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# INTERNATIONAL SERVICE OF GEOMAGNETIC INDICES

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## MONTHLY BULLETIN SEPTEMBER 2015

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

## 1.1 *aa*

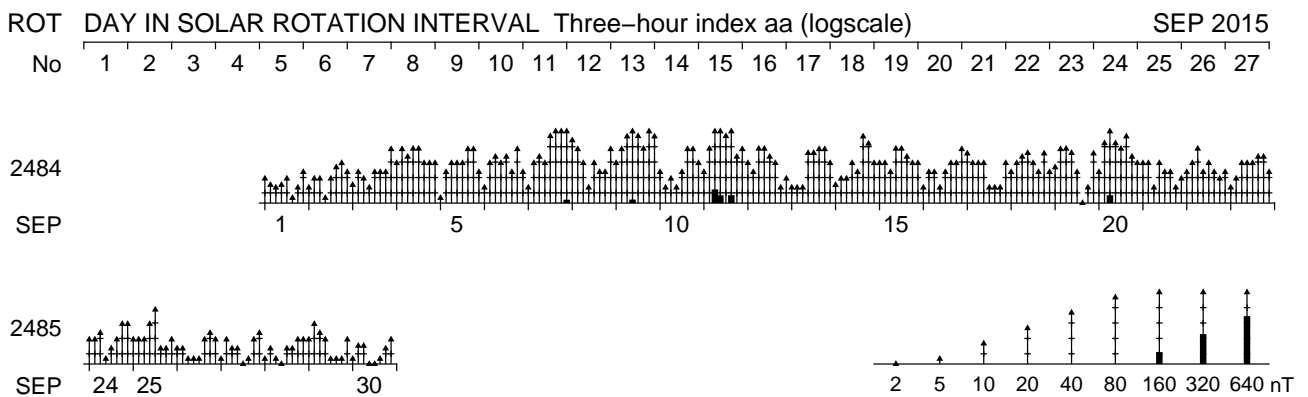
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## 1.2 *am*

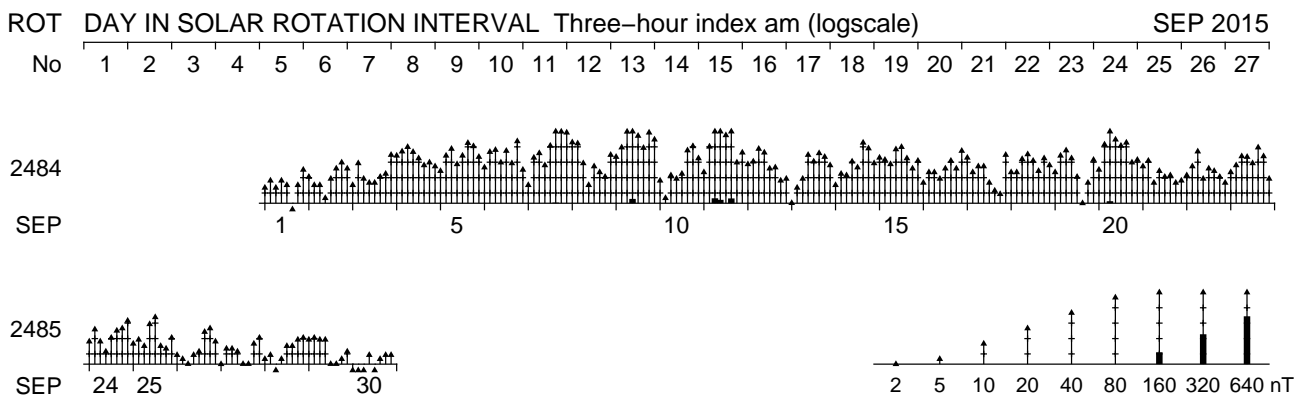
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### 1.3 $K_p$

