

From john.goldsten@jhuapl.edu Tue Sep 1 18:40:55 2009
X-Barracuda-Envelope-From: john.goldsten@jhuapl.edu
From: "Goldsten, John" <John.Goldsten@jhuapl.edu>
To: Kevin Hurley <khurley@ssl.berkeley.edu>
Date: Tue, 1 Sep 2009 21:38:43 -0400
Subject: RE: poster paper
Accept-Language: en-US
Content-Language: en-US
acceptlanguage: en-US
X-MIME-Autoconverted: from quoted-printable to 8bit by scylla2.ssl.berkeley.edu

Hi Kevin,

Wow, Venice. Let me know if you need someone to "guard" your poster.

I assume you saw the email that MESSENGER went into safe mode today. The NS is

Best Regards,
John

Last tugger was 44270

From: Kevin Hurley [khurley@ssl.berkeley.edu]
Sent: Tuesday, September 01, 2009 6:35 PM
To: Thomas.L.Cline@nasa.gov; khurley@ssl.berkeley.edu; imitrofa@space.ru; dimams
Subject: poster paper

Dear Co-authors,

I will be presenting a poster paper entitled "The status and future of the
rd interplanetary network" at the "Shocking Universe" meeting in Venice.
've posted a draft at ssl.berkeley.edu/ipn3/venice2009.pdf. Your comments
are welcome up to Tuesday, September 8, when I will have to print out the
final version. Changes will also be possible at a later date when I write
the proceedings version.

Kevin

INTEGRAL

01/09/09

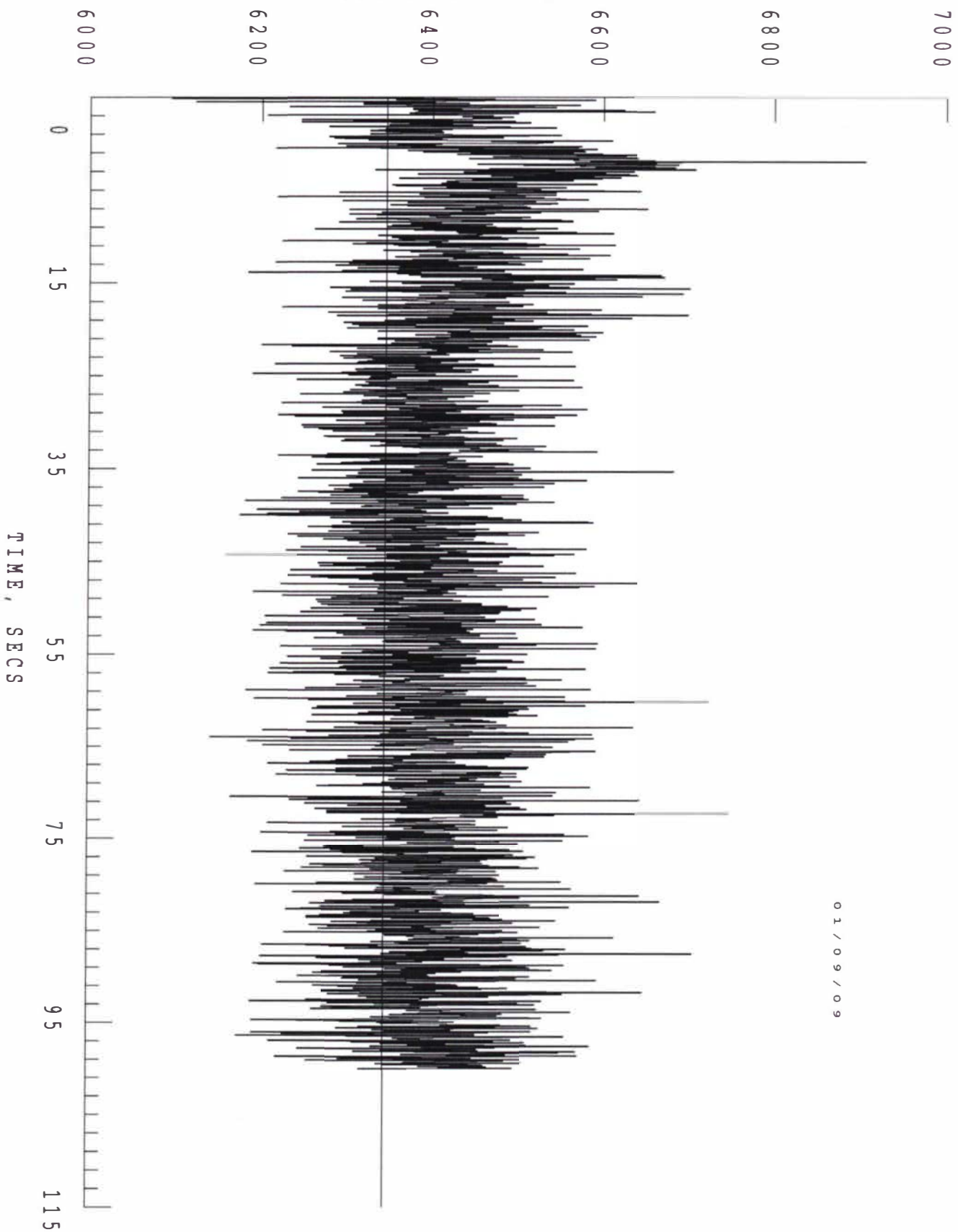
19654.470

A

100-10000 keV

OS:27:34

COUNTS/0.050 S



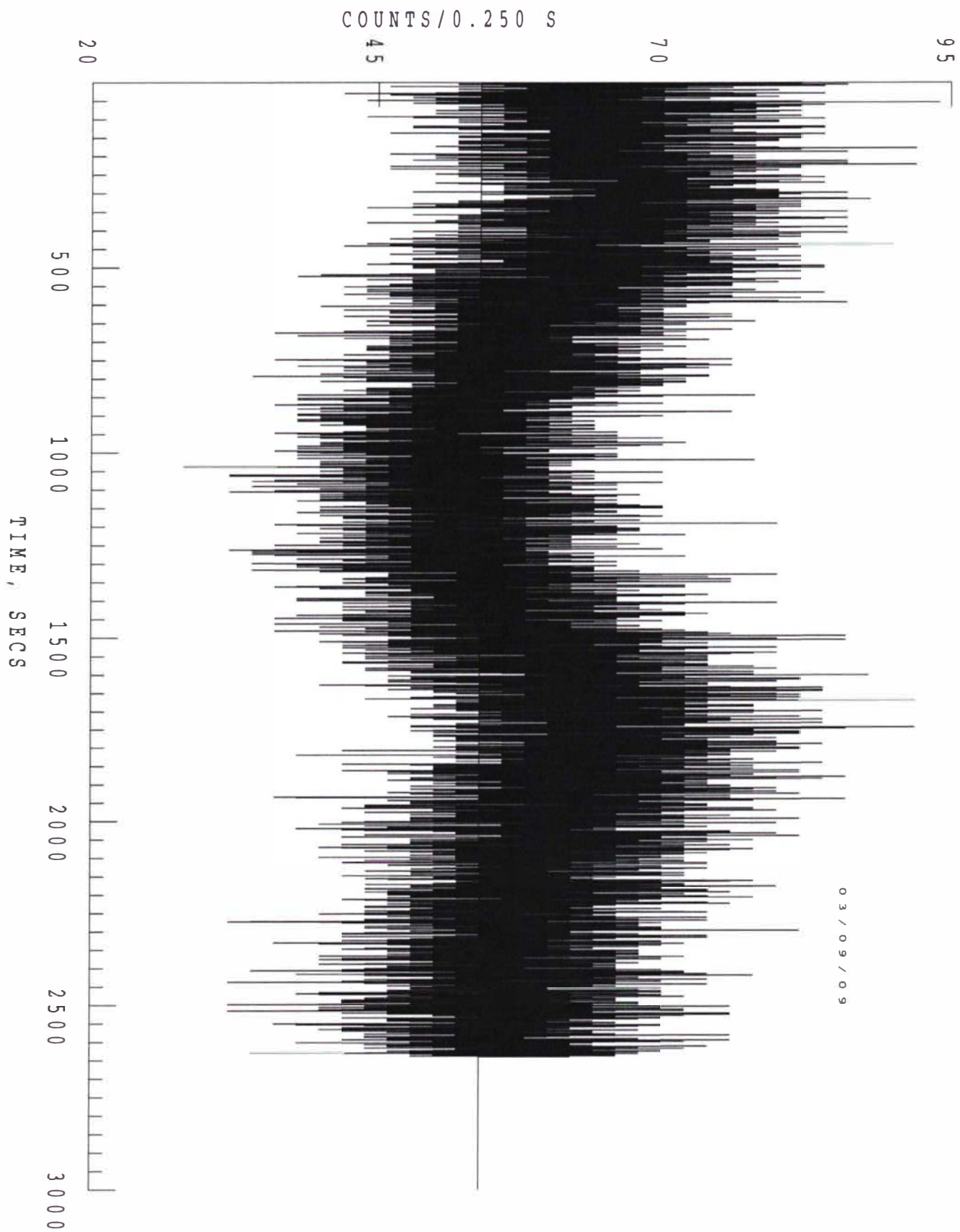
A

MS01

01/09/09

18307.786

50 - 3000 keV



MO GE

01/09/09

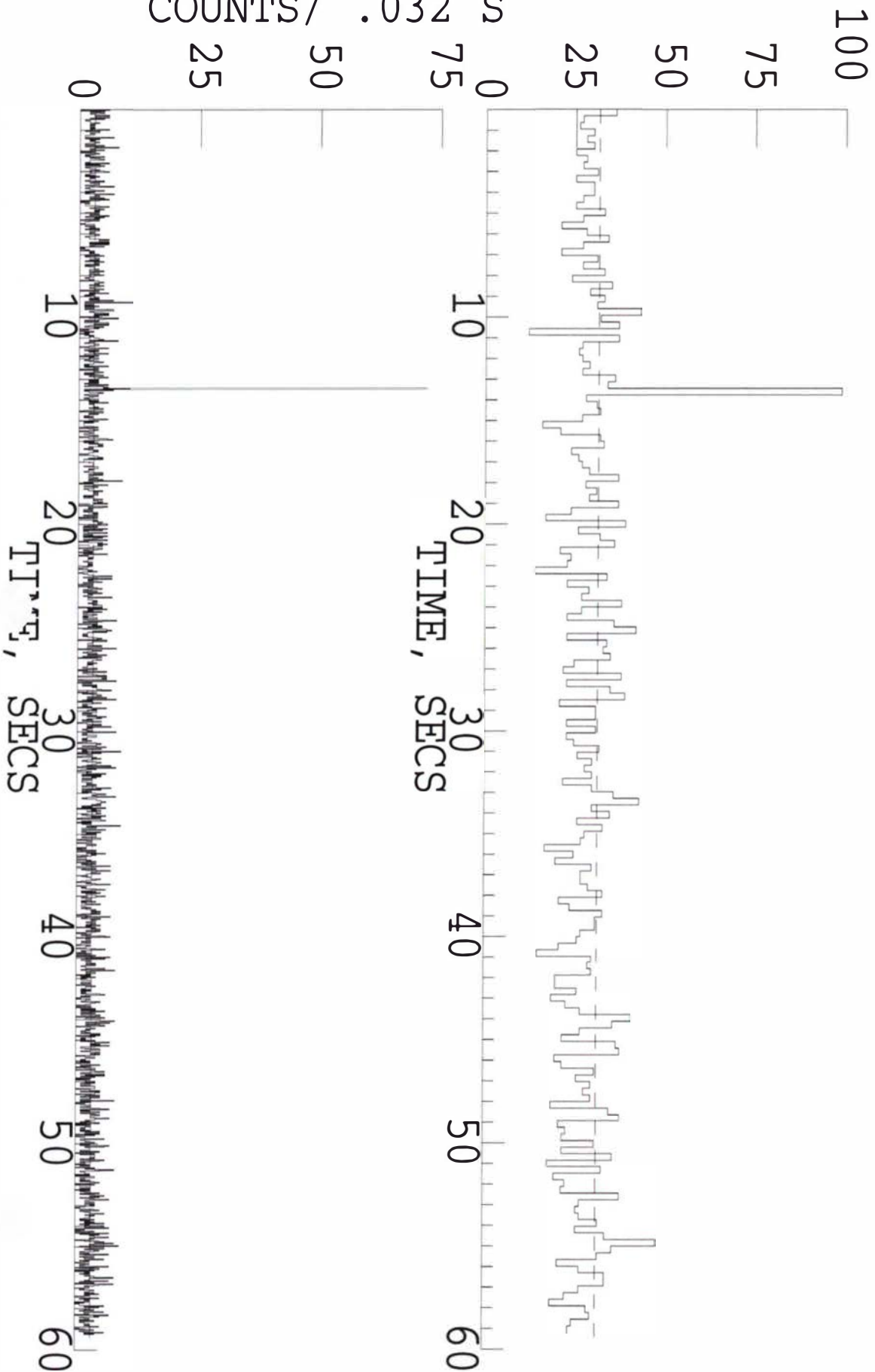
19270.683

A

116- 337 keV

COUNTS/ .032 S

COUNTS/ .320 S



04/09/2009

MO GE

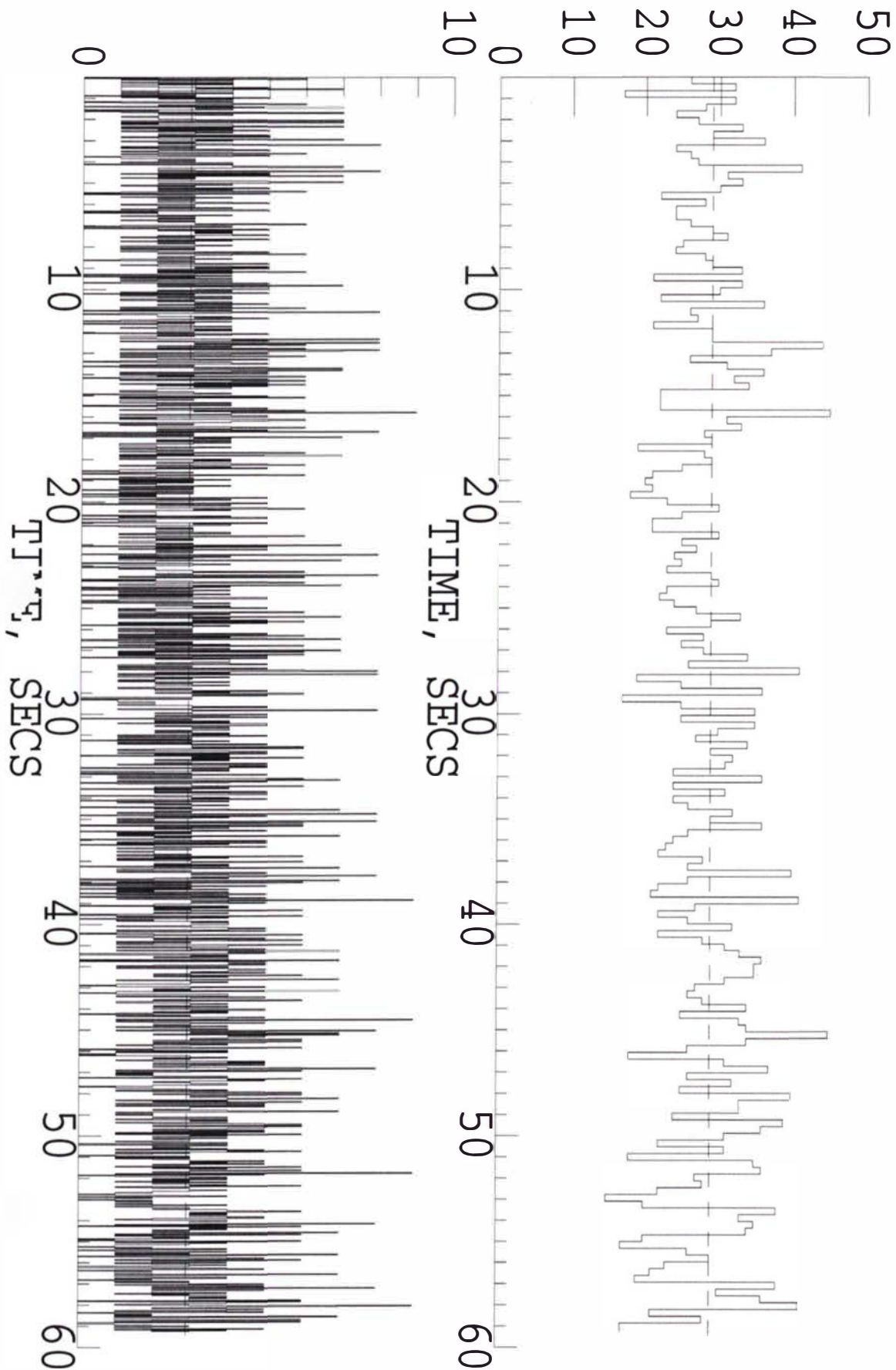
01/09/09

19408.995

A

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



04/09/2009

MO GE

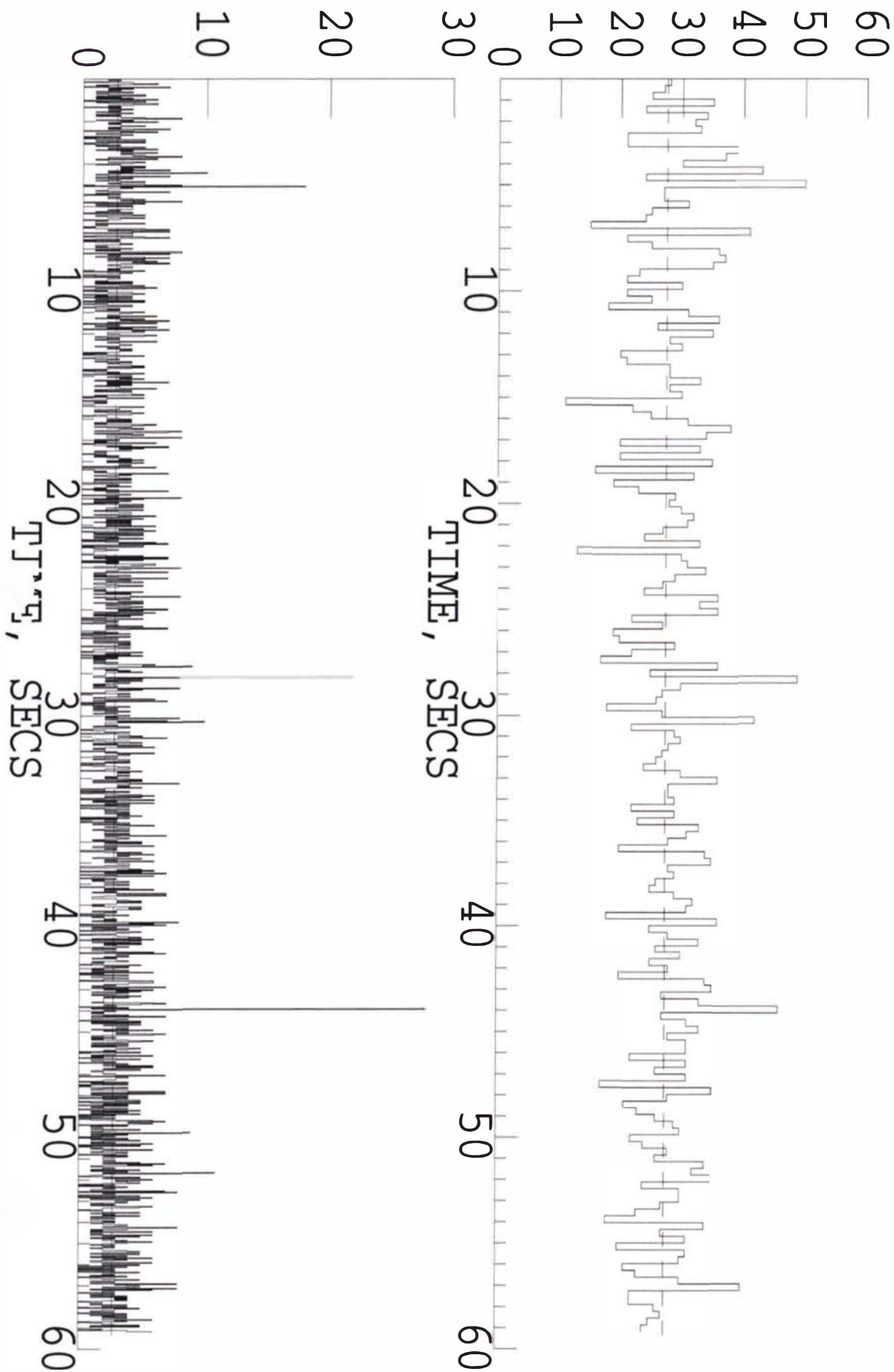
01/09/09

19962.244

A

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



04/09/2009

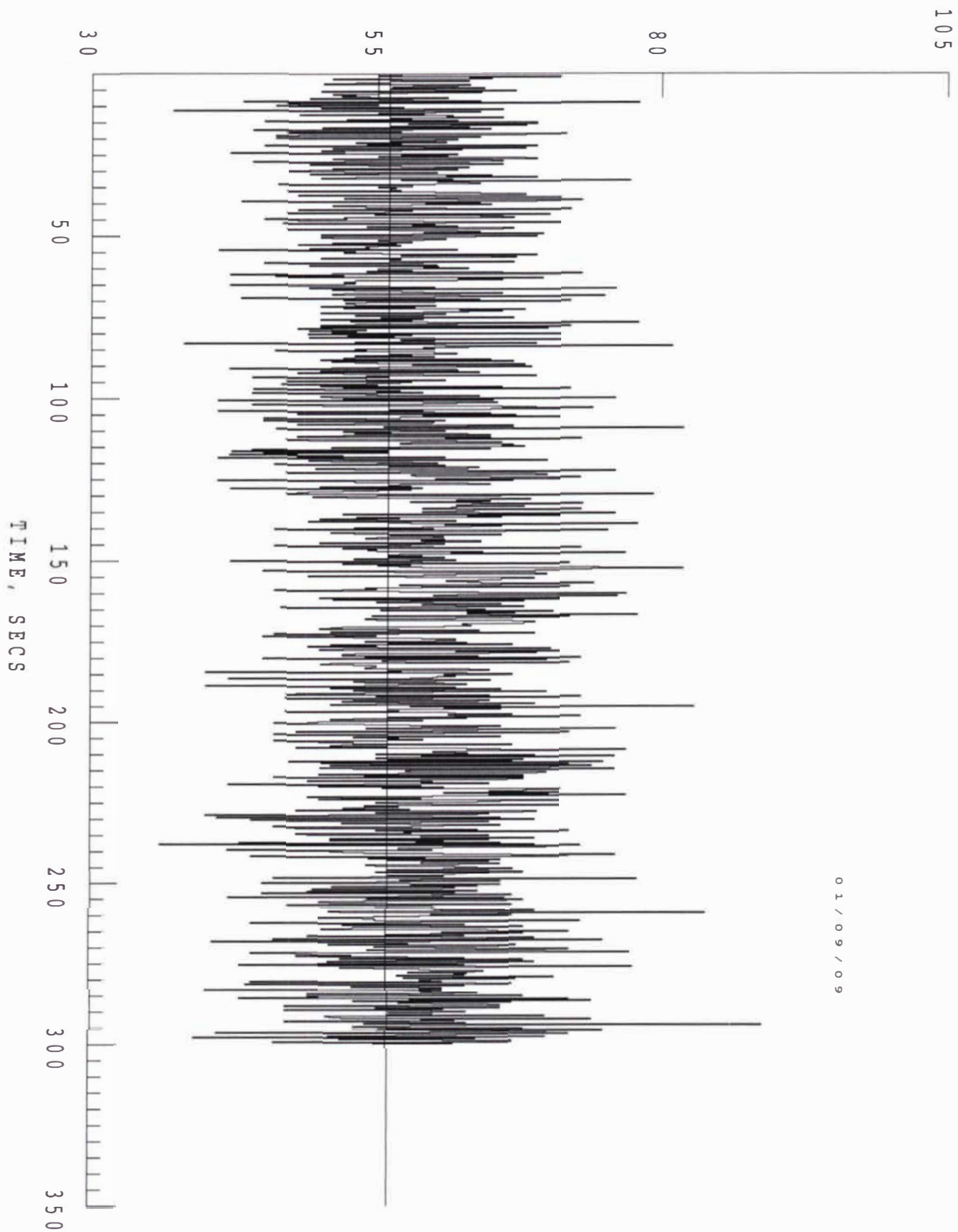
A

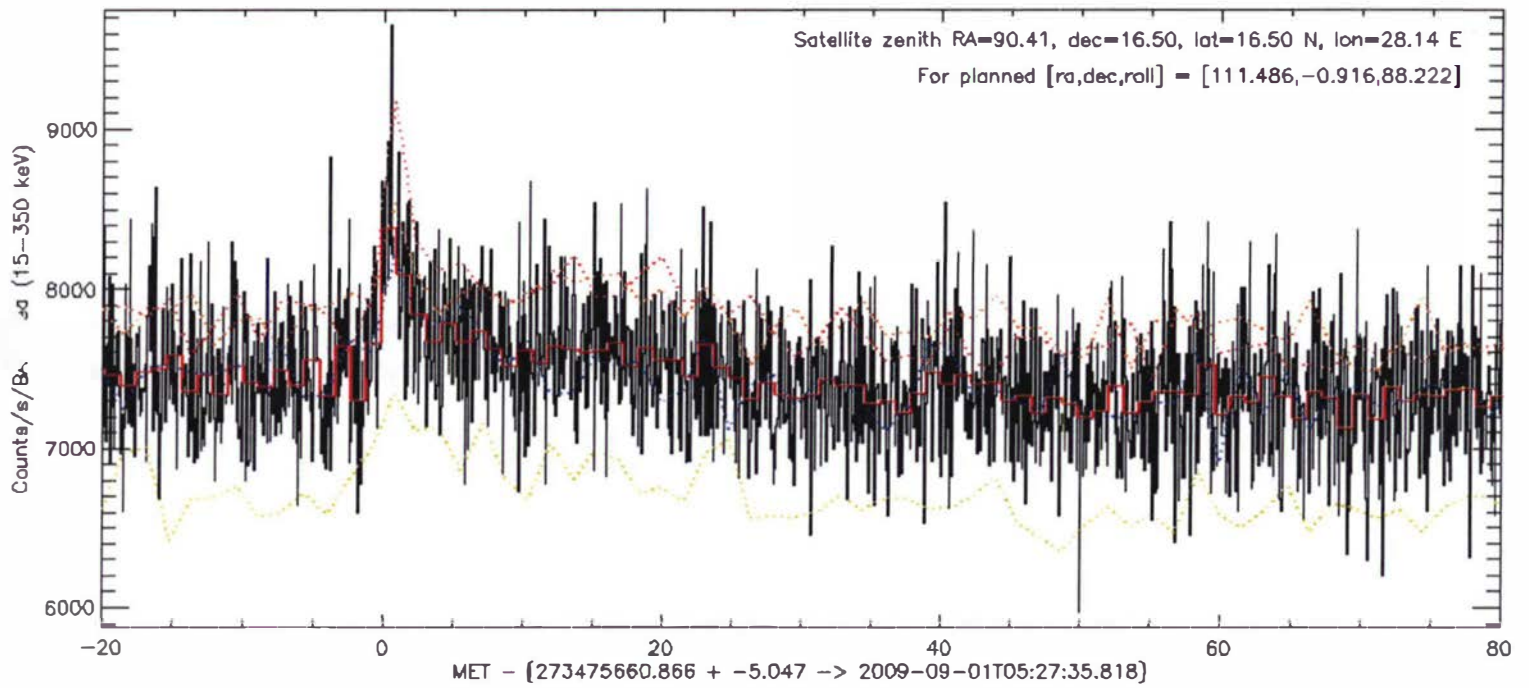
HESSI

01/09/09 19504.000 (INTEGRAL_20090901_19654)

25- 150 keV

COUNTS/0.250 S

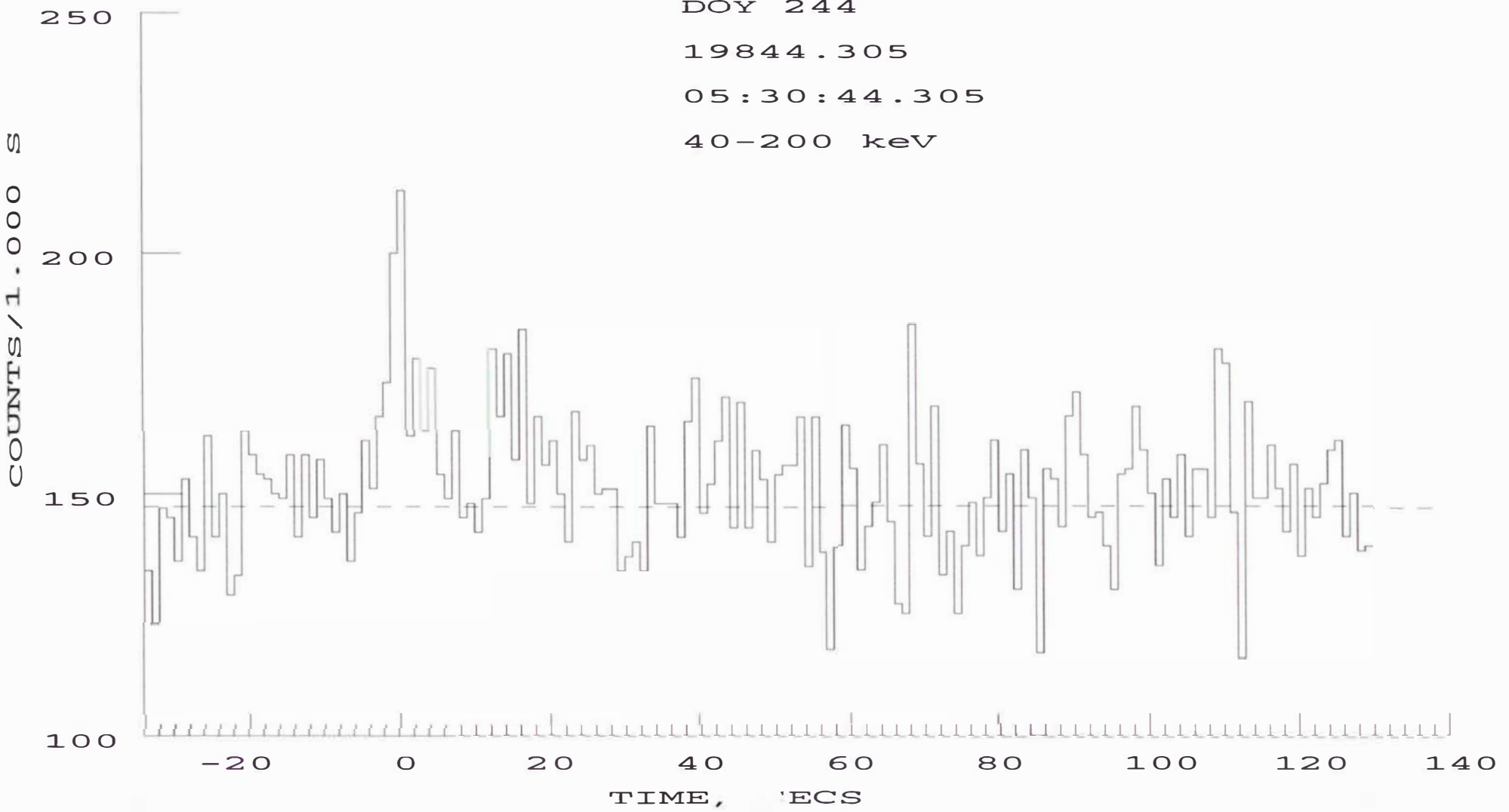




A

24/08/09

MESSENGER
01/09/09
DOY 244
19844.305
05:30:44.305
40-200 keV



KONUS2

01/09/09

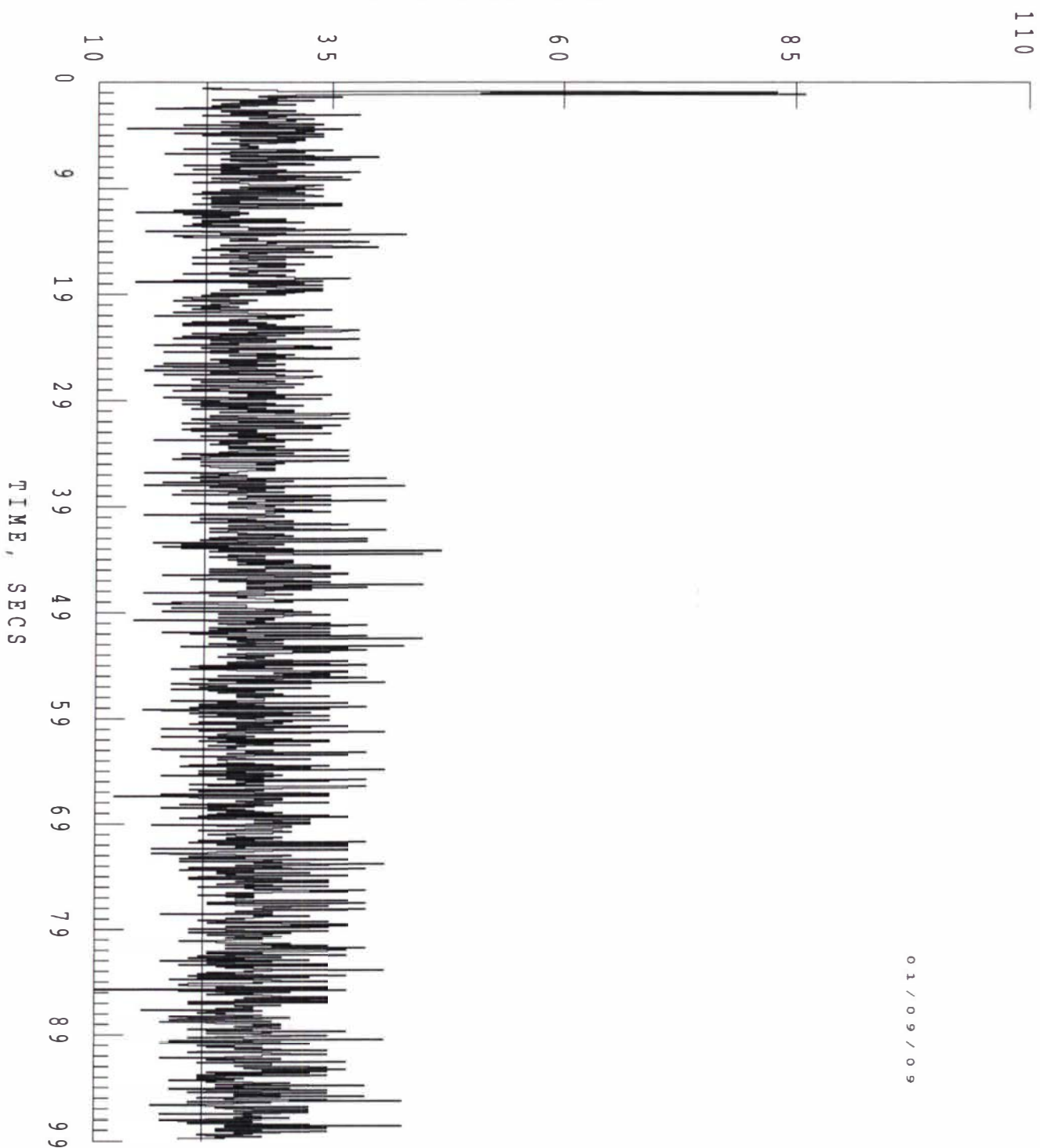
48984.542

B

50 - 200 keV

13:36:24

COUNTS/0.064 S



KONUS HRES 20090901 48984

TRIGGER TIME: 01/09/09 DOY 244 Julian 2455077.06694 UT = 13.607 13:36:24 (48984.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

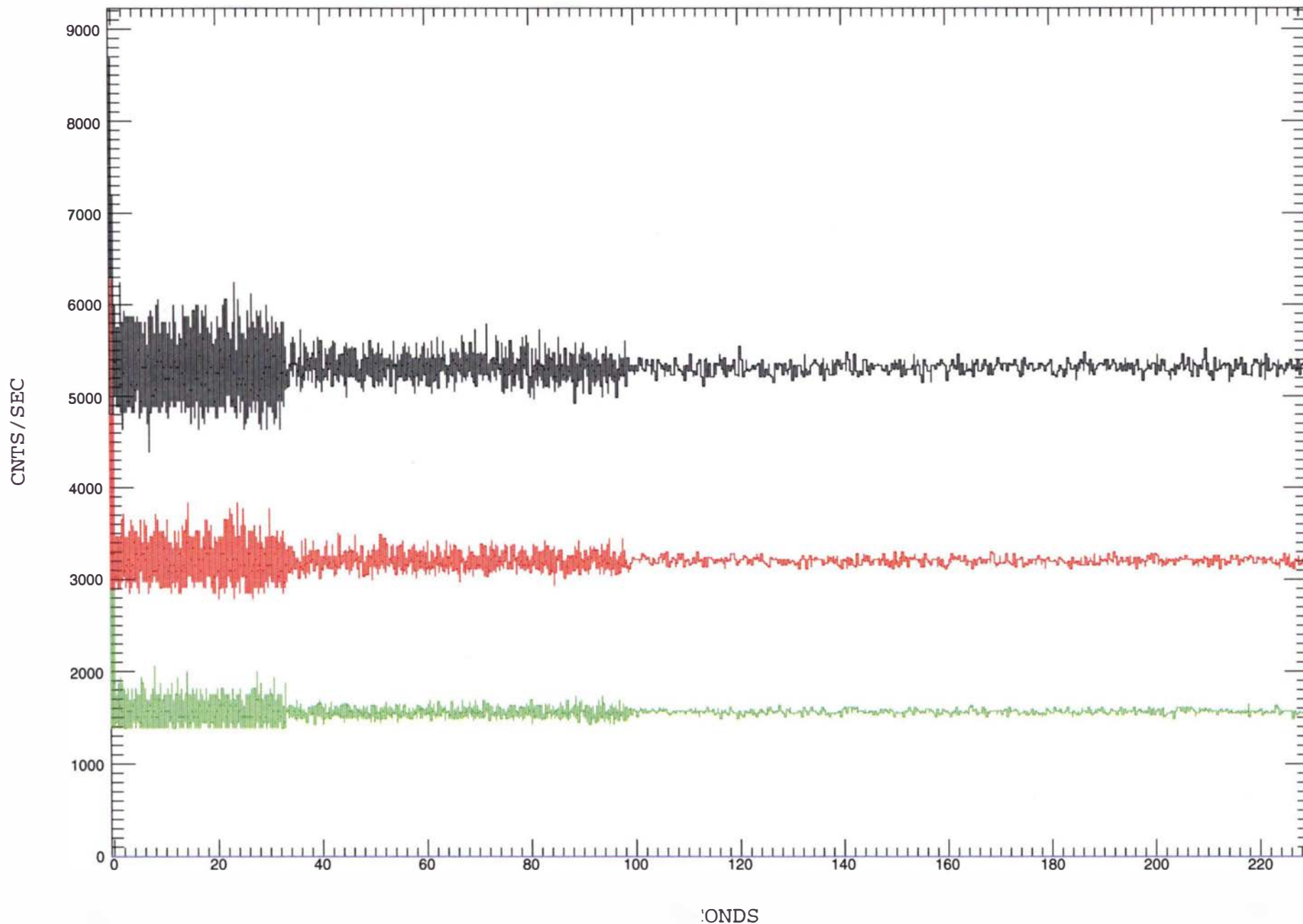
Chan 4 : [> 10 MeV]

Channel 1 + 4200

Channel 2 + 2800

Channel 3 + 1400

Channel 4 + 0



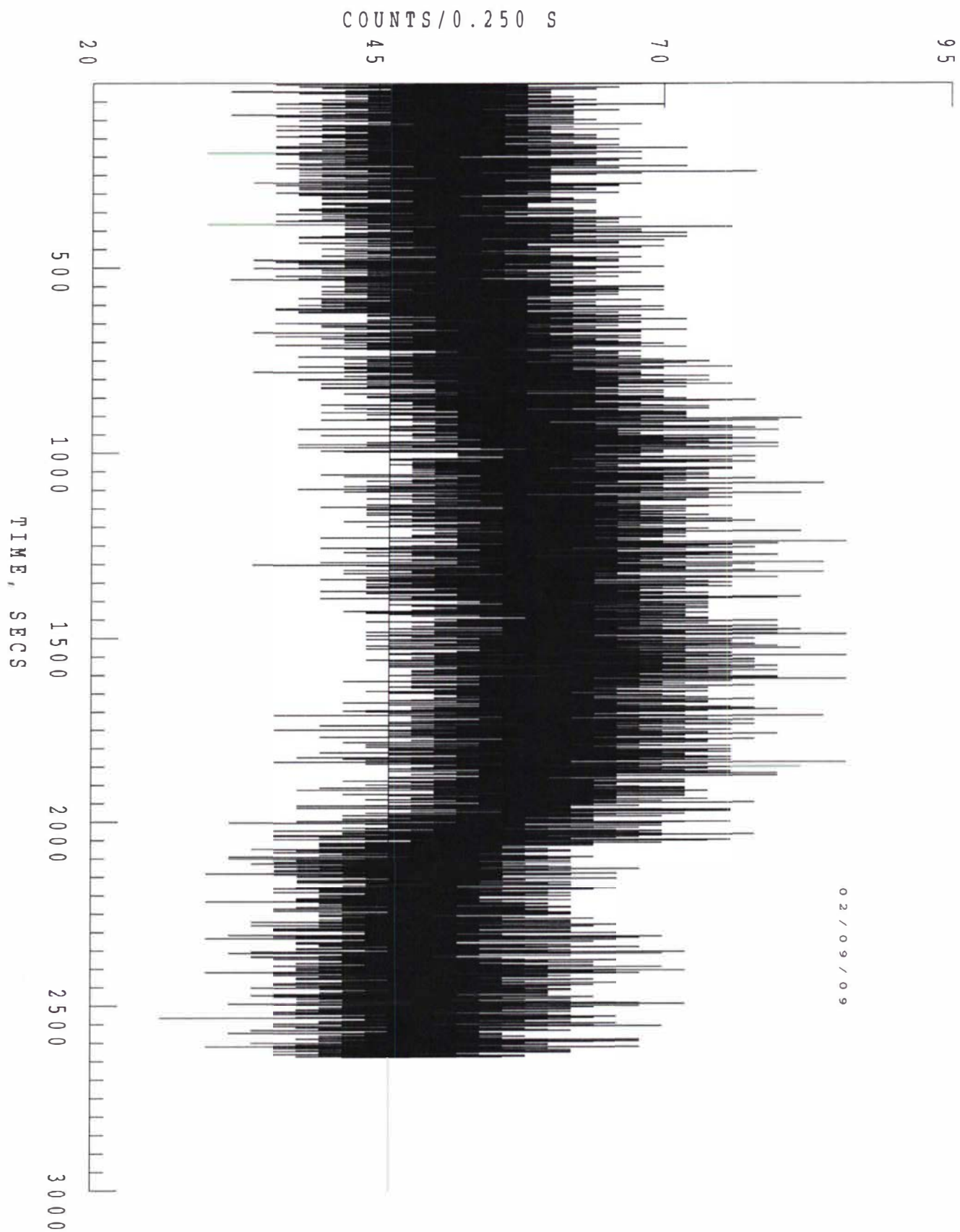
MS01

01/09/09

47647.311

B

50 - 3000 keV



MO GE

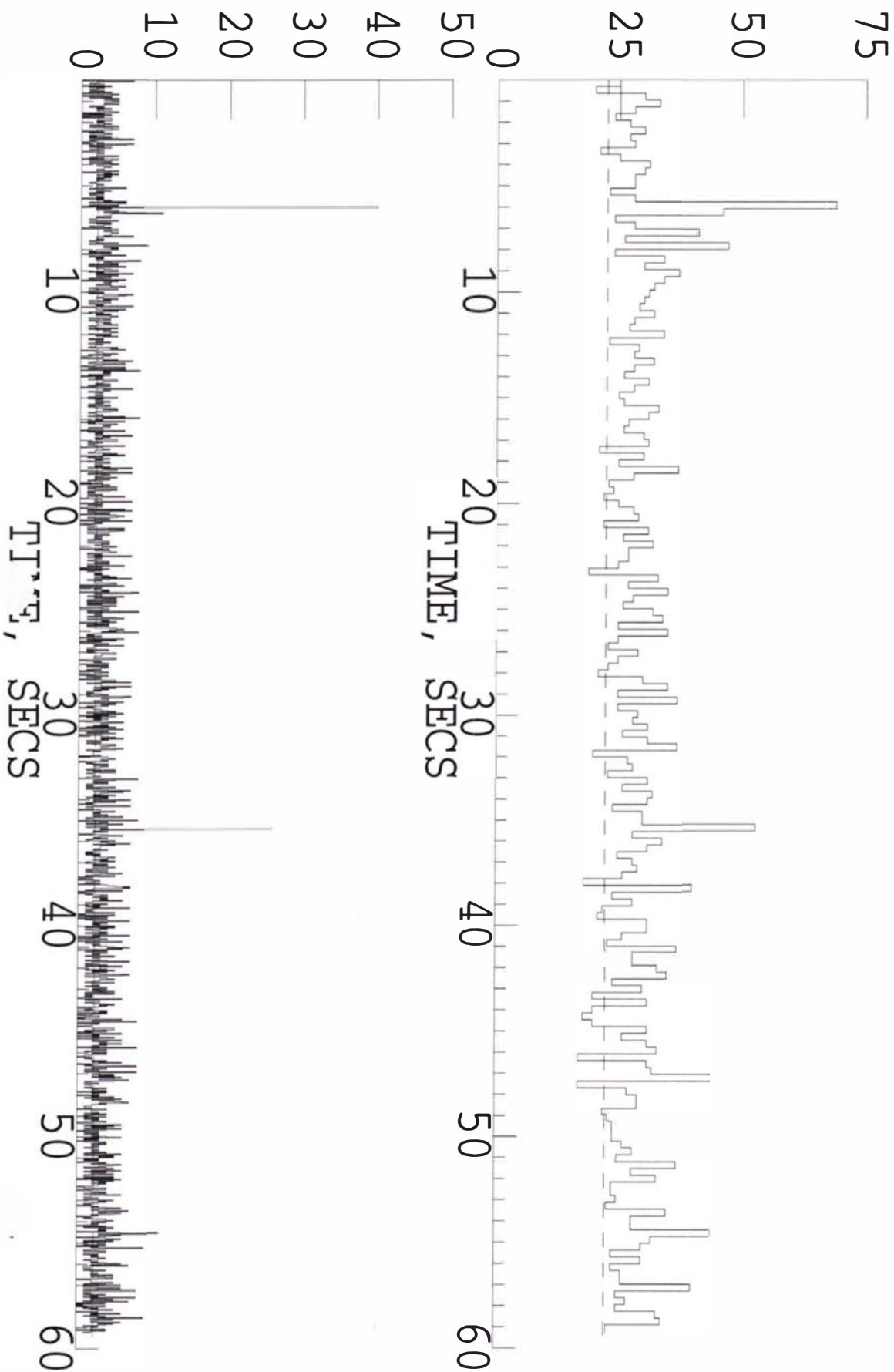
01/09/09

48573.379

B

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



03/09/2009

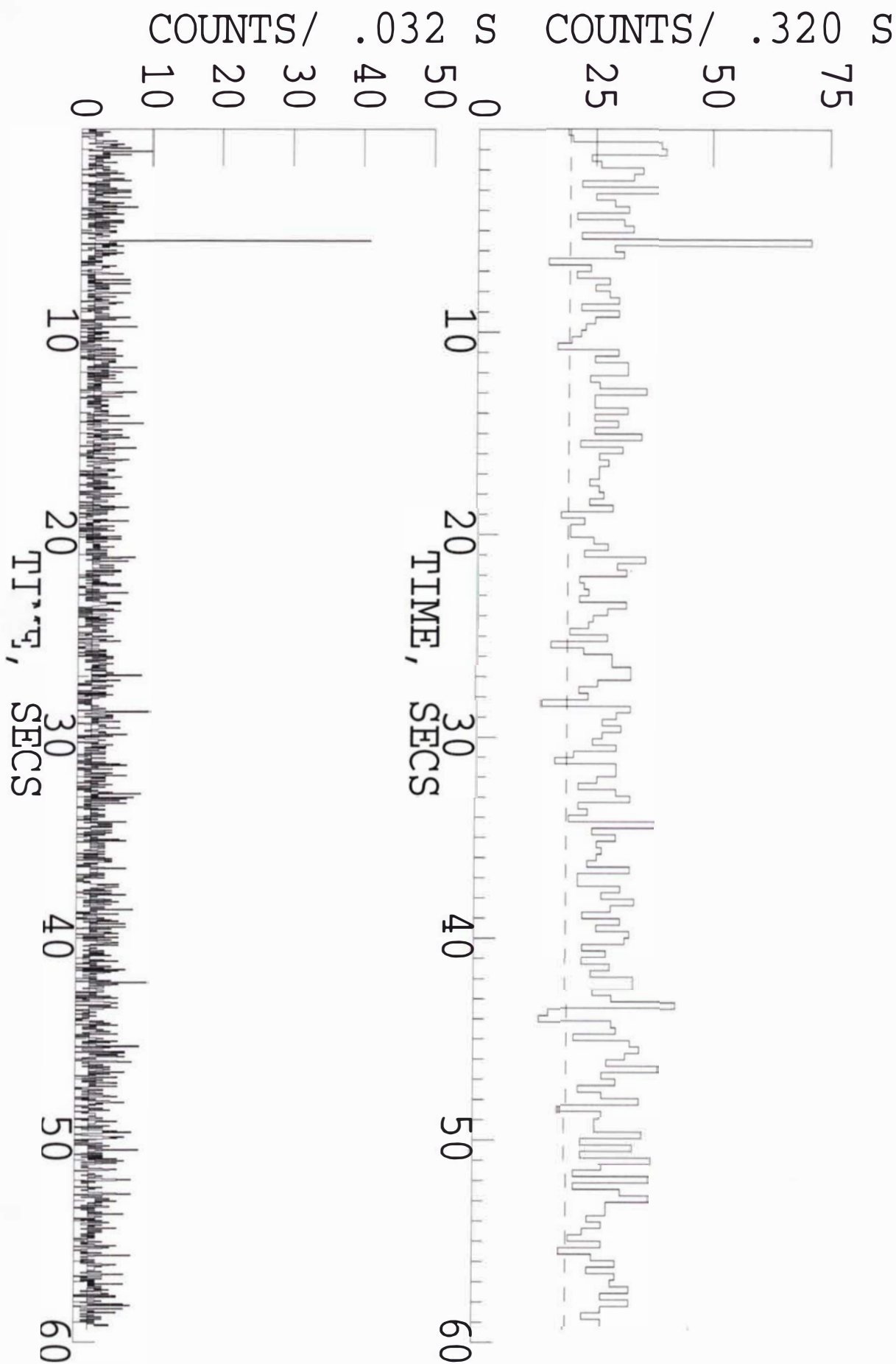
MO GE

01/09/09

49680.492

B

116- 337 keV



03/09/2009

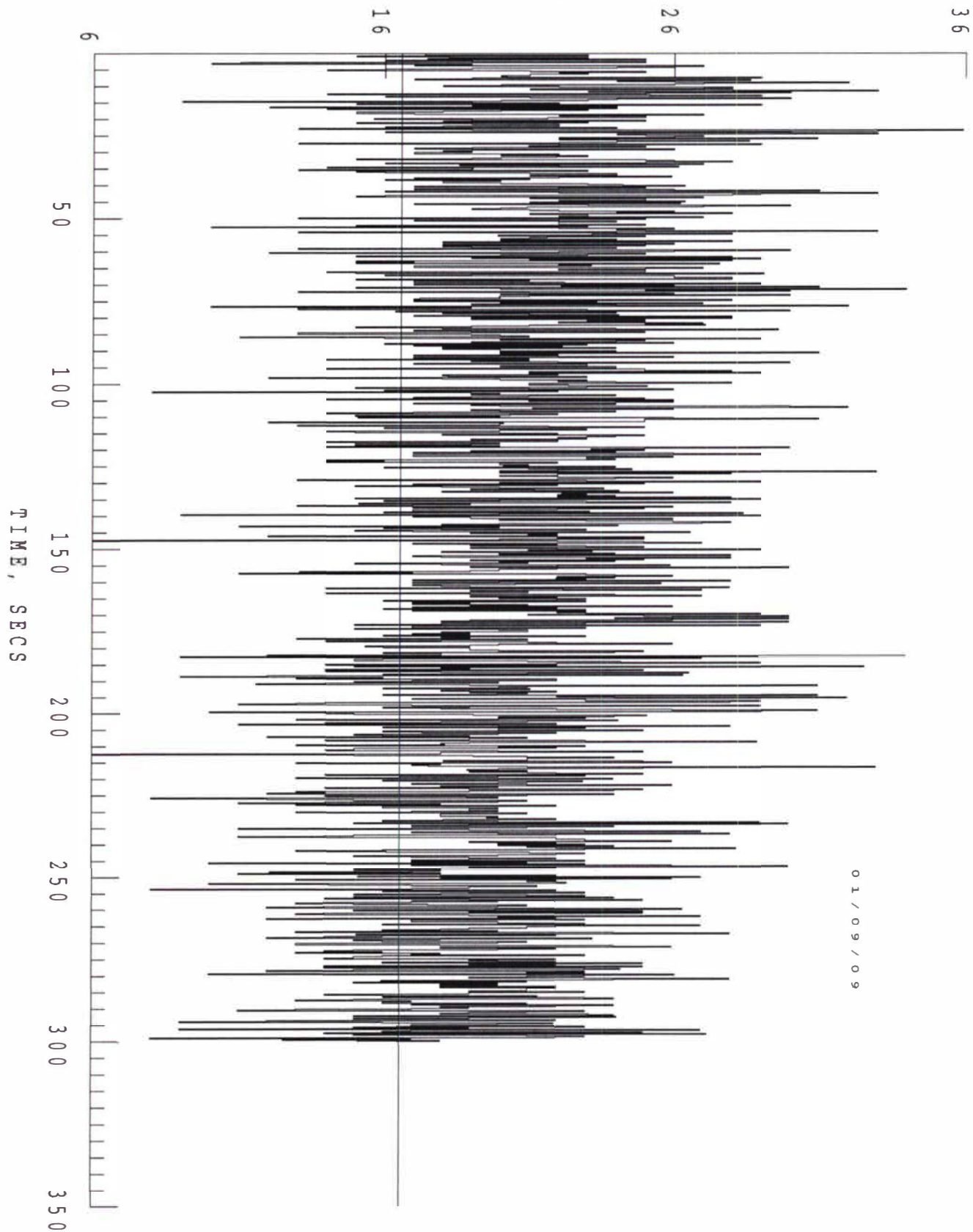
HESSI

01/09/09 48834.000 (KONUS2_20090901_48984)

B

25- 150 keV

COUNTS/0.250 S



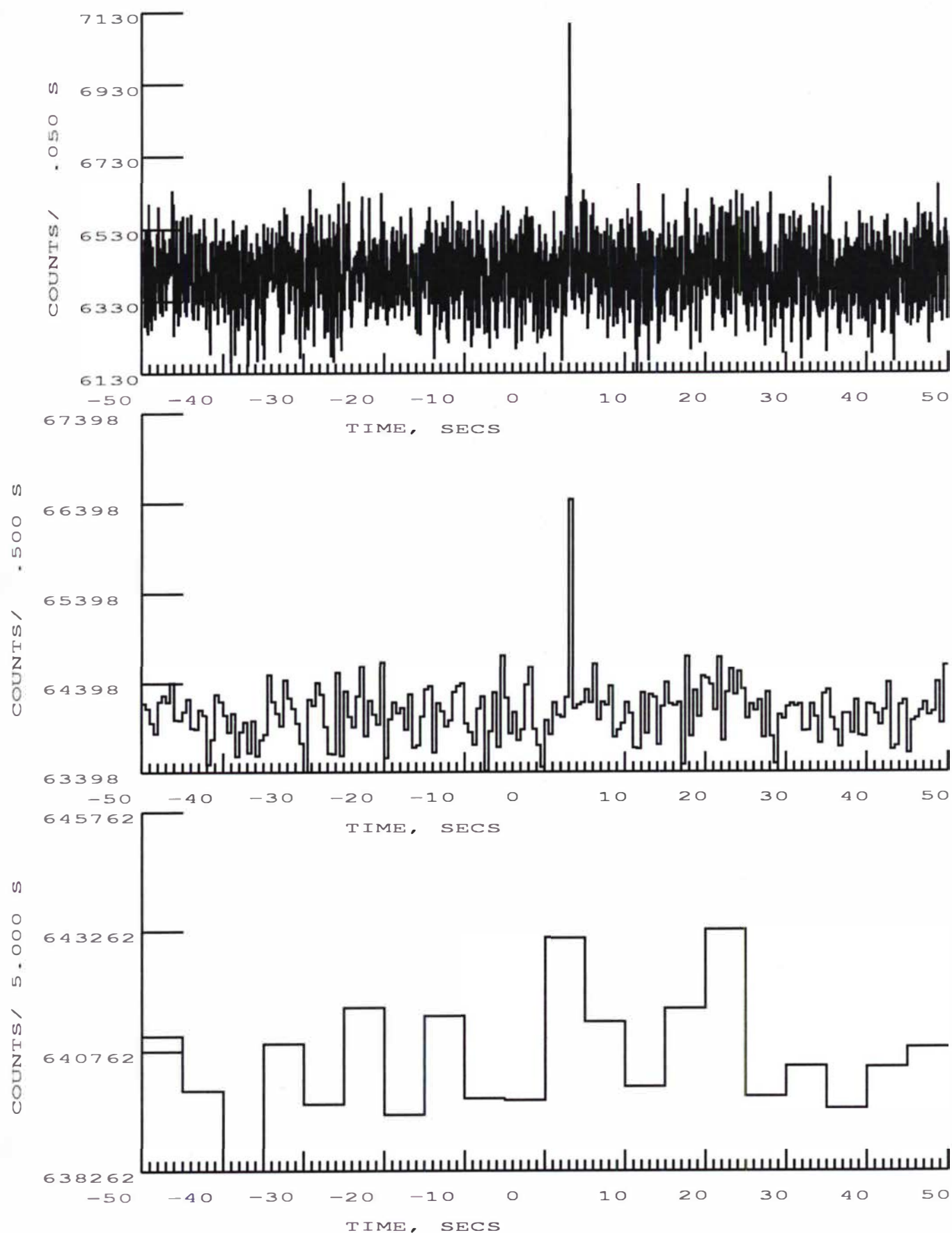
INTEGRAL

01/09/09

48984.000

13:36:24.0

10/01/14



From ipn-bounces@ssl.berkeley.edu Wed Sep 2 06:33:00 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 02 Sep 2009 09:33:17 -0400
From: Hans Krimm <hans.krimm@nasa.gov>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] short hard GRB detected by Konus-Wind on September 1

Dear Valentin:

Swift/BAT does not see this burst. At the time we were observing GRB 090831C at RA=108.289, Dec=-25.0839.

Best wishes,
Hans

>>> Dear colleagues,
>>>
>>> A short hard GRB triggered Konus-Wind
>>> at 2009-09-01 T0=48984.542 s UT (13:36:24.542)
>>> (see the attached figure).
>>> The source of the burst is in the north ecliptic hemisphere.
>>>
>>> Any other detections?
>>>
>>> Best wishes,
>>>
>>> Valentin
>>
>>

--
Dr. Hans A. Krimm
Universities Space Research Association
CRESST and NASA Goddard Space Flight Center
Code 661, ASD
Greenbelt, MD 20771
USA
301-286-6955
fax 301-286-1684

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 05:44:05 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 21:44:23 +0900
From: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: ipn@ssl.berkeley.edu
Subject: Re: [Ipn] short hard GRB detected by Konus-Wind on September 1

Dear Valentin,

We got the data, but Suzaku did not see any rate increase at this time.

Best wishes,
Kazu

On Wed, 2 Sep 2009 04:34:59 +0900
Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp> wrote:

>
> Dear Valentin,
>
> Suzaku data around the Konus trigger time are not available yet.
> At least, Suzaku was not in the SAA.
> The next downlink will start on 2009-09-02 04:25 (UT).
>
> Best wishes,
> Kazu
>

On Tue, 01 Sep 2009 23:27:36 +0400
"Valentin Pal'shin" <val@mail.ioffe.ru> wrote:

>
> > Dear colleagues,
> >
> > A short hard GRB triggered Konus-Wind
> > at 2009-09-01 T0=48984.542 s UT (13:36:24.542)
> > (see the attached figure).
> > The source of the burst is in the north ecliptic hemisphere.
> >
> > Any other detections?
> >
> > Best wishes,
> >
> > Valentin
> >

>
> _____
> Ipn mailing list
> Ipn@ssl.berkeley.edu
> <http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>
>

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

B

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 02:59:55 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 12:00:06 +0200
From: sa.grb@iasf-roma.inaf.it
To: "Valentin Pal'shin" <val@mail.ioffe.ru>
Cc: IPN <ipn@ssl.berkeley.edu>, sagile@iasf-roma.inaf.it
Subject: Re: [Ipn] short hard GRB detected by Konus-Wind on September 1

Dear Valentin,

SuperAGILE did not detect the burst while pointed toward RA=245.6, dec=-35.5 .

Cheers

Ettore

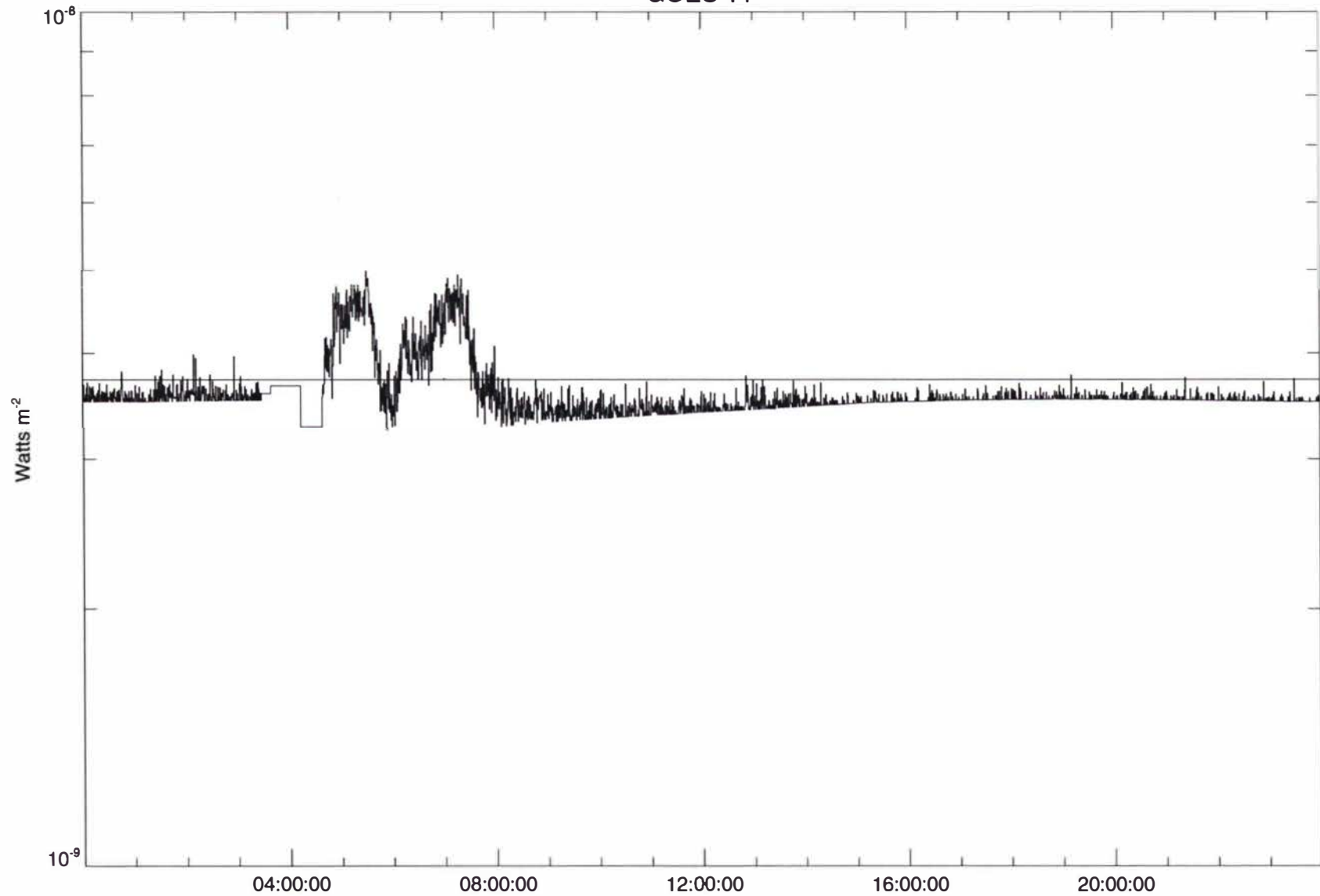
on behalf of the SuperAGILE team

> Dear colleagues,
>
> A short hard GRB triggered Konus-Wind
> at 2009-09-01 T0=48984.542 s UT (13:36:24.542)
> (see the attached figure).
> The source of the burst is in the north ecliptic hemisphere.
>
> Any other detections?
>
> Best wishes,
>
Valentin

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

GOES 11

A



Data Start: 09/09/01, 0000:13

Plot created: 09/09/04, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

A

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 06:21:25 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 22:21:42 +0900
From: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
To: ipn@ssl.berkeley.edu
Subject: [Ipn] A soft long event detected by Suzaku WAM on Sep. 2

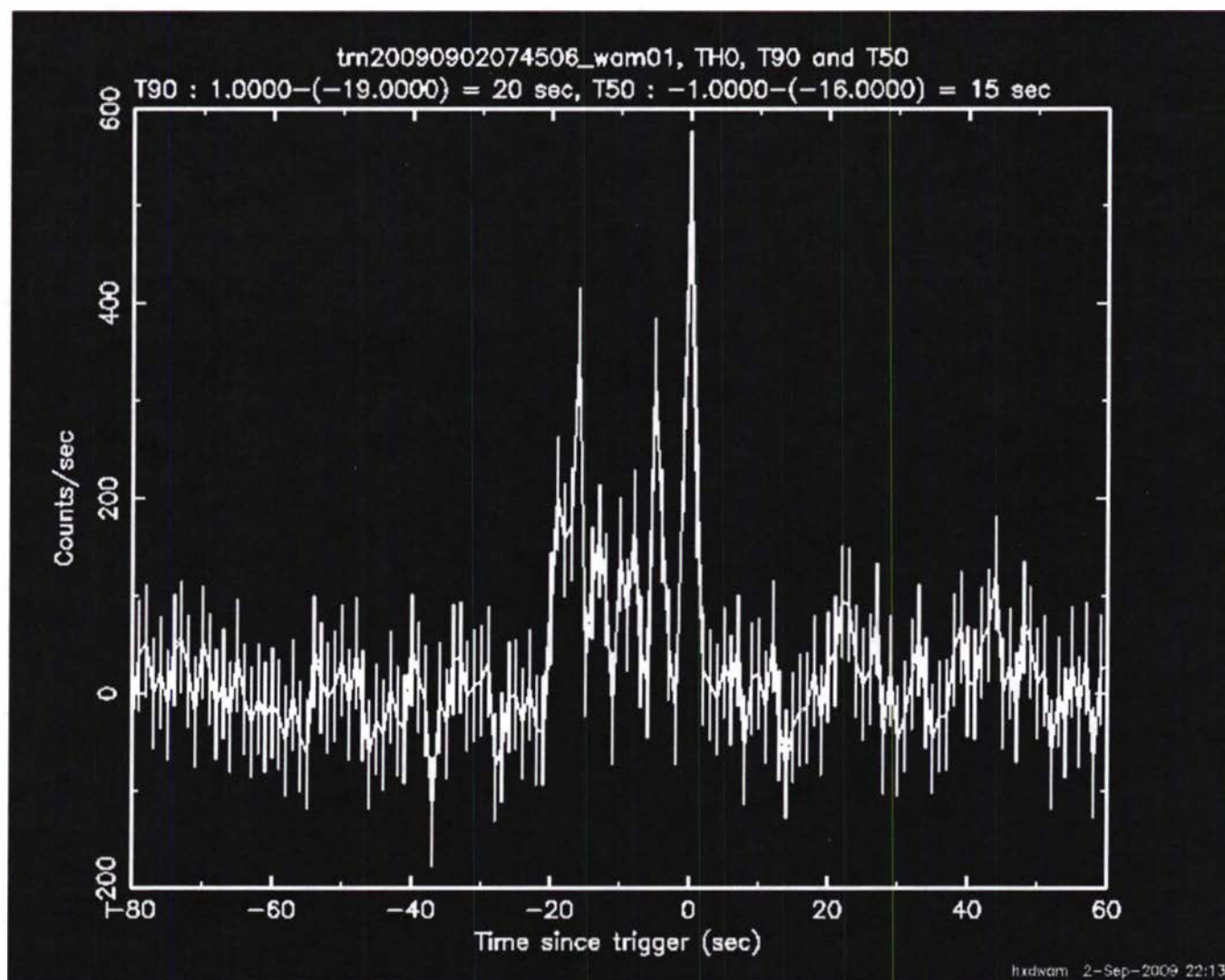
Dear IPNers,

A soft GRB candidate was detected by Suzaku-WAM
on 2009-09-02 07:45:06. **27906 s**

Attached is the WAM0+1 light curve in the 50-110 keV range.
We don't see any clear rate increase above 110 keV.

Any other detections ?

Best wishes,
Kazu



MS01

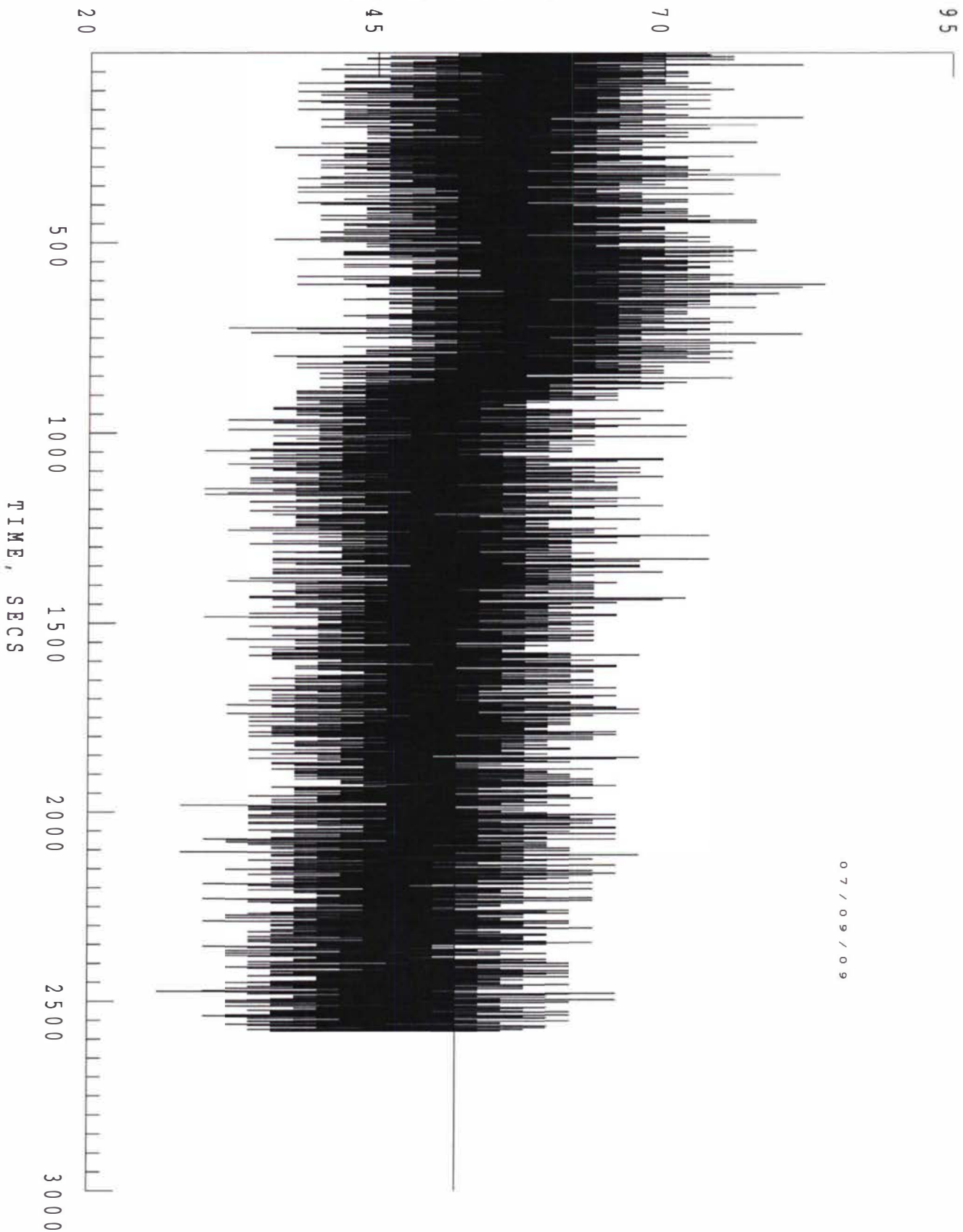
02/09/09

26646.222

A

50 - 3000 keV

COUNTS/0.250 S



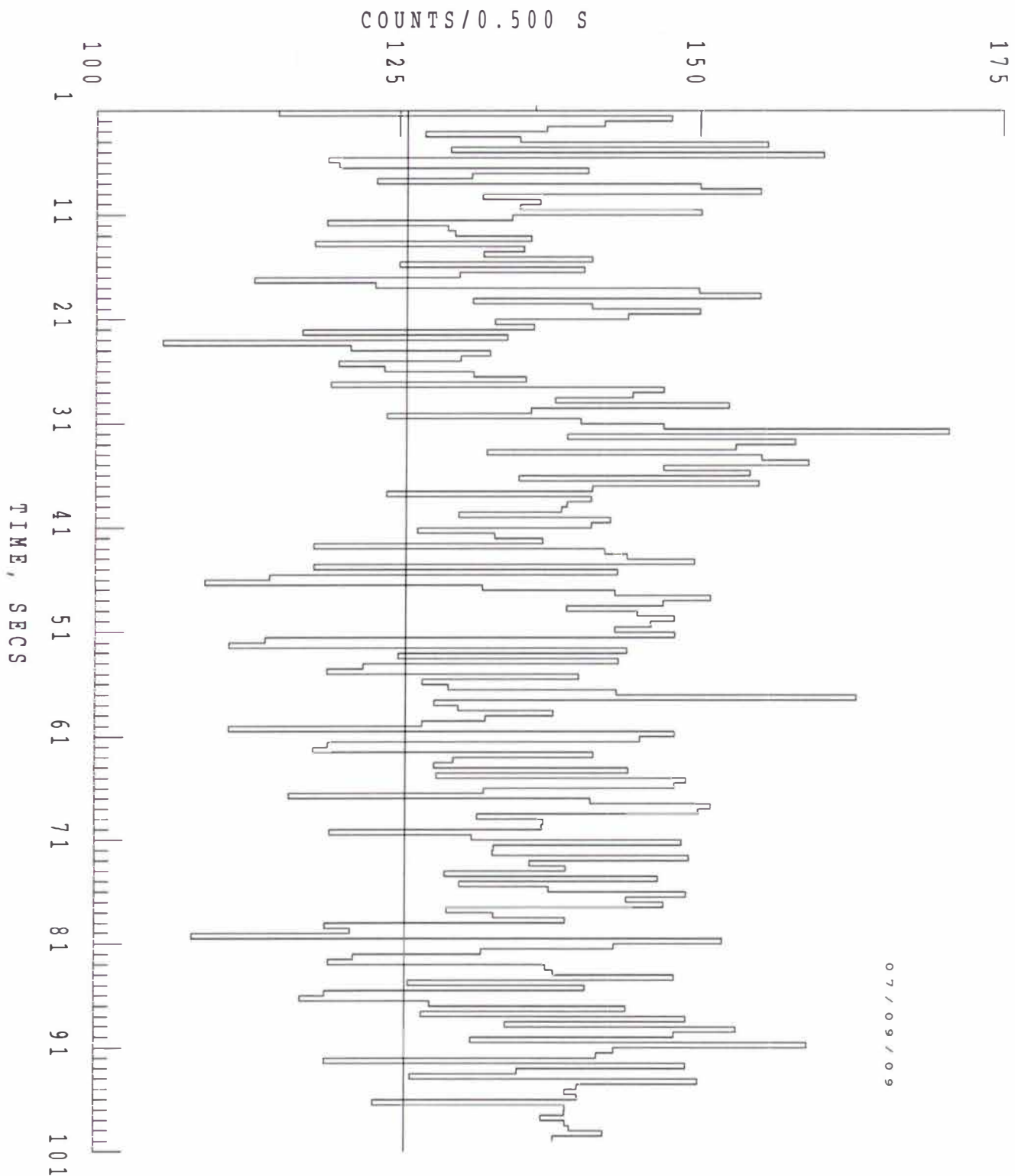
07/09/09

HESSI

02/09/09 27856.000 (SUZAKU_RI_20090902_27906)

A

25- 150 keV



SUZAKU

02/09/09

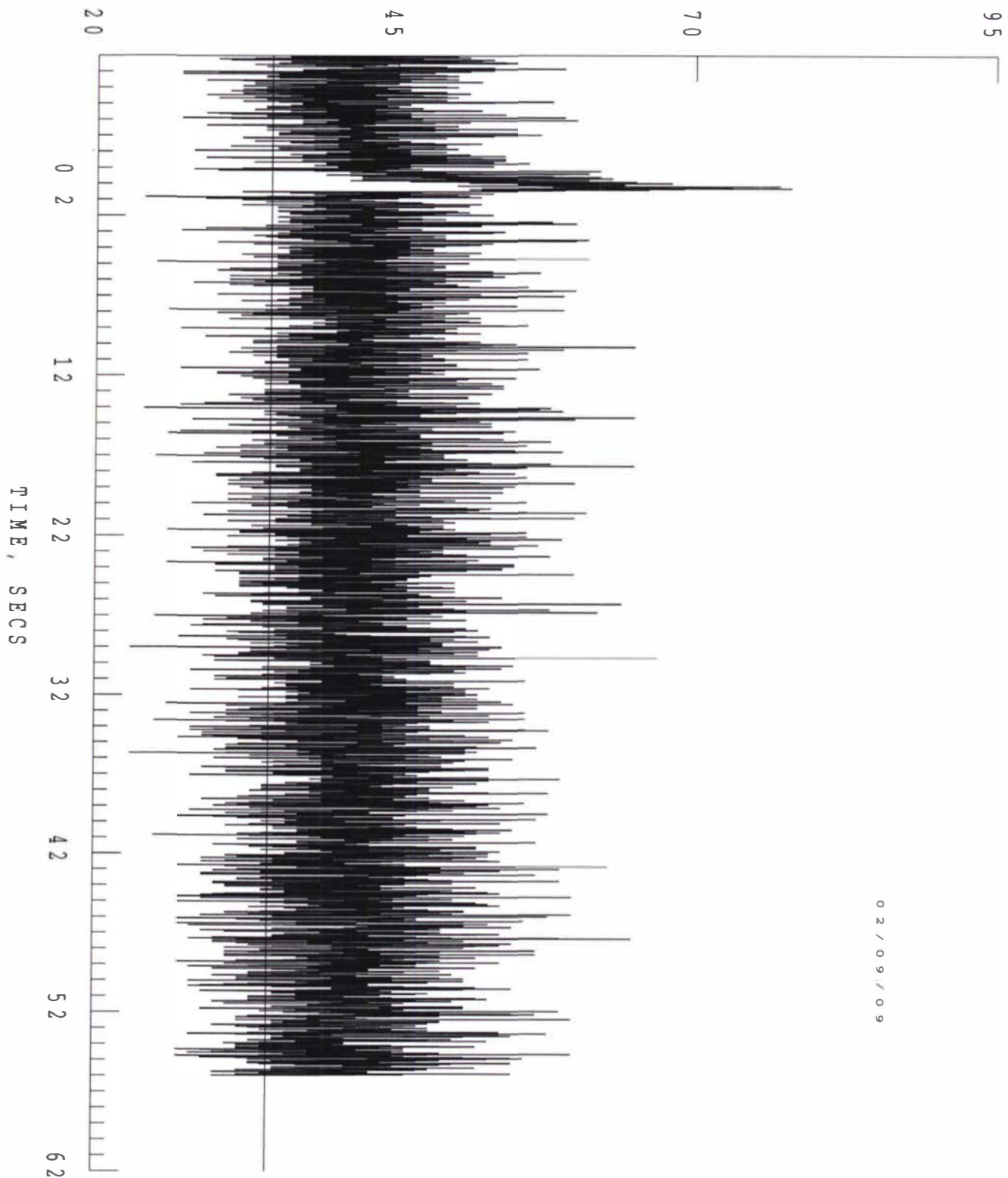
34685.949

B

50 - 240 keV

09:38:05

COUNTS/0.016 S



B

From grbhend@mx.iki.rssi.ru Mon Jan 25 10:30:27 2010
X-Barracuda-Envelope-From: grbhend@mx.iki.rssi.ru
Date: Mon, 25 Jan 2010 21:32:44 +0300
From: "grbhend" <grbhend@mx.iki.rssi.ru>
To: "recipient1" <grbhend@mx.iki.rssi.ru>,
"recipient2" <khurley@sunspot.ssl.berkeley.edu>
Subject: No data in HEND Data Base
X-iki-rssi-ru-MailScanner-Information: Please contact the ISP for more informati
X-iki-rssi-ru-MailScanner-ID: o0PIWiNx031425
X-iki-rssi-ru-MailScanner: Found to be clean
X-iki-rssi-ru-MailScanner-SpamCheck: not spam (whitelisted),
SpamAssassin (not cached, score=-0.066, required 5,
ALL_TRUSTED -1.80, AWL 1.73, BAYES_50 0.00)
X-iki-rssi-ru-MailScanner-From: grbhend@mx.iki.rssi.ru

Received letter from = khurley@ssl.berkeley.edu
No HEND data for GRB around 090902 09:16:05

<This message contains 1 attachments (not printed)>

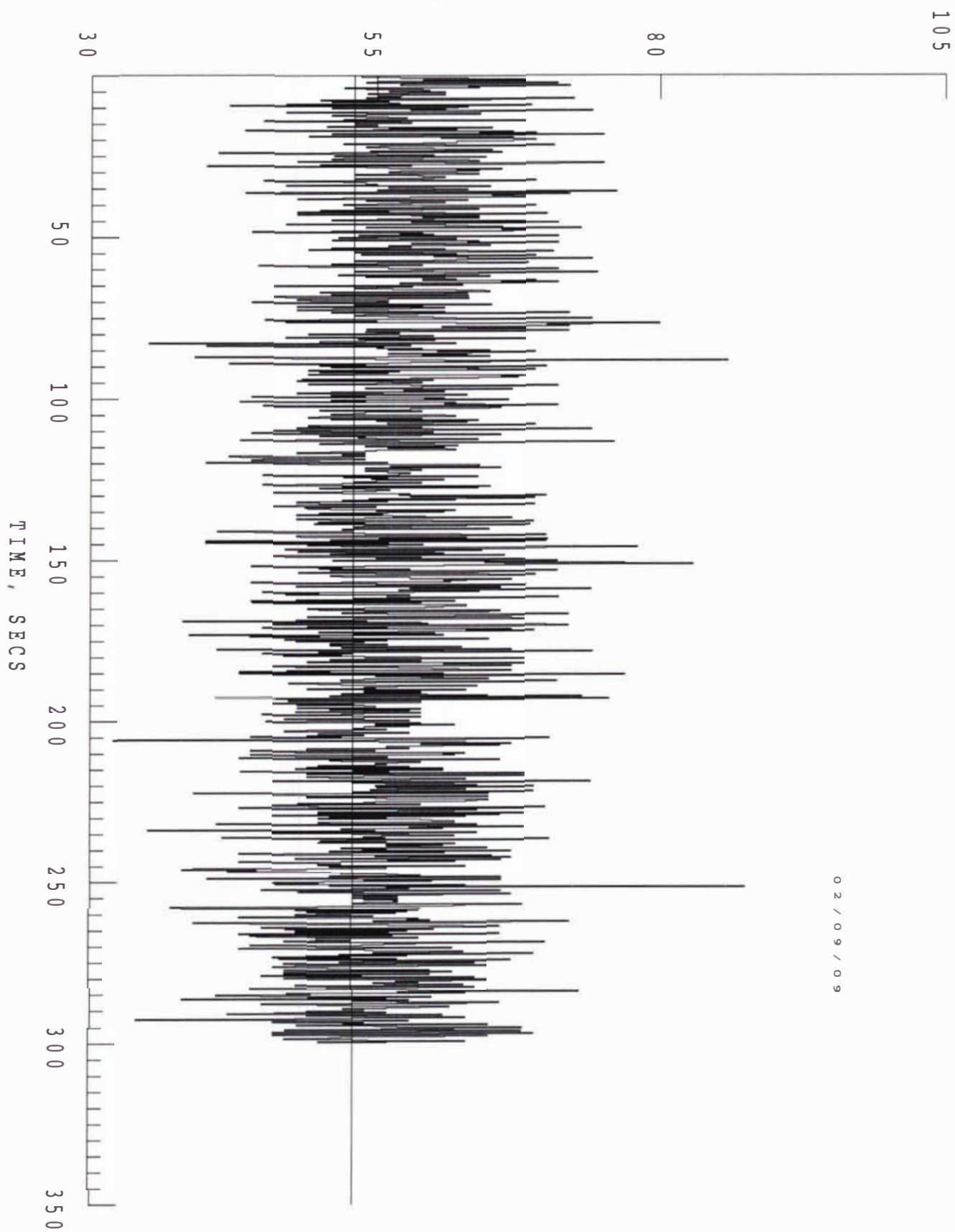
HESSI

02/09/09 34535.000 (GLAST_20090902_34685)

8

25- 150 keV

COUNTS/0.250 S



INTEGRAL

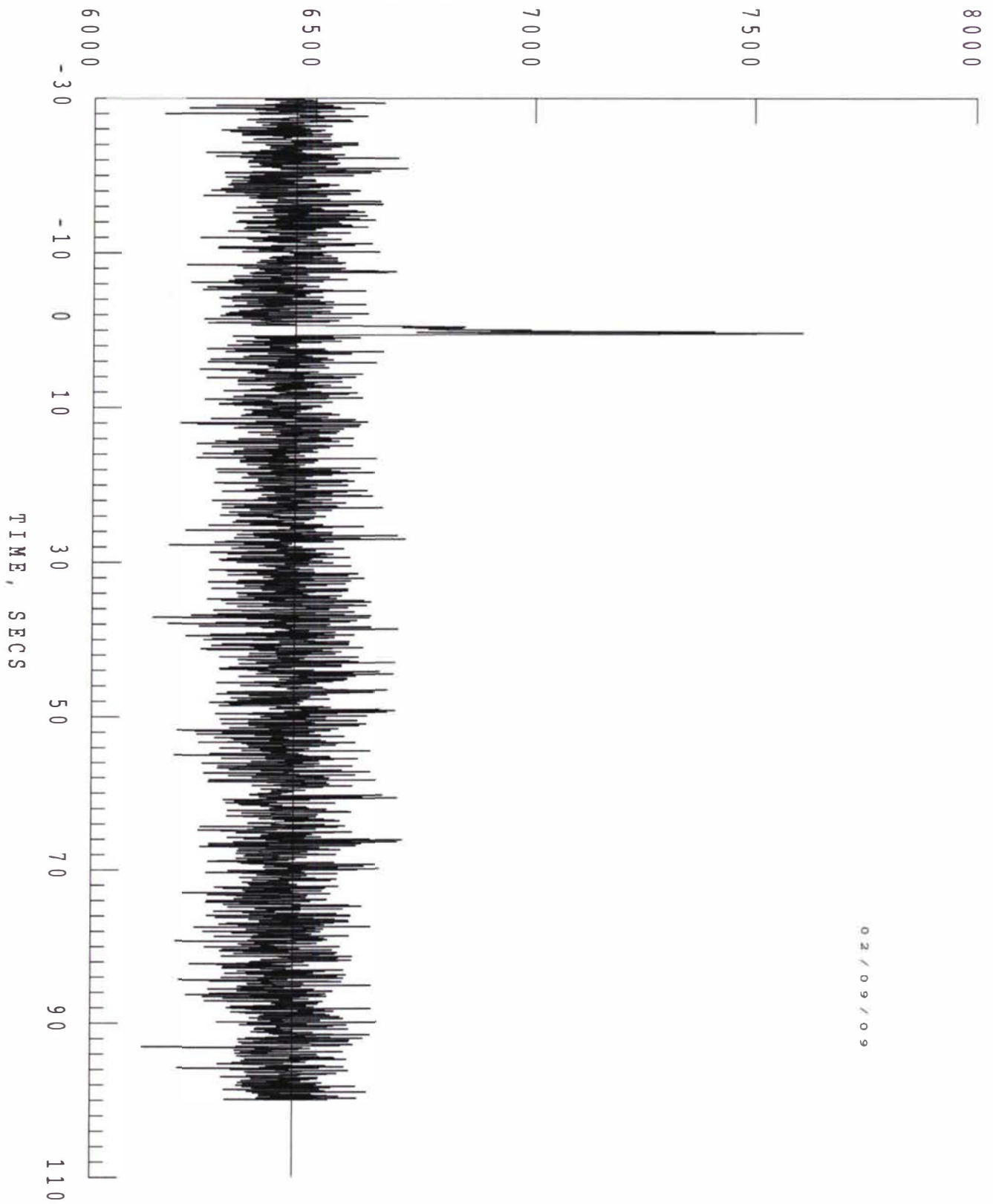
02/09/09

34685.511

13

100-10000 keV

COUNTS/0.050 S



B

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 08:18:46 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
From: David Palmer <palmer@lanl.gov>
To: Hans Krimm <Hans.Krimm@nasa.gov>
Date: Wed, 2 Sep 2009 09:19:00 -0600
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] A 2s-long Fermi GRB detected by Suzaku WAM

At the time, BAT was slewing from
[257.201, -40.146 265.135] (GBM pos. out of FOV) to
[260.880, 30.482 287.829] (GBM pos. 70% coded)
and so was not triggerable.

There was not an event dump during this slew, so the 64 ms lightcurve
will be the best timing info.

B

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 07:07:57 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 02 Sep 2009 10:08:13 -0400
From: Hans Krimm <hans.krimm@nasa.gov>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] A 2s-long Fermi GRB detected by Suzaku WAM

Dear Kazu:

Swift/BAT did not trigger on this burst. There is a small blip in the rates at this time. At the time we were pointing at something called PTF090911 (?) at RA=260.900, dec=+30.4910.

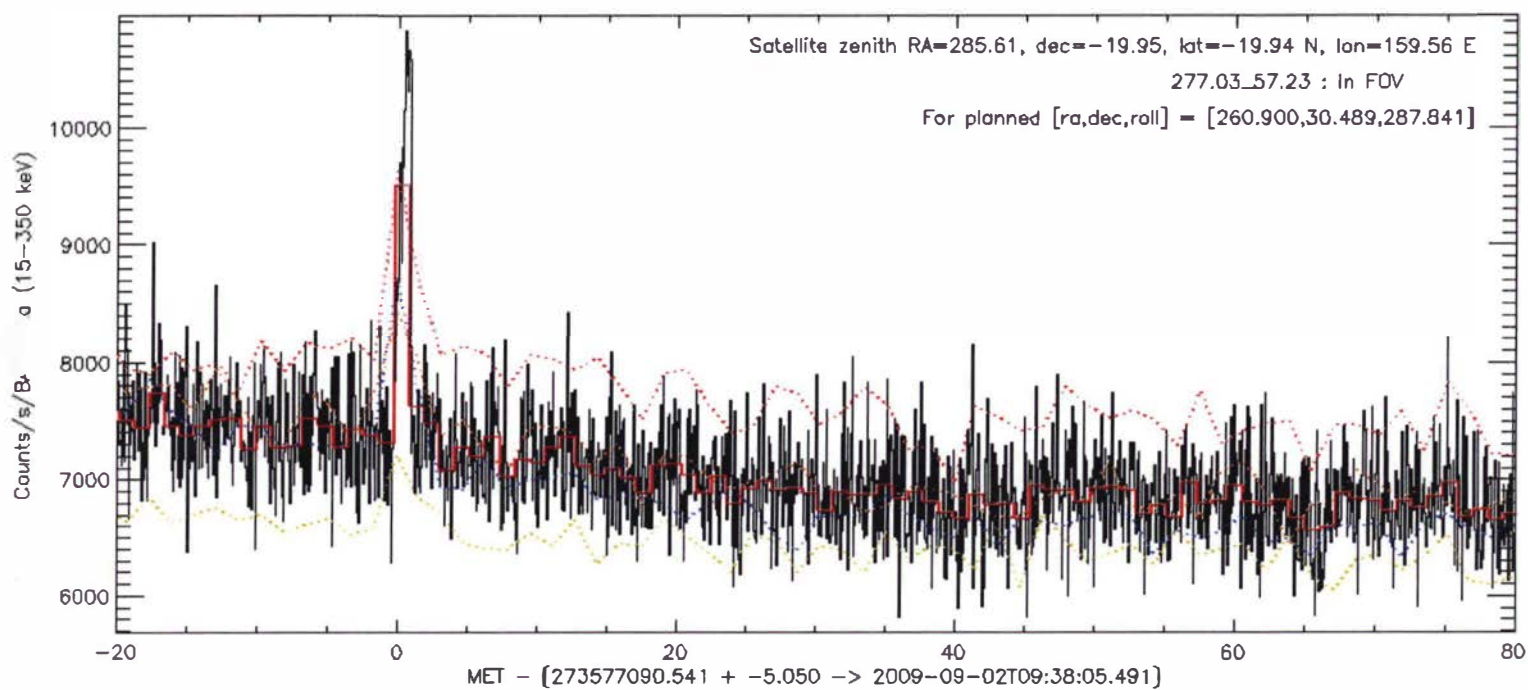
Best wishes,
Hans

Kazutaka Yamaoka wrote:

> I forgot to attach the figure.
> Sorry.
>
> On Wed, 2 Sep 2009 21:53:51 +0900
> Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp> wrote:
>
>> Dear IPNers,
>>
>> A GRB triggered the Suzaku WAM on
>> 2009-09-02 09:38:05.947.
>> Attached is the WAM2+3 light curve with a 1/8 sec bin.
> The duration T90 was ~2 seconds.
>
>> This burst was also detected by Fermi-GBM (trigger number=273577087).
>> Any other detections ?
>>
>> Best wishes,
>> Kazu
>>
>>

--
Dr. Hans A. Krimm
Universities Space Research Association
CRESST and NASA Goddard Space Flight Center
Code 661, ASD
Greenbelt, MD 20771
USA
301-286-6955
fax 301-286-1684

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>



B

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 07:00:01 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 02 Sep 2009 17:57:36 +0400
From: "Valentin Pal'shin" <val@mail.ioffe.ru>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: ipn@ssl.berkeley.edu
Subject: Re: [Ipn] A 2s-long Fermi GRB detected by Suzaku WAM

Dear Kazu,

> A GRB triggered the Suzaku WAM on
> 2009-09-02 09:38:05.947.
> Attached is the WAM2+3 light curve with a 1/8 sec bin.
> The duration T90 was ~2 seconds.
>
> This burst was also detected by Fermi-GBM (trigger number=273577087).
> Any other detections ?

This GRB triggered Konus-RF at T0(KRF)=34687.883 s UT (09:38:07.883)

Best wishes,

Valentin

--

Valentin Pal'shin

Laboratory for Experimental Astrophysics
Ioffe Physico-Technical Institute
Russian Academy of Sciences
26 Polytekhnicheskaya, St Petersburg 194021,
Russian Federation

email: val@mail.ioffe.ru
Tel: (7)-812-2927177
Fax: (7)-812-2971963

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

B

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 06:40:53 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 15:41:11 +0200
From: sa.grb@iasf-roma.inaf.it
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: ipn@ssl.berkeley.edu, sagile@iasf-roma.inaf.it
Subject: Re: [Ipn] A 2s-long Fermi GRB detected by Suzaku WAM

Dear Kazu,

SuperAGILE did not detect this burst and the distance between the GBM position and our boresight (RA=246.5, dec=-35.5) is 92 deg.

Cheers
Ettore
on behalf of the SuperAGILE team

>
> I forgot to attach the figure.
> Sorry.
>
> On Wed, 2 Sep 2009 21:53:51 +0900
> Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp> wrote:
>
>>
>> Dear IPNers,
>>
>> A GRB triggered the Suzaku WAM on
> 2009-09-02 09:38:05.947.
> Attached is the WAM2+3 light curve with a 1/8 sec bin.
>> The duration T90 was ~2 seconds.
>>
>> This burst was also detected by Fermi-GBM (trigger number=273577087).
>> Any other detections ?
>>
>> Best wishes,
>> Kazu
>>
>>
>>
>> _____
>> Ipn mailing list
>> Ipn@ssl.berkeley.edu
>> <http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>
>>
>

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

B

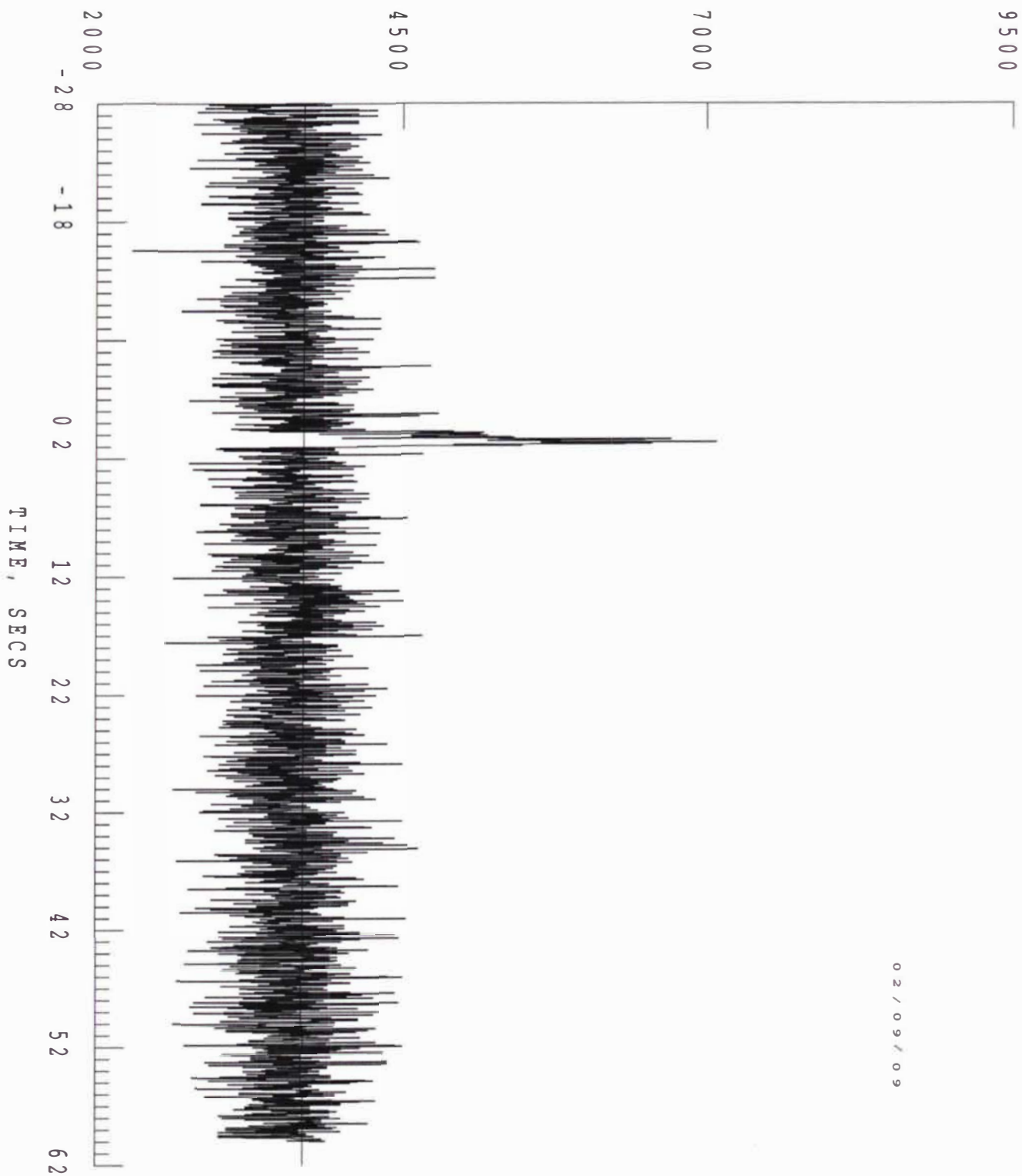
GLAST

02/09/09

34685.494

26- 293 keV

COUNTS/0.032 S



EB

From gcncirc@capella.gsfc.nasa.gov Wed Sep 2 09:43:48 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090902: Fermi GBM detection
To: khurley@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 12:44:09 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9865
SUBJECT: GRB 090902: Fermi GBM detection
DATE: 09/09/02 16:44:07 GMT
FROM: Elisabetta Bissaldi at MPE <ebs@mpe.mpg.de>

E. Bissaldi and A. von Kienlin (MPE)
report on behalf of the Fermi GBM Team:

"At 09:38:05.49 UT on 2 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090902 (trigger 273577087 / 090902401). The on-ground calculated location, using the GBM trigger data, is RA = 291.0, DEC = 53.1 (J2000 degrees, equivalent to 19h 24m, 53d 06'), with an uncertainty of 3.8 degrees (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

The angle from the Fermi LAT boresight is 82 degrees.

This burst was also independently detected by INTEGRAL SPI-ACS.

The GBM light curve consists of a single peak with a duration (T90) of about 1.2 s (8-1000 keV). The time-averaged spectrum from T0-0.256 s to T0+0.896 s is best fit by a Band function with Epeak = 388 (+82/-102) keV, alpha = 0.30 (+0.5/-0.26), and beta = -2.05 (+0.29/-0.24) (chi squared 372 for 356 d.o.f.).

The event fluence (8-1000 keV) in this time interval is (2.11 +/- 0.14)E-06 erg/cm^2. The 64-msec peak photon flux measured starting from T0+608 s in the 8-1000 keV band is 11.4 +/- 1.3 ph/s/cm^2.

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

C

26S. 27.3
N. HESS data

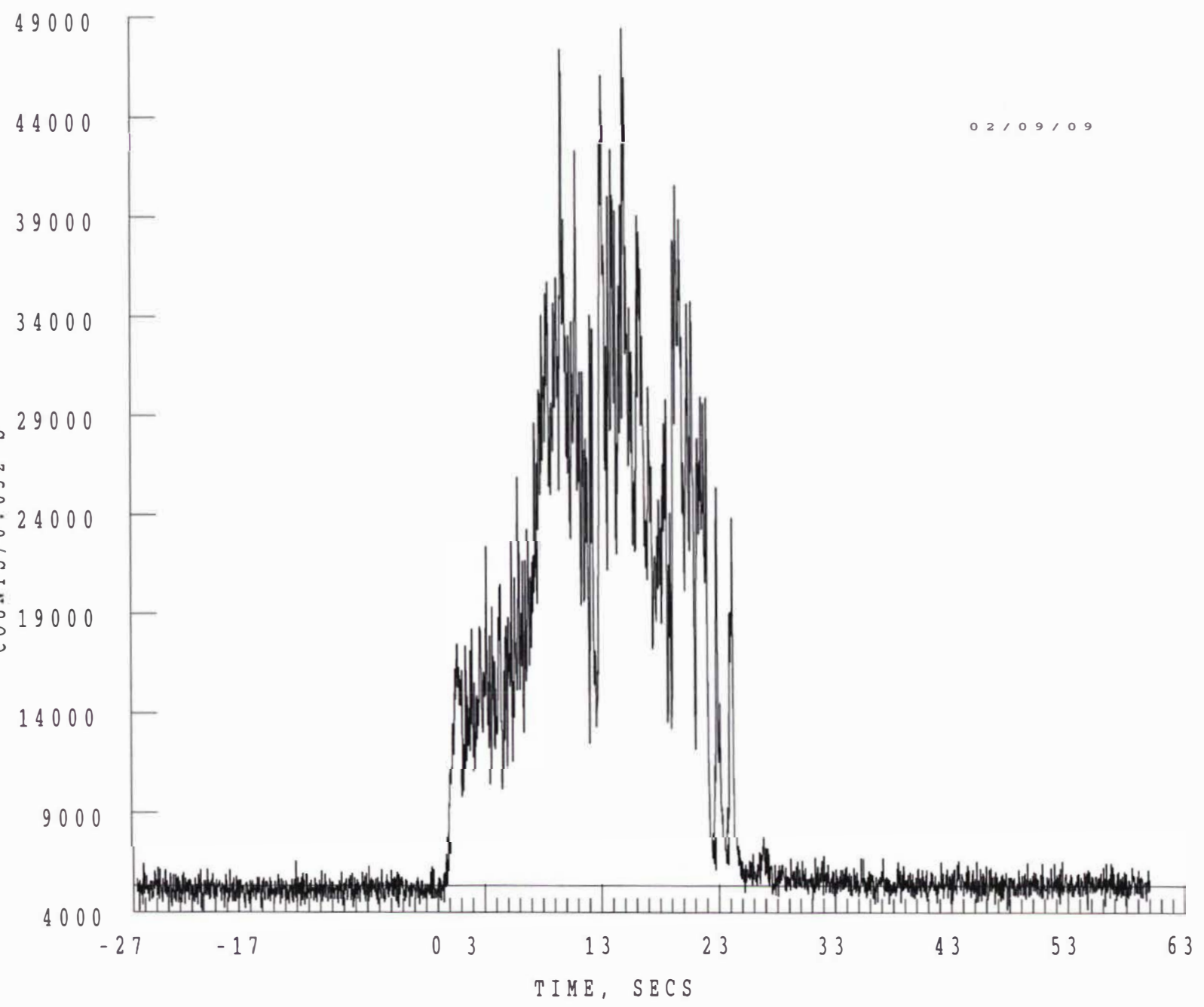
02/09/09 39908.313

26- 293 keV

COUNTS/0.032 S

02/09/09

GLAST



C

From gcncirc@capella.gsfc.nasa.gov Wed Sep 2 15:47:58 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090902B: Fermi LAT detection
To: khurley@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 18:48:20 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9867
SUBJECT: GRB 090902B: Fermi LAT detection
DATE: 09/09/02 22:48:18 GMT
FROM: Hiroyasu Tajima at SLAC <htajima@slac.stanford.edu>

MCT 40400

Francesco de Palma (Universita e INFN Bari), Johan Bregeon (INFN, Pisa) and Hiro Tajima (SLAC) report on behalf of the Fermi LAT team:

At 11:05:15 UT on 2 Sep 2009, the Fermi Large Area Telescope (LAT) detected gamma rays from the long GRB 090902B, which was triggered and located by the Fermi Gamma-ray Burst Monitor (GBM) (trigger 273582310/090902462, GCN9866). The angle of the GBM best position (RA, Dec= 264.5, 26.5) with respect to the LAT boresight was 51 degrees at the time of the trigger, which is close the edge of our field of view.

The data from the Fermi LAT show a significant increase in the event rate within 1 degree of the GBM location after the GBM trigger that is spatially and temporally correlated with the GBM emission with high significance. More than 200 photons above 100 MeV and more than 30 photons above 1 GeV are observed within 100 seconds. The highest energy photon is a 33.4 GeV event which is observed 82 seconds after the GBM trigger.

The best LAT on-ground localization is found to be (RA,Dec=265.00, 27.33) with a 90% containment radius of 0.06 deg (statistical; 68% containment radius: 0.04 deg, preliminary systematic error is less than 0.1 deg) which is consistent with the GBM localization. A Swift TOO request has been issued.

Further analysis is ongoing.

The point of contact for this burst is

Francesco de Palma (francesco.depalma@ba.infn.it)

The Fermi LAT is a pair conversion telescope designed to cover the energy band from 20 MeV to greater than 300 GeV. It is the product of an international collaboration between NASA and DOE in the U.S. and many scientific institutions across France, Italy, Japan and Sweden.

This message can be cited.

From gcncirc@capella.gsfc.nasa.gov Wed Sep 2 14:18:44 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090902B: Fermi GBM detection of a bright burst
To: khurley@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 17:19:05 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9866
SUBJECT: GRB 090902B: Fermi GBM detection of a bright burst
DATE: 09/09/02 21:19:03 GMT
FROM: Elisabetta Bissaldi at MPE <ebs@mpe.mpg.de>

Elisabetta Bissaldi (MPE) and Valerie Connaughton (UAH)
report on behalf of the Fermi GBM Team:

"At 11:05:08.31 UT on 2 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090202B (trigger 273582310 / 090902462). The on-ground calculated location, using the GBM trigger data, is RA = 264.5, DEC = 26.5 (J2000 degrees, equivalent to 17h 38m, 26d 30'), with an uncertainty of 1.0 degree (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

The angle from the Fermi LAT boresight is 52 degrees. Moreover, this burst was bright enough to result in a Fermi spacecraft repointing maneuver.

The burst was also independently detected by INTEGRAL SPI-ACS.

The GBM light curve consists of a bright pulse with a duration of about 21 s. The time-averaged spectrum between 50 keV and 40 MeV from T0 to T0+22 s is well fit by a Band function with Epeak = 775 +/- 11 keV, alpha = -0.696 +/- 0.012 and beta = -3.85 (+0.21/-0.31).

The event fluence (50 keV - 10 MeV) in this time interval is (3.74 +/- 0.03)E-04 erg/cm^2. The 1-sec peak photon flux measured starting from T0+14 s in the 50 keV - 10 MeV band is 46.1 +/- 0.3 ph/s/cm^2.

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

MS01

02/09/09

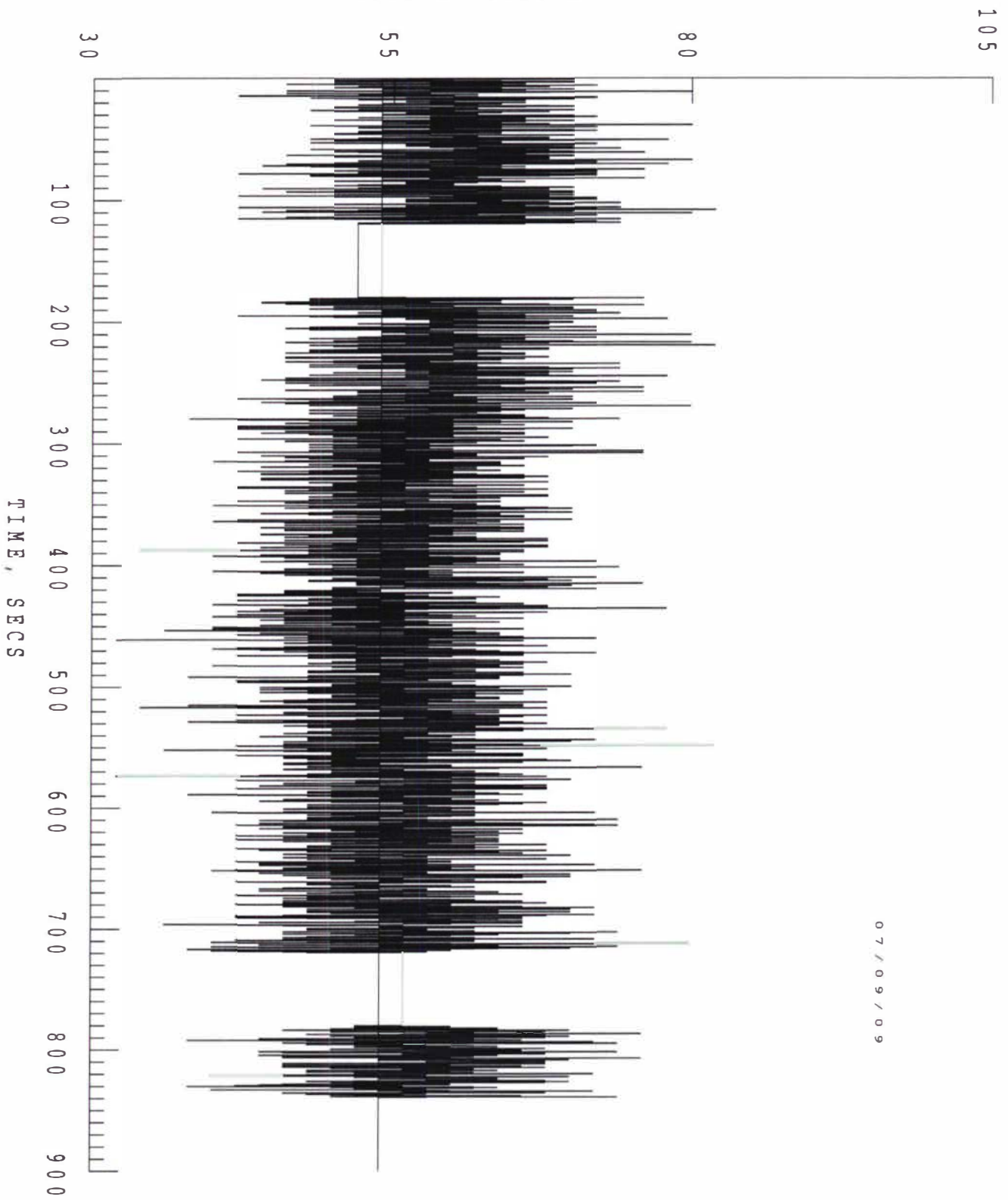
39126.078

MCT 40400

C

50 - 3000 keV

COUNTS/0.250 S



MO GE

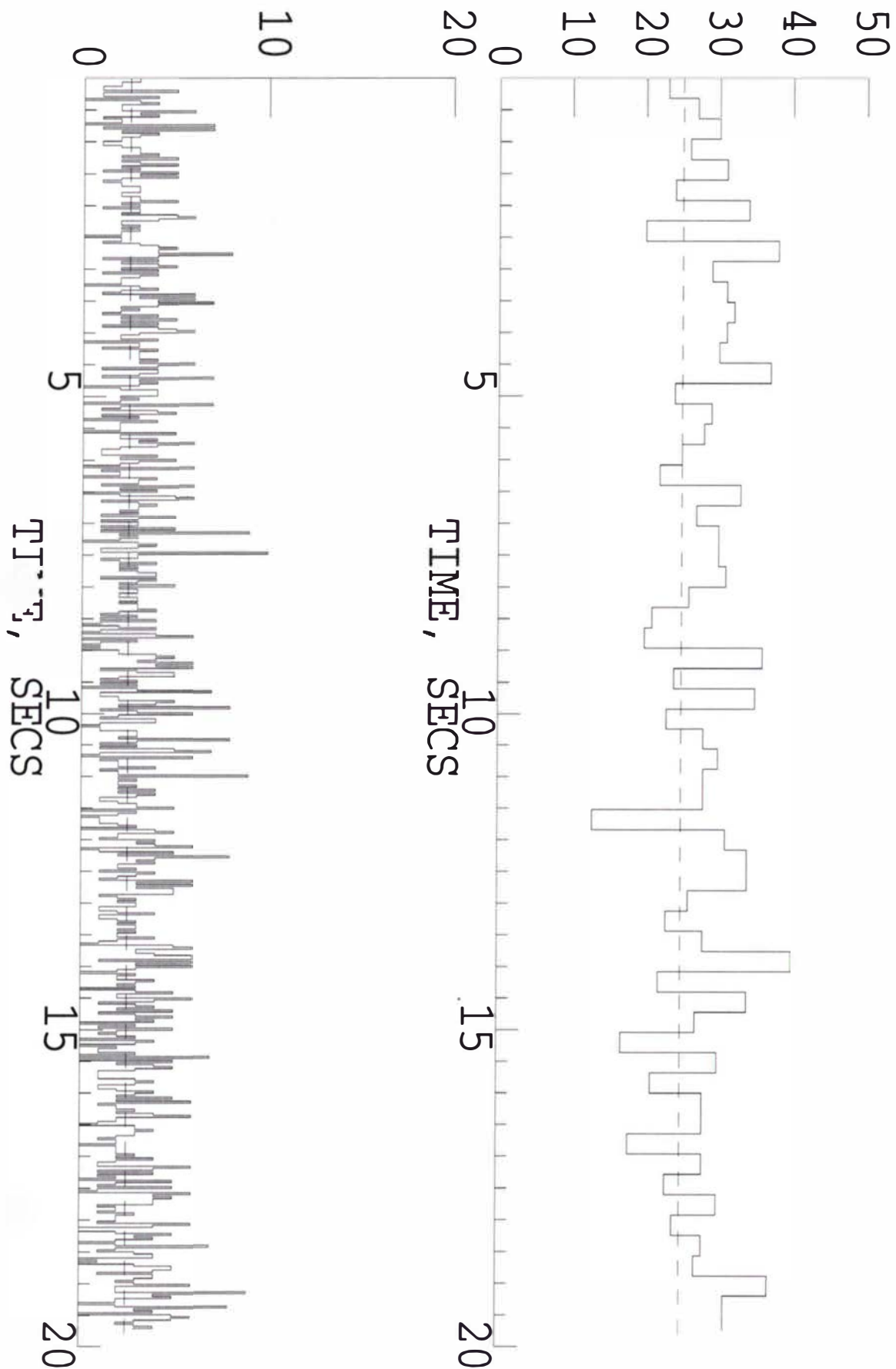
02/09/09

39611.209

c

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



03/09/2009

MO GE

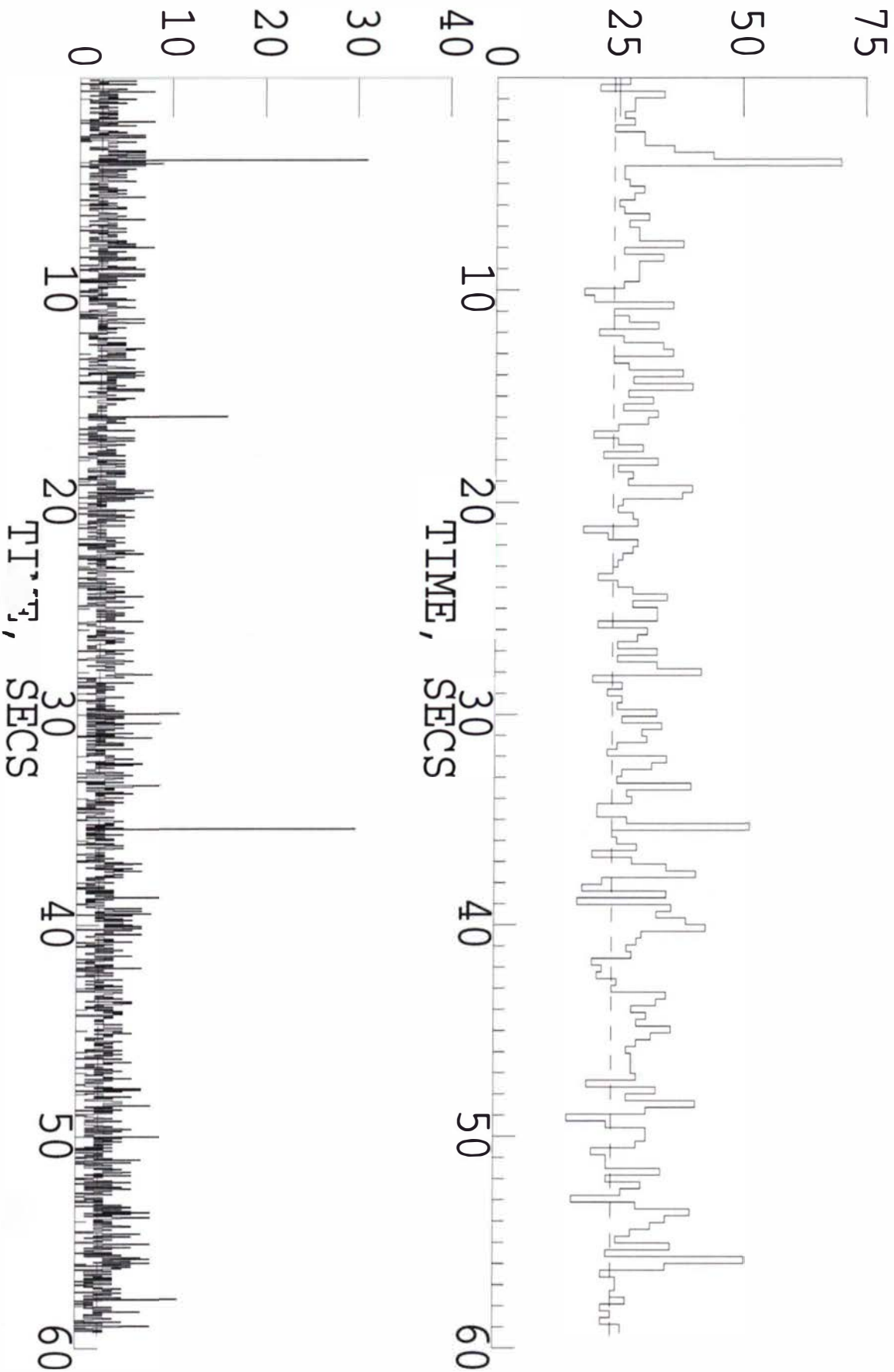
02/09/09

40322.528

c

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



03/09/2009

MO GE

02/09/09

40401.564

C

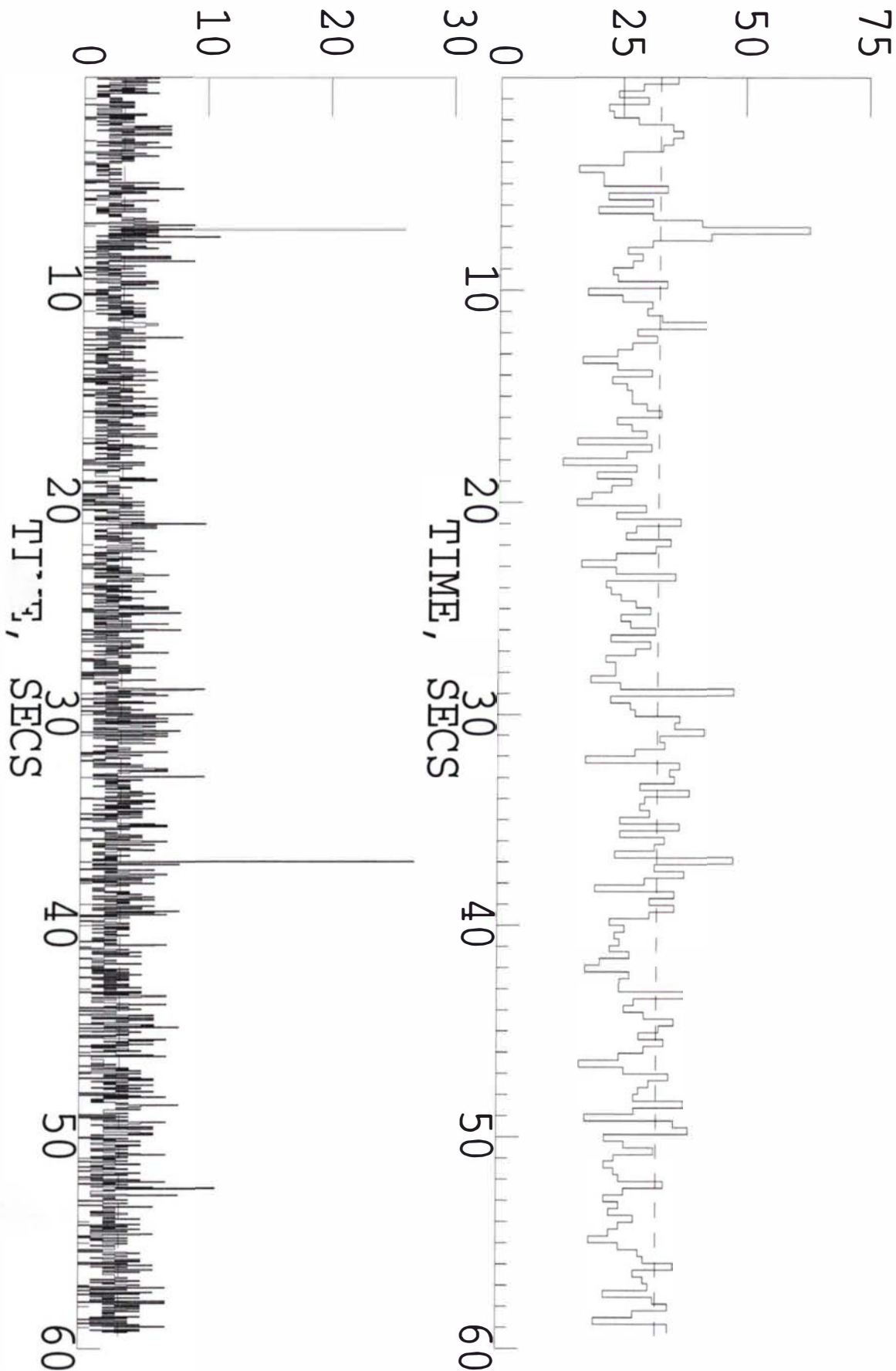
116- 337 keV

MCT was 40400

Should be in this time history
if unocculted

COUNTS/ .032 S

COUNTS/ .320 S



03/09/2009

MO GE

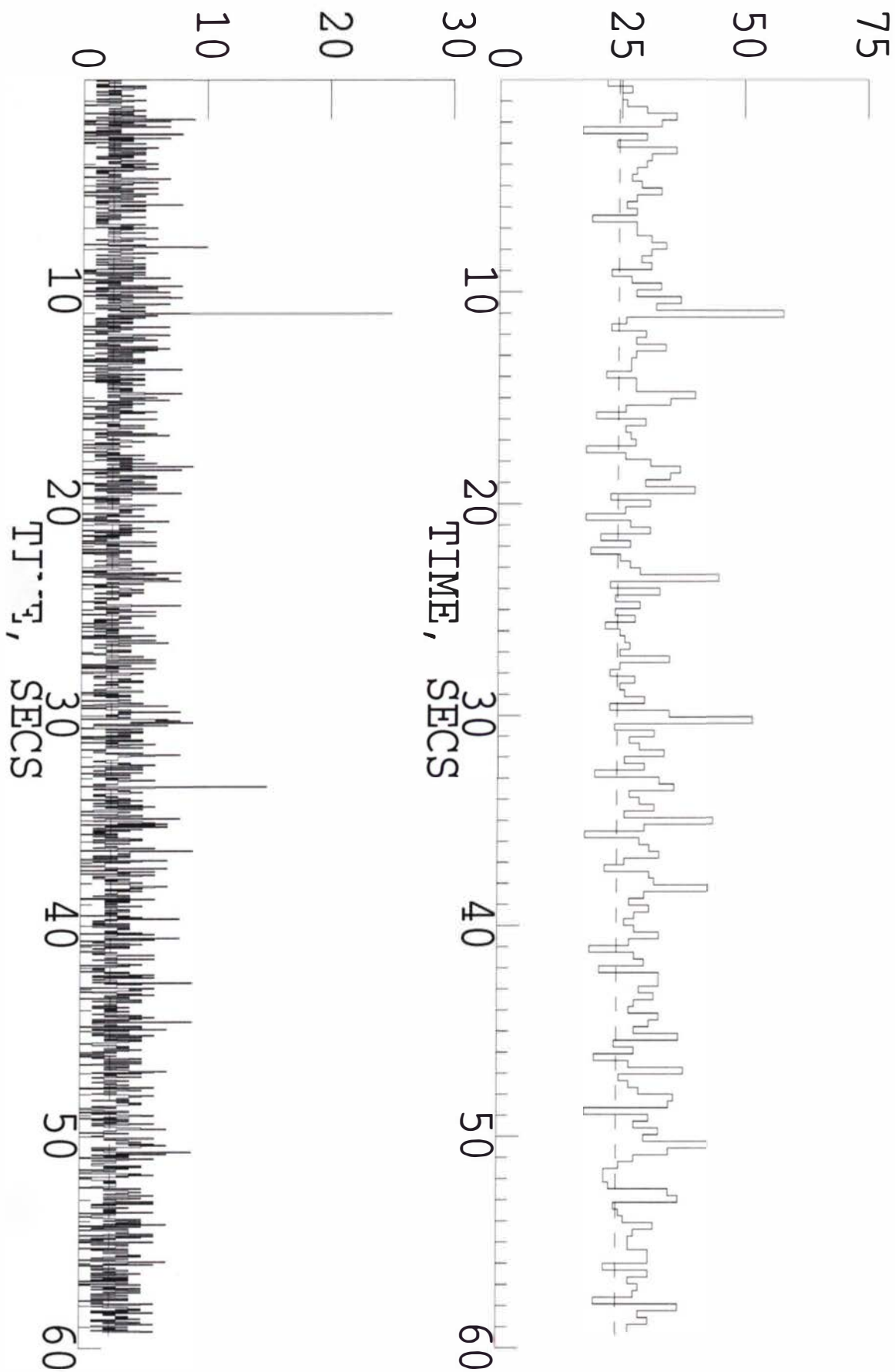
02/09/09

40599.153

c

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



03/09/2009

MO GE

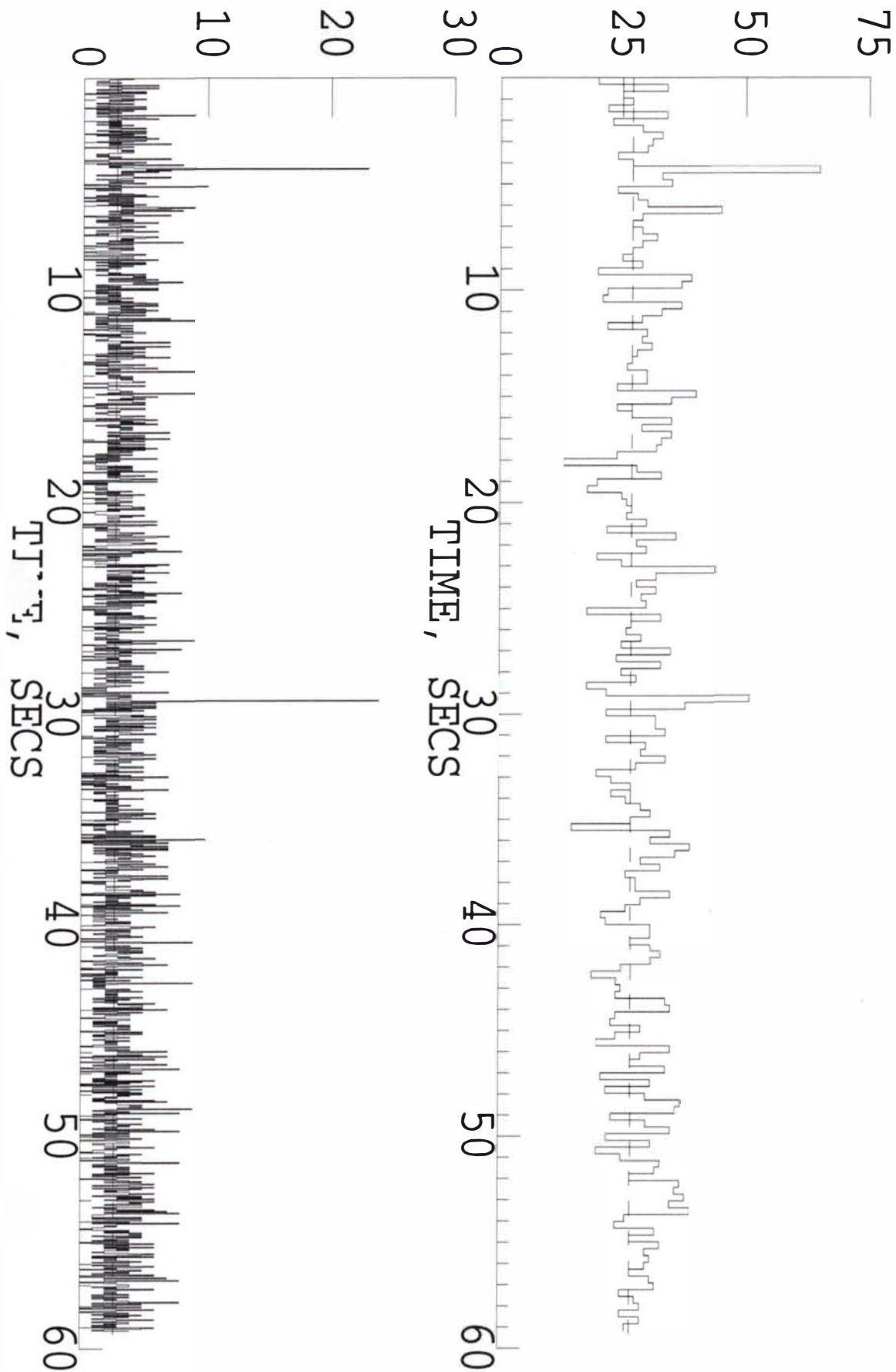
02/09/09

40678.188

116- 337 keV

2

COUNTS/ .032 S COUNTS/ .320 S



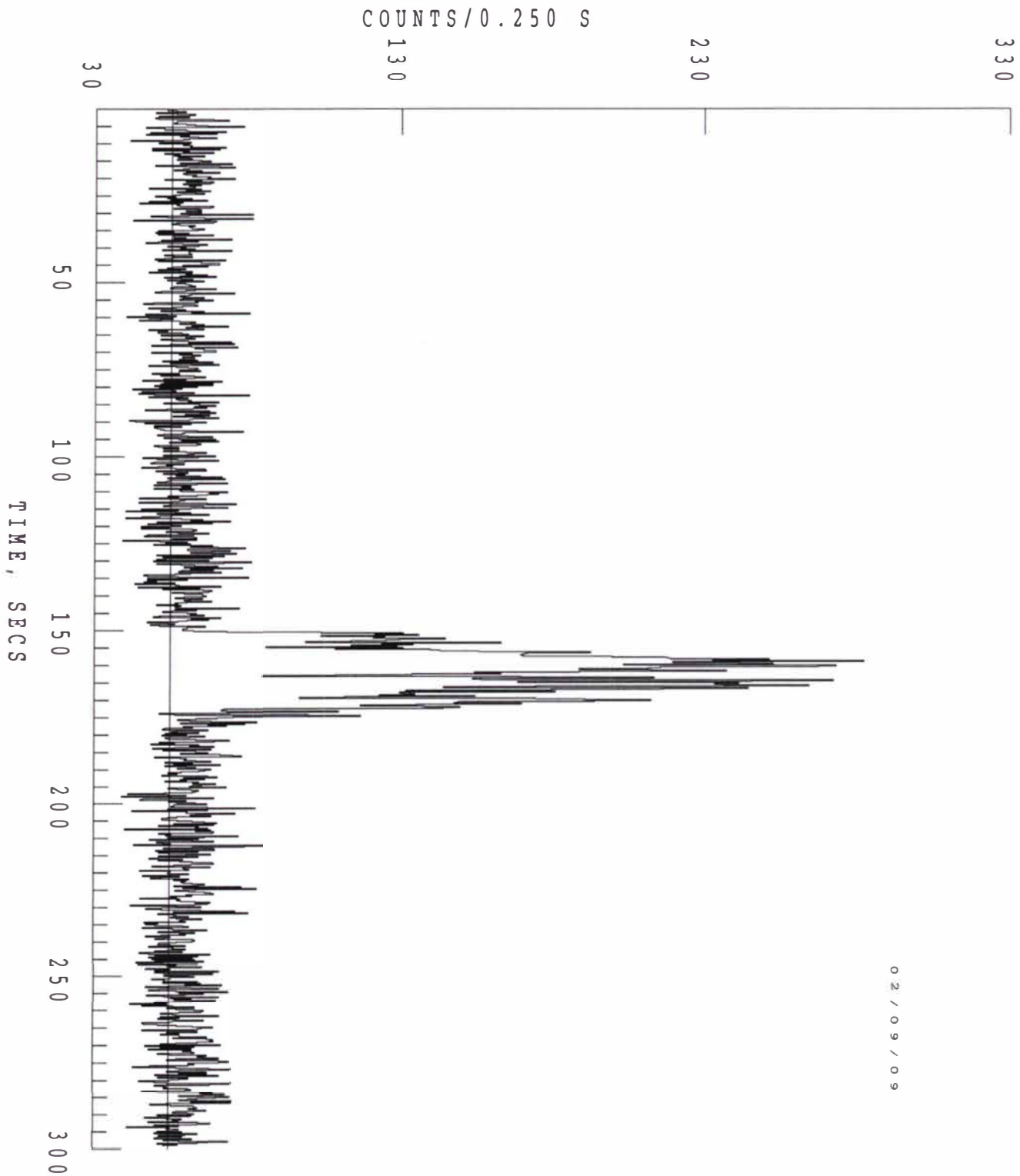
03/09/2009

HESSI

02/09/09 39758.000 (GLAST_20090902_39908)

C

25- 150 keV



C

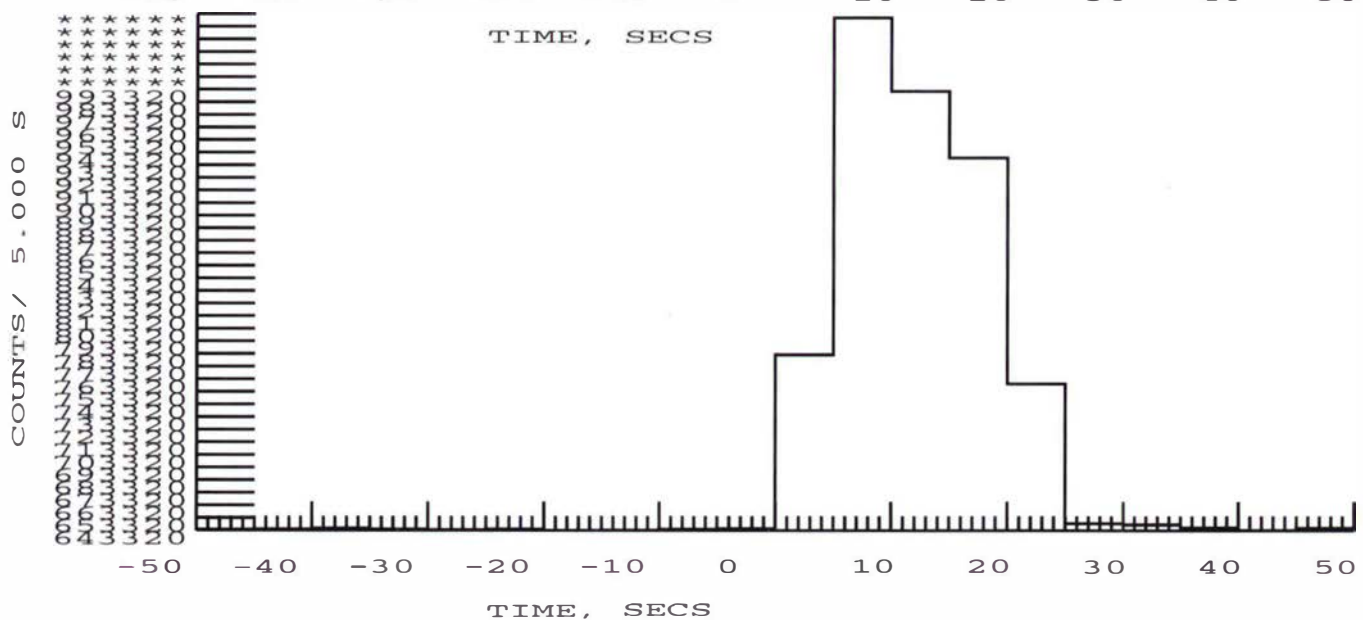
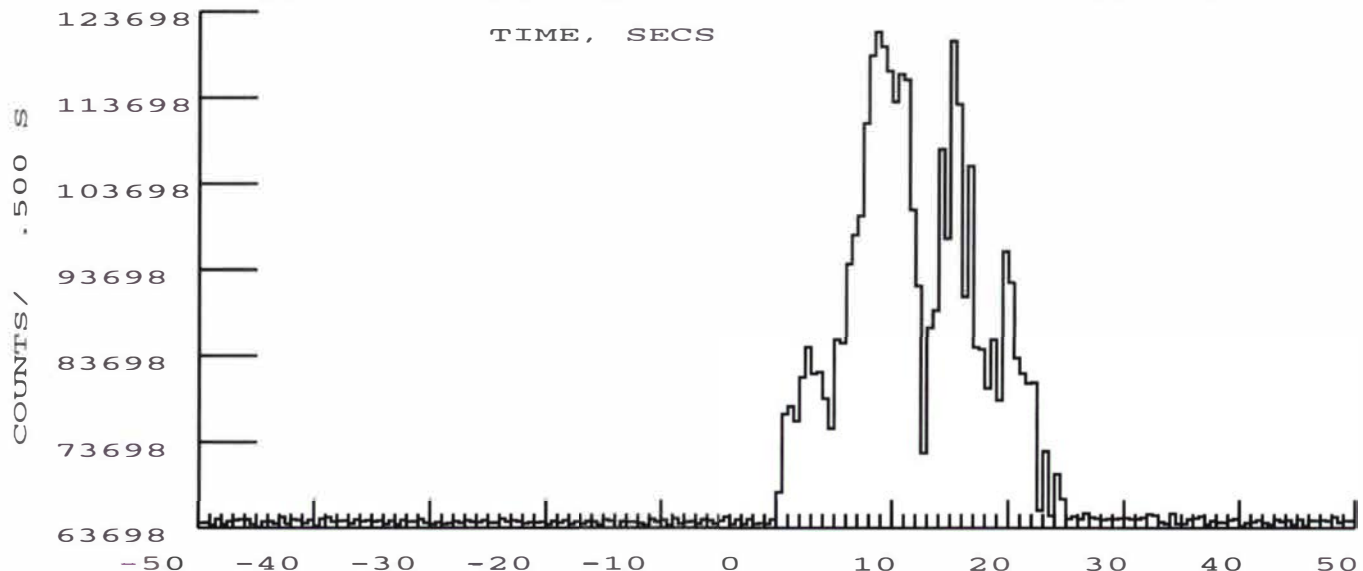
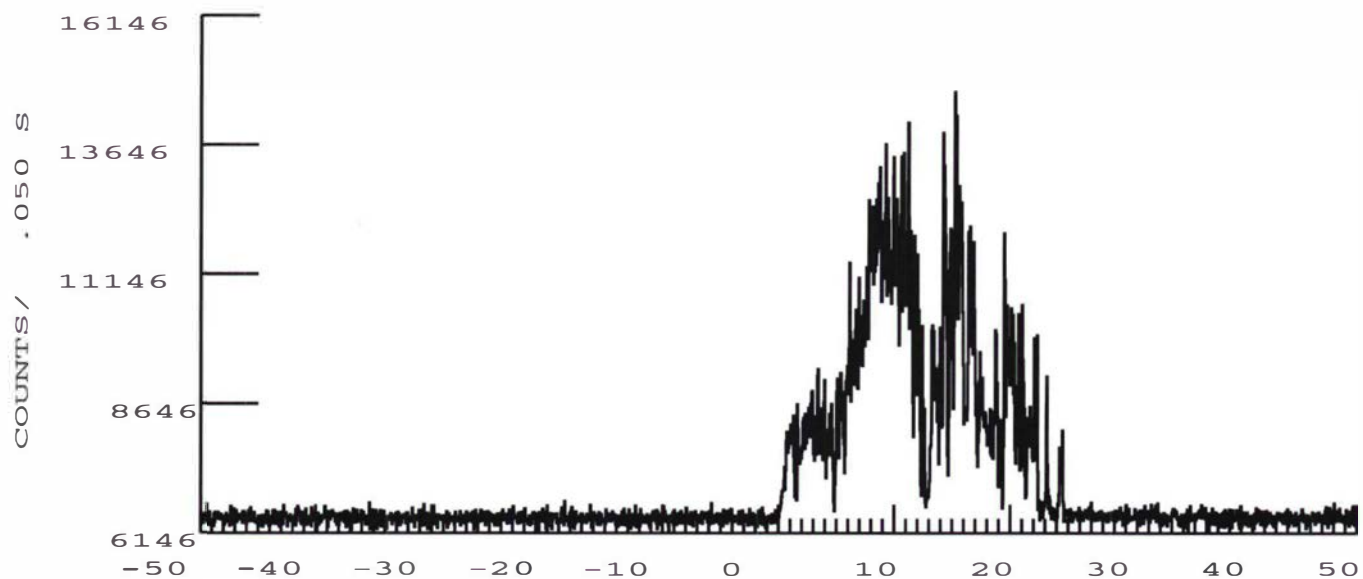
INTEGRAL

02/09/09

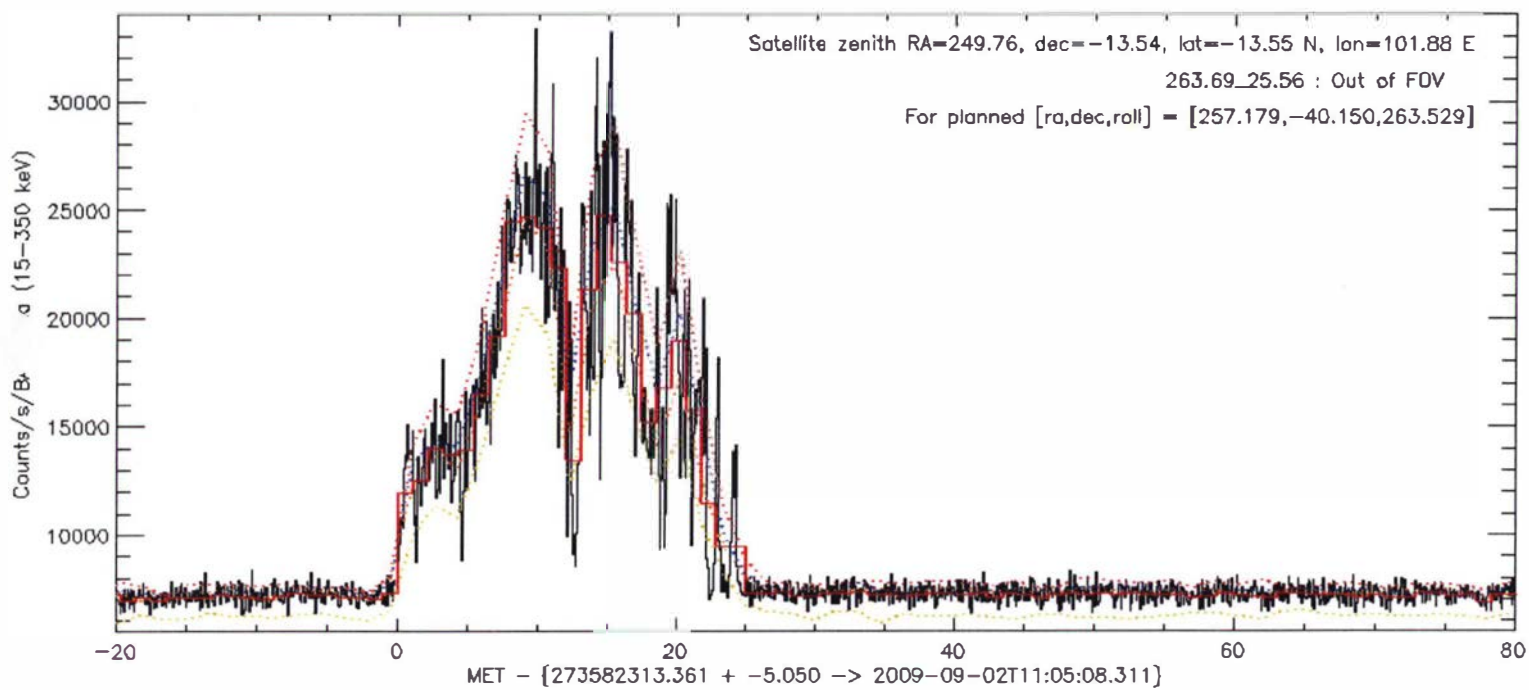
39908.000

11:05:08.0

08/03/19



C



C

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 07:03:40 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 02 Sep 2009 10:03:59 -0400
From: Hans Krimm <hans.krimm@nasa.gov>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] A bright long Fermi GRB detected by Suzaku WAM on Sep. 2

Dear Kazu:

Swift/BAT did trigger on this burst (Trigger #361654) and it shows up very strong in the rates. At the time we were pointing at 1RXS J170849.0-40091 at RA=257.179, dec=-40.1500. The best GBM position is RA=263.040, dec=+27.320, which is 67 degrees away, so the burst was outside the BAT FOV. I have no idea when the event data will be down, but it will only be ten seconds' worth, so it won't cover the whole burst. I'll keep looking for it.

Swift/BAT did not trigger on either of the other two WAM bursts. I will send out spacecraft pointings in separate emails.

Best wishes,
Hans

Kazutaka Yamaoka wrote:

> Dear IPNers,
>
> A bright long GRB triggered the Suzaku WAM on
> 2009-09-02 11:05:08.
> Attached is the WAM0+1+2+3 light curve in the 50-5000 keV range.
> The duration T90 was ~19 seconds.
> Unfortunately, we will get the trigger data tomorrow because the trigger data
> transfer will be done during the SAA after the today's final downlink.
>
> This burst was also detected by Fermi-GBM.
> Any other detections ?
>
> We got two more GRBs today, and I will report on them later.
>
> Best wishes,
> Kazu

>
>
>
>
> -----
>

--
Dr. Hans A. Krimm
Universities Space Research Association
CRESST and NASA Goddard Space Flight Center
Code 661, ASD
Greenbelt, MD 20771
A
301-286-6955
fax 301-286-1684

U

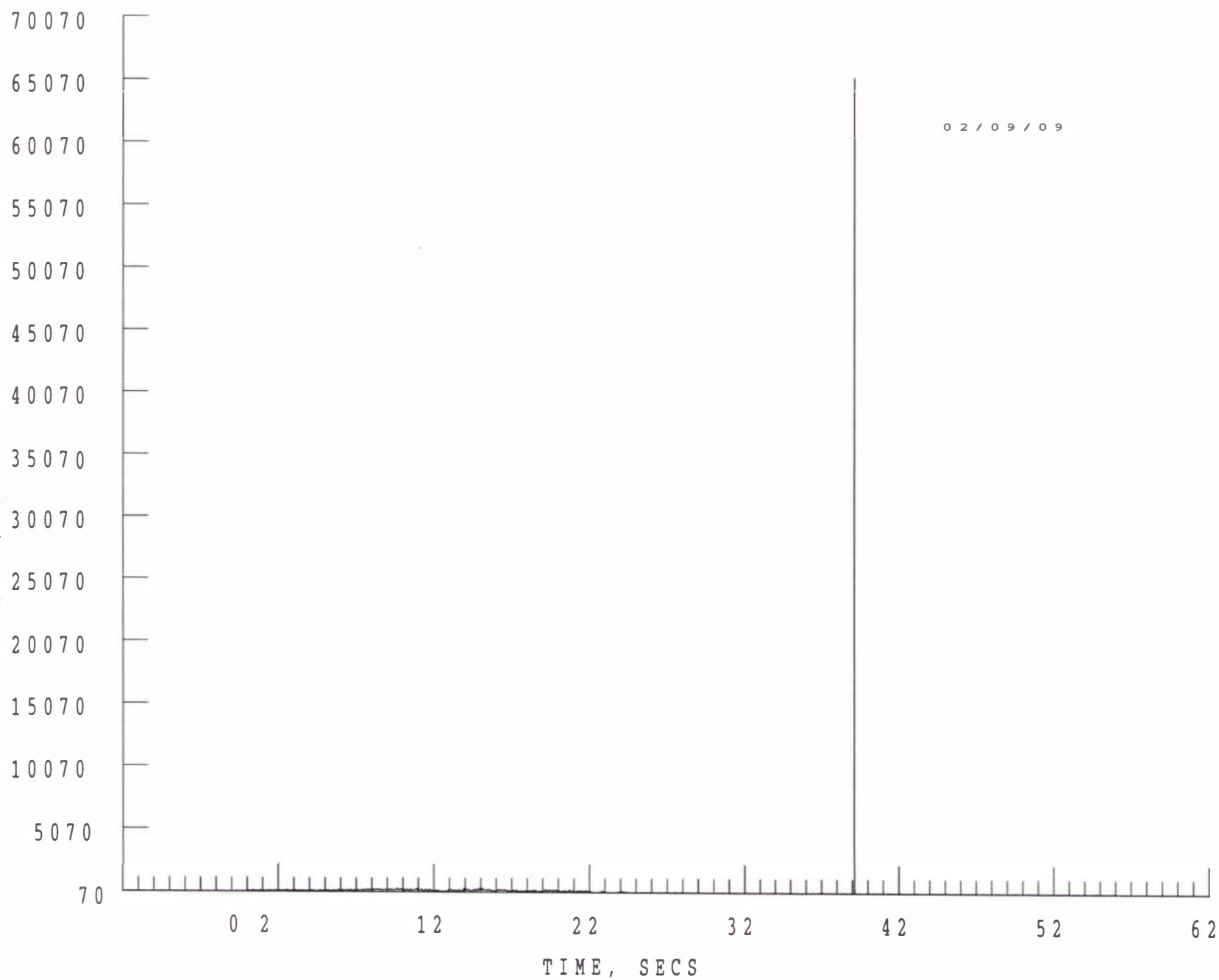
02/09/09 39908.448

SUZAKU

50- 240 keV

COUNTS/0.016 S

02/09/09



C

From ipn-bounces@ssl.berkeley.edu Wed Sep 2 05:50:08 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 2 Sep 2009 14:50:25 +0200
From: sa.grb@iasf-roma.inaf.it
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: ipn@ssl.berkeley.edu, sagile@iasf-roma.inaf.it
Subject: Re: [Ipn] A bright long Fermi GRB detected by Suzaku WAM on Sep. 2

Dear Kazu,

the burst is not detected by SuperAGILE. The distance between the GBM position (from the web page) and our boresight (RA=246.6, dec=-35.5) is 65 deg.

Cheers
Ettore
on behalf of the SuperAGILE team

>
> Dear IPNers,
>
> A bright long GRB triggered the Suzaku WAM on
> 2009-09-02 11:05:08.
> Attached is the WAM0+1+2+3 light curve in the 50-5000 keV range.
> The duration T90 was ~19 seconds.
> Unfortunately, we will get the trigger data tomorrow because the
> trigger data
> transfer will be done during the SAA after the today's final downlink.

> This burst was also detected by Fermi-GBM.
> Any other detections ?
>
> We got two more GRBs today, and I will report on them later.
>
> Best wishes,
> Kazu
>
>
>

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

SUZAKU

02/09/09

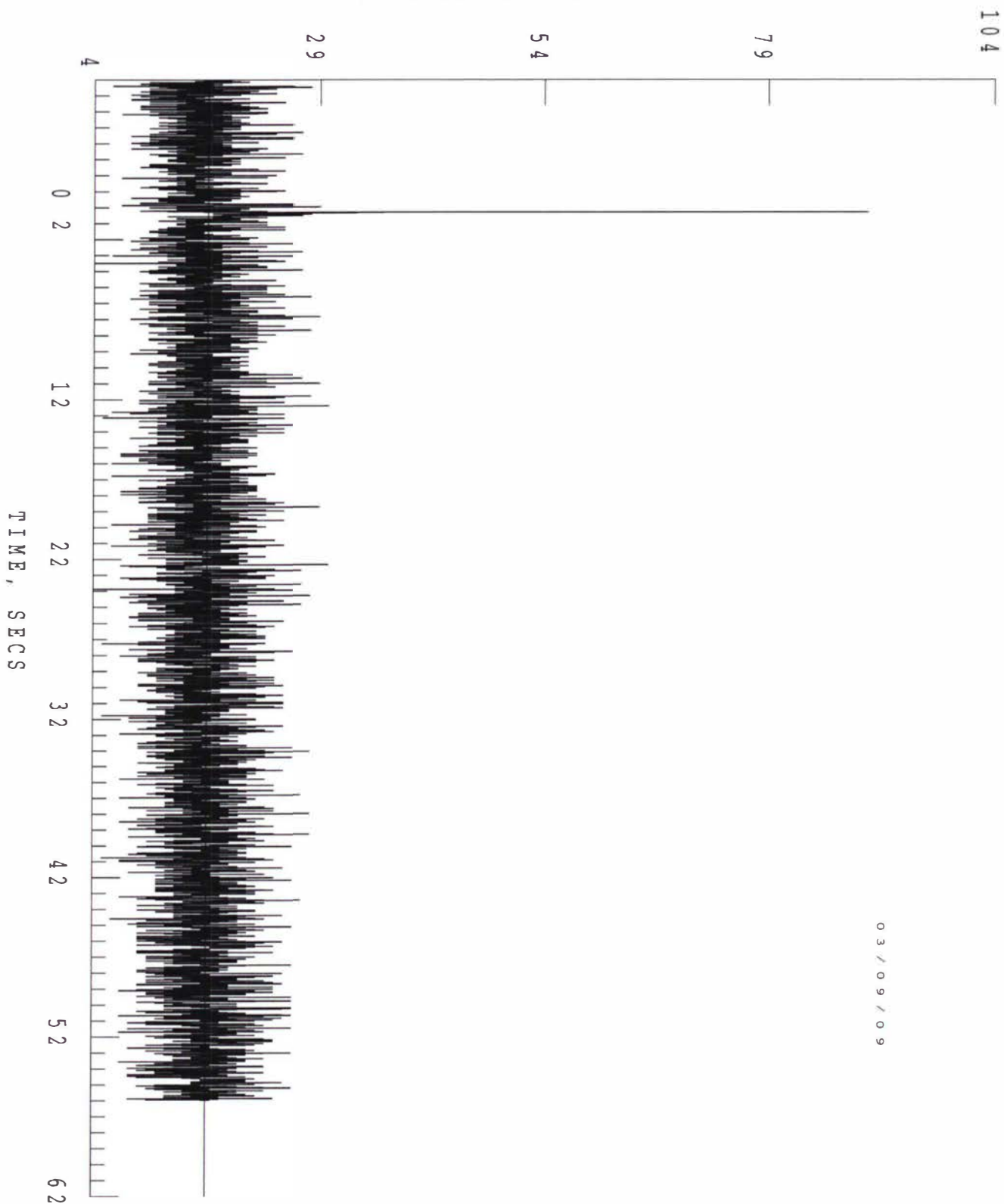
76557.943

D

50 - 240 keV

21:15:57

COUNTS/0.016 S



MS01

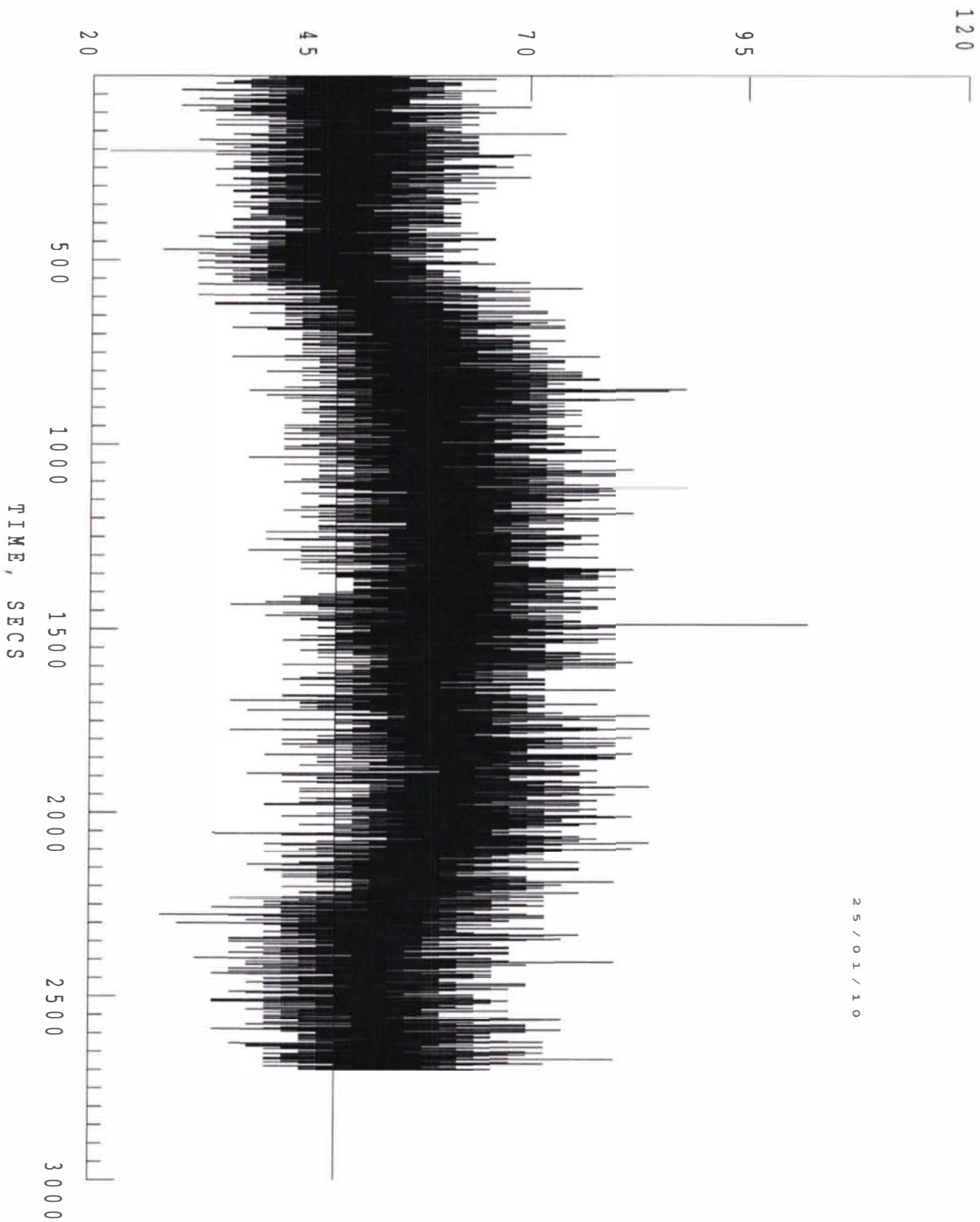
02/09/09

75185.417

D

50 - 3000 keV

COUNTS/0.250 S



MO GE

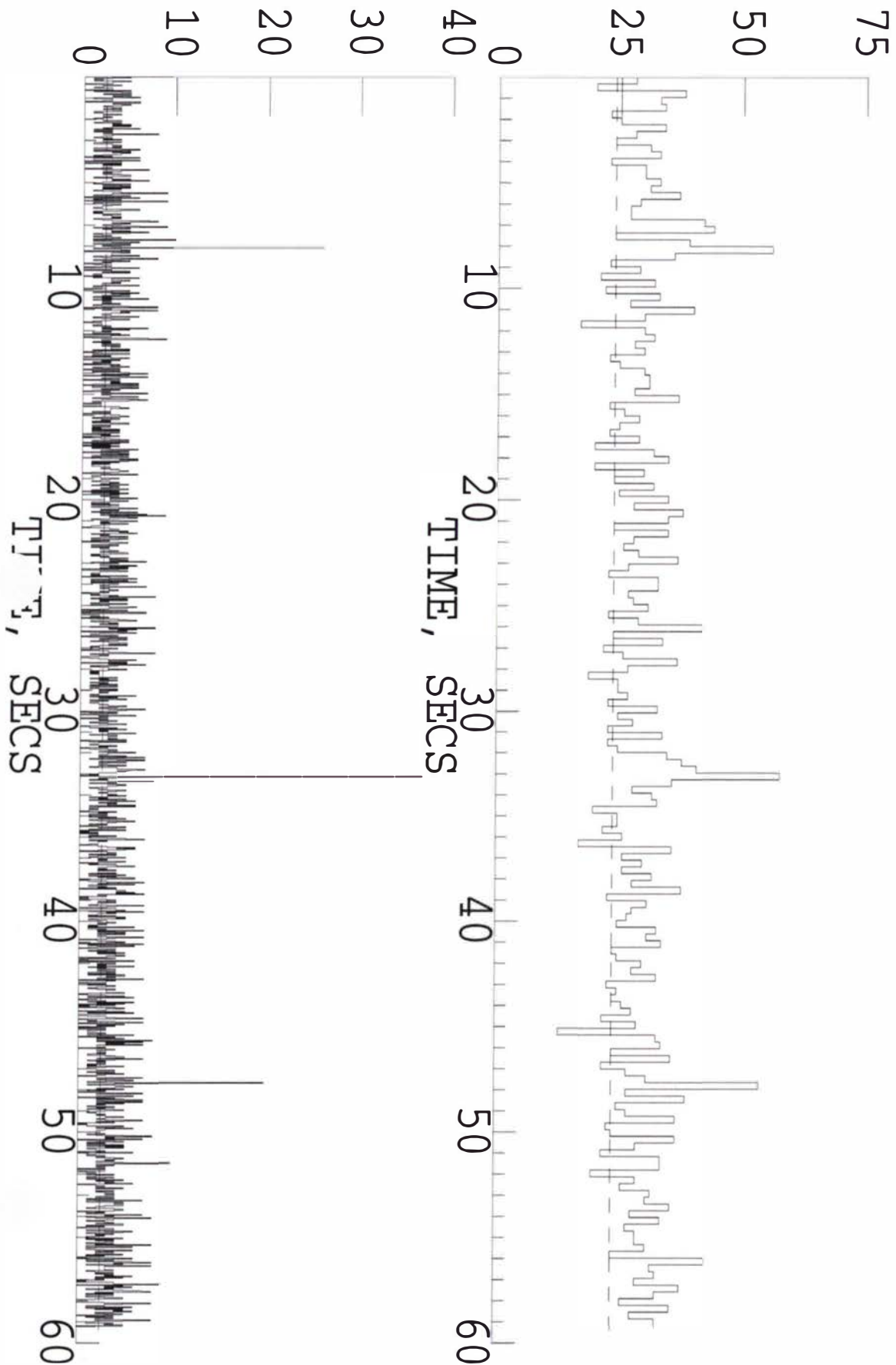
02/09/09

75833.806

D

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



26/01/2010

MO GE

02/09/09

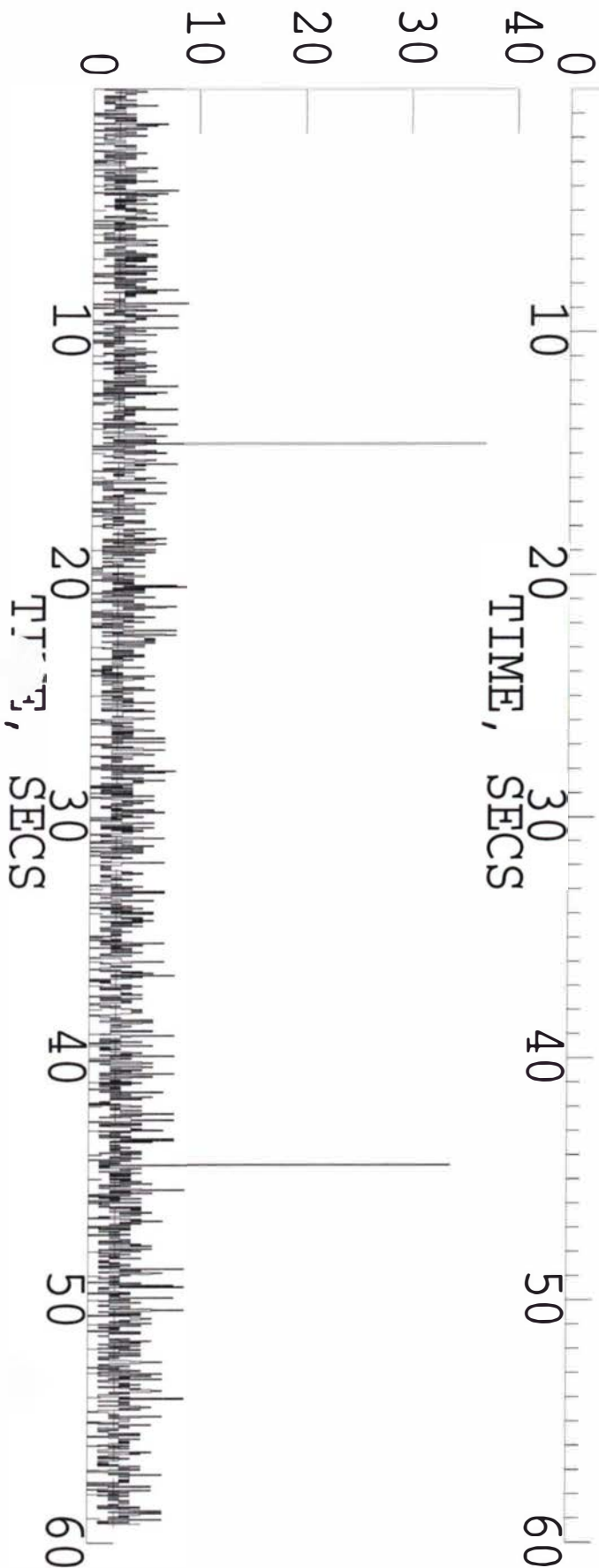
76110.346

D

116- 337 keV

COUNTS/ .032 S

COUNTS/ .320 S



26/01/2010

MO GE

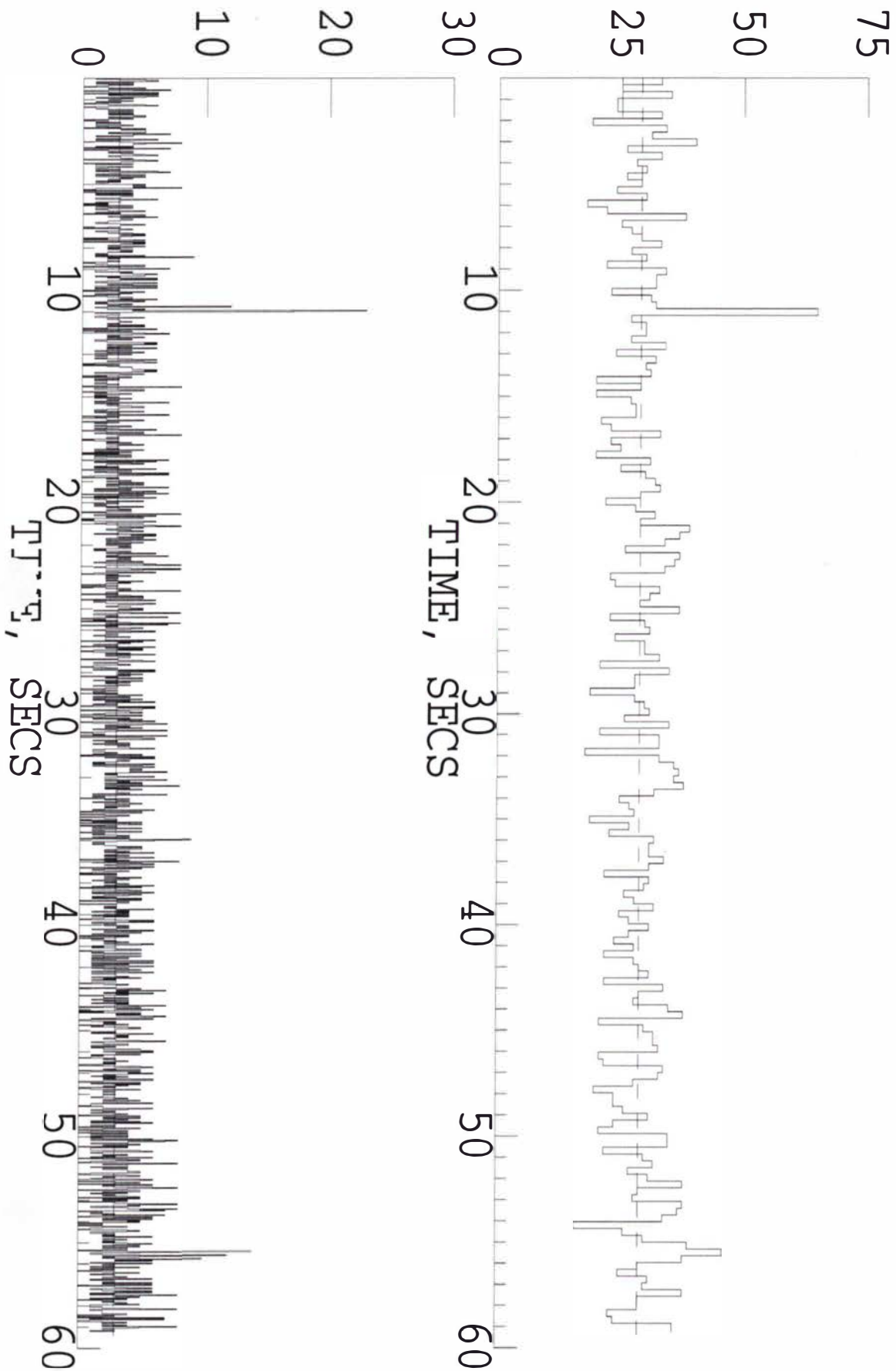
02/09/09

76189.358

D

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



MO GE

02/09/09

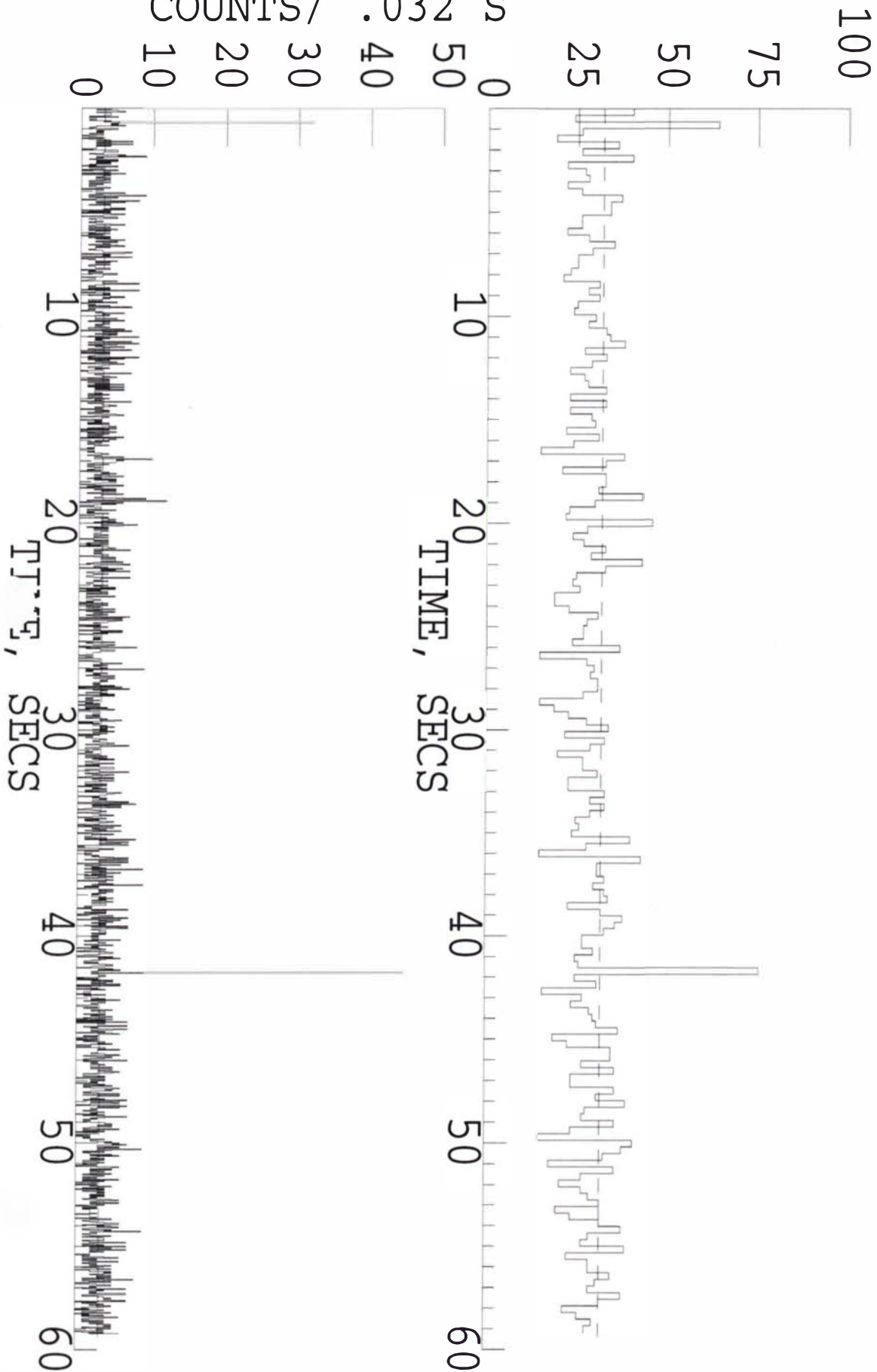
77295.518

D

116- 337 keV

COUNTS/ .320 S

COUNTS/ .032 S



26/01/2010

MO GE

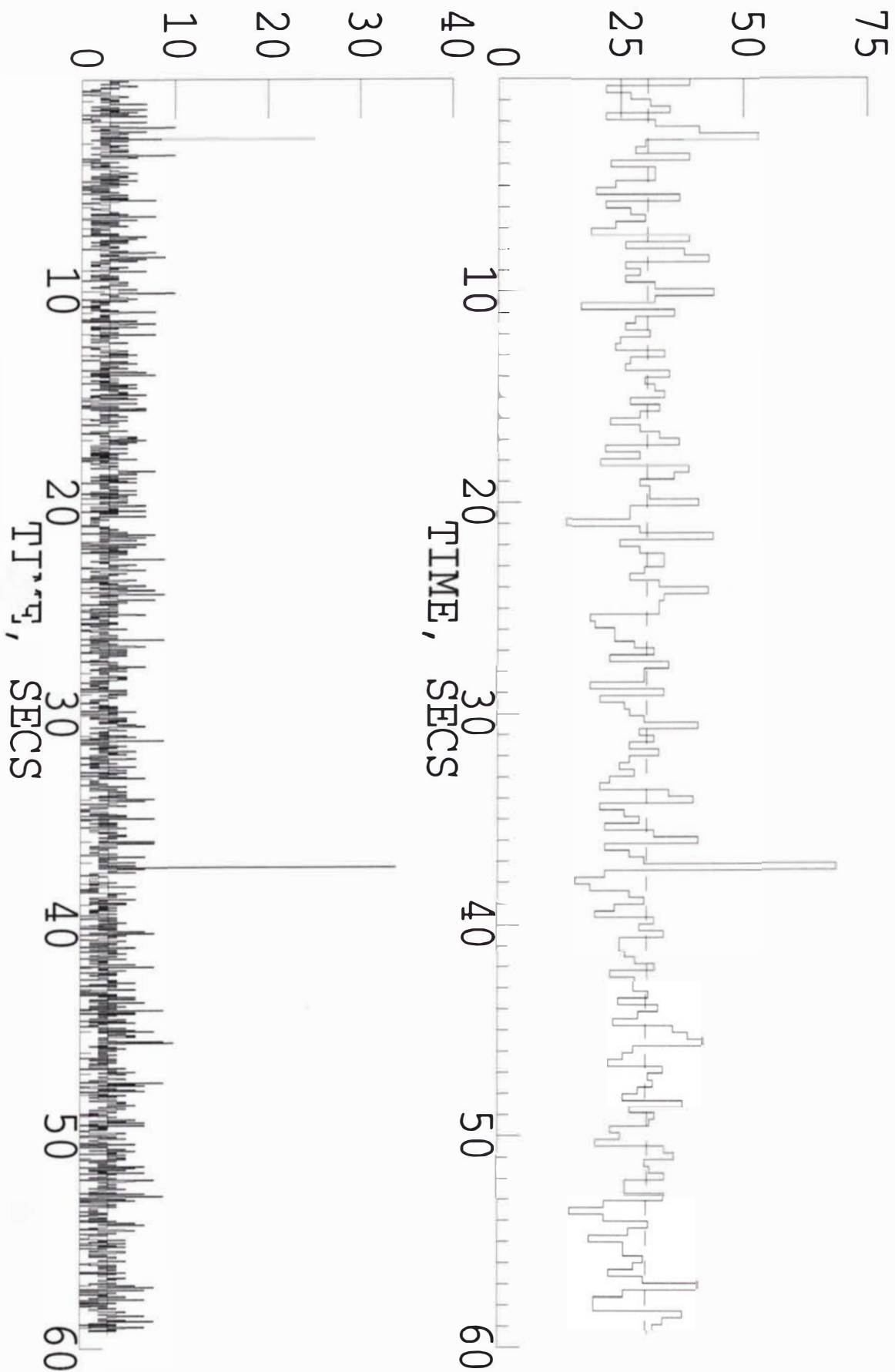
02/09/09

77434.135

D

116- 337 keV

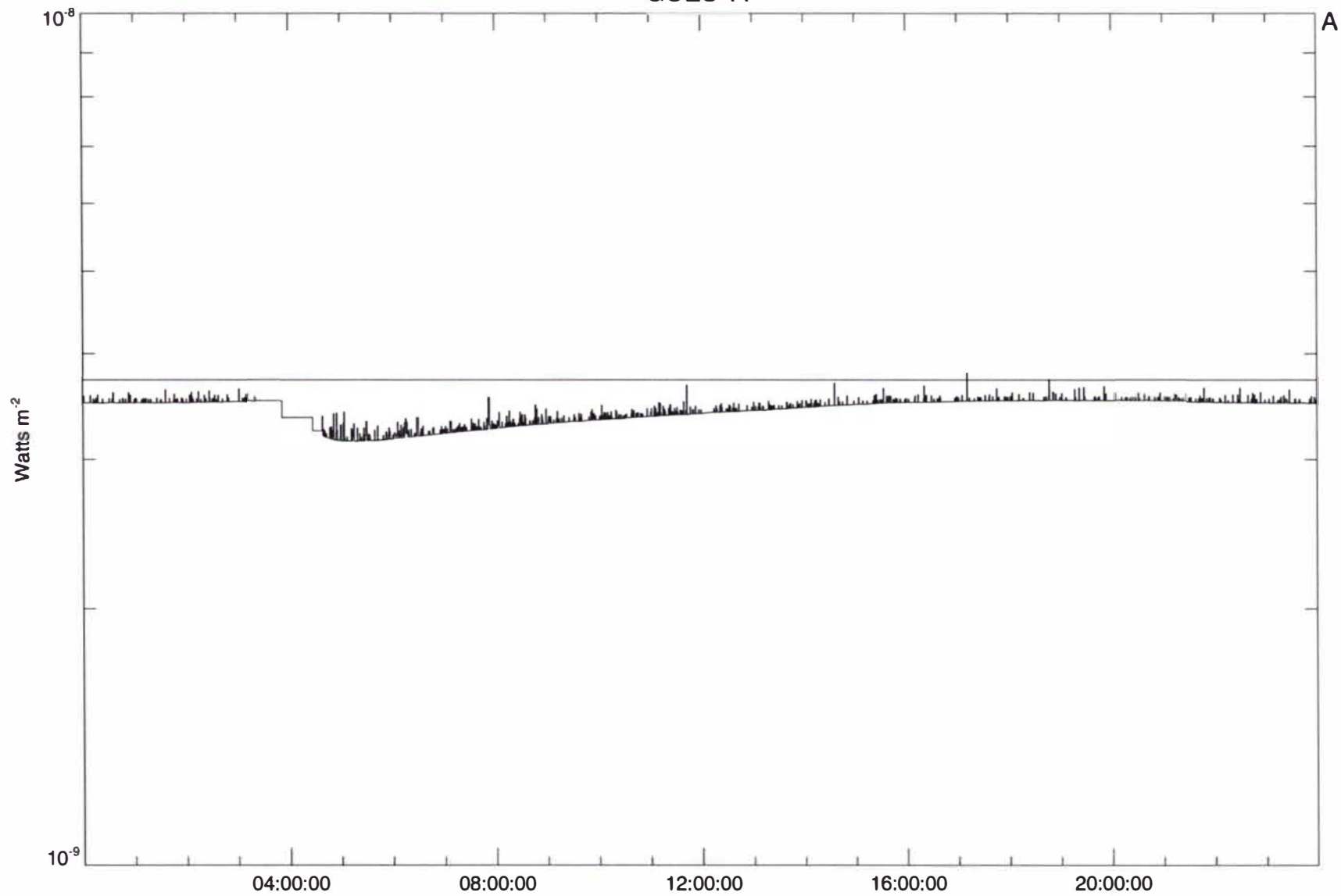
COUNTS/ .032 S COUNTS/ .320 S



From williams@penelope.ssl.berkeley.edu Fri Sep 4 14:44:23 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Fri, 4 Sep 2009 14:57:07 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_SUZAKU_20090902_76557

HESSI 25 to 150 keV Counts
Created 4-Sep-2009 14:43:34.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry

GOES 11



Data Start: 09/09/02, 0000:13

Plot created: 09/09/05, 0819

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

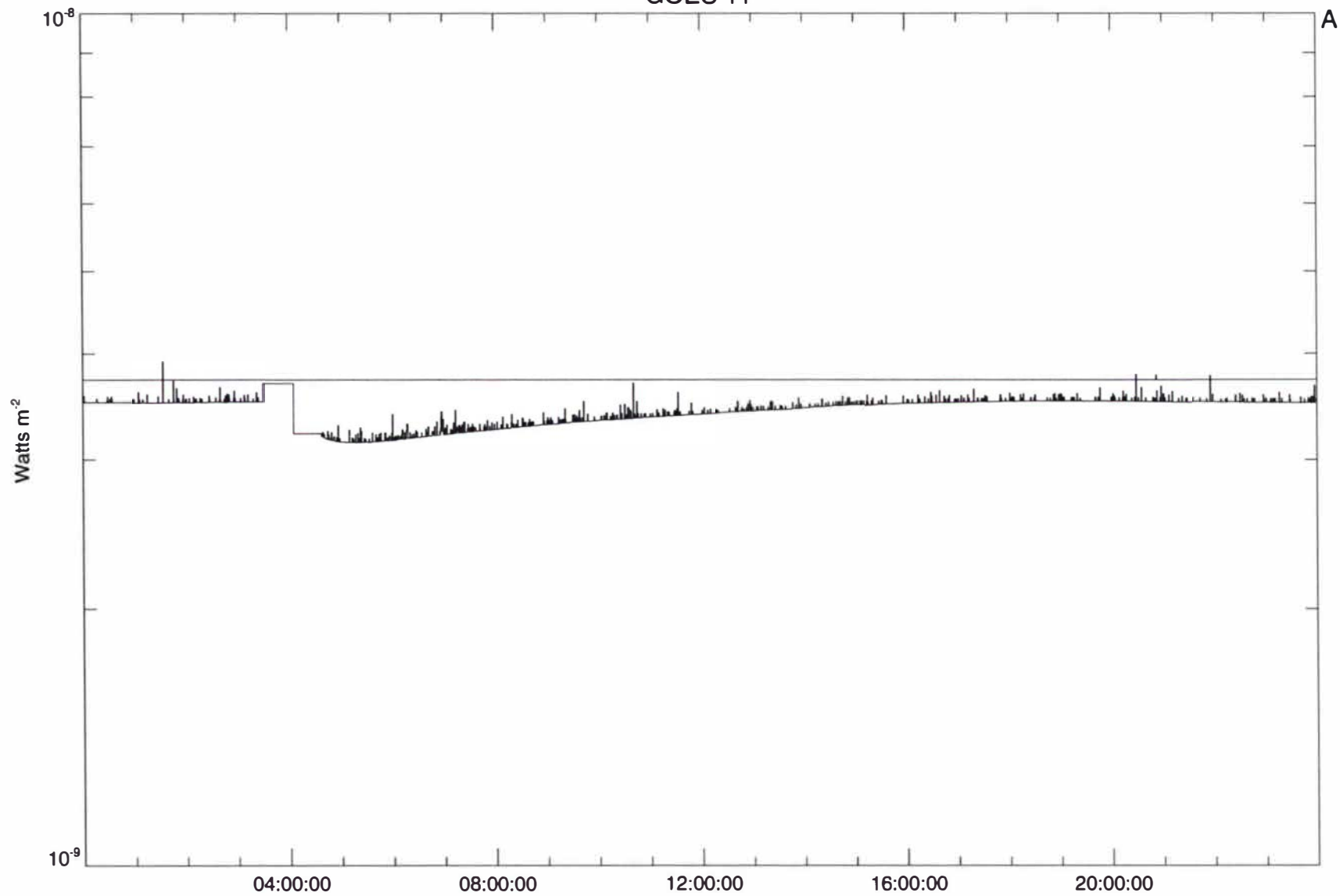
"Ensor,
Susan L" <Susan.Ensor@jhuapl.edu>,
"Shyong, Wen-Jong"
 <Wen-Jong.Shyong@jhuapl.edu>,
"Skura, Joseph" <Joe.Skura@jhuapl.edu>,
"Srinivasan, Dipak" <Dipak.Srinivasan@jhuapl.edu>,
"Steele, Josh"
 <Josh.Steele@jhuapl.edu>,
"Watson, Zana W." <Zana.Watson@jhuapl.edu>,
"Wiley, James P." <James.Wiley@jhuapl.edu>,
"Campbell, Paulette W."
 <Paulette.Campbell@jhuapl.edu>,
"Reid, Michael R." <Mike.Reid@jhuapl.edu>,
"Handiboe, Jon" <Jon.Handiboe@jhuapl.edu>,
Deborah Domingue Lorin
 <domingue@psi.edu>,
"Ossing, Daniel" <Dan.Ossing@jhuapl.edu>,
"Denissen, Ron"
 <Ron.Denissen@jhuapl.edu>,
"EXT Benson, Richard"
 <richard.d.benson@jpl.nasa.gov>
CC: +SD-MAC <SDMAC-list@aplmsg.jhuapl.edu>,
"Calloway, Andy"
 <Andrew.Calloway@jhuapl.edu>,
"Berman, Alice F." <Alice.Berman@jhuapl.edu>,
"Finnegan, Eric J." <Eric.Finnegan@jhuapl.edu>,
"Kochte, Mark C."
 <Mark.Kochte@jhuapl.edu>,
"Kang, Hong K." <Hong.Kang@jhuapl.edu>
Date: Thu, 3 Sep 2009 07:52:51 -0400
Subject: MESSENGER Recovery Final Update
Accept-Language: en-US
Content-Language: en
acceptlanguage: en-US

All,

Early this morning the mission operations and engineering teams completed the tr
Once again, we thank the DSN for their support during this anomaly, and to the S
Peter

--
Peter D. Bedini
MESSENGER Project Manager
Applied Physics Laboratory
11100 Johns Hopkins Road
Laurel, MD 20723
240-228-4642

GOES 11



Data Start: 09/09/03, 0000:13

Plot created: 09/09/06, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

From vxw@capella.gsfc.nasa.gov Thu Sep 3 18:04:44 2009
X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
Date: Thu, 3 Sep 2009 21:05:09 -0400
From: Bacodine <vxw@capella.gsfc.nasa.gov>
To: khurley@ssl.berkeley.edu
Subject: GCN/SWIFT_BAT_LIGHTCURVE

TITLE: GCN/SWIFT NOTICE
NOTICE_DATE: Fri 04 Sep 09 01:05:06 UT
NOTICE_TYPE: Swift-BAT GRB Lightcurve
TRIGGER_NUM: 361830, Seg_Num: 0
GRB_RA: 100.882d {+06h 43m 32s} (J2000),
101.070d {+06h 44m 17s} (current),
99.913d {+06h 39m 39s} (1950)
GRB_DEC: +50.206d {+50d 12' 23"} (J2000),
+50.196d {+50d 11' 46"} (current),
+50.257d {+50d 15' 24"} (1950)
GRB_DATE: 15078 TJD; 247 DOY; 09/09/04
GRB_TIME: 3666.94 SOD {01:01:06.94} UT
TRIGGER_INDEX: 20000
GRB_PHI: 12.13 [deg]
GRB_THETA: 29.53 [deg]
DELTA_TIME: 0.00 [sec]
TRIGGER_DUR: 64.000 [sec]
SOLN_STATUS: 0x13
RATE_SIGNIF: 0.00 [sigma]
IMAGE_SIGNIF: 10.83 [sigma]
LC_URL: sw00361830000msb.lc
SUN_POSTN: 163.07d {+10h 52m 16s} +7.20d {+07d 11' 43"}
SUN_DIST: 66.77 [deg] Sun_angle= 4.1 [hr] (West of Sun)
JON_POSTN: 335.55d {+22h 22m 11s} -7.09d {-07d 05' 40"}
MOON_DIST: 117.65 [deg]
MOON_ILLUM: 100 [%]
GAL_COORDS: 165.60, 19.31 [deg] galactic lon,lat of the burst (or transient)
ECL_COORDS: 97.80, 27.06 [deg] ecliptic lon,lat of the burst (or transient)
COMMENTS: SWIFT-BAT GRB Lightcurve.
COMMENTS:
COMMENTS: The next comments were copied from the BAT_POS Notice:
COMMENTS: This is an image trigger.
COMMENTS: A point_source was found.
COMMENTS: This does not match any source in the on-board catalog.
COMMENTS: This does not match any source in the ground catalog.
COMMENTS: This is a GRB.
COMMENTS: This trigger occurred at longitude,latitude = 118.21,20.37 [deg]

