

PROVISIONAL GEOMAGNETIC
DATA PLOTS
NO.18

(July - December, 1998)

January 1999

DATA ANALYSIS CENTER FOR GEOMAGNETISM
AND SPACE MAGNETISM
GRADUATE SCHOOL OF SCIENCE,
KYOTO UNIVERSITY

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PREFACE

This booklet contains provisional plots of the geomagnetic data for July - December, 1998 with the Kp index and the international sunspot number. One minute values of the horizontal (or the northward) component are plotted after subtracting the monthly mean of the five-quiet days. The purpose of this booklet is to give the information of world-wide geomagnetic disturbances with high-time resolution as early as possible. Hence the provisional data without base-line adjustment or noise reduction (marked with * in Table 1) are included. There still remain artificial noises on the plots though we tried to eliminate them. Users should be careful on these points, and the plots in this booklet should not be used in other publications.

These data were kindly provided through the following organizations.

- (1) World Data Center-A for STP and The U.S. Geological Survey (provisional data).
- (2) Leirvogur Magnetic Observatory, University of Iceland.
- (3) Valentia Observatory of Meteorological Service.
- (4) Kakioka Magnetic Observatory.
- (5) Telecommunication Training Institute.
- (6) Hermanus Magnetic Observatory.
- (7) Swedish Institute of Space Physics in Kiruna.
- (8) Chambon-la-Forêt Magnetic Observatory.
- (9) Danish Meteorological Institute.
- (10) Institute de Physique du Globe de Strasbourg.

The distribution and the information of the stations are shown in Figure 1 and Table 1, respectively. The Kp index was provided by GeoForschungsZentrum Potsdam. The international sunspot number is provided by the Sunspot Index Data Center, Brussels.

The Post-Script files of these plots for the latest issue are available from WWW home page

<http://swdcd.db.kugi.kyoto-u.ac.jp/>

or from anonymous FTP directory at our data center. The IP address and the directory are as follows:

IP address: 130.54.59.253 (swdcd.db)

Directory: anonymous (Change directory to './data/pplot' after logging in.)

Each file is compressed and has a name YYMMD1-D2.ps.Z (for example, 981001-02.ps.Z). Each file contains the plot of the each page of this booklet. Files should be transferred in binary mode and uncompressed.

The users who need further information on this booklet should consult to:

WDC-C2 for Geomagnetism,
Graduate School of Science,
Kyoto University
Kyoto 606-8502, Japan.

Telephone: 81-75-753-3929
Facsimile: 81-75-722-7884
E-mail: iyemori@kugi.kyoto-u.ac.jp
WWW: <http://swdcd.db.kugi.kyoto-u.ac.jp/>

Table 1. List of stations used in this booklet. The 15 stations among them are used in the plots.

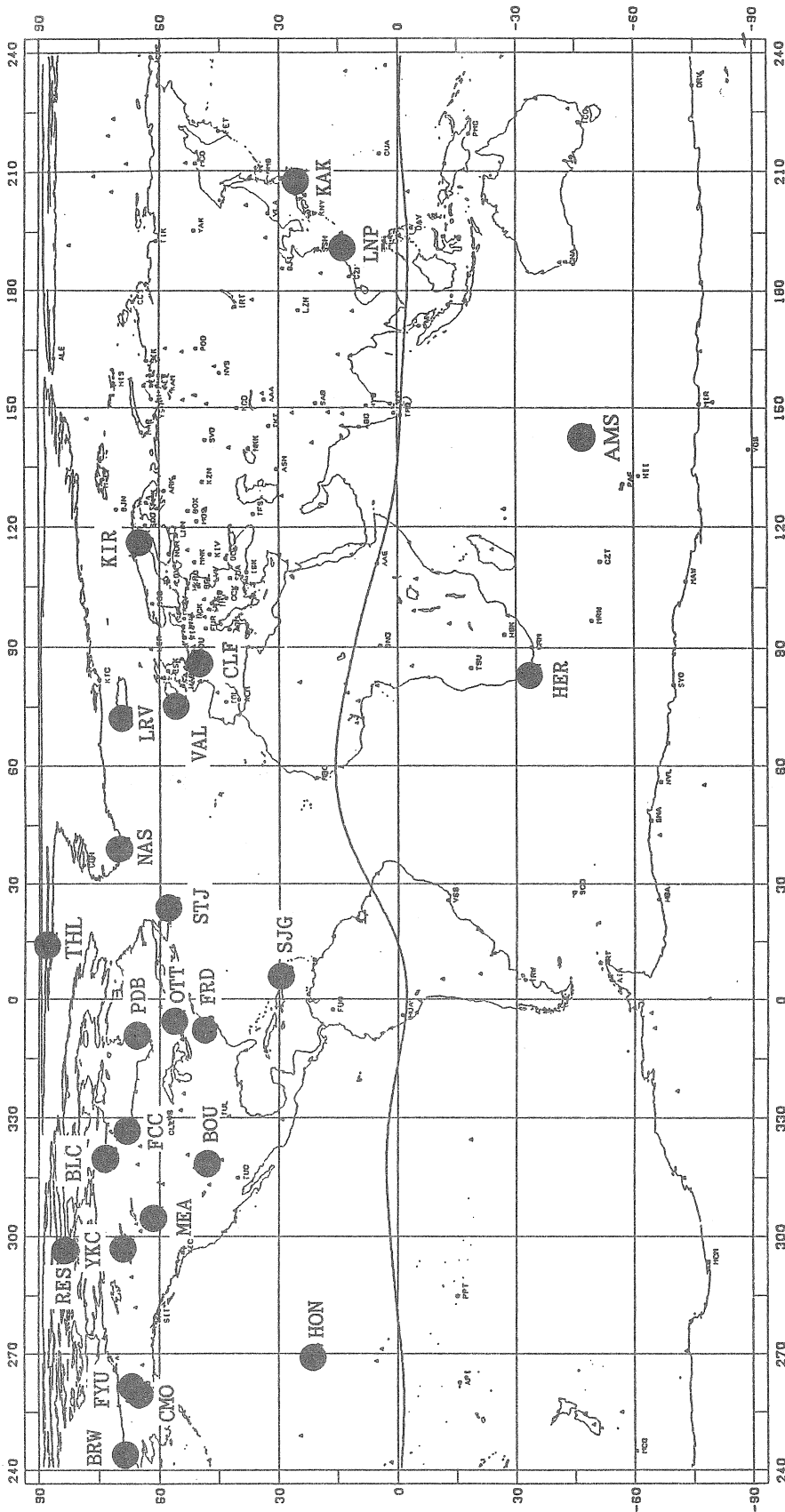
STATION NAME	ABB CODE	ORG No.	GEOGRAPHIC		GEOMAGNETIC		INVARIANT LAT.	PLOT SCALE
			LAT.	LONG.	LAT.	LONG.		
*Tule	THL	9	77.5	290.8	88.1	15.0	85.9	500nT/div
*Resolute Bay	RES	1	74.7	265.1	83.1	296.0	83.9	"
*Baker Lake	BLC	1	64.3	264.0	73.7	319.2	74.6	"
*Narssarsuaq	NAS	1	61.2	314.6	70.6	38.7	67.5	"
Leirvogur	LRV	2	64.2	338.3	69.7	72.0	65.7	"
*Yellowknife	YKC	1	62.5	245.5	69.1	296.6	69.8	"
*Barrow	BRW	1	71.3	203.3	69.1	243.7	69.6	"
*Fort Churchill	FCC	1	58.8	265.9	68.5	326.1	69.6	"
*Pos. de la Baleine	PDB	1	55.3	282.3	66.2	350.3	66.8	"
Kiruna	KIR	7	67.8	20.4	65.1	116.2	64.5	"
*College	CMO	1	64.9	212.2	65.1	259.2	64.8	"
*St. Johns	STJ	1	47.6	307.3	57.9	23.4	55.6	100nT/div
Valentia	VAL	3	51.9	349.8	56.2	74.8	51.0	"
*San Juan	SJG	1	18.4	293.9	29.1	5.2	32.5	"
*Fredericksburg	FRD	1	38.2	282.6	49.1	352.2	50.7	"
*Boulder	BOU	1	40.1	254.8	48.7	319.0	49.1	"
*Honolulu	HON	1	21.3	202.0	21.5	268.6	20.2	"
Kakioka	KAK	4	36.2	140.2	26.6	207.8	25.9	"
Lunping	LNP	5	25.0	121.2	14.2	191.3	7.6	"
Martin de Vivies	AMS	10	-37.8	77.6	-46.9	142.8	48.6	"
Chambon-la-Foret	CLF	8	48.0	2.3	50.1	85.7	45.7	"
*Hermanus	HER	6	-34.4	19.2	-33.7	82.7	43.6	"

*: Provisional data

Acknowledgments:

The compilation of the geomagnetic data and publication of this booklet have been supported in part by grant 09354005 under the ministry of Education, Japan.

DISTRIBUTION OF GEOMAGNETIC OBSERVATORIES



GEOMAGNETIC COORDINATE (1985. 0)

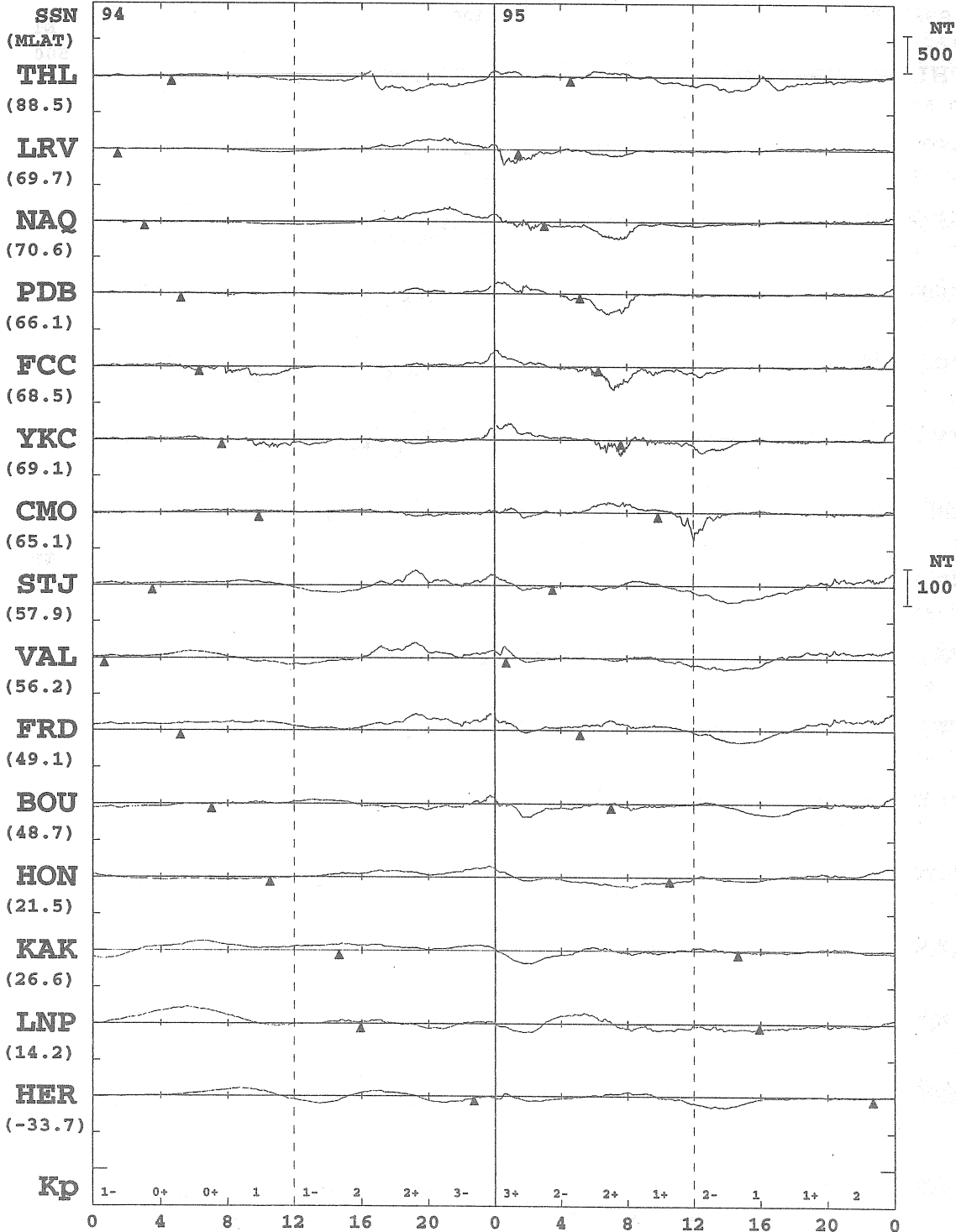
— DIP EQUATOR AT 100 KM ALTITUDE

Fig.1 Data are obtained at the observatories shown by the solid circles.
15 stations among those shown in this figure are used for the plots.

July - December, 1998

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



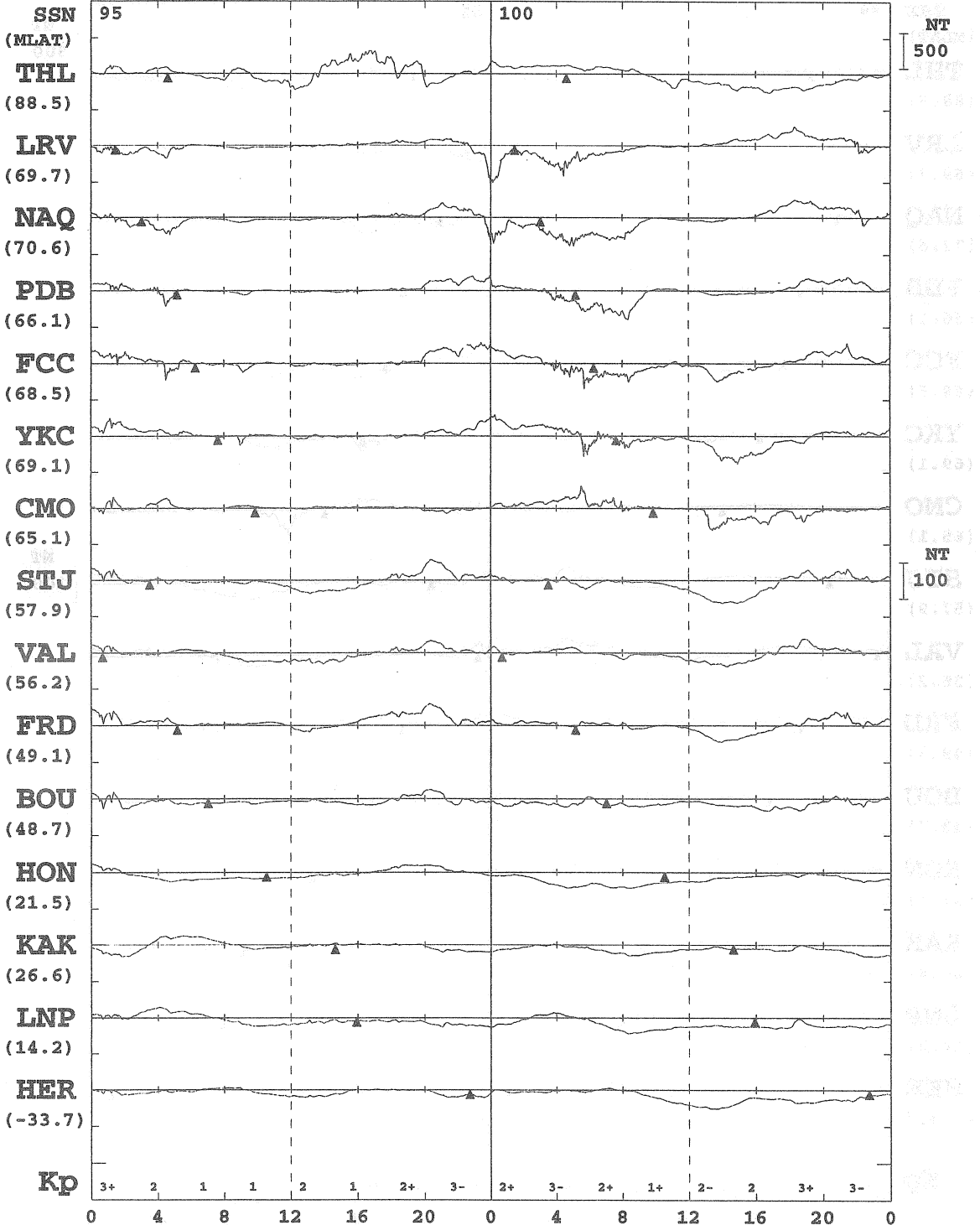
JUL 1
(DAY 182)

JUL 2
(DAY 183)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



JUL 3
(DAY 184)

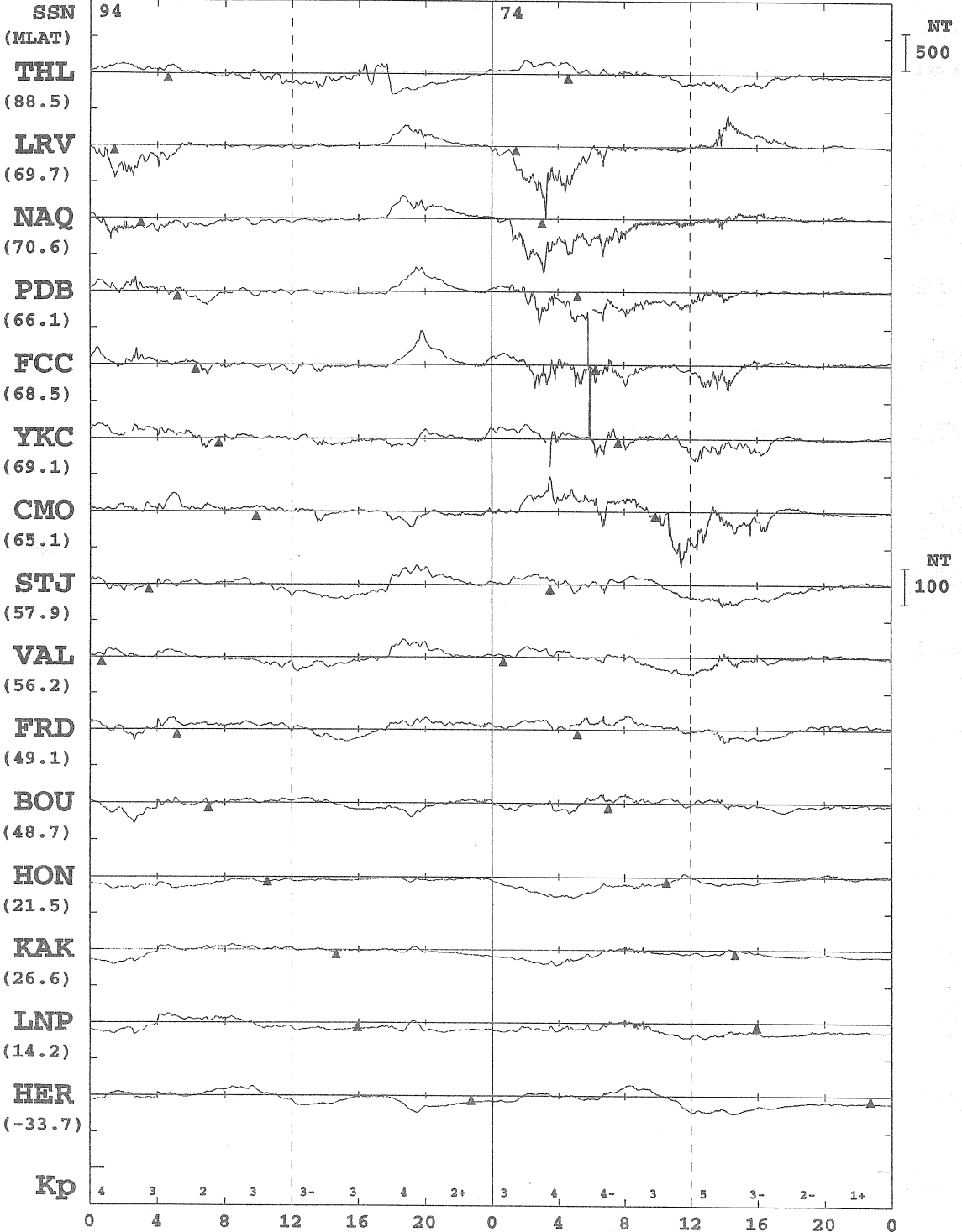
JUL 4
(DAY 185)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



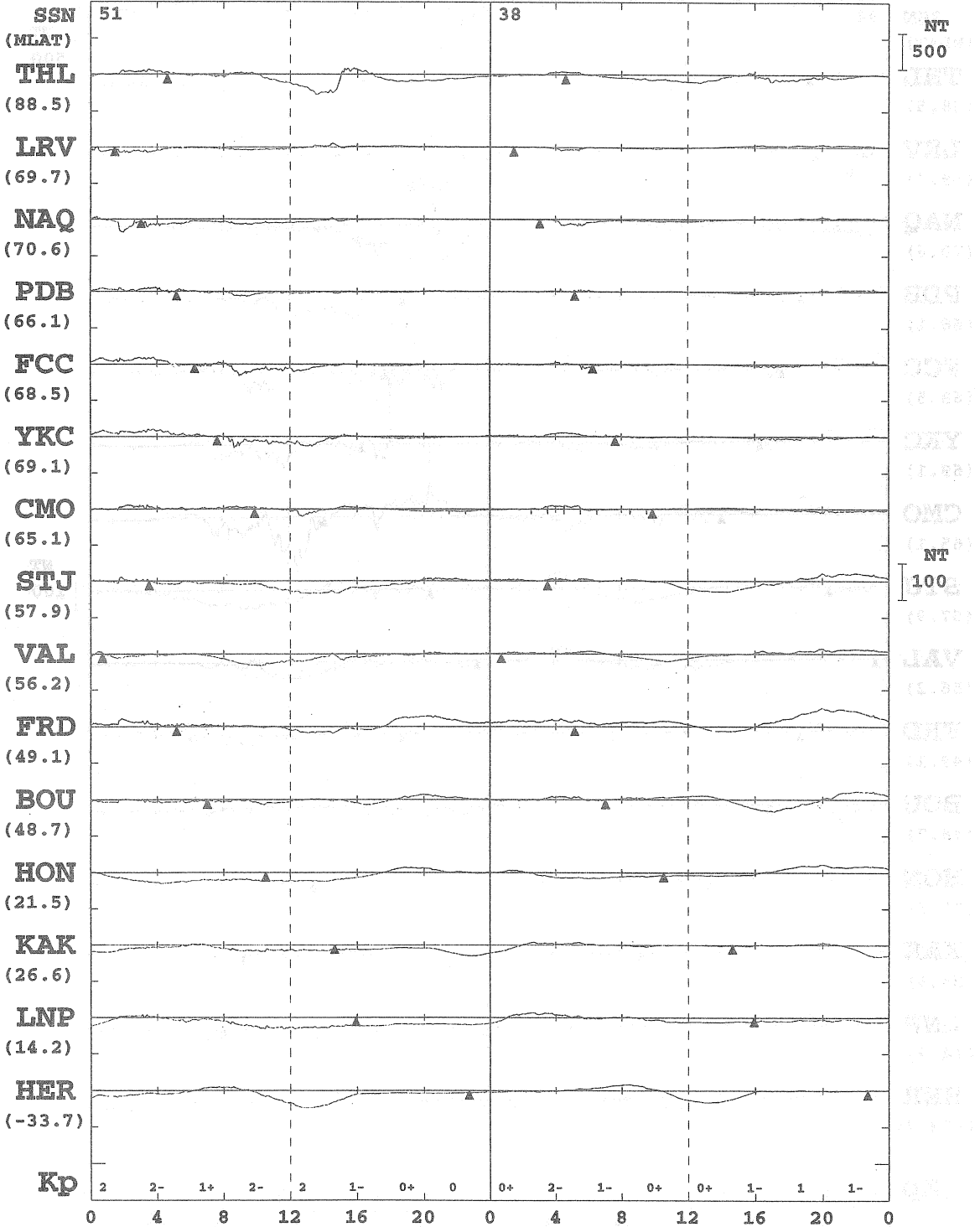
**JUL 5
(DAY 186)**

**JUL 6
(DAY 187)**

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

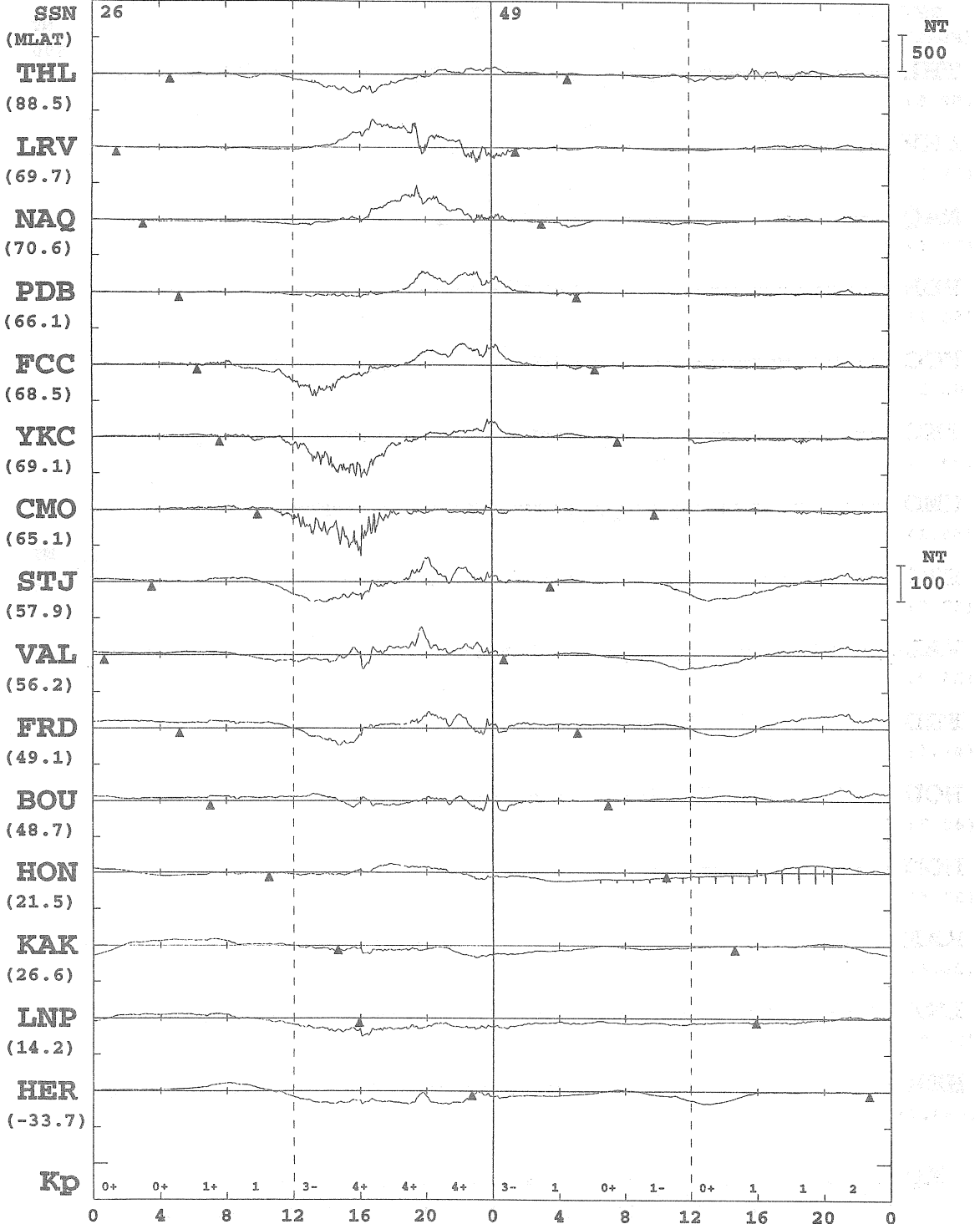
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



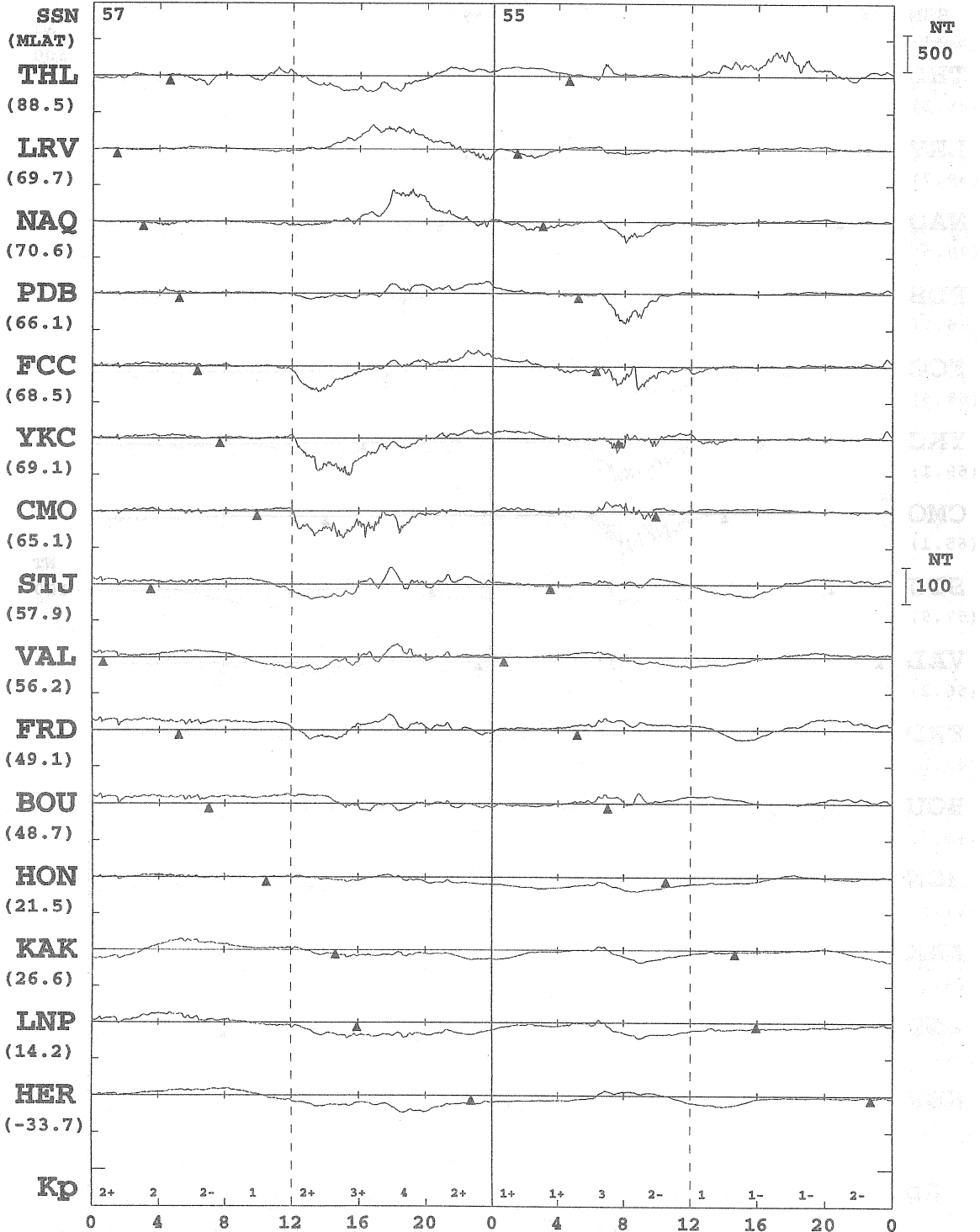
JUL 9
(DAY 190)

JUL 10
(DAY 191)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT

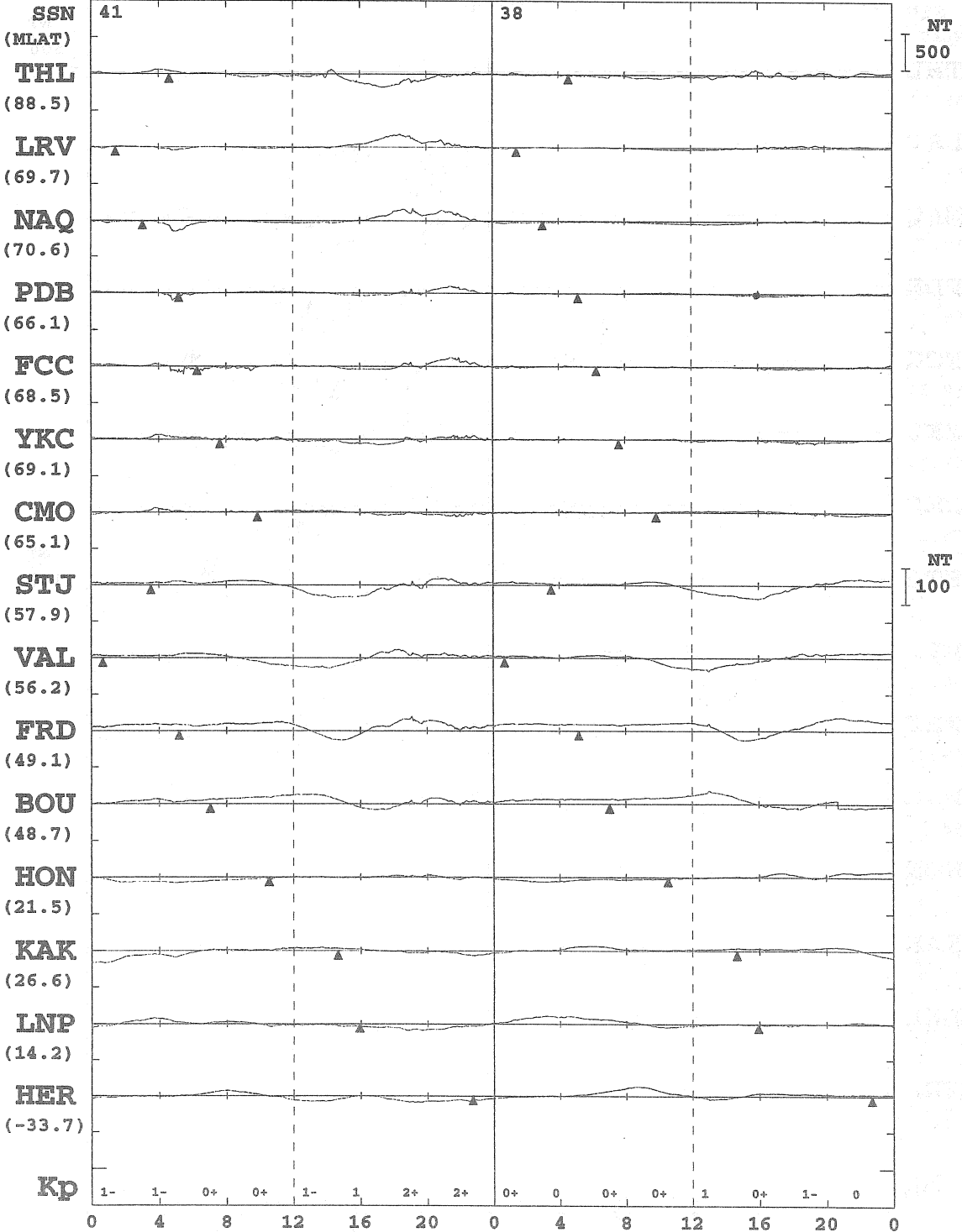


* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
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KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



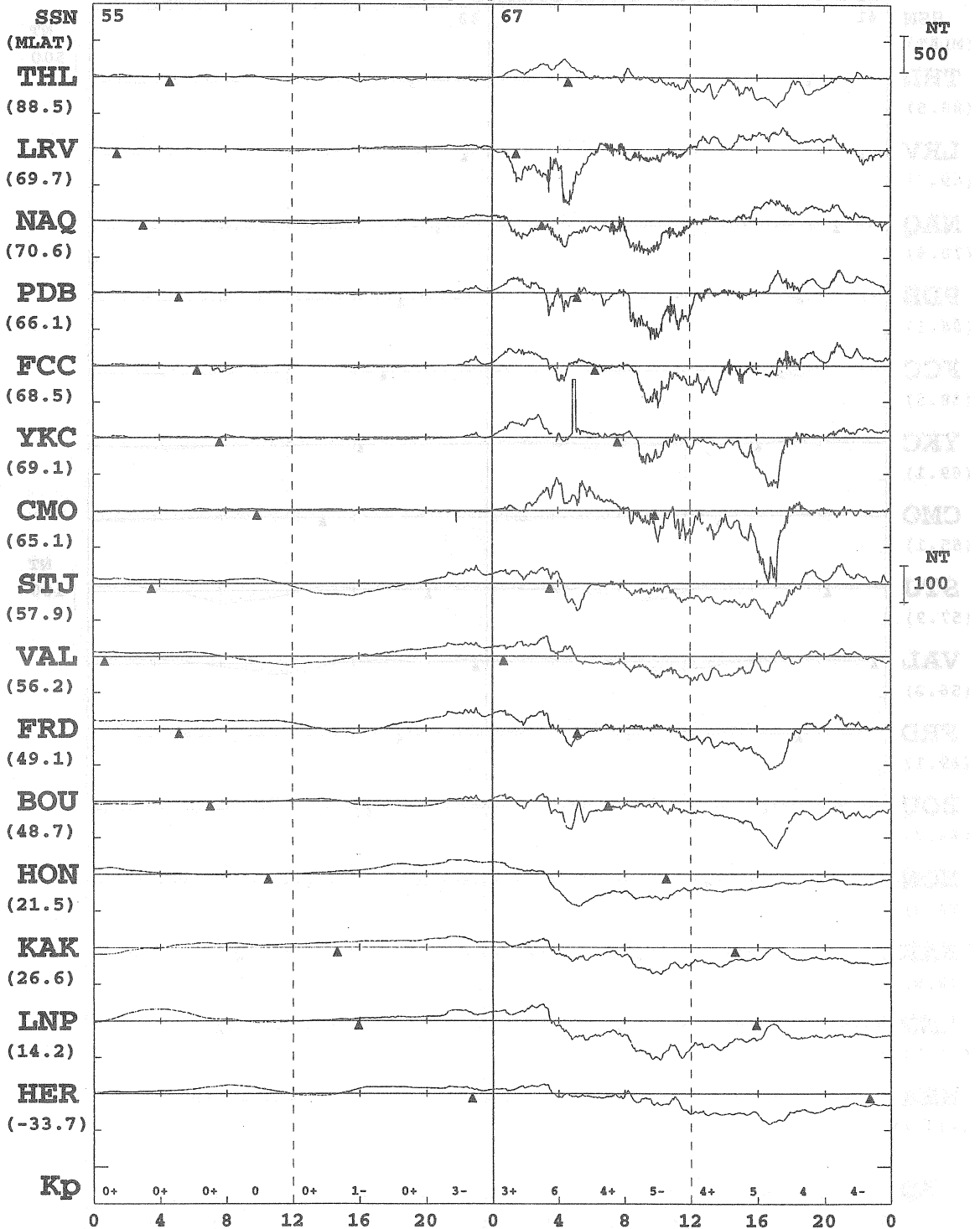
JUL 13
(DAY 194)

JUL 14
(DAY 195)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

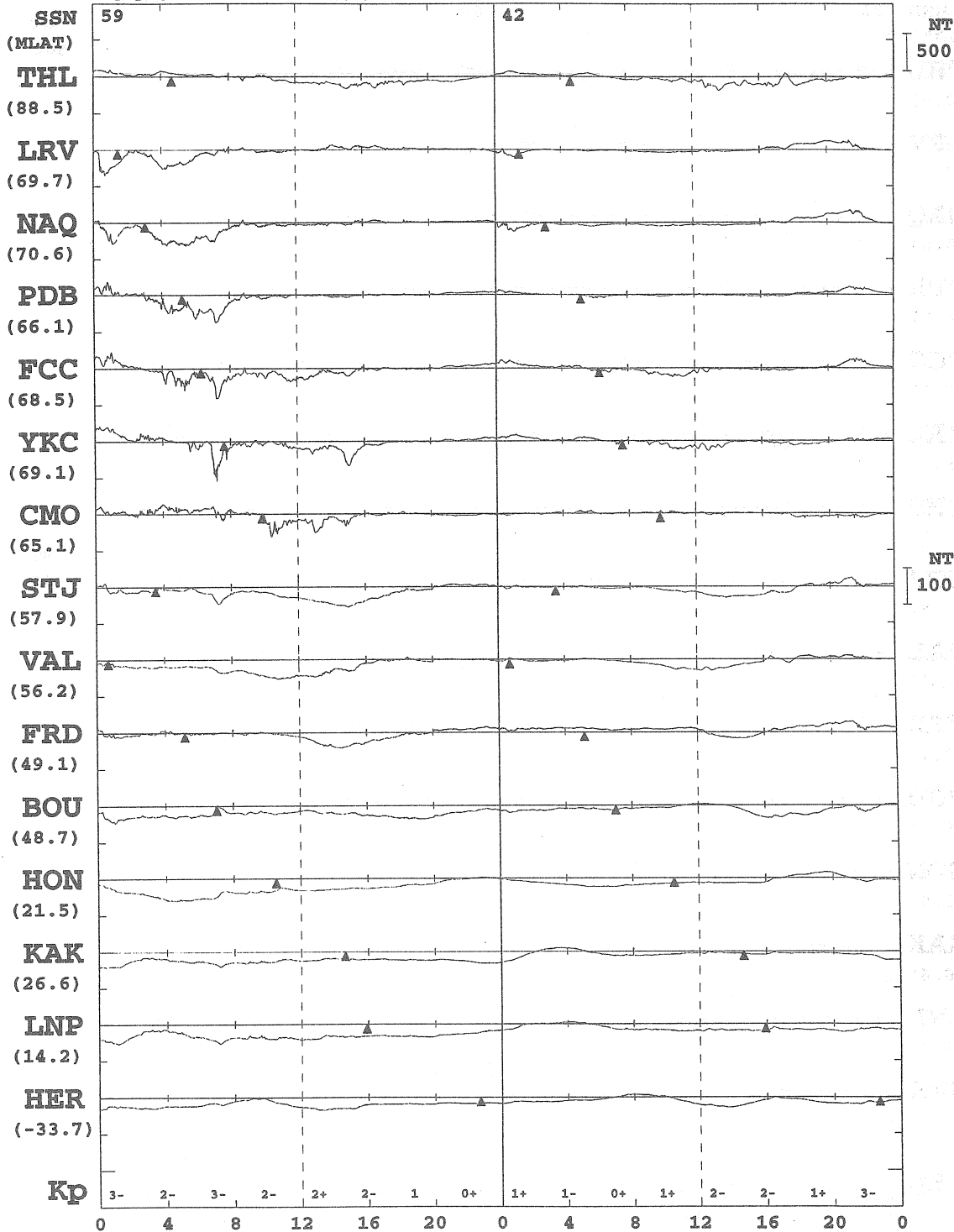
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

