
INTERNATIONAL SERVICE OF GEOMAGNETIC INDICES

MONTHLY BULLETIN DECEMBER 2015

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Contents

| | | |
|----------|---|----------|
| 1 | IAGA Endorsed Geomagnetic Indices (non-definitive values) | 2 |
| 1.1 | <i>aa</i> | 2 |
| 1.2 | <i>am</i> | 2 |
| 1.3 | <i>Kp</i> | 3 |
| 1.4 | <i>Dst</i> | 4 |
| 1.5 | <i>PC</i> | 5 |
| 1.6 | <i>AE</i> | 6 |
| 2 | IAGA Endorsed Geomagnetic Events (non-definitive values) | 7 |
| 2.1 | <i>SSC</i> and <i>SFE</i> | 7 |
| 2.2 | Classification of days | 8 |
| 2.2.1 | Truly magnetically very quiet (C) and quiet (K) periods (from <i>aa</i>) | 9 |
| 2.2.2 | 10 international quietest days (Q1-10) and 5 most disturbed days (D1-5) | 9 |

1 IAGA Endorsed Geomagnetic Indices (non-definitive values)

1.1 *aa*

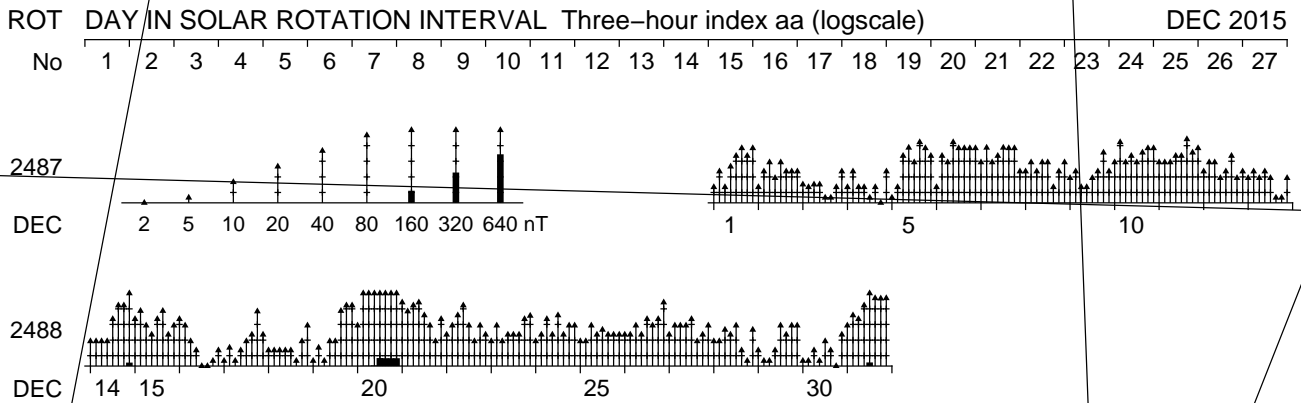
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1.2 *am*

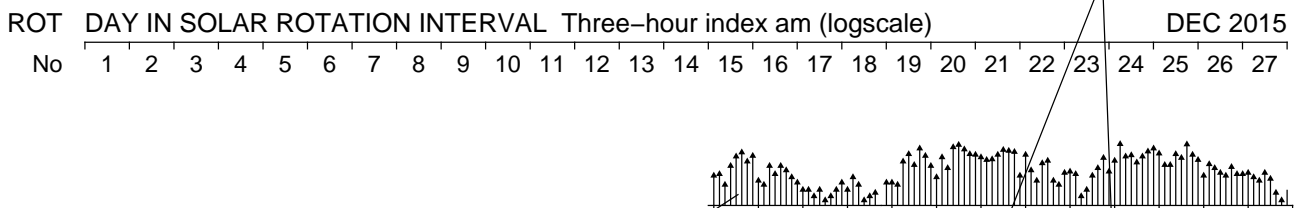
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1.3 K_p

ISGI Collaborating Institute:

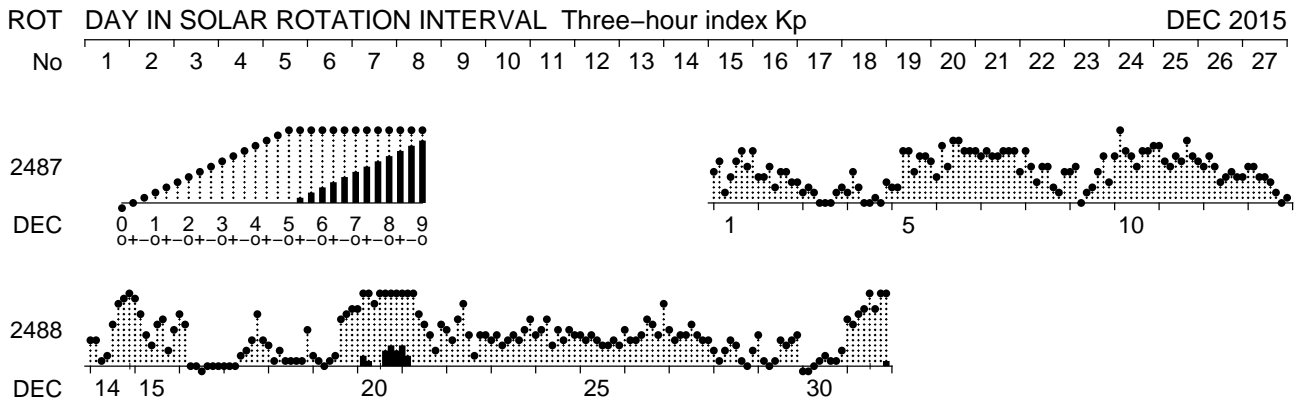
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1.4 *Dst*

ISGI Collaborating Institute:

World Data Center for Geomagnetism, Kyoto

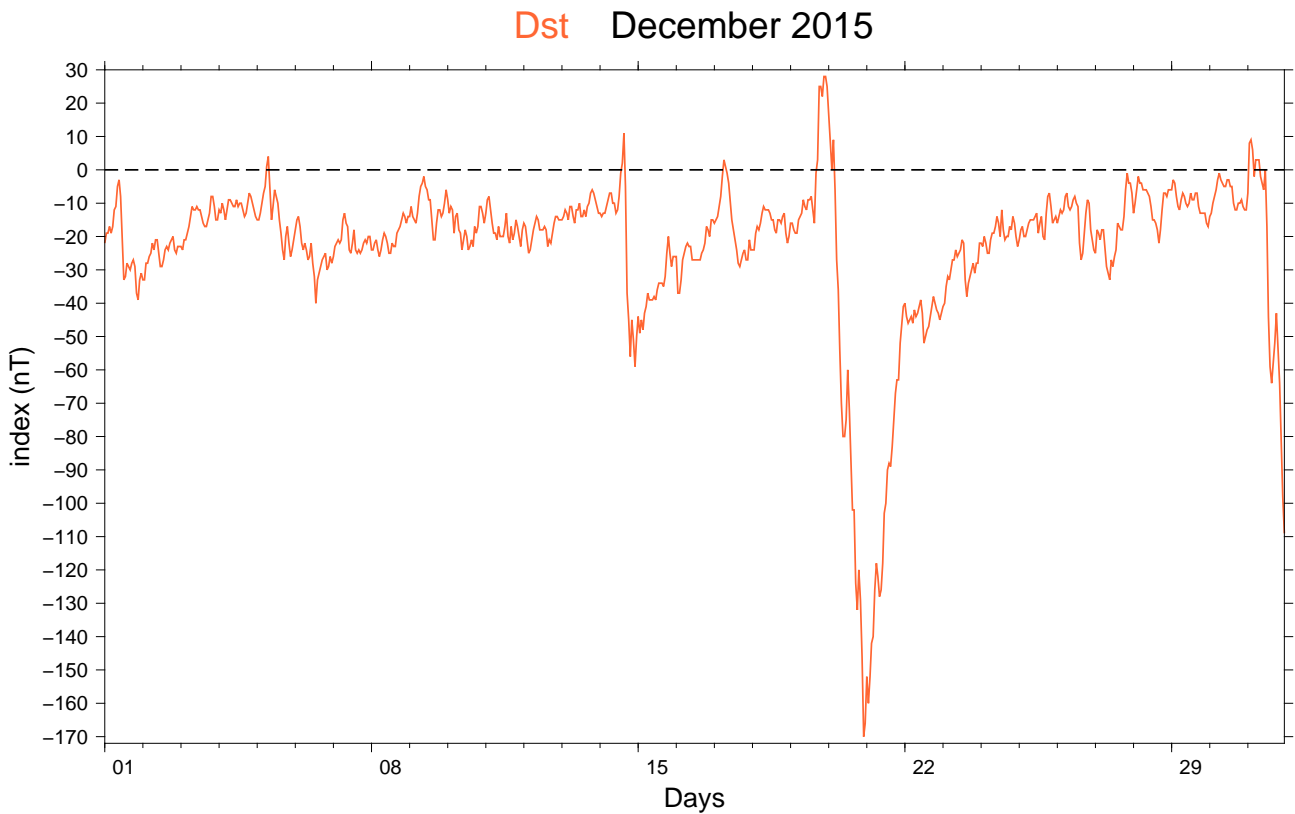
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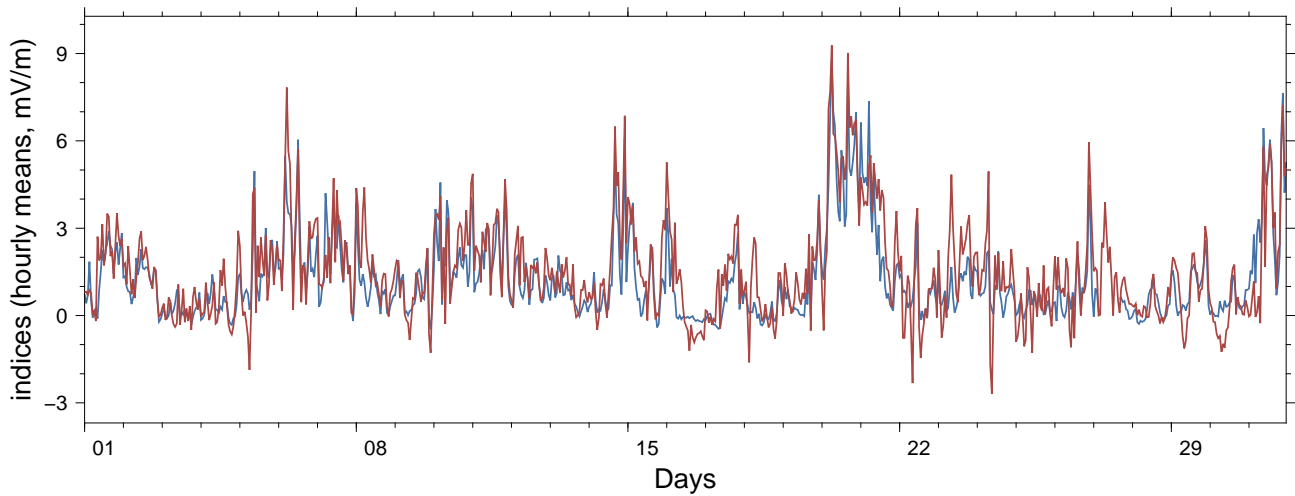
1.5 PC

