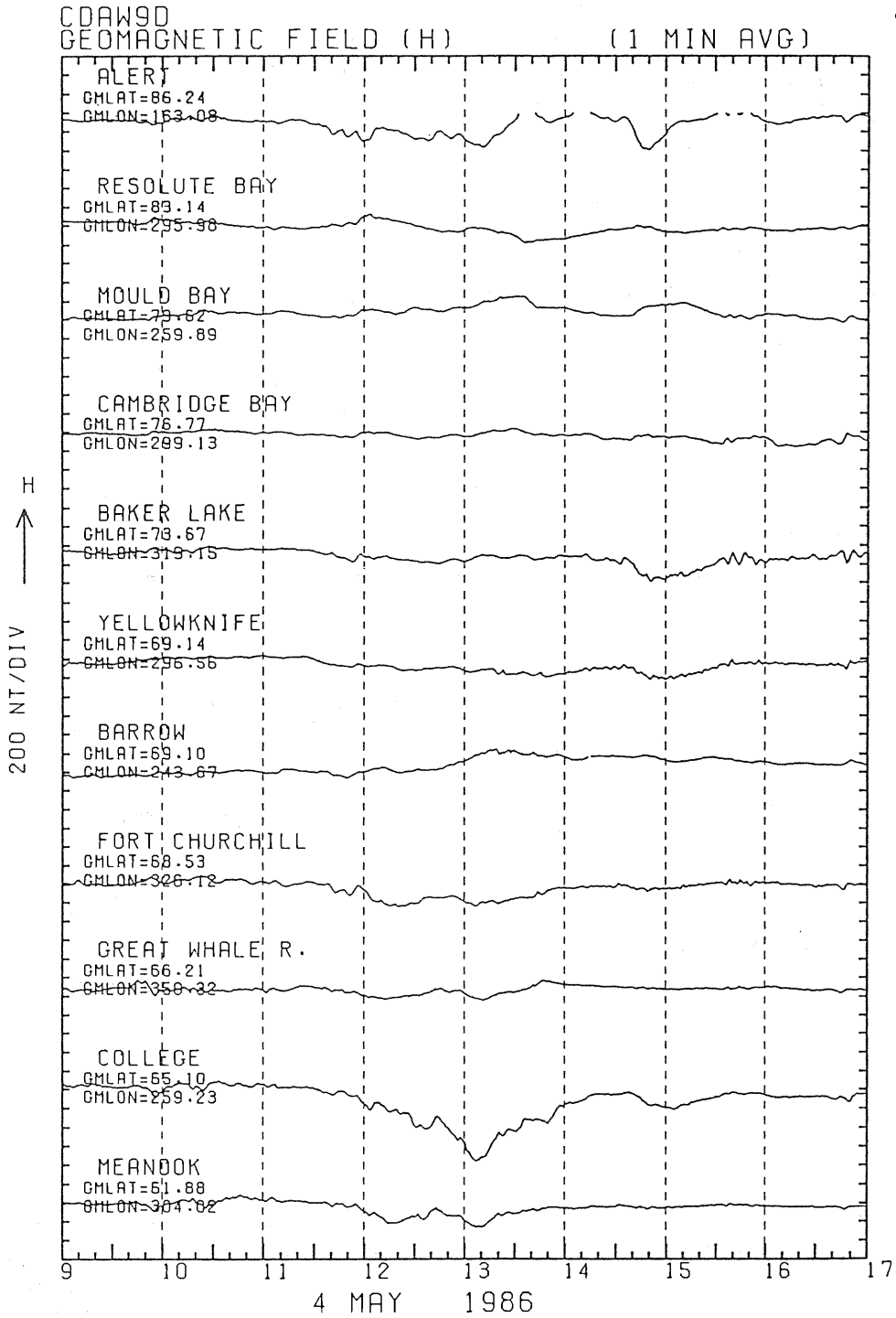


Fig. 5: Ground-based geomagnetic observations (DATA 13).

