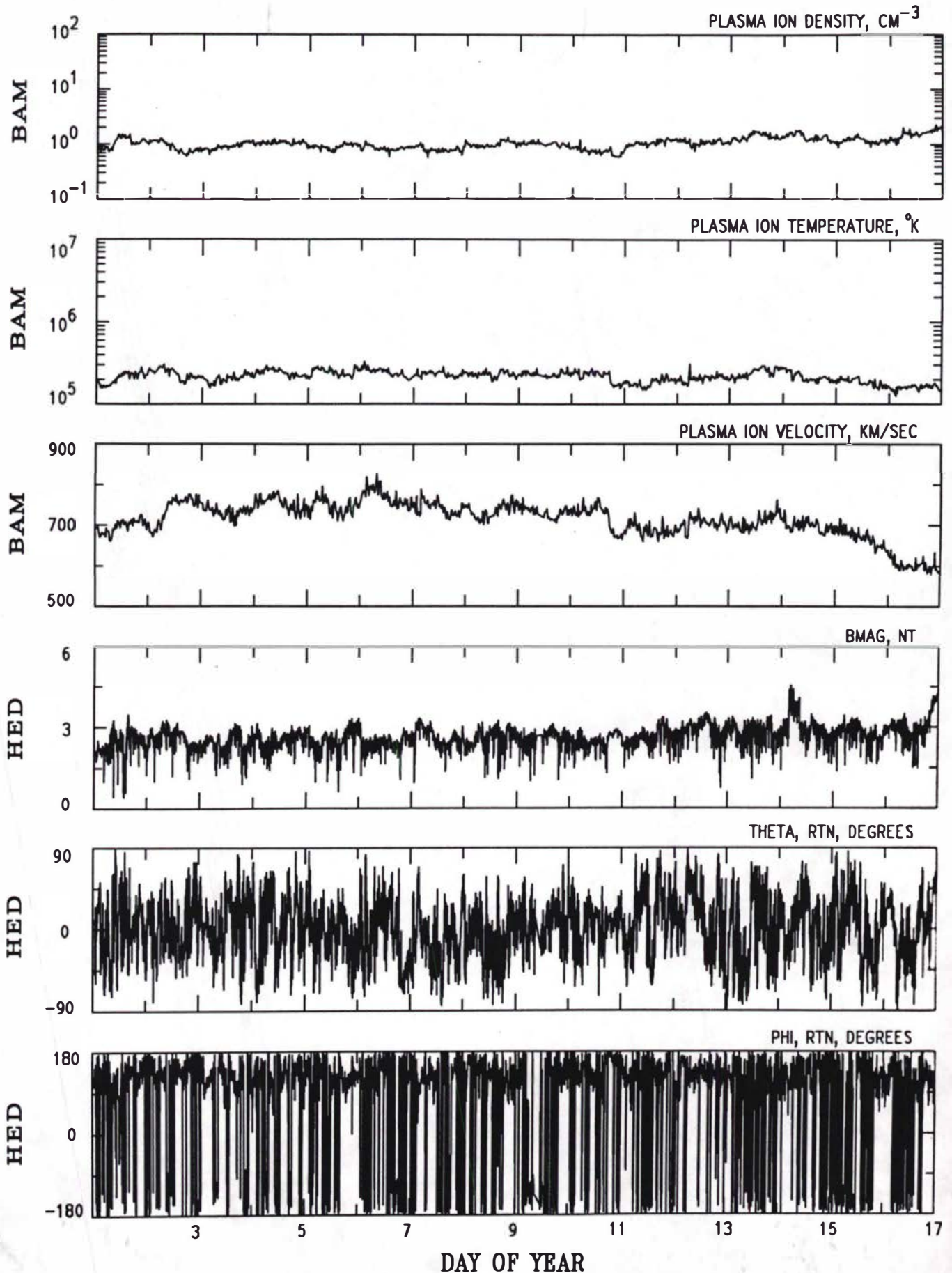


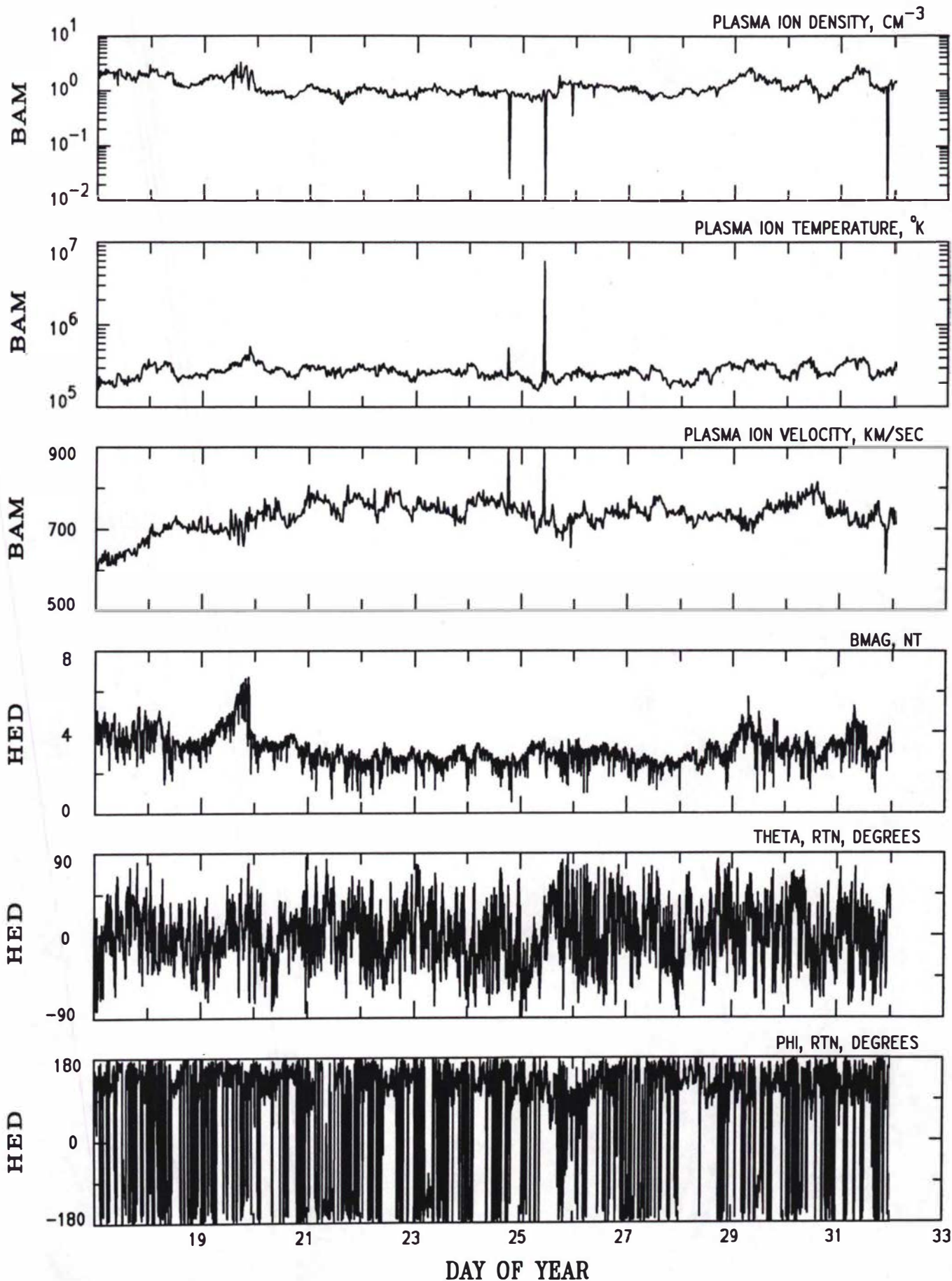
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

95 001 JAN 1 00:00:00.000 - 95 017 JAN 17 00:00:00.000



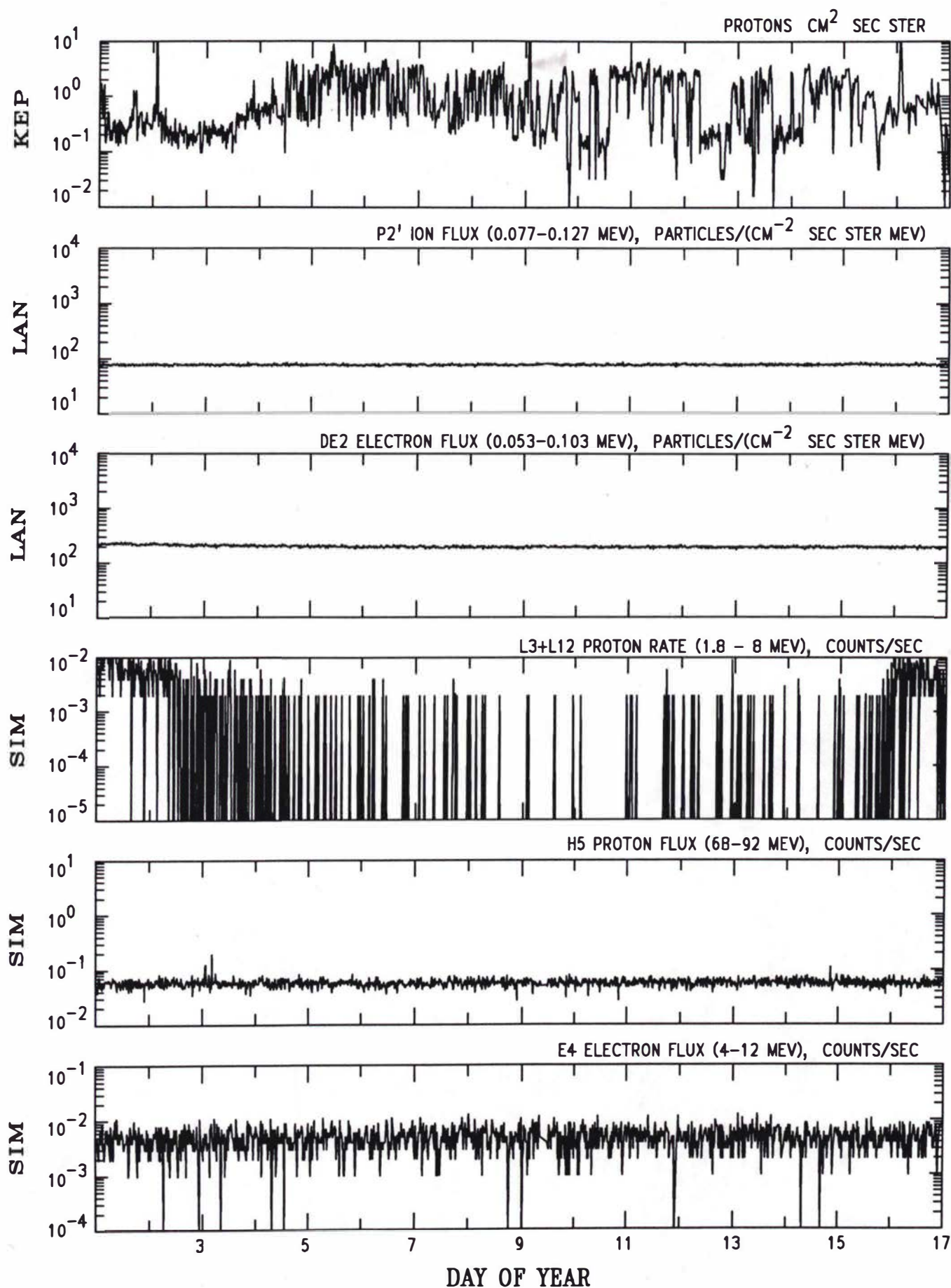
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

95 017 JAN 17 00:00:00.000 - 95 033 FEB 2 00:00:00.000



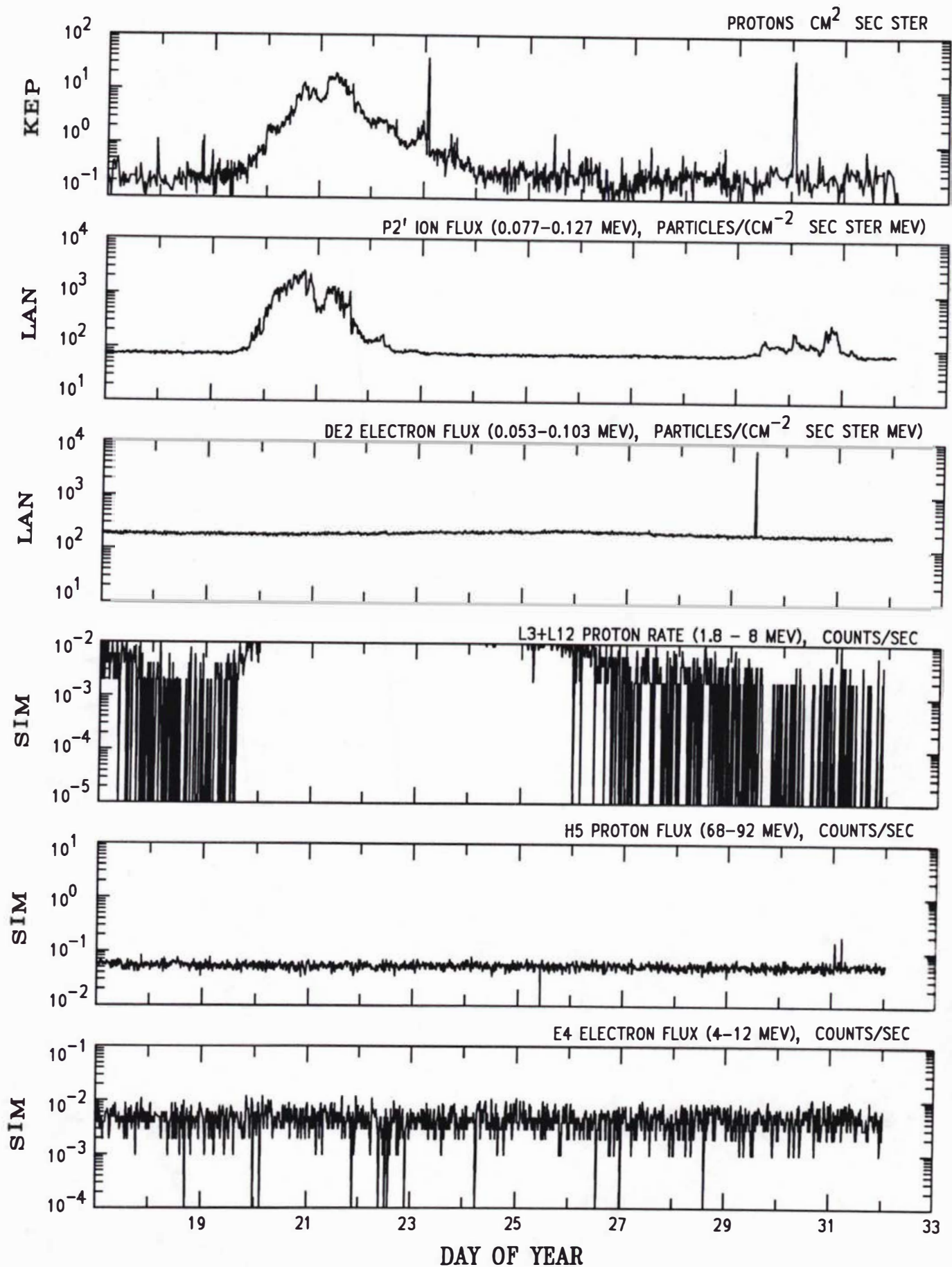
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

95 001 JAN 1 00:00:00.000 - 95 017 JAN 17 00:00:00.000



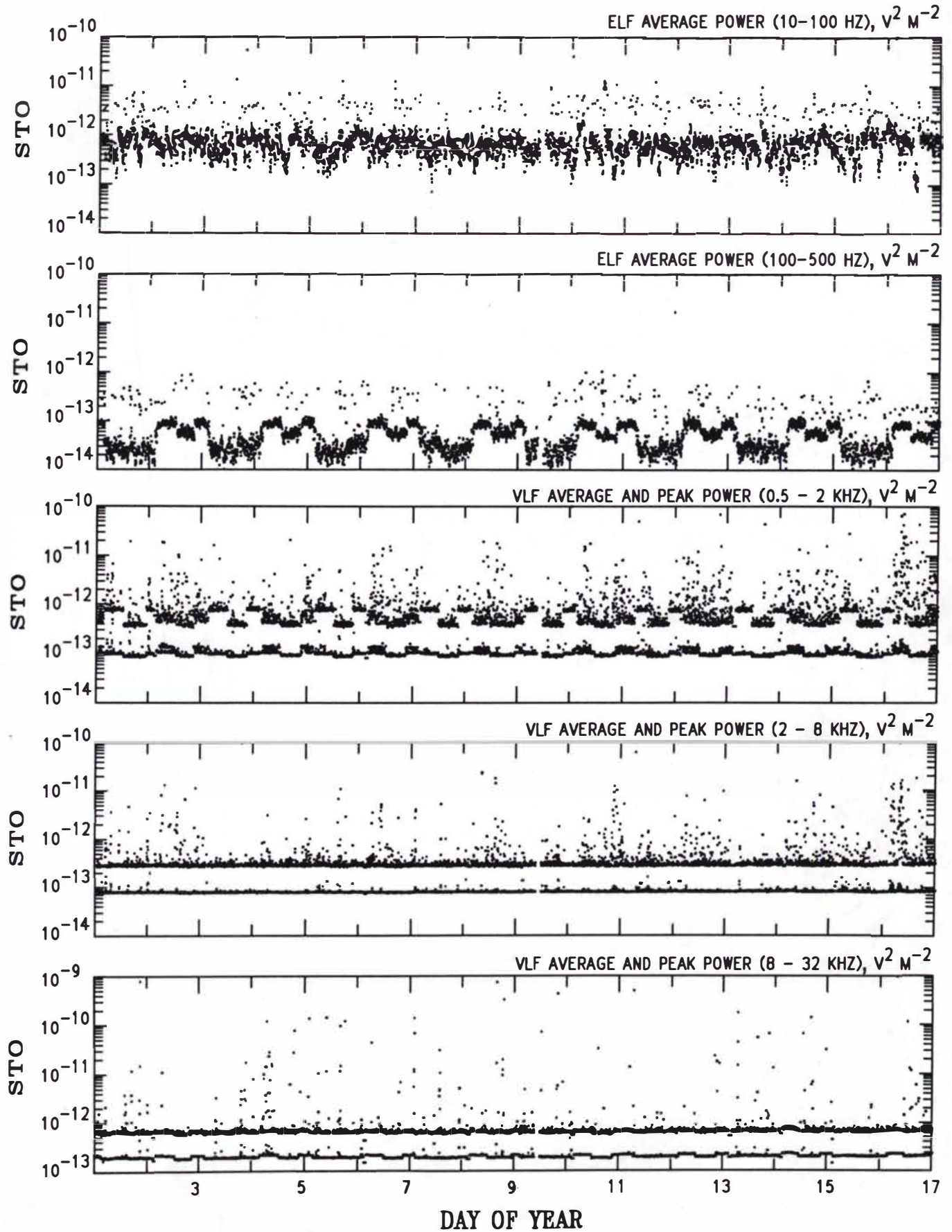
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

95 017 JAN 17 00:00:00.000 - 95 033 FEB 2 00:00:00.000



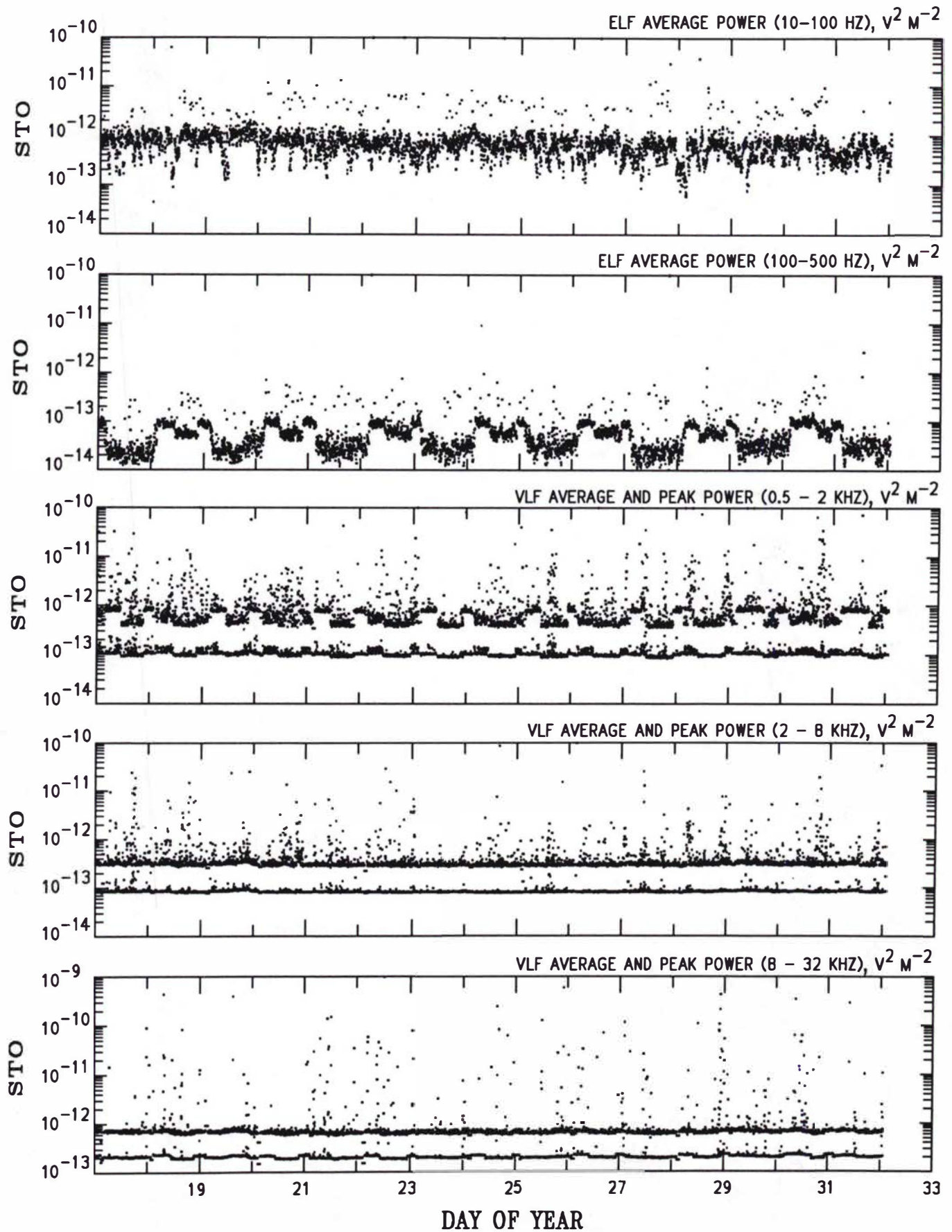
ULYSSES CDR - PLASMA WAVE

95 001 JAN 1 00:00:00.000 - 95 017 JAN 17 00:00:00.000



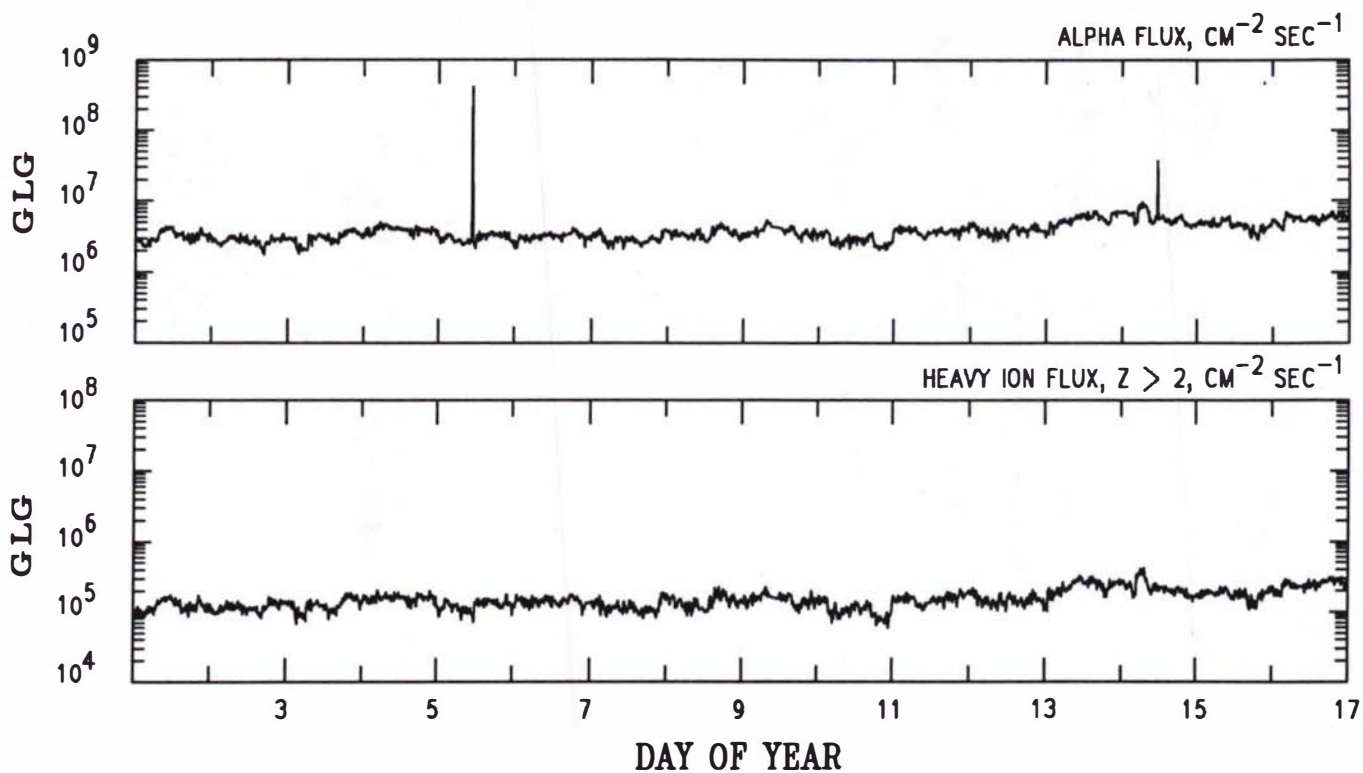
ULYSSES CDR - PLASMA WAVE

95 017 JAN 17 00:00:00.000 - 95 033 FEB 2 00:00:00.000



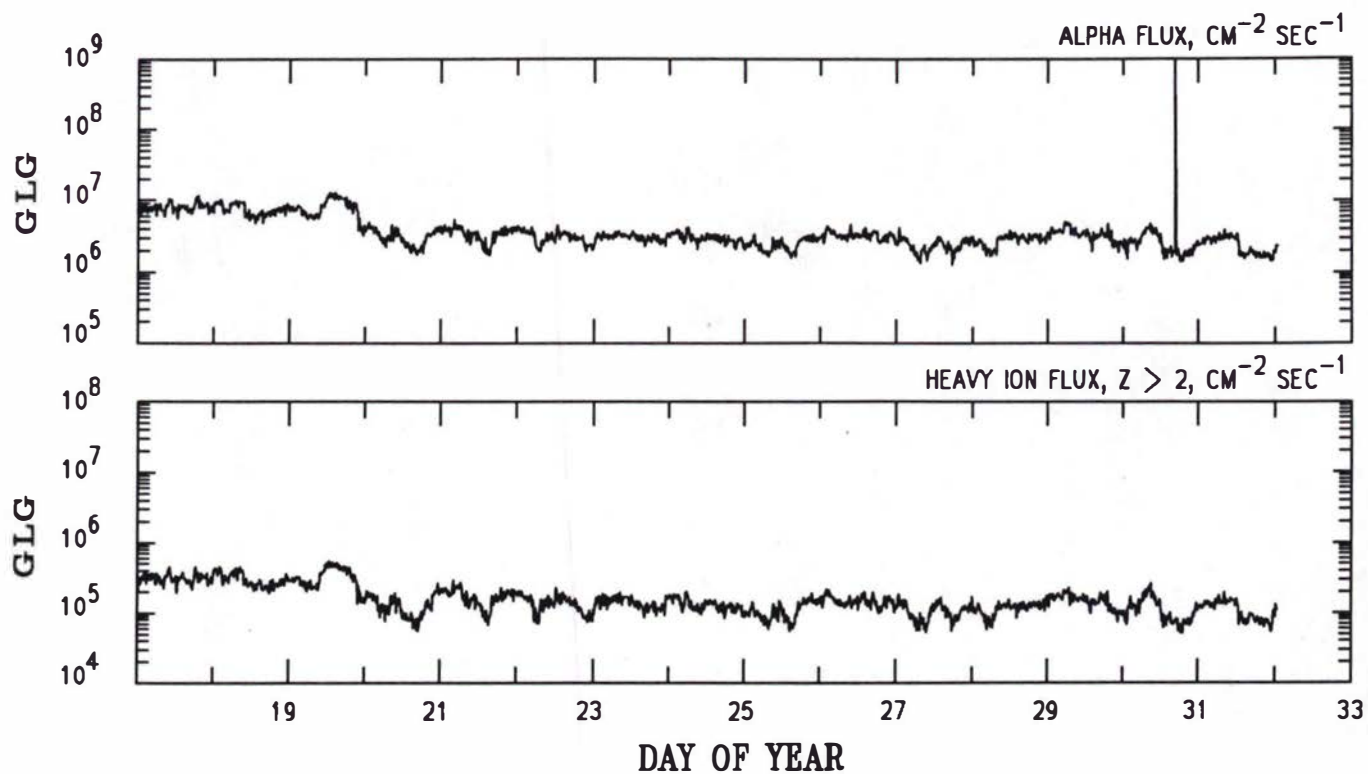
ULYSSES CDR - SOLAR WIND ION COMPOSITION

95 001 JAN 1 00:00:00.000 - 95 017 JAN 17 00:00:00.000



ULYSSES CDR - SOLAR WIND ION COMPOSITION

95 017 JAN 17 00:00:00.000 - 95 033 FEB 2 00:00:00.000



From KOSHUT@ssl.msfc.nasa.gov Mon Jan 2 09:26 PST 1995
Date: Mon, 2 Jan 1995 11:26:29 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3338

BATSEARCH PROGRAM

BATSE BURST # 3338
EVENT OF 1995 JAN 1 DAY OF YEAR= 1
EVENT CROSSING TIME AT BATSE : 5581. S. OR 01:33:01.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 184.000 29.000
BATSE PEAK COUNTING RATE: 8500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 1/ 95 IS:
RA= 315.424 DEC= -52.156 DIST= 2.184 AU
BATSE-ULYSSES DISTANCE = 326798094. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 42.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 804.34 SECS.
CROSSING TIME AT ULYSSES IS 6385. S. OR 01:46:25 +/- 189.95 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 1/ 95 IS:
RA= 155.885 DEC= 13.762 DIST= 0.846 AU
MARS-BATSE DISTANCE = 126530840. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=149.84 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -364.91 SECS.
CROSSING TIME AT MARS IS 5216. S. OR 01:26:56 +/- 31.28 SECONDS

No

From KOSHUT@ssl.msfc.nasa.gov Mon Jan 2 09:26 PST 1995
Date: Mon, 2 Jan 1995 11:26:04 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: KOSHUT@ssl.msfc.nasa.gov
Subject: BATSE Burst 3338

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3338	950101	9718	05581	8500	184	+29

From KOSHUT@ssl.msfc.nasa.gov Mon Jan 2 09:24 PST 1995
Date: Mon, 2 Jan 1995 11:24:42 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03338

TIME: TJD=9718 SECONDS=05581

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=33. AZIMUTH=173. ERROR= DEGREES

COMMENTS:

BURST OF ~ 0.1 SECONDS DURATION, NOT OBSERVED ABOVE 300 KEV.
TIME HISTORY CONSISTS OF A SINGLE PULSE, WITH TWO PEAKS. PEAK RATE
IS ~ 8500 C/S, BACKGROUND SUBTRACTED.

4 / 1 / 95

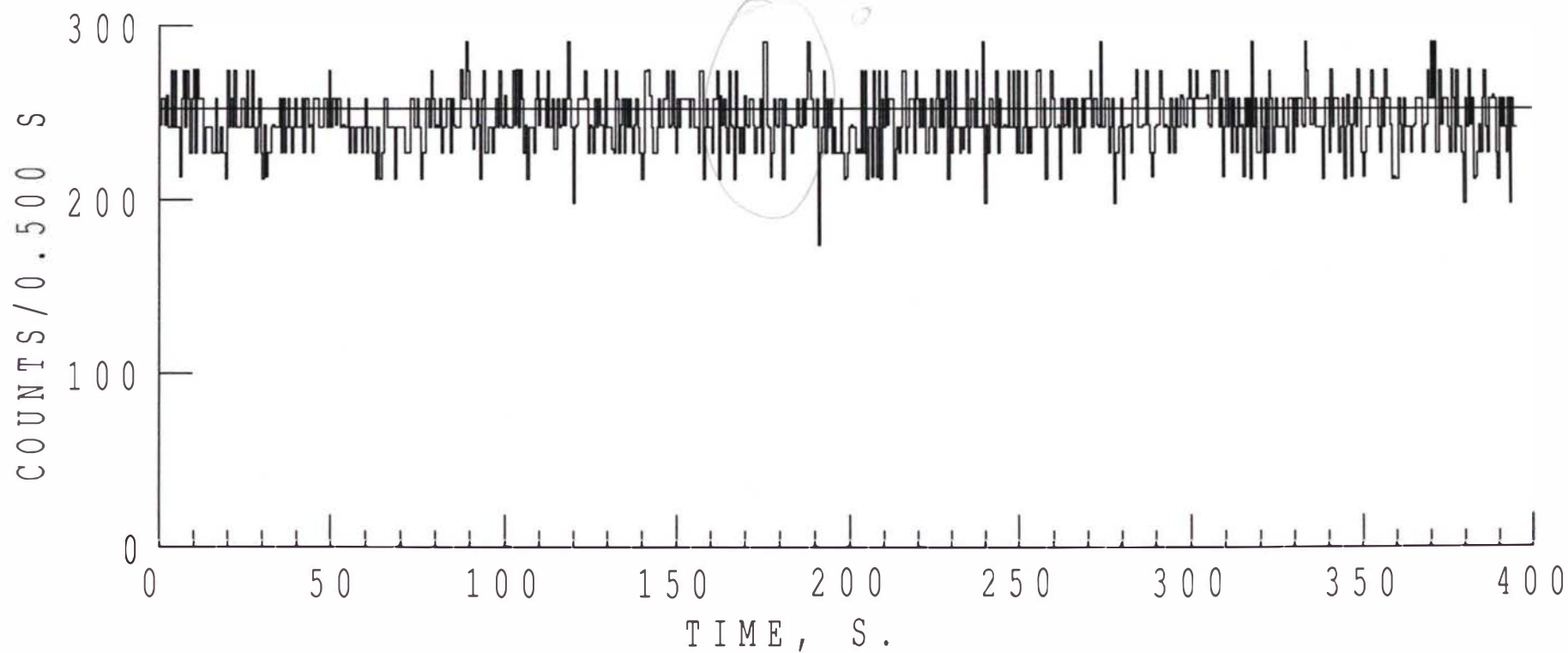
ULYSSES RT

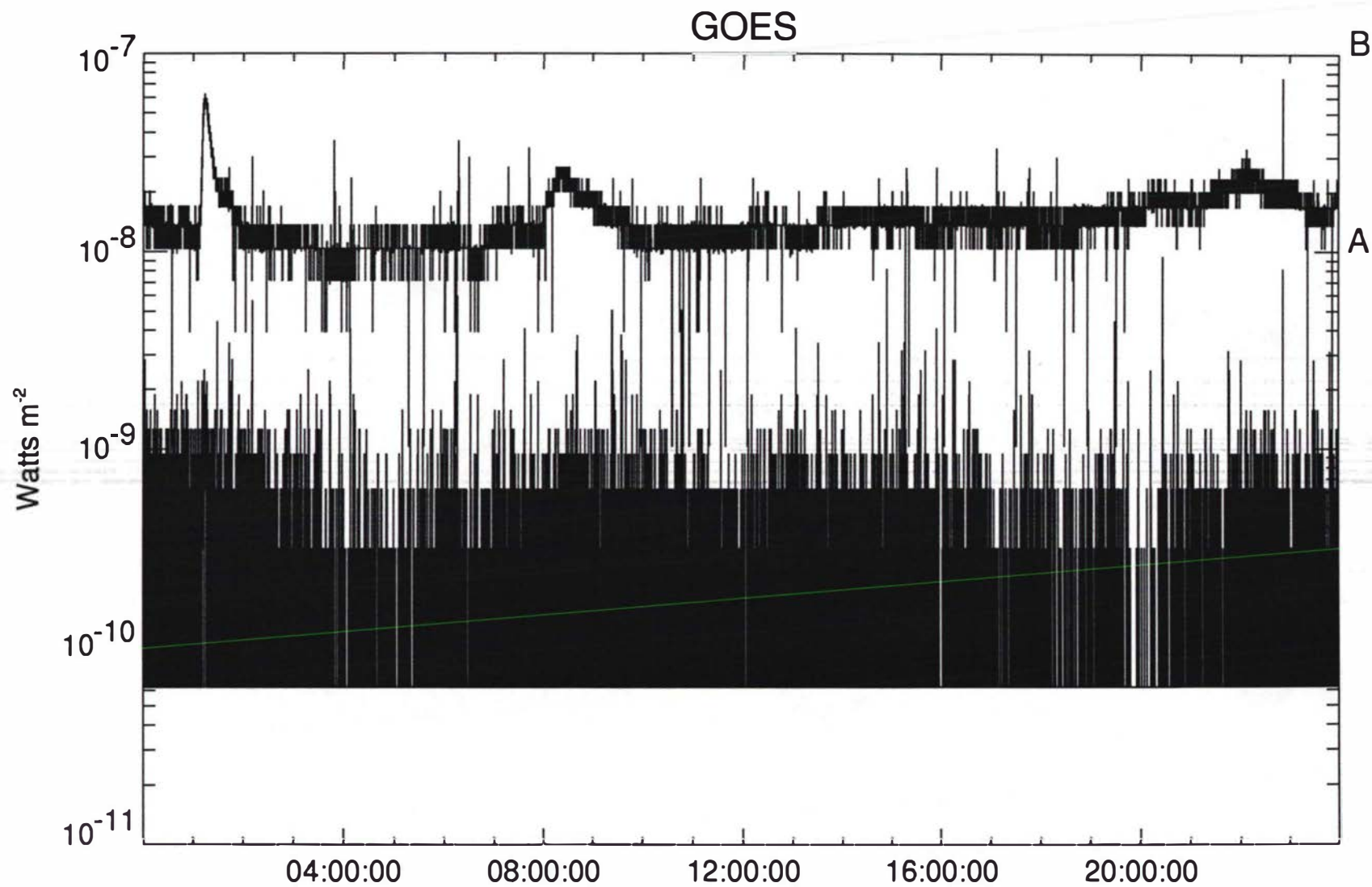
1 / 1 / 95 6192.246 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





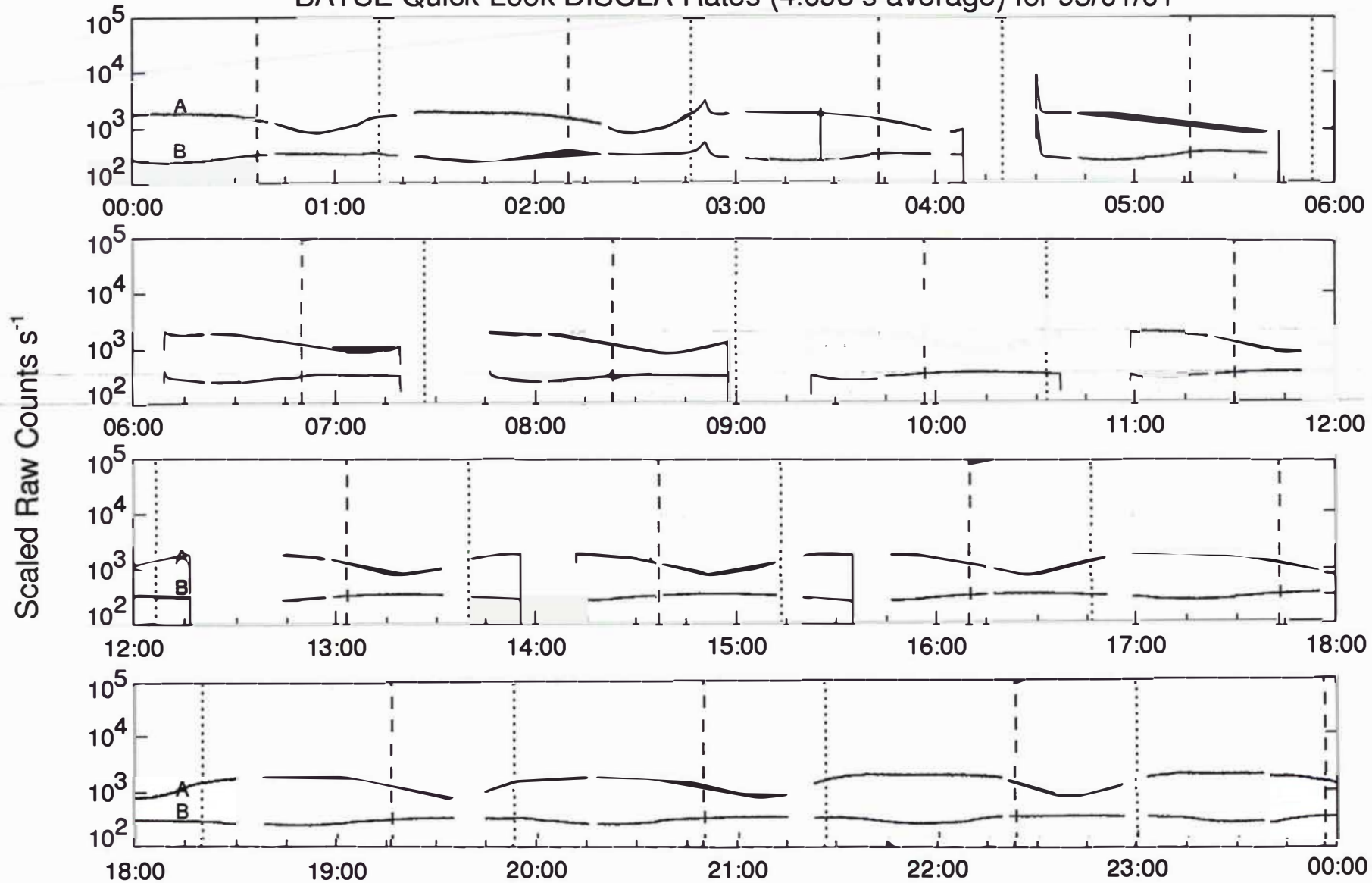
Data Start: 95/01/01, 0000:02

Plot created: 95/01/05, 1824

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/01

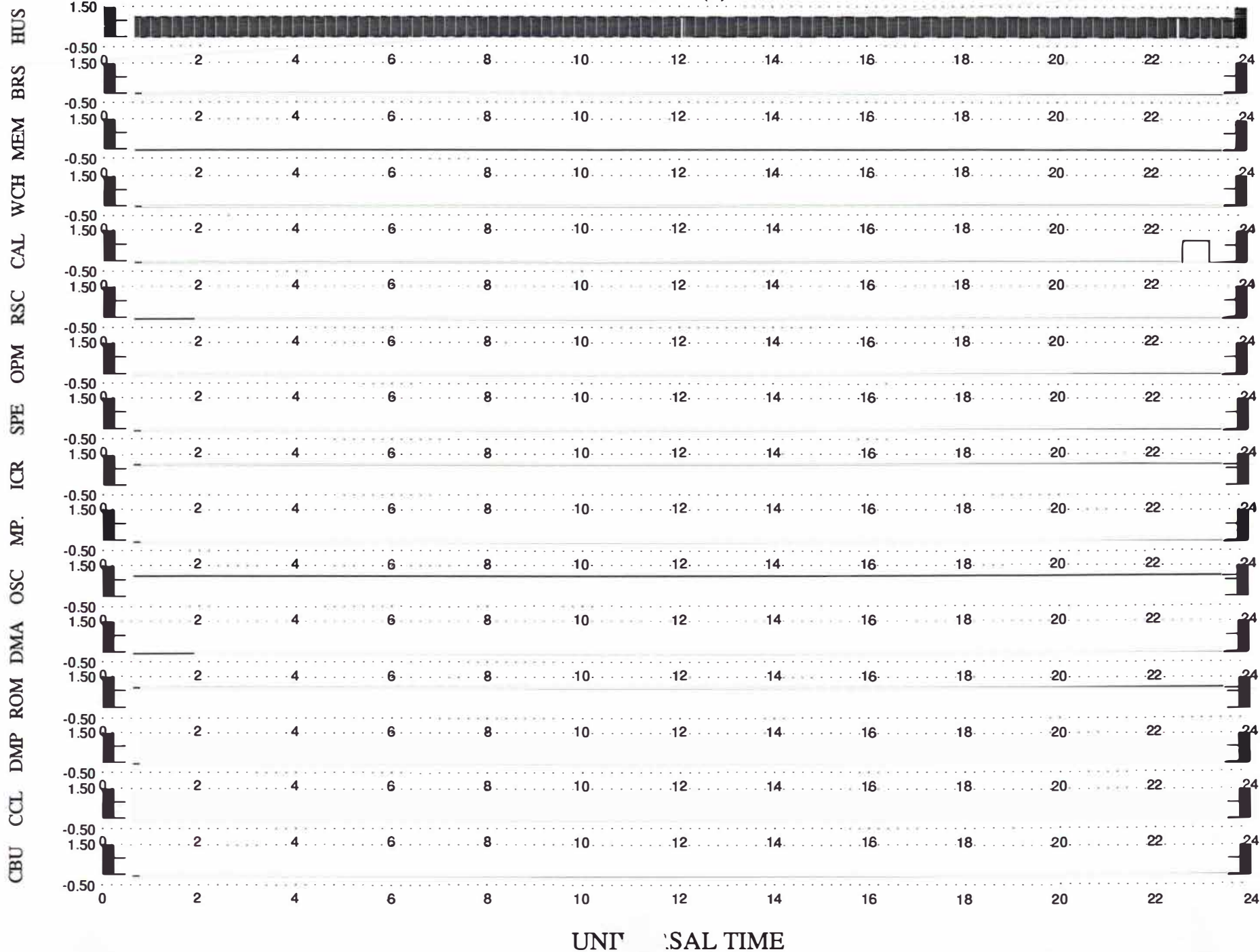


Current Time: 95/01/05, 1825 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

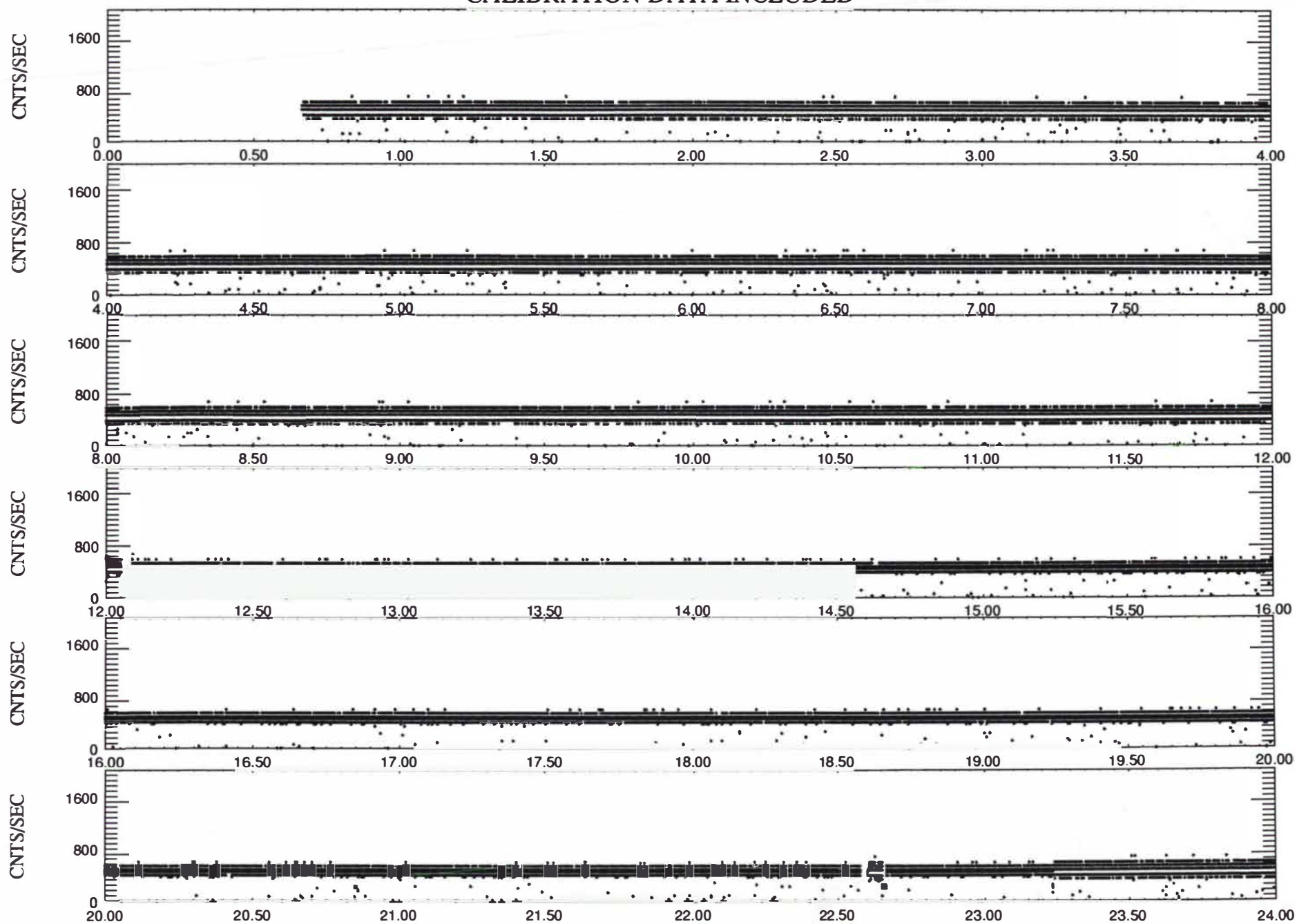
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

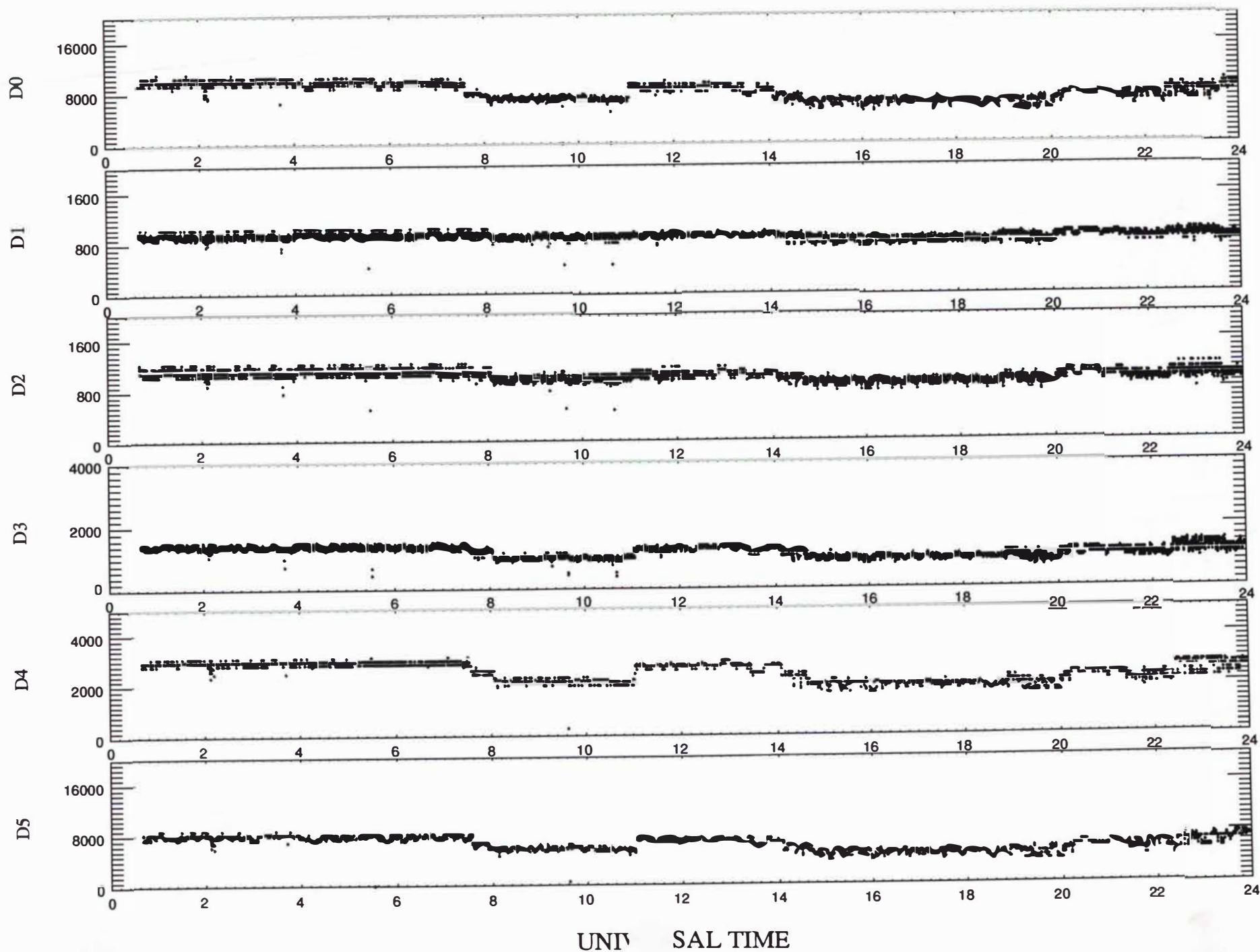
NO BURST (9)



CALIBRATION DATA INCLUDED



UNITS SAL TIME



From DEAL@ssl.msfc.nasa.gov Wed Jan 4 07:54 PST 1995
Return-Path: <DEAL@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA11031; Wed, 4 Jan 1995 07:54:28 +0800
Date: Wed, 4 Jan 1995 9:54:26 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950104095426.204030b7@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3339
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3339
EVENT OF 1995 JAN 2 DAY OF YEAR= 2
EVENT CROSSING TIME AT BATSE : 9926. S. OR 02:45:26.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 50.000 -31.000
BATSE PEAK COUNTING RATE: 2350 C/S

ND

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 2/ 1/ 95 IS:
RA= 316.138 DEC= -51.448 DIST= 2.187 AU
BATSE-ULYSSES DISTANCE = 327239692. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=111.52 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -400.38 SECS.
CROSSING TIME AT ULYSSES IS 9526. S. OR 02:38:45 +/- 220.22 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 2/ 1/ 95 IS:
RA= 155.916 DEC= 13.791 DIST= 0.839 AU
MARS-BATSE DISTANCE = 125471416. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 69.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 146.93 SECS.
CROSSING TIME AT MARS IS 10073. S. OR 02:47:52 +/- 70.27 SECONDS

BATSE BURST TRIGGER

NO.: 3339

TIME: TJD=9719 SECONDS=09926

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=144.6 AZIMUTH=279.0 ERROR= DEGREES

COMMENTS:

BURST LASTING ~6 S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3339	950102	9719	09926	2350	050	-31

4 / 1 / 95

ULYSSES RT

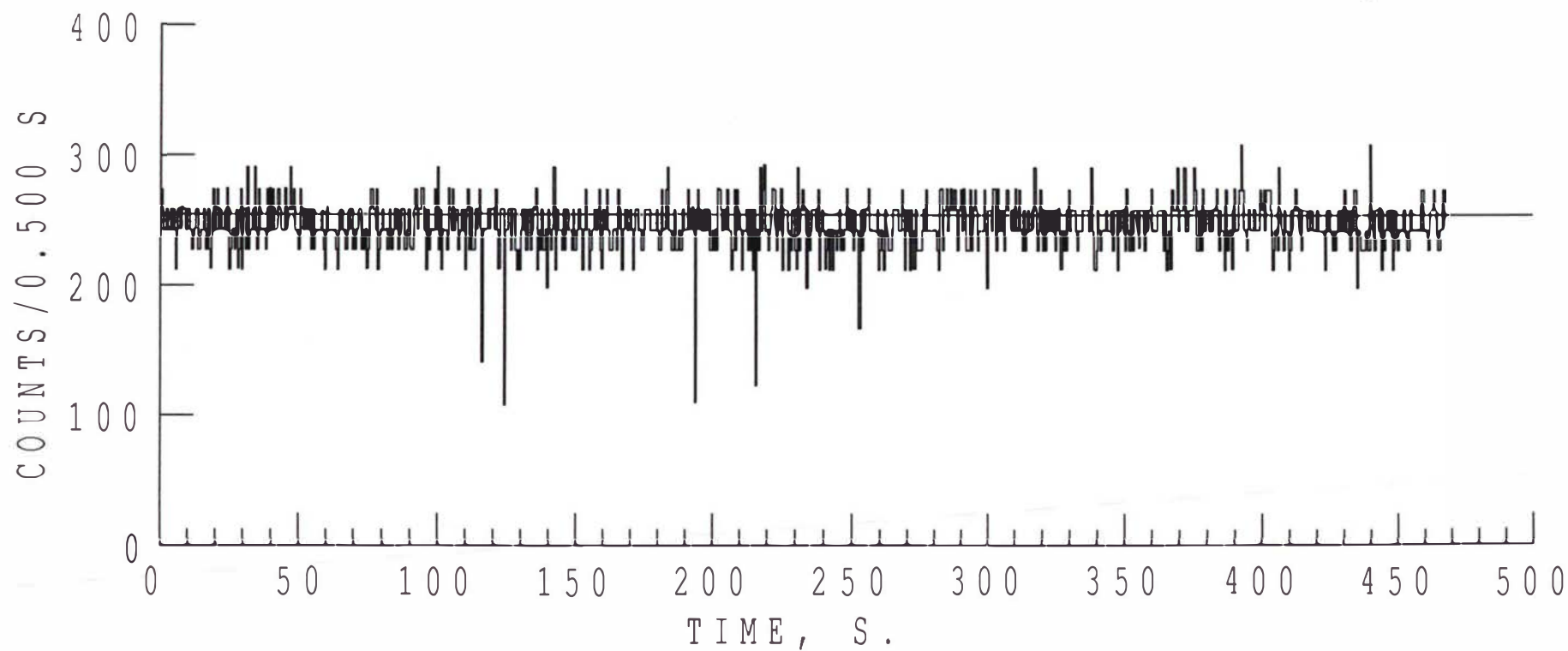
2 / 1 / 95 9288.178 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Wed Jan 4 07:56 PST 1995
Return-Path: <DEAL@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA11055; Wed, 4 Jan 1995 07:56:43 +0800
Date: Wed, 4 Jan 1995 9:56:14 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950104095614.204030b7@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3340
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

N0

BATSE BURST # 3340
EVENT OF 1995 JAN 2 DAY OF YEAR= 2
EVENT CROSSING TIME AT BATSE : 27387. S. OR 07:36:27.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 90.000 3.000
BATSE PEAK COUNTING RATE: 8500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 2/ 1/ 95 IS:
RA= 316.273 DEC= -51.311 DIST= 2.188 AU
BATSE-ULYSSES DISTANCE = 327327933. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 61.81 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 515.72 SECS.
CROSSING TIME AT ULYSSES IS 27903. S. OR 07:45:02 +/- 224.92 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 2/ 1/ 95 IS:
RA= 155.916 DEC= 13.791 DIST= 0.839 AU
MARS-BATSE DISTANCE = 125471416. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=114.09 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -170.86 SECS.
CROSSING TIME AT MARS IS 27216. S. OR 07:33:36 +/- 63.74 SECONDS

BATSE BURST TRIGGER

NO.: 3340

TIME: TJD=9719 SECONDS=27387

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=115.5 AZIMUTH=219.9 ERROR= DEGREES

COMMENTS:

BURST LASTING ~1.5 S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3340	950102	9719	27387	8500	090	+03

4 / 1 / 95

ULYSSES RT

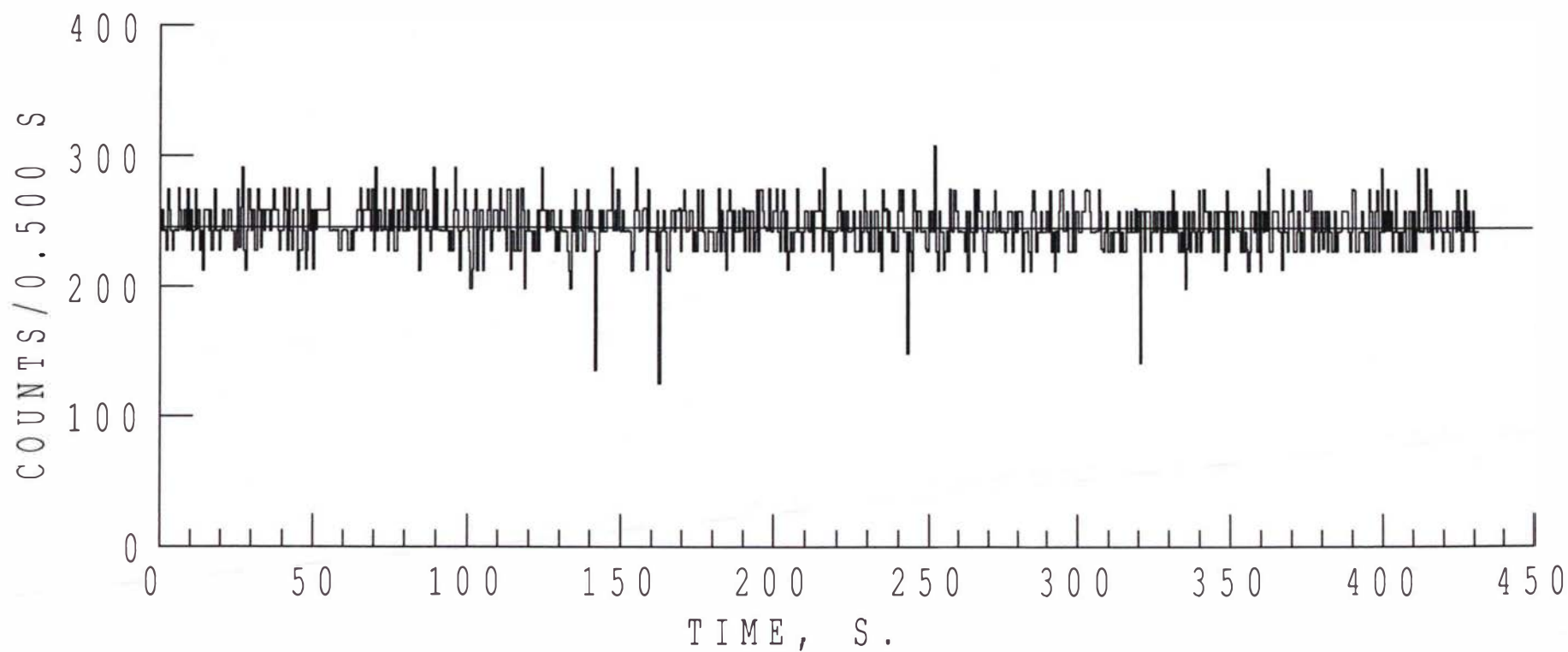
2 / 1 / 95 27684.023 s

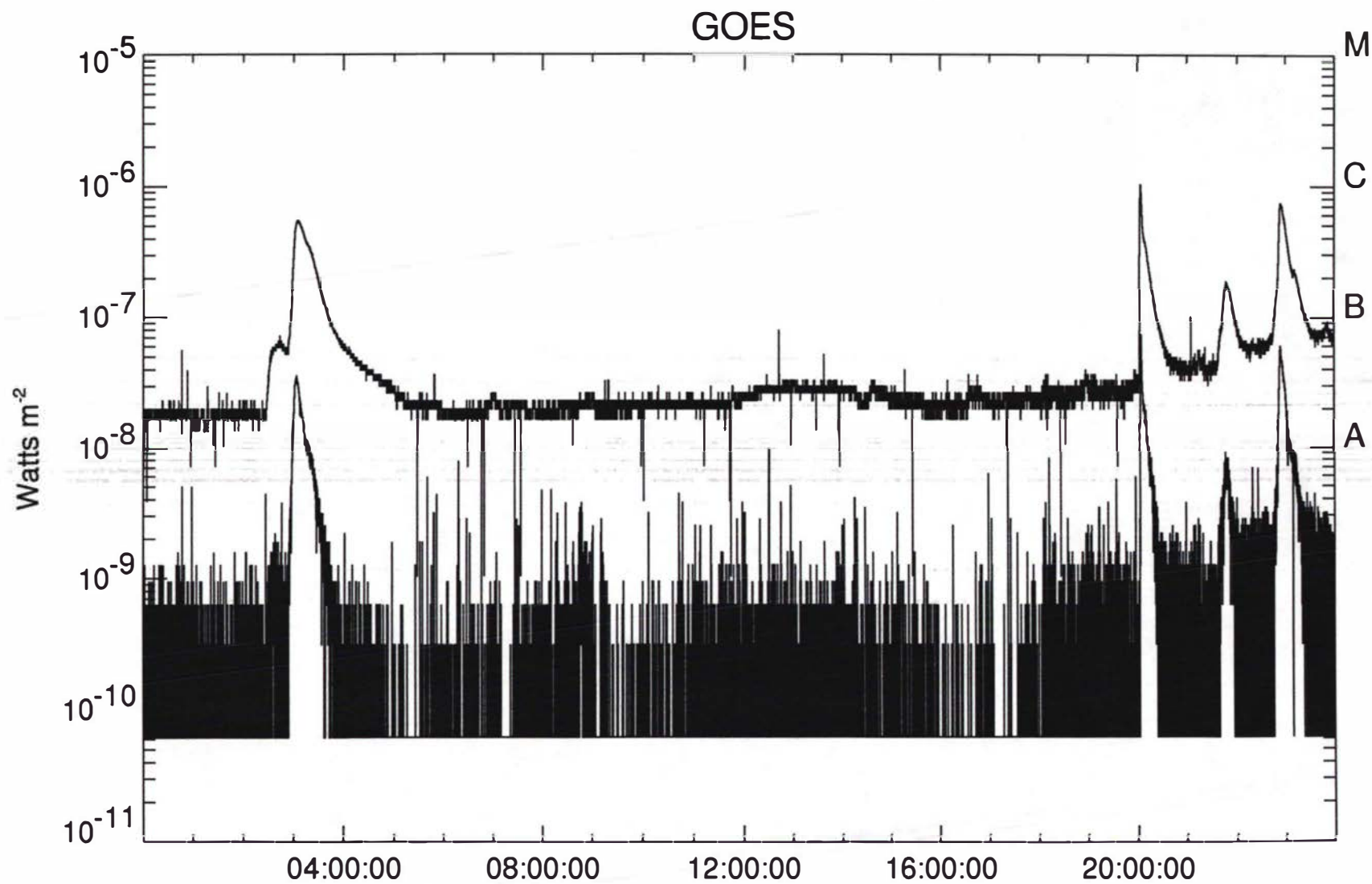
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





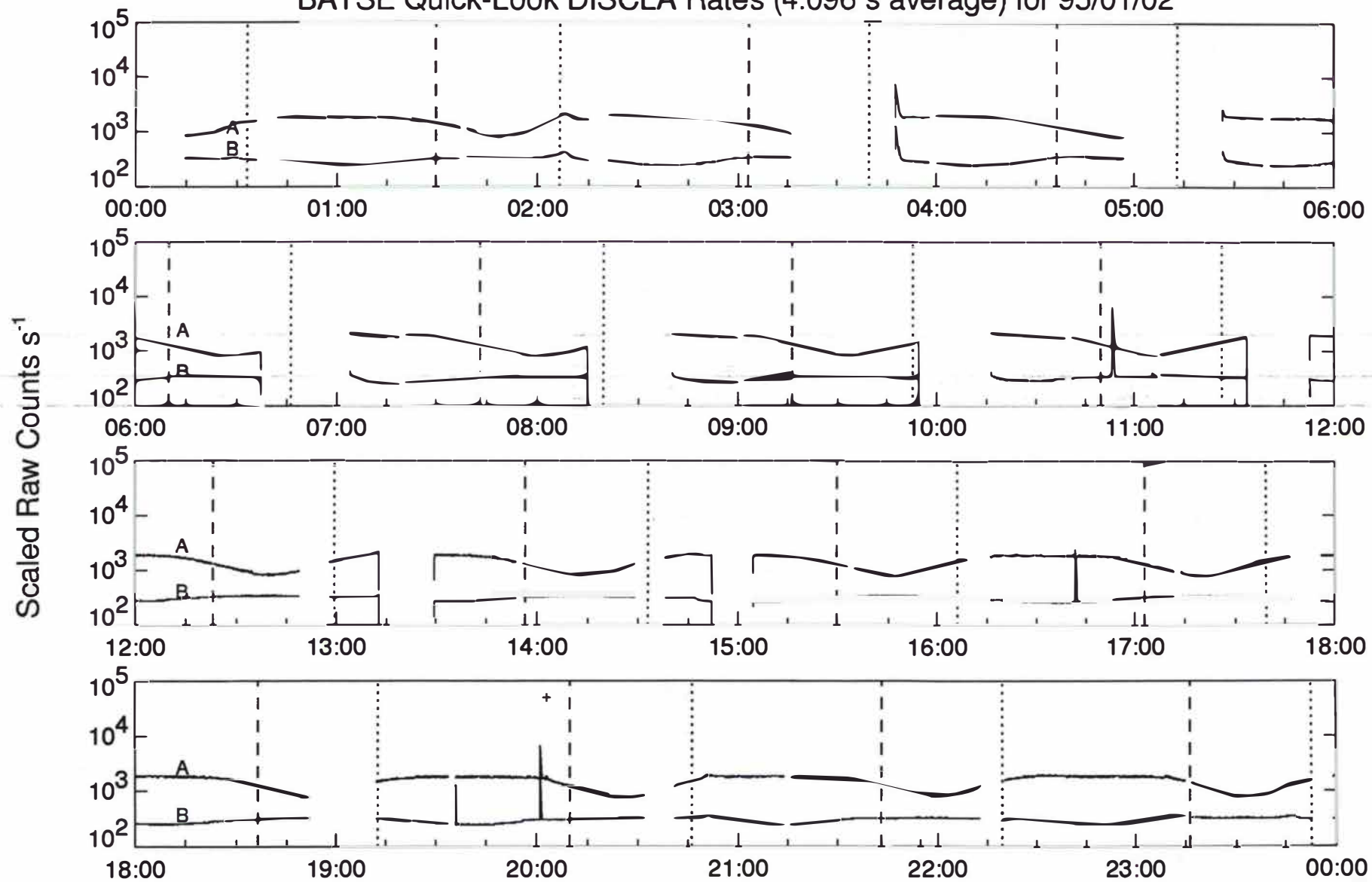
Data Start: 95/01/02, 0000:00

Plot created: 95/01/05, 1828

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/02

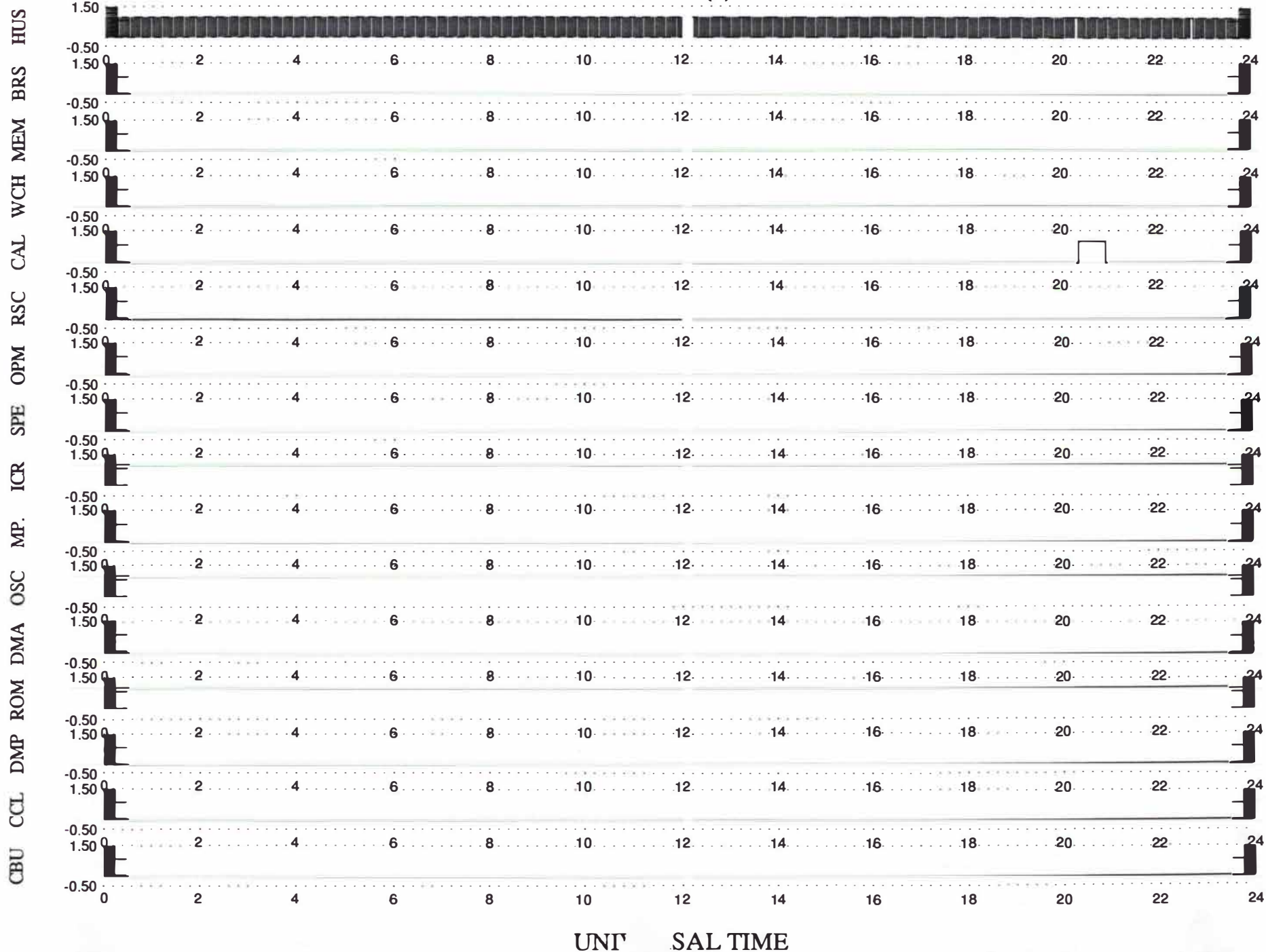


Current Time: 95/01/05, 1829 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

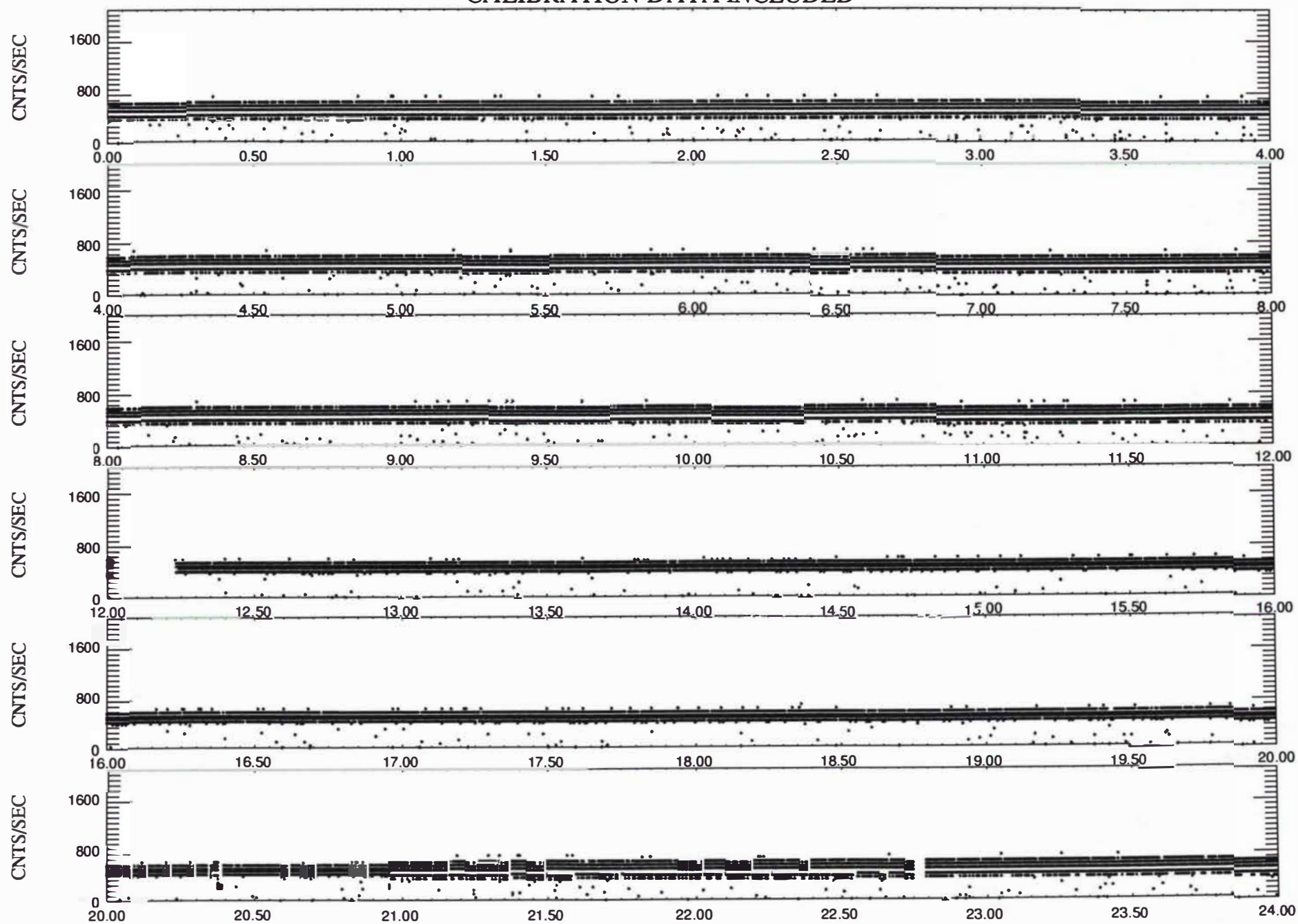
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

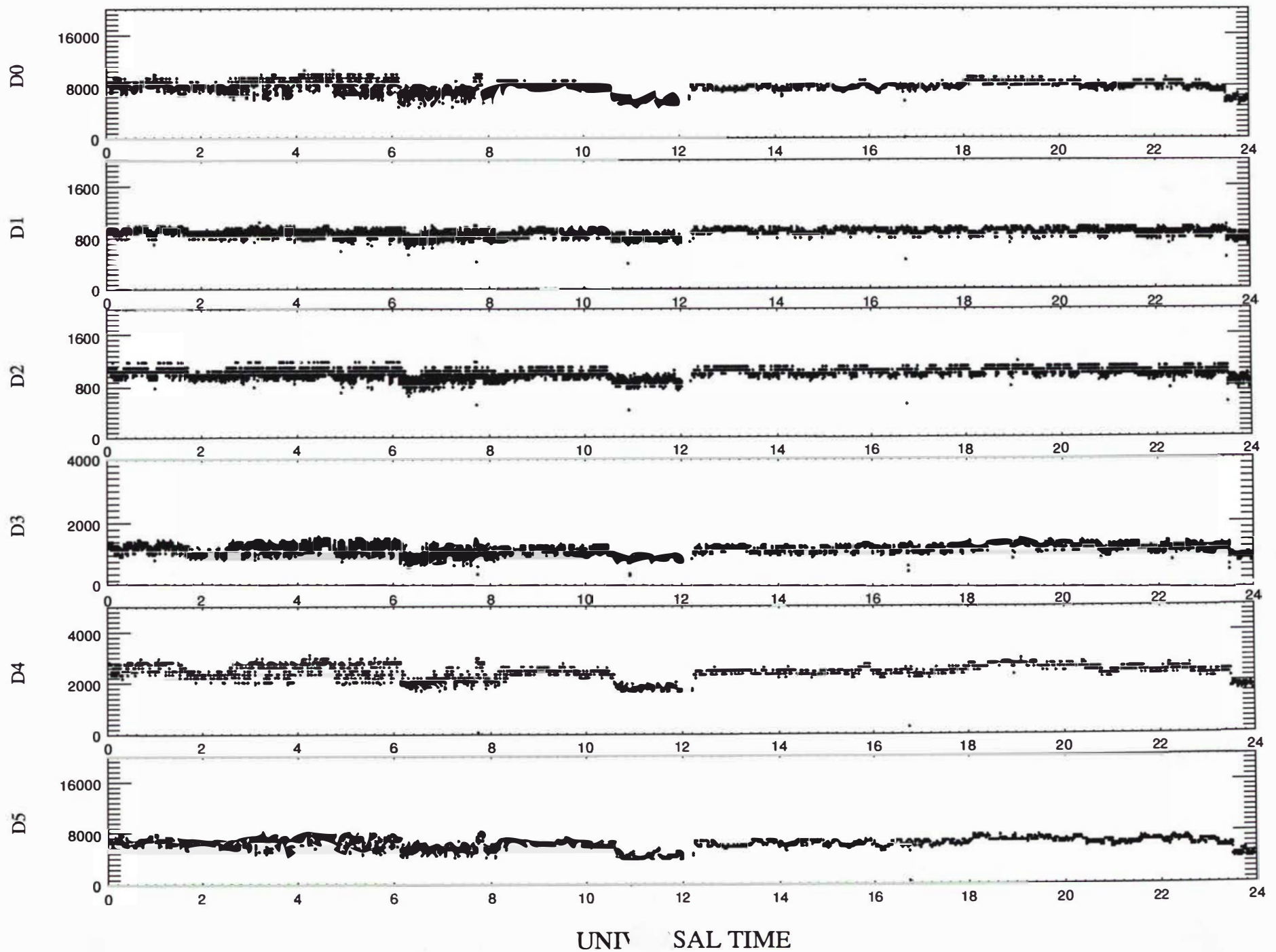
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIFORM TIME



From HAGEDON@ssl.msfc.nasa.gov Thu Jan 5 08:24 PST 1995
Date: Thu, 5 Jan 1995 10:24:17 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3341

TIME: TJD=9720 SECONDS=39055

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.

From HAGEDON@fender.msfc.nasa.gov Thu Jan 5 08:37 PST 1995
Return-Path: <HAGEDON@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA20718; Thu, 5 Jan 1995 08:36:59 +0800
Date: Thu, 5 Jan 1995 10:36:59 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950105103659.20c010d7@fender.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3342
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3342
EVENT OF 1995 JAN 3 DAY OF YEAR= 3
EVENT CROSSING TIME AT BATSE : 58219. S. OR 16:10:19.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 307.000 -6.000
BATSE PEAK COUNTING RATE: 5500 C/S

No

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/ 1/ 95 IS:
RA= 317.166 DEC= -50.397 DIST= 2.192 AU
BATSE-ULYSSES DISTANCE = 327916446. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=134.79 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -770.65 SECS.
CROSSING TIME AT ULYSSES IS 57448. S. OR 15:57:28 +/- 173.06 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/ 1/ 95 IS:
RA= 155.935 DEC= 13.824 DIST= 0.832 AU
MARS-BATSE DISTANCE = 124426128. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 29.53 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 361.14 SECS.
CROSSING TIME AT MARS IS 58580. S. OR 16:16:20 +/- 41.00 SECONDS

BATSE BURST TRIGGER

NO.: 3342

TIME: TJD=9720 SECONDS=58219

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=112 AZIMUTH=29 ERROR= DEGREES

COMMENTS:

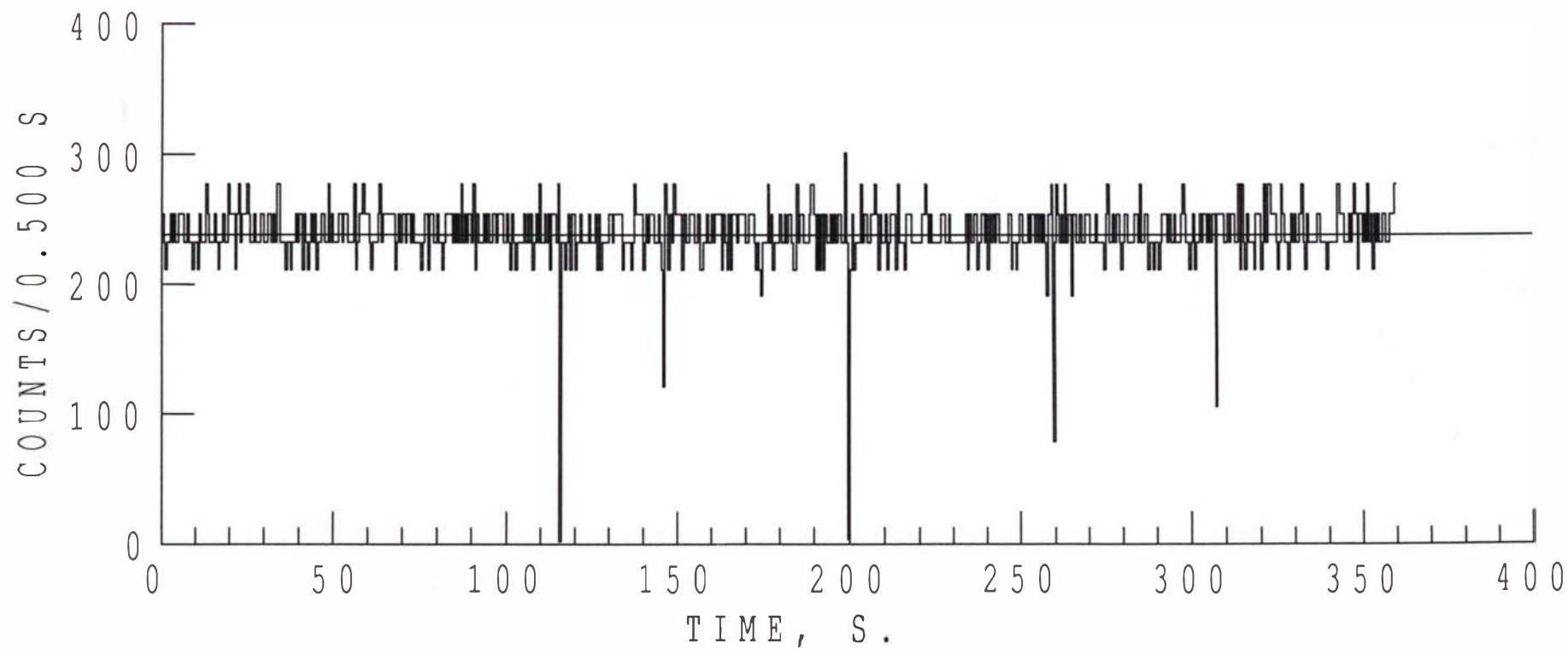
BURST. SINGLE, SHORT SPIKE. FASTER RISE THAN DECAY. DUR.~0.14 SEC.
VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3342	950103	9720	58219	5500	307	-06

5 / 1 / 95

ULYSSES RT
3 / 1 / 95 57276.457 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Thu Jan 5 08:32 PST 1995
Date: Thu, 5 Jan 1995 10:32:43 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3343

TIME: TJD=9720 SECONDS=72348

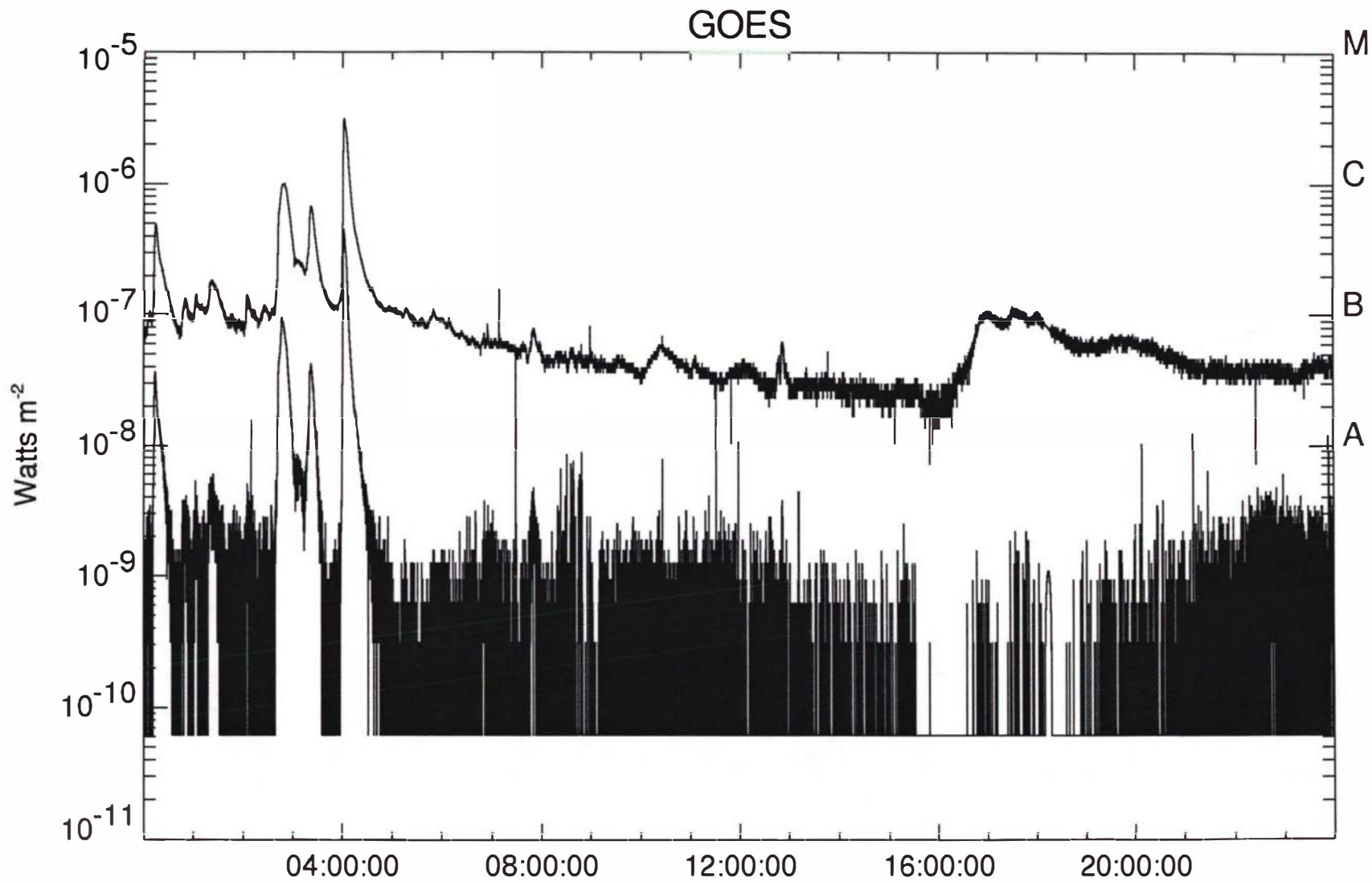
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT.



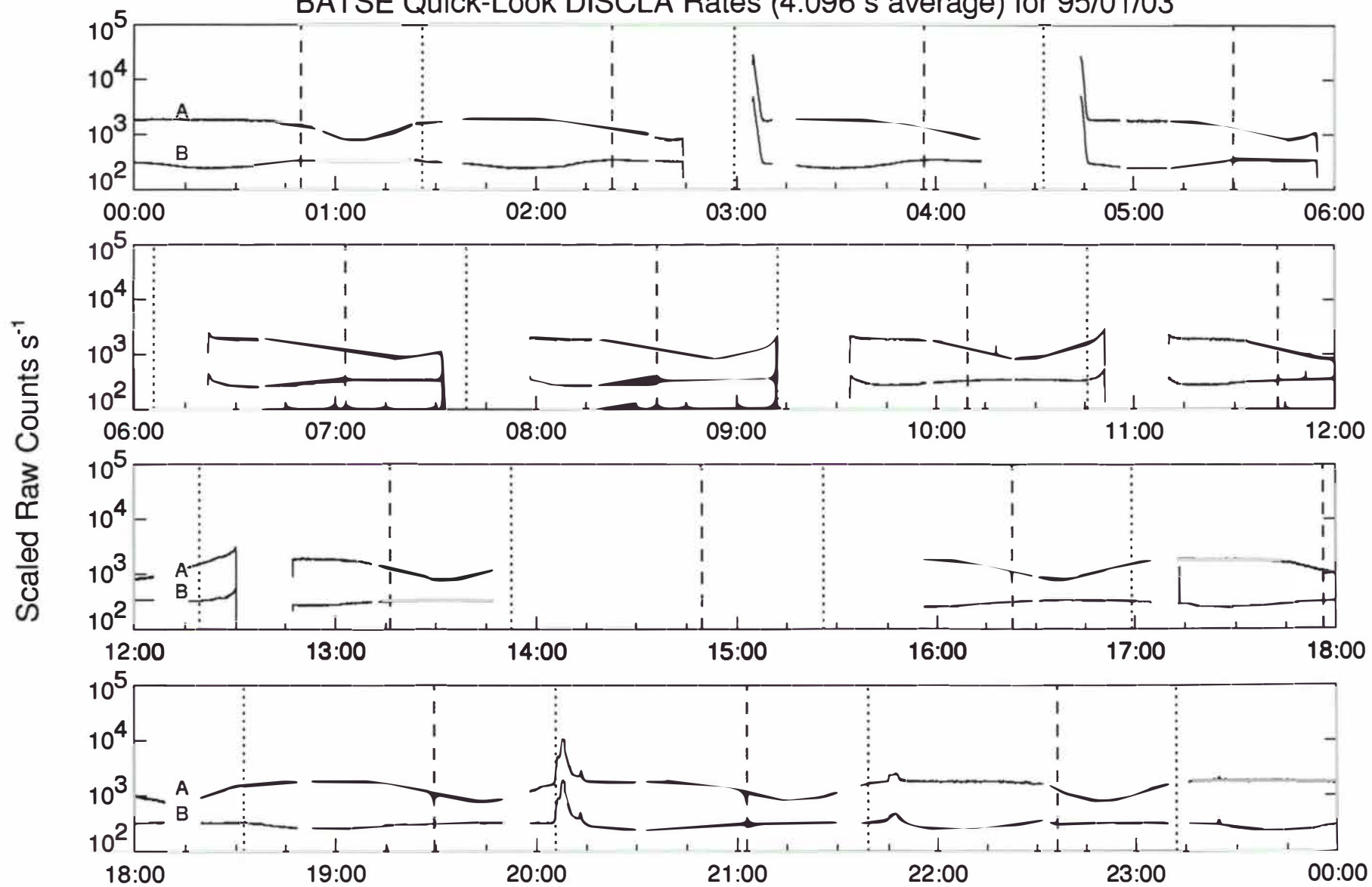
Data Start: 95/01/03, 0000:02

Plot created: 95/01/06, 1629

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/03

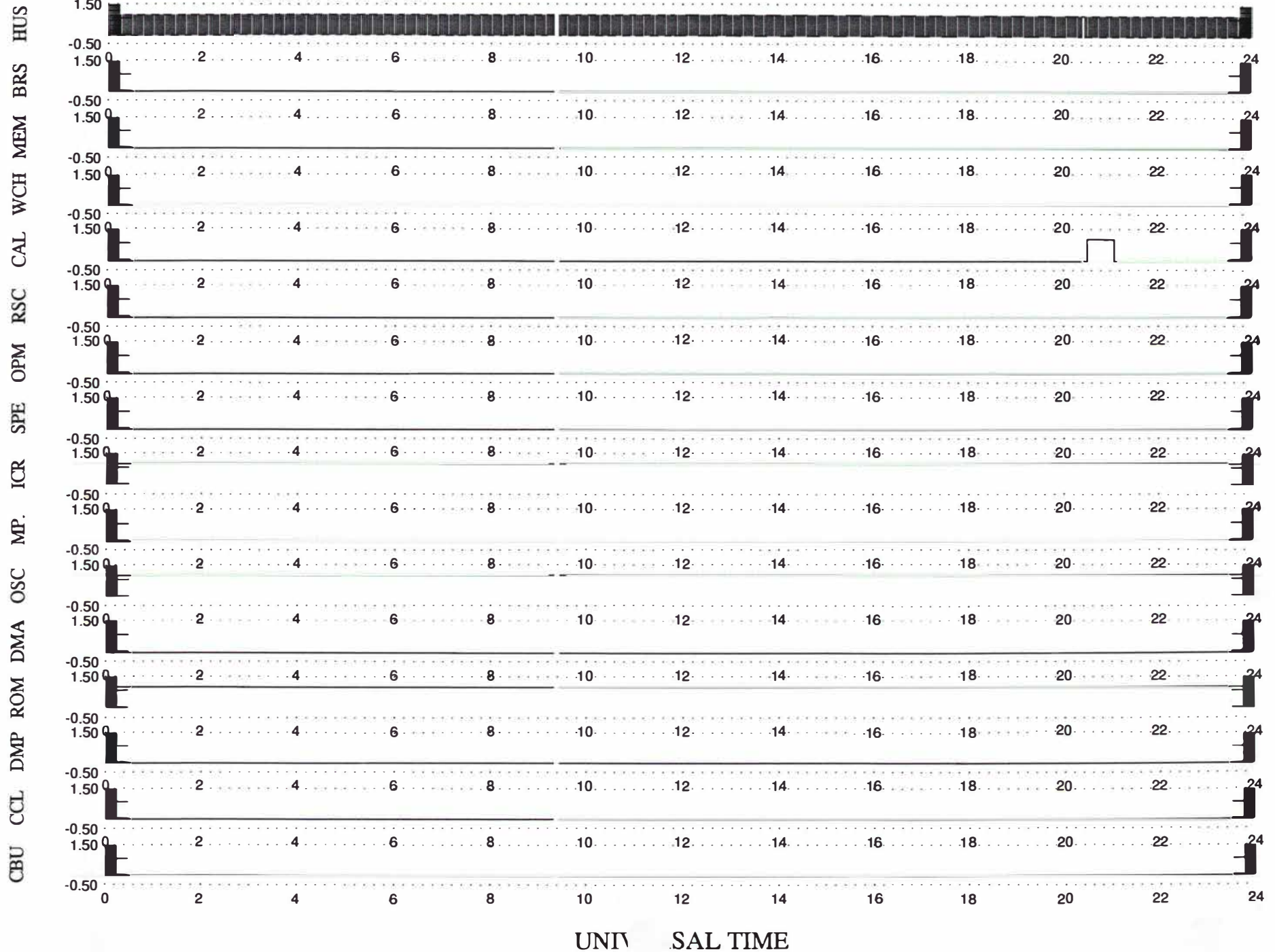


Current Time: 95/01/06, 1629 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

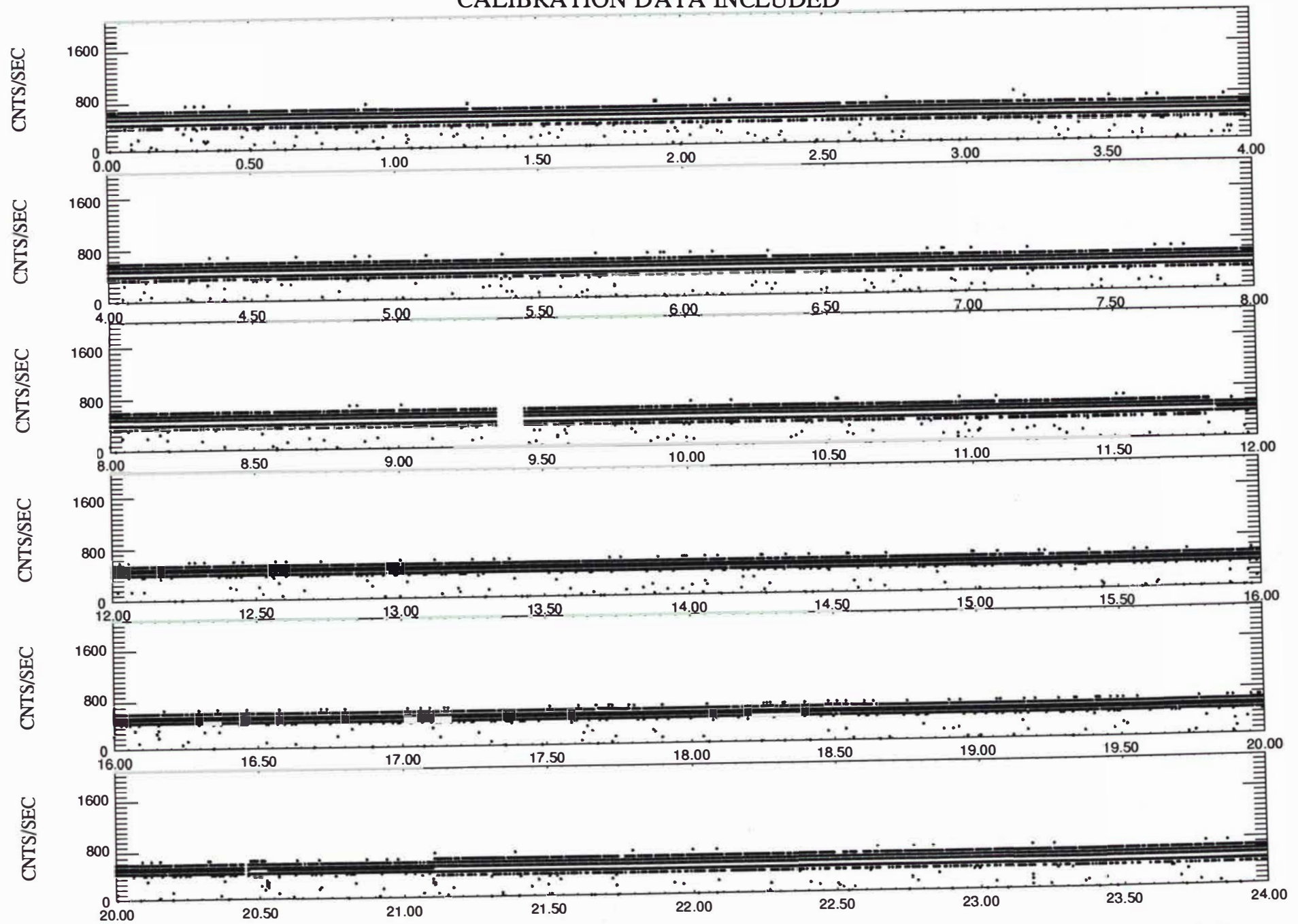
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

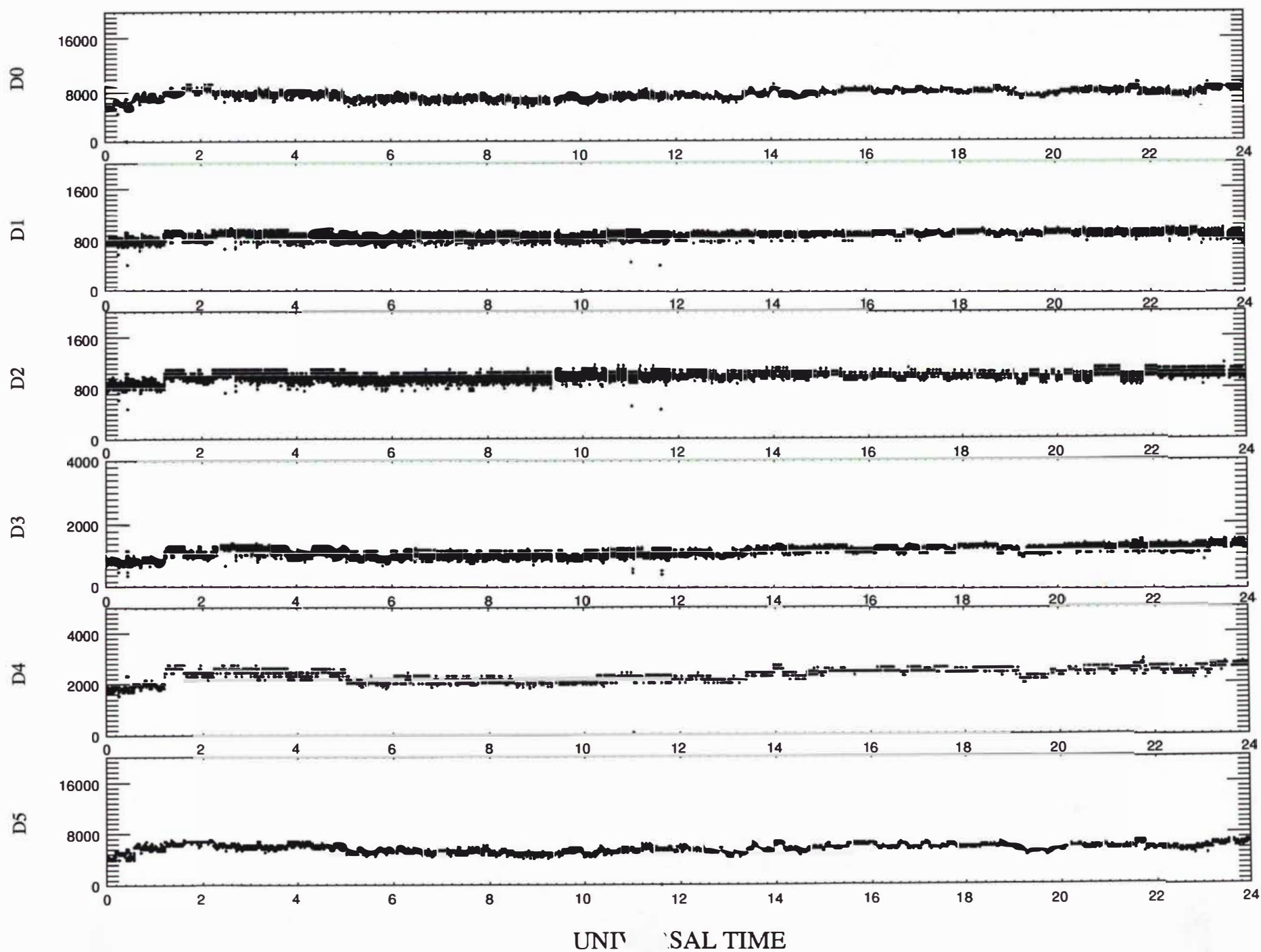
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HENZE@ssl.msfc.nasa.gov Fri Jan 6 09:40 PST 1995
Return-Path: <HENZE@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA03351; Fri, 6 Jan 1995 09:40:06 +0800
Date: Fri, 6 Jan 1995 11:40:05 -0600 (CST)
From: HENZE@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950106114005.204026bc@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3345
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3345
EVENT OF 1995 JAN 4 DAY OF YEAR= 4
EVENT CROSSING TIME AT BATSE : 26319. S. OR 07:18:39.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 303.000 -16.000
BATSE PEAK COUNTING RATE: 20000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 4/ 1/ 95 IS:
RA= 317.571 DEC= -49.973 DIST= 2.194 AU
BATSE-ULYSSES DISTANCE = 328194081. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=144.04 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -886.09 SECS.
CROSSING TIME AT ULYSSES IS 25433. S. OR 07:03:52 +/- 148.16 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 4/ 1/ 95 IS:
RA= 155.942 DEC= 13.863 DIST= 0.825 AU
MARS-BATSE DISTANCE = 123395576. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 31.87 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 349.56 SECS.
CROSSING TIME AT MARS IS 26669. S. OR 07:24:28 +/- 43.04 SECONDS

BATSE BURST TRIGGER

NO.: 3345

TIME: TJD=9721 SECONDS=26319

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=106.6 AZIMUTH=018.2 ERROR= DEGREES

COMMENTS:

MAIN PULSE DURATION ~30 S. VISIBLE ABOVE 300 KEV.
PRECURSOR EVENT ~T-20 S.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3345	950104	9721	26319	20000	303	-16

Date:

Feb 10 '98

Helio corr removed

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☐ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution? *No - bad stats*

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T₀?
- ☒ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included? *N/A*

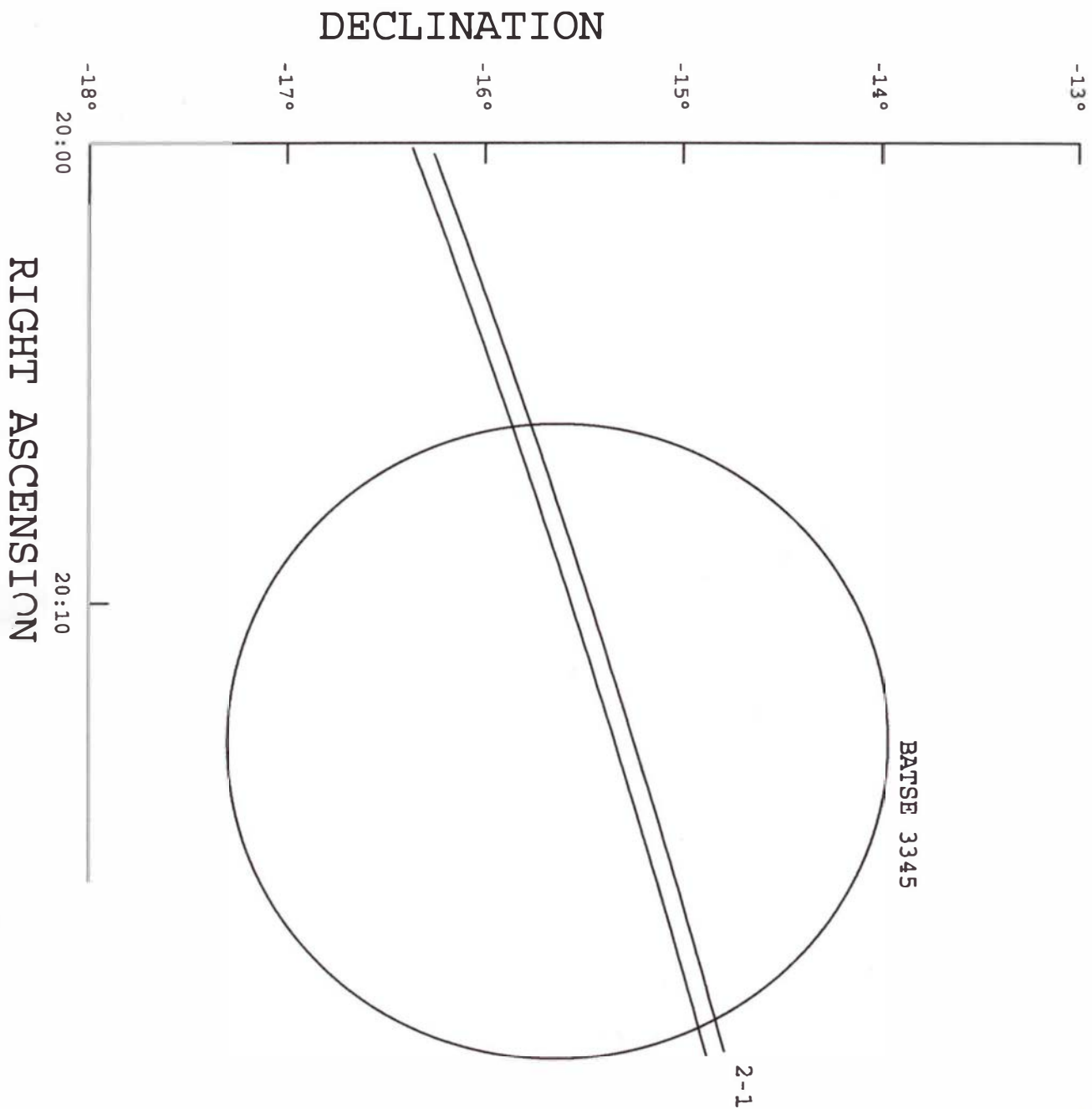
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS database updated?

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

EVENT OF JAN 4, 1995 7:03

10 / 2 / 98



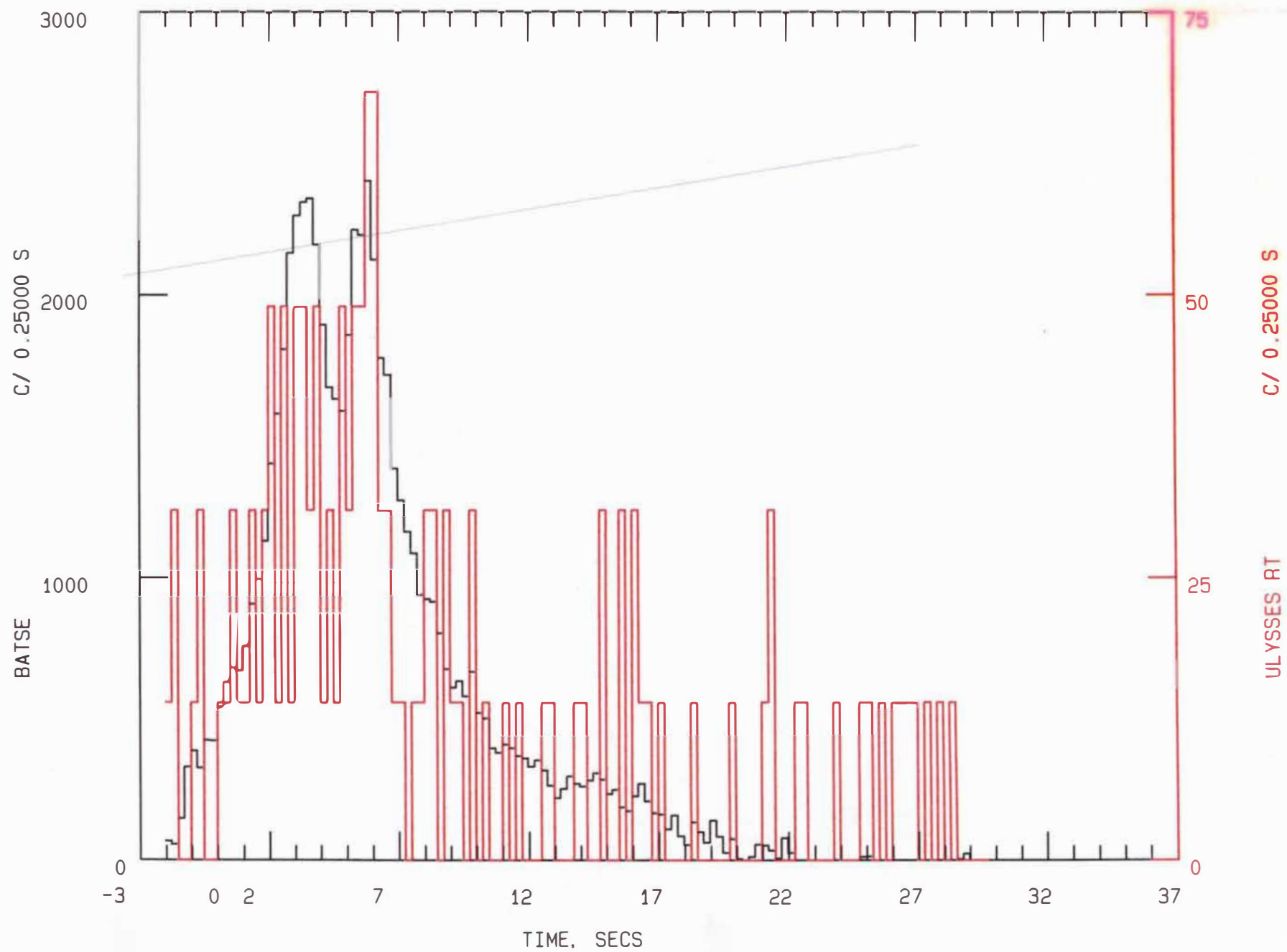
BATSE

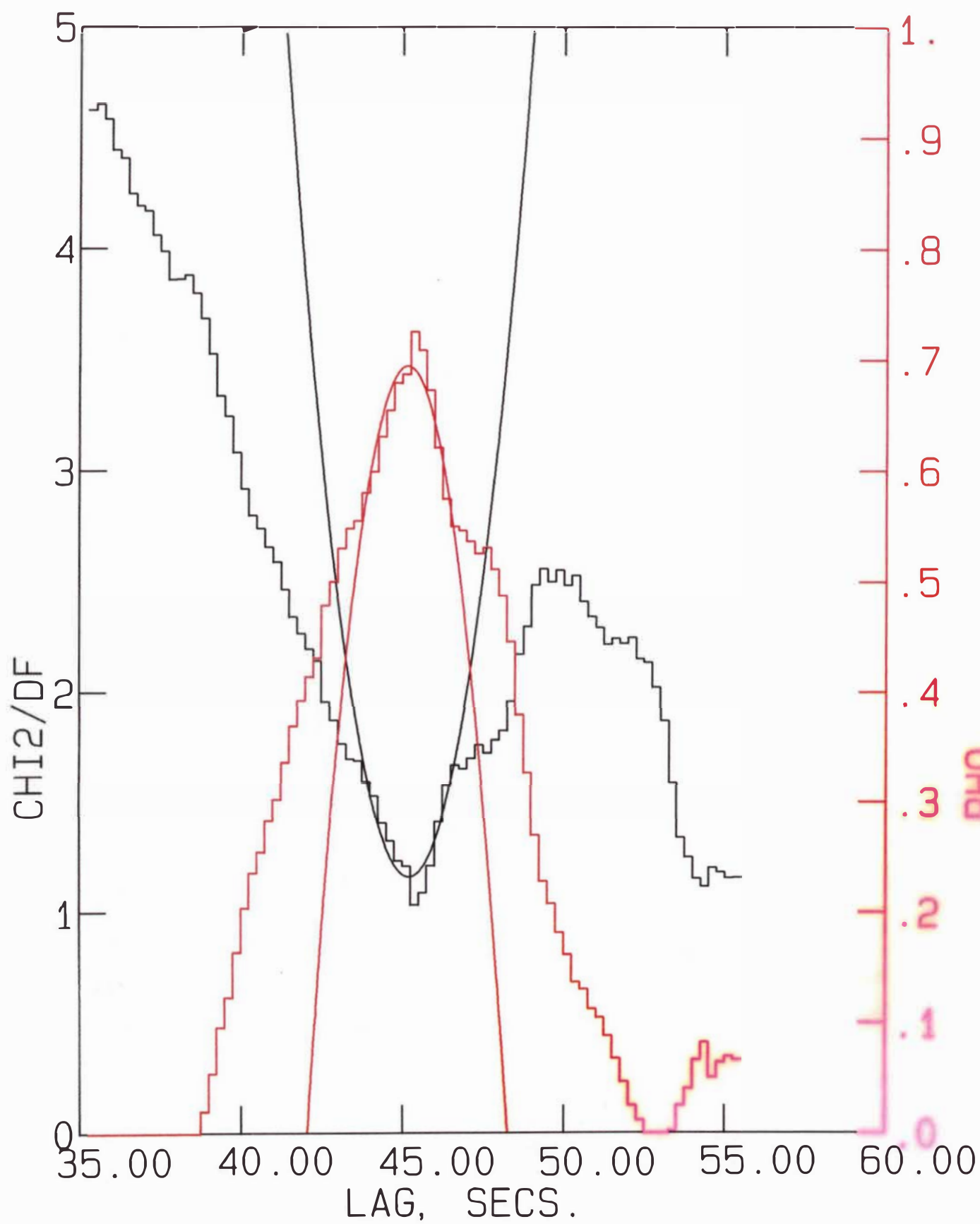
-ULYSSES RT CORRELATION

04/01/95

26319.026

10/ 2/98



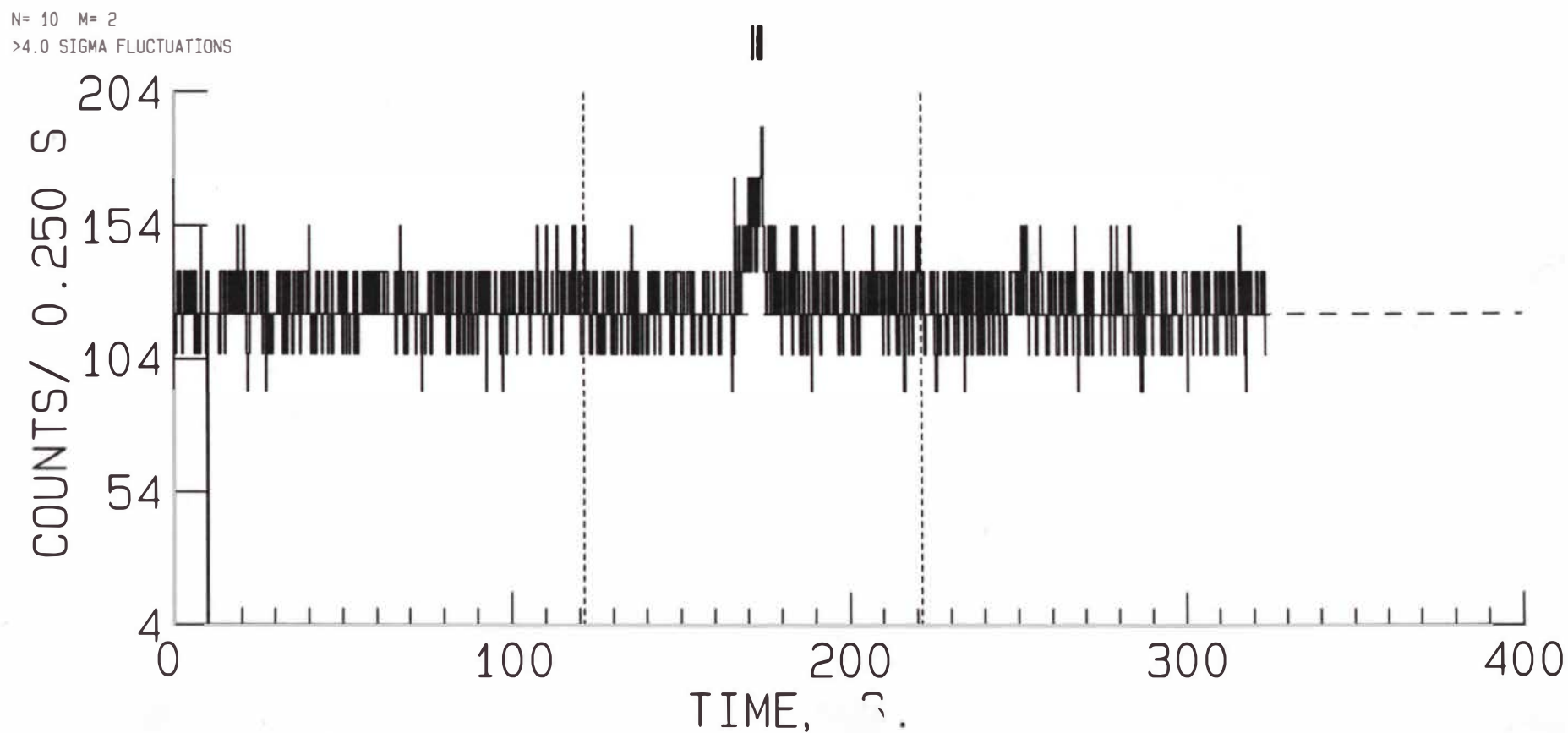


ULYSSES RT

10 / 2 / 98

4 / 1 / 95 25272.086 s

21- 146 keV



From cline@tgrs.gsfc.nasa.gov Wed Feb 15 06:04 PST 1995
 Return-Path: <cline@tgrs.gsfc.nasa.gov>
 Received: from [128.183.8.198] ([128.183.8.198]) by TGRS.GSFC.NASA.GOV with SMTP;
 Wed, 15 Feb 1995 9:07:45 -0500 (EST)
 Date: Wed, 15 Feb 1995 06:04:37 +0800
 Message-Id: <9502151404.AA10549@sunspot.ssl.berkeley.edu>
 To: e6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Data, again
 X-Lines: 36
 Status: RO
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Data, again
 X-Lines: 36
 Status: RO
 text/plain; charset="us-ascii"
 Content-Length: 1284
 X-Sun-Content-Length: 1284

Kevin:

The first 5 events, so far, exhibit all 4 results: Ulysses, BATSE, Konus and BACODINE.

so I am working on them first. However, I would add more, if you could send me the

BATSE 3352 (and 3412, with the Feb. 11 Ulysses data - is it a solar flare ?) - TLC

Date	Tzero (UT)	Konus sensor G1	Max c/s G2	N(1)/N(2) G3 =G2	Duration t<Tz t>Tz T#	BATSE Uly T# d* d* T#	TGRS T#	BACODINE RA Dec
941119	19 31 09.175	S2 370	703	160 0.23	7 20 4	3287* BG* #13		188 22
941121	17 25 00.945	S1 1652	1656	300 21.	3 50 6	3290* T* #15		004 -63
941127	14 30 25.680	S2 200	400	95 0.17	8 7 10	3303* U*		070 50
941228	07 39 45.915	S1 300	637	519 4.4	5 90 28	3330* BG* no d		339 -52
950104	07 18 39.613	S2 258	550	219 .0.75	2.8 20 31	3345* BG* #250		310 -11
950111	12 18 49.196	S1 225	435	164 1.85	26 50 34	3352 BG* BG		024 -14
950211	02 24 57.749	S2 2750	11630	6560 <0.06	0.03 0.14 48	3412		

U....(08697 sec)

-- T. L. Cline ----- LHEAVX::CLINE

From root Thu Jan 26 12:09 1995
 Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)
 id AA09916; Thu, 26 Jan 95 12:09:38
 Received: from TGRS.GSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
 id AA01181; Thu, 26 Jan 1995 12:08:59 +0800
 Date: Thu, 26 Jan 1995 12:08:59 +0800
 Message-Id: <9501262008.AA01181@sunspot.ssl.berkeley.edu>
 Received: from [128.183.8.198] ([128.183.8.198]) by TGRS.GSFC.NASA.GOV with SMTP;
 Thu, 26 Jan 1995 15:11:15 -0500 (EST)
 Mime-Version: 1.0
 Content-Type: text/plain; charset="us-ascii"
 To: KHURLEY@space6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: KONUS/BATSE/ULYSSES EVENT LIST TO 95 JAN 17
 Cc: Mazets@mz.pti.spb.su
 Content-Length: 1824
 Status: R

KEVIN:

BASED ON WHAT I HAVE FROM SERGEI GOLENETSKII AND FROM YOU, THIS IS THE
 CURRENT LIST OF ALL KONUS-ULYSSES EVENTS UP TO 95 JAN 17 WITH ALL BUT TWO
 ALSO BATSE.

