

RUSSIAN ACADEMY OF SCIENCES
KOLA SCIENCE CENTRE



PGI
GEOPHYSICAL DATA

2015

JULY

AUGUST

SEPTEMBER

POLAR GEOPHYSICAL INSTITUTE
MURMANSK, APATITY, **RUSSIA**

PGI

GEOPHYSICAL DATA

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V. Burnaeva and N. Golubtsova, make-up editors

This bulletin presents the preliminary ground-based optical, geomagnetic and cosmic ray data obtained by Polar Geophysical Institute in the third quarter of 2015. All-sky camera observations are published only for the quarter when observations were carried out. All data are available by request.

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DATA DESCRIPTION

Magnetic data

The magnetograms (H, D, and Z) are plotted as magnetic variations recorded in Loparskaya and Lovozero stations by the three component Bobrov type magnetometer with a sampling frequency of 10 samples per seconds. The instrument has a range ± 2620 nT and a resolution of 5 pT. Magnetic observations are gathered every second and registered in the digital form as the 10-sec averaged data. Digits in the plots at the left hand side denote the scale of the records in nT/div. Timing is provided by the GPS.

Magnetic quiet values for H, D and Z components are shown by dotted line as a daily averaged magnetic activity level for three magnetically quiet days of each month. Quiet days are brand by the symbol Q in tables of geomagnetic K-indices.

Geomagnetic K-indices

The hourly K-indices indicate the level of geomagnetic field disturbance. The maximum deflection of two components H and D from the magnetic quiet value during one hour interval have been recalculated to the value of the local hourly K-index. The following scale has been used:

K-indices	Deflection in nT
0	0-15
1	15-30
2	30-60
3	60-120
4	120-210
5	210-360
6	360-600
7	600-990
8	990-1500
9	1500 and more

Cosmic ray data

The 18-NM-64-neutron monitor has been operating in Apatity since 1969. A plot of pressure corrected hourly data (count accumulated during one hour interval) is presented in units of percent with respect to the monthly mean intensity. Mean values are:

July 387 206

August 386 668

September 386 843

The hourly data are sent to WDC-B2 (Moscow) and WDC-C (Japan).

Please visit also our Internet pages: <http://pgi.kolasc.net.ru>

PLEASE NOTE:

Magnetometer in Loparskaya was not in operation from July 28, 2015 to September 19, 2015.

Coordinates of stations

Stations	Code	Geographic		Corr. Geomagnetic	
		Lat	Long	Lat	Long
<i>Loparskaya</i>	LOP	68.63° N	33.25° E	64.94° N	113.6° E
<i>Lovozero</i>	LOZ	67.97° N	35.02° E	64.17° N	115.3° E
<i>Apatity</i>	APT	67.58° N	33.31° E	63.86° N	113.6° E

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<http://pgia.net.ru>

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GEOMAGNETIC K-INDICES, LOVOZERO
 July, 2015
 Lower limit of K=9 is 1500 nT

Day	Time, UT								
	03	06	09	12	15	18	21	24	
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GEOMAGNETIC K-INDICES, LOVOZERO

August, 2015

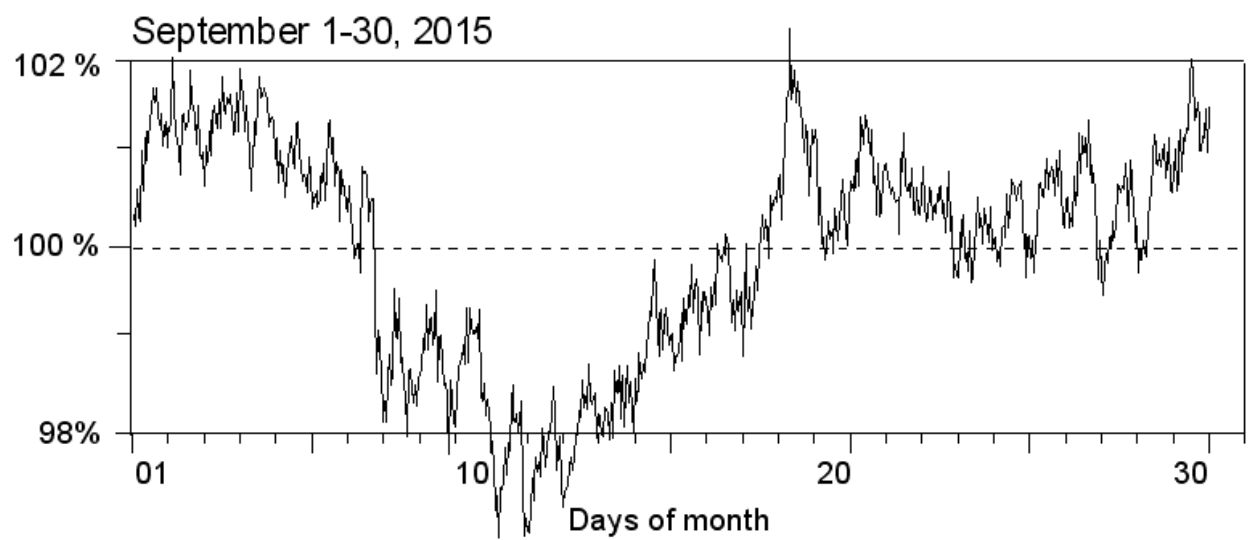
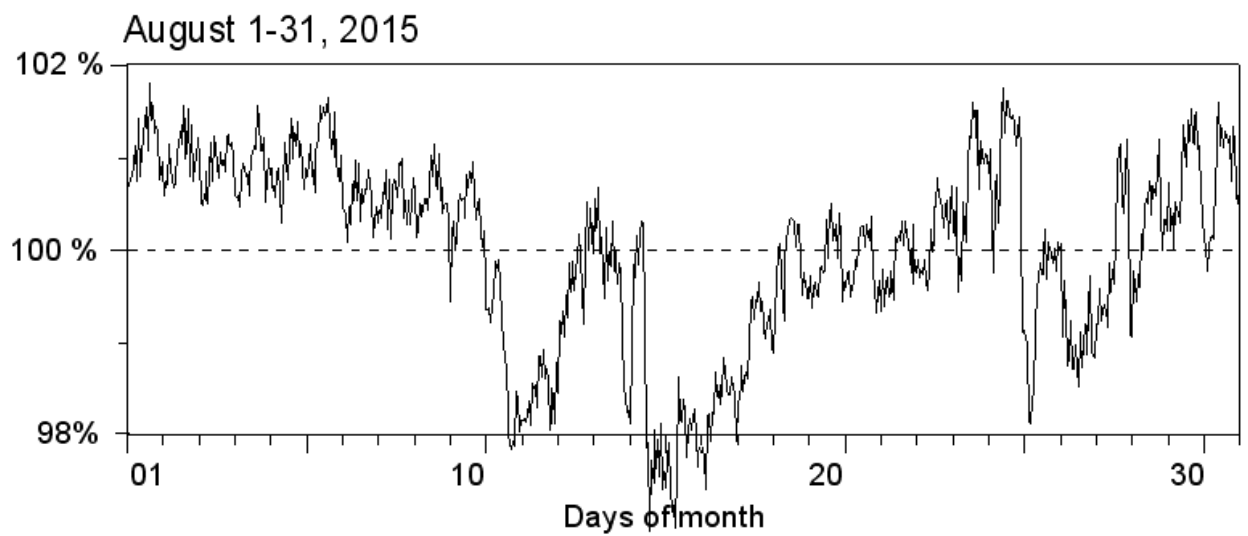
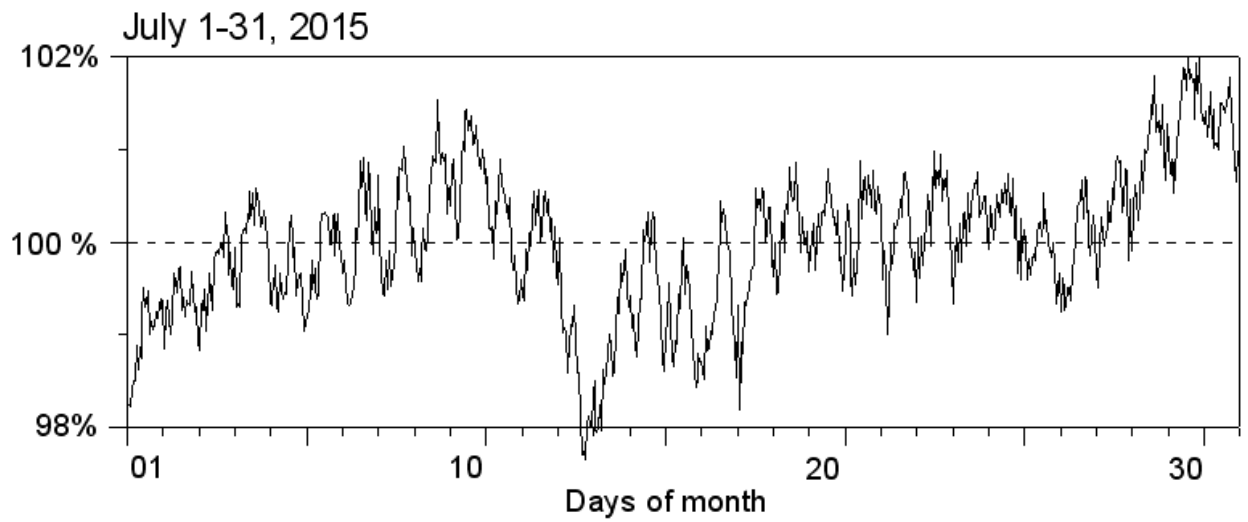
Lower limit of K=9 is 1500 nT

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GEOMAGNETIC K-INDICES, LOVOZERO
 September, 2015
 Lower limit of K=9 is 1500 nT

Day	Time, UT								
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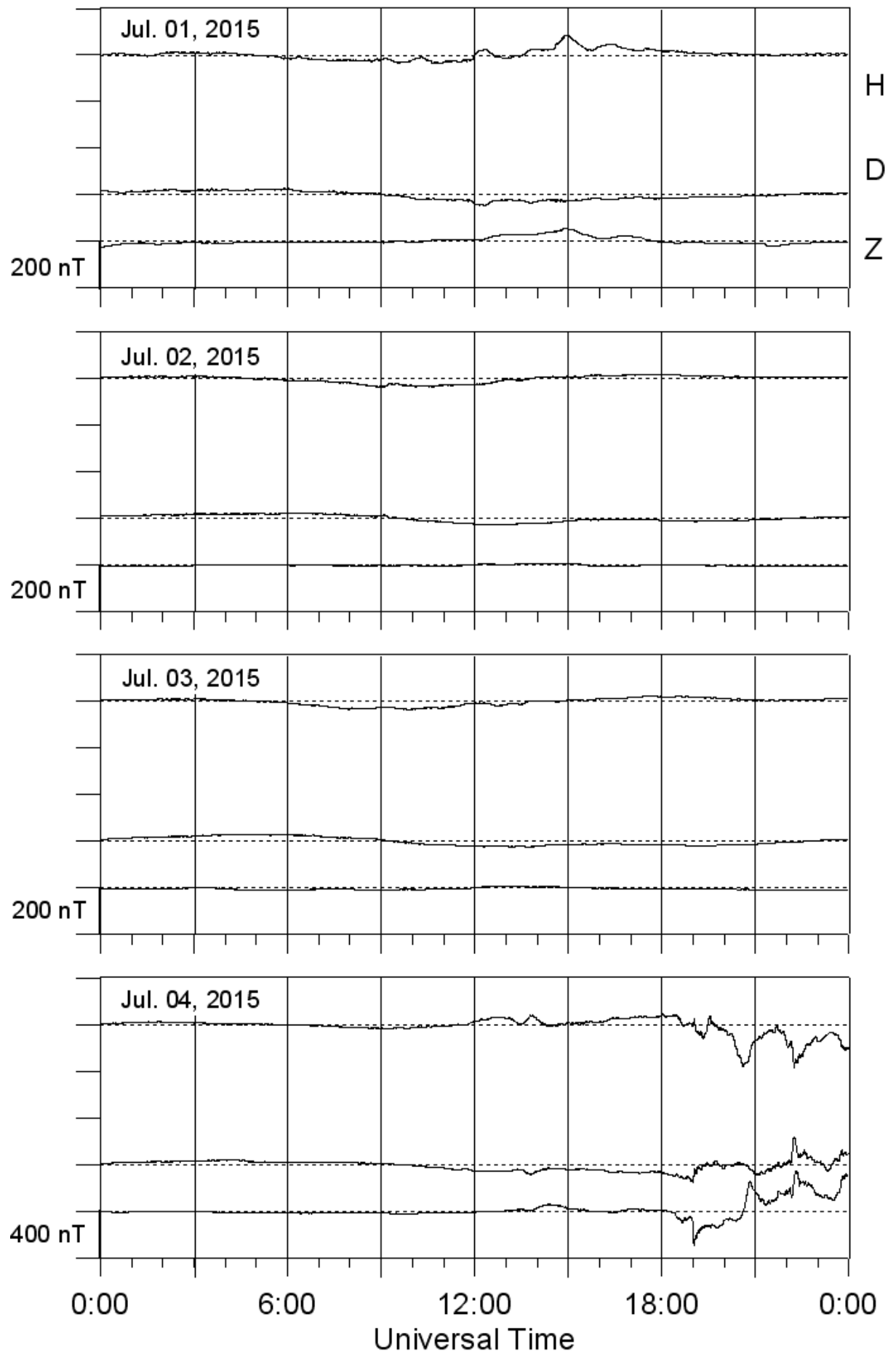
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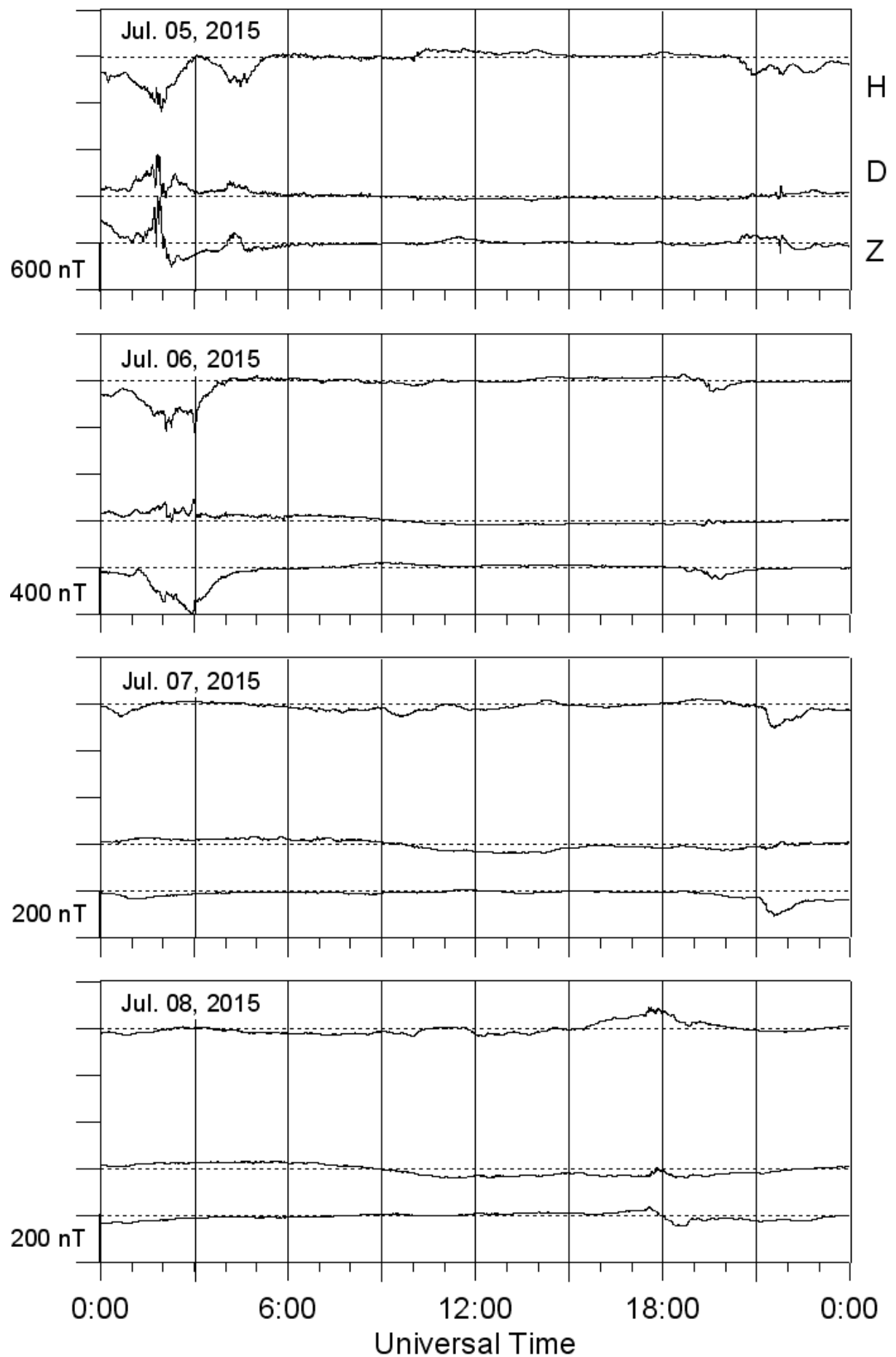
LOVOZERO MAGNETOGRAMS