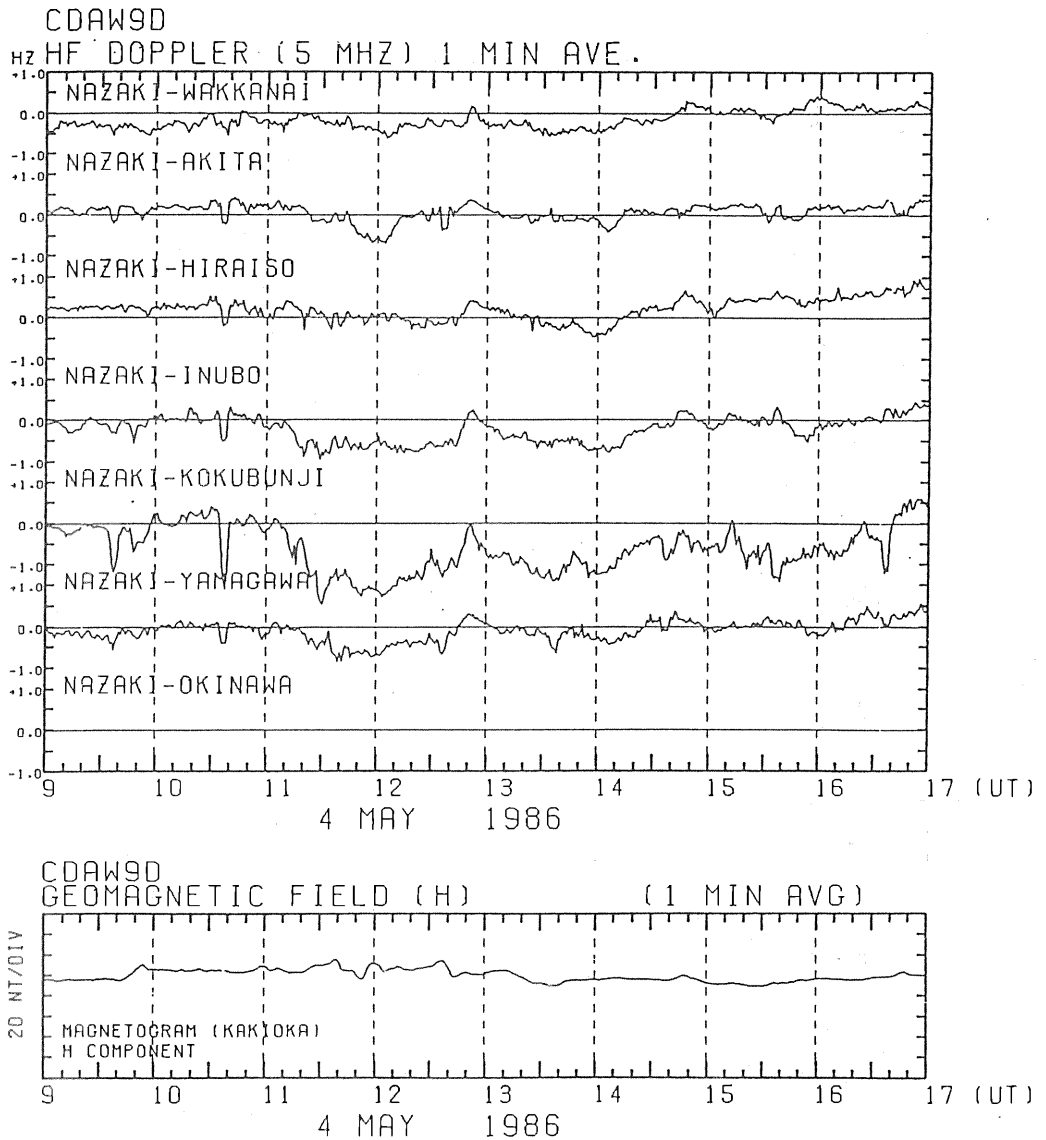


Fig. 6: High-frequency Doppler observations (DATA 16). The JFY radio signal at the frequency of 5.0 MHz from Nazaki (NAZ; 36.18°N , 139.85°E) were received at Wakkanai (WAK), Akita (AKI), Hiraiso (HIR), Inubo (INB), Kokubunji (KOK), Yamagawa (YAM) and Okinawa (OKI). Time variation of geomagnetic element H at Kakioka is also shown.