X means sent with explanation

✓ means sent to TLC

Date	KONUS-Tzero Sensor	Max c/s	N(1)/N(2)	Duration	Event	BATSE	ULYSSES	
(UT)		G1 G2 G3	(G2)	t<Tz t>Tz	K-no	T-no	EVENT	
941119 19 31 09.175	S2	370 703 160	0.23	7 20	4	3287	ULY ✓	✓
941121 17 25 00.945	S1	1652 1656 300	21	3 50	6	3290	ULY ✓	✓
941125 22 04 30.156	S2	115 308 109	0.95	1.5 5	7	3295	ULY X	✓
941126 12 22 37.952	S1	860 1430 330	4.2	40 45	8	3298	ULY ✓	✓
941126 19 56 49.732	S1	290 390 211	6.7	20 26	9	3301	ULY X	✓
941127 14 30 25.680	S2	200 400 95	0.17	8 7	10	3303	ULY ✓	✓
941210 03 10 52.523	S2	900 2350 1385	0.12	1 15	14	----	ULY ✓	✓
941228 07 39 45.915	S1	300 637 519	4.4	5 90	28	3330	ULY ✓	✓
941229 22 51 08.781	S2	396 381 140	0.09	7 25	29	3334	ULY X	✓
950104 07 18 39.613	S2	258 550 219	0.75	2.8 20	31	3345	ULY X	✓
950111 04 49 12.241	S1	586 620 100	>19	92 24	33	3351	ULY X	✓
950114 04 03 01	S2	23 76	0.5	70	BG	----	ULY ✓	✓
950117 01 36 00	S2	56 82 42	0.22	108	BG	3360	ULY X	✓

Energy intervals G1, G2, G3: 14 - 50, 50 - 225 and 225 - 900 keV.

Since 12th December: 12.5 - 43, 43 - 190 and 190 - 760 keV.

N(1)/N(2) is ratio of sensor 1 to sensor 2 counts in G2.

WHEN YOU HAVE A CHANCE, PLEASE SEND THESE TIME HISTORIES FIRST. THANKS. TLC

-- T. L. Cline ----- LHEAVX::CLINE

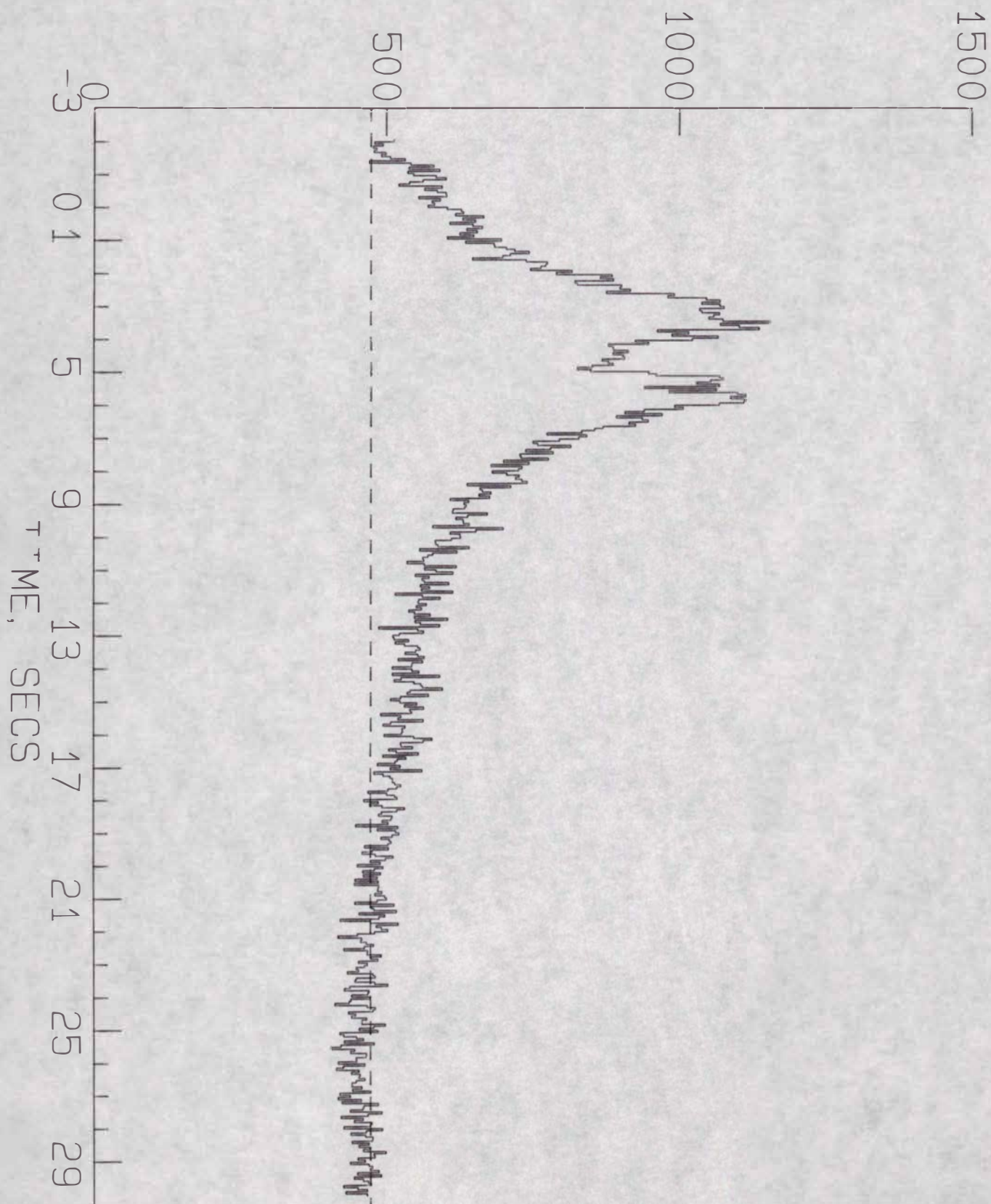
BATSE

30/12/94

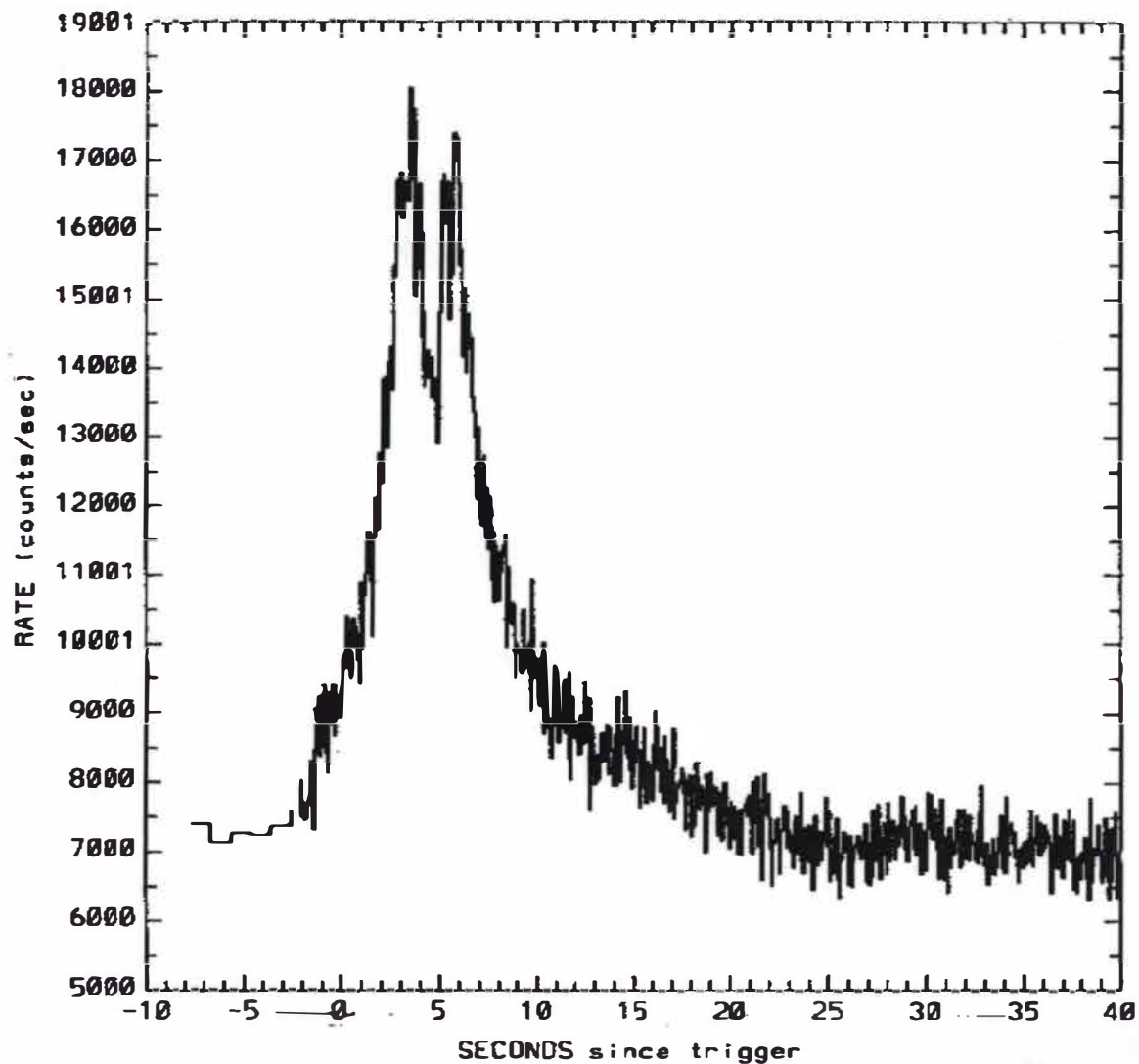
26319.026

25- 100 keV

COUNTS/ .064 S



DISCSC Data for K. Hurley, No. 3345



9-JAN-1995 14.49.58

Created by NOPS BD
(Burst Display)
Version t2.23

Trigger # : 3345

Trigger Time:
9721 / 26319.826

Burst Data Type:
DISCSC

Deadtime
Corrected: N

Background Data
Type: PREB + DISCLA

Minimum Integ. Time:
0.064 seconds

Detectors [7..8]:
-----10

Discriminators:
[1. 2)

Quality Mask:
BDISP1

Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 n: cline@tgrs.gsfc.nasa.gov (T L Cline)
 ject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:

63 Konus days to 1/17: 22 backgnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	Max c/s G1 G2 G3	N(1)/N(2) =G2 t<Tz t>Tz	Duration T#	BATSE Uly T# d* d*	TGRS T#	BACODINE RA Dec
941113	12 09 15	S1	145 85	2.5 115	BG			
941114	02 02 40	S2	110 128	30 0.25 12	BG	3283		92 37
941115	06 22 --					3284 (U)		149 11
941117	03 14 38.191	S2	406 550	74 0.17 40	5 2			
941117	14 07 57	S2	150 140	<0.15 5	BG			
941119	19 31 09.175	S2	370 703	160 0.23 7	20 4	3287* U*	#13	188 22
941120	20 23 17.924	S1	215 328	30 >15 2	25 5			
941121	17 25 00.945	S1	1652 1656	300 21 3	50 6	3290* U*	#15	004 -63
941123	19 51 --					3294 (U)		190 02
941125	22 04 30.156	S2	115 308	109 0.95 1.5	5 7	3295* U*	BG	
941126	00 20 46	S1	150 205	200 >14 18	BG	3296	BG	
941126	03 55 --					3297 (U)		323 38
941126	12 22 37.952	S1	860 1430	330 4.2 40	45 8	3298* U*	#28	
941126	16 54 20	S1	55 75	>10 26	BG			
941126	19 56 49.732	S1	290 390	211 6.7 20	26 9	3301* U*	#--	
941127	14 30 25.680	S2	200 400	95 0.17 8	7 10	3303* U*		070 50
941127	15 39 10	S1	210 57	2.7 260	BG			
941128	15 37 00	S1	75 90	32 >15 55	BG	3305	no d	
941128	18 41 --					3306 (U)		011 -32
941205	23 33 40.074	S2	370 460	188 0.06 6	30 11			
941207	22 10 32	S2	265 175	<0.2 7	BG			
941210	03 10 52.523	S2	900 2350	1385 0.12 1	15 14	U*	BG	
941214	17 03 51	S1	40 45	29 >6 12	BG			
941214	05 38 45.226	S1	3479 1266	14 1.0 12	240 SF	3318	BG	259 -06
941221	07 44 08	S2	55 115	30 0.8 20	BG			
941221	22 14 35.215	S1	260 496	165 1.5 55	11 19		BG	
941222	05 36 00.243	S2	334 1360	1066 0.36 7	105 20		#145	
941228	07 39 45.915	S1	300 637	519 4.4 5	90 28	3330* U*	no d	339 -52
941228	16 55 23	S2	40 36	23 0.25 25	BG			
941229	12 58 05	S1	46 108	31 1.8 15	BG			
941229	22 51 08.781	S2	396 381	140 0.09 7	25 29	3334* U*	no d	
941230	20 52 53	S1	74 117	52 8.4 158	BG		no d	
941230	23 43 44	S2	55 70	16 <0.2 4.5	BG		no d	
950104	00 48 +/-1200					(U)		
950104	07 18 39.613	S2	258 550	219 0.75 2.8	20 31	3345* U*	#250	310 -11
950104	09 00 58	S2	140 143	40 <0.1 25	BG			
950108	02 04 --					3349 (U)		020 -14
950110	06 02 15	S2	332 180	<0.1 3600	BG			
950110	13 37 57.084	S2	234 422	213 0.05 38	100 32			
950111	04 49 12.241	S1	586 620	100 >19 92	24 33	3351 U*	BG	319 -65
950111	12 18 49.196	S1	225 435	164 1.85 26	50 34	3352 U*	BG	024 -14
950112	07 45 37.120	S2	1305 1800	336 0.04 2.5	44 35		(?)	
950113	05 59 13	S1	283 180	26 >10 52	BG			
950113	17 38 32	S2	85 162	35 <0.06 75	BG			

950114 01 00 38	S1	46	110	1.6	6	BG		
950114 04 03 01	S2	23	76	0.5	70	BG	U	
950114 07 30 30.766	S2	205	406	60	<0.05	1	100	36
950114 13 10 34.865	S1	1320	2828	516	3.1	1	10	37
950115 02 49 32	S2	40	47	34	<0.15	24	BG	BG
950117 01 36 00	S2	56	82	42	0.22	108	BG	3360* U* 298 05
950118 17 05 --								3366 (U) 061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.

N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

-- T. L. Cline ----- LHEAVX::CLINE

1 3 / 2 / 9 5

U L Y S S E S R T

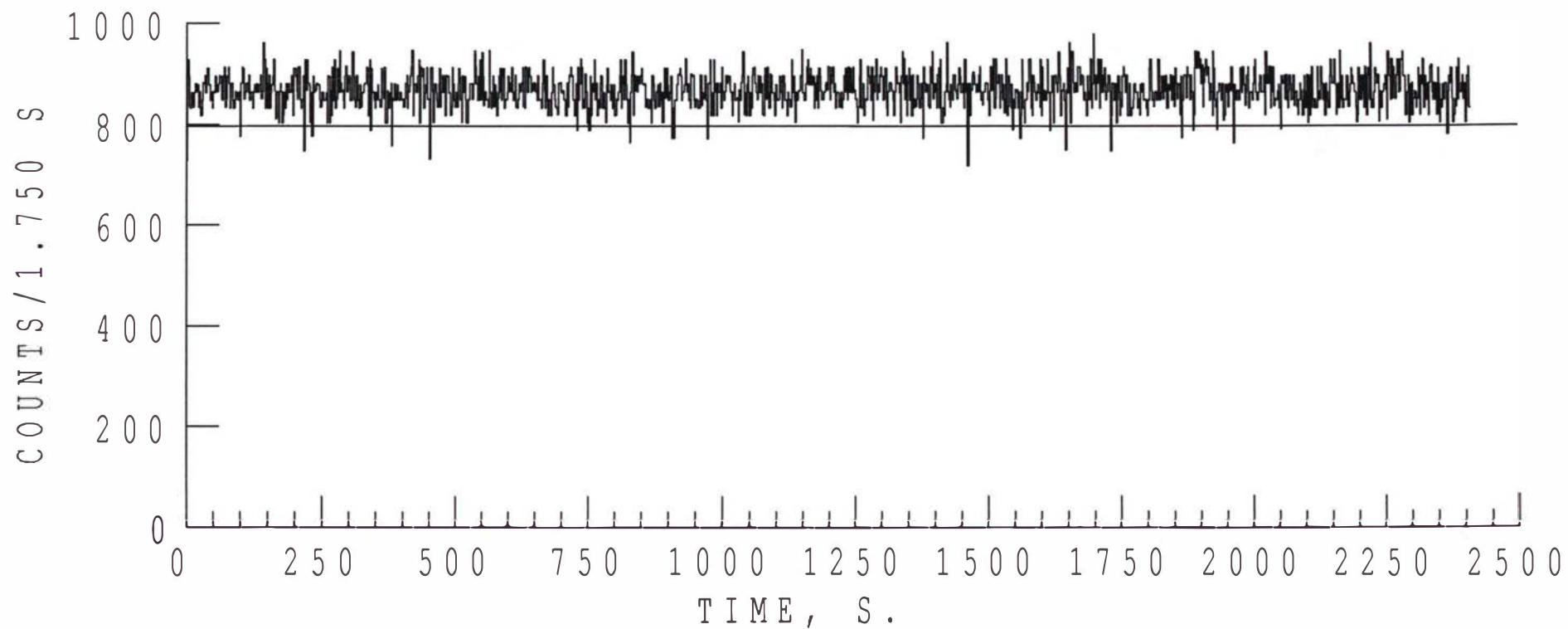
4 / 1 / 9 5 3 1 2 4 8 . 0 9 2 s

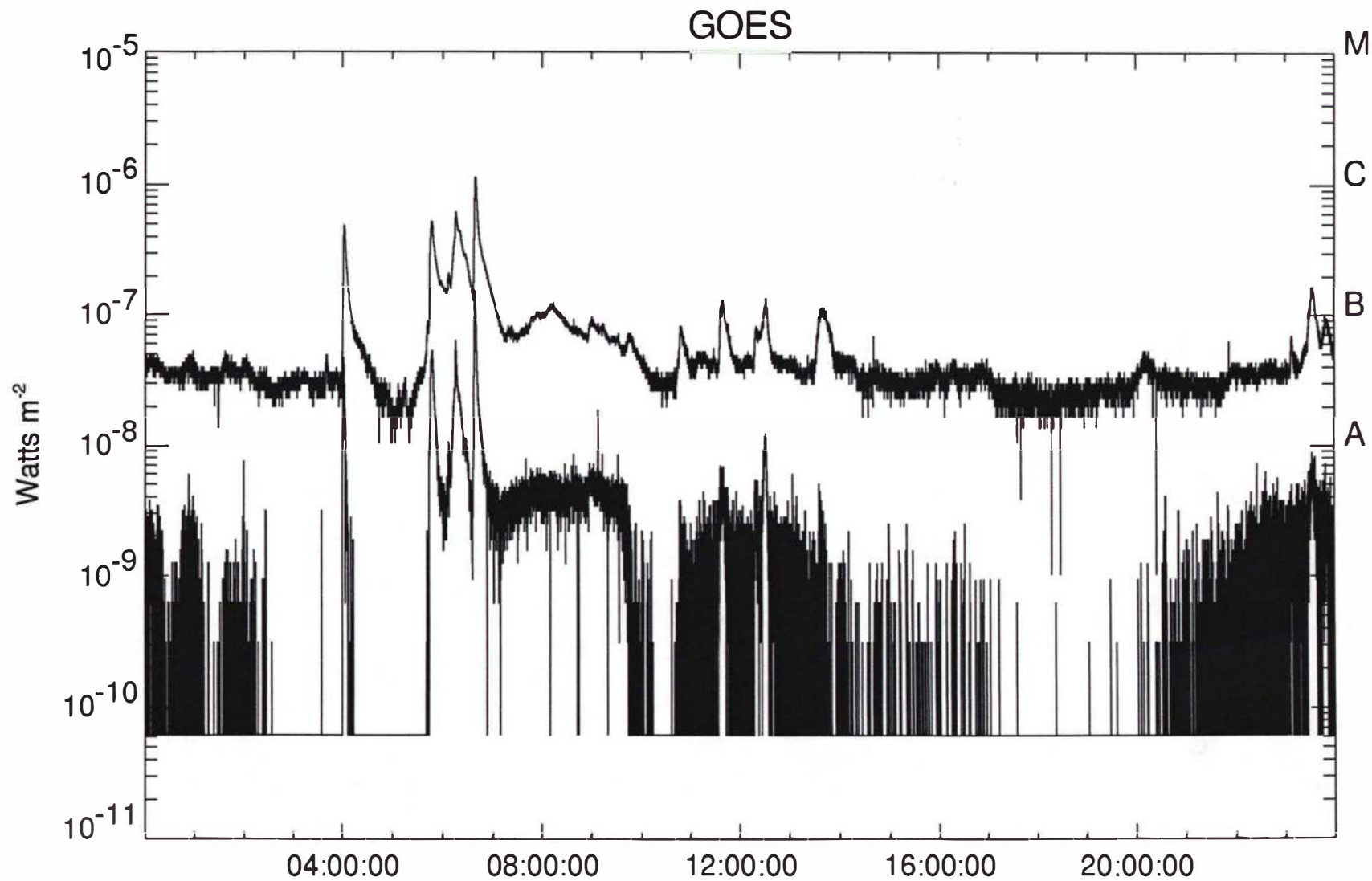
0 . 2 5 0 S I N T E R V A L S R E G R O U P E D B Y 7

0 - 0 k e V

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





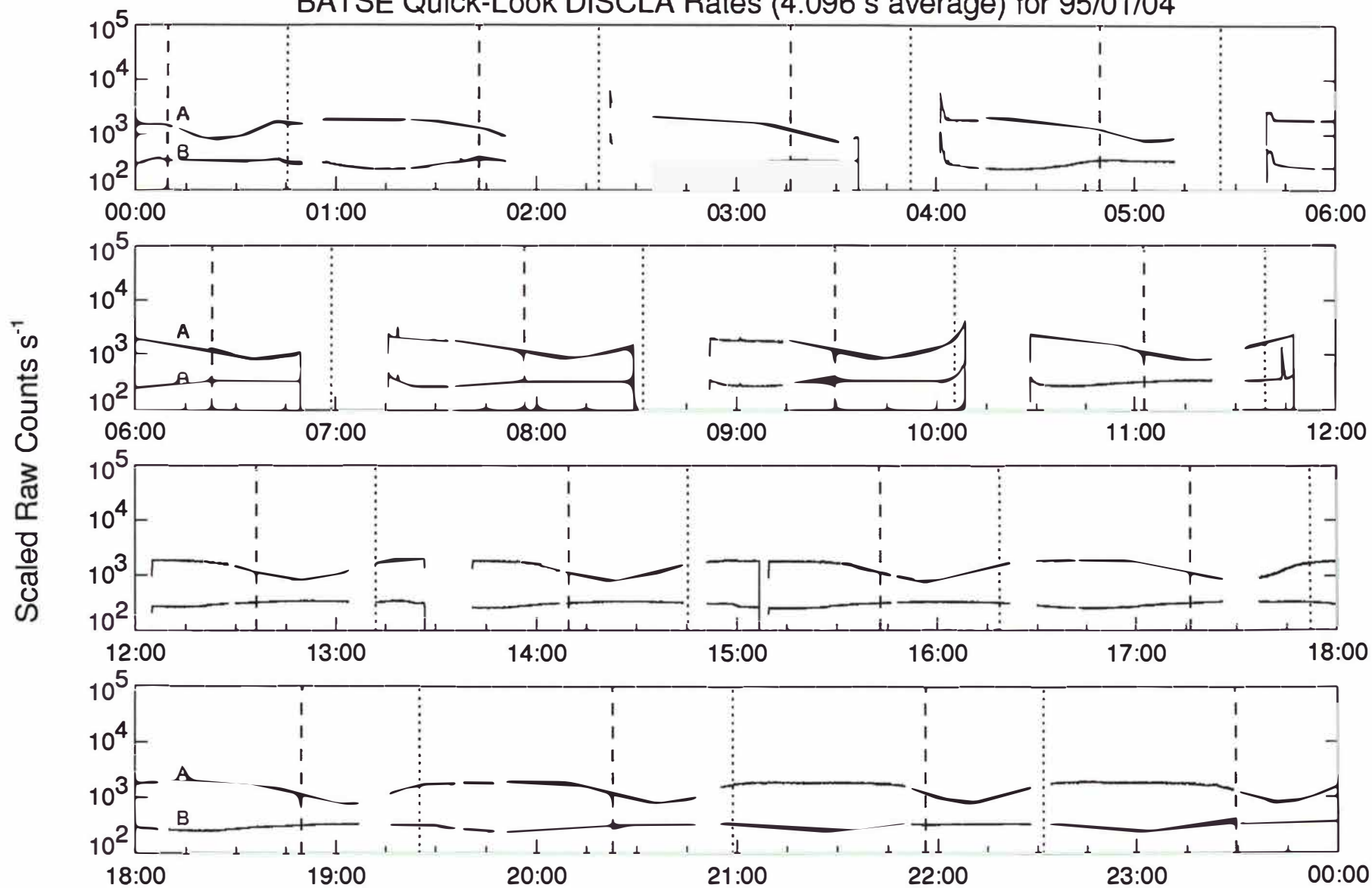
Data Start: 95/01/04, 0000:00

Plot created: 95/01/06, 1635

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/04



Current Time: 95/01/06, 1636 EDT

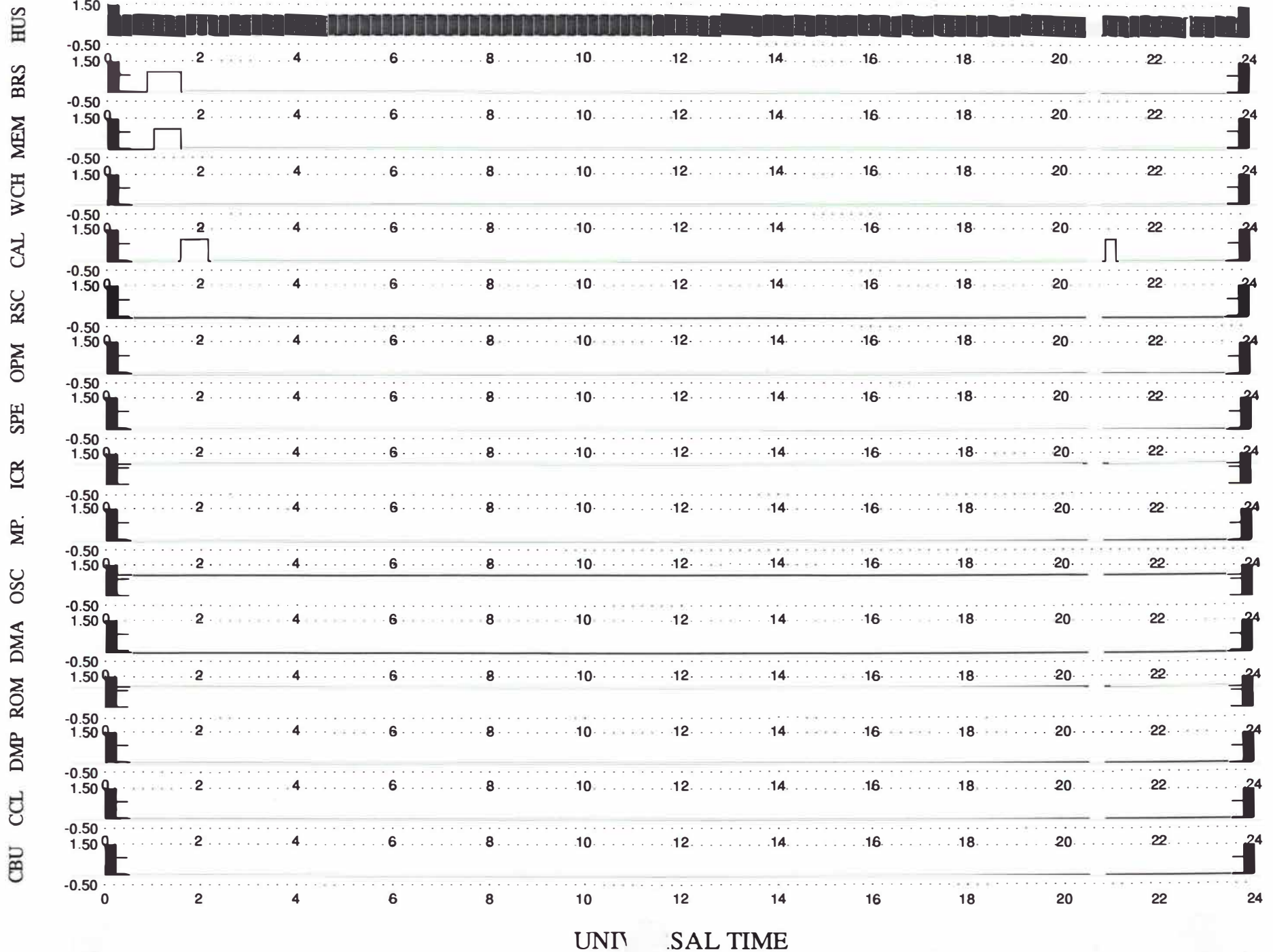
A: Channel 0 Most Sunward LAD

B: Sum Channel 0 Anti-Sunward LADs X .05

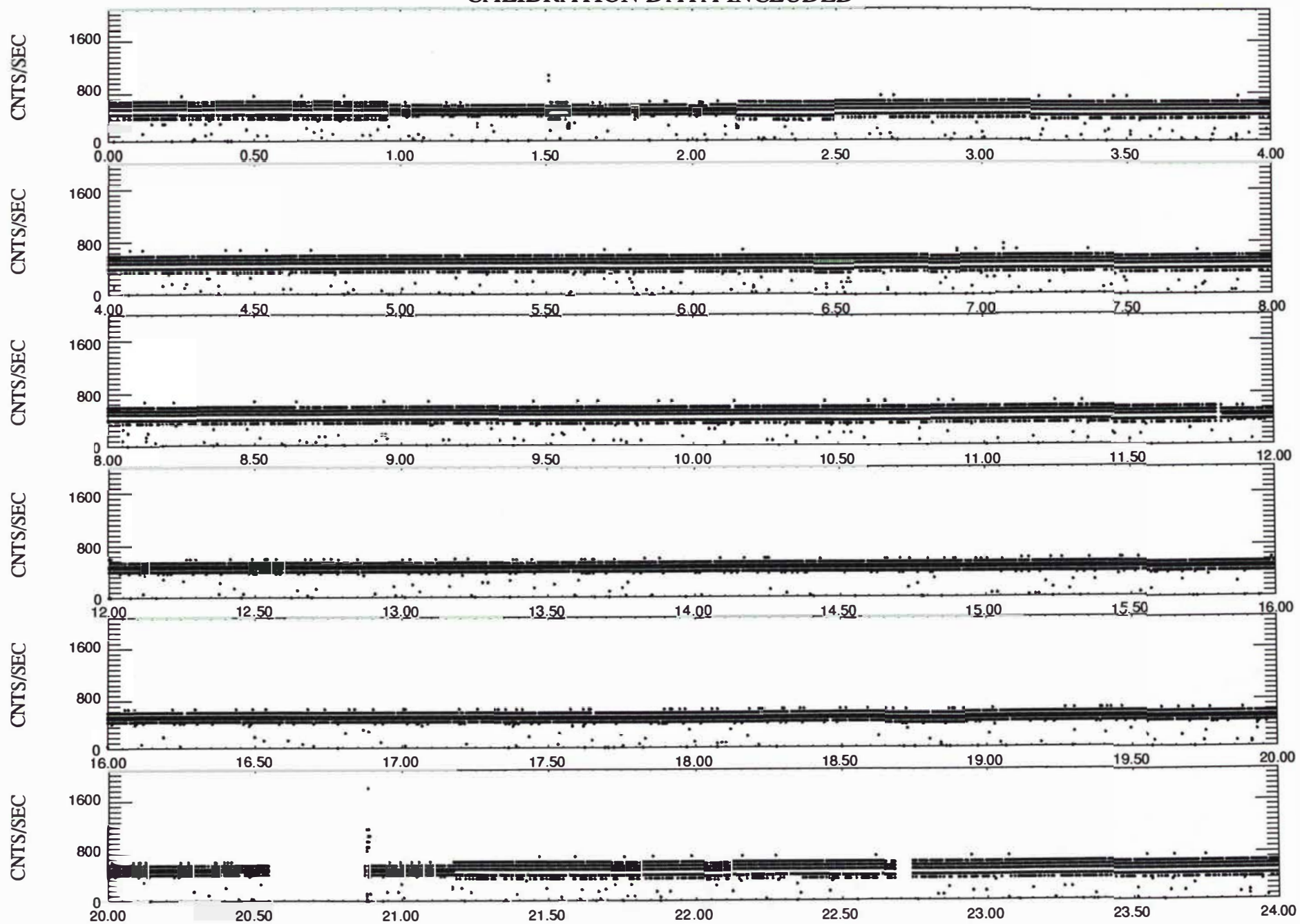
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

BURST NUMBER 10

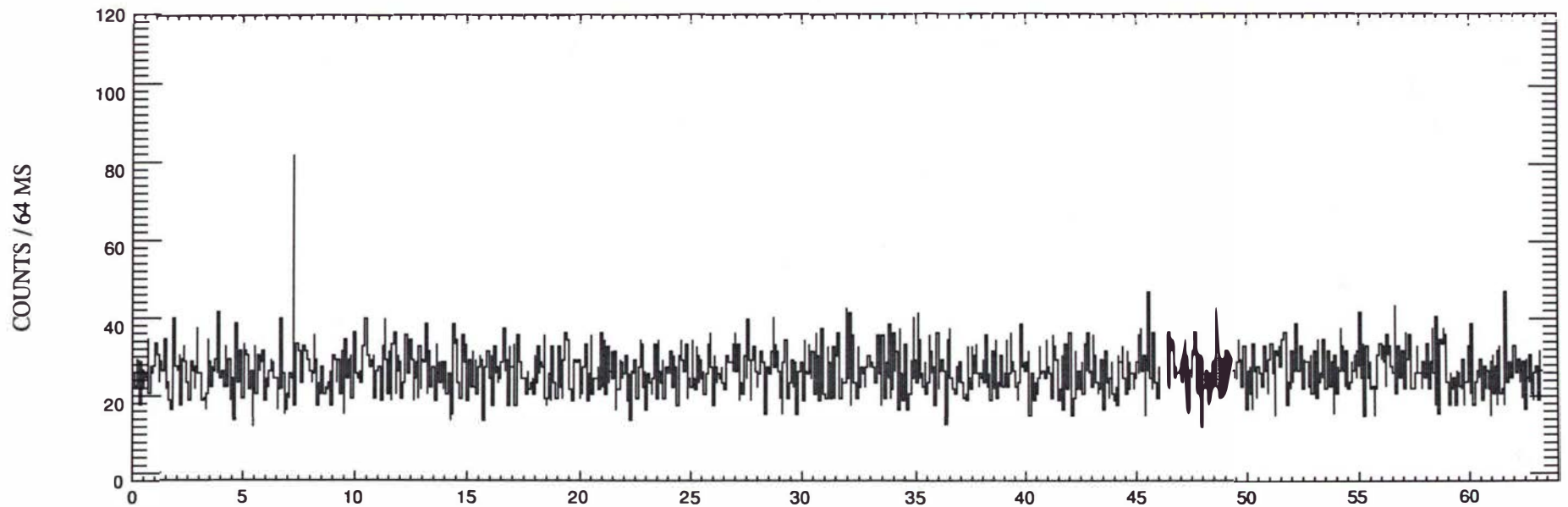


CALIBRATION DATA INCLUDED

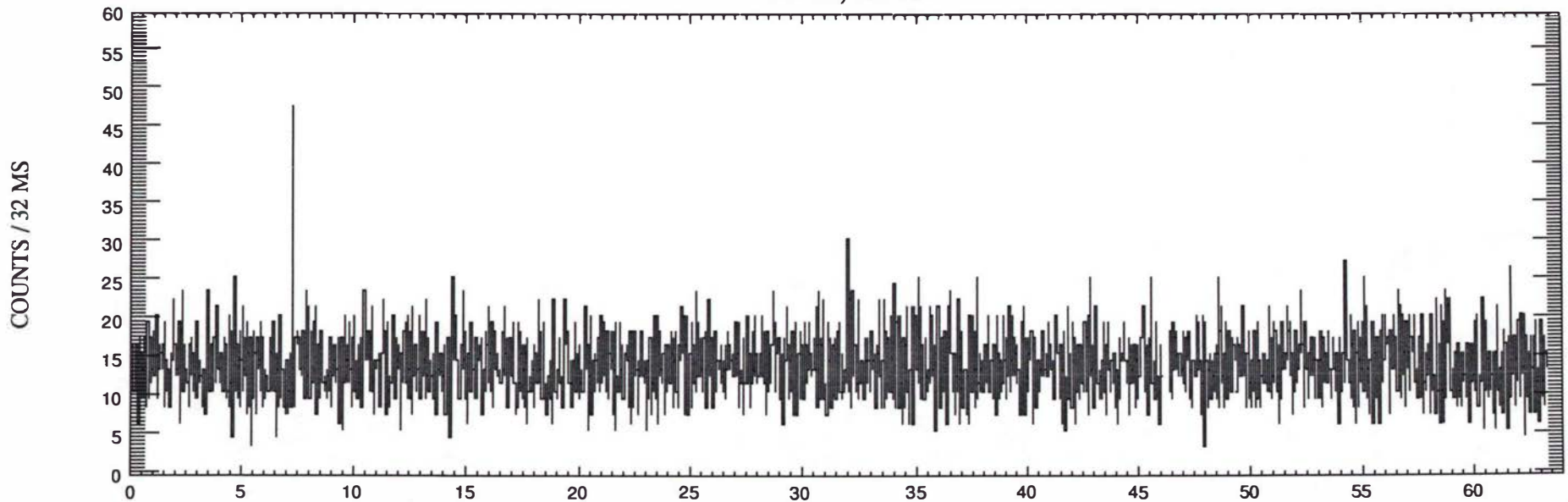


UNIVERSAL TIME

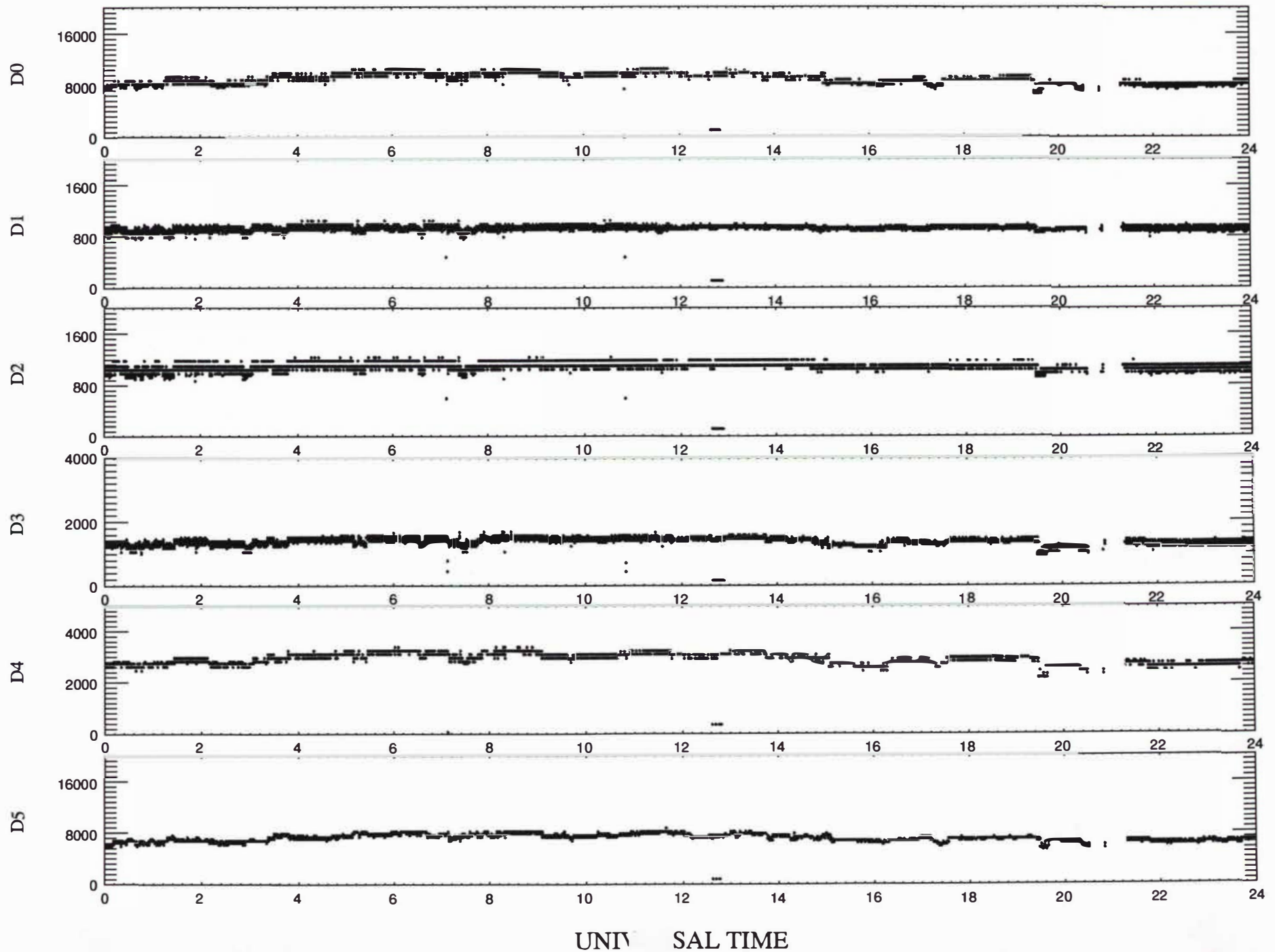
Burst Counter 10 at UT= 0.803854836358 h= 2893.877 s 00:48:13.877



TIME, SECS



TIME, SECS



From MALLOZZI@ssl.msfc.nasa.gov Fri Jan 6 10:39 PST 1995
Date: Fri, 6 Jan 1995 12:38:56 -0600 (CST)
From: "ROBERT S. MALLOZZI 205-544-6257" <MALLOZZI@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03348

TIME: TJD=9722 SECONDS=33955

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

TRIGGERED ON ENTRY INTO SAA.

From MALLOZZI@ssl.msfc.nasa.gov Fri Jan 6 10:41 PST 1995
Return-Path: <MALLOZZI@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA04419; Fri, 6 Jan 1995 10:41:10 +0800
Date: Fri, 6 Jan 1995 12:41:11 -0600 (CST)
From: MALLOZZI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950106124111.204040ad@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3347
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3347
EVENT OF 1995 JAN 5 DAY OF YEAR= 5
EVENT CROSSING TIME AT BATSE : 19733. S. OR 05:28:53.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 28.000 -59.000
BATSE PEAK COUNTING RATE: 2800 C/S

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 5/ 1/ 95 IS:
RA= 318.155 DEC= -49.350 DIST= 2.197 AU
BATSE-ULYSSES DISTANCE = 328612567. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=139.99 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -839.57 SECS.
CROSSING TIME AT ULYSSES IS 18893. S. OR 05:14:53 +/- 159.60 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 5/ 1/ 95 IS:
RA= 155.937 DEC= 13.906 DIST= 0.818 AU
MARS-BATSE DISTANCE = 122380376. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 59.11 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 209.56 SECS.
CROSSING TIME AT MARS IS 19943. S. OR 05:32:22 +/- 64.00 SECONDS

BATSE BURST TRIGGER

NO.: 03347

TIME: TJD=9722 SECONDS=19733

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=114.7 AZIMUTH=299.0 ERROR= DEGREES

COMMENTS:

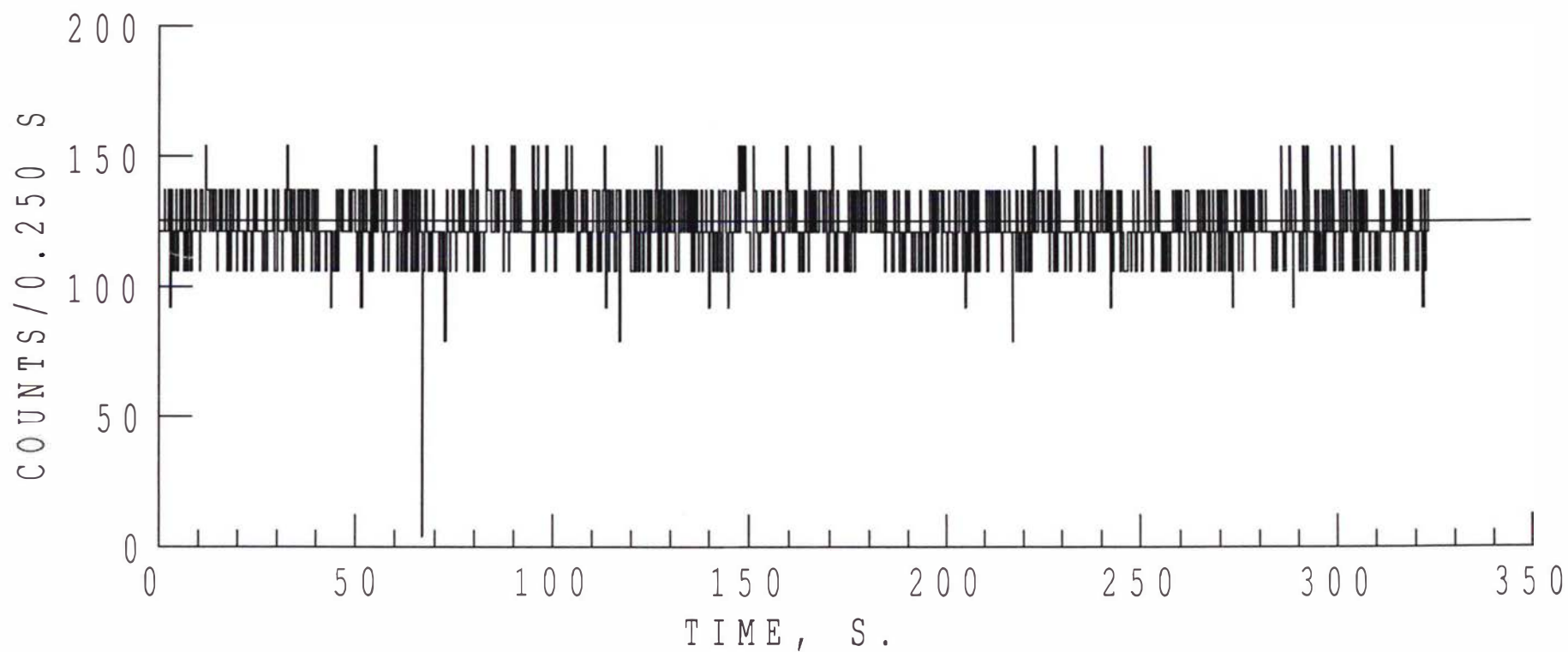
SINGLE MAIN PEAK. DURATION APPROX. 60 SEC.
NO EMISSION VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3347	950105	9722	19733	2800	028	-59

6 / 1 / 95

ULYSSES RT
5 / 1 / 95 18720.117 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 n: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:

63 Konus days to 1/17: 22 backgnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	G1	G2	G3	N(1)/N(2) =G2 t<Tz t>Tz	Duration T#	BATSE Uly T#	TGRS T#	BACODINE RA Dec
941113	12 09 15	S1	145	85		2.5 115	BG			
941114	02 02 40	S2	110	128	30	0.25 12	BG	3283		92 37
941115	06 22 --							3284 (U)		149 11
941117	03 14 38.191	S2	406	550	74	0.17 40	5 2			
941117	14 07 57	S2	150	140		<0.15 5	BG			
941119	19 31 09.175	S2	370	703	160	0.23 7	20 4	3287*	U*	#13 188 22
941120	20 23 17.924	S1	215	328	30	>15 2	25 5			
941121	17 25 00.945	S1	1652	1656	300	21 3	50 6	3290*	U*	#15 004 -63
941123	19 51 --							3294 (U)		190 02
941125	22 04 30.156	S2	115	308	109	0.95 1.5	5 7	3295*	U*	BG
941126	00 20 46	S1	150	205	200	>14 18	BG	3296		BG
941126	03 55 --							3297 (U)		323 38
941126	12 22 37.952	S1	860	1430	330	4.2 40	45 8	3298*	U*	#28
941126	16 54 20	S1	55	75		>10 26	BG			
941126	19 56 49.732	S1	290	390	211	6.7 20	26 9	3301*	U*	#--
941127	14 30 25.680	S2	200	400	95	0.17 8	7 10	3303*	U*	070 50
941127	15 39 10	S1	210	57		2.7 260	BG			
941128	15 37 00	S1	75	90	32	>15 55	BG	3305		no d
941128	18 41 --							3306 (U)		011 -32
941205	23 33 40.074	S2	370	460	188	0.06 6	30 11			
941207	22 10 32	S2	265	175		<0.2 7	BG			
941210	03 10 52.523	S2	900	2350	1385	0.12 1	15 14		U*	BG
941214	17 03 51	S1	40	45	29	>6 12	BG			
941214	05 38 45.226	S1	3479	1266	14	1.0 12	240 SF	3318		BG 259 -06
941221	07 44 08	S2	55	115	30	0.8 20	BG			
941221	22 14 35.215	S1	260	496	165	1.5 55	11 19			BG
941222	05 36 00.243	S2	334	1360	1066	0.36 7	105 20			#145
941228	07 39 45.915	S1	300	637	519	4.4 5	90 28	3330*	U*	no d 339 -52
941228	16 55 23	S2	40	36	23	0.25 25	BG			
941229	12 58 05	S1	46	108	31	1.8 15	BG			
941229	22 51 08.781	S2	396	381	140	0.09 7	25 29	3334*	U*	no d
941230	20 52 53	S1	74	117	52	8.4 158	BG			no d
941230	23 43 44	S2	55	70	16	<0.2 4.5	BG			no d
950104	00 48 +/-1200								(U)	
950104	07 18 39.613	S2	258	550	219	0.75 2.8	20 31	3345*	U*	#250 310 -11
950104	09 00 58	S2	140	143	40	<0.1 25	BG			
950108	02 04 --							3349 (U)		020 -14
950110	06 02 15	S2	332	180		<0.1 3600	BG			
950110	13 37 57.084	S2	234	422	213	0.05 38	100 32			
950111	04 49 12.241	S1	586	620	100	>19 92	24 33	3351	U*	BG 319 -65
950111	12 18 49.196	S1	225	435	164	1.85 26	50 34	3352	U*	BG 024 -14
950112	07 45 37.120	S2	1305	1800	336	0.04 2.5	44 35			(?)
950113	05 59 13	S1	283	180	26	>10 52	BG			
950113	17 38 32	S2	85	162	35	<0.06 75	BG			

950114	01 00 38	S1	46	110	1.6	6	BG	
950114	04 03 01	S2	23	76	0.5	70	BG	U
950114	07 30 30.766	S2	205	406	60 <0.05	1 100	36	
950114	13 10 34.865	S1	1320	2828	516 3.1	1 10	37	U* #258
950115	02 49 32	S2	40	47	34 <0.15	24	BG	BG
950117	01 36 00	S2	56	82	42 0.22	108	BG 3360*	U* 298 05
950118	17 05 --						3366 (U)	061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.

N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

-- T. L. Cline ----- LHEAVX::CLINE

13 / 2 / 95

ULYSSES RT

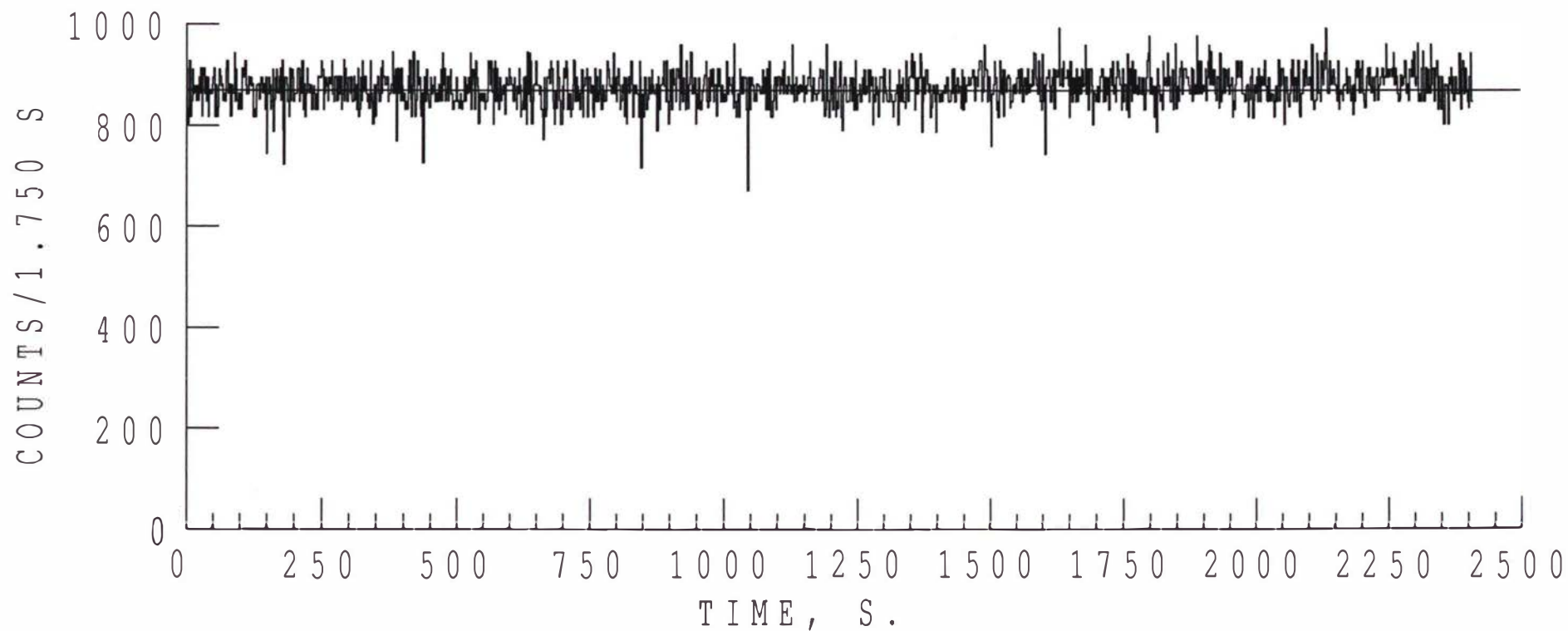
10 / 1 / 95 20520.195 s

0.250 S INTERVALS REGROUPED BY 7

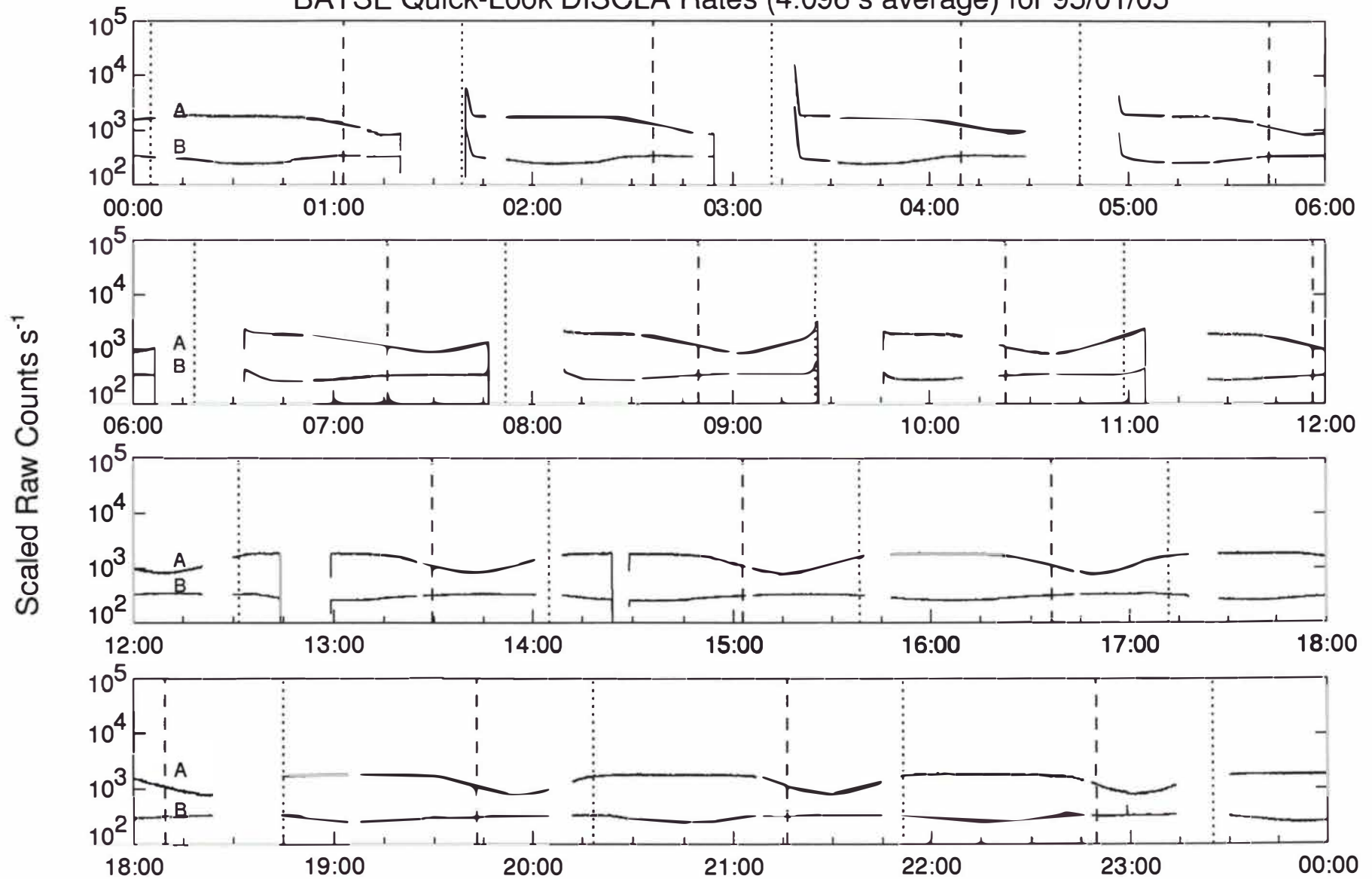
0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/05

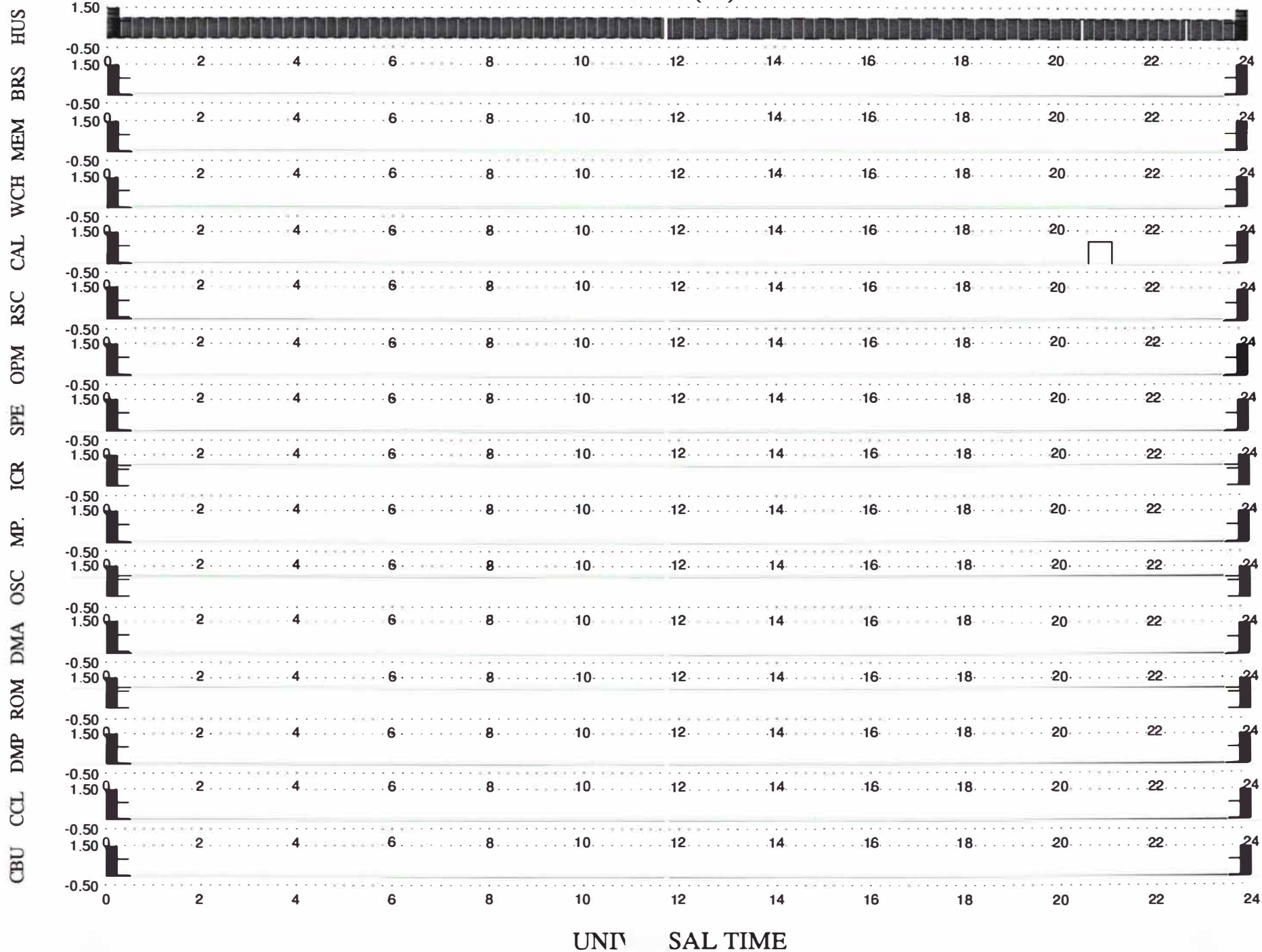


Current Time: 95/01/09, 1431 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

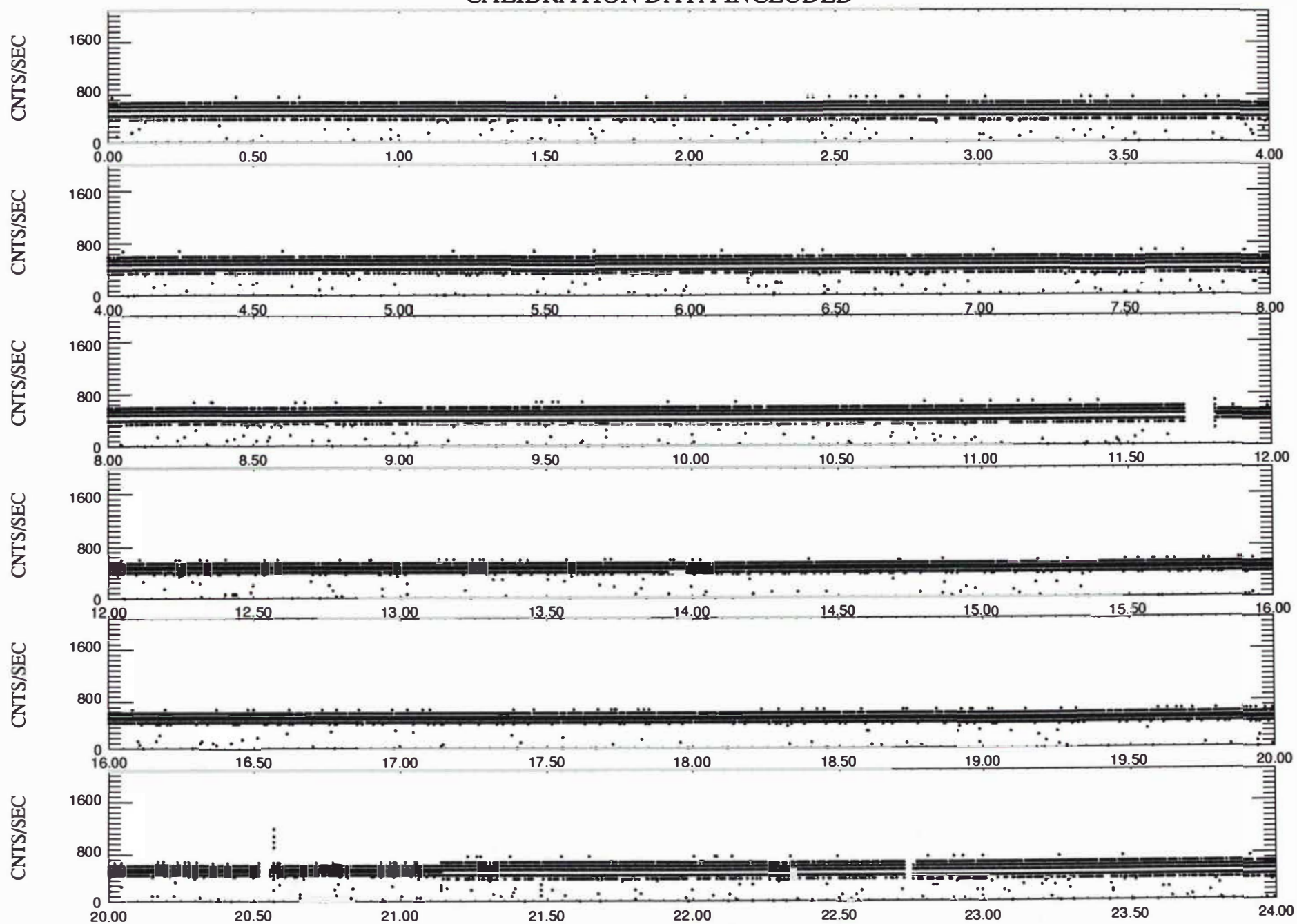
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

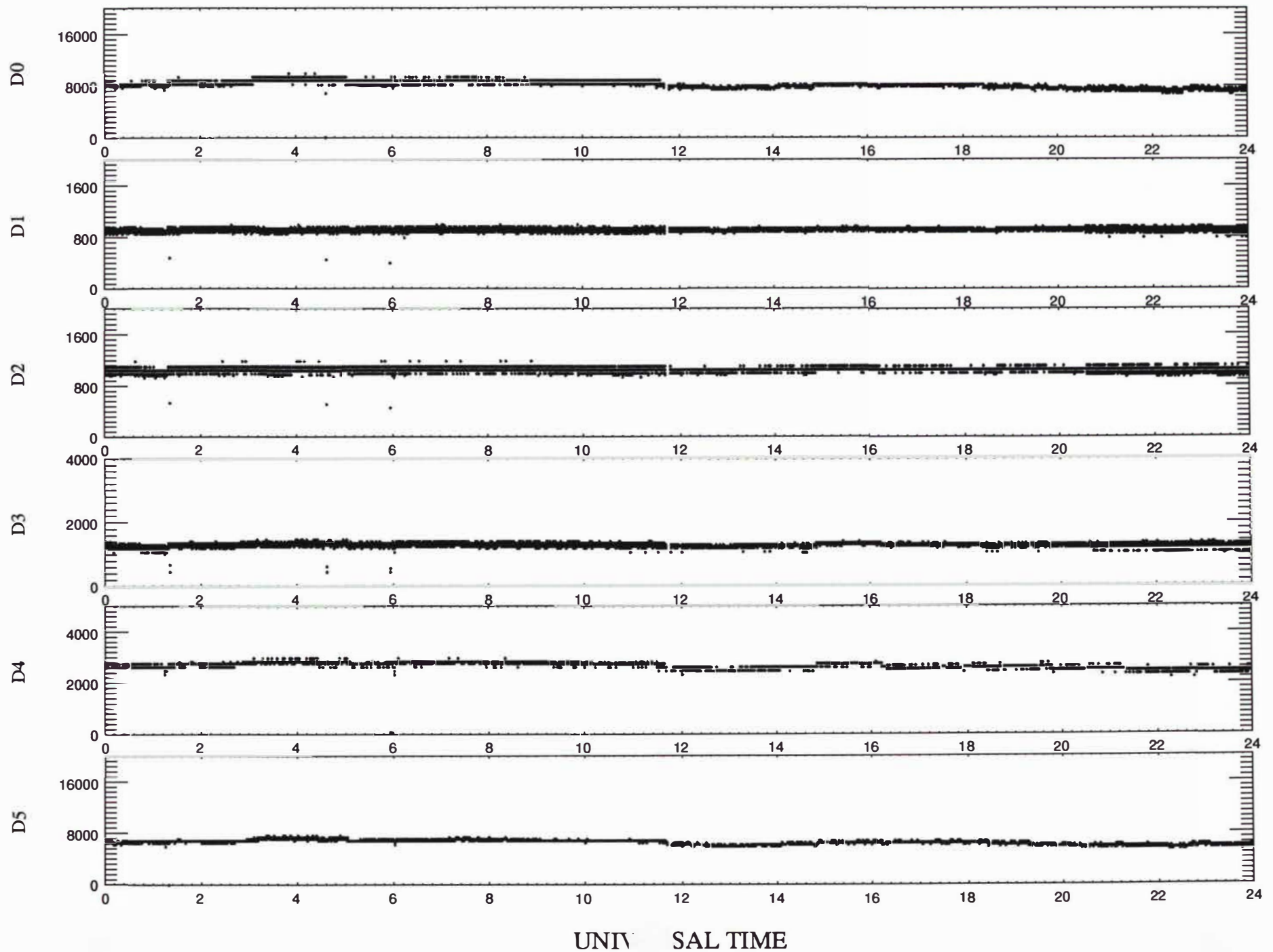
NO BURST (10)



CALIBRATION DATA INCLUDED



UNT SAL TIME



I am enclosing in Table 1 the detection times of events shortlisted during Nov-Jan. Kindly confirm whether Ulysses detected these events. Also kindly reconfirm the status of our 17th Oct. event (Ref: your fax).

Table 1

<u>Orbit</u>	<u>Date</u>	<u>Time (UT)</u>
3099	26 Nov 94	12:23:05.244
3305	10 Dec 94	03:10:53.906
3719	6 Jan 95	10:39:57.330

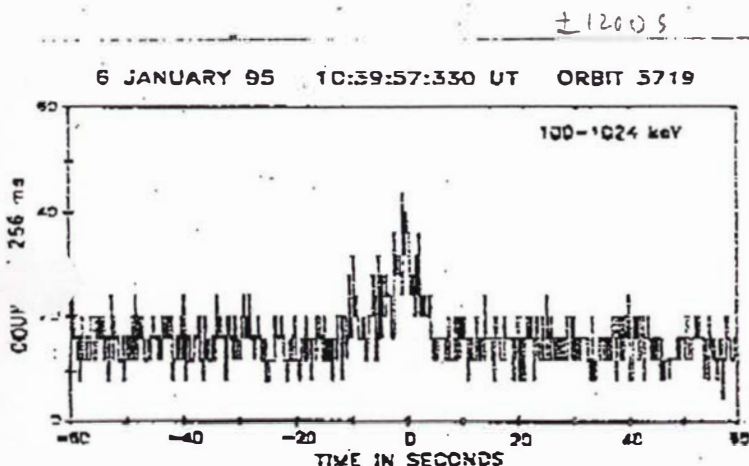
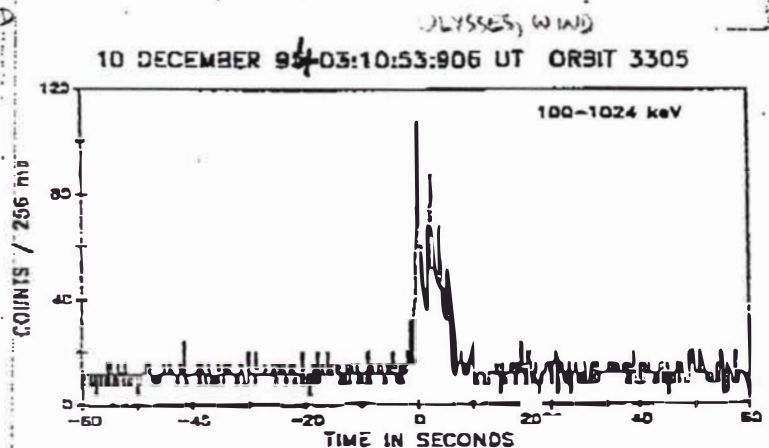
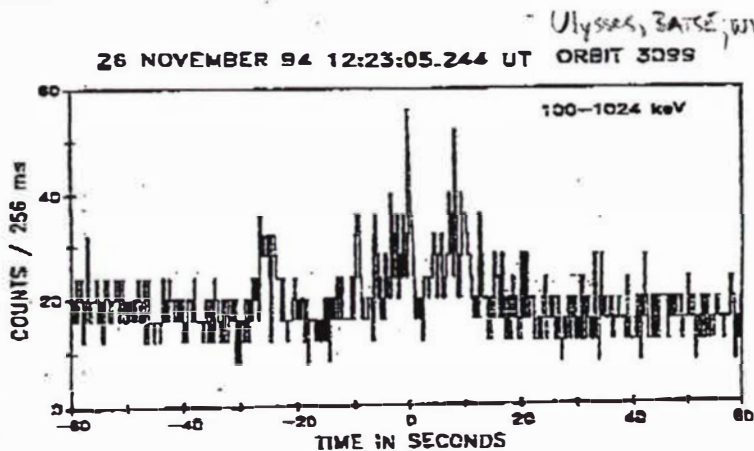
I shall send the profiles after getting your fax No. again.

With best regards,

sincerely yours,

Krishnan
(Krishnan)

Profiles follow:



The same message
sent by e-mail
also (without profiles)

To : PROF. K. HURLEY (P.I., ULYSSES)

इसरो उपग्रह केन्द्र

अन्तरिक्ष विभाग

भारत सरकार

हवाई पत्तन मार्ग, विमानपुर डाक घर,

बैंगलूर-560 017, भारत

तार: 'उपग्रह' टेलक्स : 0845-2325 और 2769

दूरभाष : 566251

UC BERKELEY



ISRO SATELLITE CENTRE

DEPARTMENT OF SPACE

GOVERNMENT OF INDIA

AIRPORT ROAD, VIMANAPURA P. O.,

BANGALORE-560 017. INDIA

Telegram : UPAGRAH Telex : 0845-2325 & 2769

Telephone : 566251

Dr TMK Marar

Head, Technical Physics Div

Feb 13, 1995

Dear Kevin,

HAPPY NEW YEAR!

I received your fax dated Nov 30, 94 and two emails which came through two different routes. I replied those emails immediately, but I am not sure whether you received them or not. I had sent a fax on Jan 14 for which also I did not get a reply yet. Perhaps you have not received my fax so far. Please send me your fax no again. Our fax Nos are

91-80-526 5407 or 91-80-526 9490

Our email system is unreliable at present. Hence I am requesting you to send emails to me through Mrs Christina of Indian Institute of Astrophysics Library who has agreed to call me whenever she receives any email addressed to me. Her address is as follows:

chris@iiap.ernet.in

(Please write as subject: attention: DR MARAR)

Important messages should however be exchanged via fax.

With reference to your letter of Nov 30, Dr K Kasturirangan, Chairman of ISRO expressed his agreement to the exchange of data between our two groups for joint investigations. We do not at present have a software to calculate the annulus of GRB location using two spacecraft data. We will be happy to receive your help in implementing your software on our computers.

13 / 2 / 95

ULYSSES RT

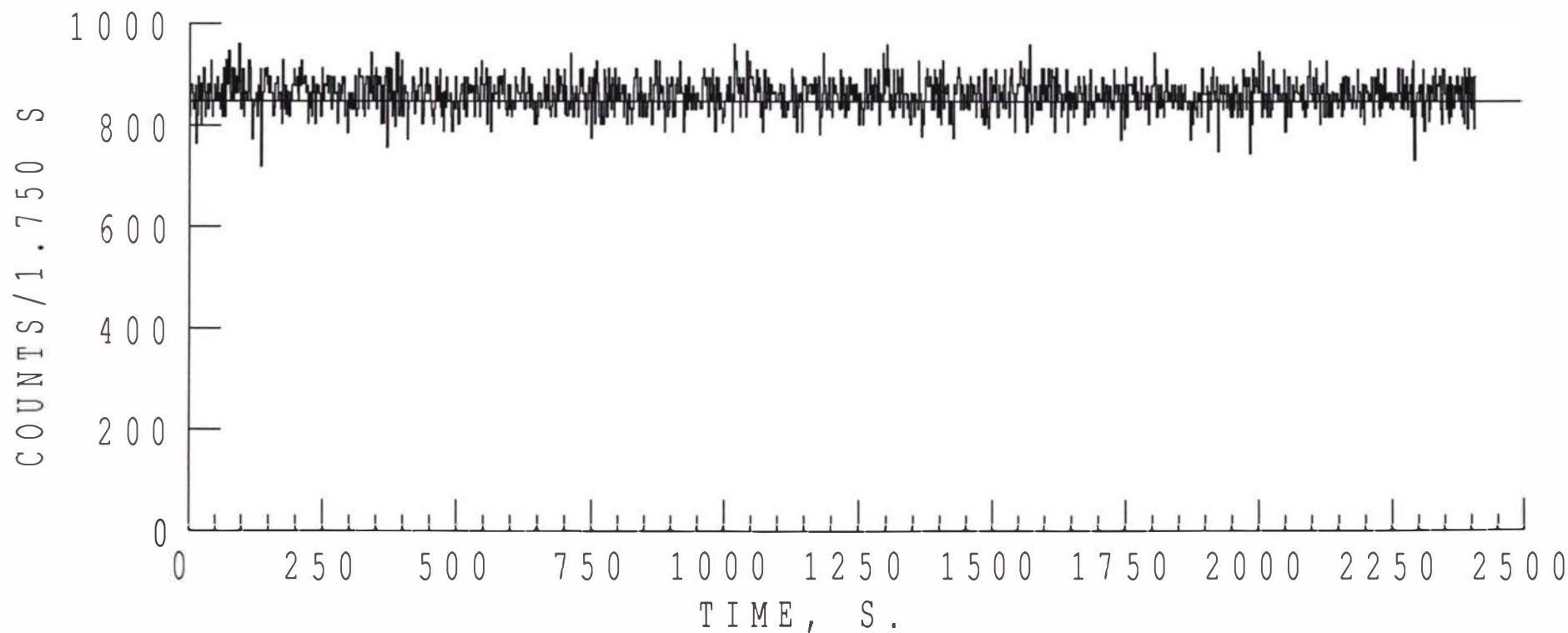
6 / 1 / 95 37188.133 s

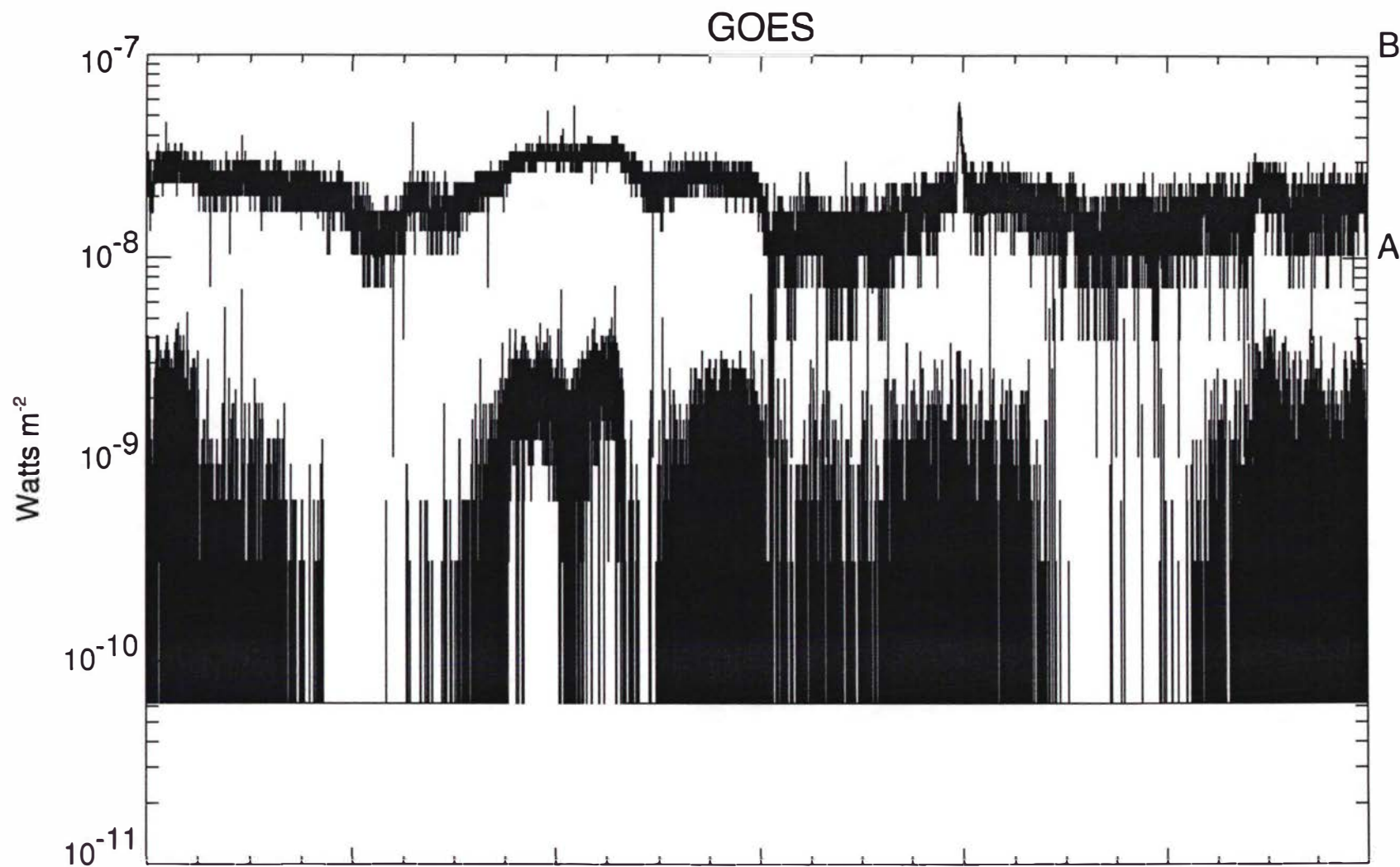
0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





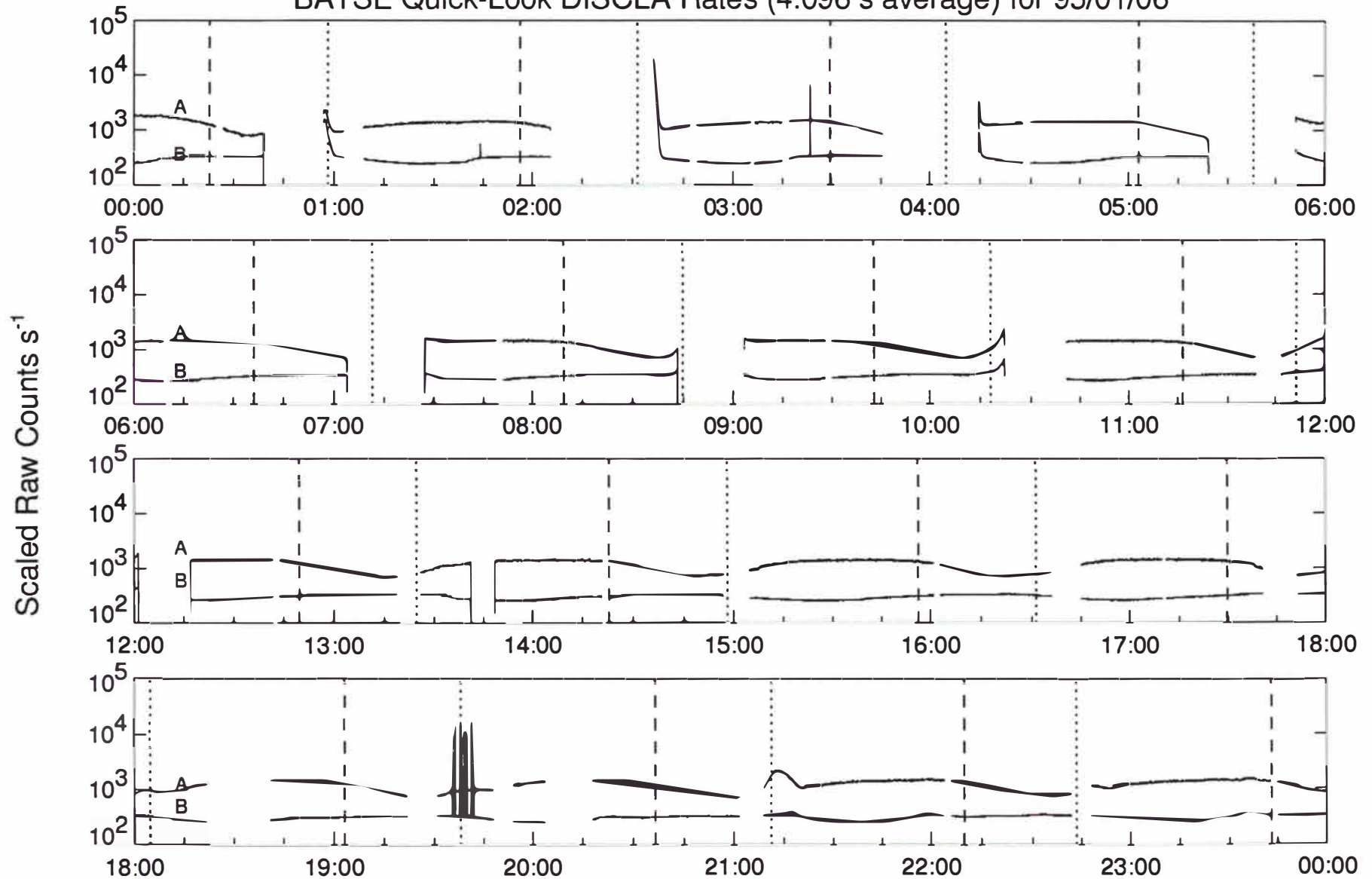
Data Start: 95/01/06, 0000:02

Plot created: 95/01/09, 1426

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/06

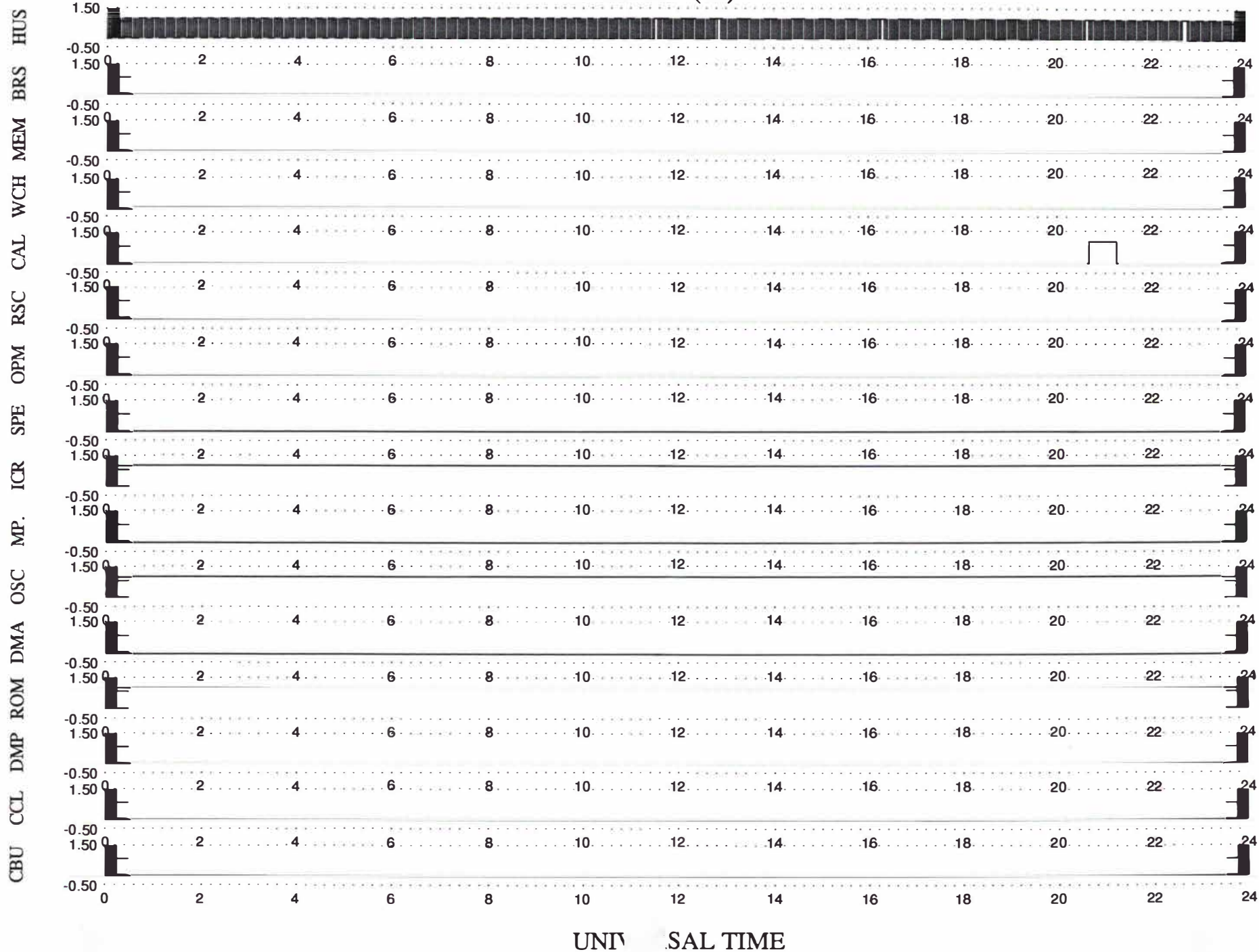


Current Time: 95/01/09, 1427 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

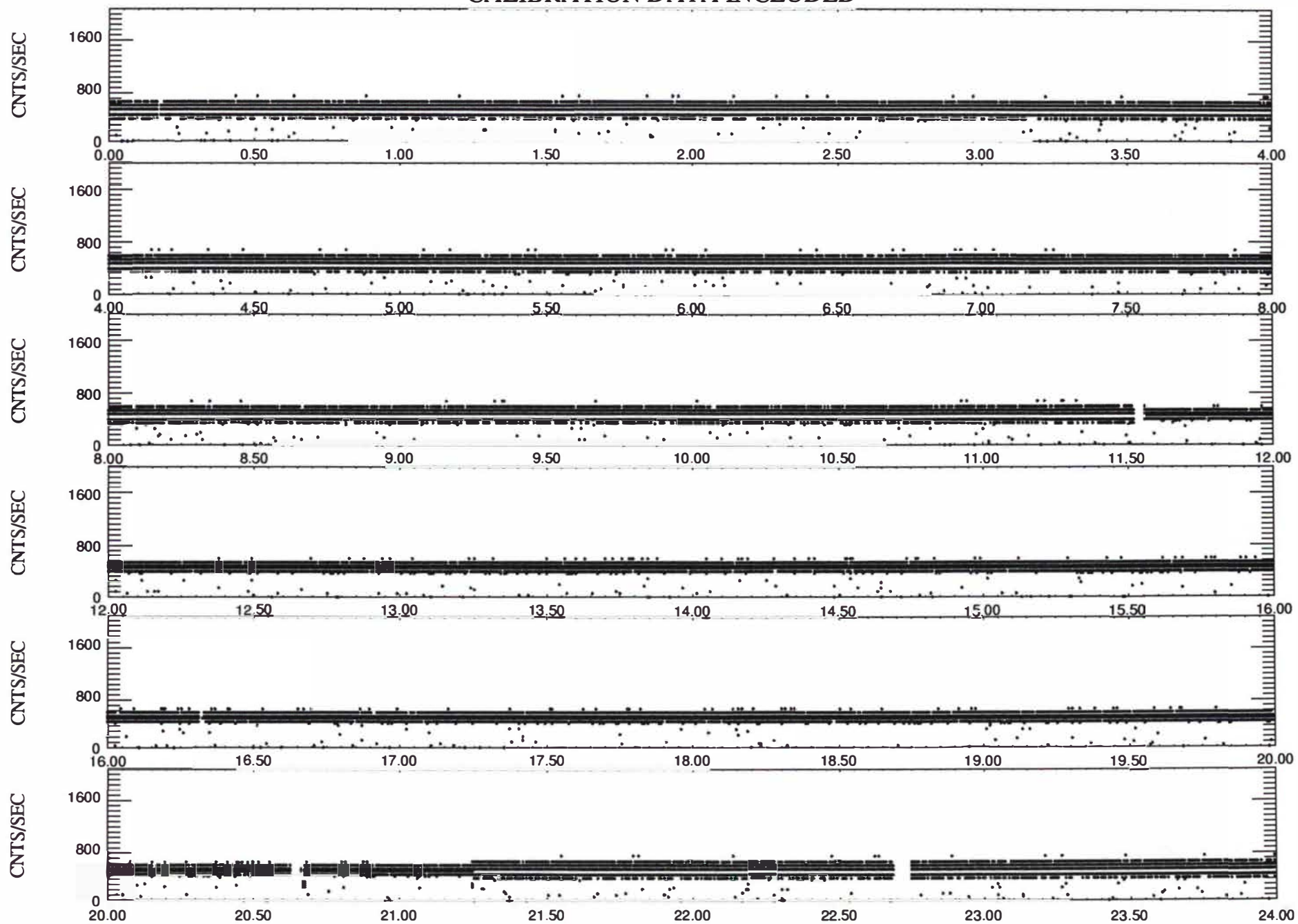
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

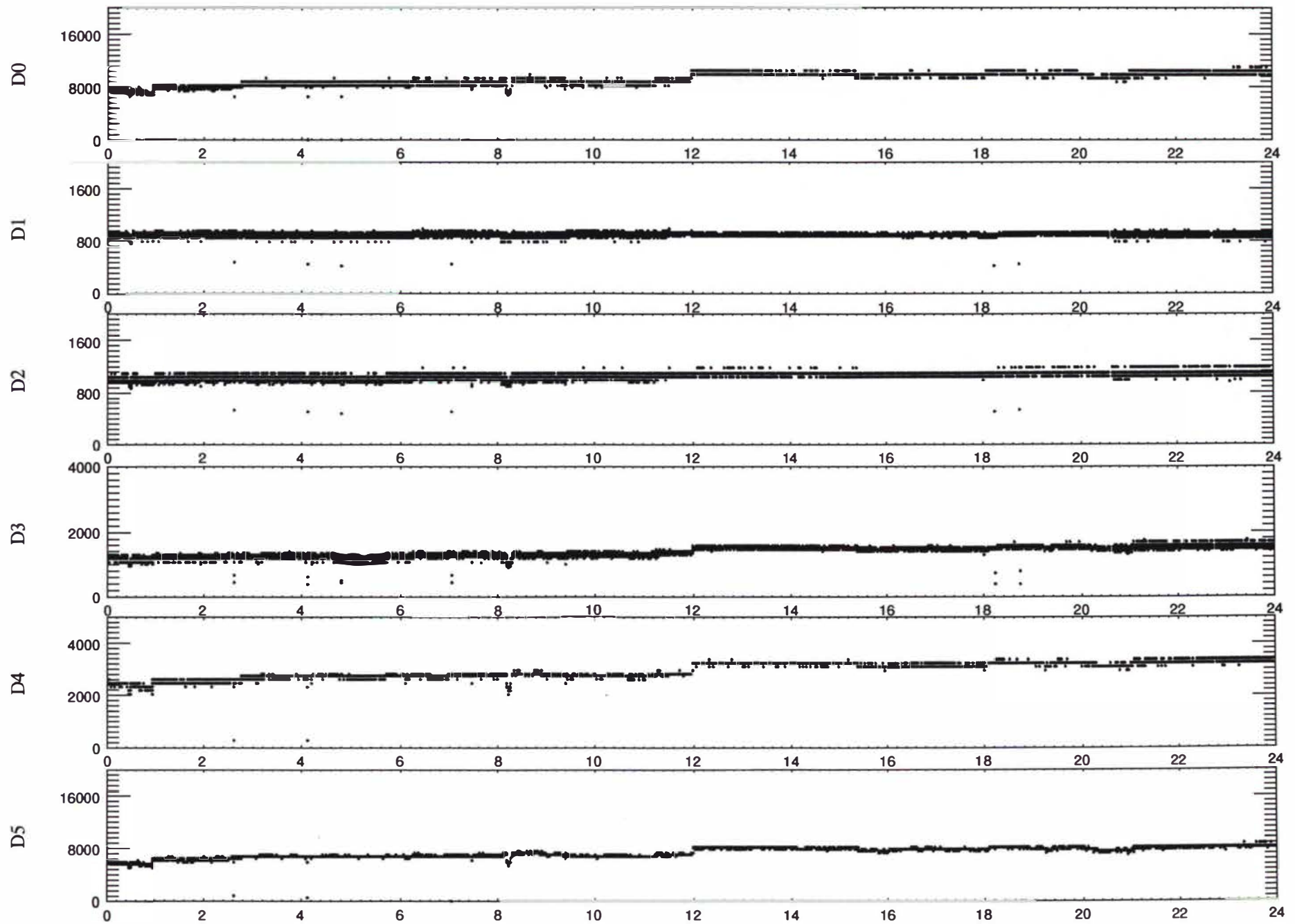
NO BURST (10)



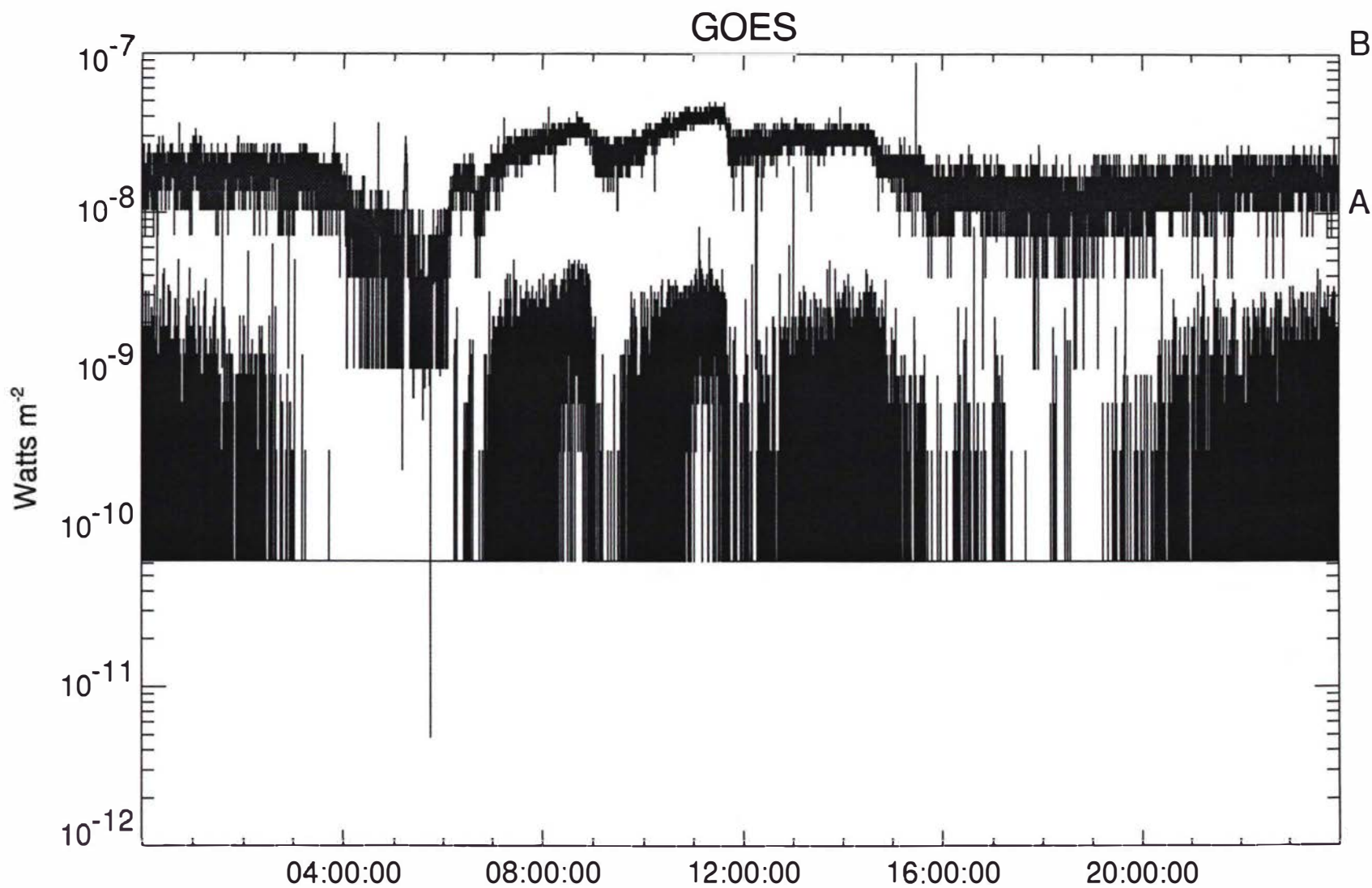
CALIBRATION DATA INCLUDED



UNITS SAL TIME



UNIV SAL TIME



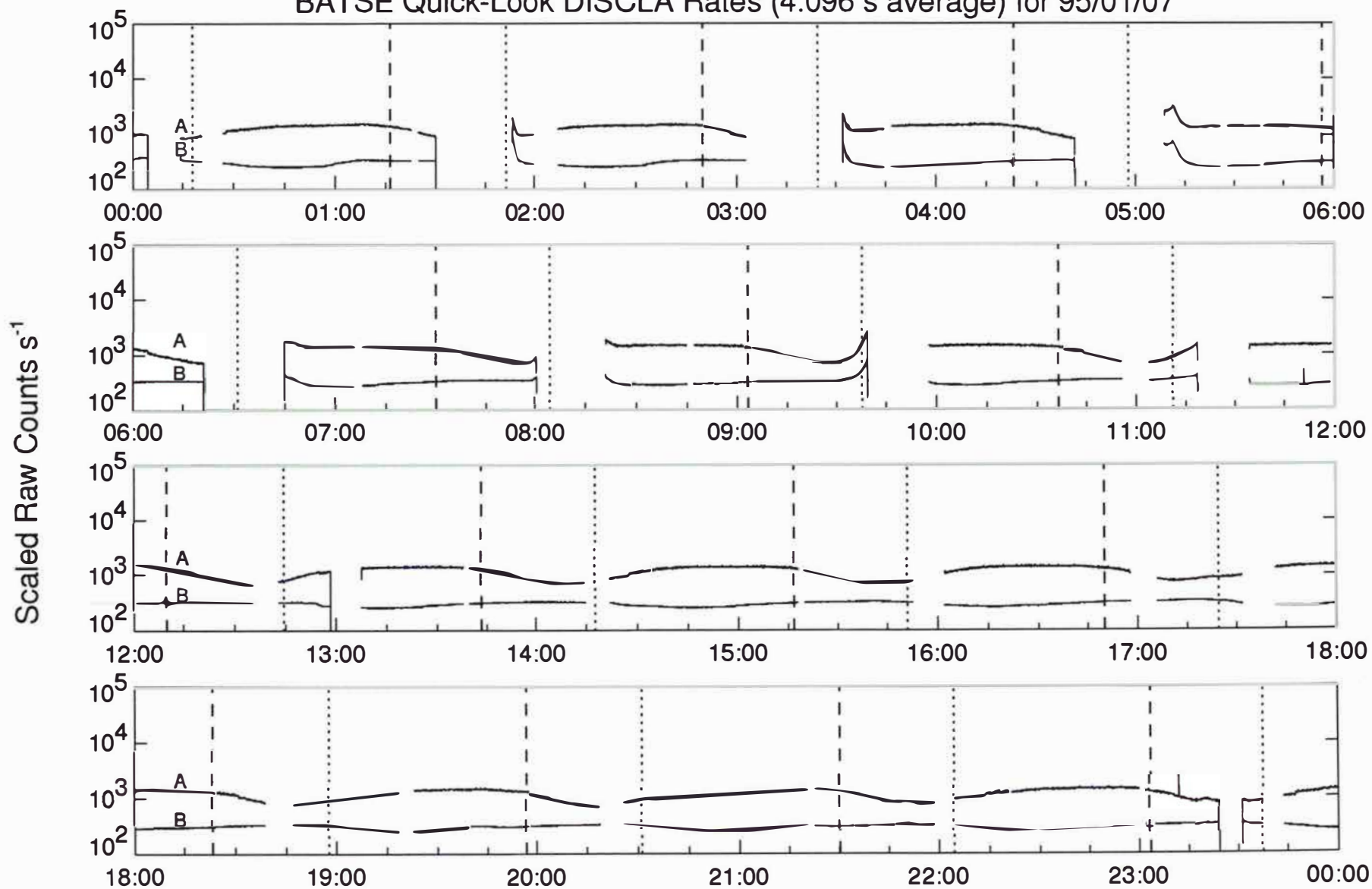
Data Start: 95/01/07, 0000:00

Plot created: 95/01/09, 1445

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/07

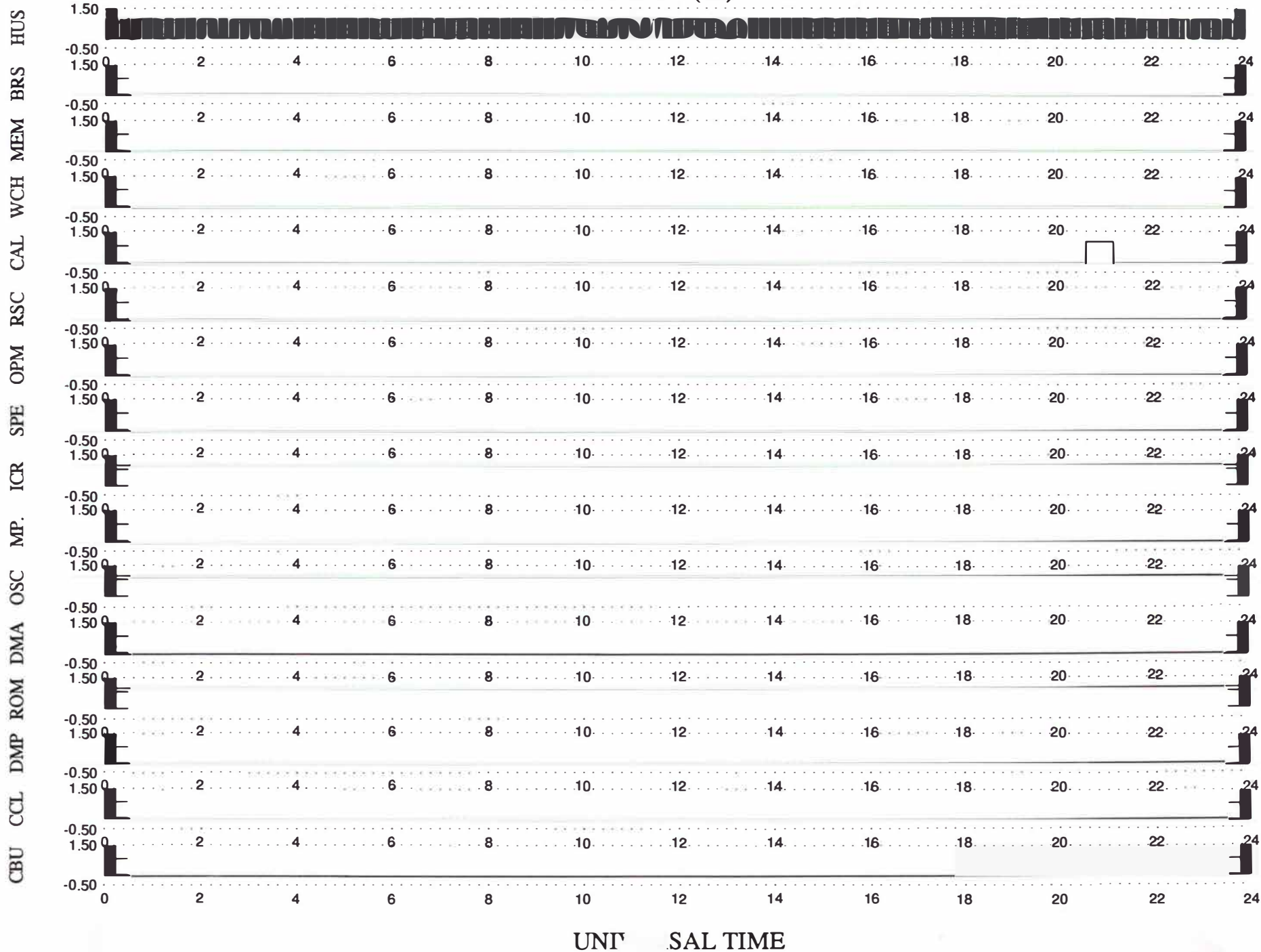


Current Time: 95/01/09, 1446 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

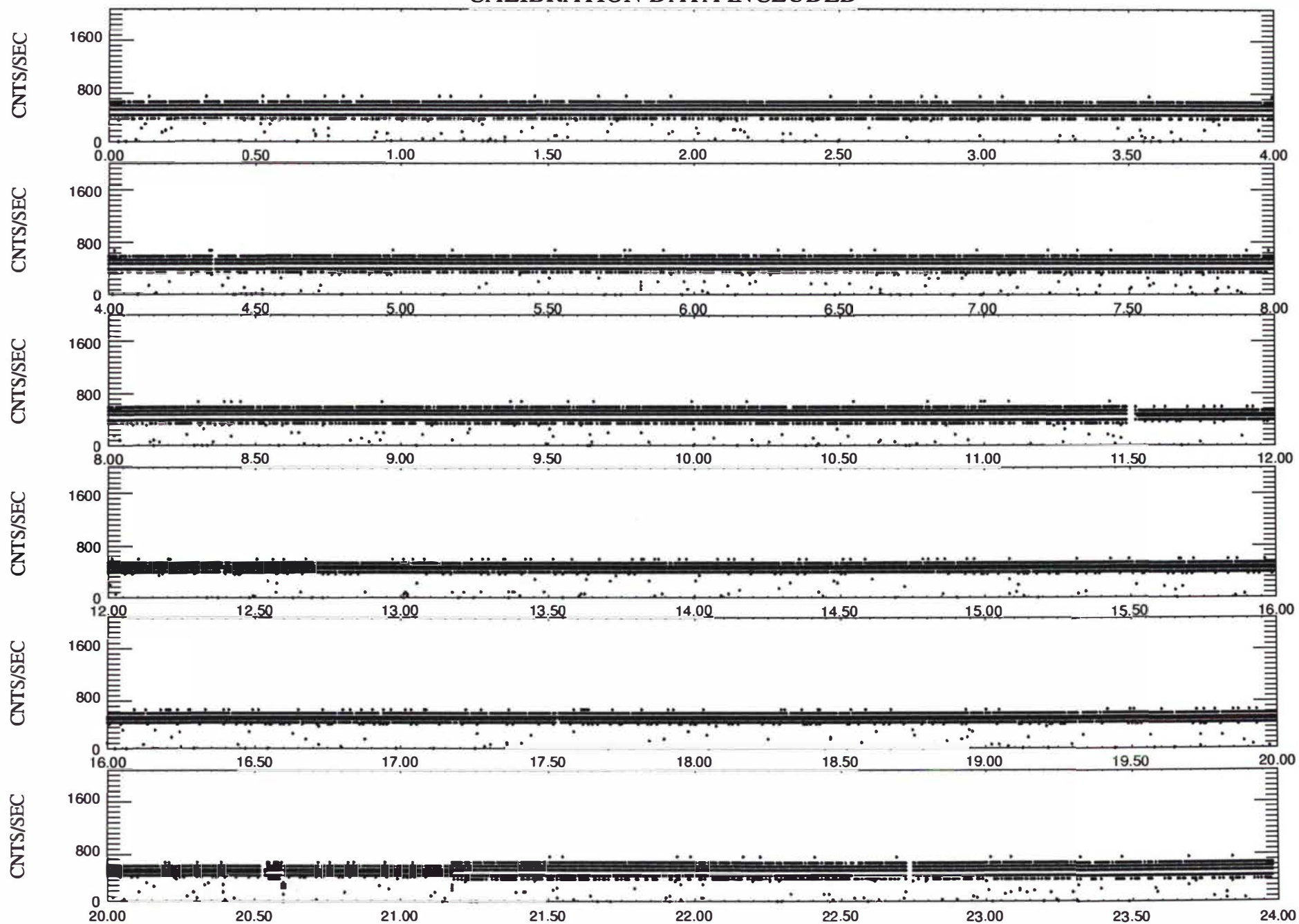
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

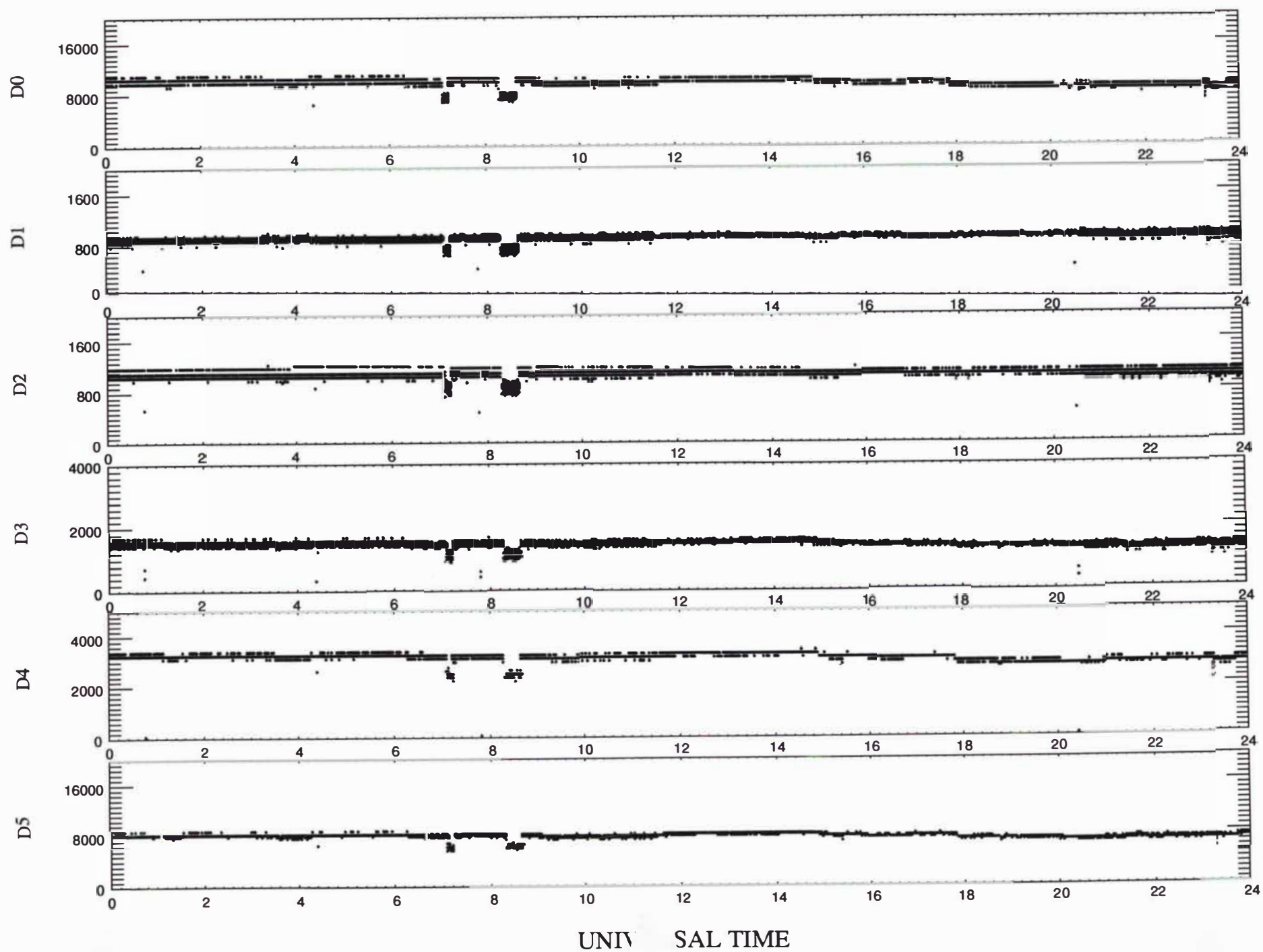
NO BURST (10)



CALIBRATION DATA INCLUDED



UNIFORM TIME



 BATSEARCH PROGRAM

BATSE BURST # 3349
 EVENT OF 1995 JAN 8 DAY OF YEAR= 8
 EVENT CROSSING TIME AT BATSE : 7460. S. OR 02:04:20.0
 COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
 BURST ARRIVAL DIRECTION: 18.000 -13.000
 BATSE PEAK COUNTING RATE: 11500 C/S

RT

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
 INTERPOLATED POSITION OF ULYSSES ON 8/ 1/ 95 IS:
 RA= 319.883 DEC= -47.429 DIST= 2.205 AU
 BATSE-ULYSSES DISTANCE = 329939145. KM.
 ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=120.92 DEG.
 LIGHT TRAVEL TIME ALONG PROJECTED PATH= -565.49 SECS.
 CROSSING TIME AT ULYSSES IS 6895. S. OR 01:54:54 +/- 205.33 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
 POSITION OF MARS ON 8/ 1/ 95 IS:
 RA= 155.844 DEC= 14.063 DIST= 0.798 AU
 MARS-BATSE DISTANCE = 119432992. KM.
 ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 40.95 DEG.
 LIGHT TRAVEL TIME ALONG PROJECTED PATH= 300.91 SECS.
 CROSSING TIME AT MARS IS 7761. S. OR 02:09:20 +/- 49.90 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3349	950108	9725	07460	11500	018	-13

BATSE BURST TRIGGER

NO.: 3349

TIME: TJD=9725 SECONDS=07460

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=161 AZIMUTH=296 ERROR= DEGREES

COMMENTS:

BURST. WEAK SINGLE SPIKE WITH SUBSTRUCTURE. DUR.~0.5 SECONDS.
 WEAKLY VISIBLE ABOVE 300 KEV.

Hello can removed

Date: Feb 10 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☐ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T₀?
- ☒ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included? *N/A*

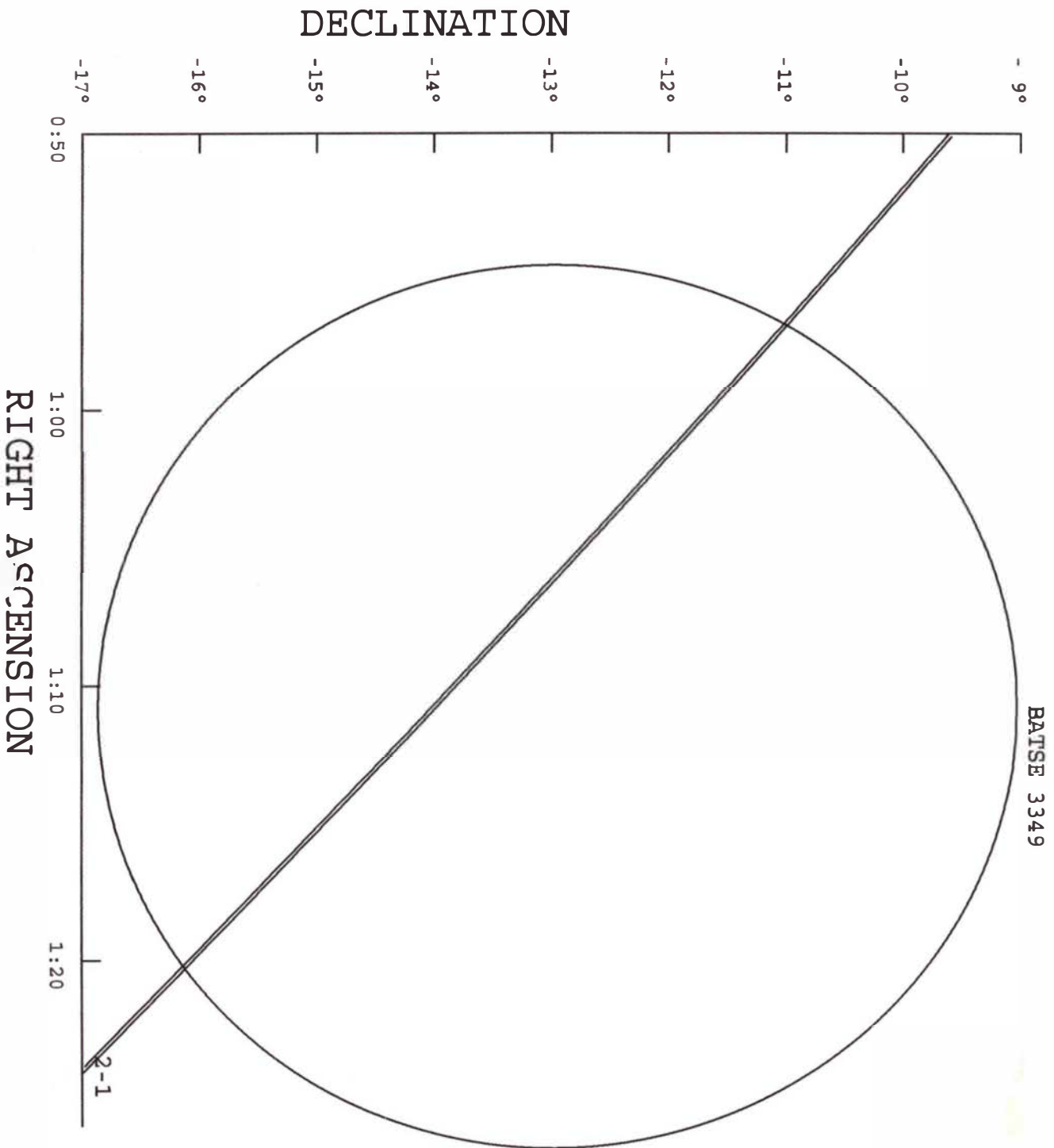
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS database updated?