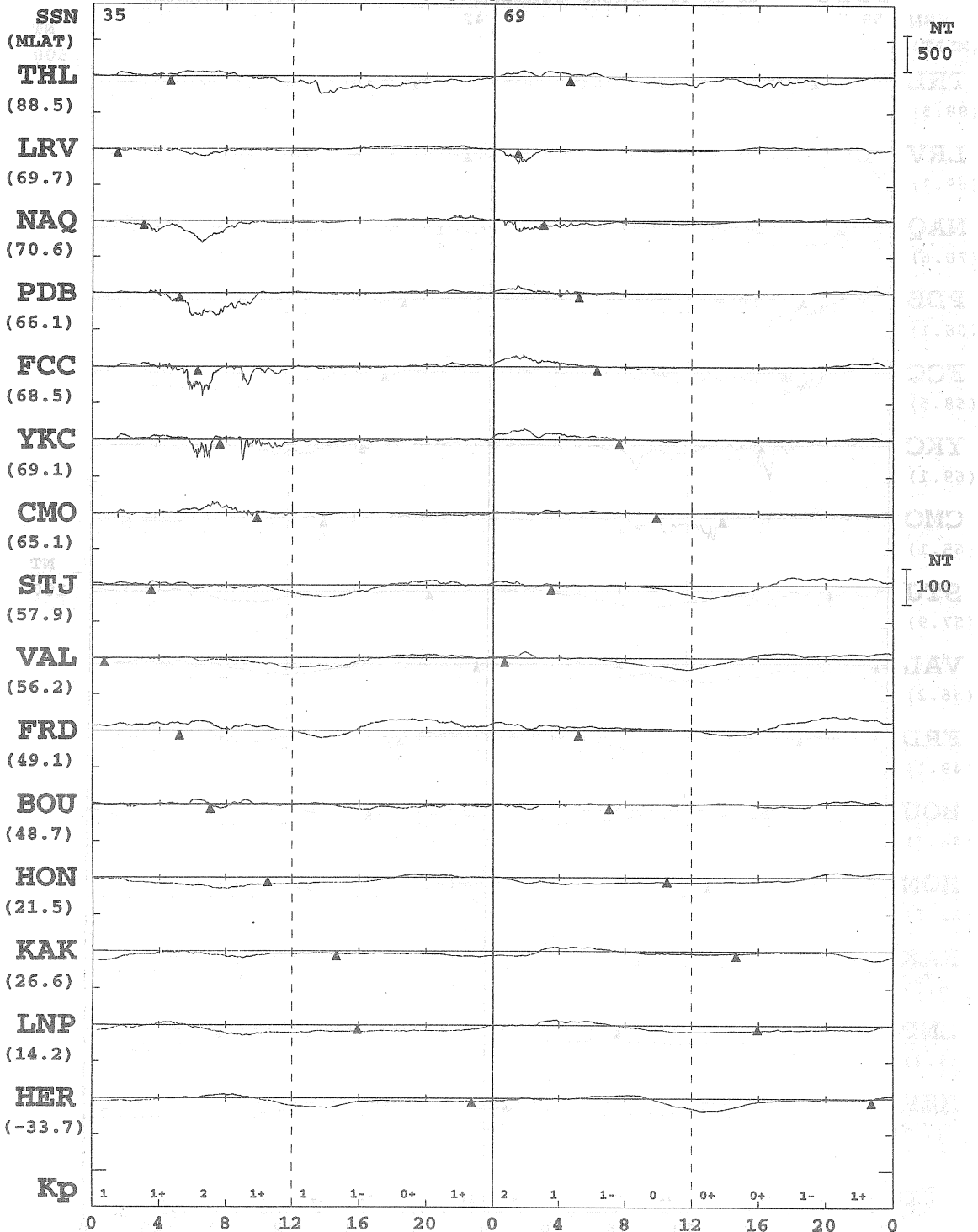
1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT



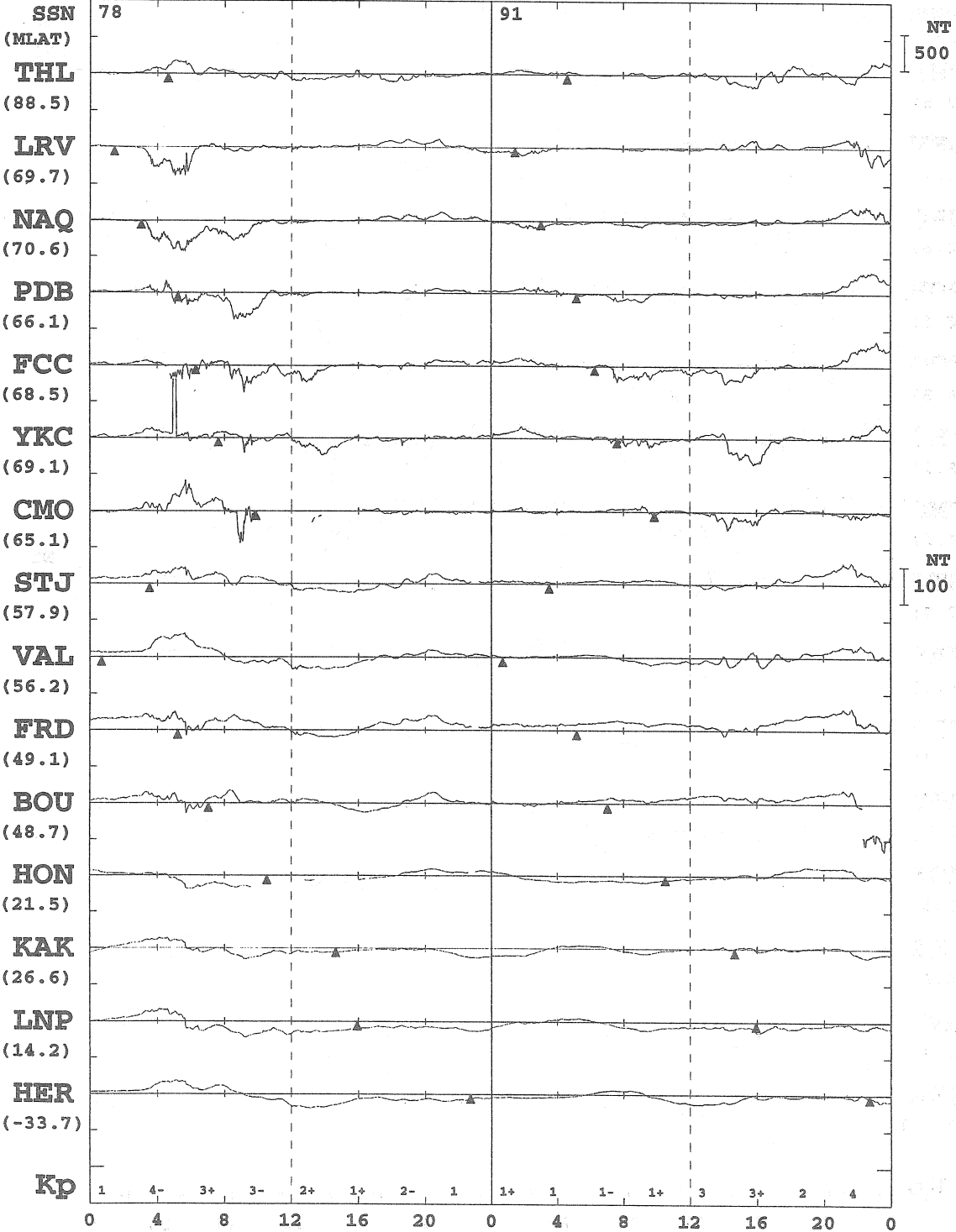
JUL 19
(DAY 200)

JUL 20
(DAY 201)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

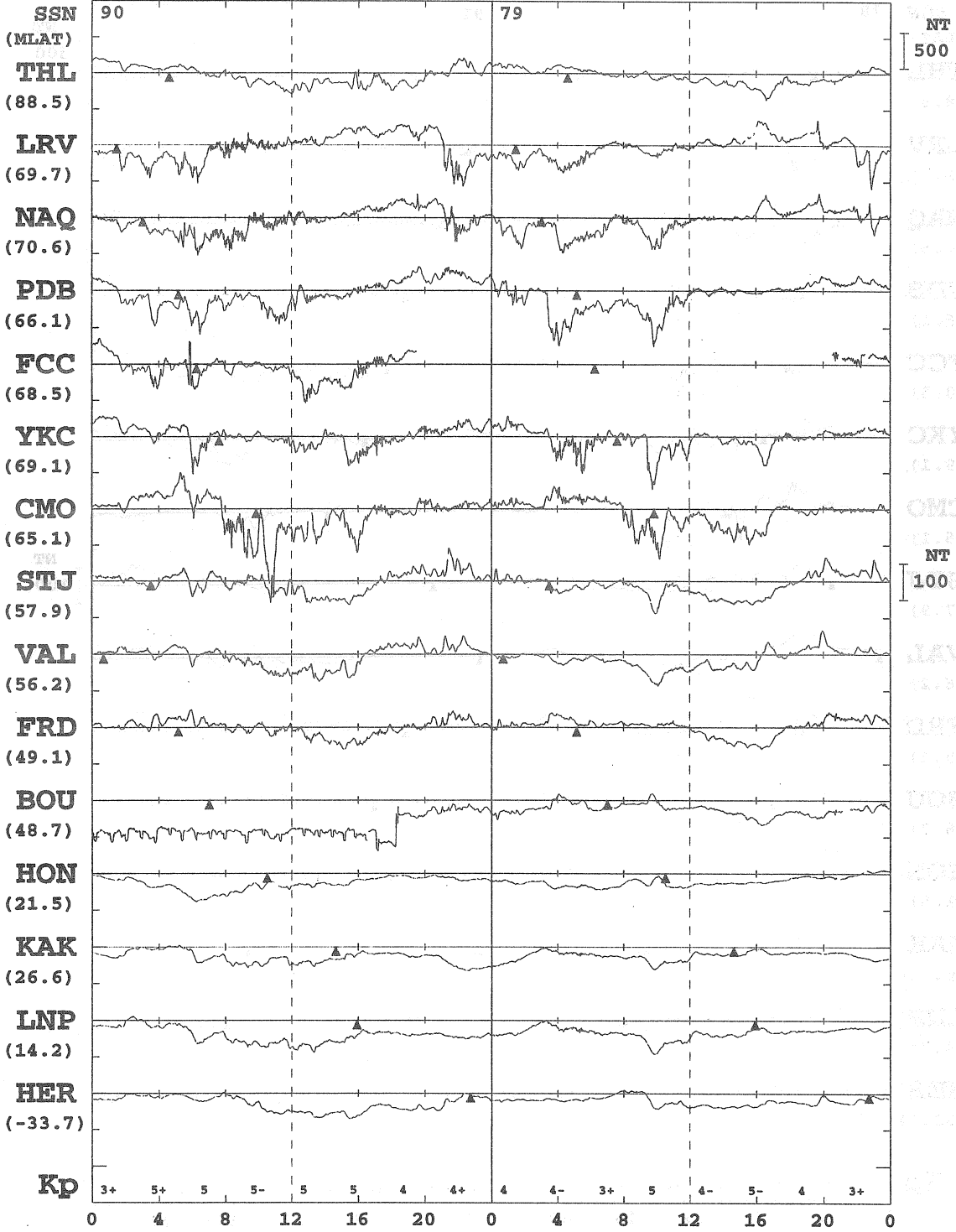
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1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

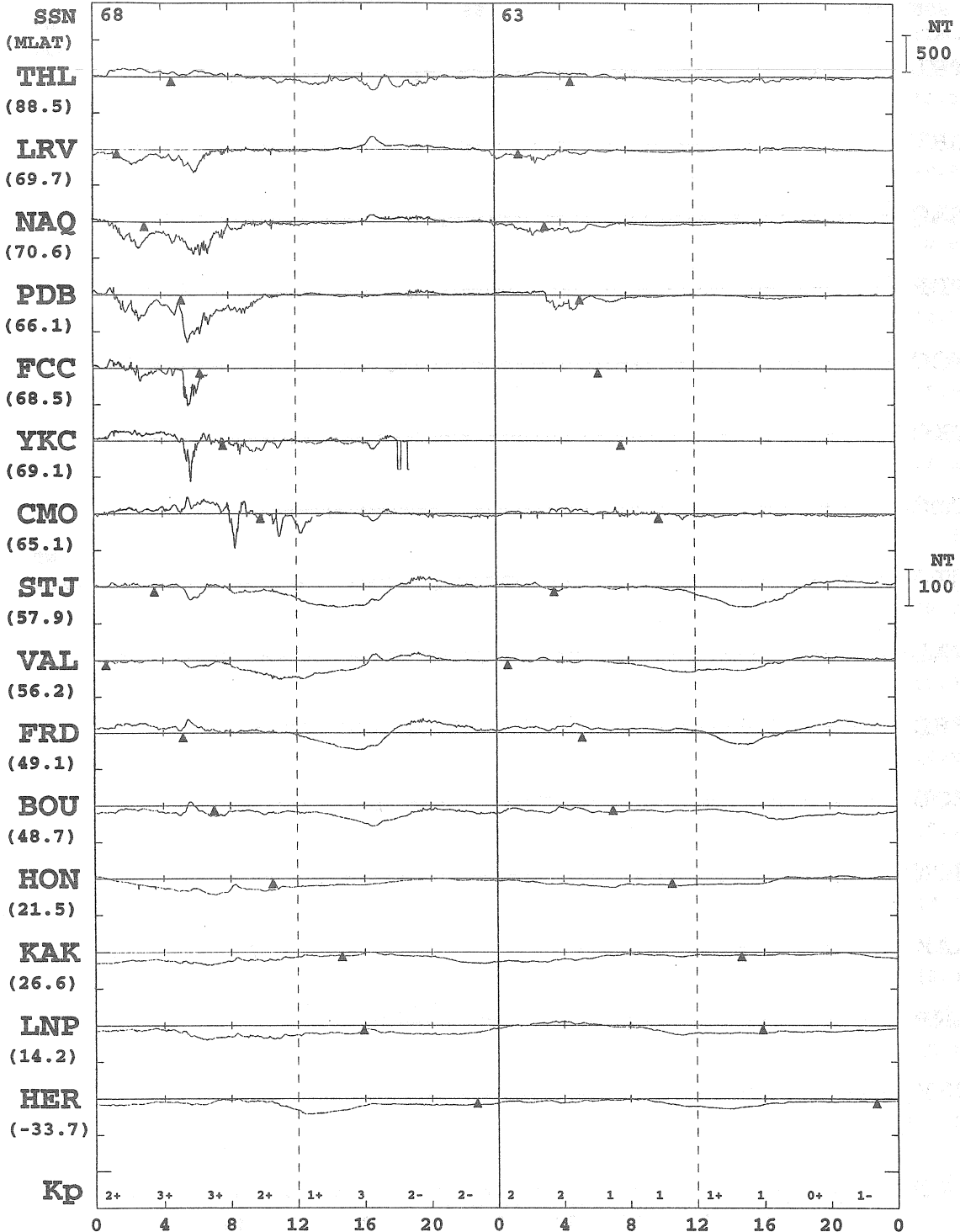
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
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KYOTO UNIV.

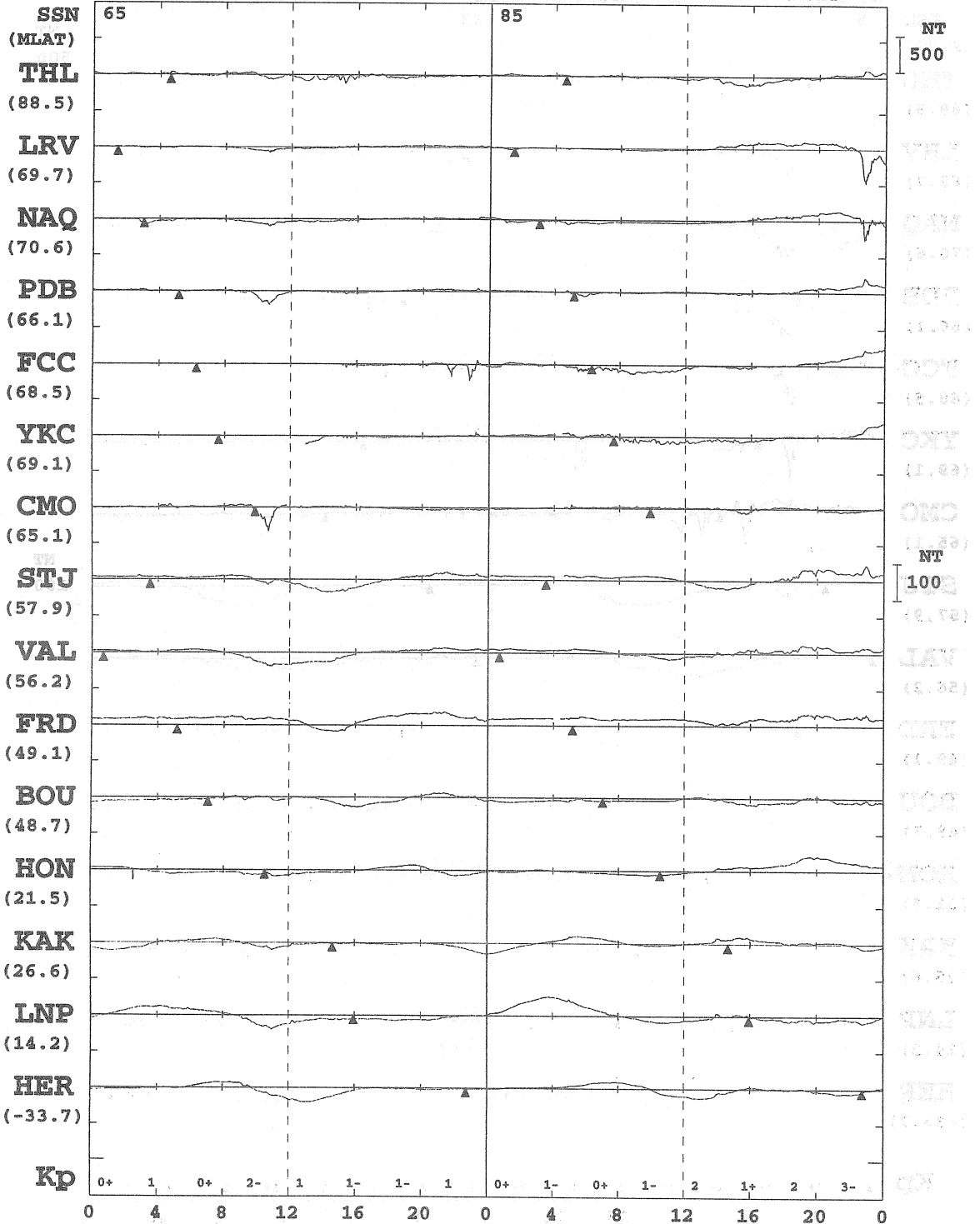
1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
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1998 H OR X-COMPONENT MONTHLY MEAN Δ : LOCAL MIDNIGHT

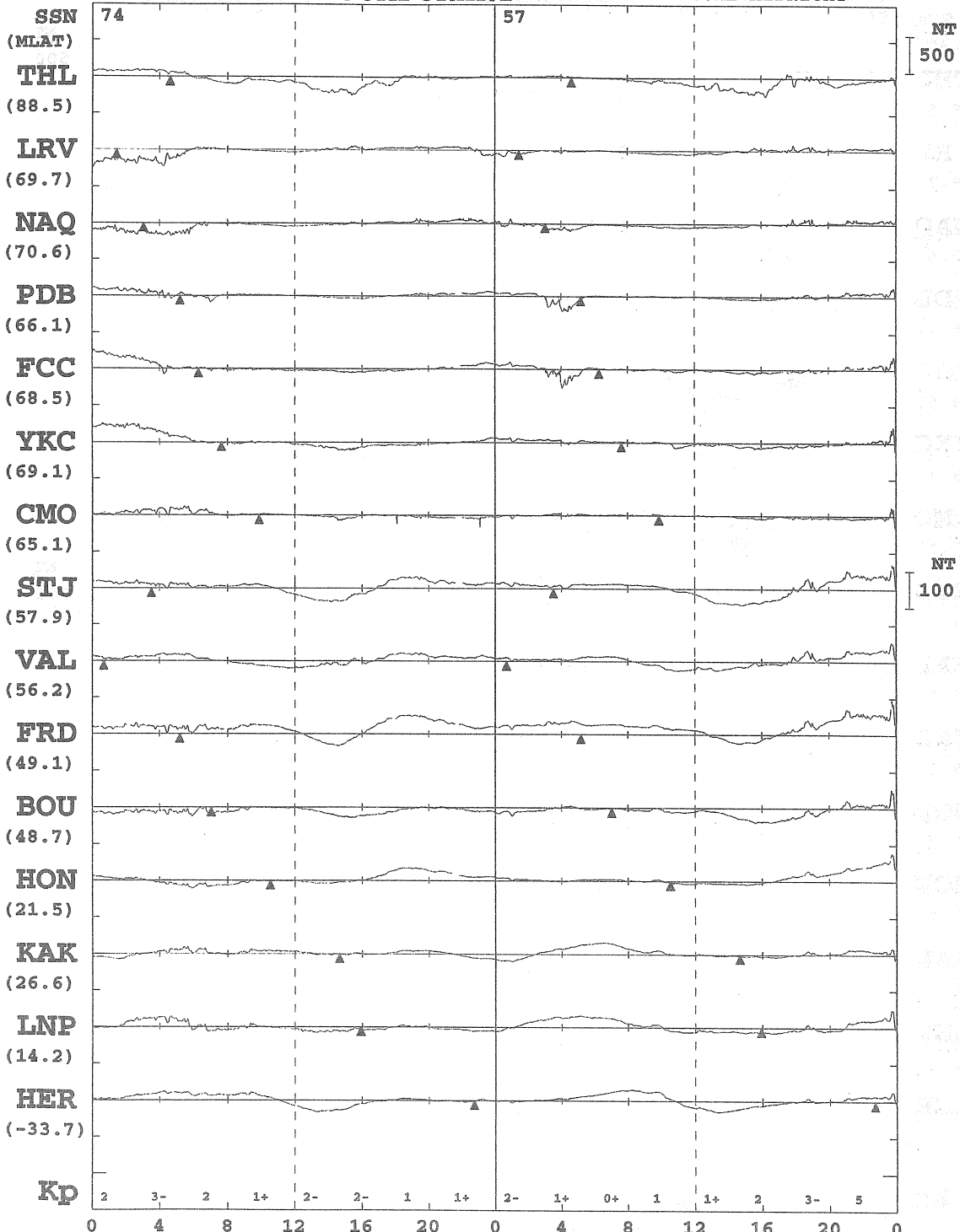


JUL 27
(DAY 208)

JUL 28
(DAY 209)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

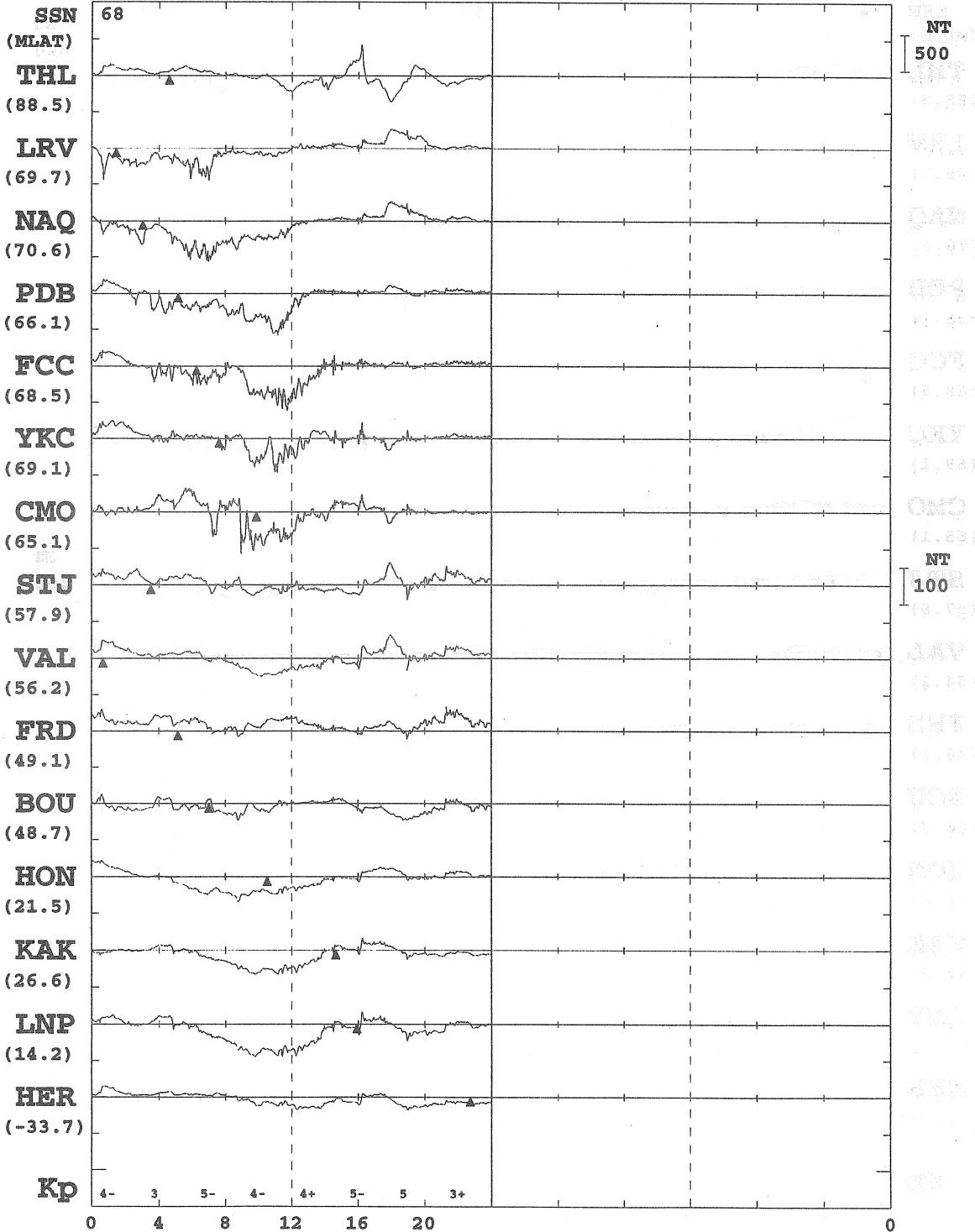
1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT LOCAL MIDNIGHT

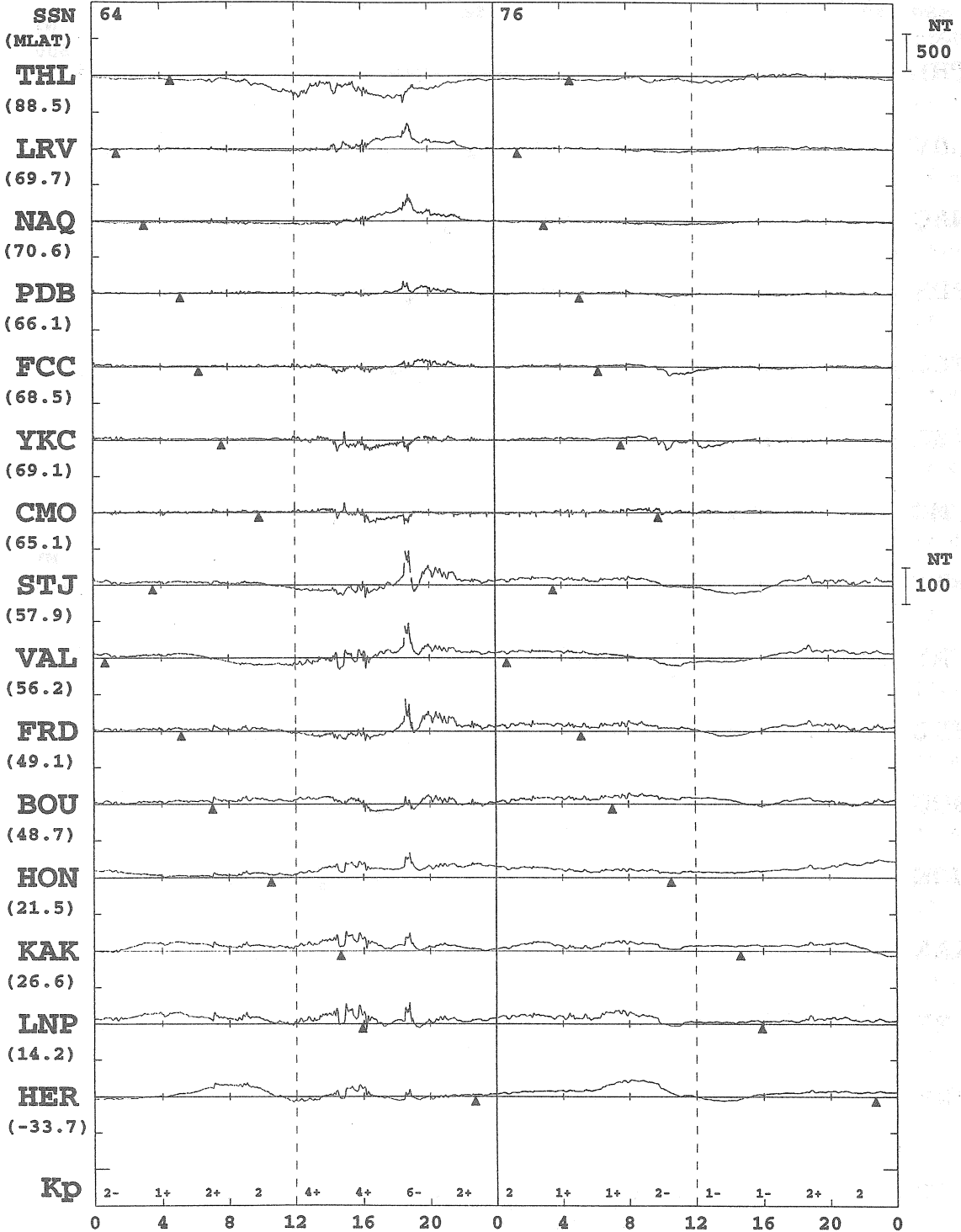


JUL 31
 (DAY 212)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



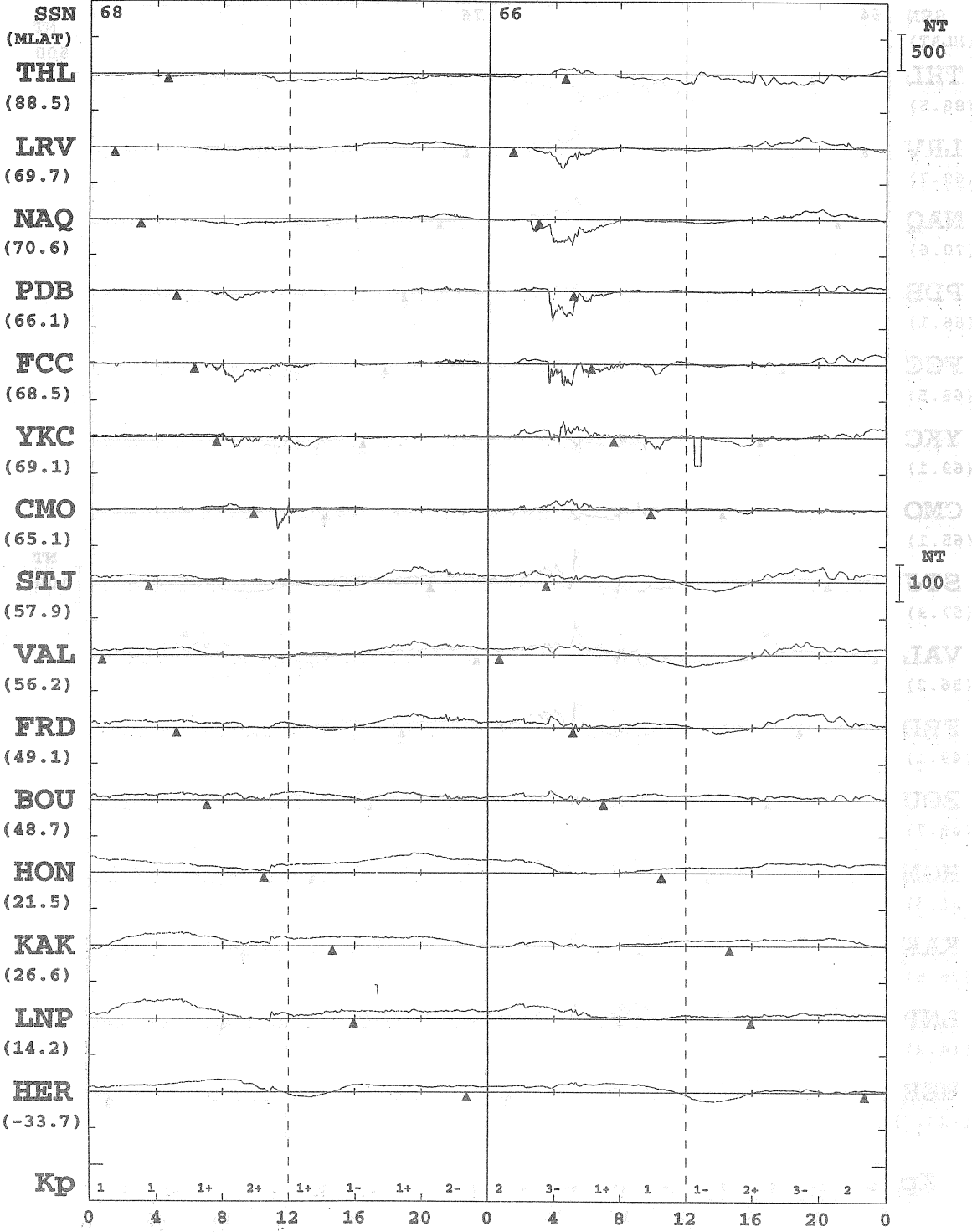
AUG 1
(DAY 213)

AUG 2
(DAY 214)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT LOCAL MIDNIGHT



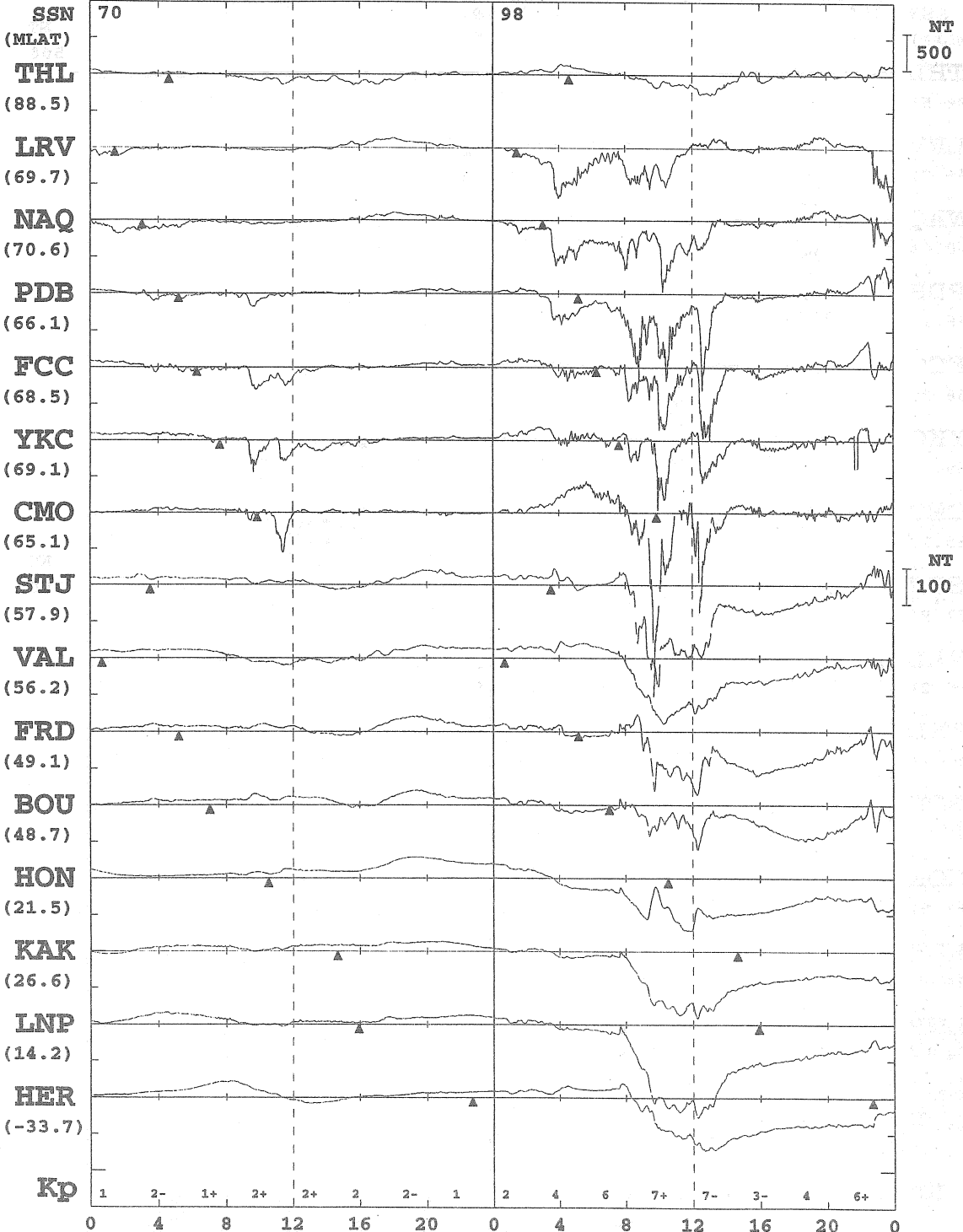
AUG 3
(DAY 215)

AUG 4
(DAY 216)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



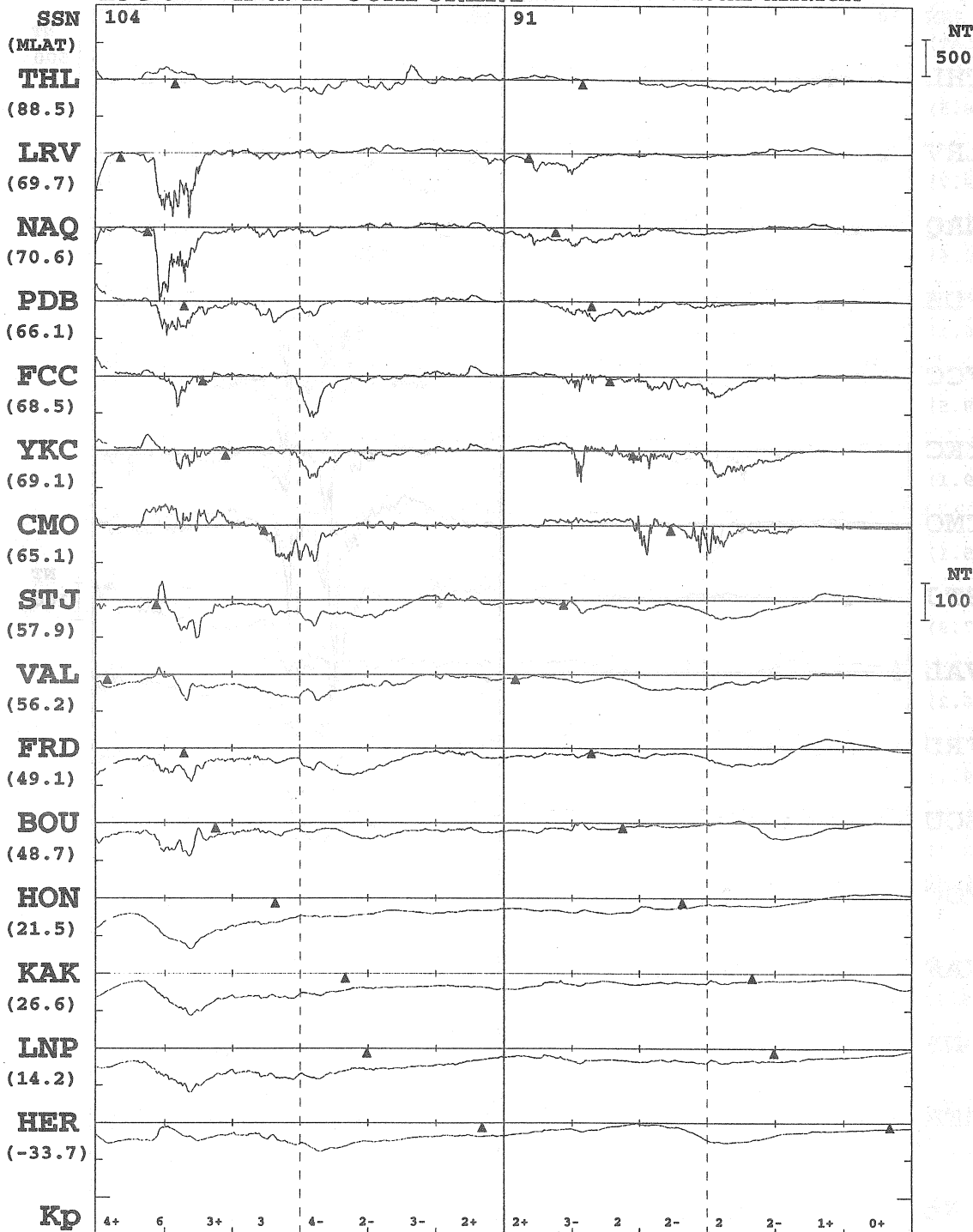
AUG 5
(DAY 217)
AUG 6
(DAY 218)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



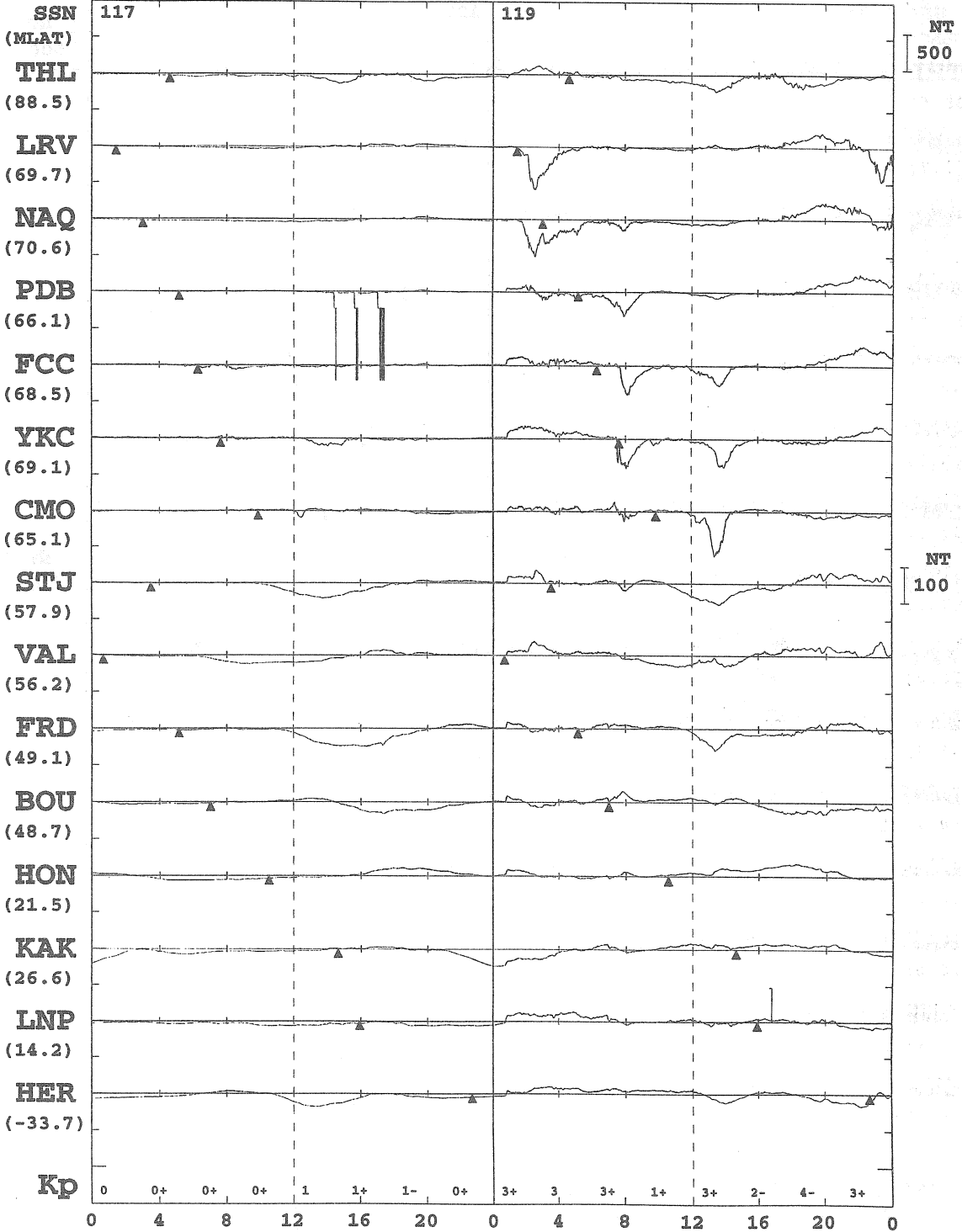
AUG 7
(DAY 219)

