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# INTERNATIONAL SERVICE OF GEOMAGNETIC INDICES

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## MONTHLY BULLETIN OCTOBER 2016

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This Bulletin is freely offered to interested Scientists thanks to the support of the hosting laboratory EOST and of French Organisations of Scientific Research (CNRS, INSU, BCMT). Special thanks are due to contributors (ISGI Collaborating Institutes) for providing the here published geomagnetic data within shortly possible delay.

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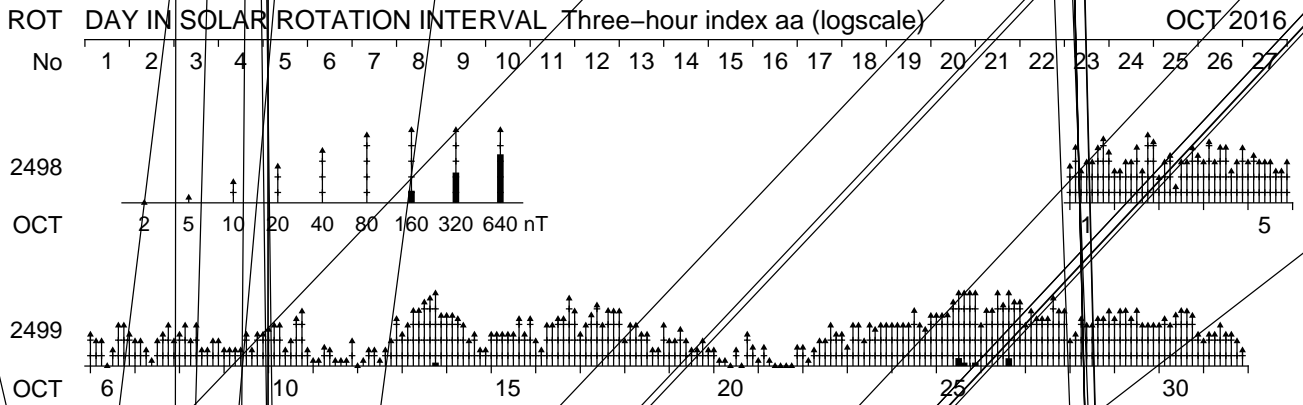
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# 1 IAGA Endorsed Geomagnetic Indices (non-definitive values)

## 1.1 *aa*

**ISGI Collaborating Institute:**

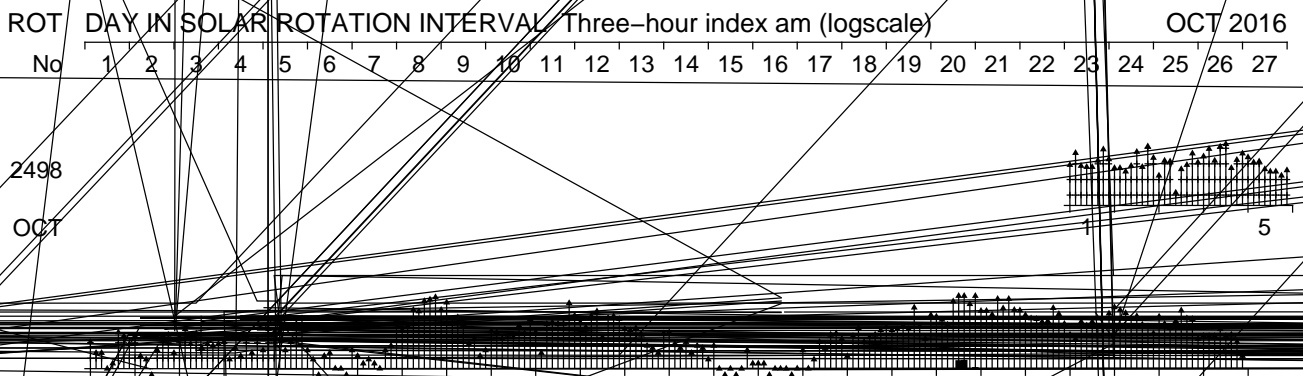
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## 1.2 *am*