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

EVENT OF JAN 8, 1995 1:53

10/ 2/98



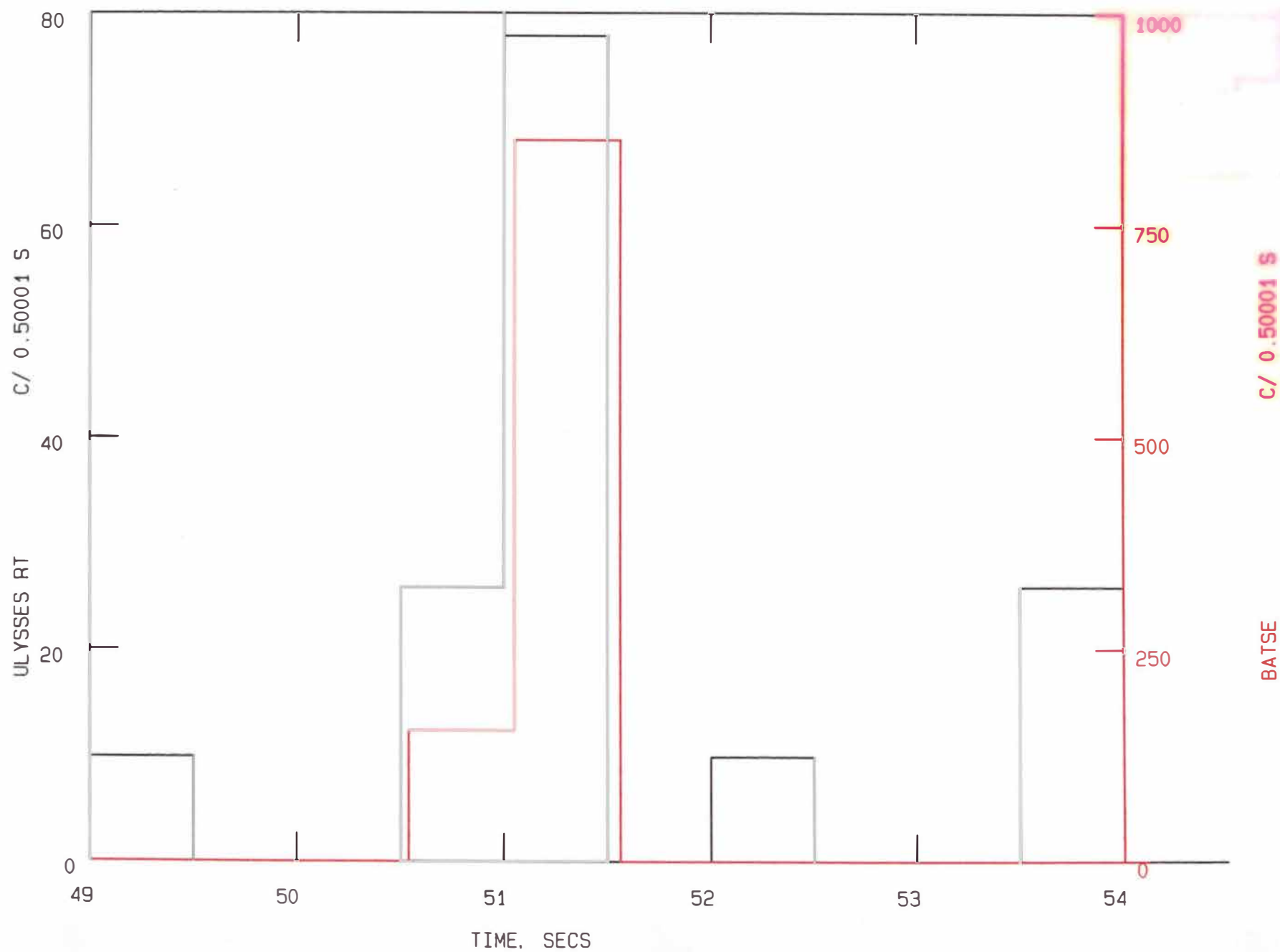
ULYSSES RT-BATSE

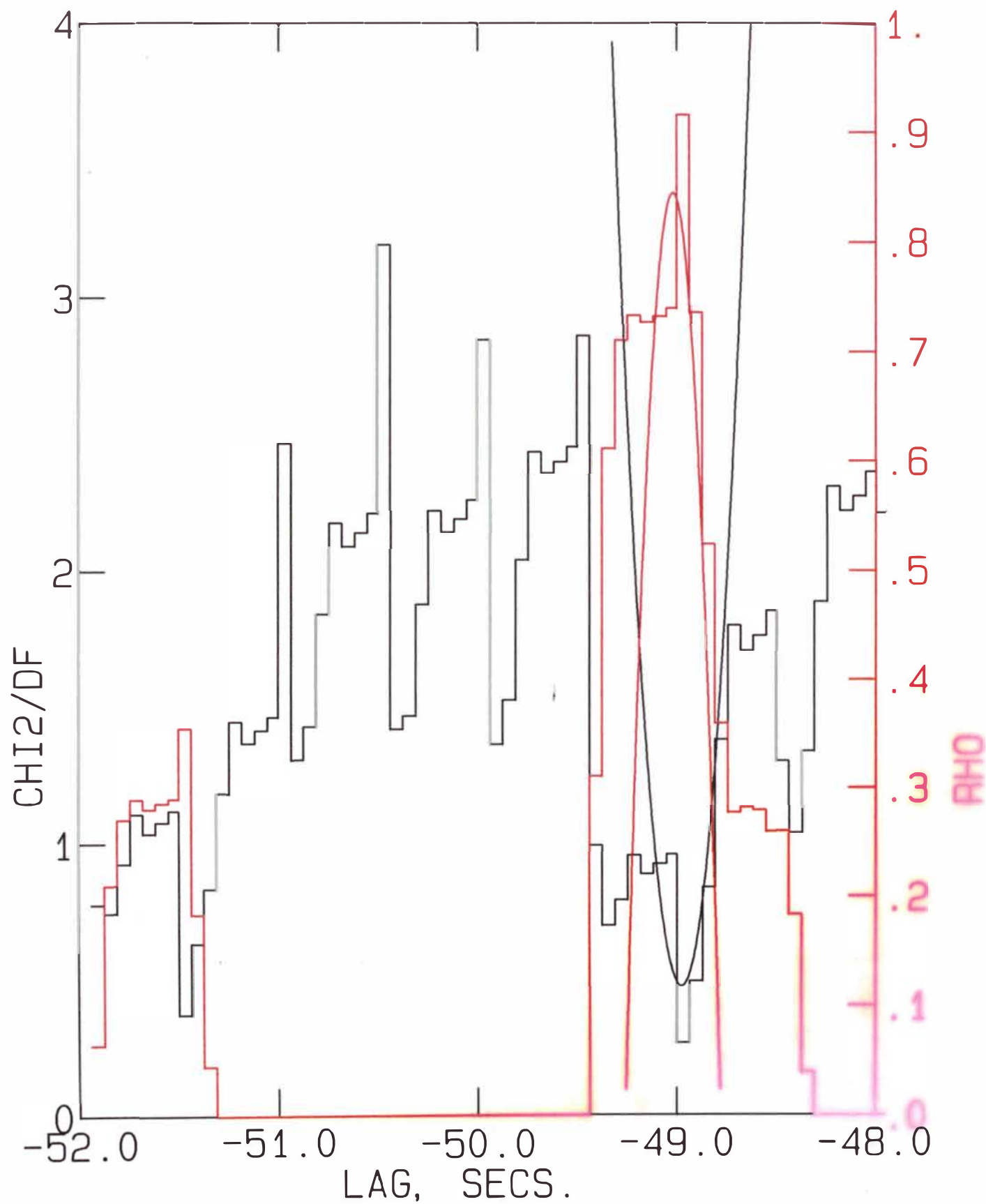
CORRELATION

8/ 1/95

6819.060

10/ 2/98





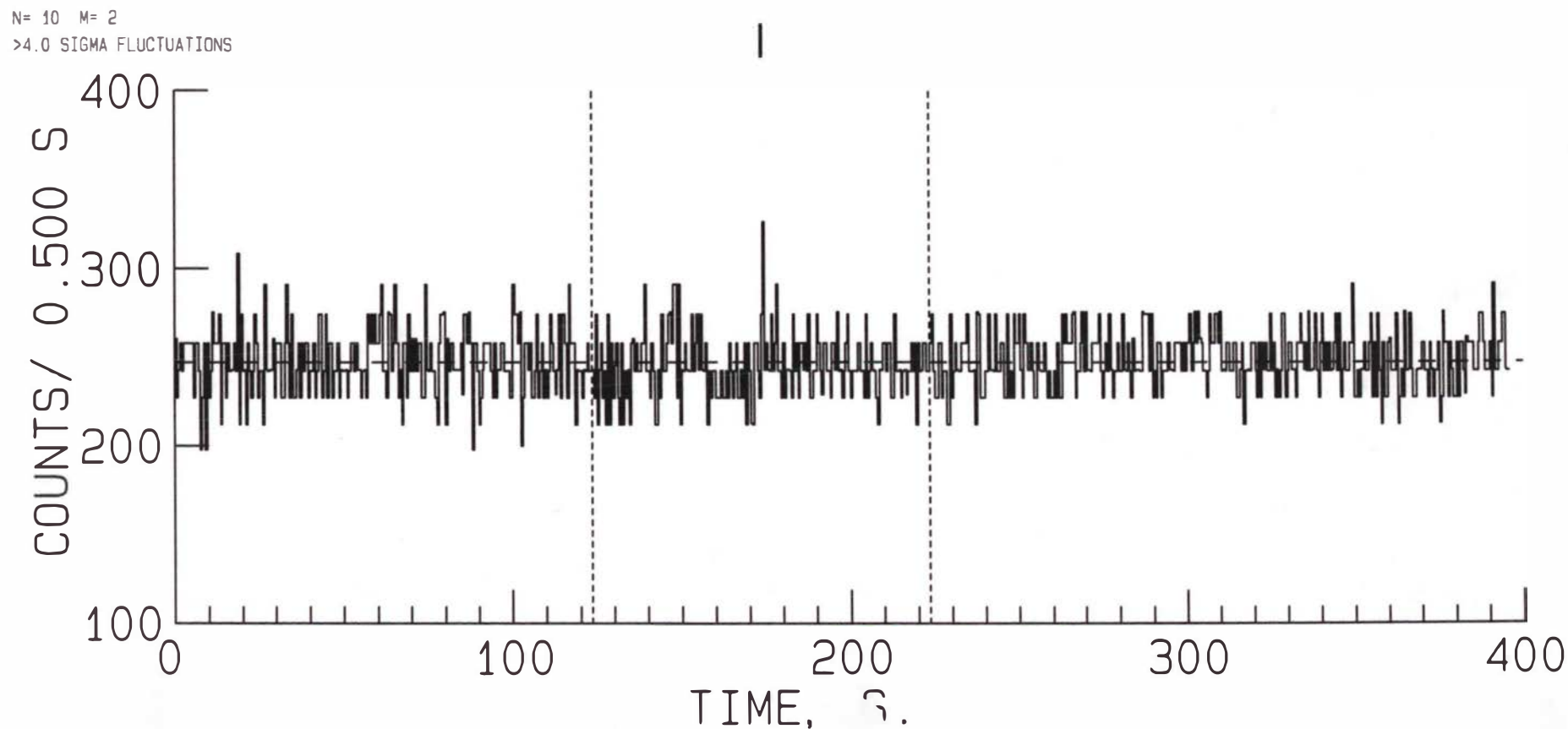
ULYSSES RT

10 / 2 / 98

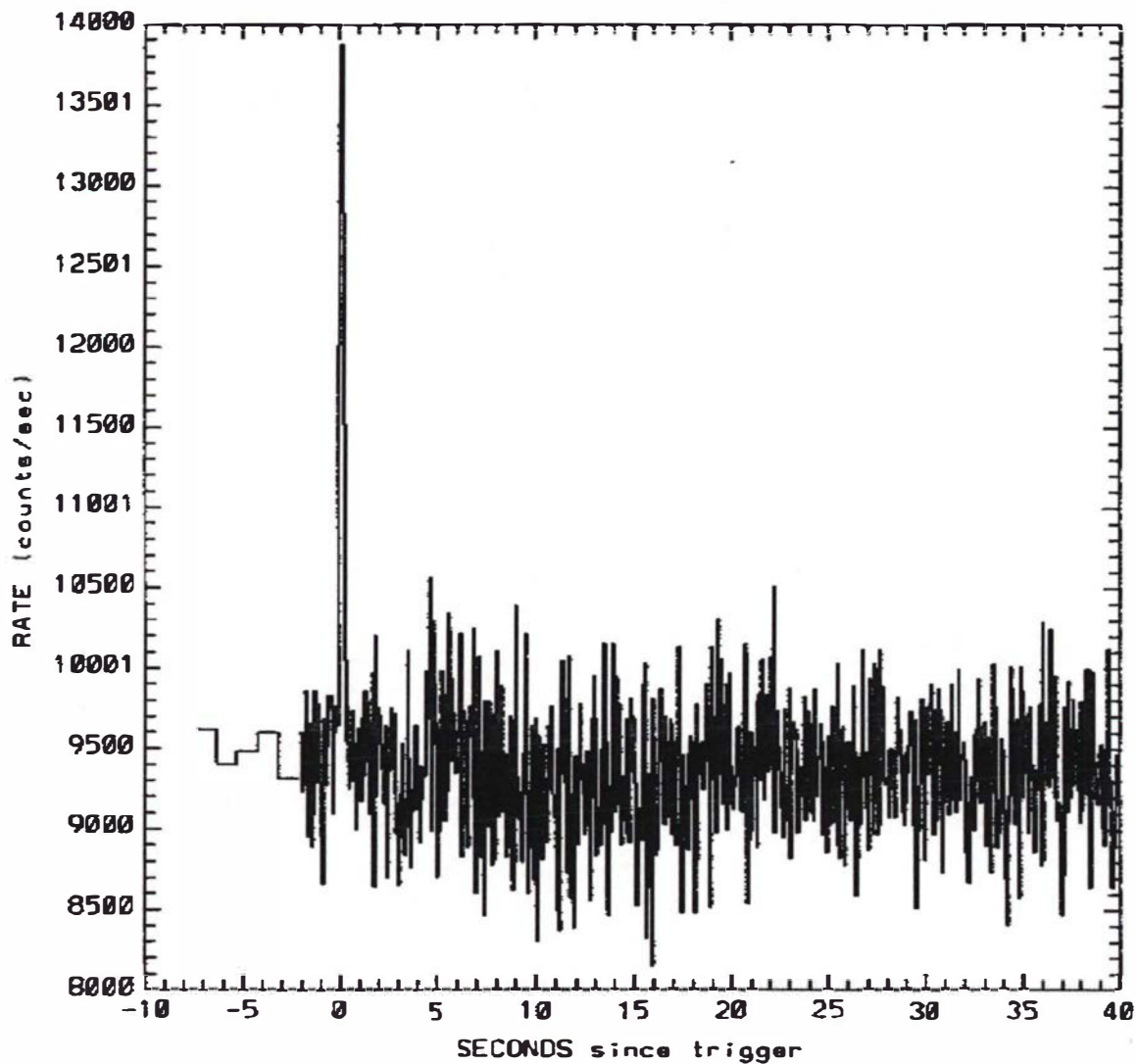
8 / 1 / 95 6696.114 s

0.250 S INTERVALS REGROUPED BY 2

21- 146 keV



DISCSC Data for K. Hurley, No. 3349



28-JAN-1995 18:17:41

Created by MOPS BD
(Burst Display)
Version 12.23

Trigger # : 3349

Trigger Time:
9725 / 7460.658Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..0].
7---3--Discriminators:
(1..2)Quality Mask:
B01SP1

01
4
/

4
/ 00
00

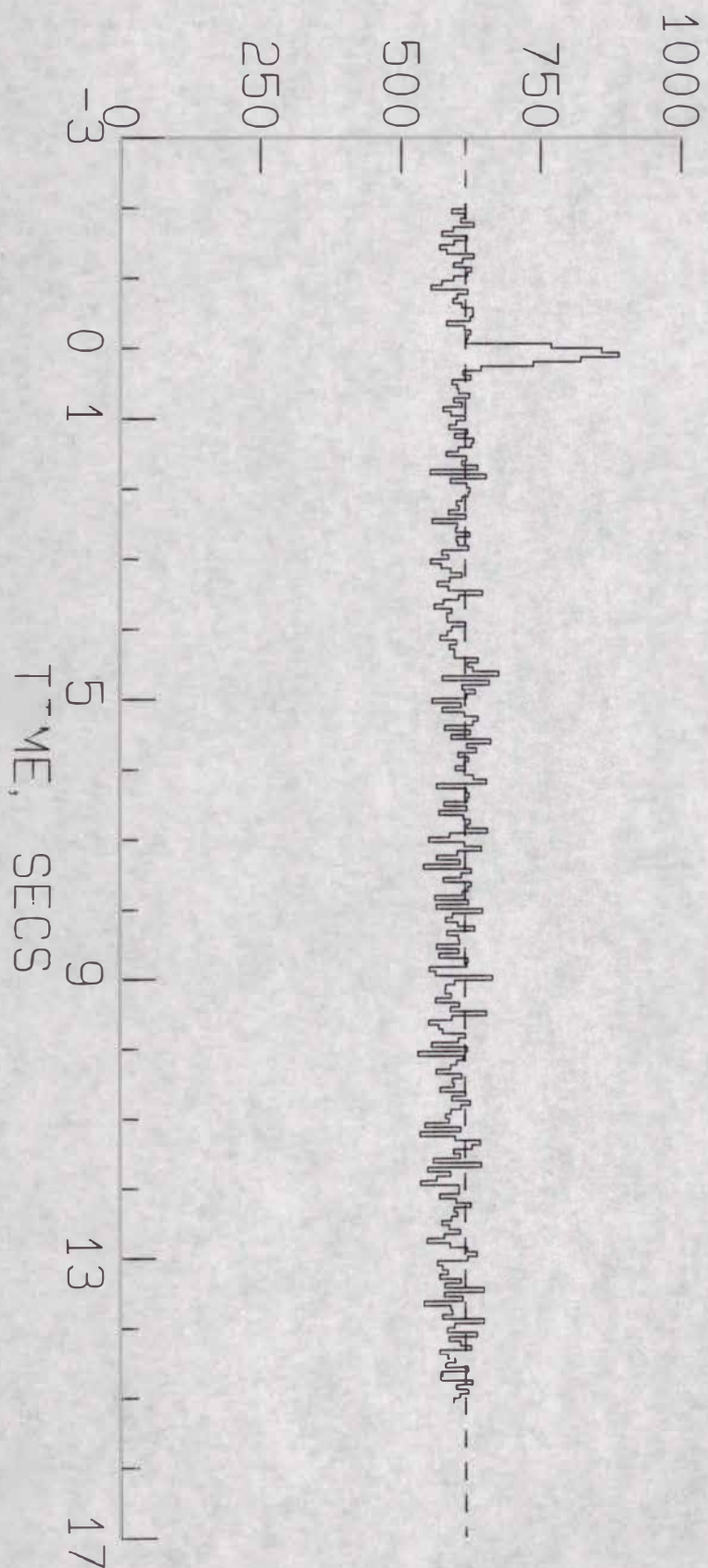
BATSE

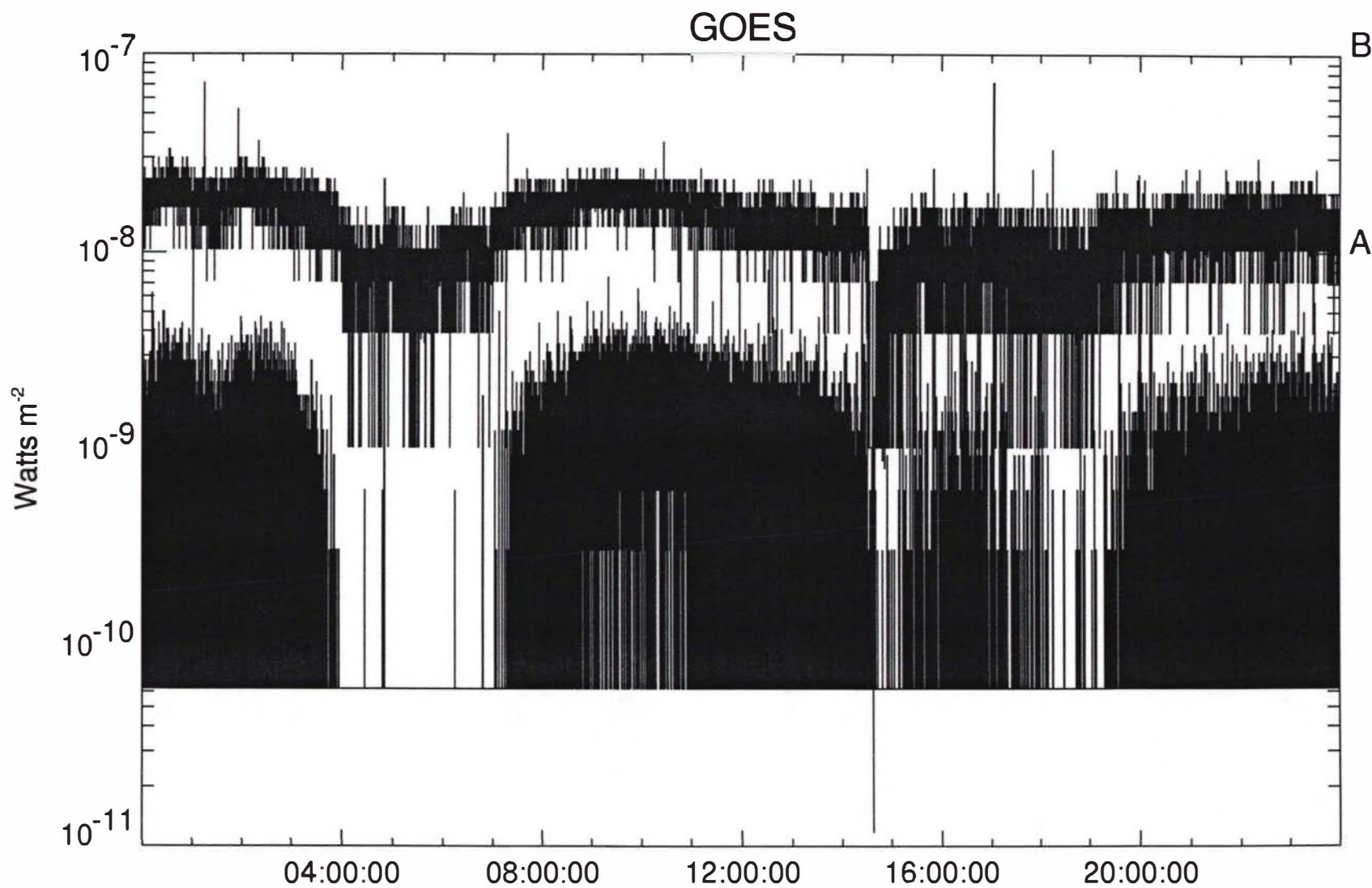
08/01/95

7460.658

25- 100 keV

COUNTS/ .064 S





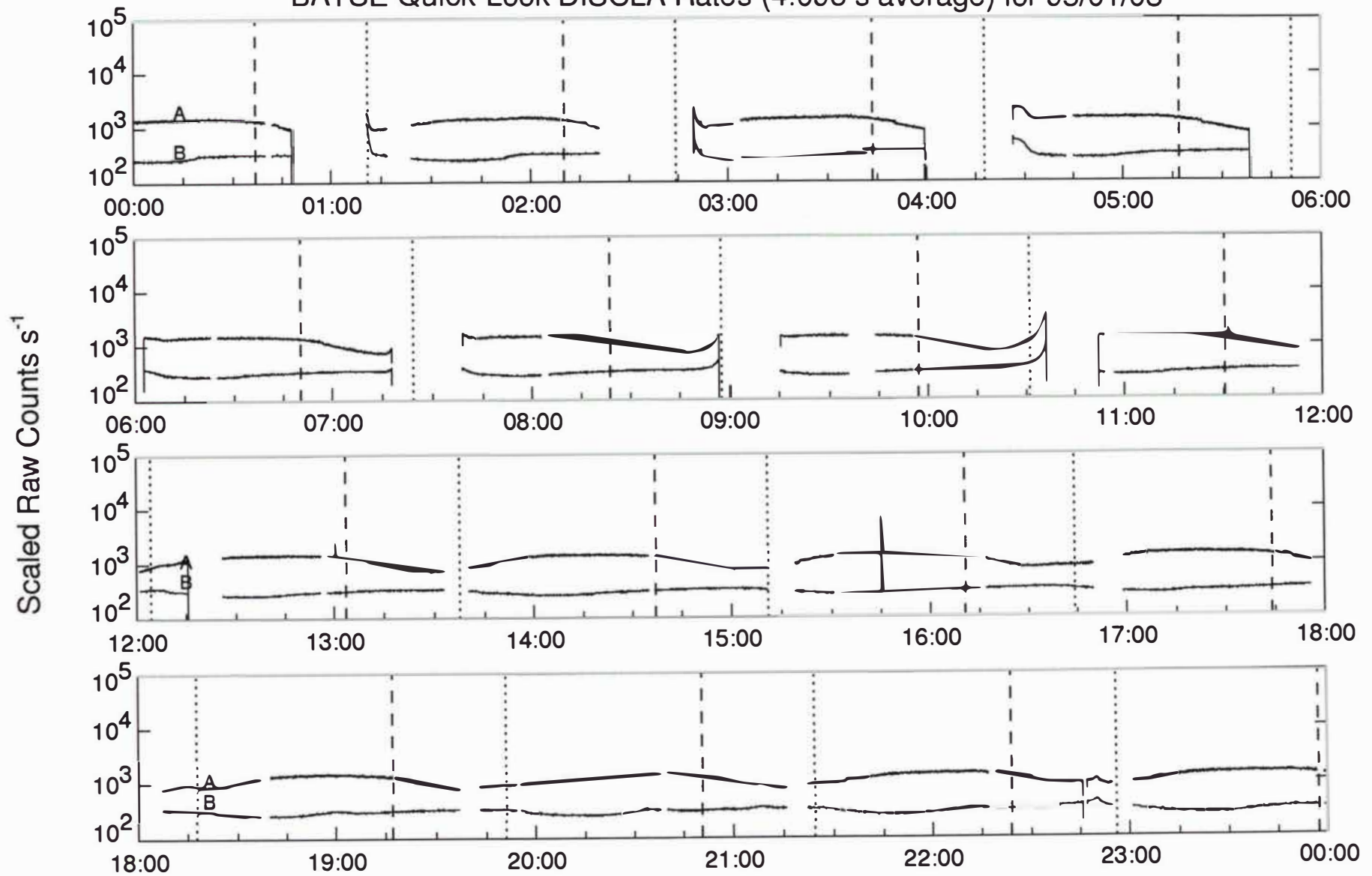
Data Start: 95/01/08, 0000:01

Plot created: 95/01/10, 1741

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/08

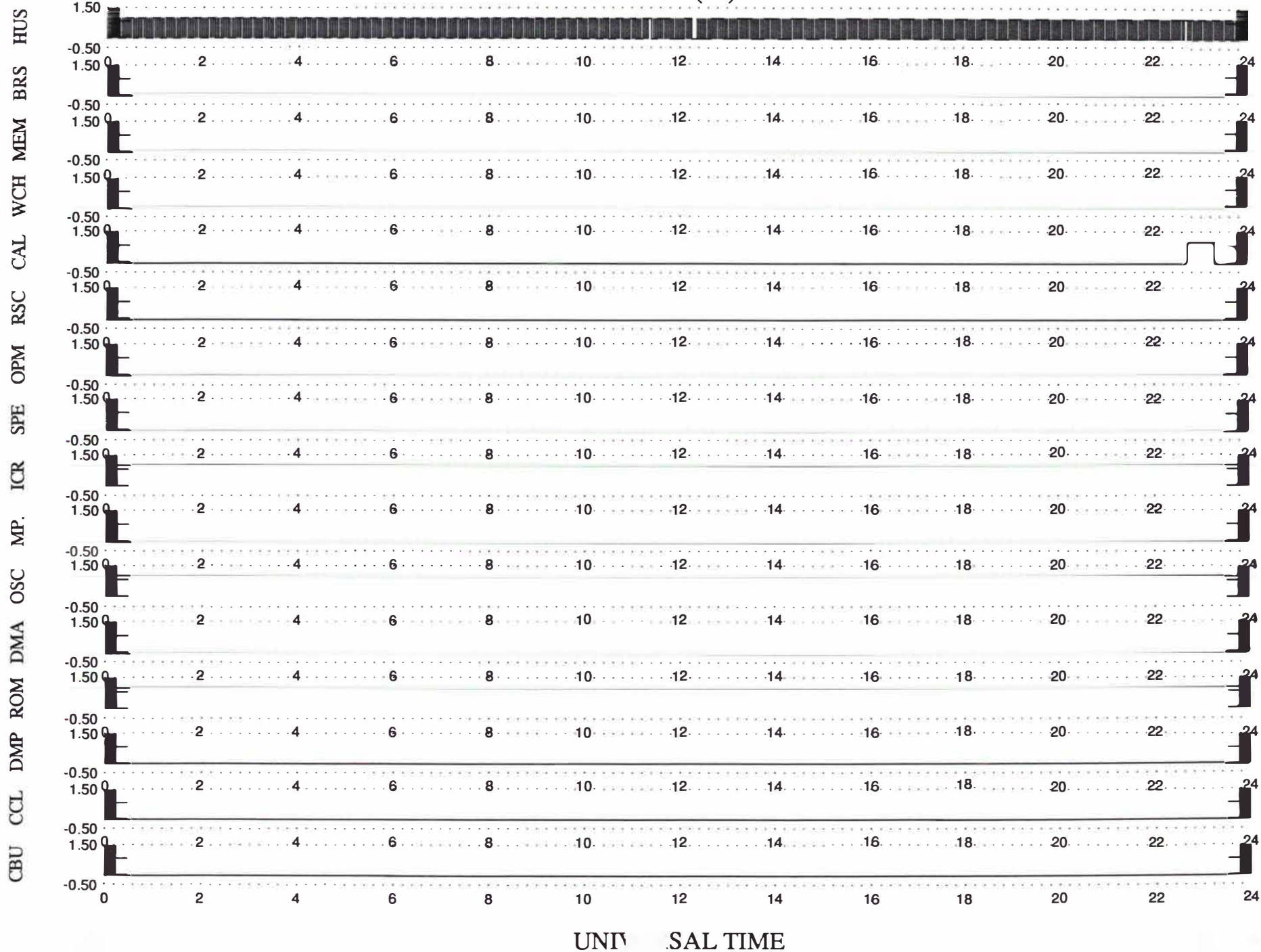


Current Time: 95/01/10, 1742 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

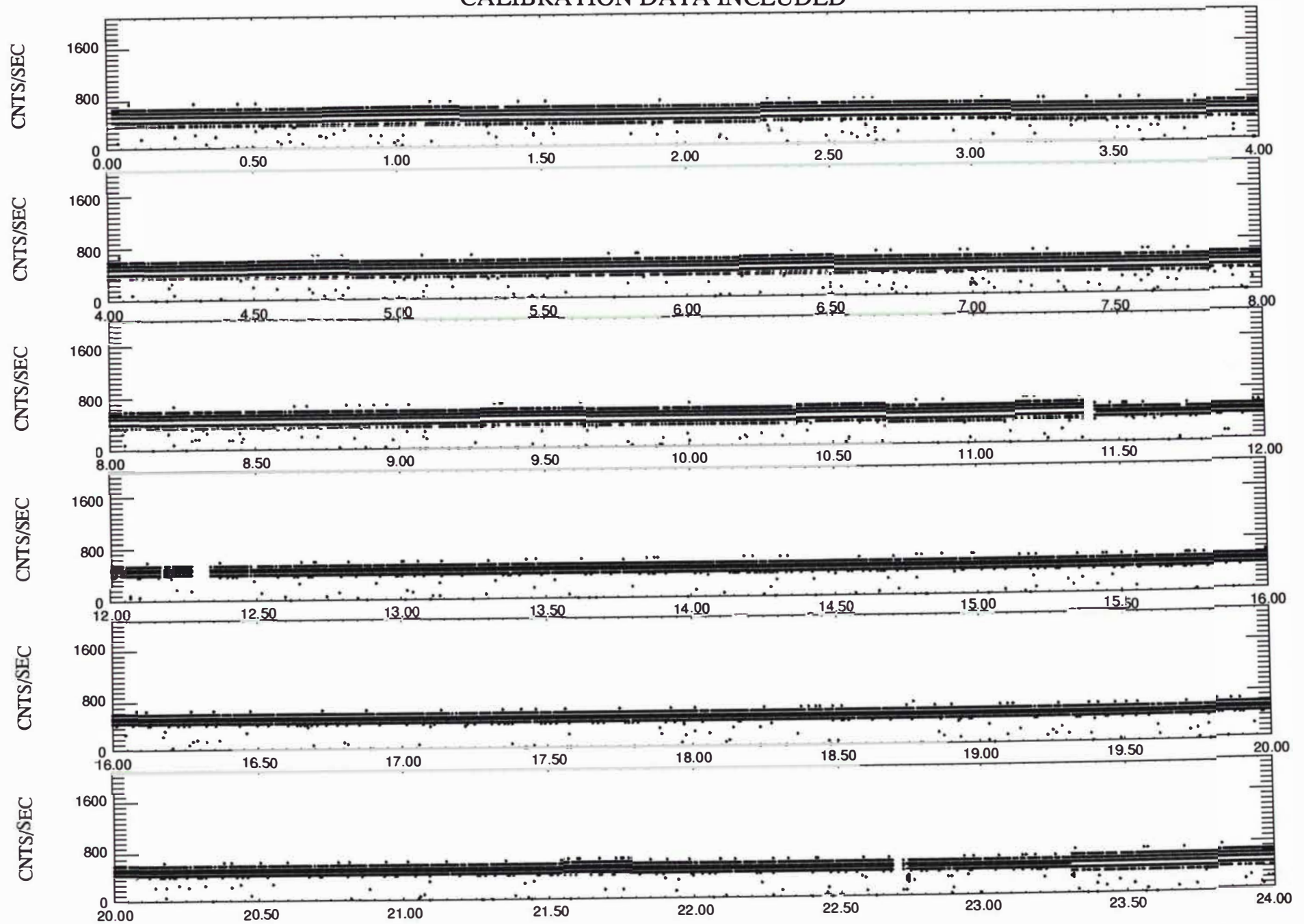
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

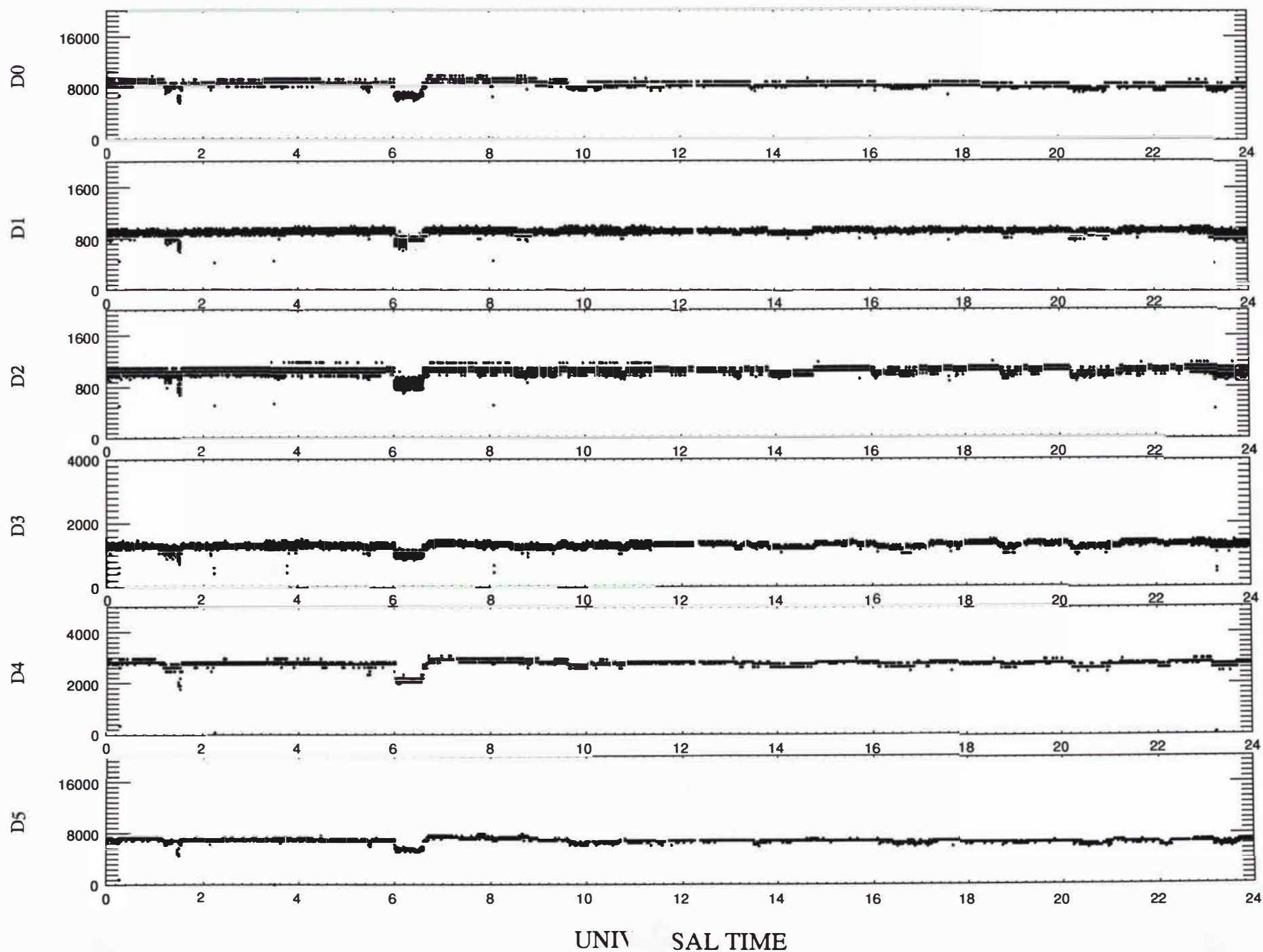
NO BURST (10)

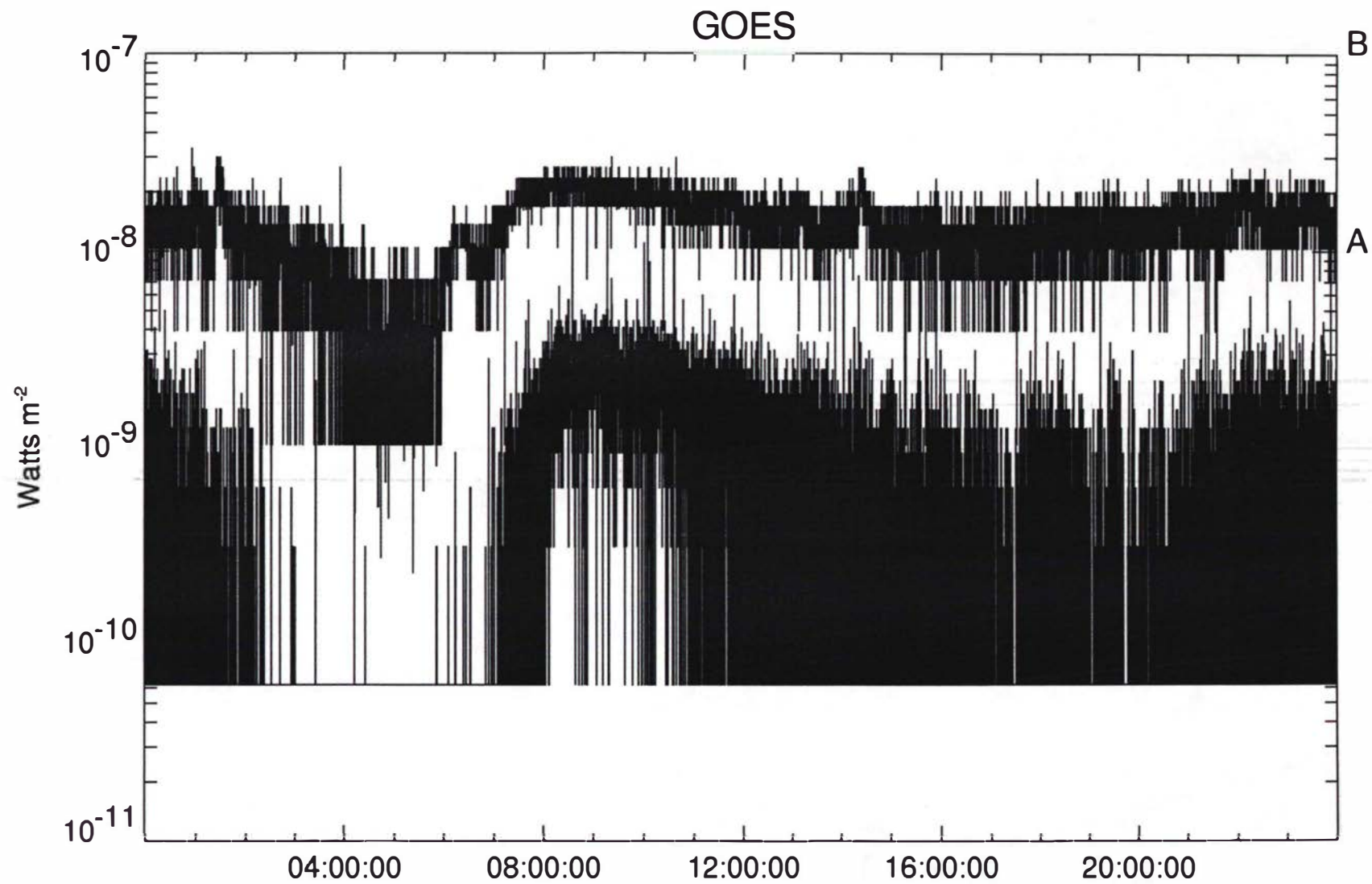


CALIBRATION DATA INCLUDED



UNIFORM SAL TIME





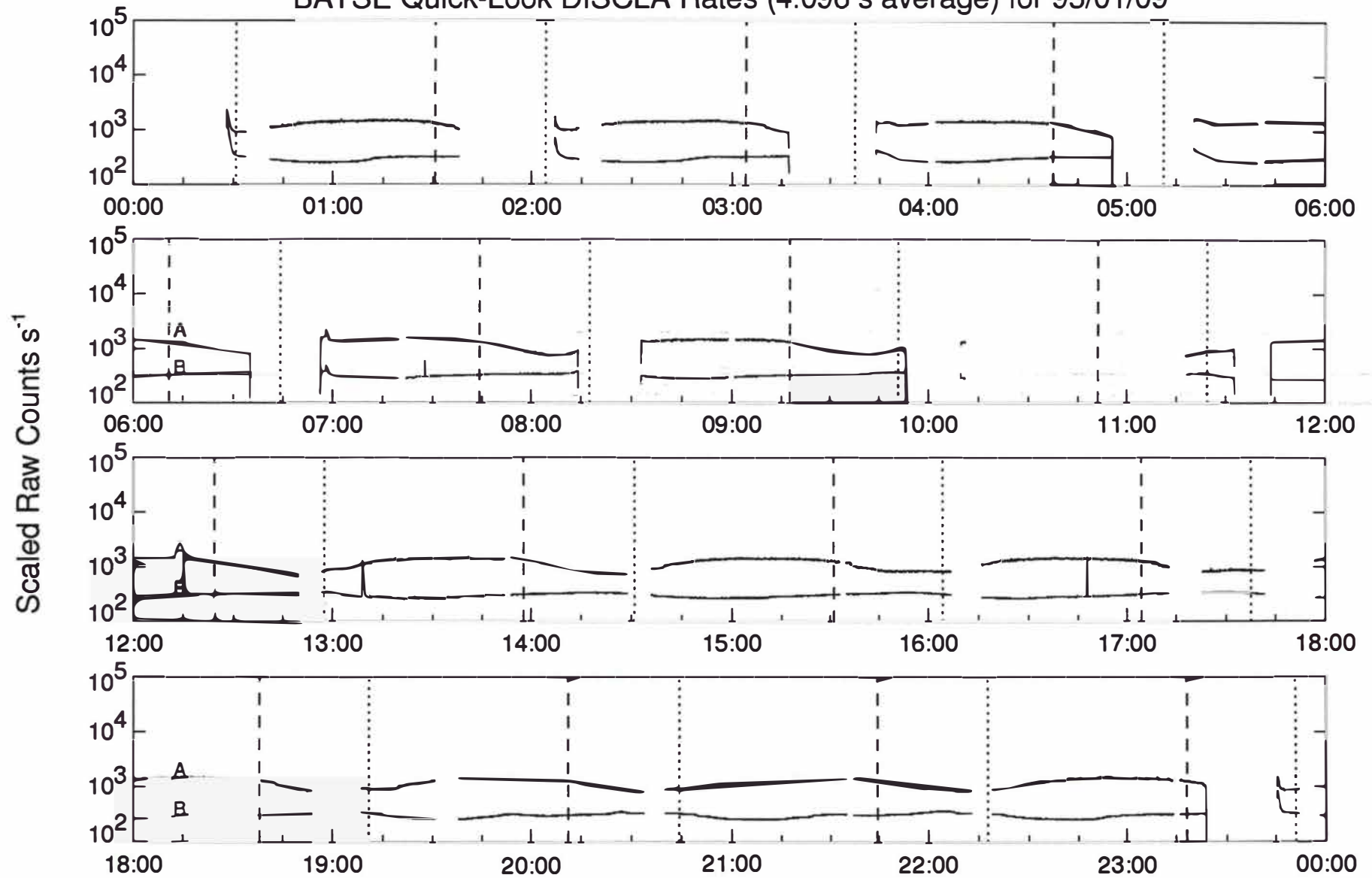
Data Start: 95/01/09, 0000:02

Plot created: 95/01/12, 1751

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/09



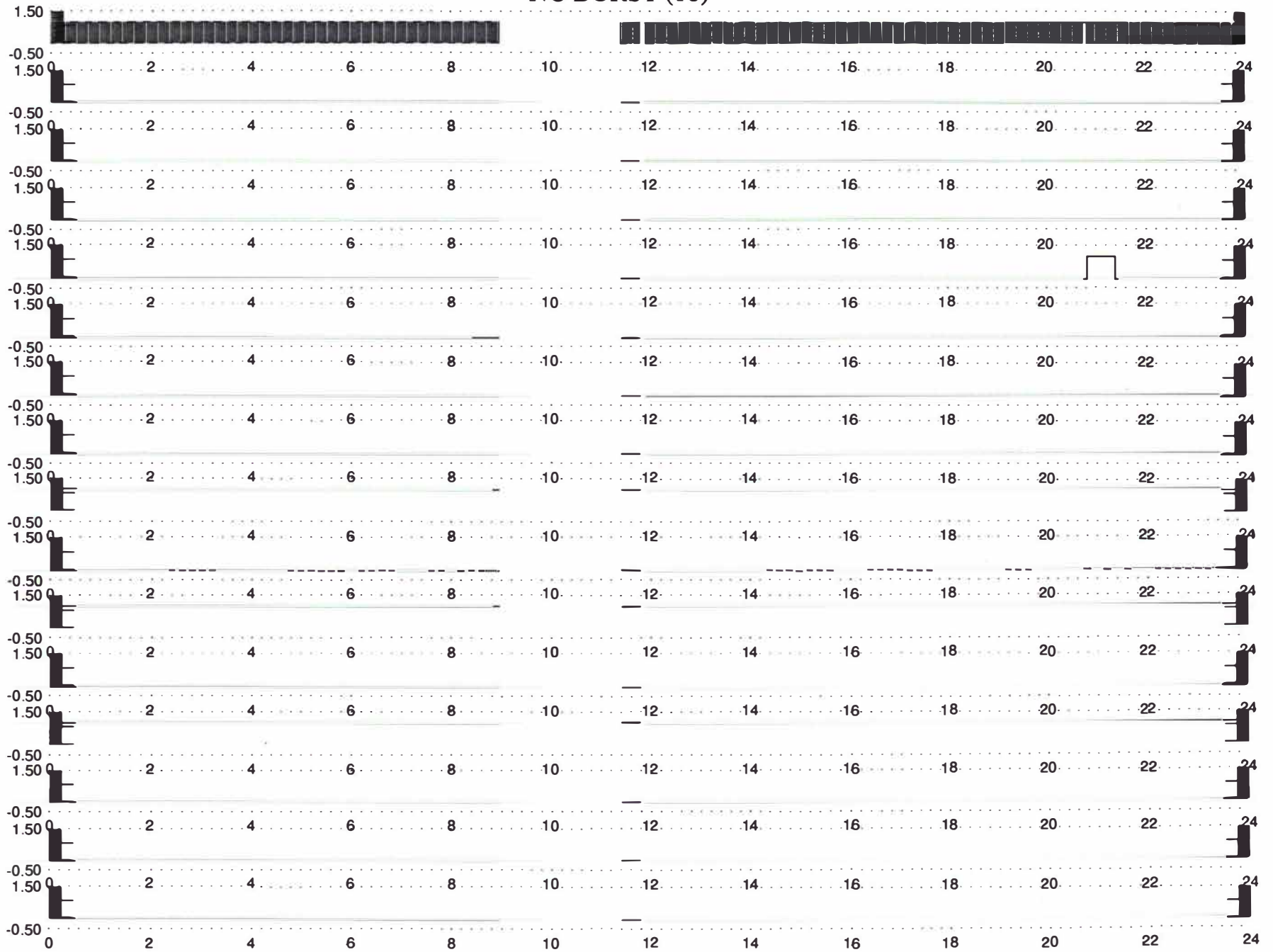
Current Time: 95/01/12, 1752 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

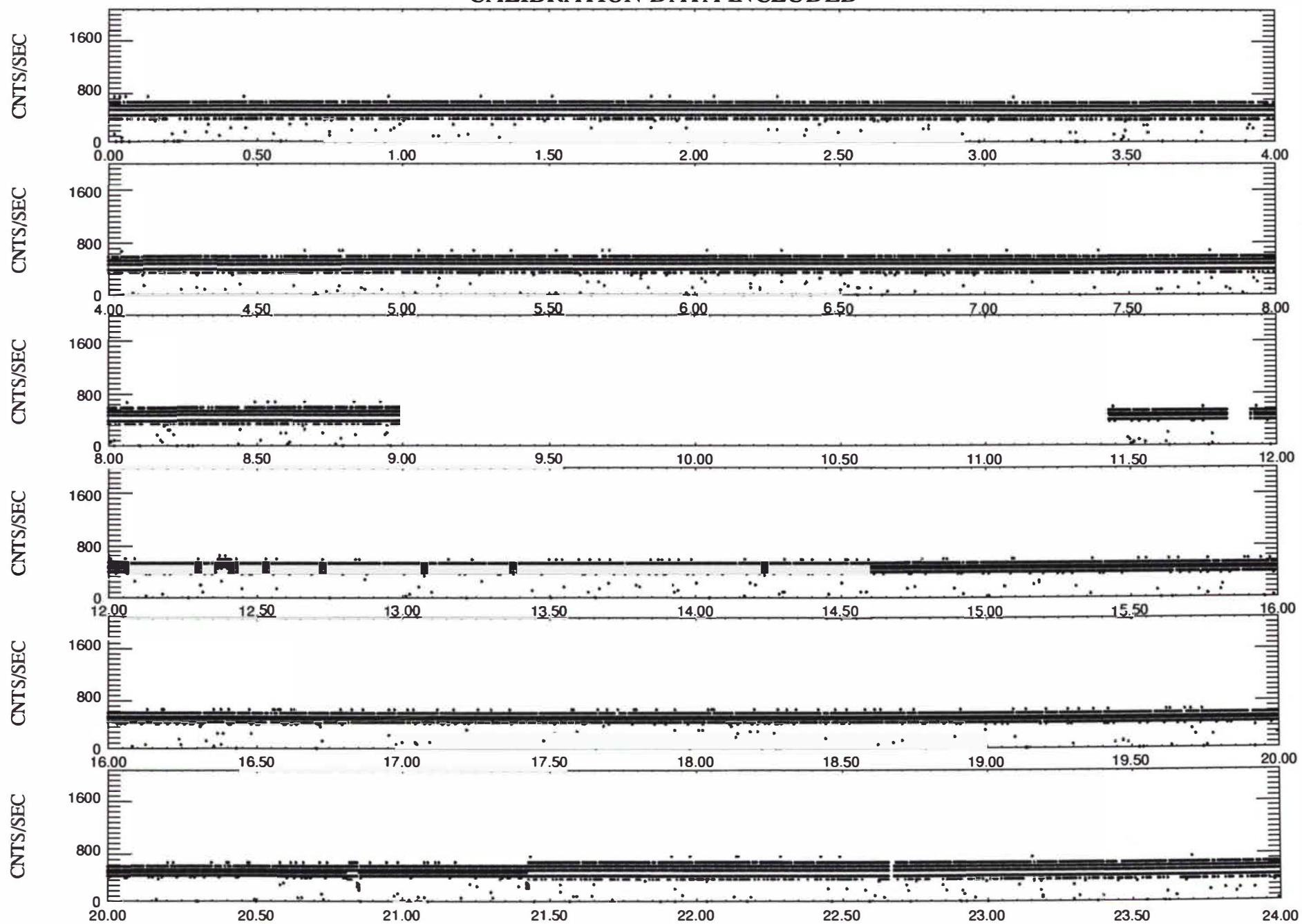
NO BURST (10)

CBU CCL DMP ROM DMA OSC MP. ICR SPE OPM RSC CAL WCH MEM BRS HUS

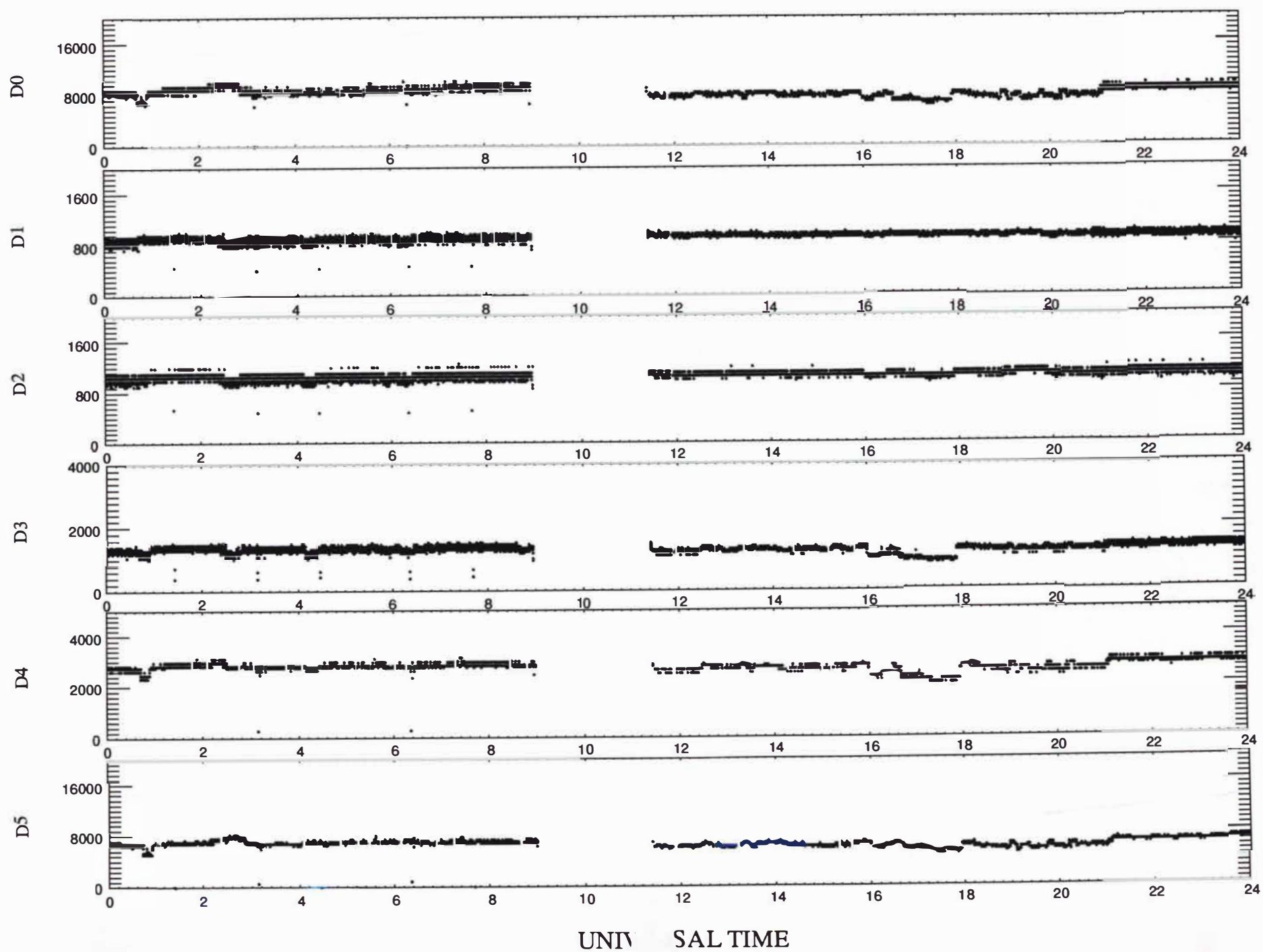


UNIT SAL TIME

CALIBRATION DATA INCLUDED



UNIT SAL TIME



Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 cc: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:

63 Konus days to 1/17: 22 backgnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	Max c/s G1 G2 G3	N(1)/N(2) =G2 t<Tz t>Tz	Duration T#	BATSE Uly T# d* d*	TGRS T#	BACODINE RA Dec
941113	12 09 15	S1	145 85	2.5 115	BG			
941114	02 02 40	S2	110 128	30 0.25 12	BG	3283		92 37
941115	06 22 --					3284 (U)		149 11
941117	03 14 38.191	S2	406 550	74 0.17 40	5 2			
941117	14 07 57	S2	150 140	<0.15 5	BG			
941119	19 31 09.175	S2	370 703	160 0.23 7	20 4	3287* U*	#13	188 22
941120	20 23 17.924	S1	215 328	30 >15 2	25 5			
941121	17 25 00.945	S1	1652 1656	300 21 3	50 6	3290* U*	#15	004 -63
941123	19 51 --					3294 (U)		190 02
941125	22 04 30.156	S2	115 308	109 0.95 1.5	5 7	3295* U*	BG	
941126	00 20 46	S1	150 205	200 >14 18	BG	3296	BG	
941126	03 55 --					3297 (U)		323 38
941126	12 22 37.952	S1	860 1430	330 4.2 40	45 8	3298* U*	#28	
941126	16 54 20	S1	55 75	>10 26	BG			
941126	19 56 49.732	S1	290 390	211 6.7 20	26 9	3301* U*	#--	
941127	14 30 25.680	S2	200 400	95 0.17 8	7 10	3303* U*		070 50
941127	15 39 10	S1	210 57	2.7 260	BG			
941128	15 37 00	S1	75 90	32 >15 55	BG	3305	no d	
941128	18 41 --					3306 (U)		011 -32
941205	23 33 40.074	S2	370 460	188 0.06 6	30 11			
941207	22 10 32	S2	265 175	<0.2 7	BG			
941210	03 10 52.523	S2	900 2350	1385 0.12 1	15 14		U*	BG
941214	17 03 51	S1	40 45	29 >6 12	BG			
941214	05 38 45.226	S1	3479 1266	14 1.0 12	240 SF	3318	BG	259 -06
941221	07 44 08	S2	55 115	30 0.8 20	BG			
941221	22 14 35.215	S1	260 496	165 1.5 55	11 19		BG	
941222	05 36 00.243	S2	334 1360	1066 0.36 7	105 20		#145	
941228	07 39 45.915	S1	300 637	519 4.4 5	90 28	3330* U*	no d	339 -52
941228	16 55 23	S2	40 36	23 0.25 25	BG			
941229	12 58 05	S1	46 108	31 1.8 15	BG			
941229	22 51 08.781	S2	396 381	140 0.09 7	25 29	3334* U*	no d	
941230	20 52 53	S1	74 117	52 8.4 158	BG		no d	
941230	23 43 44	S2	55 70	16 <0.2 4.5	BG		no d	
950104	00 48 +/-1200						(U)	
950104	07 18 39.613	S2	258 550	219 0.75 2.8	20 31	3345* U*	#250	310 -11
950104	09 00 58	S2	140 143	40 <0.1 25	BG			
950108	02 04 --					3349 (U)		020 -14
950110	06 02 15	S2	332 180	<0.1 3600	BG			
950110	13 37 57.084	S2	234 422	213 0.05 38	100 32			
950111	04 49 12.241	S1	586 620	100 >19 92	24 33	3351 U*	BG	319 -65
950111	12 18 49.196	S1	225 435	164 1.85 26	50 34	3352 U*	BG	024 -14
950112	07 45 37.120	S2	1305 1800	336 0.04 2.5	44 35		(?)	
950113	05 59 13	S1	283 180	26 >10 52	BG			
950113	17 38 32	S2	85 162	35 <0.06 75	BG			

950114 01 00 38	S1	46	110	1.6	6	BG	
950114 04 03 01	S2	23	76	0.5	70	BG	U
950114 07 30 30.766	S2	205	406	60	<0.05	1	100 36
950114 13 10 34.865	S1	1320	2828	516	3.1	1	10 37 U* #258
950115 02 49 32	S2	40	47	34	<0.15	24	BG BG
950117 01 36 00	S2	56	82	42	0.22	108	BG 3360* U* 298 05
950118 17 05 --							3366 (U) 061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.

N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

-- T. L. Cline ----- LHEAVX::CLINE

KONUS

12 / 2 / 96

ULYSSES RT

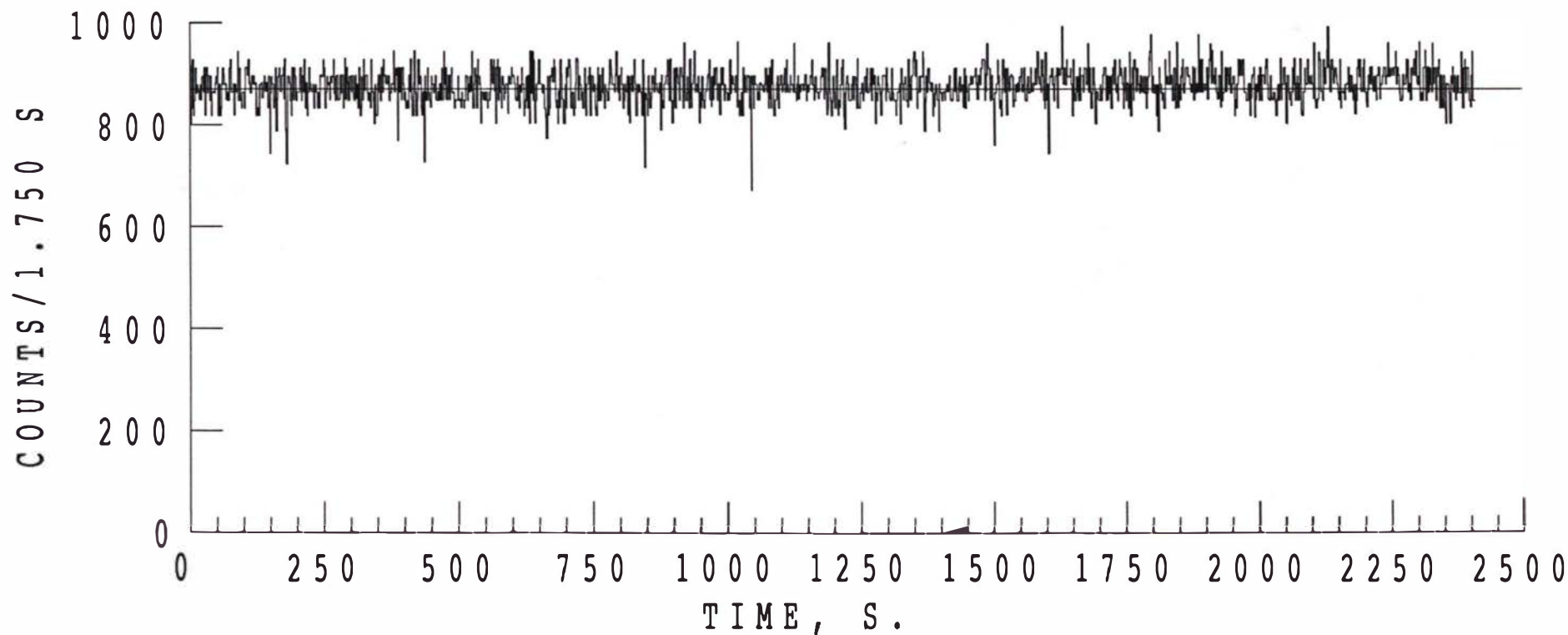
10 / 1 / 95 20520.195 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



K O N U S

1 2 / 2 / 9 6

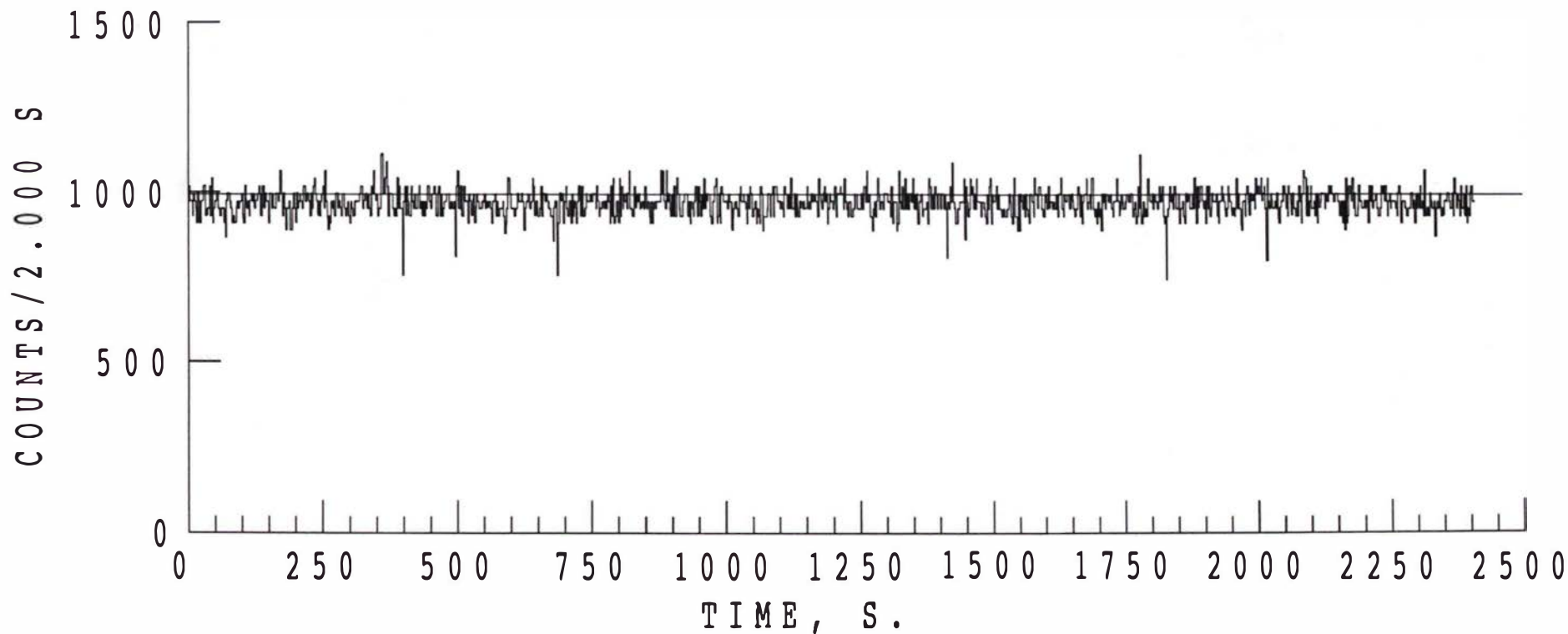
U L Y S S E S R T

2 5 / 1 / 9 5 5 2 3 0 8 . 4 6 1 s

0 . 5 0 0 s I N T E R V A L S R E G R O U P E D B Y 4

0 - 0 k e V

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



Date: Aug 12 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)?
- ☐ BATSE ephemeris for T_0 ?
- ☐ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included?

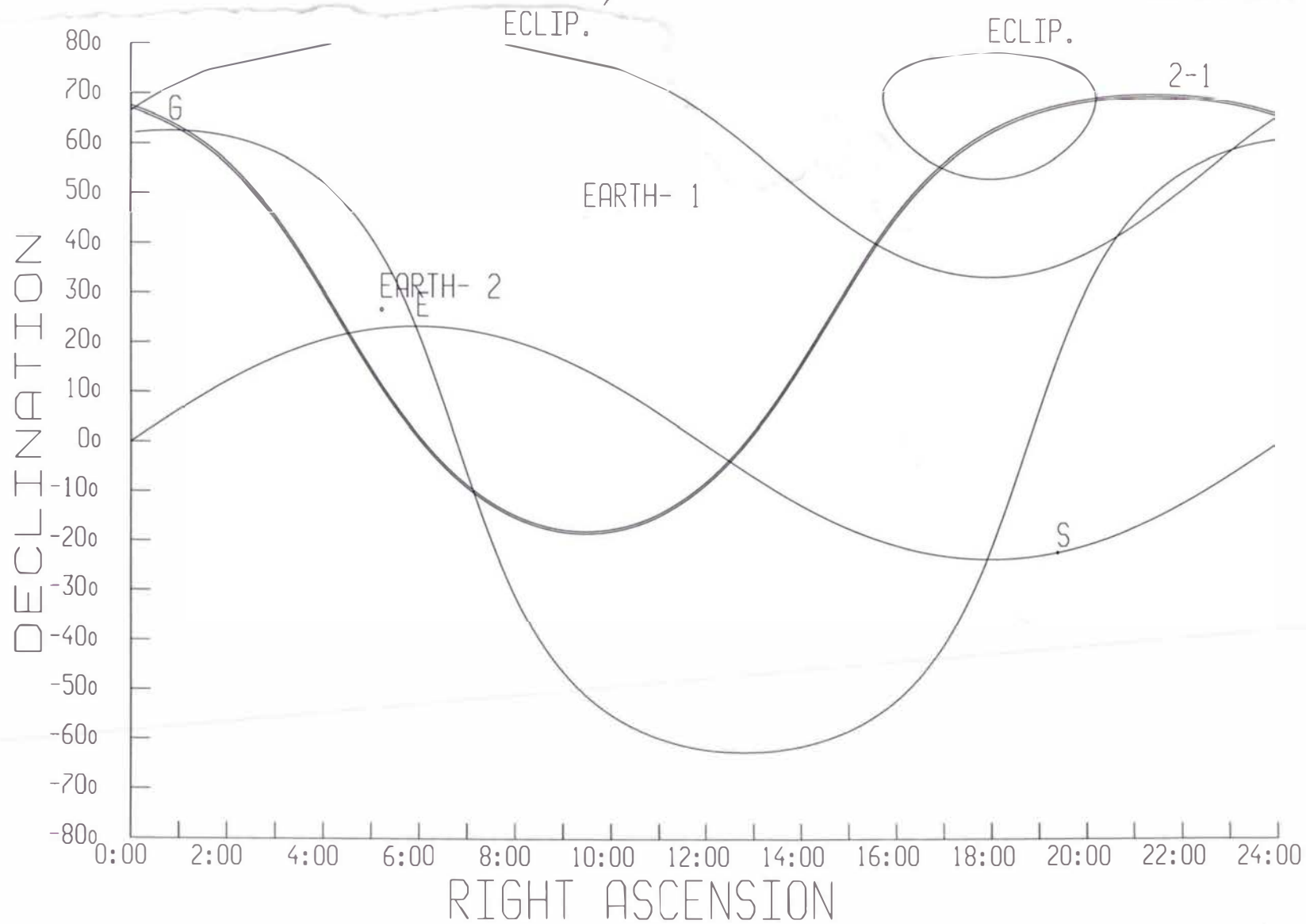
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

EVENT OF JAN 10, 1995 13:44

12/08/2011

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



KONUS 19950110 49566

ULYSSES RT

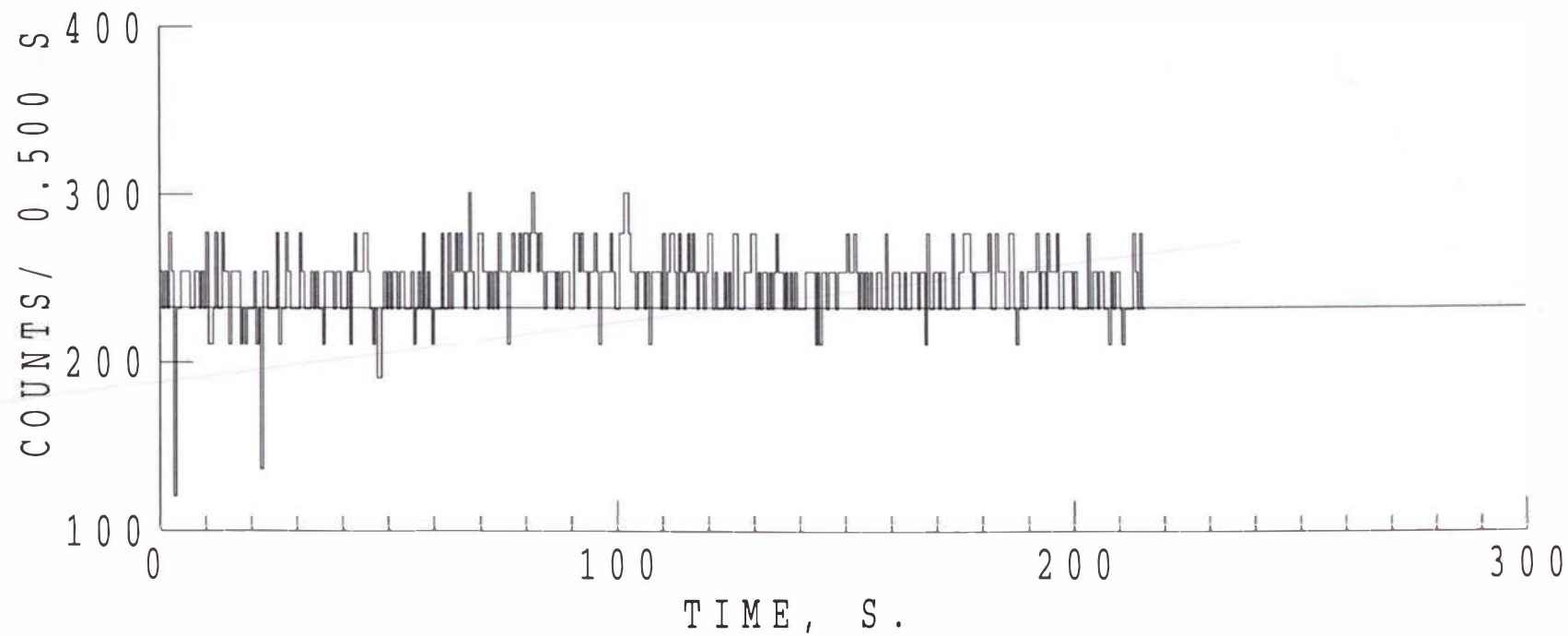
11 / 08 / 11

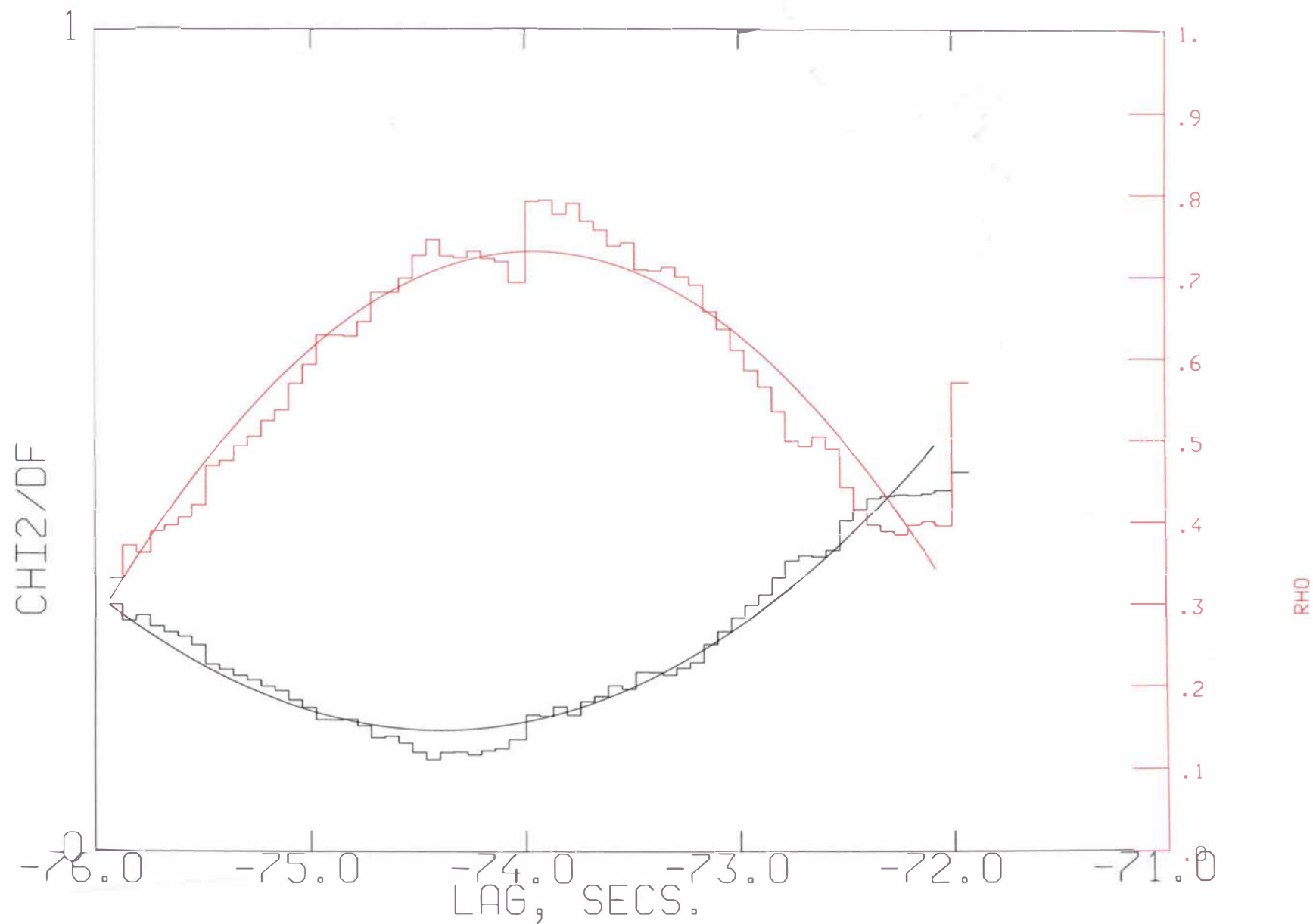
10 / 01 / 95 49464.008 s

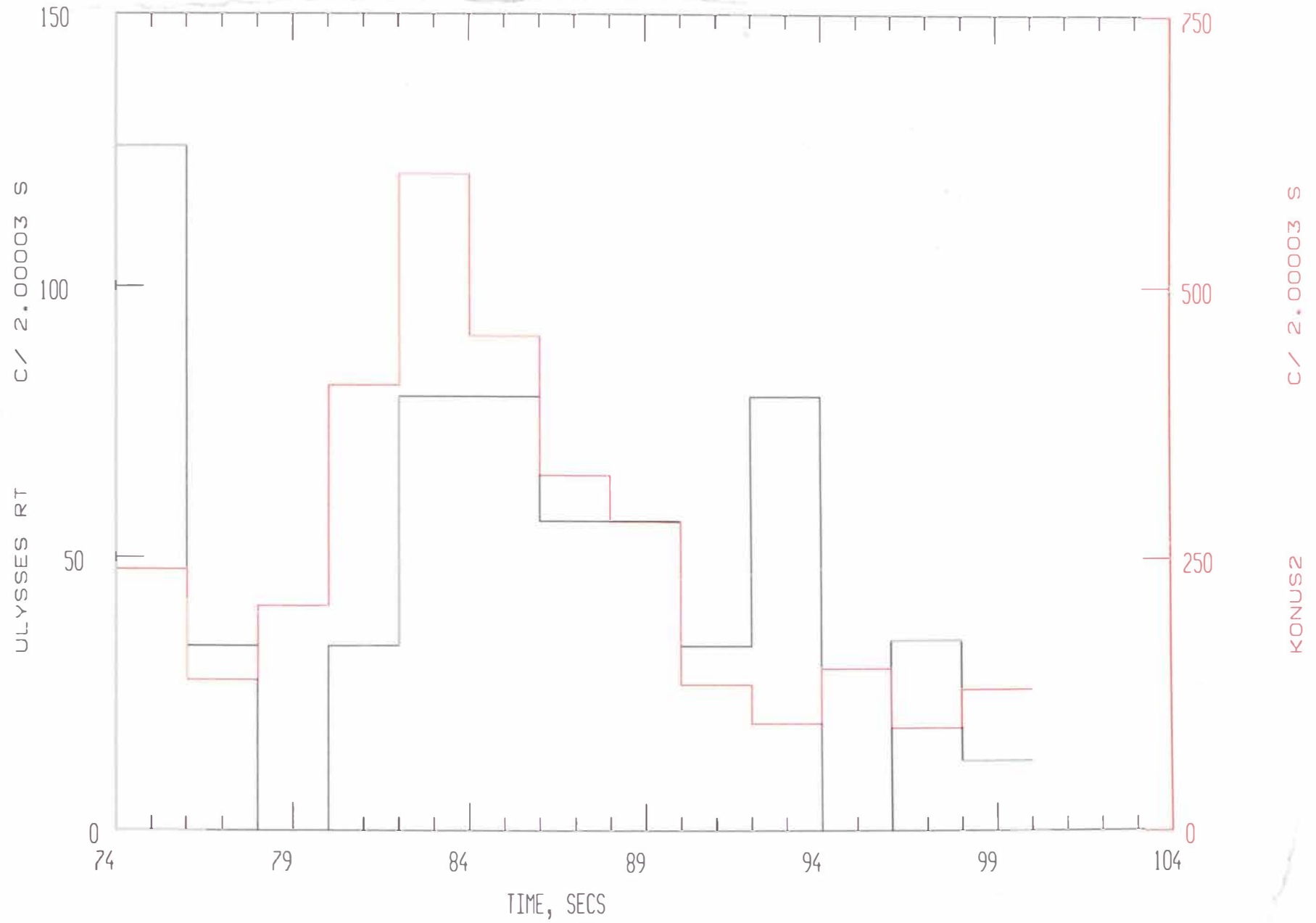
0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





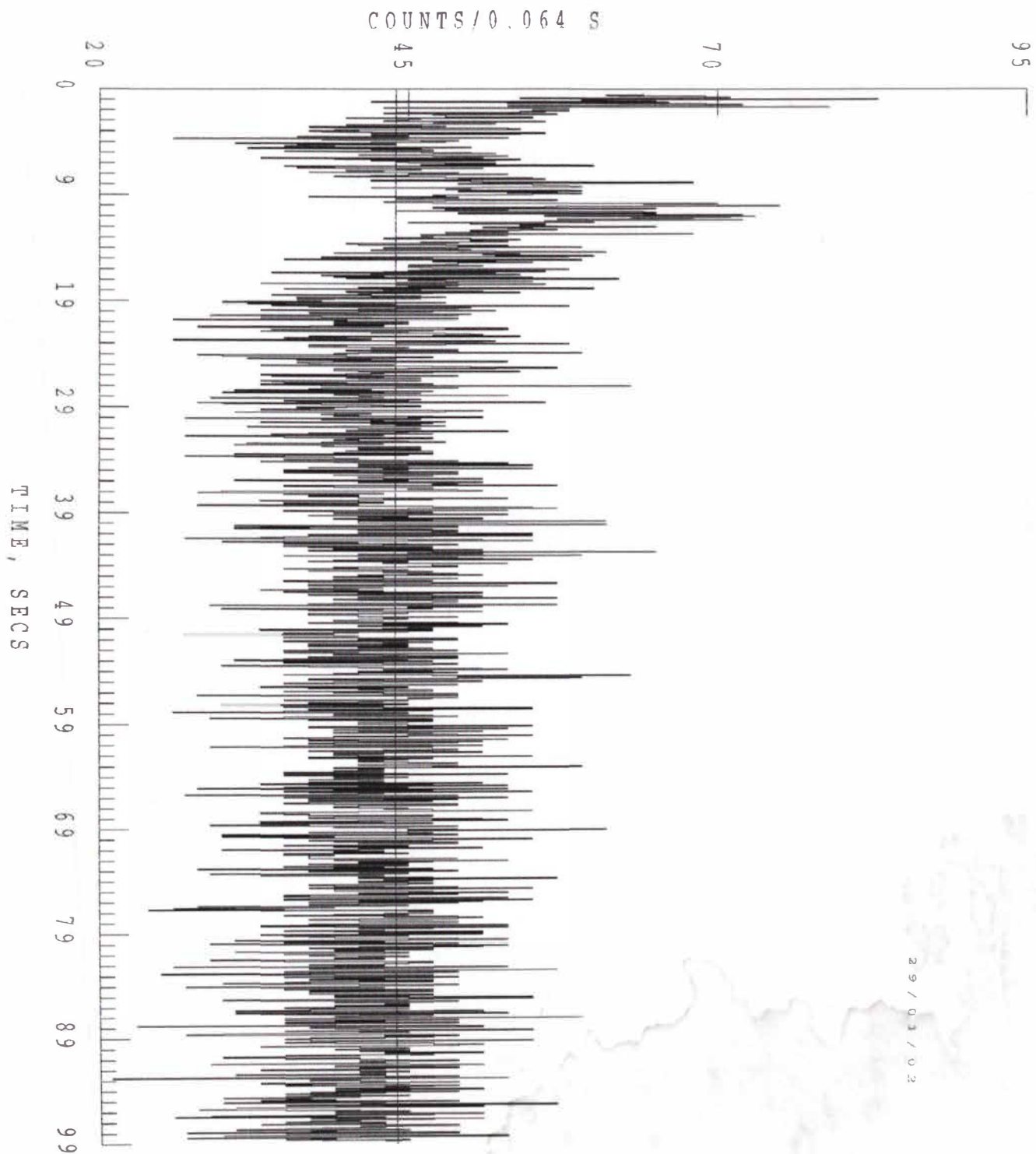


KONUS2

10/01/95

49077.084

50 - 200 kev



From SAHI@ssl.msfc.nasa.gov Thu Jan 12 09:54 PST 1995
Return-Path: <SAHI@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA04575; Thu, 12 Jan 1995 09:54:13 +0800
Date: Thu, 12 Jan 1995 11:54:09 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950112115409.20402ca4@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3350
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3350
EVENT OF 1995 JAN 10 DAY OF YEAR= 10
EVENT CROSSING TIME AT BATSE : 67689. S. OR 18:48:09.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 231.000 -28.000
BATSE PEAK COUNTING RATE: 3200 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 10/ 1/ 95 IS:
RA= 321.420 DEC= -45.623 DIST= 2.214 AU
BATSE-ULYSSES DISTANCE = 331230056. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=109.33 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -365.75 SECS.
CROSSING TIME AT ULYSSES IS 67323. S. OR 18:42:03 +/- 225.45 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 10/ 1/ 95 IS:
RA= 155.718 DEC= 14.191 DIST= 0.786 AU
MARS-BATSE DISTANCE = 117555904. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 95.88 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -40.15 SECS.
CROSSING TIME AT MARS IS 67649. S. OR 18:47:28 +/- 67.11 SECONDS

BATSE BURST TRIGGER

NO.: 3350

TIME: TJD=9727 SECONDS=67689

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=087.2 AZIMUTH=076.1 ERROR= DEGREES

COMMENTS:

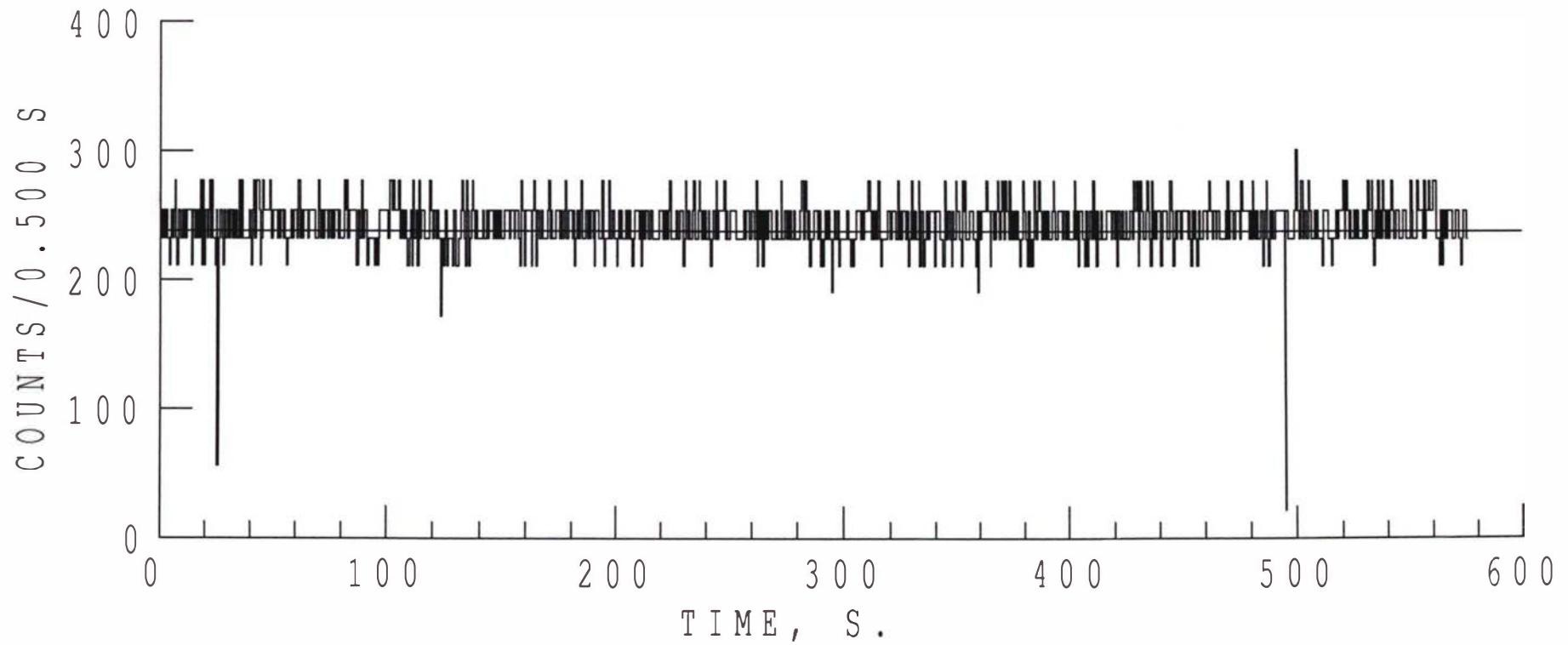
BURST. SINGLE PULSE WITH SUBSTRUCTURE, BEGINS AT T-2 SEC, DUR.~20 SEC.
NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3350	950110	9727	67689	3200	231	-28

12 / 1 / 95

ULYSSES RT
10 / 1 / 95 67032.344 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



12 / 1 / 95

ULYSSES RT

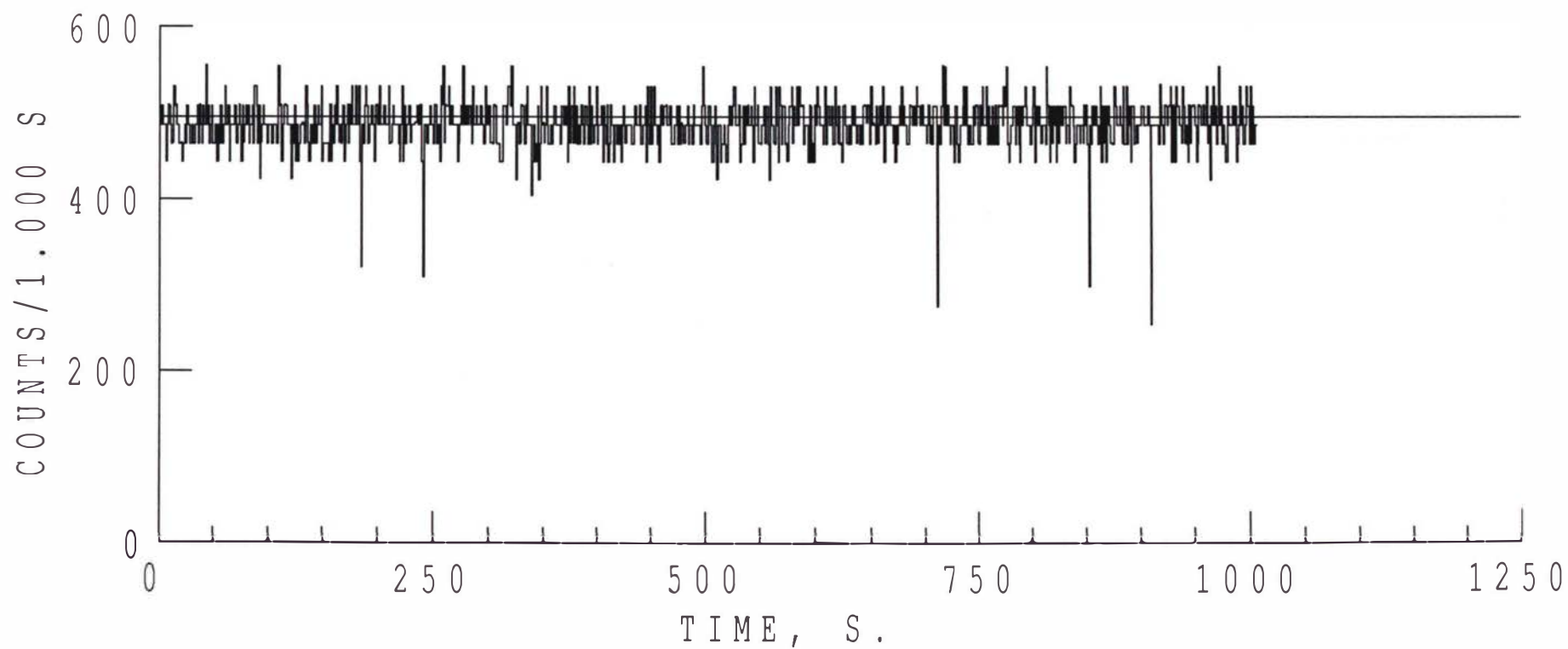
10 / 1 / 95 66816.328 s

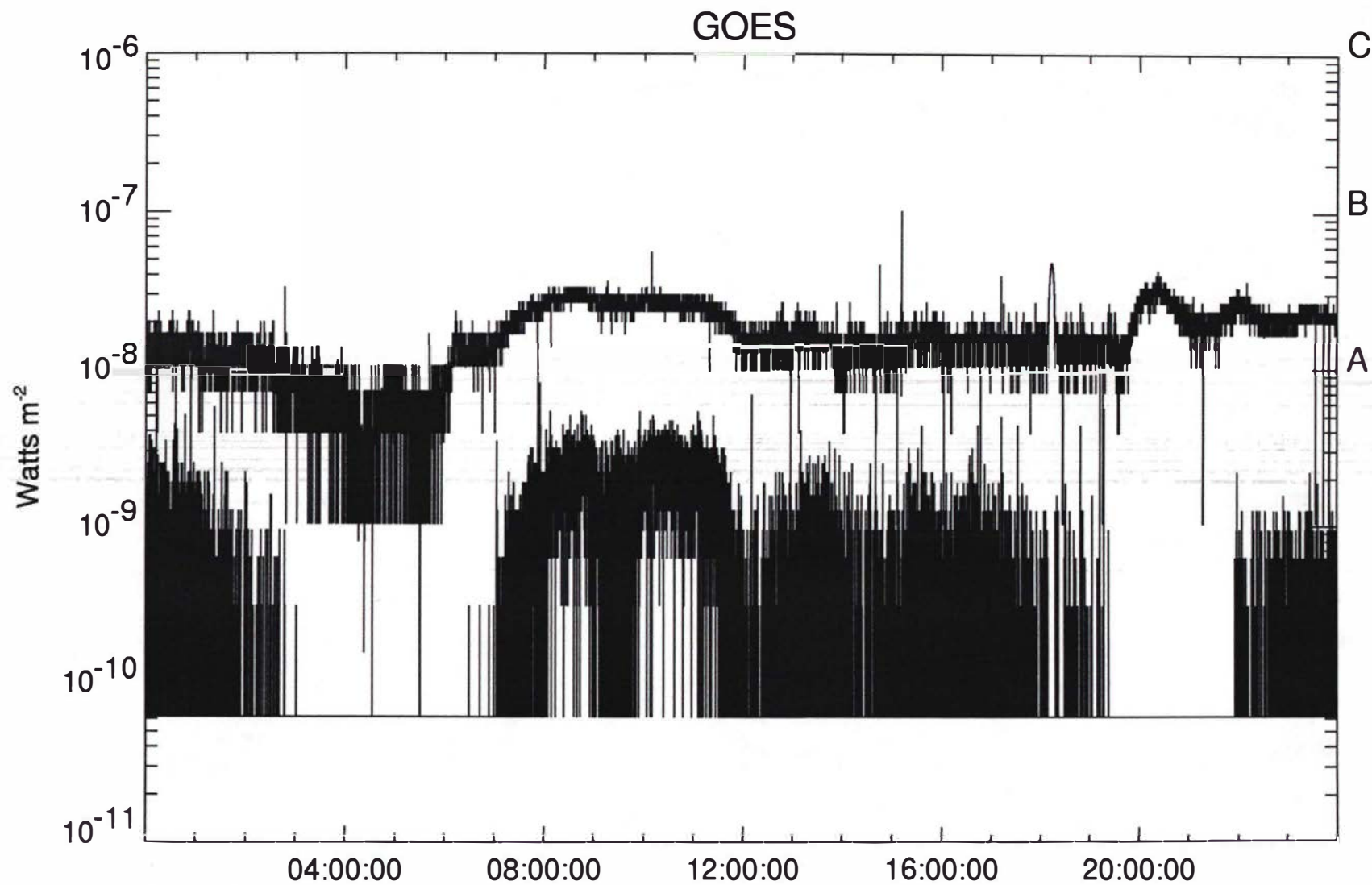
0.500 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





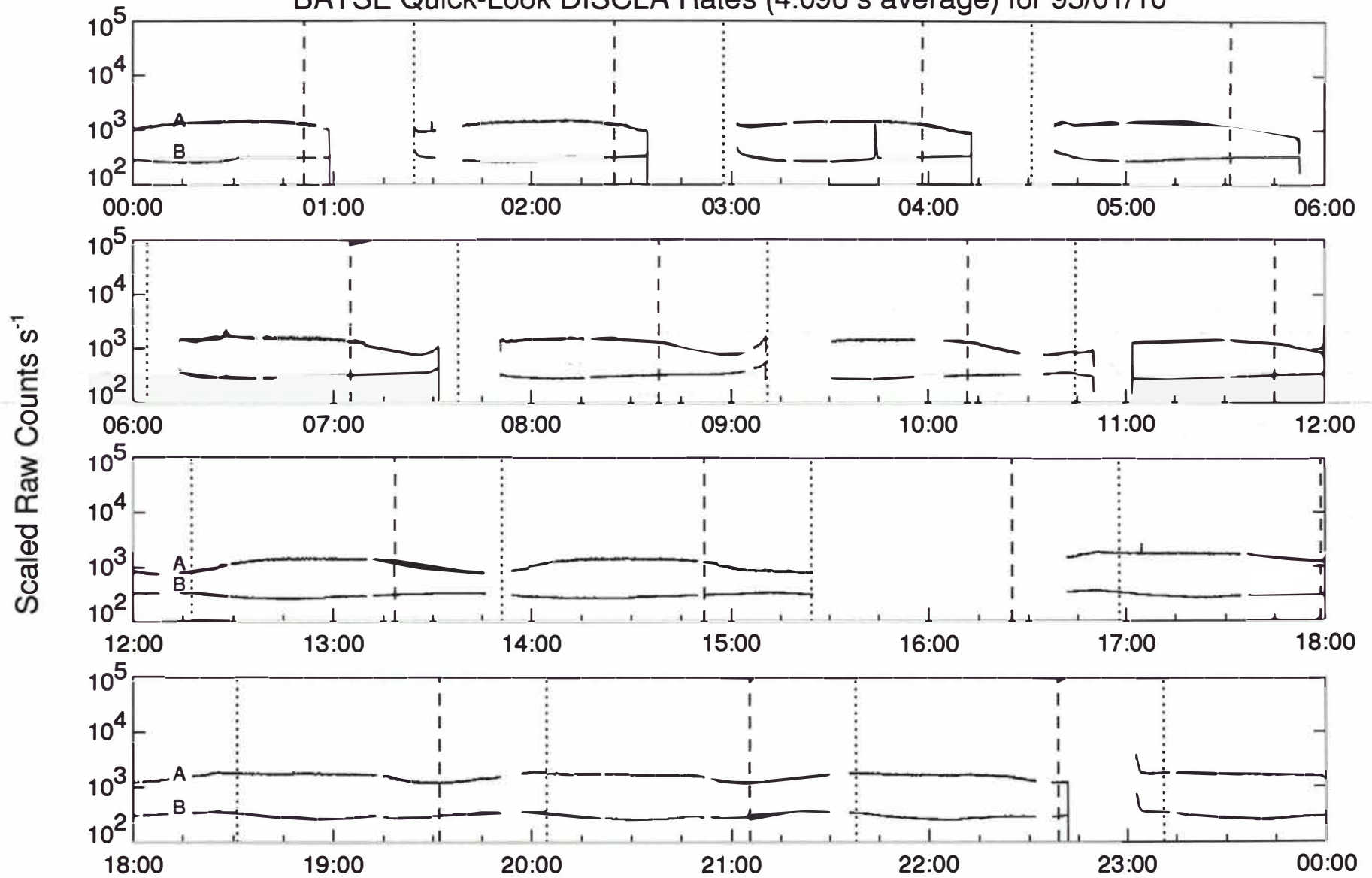
Data Start: 95/01/10, 0000:00

Plot created: 95/01/12, 1801

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/10

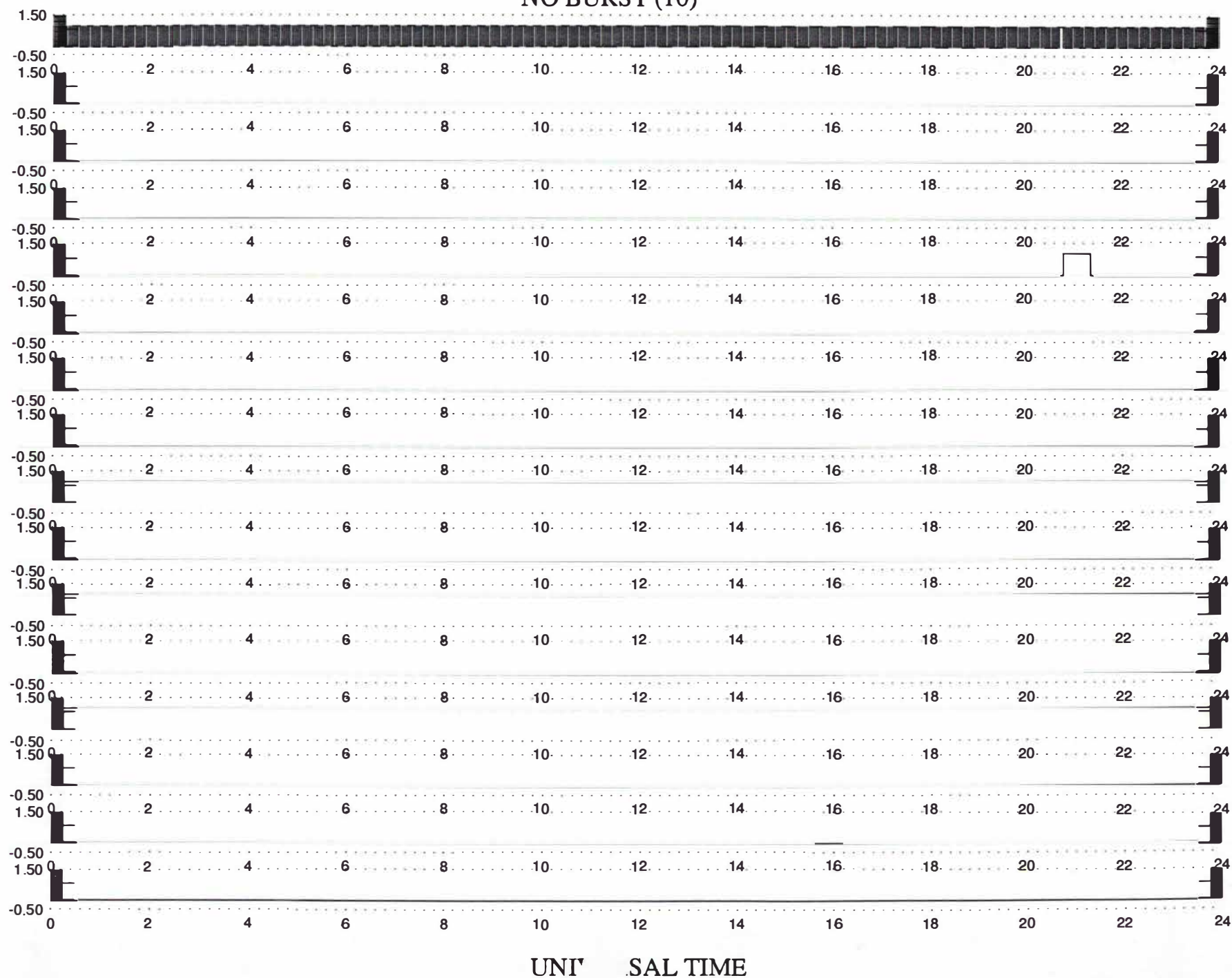


Current Time: 95/01/12, 1801 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

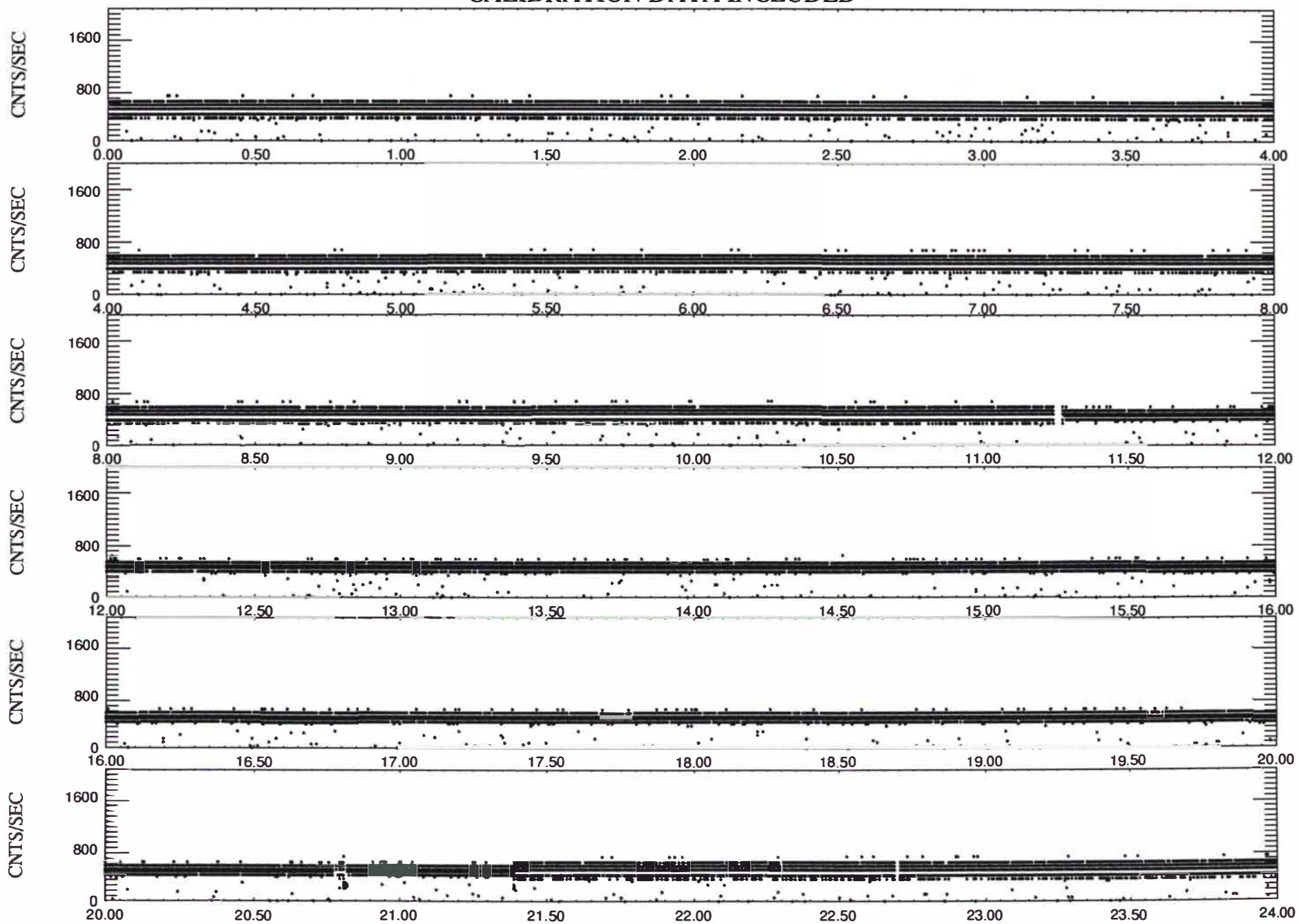
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

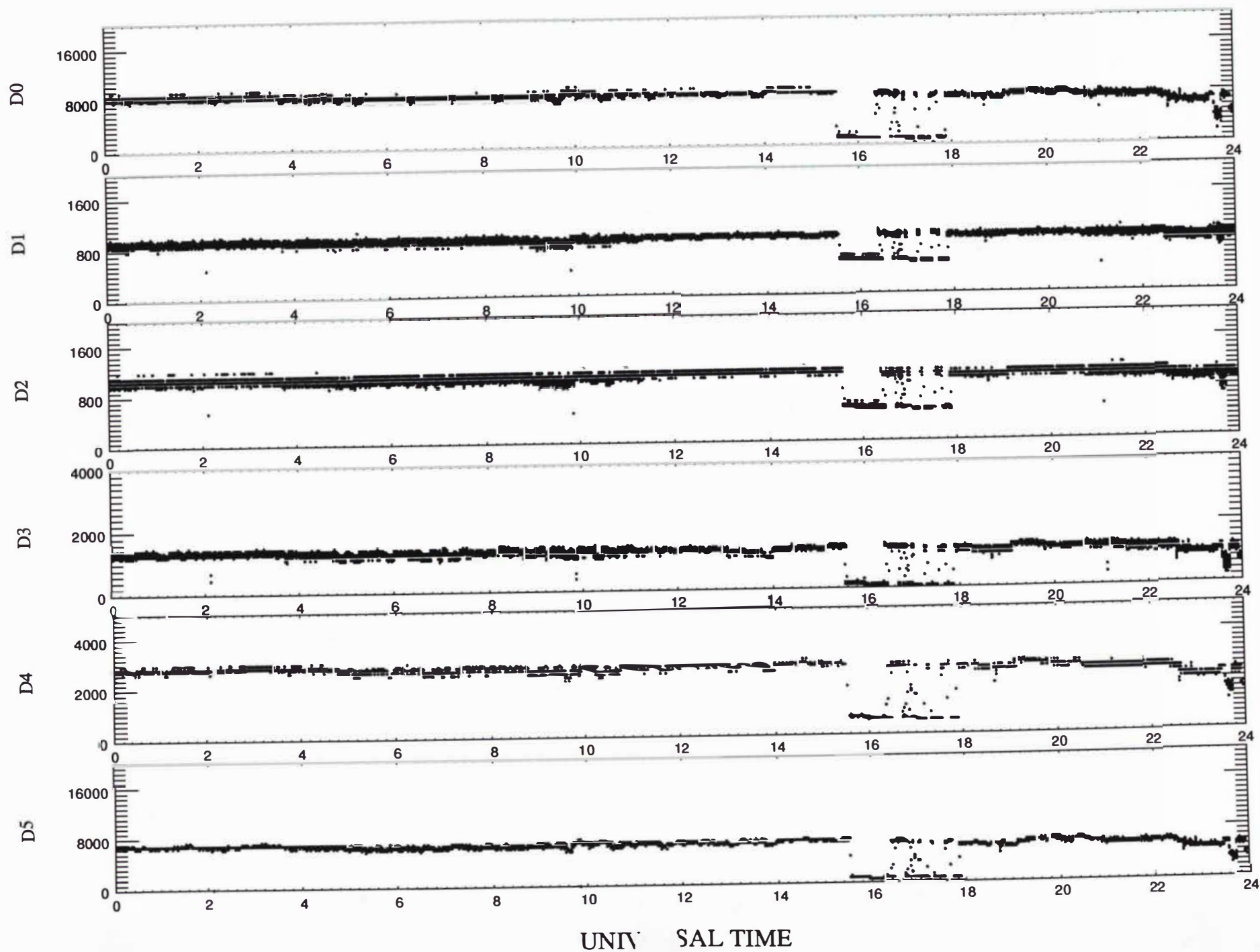
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



CALIBRATION DATA INCLUDED



UNT \SAL TIME



From SAHI@fender.msfc.nasa.gov Wed Jan 18 08:38 PST 1995
Return-Path: <SAHI@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA29447; Wed, 18 Jan 1995 08:38:54 +0800
Date: Fri, 13 Jan 1995 13:05:09 -0600 (CST)
From: SAHI@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950113130509.21600445@fender.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3351
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3351
EVENT OF 1995 JAN 11 DAY OF YEAR= 11
EVENT CROSSING TIME AT BATSE : 17263. S. OR 04:47:43.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 338.000 -64.000
BATSE PEAK COUNTING RATE: 20000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 11/ 1/ 95 IS:
RA= 321.650 DEC= -45.344 DIST= 2.215 AU
BATSE-ULYSSES DISTANCE = 331433075. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=159.23 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1033.68 SECS.
CROSSING TIME AT ULYSSES IS 16229. S. OR 04:30:29 +/- 102.37 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 11/ 1/ 95 IS:
RA= 155.635 DEC= 14.262 DIST= 0.780 AU
MARS-BATSE DISTANCE = 116645496. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 49.77 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 251.32 SECS.
CROSSING TIME AT MARS IS 17514. S. OR 04:51:54 +/- 55.39 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3351	950111	9728	17263	20000	338	-64

BATSE BURST TRIGGER

NO.: 03351

TIME: TJD=9728 SECONDS=17263

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=035.9 AZIMUTH=013.9 ERROR= DEGREES

COMMENTS:

MULTIPLE PULSES, DUR.~125 SEC. HIGHEST MAX. AT ~T+95 SEC.
NOT VISIBLE ABOVE 300 KEV.

Helio corr removed

Date: Feb 10 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T_0 ?
- ☒ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included? *N/A*

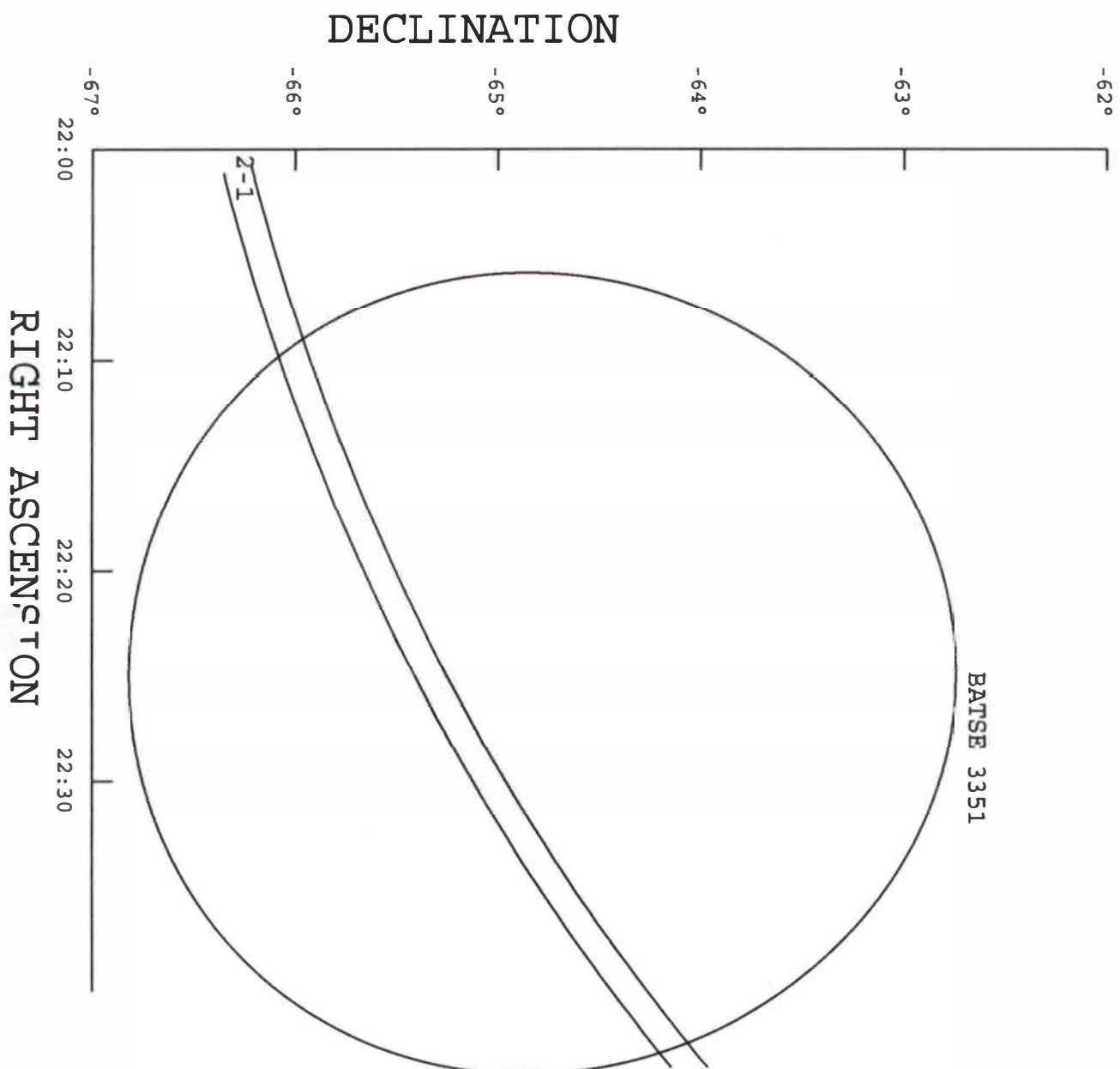
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS database updated?

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

EVENT OF JAN 11, 1995 4:30

10 / 2/98



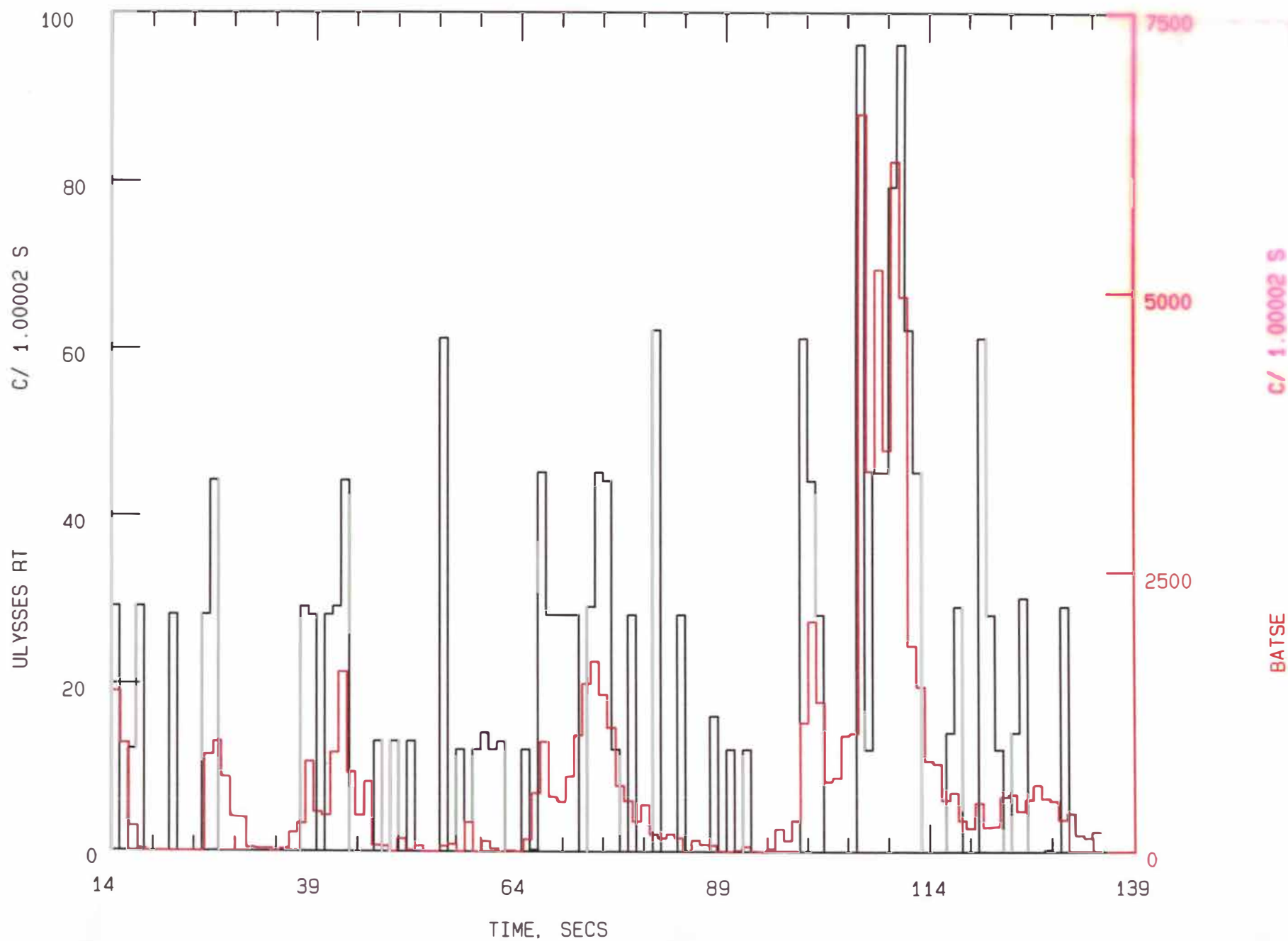
ULYSSES RT-BATSE

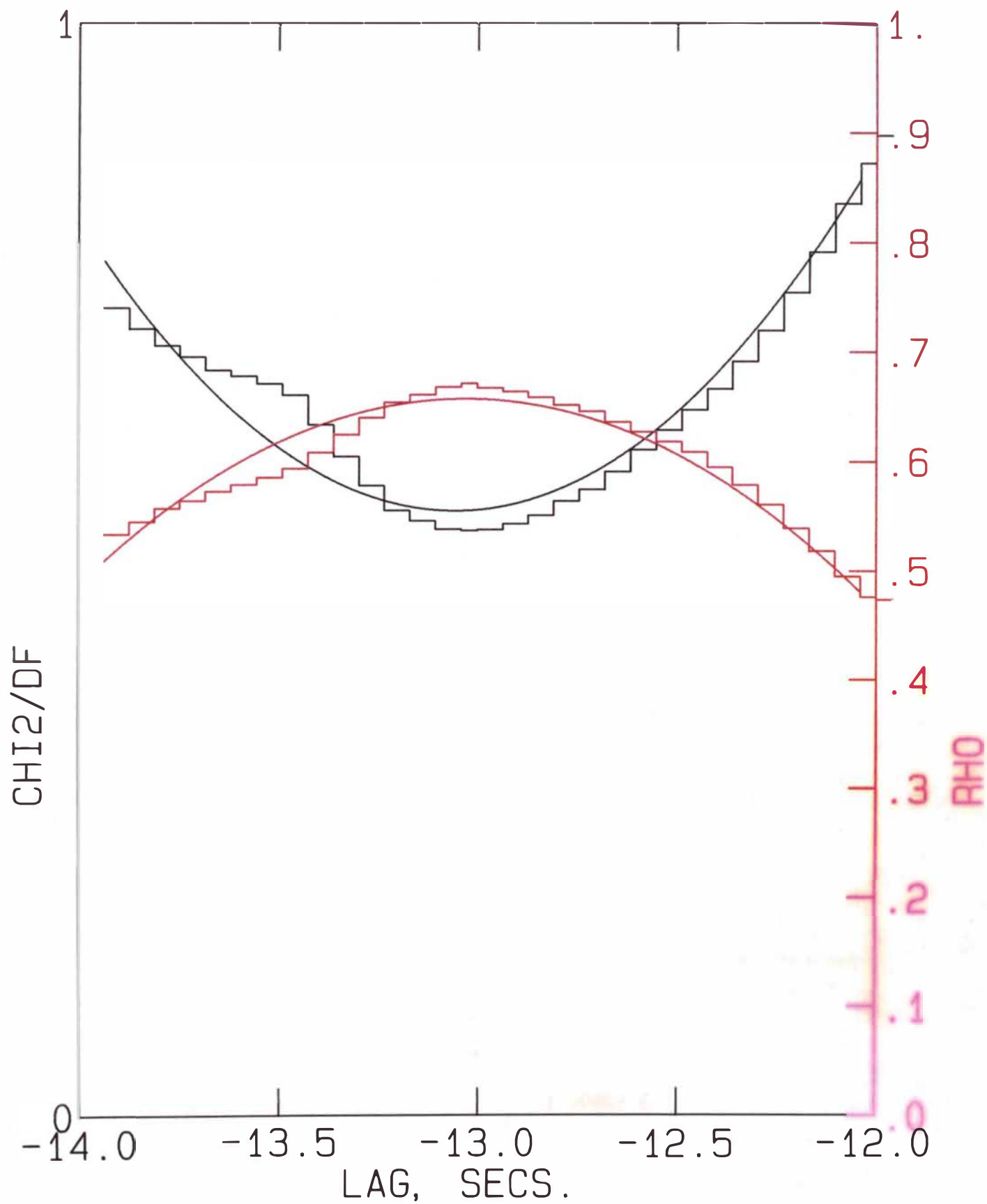
CORRELATION

11/ 1/95

16219.991

10/ 2/98



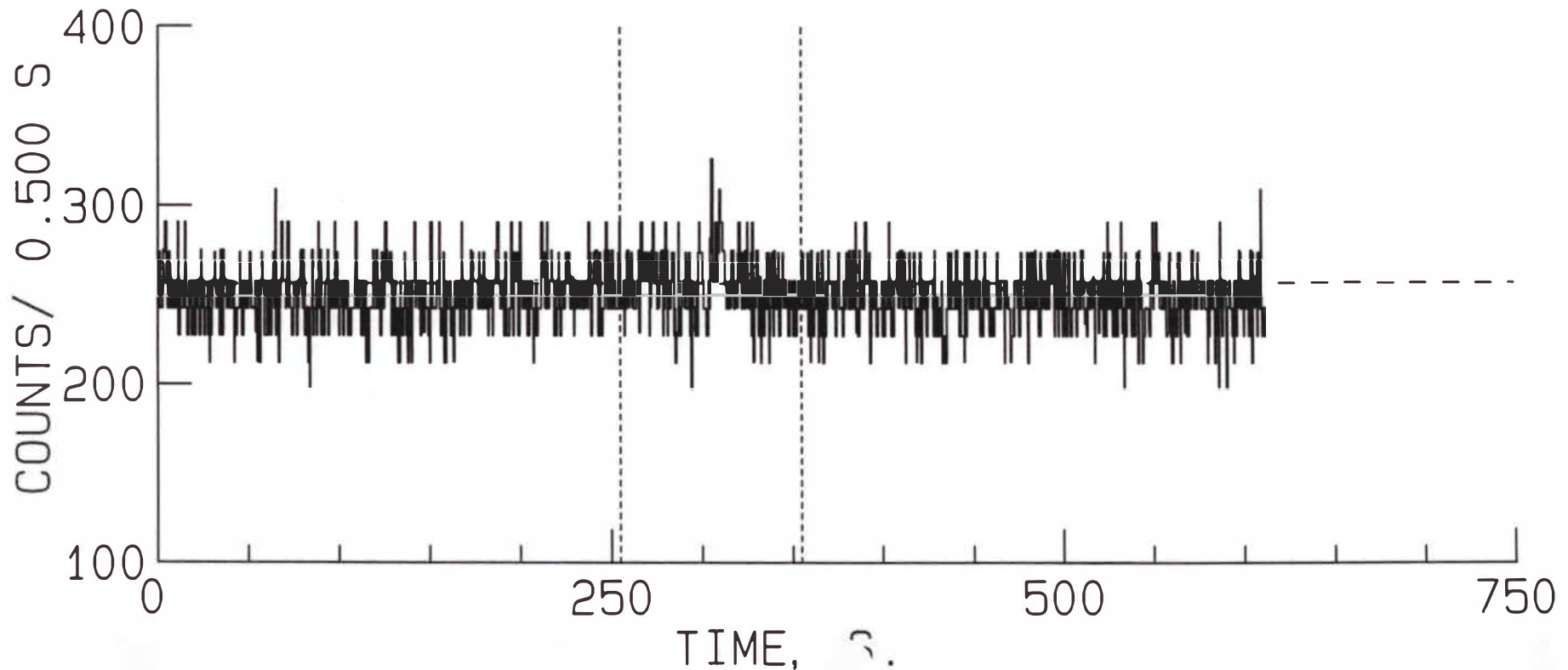


ULYSSES RT

10 / 2 / 98

11 / 1 / 95 16020.020 s
0.250 S INTERVALS REGROUPED BY 2
22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From root Thu Jan 26 12:09 1995
 Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)
 id AA09916; Thu, 26 Jan 95 12:09:38
 eived: from TGRS.GSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
 id AA01181; Thu, 26 Jan 1995 12:08:59 +0800
 Date: Thu, 26 Jan 1995 12:08:59 +0800
 Message-Id: <9501262008.AA01181@sunspot.ssl.berkeley.edu>
 Received: from [128.183.8.198] ([128.183.8.198]) by TGRS.GSFC.NASA.GOV with SMTP;
 Thu, 26 Jan 1995 15:11:15 -0500 (EST)
 Mime-Version: 1.0
 Content-Type: text/plain; charset="us-ascii"
 To: KHURLEY@space6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: KONUS/BATSE/ULYSSES EVENT LIST TO 95 JAN 17
 Cc: Mazets@mz.pti.spb.su
 Content-Length: 1824
 Status: R

KEVIN:

BASED ON WHAT I HAVE FROM SERGEI GOLENETSKII AND FROM YOU, THIS IS THE
 CURRENT LIST OF ALL KONUS-ULYSSES EVENTS UP TO 95 JAN 17 WITH ALL BUT TWO
 ALSO BATSE.

X means sent with planning

✓ means sent to TLC

Date	KONUS-Tzero Sensor	Max c/s	N(1)/N(2)	Duration	Event	BATSE	ULYSSES
(UT)		G1 G2	G3 (G2)	t<Tz t>Tz	K-no	T-no	EVENT
941119 19 31 09.175	S2	370 703	160 0.23	7 20	4	3287	ULY ✓
941121 17 25 00.945	S1	1652 1656	300 21	3 50	6	3290	ULY ✓
941125 22 04 30.156	S2	115 308	109 0.95	1.5 5	7	3295	ULY X
941126 12 22 37.952	S1	860 1430	330 4.2	40 45	8	3298	ULY ✓
941126 19 56 49.732	S1	290 390	211 6.7	20 26	9	3301	ULY X
941127 14 30 25.680	S2	200 400	95 0.17	8 7	10	3303	ULY ✓
941210 03 10 52.523	S2	900 2350	1385 0.12	1 15	14	----	ULY ✓
941228 07 39 45.915	S1	300 637	519 4.4	5 90	28	3330	ULY ✓
941229 22 51 08.781	S2	396 381	140 0.09	7 25	29	3334	ULY X
950104 07 18 39.613	S2	258 550	219 0.75	2.8 20	31	3345	ULY X
950111 04 49 12.241	S1	586 620	100 >19	92 24	33	3351	ULY X
950114 04 03 01	S2	23 76	0.5	70	BG	----	ULY ✓
950117 01 36 00	S2	56 82	42 0.22	108	BG	3360	ULY X

Energy intervals G1, G2, G3: 14 - 50, 50 - 225 and 225 - 900 keV.