1225

$3 \times 10^{-6} \text{ erg cm}^{-2}$

MCT 2960

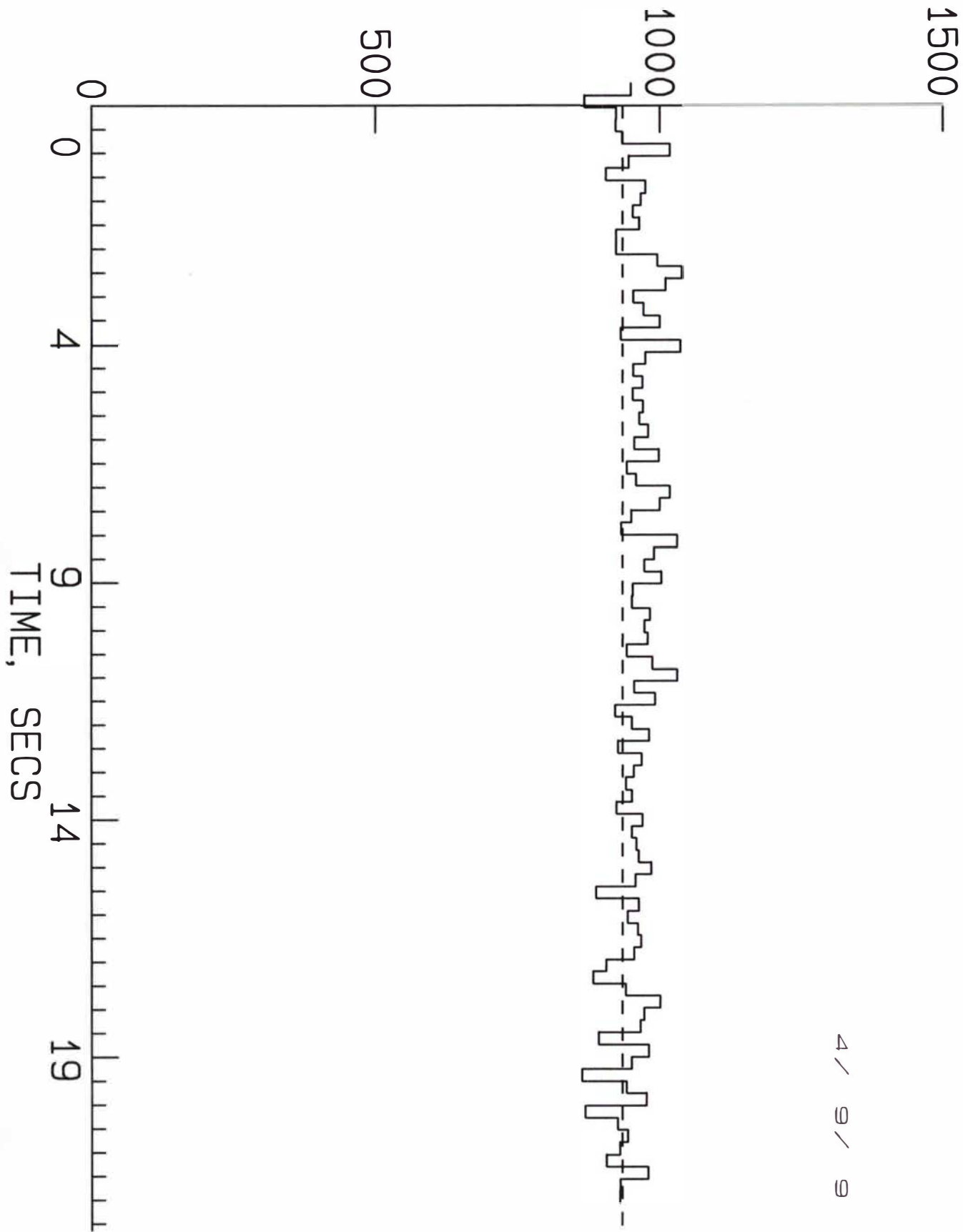
A

SWIFT

04/09/09 3666.945

25- 100 keV

COUNTS/0.256 S



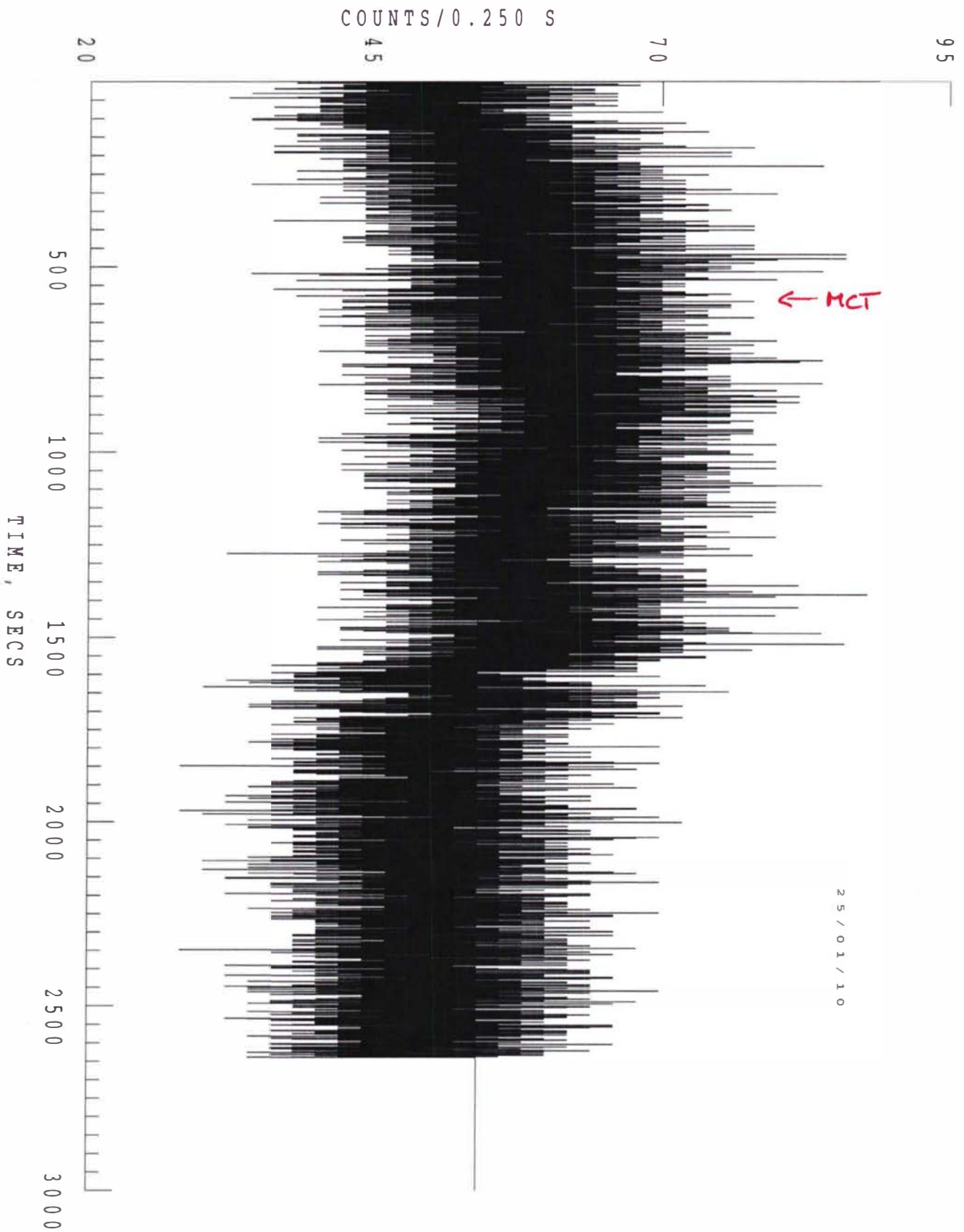
MS01

04/09/09

2343.755

A

50 - 3000 keV



MO GE

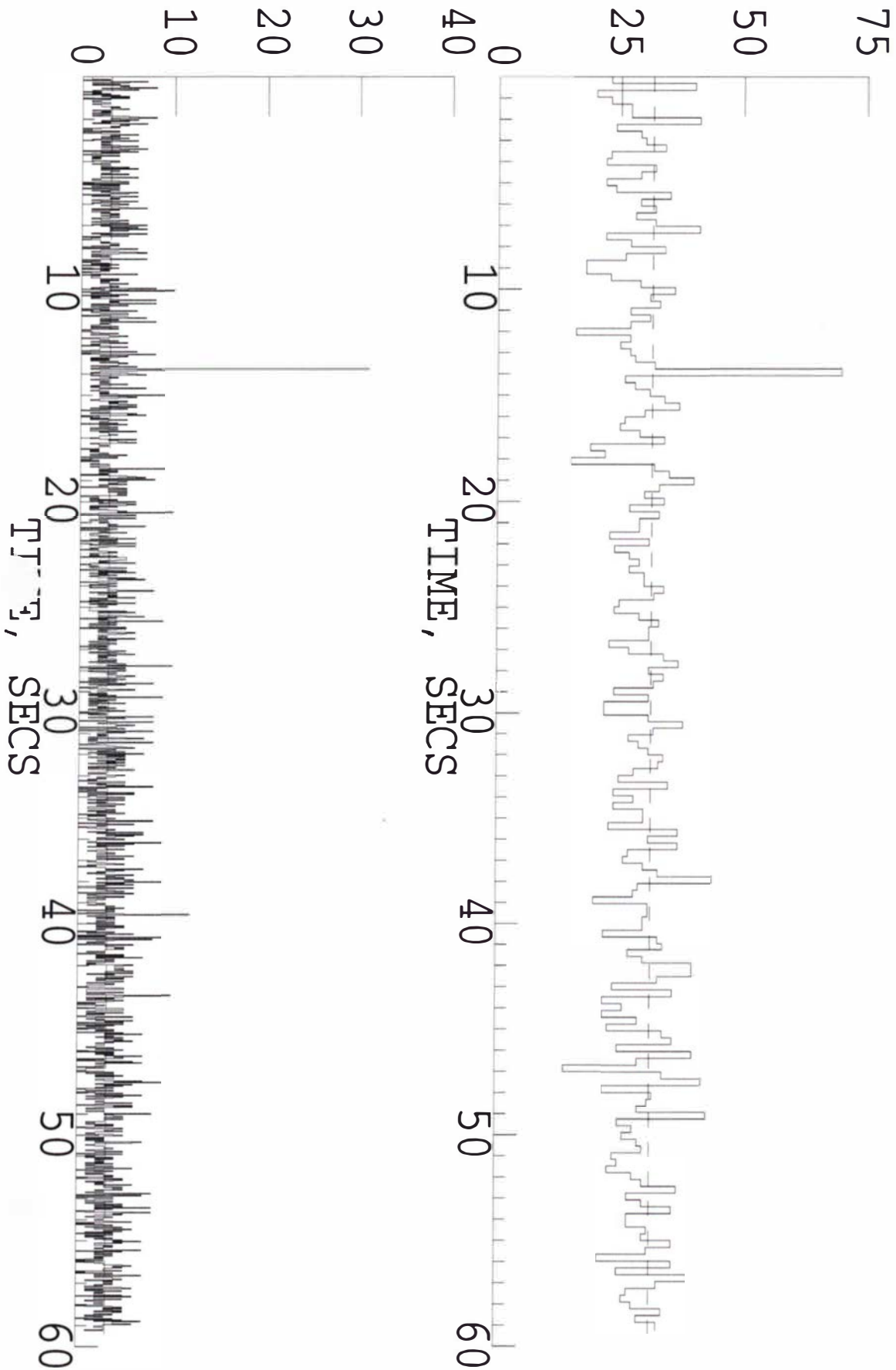
04/09/09

2981.674

A

116- 337 keV

COUNTS/ .032 S COUNTS/ .320 S



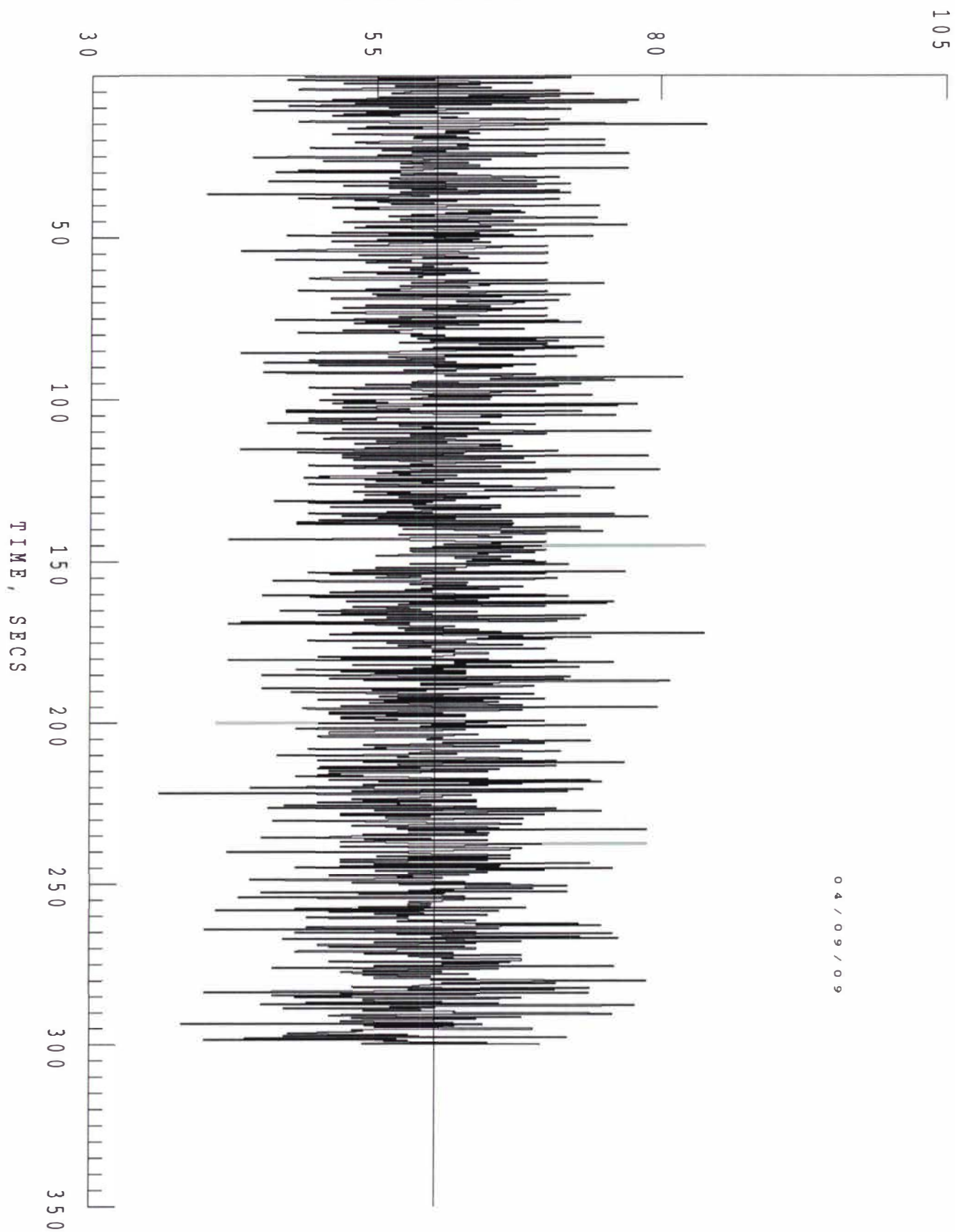
HESSI

04/09/09 3516.000 (SWIFT_20090904_03666)

A

25 - 150 keV

COUNTS/0.250 S

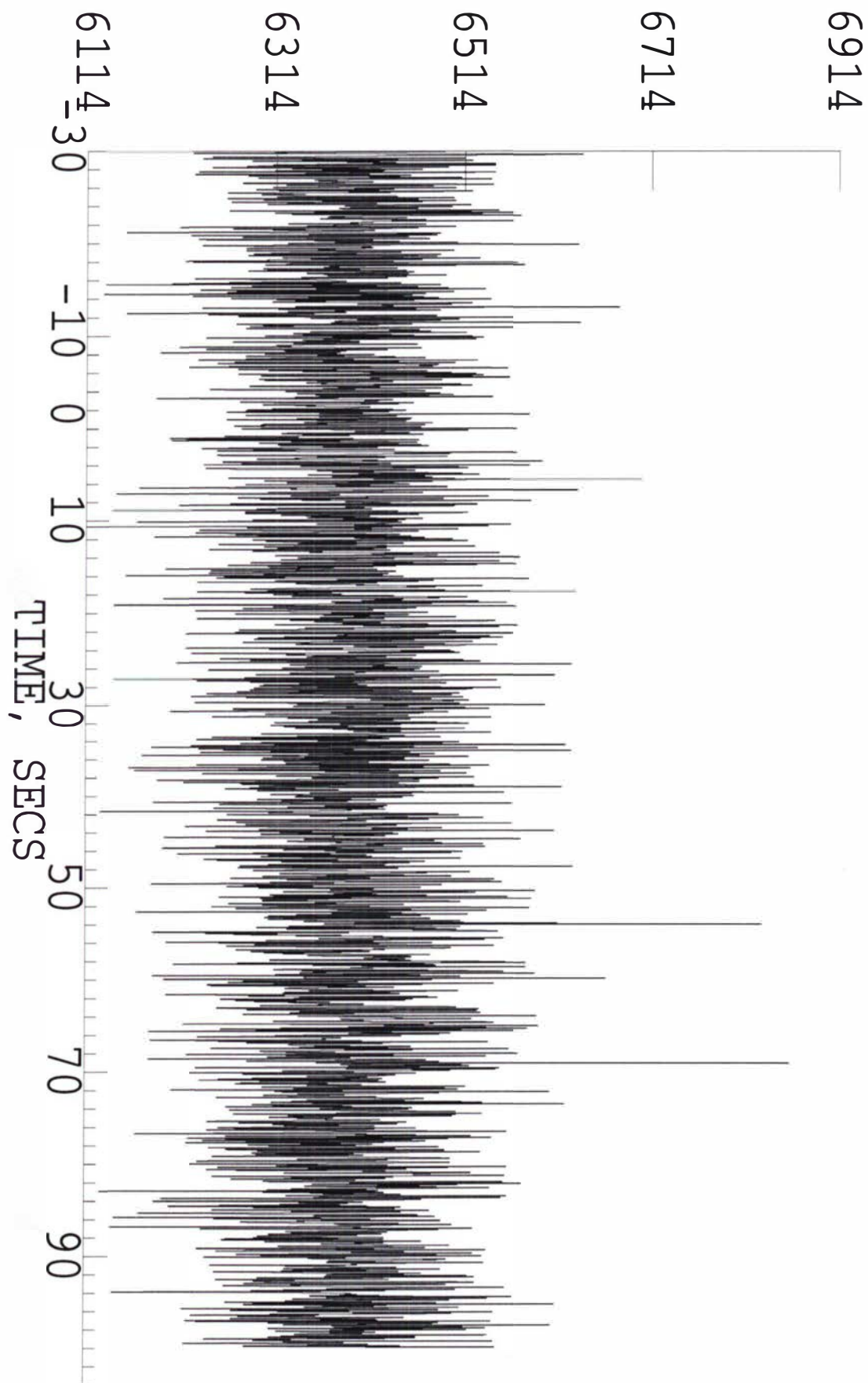


INTEGRAL 04/09/09 3666.013 01:01:06.0

A

100-10000 keV

COUNTS/ .050 S



MS01

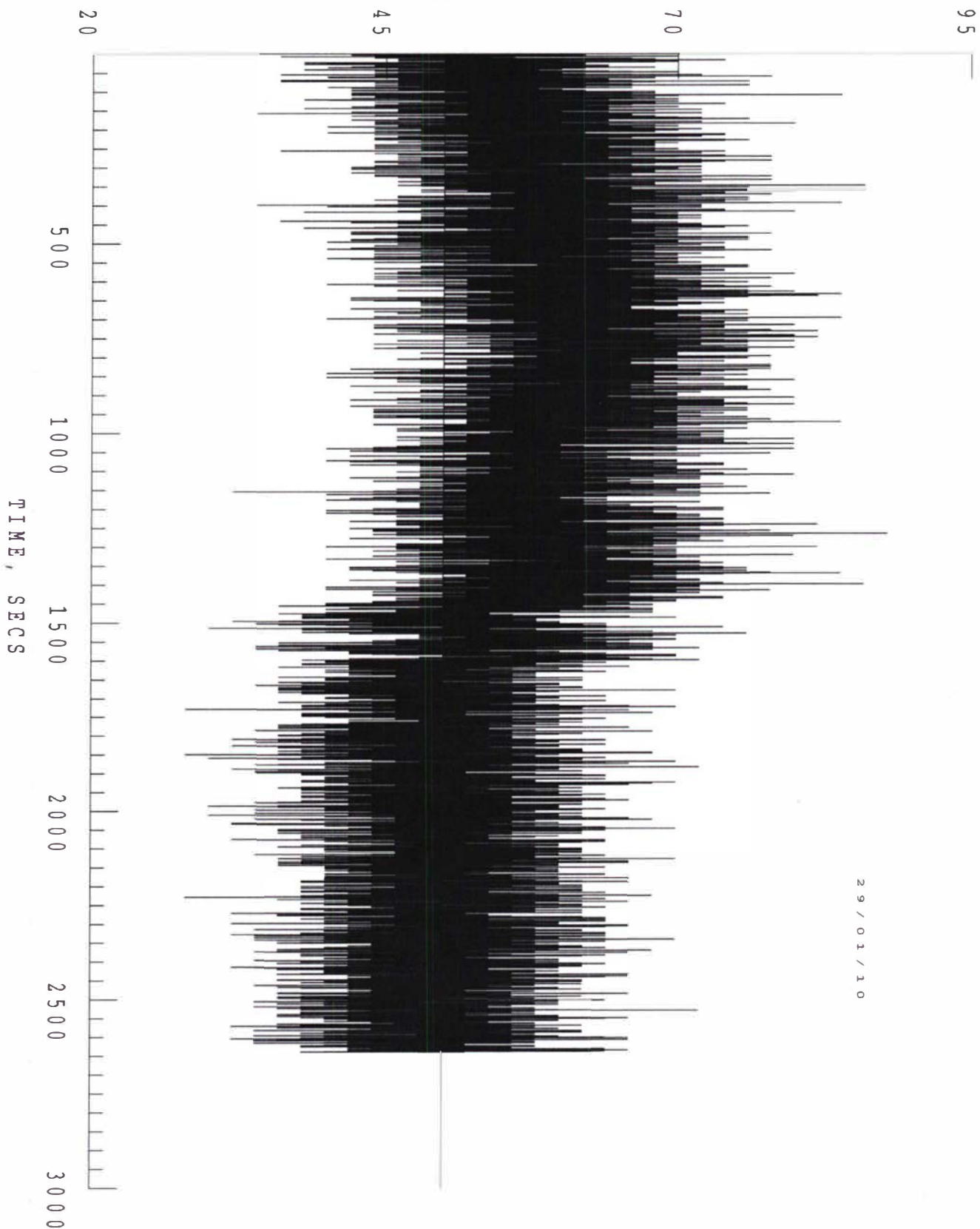
04/09/09

2463.752

A

50 - 3000 keV

COUNTS/0.250 S



A

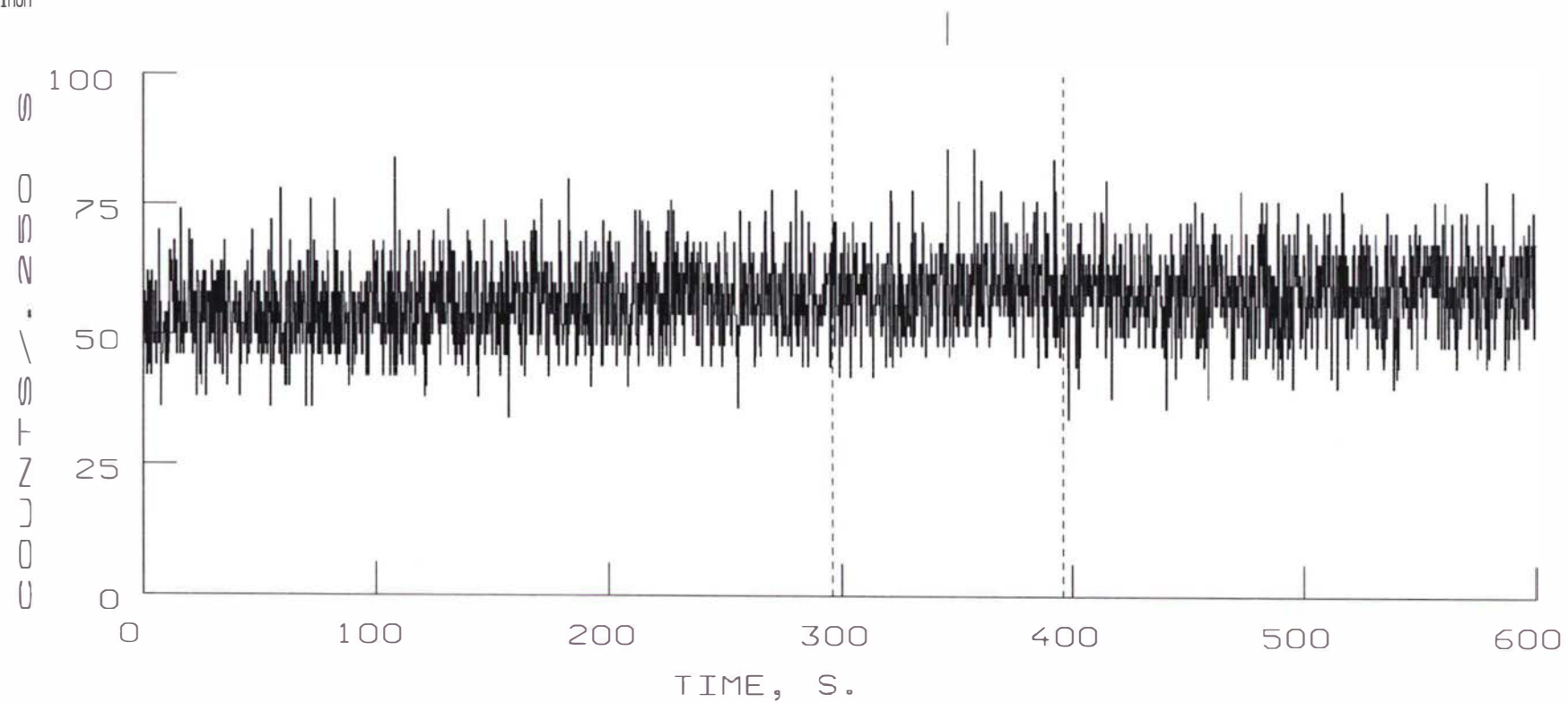
MS01 HEND

29/01/2010

04/09/2009 2463.752 s

50-3000 keV

MAXIMUM



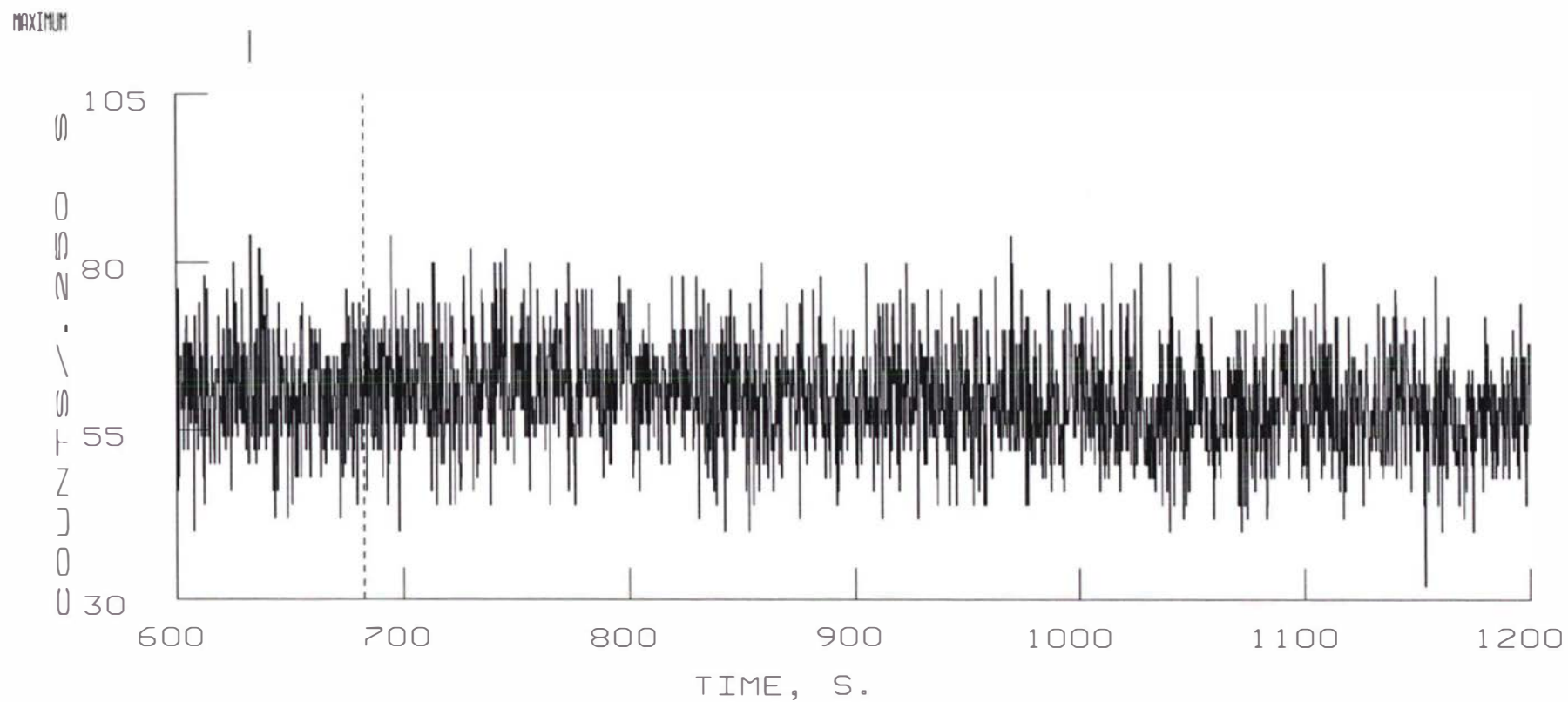
A

MS01 HEND

29/01/2010

04/09/2009 2463.752 s

50-3000 keV



A

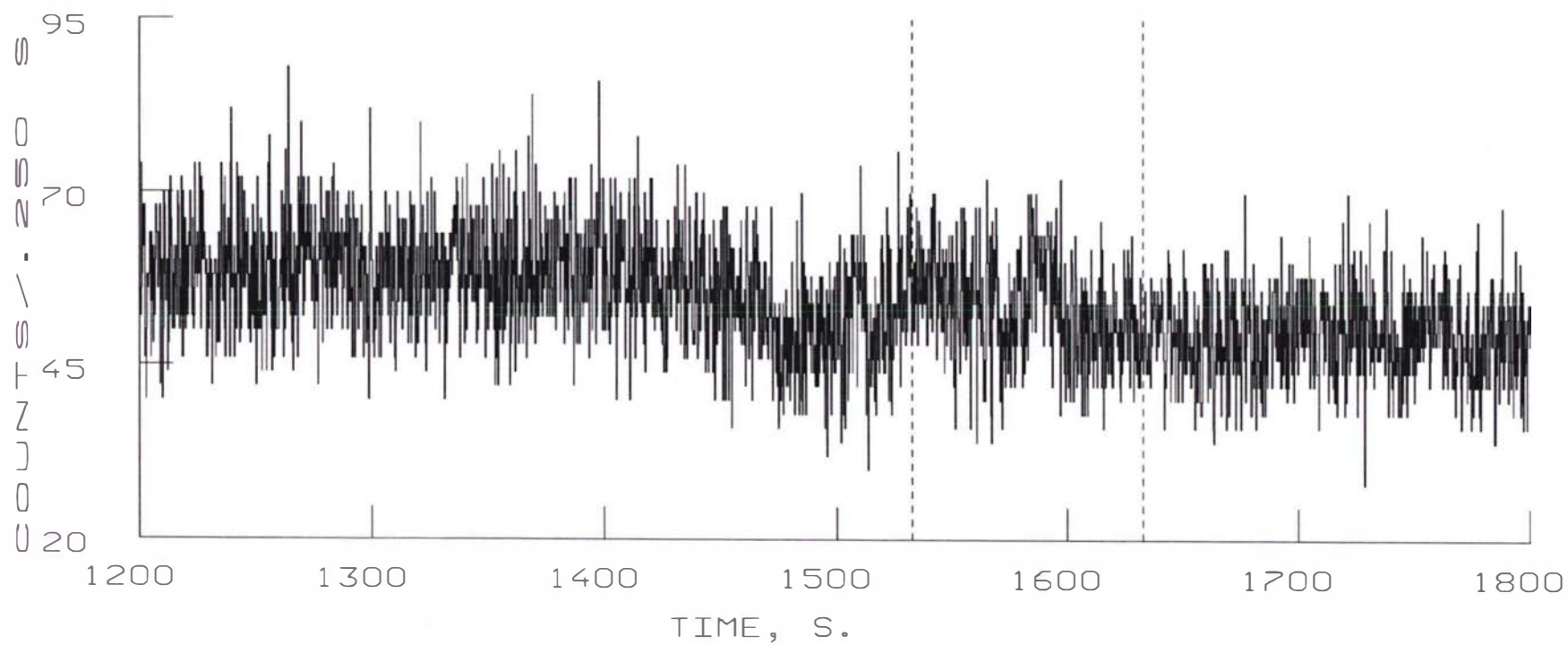
MS01 HEND

29/01/2010

04/09/2009 2463.752 s

50-3000 keV

N= 10 M=48
>4.0 SIGMA FLUCTUATIONS



A

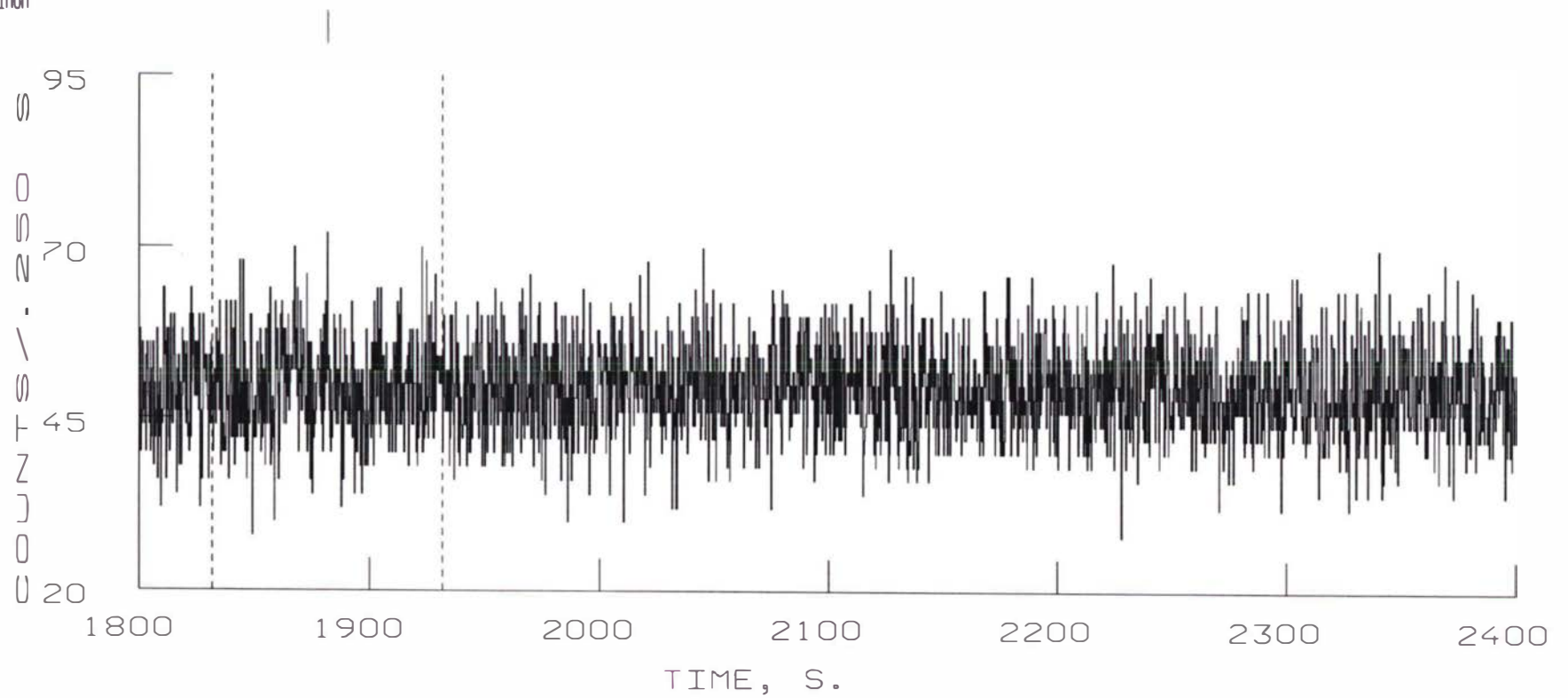
MS01 HEND

29/01/2010

04/09/2009 2463.752 s

50-3000 keV

MAXIMUM



A

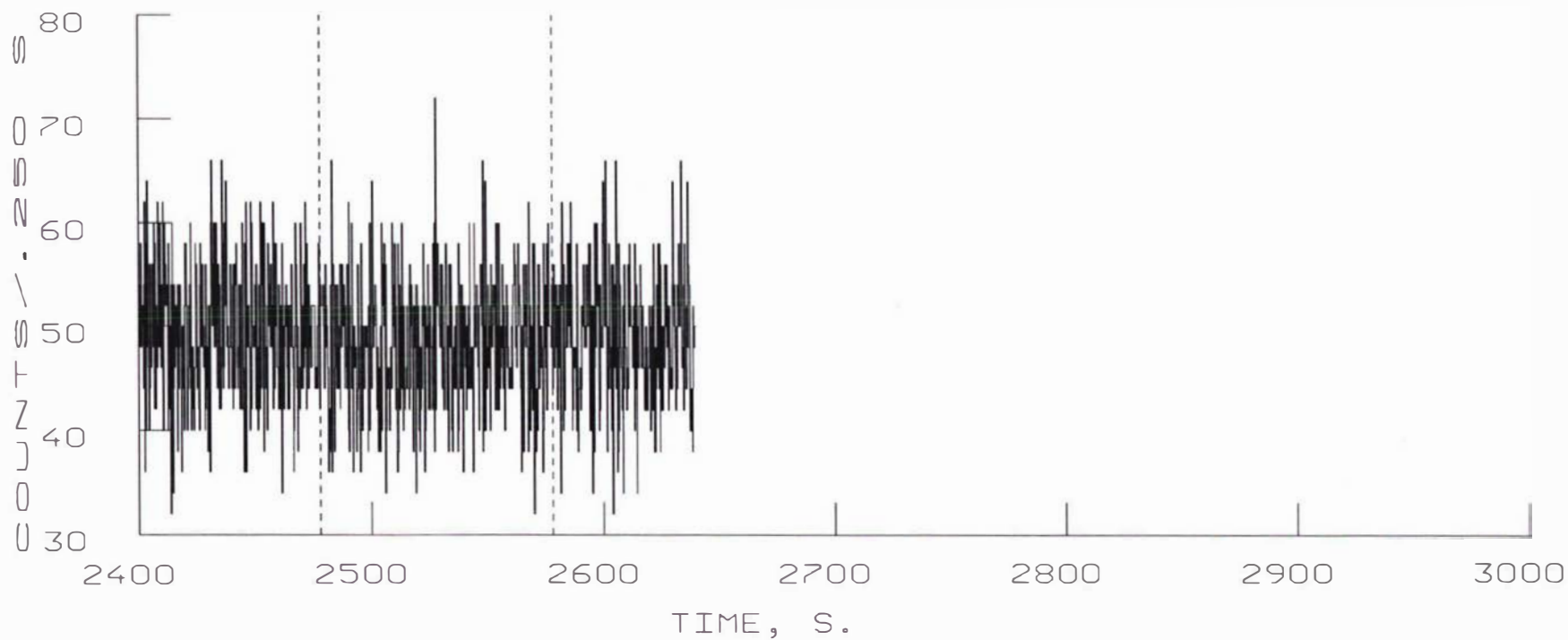
MS01 HEND

29/01/2010

04/09/2009 2463.752 s

50-3000 keV

MAXIMUM

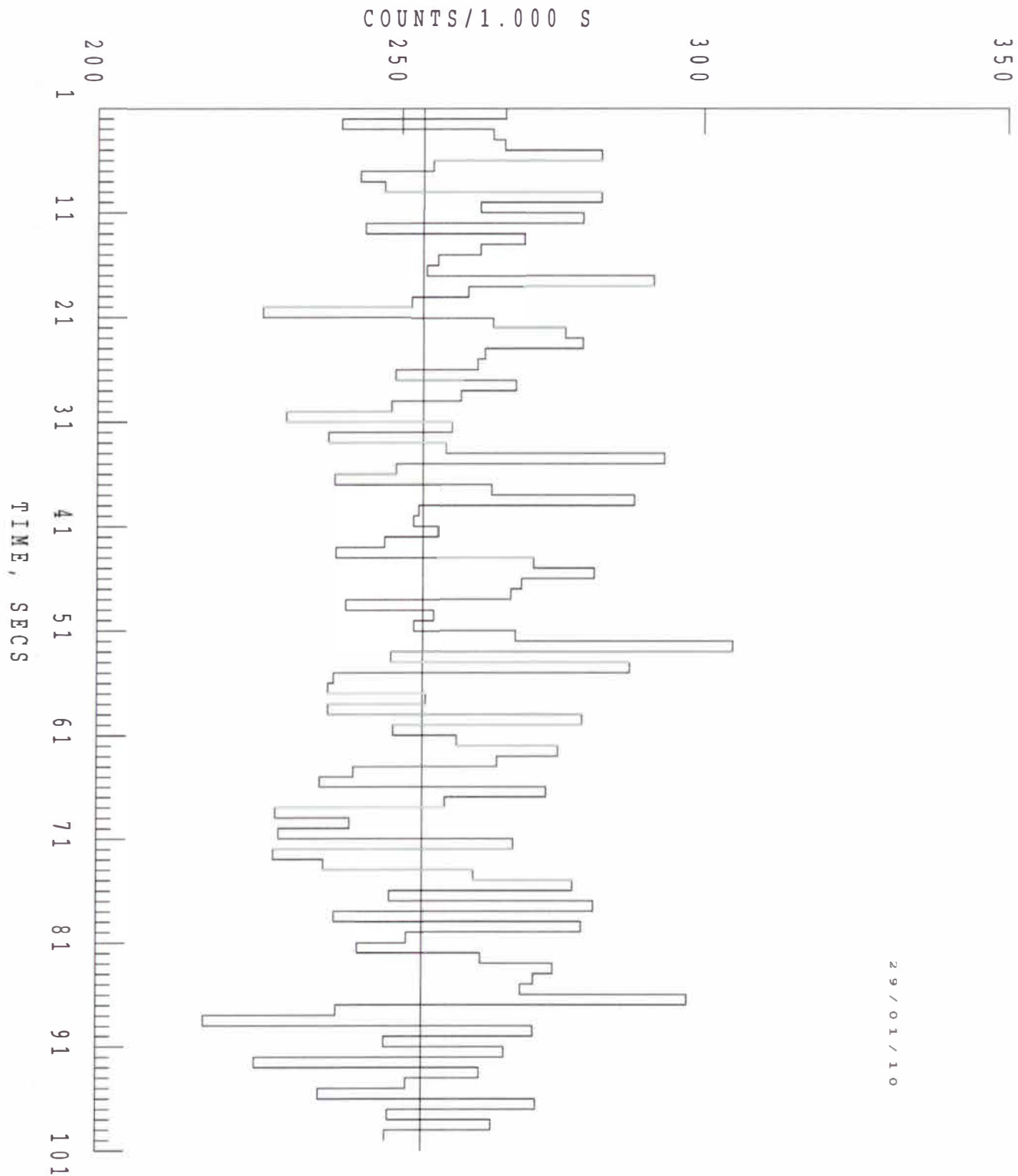


HESSI

04/09/09 3744.000 (KONUS_RI_20090904_03794)

A

25- 150 keV



From vxw@capella.gsfc.nasa.gov Thu Sep 3 18:28:50 2009
 X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
 Date: Thu, 3 Sep 2009 21:29:15 -0400
 From: Bacodine <vxw@capella.gsfc.nasa.gov>
 To: khurley@ssl.berkeley.edu
 Subject: GCN/SWIFT_BAT_LIGHTCURVE

47 s

 1.1×10^{-5}

MCT 5834

TITLE: GCN/SWIFT NOTICE
 NOTICE_DATE: Fri 04 Sep 09 01:28:02 UT
 NOTICE_TYPE: Swift-BAT GRB Lightcurve
 TRIGGER_NUM: 361831, Seg_Num: 0
 GRB_RA: 264.191d {+17h 36m 46s} (J2000),
 264.341d {+17h 37m 22s} (current),
 263.421d {+17h 33m 41s} (1950)
 GRB_DEC: -25.212d {-25d 12' 43"} (J2000),
 -25.218d {-25d 13' 02"} (current),
 -25.182d {-25d 10' 55"} (1950)
 GRB_DATE: 15078 TJD; 247 DOY; 09/09/04
 GRB_TIME: 5058.11 SOD {01:24:18.11} UT
 TRIGGER_INDEX: 488
 GRB_PHI: 166.95 [deg]
 GRB_THETA: 52.56 [deg]
 DELTA_TIME: -76.00 [sec]
 TRIGGER_DUR: 4.096 [sec]
 SOLN_STATUS: 0x3
 RATE_SIGNIF: 16.73 [sigma]
 IMAGE_SIGNIF: 7.98 [sigma]
 LC_URL: sw00361831000msb.lc
 SUN_POSTN: 163.08d {+10h 52m 20s} +7.19d {+07d 11' 22"}
 SUN_DIST: 103.21 [deg] Sun_angle= -6.8 [hr] (East of Sun)
 JON_POSTN: 335.72d {+22h 22m 53s} -7.01d {-07d 00' 37"}
 MOON_DIST: 70.20 [deg]
 MOON_ILLUM: 100 [%]
 GAL_COORDS: 2.12, 3.64 [deg] galactic lon,lat of the burst (or transient)
 ECL_COORDS: 264.74, -1.88 [deg] ecliptic lon,lat of the burst (or transient)
 COMMENTS: SWIFT-BAT GRB Lightcurve.
 COMMENTS:
 COMMENTS: The next comments were copied from the BAT_POS Notice:
 COMMENTS: This is a rate trigger.
 COMMENTS: A point_source was found.
 COMMENTS: This does not match any source in the on-board catalog.
 COMMENTS: This does not match any source in the ground catalog.
 COMMENTS: This is a GRB.
 COMMENTS: This trigger occurred at longitude,latitude = 197.85,-1.33 [deg]

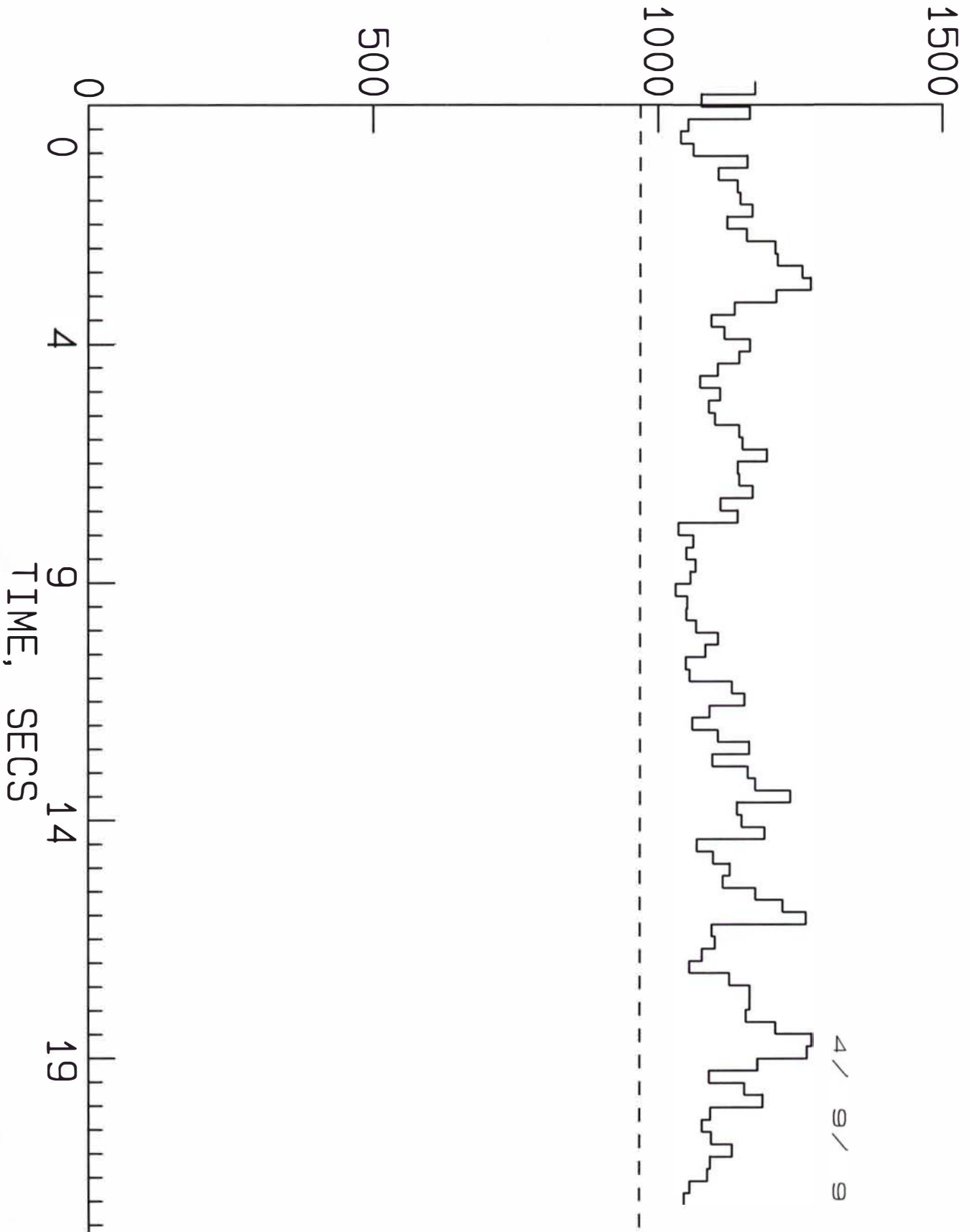
B

SWIFT

04/09/09 5058.113

25- 100 keV

COUNTS/0.256 S



MS01

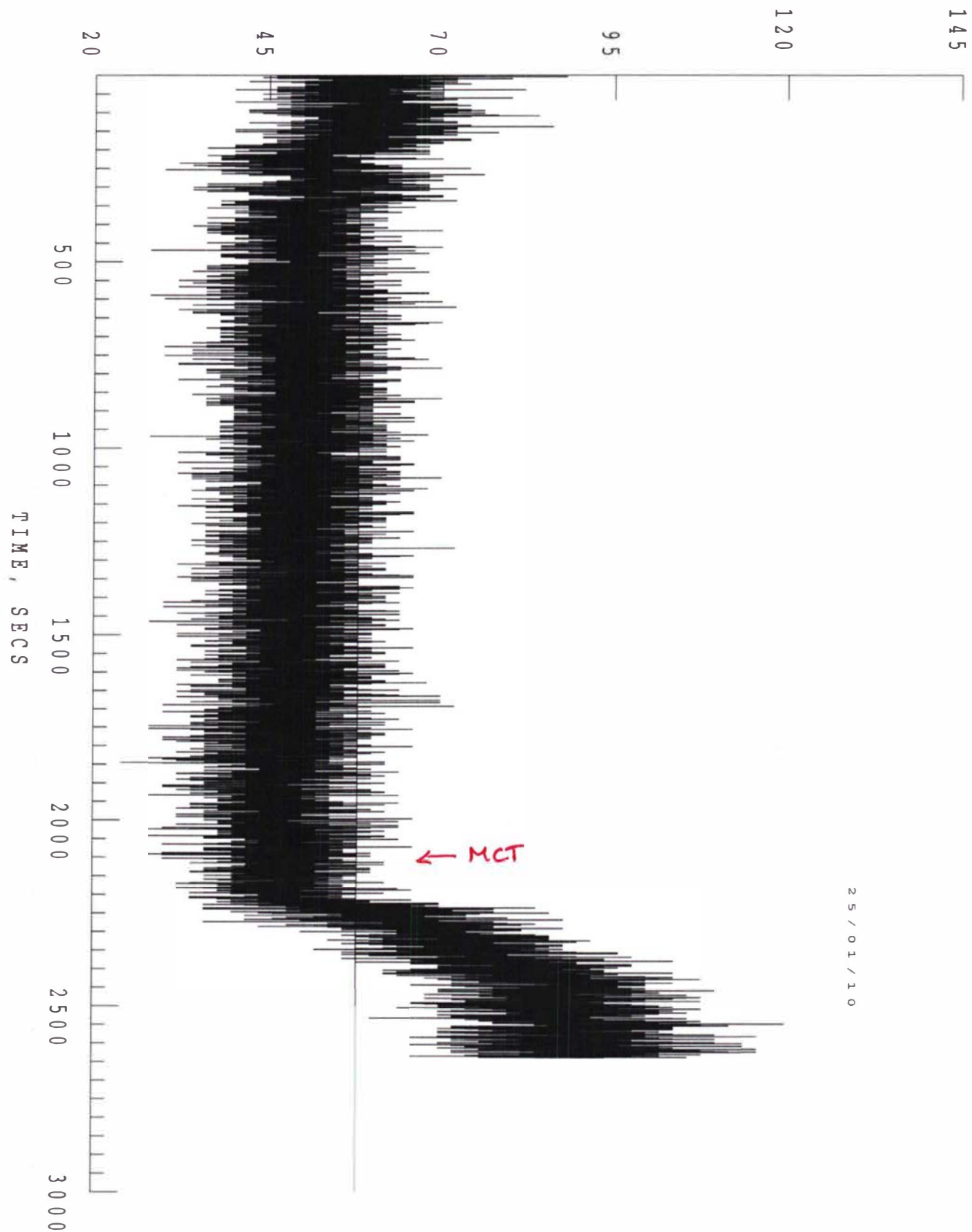
04/09/09

3723.731

B

50 - 3000 keV

COUNTS/0.250 S



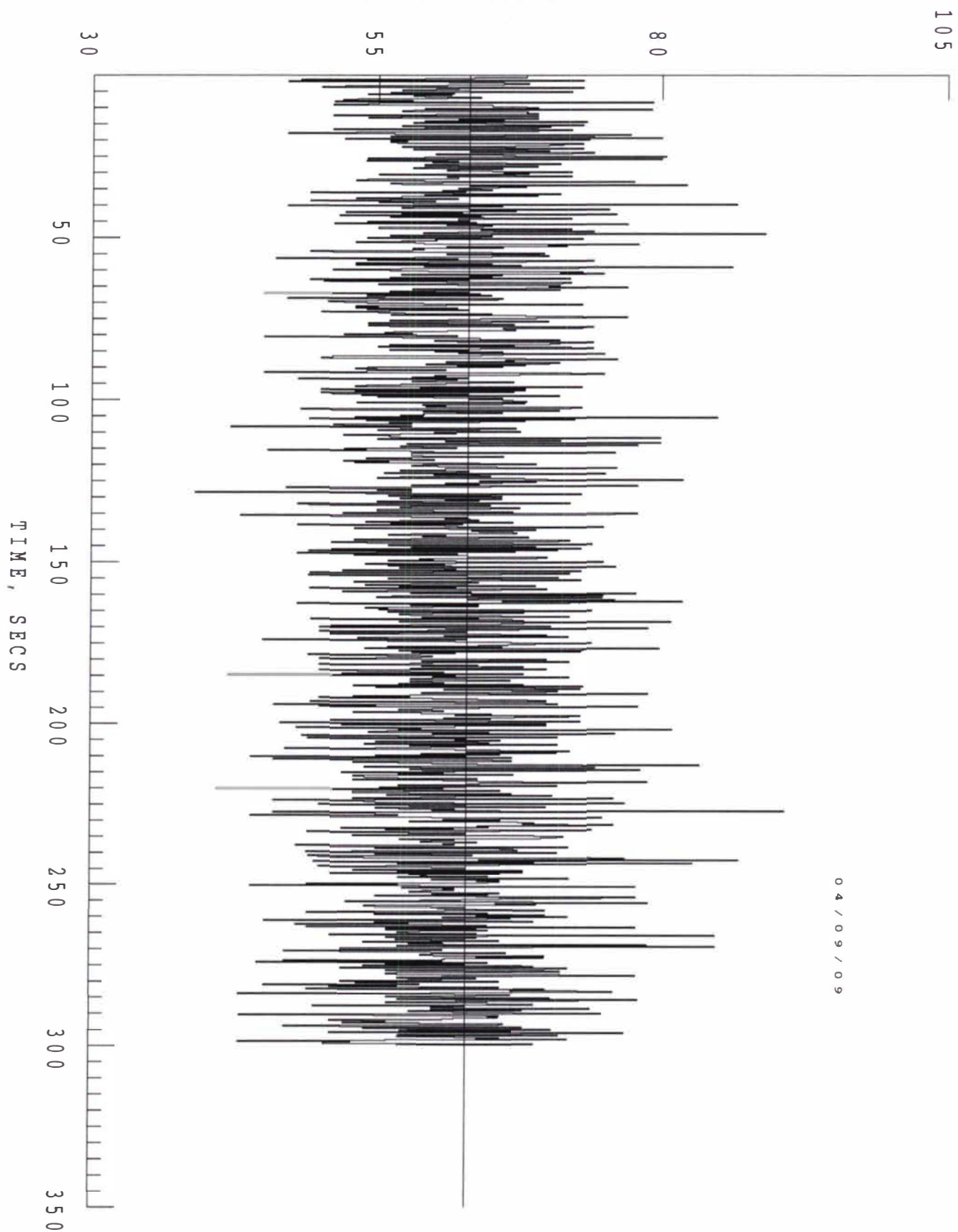
HESSI

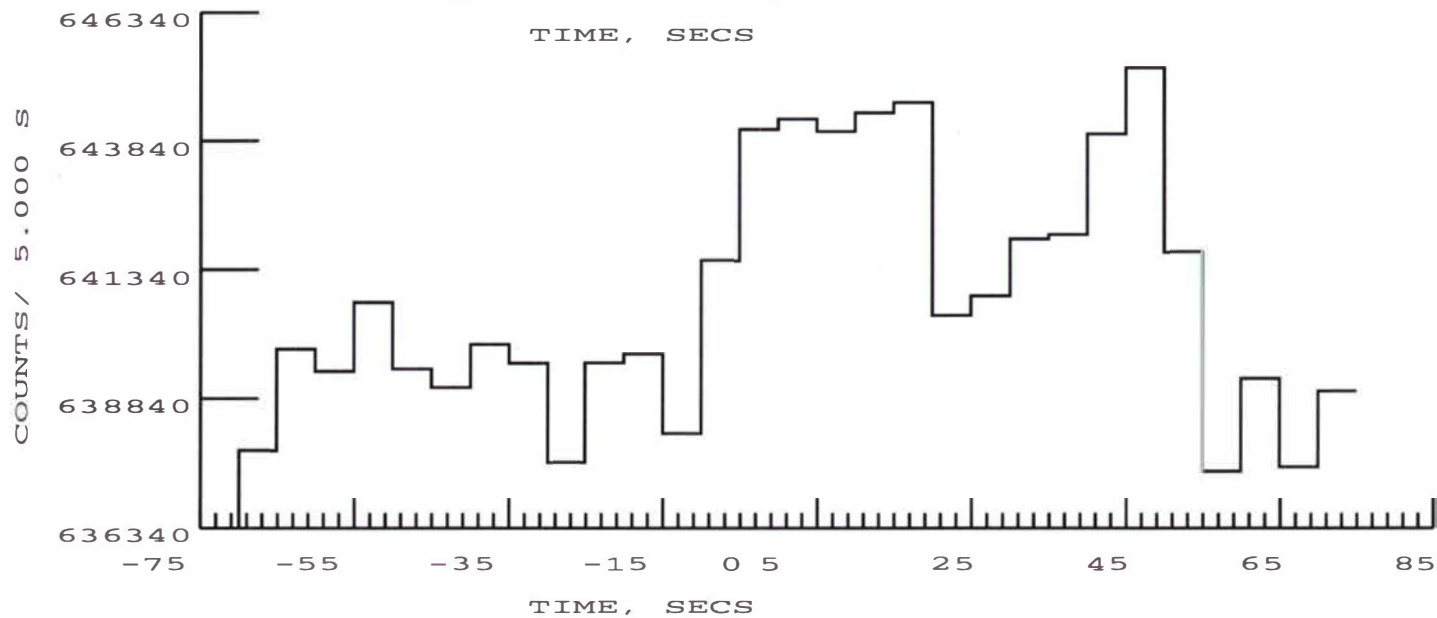
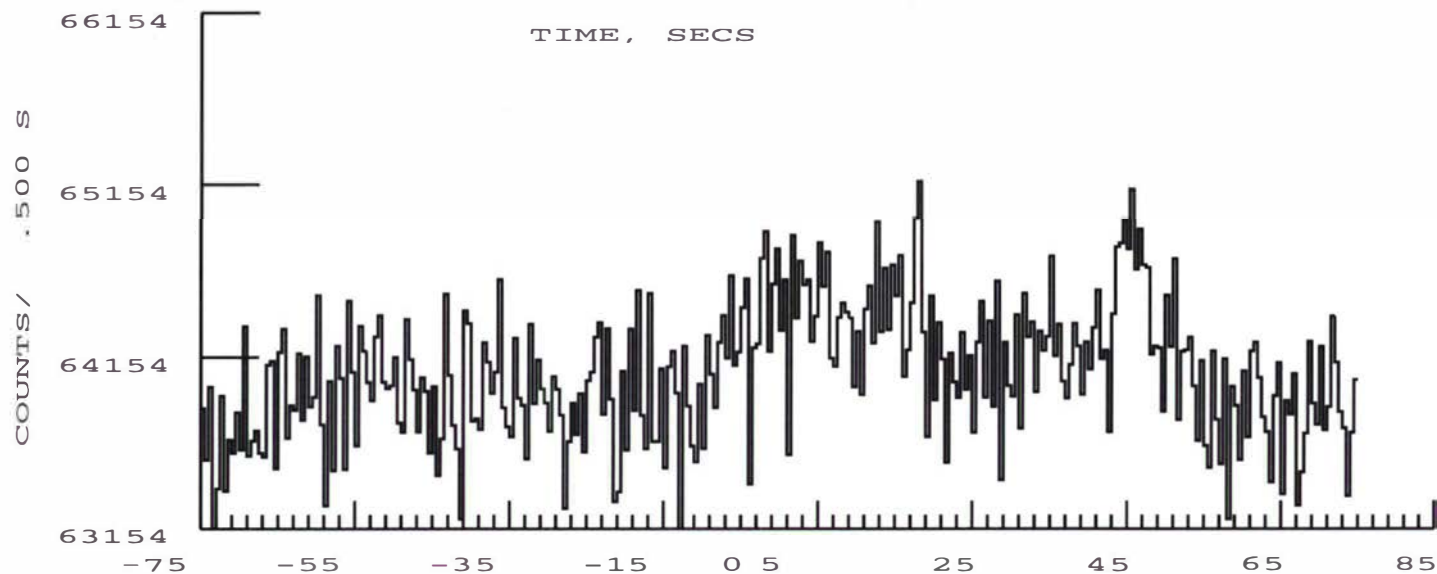
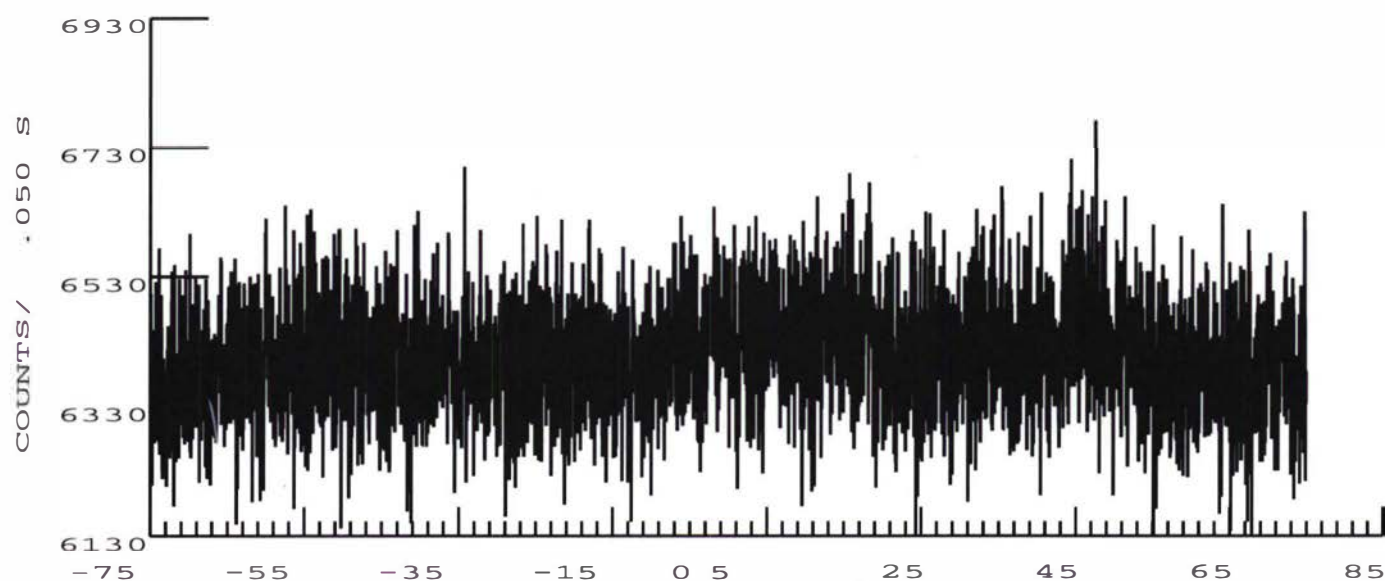
04/09/09 4908.000 (SWIFT_20090904_05058)

B

25- 150 keV

COUNTS/0.250 S





GLAST

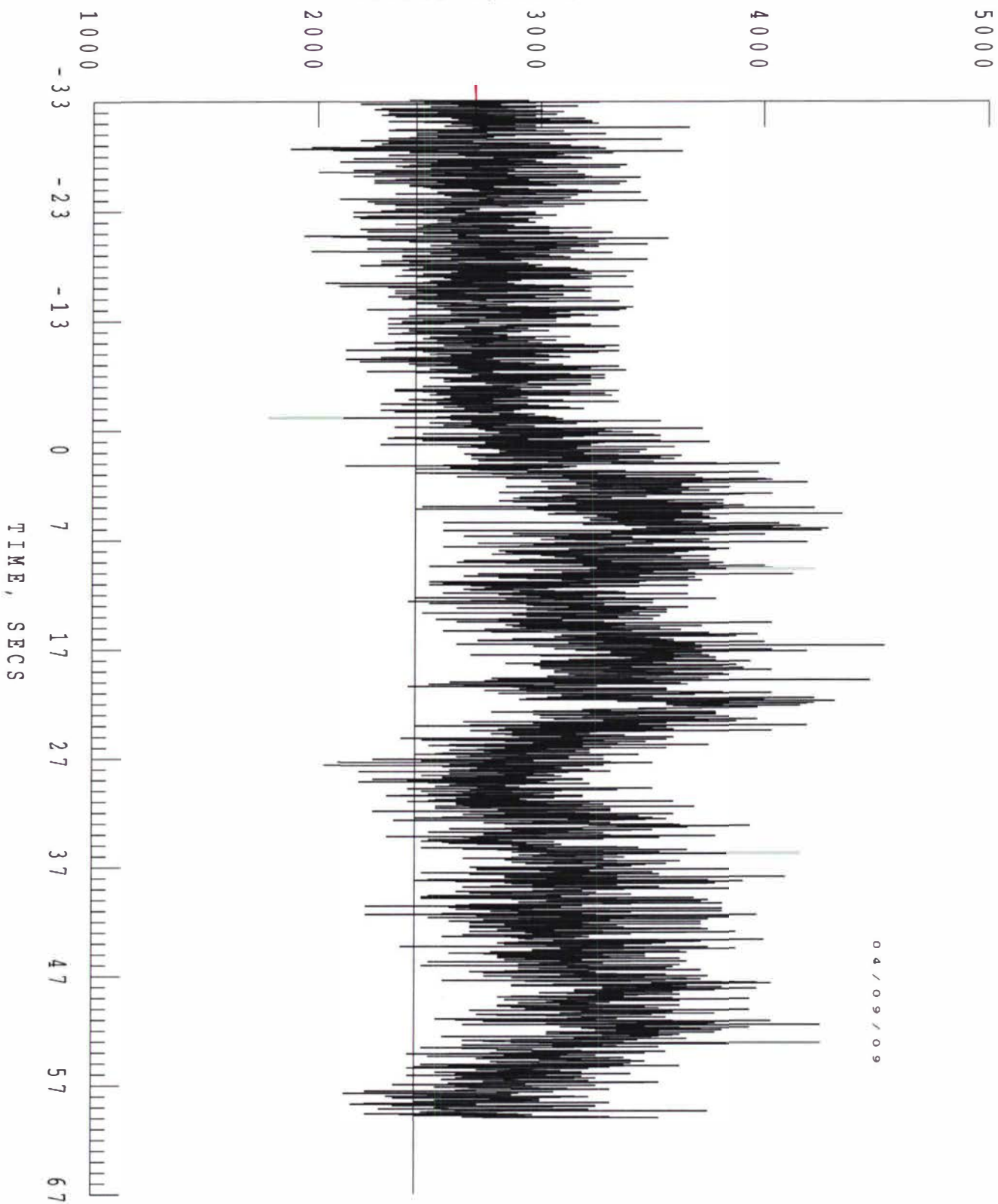
04/09/09

5053.937

B

26- 293 keV

COUNTS/0.032 S



From gcncirc@capella.gsfc.nasa.gov Fri Sep 4 15:01:24 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090904B: Fermi GBM detection
To: khurley@ssl.berkeley.edu
Date: Fri, 4 Sep 2009 18:01:50 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9895
SUBJECT: GRB 090904B: Fermi GBM detection
DATE: 09/09/04 22:01:47 GMT
FROM: Adam Goldstein at Fermi-GBM/UAH <adam.m.goldstein@msfc.nasa.gov>

A. Goldstein (UAH) reports on behalf of the Fermi GBM Team:

"At 01:24:13.93 UT on 04 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090904B (trigger 273720255 / 090904058), which was also detected by the SWIFT-BAT (D'Elia et al. 2009, GCN 9881). The GBM on-ground location is consistent with the Swift position. The angle from the Fermi LAT boresight is 113 degrees.

The GBM light curve consists of three bright peaks with a duration (T90) of about 71 s (8-1000 keV). The time-averaged spectrum from T0-9.2 s to T0+65.5 s is well fit by a power law function with an exponential high energy cutoff. The power law index is 1.41 ± 0.08 and the cutoff energy, parameterized as Epeak, is 149.30 ± 22.10 keV (χ^2 243.6 for 238 d.o.f.).

The event fluence (8-1000 keV) in this time interval is $(2.44 \pm 0.15) \times 10^{-5}$ erg/cm². The 1-sec peak photon flux measured starting from T0+21.5 s in the 8-1000 keV band is 9.8 ± 0.7 ph/s/cm².

A Band function fits the spectrum equally well (χ^2 239.0 for 237 d.o.f.) with Epeak= 106.30 ± 24.60 keV, $\alpha = -1.26 \pm 0.15$ and $\beta = -2.18 \pm 0.18$.

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

GLAST

04/09/09

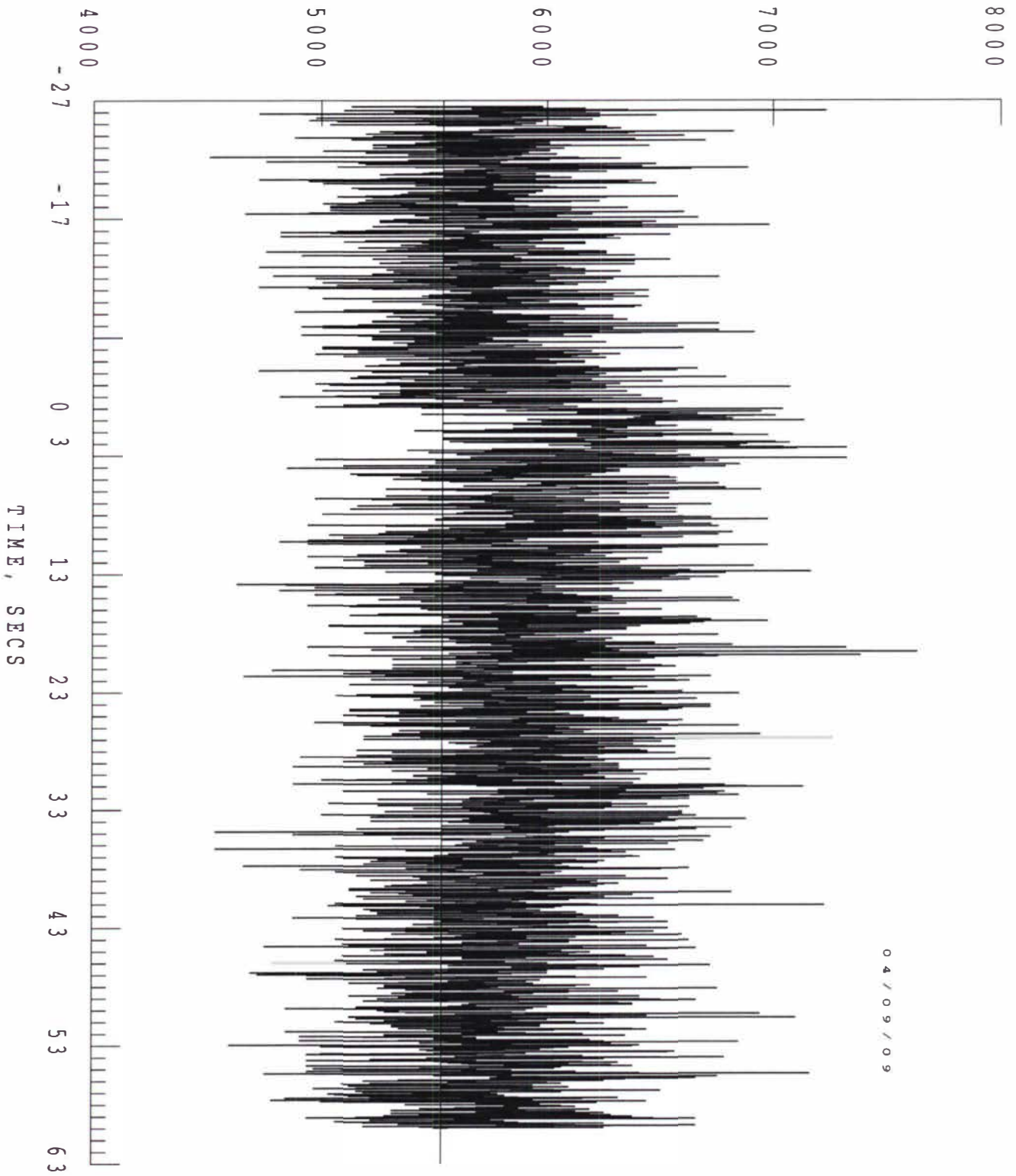
50237.125

C

26 - 293 keV 13:57:17

243.83, -10.84

COUNTS/0.032 S



MS01

04/09/09

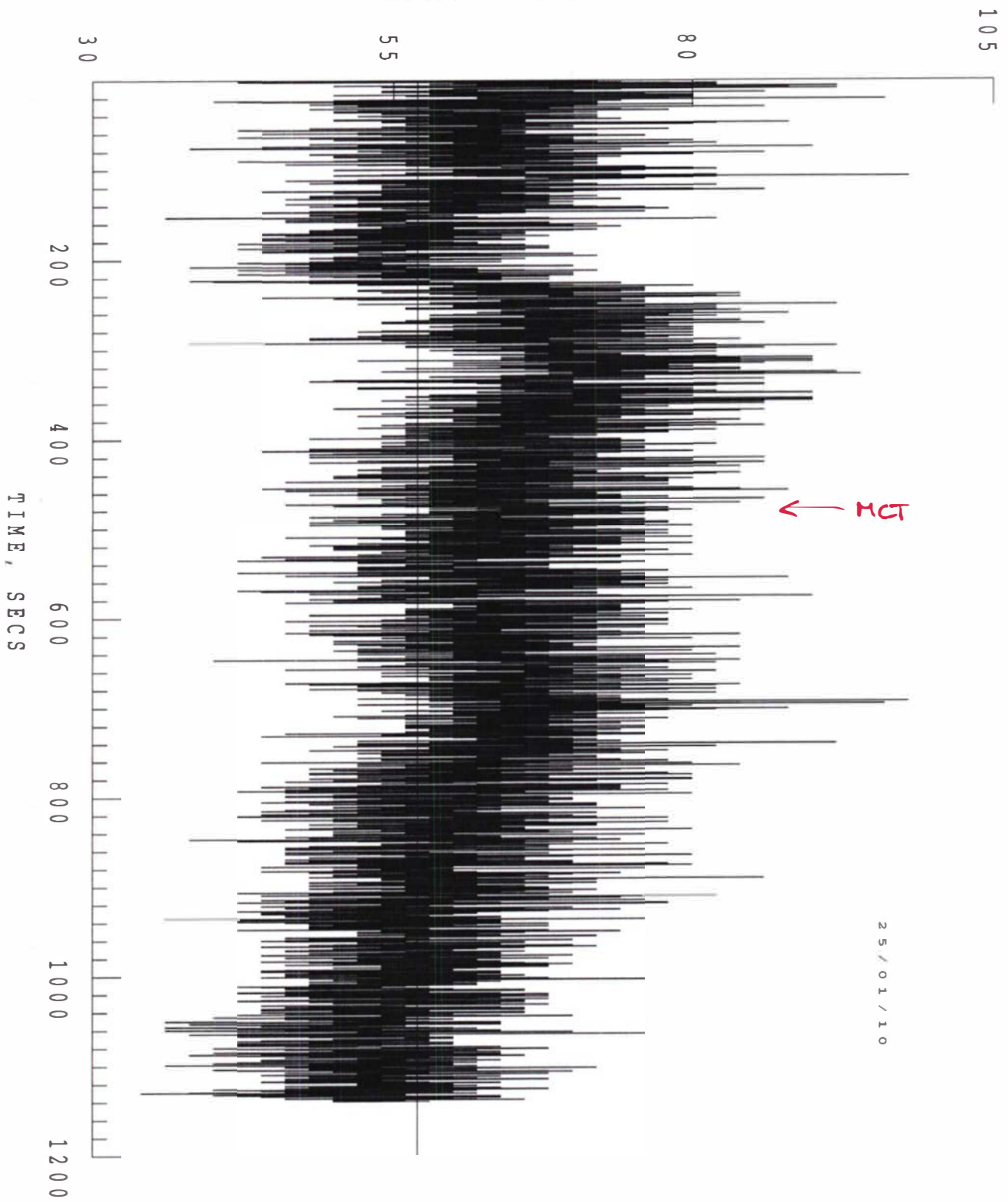
50402.972

C

50 - 3000 keV

MCT=50893

COUNTS/0.250 S

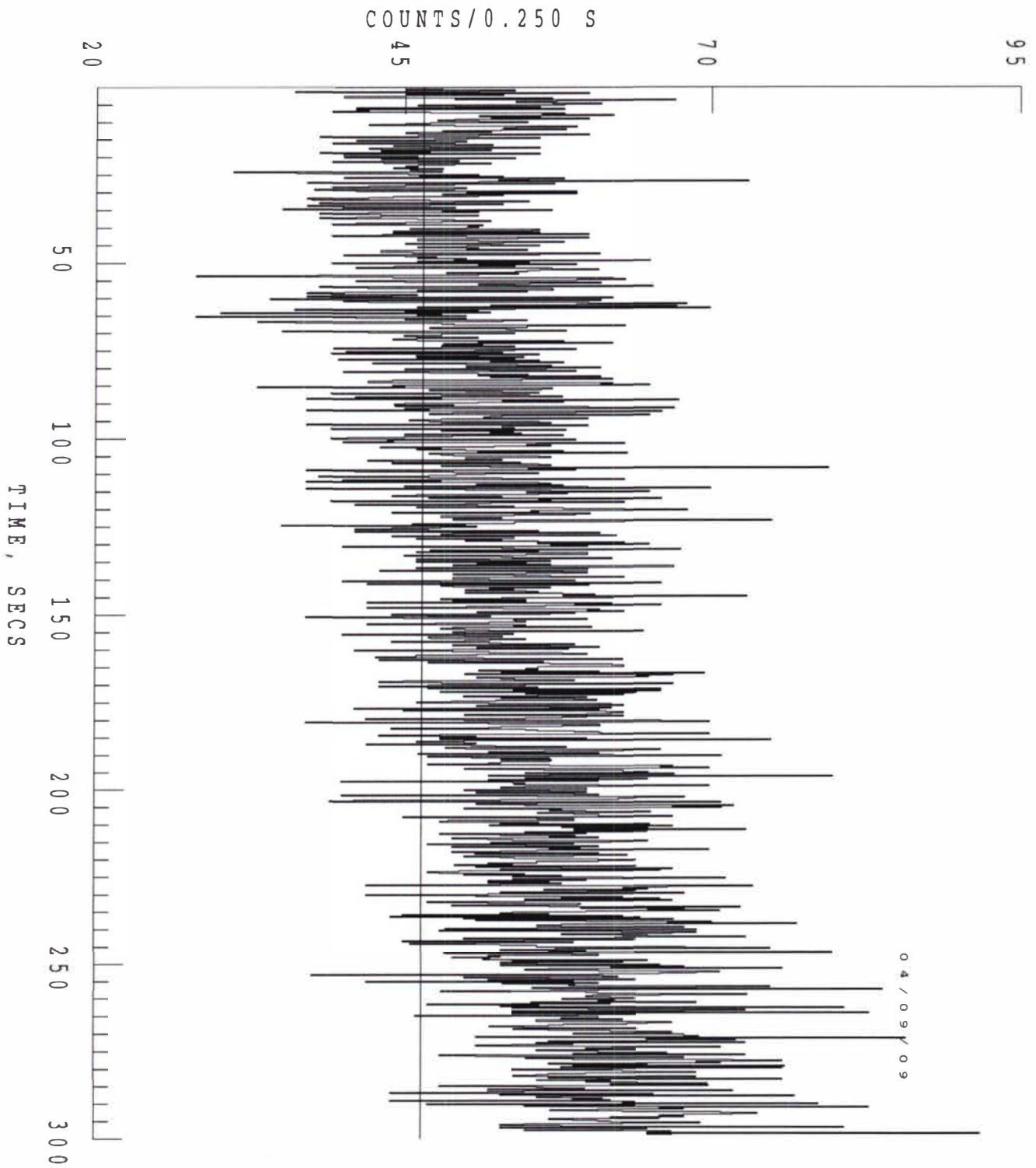


HESSI

04/09/09 50087.000 (GLAST_20090904_50237)

C

25 - 150 keV



C

From ipn-bounces@ssl.berkeley.edu Tue Sep 8 13:29:44 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
From: David Palmer <palmer@lanl.gov>
To: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
"R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
IPN <ipn@ssl.berkeley.edu>
Date: Tue, 8 Sep 2009 14:28:19 -0600
Subject: [Ipn] Daily report 2009-09-038 BAT

GBM 2009-09-04T13:57:17.130 not seen by BAT in rates. Very near
horizon (nominally 2 degrees above)
273765442.187 + -5.056 -> 2009-09-04T13:57:17.130
Satellite zenith RA=134.03, dec=18.20, lat=18.16 N, lon=-58.98 E
00090104002 2009-247-13:51:00 - 13:51:00 - 14:11:00 [135.647,
52.149, 136.536] SDSS J090231+520749 (planned 2009247)
243.83_-10.84: (theta,phi) = (1.9141, -2.5178); exposure = 0 cm² ; 2
degrees above Earth limb

GBM 2009-09-08T08:10:39.810 seen in rates

274090244.878 + -5.067 -> 2009-09-08T08:10:39.810
Satellite zenith RA=191.43, dec=-7.98, lat=-8.03 N, lon=81.37 E
00361831007 2009-251-08:09:00 - 08:09:00 - 08:24:00 [264.161,
-25.218, 280.504] GRB 090904B (planned 2009251)
179.57_-26.21: (theta,phi) = (1.3029, -2.1407); exposure = 0 cm² ; 92
degrees above Earth limb

274087917.158 + -5.067 -> 2009-09-08T07:31:52.090 nominally well below
horizon. Not seen.
Satellite zenith RA=46.32, dec=17.38, lat=17.42 N, lon=-54.01 E
00361830007 2009-251-07:25:00 - 07:25:00 - 07:55:00 [100.906,
50.207, 97.794] GRB 090904A (planned 2009251)
273.11_1.08: (theta,phi) = (2.2389, -3.1040); exposure = 0 cm² ; 17
degrees BELOW Earth limb

GBM 2009-09-07T19:23:47.470 nominally well below horizon. In SAA, not
seen.

274044232.536 + -5.066 -> 2009-09-07T19:23:47.470
Satellite zenith RA=206.51, dec=-11.65, lat=-11.70 N, lon=-71.31 E
00074206007 2009-250-19:19:00 - 19:19:00 - 19:49:00 [227.761,
-15.000, 284.222] saa-cold-250-15 (planned 2009250)
67.97_20.05: (theta,phi) = (2.7942, -1.5117); exposure = 0 cm² ; 25
degrees BELOW Earth limb

M 2009-09-07T00:24:09.720 not obvious in BAT, but it was during the
approach to the SAA (50 kCounts ~7x normal background)

273975854.784 + -5.063 -> 2009-09-07T00:24:09.720
Satellite zenith RA=271.51, dec=-20.52, lat=-20.52 N, lon=-80.61 E

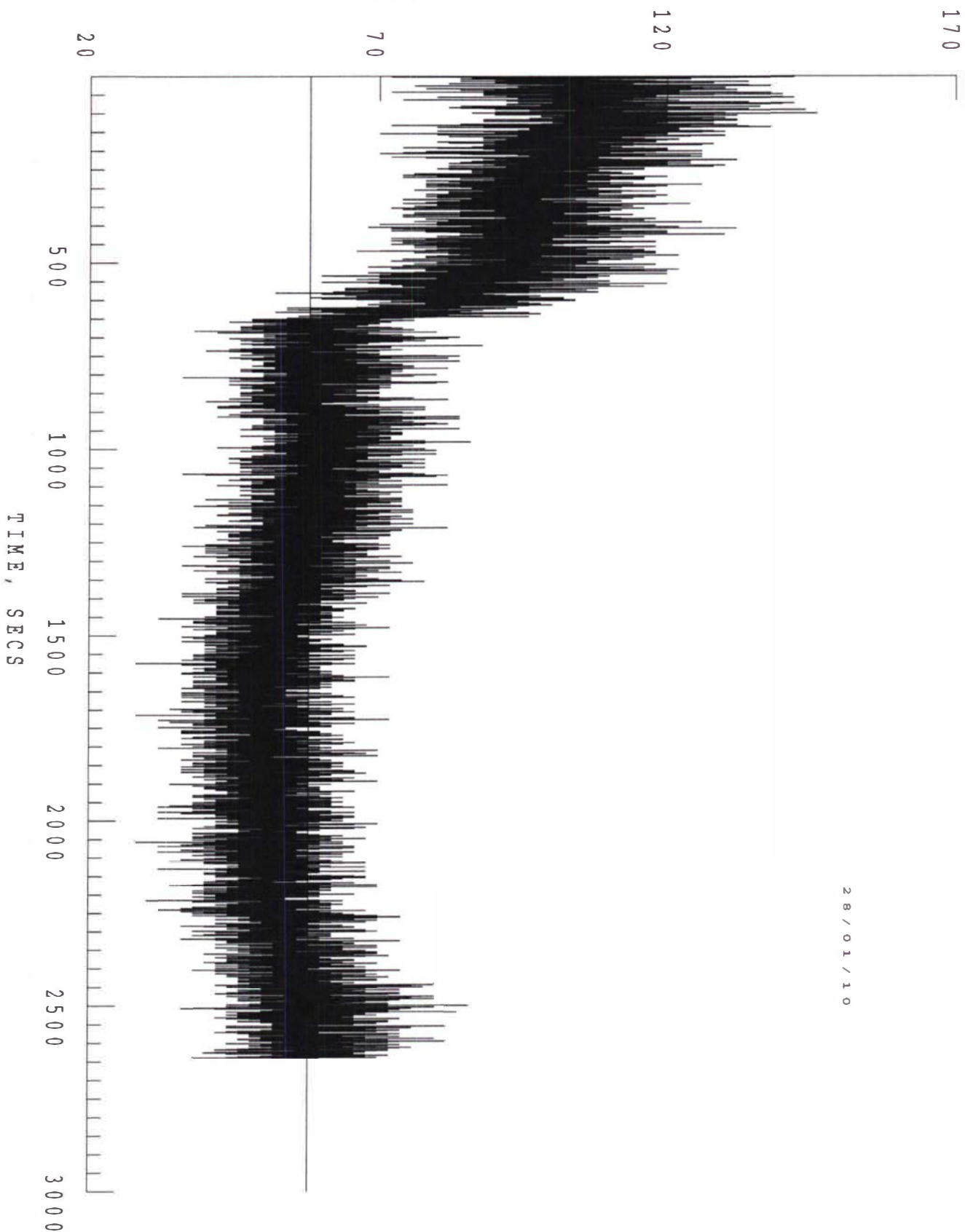
MS01

04/09/09

71282.613

50 - 3000 keV

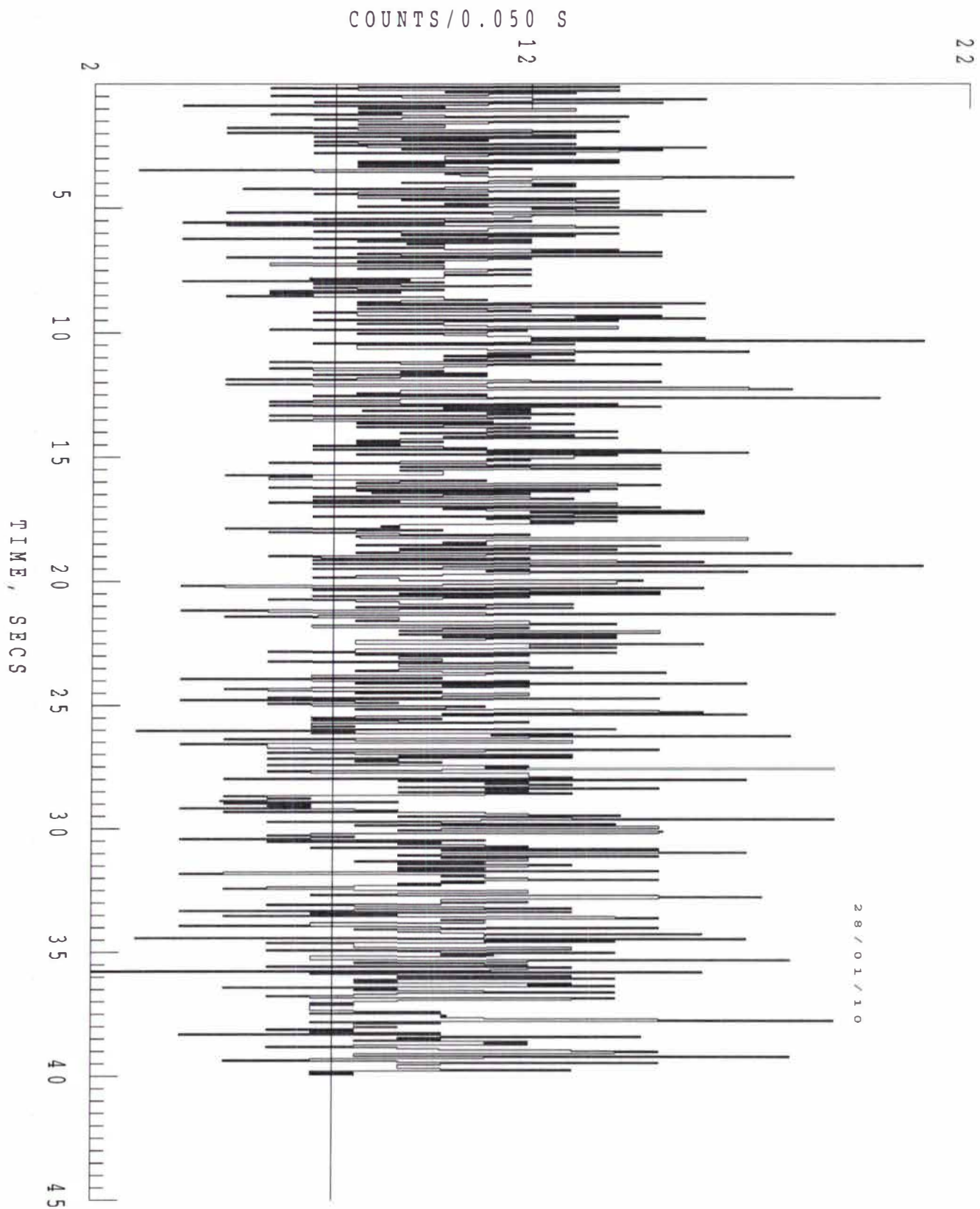
COUNTS/0.250 S

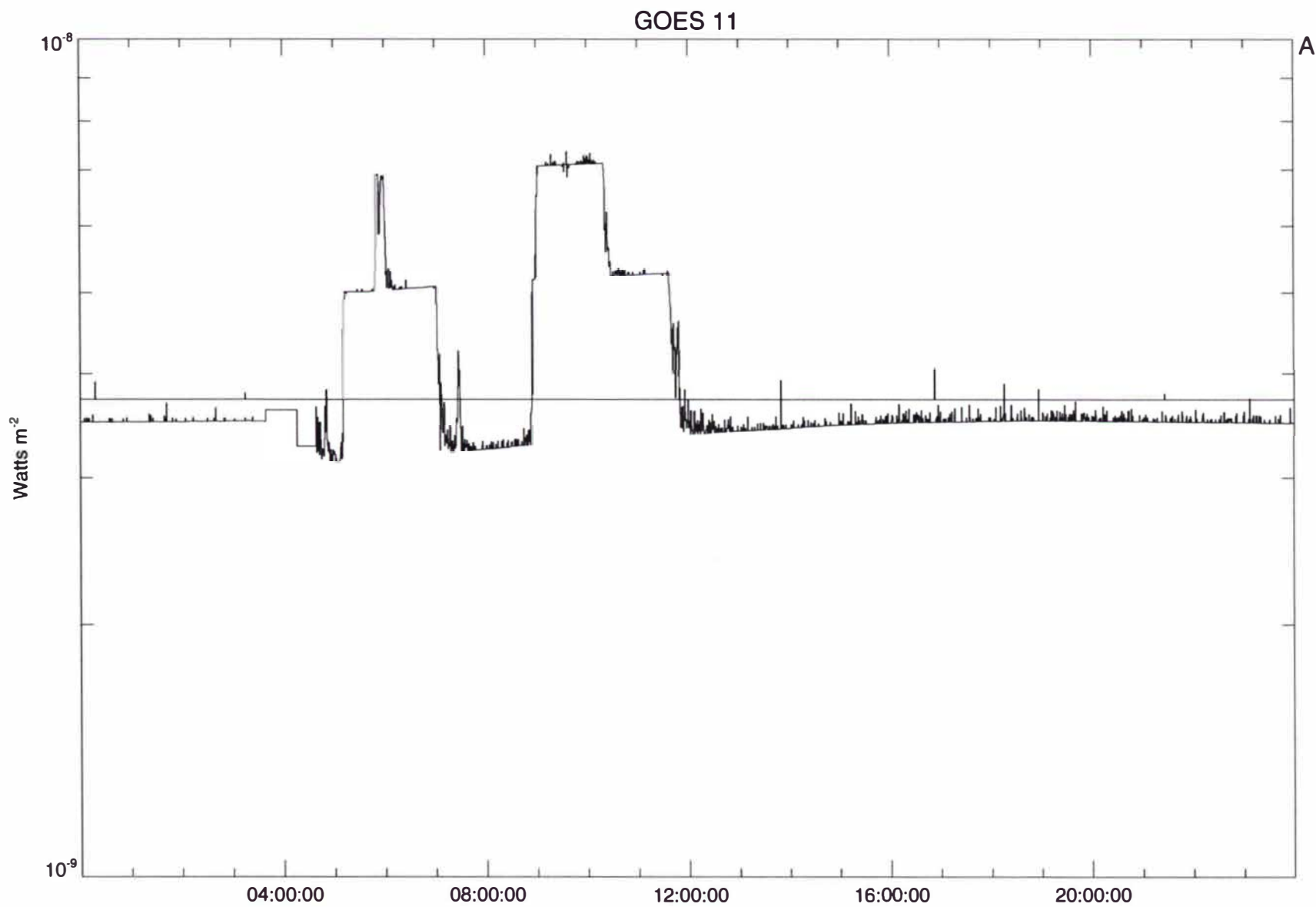


HESSI

04/09/09 72591.000 (SUZAKU_20090904_72611)

25- 150 keV





Data Start: 09/09/04, 0000:13

Plot created: 09/09/07, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

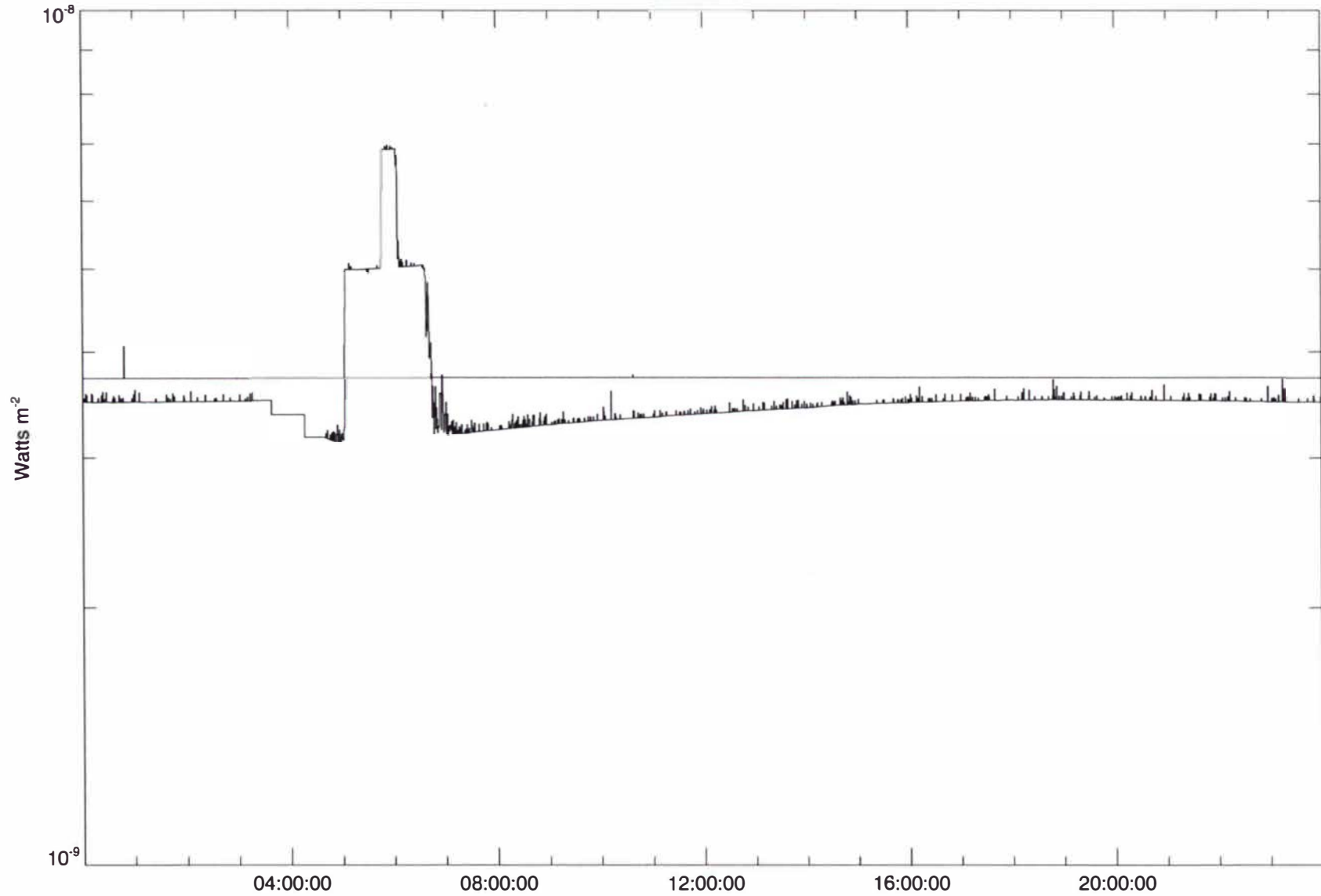
2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

GOES 11

A



Data Start: 09/09/05, 0000:13

Plot created: 09/09/08, 0819

Channel

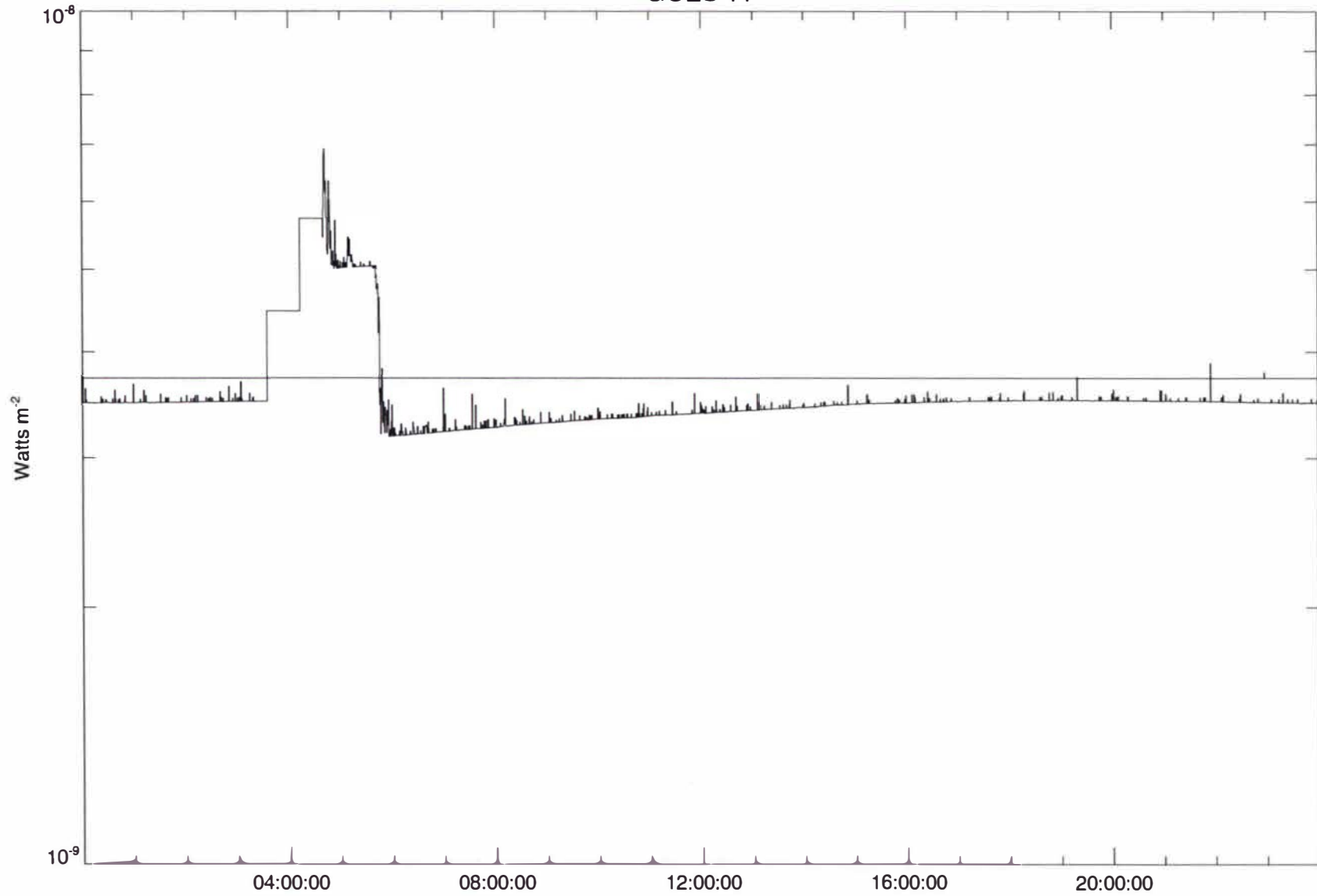
1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GOES 11

A



Data Start: 09/09/06, 0000:13

Plot created: 09/09/09, 0819

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GLAST

07/09/09

1449.716

A

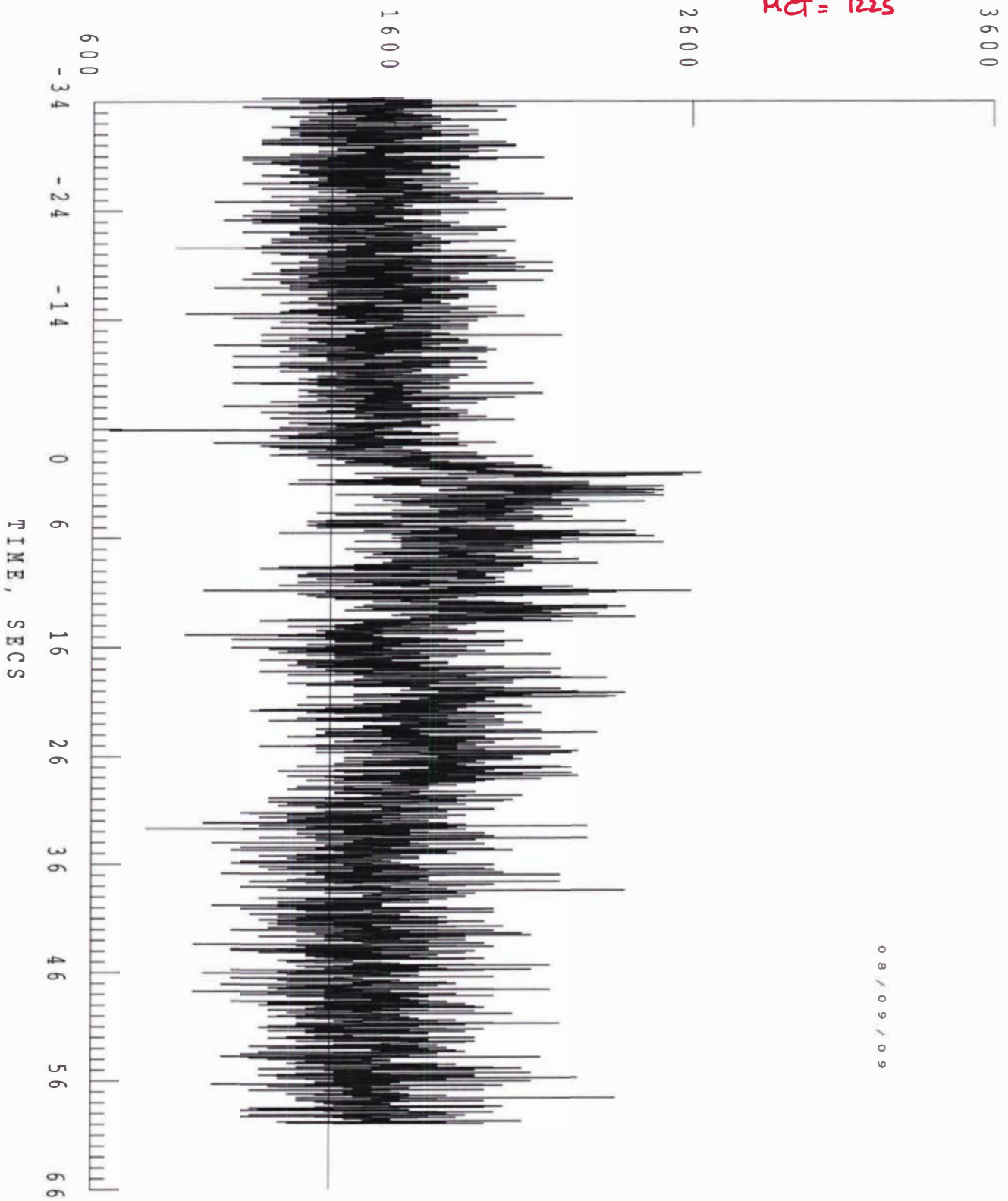
26 - 293 keV

00:29:09

COUNTS/0.032 S

80.11, -47.96

HCT = 1225



MS01

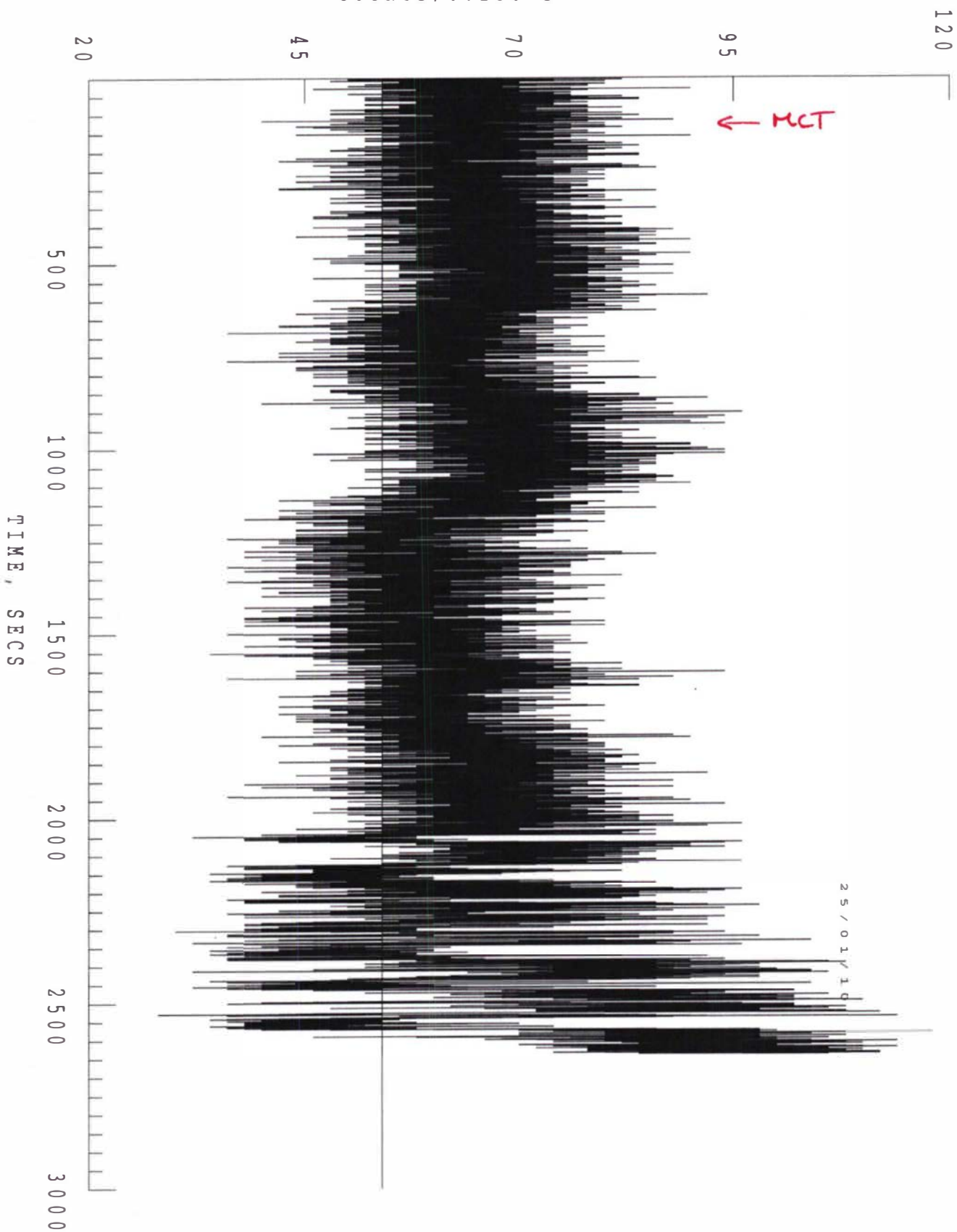
07/09/09

119.488

A

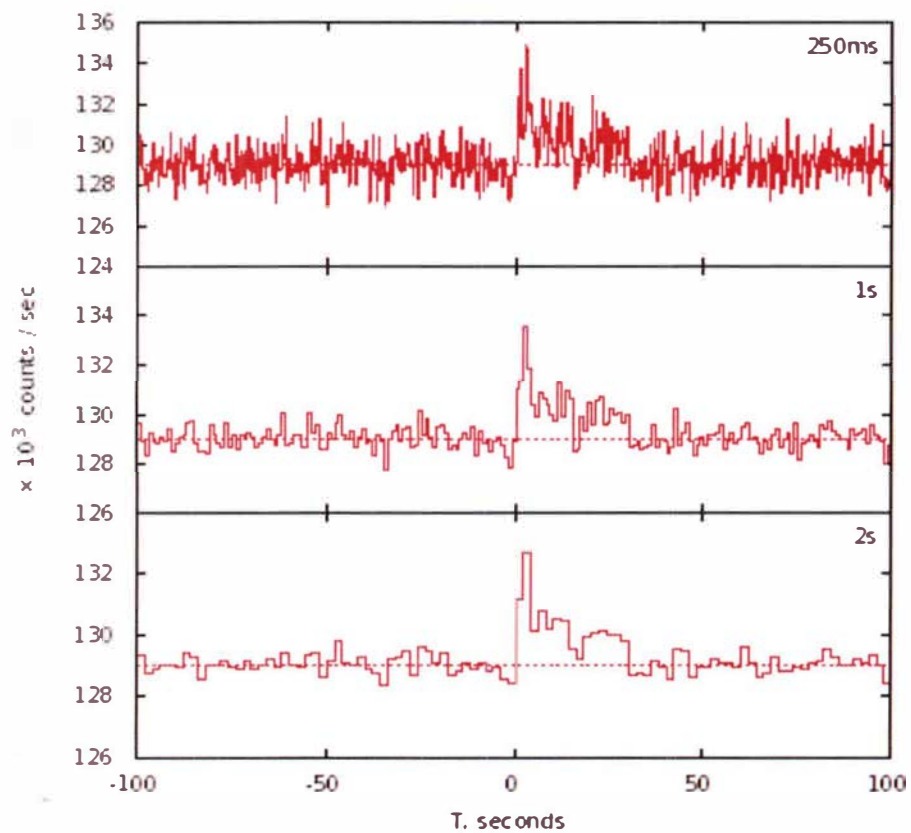
50 - 3000 keV

COUNTS/0.250 S



From williams@penelope.ssl.berkeley.edu Wed Sep 9 11:46:57 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Wed, 9 Sep 2009 11:59:53 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_GLAST_20090907_01449

HESSI 25 to 150 keV Counts
Created 9-Sep-2009 11:46:21.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
Full time range in eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry

INTEGRAL SPI-ACS 090907 $T_0 = 01449$ s UT

From ipn-bounces@ssl.berkeley.edu Tue Sep 8 13:29:44 2009
 X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
 X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
 From: David Palmer <palmer@lanl.gov>
 To: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
 "R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
 IPN <ipn@ssl.berkeley.edu>
 Date: Tue, 8 Sep 2009 14:28:19 -0600
 Subject: [Ipn] Daily report 2009-09-038 BAT

 GBM 2009-09-04T13:57:17.130 not seen by BAT in rates. Very near
 horizon (nominally 2 degrees above)
 273765442.187 + -5.056 -> 2009-09-04T13:57:17.130
 Satellite zenith RA=134.03, dec=18.20, lat=18.16 N, lon=-58.98 E
 00090104002 2009-247-13:51:00 - 13:51:00 - 14:11:00 [135.647,
 52.149, 136.536] SDSS J090231+520749 (planned 2009247)
 243.83_-10.84: (theta,phi) = (1.9141, -2.5178); exposure = 0 cm² ; 2
 degrees above Earth limb

GBM 2009-09-08T08:10:39.810 seen in rates

274090244.878 + -5.067 -> 2009-09-08T08:10:39.810
 Satellite zenith RA=191.43, dec=-7.98, lat=-8.03 N, lon=81.37 E
 00361831007 2009-251-08:09:00 - 08:09:00 - 08:24:00 [264.161,
 -25.218, 280.504] GRB 090904B (planned 2009251)
 179.57_-26.21: (theta,phi) = (1.3029, -2.1407); exposure = 0 cm² ; 92
 degrees above Earth limb

 274087917.158 + -5.067 -> 2009-09-08T07:31:52.090 nominally well below
 horizon. Not seen.
 Satellite zenith RA=46.32, dec=17.38, lat=17.42 N, lon=-54.01 E
 00361830007 2009-251-07:25:00 - 07:25:00 - 07:55:00 [100.906,
 50.207, 97.794] GRB 090904A (planned 2009251)
 273.11_1.08: (theta,phi) = (2.2389, -3.1040); exposure = 0 cm² ; 17
 degrees BELOW Earth limb

 GBM 2009-09-07T19:23:47.470 nominally well below horizon. In SAA, not
 seen.

274044232.536 + -5.066 -> 2009-09-07T19:23:47.470
 Satellite zenith RA=206.51, dec=-11.65, lat=-11.70 N, lon=-71.31 E
 00074206007 2009-250-19:19:00 - 19:19:00 - 19:49:00 [227.761,
 -15.000, 284.222] saa-cold-250-15 (planned 2009250)
 67.97_20.05: (theta,phi) = (2.7942, -1.5117); exposure = 0 cm² ; 25
 degrees BELOW Earth limb

M 2009-09-07T00:24:09.720 not obvious in BAT, but it was during the
approach to the SAA (50 kCounts ~7x normal background)

273975854.784 + -5.063 -> 2009-09-07T00:24:09.720
 Satellite zenith RA=271.51, dec=-20.52, lat=-20.52 N, lon=-80.61 E

00074244013 2009-250-00:20:00 - 00:20:00 - 00:47:00 [287.669,
55.000, 300.193] saa-cold-250-9 (planned 2009250)
80.11_-47.96: (theta,phi) = (2.8205, 0.8515); exposure = 0 cm² ; 3
degrees above Earth limb

<This message contains 4 attachments (not printed)>

Date: June 21 2012

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☐ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)?
- ☐ Timing checked after ~ 1 week?

4. For Konus events

- ☐ Konus ecliptic latitude used with latest calibration? *Waiting*

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

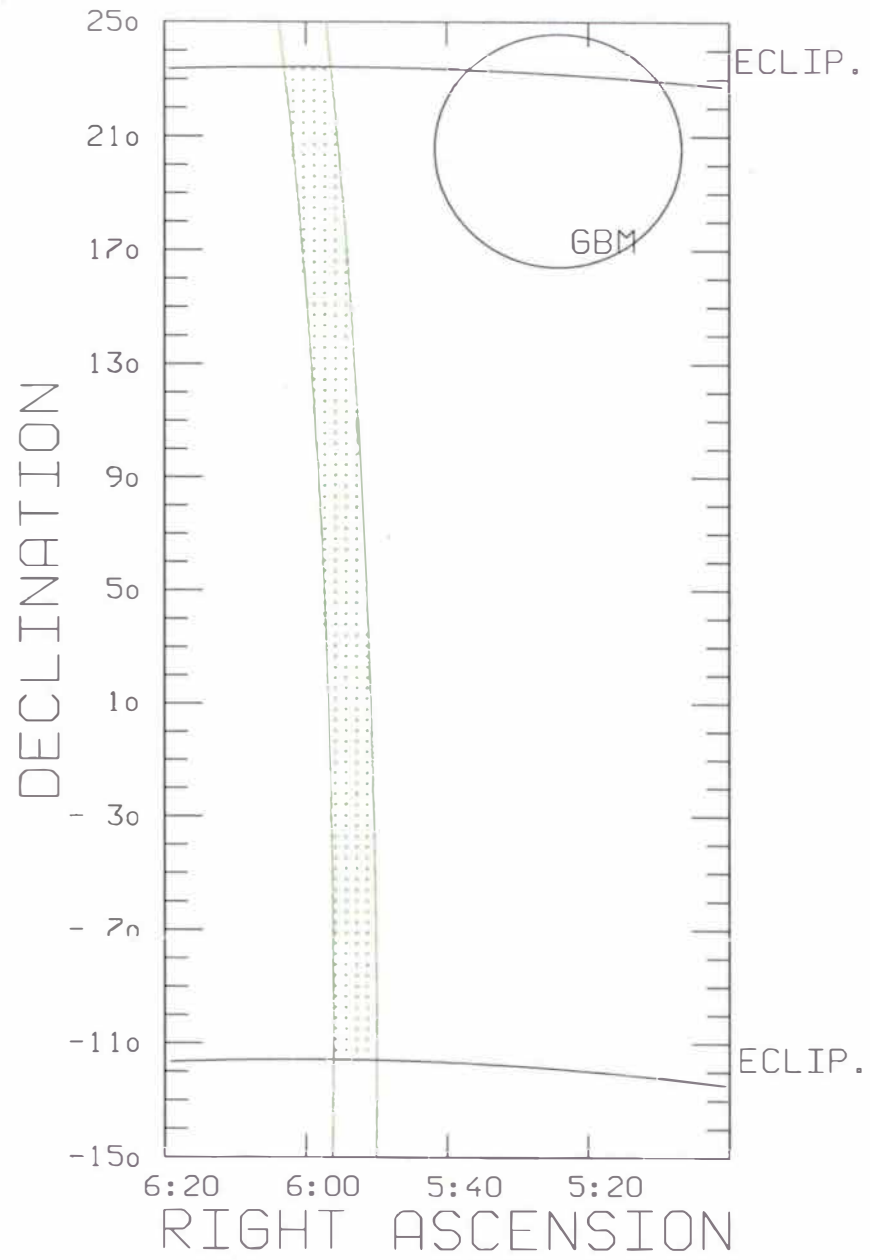
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?
- ☐ Hand-extracted data used (record starts at -30.000 s)?

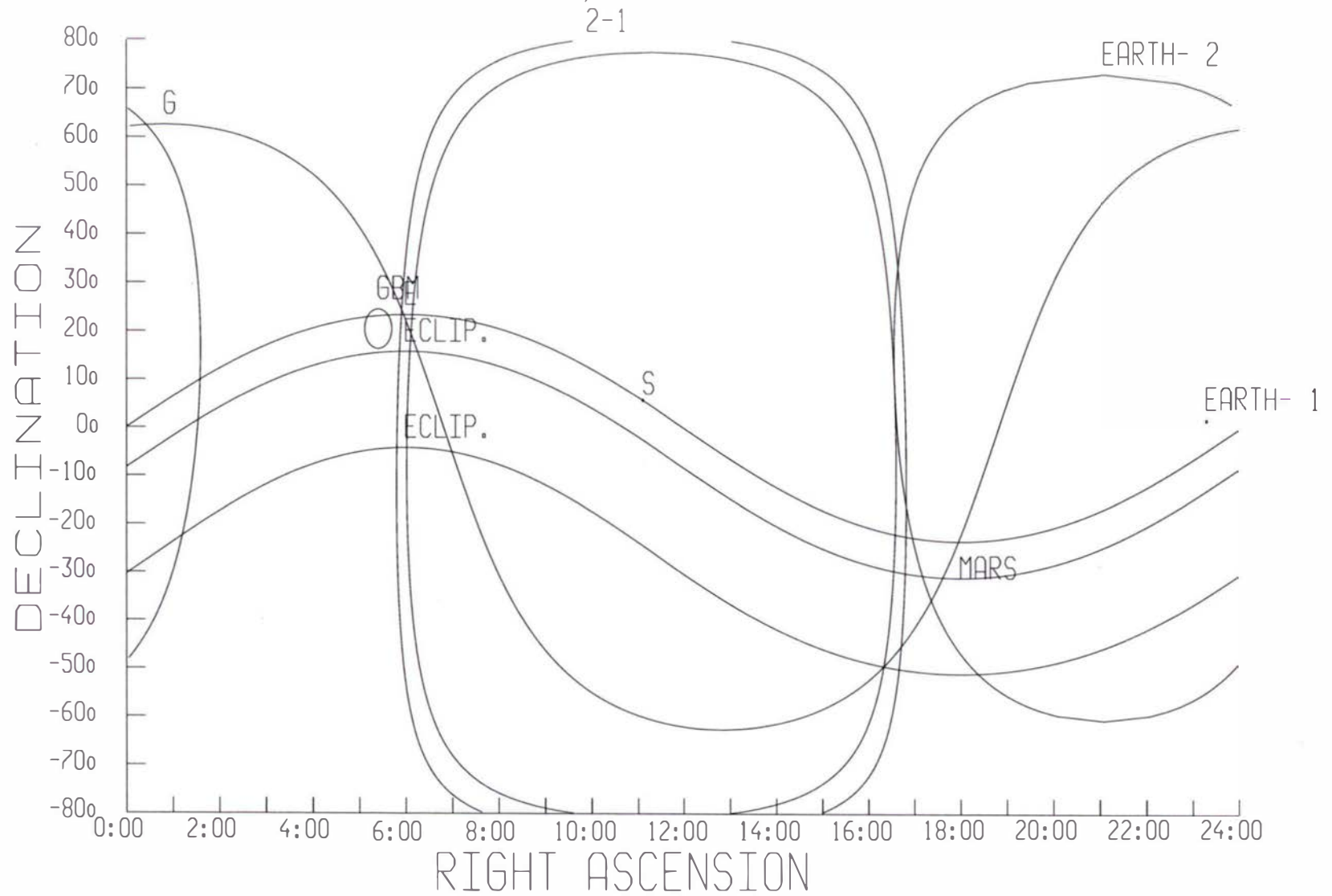
☒ ACCESS and MBL4 databases updated, with identical times?

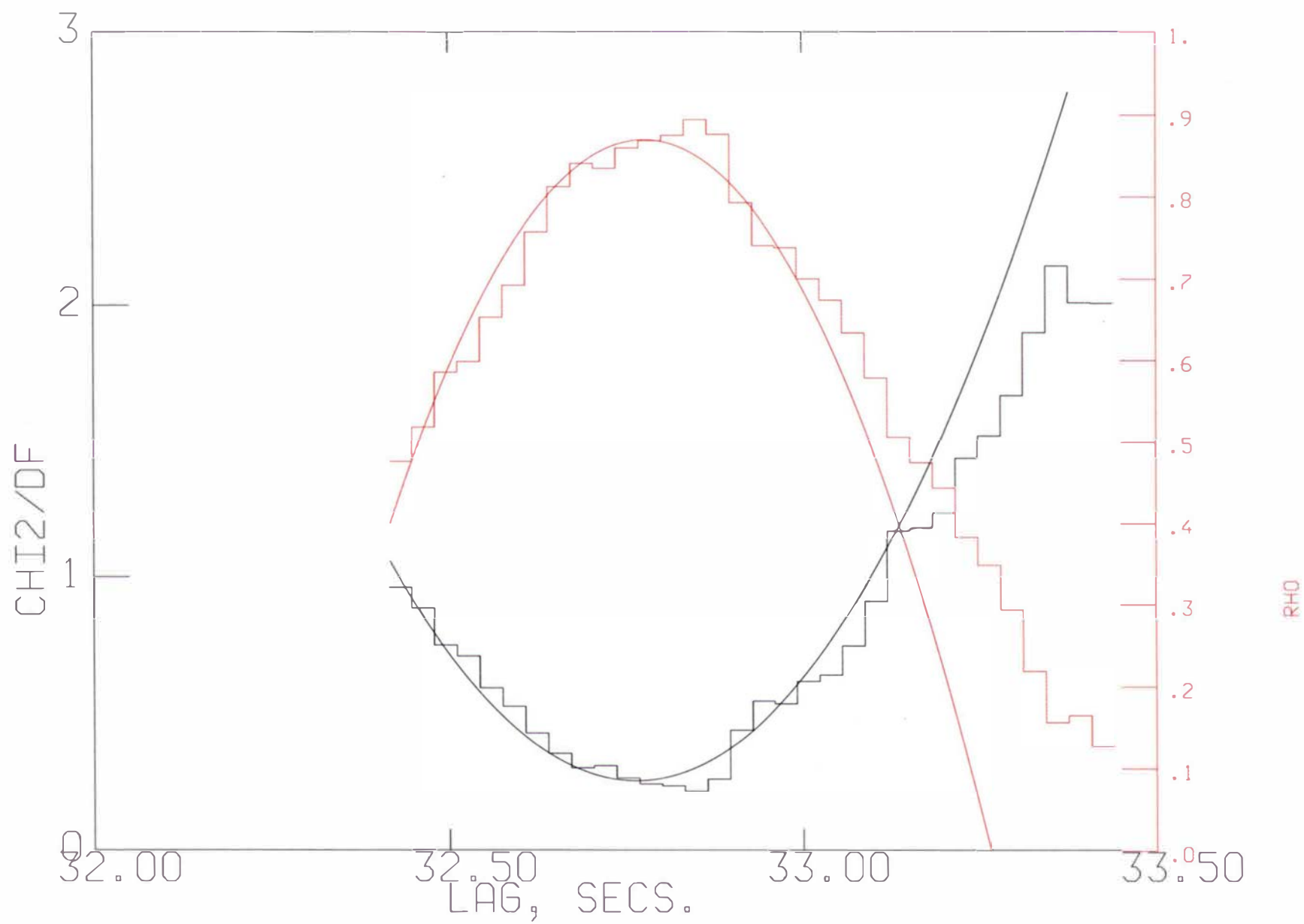


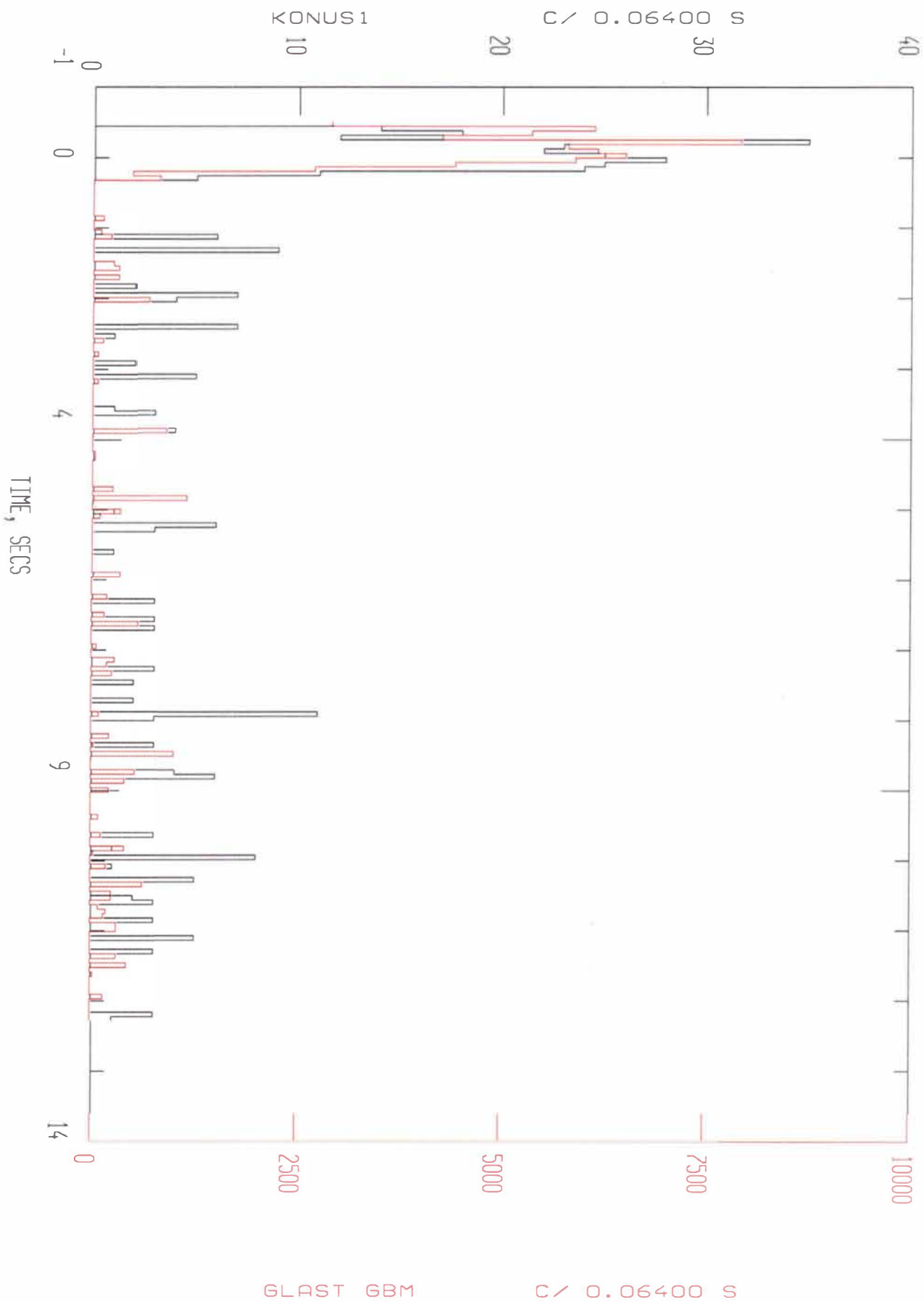
EVENT OF SEP 7, 2009 19:23

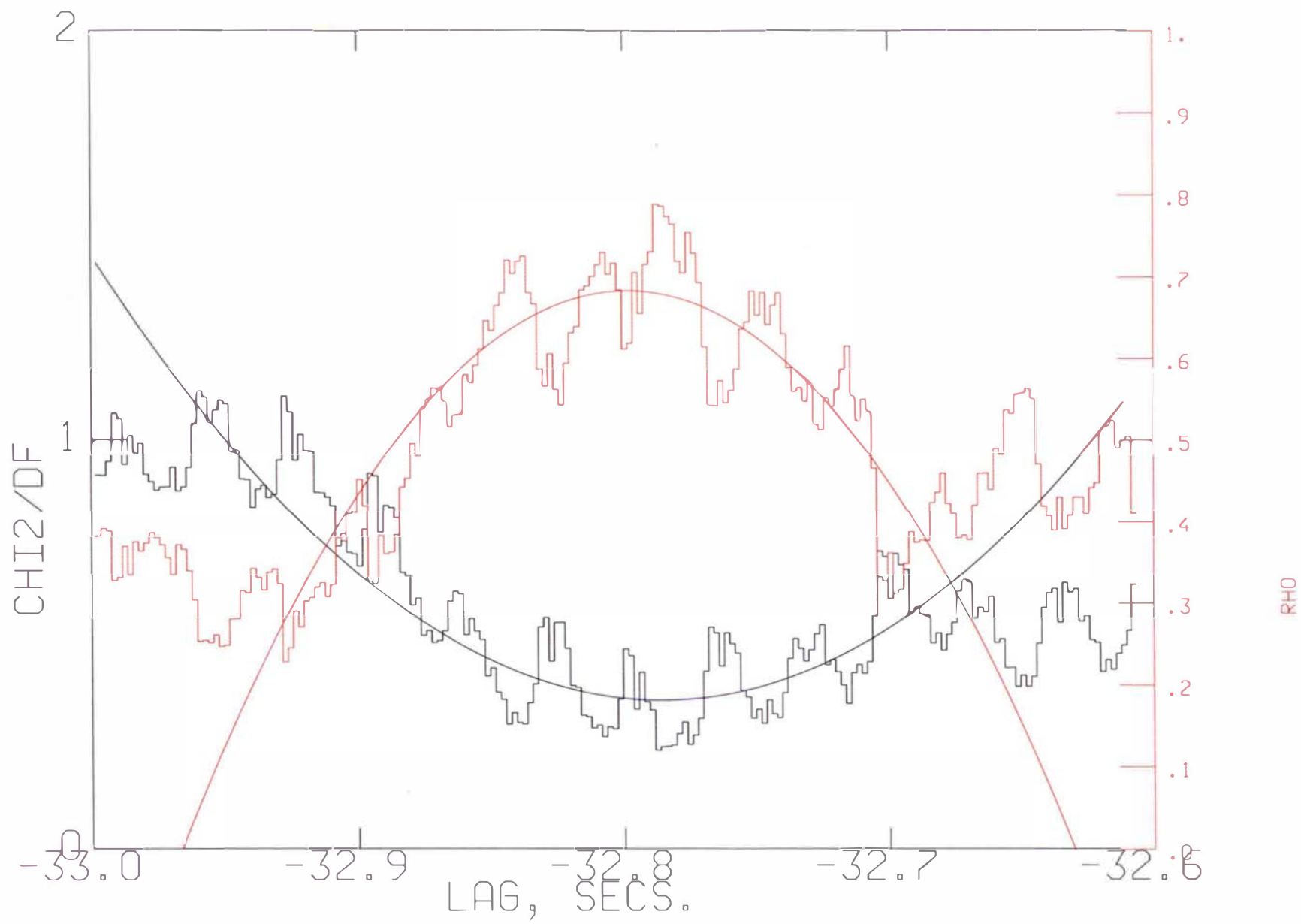
21/06/2012

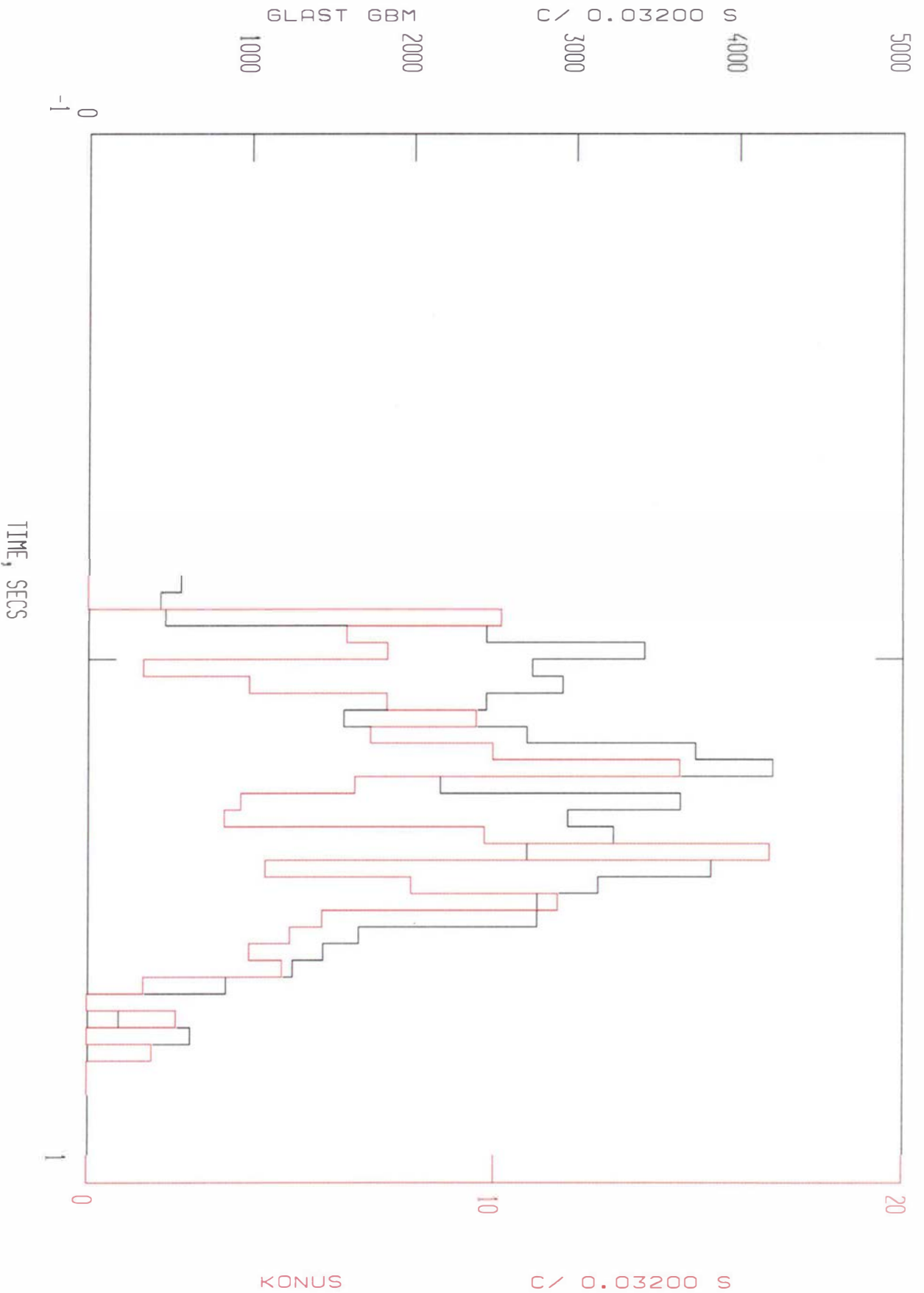
N-M = CORRELATION BETWEEN SATELLITES N AND M
 EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN
 1 KONUS
 2 FERMI
 E=ECLIPTIC
 G=GALACTIC EQUATOR











KONUS1

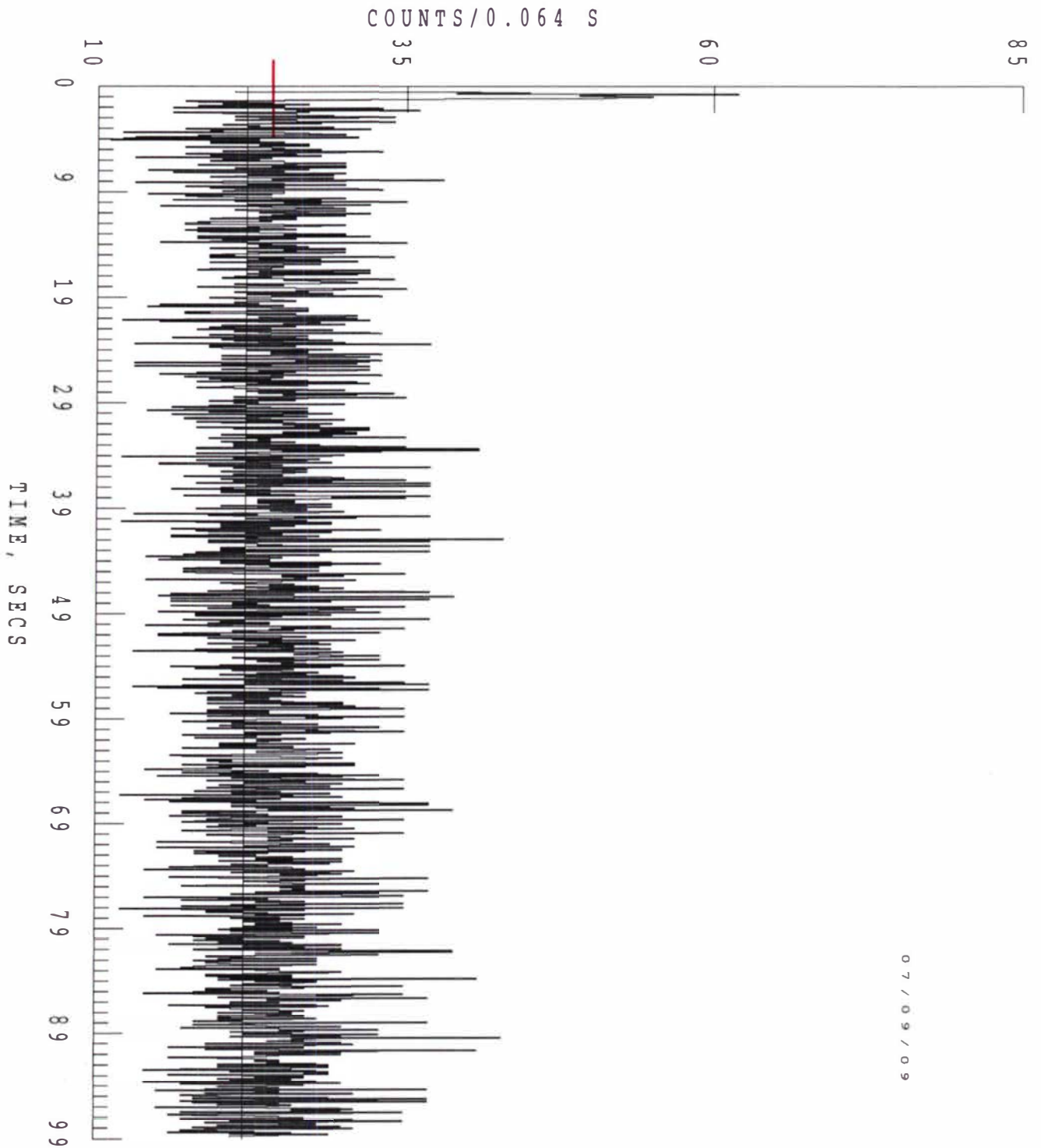
07/09/09

69827.177

B

50 - 200 keV

19:23:47



07/09/09

KONUS HRES 20090907 69827

TRIGGER TIME: 07/09/09 DOY 250 Julian 2455083.30818 UT = 19.396 19:23:47 (69827.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

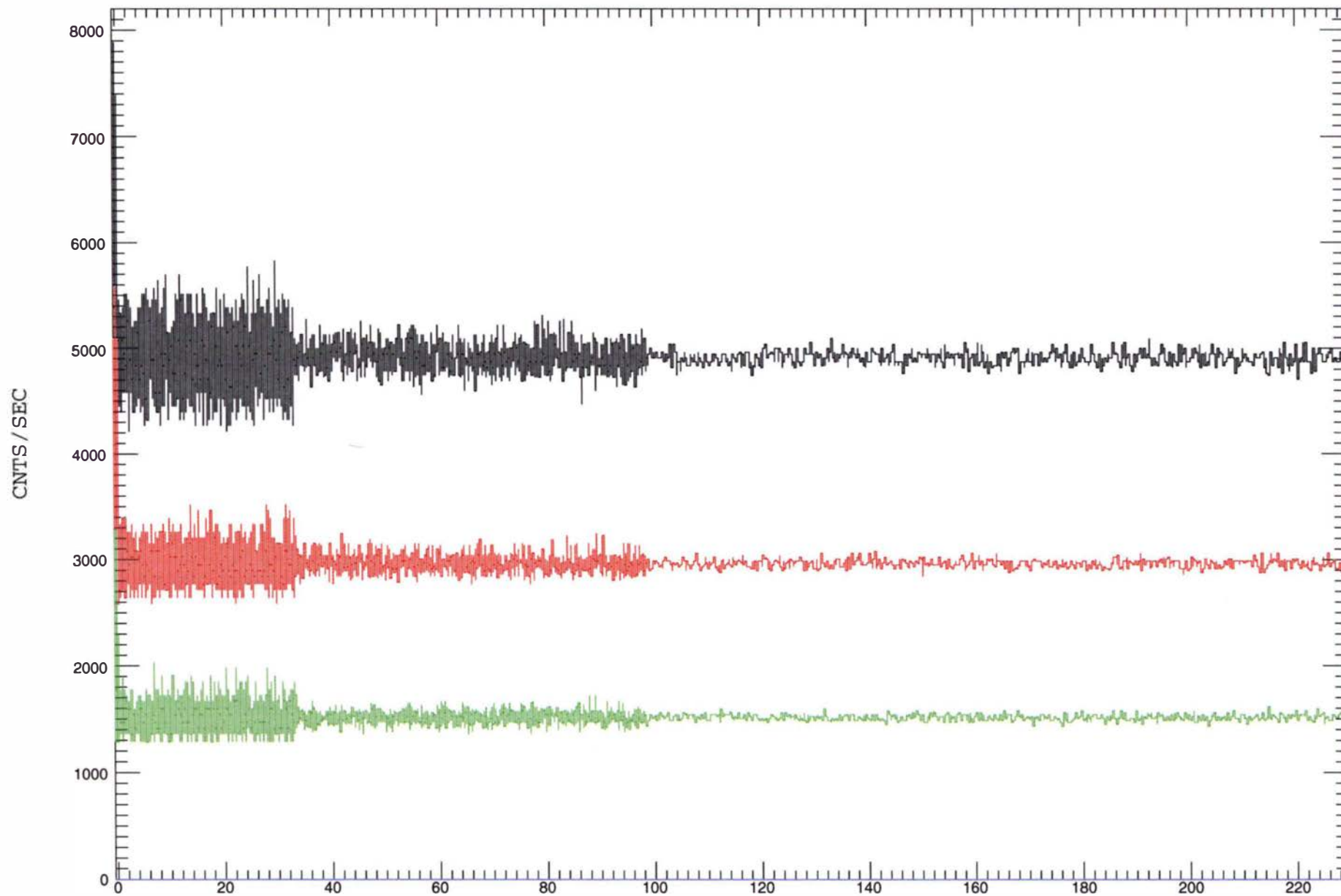
Chan 4 : [> 10 MeV]

Channel 1 + 3900

Channel 2 + 2600

Channel 3 + 1300

Channel 4 + 0



ONDS

MS01

07/09/09

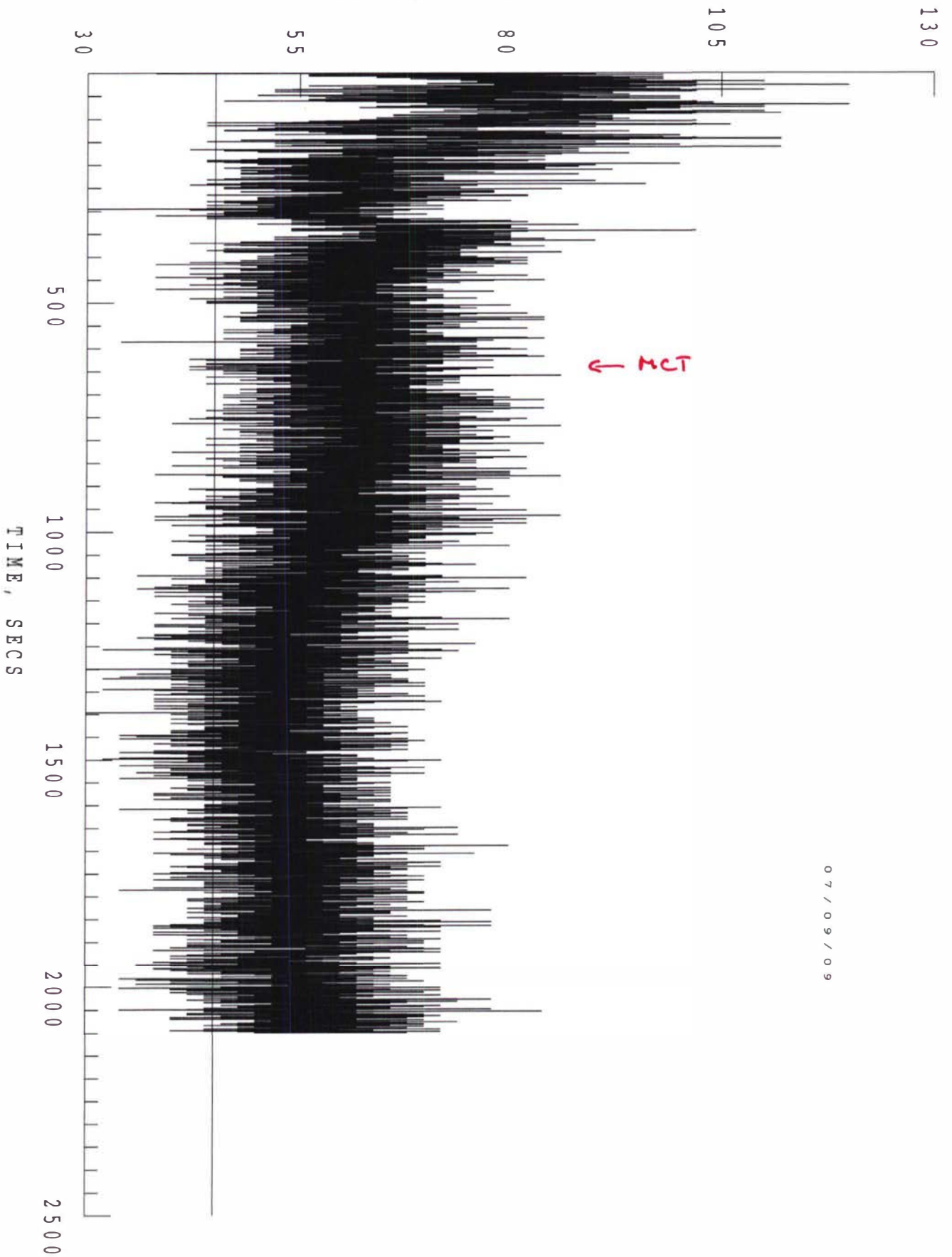
68520.174

B

50 - 3000 keV

MCT = 69144

COUNTS/0.250 S



B

From williams@penelope.ssl.berkeley.edu Mon Sep 7 16:14:11 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Mon, 7 Sep 2009 16:27:03 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_KONUS1_20090907_69827

HESSI 25 to 150 keV Counts
Created 7-Sep-2009 16:13:31.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry

From ipn-bounces@ssl.berkeley.edu Tue Sep 8 13:29:44 2009
 X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
 X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
 From: David Palmer <palmer@lanl.gov>
 To: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
 "R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
 IPN <ipn@ssl.berkeley.edu>
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 52.149, 136.536] SDSS J090231+520749 (planned 2009247)
 243.83_-10.84: (theta,phi) = (1.9141, -2.5178); exposure = 0 cm² ; 2
 degrees above Earth limb

GBM 2009-09-08T08:10:39.810 seen in rates

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 -25.218, 280.504] GRB 090904B (planned 2009251)
 179.57_-26.21: (theta,phi) = (1.3029, -2.1407); exposure = 0 cm² ; 92
 degrees above Earth limb

 274087917.158 + -5.067 -> 2009-09-08T07:31:52.090 nominally well below
 horizon. Not seen.
 Satellite zenith RA=46.32, dec=17.38, lat=17.42 N, lon=-54.01 E
 00361830007 2009-251-07:25:00 - 07:25:00 - 07:55:00 [100.906,
 50.207, 97.794] GRB 090904A (planned 2009251)
 273.11_1.08: (theta,phi) = (2.2389, -3.1040); exposure = 0 cm² ; 17
 degrees BELOW Earth limb

 GBM 2009-09-07T19:23:47.470 nominally well below horizon. In SAA, not
seen.

274044232.536 + -5.066 -> 2009-09-07T19:23:47.470
 Satellite zenith RA=206.51, dec=-11.65, lat=-11.70 N, lon=-71.31 E
 00074206007 2009-250-19:19:00 - 19:19:00 - 19:49:00 [227.761,
 -15.000, 284.222] saa-cold-250-15 (planned 2009250)
 67.97_20.05: (theta,phi) = (2.7942, -1.5117); exposure = 0 cm² ; 25
 degrees BELOW Earth limb

 M 2009-09-07T00:24:09.720 not obvious in BAT, but it was during the
 approach to the SAA (50 kCounts ~7x normal background)

273975854.784 + -5.063 -> 2009-09-07T00:24:09.720
 Satellite zenith RA=271.51, dec=-20.52, lat=-20.52 N, lon=-80.61 E

GLAST

07/09/09

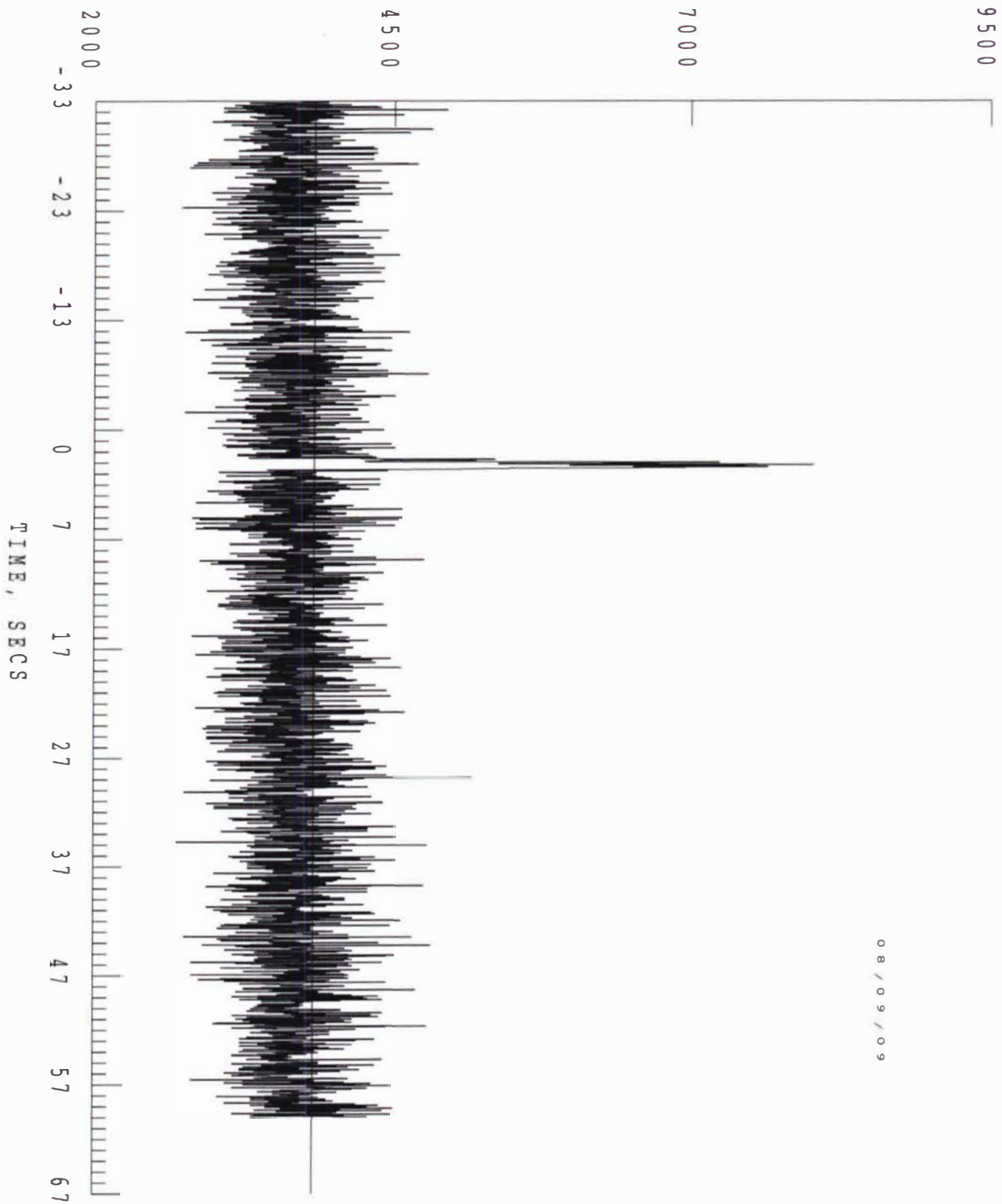
69827.474

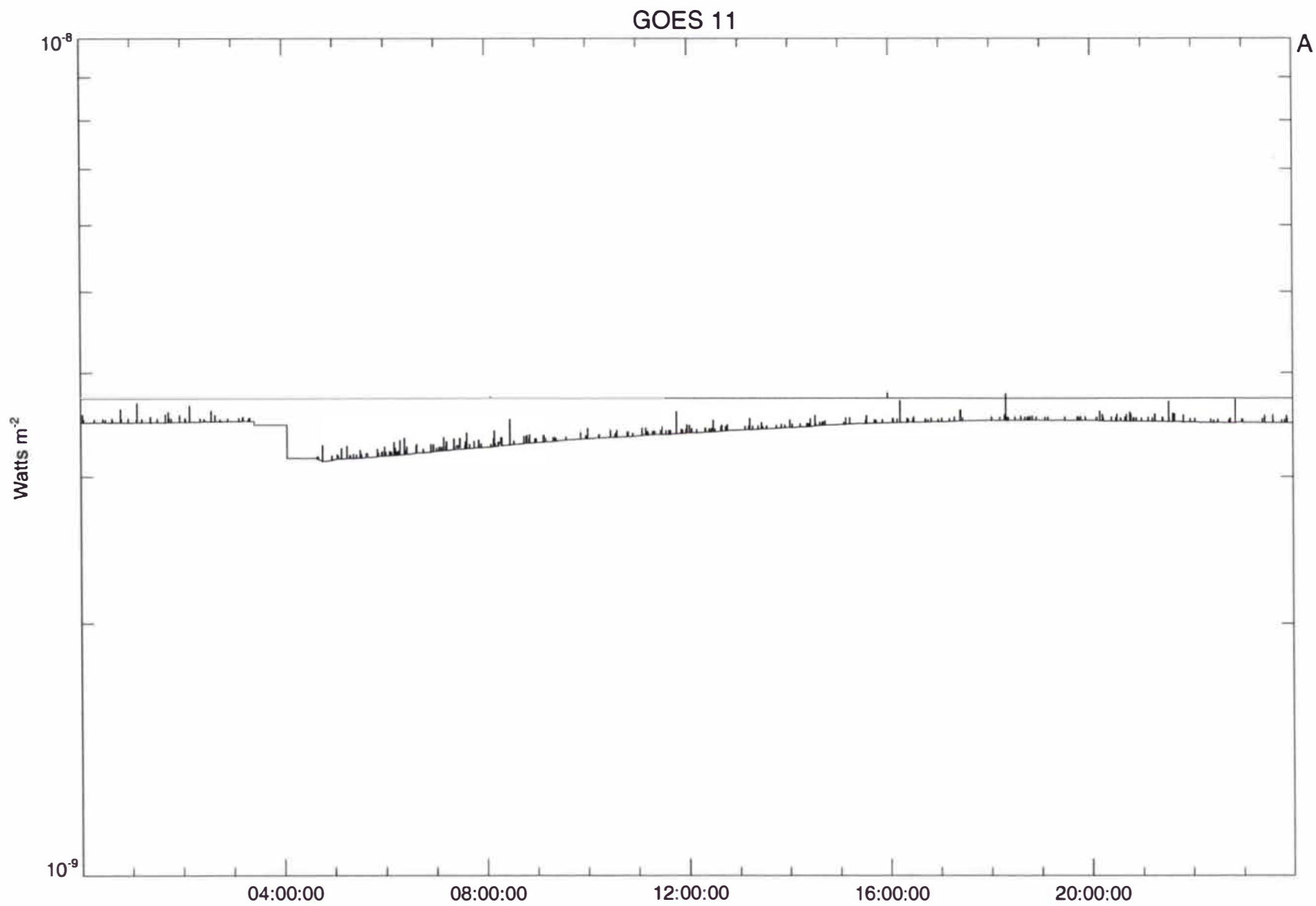
B

26 - 293 keV

67.97, +20.05

COUNTS/0.032 S





Data Start: 09/09/07, 0000:13

Plot created: 09/09/10, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GLAST

08/09/09

27112.087

A

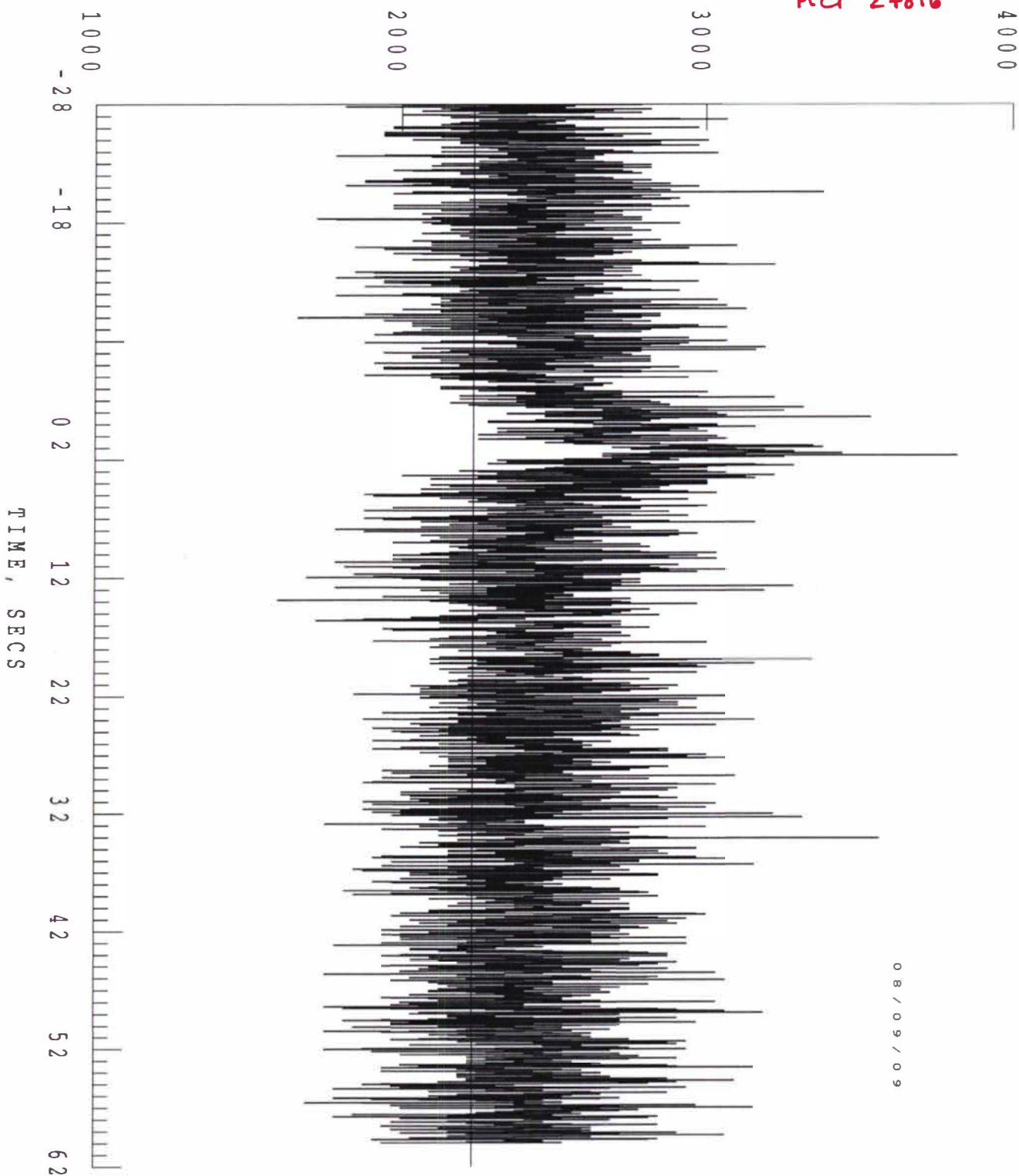
26- 293 keV

07:31:52

273.11, +1.08

MCT 27816

COUNTS/0.032 S



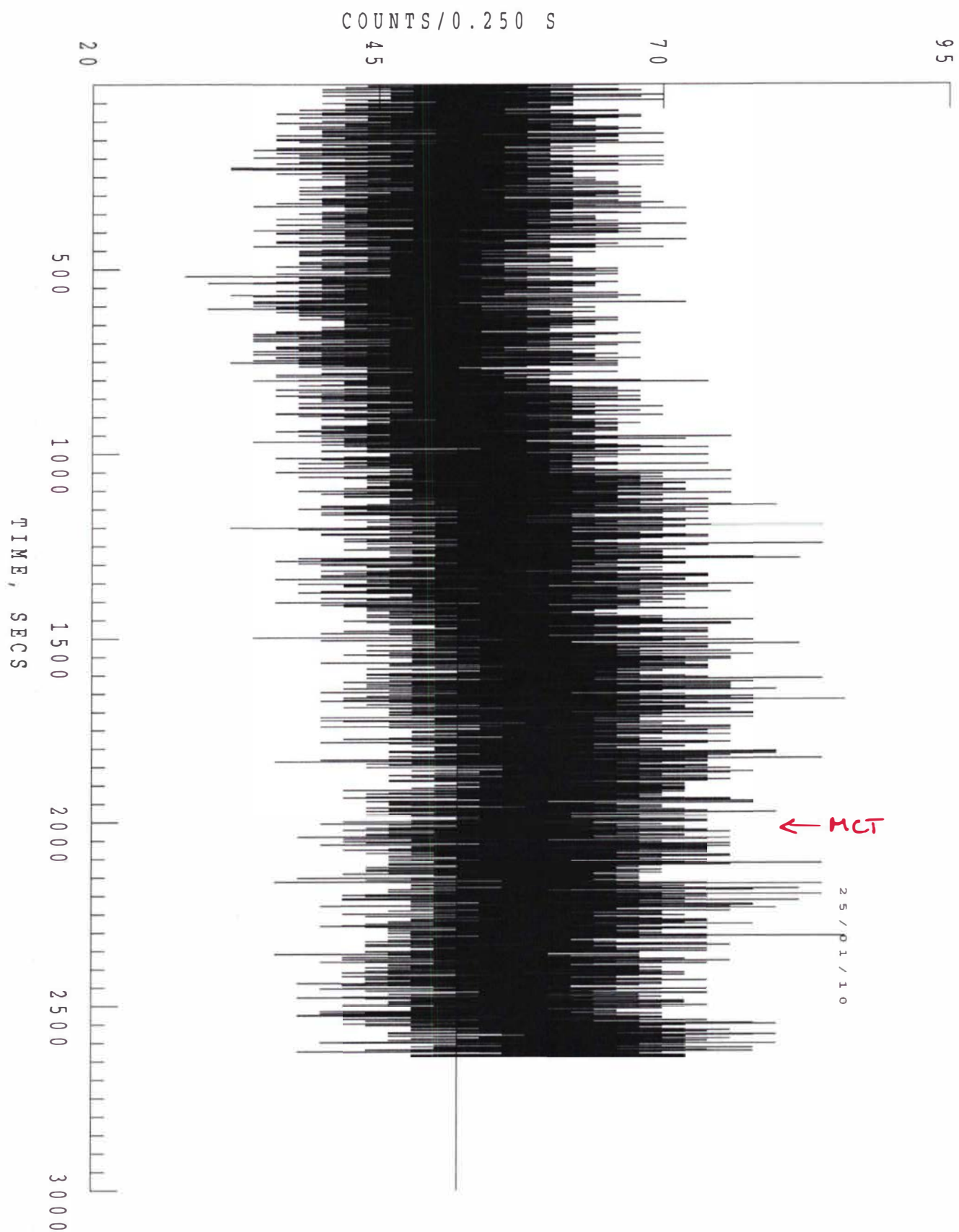
MS01

08/09/09

25797.626

A

50 - 3000 keV



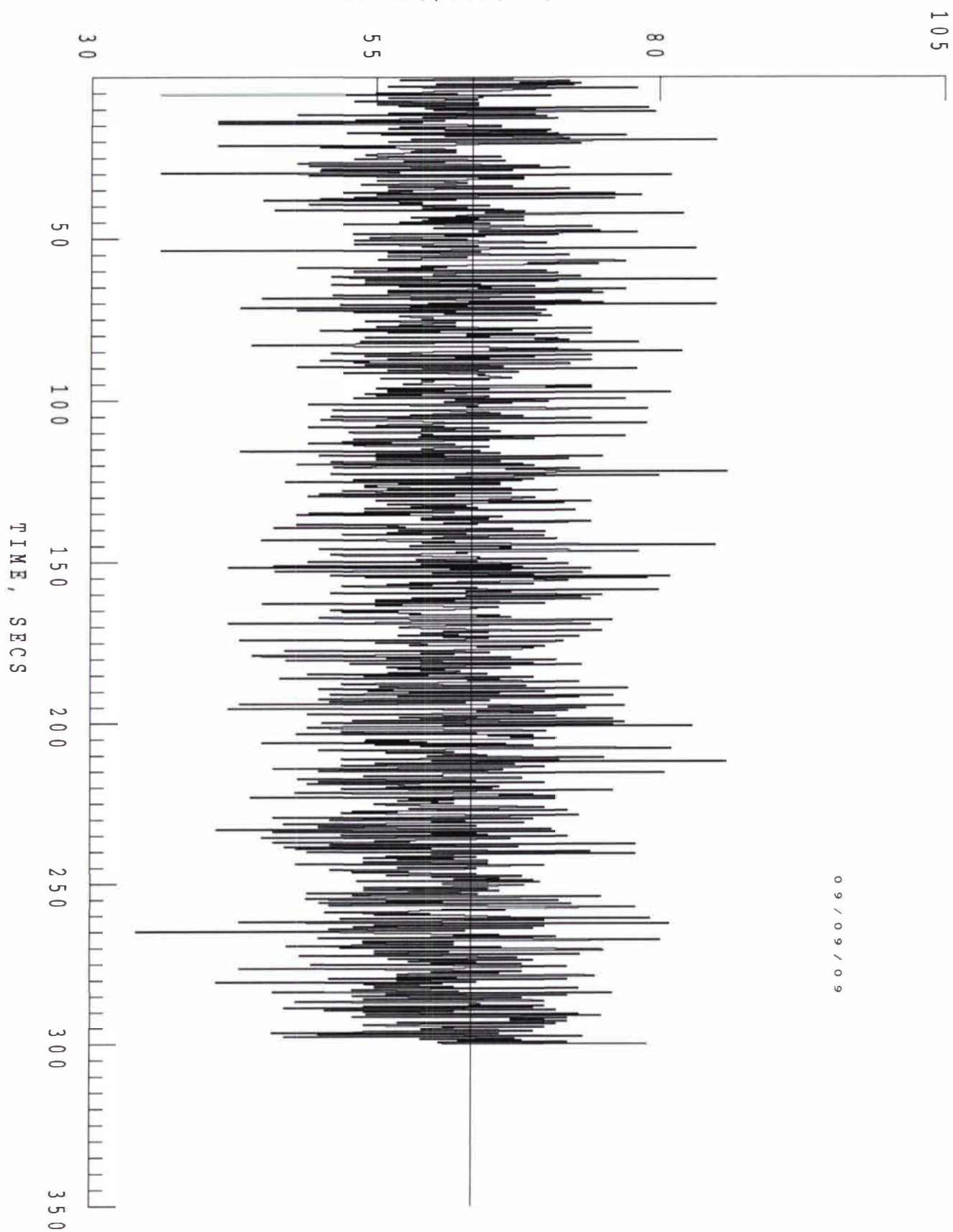
A

HESSI

08/09/09 26962.000 (GLAST_20090908_27112)

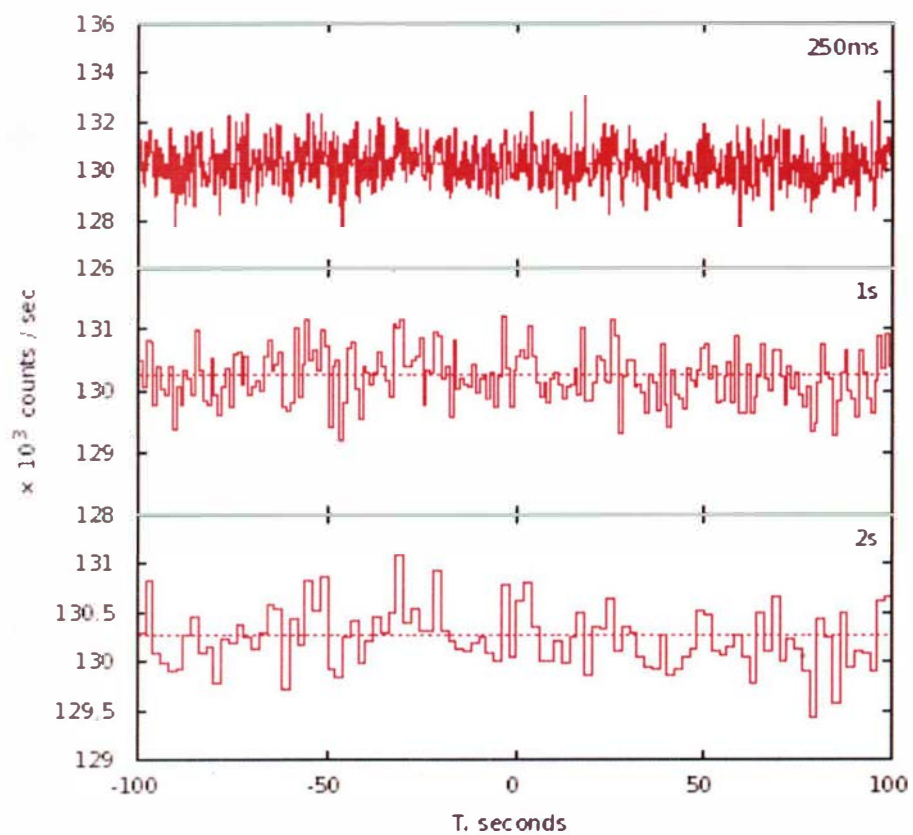
25- 150 keV

COUNTS/0.250 S



A

INTEGRAL SPI-ACS 090908 $T_0 = 27112$ s UT



From ipn-bounces@ssl.berkeley.edu Tue Sep 8 13:29:44 2009
 X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
 X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
 From: David Palmer <palmer@lanl.gov>
 To: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
 "R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
 IPN <ipn@ssl.berkeley.edu>
 Date: Tue, 8 Sep 2009 14:28:19 -0600
 Subject: [Ipn] Daily report 2009-09-038 BAT

 GBM 2009-09-04T13:57:17.130 not seen by BAT in rates. Very near
 horizon (nominally 2 degrees above)
 273765442.187 + -5.056 -> 2009-09-04T13:57:17.130
 Satellite zenith RA=134.03, dec=18.20, lat=18.16 N, lon=-58.98 E
 00090104002 2009-247-13:51:00 - 13:51:00 - 14:11:00 [135.647,
 52.149, 136.536] SDSS J090231+520749 (planned 2009247)
 243.83 -10.84: (theta,phi) = (1.9141, -2.5178); exposure = 0 cm² ; 2
 degrees above Earth limb

GBM 2009-09-08T08:10:39.810 seen in rates

274090244.878 + -5.067 -> 2009-09-08T08:10:39.810
 Satellite zenith RA=191.43, dec=-7.98, lat=-8.03 N, lon=81.37 E
 00361831007 2009-251-08:09:00 - 08:09:00 - 08:24:00 [264.161,
 -25.218, 280.504] GRB 090904B (planned 2009251)
 179.57 -26.21: (theta,phi) = (1.3029, -2.1407); exposure = 0 cm² ; 92
 degrees above Earth limb

~~274087917.158 + -5.067 -> 2009-09-08T07:31:52.090 nominally well below~~
~~horizon. Not seen.~~
~~Satellite zenith RA=46.32, dec=17.38, lat=17.42 N, lon=-54.01 E~~
~~00361830007 2009-251-07:25:00 - 07:25:00 - 07:55:00 [100.906,~~
~~50.207, 97.794] GRB 090904A (planned 2009251)~~
~~273.11 -1.08: (theta,phi) = (2.2389, -3.1040); exposure = 0 cm² ; 17~~
~~degrees BELOW Earth limb~~

 GBM 2009-09-07T19:23:47.470 nominally well below horizon. In SAA, not
 seen.

274044232.536 + -5.066 -> 2009-09-07T19:23:47.470
 Satellite zenith RA=206.51, dec=-11.65, lat=-11.70 N, lon=-71.31 E
 00074206007 2009-250-19:19:00 - 19:19:00 - 19:49:00 [227.761,
 -15.000, 284.222] saa-cold-250-15 (planned 2009250)
 67.97 -20.05: (theta,phi) = (2.7942, -1.5117); exposure = 0 cm² ; 25
 degrees BELOW Earth limb

 BM 2009-09-07T00:24:09.720 not obvious in BAT, but it was during the
 approach to the SAA (50 kCounts ~7x normal background)

273975854.784 + -5.063 -> 2009-09-07T00:24:09.720
 Satellite zenith RA=271.51, dec=-20.52, lat=-20.52 N, lon=-80.61 E

Date: Apr 18 2011

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)? P
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☐ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

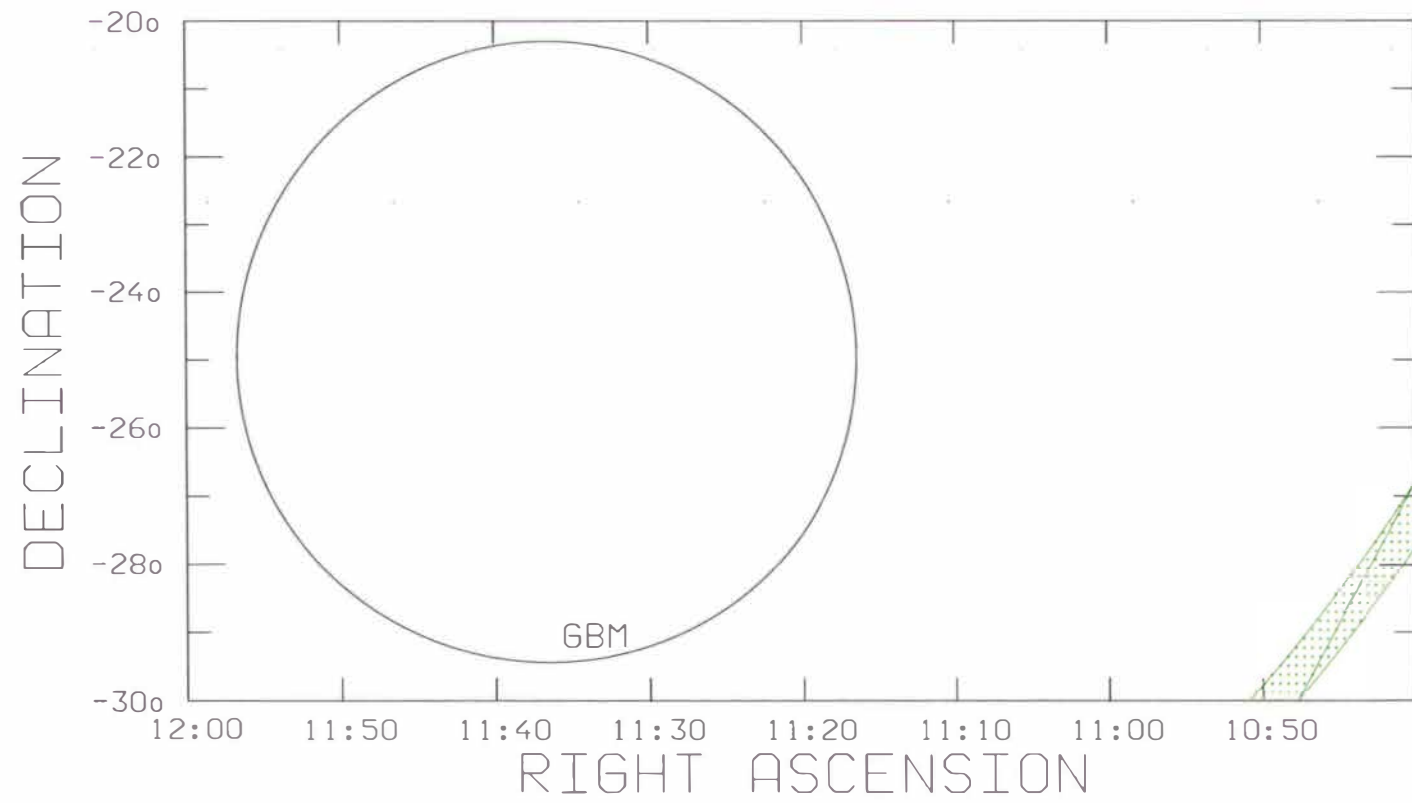
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?