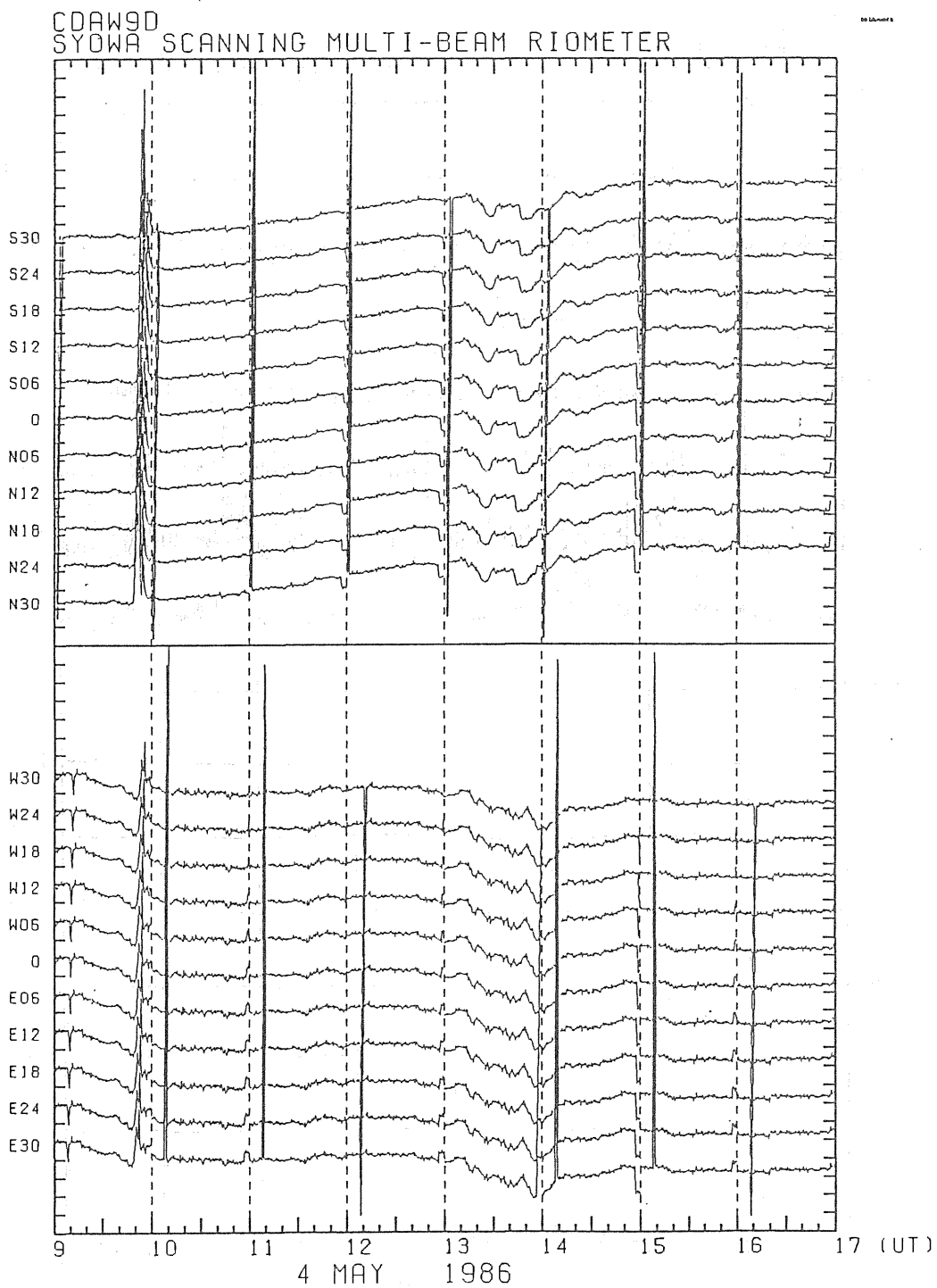


Fig. 7: Multi-beam riometer observations at Syowa Station, Antarctica.