AUG 8
(DAY 220)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
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1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



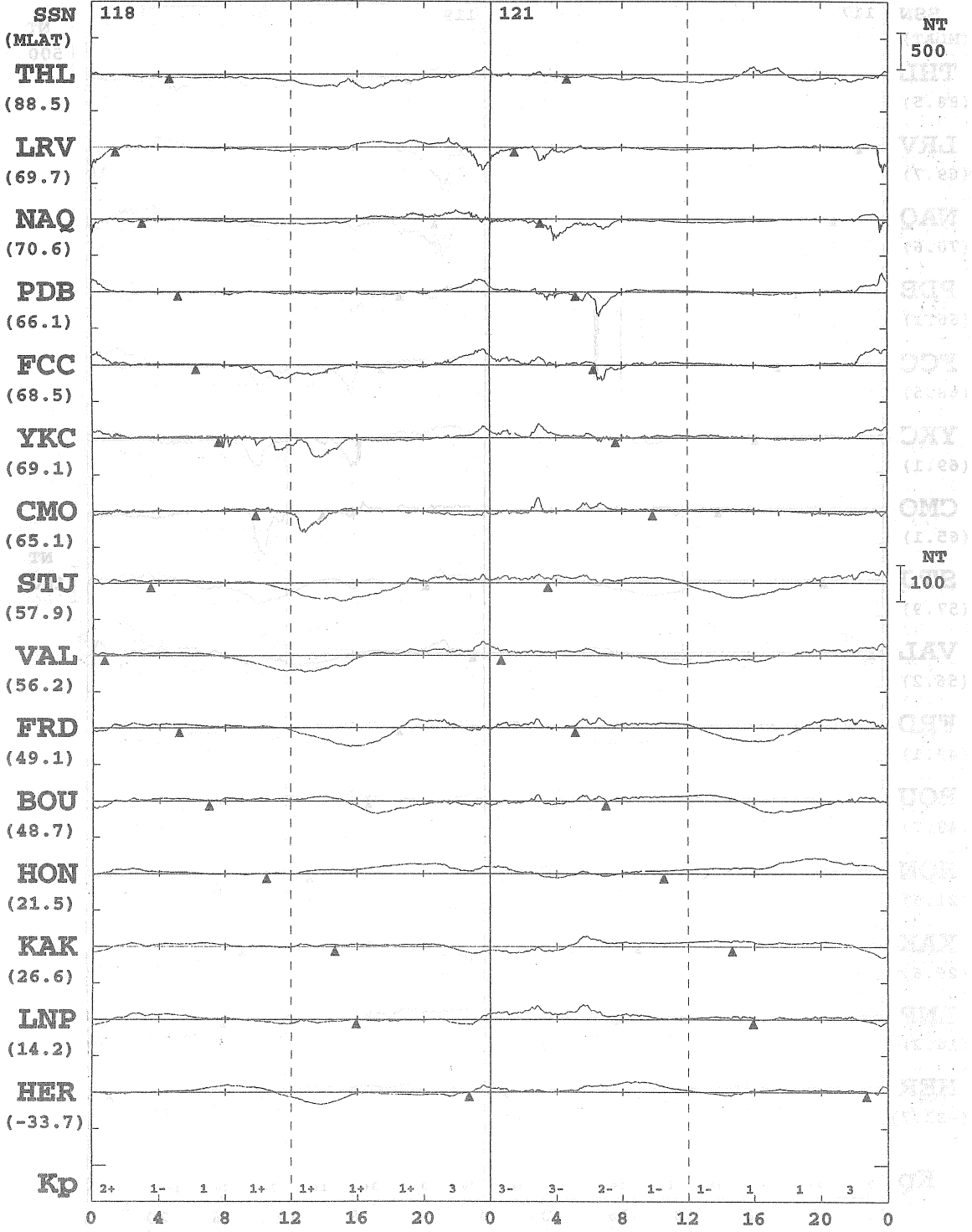
AUG 9
(DAY 221)

AUG 10
(DAY 222)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT LOCAL MIDNIGHT

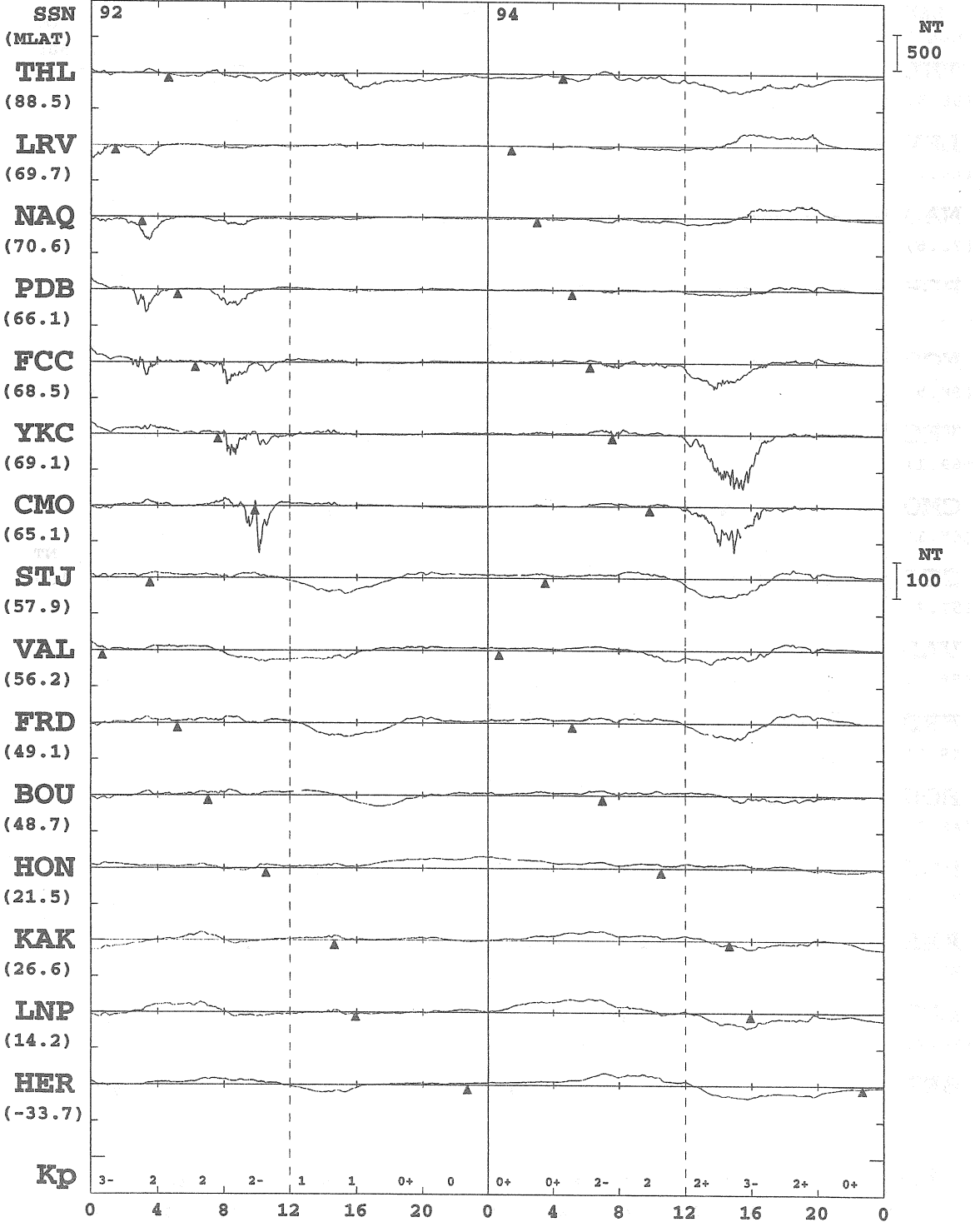


AUG 11
(DAY 223)

AUG 12
(DAY 224)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT

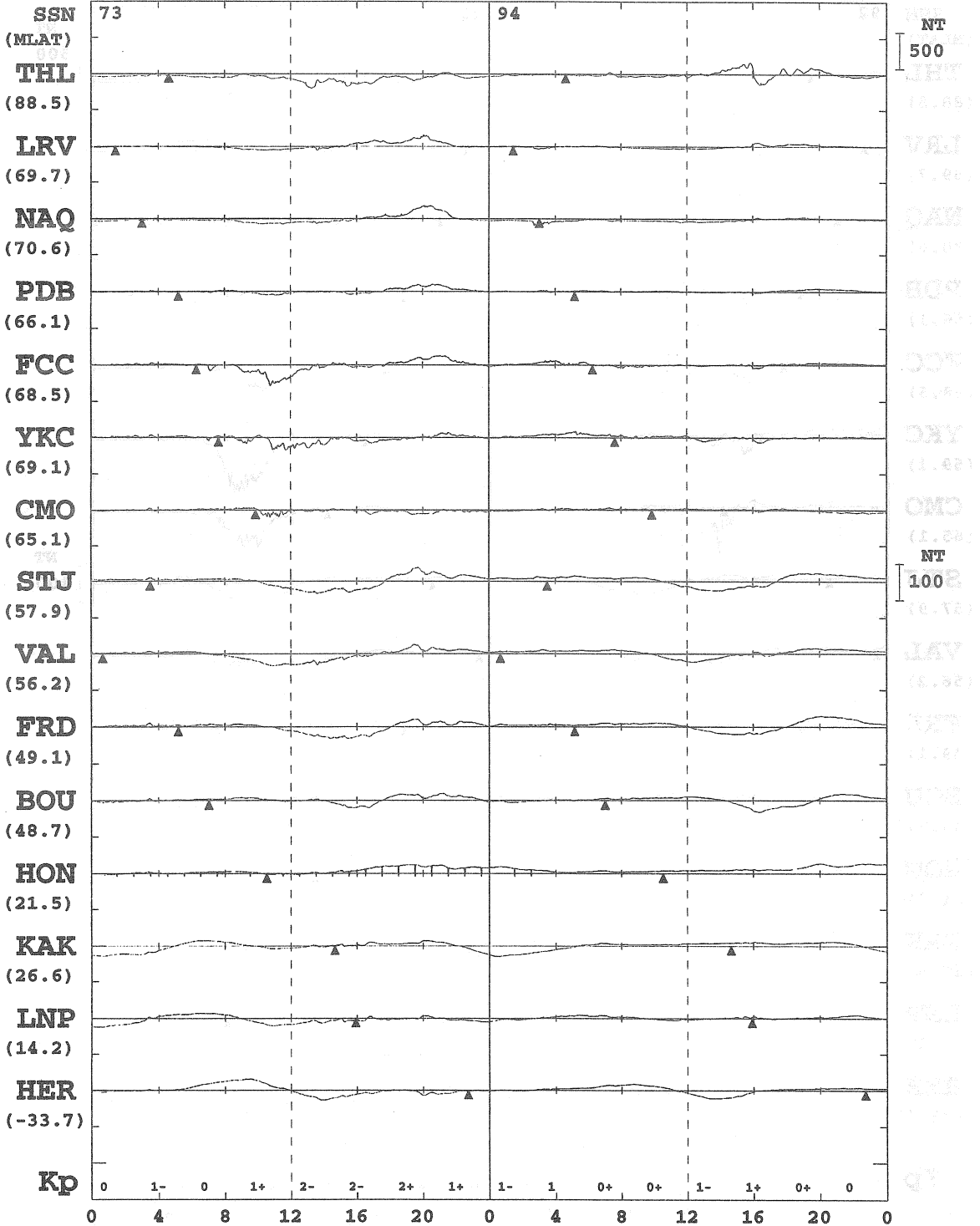


AUG 13
(DAY 225)

AUG 14
(DAY 226)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
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 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

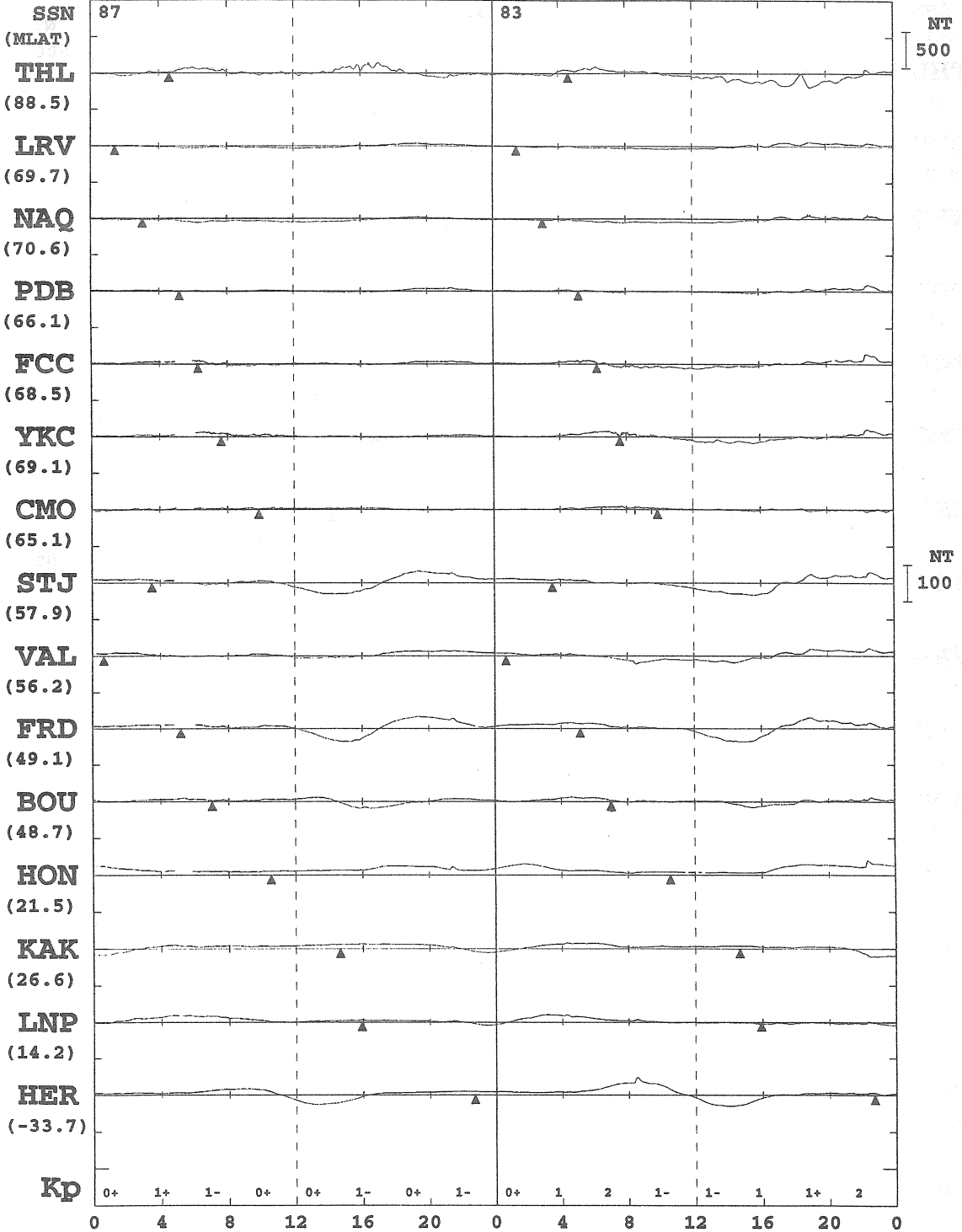
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
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KYOTO UNIV.

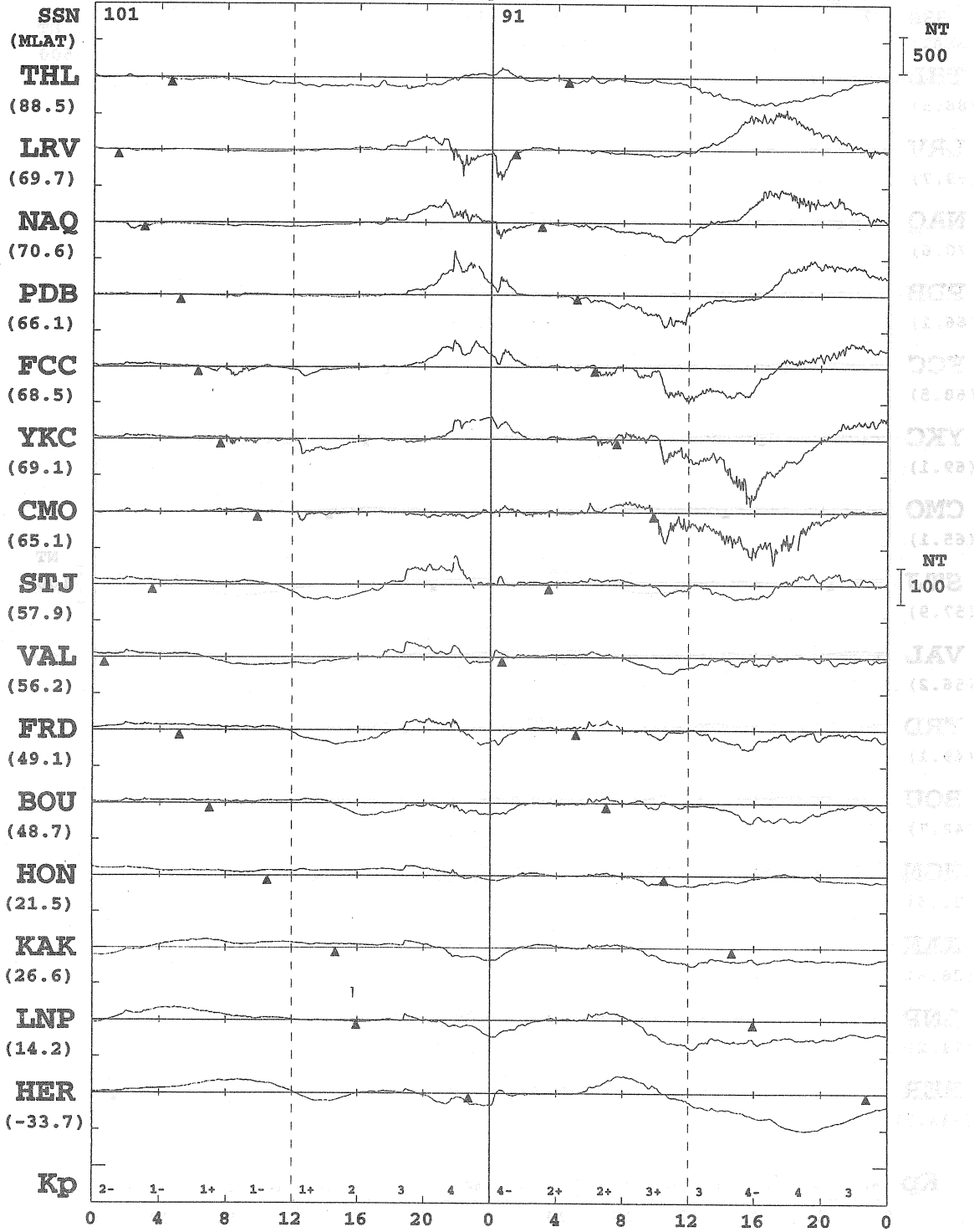
1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

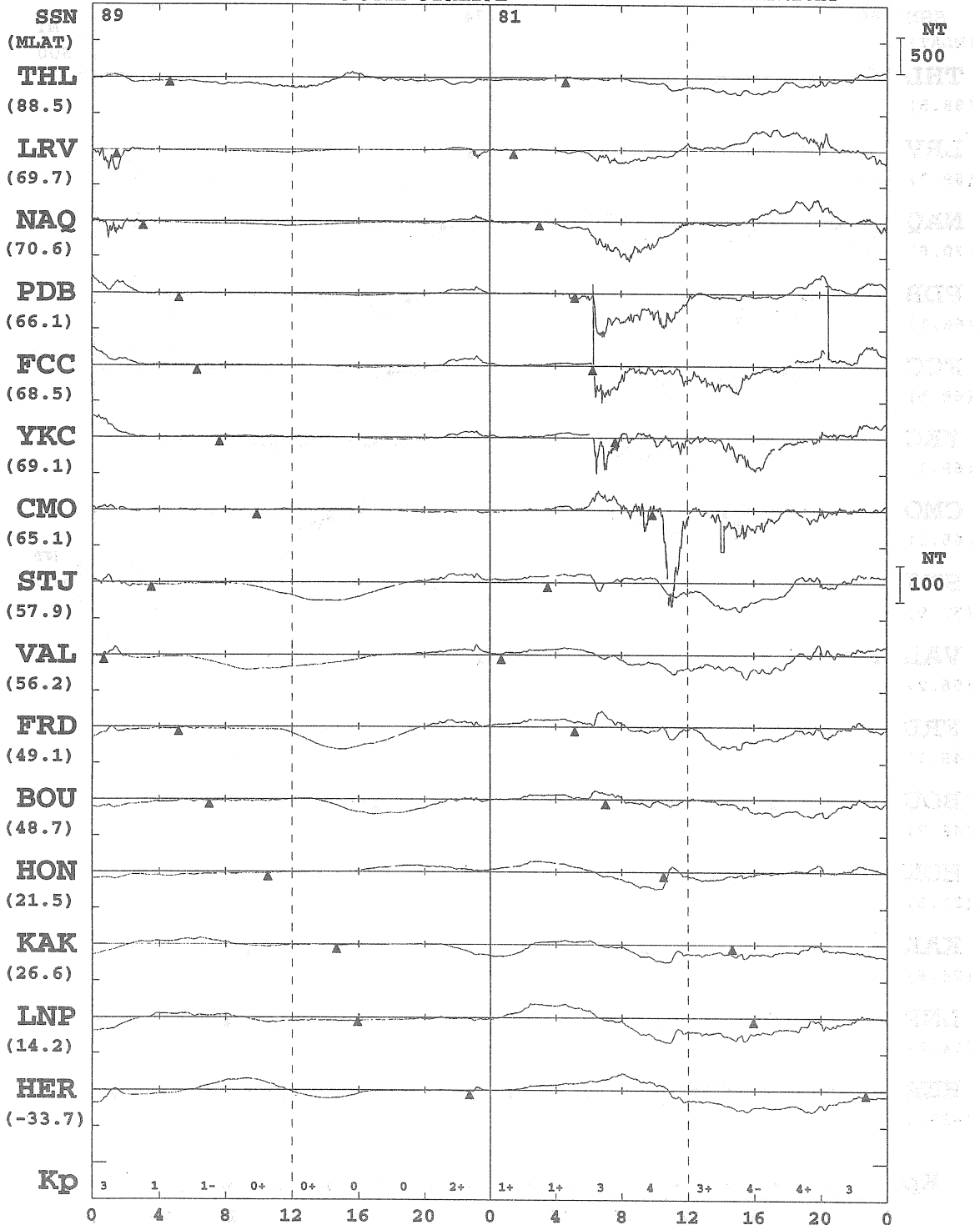
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
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KYOTO UNIV.

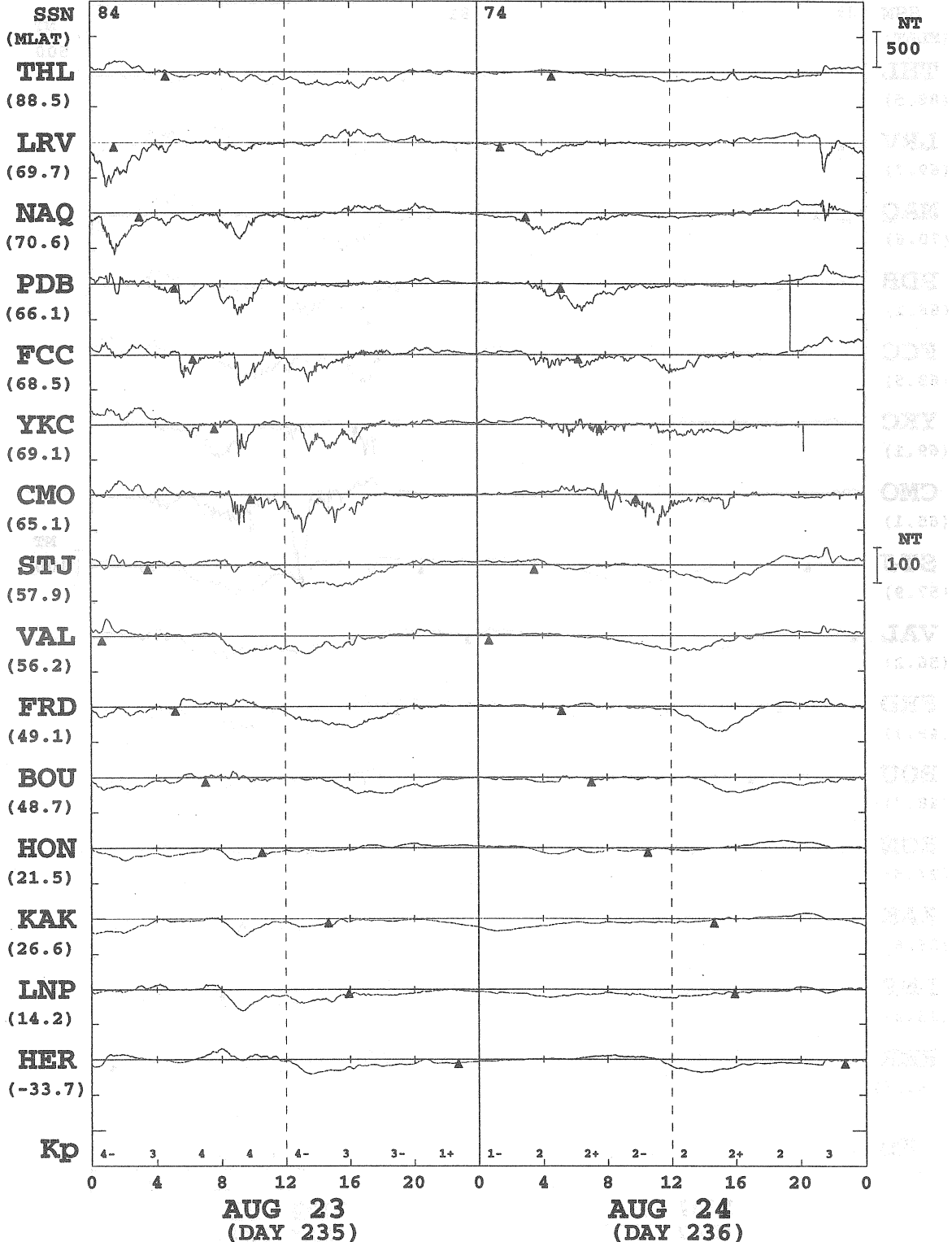
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
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KYOTO UNIV.

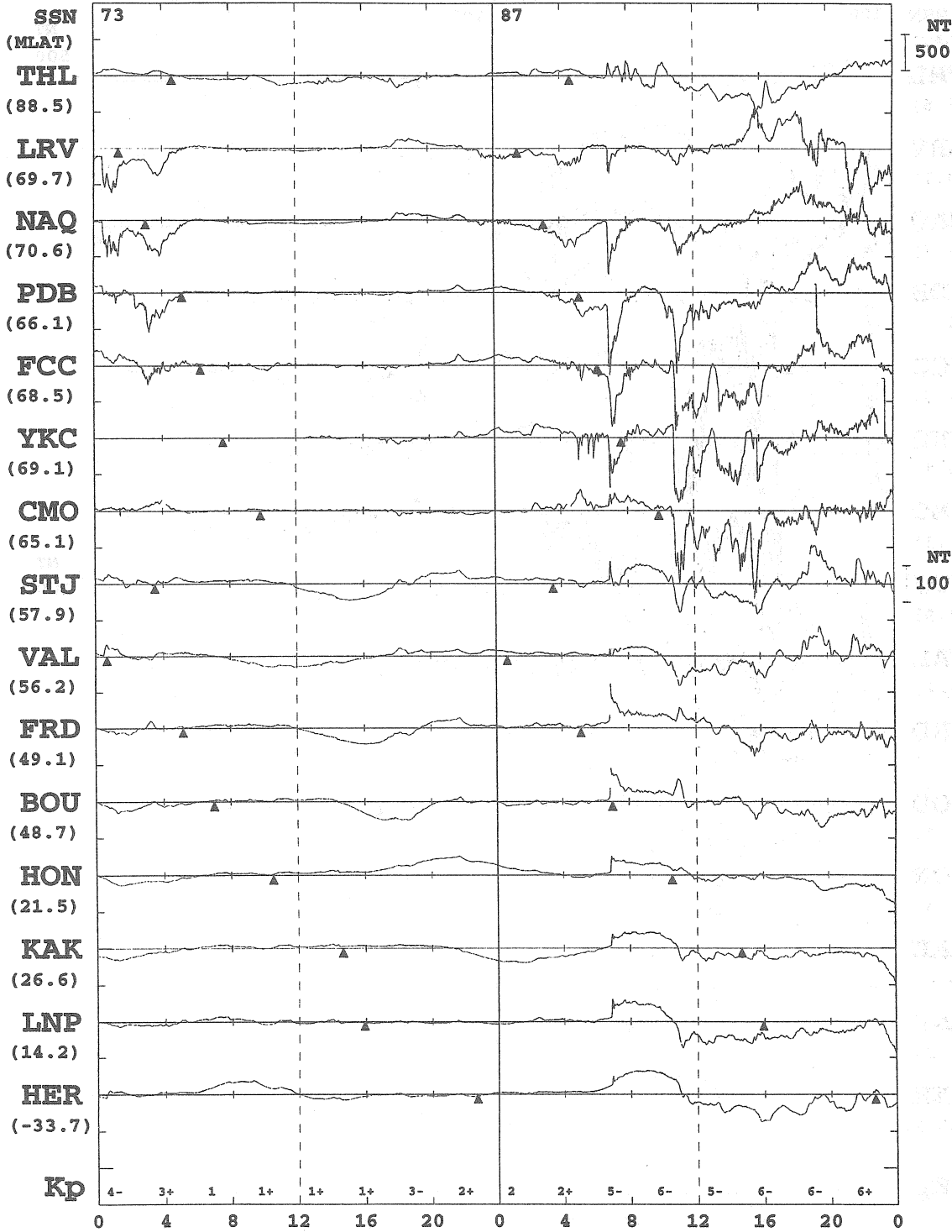
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
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KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



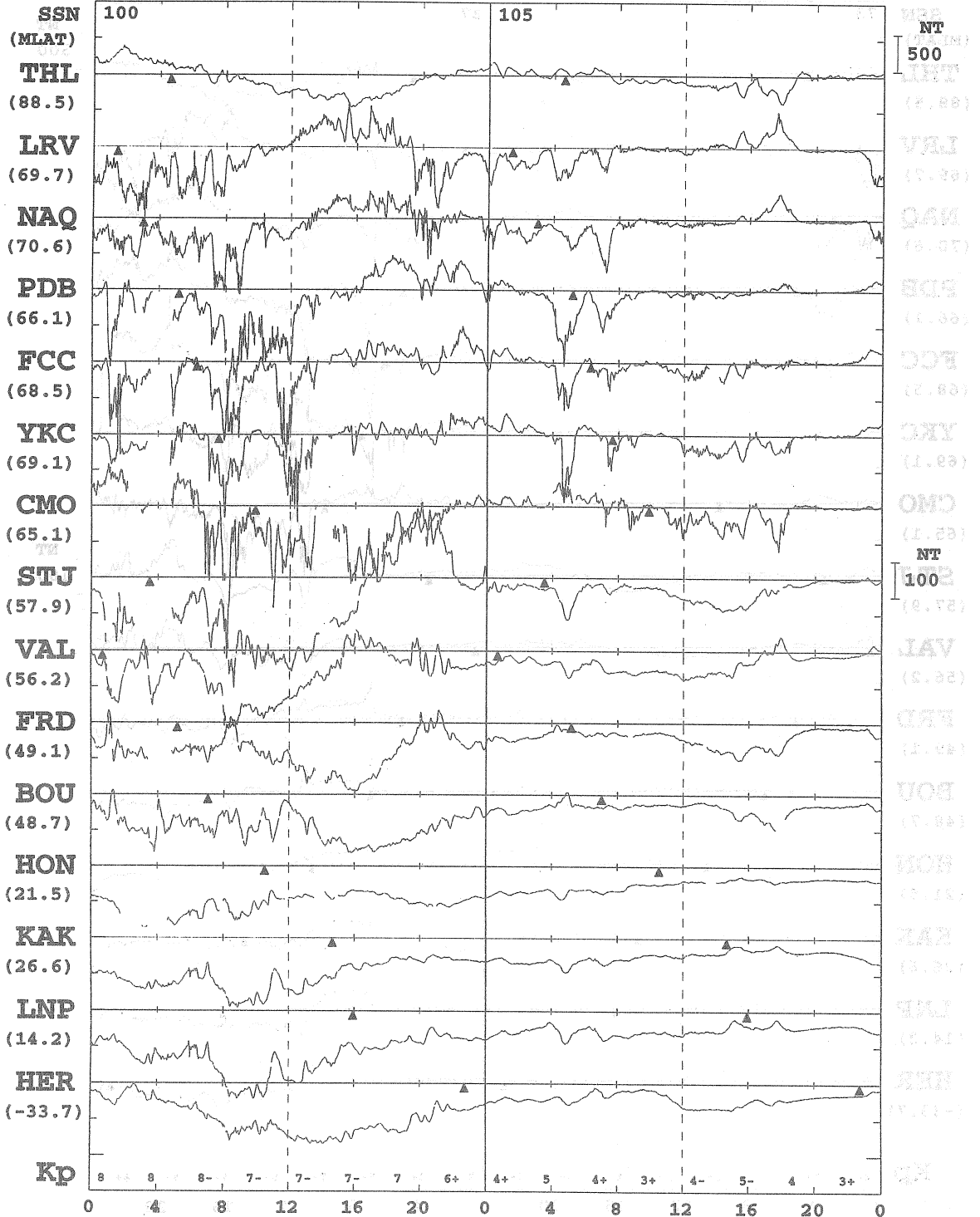
AUG 25
(DAY 237)

AUG 26
(DAY 238)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

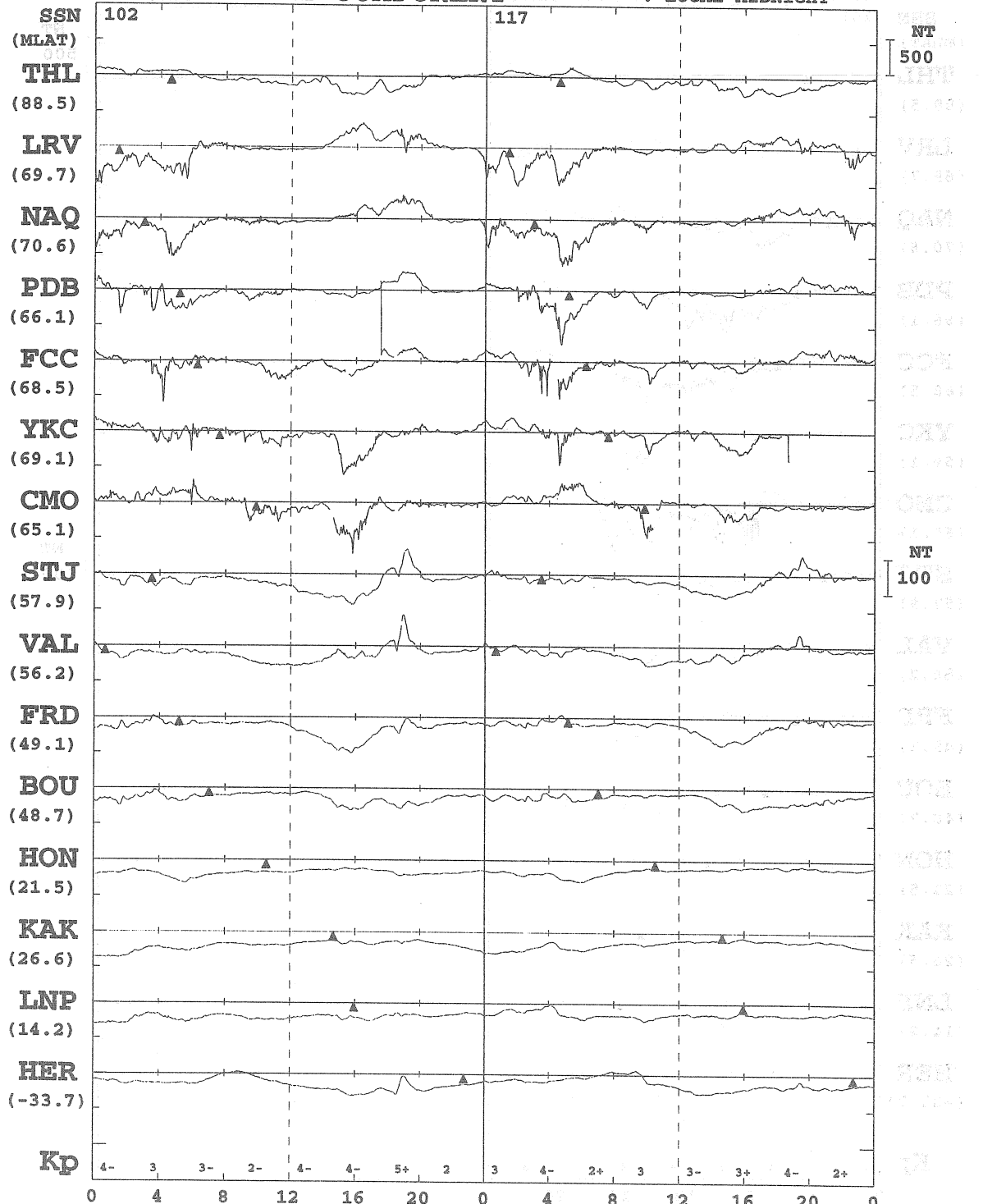
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
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1998 H OR X-COMPONENT



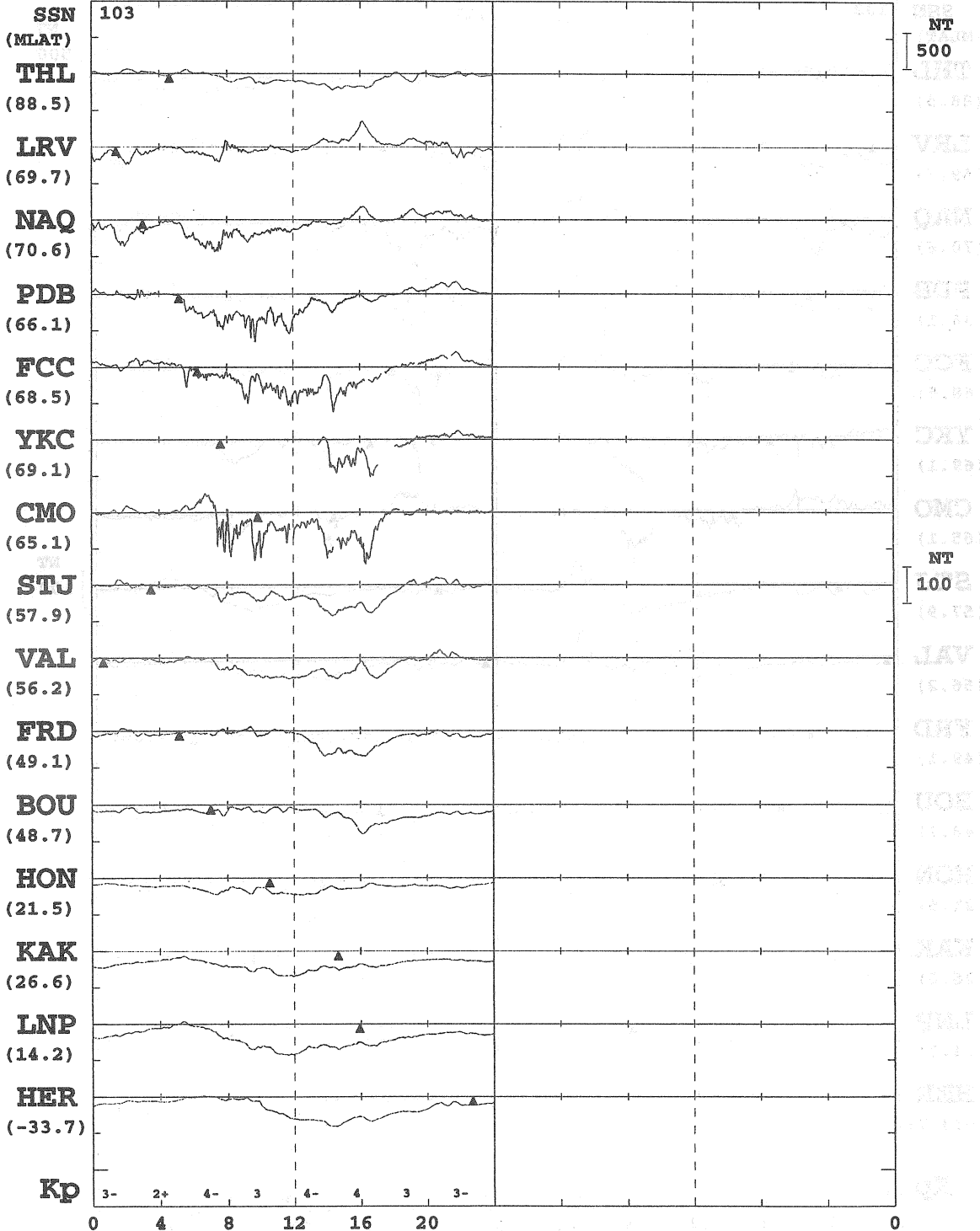
AUG 29
(DAY 241)