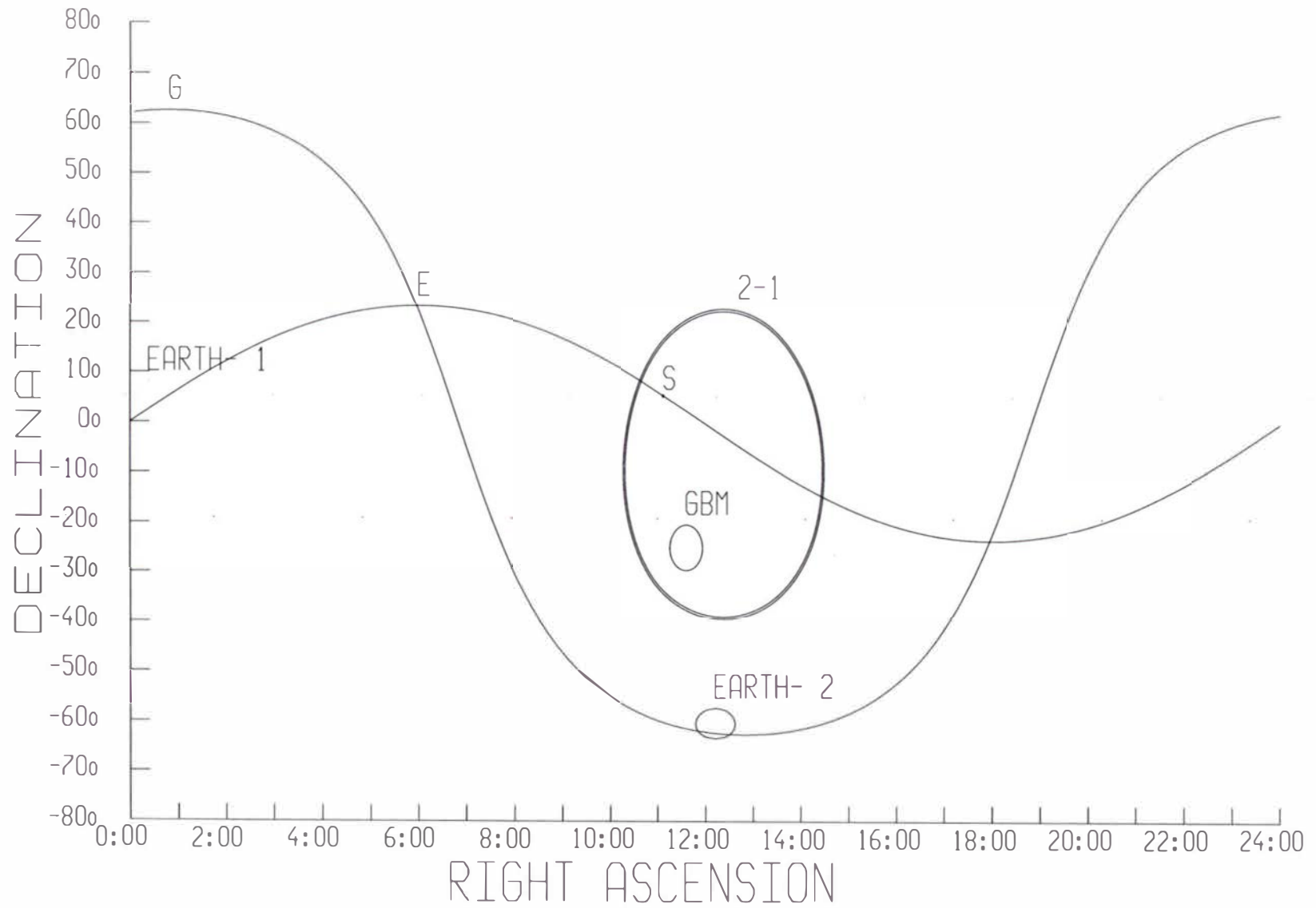
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

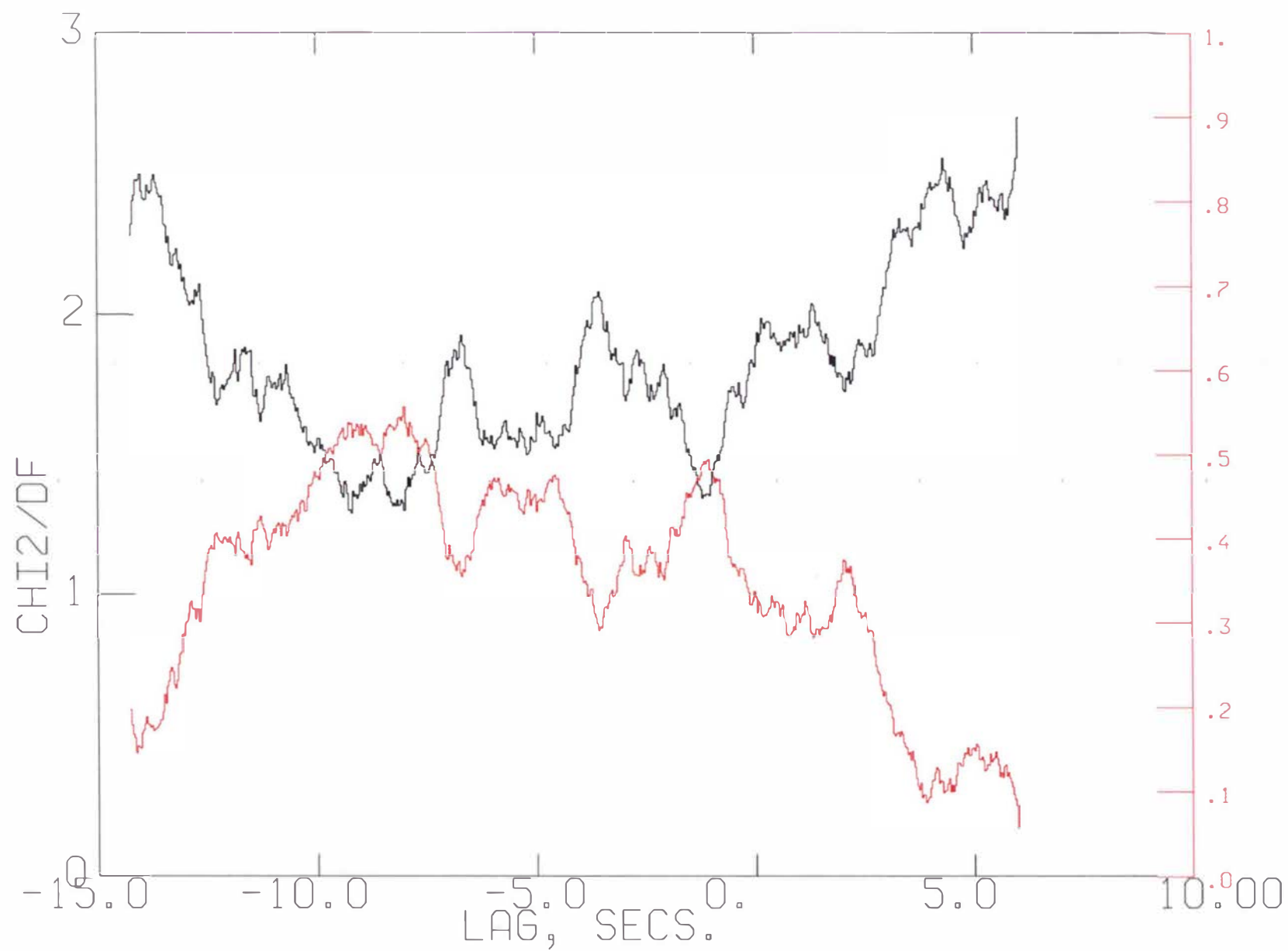


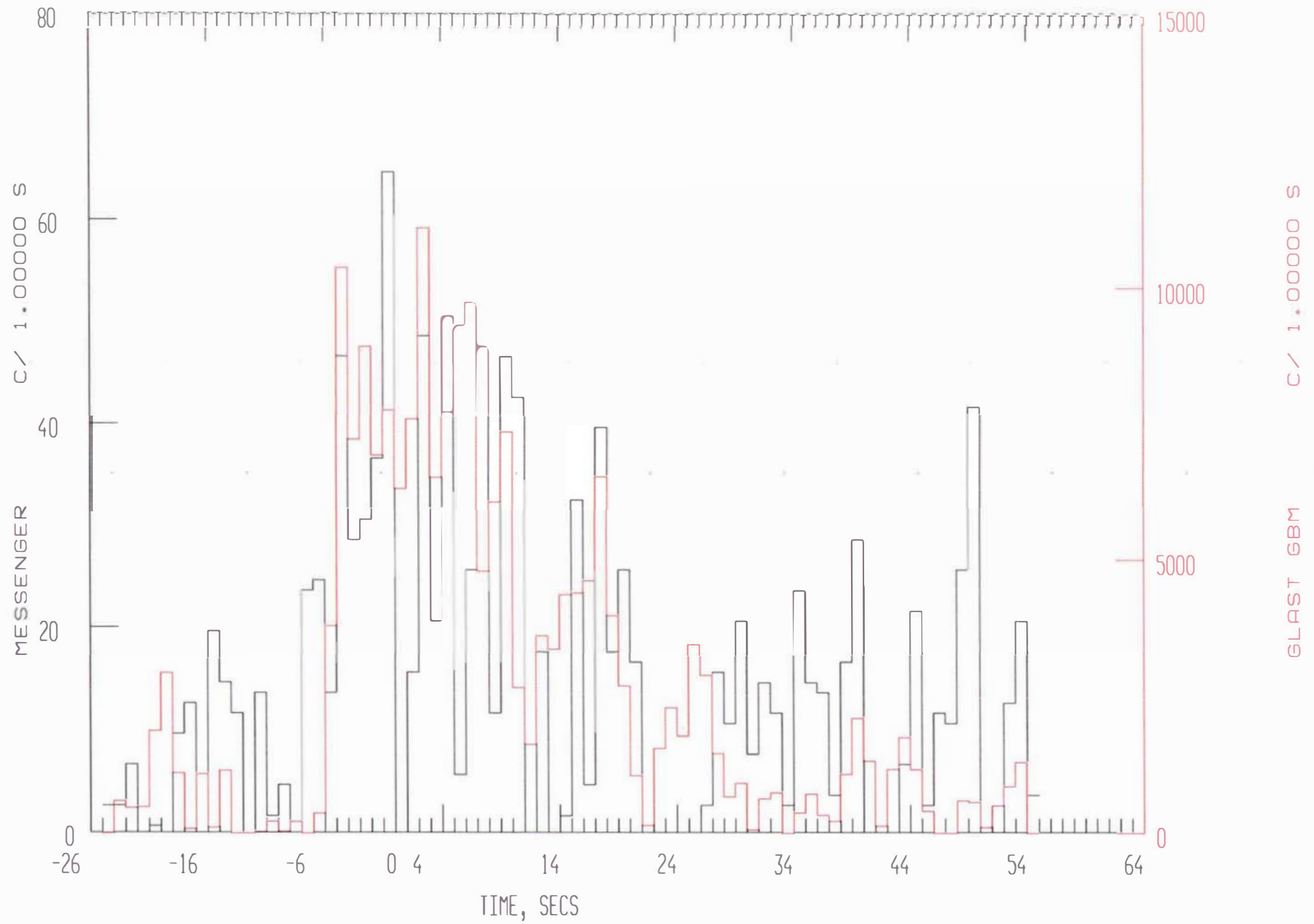
EVENT OF SEP 8, 2009 8:06

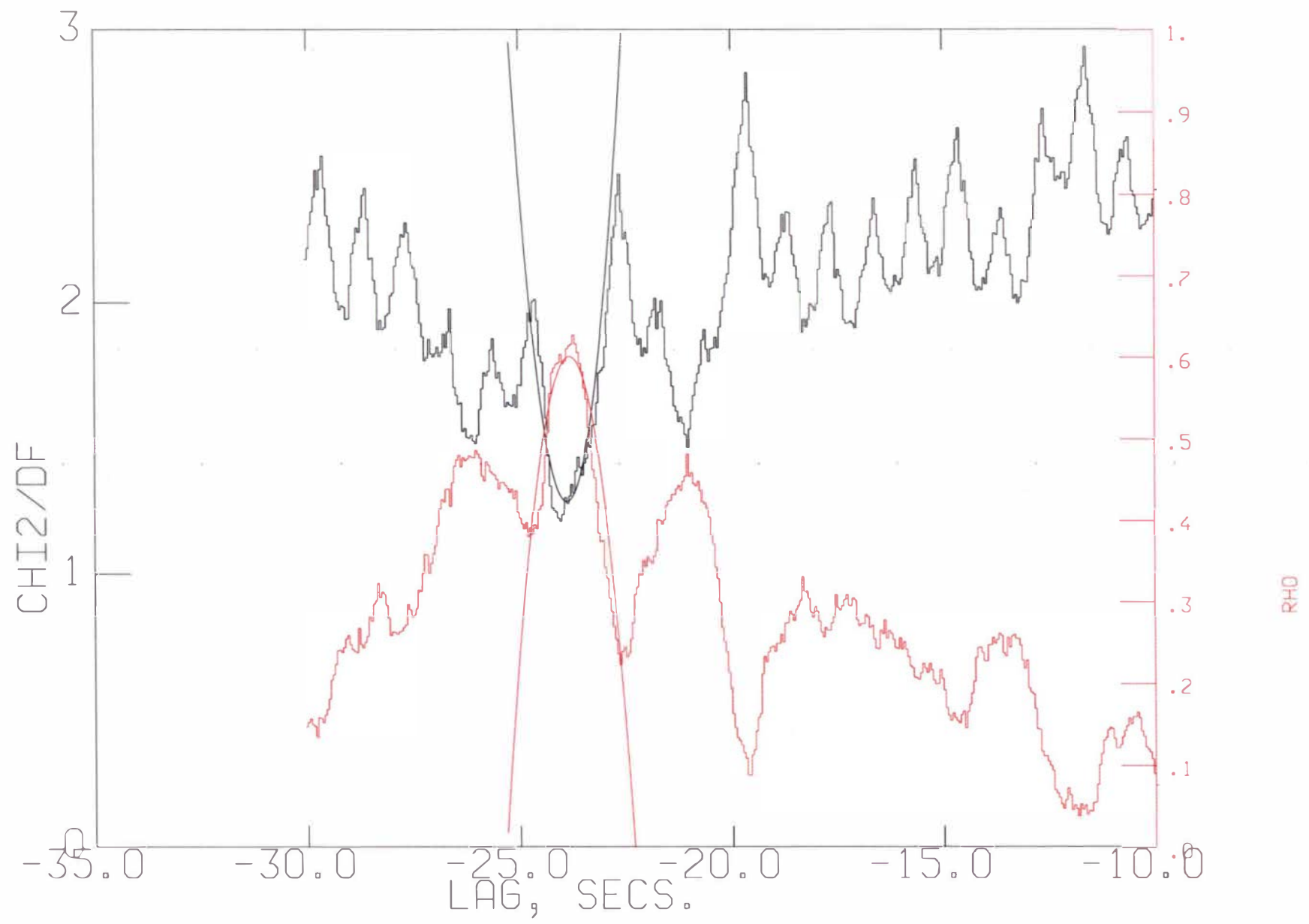
18/04/2011

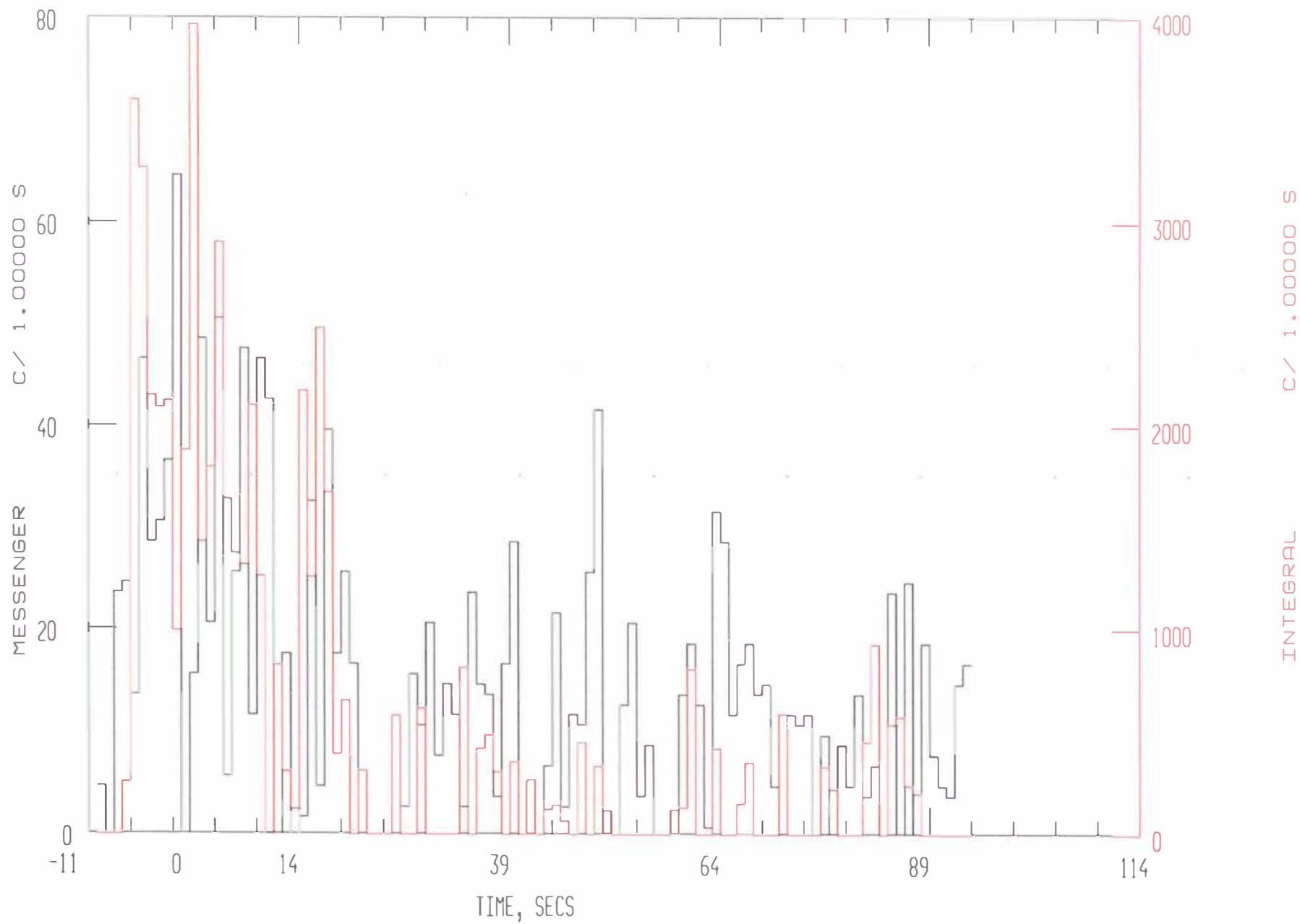
N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN
E=ECLIPTIC
G=GALACTIC EQUATOR
1 MESSENGER 2 INTEGRAL











GLAST

08/09/09

29439.814

B

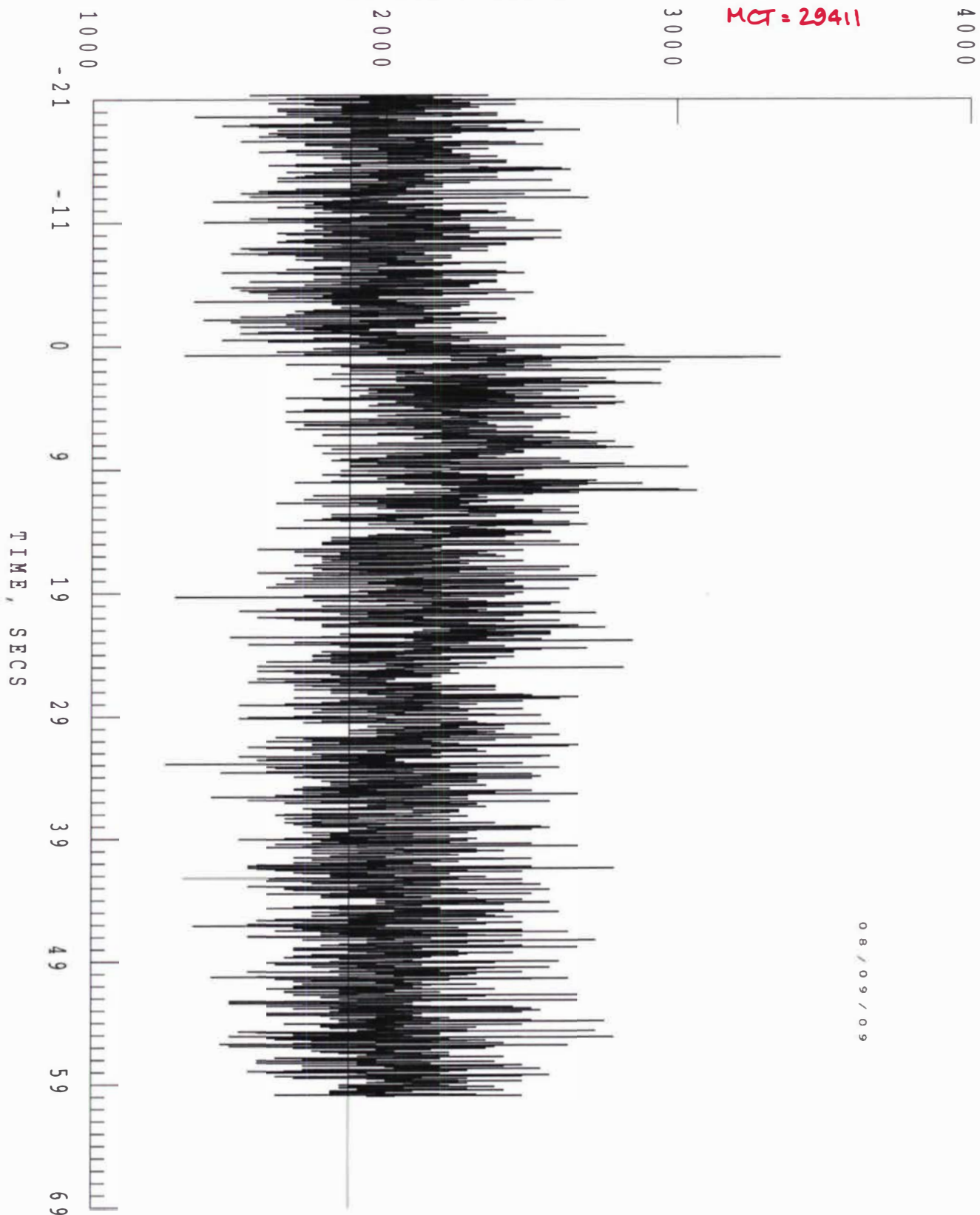
26- 293 keV

08:10:39

COUNTS/0.032 S

172.88, -28.57

MCT = 29411



B

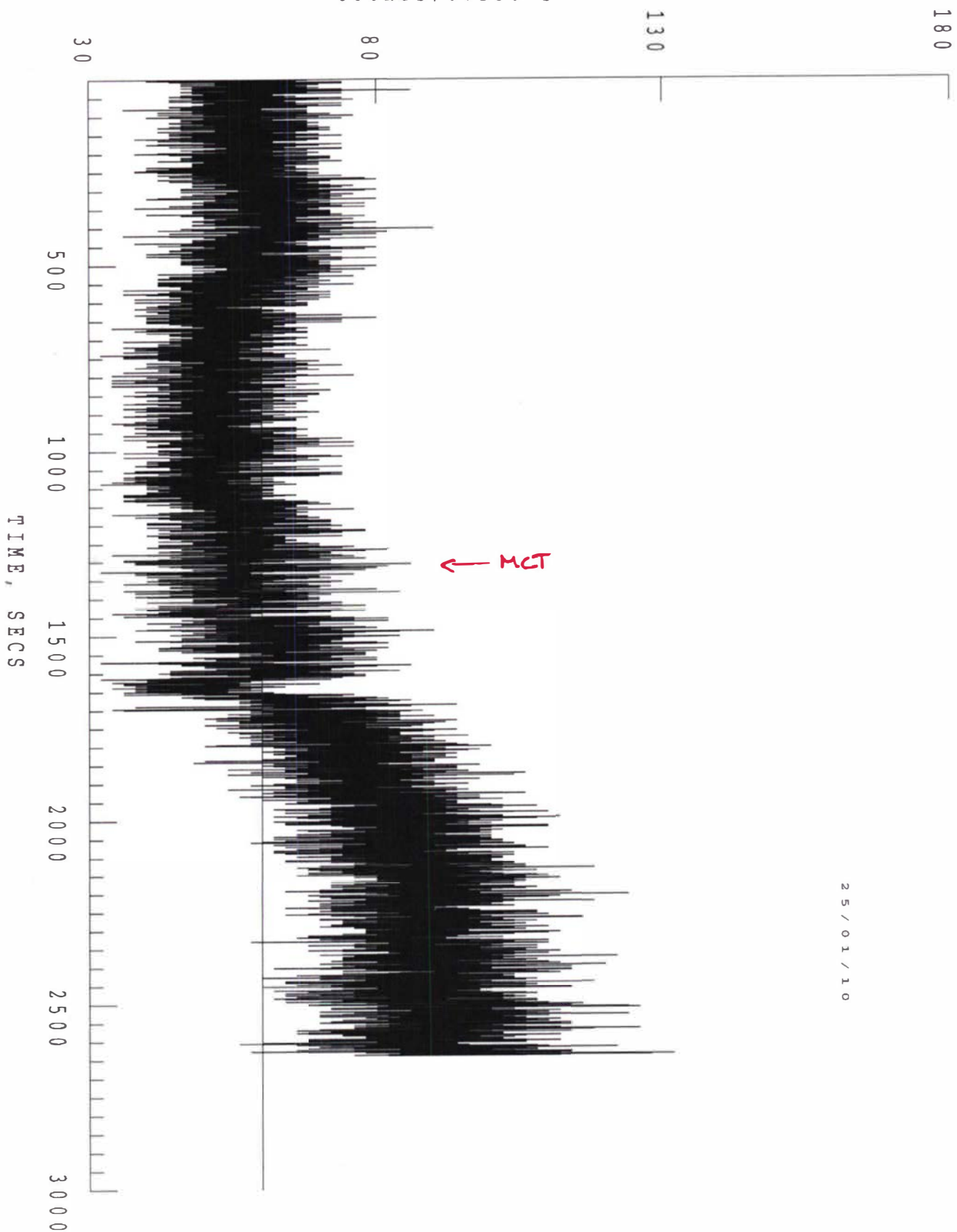
MS01

08/09/09

28077.588

50 - 3000 keV

COUNTS/0.250 S



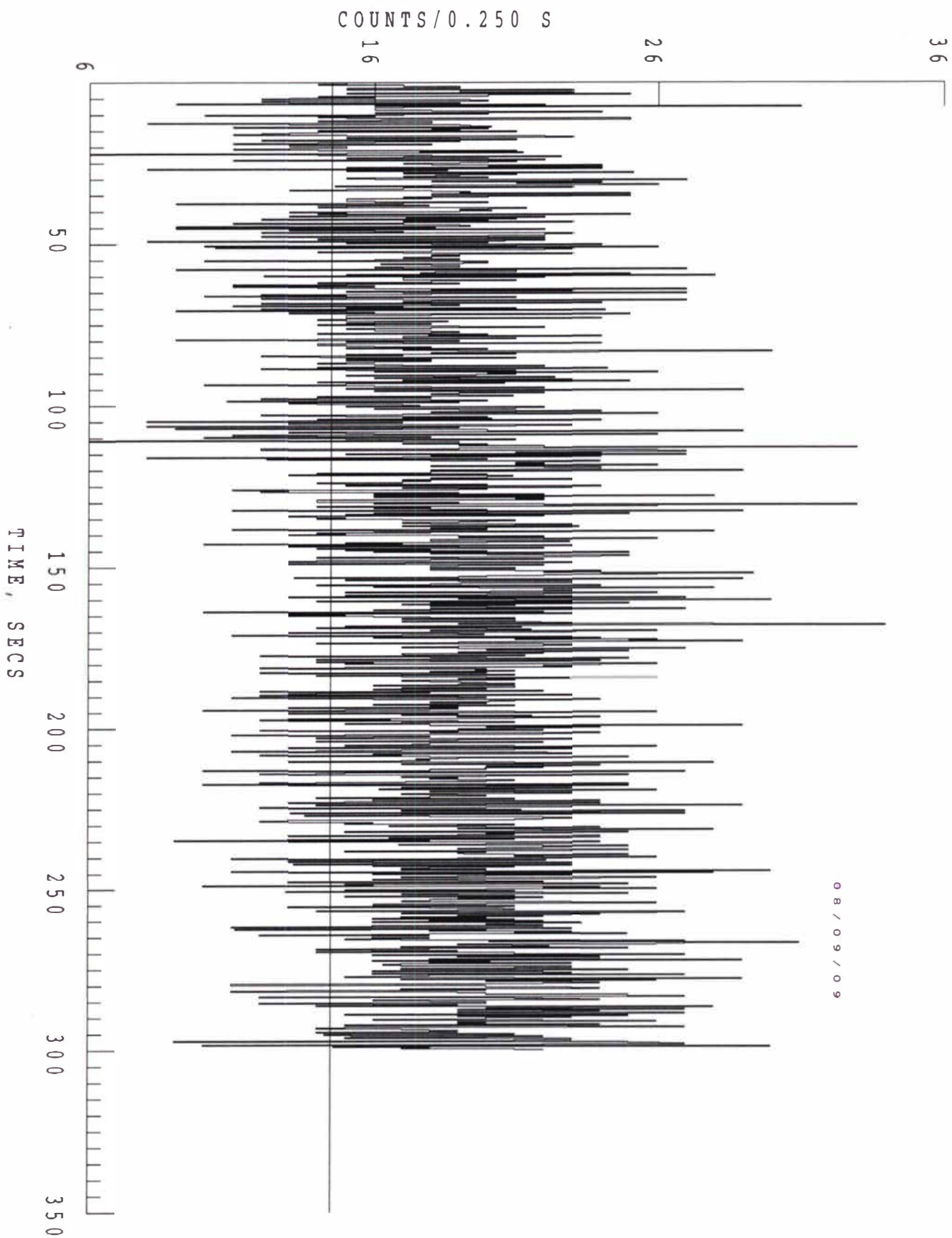
25/01/10

HESSI

08/09/09 29289.000 (GLAST_20090908_29439)

B

25- 150 keV



INTEGRAL

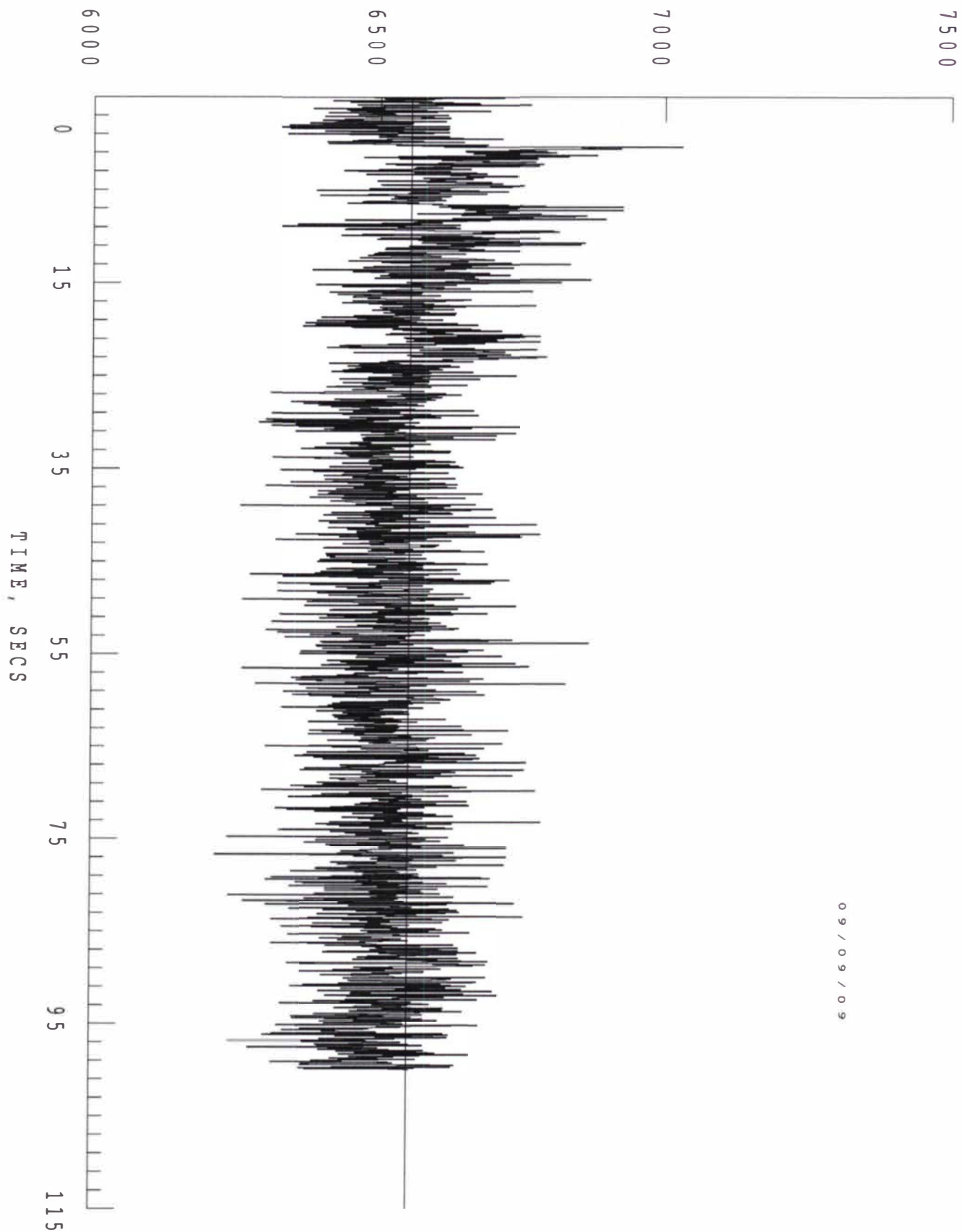
08/09/09

29439.581

B

100-10000 keV

COUNTS/0.050 S



09/09/09

From ipn-bounces@ssl.berkeley.edu Tue Sep 8 13:29:44 2009
 X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
 X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
 From: David Palmer <palmer@lanl.gov>
 To: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
 "R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
 IPN <ipn@ssl.berkeley.edu>
 Date: Tue, 8 Sep 2009 14:28:19 -0600
 Subject: [Ipn] Daily report 2009-09-038 BAT

 GBM 2009-09-04T13:57:17.130 not seen by BAT in rates. Very near
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 273765442.187 + -5.056 -> 2009-09-04T13:57:17.130
 Satellite zenith RA=134.03, dec=18.20, lat=18.16 N, lon=-58.98 E
 00090104002 2009-247-13:51:00 - 13:51:00 - 14:11:00 [135.647,
 52.149, 136.536] SDSS J090231+520749 (planned 2009247)
 243.83_-10.84: (theta,phi) = (1.9141, -2.5178); exposure = 0 cm² ; 2
 degrees above Earth limb

GBM 2009-09-08T08:10:39.810 seen in rates

274090244.878 + -5.067 -> 2009-09-08T08:10:39.810
 Satellite zenith RA=191.43, dec=-7.98, lat=-8.03 N, lon=81.37 E
 00361831007 2009-251-08:09:00 - 08:09:00 - 08:24:00 [264.161,
 -25.218, 280.504] GRB 090904B (planned 2009251)
 179.57_-26.21: (theta,phi) = (1.3029, -2.1407); exposure = 0 cm² ; 92
 degrees above Earth limb

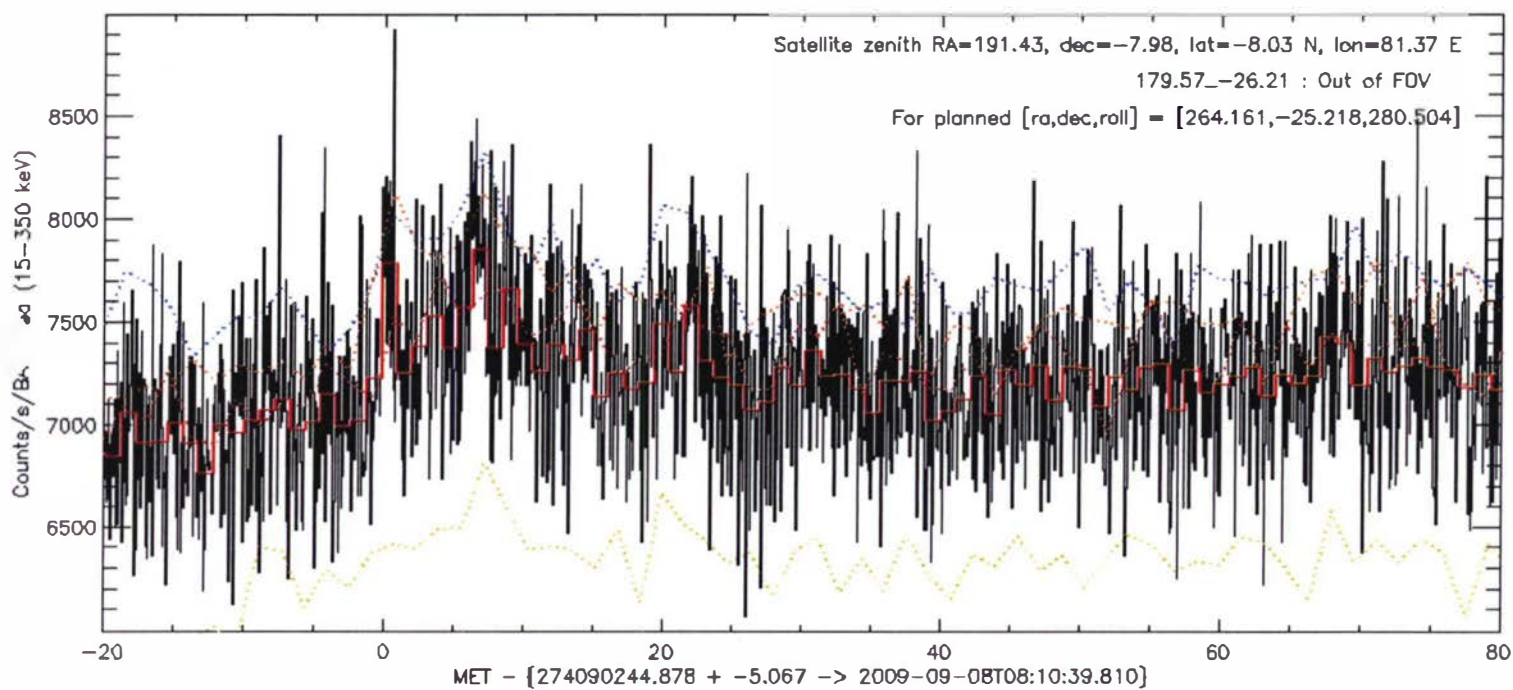
 274087917.158 + -5.067 -> 2009-09-08T07:31:52.090 nominally well below
 horizon. Not seen.
 Satellite zenith RA=46.32, dec=17.38, lat=17.42 N, lon=-54.01 E
 00361830007 2009-251-07:25:00 - 07:25:00 - 07:55:00 [100.906,
 50.207, 97.794] GRB 090904A (planned 2009251)
 273.11_1.08: (theta,phi) = (2.2389, -3.1040); exposure = 0 cm² ; 17
 degrees BELOW Earth limb

 GBM 2009-09-07T19:23:47.470 nominally well below horizon. In SAA, not
 seen.

274044232.536 + -5.066 -> 2009-09-07T19:23:47.470
 Satellite zenith RA=206.51, dec=-11.65, lat=-11.70 N, lon=-71.31 E
 00074206007 2009-250-19:19:00 - 19:19:00 - 19:49:00 [227.761,
 -15.000, 284.222] saa-cold-250-15 (planned 2009250)
 67.97_20.05: (theta,phi) = (2.7942, -1.5117); exposure = 0 cm² ; 25
 degrees BELOW Earth limb

 M 2009-09-07T00:24:09.720 not obvious in BAT, but it was during the
 approach to the SAA (50 kCounts ~7x normal background)

273975854.784 + -5.063 -> 2009-09-07T00:24:09.720
 Satellite zenith RA=271.51, dec=-20.52, lat=-20.52 N, lon=-80.61 E



B

01/10/09

MESSENGER

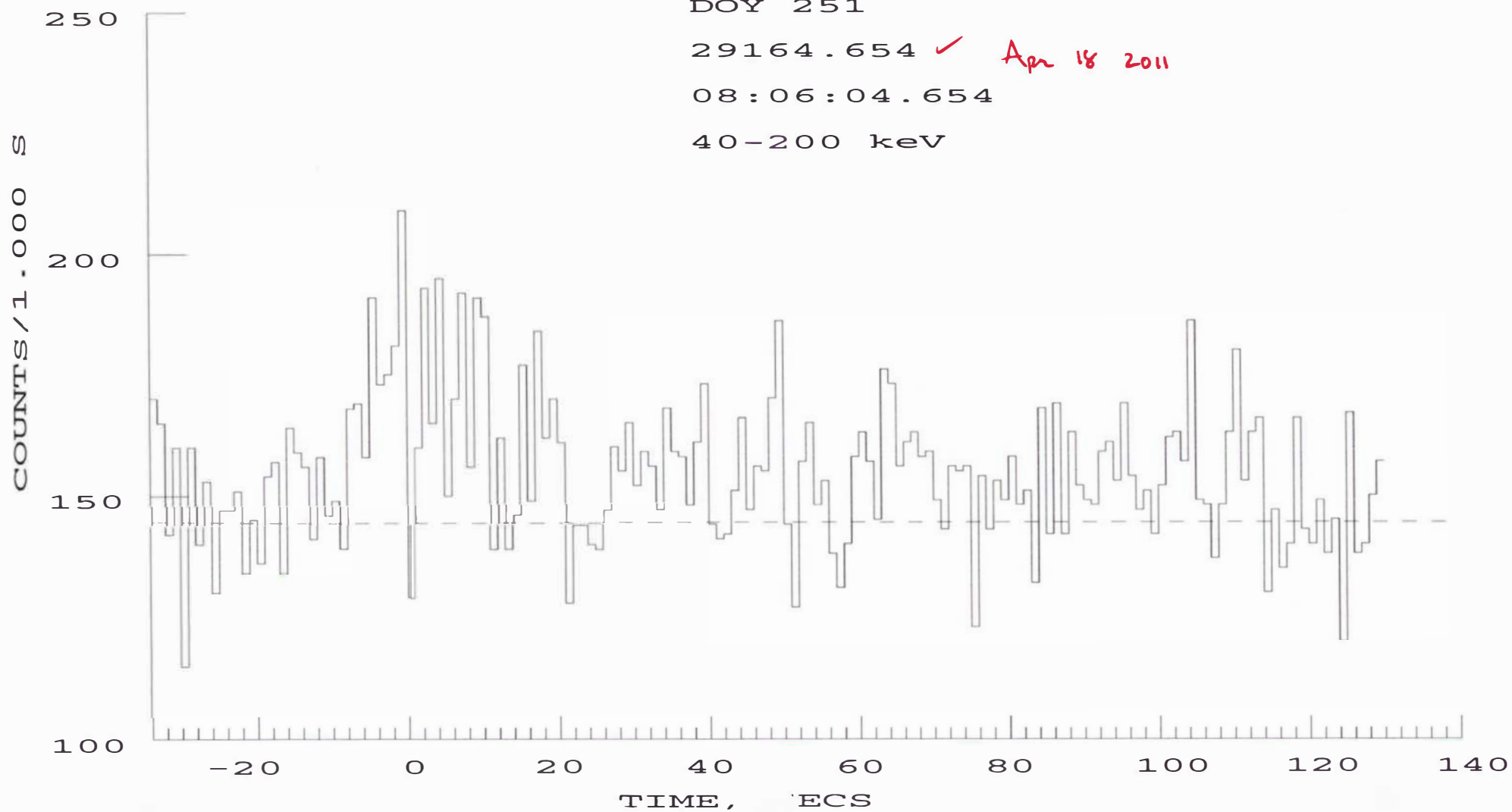
08/09/09

DOY 251

29164.654 ✓ Apr 18 2011

08:06:04.654

40-200 keV



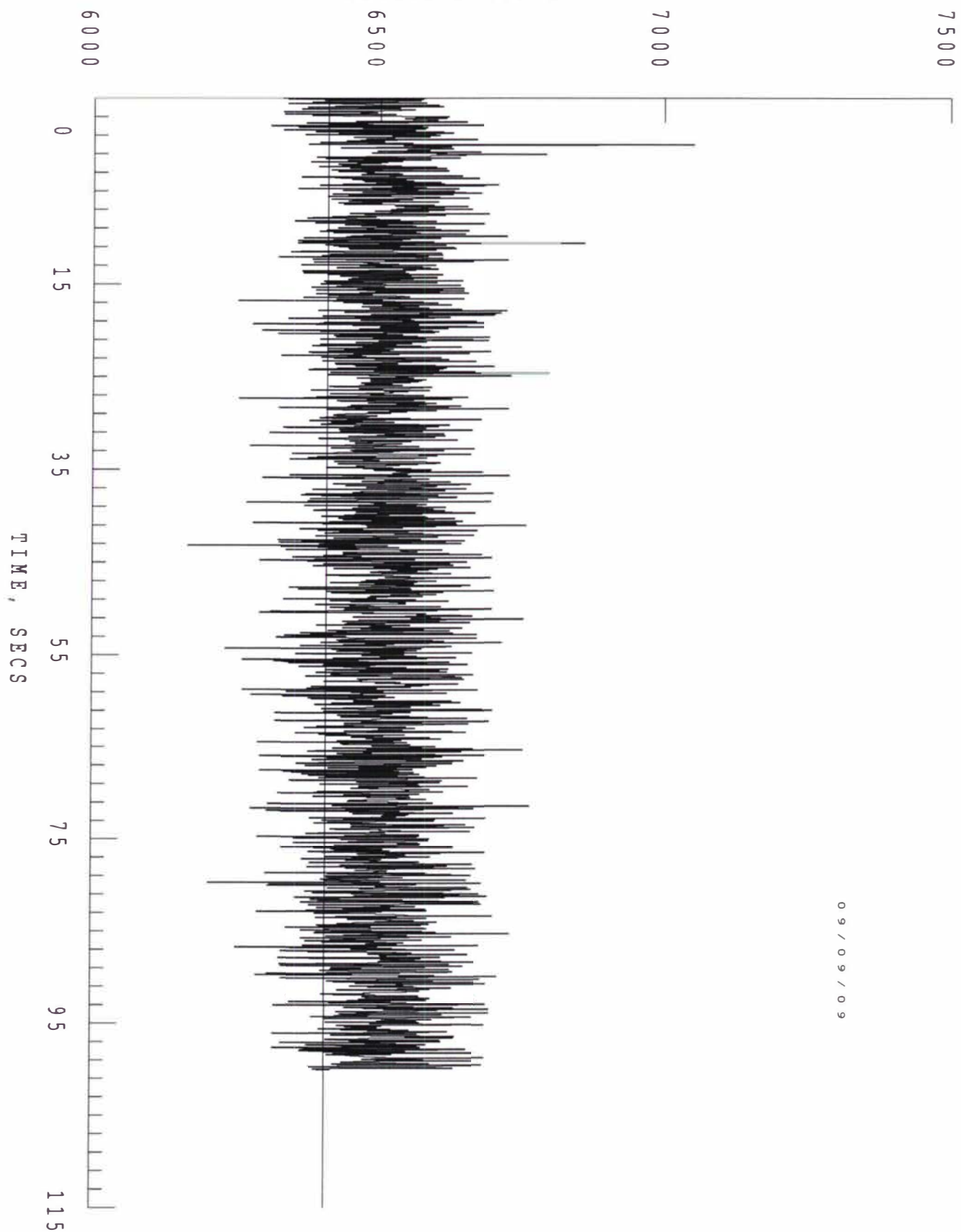
INTEGRAL

08/09/09

50805.456

100-10000 keV

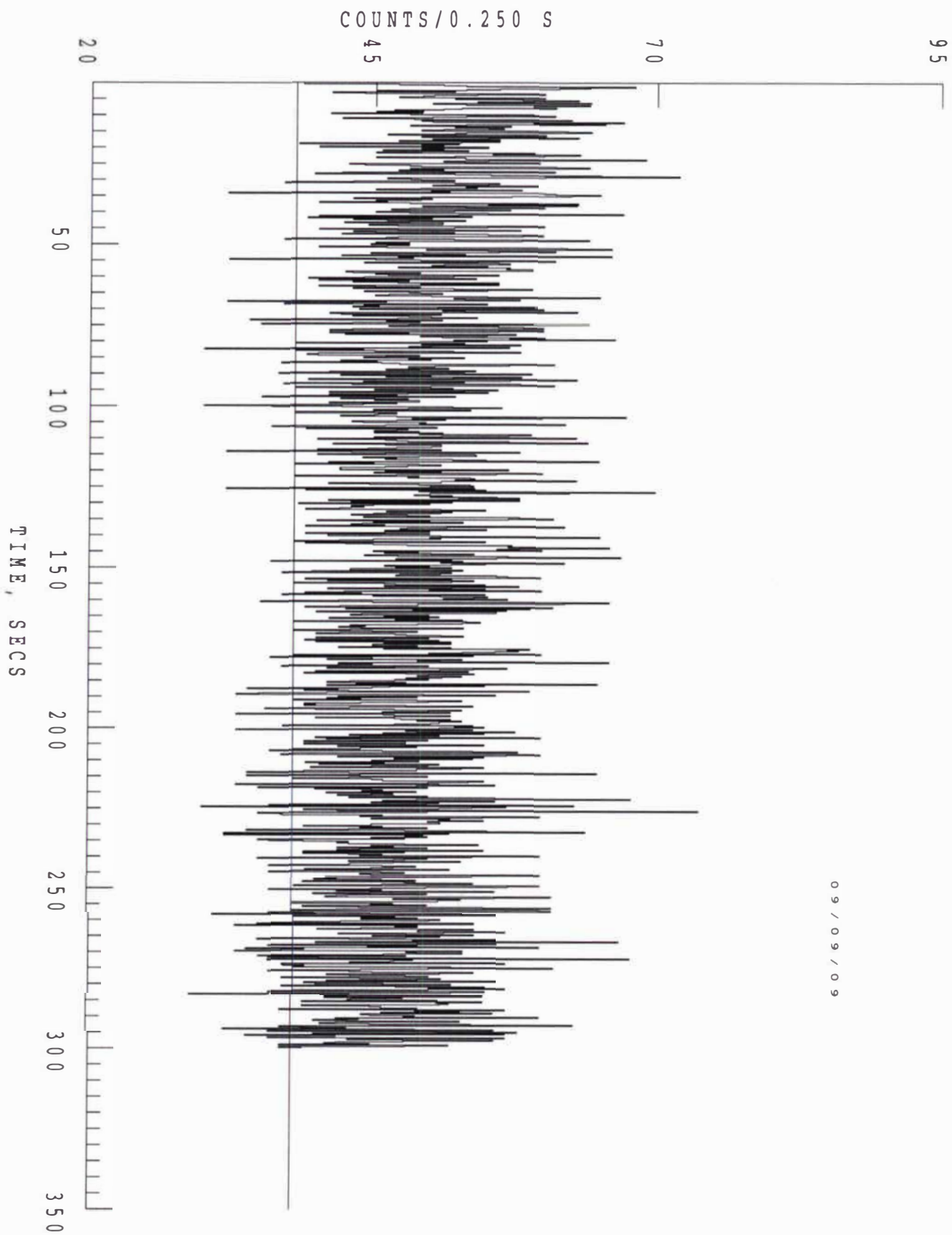
COUNTS/0.050 S



HESSI

08/09/09 50655.000 (INTEGRAL_20090908_50805)

25- 150 keV



Date: Jul 26 2017

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009, and July 1 – August 20, 2012 – leap sec.)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/scik/timekeeping/OPS_TIME_ENGR.txt)?
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

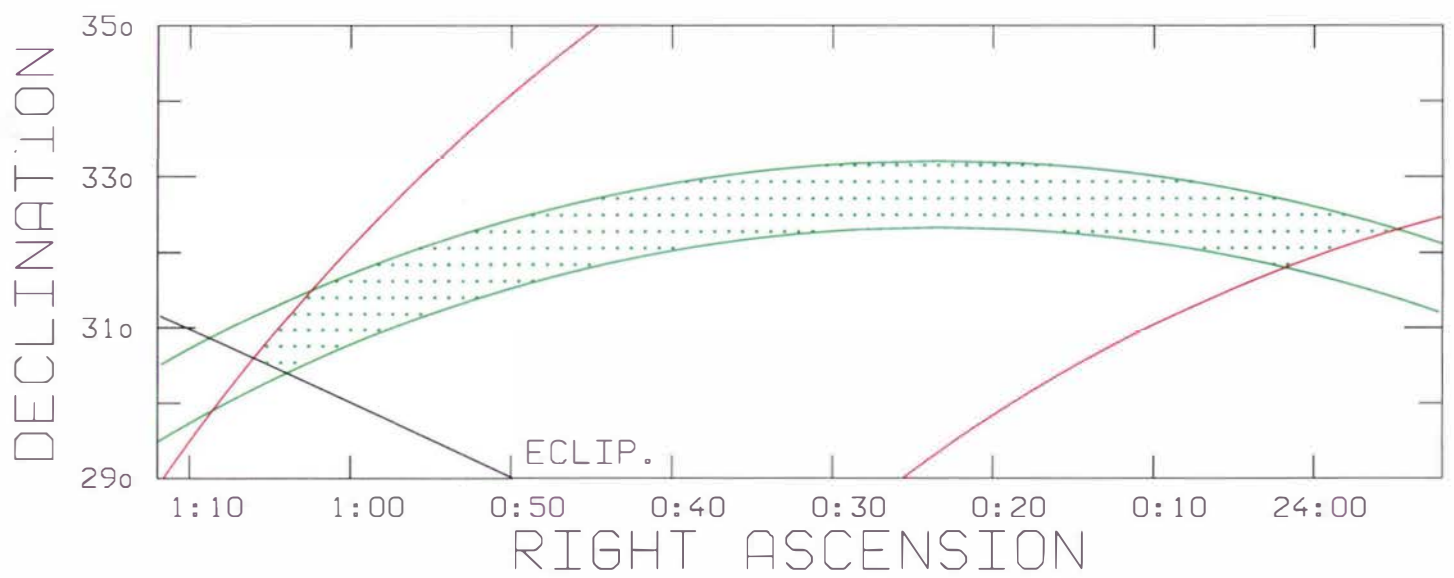
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☒ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?
- ☐ Hand-extracted data used (record starts at -30.000 s)?
- ☐ Volodymyr's website checked ? (<http://isdc.unige.ch/~savchenk/spiacs-online/spiacs-ipnlc.pl>)

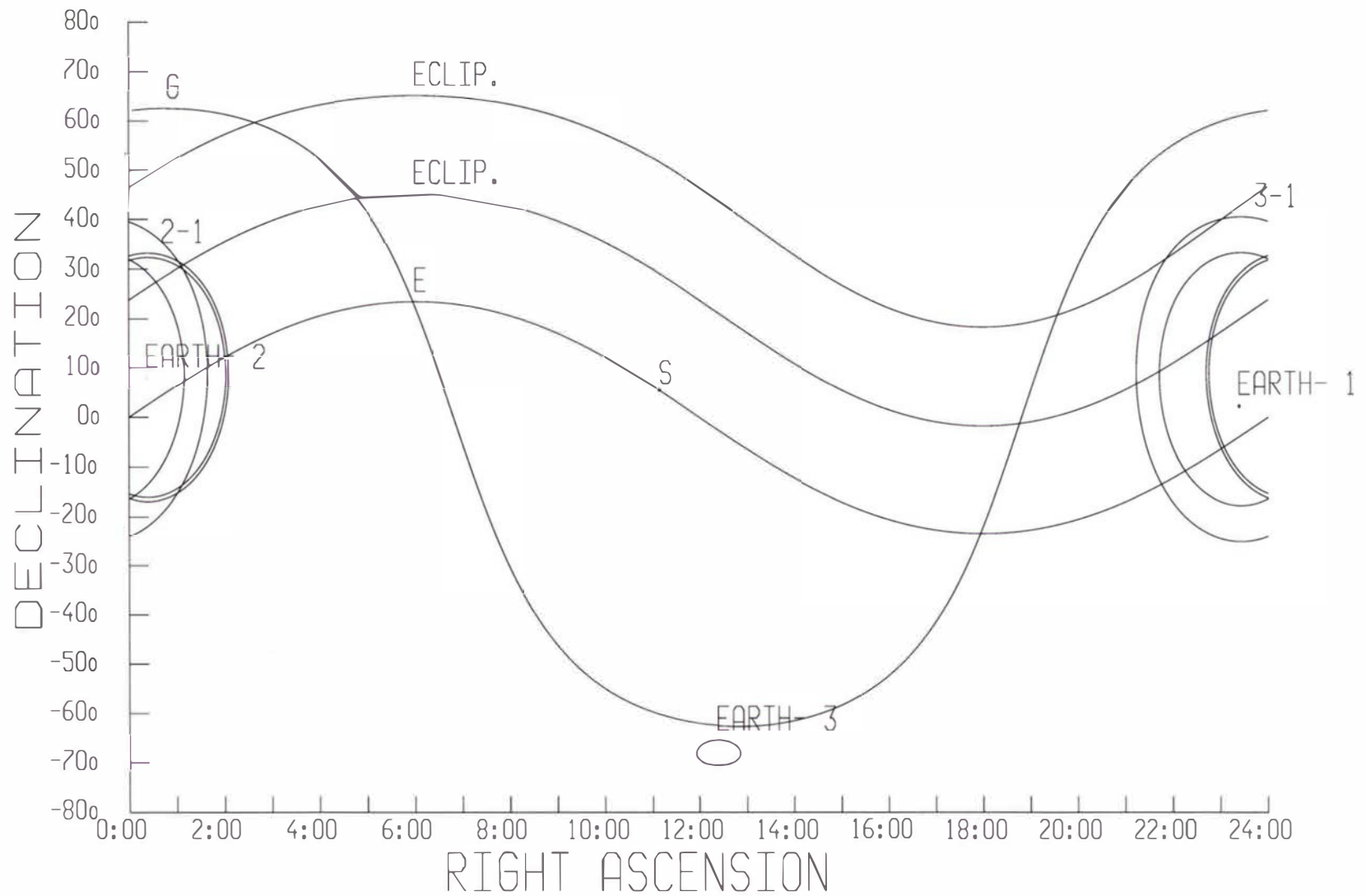
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

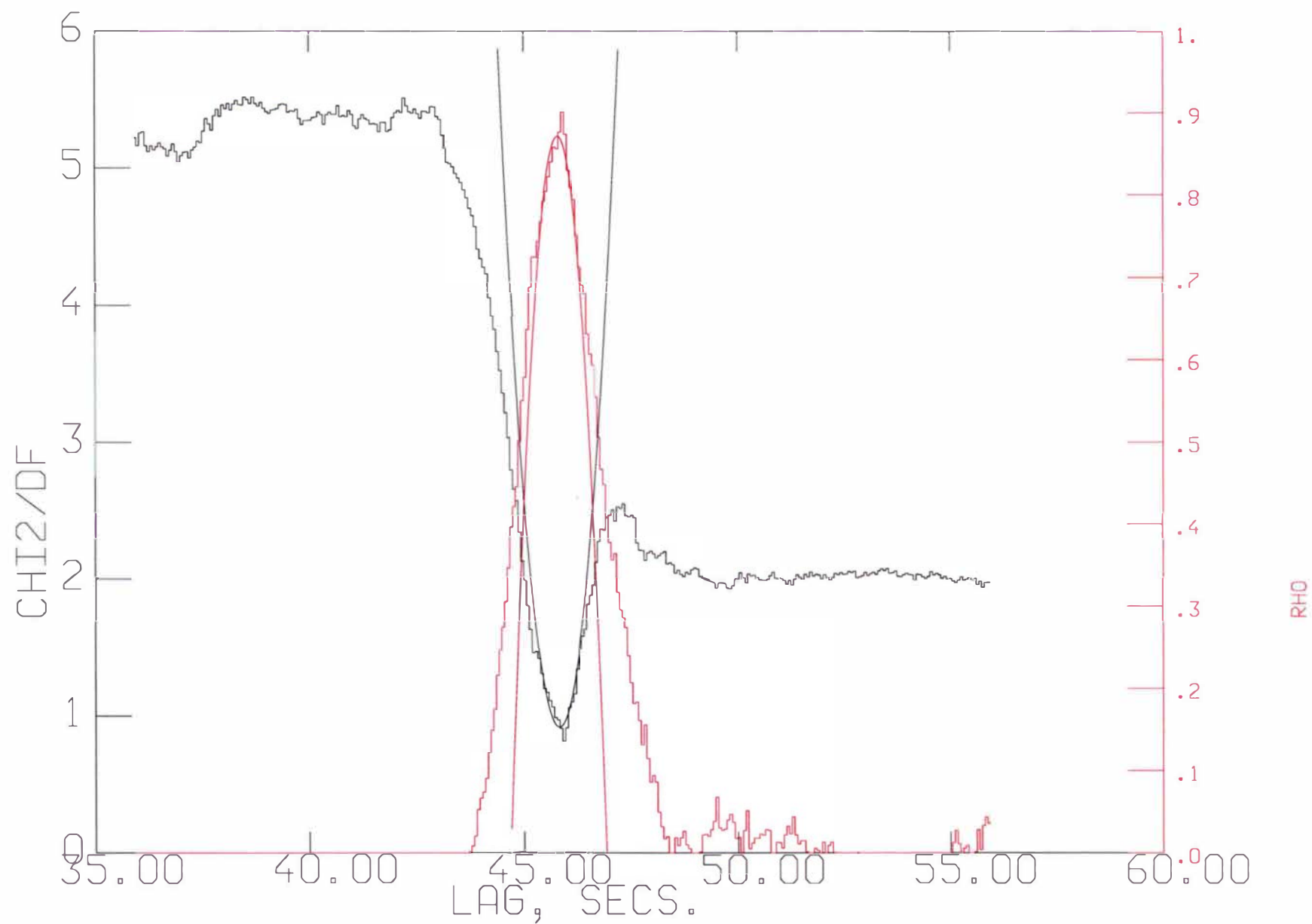


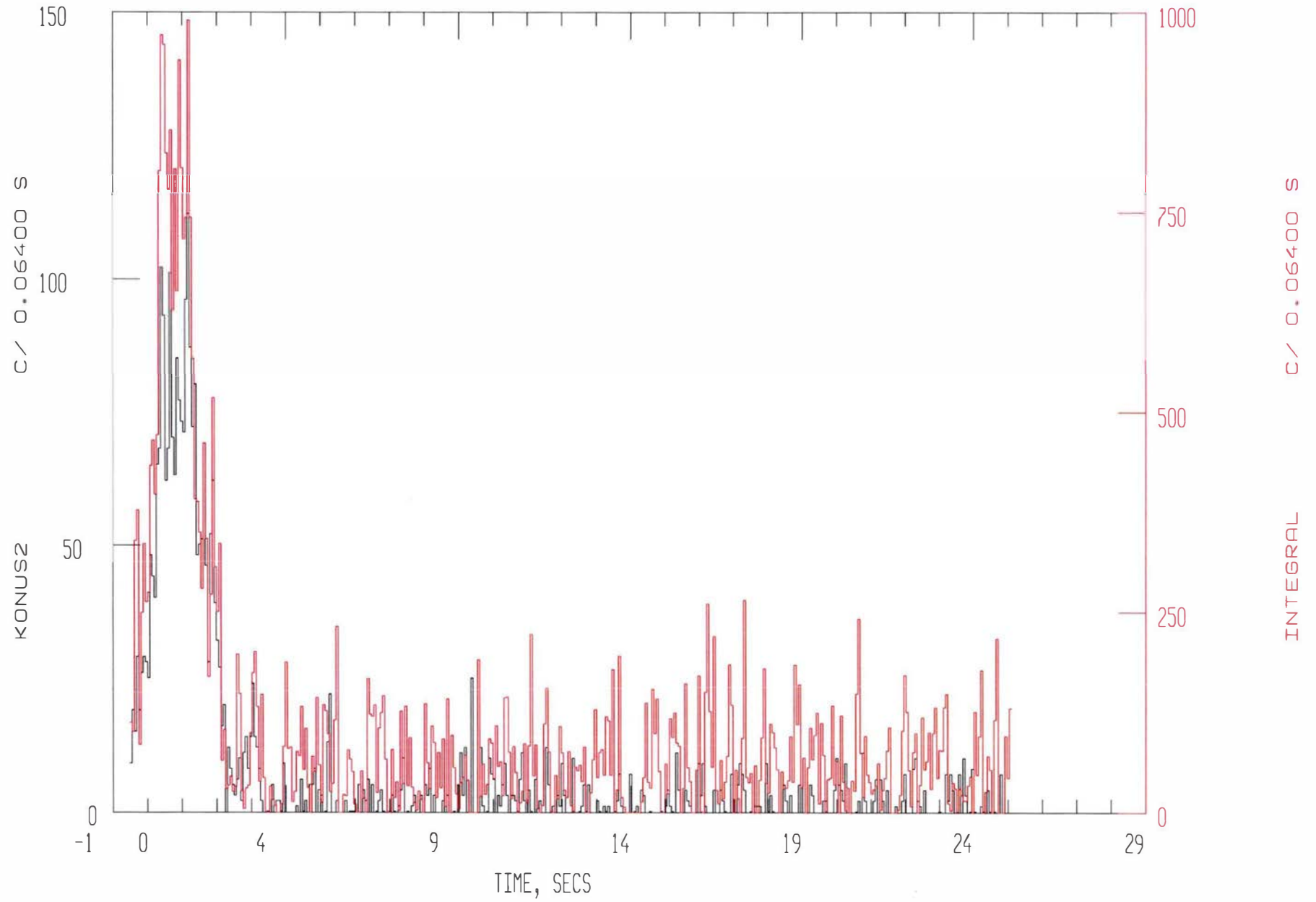
EVENT OF SEP 8, 2009 14:31

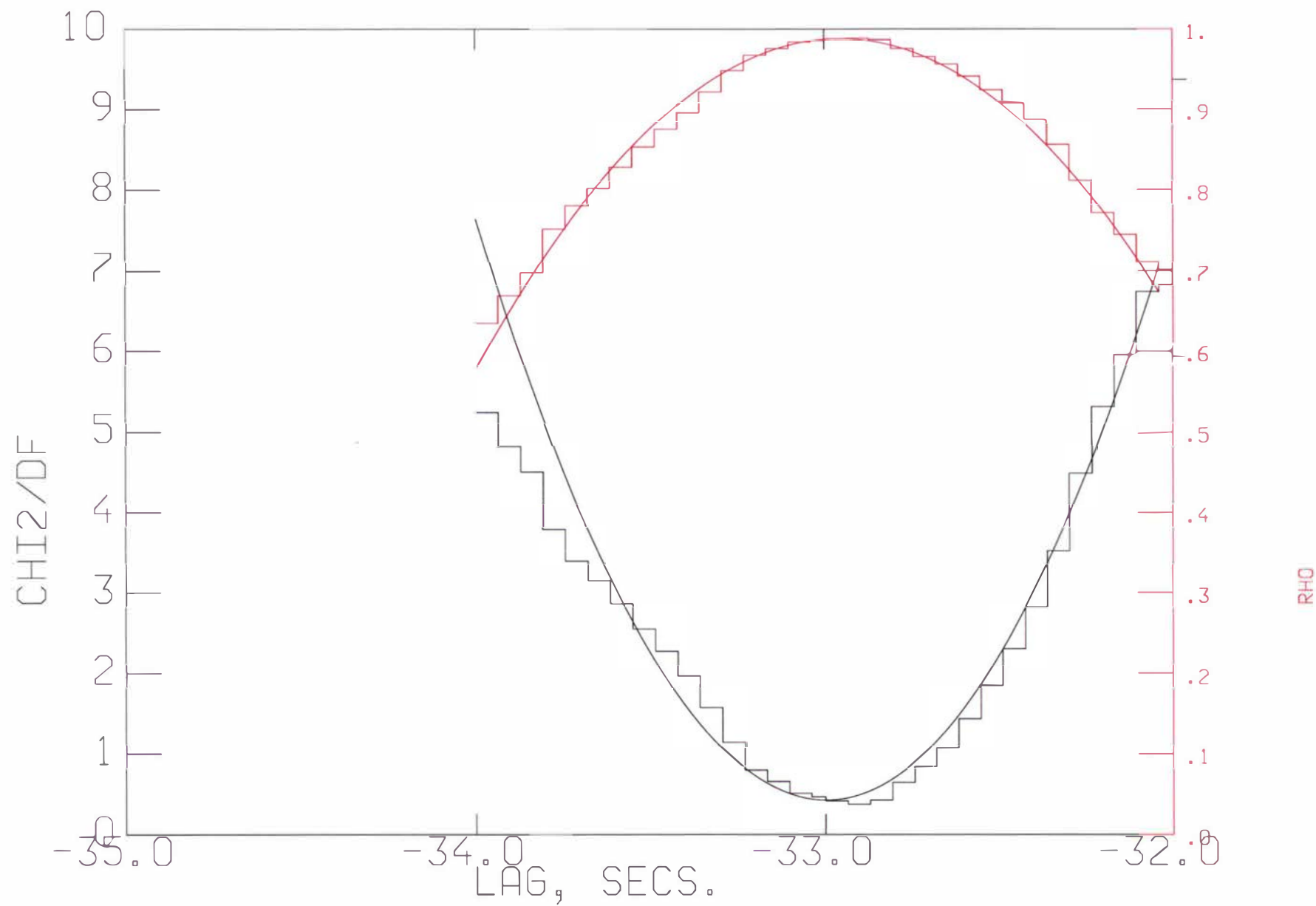
26/07/2017

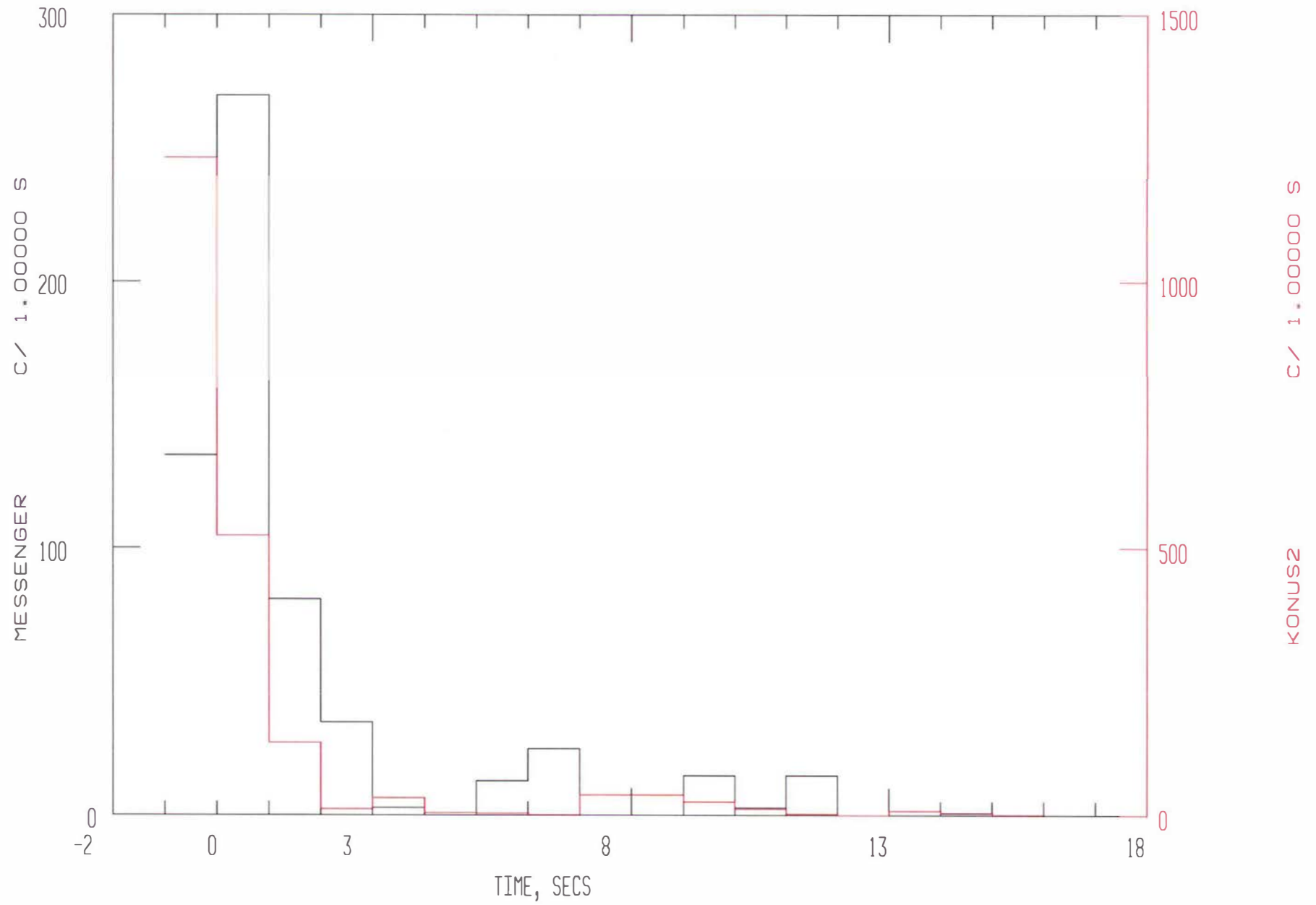
N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS2 2 MESSENGER 3 INTEGRAL

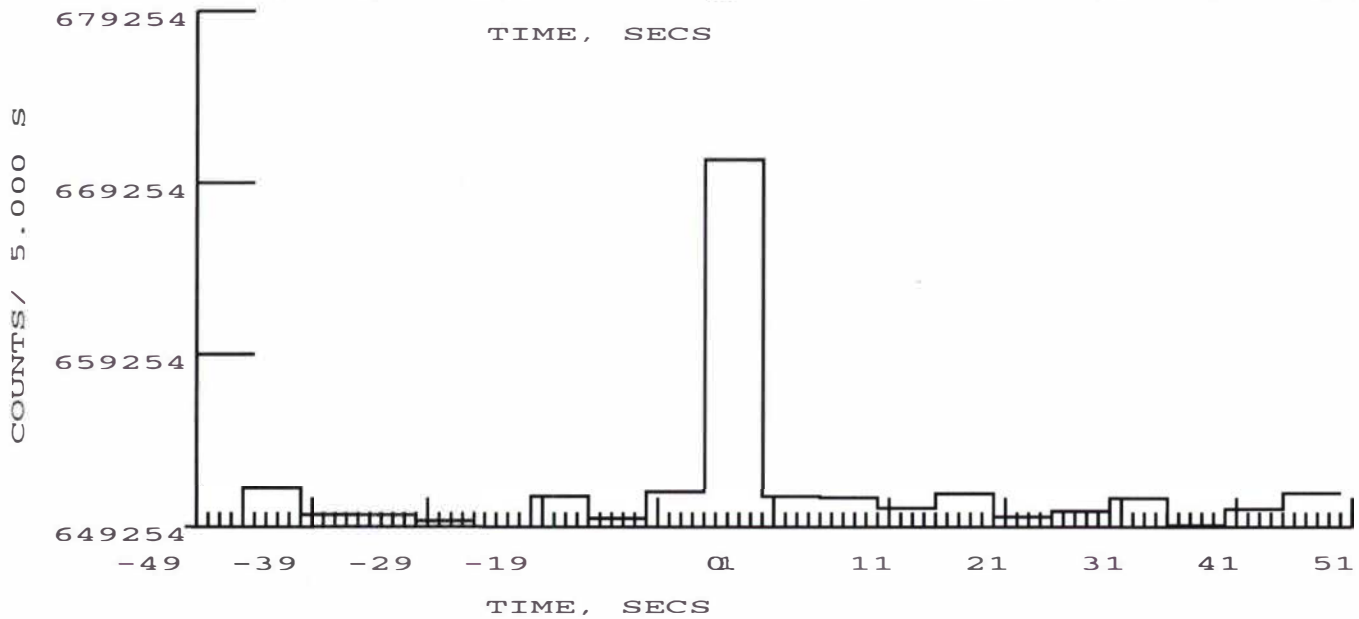
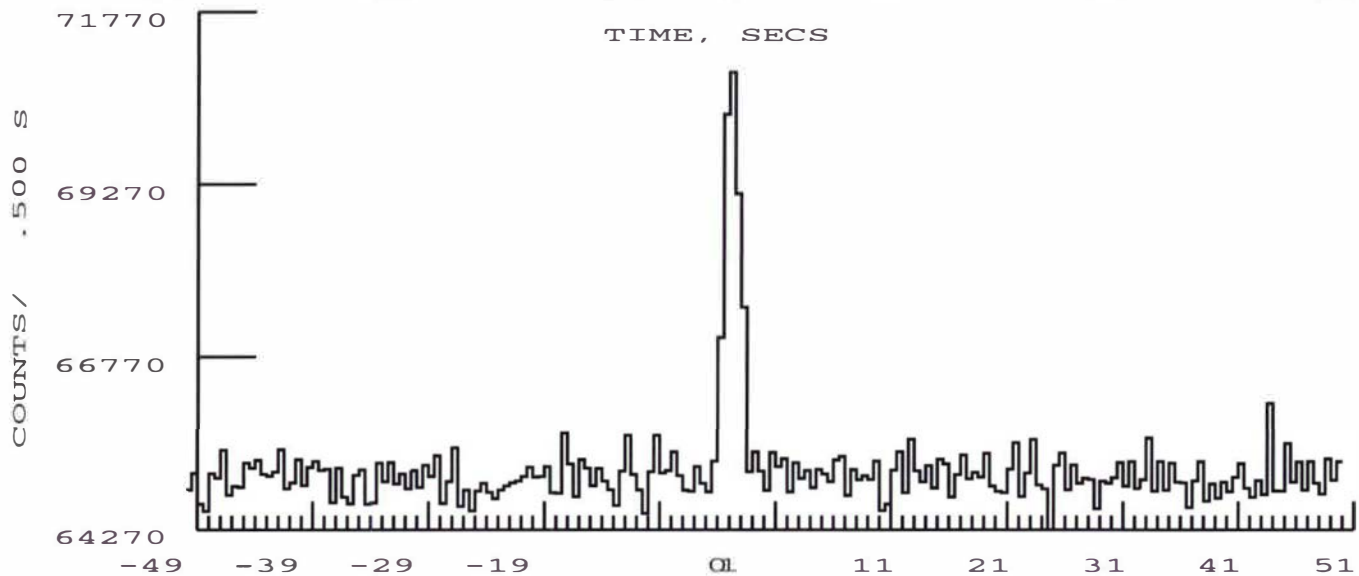
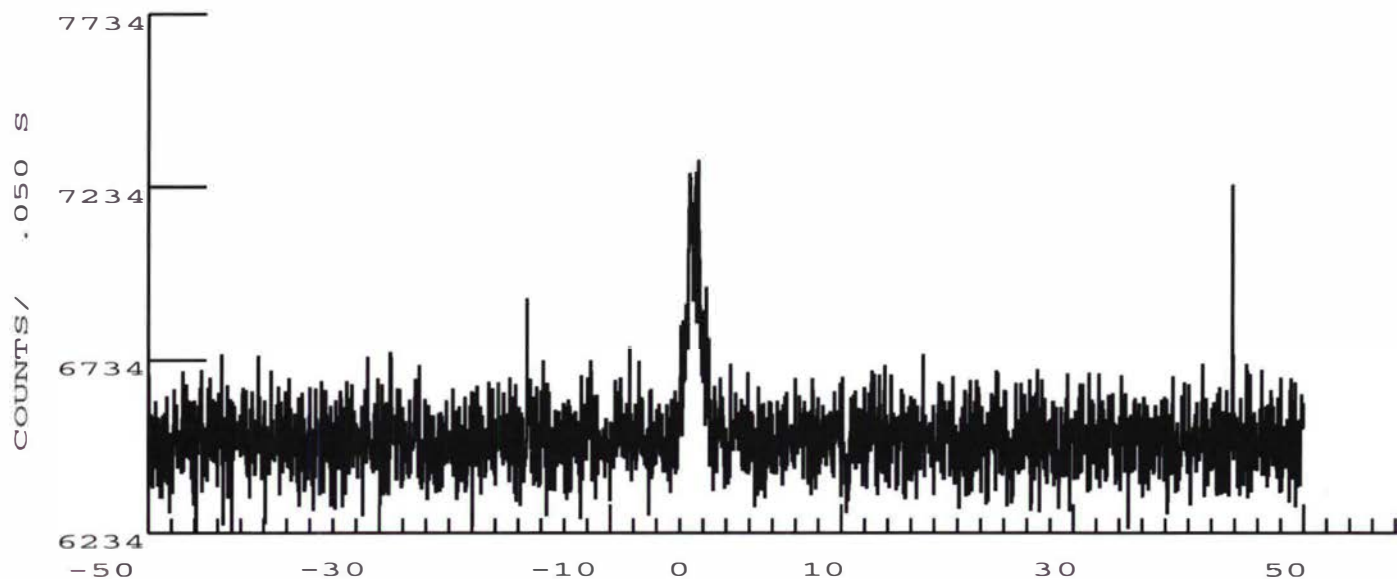












KONUS2

08/09/09

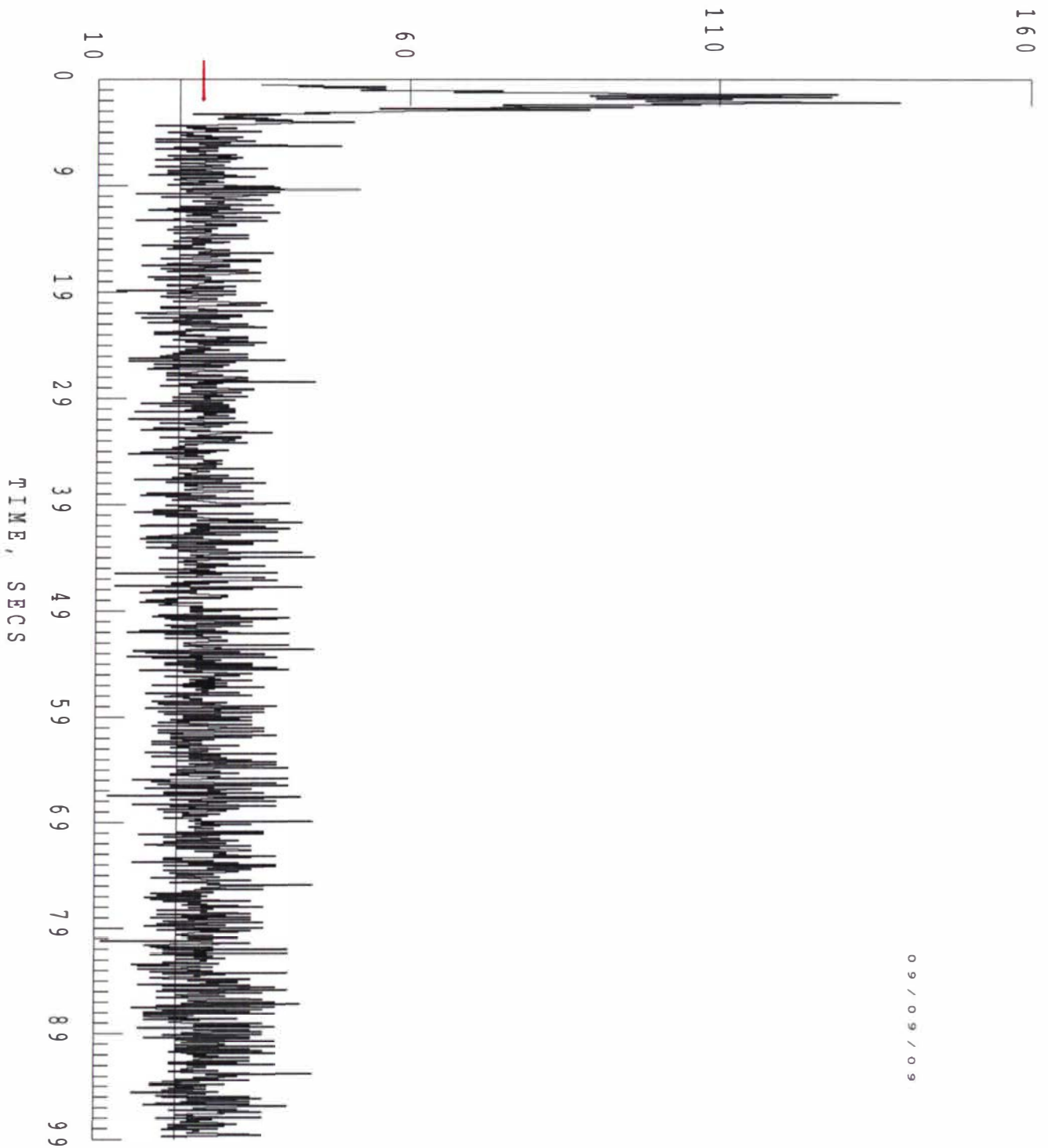
52290.350

C

50 - 200 keV

14:31:30

COUNTS/0.064 S



KONUS HRES 20090908 52290

TRIGGER TIME: 08/09/09 DOY 251 Julian 2455084.10521 UT = 14.525 14:31:30 (52290.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

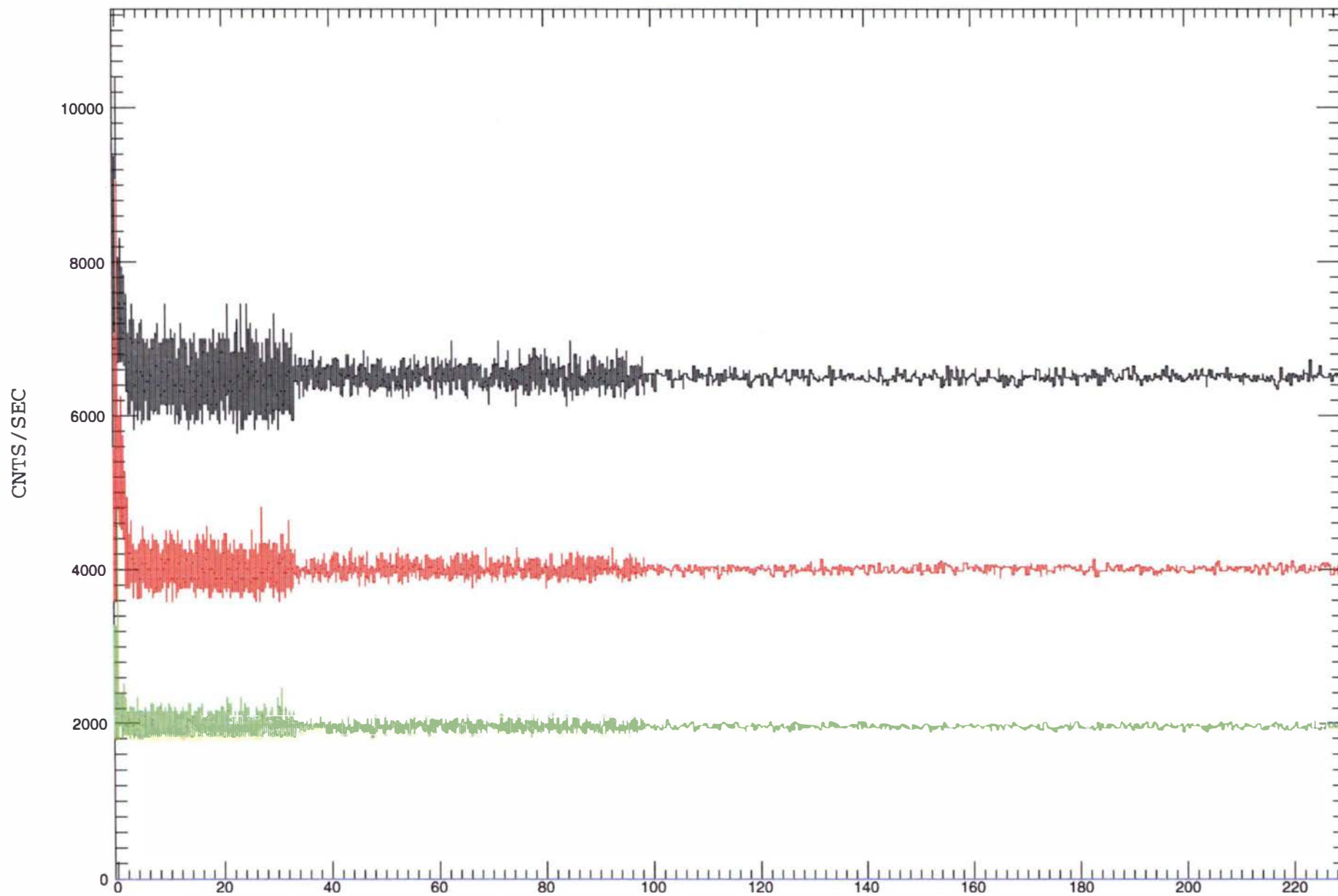
Chan 4 : [> 10 MeV]

Channel 1 + 5400

Channel 2 + 3600

Channel 3 + 1800

Channel 4 + 0



SECONDS

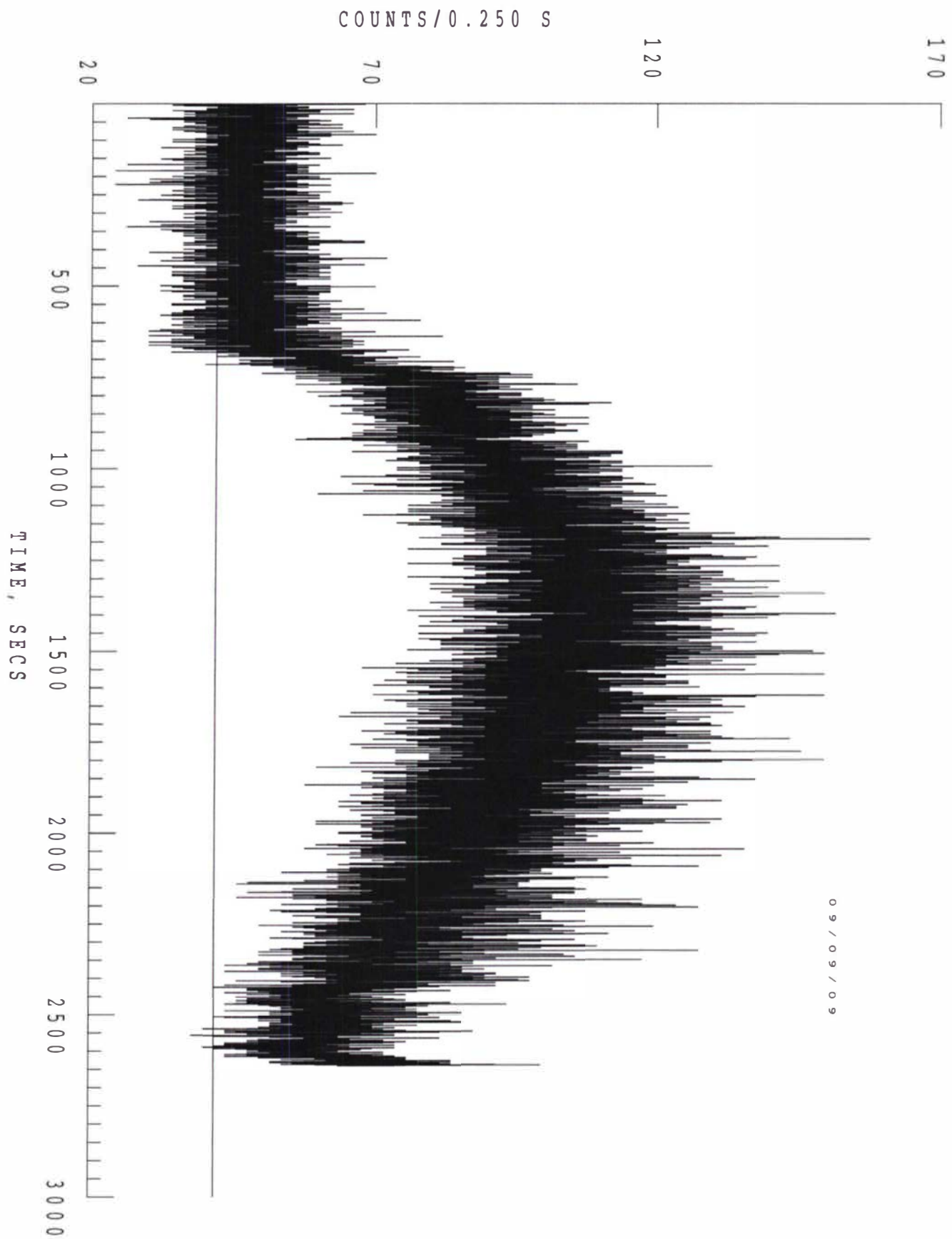
MS01

08/09/09

50939.094

C

50 - 3000 keV

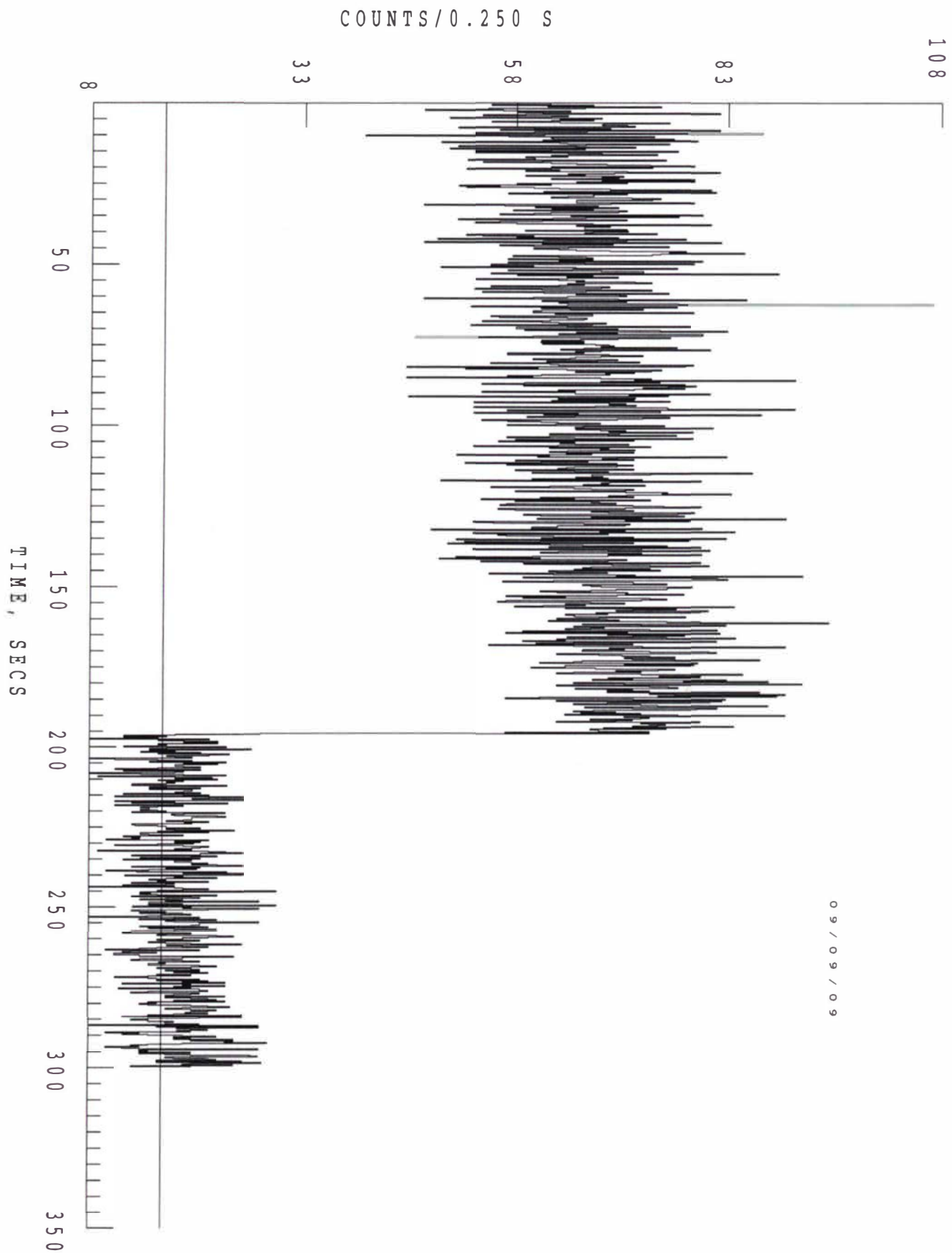


HESSI

08/09/09 52134.000 (INTEGRAL_20090908_52284)

C

25- 150 keV



INTEGRAL

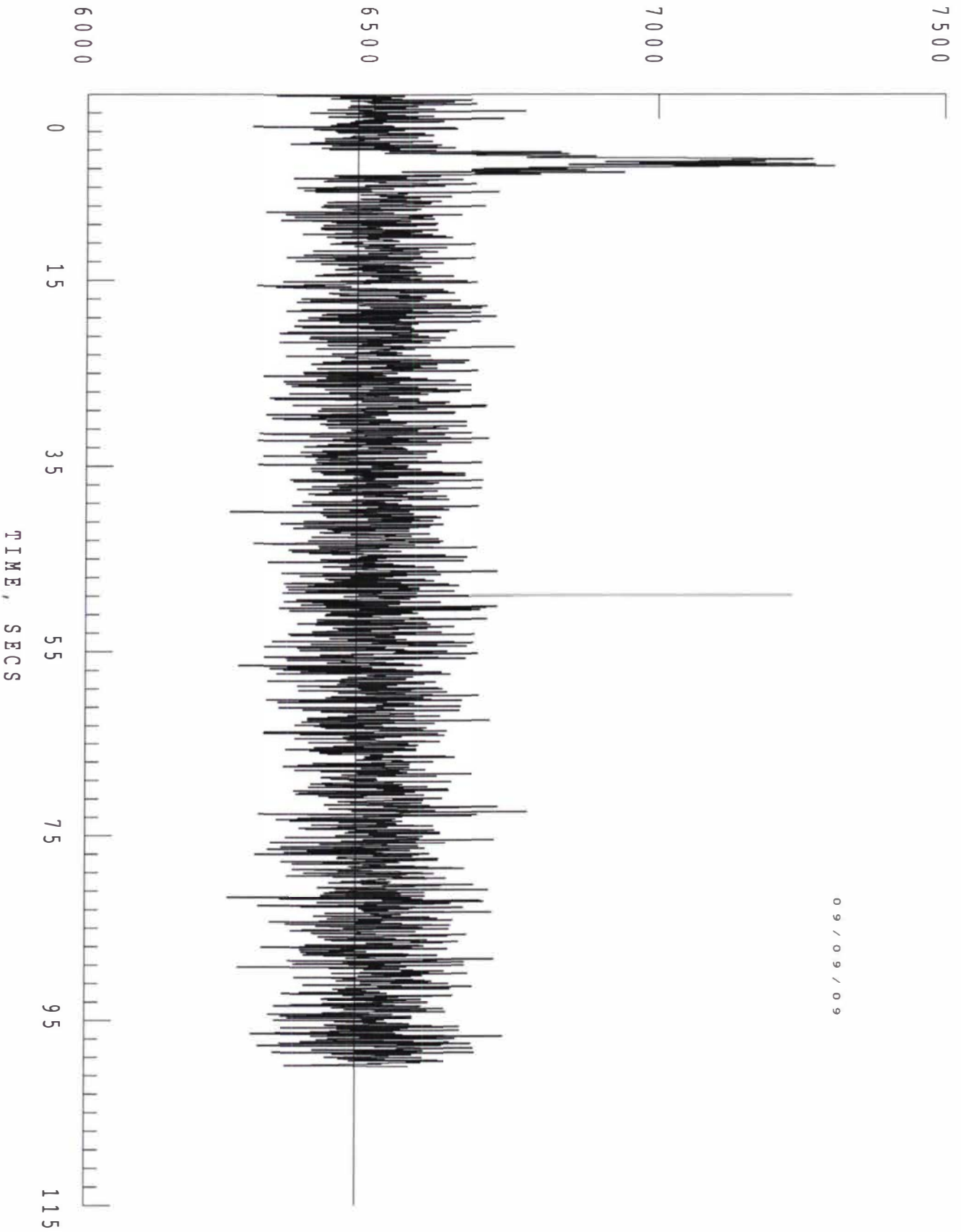
08/09/09

52284.857

C

100-10000 keV

COUNTS/0.050 S



09/09/09

c

From ipn-bounces@ssl.berkeley.edu Wed Sep 9 09:32:43 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 09 Sep 2009 12:33:19 -0400
From: Hans Krimm <hans.krimm@nasa.gov>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] A 2.5 s long GRB detected by Suzaku WAM on Sep. 8

Dear Kazu:

Swift was in the SAA at this time.

Best wishes,
Hans

Kazutaka Yamaoka wrote:

> Dear IPNers,
>
> A 2.5s-long GRB triggered the Suzaku WAM on
> 2009-09-08 14:31:26.869.
> Attached is the WAM light curve in the 50-5000 keV range.
>
> This burst was also detected by INTEGRAL SPI-ACS.
> Any other detections ?
>
> Best wishes,
> Kazu
> on behalf of the Suzaku WAM team
>

--
Dr. Hans A. Krimm
Universities Space Research Association
CRESST and NASA Goddard Space Flight Center
Code 661, ASD
Greenbelt, MD 20771
USA
301-286-6955
fax 301-286-1684

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

C

01/10/09

MESSENGER

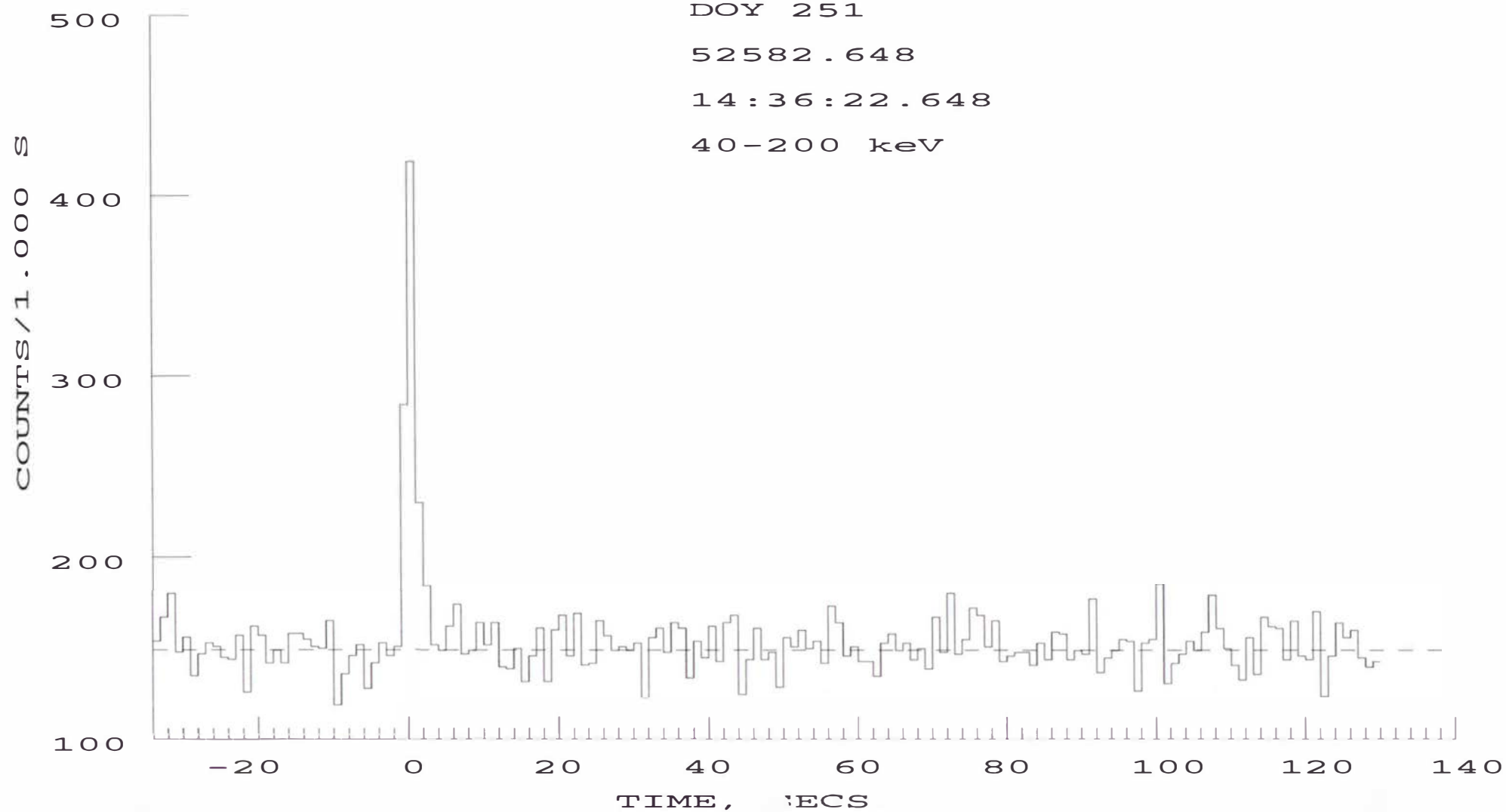
08/09/09

DOY 251

52582.648

14:36:22.648

40-200 keV



SUZAKU

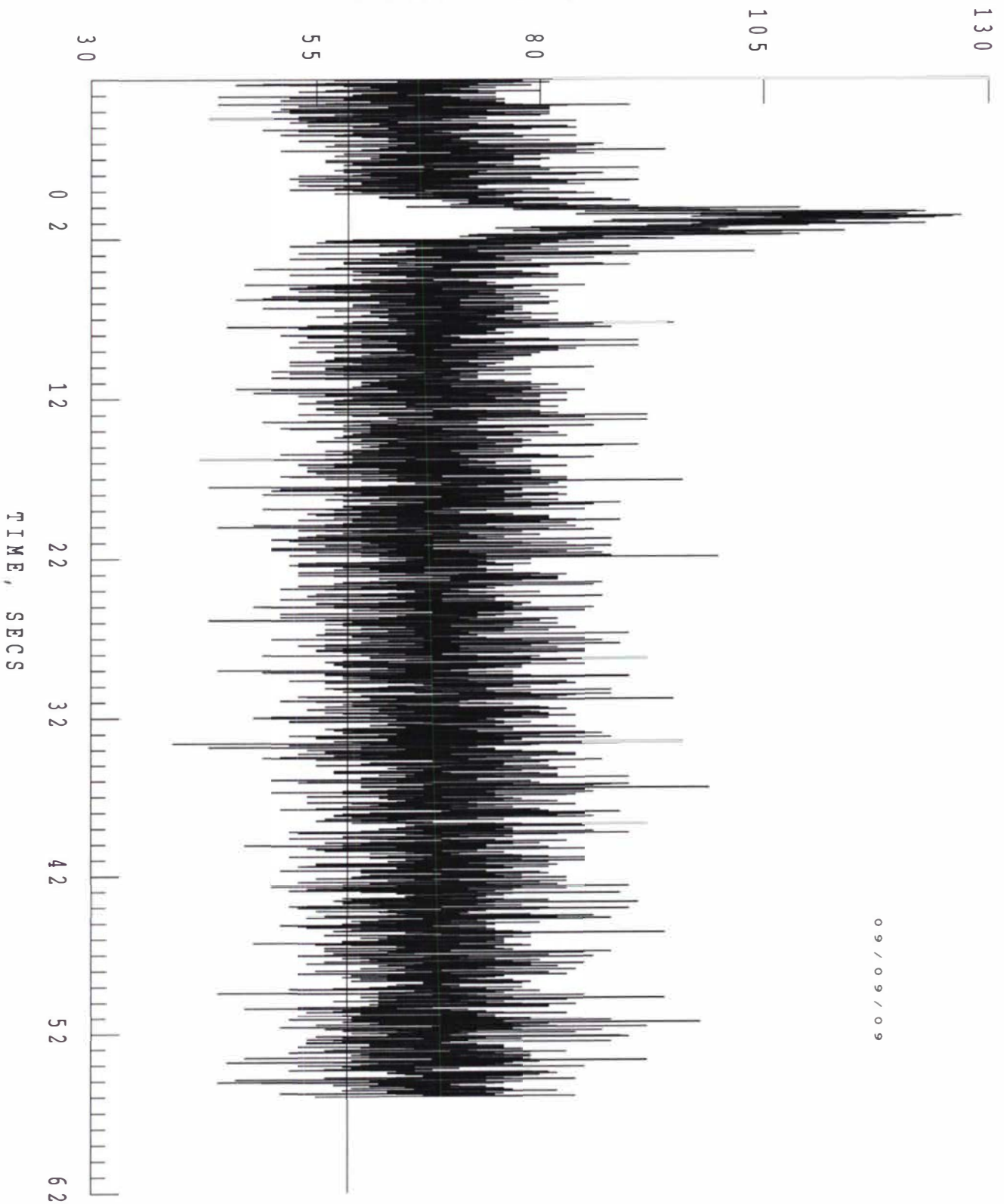
08/09/09

52286.870

50 - 240 keV

C

COUNTS/0.016 S



C

From ipn-bounces@ssl.berkeley.edu Wed Sep 9 09:15:55 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 9 Sep 2009 18:16:28 +0200
From: sa.grb@iasf-roma.inaf.it
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: ipn@ssl.berkeley.edu, sagile@iasf-roma.inaf.it
Subject: Re: [Ipn] A 2.5 s long GRB detected by Suzaku WAM on Sep. 8

Dear Kazu,

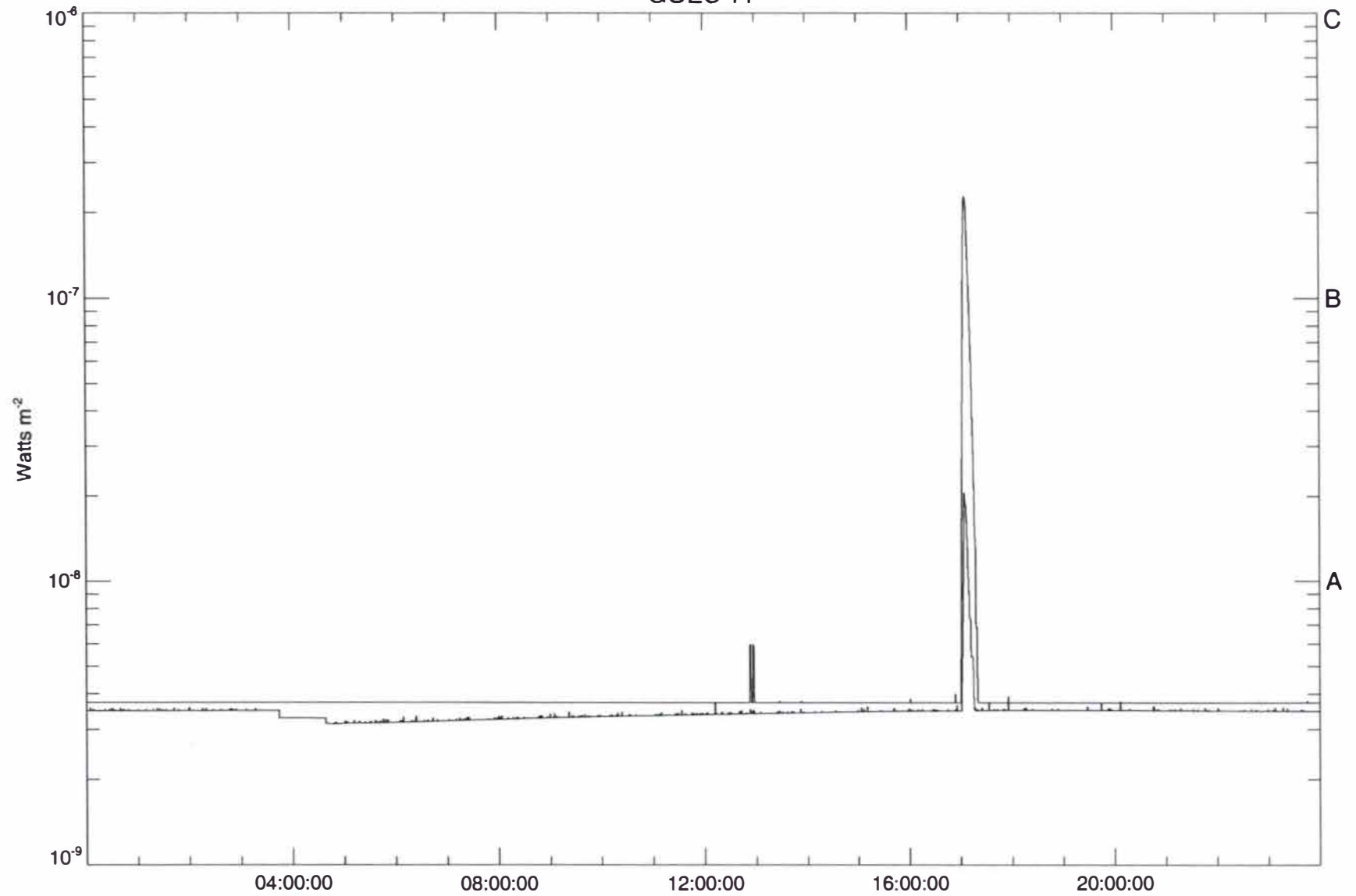
the burst was not detected by SuperAGILE, while pointed toward
RA=253.8, dec=-35.7 .

Cheers
Ettore
on behalf of the SuperAGILE team

>
> Dear IPNers,
>
> A 2.5s-long GRB triggered the Suzaku WAM on
> 2009-09-08 14:31:26.869.
> Attached is the WAM light curve in the 50-5000 keV range.
>
> This burst was also detected by INTEGRAL SPI-ACS.
> Any other detections ?
>
> Best wishes,
> Kazu
> on behalf of the Suzaku WAM team

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

GOES 11



Data Start: 09/09/08, 0000:13

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Plot created: 09/09/11, 0818

Sample average = 10

GLAST

09/09/09

42077.179

A

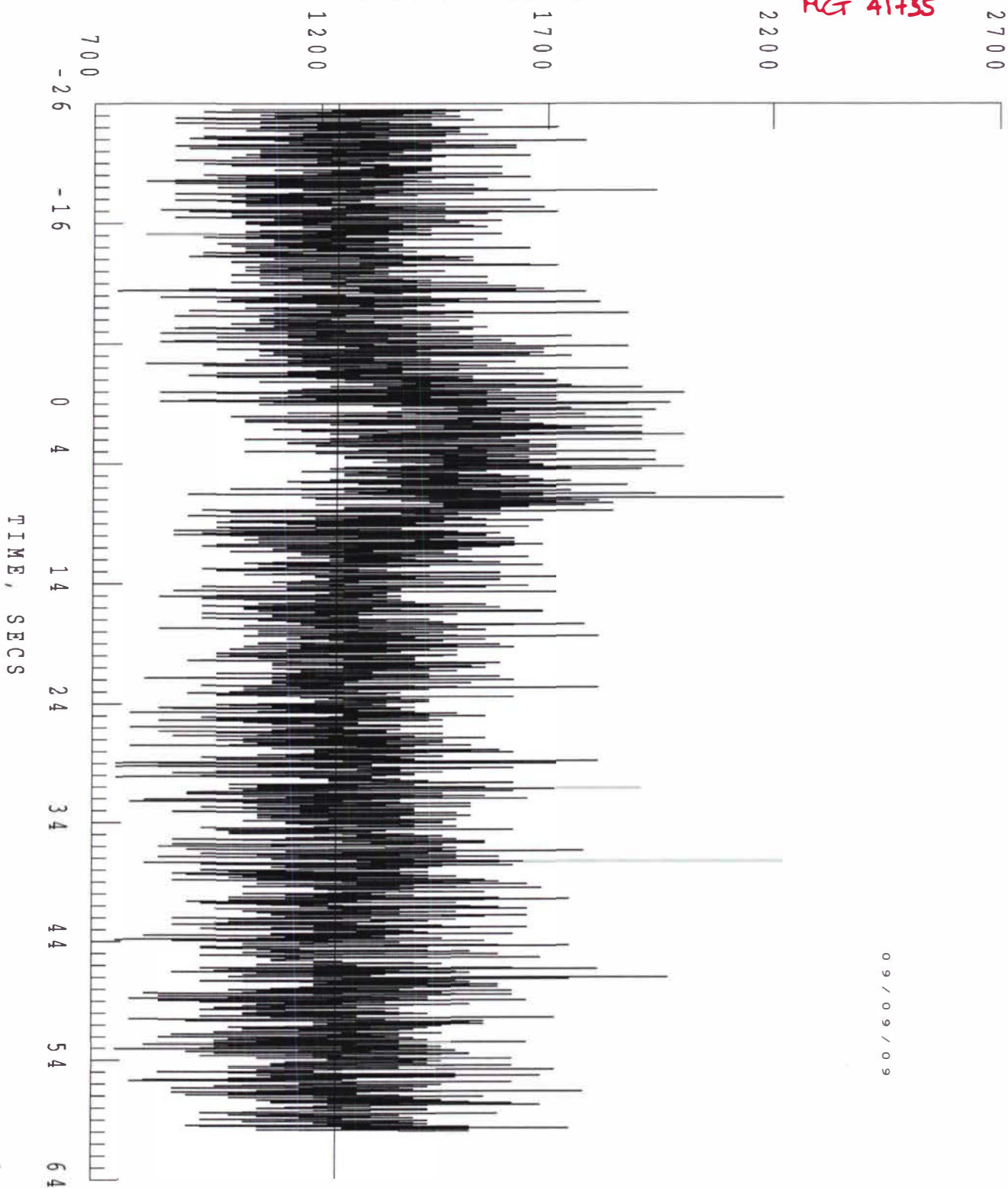
26 - 293 keV

11:41:17

22.17, +59.69

MCT 41735

COUNTS/0.032 S



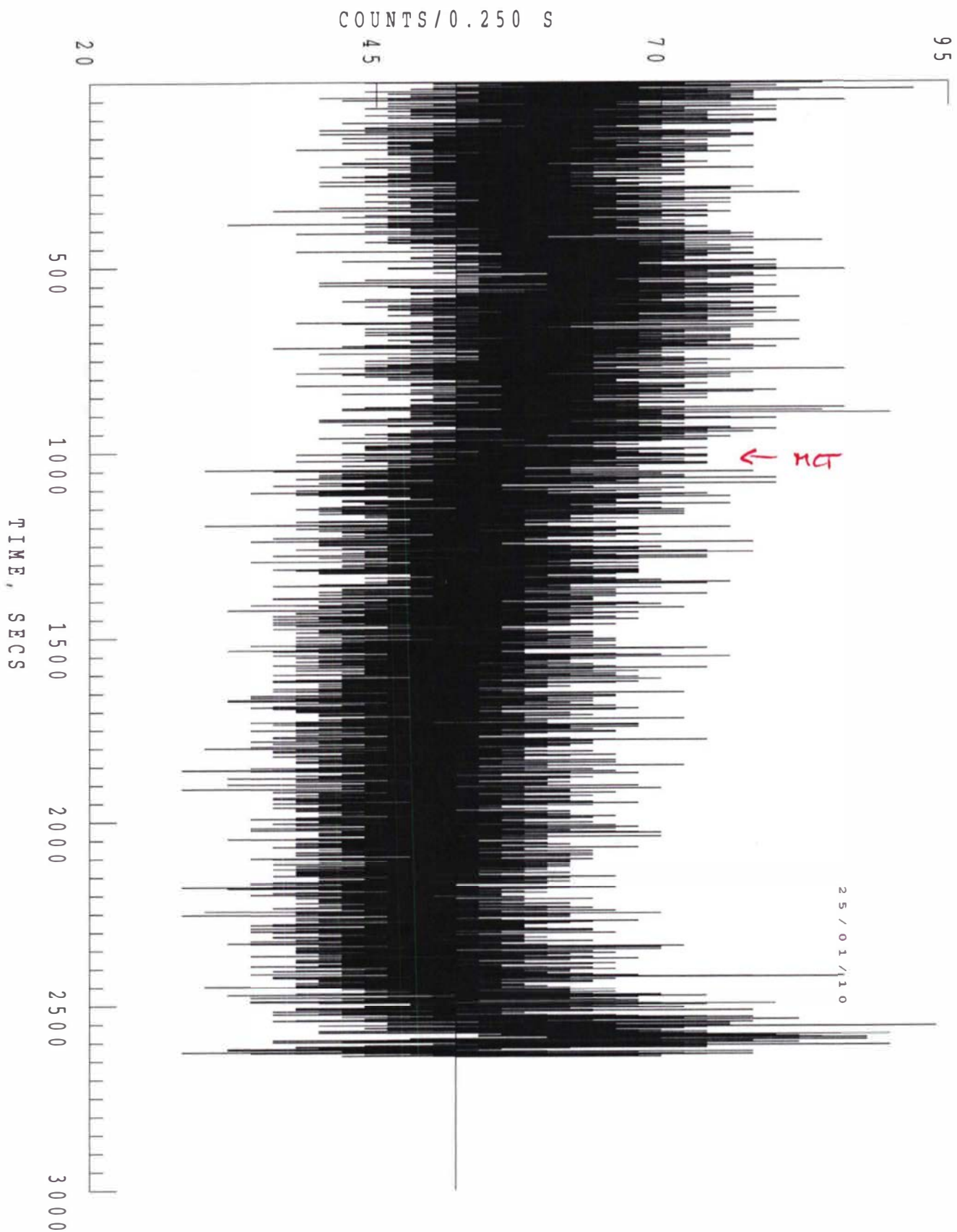
A

MS01

09/09/09

40735.945

50 - 3000 keV

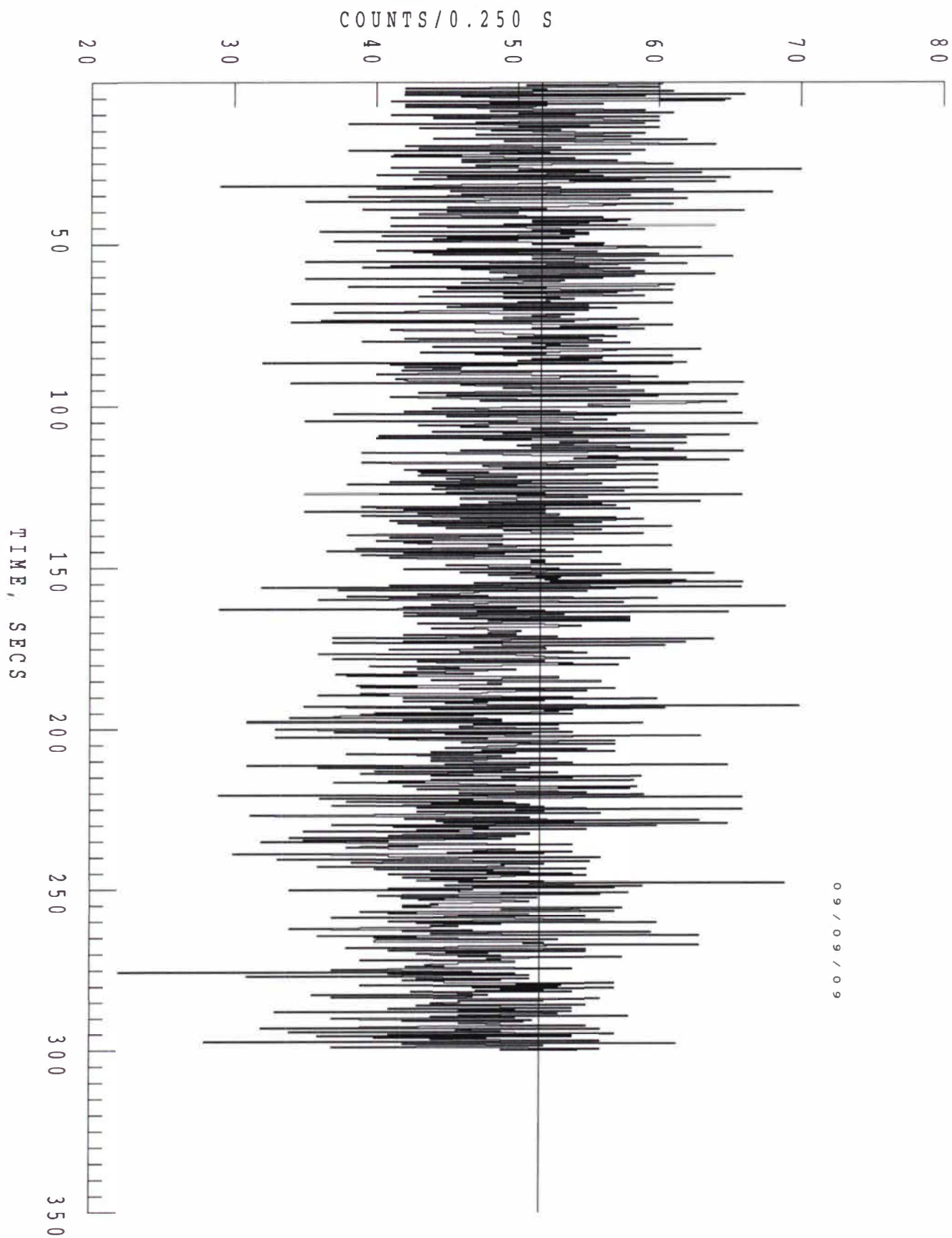


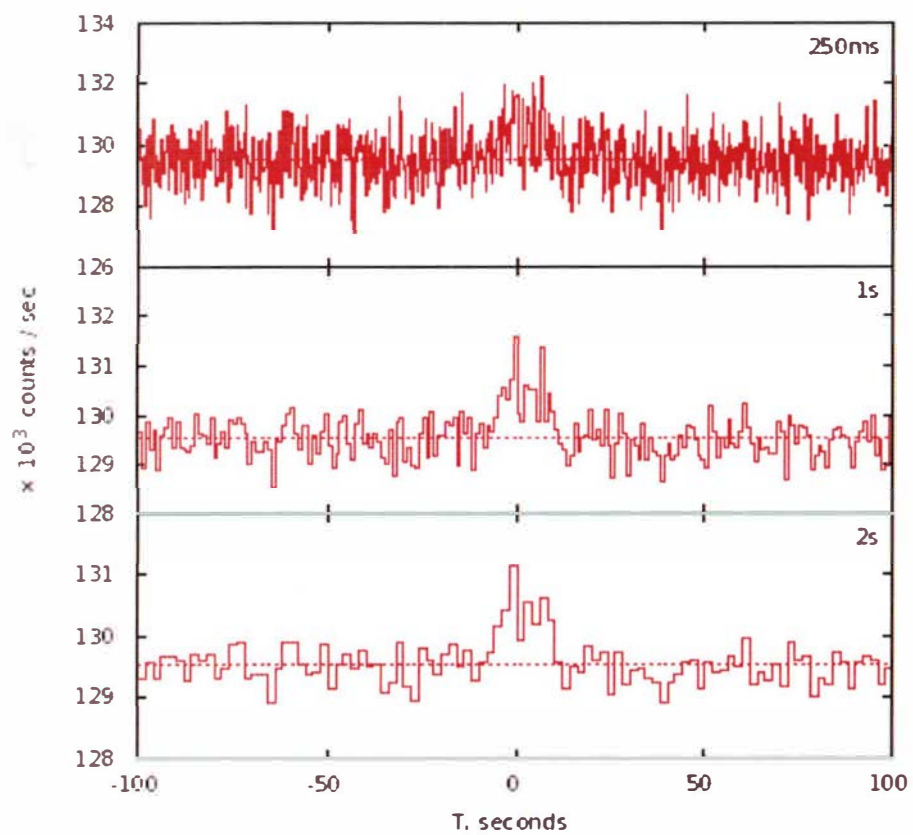
HESSI

09/09/09 41927.000 (GLAST_20090909_42077)

A

25- 150 keV



INTEGRAL SPI-ACS 090909 $T_0 = 42077$ s UT

GLAST

09/09/09

73792.740

B

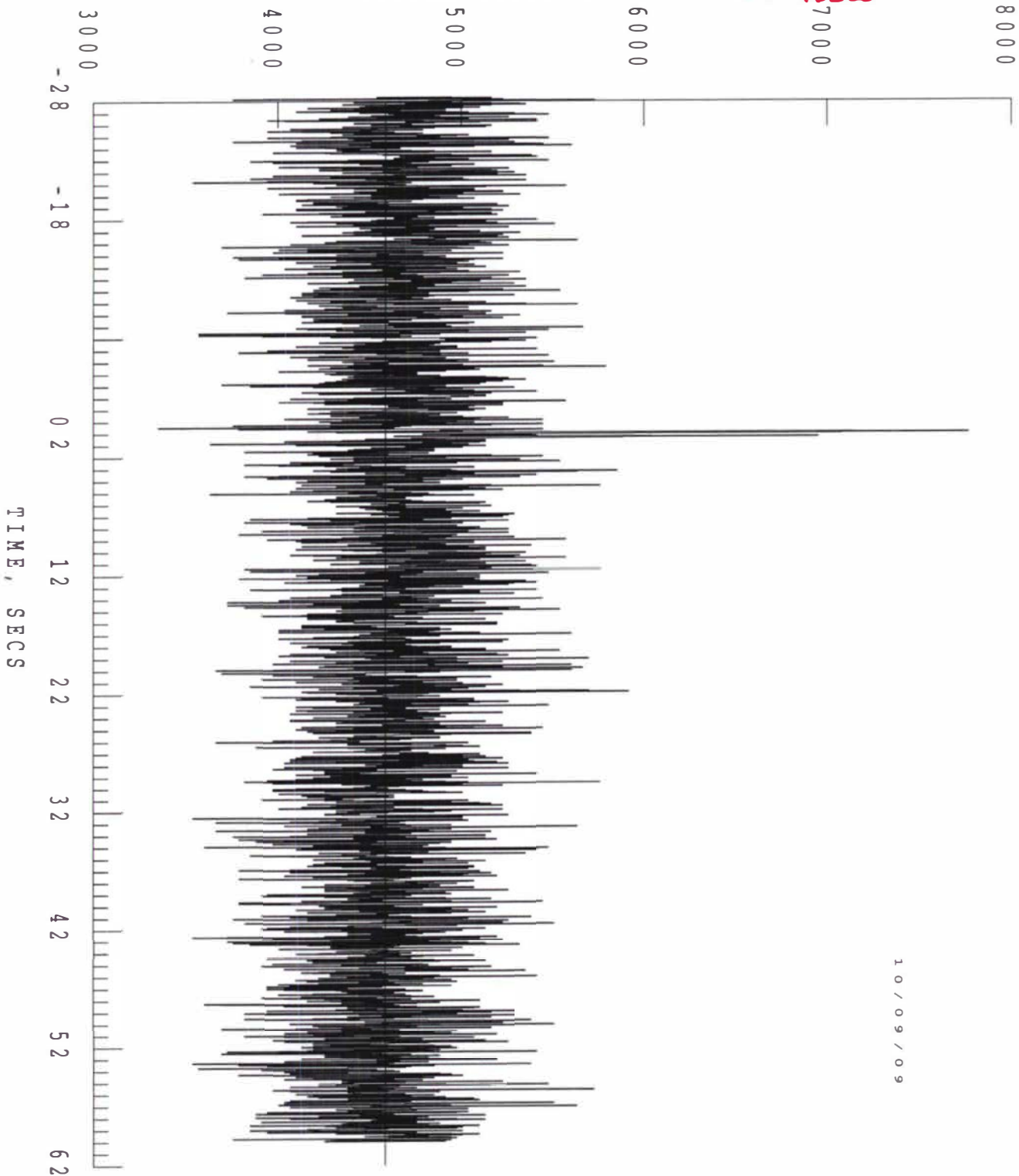
26- 293 keV

20:29:52

48.83, -25.45

MCT 73525

COUNTS/0.032 S



MS01

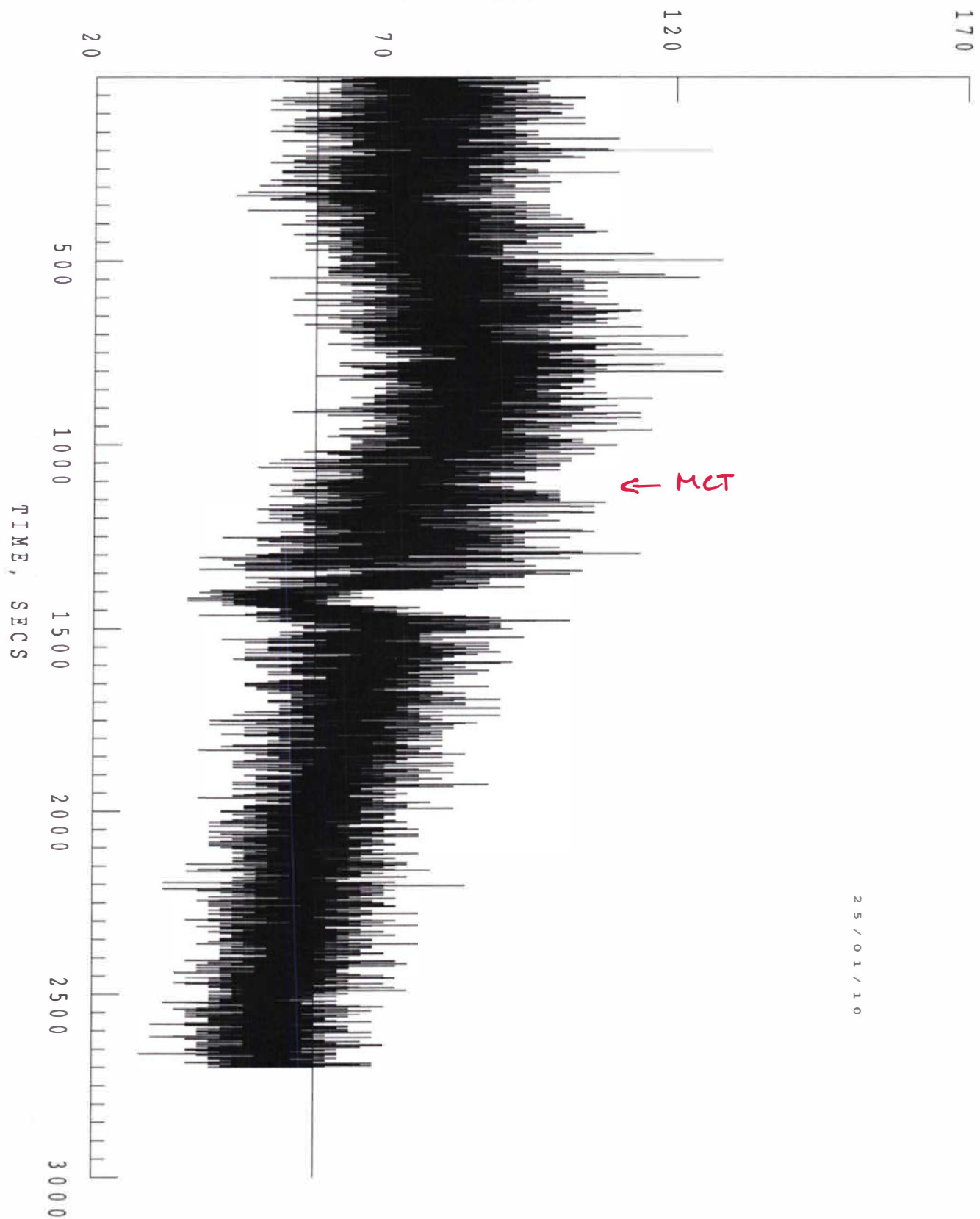
09/09/09

72415.413

B

50 - 3000 keV

COUNTS/0.250 S



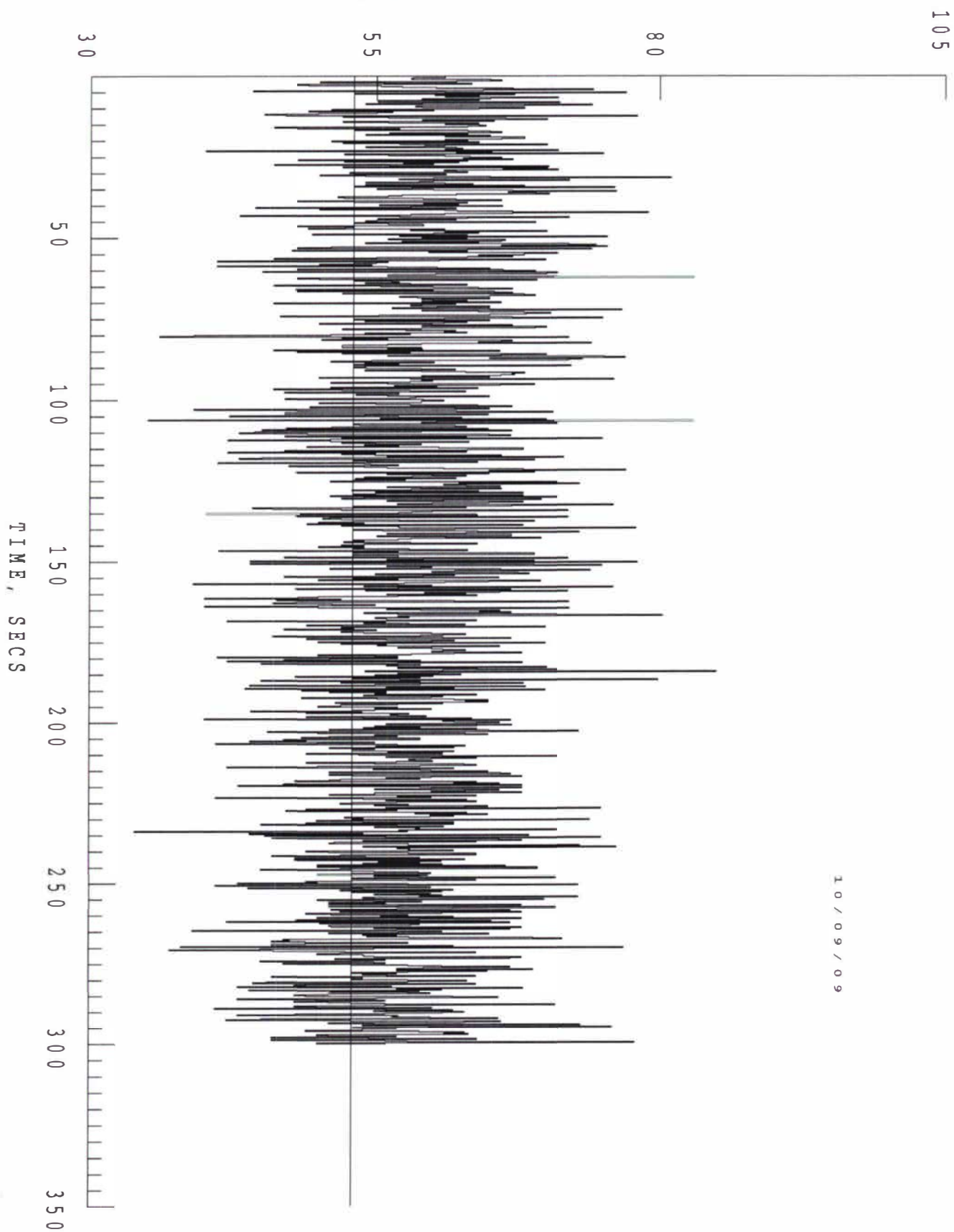
HESSI

09/09/09 73642.000 (GLAST_20090909_73792)

B

25- 150 keV

COUNTS/0.250 S



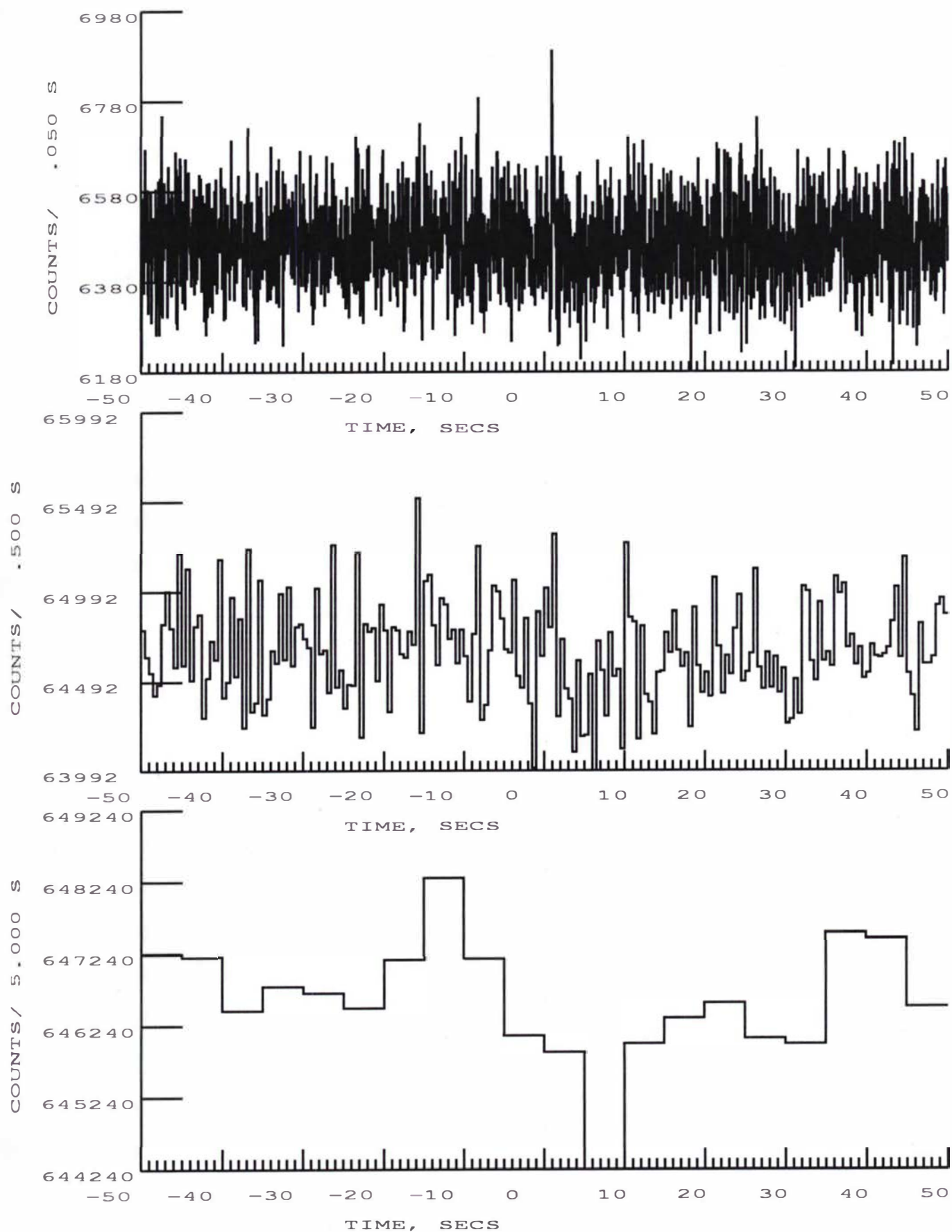
INTEGRAL

09/09/09

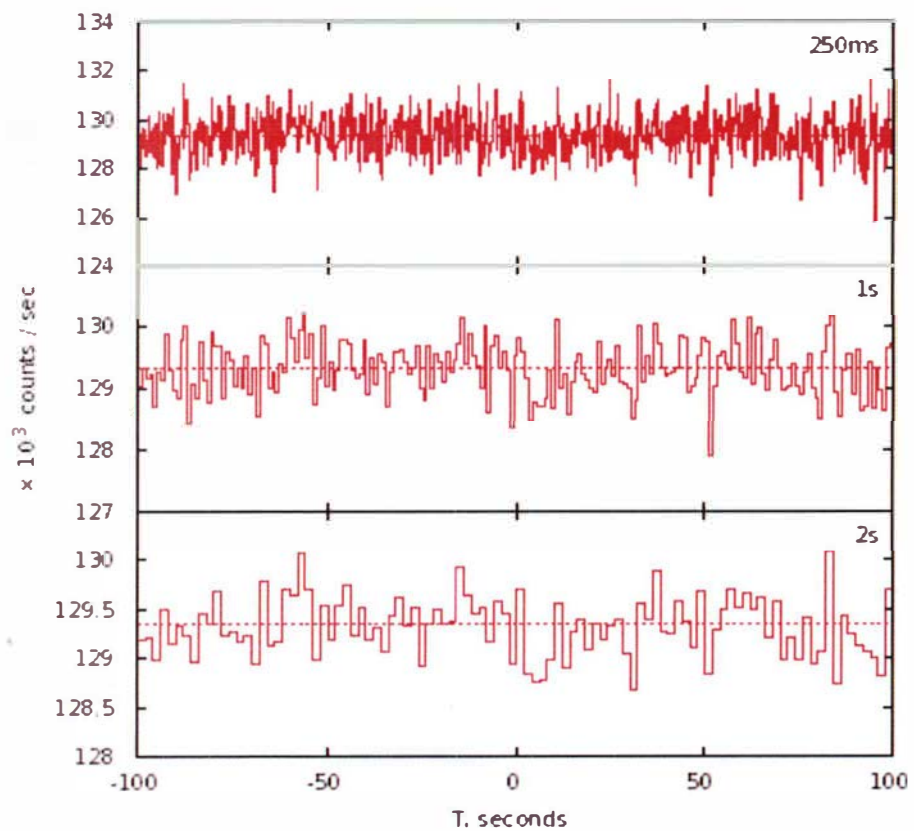
73792.000

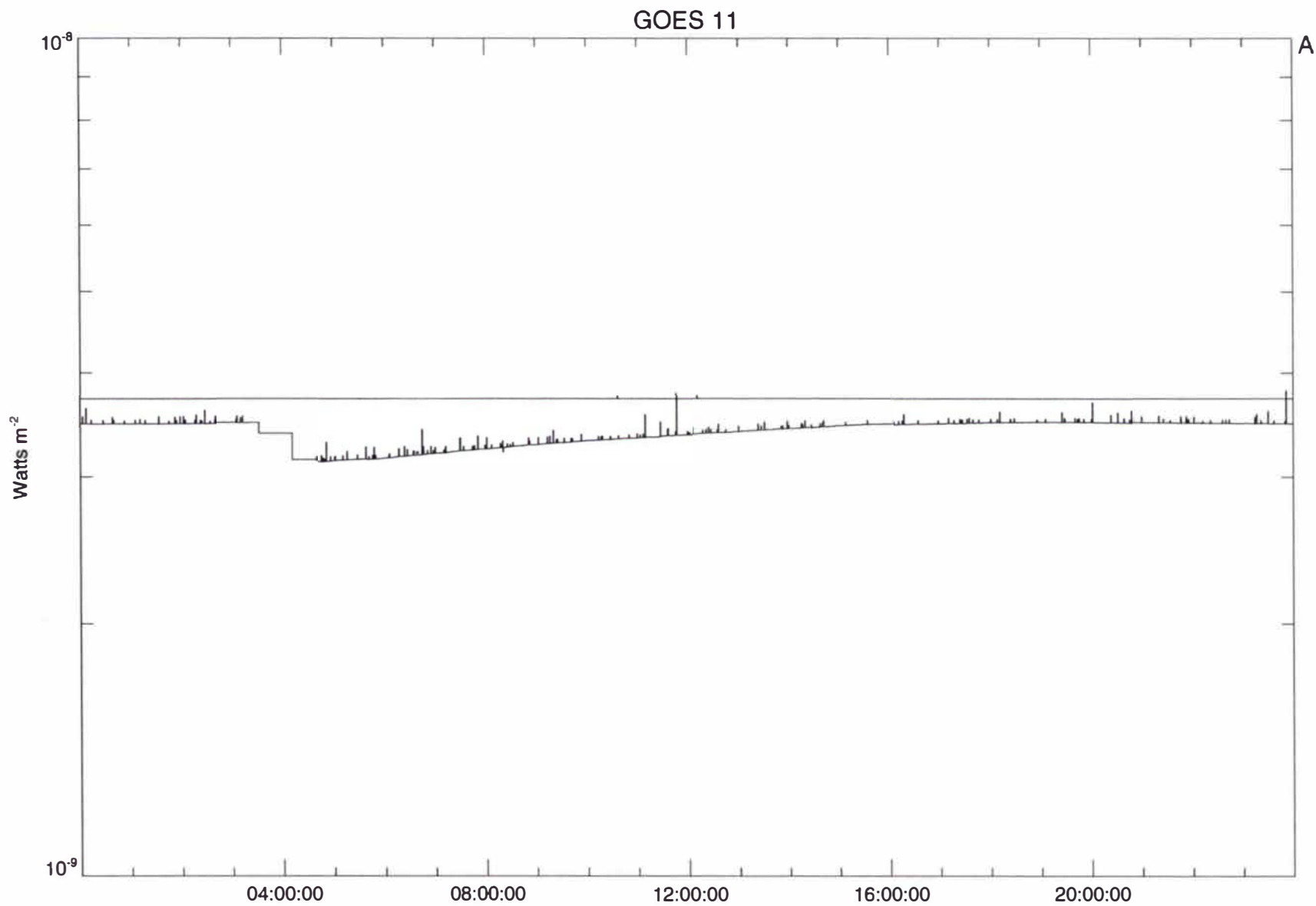
20:29:52.0

10/01/14



INTEGRAL SPI-ACS 090909 $T_0 = 73792$ s UT





Data Start: 09/09/09, 0000:13

Plot created: 09/09/12, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

Date: Apr 18 2011

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/scik/timekeeping/OPS_TIME_ENGR.txt)? P
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

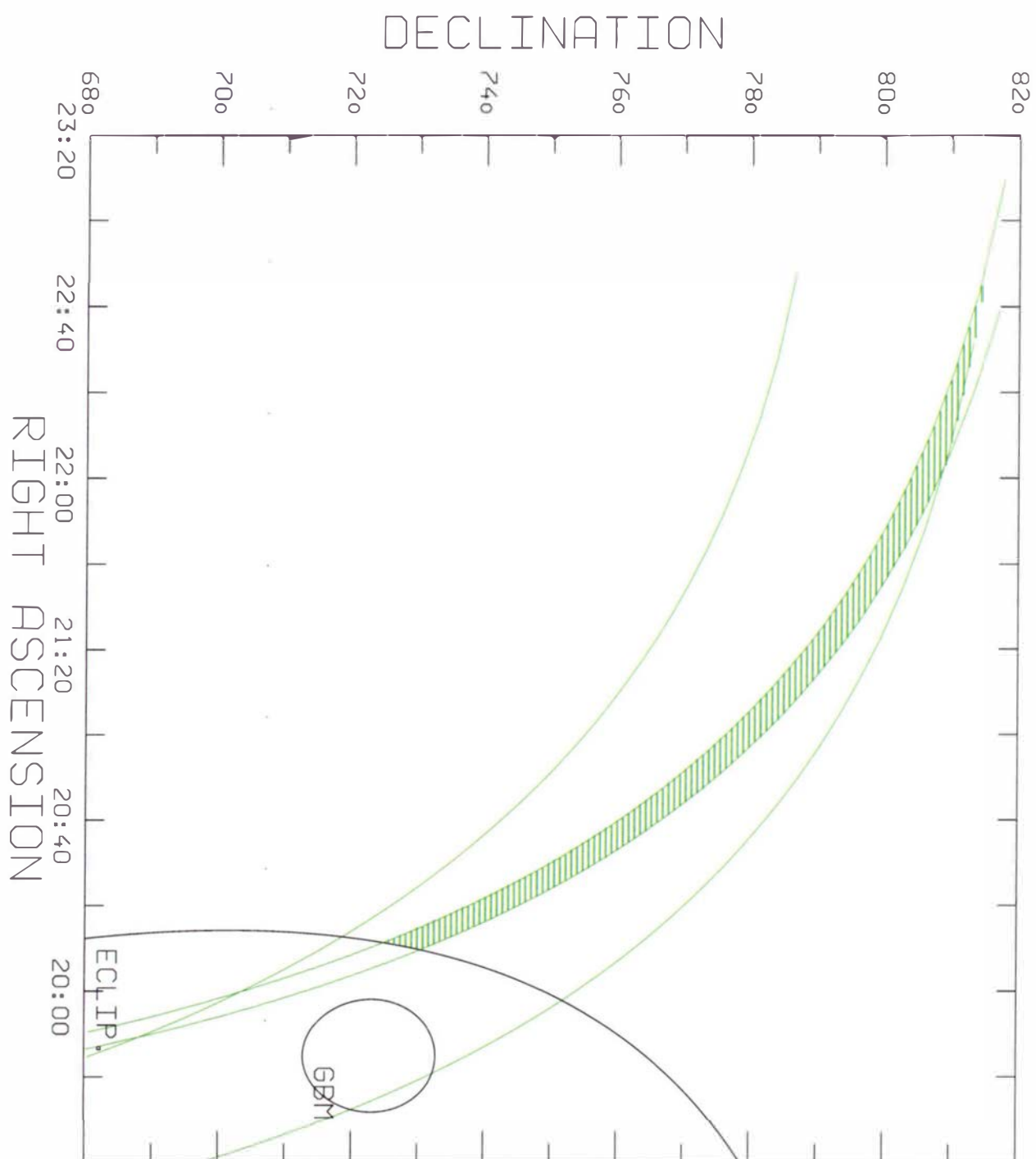
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?

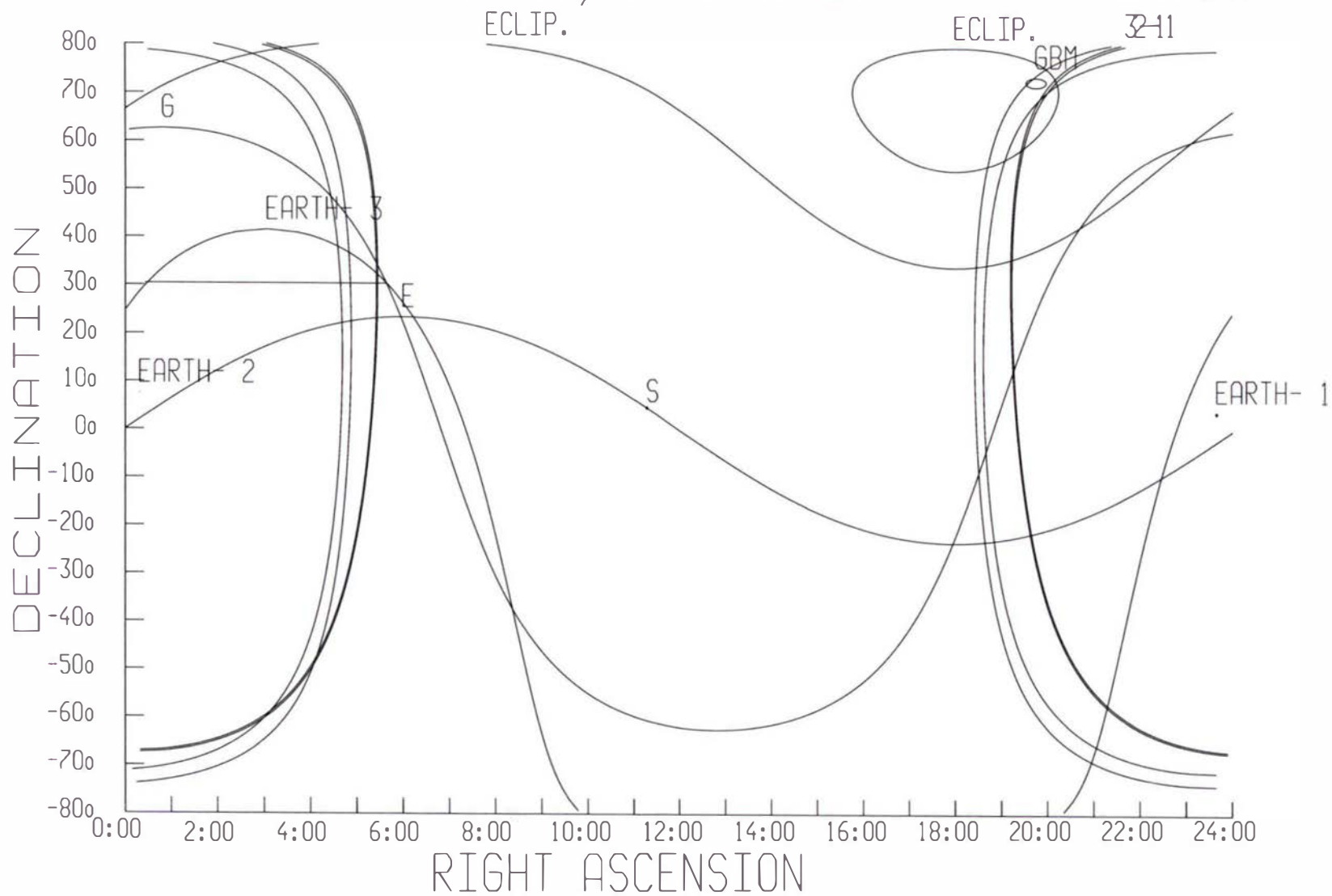
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

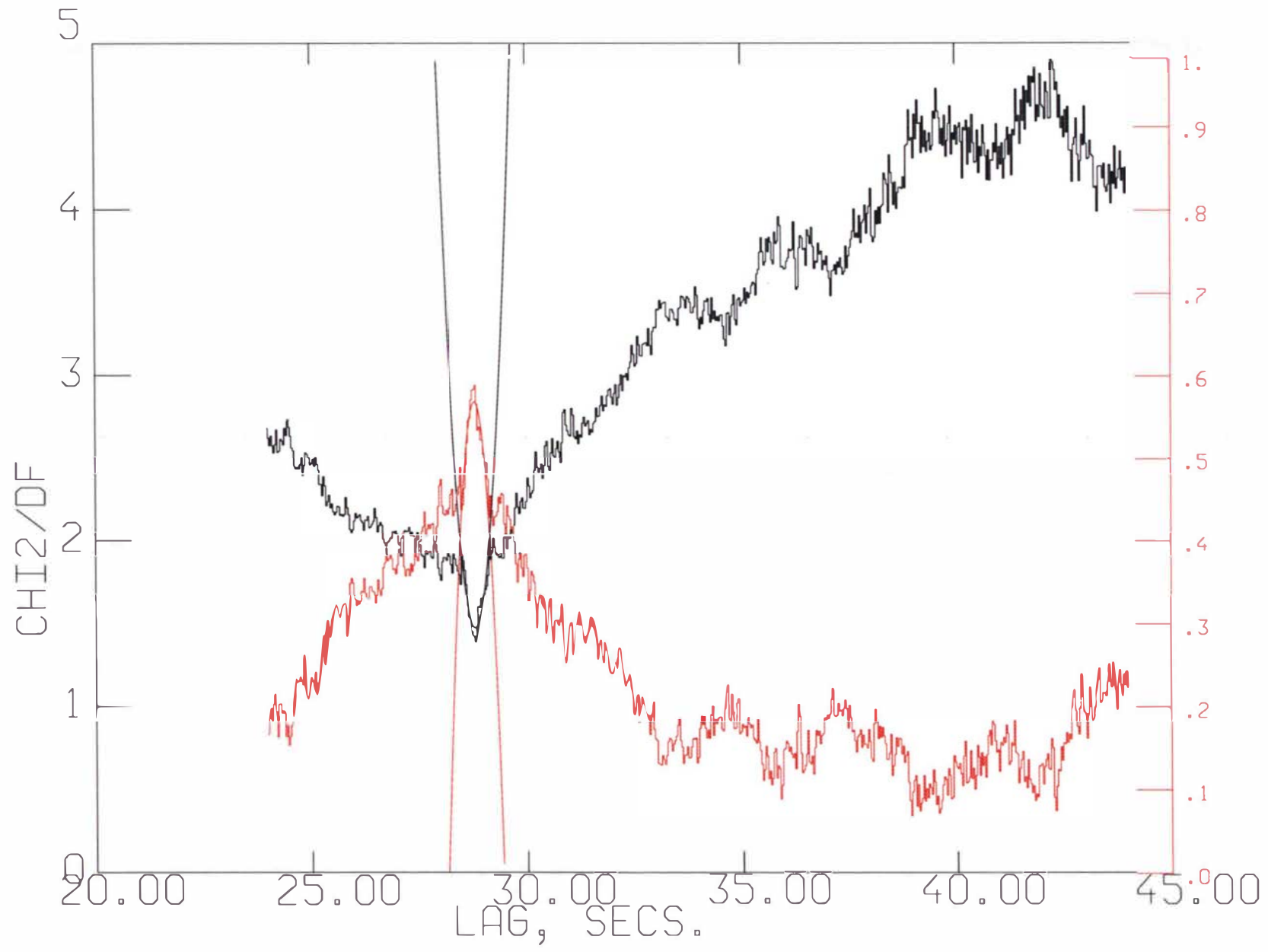


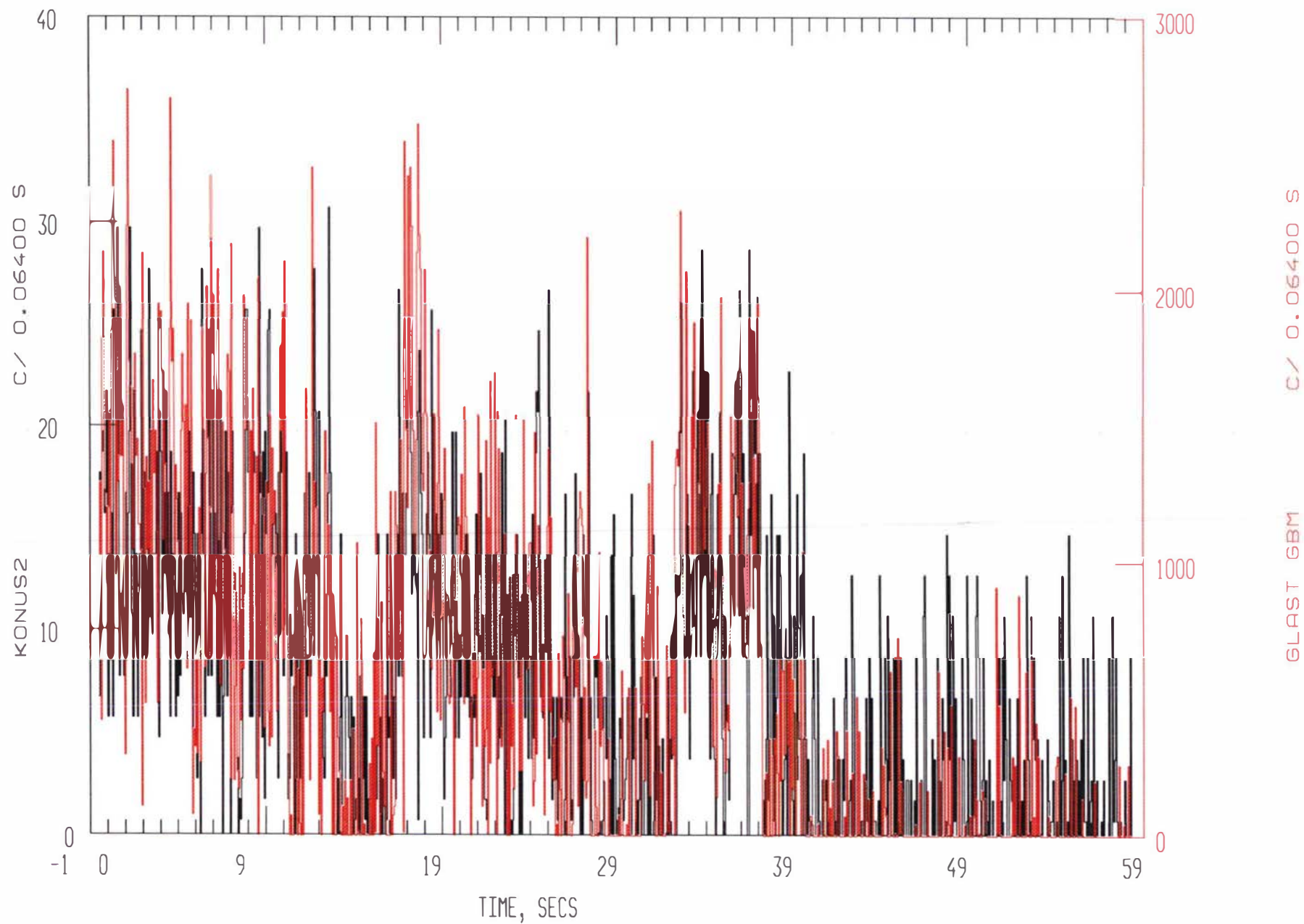
EVENT OF SEP 10, 2009 19:29

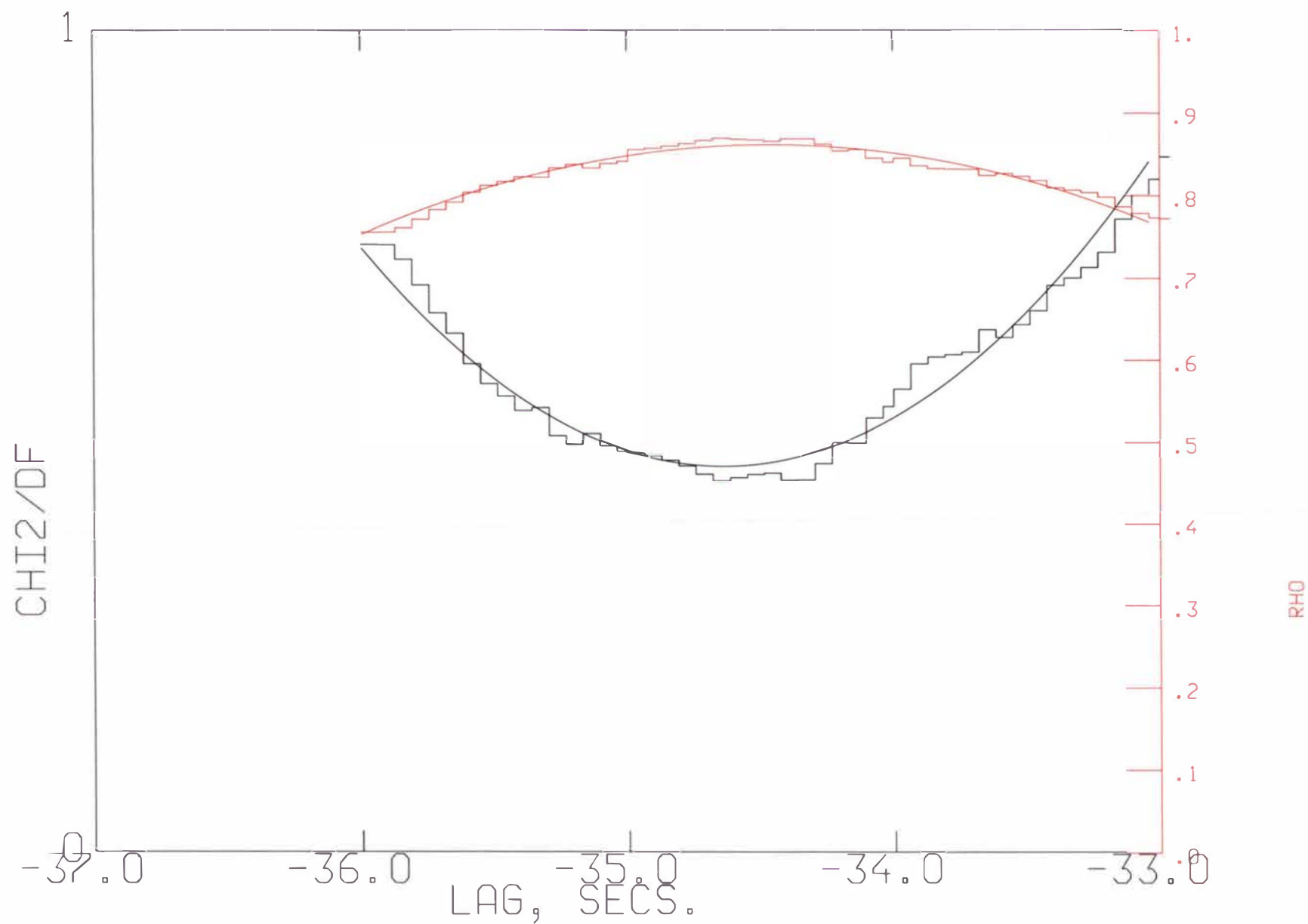
18/04/2011

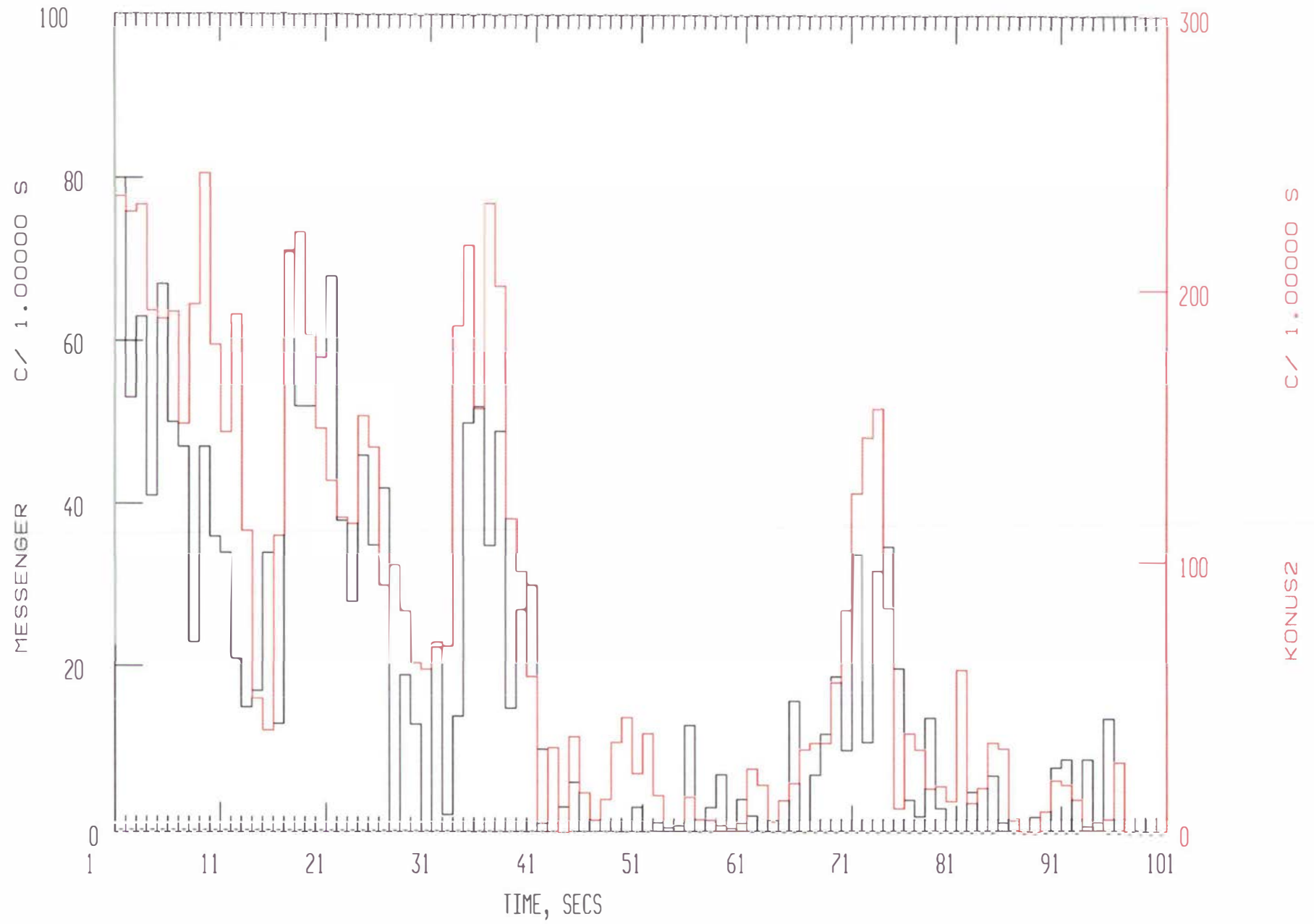
N-M = CORRELATION BETWEEN SATELLITES N AND M
 EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
 1 KONUS2 2 MESSENGER 3 FERMI

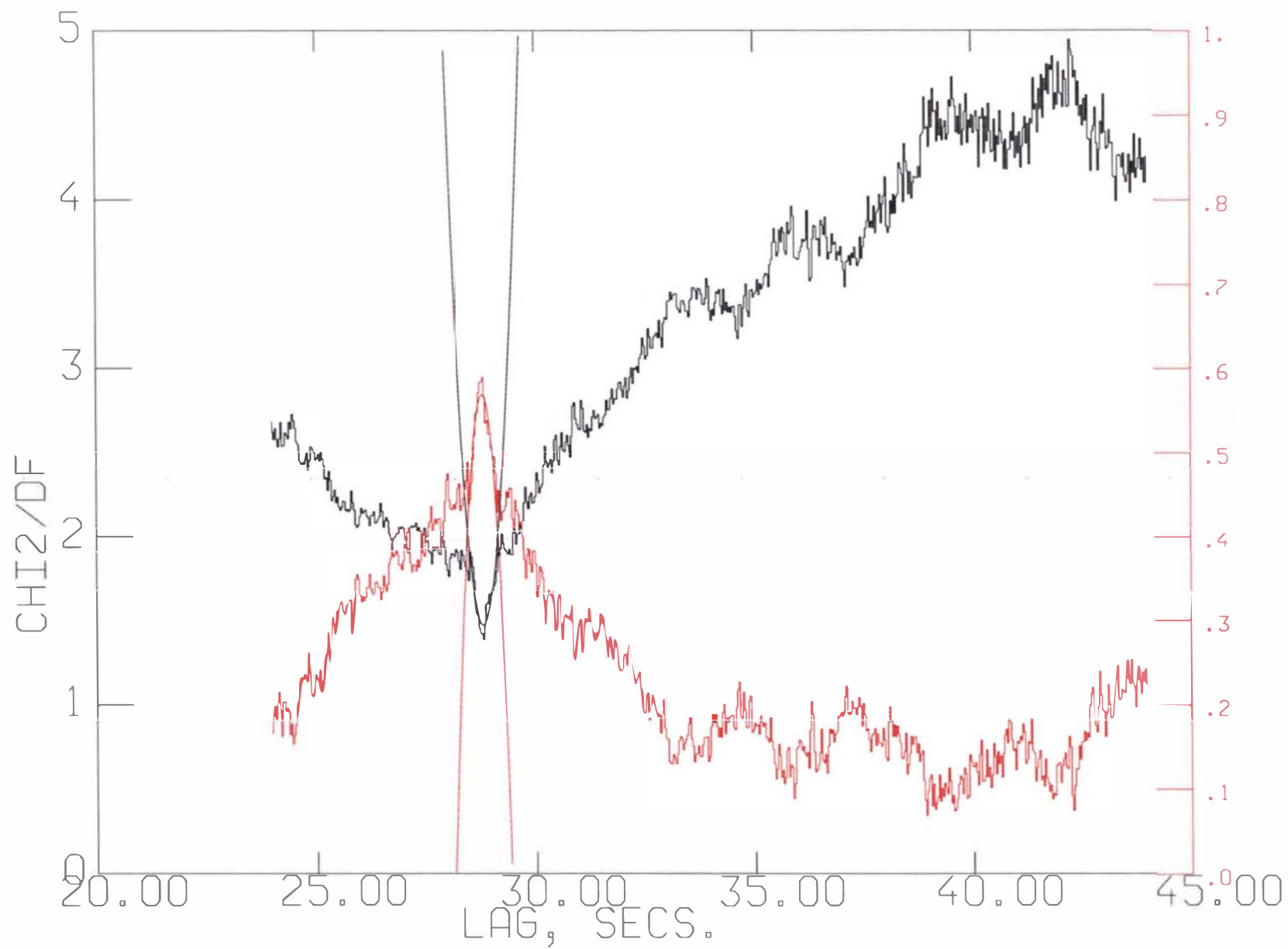












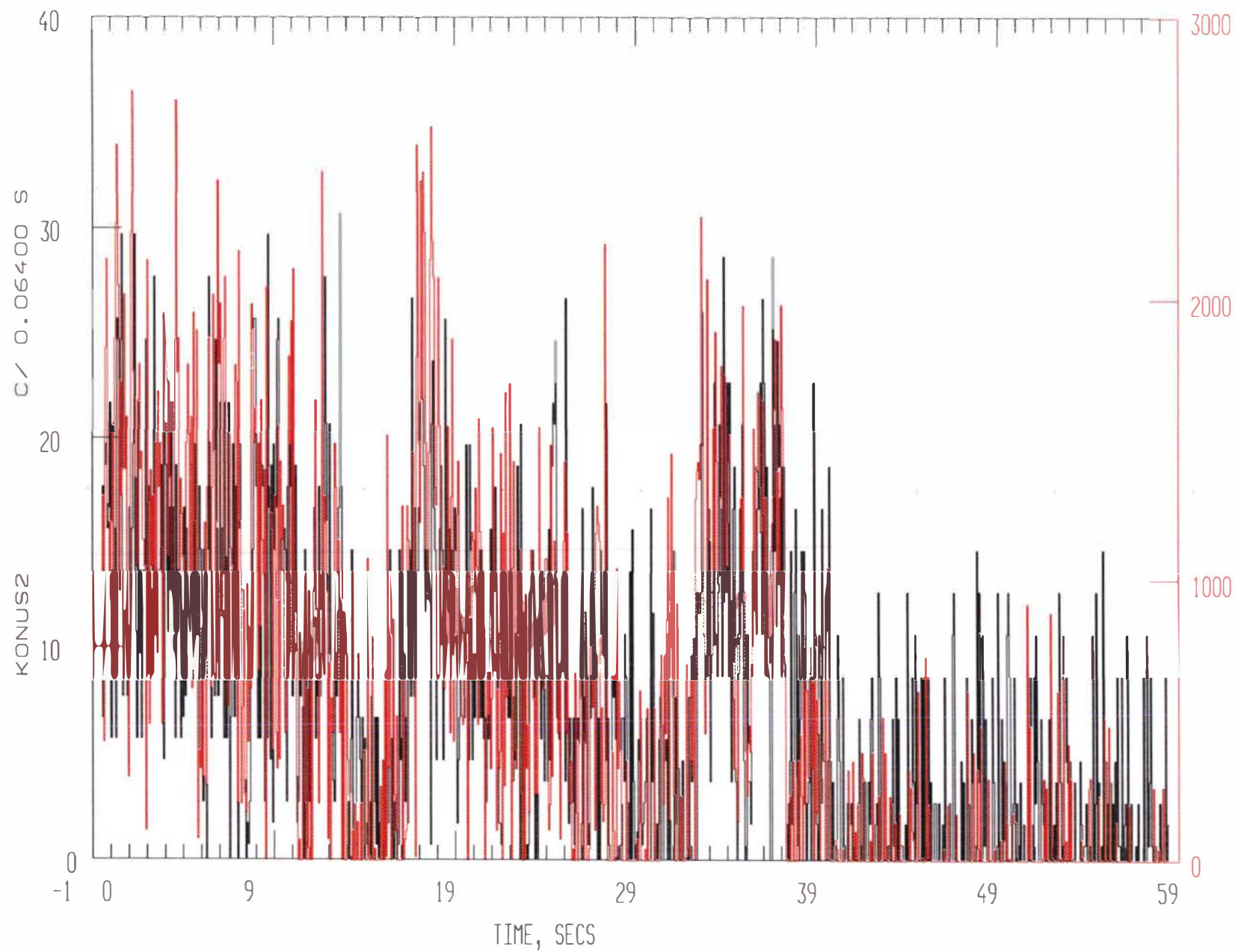
KONUS2

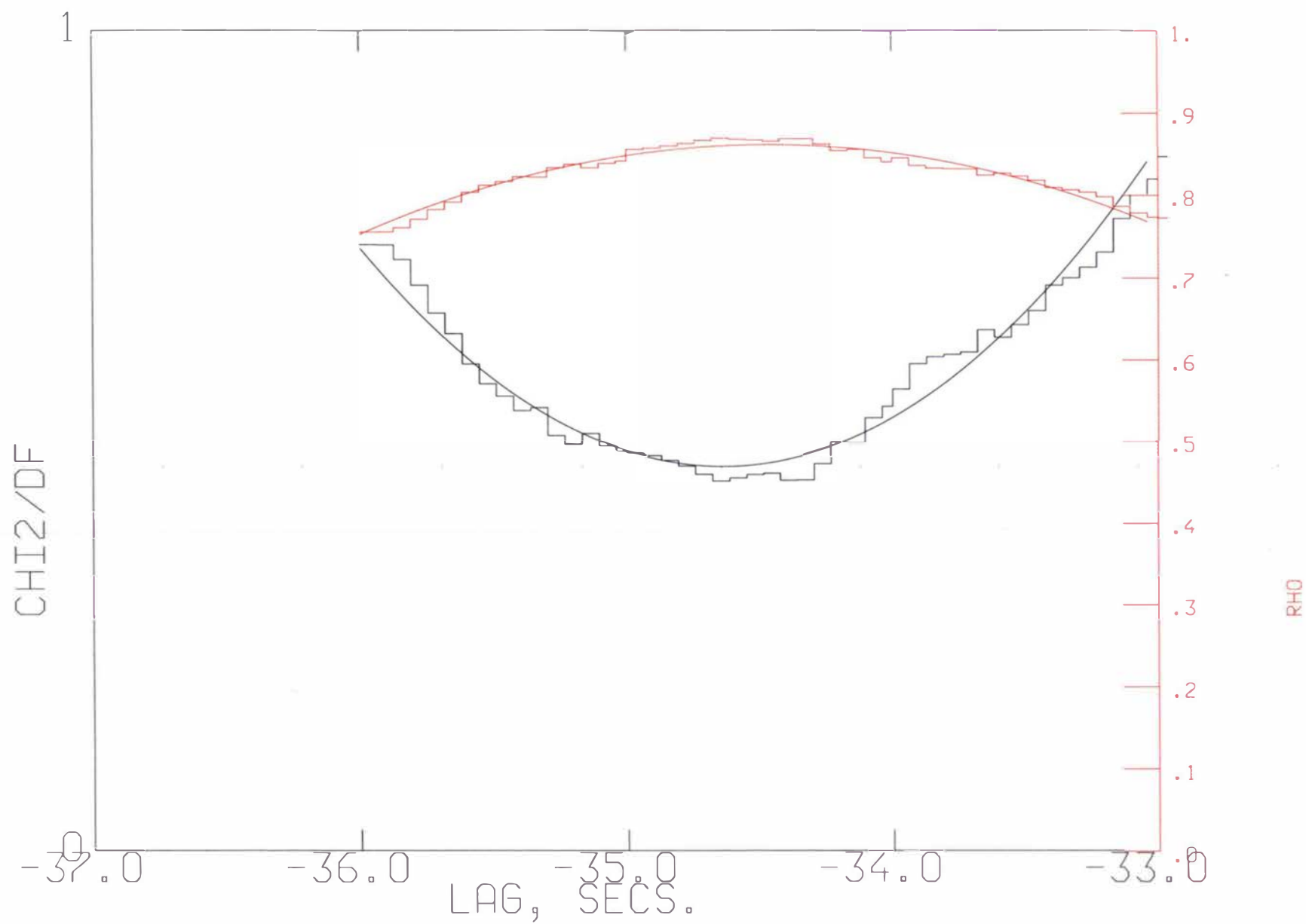
-GLAST GBM CORRELATION

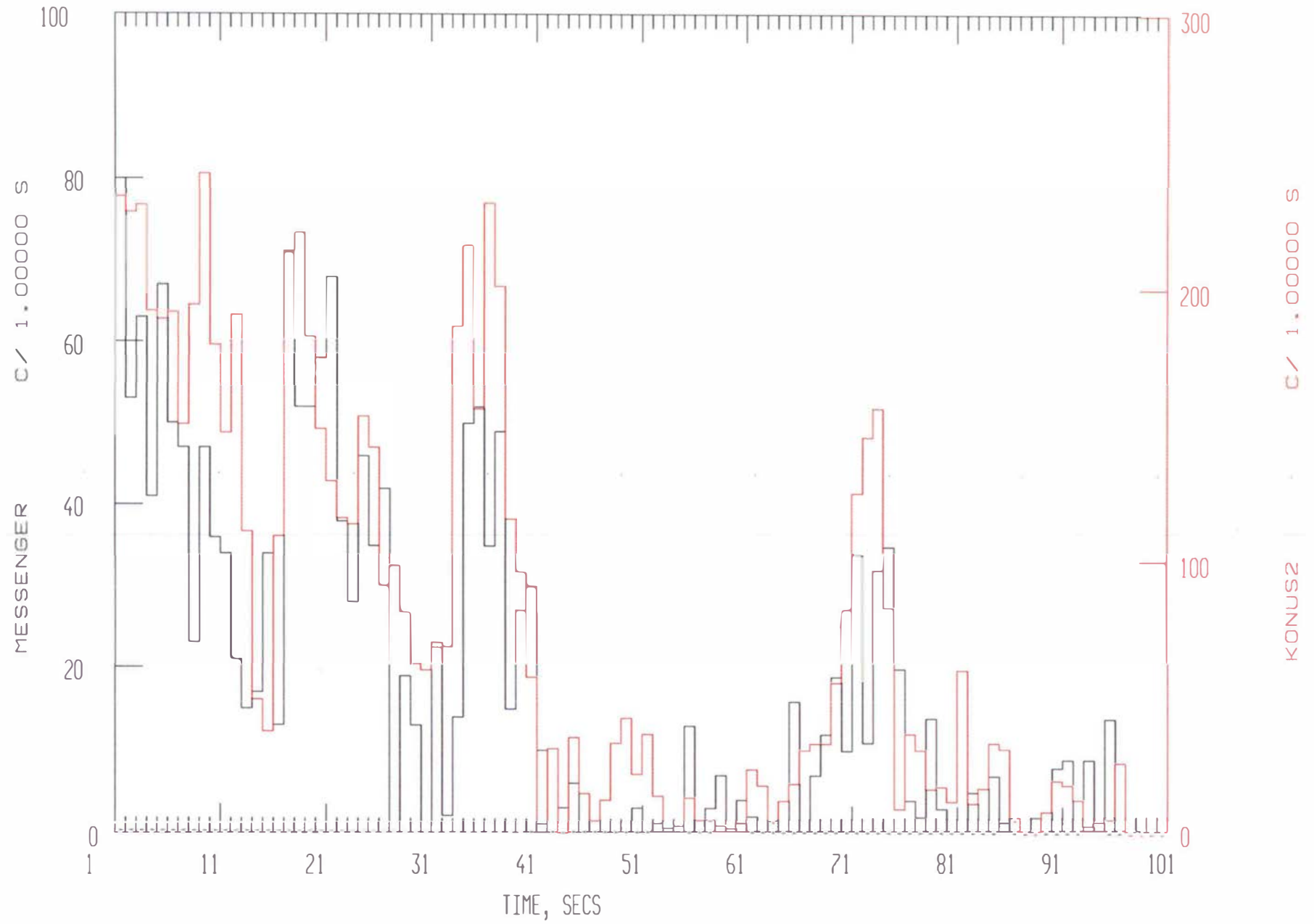
10/09/09

70191.355

21/12/10







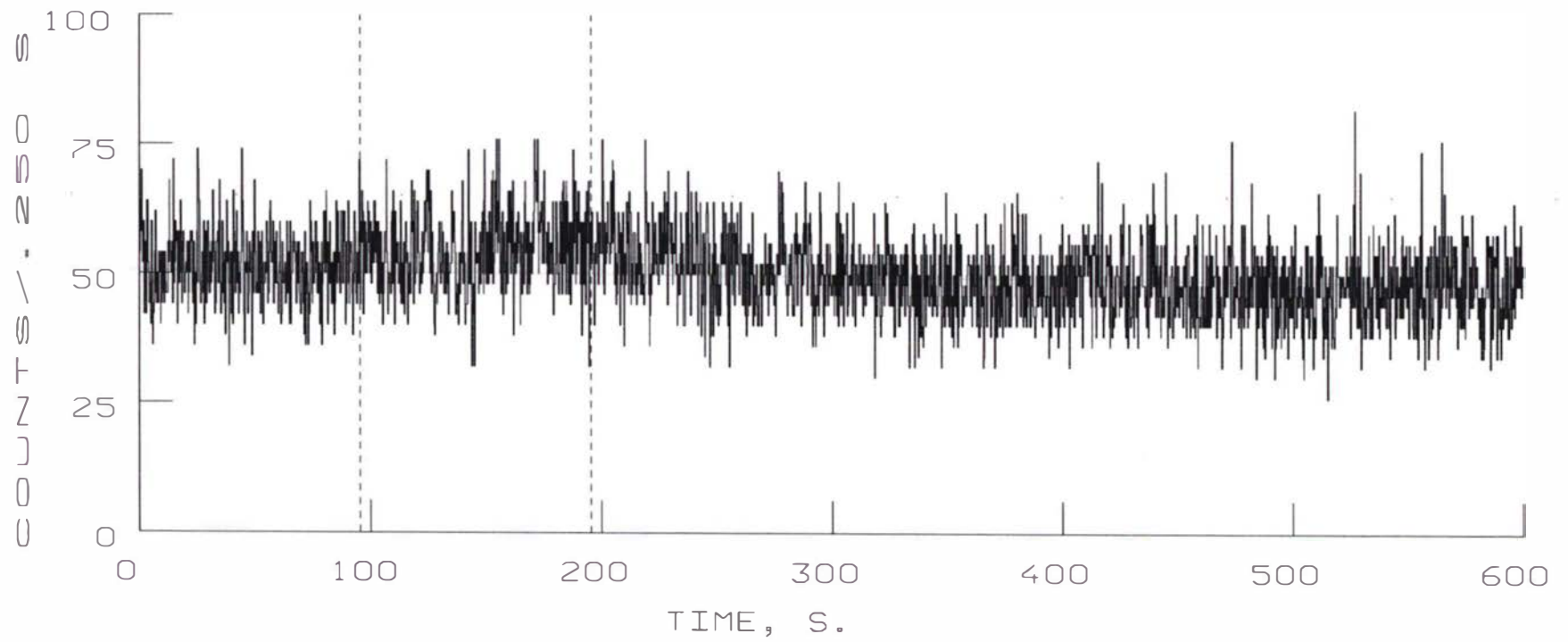
MS01 HEND

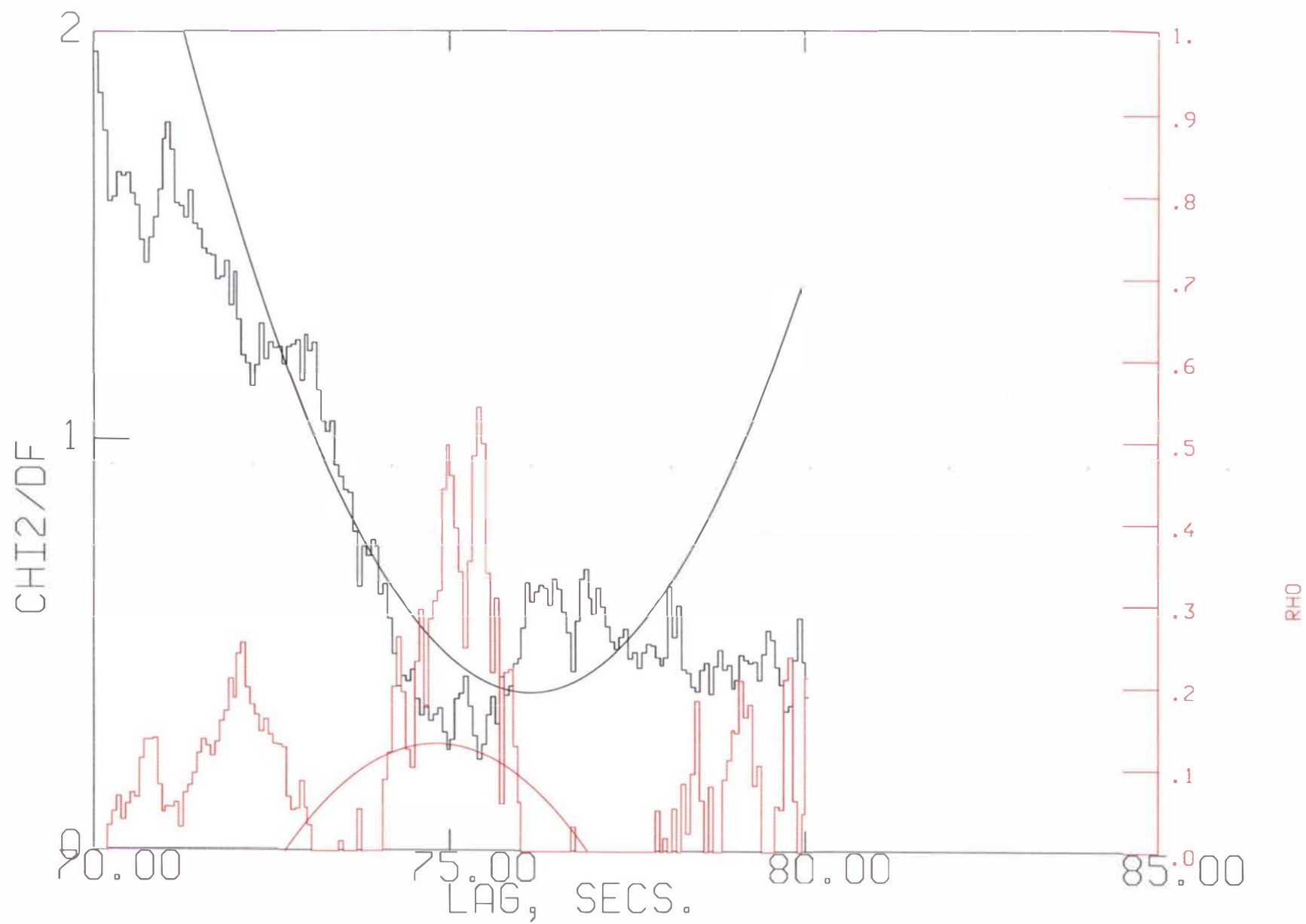
21/12/2010

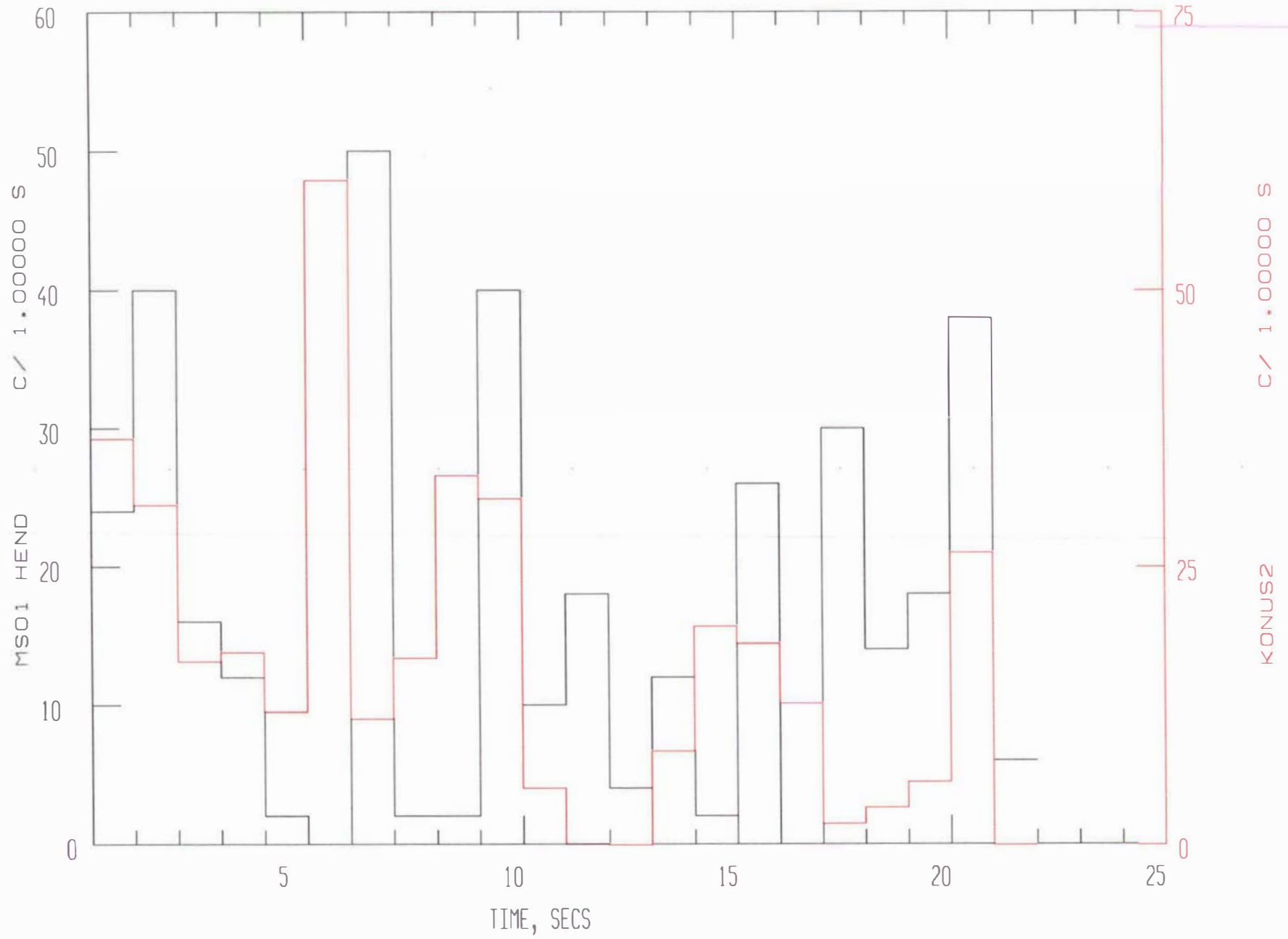
10/09/2009 69954.016 s

50-3000 keV

N= 10 M=80
>4.0 SIGMA FLUCTUATIONS





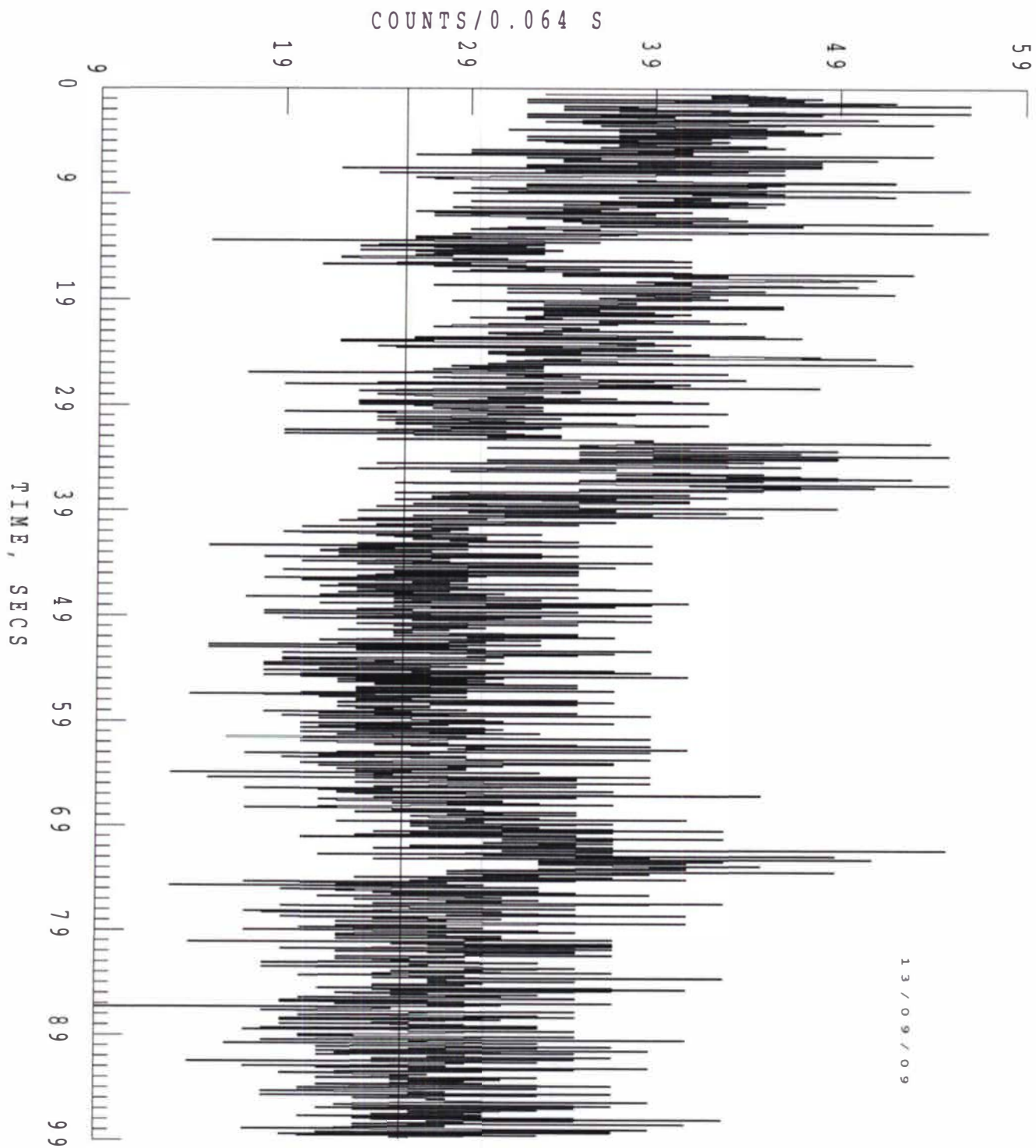


KONUS2

10/09/09

70191.355

50- 200 keV



KONUS HRES 20090910 70191

TRIGGER TIME: 10/09/09 DOY 253 Julian 2455086.31240 UT = 19.497 19:29:51 (70191.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

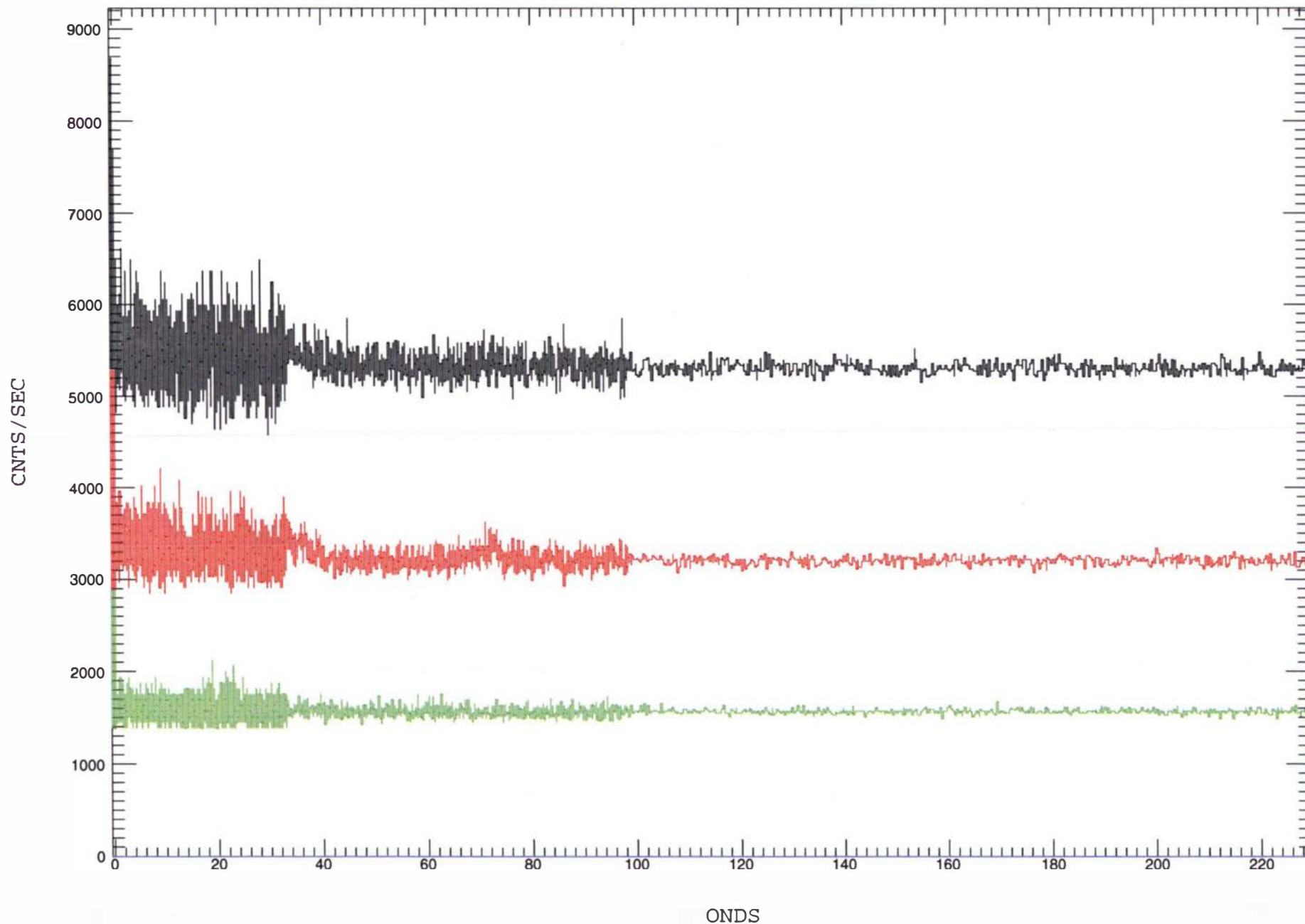
Chan 4 : [> 10 MeV]

Channel 1 + 4200

Channel 2 + 2800

Channel 3 + 1400

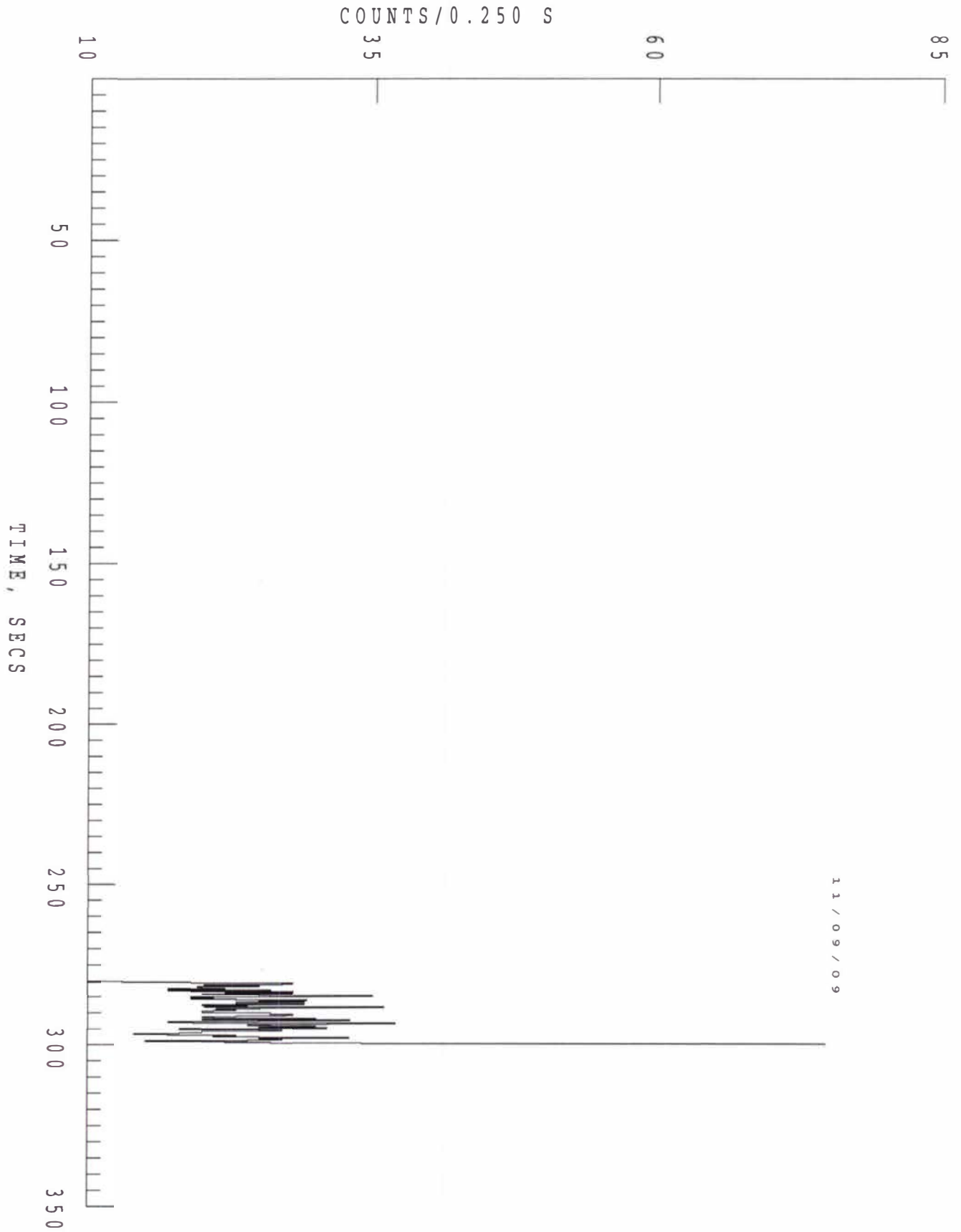
Channel 4 + 0



HESSI

10/09/09 70038.000 (GLAST_20090910_70188)

25- 150 keV



19/01/10

MESSENGER

10/09/09

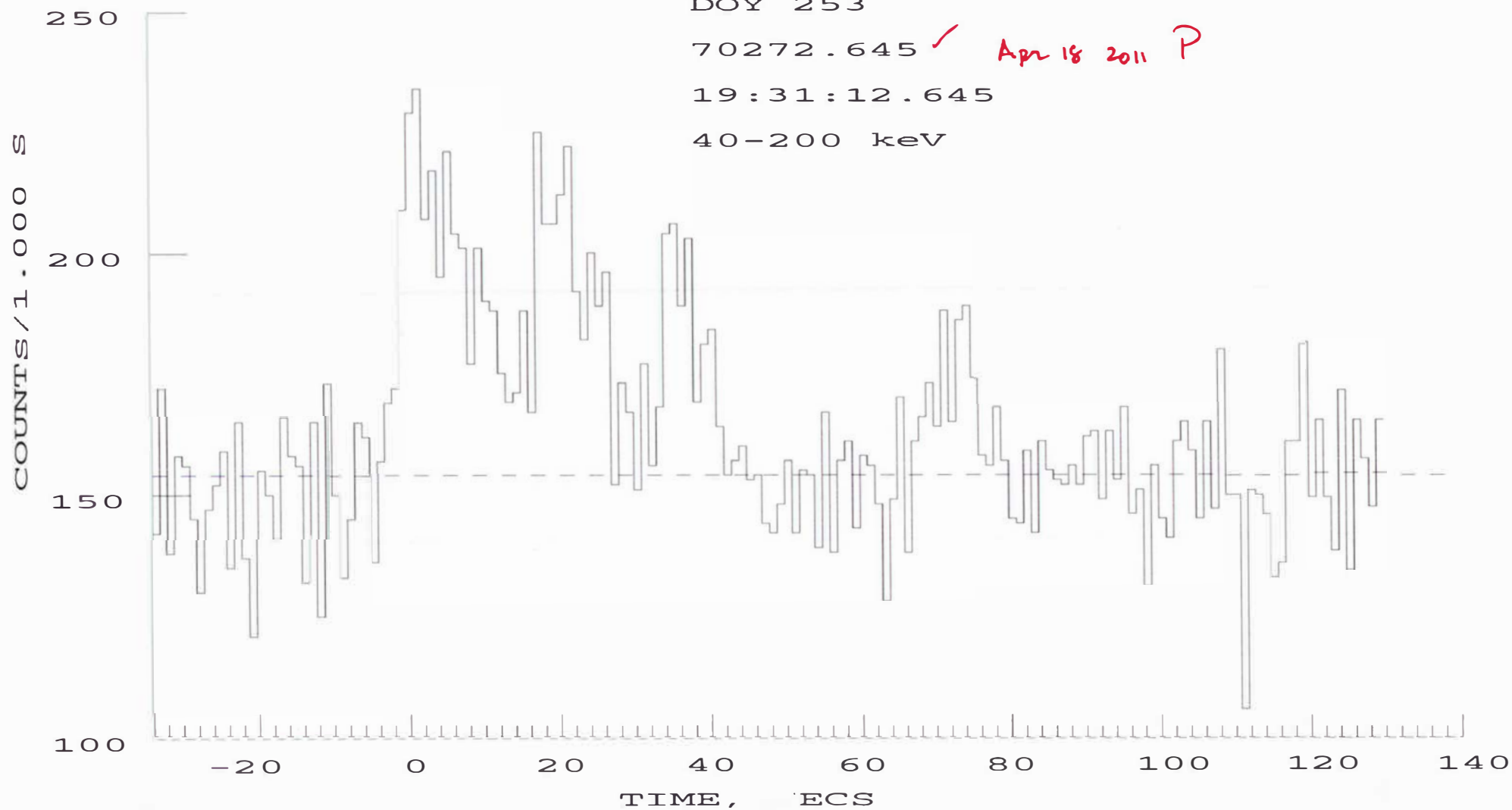
DOY 253

70272.645

✓ Apr 18 2011 P

19:31:12.645

40-200 keV



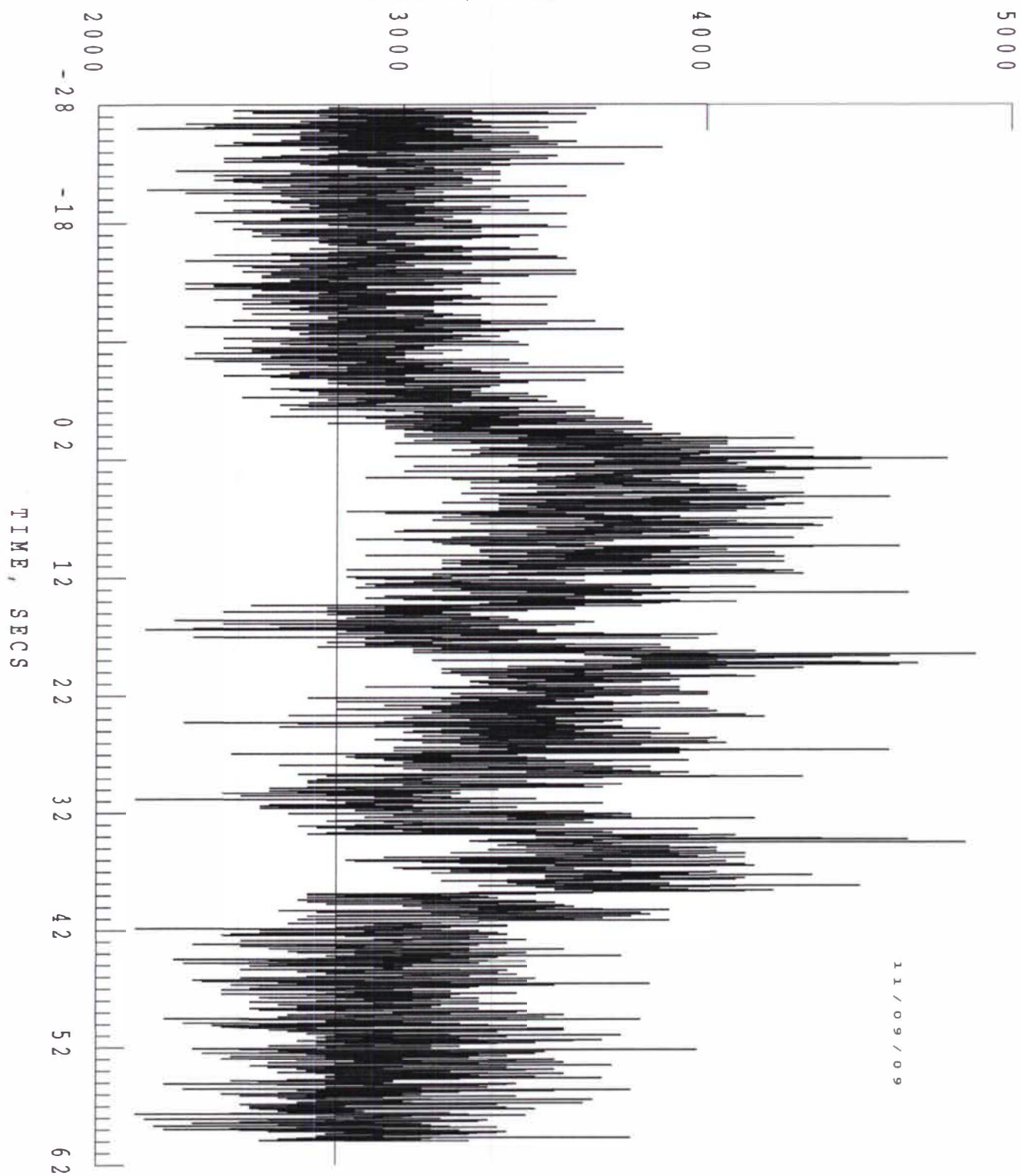
GLAST

10/09/09

70188.807

26 - 293 keV

COUNTS/0.032 S



From gcncirc@capella.gsfc.nasa.gov Fri Sep 11 12:32:06 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090910: Fermi GBM detection
o: khurley@ssl.berkeley.edu
Date: Fri, 11 Sep 2009 15:32:48 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9904
SUBJECT: GRB 090910: Fermi GBM detection
DATE: 09/09/11 19:32:46 GMT
FROM: Vandiver Chaplin at UAH/Fermi-GBM <chapliv@email.uah.edu>

V.Chaplin (UAH) reports on behalf of the Fermi GBM Team:

"At 19:29:48.81 UT on 10 SEP 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090910 (trigger 274303790 / 090910812).