#### ISGI Collaborating Institute:

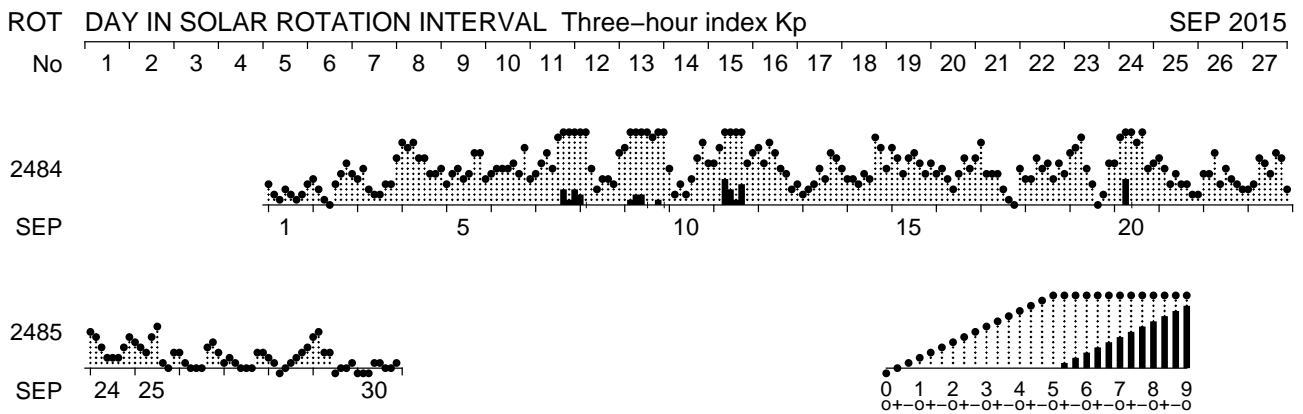
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## 1.4 *Dst*

### ISGI Collaborating Institute:

*World Data Center for Geomagnetism, Kyoto*

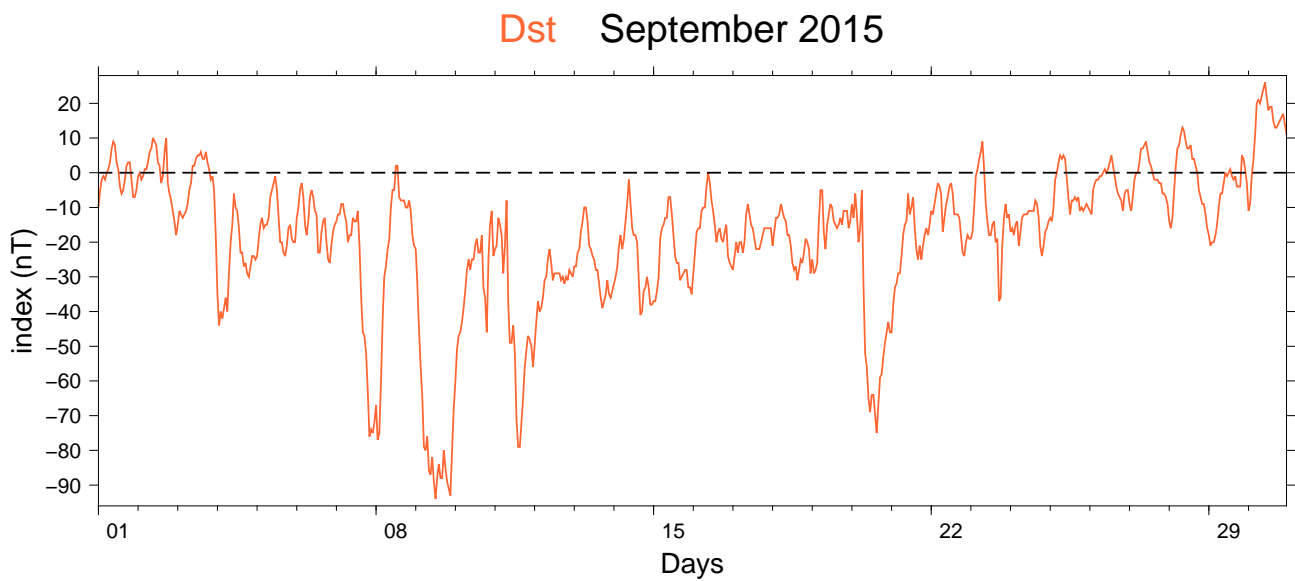
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*Graduate School of Science, Kyoto University*