Since 12th December: 12.5 - 43, 43 - 190 and 190 - 760 keV.

N(1)/N(2) is ratio of sensor 1 to sensor 2 counts in G2.

WHEN YOU HAVE A CHANCE, PLEASE SEND THESE TIME HISTORIES FIRST. THANKS. TLC

-- T. L. Cline ----- LHEAVX::CLINE

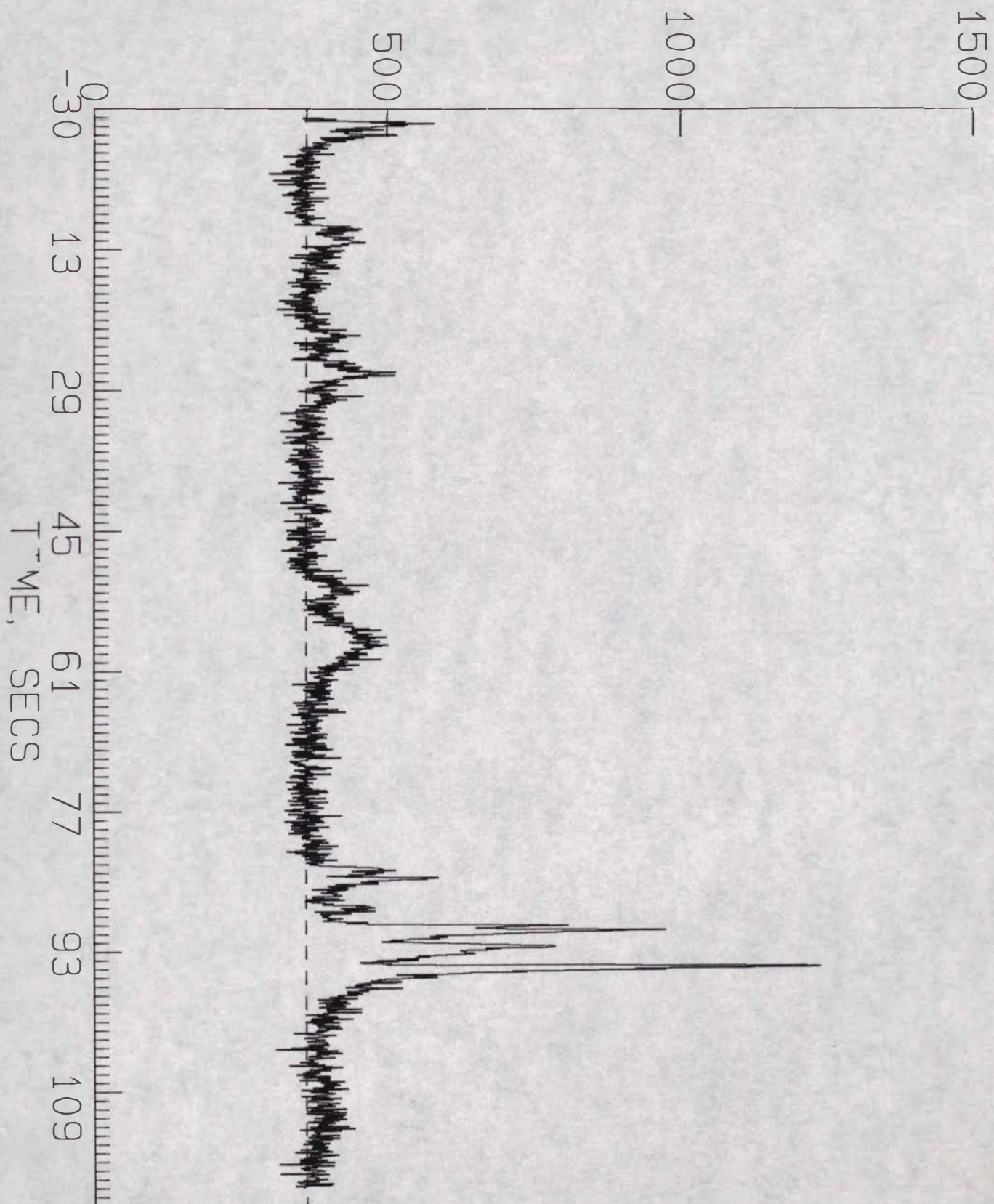
BATSE

11/01/95

17263.282

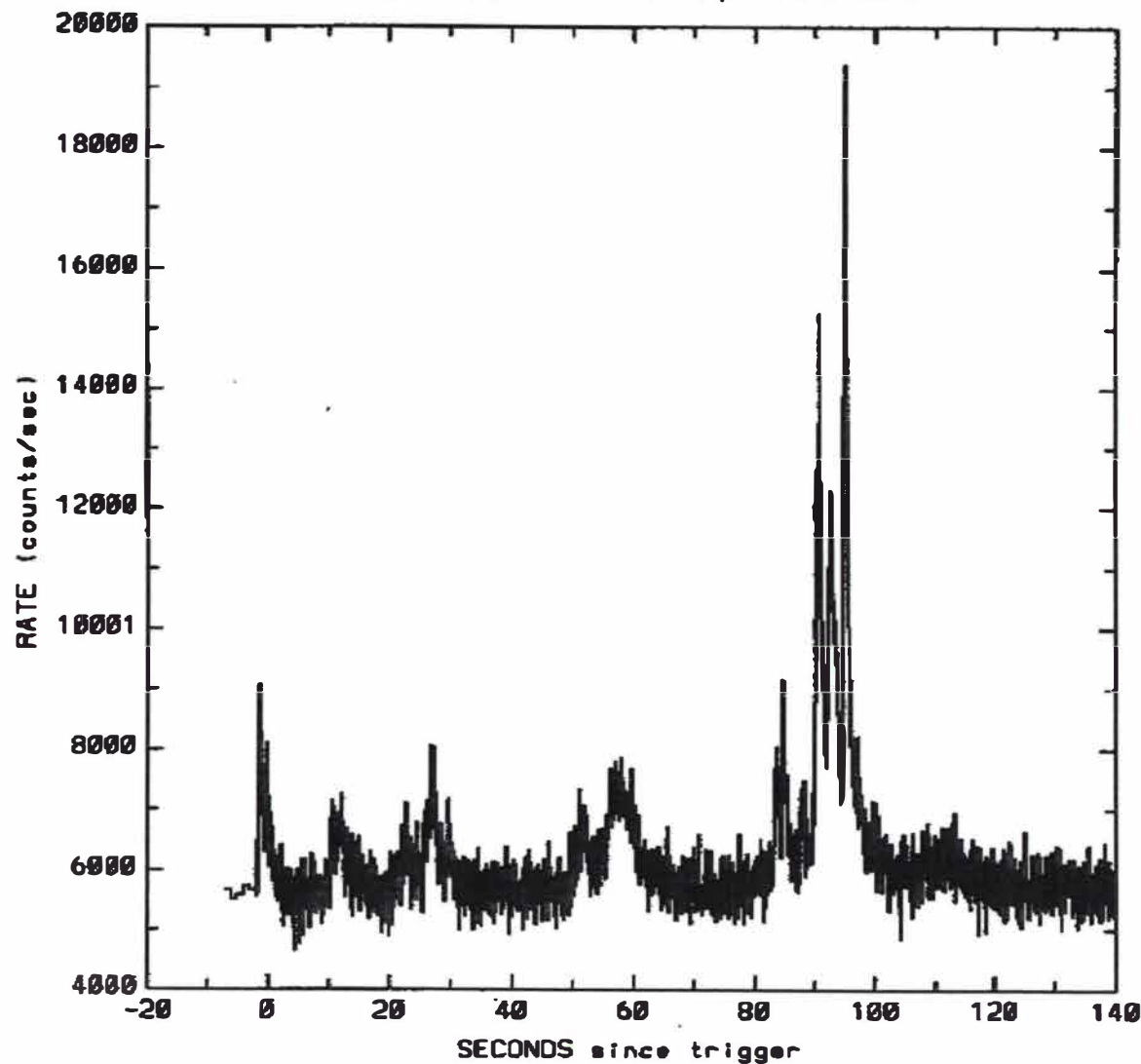
25- 100 keV

COUNTS/ .064 S



A

DISCSC Data for K. Hurley. No. 3351



2-FEB-1995 14:37:28

Created by MDPS BD
(Burst Display)
Version t2.23

Trigger # : 3351

Trigger Time:
9728 / 17263.282Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..8].
-----2-8Discriminators:
[1. 2]Quality Mask:
BD[SP1]

From SAHI@fender.msfc.nasa.gov Wed Jan 18 08:39 PST 1995
Return-Path: <SAHI@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA29460; Wed, 18 Jan 1995 08:39:14 +0800
Date: Fri, 13 Jan 1995 13:07:21 -0600 (CST)
From: SAHI@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950113130721.21600445@fender.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3352
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

RI

BATSE BURST # 3352
EVENT OF 1995 JAN 11 DAY OF YEAR= 11
EVENT CROSSING TIME AT BATSE : 44310. S. OR 12:18:30.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 19.000 -11.000
BATSE PEAK COUNTING RATE: 15000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 11/ 1/ 95 IS:
RA= 321.821 DEC= -45.136 DIST= 2.216 AU
BATSE-ULYSSES DISTANCE = 331587123. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=120.70 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -564.71 SECS.
CROSSING TIME AT ULYSSES IS 43745. S. OR 12:09:05 +/- 206.54 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 11/ 1/ 95 IS:
RA= 155.635 DEC= 14.262 DIST= 0.780 AU
MARS-BATSE DISTANCE = 116645496. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 42.38 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 287.40 SECS.
CROSSING TIME AT MARS IS 44597. S. OR 12:23:17 +/- 49.90 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3352	950111	9728	44310	15000	019	-11

BATSE BURST TRIGGER

NO.: 03352

TIME: TJD=9728 SECONDS=44310

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=062.5 AZIMUTH=297.8 ERROR= DEGREES

COMMENTS:

SINGLE PULSE, DUR.~110 SEC. MAX. AT ~T+19 SEC.
WEAKLY VISIBLE ABOVE 300 KEV.

From cline@tgrs.gsfc.nasa.gov Wed Feb 15 06:04 PST 1995
Return-Path: <cline@tgrs.gsfc.nasa.gov>
Received: from [128.183.8.198] ([128.183.8.198]) by TGRS.GSFC.NASA.GOV with SMTP;
Wed, 15 Feb 1995 9:07:45 -0500 (EST)

e: Wed, 15 Feb 1995 06:04:37 +0800

Message-Id: <9502151404.AA10549@sunspot.ssl.berkeley.edu>

e6.ssl.berkeley.edu

From: cline@tgrs.gsfc.nasa.gov (T L Cline)

Subject: Data, again

X-Lines: 36

Status: RO

Mime-Version: 1.0

To: KHURLEY@space6.ssl.berkeley.edu

From: cline@tgrs.gsfc.nasa.gov (T L Cline)

Subject: Data, again

X-Lines: 36

Status: RO

text/plain; charset="us-ascii"

Content-Length: 1284

X-Sun-Content-Length: 1284

Kevin:

The first 5 events, so far, exhibit all 4 results: Ulysses, BATSE, Konus and BACODINE.

so I am working on them first. However, I would add more, if you could send me the

BATSE 3352 (and 3412, with the Feb. 11 Ulysses data - is it a solar flare ?) - TLC

Time	Tzero (UT)	Konus sensor G1	Max c/s G2	N(1)/N(2) G3 =G2	Duration t<Tz t>Tz T#	BATSE T#	Uly d* d* T#	TGRS T#	BACODINE RA Dec
941119	19 31 09.175	S2 370	703	160	0.23 7 20 4	3287*	BG* #13	188 22	
941121	17 25 00.945	S1 1652	1656	300	21. 3 50 6	3290*	T* #15	004 -63	
941127	14 30 25.680	S2 200	400	95	0.17 8 7 10	3303*	U*	070 50	
941228	07 39 45.915	S1 300	637	519	4.4 5 90 28	3330*	BG* no d	339 -52	
950104	07 18 39.613	S2 258	550	219	.0.75 2.8 20 31	3345*	BG* #250	310 -11	
950111	12 18 49.196	S1 225	435	164	1.85 26 50 34	3352	BG* BG	024 -14	
950211	02 24 57.749	S2 2750	11630	6560	<0.06 0.03 0.14 48	3412			

U.... (08697 sec)

-- T. L. Cline ----- LHEAVX::CLINE

Helio corr removed

Date: Oct 29 '97

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ Does T_0 in data file agree with T_0 in plot?
- ☒ BATSE ephemeris for T_0 ?
- ☒ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included? *N/A*

3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

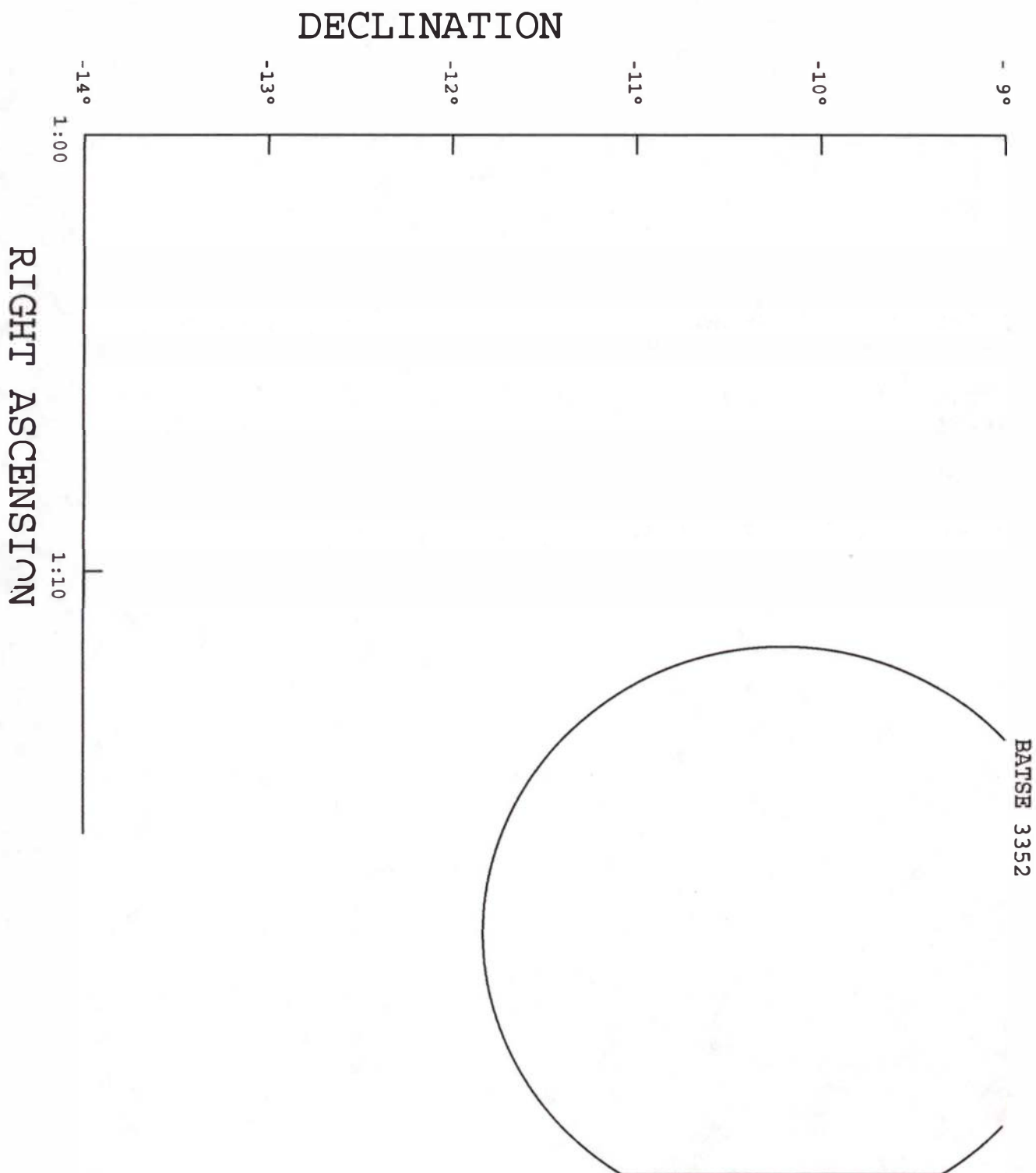
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 11, 1995 12:08

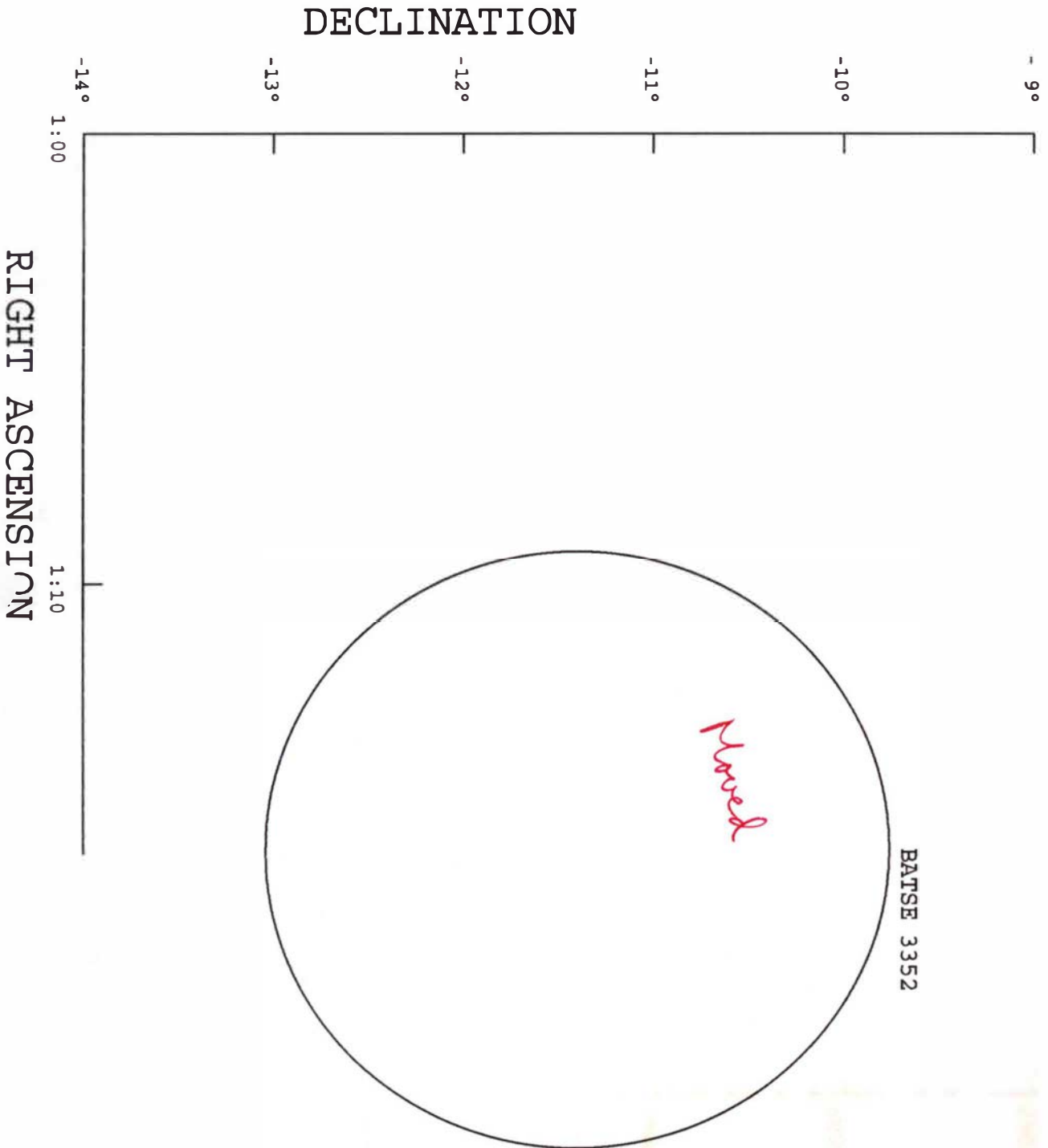
7 / 3 / 98



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

EVENT OF JAN 11, 1995 12:08

29/10/97



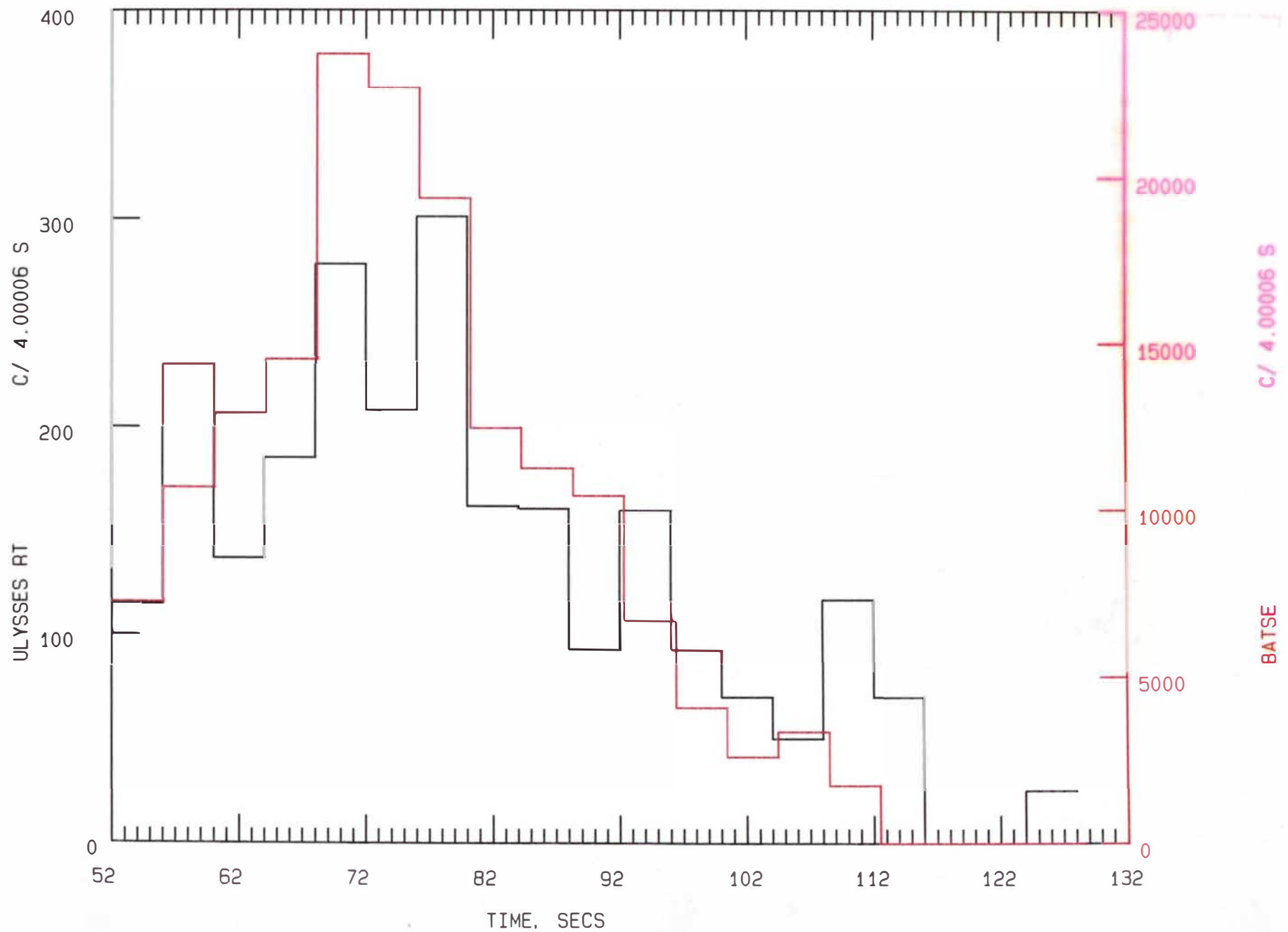
ULYSSES RT-BATSE

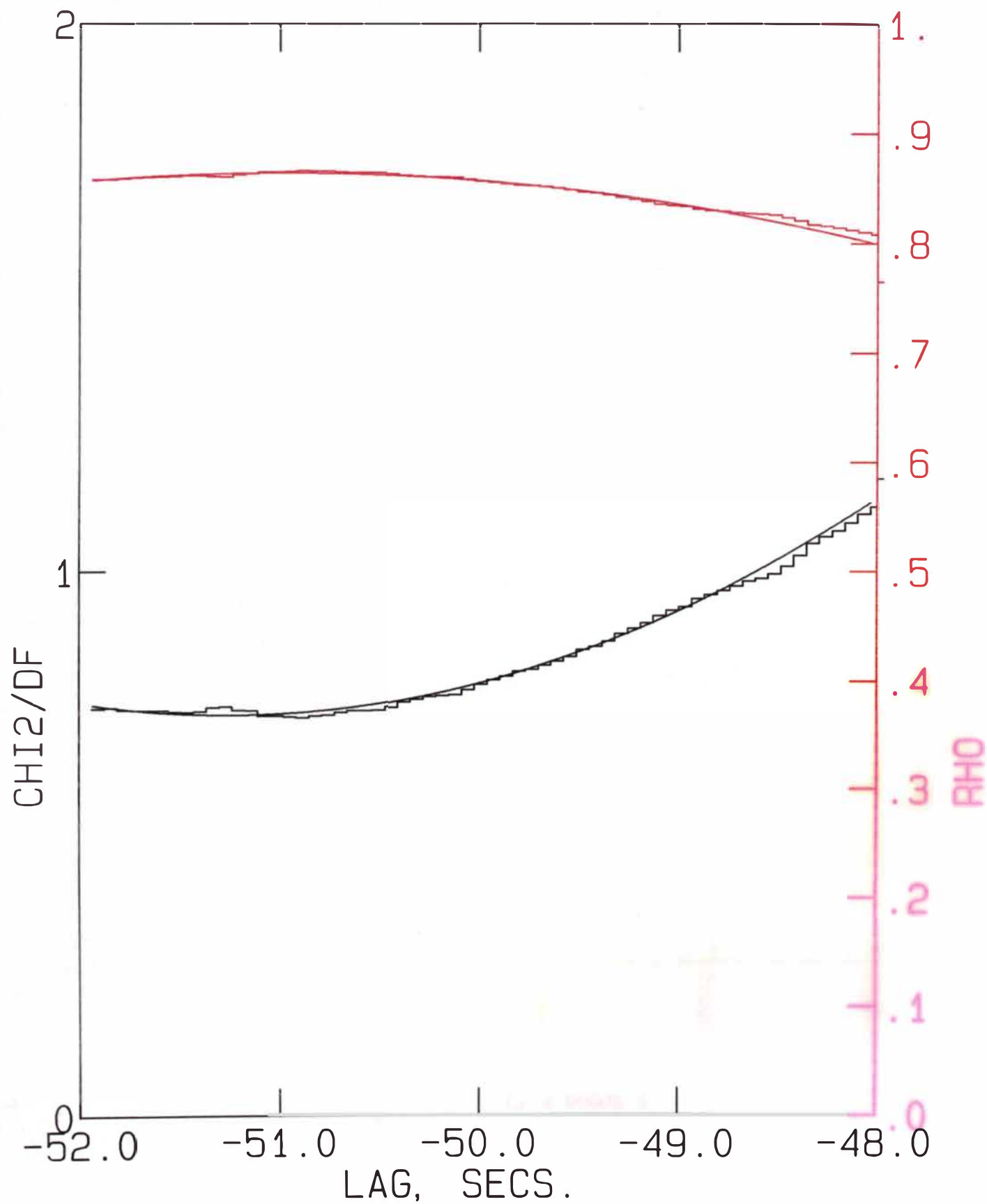
CORRELATION

11/ 1/95

43734.025

29/10/97





ULYSSES RT

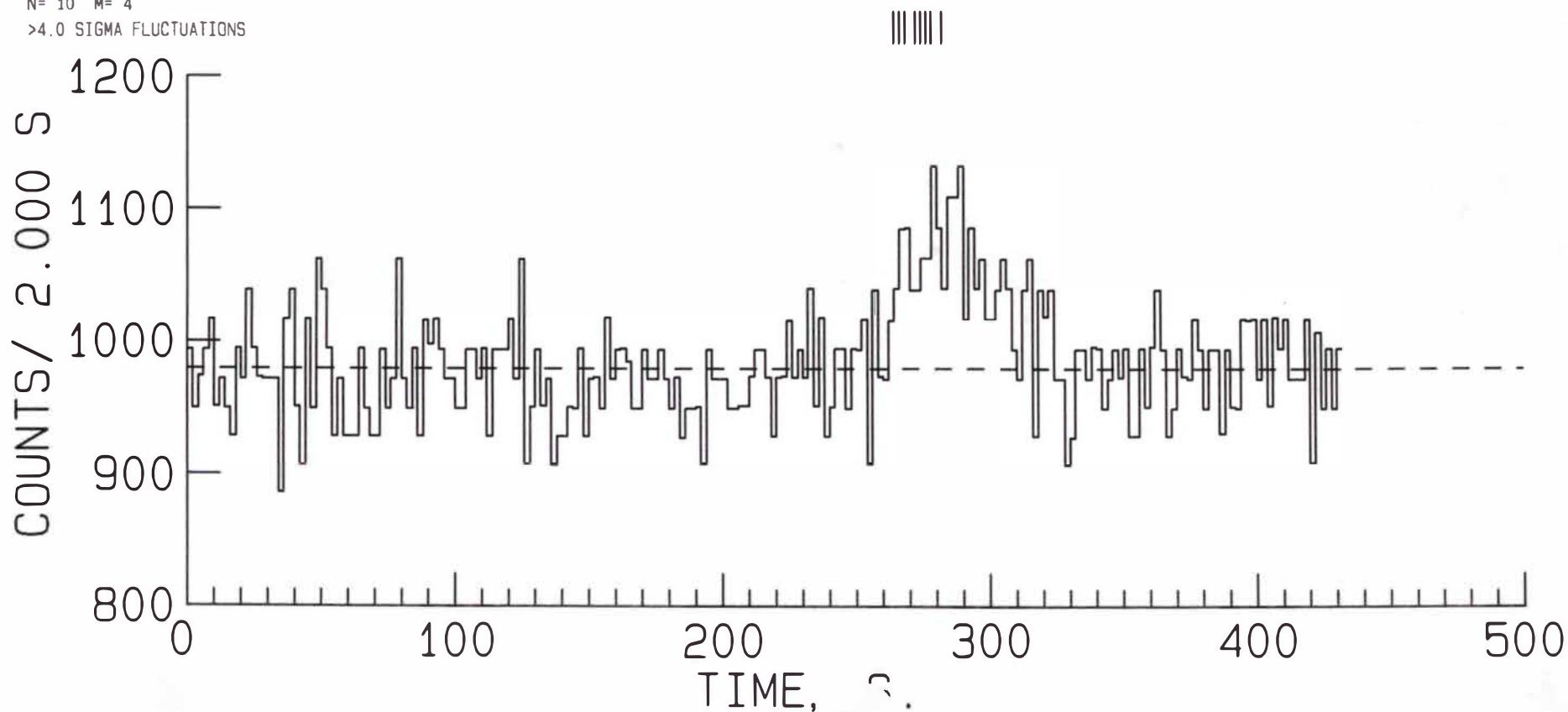
29/10/97

11/ 1/95 43524.044 s

0.500 S INTERVALS REGROUPED BY 4

22- 147 keV

N= 10 M= 4
>4.0 SIGMA FLUCTUATIONS



4

/

01

/

00

60

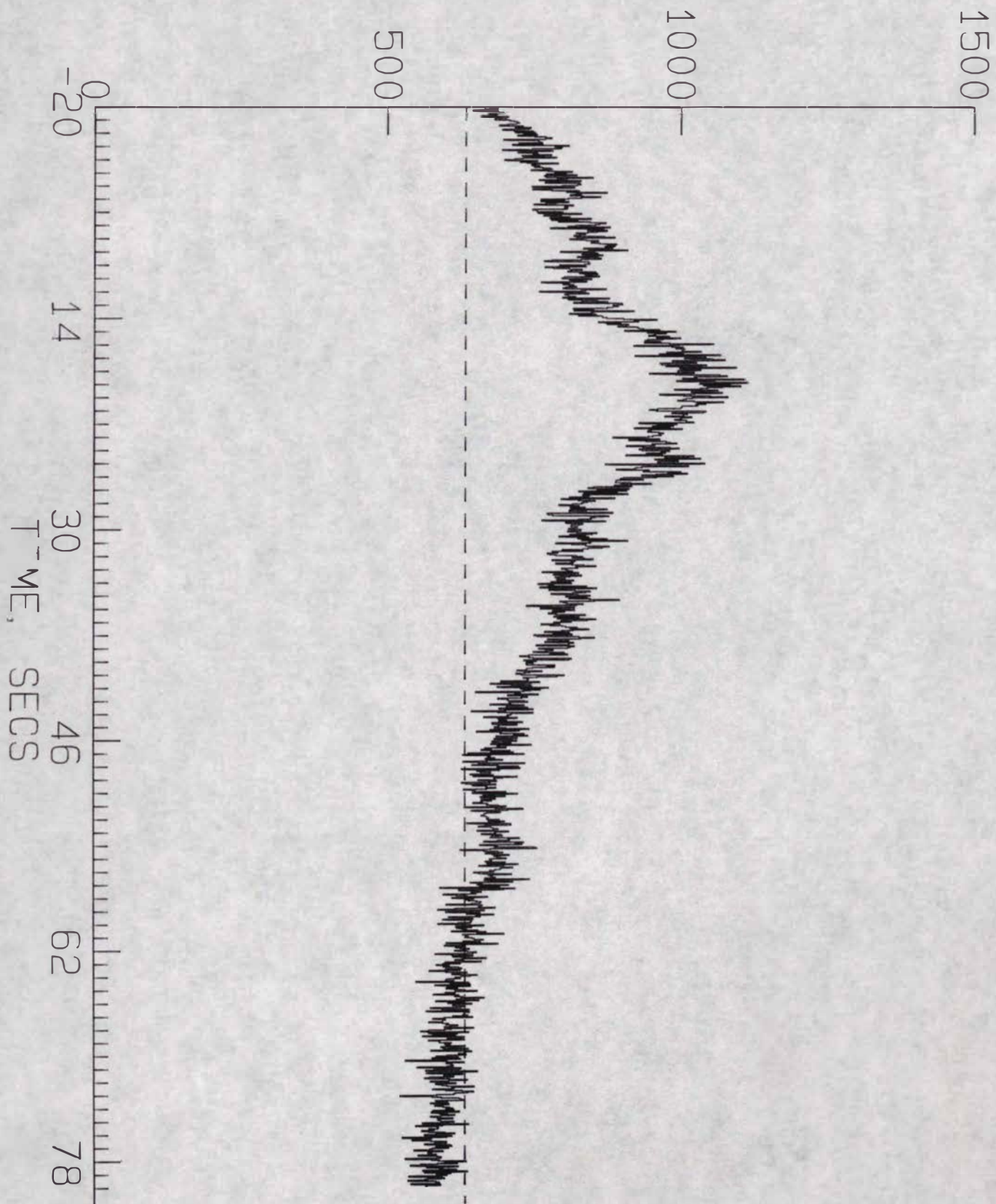
BATSE

11/01/95

44310.194

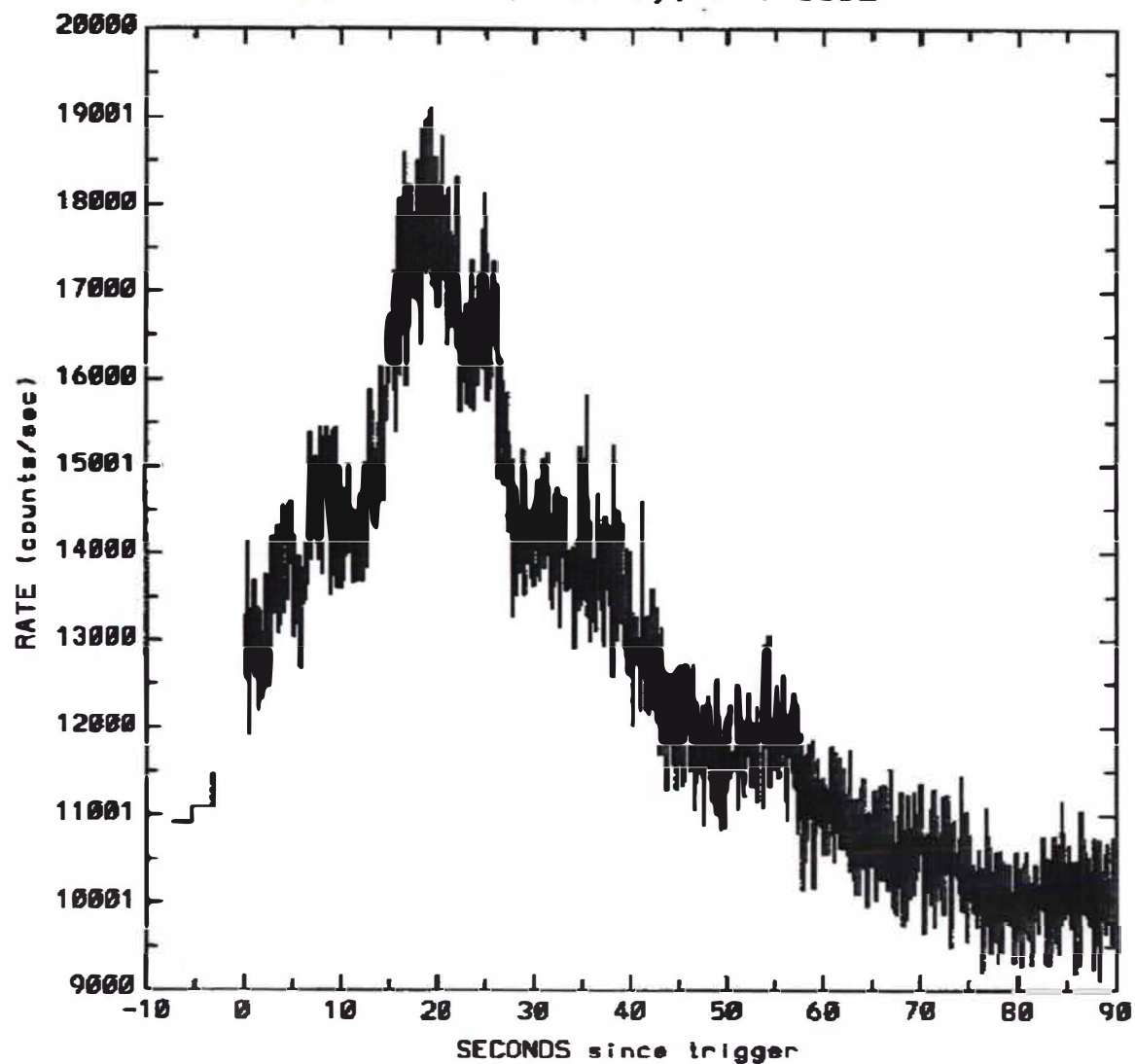
25- 100 keV

COUNTS/ .064 S



B

MER Data for K. Hurley. No. 3352



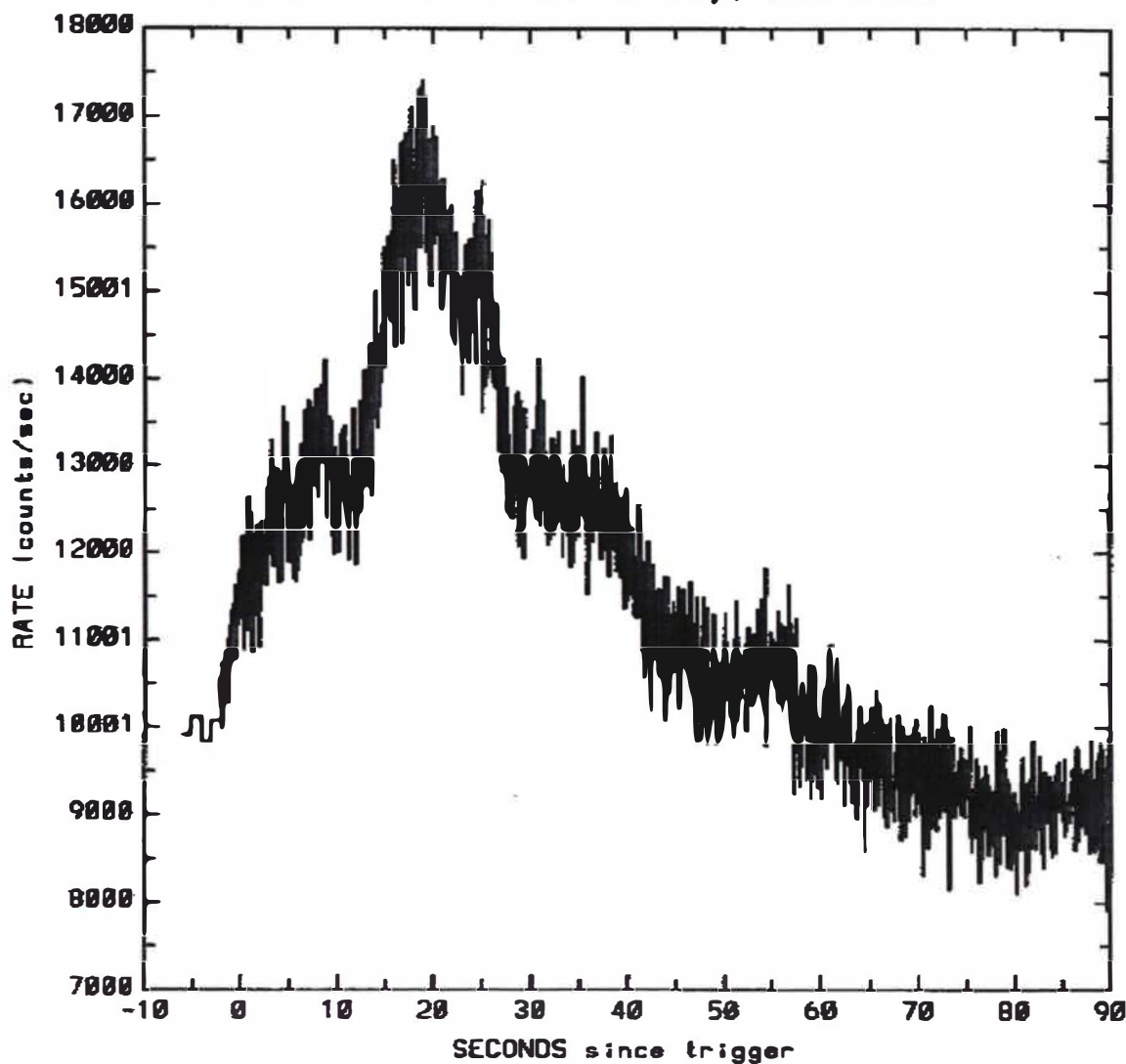
2-FEB-1995 14.44.13

Created by MOPS 80
(Burst Display)
Version 42.23

Trigger # : 3352

Trigger Time:
9728 / 44310.194Burst Data Type:
MERDeadtime
Corrected: NBackground Data
Type: CONTMinimum Integ. Time:
0.064 second(s)Detectors [7..8]:
--32--Channels:
(8. 6)Quality Mask:
80ISP1

DISCSC Data for K. Hurley, No. 3352



2-FEB-1995 14:42:25

Created by MOPS BD
(Burst Display)
Version 12.23

Trigger # . 3352

Trigger Time:
9728 / 44318.194Burst Data Type:
DISCSCDeadtime
Corrected. NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors (7..8):
-6-32-Discriminators:
(1, 2)Quality Mask:
80ISP1

From SAHI@fender.msfc.nasa.gov Wed Jan 18 08:40 PST 1995
Date: Fri, 13 Jan 1995 12:54:29 -0600 (CST)
From: SAHI@fender.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@fender.msfc.nasa.gov, LHEAVXBARTHELMY@fender.msfc.nasa.gov,
15733SCHAEFER@fender.msfc.nasa.gov, CASS09BAND@fender.msfc.nasa.gov,
CASS09GRUBER@fender.msfc.nasa.gov, CASS09MATTESON@fender.msfc.nasa.gov,
PACIESAS@fender.msfc.nasa.gov, HORACK@fender.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3353

TIME: TJD=9728 SECONDS=79178

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

TRIGGERED ON ENTRY INTO SAA.

BATSE time corrected 9/30

Date: Jul 01 2002

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☐ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution? **No**

2. For 3 Spacecraft events

- ☐ Konus N/S anisotropy used to distinguish between positions?
- ☐ SAX anisotropy used to distinguish between positions?
- ☐ SAX Earth-blocking used to distinguish between positions?
- ☐ $\Sigma 3\Delta t$'s calculated?

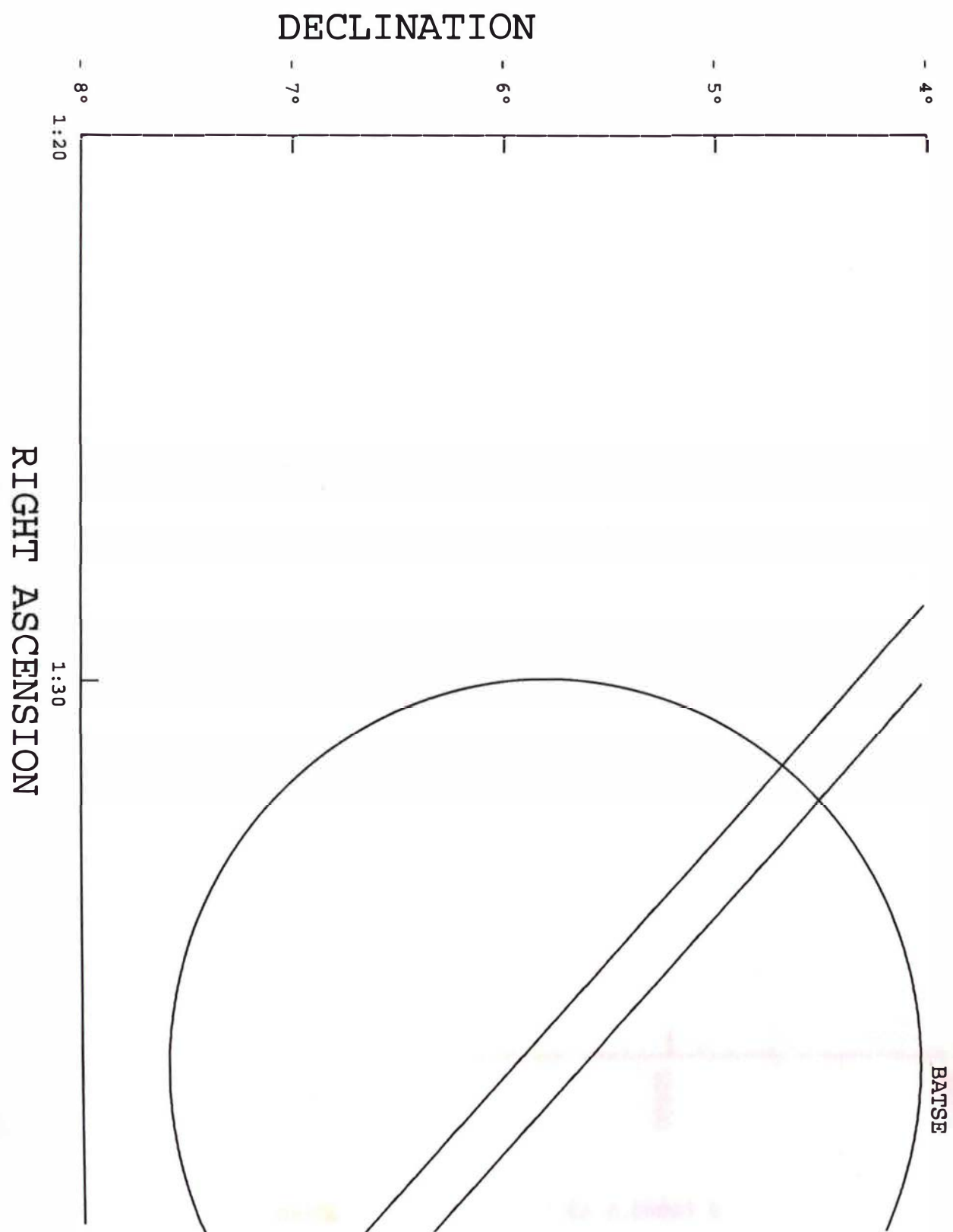
3. For 4 Spacecraft Events

- ☐ BMAPSUM executed to get chisquare for alternate positions?
- ☒ ACCESS database updated?

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

EVENT OF JAN 11, 1995 12:55

1 / 7 / 2



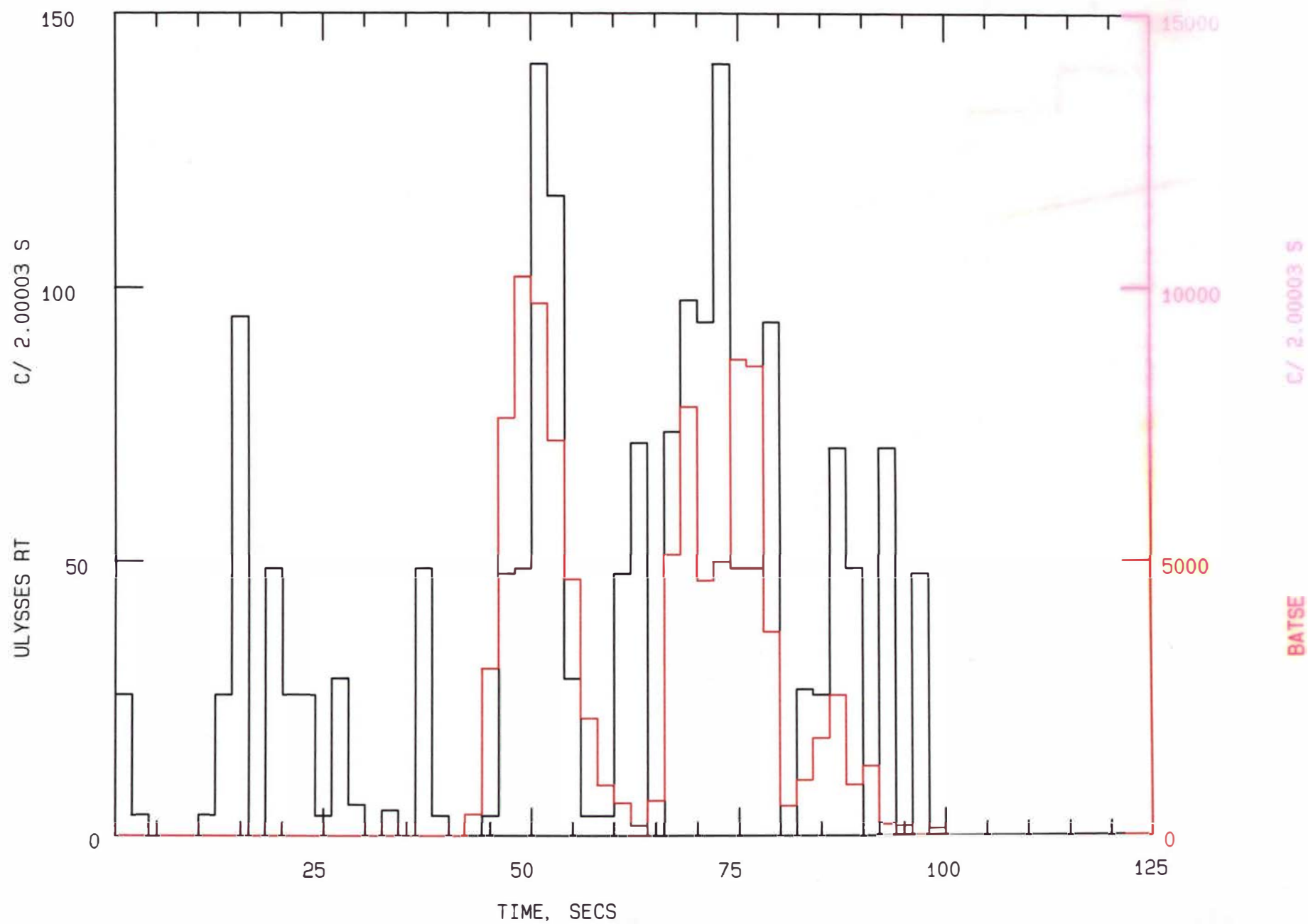
ULYSSES RT-BATSE

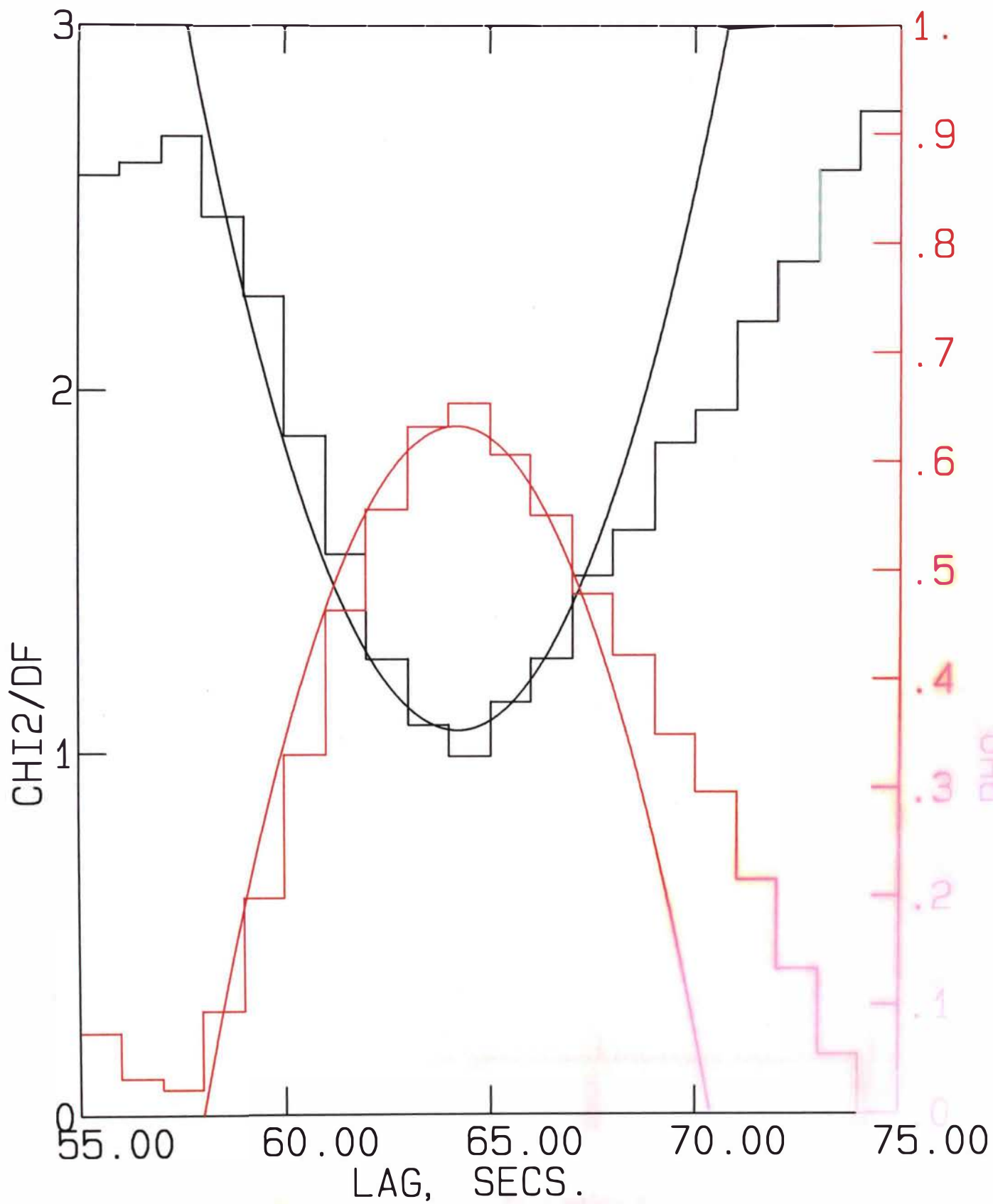
CORRELATION

11/ 1/95

46034.097

1/ 7/ 2





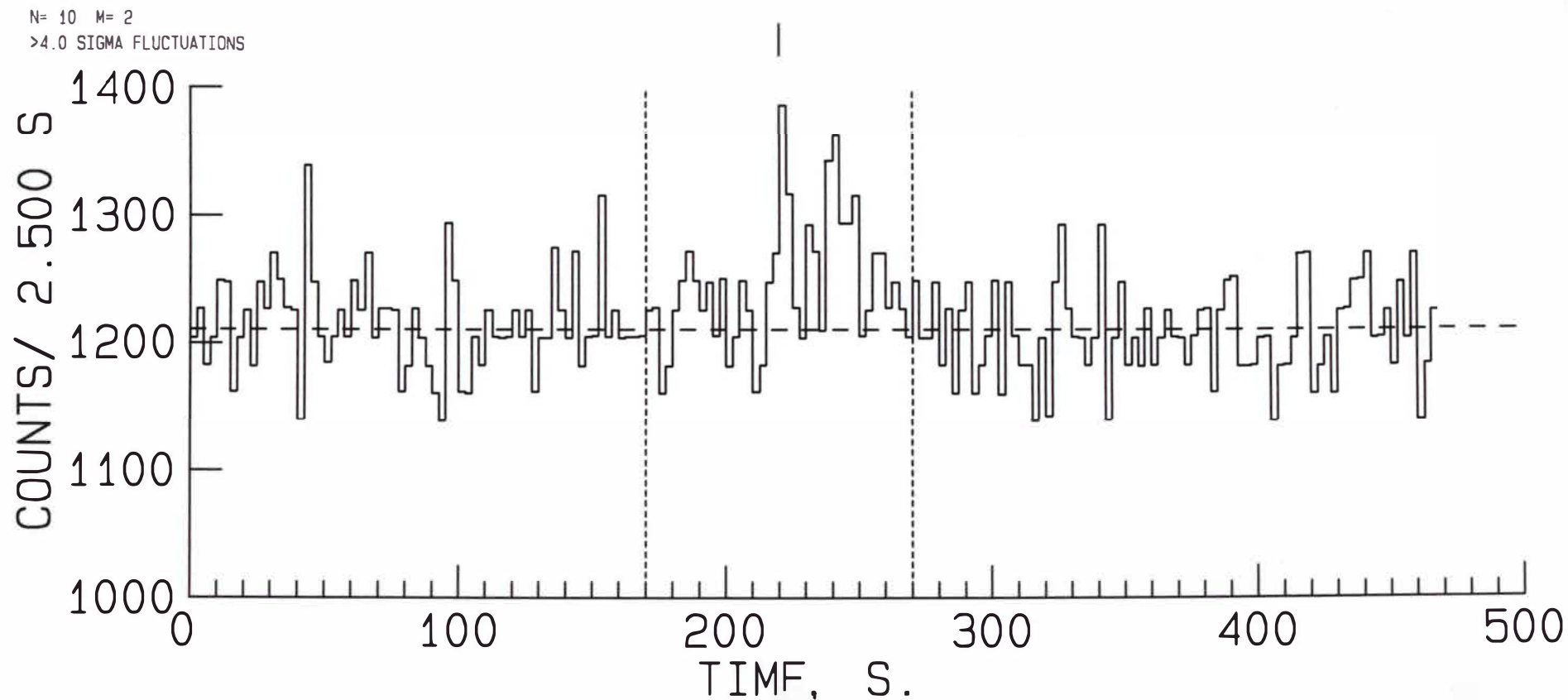
ULYSSES RT

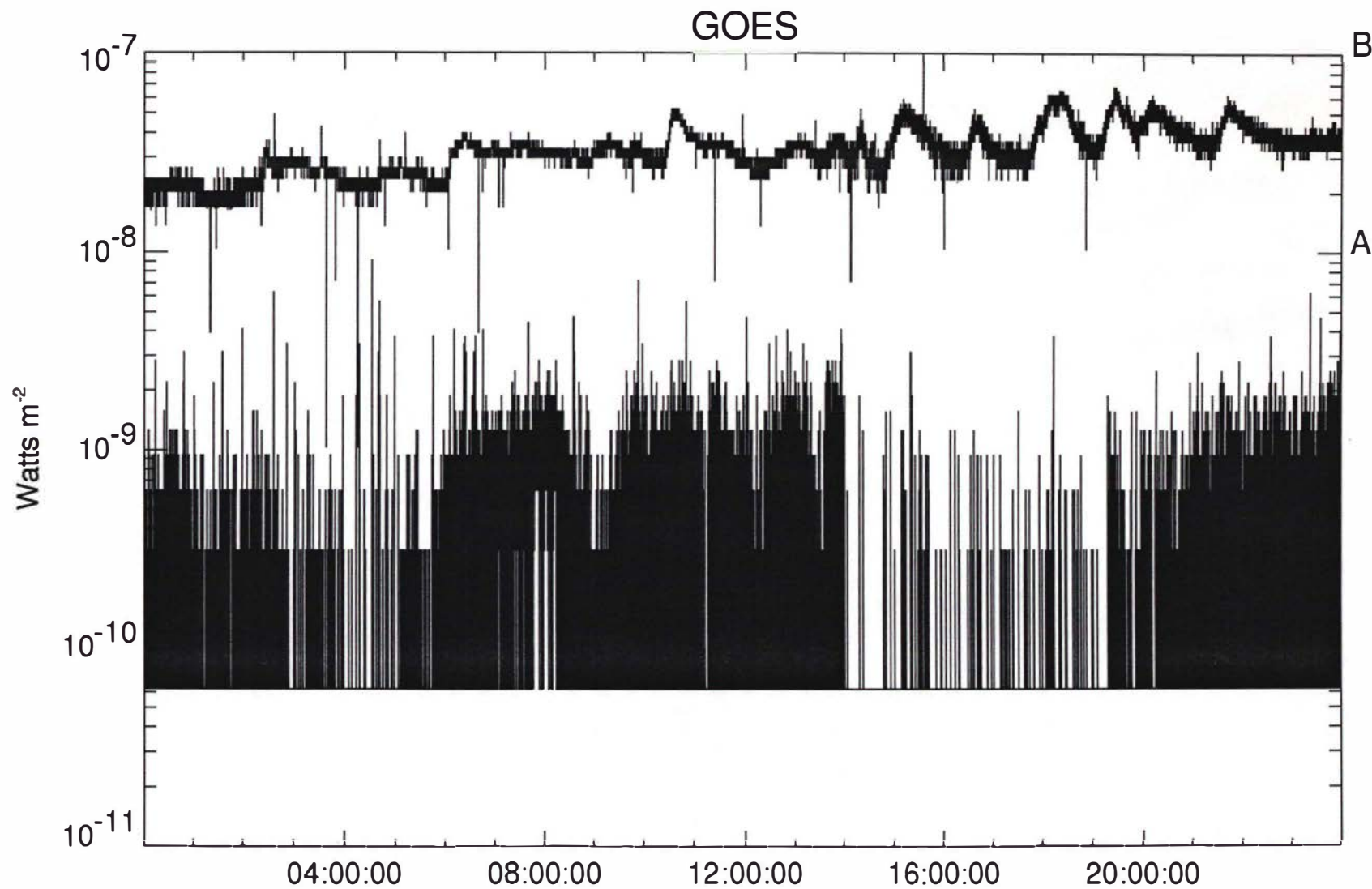
1 / 7 / 2

11/ 1/95 45864.098 s

0.500 S INTERVALS REGROUPED BY 5

22- 147 keV





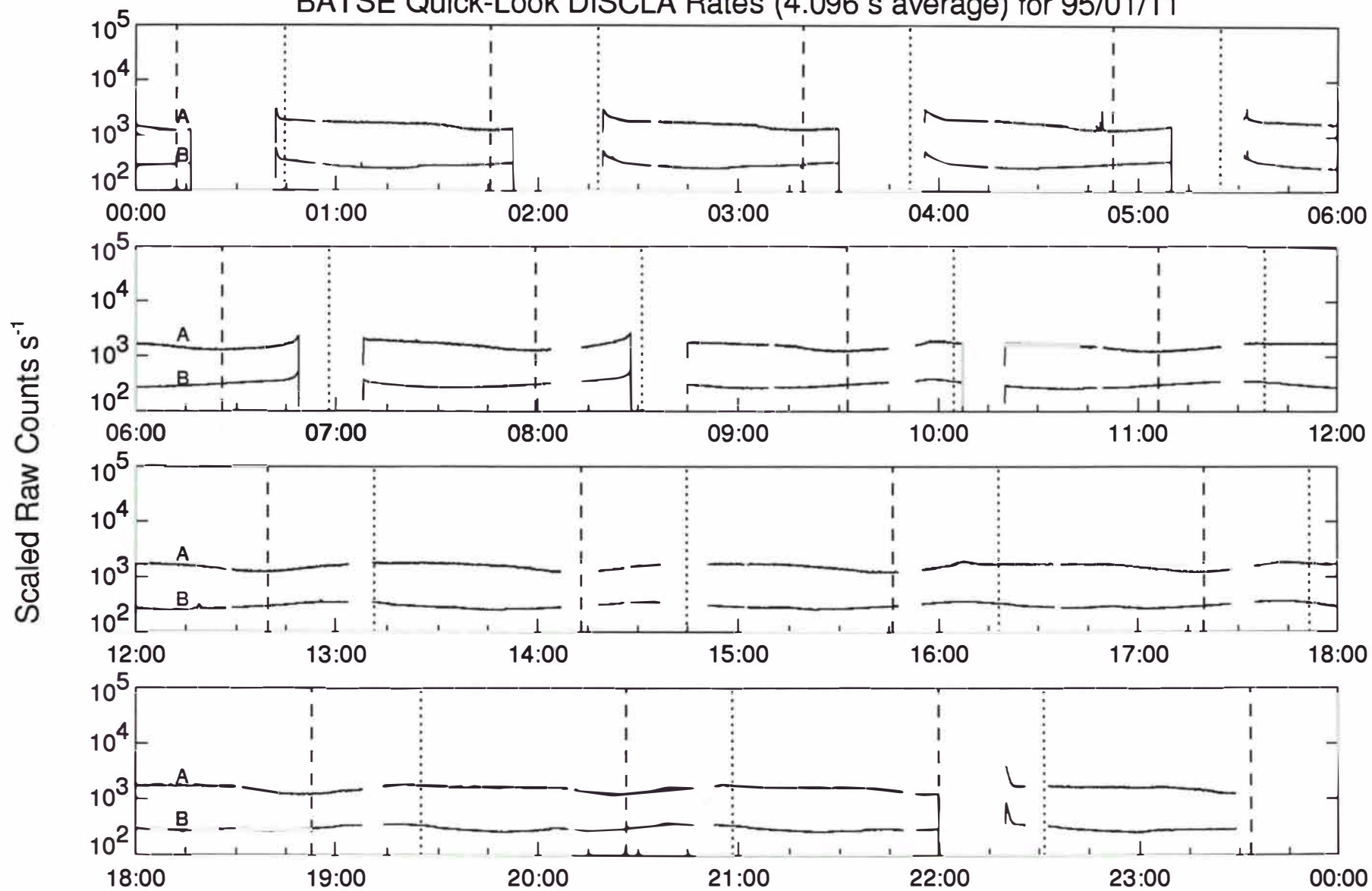
Data Start: 95/01/11, 0000:01

Plot created: 95/01/13, 0514

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/11



Current Time: 95/01/13, 0514 EDT

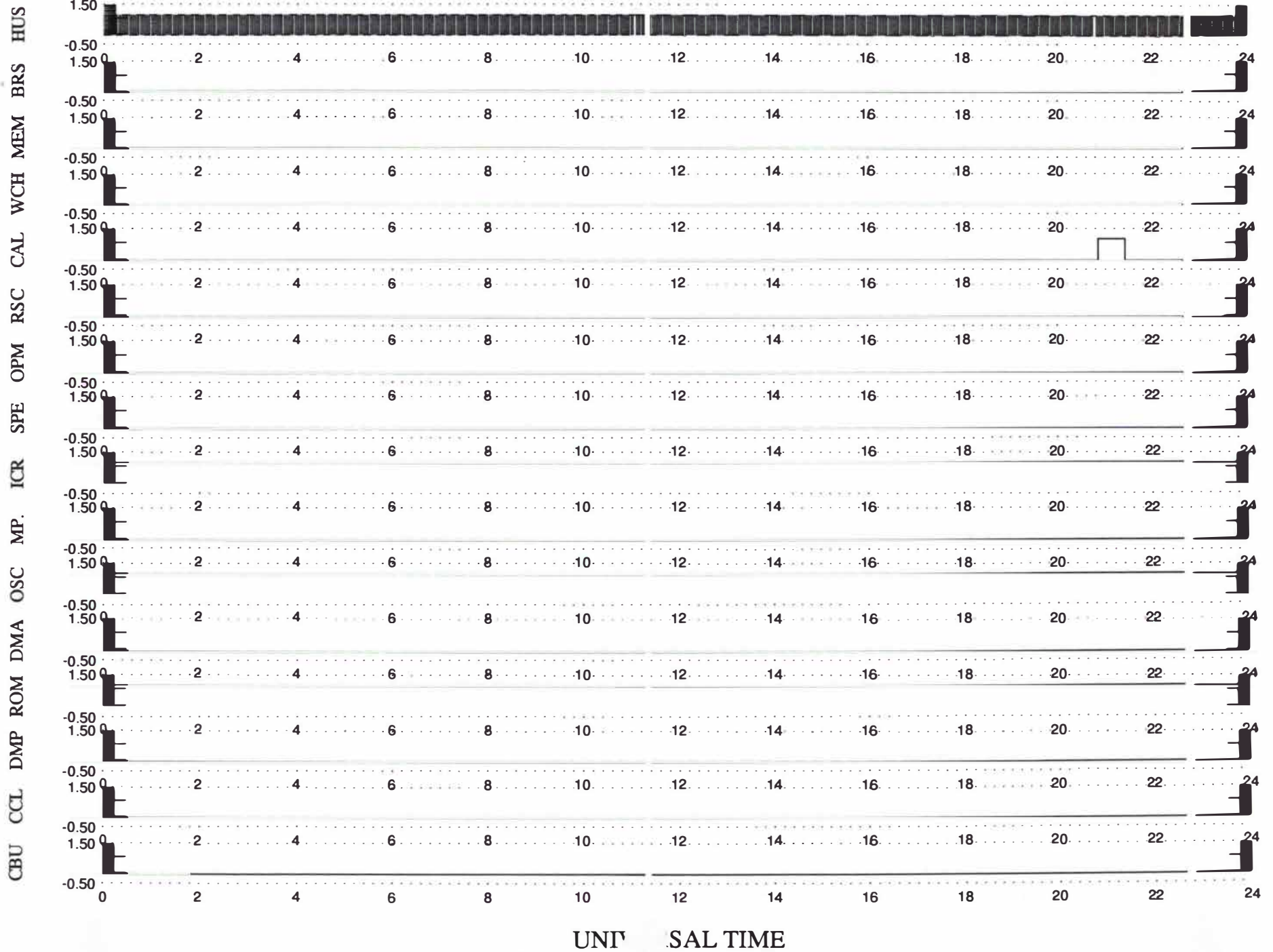
A: Channel 0 Most Sunward LAD

B: Sum Channel 0 Anti-Sunward LADs X .05

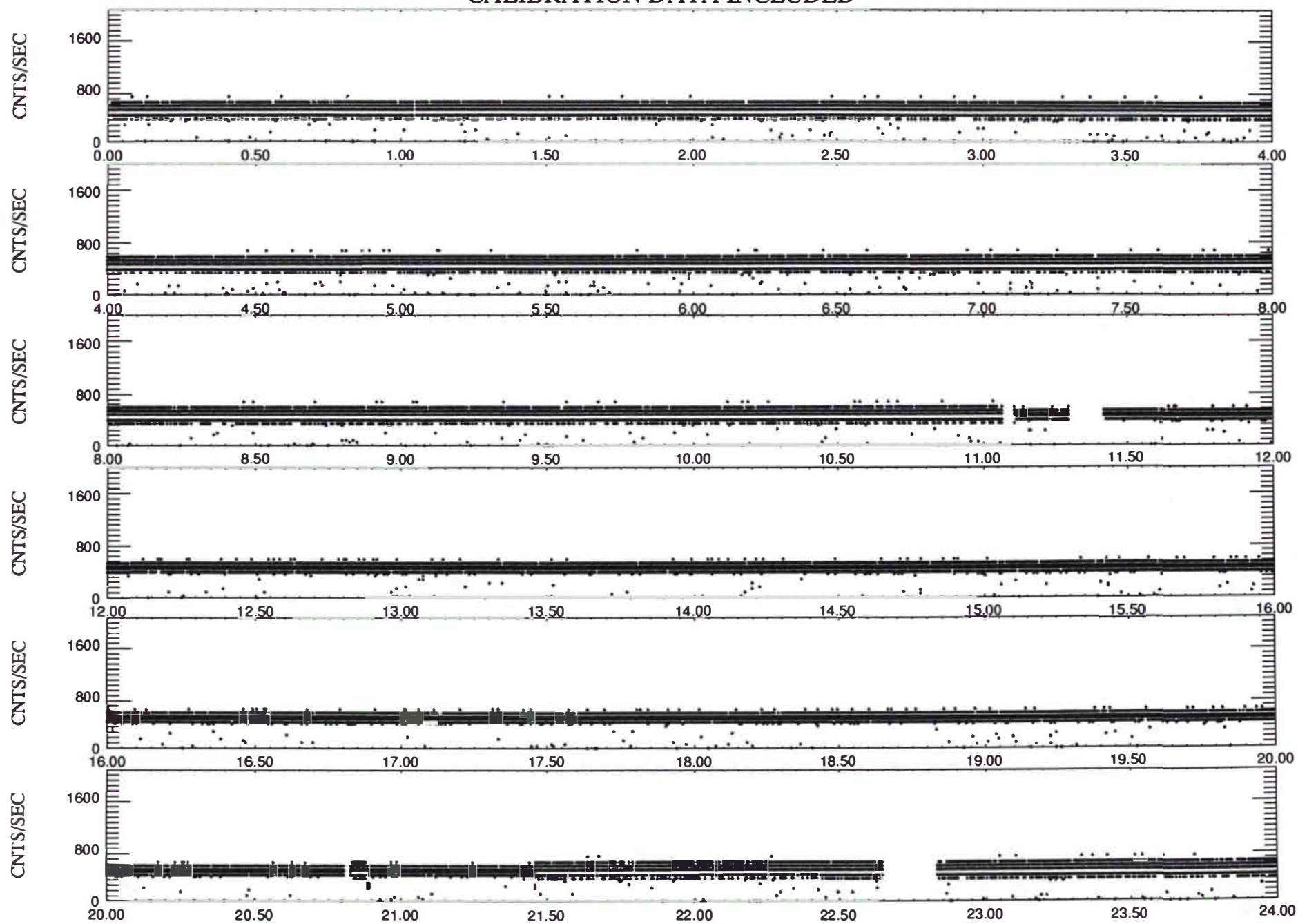
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

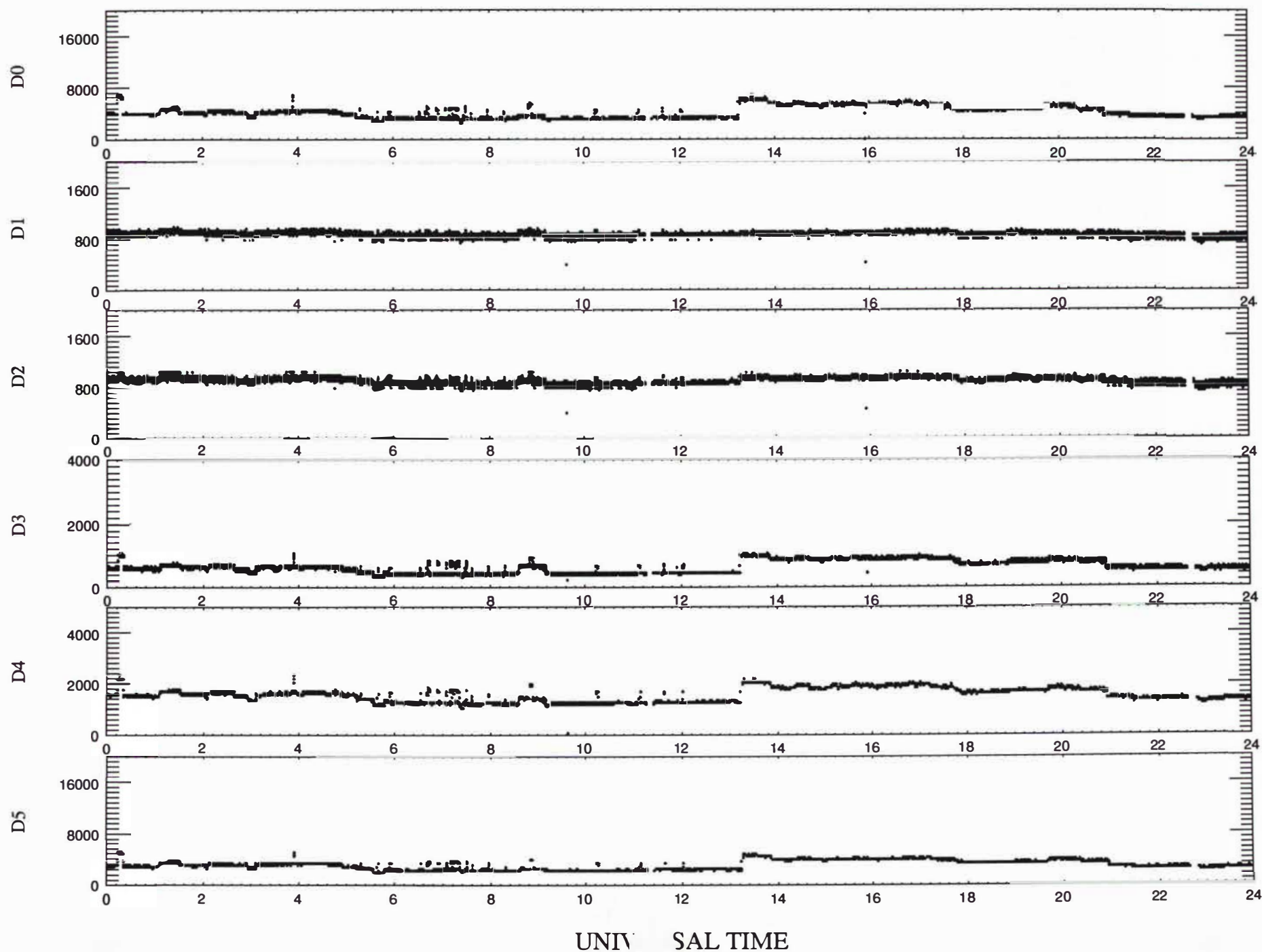
NO BURST (10)



CALIBRATION DATA INCLUDED



UNF \SAL TIME



Date: Aug 12 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)?
- ☐ BATSE ephemeris for T_0 ?
- ☐ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included?

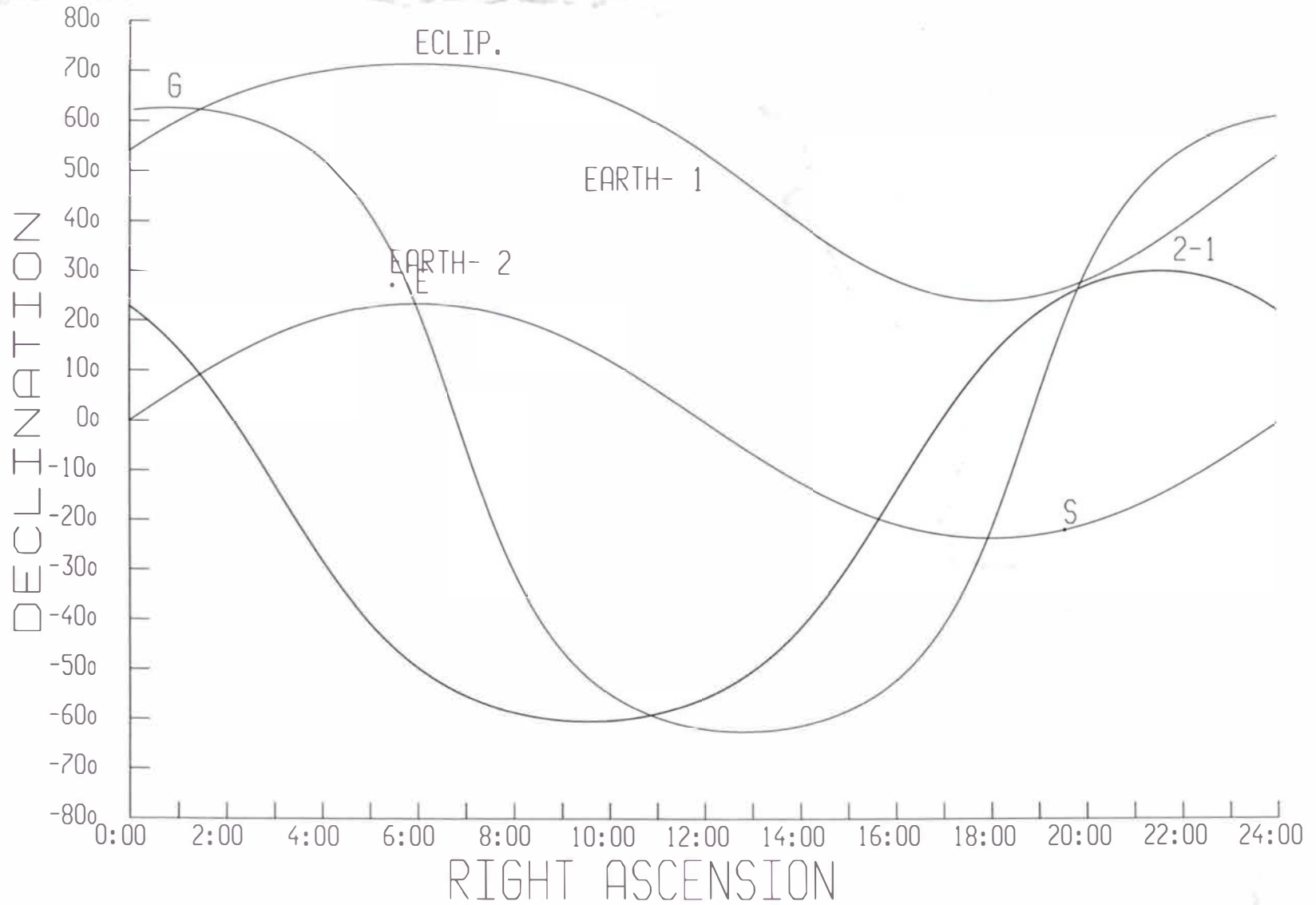
3. PVO Data

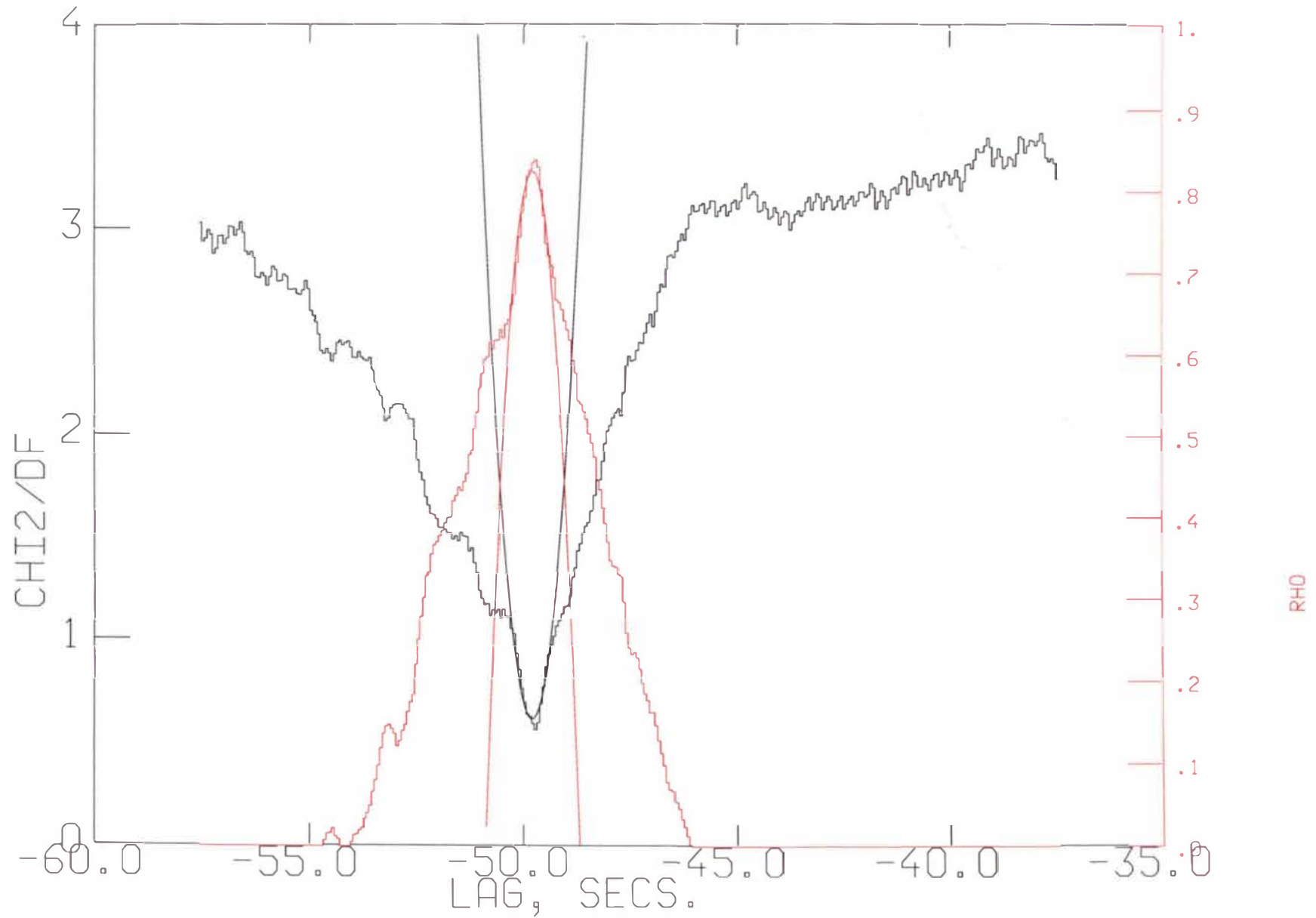
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

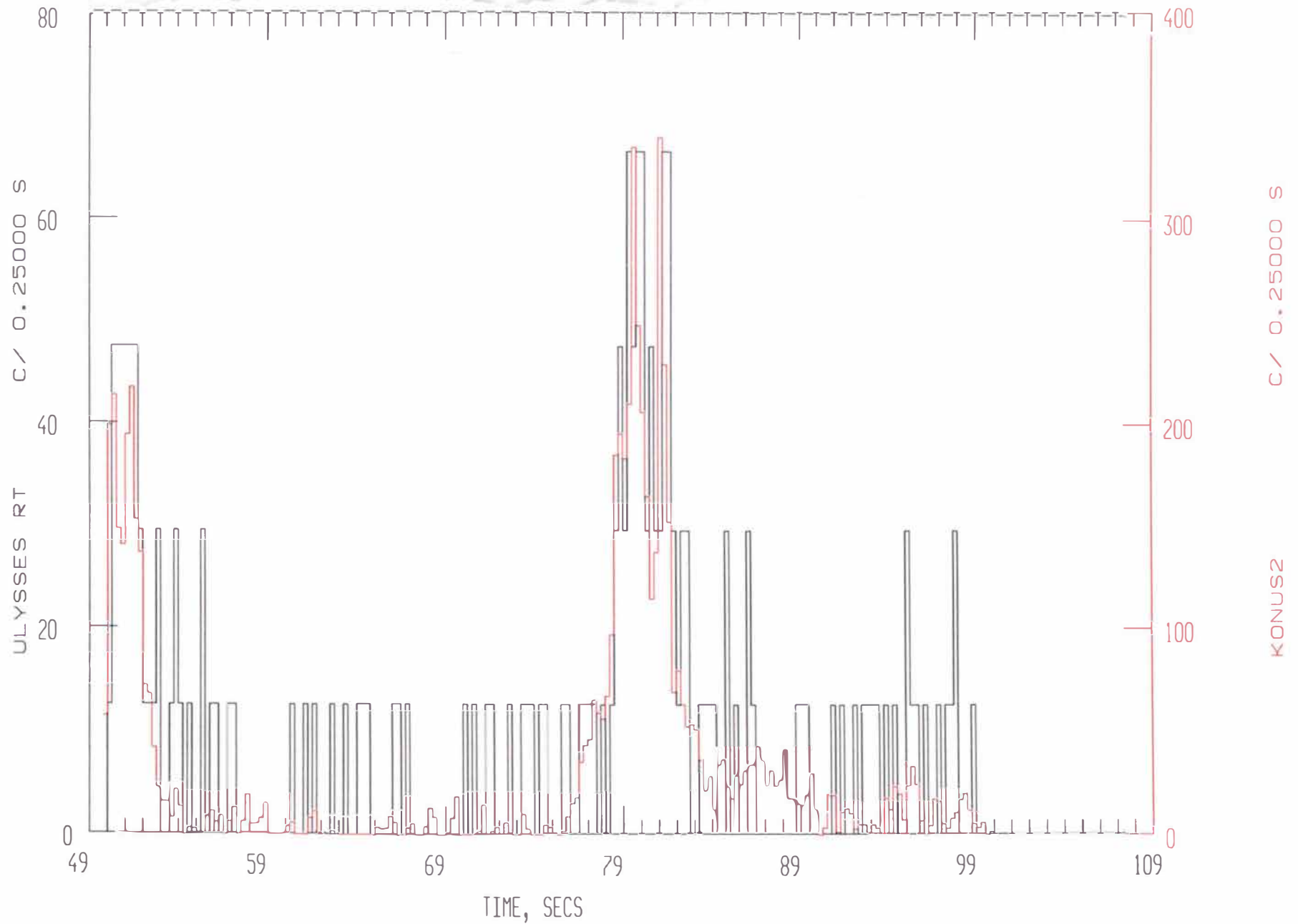
EVENT OF JAN 12, 1995 7:40

12/08/2011

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







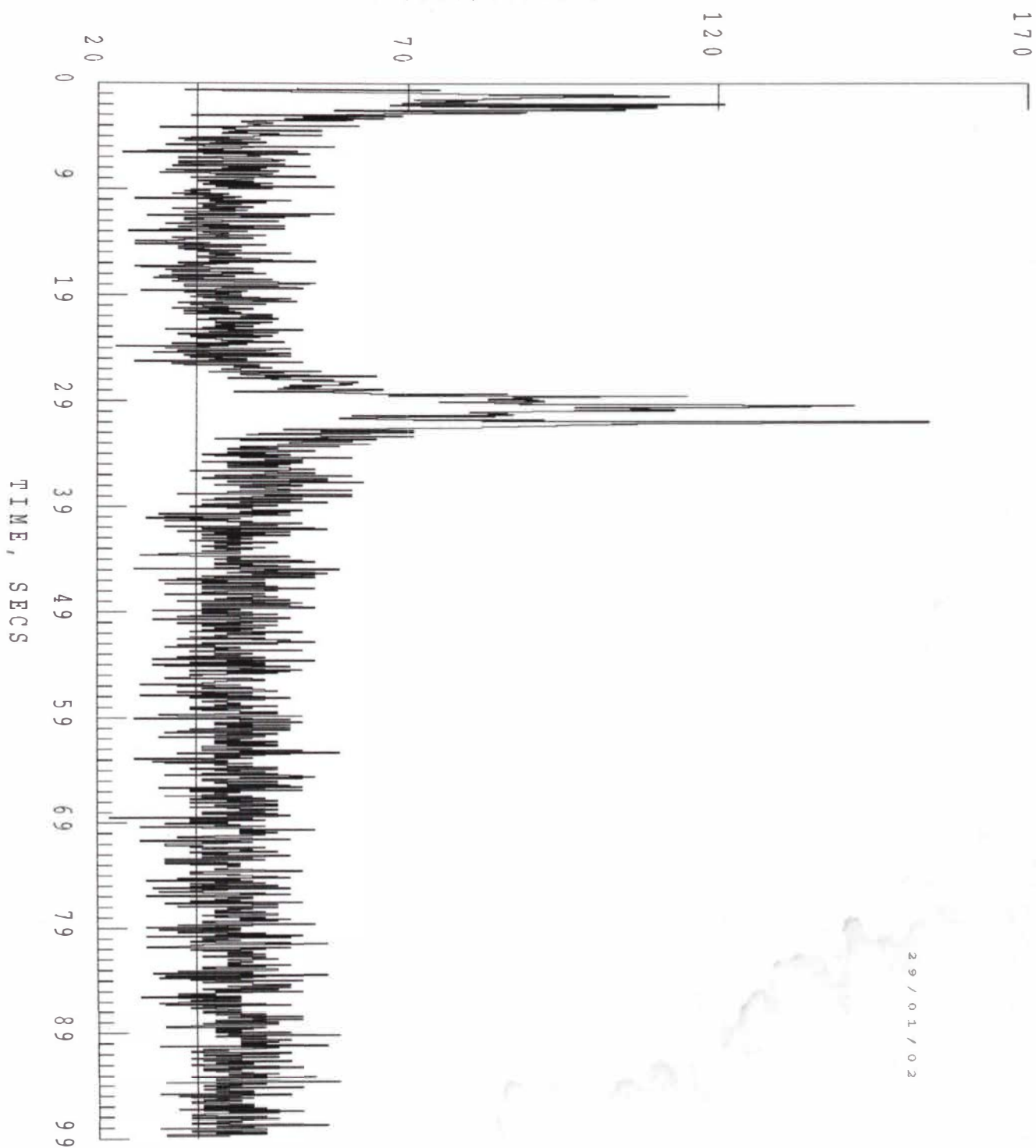
KONUS2

12/01/95

27937.120

50 - 200 keV

COUNTS/0.064 S



KONUS 19950112 27684

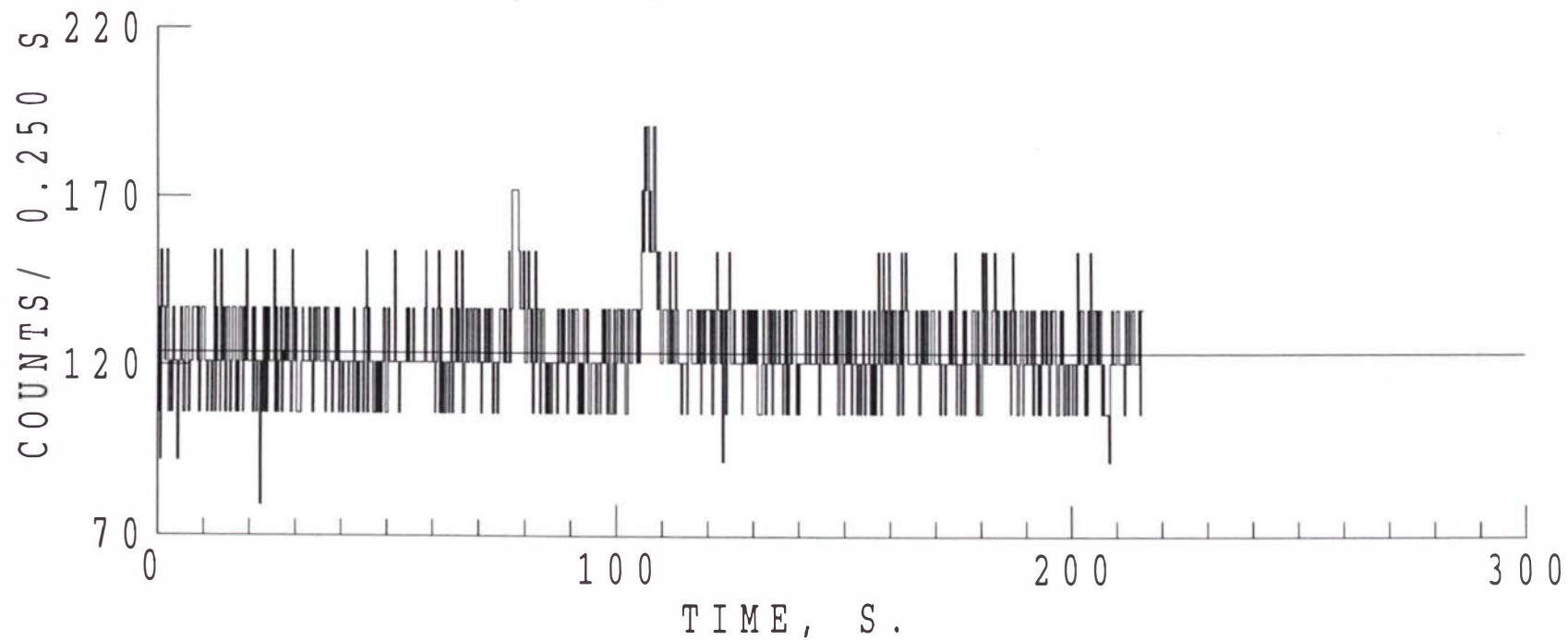
ULYSSES RT

11 / 08 / 11

12 / 01 / 95 27576.154 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Fri Jan 13 09:29 PST 1995
Date: Fri, 13 Jan 1995 11:29:00 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3354

TIME: TJD=9729 SECONDS=76638

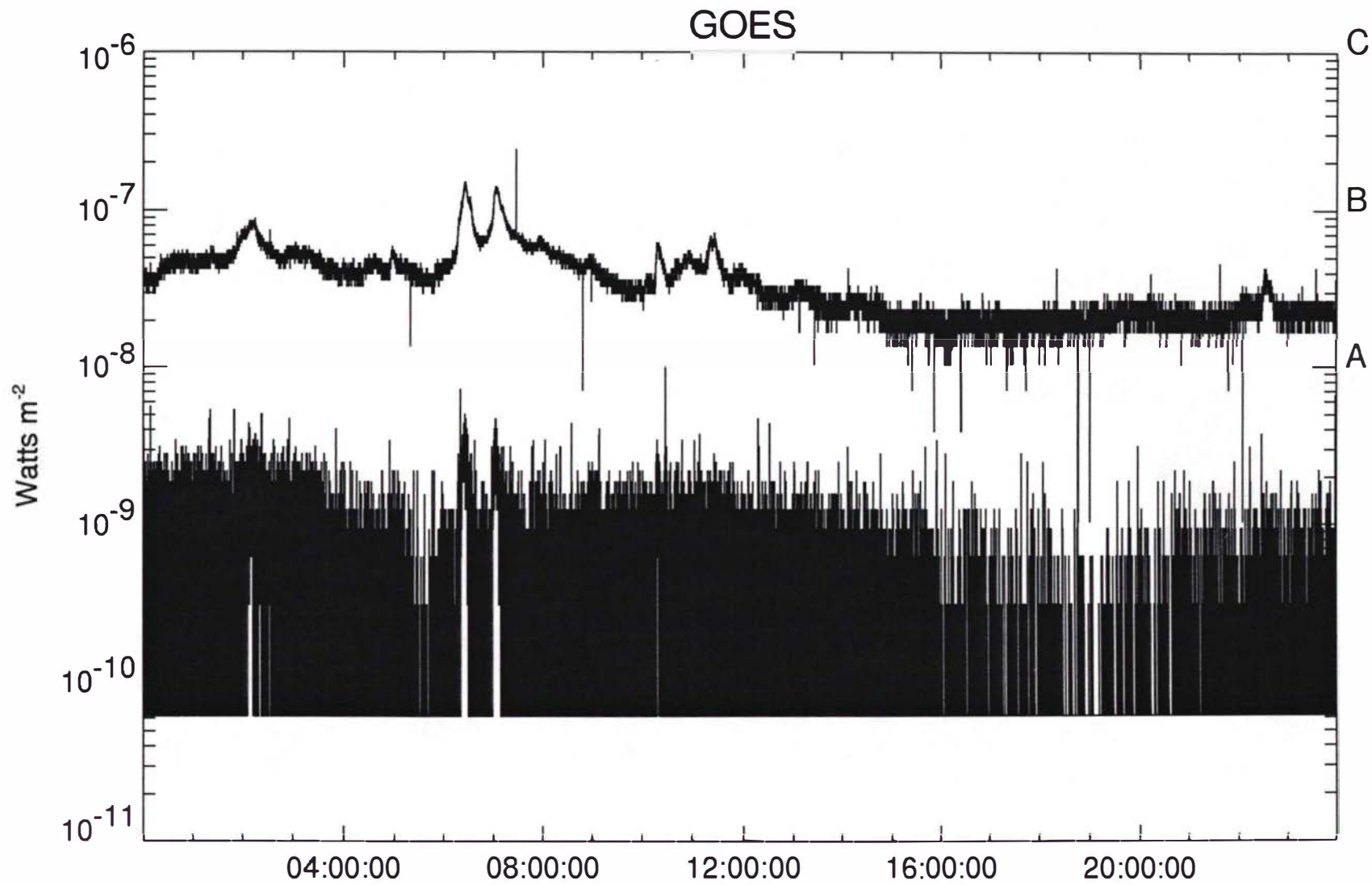
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



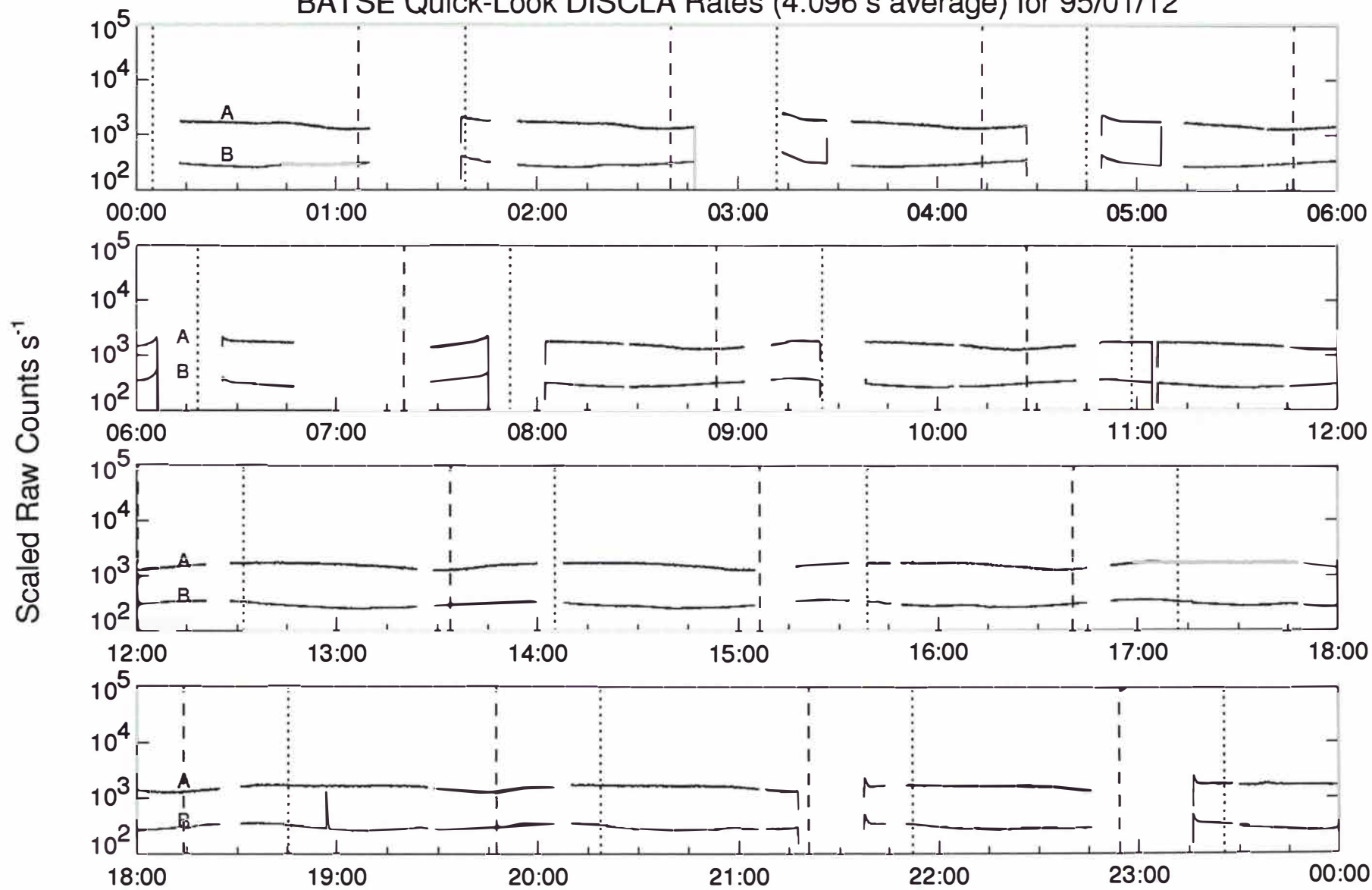
Data Start: 95/01/12, 0000:02

Plot created: 95/01/17, 1823

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/12

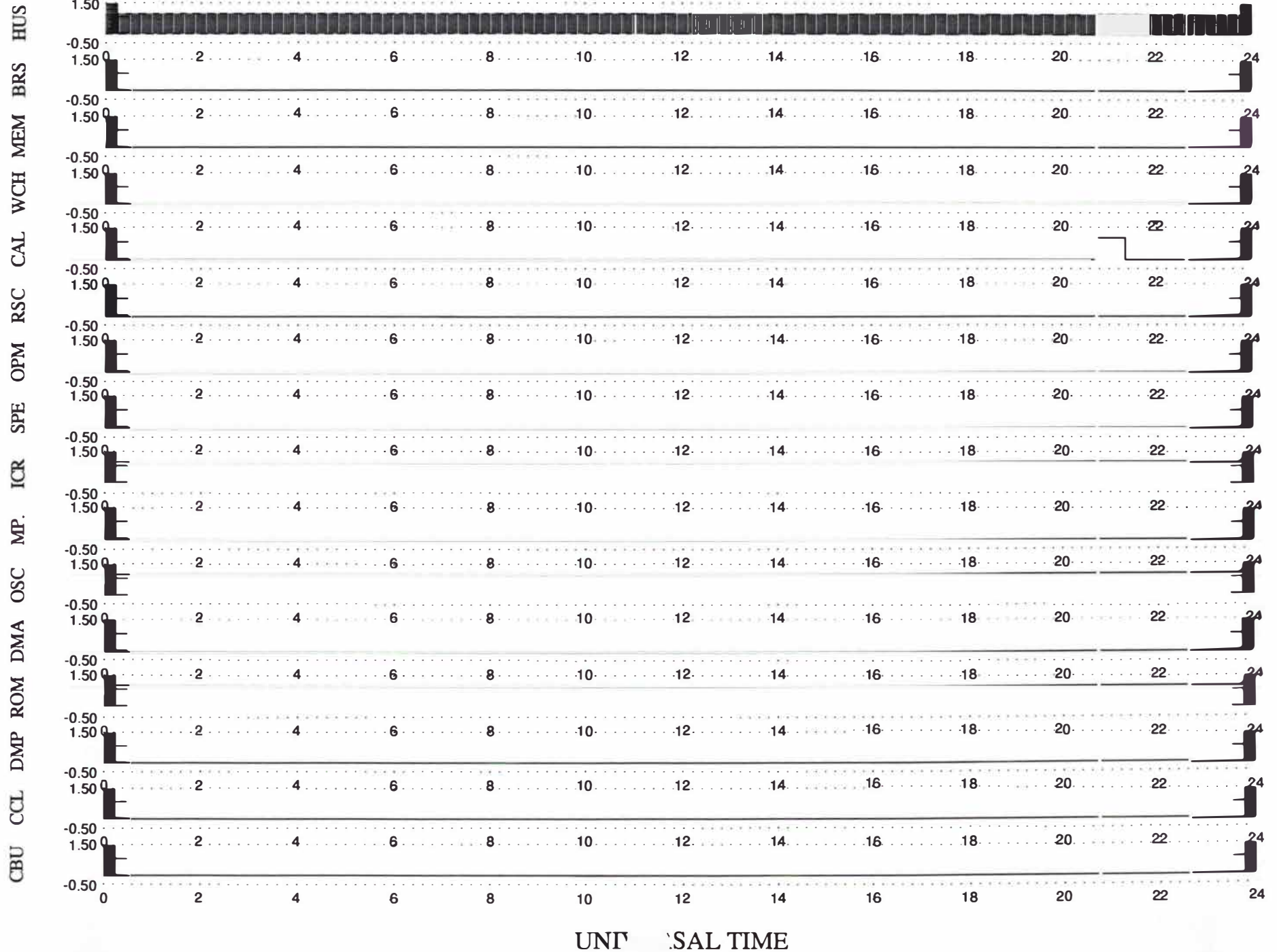


Current Time: 95/01/17, 1824 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

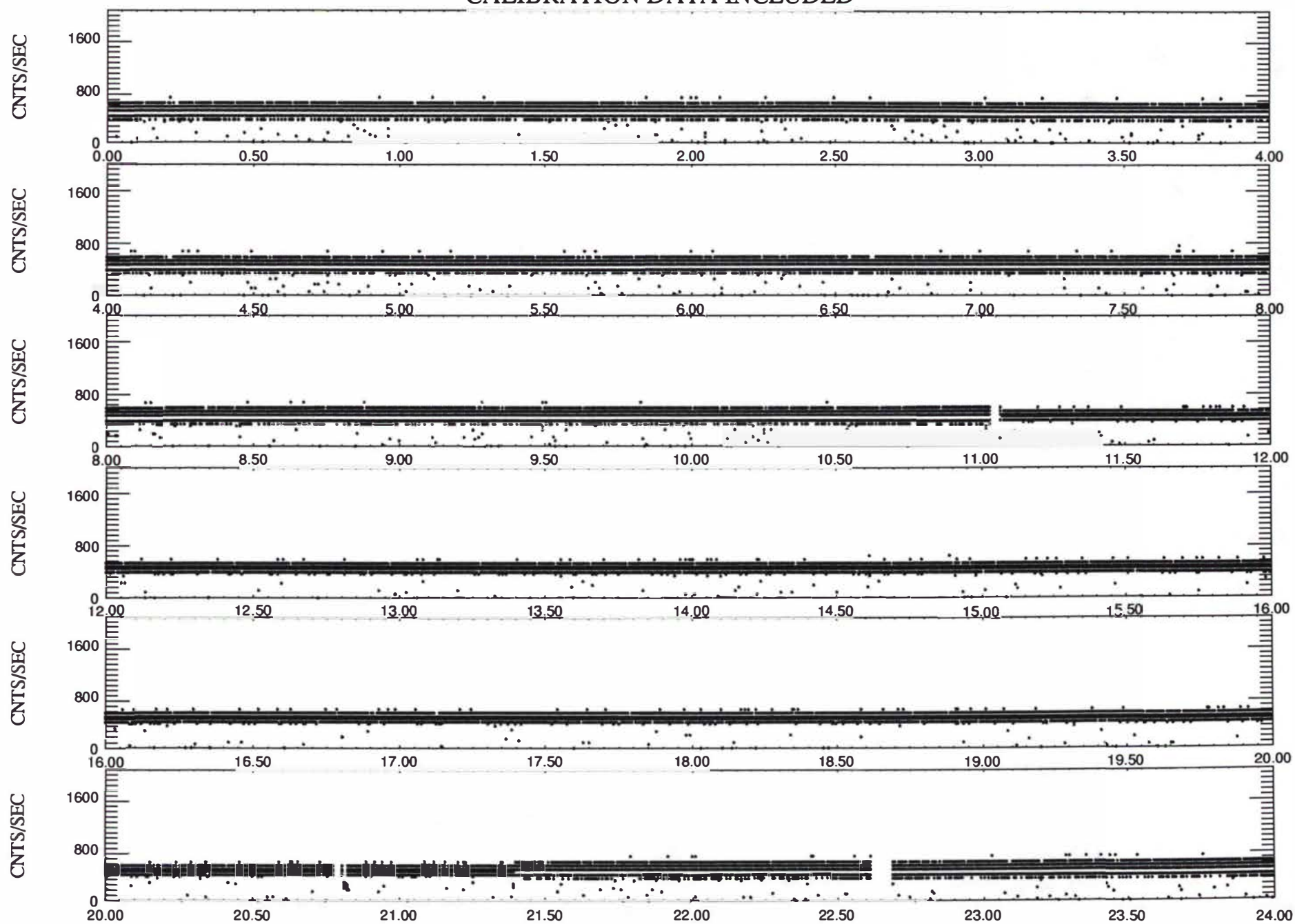
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

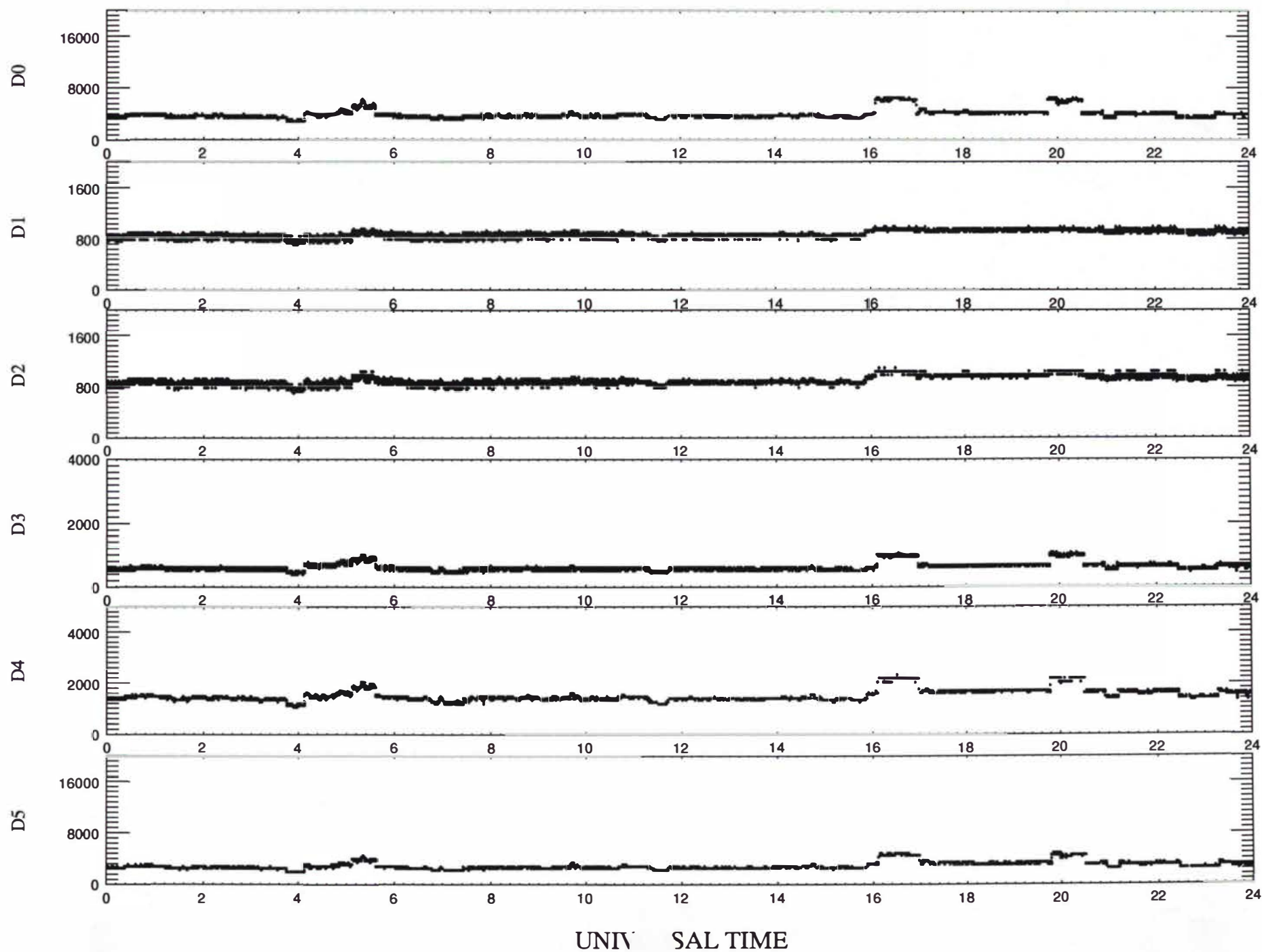
NO BURST (10)



CALIBRATION DATA INCLUDED



UNT \SAL TIME



From williams@sunspot Thu Sep 10 18:05 PDT 1998
Date: Thu, 10 Sep 1998 18:09:58 -0700
From: williams@sunspot (Roger Williams)
To: khurley@sunspot
Subject: RT Event Problems 94258-96229
Cc: williams@sunspot

Kevin,

The next wave of results is finished relative to differences in ascii files for events from your realtime event list. These results are for yyddds from your list in the range 94258-96229 or Sep 15, 1994 to August 16, 1996.

Using yyddds from your list we investigated ALL ascii files that we have made on that day and compared old vs. new decom versions. Again, this was because times in the list were Earth times and thus not easily related to a Ulysses window. Thus the list of files may contain irrelevant entries.

The list of files is attached.

Roger and J

<This message contains 1 attachments (not printed)>

e94321_2A1_02.91_03.58.ascii.diff.Z
e94324_2A1_20.05_20.72.ascii.diff.Z
e94331_2A1_15.32_15.99.ascii.diff.Z
e94356_2A1_05.27_05.93.ascii.diff.Z
e94356_2A1_07.32_07.44.ascii.diff.Z
e95013_2A1_05.65_06.32.ascii.diff.Z
e95042_2A1_02.31_02.45.ascii.diff.Z
e95042_2A1_04.10_04.76.ascii.diff.Z
e95076_2A1_20.14_20.81.ascii.diff.Z
e95091_2A1_20.66_20.80.ascii.diff.Z
e95135_2A1_06.08_06.74.ascii.diff.Z
e95176_2A1_02.36_03.02.ascii.diff.Z
e95221_2A1_23.76_23.89.ascii.diff.Z
e95274_2A1_11.27_12.02.ascii.diff.Z
e95275_2A1_22.78_22.91.ascii.diff.Z
e95306_2A1_05.54_05.66.ascii.diff.Z
e95323_2A1_11.72_14.09.ascii.diff.Z
e95359_2A1_09.18_09.96.ascii.diff.Z
e96007_2A1_05.00_05.78.ascii.diff.Z
e96007_2A1_18.67_19.45.ascii.diff.Z
e96015_2A1_17.16_17.31.ascii.diff.Z
e96106_2A1_01.13_01.31.ascii.diff.Z
e96142_2A1_16.64_18.08.ascii.diff.Z
e96149_2A1_02.19_02.42.ascii.diff.Z
e96185_2A1_13.93_14.38.ascii.diff.Z
e96185_2A1_14.02_14.24.ascii.diff.Z
e96209_2A1_11.24_12.68.ascii.diff.Z
e96226_2A1_10.12_11.51.ascii.diff.Z

Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 n: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:

63 Konus days to 1/17: 22 backgnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	Max c/s G1 G2 G3	N(1)/N(2) =G2 t<Tz t>Tz	Duration T#	BATSE Uly T# d* d*	TGRS T# RA Dec	BACODINE
941113	12 09 15	S1	145 85	2.5 115	BG			
941114	02 02 40	S2	110 128	30 0.25 12	BG	3283	92 37	
941115	06 22 --					3284 (U)	149 11	
941117	03 14 38.191	S2	406 550	74 0.17 40	5 2			
941117	14 07 57	S2	150 140	<0.15 5	BG			
941119	19 31 09.175	S2	370 703	160 0.23 7	20 4	3287*	U* #13 188 22	
941120	20 23 17.924	S1	215 328	30 >15 2	25 5			
941121	17 25 00.945	S1	1652 1656	300 21 3	50 6	3290*	U* #15 004 -63	
941123	19 51 --					3294 (U)	190 02	
941125	22 04 30.156	S2	115 308	109 0.95 1.5	5 7	3295*	U* BG	
941126	00 20 46	S1	150 205	200 >14 18	BG	3296	BG	
941126	03 55 --					3297 (U)	323 38	
941126	12 22 37.952	S1	860 1430	330 4.2 40	45 8	3298*	U* #28	
941126	16 54 20	S1	55 75	>10 26	BG			
941126	19 56 49.732	S1	290 390	211 6.7 20	26 9	3301*	U* #--	
941127	14 30 25.680	S2	200 400	95 0.17 8	7 10	3303*	U* 070 50	
941127	15 39 10	S1	210 57	2.7 260	BG			
941128	15 37 00	S1	75 90	32 >15 55	BG	3305	no d	
941128	18 41 --					3306 (U)	011 -32	
941205	23 33 40.074	S2	370 460	188 0.06 6	30 11			
941207	22 10 32	S2	265 175	<0.2 7	BG			
941210	03 10 52.523	S2	900 2350	1385 0.12 1	15 14		U* BG	
941214	17 03 51	S1	40 45	29 >6 12	BG			
941214	05 38 45.226	S1	3479 1266	14 1.0 12	240 SF	3318	BG 259 -06	
941221	07 44 08	S2	55 115	30 0.8 20	BG			
941221	22 14 35.215	S1	260 496	165 1.5 55	11 19		BG	
941222	05 36 00.243	S2	334 1360	1066 0.36 7	105 20		#145	
941228	07 39 45.915	S1	300 637	519 4.4 5	90 28	3330*	U* no d 339 -52	
941228	16 55 23	S2	40 36	23 0.25 25	BG			
941229	12 58 05	S1	46 108	31 1.8 15	BG			
941229	22 51 08.781	S2	396 381	140 0.09 7	25 29	3334*	U* no d	
941230	20 52 53	S1	74 117	52 8.4 158	BG		no d	
941230	23 43 44	S2	55 70	16 <0.2 4.5	BG		no d	
950104	00 48 +/-1200						(U)	
950104	07 18 39.613	S2	258 550	219 0.75 2.8	20 31	3345*	U* #250 310 -11	
950104	09 00 58	S2	140 143	40 <0.1 25	BG			
950108	02 04 --					3349 (U)	020 -14	
950110	06 02 15	S2	332 180	<0.1 3600	BG			
950110	13 37 57.084	S2	234 422	213 0.05 38	100 32			
950111	04 49 12.241	S1	586 620	100 >19 92	24 33	3351	U* BG 319 -65	
950111	12 18 49.196	S1	225 435	164 1.85 26	50 34	3352	U* BG 024 -14	
950112	07 45 37.120	S2	1305 1800	336 0.04 2.5	44 35		(?)	
950113	05 59 13	S1	283 180	26 >10 52	BG			
950113	17 38 32	S2	85 162	35 <0.06 75	BG			

950114	01 00 38	S1	46	110	1.6	6	BG	
950114	04 03 01	S2	23	76	0.5	70	BG	U
950114	07 30 30.766	S2	205	406	60 <0.05	1 100	36	
950114	13 10 34.865	S1	1320	2828	516 3.1	1 10	37	U* #258
950115	02 49 32	S2	40	47	34 <0.15	24	BG	BG
950117	01 36 00	S2	56	82	42 0.22	108	BG	3360* U* 298 05
950118	17 05 --							3366 (U) 061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.