July - September 2015

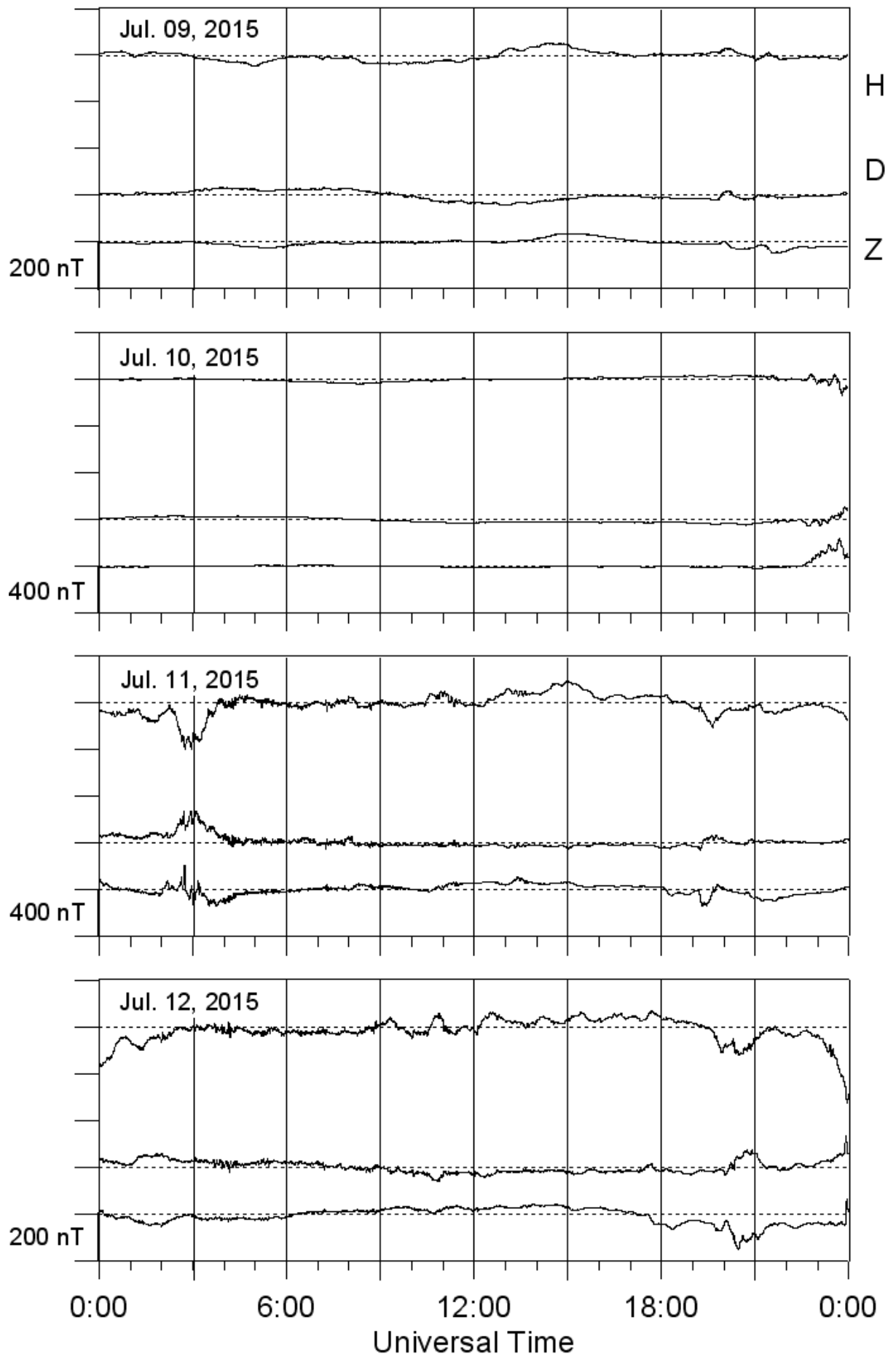
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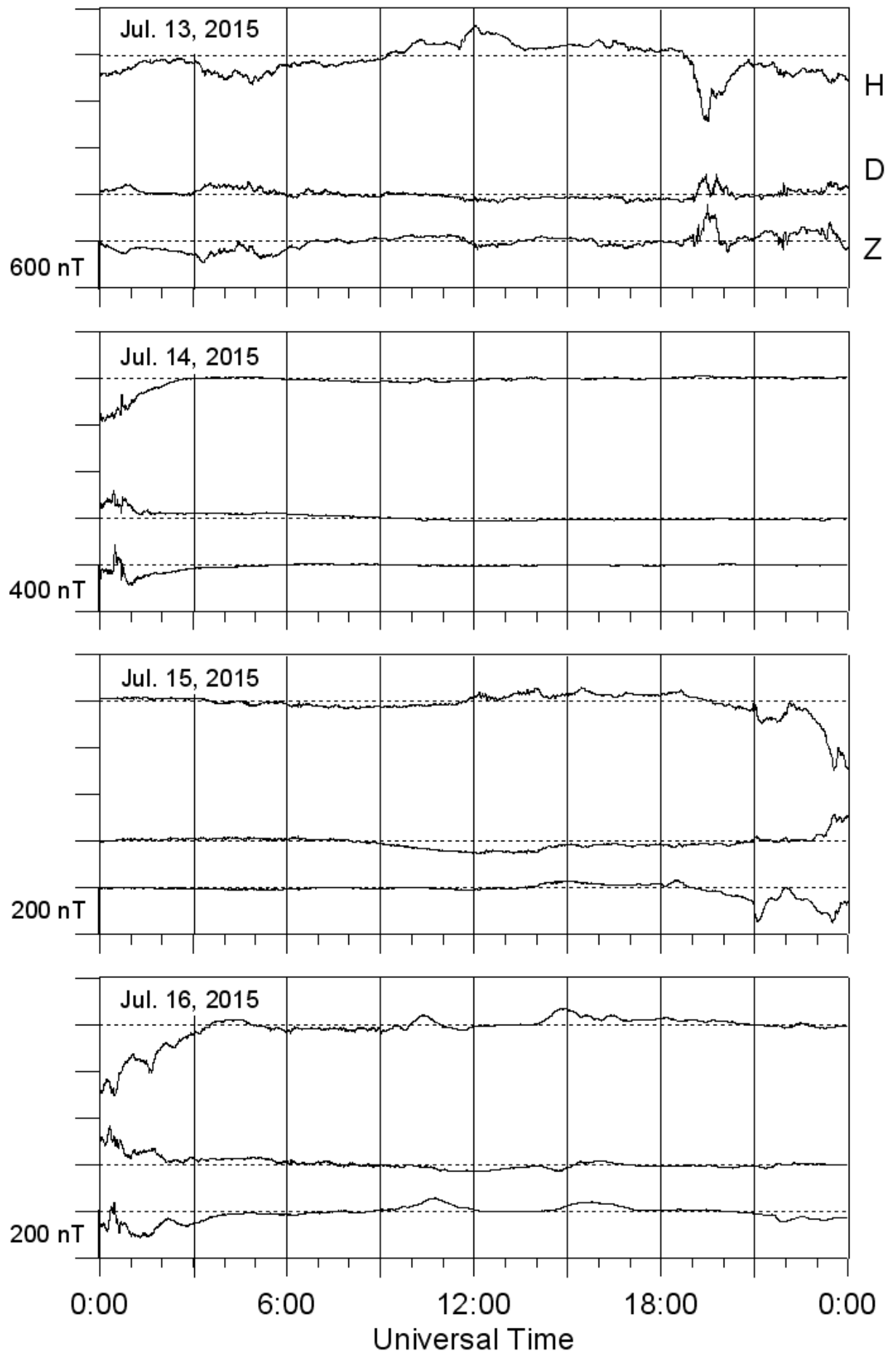
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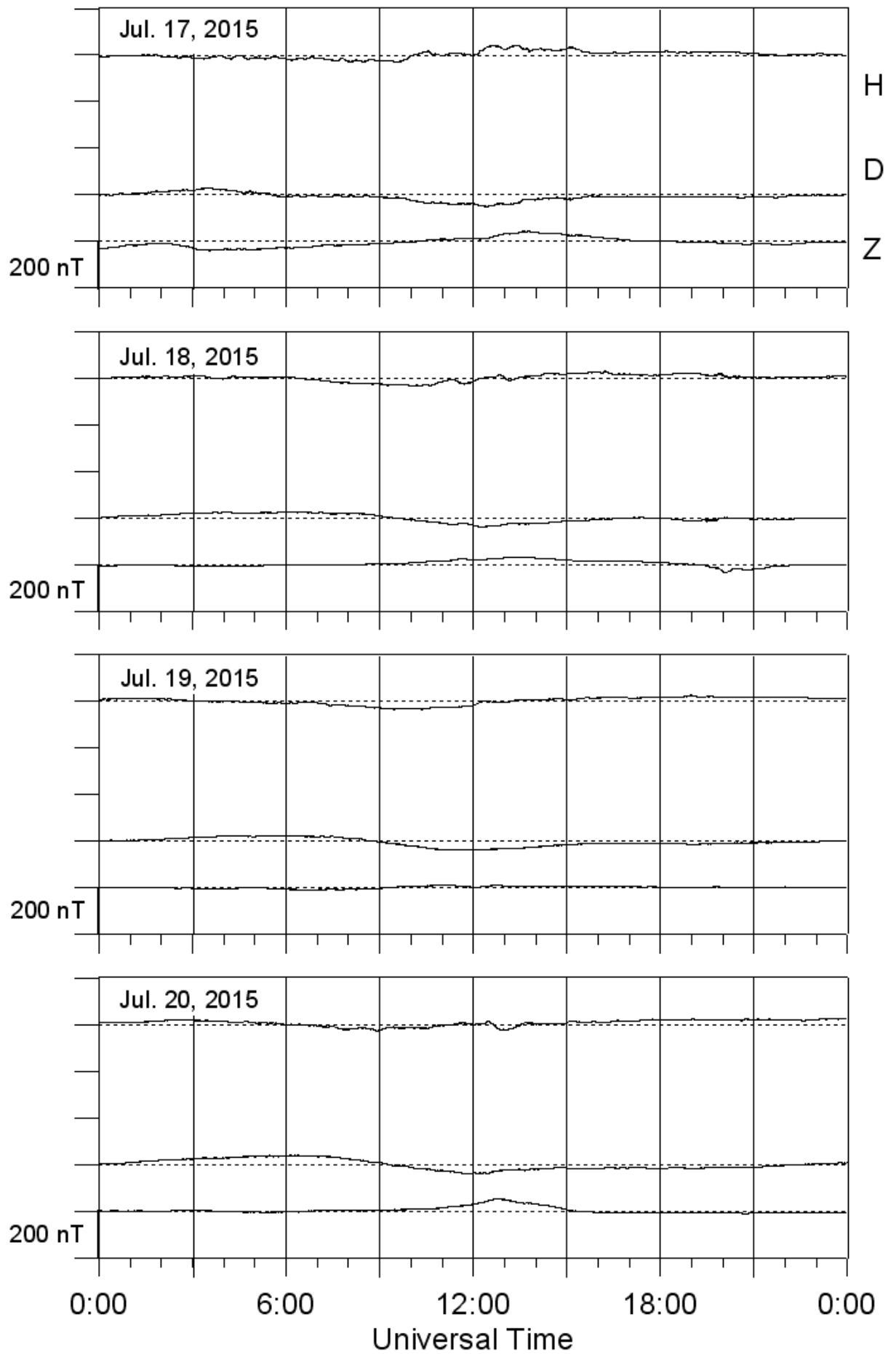
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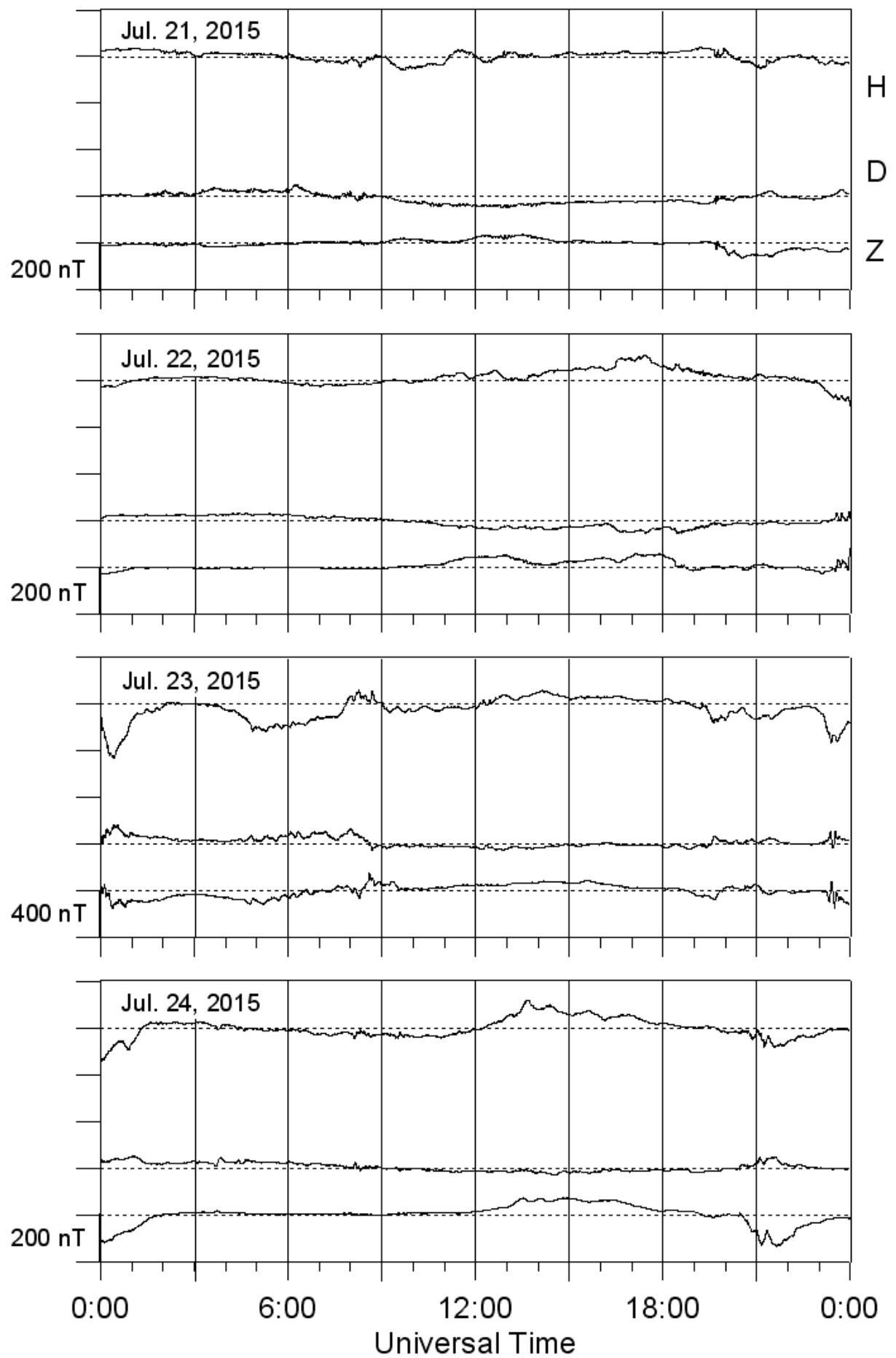
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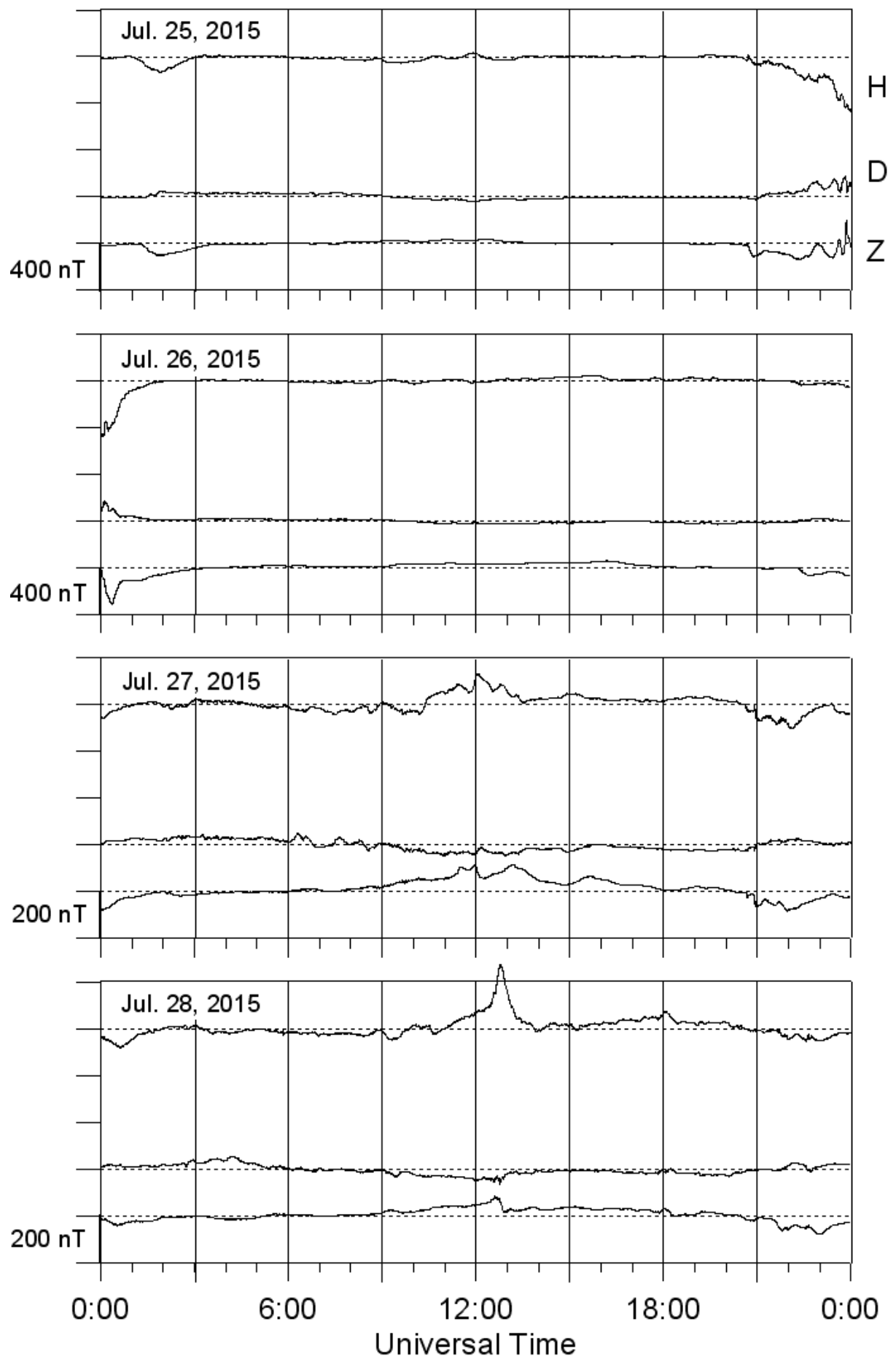
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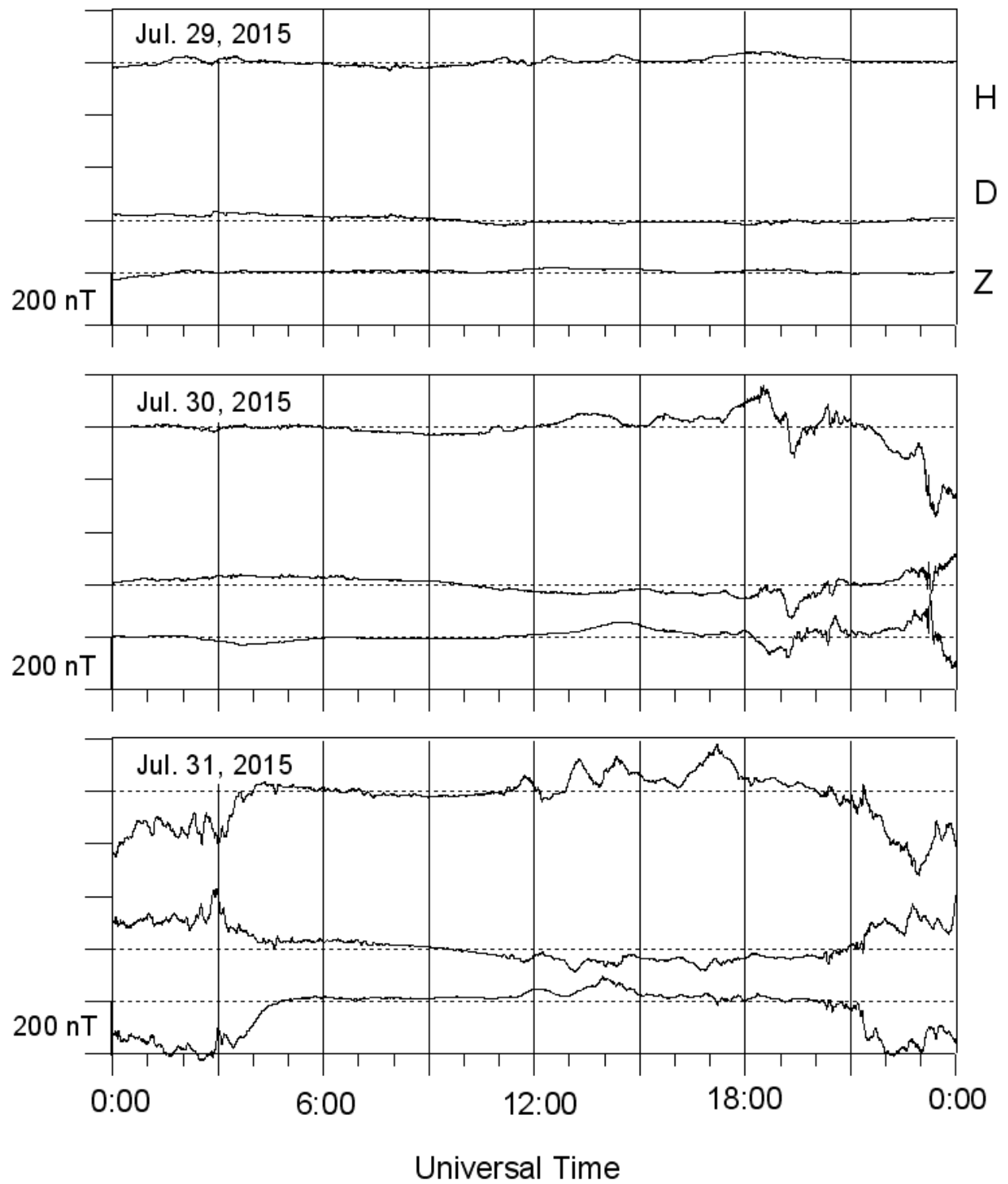