The on-ground calculated location, using the GBM trigger data, is RA = 296.2, DEC = 72.3 (J2000 degrees, equivalent to 19h 44m, 72 d 18'), with an uncertainty of 1.0 degrees (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees). The angle from the Fermi LAT boresight is 107 degrees. MCT 70103

The on-board GBM Flight Software localization for this event, as reported in the GCN notice, was consistent with a position near the Earth's limb. Furthermore, the trigger occurred as the spacecraft was at a high magnetic latitude. The resulting autonomous classification for the event was "Distant Particles", which is erroneous.

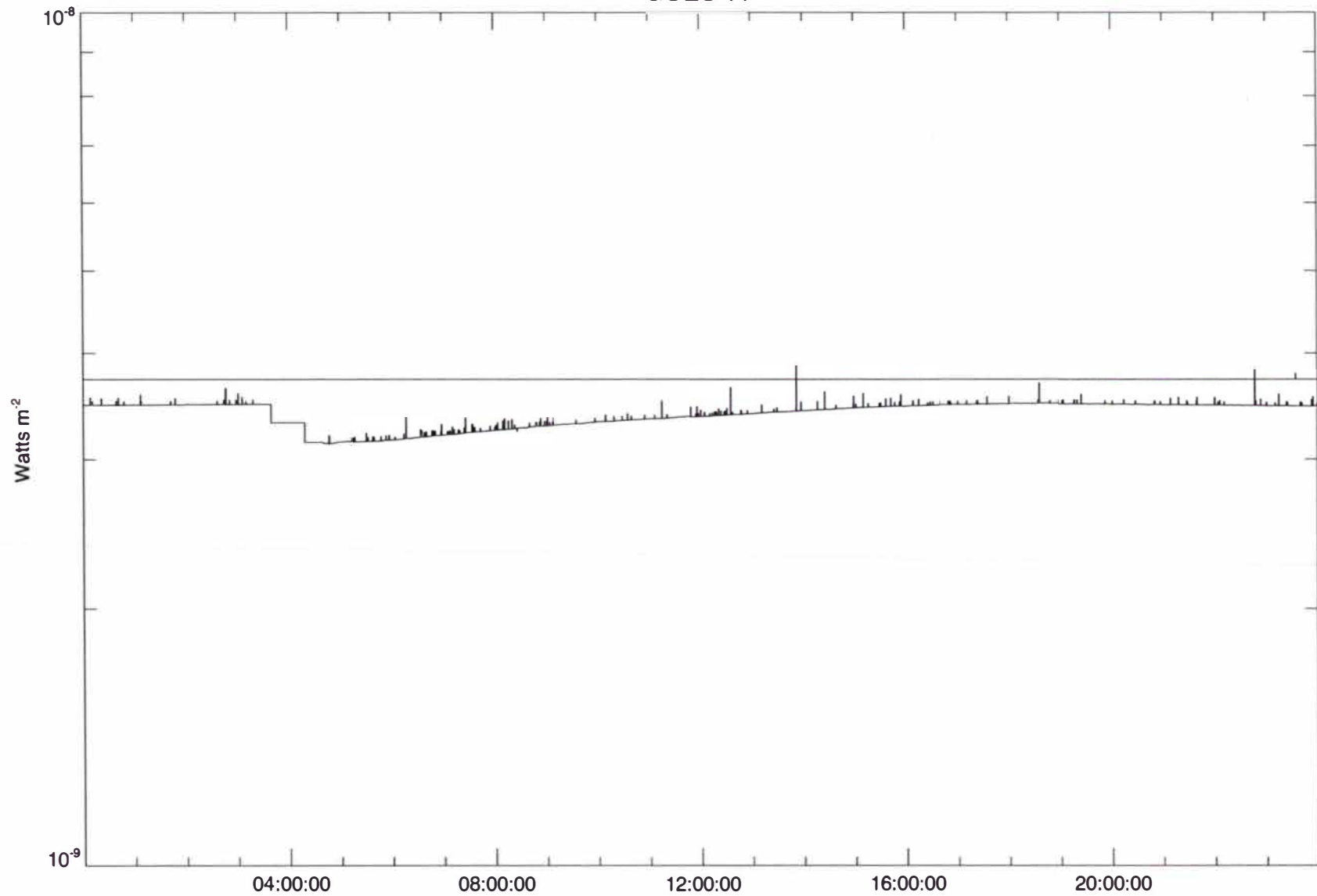
The GBM light curve consists of three distinct pulses close in time from T0-5s to about T0+45s, with a smaller pulse visible in several detectors at about T0+70s. The duration (T90) of this event is approximately 62s (8-1000 keV). The time-averaged spectrum from T0-7.2 s to T0+44 s is best fit by a Band function with Epeak = 274.8 +/- 56.1 keV, alpha = -0.9 +/- 0.1, and beta = -2.0 +/- 0.2 (chi squared 397.41 for 360 d.o.f.).

The event fluence (8-1000 keV) in this time interval is (9.2 +/- 0.7)E-06 erg/cm^2. The 1-sec peak photon flux measured starting from T0+2 s in the 8-1000 keV band is 2.3 +/- 0.6 ph/s/cm^2.

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

GOES 11

A



Data Start: 09/09/10, 0000:13

Plot created: 09/09/13, 0819

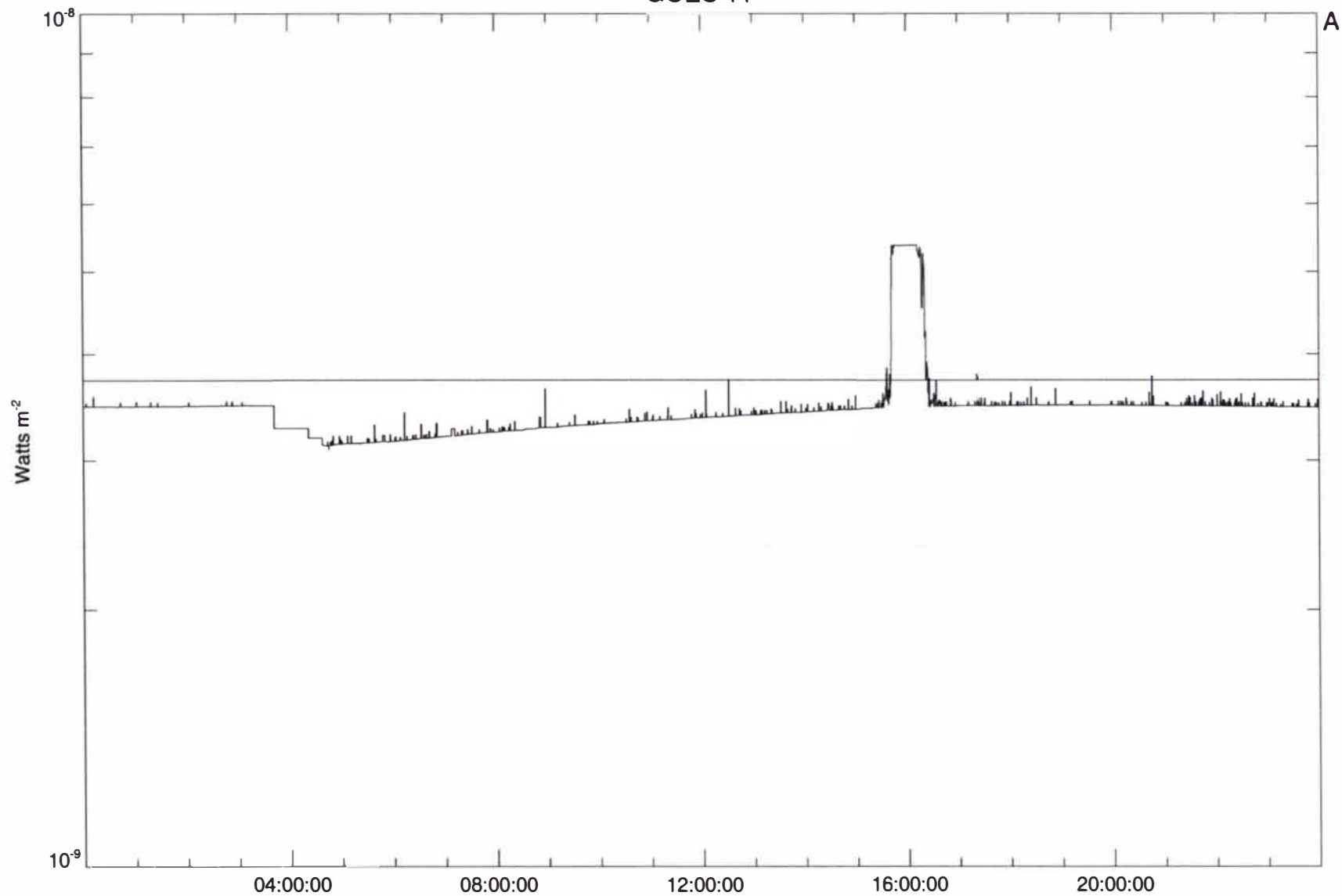
Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GOES 11



Data Start: 09/09/11, 0000:13

Plot created: 09/09/14, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

Date: Dec 19 2017**BURST TRIANGULATION CHECKLIST****1. Suzaku Data**

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009, and July 1 – August 20, 2012 – leap sec.)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☐ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)?
- ☐ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

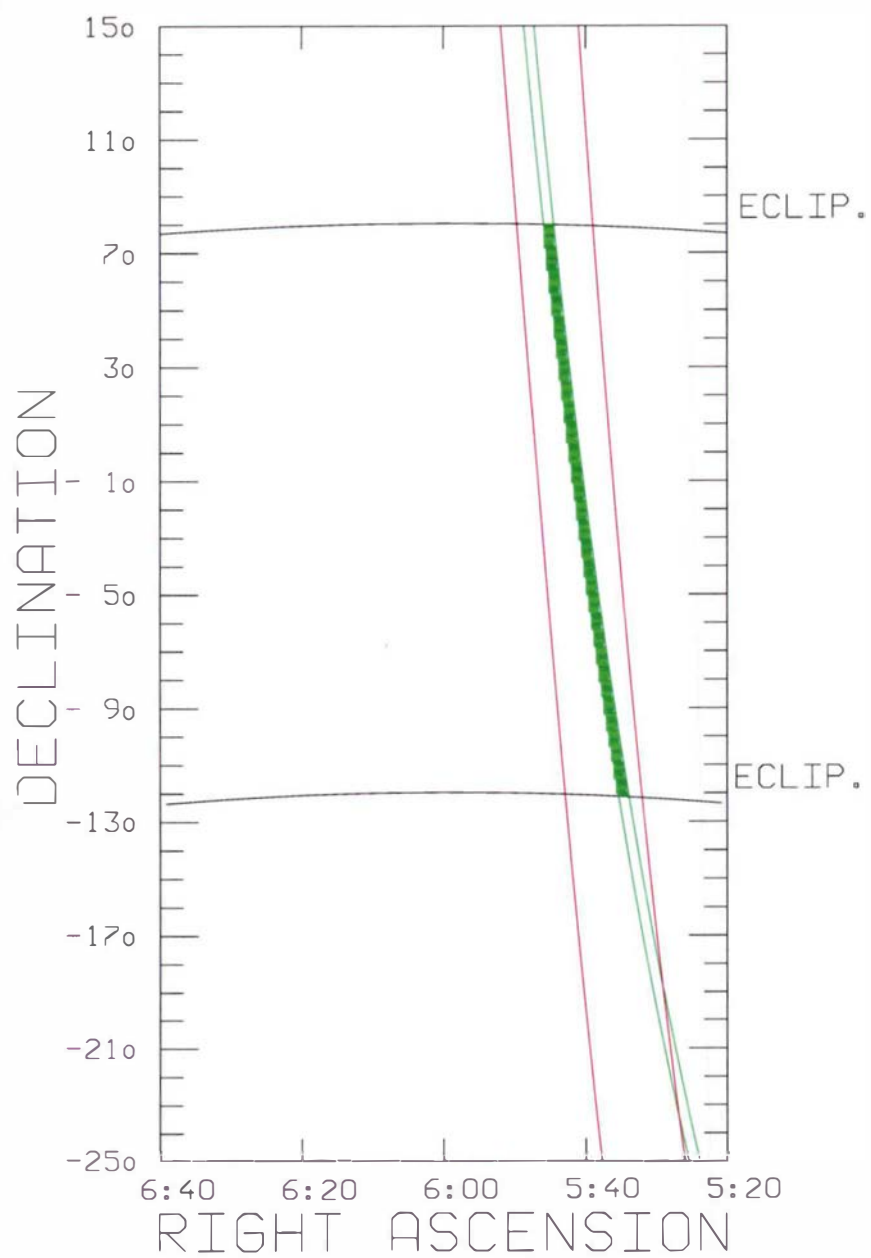
7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?
- ☐ Hand-extracted data used (record starts at -30.000 s)?
- ☐ Volodymyr's website checked ? (<http://isdc.unige.ch/~savchenk/spiacs-online/spiacs-ipnlc.pl>)

-
- ☒ ACCESS and MBL4 databases updated, with identical times?

GRB090912 ~41571 S

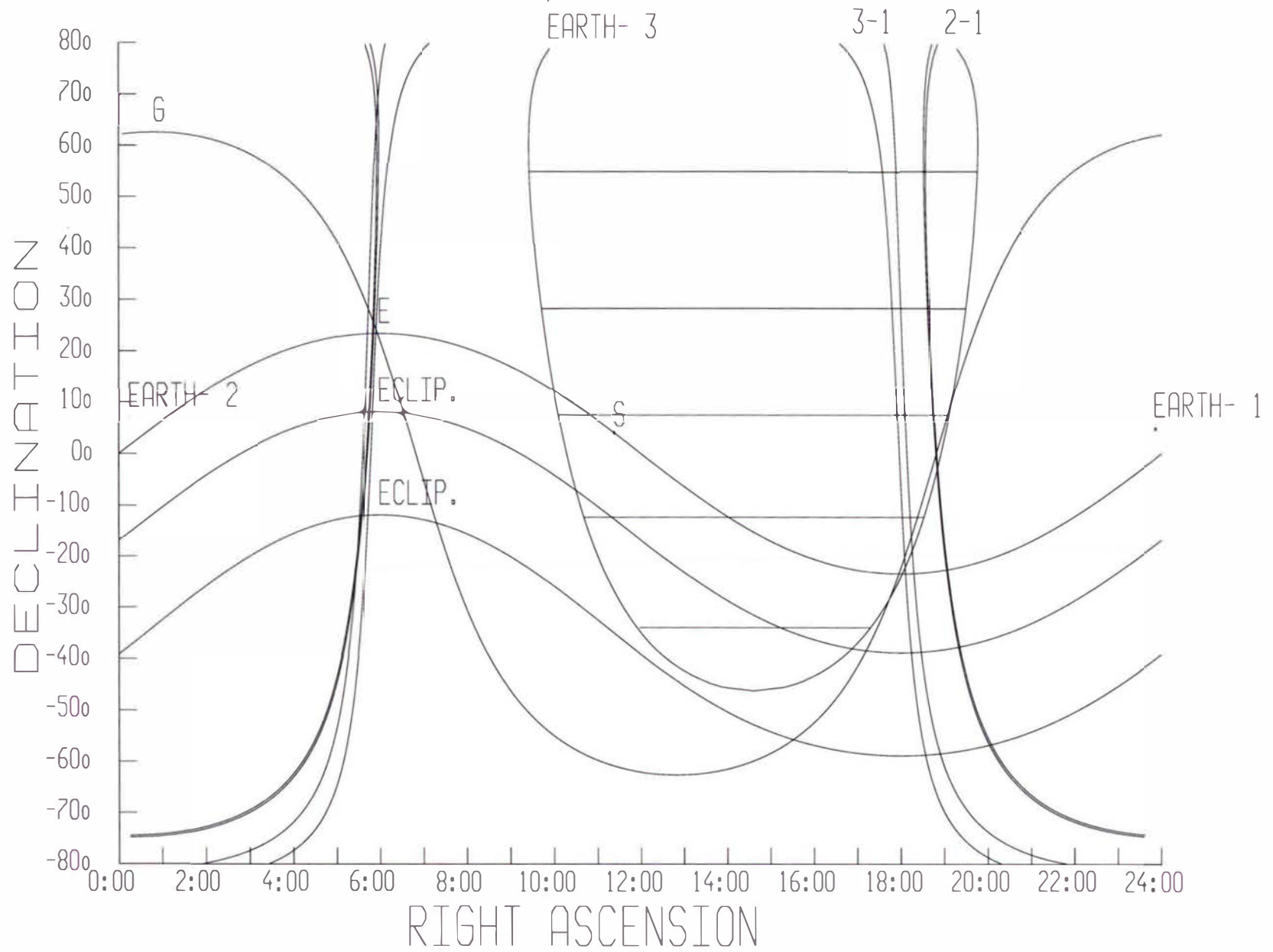
19/12/2017

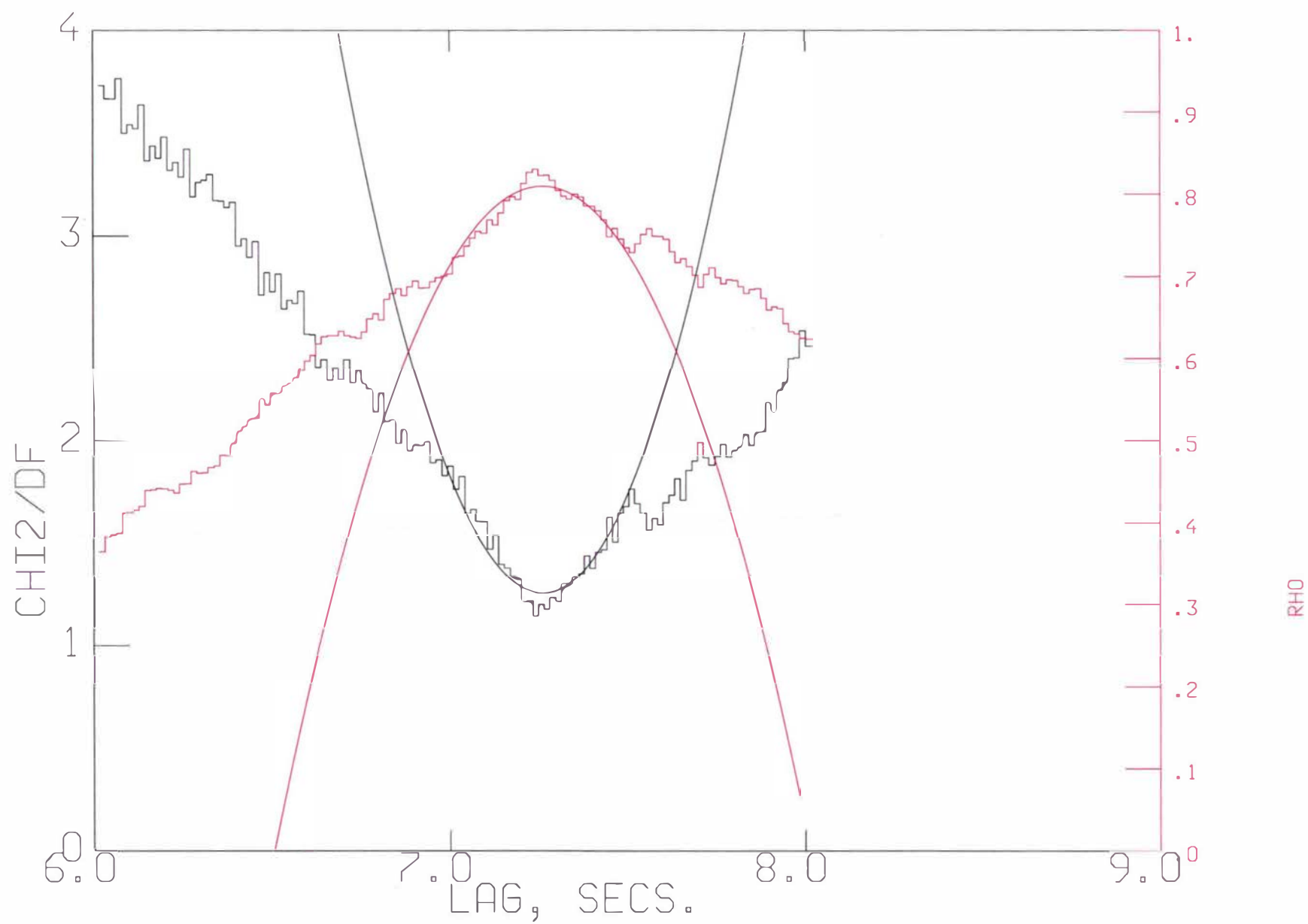


EVENT OF SEP 12, 2009 11:32

19/12/2017

N-M = CORRELATION BETWEEN SATELLITES N AND M
 EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
 1 KONUS1 2 MESSENGER 3 SUZAKU





KONUS1

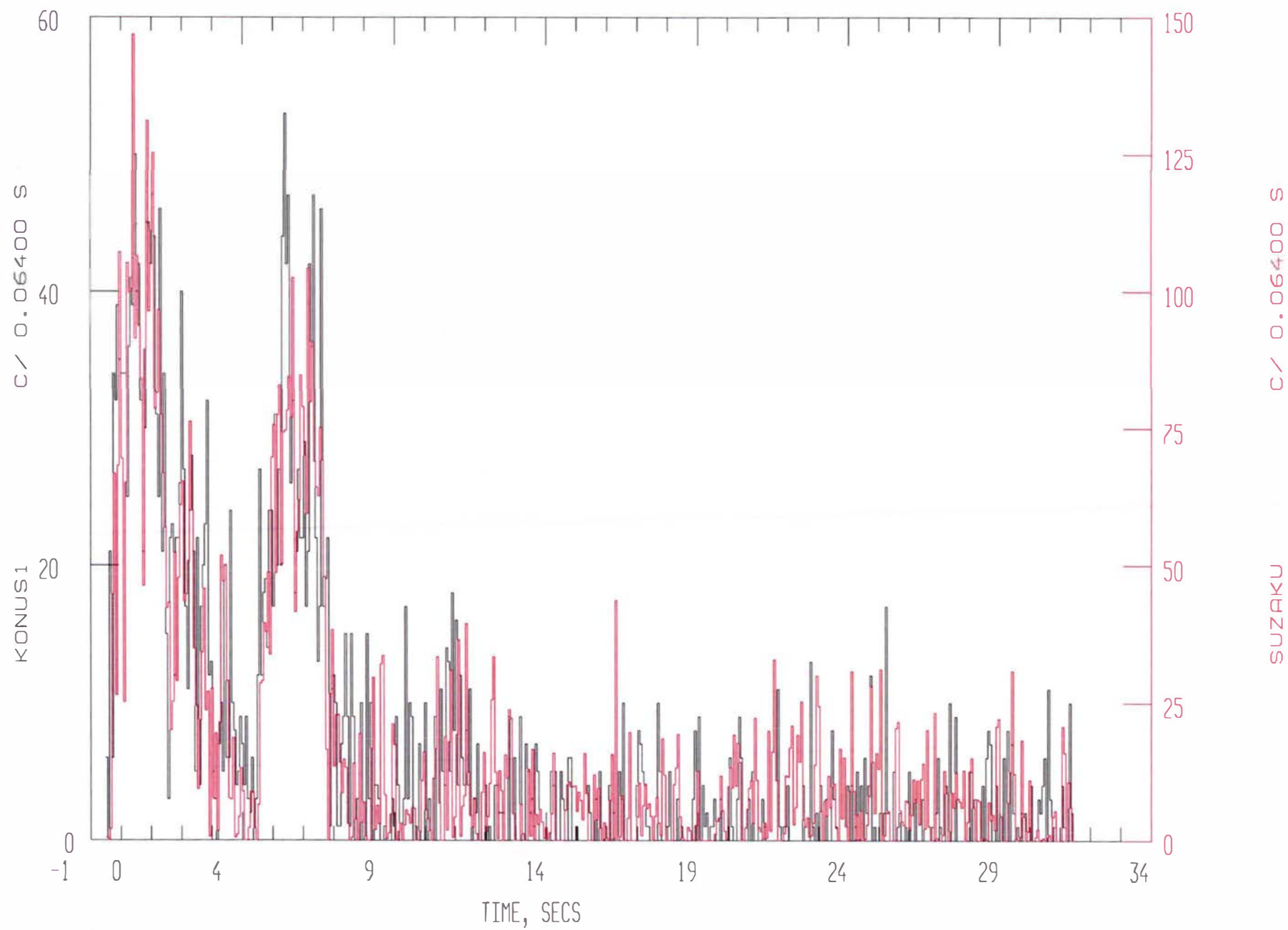
-SUZAKU

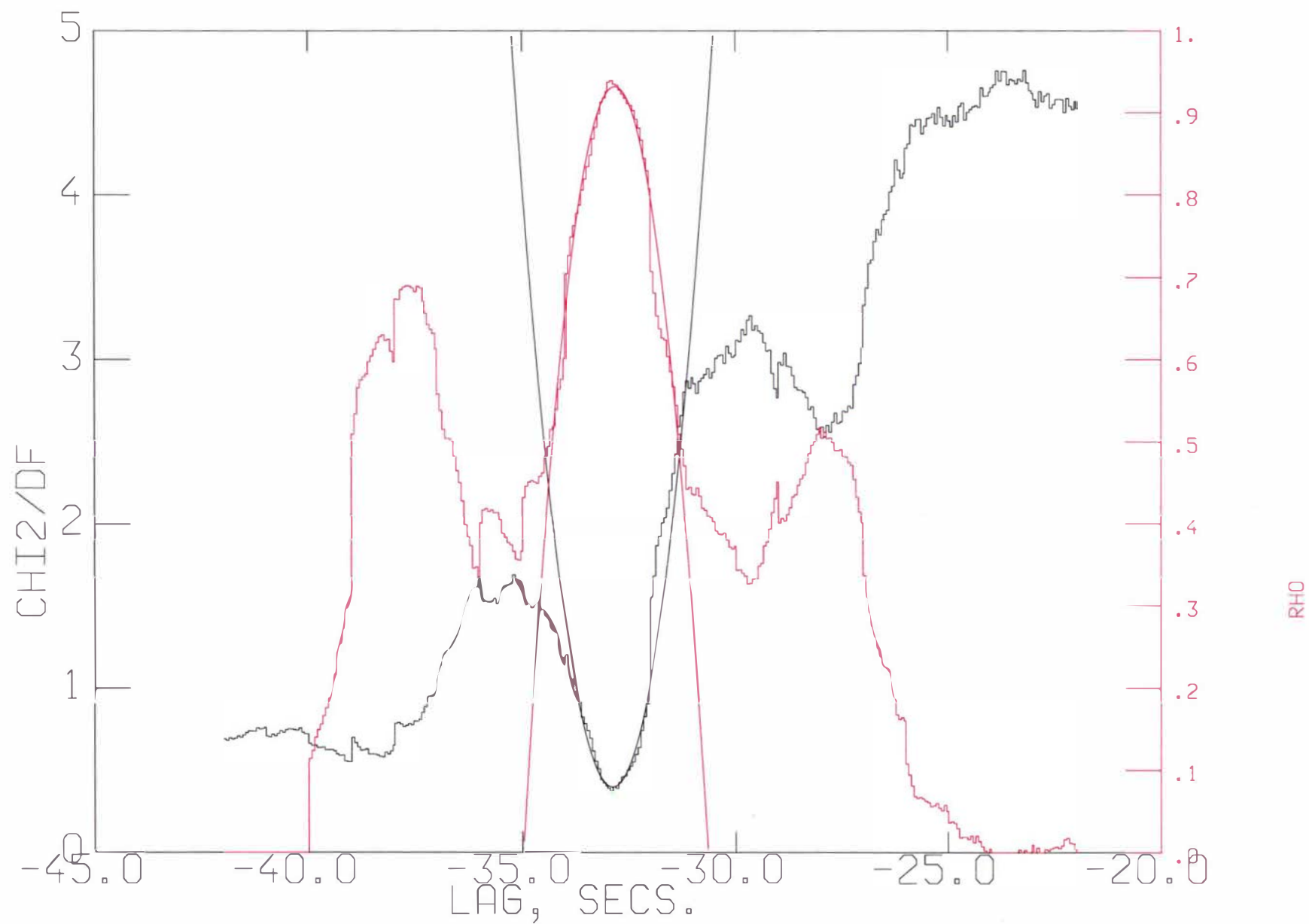
CORRELATION

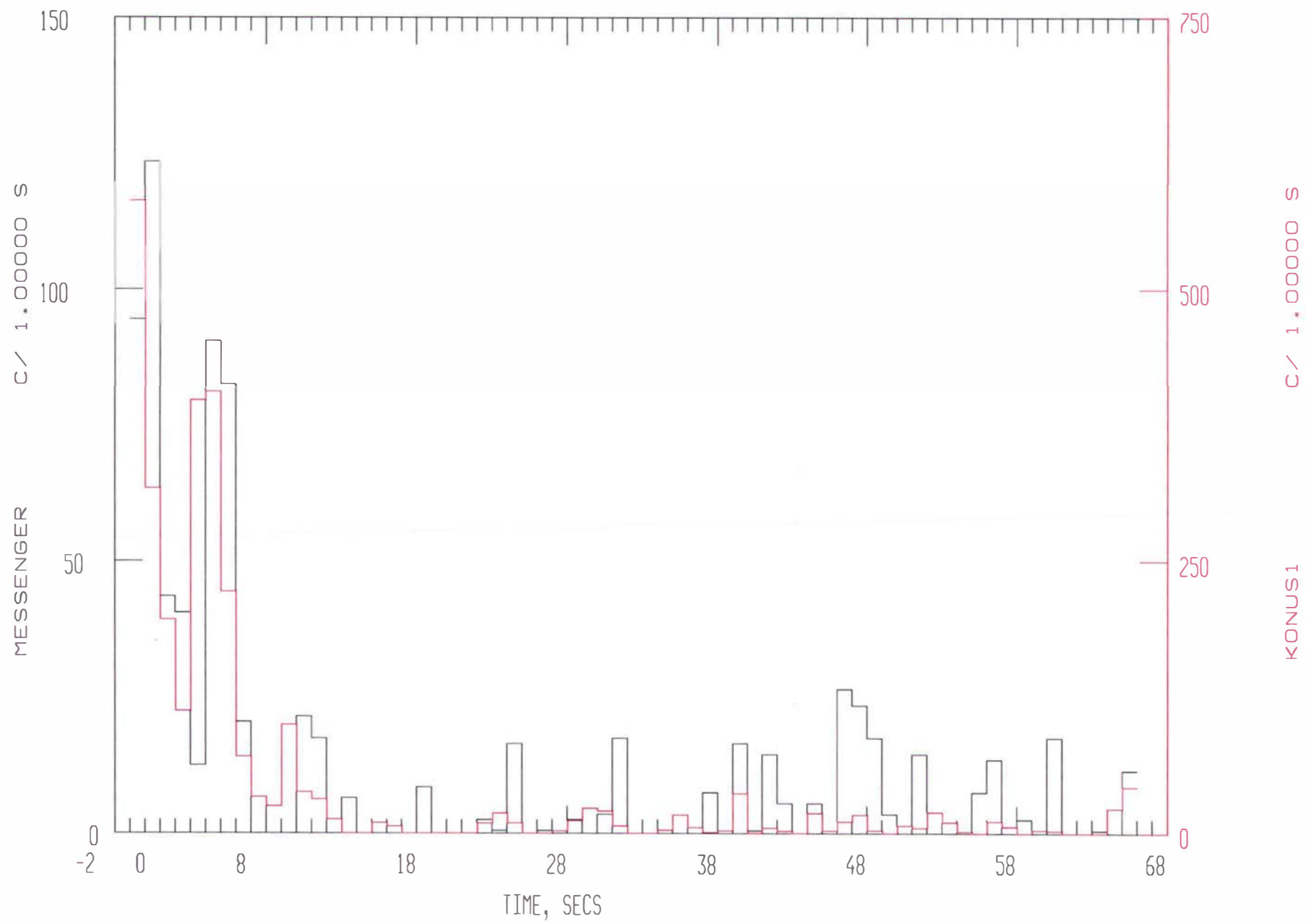
12/09/09

41571.287

19/12/17







KONUS1

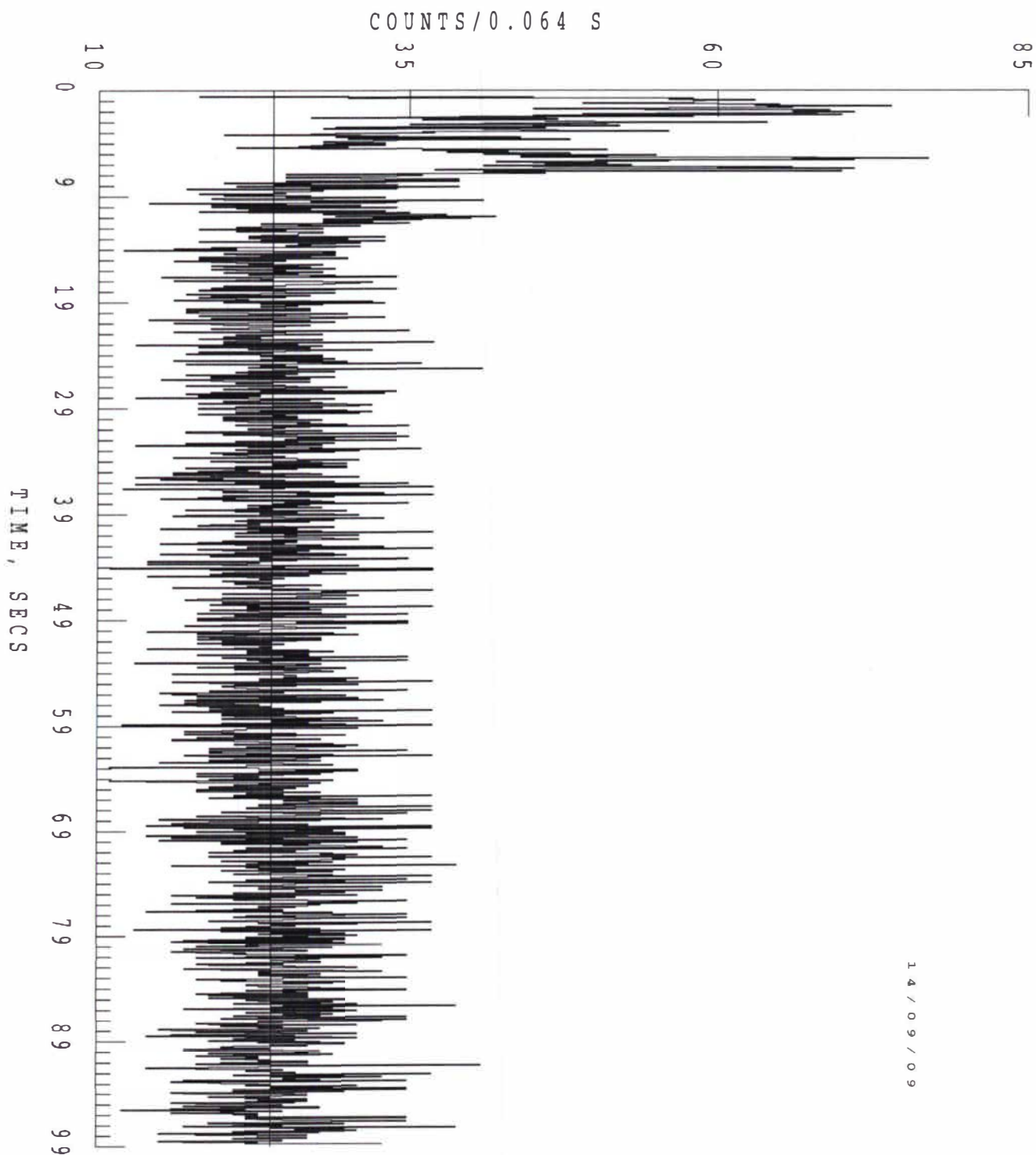
12/09/09

41571.287

A

50 - 200 keV

11:32:51



KONUS HRES 20090912 41571

TRIGGER TIME: 12/09/09 DOY 255 Julian 2455087.98115 UT = 11.547 11:32:51 (41571.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

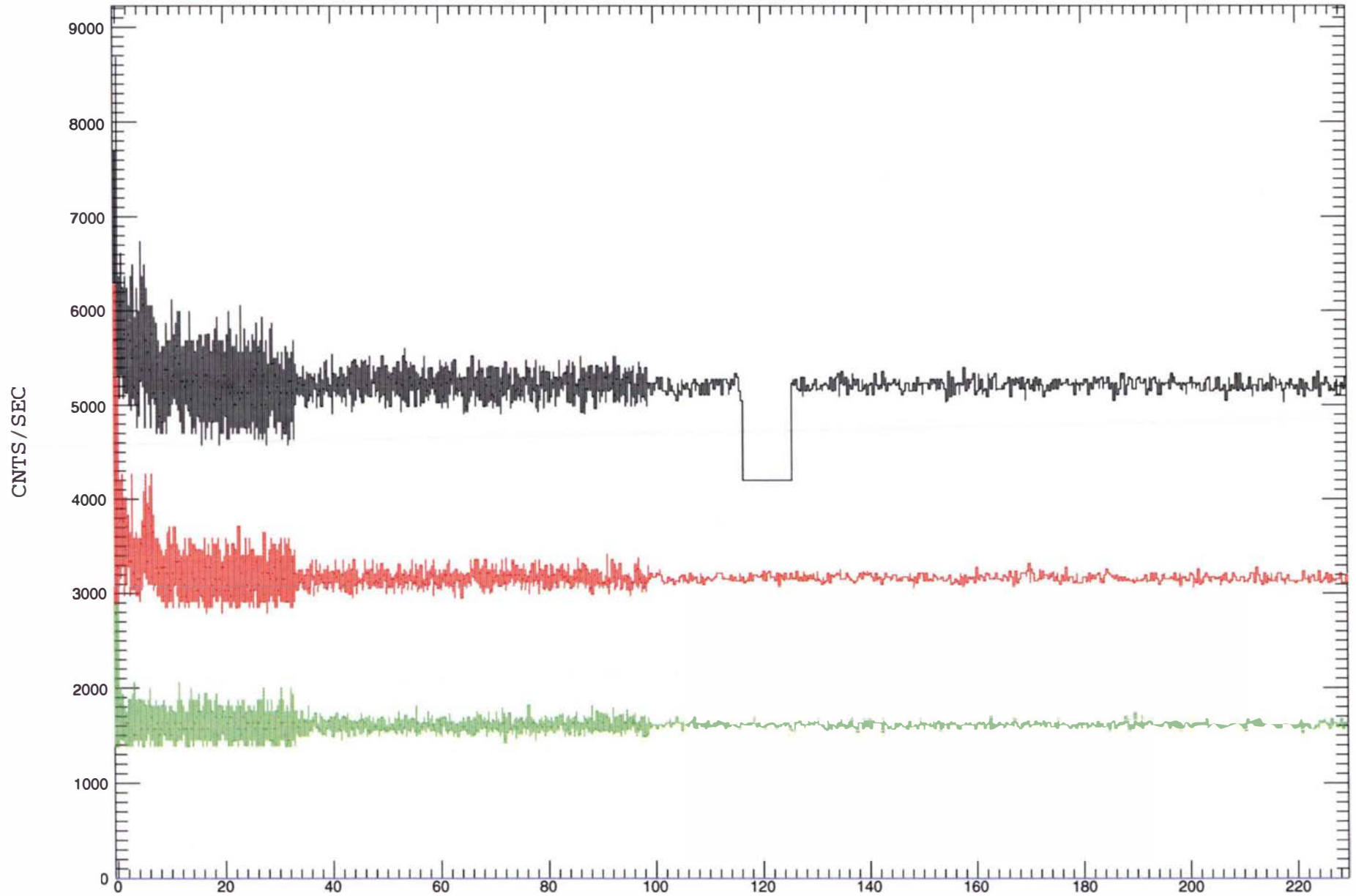
Chan 4 : [> 10 MeV]

Channel 1 + 4200

Channel 2 + 2800

Channel 3 + 1400

Channel 4 + 0



ONDS

MS01

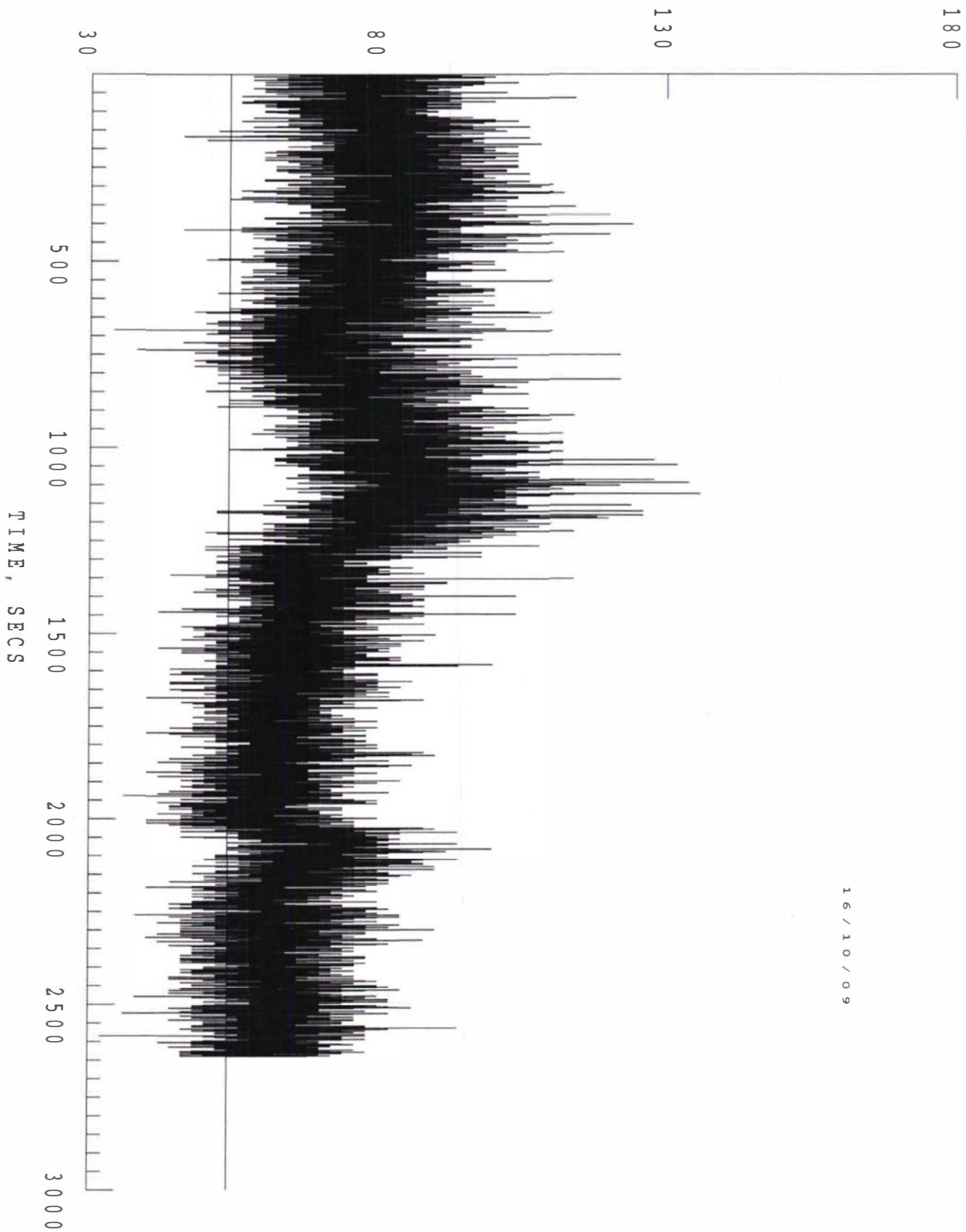
12/09/09

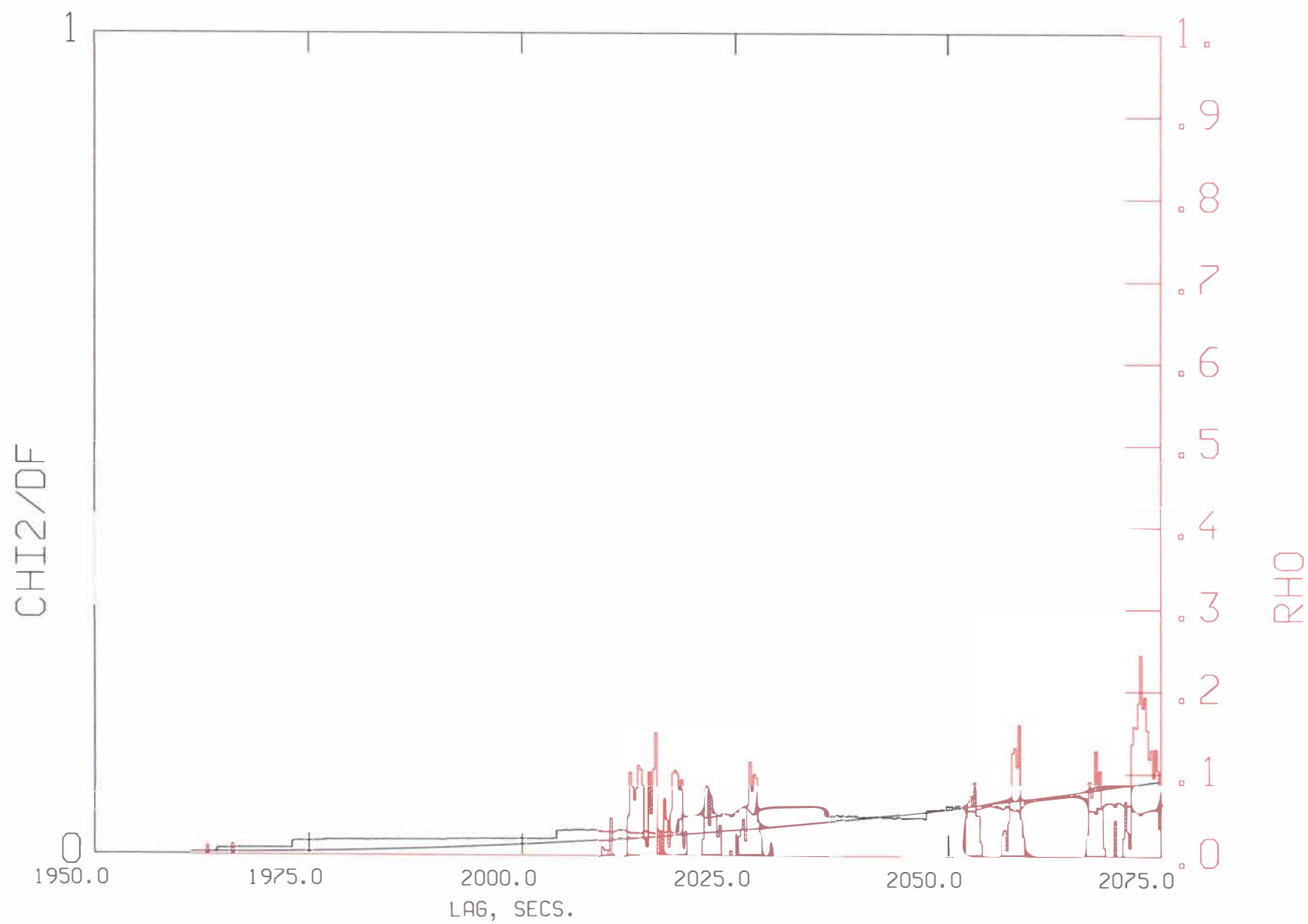
40251.630

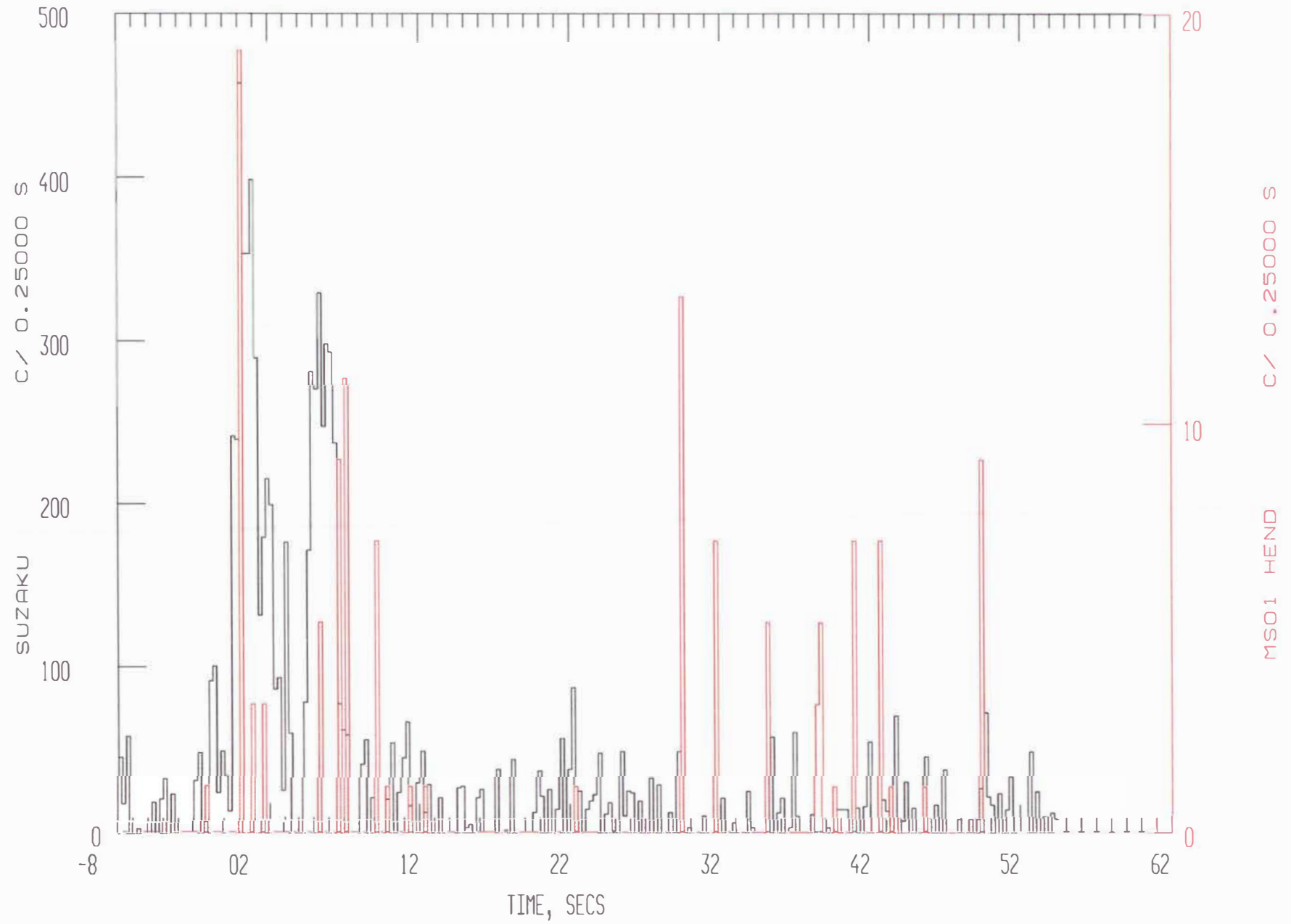
A

50 - 3000 keV

COUNTS/0.250 S





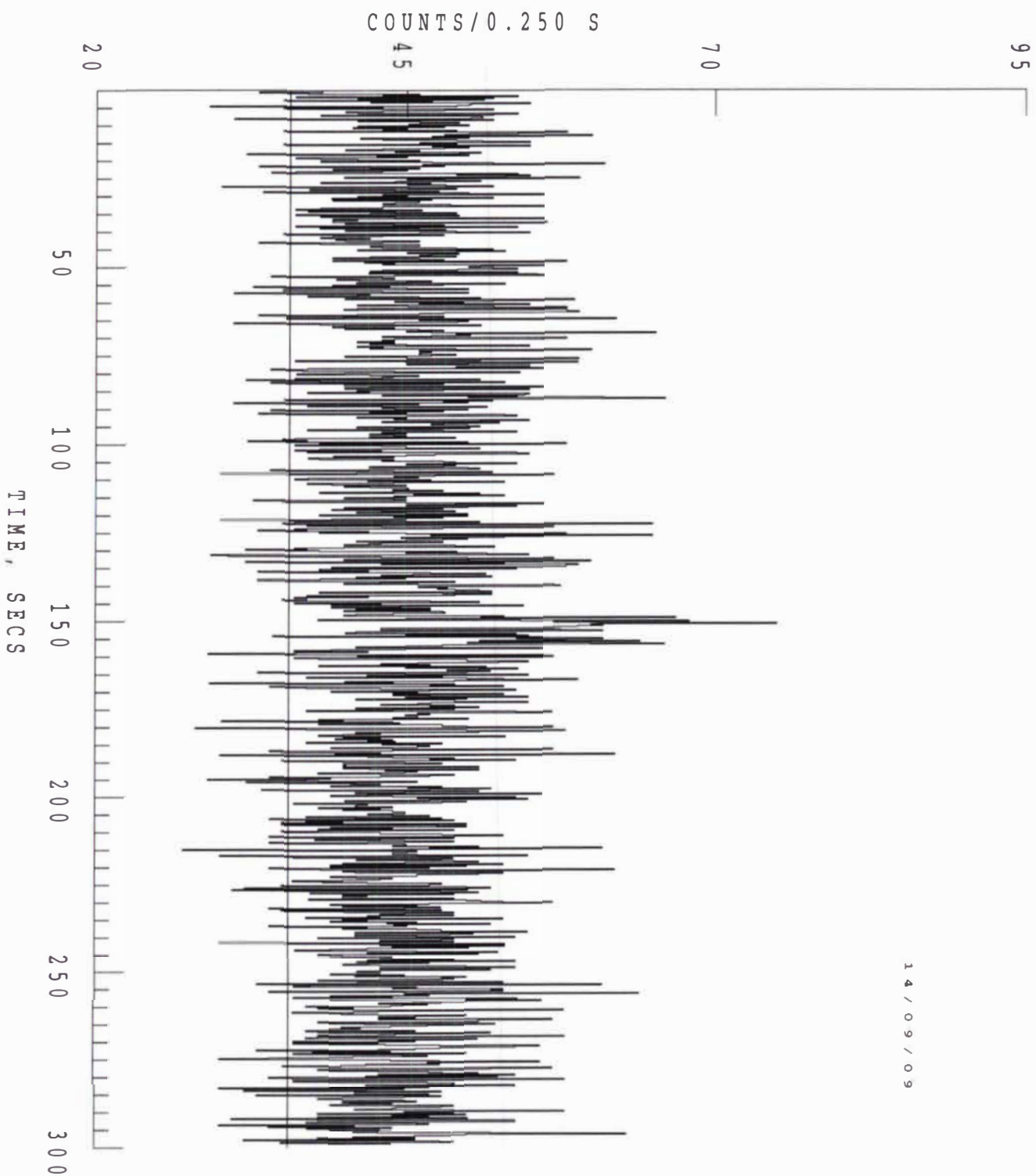


HESSI

12/09/09 41421.000 (SUZAKU_20090912_41571)

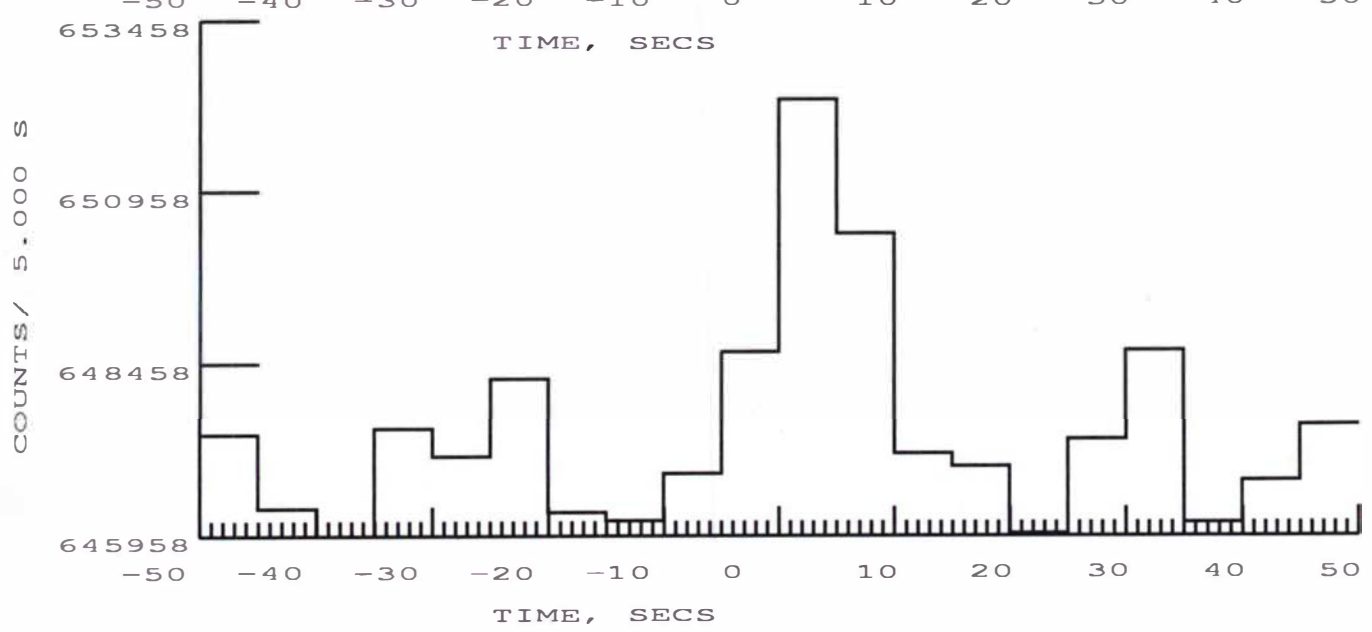
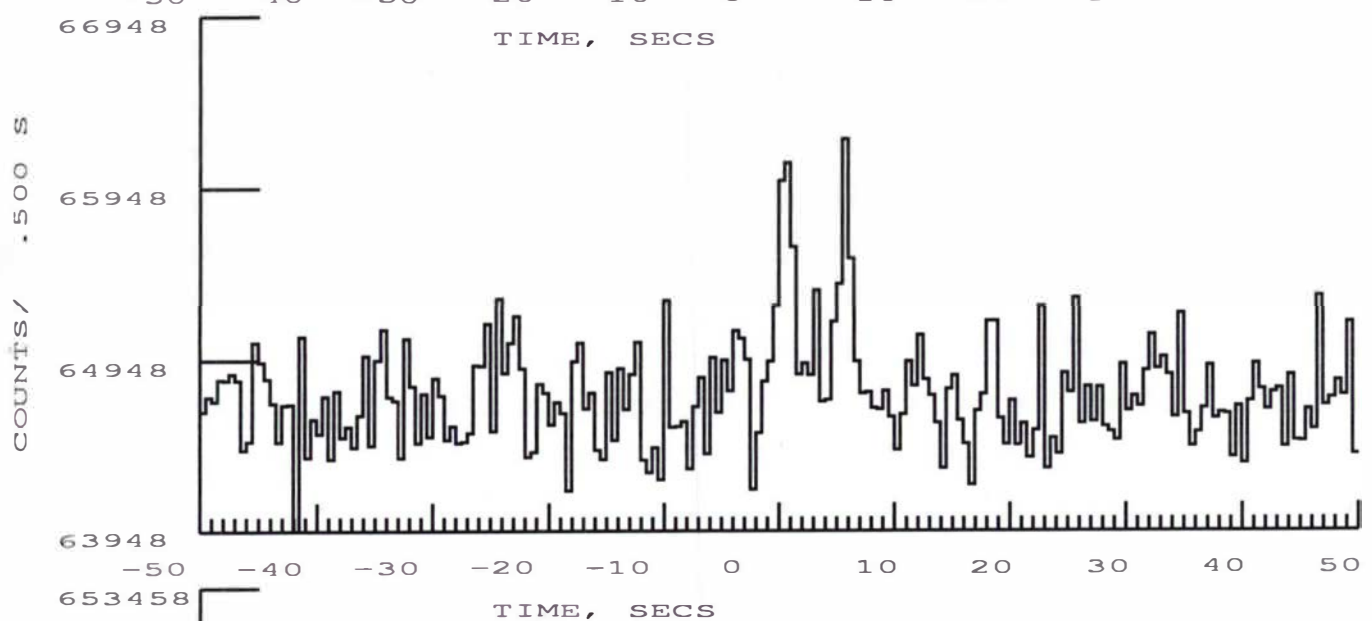
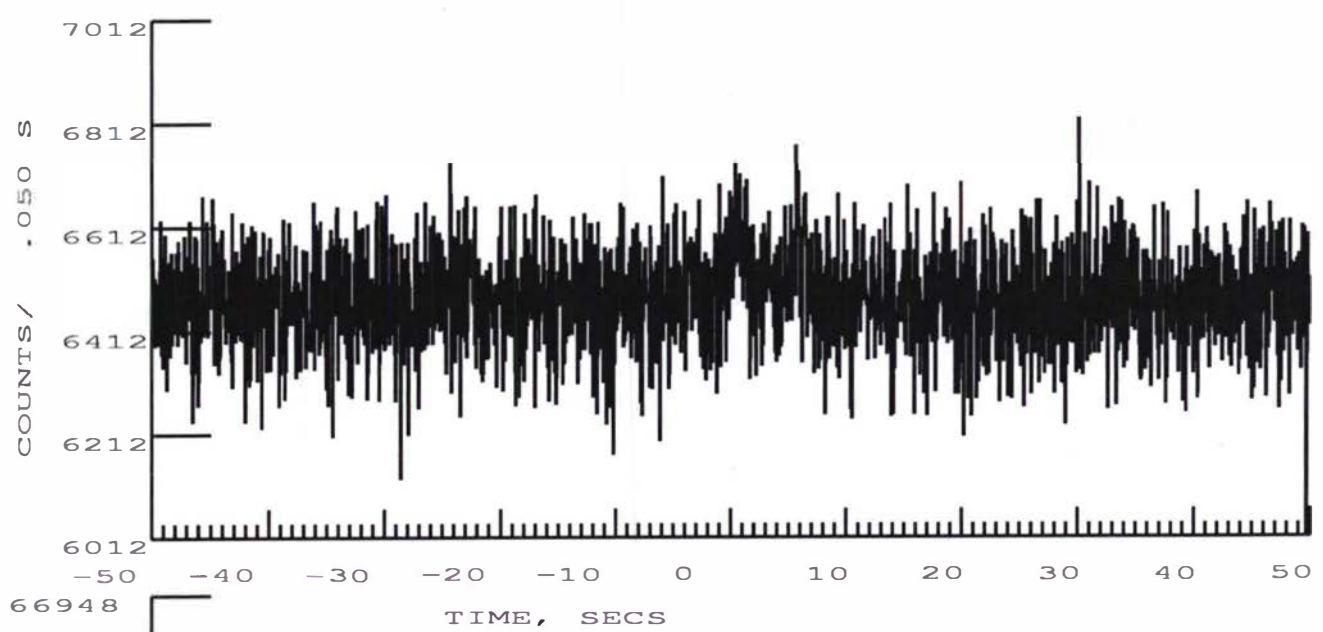
A

25- 150 keV

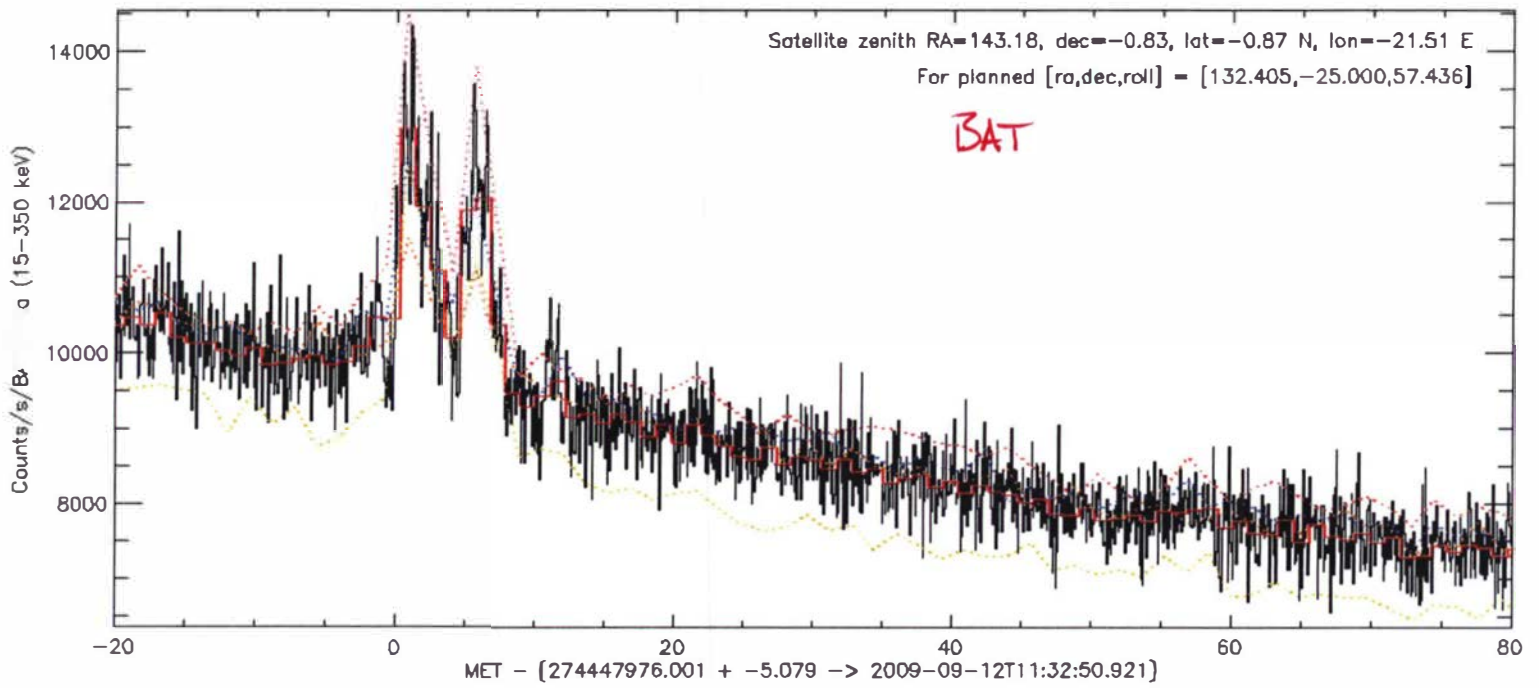


A

INTEGRAL 12/09/09 41571.000 11:32:51.0 10/01/14



A



A

01/10/09

MESSENGER

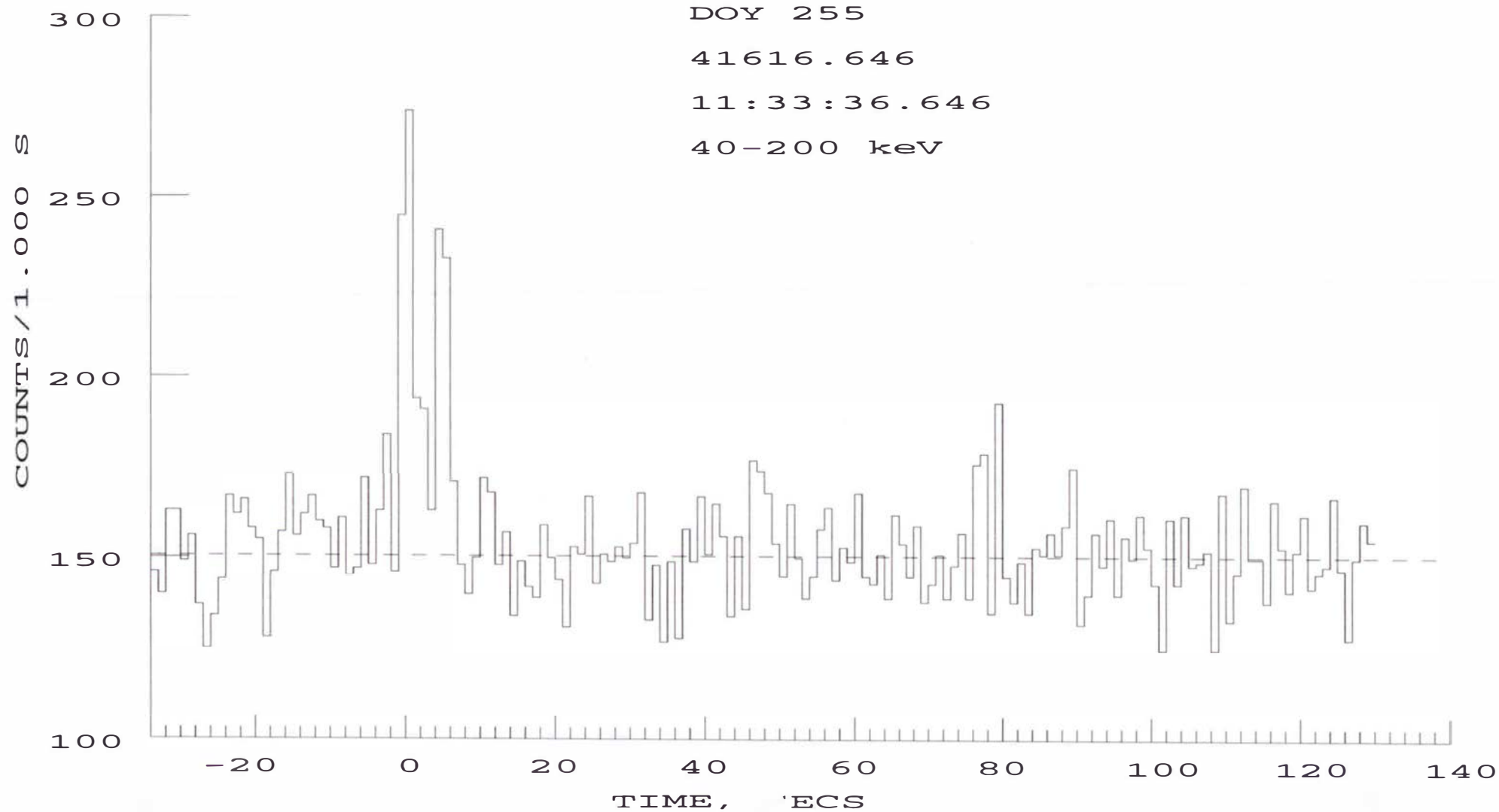
12/09/09

DOY 255

41616.646

11:33:36.646

40-200 keV



SUZAKU

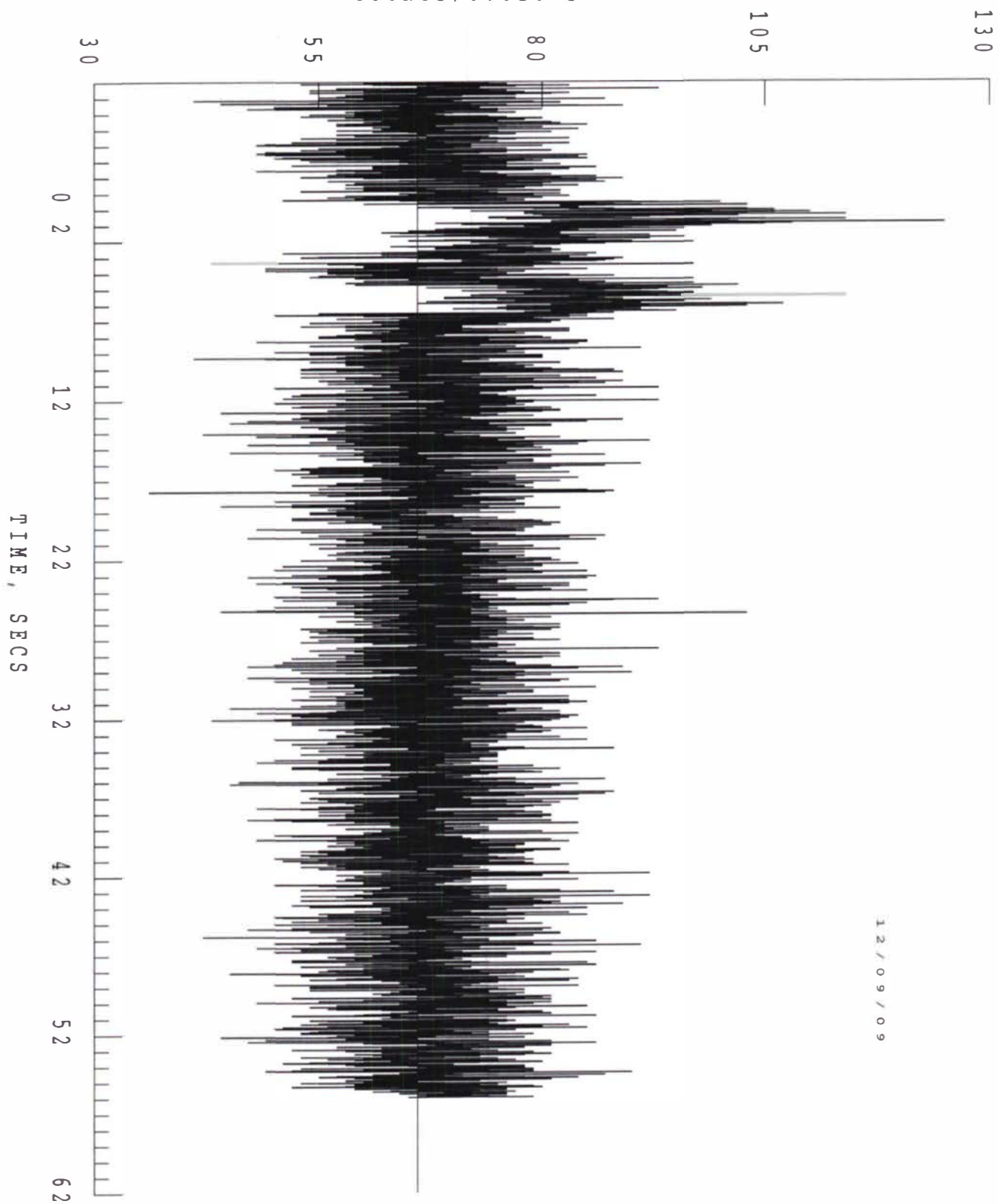
12/09/09

41571.326

A

50 - 240 keV

COUNTS/0.016 S



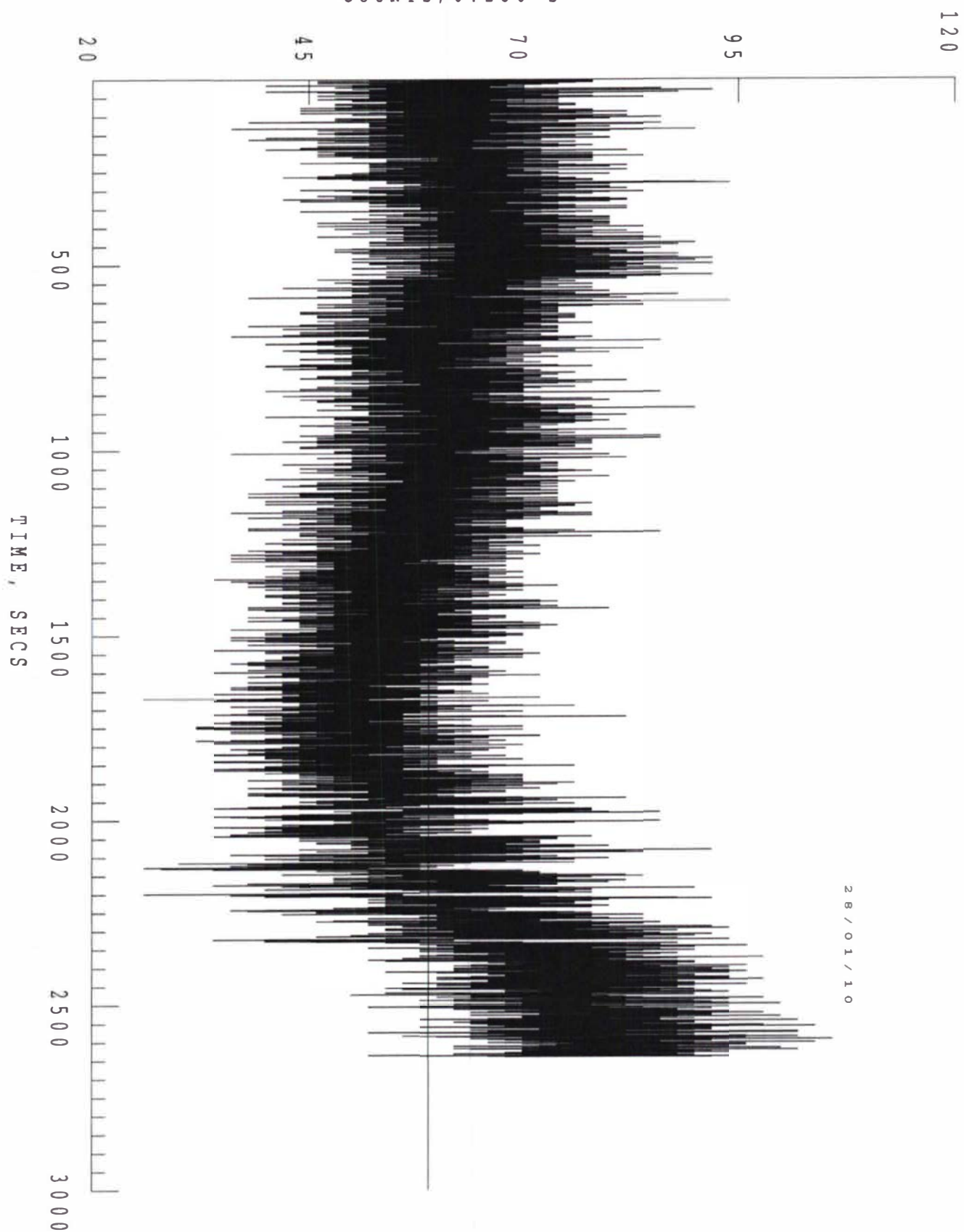
MS01

12/09/09

37611.675

50 - 3000 keV

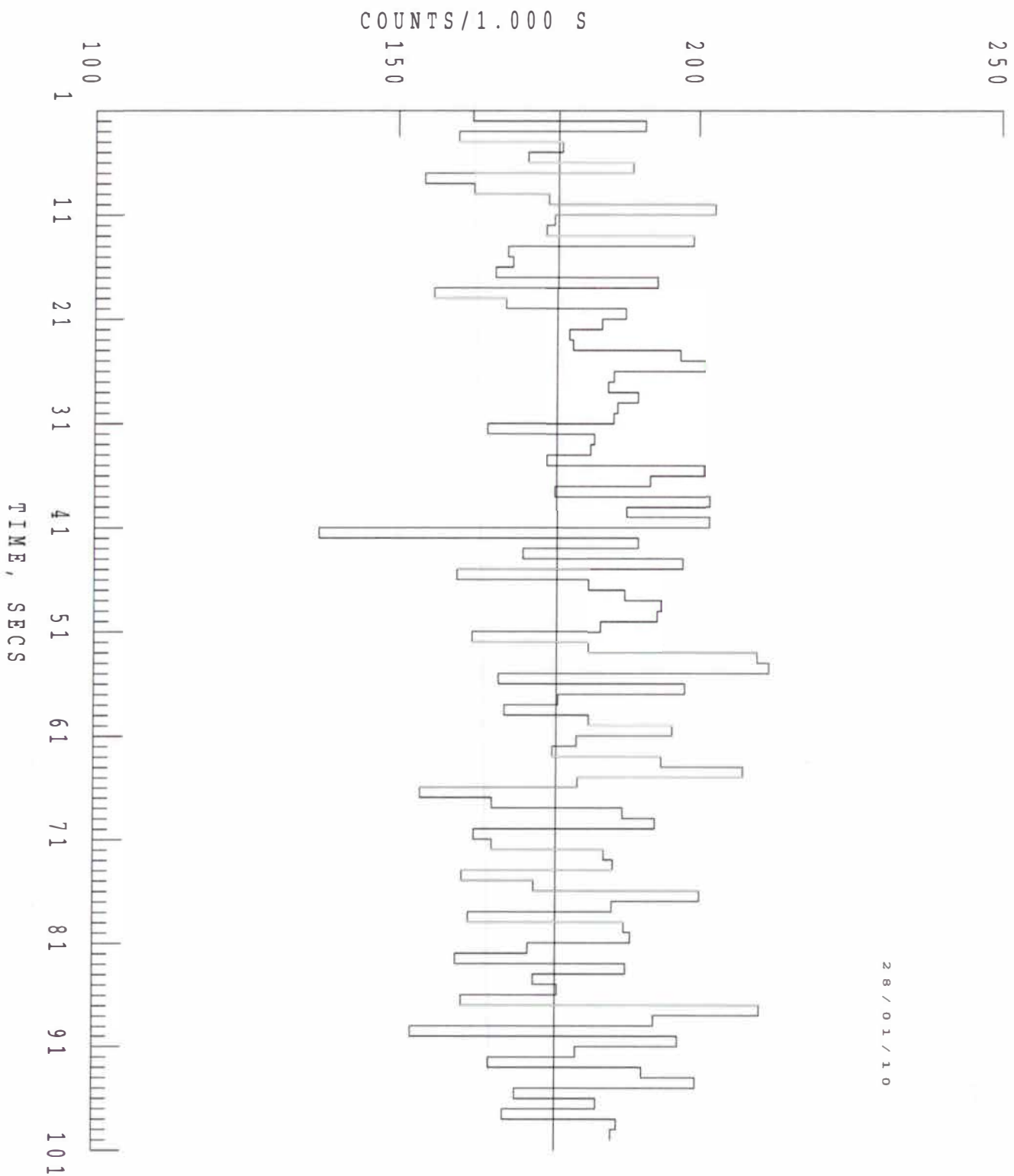
COUNTS/0.250 S



HESSI

12/09/09 38912.000 (KONUS_RI_20090912_38962)

25- 150 keV



From vxw@capella.gsfc.nasa.gov Sat Sep 12 08:53:20 2009
 X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
 Date: Sat, 12 Sep 2009 11:54:05 -0400
 From: Bacodine <vxw@capella.gsfc.nasa.gov>
 To: khurley@ssl.berkeley.edu
 Subject: GCN/SWIFT_BAT_LIGHTCURVE

144 s

 $4.5 \times 10^{-6} \text{ erg cm}^{-2}$

MCT 56738

TITLE: GCN/SWIFT NOTICE
 NOTICE_DATE: Sat 12 Sep 09 15:54:03 UT
 NOTICE_TYPE: Swift-BAT GRB Lightcurve
 TRIGGER_NUM: 362633, Seg_Num: 0
 GRB_RA: 188.092d {+12h 32m 22s} (J2000),
 188.202d {+12h 32m 48s} (current),
 187.521d {+12h 30m 05s} (1950)
 GRB_DEC: +61.513d {+61d 30' 45"} (J2000),
 +61.459d {+61d 27' 33"} (current),
 +61.788d {+61d 47' 18"} (1950)
 GRB_DATE: 15086 TJD; 255 DOY; 09/09/12
 GRB_TIME: 57029.86 SOD {15:50:29.86} UT
 TRIGGER_INDEX: 148
 GRB_PHI: -105.01 [deg]
 GRB_THETA: 33.88 [deg]
 DELTA_TIME: 26.00 [sec]
 TRIGGER_DUR: 1.024 [sec]
 SOLN_STATUS: 0x83
 RATE_SIGNIF: 10.48 [sigma]
 IMAGE_SIGNIF: 6.62 [sigma]
 LC_URL: sw00362633000msb.lc
 SUN_POSTN: 170.82d {+11h 23m 17s} +3.96d {+03d 57' 20"}
 SUN_DIST: 58.97 [deg] Sun_angle= -1.2 [hr] (East of Sun)
 JON_POSTN: 87.11d {+05h 48m 25s} +26.03d {+26d 01' 30"}
 MOON_DIST: 72.37 [deg]
 MOON_ILLUM: 44 [%]
 GAL_COORDS: 126.94, 55.47 [deg] galactic lon,lat of the burst (or transient)
 ECL_COORDS: 148.62, 56.42 [deg] ecliptic lon,lat of the burst (or transient)
 COMMENTS: SWIFT-BAT GRB Lightcurve.
 COMMENTS:
 COMMENTS: The next comments were copied from the BAT_POS Notice:
 COMMENTS: This is a rate trigger.
 COMMENTS: A point_source was found.
 COMMENTS: This does not match any source in the on-board catalog.
 COMMENTS: This does not match any source in the ground catalog.
 COMMENTS: This is a GRB.
 COMMENTS: Since the IMAGE_SIGNIF is less than 7 sigma, this is a question
 COMMENTS: This trigger occurred at longitude,latitude = 155.31,18.73 [deg]

B

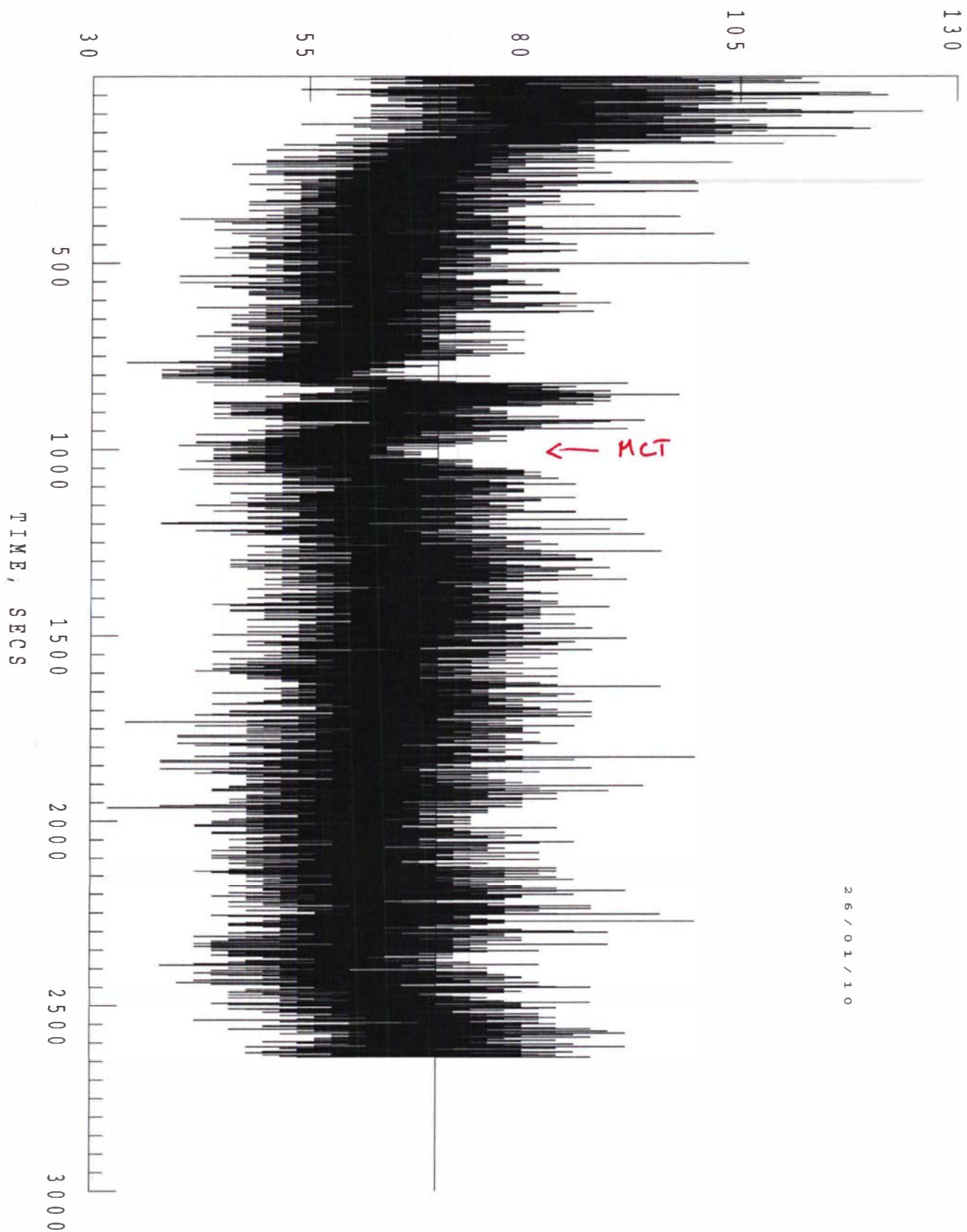
MS01

12/09/09

55671.373

50 - 3000 keV

COUNTS/0.250 S

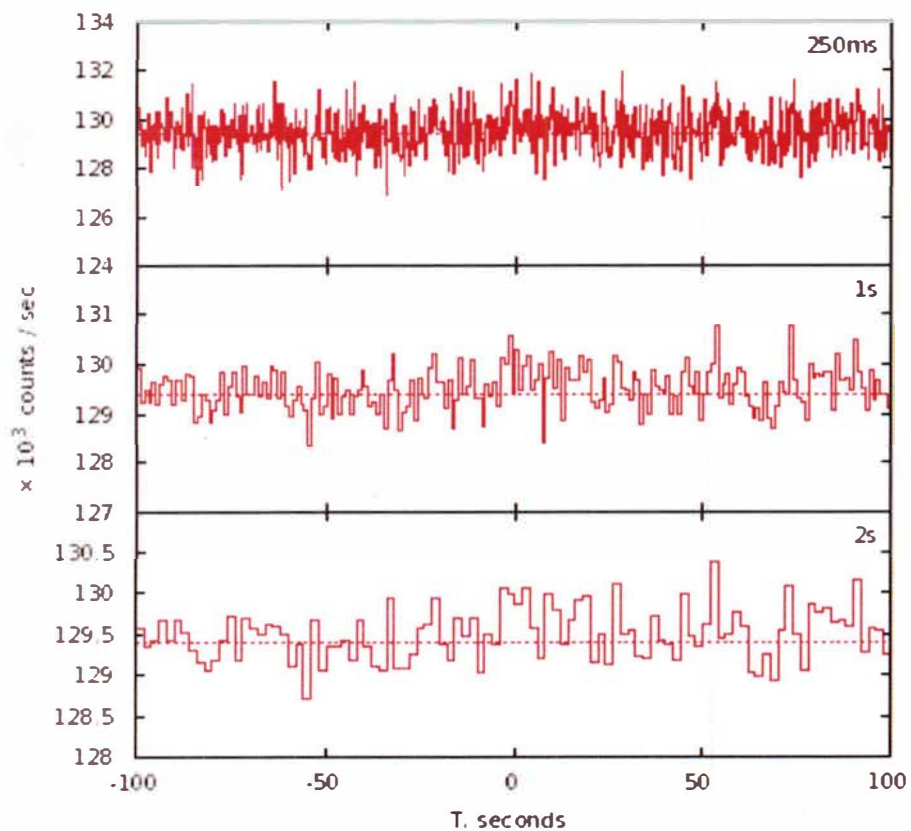


From williams@penelope.ssl.berkeley.edu Mon Sep 14 14:49:00 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Mon, 14 Sep 2009 15:02:05 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_GLAST_20090912_57029

HESSI 25 to 150 keV Counts
Created 14-Sep-2009 14:48:32.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry

B

INTEGRAL SPI-ACS 090912 $T_0 = 57029$ s UT



GLAST

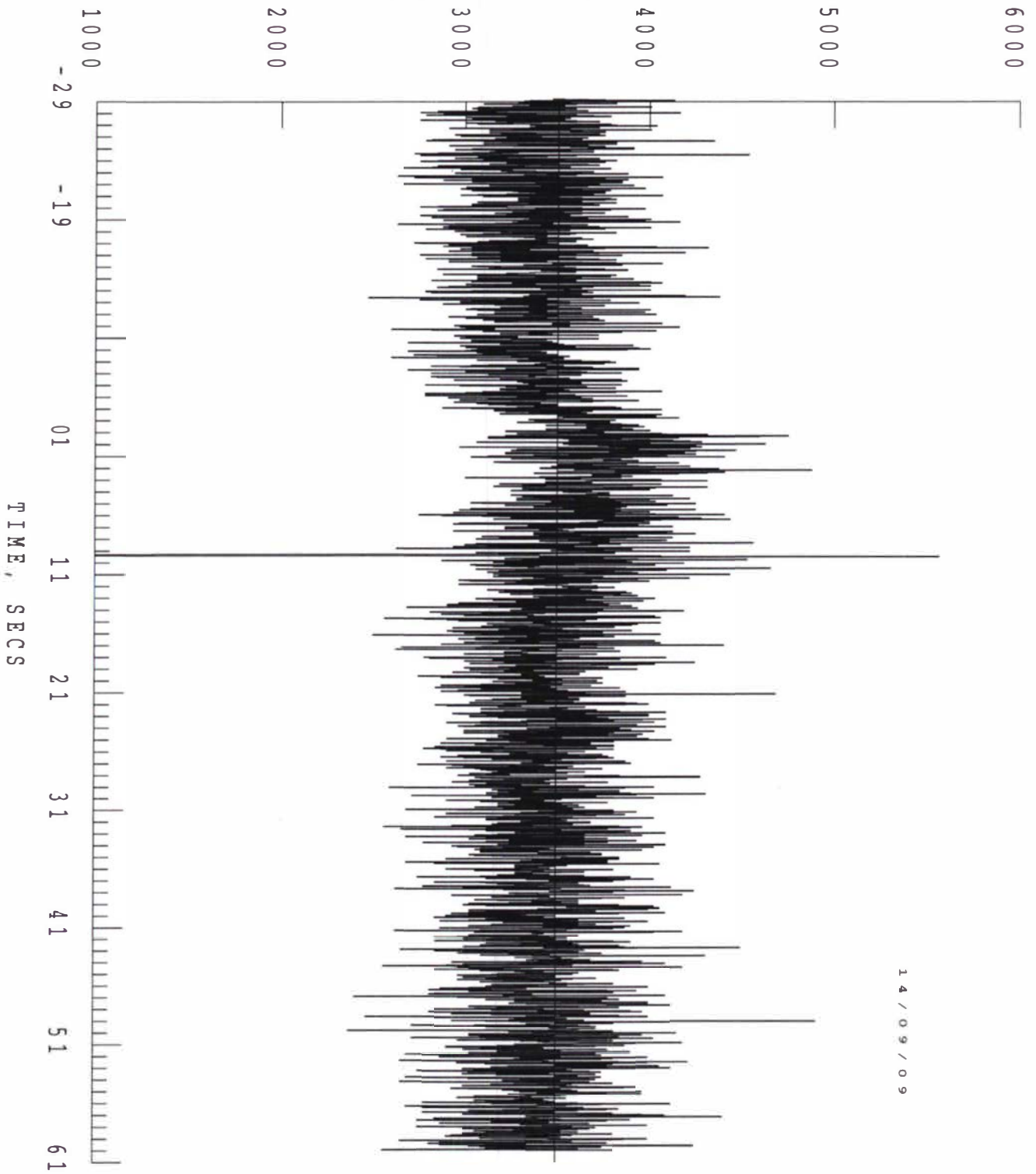
12/09/09

57029.103

B

26 - 293 keV

COUNTS/0.032 S



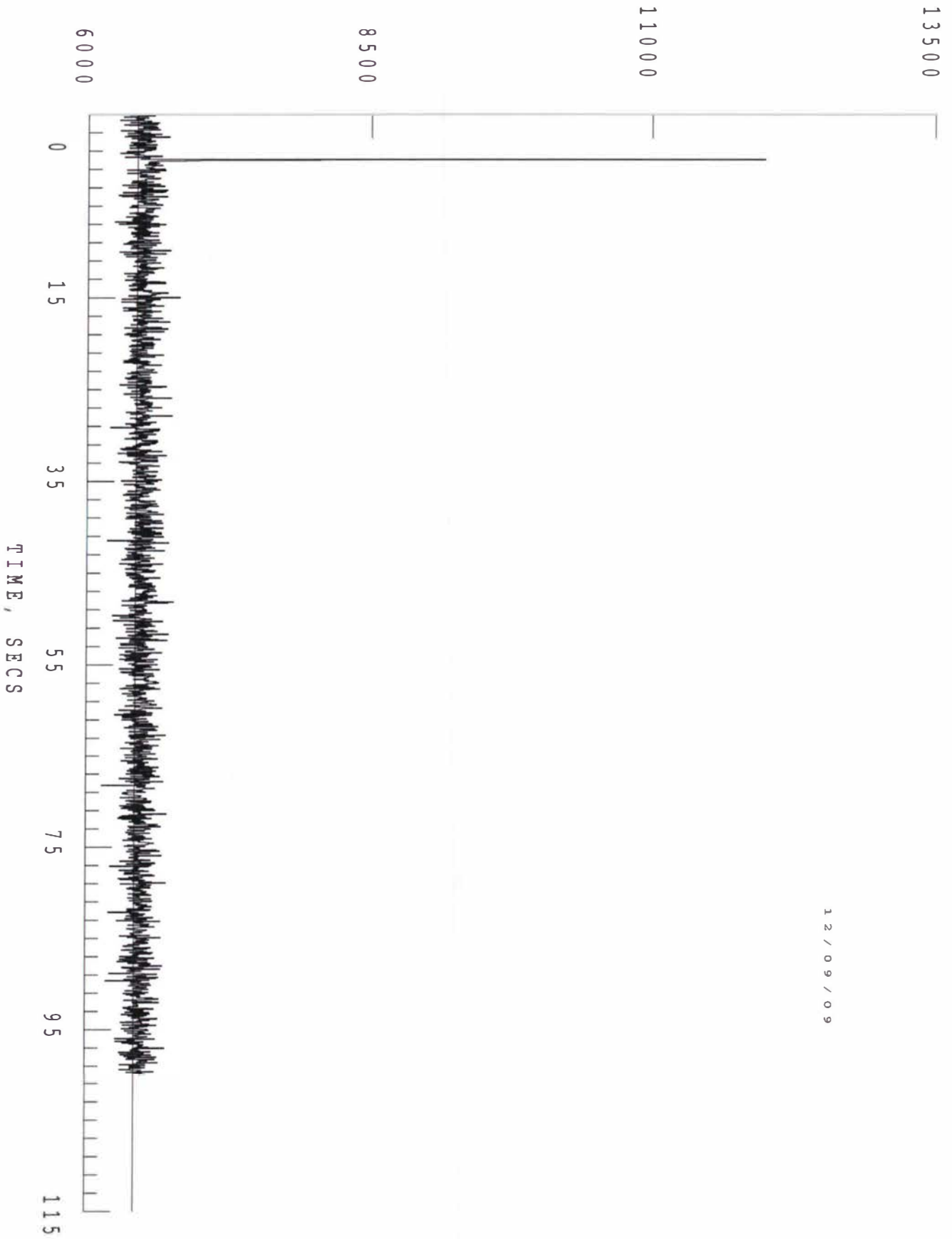
INTEGRAL

12/09/09

60227.838

100-10000 keV

COUNTS/0.050 S

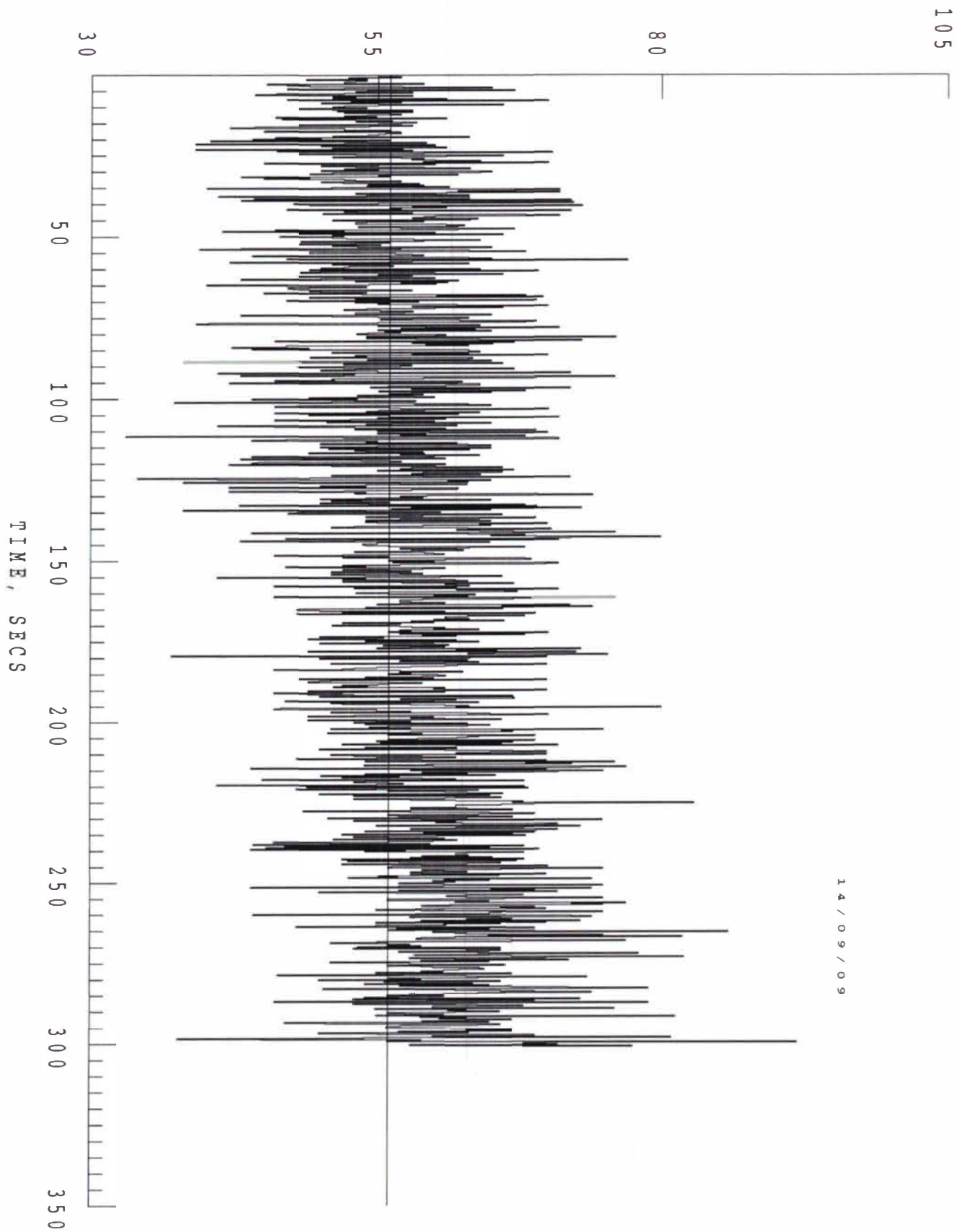


HESSI

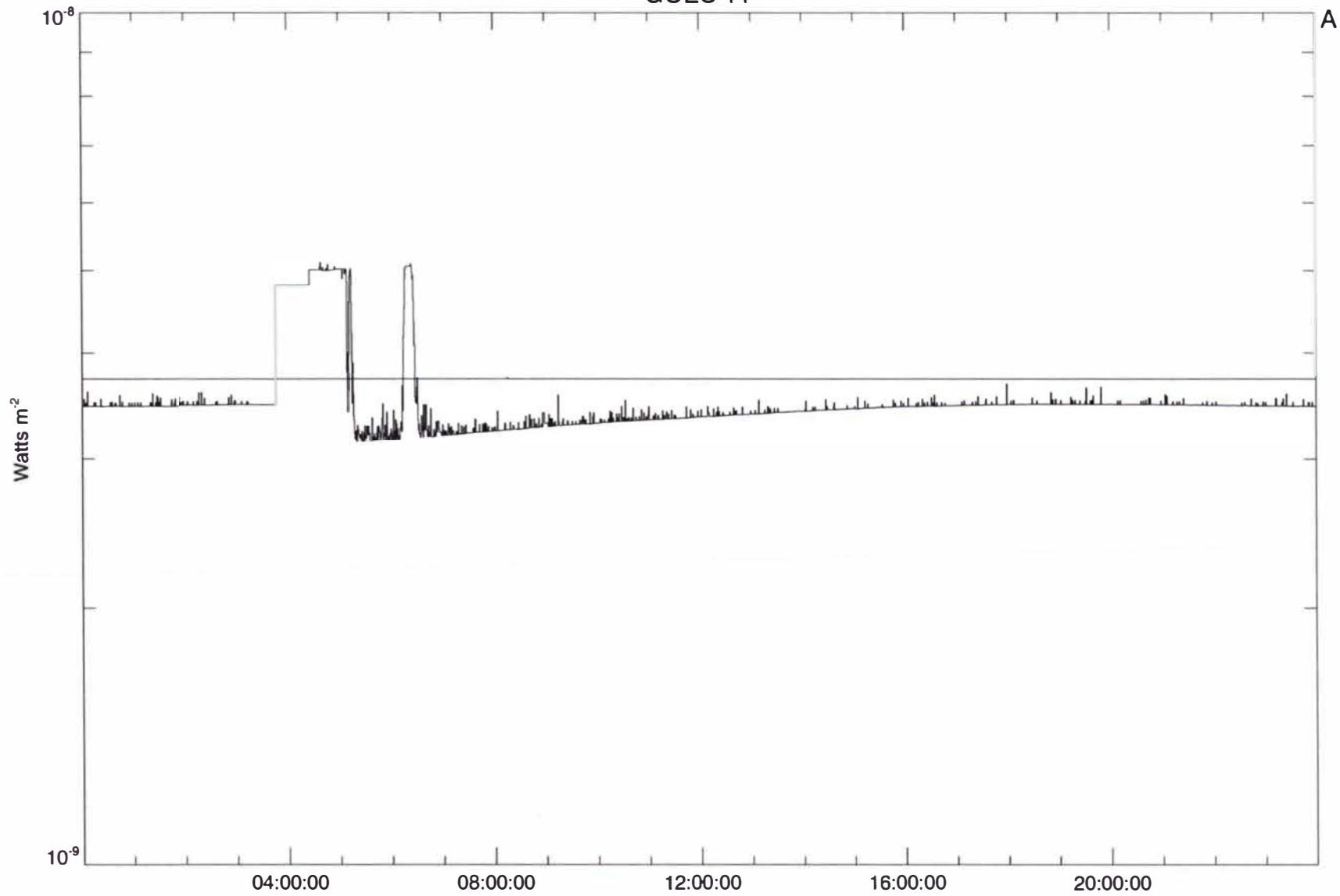
12/09/09 60076.000 (INTEGRAL_20090912_60227)

25- 150 keV

COUNTS/0.250 S



GOES 11



Data Start: 09/09/12, 0000:13

Plot created: 09/09/15, 0819

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

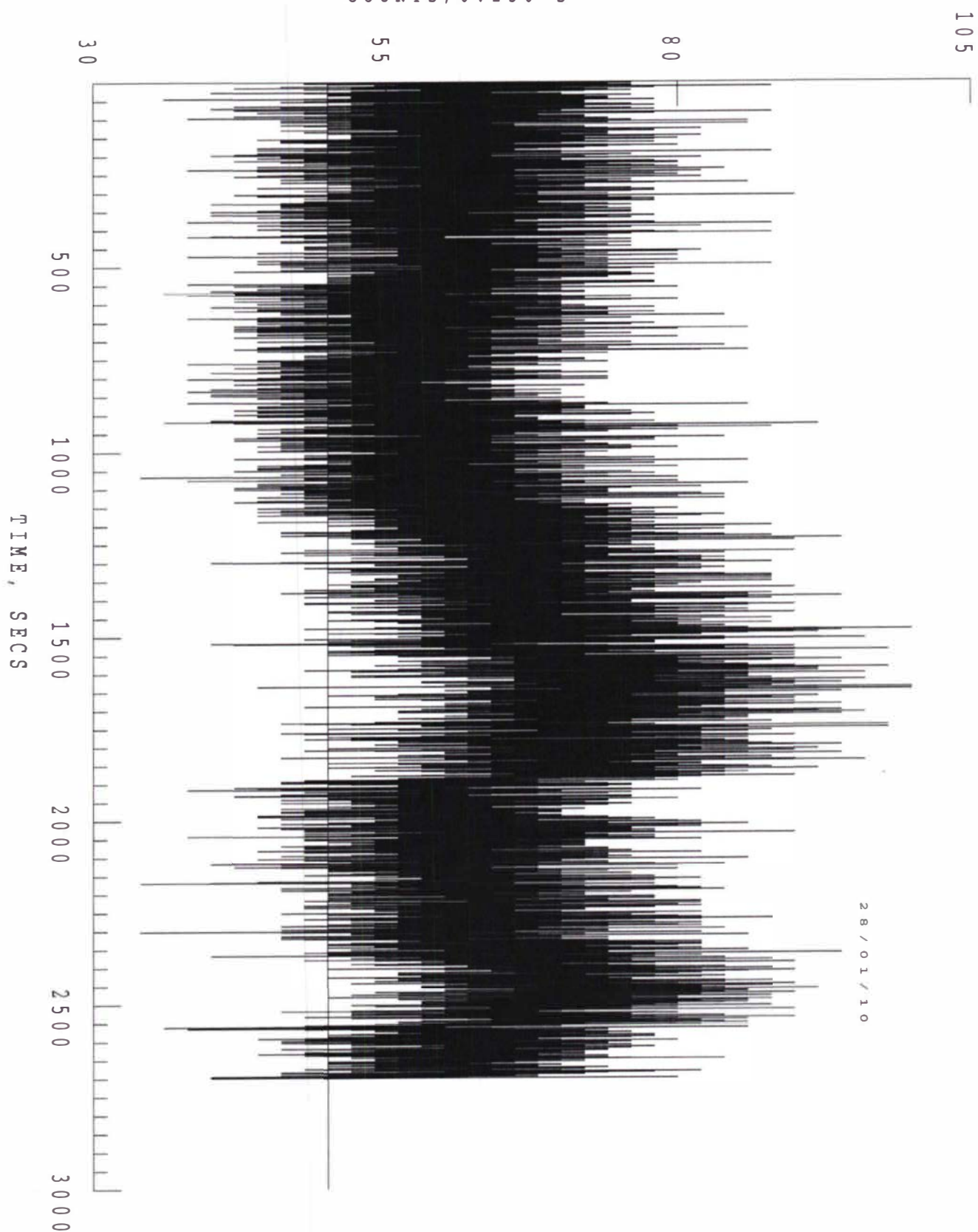
MS01

13/09/09

55909.929

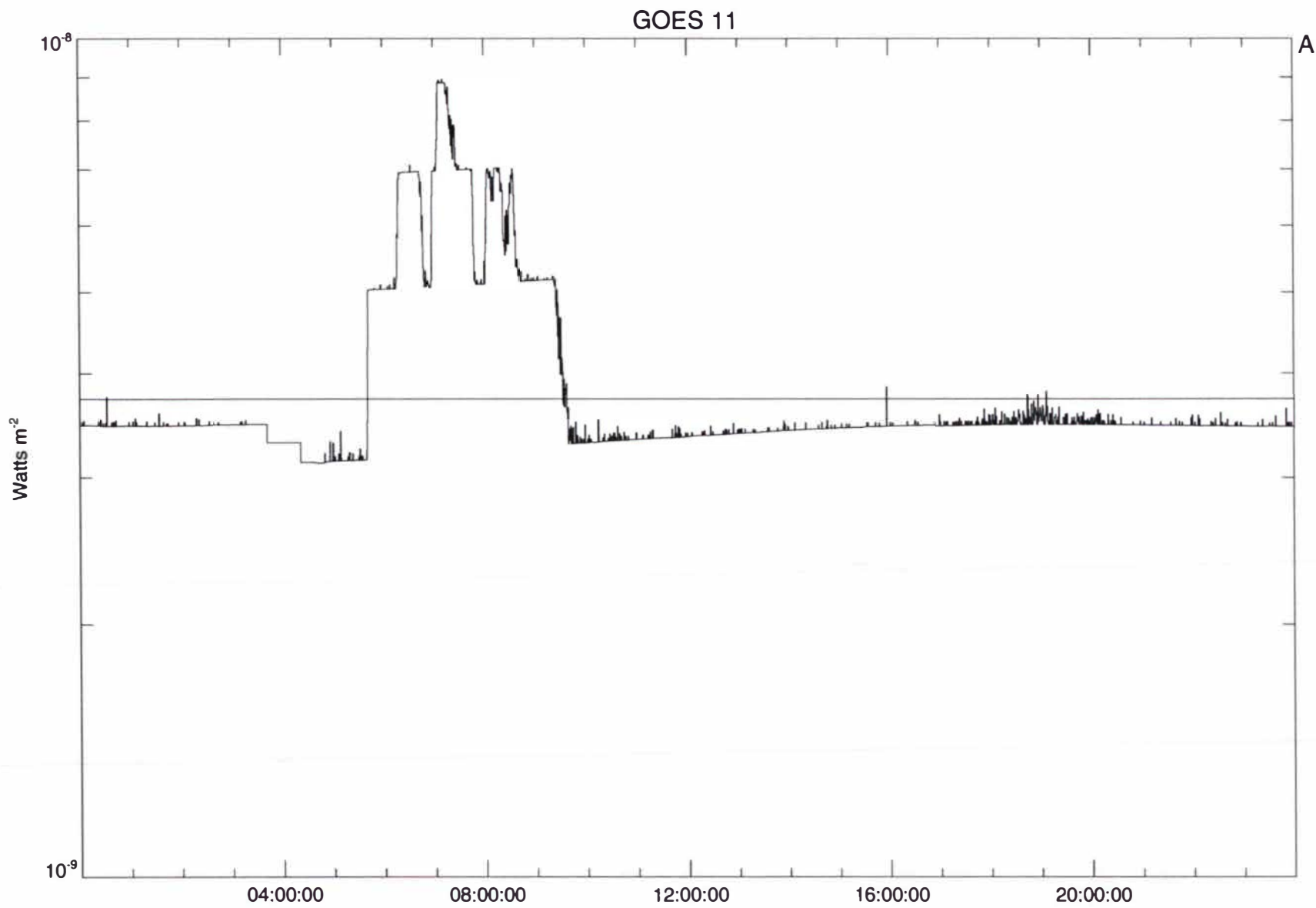
50 - 3000 keV

COUNTS/0.250 S



From williams@penelope.ssl.berkeley.edu Thu Jan 28 11:46:33 2010
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Thu, 28 Jan 2010 12:02:00 -0800 (PST)
From: williams@penelope.ssl.berkeley.edu
Cc: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_SUZAKU_RI_20090913_57280

HESSI 25 to 150 keV Counts
Created 28-Jan-2010 11:47:44.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.500000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry



Data Start: 09/09/13, 0000:13

Plot created: 09/09/16, 0818

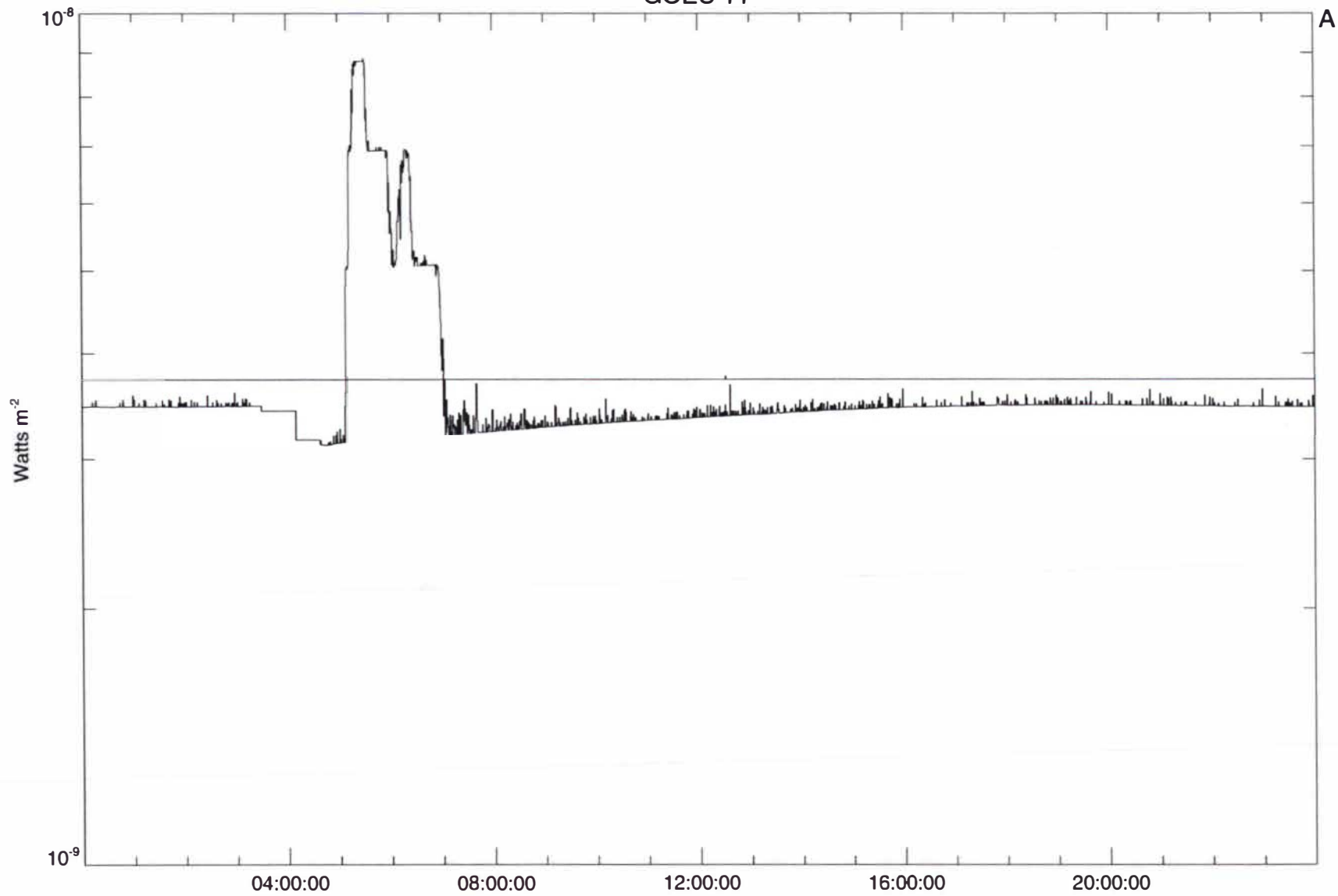
Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GOES 11



Data Start: 09/09/14, 0000:13

Plot created: 09/09/17, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

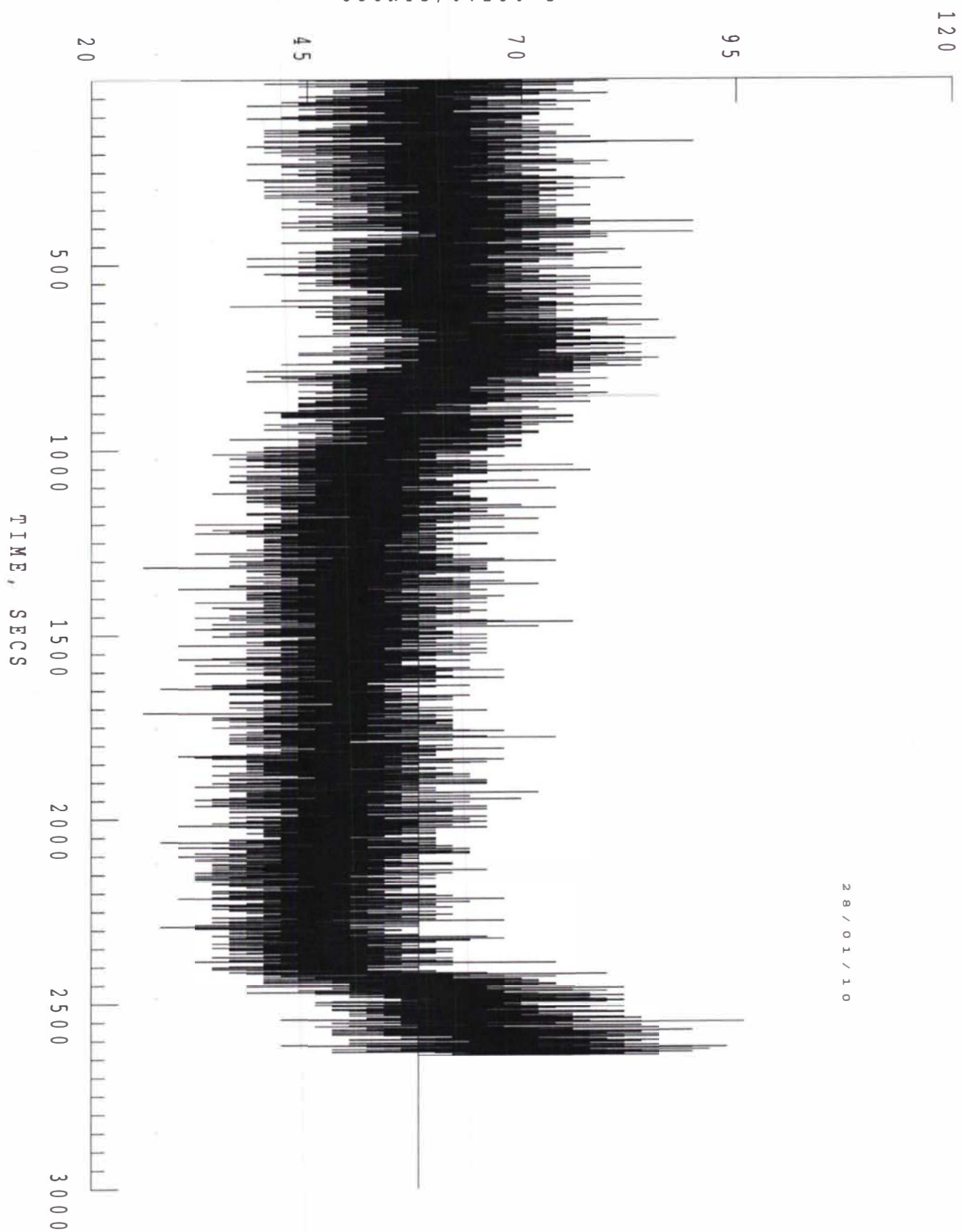
MS01

15/09/09

34607.398

50 - 3000 keV

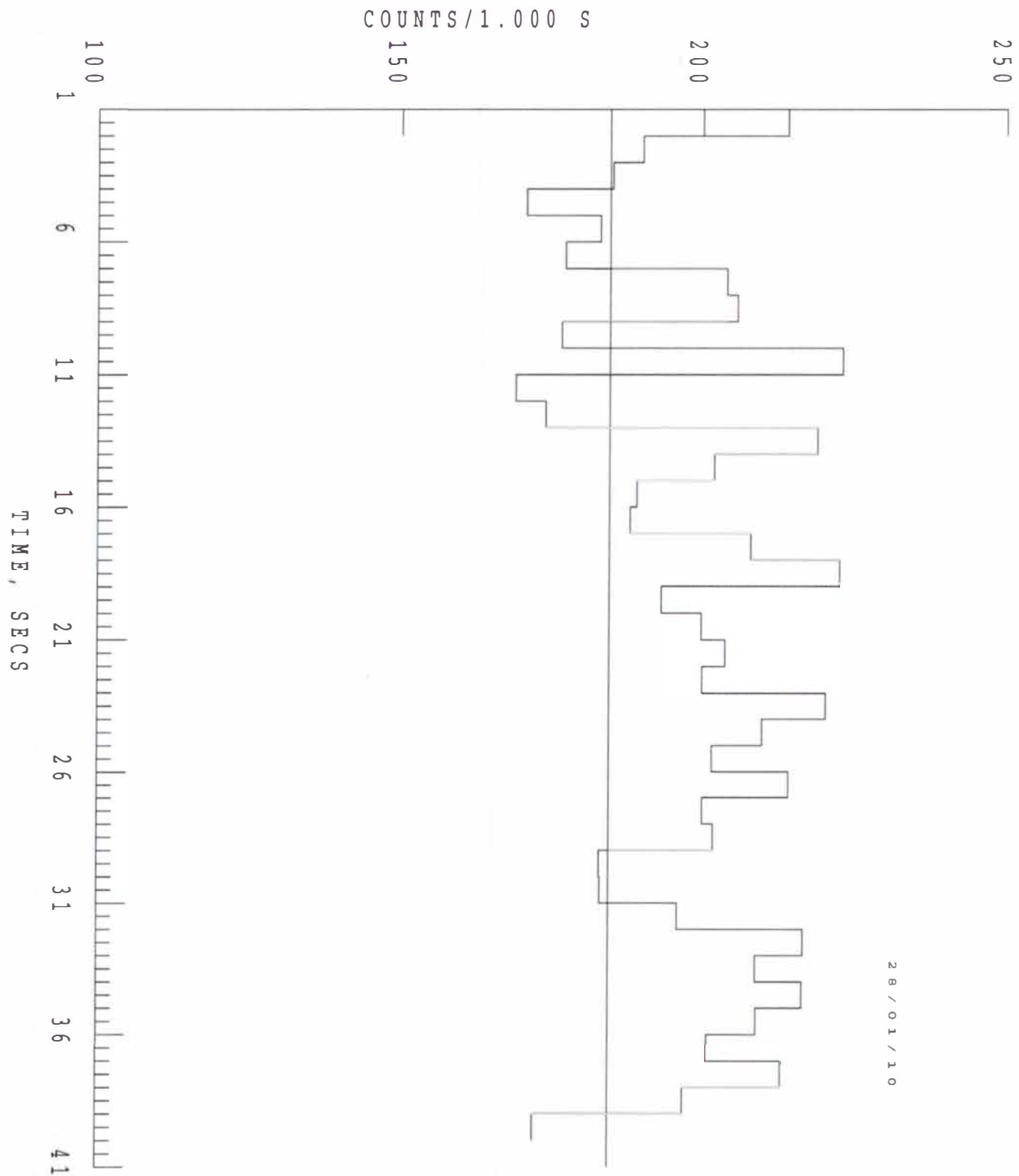
COUNTS/0.250 S



HESSI

15/09/09 35936.000 (SUZAKU_RI_20090915_35956)

25- 150 keV



Date: Sep 15 2016

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009, and July 1 – August 20, 2012 – leap sec.)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/scbk/timekeeping/OPS_TIME_ENGR.txt)?
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☒ Was CHECKMO run to eliminate data gaps?
- ☒ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

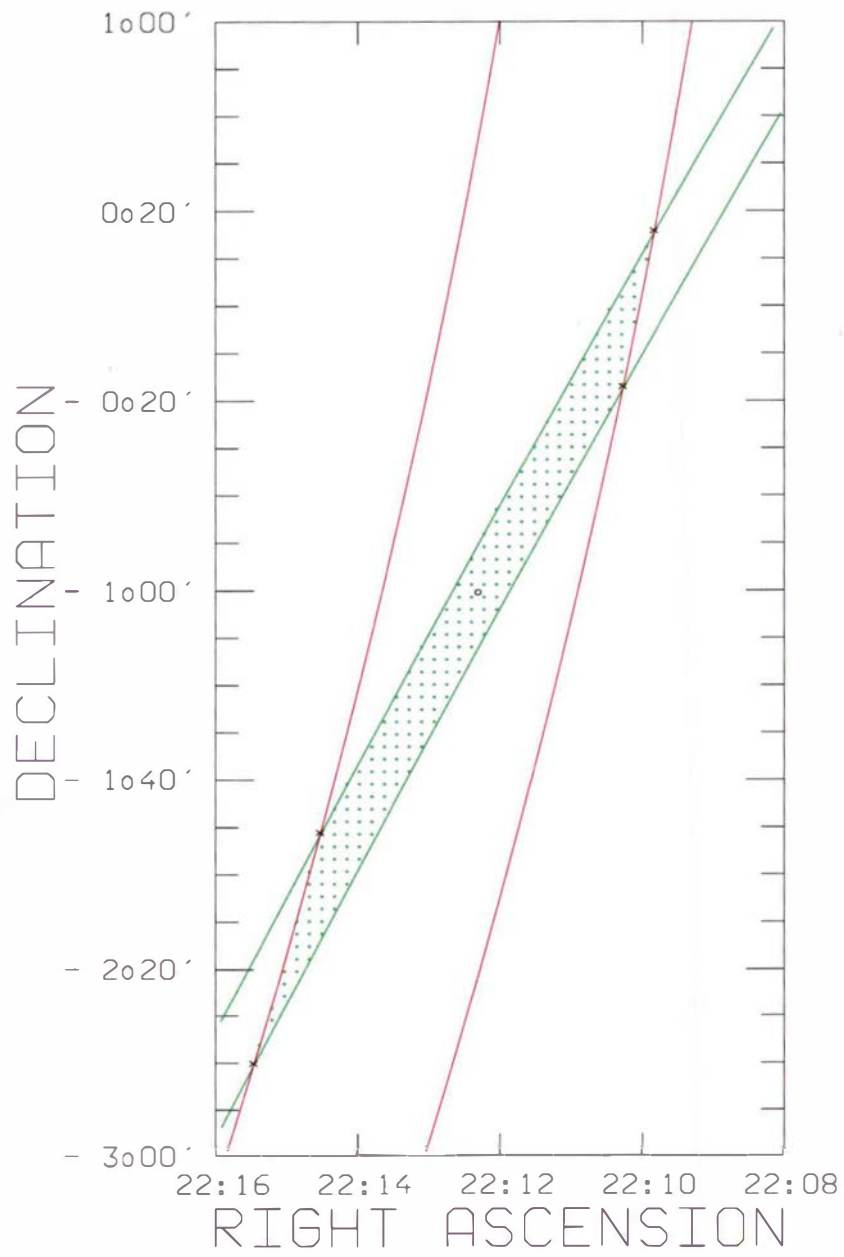
6. For 3 or More Spacecraft events

- ☒ $3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?
- ☐ Hand-extracted data used (record starts at -30.000 s)?
- ☐ Volodymyr's website checked ? (<http://isdc.unige.ch/~savchenk/spiacs-online/spiacs-ipnlc.pl>)

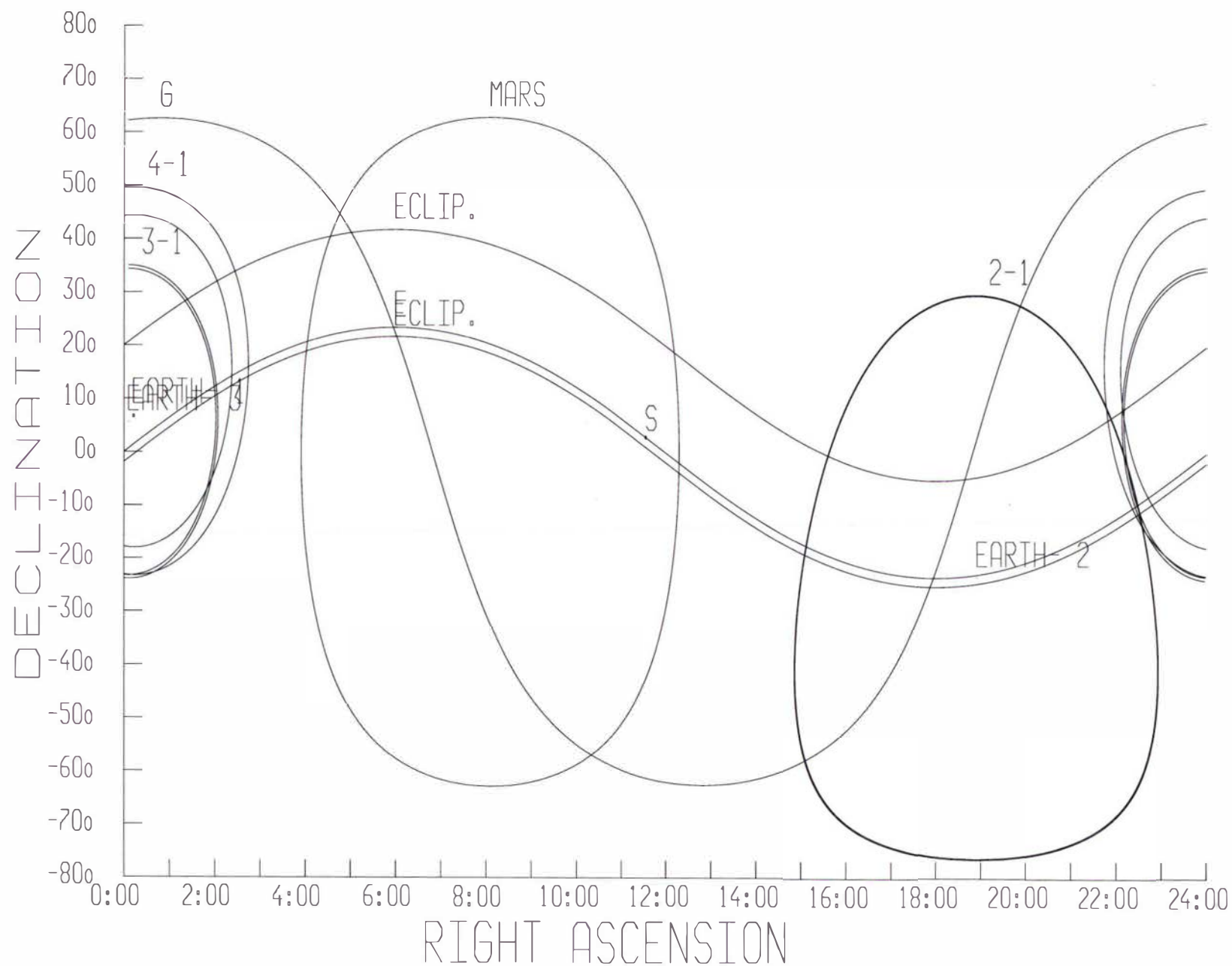
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

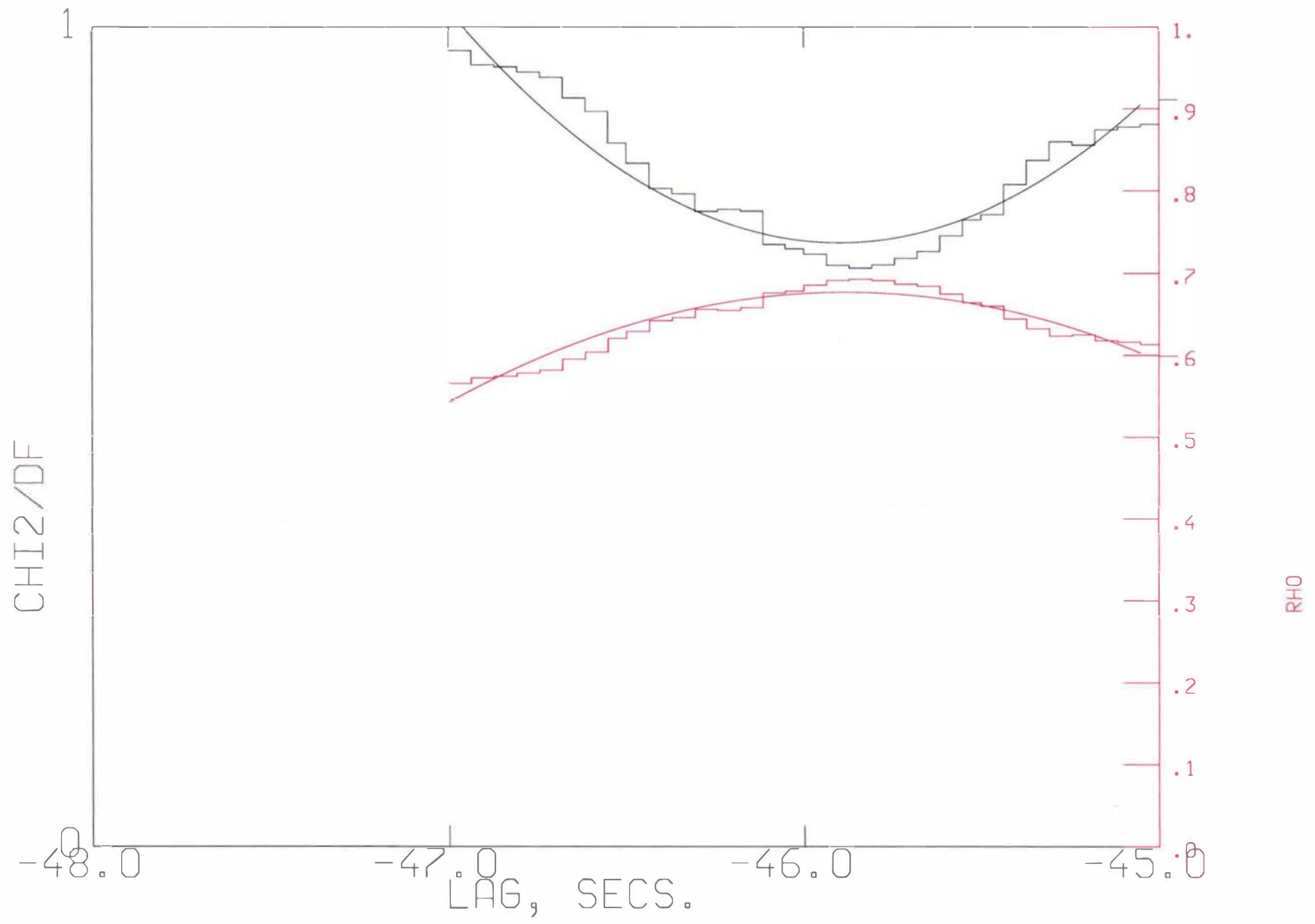


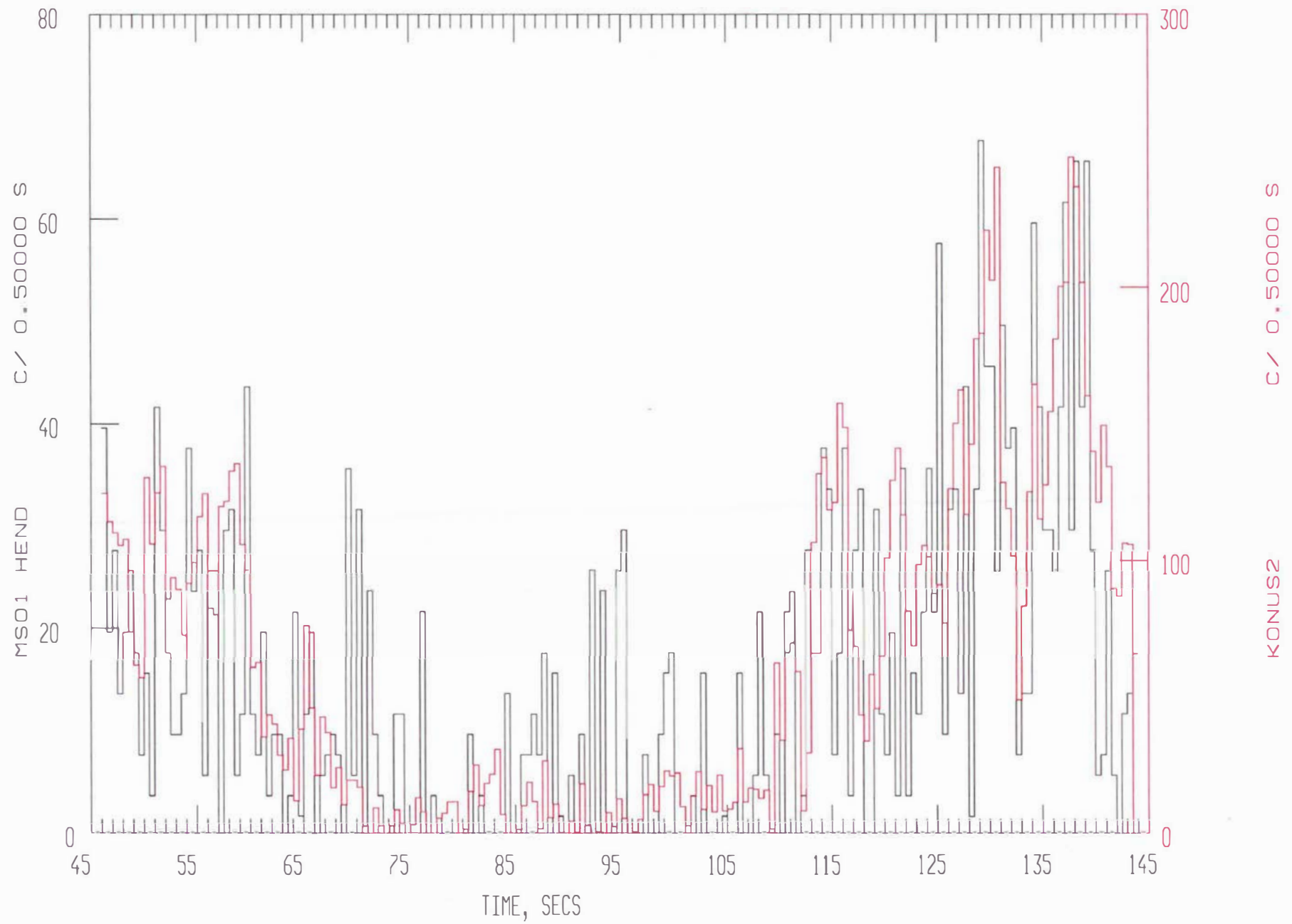
EVENT OF SEP 15, 2009 10:32

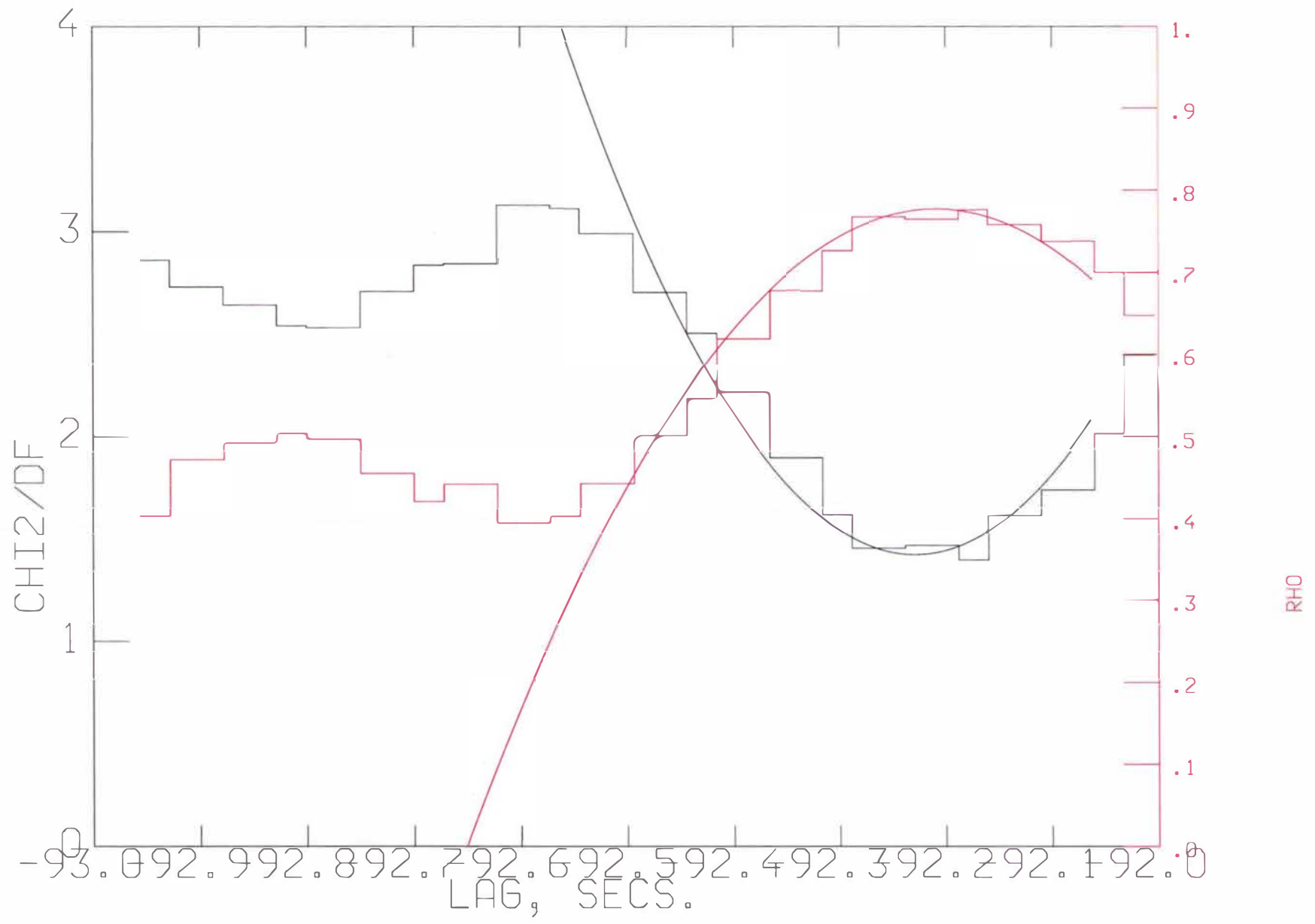
15/09/2016

Z-M = CORRELATION BETWEEN SATELLITES Z AND M
EARTH-Z = EARTH AS SEEN FROM SATELLITE Z
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS2 2 MO 3 MESSENGER 4 INTEGRAL









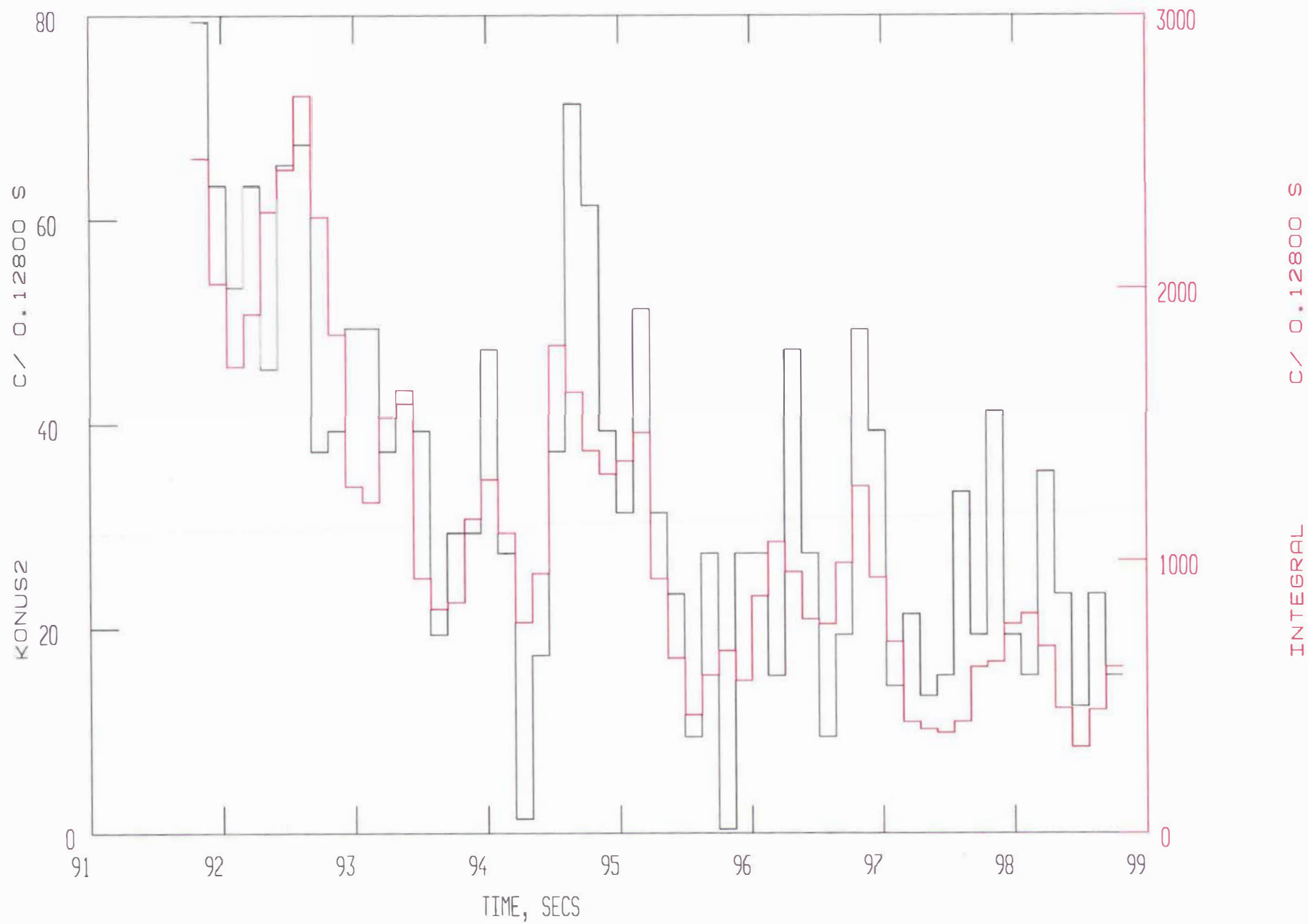
KONUS2

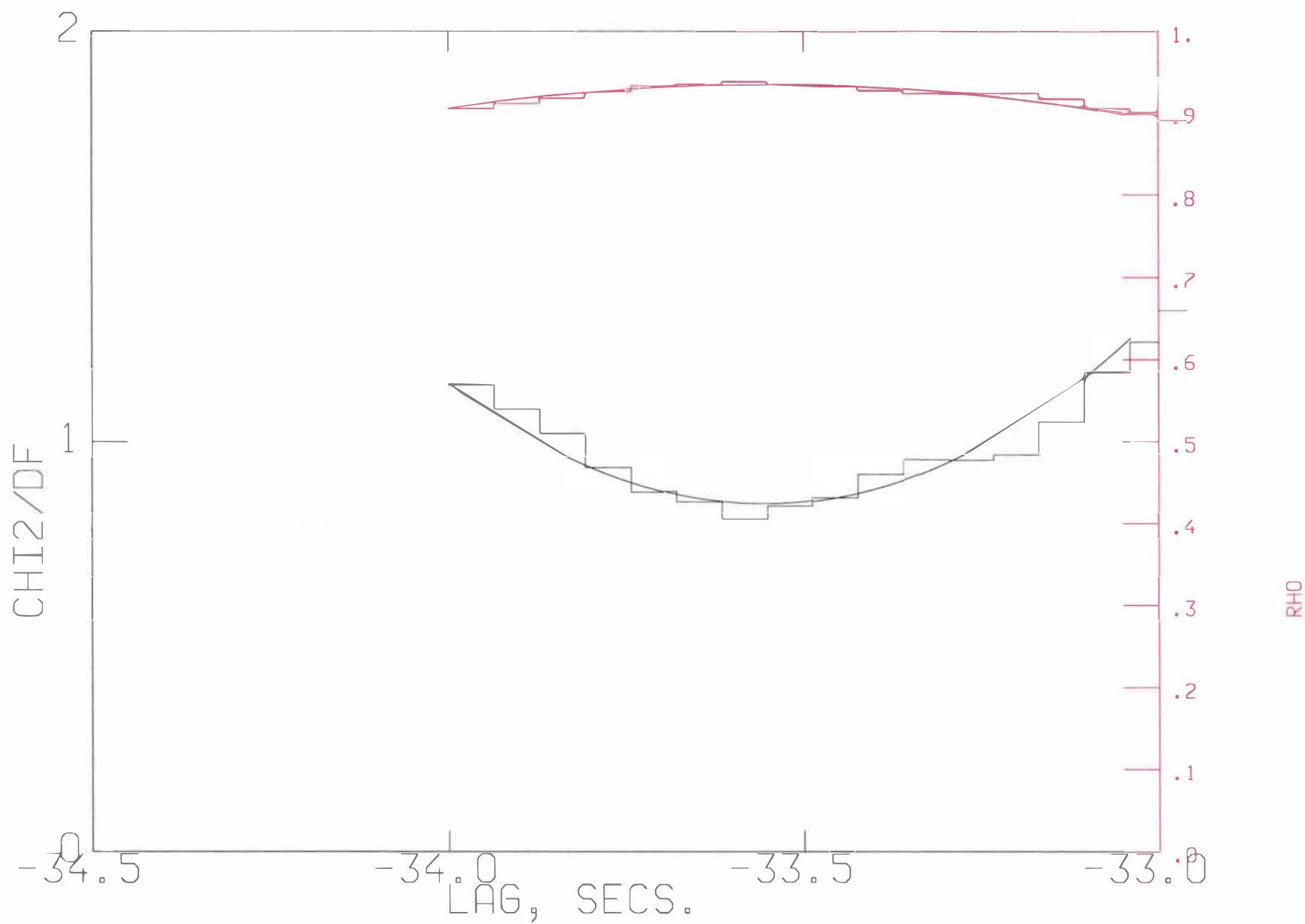
-INTEGRAL

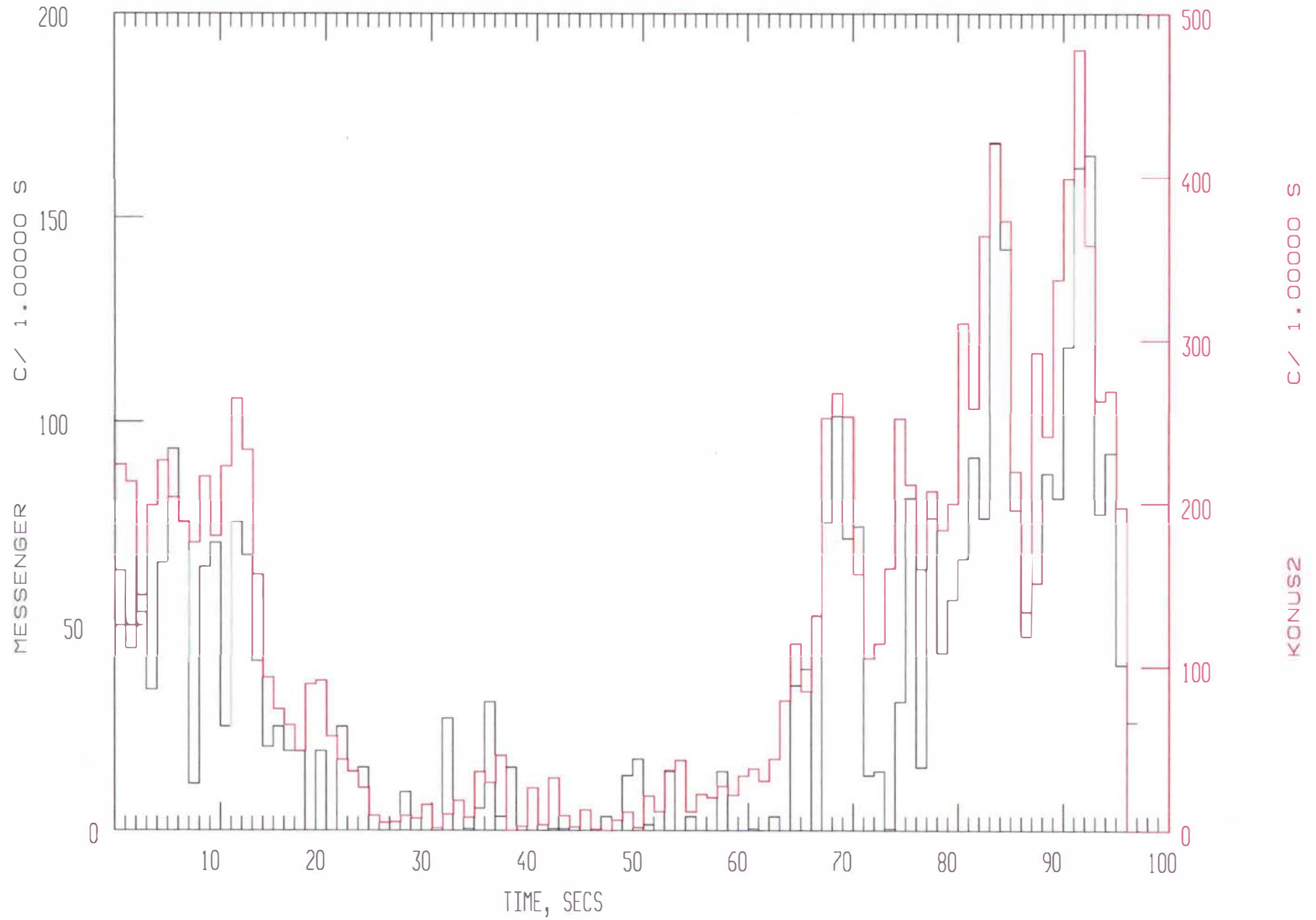
CORRELATION

15/09/09 37939.155

15/ 9/16







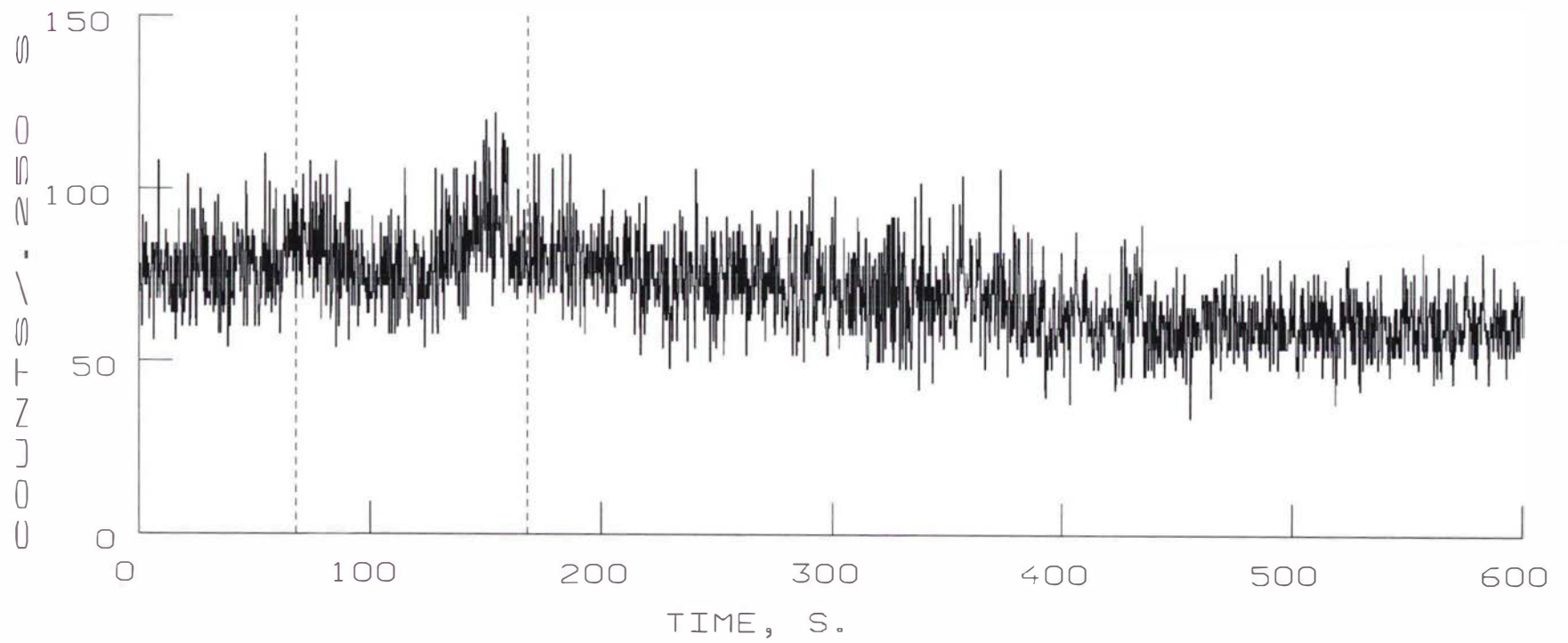
MS01 HEND

15/09/2016

15/09/2009 38327.332 s

50-3000 keV

N= 10 M=**
>4.0 SIGMA FLUCTUATIONS



KONUS2

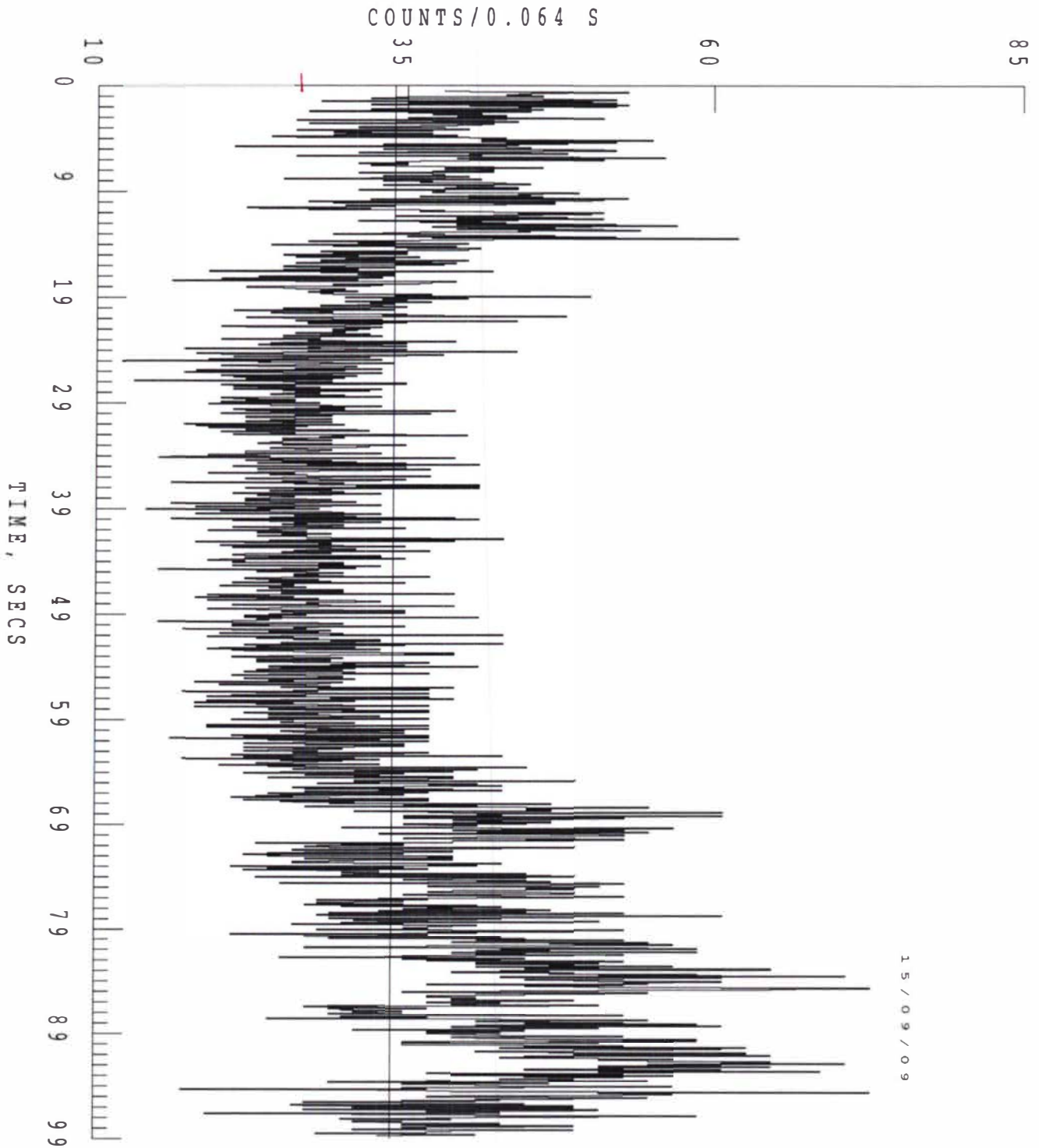
15/09/09

37939.155

A

50 - 200 keV

10:32:19



KONUS HRES 20090915 37939

TRIGGER TIME: 15/09/09 DOY 258 Julian 2455090.93911 UT = 10.539 10:32:19 (37939.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

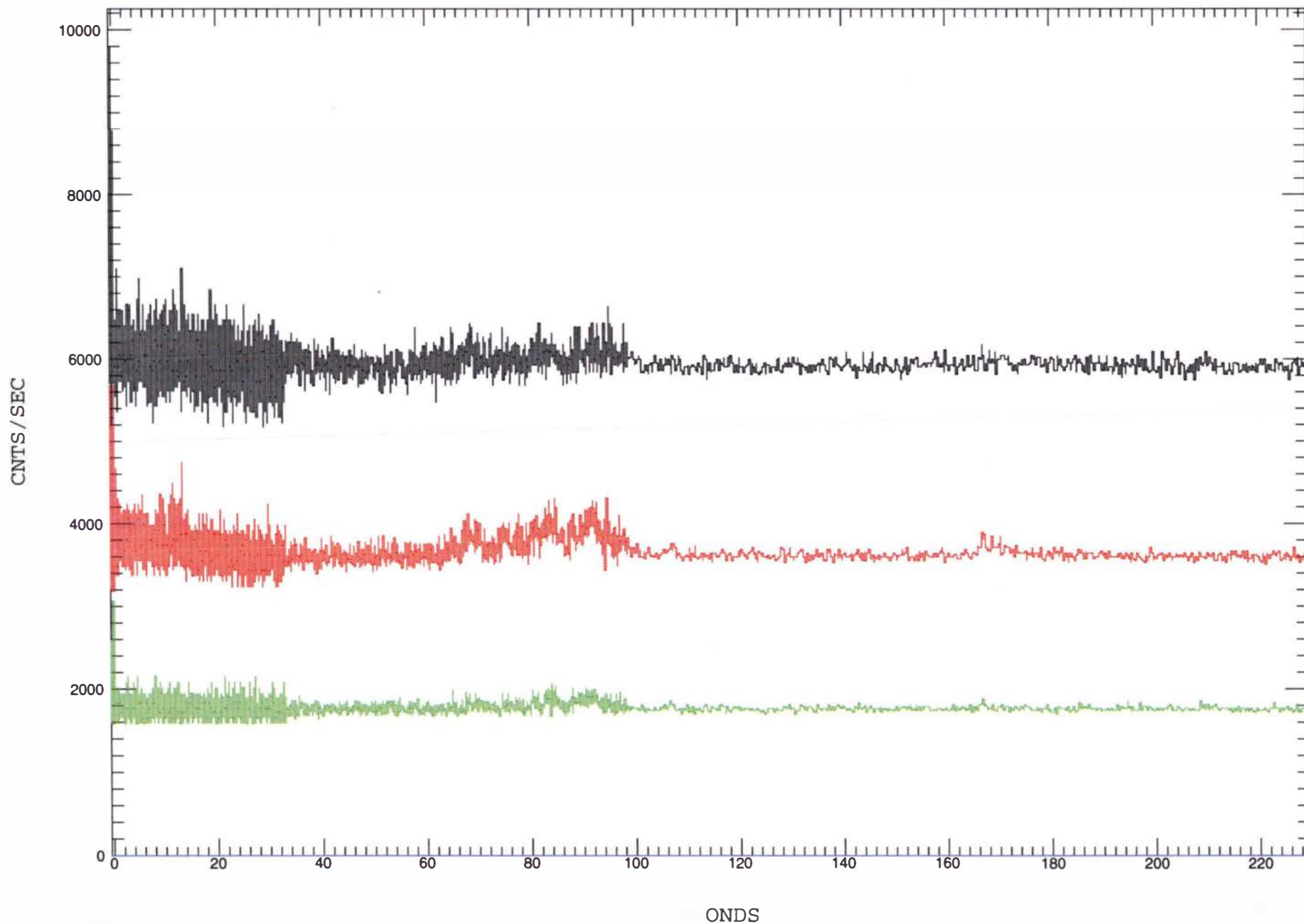
Chan 4 : [> 10 MeV]

Channel 1 + 4800

Channel 2 + 3200

Channel 3 + 1600

Channel 4 + 0

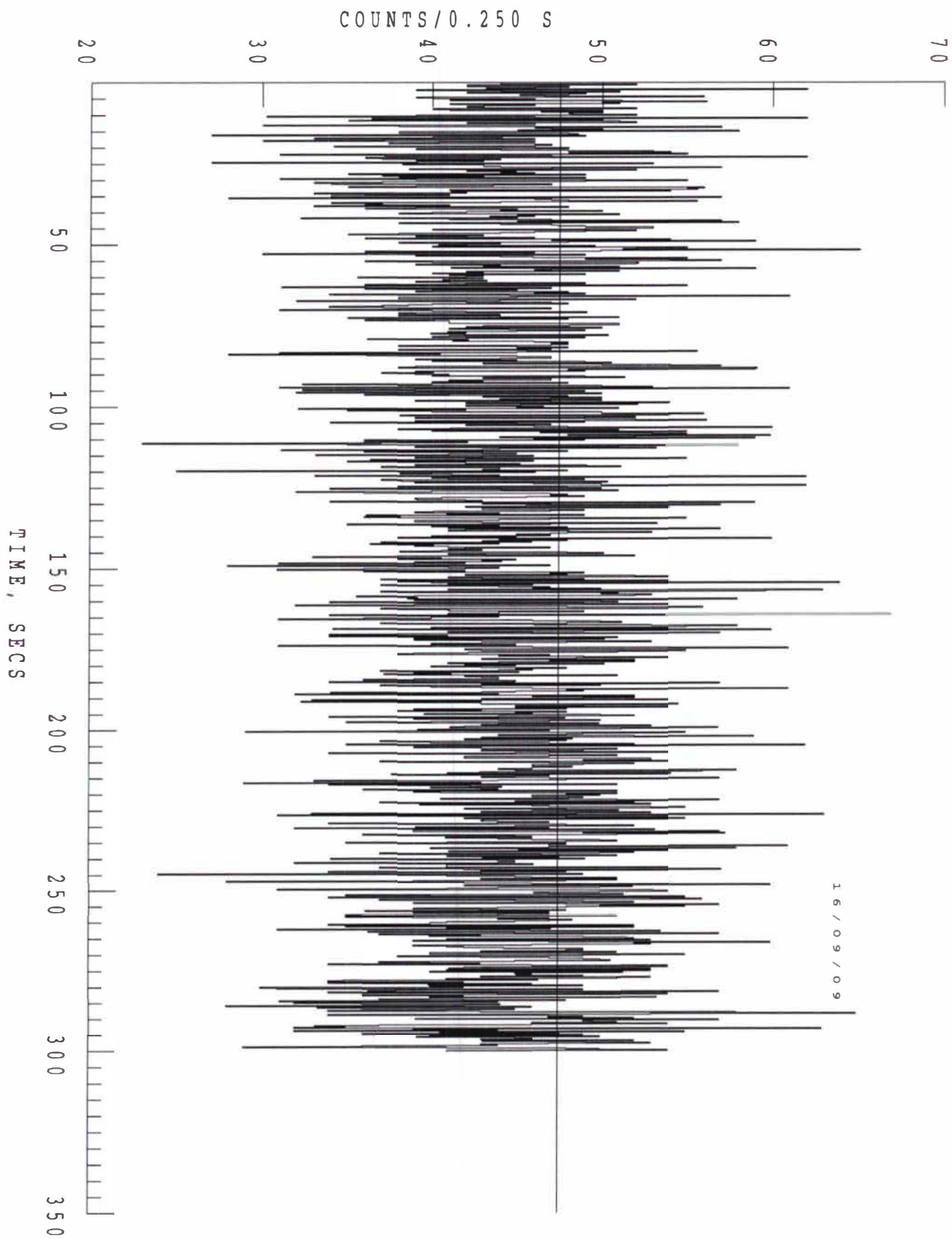


HESSI

15/09/09 37789.000 (KONUS2_20090915_37939)

A

25- 150 keV



INTEGRAL

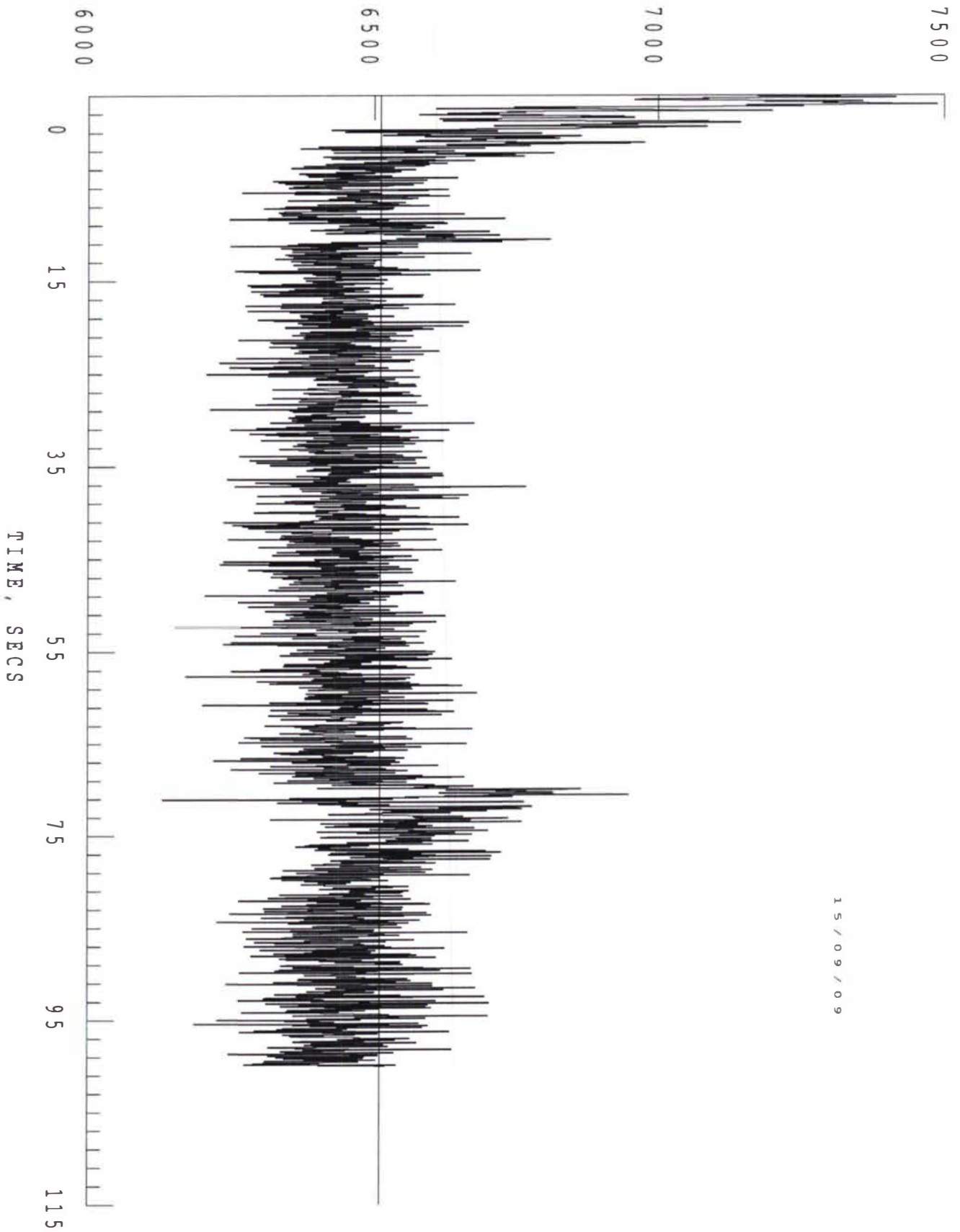
15/09/09

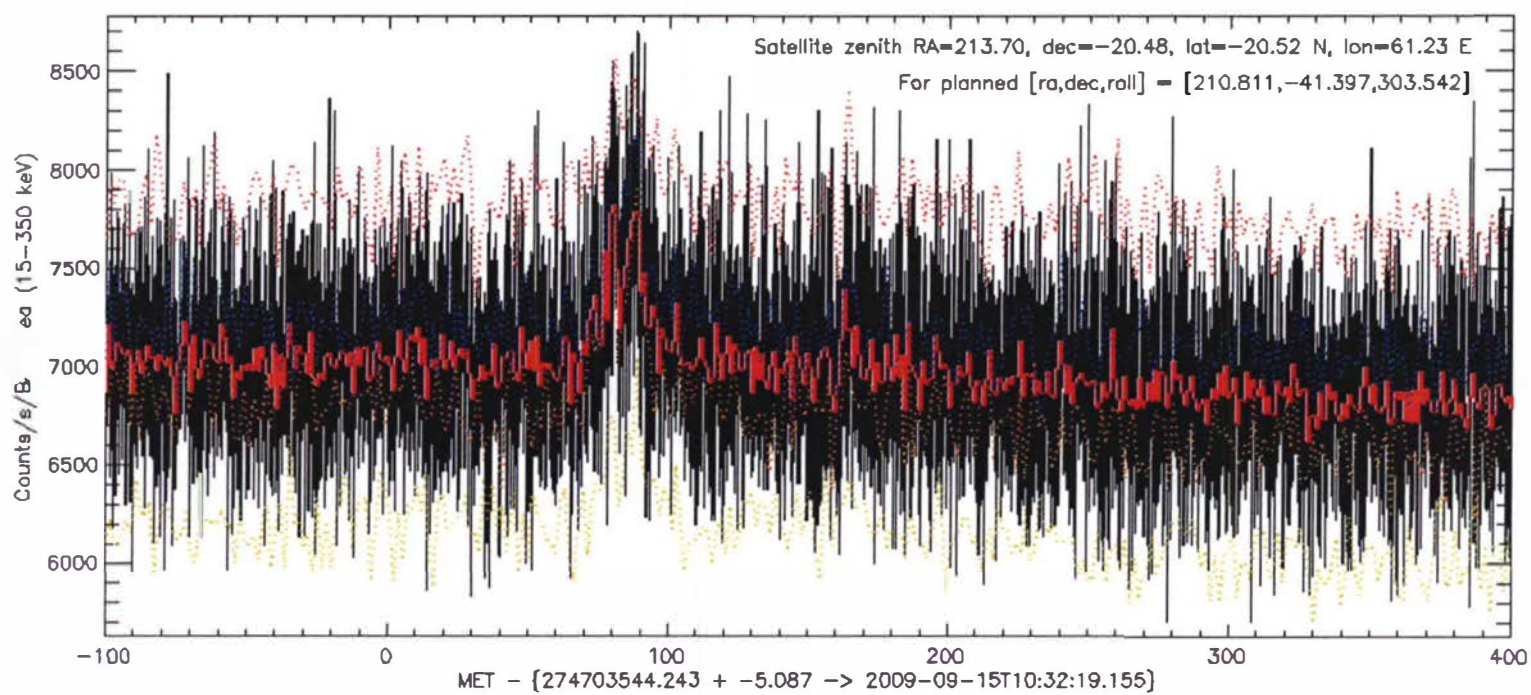
38032.043

A

100-10000 keV

COUNTS/0.050 S





A

From ipn-bounces@ssl.berkeley.edu Wed Sep 16 10:09:56 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
From: David Palmer <palmer@lanl.gov>
To: "Valentin Pal'shin" <val@mail.ioffe.ru>
Date: Wed, 16 Sep 2009 11:10:08 -0600
Cc: IPN <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] very long GRB detected by Konus-Wind on September 15
(=GRB 090915B)

We see a burst in count rates corresponding to the second peak (listed in my yesterday's daily report) with the third peak also visible, but not the first.

Satellite information (actual pointing is as planned):
274703544.243 + -5.087 -> 2009-09-15T10:32:19.155
Satellite zenith RA=213.70, dec=-20.48, lat=-20.52 N, lon=61.23 E
00090218049 2009-258-10:21:00 - 10:21:00 - 10:46:00 [210.811,
-41.397, 303.542] NGC5408 X-1 (planned 2009258)

From ipn-bounces@ssl.berkeley.edu Tue Sep 15 11:04:56 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
From: David Palmer <palmer@lanl.gov>
To: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
"R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
IPN <ipn@ssl.berkeley.edu>
Date: Tue, 15 Sep 2009 12:04:37 -0600
Subject: [Ipn] Daily report 2009-09-15

The Fermi GBM burst of about an hour ago, at 2009-09-15T15:35:35.650, had a ground-calculated position that is within the BAT FOV (~10% coded). It triggered BAT (#362785 during observation 00031492003) but no source was found onboard (the only blip during the imaging sequence is 4.2 sigma more than 90 degrees away from the Fermi position, on the opposite side of the FOV)

Assuming that the burst actually was near the GBM position, it may be recoverable via ground processing once the data is on the ground and fitsified.

274721740.738 + -5.088 -> 2009-09-15T15:35:35.650
Satellite zenith RA=267.82, dec=-11.01, lat=-11.01 N, lon=39.33 E
00031492003 2009-258-15:30:00 - 15:30:00 - 15:50:00 [267.786,
-30.951, 262.454] IGR J17511-3057 (planned 2009258)
240.53_19.15: (theta,phi) = (0.9867, -0.4135); exposure = 438 cm^2 ;
73 degrees above Earth limb

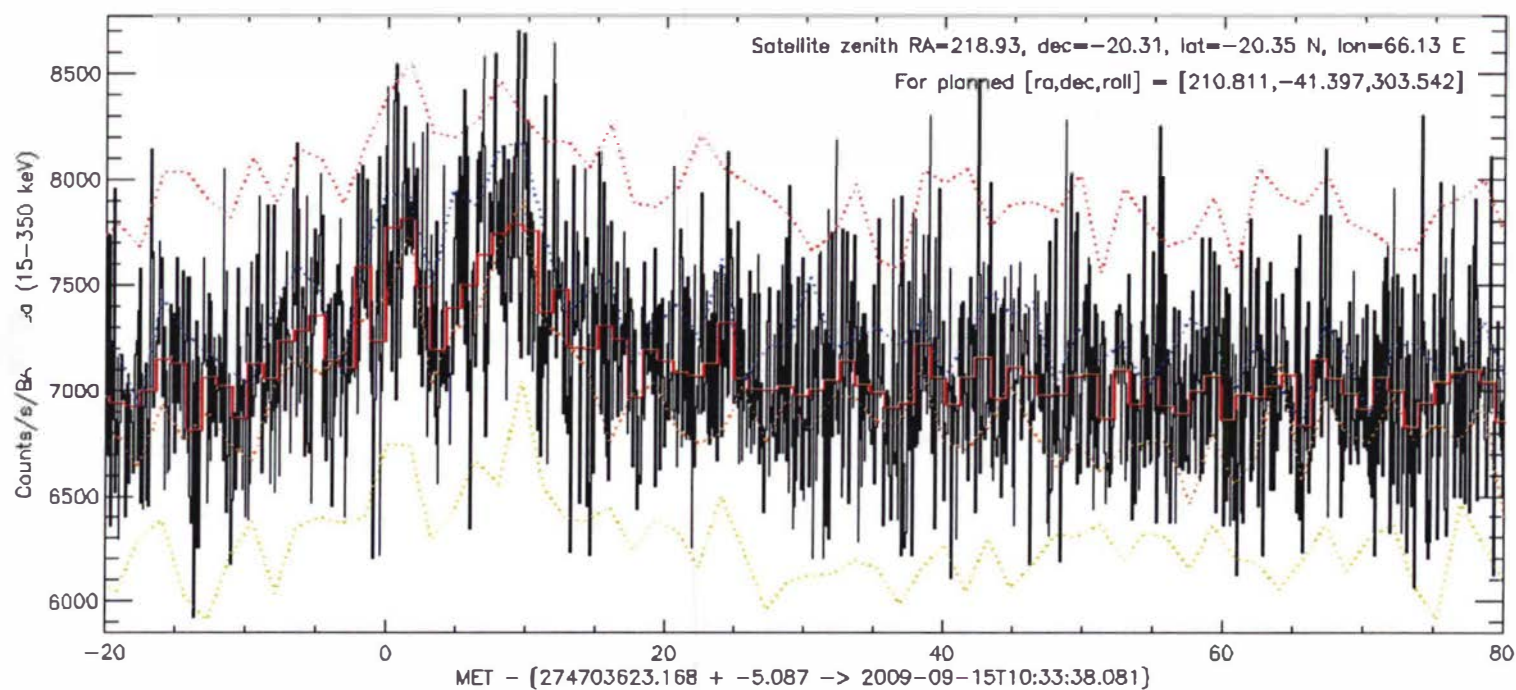
Possible out-of-field burst at 2009-09-15T10:33:38.081

A

274703623.168 + -5.087 -> 2009-09-15T10:33:38.081
Satellite zenith RA=218.93, dec=-20.31, lat=-20.35 N, lon=66.13 E
00090218049 2009-258-10:21:00 - 10:21:00 - 10:46:00 [210.811,
-41.397, 303.542] NGC5408 X-1 (planned 2009258)

<This message contains 2 attachments (not printed)>

A



A

01/10/09

MESSENGER

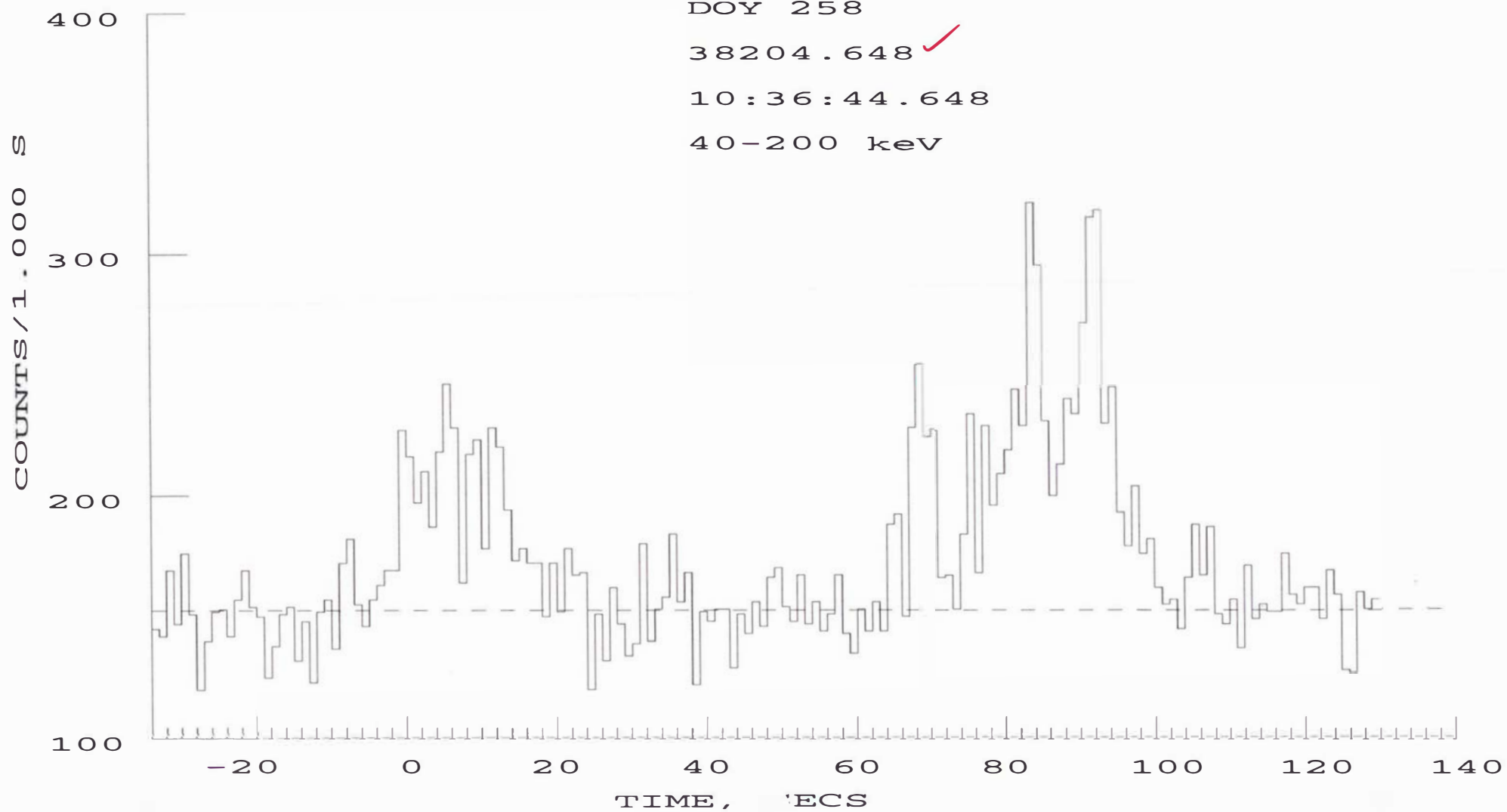
15/09/09

DOY 258

38204.648 ✓

10:36:44.648

40-200 keV



A

From ipn-bounces@ssl.berkeley.edu Mon Sep 21 02:02:55 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Mon, 21 Sep 2009 18:03:37 +0900
From: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
To: "Valentin Pal'shin" <val@mail.ioffe.ru>
Cc: IPN <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] very long GRB detected by Konus-Wind on September 15
(=GRB 090915B)

Dear Valentin,

Suzaku saw nothing at this time.
Sorry for the delay.

Best wishes,
Kazu

On Wed, 16 Sep 2009 20:34:25 +0400
"Valentin Pal'shin" <val@mail.ioffe.ru> wrote:

> Dear colleagues,
>
> A very long, rather hard GRB triggered Konus-Wind at 2009-09-15
> T0(KW)=37939.155 s UT (10:32:19.155) - see the attached figure.
> The source of the burst is near the ecliptic plane.
>
> This GRB was also detected by INTEGRAL-SPI-ACS.
>
> Any other detections?

> Best wishes,
>
> Valentin
>
> --
> Valentin Pal'shin
>
> Laboratory for Experimental Astrophysics
> Ioffe Physico-Technical Institute
> Russian Academy of Sciences
> 26 Polytekhnicheskaya, St Petersburg 194021,
> Russian Federation
>
> email: val@mail.ioffe.ru
> Tel: (7)-812-2927177
> Fax: (7)-812-2971963
>

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

A

From ipn-bounces@ssl.berkeley.edu Thu Sep 17 08:07:48 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Thu, 17 Sep 2009 17:08:38 +0200
From: sa.grb@iasf-roma.inaf.it
To: "Valentin Pal'shin" <val@mail.ioffe.ru>
Cc: IPN <ipn@ssl.berkeley.edu>, sagile@iasf-roma.inaf.it
Subject: Re: [Ipn] very long GRB detected by Konus-Wind on September
15 (=GRB 090915B)

Dear Valentin,

SuperAGILE did not detect the burst while pointing toward the Crab
region (RA=83.8, dec=-3.1).

Cheers
Ettore
on behalf of the SuperAGILE team

> Dear colleagues,
>
> A very long, rather hard GRB triggered Konus-Wind at 2009-09-15
> T0(KW)=37939.155 s UT (10:32:19.155) - see the attached figure.
> The source of the burst is near the ecliptic plane.
>
> This GRB was also detected by INTEGRAL-SPI-ACS.
>
> Any other detections?