N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

-- T. L. Cline ----- LHEAVX::CLINE

13 / 2 / 95

ULYSSES RT

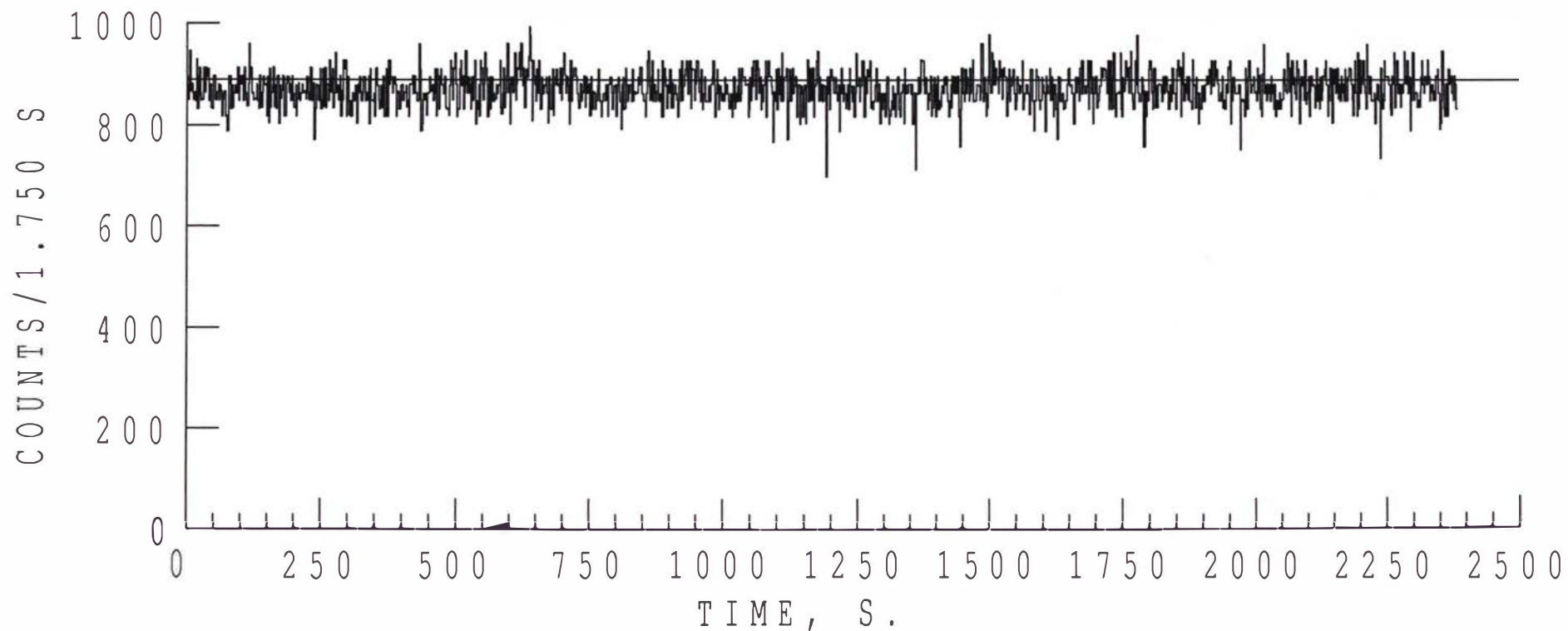
13 / 1 / 95 20340.170 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

W= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 From: KHURLEY@space6.ssl.berkeley.edu
 To: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:

63 Konus days to 1/17: 22 backgnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	Max c/s G1 G2 G3	N(1)/N(2) =G2 t<Tz t>Tz	Duration T#	BATSE Uly T# d* d*	TGRS T# RA Dec	BACODINE
941113	12 09 15	S1	145 85	2.5 115	BG			
941114	02 02 40	S2	110 128	30 0.25 12	BG	3283	92 37	
941115	06 22 --					3284 (U)	149 11	
941117	03 14 38.191	S2	406 550	74 0.17 40	5 2			
941117	14 07 57	S2	150 140	<0.15 5	BG			
941119	19 31 09.175	S2	370 703	160 0.23 7	20 4	3287* U*	#13 188 22	
941120	20 23 17.924	S1	215 328	30 >15 2	25 5			
941121	17 25 00.945	S1	1652 1656	300 21 3	50 6	3290* U*	#15 004 -63	
941123	19 51 --					3294 (U)	190 02	
941125	22 04 30.156	S2	115 308	109 0.95 1.5	5 7	3295* U*	BG	
941126	00 20 46	S1	150 205	200 >14 18	BG	3296	BG	
941126	03 55 --					3297 (U)	323 38	
941126	12 22 37.952	S1	860 1430	330 4.2 40	45 8	3298* U*	#28	
941126	16 54 20	S1	55 75	>10 26	BG			
941126	19 56 49.732	S1	290 390	211 6.7 20	26 9	3301* U*	#--	
941127	14 30 25.680	S2	200 400	95 0.17 8	7 10	3303* U*	070 50	
941127	15 39 10	S1	210 57	2.7 260	BG			
941128	15 37 00	S1	75 90	32 >15 55	BG	3305	no d	
941128	18 41 --					3306 (U)	011 -32	
941205	23 33 40.074	S2	370 460	188 0.06 6	30 11			
941207	22 10 32	S2	265 175	<0.2 7	BG			
941210	03 10 52.523	S2	900 2350	1385 0.12 1	15 14	U*	BG	
941214	17 03 51	S1	40 45	29 >6 12	BG			
941214	05 38 45.226	S1	3479 1266	14 1.0 12	240 SF	3318	BG 259 -06	
941221	07 44 08	S2	55 115	30 0.8 20	BG			
941221	22 14 35.215	S1	260 496	165 1.5 55	11 19		BG	
941222	05 36 00.243	S2	334 1360	1066 0.36 7	105 20		#145	
941228	07 39 45.915	S1	300 637	519 4.4 5	90 28	3330* U*	no d 339 -52	
941228	16 55 23	S2	40 36	23 0.25 25	BG			
941229	12 58 05	S1	46 108	31 1.8 15	BG			
941229	22 51 08.781	S2	396 381	140 0.09 7	25 29	3334* U*	no d	
941230	20 52 53	S1	74 117	52 8.4 158	BG		no d	
941230	23 43 44	S2	55 70	16 <0.2 4.5	BG		no d	
950104	00 48 +/-1200					(U)		
950104	07 18 39.613	S2	258 550	219 0.75 2.8	20 31	3345* U*	#250 310 -11	
950104	09 00 58	S2	140 143	40 <0.1 25	BG			
950108	02 04 --					3349 (U)	020 -14	
950110	06 02 15	S2	332 180	<0.1 3600	BG			
950110	13 37 57.084	S2	234 422	213 0.05 38	100 32			
950111	04 49 12.241	S1	586 620	100 >19 92	24 33	3351 U*	BG 319 -65	
950111	12 18 49.196	S1	225 435	164 1.85 26	50 34	3352 U*	BG 024 -14	
950112	07 45 37.120	S2	1305 1800	336 0.04 2.5	44 35		(?)	
950113	05 59 13	S1	283 180	26 >10 52	BG			
950113	17 38 32	S2	85 162	35 <0.06 75	BG			

950114	01 00 38	S1	46	110	1.6	6	BG	
950114	04 03 01	S2	23	76	0.5	70	BG	U
950114	07 30 30.766	S2	205	406	60 <0.05	1 100	36	
950114	13 10 34.865	S1	1320	2828	516 3.1	1 10	37	U* #258
950115	02 49 32	S2	40	47	34 <0.15	24	BG	BG
950117	01 36 00	S2	56	82	42 0.22	108	BG	3360* U* 298 05
950118	17 05 --							3366 (U) 061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.

N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

-- T. L. Cline ----- LHEAVX::CLINE

Date: Aug 11 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

EL only

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)?
- ☐ BATSE ephemeris for T_0 ?
- ☐ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included?

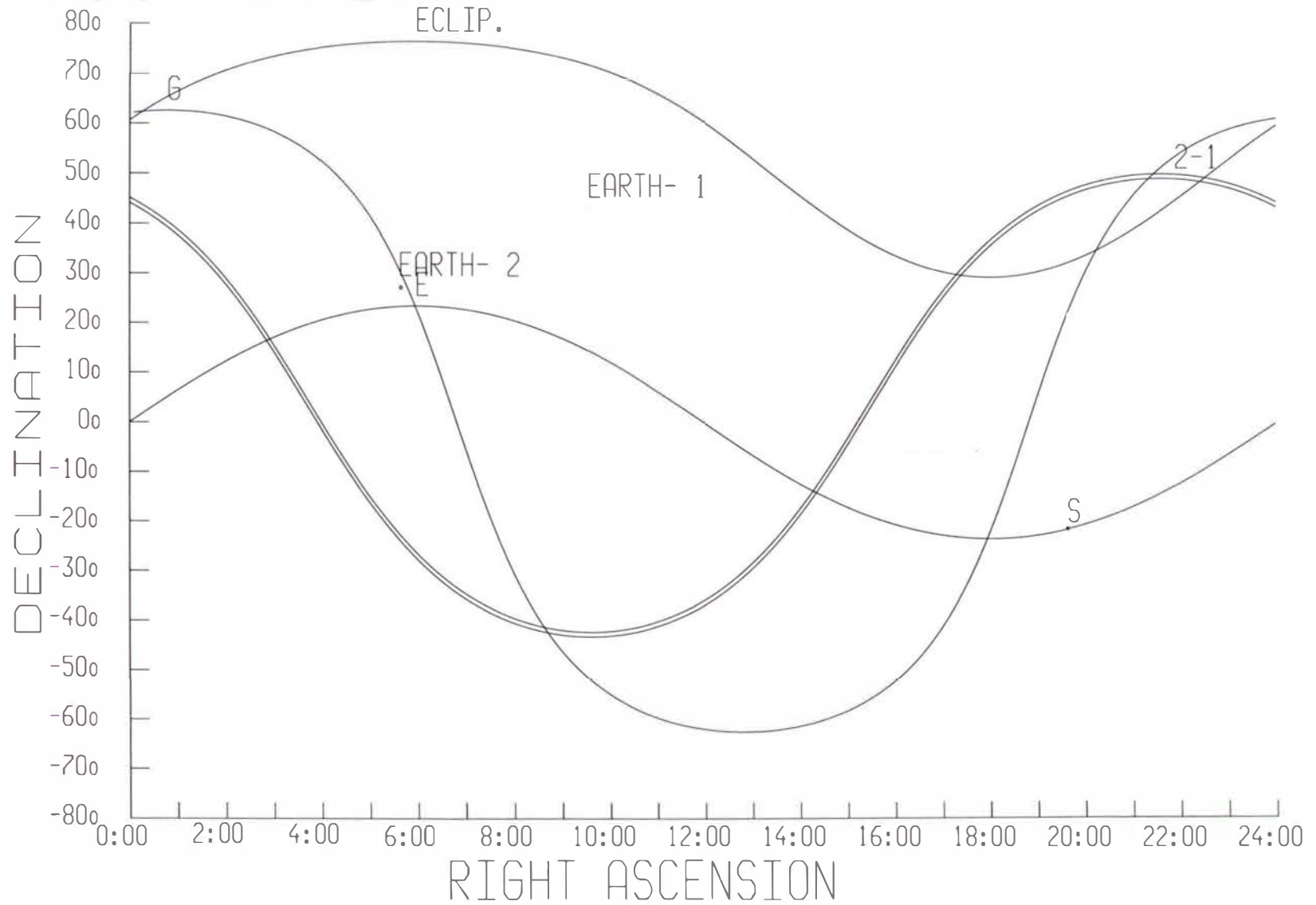
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

EVENT OF JAN 13, 1995 17:39

11/08/2011

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



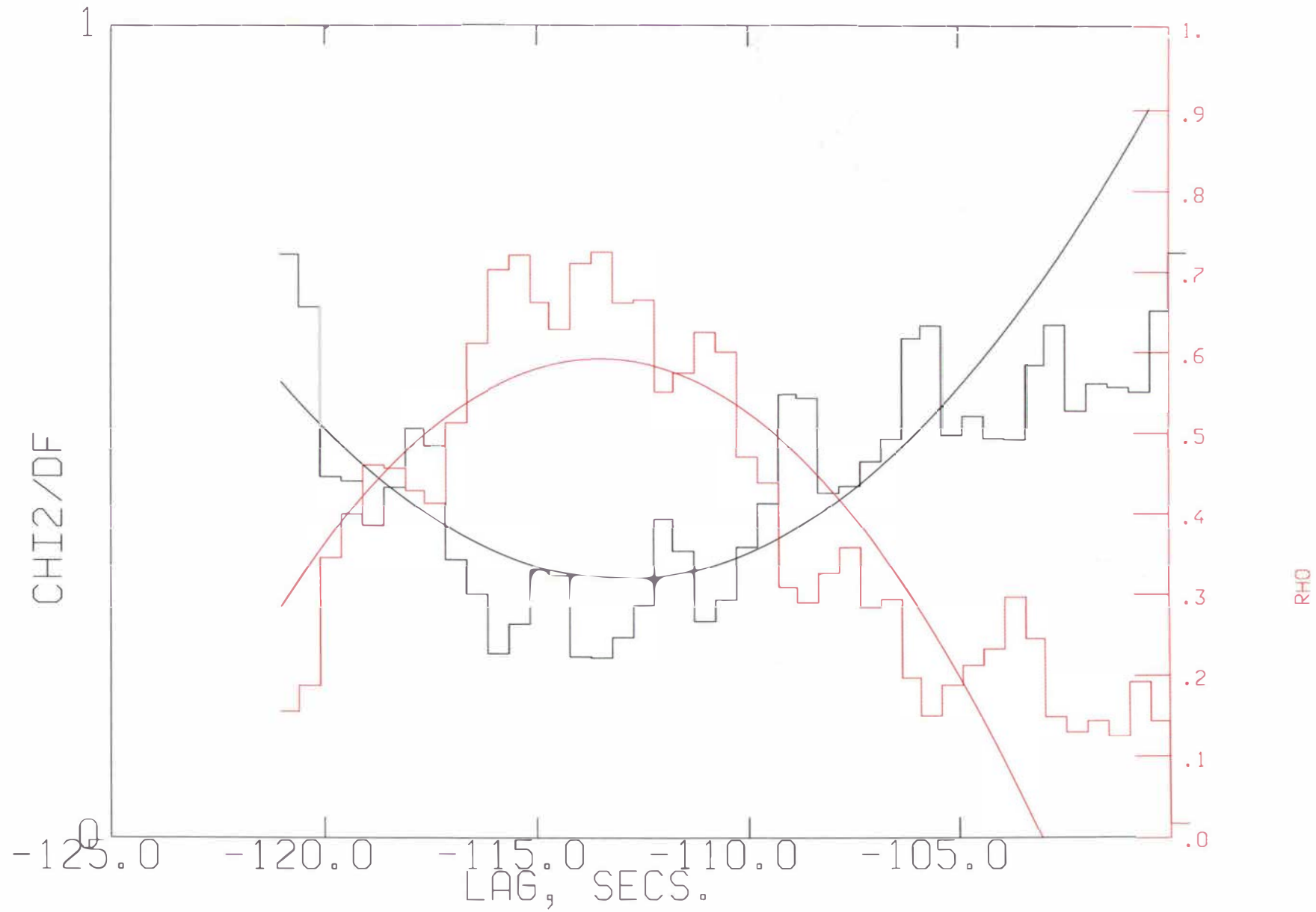
KONUS

-ULYSSES RT CORRELATION

13/01/95

63403.934

11/ 8/11

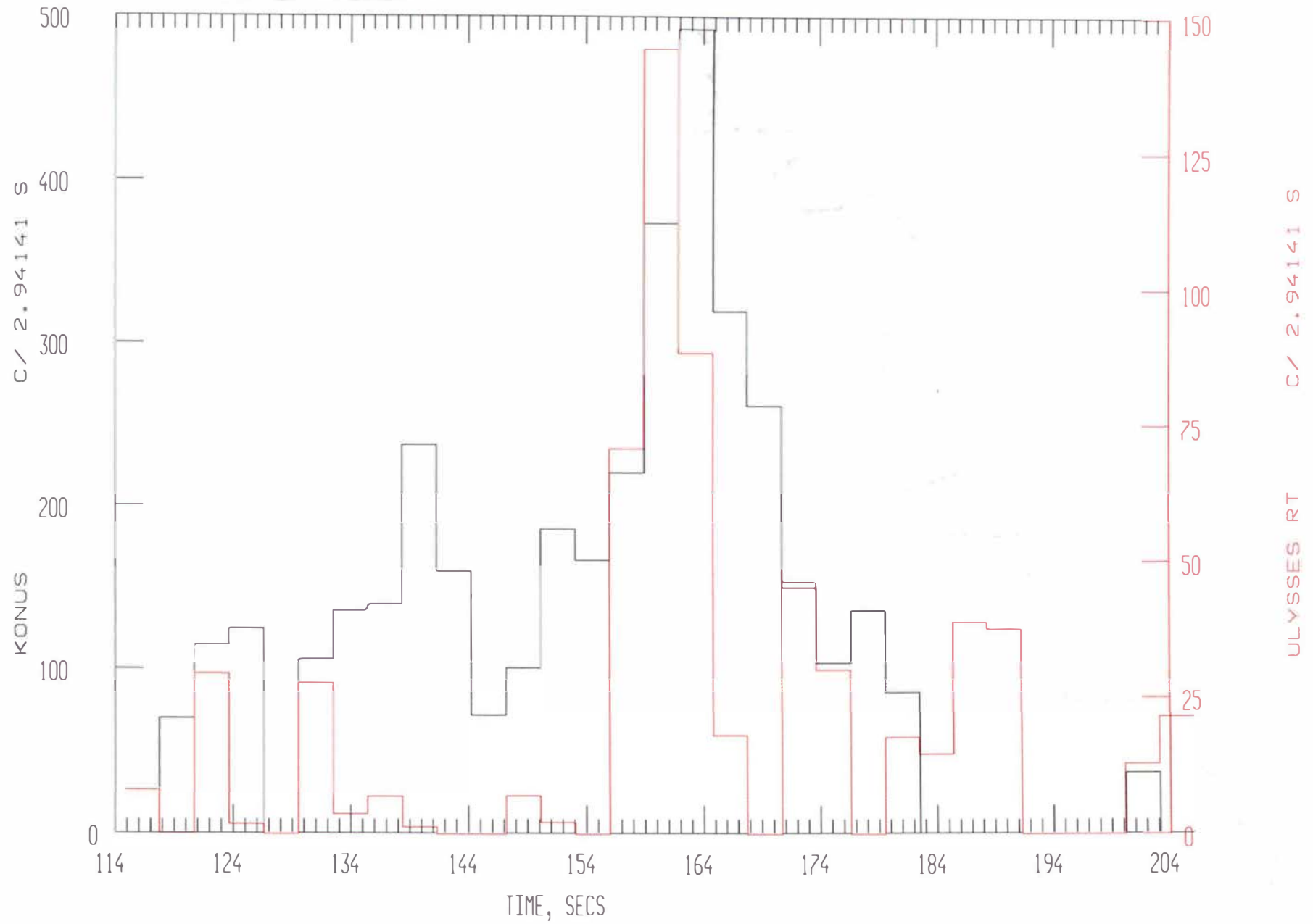


KONUS

-ULYSSES RT CORRELATION

13/01/95 63403.934

11/ 8/11



KONUS

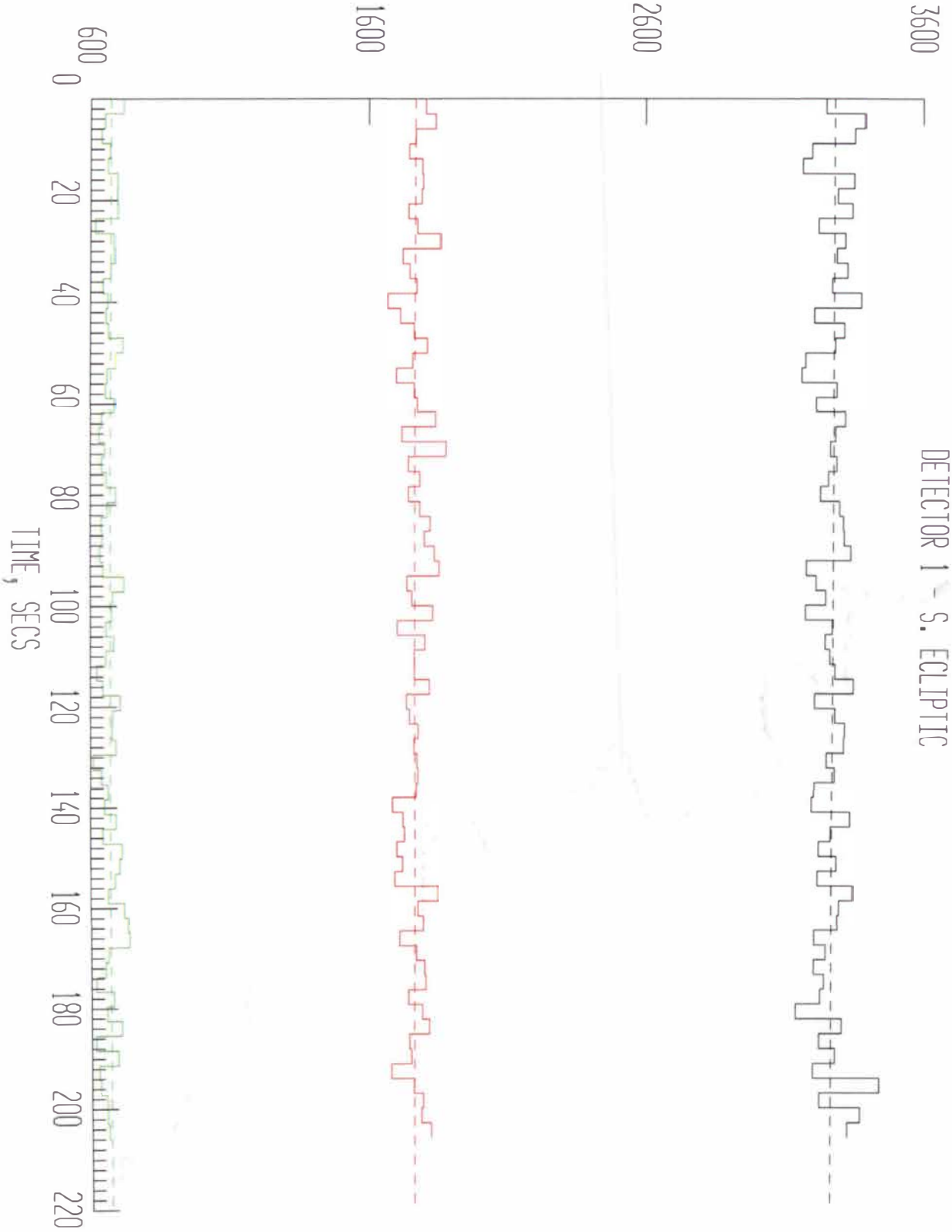
13/01/95 63403.934

10- 50 keV

50- 200 keV

200- 750 keV

COUNTS/2.941 S



11/08/2011

KONUS

13/01/95

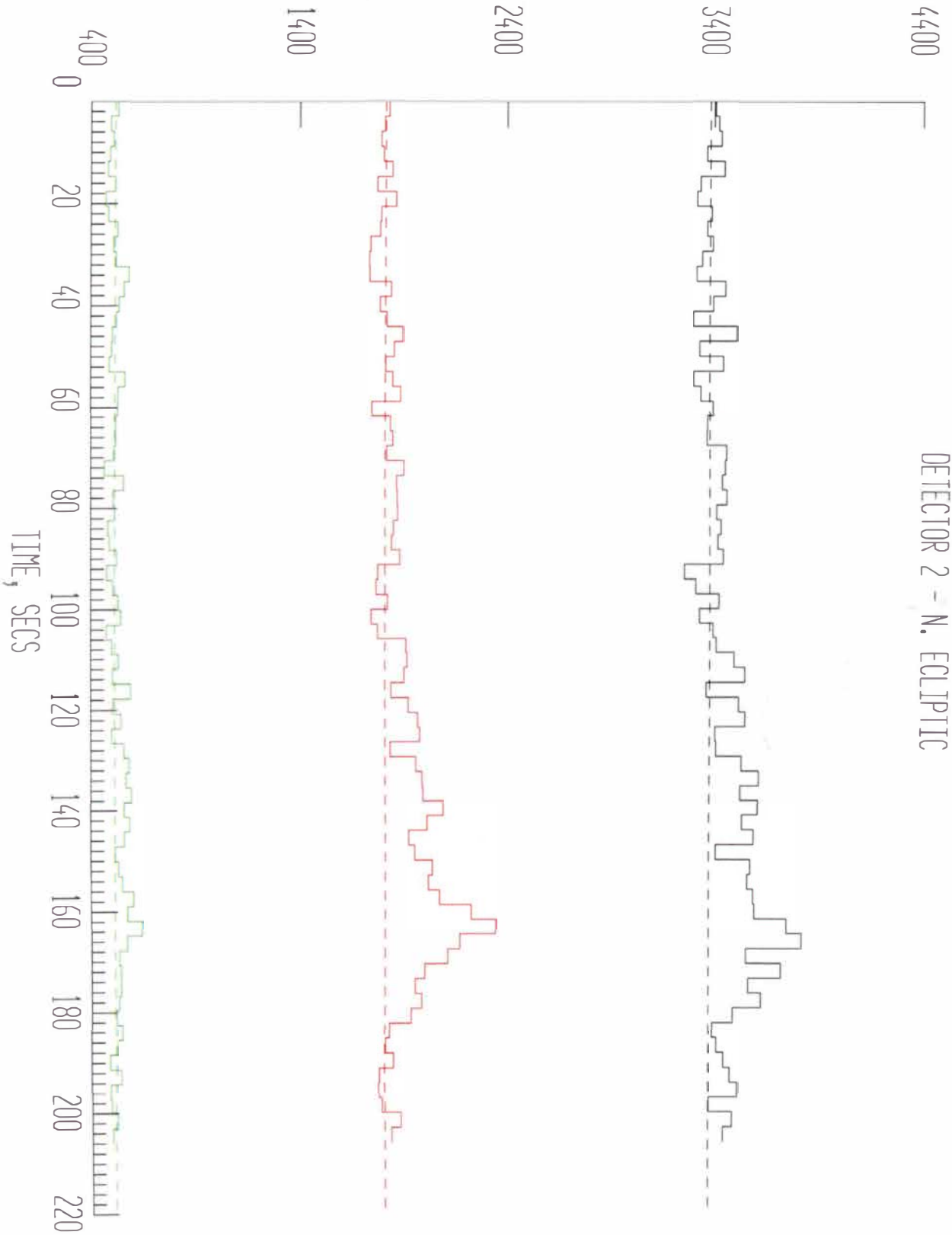
63403.934

10- 50 keV

50- 200 keV

200- 750 keV

COUNTS/2.941 S



KONUS 19950113 63641

ULYSSES RT

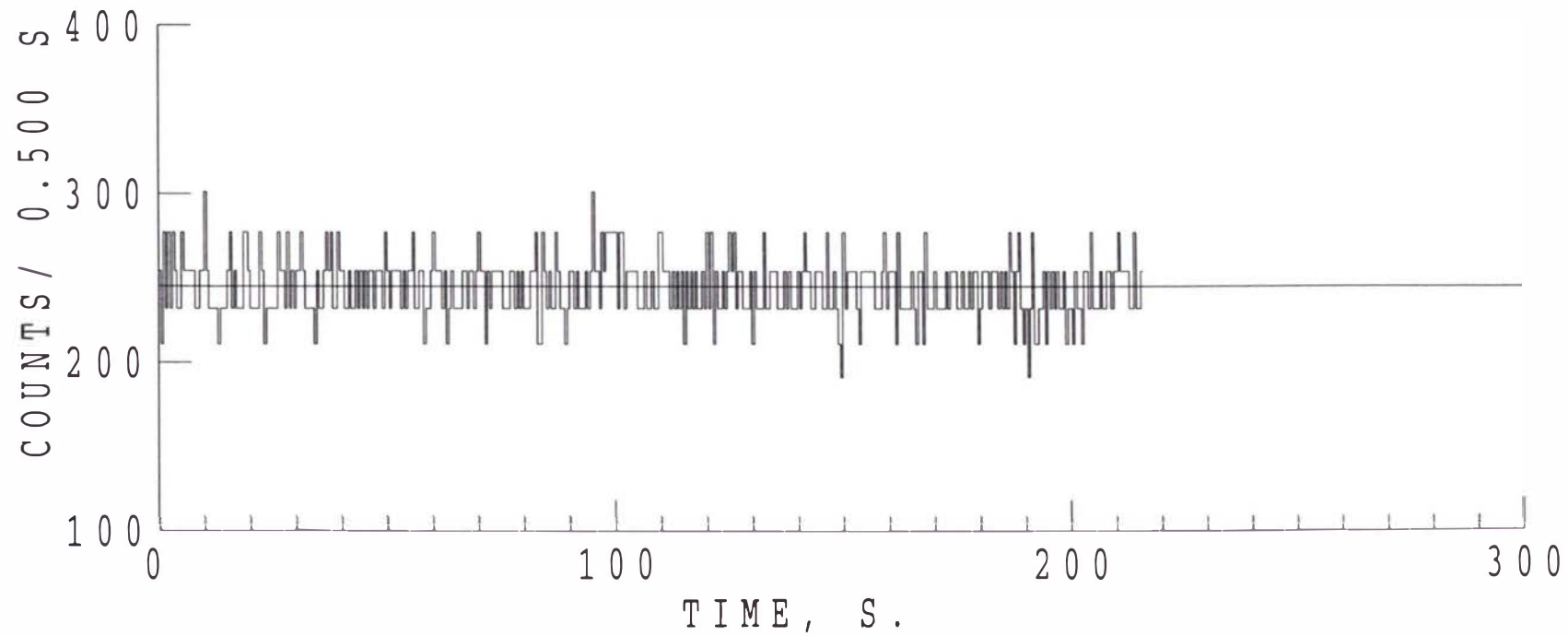
11 / 08 / 11

13 / 01 / 95 63540.289 s

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



13 / 2 / 95

ULYSSES RT

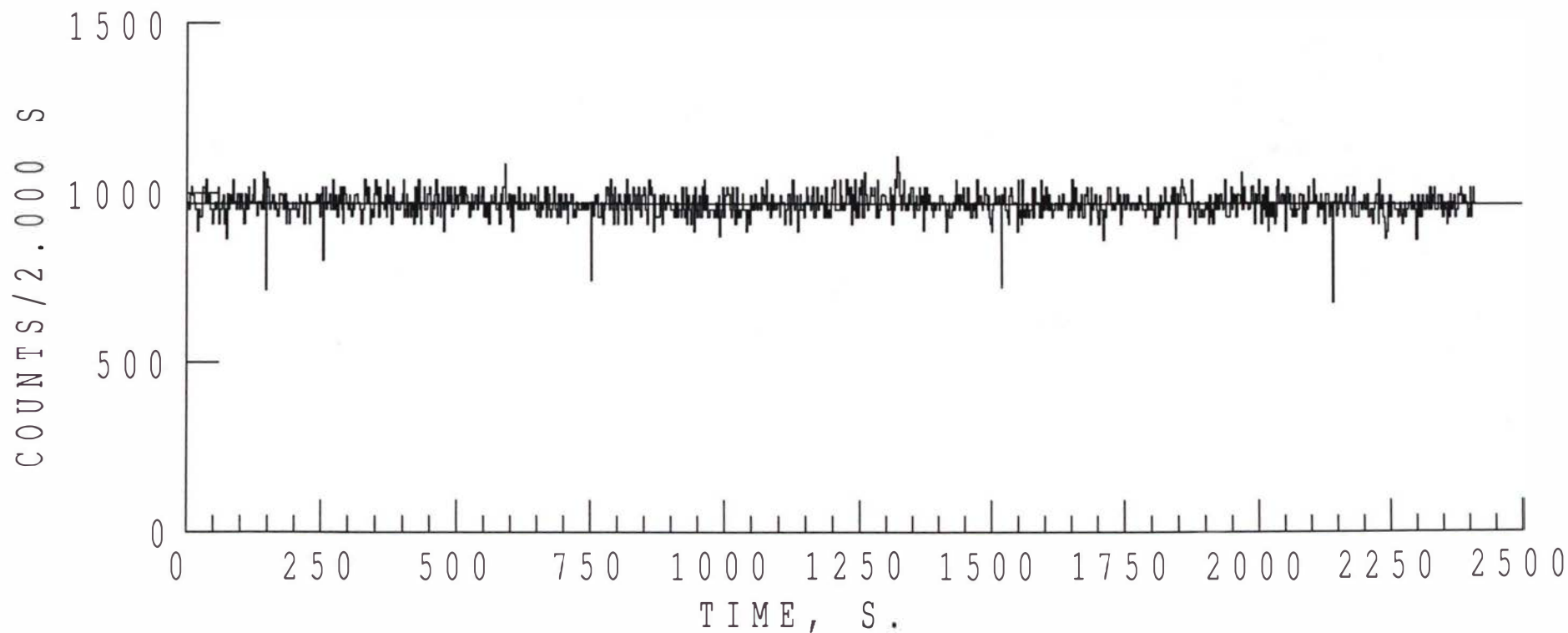
13 / 1 / 95 62316.270 s

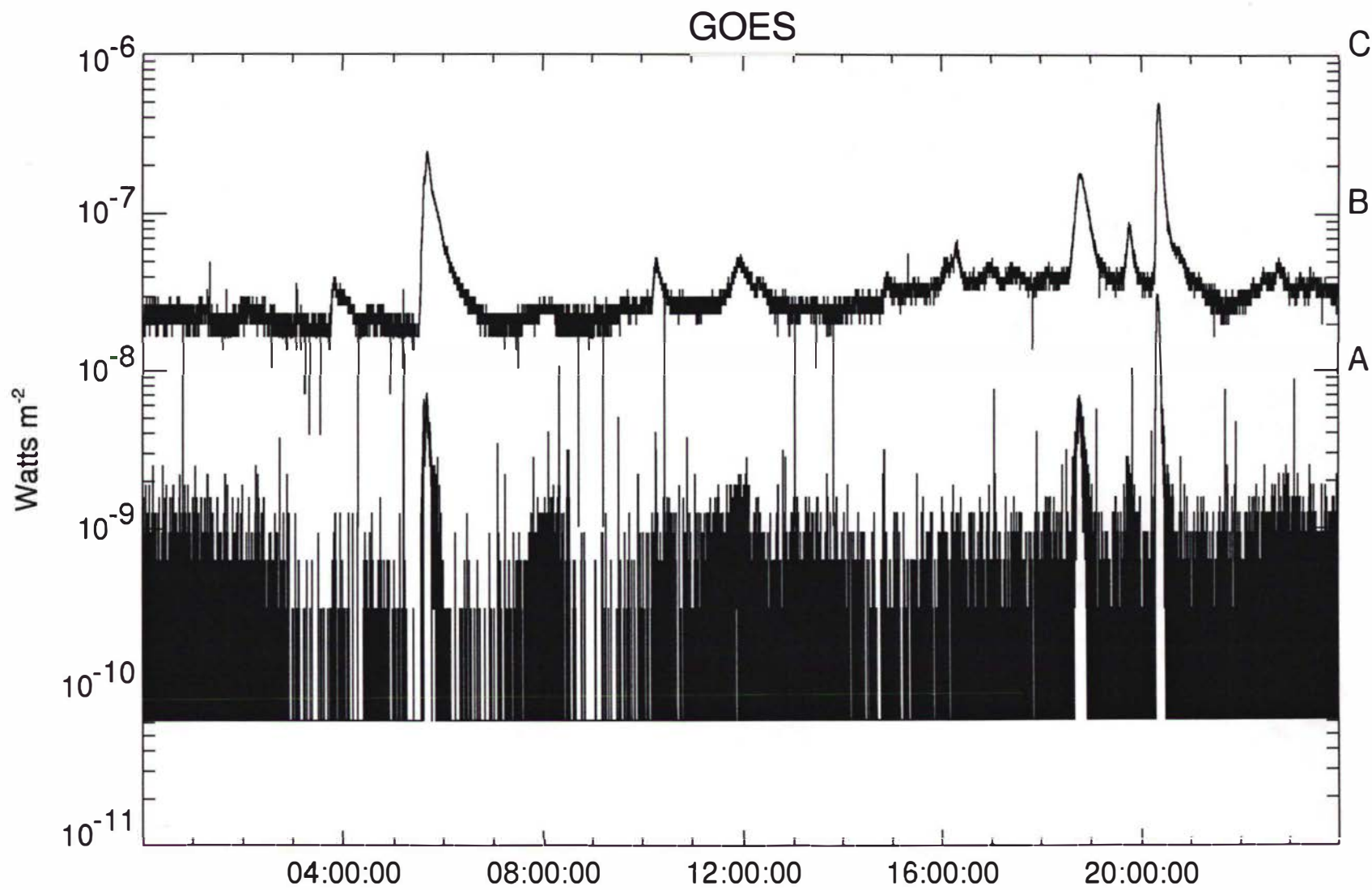
0.500 S INTERVALS REGROUPED BY 4

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 95/01/13, 0000:00

Plot created: 95/01/18, 1458

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

From KOSHUT@ssl.msfc.nasa.gov Sat Jan 14 11:43 PST 1995
Date: Sat, 14 Jan 1995 13:43:42 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3355

TIME: TJD=9730 SECONDS=75359

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

THIS IS A CORRECTION TO THE PREVIOUS MESSAGE FOR TRIGGER 3355, WHICH
HAD AN INCORRECT TJD. THIS TRIGGER WAS THE RESULT OF PASSAGE THROUGH
THE SAA.

From root Fri Jan 13 16:30 1995
Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)
id AA05875; Fri, 13 Jan 95 16:29:37
Received: from xtelab.gsfc.nasa.gov by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA05332; Fri, 13 Jan 1995 16:28:48 +0800
Received: (from scott@localhost) by xtelab.gsfc.nasa.gov (LHEA9404/940426.sl) id TAA14767; Fri
Date: Fri, 13 Jan 1995 19:26:15 -0500
From: Scott Barthelmy <scott@xtelab.gsfc.nasa.gov>
Message-Id: <199501140026.TAA14767@xtelab.gsfc.nasa.gov>
To: ables@sl.gov, akerlof@mich.physics.lsa.umich.edu, astmph@earn.cvut.cz,
Content-Length: 1025
Status: R

BACODINE sites:

13 Jan 95

A BACODINE notice was sent out at 20:56 UT 13 Jan 95.

This was for BATSE trigger# 3355.

The intensity was 7420, and the RA=36.67 Dec=17.37 (current epoch).

THIS IS NOT A REAL GRB! THIS IS NOT A REAL GRB!

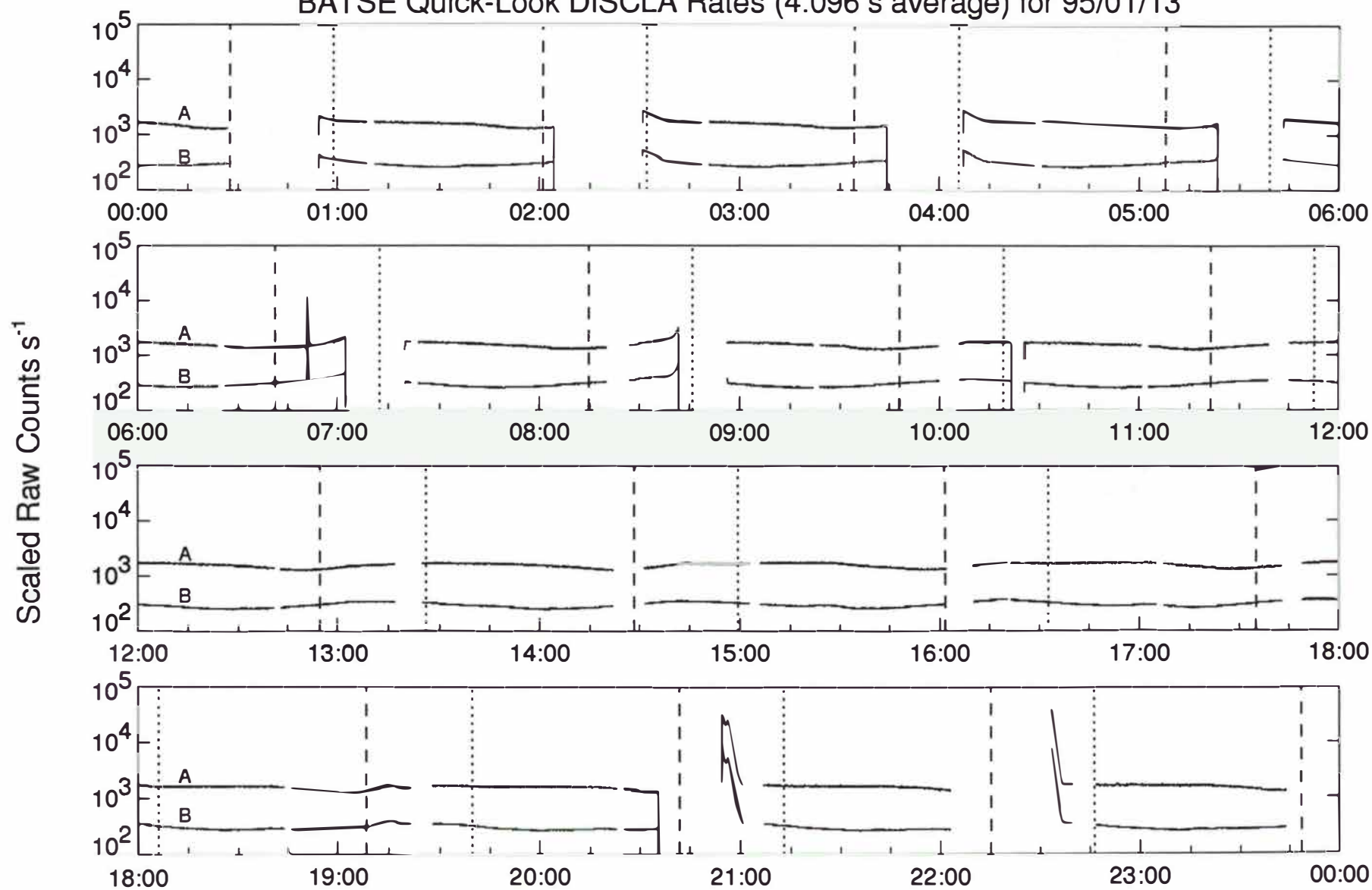
This is some sort of Particle Event upon exiting the SAA.
This is an example of the slightly less than 1 in 10 times that a BACODINE
event with an intensity greater than 1000 is not a real GRB.

Scott Barthelmy	NASA-GSFC, Code 661, Greenbelt, MD	20706
PHONE: 301-286-3106	(work)	
EMAIL: scott@xtelab.gsfc.nasa.gov		
PAGER: 1-800-SKY-PAGE, PIN 2618712	(by phone)	
PAGER: 2618712@skymail.com	(by email, 240 characters max per message)	

PS Sorry for the delay in this notice. I was in a "cloistered" meeting
all day today.

PPS Please note that the the Trigger ID filter code has NOT been turned on yet.
It will be within the week -- I will send out formal notice when it happens.

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/13

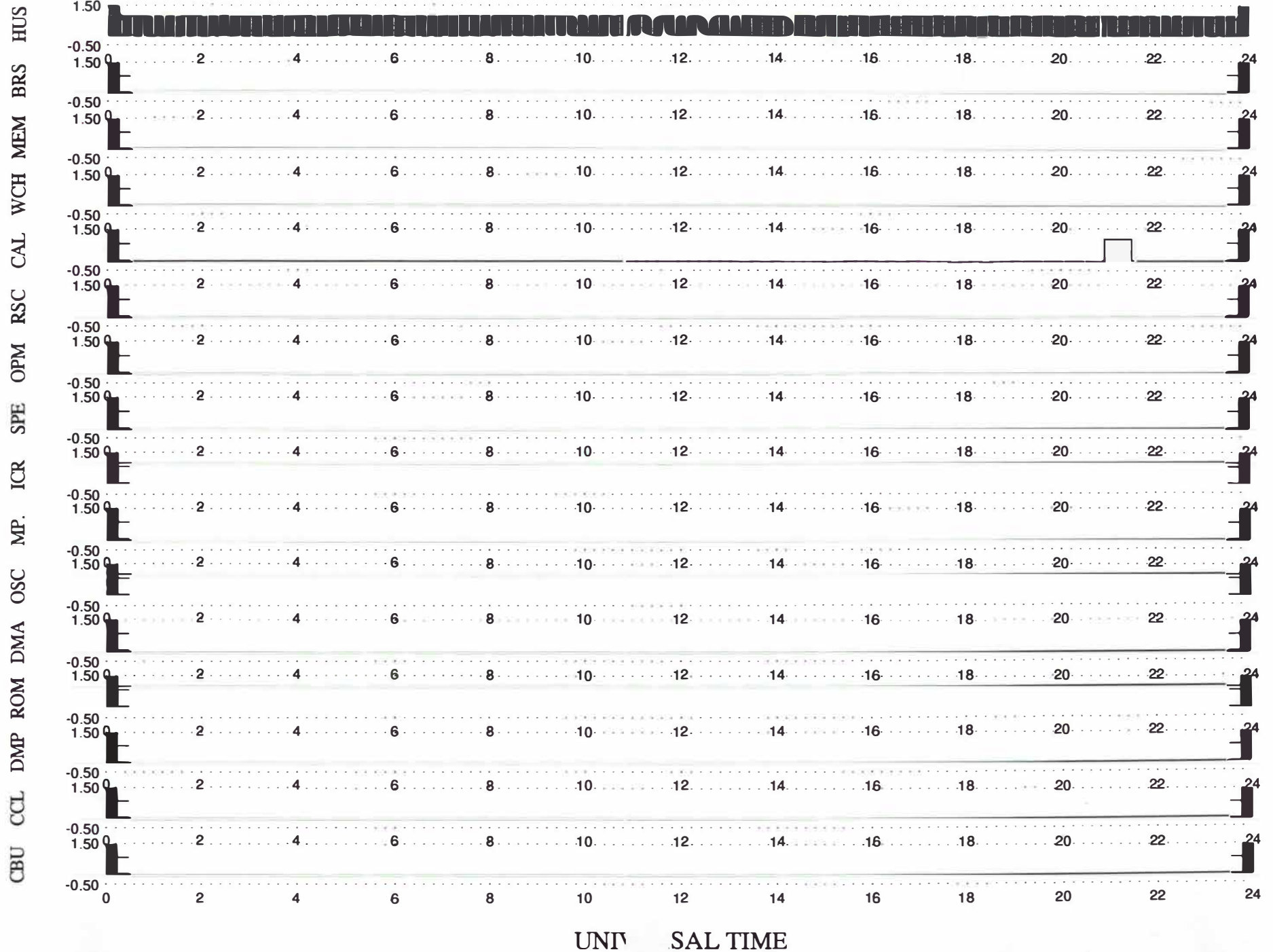


Current Time: 95/01/17, 1808 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

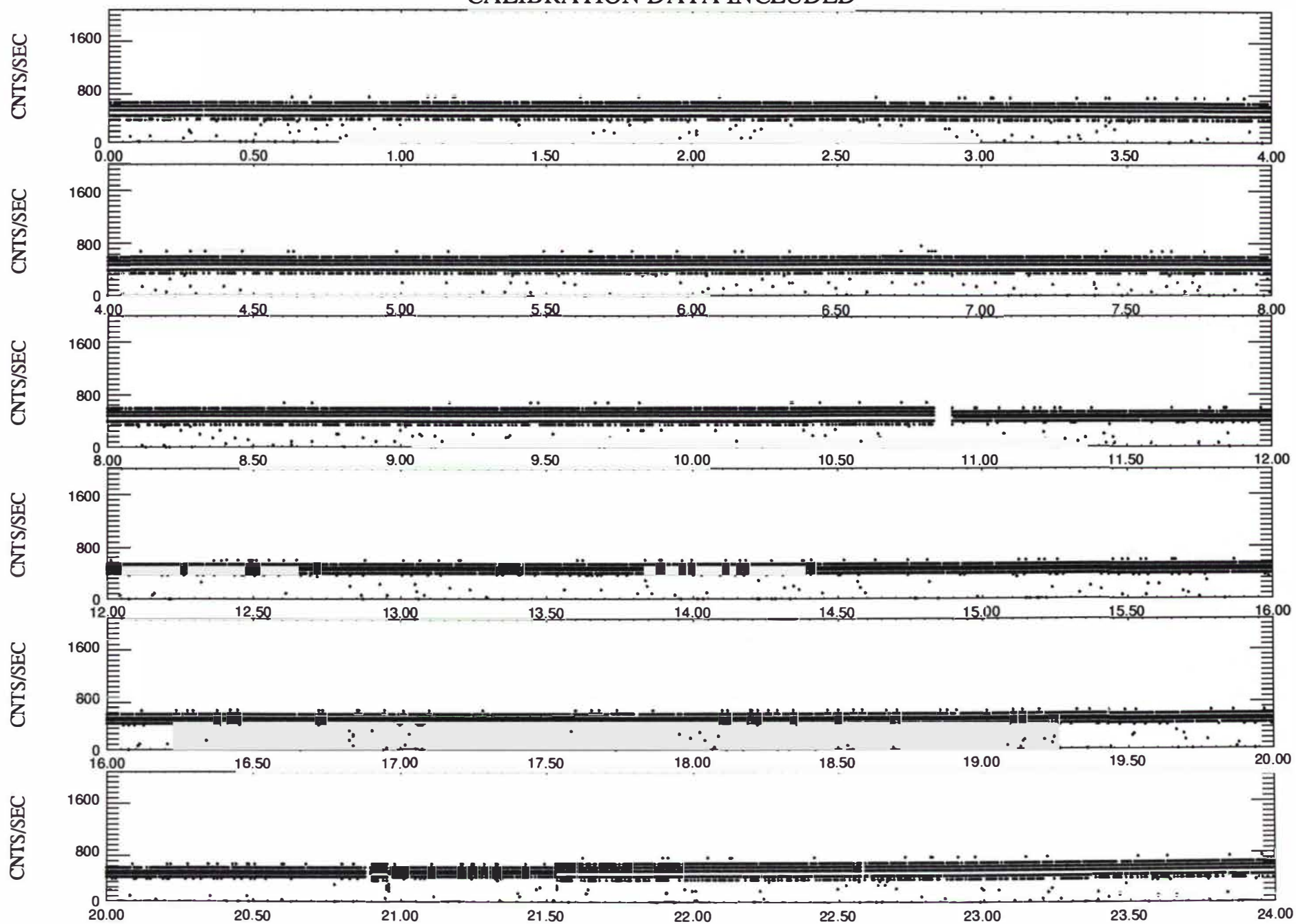
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

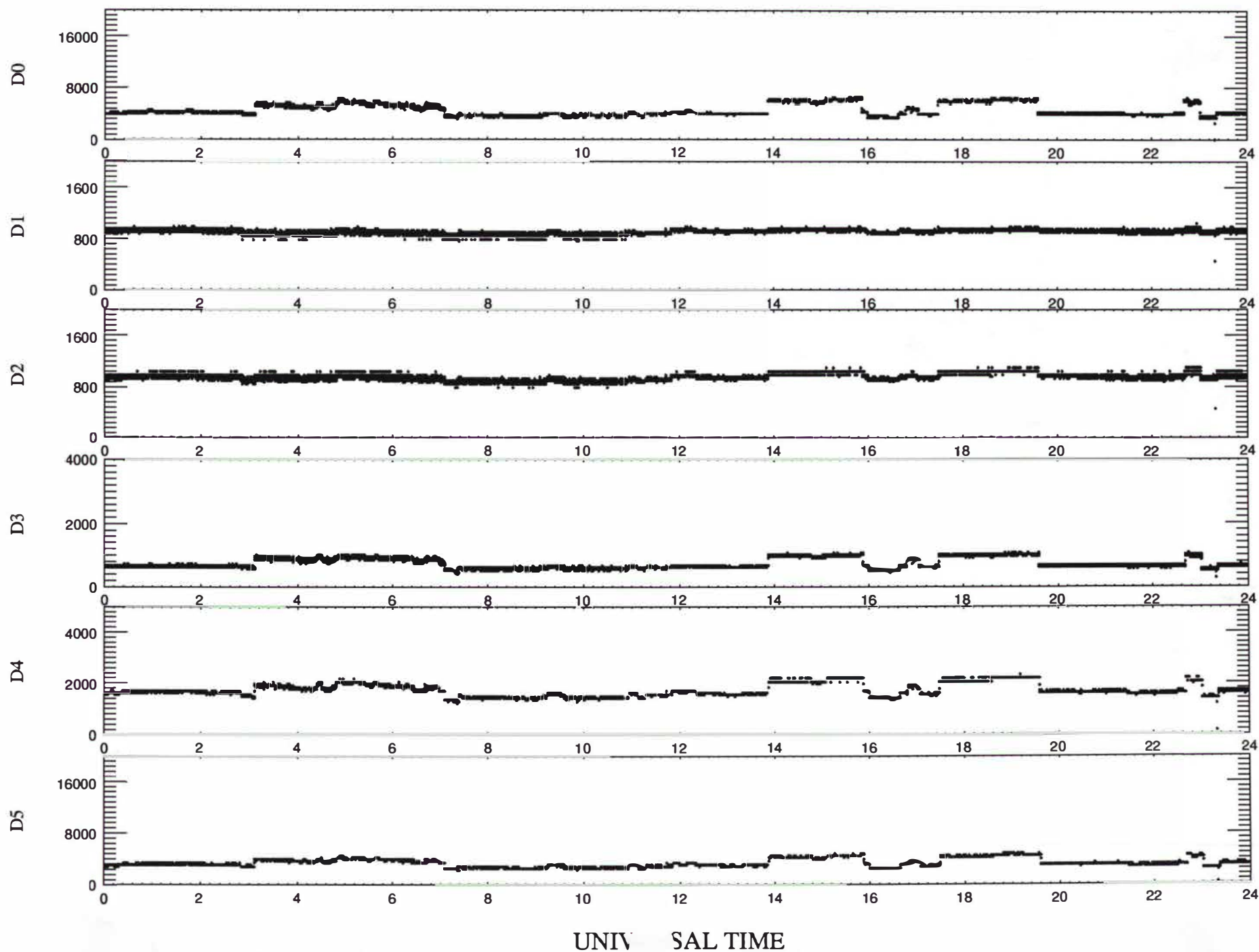
NO BURST (10)



CALIBRATION DATA INCLUDED



UNIFORM SAL TIME



From HENZE@fender.msfc.nasa.gov Wed Jan 18 08:39 PST 1995
Return-Path: <HENZE@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA29470; Wed, 18 Jan 1995 08:39:33 +0800
Date: Tue, 17 Jan 1995 11:52:14 -0600 (CST)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950117115214.21600723@fender.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3356
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

No

BATSEARCH PROGRAM

BATSE BURST # 3356
EVENT OF 1995 JAN 14 DAY OF YEAR= 14
EVENT CROSSING TIME AT BATSE : 3642. S. OR 01:00:42.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 314.000 -24.000
BATSE PEAK COUNTING RATE: 7600 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/ 1/ 95 IS:
RA= 323.171 DEC= -43.450 DIST= 2.225 AU
BATSE-ULYSSES DISTANCE = 332850712. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=159.14 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1037.50 SECS.
CROSSING TIME AT ULYSSES IS 2605. S. OR 00:43:24 +/- 102.88 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/ 1/ 95 IS:
RA= 155.310 DEC= 14.501 DIST= 0.762 AU
MARS-BATSE DISTANCE = 114033856. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 22.21 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 352.16 SECS.
CROSSING TIME AT MARS IS 3994. S. OR 01:06:34 +/- 30.31 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3356	950114	9731	03642	7600	314	-24

BATSE BURST TRIGGER

NO.: 03356

TIME: TJD=9731 SECONDS=03642

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=078.6 AZIMUTH=002.9 ERROR= DEGREES

COMMENTS:

SINGLE PULSE, DUR. ~13 S. NOT VISIBLE ABOVE 300 KEV.

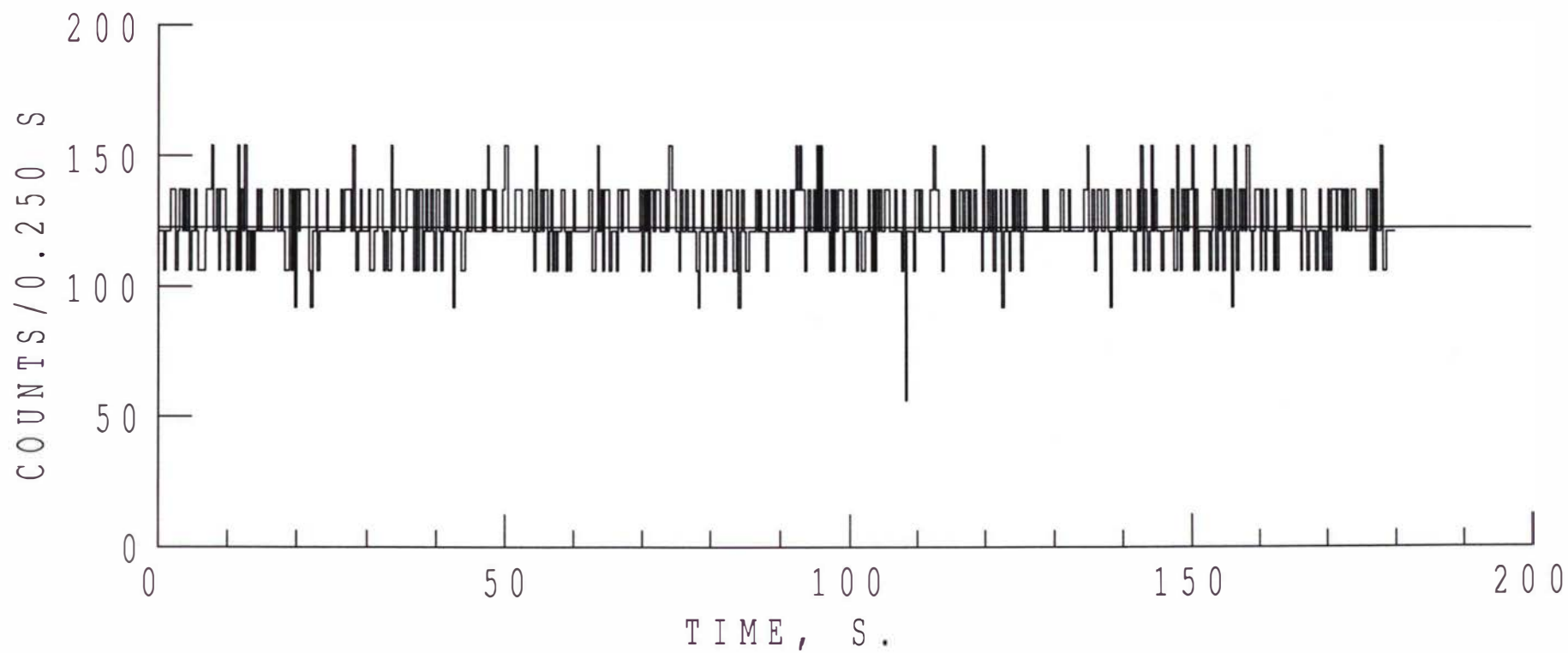
18 / 1 / 95

ULYSSES RT

14 / 1 / 95 2520.039 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



950114 01 00 38 S1 46 110 1.6 6 BG
 950114 04 03 01 S2 23 76 0.5 70 BG U
 950114 07 30 30.766 S2 205 406 60 <0.05 1 100 36
 950114 13 10 34.865 S1 1320 2828 516 3.1 1 10 37 U* #258
 115 02 49 32 S2 40 47 34 <0.15 24 BG BG
 117 01 36 00 S2 56 82 42 0.22 108 BG 3360* U* 298 05
 950118 17 05 -- 3366 (U) 061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.
 N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

 -- T. L. Cline ----- LHEAVX::CLINE

Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:

63 Konus days to 1/17: 22 backnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	G1	G2	G3	N(1)/N(2) =G2	t<Tz	t>Tz	Duration T#	BATSE Uly T# d* d*	TGRS T#	BACODINE RA Dec
941113	12 09 15	S1	145	85		2.5	115		BG			
941114	02 02 40	S2	110	128	30	0.25	12		BG	3283		92 37
941115	06 22 --									3284 (U)		149 11
941117	03 14 38.191	S2	406	550	74	0.17	40	5	2			
941117	14 07 57	S2	150	140		<0.15	5		BG			
941119	19 31 09.175	S2	370	703	160	0.23	7	20	4	3287*	U*	#13 188 22
941120	20 23 17.924	S1	215	328	30	>15	2	25	5			
941121	17 25 00.945	S1	1652	1656	300	21	3	50	6	3290*	U*	#15 004 -63
941123	19 51 --									3294 (U)		190 02
941125	22 04 30.156	S2	115	308	109	0.95	1.5	5	7	3295*	U*	BG
941126	00 20 46	S1	150	205	200	>14	18		BG	3296		BG
941126	03 55 --									3297 (U)		323 38
941126	12 22 37.952	S1	860	1430	330	4.2	40	45	8	3298*	U*	#28
941126	16 54 20	S1	55	75		>10	26		BG			
941126	19 56 49.732	S1	290	390	211	6.7	20	26	9	3301*	U*	#--
941127	14 30 25.680	S2	200	400	95	0.17	8	7	10	3303*	U*	070 50
941127	15 39 10	S1	210	57		2.7	260		BG			
941128	15 37 00	S1	75	90	32	>15	55		BG	3305		no d
941128	18 41 --									3306 (U)		011 -32
941205	23 33 40.074	S2	370	460	188	0.06	6	30	11			
941207	22 10 32	S2	265	175		<0.2	7		BG			
941210	03 10 52.523	S2	900	2350	1385	0.12	1	15	14		U*	BG
941214	17 03 51	S1	40	45	29	>6	12		BG			
941214	05 38 45.226	S1	3479	1266	14	1.0	12	240	SF	3318		BG 259 -06
941221	07 44 08	S2	55	115	30	0.8	20		BG			
941221	22 14 35.215	S1	260	496	165	1.5	55	11	19			BG
941222	05 36 00.243	S2	334	1360	1066	0.36	7	105	20			#145
941228	07 39 45.915	S1	300	637	519	4.4	5	90	28	3330*	U*	no d 339 -52
941228	16 55 23	S2	40	36	23	0.25	25		BG			
941229	12 58 05	S1	46	108	31	1.8	15		BG			
941229	22 51 08.781	S2	396	381	140	0.09	7	25	29	3334*	U*	no d
941230	20 52 53	S1	74	117	52	8.4	158		BG			no d
941230	23 43 44	S2	55	70	16	<0.2	4.5		BG			no d
950104	00 48 +/-1200									(U)		
950104	07 18 39.613	S2	258	550	219	0.75	2.8	20	31	3345*	U*	#250 310 -11
950104	09 00 58	S2	140	143	40	<0.1	25		BG			
950108	02 04 --									3349 (U)		020 -14
950110	06 02 15	S2	332	180		<0.1	3600		BG			
950110	13 37 57.084	S2	234	422	213	0.05	38	100	32			
950111	04 49 12.241	S1	586	620	100	>19	92	24	33	3351	U*	BG 319 -65
950111	12 18 49.196	S1	225	435	164	1.85	26	50	34	3352	U*	BG 024 -14
950112	07 45 37.120	S2	1305	1800	336	0.04	2.5	44	35			(?)
950113	05 59 13	S1	283	180	26	>10	52		BG			
950113	17 38 32	S2	85	162	35	<0.06	75		BG			

13 / 2 / 95

ULYSSES RT

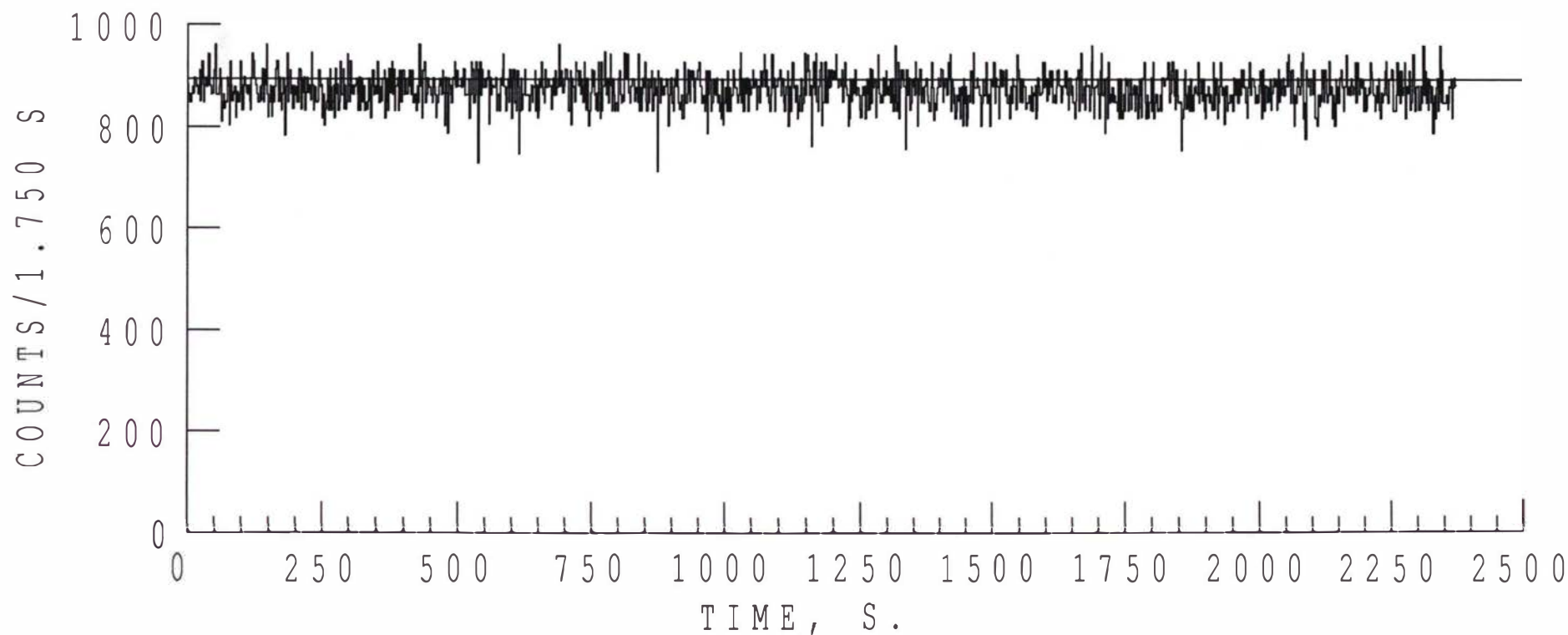
14 / 1 / 95 2448.039 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From root Thu Jan 26 12:09 1995

Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)

id AA09916; Thu, 26 Jan 95 12:09:38

Received: from TGRS.GSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)

id AA01181; Thu, 26 Jan 1995 12:08:59 +0800

Date: Thu, 26 Jan 1995 12:08:59 +0800

Message-Id: <9501262008.AA01181@sunspot.ssl.berkeley.edu>

Received: from [128.183.8.198] ([128.183.8.198]) by TGRS.GSFC.NASA.GOV with SMTP;

Thu, 26 Jan 1995 15:11:15 -0500 (EST)

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

To: KHURLEY@space6.ssl.berkeley.edu

From: cline@tgrs.gsfc.nasa.gov (T L Cline)

Subject: KONUS/BATSE/ULYSSES EVENT LIST TO 95 JAN 17

Cc: Mazets@mz.pti.spb.su

Content-Length: 1824

Status: R

KEVIN:

BASED ON WHAT I HAVE FROM SERGEI GOLENETSKII AND FROM YOU, THIS IS THE
CURRENT LIST OF ALL KONUS-ULYSSES EVENTS UP TO 95 JAN 17 WITH ALL BUT TWO
ALSO BATSE.

X means sent with explanation

✓ means sent to TLC

Date	KONUS-Tzero	Sensor	Max c/s	N(1)/N(2)	Duration	Event	BATSE	ULYSSES	BATSE
	(UT)		G1 G2 G3	(G2)	t<Tz t>Tz	K-no T-no	EVENT		
941119	19 31 09.175	S2	370 703	160	0.23	7 20	4	3287	ULY ✓
941121	17 25 00.945	S1	1652 1656	300	21	3 50	6	3290	ULY ✓
941125	22 04 30.156	S2	115 308	109	0.95	1.5 5	7	3295	ULY ✓
941126	12 22 37.952	S1	860 1430	330	4.2	40 45	8	3298	ULY ✓
941126	19 56 49.732	S1	290 390	211	6.7	20 26	9	3301	ULY ✓
941127	14 30 25.680	S2	200 400	95	0.17	8 7	10	3303	ULY ✓
941210	03 10 52.523	S2	900 2350	1385	0.12	1 15	14	----	ULY ✓
941228	07 39 45.915	S1	300 637	519	4.4	5 90	28	3330	ULY ✓
941229	22 51 08.781	S2	396 381	140	0.09	7 25	29	3334	ULY ✓
950104	07 18 39.613	S2	258 550	219	0.75	2.8 20	31	3345	ULY ✓
950111	04 49 12.241	S1	586 620	100	>19	92 24	33	3351	ULY ✓
950114	04 03 01	S2	23 76		0.5	70	BG	----	ULY ✓
950117	01 36 00	S2	56 82	42	0.22	108	BG	3360	ULY ✓

Energy intervals G1, G2, G3: 14 - 50, 50 - 225 and 225 - 900 keV.

Since 12th December: 12.5 - 43, 43 - 190 and 190 - 760 keV.

N(1)/N(2) is ratio of sensor 1 to sensor 2 counts in G2.

WHEN YOU HAVE A CHANCE, PLEASE SEND THESE TIME HISTORIES FIRST. THANKS. TLC

-- T. L. Cline ----- LHEAVX::CLINE

KONUS

14/01/95

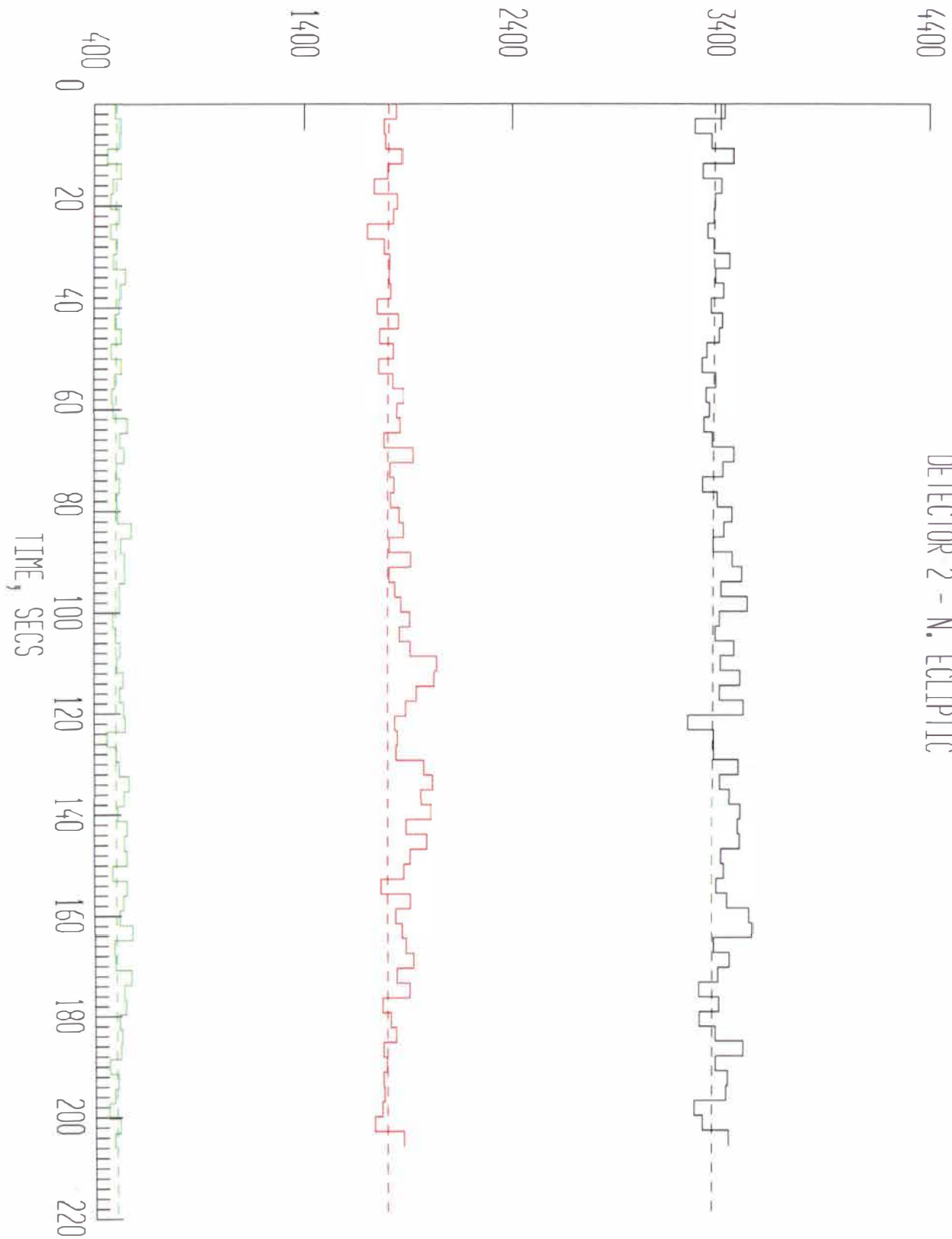
14472.217

10- 50 keV

50- 200 keV

200- 750 keV

COUNTS/2.944 S



KONUS

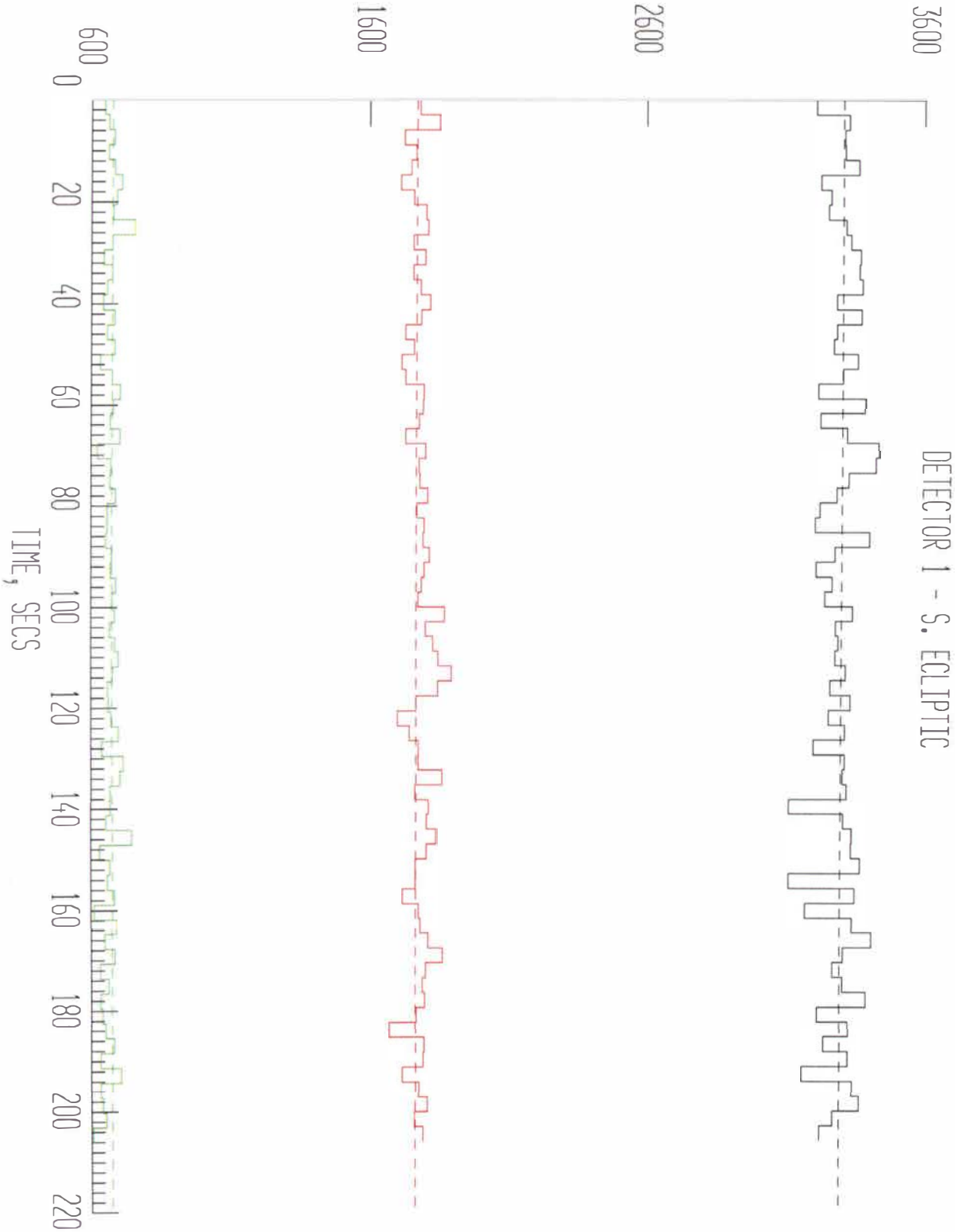
14/01/95 14472.217

10- 50 keV

50- 200 keV

200- 750 keV

COUNTS/2.944 S



1 / 5 / 95

ULYSSES RT

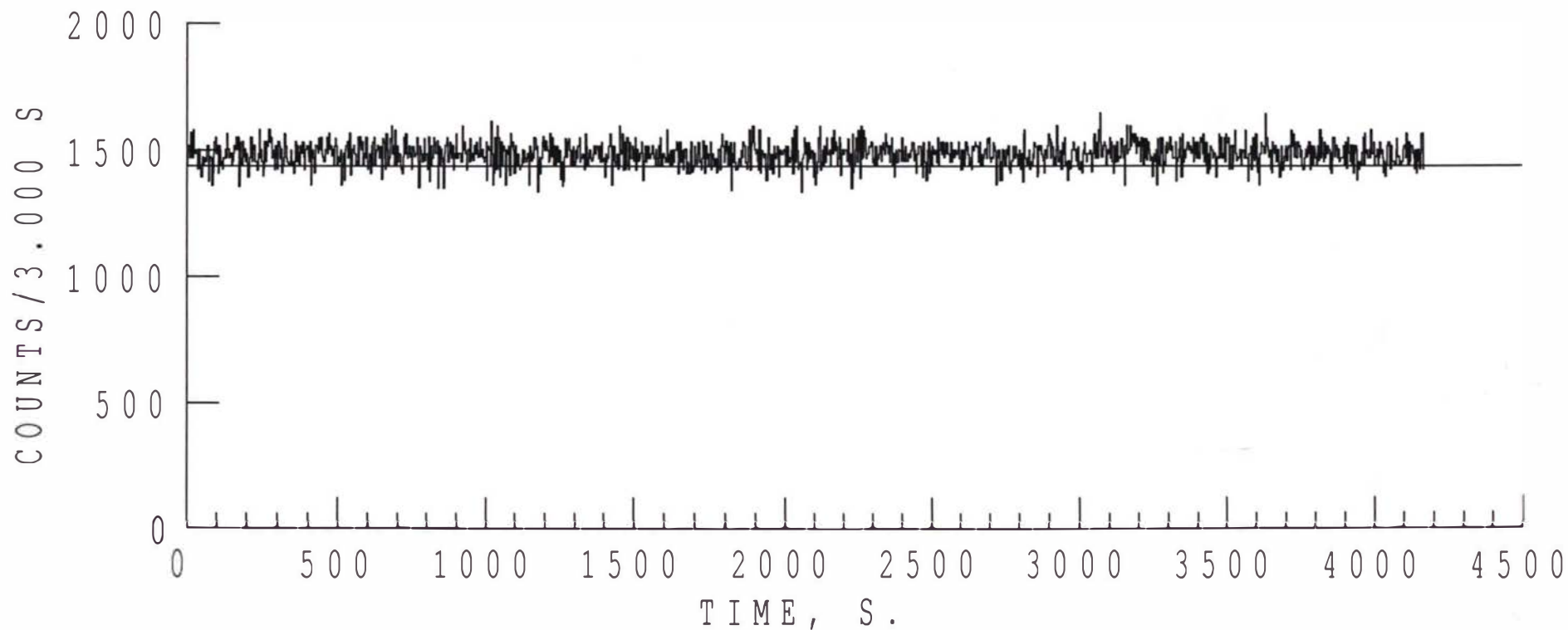
14 / 1 / 95 12492.234 s

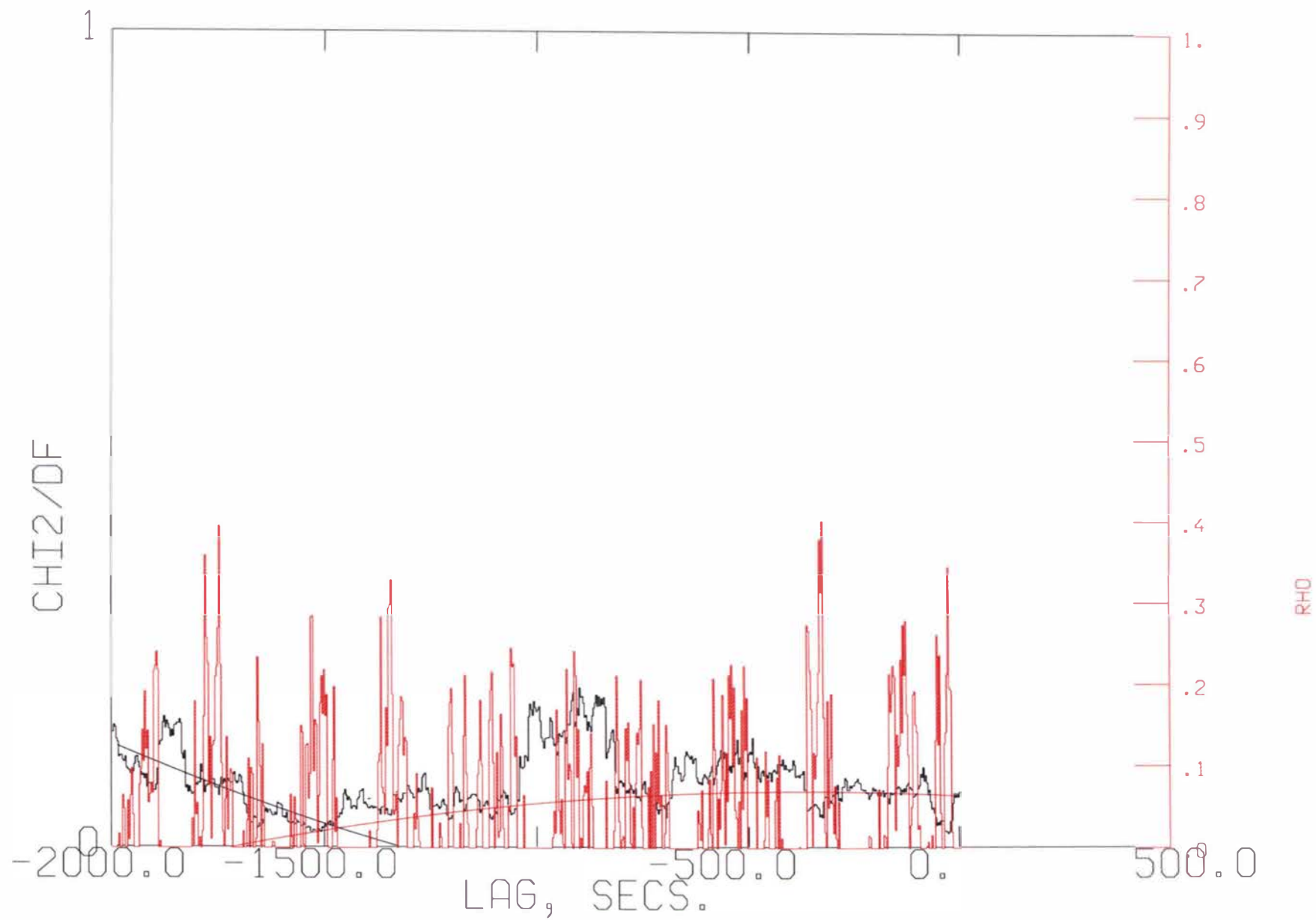
0.250 S INTERVALS REGROUPED BY 12

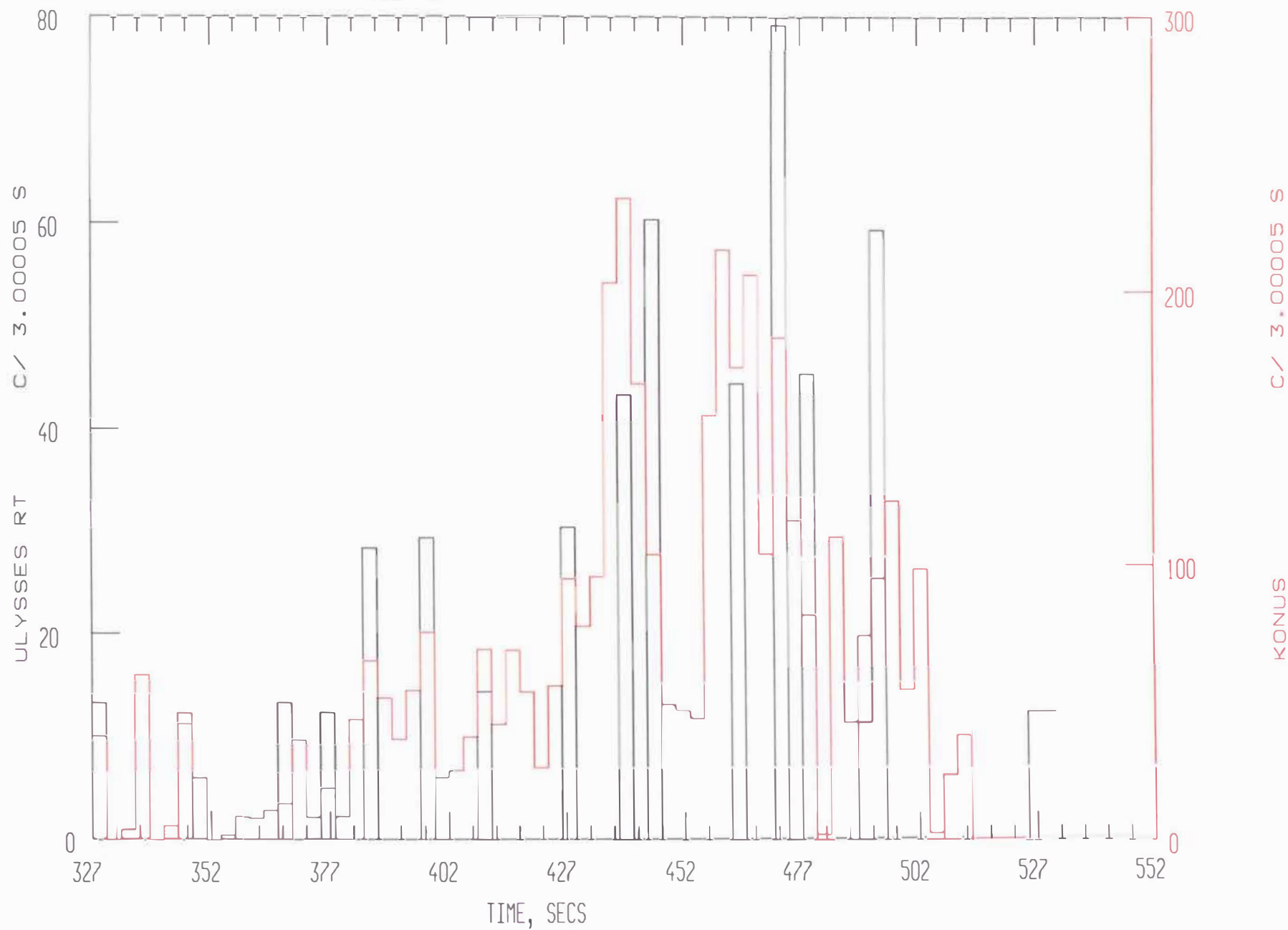
0 - 0 keV

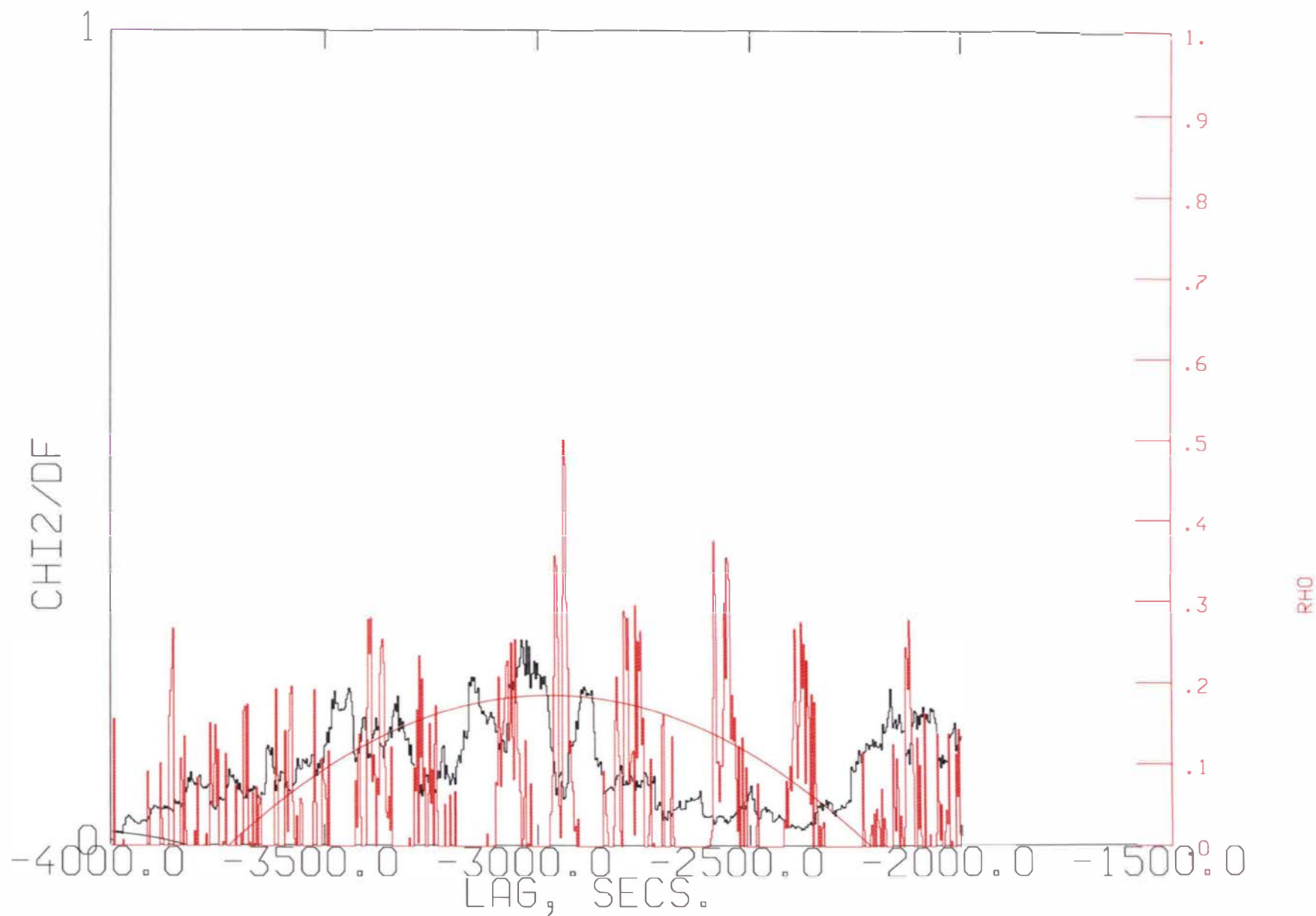
N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS









Date: Aug 11 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☐ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)?
- ☐ BATSE ephemeris for T_0 ?
- ☐ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included?

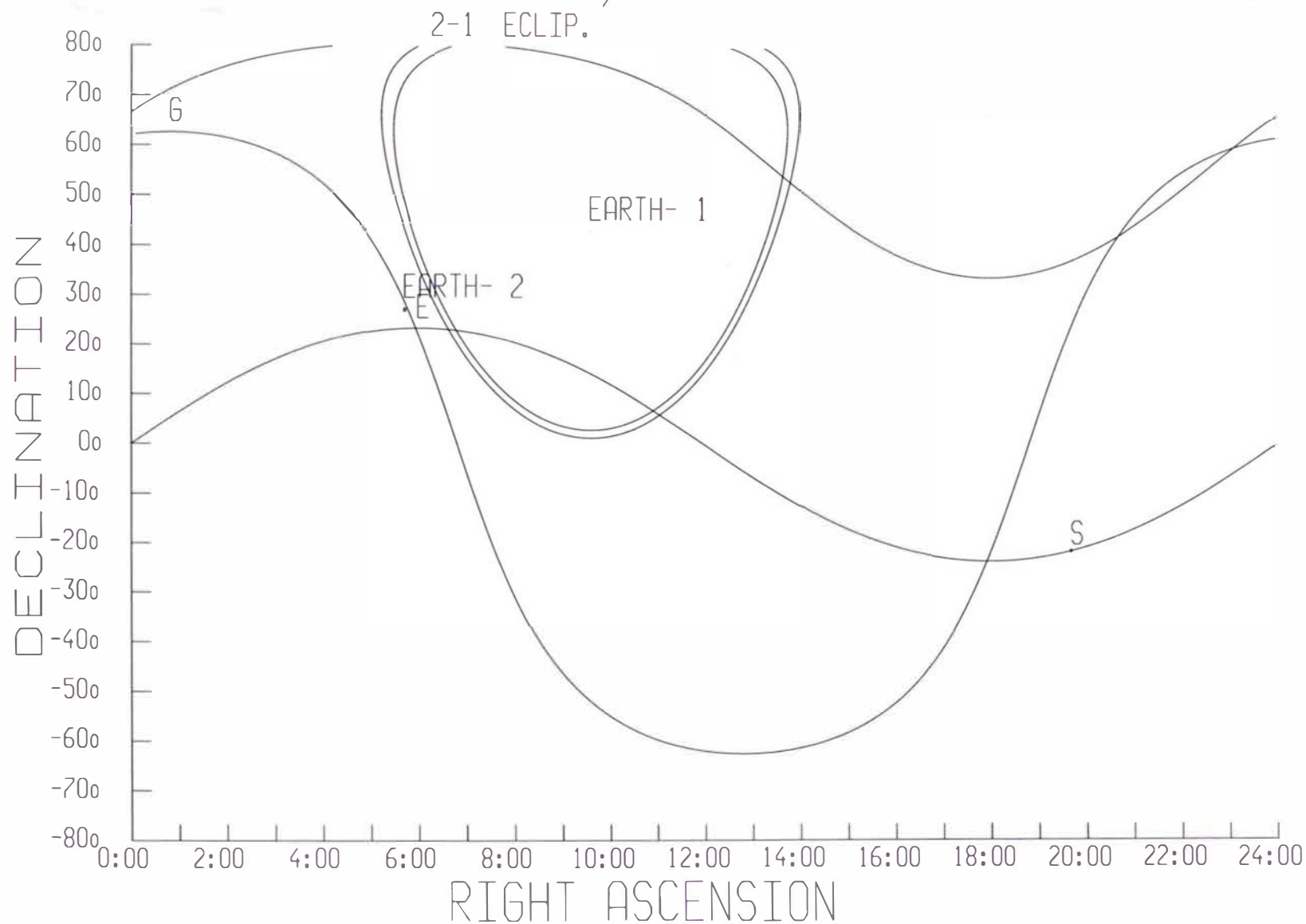
3. PVO Data

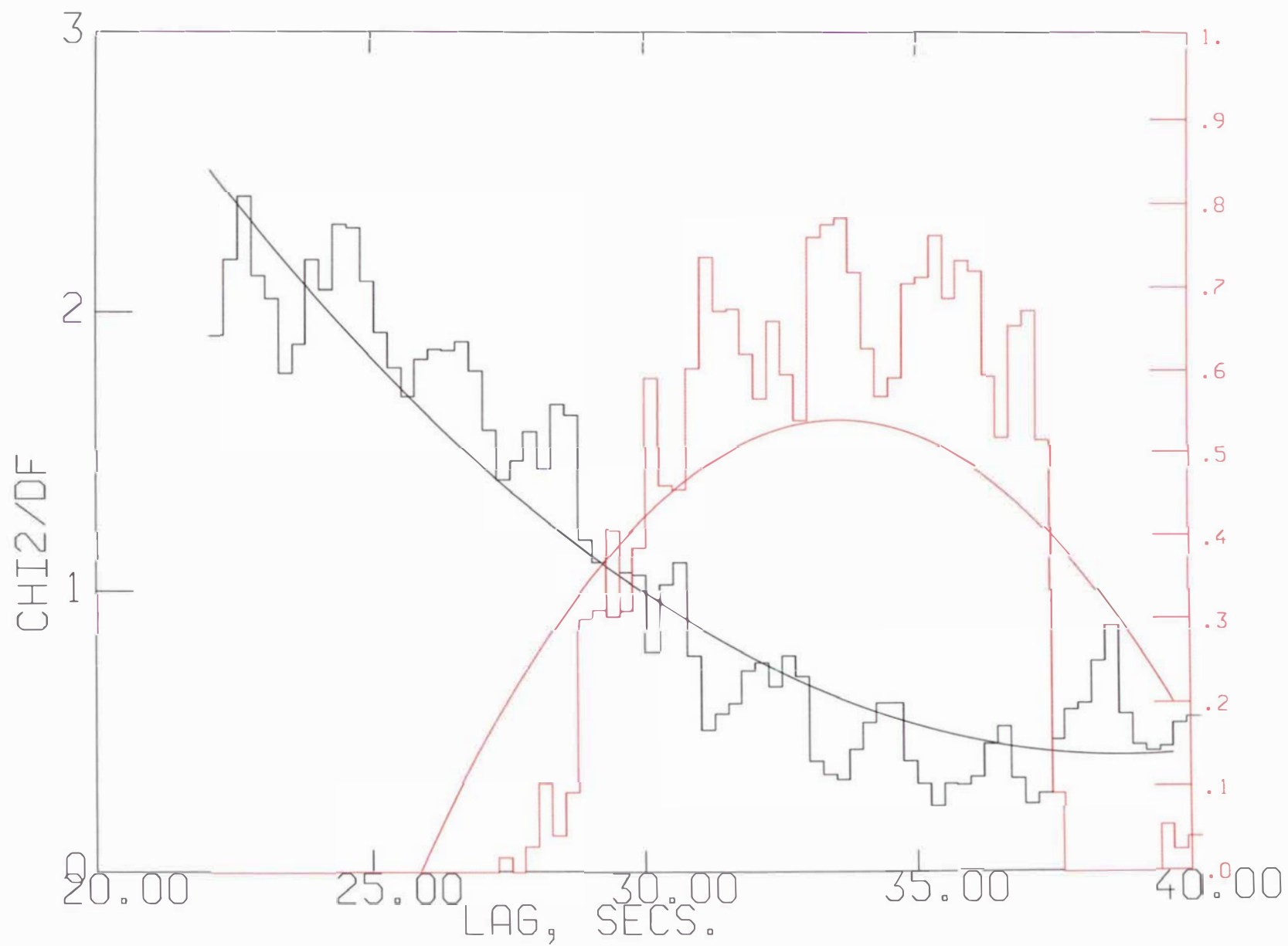
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

EVENT OF JAN 14, 1995 7:43

11/08/2011

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





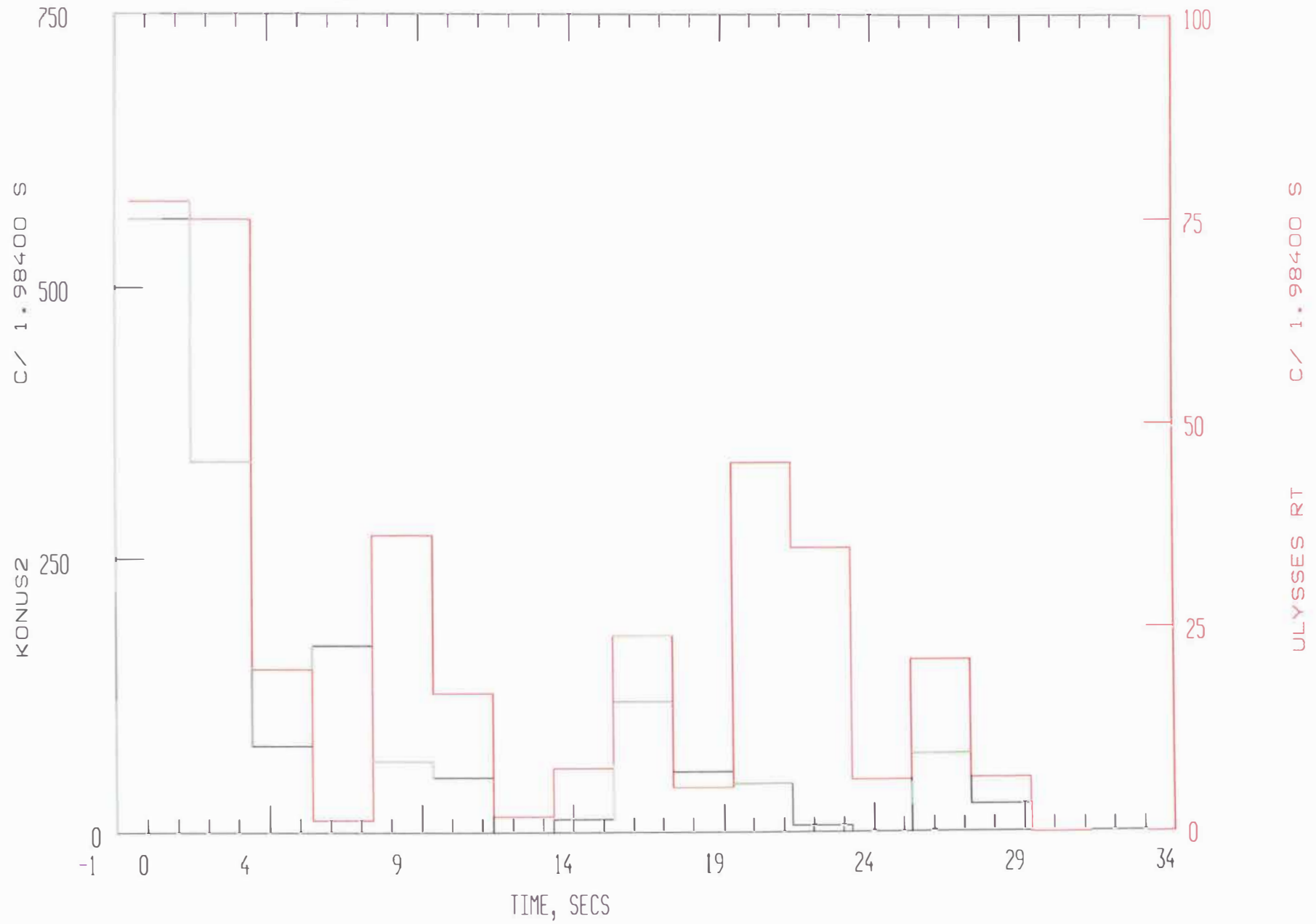
KONUS2

-ULYSSES RT CORRELATION

14/01/95

27030.766

11/ 8/11

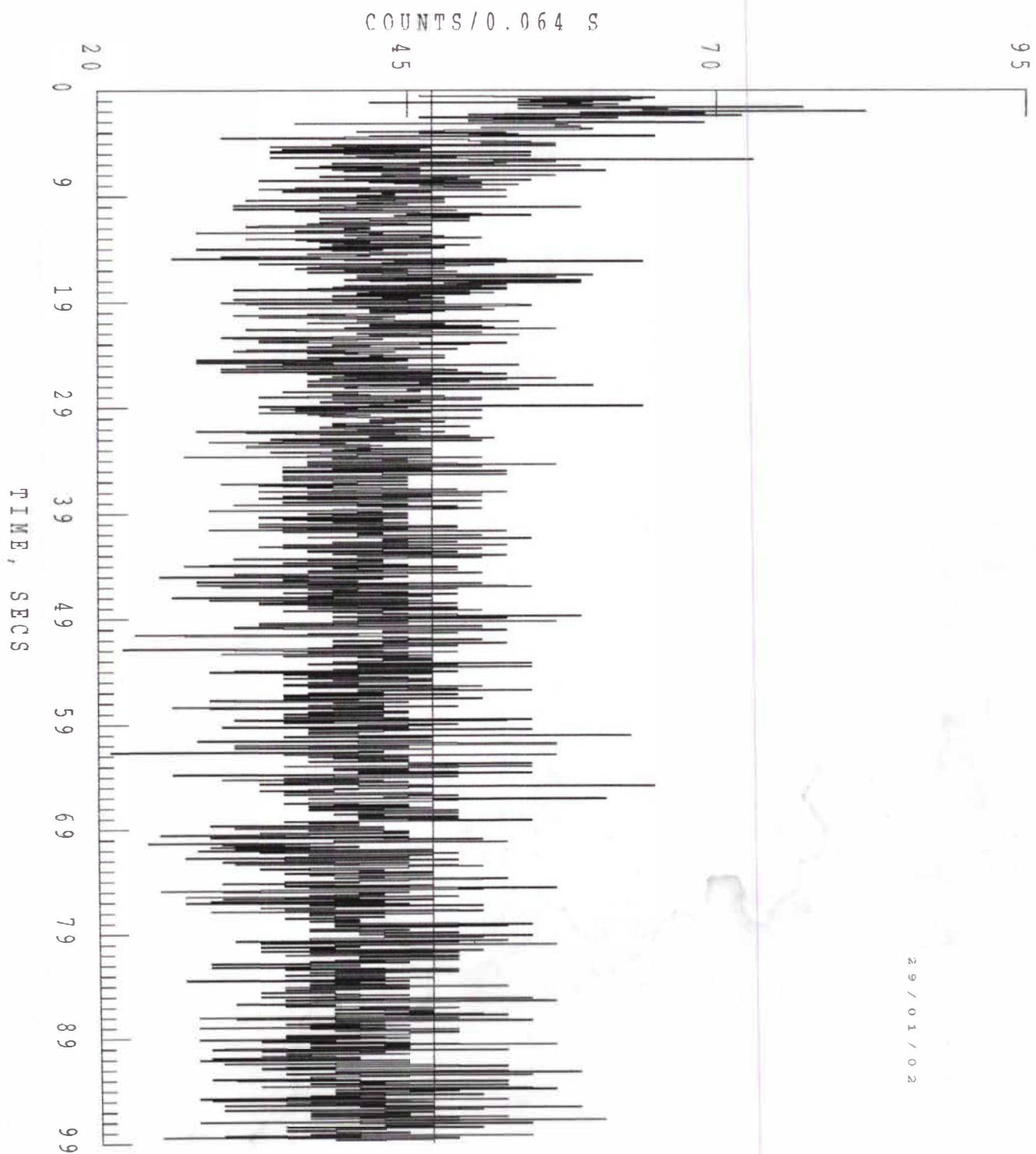


KONUS2

14/01/95

27030.766

50 - 200 keV



KONUS 19950114 27884

ULYSSES RT

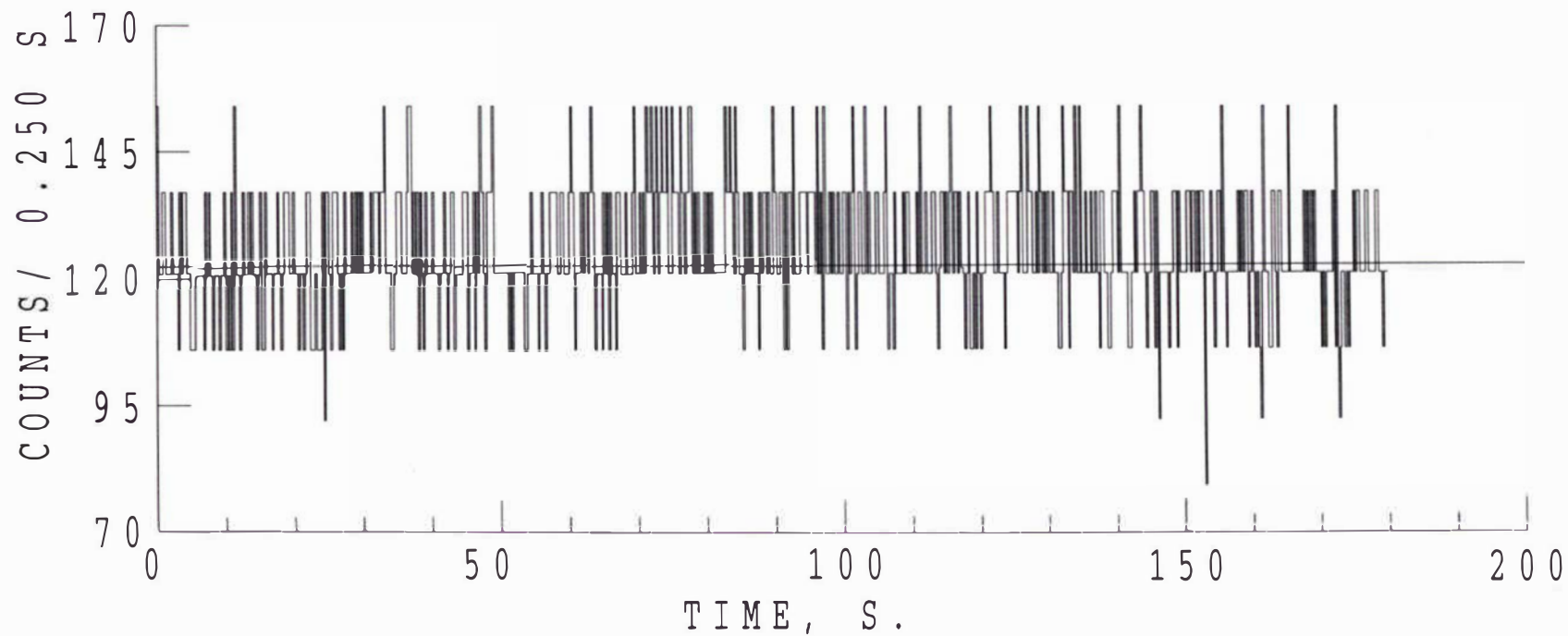
11 / 08 / 11

14/01/95 27792.035 s

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



KONUS2 19950114 27030

ULYSSES RT

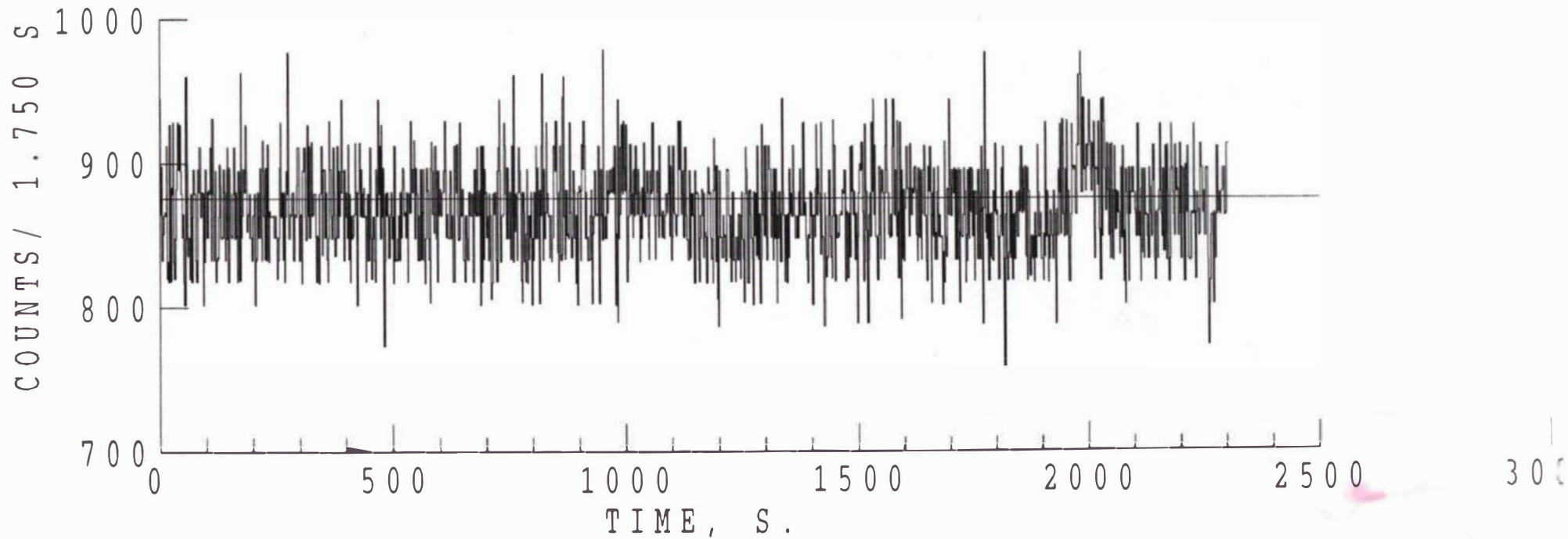
29/01/02

14/01/95 25884.244 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



Date: Aug 12 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)?
- ☐ BATSE ephemeris for T_0 ?
- ☐ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included?

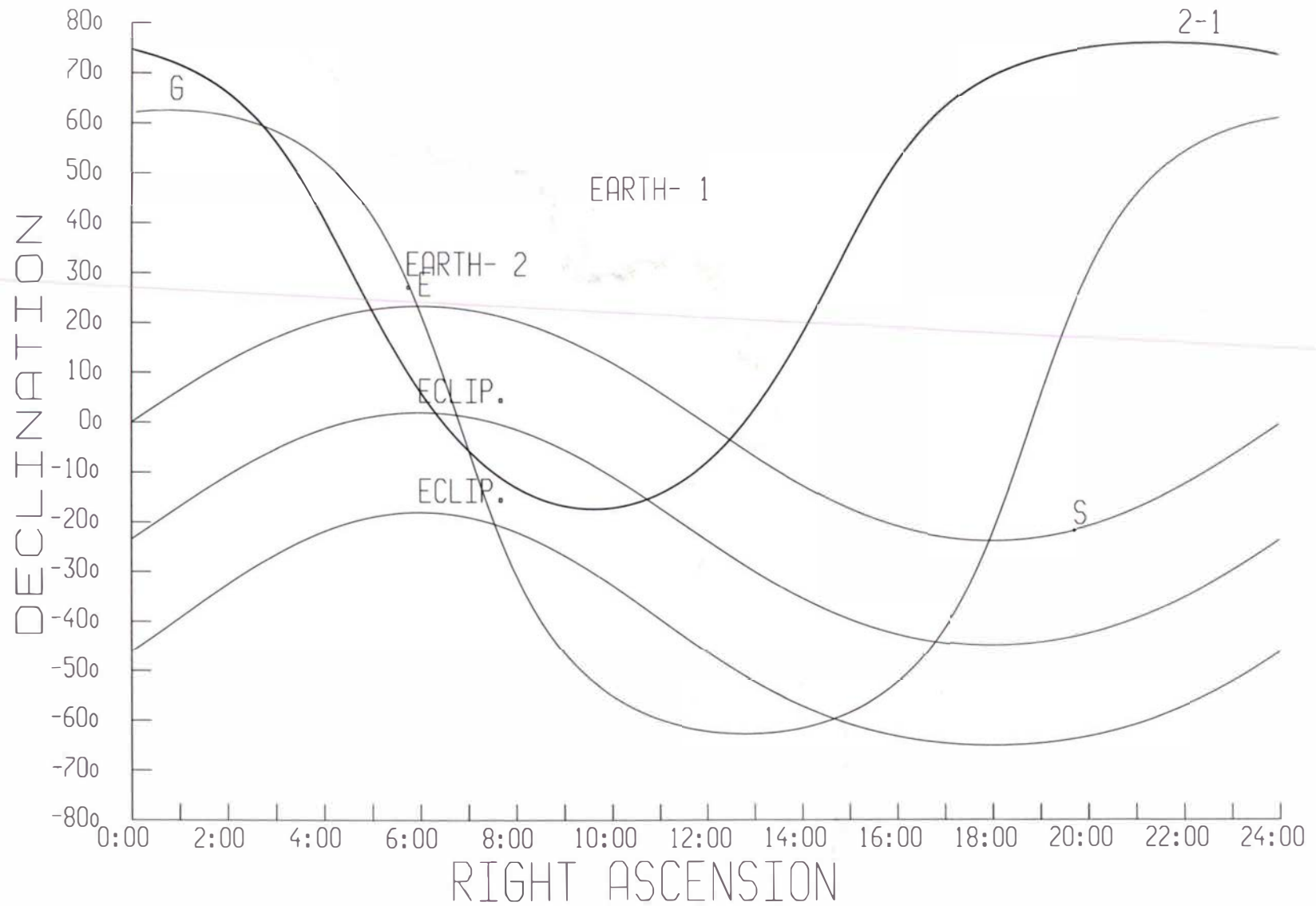
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☐ ACCESS and MBL databases updated with identical times?

EVENT OF JAN 14, 1995 13:18

12/08/2011

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



KONUS 19950114 47988

ULYSSES RT

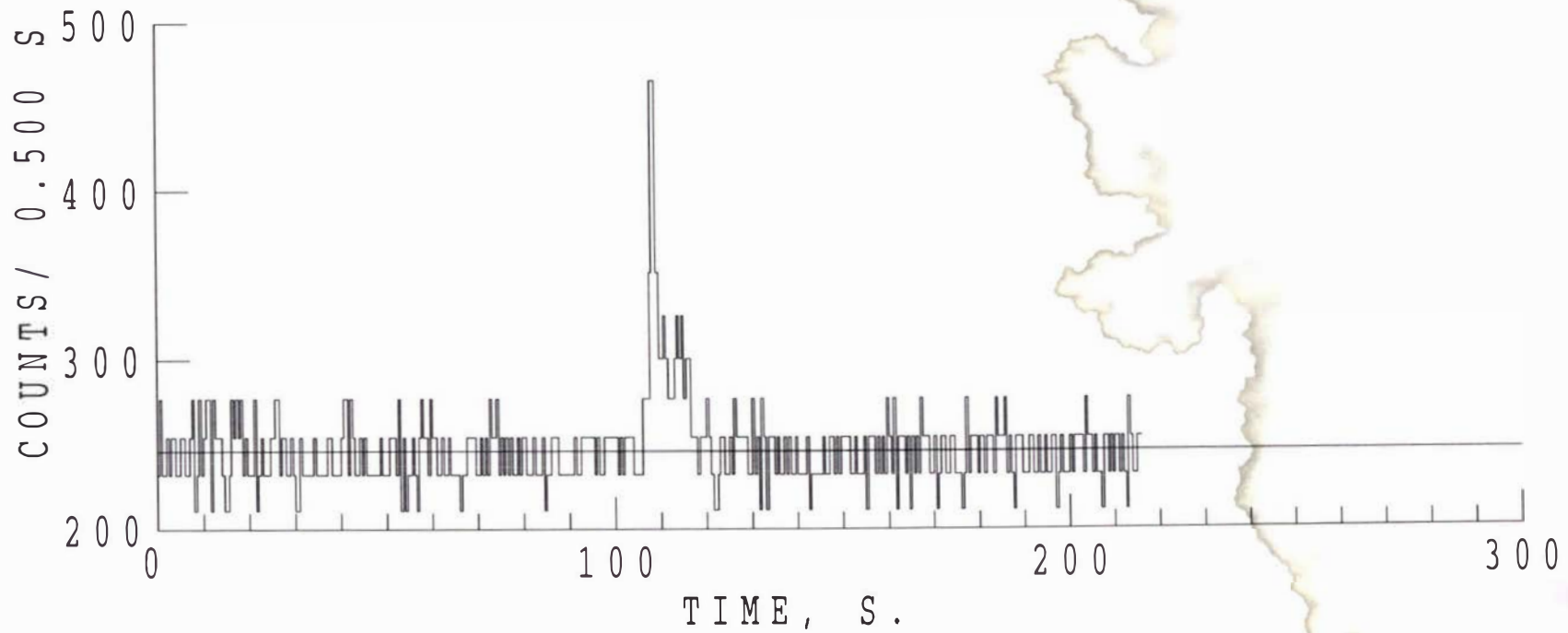
11 / 08 / 11

14 / 01 / 95 47880.168 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



KONUS 19950114 47988

ULYSSES RT

12 / 08 / 11

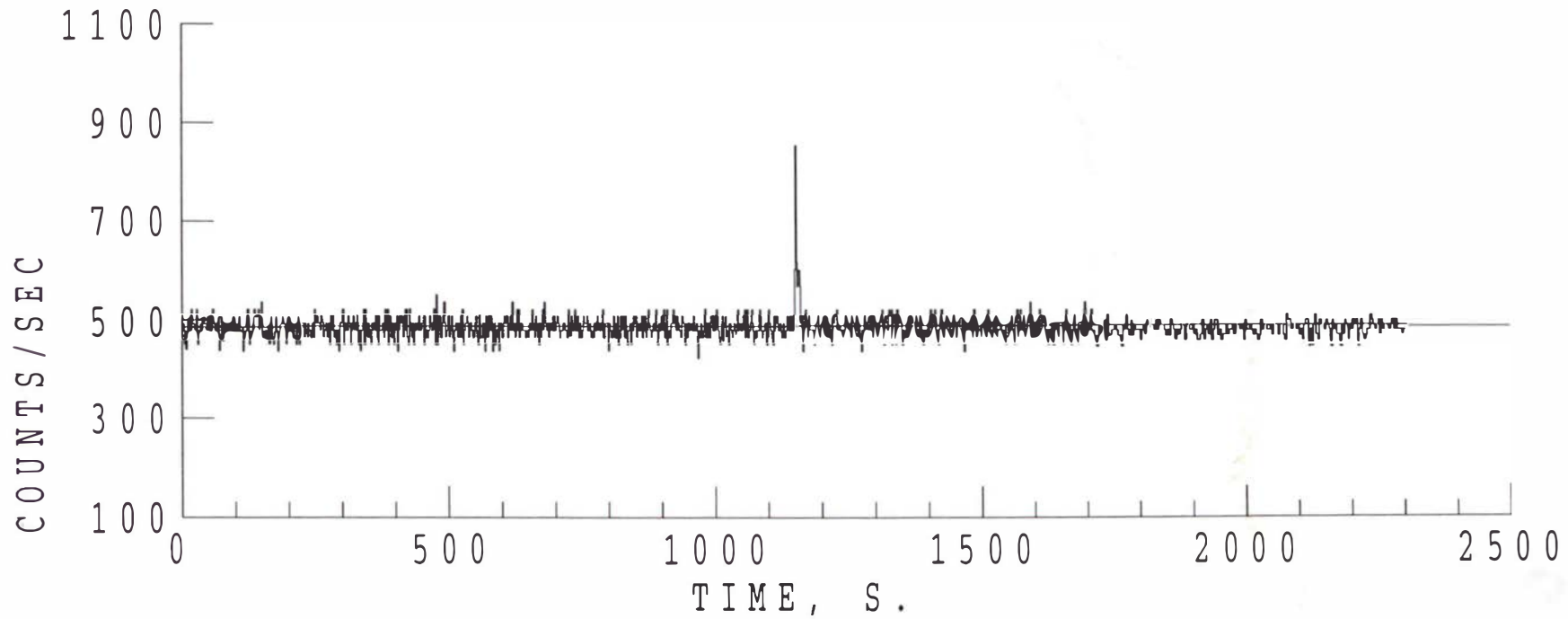
14 / 01 / 95 46836.152 s

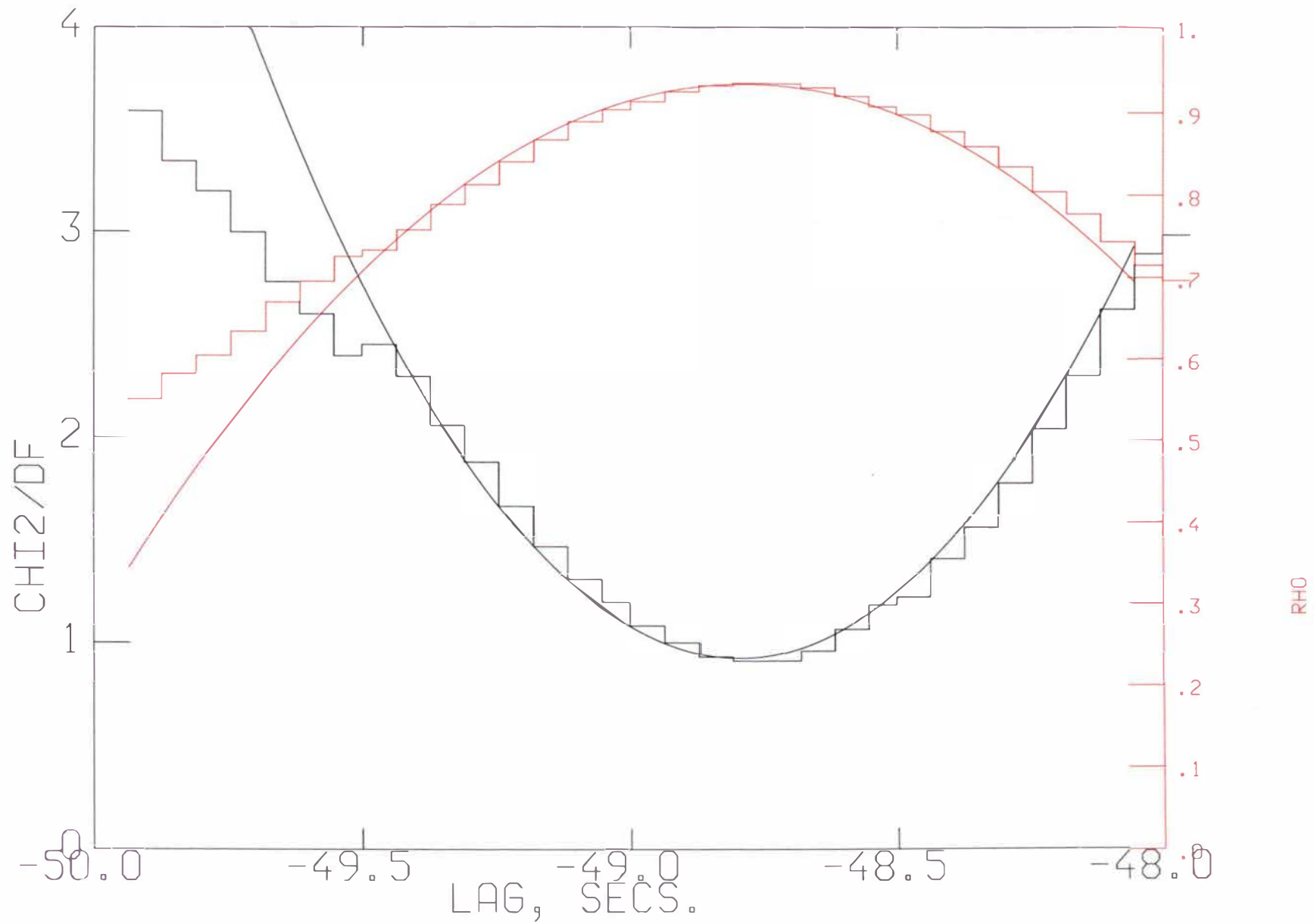
INTERVALS REGROUPED BY 3

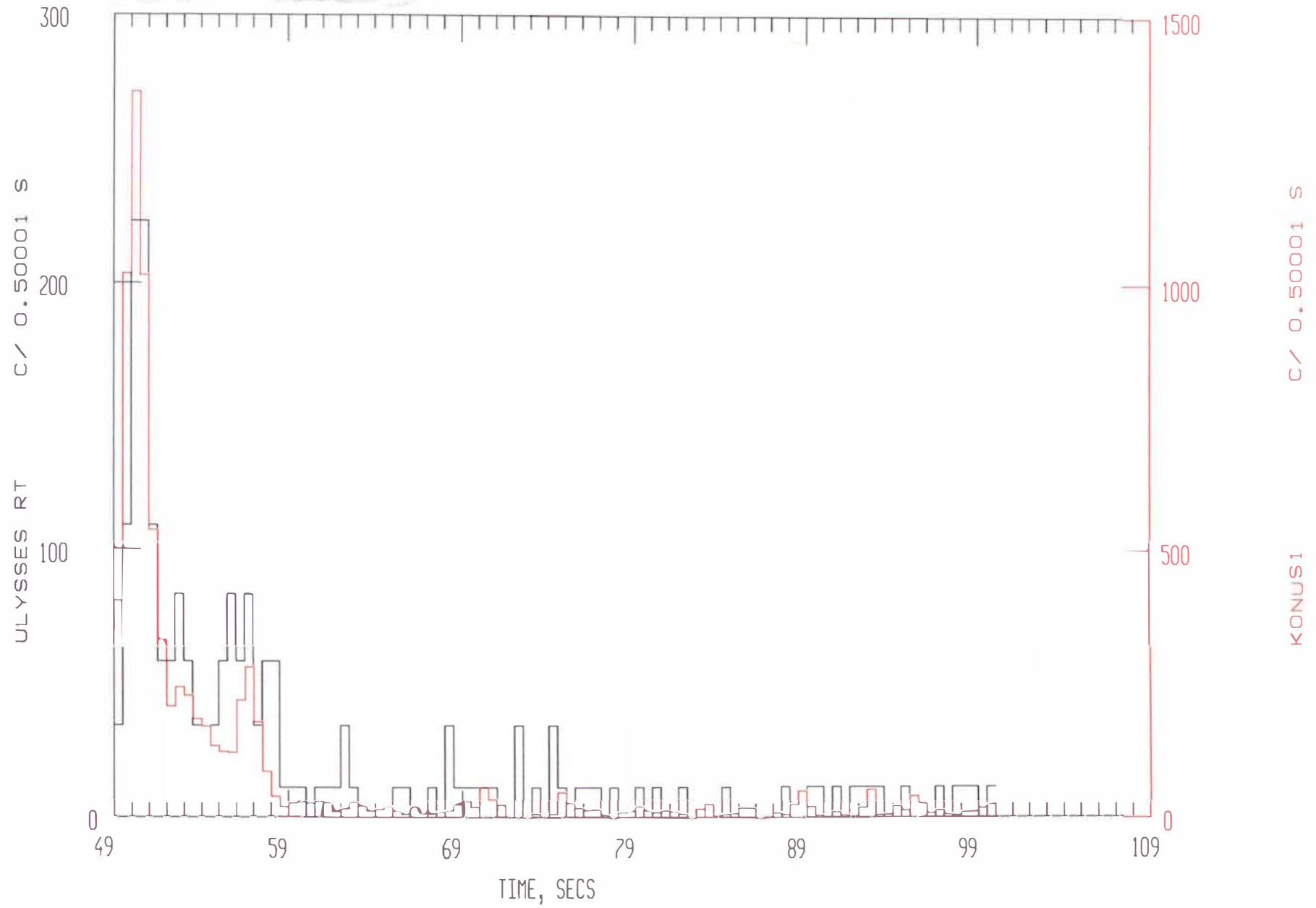
0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS







From root Mon Jan 23 10:04 1995

Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)

id AB08110; Mon, 23 Jan 95 10:04:31

Received: from TGRS.GSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)

id AA22536; Mon, 23 Jan 1995 10:03:52 +0800

Message-Id: <9501231803.AA22536@sunspot.ssl.berkeley.edu>

Received: from [128.183.8.199] ([128.183.8.199]) by TGRS.GSFC.NASA.GOV with SMTP;

Mon, 23 Jan 1995 13:05:54 -0500 (EST)

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Date: Mon, 23 Jan 1995 13:05:00 -0500

To: khurley@space6.ssl.berkeley.edu

From: teegarden@tgrs.gsfc.nasa.gov (Bonnard J. Teegarden)

Subject: Re:

Content-Length: 245

Status: R

Hi Kevin,

re Ulysses burst
Yes, both TGRS and Konus saw it. The TGRS trigger time was 47435.6 s. We saw a single peak and the max was about 0.5 s after the trigger time. The validity of our times still probably needs further checking.