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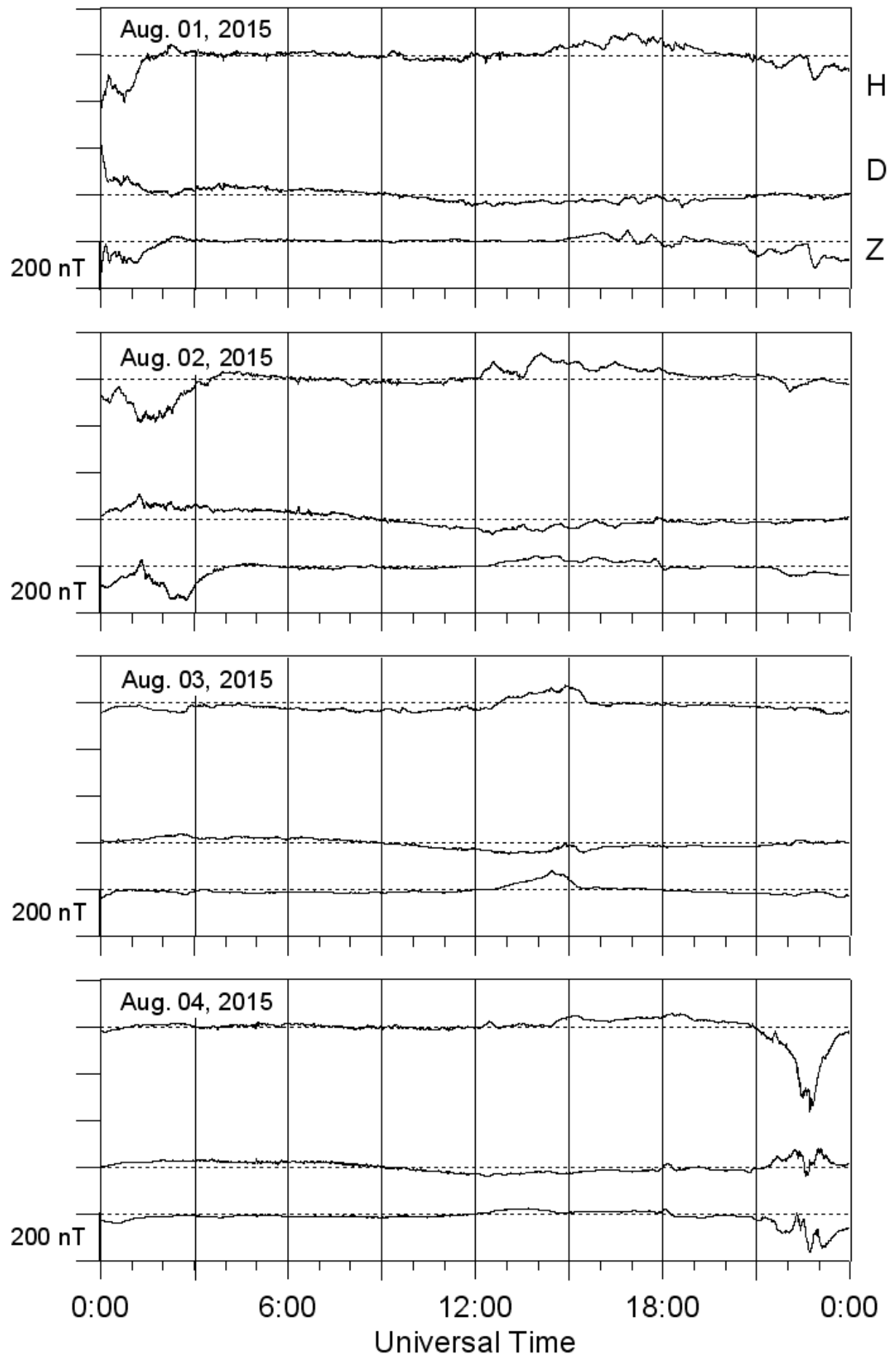
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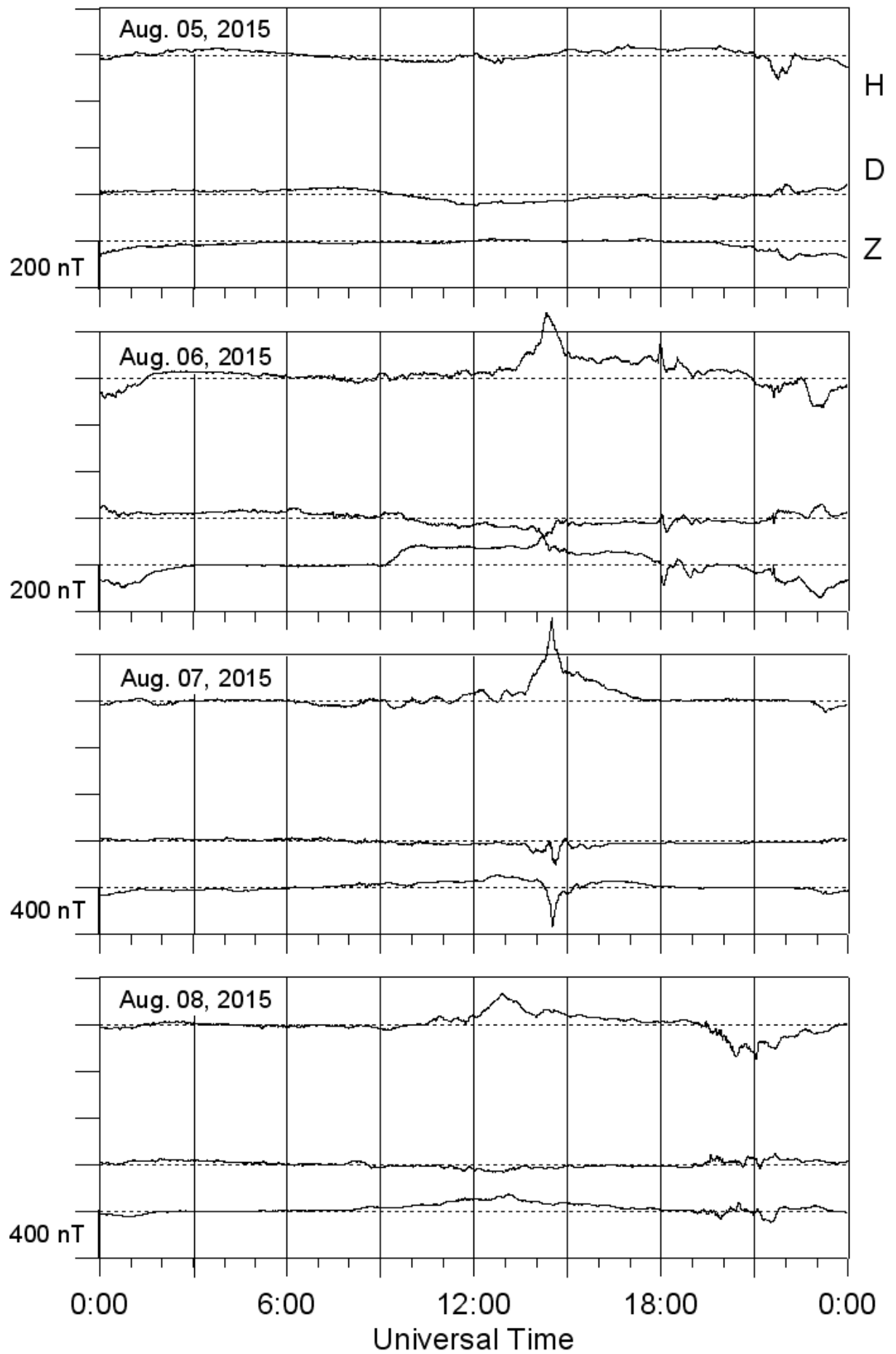
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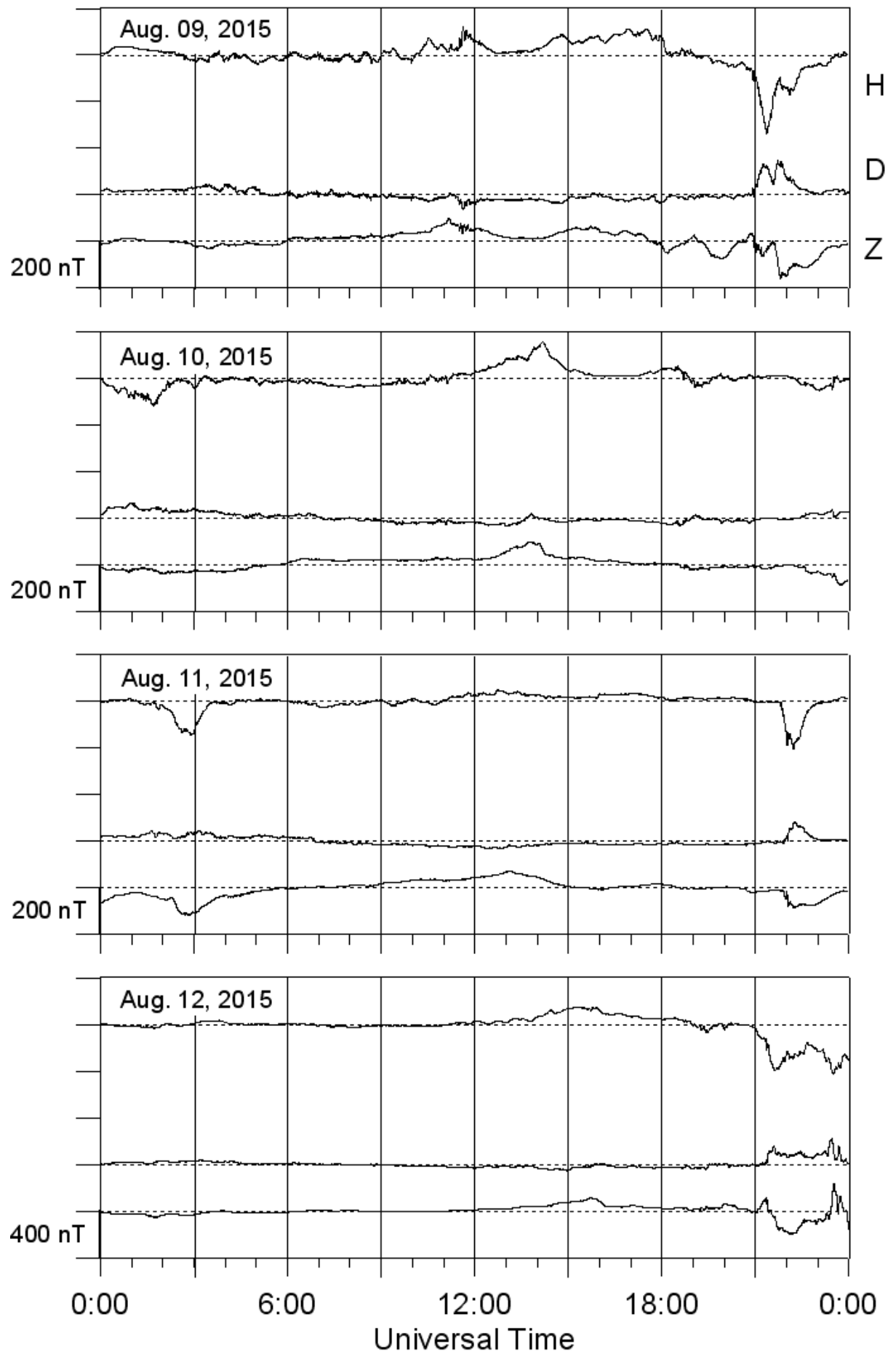
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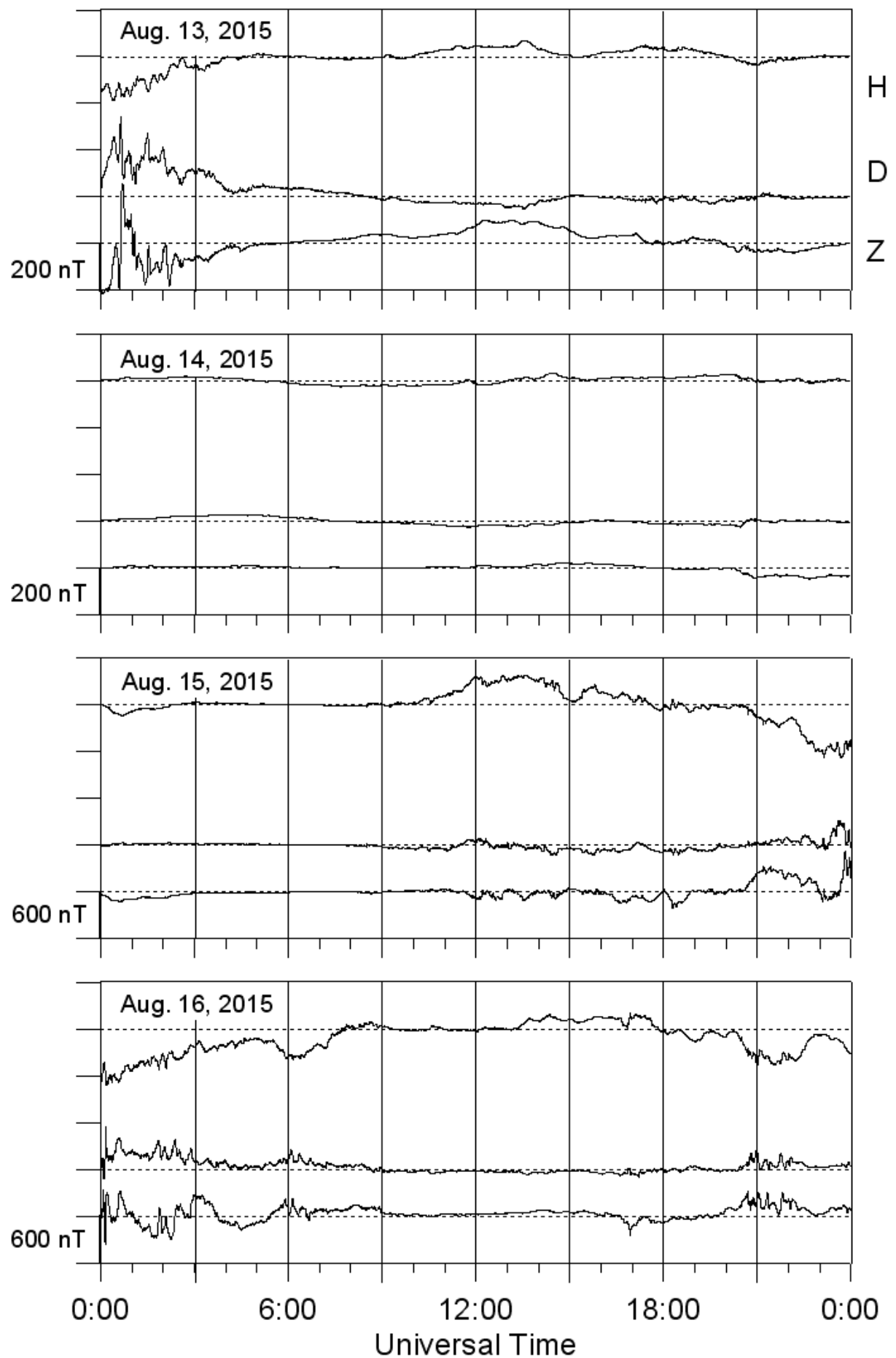
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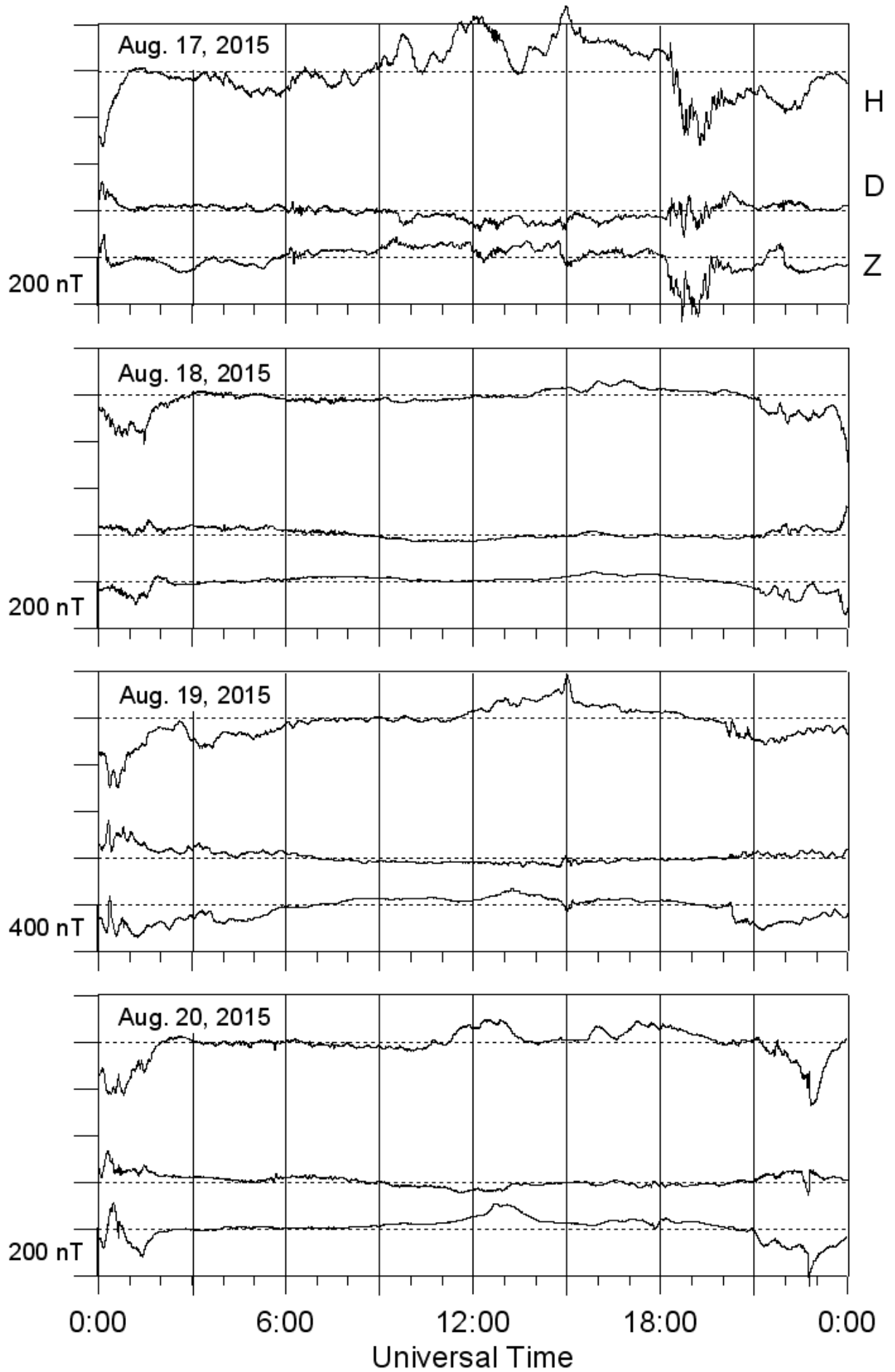