Best wishes,
>
> Valentin
>
> --
> Valentin Pal'shin
>
> Laboratory for Experimental Astrophysics
> Ioffe Physico-Technical Institute
> Russian Academy of Sciences
> 26 Polytekhnicheskaya, St Petersburg 194021,
> Russian Federation
>
> email: val@mail.ioffe.ru
> Tel: (7)-812-2927177
> Fax: (7)-812-2971963

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

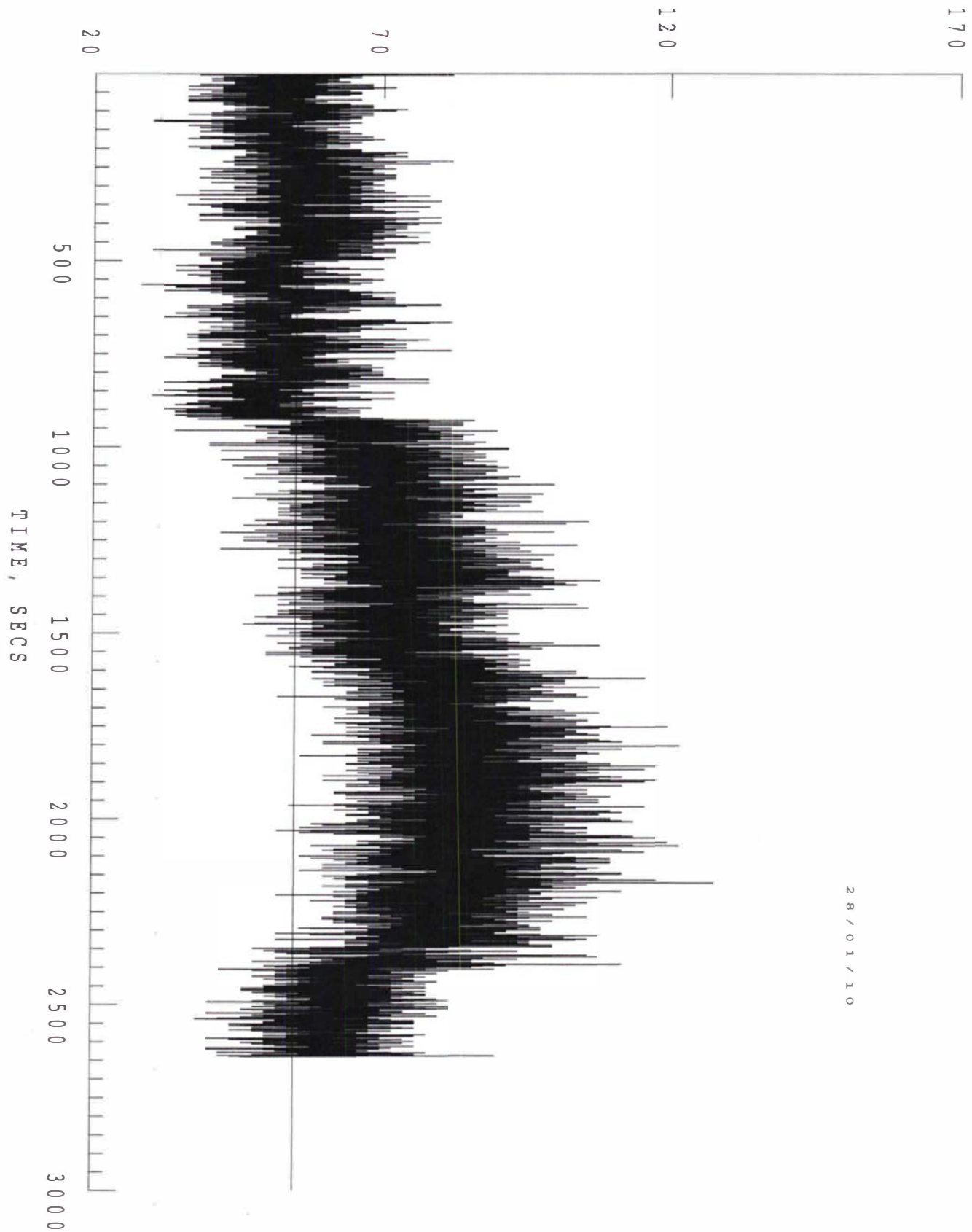
MS01

15/09/09

50327.140

50- 3000 keV

COUNTS/0.250 S



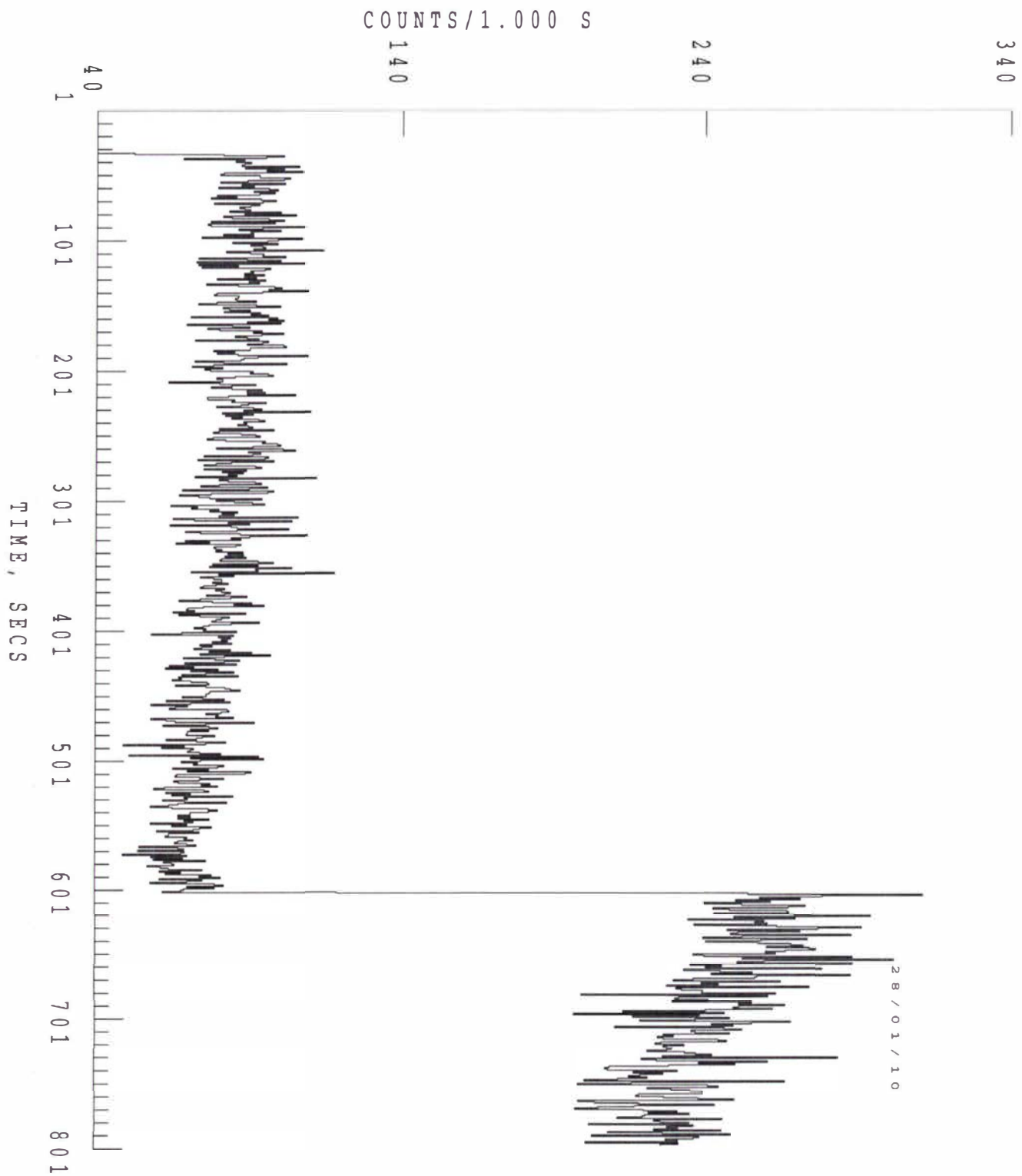
28/01/10

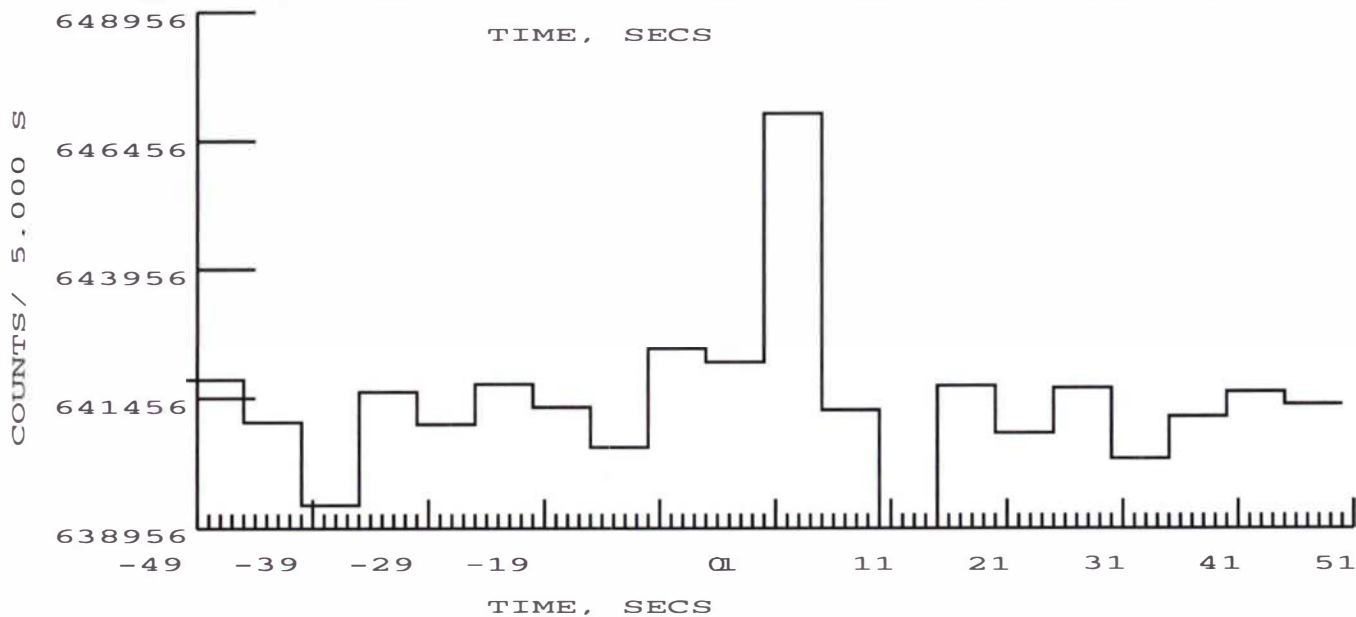
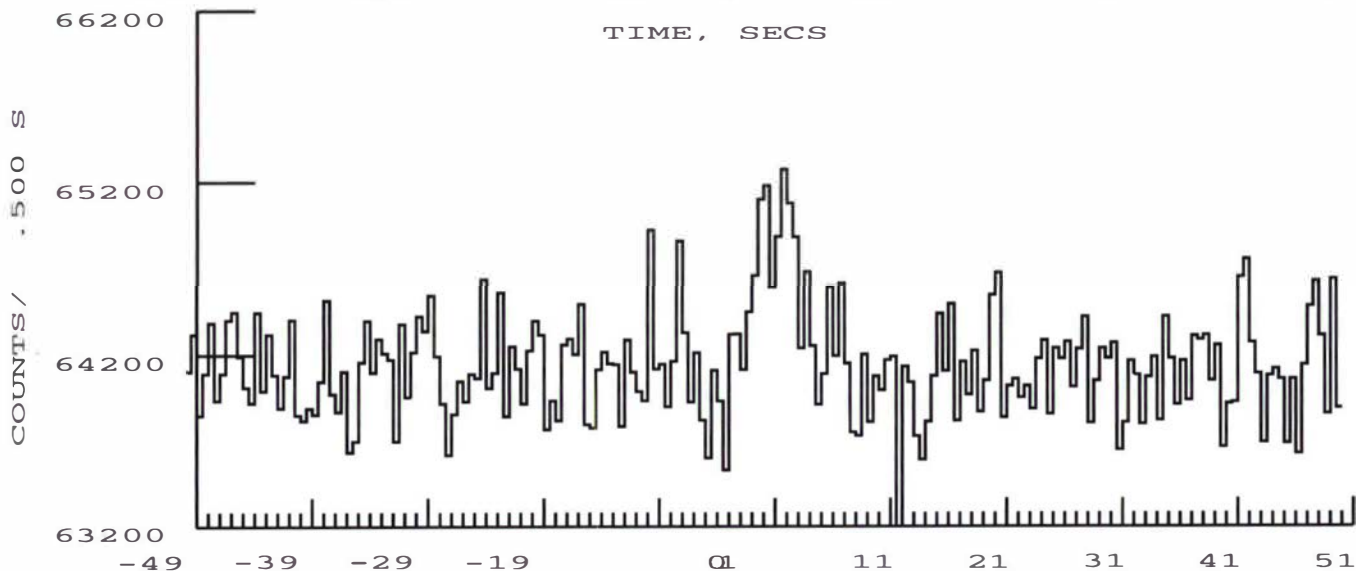
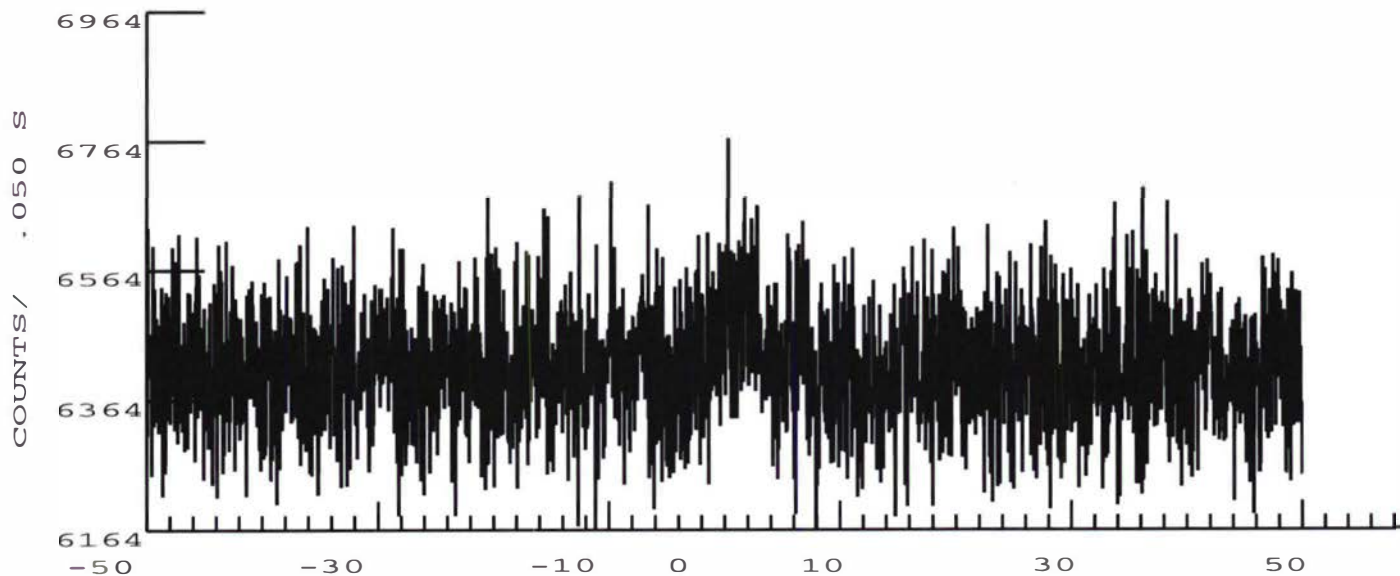
HESSI

15/09/09 51252.000 (SUZAKU_RI_20090915_51652)

22

25- 150 keV





SUZAKU

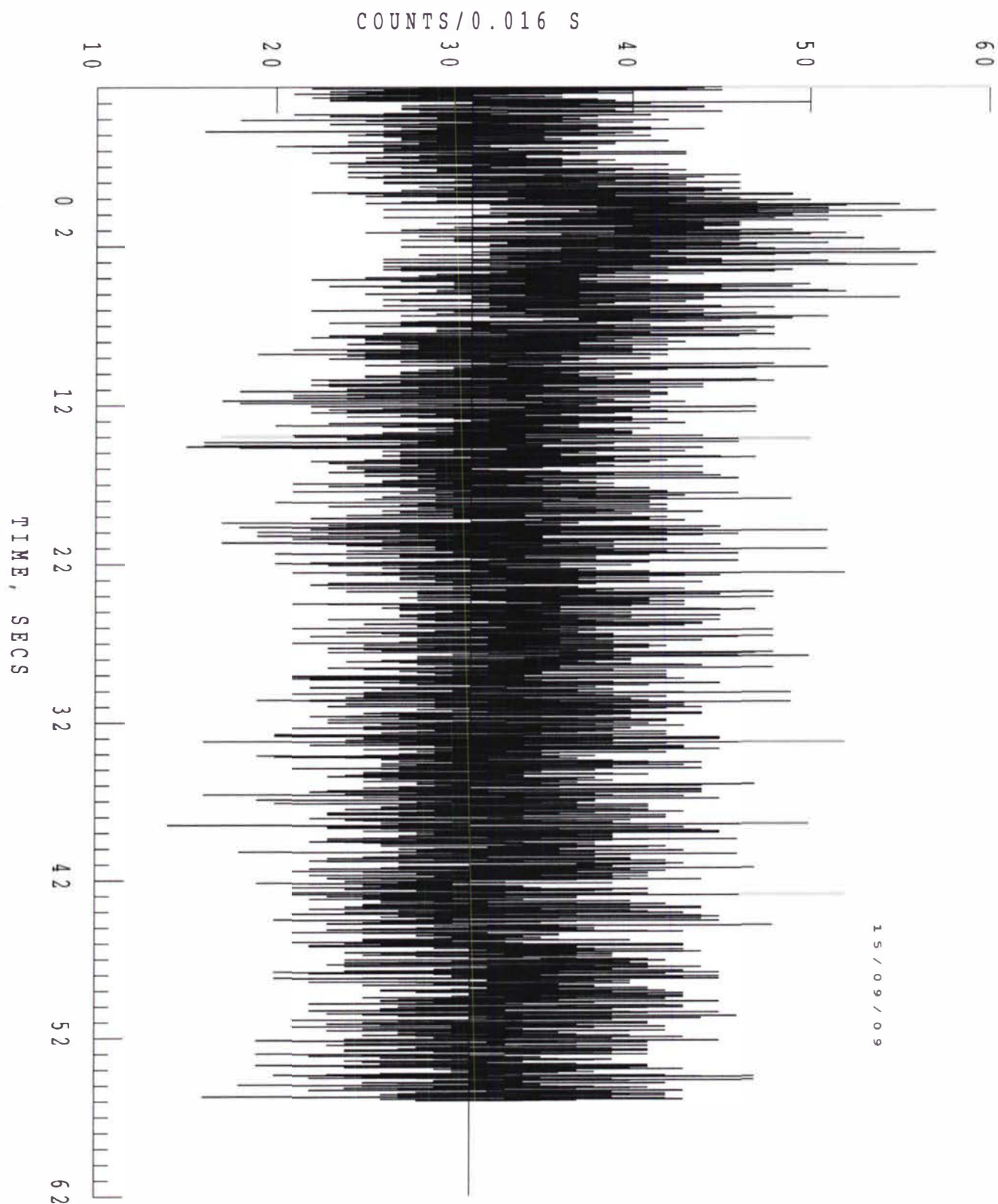
15/09/09

56136.288

B

50 - 240 keV

15:35:36



MS01

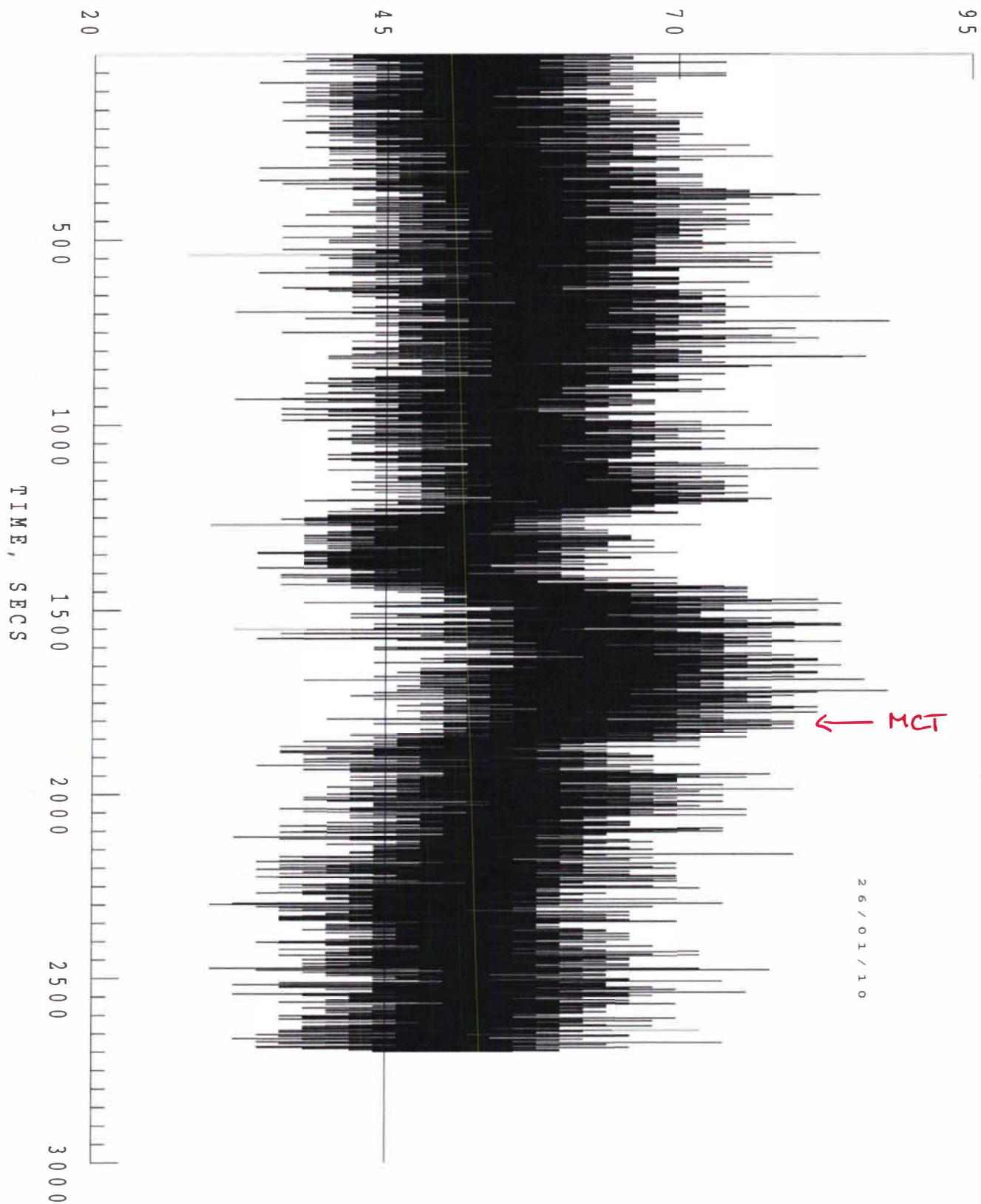
15/09/09

54767.063

B

50 - 3000 keV

COUNTS/0.250 S



From williams@penelope.ssl.berkeley.edu Wed Sep 16 14:13:54 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Wed, 16 Sep 2009 14:27:04 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_SUZAKU_20090915_56136

HESSI 25 to 150 keV Counts
Created 16-Sep-2009 14:13:30.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry

B

From gcncirc@capella.gsfc.nasa.gov Tue Sep 15 20:11:20 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090915 Swift-BAT detection of a burst in ground analysis
cc: khurley@ssl.berkeley.edu
Date: Tue, 15 Sep 2009 23:12:10 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9912
SUBJECT: GRB 090915 Swift-BAT detection of a burst in ground analysis
DATE: 09/09/16 03:11:44 GMT
FROM: Jay R. Cummings at NASA/GSFC/Swift <james.r.cummings@nasa.gov>

J. R. Cummings (NASA/GSFC/CRESST) and
C. B. Markwardt (NASA/GSFC/CRESST)
on behalf of the Swift-BAT team

At 15:35:36 Swift-BAT triggered on GRB 090915. This was probably the same event as Fermi-GBM trigger 274721737. No source was found onboard. A weak but significant source was found in ground analysis, 15 degrees from the GBM ground-calculated (2nd version) position as reported at http://gcn.gsfc.nasa.gov/fermi_grbs.html. The GBM position was also in the BAT FOV.

MCT 56521

The BAT ground-calculated position is
RA, Dec = 237.990, +15.480 deg which is
RA(J2000) = 15h 51m 57.6s
Dec(J2000) = +15d 28' 48"
with an uncertainty of 3 arcmin, (radius, sys+stat, 90% containment). The partial coding was 12%.

The mask-weighted light curve shows a single weak peak.
T90 (15-350 keV) is 8 +/- 2 sec
(estimated error including systematics).

The time-averaged spectrum from T-3 to T+5 sec is best fit by a power law. This fit gives a photon index 1.0 +/- 0.2. For this model the total fluence in the 15-150 keV band is 5 +/- 2 x 10⁻⁷ erg/cm² and the 1-sec peak flux measured from T+2 sec in the 15-150 keV band is 0.8 +/- 0.3 ph/cm²/sec. All the quoted errors are at the 90% confidence level.

A Swift TOO has been requested and approved. The narrow-field instruments will observe the location approximately 13 hours after the burst.

From ipn-bounces@ssl.berkeley.edu Tue Sep 15 11:04:56 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
From: David Palmer <palmer@lanl.gov>
Cc: BAT TEAM <bat_team@bigbang.gsfc.nasa.gov>,
"R. Marc Kippen" <mkippen@lanl.gov>, Fermi GBM-BA <gbm-ba@mpe.mpg.de>,
IPN <ipn@ssl.berkeley.edu>
Date: Tue, 15 Sep 2009 12:04:37 -0600
Subject: [Ipn] Daily report 2009-09-15

The Fermi GBM burst of about an hour ago, at 2009-09-15T15:35:35.650, had a ground-calculated position that is within the BAT FOV (~10% coded). It triggered BAT (#362785 during observation 00031492003) but no source was found onboard (the only blip during the imaging sequence is 4.2 sigma more than 90 degrees away from the Fermi position, on the opposite side of the FOV) B

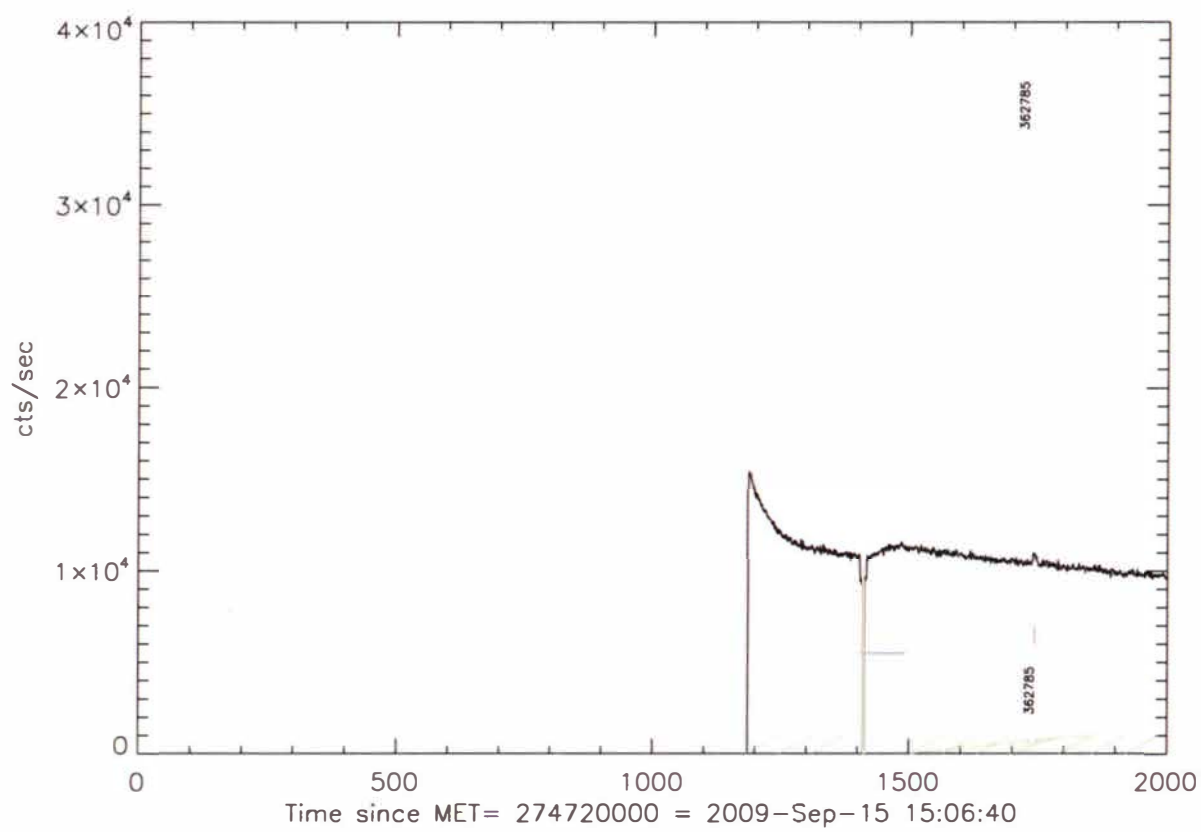
Assuming that the burst actually was near the GBM position, it may be recoverable via ground processing once the data is on the ground and fitsified.

274721740.738 + -5.088 -> 2009-09-15T15:35:35.650
Satellite zenith RA=267.82, dec=-11.01, lat=-11.01 N, lon=39.33 E
00031492003 2009-258-15:30:00 - 15:30:00 - 15:50:00 [267.786,
-30.951, 262.454] IGR J17511-3057 (planned 2009258)
240.53_19.15: (theta,phi) = (0.9867, -0.4135); exposure = 438 cm² ;
73 degrees above Earth limb

ossible out-of-field burst at 2009-09-15T10:33:38.081

274703623.168 + -5.087 -> 2009-09-15T10:33:38.081
Satellite zenith RA=218.93, dec=-20.31, lat=-20.35 N, lon=66.13 E
00090218049 2009-258-10:21:00 - 10:21:00 - 10:46:00 [210.811,
-41.397, 303.542] NGC5408 X-1 (planned 2009258)

B



GLAST

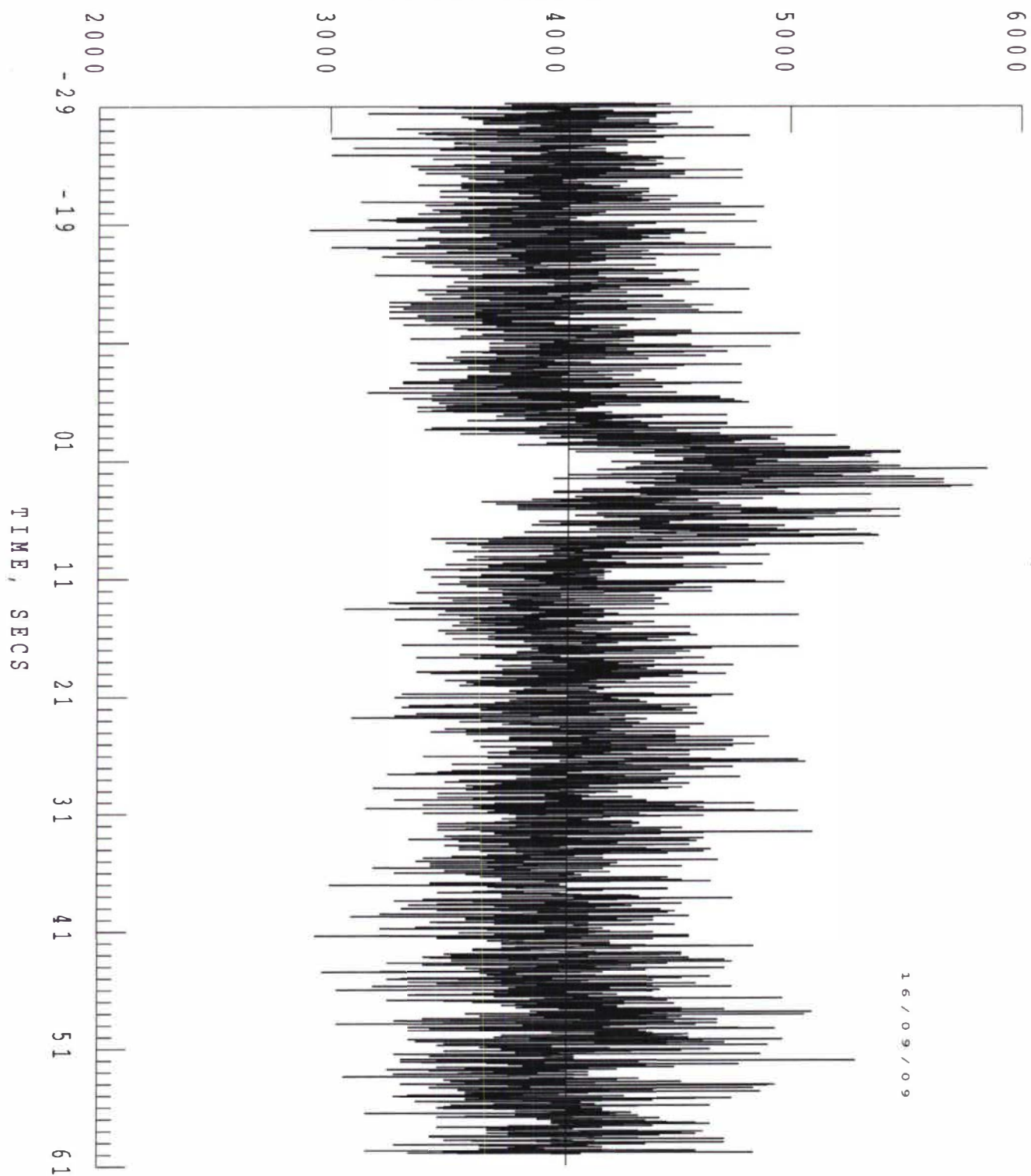
15/09/09

56135.651

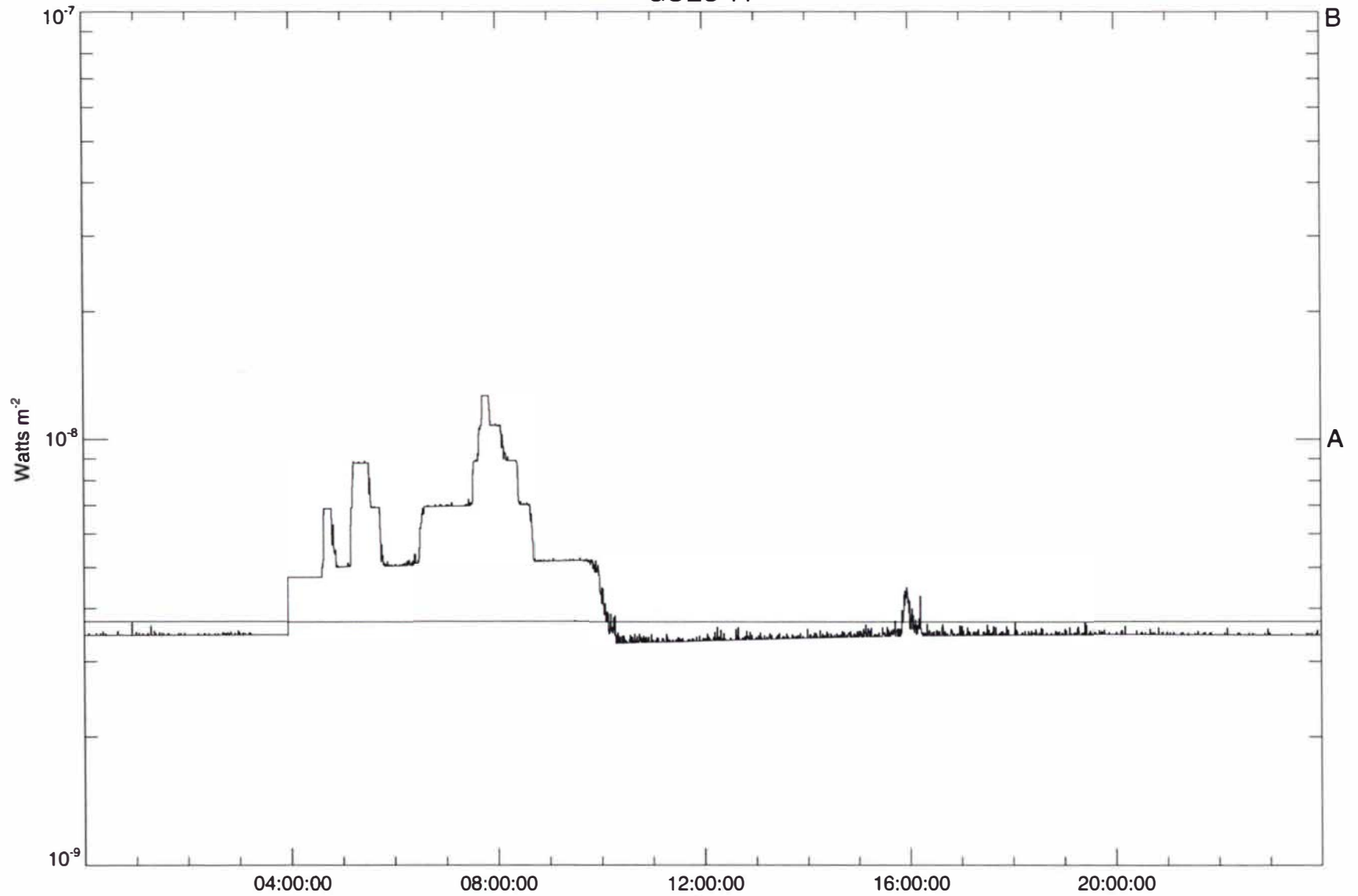
15:35:35.651 B

26- 293 keV

COUNTS/0.032 S



GOES 11



Data Start: 09/09/15, 0000:13

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Plot created: 09/09/18, 0818

Sample average = 10

SUZAKU

16/09/09

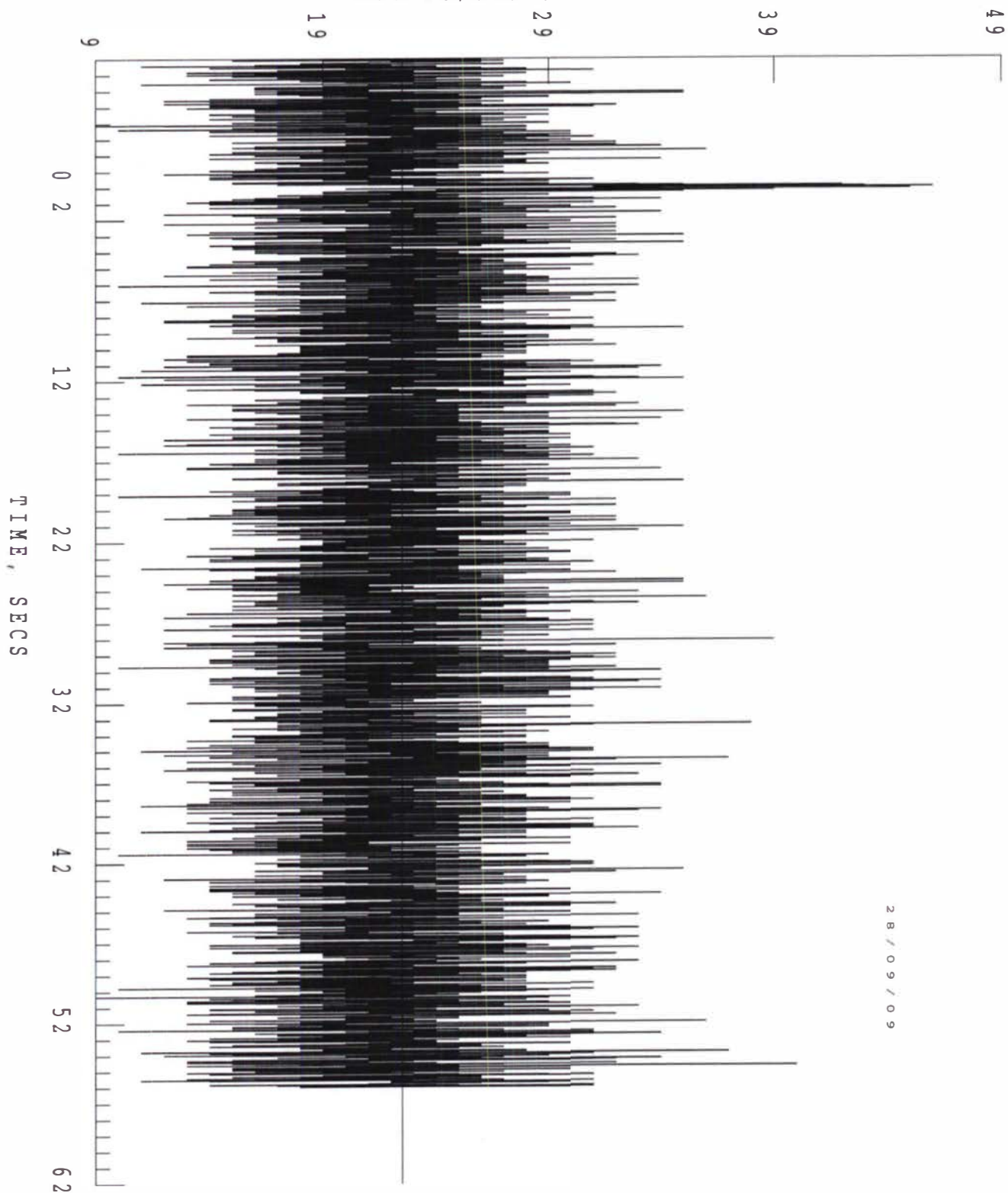
22927.281

50- 240 keV

~~06:22:07~~

07:00:44

COUNTS/0.016 S



A

From grbhend@mx.iki.rssi.ru Tue Jan 26 11:02:18 2010
X-Barracuda-Envelope-From: grbhend@mx.iki.rssi.ru
Date: Tue, 26 Jan 2010 22:04:39 +0300
From: "grbhend" <grbhend@mx.iki.rssi.ru>
o: "recipient1" <grbhend@mx.iki.rssi.ru>,
"recipient2" <khurley@sunspot.ssl.berkeley.edu>
Subject: No data in HEND Data Base
X-iki-rssi-ru-MailScanner-Information: Please contact the ISP for more informati
X-iki-rssi-ru-MailScanner-ID: o0QJ4dR0024701
X-iki-rssi-ru-MailScanner: Found to be clean
X-iki-rssi-ru-MailScanner-SpamCheck: not spam (whitelisted),
SpamAssassin (not cached, score=-0.01, required 5, ALL_TRUSTED -1.80,
AWL 1.79, BAYES_50 0.00)
X-iki-rssi-ru-MailScanner-From: grbhend@mx.iki.rssi.ru

Received letter from = khurley@ssl.berkeley.edu
No HEND data for GRB around 090916 06:00:07

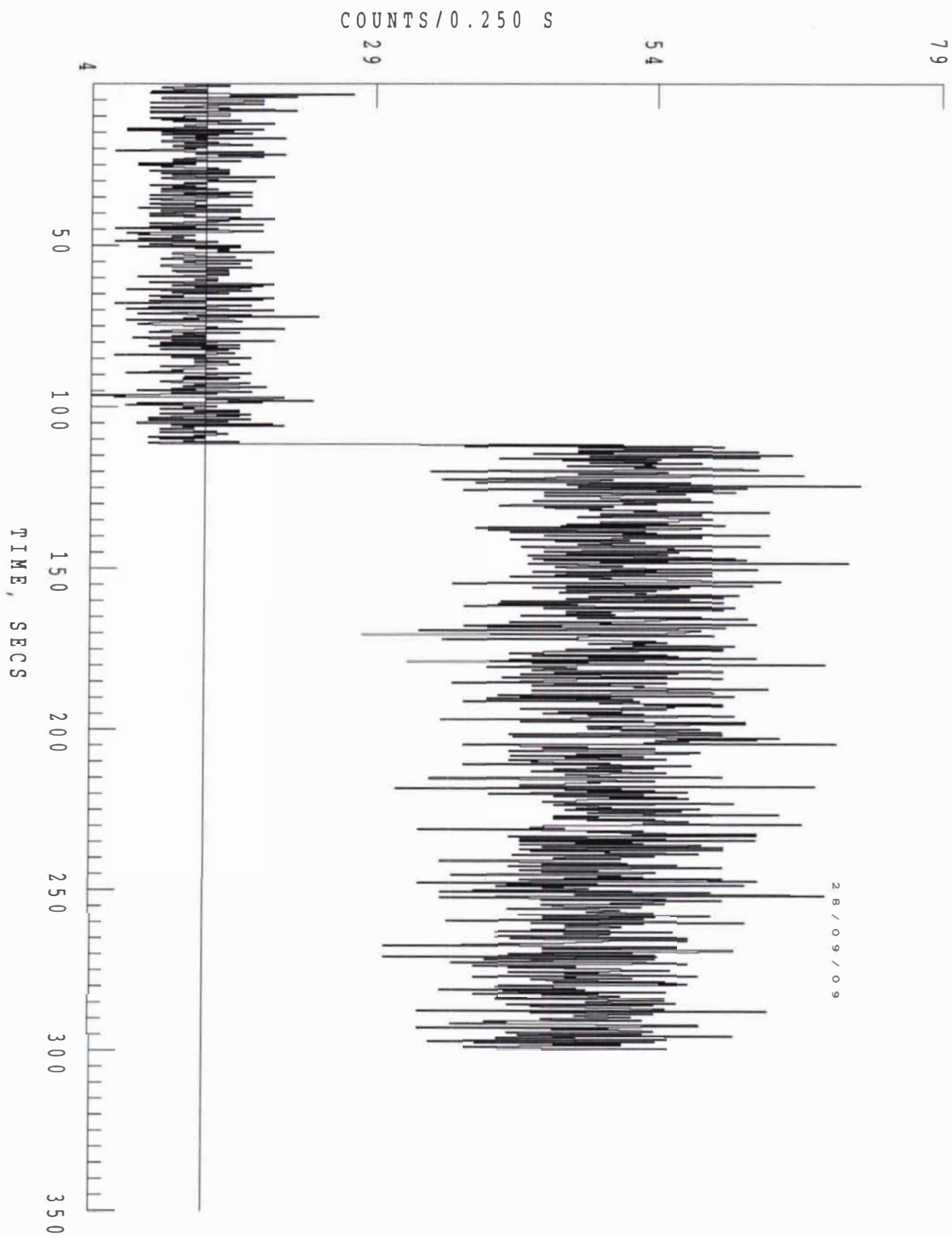
<This message contains 1 attachments (not printed)>

HESSI

16/09/09 22777.000 (SUZAKU_20090916_22927)

A

25- 150 keV



From vxw@capella.gsfc.nasa.gov Wed Sep 16 00:13:52 2009
 X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
 Date: Wed, 16 Sep 2009 03:14:44 -0400
 From: Bacodine <vxw@capella.gsfc.nasa.gov>
 To: khurley@ssl.berkeley.edu
 Subject: GCN/SWIFT_BAT_LIGHTCURVE

63 s, but S/W burst

$9.5 \times 10^{-7} \text{ erg cm}^{-2}$

MCT 24537

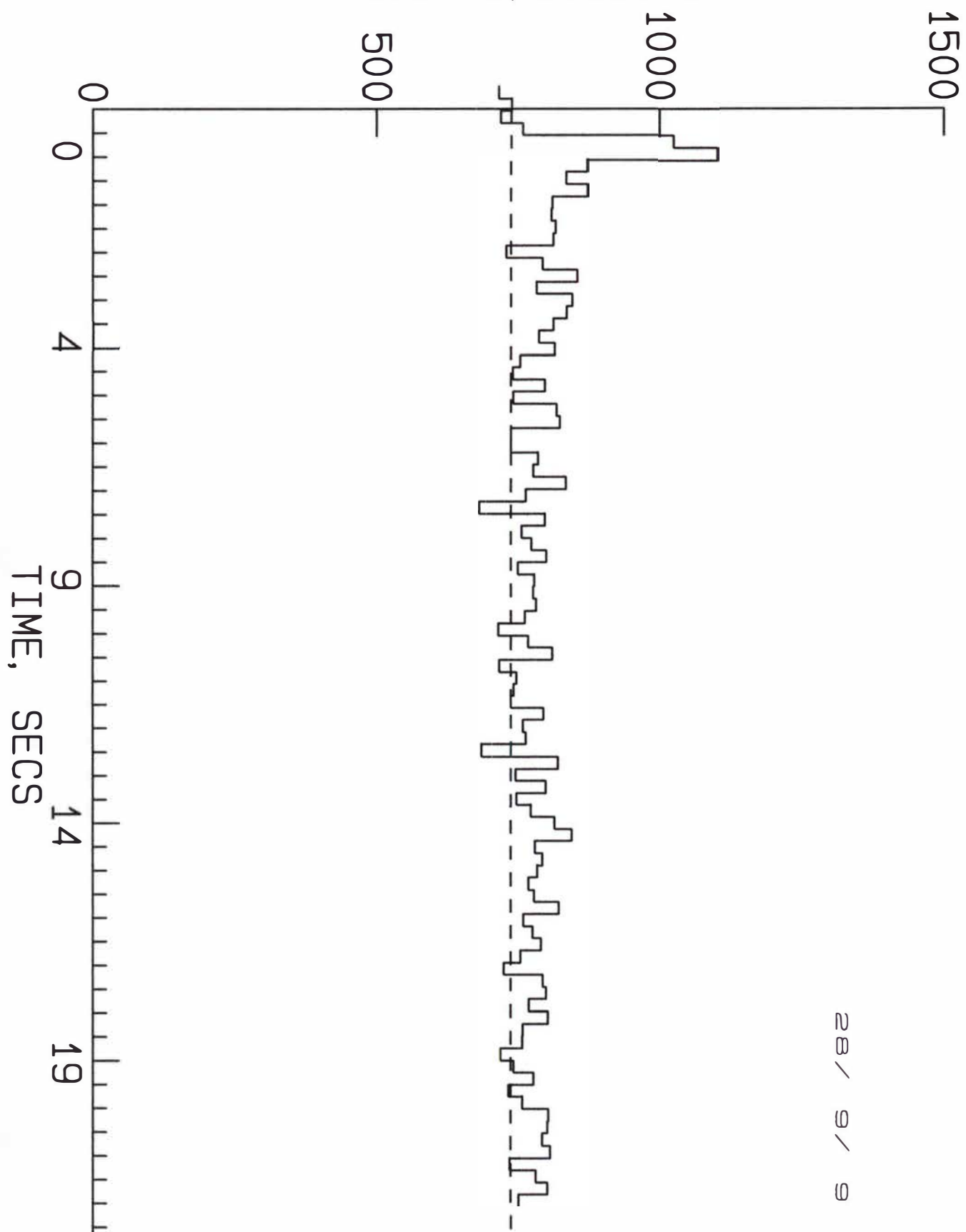
TITLE: GCN/SWIFT NOTICE
 NOTICE_DATE: Wed 16 Sep 09 07:14:40 UT
 NOTICE_TYPE: Swift-BAT GRB Lightcurve
 TRIGGER_NUM: 362818, Seg_Num: 0
 GRB_RA: 126.579d {+08h 26m 19s} (J2000),
 126.725d {+08h 26m 54s} (current),
 125.829d {+08h 23m 19s} (1950)
 GRB_DEC: +25.933d {+25d 55' 60"} (J2000),
 +25.901d {+25d 54' 03"} (current),
 +26.098d {+26d 05' 52"} (1950)
 GRB_DATE: 15090 TJD; 259 DOY; 09/09/16
 GRB_TIME: 25244.12 SOD {07:00:44.12} UT
 TRIGGER_INDEX: 123
 GRB_PHI: -11.26 [deg]
 GRB_THETA: 48.16 [deg]
 DELTA_TIME: 38.00 [sec]
 TRIGGER_DUR: 0.256 [sec]
 SOLN_STATUS: 0x3
 RATE_SIGNIF: 16.37 [sigma]
 IMAGE_SIGNIF: 7.61 [sigma]
 LC_URL: sw00362818000msb.lc
 SUN_POSTN: 174.08d {+11h 36m 20s} +2.56d {+02d 33' 28"}
 SUN_DIST: 51.08 [deg] Sun_angle= 3.2 [hr] (West of Sun)
 JON_POSTN: 141.58d {+09h 26m 19s} +13.05d {+13d 02' 43"}
 MOON_DIST: 18.98 [deg]
 MOON_ILLUM: 8 [%]
 GAL_COORDS: 197.70, 31.42 [deg] galactic lon,lat of the burst (or transient)
 ECL_COORDS: 122.65, 6.54 [deg] ecliptic lon,lat of the burst (or transient)
 COMMENTS: SWIFT-BAT GRB Lightcurve.
 COMMENTS:
 COMMENTS: The next comments were copied from the BAT_POS Notice:
 COMMENTS: This is a rate trigger.
 COMMENTS: A point_source was found.
 COMMENTS: This does not match any source in the on-board catalog.
 COMMENTS: This does not match any source in the ground catalog.
 COMMENTS: This is a GRB.
 COMMENTS: This trigger occurred at longitude,latitude = 11.84,1.15 [deg].

SWIFT

16/09/09 25244.126

25- 100 keV

COUNTS/0.256 S



MS01

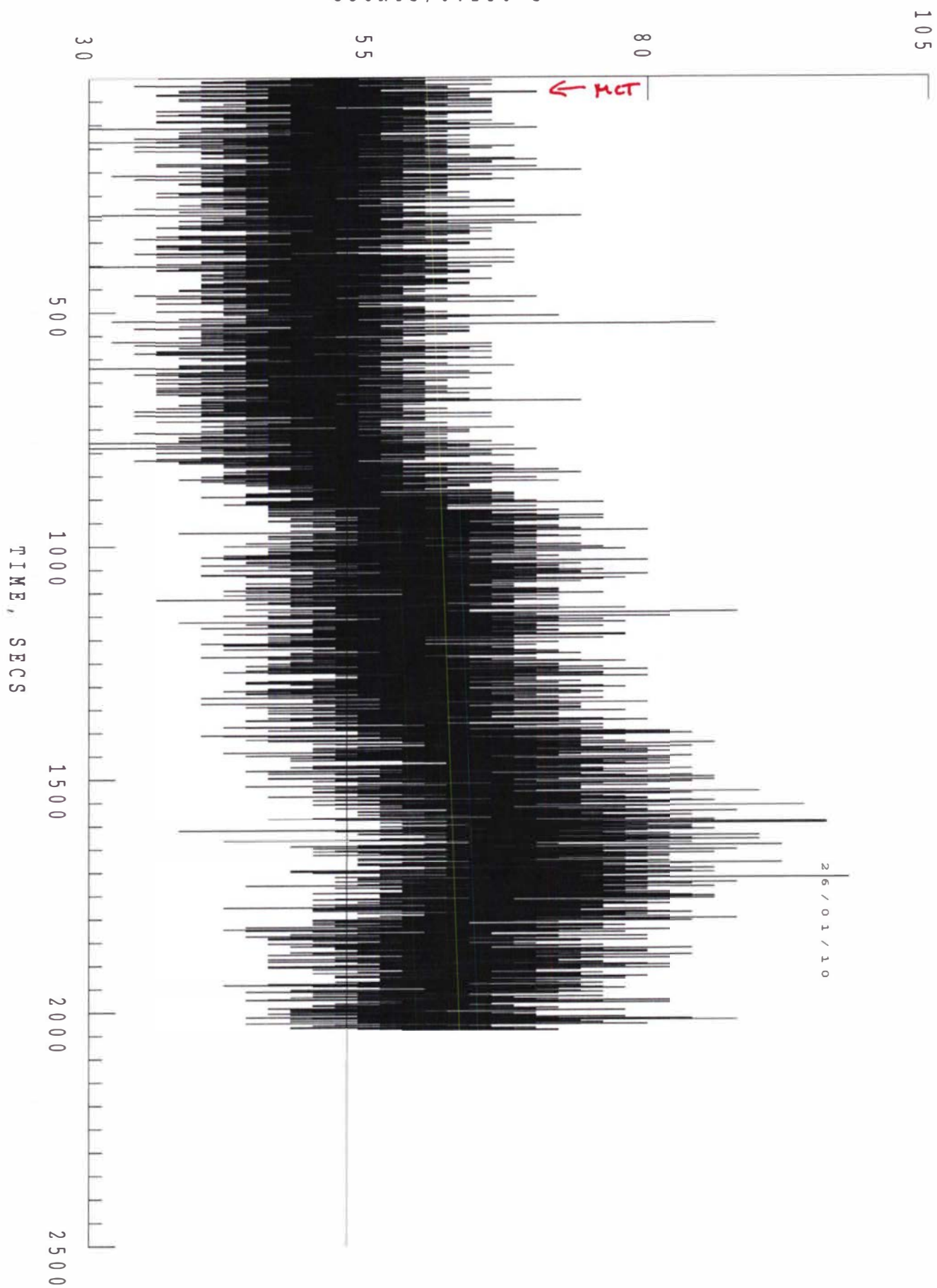
16/09/09

24526.237

B

50 - 3000 keV

COUNTS/0.250 S



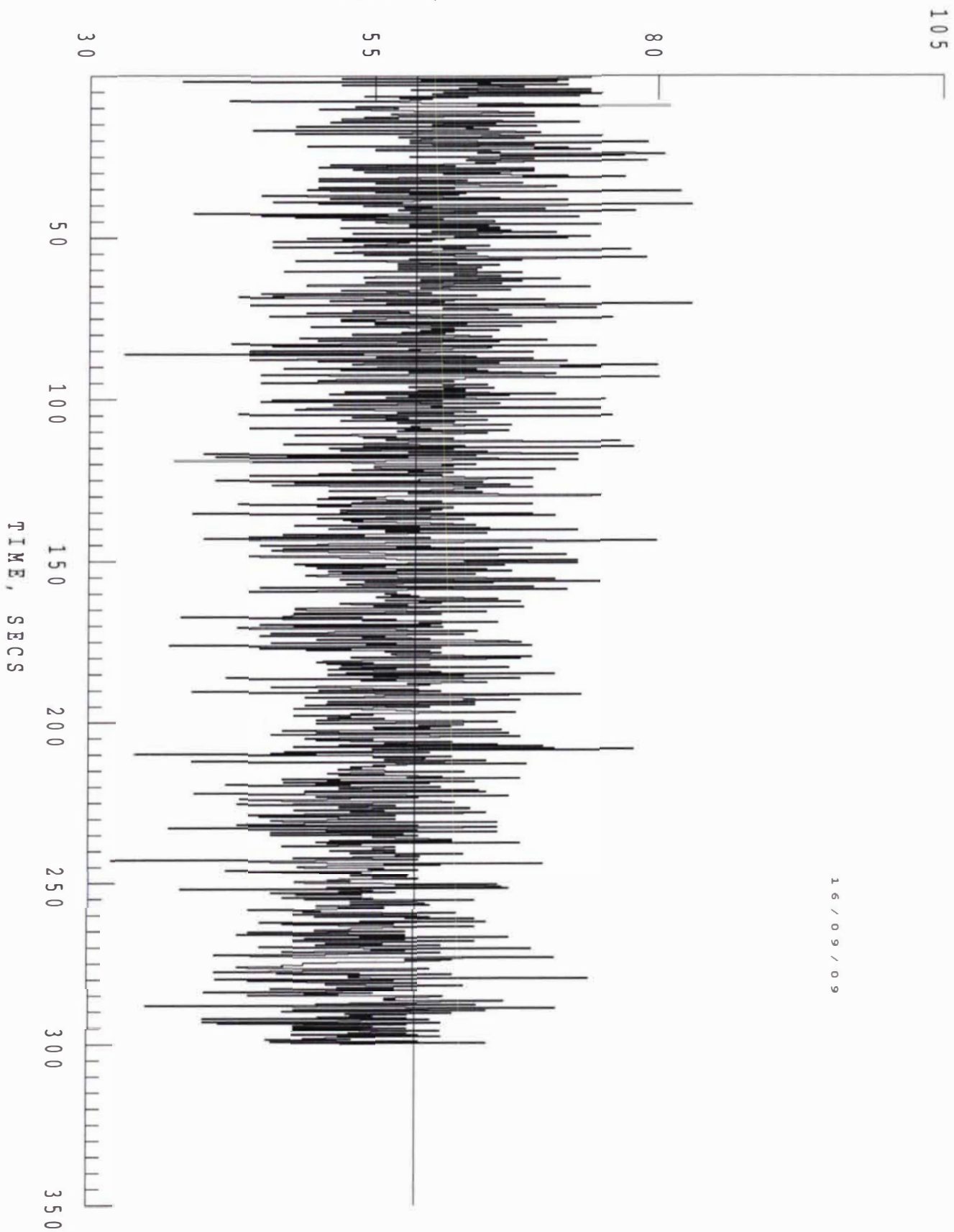
HESSI

16/09/09 25094.000 (SWIFT_20090916_25244)

B

25- 150 keV

COUNTS/0.250 S

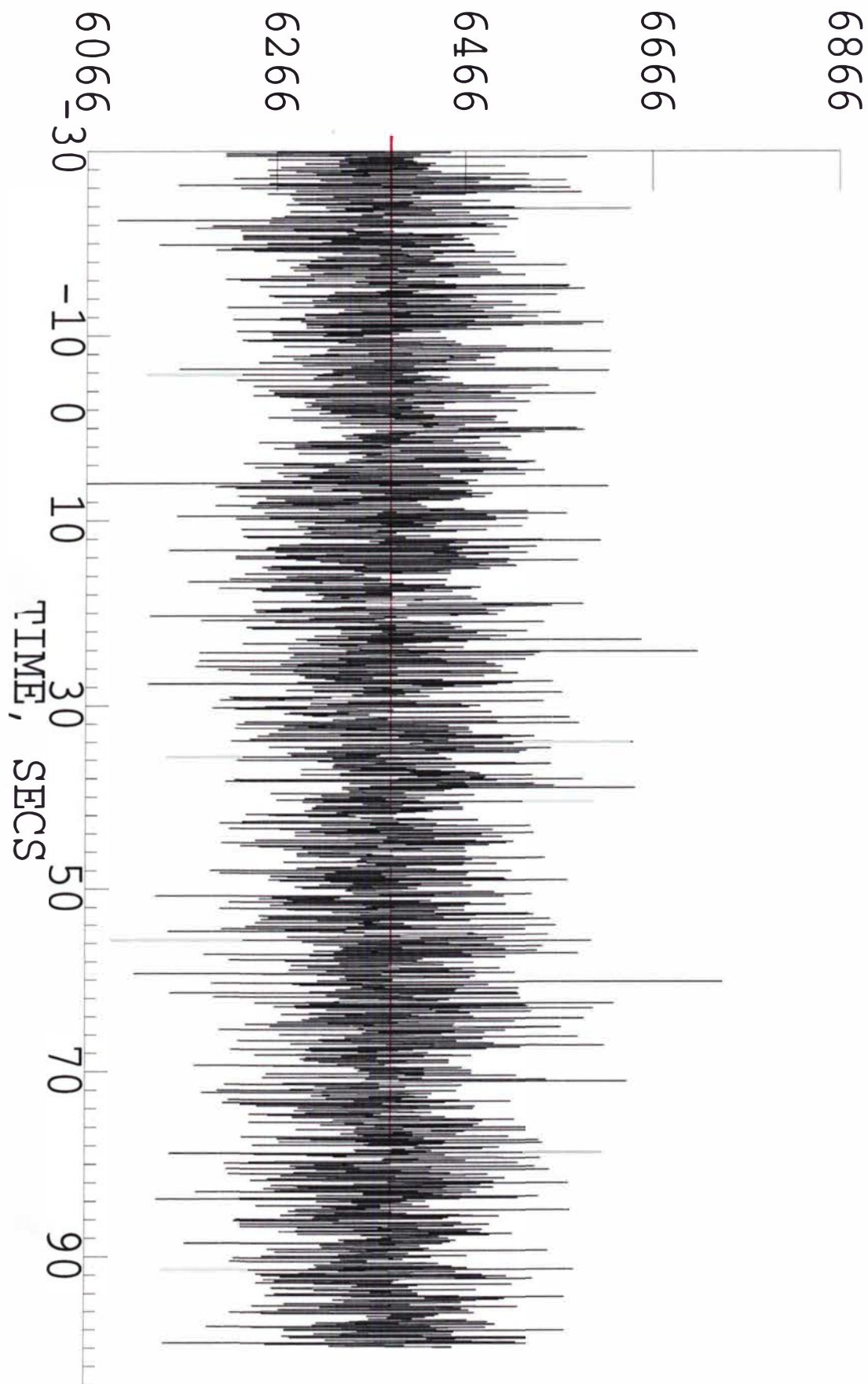


INTEGRAL 16/09/09 25244.021 07:00:44.0

B

100-10000 keV

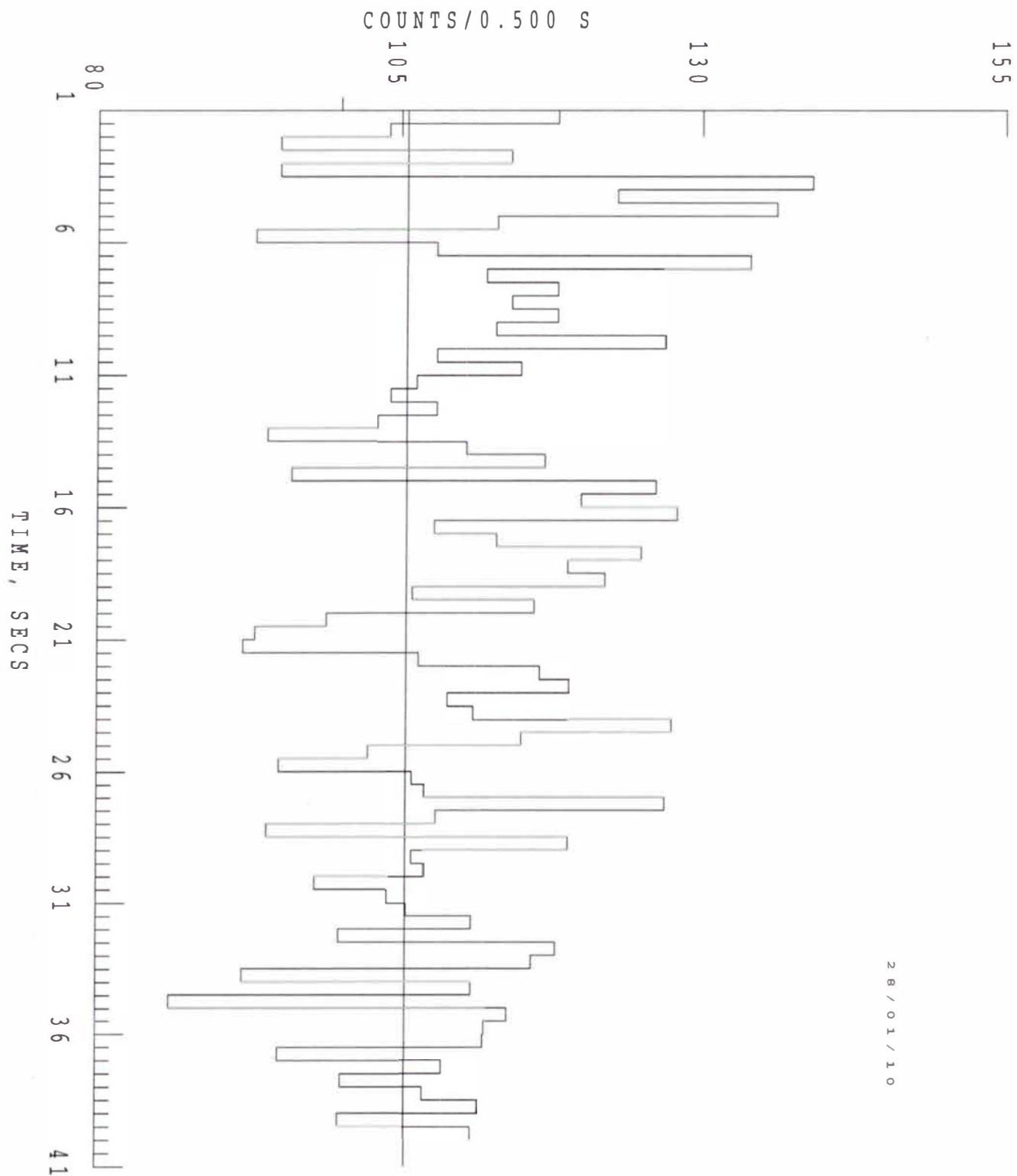
COUNTS/ .050 S



HESSI

16/09/09 37060.000 (SUZAKU_RI_20090916_37080)

25- 150 keV



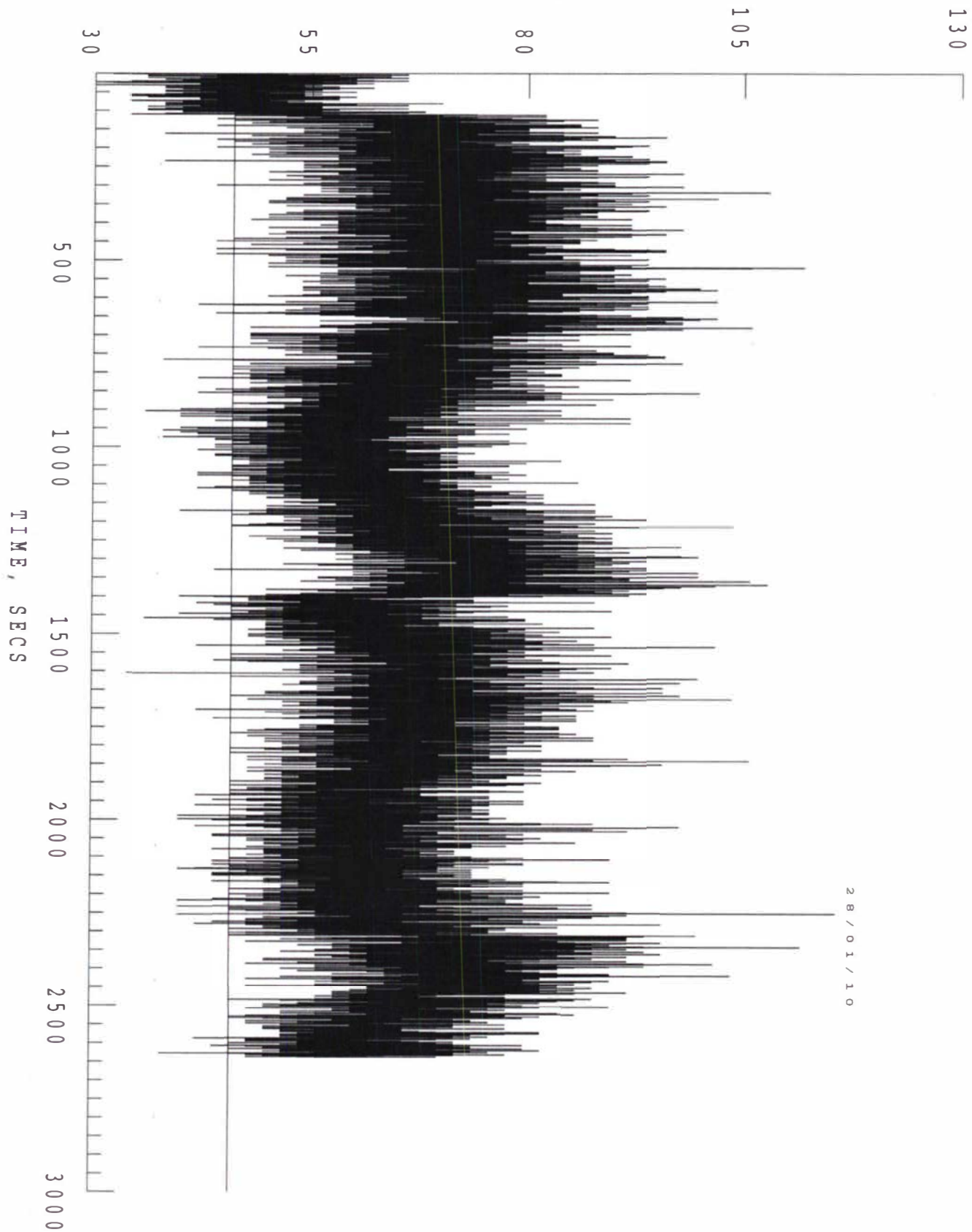
MS01

16/09/09

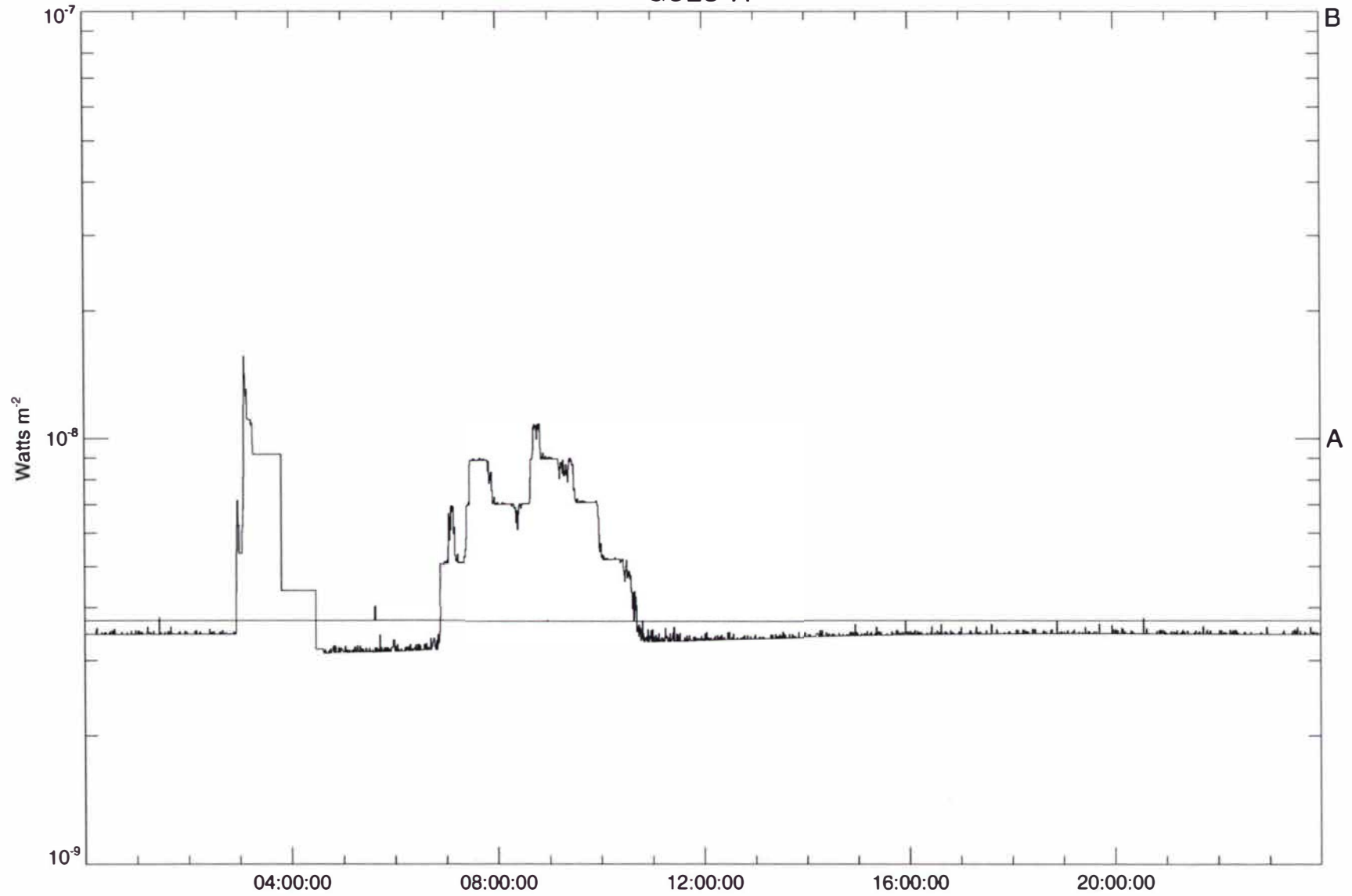
35745.938

50 - 3000 keV

COUNTS/0.250 S



GOES 11



Data Start: 09/09/16, 0000:13

Channel

1 (1.0 - 8.0 Angstroms)

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Background not subtracted

Plot created: 09/09/19, 0818

Sample average = 10

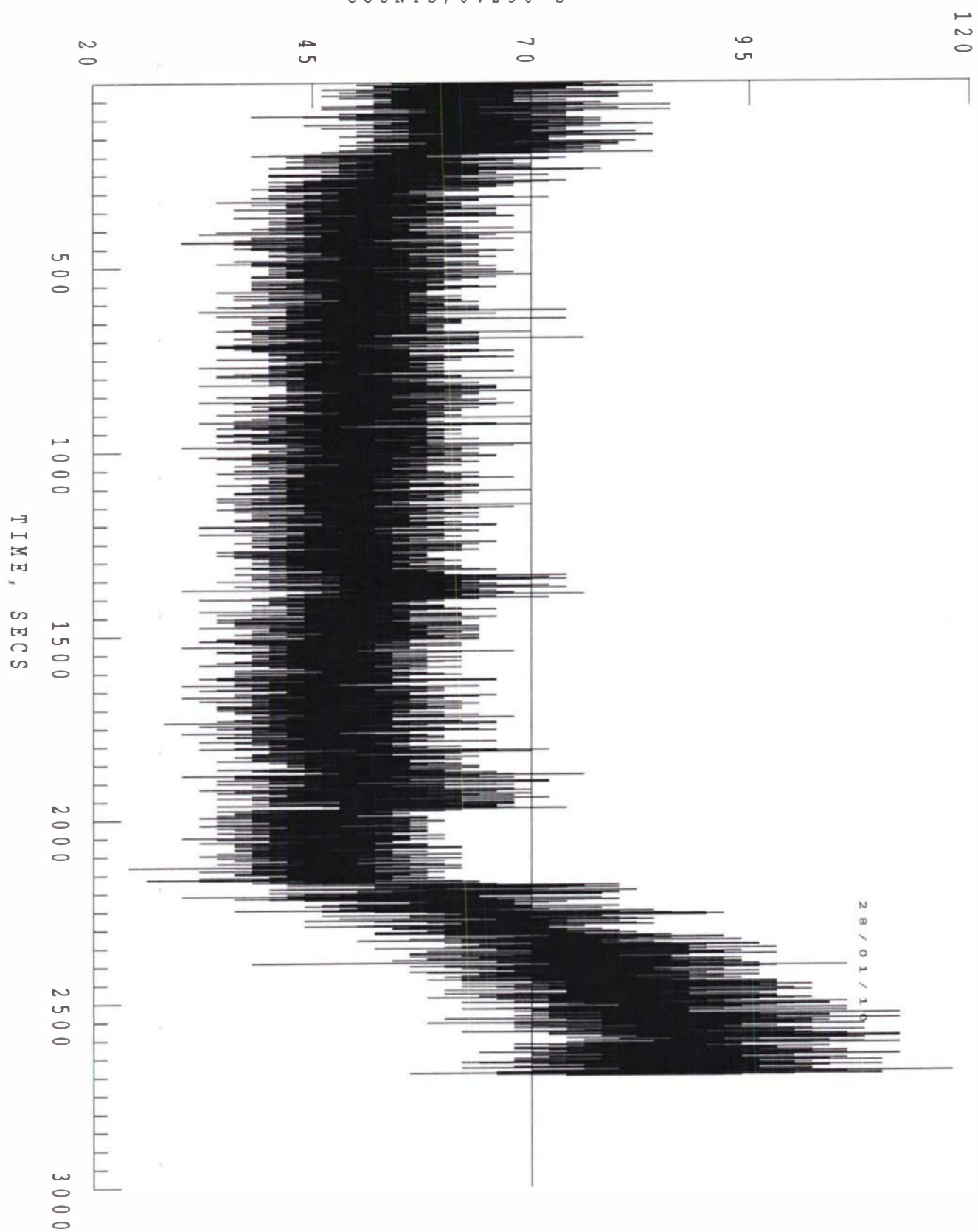
MS01

17/09/09

40124.417

50 - 3000 keV

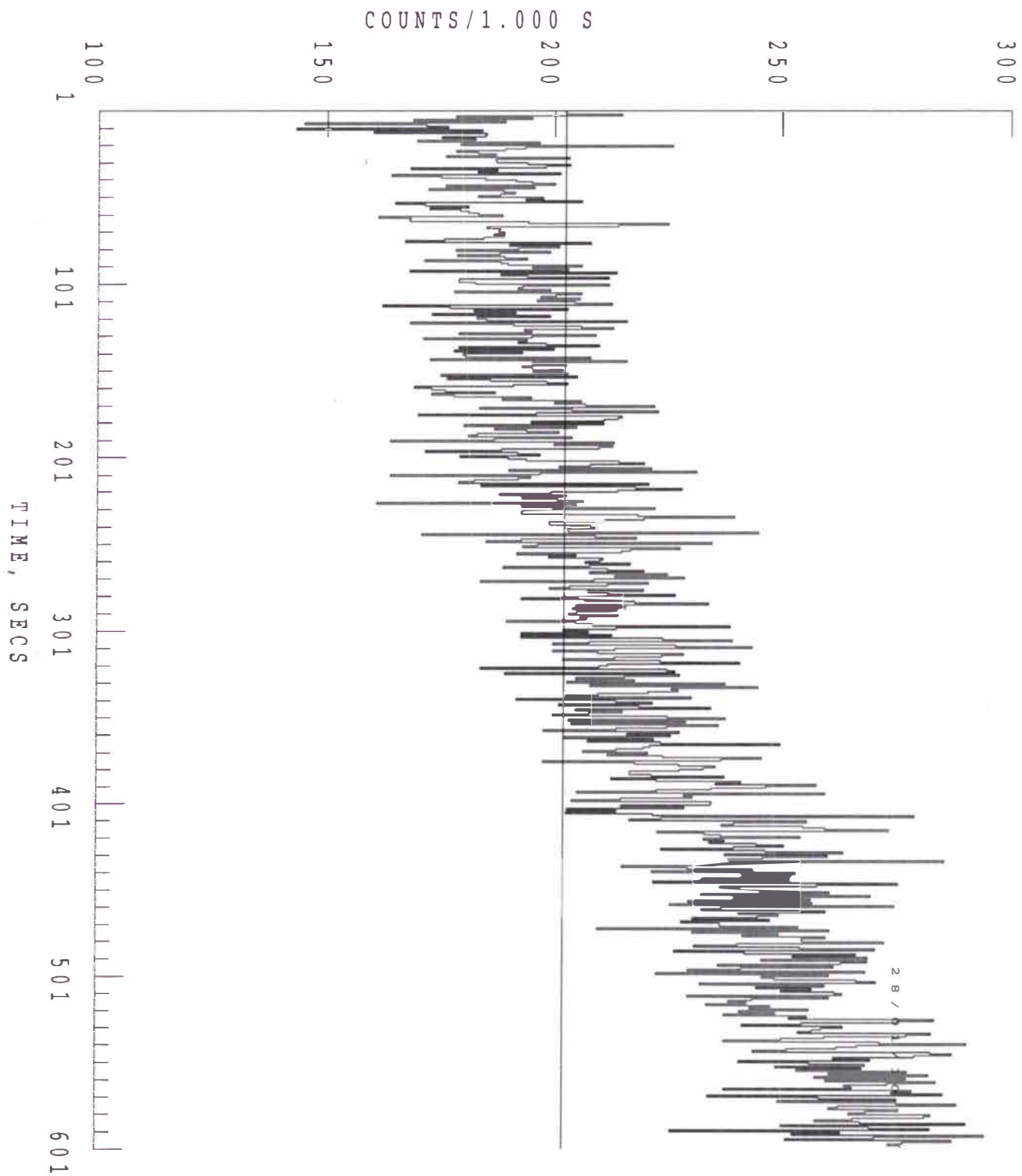
COUNTS/0.250 S



HESSI

17/09/09 41197.000 (SUZAKU_RI_20090917_41497)

25- 150 keV



GLAST

17/09/09

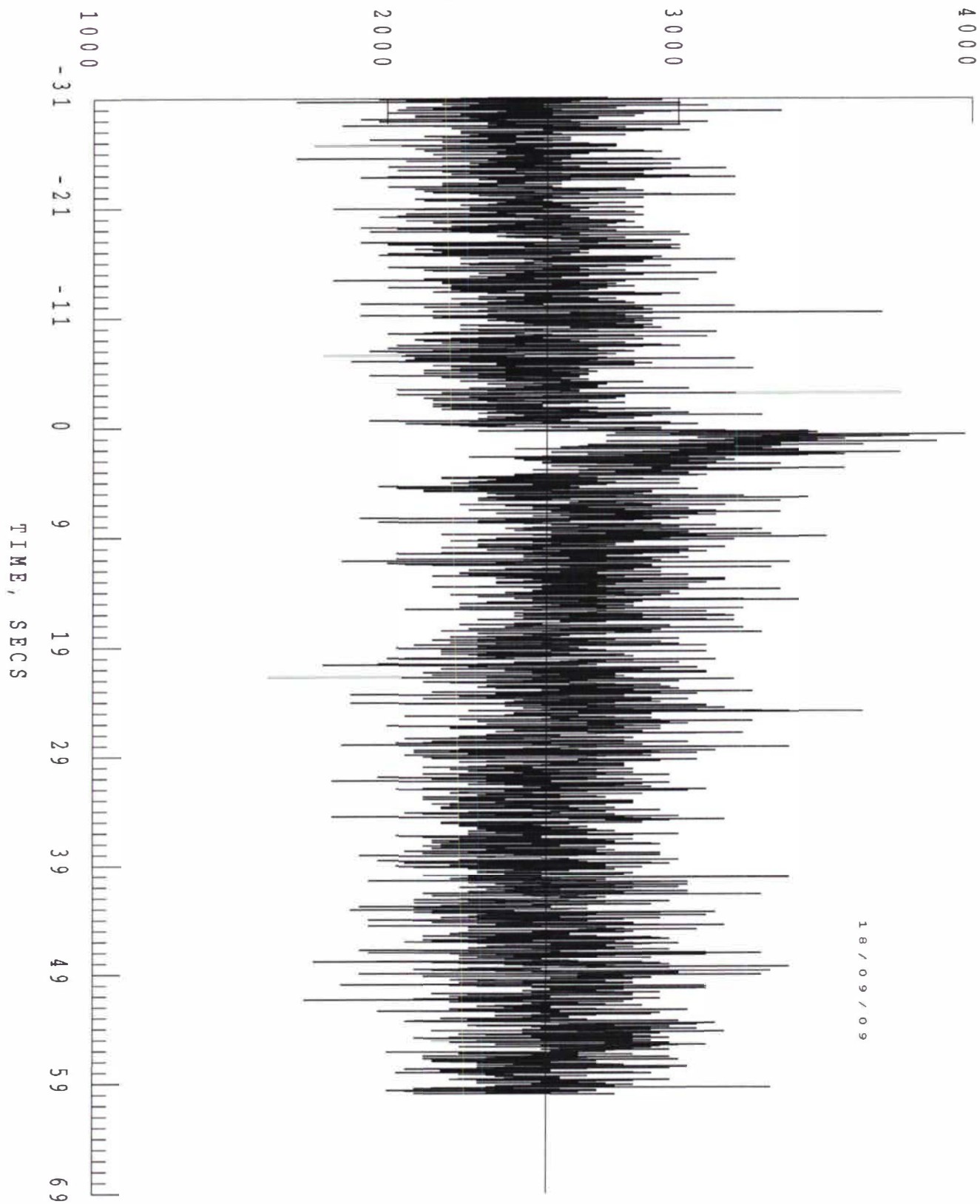
57098.942

15:51:38

26- 293 keV

206.54, -12.46

COUNTS/0.032 S



MS01

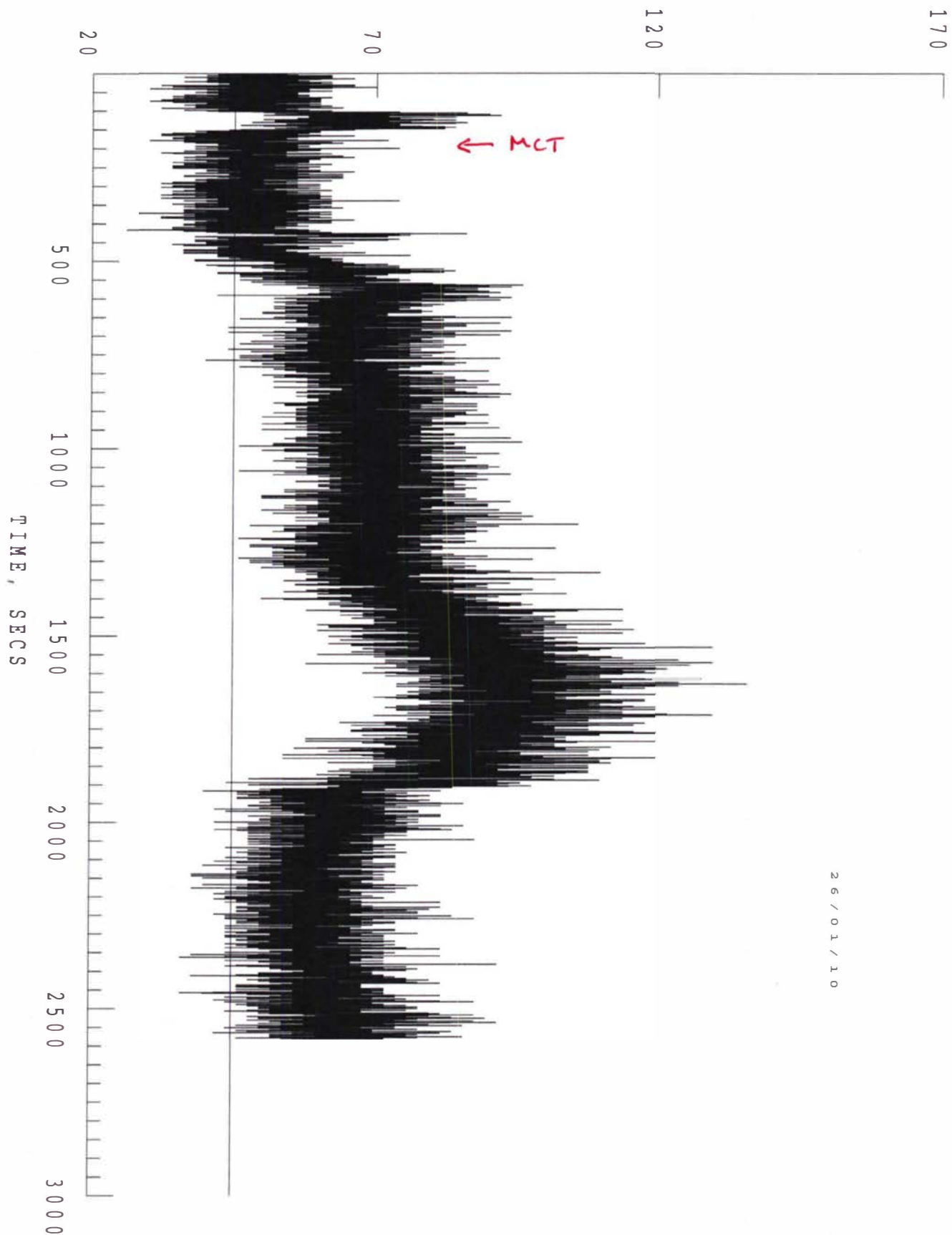
17/09/09

55784.157

50 - 3000 keV

MCT 57292

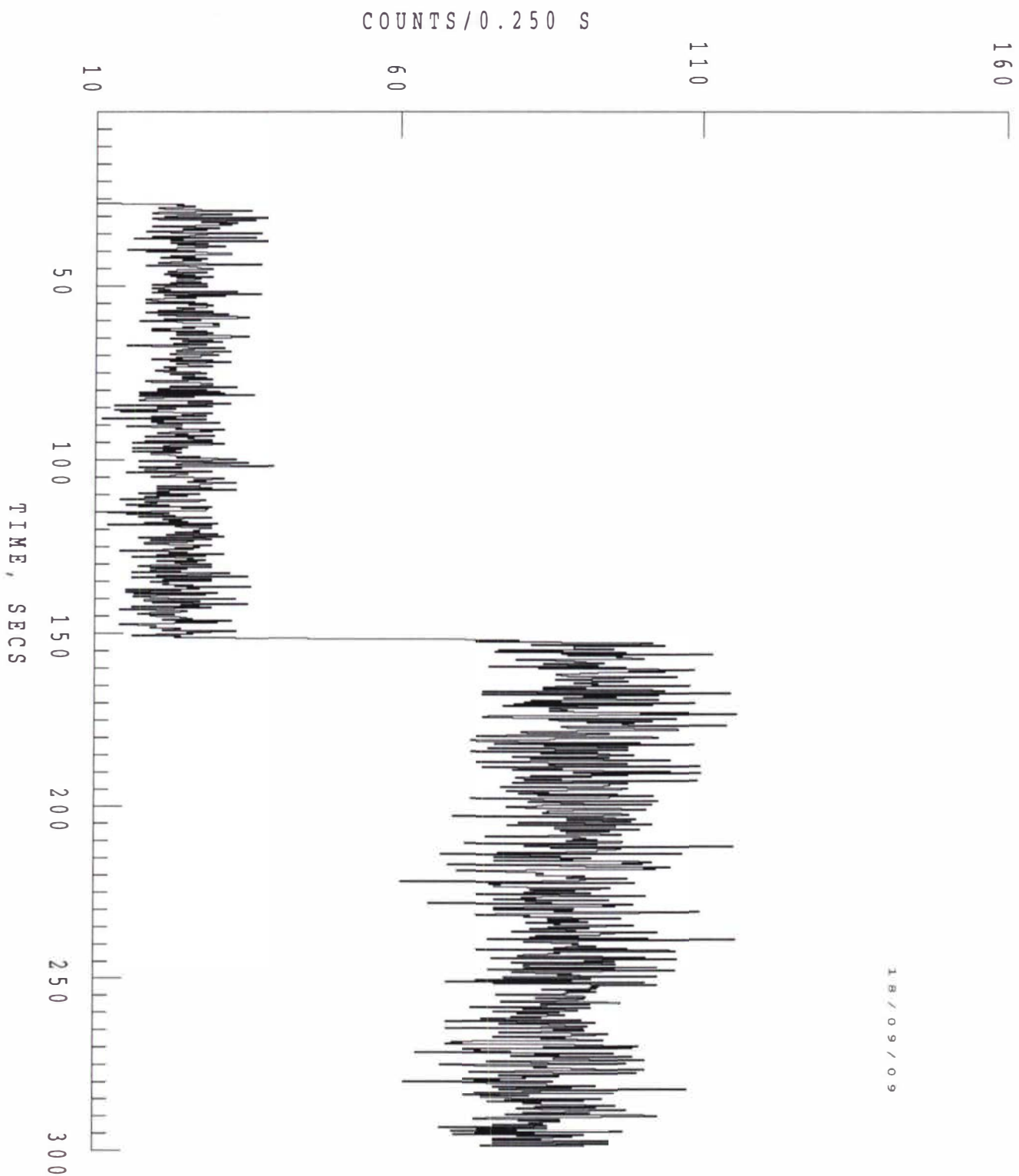
COUNTS/0.250 S



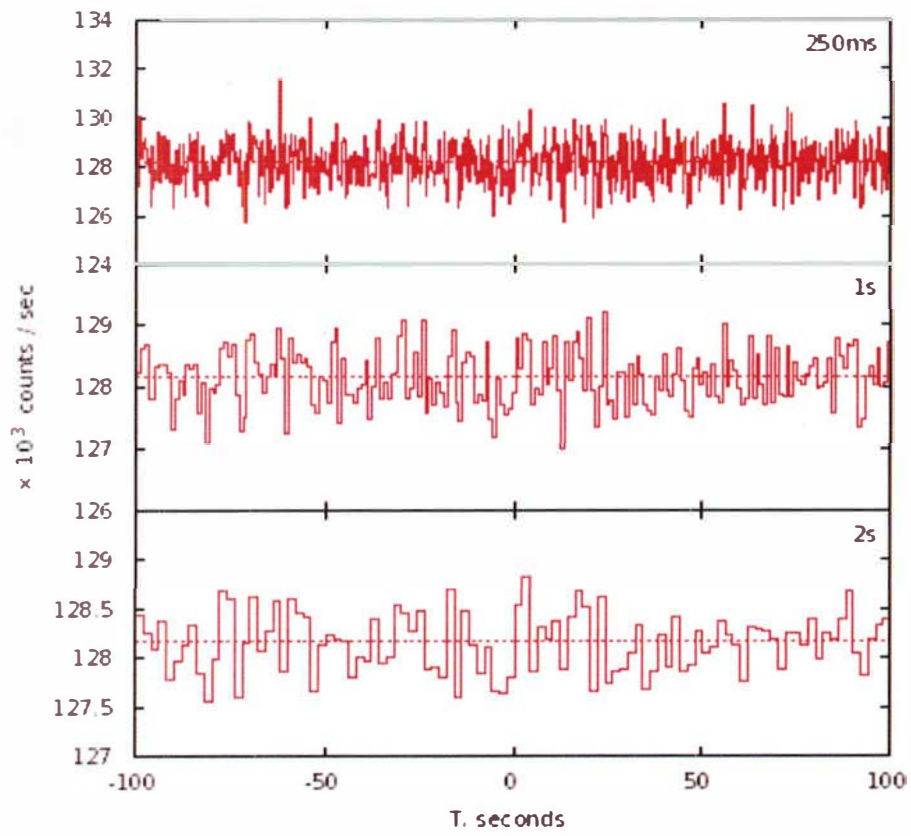
HESSI

17/09/09 56948.000 (GLAST_20090917_57098)

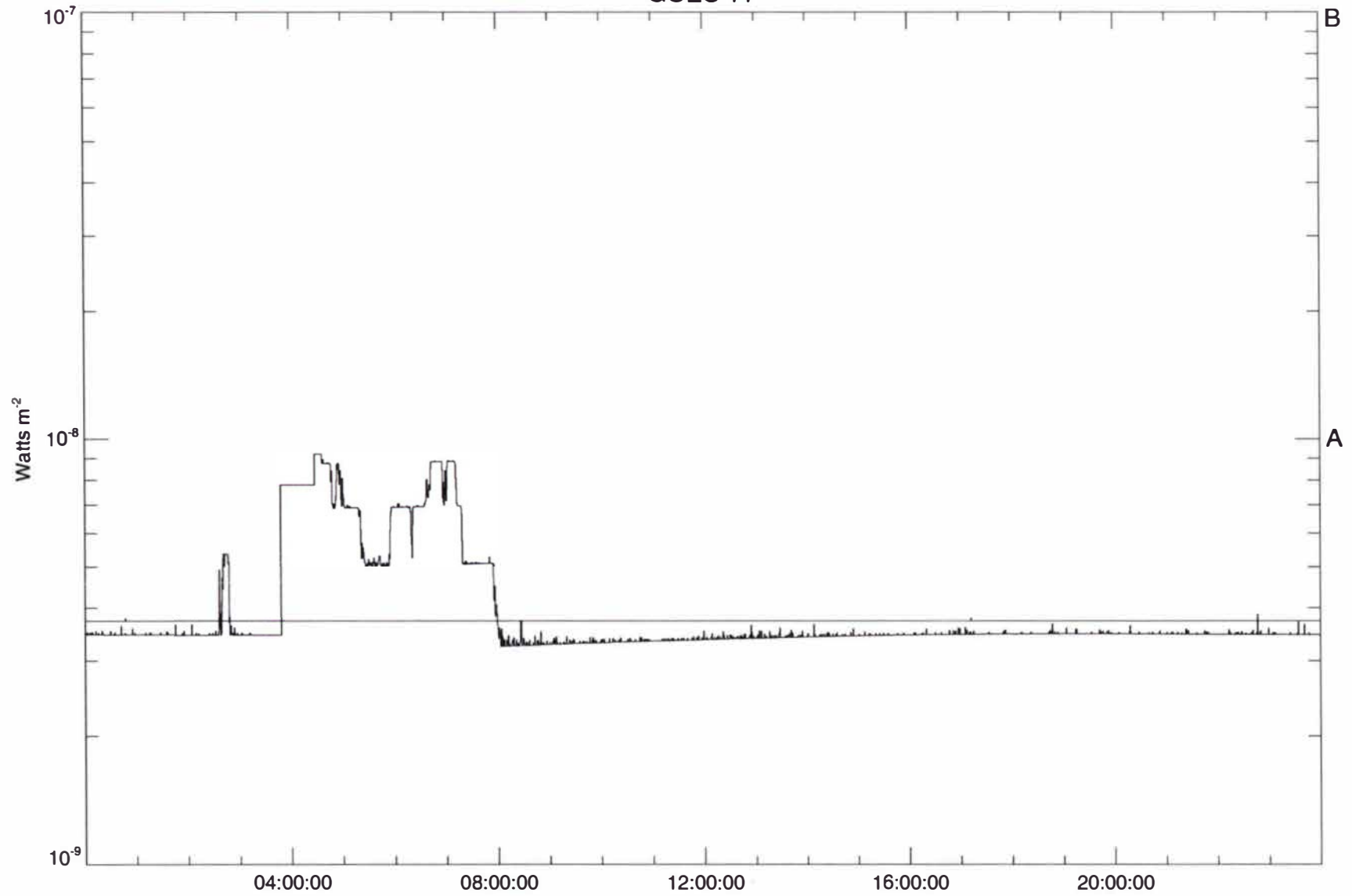
25- 150 keV



INTEGRAL SPI-ACS 090917 $T_0 = 57098$ s UT



GOES 11



Data Start: 09/09/17, 0000:13

Plot created: 09/09/20, 0818

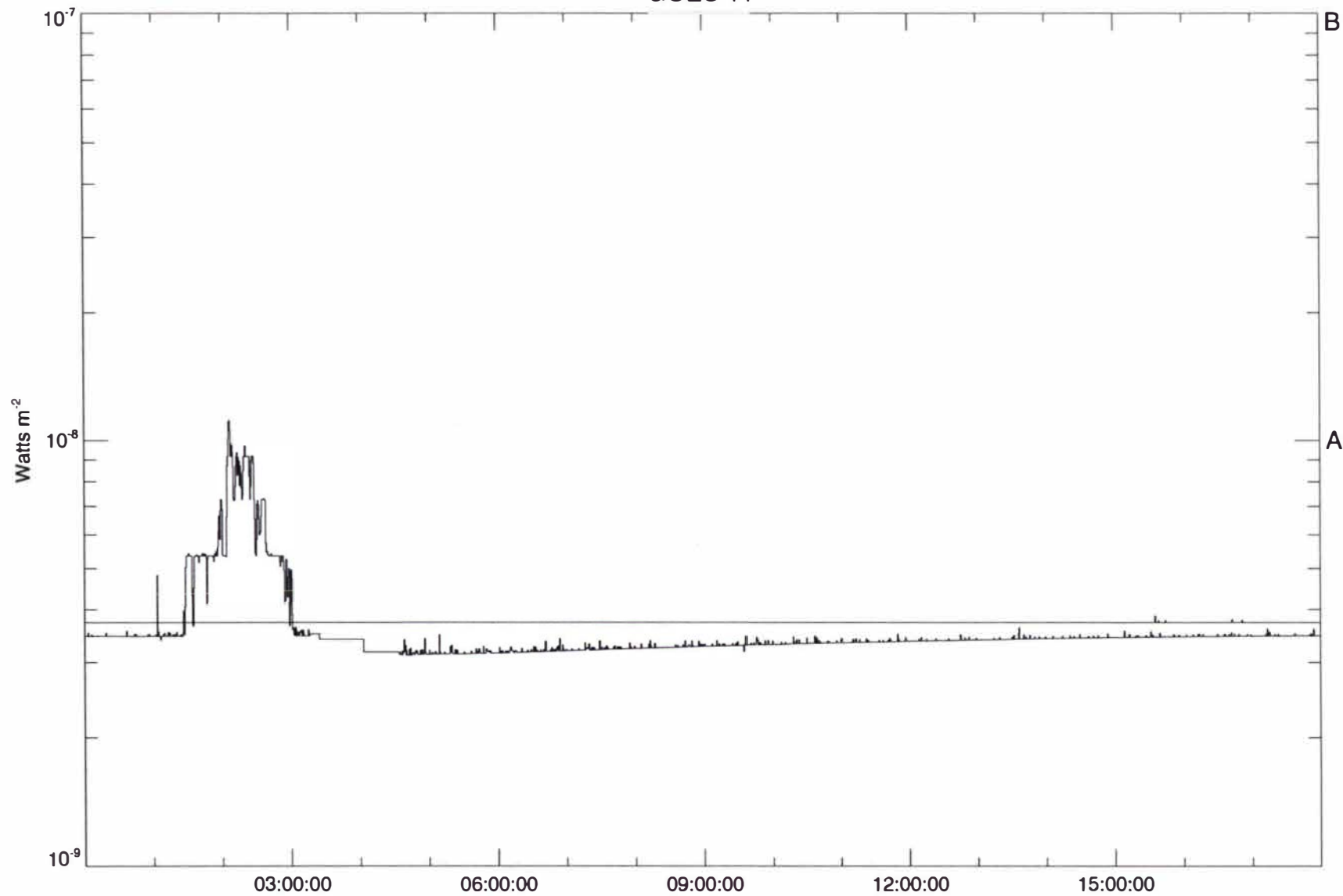
Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GOES 11



Data Start: 09/09/18, 0000:13

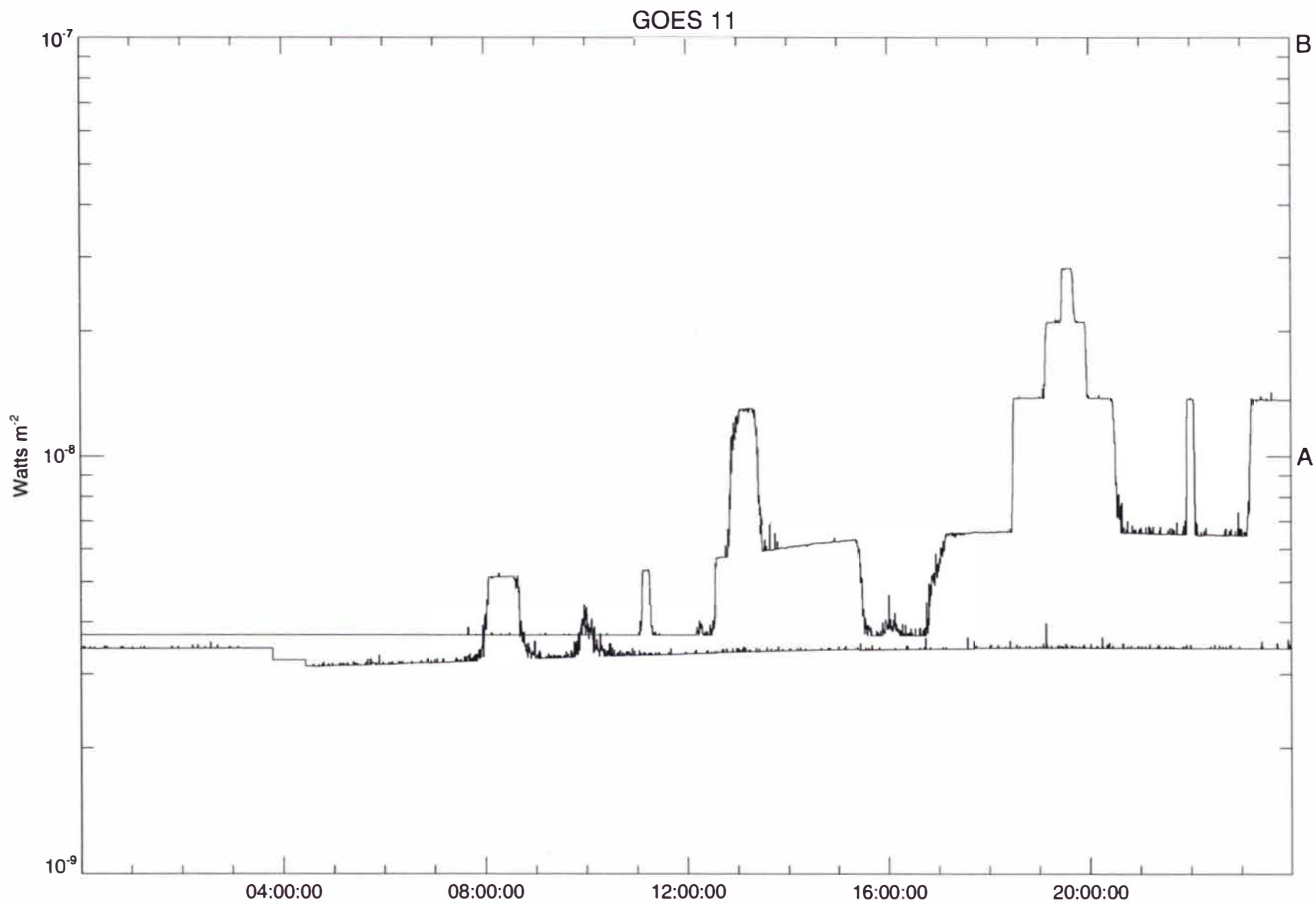
Plot created: 09/09/21, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10



Data Start: 09/09/19, 0000:13

Plot created: 09/09/22, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GLAST

20/09/09

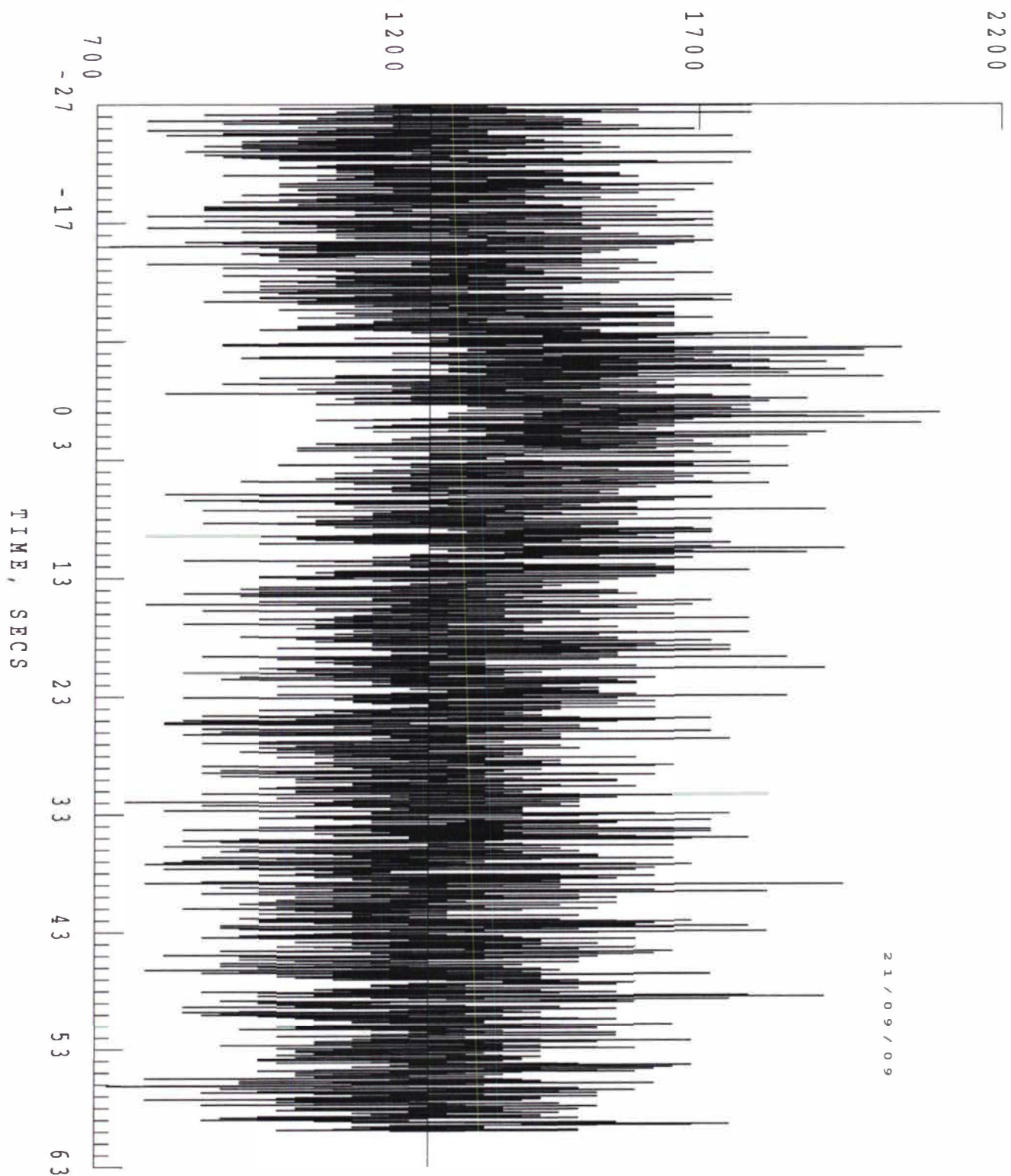
2999.062

00:49:59

26- 293 keV

299.25, -54.64

COUNTS/0.032 S



MS01

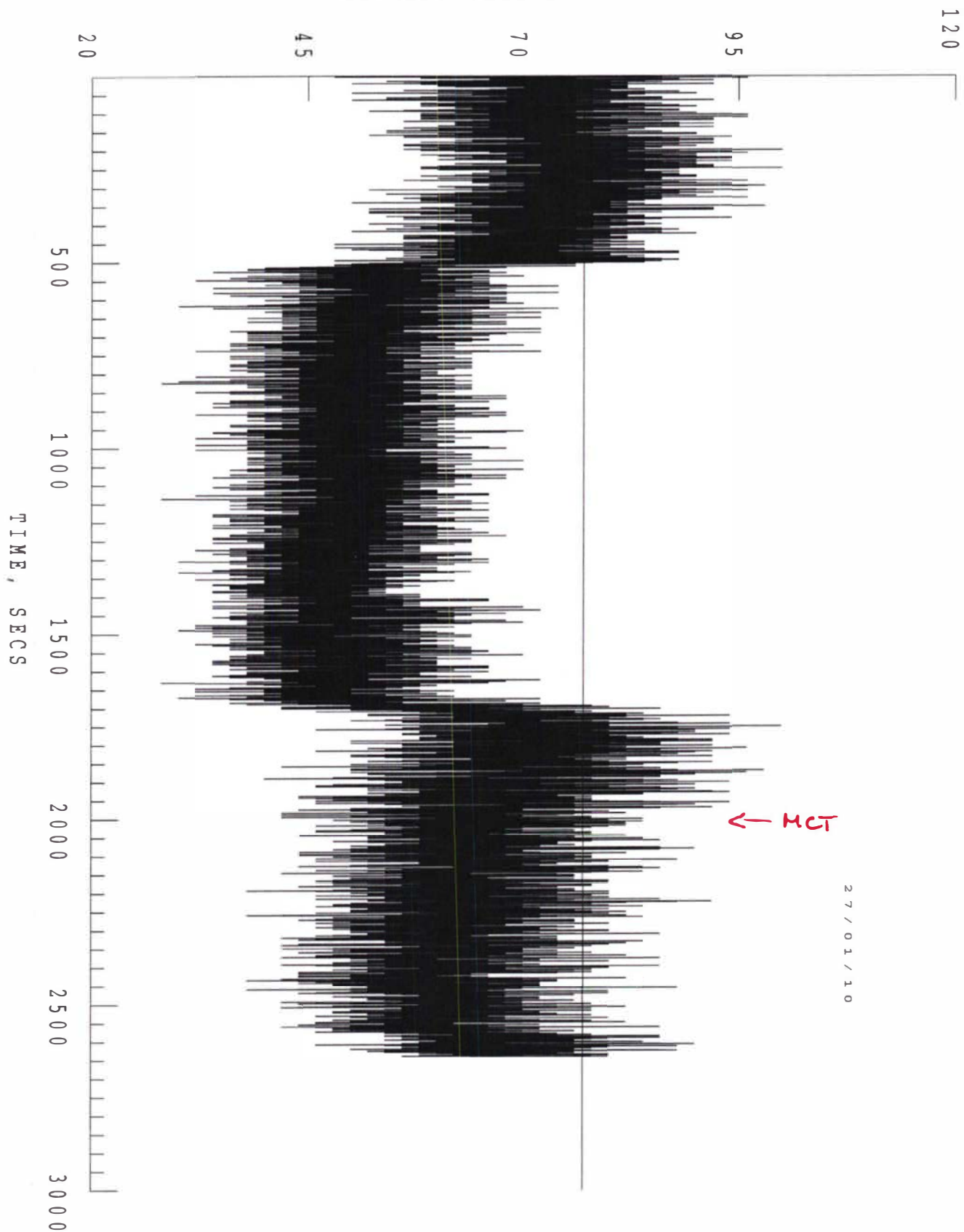
20/09/09

1660.722

50 - 3000 keV

MCT 3622

COUNTS/0.250 S

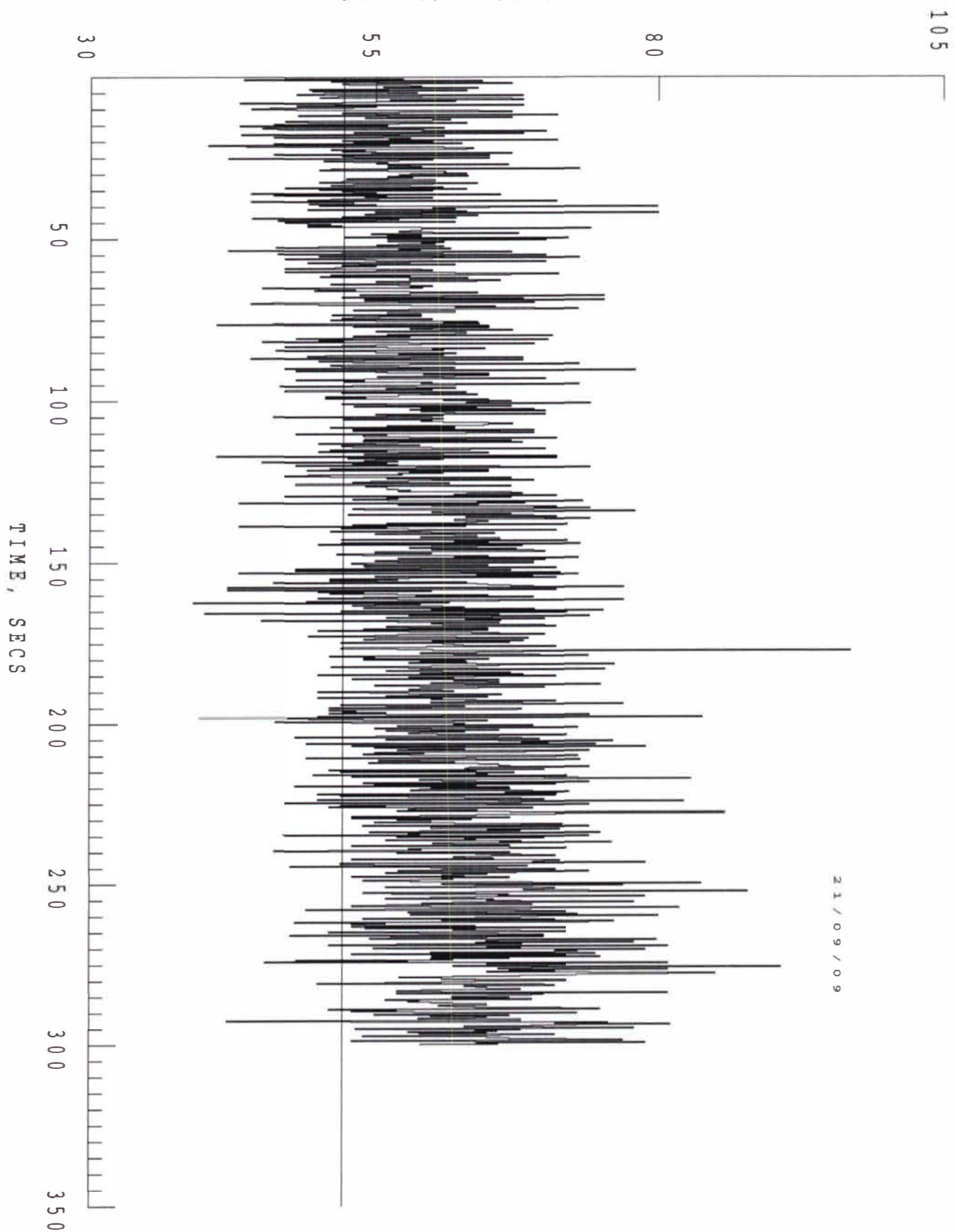


HESSI

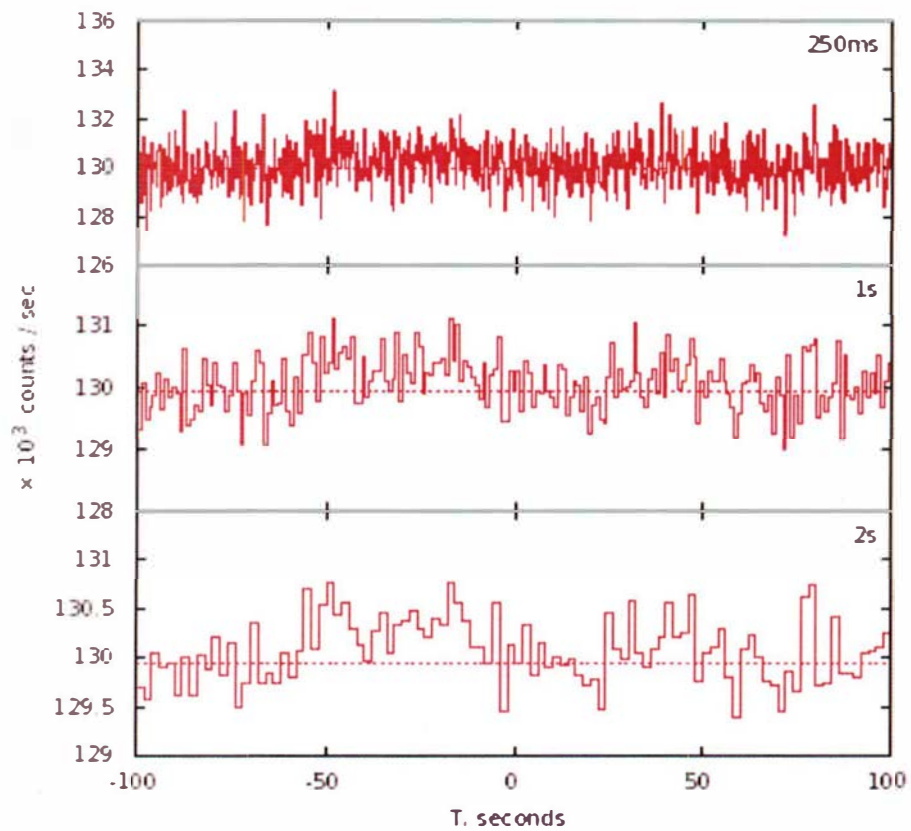
20/09/09 2849.000 (GLAST_20090920_02999)

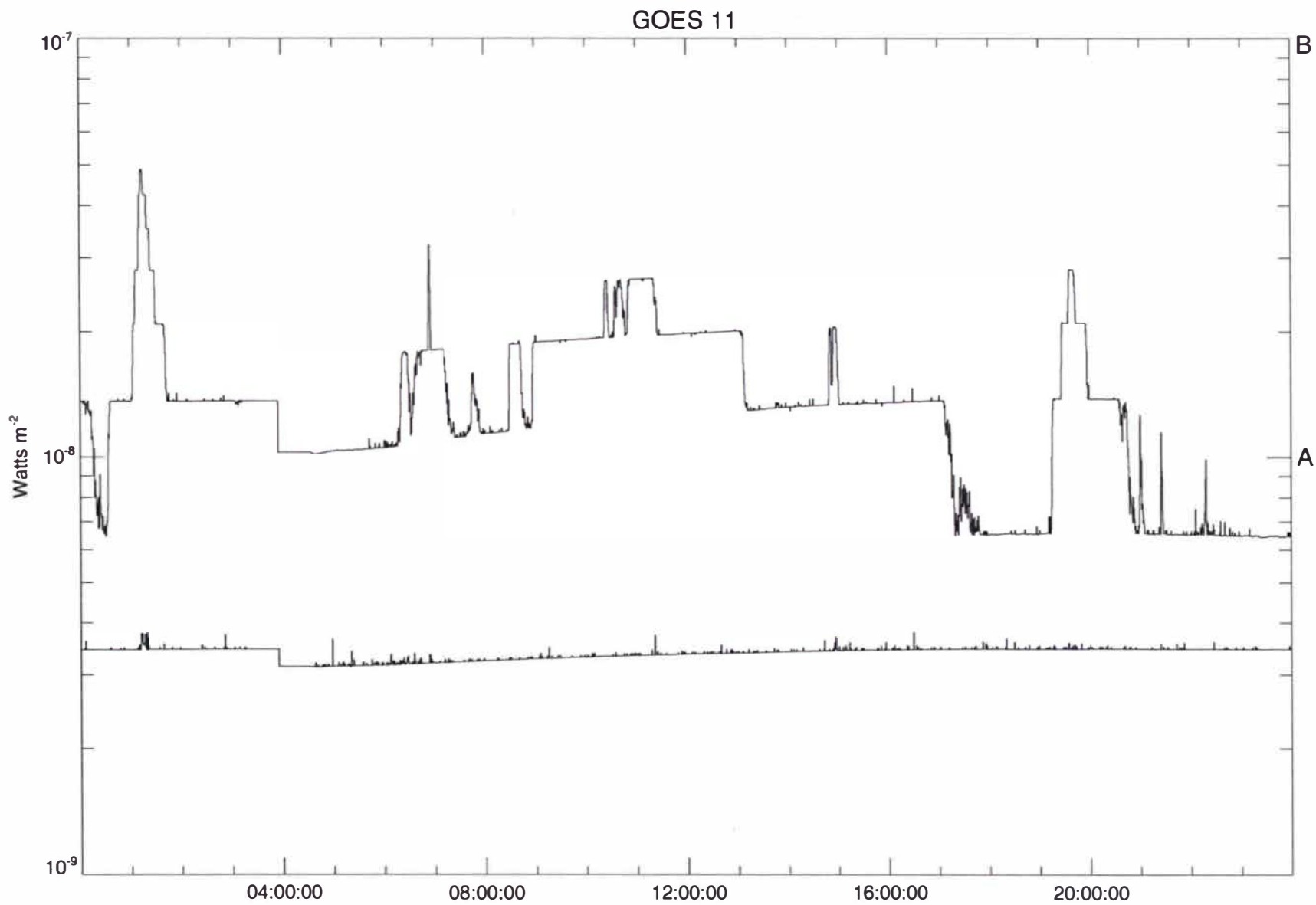
25- 150 keV

COUNTS/0.250 S



INTEGRAL SPI-ACS 090920 $T_0 = 02999$ s UT





Data Start: 09/09/20, 0000:13

Plot created: 09/09/23, 0818

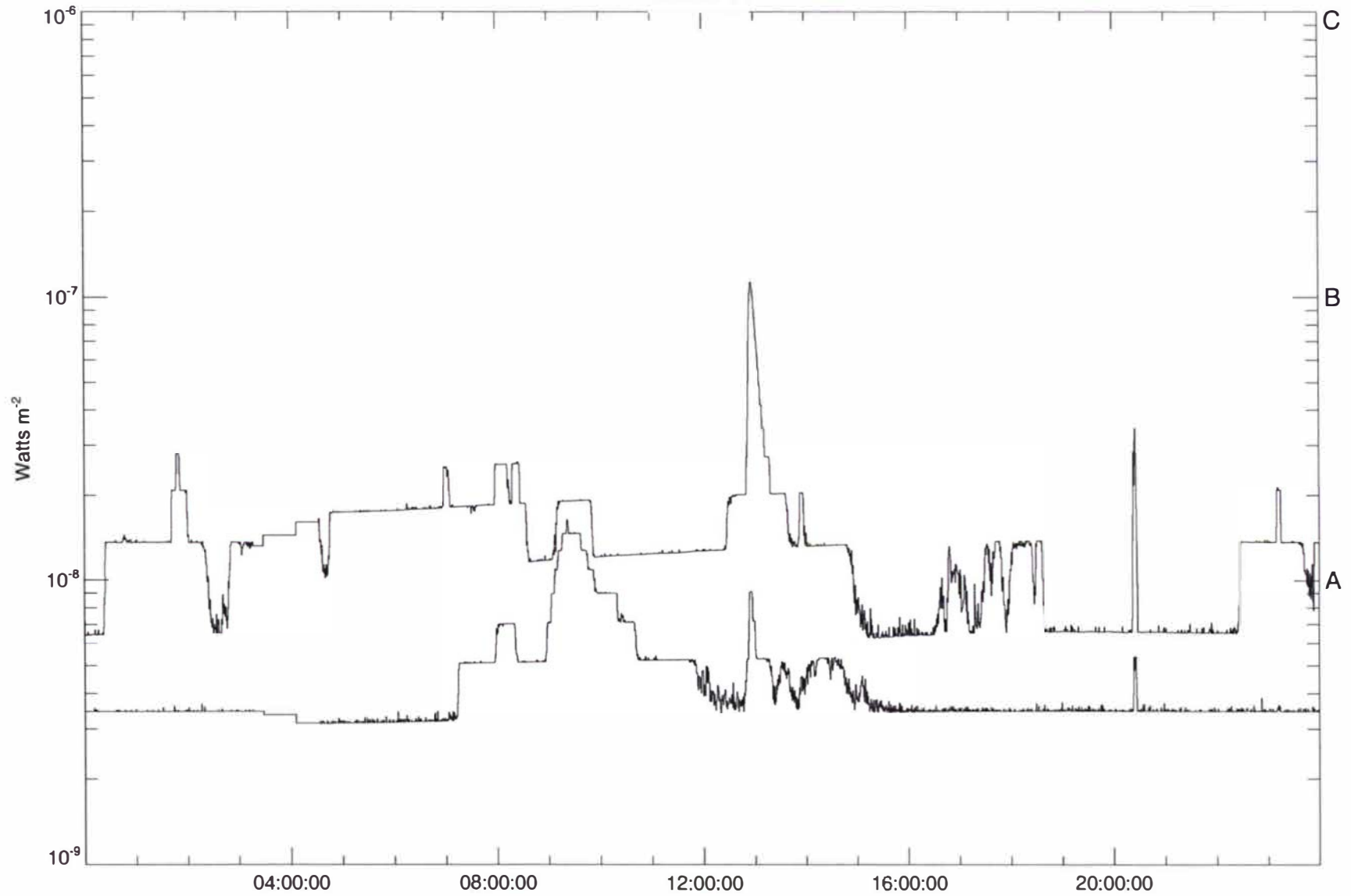
Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

GOES 11



Data Start: 09/09/21, 0000:13

Plot created: 09/09/24, 0819

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

Date: Apr 18 2011

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)? P
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

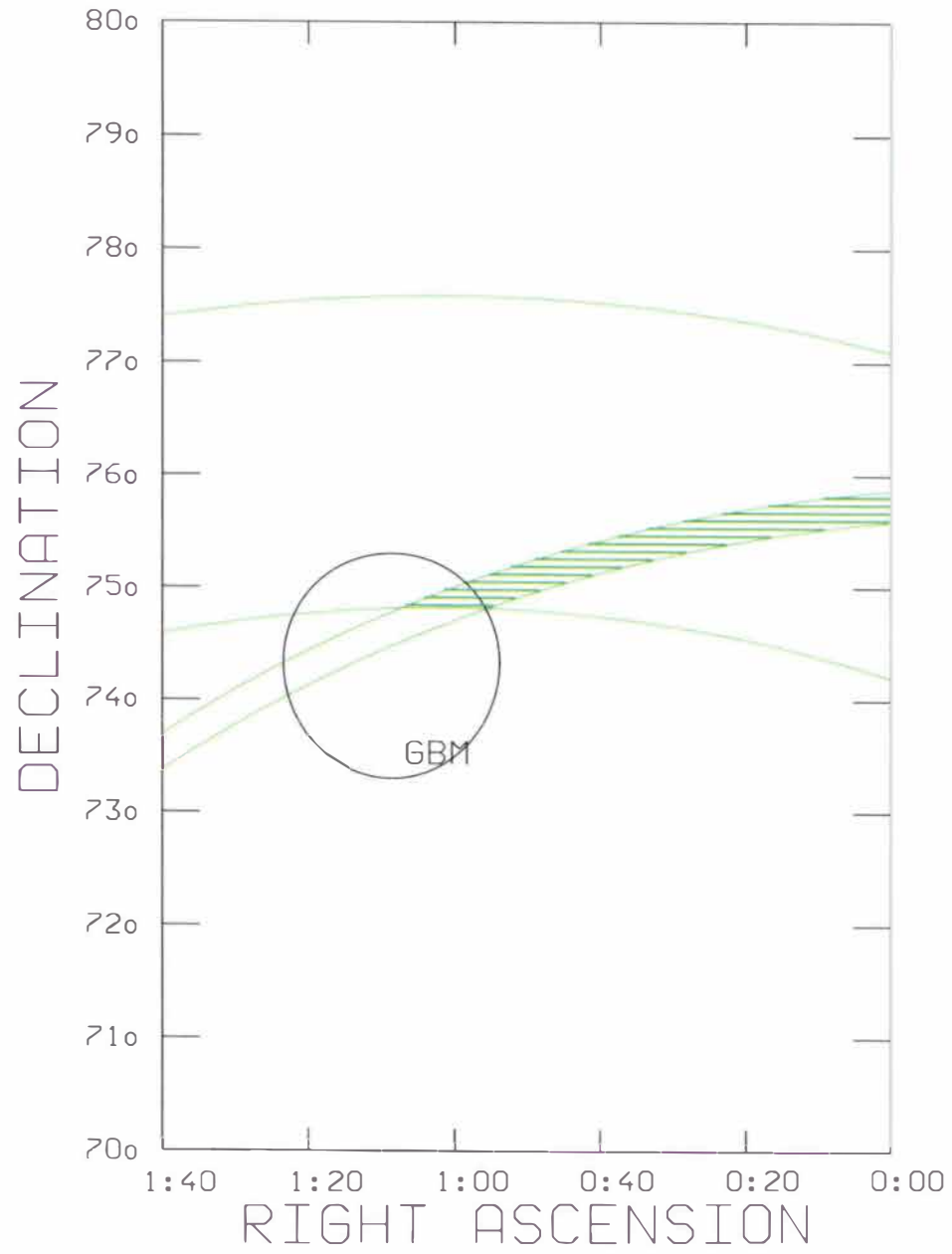
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?

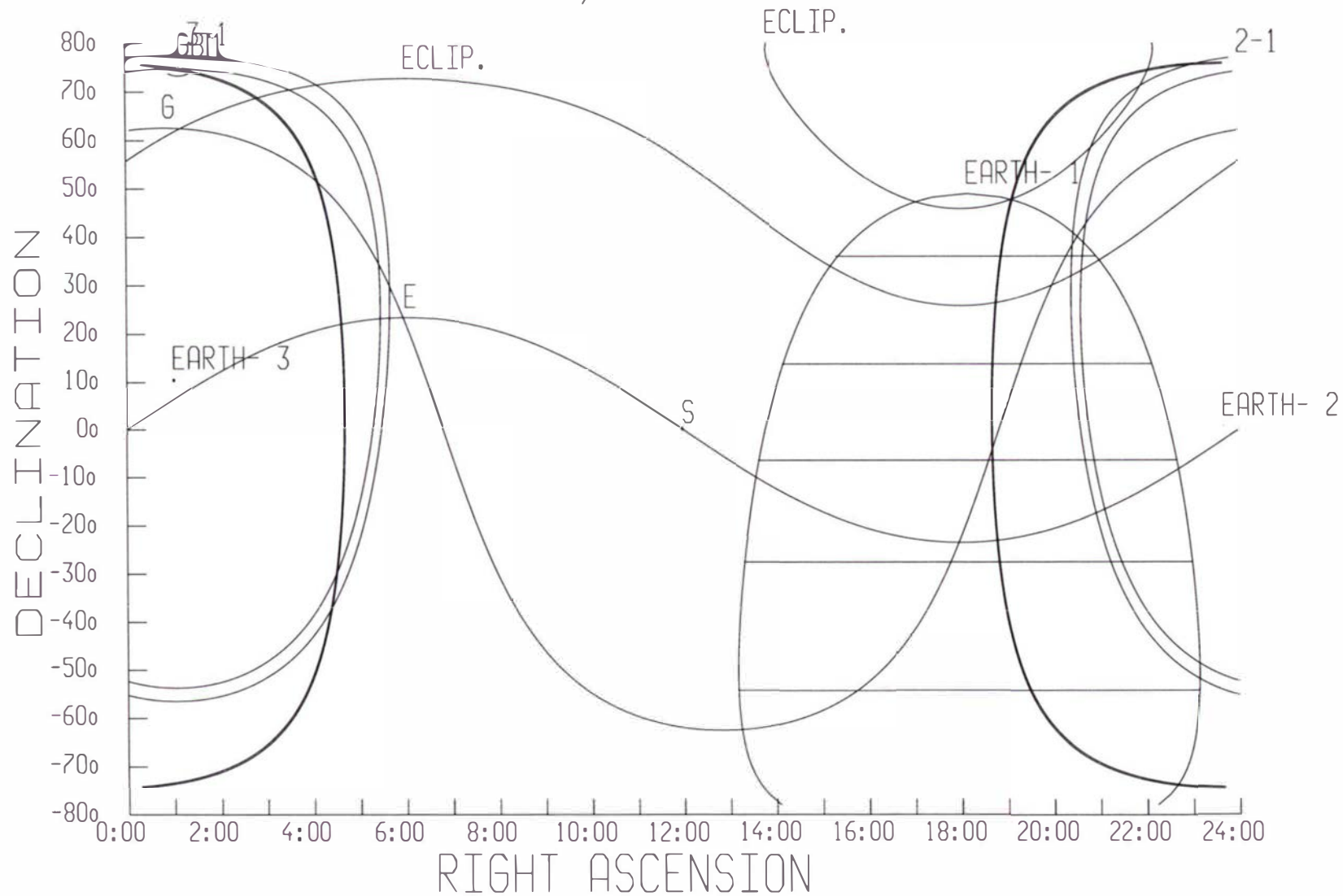
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

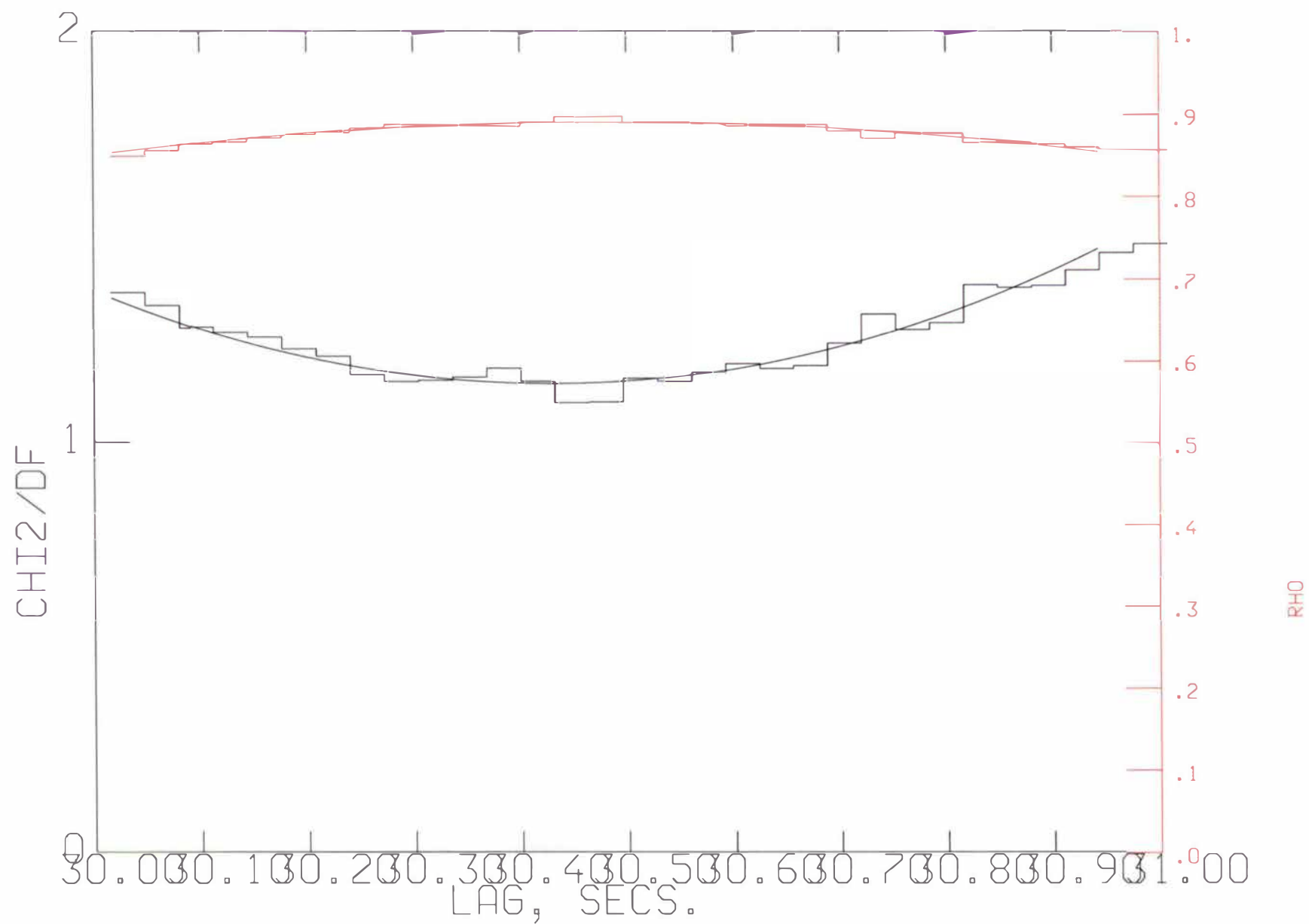


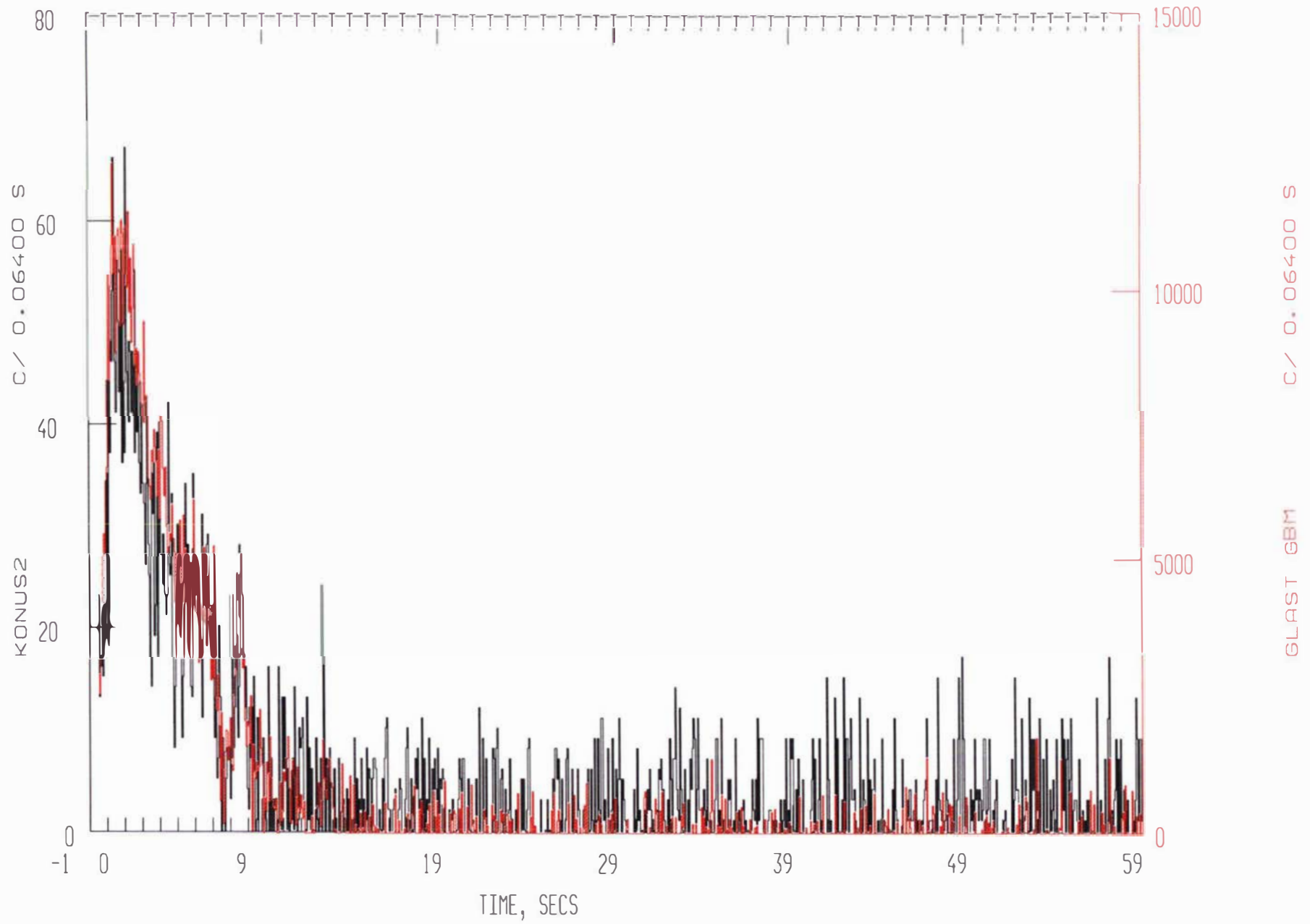
EVENT OF SEP 22, 2009 12:56

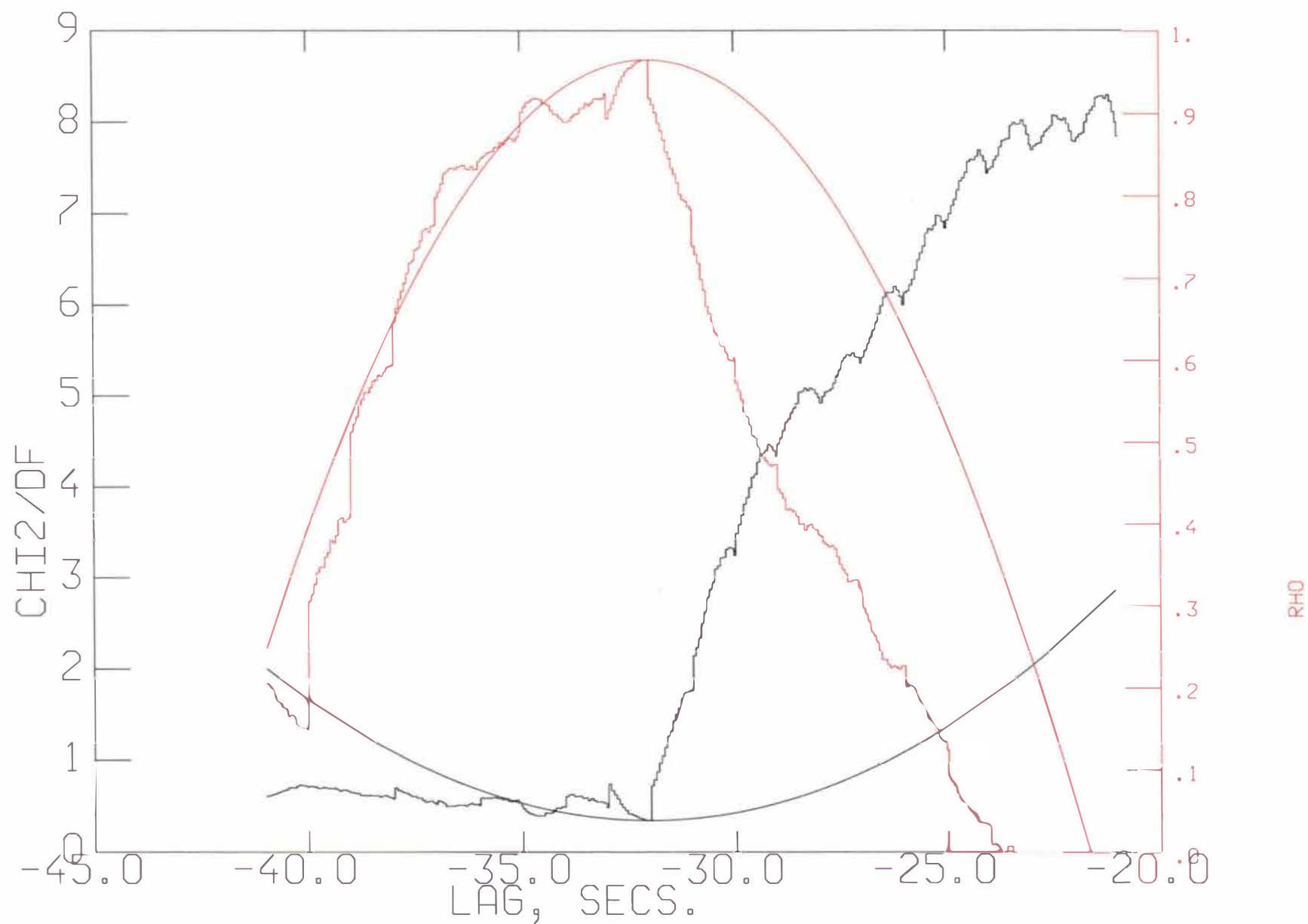
18/04/2011

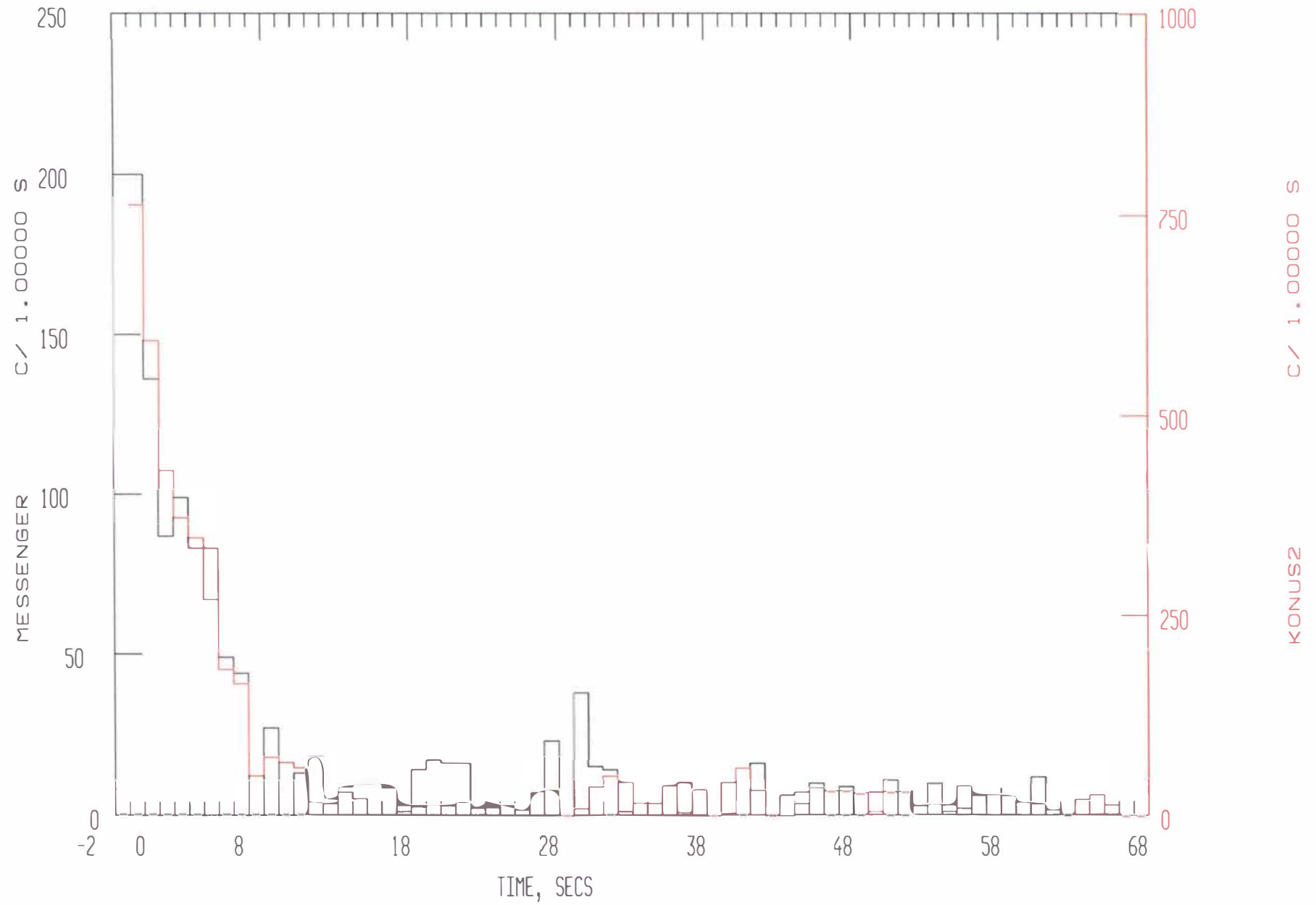
N-M = CORRELATION BETWEEN SATELLITES N AND M
 EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
 1 FERMI 2 MESSENGER 3 KONUS2

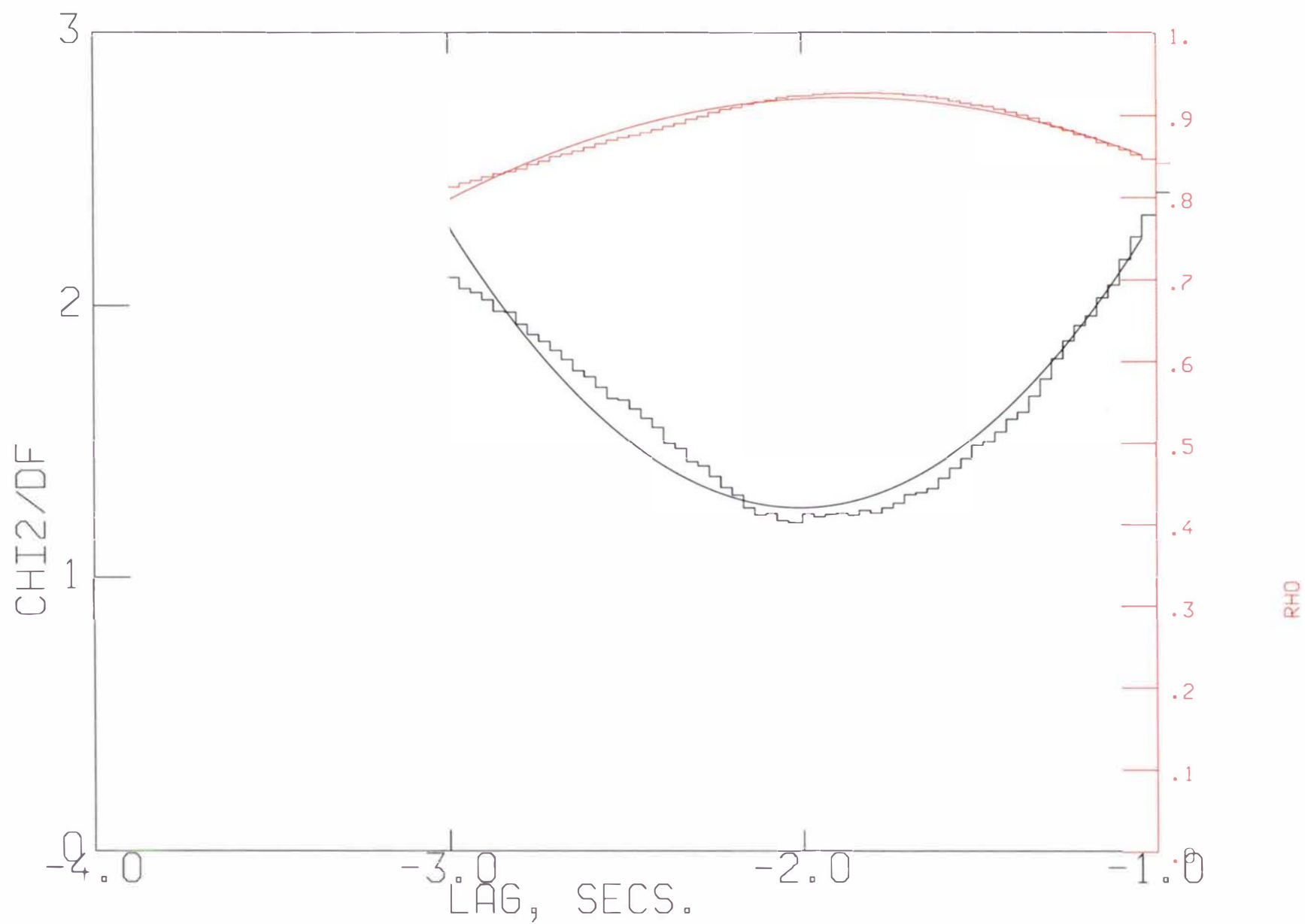


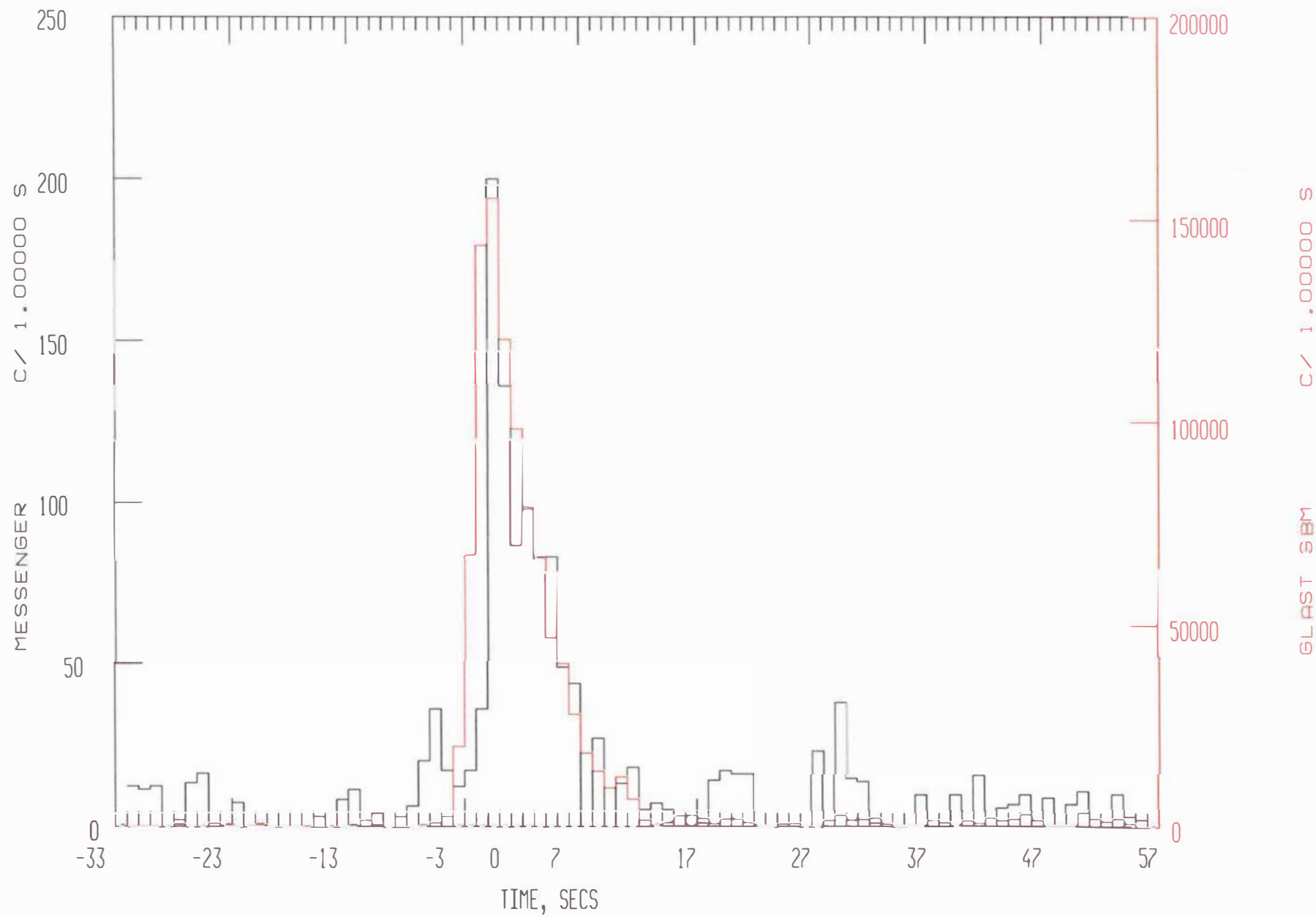












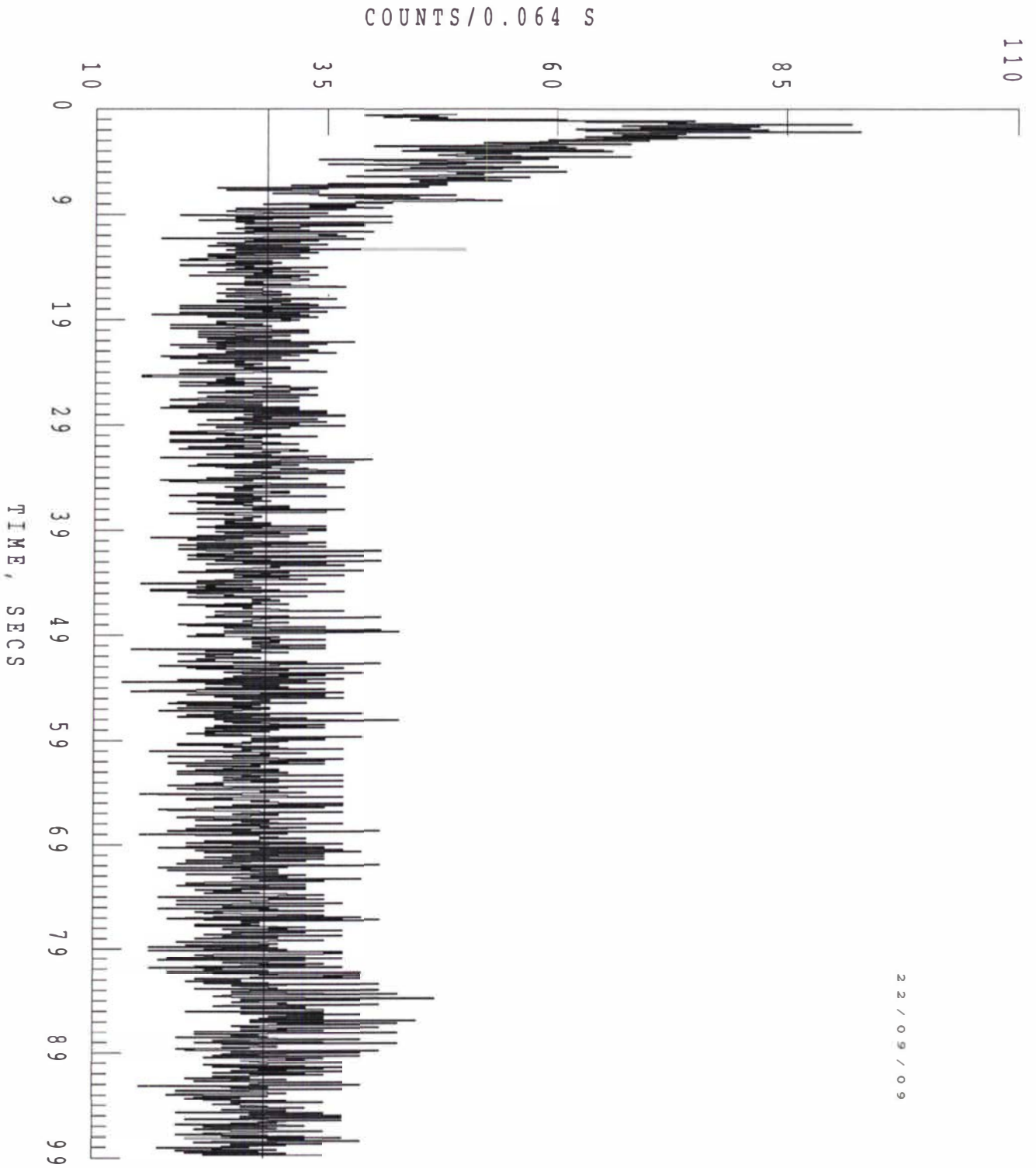
KONUS2

22/09/09

46604.926

A

50 - 200 keV



KONUS HRES 20090922 46604

TRIGGER TIME: 22/09/09 DOY 265 Julian 2455098.03940 UT = 12.946 12:56:44 (46604.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

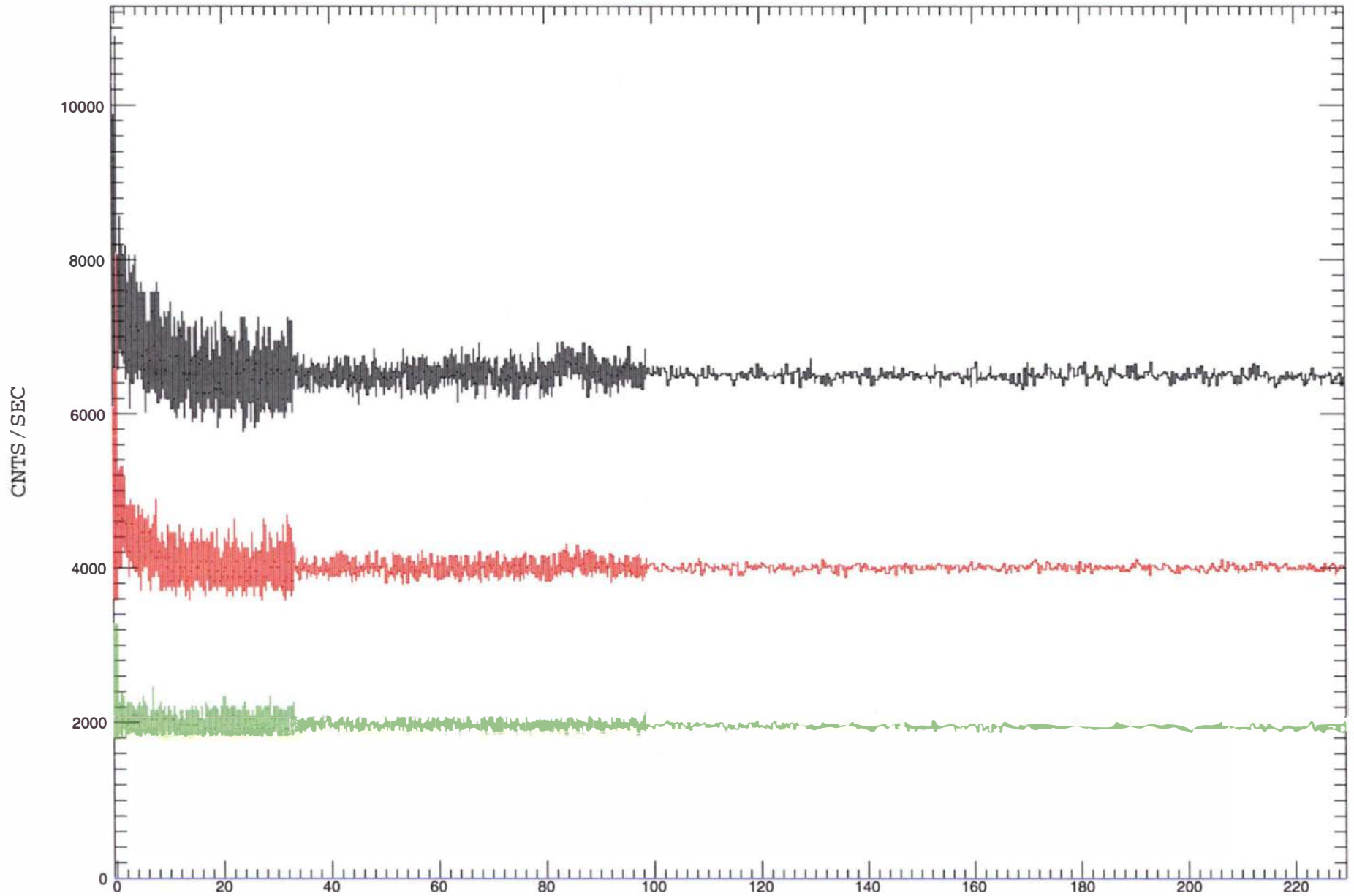
Chan 4 : [> 10 MeV]

Channel 1 + 5400

Channel 2 + 3600

Channel 3 + 1800

Channel 4 + 0



ONDS

MS01

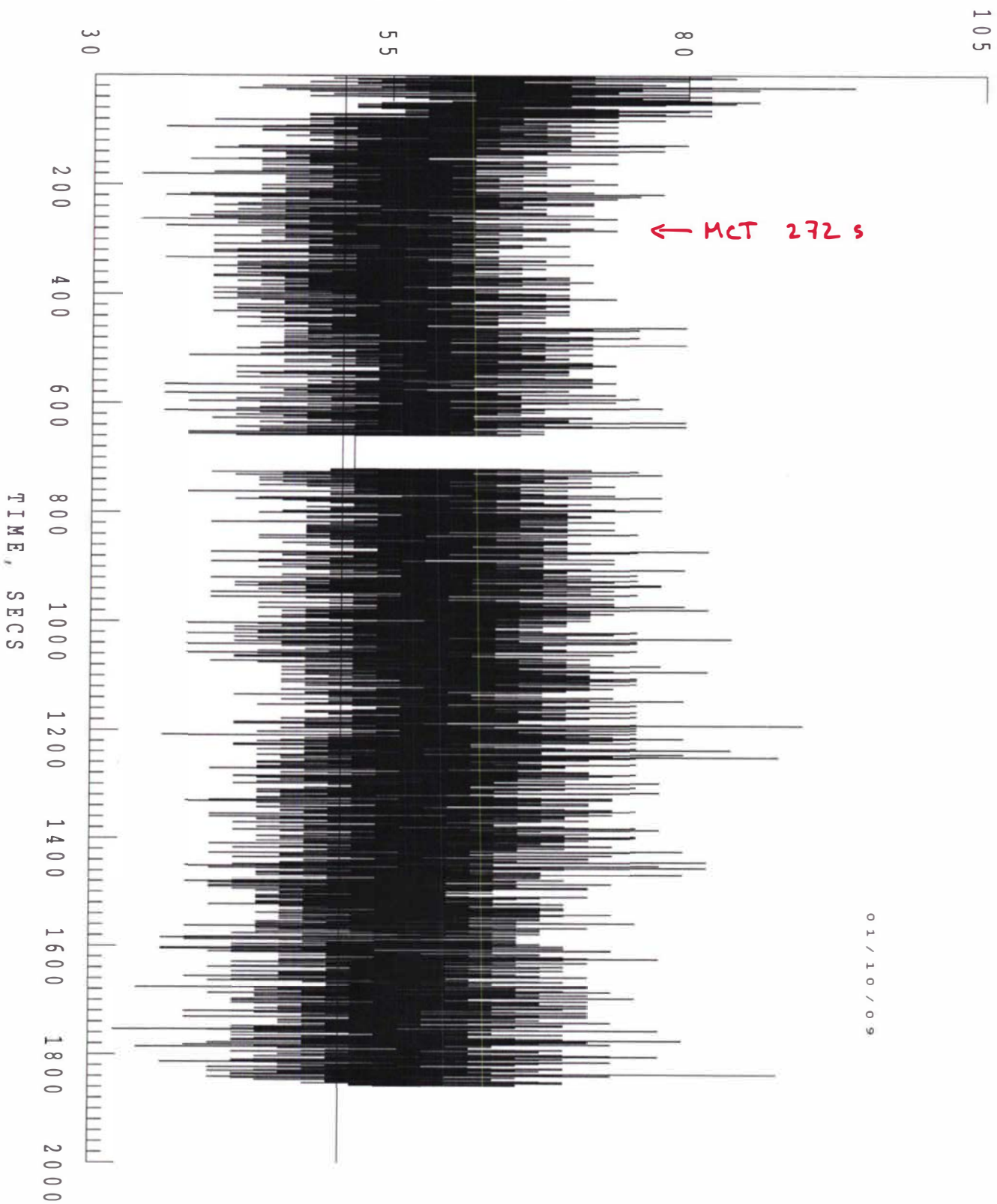
22/09/09

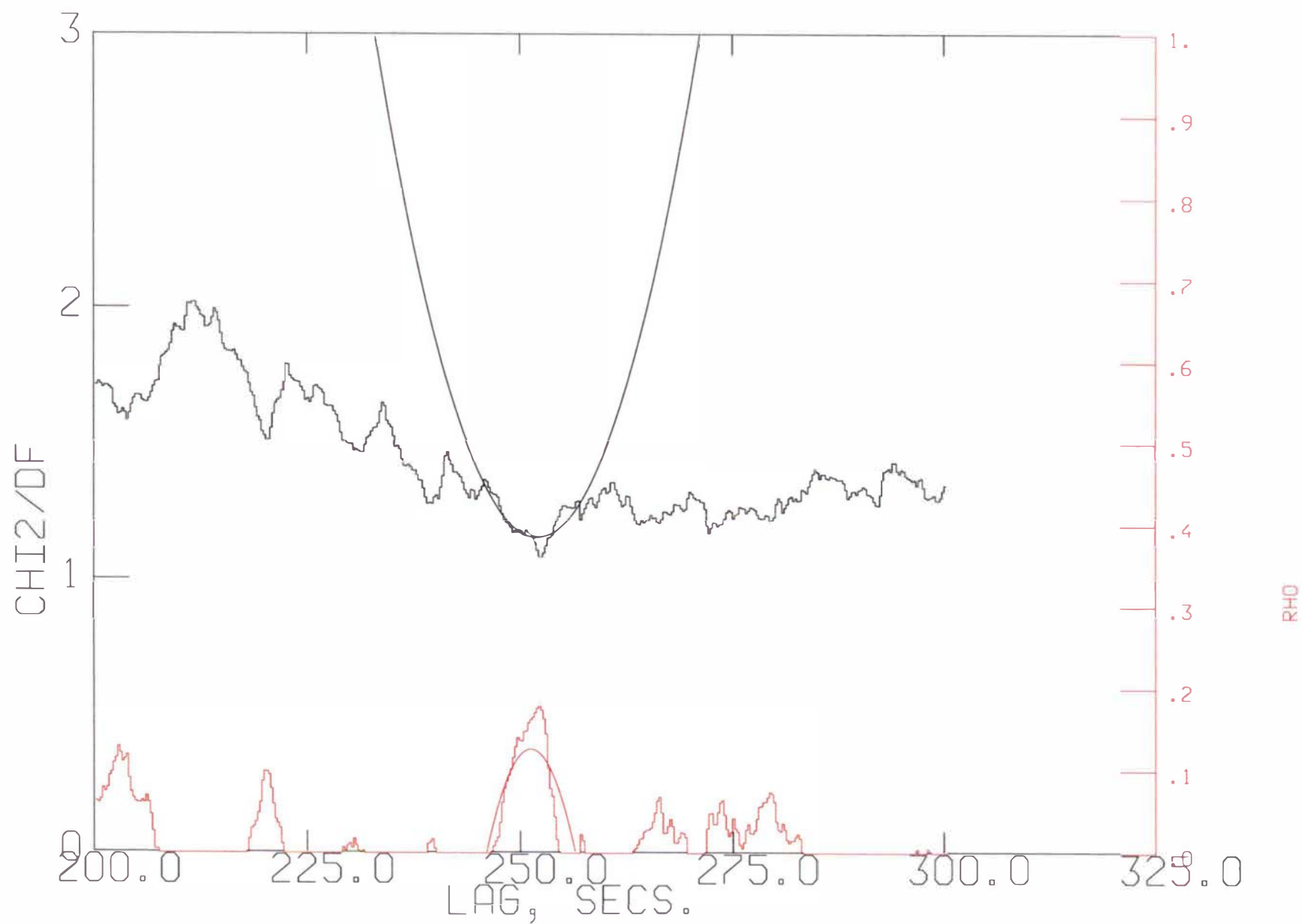
46059.080

A

50 - 3000 keV

COUNTS/0.250 S





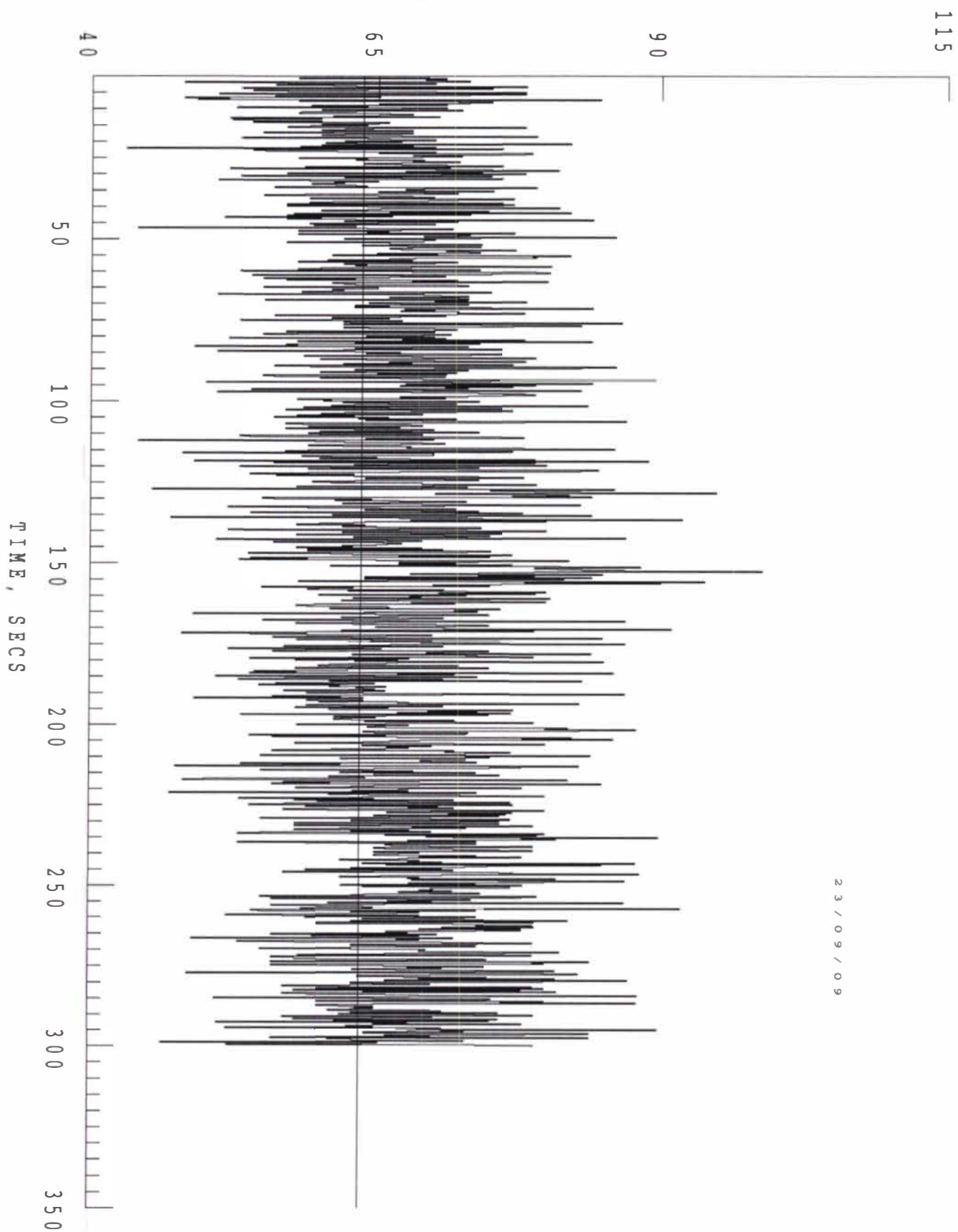
HESSI

22/09/09 46452.000 (SUZAKU_20090922_46602)

A

25- 150 keV

COUNTS/0.250 S



SUZAKU

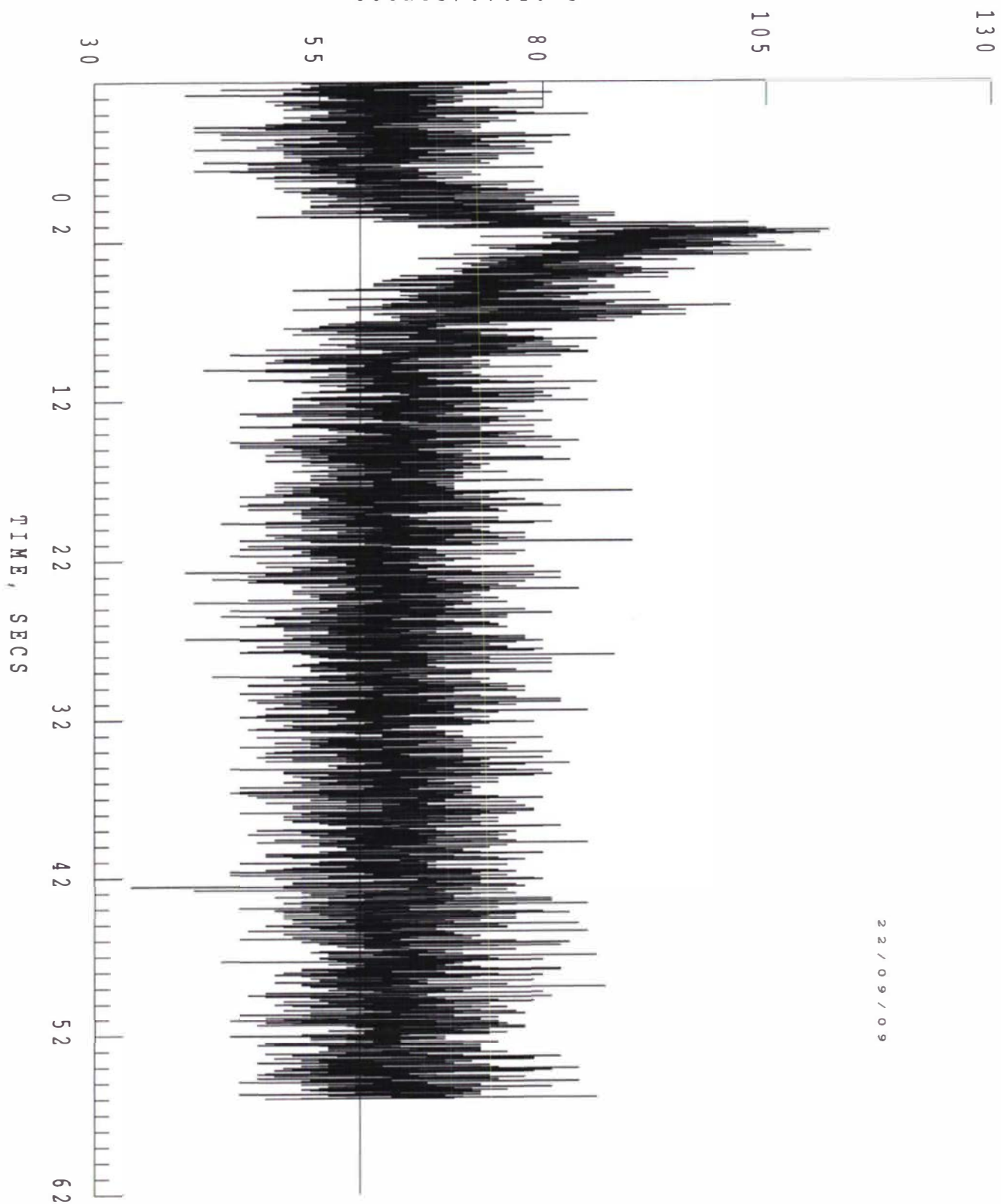
22/09/09

46602.211

A

50 - 240 keV

COUNTS/0.016 S



A

19/01/10

MESSENGER

22/09/09

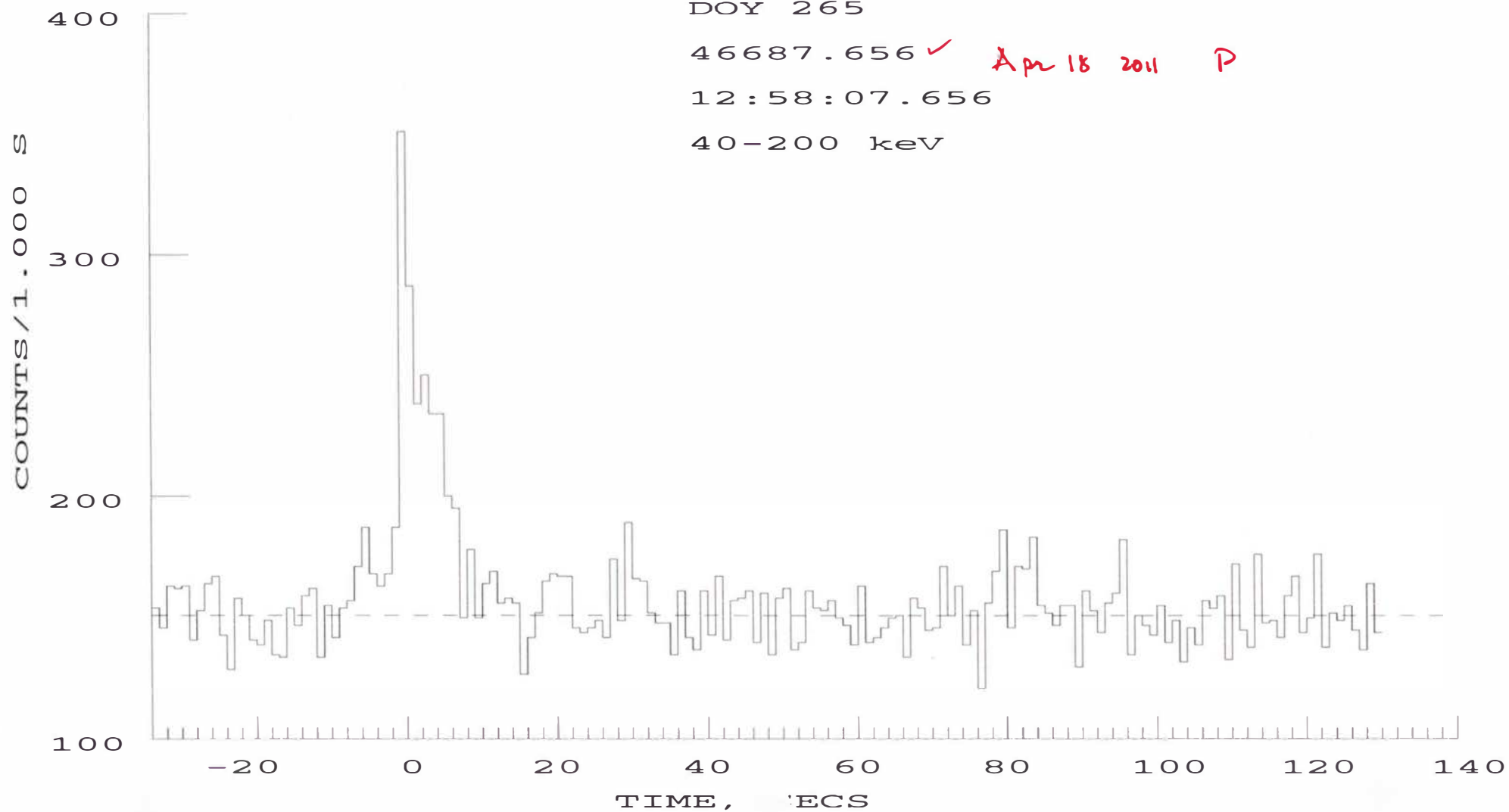
DOY 265

46687.656 ✓

Apr 18 2011 P

12:58:07.656

40-200 keV



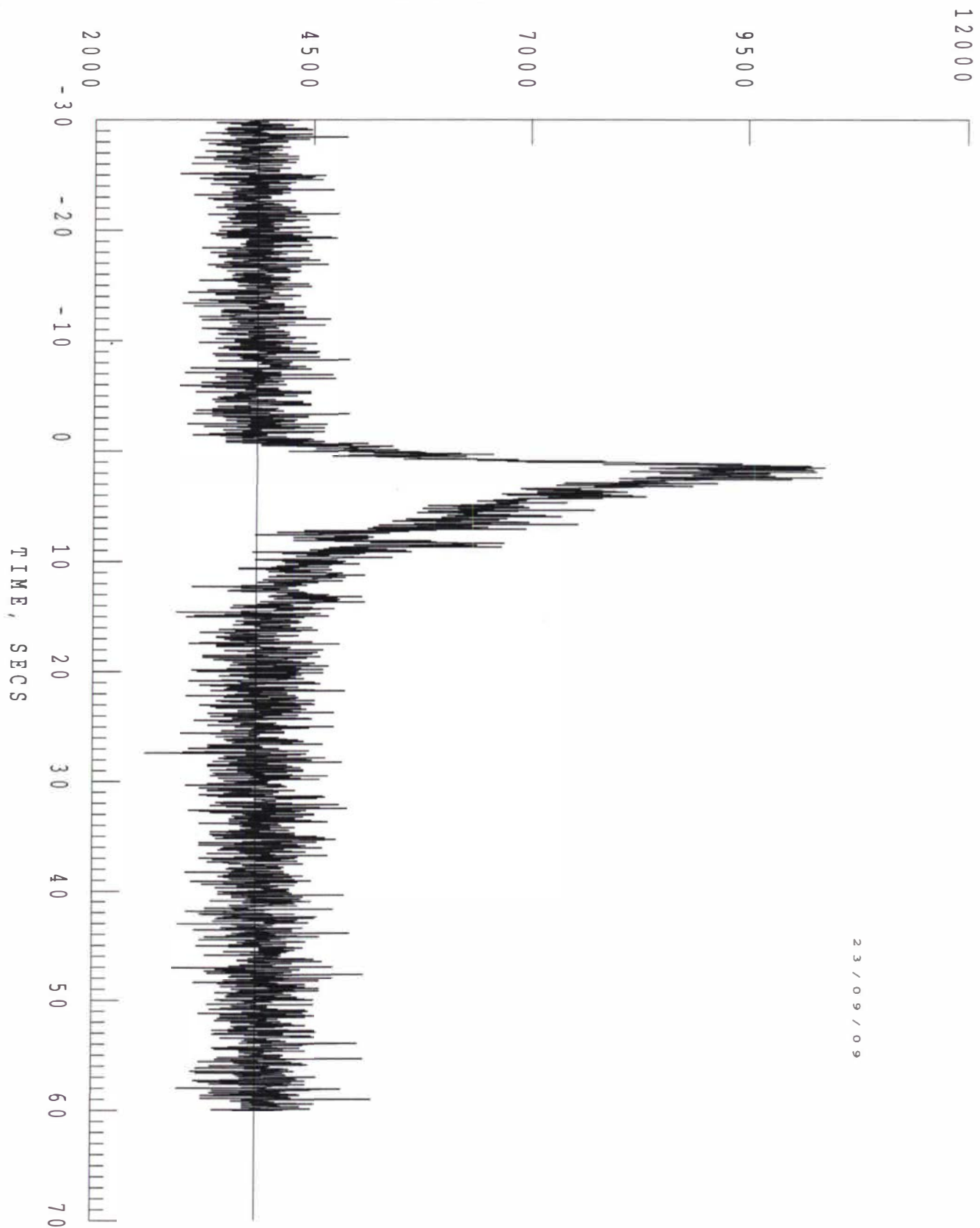
GLAST

22/09/09

46602.137

A

26- 293 keV
COUNTS/0.032 S



23/09/09

From gcncirc@capella.gsfc.nasa.gov Wed Sep 23 00:25:47 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090922A: Fermi GBM detection
cc: khurley@ssl.berkeley.edu
Date: Wed, 23 Sep 2009 03:26:54 -0400 (EDT)

A

TITLE: GCN CIRCULAR
NUMBER: 9929
SUBJECT: GRB 090922A: Fermi GBM detection
DATE: 09/09/23 07:26:52 GMT
FROM: Arne Rau at MPE <arau@mpe.mpg.de>

Arne Rau (MPE) reports on behalf of the Fermi GBM Team:

"At 12:56:42.14 UT on 22 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090922A (trigger 275317004 / 090922539).

The on-ground calculated location, using the GBM trigger data, is RA = 17.1, DEC = 74.3 (J2000 degrees, equivalent to 17h 06m, 74d 18'), with an uncertainty of 1 degrees (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

MCT 46331

The angle from the Fermi LAT boresight is 19 degrees. Moreover, this burst was bright enough to result in a Fermi spacecraft re-pointing maneuver.

The GBM light curve shows a bright peak of approximately 10s duration followed by a weaker pulse approx. 60s later. The burst duration (T90) is 92 ± 3 s (8-1000 keV). The time-averaged spectrum of the main peak from T+0.003 s to T0+10.240 s is best fit by a Band function with $E_{\text{peak}} = 139.3 \pm 6.6$ keV, $\alpha = -0.77 \pm 0.05$, and $\beta = -2.28 \pm 0.07$ (chi squared 1217/921 d.o.f.).

The event fluence (8-1000 keV) in this time interval is $(1.14 \pm 0.02) \times 10^{-5}$ erg/cm². The 1.024-sec peak photon flux measured starting from T0+2.048 s in the 8-1000 keV band is 15.6 ± 0.04 ph/s/cm².

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

From gcncirc@capella.gsfc.nasa.gov Wed Sep 23 05:17:31 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB090922A: correction to Fermi location
cc: khurley@ssl.berkeley.edu
Date: Wed, 23 Sep 2009 08:18:39 -0400 (EDT)

A

TITLE: GCN CIRCULAR
NUMBER: 9930
SUBJECT: GRB090922A: correction to Fermi location
DATE: 09/09/23 12:18:37 GMT
FROM: Arne Rau at MPE <arau@mpe.mpg.de>

Arne Rau (MPE) reports on behalf of the Fermi GBM Team:

"There has been a typo in the GBM localization of GRB 090922A (Rau, GCN#9929). The correct location is:

RA=17.1deg (01h08min) and Dec=74.3deg (74d18')

with an uncertainty of 1 degree (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

I thank S. Holland for realizing this."