Cheers,

Bonnard

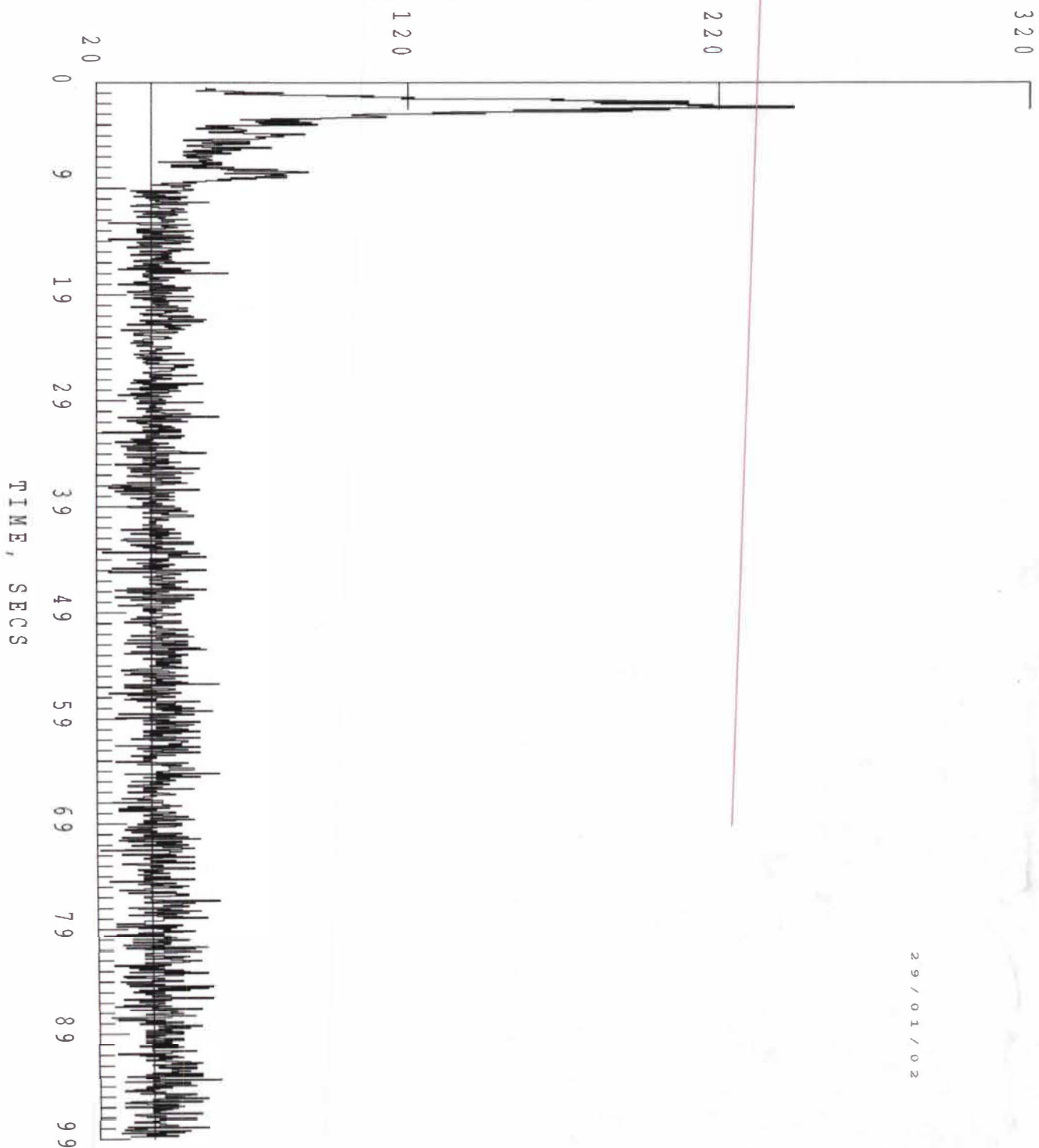
KONUS1

14/01/95

47434.865

50 - 200 keV

COUNTS/0.064 S



KONUS1 19950114 47434

ULYSSES RT

29 / 01 / ● 2

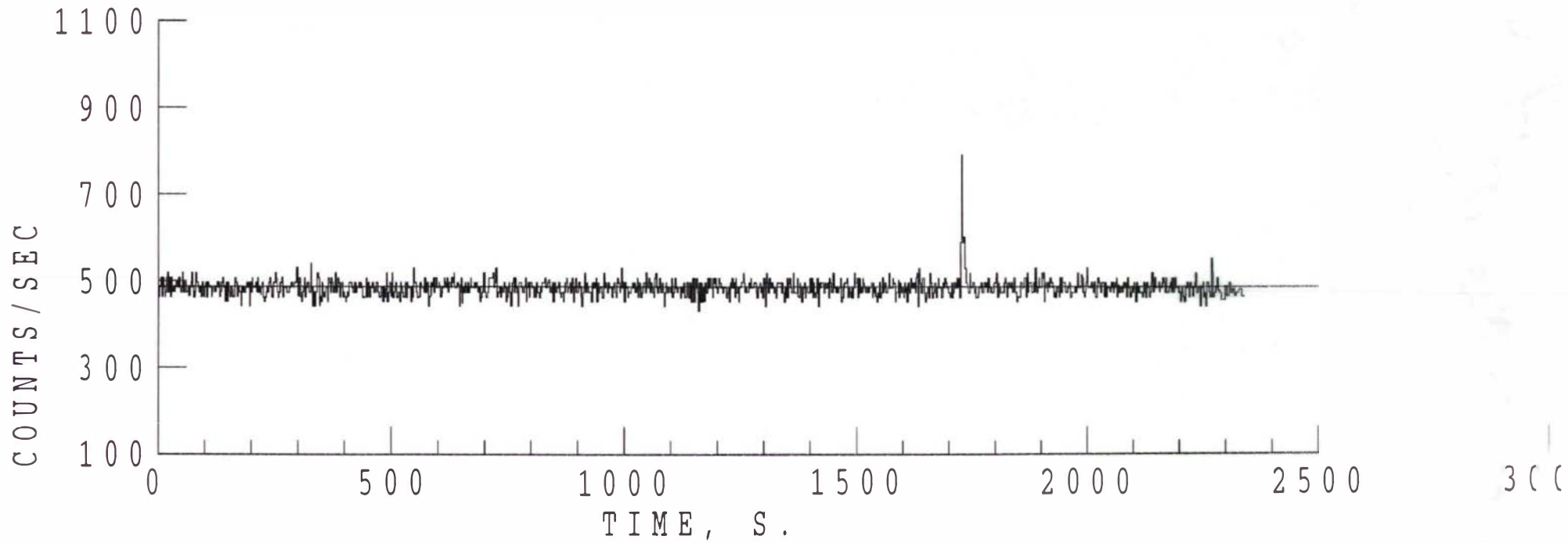
14 / 01 / 95 46260.141 s

INTERVALS REGROUPED BY 4

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HENZE@fender.msfc.nasa.gov Wed Jan 18 08:39 PST 1995
Return-Path: <HENZE@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA29478; Wed, 18 Jan 1995 08:39:43 +0800
Date: Tue, 17 Jan 1995 11:53:33 -0600 (CST)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950117115333.21600723@fender.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3357
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3357
EVENT OF 1995 JAN 14 DAY OF YEAR= 14
EVENT CROSSING TIME AT BATSE : 82138. S. OR 22:48:58.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 285.000 29.000
BATSE PEAK COUNTING RATE: 1900 C/S

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/ 1/ 95 IS:
RA= 323.639 DEC= -42.847 DIST= 2.228 AU
BATSE-ULYSSES DISTANCE = 333299016. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 99.86 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -190.31 SECS.
CROSSING TIME AT ULYSSES IS 81948. S. OR 22:45:47 +/- 237.28 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/ 1/ 95 IS:
RA= 155.310 DEC= 14.501 DIST= 0.762 AU
MARS-BATSE DISTANCE = 114033856. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 65.20 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 159.52 SECS.
CROSSING TIME AT MARS IS 82298. S. OR 22:51:37 +/- 62.37 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3357	950114	9731	82138	1900	285	+29

BATSE BURST TRIGGER

NO.: 03357

TIME: TJD=9731 SECONDS=82138

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

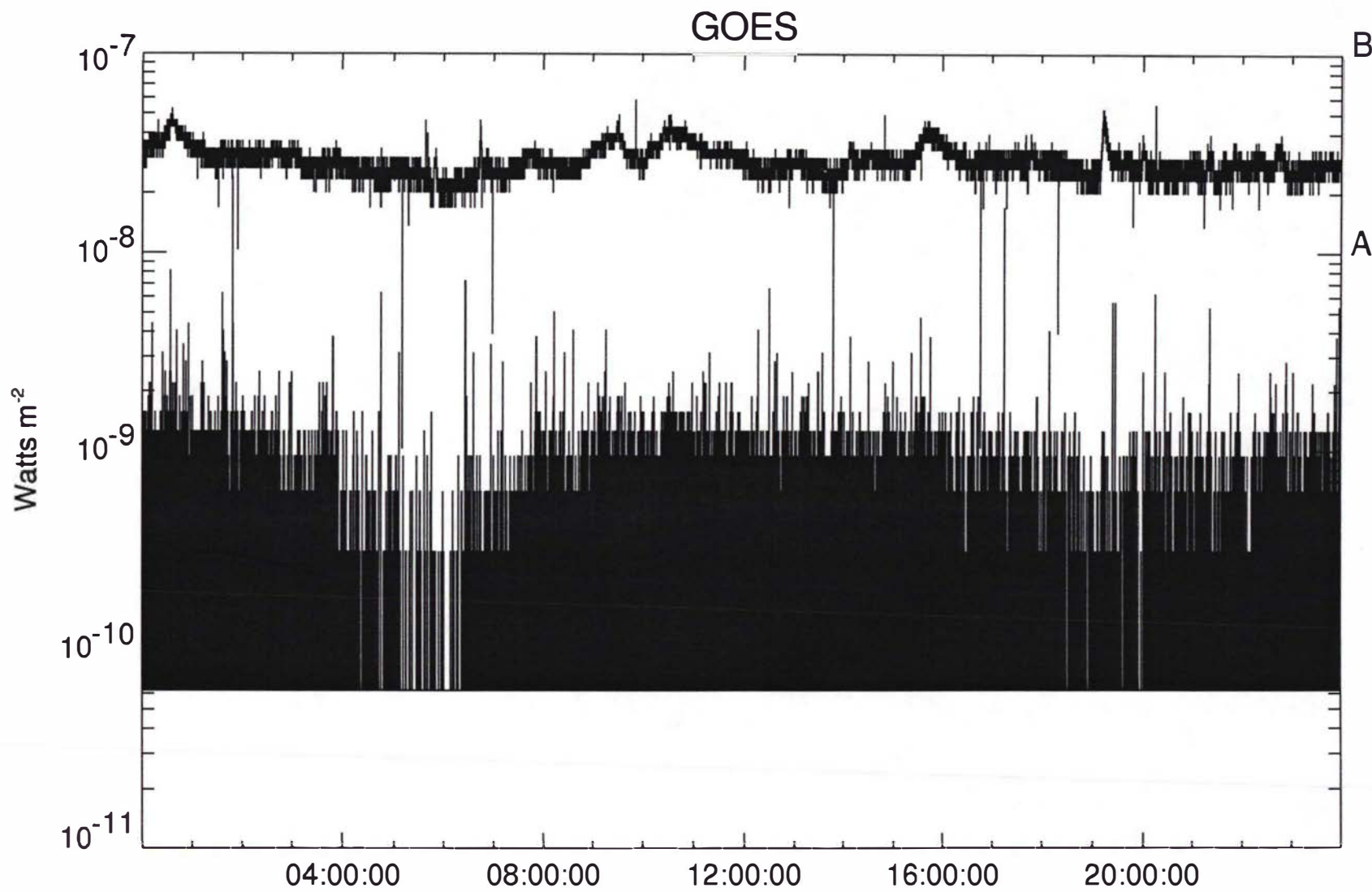
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=138.8 AZIMUTH=008.9 ERROR= DEGREES

COMMENTS:

DUR. ~40 S. VISIBLE ABOVE 300 KEV.
POSSIBLY CYG X-1 FLUCTUATION.



Data Start: 95/01/14, 0000:02

Plot created: 95/01/18, 1454

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

18 / 1 / 95

ULYSSES RT

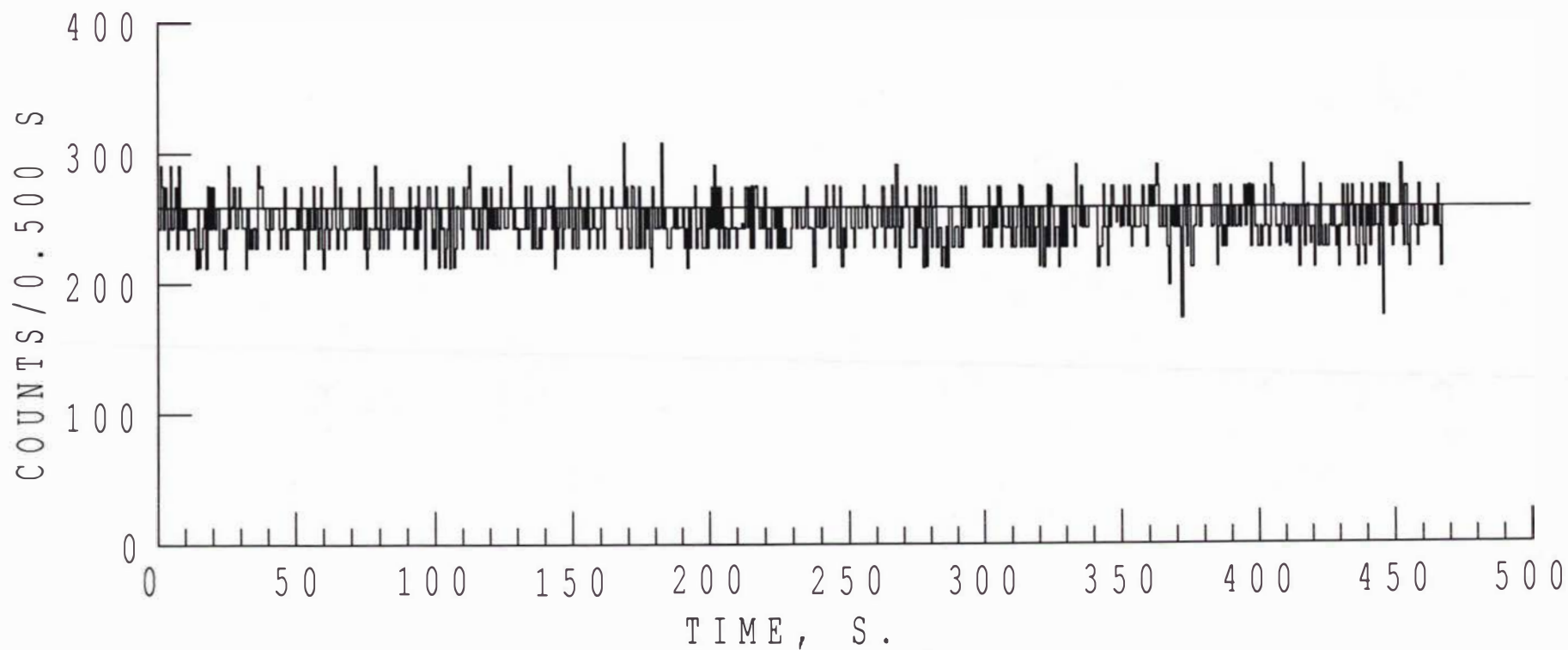
14 / 1 / 95 81720.086 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



CAUTION: POSSIBLE TRIGGER TIME PROBLEM!!

In the PEDR data, BTIME1 does not obtain the correct trigger time for this event. Using E040/1, it finds a time which is either 400 s late or 112 s early, when compared to the 2A1 data. E042 finds a similar time. There are no zeros in words E040/1/2, and BTIME1 finds the correct words to base its calculation on. Roger's routine treatment seems to give the correct time. Check the EDR data to see if this clears up the problem.

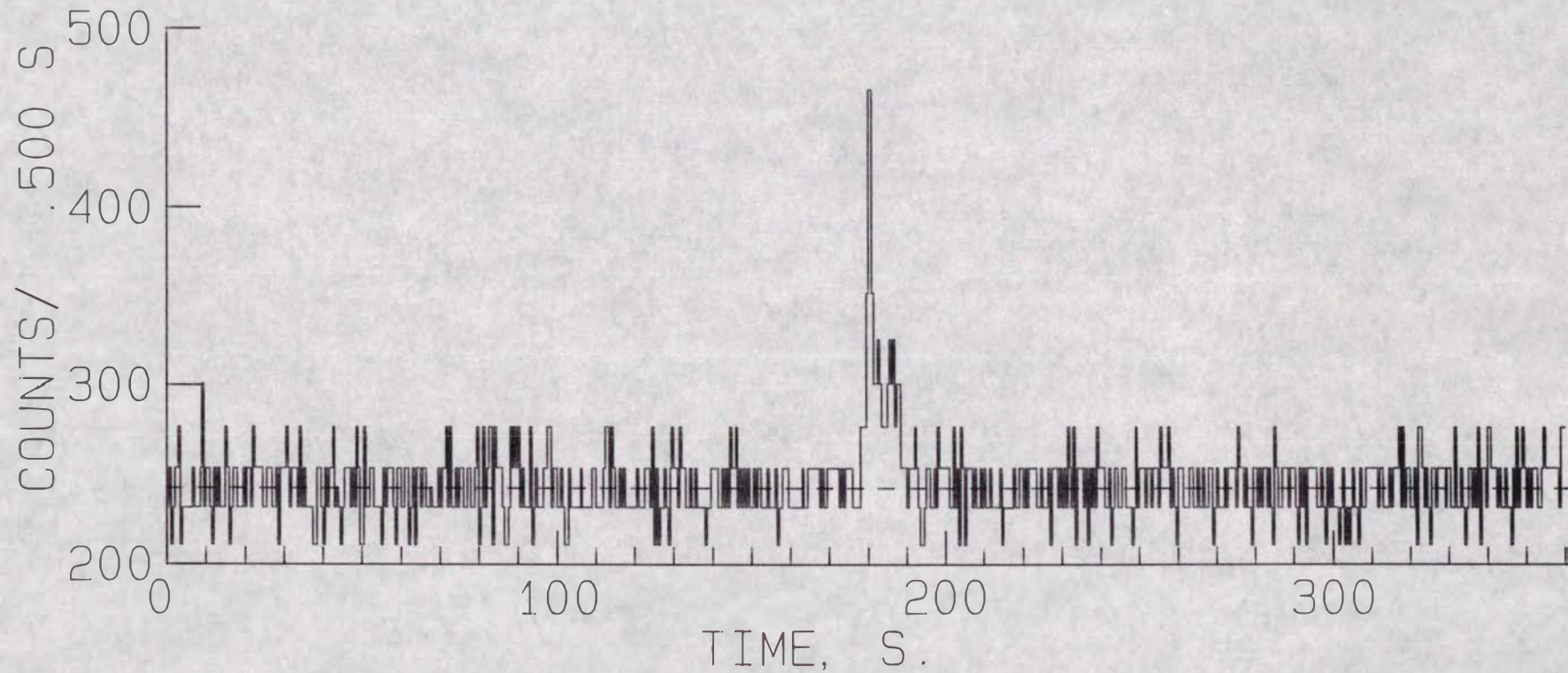
ULYSSES RT

30 / 1 / 95

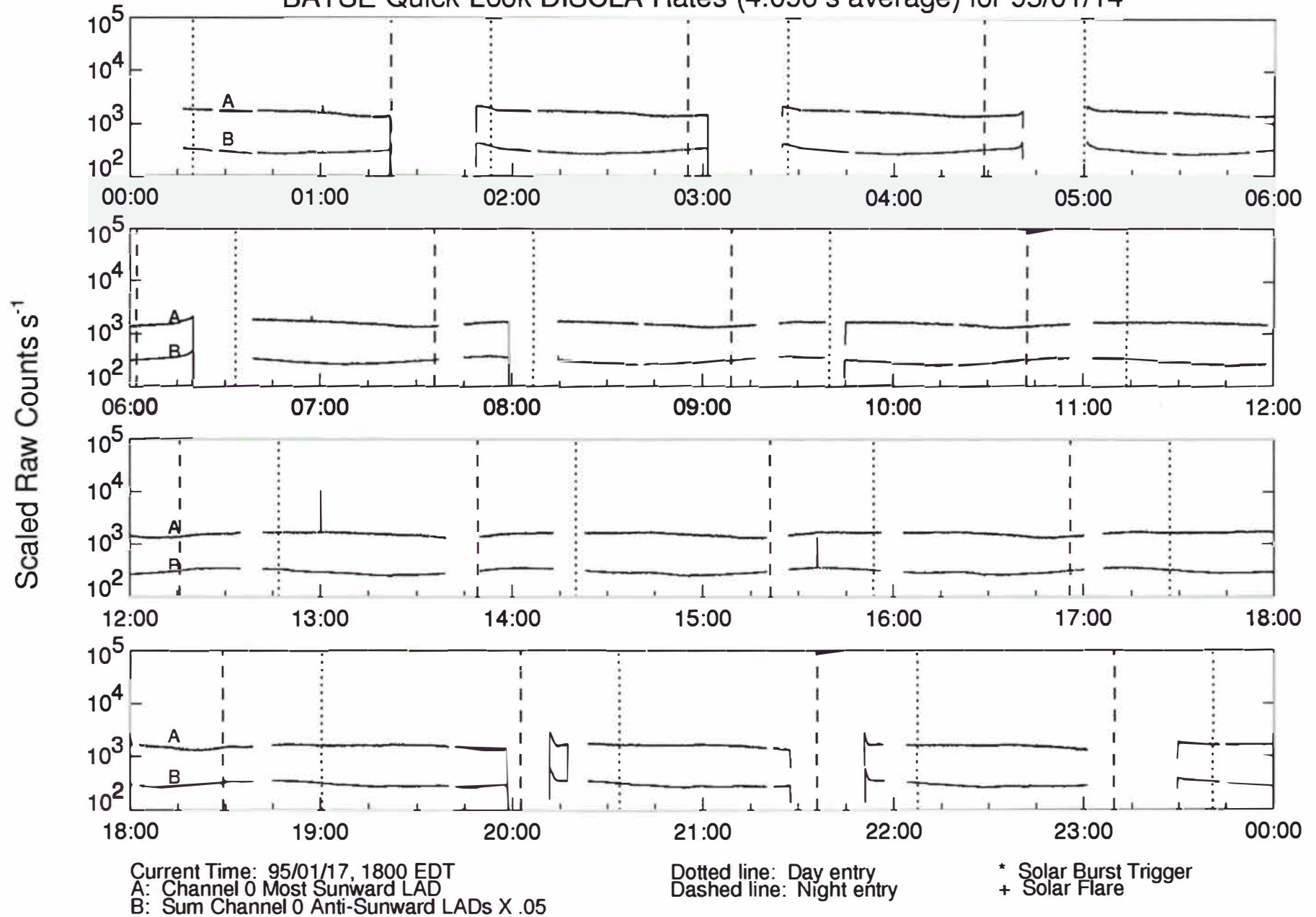
14 / 1 / 95 47808.168 s

0 - 0 keV

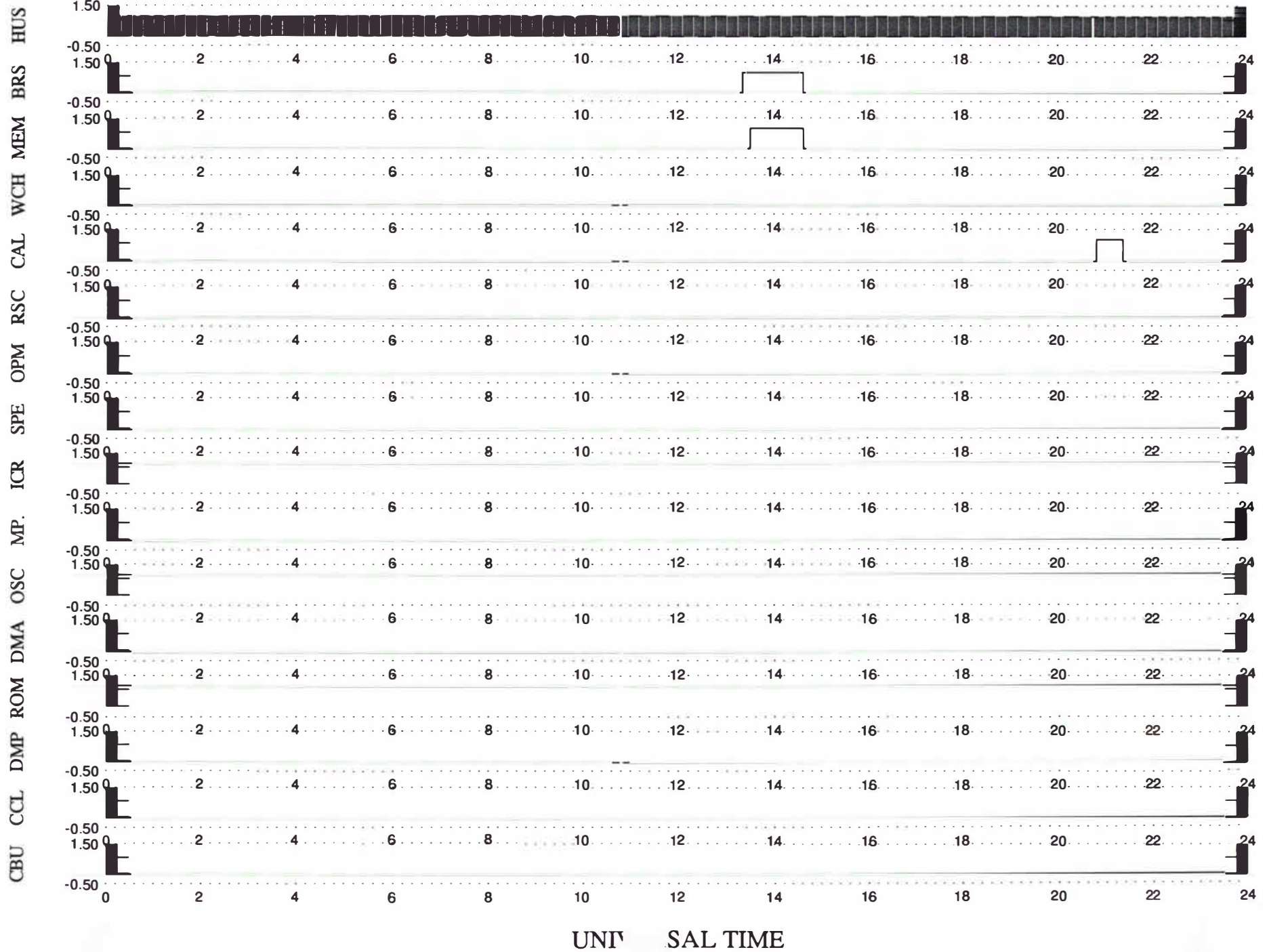
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



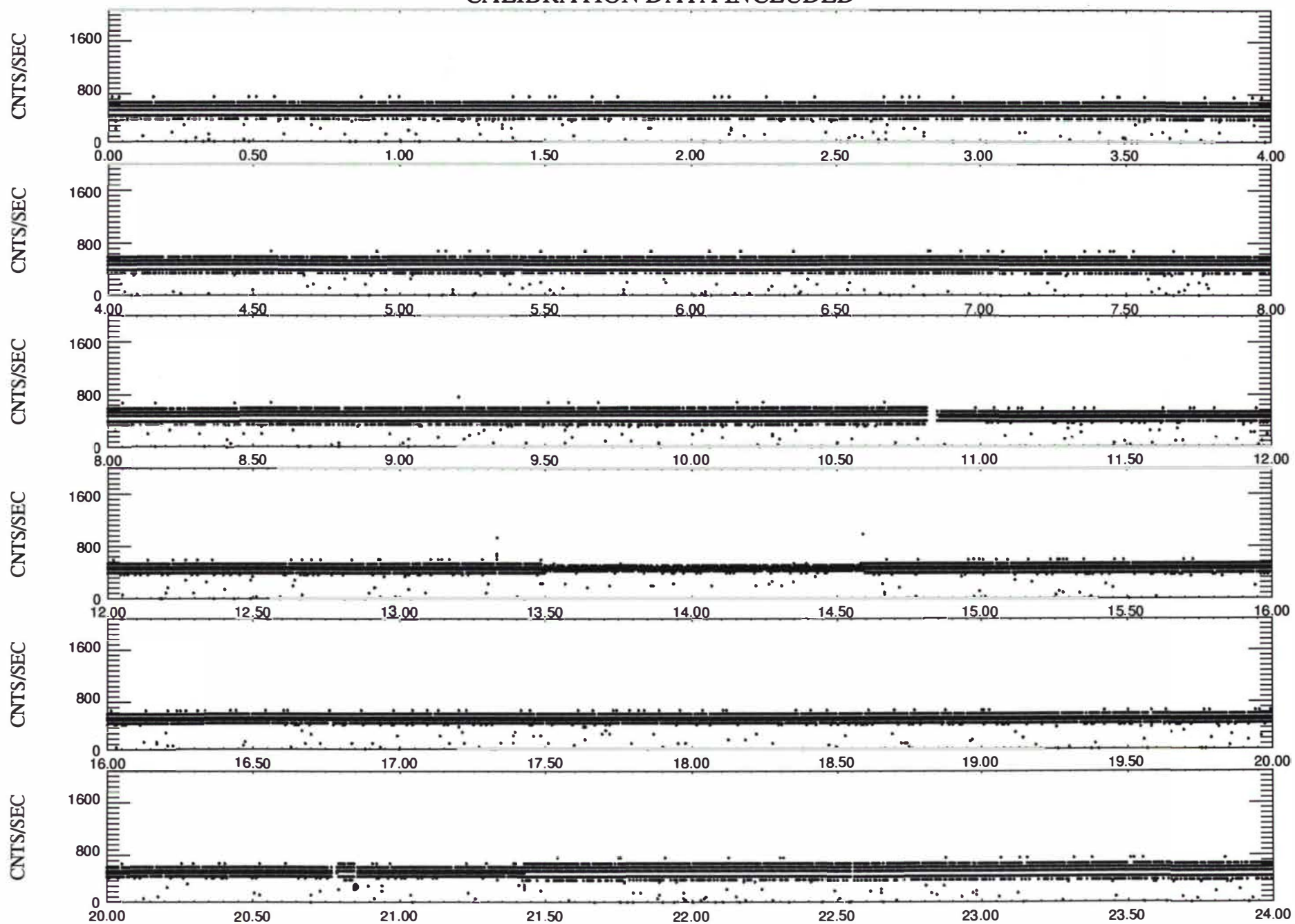
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/14



BURST NUMBER 11

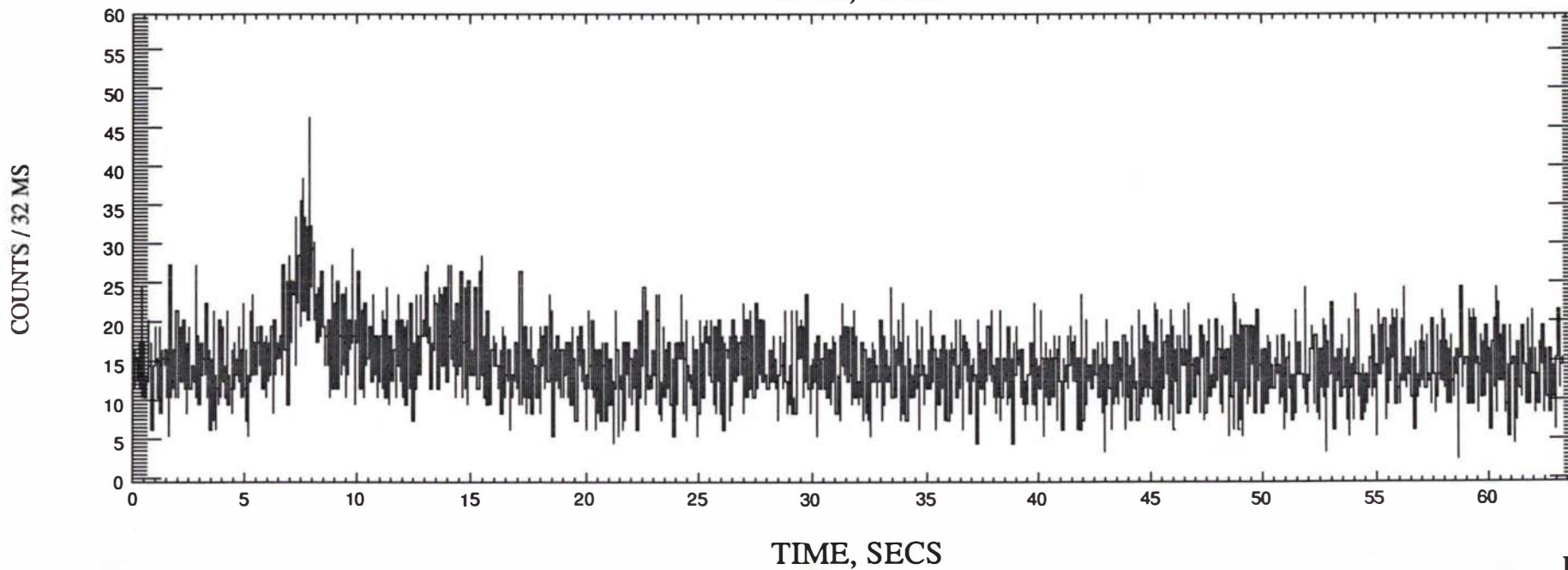
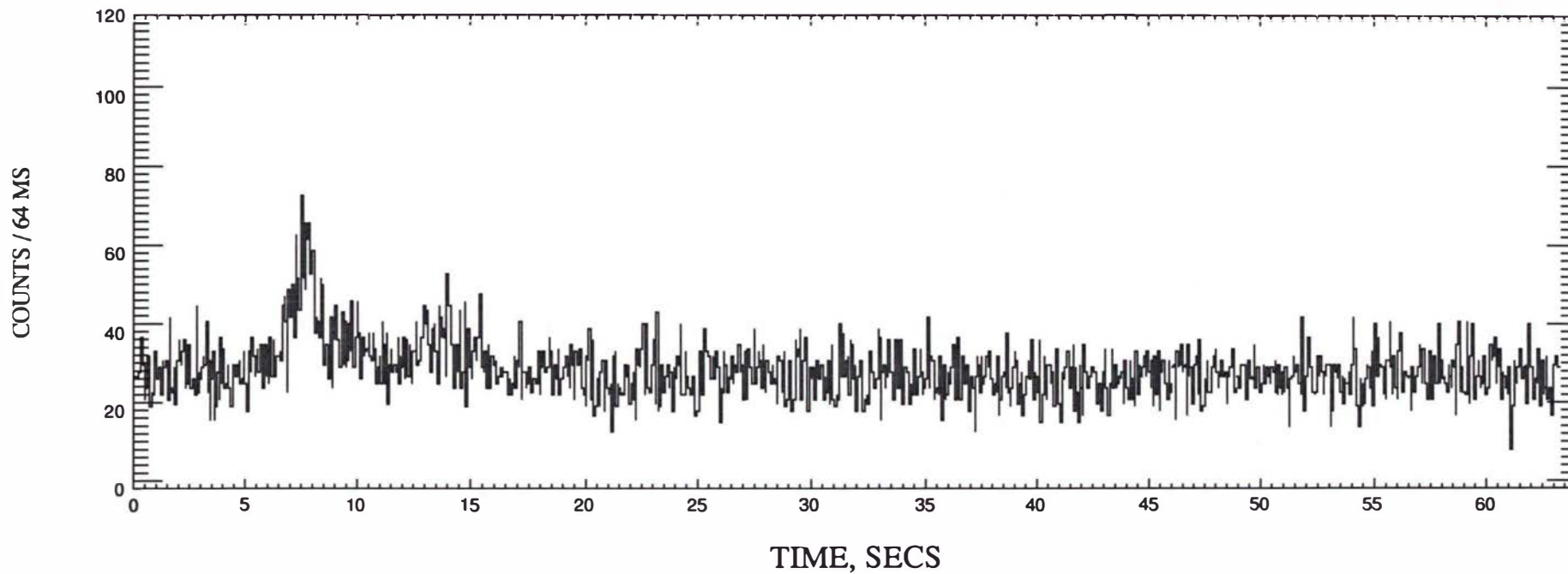


CALIBRATION DATA INCLUDED

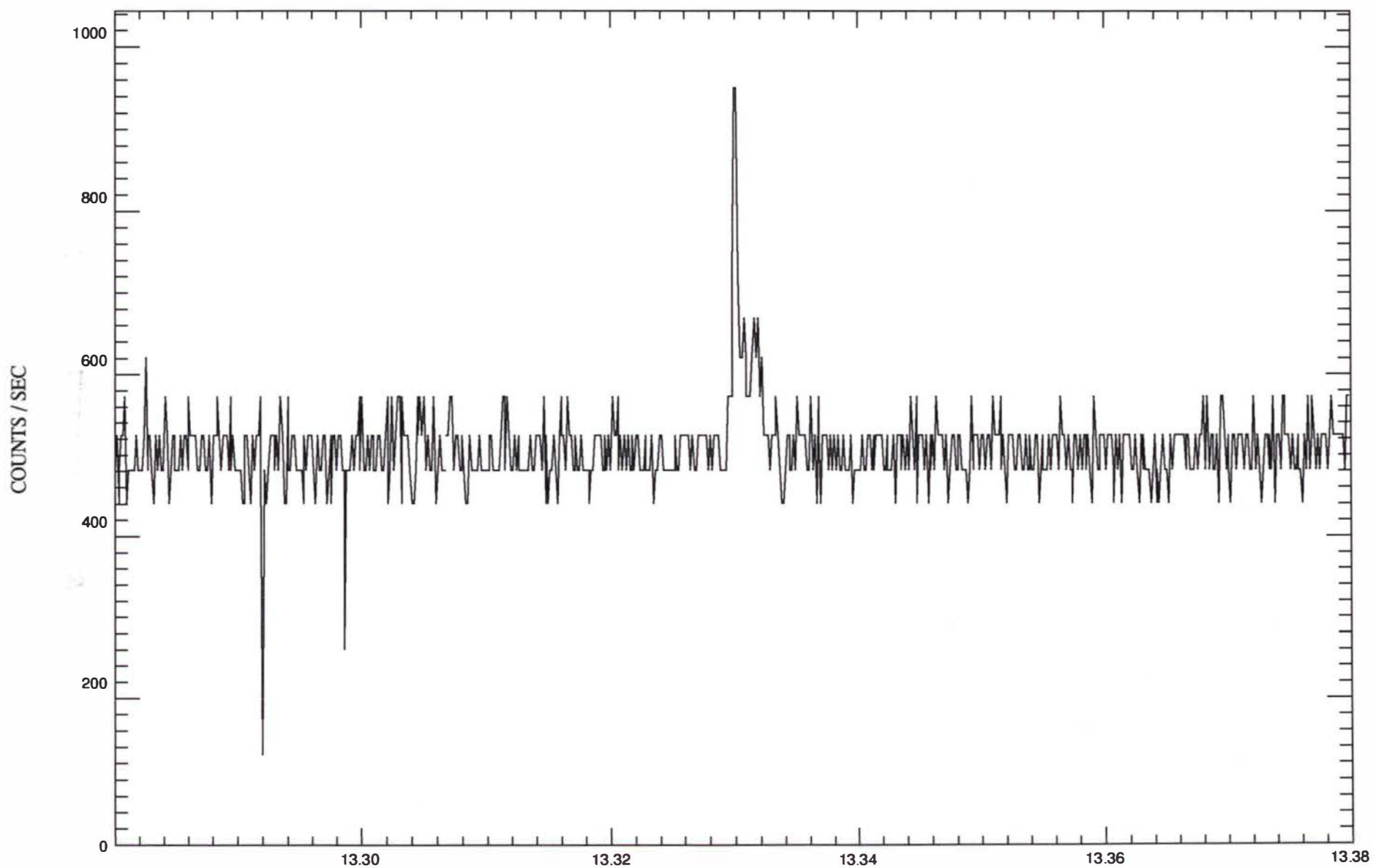


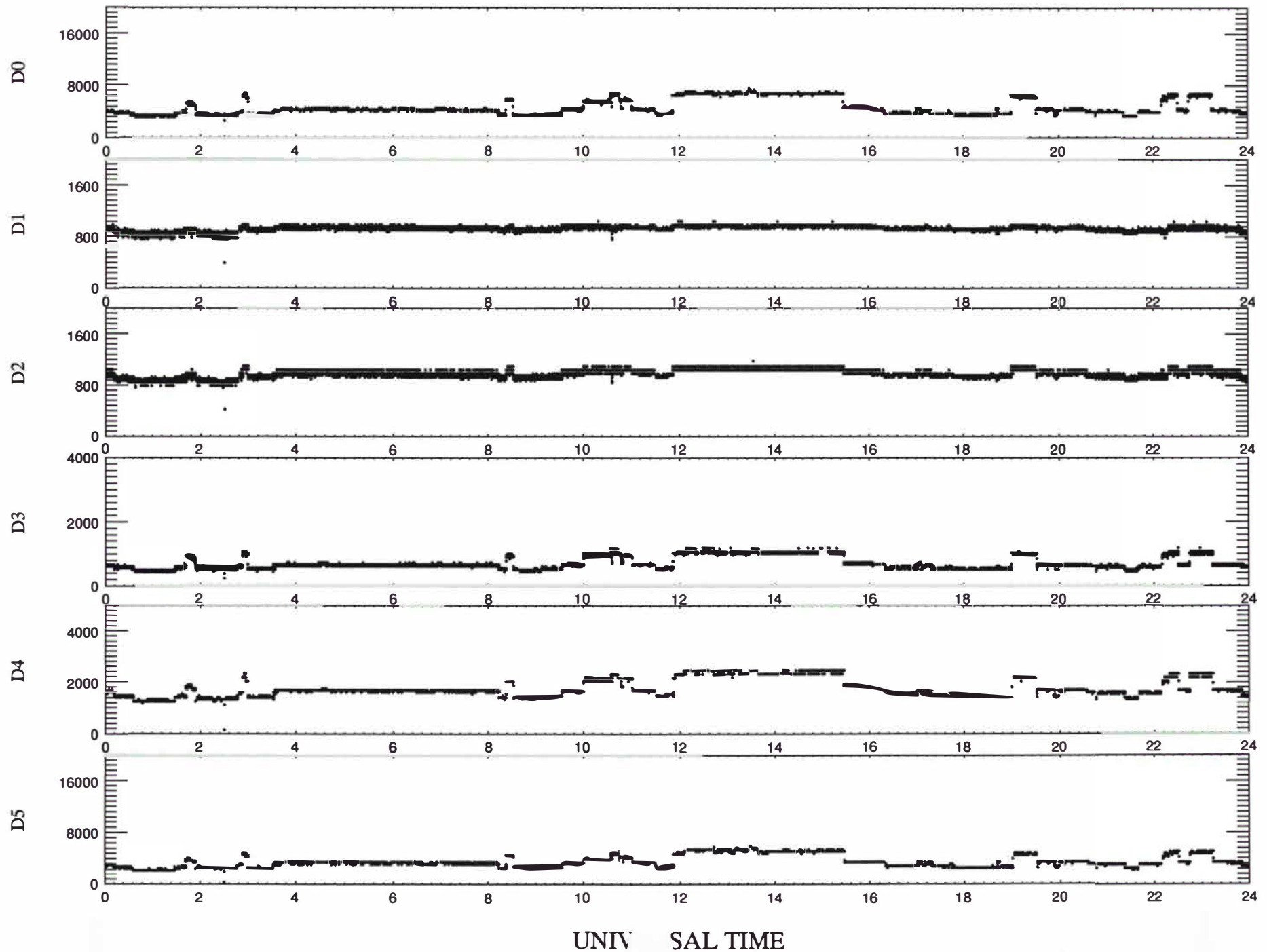
UNITS SAL TIME

Burst Counter 11 at UT=13.330079900954 h=47988.288 s 13:19:48.288



CALIBRATION DATA INCLUDED





950114	01 00 38	S1	46	110	1.6	6	BG		
950114	04 03 01	S2	23	76	0.5	70	BG	U	
950114	07 30 30.766	S2	205	406	60 <0.05	1	100	36	
950114	13 10 34.865	S1	1320	2828	516 3.1	1	10	37	U* #258
115	02 49 32	S2	40	47	34 <0.15	24	BG	BG	
117	01 36 00	S2	56	82	42 0.22	108	BG	3360*	U* 298 05
950118	17 05 --							3366 (U)	061 -63

G1:14-50, G2:50-225, G3:225-900 keV, >94/12/12: 12.5-43, 43-190, 90-760 keV.
N(1)/N(2)=G2-ratio, *=data at GSFC; BG=background rate increase = event visible.

-- T. L. Cline ----- LHEAVX::CLINE

Date: Fri, 10 Feb 1995 04:54:34 +0800
 Message-Id: <9502101254.AA19784@sunspot.ssl.berkeley.edu>
 Mime-Version: 1.0
 To: KHURLEY@space6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: Improved list.
 Cc: TGRS::Palmer@tgrs.gsfc.nasa.gov
 X-Lines: 81
 Status: RO
 Content-Length: 4056
 X-Sun-Content-Length: 4056

KONUS // ULYSSES // CGRO-BATSE Event List from Wind launch to 95-01-17:
 63 Konus days to 1/17: 22 backgnd-GRBs, 21 triggered-GRBs, 1 flare.

Date	Tzero (UT)	Konus sensor	G1	G2	G3	N(1)/N(2) =G2 t<Tz t>Tz	Duration T#	BATSE Uly T# d* d*	TGRS T#	BACODINE RA Dec
941113	12 09 15	S1	145	85		2.5 115	BG			
941114	02 02 40	S2	110	128	30	0.25 12	BG	3283		92 37
941115	06 22 --							3284 (U)		149 11
941117	03 14 38.191	S2	406	550	74	0.17 40	5 2			
941117	14 07 57	S2	150	140		<0.15 5	BG			
941119	19 31 09.175	S2	370	703	160	0.23 7	20 4	3287*	U*	#13 188 22
941120	20 23 17.924	S1	215	328	30	>15 2	25 5			
941121	17 25 00.945	S1	1652	1656	300	21 3	50 6	3290*	U*	#15 004 -63
941123	19 51 --							3294 (U)		190 02
941125	22 04 30.156	S2	115	308	109	0.95 1.5	5 7	3295*	U*	BG
941126	00 20 46	S1	150	205	200	>14 18	BG	3296		BG
941126	03 55 --							3297 (U)		323 38
941126	12 22 37.952	S1	860	1430	330	4.2 40	45 8	3298*	U*	#28
941126	16 54 20	S1	55	75		>10 26	BG			
941126	19 56 49.732	S1	290	390	211	6.7 20	26 9	3301*	U*	#--
941127	14 30 25.680	S2	200	400	95	0.17 8	7 10	3303*	U*	070 50
941127	15 39 10	S1	210	57		2.7 260	BG			
941128	15 37 00	S1	75	90	32	>15 55	BG	3305		no d
941128	18 41 --							3306 (U)		011 -32
941205	23 33 40.074	S2	370	460	188	0.06 6	30 11			
941207	22 10 32	S2	265	175		<0.2 7	BG			
941210	03 10 52.523	S2	900	2350	1385	0.12 1	15 14		U*	BG
941214	17 03 51	S1	40	45	29	>6 12	BG			
941214	05 38 45.226	S1	3479	1266	14	1.0 12	240 SF	3318		BG 259 -06
941221	07 44 08	S2	55	115	30	0.8 20	BG			
941221	22 14 35.215	S1	260	496	165	1.5 55	11 19			BG
941222	05 36 00.243	S2	334	1360	1066	0.36 7	105 20			#145
941228	07 39 45.915	S1	300	637	519	4.4 5	90 28	3330*	U*	no d 339 -52
941228	16 55 23	S2	40	36	23	0.25 25	BG			
941229	12 58 05	S1	46	108	31	1.8 15	BG			
941229	22 51 08.781	S2	396	381	140	0.09 7	25 29	3334*	U*	no d
941230	20 52 53	S1	74	117	52	8.4 158	BG			no d
941230	23 43 44	S2	55	70	16	<0.2 4.5	BG			no d
950104	00 48 +/-1200								(U)	
950104	07 18 39.613	S2	258	550	219	0.75 2.8	20 31	3345*	U*	#250 310 -11
950104	09 00 58	S2	140	143	40	<0.1 25	BG			
950108	02 04 --							3349 (U)		020 -14
950110	06 02 15	S2	332	180		<0.1 3600	BG			
950110	13 37 57.084	S2	234	422	213	0.05 38	100 32			
950111	04 49 12.241	S1	586	620	100	>19 92	24 33	3351	U*	BG 319 -65
950111	12 18 49.196	S1	225	435	164	1.85 26	50 34	3352	U*	BG 024 -14
950112	07 45 37.120	S2	1305	1800	336	0.04 2.5	44 35			(?)
950113	05 59 13	S1	283	180	26	>10 52	BG			
950113	17 38 32	S2	85	162	35	<0.06 75	BG			

13 / 2 / 95

ULYSSES RT

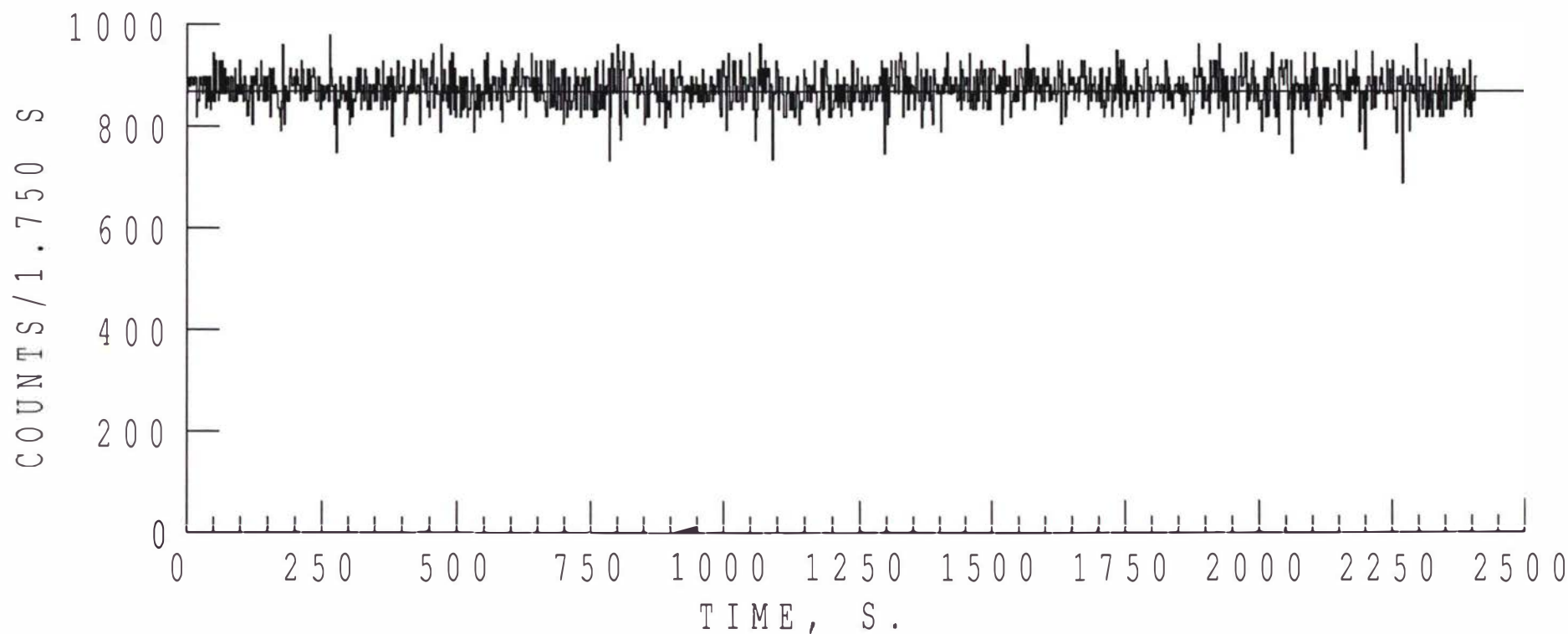
15 / 1 / 95 8964.106 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Tue Jan 17 08:45 PST 1995
Return-Path: <DEAL@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA19564; Tue, 17 Jan 1995 08:45:37 +0800
Date: Tue, 17 Jan 1995 10:45:34 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950117104534.20406d08@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3358
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

BATSE BURST # 3358 NO
EVENT OF 1995 JAN 15 DAY OF YEAR= 15
EVENT CROSSING TIME AT BATSE : 24791. S. OR 06:53:11.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 37.000 14.000
BATSE PEAK COUNTING RATE: 2700 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 15/ 1/ 95 IS:
RA= 323.810 DEC= -42.624 DIST= 2.229 AU
BATSE-ULYSSES DISTANCE = 333465405. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 92.44 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -47.44 SECS.
CROSSING TIME AT ULYSSES IS 24744. S. OR 06:52:23 +/- 242.22 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 15/ 1/ 95 IS:
RA= 155.175 DEC= 14.590 DIST= 0.757 AU
MARS-BATSE DISTANCE = 113205144. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 67.52 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 144.41 SECS.
CROSSING TIME AT MARS IS 24935. S. OR 06:55:35 +/- 62.77 SECONDS

BATSE BURST TRIGGER

NO.: 3358

TIME: TJD=9732 SECONDS=24791

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=82.0 AZIMUTH=270.7 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 25S. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3358	950115	9732	24791	2700	037	+14

17 / 1 / 95

ULYSSES RT

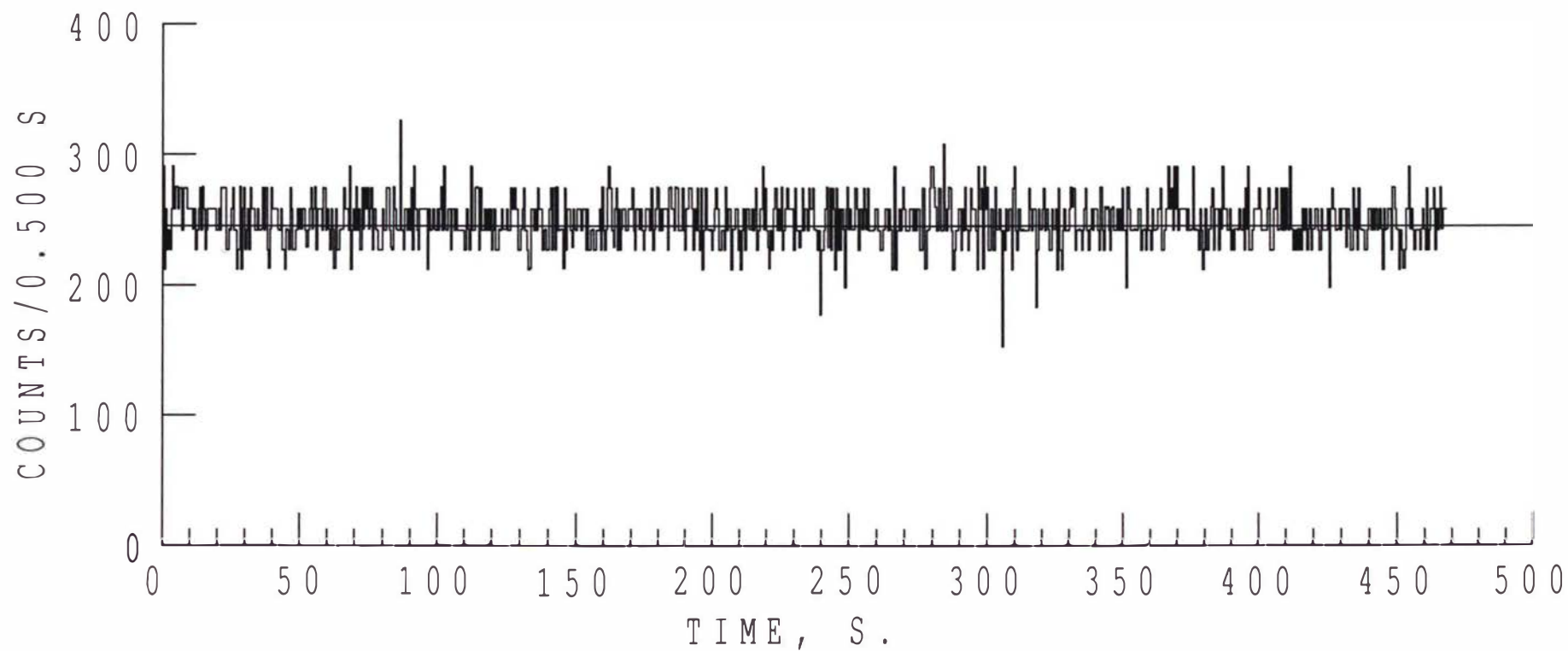
15 / 1 / 95 24516.160 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Tue Jan 17 08:43 PST 1995
Return-Path: <DEAL@ssl.msfc.nasa.gov>
Received: from SSLMOR.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA19512; Tue, 17 Jan 1995 08:43:11 +0800
Date: Tue, 17 Jan 1995 10:43:10 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Message-Id: <950117104310.20406d08@ssl.msfc.nasa.gov>
Subject: Crossing Windows for BATSE Burst 3359
Content-Type: text
Content-Length: 1135
X-Lines: 26
Status: RO

BATSEARCH PROGRAM

100

BATSE BURST # 3359
EVENT OF 1995 JAN 15 DAY OF YEAR= 15
EVENT CROSSING TIME AT BATSE : 85177. S. OR 23:39:37.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 318.000 14.000
BATSE PEAK COUNTING RATE: 9000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 15/ 1/ 95 IS:
RA= 324.165 DEC= -42.160 DIST= 2.231 AU
BATSE-ULYSSES DISTANCE = 333810558. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=123.55 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -615.43 SECS.
CROSSING TIME AT ULYSSES IS 84562. S. OR 23:29:21 +/- 201.76 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 15/ 1/ 95 IS:
RA= 155.175 DEC= 14.590 DIST= 0.757 AU
MARS-BATSE DISTANCE = 113205144. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 33.26 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 315.76 SECS.
CROSSING TIME AT MARS IS 85493. S. OR 23:44:52 +/- 40.75 SECONDS

BATSE BURST TRIGGER

NO.: 3359

TIME: TJD=9732 SECONDS=85177

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=112 AZIMUTH=342.3 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 0.5 S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3359	950115	9732	85177	9000	318	+14

17 / 1 / 95

ULYSSES RT

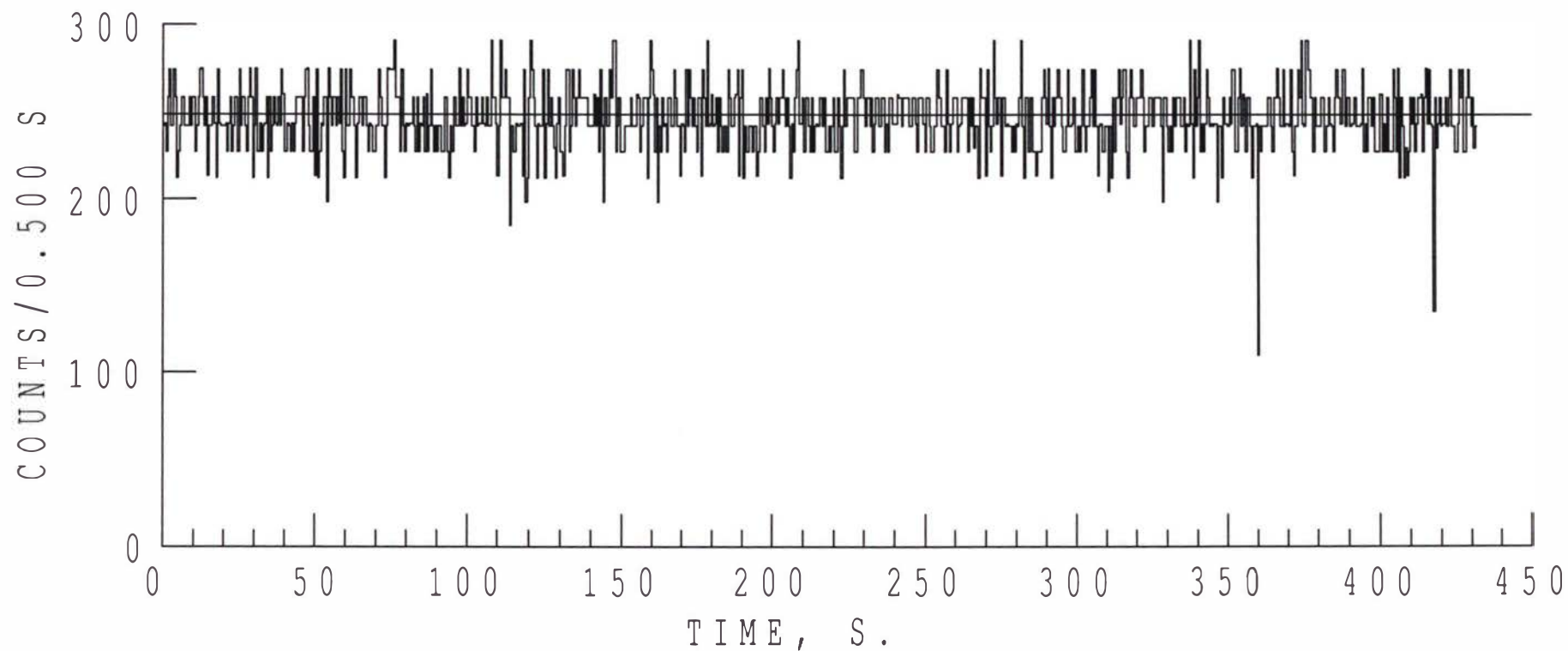
15 / 1 / 95 84348.078 s

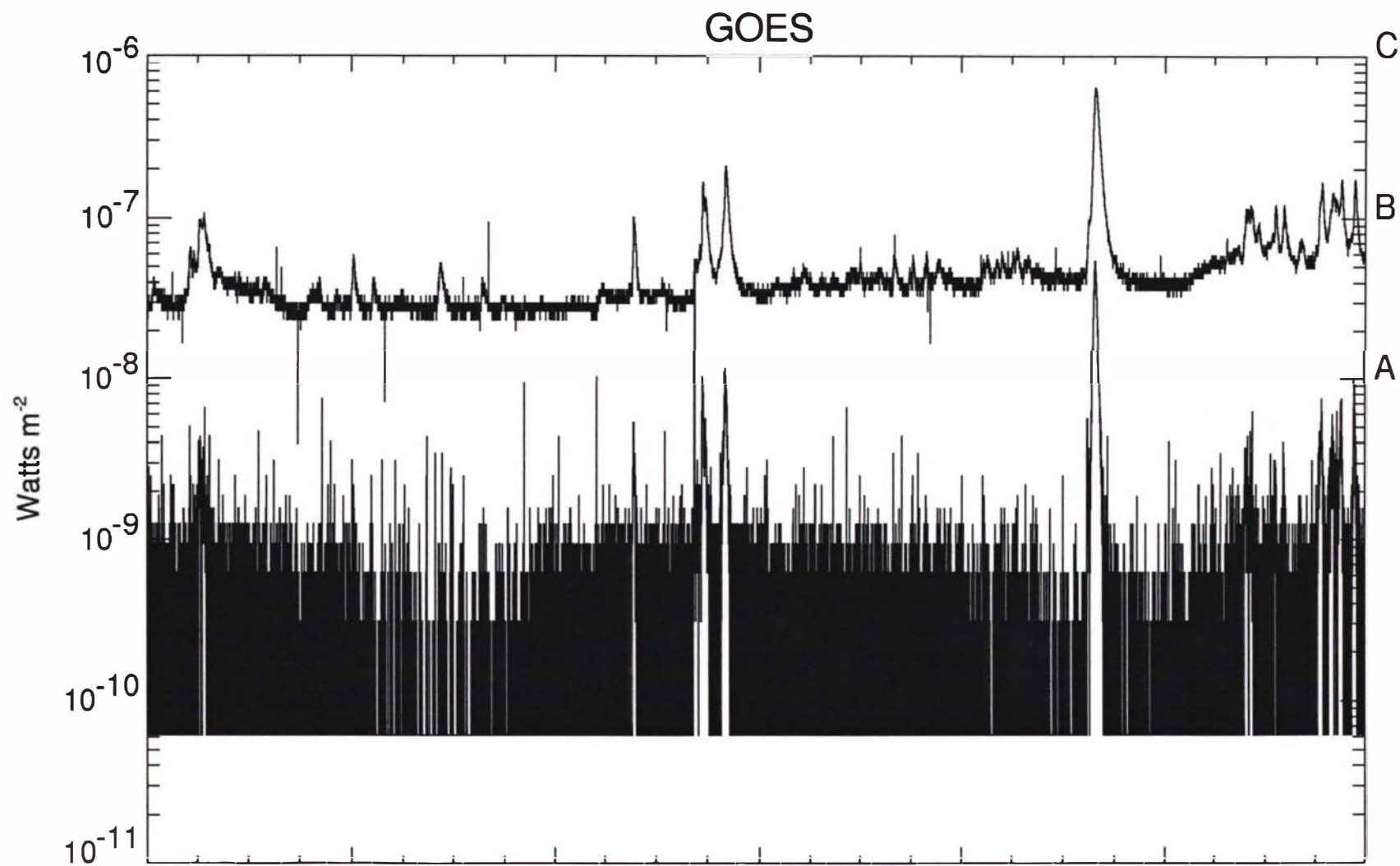
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 95/01/15, 0000:00

Plot created: 95/01/18, 1447

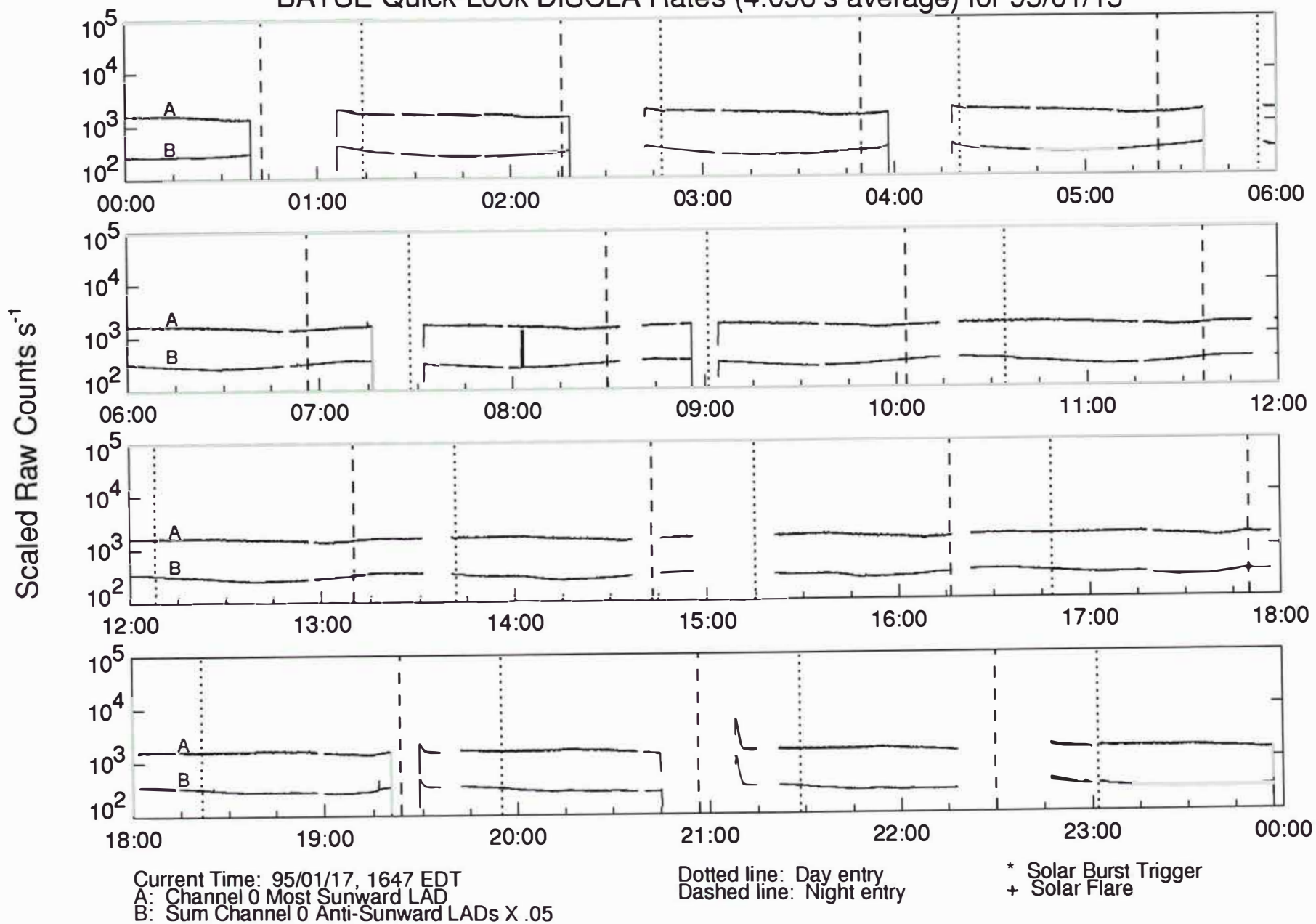
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

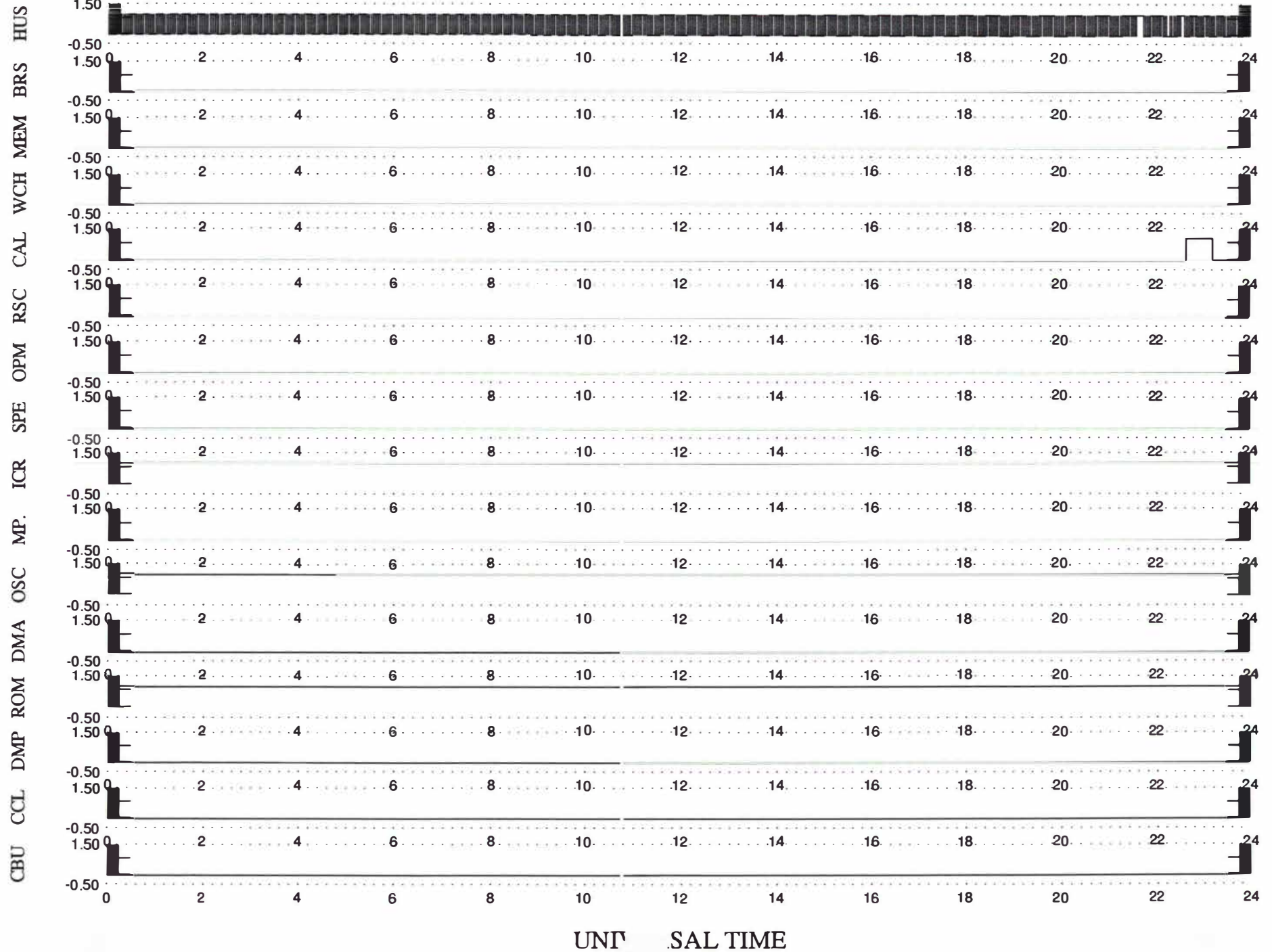
Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

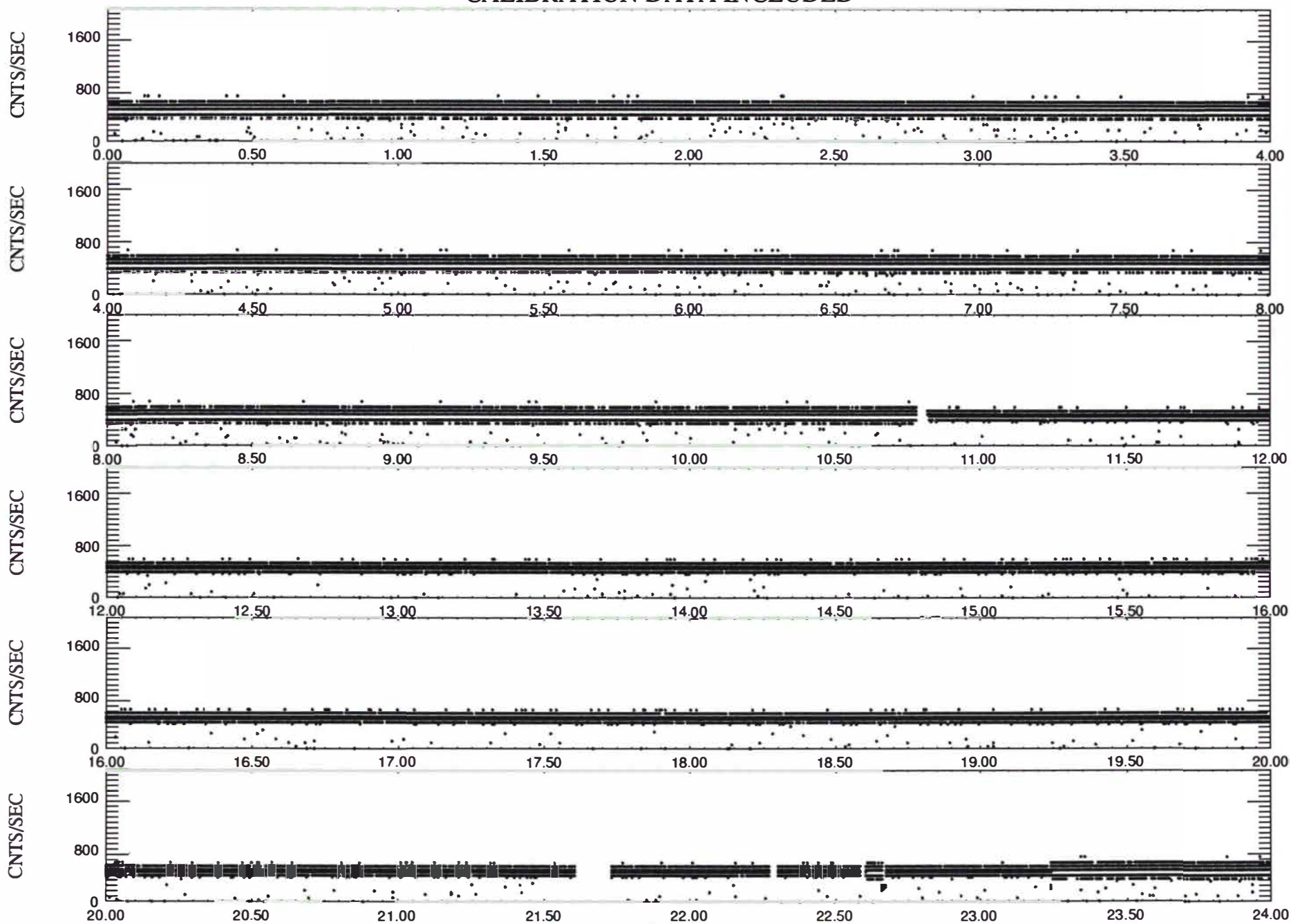
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/15



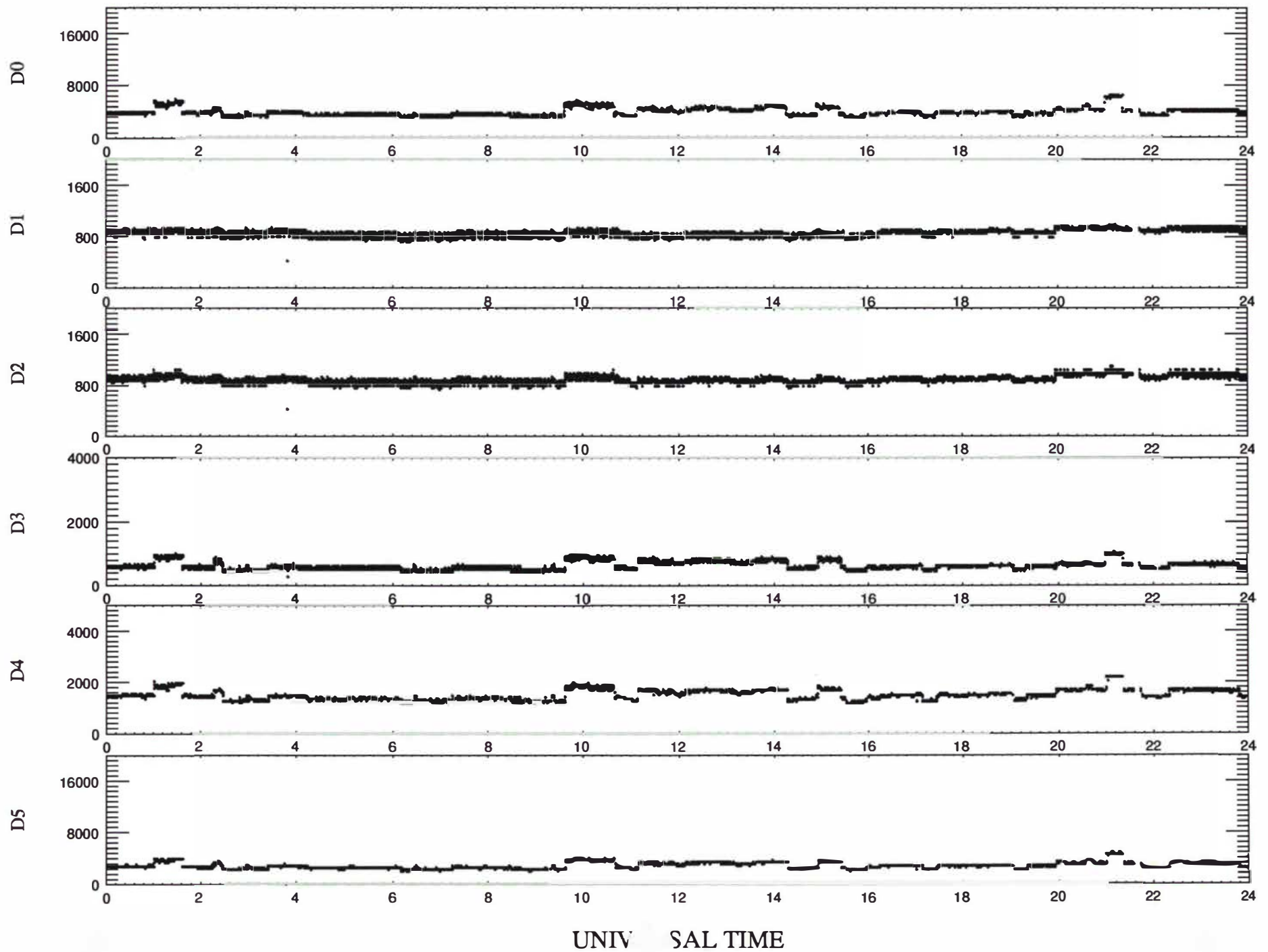
NO BURST (11)

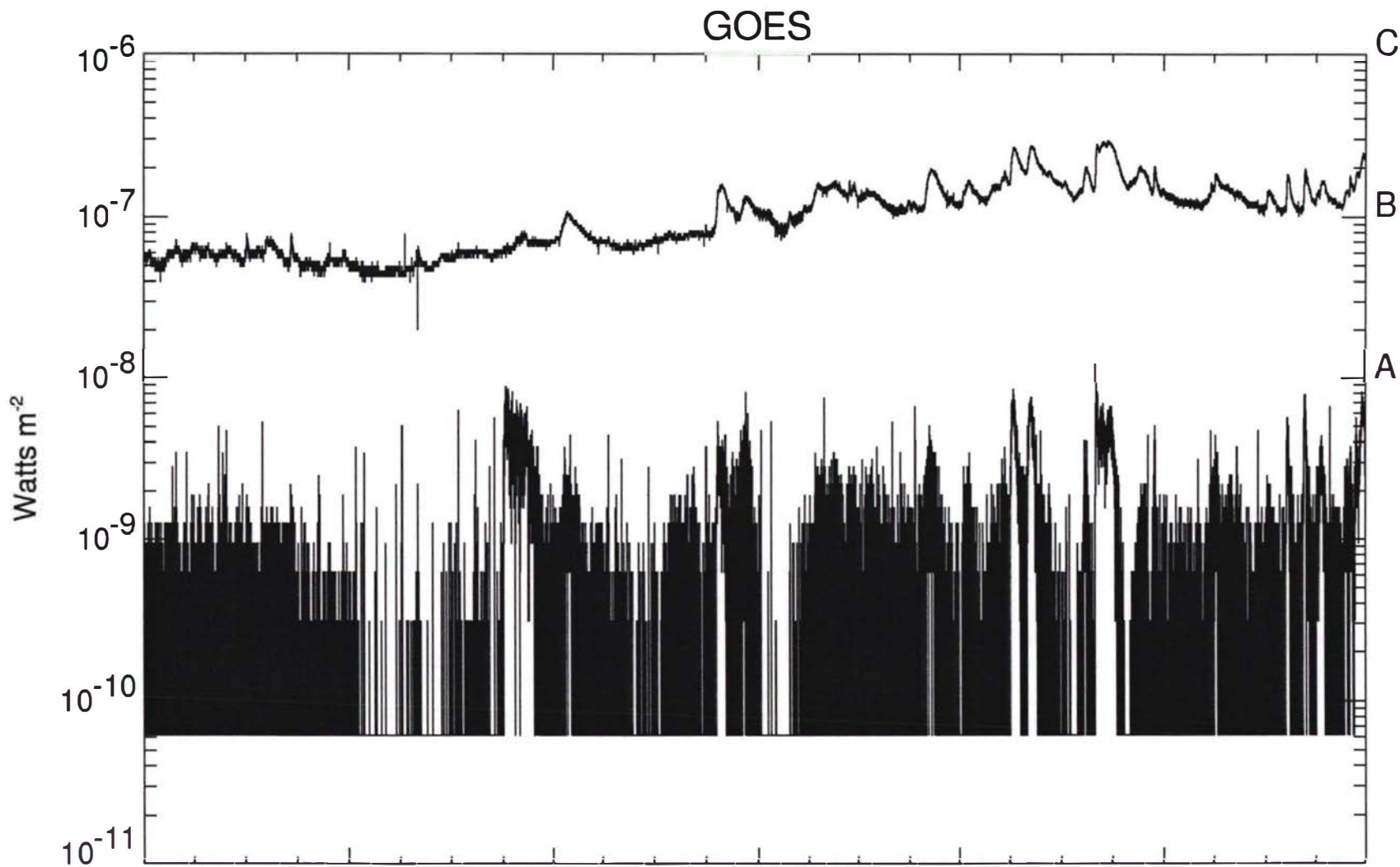


CALIBRATION DATA INCLUDED



UNIT SAL TIME





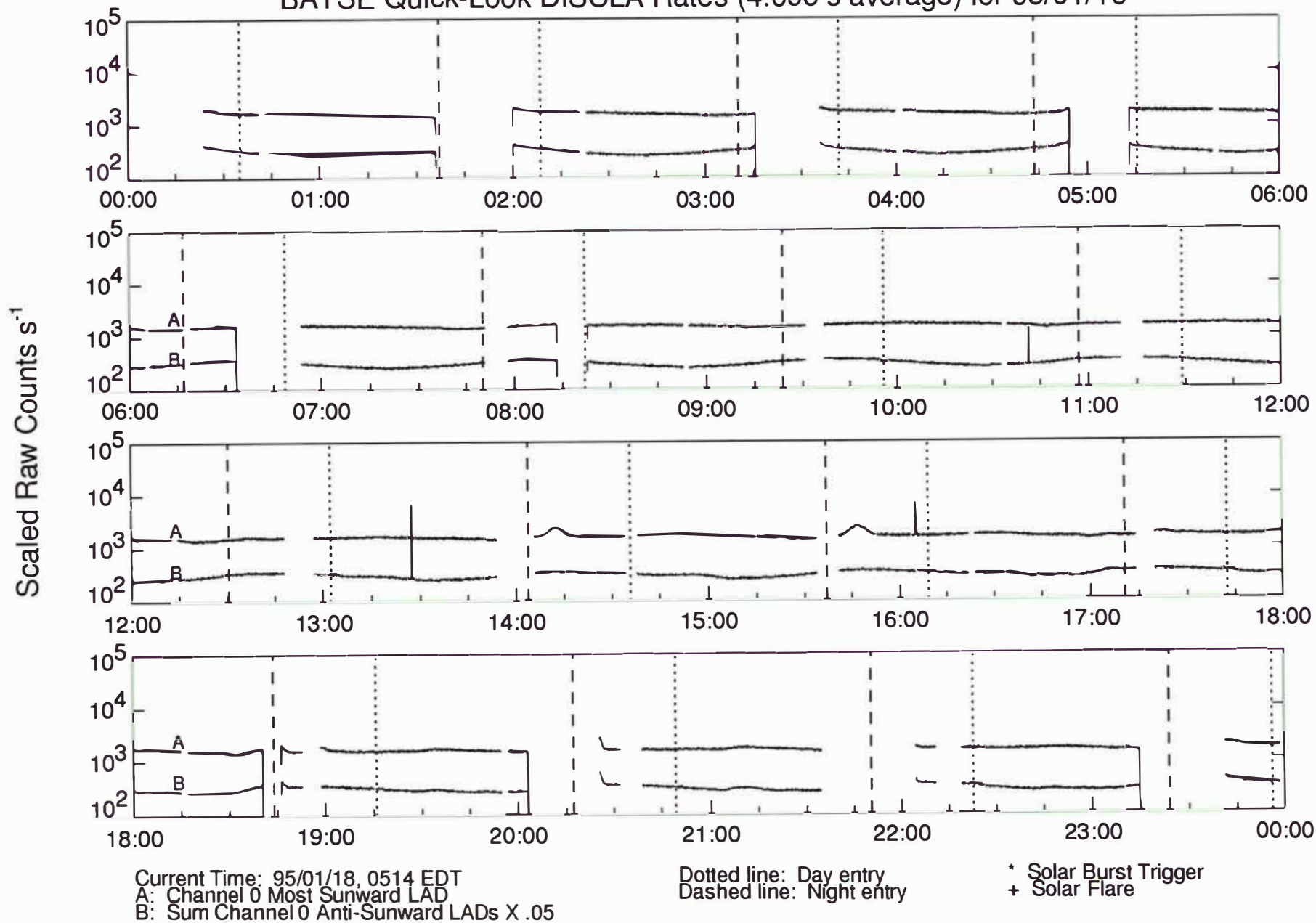
Data Start: 95/01/16, 0000:01

Plot created: 95/01/18, 0514

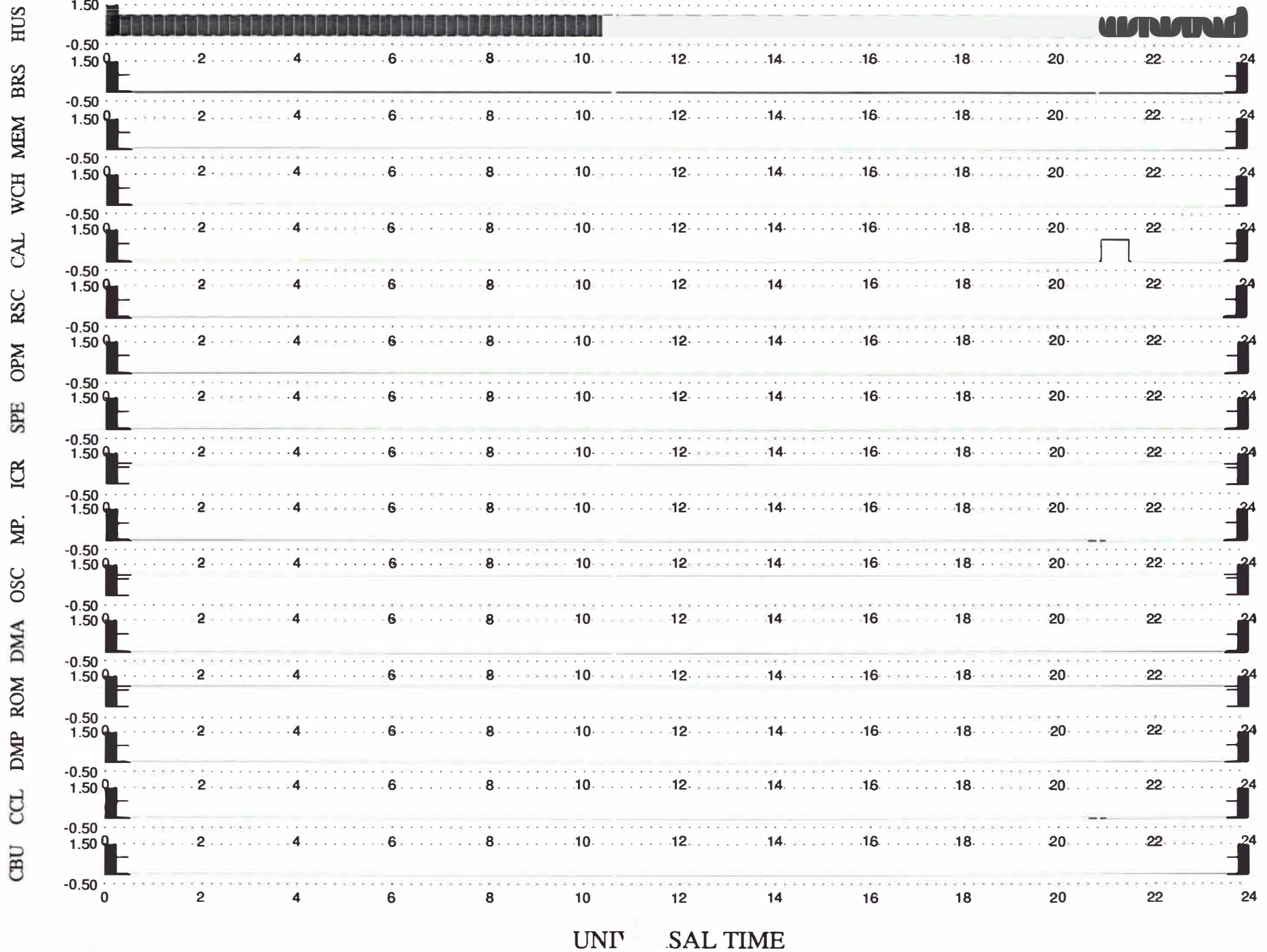
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

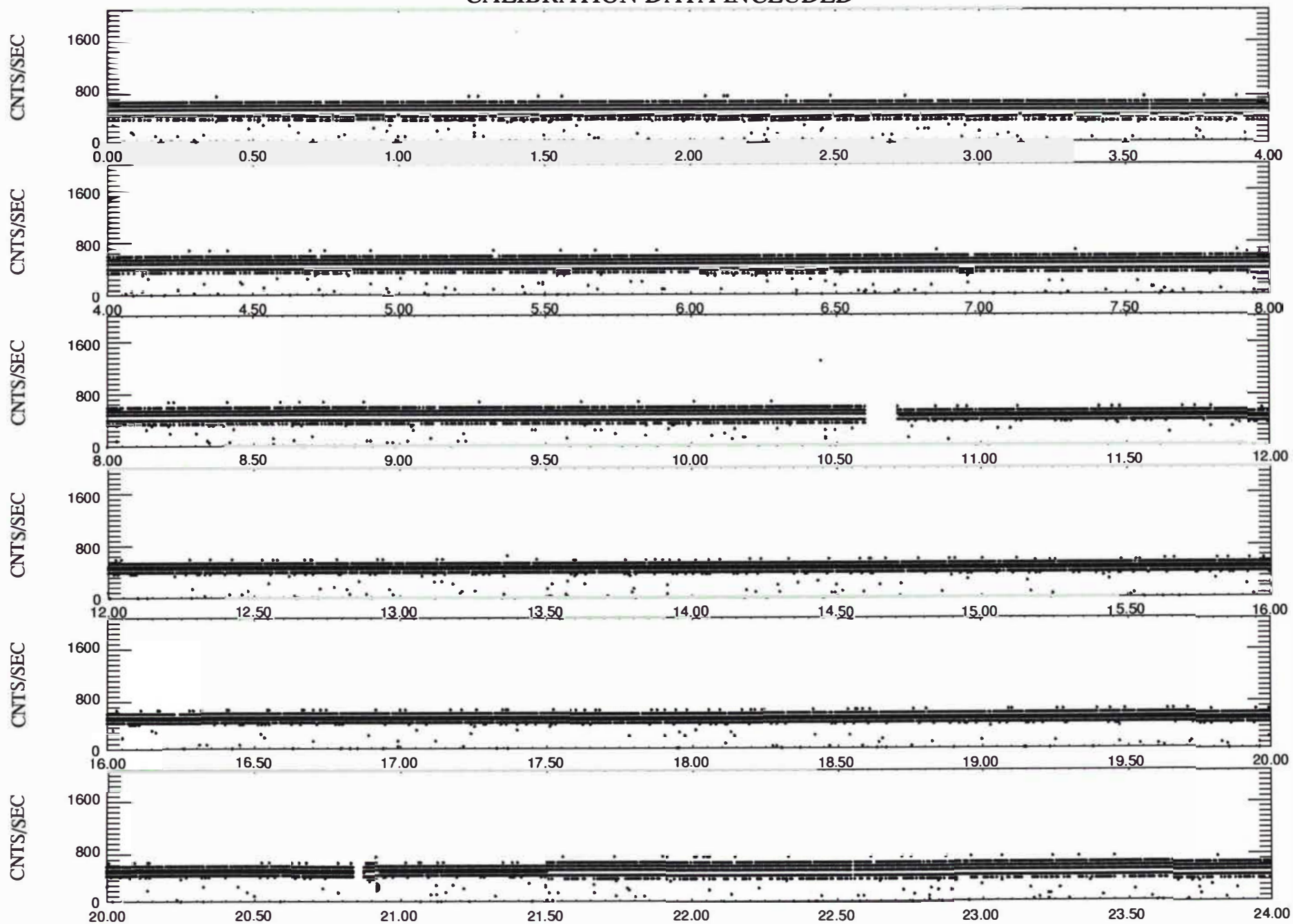
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/16



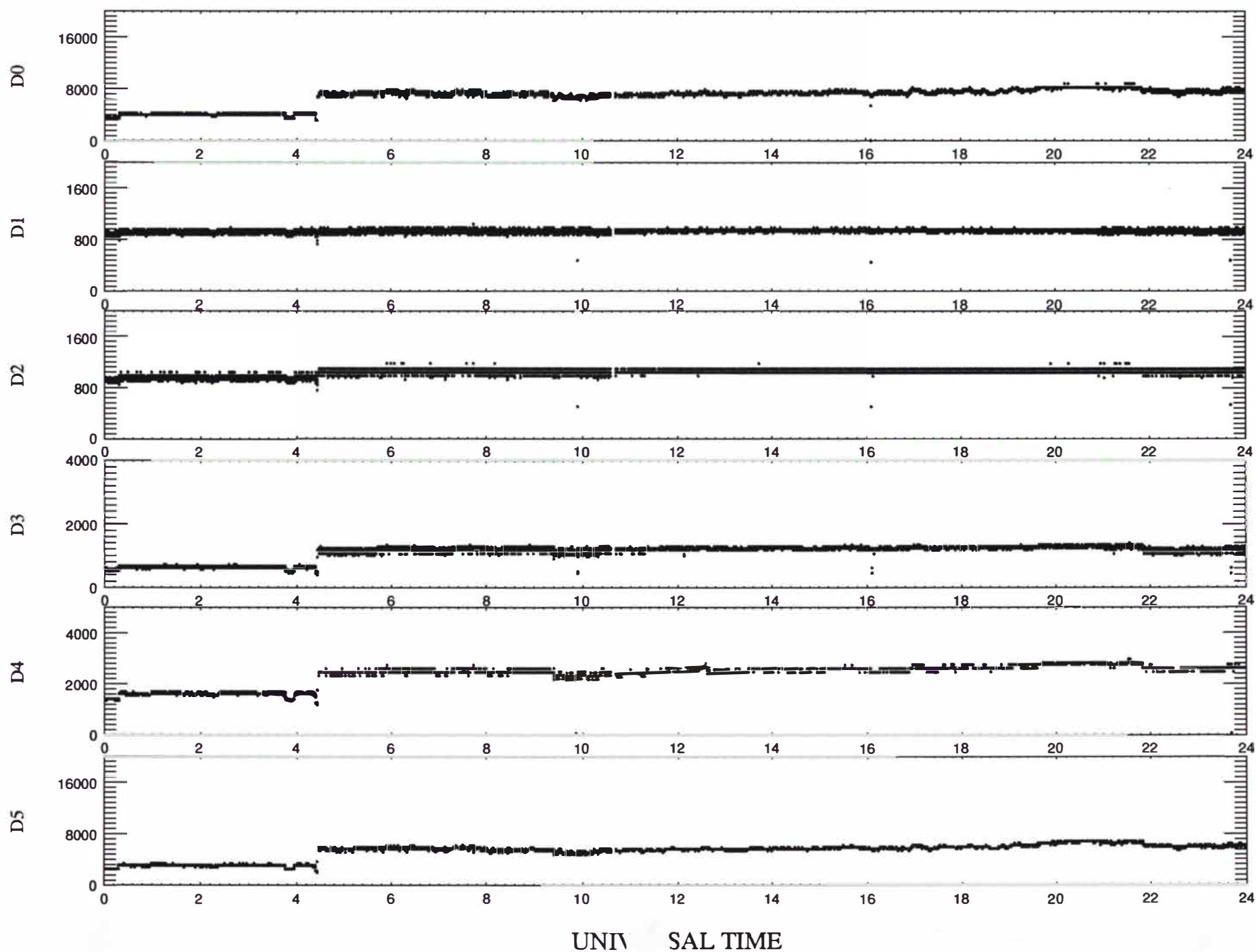
NO BURST (11)



CALIBRATION DATA INCLUDED



UNF SAL TIME



From HAGEDON@fender.msfc.nasa.gov Thu Jan 19 09:51 PST 1995
Date: Thu, 19 Jan 1995 11:51:53 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3360

BATSEARCH PROGRAM

BATSE BURST # 3360
EVENT OF 1995 JAN 17 DAY OF YEAR= 17
EVENT CROSSING TIME AT BATSE : 5761. S. OR 01:36:01.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 284.000 28.000
BATSE PEAK COUNTING RATE: 5000 C/S

RT Too weak to triangulate

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 17/ 1/ 95 IS:
RA= 324.704 DEC= -41.446 DIST= 2.235 AU
BATSE-ULYSSES DISTANCE = 334359087. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=101.01 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -213.01 SECS.
CROSSING TIME AT ULYSSES IS 5548. S. OR 01:32:27 +/- 236.83 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 17/ 1/ 95 IS:
RA= 154.866 DEC= 14.780 DIST= 0.746 AU
MARS-BATSE DISTANCE = 111614080. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 65.23 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 156.02 SECS.
CROSSING TIME AT MARS IS 5917. S. OR 01:38:37 +/- 61.06 SECONDS

From HAGEDON@fender.msfc.nasa.gov Thu Jan 19 09:51 PST 1995
Date: Thu, 19 Jan 1995 11:51:28 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3360

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3360	950117	9734	05761	5000	284	+28

From HAGEDON@ssl.msfc.nasa.gov Thu Jan 19 09:45 PST 1995
Date: Thu, 19 Jan 1995 11:45:16 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3360

TIME: TJD=9734 SECONDS=05761

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=137 AZIMUTH=8 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE WITH SUBSTRUCTURE. FASTER RISE THAN DECAY. DUR.~270 SEC.
VISIBLE ABOVE 300 KEV.

From root Thu Jan 26 12:09 1995
 Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)
 id AA09916; Thu, 26 Jan 95 12:09:38
 Received: from TGRS.GSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
 id AA01181; Thu, 26 Jan 1995 12:08:59 +0800
 Date: Thu, 26 Jan 1995 12:08:59 +0800
 Message-Id: <9501262008.AA01181@sunspot.ssl.berkeley.edu>
 Received: from [128.183.8.198] ([128.183.8.198]) by TGRS.GSFC.NASA.GOV with SMTP;
 Thu, 26 Jan 1995 15:11:15 -0500 (EST)
 Mime-Version: 1.0
 Content-Type: text/plain; charset="us-ascii"
 To: KHURLEY@space6.ssl.berkeley.edu
 From: cline@tgrs.gsfc.nasa.gov (T L Cline)
 Subject: KONUS/BATSE/ULYSSES EVENT LIST TO 95 JAN 17
 Cc: Mazets@mz.pti.spb.su
 Content-Length: 1824
 Status: R

KEVIN:

BASED ON WHAT I HAVE FROM SERGEI GOLENETSKII AND FROM YOU, THIS IS THE
 CURRENT LIST OF ALL KONUS-ULYSSES EVENTS UP TO 95 JAN 17 WITH ALL BUT TWO
 ALSO BATSE.

X means sent with plan

✓ means sent to TLC

Date	KONUS-Tzero Sensor (UT)	Max c/s G1 G2 G3	N(1)/N(2) (G2)	Duration t<Tz t>Tz	Event K-no T-no	BATSE EVENT	ULYSSES
941119 19 31 09.175	S2	370 703 160	0.23	7 20	4 3287	ULY ✓	
941121 17 25 00.945	S1	1652 1656 300	21	3 50	6 3290	ULY ✓	
941125 22 04 30.156	S2	115 308 109	0.95	1.5 5	7 3295	ULY X	
941126 12 22 37.952	S1	860 1430 330	4.2	40 45	8 3298	ULY ✓	
941126 19 56 49.732	S1	290 390 211	6.7	20 26	9 3301	ULY X	
941127 14 30 25.680	S2	200 400 95	0.17	8 7	10 3303	ULY ✓	
941210 03 10 52.523	S2	900 2350 1385	0.12	1 15	14 ----	ULY ✓	
941228 07 39 45.915	S1	300 637 519	4.4	5 90	28 3330	ULY X	
941229 22 51 08.781	S2	396 381 140	0.09	7 25	29 3334	ULY X	
950104 07 18 39.613	S2	258 550 219	0.75	2.8 20	31 3345	ULY X	
950111 04 49 12.241	S1	586 620 100	>19	92 24	33 3351	ULY X	
950114 04 03 01	S2	23 76	0.5	70	BG ----	ULY ✓	
950117 01 36 00	S2	56 82 42	0.22	108	BG 3360	ULY X	

Energy intervals G1, G2, G3: 14 - 50, 50 - 225 and 225 - 900 keV.

Since 12th December: 12.5 - 43, 43 - 190 and 190 - 760 keV.

N(1)/N(2) is ratio of sensor 1 to sensor 2 counts in G2.

WHEN YOU HAVE A CHANCE, PLEASE SEND THESE TIME HISTORIES FIRST. THANKS. TLC

-- T. L. Cline ----- LHEAVX::CLINE

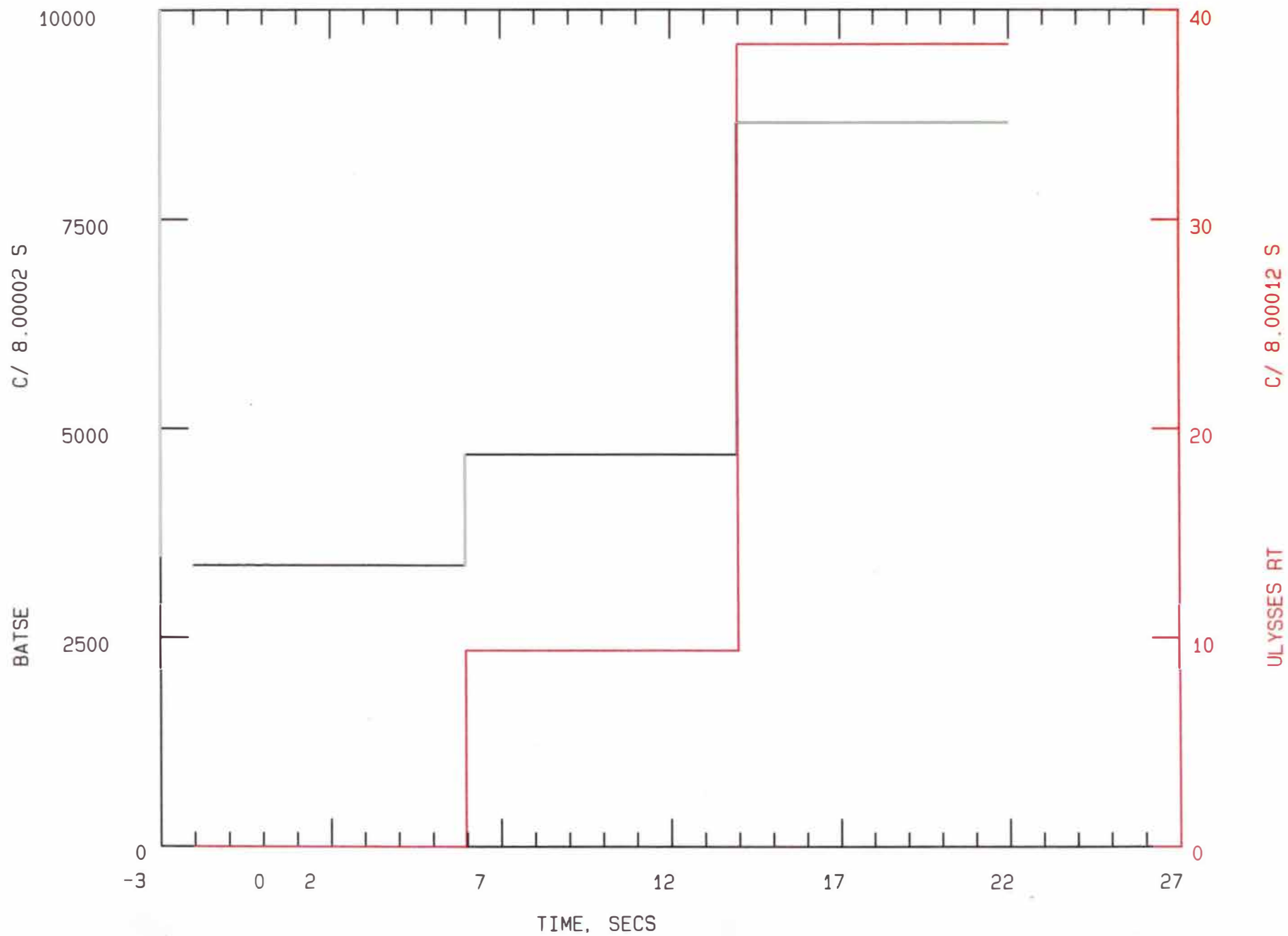
BATSE

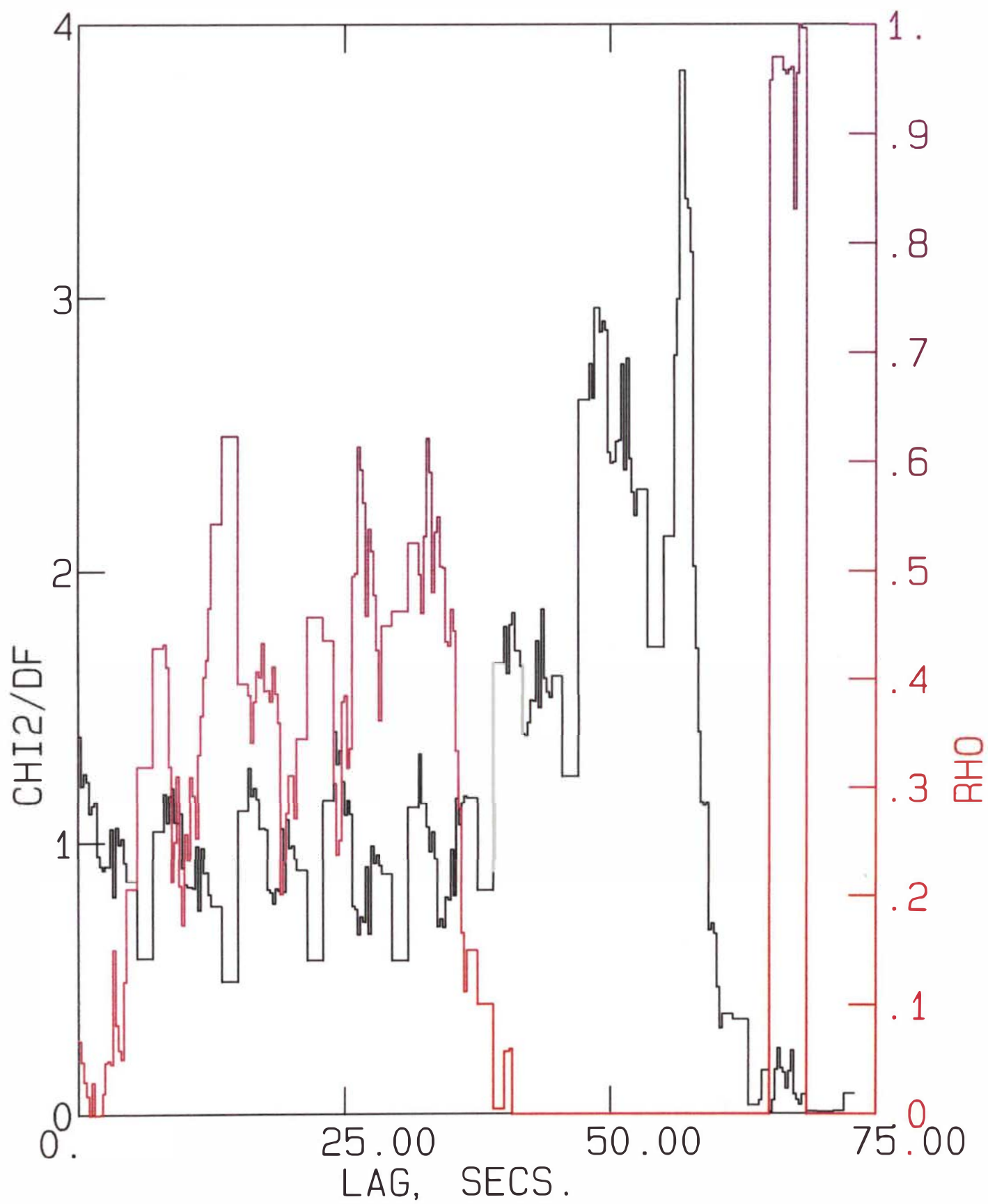
-ULYSSES RT CORRELATION

17/ 1/95

5761.714

10/ 2/98





N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

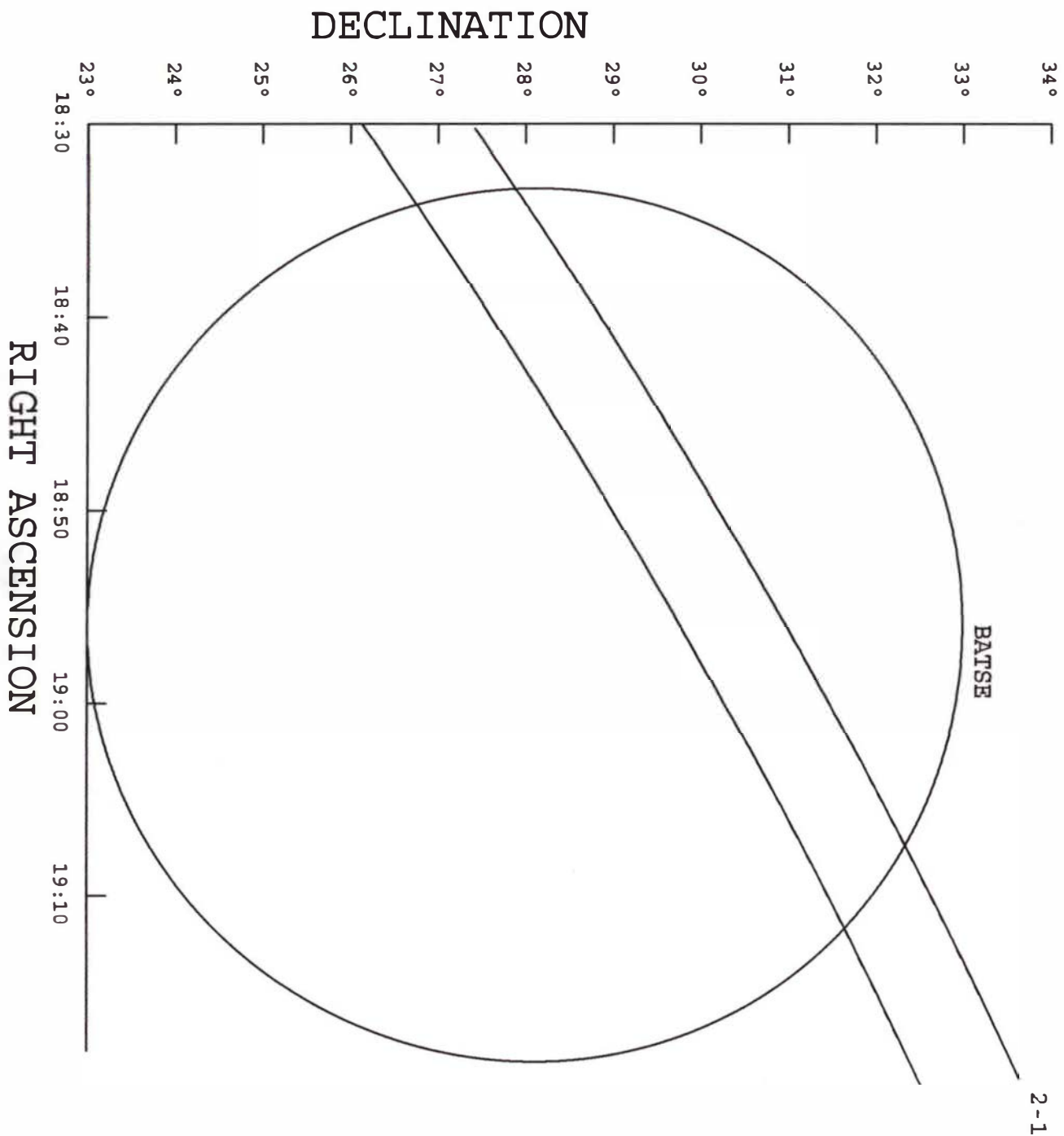
G=GALACTIC EQUATOR

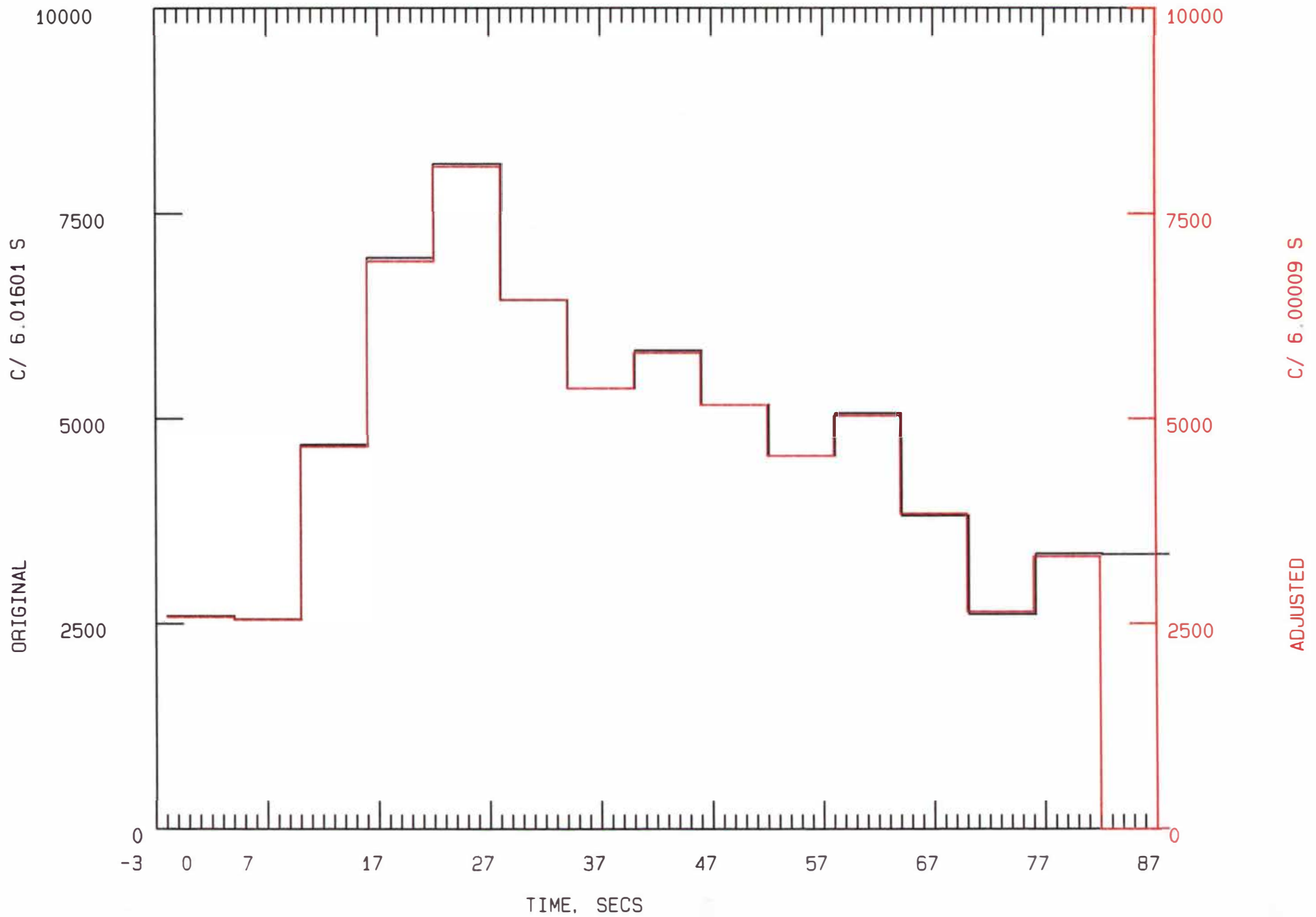
1 ULYSSES

2 BATSE

EVENT OF JAN 17, 1995 1:32

20 / 1/96





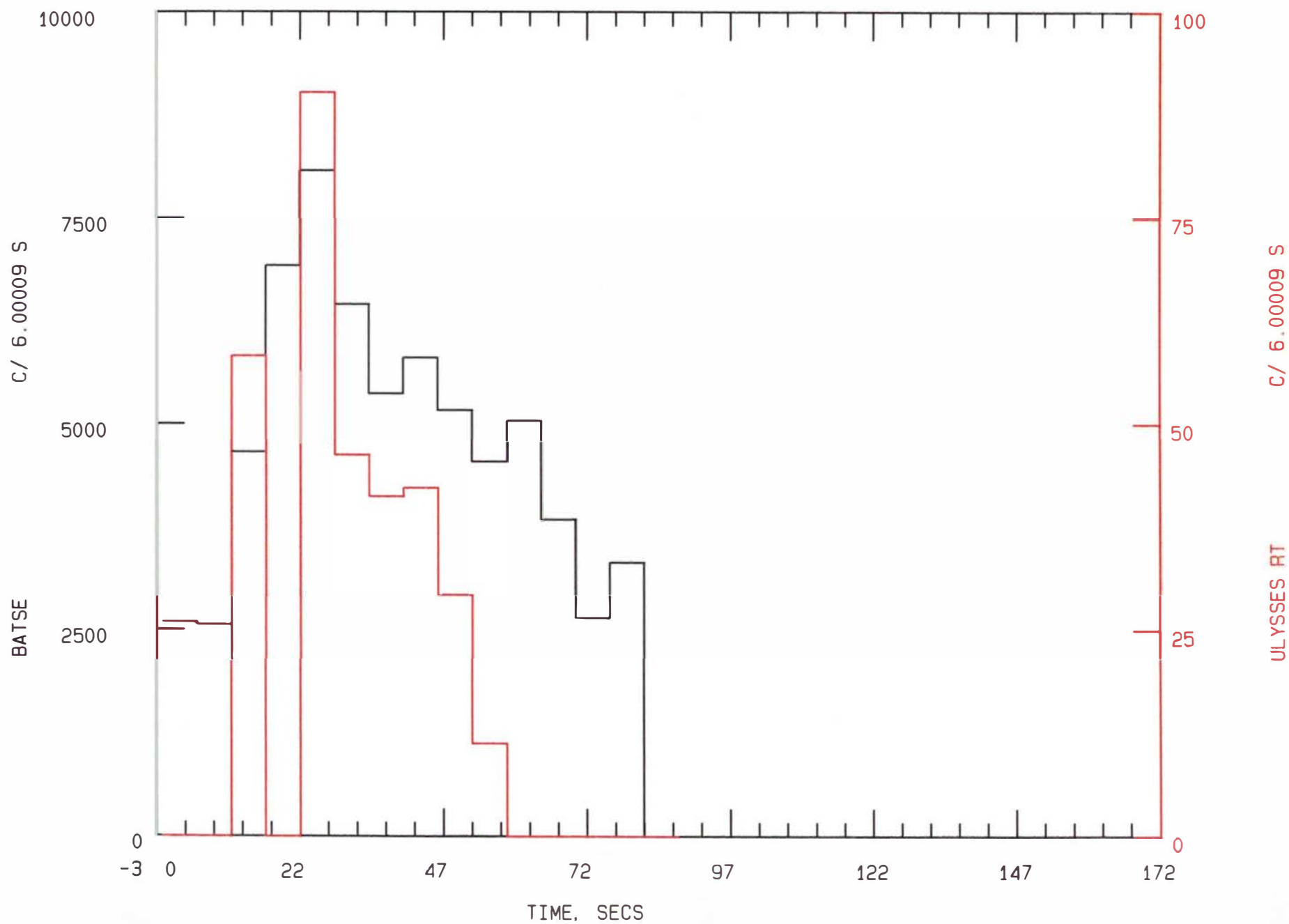
BATSE

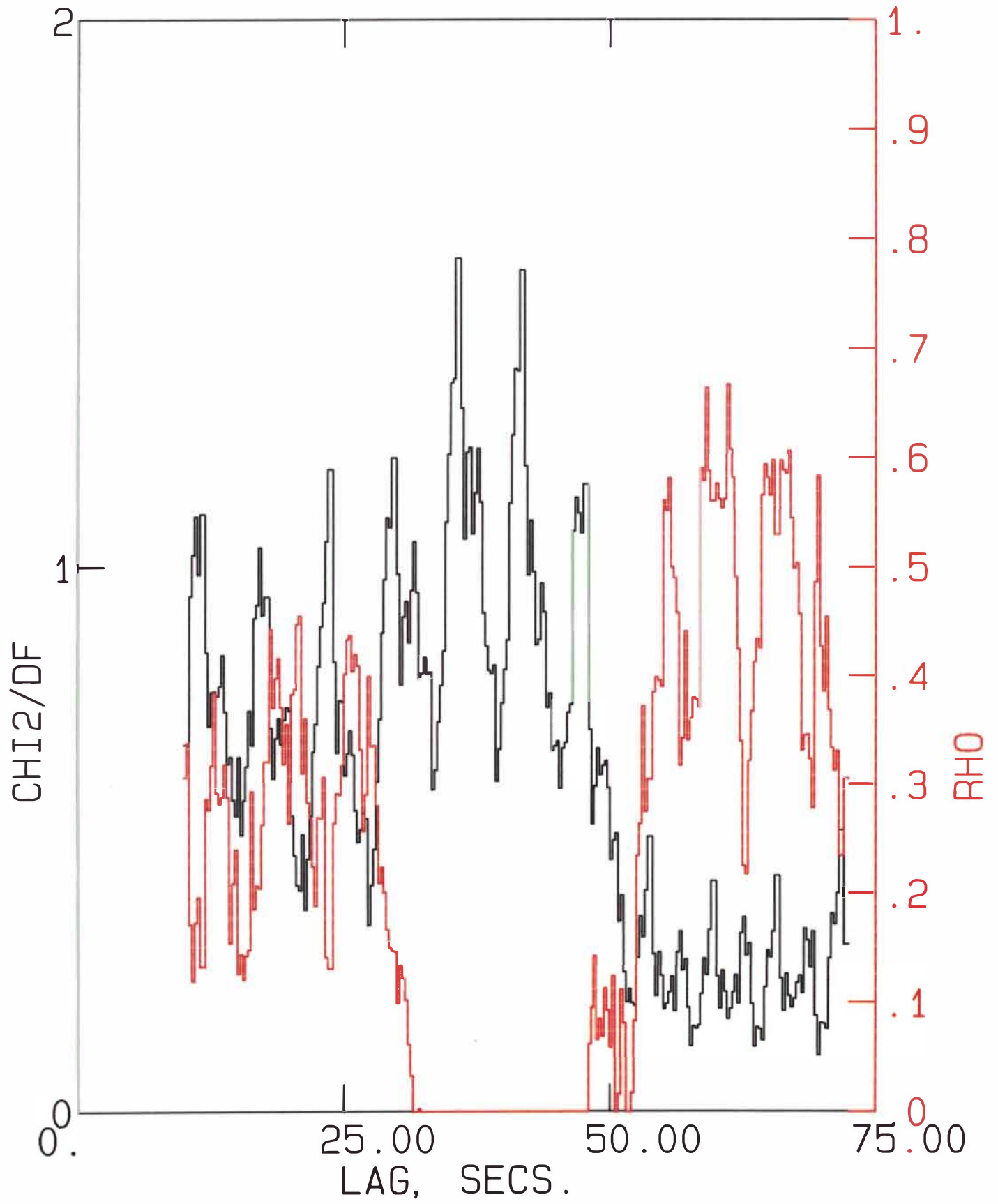
-ULYSSES RT CORRELATION

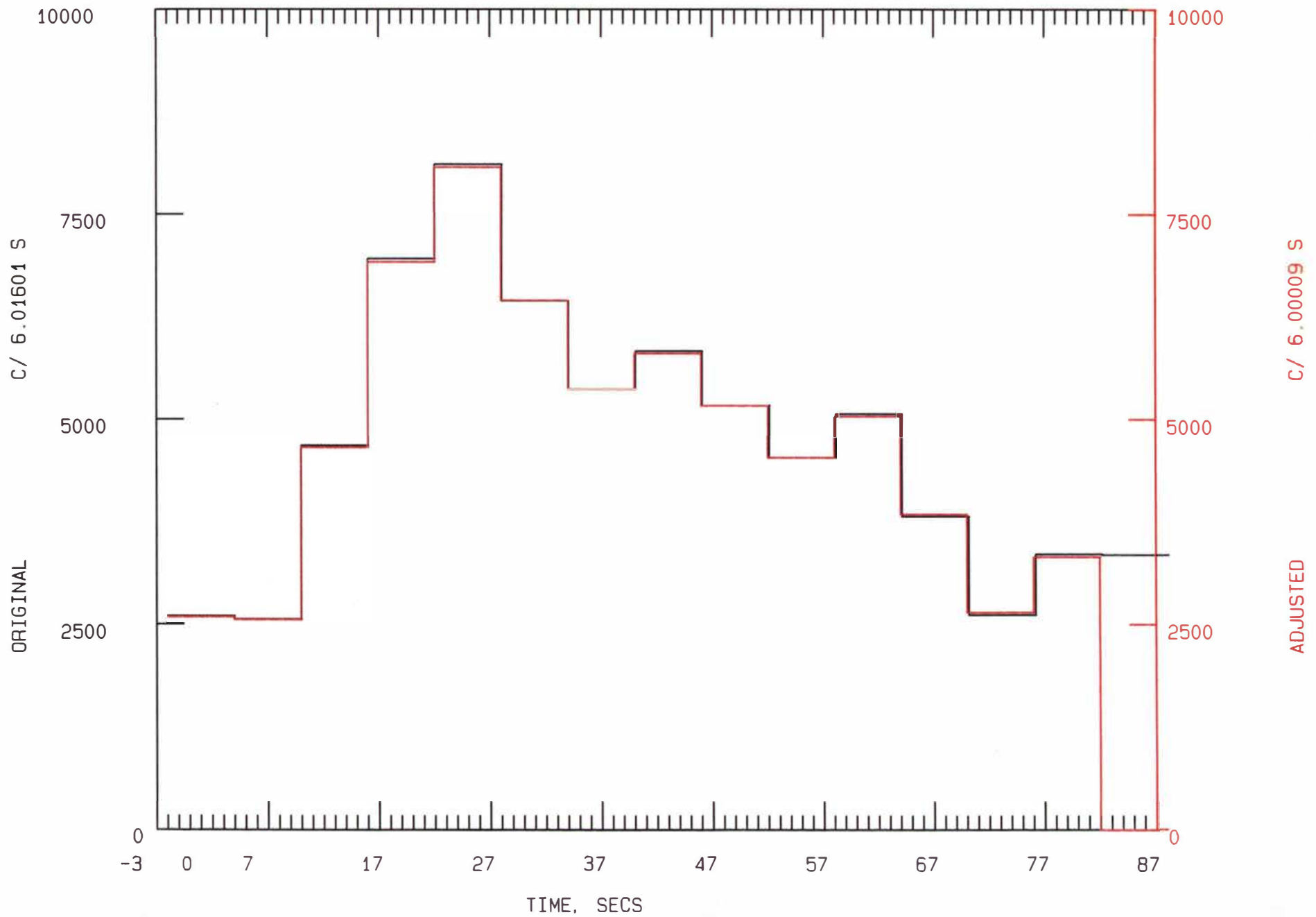
17/ 1/95

5761.714

20/ 1/96







ULYSSES RT

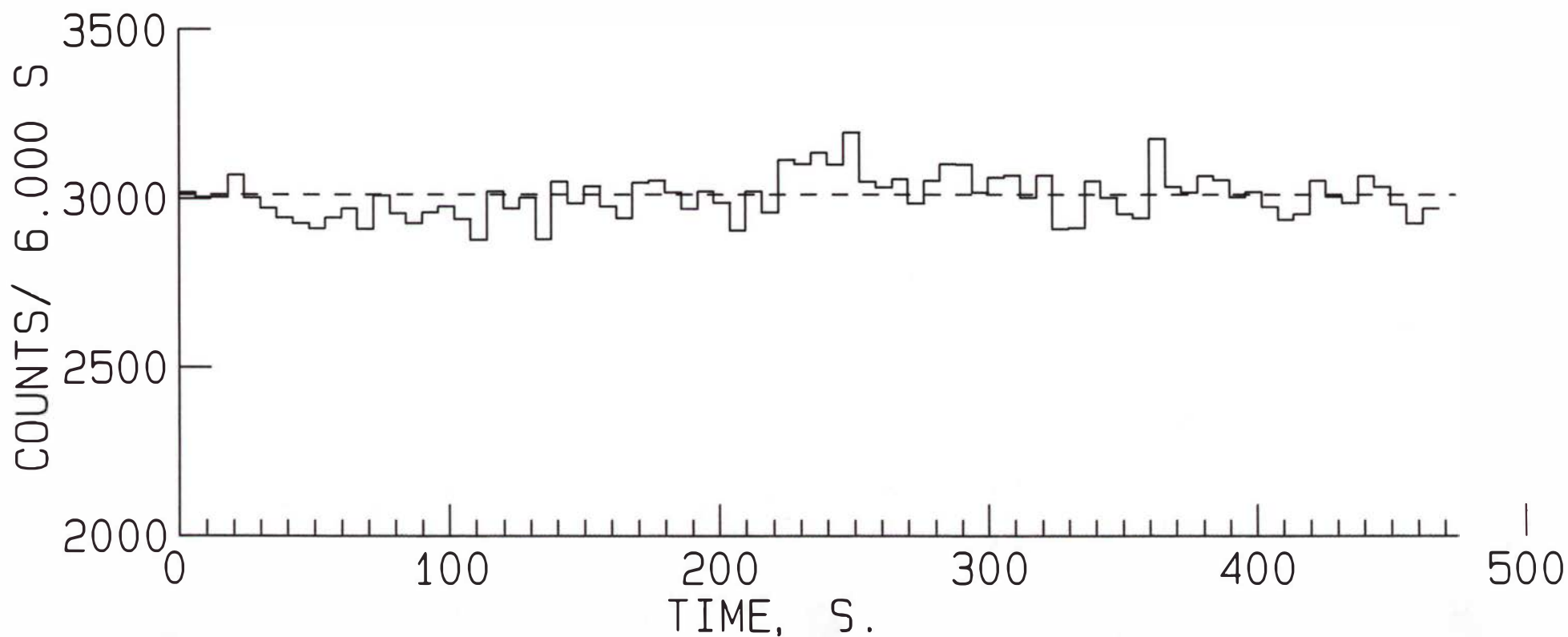
20 / 1 / 96

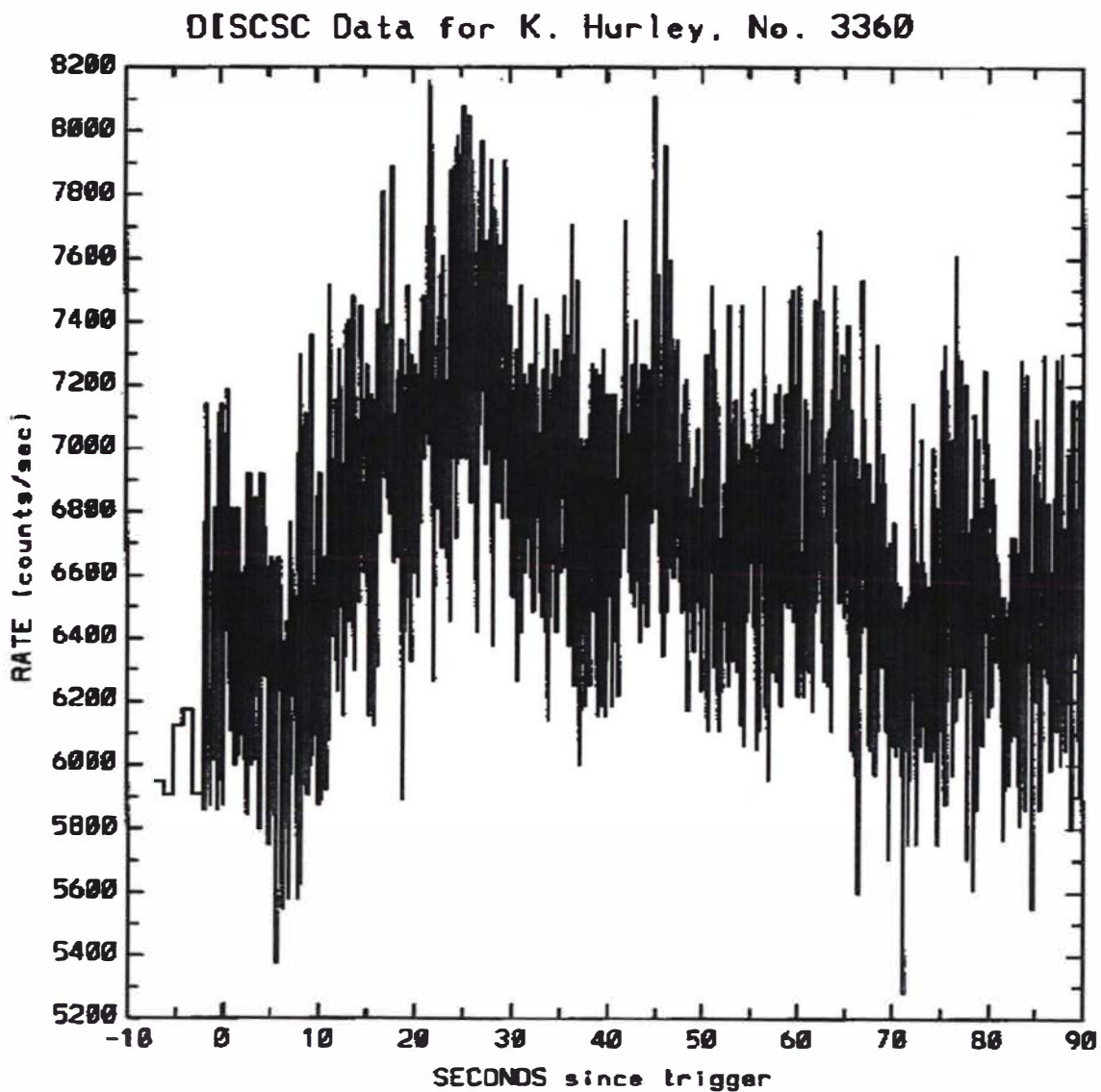
17 / 1 / 95 5328.164 s

0.250 S INTERVALS REGROUPED BY 24

22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





2-FEB-1995 14.49.22

Created by MOPS 80
(Burst Display)
Version t2.23

Trigger * : 3360

Trigger Time:
9734 / 5761.714

Burst Data Type:
DISCSC

Deadtime
Corrected: N

Background Data
Type: PREB + DISCLA

Minimum (Integ. Time:
0.064 seconds)