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### 1.3 $K_p$

#### ISGI Collaborating Institute:

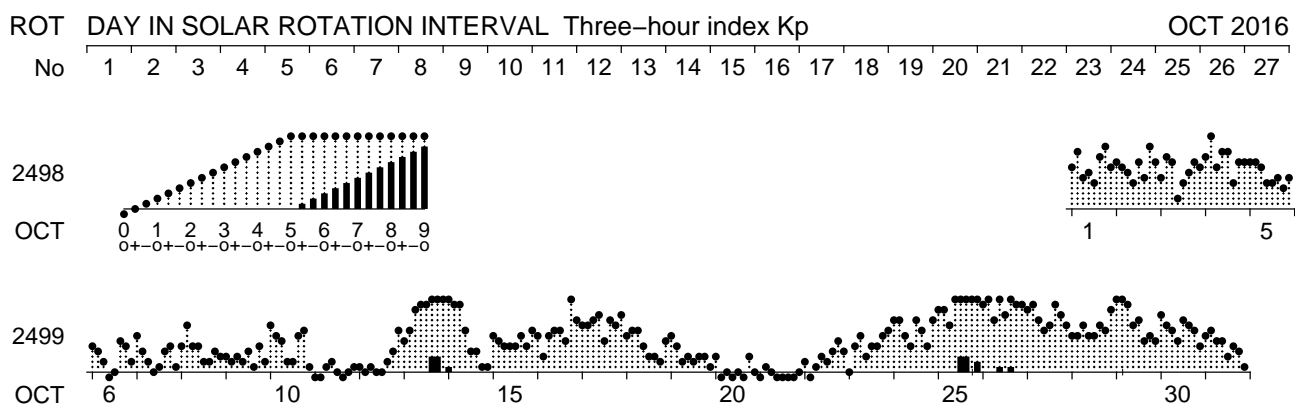
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## 1.4 *Dst*

### ISGI Collaborating Institute:

*World Data Center for Geomagnetism, Kyoto*

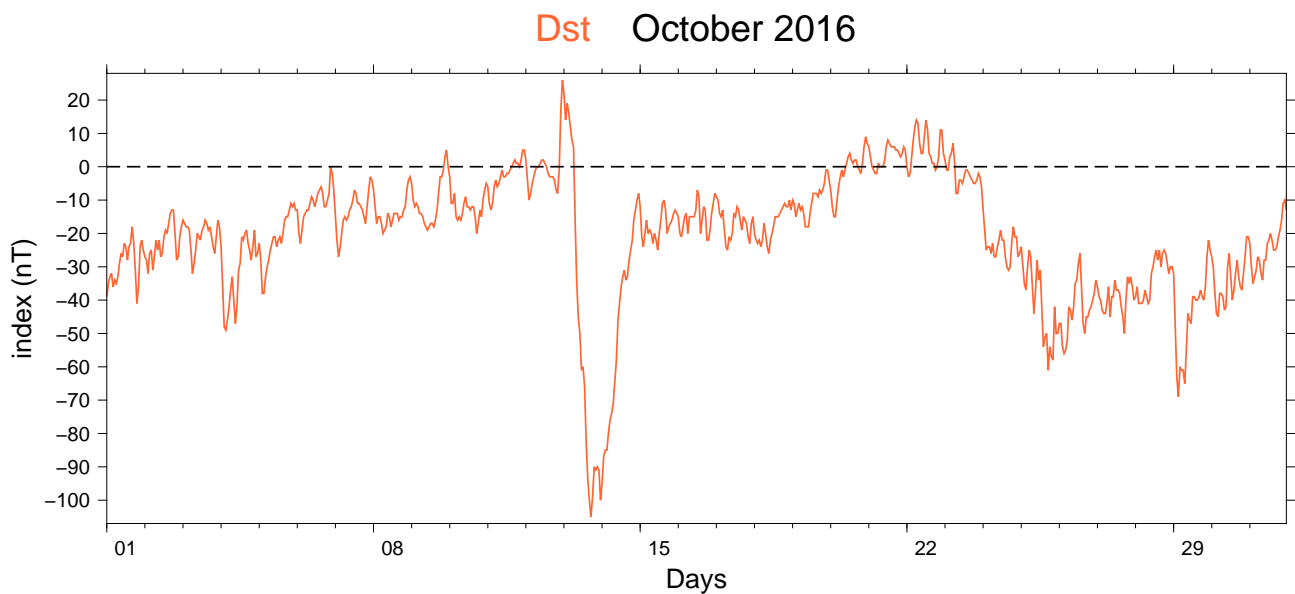
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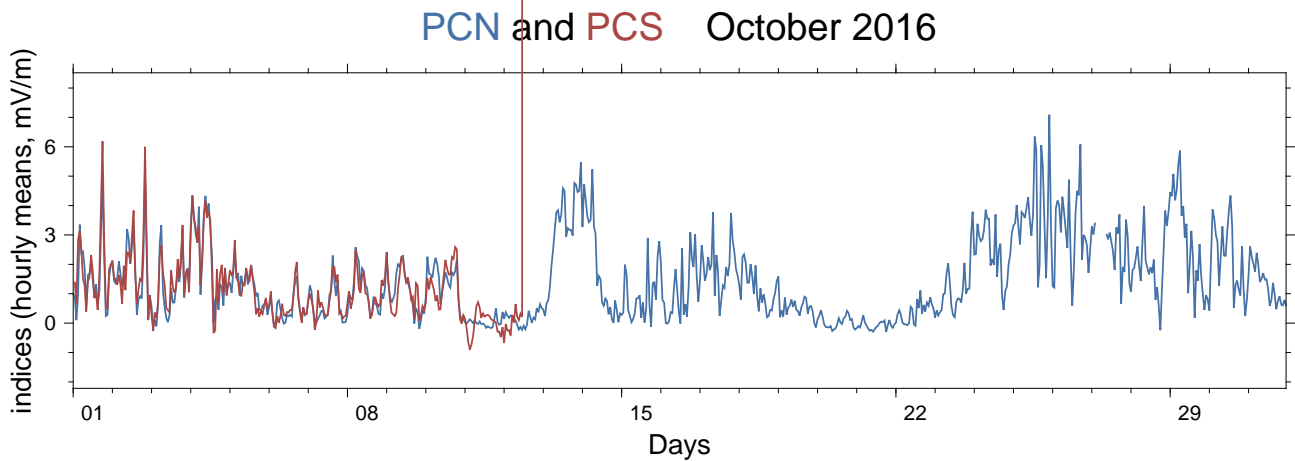