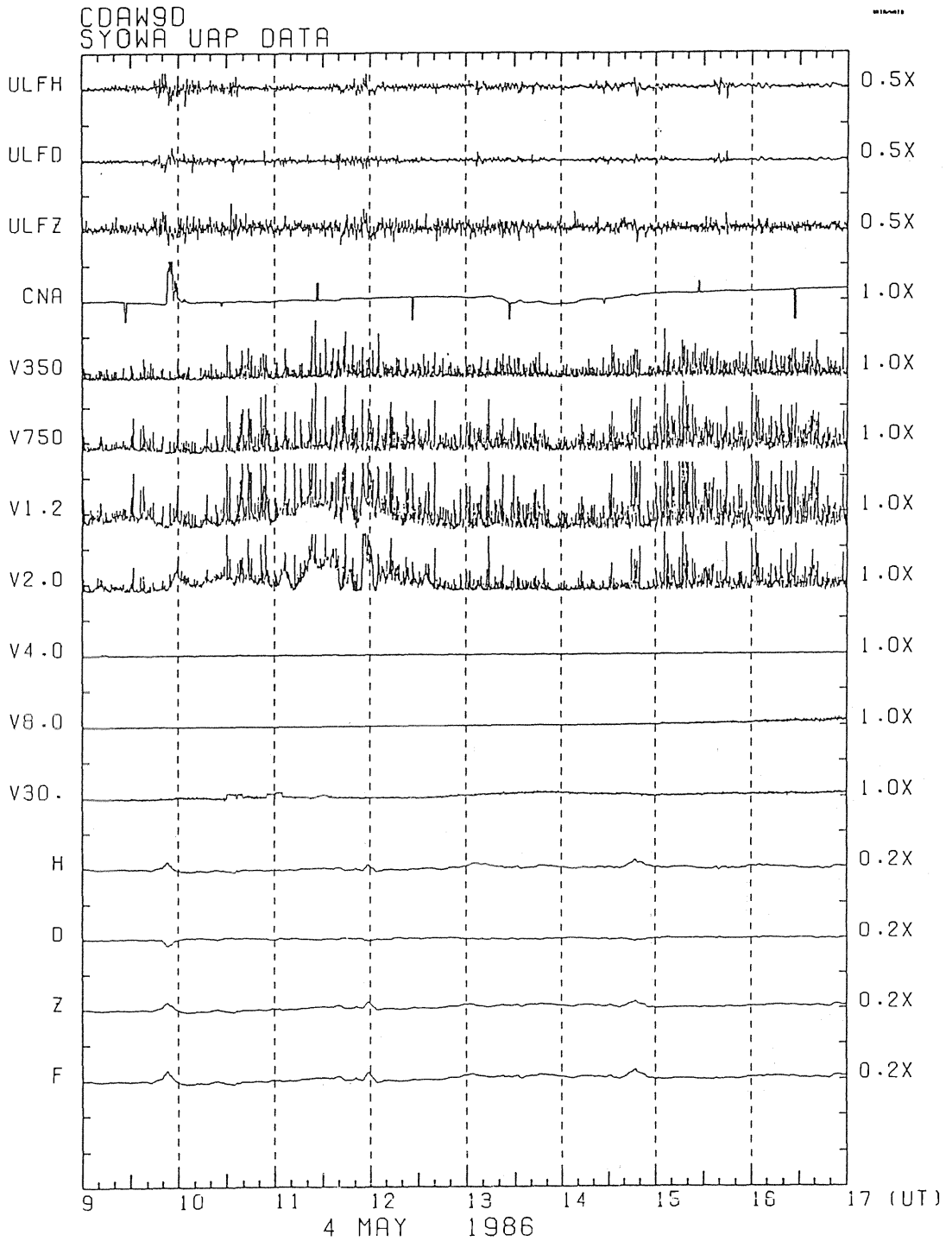


Fig. 8: Upper Atmosphere Physics Data (UAP) at Syowa Station, Antarctica. An example of correlated diagrams of auroral, geomagnetic, ionospheric and ELF-VLF activities in arbitrary units is shown.