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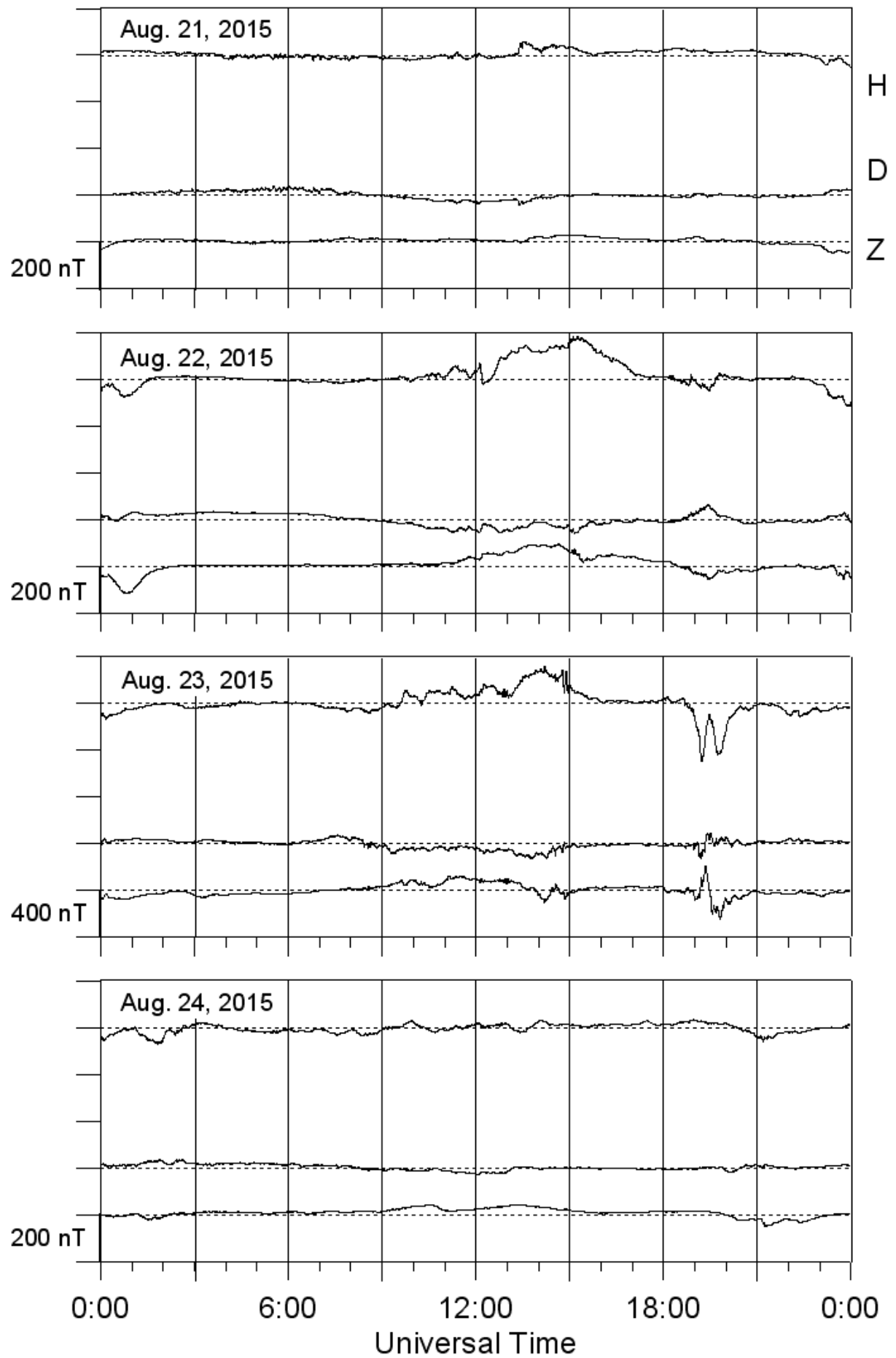
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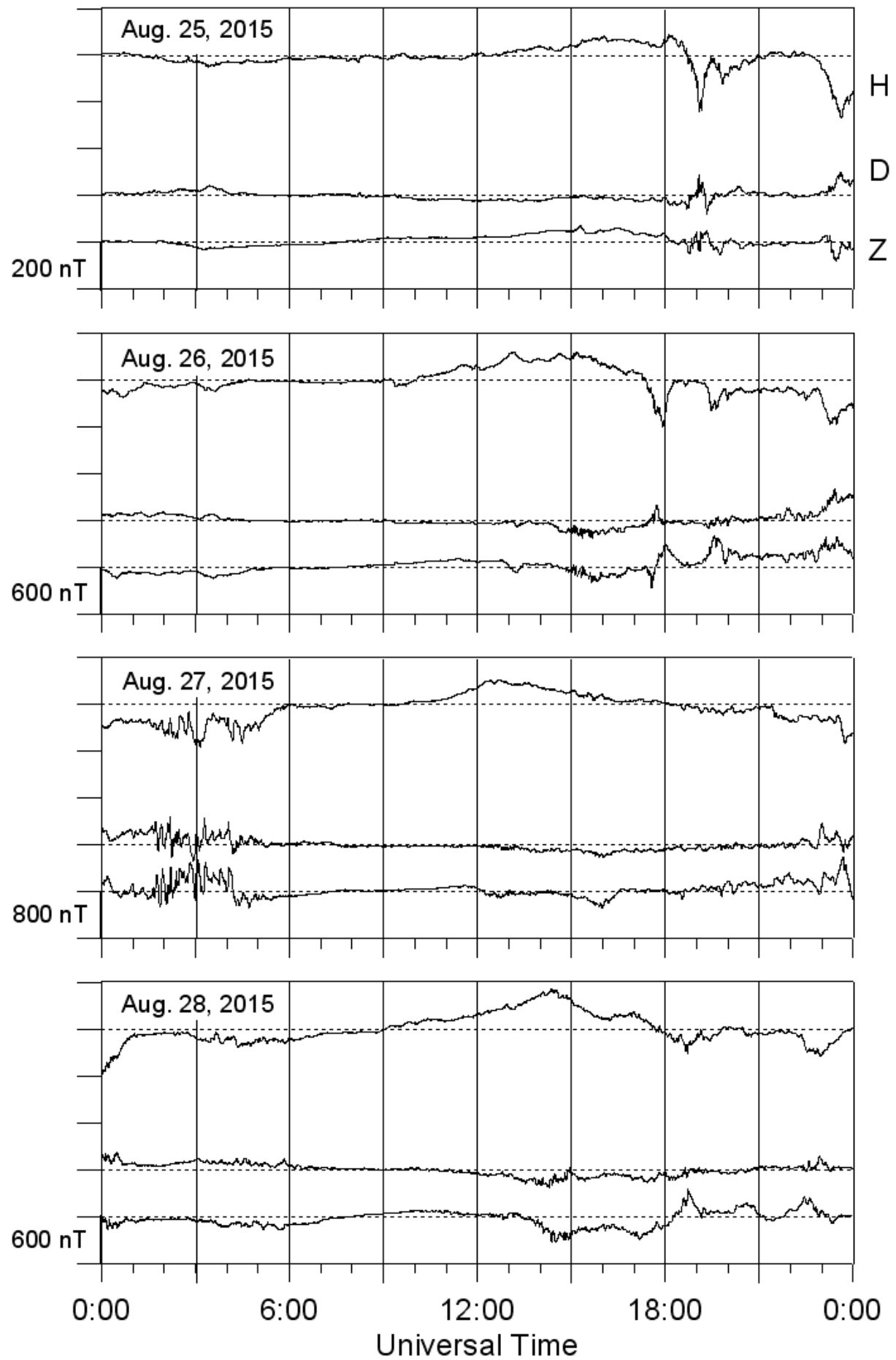
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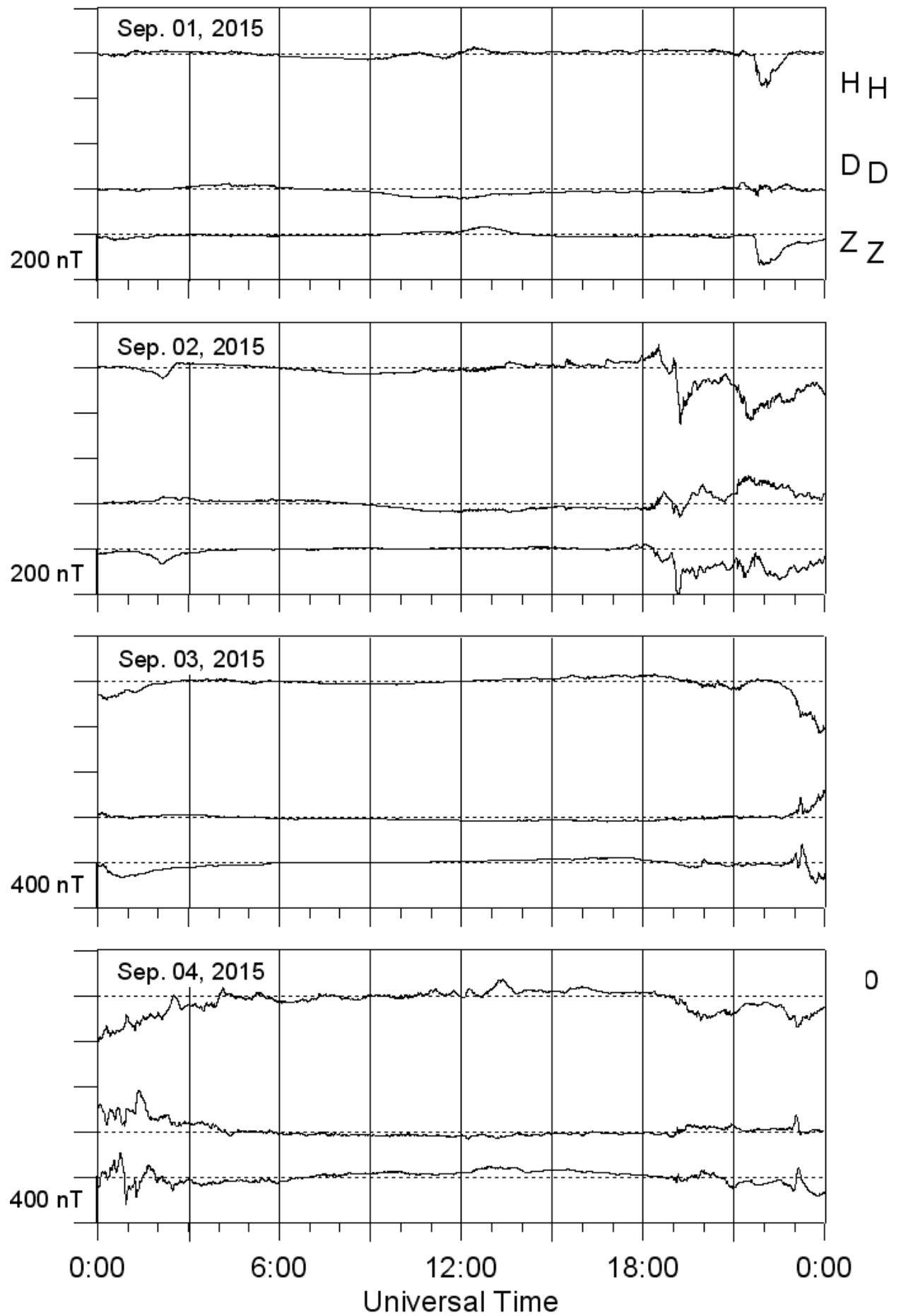
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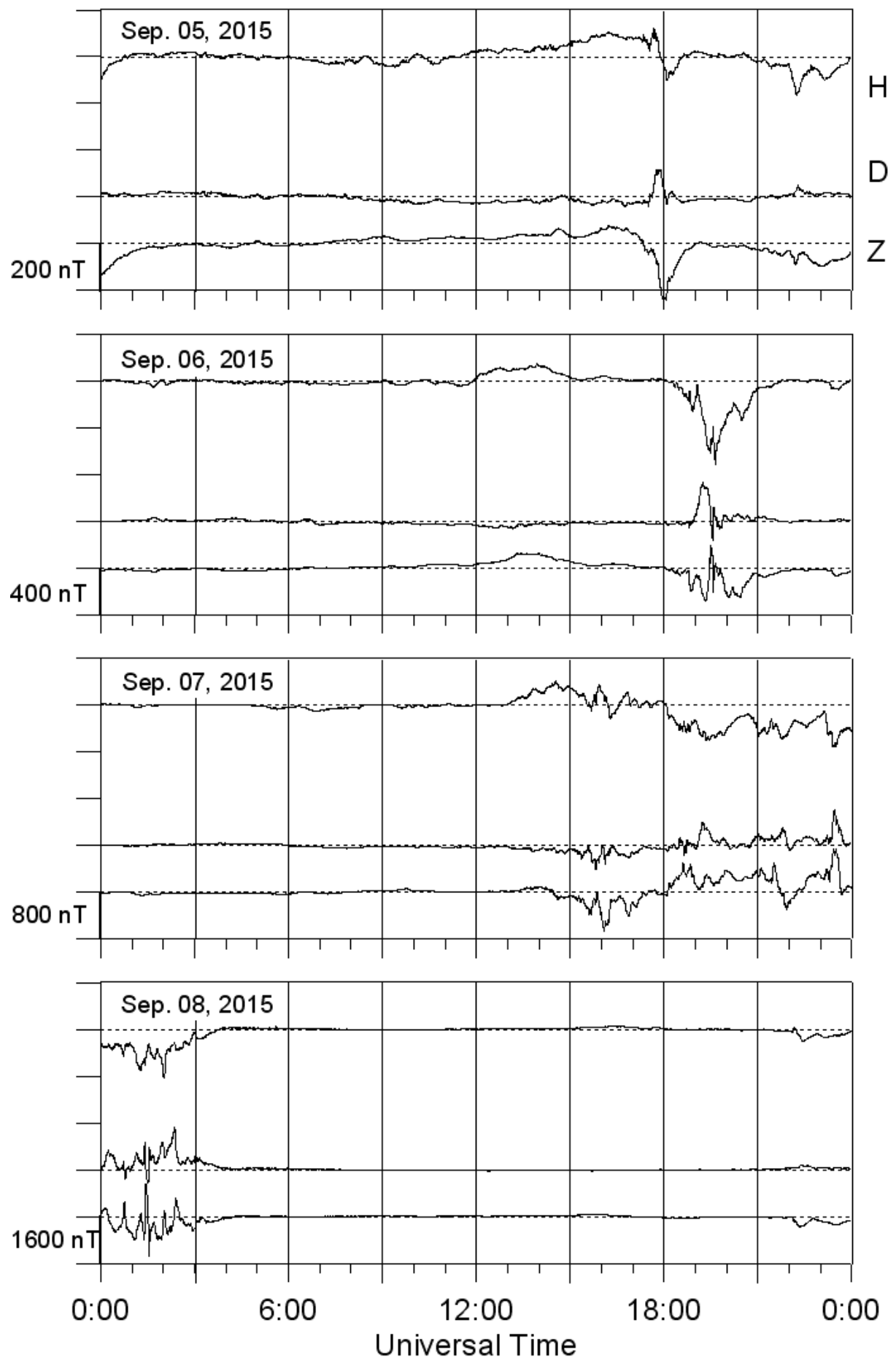
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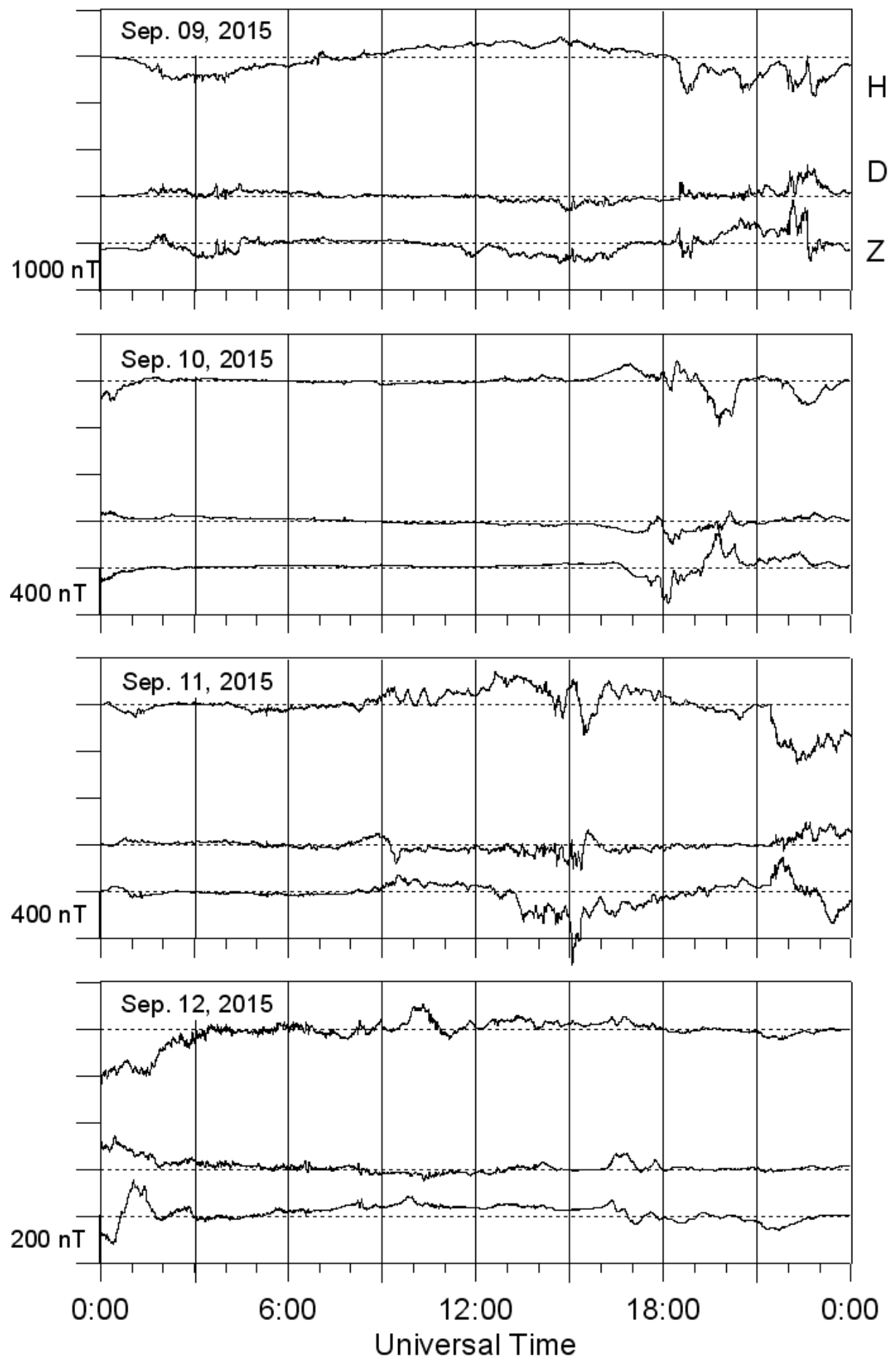