## 1.5 PC

### ISGI Collaborating Institutes:

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## 1.6 *AE*

### ISGI Collaborating Institute:

*World Data Center for Geomagnetism, Kyoto*

*Data Analysis Center for Geomagnetism and Space Magnetism*

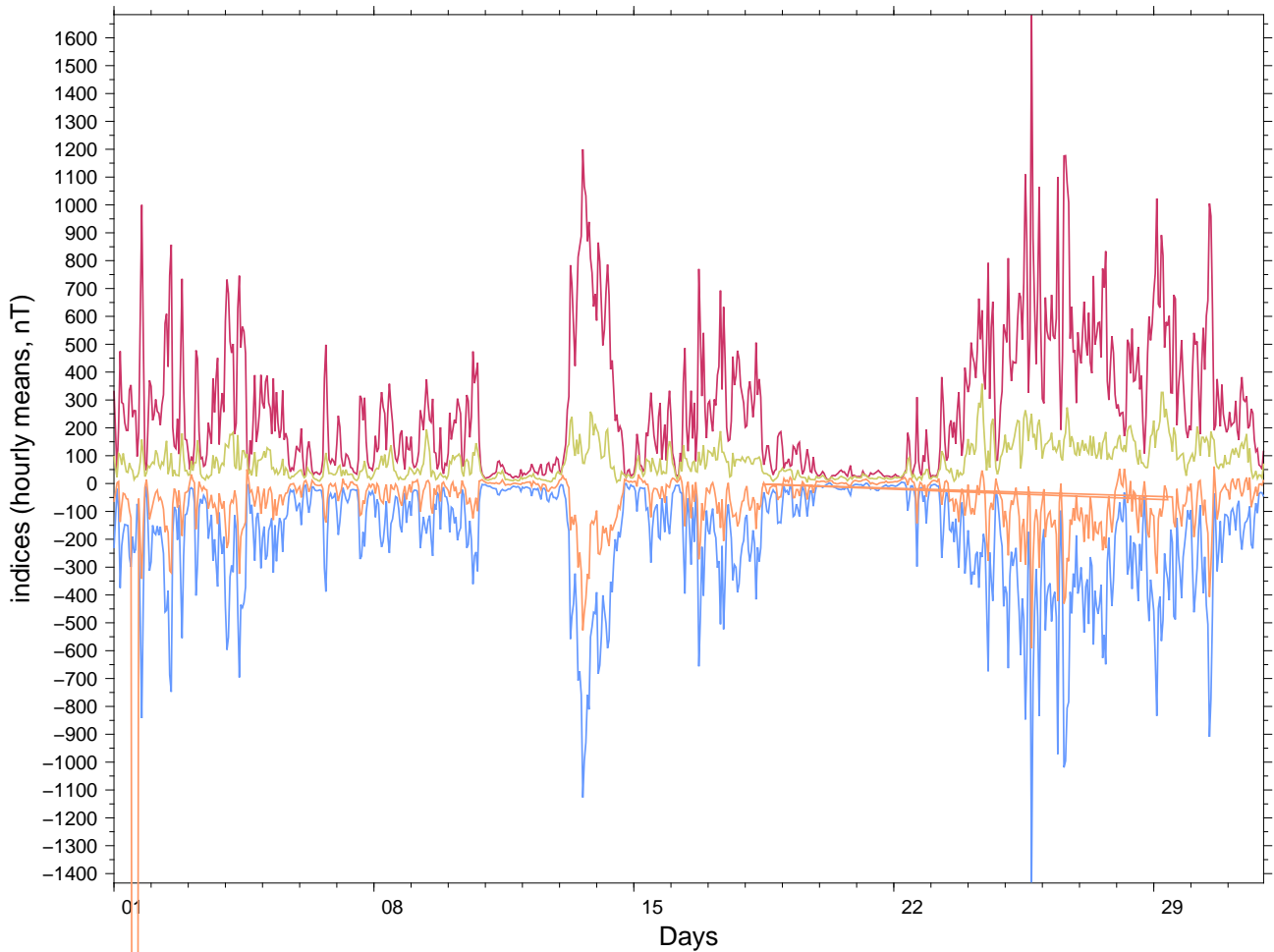
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**AE, AU, AL and AO** October 2016