Detectors [7..8]:
----3-1-

Discriminators:
[1. 2]

Quality Mask:
B0ISP1

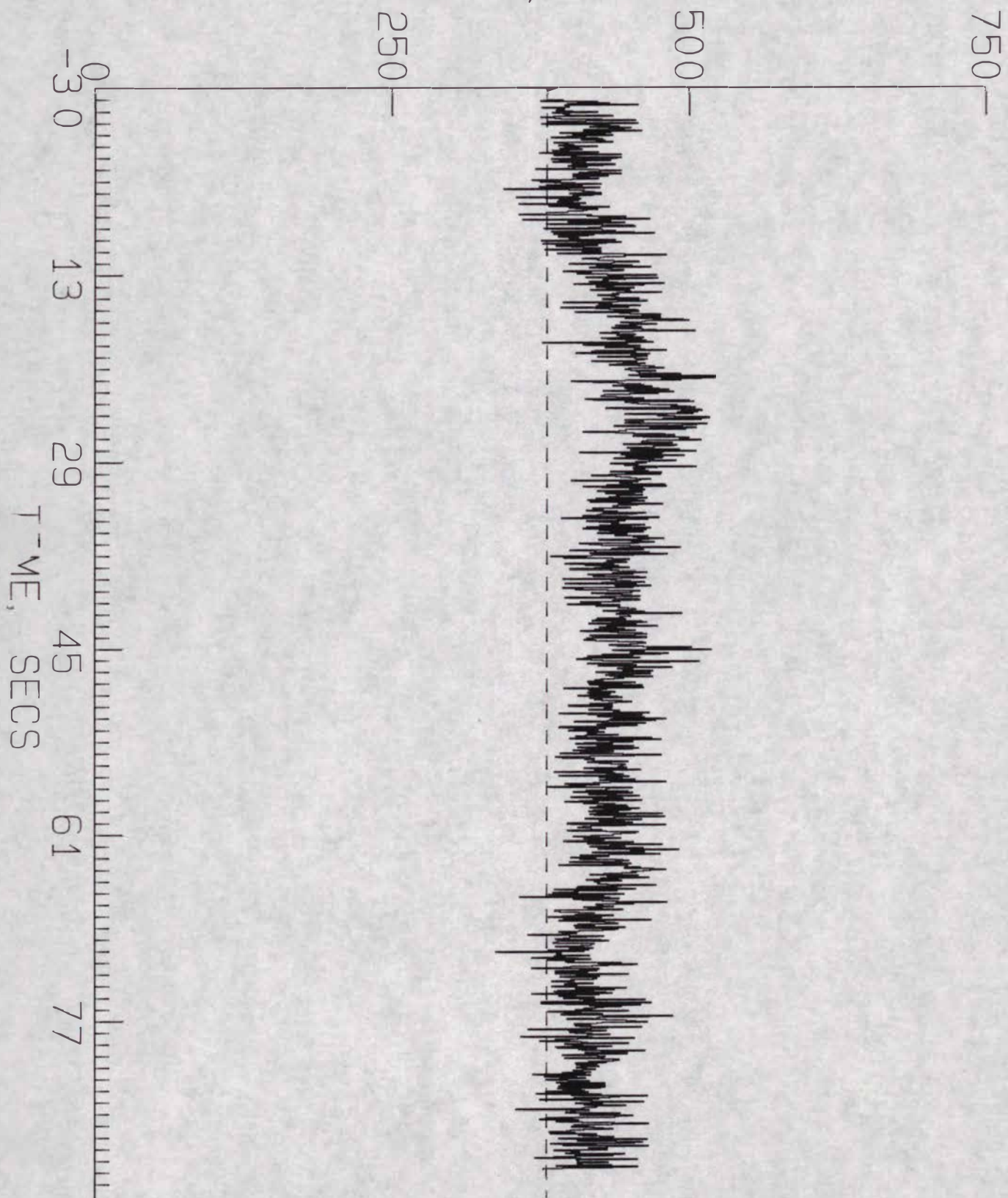
BATSE

17/01/95

5761.714

25- 100 keV

COUNTS/ .064 S



From HAGEDON@fender.msfc.nasa.gov Thu Jan 19 09:58 PST 1995
Date: Thu, 19 Jan 1995 11:58:03 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3361

BATSEARCH PROGRAM

BATSE BURST # 3361
EVENT OF 1995 JAN 17 DAY OF YEAR= 17
EVENT CROSSING TIME AT BATSE : 55807. S. OR 15:30:07.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 273.000 -60.000
BATSE PEAK COUNTING RATE: 4000 C/S

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 17/ 1/ 95 IS:
RA= 324.988 DEC= -41.063 DIST= 2.237 AU
BATSE-ULYSSES DISTANCE = 334645140. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=143.23 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -894.18 SECS.
CROSSING TIME AT ULYSSES IS 54913. S. OR 15:15:12 +/- 152.43 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 17/ 1/ 95 IS:
RA= 154.866 DEC= 14.780 DIST= 0.746 AU
MARS-BATSE DISTANCE = 111614080. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 63.33 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 167.12 SECS.
CROSSING TIME AT MARS IS 55974. S. OR 15:32:54 +/- 60.30 SECONDS

From HAGEDON@ssl.msfc.nasa.gov Thu Jan 19 09:49 PST 1995
Date: Thu, 19 Jan 1995 11:49:50 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3361

TIME: TJD=9734 SECONDS=55807

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=55 AZIMUTH=46 ERROR= DEGREES

COMMENTS:

BURST. SINGLE SPIKE. DUR.<1 SEC. NOT VISIBLE ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Thu Jan 19 09:57 PST 1995
Date: Thu, 19 Jan 1995 11:57:45 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3361

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3361	950117	9734	55807	4000	273	-60

13 / 4 / 95

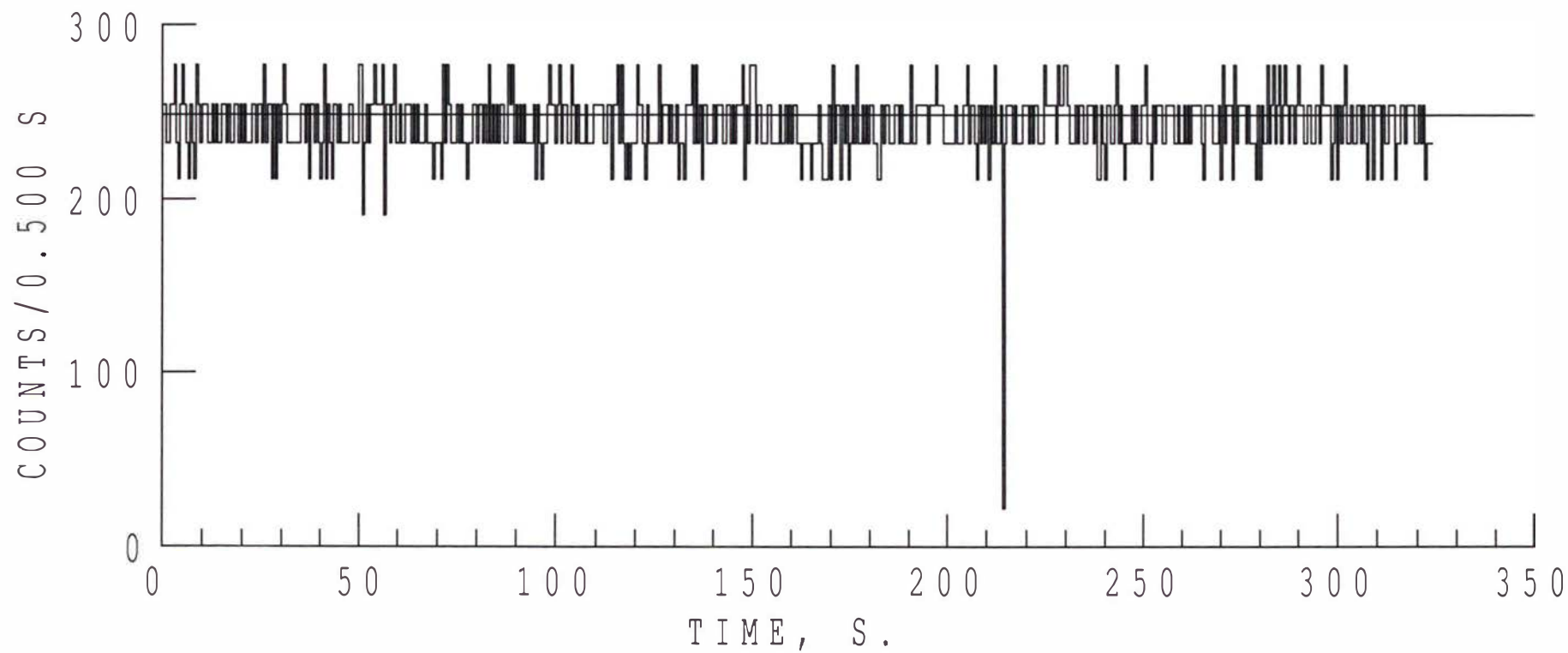
ULYSSES RT

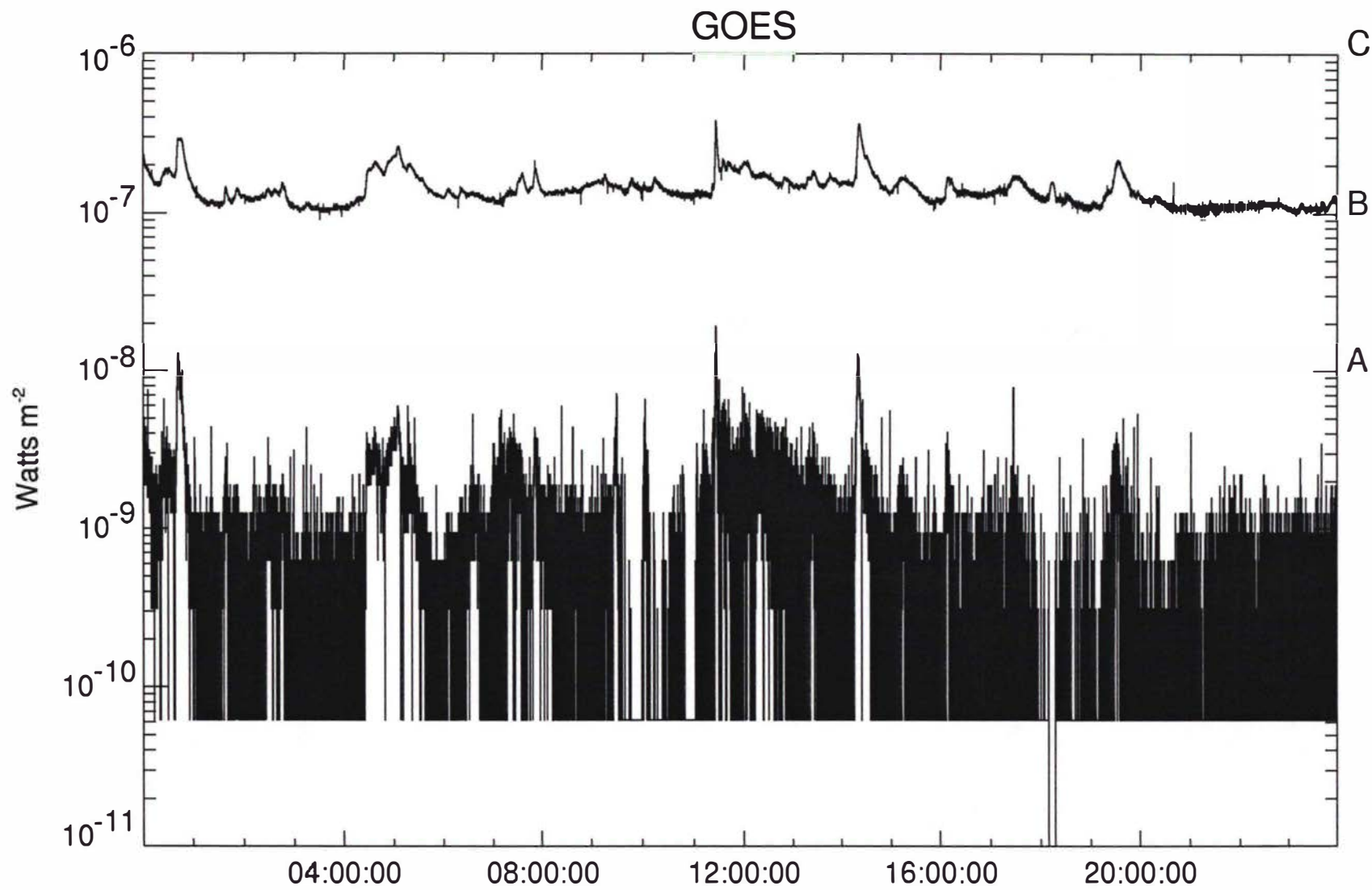
17 / 1 / 95 54756.375 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





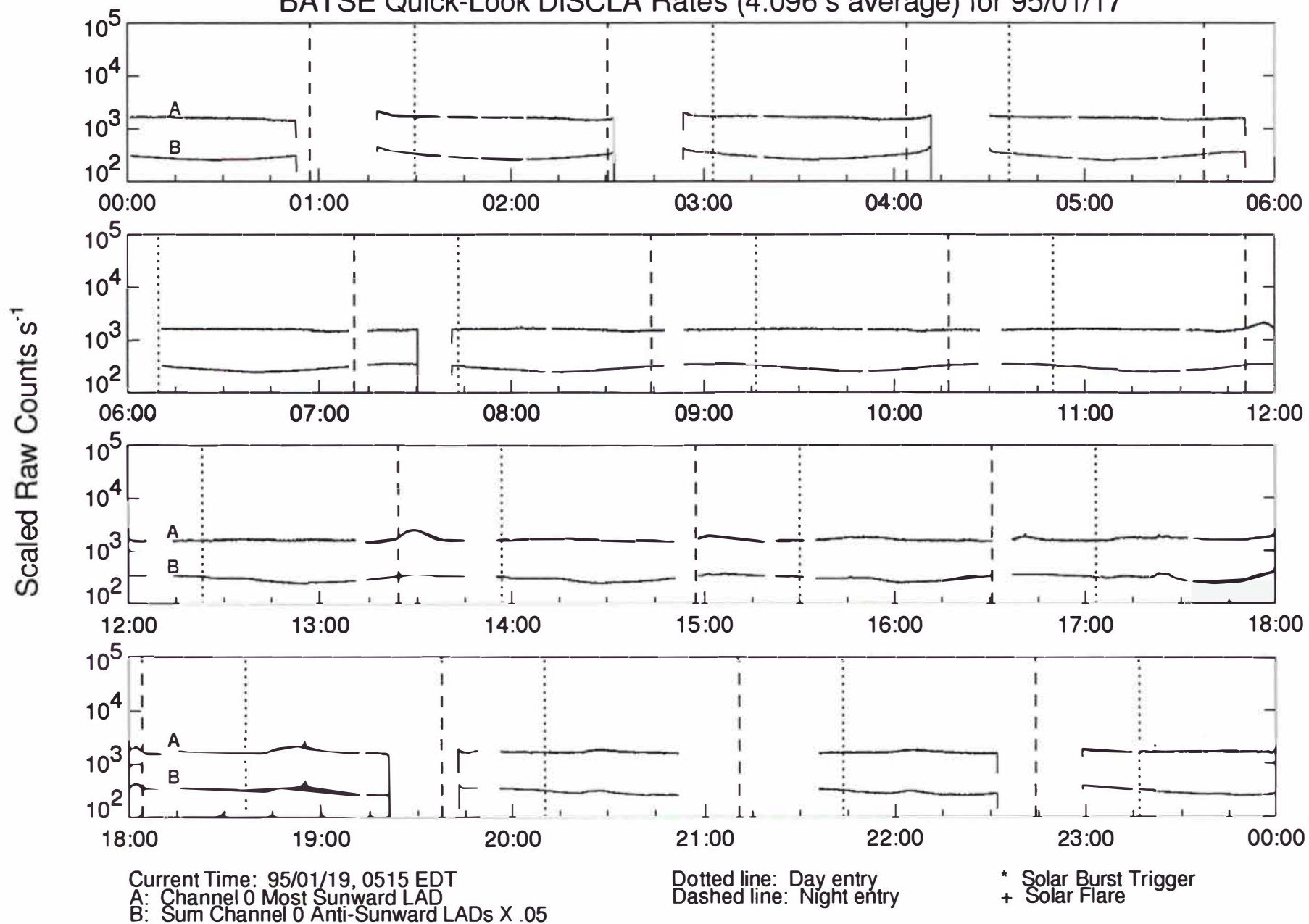
Data Start: 95/01/17, 0000:02

Plot created: 95/01/19, 0514

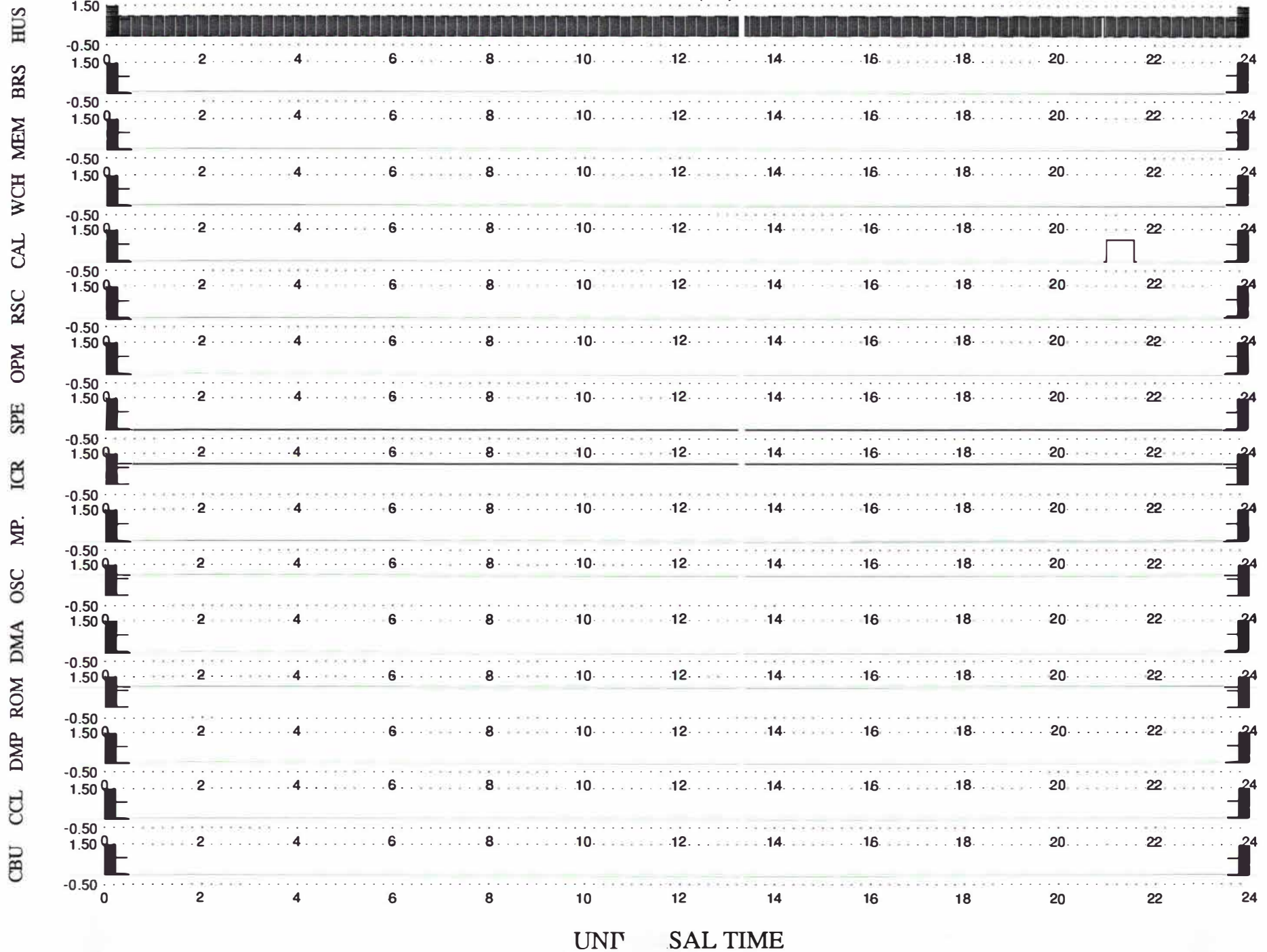
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

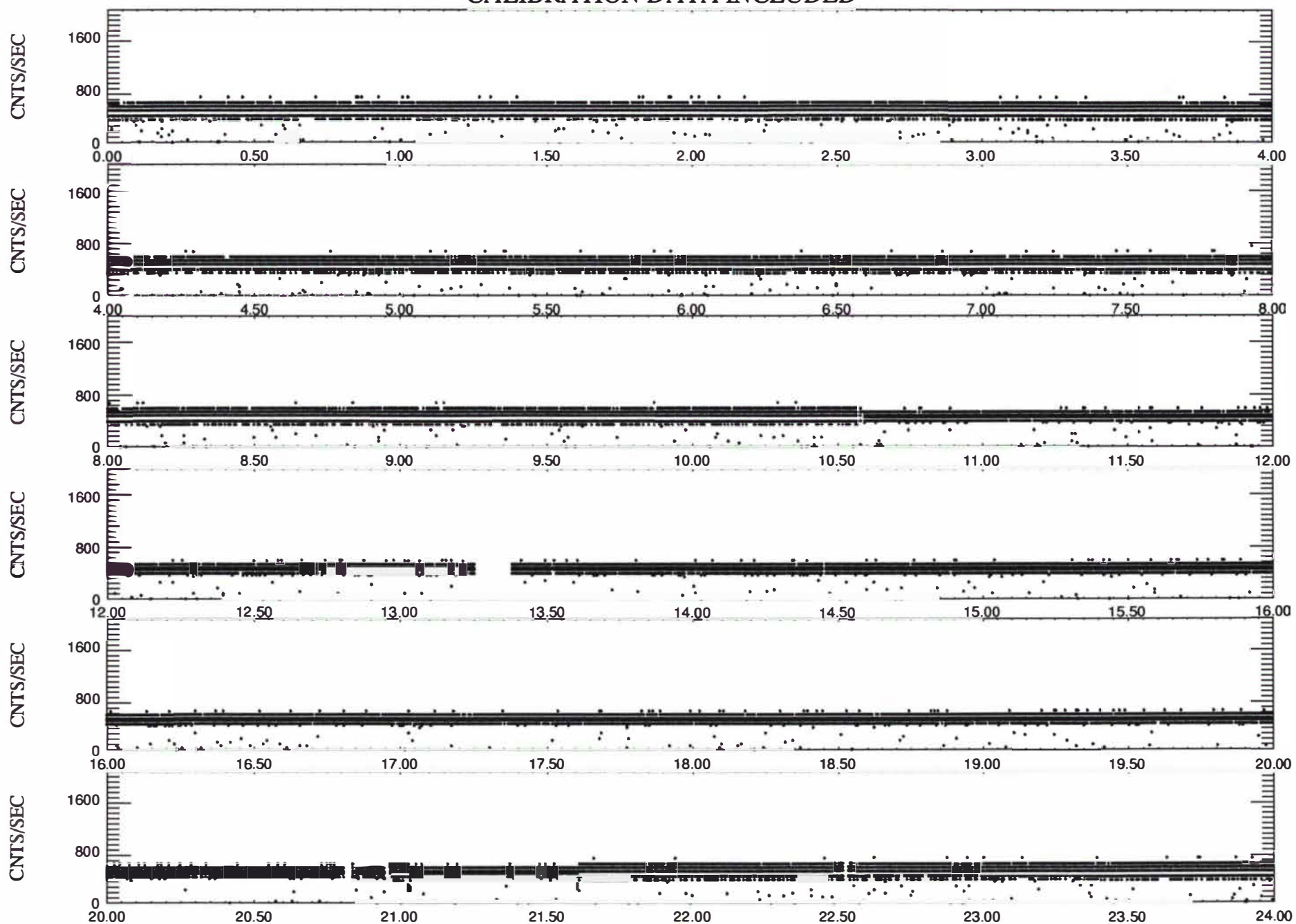
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/17



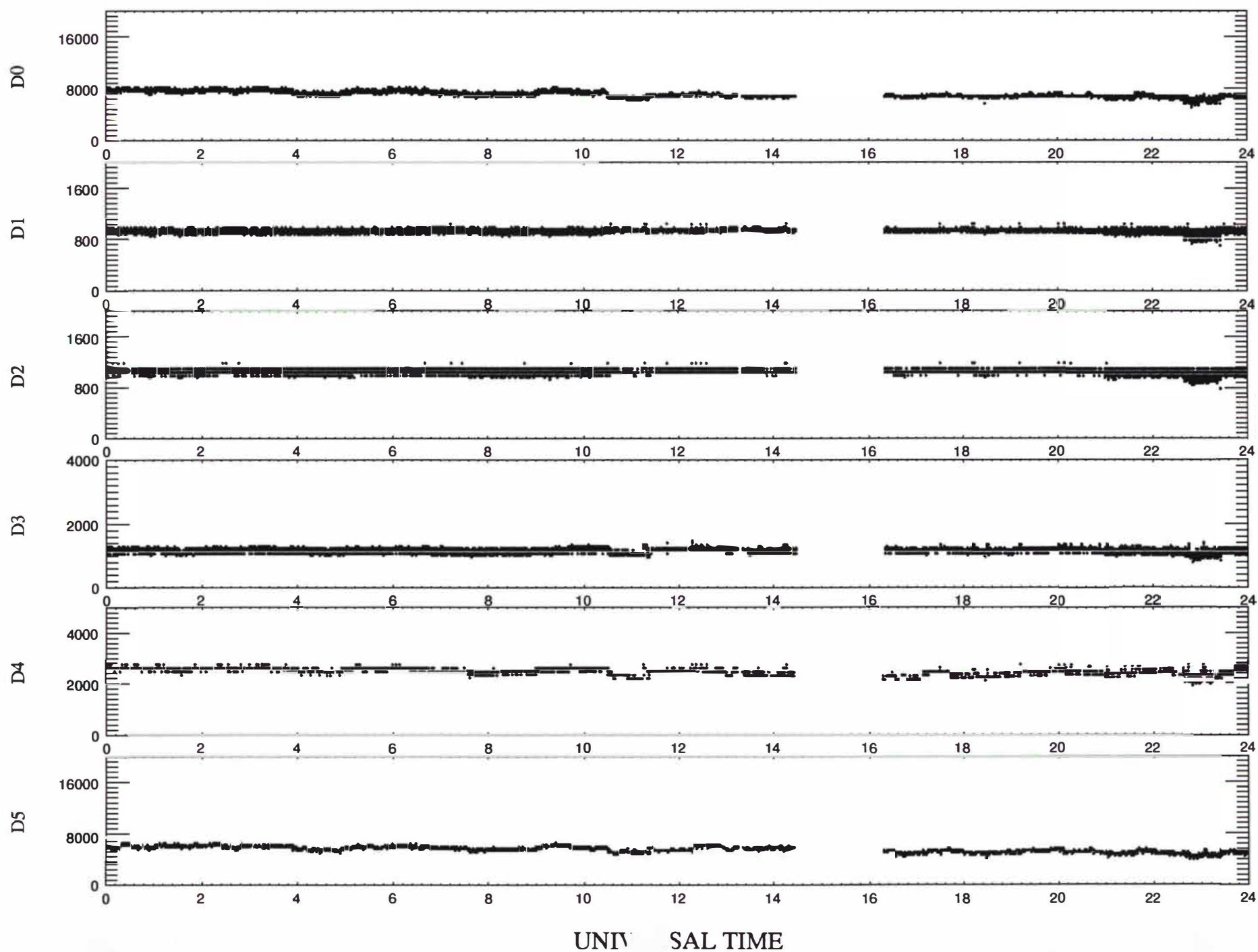
NO BURST (11)



CALIBRATION DATA INCLUDED



UNF. SAL TIME



From DEAL@fender.msfc.nasa.gov Thu Jan 19 09:08 PST 1995
Date: Thu, 19 Jan 1995 11:08:21 -0600 (CST)
From: DEAL@fender.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@fender.msfc.nasa.gov, LHEAVXBARTHELMY@fender.msfc.nasa.gov,
15733SCHAEFER@fender.msfc.nasa.gov, CASS09BAND@fender.msfc.nasa.gov,
CASS09GRUBER@fender.msfc.nasa.gov, CASS09MATTESON@fender.msfc.nasa.gov,
PACIESAS@fender.msfc.nasa.gov, HORACK@fender.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03362

TIME: TJD=9735 SECONDS=12542

TYPE: SAA ENT SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY

From DEAL@ssl.msfc.nasa.gov Thu Jan 19 13:07 PST 1995
Date: Thu, 19 Jan 1995 15:06:08 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3363

TIME: TJD=9735 SECONDS=39999

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

From HAGEDON@fender.msfc.nasa.gov Fri Jan 20 09:50 PST 1995
Date: Fri, 20 Jan 1995 11:50:18 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3364

BATSEARCH PROGRAM

BATSE BURST # 3364
EVENT OF 1995 JAN 18 DAY OF YEAR= 18
EVENT CROSSING TIME AT BATSE : 44589. S. OR 12:23:09.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 103.000 58.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/ 1/ 95 IS:
RA= 325.410 DEC= -40.490 DIST= 2.240 AU
BATSE-ULYSSES DISTANCE = 335082565. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 31.98 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 948.06 SECS.
CROSSING TIME AT ULYSSES IS 45537. S. OR 12:38:57 +/- 167.18 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/ 1/ 95 IS:
RA= 154.692 DEC= 14.881 DIST= 0.741 AU
MARS-BATSE DISTANCE = 110852960. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=122.36 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -197.92 SECS.
CROSSING TIME AT MARS IS 44391. S. OR 12:19:51 +/- 51.22 SECONDS

BATSE BURST TRIGGER

NO.: 3364

TIME: TJD=9735 SECONDS=44589

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=125 AZIMUTH=220 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE WITH SUBSTRUCTURE. DUR.~50 SEC.
MARGINALLY VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3364	950118	9735	44589	3000	103	+58

From cline@lheavx.gsfc.nasa.gov Fri Jan 26 13:00 PST 1996
 Date: Fri, 26 Jan 1996 13:00:45 -0800
 Mime-Version: 1.0
 To: KHURLEY@sunspot.ssl.berkeley.edu
 From: cline@lheavx.gsfc.nasa.gov (T L Cline)
 Subject: Improved list; same question.

Dear Kevin,

I'm making a little progress here, tracking down these events. This is a slightly improved list, with a few more BATSE triggers identified. - TLC

Yr	Mn	Dy	Konus#	Konus Tzero	BATSE Tz, #	Ulysses
94	11	14	BGR	07360	07358	3283 - NO
94	11	19	4	70269.175	70250	3287 R I
94	11	21	6	62700.945	62697	3290 trig.
94	11	25	7	79470.156	79470	3295 R I
94	11	26	BGR	01246	01245	3296
94	11	26	8	44557.952	44521	3298 trig.
94	11	26	BGR	60860	60861	3299
94	11	26	9	71809.732	71798	3301 R I
94	11	27	10	52225.68	52217	3303 R I
94	11	28	BGR	56220	56217	3305
94	12	28	28	27585.915	27581	3330 R I
94	12	29	29	82268.781	82258	3334 R I
95	1	4	31	26319.613	26319	3345 R I
95	1	11	33	17352.241	17263	3351 R I
95	1	11	34	44329	44310	3352
95	1	17	BGR	05760	05761	3360
95	1	18	BGR	44574	44589	3364
95	2	7	BGR	02774	02781	3406
95	2	8	45	07824	07824	3408
95	2	10	47	08424	08421	3410
95	2	11	48	08697	08697	3412 trig.
95	2	11	50	72469	72468	3415
95	2	21	BGR	74701	74705	3436
95	2	26	54	53351	53336	3442
95	3	1	BGR	75731	75761	3448
95	3	4	56	37661	37657	3453
95	3	5	58	54309	54304	3458
95	3	10	BGR	78388	78395	3464
95	3	25	63	25841	25844	3480
95	3	25	64	63392	63391	3481
95	3	27	BGR	26323	26347	3485
95	3	27	BGR	85672	85671	3486
95	4	1	69	42647	42642	3488
95	4	1	70	74635	74634	3489
95	4	3	71	47985	47987	3491
95	4	3	72	84828	84826	3492
95	4	16	BGR	48420	48419	3509
95	4	18	81	83793	83795	3512
95	4	25	86	00923	00919	3523
95	4	30	BGR	54224	54229	3527
95	5	3	88	66971	66970	3537
95	5	10	90	28083	28079	3569
95	5	13	93	81706	81703	3571
95	5	21	97	25161	25157	3588
95	5	22	98	23898	23896	3590
95	5	22	100	85280	85283	3593
95	5	24	102	14902	14899	3598
95	6	2	104	25592	25592	3618
95	6	10	107	6849	06849	3637
95	6	24	111	84124	84084	3648
95	6	25	113	14626	14601	3649
95	6	29	115	37033	37036	3654
95	7	1	116	12762	12758	3657

95	7	1	117	23737	23737	3658
95	7	6	121	42735	42735	3662
95	7	11	123	13789	13789	3663
95	7	13	BGR	32133	32176	3664
95	7	30	128	76149	76124	3720
95	8	4	131	7135	07134	3734
95	8	4	133	45377	45376	3735
95	8	8	BGR	13023	12974	3745
95	8	9	136	85945	85945	3750
95	8	18	137	5065	05002	3765
95	8	22	140	13751	13749	3767
95	9	4	142	52692	52688	3776
95	9	9	145	85473	85452	3788
95	9	19	151	51465	51447	3806
95	9	21	152	20947	20947	3811
95	9	22	BGR	15495		
95	9	22	BGR	25929		
95	9	26	BGR	63919		
95	10	1	153	41907		
95	10	2	BGR	77583		3843
95	10	4	BGR	83974		
95	10	5	154	14842.112		
95	10	8	156	46287.863		
95	10	10	BGR	11774		
95	10	11	157	77693.094		3860
95	10	13	159	57097.299		
95	10	14	160	13108.167		
95	10	14	161	43561.3		
95	10	16	162	02484.285		3870
95	10	16	BGR	71607		3871
95	10	18	163	19832.069		
95	10	19	64	11712.625		
95	10	19	165	48244.594		3875
95	10	25	167	85239.738		
95	11	2	168	07085.879		
95	11	2	69	21209.015		3891
95	11	2	BGR	28693		
95	11	5	BGR	01745		
95	11	5	170	05868.077		3893
95	11	5	171	46827.808		
95	11	7	BGR	27298		
95	11	11	BGR	34960		
95	11	12	172	66495.244		
95	11	13	173	84358.872		3906
95	11	15	BGR	38929		
95	11	17	175	10123.762		
95	11	18	BGR	82560		
95	11	19	176	29831.402		3912
95	11	19	177	46457.519		
95	11	19		59448		
95	11	21		22280		
95	11	22	179	09841.38		
95	11	22	180	17107.738		
95	11	23	BGR	65408		
95	11	24	BGR	21266		3918
95	11	24	BGR	25132		

-- T. L. Cline ----- LHEAVX::CLINE

20 / 1 / 95

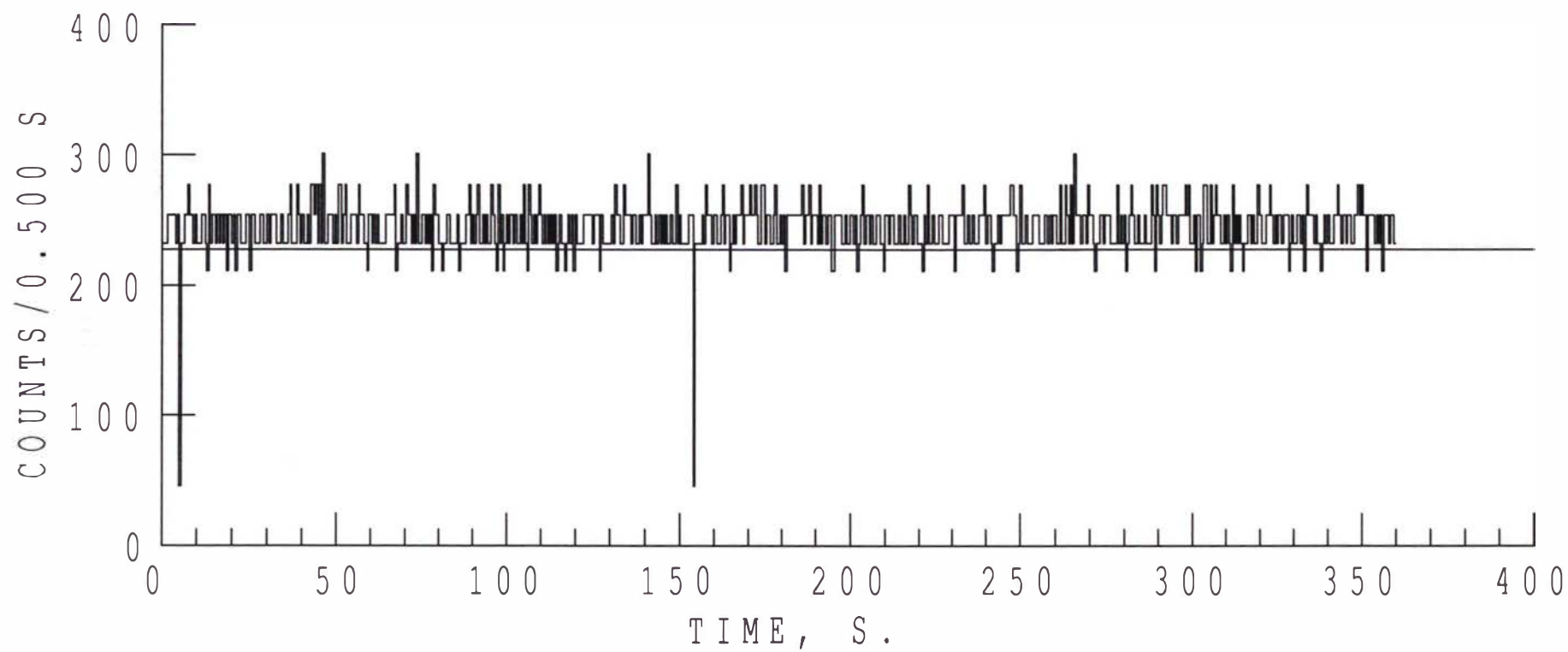
ULYSSES RT

18 / 1 / 95 45360.383 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Fri Jan 20 09:42 PST 1995
Date: Fri, 20 Jan 1995 11:42:25 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3365

TIME: TJD=9735 SECONDS=48280

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT.

From SAHI@ssl.msfc.nasa.gov Fri Jan 20 12:02 PST 1995
Date: Fri, 20 Jan 1995 14:02:17 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3366

BATSEARCH PROGRAM

BATSE BURST # 3366
EVENT OF 1995 JAN 18 DAY OF YEAR= 18
EVENT CROSSING TIME AT BATSE : 62105. S. OR 17:15:05.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 30.000 -51.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/ 1/ 95 IS:
RA= 325.507 DEC= -40.356 DIST= 2.241 AU
BATSE-ULYSSES DISTANCE = 335185680. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=135.21 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -793.53 SECS.
CROSSING TIME AT ULYSSES IS 61311. S. OR 17:01:51 +/- 174.70 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/ 1/ 95 IS:
RA= 154.692 DEC= 14.881 DIST= 0.741 AU
MARS-BATSE DISTANCE = 110852960. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 56.92 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 201.80 SECS.
CROSSING TIME AT MARS IS 62307. S. OR 17:18:26 +/- 56.86 SECONDS

BATSE BURST TRIGGER

NO.: 3366

TIME: TJD=9735 SECONDS=62105

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=023.7 AZIMUTH=316.0 ERROR= DEGREES

COMMENTS:

SINGLE PULSE, DUR.~8 SEC. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3366	950118	9735	62105	3000	030	-51

Date: Feb 10 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☐ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution? *No - bad stats*

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T₀?
- ☒ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included? *N/A*

3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?

- ☒ ACCESS database updated?

U/B ratio too high; Ulysses response too weak

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

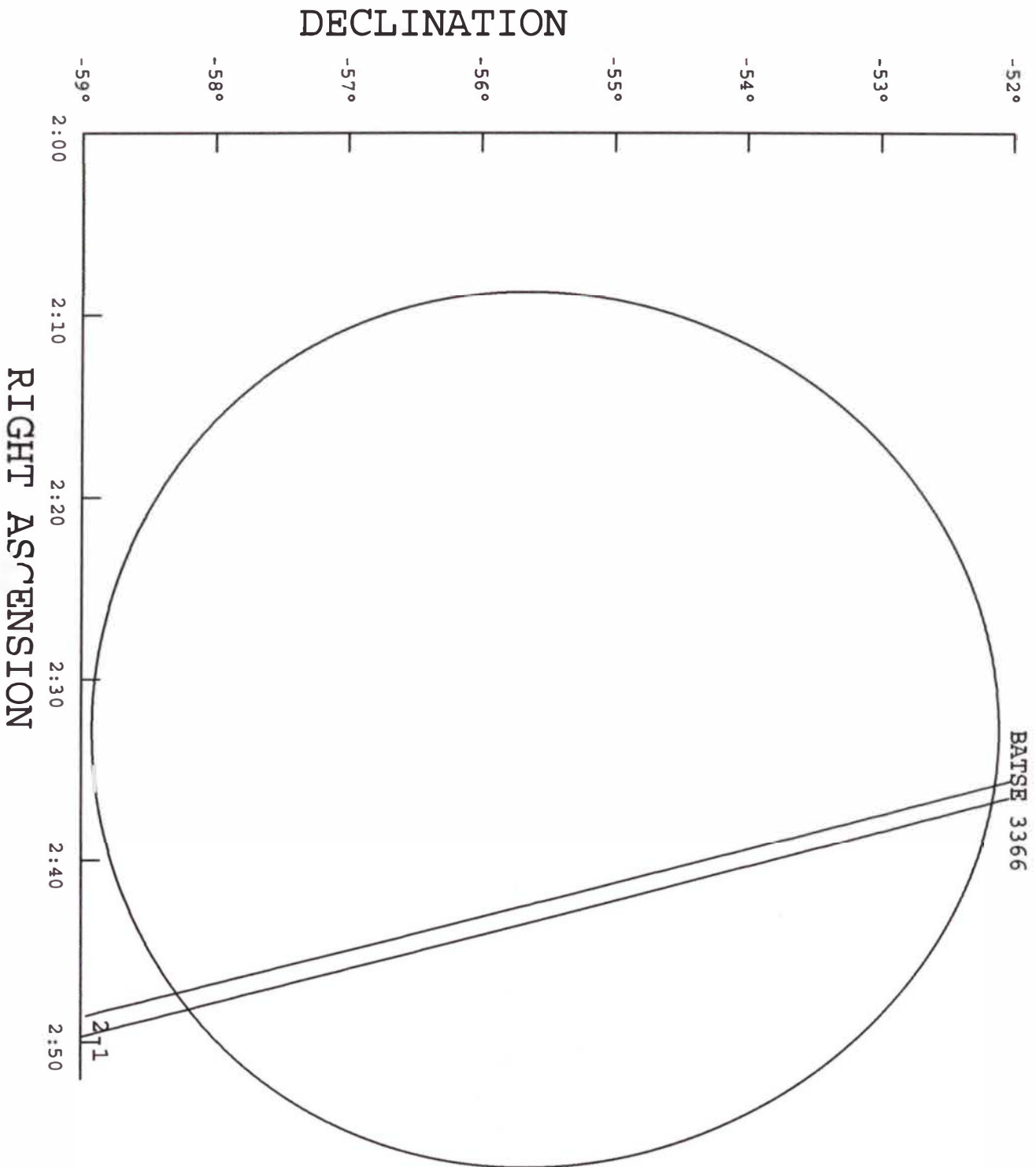
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 18, 1995 17:02

10/ 2/98



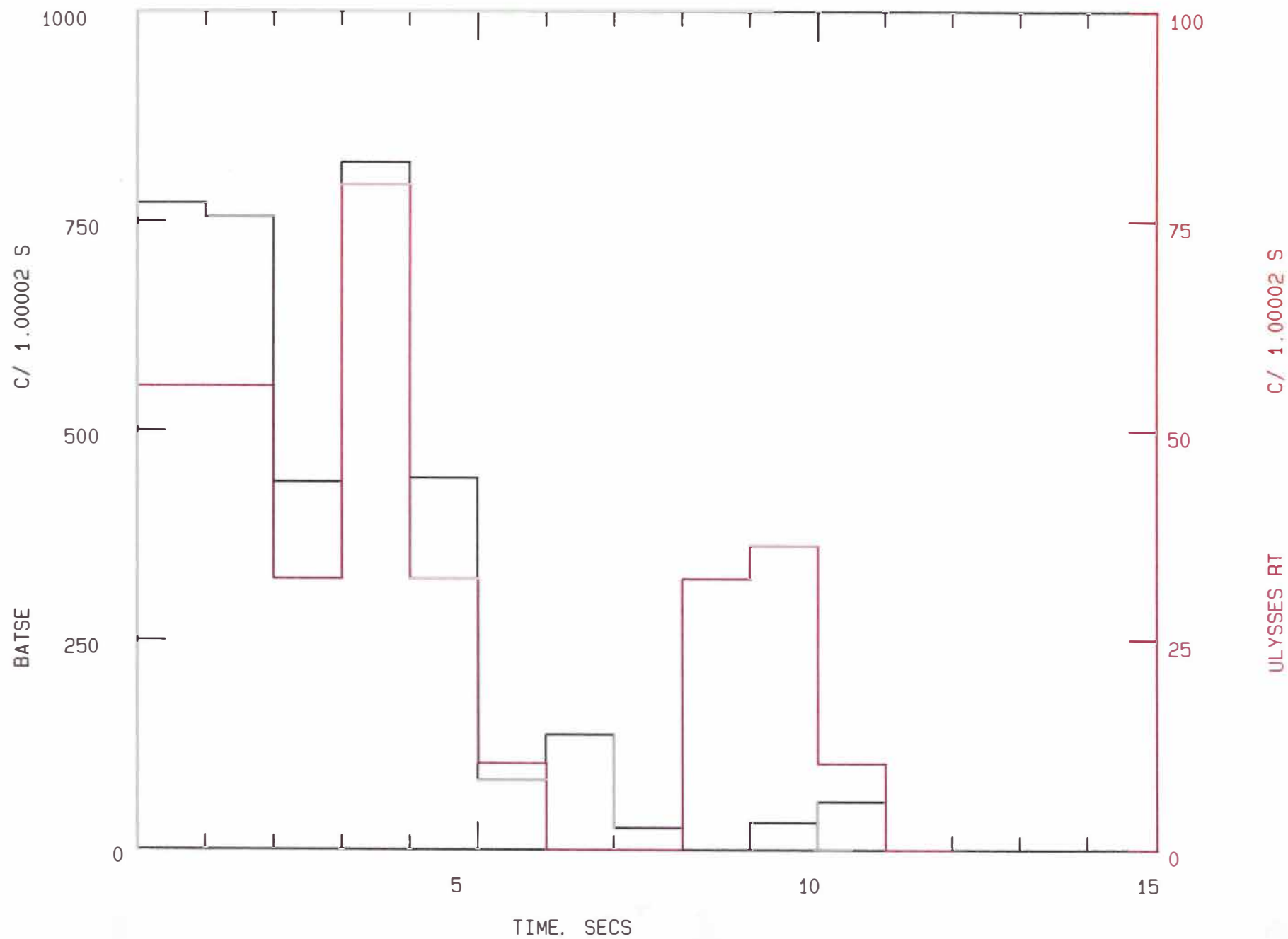
BATSE

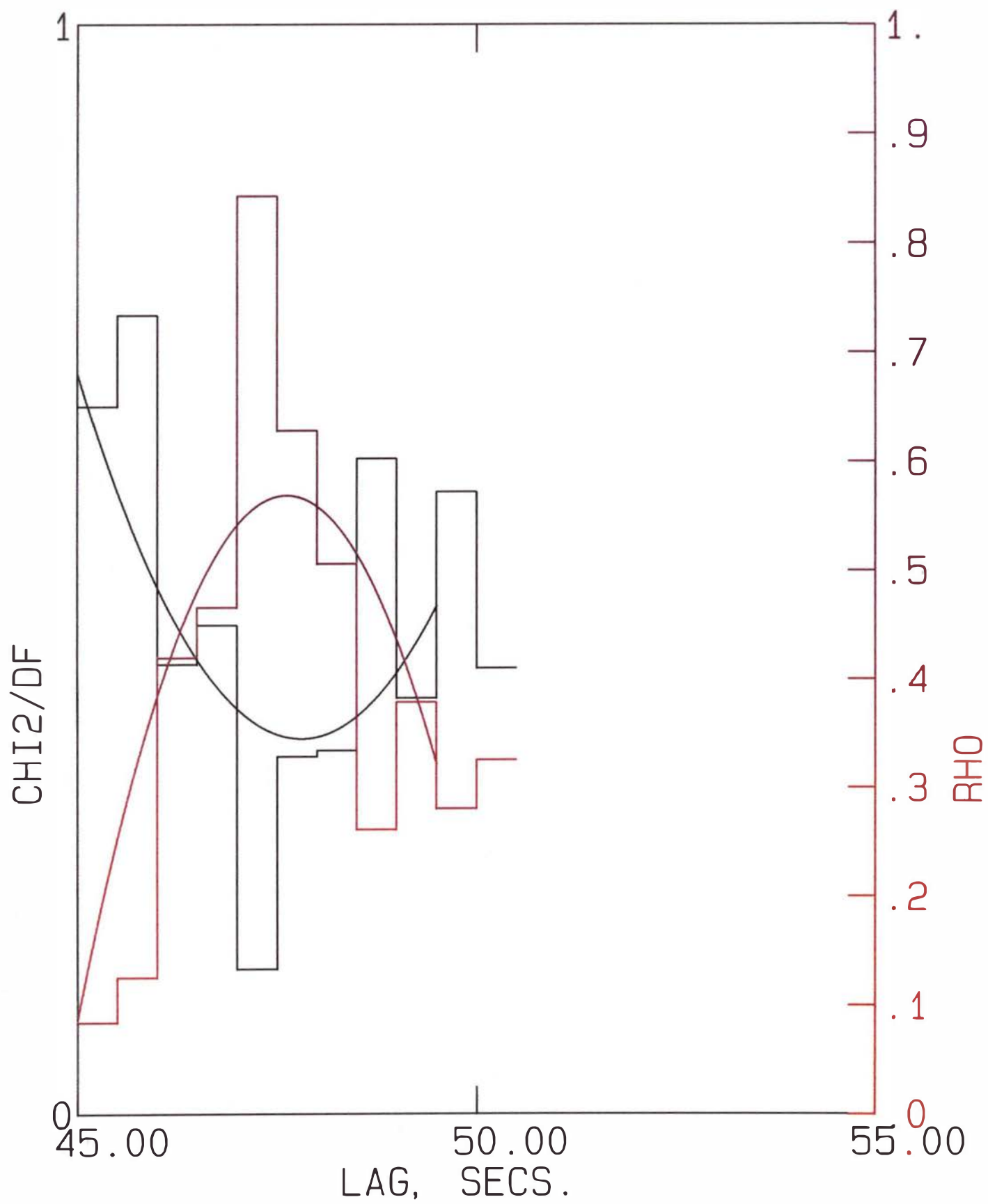
-ULYSSES RT CORRELATION

18/ 1/95

62105.266

10/ 2/98





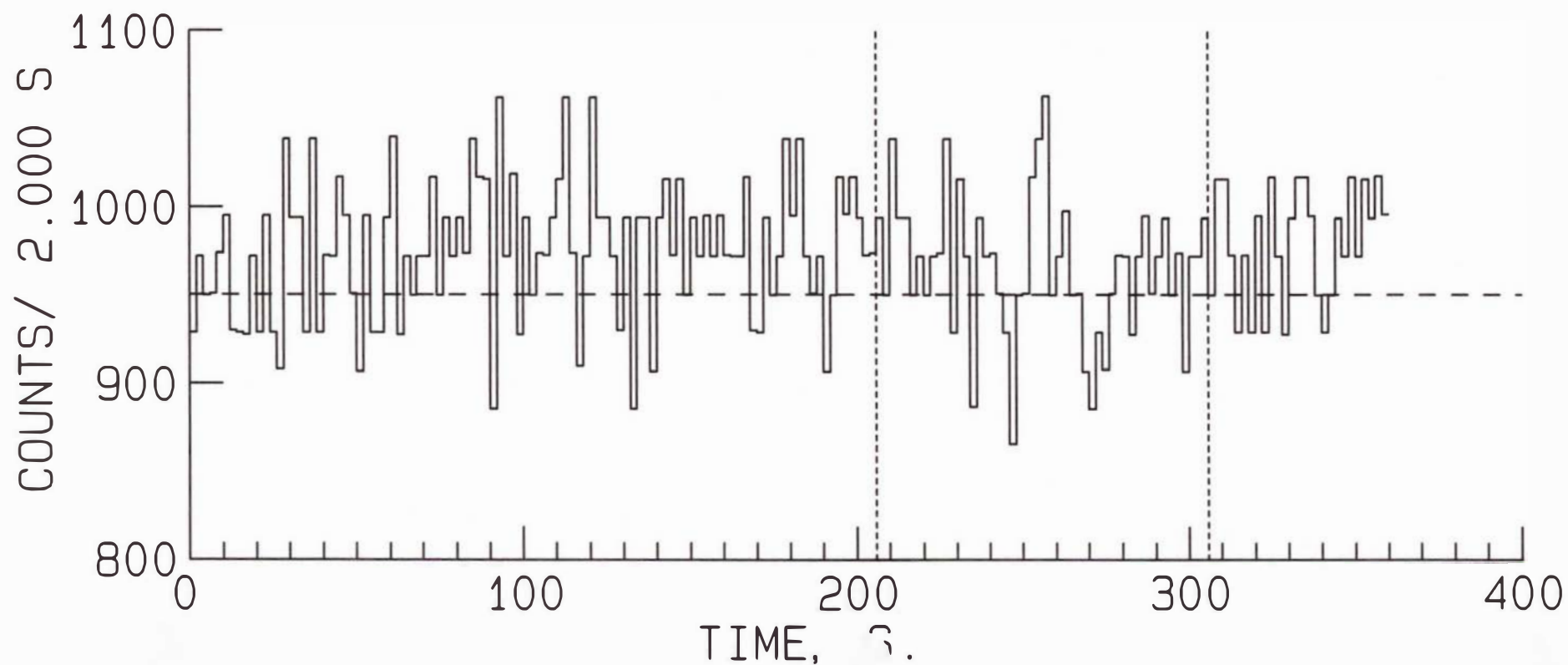
ULYSSES RT

10 / 2 / 98

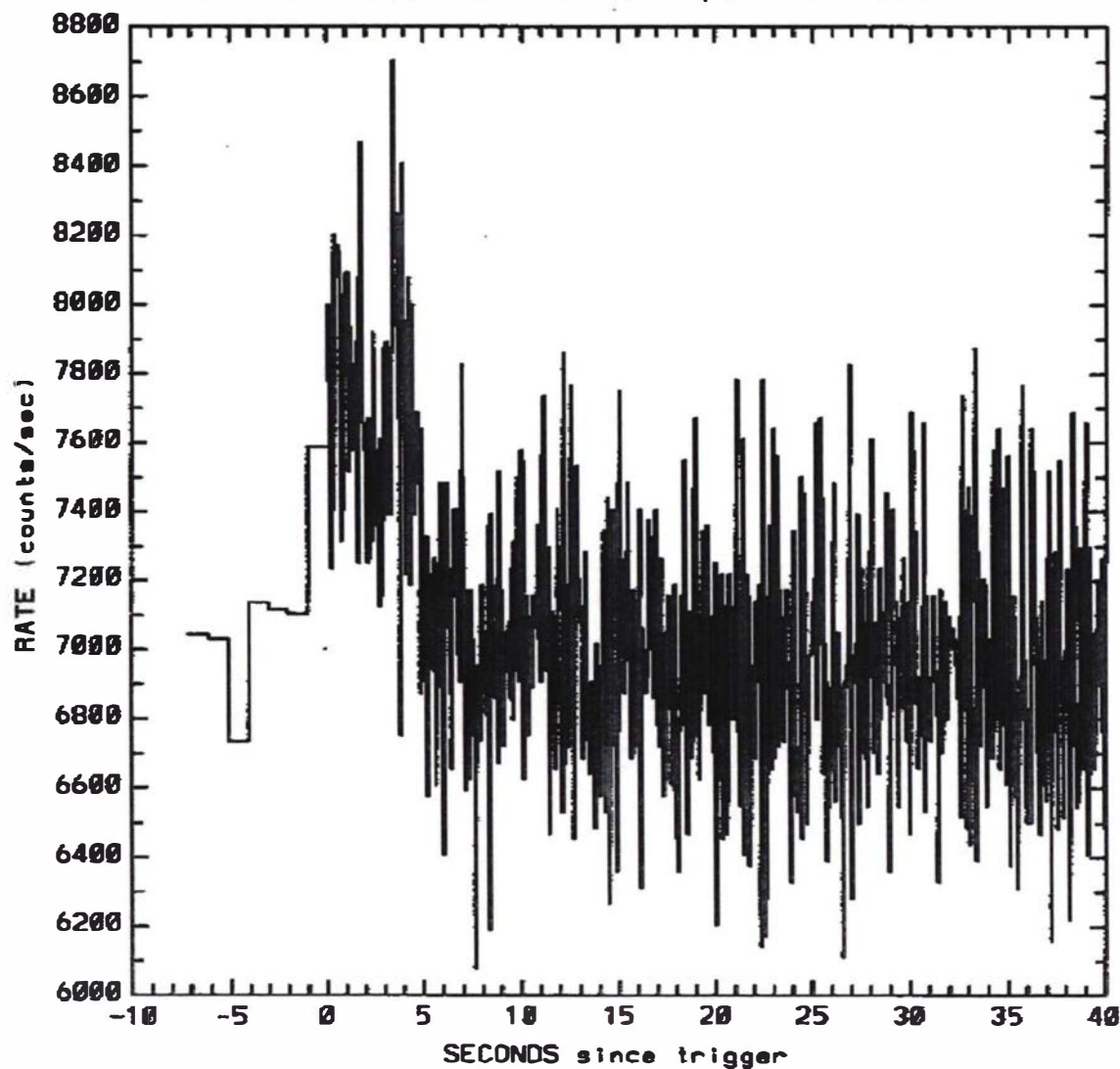
18 / 1 / 95 61128.192 s

0.500 S INTERVALS REGROUPED BY 4

22- 146 keV



DISCSC Data for K. Hurley, No. 3366



2-FEB-1995 14.55.43

Created by MOPS 80
(Burst Display)
Version 2.23

Trigger # : 3366

Trigger Time:
9735 / 62105.266Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
8.864 second(s)Detectors (7..8)-
-----2-8Discriminators:
(1, 2)Quality Mask:
8DISP1

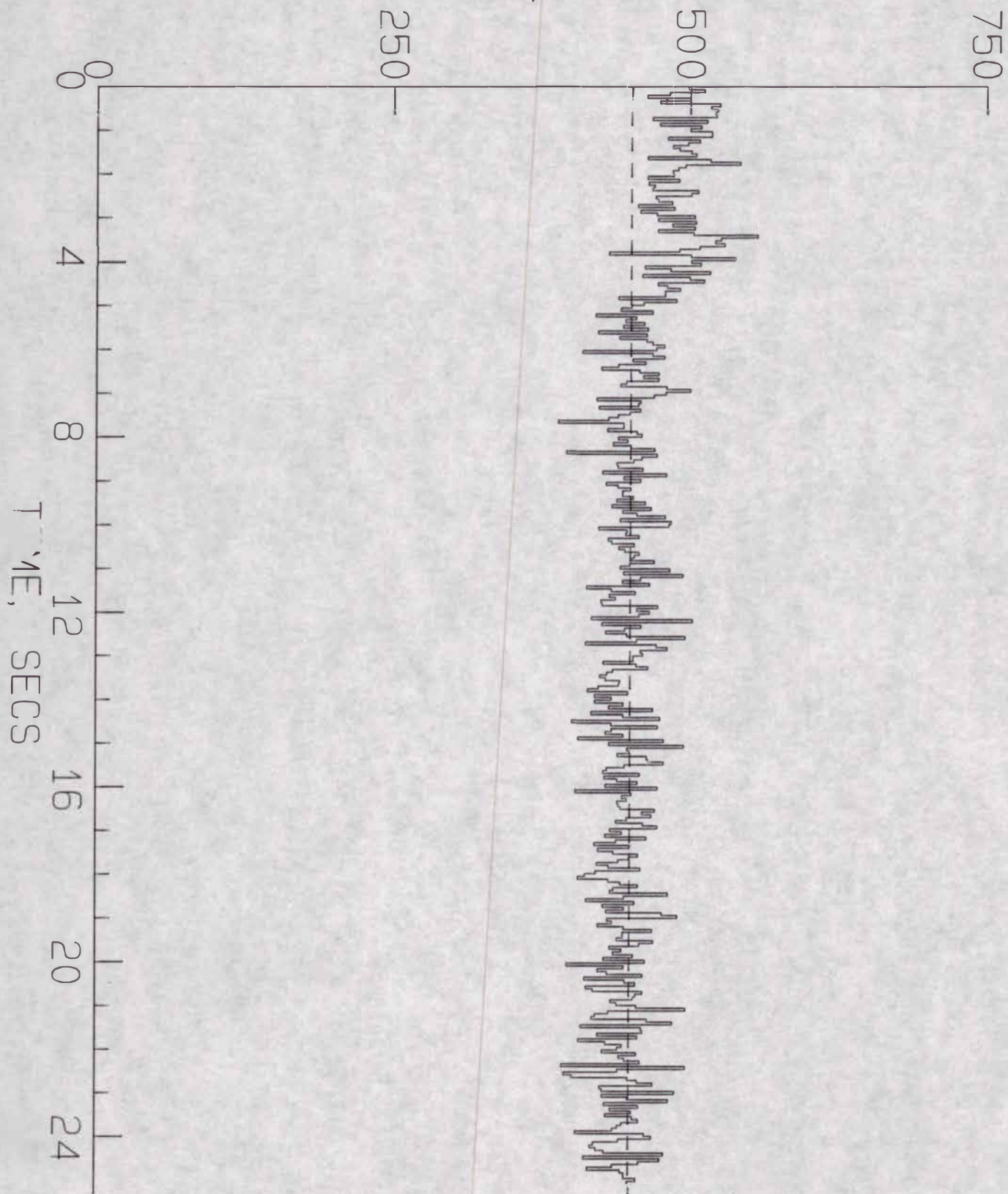
BATSE

18/01/95

62105.266

25- 100 keV

COUNTS/ .064 S



From SAHI@ssl.msfc.nasa.gov Fri Jan 20 11:35 PST 1995
Date: Fri, 20 Jan 1995 13:34:58 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03367

TIME: TJD=9735 SECONDS=62727

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.

From SAHI@ssl.msfc.nasa.gov Fri Jan 20 11:40 PST 1995
Date: Fri, 20 Jan 1995 13:39:56 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03368

TIME: TJD=9735 SECONDS=68506

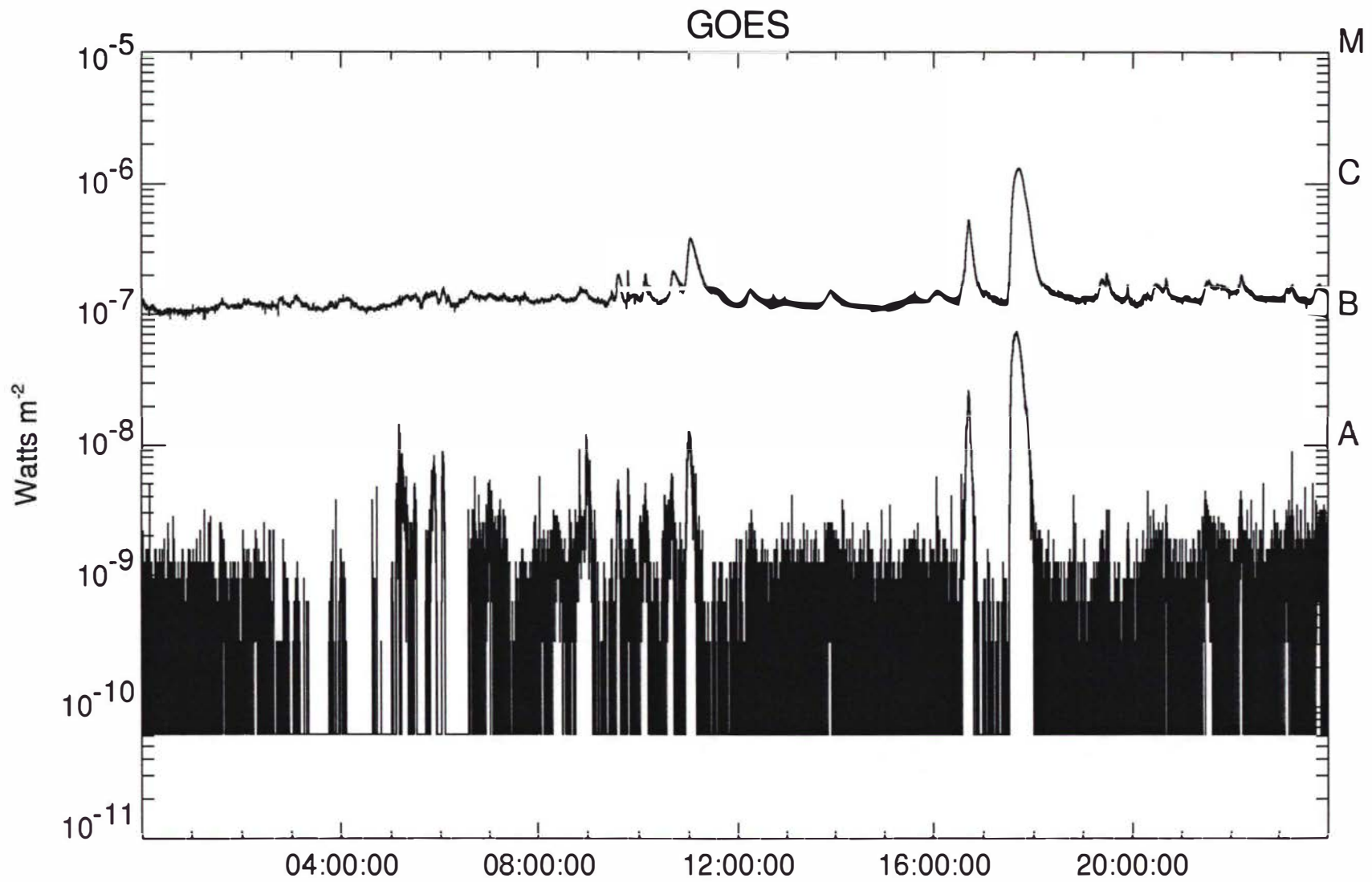
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



Data Start: 95/01/18, 0000:00

Plot created: 95/01/20, 0514

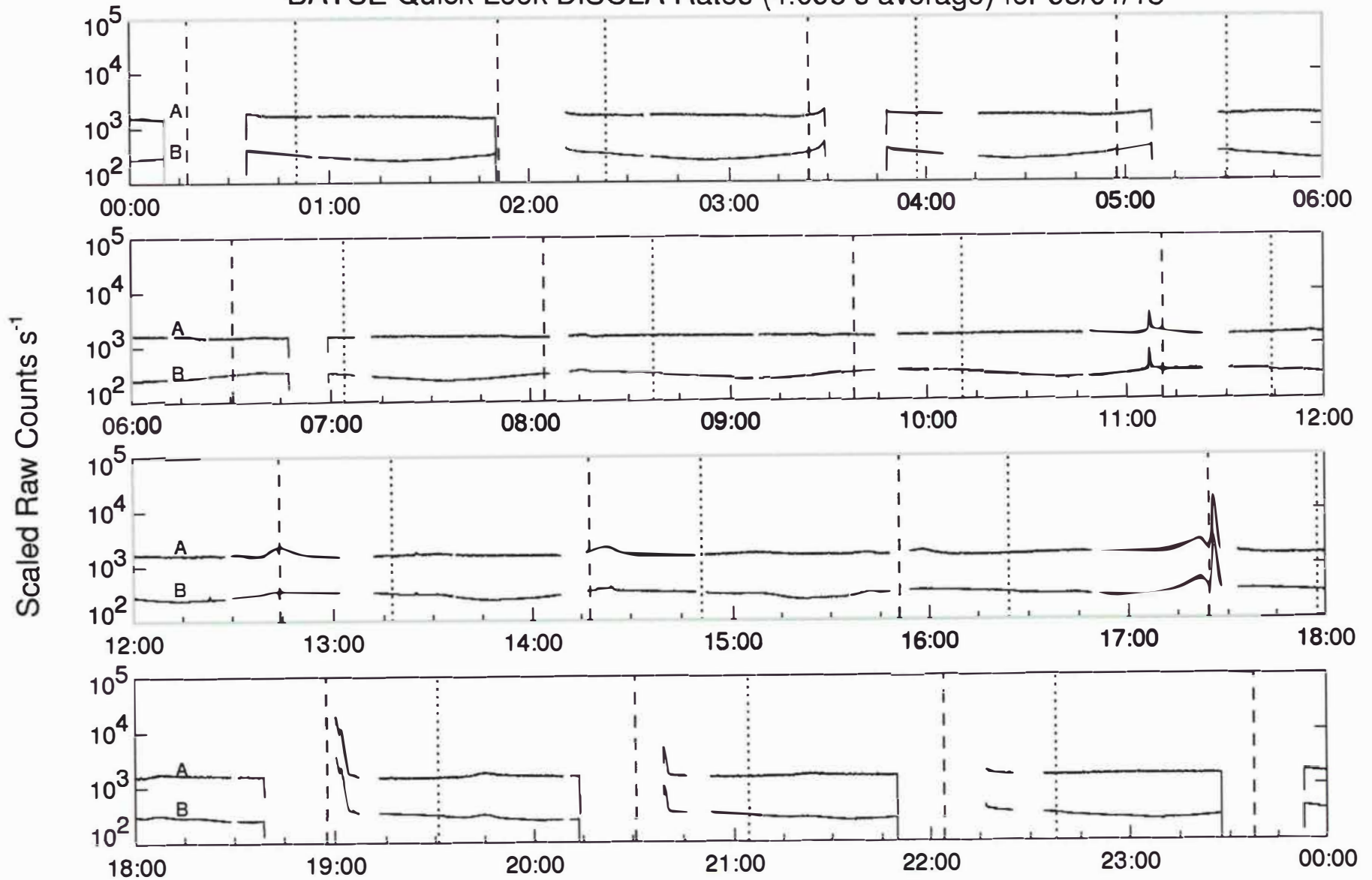
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/18

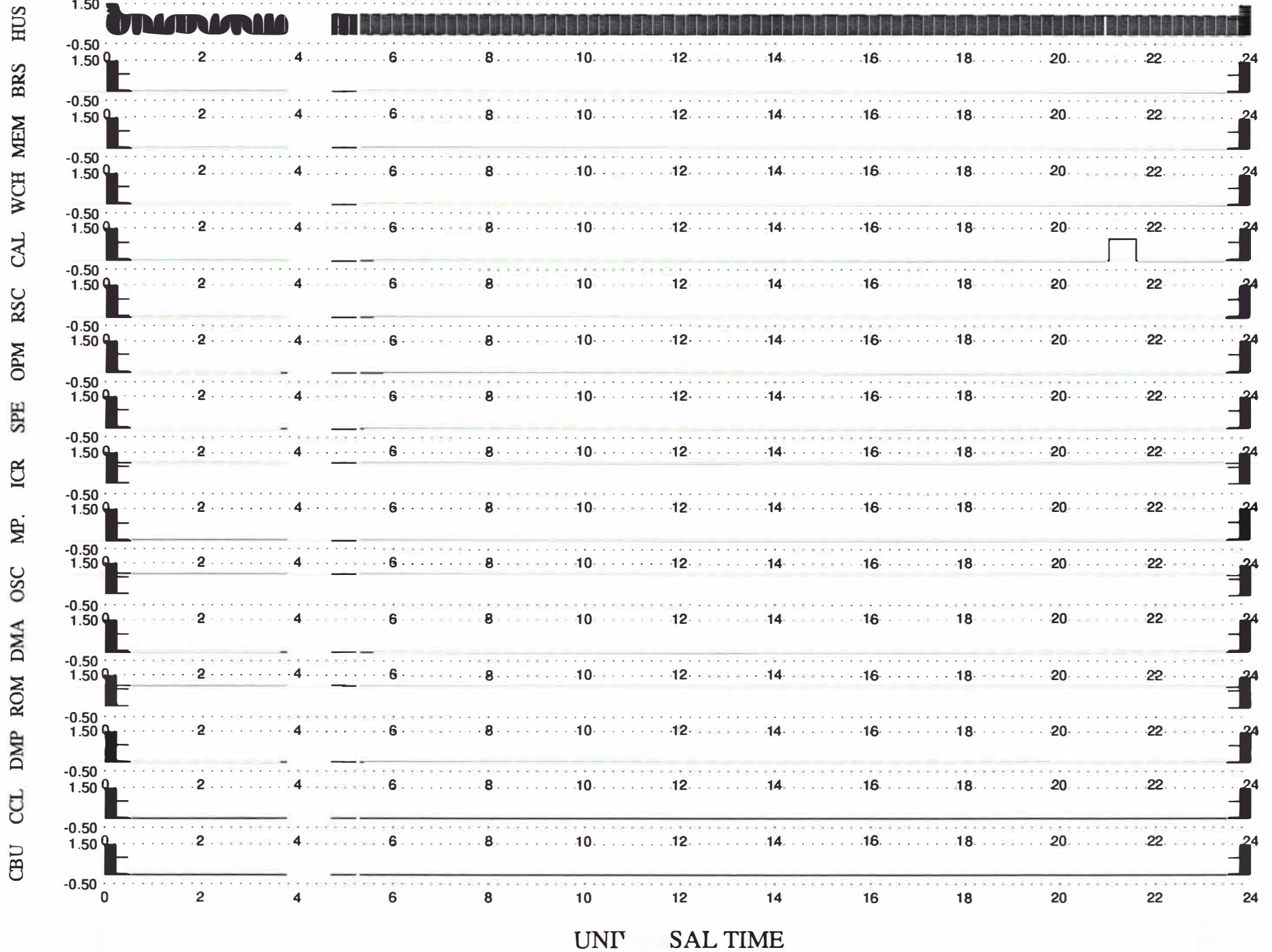


Current Time: 95/01/20, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

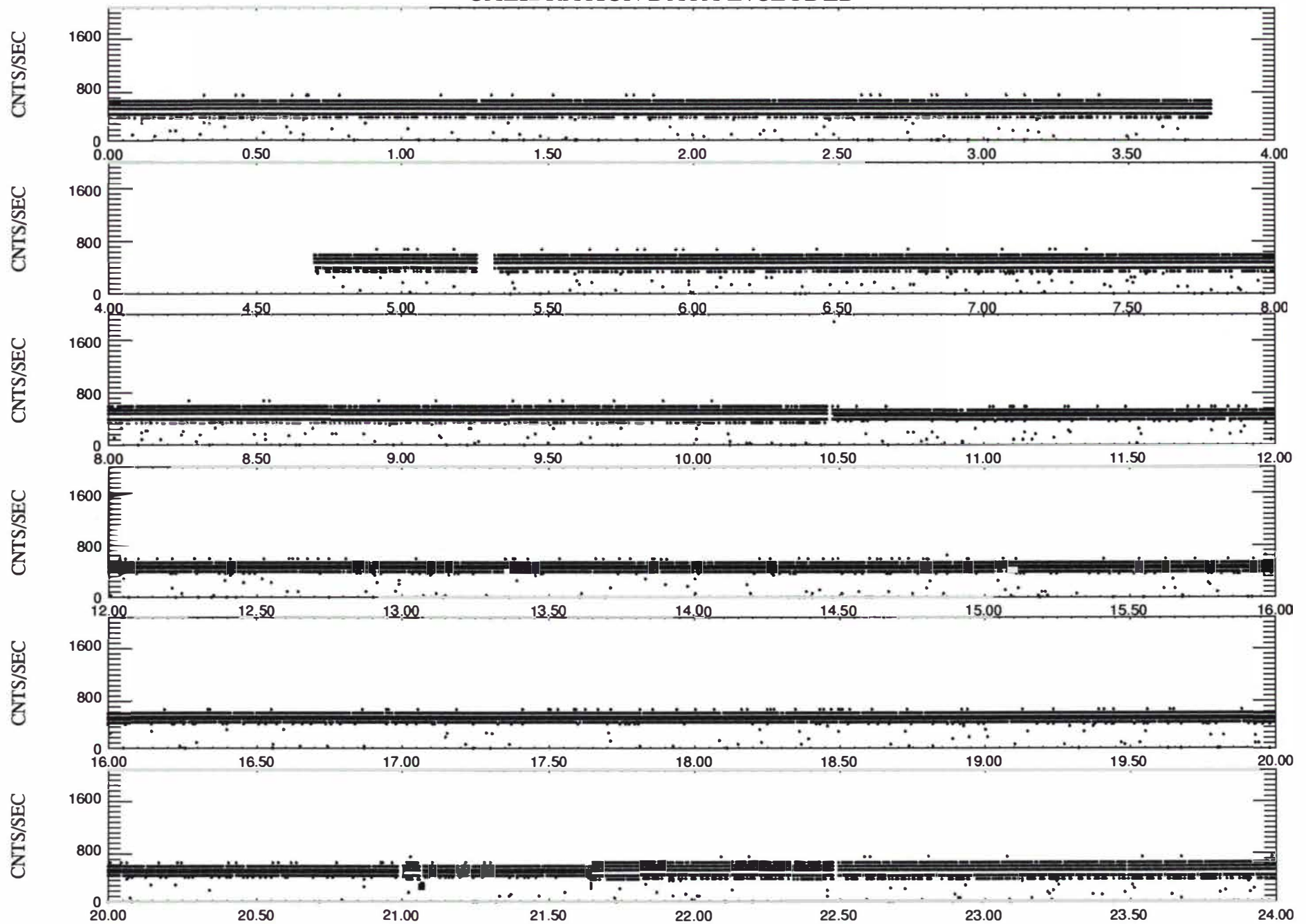
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

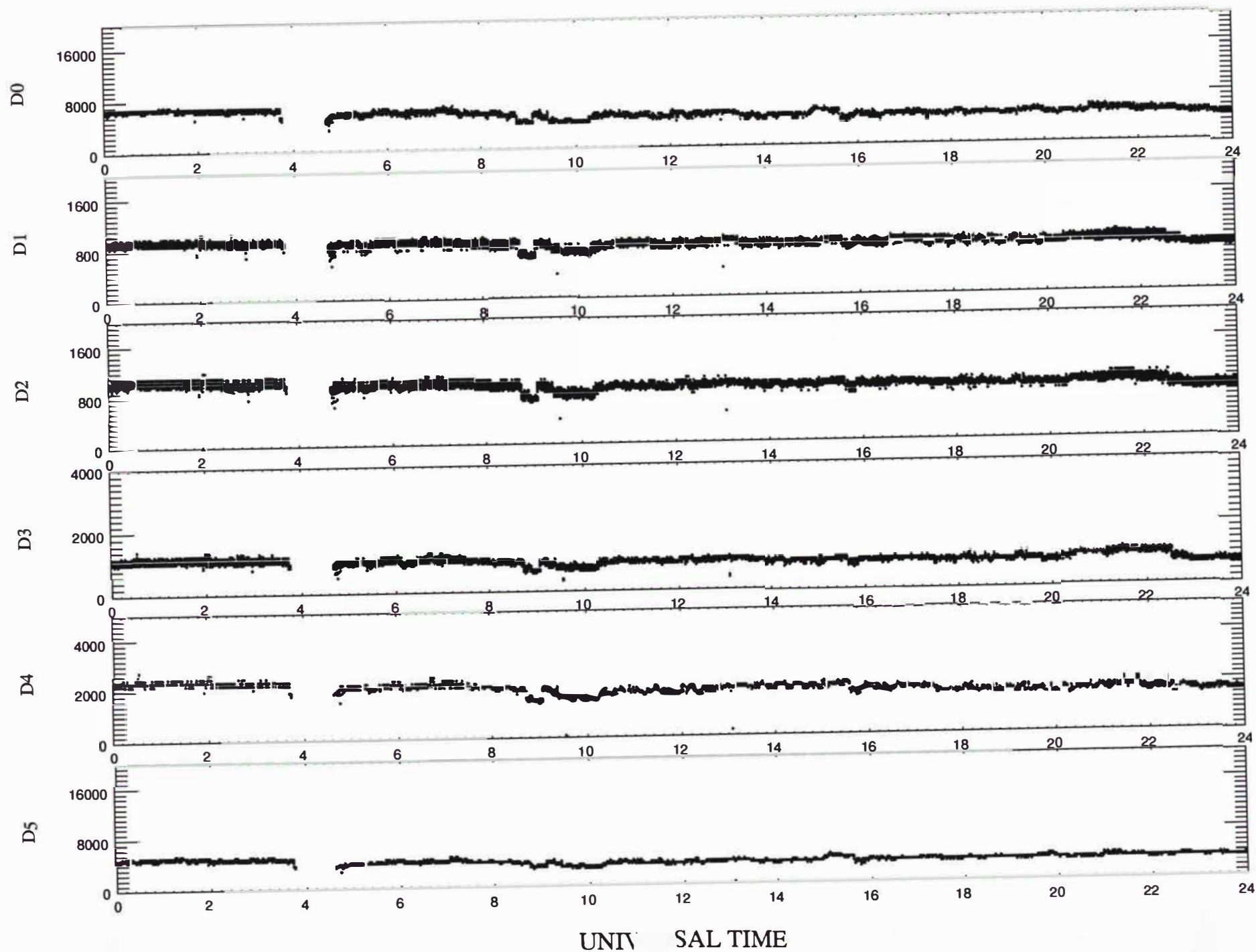
NO BURST (11)



CALIBRATION DATA INCLUDED



UNIFORM SAL TIME



From DEAL@ssl.msfc.nasa.gov Fri Jan 20 09:36 PST 1995
Date: Fri, 20 Jan 1995 11:36:01 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3369

BATSEARCH PROGRAM

BATSE BURST # 3369 NO
EVENT OF 1995 JAN 19 DAY OF YEAR= 19
EVENT CROSSING TIME AT BATSE : 80327. S. OR 22:18:47.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 340.000 0.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 19/ 1/ 95 IS:
RA= 326.082 DEC= -39.562 DIST= 2.245 AU
BATSE-ULYSSES DISTANCE = 335786355. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=138.44 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -838.15 SECS.
CROSSING TIME AT ULYSSES IS 79489. S. OR 22:04:48 +/- 166.27 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 19/ 1/ 95 IS:
RA= 154.505 DEC= 14.986 DIST= 0.736 AU
MARS-BATSE DISTANCE = 110115608. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 15.94 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 353.18 SECS.
CROSSING TIME AT MARS IS 80680. S. OR 22:24:40 +/- 22.88 SECONDS

BATSE BURST TRIGGER

NO.: 3369

TIME: TJD=9736 SECONDS=80327

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=88.7 AZIMUTH=329.1 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 70S. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3369	950119	9736	80327	3000	340	0

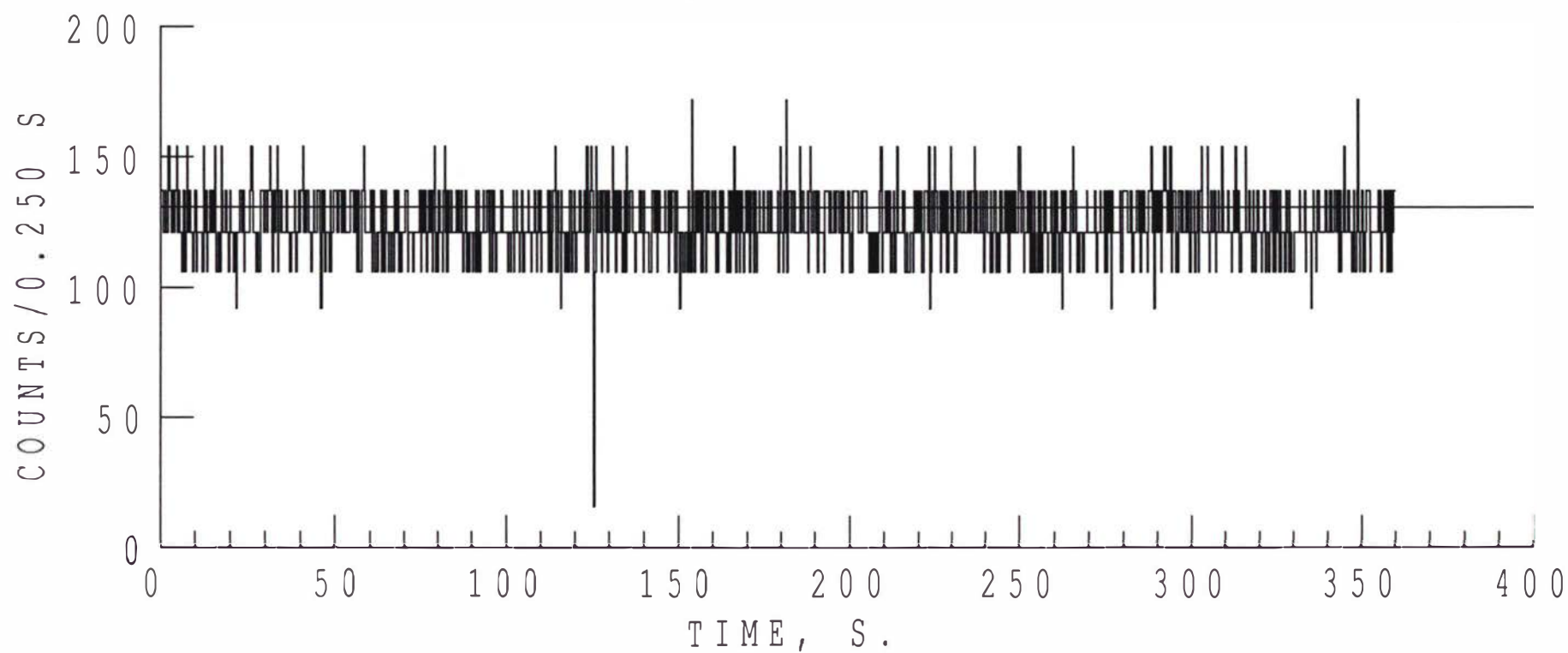
20 / 1 / 95

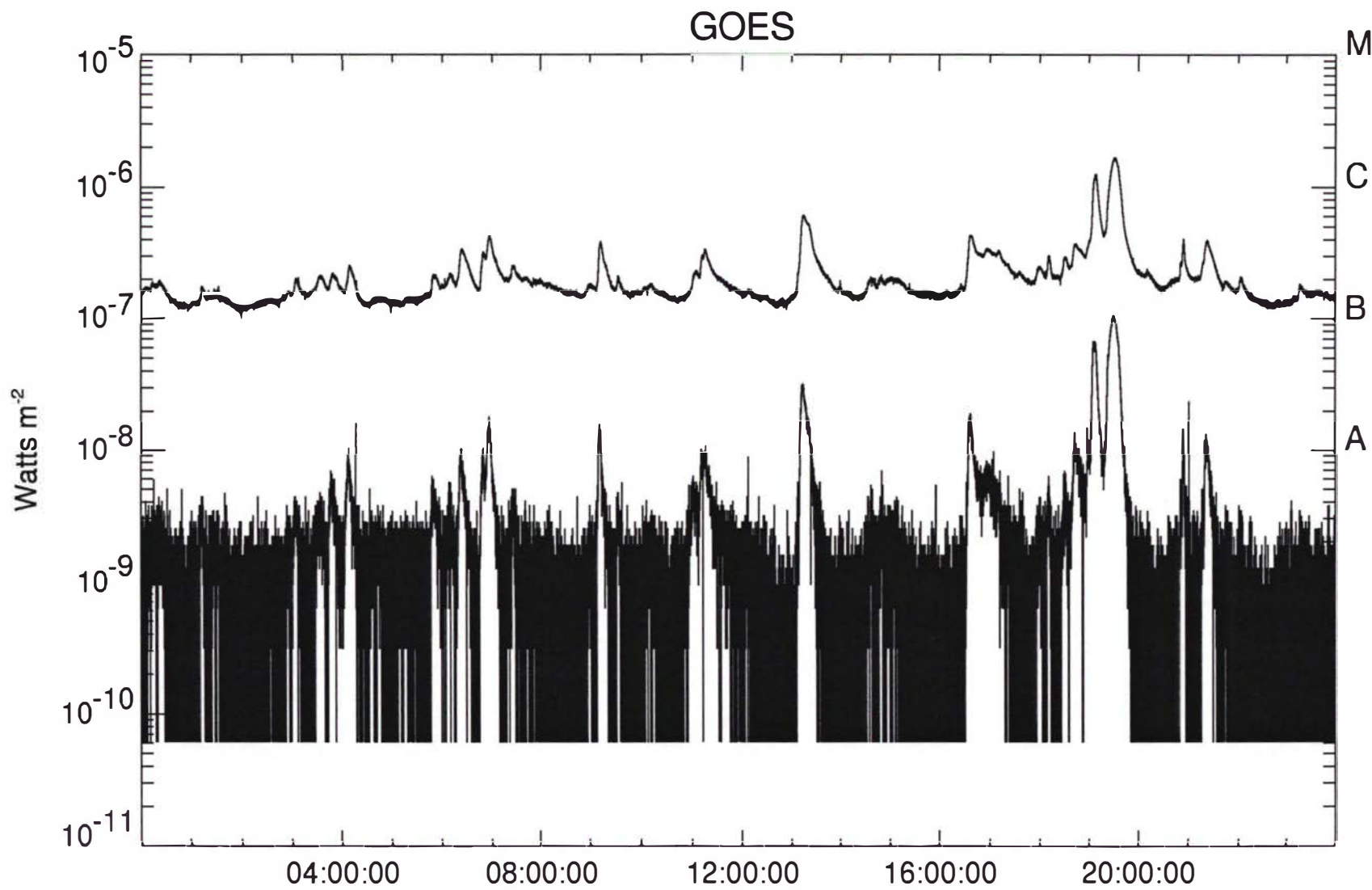
ULYSSES RT

19 / 1 / 95 79308.234 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





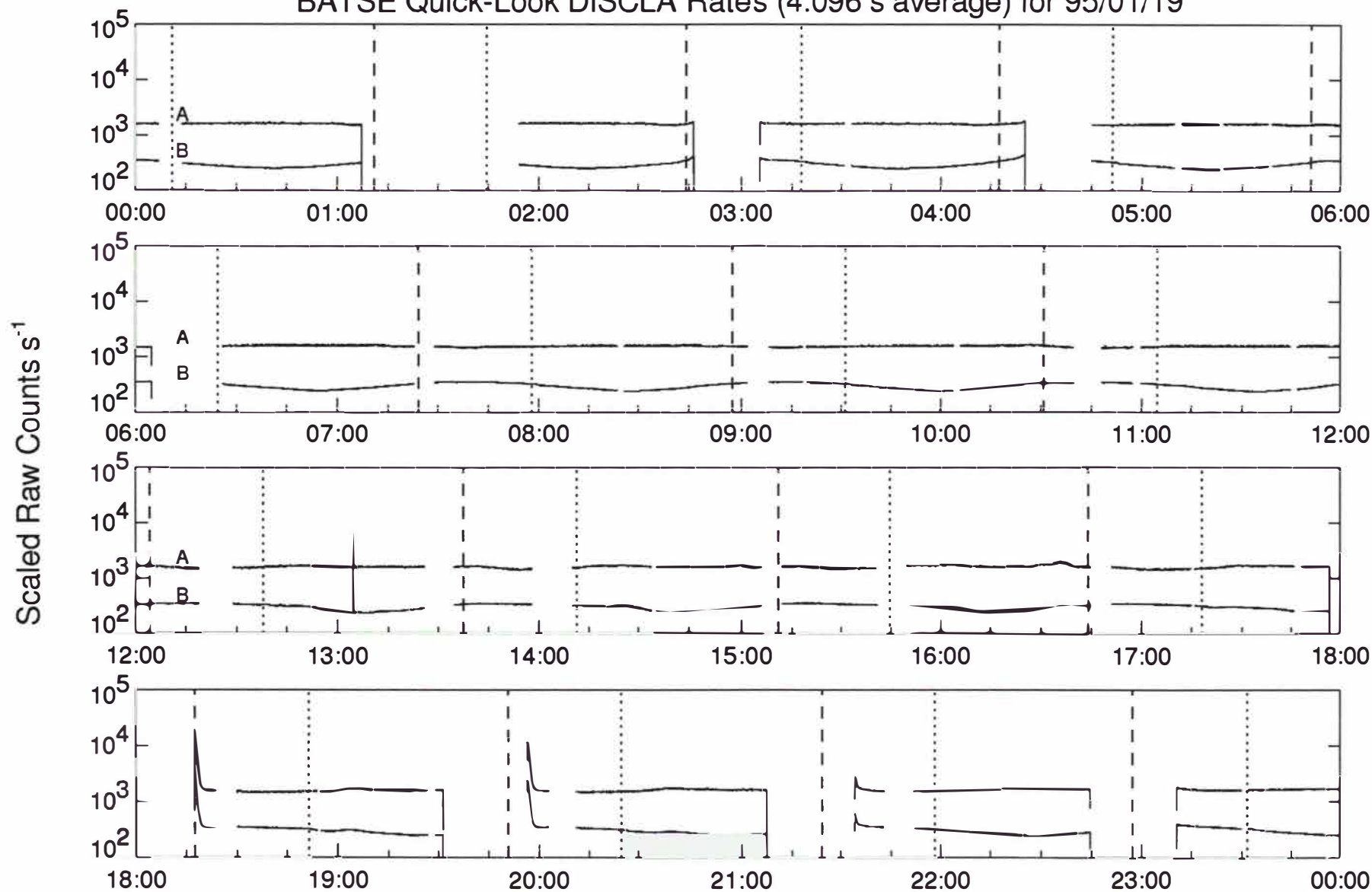
Data Start: 95/01/19, 0000:01

Plot created: 95/01/21, 0514

Channel 1 (1.0 - 8.0 Angstroms)
2 (0.5 - 4.0 Angstroms)

Background not subtracted
Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/19

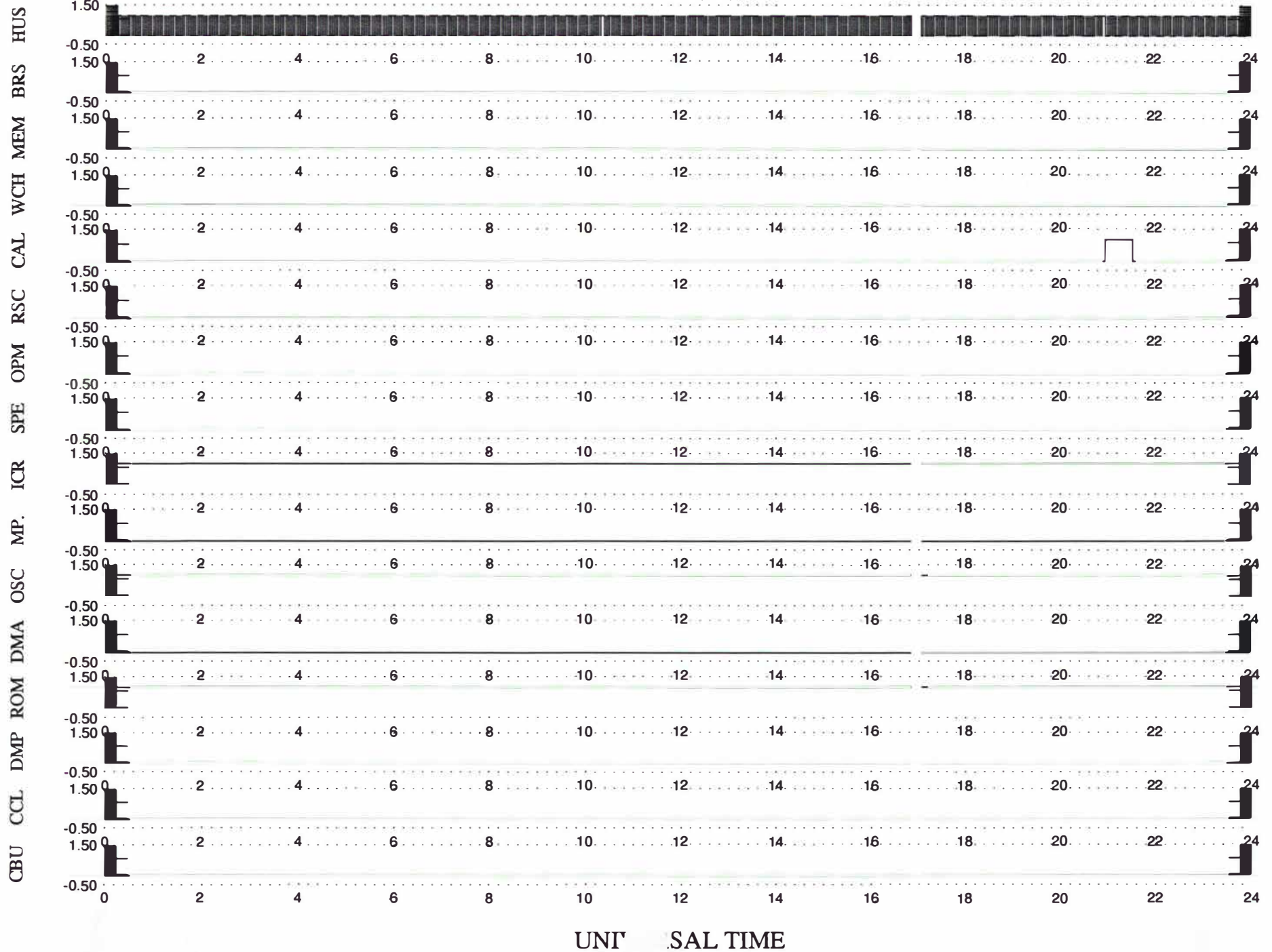


Current Time: 95/01/21, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

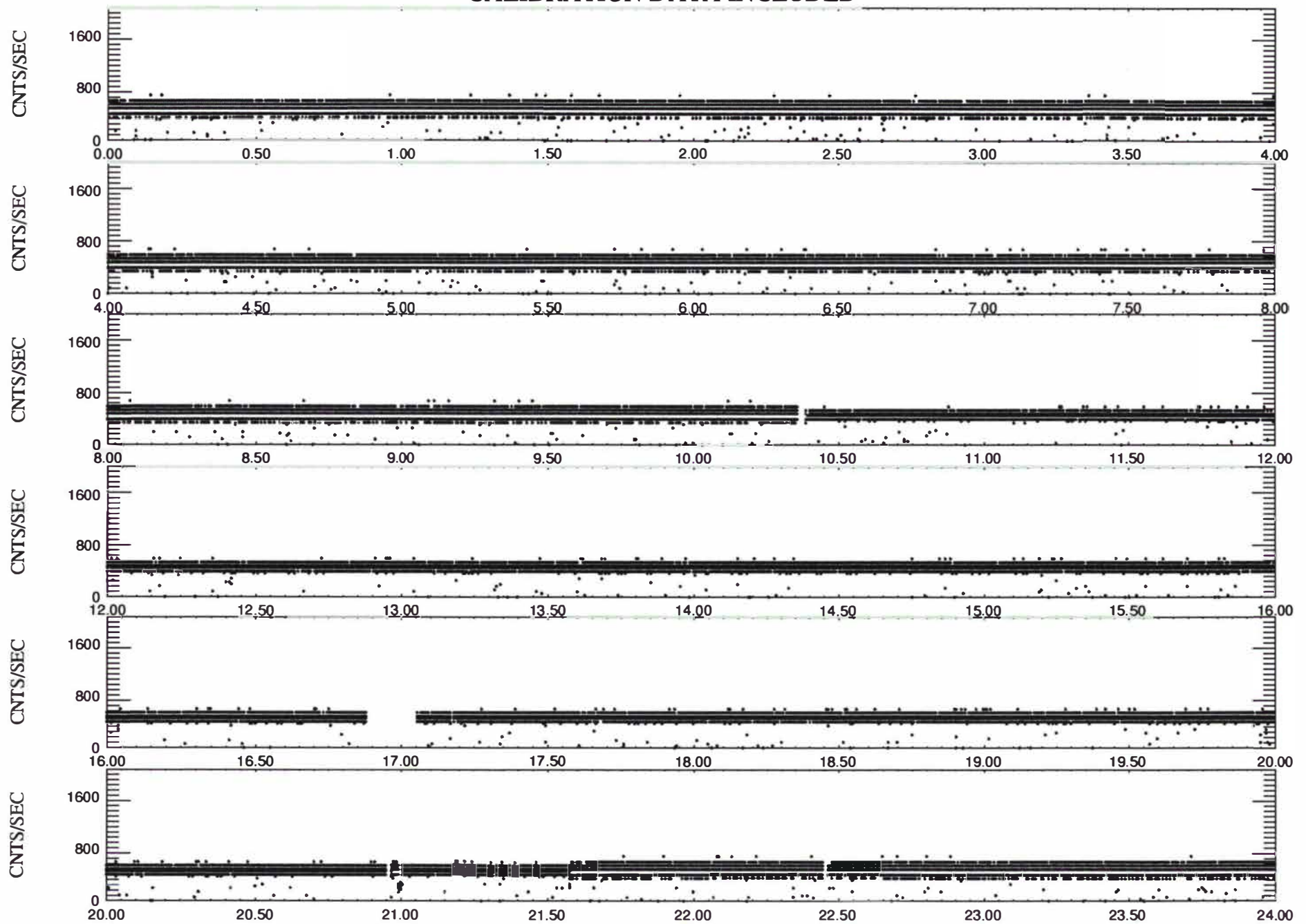
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

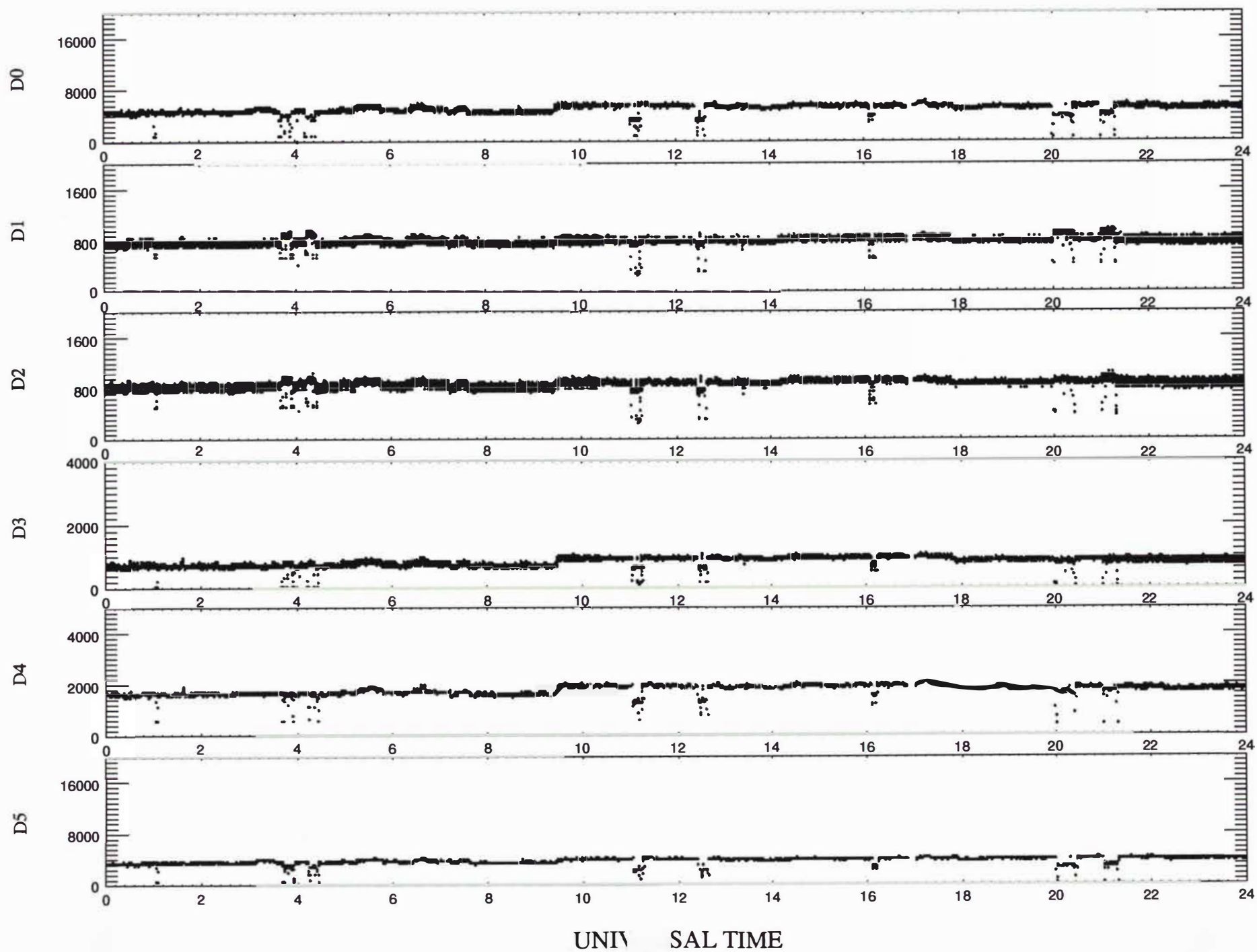
NO BURST (11)



CALIBRATION DATA INCLUDED



UNF SAL TIME



From HAGEDON@fender.msfc.nasa.gov Mon Jan 23 09:38 PST 1995
Date: Mon, 23 Jan 1995 11:37:59 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3370

BATSEARCH PROGRAM

BATSE BURST # 3370
EVENT OF 1995 JAN 20 DAY OF YEAR= 20
EVENT CROSSING TIME AT BATSE : 38990. S. OR 10:49:50.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 194.000 32.000
BATSE PEAK COUNTING RATE: 2500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 20/ 1/ 95 IS:
RA= 326.327 DEC= -39.218 DIST= 2.246 AU
BATSE-ULYSSES DISTANCE = 336044872. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 38.97 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 871.48 SECS.
CROSSING TIME AT ULYSSES IS 39861. S. OR 11:04:21 +/- 185.63 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 20/ 1/ 95 IS:
RA= 154.306 DEC= 15.095 DIST= 0.731 AU
MARS-BATSE DISTANCE = 109402664. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=140.18 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -280.27 SECS.
CROSSING TIME AT MARS IS 38710. S. OR 10:45:09 +/- 36.32 SECONDS

BATSE BURST TRIGGER

NO.: 3370

TIME: TJD=9737 SECONDS=38990

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=134 AZIMUTH=134 ERROR= DEGREES

COMMENTS:

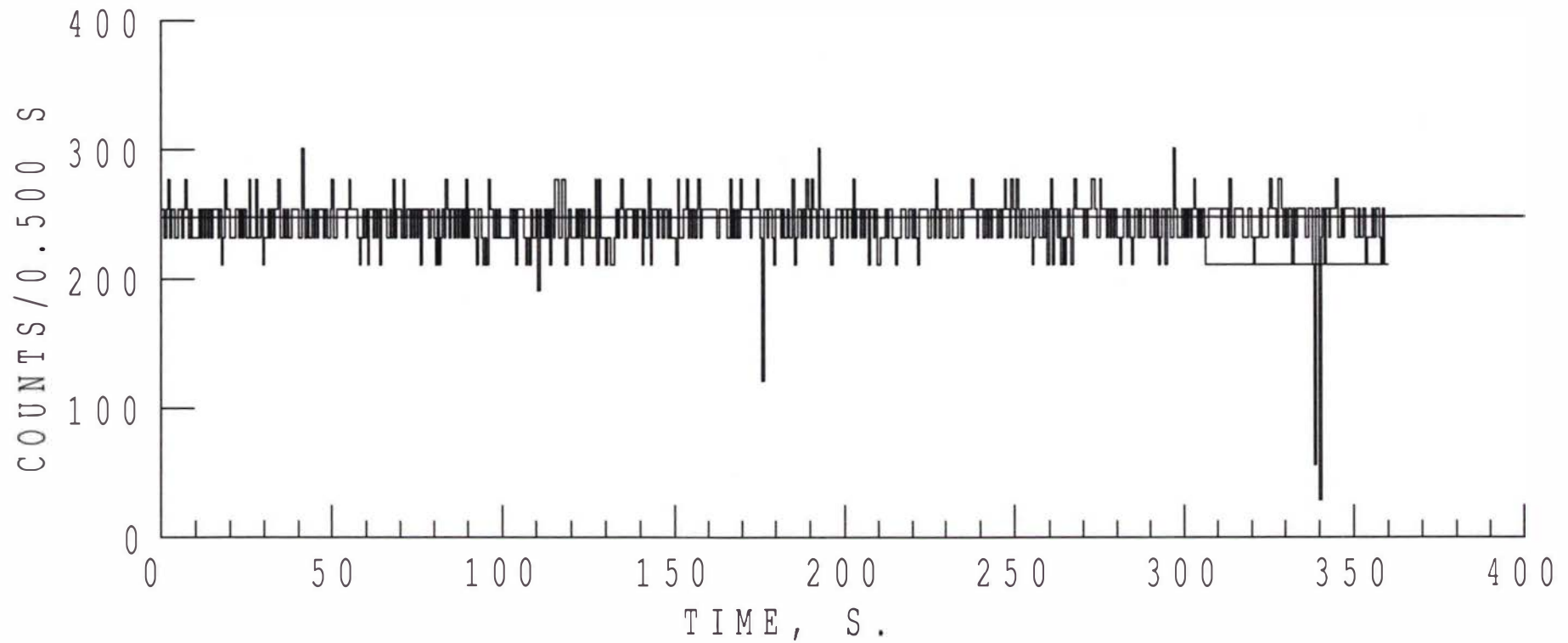
BURST. WEAK DOUBLE PEAK WITH SUBSTRUCTURE. DUR.~9 SEC. POSSIBLE
PRECURSOR AT ~T-27 SEC. MARGINALLY VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3370	950120	9737	38990	2500	194	+32

23 / 1 / 95

ULYSSES RT
20 / 1 / 95 39672.148 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Mon Jan 23 09:25 PST 1995
Date: Mon, 23 Jan 1995 11:25:21 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3371

TIME: TJD=9737 SECONDS=62072

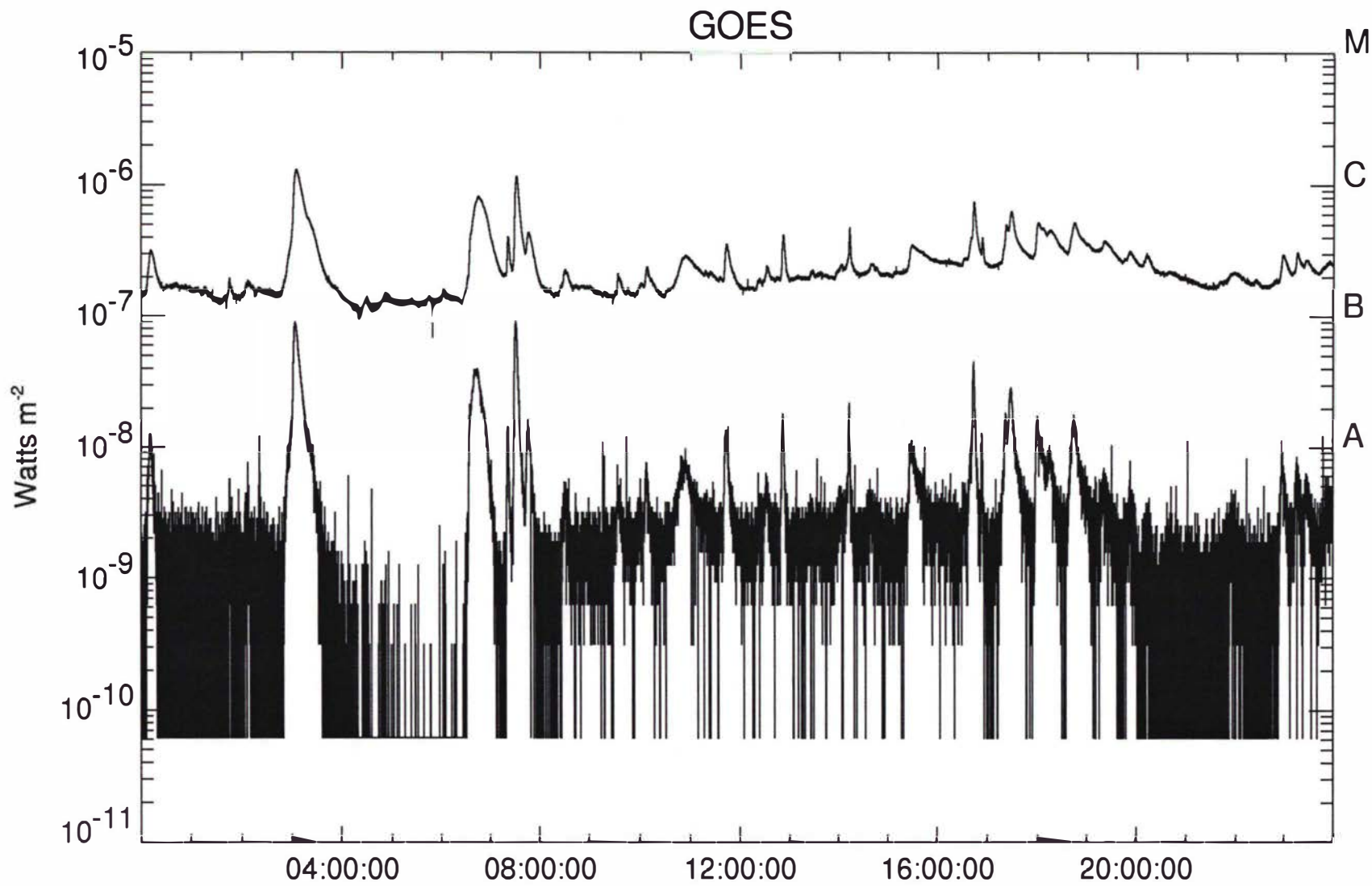
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



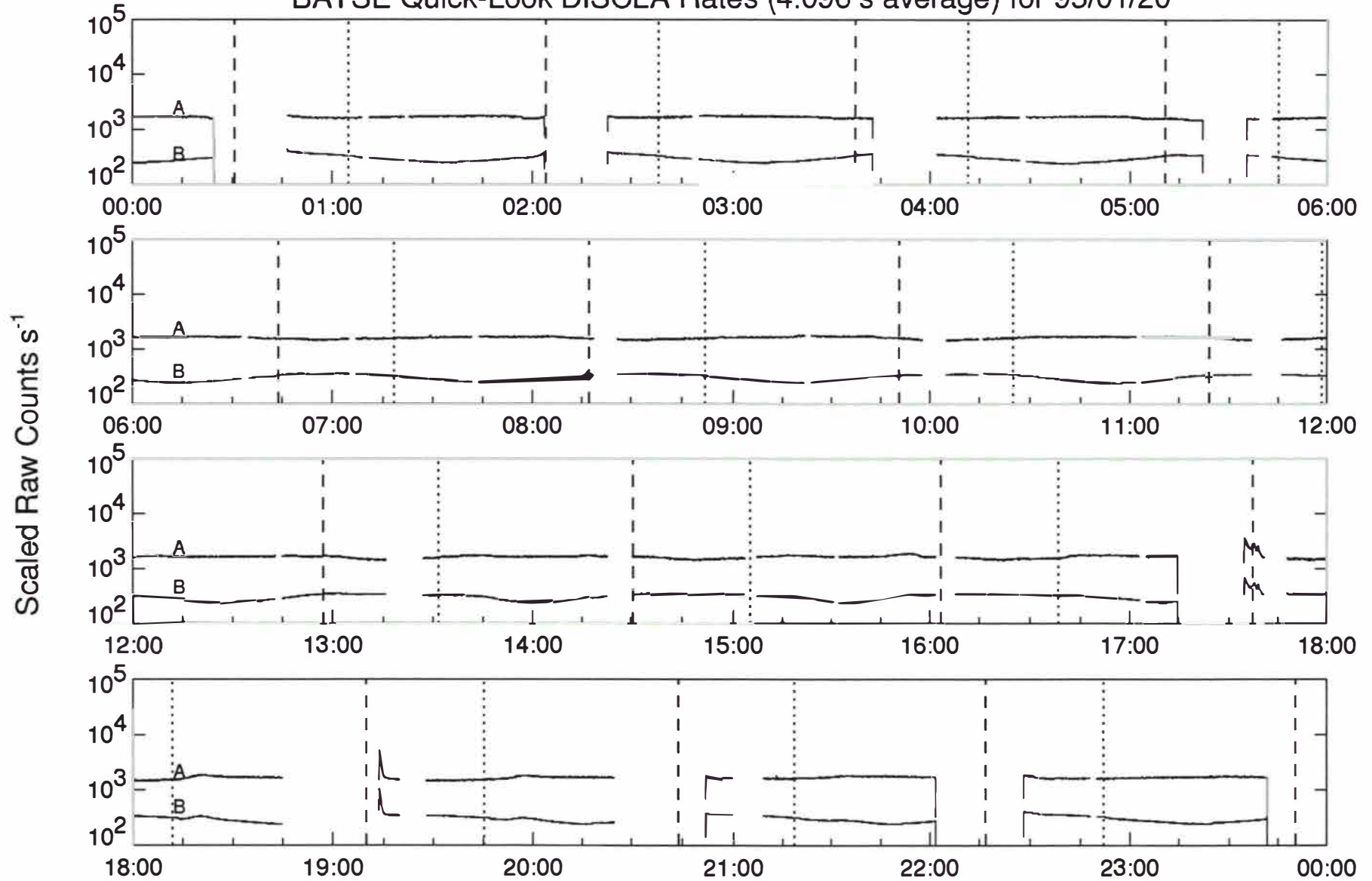
Data Start: 95/01/20, 0000:02

Plot created: 95/01/22, 0514

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/20

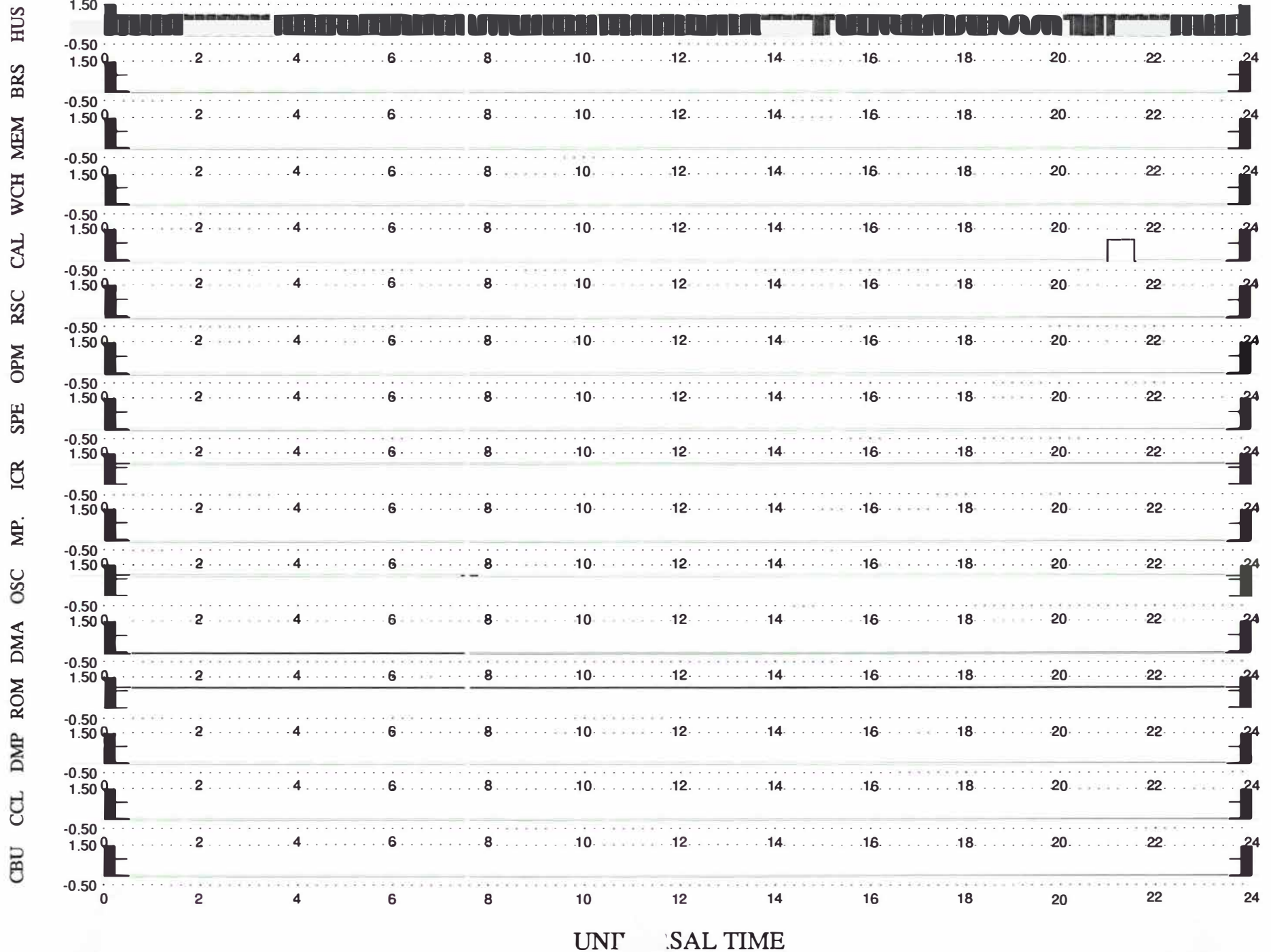


Current Time: 95/01/22, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

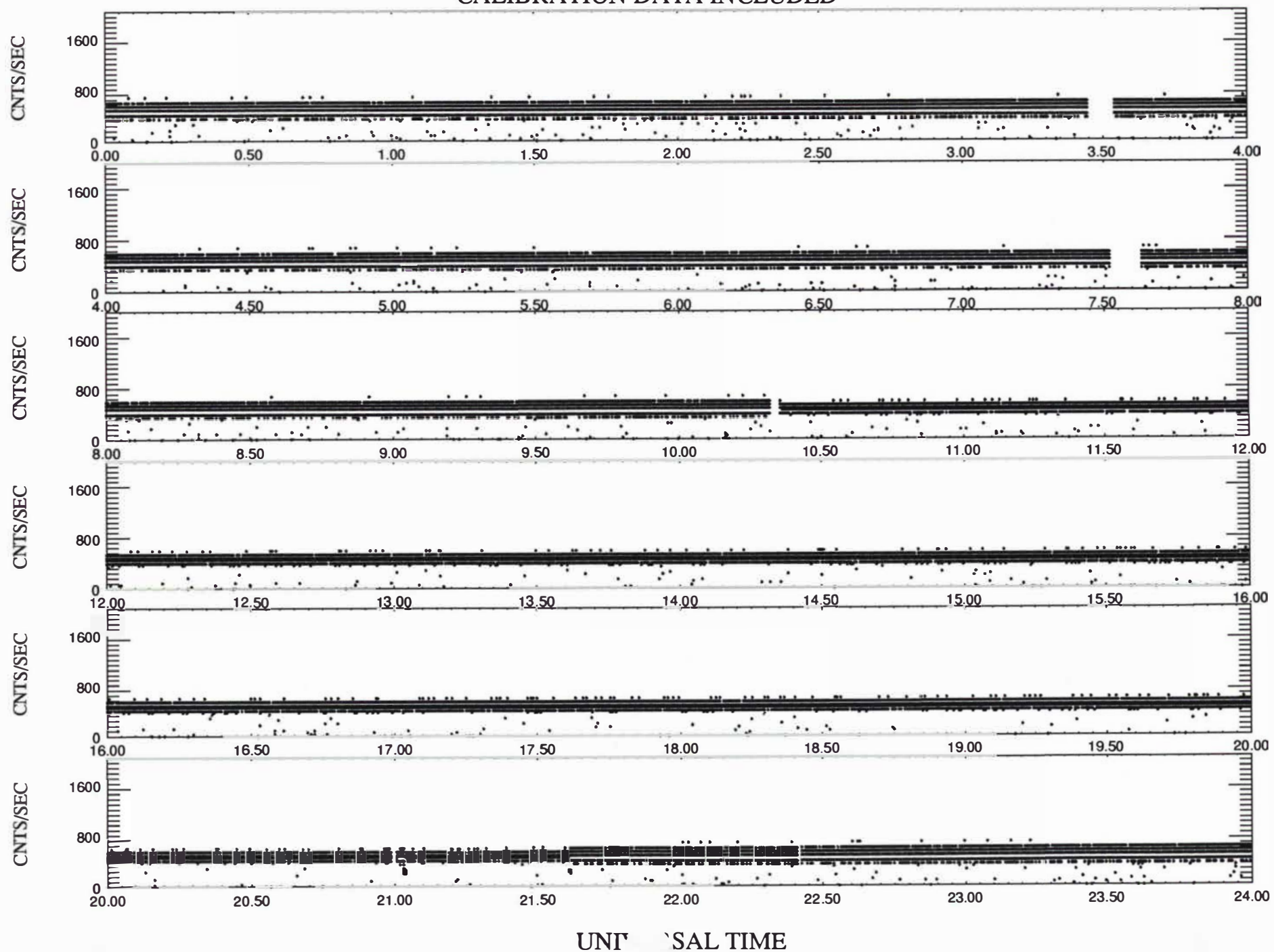
Dotted line: Day entry
 Dashed line: Night entry

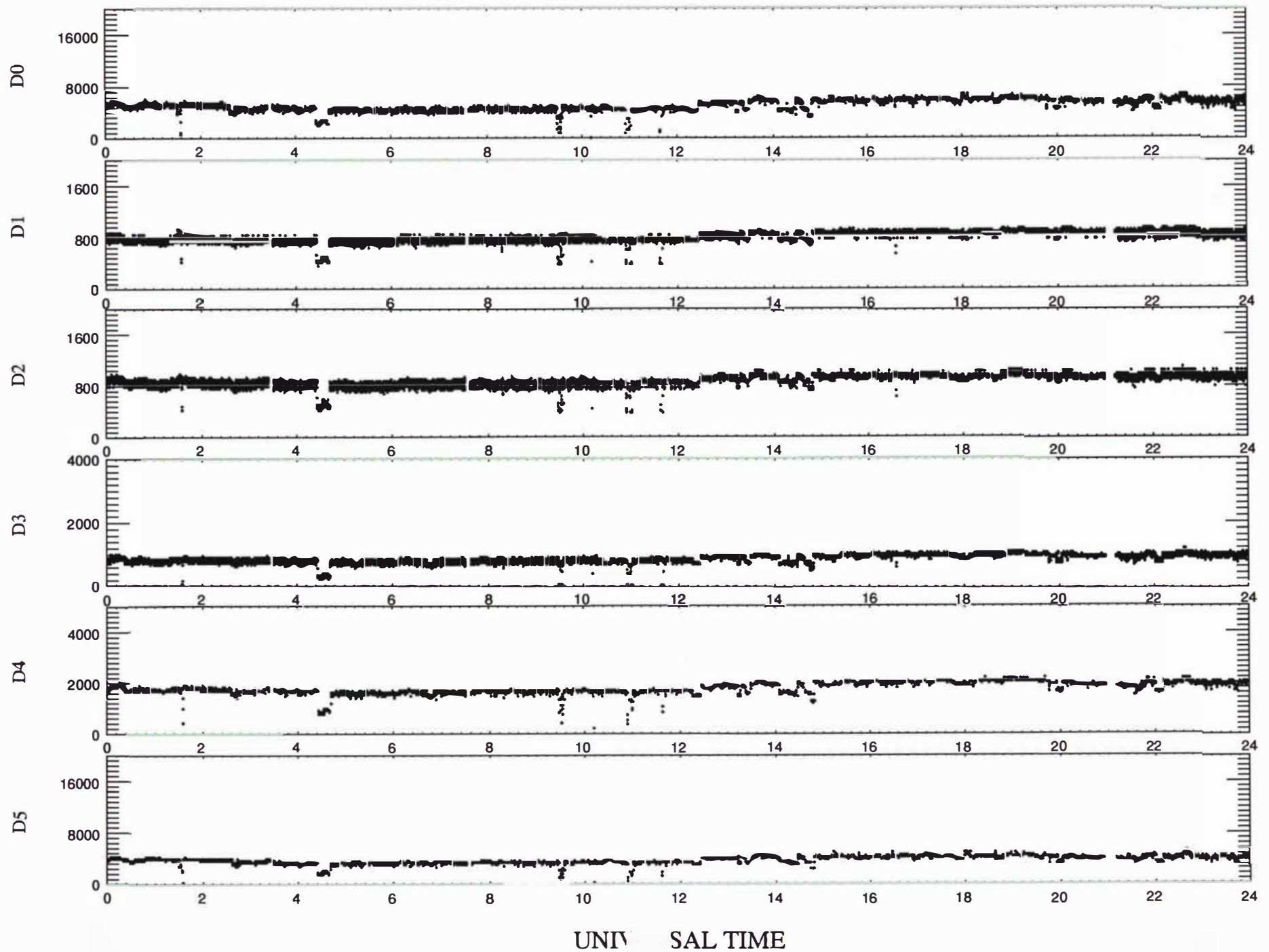
* Solar Burst Trigger
 + Solar Flare

NO BURST (11)



CALIBRATION DATA INCLUDED





From MALLOZZI@ssl.msfc.nasa.gov Sun Jan 22 09:40 PST 1995
Date: Sun, 22 Jan 1995 11:40:22 -0600 (CST)
From: "ROBERT S. MALLOZZI 205-544-6257" <MALLOZZI@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03372

TIME: TJD=9738 SECONDS=52322

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.

