
INTERNATIONAL SERVICE OF GEOMAGNETIC INDICES

MONTHLY BULLETIN SEPTEMBER 2016

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.

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*

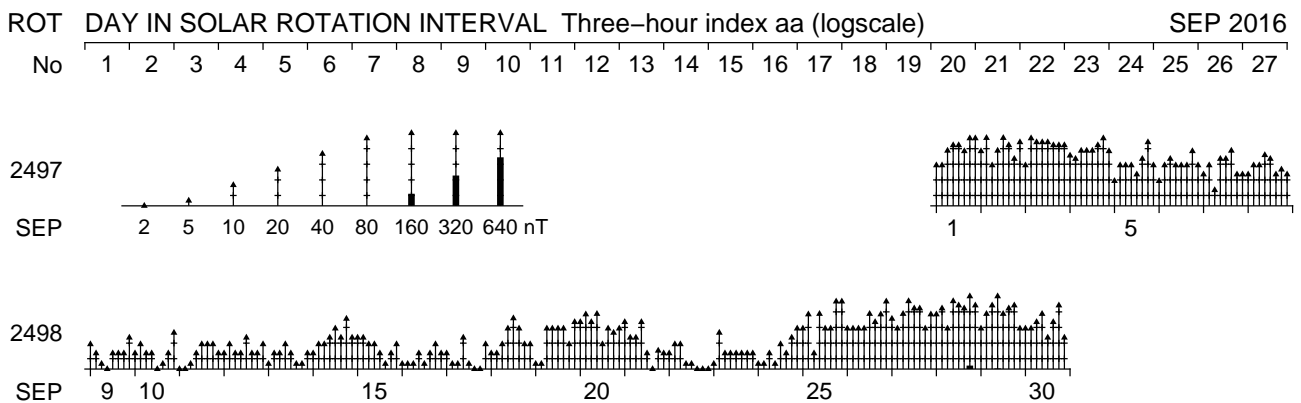
ISGI Collaborating Institute:

Ecole et Observatoire des Sciences de la Terre

5, rue René Descartes

67084 Strasbourg Cedex - FRANCE

Contact: A. Chambodut <isgi@unistra.fr>



1.2 *am*

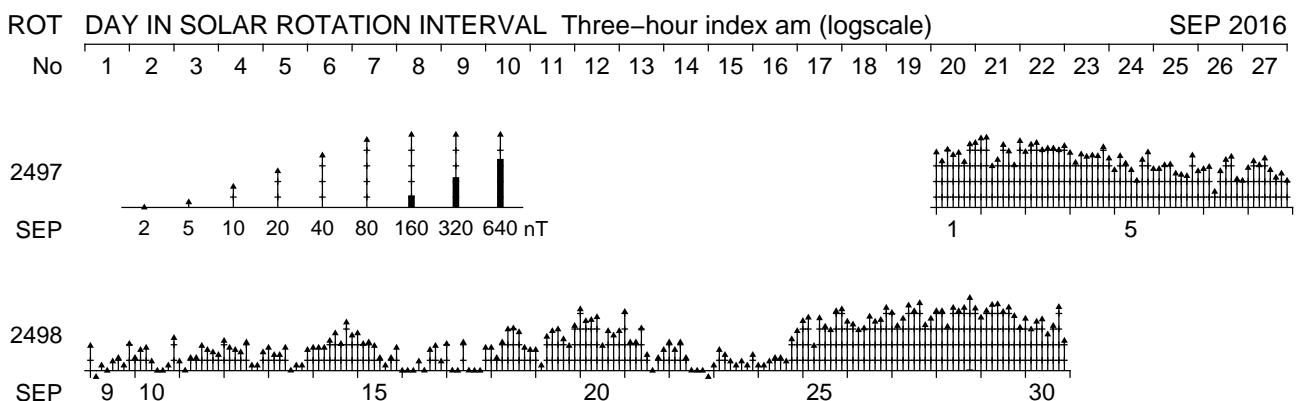
ISGI Collaborating Institute:

Ecole et Observatoire des Sciences de la Terre

5, rue René Descartes

67084 Strasbourg Cedex - FRANCE

Contact: A. Chambodut <isgi@unistra.fr>



1.3 K_p

ISGI Collaborating Institute:

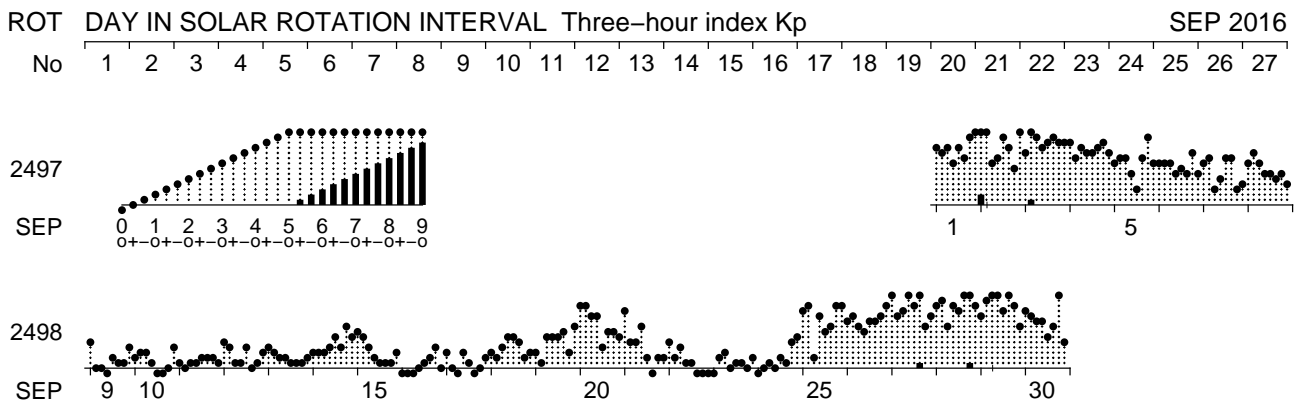
Helmholtz-Zentrum Potsdam Deutsches GeoForschungsZentrum

Adolf-Schmidt-Observatorium

Lindenstr. 7

14823 Niemegk - GERMANY

Contact: J. Matzka <kp_index@gfz-potsdam.de>



1.4 *Dst*

ISGI Collaborating Institute:

World Data Center for Geomagnetism, Kyoto

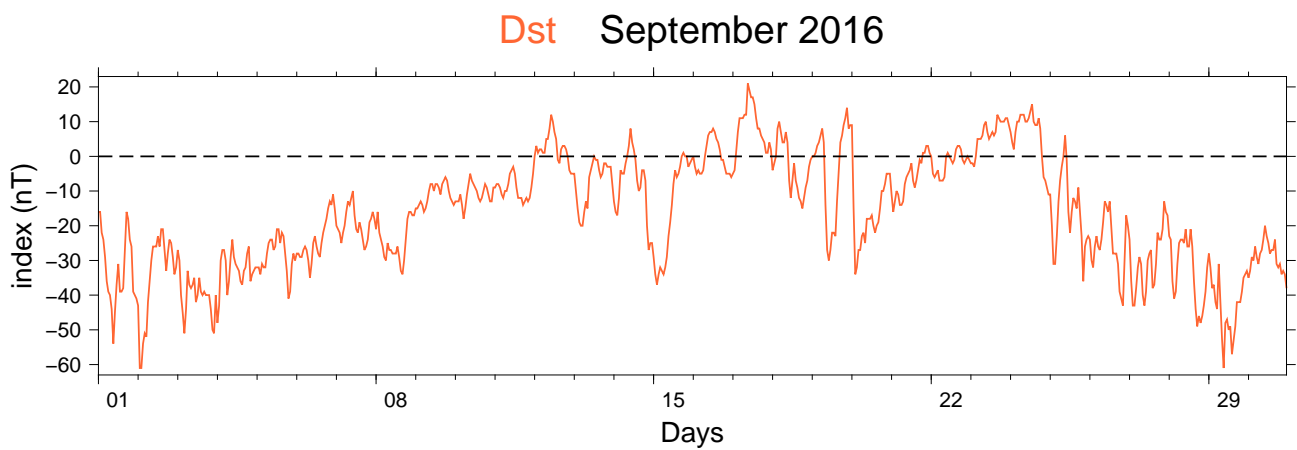
Data Analysis Center for Geomagnetism and Space Magnetism