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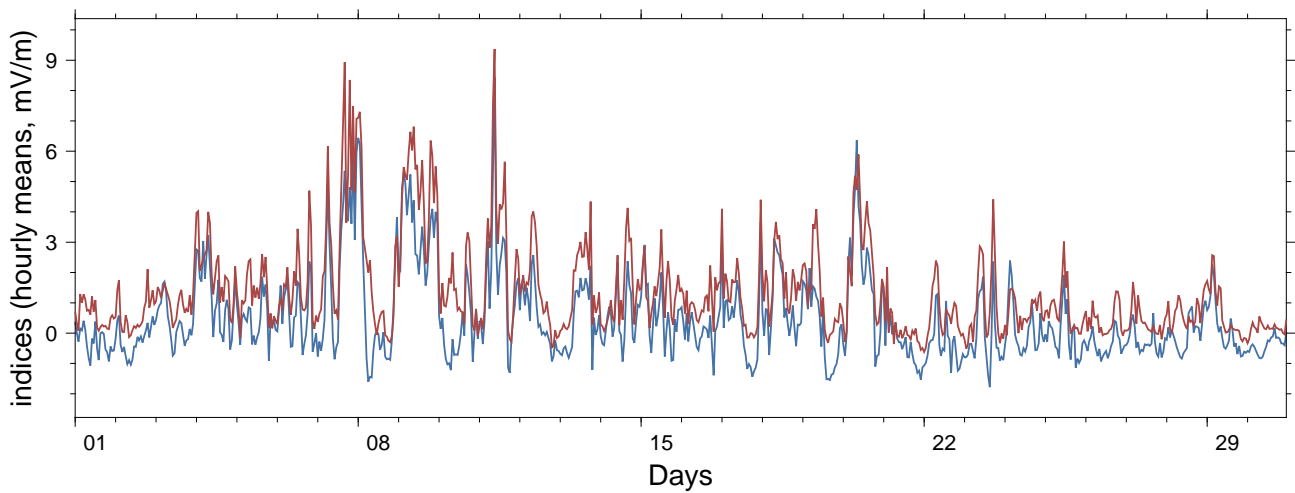
## 1.5 PC

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### PCN and PCS September 2015



## 1.6 *AE*

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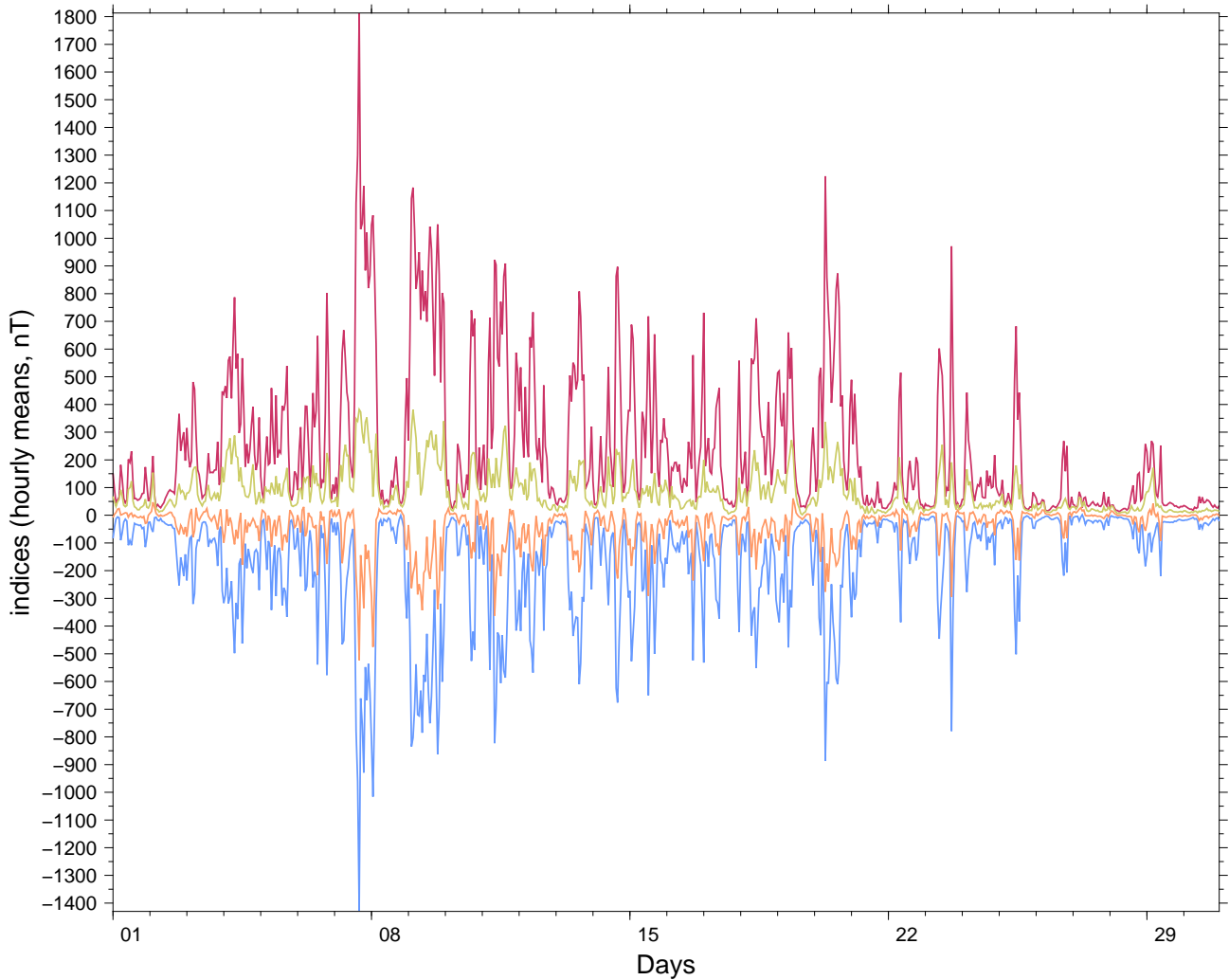
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## 2 IAGA Endorsed Geomagnetic Events (non-definitive values)