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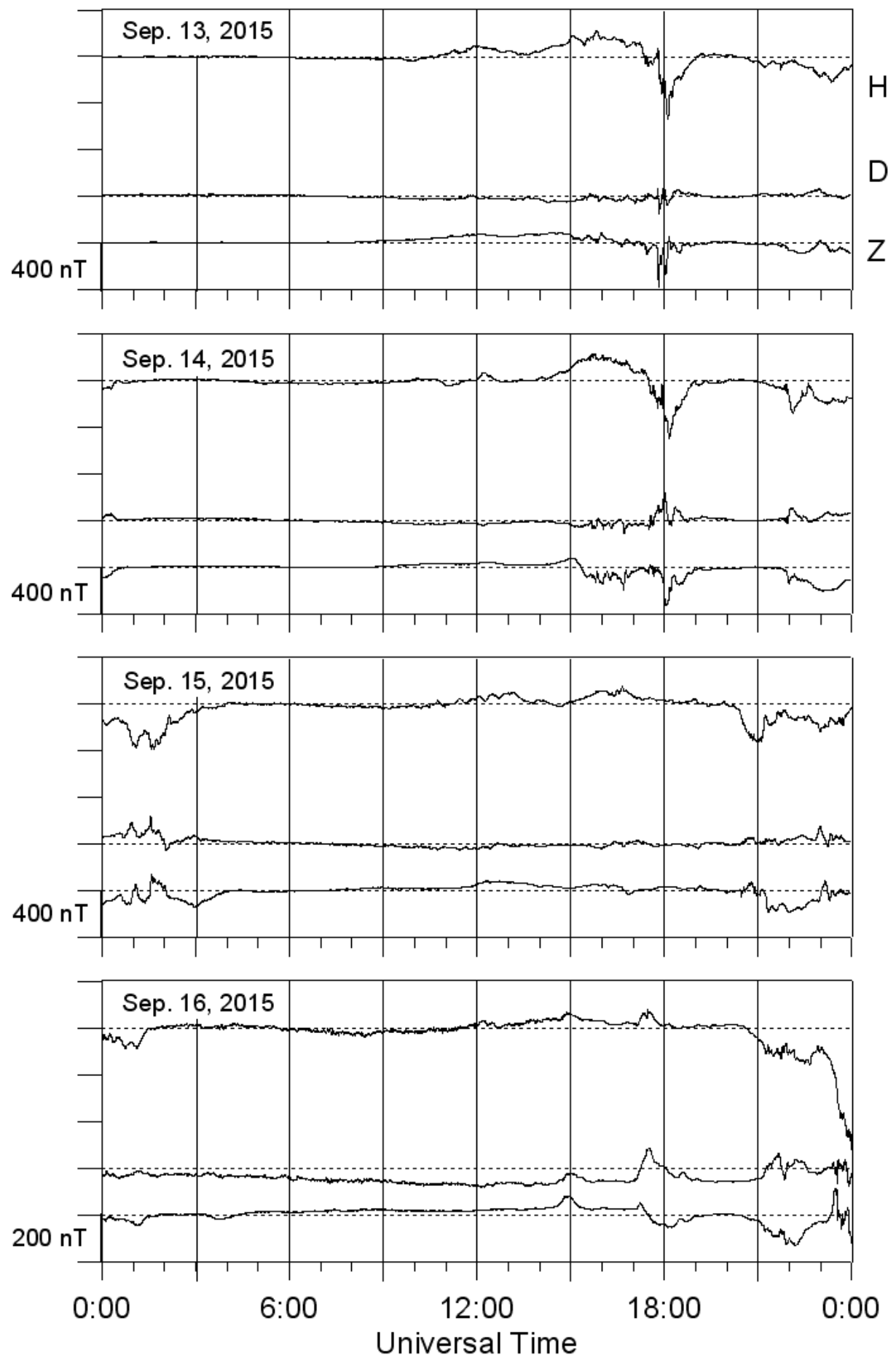
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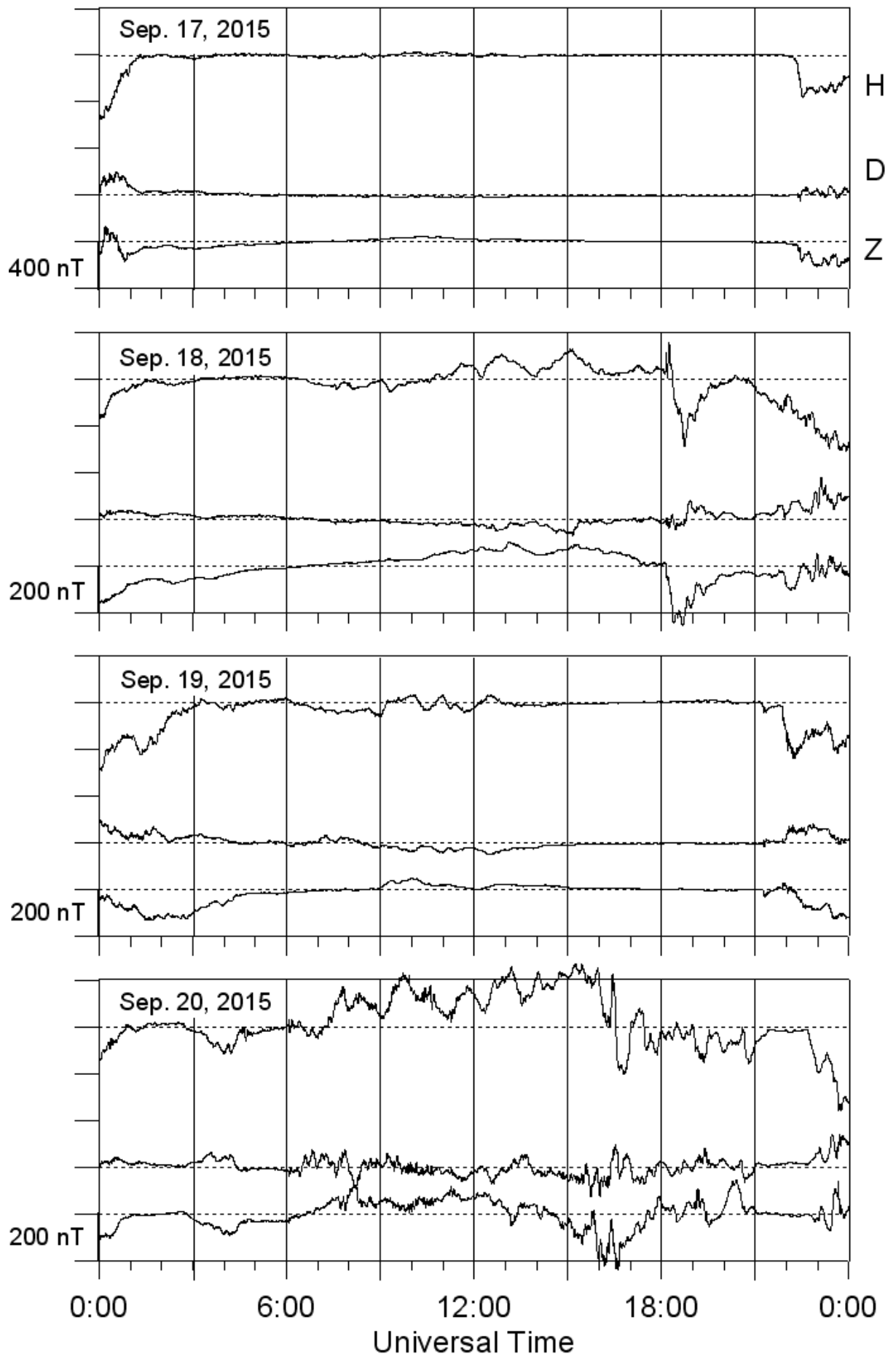
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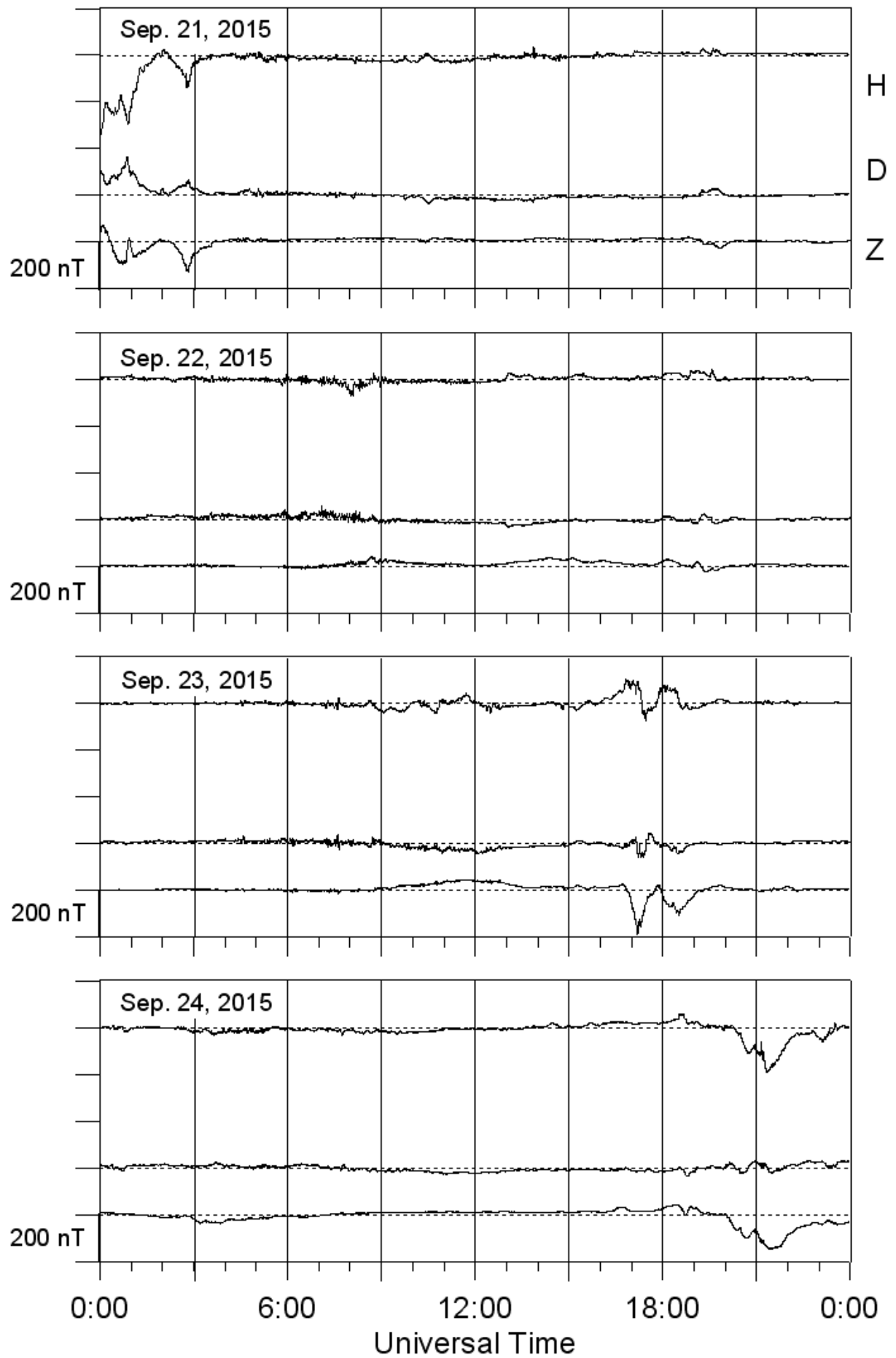
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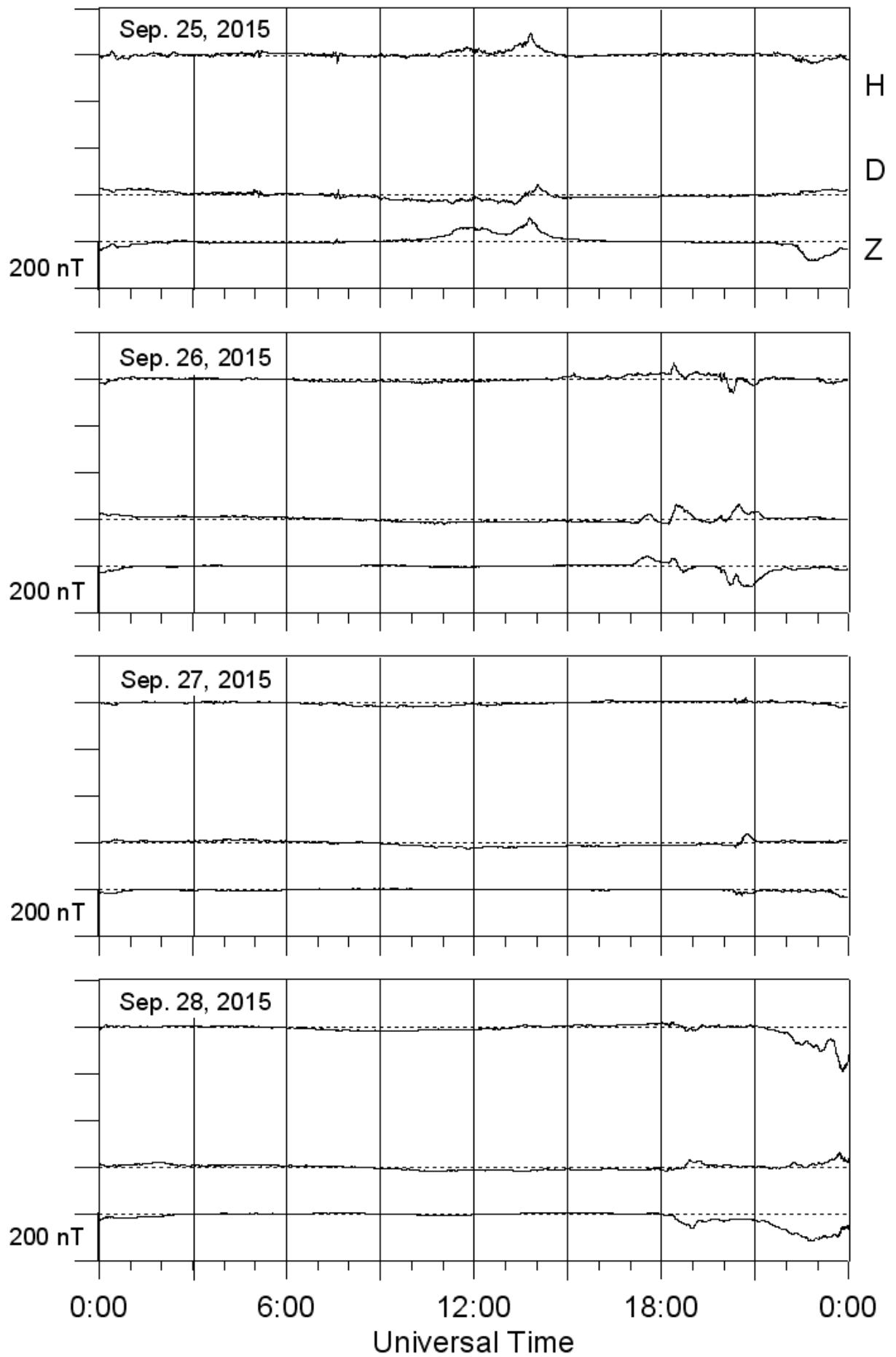
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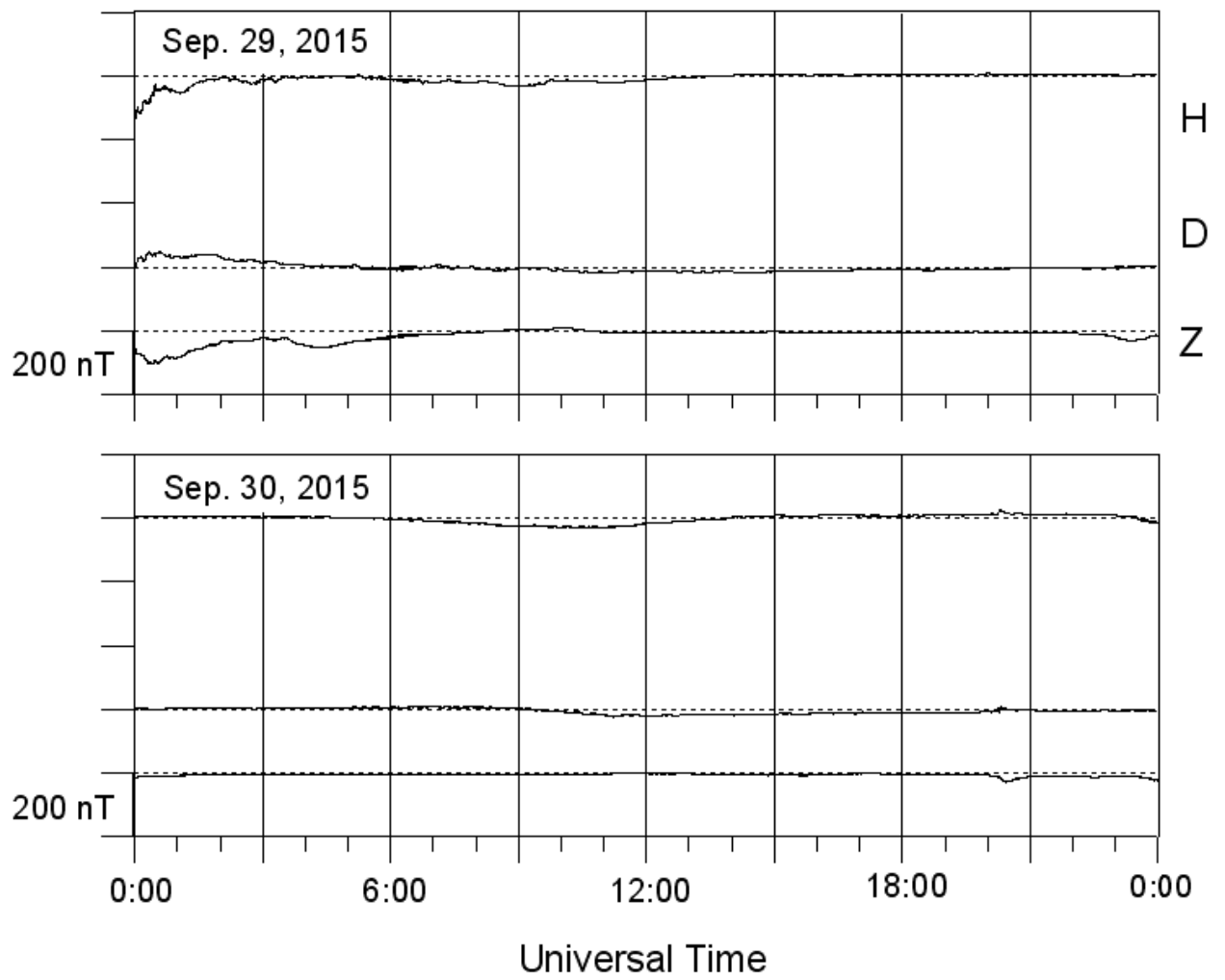
Lovozero magnetometer