Date: Apr 18 2011

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)? P

- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

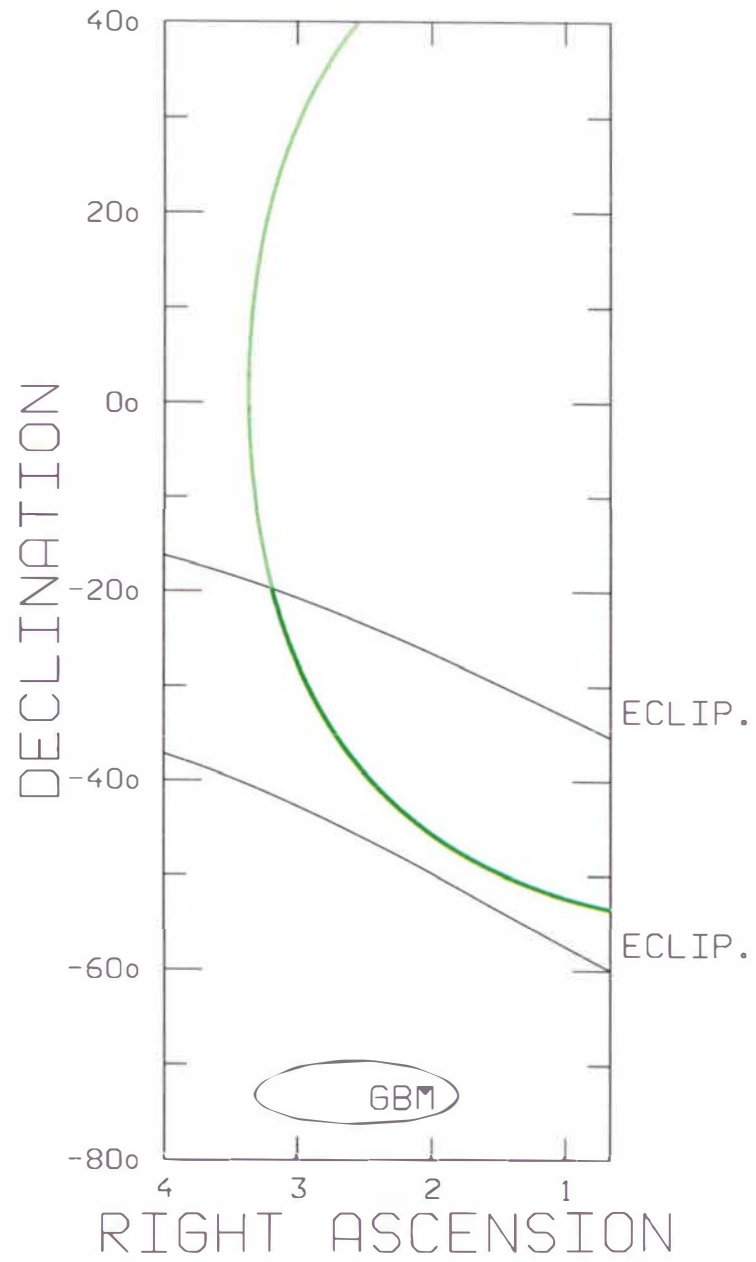
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?

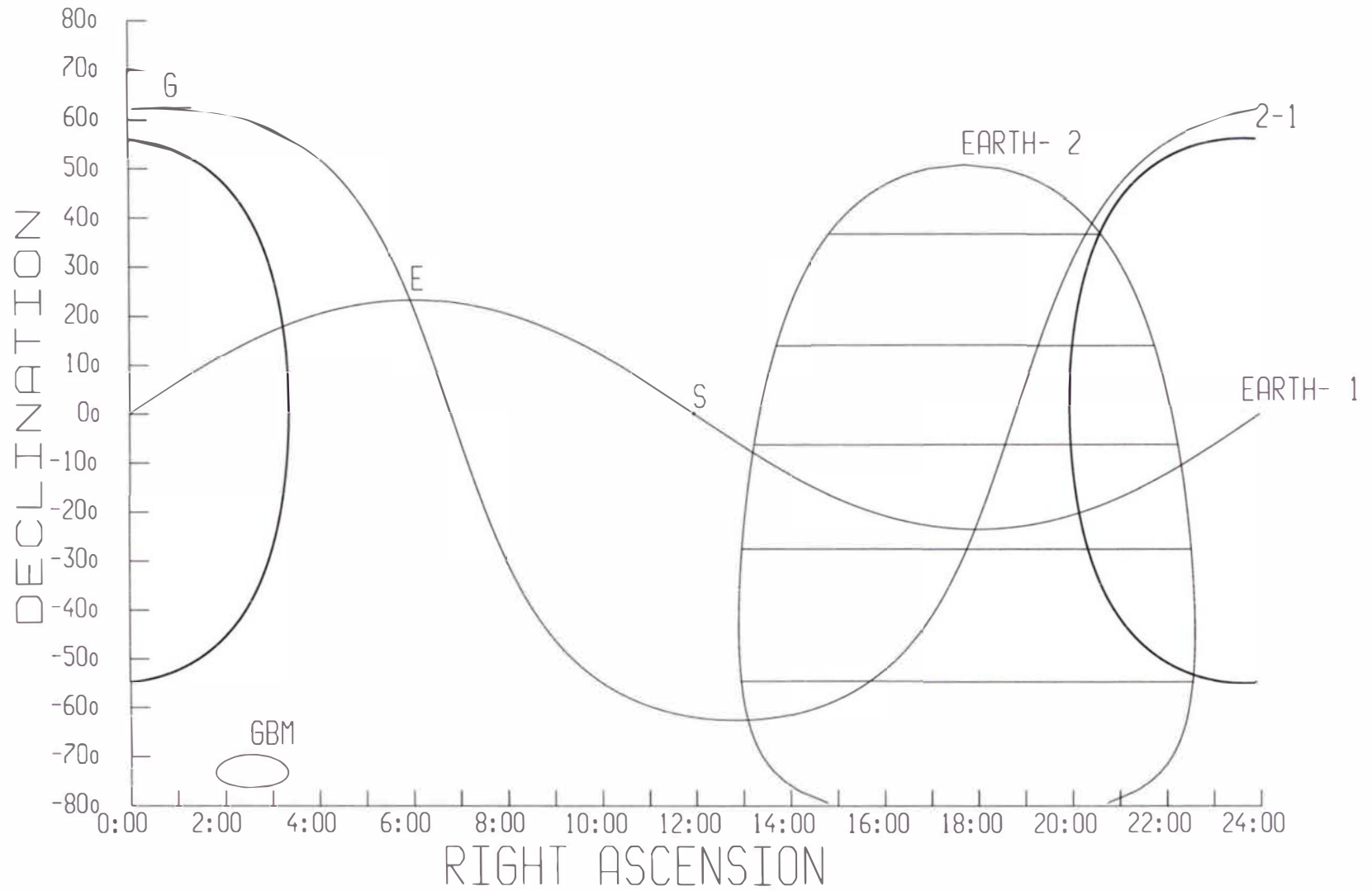
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

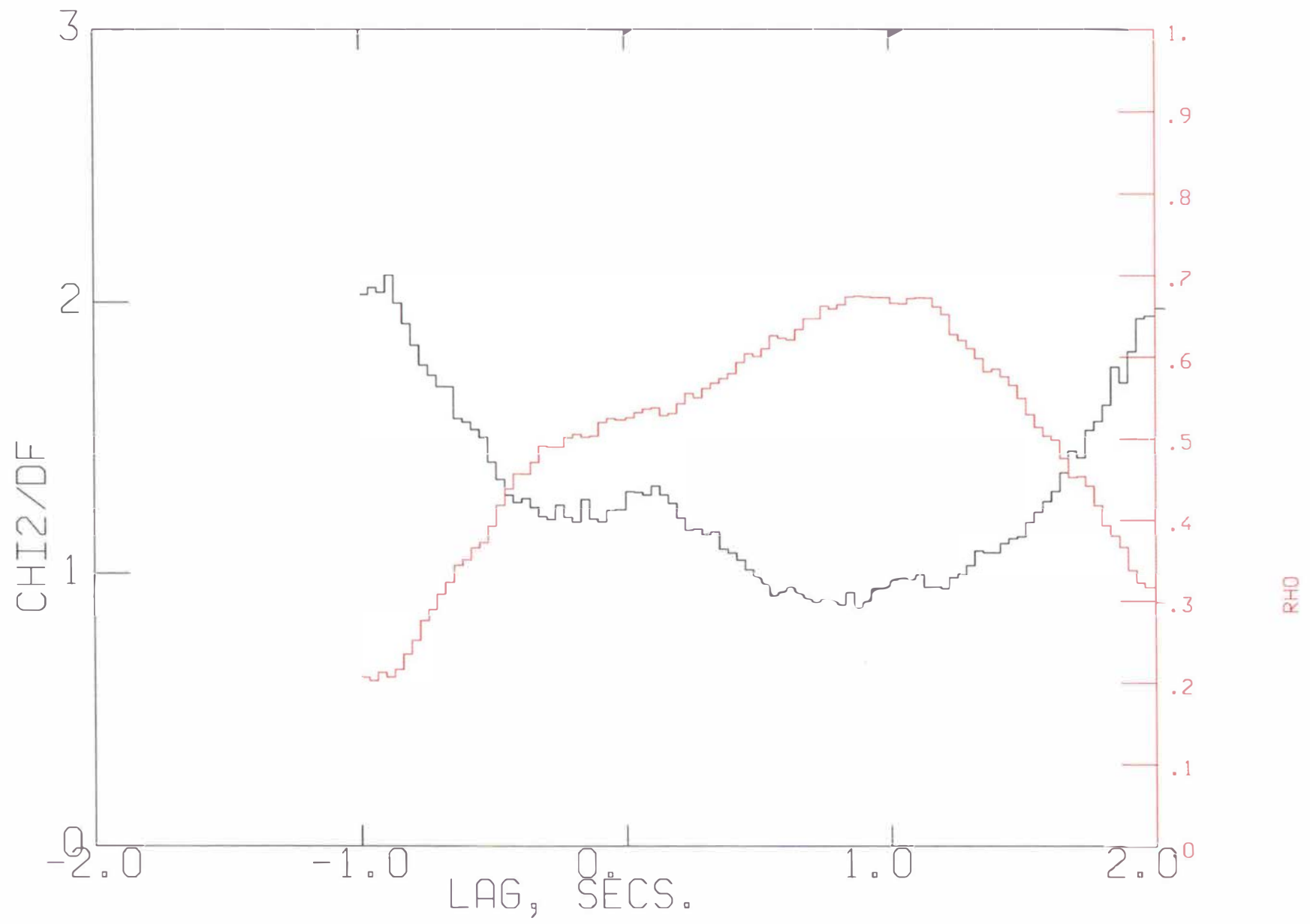


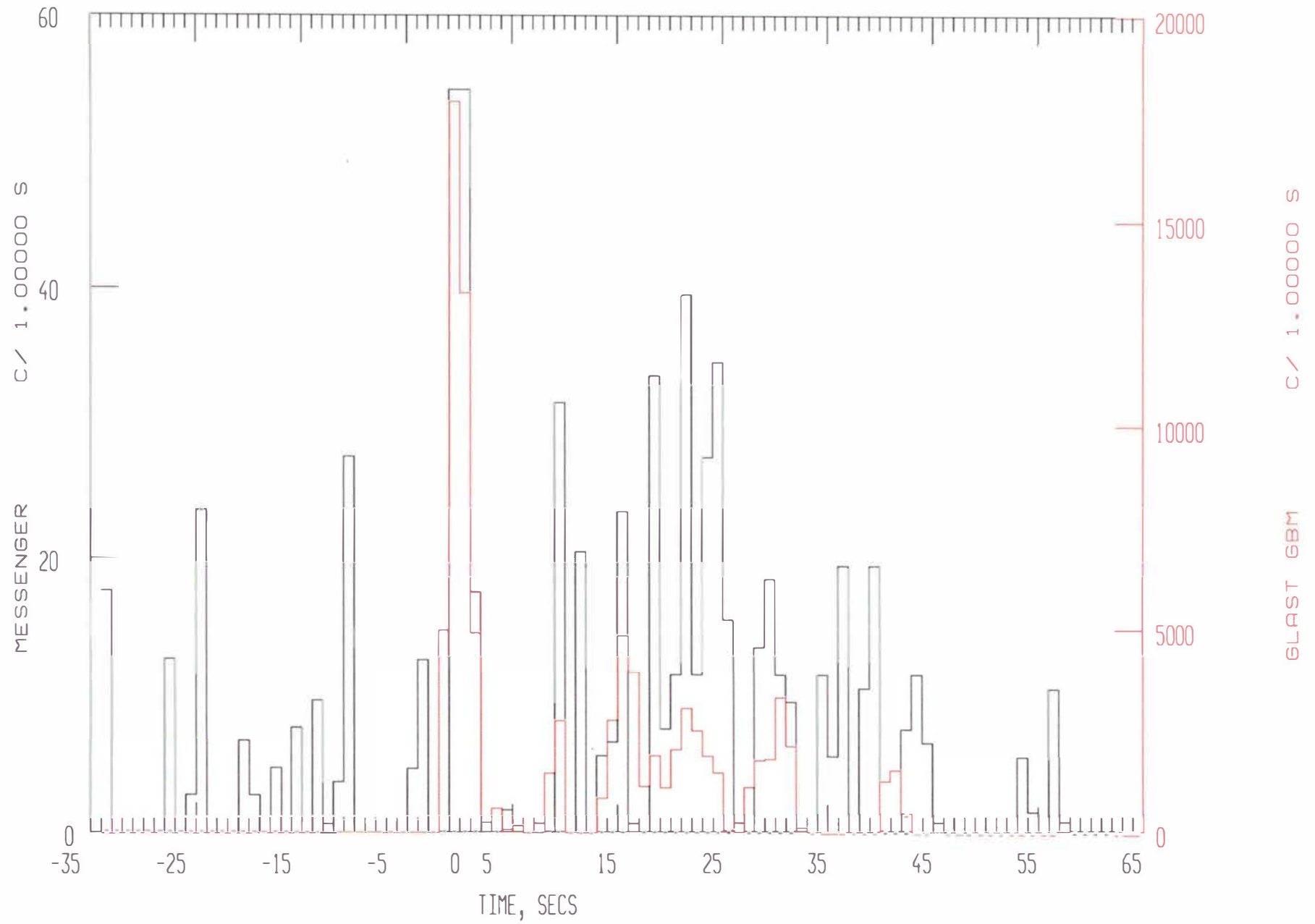
EVENT OF SEP 22, 2009 14:33

18/04/2011

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 MESSENGER 2 FERMI







GLAST

22/09/09

52241.529

B

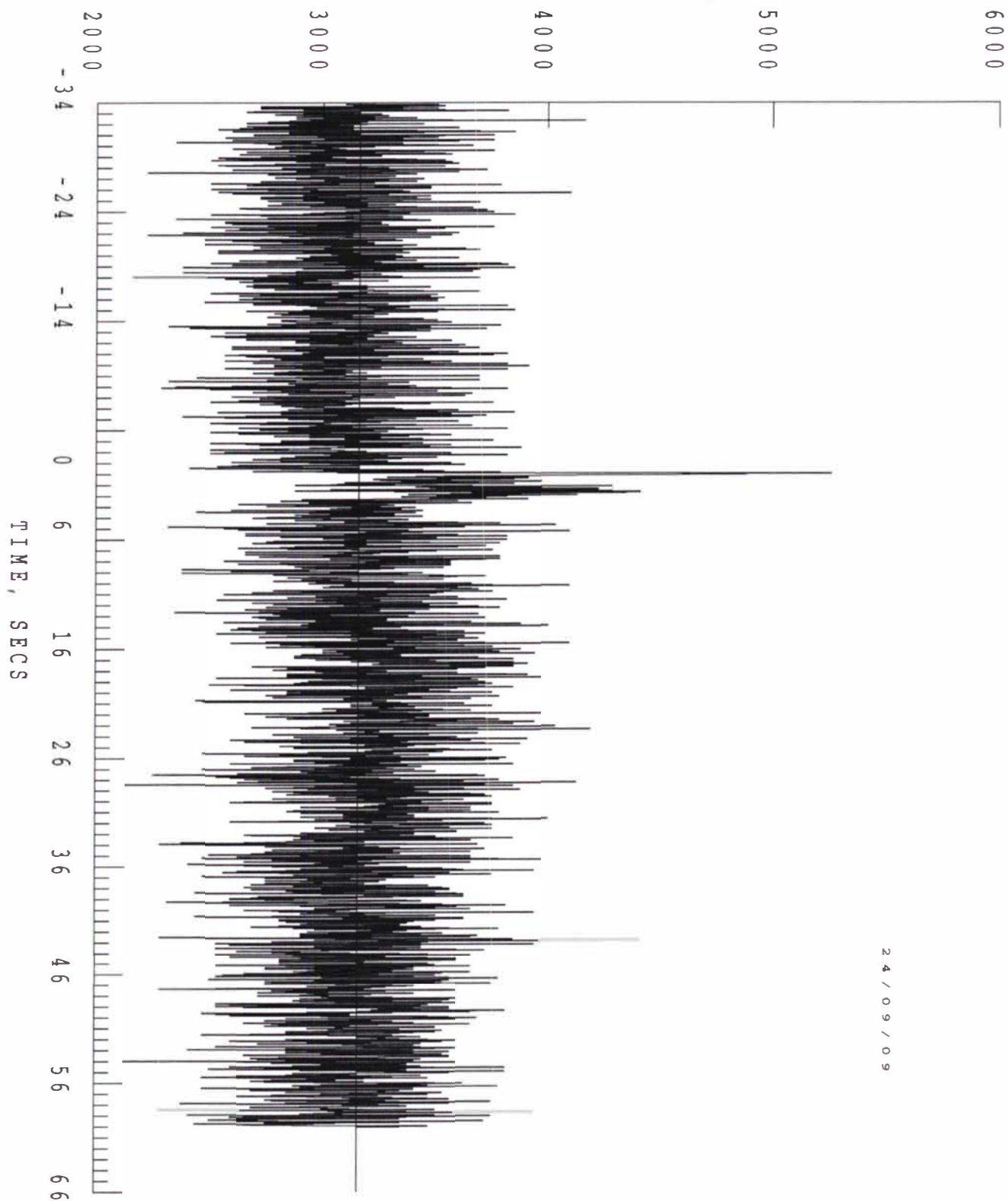
26 - 293 keV

14:30:41

COUNTS/0.032 S

14.19, -21.61

MCT 52393



MS01

22/09/09

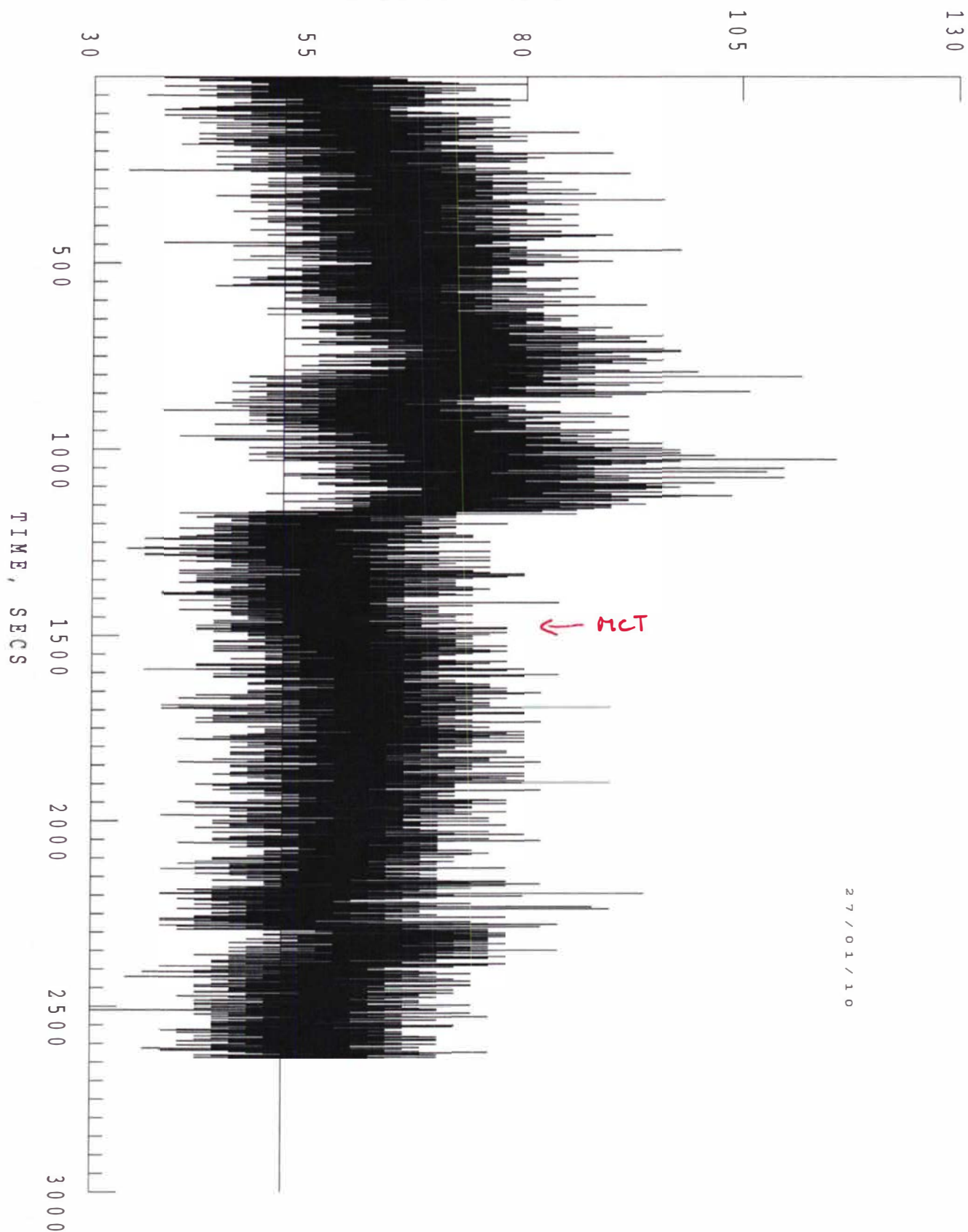
50917.010

B

50 - 3000 keV

MCT 52391

COUNTS/0.250 S



27/01/10

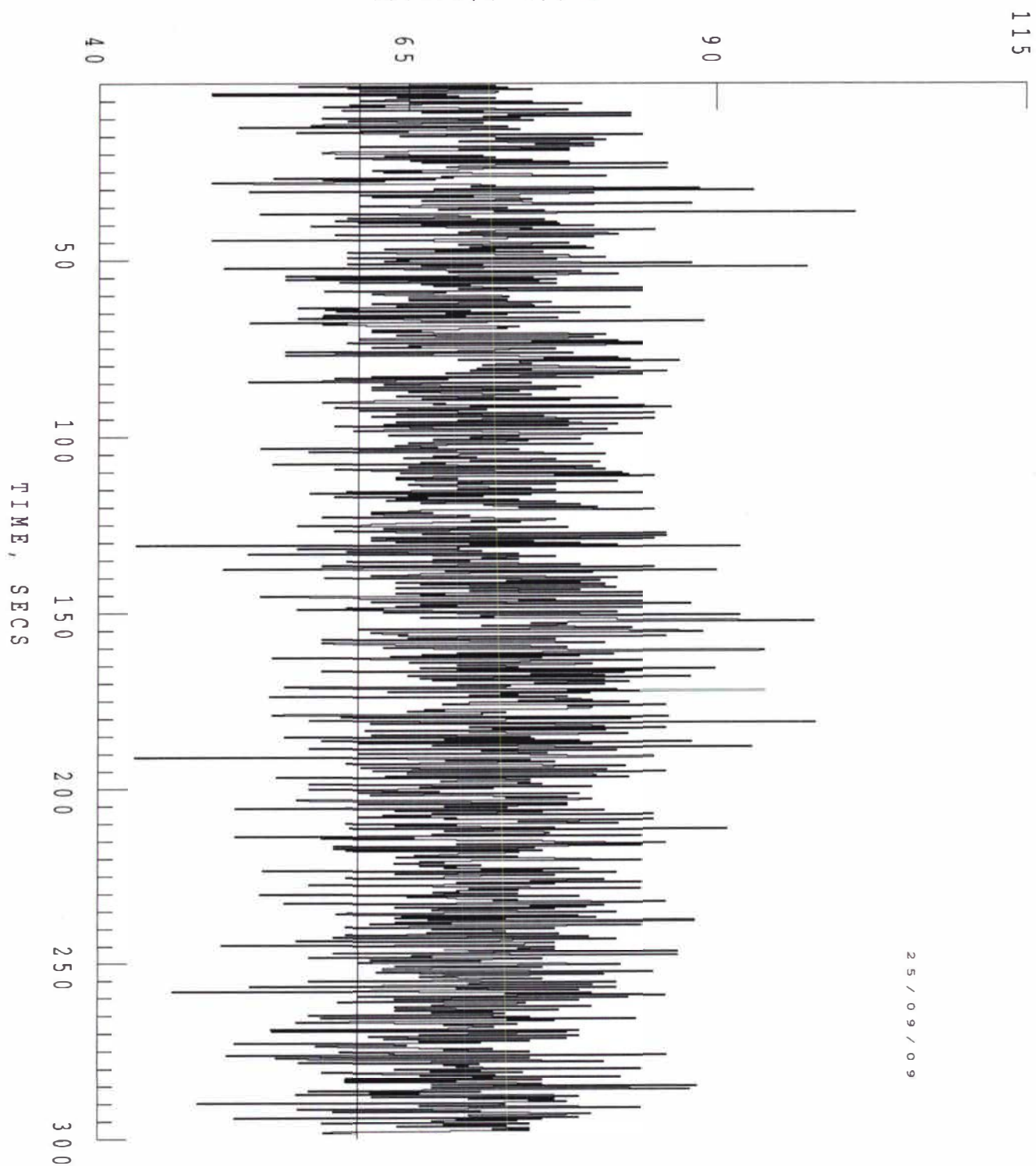
B

HESSI

22/09/09 52091.000 (GLAST_20090922_52241)

25- 150 keV

COUNTS/0.250 S



B

19/01/10

MESSENGER

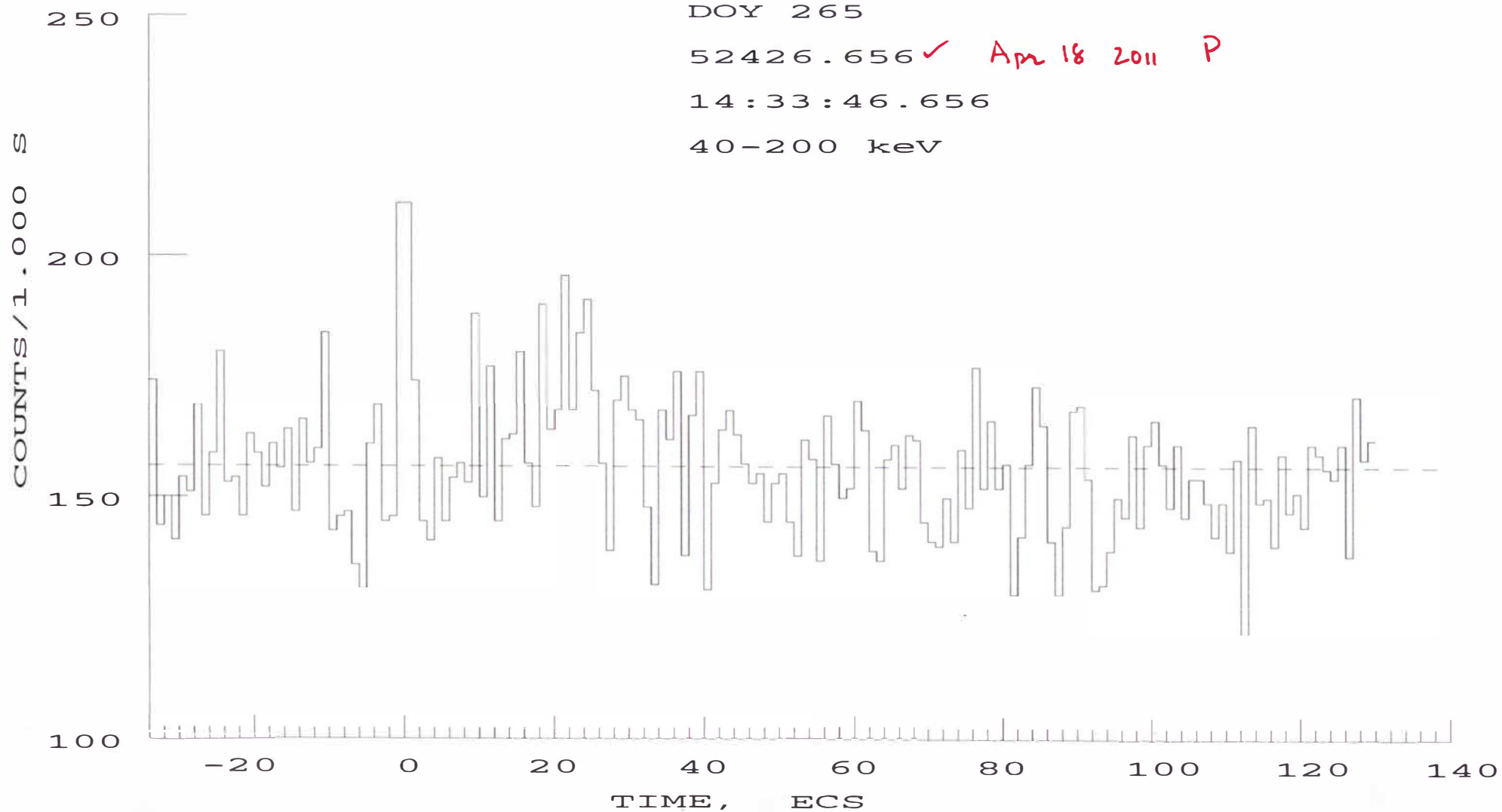
22/09/09

DOY 265

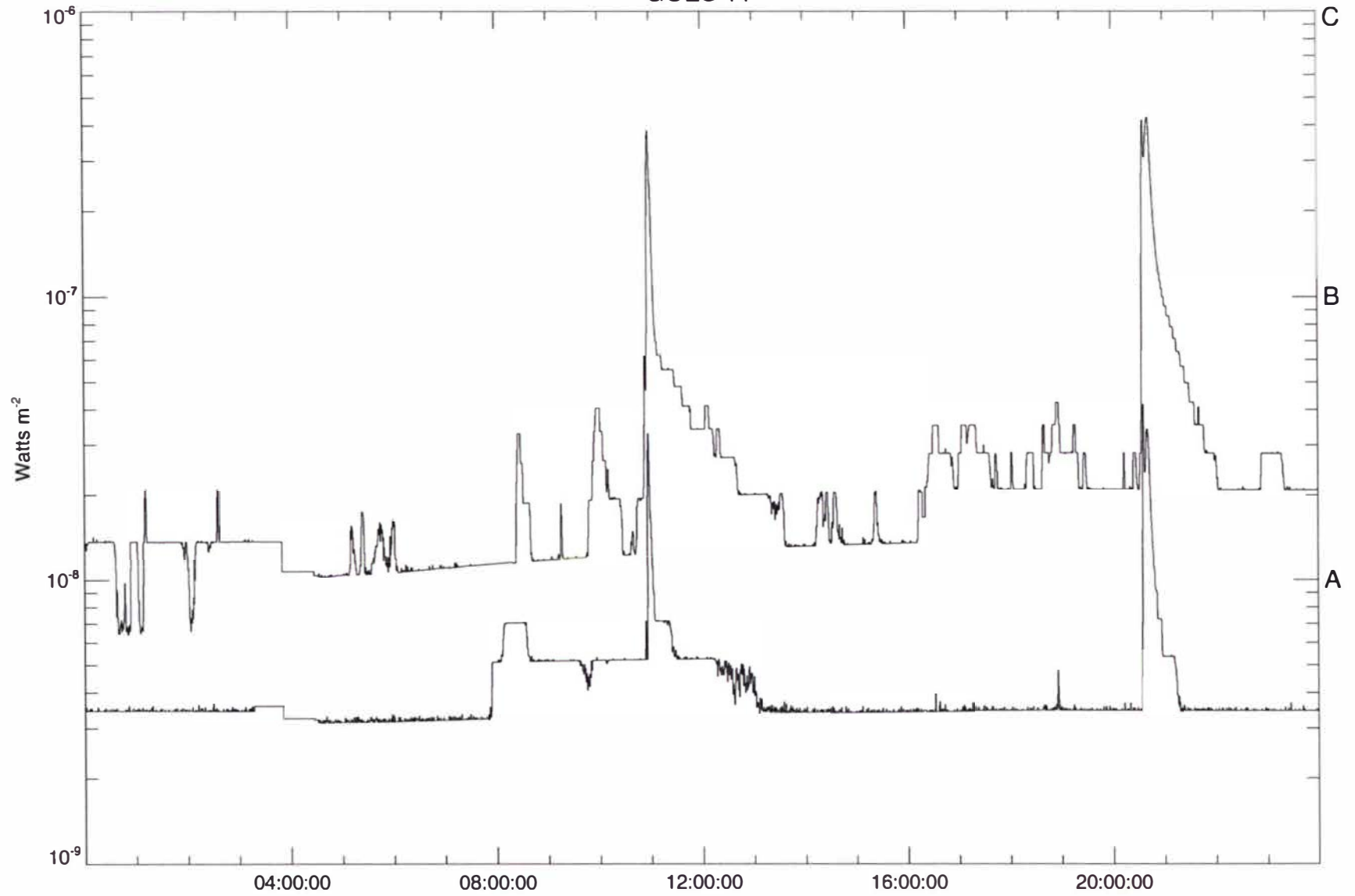
52426.656 ✓ Apr 18 2011 P

14:33:46.656

40-200 keV



GOES 11



Data Start: 09/09/22, 0000:13

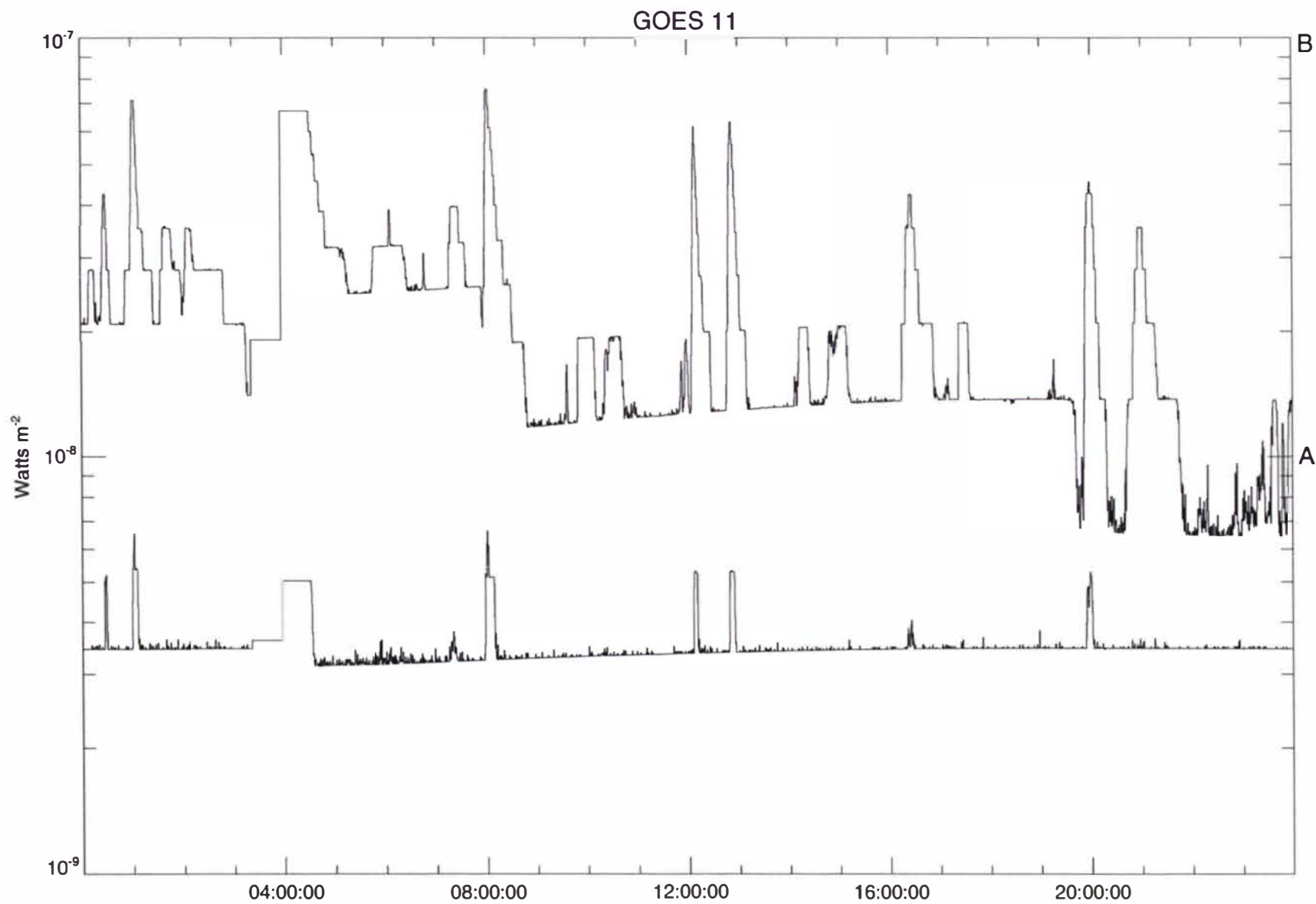
Plot created: 09/09/25, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10



Data Start: 09/09/23, 0000:13

Plot created: 09/09/26, 0819

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

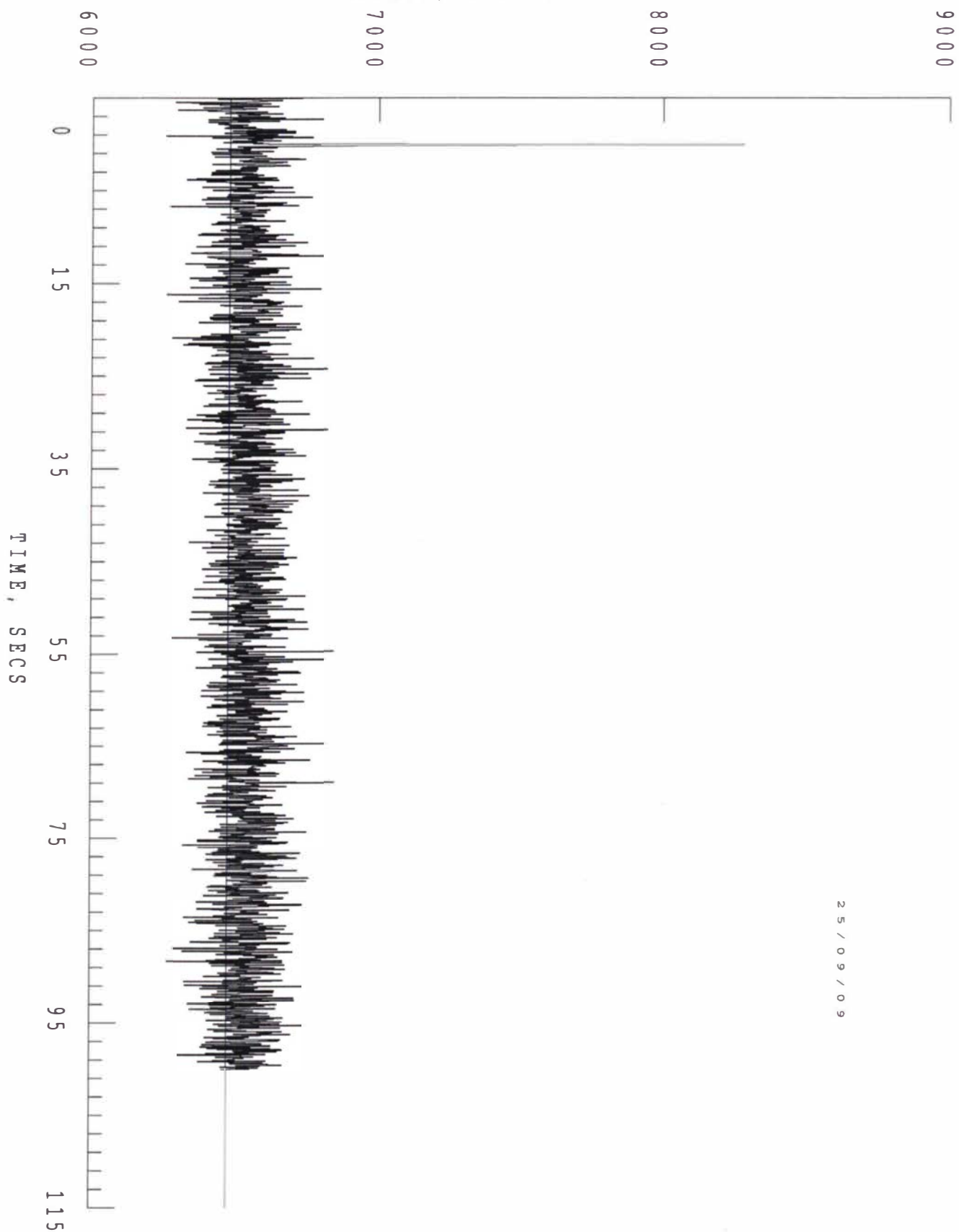
INTEGRAL

24/09/09

53994.354

100-10000 keV

COUNTS/0.050 S



25/09/09

MS01

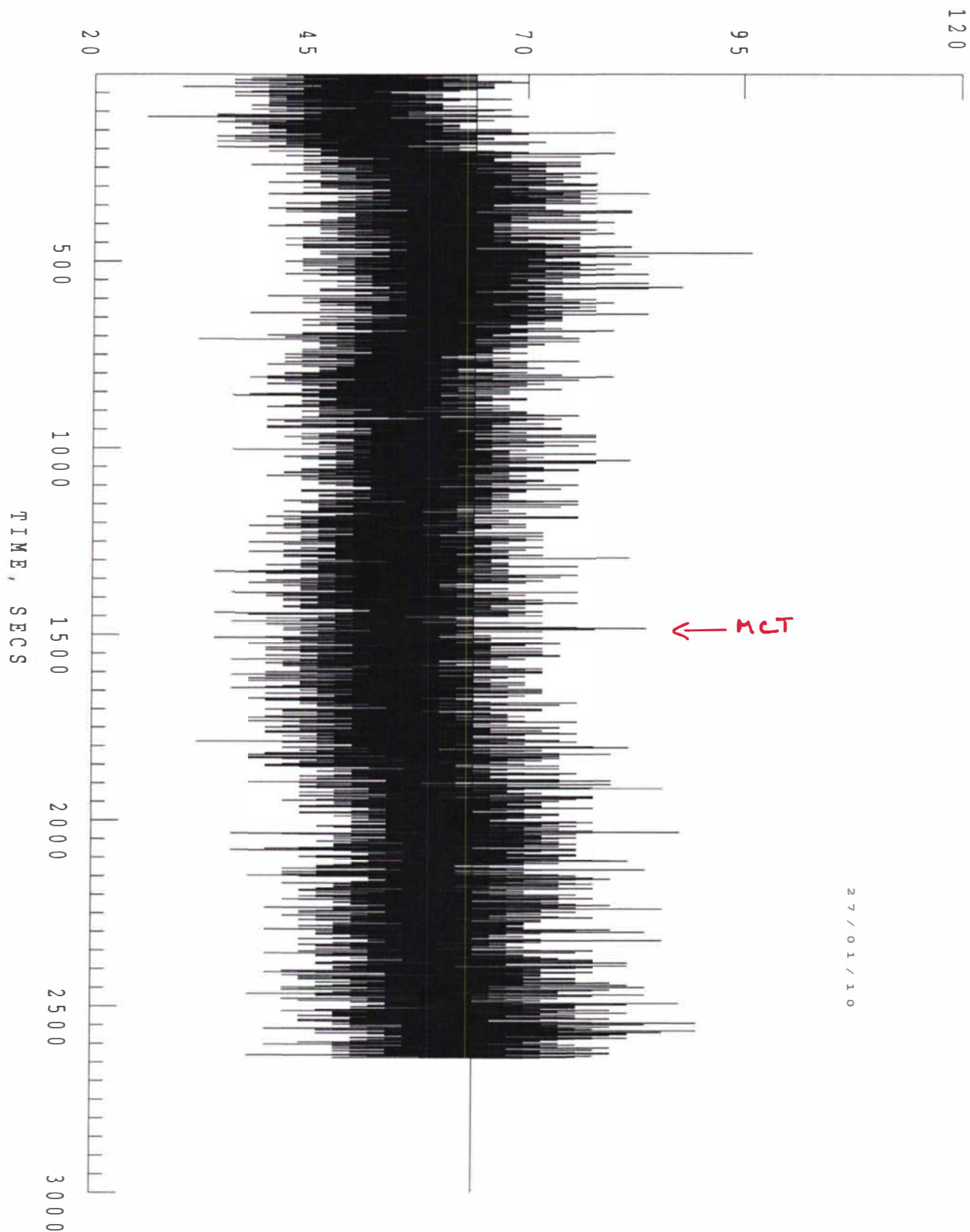
24/09/09

52654.071

50 - 3000 keV

MCT 54140

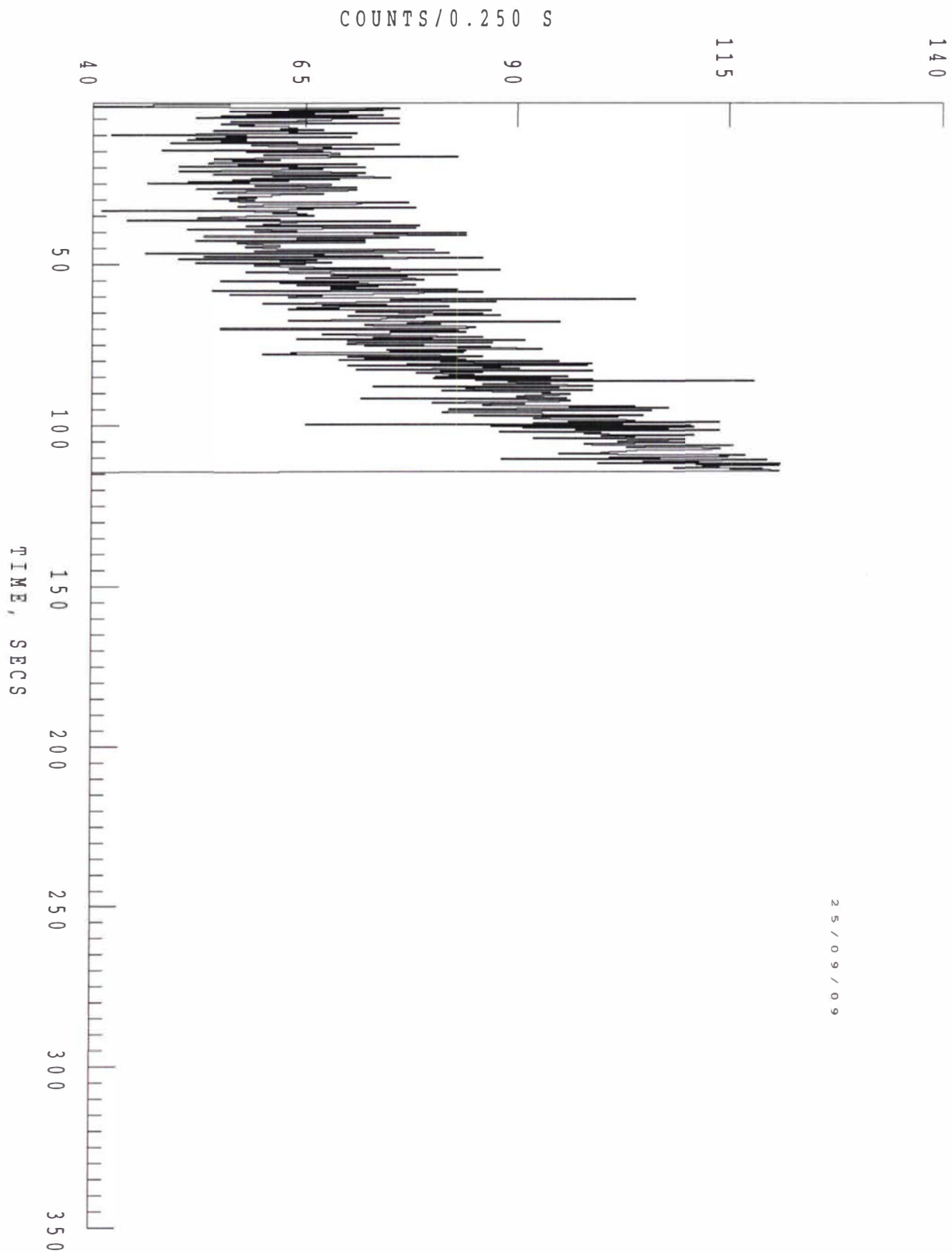
COUNTS/0.250 S



HESSI

24/09/09 53844.000 (GLAST_20090924_53994)

25- 150 keV



GLAST

24/09/09

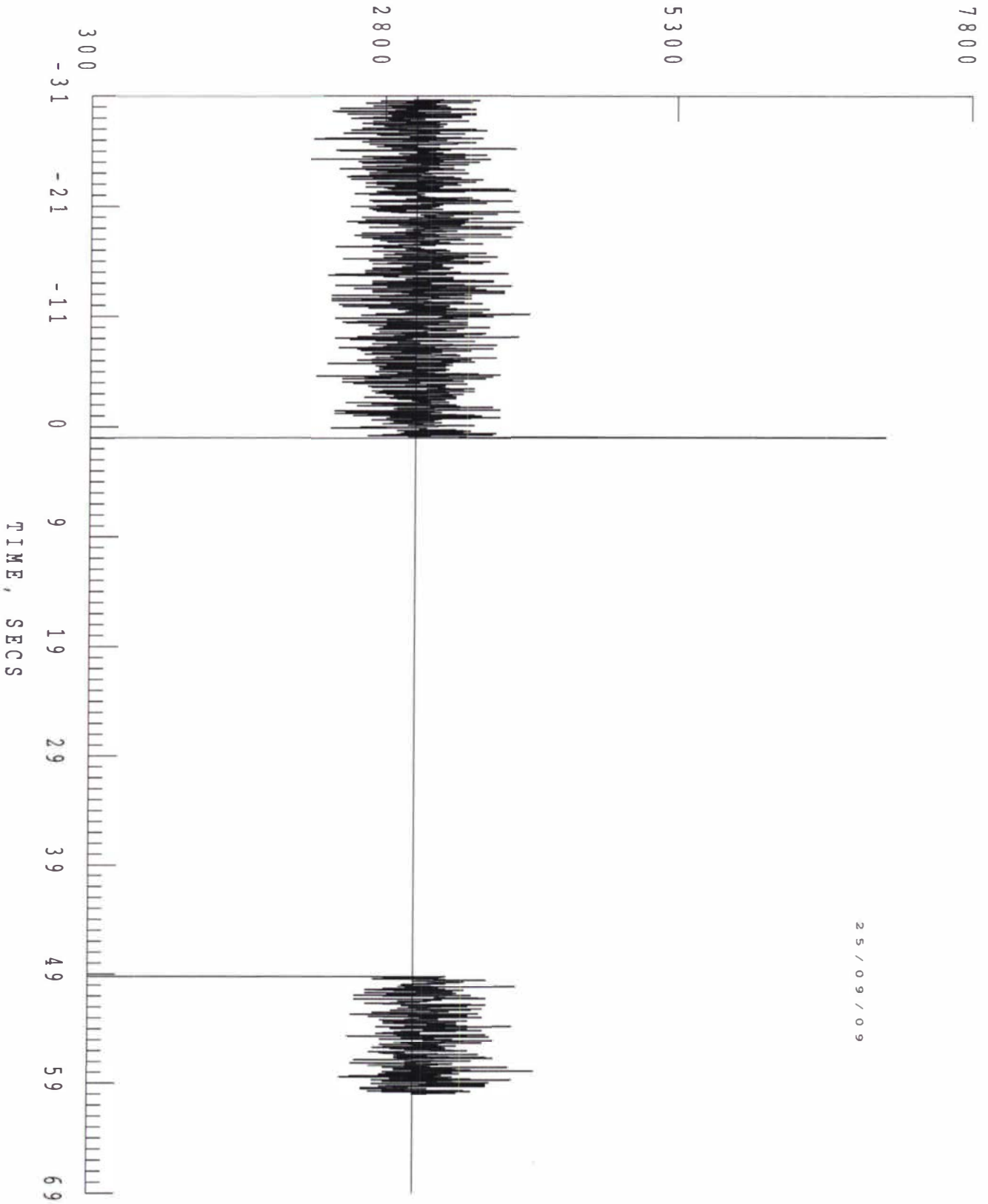
53994.011

26- 293 keV

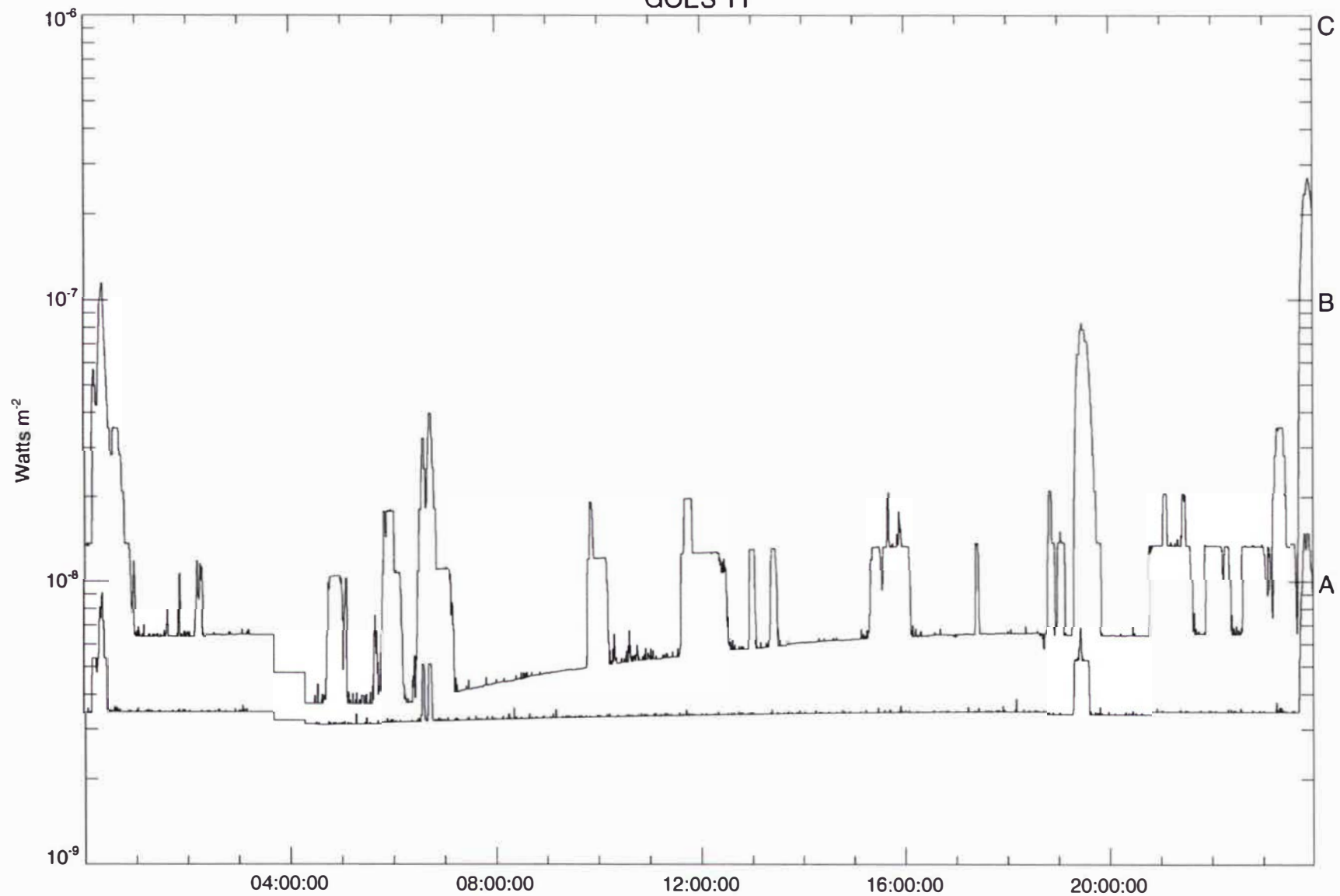
14:59:54

COUNTS/0.032 S

35.41, -58.61



GOES 11



Data Start: 09/09/24, 0000:13

Plot created: 09/09/27, 0818

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

Date: Apr 18 2011

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)? **P**

- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

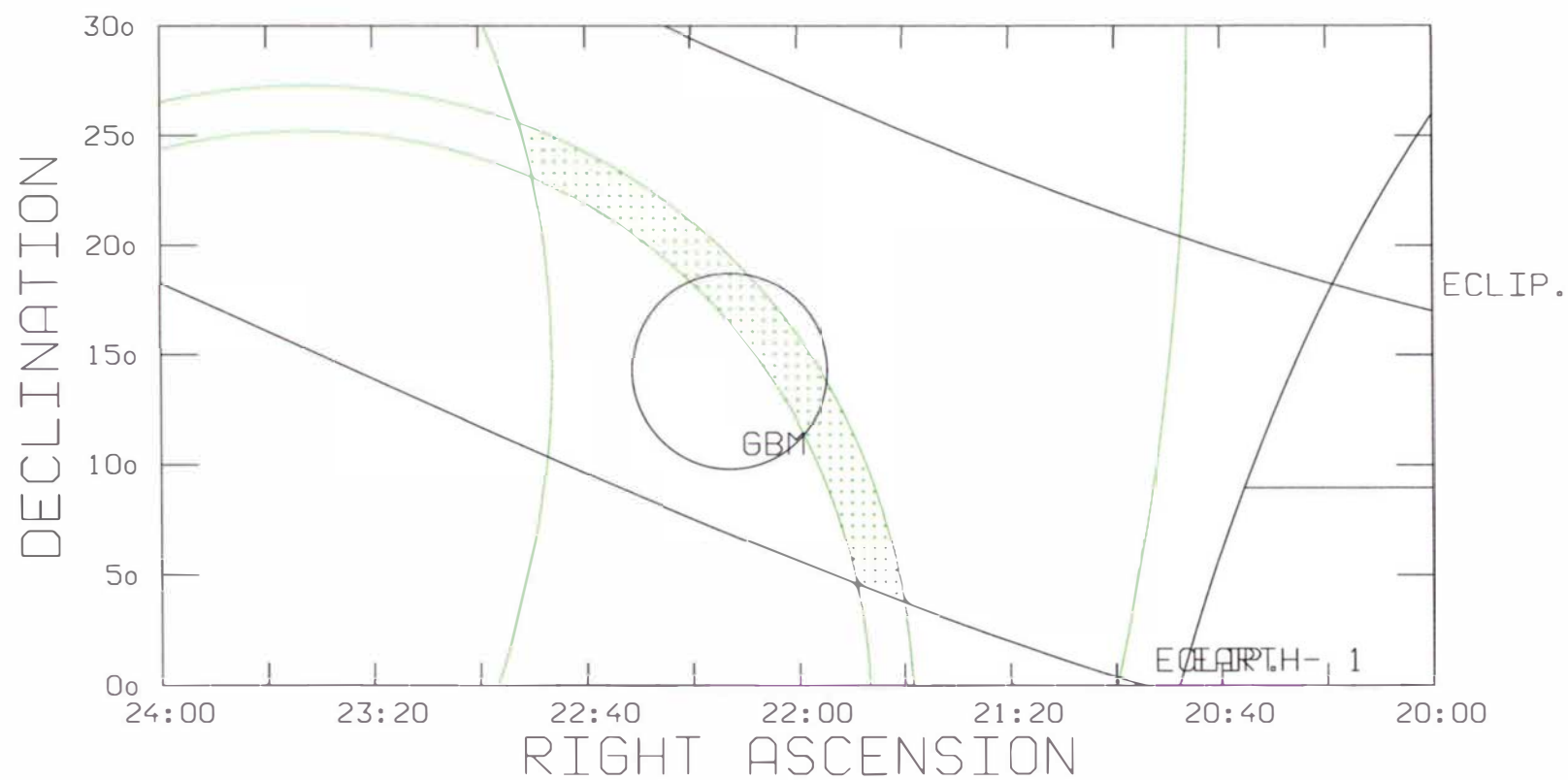
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?

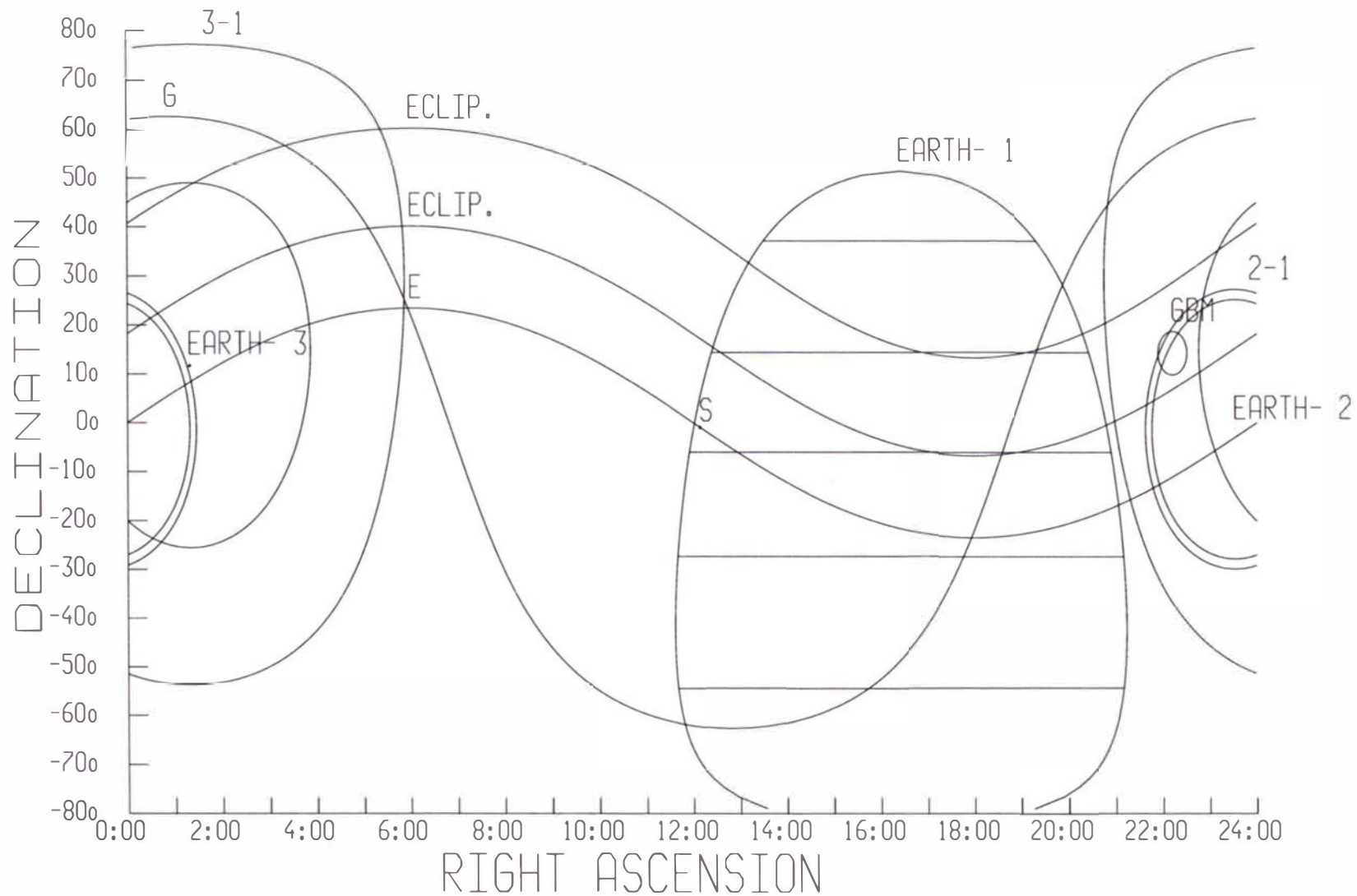
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

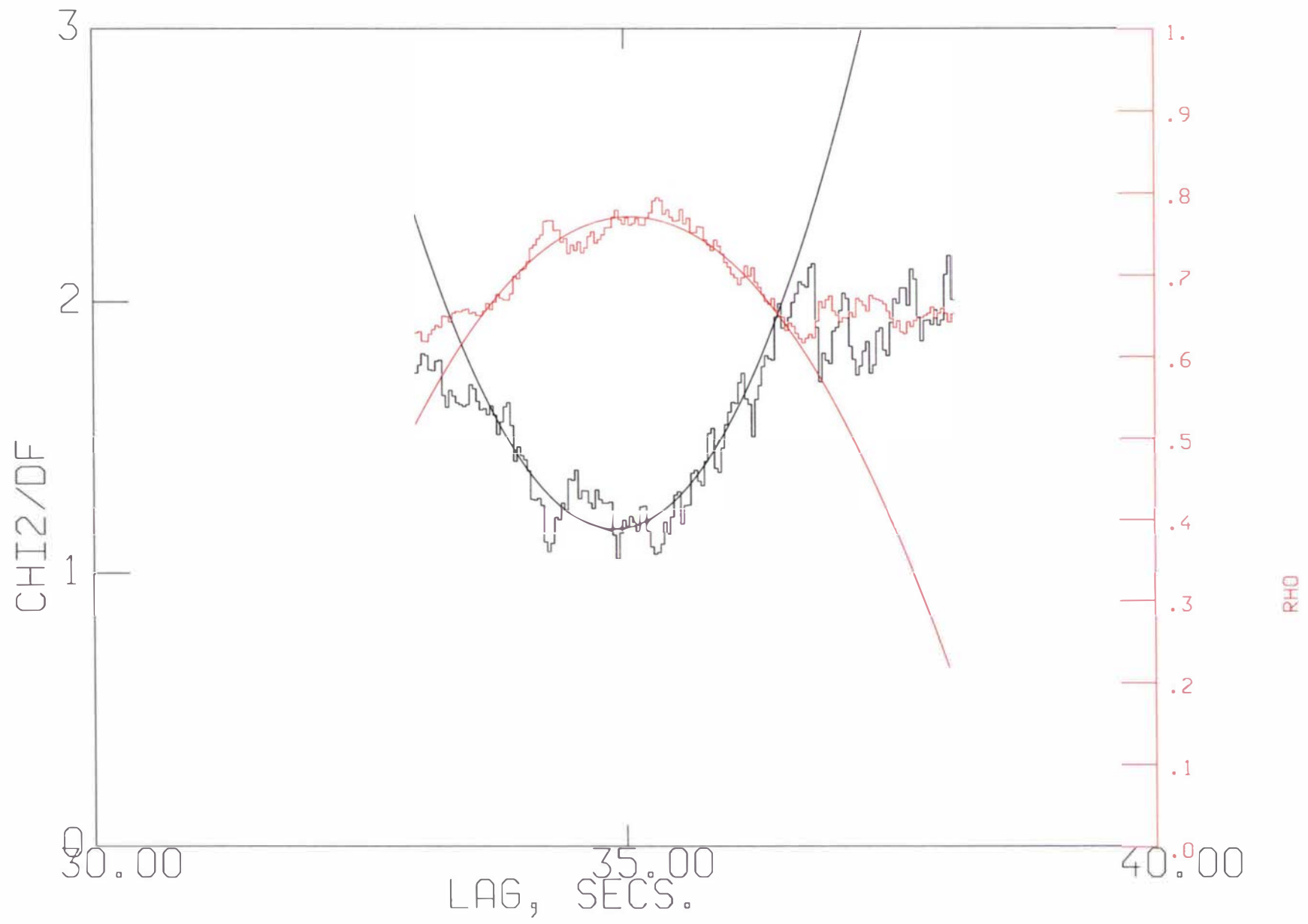


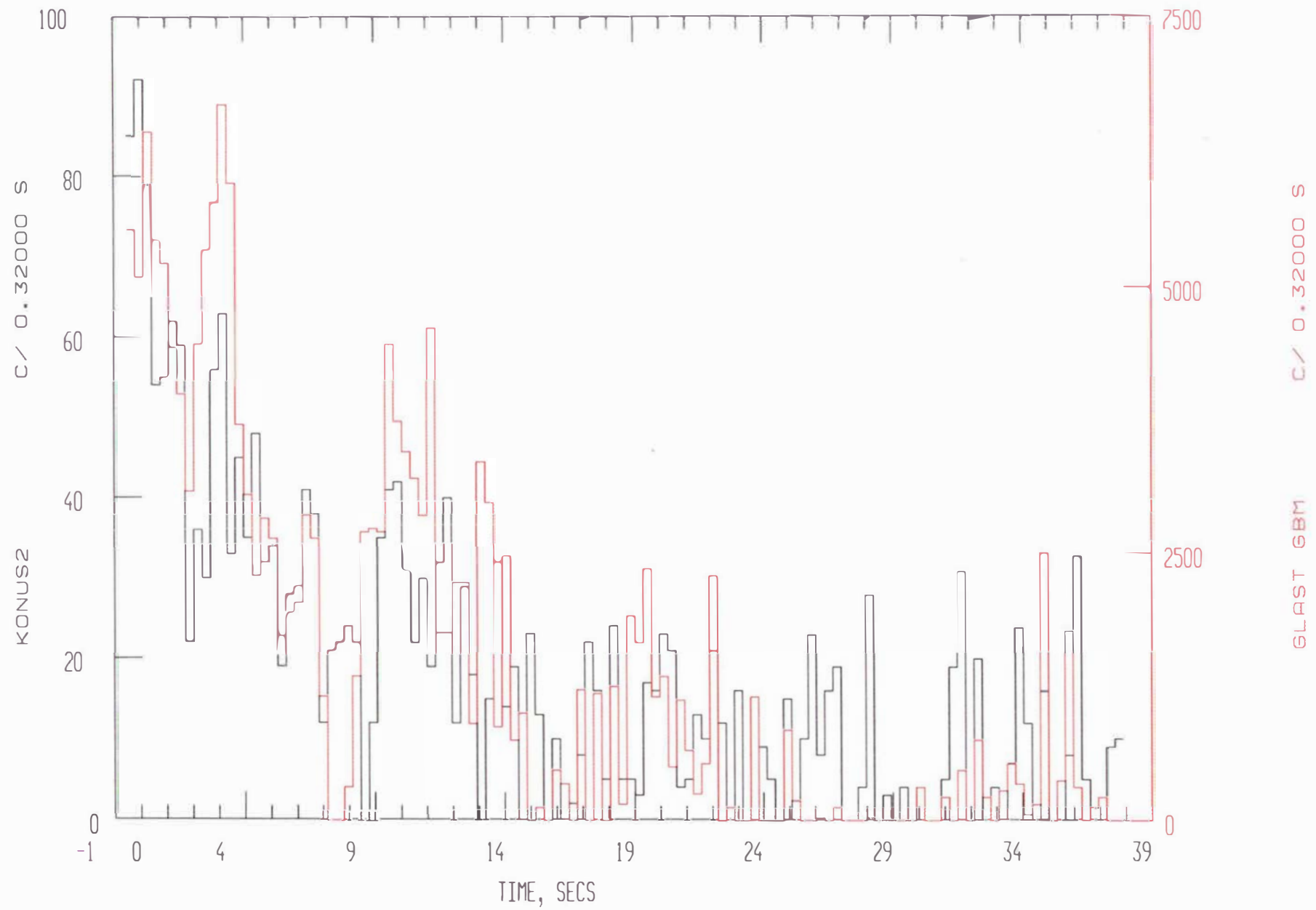
EVENT OF SEP 25, 2009 9:20

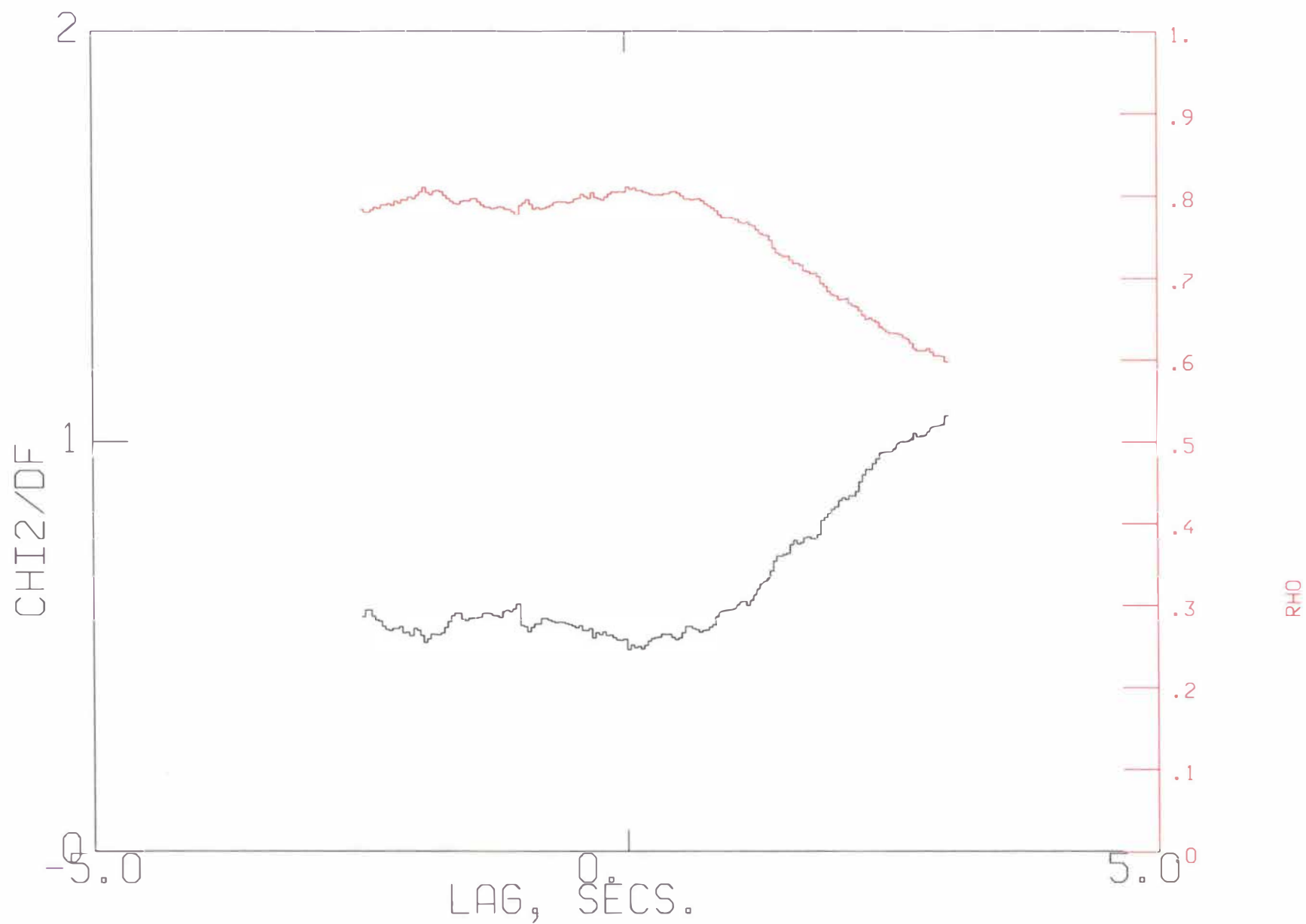
18/04/2011

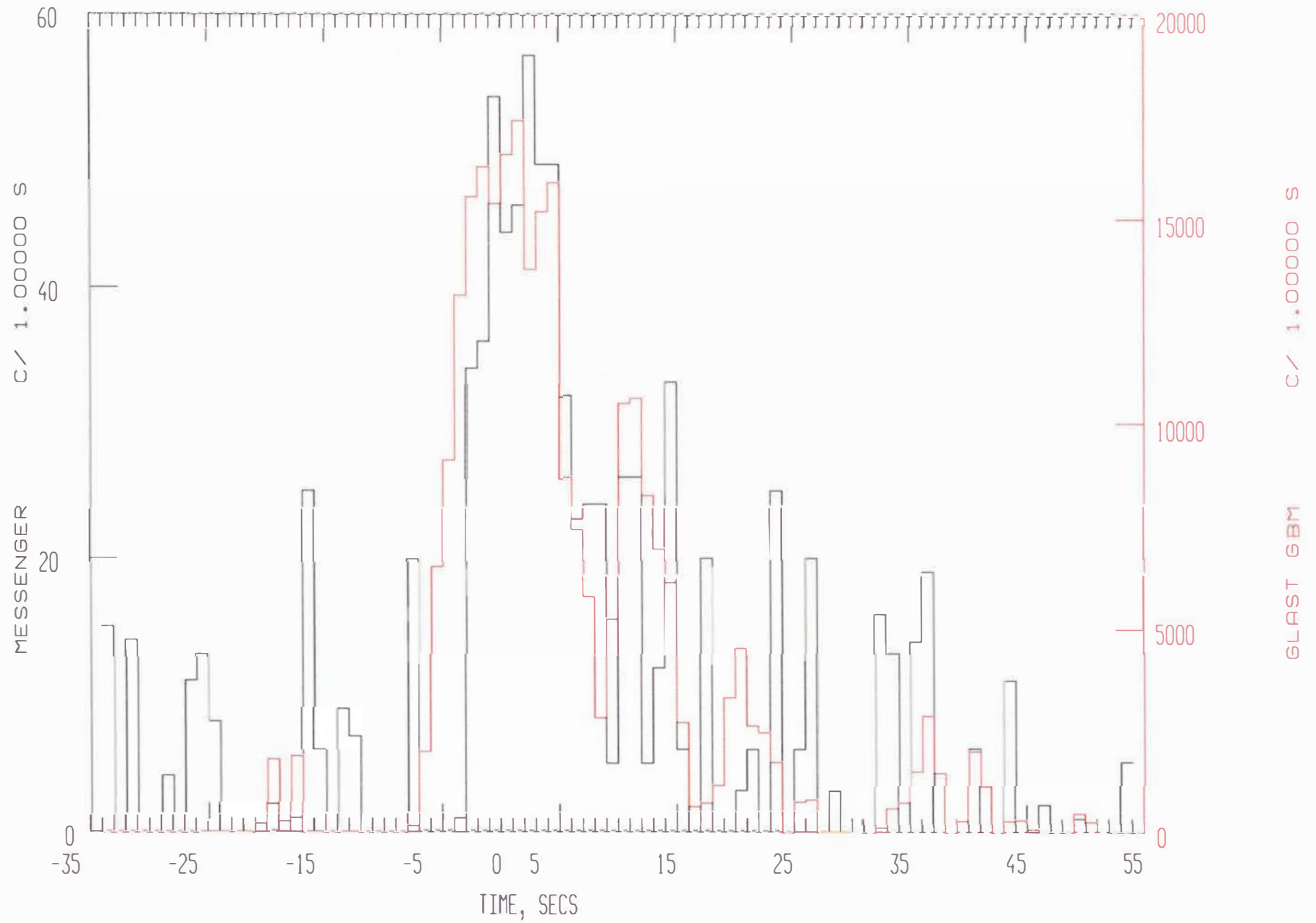
N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN
1 FERMI
2 MESSENGER
3 KONUS2
E=ECLIPTIC
G=GALACTIC EQUATOR









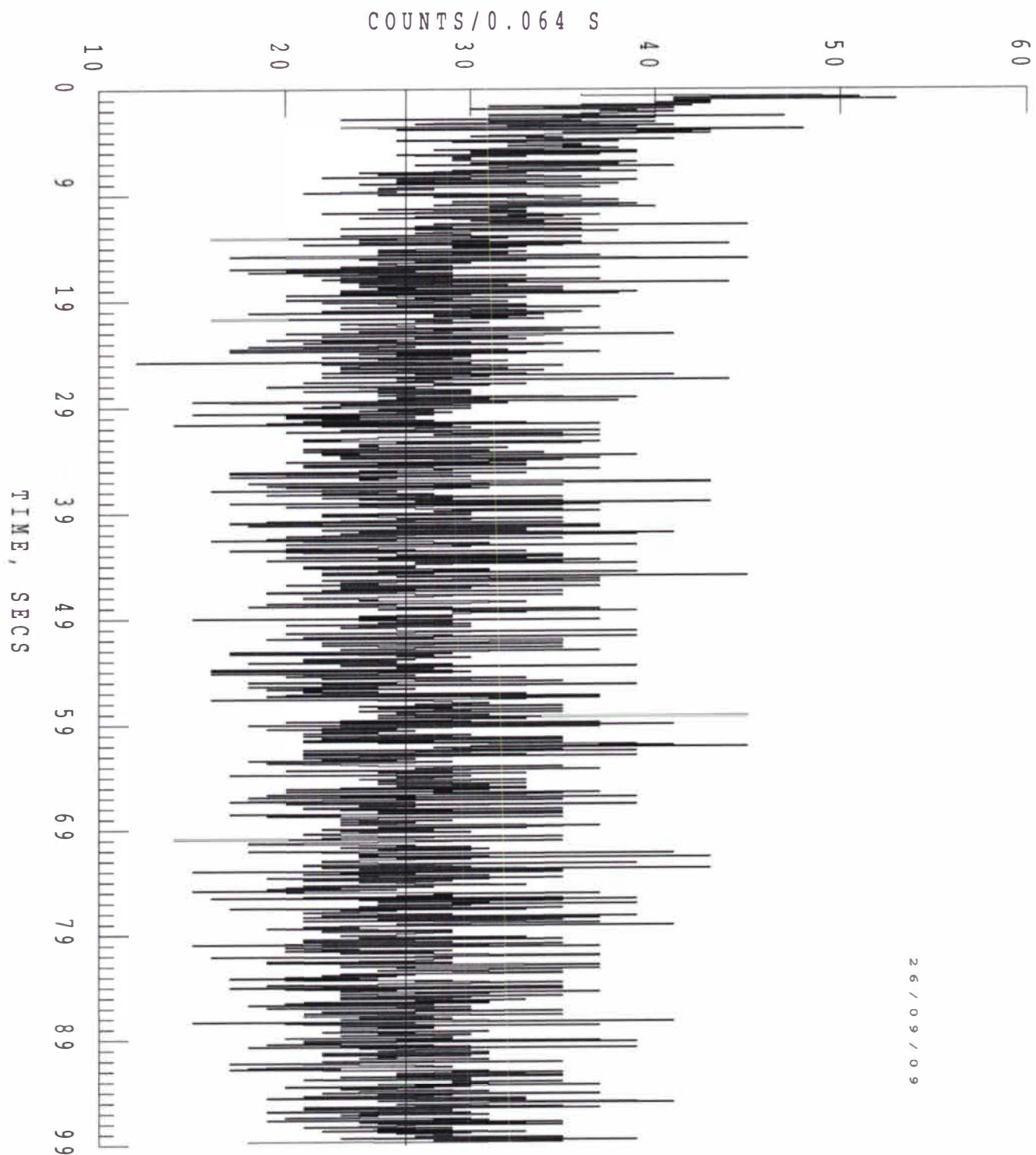


KONUS2

25/09/09

33641.962

50 - 200 keV



KONUS HRES 20090925 33641

TRIGGER TIME: 25/09/09 DOY 268 Julian 2455100.88936 UT = 09.345 09:20:41 (33641.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

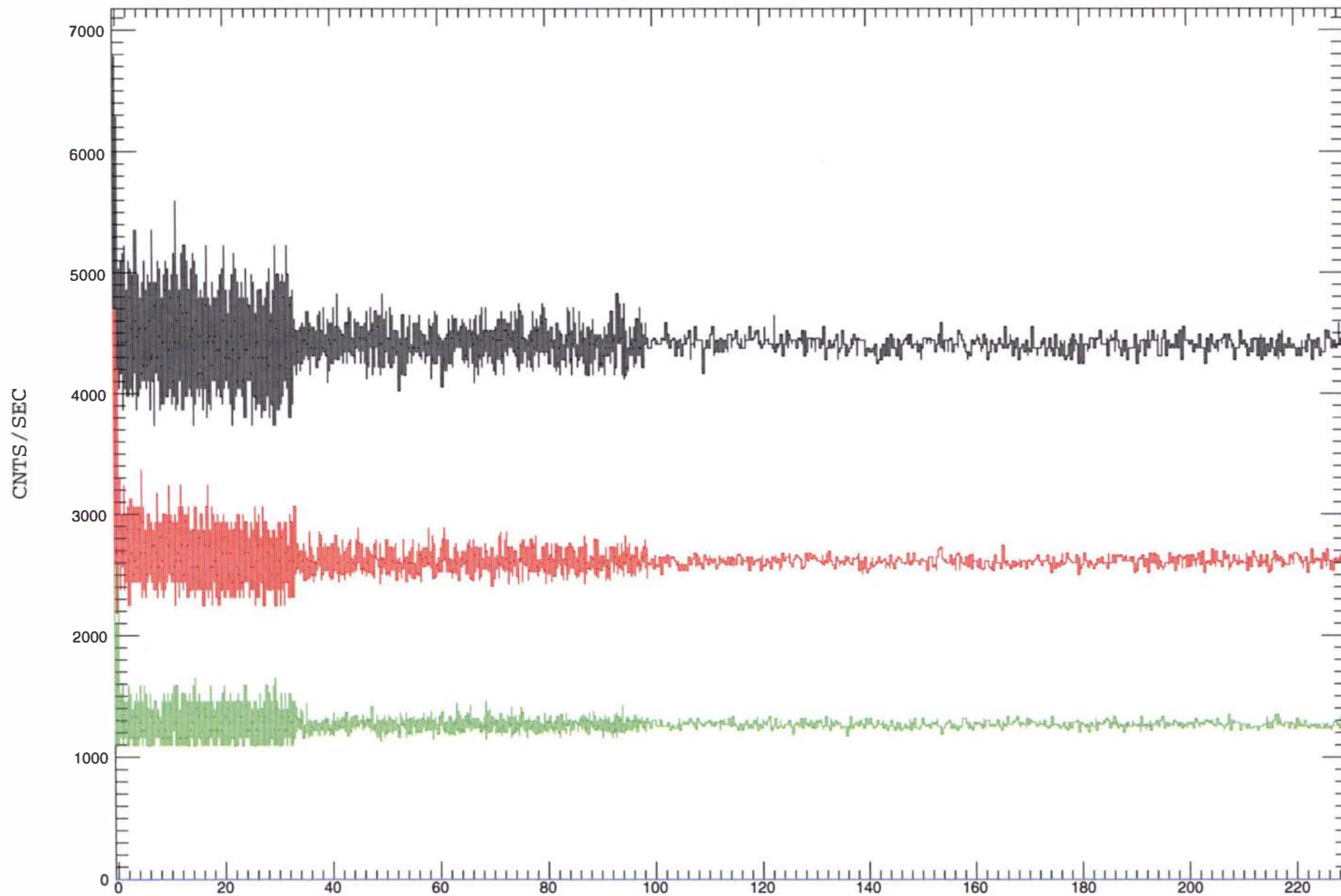
Chan 4 : [> 10 MeV]

Channel 1 + 3300

Channel 2 + 2200

Channel 3 + 1100

Channel 4 + 0



SECONDS

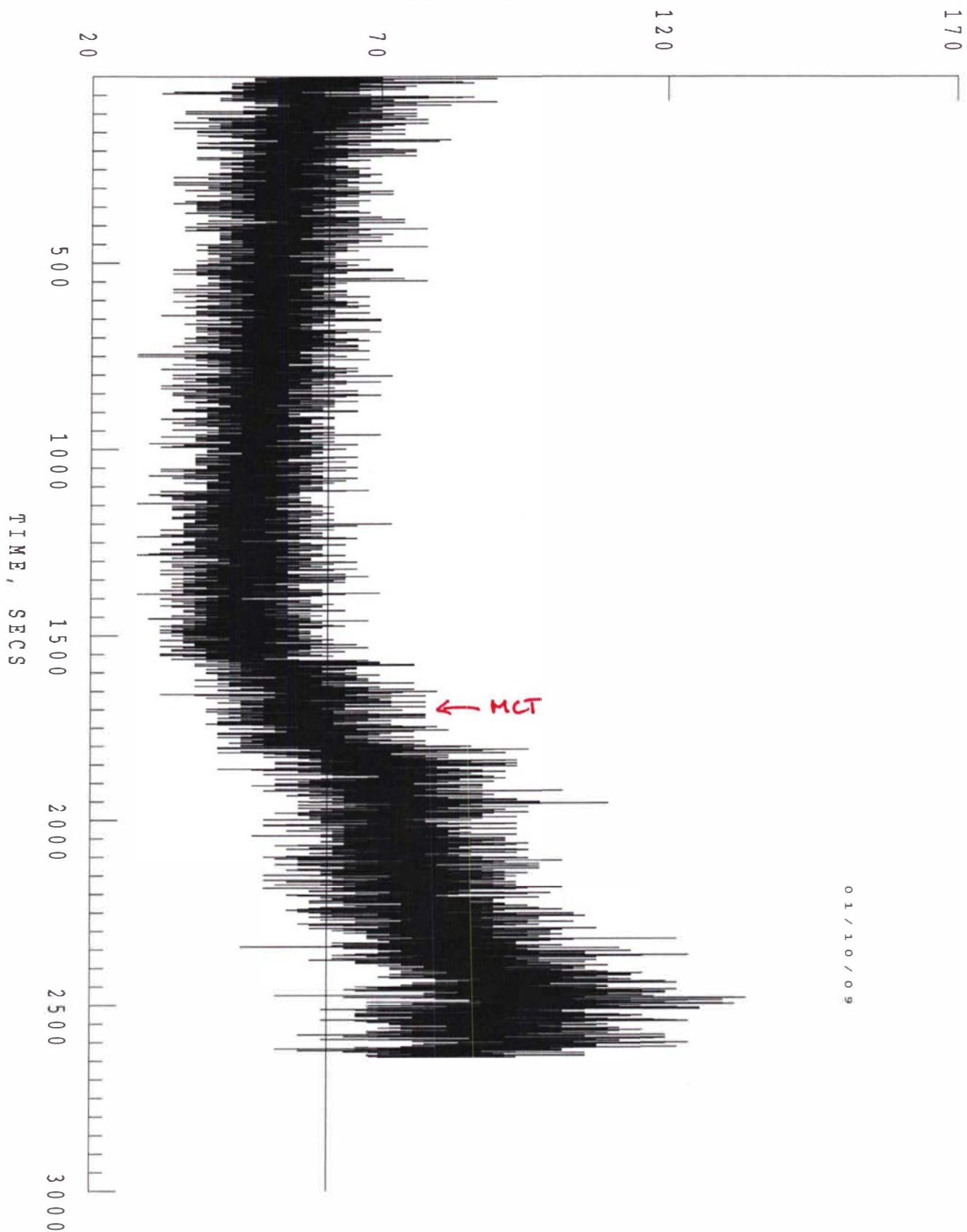
MS01

25/09/09

32314.933

50 - 3000 keV

COUNTS/0.250 S

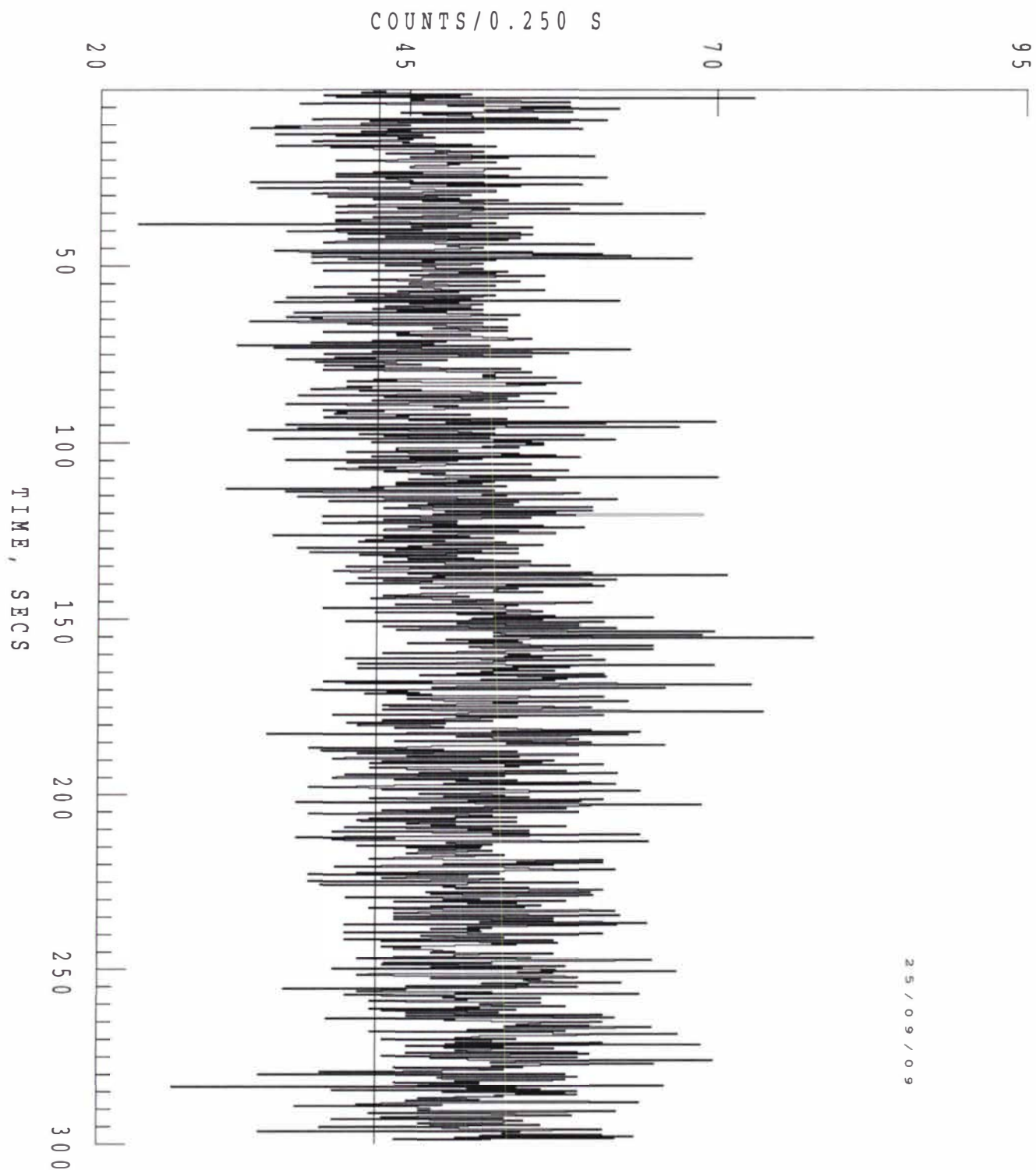


01/10/09

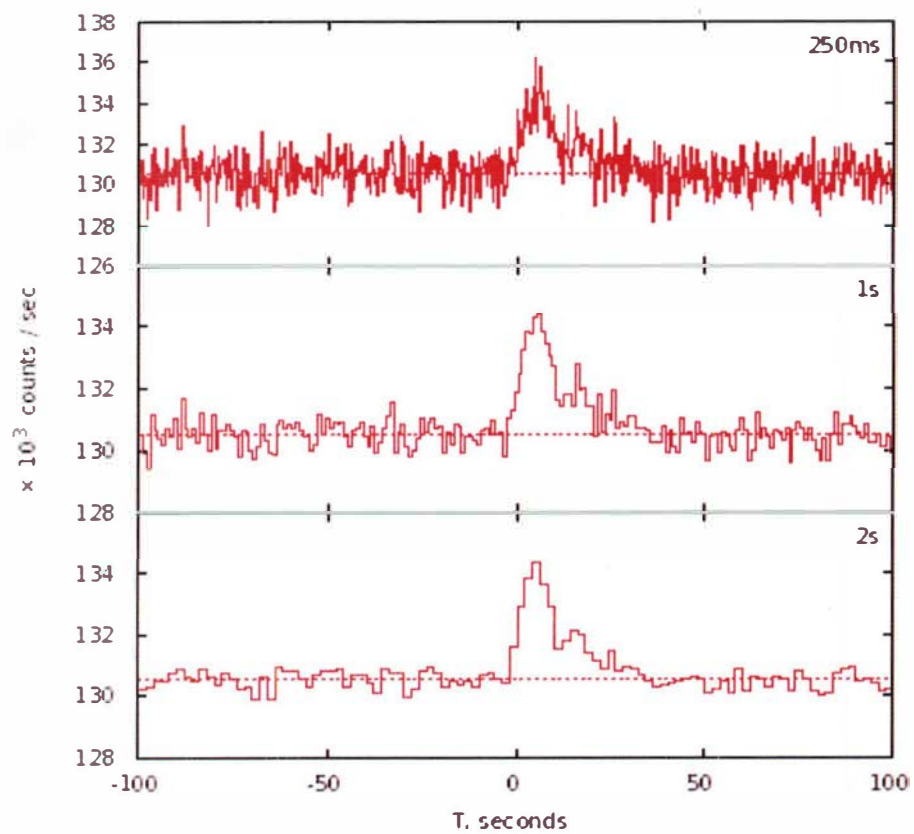
HESSI

25/09/09 33483.000 (GLAST_20090925_33633)

25- 150 keV



INTEGRAL SPI-ACS 090925 $T_0 = 33633$ s UT



19/01/10

MESSENGER

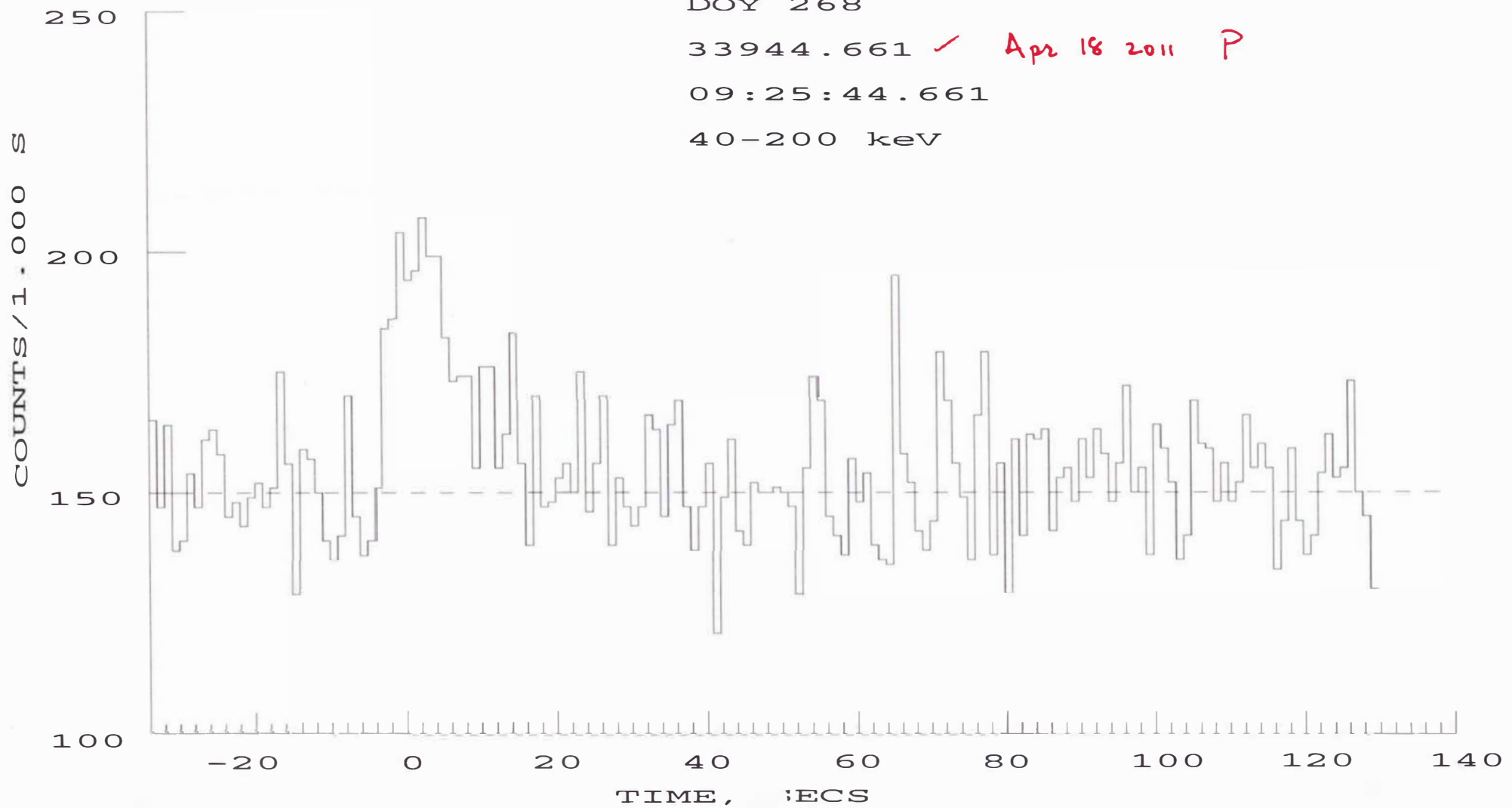
25/09/09

DOY 268

33944.661 ✓ Apr 18 2011 P

09:25:44.661

40-200 keV

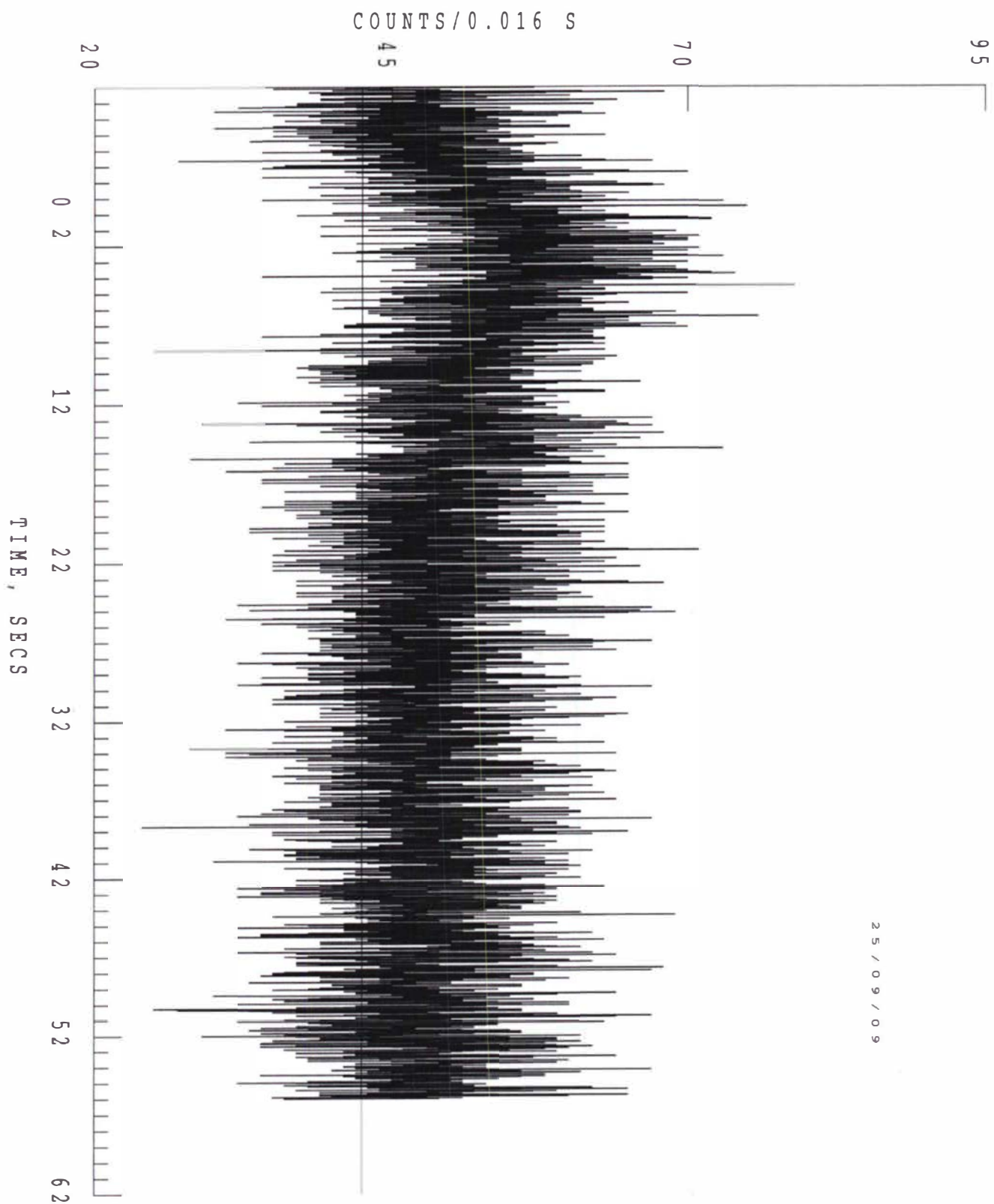


SUZAKU

25/09/09

33635.178

50 - 240 keV



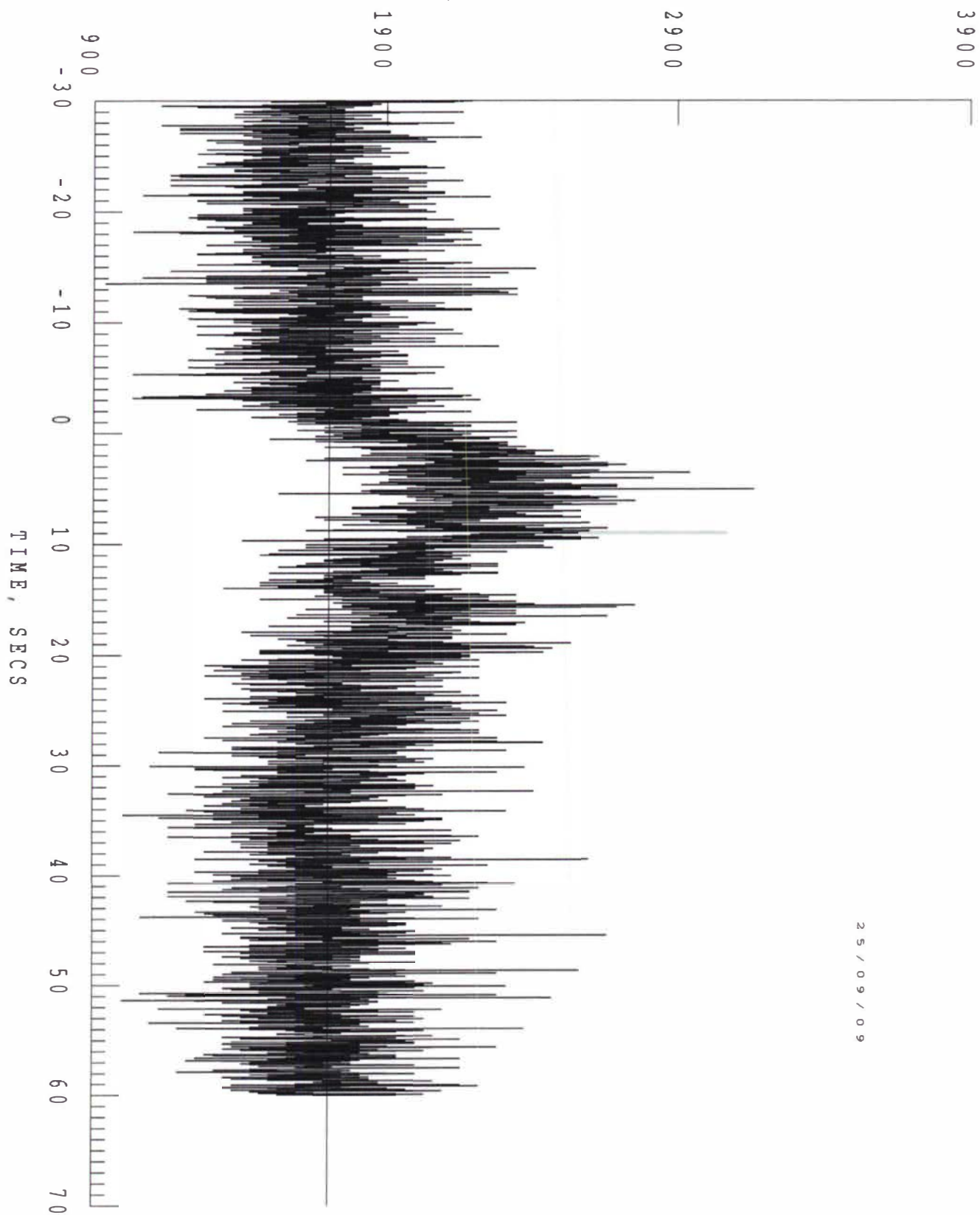
GLAST

25/09/09

33633.672

26- 293 keV

COUNTS/0.032 S



25/09/09

From gcncirc@capella.gsfc.nasa.gov Fri Sep 25 07:52:53 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090925: Fermi GBM detection
cc: khurley@ssl.berkeley.edu
Date: Fri, 25 Sep 2009 10:54:05 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9932
SUBJECT: GRB 090925: Fermi GBM detection
DATE: 09/09/25 14:54:03 GMT
FROM: Elisabetta Bissaldi at MPE <ebs@mpe.mpg.de>

E.Bissaldi and D.Gruber (all MPE)
report on behalf of the Fermi GBM Team:

"At 09:20:33.67 UT on 25 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090925 (trigger 275563235 / 090925389). The on-ground calculated location, using the GBM trigger data, is RA = 333.2, DEC = +14.3 (J2000 degrees, MCT 34039 equivalent to 22h 13m, 14d 18'), with an uncertainty of 4.5 degrees (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

The angle from the Fermi LAT boresight is 116 degrees.

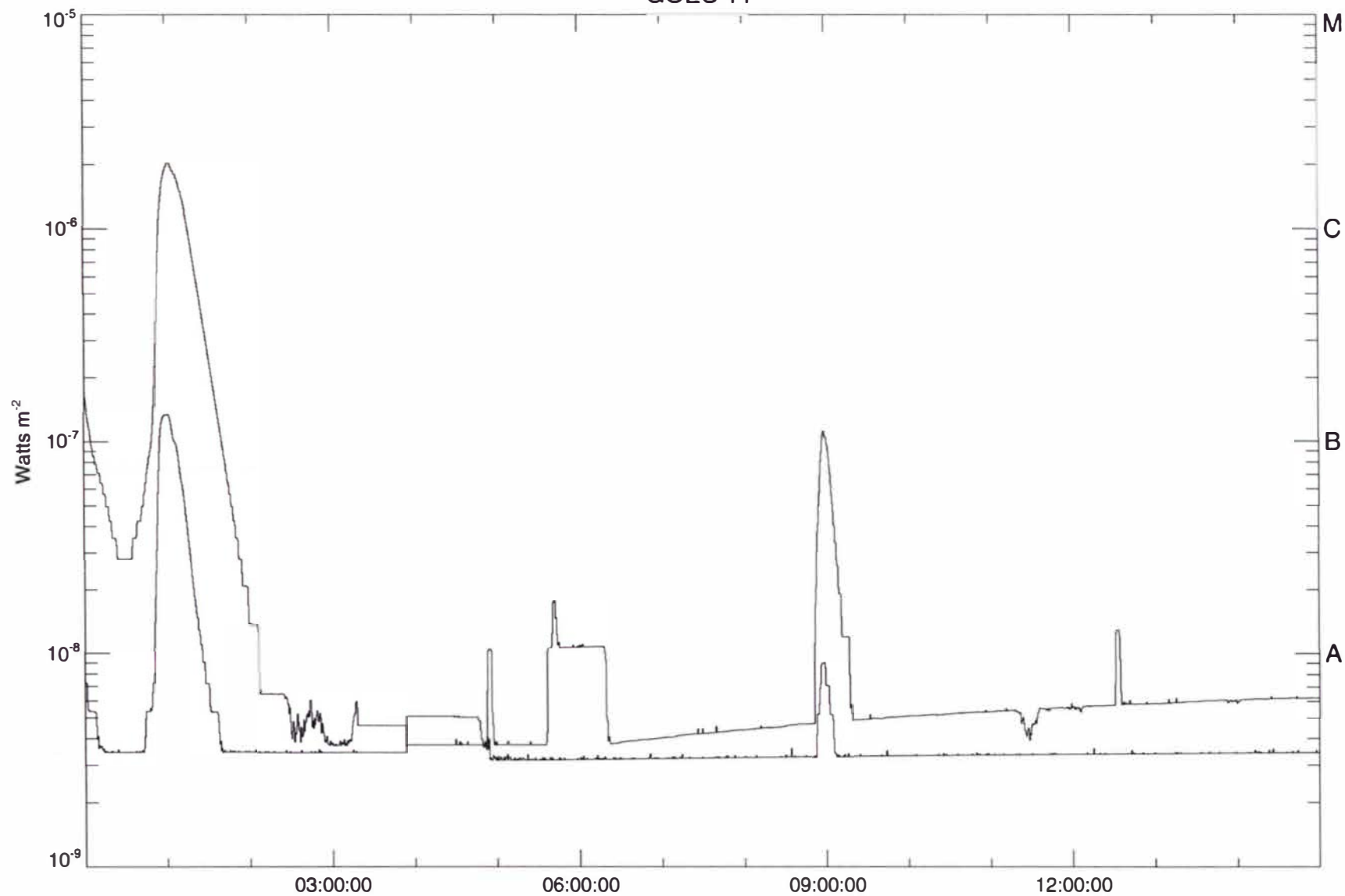
This burst was also independently detected by INTEGRAL SPI-ACS.

The GBM light curve consists of a FRED-like pulse with a duration (T90) of about 50 s (8-1000 keV). The time-averaged spectrum from T0-1 s to T0+20 s is adequately fit by a Band function with Epeak = 156 (+25/-20) keV, alpha = -0.60 (+0.14/-0.13), and beta = -1.91 (+0.07/-0.09) (C-stat 369 for 357 d.o.f.).

The event fluence (8-1000 keV) in this time interval is (9.46 +/- 0.26)E-06 erg/cm^2. The 1-sec peak photon flux measured starting from T0+6 s in the 8-1000 keV band is 4.2 +/- 0.3 ph/s/cm^2.

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

GOES 11



Data Start: 09/09/25, 0000:13

Plot created: 09/09/28, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

Date: June 21 2012

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)?
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☒ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

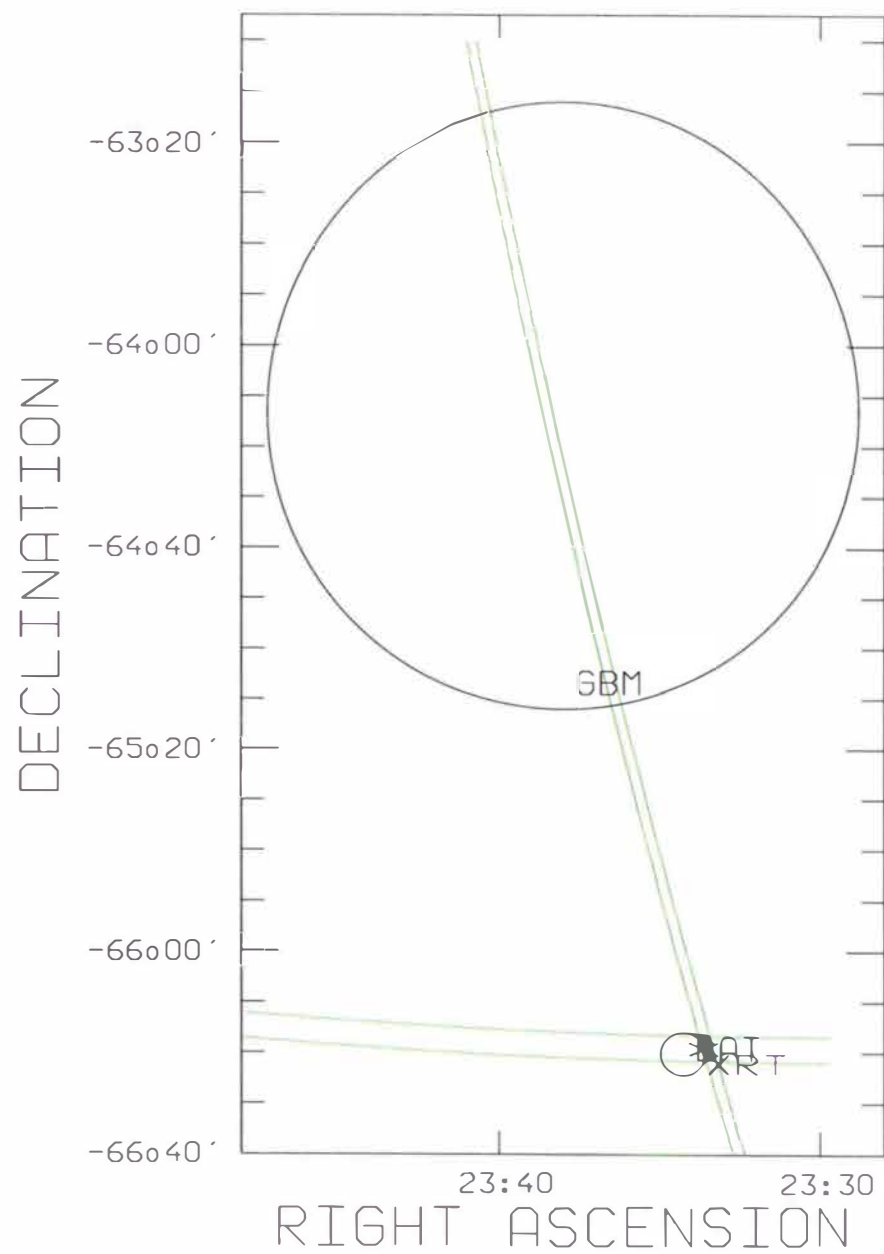
6. For 3 or More Spacecraft events

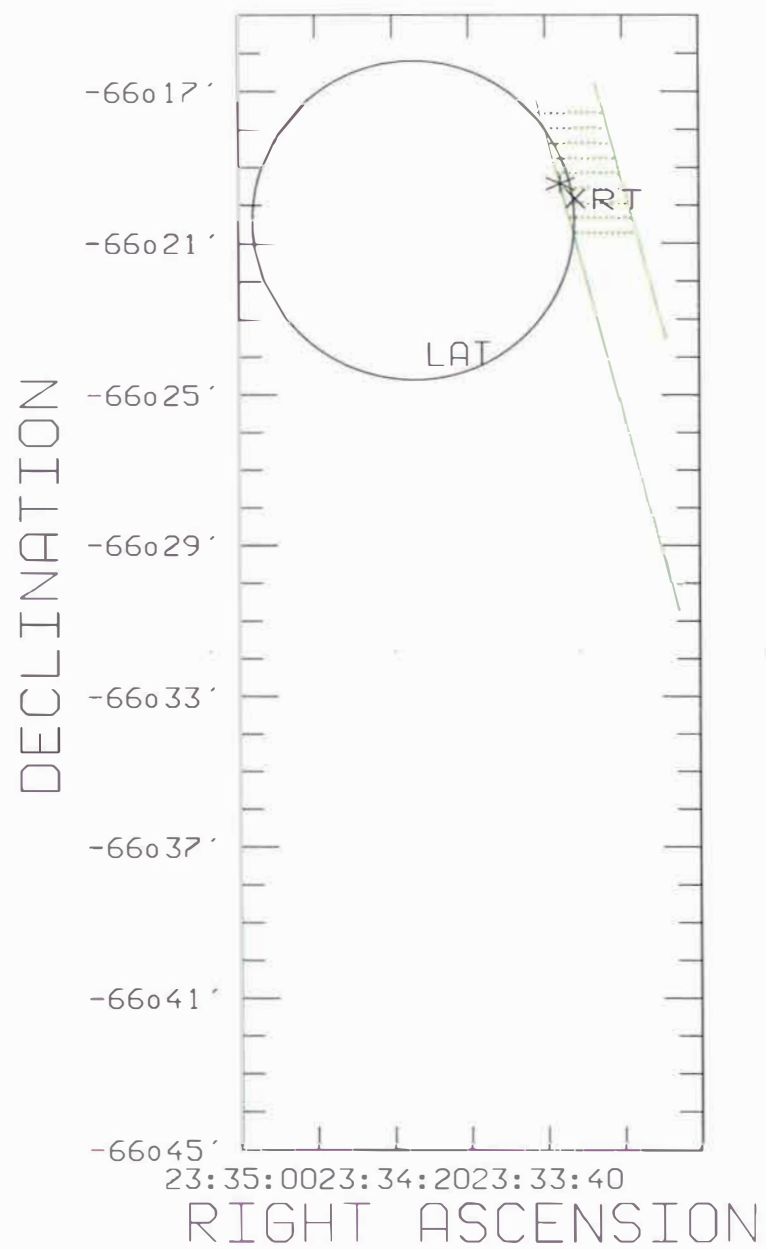
- ☒ $3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?
- ☐ Hand-extracted data used (record starts at -30.000 s)?

-
- ☒ ACCESS and MBL4 databases updated, with identical times?

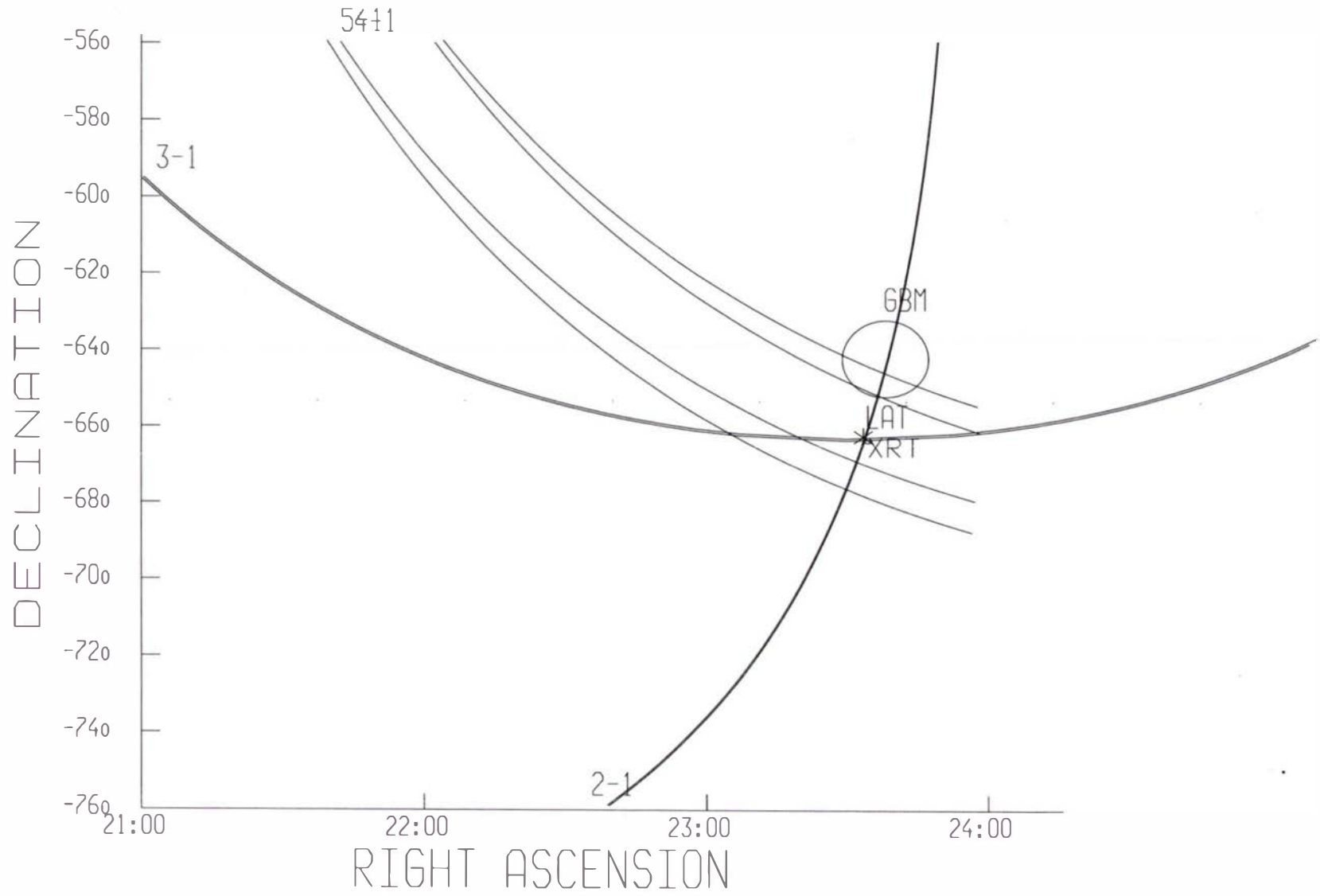


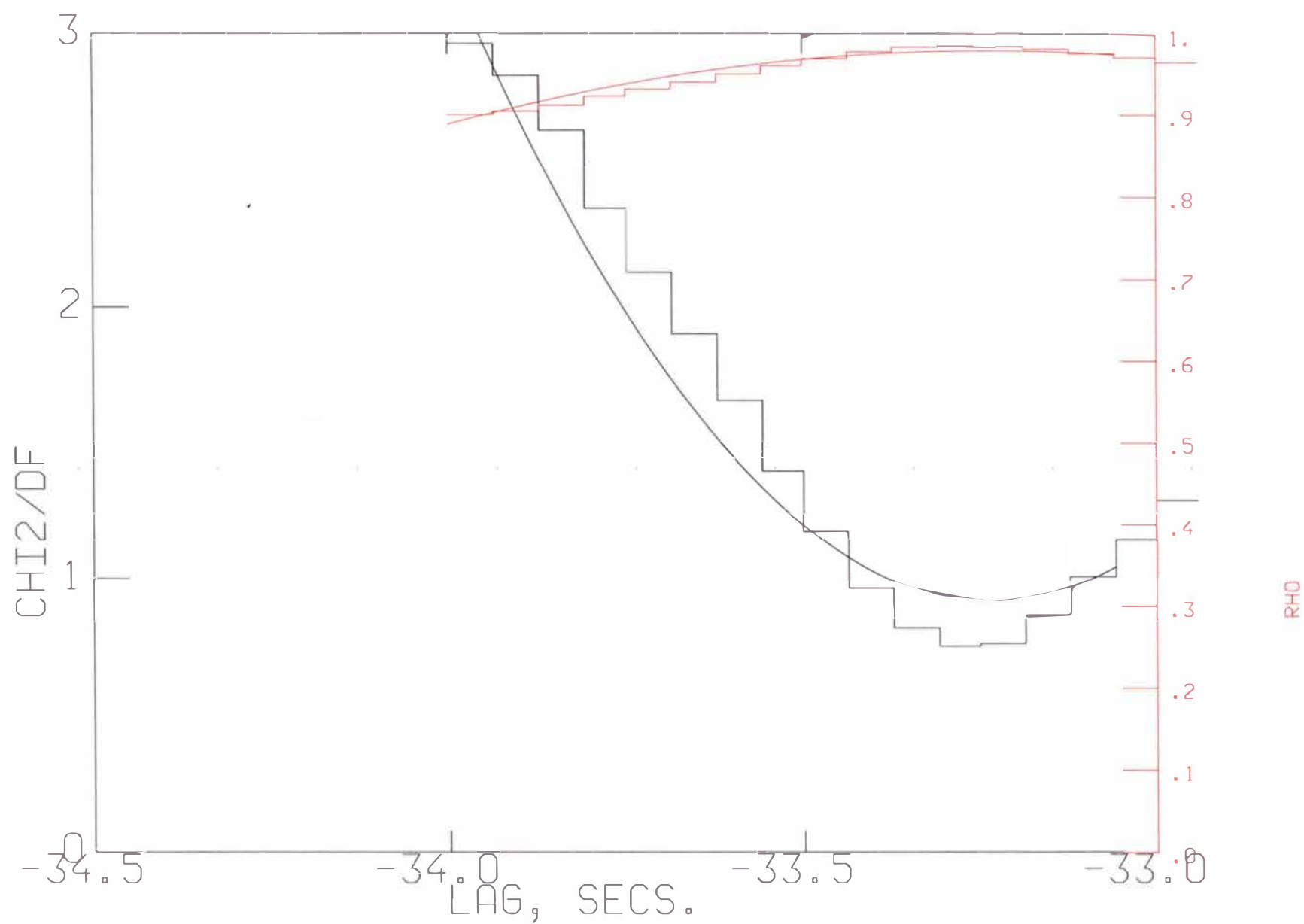


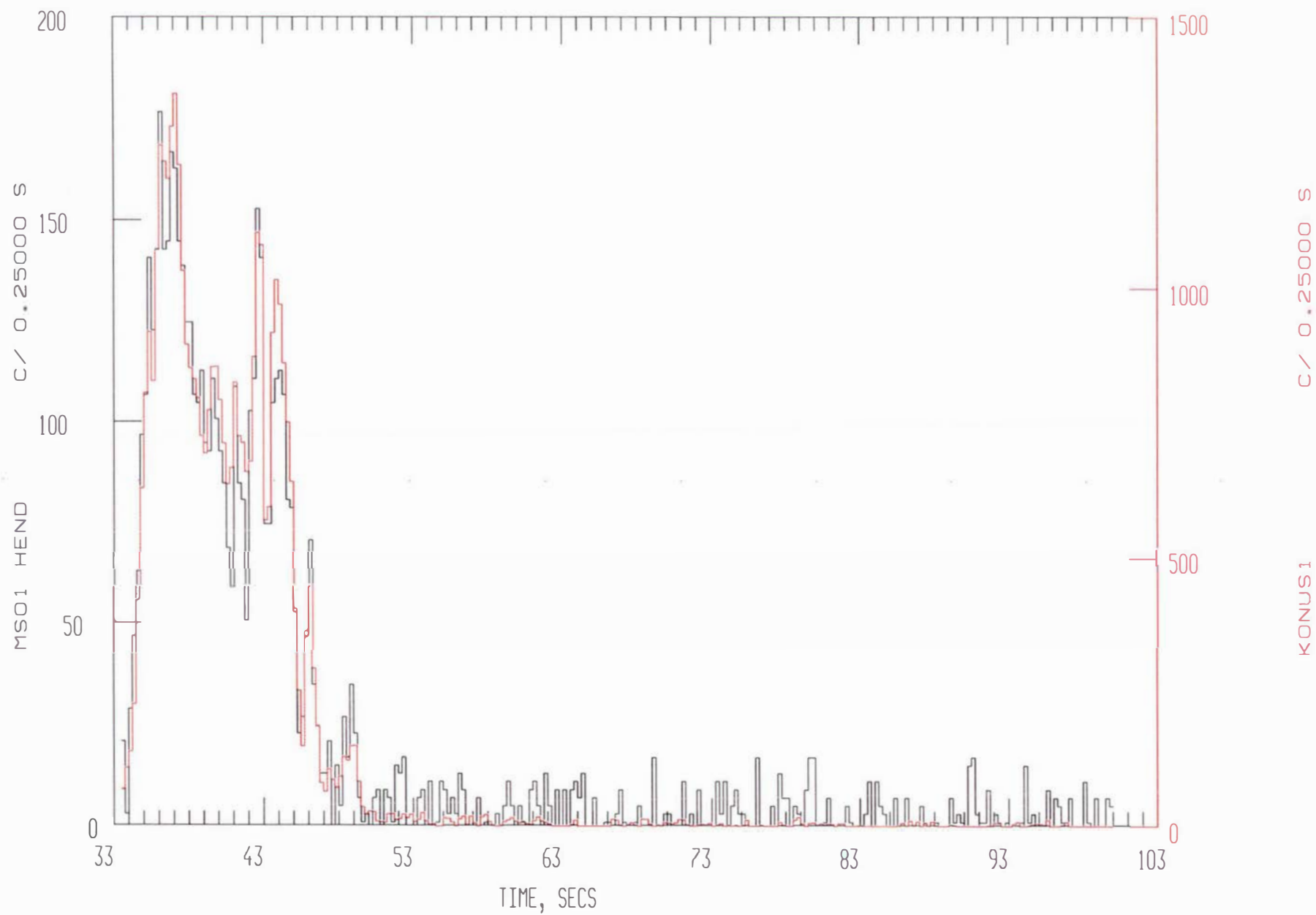
N-M = CORRELATION BETWEEN SATELLITES N AND M
 EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
 1 KONUS1 2 MO 3 MESSENGER 4 INTEGRAL 5 SUZAKU

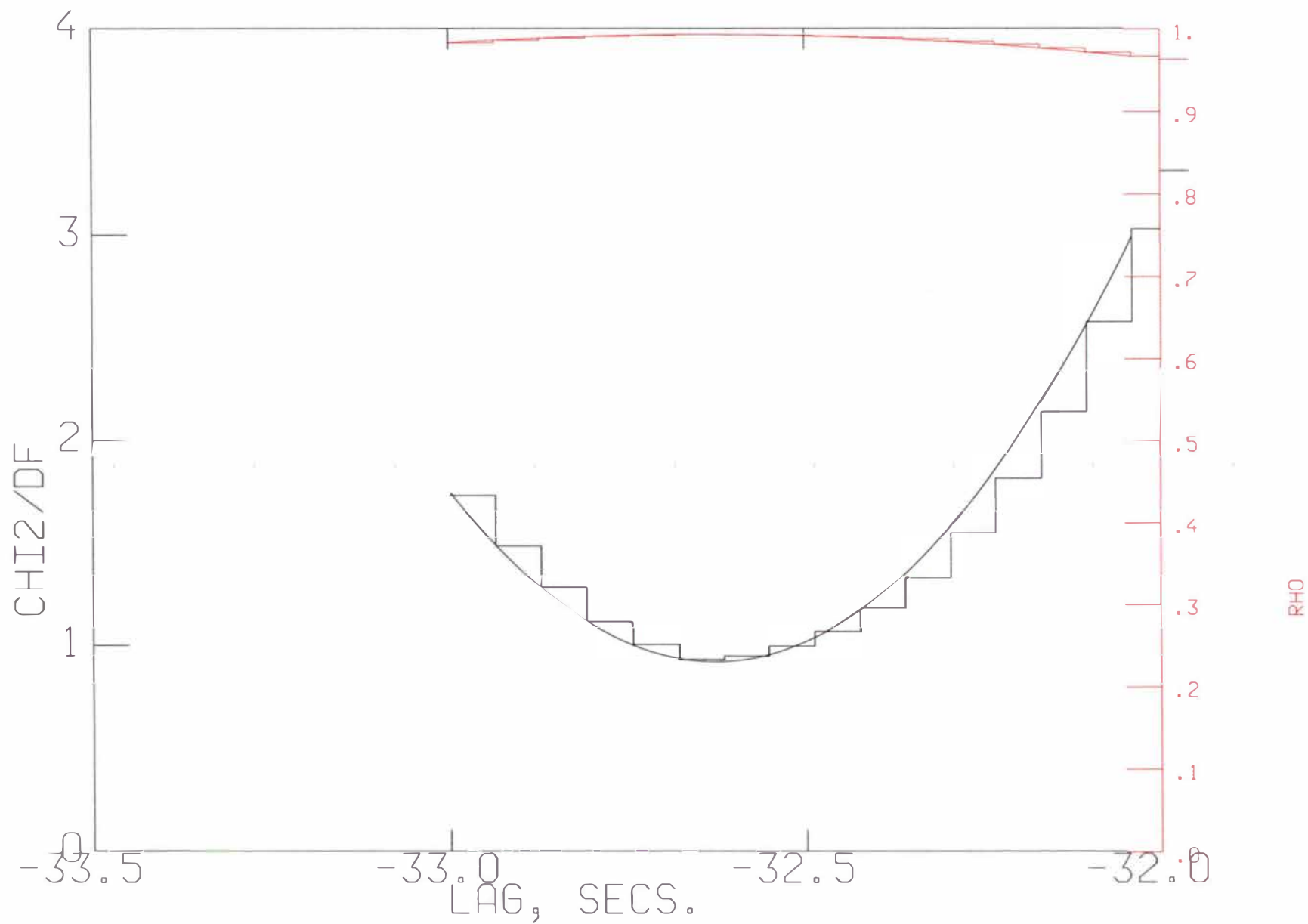
EVENT OF SEP 26, 2009 4:20

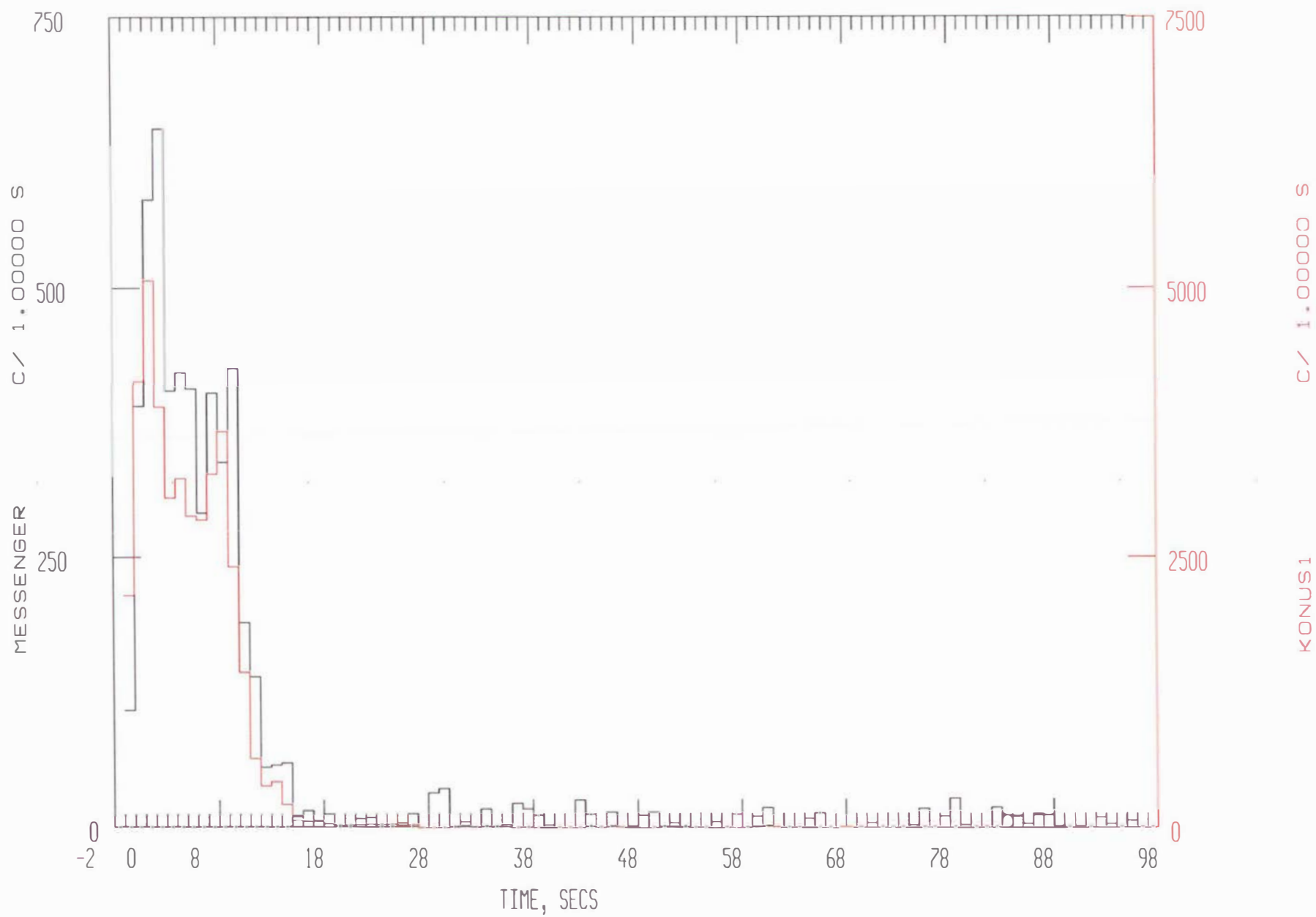
21/12/2010











KONUS1

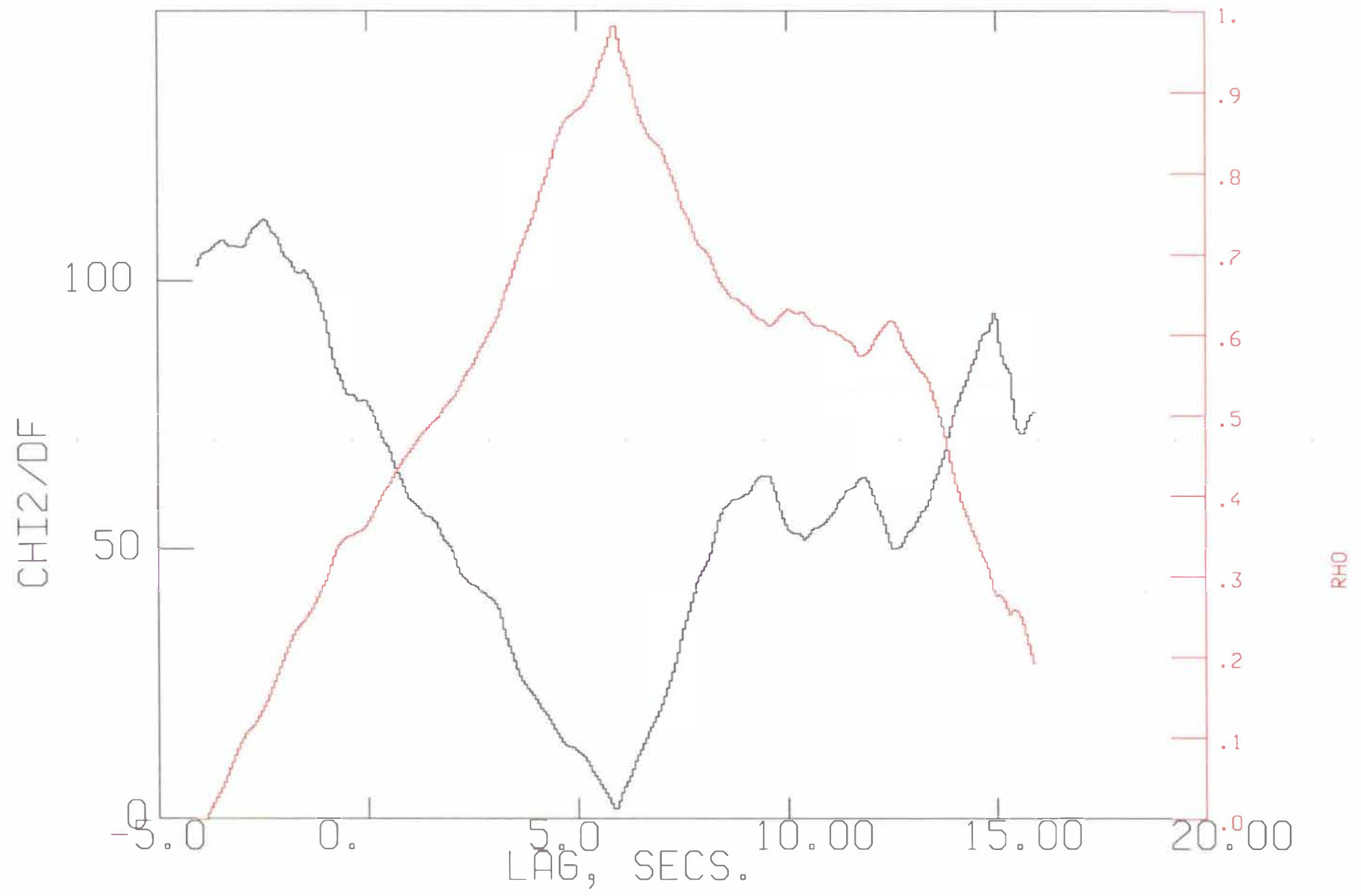
-INTEGRAL

CORRELATION

26/09/09

15628.683

21/12/10



KONUS1

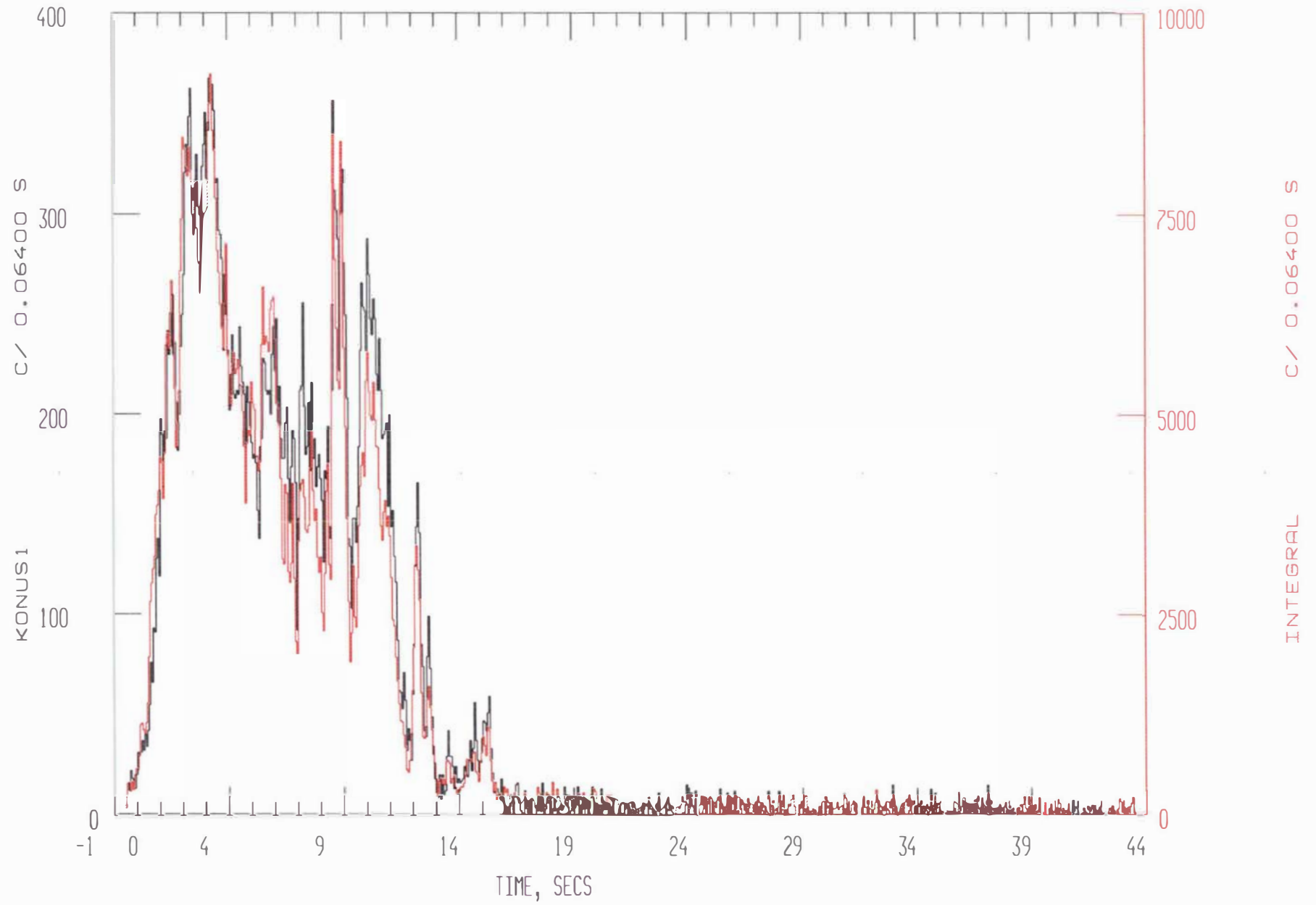
-INTEGRAL

CORRELATION

26/09/09

15628.683

21/12/10



KONUS I

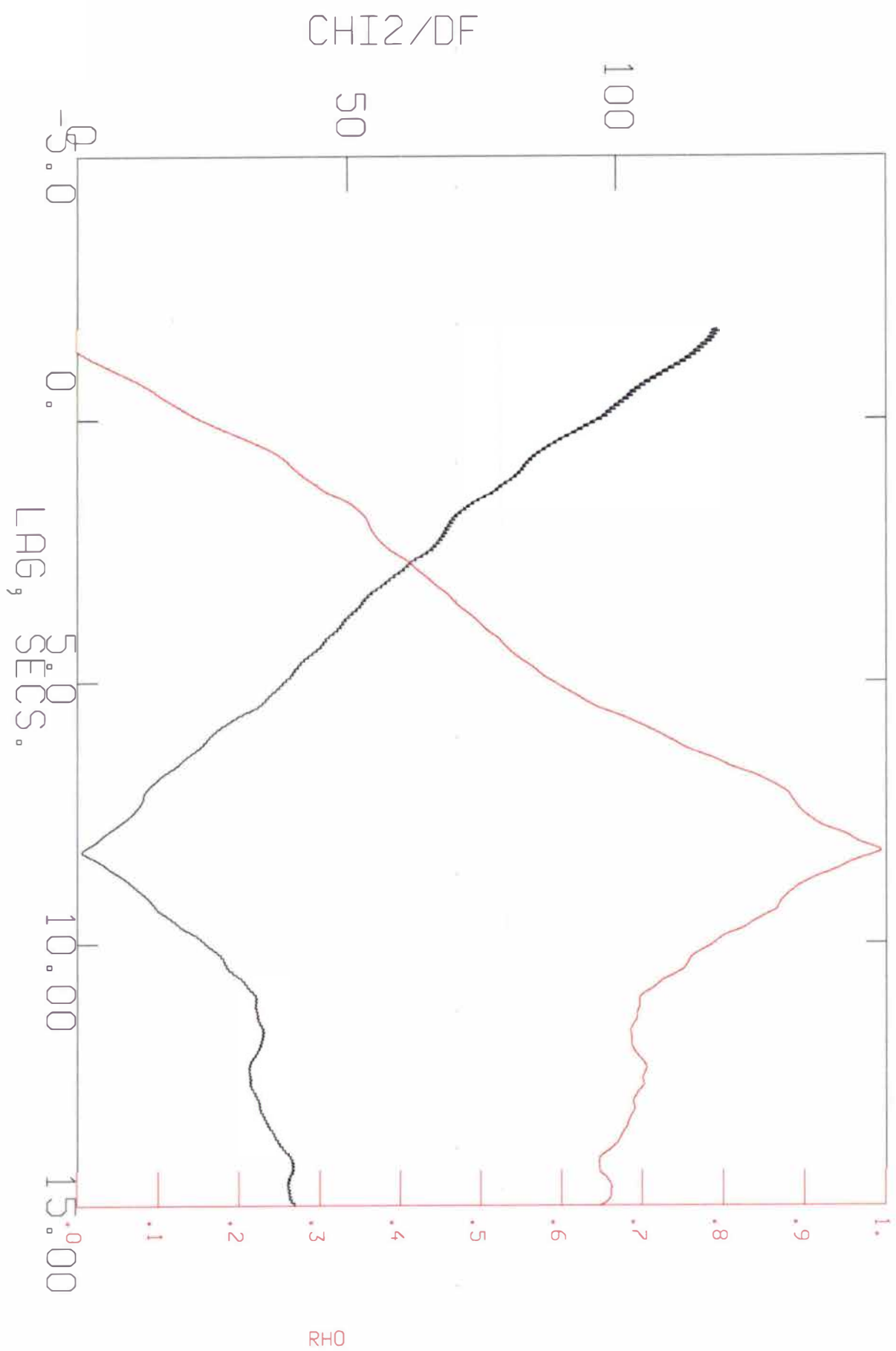
-SUZAKU

CORRELATION

26/09/09

15628.683

21/12/10



KONUS1

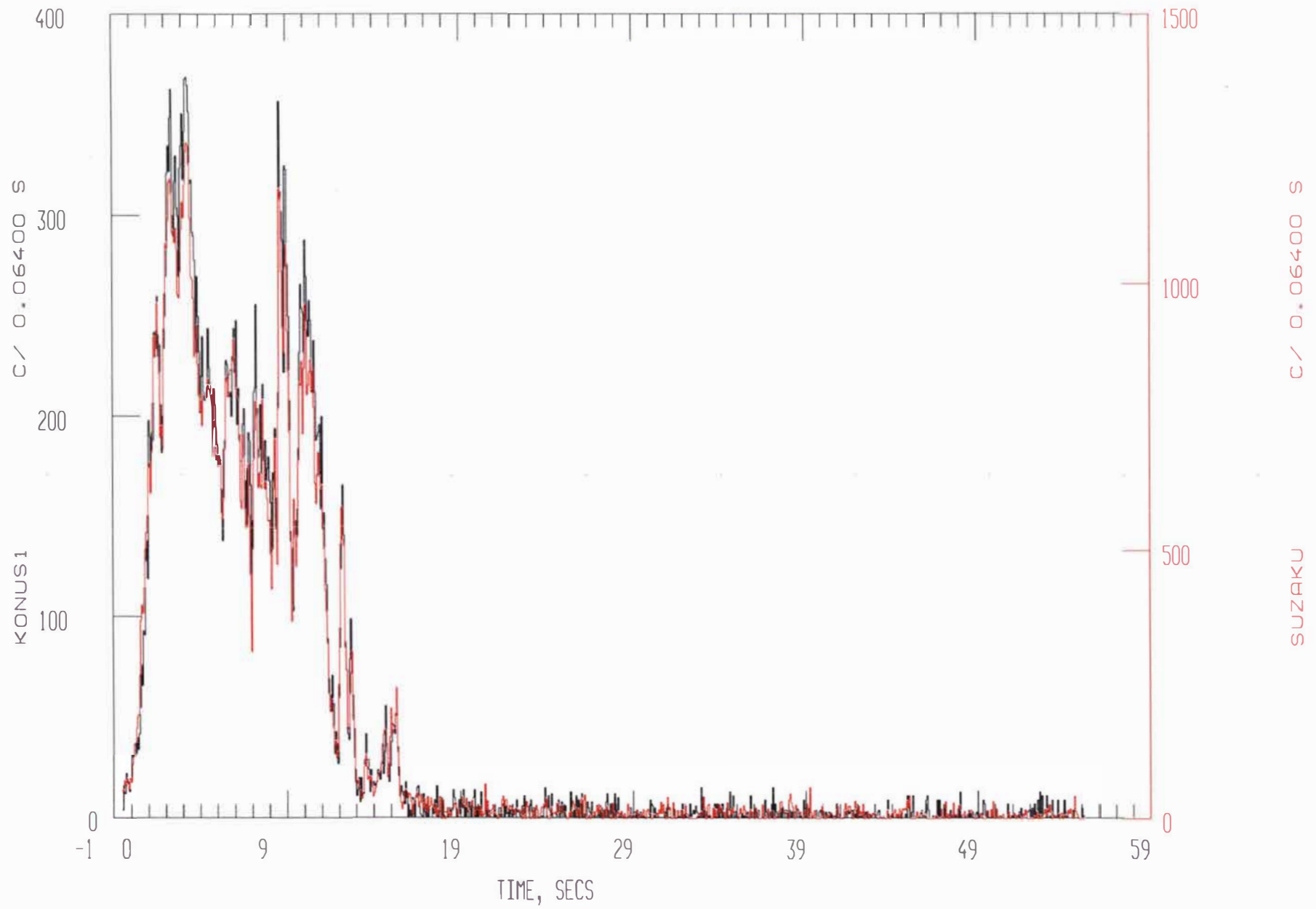
-SUZAKU

CORRELATION

26/09/09

15628.683

21/12/10



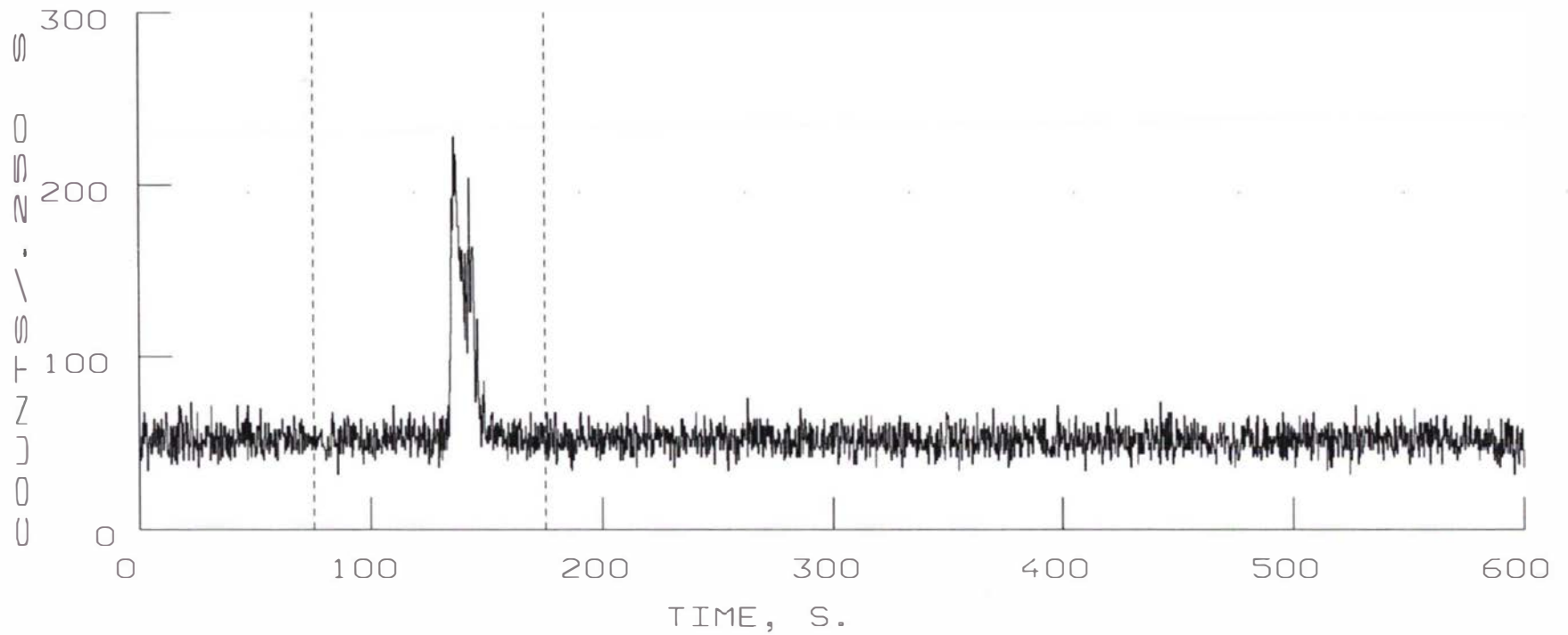
MS01 HEND

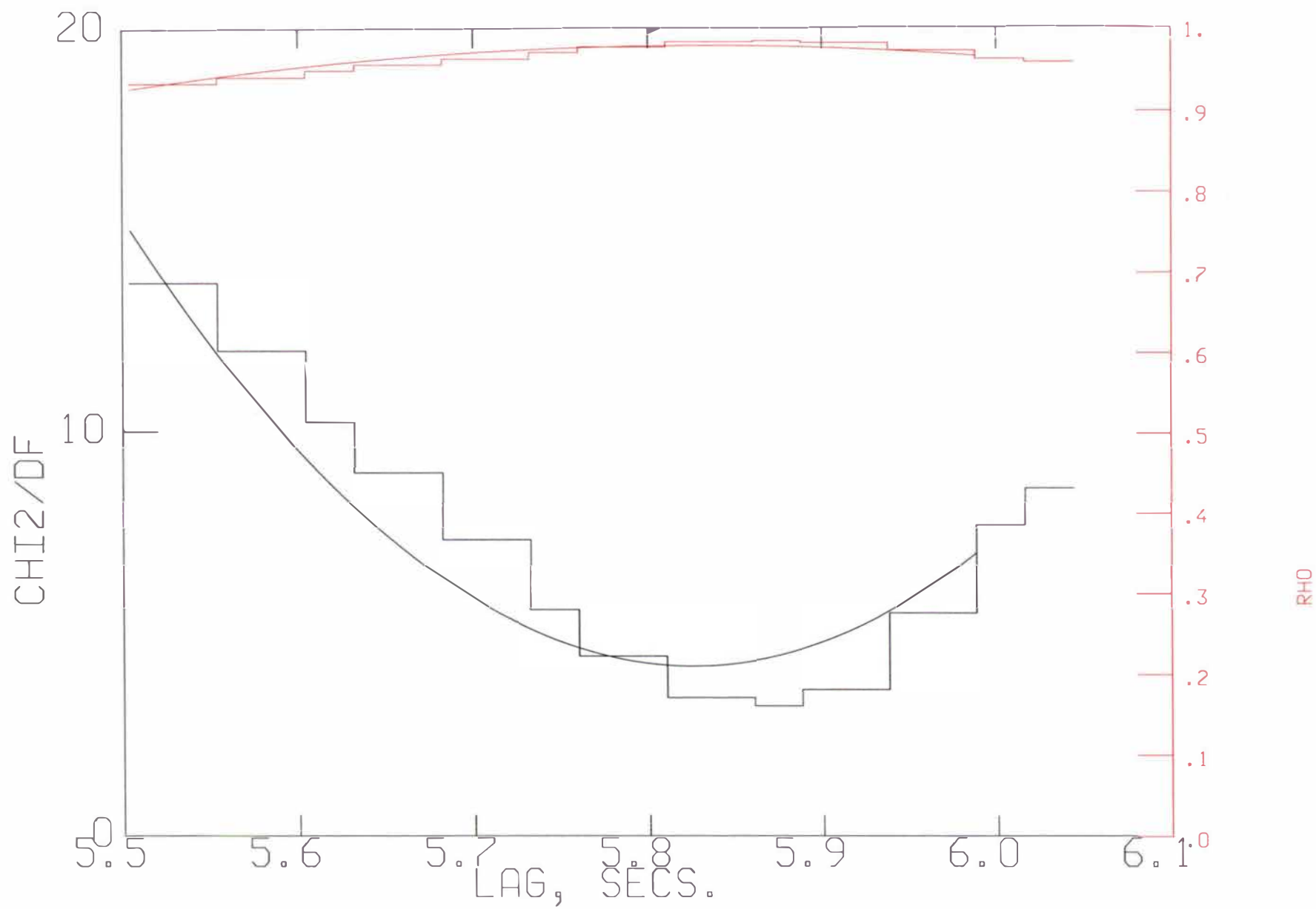
21/12/2010

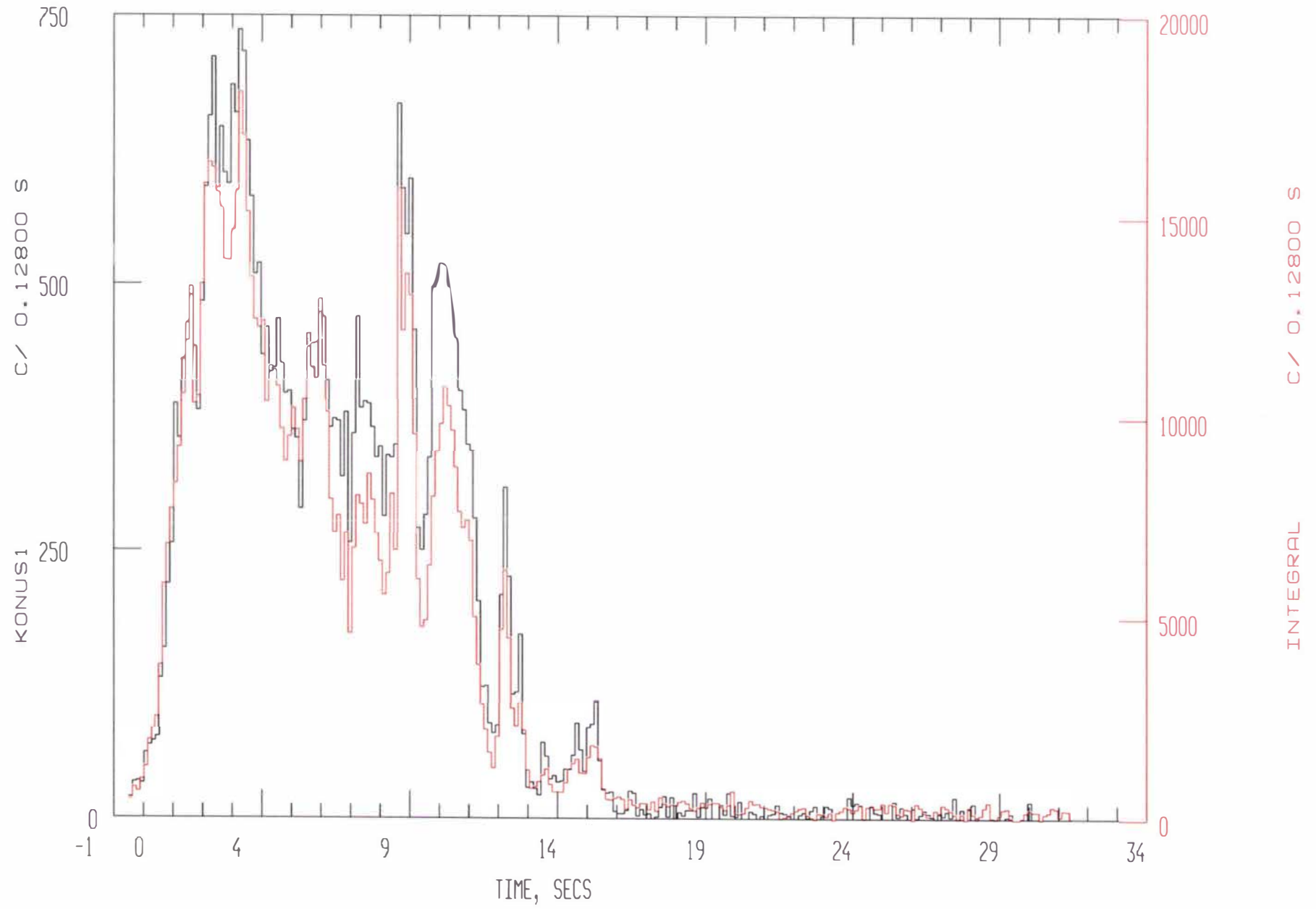
26/09/2009 15871.782 s

50-3000 keV

N= 10 M=40
>4.0 SIGMA FLUCTUATIONS



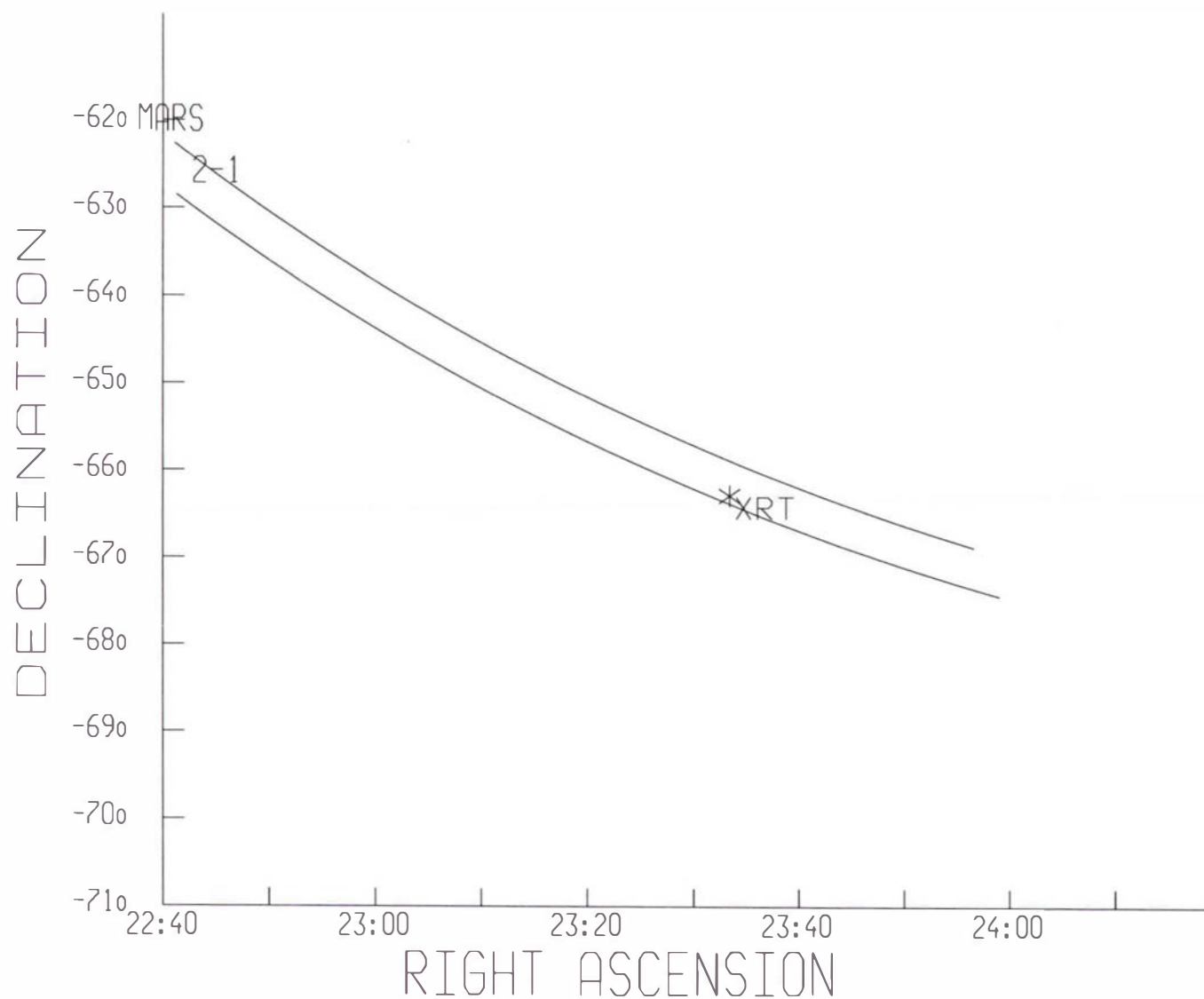


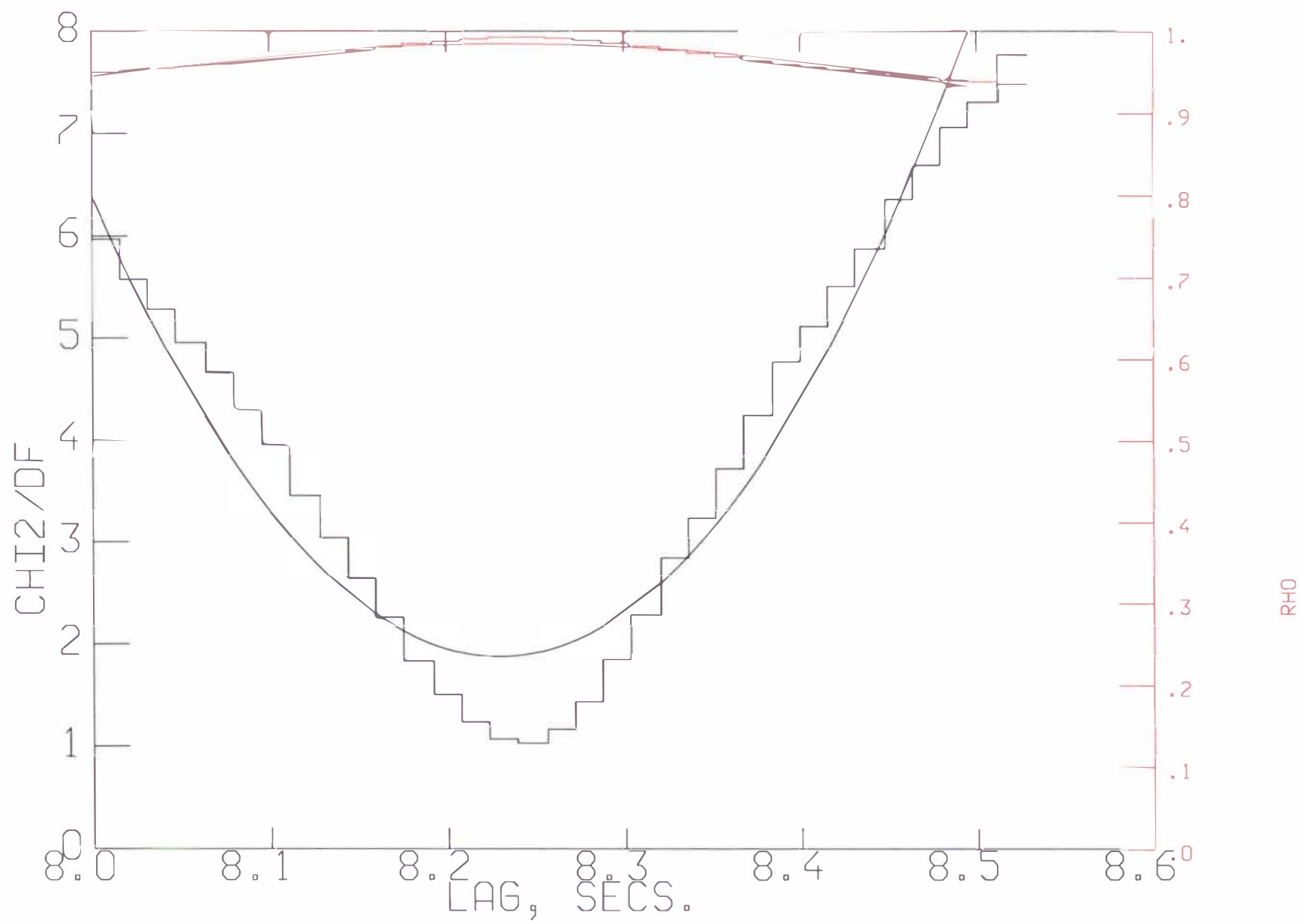


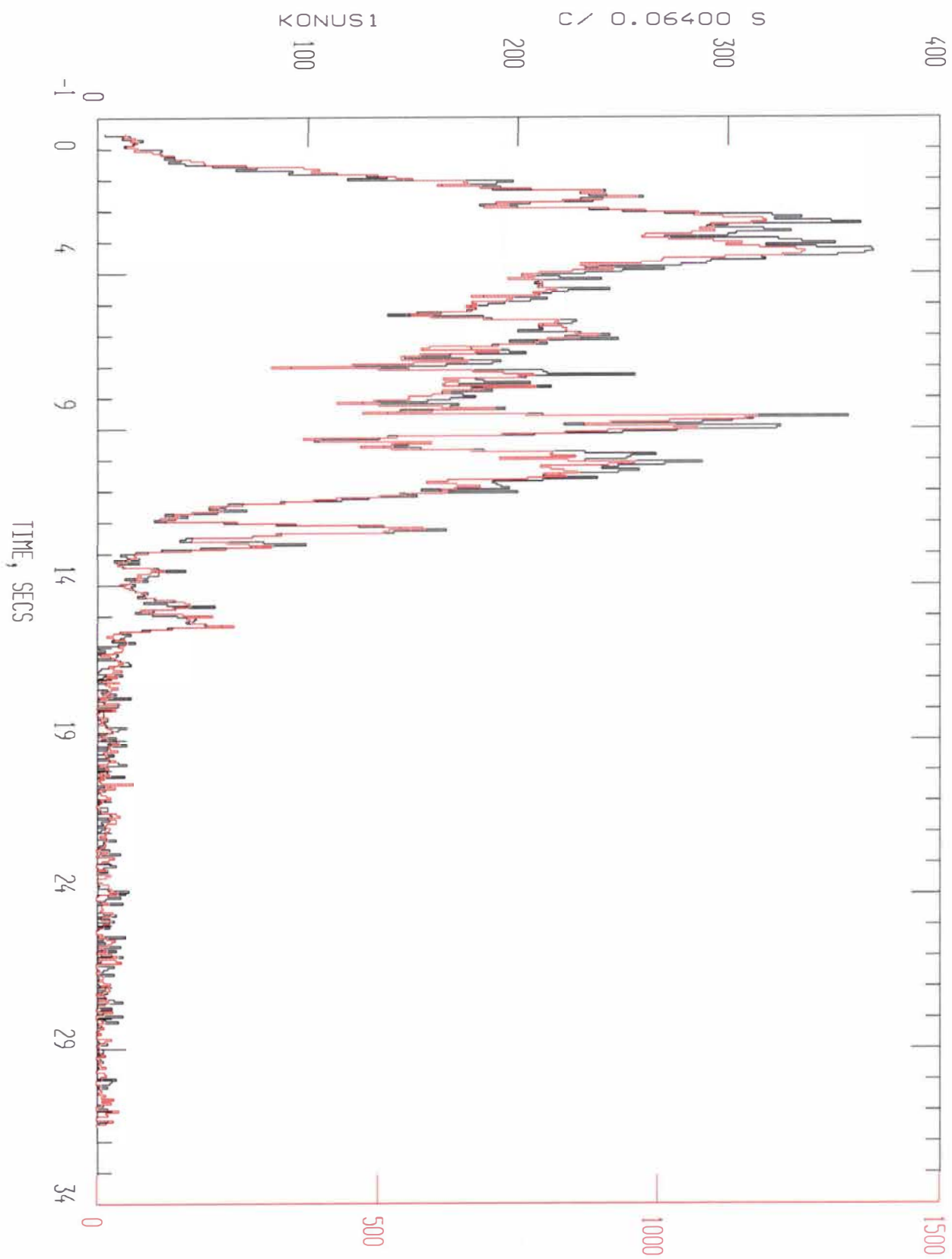
EVENT OF SEP 26, 2009 4:20

19/01/2012

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 INTEGRAL



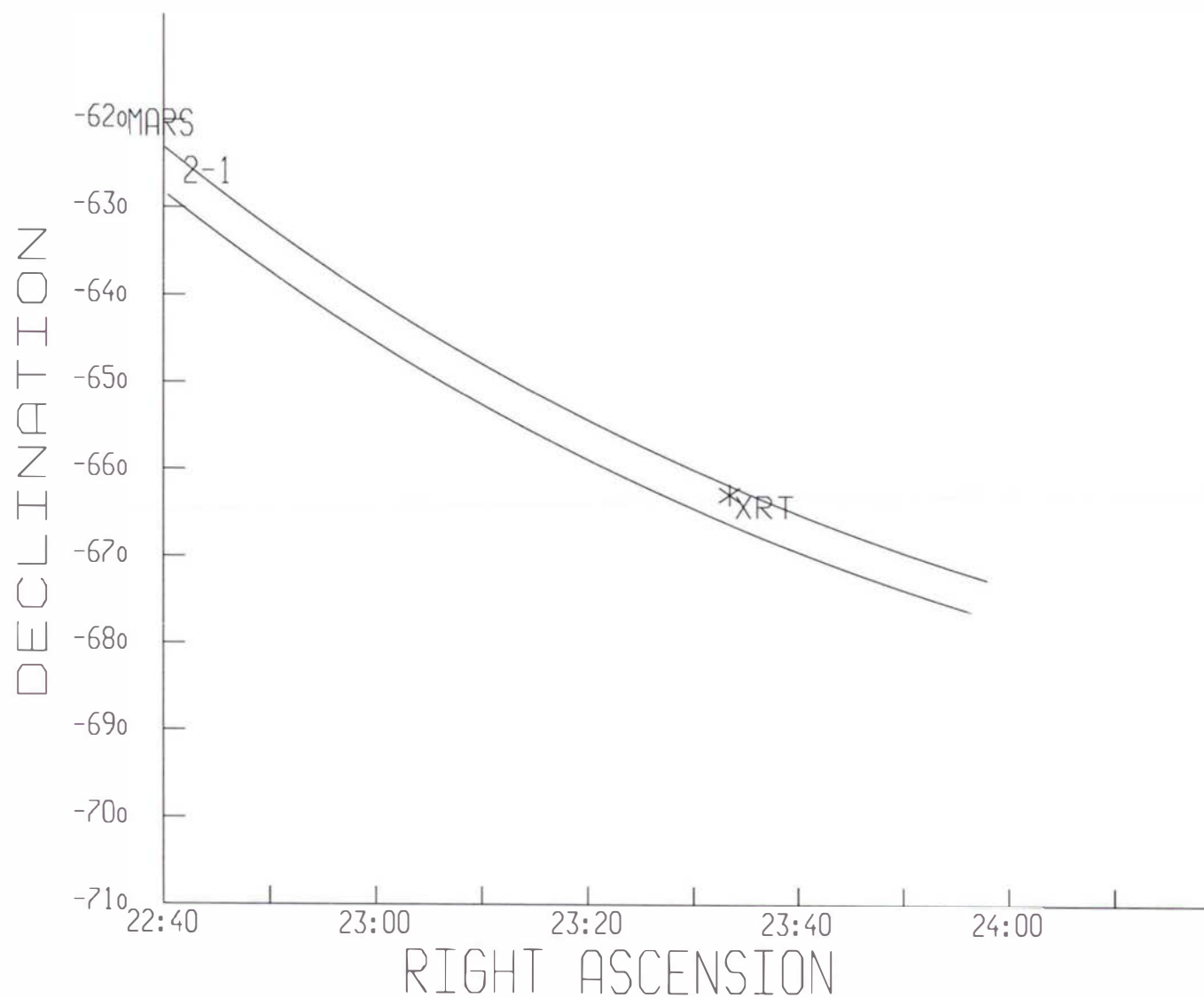


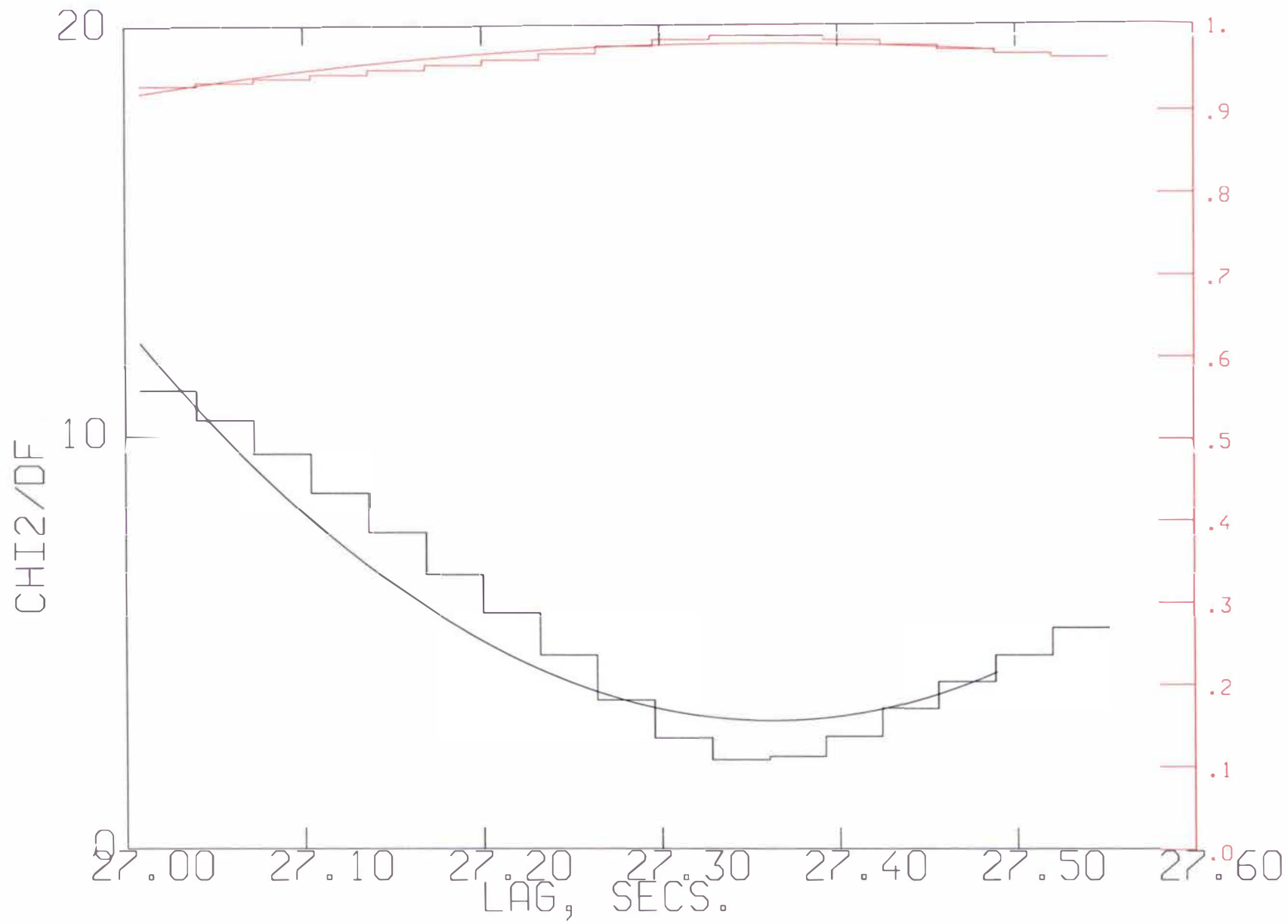


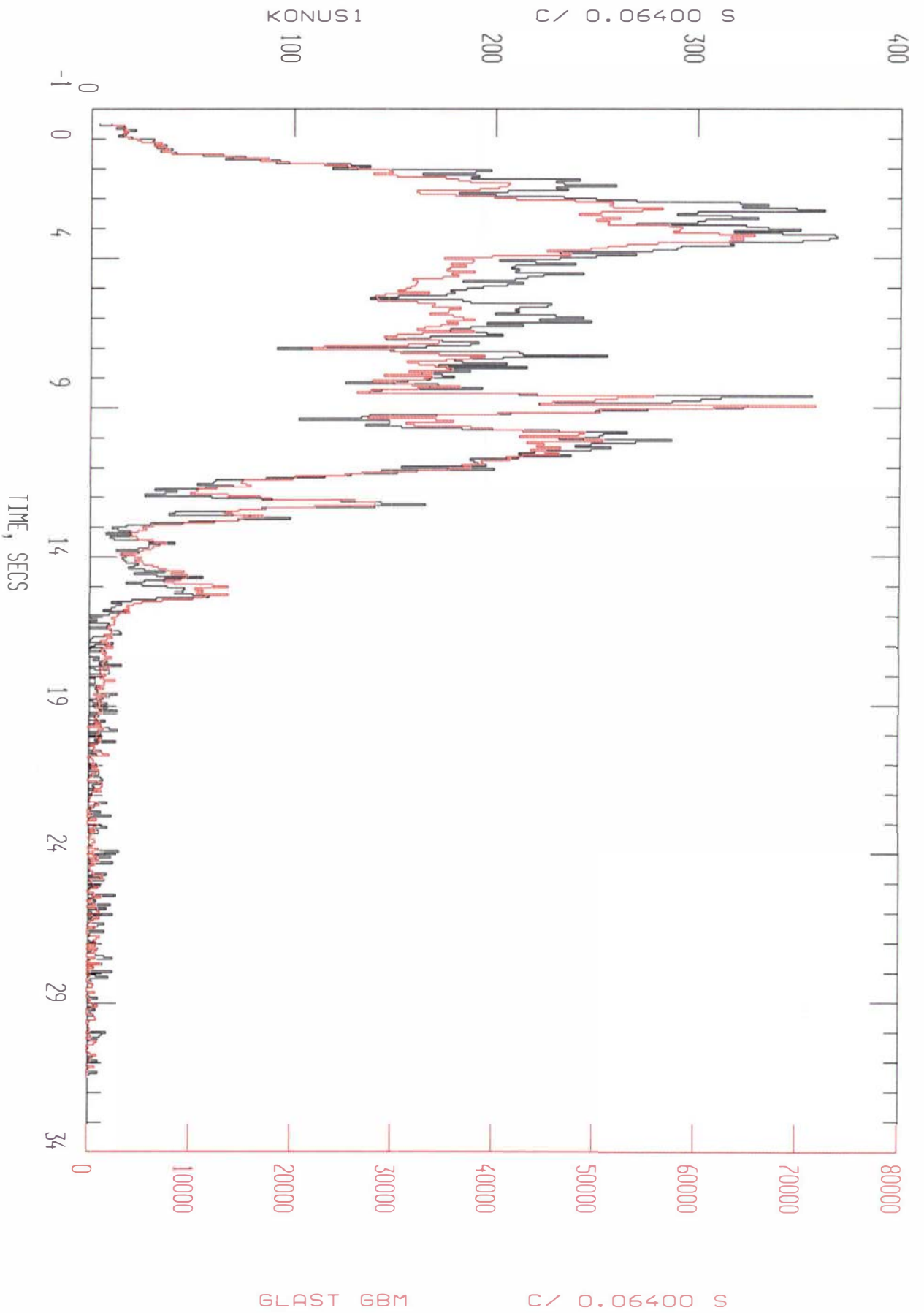
EVENT OF SEP 26, 2009 4:20

19/01/2012

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 SUZAKU



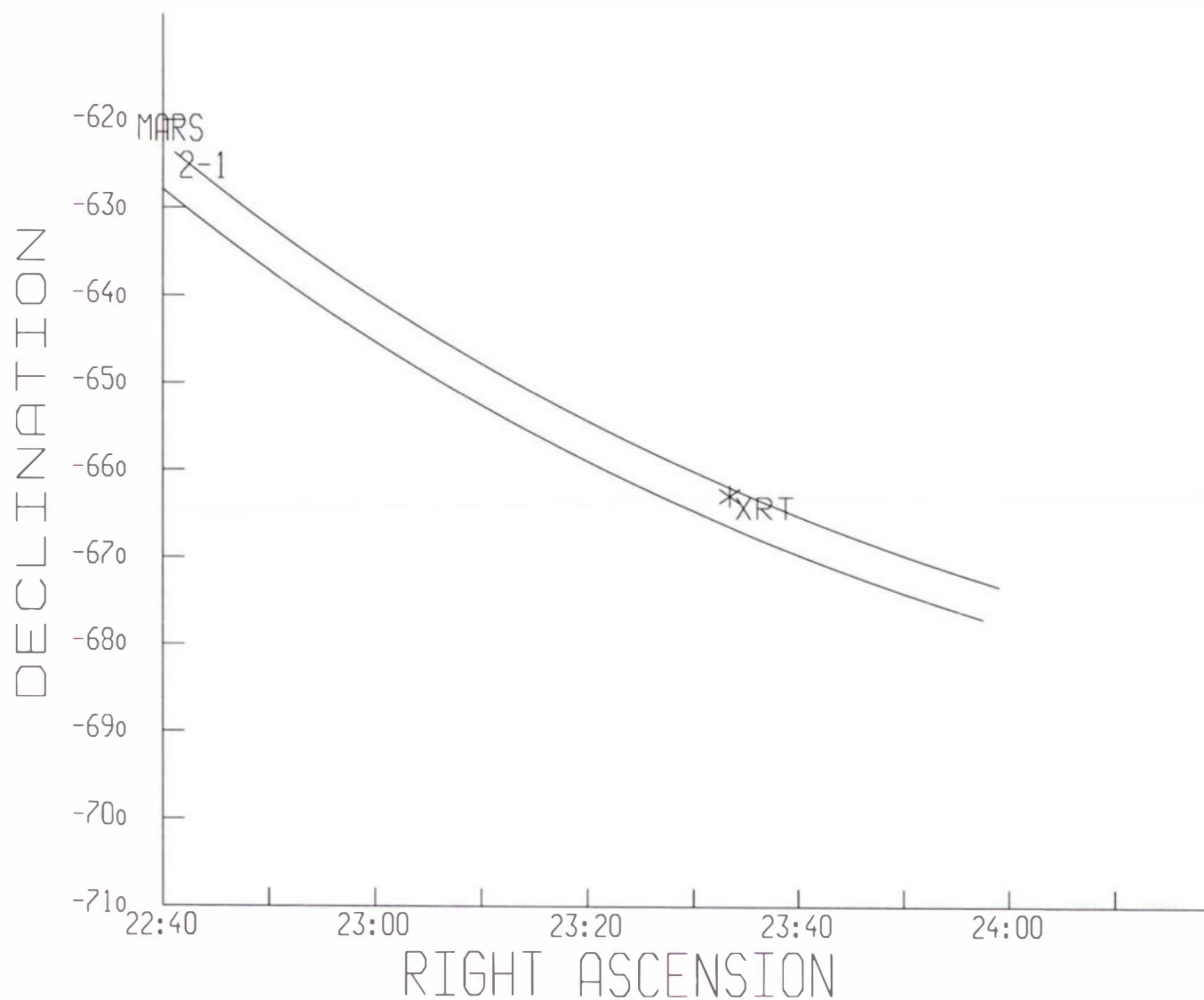




EVENT OF SEP 26, 2009 4:20

19/01/2012

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 FERMI



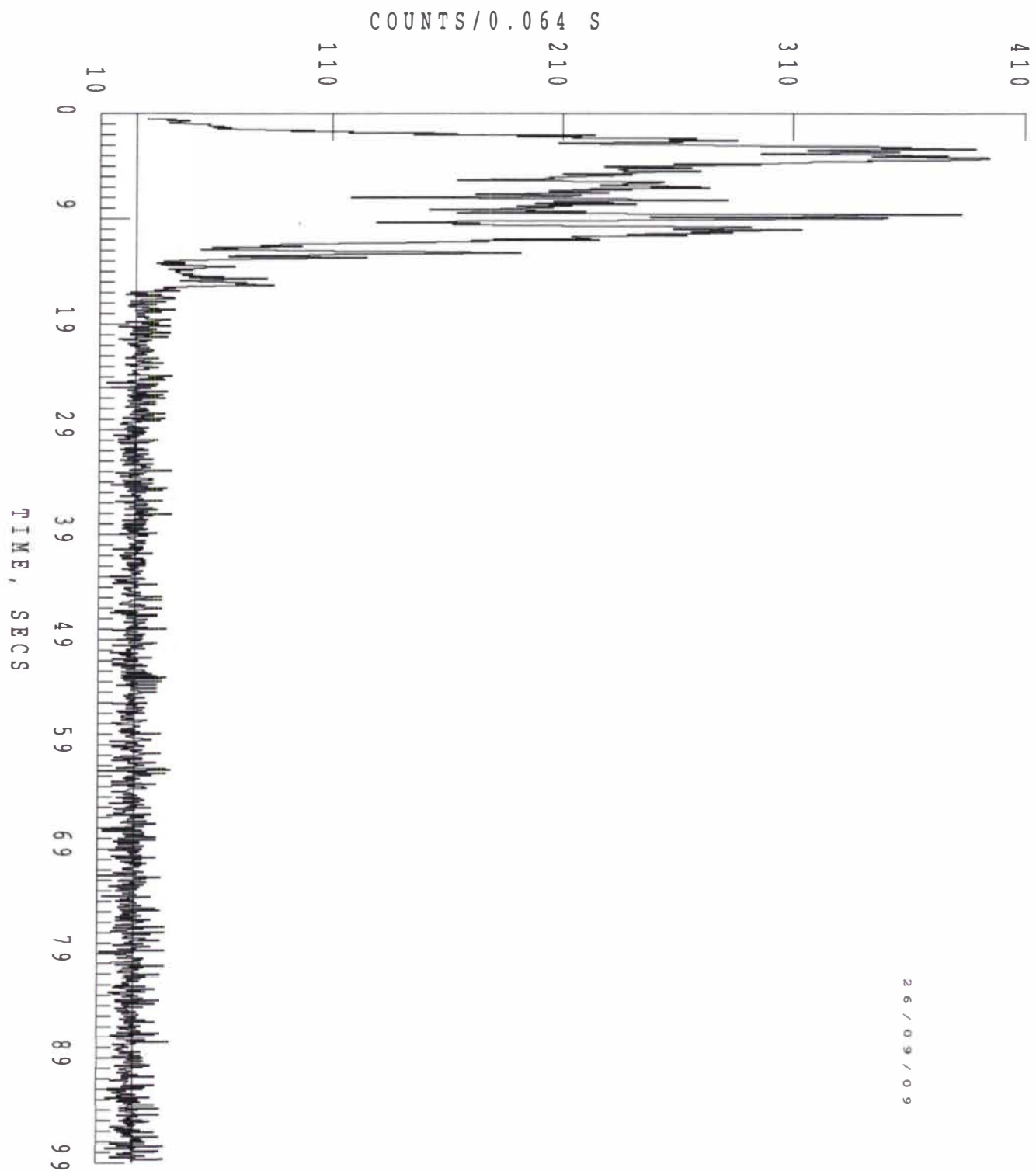
KONUS1

26/09/09

15628.683

A

50 - 200 keV



KONUS HRES 20090926 15628

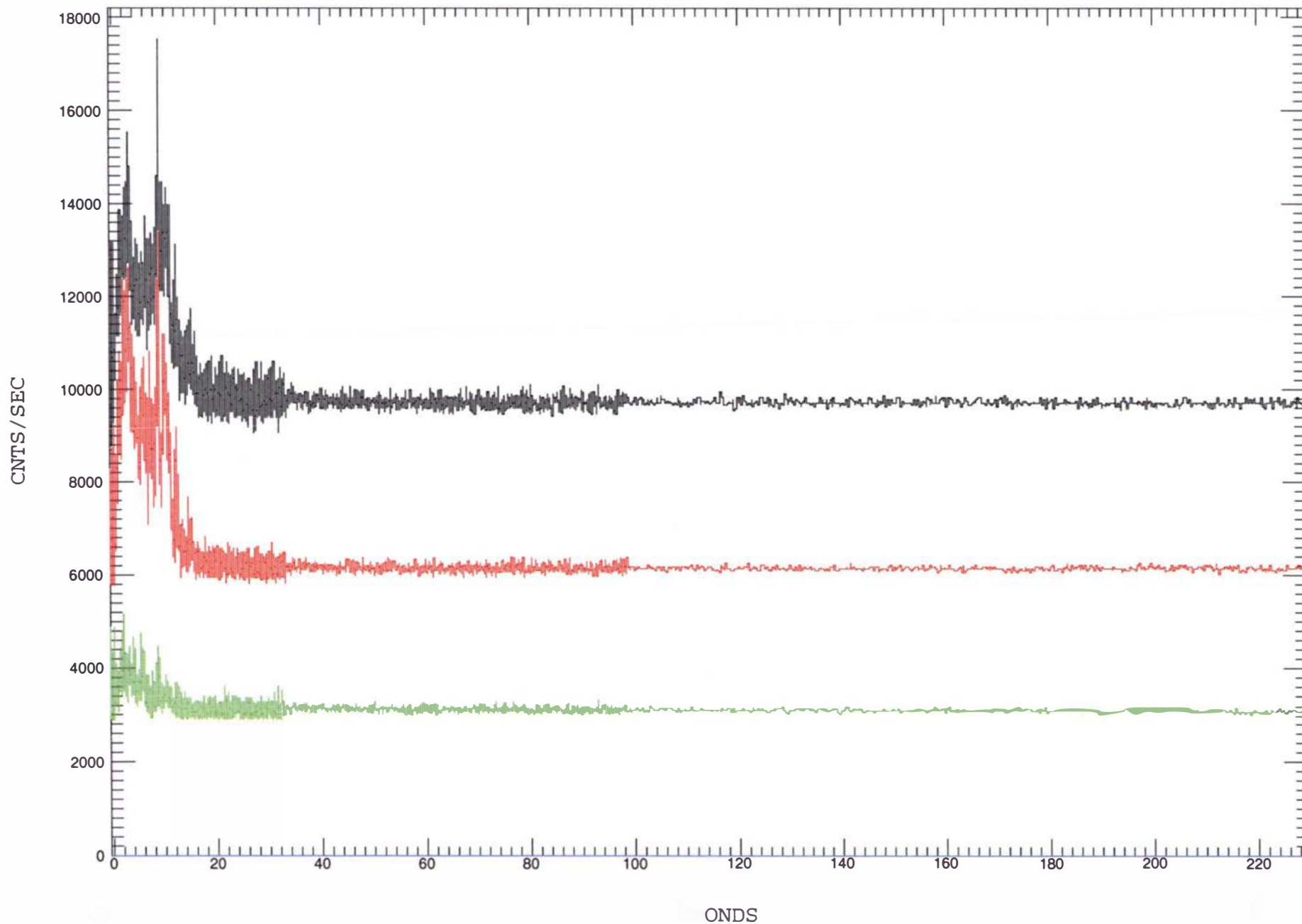
TRIGGER TIME: 26/09/09 DOY 269 Julian 2455101.68088 UT = 04.341 04:20:28 (15628.000 secs)