AUG 30
(DAY 242)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT

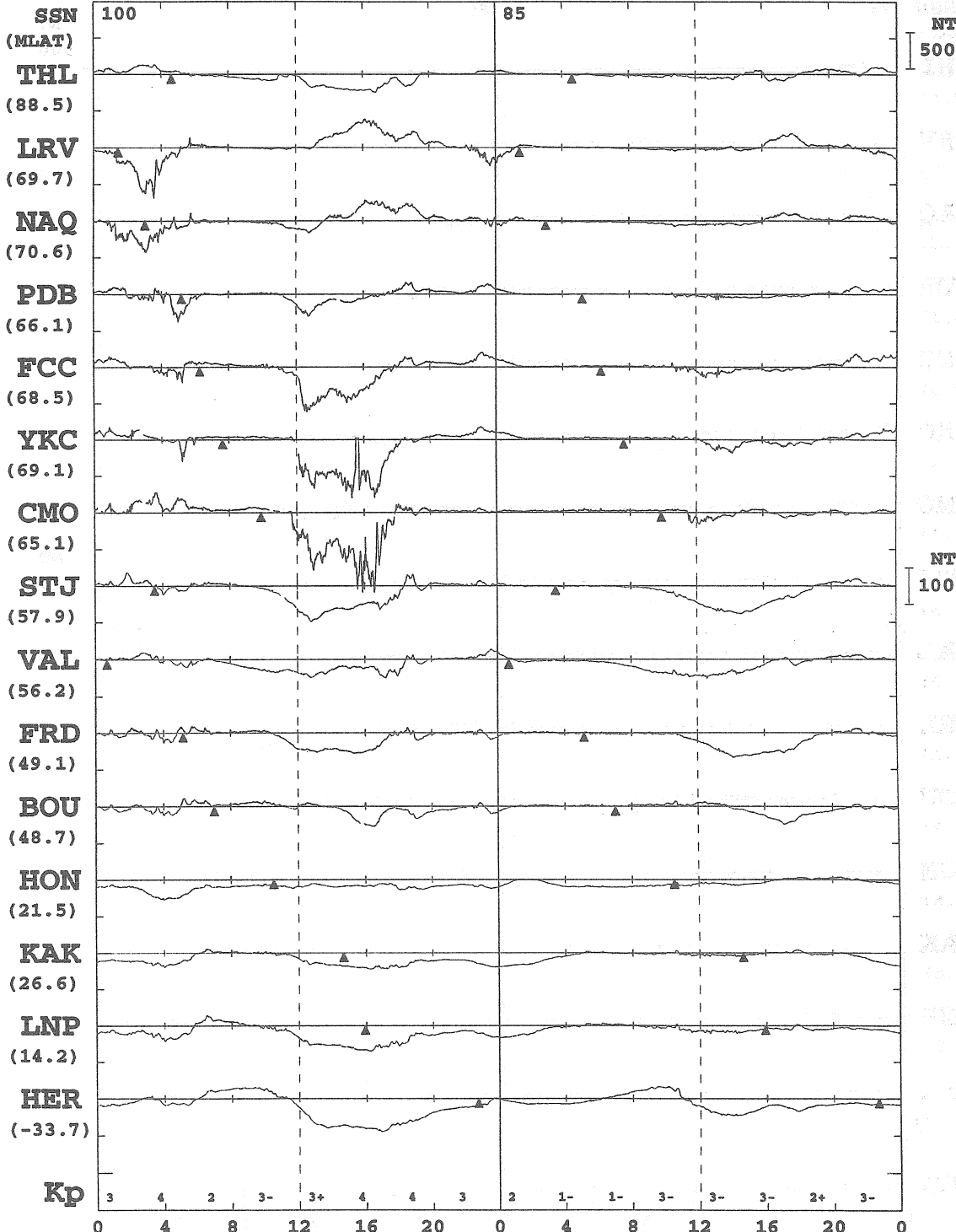


AUG 31
(DAY 243)

- * MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
- * PROMPT DATA ARE INCLUDED
- * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



SEP 1
(DAY 244)

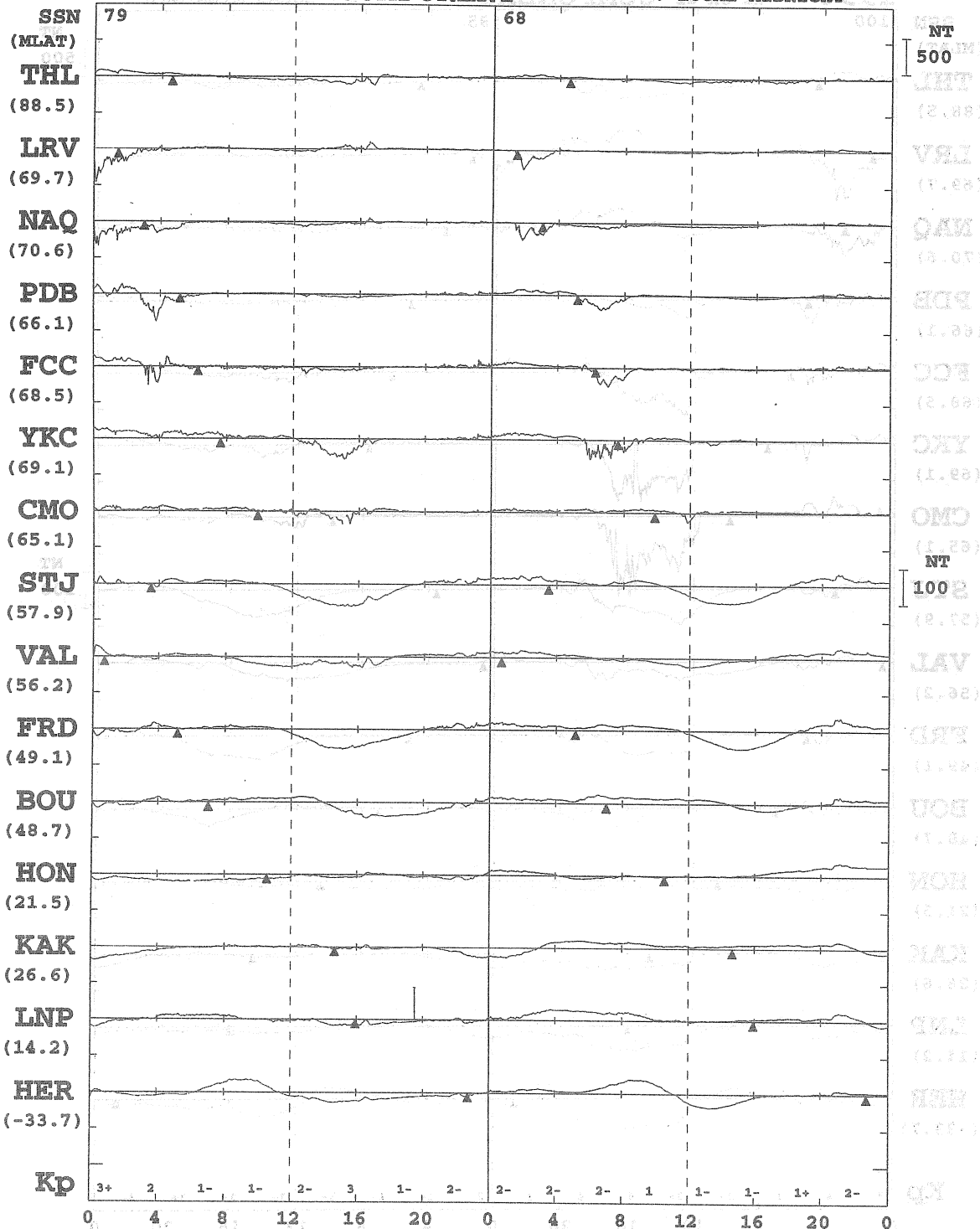
SEP 2
(DAY 245)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



SEP 3
(DAY 246)

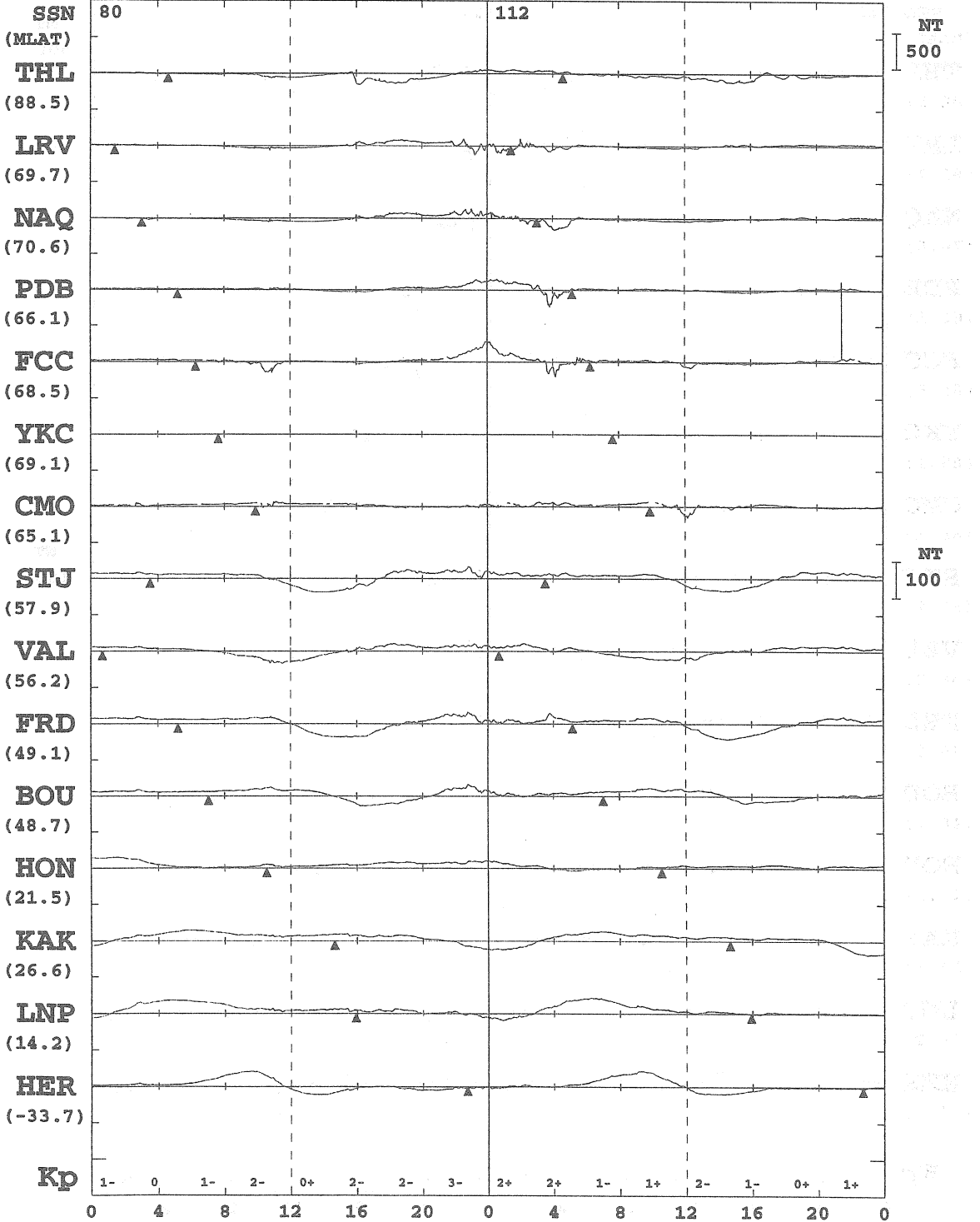
SEP 4
(DAY 247)

- * MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
- * PROMPT DATA ARE INCLUDED
- * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

△ : LOCAL MIDNIGHT



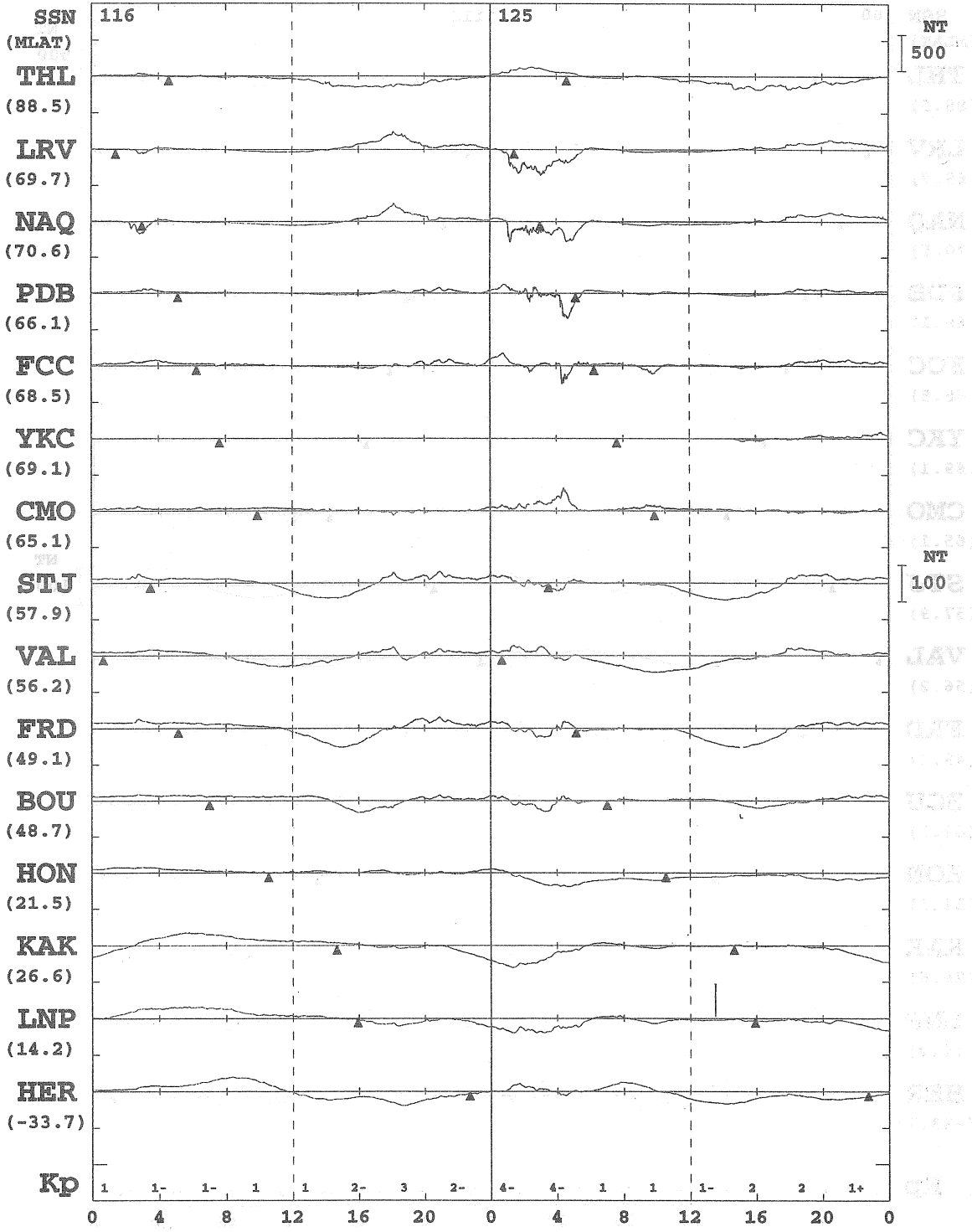
SEP 5
(DAY 248)

SEP 6
(DAY 249)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

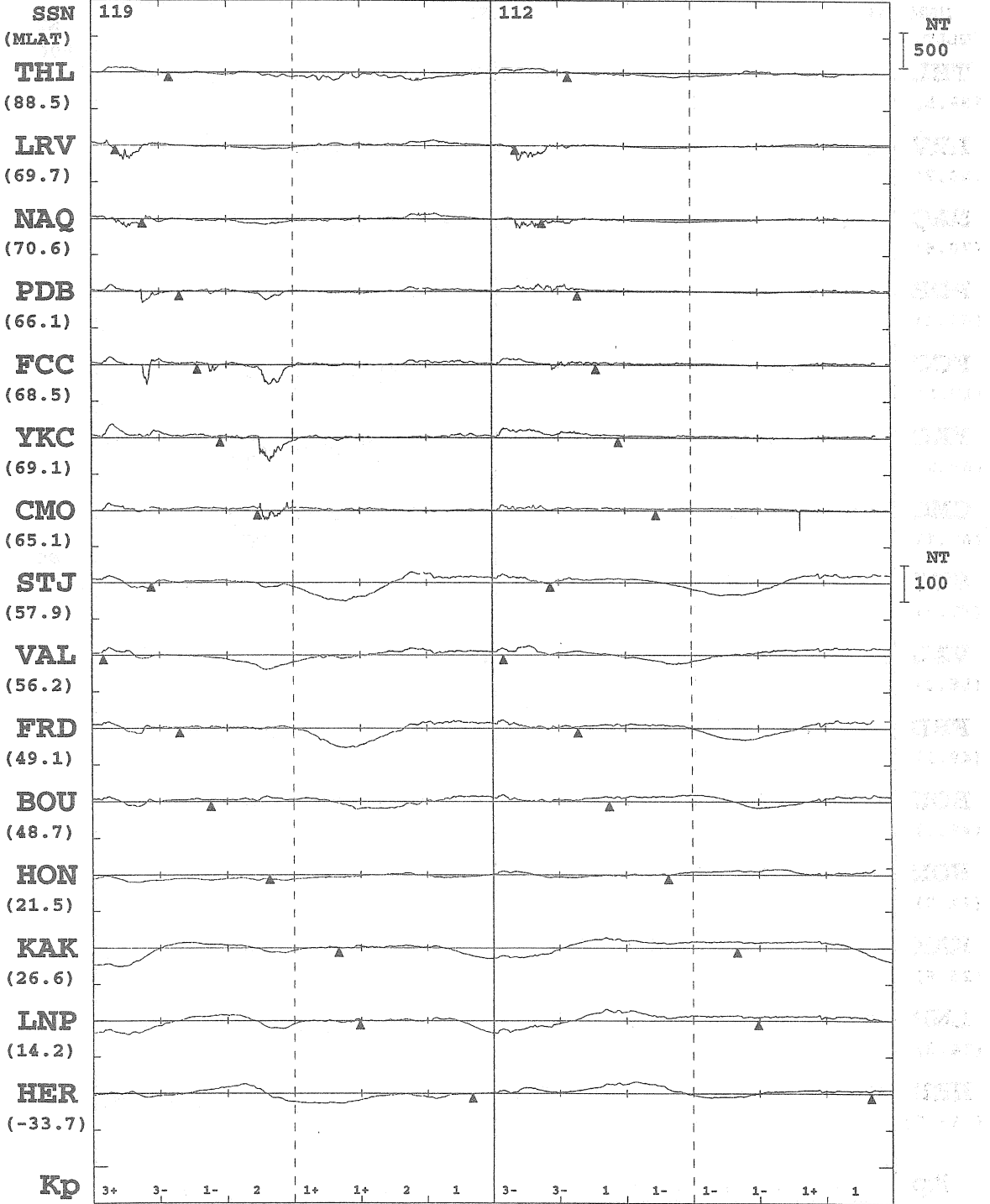
KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
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 KYOTO UNIV.

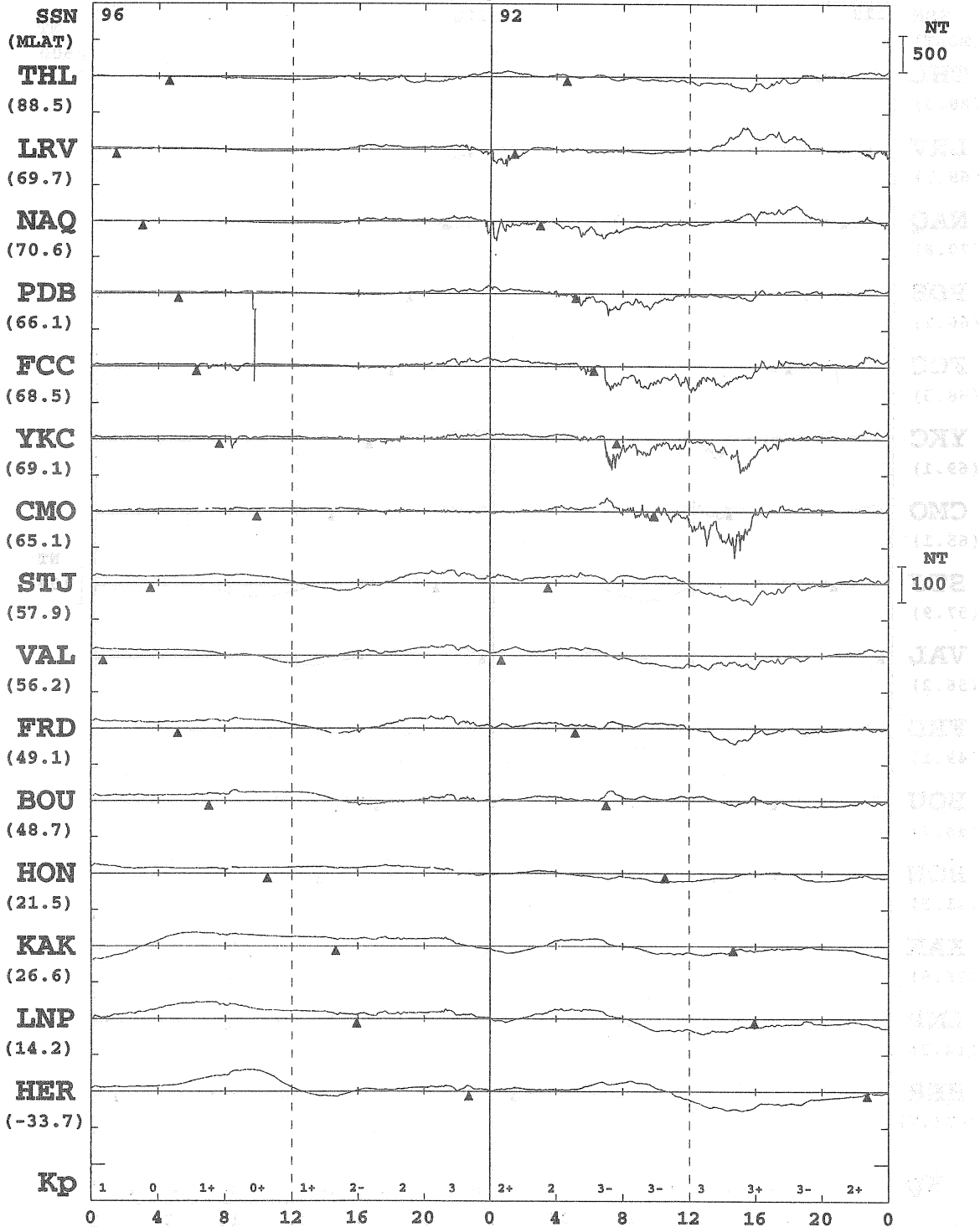
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

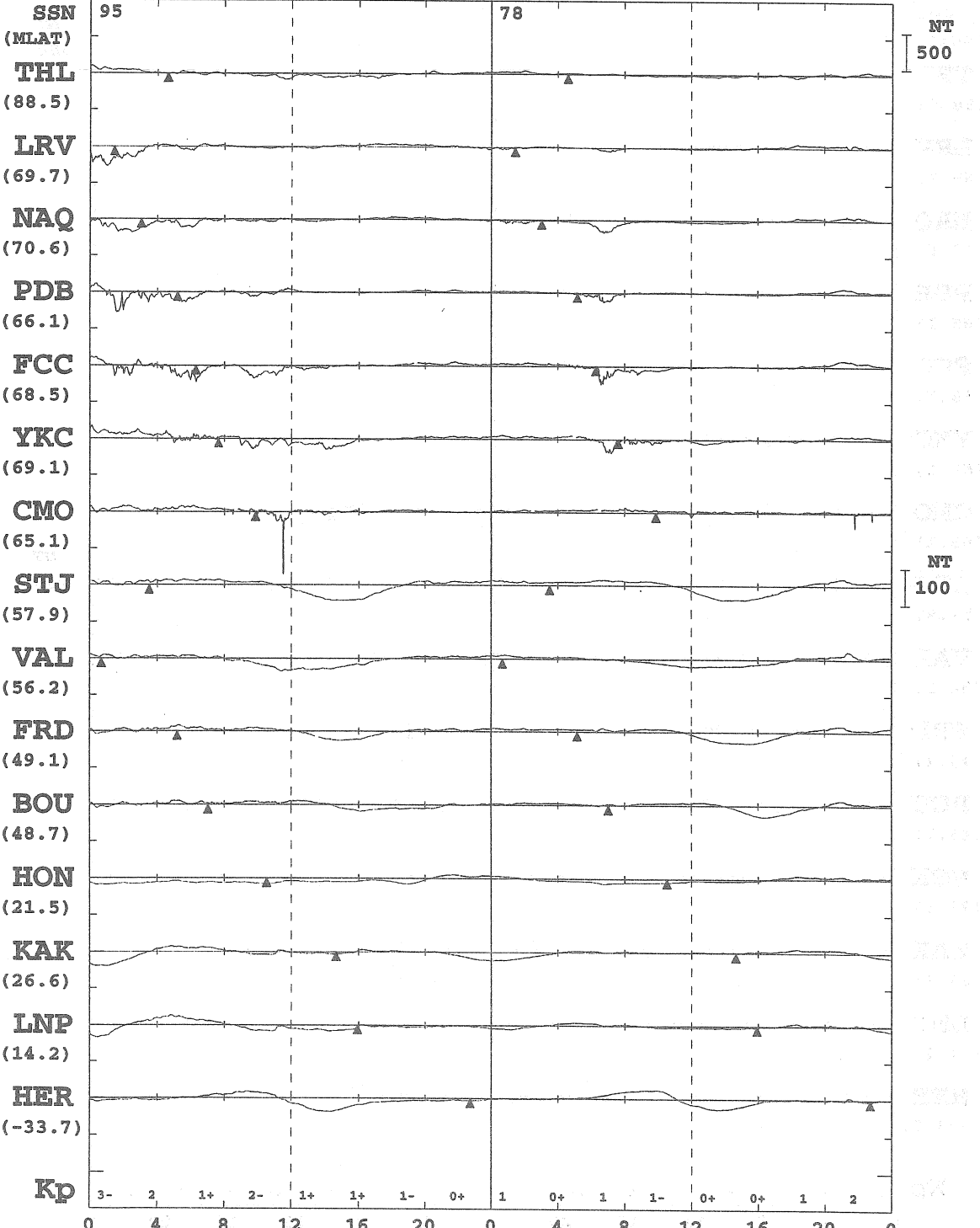
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



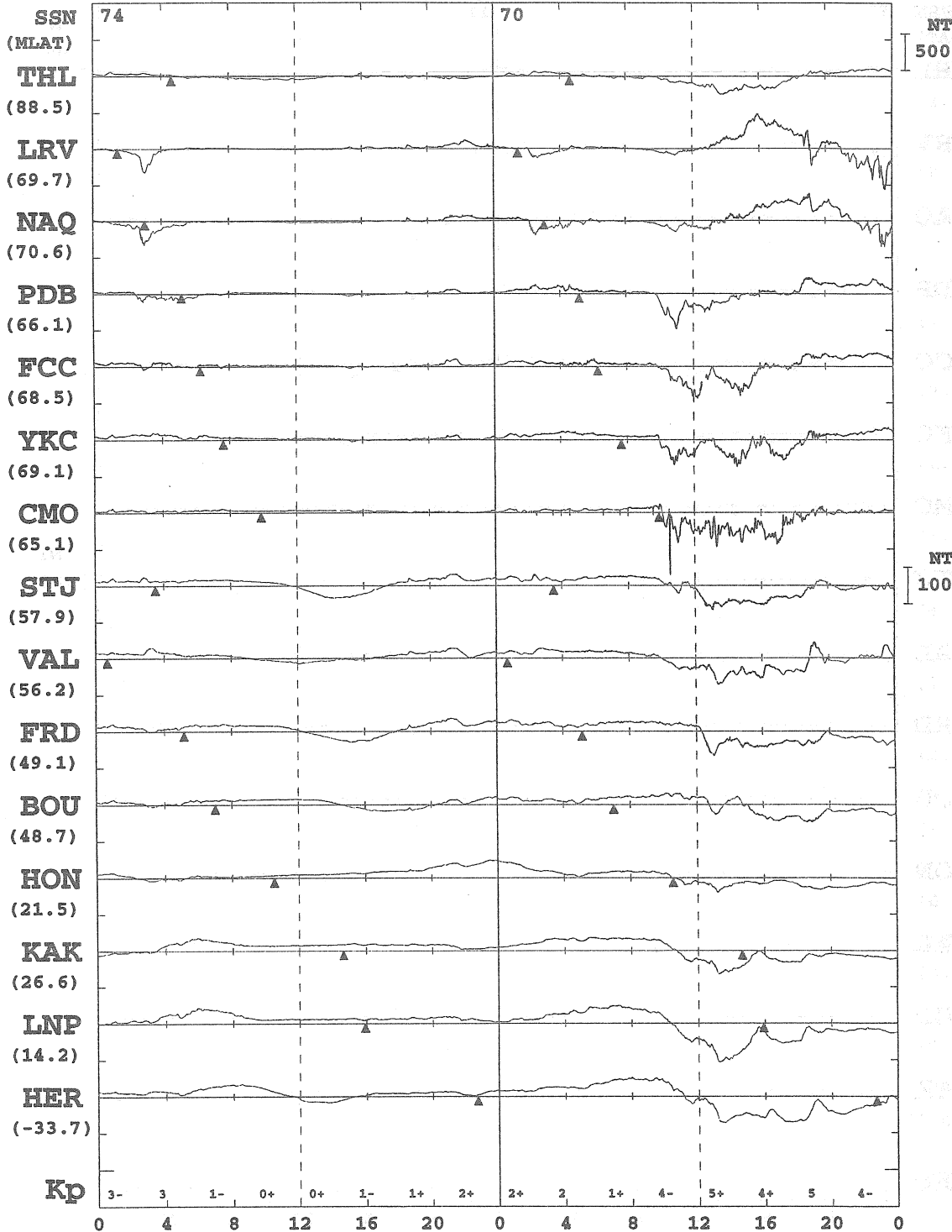
SEP 13
(DAY 256)

SEP 14
(DAY 257)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



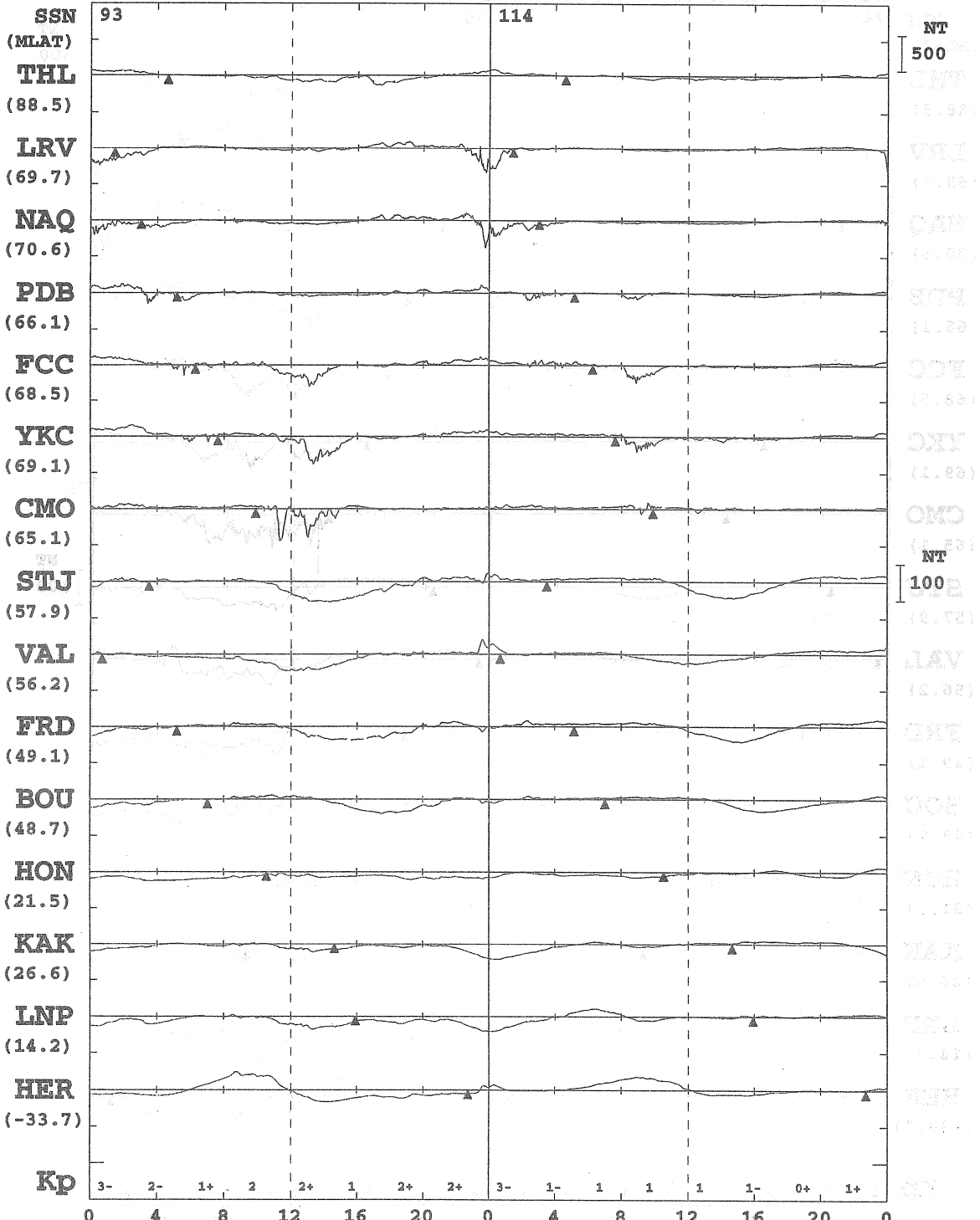
SEP 17
(DAY 260)

SEP 18
(DAY 261)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT



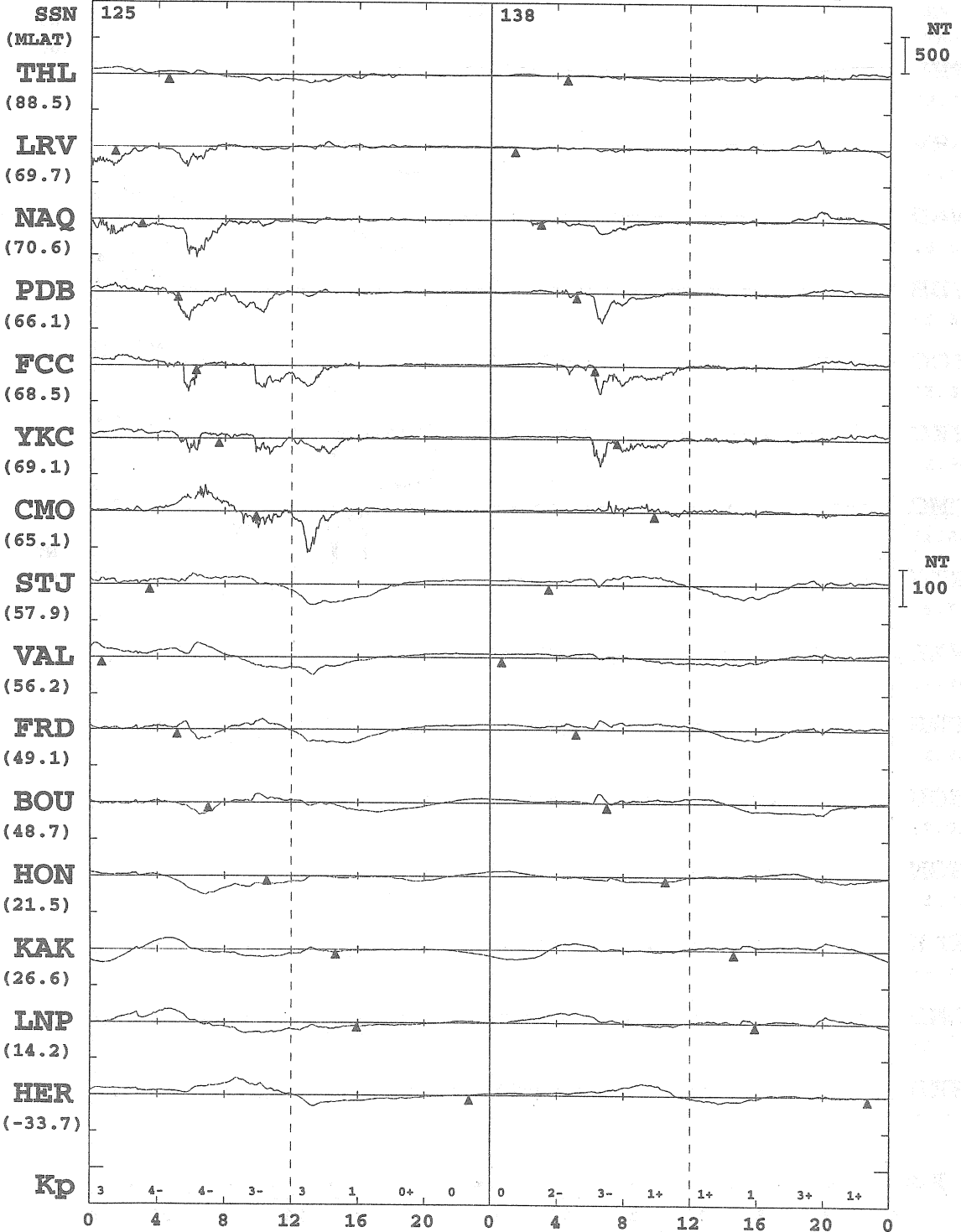
SEP 19
(DAY 262)

SEP 20
(DAY 263)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



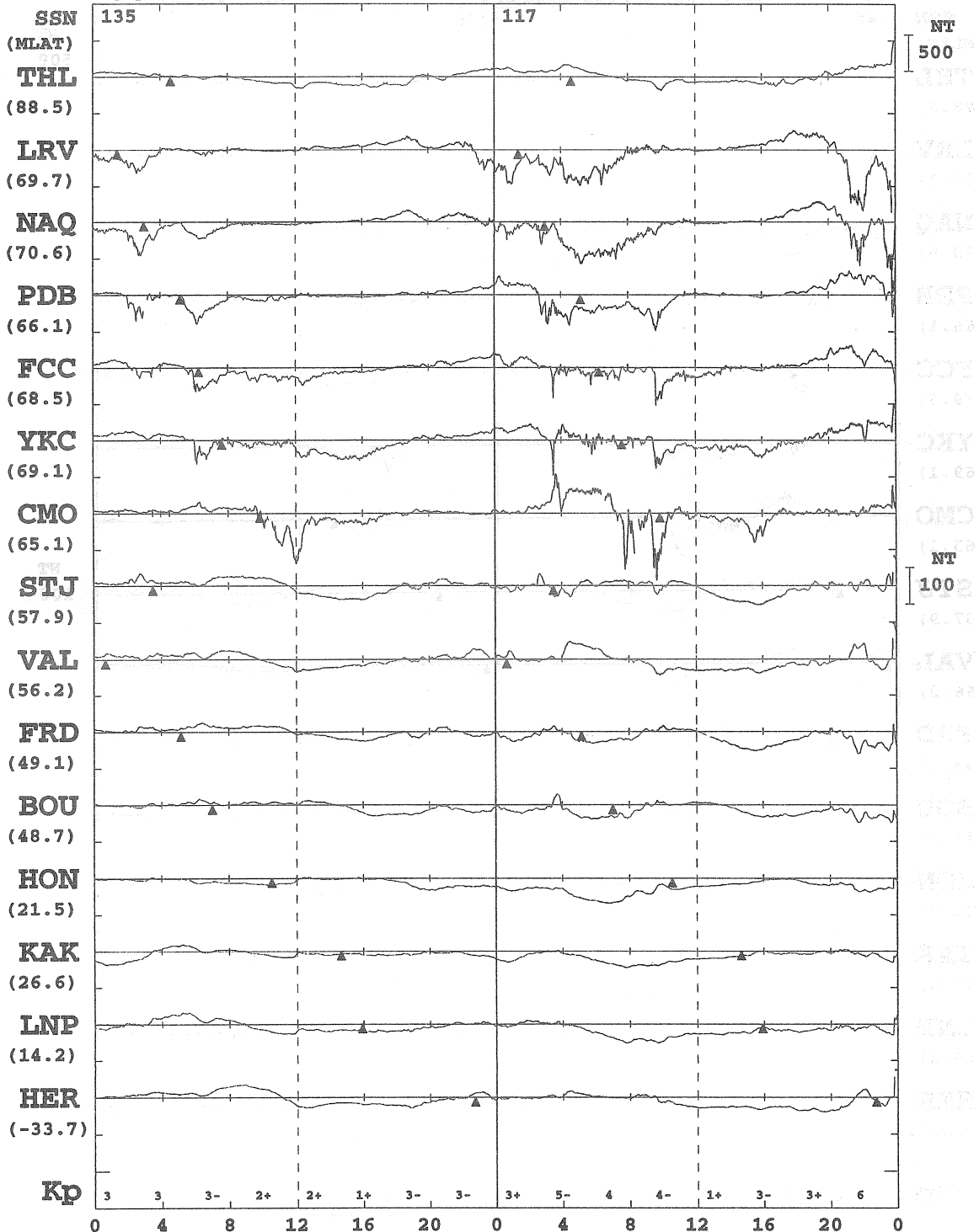
SEP 21
(DAY 264)

SEP 22
(DAY 265)

- * MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
- * PROMPT DATA ARE INCLUDED
- * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

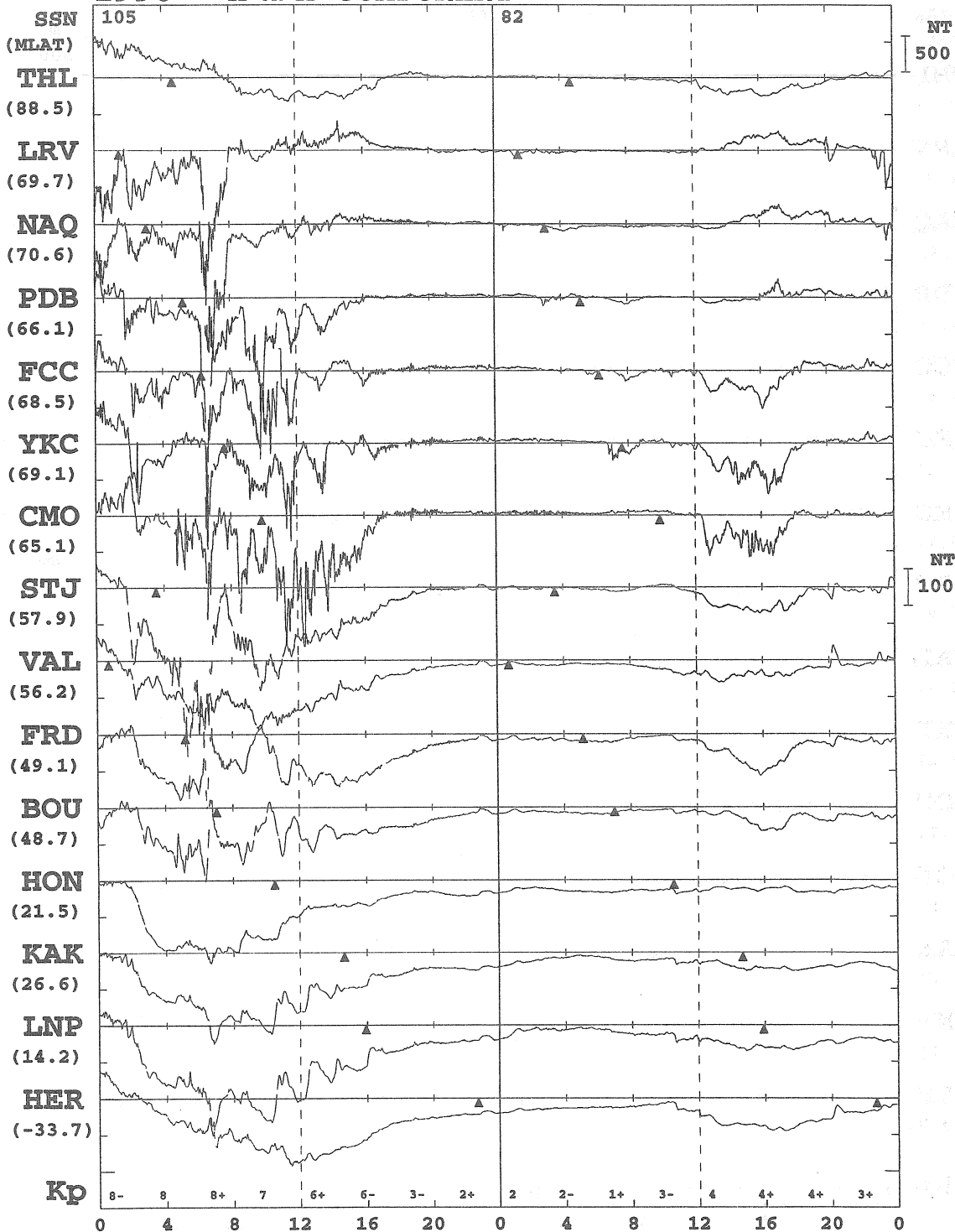
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