Graduate School of Science, Kyoto University

Kitashirakawa-Oiwake Cho, Sakyo-ku

Kyoto 606-8502 - JAPAN

Contact: M. Nosé <nose@kugi.kyoto-u.ac.jp>

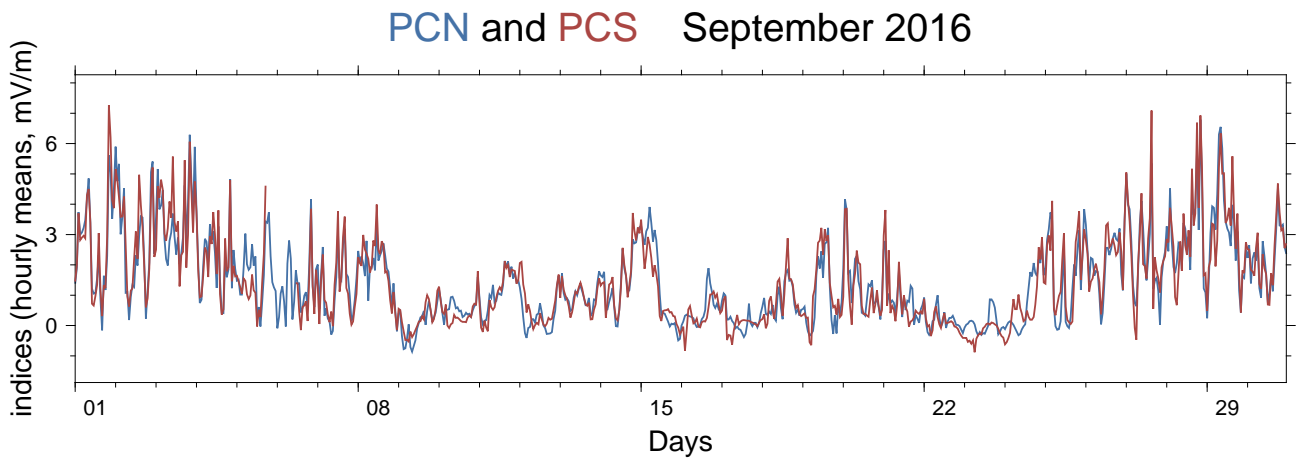


1.5 PC

ISGI Collaborating Institutes:

Arctic and Antarctic Research Institute
Department of geophysics, 38 Bering str.
St.Petersburg, 199397 - RUSSIAN FEDERATION
Contact: O. Troshichev <olegro@aari.nw.ru>
and A. Janzhura <alex.j@aari.nw.ru>

World Data Center for Geomagnetism, Copenhagen
DTU Space, National Space Institute
Elektrovej, building 327
DK-2800 Kgs. Lyngby - DENMARK
N. Olsen <nio@space.dtu.dk>



1.6 *AE*

ISGI Collaborating Institute:

World Data Center for Geomagnetism, Kyoto

Data Analysis Center for Geomagnetism and Space Magnetism

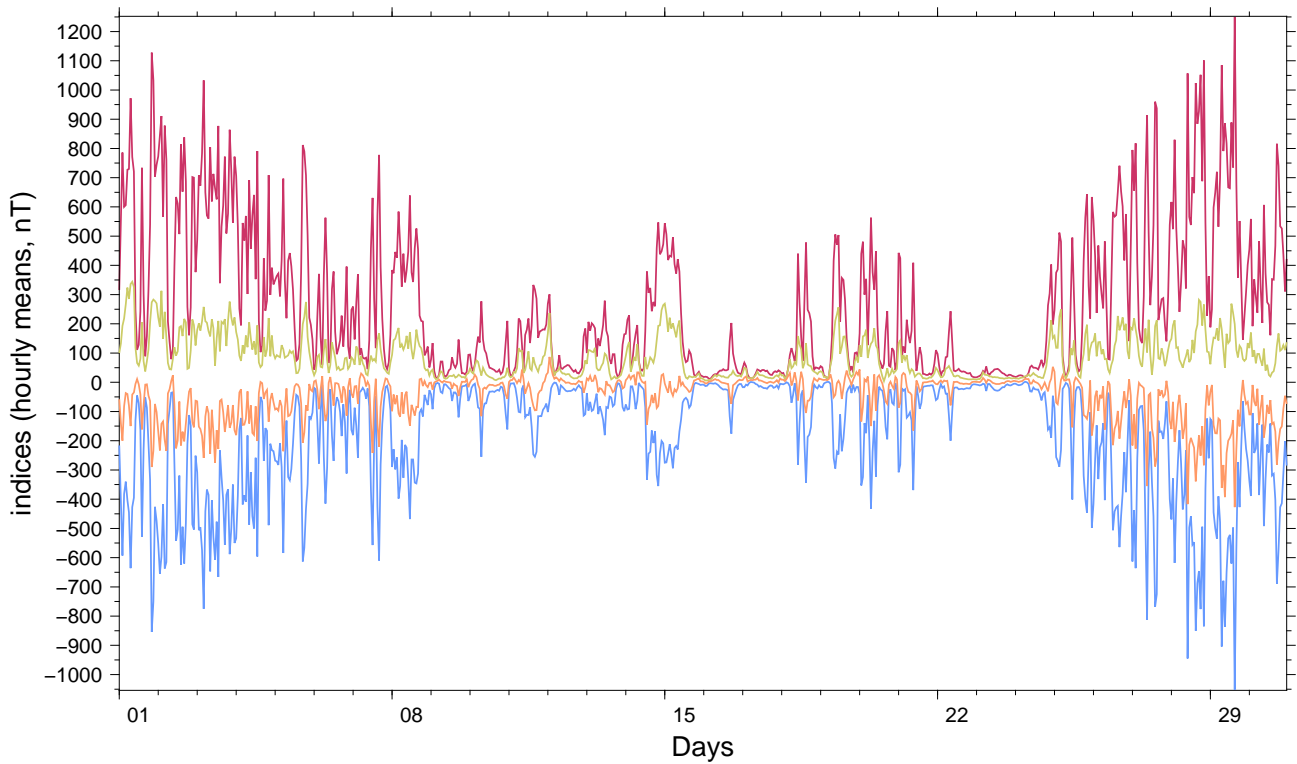
Graduate School of Science, Kyoto University