Chan 1 : [15 - 50 keV]
Channel 1 + 8700

Chan 2 : [50 - 200 keV]
Channel 2 + 5800

Chan 3 : [200 - 770 keV]
Channel 3 + 2900

Chan 4 : [> 10 MeV]
Channel 4 + 0



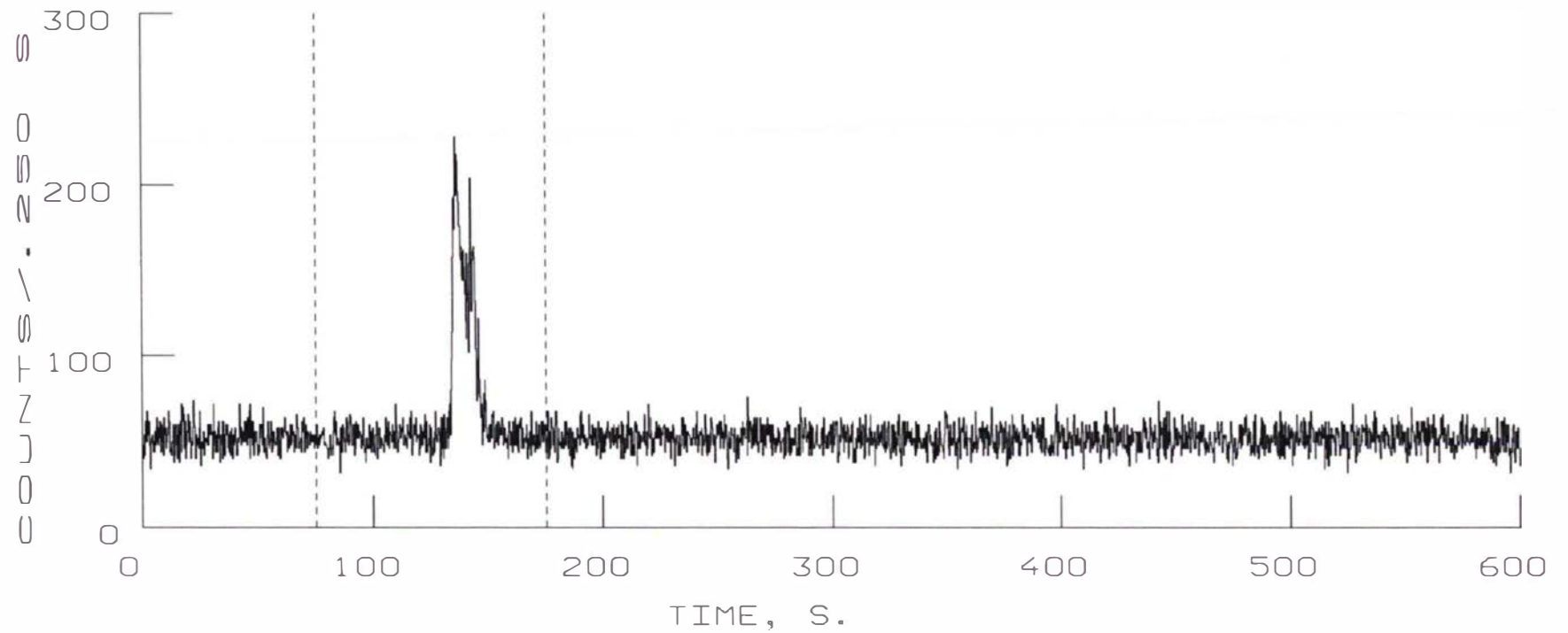
MS01 HEND

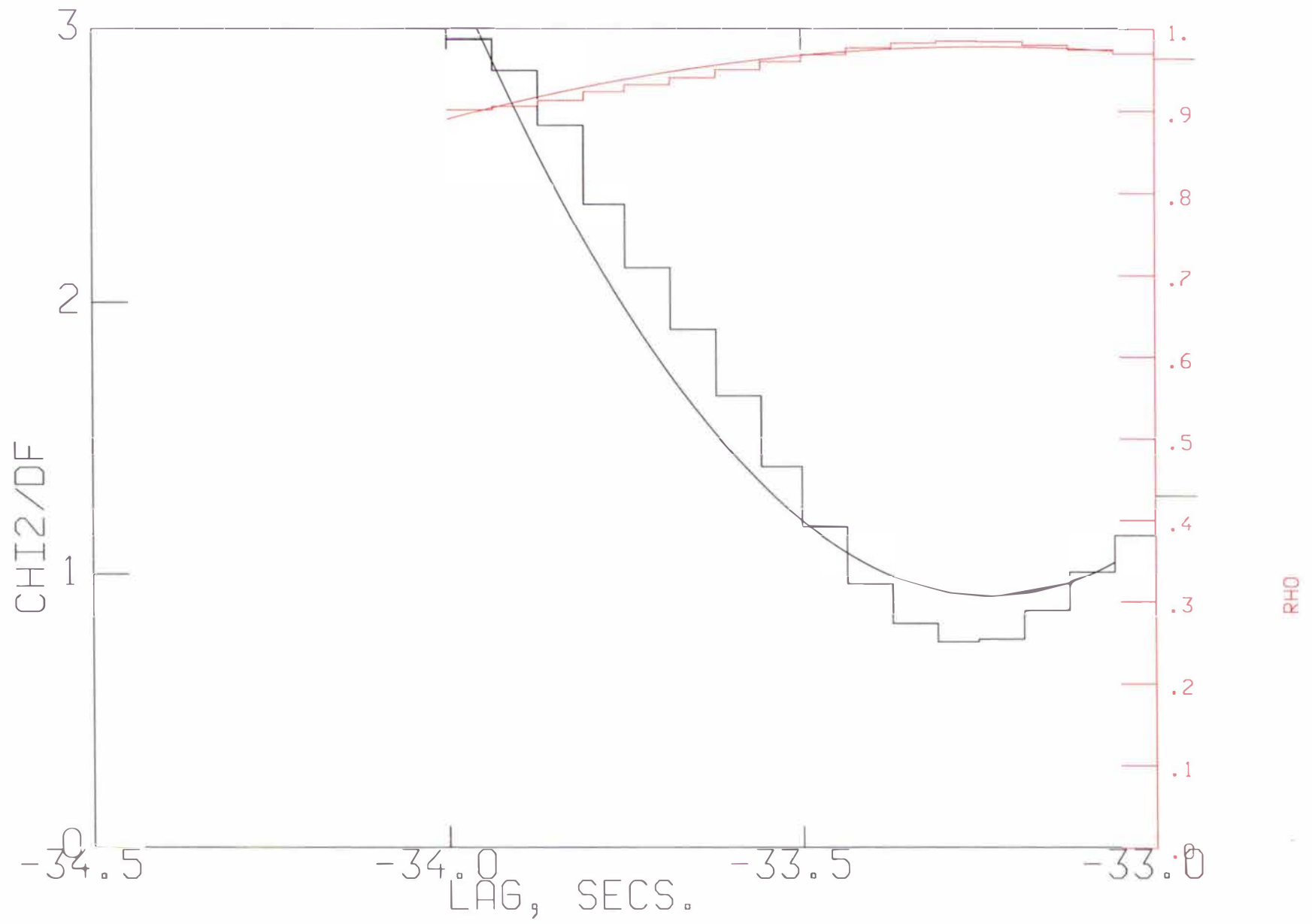
20/10/2011

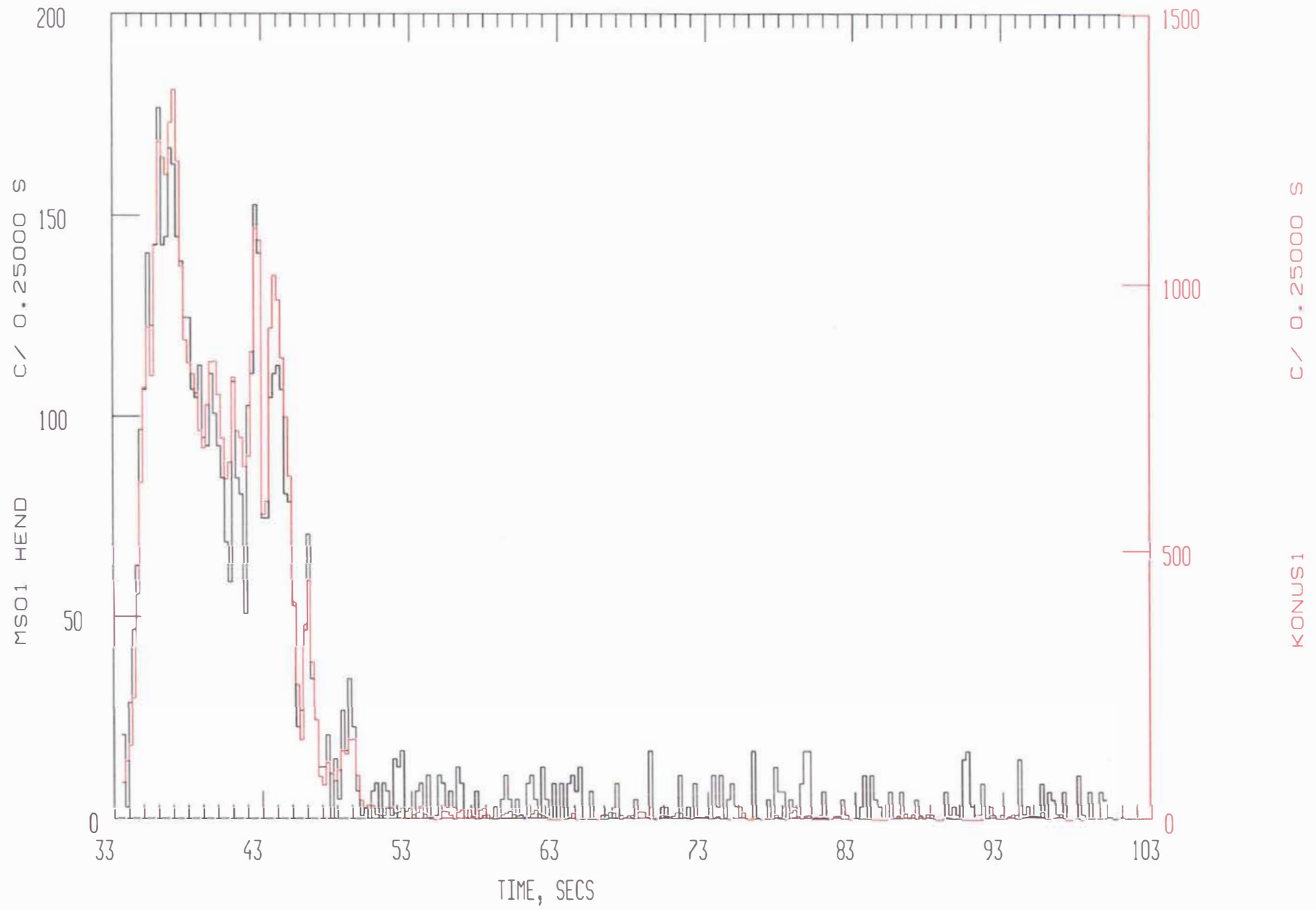
26/09/2009 15871.782 s

50-3000 keV

N= 10 M=40
>4.0 SIGMA FLUCTUATIONS



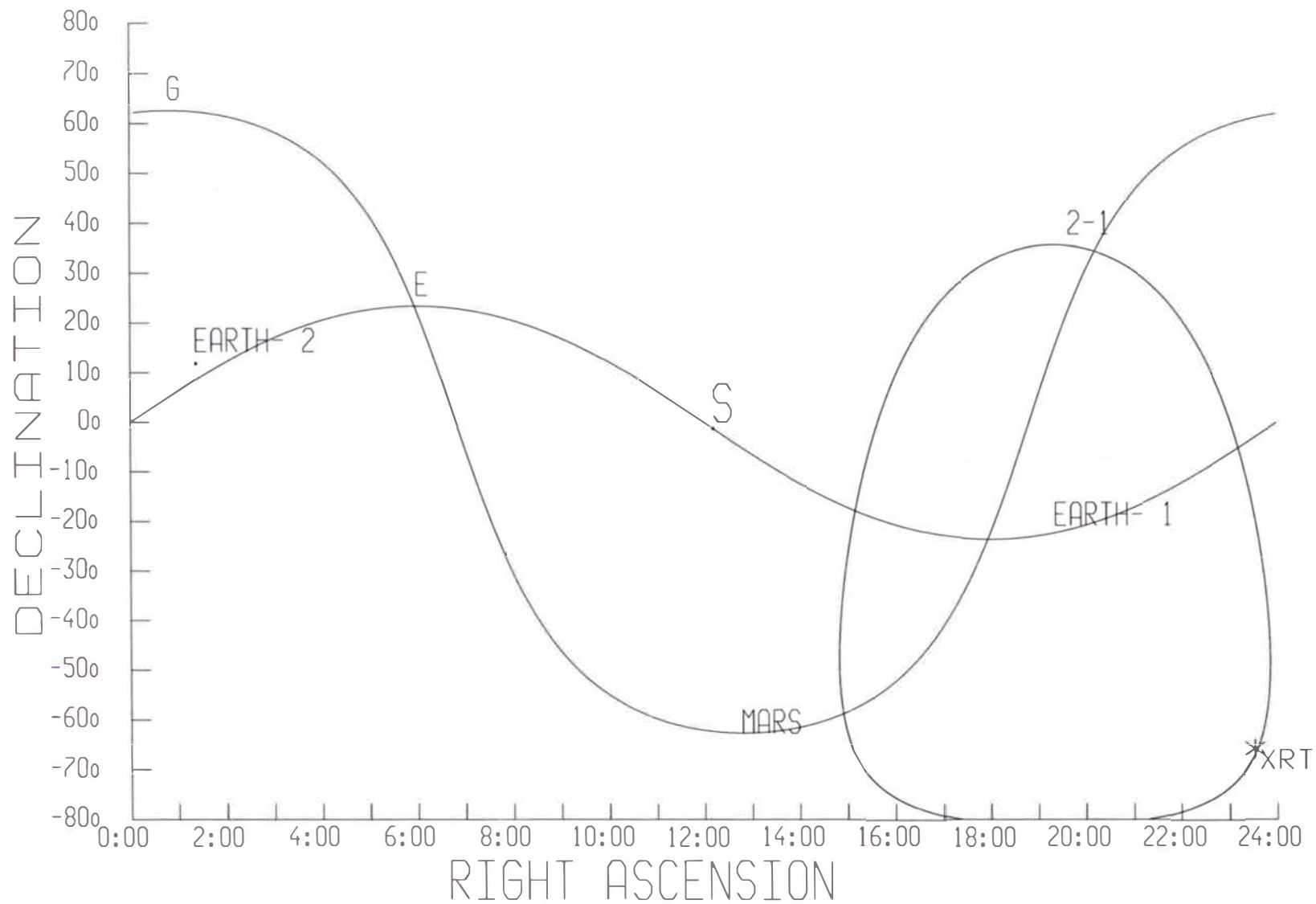


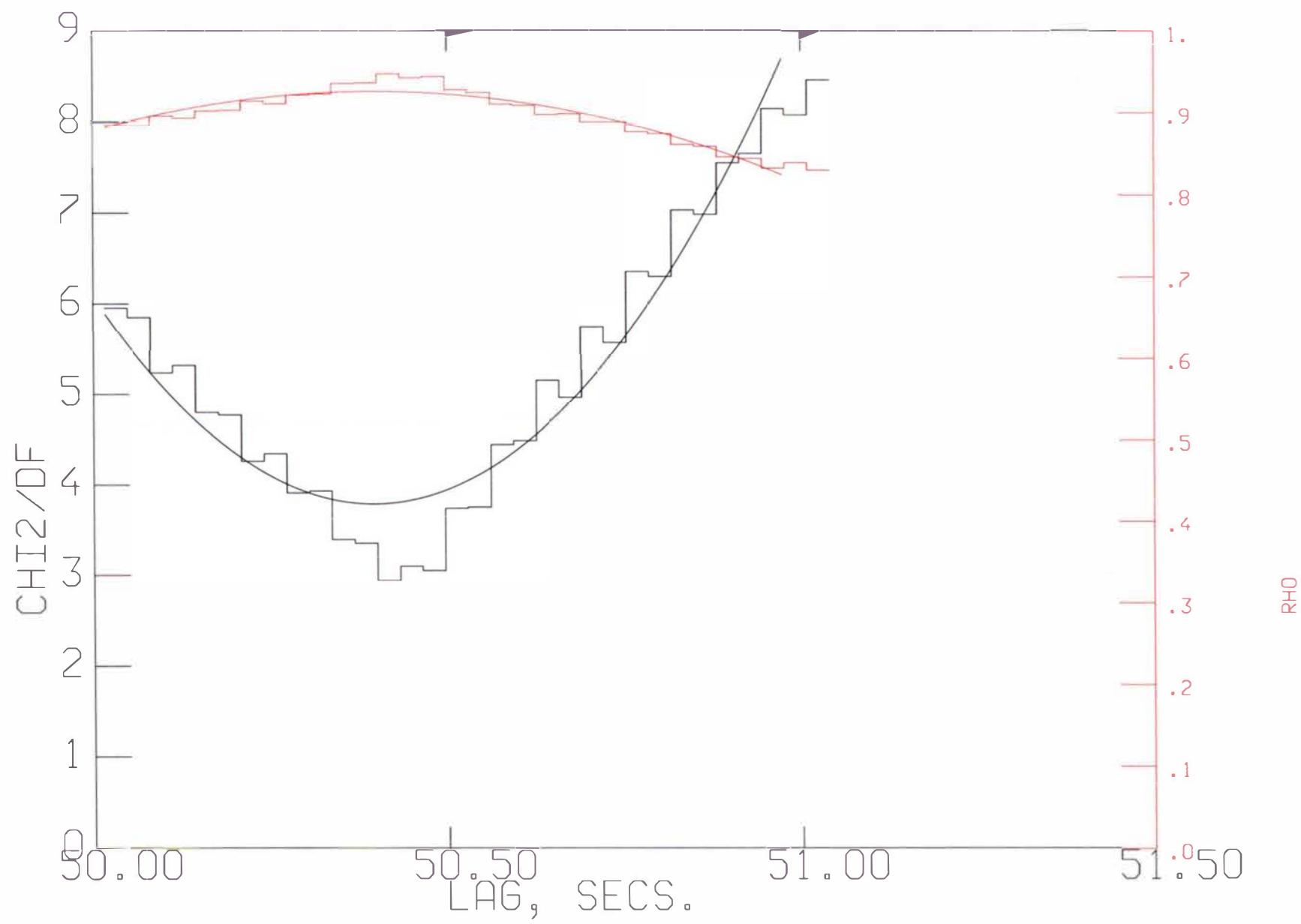


EVENT OF SEP 26, 2009 4:26

20/10/2011

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN
E=ECLIPTIC
G=GALACTIC EQUATOR
1 MO
2 KONUS1





KONUS1

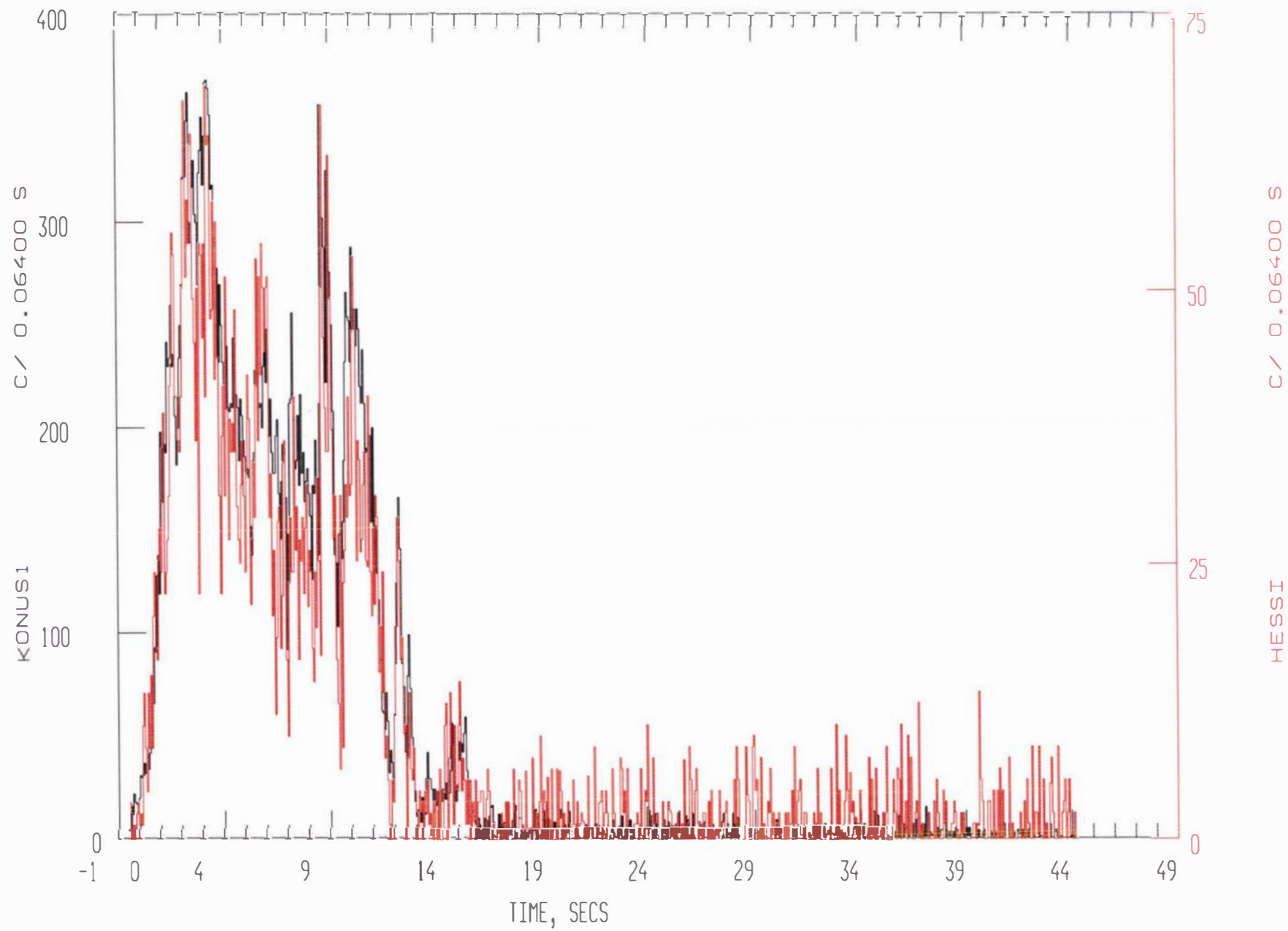
-HESSI

CORRELATION

26/09/09

15628.683

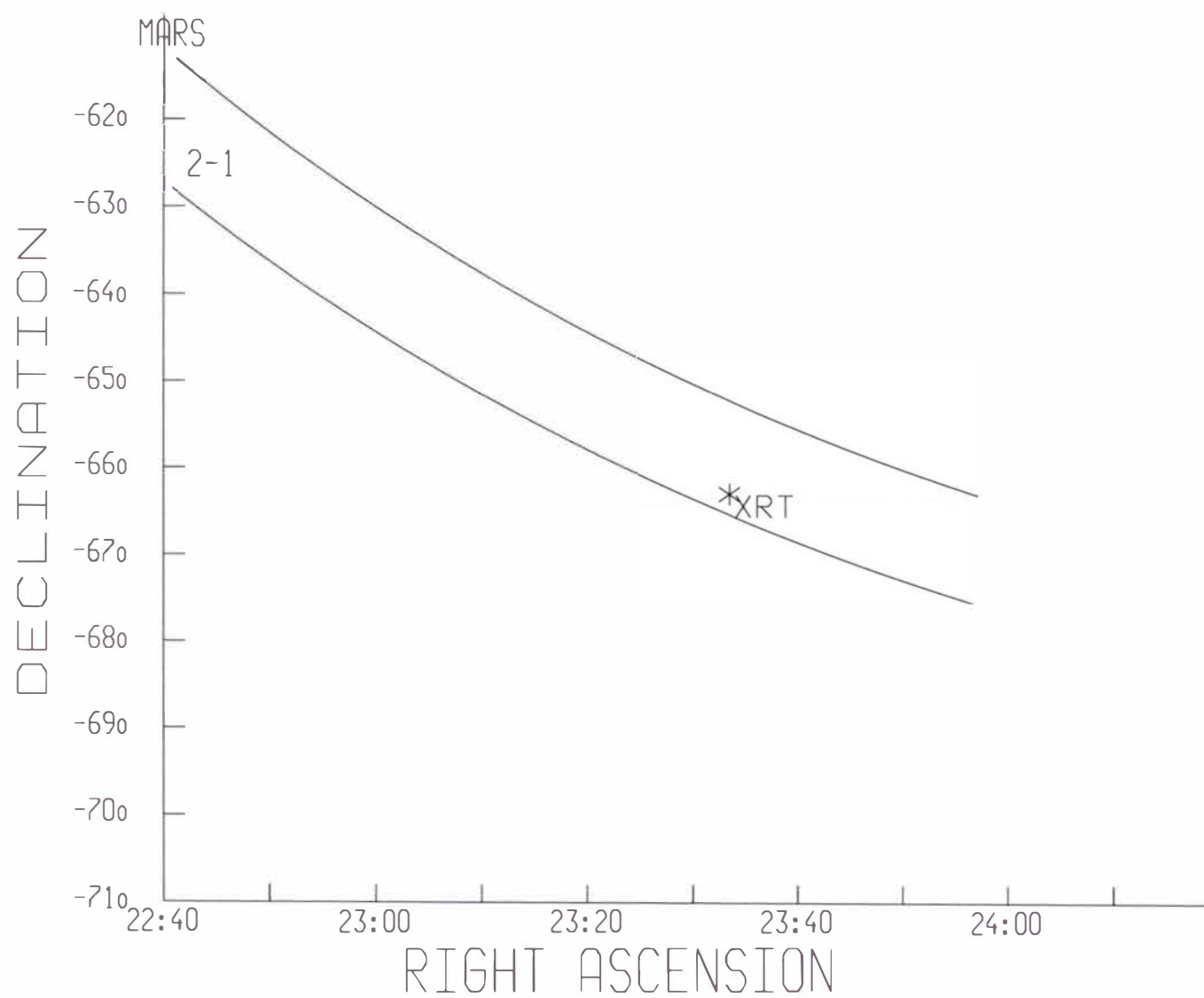
20/ 1/12



EVENT OF SEP 26, 2009 4:20

20/01/2012

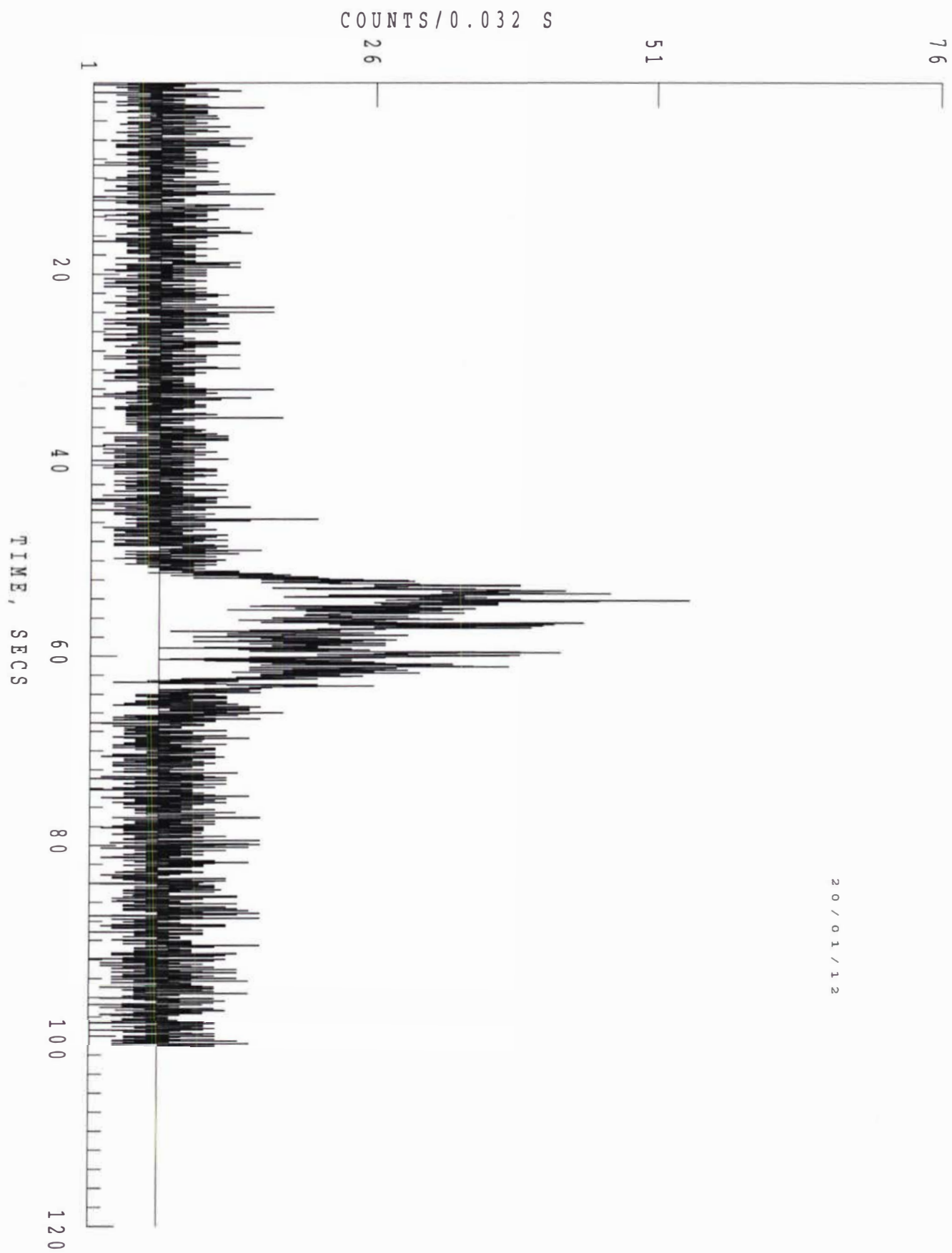
N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 HESSI



HESSI

26/09/09 15577.000 (KONUS_20090926_15628)

50 - 200 keV



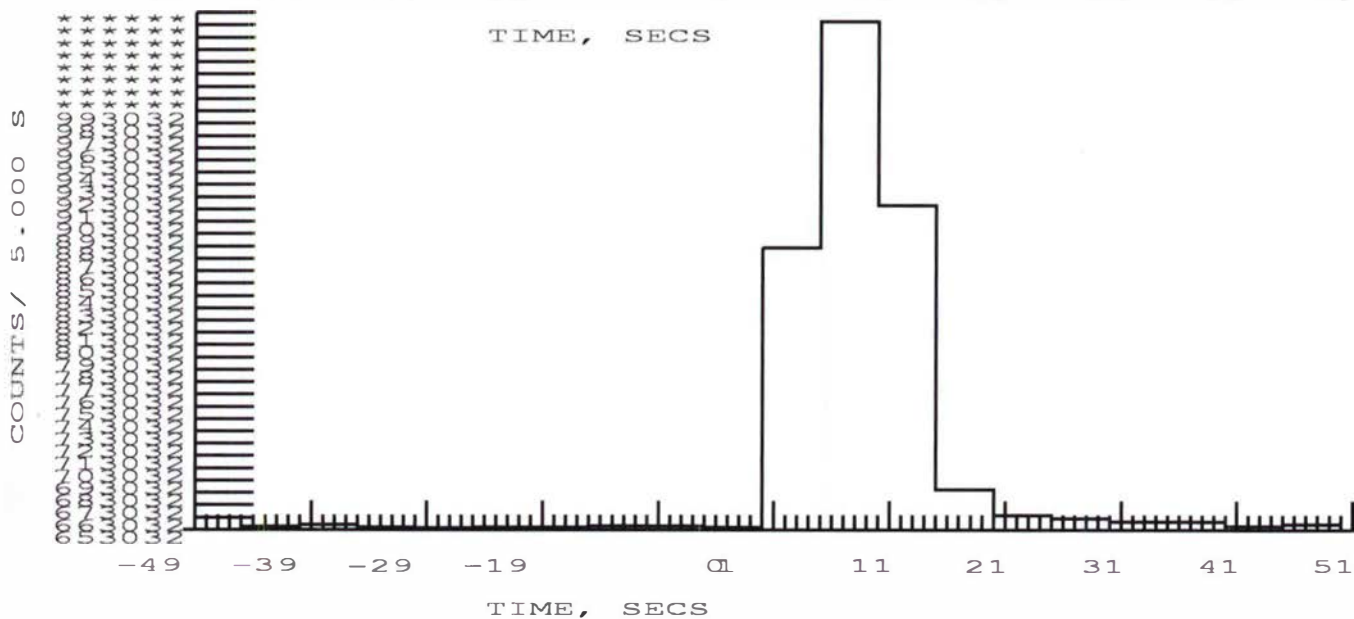
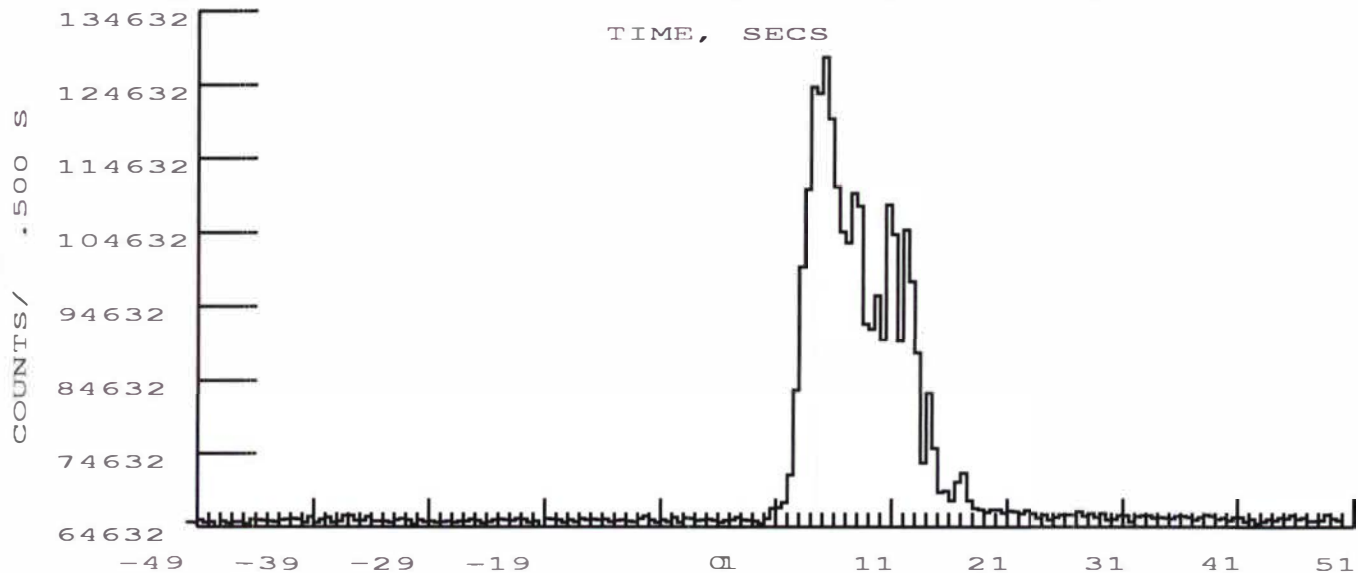
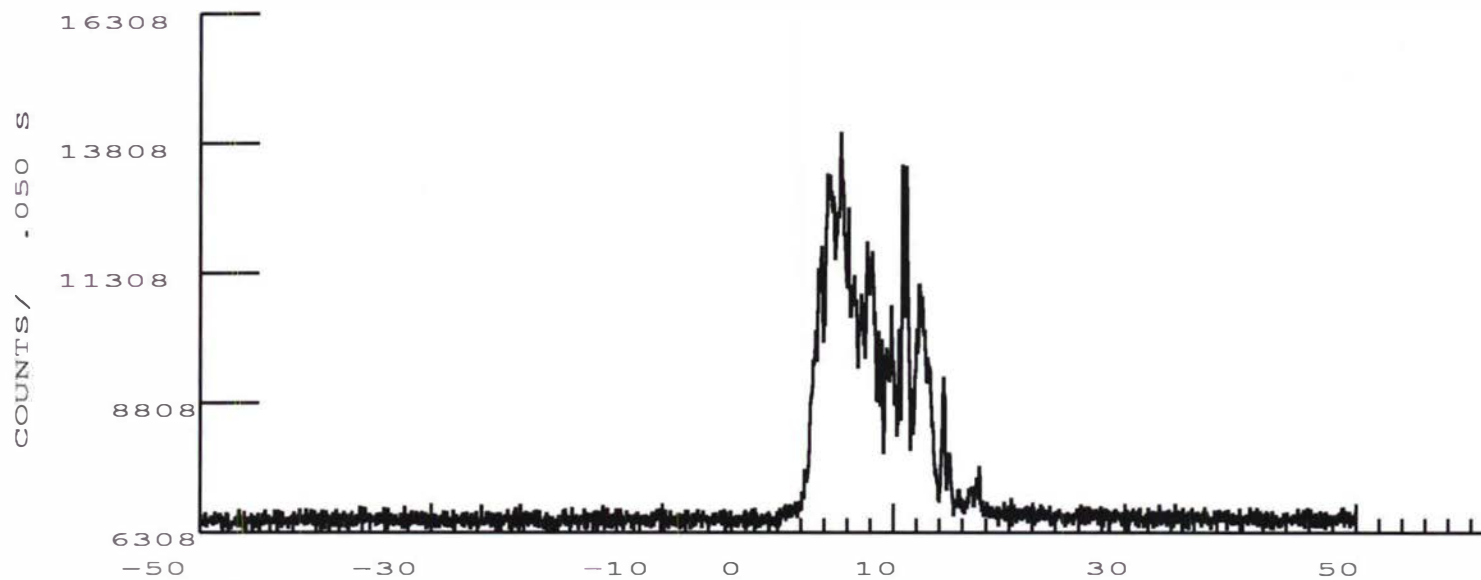
INTEGRAL

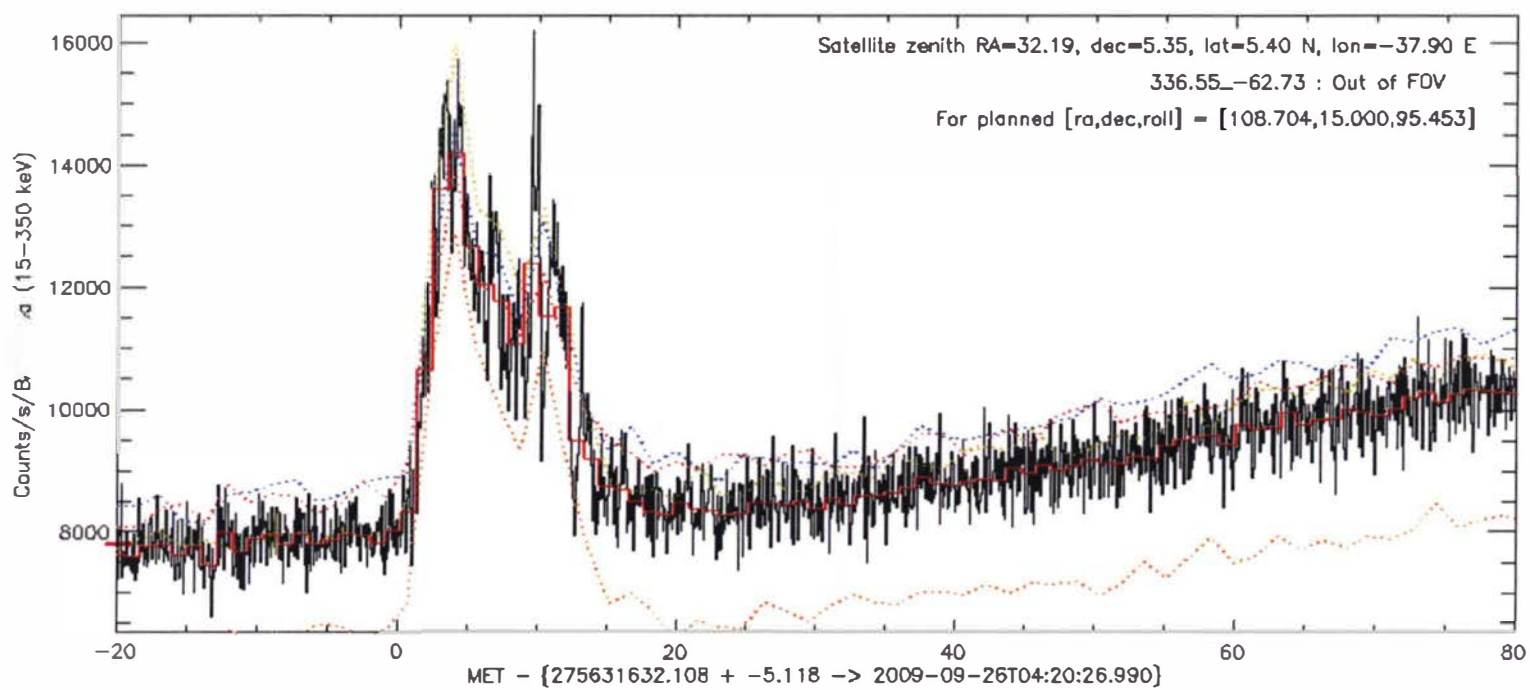
26/09/09

15626.000

04:20:26.0

25/09/15





29/09/09

MESSENGER

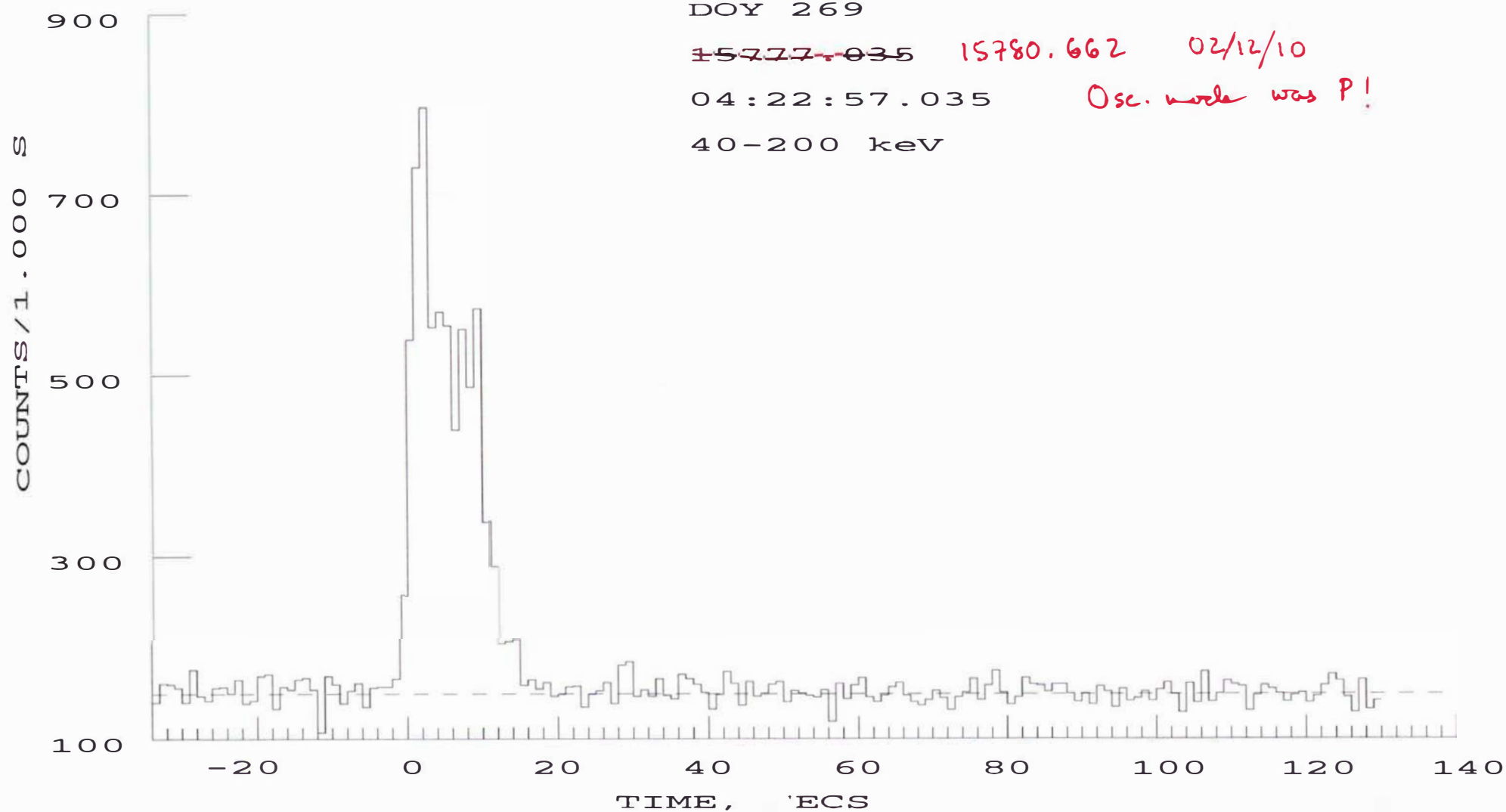
26/09/09

DOY 269

~~15777.035~~ 15780.662 02/12/10

04:22:57.035 Osc. mode was P!

40-200 keV



SUZAKU

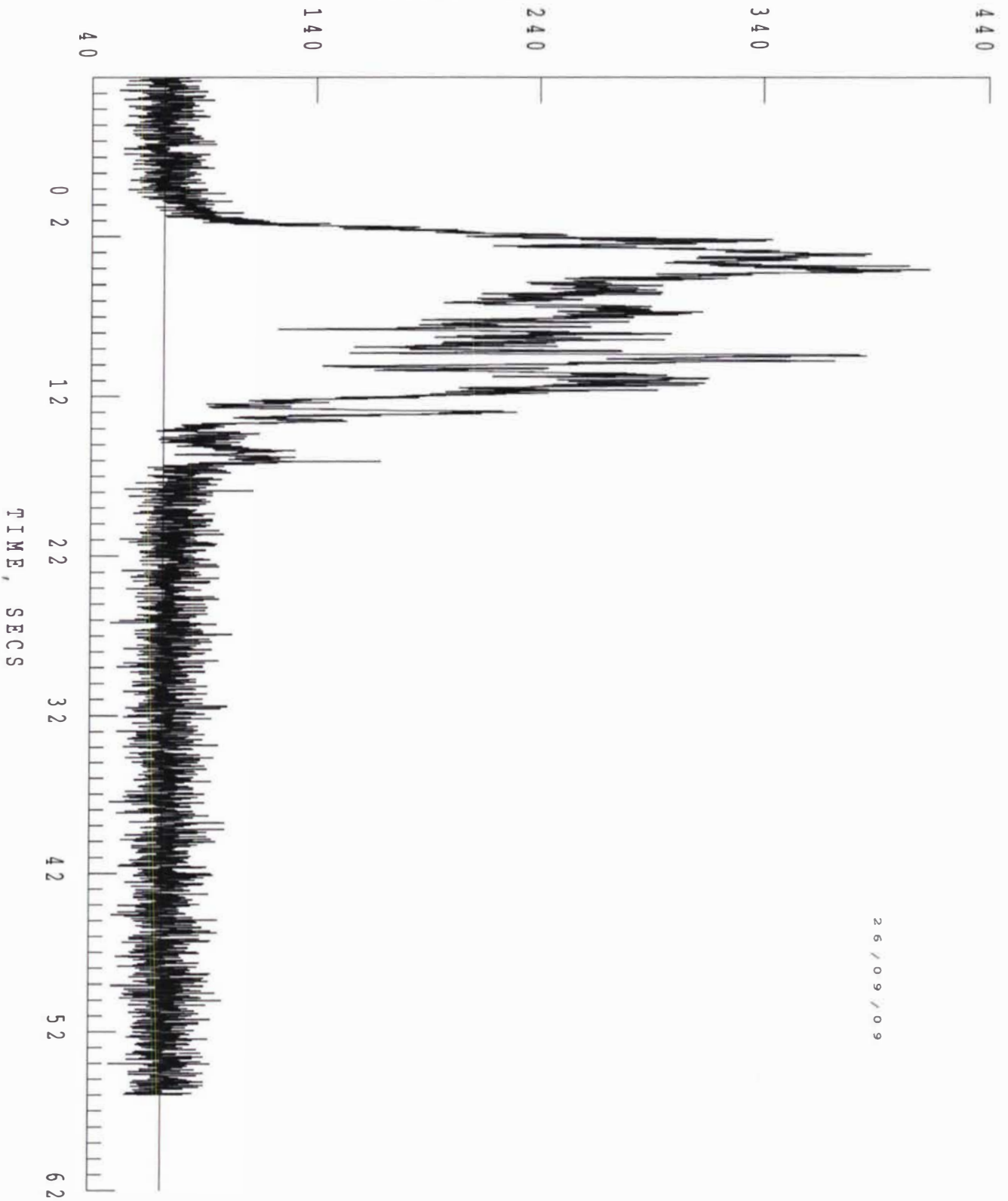
26/09/09

15627.170

A

50 - 240 keV

COUNTS/0.016 S



26/09/09

A

From ipn-bounces@ssl.berkeley.edu Mon Sep 28 01:07:06 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Mon, 28 Sep 2009 10:15:20 +0200
From: Martino Marisaldi <marisaldi@iasfbo.inaf.it>
To: "Valentin Pal'shin" <val@mail.ioffe.ru>
Cc: IPN <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] IPN triangulation of very bright GRB 090926

Dear colleagues,

this burst was detected also by AGILE-MCAL, but, since AGILE was close to the SAA, we do not have the event data (only ratemeters with 1 sec. time bin available).

Best wishes,
Martino

Valentin Pal'shin wrote:

> Dear colleagues,
>
> The very bright GRB 090926 (Bissaldi GCN 9933; Uehara et al. GCN 9934)
> triggered Konus-Wind at T0=15628.683 s UT (04:20:28.683).
> It also triggered Suzaku-WAM.
> We have triangulated it to a Konus-WAM annulus centered at
> RA(2000)=20.838 (01h 23m 21s) Dec(2000)=+11.996 (+11d 59' 44"), whose
> radius is 80.722 +/- 0.298 deg (3 sigma).
> This annulus can be improved.
> The LAT position (Uehara et al. GCN 9934) is 0.177 deg (1.8 sigma) from
> the center line of the annulus.

>
> Best wishes,
>
> Valentin

> -----
>
>
> -----
>
>

> _____
> Ipn mailing list
> Ipn@ssl.berkeley.edu
> <http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

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Martino Marisaldi
INAF / IASF
Via P. Gobetti 101
40129 Bologna ITALY

Phone: +39 051 6398740 +39 051 6398654
Fax: +39 051 6398723

marisaldi@iasfbo.inaf.it

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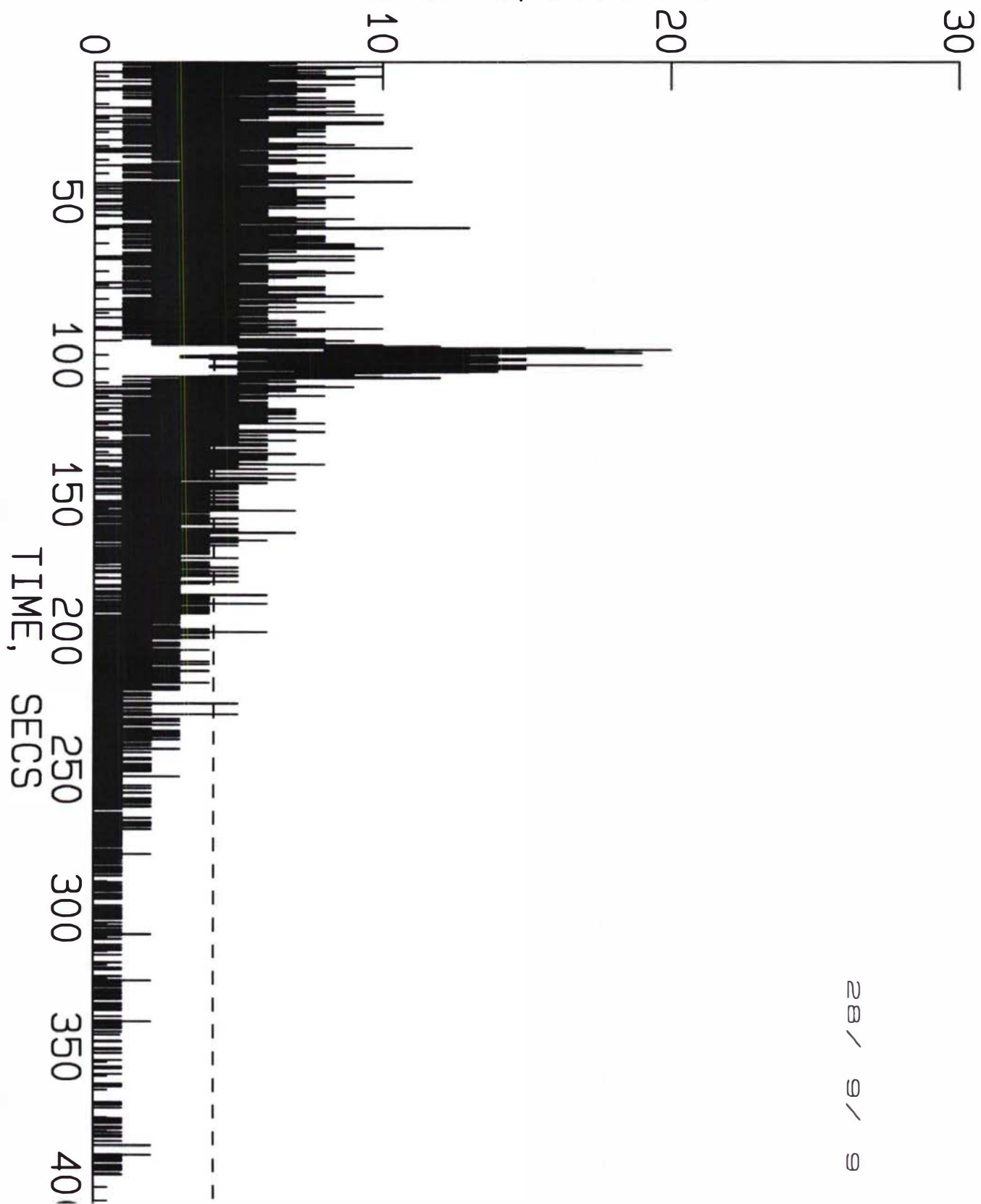
SUPERAGILE

26/09/09 15527.000

20- 60 keV

A

COUNTS/0.064 S



28 / 9 / 0

A

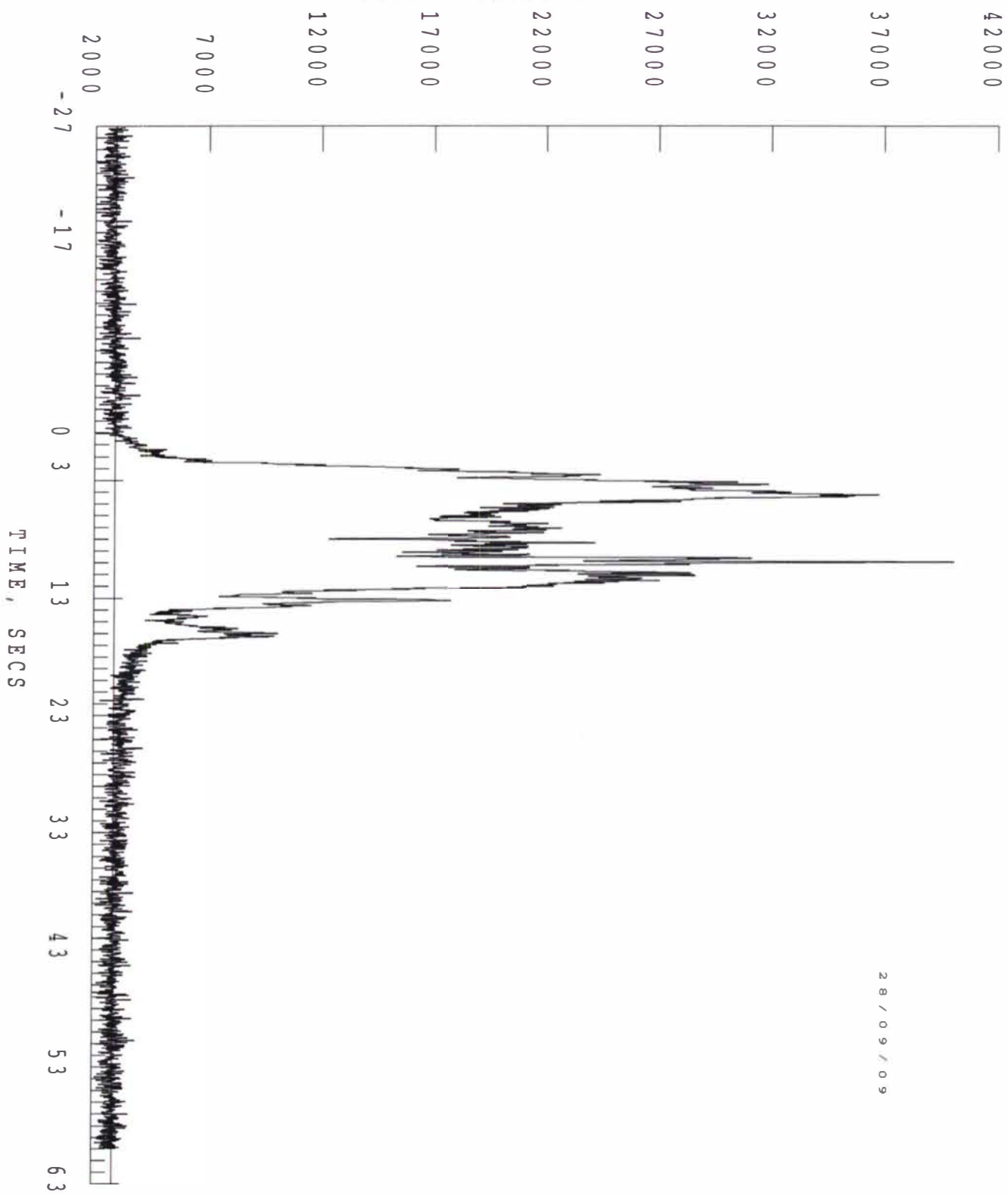
GLAST

26/09/09

15626.987

26 - 293 keV

COUNTS/0.032 S



28/09/09

A

From gcncirc@capella.gsfc.nasa.gov Sat Sep 26 07:26:00 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090926: Fermi GBM detection
To: khurley@ssl.berkeley.edu
Date: Sat, 26 Sep 2009 10:27:14 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9933
SUBJECT: GRB 090926: Fermi GBM detection
DATE: 09/09/26 14:27:11 GMT
FROM: Elisabetta Bissaldi at MPE <ebs@mpe.mpg.de>

Elisabetta Bissaldi (MPE) reports on behalf of the Fermi GBM Team:

"At 04:20:26.99 UT on 26 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090926 (trigger 275631628 / 090926181). The on-ground calculated location, using the GBM trigger data, is RA = 354.5, DEC = -64.2 (J2000 degrees, equivalent to 23h 38m, -64d 12'), with an uncertainty of 1.0 degree (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

The angle from the Fermi LAT boresight is 48 degrees. Moreover, this burst was bright enough to result in a Fermi spacecraft repointing maneuver.

The burst was also independently detected by INTEGRAL SPI-ACS.

The GBM light curve consists of single pulse with a duration (T90) of 20 ± 2 s (8-1000 keV). The time-averaged spectrum from T0 to T0+21 s is best fit by a Band function with $E_{\text{peak}} = 314 (\pm 4)$ keV, $\alpha = -0.75 (\pm 0.01)$ and $\beta = -2.59 (+0.04/-0.05)$ (C-stat 1136 for 478 d.o.f.).

The event fluence (8-1000 keV) in this time interval is $(1.45 \pm 0.04) \times 10^{-4}$ erg/cm². The 1-sec peak photon flux measured starting from T0+3 s in the 8-1000 keV band is 80.8 ± 0.4 ph/s/cm².

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

A

From gncncirc@capella.gsfc.nasa.gov Sat Sep 26 12:38:10 2009
X-Barracuda-Envelope-From: gncncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gncncirc@capella.gsfc.nasa.gov>
Subject: GRB 090926: Fermi LAT detection
To: khurley@ssl.berkeley.edu
Date: Sat, 26 Sep 2009 15:39:25 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9934
SUBJECT: GRB 090926: Fermi LAT detection
DATE: 09/09/26 19:39:23 GMT
FROM: Takeshi Uehara at Hiroshima U <uehara@hirax7.hepl.hiroshima-u.ac.jp>

GRB 090926: Fermi LAT detection

Takeshi Uehara, Hiromitsu Takahashi (Hiroshima University) and
Julie McEnery (NASA/GSFC) report on behalf of the Fermi LAT team:

At 04:20:26.99 (UT) on 26 Sep 2009, the Fermi Large Area Telescope (LAT) detected gamma rays from the long GRB 090926, which was triggered and located by the Fermi Gamma-ray Burst Monitor (GBM) (trigger 275631628 / 090926181, GCN9933). The angle of the GBM best position (RA, Dec= 354.5, -64.2) with respect to the LAT boresight was ~52 degrees at the time of the trigger, which is close the edge of our field of view.

The data from the Fermi LAT shows a significant increase in the event rate within 2.5 degrees of the GBM location 7 s after the GBM trigger that is spatially and temporally correlated with the GBM emission with high significance. More than 150 photons above 100 MeV and more than 20 photons above 1 GeV are observed up to more than 200 s after the GBM trigger. The highest energy photon is a 19.6 GeV event which is observed 26 seconds after the GBM trigger.

The best LAT on-ground localization is found to be (RA, Dec = 353.56, -66.34) with a 90% containment radius of 0.07 deg (statistical; 68% containment radius: 0.04 deg, preliminary systematic error is less than 0.1 deg) which is consistent with the GBM localization. A Swift TOO request has been issued.

Further analysis is ongoing.

The points of contact for this burst is

Takeshi Uehara : uehara@hep01.hepl.hiroshima-u.ac.jp

The Fermi LAT is a pair conversion telescope designed to cover the energy band from 20 MeV to greater than 300 GeV. It is the product of an international collaboration between NASA and DOE in the U.S. and many scientific institutions across France, Italy, Japan and Sweden.

This message can be cited.

A

From gncirc@capella.gsfc.nasa.gov Tue Sep 29 14:19:10 2009
X-Barracuda-Envelope-From: gncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gncirc@capella.gsfc.nasa.gov>
Subject: GRB 090926A: Fermi LAT and GBM refined analysis
To: khurley@ssl.berkeley.edu
Date: Tue, 29 Sep 2009 17:20:23 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9972
SUBJECT: GRB 090926A: Fermi LAT and GBM refined analysis
DATE: 09/09/29 21:20:20 GMT
FROM: Elisabetta Bissaldi at MPE <ebs@mpe.mpg.de>

Elisabetta Bissaldi (MPE), Michael S. Briggs (UA Huntsville),
Frederic Piron (IN2P3/LPTA), Hiromitsu Takahashi and
Takeshi Uehara (Hiroshima University)
report on behalf of the Fermi LAT and GBM teams:

Further analysis of GRB 090926A (Bissaldi GCN 9933, Uehara et al. GCN 99934, Vetere et al. GCN 9336) reveals it is detected in the Fermi Large Area Telescope (LAT) at least until 300 s after the Fermi Gamma-Ray Burst Monitor (GBM) trigger time, $T_0=04:20:26.99$ UT, with some indication for very extended emission up to a few kilo-seconds.

Spectral analysis of the main emission episode, from T_0 to $T_0+20.7$ s, is well-fit by a Band function with $E_{\text{peak}} = 268 \pm 4$ keV, $\alpha = -0.693 \pm 0.009$ and $\beta = -2.342 \pm 0.011$ (C-STAT 1277 for 699 d.o.f.). Additionally, an effective area correction of 0.8 and 0.85 is applied to both BGO detectors with respect to the NaI detectors and LAT.

The brightest interval, i.e. from $T_0+8.5$ s to $T_0+10.5$ s, includes a bright, narrow spike that is present from ~ 10 keV to >100 MeV. It shows a deviation from the Band function. The parameters for this multi-component fit (C-STAT = 781 for 697 d.o.f.) are $\text{Band}_{E_{\text{peak}}} = 233 \pm 8$, $\text{Band}_{\alpha} = -0.43 \pm 0.06$, $\text{Band}_{\beta} = -3.00 \pm 0.13$, and a power-law index of -1.845 ± 0.019 for the additional component. In this case, the effective area correction applied to both BGOs is 0.76.

The fluence between 10 keV and 10 GeV is $(2.47 \pm 0.03) \times 10^{-4}$ erg/cm² within the 21 seconds (the GBM T90) following the GBM trigger.

The points of contact for this burst are:

Takeshi Uehara (uehara@hep01.hepl.hiroshima-u.ac.jp) and
Elisabetta Bissaldi (ebs@mpe.mpg.de).

The Fermi LAT is a pair conversion telescope designed to cover the Energy band from 20 MeV to greater than 300 GeV. It is the product of an international collaboration between NASA and DOE in the U.S. and many scientific institutions across France, Italy, Japan and Sweden.

This message can be cited.

B

From vxw@capella.gsfc.nasa.gov Sat Sep 26 15:06:45 2009
 X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
 Date: Sat, 26 Sep 2009 18:08:01 -0400
 From: Bacodine <vxw@capella.gsfc.nasa.gov>
 To: khurley@ssl.berkeley.edu
 Subject: GCN/SWIFT_BAT_LIGHTCURVE

109.7 s

 $7.3 \times 10^{-6} \text{ erg cm}^{-2}$

MCT 78903

TITLE: GCN/SWIFT NOTICE
 NOTICE_DATE: Sat 26 Sep 09 22:06:11 UT
 NOTICE_TYPE: Swift-BAT GRB Lightcurve
 TRIGGER_NUM: 370791, Seg_Num: 0
 GRB_RA: 46.318d {+03h 05m 16s} (J2000),
 46.411d {+03h 05m 39s} (current),
 45.840d {+03h 03m 22s} (1950)
 GRB_DEC: -39.011d {-39d 00' 40"} (J2000),
 -38.974d {-38d 58' 25"} (current),
 -39.204d {-39d 12' 15"} (1950)
 GRB_DATE: 15100 TJD; 269 DOY; 09/09/26
 GRB_TIME: 78948.41 SOD {21:55:48.41} UT
 TRIGGER_INDEX: 147
 GRB_PHI: 144.29 [deg]
 GRB_THETA: 40.07 [deg]
 DELTA_TIME: 6.00 [sec]
 TRIGGER_DUR: 1.024 [sec]
 SOLN_STATUS: 0x83
 RATE_SIGNIF: 14.69 [sigma]
 IMAGE_SIGNIF: 6.74 [sigma]
 LC_URL: sw00370791000msb.lc
 SUN_POSTN: 183.62d {+12h 14m 28s} -1.57d {-01d 34' 00"}
 SUN_DIST: 123.58 [deg] Sun_angle= 9.1 [hr] (West of Sun)
 JON_POSTN: 283.13d {+18h 52m 31s} -24.33d {-24d 19' 42"}
 MOON_DIST: 97.45 [deg]
 MOON_ILLUM: 57 [%]
 GAL_COORDS: 244.64, -59.77 [deg] galactic lon,lat of the burst (or transient
 ECL_COORDS: 26.29, -53.23 [deg] ecliptic lon,lat of the burst (or transient
 COMMENTS: SWIFT-BAT GRB Lightcurve.
 COMMENTS:
 COMMENTS: The next comments were copied from the BAT_POS Notice:
 COMMENTS: This is a rate trigger.
 COMMENTS: A point_source was found.
 COMMENTS: This does not match any source in the on-board catalog.
 COMMENTS: This does not match any source in the ground catalog.
 COMMENTS: This is a GRB.
 COMMENTS: Since the IMAGE_SIGNIF is less than 7 sigma, this is a question
 COMMENTS: This trigger occurred at longitude,latitude = 19.29,15.78 [deg]

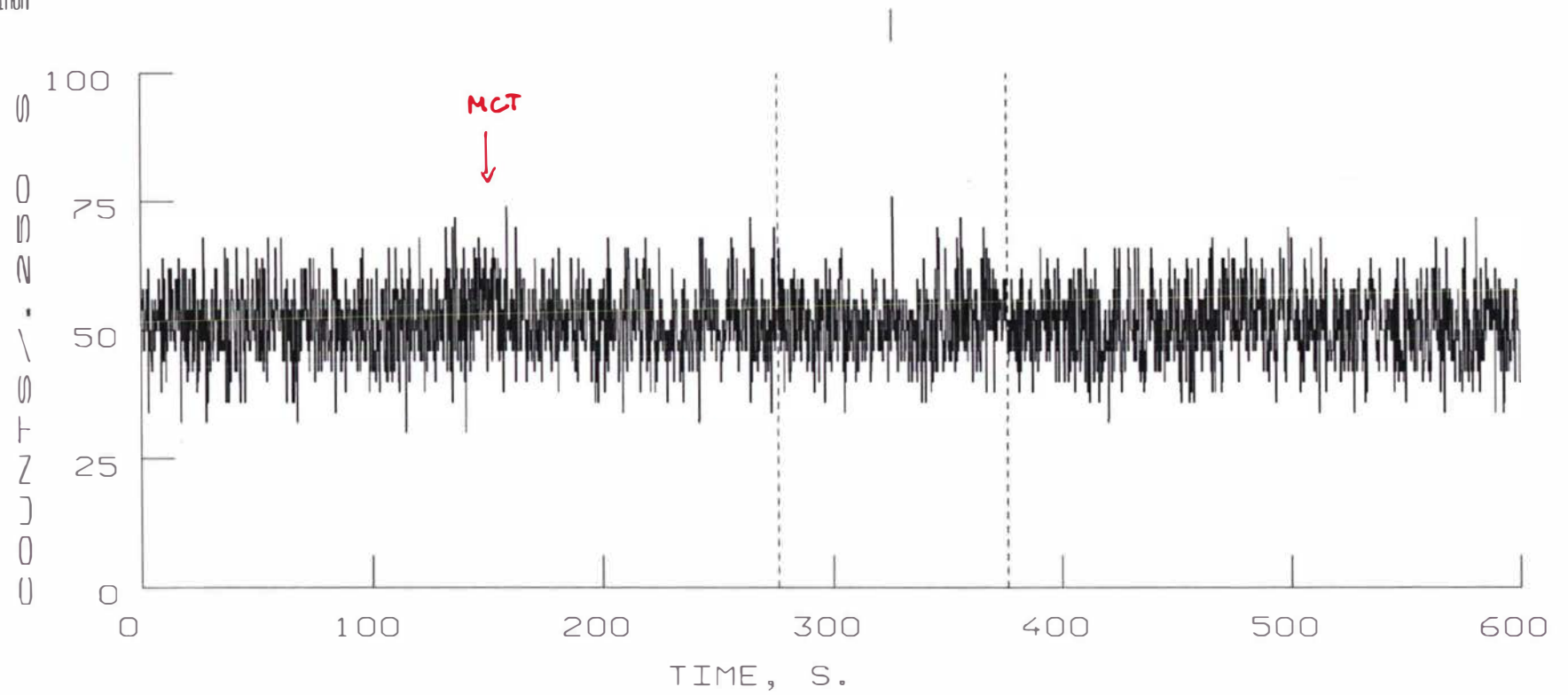
MS01 HEND

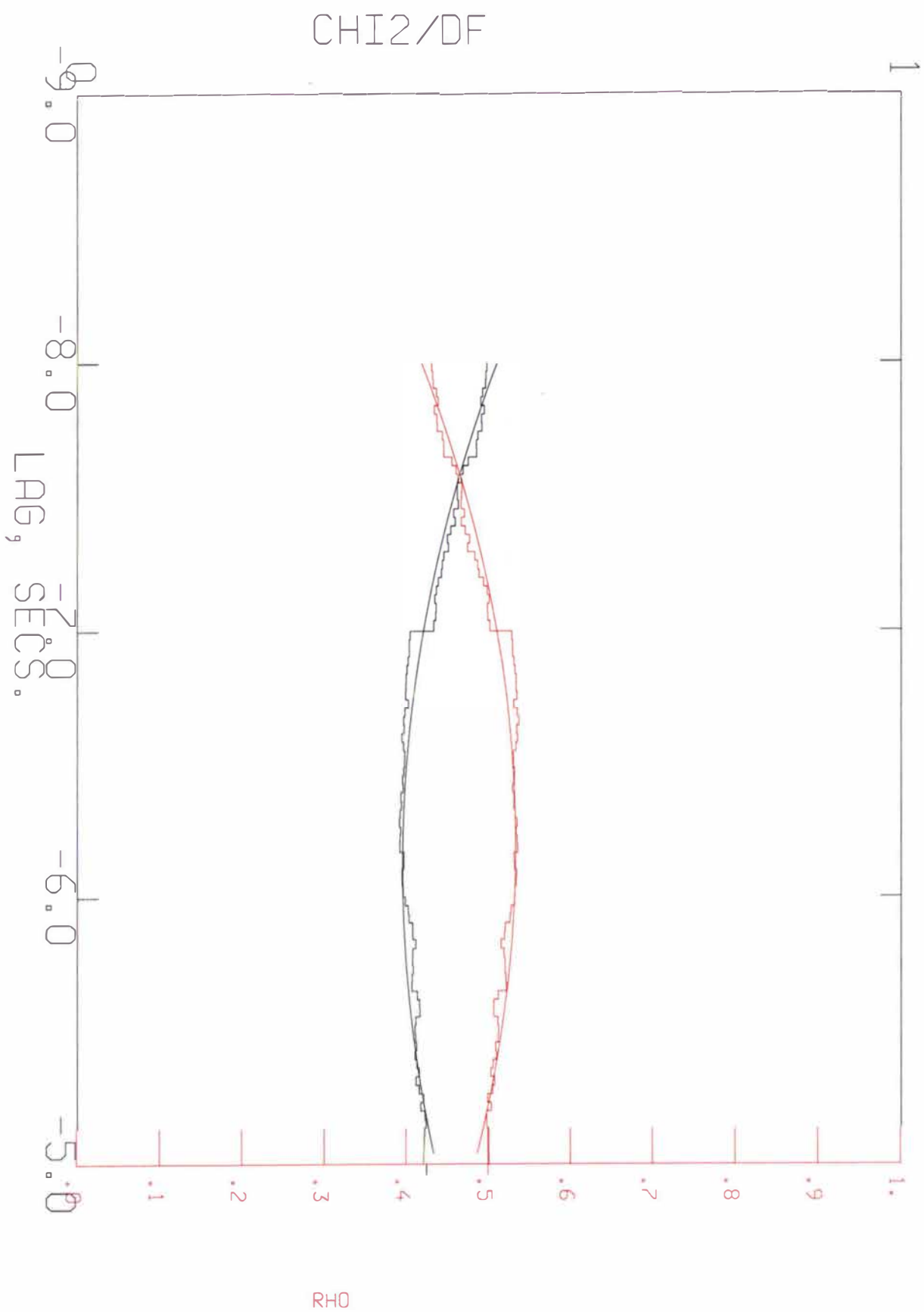
20/10/2011

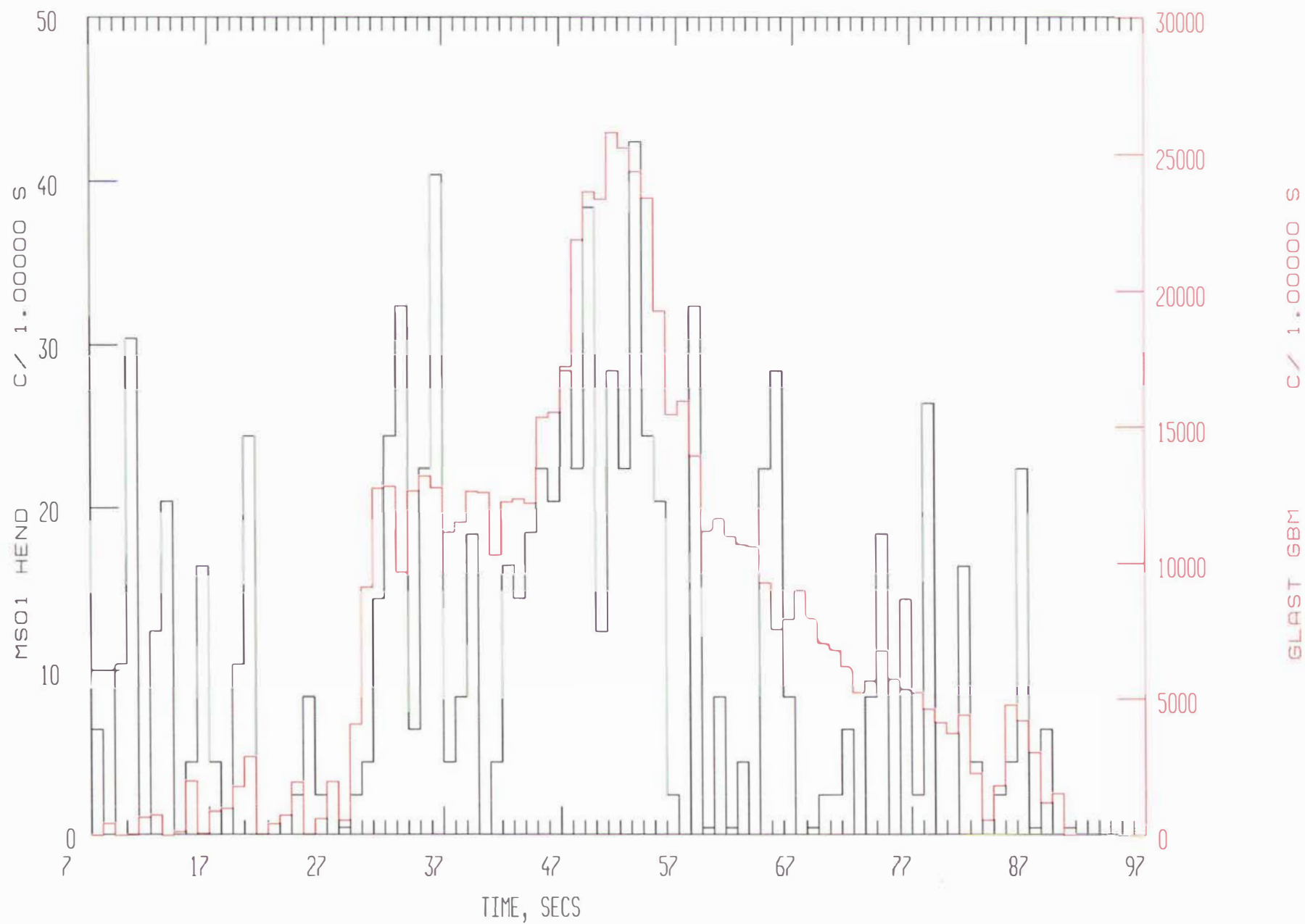
26/09/2009 78750.727 s

50-3000 keV

MAXIMUM



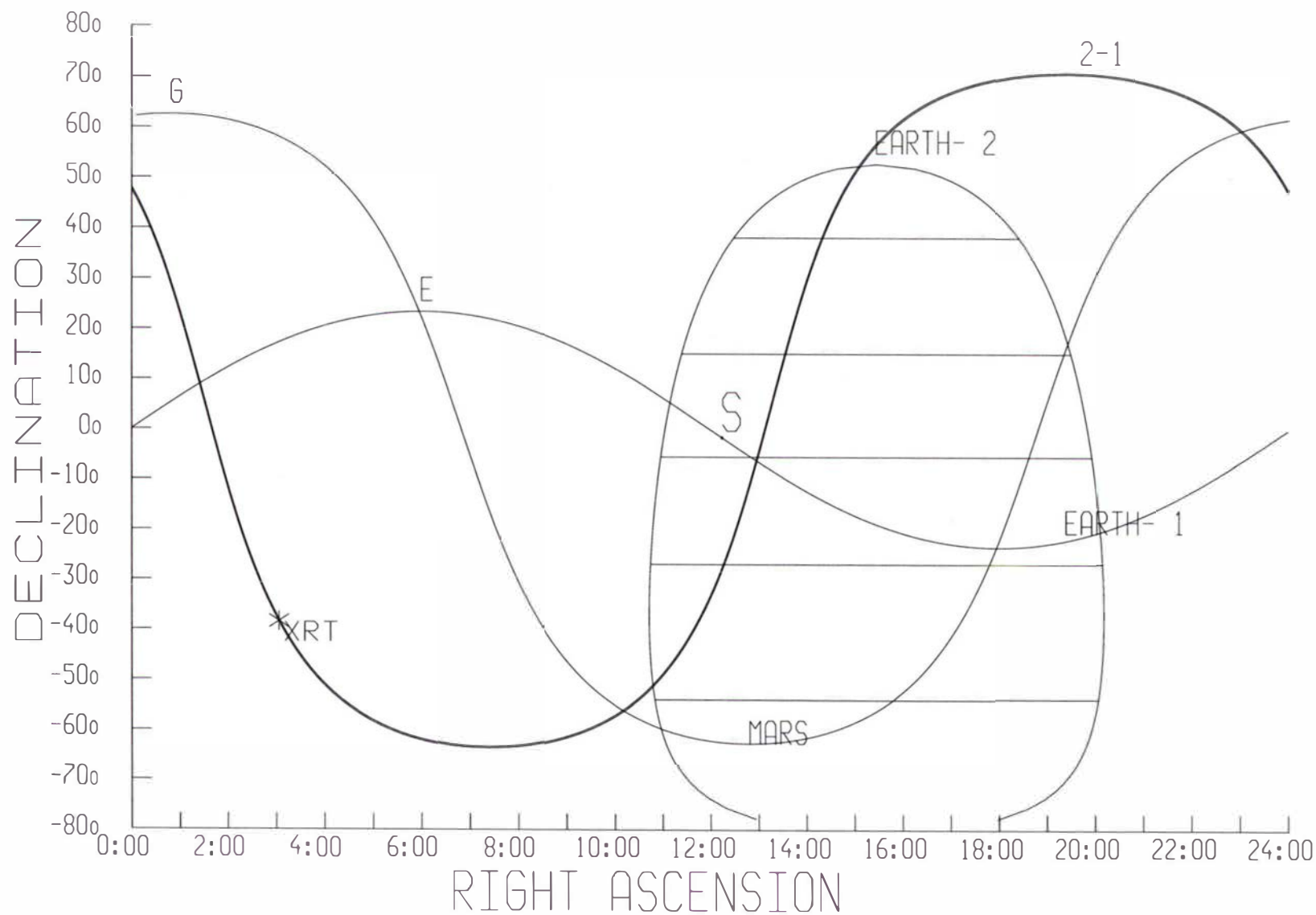




EVENT OF SEP 26, 2009 21:54

20/10/2011

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN
E=ECLIPTIC
G=GALACTIC EQUATOR
1 MO
2 FERMI



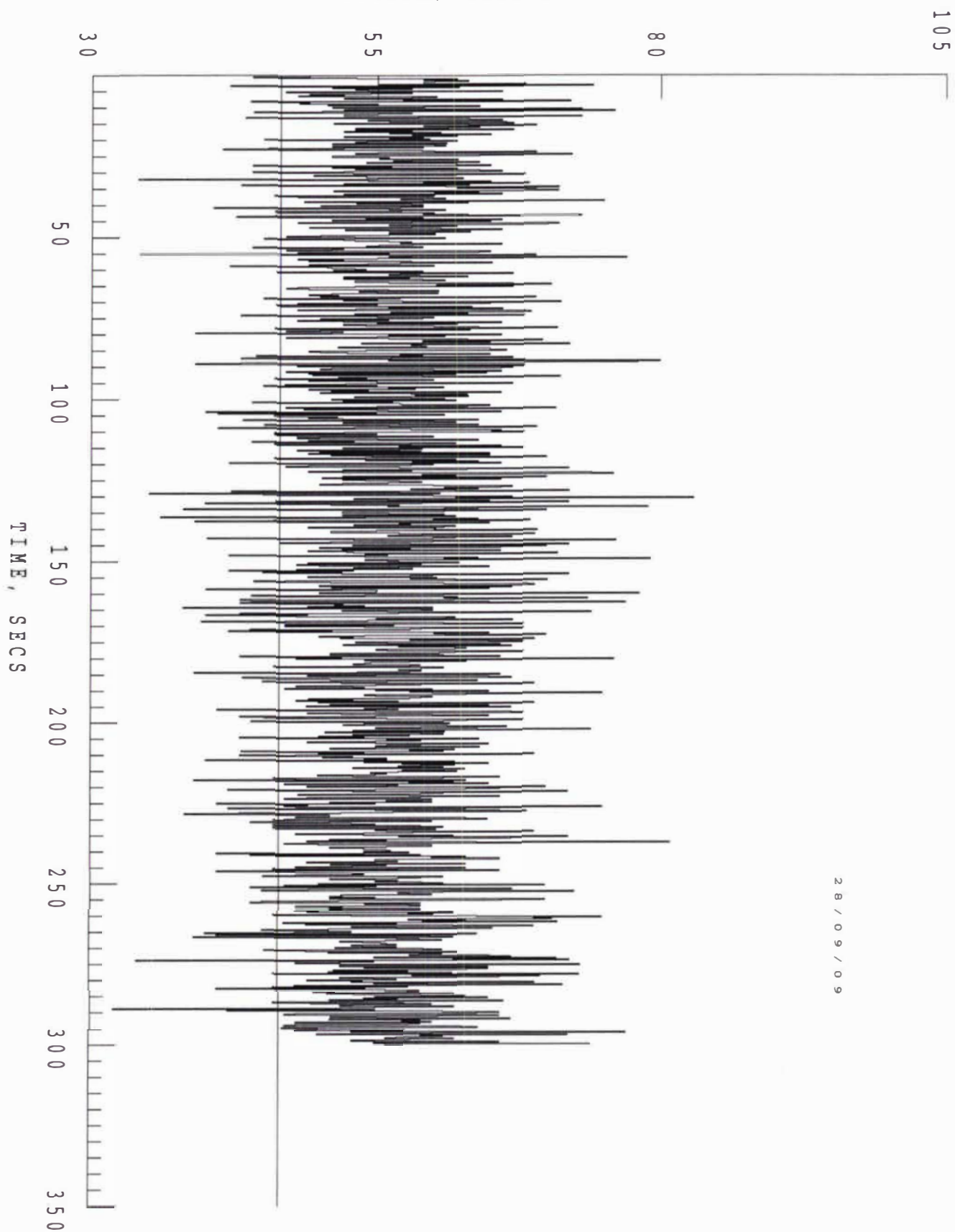
HESSI

26/09/09 78798.000 (SWIFT_20090926_78948)

B

25- 150 keV

COUNTS/0.250 S



B

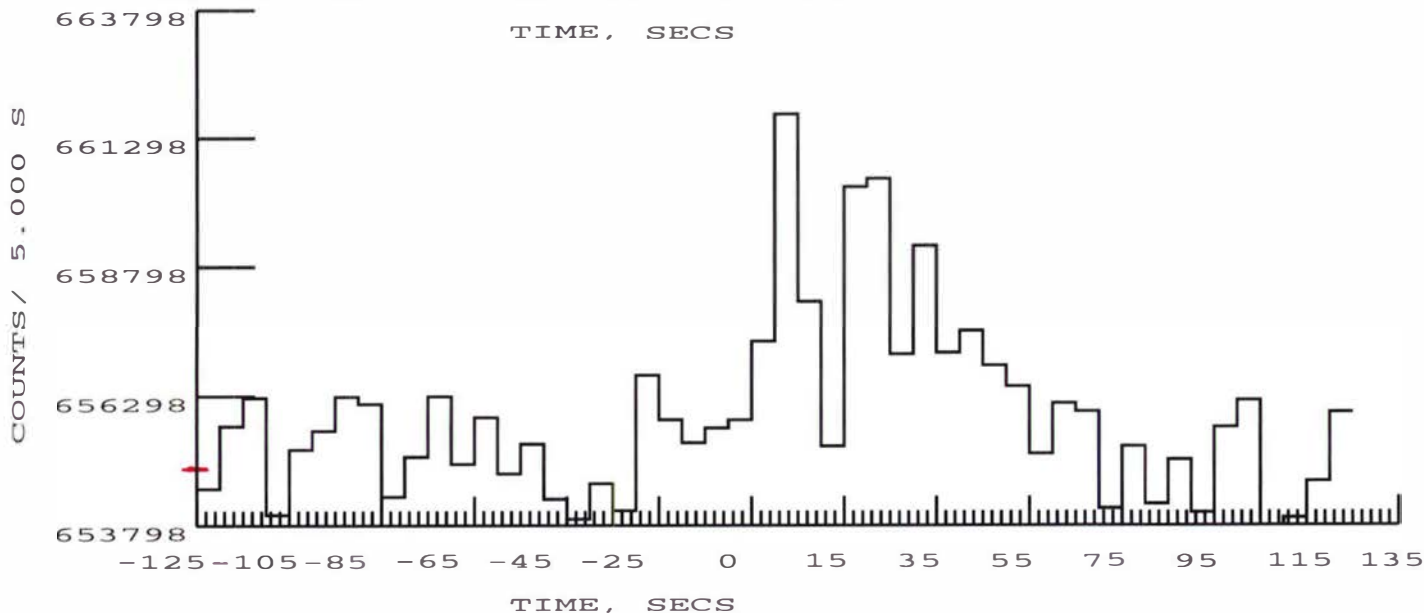
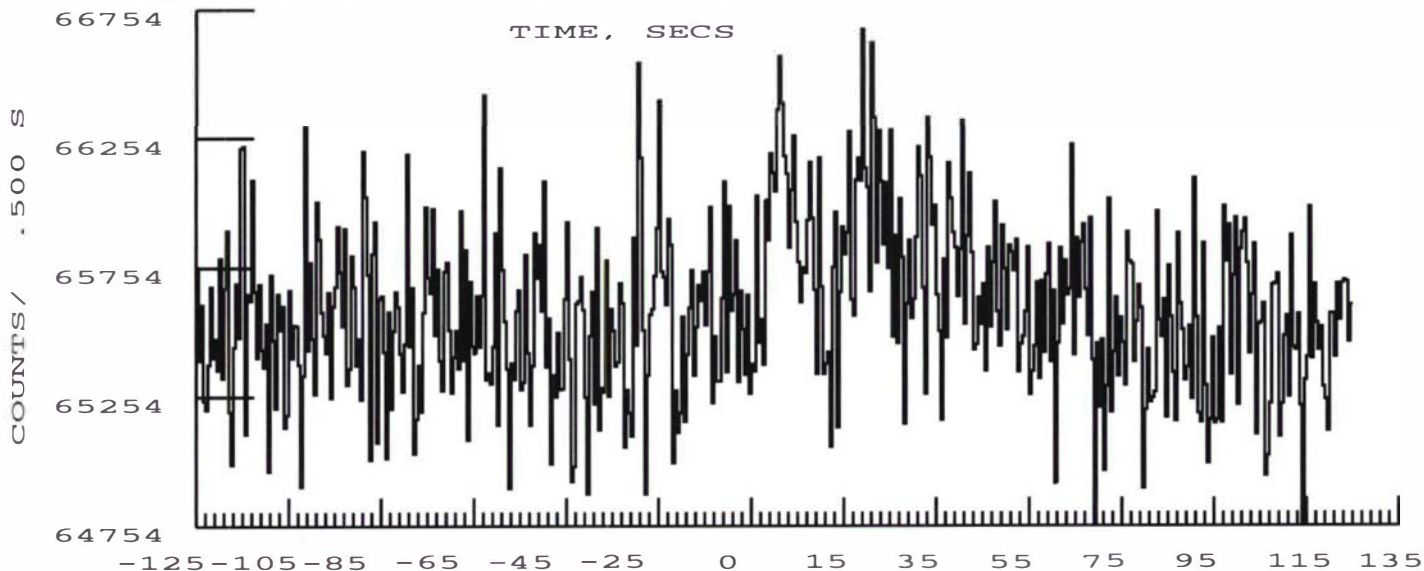
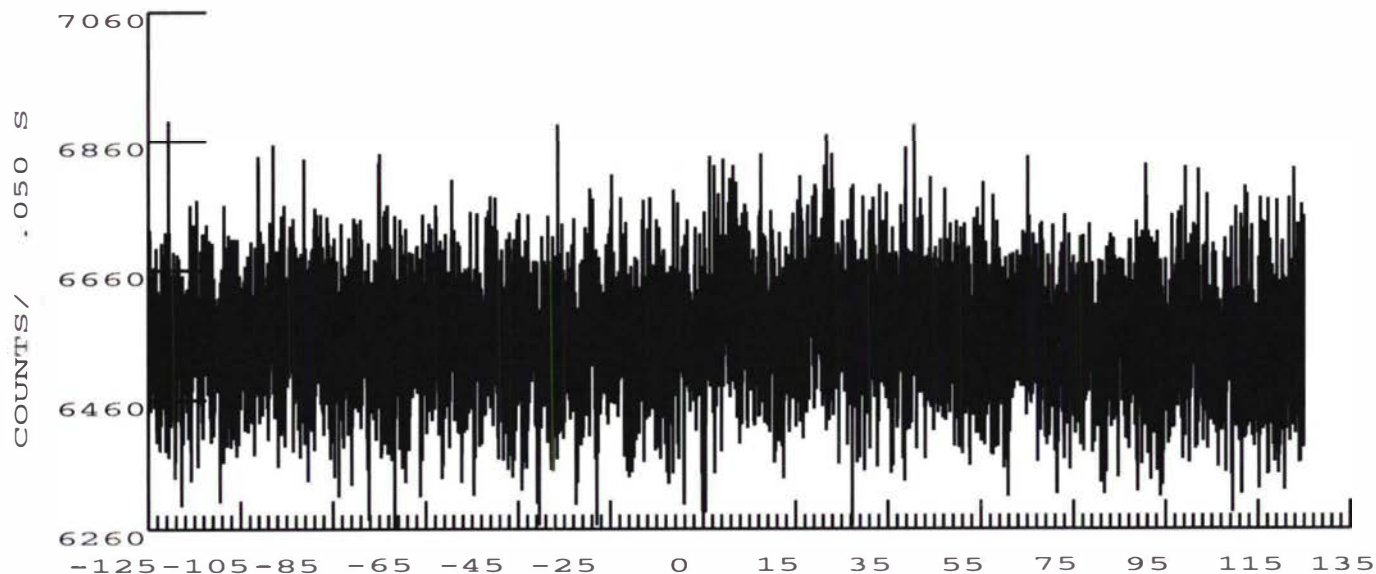
INTEGRAL

26/09/09

78928.000

21:55:28.0

14/01/19



29/09/09

MESSENGER

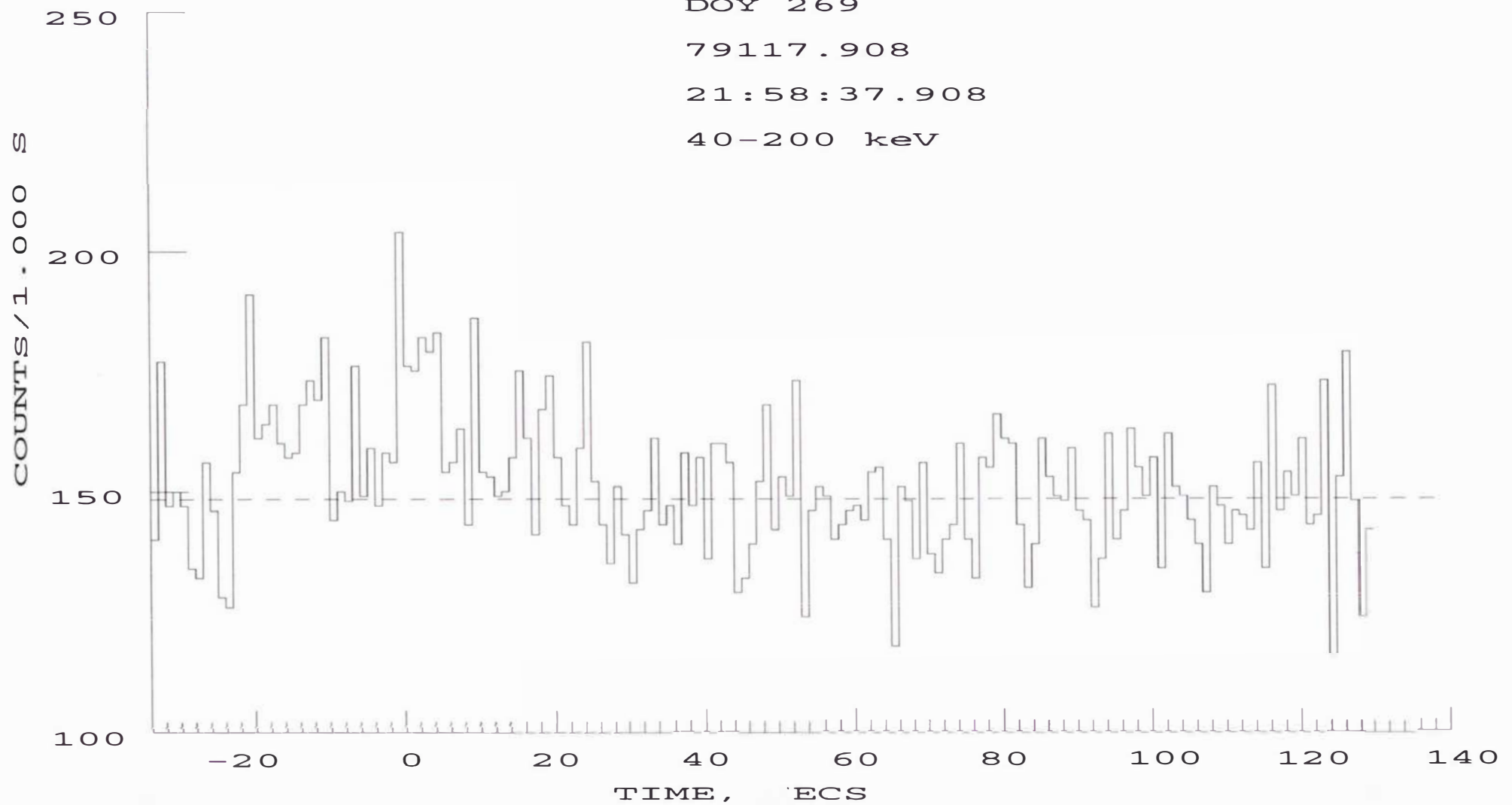
26/09/09

DOY 269

79117.908

21:58:37.908

40-200 keV



GLAST

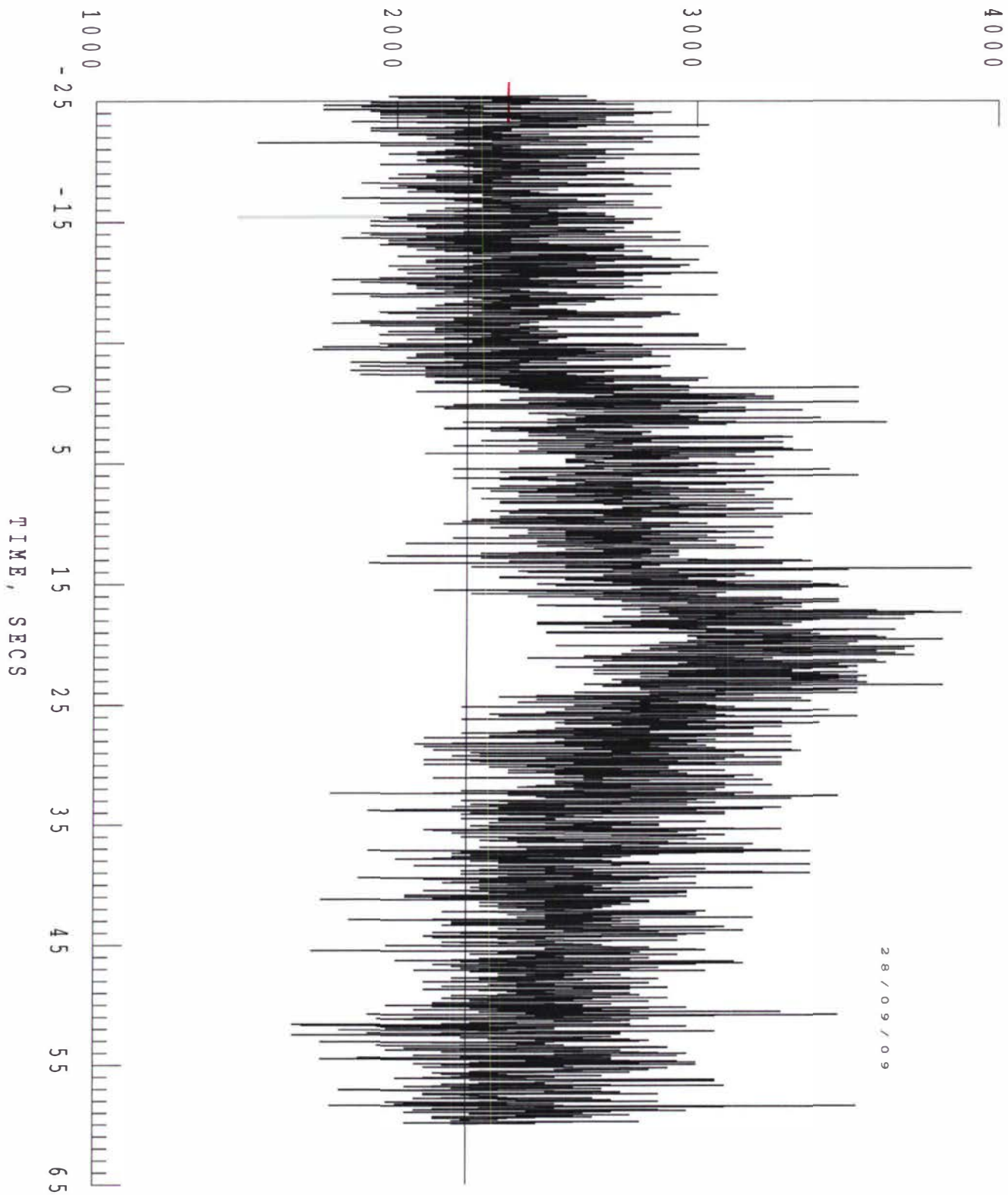
26/09/09

78928.525

B

26- 293 keV

COUNTS/0.032 S



From gcncirc@capella.gsfc.nasa.gov Sun Sep 27 18:33:35 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090926B: Fermi GBM detection
To: khurley@ssl.berkeley.edu
Date: Sun, 27 Sep 2009 21:34:53 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9957
SUBJECT: GRB 090926B: Fermi GBM detection
DATE: 09/09/28 01:34:51 GMT
FROM: Michael S. Briggs at UAH and MSFC <michael.briggs@nasa.gov>

Michael S. Briggs (UA Huntsville), reports on behalf of the Fermi GBM Team:

"At 21:55:28.53 UT on 26 Sept 2009, the Fermi Gamma-ray Burst Monitor (GBM) triggered and located GRB 090926B (trigger 275694930 / 090926.914), which also triggered the Swift BAT 19 seconds later (D. Grupe et al., GCN 9935). The GBM location is consistent with the Swift BAT location. The angle from the Fermi LAT boresight is approximately 100 degrees.

The GBM light curve shows multiple peaks with a duration (T90) of 81 ± 13 s (10 to 1000 keV). The time-averaged spectrum from T0 to T0+48.6 s is best fit by cutoff power law with $E_{\text{peak}} = 91 \pm 2$ keV and index $= -0.13 \pm 0.06$. The fluence (10 to 1000 keV) in this time interval is $(8.7 \pm 0.3) \times 10^{-6}$ erg/cm².

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

From gcncirc@capella.gsfc.nasa.gov Sun Sep 27 00:26:36 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090926B: MAXI GSC detection
To: khurley@ssl.berkeley.edu
Date: Sun, 27 Sep 2009 03:27:51 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9943
SUBJECT: GRB 090926B: MAXI GSC detection
DATE: 09/09/27 07:27:48 GMT
FROM: Nobuyuki Kawai at Tokyo Tech <nkawai@hp.phys.titech.ac.jp>

M. Morii (Tokyo Tech), M. Nakajima (Nihon U.), M. Matsuoka,
K. Kawasaki, S. Ueno, H. Tomida, M. Suzuki, M. Ishikawa (JAXA),
T. Mihara, M. Kohama, Y.E. Nakagawa, M. Sugizaki, T. Yamamoto (RIKEN),
N. Kawai, K. Sugimori (Tokyo Tech), A. Yoshida, K. Yamaoka,
S. Nakahira (AGU), H. Tsunemi, M. Kimura (Osaka U.), H. Negoro,
S. Miyoshi, H. Ozawa, R. Ishiwata, (Nihon U.), Y. Ueda, N. Isobe,
S. Eguchi, K. Hiroi (Kyoto U.) report on behalf of the MAXI team:

The Gas Slit Camera (GSC) of MAXI, the all-sky X-ray monitor on the ISS,
detected a bright X-ray source at the position consistent with GRB 090926B
(Grupe et al, GCN Circ. 9935) in the energy range of 2-30 keV.
The nominal location of the source as measured by GSC is

(R.A., Dec.) = (46.3 deg, -39.1 deg) = (03:05:12, -39:06:00) (J2000)

with an estimated systematic uncertainty of about 1 degree.

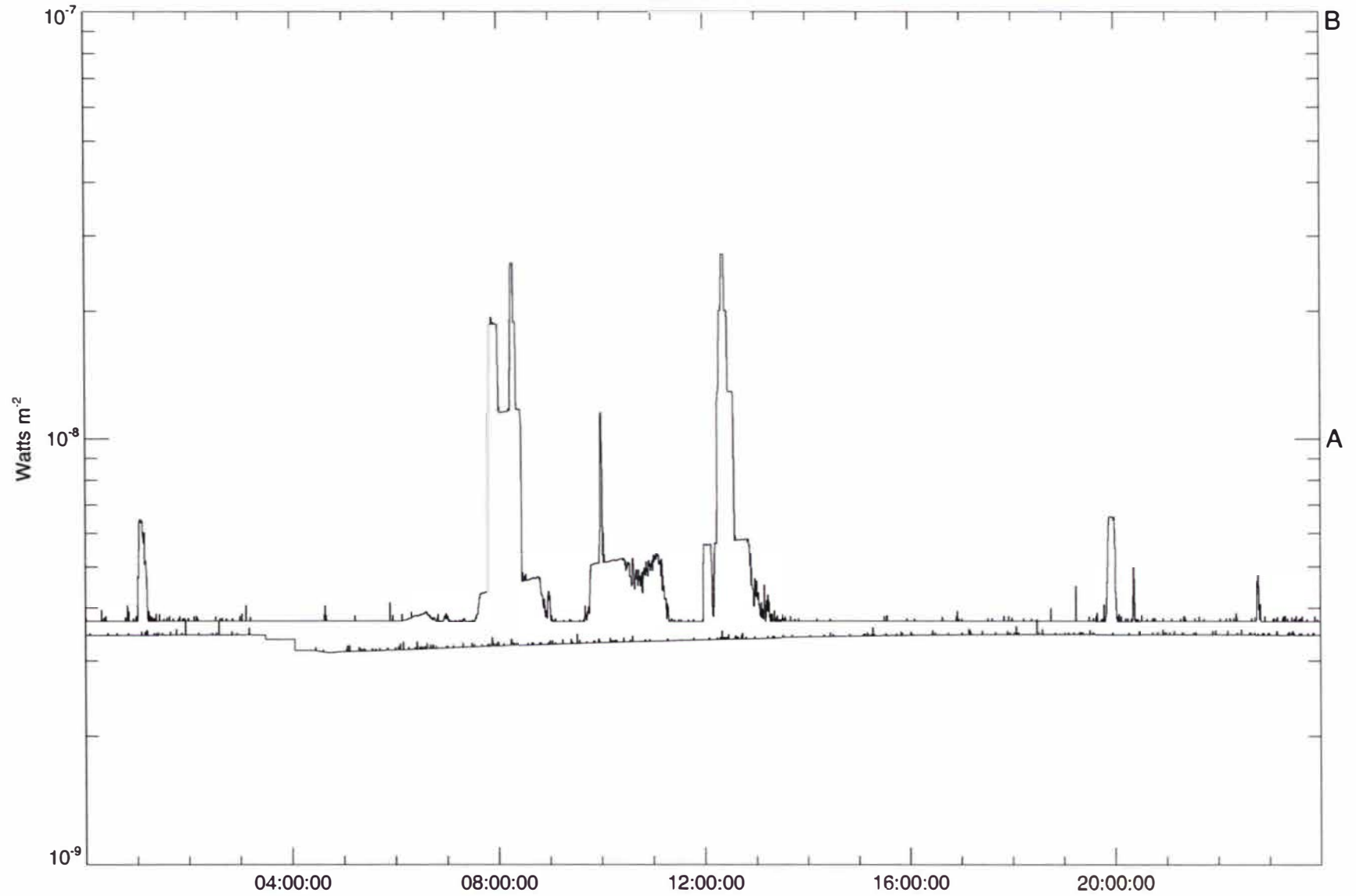
The start time of the source detection (above 3 sigma level) was
21:55:31 UT on 26 September 2009, and seen until 21:55:55 UT.
The start time was 17 sec earlier than the Swift-BAT trigger time,
approximately consistent with the rise epoch (T-20) reported in the BAT
refined analysis (Baumgartner et al., GCN Circ. 9939).

The X-ray flux at the peak was about 0.3 Crab (uncorrected).
There are significant time structures within the transit light curve,
which would be simply triangular for a steady source.

The all-sky image and the light curve is shown at the MAXI web site
<http://maxi.riken.jp/> at the "News" section.

MAXI is currently in the commissioning phase that runs for three months.
The systematic uncertainty in localization will be significantly improved
with the progress of the alignment calibration.

GOES 11



Data Start: 09/09/26, 0000:13

Plot created: 09/09/29, 0819

Channel

1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

Sample average = 10

A

From vxw@capella.gsfc.nasa.gov Sun Sep 27 03:09:52 2009
X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
Date: Sun, 27 Sep 2009 06:11:10 -0400
From: Bacodine <vxw@capella.gsfc.nasa.gov>
To: khurley@ssl.berkeley.edu
Subject: GCN/SWIFT_BAT_LIGHTCURVE

2.2 s

$2 \times 10^{-7} \text{ erg cm}^{-2}$

MCT 36829

TITLE: GCN/SWIFT NOTICE
NOTICE_DATE: Sun 27 Sep 09 10:11:05 UT
NOTICE_TYPE: Swift-BAT GRB Lightcurve
TRIGGER_NUM: 370846, Seg_Num: 0
GRB_RA: 343.953d {+22h 55m 49s} (J2000),
344.121d {+22h 56m 29s} (current),
343.082d {+22h 52m 20s} (1950)
GRB_DEC: -70.978d {-70d 58' 38"} (J2000),
-70.925d {-70d 55' 30"} (current),
-71.244d {-71d 14' 39"} (1950)
GRB_DATE: 15101 TJD; 270 DOY; 09/09/27
GRB_TIME: 36436.92 SOD {10:07:16.92} UT
TRIGGER_INDEX: 40
GRB_PHI: 129.16 [deg]
GRB_THETA: 27.13 [deg]
DELTA_TIME: -44.00 [sec]
TRIGGER_DUR: 0.512 [sec]
SOLN_STATUS: 0x3
RATE_SIGNIF: 25.82 [sigma]
IMAGE_SIGNIF: 11.42 [sigma]
LC_URL: sw00370846000msb.lc
SUN_POSTN: 184.07d {+12h 16m 17s} -1.76d {-01d 45' 46"}
SUN_DIST: 106.14 [deg] Sun_angle= -10.7 [hr] (East of Sun)
JON_POSTN: 289.51d {+19h 18m 02s} -23.16d {-23d 09' 36"}
MOON_DIST: 56.93 [deg]
MOON_ILLUM: 62 [%]
GAL_COORDS: 315.42, -43.24 [deg] galactic lon,lat of the burst (or transient)
ECL_COORDS: 304.33, -56.26 [deg] ecliptic lon,lat of the burst (or transient)
COMMENTS: SWIFT-BAT GRB Lightcurve.
COMMENTS: This Notice is generated as a result of an uploaded TOO -- this
COMMENTS:
COMMENTS: The next comments were copied from the BAT_POS Notice:
COMMENTS: This is a rate trigger.
COMMENTS: A point_source was found.
COMMENTS: This does not match any source in the on-board catalog.
COMMENTS: This does not match any source in the ground catalog.
COMMENTS: This is a GRB.
COMMENTS: This trigger occurred at longitude,latitude = 14.02,-15.99 [deg]

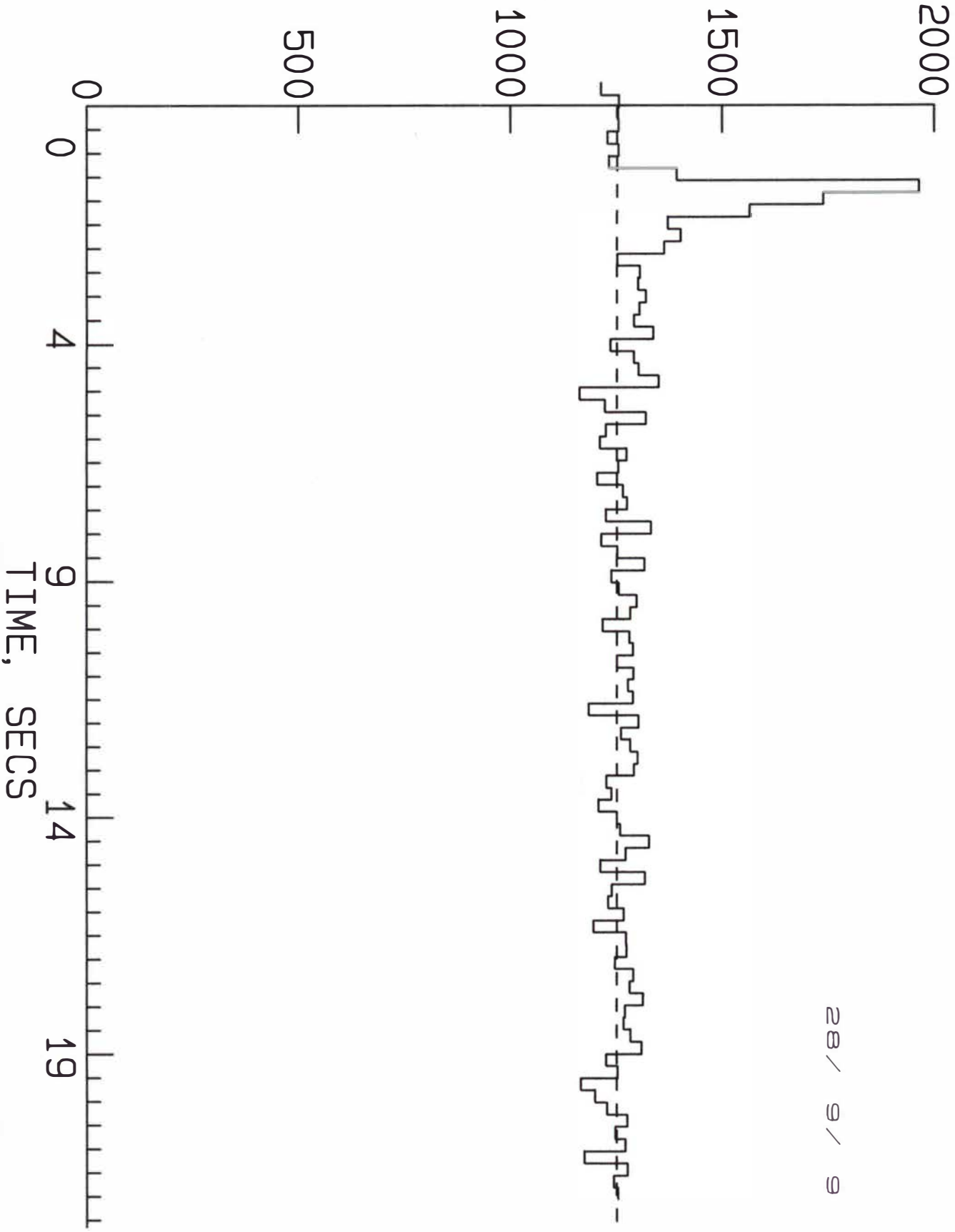
A

SWIFT

27/09/09 36436.927

25- 100 keV

COUNTS/0.256 S



MS01

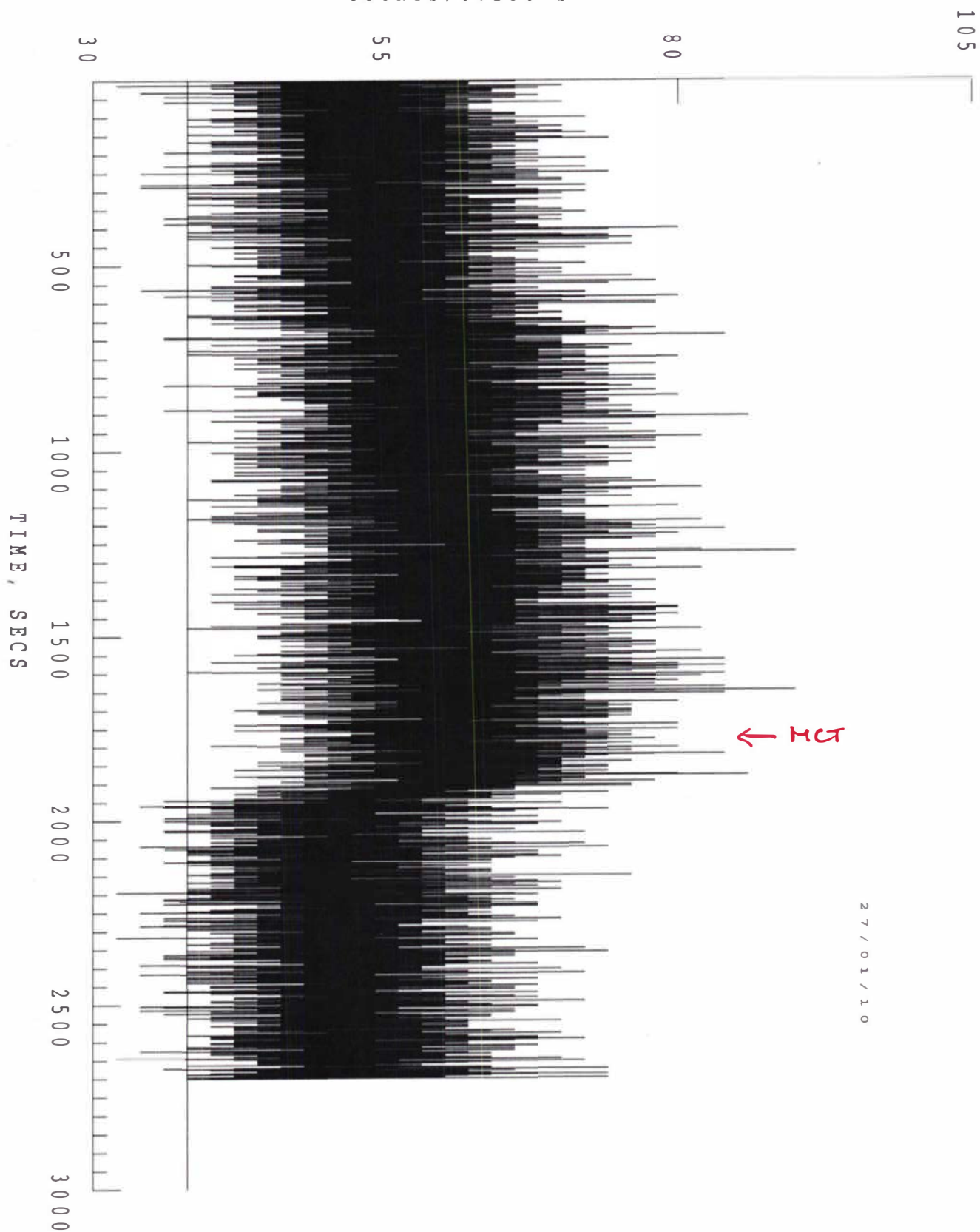
27/09/09

35070.040

A

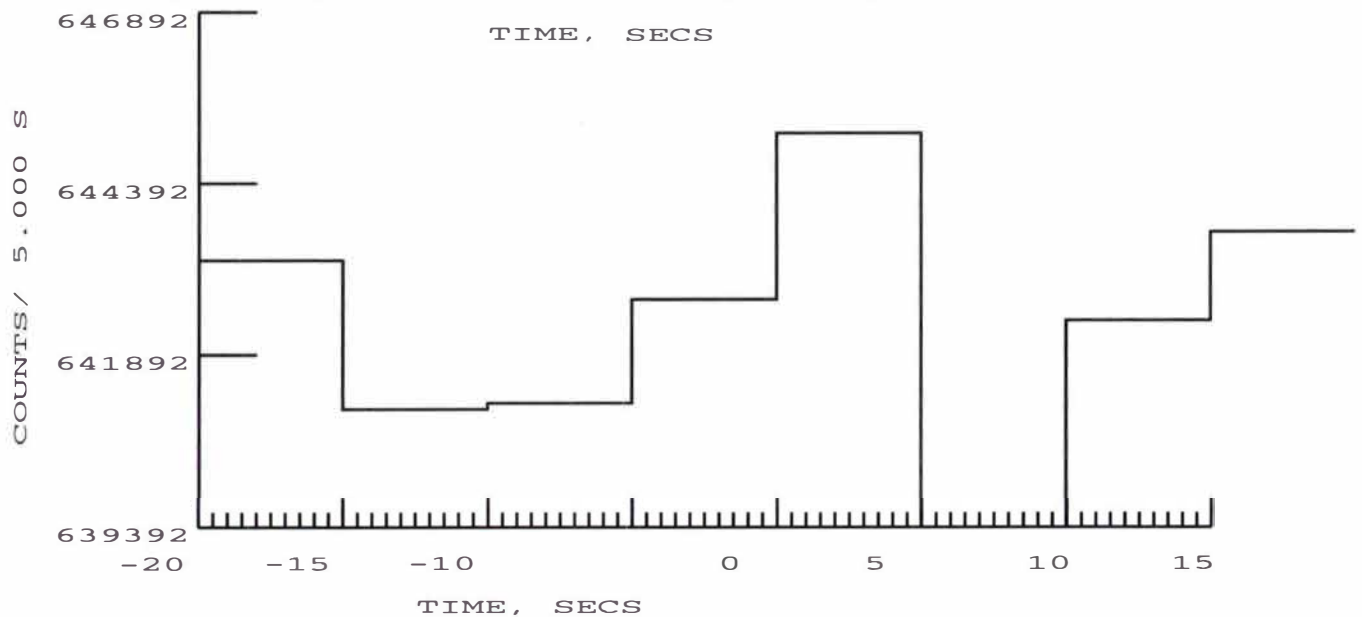
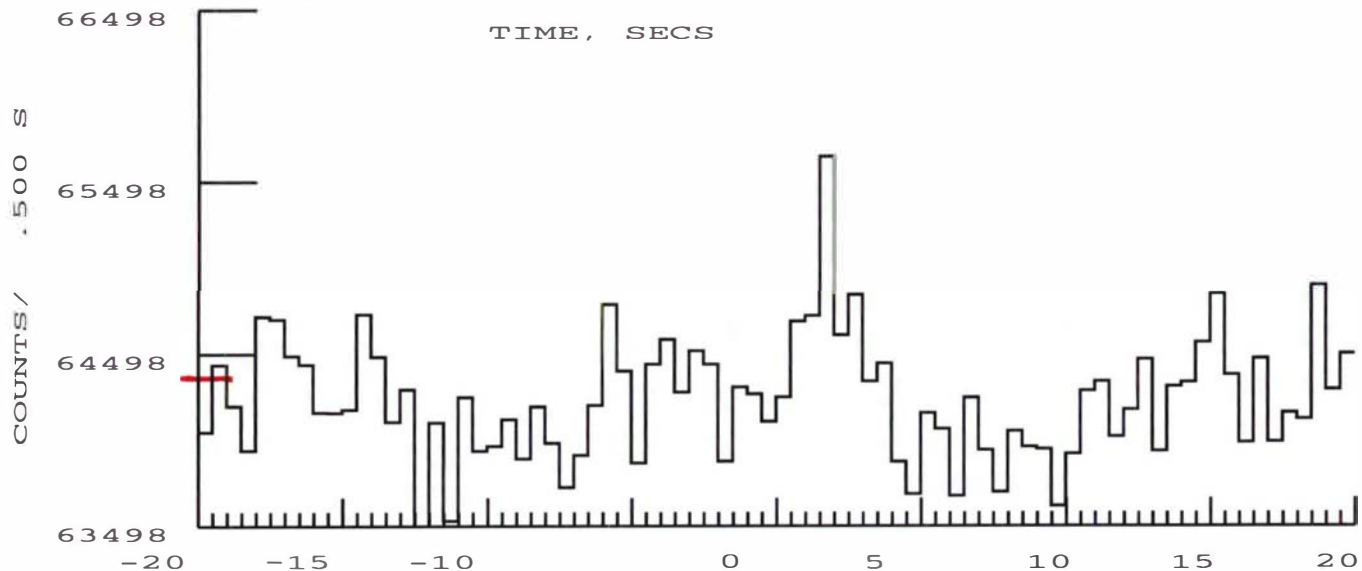
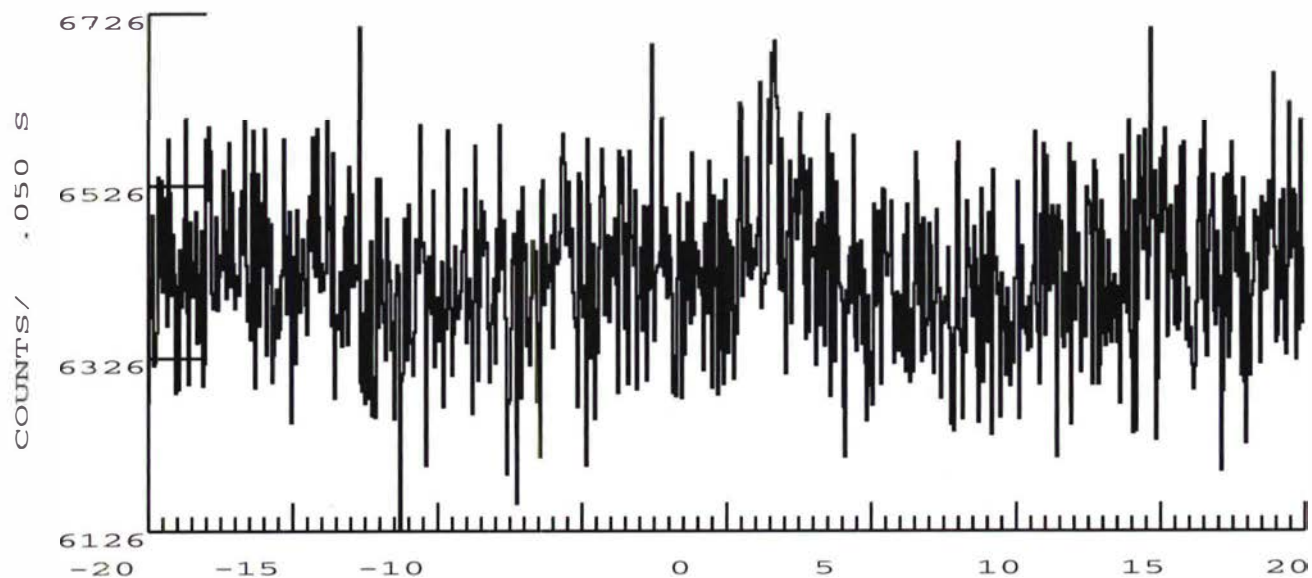
50 - 3000 keV

COUNTS/0.250 S



From williams@penelope.ssl.berkeley.edu Mon Sep 28 15:13:30 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Mon, 28 Sep 2009 15:27:06 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_INTEGRAL_20090927_36436

HESSI 25 to 150 keV Counts
Created 28-Sep-2009 15:13:32.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry



GLAST

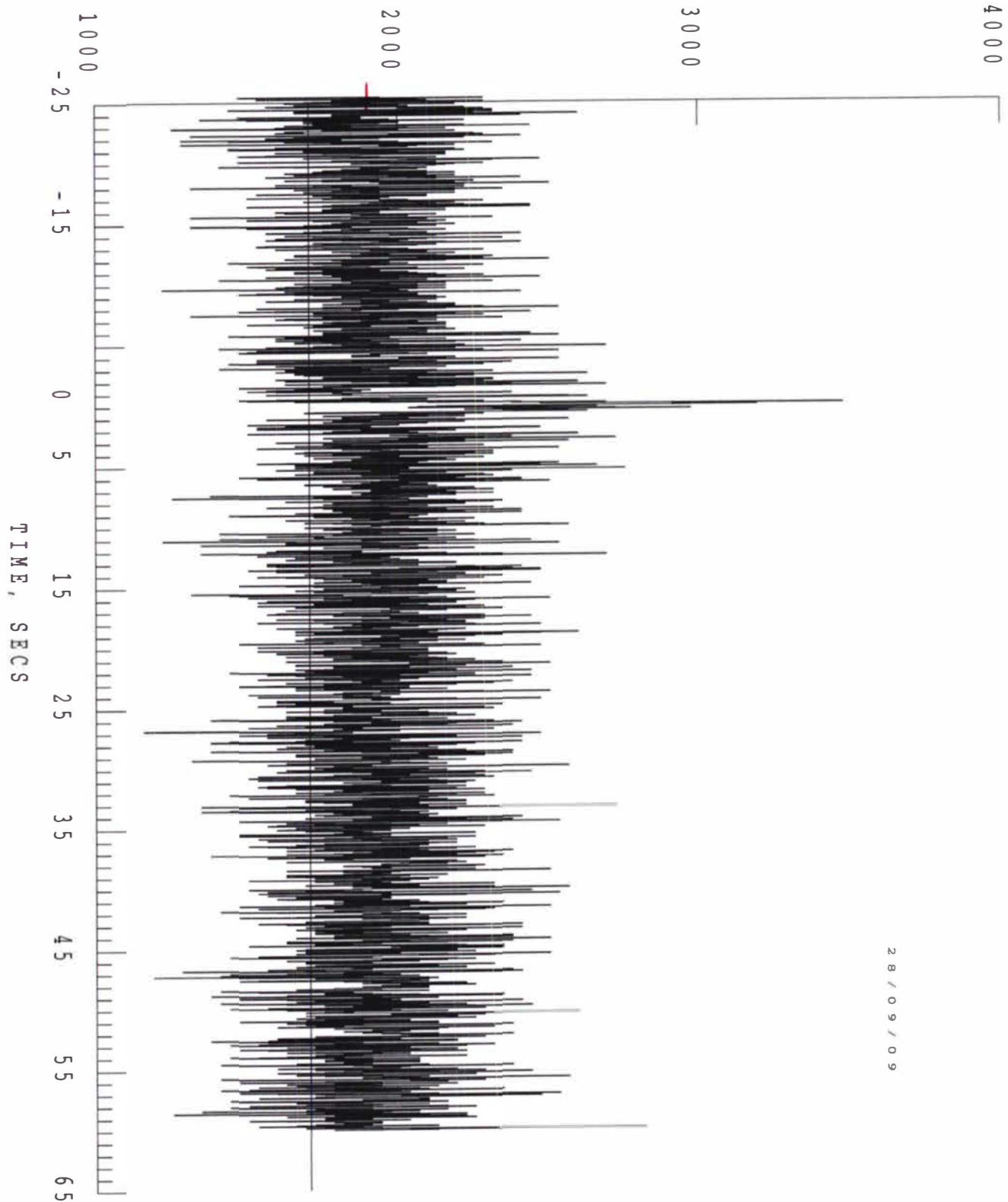
27/09/09

36437.214

A

26- 293 keV

COUNTS/0.032 S



28/09/09

A

From gcncirc@capella.gsfc.nasa.gov Wed Sep 30 06:00:24 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090927: Fermi GBM observation
To: khurley@ssl.berkeley.edu
Date: Wed, 30 Sep 2009 09:01:49 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9974
SUBJECT: GRB 090927: Fermi GBM observation
DATE: 09/09/30 13:01:46 GMT
FROM: David Gruber at MPE <dgruber@mpe.mpg.de>

D. Gruber (MPE), E. Bissaldi (MPE) and S. McBreen (UCD/MPE)
report on behalf of the Fermi GBM Team:

"At 10:07:17.21 UT on 27 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090927 (trigger 275738839 / 090927422), which was also detected by the Swift-BAT (Grupe et al. 2009, GCN 9945). The GBM on-ground location is consistent with the Swift position. The angle from the Fermi LAT boresight is 85 degrees.

The GBM light curve consists of one weak pulse with a duration of about 2 seconds. The time-averaged spectrum from $T_0 - 0.256$ s to $T_0 + 0.896$ s is adequately fit by a simple power law function with index -1.47 ± 0.06 (C-stat 330 for 239 d.o.f.).

The event fluence (8-1000 keV) in this time interval is $(6.1 \pm 0.5) \times 10^{-7}$ erg/cm². The 128-msec peak photon flux measured starting from $T_0 - 0.128$ s in the 8-1000 keV band is 7.2 ± 0.9 ph/s/cm².

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

B

From grbhend@mx.iki.rssi.ru Thu Jan 28 11:03:33 2010
X-Barracuda-Envelope-From: grbhend@mx.iki.rssi.ru
Date: Thu, 28 Jan 2010 22:05:55 +0300
From: "grbhend" <grbhend@mx.iki.rssi.ru>
To: "recipient1" <grbhend@mx.iki.rssi.ru>,
"recipient2" <khurley@sunspot.ssl.berkeley.edu>
Subject: No data in HEND Data Base
X-iki-rssi-ru-MailScanner-Information: Please contact the ISP for more informati
X-iki-rssi-ru-MailScanner-ID: o0SJ5tep012270
X-iki-rssi-ru-MailScanner: Found to be clean
X-iki-rssi-ru-MailScanner-SpamCheck: not spam (whitelisted),
SpamAssassin (not cached, score=-0.018, required 5,
ALL_TRUSTED -1.80, AWL 1.78, BAYES_50 0.00)
X-iki-rssi-ru-MailScanner-From: grbhend@mx.iki.rssi.ru

Received letter from = khurley@ssl.berkeley.edu
No HEND data for GRB around 090927 16:37:51

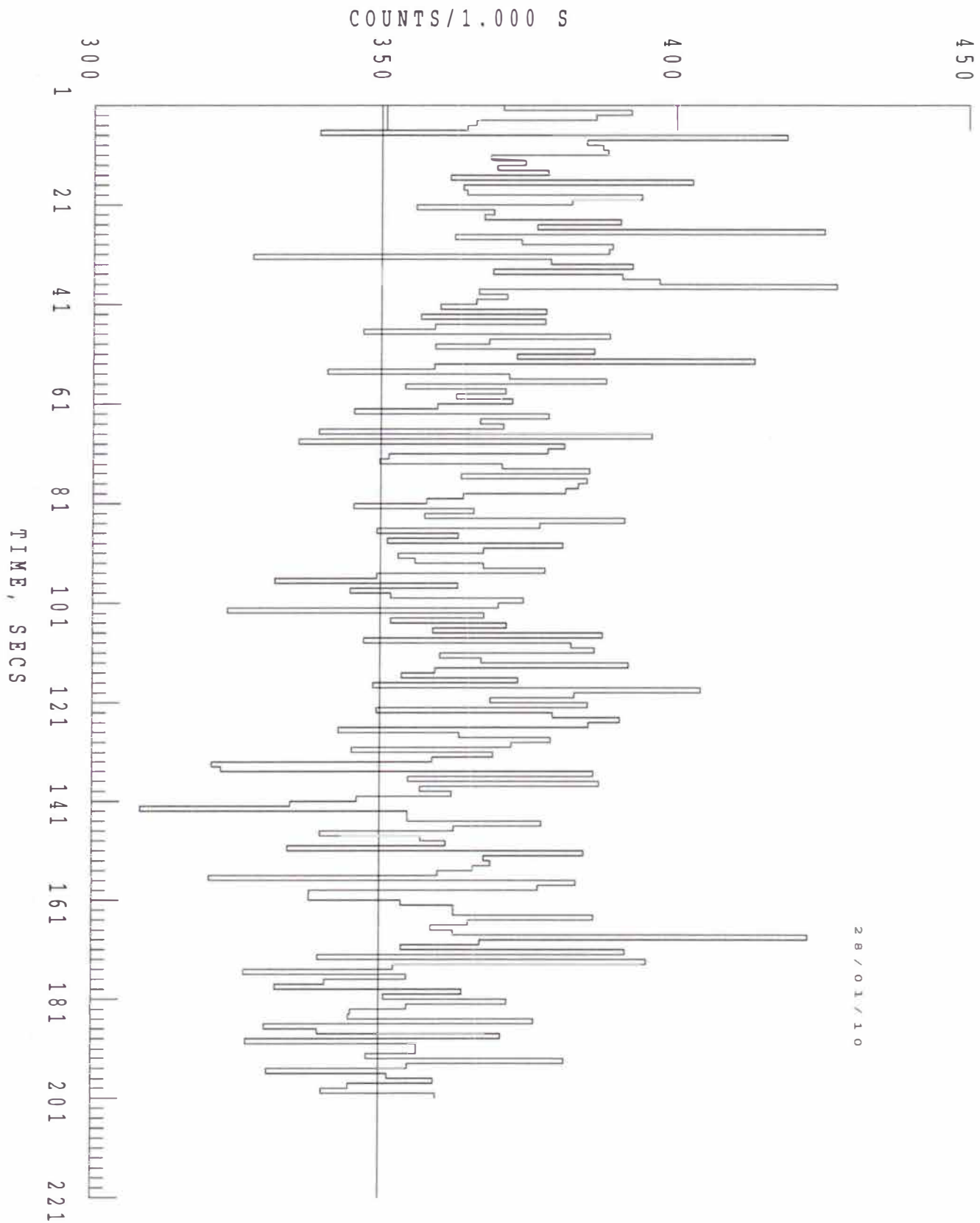
<This message contains 1 attachments (not printed)>

HESSI

27/09/09 61090.000 (KONUS_RI_20090927_61191)

B

25- 150 keV



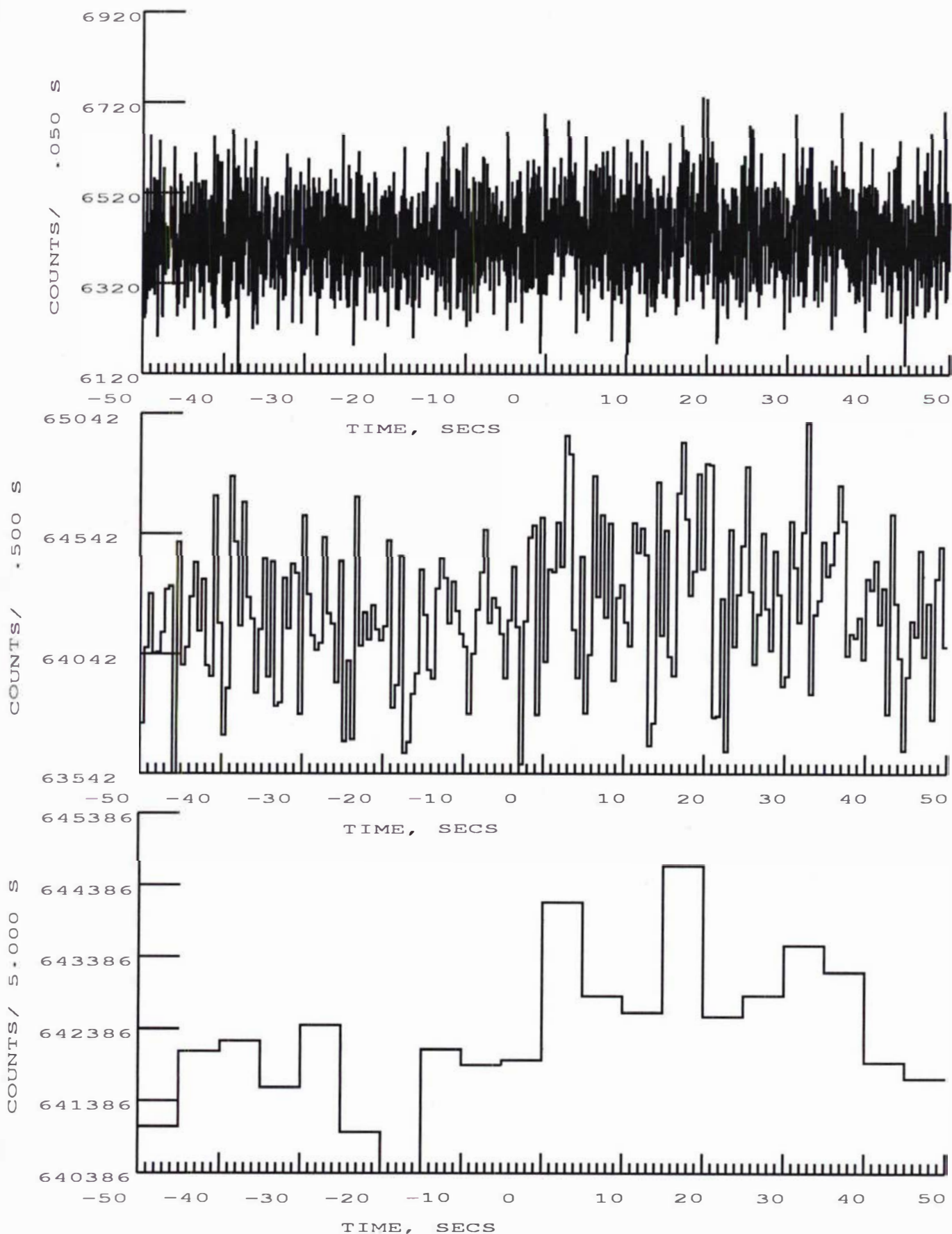
INTEGRAL

27/09/09

61191.000

16:59:51.0

10/01/14



B

19/01/10

MESSENGER

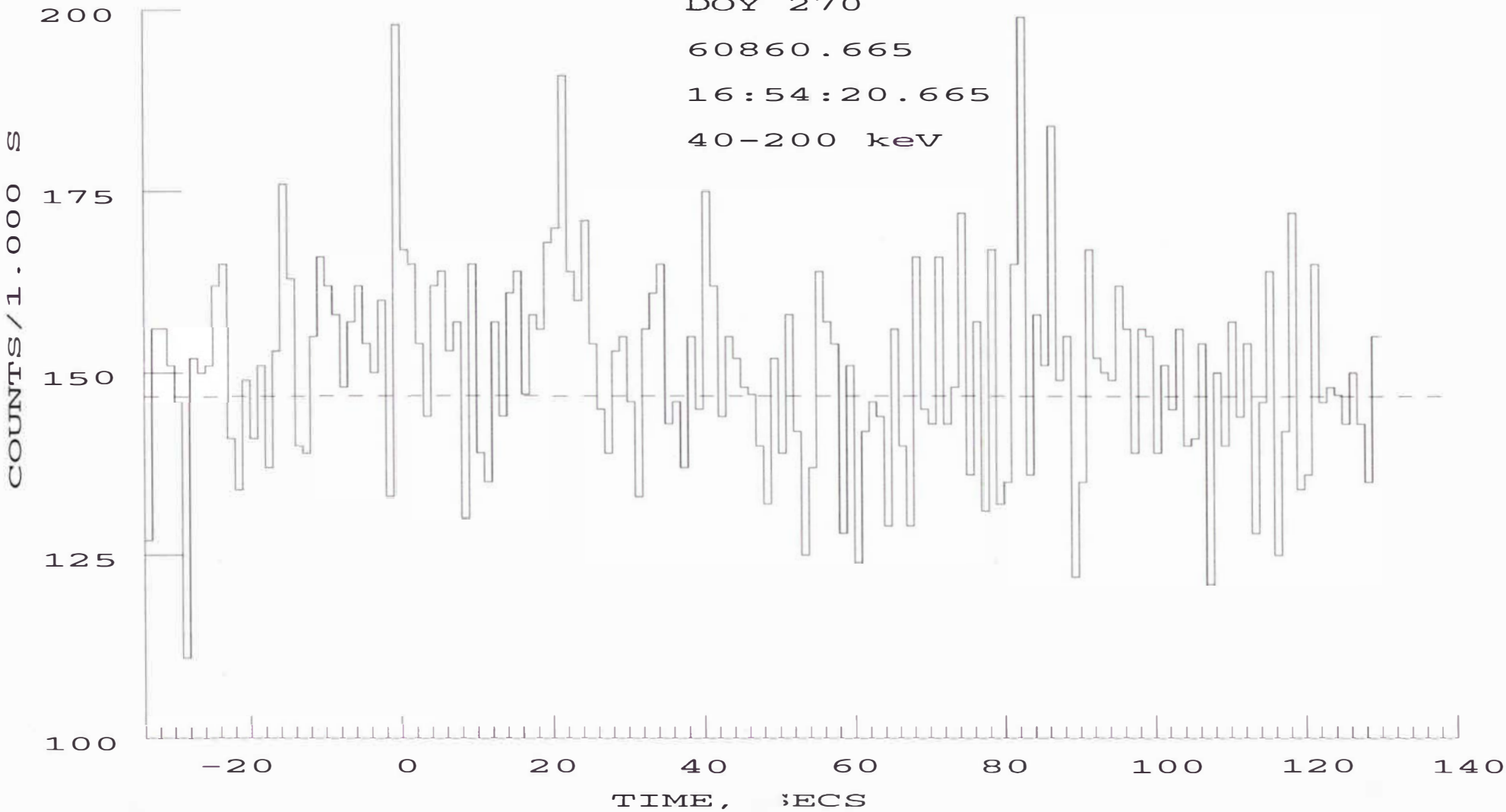
27/09/09

DOY 270

60860.665

16:54:20.665

40-200 keV



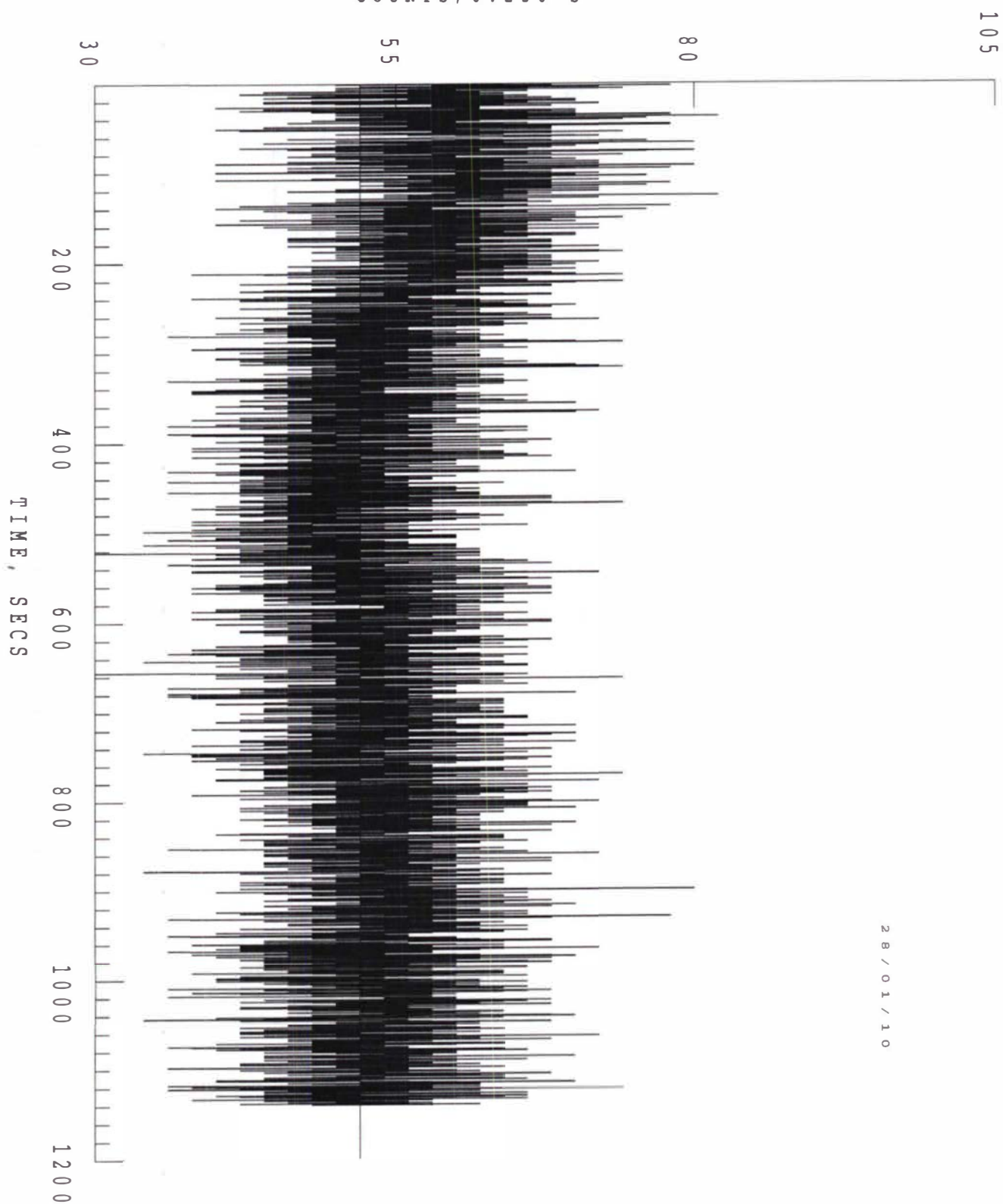
MS01

27/09/09

69029.437

50 - 3000 keV

COUNTS/0.250 S

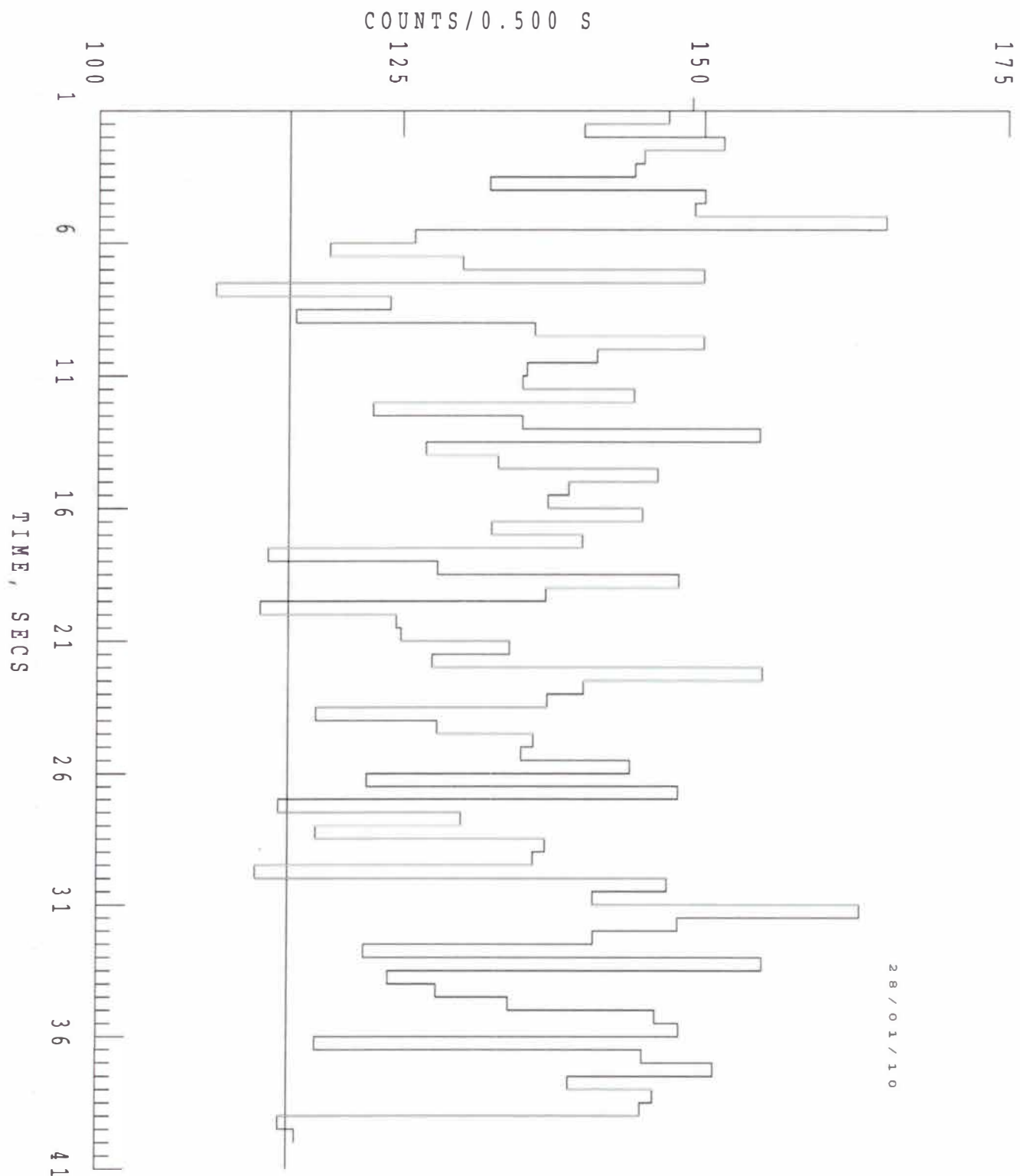


28/01/10

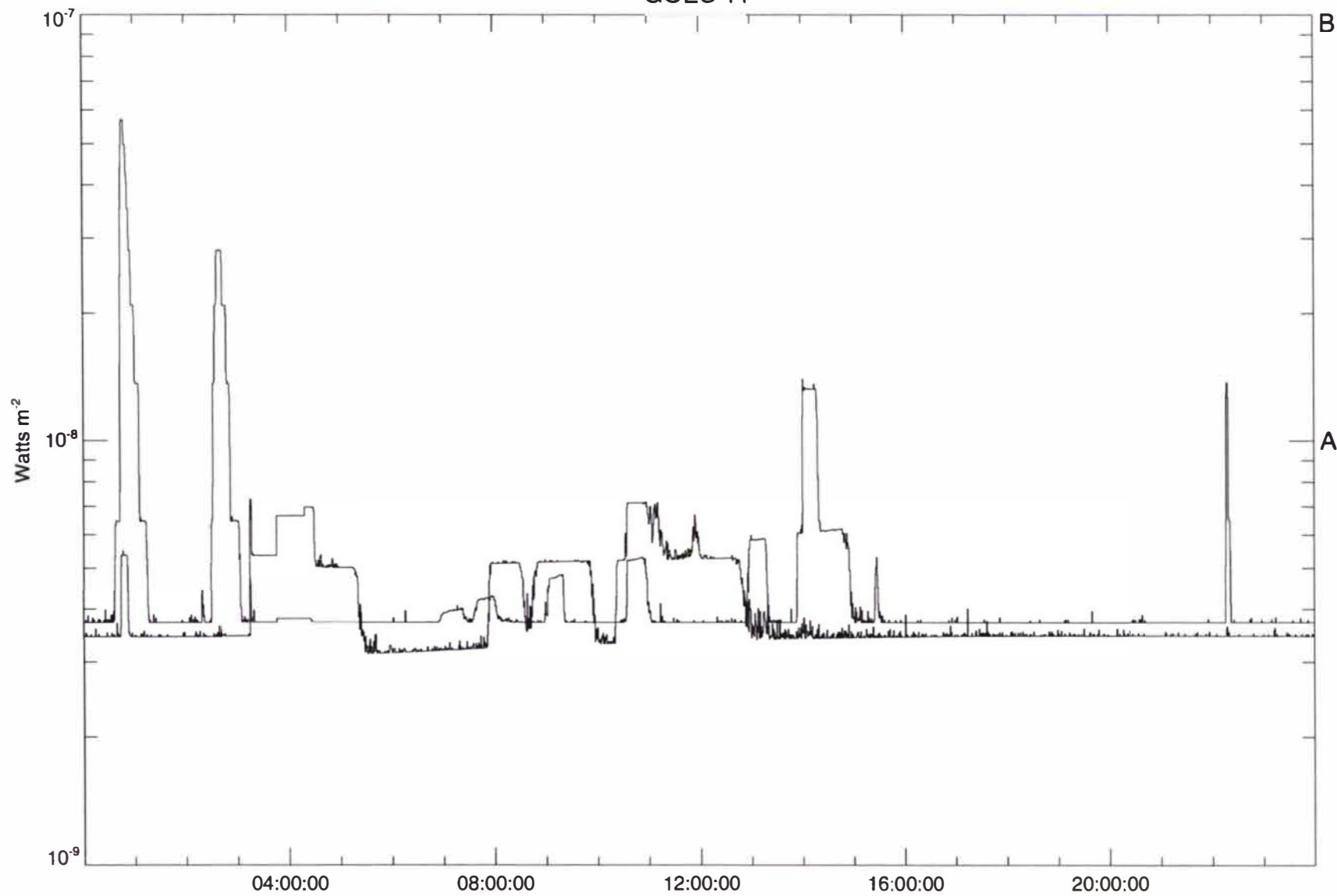
HESSI

27/09/09 68876.000 (SUZAKU_RI_20090927_68896)

25- 150 keV



GOES 11



Data Start: 09/09/27, 0000:13

Plot created: 09/09/30, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

SUZAKU

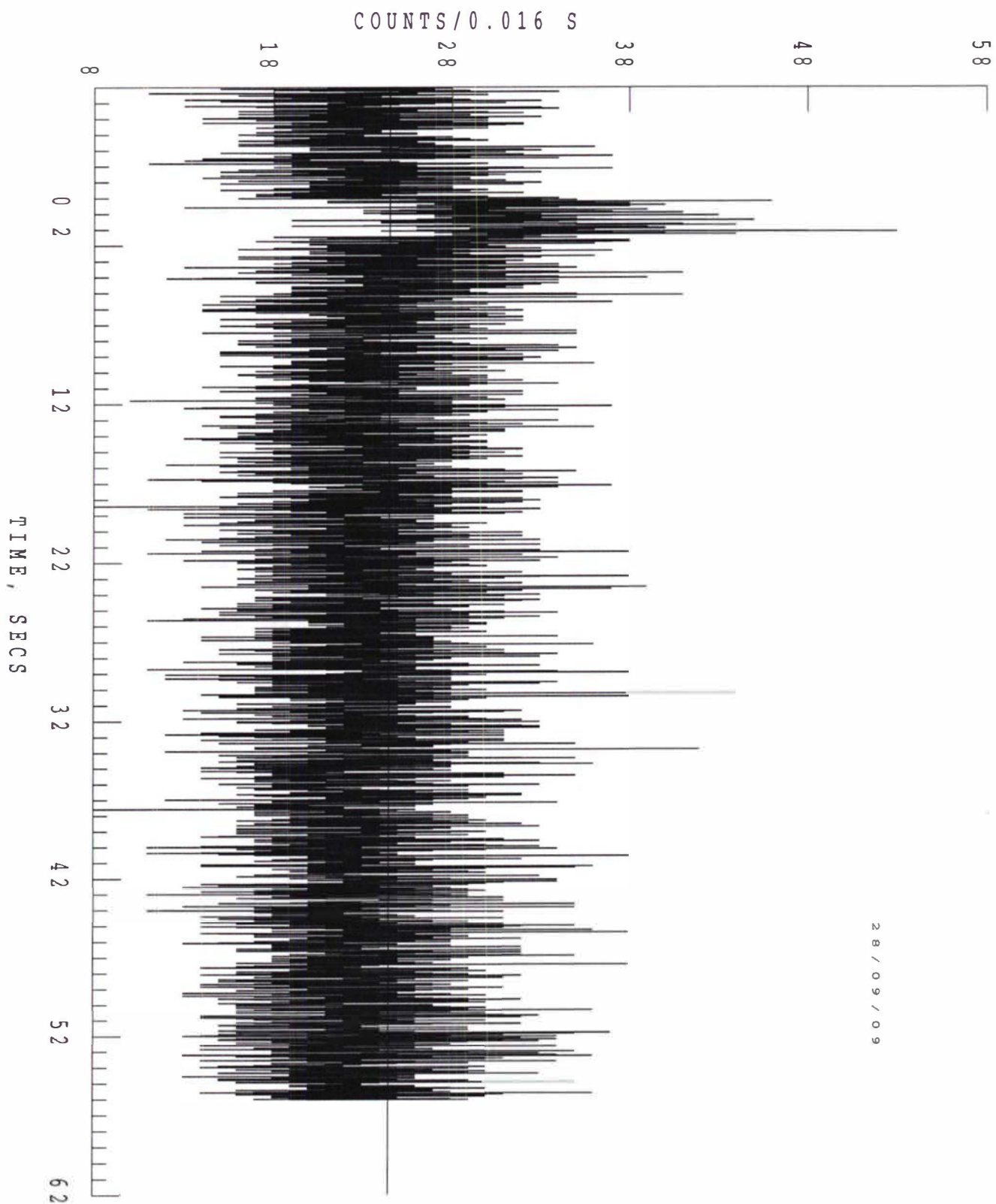
28/09/09

35488.145

A

50 - 240 keV

09:51:28

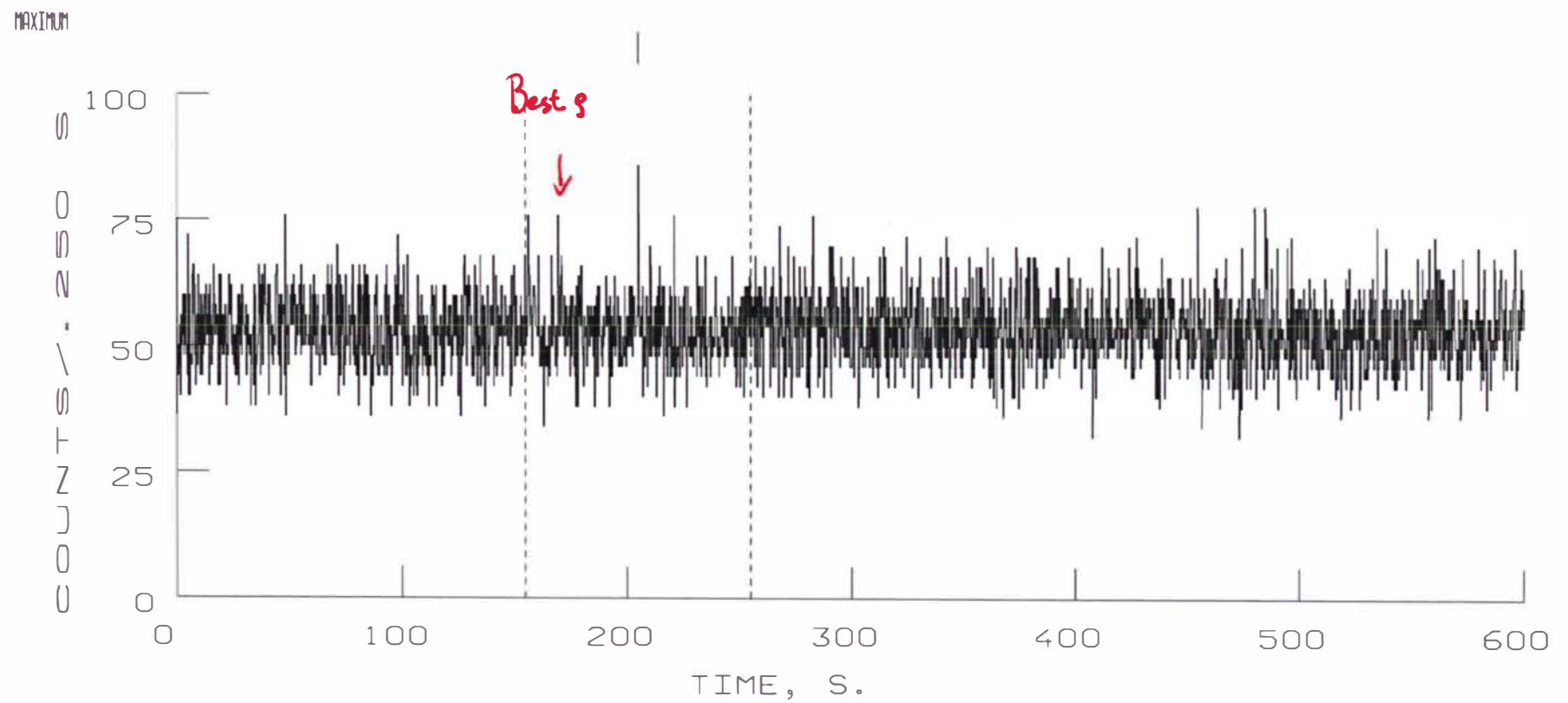


MS01 HEND

19/01/2012

28/09/2009 35128.551 s

50-3000 keV



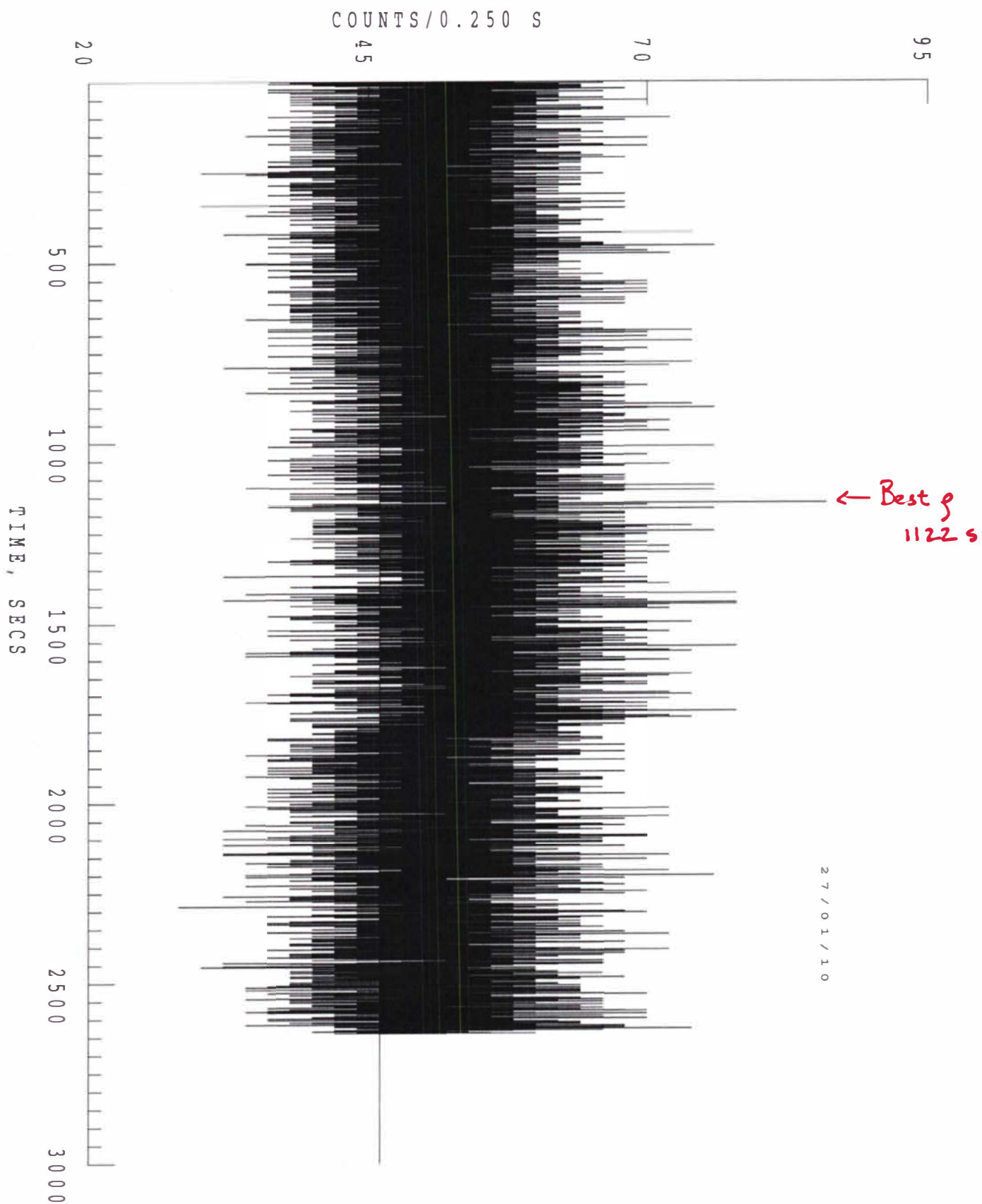
MS01

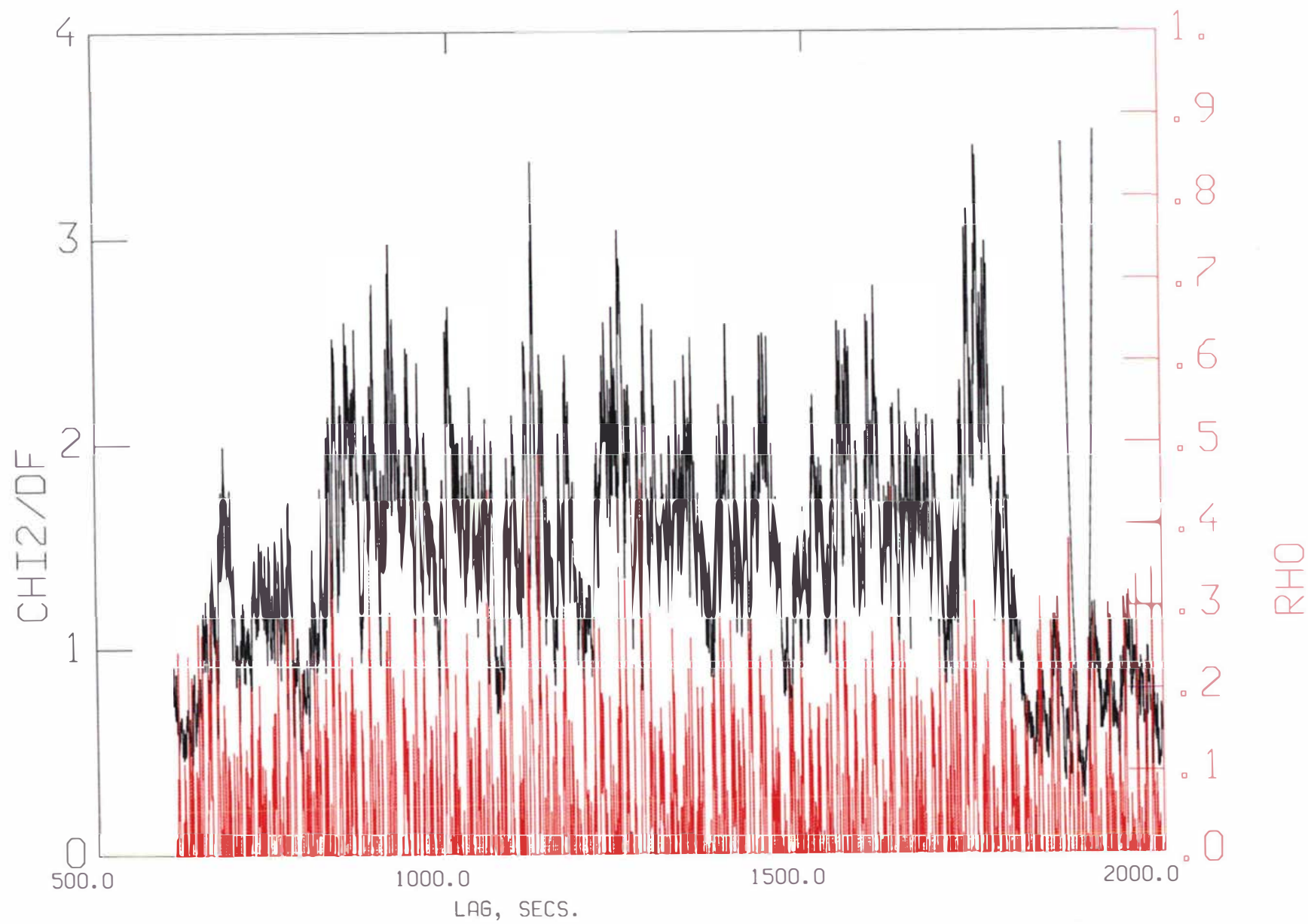
28/09/09

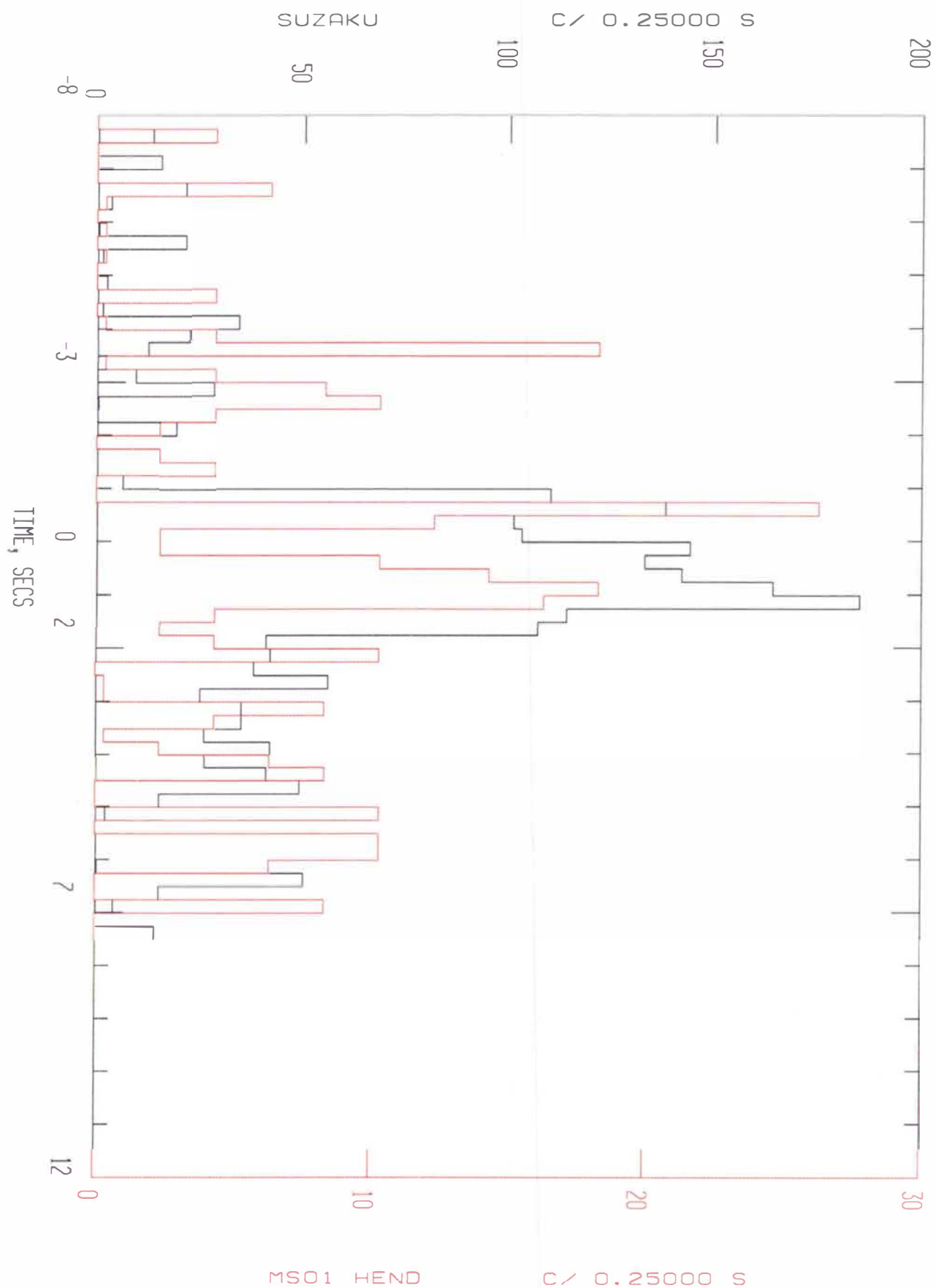
34168.566

A

50 - 3000 keV







From williams@penelope.ssl.berkeley.edu Mon Sep 28 18:46:08 2009
X-Barracuda-Envelope-From: williams@penelope.ssl.berkeley.edu
Date: Mon, 28 Sep 2009 18:59:46 -0700 (PDT)
From: williams@penelope.ssl.berkeley.edu
To: khurley@ssl.berkeley.edu
Subject: No_RHESSI_data_for_SUZAKU_20090928_35488

HESSI 25 to 150 keV Counts
Created 28-Sep-2009 18:46:14.00
Detectors: 3r 4r 5r 6r 8r 9r
columns: time (sec) counts (summed over detectors)
time_interval = 0.250000
Full time range in SAA
No Eclipse
No non-SAA data gap
No Data Available For This Time Range
Do Not Retry

Date: Apr 19 2011

BURST TRIANGULATION CHECKLIST

1. Suzaku Data

- ☐ 1 second timing error corrected? (Jan 1 – Apr 24 2009)

2. AGILE Data

- ☐ 1 second timing error corrected?

3. MESSENGER Data

- ☒ Coarse or Precision oscillator (C or P bronte.jhuapl.edu/spice/kernels/sclk/timekeeping/OPS_TIME_ENGR.txt)? **P**
- ☒ Timing checked after ~ 1 week?

4. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

5. For Odyssey events

- ☐ Was CHECKMO run to eliminate data gaps?
- ☐ Did the Odyssey ephemeris correspond to the event time? (When there is data in the database, the ephemeris is for the start of record, usually ~1320 s prior to the request time; when there is no data in the database, the ephemeris is for the request time in the e-mail, so the request time in mosearch should be equal to the GRB time. Note that the time in the return e-mail will be ~1320 s prior to the time requested, in the line “no HEND data...”)
- ☐ Was Mars-blocking used?
- ☐ For cruise phase data (April – October 2001), was the updated data used? (Old data has timing errors). For later data, was timing checked after ~1 week?
- ☐ GRS database searched for triggered data? Database data between August 2005 and January 2006 should be re-extracted, due to timing errors. (E-mailed data should be OK).
- ☐ GRS and HEND data cross-correlated to check timing?

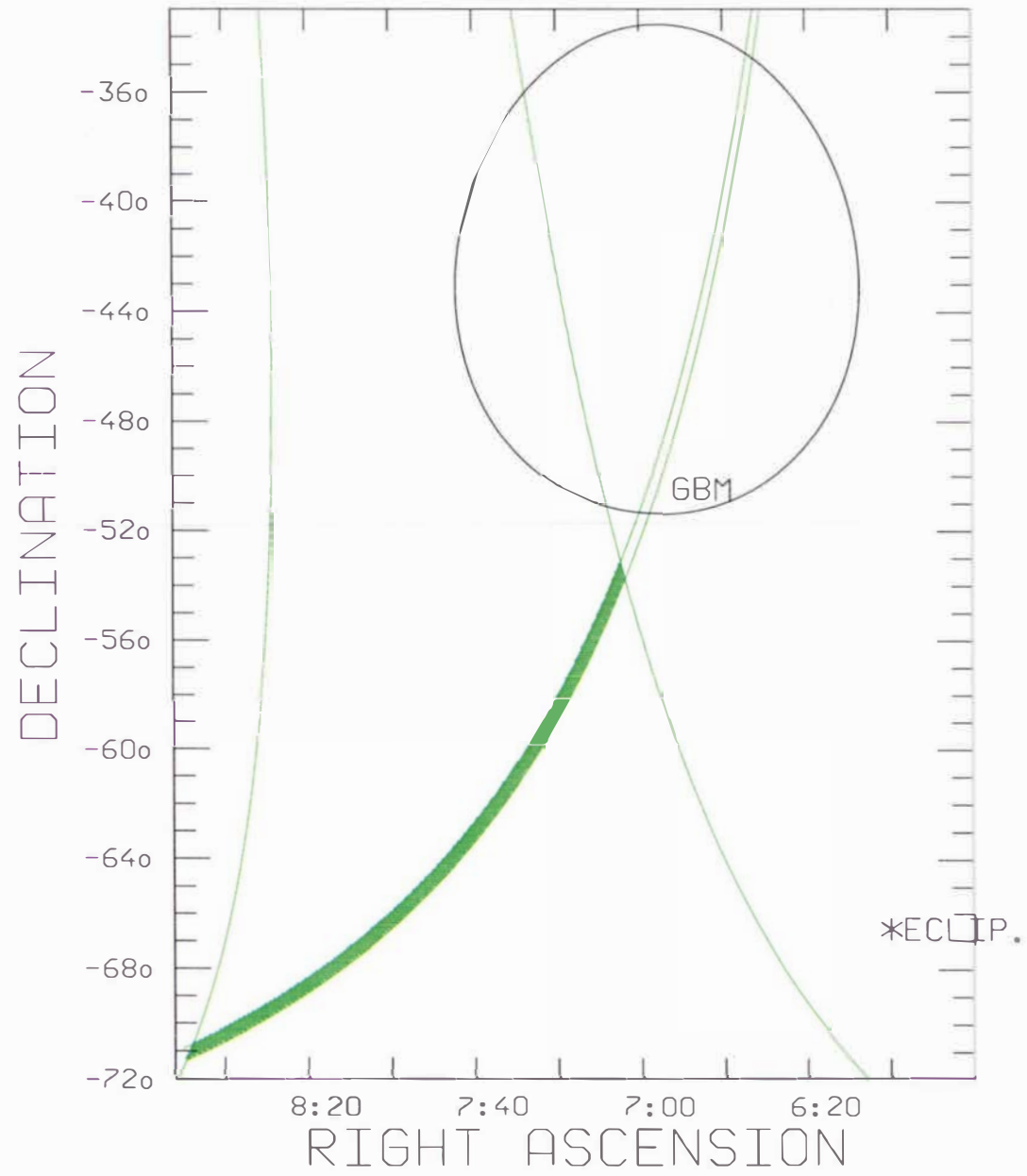
6. For 3 or More Spacecraft events

- ☐ $\Sigma 3\Delta t$'s calculated, and/or BMAPSUM executed?

7. For INTEGRAL events

- ☐ INTEGRAL SPI-ACS website checked for bursts that weren't transmitted automatically?
- ☐ 125 ms added to INTEGRAL SPI-ACS time for bursts prior to April 2 2004 11:00 UT?
- ☐ Updated ephemeris used for bursts prior to September 30, 2003?

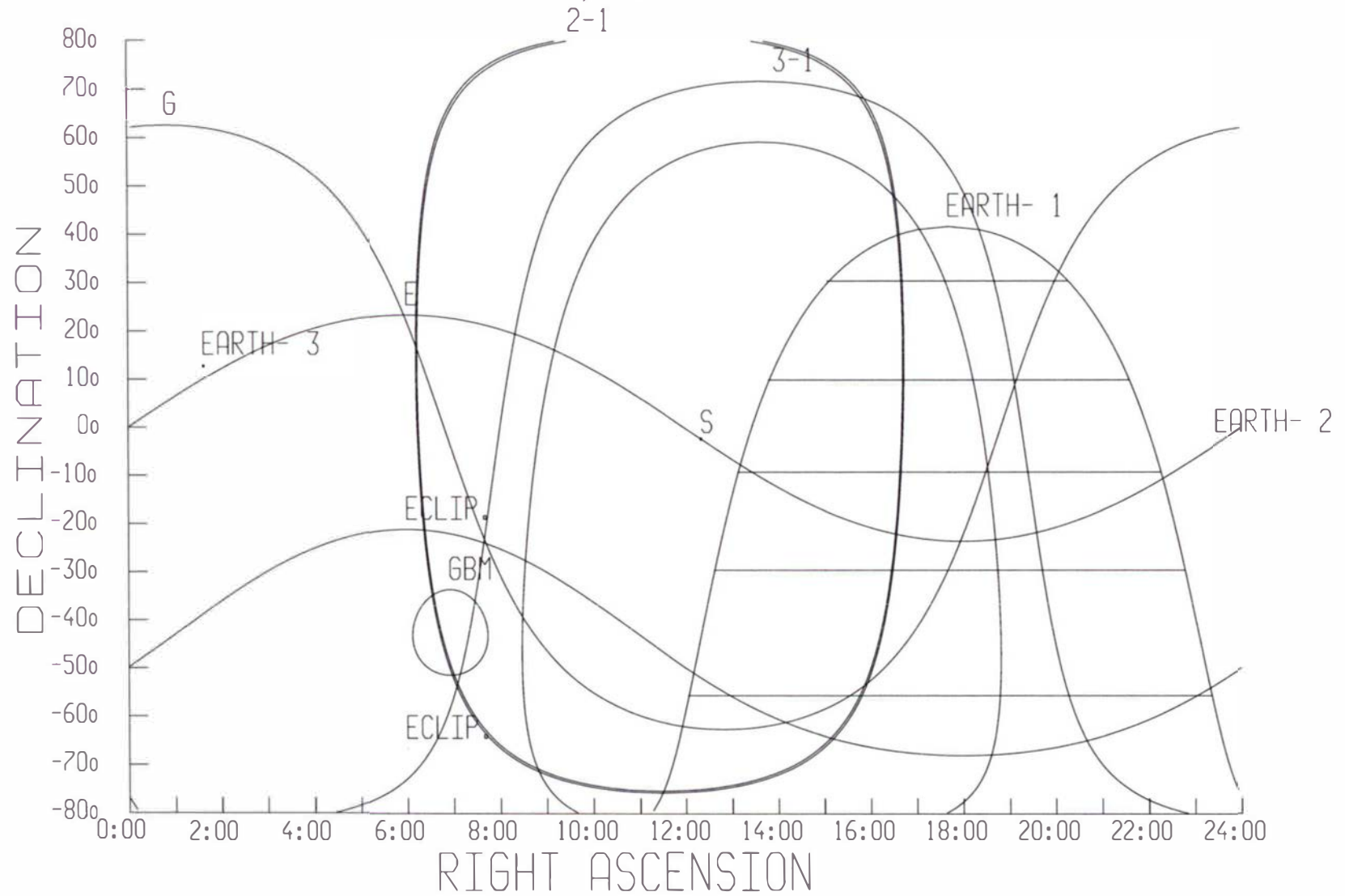
-
- ☒ ACCESS and MBL4 databases updated, with identical times?