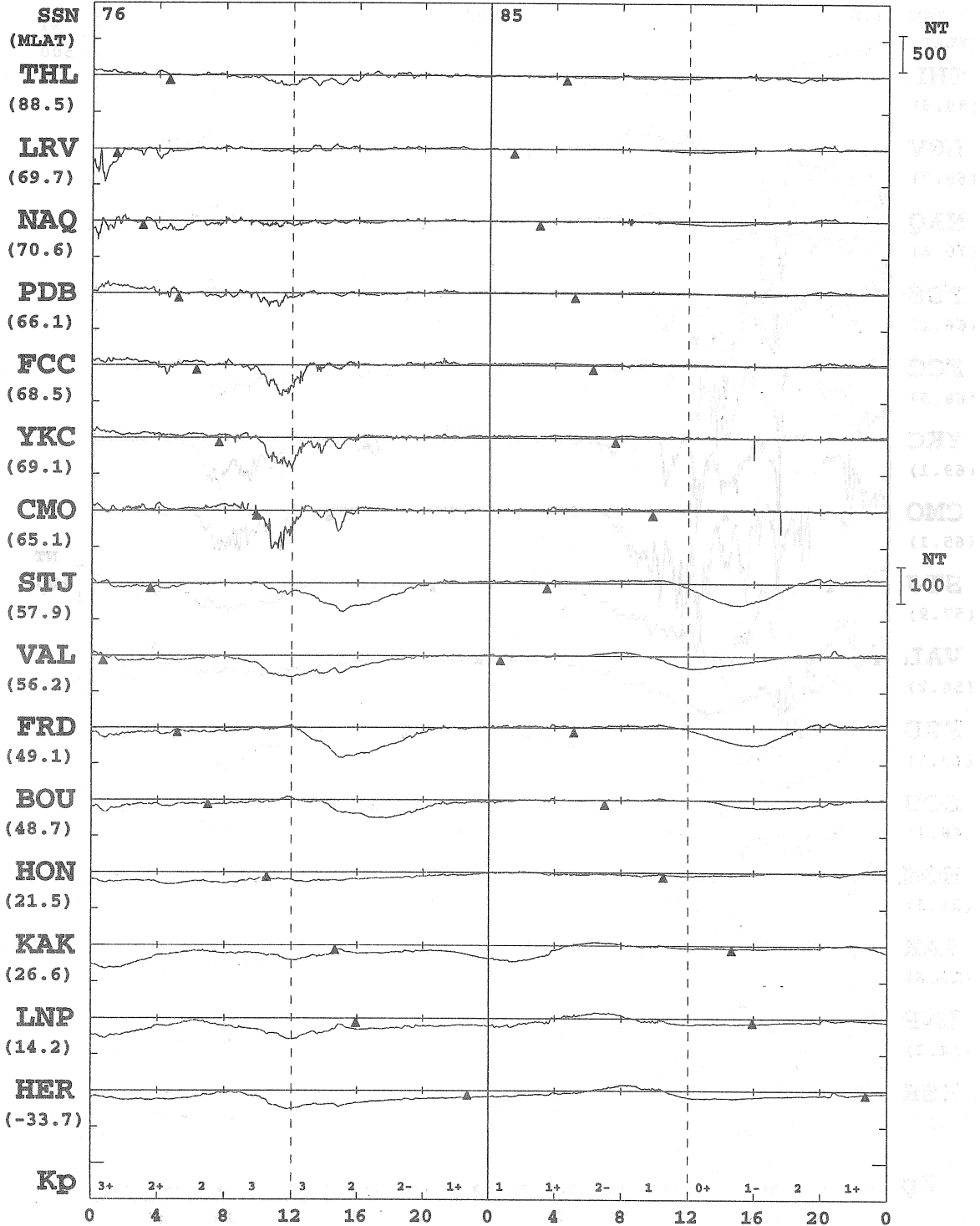
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

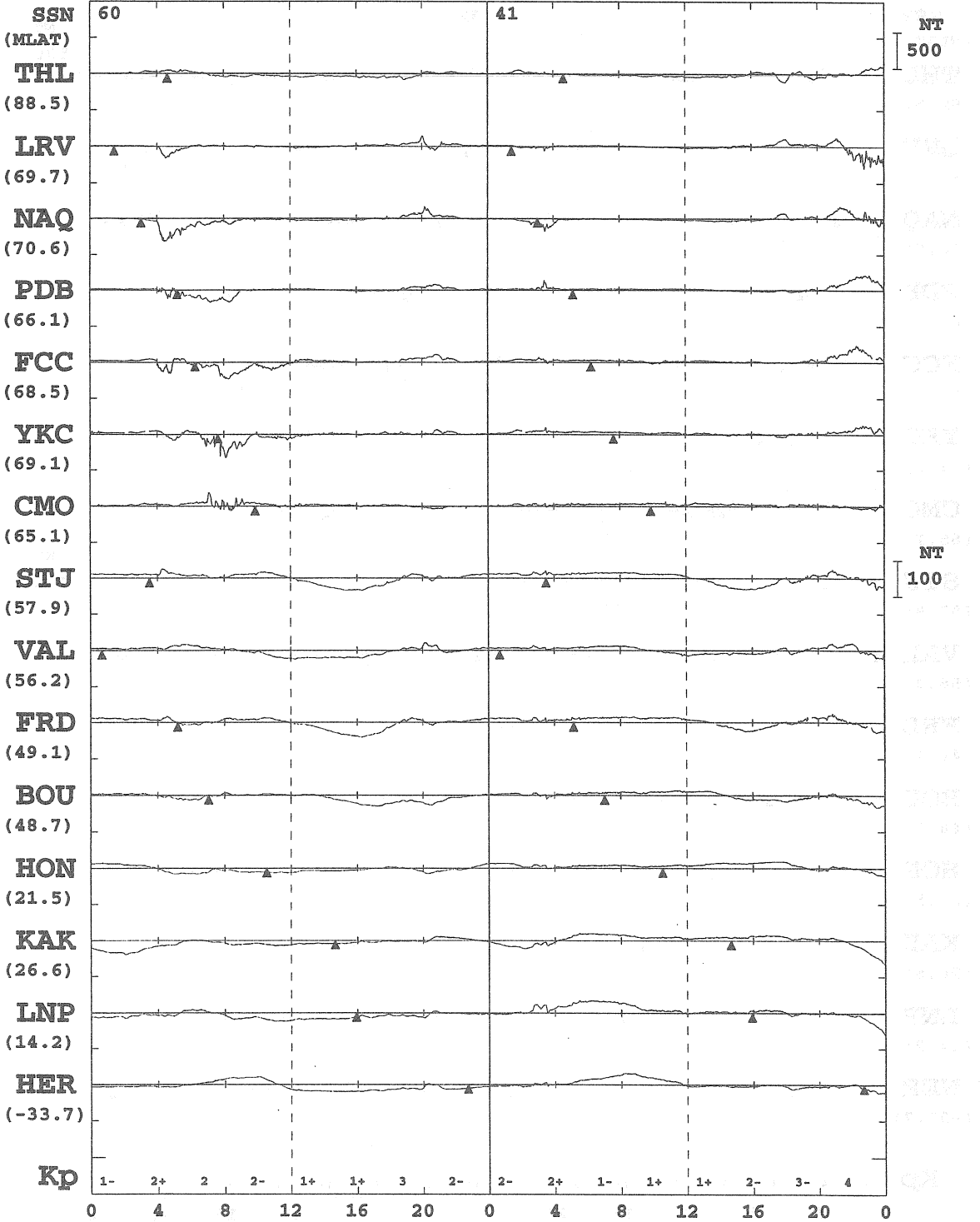
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED.
 * PROMPT DATA ARE INCLUDED.
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



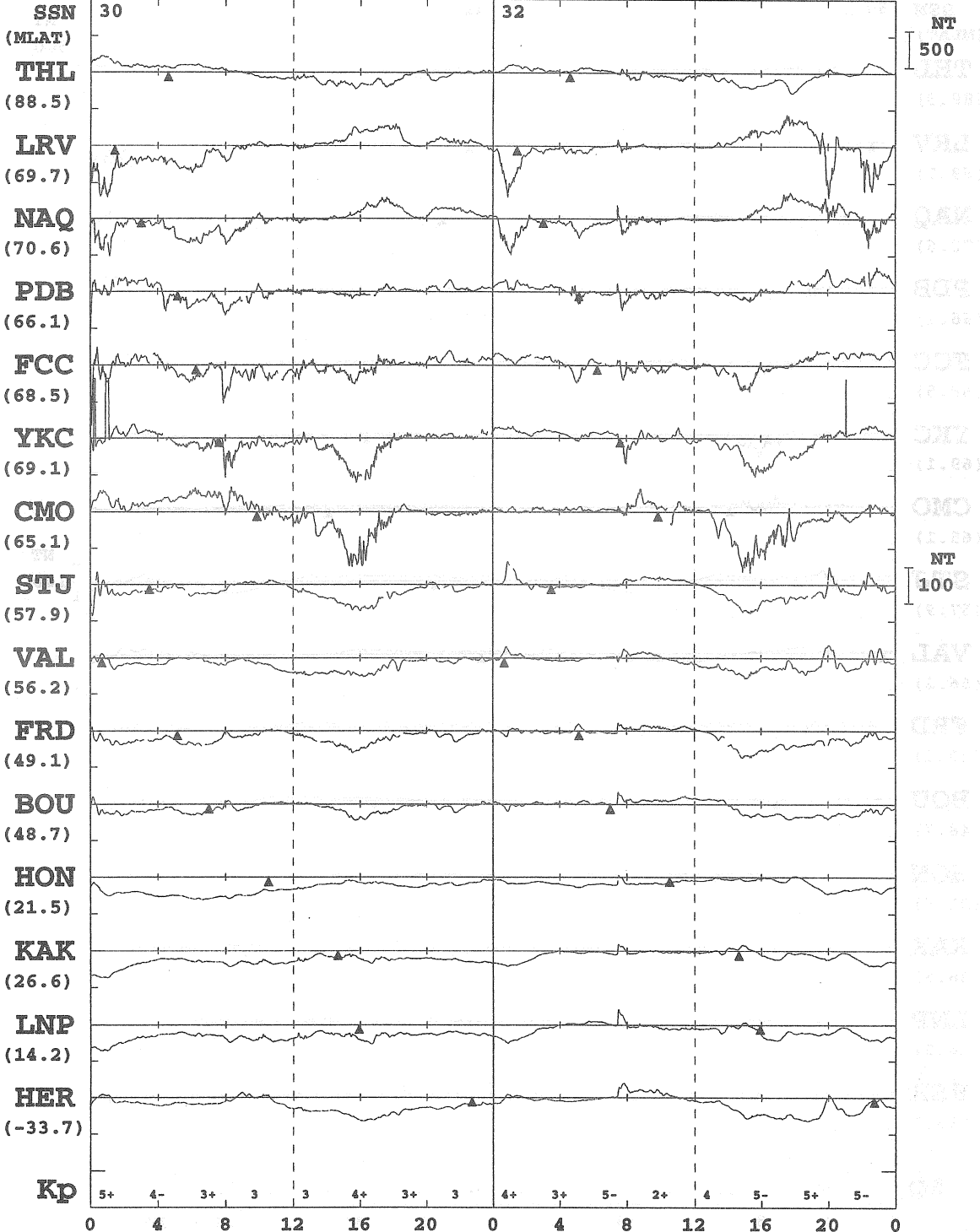
SEP 29
(DAY 272)

SEP 30
(DAY 273)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

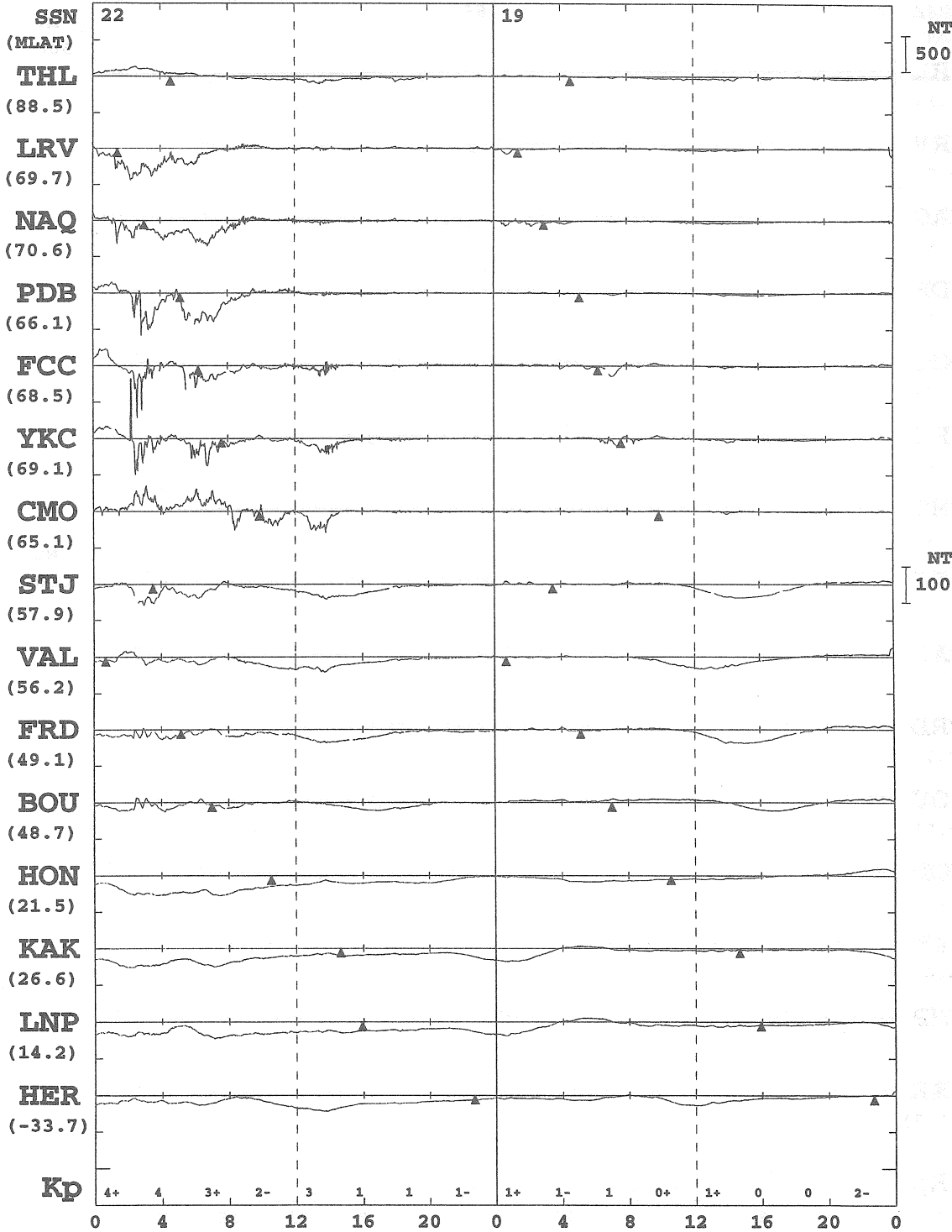
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

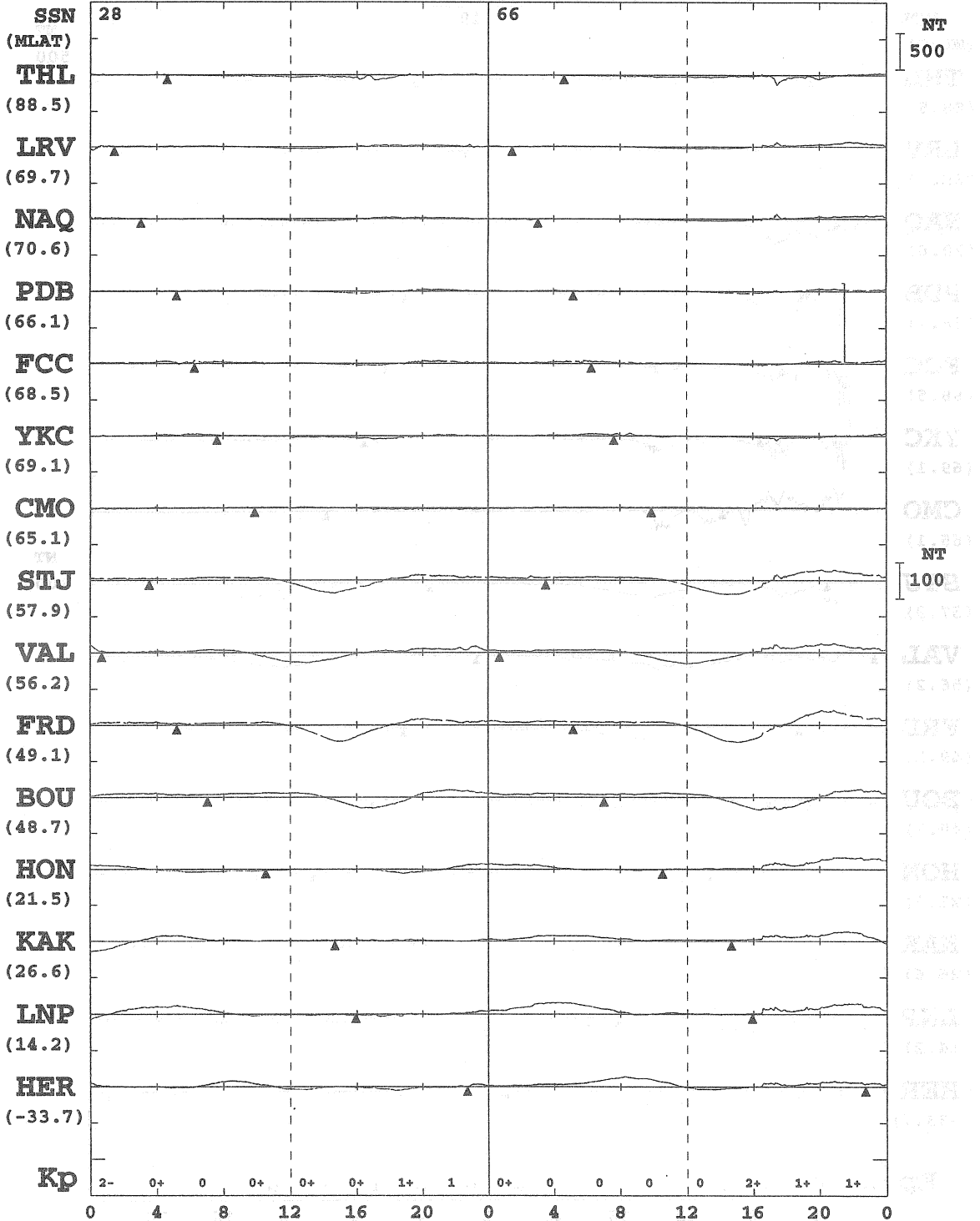
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



OCT 3
OCT 4
(DAY 276)
(DAY 277)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

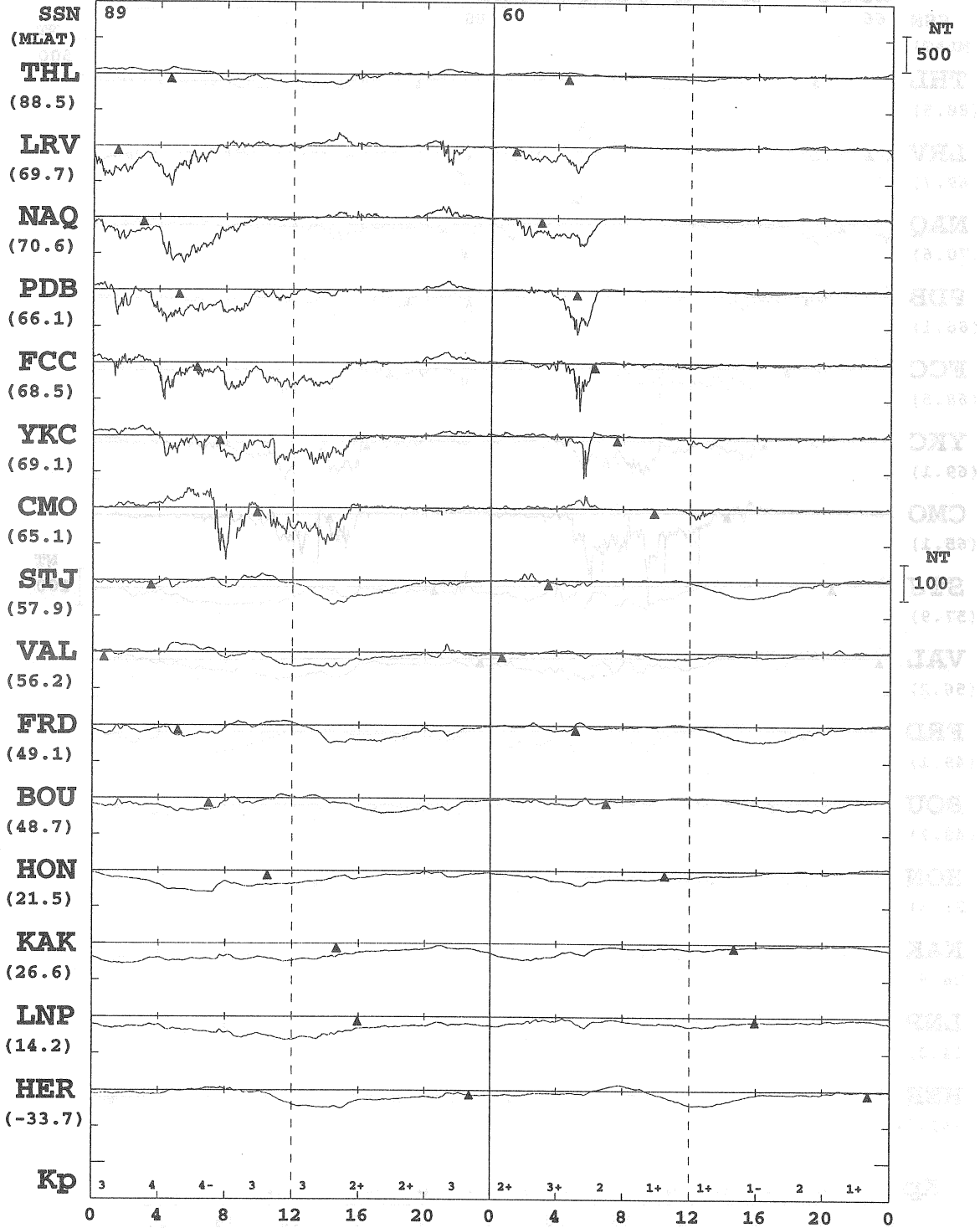
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



OCT 5 (DAY 278) OCT 6 (DAY 279)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH KYOTO UNIV.

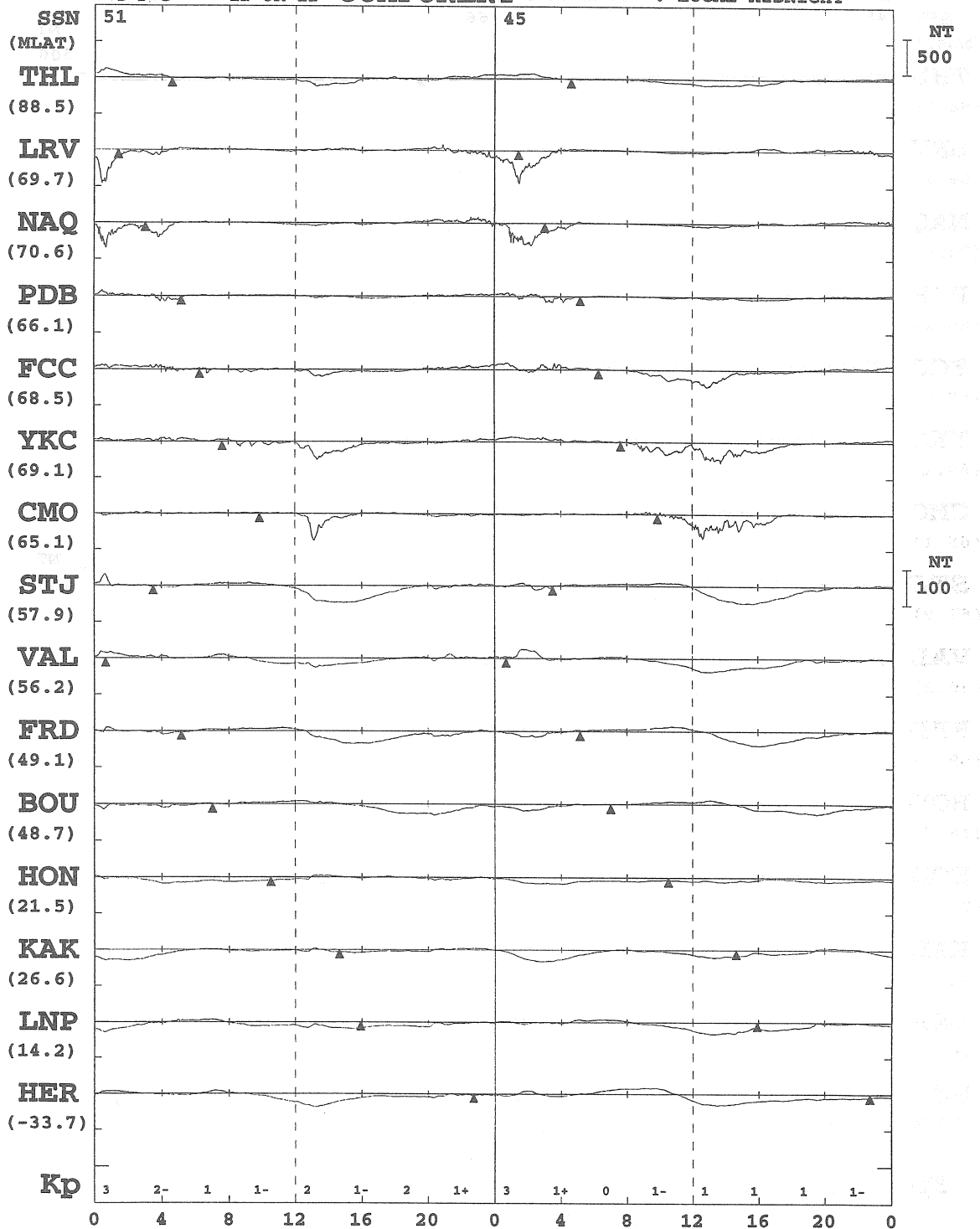
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT



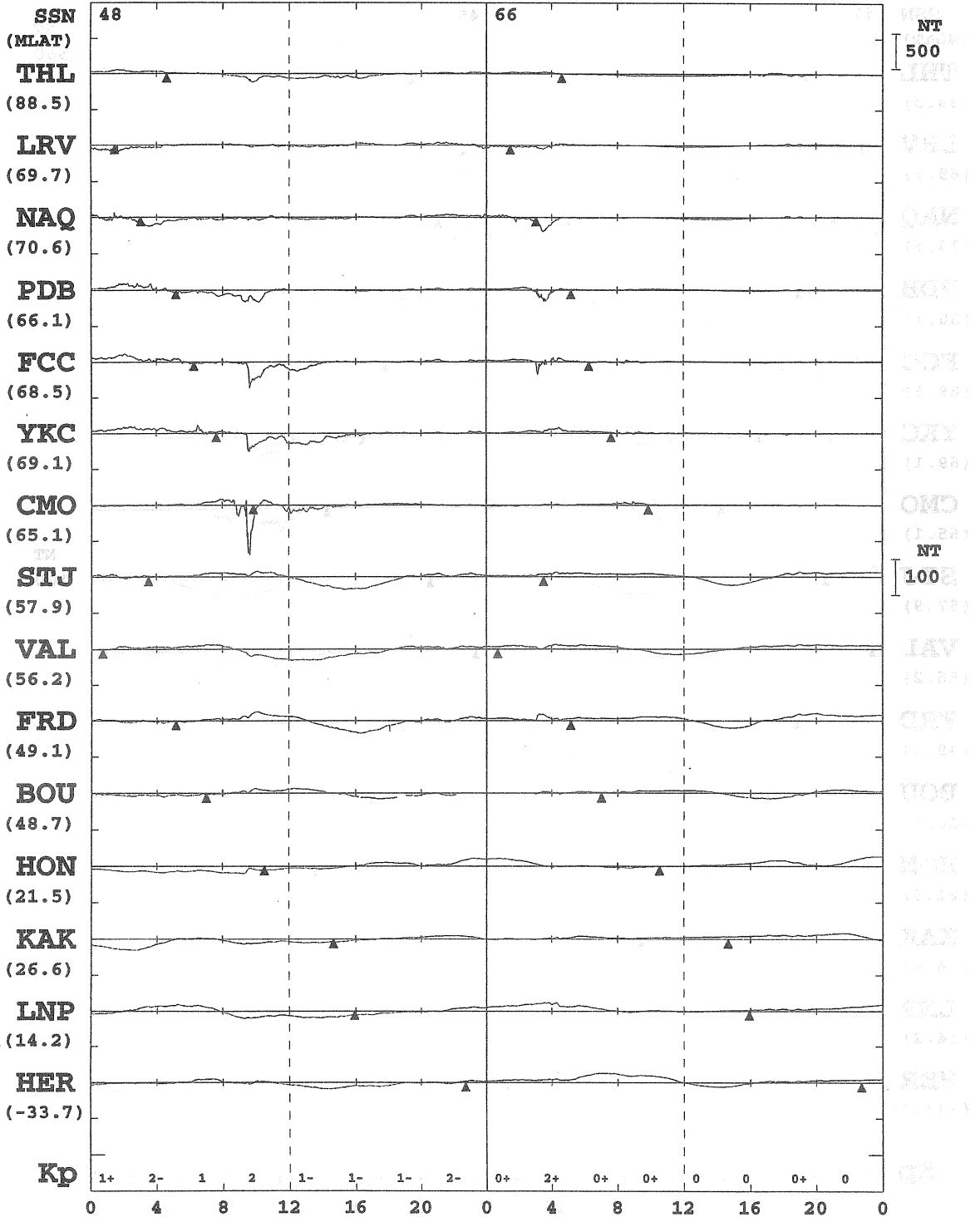
OCT 11
(DAY 284)

OCT 12
(DAY 285)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT

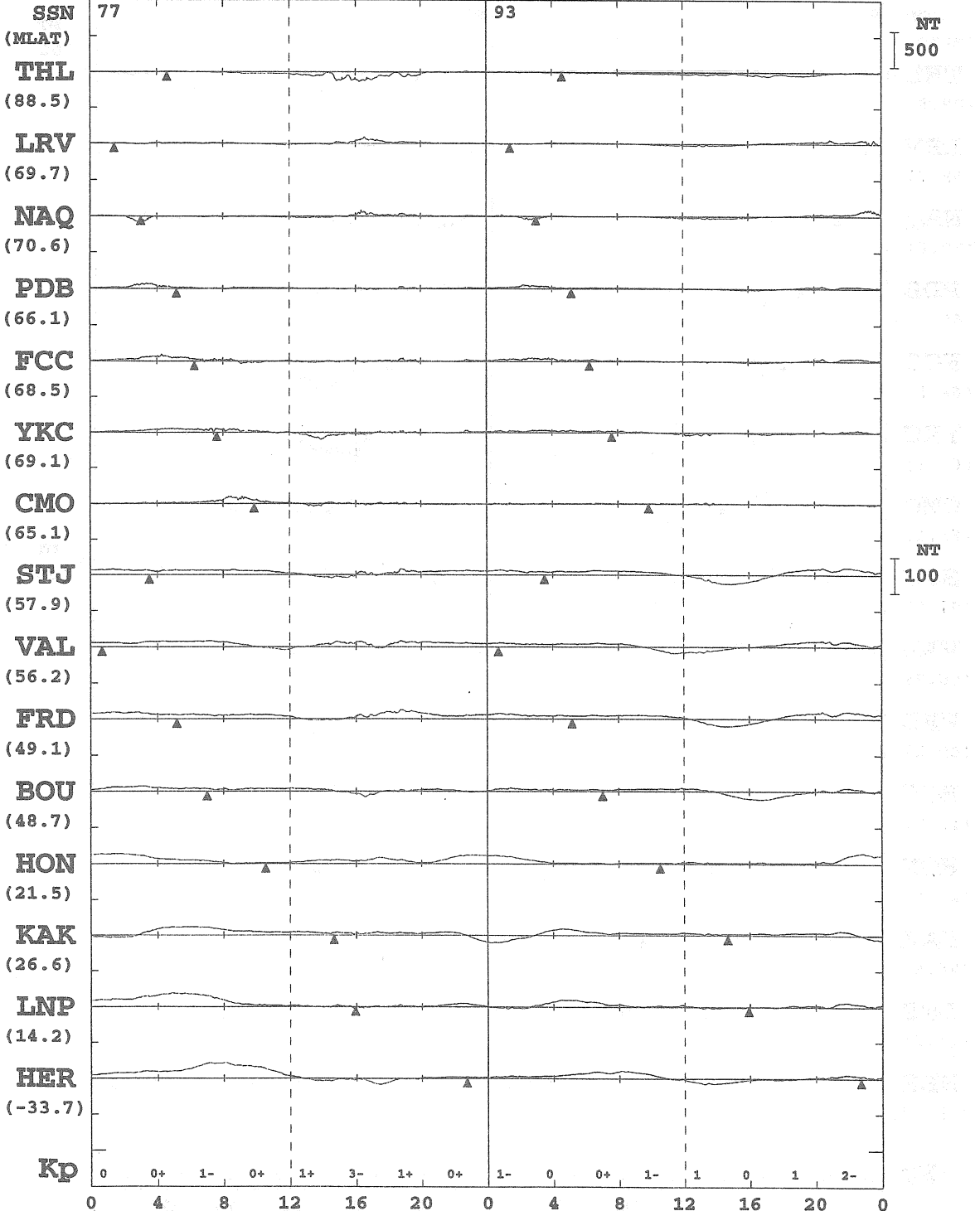


* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



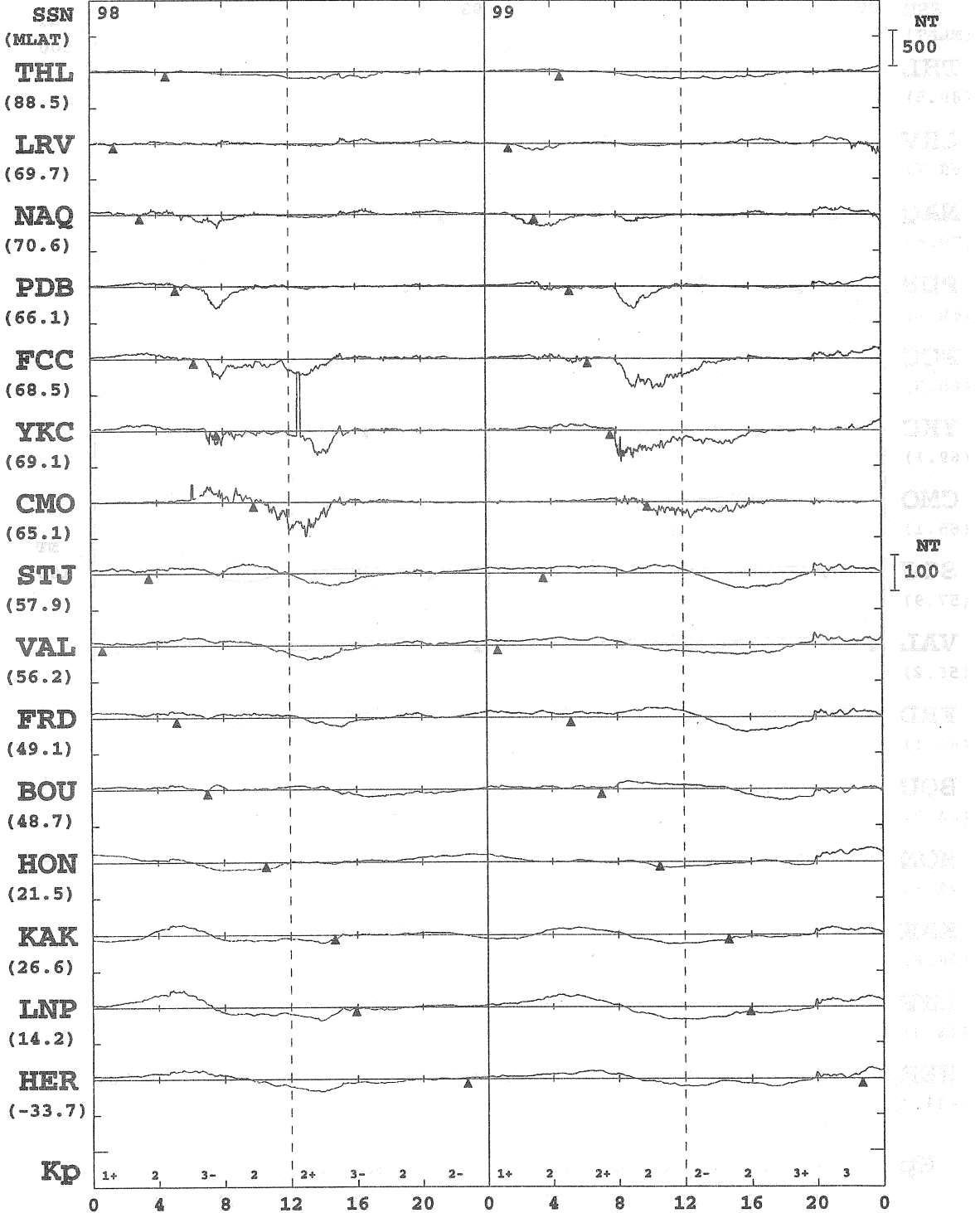
OCT 15
(DAY 288)

OCT 16
(DAY 289)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

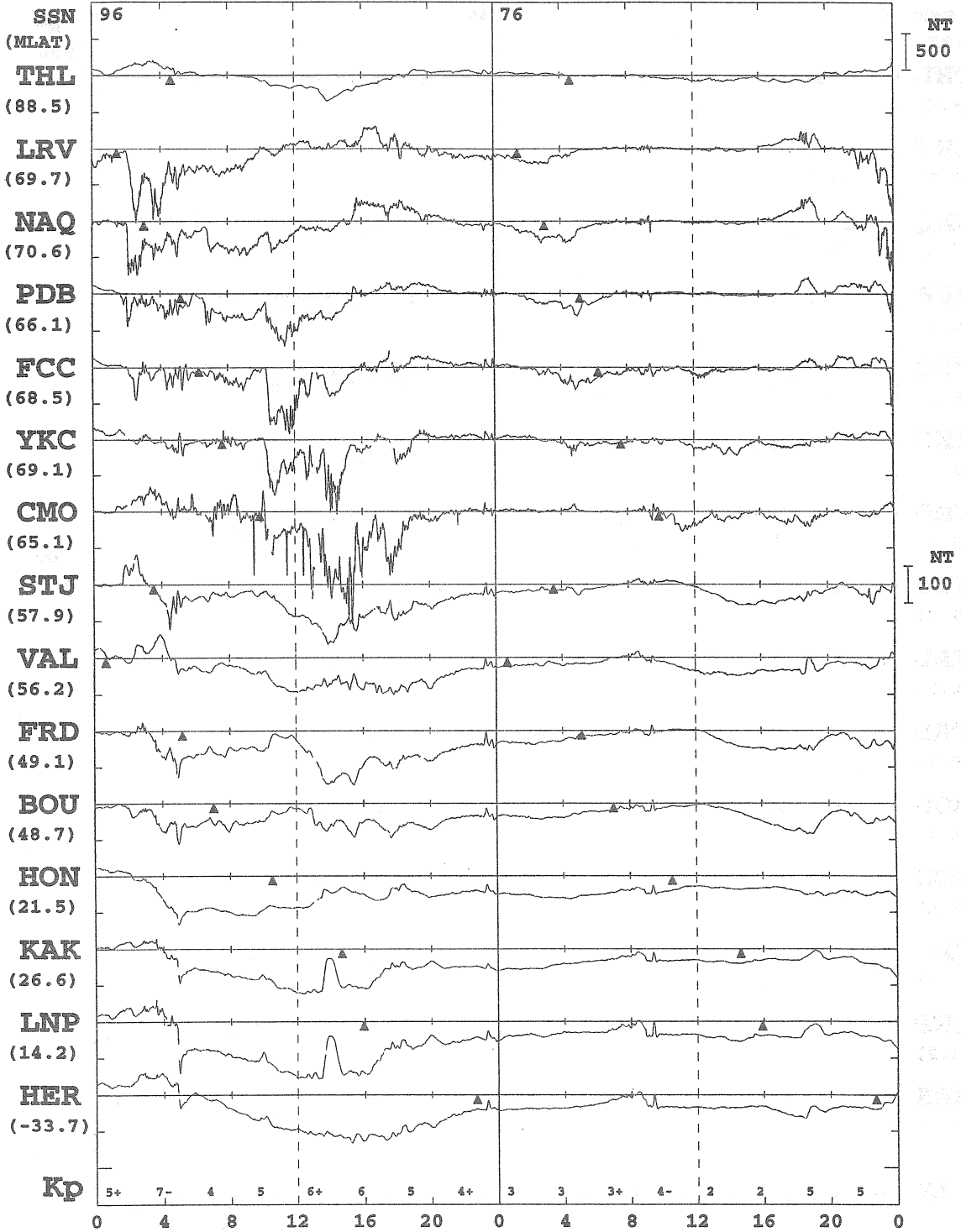
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