## 2 IAGA Endorsed Geomagnetic Events (non-definitive values)

### 2.1 *SSC* and *SFE*

#### ISGI Collaborating Institute:

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SSC:

2016 10 12 22 13 A: GNG\* CNB\*  
B: LER ESK HAD DOU BDV MMB EBR SPT KAK KNY HYB

2016 10 25 09 22 C: LER ESK VAL HAD GCK

SFE:

NONE

## 2.2 Classification of days

### ISGI Collaborating Institutes:

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Date	Aa	CK24	CK48	Ap	Q/D
2016-10-01	35	-	-	17	
2016-10-02	35	-	-	16	
2016-10-03	25	-	-	13	
2016-10-04	36	-	-	23	
2016-10-05	23	-	-	11	
2016-10-06	14	-	-	5	Q7
2016-10-07	13	-	-	5	Q8
2016-10-08	15	-	-	7	Q10A
2016-10-09	11	C	-	5	Q4
2016-10-10	22	-	-	10	
2016-10-11	7	C	K	2	Q2
2016-10-12	10	K	-	5	Q6K
2016-10-13	54	-	-	46	D3
2016-10-14	22	-	-	22	
2016-10-15	20	-	-	10	
2016-10-16	32	-	-	17	
2016-10-17	37	-	-	20	
2016-10-18	17	-	-	9	
2016-10-19	12	C	C	6	Q9
2016-10-20	7	C	C	2	Q3
2016-10-21	5	C	C	1	Q1
2016-10-22	13	-	K	5	Q5
2016-10-23	20	-	-	8	
2016-10-24	28	-	-	16	
2016-10-25	81	-	-	57	D1
2016-10-26	68	-	-	44	D2
2016-10-27	42	-	-	26	D5
2016-10-28	27	-	-	16	
2016-10-29	34	-	-	27	D4
2016-10-30	33	-	-	16	
2016-10-31	15	-	-	8	



### 2.2.1 Truly magnetically very quiet (C) and quiet (K) periods (from $aa$ )

The values for the CK24 define quietest days over 24-hours with:

$$\overline{(aa)} = Aa < 13 \text{ nT} \begin{cases} \text{“K” indicates a quiet K-day with } \sum(p) \geq 4 \\ \text{“C” indicates a really quiet C-day with } \sum(p) < 4 \end{cases}$$

The values for the CK48 define quietest days over 48-hours with:

$$\overline{(aa)} < 13 \text{ nT} \begin{cases} \text{“K” indicates a quiet K-day with } \sum(p) \geq 6 \\ \text{“C” indicates a really quiet C-day with } \sum(p) < 6 \end{cases}$$

where  $p$  is a weight assigned at each  $aa$  value.

### 2.2.2 10 international quietest days (Q1-10) and 5 most disturbed days (D1-5)

The values for  $Q$ -Days,  $Q1 - Q10$ , are the order number of the ten quietest days of the month.

A selected quiet day is considered not really quiet and is:

- marked by the letter “A” if ( $Ap > 6 \text{ nT}$ );
- marked by the letter “K” if ( $Ap \leq 6 \text{ nT}$ ), or if one ( $Kp > 3$ ), or two ( $Kp > 2+$ ).

The values for  $D$ -Days,  $D1 - D5$ , are the order number of the five most disturbed days of the month. A selected disturbed day is considered not really disturbed and marked by “\*” if ( $Ap < 20 \text{ nT}$ ).