Lovozero magnetometer



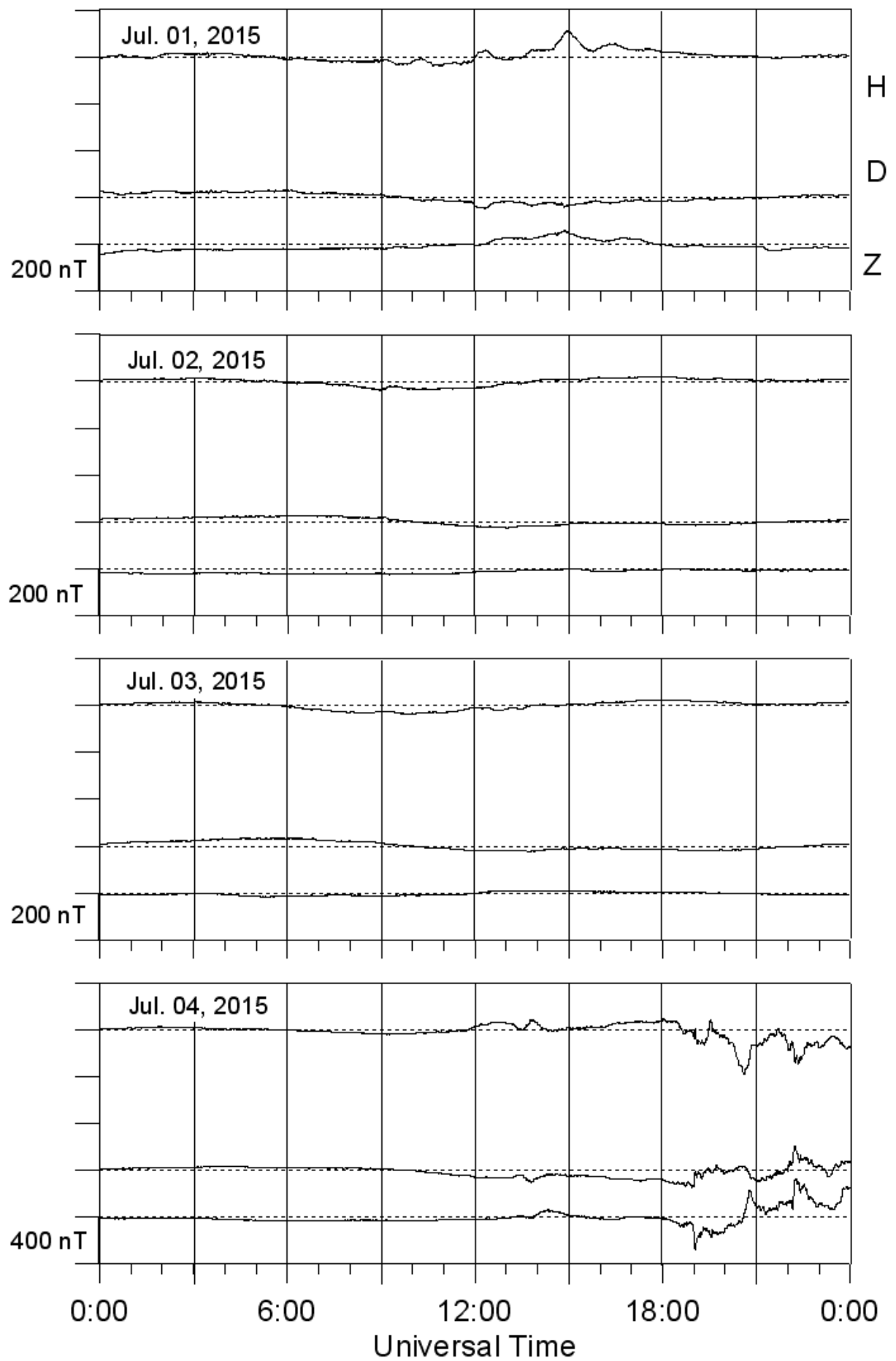
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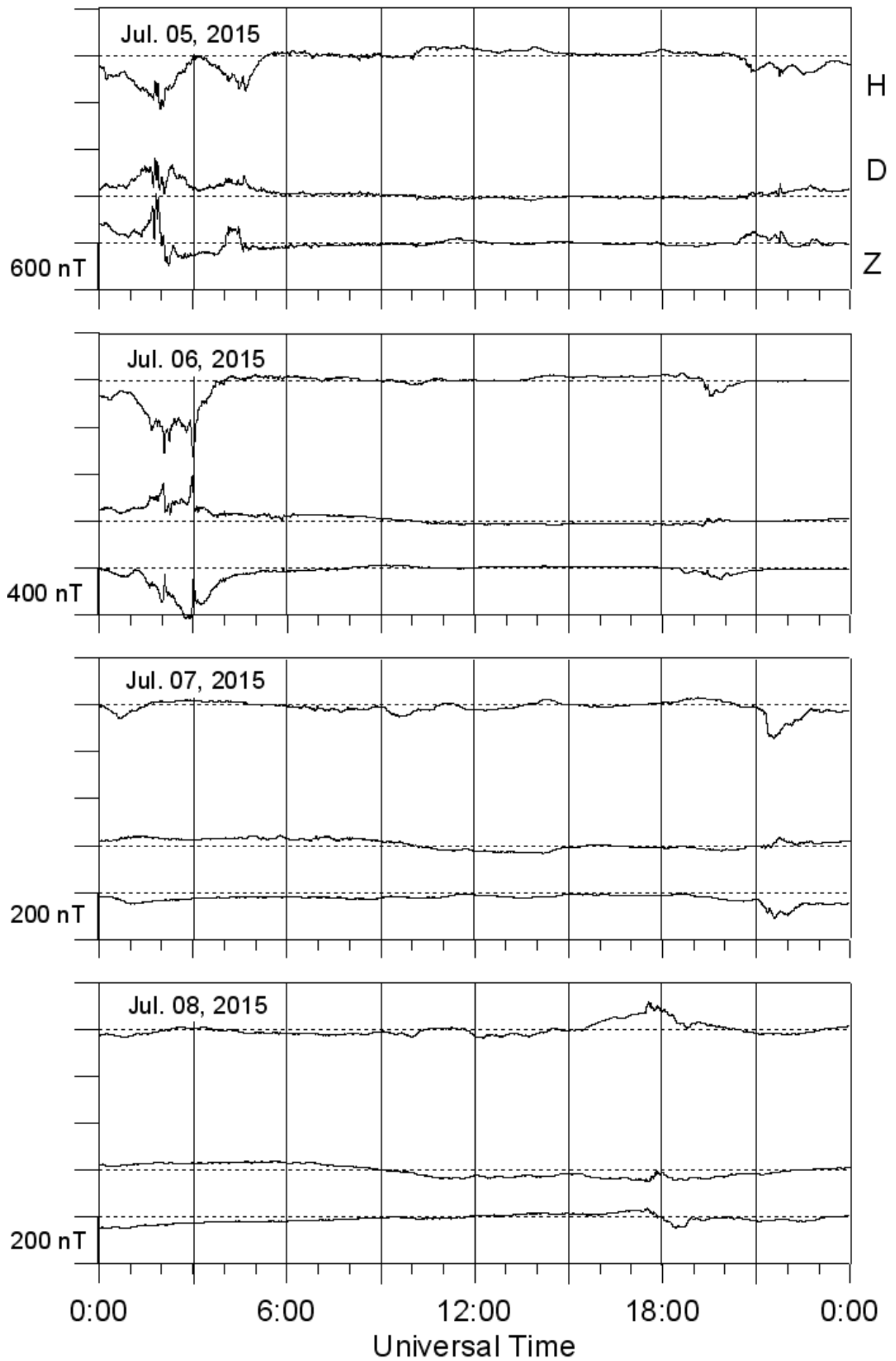
LOPARSKAYA MAGNETOGRAMS