1998 H OR X-COMPONENT

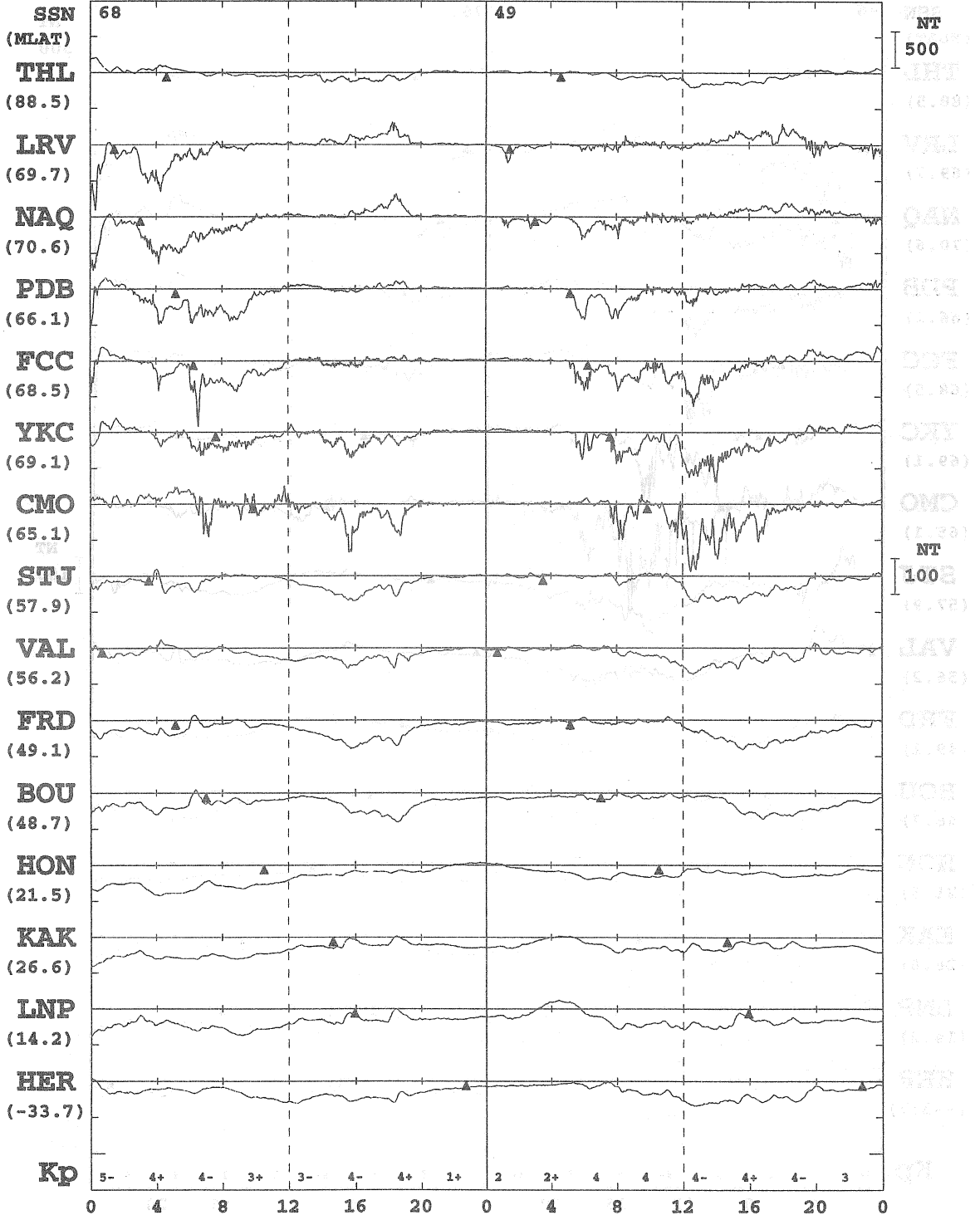
▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



OCT 21
(DAY 294)

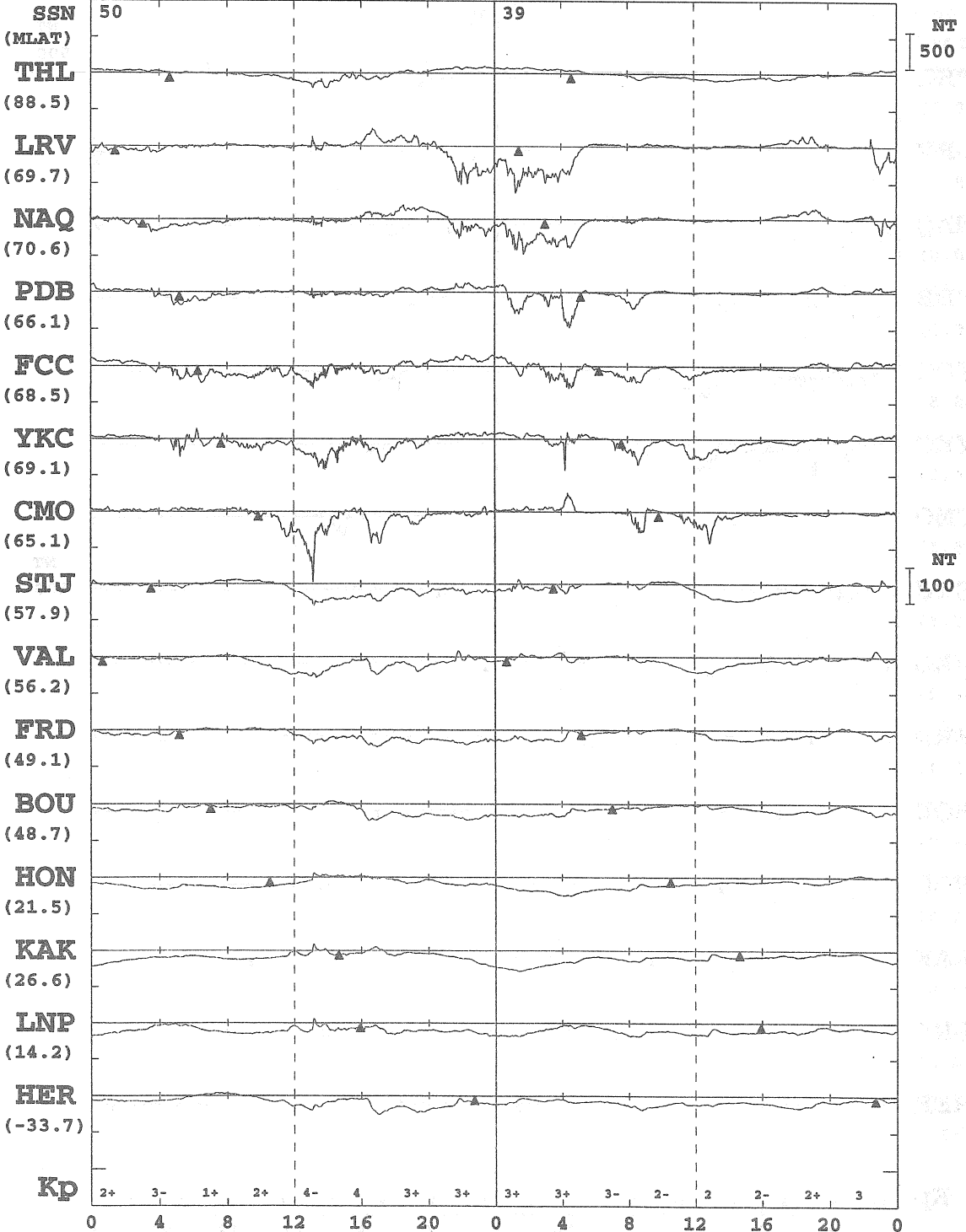
OCT 22
(DAY 295)

- * MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
- * PROMPT DATA ARE INCLUDED
- * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



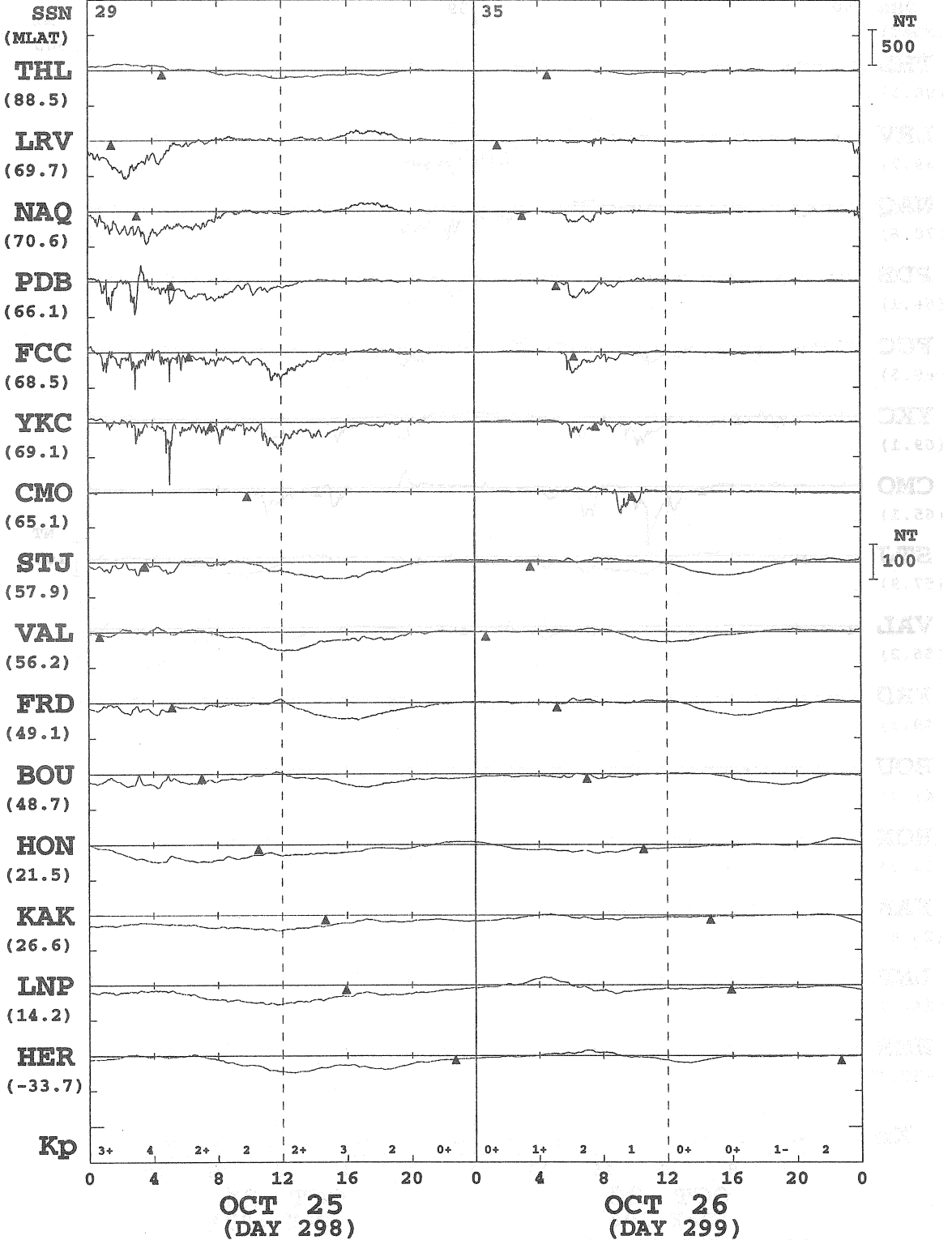
OCT 23
(DAY 296)

OCT 24
(DAY 297)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

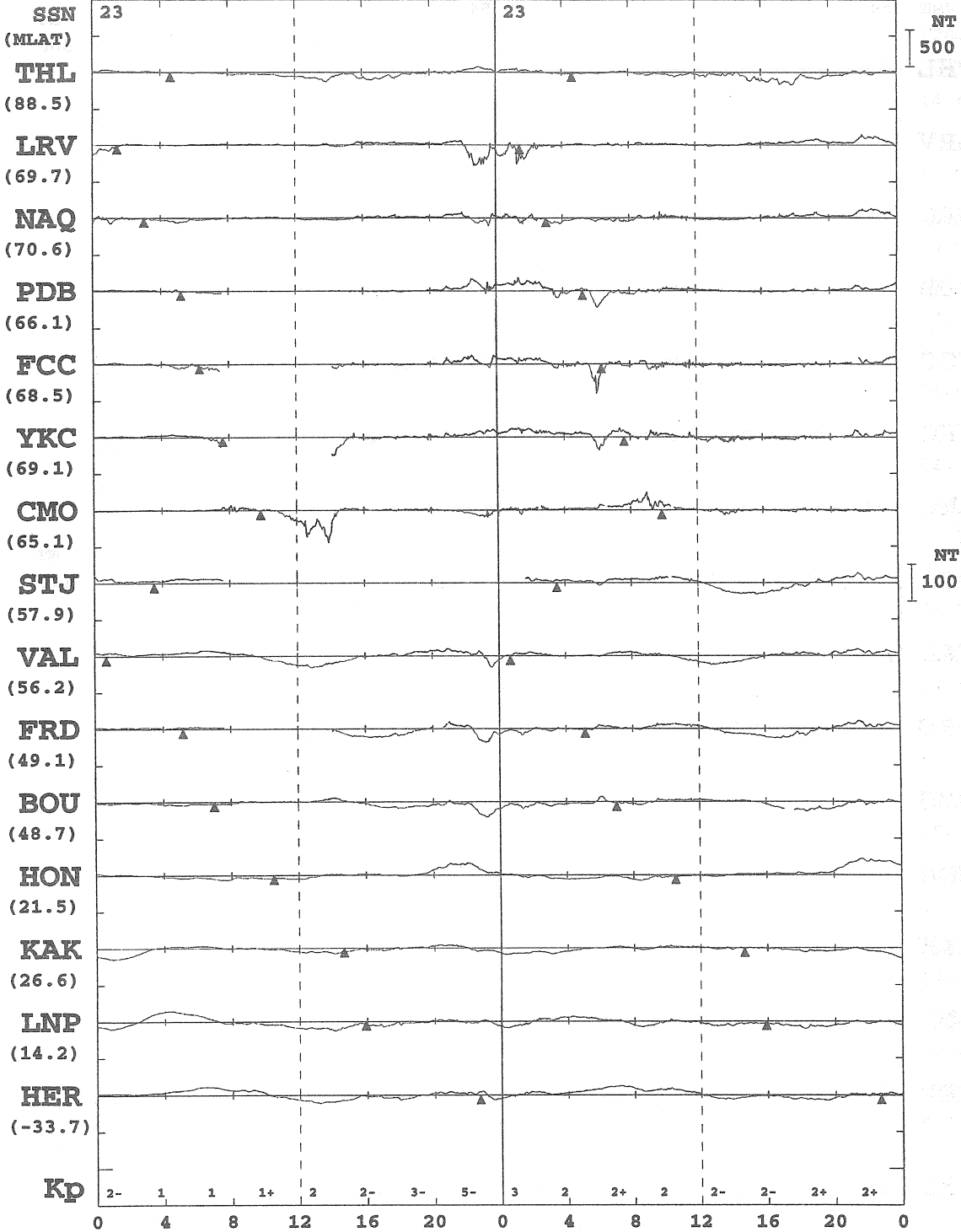
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

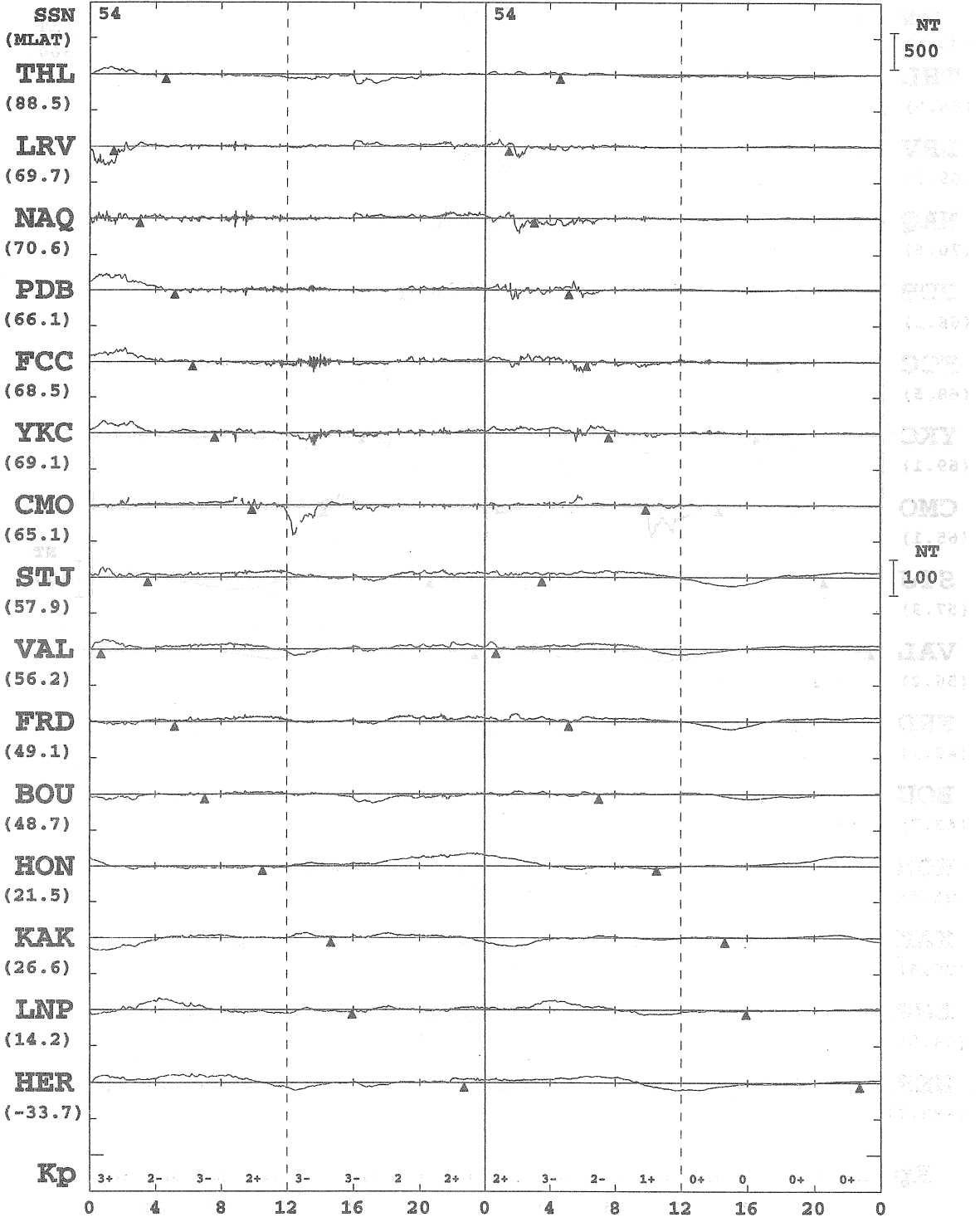
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



OCT 27 (DAY 300) OCT 28 (DAY 301)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
KYOTO UNIV.

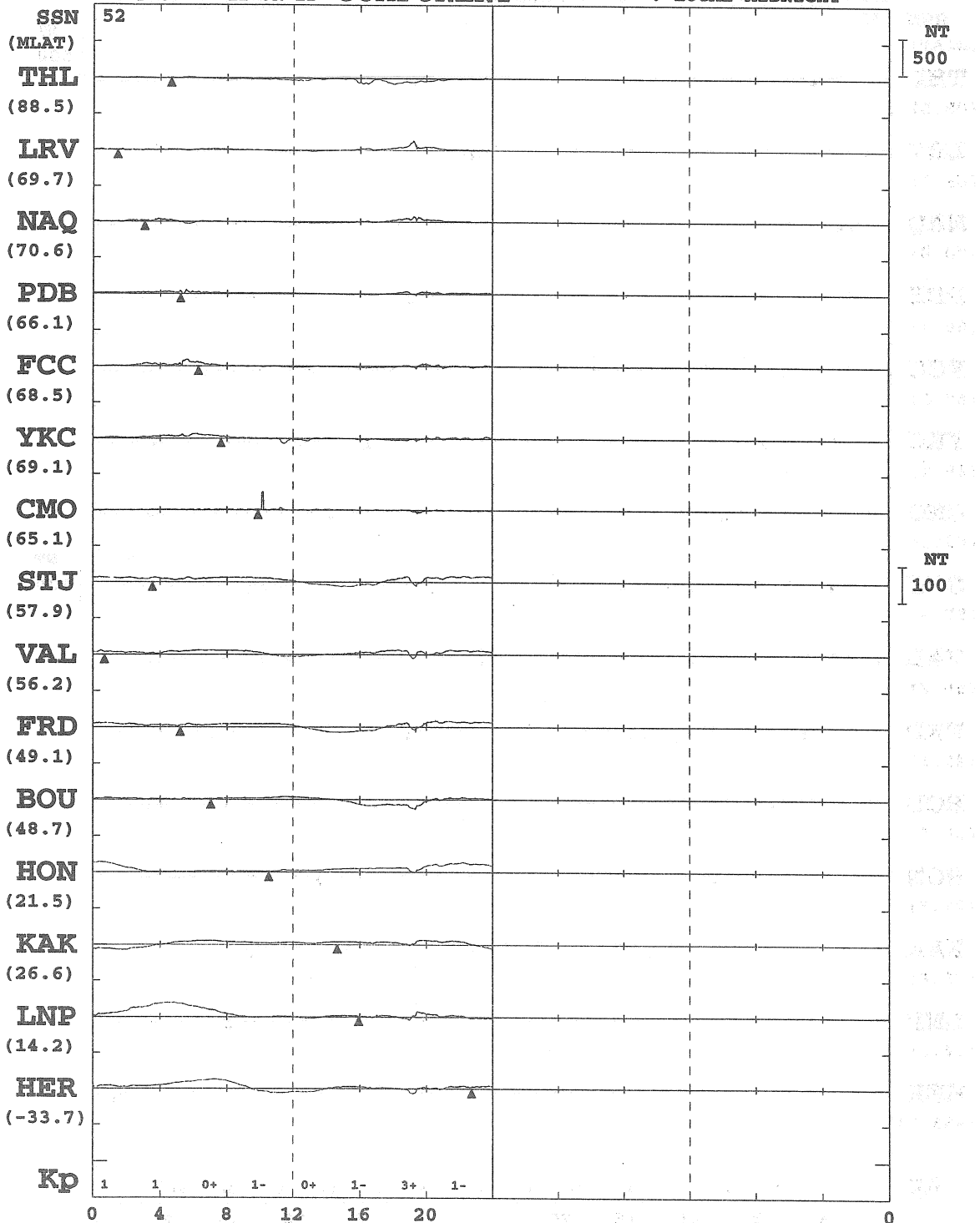
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT

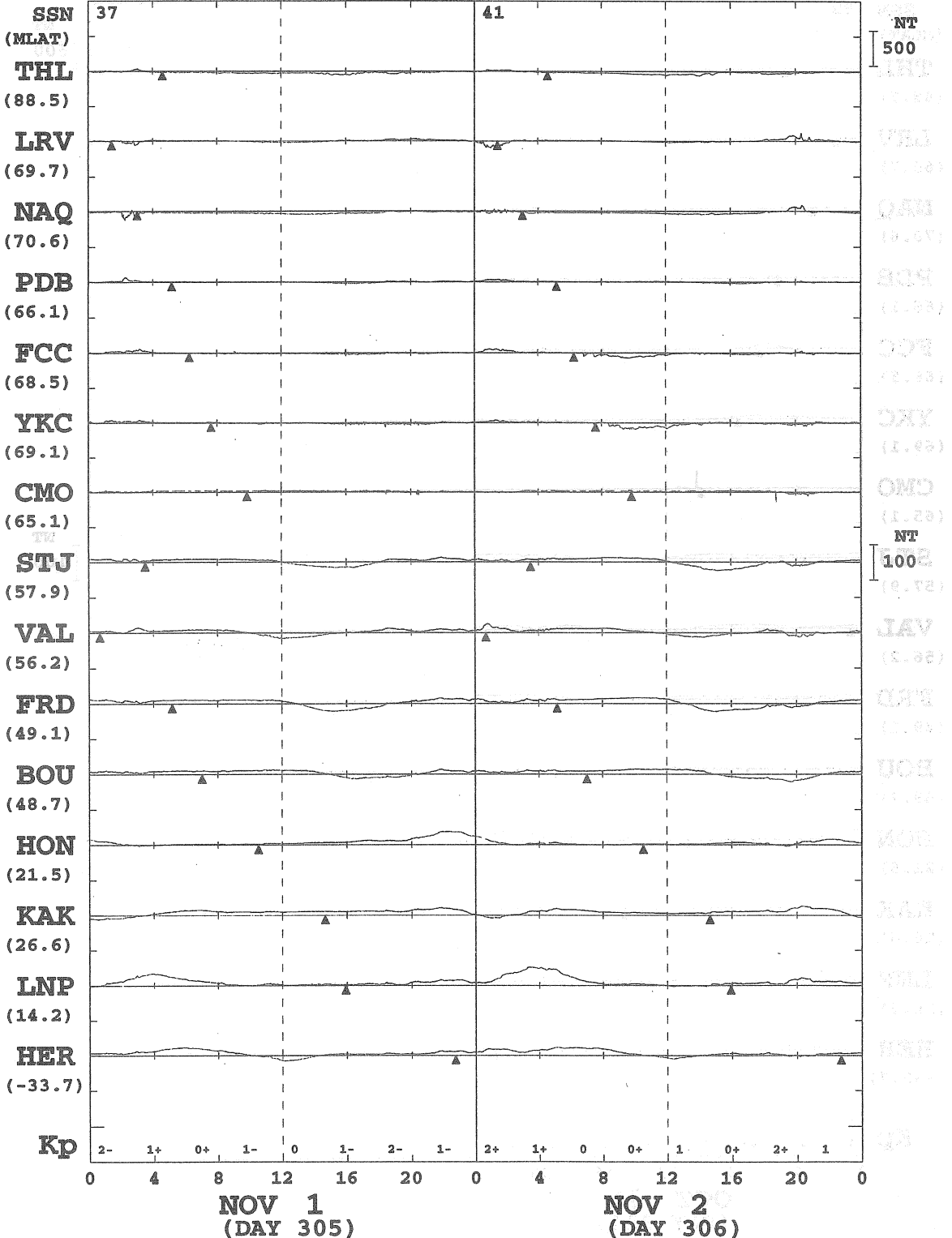


OCT 31
(DAY 304)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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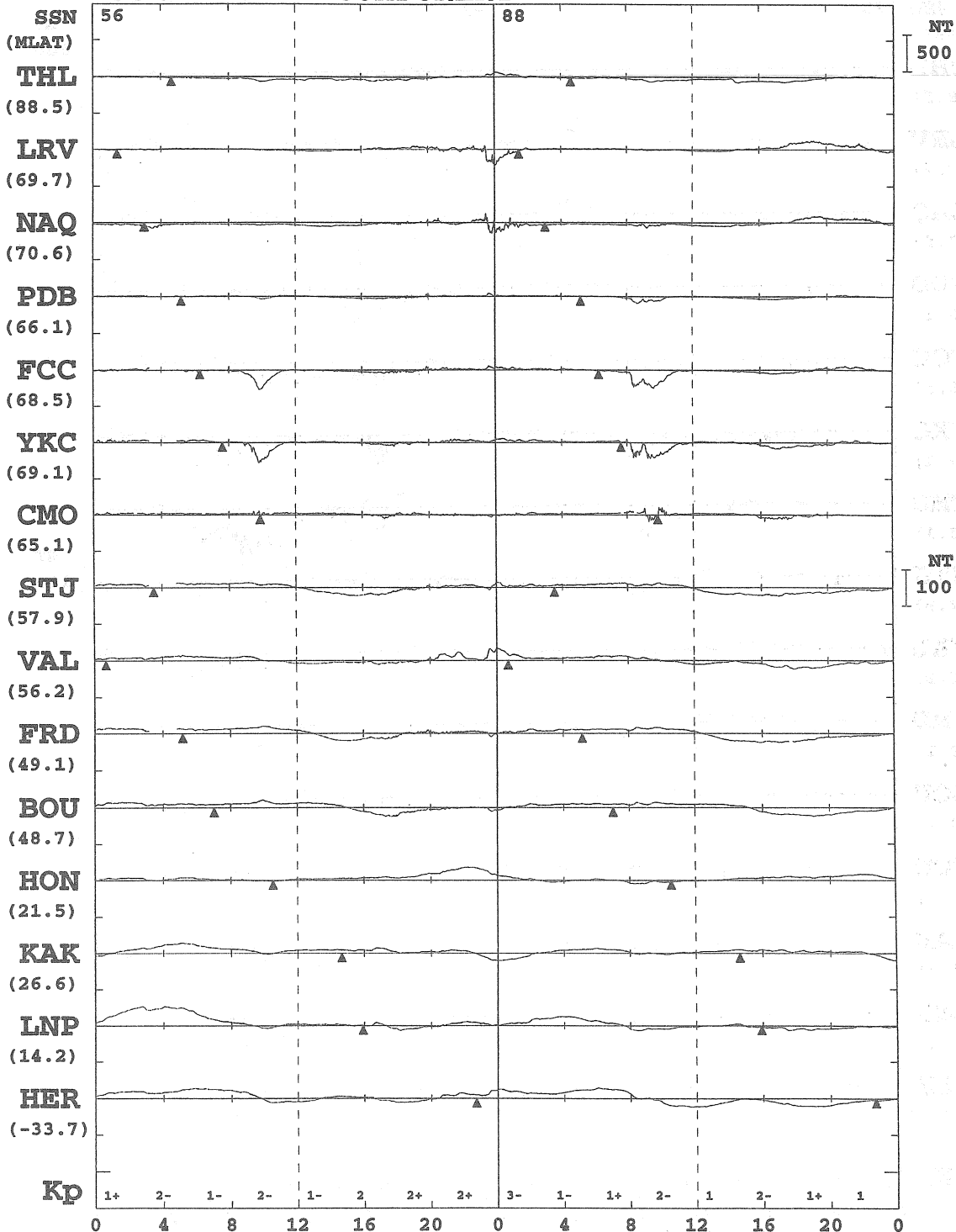
1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



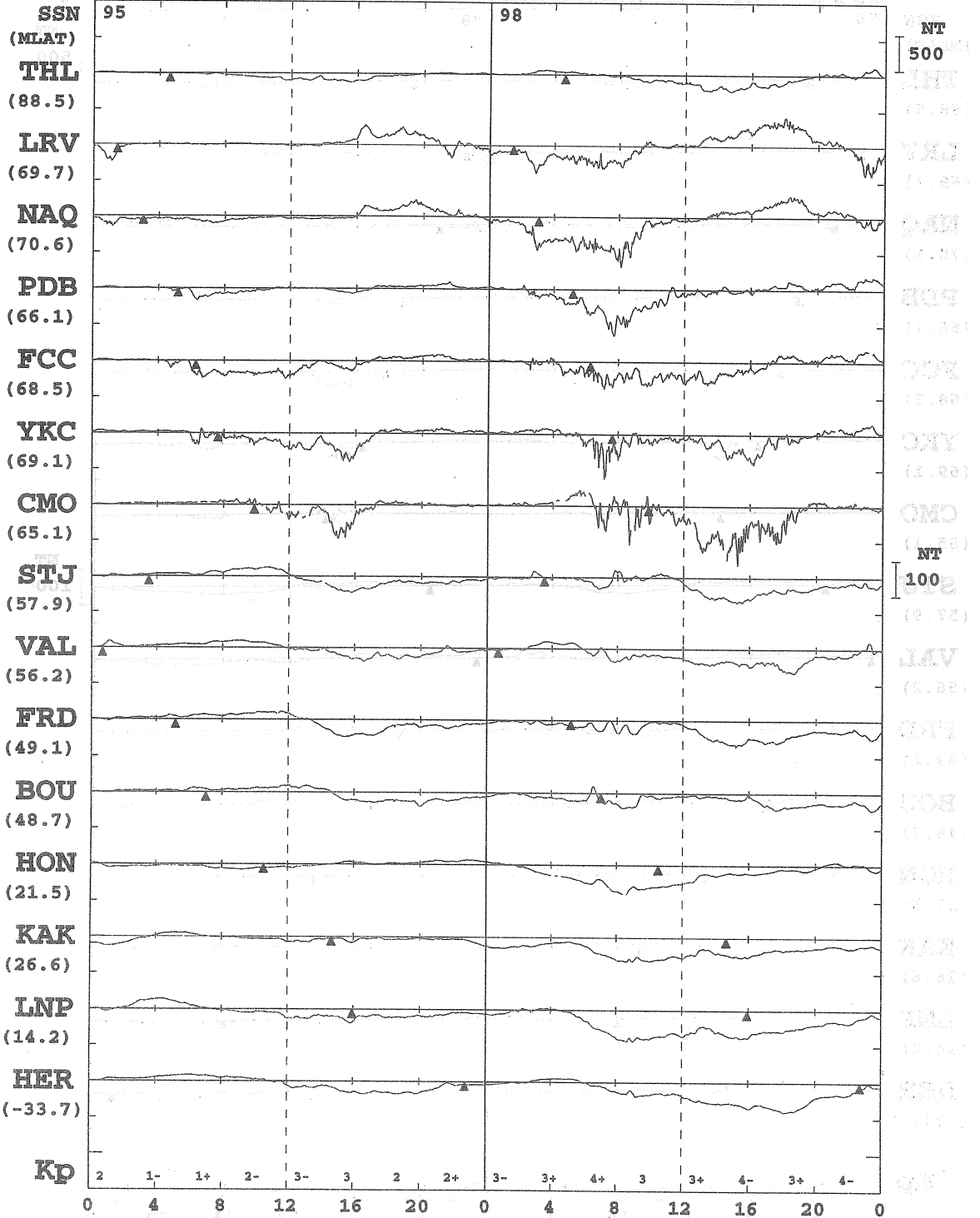
NOV 3
(DAY 307)

NOV 4
(DAY 308)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

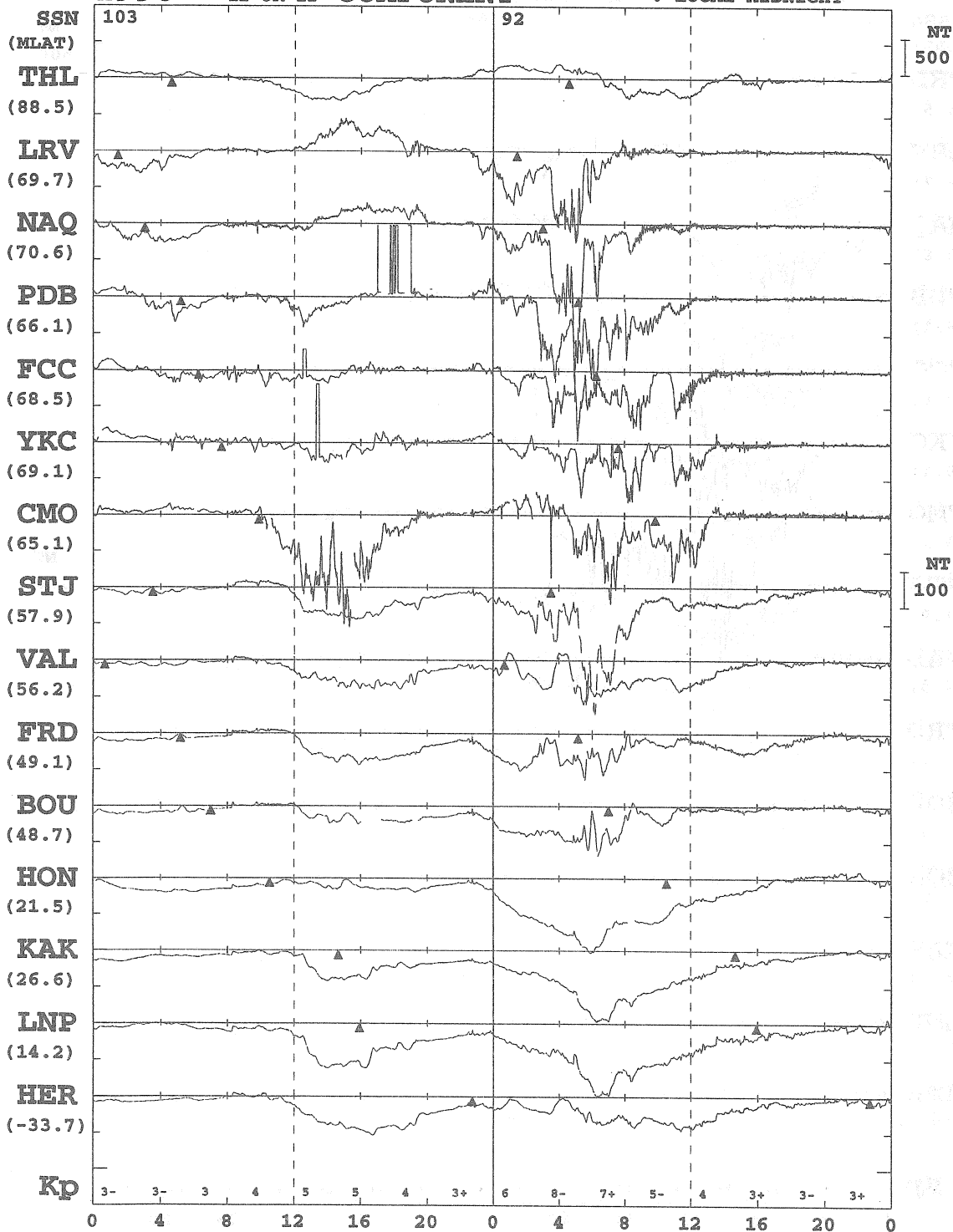
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



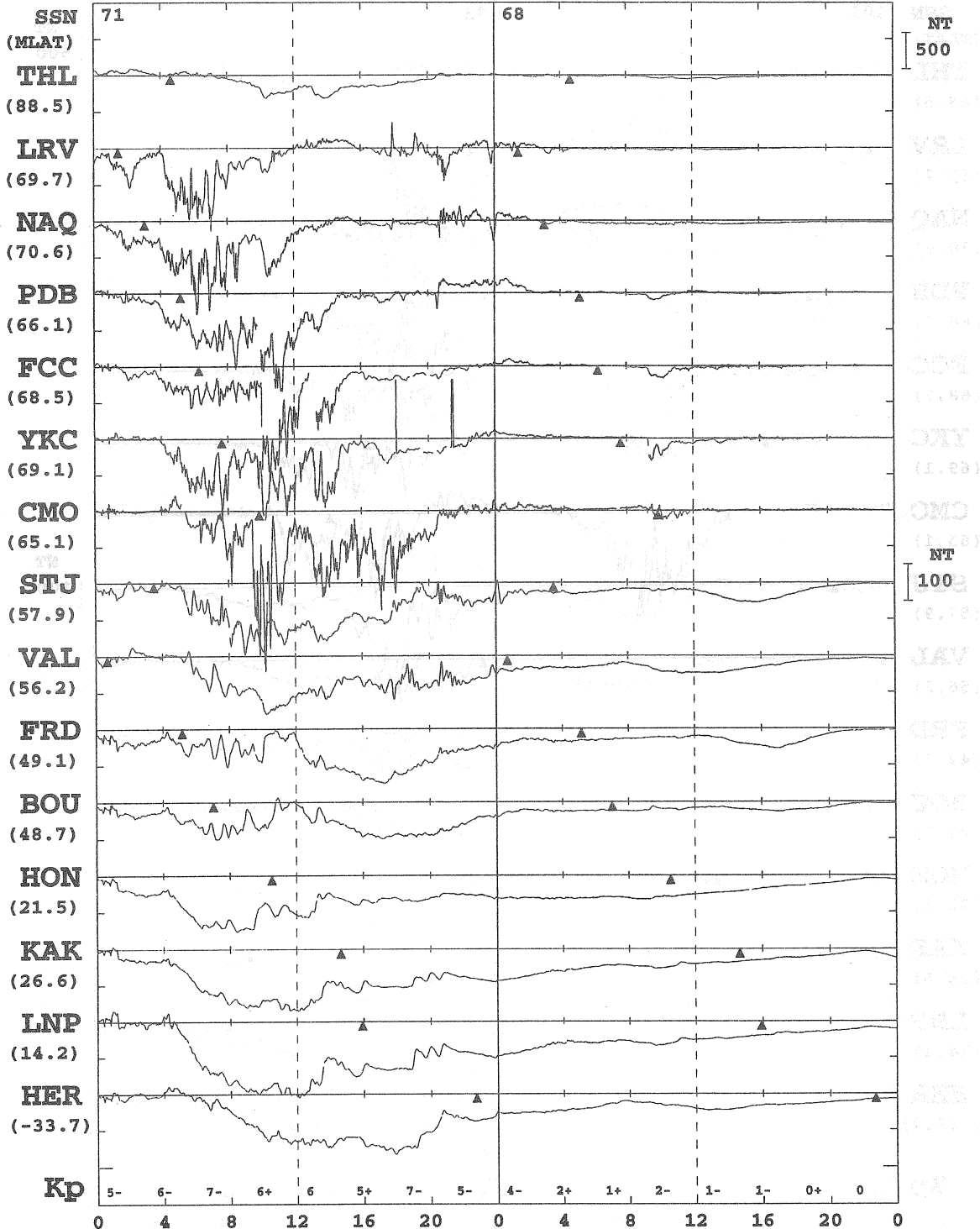
NOV 7
(DAY 311)

NOV 8
(DAY 312)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

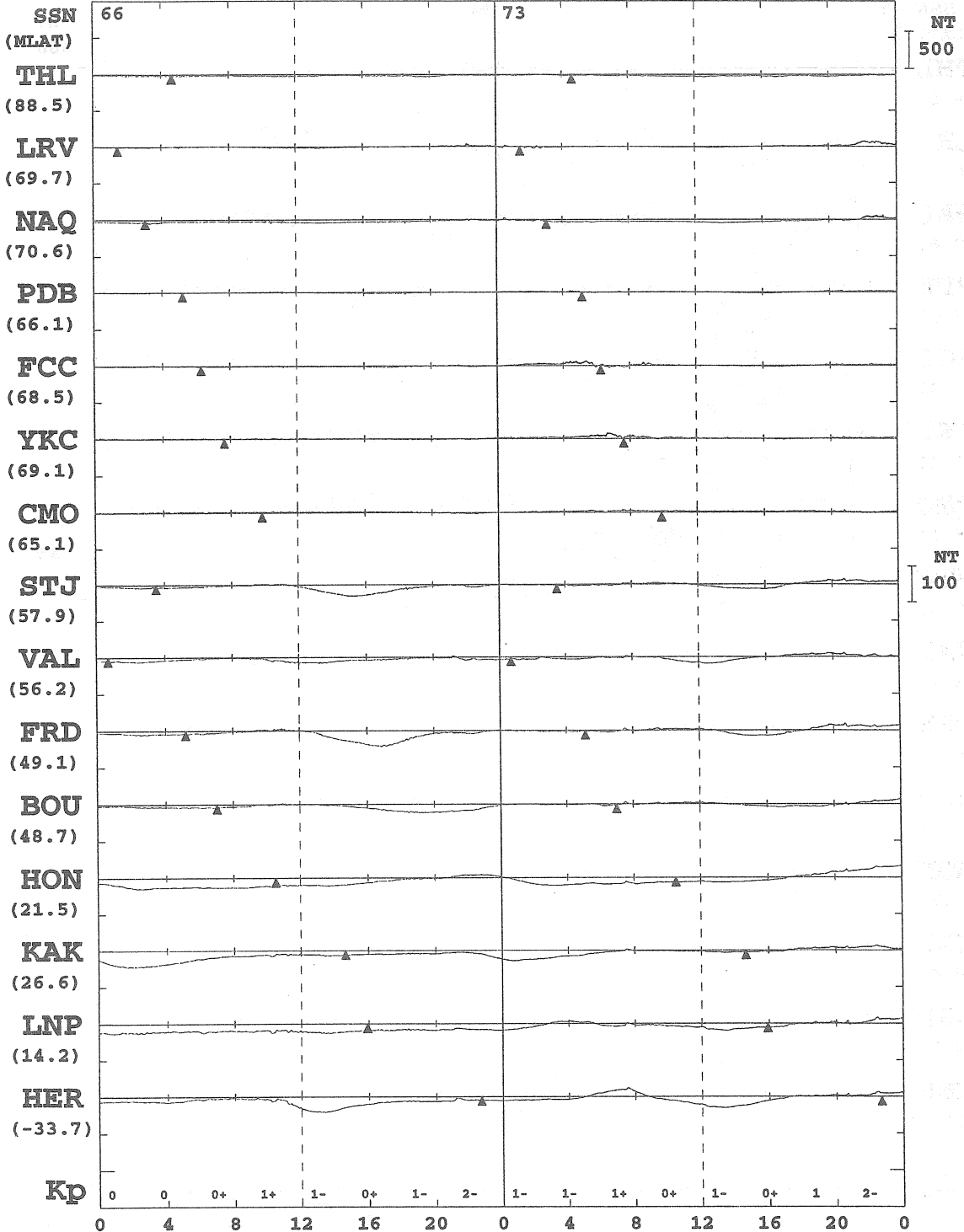
1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



NOV 11
(DAY 315)