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PCN and PCS December 2015



1.6 *AE*

ISGI Collaborating Institute:

World Data Center for Geomagnetism, Kyoto

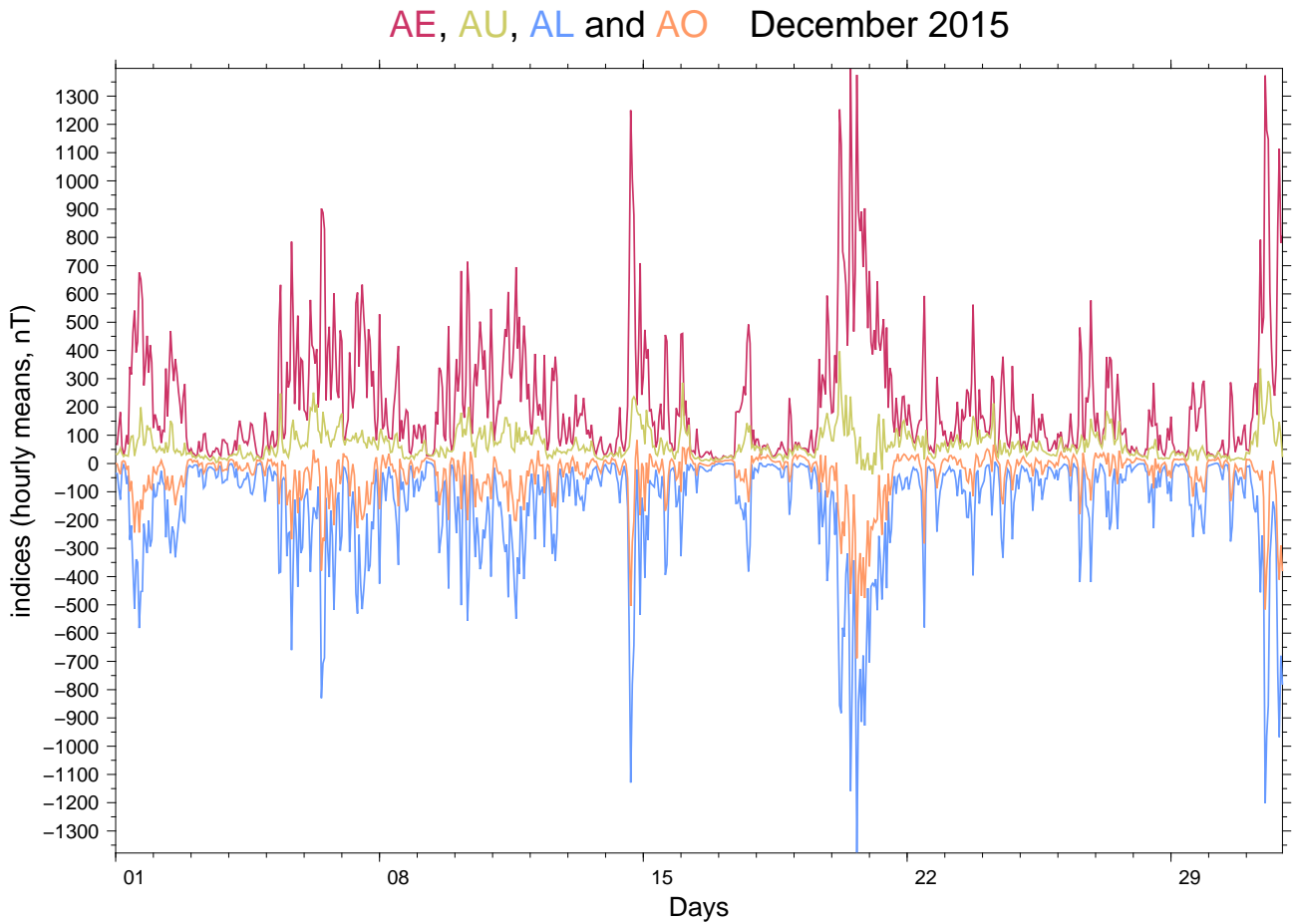
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2 IAGA Endorsed Geomagnetic Events (non-definitive values)