July - September 2015

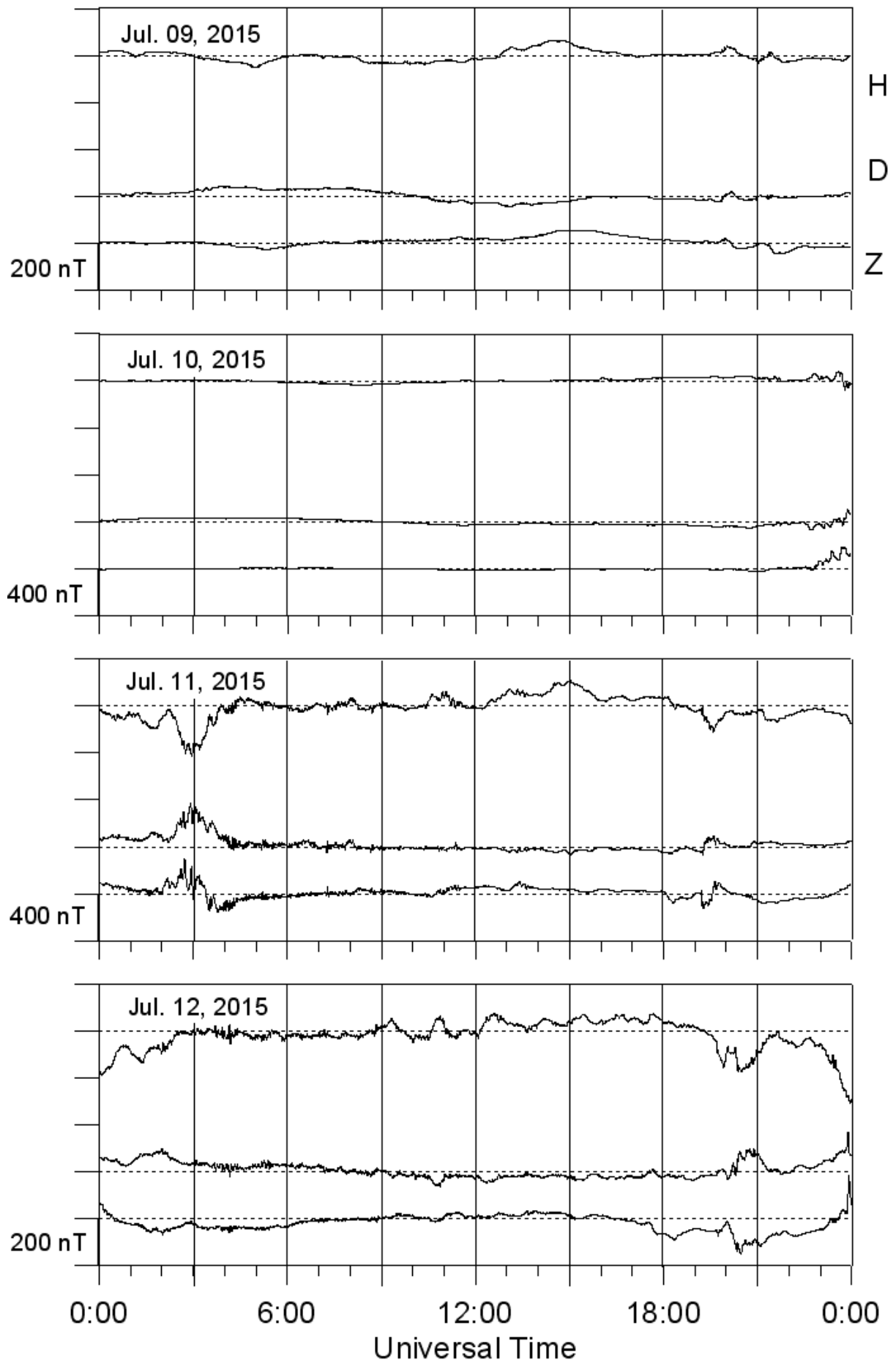
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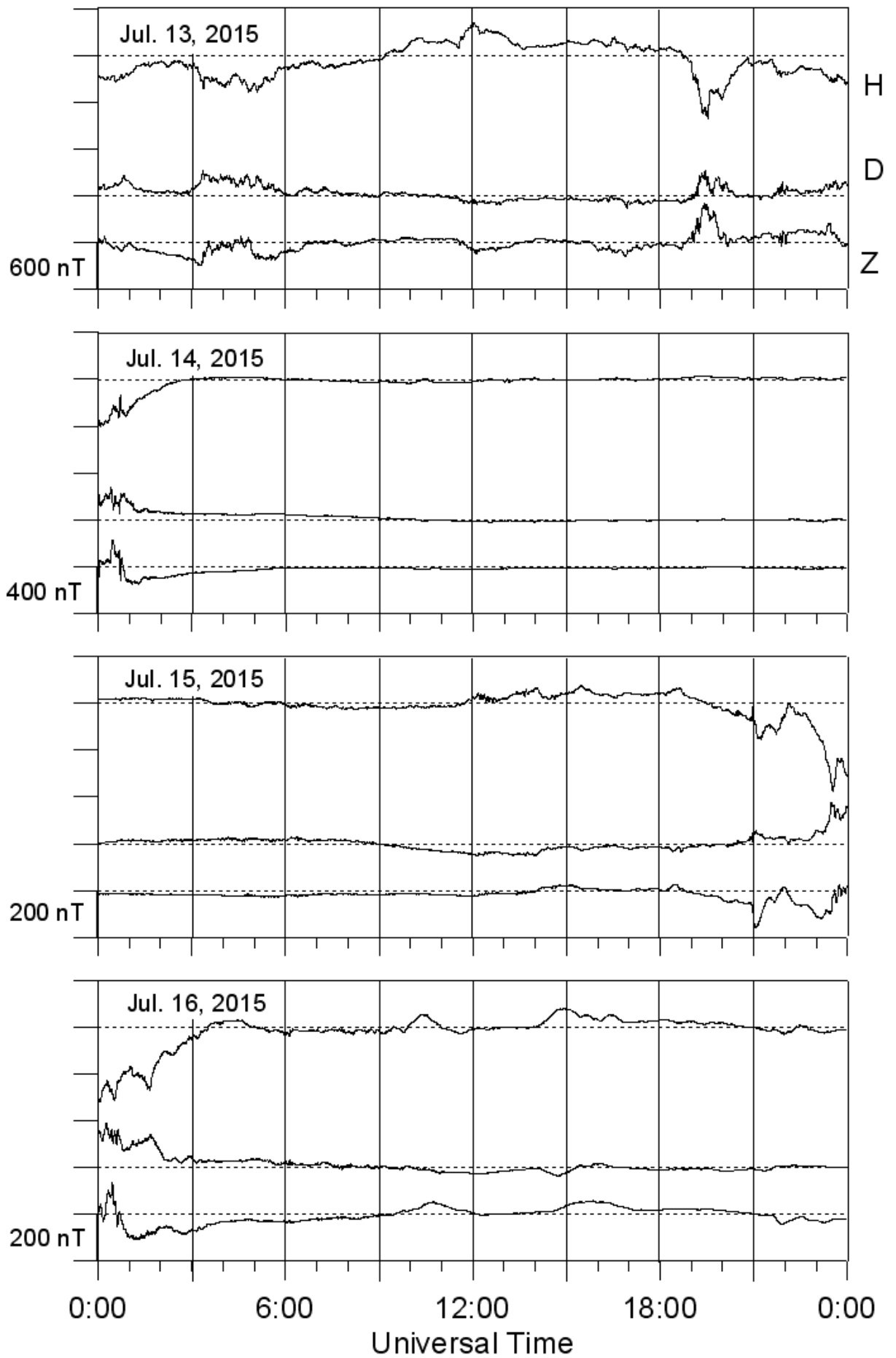
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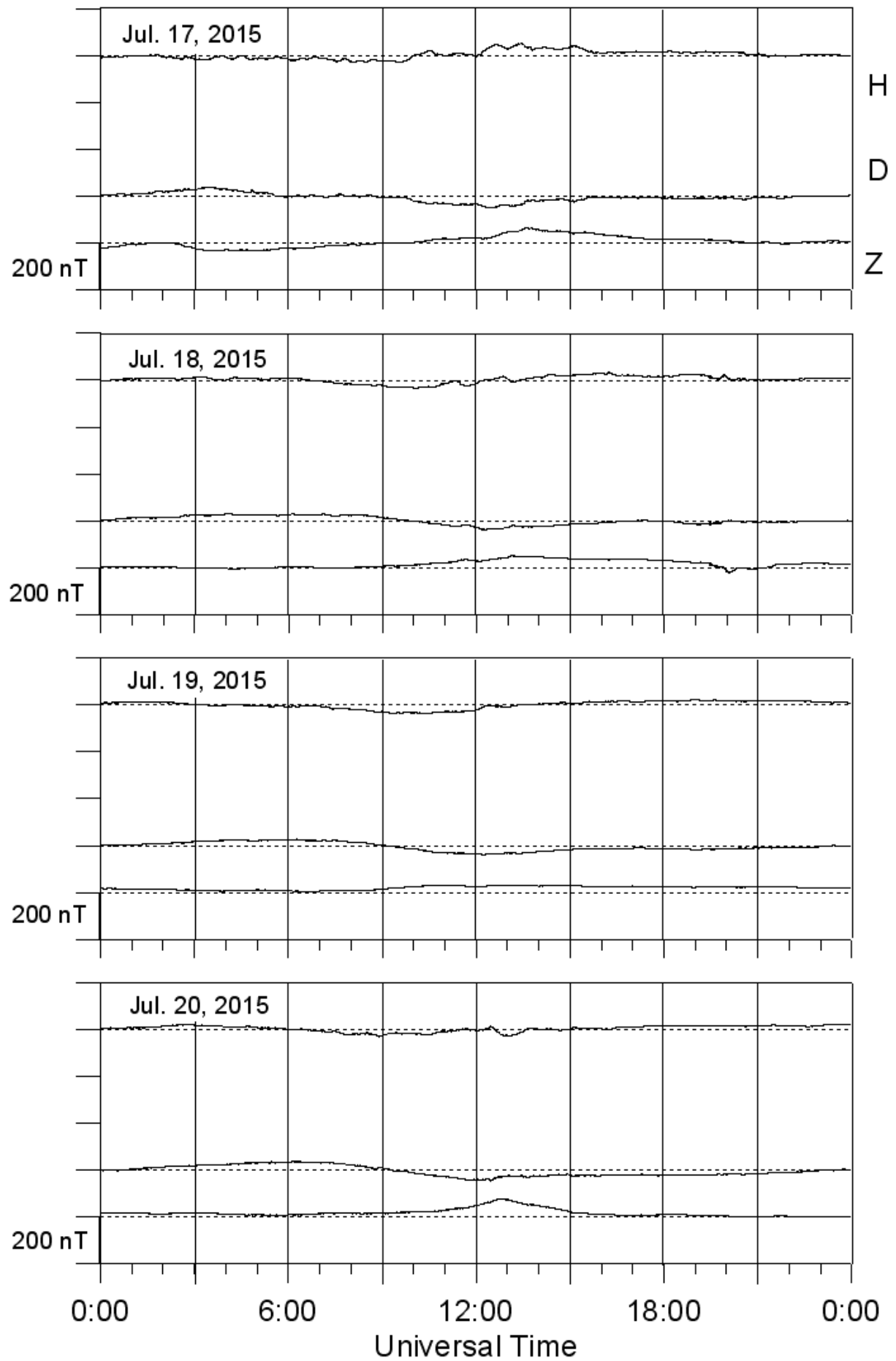
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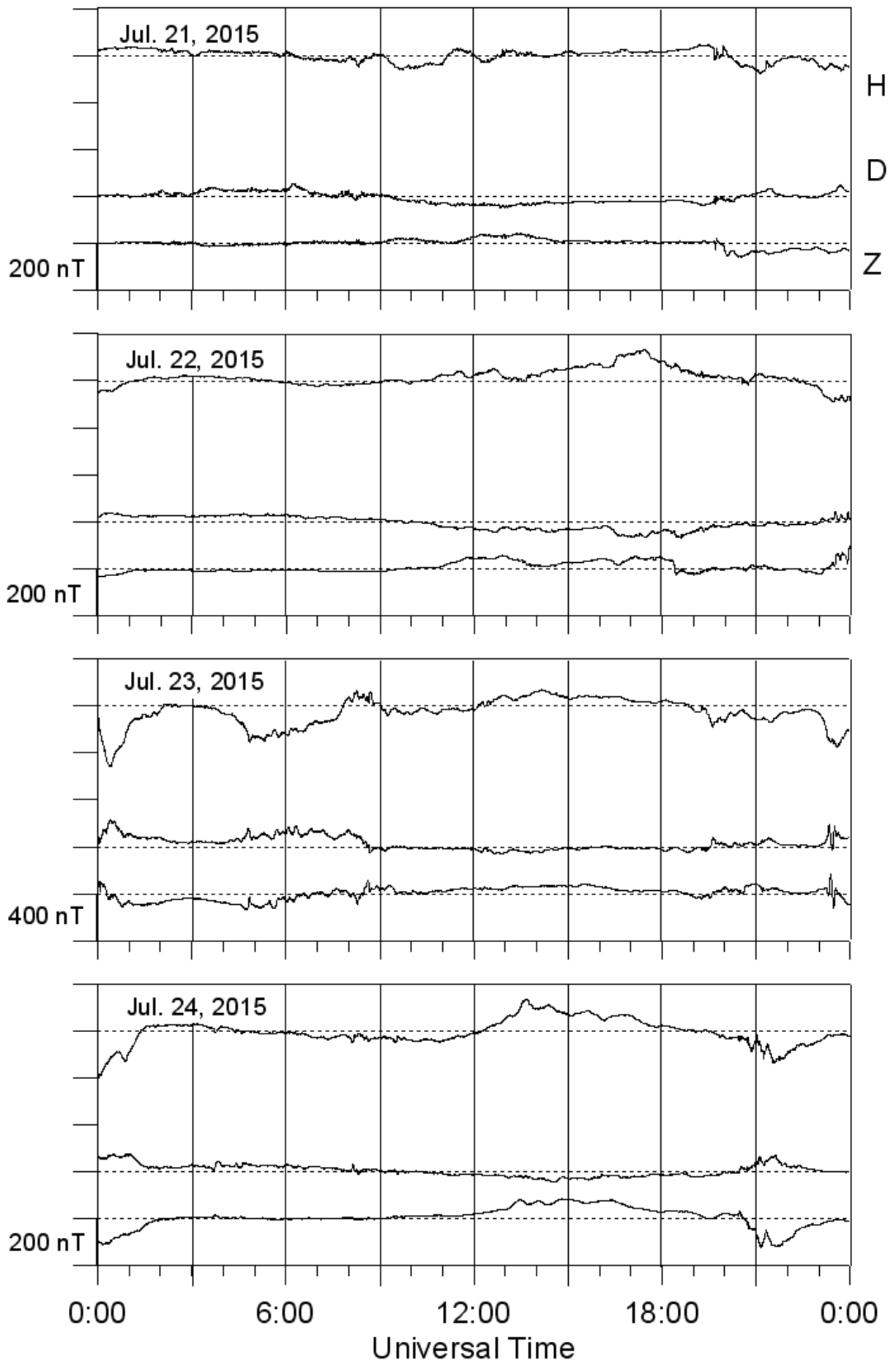
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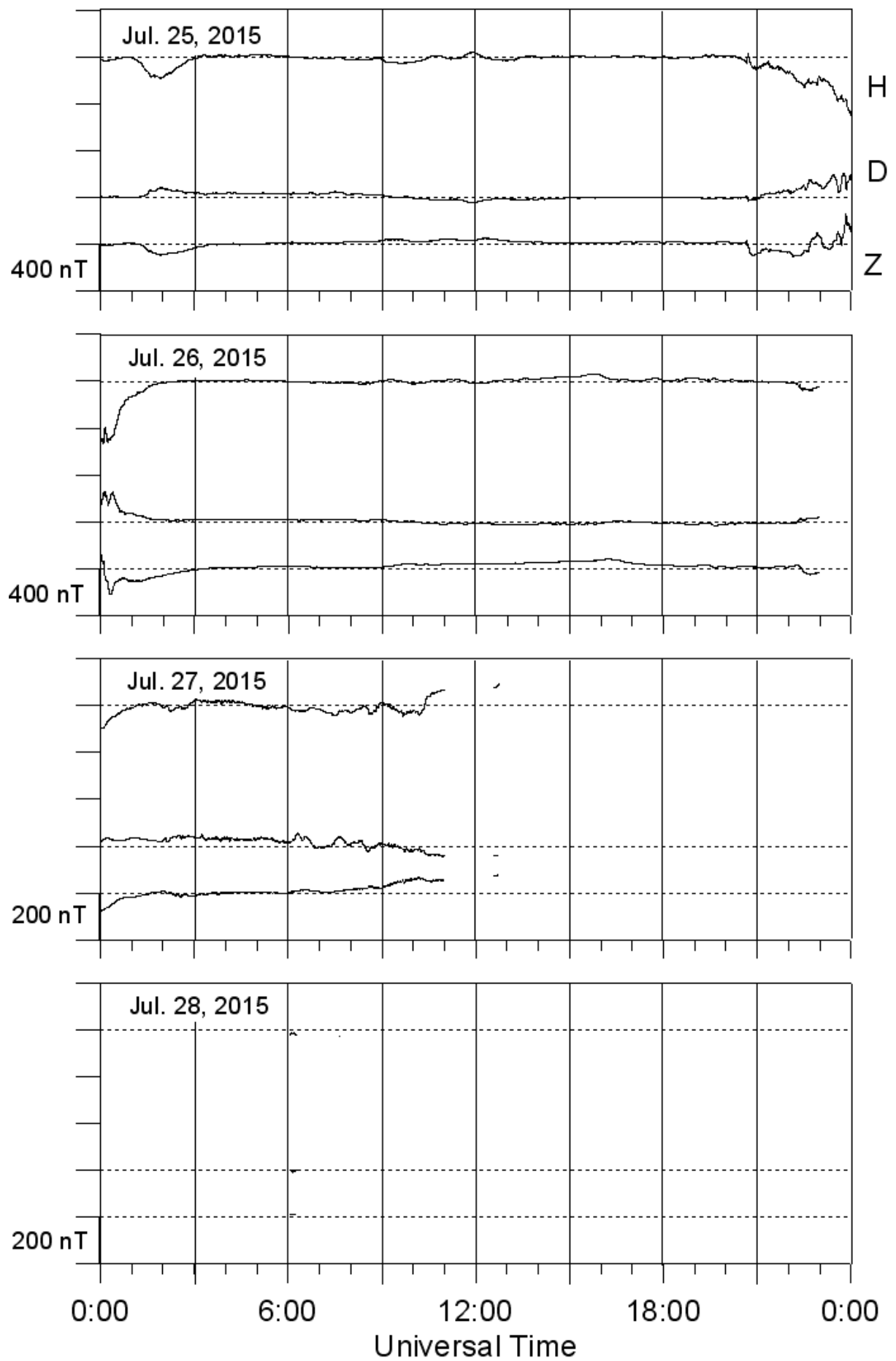
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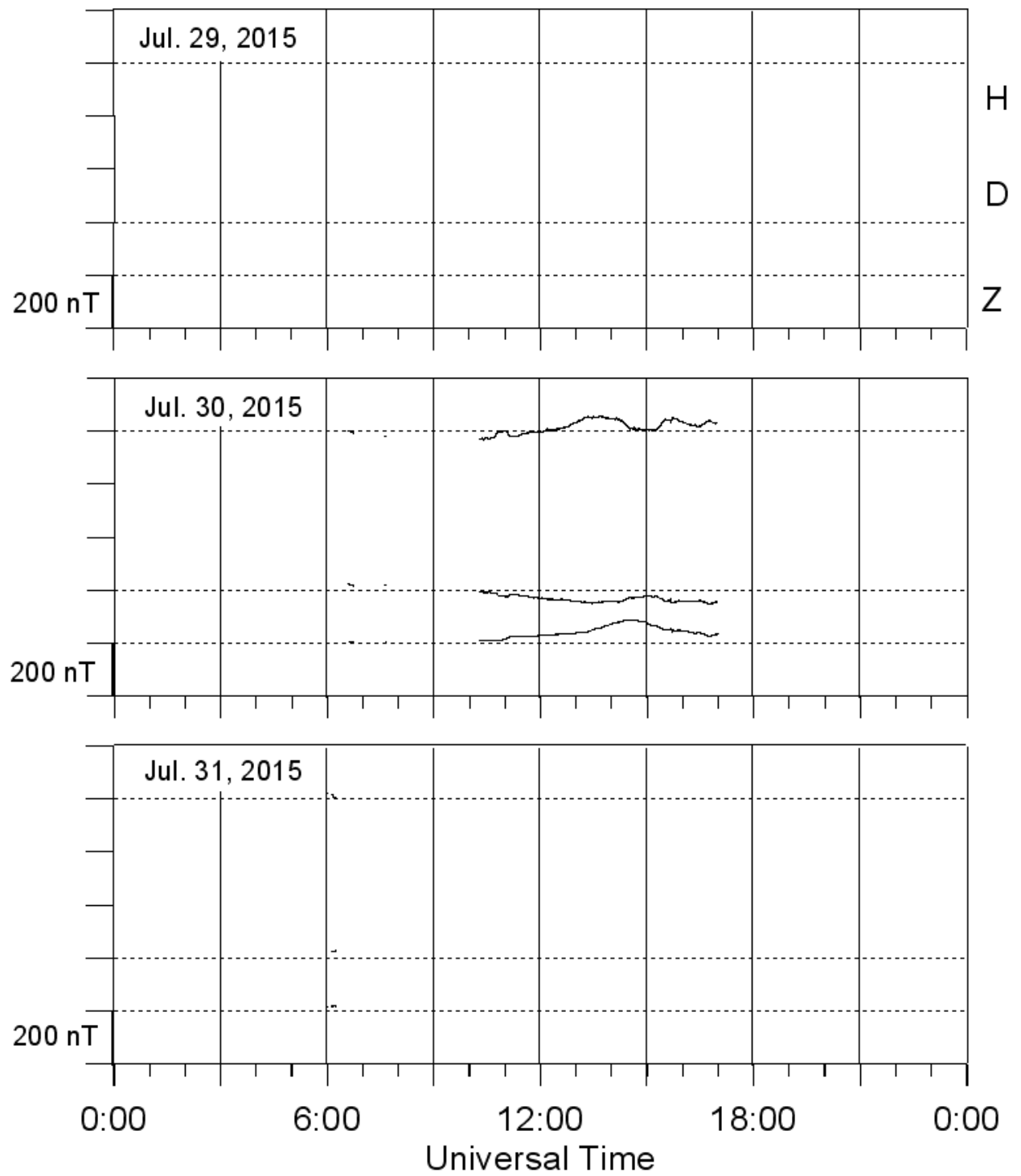
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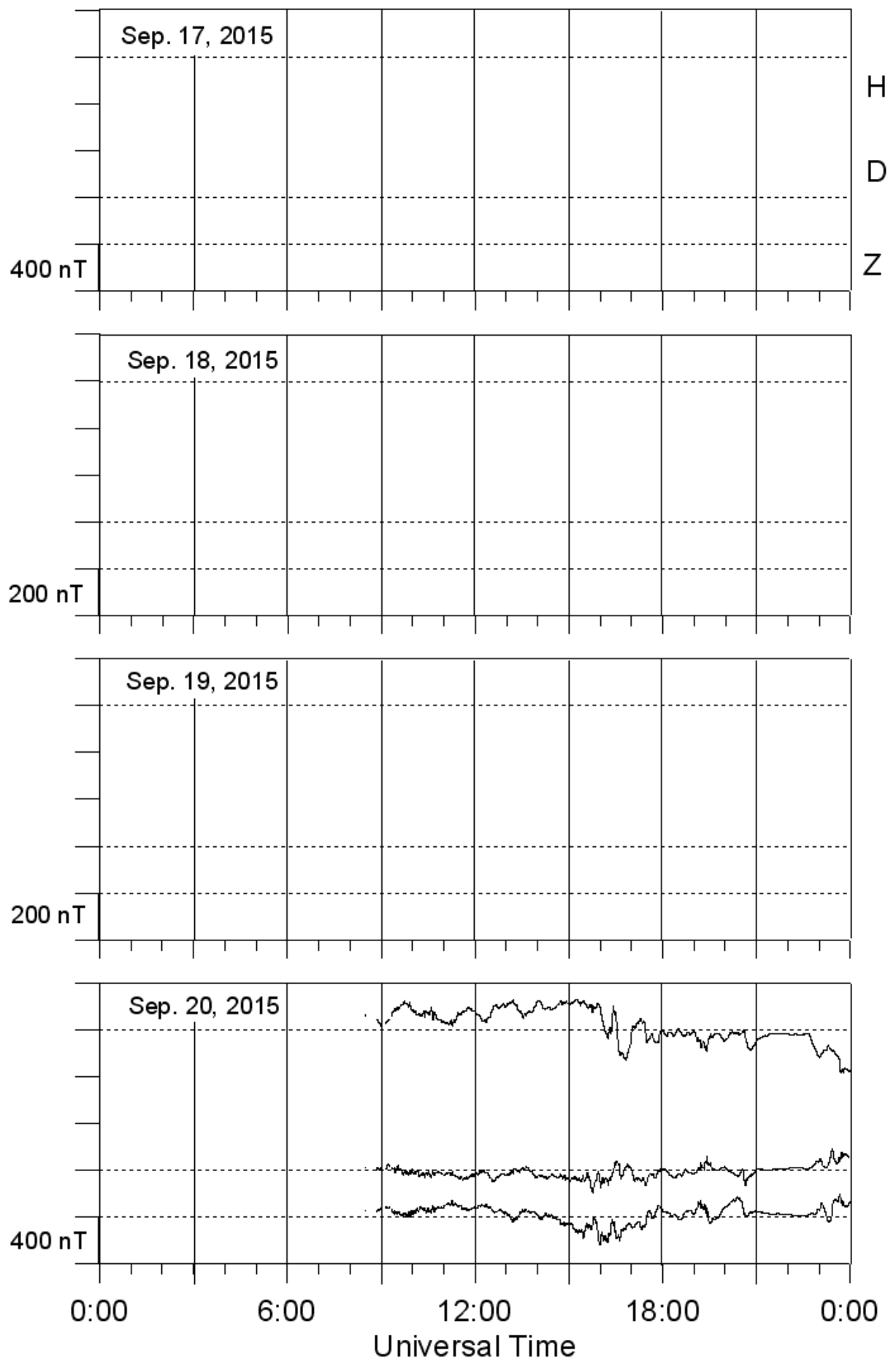
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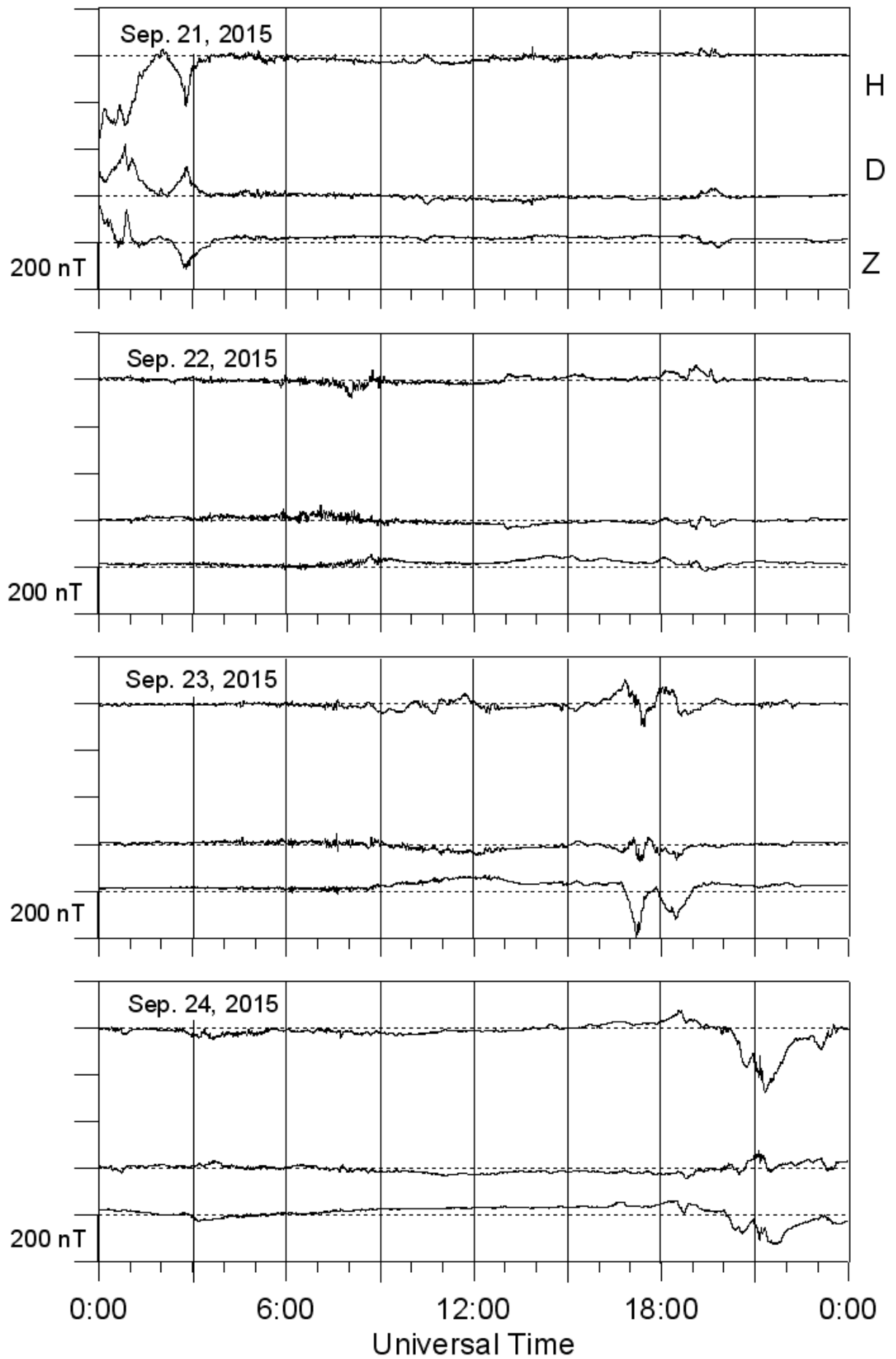
Loparskaya magnetometer