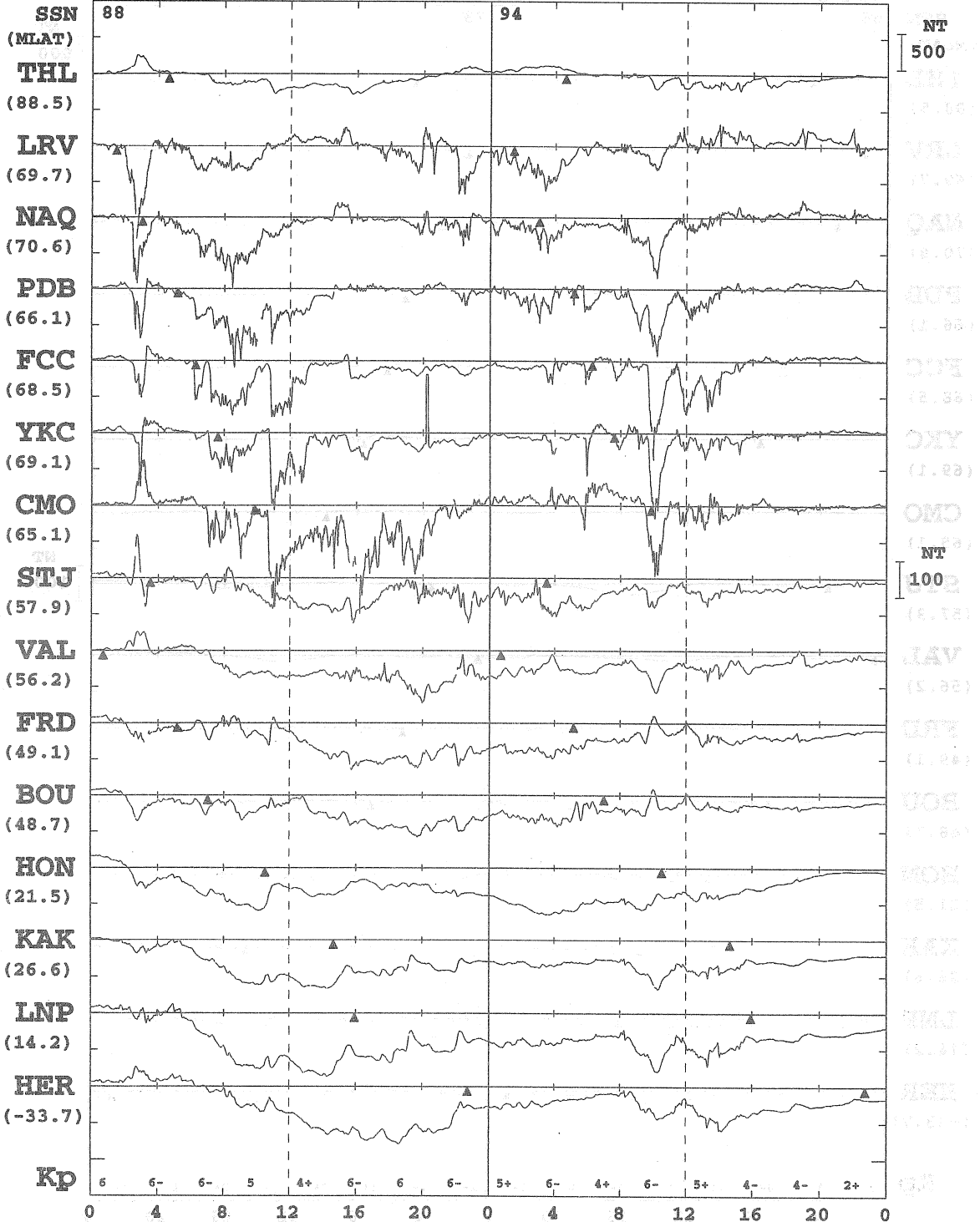
NOV 12
(DAY 316)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT

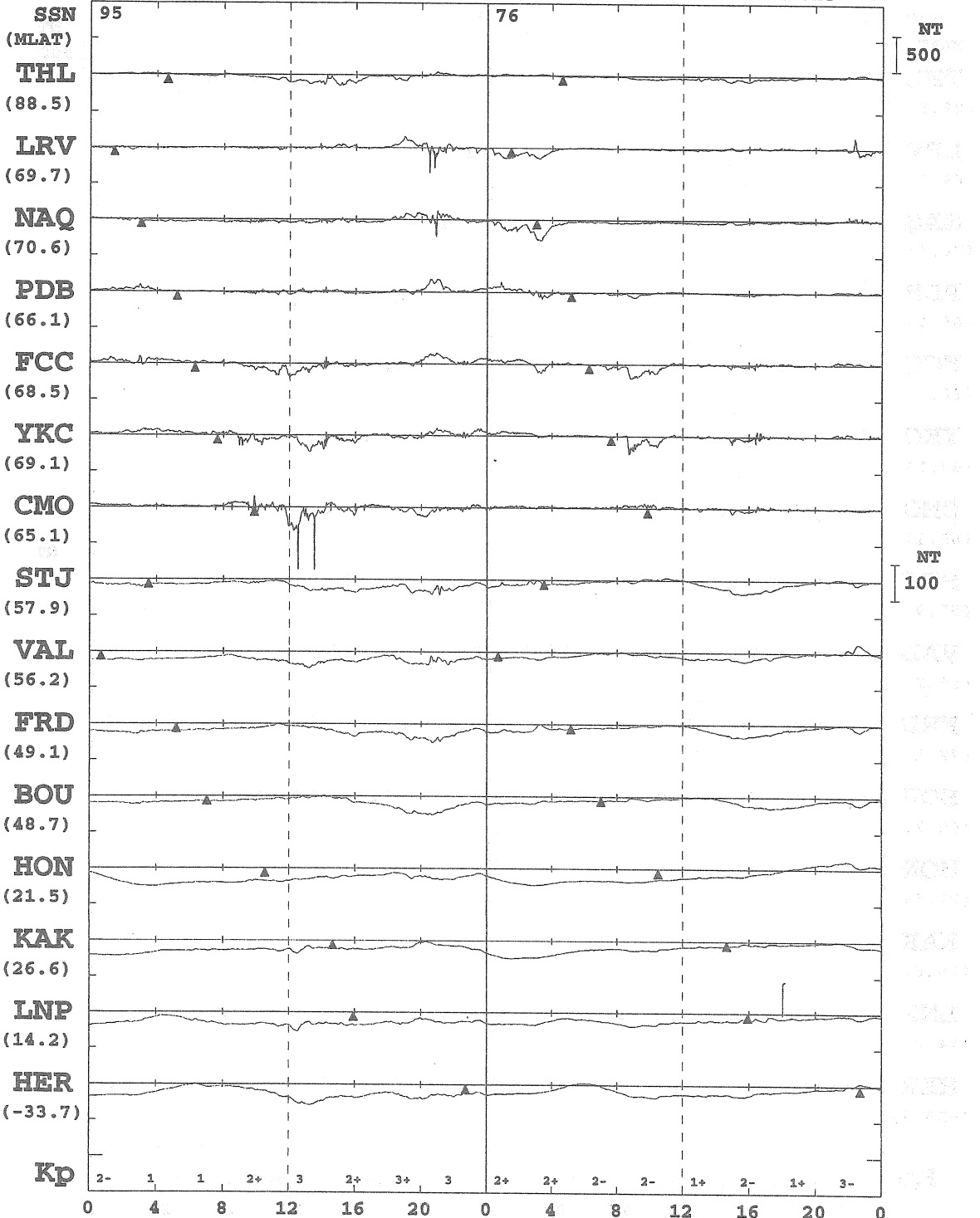


* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



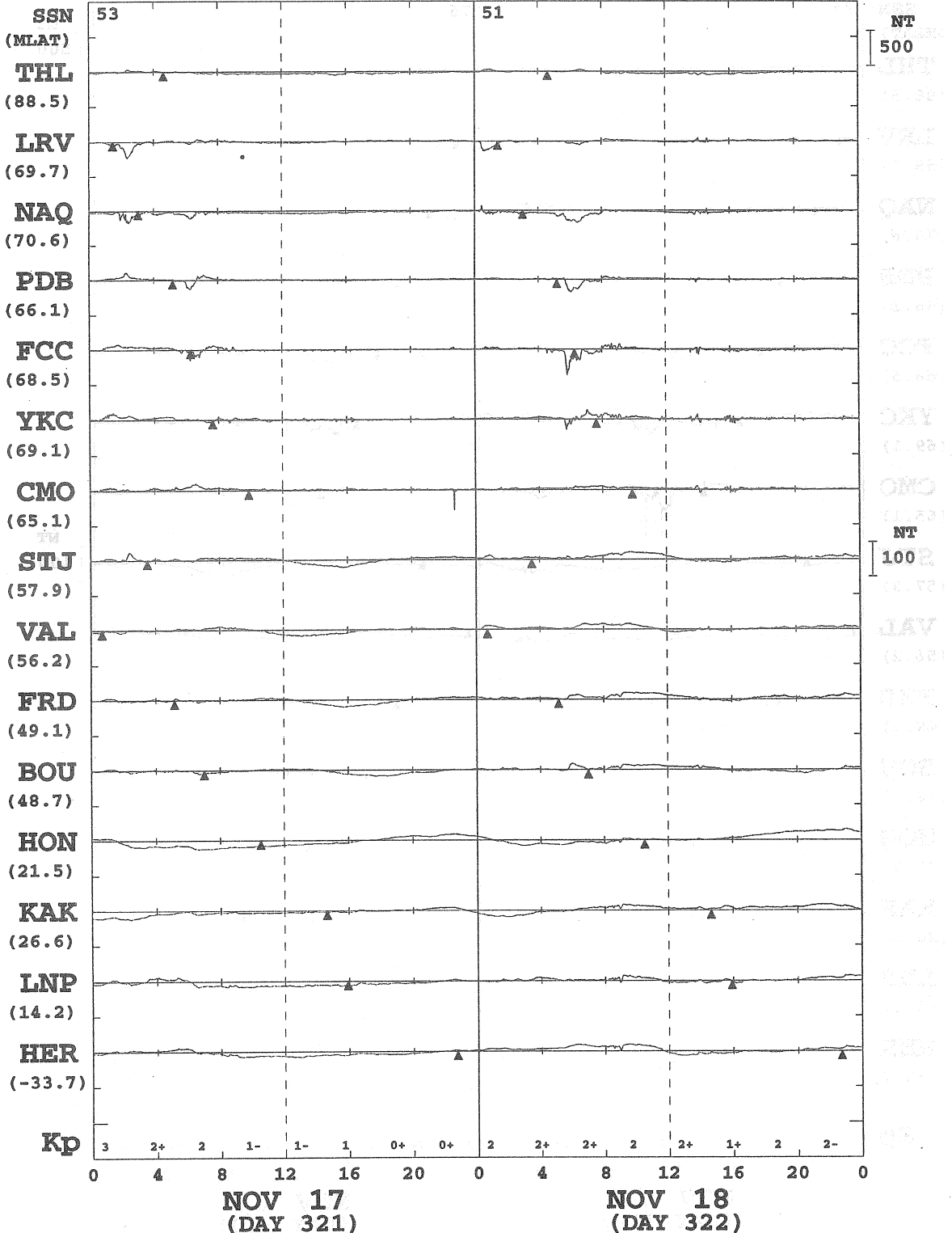
NOV 15
(DAY 319)

NOV 16
(DAY 320)

- * MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
- * PROMPT DATA ARE INCLUDED
- * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

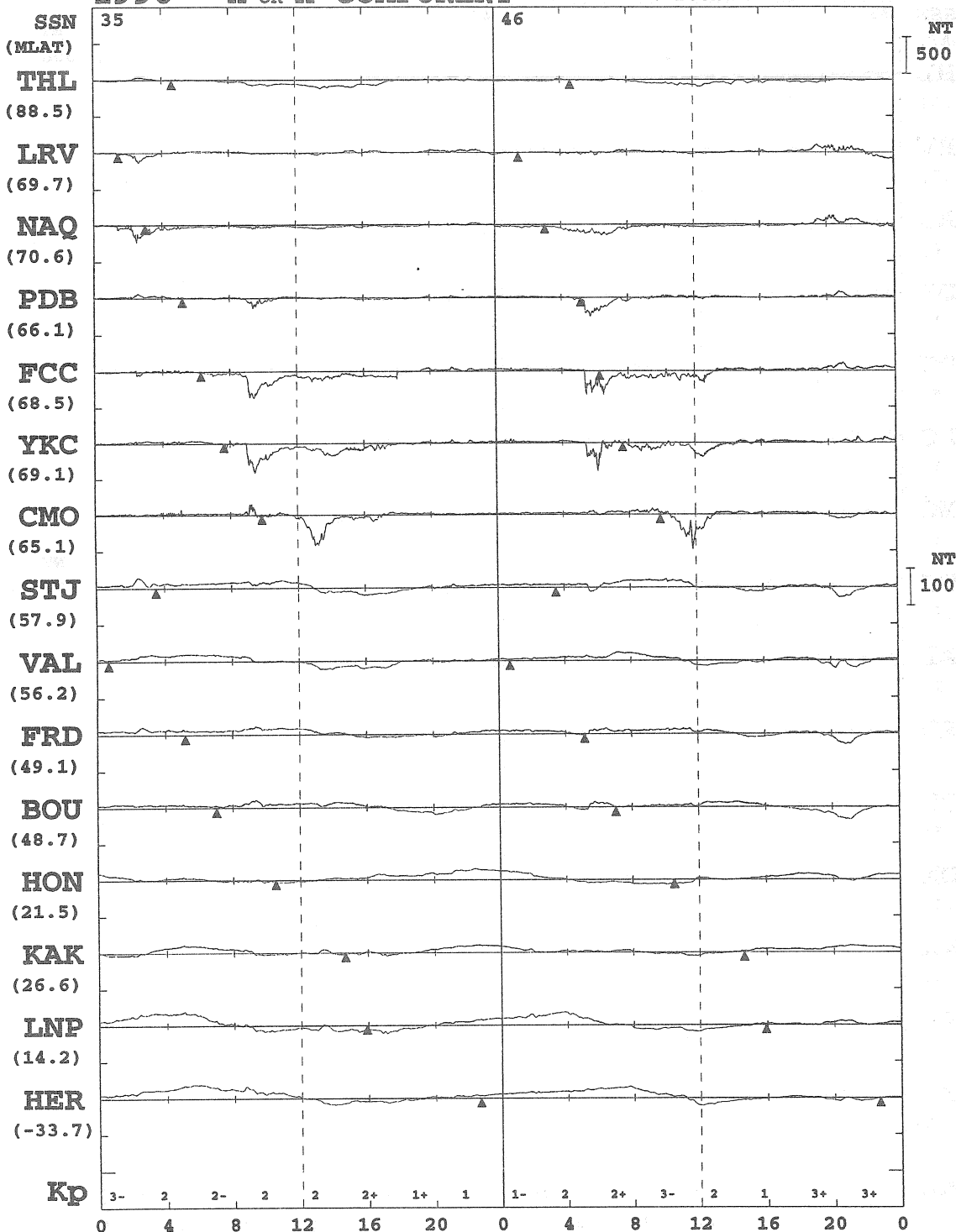
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



NOV 19
(DAY 323)

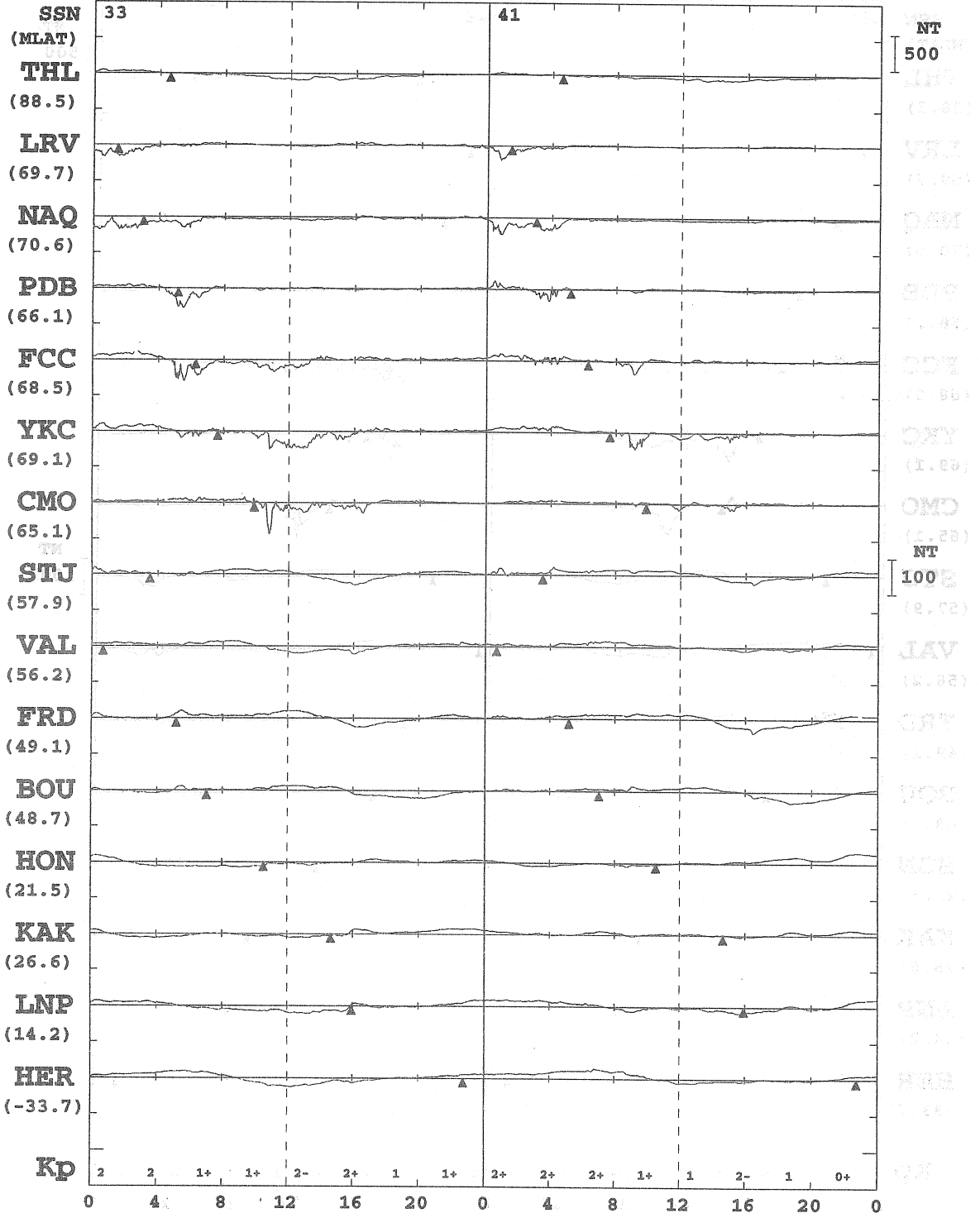
NOV 20
(DAY 324)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT

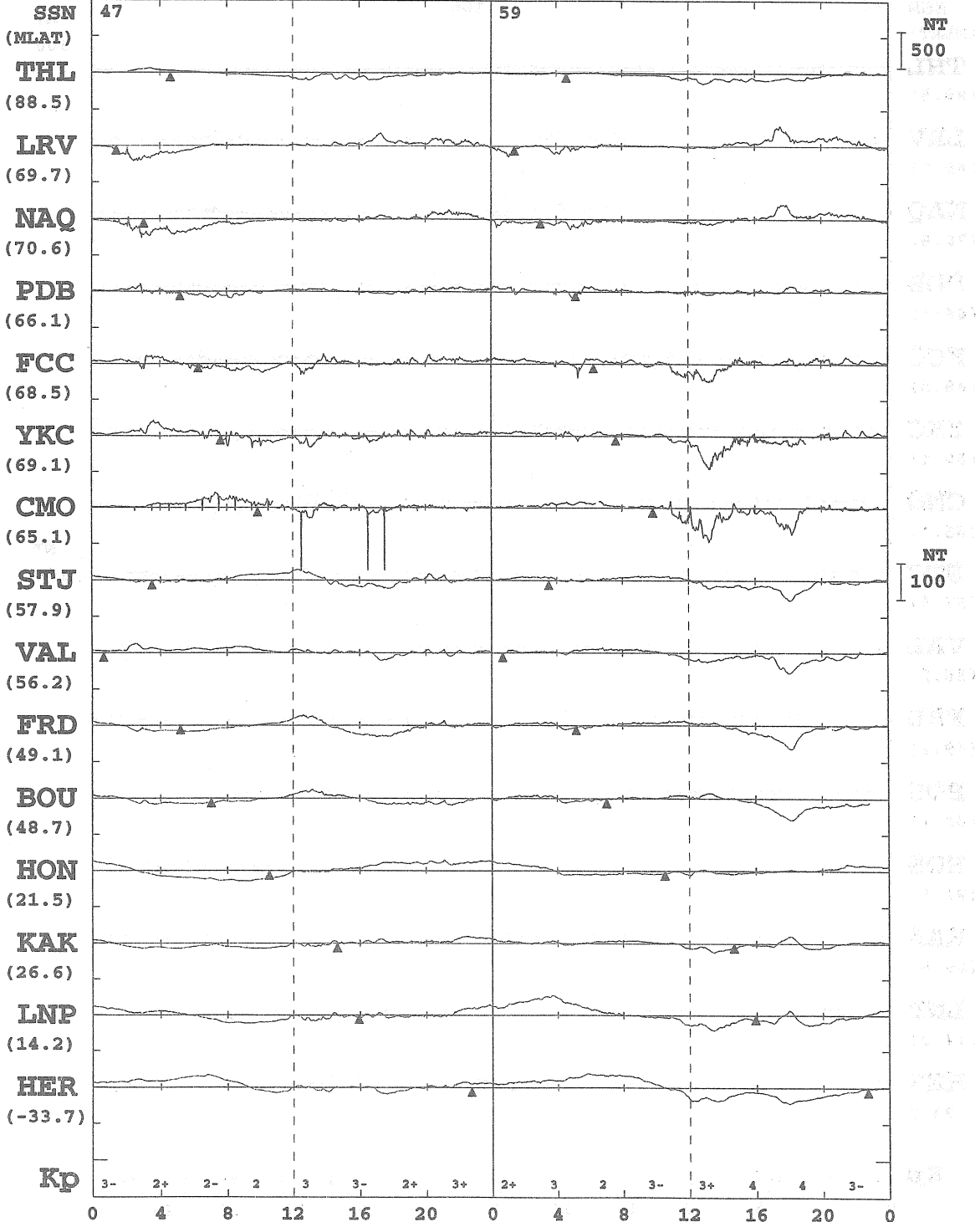


NOV 21
(DAY 325)

NOV 22
(DAY 326)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

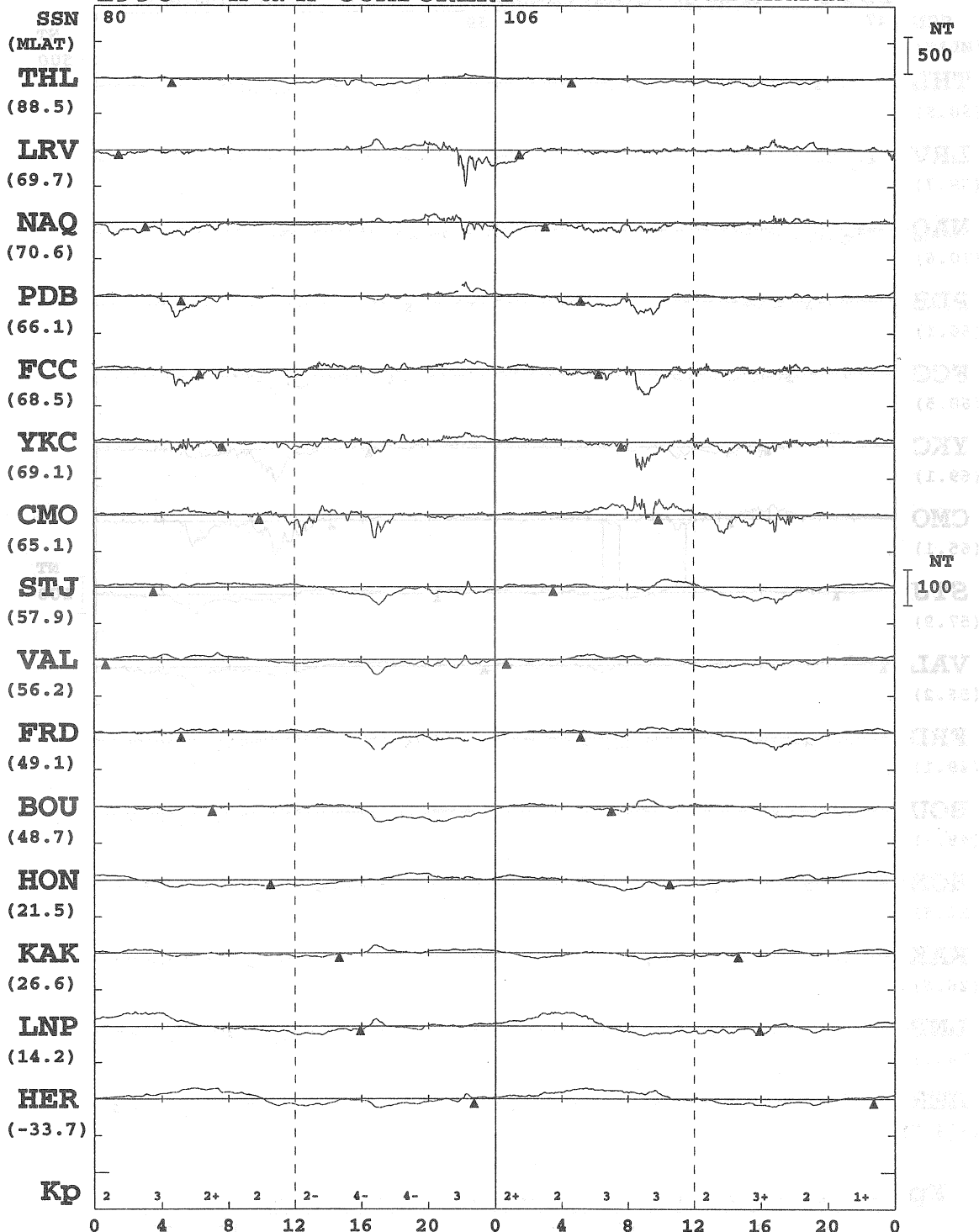
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

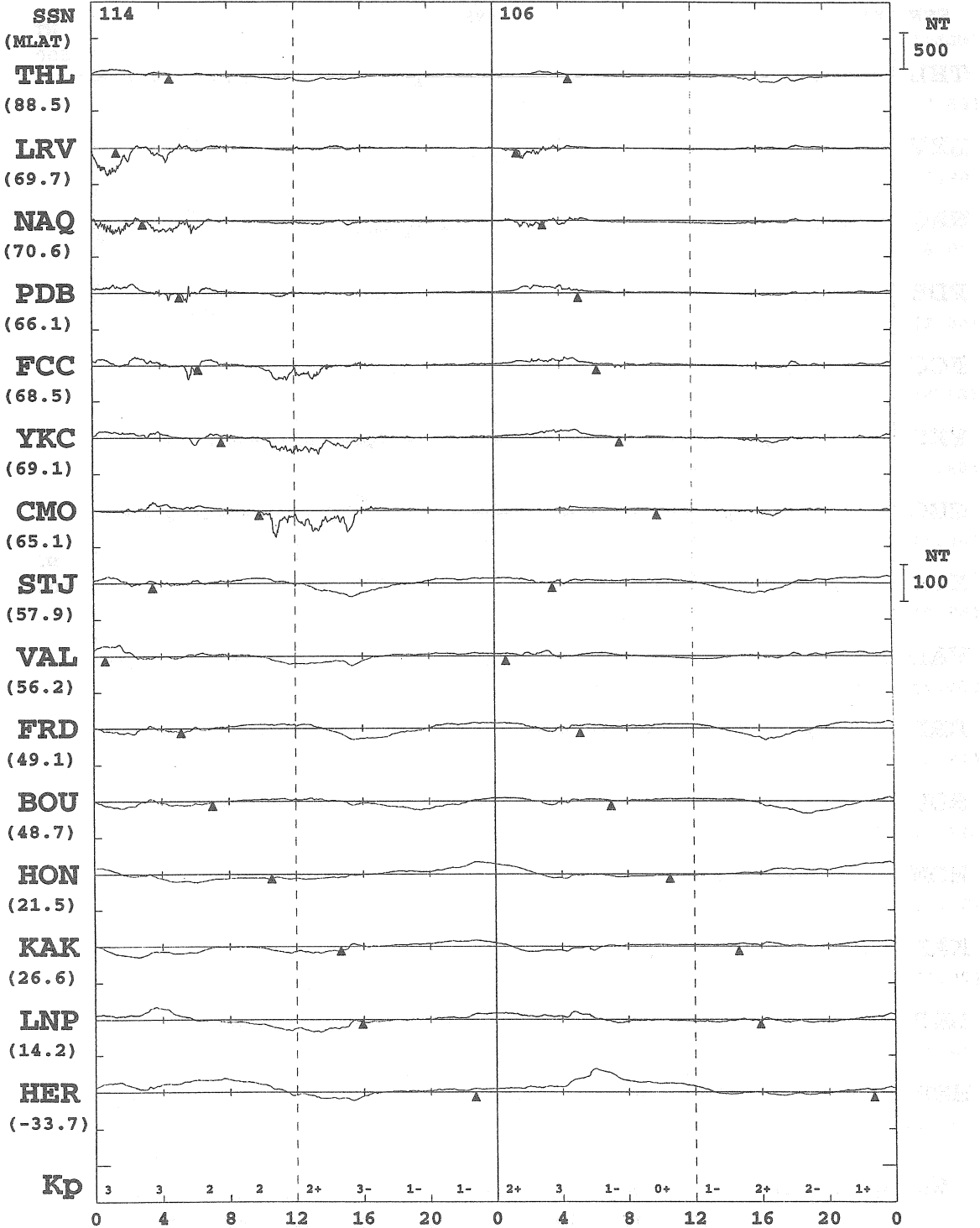
1998 H OR X-COMPONENT LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT Δ : LOCAL MIDNIGHT



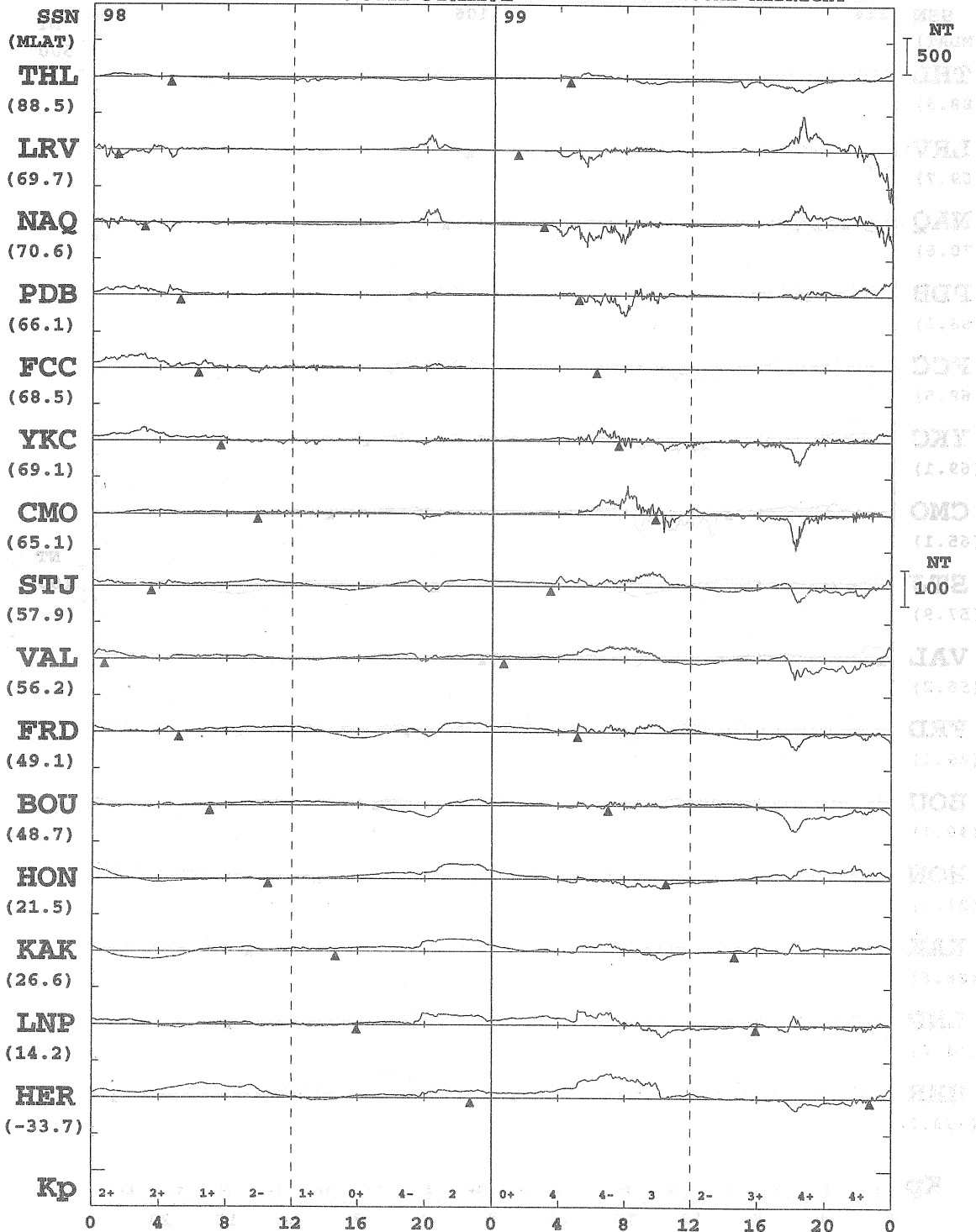
NOV 27
(DAY 331)

NOV 28
(DAY 332)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

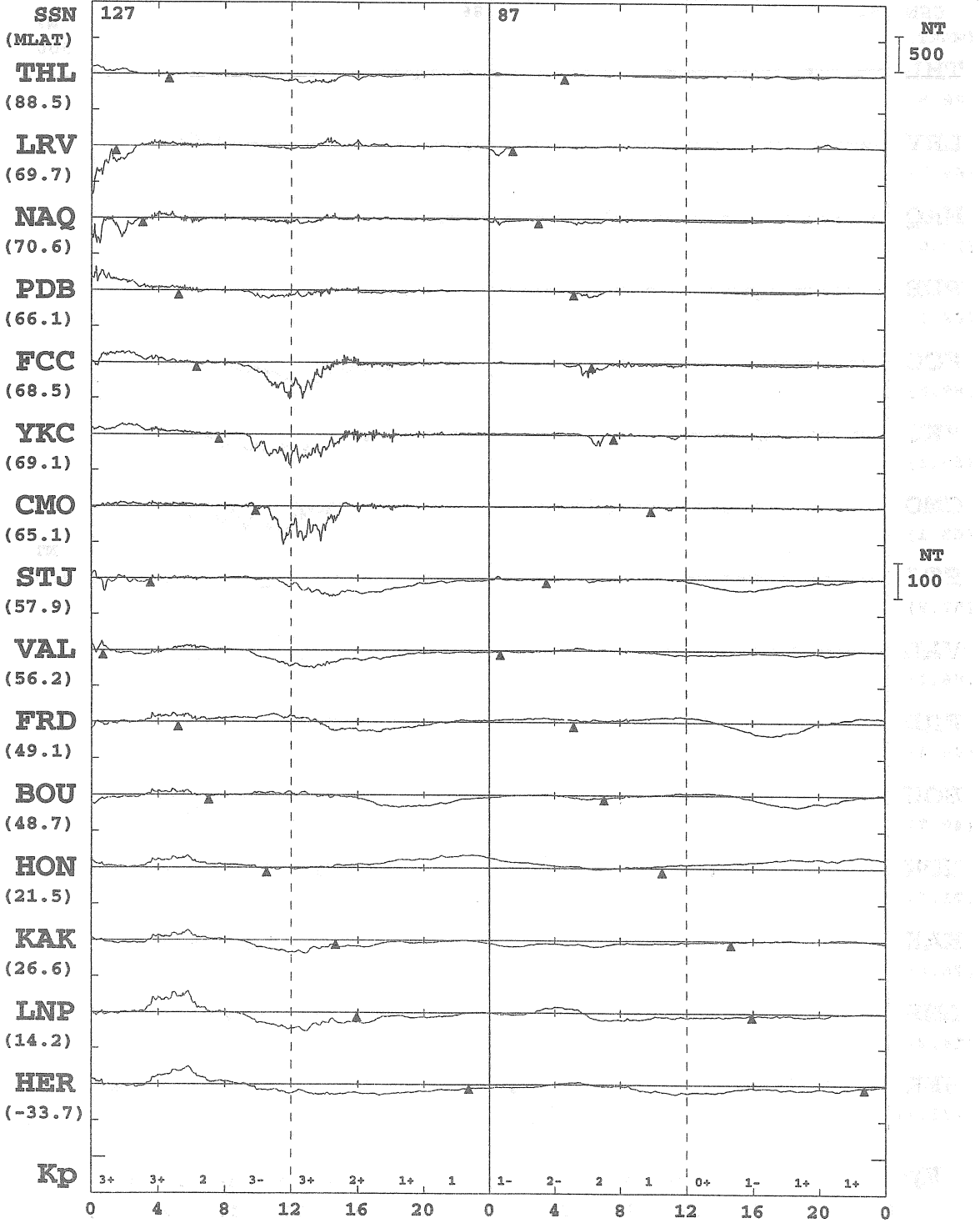
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMET DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



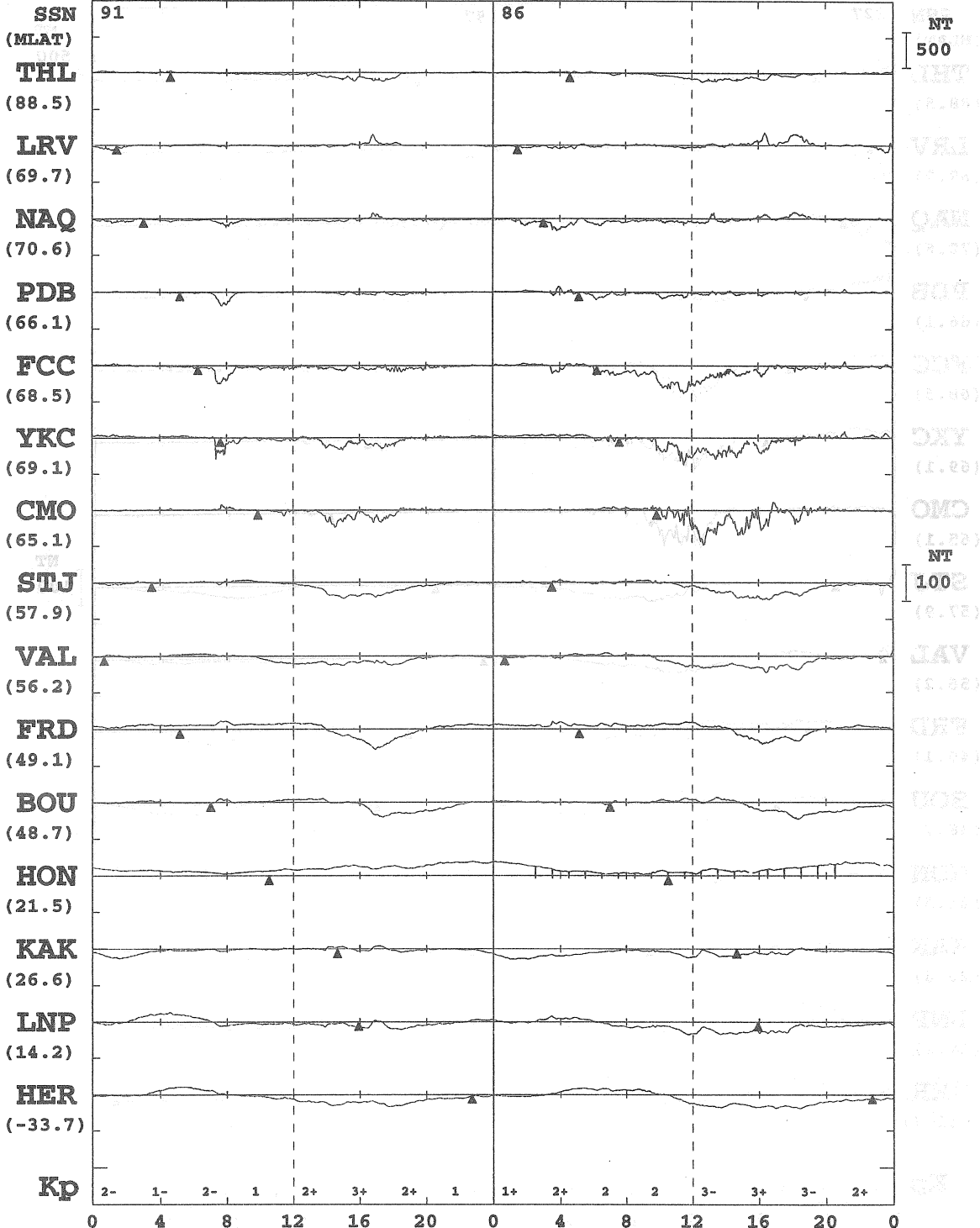
DEC 1
(DAY 335)

DEC 2
(DAY 336)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

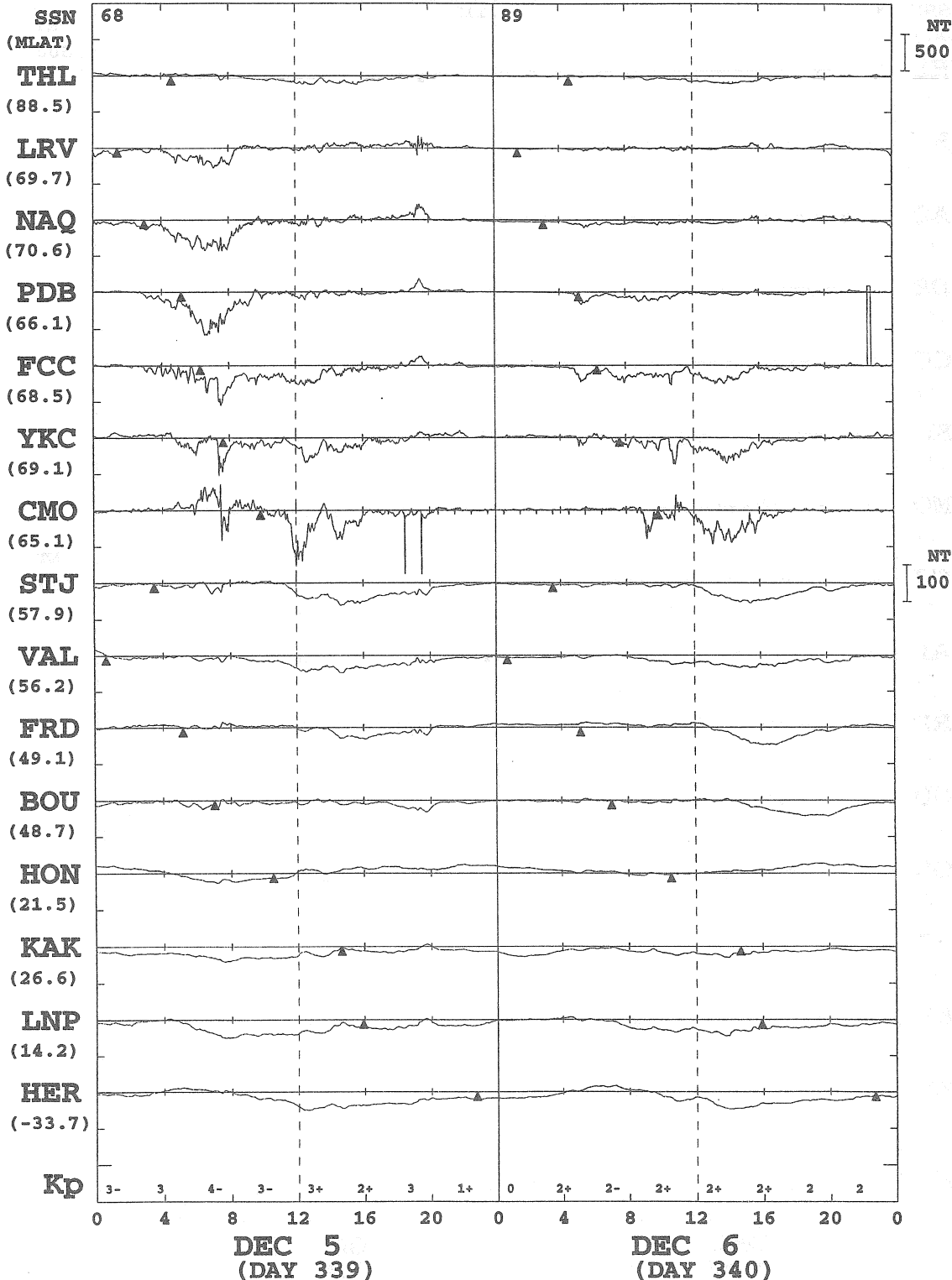
1998 H OR X-COMPONENT SMO Δ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