Kitashirakawa-Oiwake Cho, Sakyo-ku

Kyoto 606-8502 - JAPAN

Contact : M. Nosé <nose@kugi.kyoto-u.ac.jp>

AE, AU, AL and AO September 2016



2 IAGA Endorsed Geomagnetic Events (non-definitive values)

2.1 *SSC* and *SFE*

ISGI Collaborating Institute:

Observatori de l'Ebre

Horta Alta, 38

43520 Roquetes - SPAIN

Contact : J. J. Curto <jjcurto@obsebre.es>

SSC:

2016 09 17 09 24 B: NUR WNG* NGK* CNB
C: GUI GNG

2016 09 25 17 18 B: LER ESK HAD
C: SPT HYB

SFE:

2016 08 16 1338-1352 LER ESK HAD

2.2 Classification of days

ISGI Collaborating Institutes:

Ecole et Observatoire des Sciences de la Terre
 5, rue René Descartes
 67084 Strasbourg Cedex - FRANCE
 Contact: A. Chambodut <isgi@unistra.fr>

*Helmholtz-Zentrum Potsdam Deutsches Geo-
 Forschungszentrum*
Adolf-Schmidt-Observatorium
 Lindenstr. 7
 14823 Niemegk - GERMANY
 Contact : H.-J. Linthe and J. Matzka
 <kp_index@gfz-potsdam.de>

Date	Aa	CK24	CK48	Ap	Q/D
2016-09-01	52	-	-	28	
2016-09-02	54	-	-	37	D4
2016-09-03	60	-	-	36	D1
2016-09-04	49	-	-	25	
2016-09-05	28	-	-	17	
2016-09-06	26	-	-	13	
2016-09-07	24	-	-	12	
2016-09-08	23	-	-	12	
2016-09-09	8	C	C	3	Q7
2016-09-10	9	C	C	3	Q5
2016-09-11	8	C	C	3	Q2
2016-09-12	10	C	C	4	Q10
2016-09-13	7	C	C	4	Q8
2016-09-14	18	-	-	8	
2016-09-15	11	C	-	6	
2016-09-16	7	C	C	2	Q1
2016-09-17	7	C	C	3	Q4
2016-09-18	17	-	-	6	
2016-09-19	19	-	-	8	
2016-09-20	29	-	-	18	
2016-09-21	15	-	-	8	
2016-09-22	6	C	C	3	Q6
2016-09-23	9	C	C	3	Q3
2016-09-24	10	C	-	4	Q9
2016-09-25	41	-	-	22	
2016-09-26	37	-	-	20	
2016-09-27	47	-	-	35	D5
2016-09-28	65	-	-	36	D2
2016-09-29	55	-	-	36	D3
2016-09-30	32	-	-	20	

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