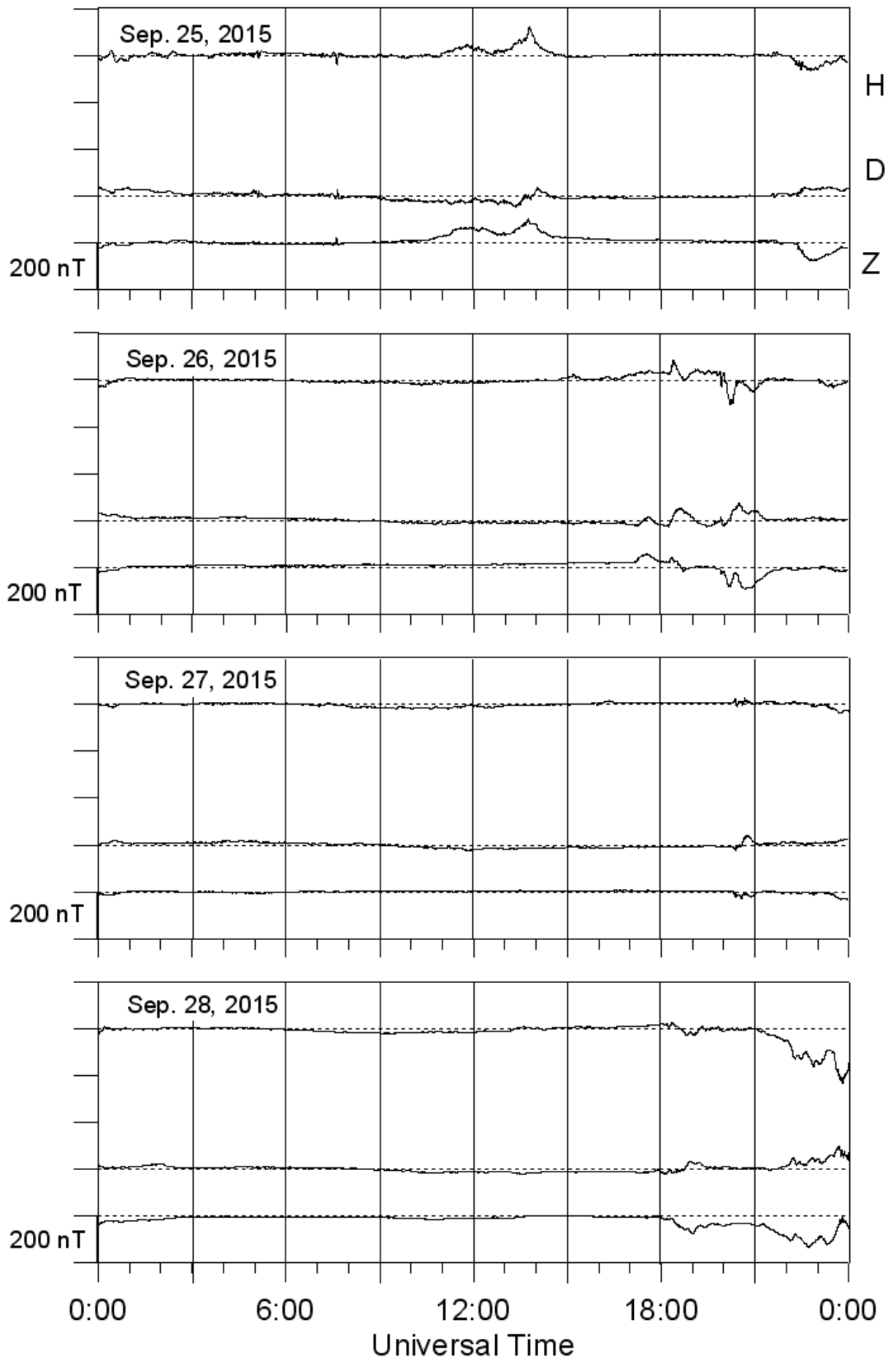
Loparskaya magnetometer



Loparskaya magnetometer



Loparskaya magnetometer



Loparskay magnetometer