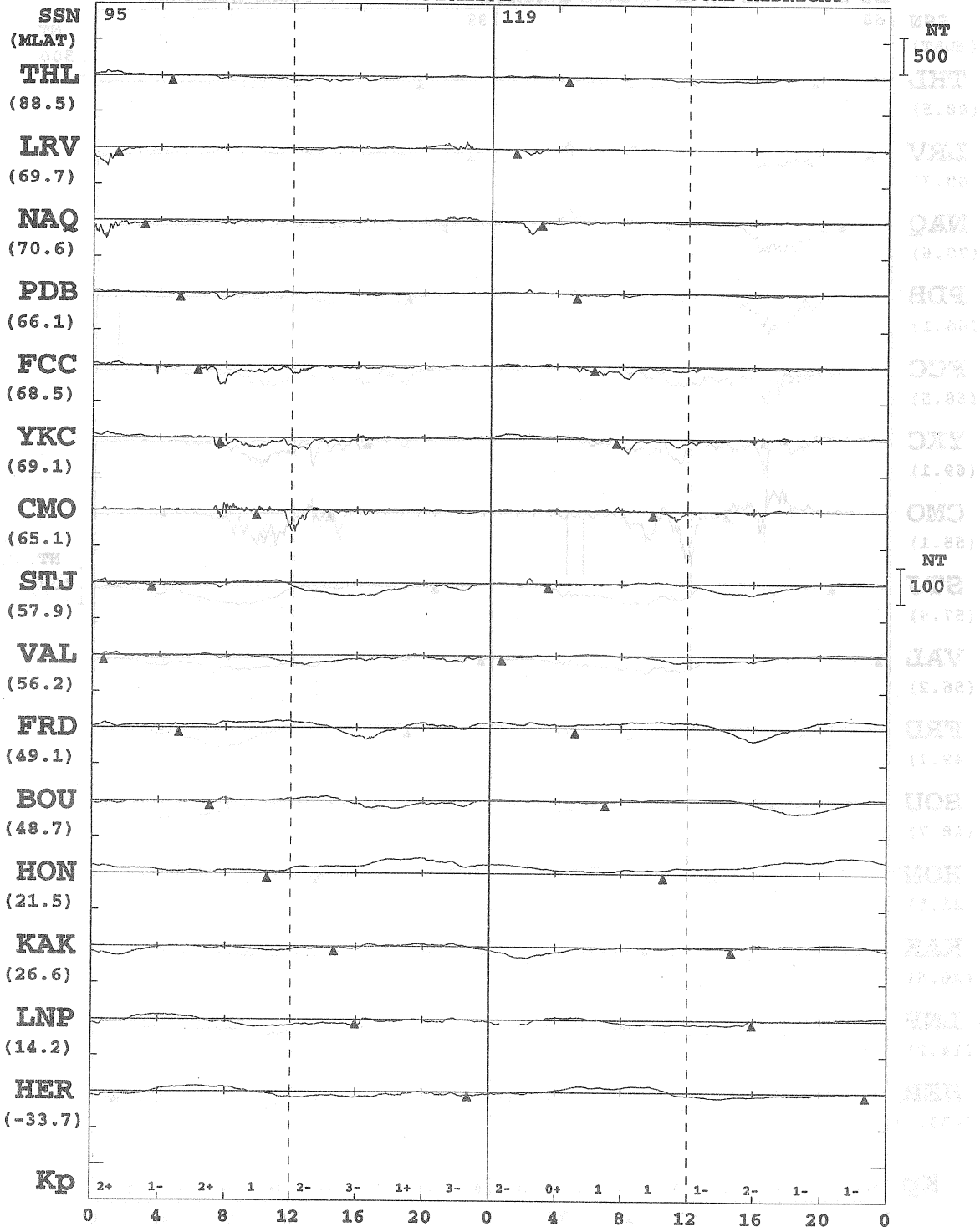
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

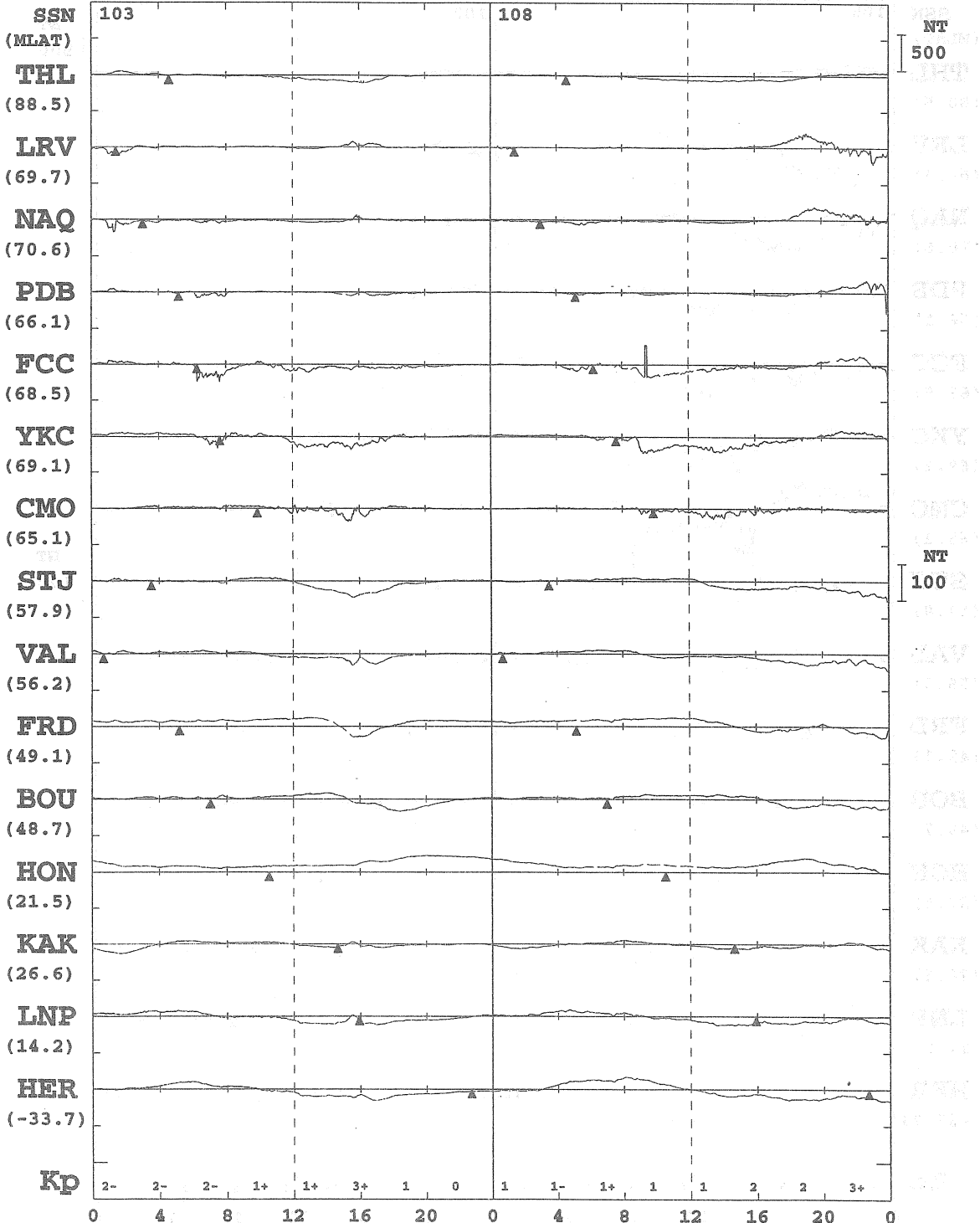
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT

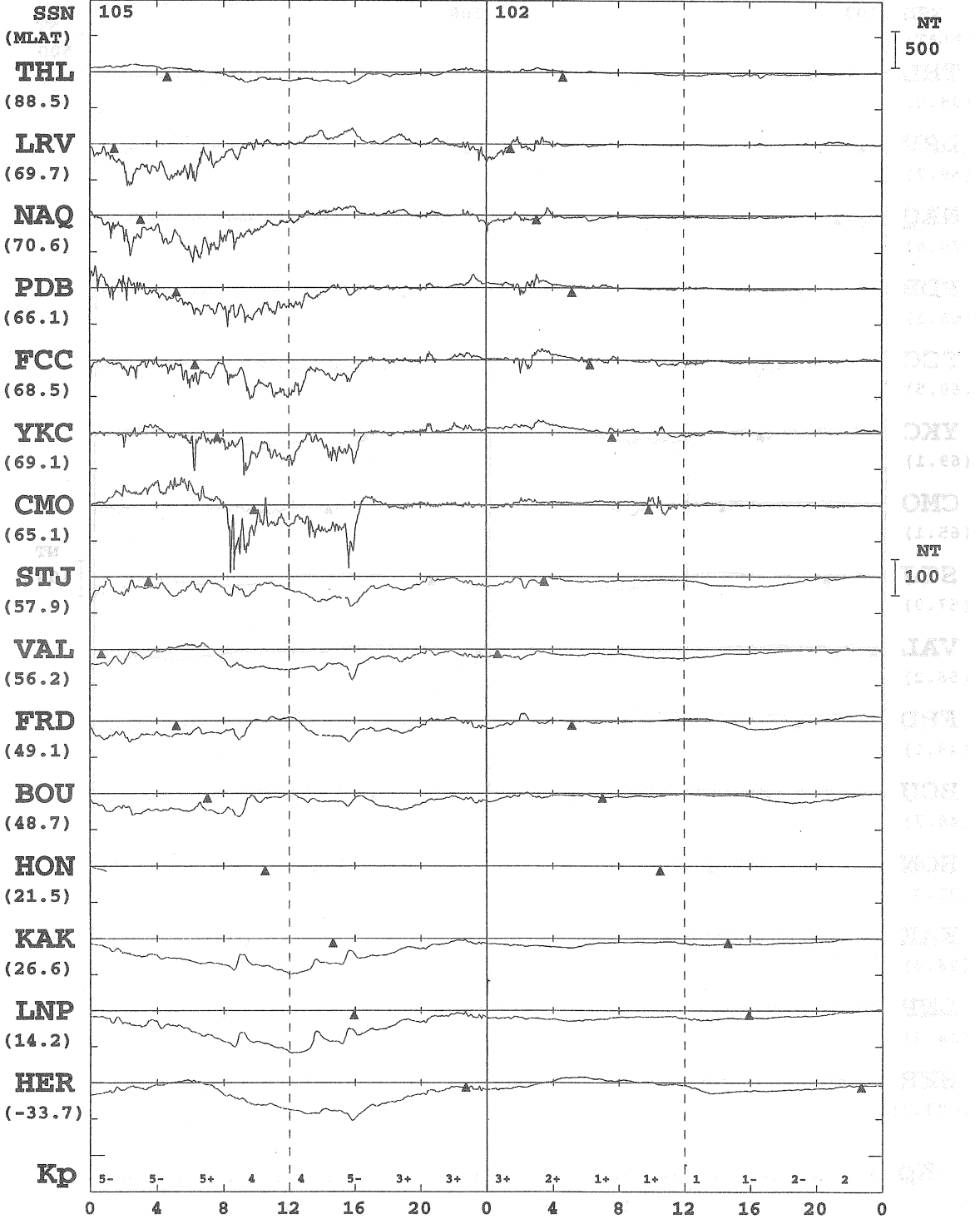


DEC 9 (DAY 343) DEC 10 (DAY 344)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

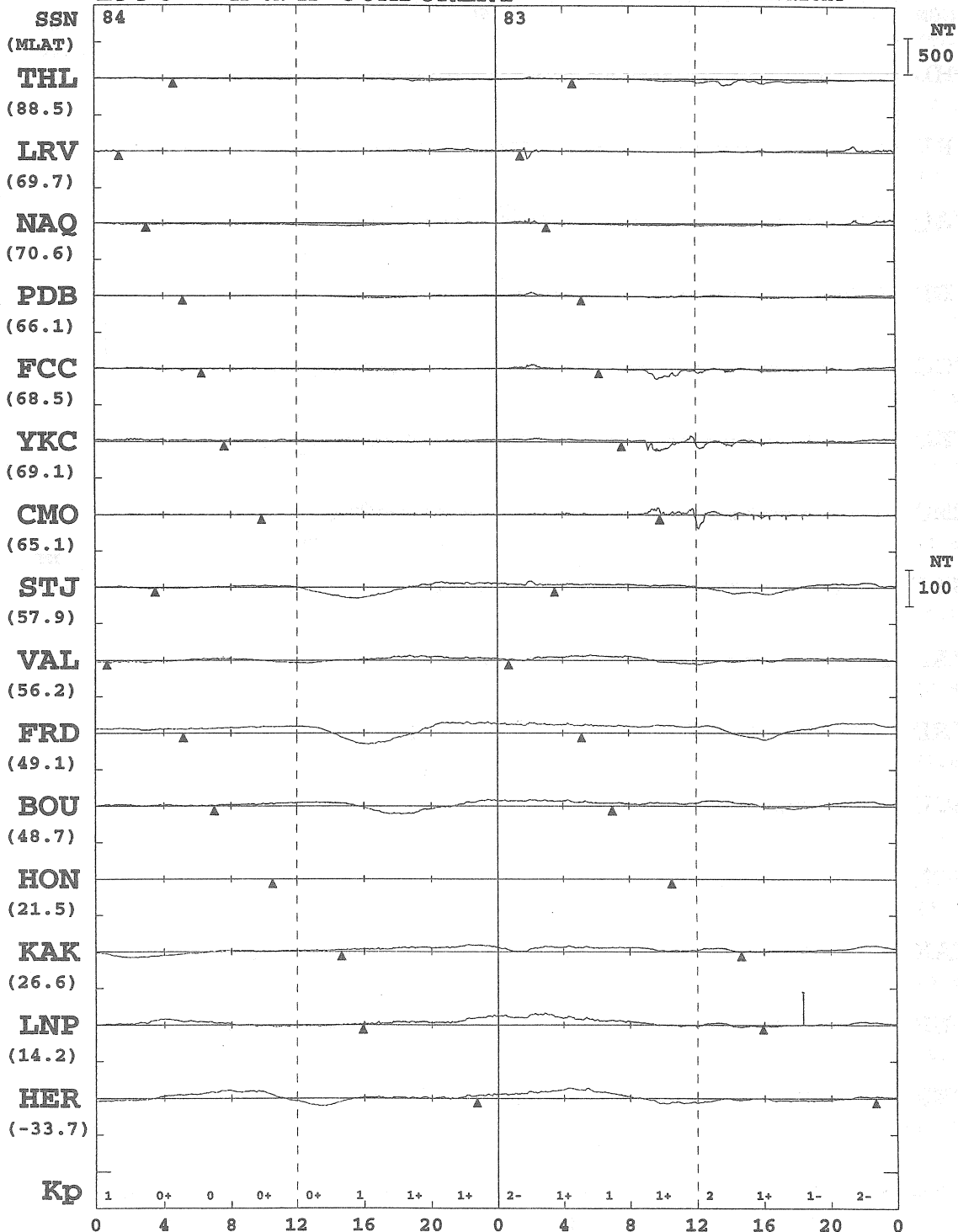
1998 H OR X-COMPONENT LOCAL MIDNIGHT



DEC 11 (DAY 345) DEC 12 (DAY 346)

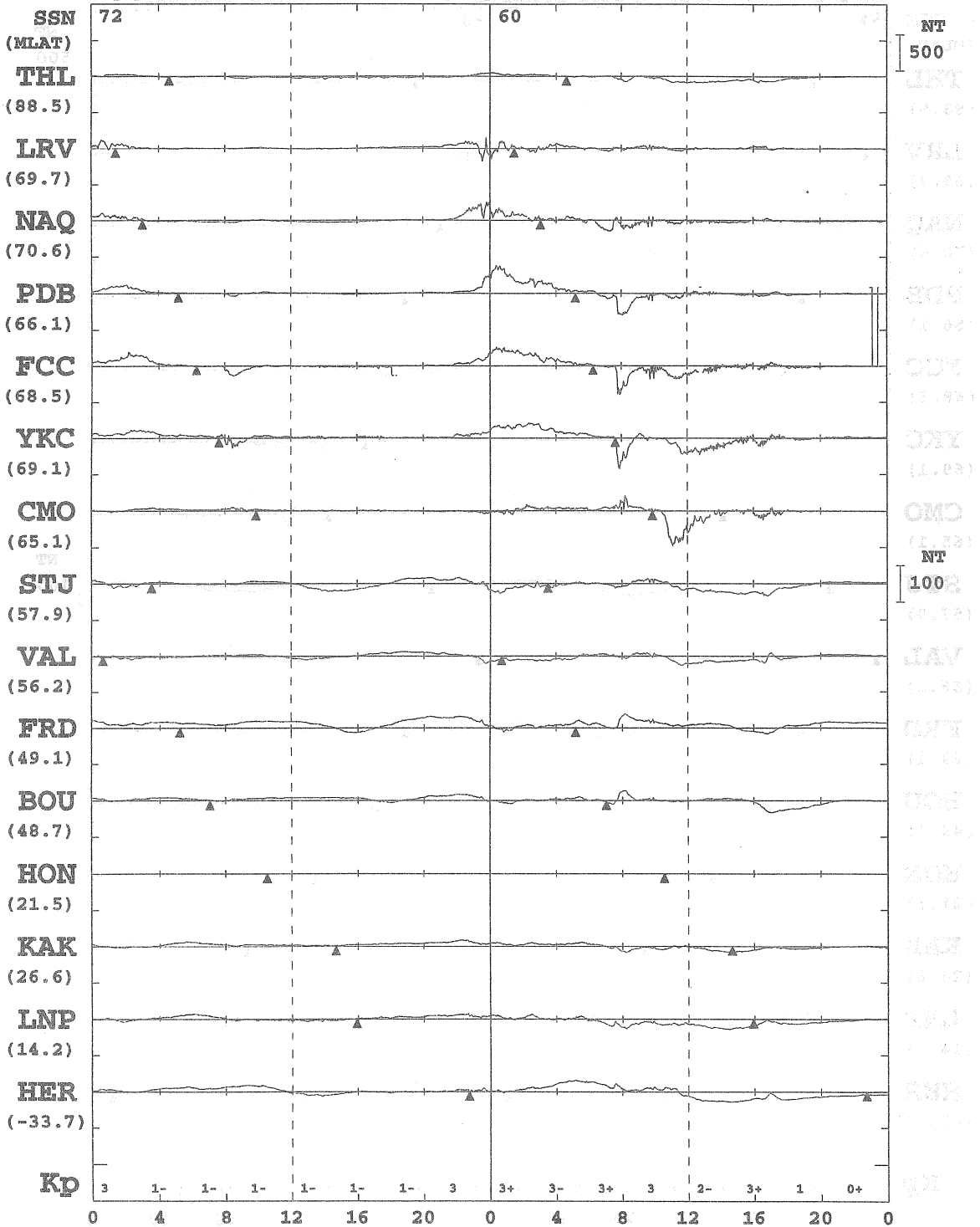
* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
 KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT

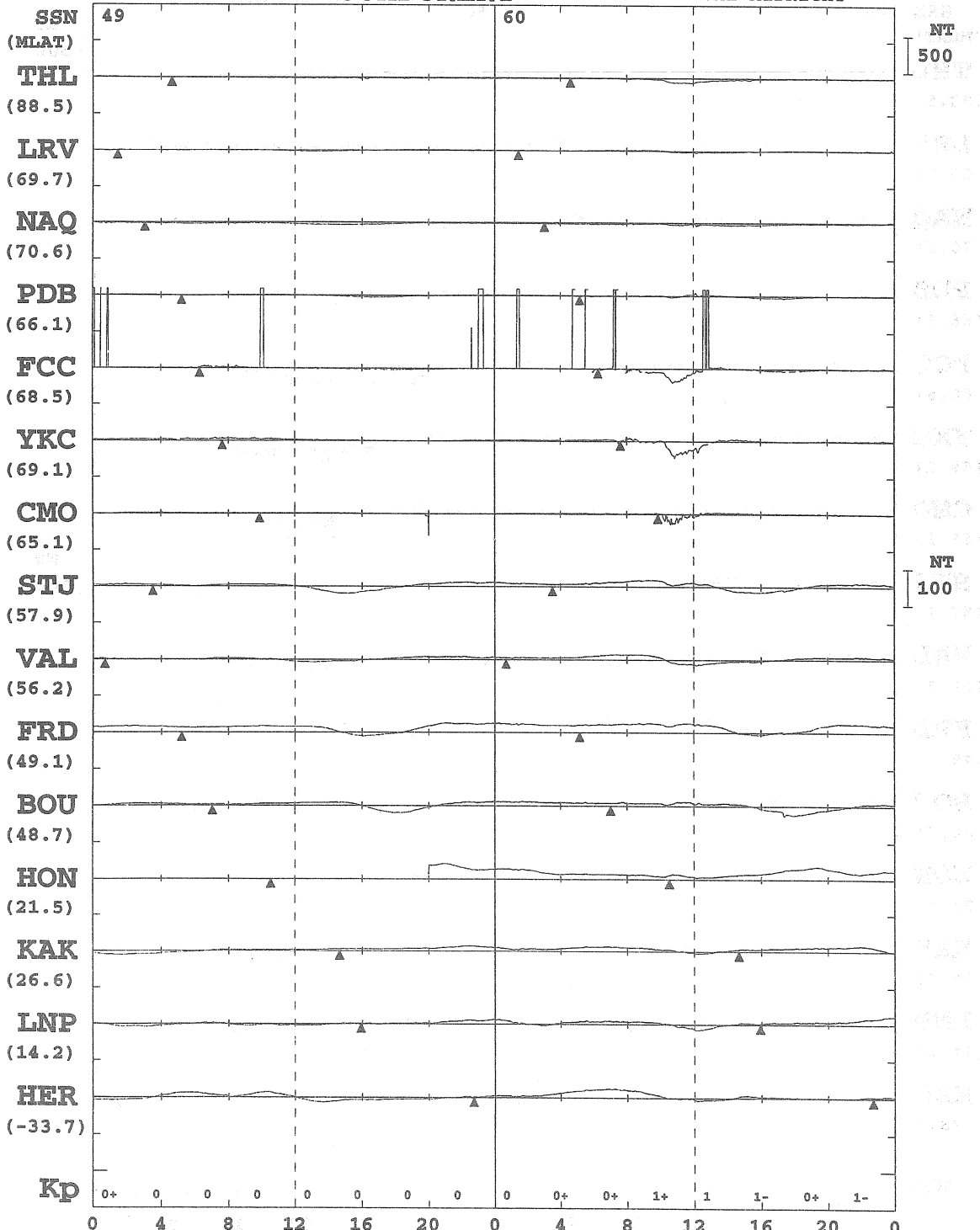


DEC 15
(DAY 349)

DEC 16
(DAY 350)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH KYOTO UNIV.

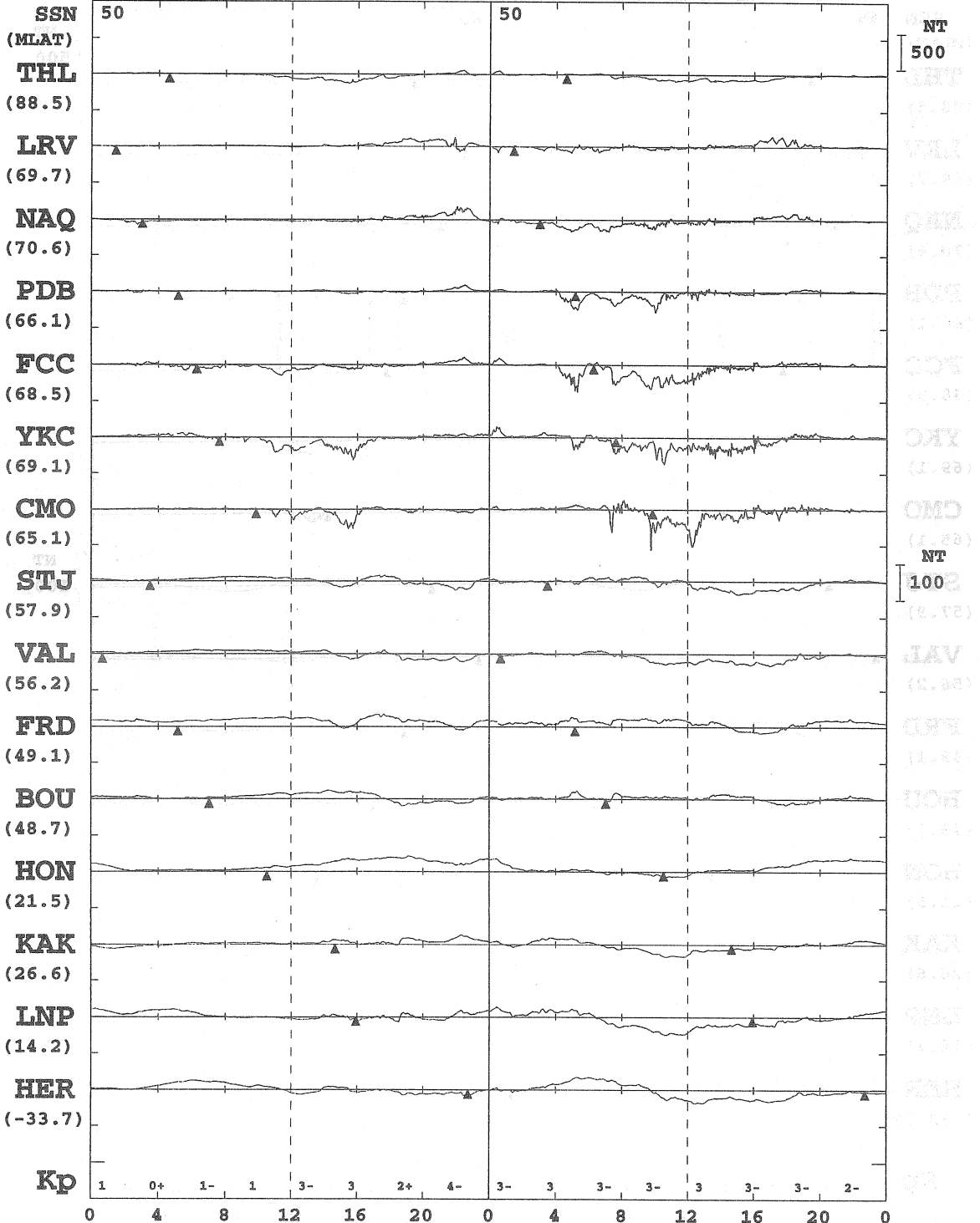
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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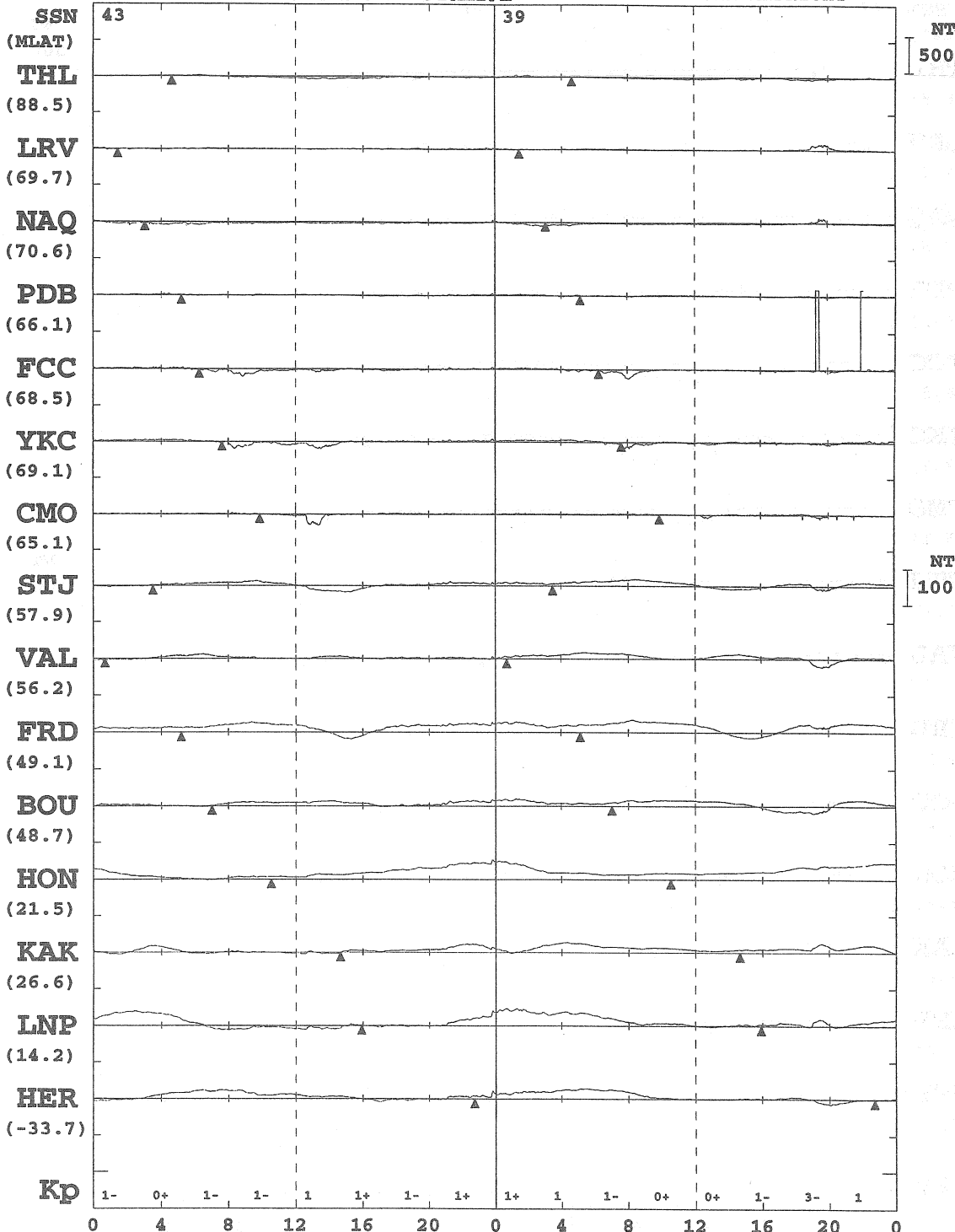
1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



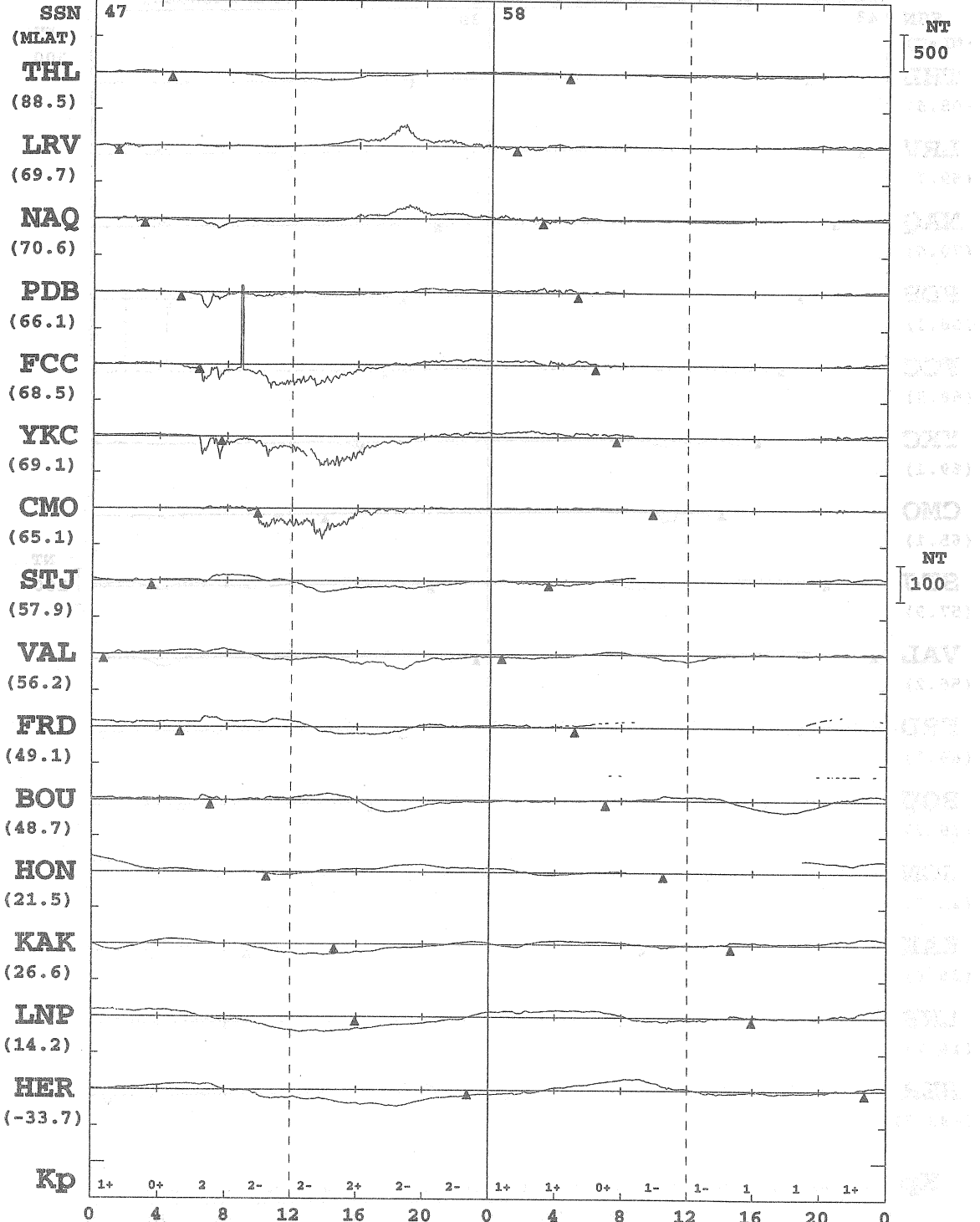
DEC 21
(DAY 355)

DEC 22
(DAY 356)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

KYOTO UNIV.

1998 H OR X-COMPONENT LOCAL MIDNIGHT

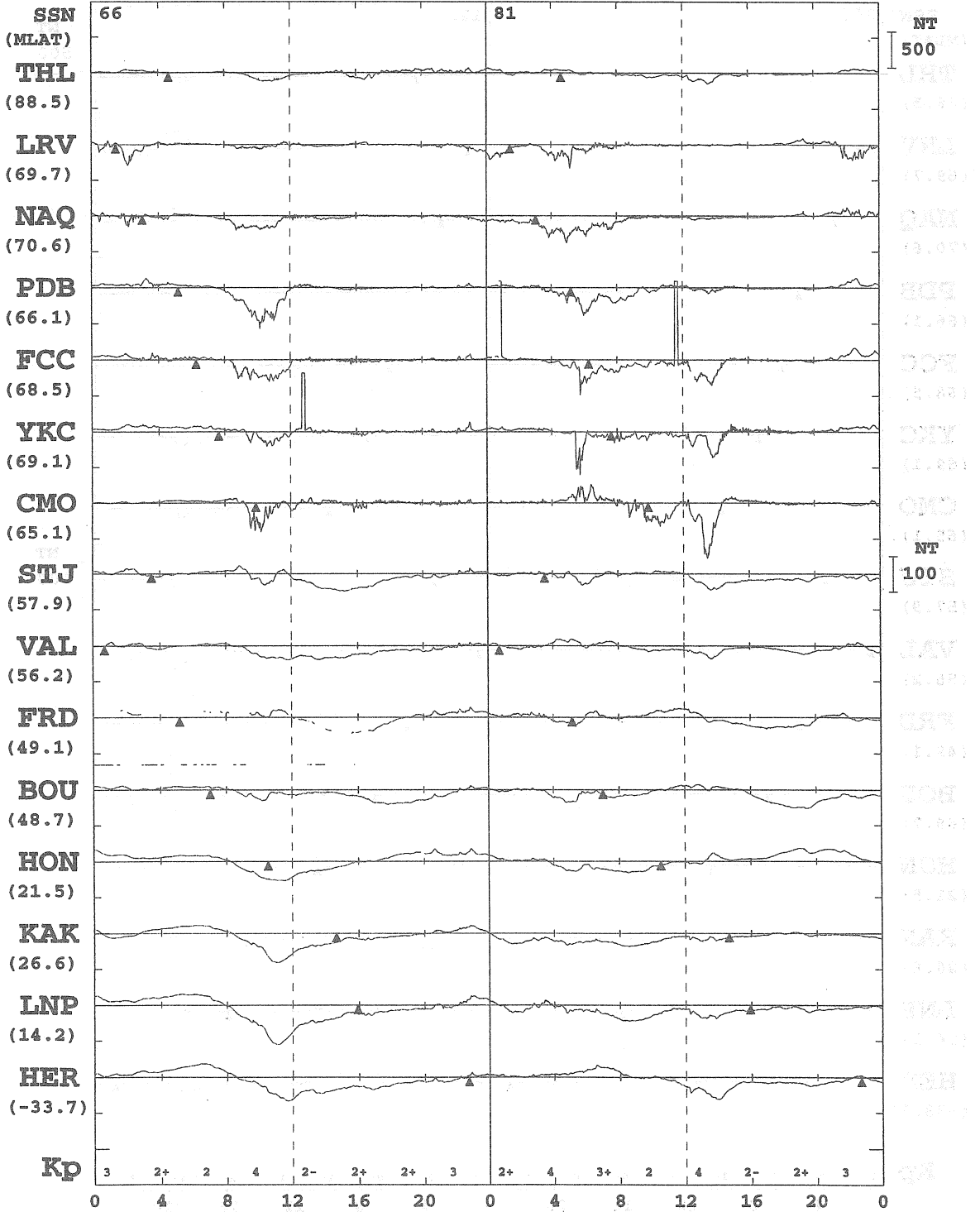


DEC 23 (DAY 357) DEC 24 (DAY 358)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH
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1998 H OR X-COMPONENT

▲ : LOCAL MIDNIGHT



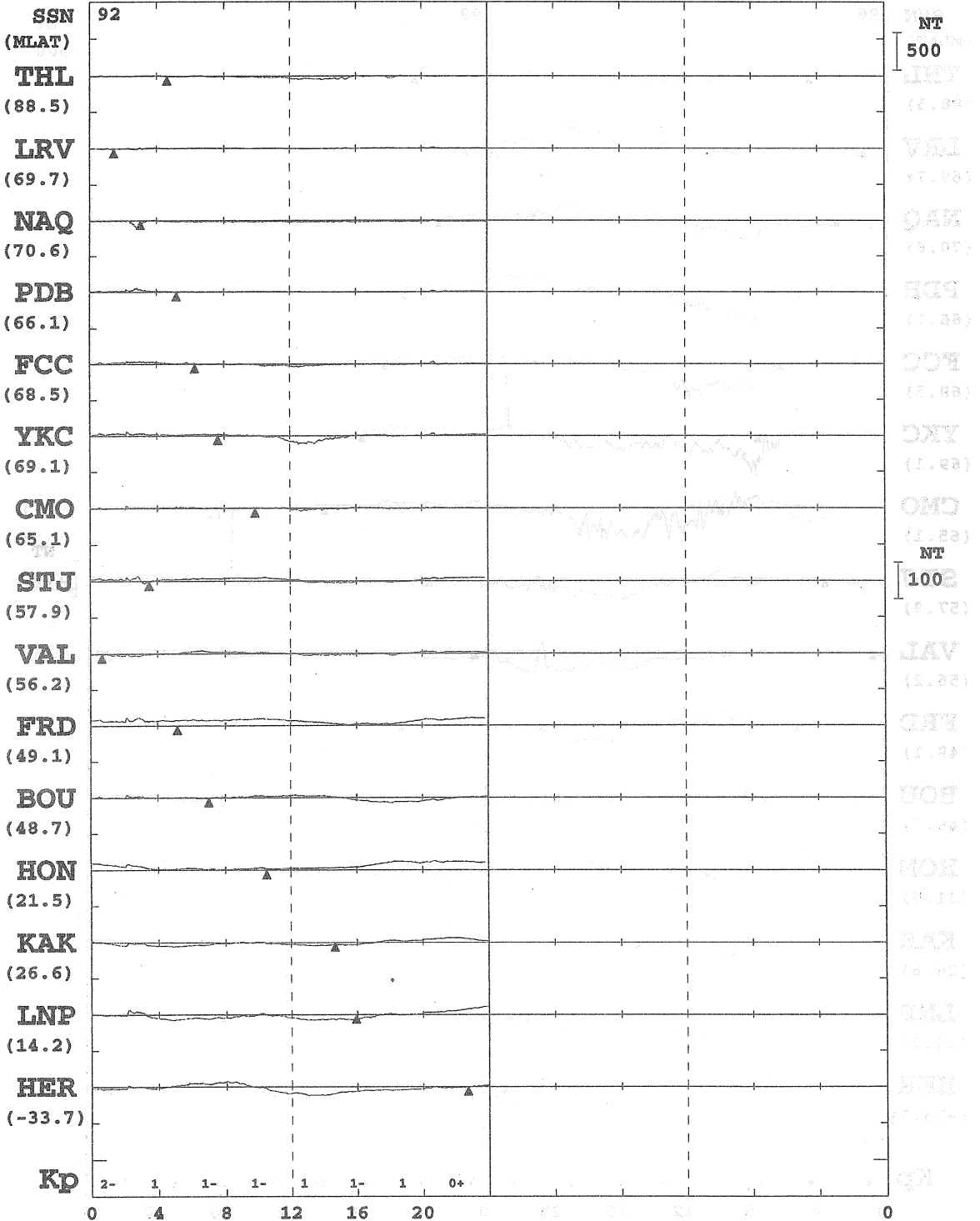
DEC 25
(DAY 359)

DEC 26
(DAY 360)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMPT DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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1998 H OR X-COMPONENT ▲ : LOCAL MIDNIGHT



DEC 31
(DAY 365)

* MONTHLY MEAN OF 5-QUIET DAYS IS SUBTRACTED
 * PROMET DATA ARE INCLUDED
 * ARTIFICIAL NOISES ARE NOT ELIMINATED ENOUGH

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