### 2.1 *SSC* and *SFE*

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#### SSC:

```
2015 09 20 06 03 A: LER* GUI GNG CNB
                B: ESK HAD* MMB* SPT* HYB
                C: WNG* NGK* VAL BDV* GCK* EBR* KAK* KNY
```

#### SFE:

```
2015 09 21 0516-0530 MMB KAK KNY
2015 09 28 0348-0411 MMB KAK KNY
2015 09 28 1453-1519 LER ESK WNG NGK HAD EBR SPT
2015 09 29 0312-0334 MMB KAK KNY
2015 09 29 0507-0534 MMB KAK KNY CNB
2015 09 29 1109-1130 LER ESK WNG NGK HAD SPT
2015 09 30 1318-1326 LER ESK HAD SPT
```

## 2.2 Classification of days

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Date	Aa	CK24	CK48	Ap	Q/D
2015-09-01	10	C	C	4	Q5
2015-09-02	14	-	C	7	Q9A
2015-09-03	17	-	-	8	Q10A
2015-09-04	33	-	-	20	
2015-09-05	25	-	-	12	
2015-09-06	25	-	-	13	
2015-09-07	61	-	-	44	D4
2015-09-08	31	-	-	24	D5
2015-09-09	72	-	-	59	D2
2015-09-10	22	-	-	12	
2015-09-11	83	-	-	60	D1
2015-09-12	26	-	-	16	
2015-09-13	27	-	-	11	
2015-09-14	29	-	-	14	
2015-09-15	30	-	-	17	
2015-09-16	20	-	-	11	
2015-09-17	20	-	-	10	
2015-09-18	25	-	-	11	
2015-09-19	27	-	-	16	
2015-09-20	57	-	-	44	D3
2015-09-21	17	-	-	8	
2015-09-22	21	-	-	10	
2015-09-23	22	-	-	12	
2015-09-24	14	-	-	7	Q8A
2015-09-25	17	-	-	6	Q7K
2015-09-26	9	C	K	4	Q4
2015-09-27	9	C	C	3	Q2
2015-09-28	8	C	C	3	Q3
2015-09-29	11	C	C	5	Q6
2015-09-30	7	C	C	2	Q1



### 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 ( $Ap < 20 \text{ nT}$ ).