2.1 *SSC* and *SFE*

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SSC:

2015 12 14 13 21 C: LER* ESK HAD* GCK MMB EBR SPT KAK KNY GUI HYB GNG CNB

2015 12 19 16 16 A: SOD NUR LER* ESK* HAD* DOU HRB NAG* GUI HYB GNG CNB*
 B: WNG* NGK* BDV* GCK MMB EBR SPT* KAK KNY
 C: VAL

2015 12 31 00 50 A: SOD WNG NGK NAG
 B: NUR LER ESK HAD BDV HRB MMB* EBR SPT* GUI HYB
 C: VAL DOU GCK KAK* KNY* GNG CNB

SFE:

NONE

2.2 Classification of days

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| Date | Aa | CK24 | CK48 | Ap | Q/D |
|------------|-----|------|------|----|------|
| 2015-12-01 | 26 | - | - | 13 | |
| 2015-12-02 | 17 | - | - | 8 | |
| 2015-12-03 | 9 | C | C | 4 | Q2 |
| 2015-12-04 | 9 | C | K | 4 | Q3 |
| 2015-12-05 | 31 | - | - | 14 | |
| 2015-12-06 | 38 | - | - | 22 | D5 |
| 2015-12-07 | 35 | - | - | 19 | |
| 2015-12-08 | 19 | - | - | 10 | |
| 2015-12-09 | 16 | - | - | 8 | |
| 2015-12-10 | 36 | - | - | 24 | D4 |
| 2015-12-11 | 36 | - | - | 19 | |
| 2015-12-12 | 19 | - | - | 10 | |
| 2015-12-13 | 11 | C | - | 7 | Q8A |
| 2015-12-14 | 39 | - | - | 20 | |
| 2015-12-15 | 30 | - | - | 16 | |
| 2015-12-16 | 12 | K | - | 6 | Q7K |
| 2015-12-17 | 15 | - | K | 6 | Q9K |
| 2015-12-18 | 10 | C | - | 5 | Q5 |
| 2015-12-19 | 26 | - | - | 10 | |
| 2015-12-20 | 110 | - | - | 70 | D1 |
| 2015-12-21 | 43 | - | - | 38 | D3 |
| 2015-12-22 | 27 | - | - | 12 | |
| 2015-12-23 | 21 | - | - | 9 | |
| 2015-12-24 | 22 | - | - | 11 | |
| 2015-12-25 | 17 | - | - | 7 | Q10A |
| 2015-12-26 | 28 | - | - | 14 | |
| 2015-12-27 | 22 | - | - | 9 | |
| 2015-12-28 | 15 | - | - | 4 | Q4 |
| 2015-12-29 | 14 | - | K | 6 | Q6 |
| 2015-12-30 | 8 | C | - | 2 | Q1 |
| 2015-12-31 | 64 | - | - | 35 | D2 |

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