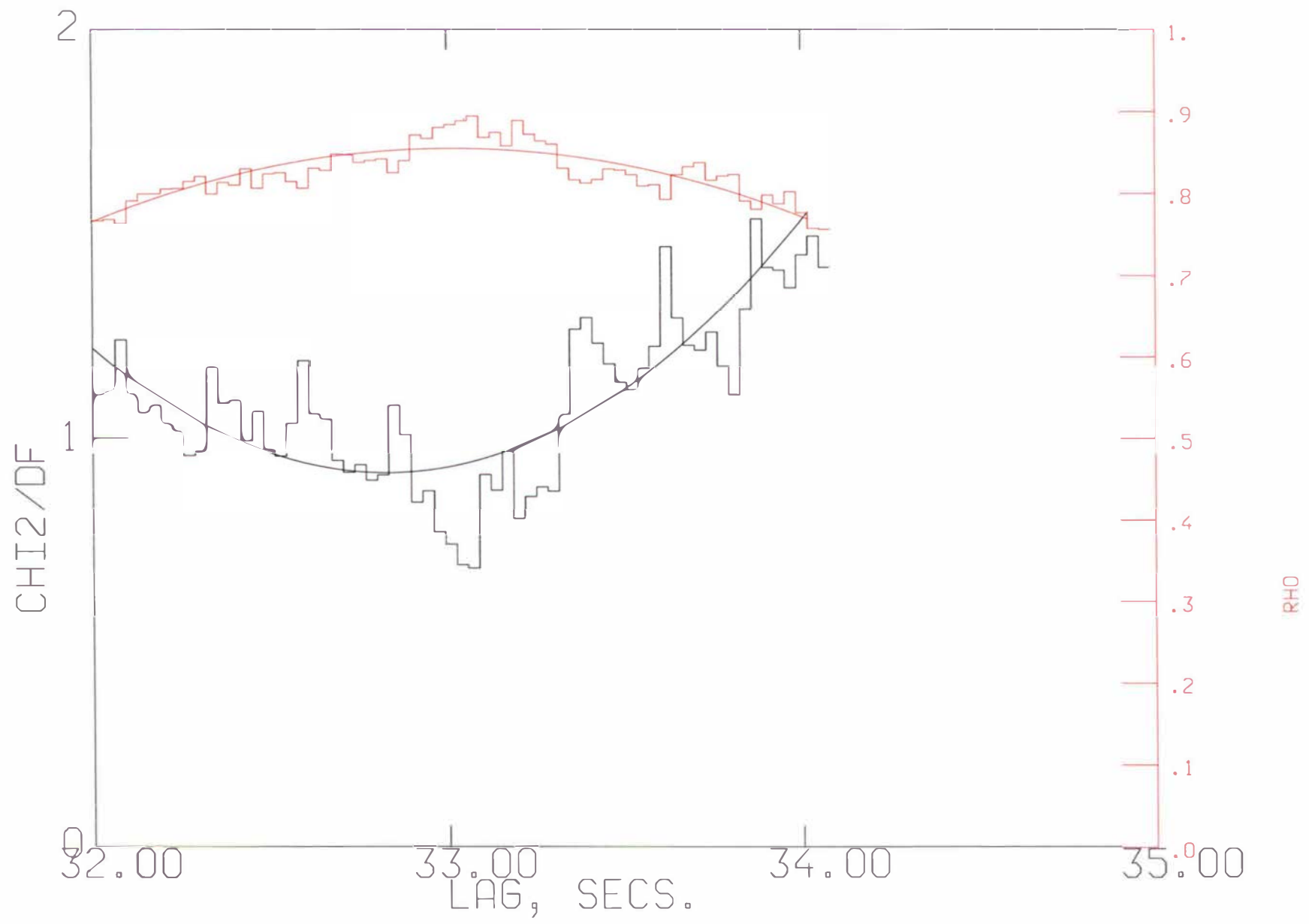


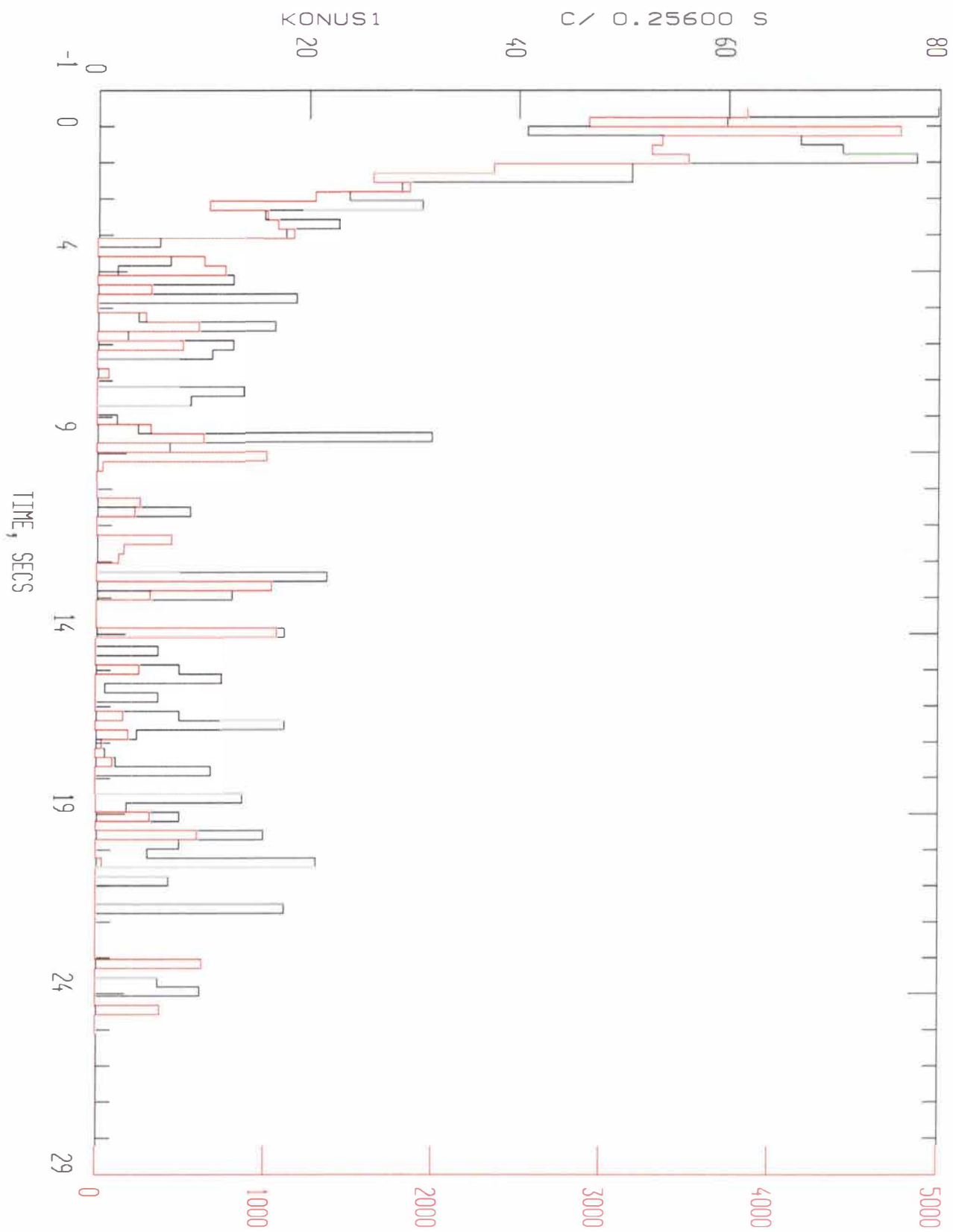
EVENT OF SEP 28, 2009 15:29

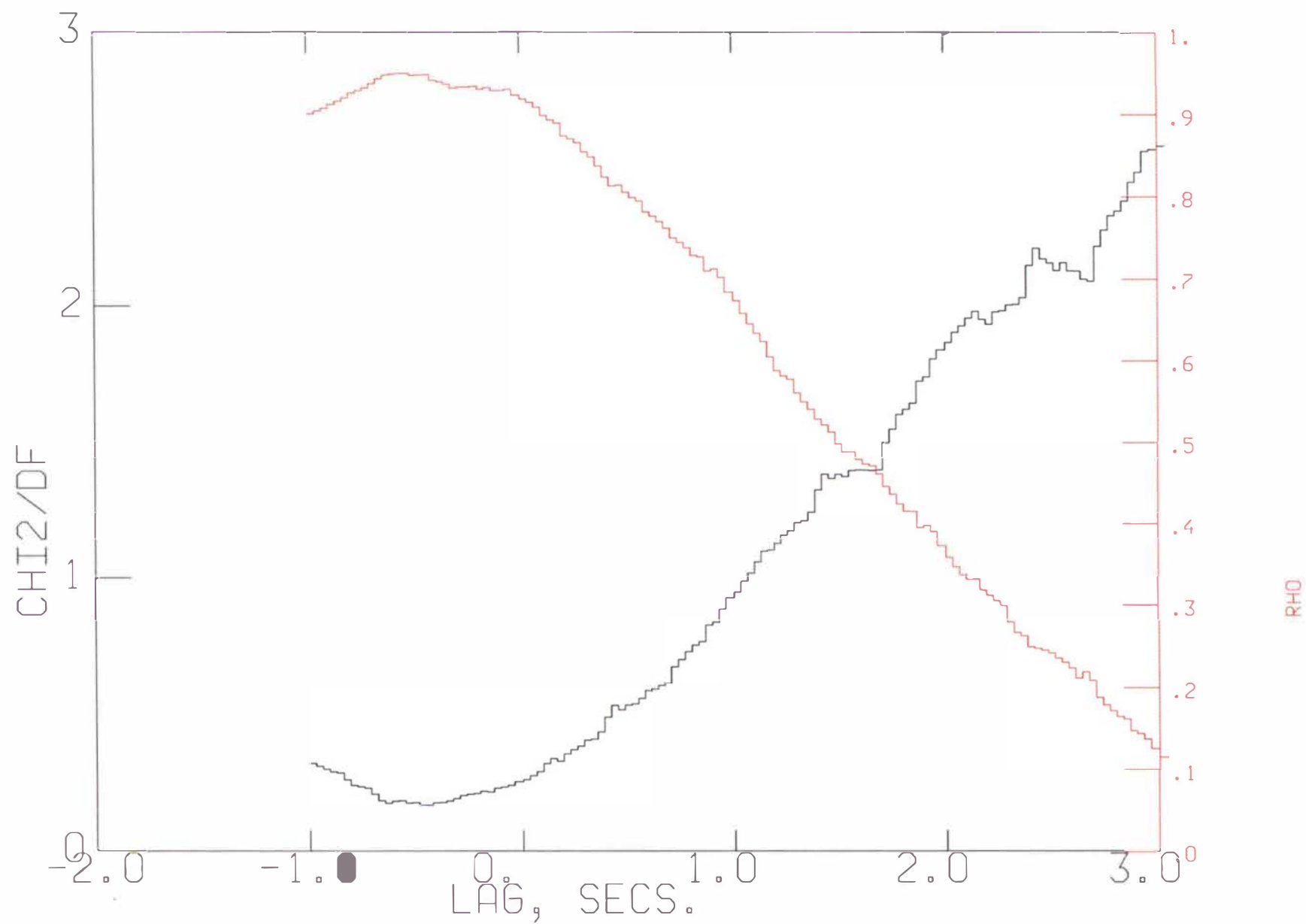
19/04/2011

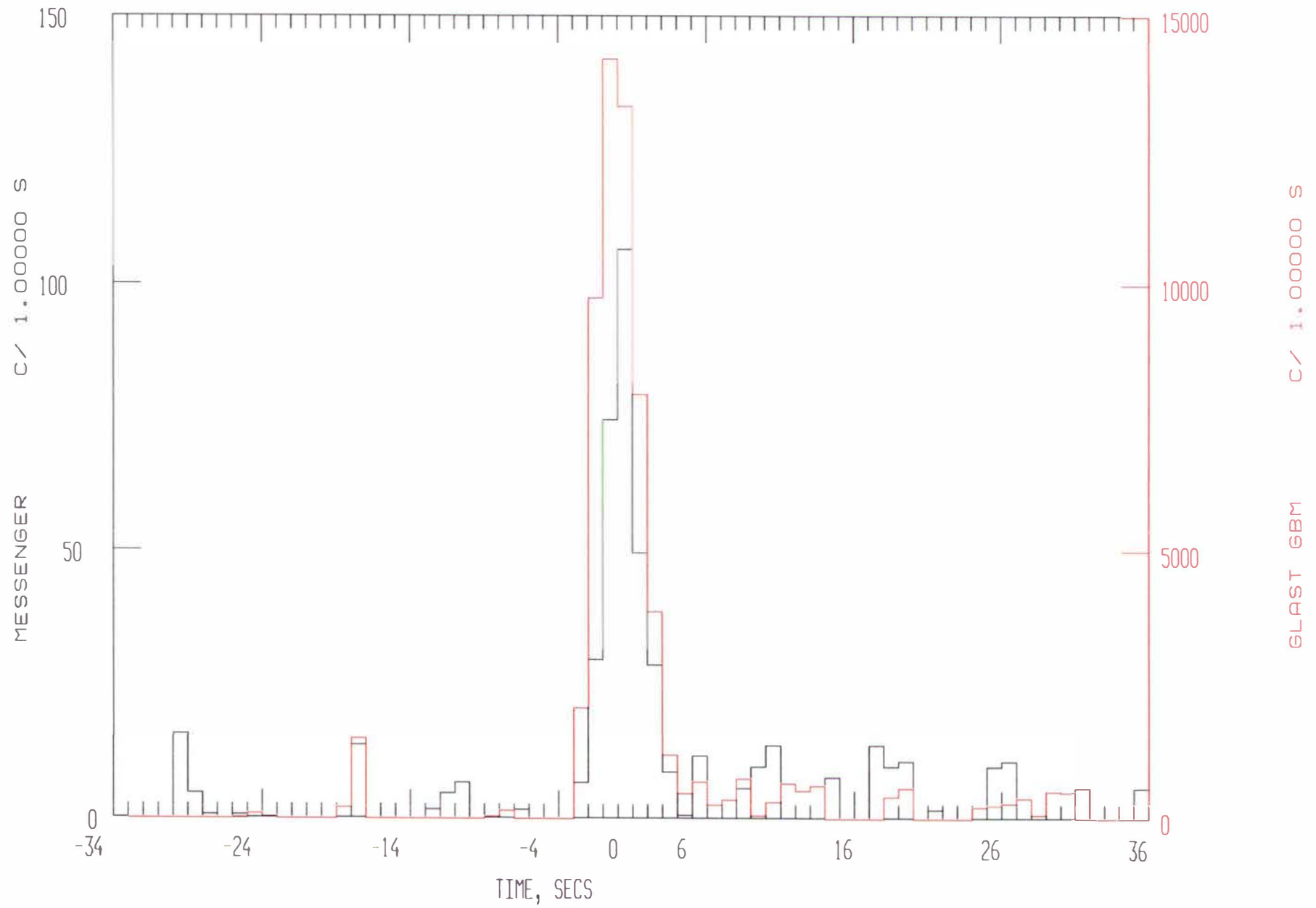
N-M = CORRELATION BETWEEN SATELLITES N AND M
 EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN
 E=ECLIPTIC
 G=GALACTIC EQUATOR
 1 FERMI
 2 MESSENGER
 3 KONUS1











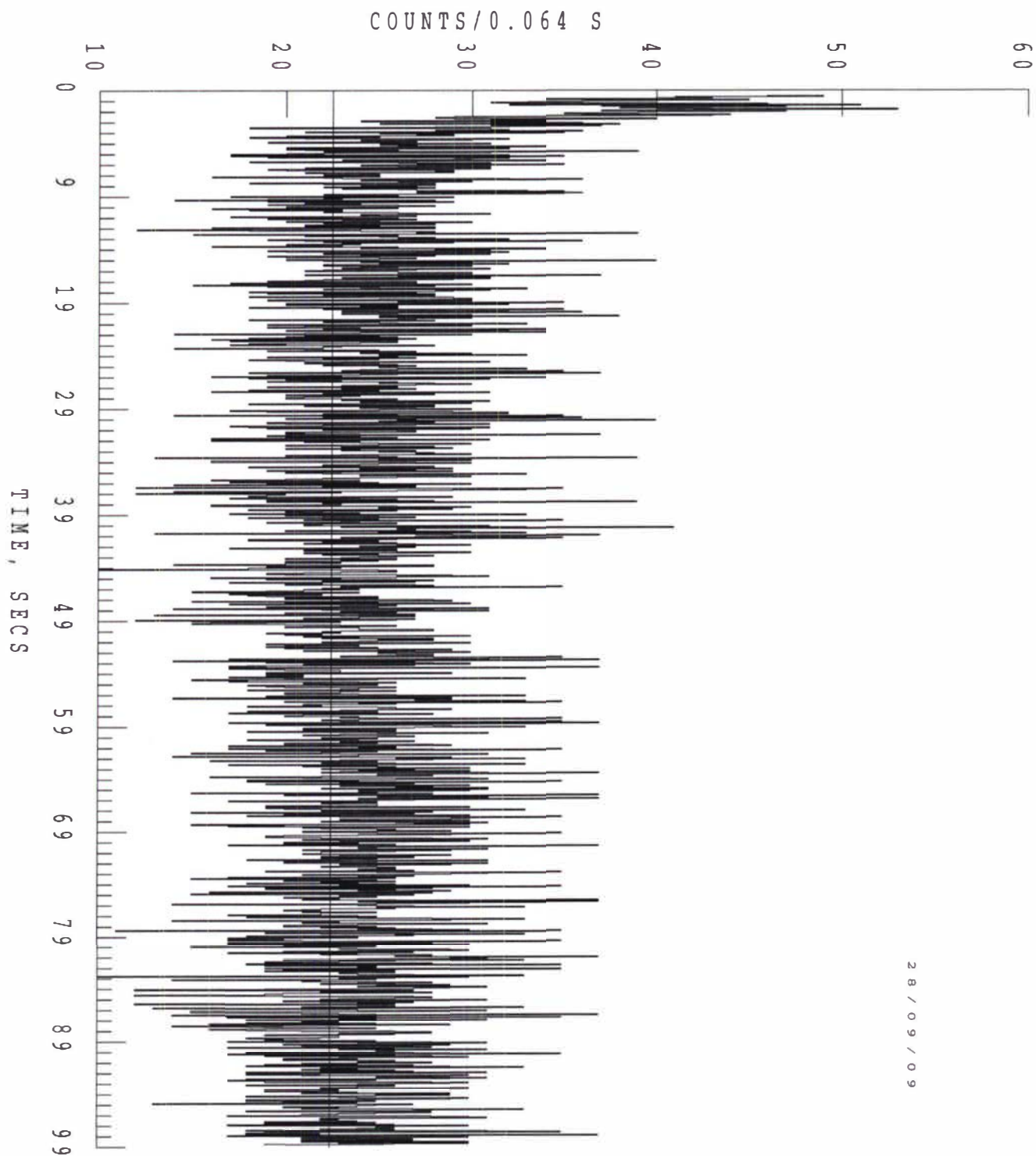
KONUS1

28/09/09

55784.831

B

50 - 200 keV



KONUS HRES 20090928 55784

TRIGGER TIME: 28/09/09 DOY 271 Julian 2455104.14565 UT = 15.496 15:29:44 (55784.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

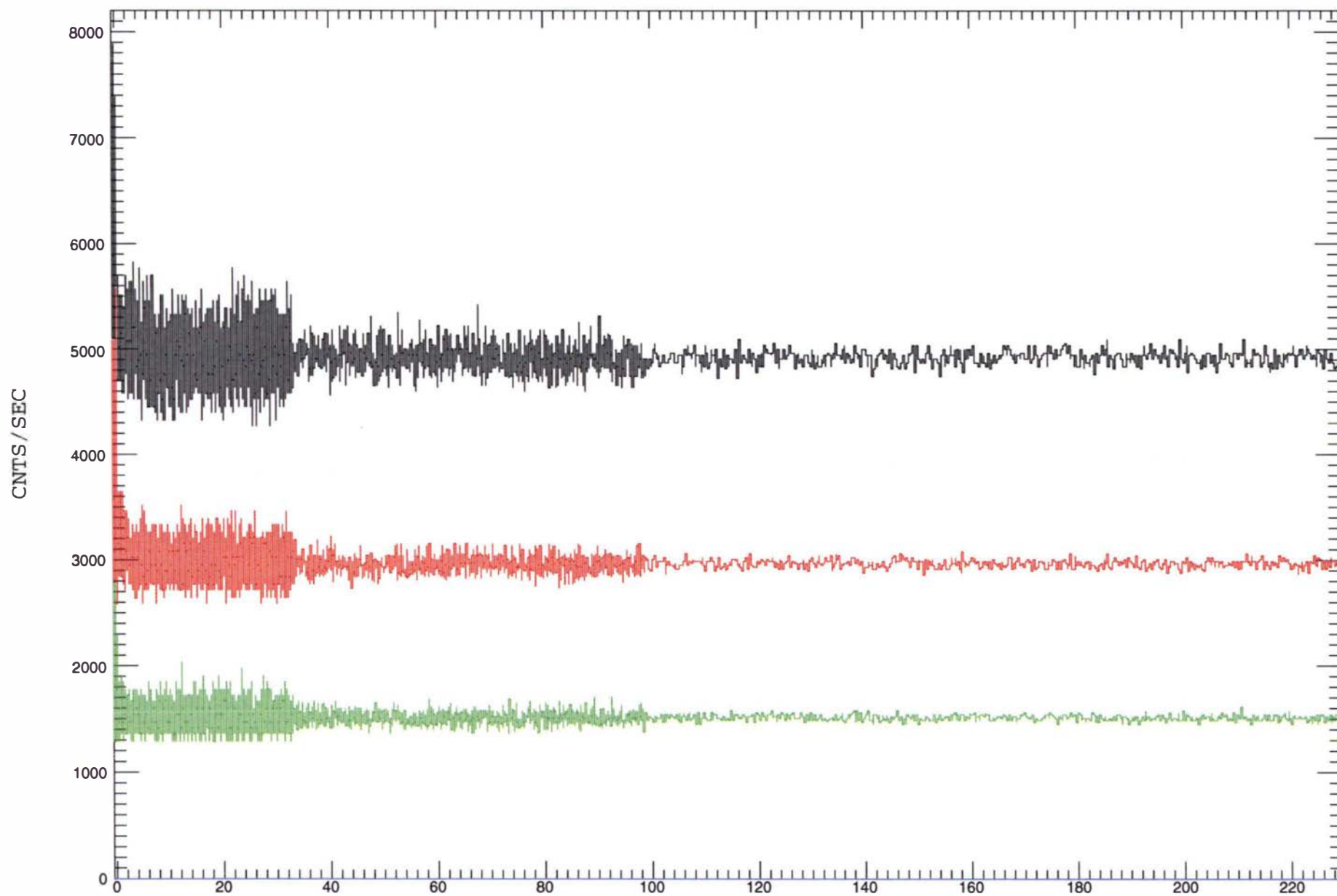
Chan 4 : [> 10 MeV]

Channel 1 + 3900

Channel 2 + 2600

Channel 3 + 1300

Channel 4 + 0



ONDS

MS01

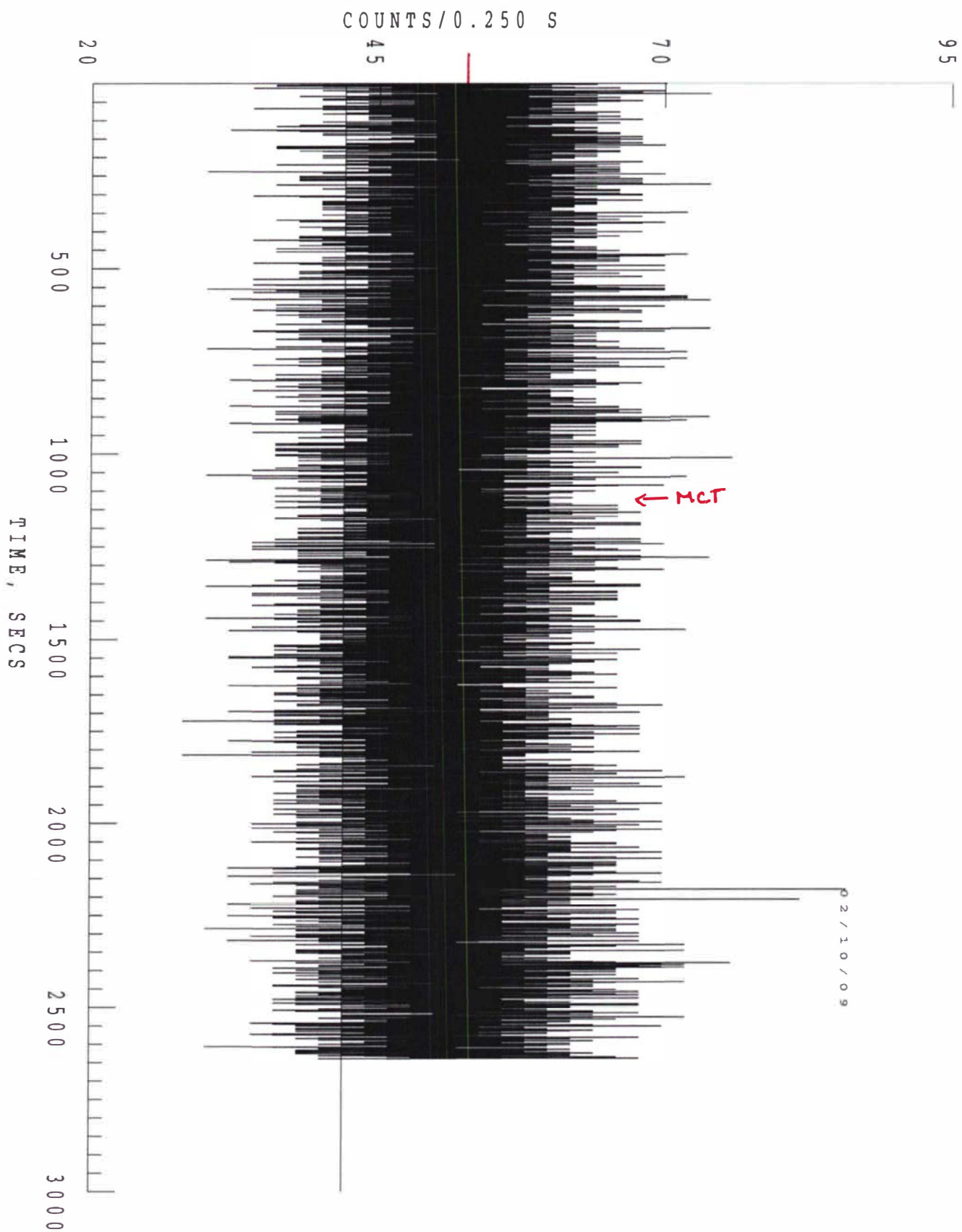
28/09/09

54449.984

B

50 - 3000 keV

MCT 55584



B

KONUS1

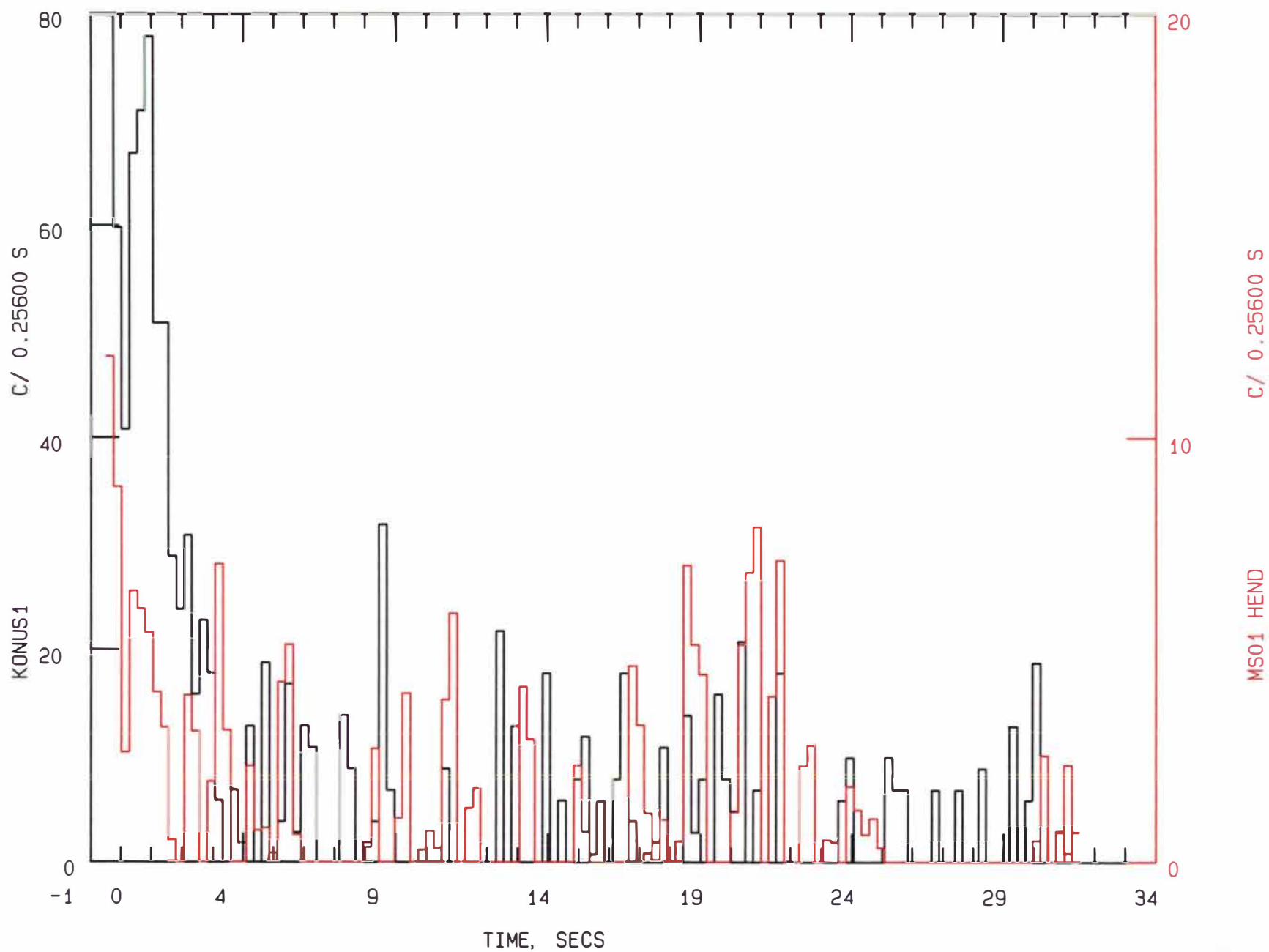
-MS01 HEND

CORRELATION

28/09/09

55784.831

2/10/ 9



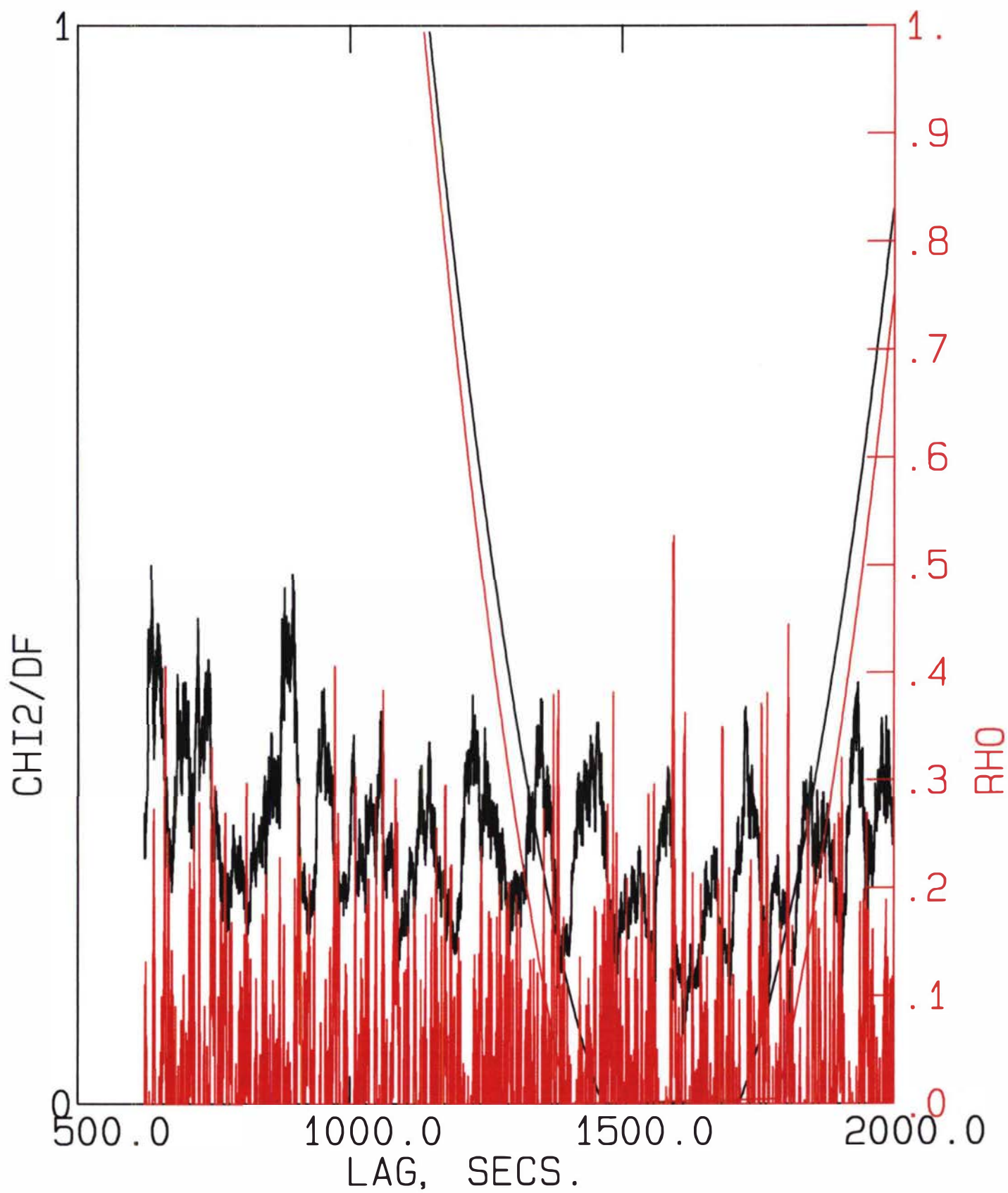
2/10/ 9

KONUS1

-MS01 HEND CORRELATION

28/09/09

55784.831



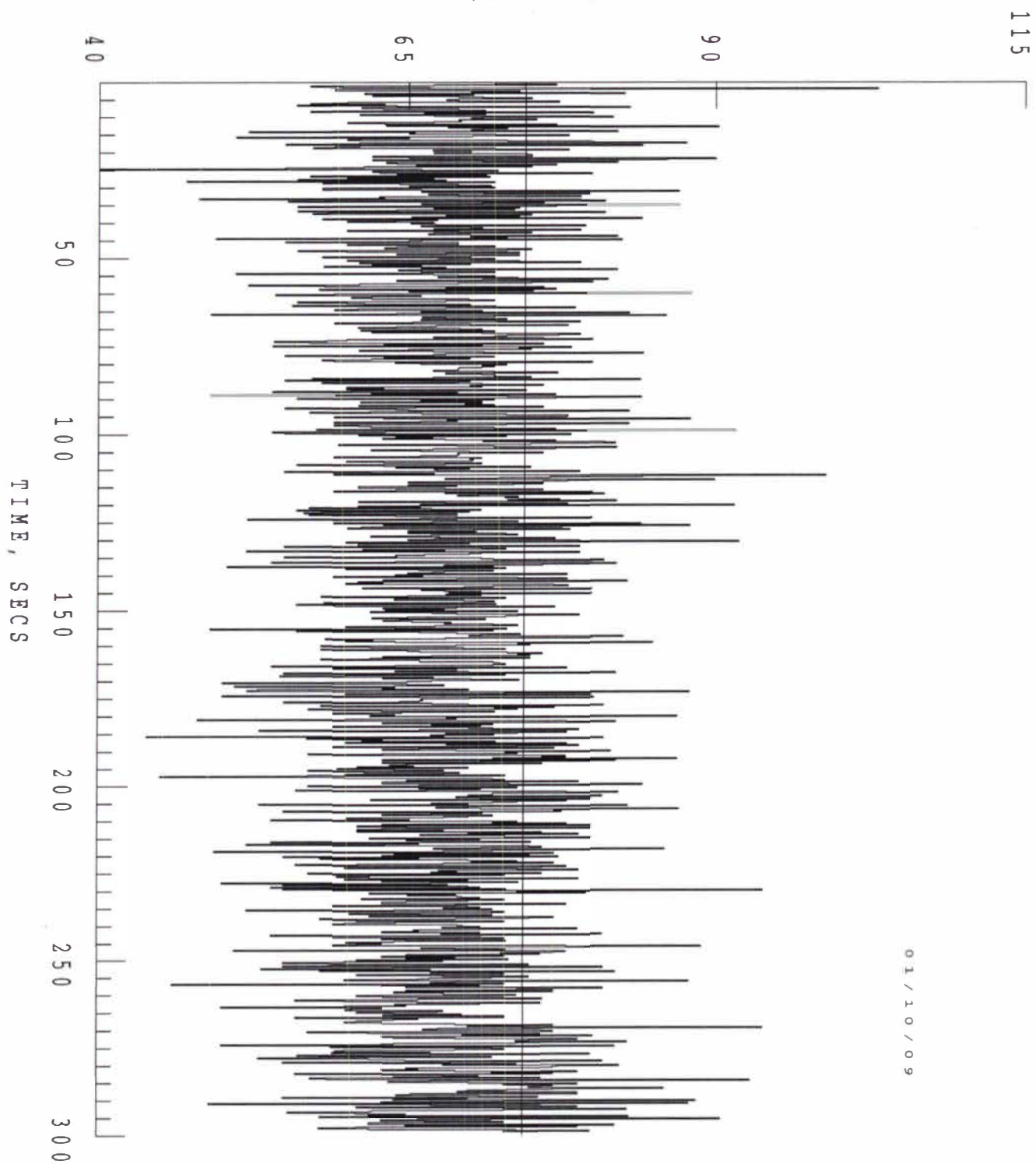
HESSI

28/09/09 55634.000 (GLAST_20090928_55784)

3

25- 150 keV

COUNTS/0.250 S



B

From ipn-bounces@ssl.berkeley.edu Tue Sep 29 08:04:03 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
X-NIE-2-Virus-Scanner: amavisd-new at nis-mail.lanl.gov
From: David Palmer <palmer@lanl.gov>
To: hans.krimm@nasa.gov
Date: Tue, 29 Sep 2009 09:05:16 -0600
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] A long GRB detected by Suzaku WAM on Sep. 28 (= Fermi
trigger 275844586)

Here is the BAT non-detection lightcurve.

In addition to being 90 degrees from the boresight, the GBM position
is 12 degrees below the Earth's limb.

Satellite zenith RA=330.64, dec=17.81, lat=17.86 N, lon=90.78 E

B

From ipn-bounces@ssl.berkeley.edu Tue Sep 29 06:02:59 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Tue, 29 Sep 2009 09:04:18 -0400
From: Hans Krimm <hans.krimm@nasa.gov>
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: "ipn@ssl.berkeley.edu" <ipn@ssl.berkeley.edu>
Subject: Re: [Ipn] A long GRB detected by Suzaku WAM on Sep. 28 (= Fermi trigger 275844586)

Dear Kazu:

There was an alert (#370968) in Swift/BAT at
TRIGTIME= 275844568.64 / [s] MET TRIGger Time =
TRIGSEC+TRIGSUBS*2e-5
DATETRIG= '2009-09-28T15:29:23.5' / UTC date of the
trigger

which is 22 seconds before the WAM and GBM bursts. Also, at the time
Swift was pointing at some blazar called CRATES J2150-2812, RA=327.702,
dec=-28.1960, which is 90 degrees from the GBM position.

So I don't think these are the same event.

--Hans

Kazutaka Yamaoka wrote:

> Dear IPNers,
>
> A long GRB triggered the Suzaku WAM on
2009-09-28 15:29:45.140.
Attached is the WAM 3 light curve in the 50-5000 keV range.
> The total duration was ~ 5 seconds.
>
> This burst was detected by Fermi-GBM (=trigger #275844586)
> Any other detections ?
>
> Best wishes,
> Kazu
> on behalf of the Suzaku WAM team
>
>
>

> -----

--
Dr. Hans A. Krimm
Universities Space Research Association
CRESST and NASA Goddard Space Flight Center
Code 661, ASD
Greenbelt, MD 20771
USA
301-286-6955
fax 301-286-1684

Ipn mailing list
ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

3

01/10/09

MESSENGER

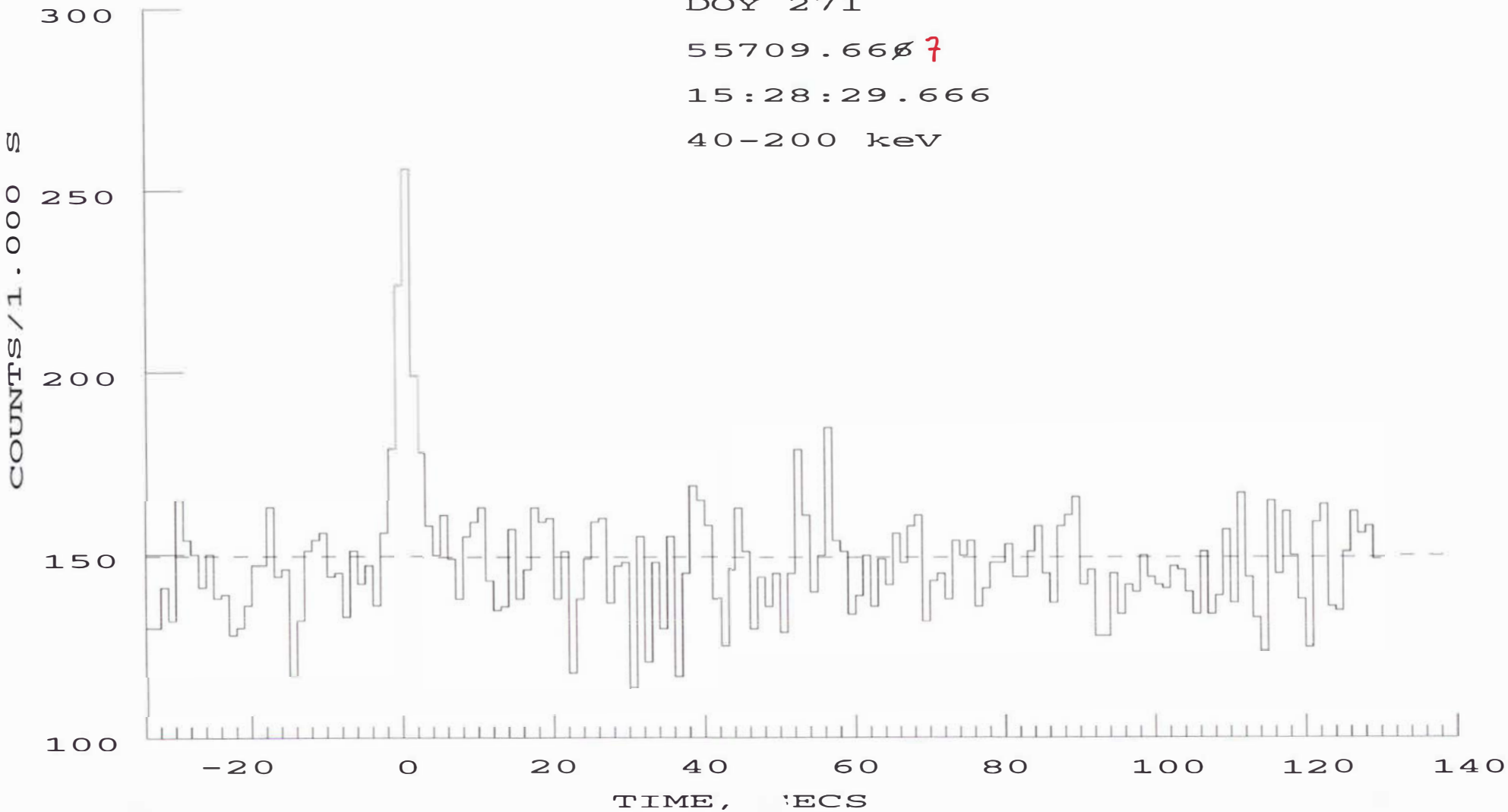
28/09/09

DOY 271

55709.6667

15:28:29.666

40-200 keV



From ipn-bounces@ssl.berkeley.edu Wed Sep 30 05:01:03 2009
X-Barracuda-Envelope-From: ipn-bounces@ssl.berkeley.edu
Date: Wed, 30 Sep 2009 14:02:23 +0200
From: sa.grb@iasf-roma.inaf.it
To: Kazutaka Yamaoka <yamaoka@phys.aoyama.ac.jp>
Cc: ipn@ssl.berkeley.edu, sagile@iasf-roma.inaf.it
Subject: Re: [Ipn] A long GRB detected by Suzaku WAM on Sep. 28 (= Fermi trigger 275844586)

Dear Kazu,

SuperAGILE did not detect this burst. Our pointing was at RA=276.7, dec=-23.5 .

Cheers

Ettore

on behalf of the SuperAGILE team

>
> Dear IPNers,
>
> A long GRB triggered the Suzaku WAM on
> 2009-09-28 15:29:45.140.
> Attached is the WAM 3 light curve in the 50-5000 keV range.
> The total duration was ~ 5 seconds.
>
> This burst was detected by Fermi-GBM (=trigger #275844586)
> Any other detections ?
>
> Best wishes,
> Kazu
> on behalf of the Suzaku WAM team
>
>

Ipn mailing list
Ipn@ssl.berkeley.edu
<http://lists.ssl.berkeley.edu/mailman/listinfo/ipn>

GLAST

28/09/09

55784.665

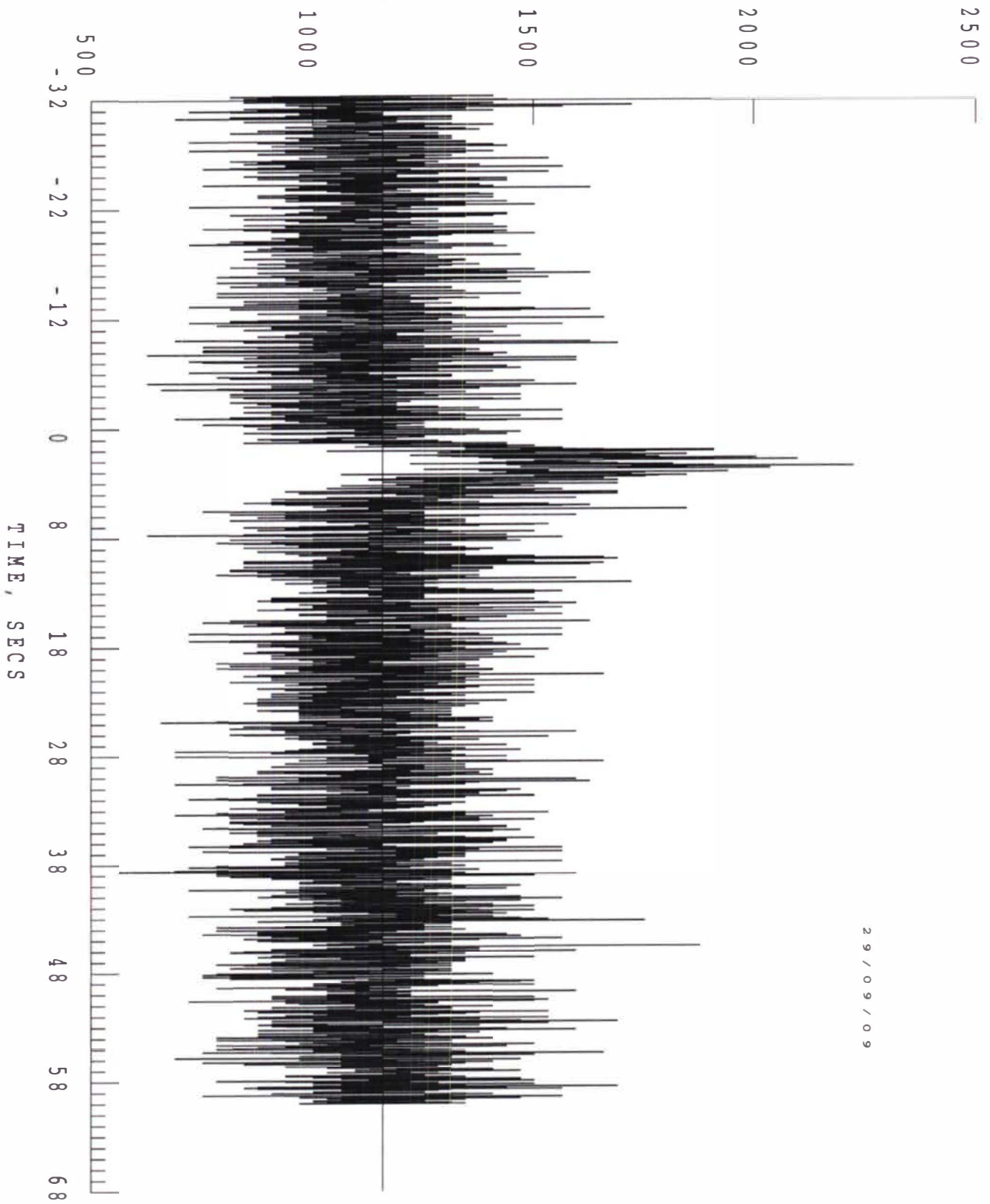
15:29:44

B

26- 293 keV

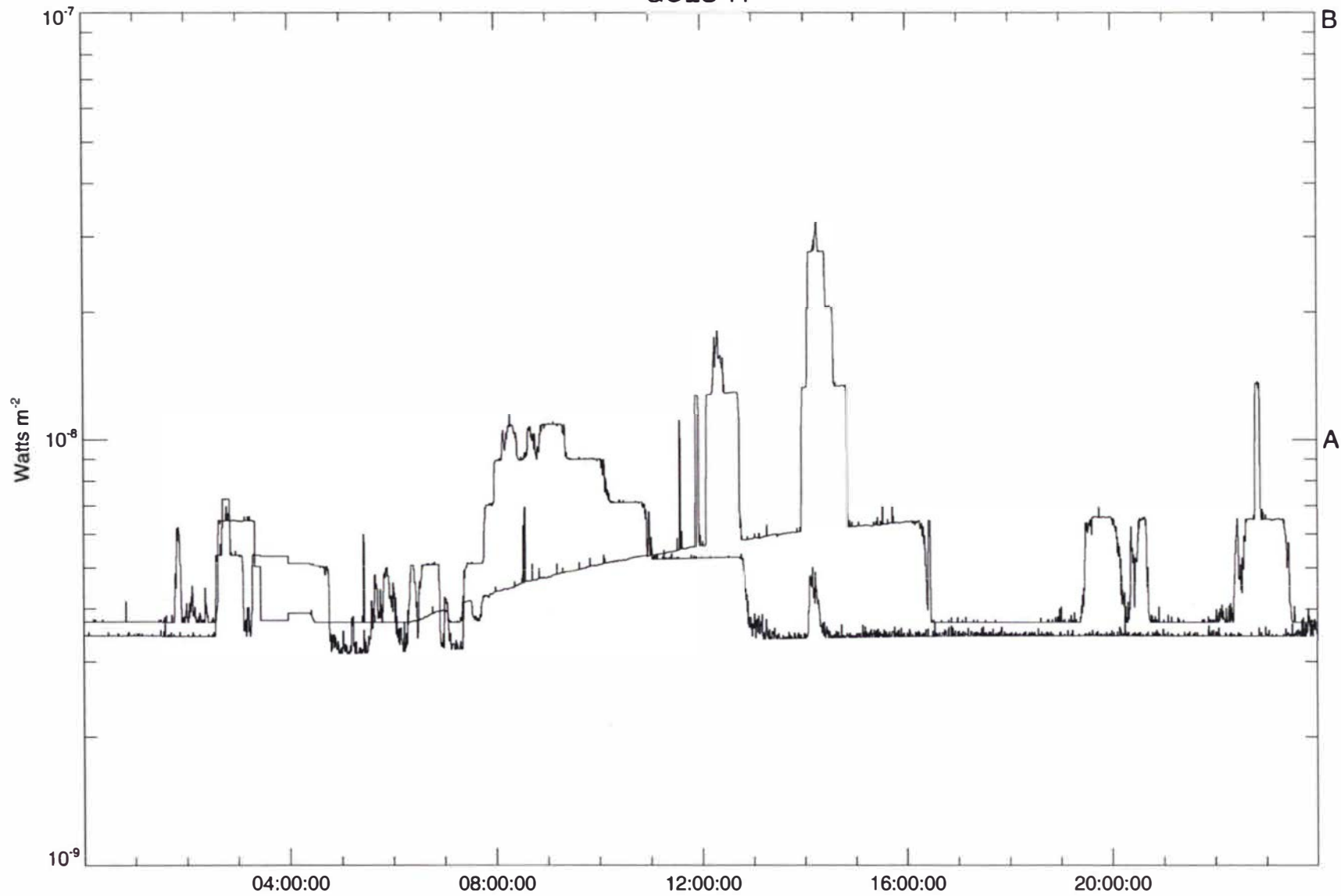
95.35, -49.55

COUNTS/0.032 S



29/09/09

GOES 11



Data Start: 09/09/28, 0000:13

Plot created: 09/10/01, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

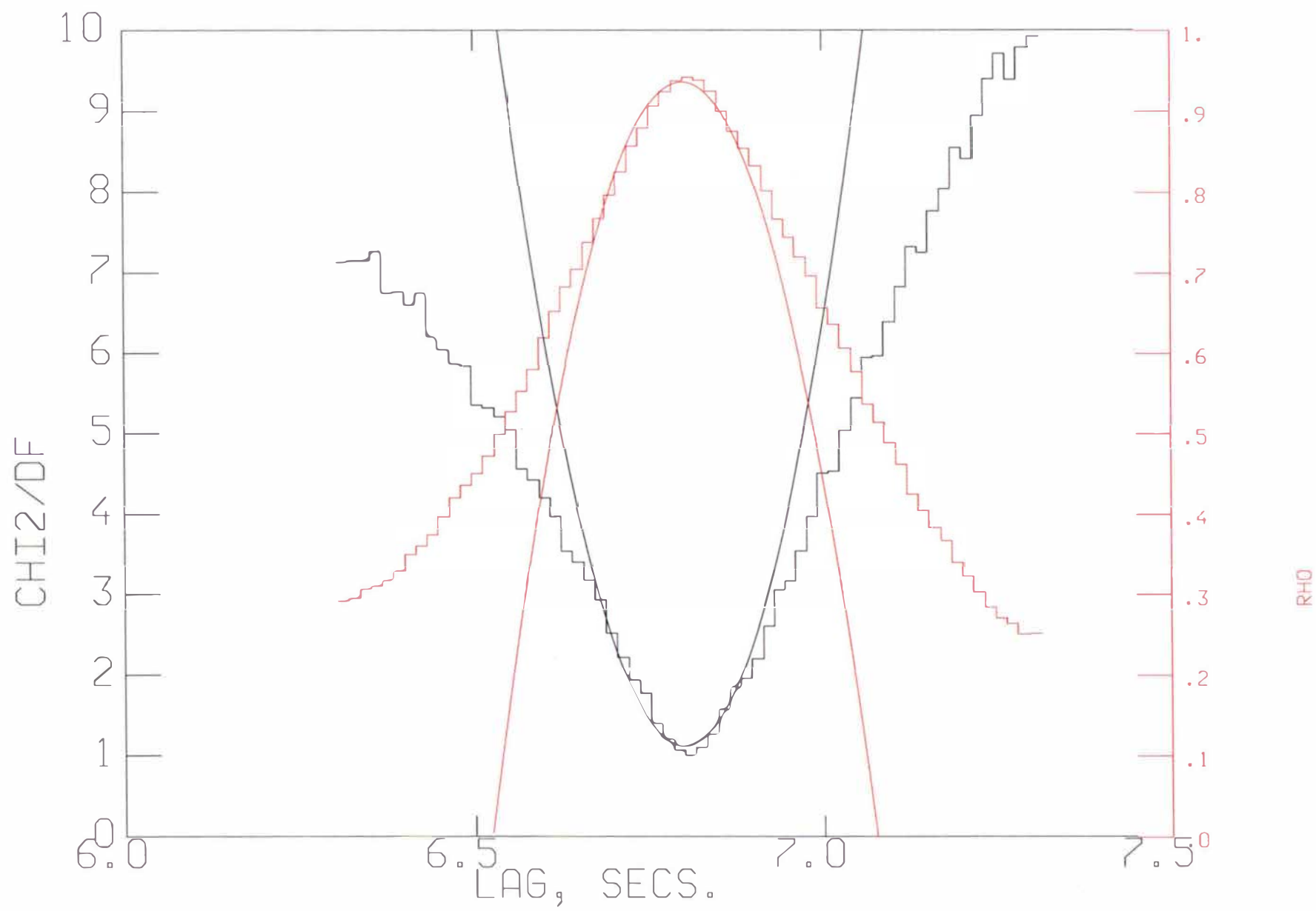
Sample average = 10

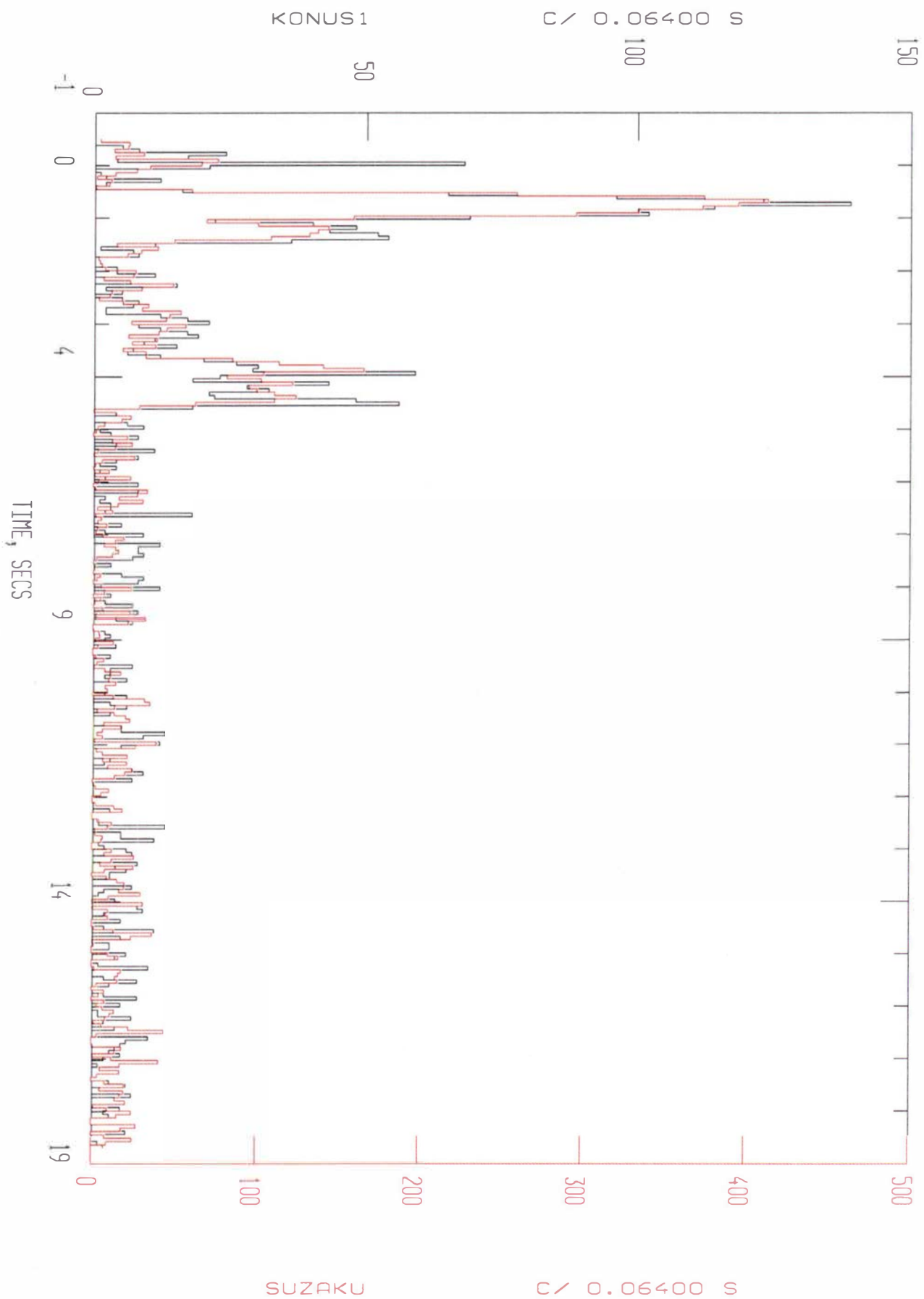
From: "John Goldsten" <John.Goldsten@jhuapl.edu>
To: "David J. Lawrence (Space)" <David.J.Lawrence@jhuapl.edu>, "William C. Feldm
Cc: "Robert E. Gold" <Robert.Gold@jhuapl.edu>, "Ralph McNutt" <Ralph.McNutt@jhua
Sent: Thursday, October 1, 2009 12:08:14 PM GMT -07:00 US/Canada Mountain
Subject: NS back on

The high voltage was turned back on today, Day 274 at approximately 18:00 UTC, following the s/c safing event which occurred on 9/29 (Day 272) at approximately 22:00 UTC. All count rates appear nominal.

The NS will remain on until the next solar conjunction, in which Mops would like to turn the instrument off. They also require NS off for DSM-5, which occurs near Thanksgiving. Exact dates and details to follow as they become known. For now at least the NS is on Γ and at a time when the sun seems to be awakening from a rather long hibernation.

John

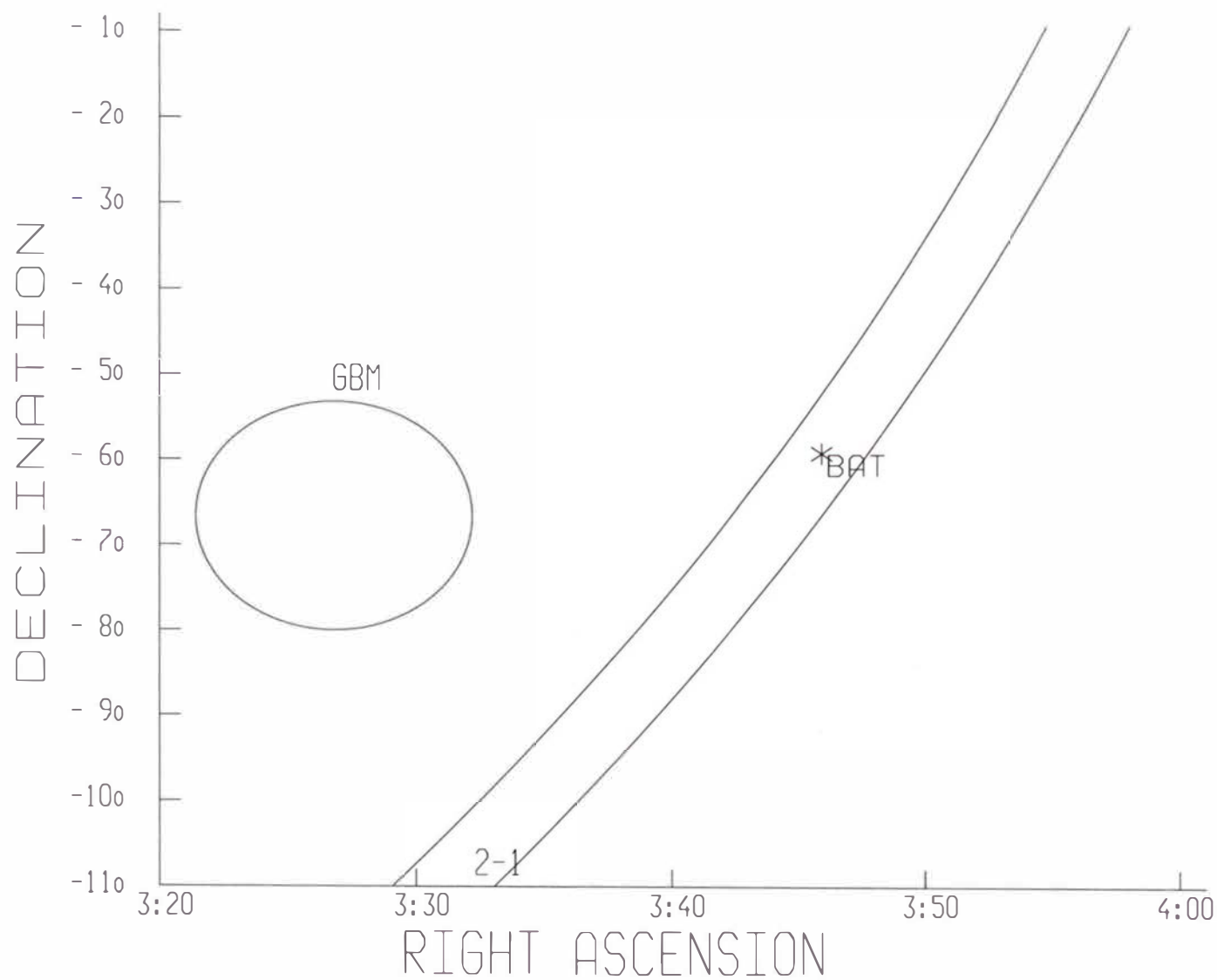


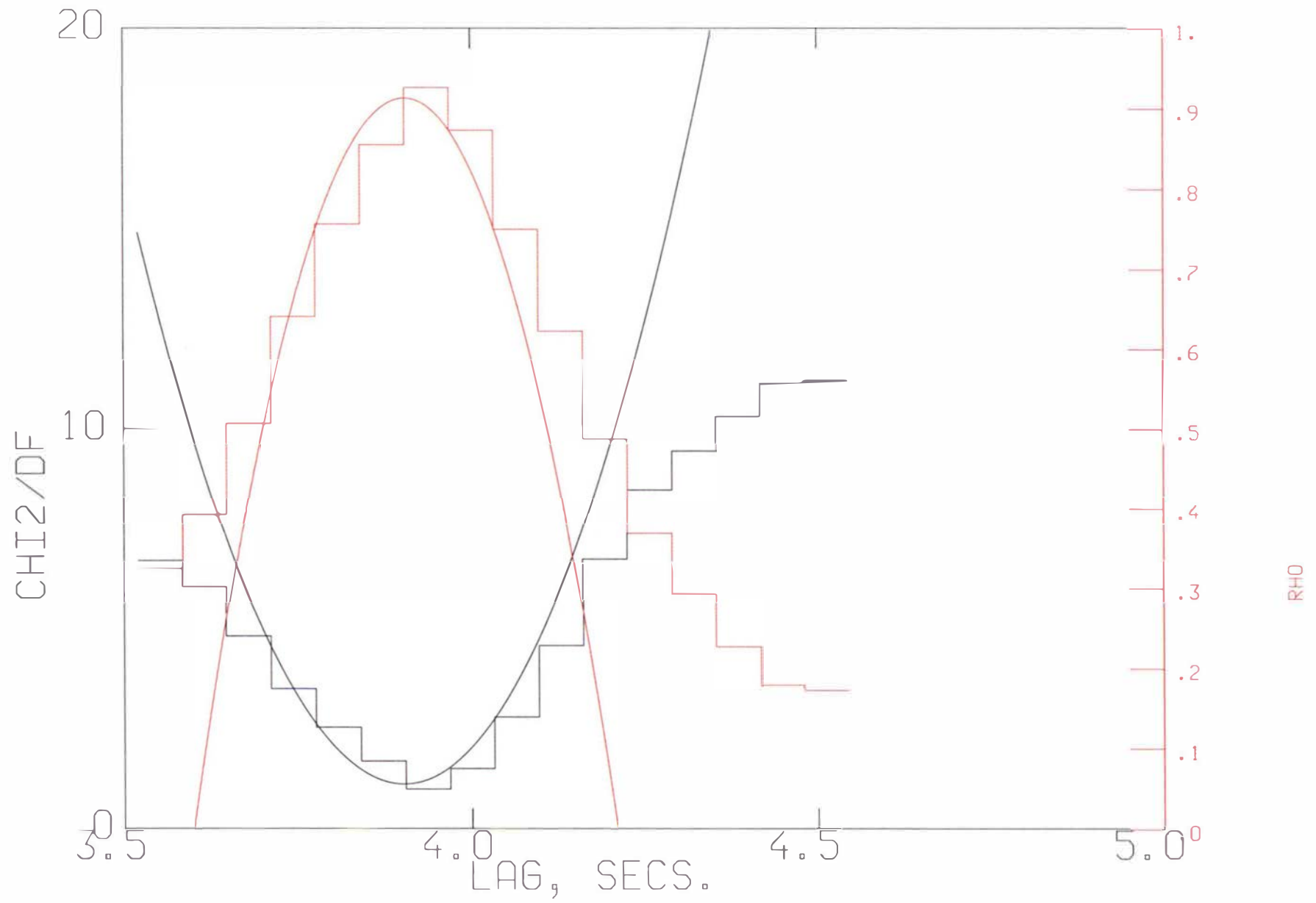


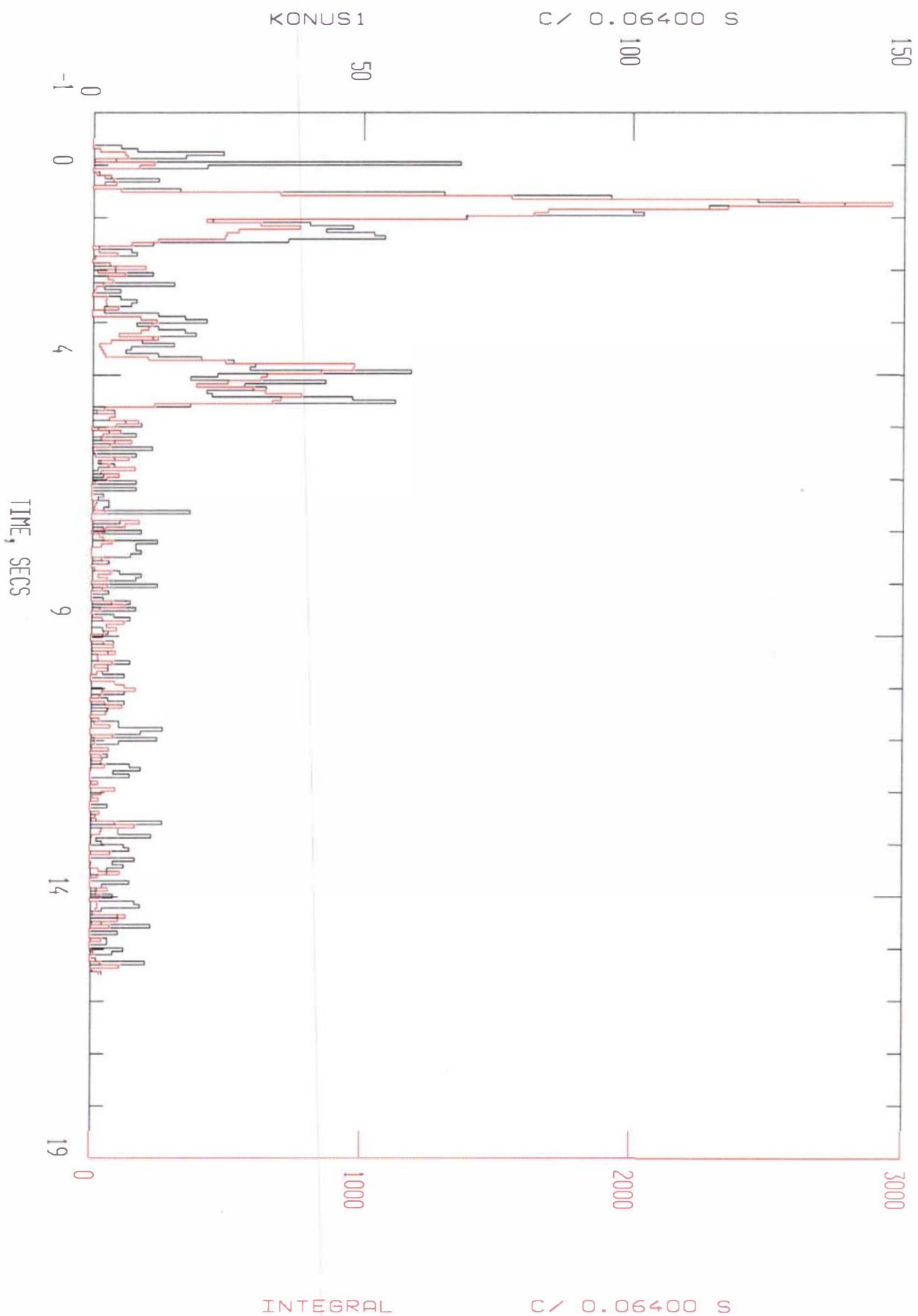
EVENT OF SEP 29, 2009 4:33

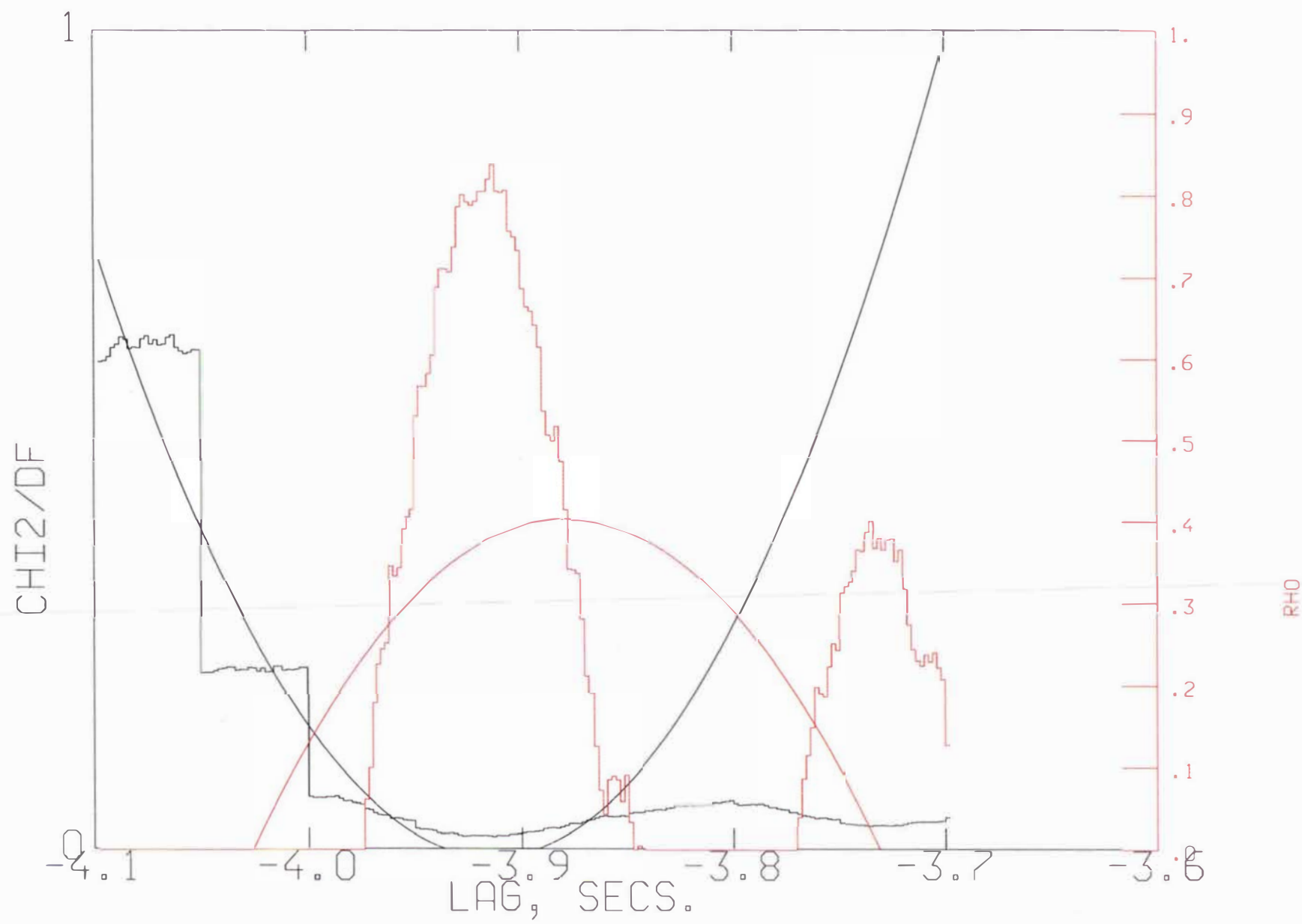
22/06/2012

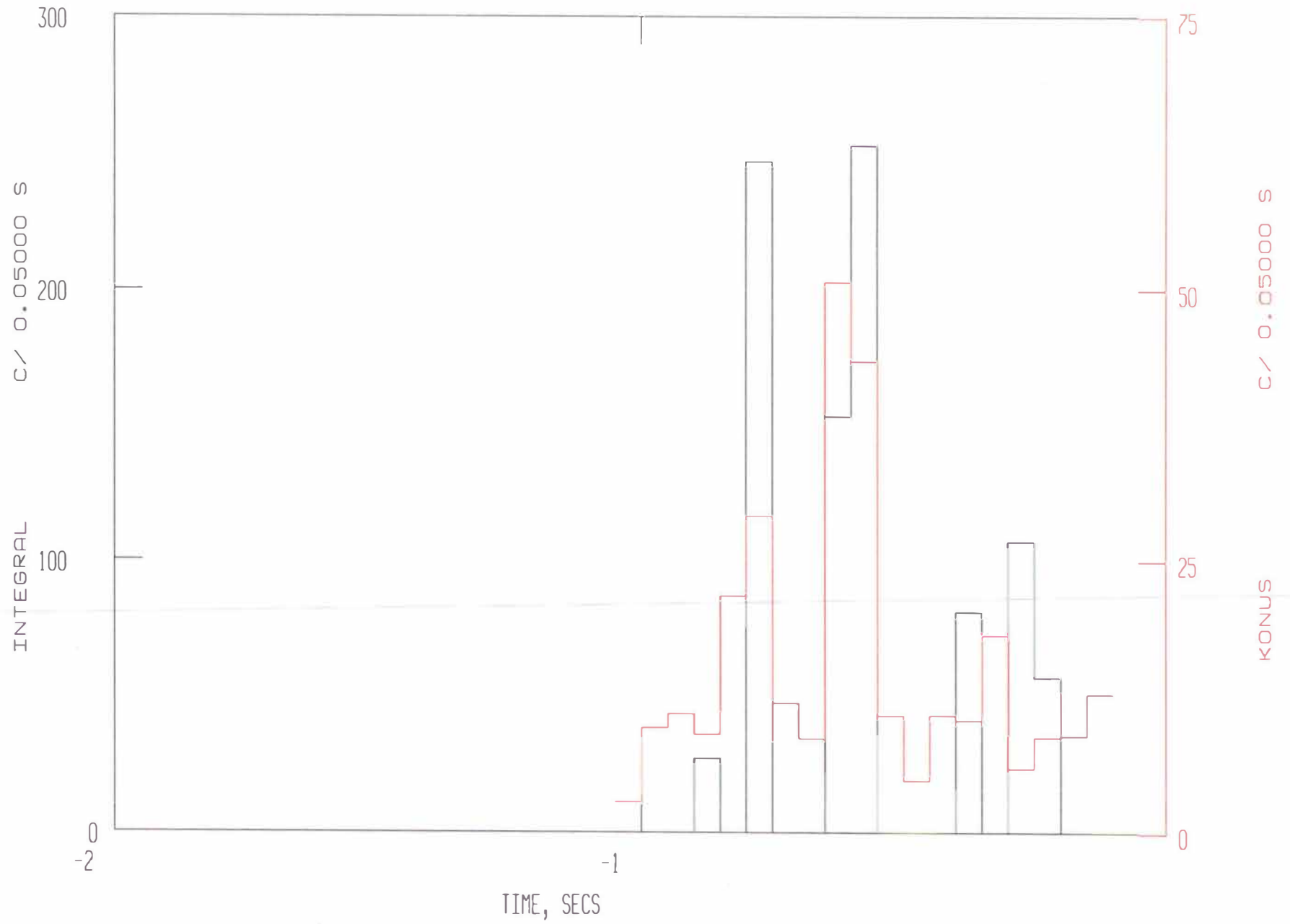
N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 SUZAKU







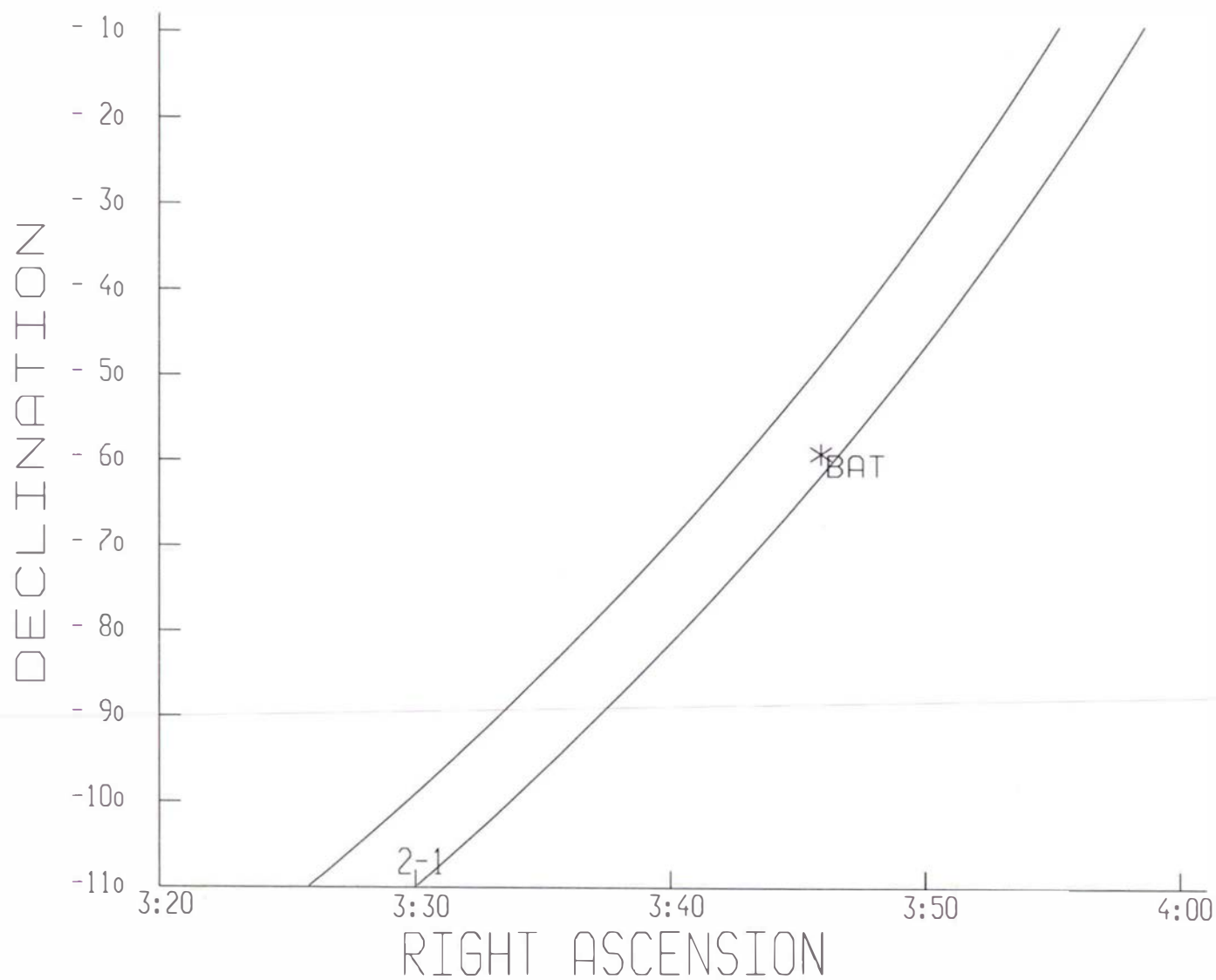


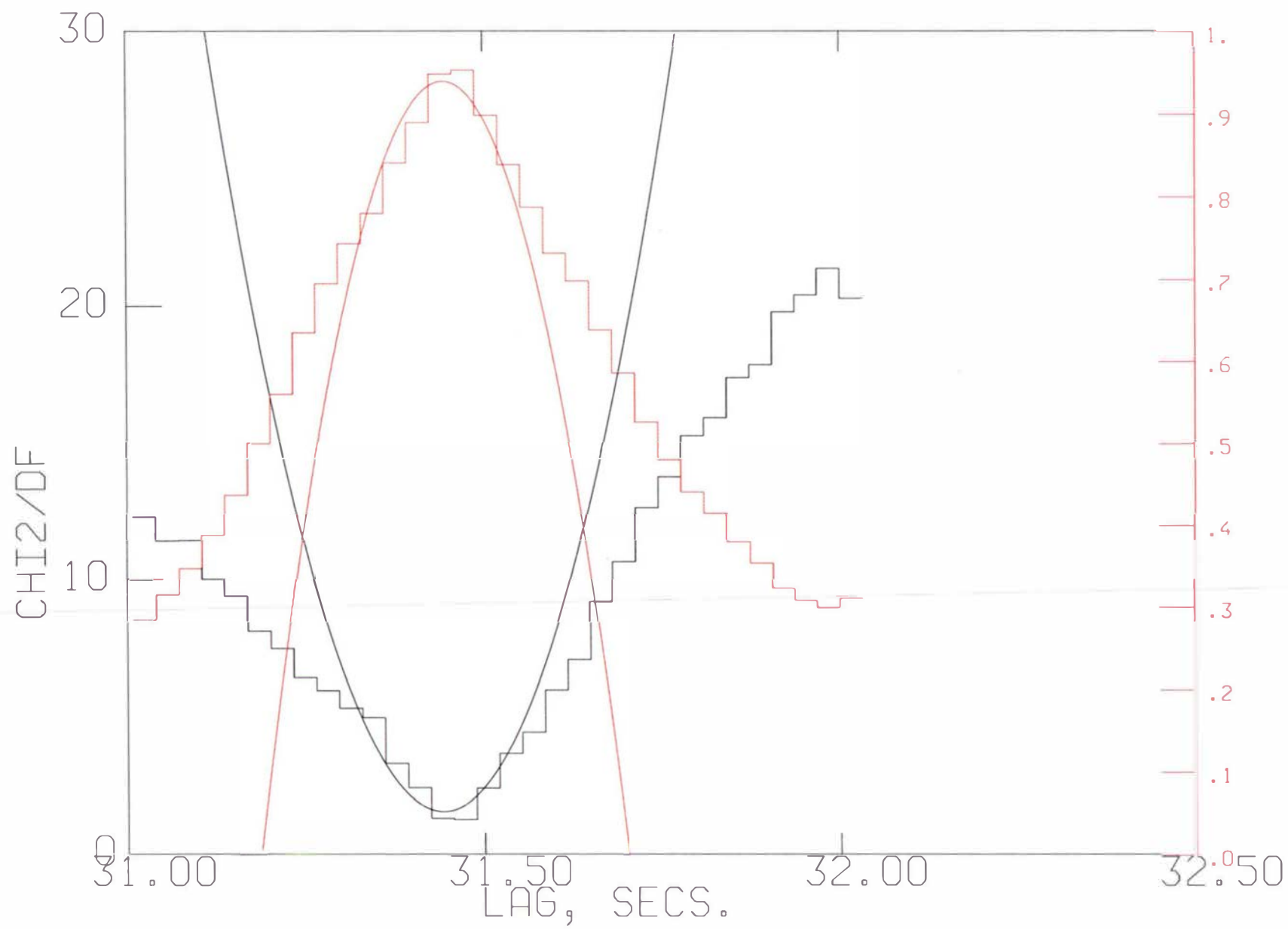


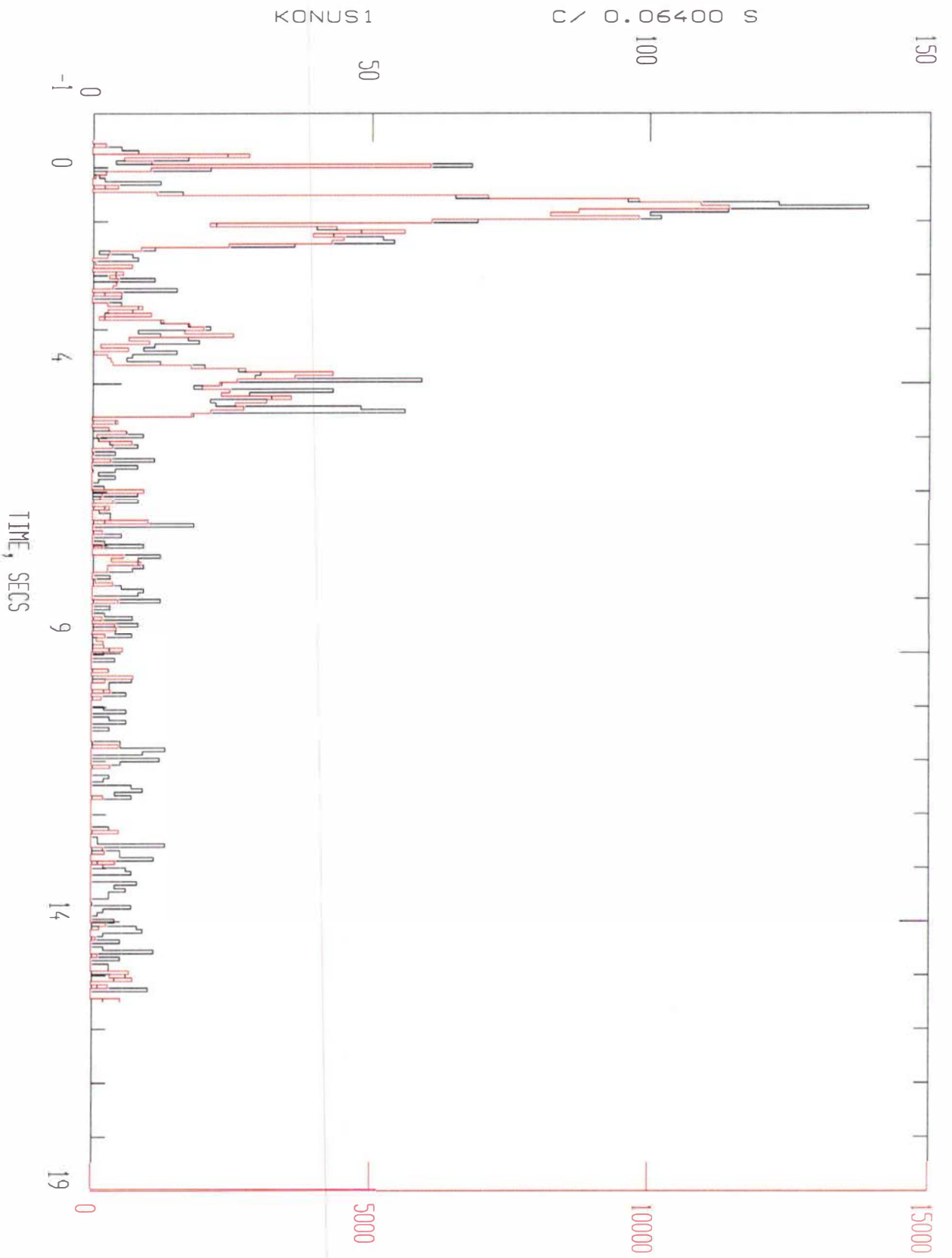
EVENT OF SEP 29, 2009 4:33

22/06/2012

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN
E=ECLIPTIC
G=GALACTIC EQUATOR
1 KONUS
2 INTEGRAL



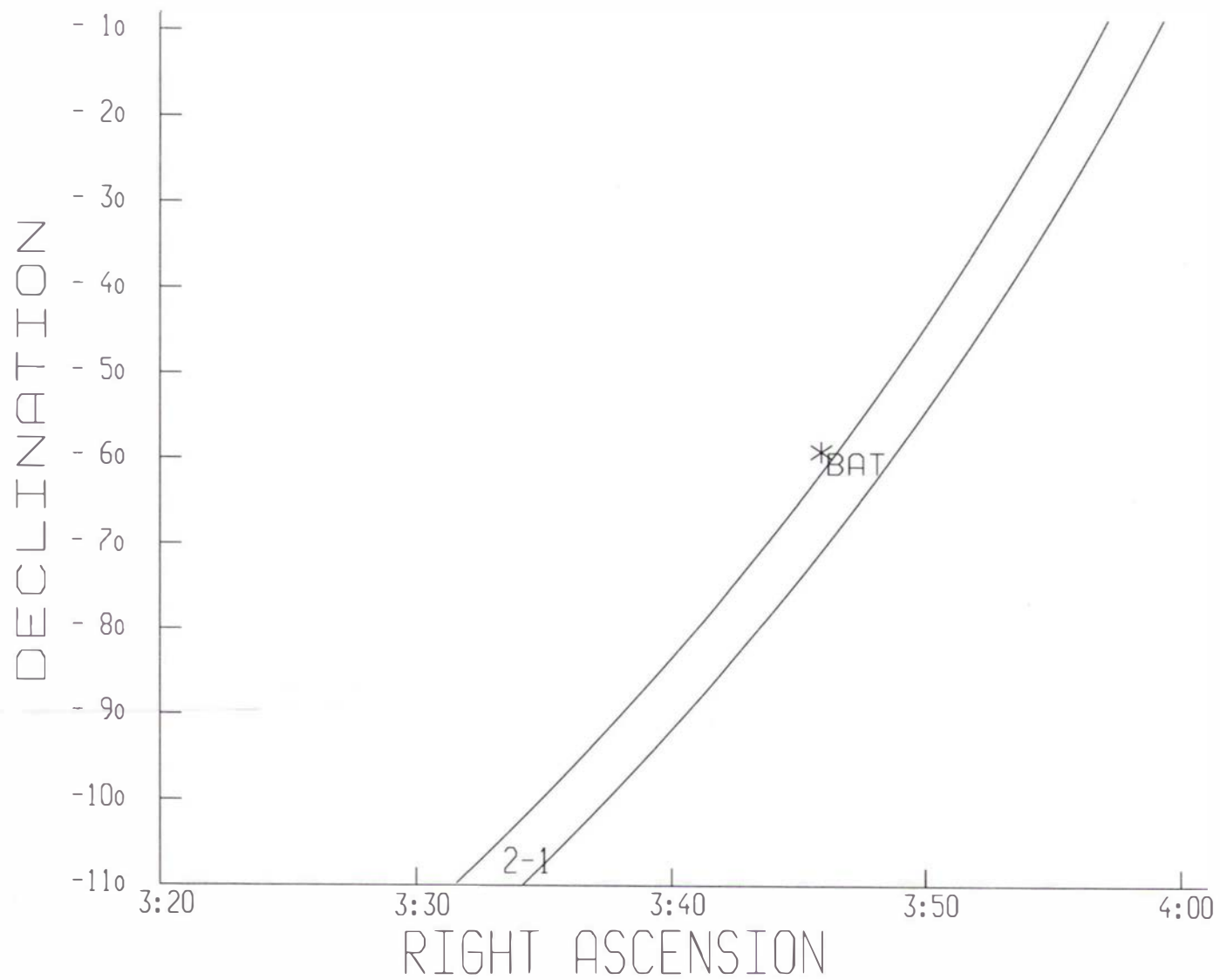


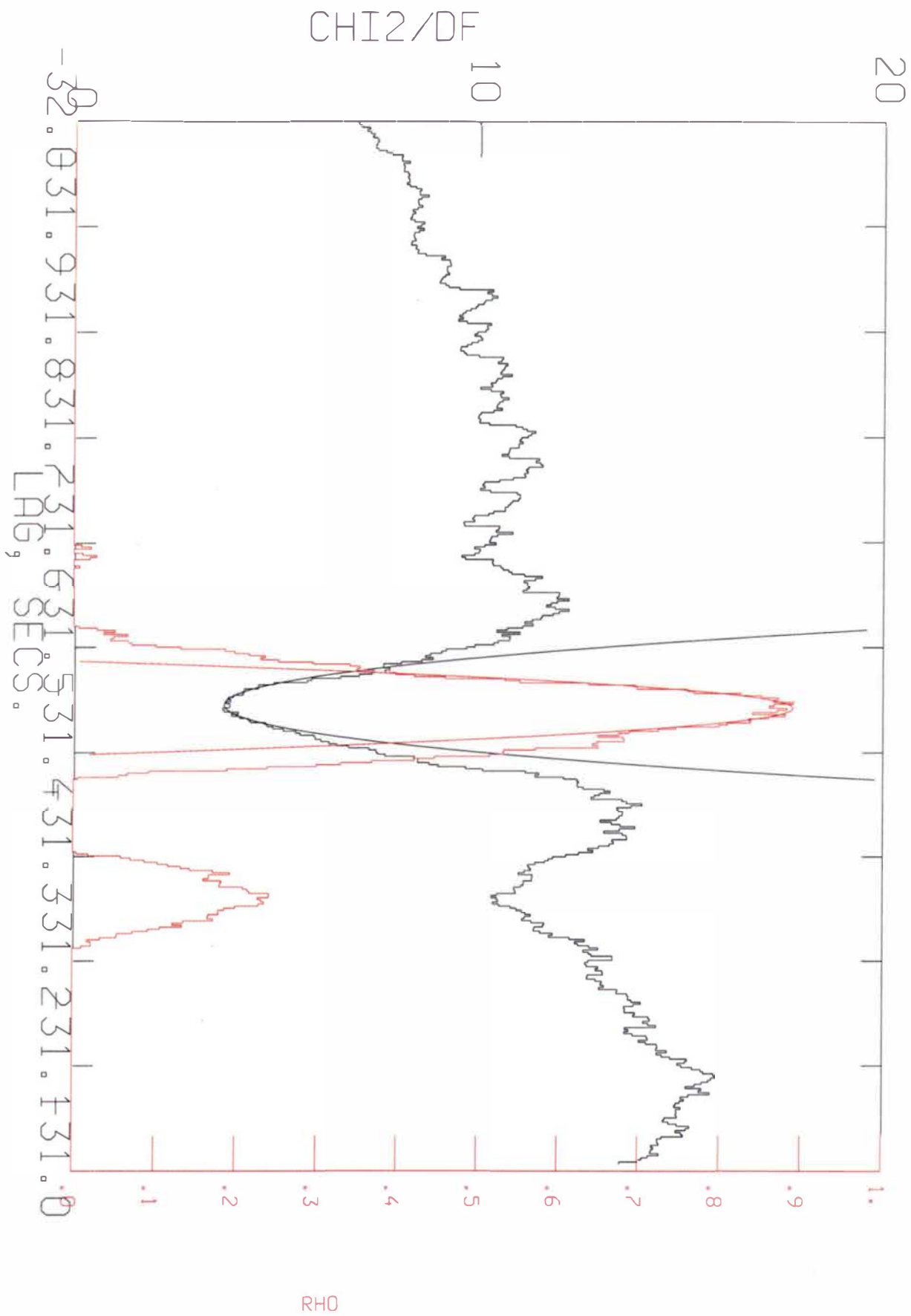


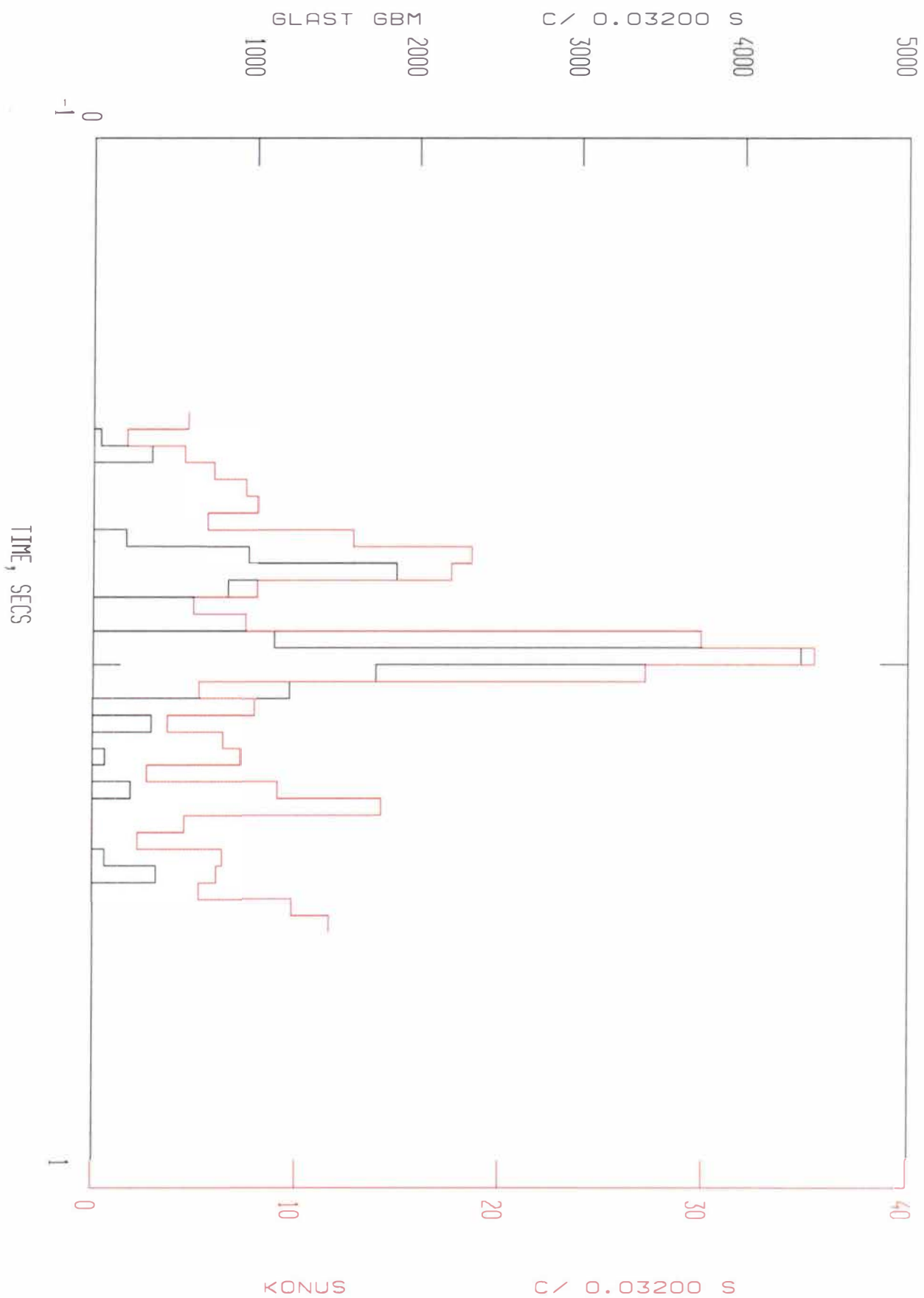
EVENT OF SEP 29, 2009 4:33

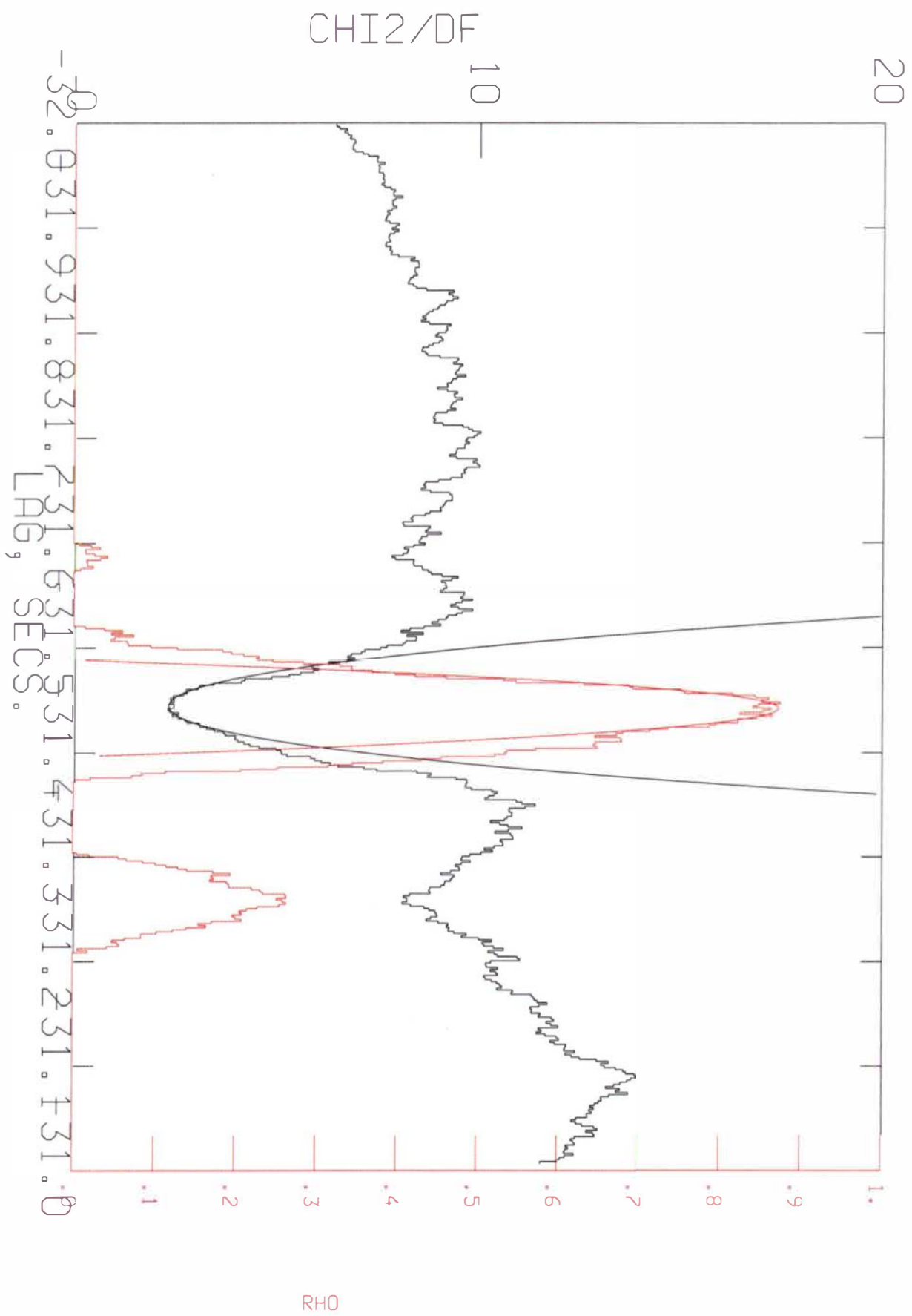
22/06/2012

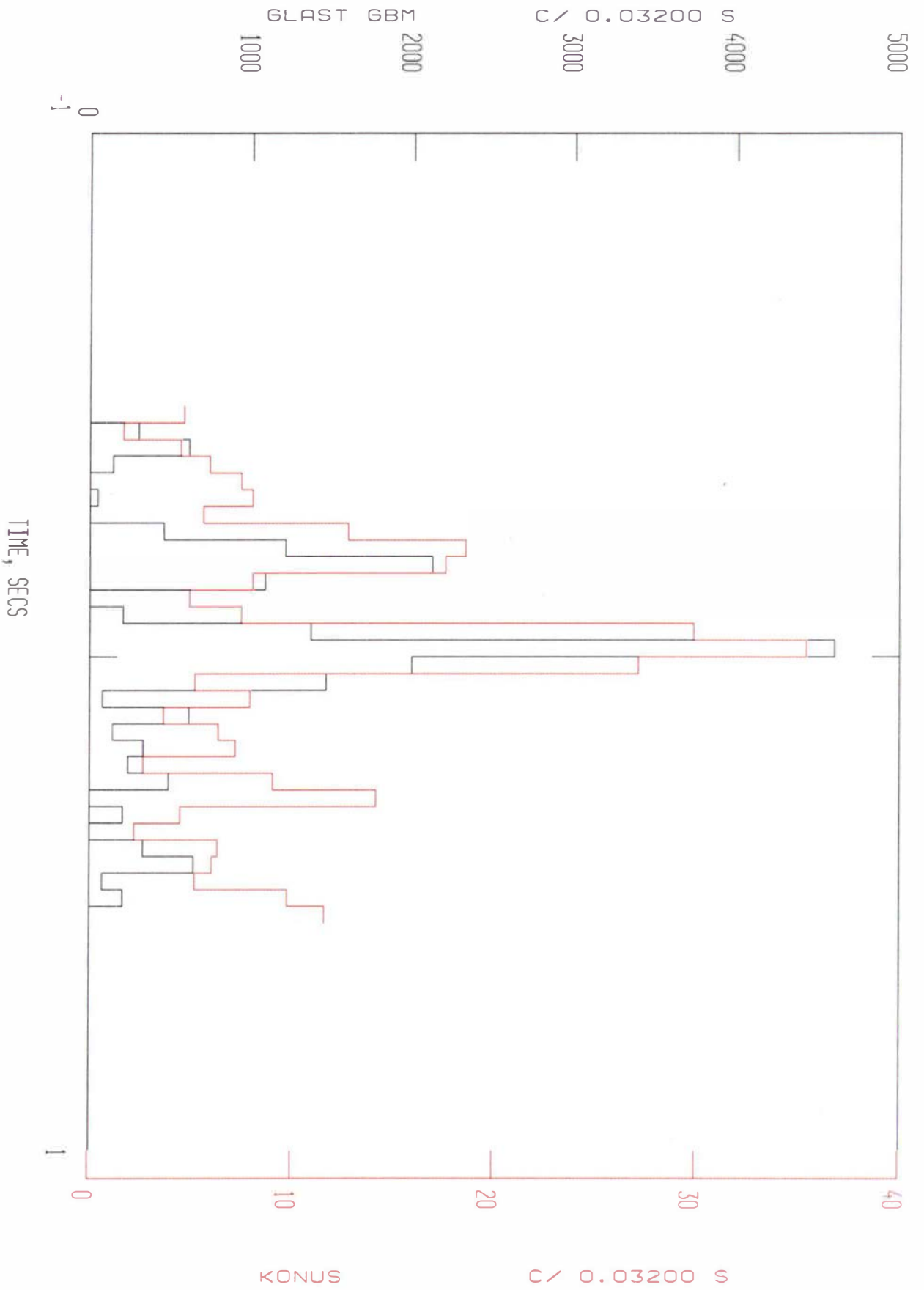
N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN
E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 FERMI







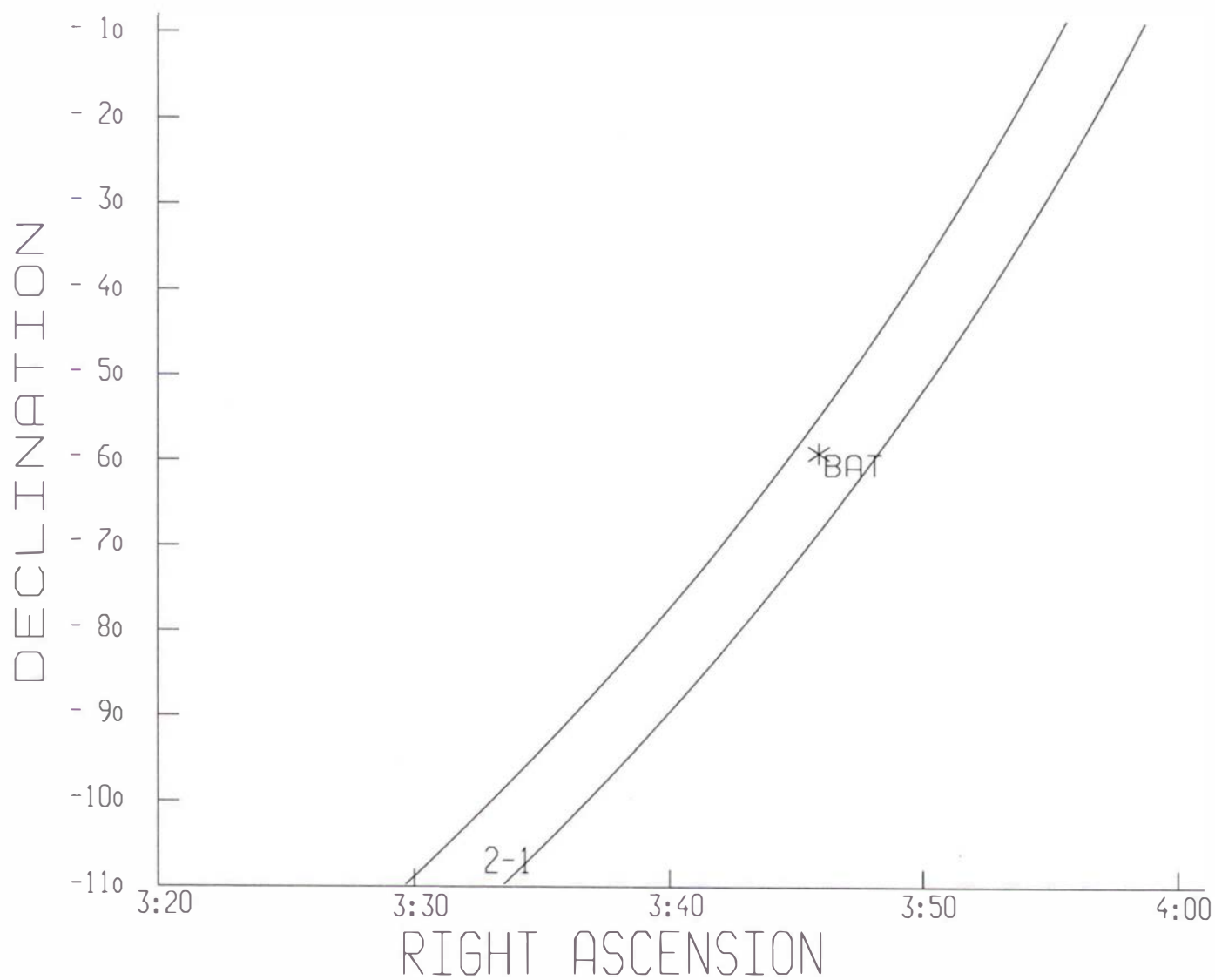




EVENT OF SEP 29, 2009 4:33

22/06/2012

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 FERMI 2 KONUS

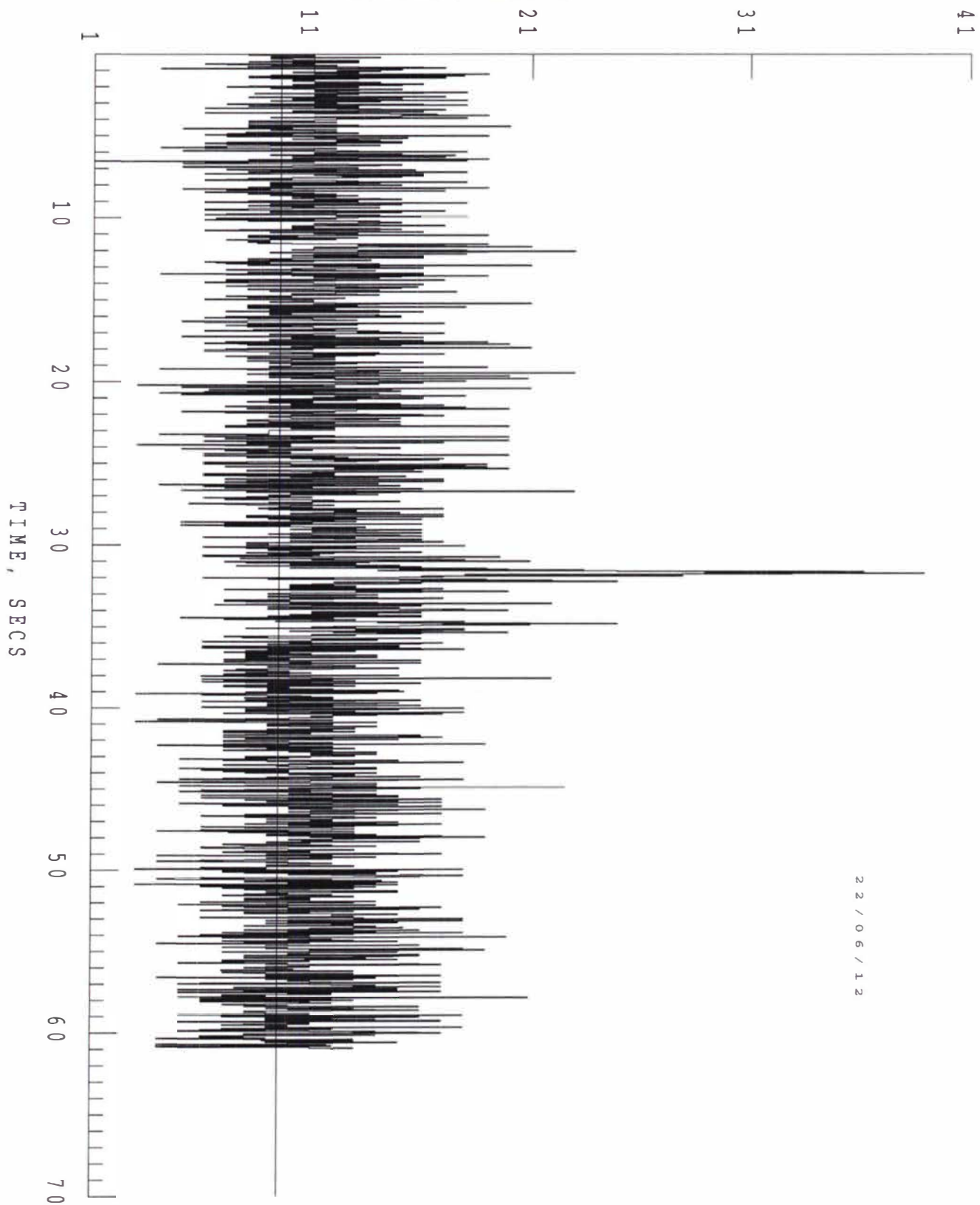


HESSI

29/09/09 16353.000 (KONUS_20090929_16384)

50 - 200 keV

COUNTS/0.032 S



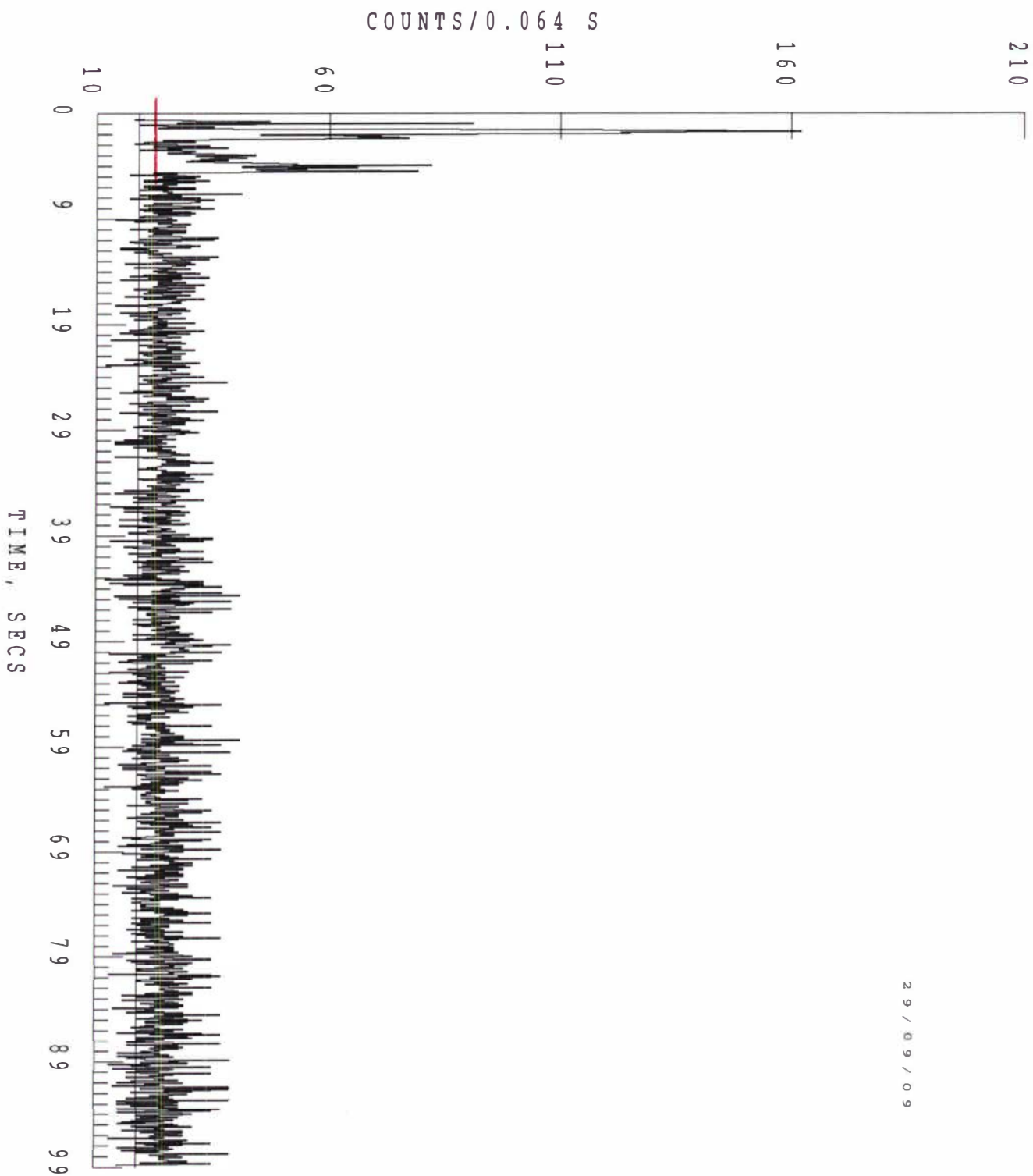
KONUS1

29/09/09

16387.790

A

50 - 200 keV



KONUS HRES 20090929 16387

TRIGGER TIME: 29/09/09 DOY 272 Julian 2455104.68966 UT = 04.552 04:33:07 (16387.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

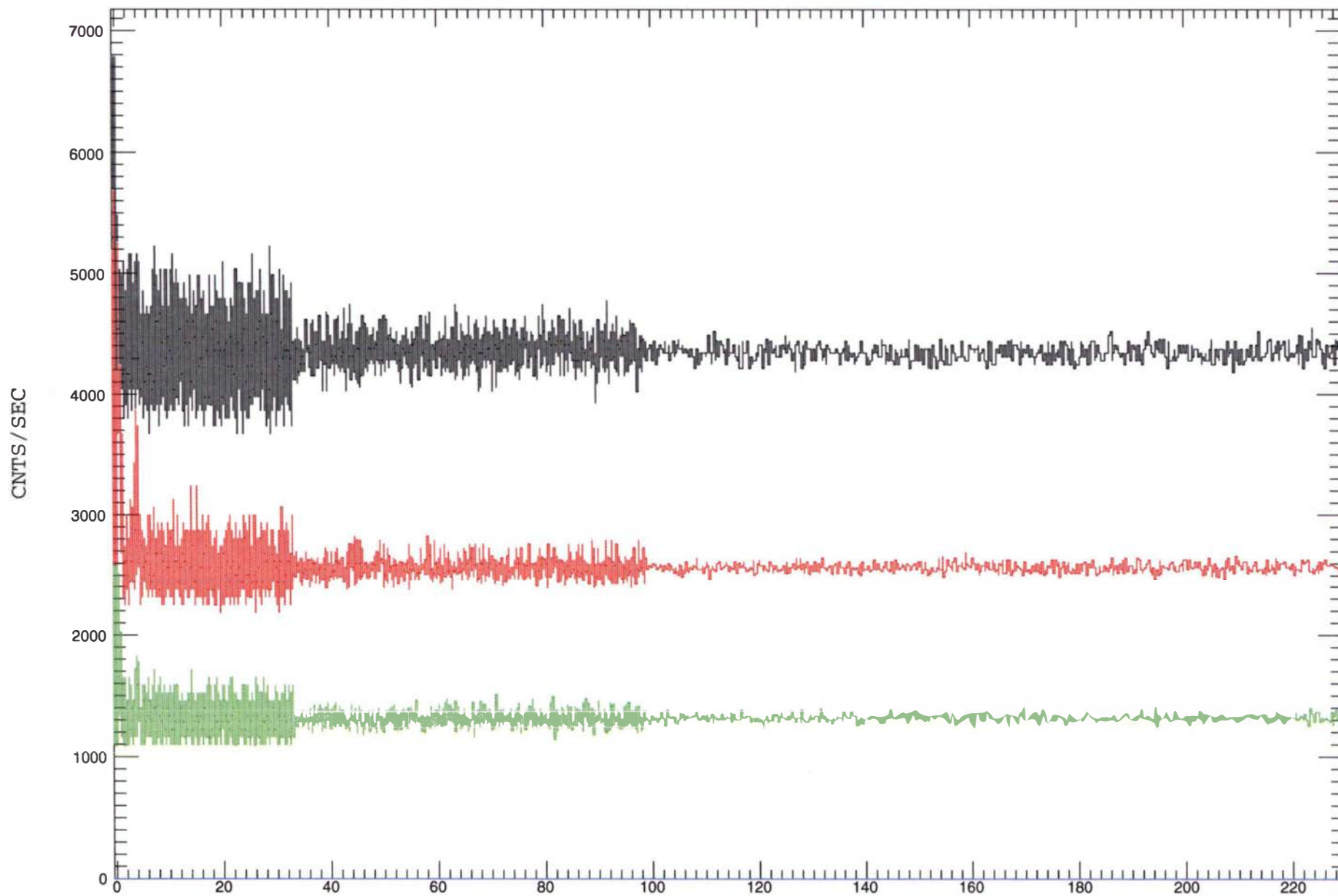
Chan 4 : [> 10 MeV]

Channel 1 + 3300

Channel 2 + 2200

Channel 3 + 1100

Channel 4 + 0



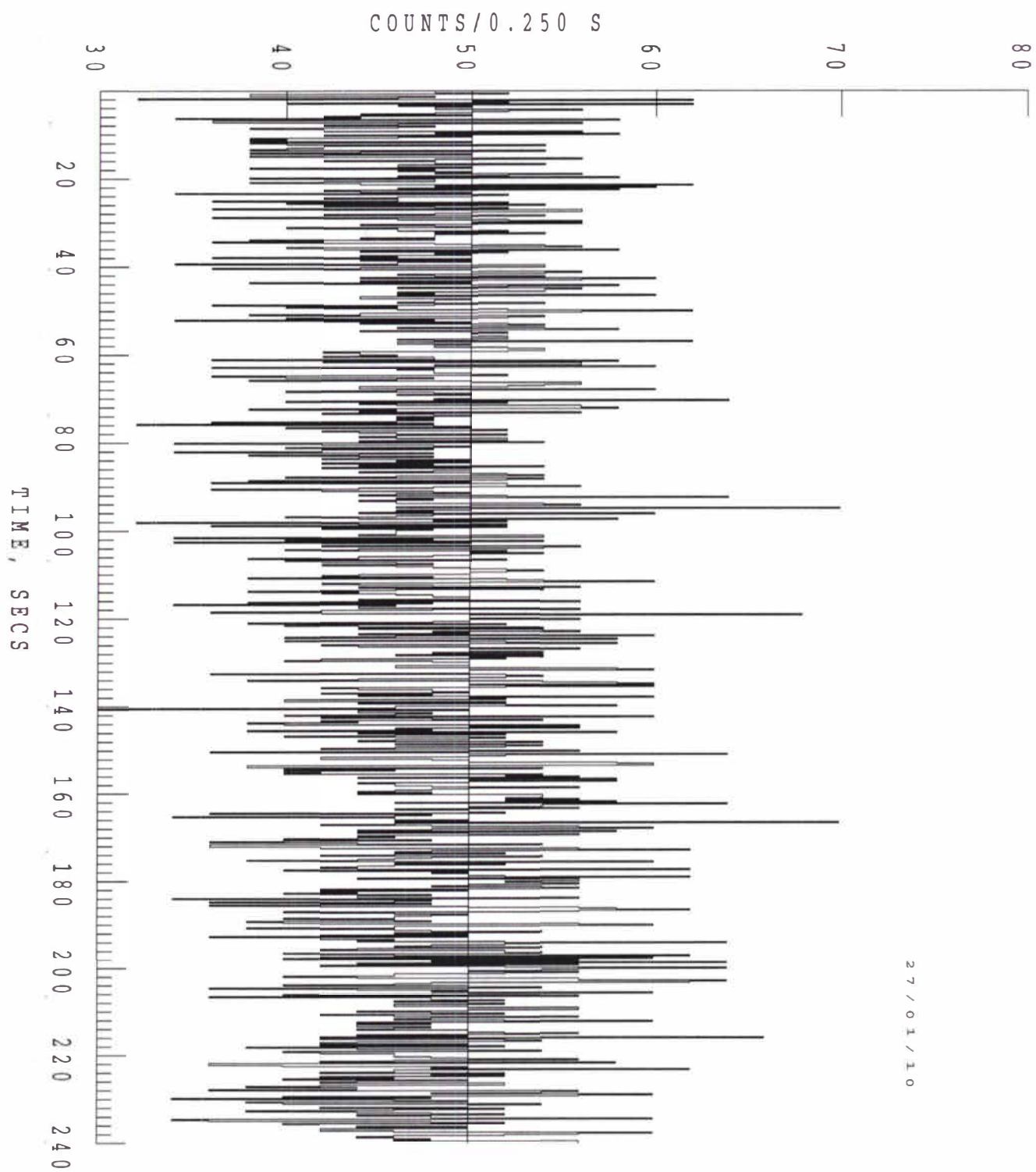
ONDS

MS01

29/09/09

15027.434

50 - 3000 keV

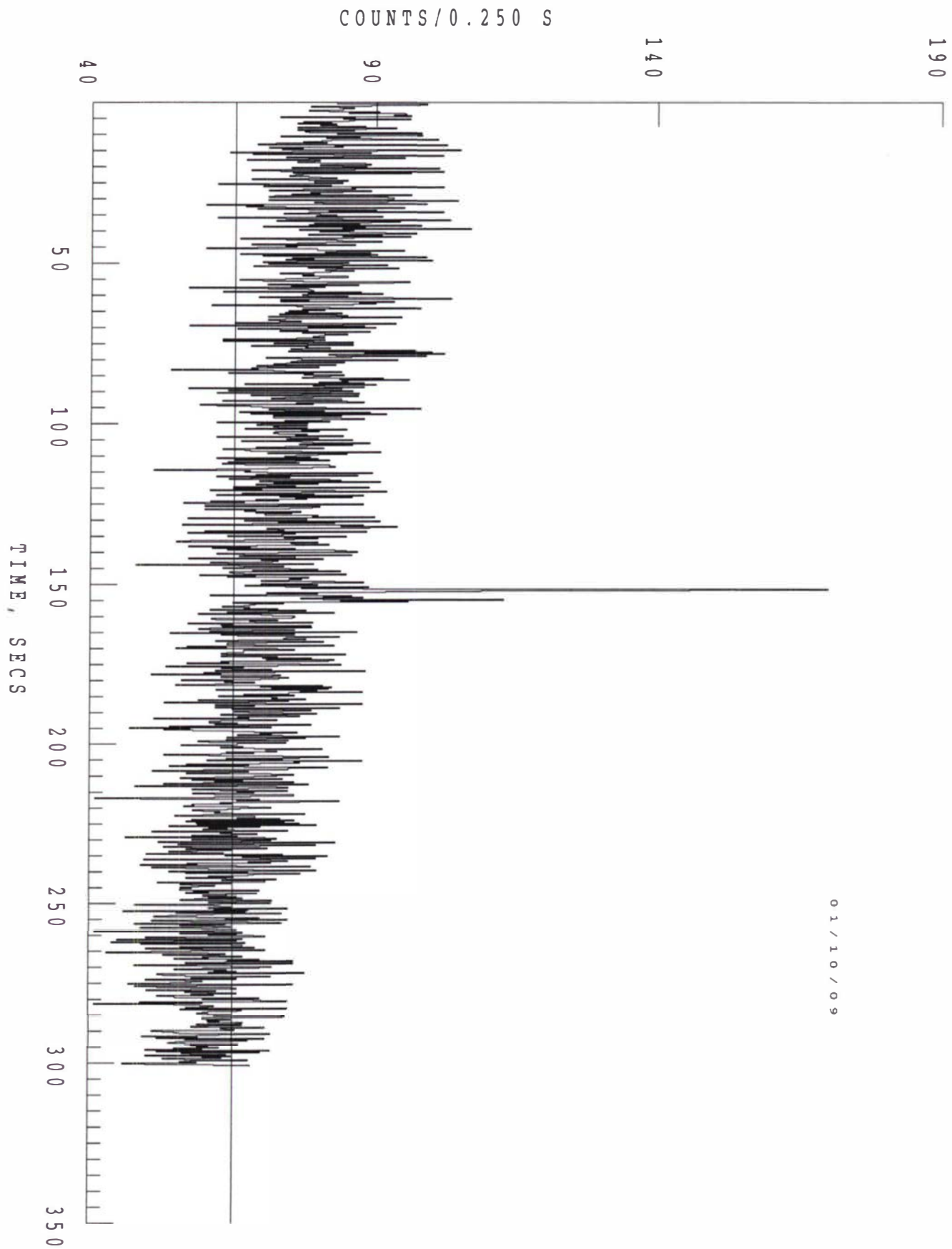


HESSI

29/09/09 16233.000 (INTEGRAL_20090929_16384)

A

25- 150 keV



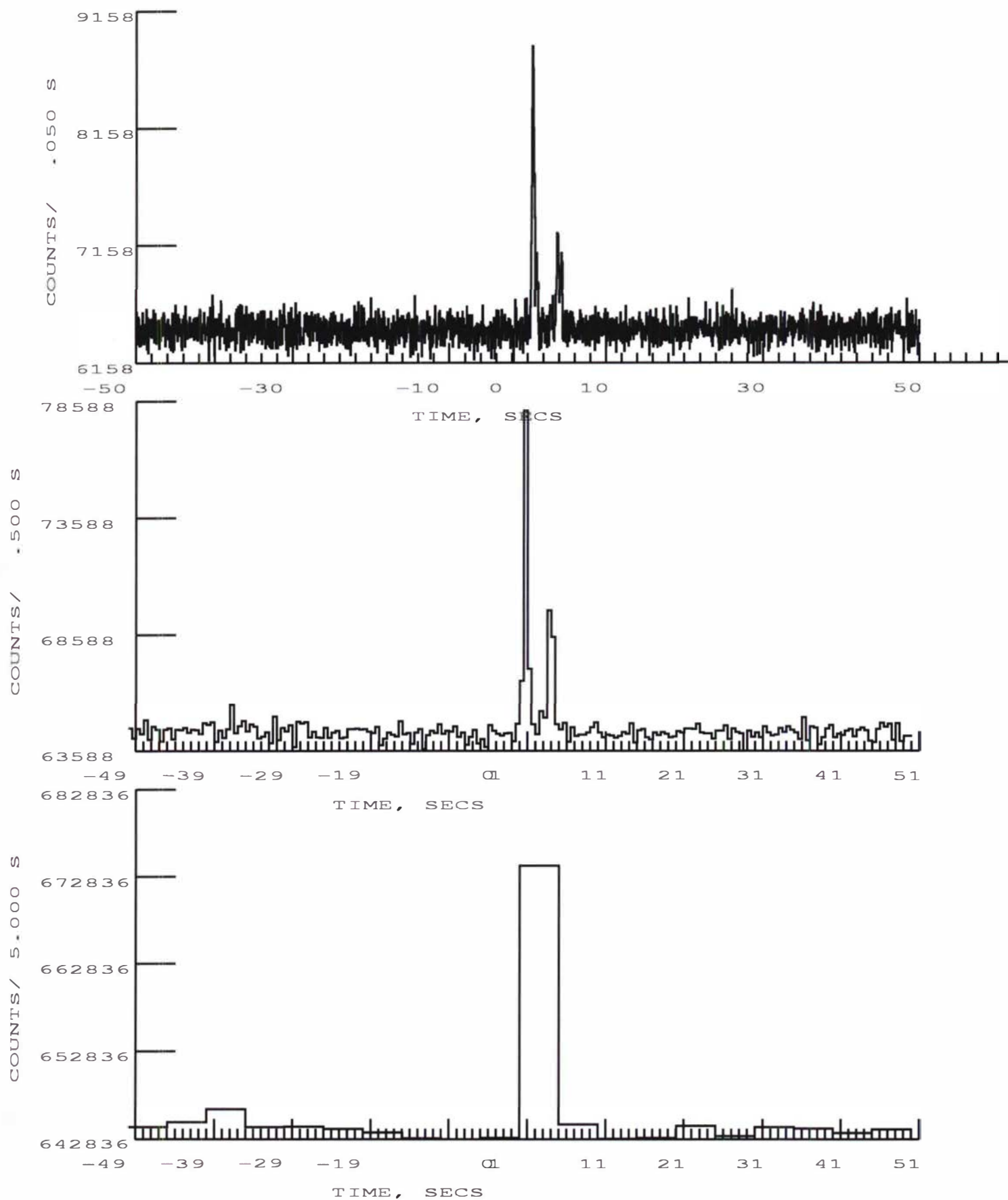
INTEGRAL

29/09/09

16384.000

04:33:04.0

25/09/15



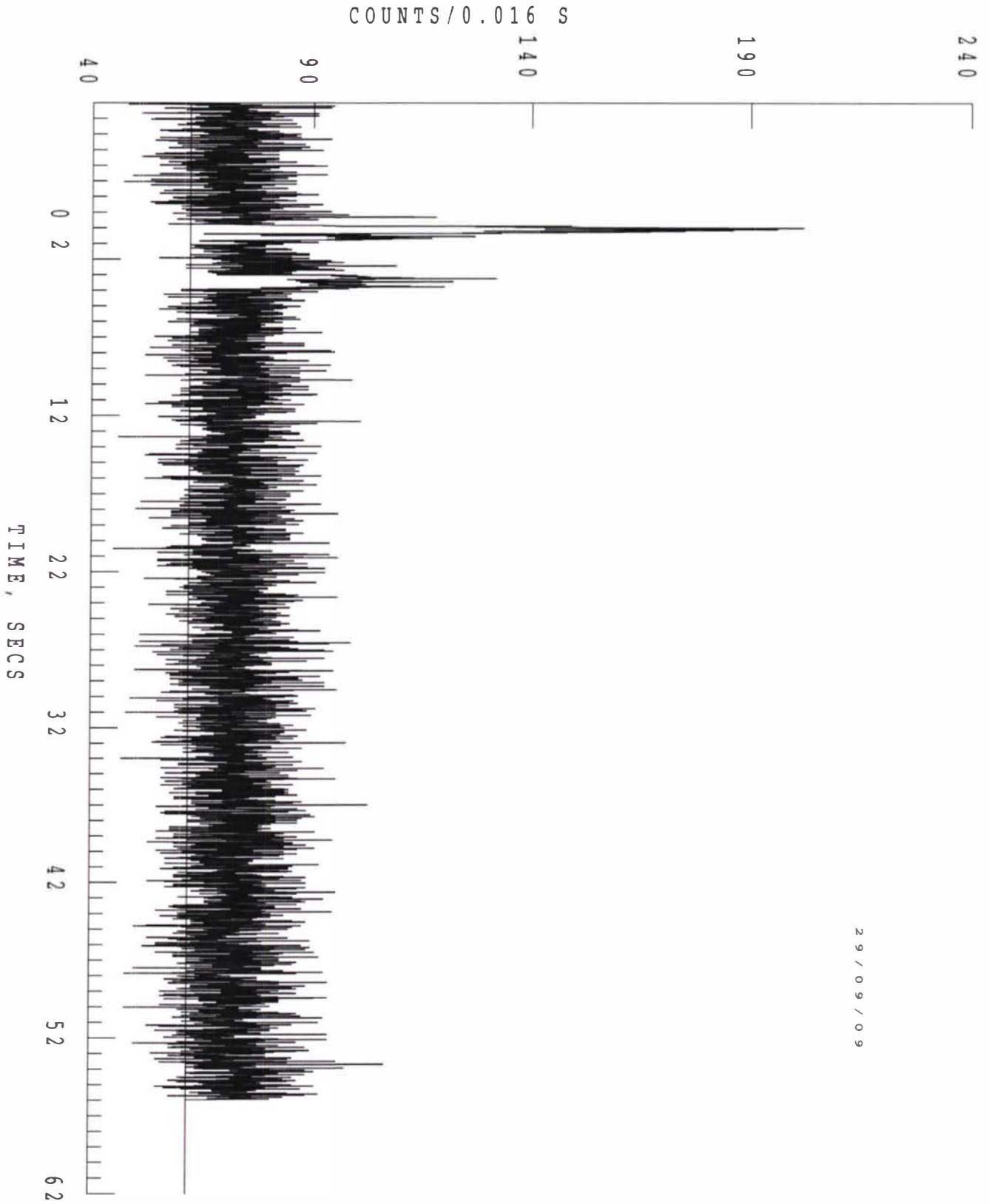
SUZAKU

29/09/09

16384.635

A

50 - 240 keV



29/09/09

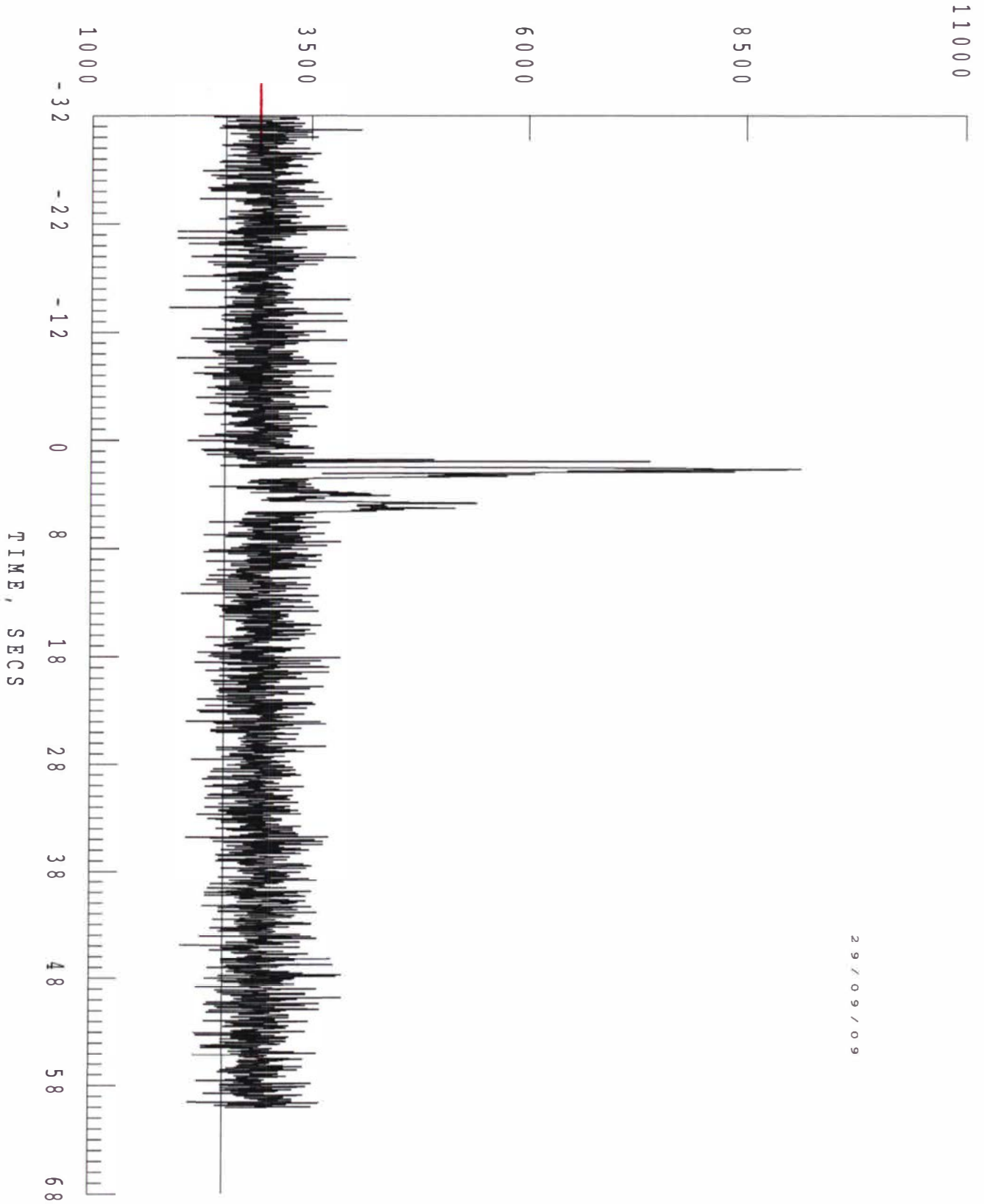
GLAST

29/09/09

16383.966

A

26- 293 keV
COUNTS/0.032 S



A

From gcncirc@capella.gsfc.nasa.gov Tue Sep 29 00:44:54 2009
X-Barracuda-Envelope-From: gcncirc@capella.gsfc.nasa.gov
From: GCN Circulars <gcncirc@capella.gsfc.nasa.gov>
Subject: GRB 090929A: Fermi GBM detection
To: khurley@ssl.berkeley.edu
Date: Tue, 29 Sep 2009 03:46:16 -0400 (EDT)

TITLE: GCN CIRCULAR
NUMBER: 9962
SUBJECT: GRB 090929A: Fermi GBM detection
DATE: 09/09/29 07:46:14 GMT
FROM: Arne Rau at MPE <arau@mpe.mpg.de>

Arne Rau (MPE)
report on behalf of the Fermi GBM Team:

"At 04:33:03.97 UT on 29 September 2009, the Fermi Gamma-Ray Burst Monitor triggered and located GRB 090929A (trigger 275891585 / 090929190).

The on-ground calculated location, using the GBM trigger data, is RA = 51.7, DEC = -7.3 (J2000 degrees, equivalent to 03h 27m, -07d 18'), with an uncertainty of 1.3 degrees (radius, 1-sigma containment, statistical only; there is additionally a systematic error which is currently estimated to be 2 to 3 degrees).

The angle from the Fermi LAT boresight is 122 degrees.

This burst was also independently detected by INTEGRAL SPI-ACS.

The GBM light curve consists of multiple short peaks with a duration (T90) of about 8.5 +/- 0.4 s (8-1000 keV). The time-averaged spectrum from T0+0.002s to T0+4.896s is best fit by a power law function with an exponential high energy cutoff. The power law index is -0.52 +/- 0.06 and the cutoff energy, parameterized as Epeak, is 610.9 +/- 44.5 keV (chi squared 439 for 393 d.o.f.).

The event fluence (8-1000 keV) in this time interval is (1.06 +/- 0.03)E-05 erg/cm^2. The 1.822-sec peak photon flux measured starting from T0+0.002 s in the 8-1000 keV band is 10.9 +/- 0.3 ph/s/cm^2.

The spectral analysis results presented above are preliminary; final results will be published in the GBM GRB Catalog."

From vxw@capella.gsfc.nasa.gov Tue Sep 29 03:22:19 2009
X-Barracuda-Envelope-From: vxw@capella.gsfc.nasa.gov
Date: Tue, 29 Sep 2009 06:23:43 -0400
From: Bacodine <vxw@capella.gsfc.nasa.gov>
To: khurley@ssl.berkeley.edu
Subject: GCN/SWIFT_BAT_LIGHTCURVE

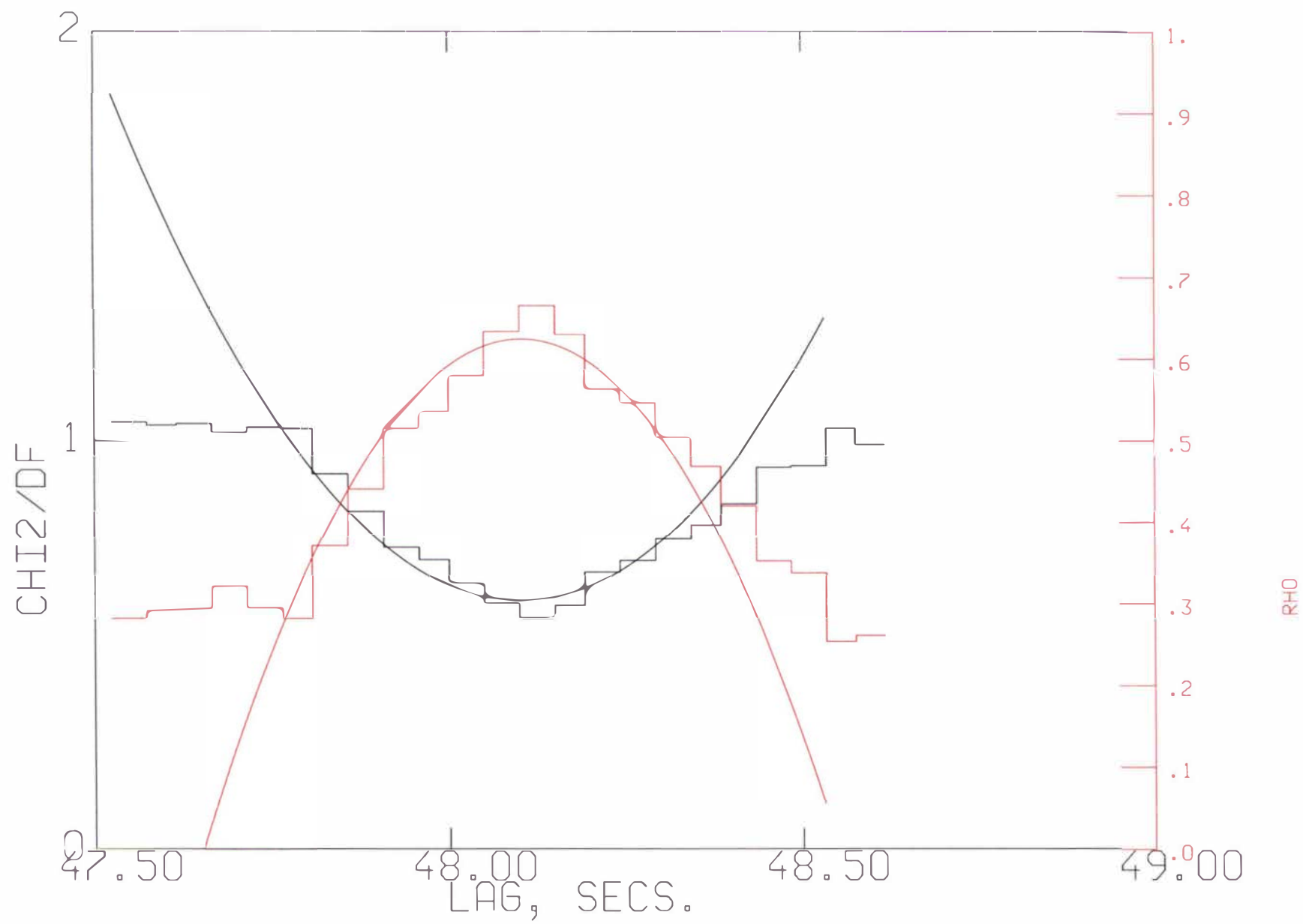
B

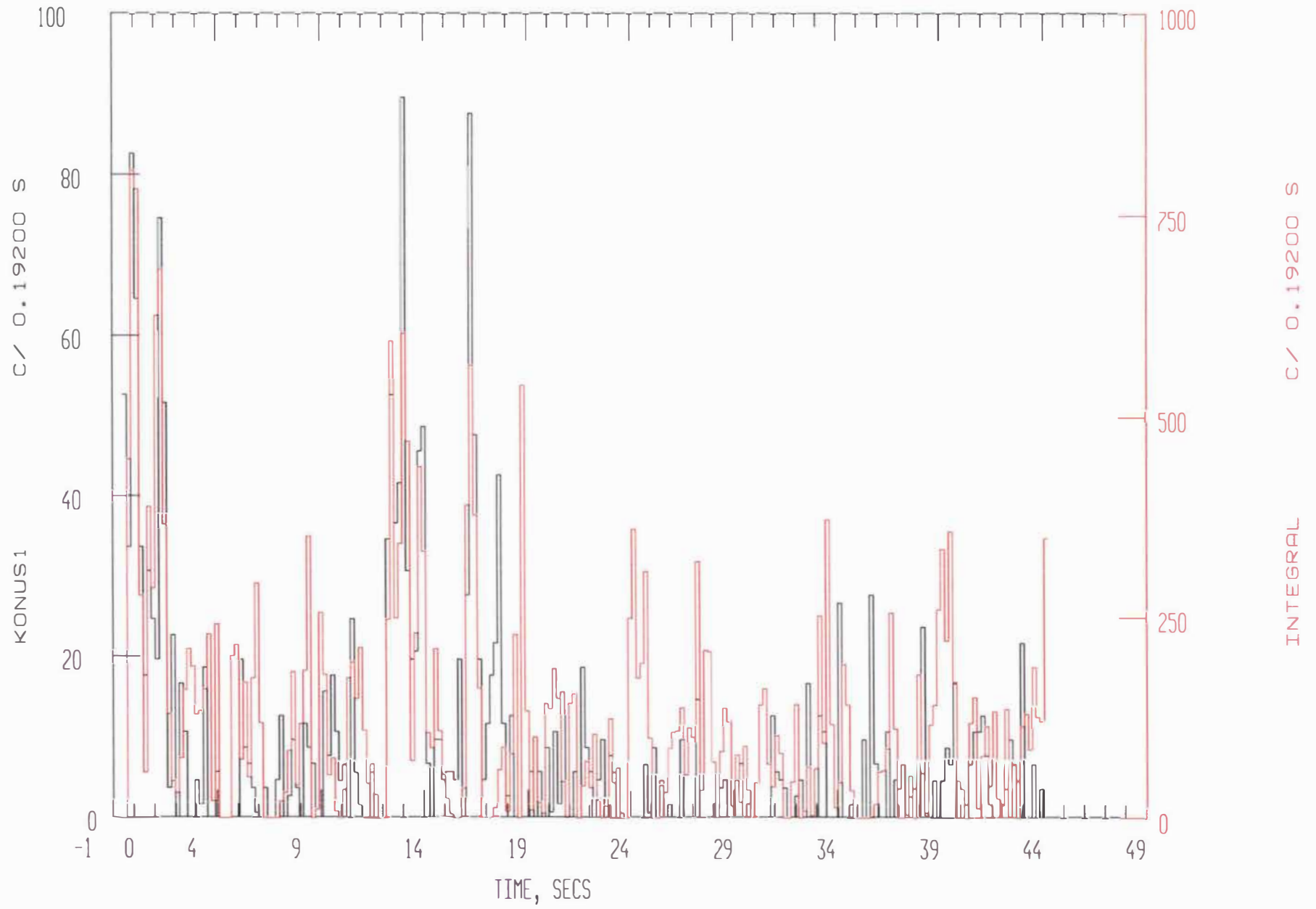
360s

$5.9 \times 10^{-6} \text{ erg cm}^{-2}$

TITLE: GCN/SWIFT NOTICE
NOTICE_DATE: Tue 29 Sep 09 10:22:30 UT
NOTICE_TYPE: Swift-BAT GRB Lightcurve
TRIGGER_NUM: 371050, Seg_Num: 0
GRB_RA: 117.705d {+07h 50m 49s} (J2000),
117.829d {+07h 51m 19s} (current),
117.067d {+07h 48m 16s} (1950)
GRB_DEC: -0.632d {-00d 37' 55"} (J2000),
-0.657d {-00d 39' 26"} (current),
-0.504d {-00d 30' 14"} (1950)
GRB_DATE: 15103 TJD; 272 DOY; 09/09/29
GRB_TIME: 36547.25 SOD {10:09:07.25} UT
TRIGGER_INDEX: 123
GRB_PHI: 177.46 [deg]
GRB_THETA: 35.20 [deg]
DELTA_TIME: -37.00 [sec]
TRIGGER_DUR: 0.256 [sec]
SOLN_STATUS: 0x3
RATE_SIGNIF: 13.22 [sigma]
IMAGE_SIGNIF: 7.72 [sigma]
LC_URL: sw00371050000msb.lc
SUN_POSTN: 185.88d {+12h 23m 32s} -2.54d {-02d 32' 38"}
IN_DIST: 68.05 [deg] Sun_angle= 4.5 [hr] (West of Sun)
JON_POSTN: 313.67d {+20h 54m 40s} -16.23d {-16d 13' 56"}
MOON_DIST: 156.99 [deg]
MOON_ILLUM: 79 [%]
GAL_COORDS: 220.40, 12.88 [deg] galactic lon,lat of the burst (or transient)
ECL_COORDS: 119.92, -21.24 [deg] ecliptic lon,lat of the burst (or transient)
COMMENTS: SWIFT-BAT GRB Lightcurve.
COMMENTS: This Notice is generated as a result of an uploaded TOO -- this
COMMENTS:
COMMENTS: The next comments were copied from the BAT_POS Notice:
COMMENTS: This is a rate trigger.
COMMENTS: A point_source was found.
COMMENTS: This does not match any source in the on-board catalog.
COMMENTS: This does not match any source in the ground catalog.
COMMENTS: This is a GRB.
COMMENTS: This trigger occurred at longitude,latitude = 12.30,-11.48 [deg]

MCT 35896

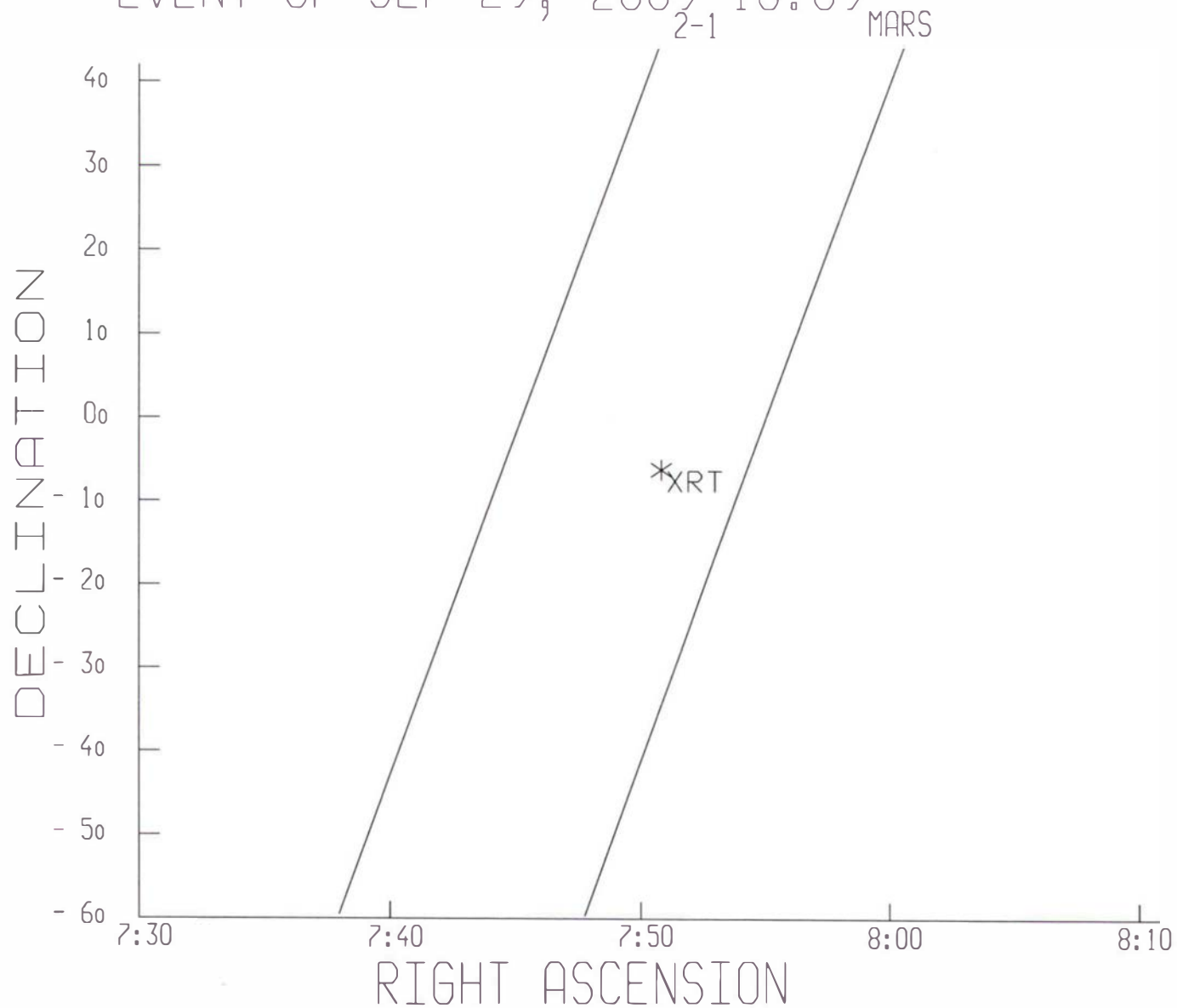




EVENT OF SEP 29, 2009 10:09

19/01/2012

N-M = CORRELATION BETWEEN SATELLITES N AND M
EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 KONUS1 2 INTEGRAL



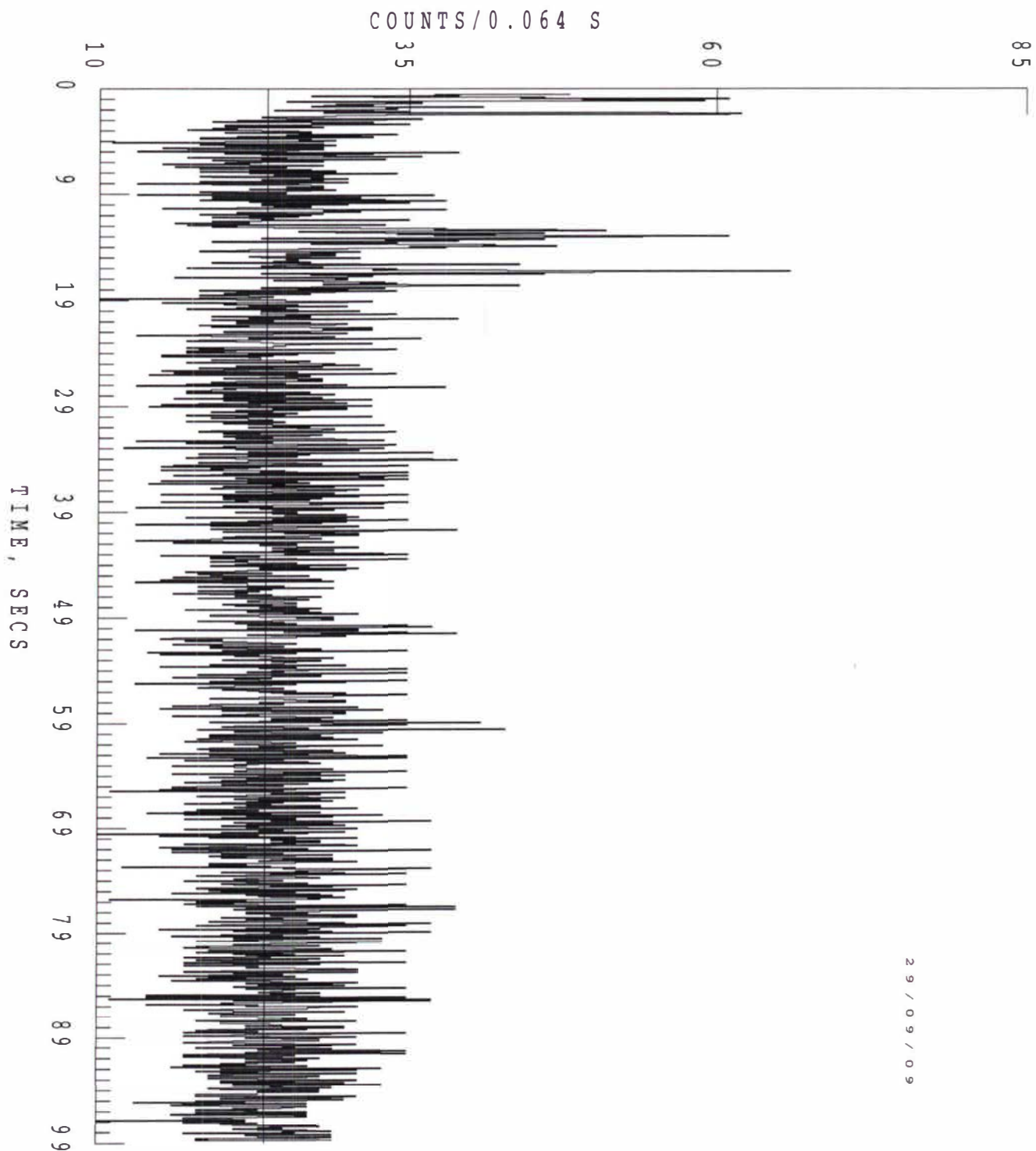
KONUS1

29/09/09

36565.377

B

50 - 200 keV



KONUS HRES 20090929 36565

TRIGGER TIME: 29/09/09 DOY 272 Julian 2455104.92321 UT = 10.157 10:09:25 (36565.000 secs)

Chan 1 : [15 - 50 keV]

Chan 2 : [50 - 200 keV]

Chan 3 : [200 - 770 keV]

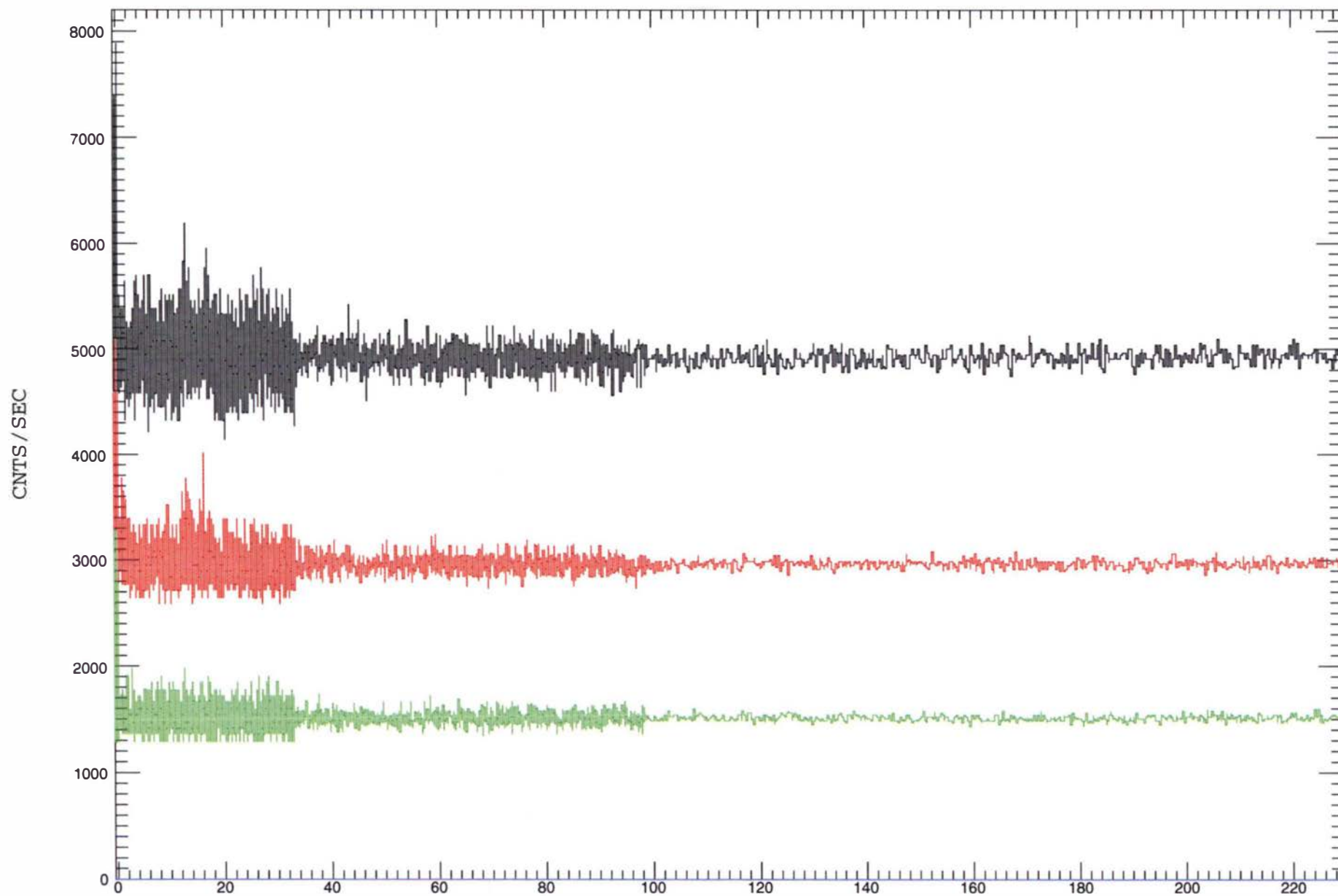
Chan 4 : [> 10 MeV]

Channel 1 + 3900

Channel 2 + 2600

Channel 3 + 1300

Channel 4 + 0



ONDS

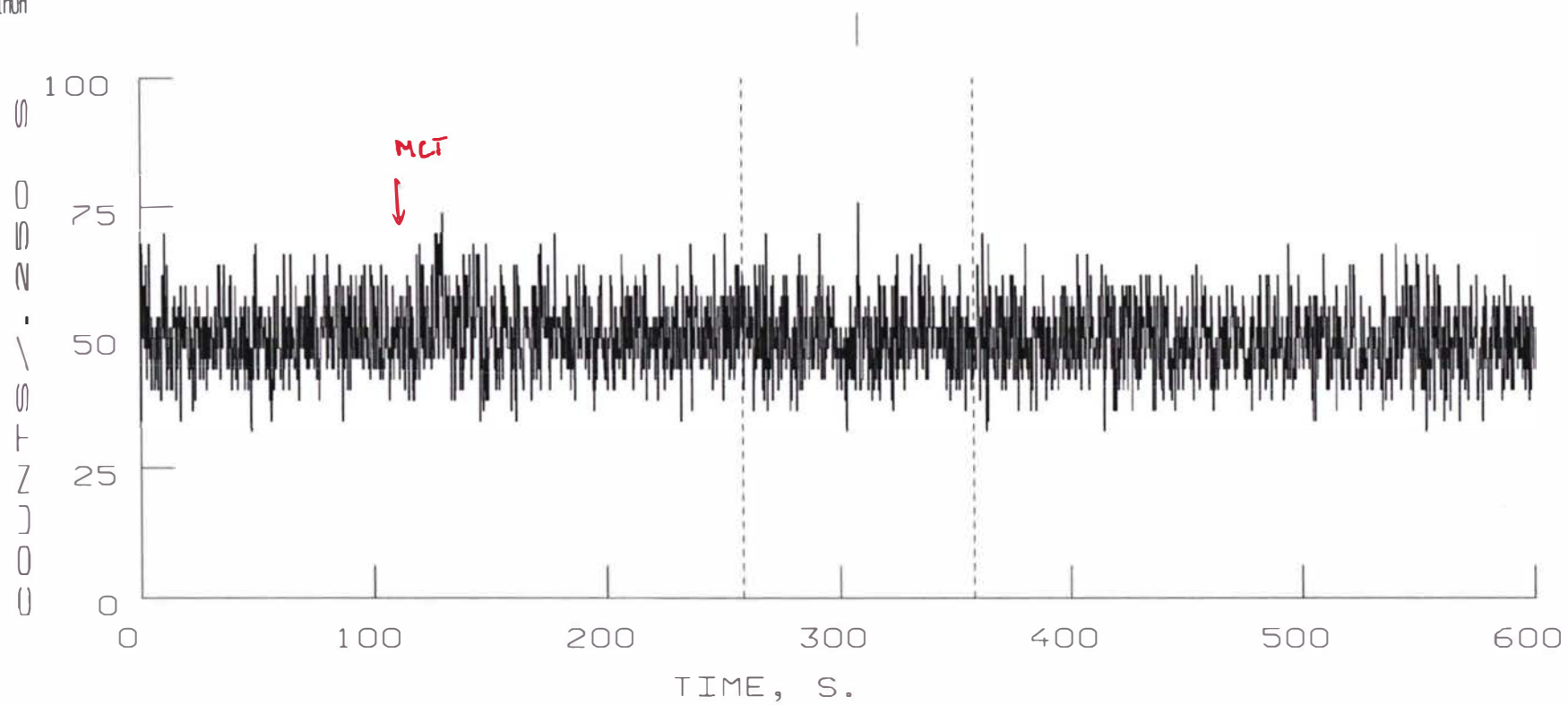
MS01 HEND

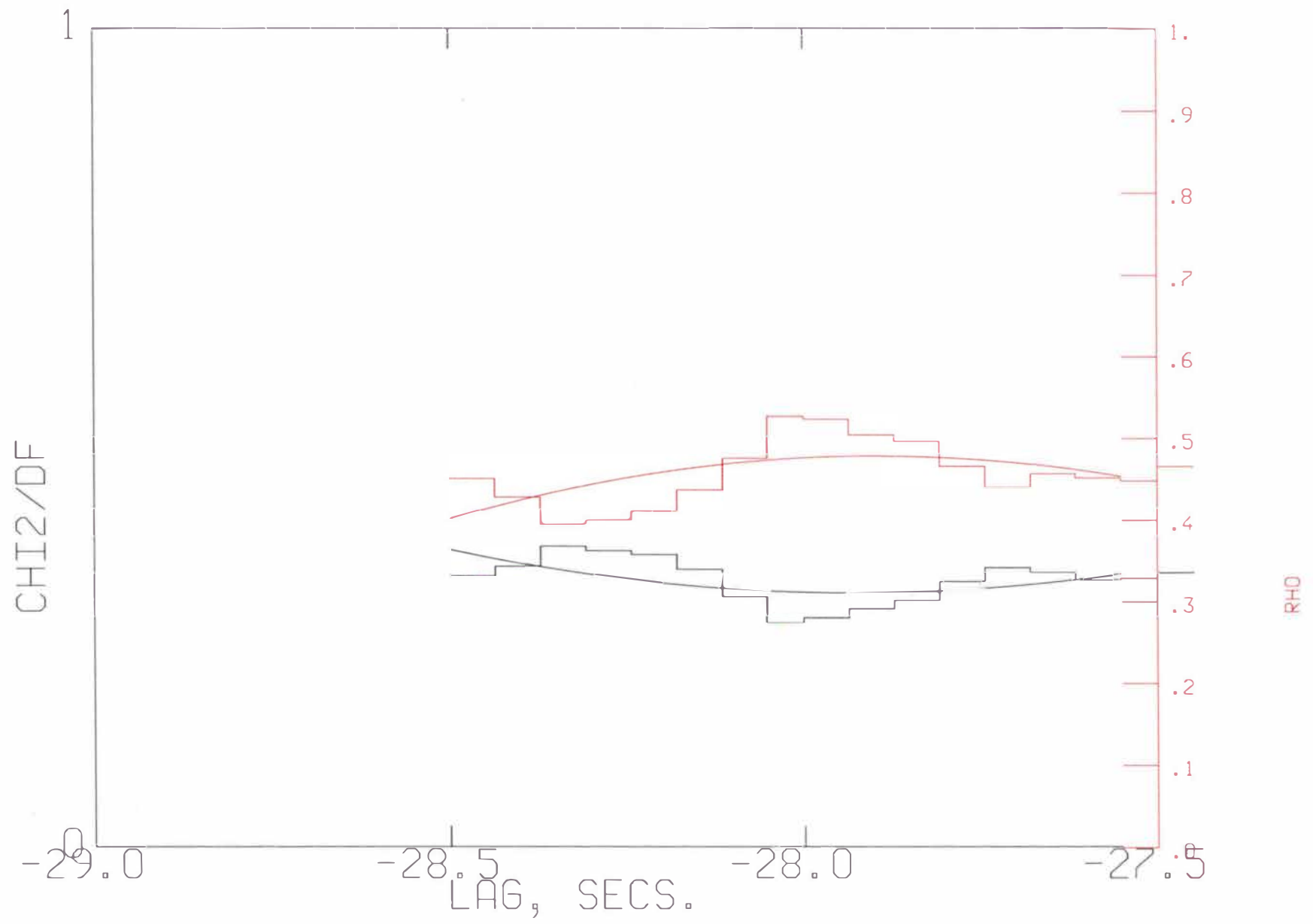
20/10/2011

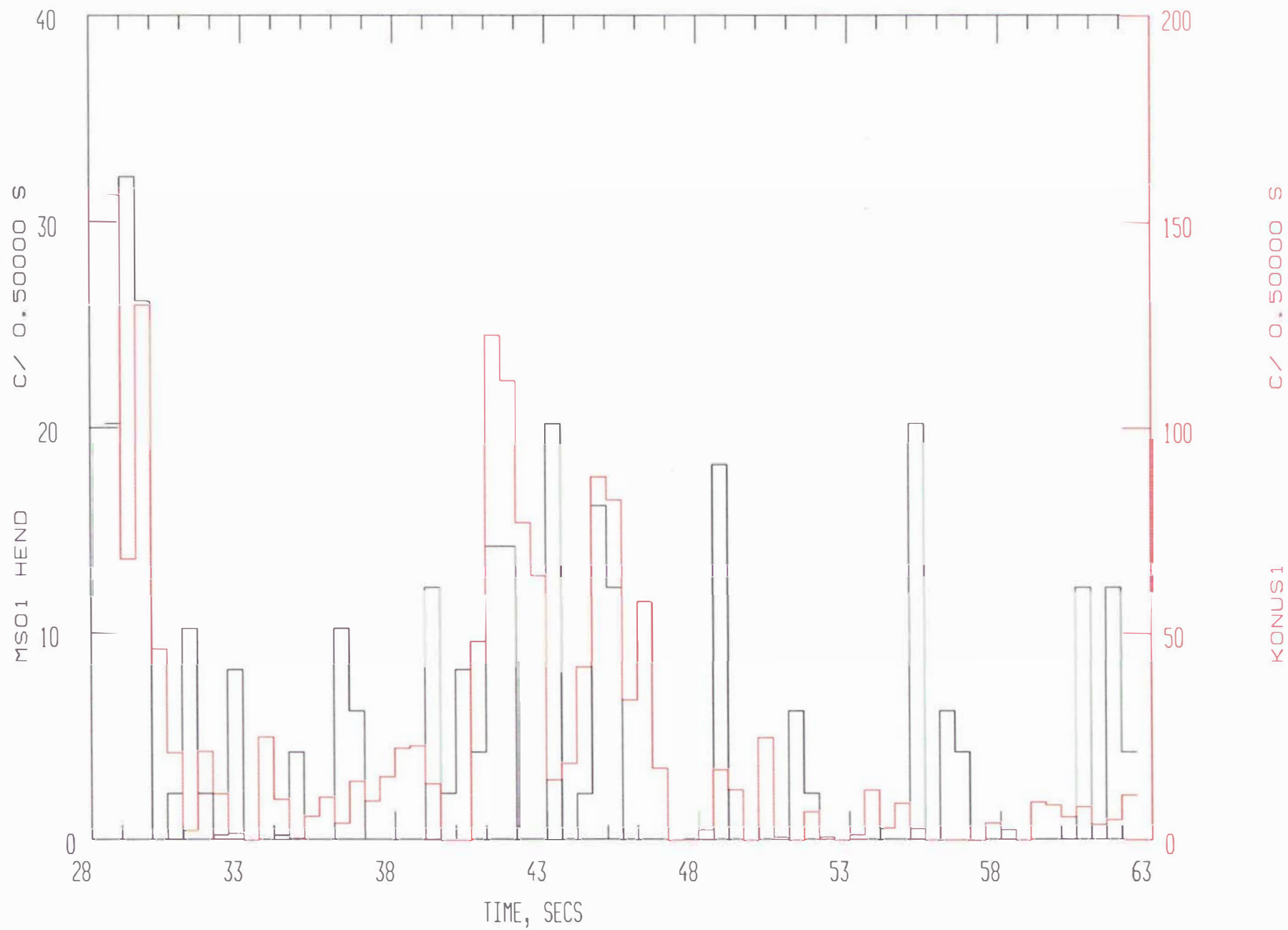
29/09/2009 35787.090 s

50-3000 keV

MAXIMUM



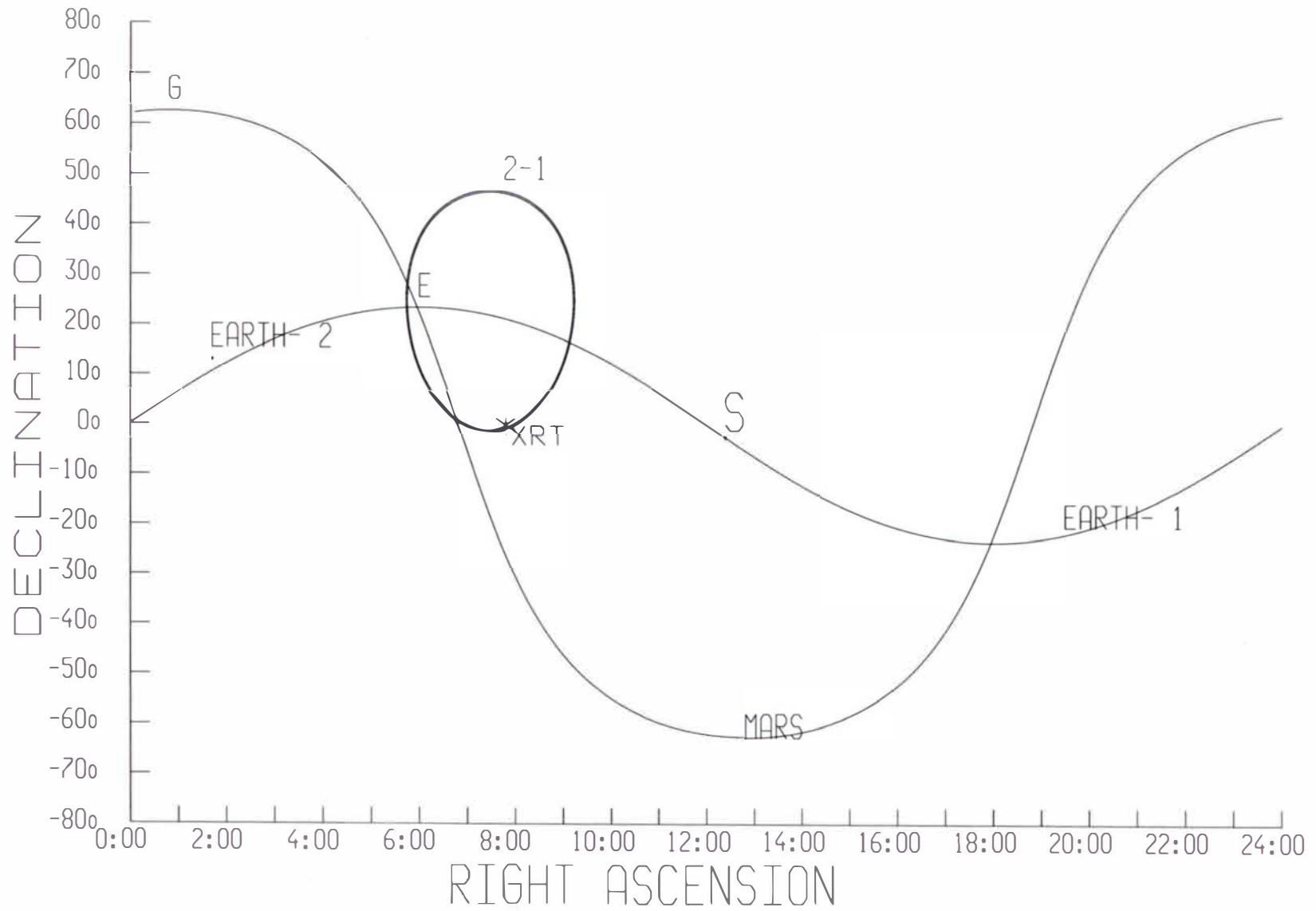




EVENT OF SEP 29, 2009 9:58

20/10/2011

Z-M = CORRELATION BETWEEN SATELLITES Z AND M
EARTH-Z = EARTH AS SEEN FROM SATELLITE Z
S=SUN
E=ECLIPTIC
G=GALACTIC EQUATOR
1 MO
2 KONUS1

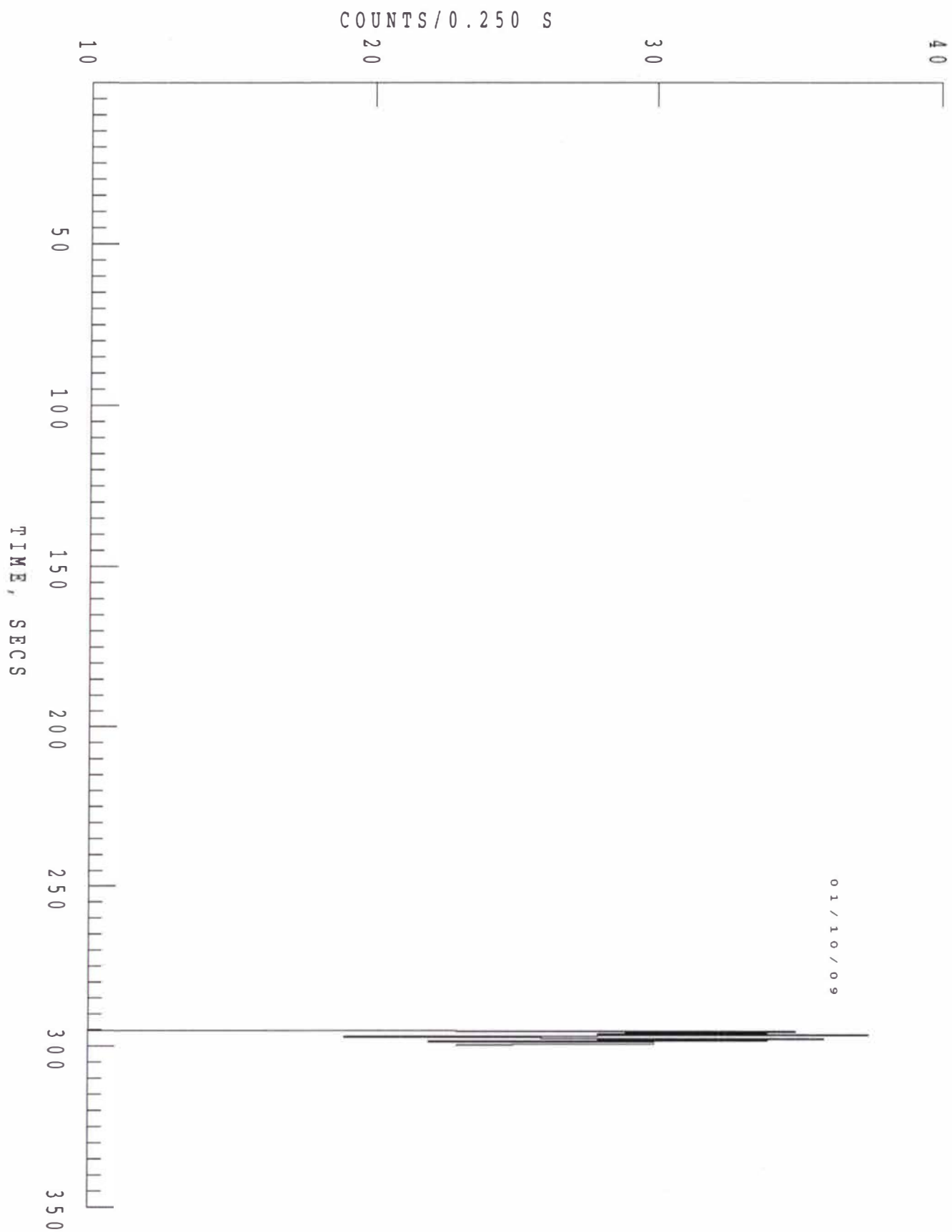


HESSI

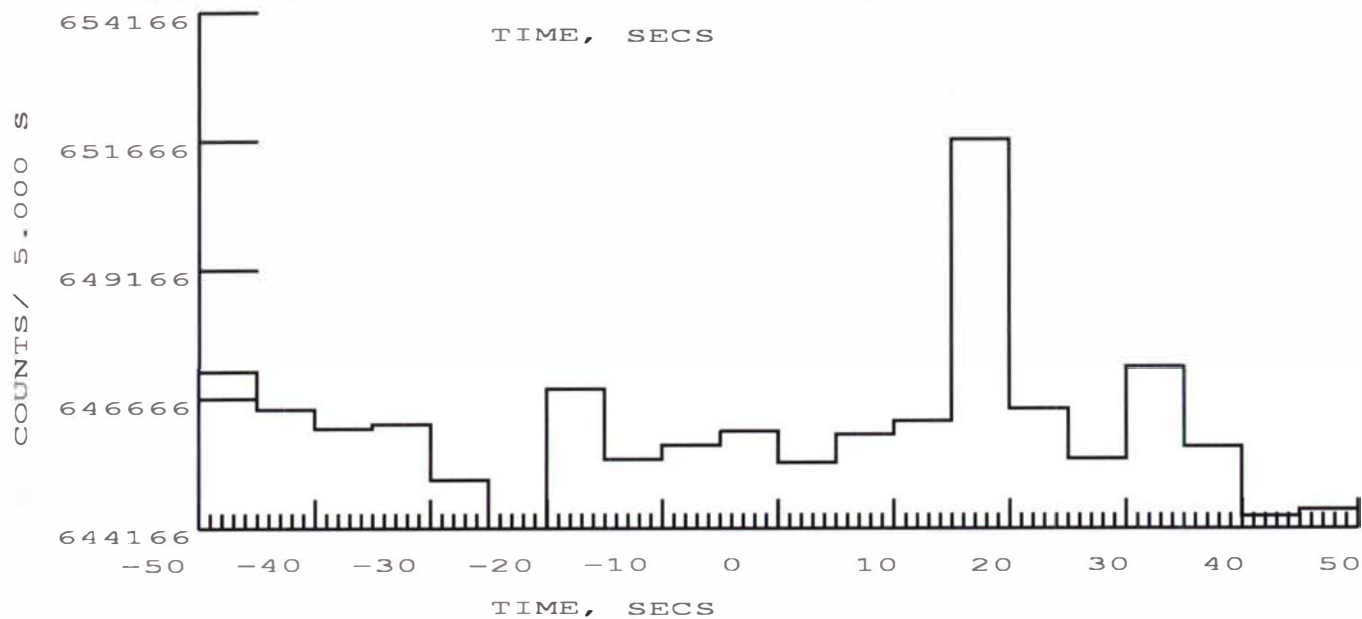
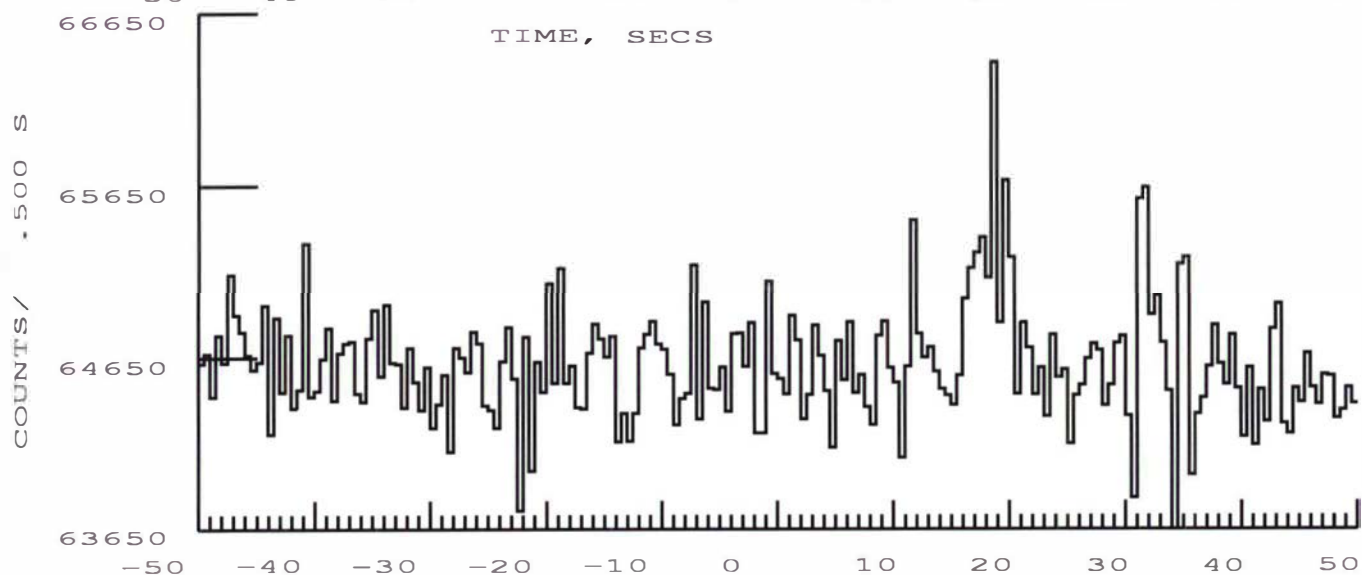
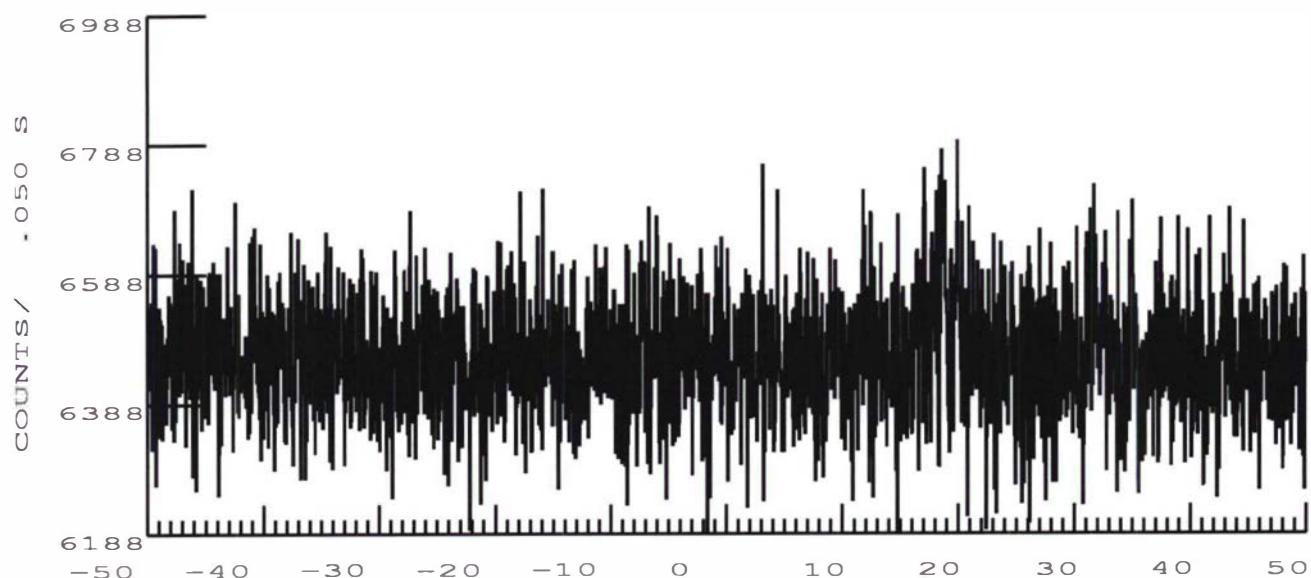
29/09/09 36415.000 (KONUS1_20090929_36565)

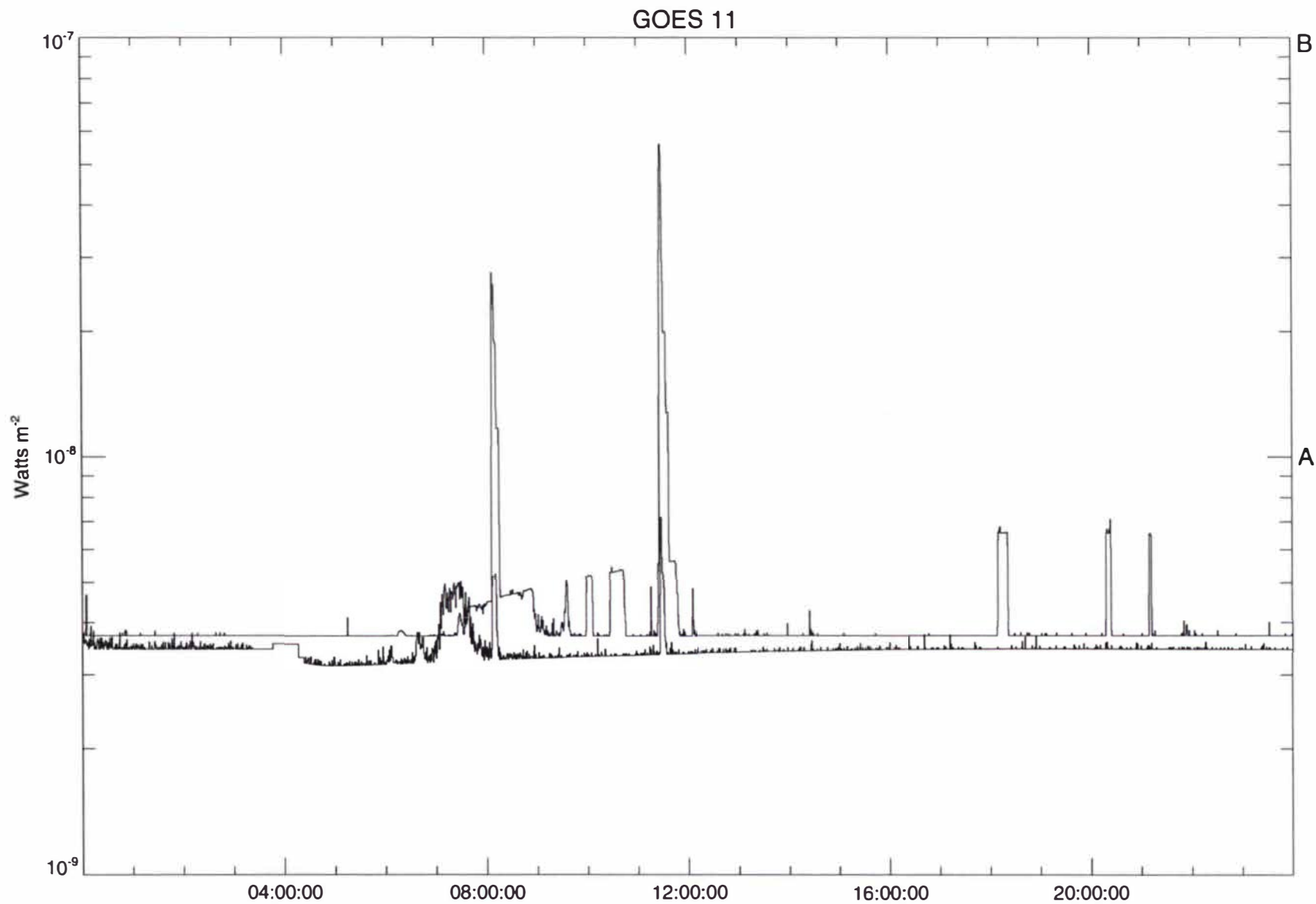
B

25- 150 keV



INTEGRAL 29/09/09 36547.000 10:09:07.0 25/09/15





Data Start: 09/09/29, 0000:13

Plot created: 09/10/02, 0819

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10

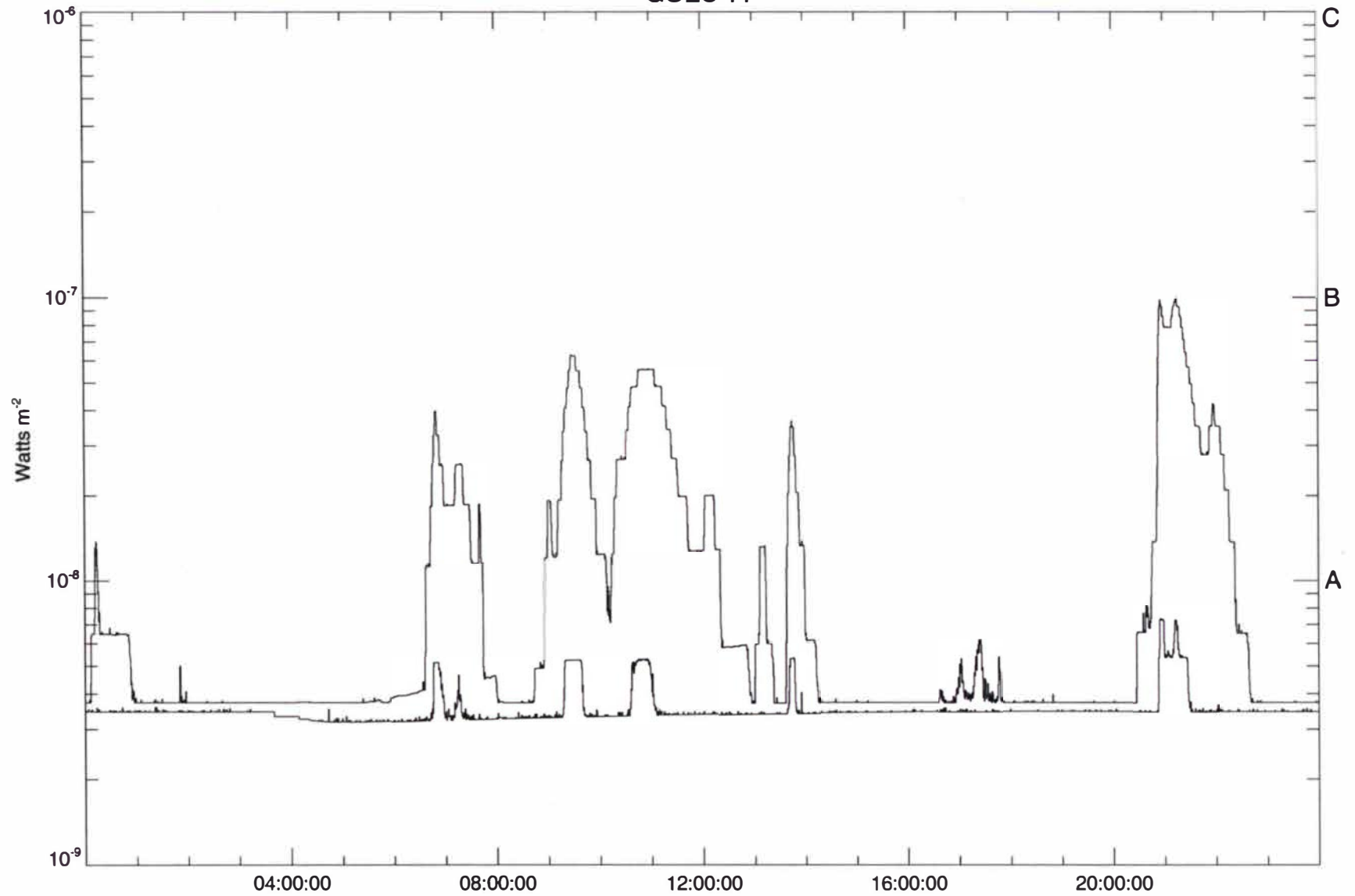
From: "John Goldsten" <John.Goldsten@jhuapl.edu>
To: "David J. Lawrence (Space)" <David.J.Lawrence@jhuapl.edu>, "William C. Feldm
Cc: "Robert E. Gold" <Robert.Gold@jhuapl.edu>, "Ralph McNutt" <Ralph.McNutt@jhua
Sent: Thursday, October 1, 2009 12:08:14 PM GMT -07:00 US/Canada Mountain
Subject: NS back on

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John

GOES 11



Data Start: 09/09/30, 0000:13

Plot created: 09/10/03, 0818

Channel

1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

Sample average = 10