From MALLOZZI@ssl.msfc.nasa.gov Sun Jan 22 09:42 PST 1995
Date: Sun, 22 Jan 1995 11:42:05 -0600 (CST)
From: "ROBERT S. MALLOZZI 205-544-6257" <MALLOZZI@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03373

TIME: TJD=9738 SECONDS=59527

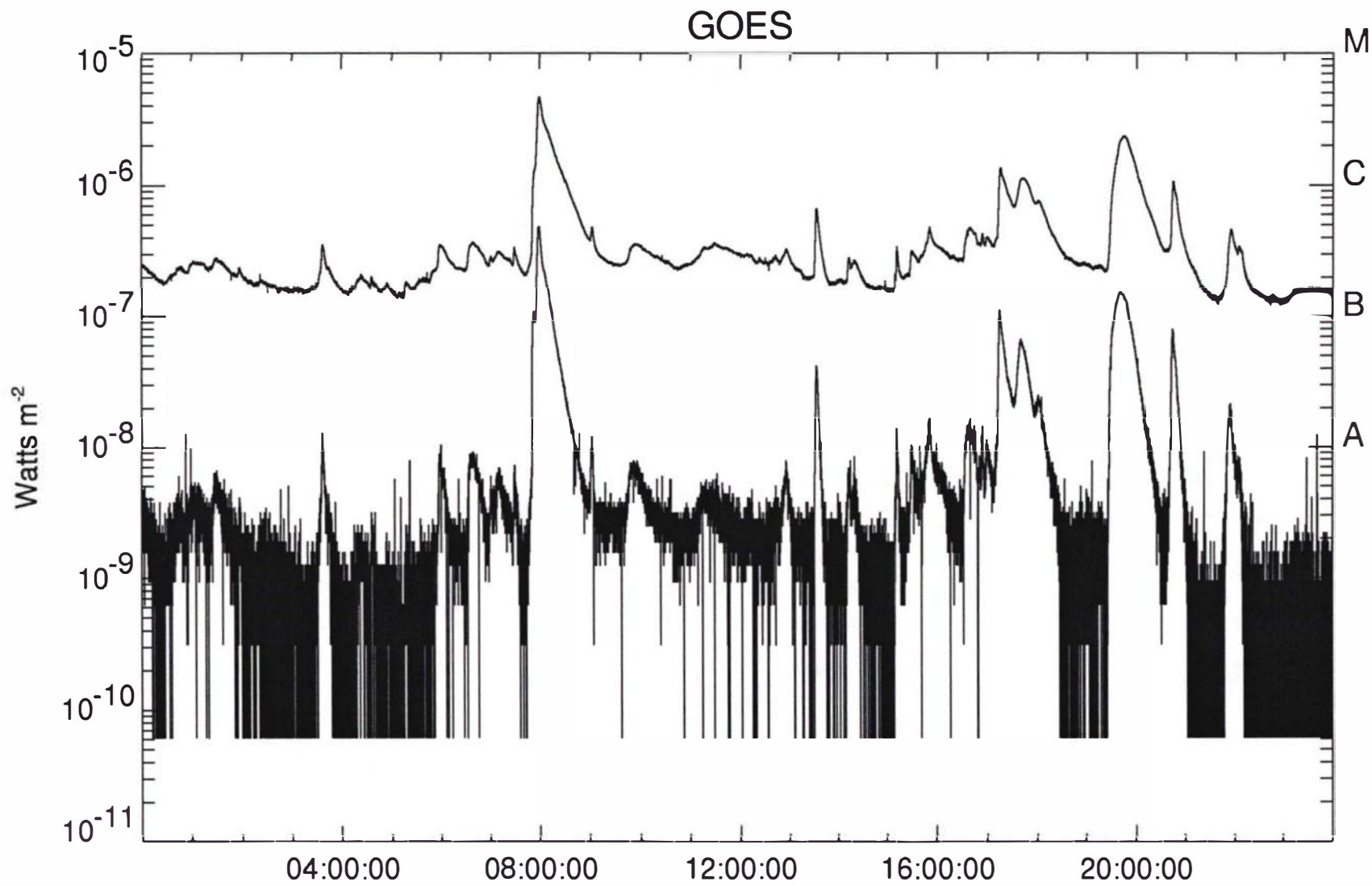
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
TRIGGERED ON ENTRY INTO SAA.



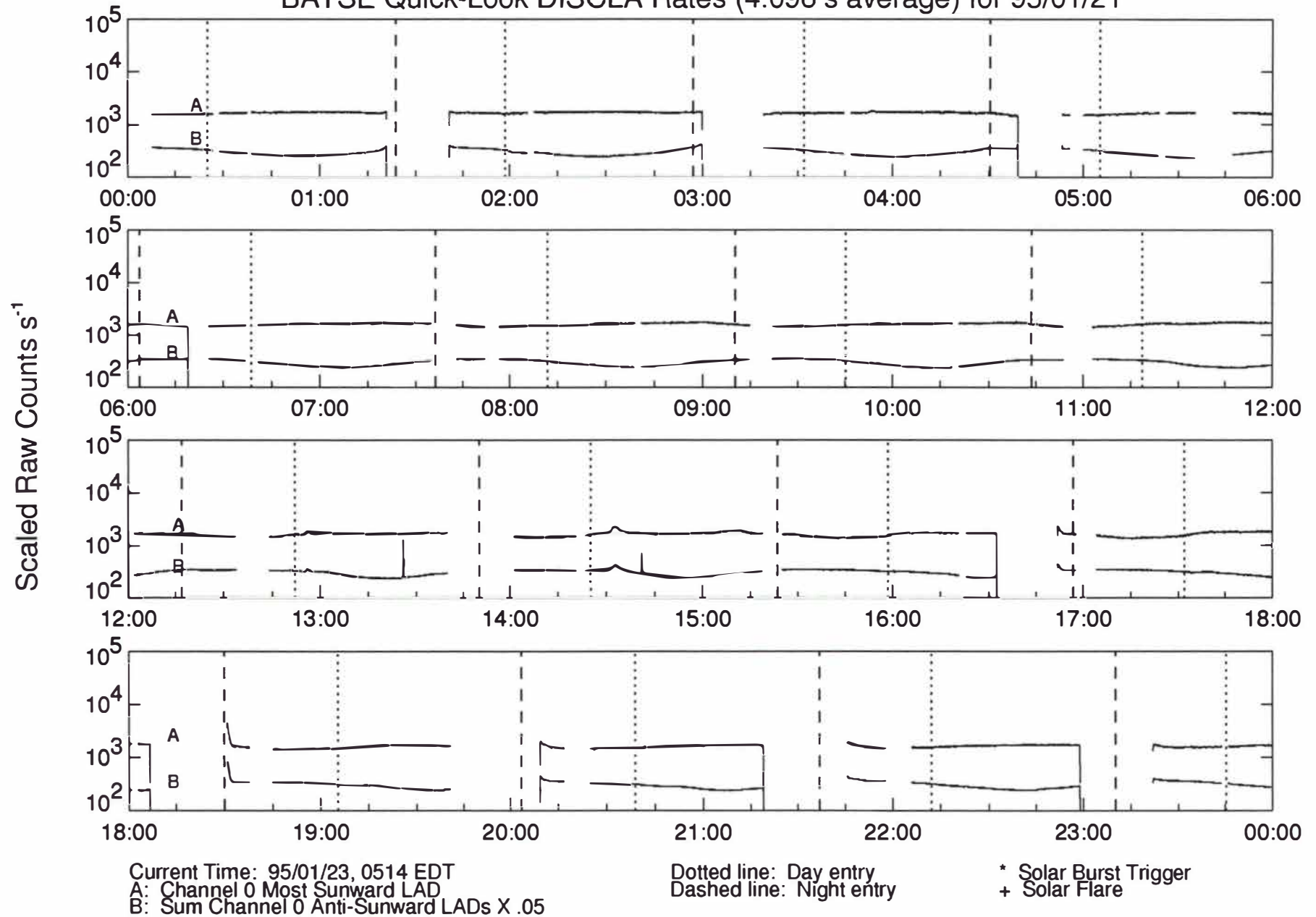
Data Start: 95/01/21, 0000:00

Plot created: 95/01/23, 0514

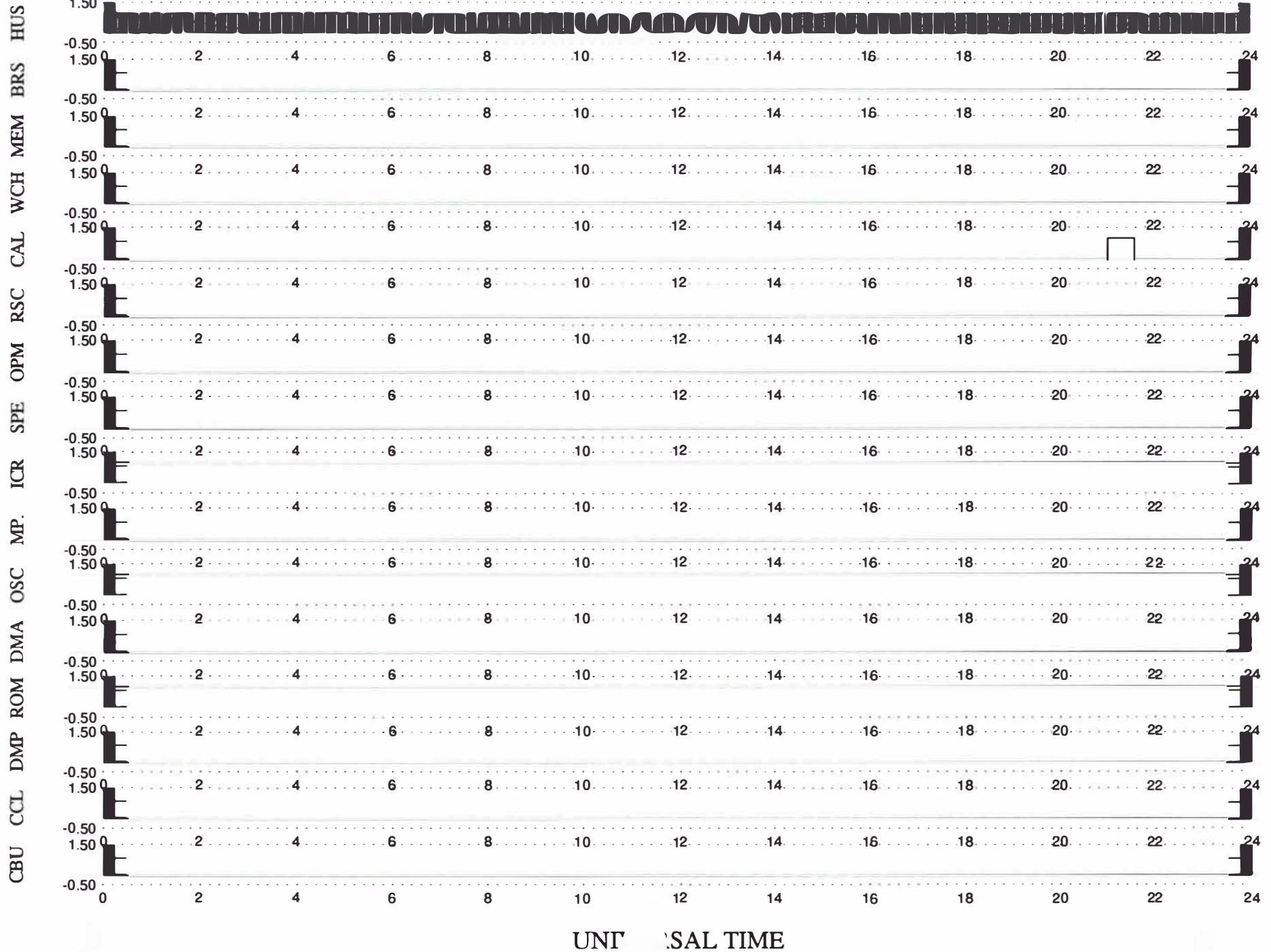
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

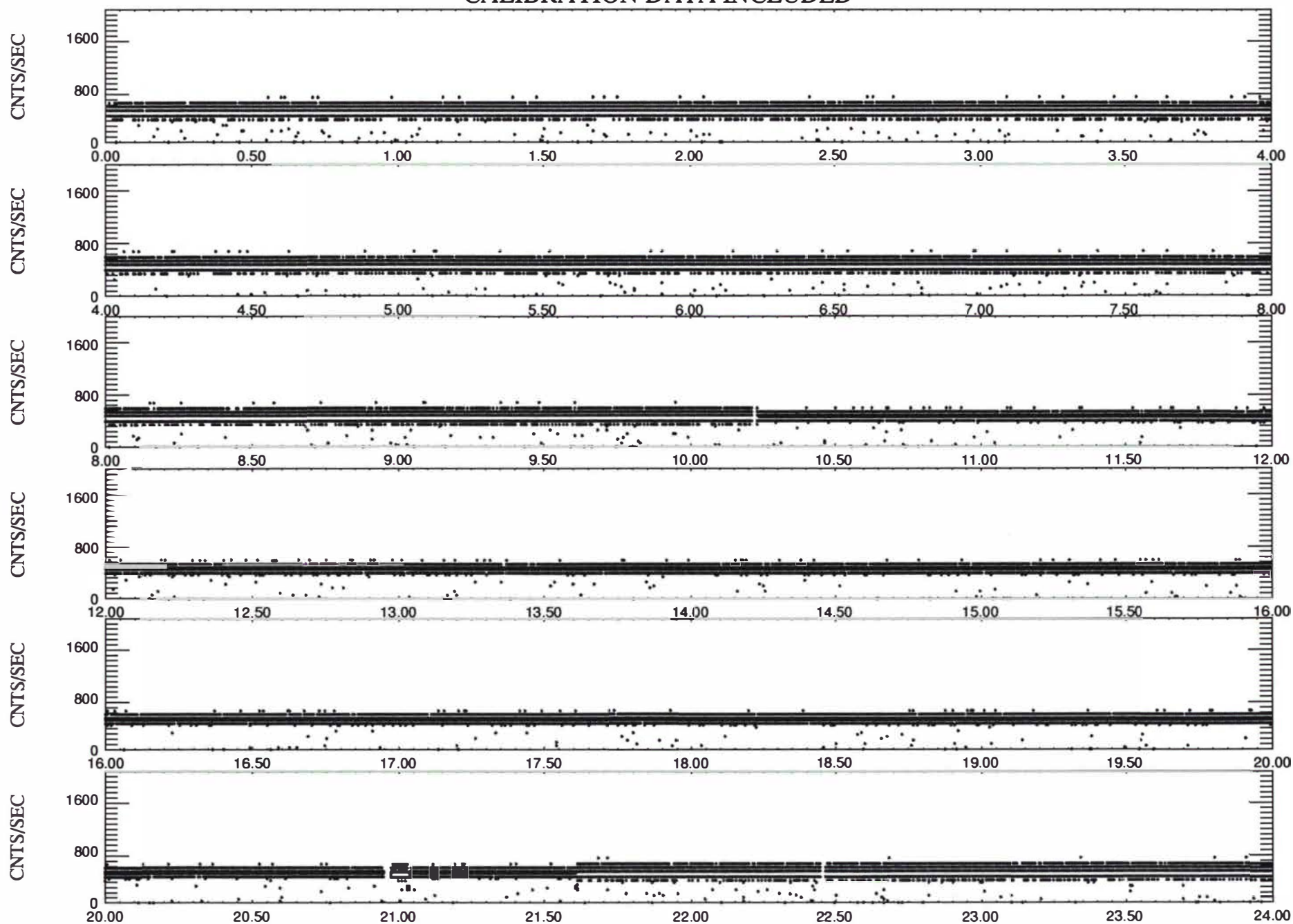
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/21



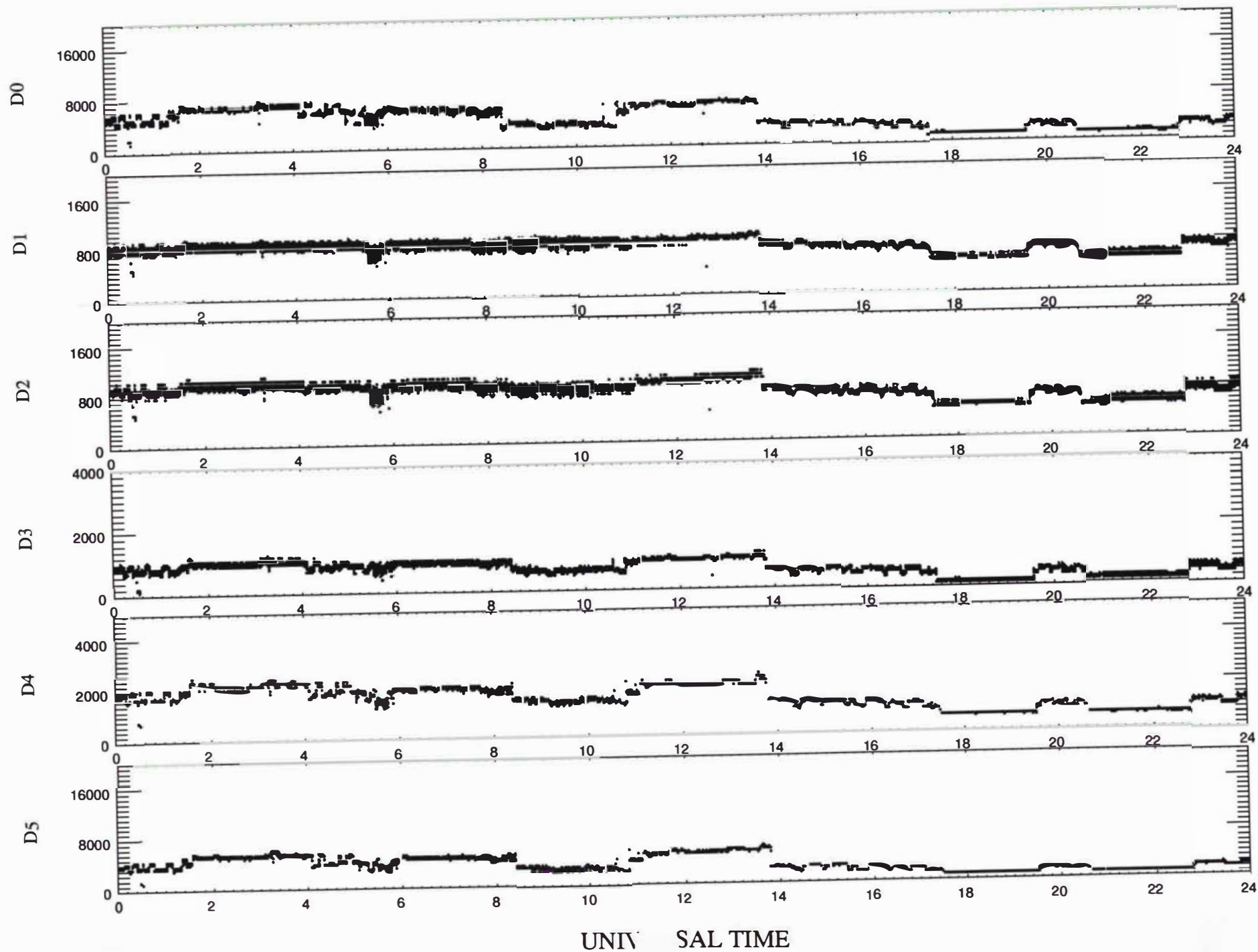
NO BURST (11)

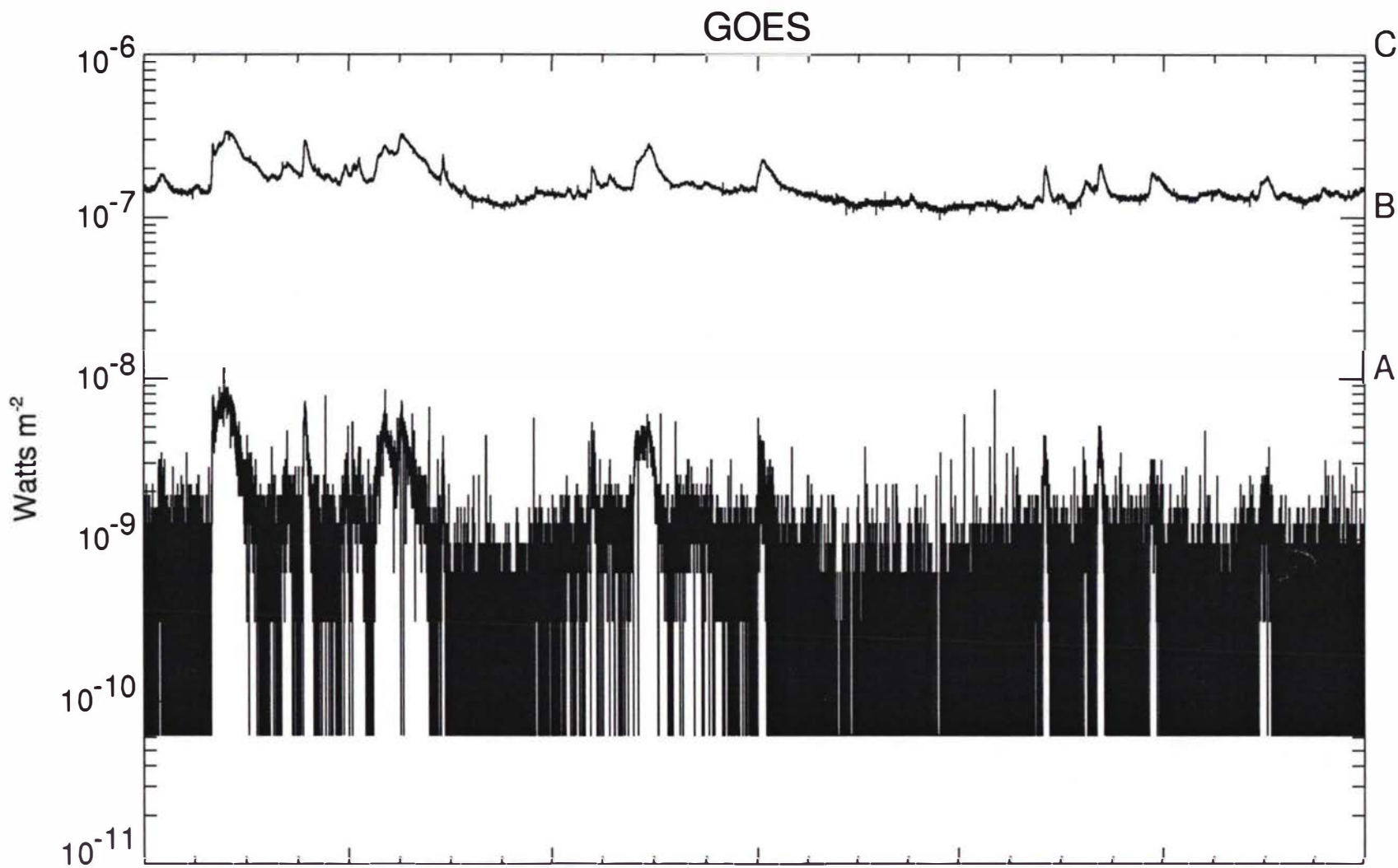


CALIBRATION DATA INCLUDED



UNIVERSAL TIME





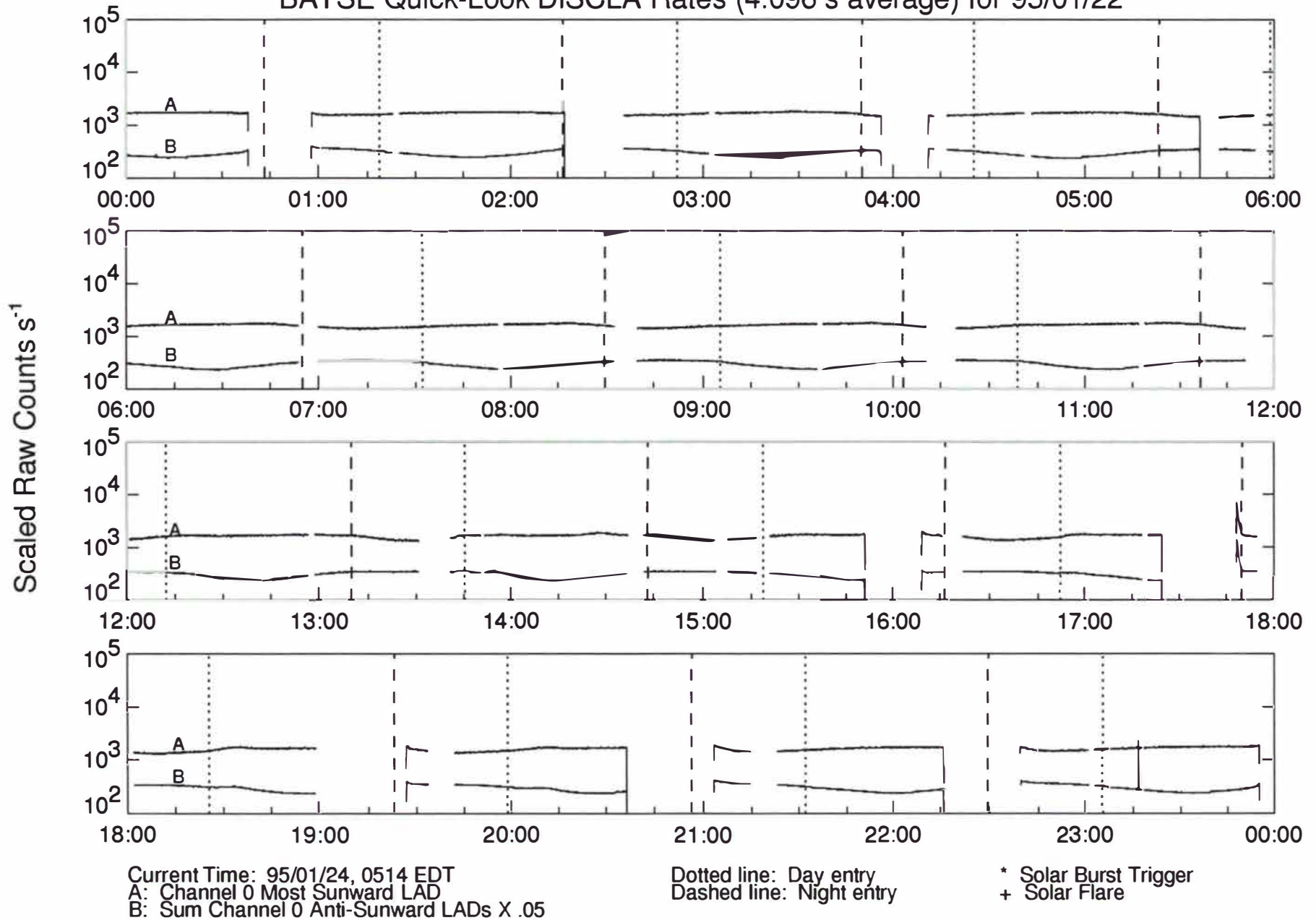
Data Start: 95/01/22, 0000:01

Plot created: 95/01/24, 0514

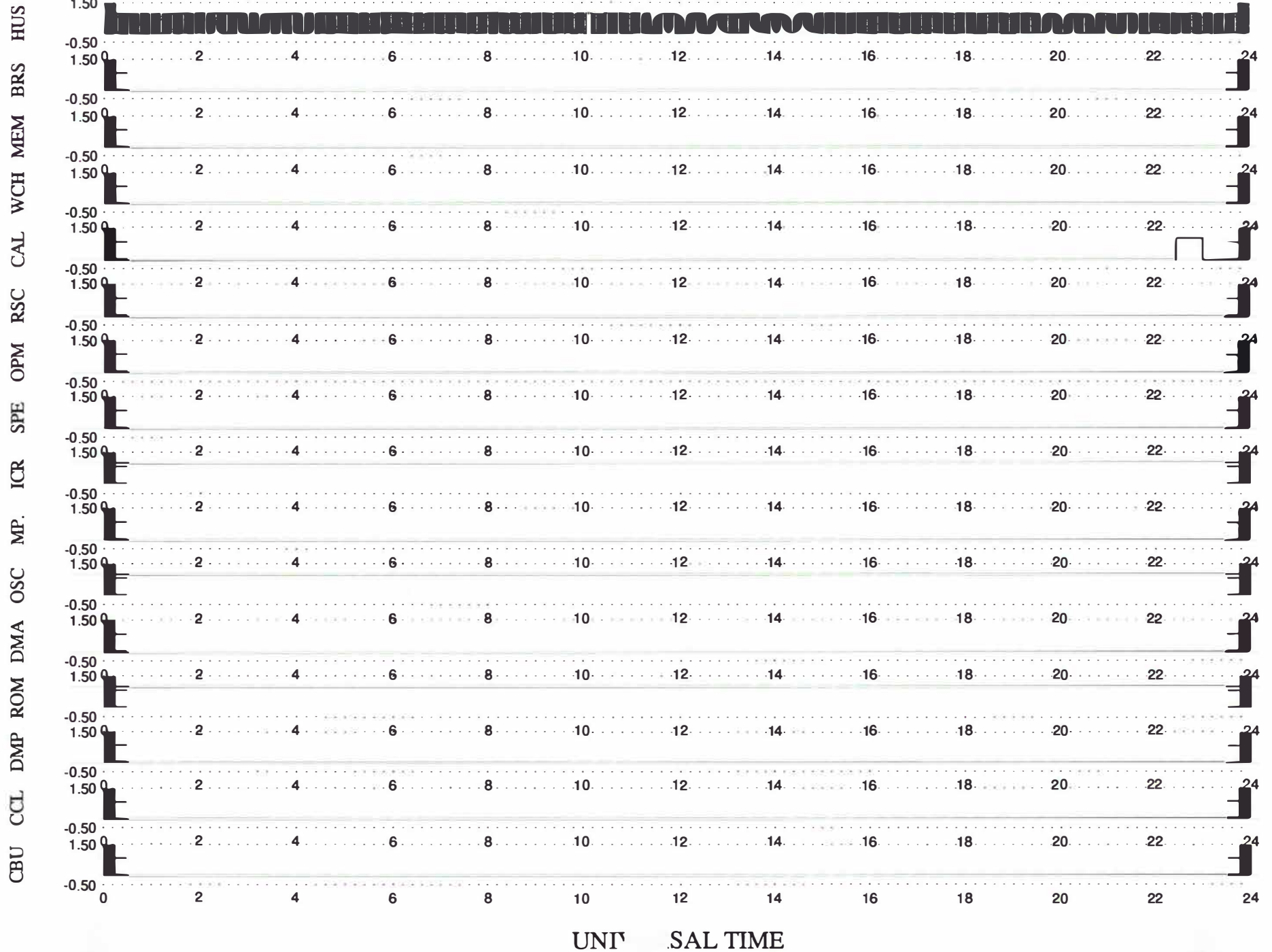
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

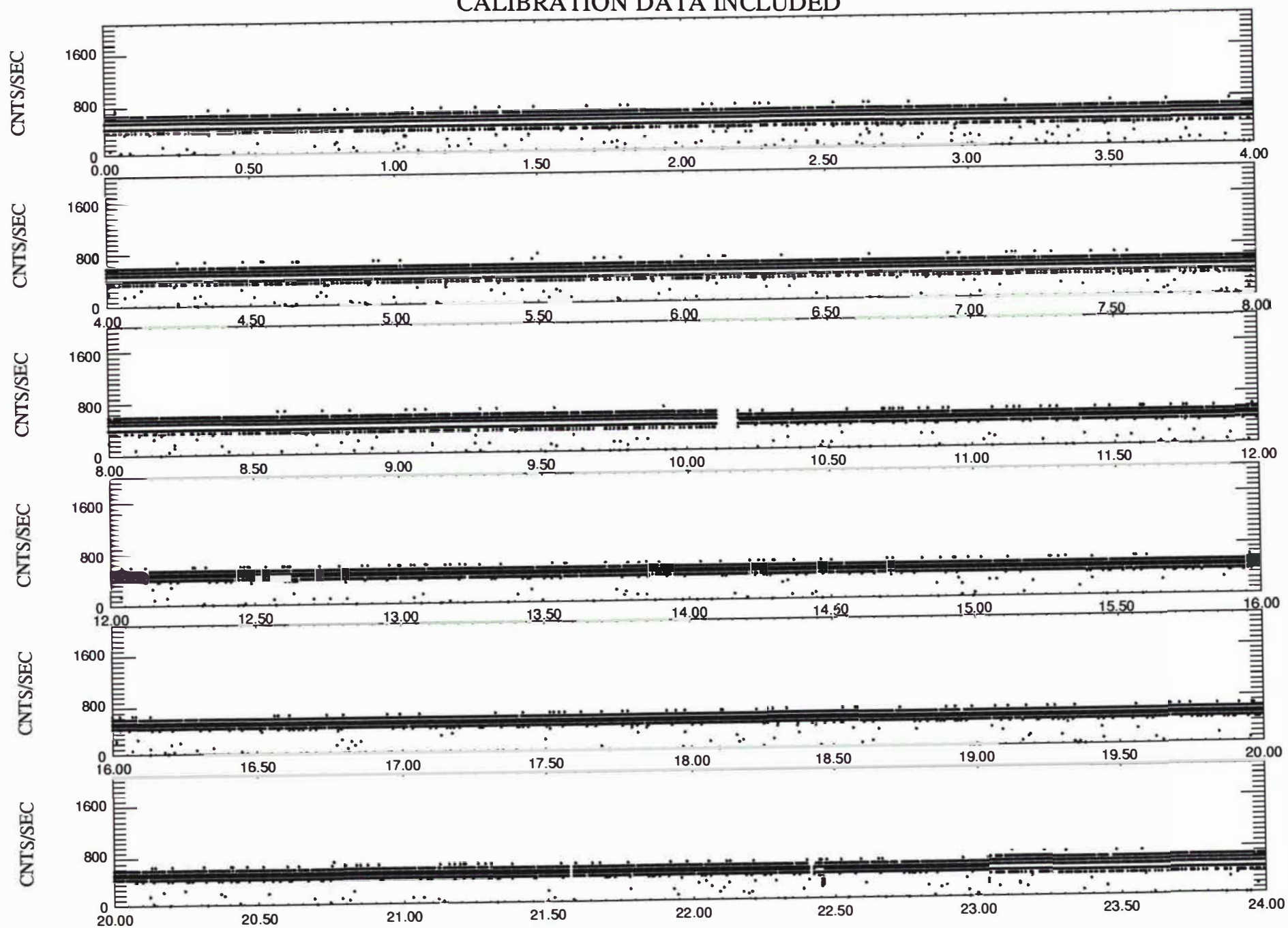
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/22



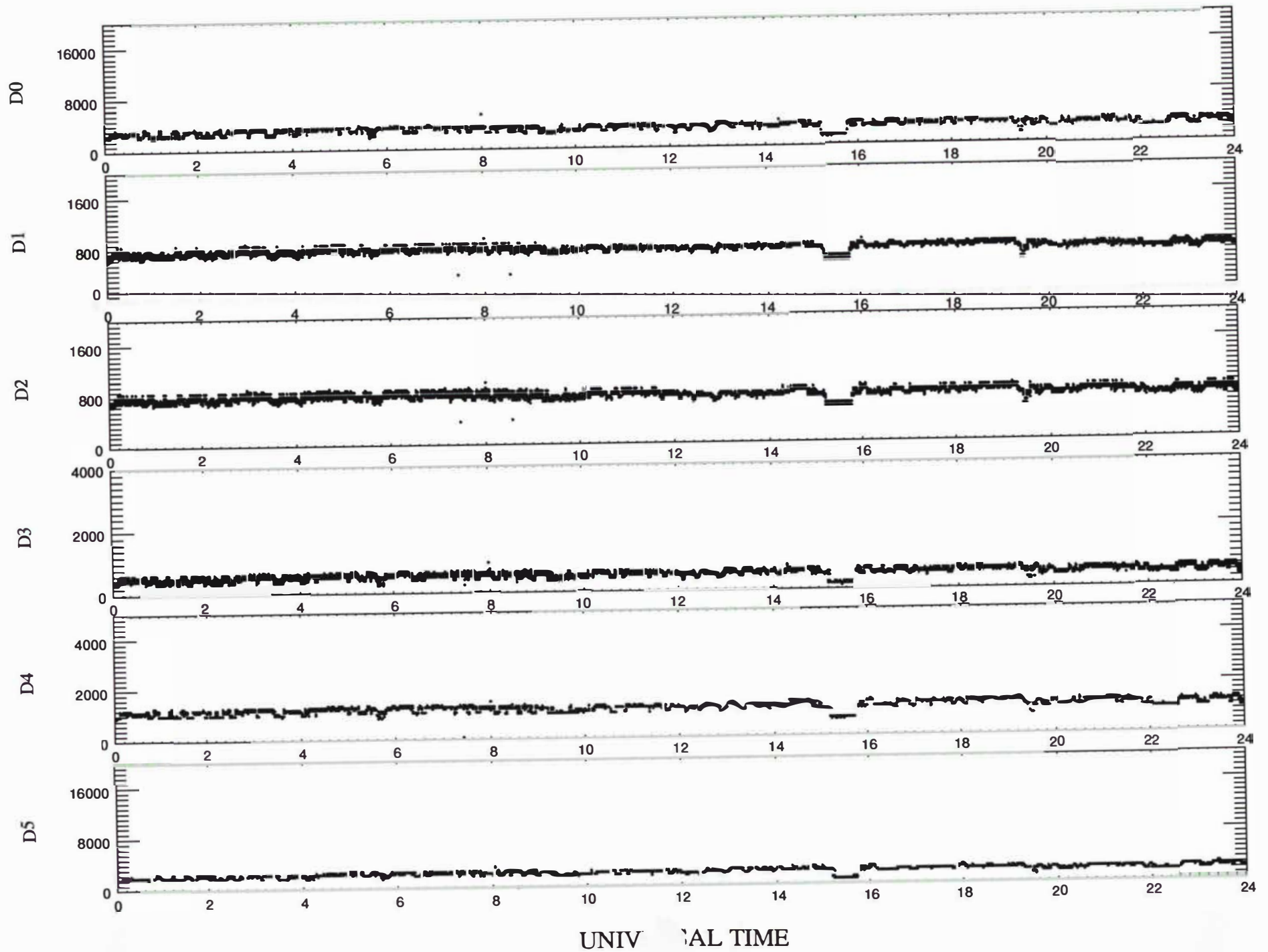
NO BURST (11)



CALIBRATION DATA INCLUDED



UNITS SAL TIME



From RICHARDSON@ssl.msfc.nasa.gov Wed Jan 25 09:34 PST 1995
Date: Wed, 25 Jan 1995 11:34:31 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3374

BATSEARCH PROGRAM

BATSE BURST # 3374 NO
EVENT OF 1995 JAN 23 DAY OF YEAR= 23
EVENT CROSSING TIME AT BATSE : 27724. S. OR 07:42:04.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 240.000 -74.000
BATSE PEAK COUNTING RATE: 9000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 23/ 1/ 95 IS:
RA= 327.637 DEC= -37.343 DIST= 2.256 AU
BATSE-ULYSSES DISTANCE = 337461261. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=126.31 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -666.53 SECS.
CROSSING TIME AT ULYSSES IS 27057. S. OR 07:30:57 +/- 197.36 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 23/ 1/ 95 IS:
RA= 153.630 DEC= 15.443 DIST= 0.718 AU
MARS-BATSE DISTANCE = 107416744. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 76.16 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 85.69 SECS.
CROSSING TIME AT MARS IS 27810. S. OR 07:43:29 +/- 61.70 SECONDS

BATSE BURST TRIGGER

NO.: 3374

TIME: TJD=9740 SECONDS=27724

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=42.7 AZIMUTH=64.3 ERROR= DEGREES

COMMENTS:

GRB. SINGLE SPIKE, LASTING APROX. 1SEC. marginally visible above 300KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3374	950123	9740	27724	9000	240	-74

25 / 1 / 95

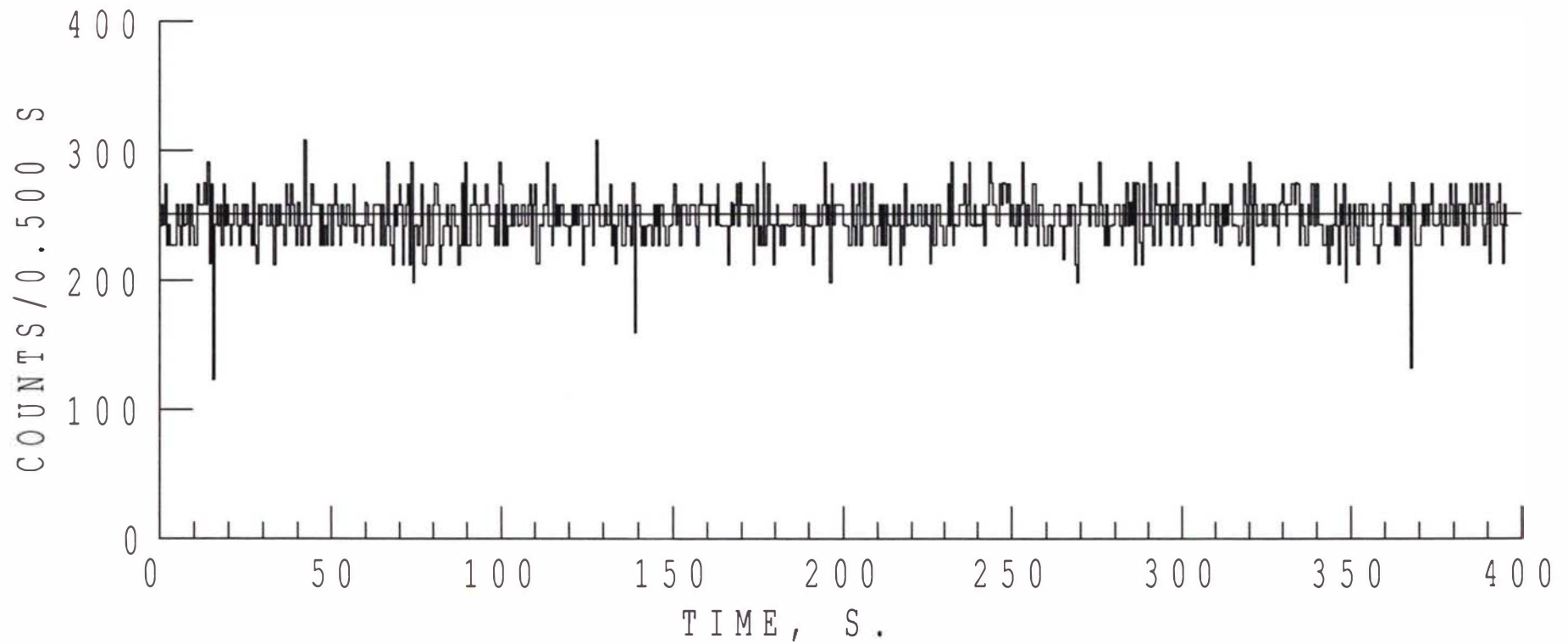
ULYSSES RT

23 / 1 / 95 26856.217 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From RICHARDSON@ssl.msfc.nasa.gov Wed Jan 25 09:33 PST 1995
Date: Wed, 25 Jan 1995 11:31:07 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3375

TIME: TJD=9740 SECONDS=53051

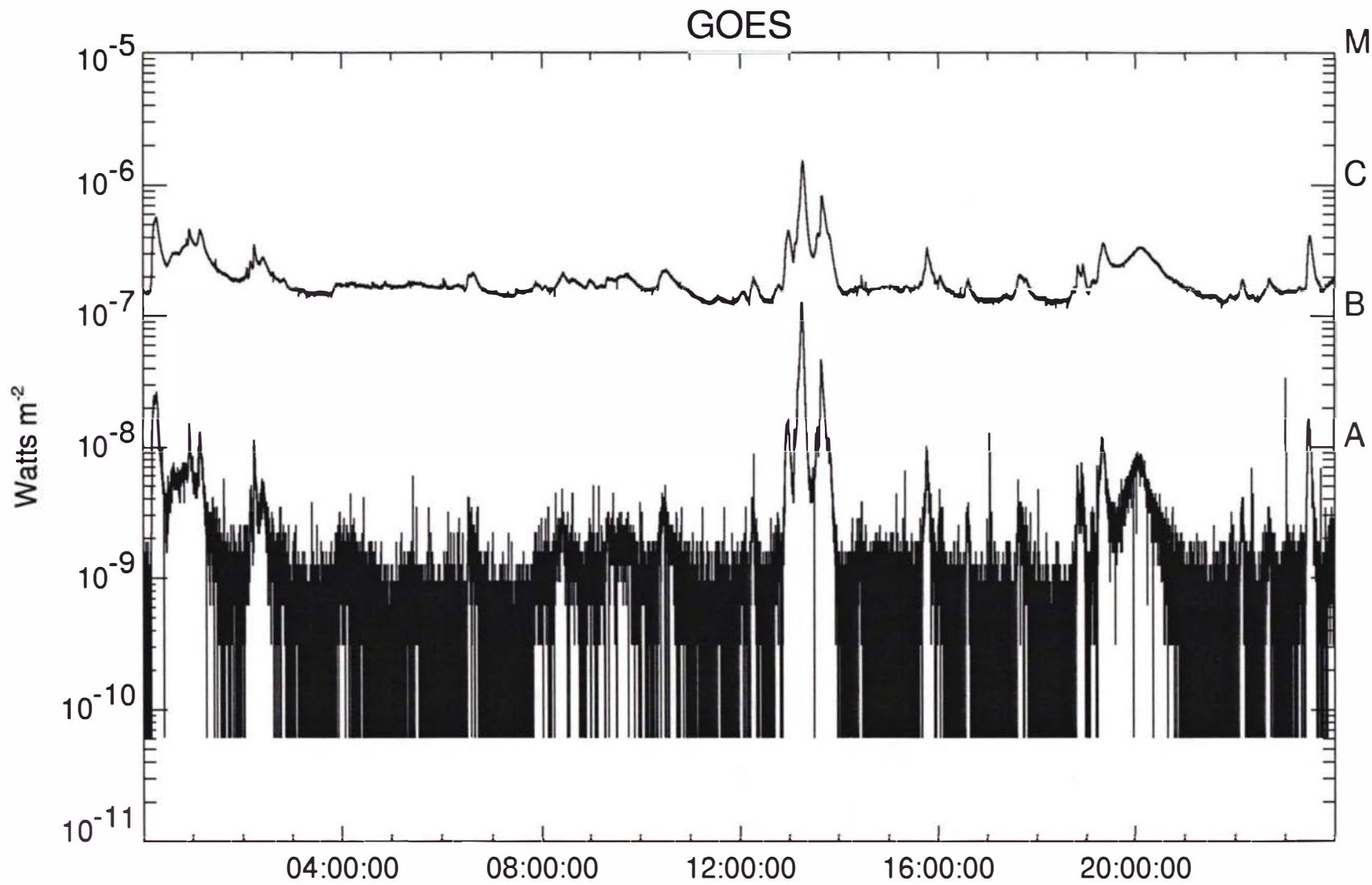
TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT



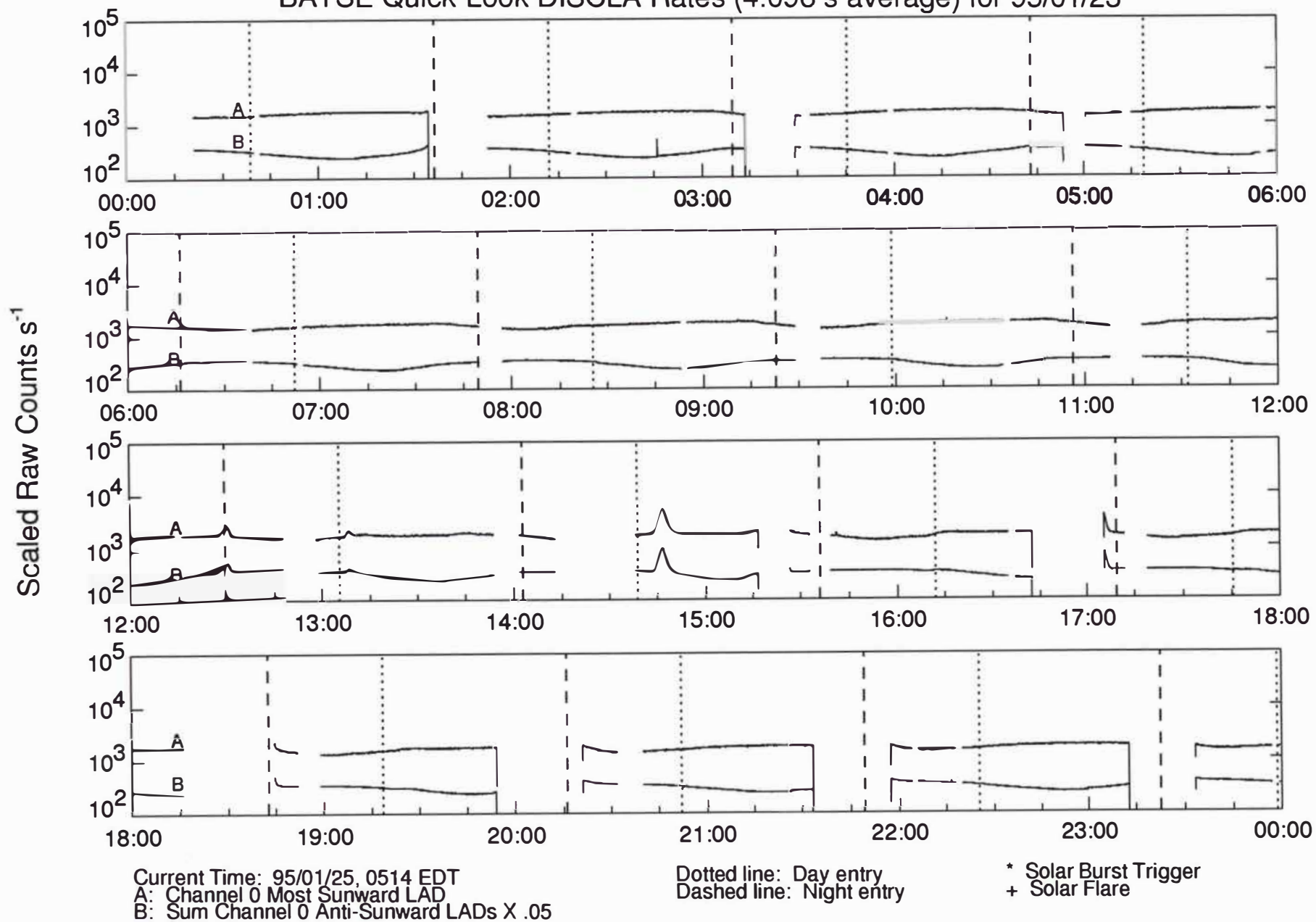
Data Start: 95/01/23, 0000:00

Plot created: 95/01/25, 0514

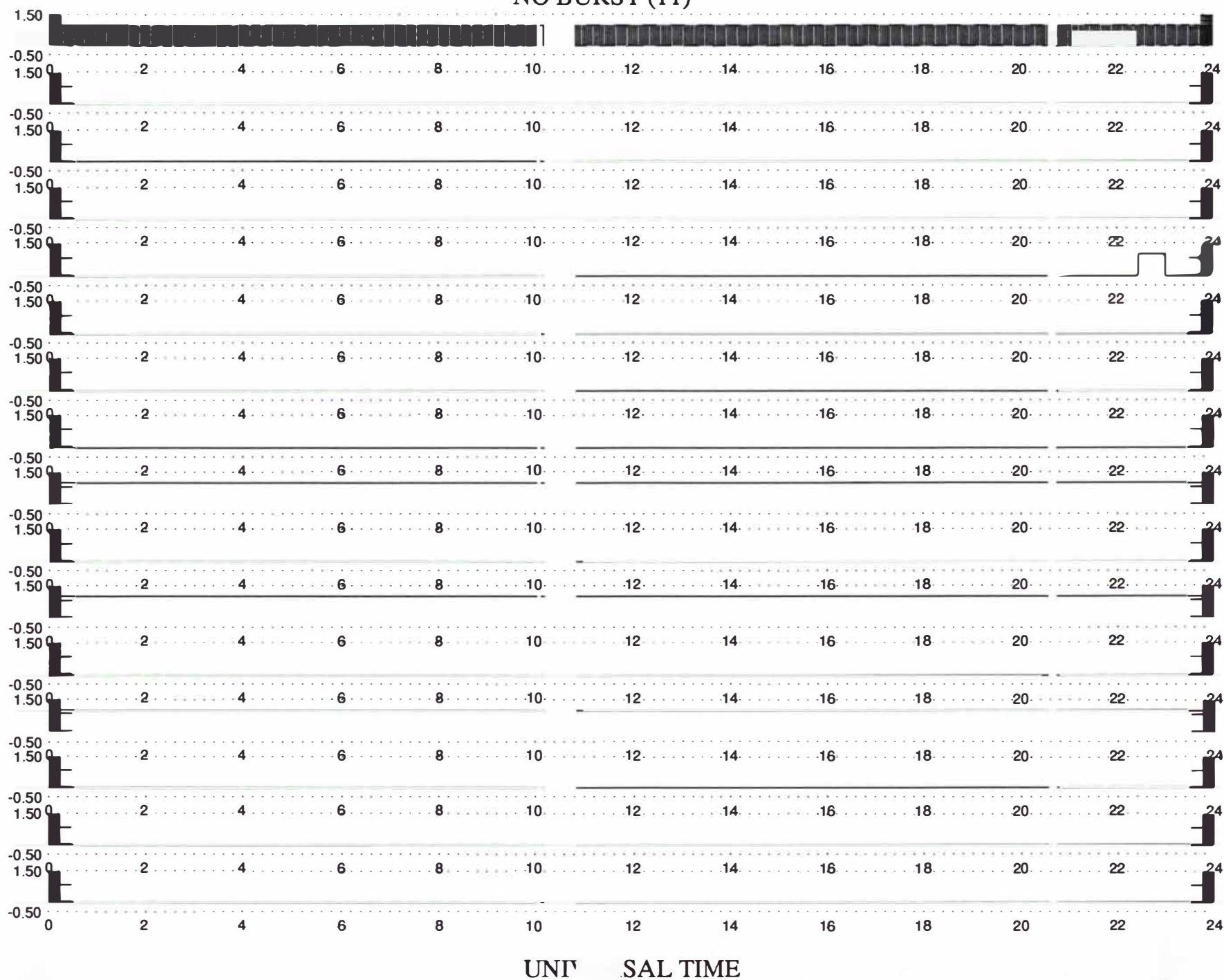
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

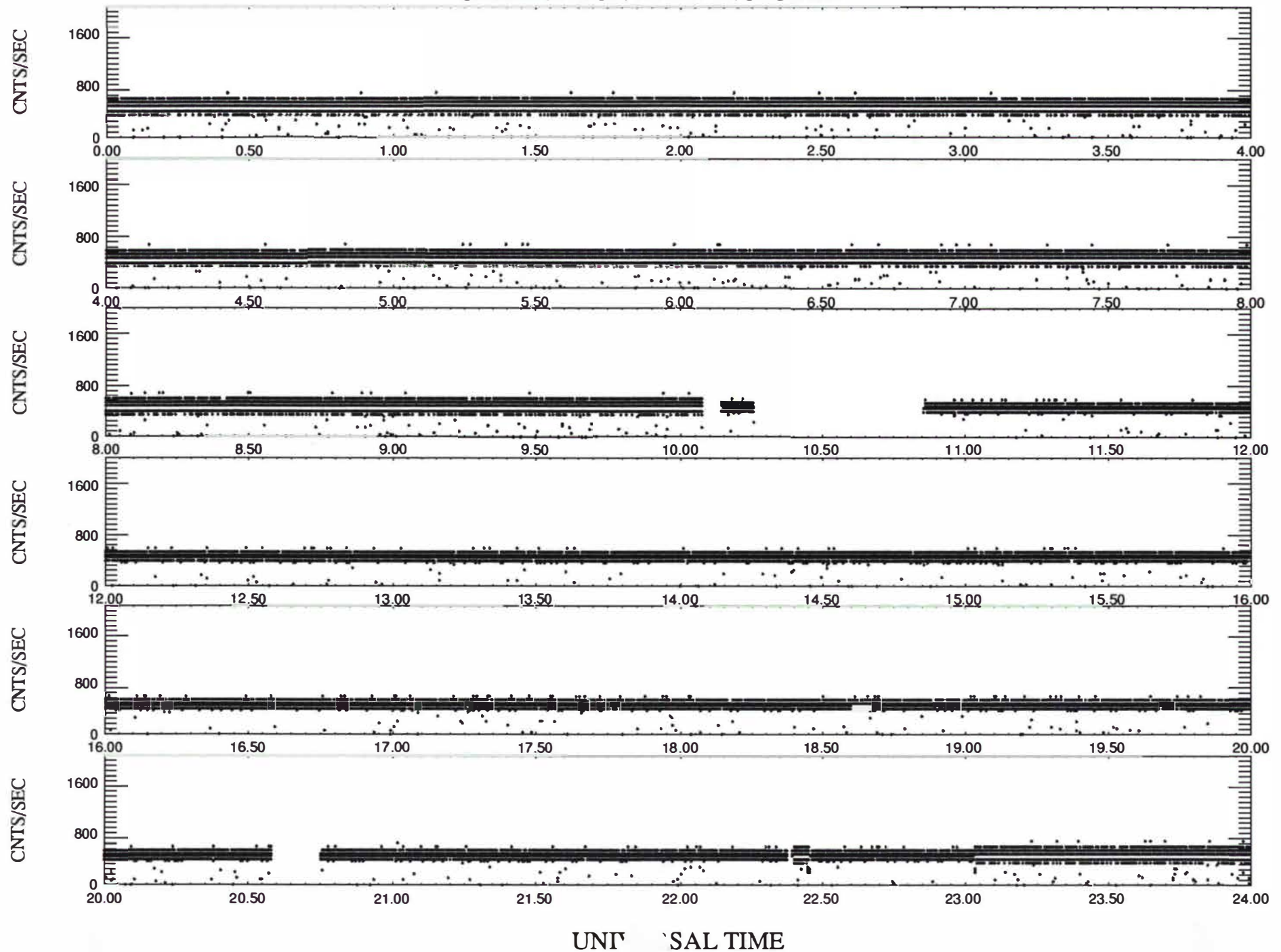
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/23

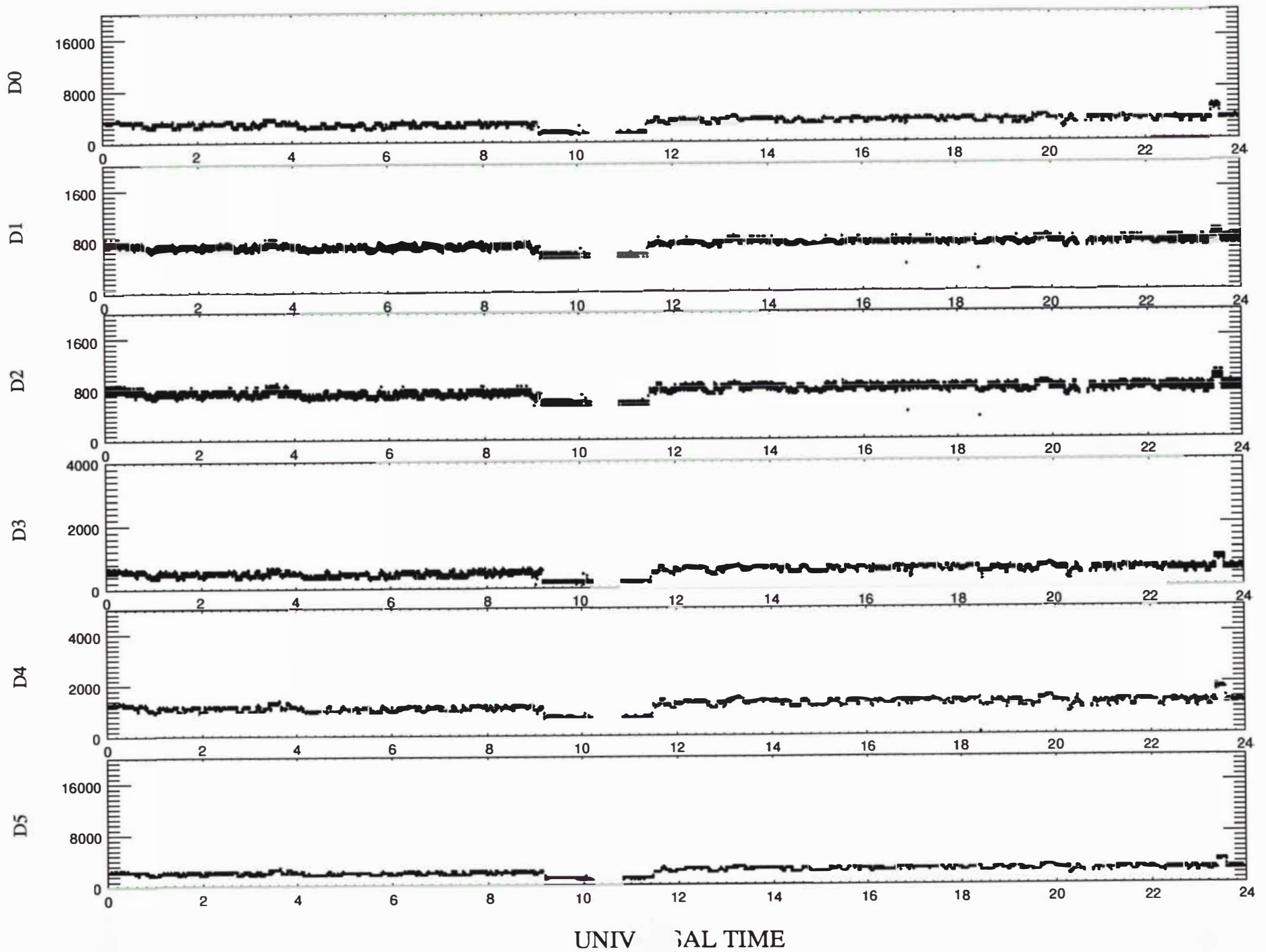


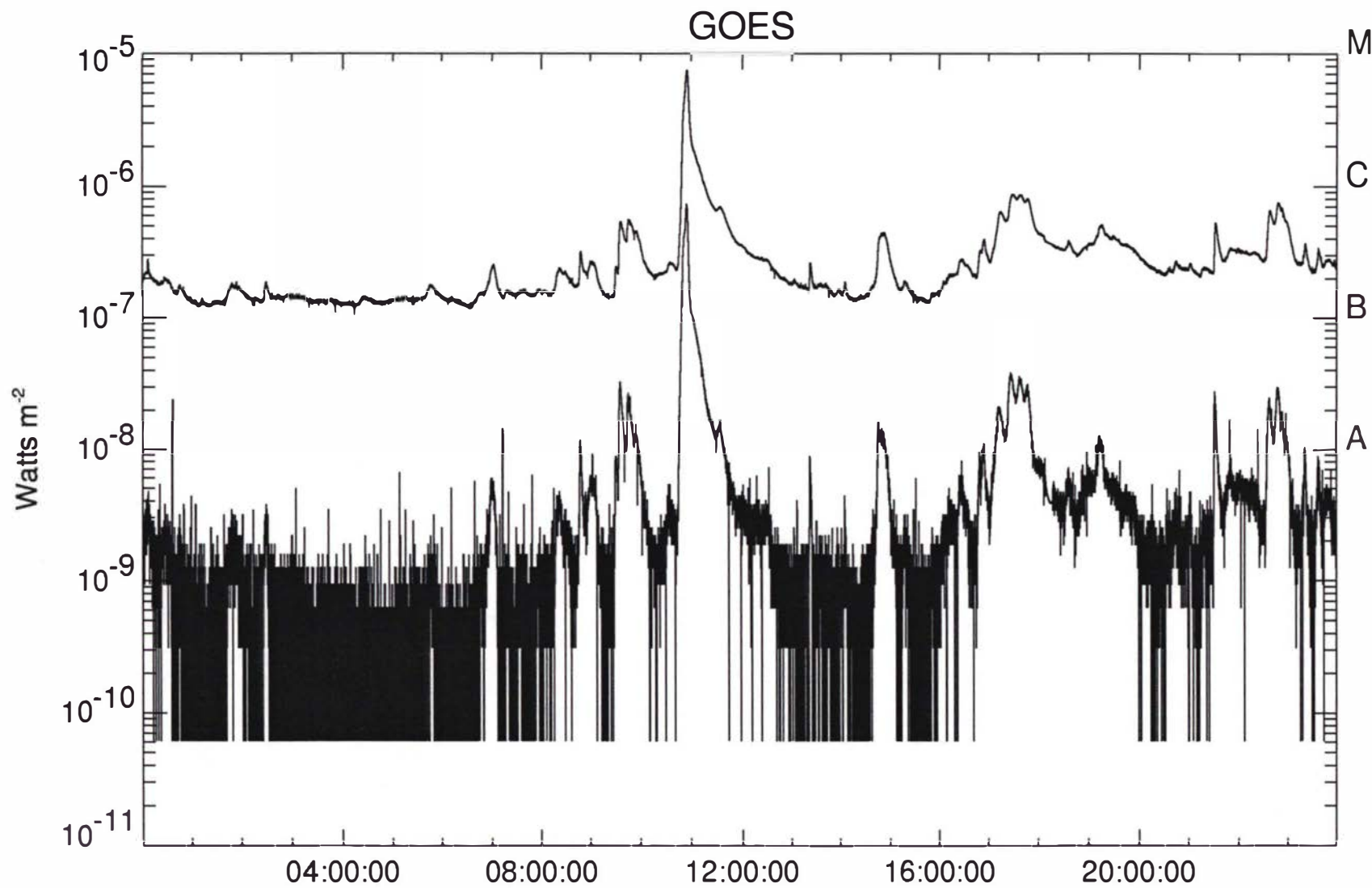
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



CALIBRATION DATA INCLUDED







Data Start: 95/01/24, 0000:01

Plot created: 95/01/26, 0514

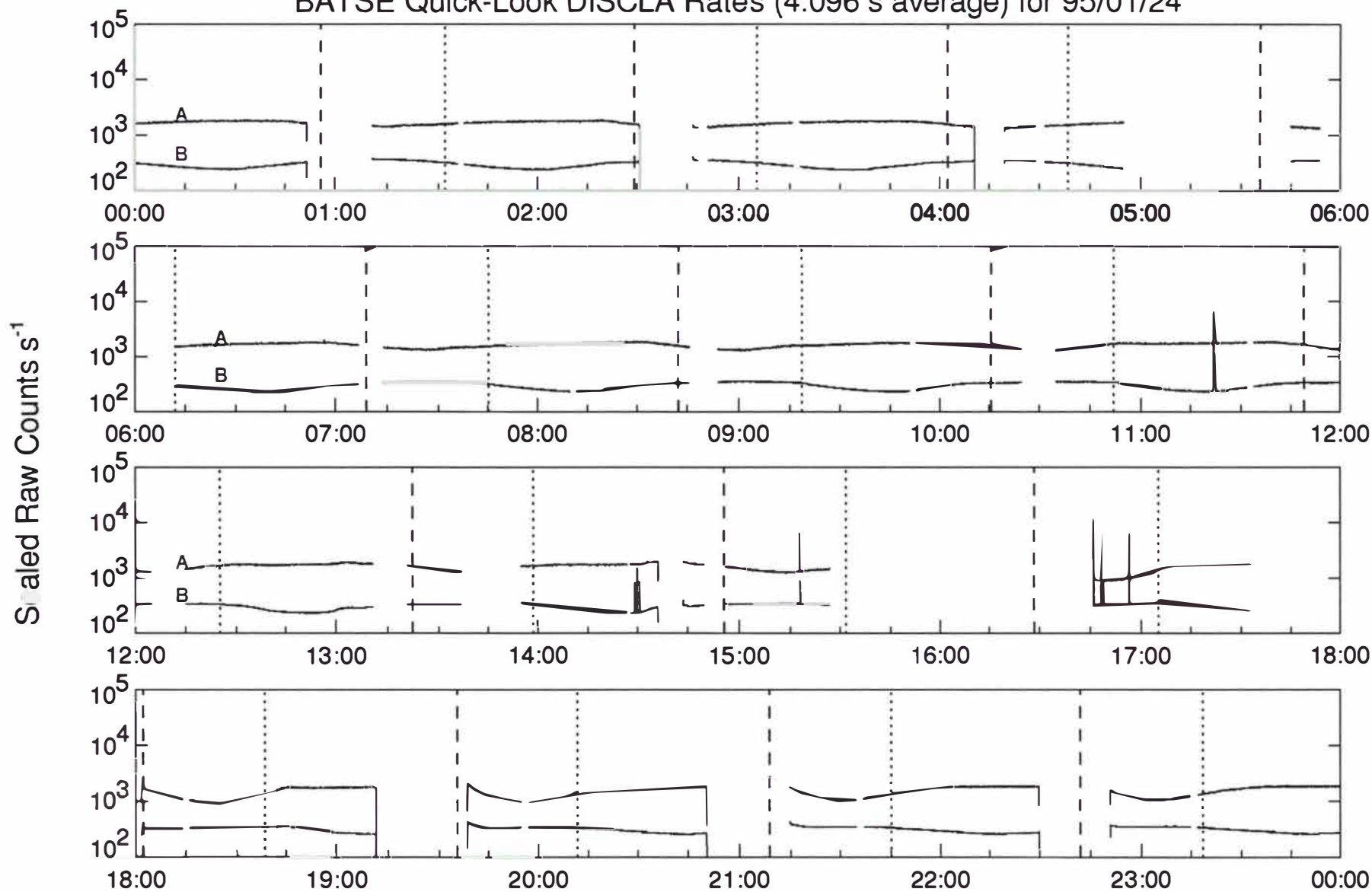
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/24

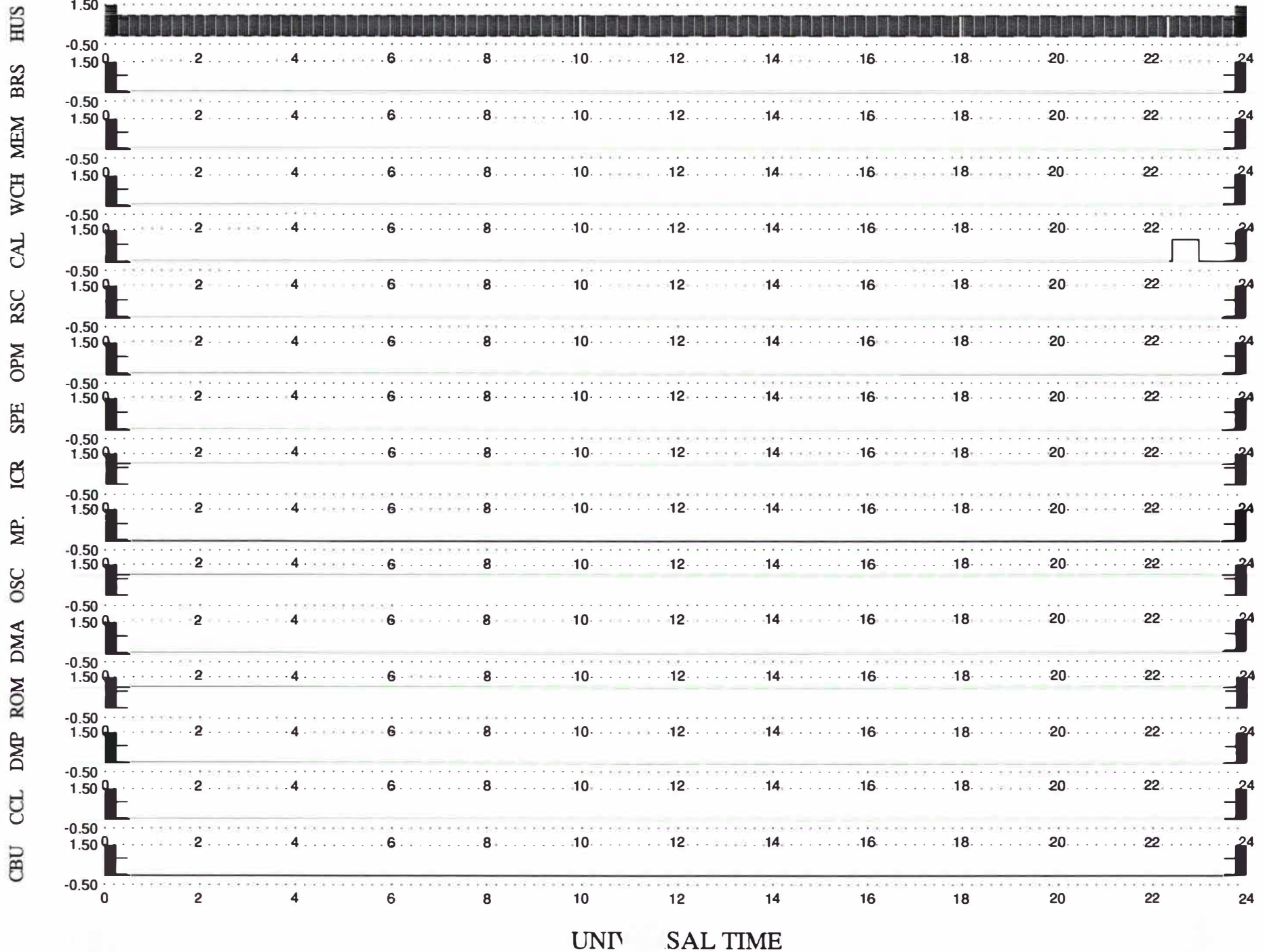


Current Time: 95/01/26, 0515 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

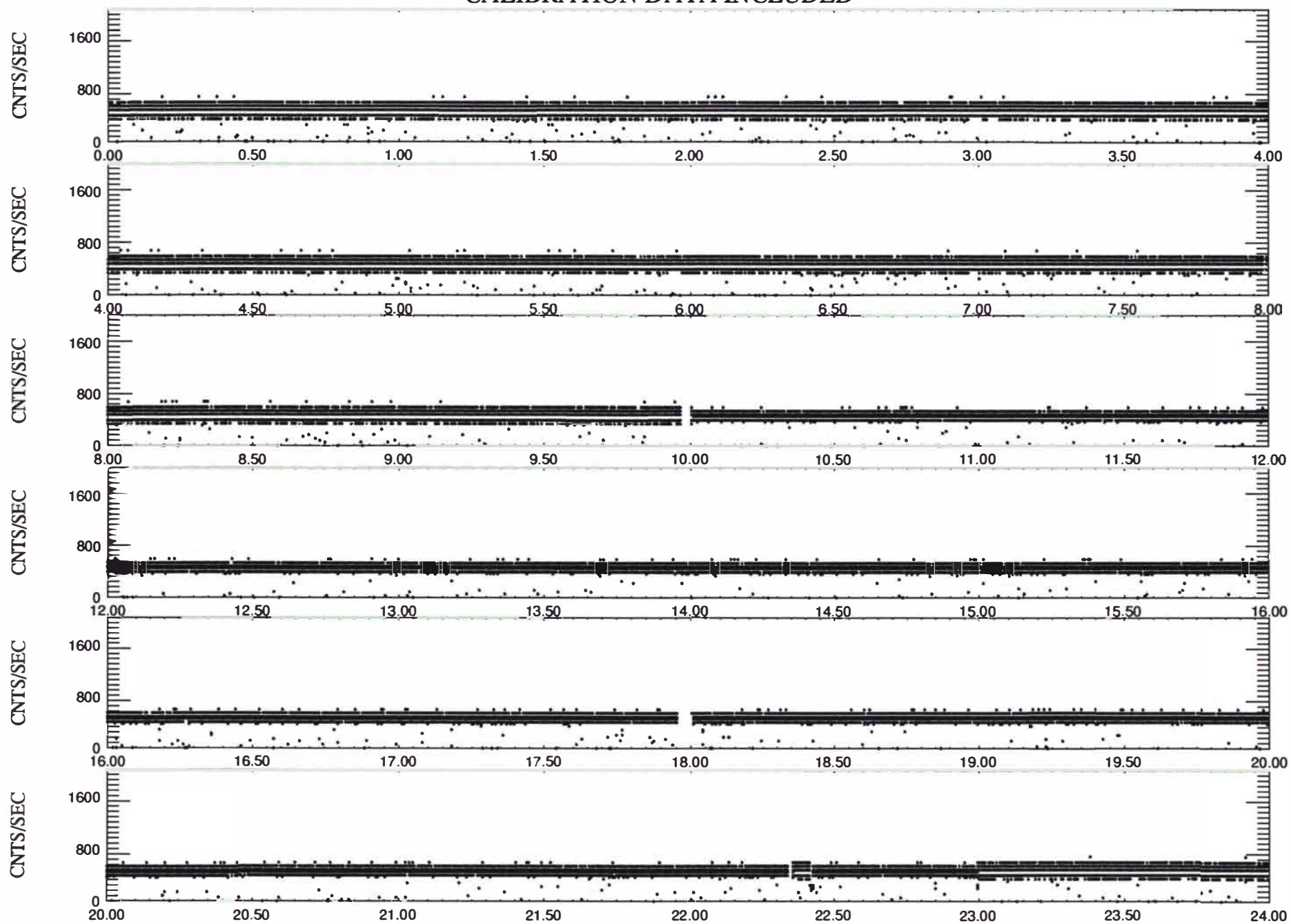
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

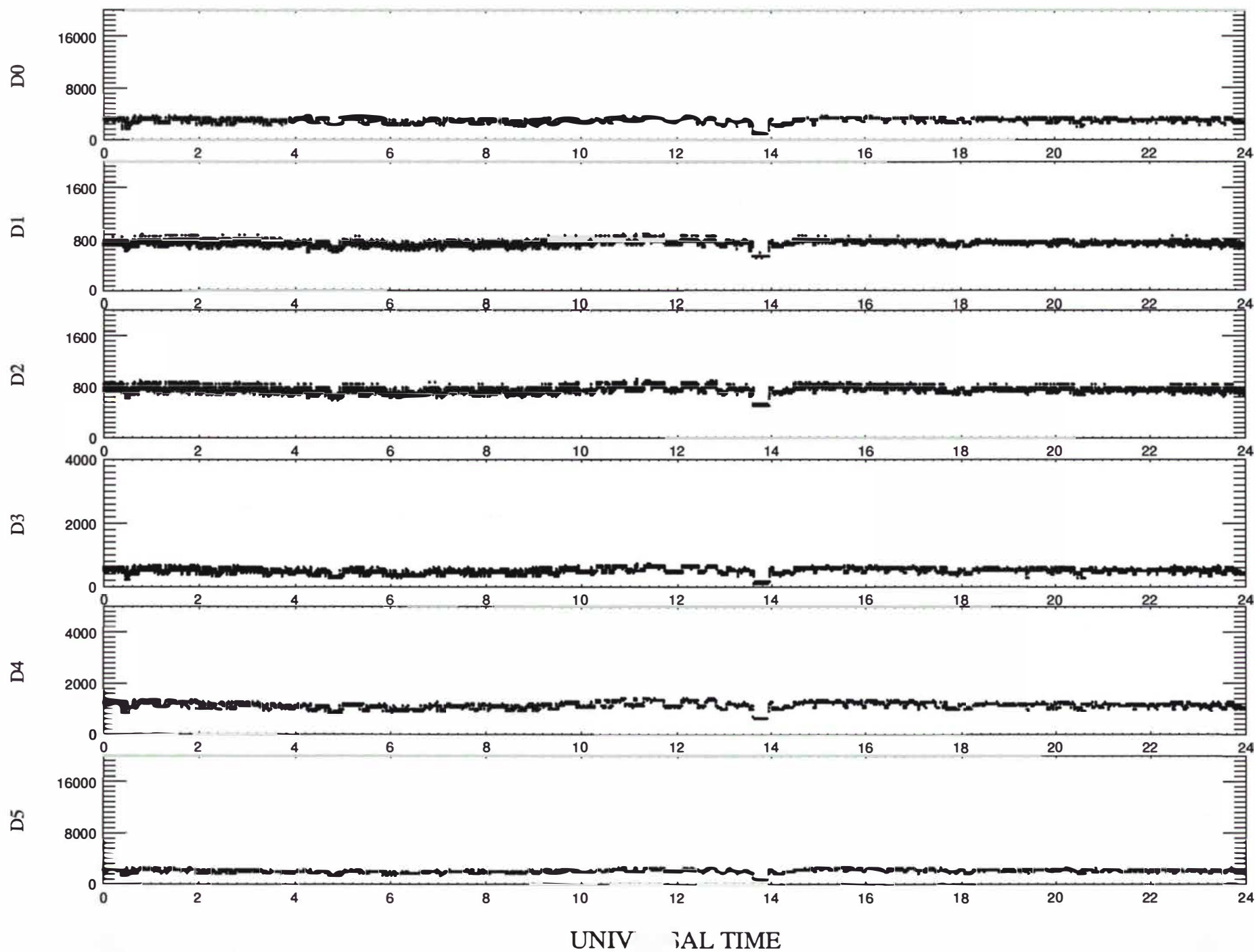
NO BURST (11)



CALIBRATION DATA INCLUDED



UNF \SAL TIME



Date: Aug 12 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)?
- ☐ BATSE ephemeris for T_0 ?
- ☐ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included?

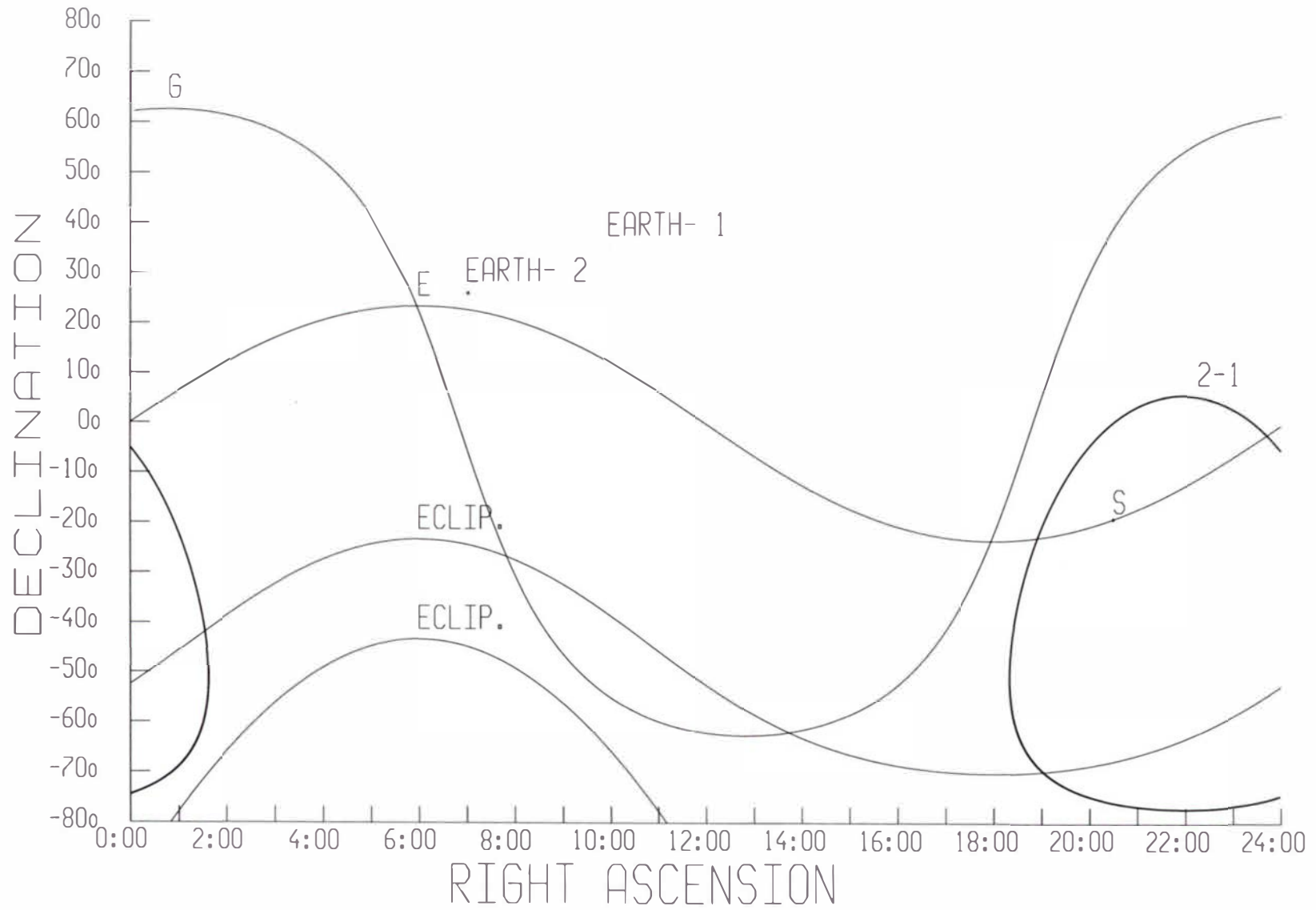
3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

EVENT OF JAN 25, 1995 14:36

12/08/2011

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



KONUS 19950125 52644

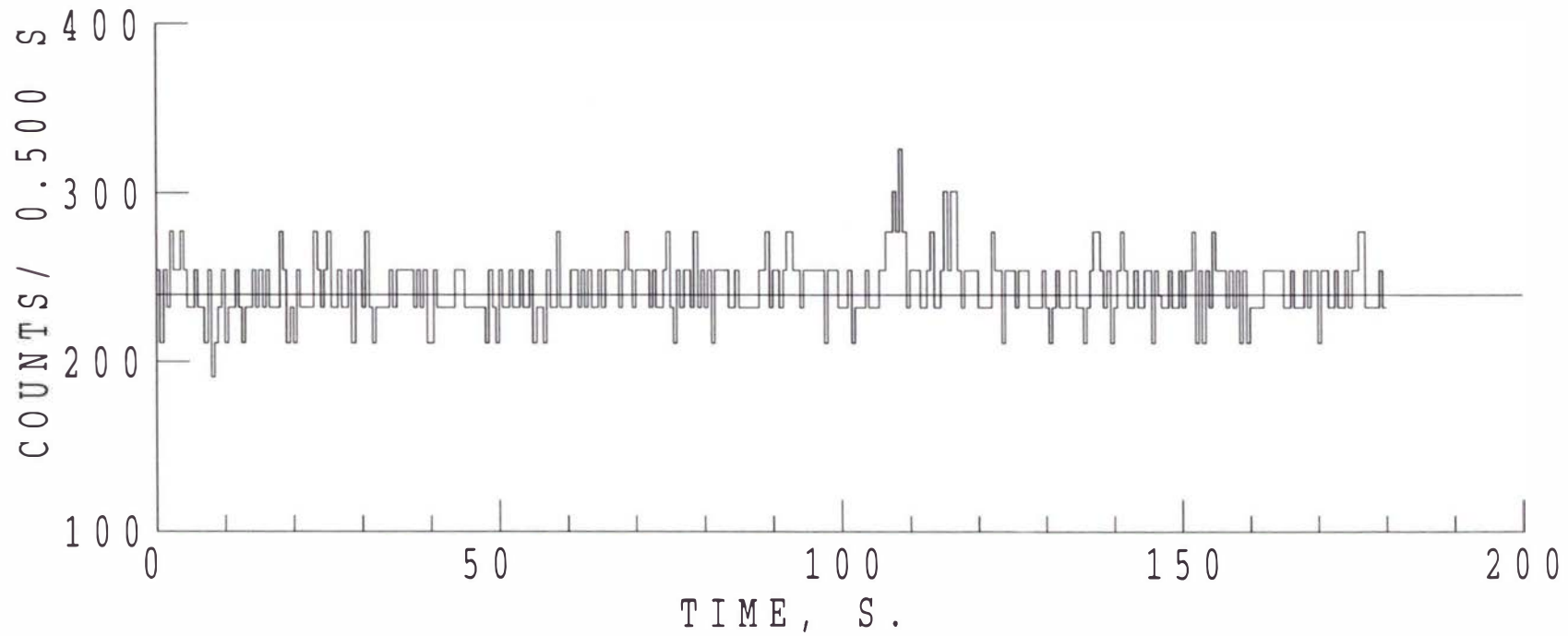
ULYSSES RT

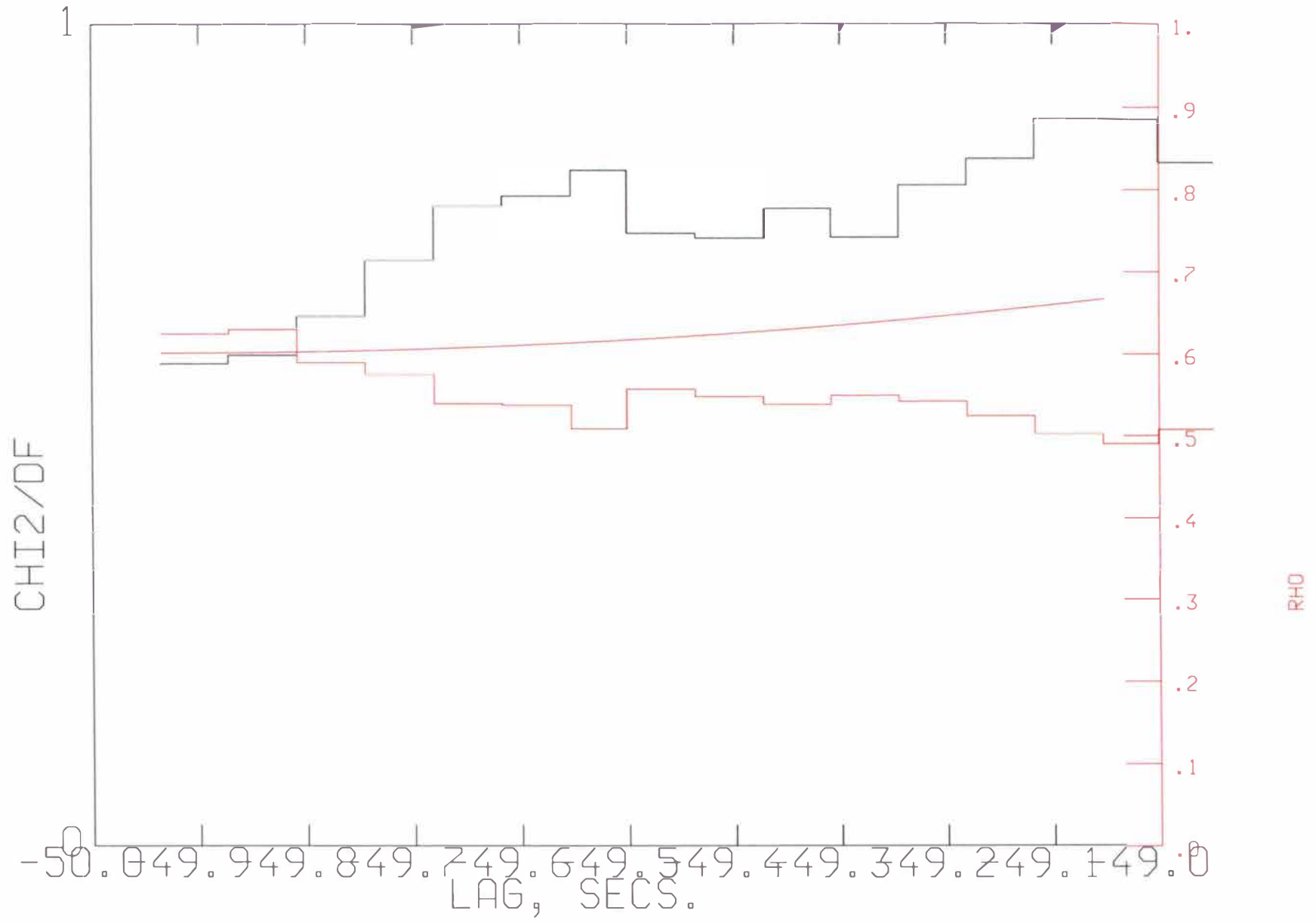
11 / 08 / 11

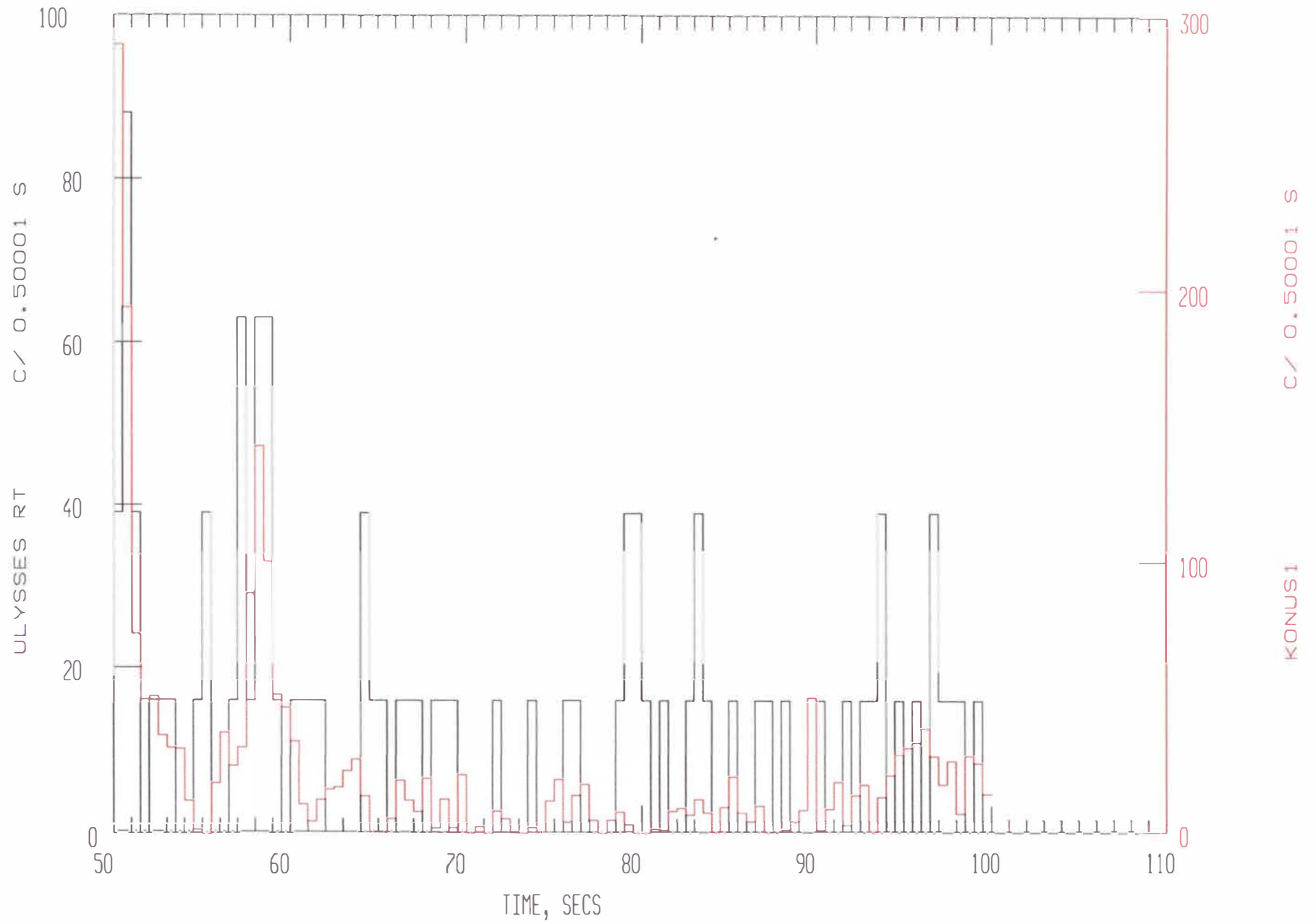
25/01/95 52560.461 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS







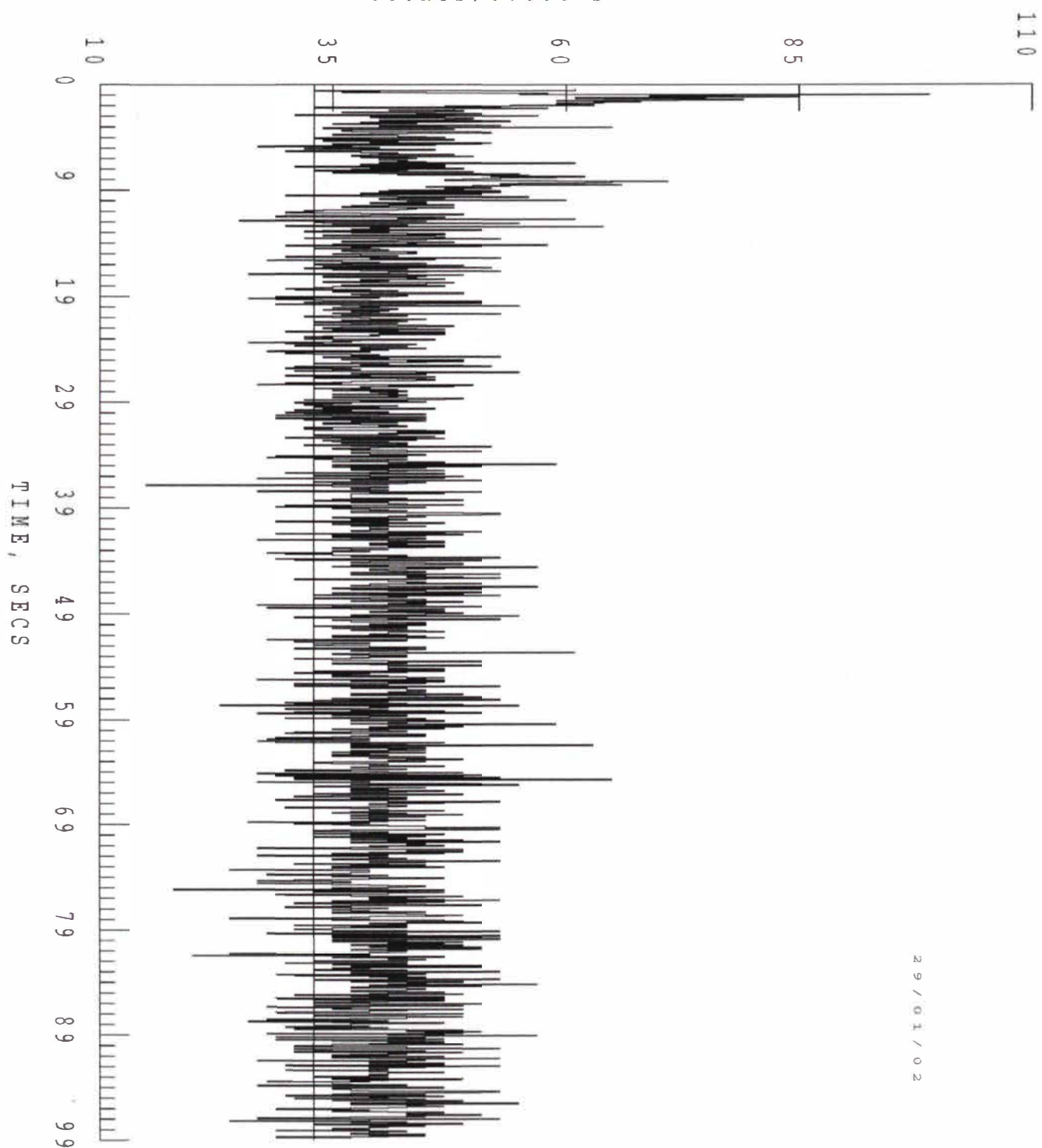
KONUS1

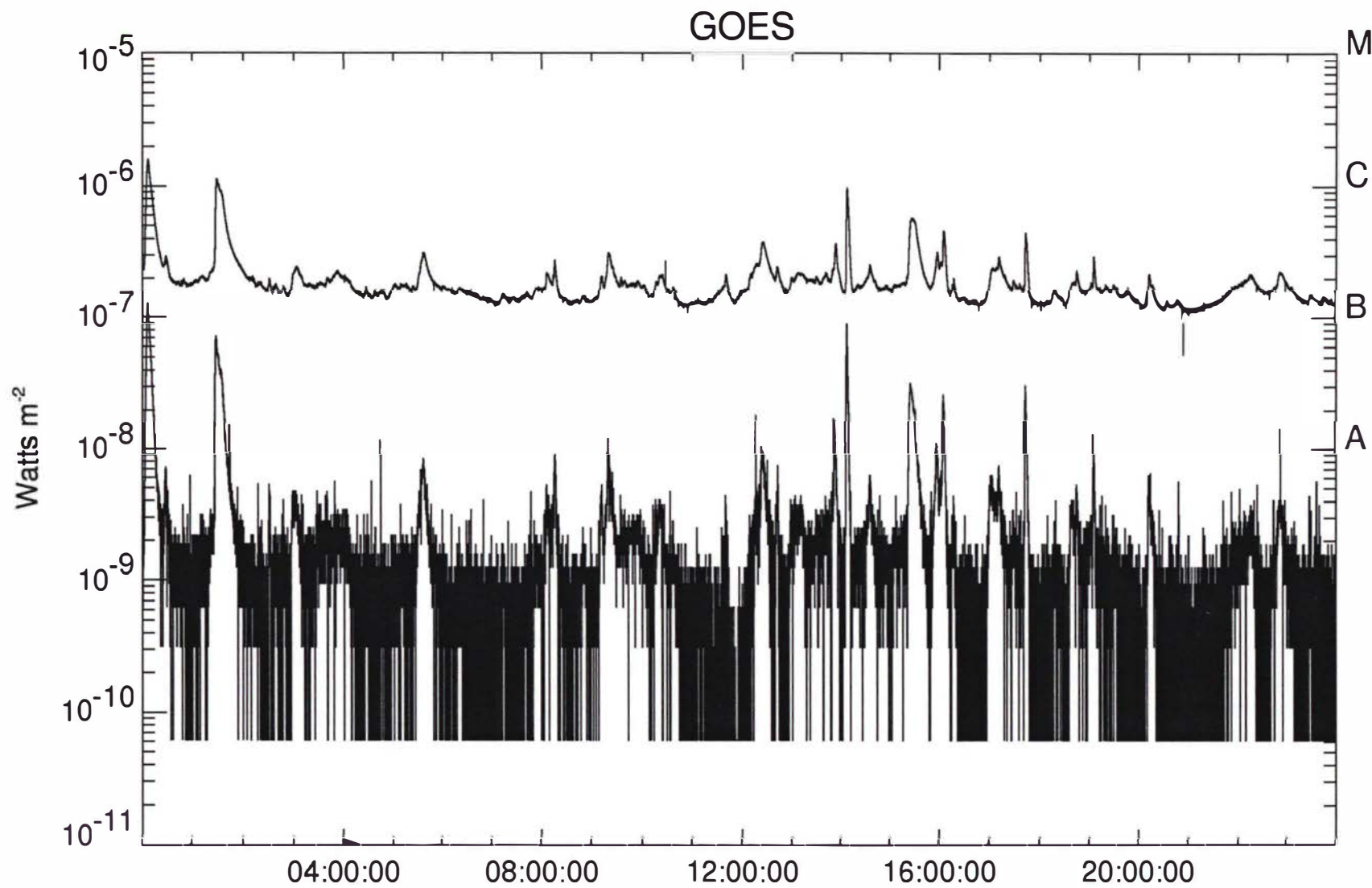
25/01/95

53512.253

50 - 200 keV

COUNTS/0.064 S





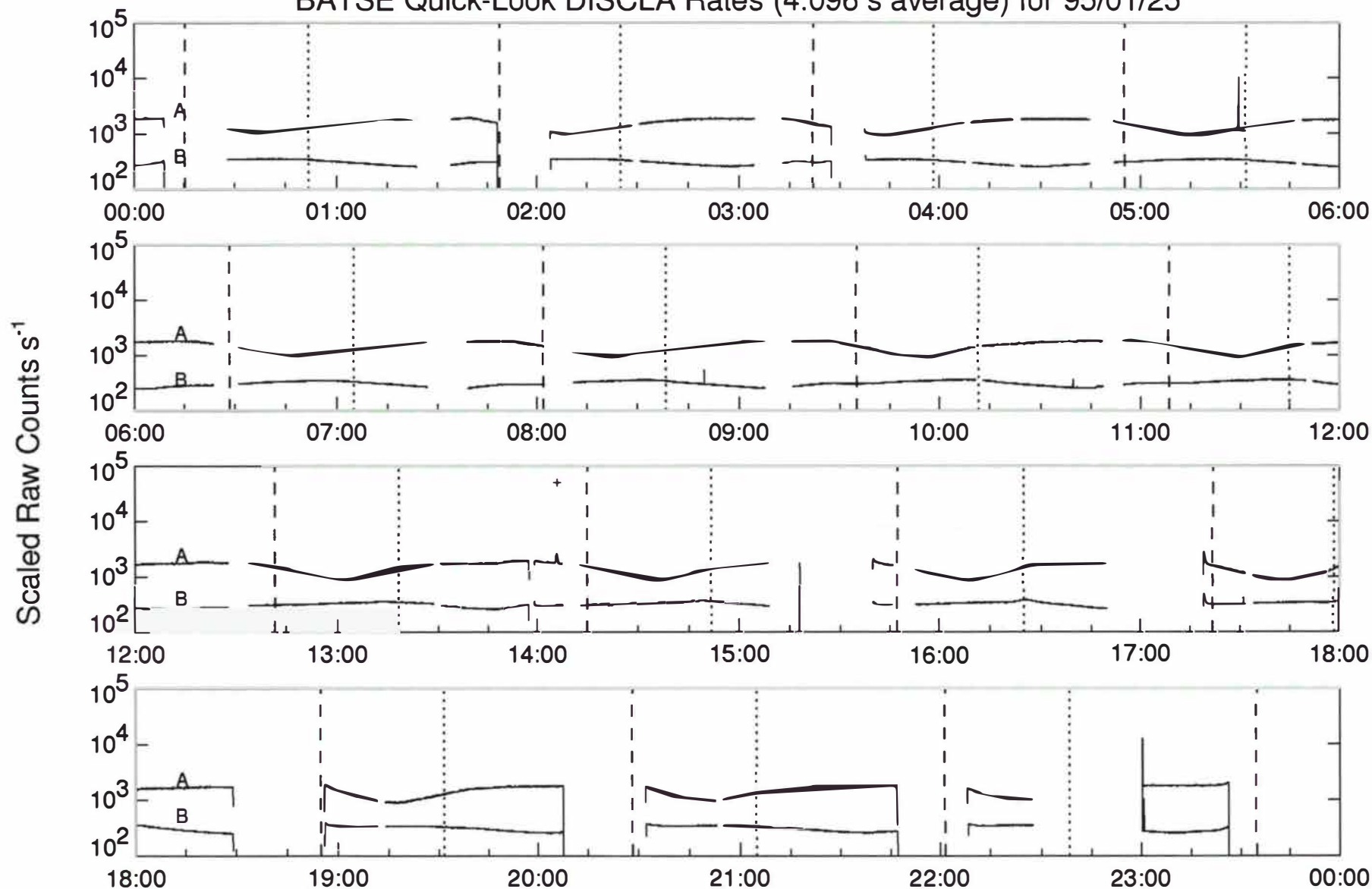
Data Start: 95/01/25, 0000:02

Plot created: 95/01/27, 0514

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/25

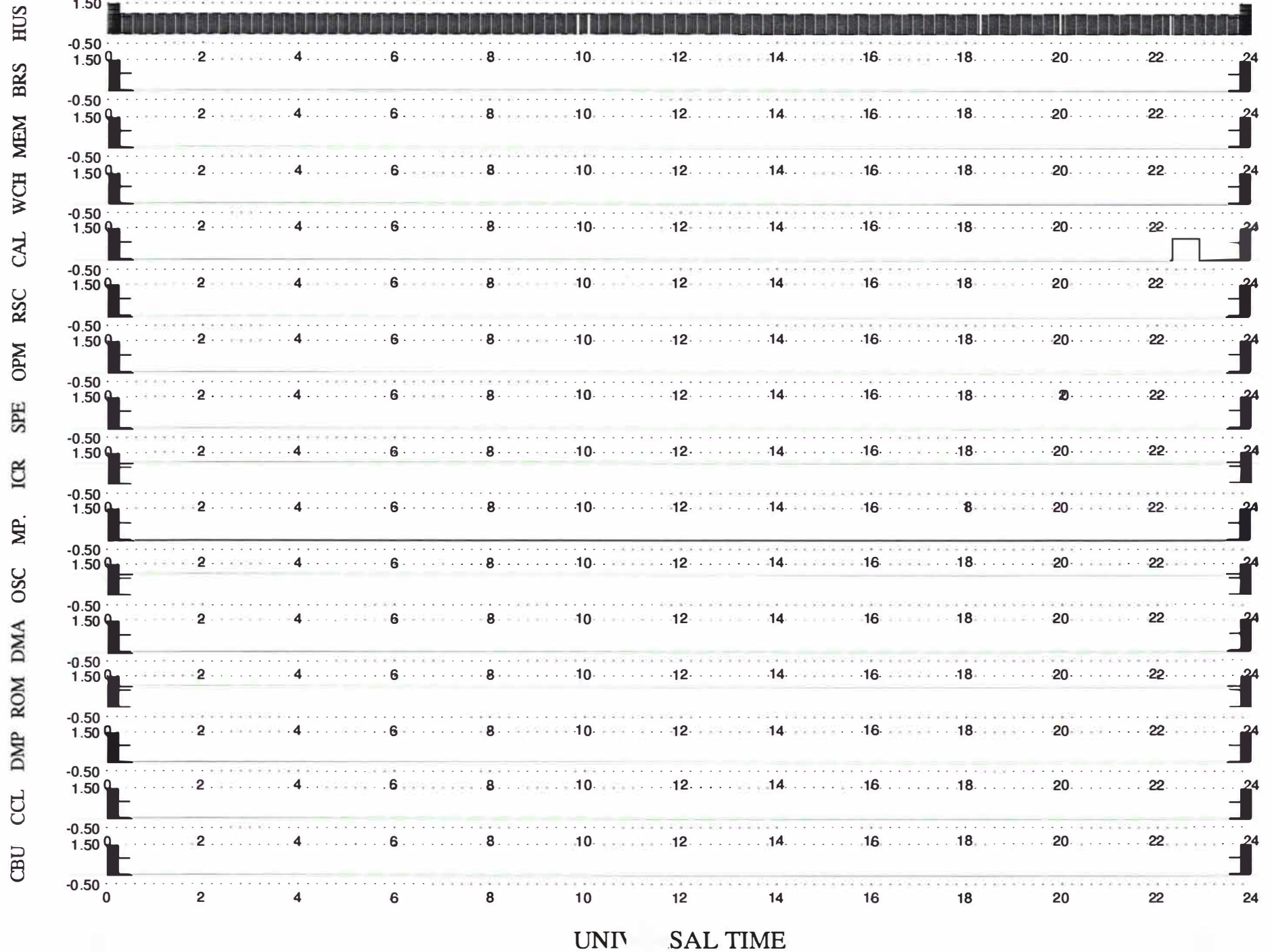


Current Time: 95/01/27, 0514 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

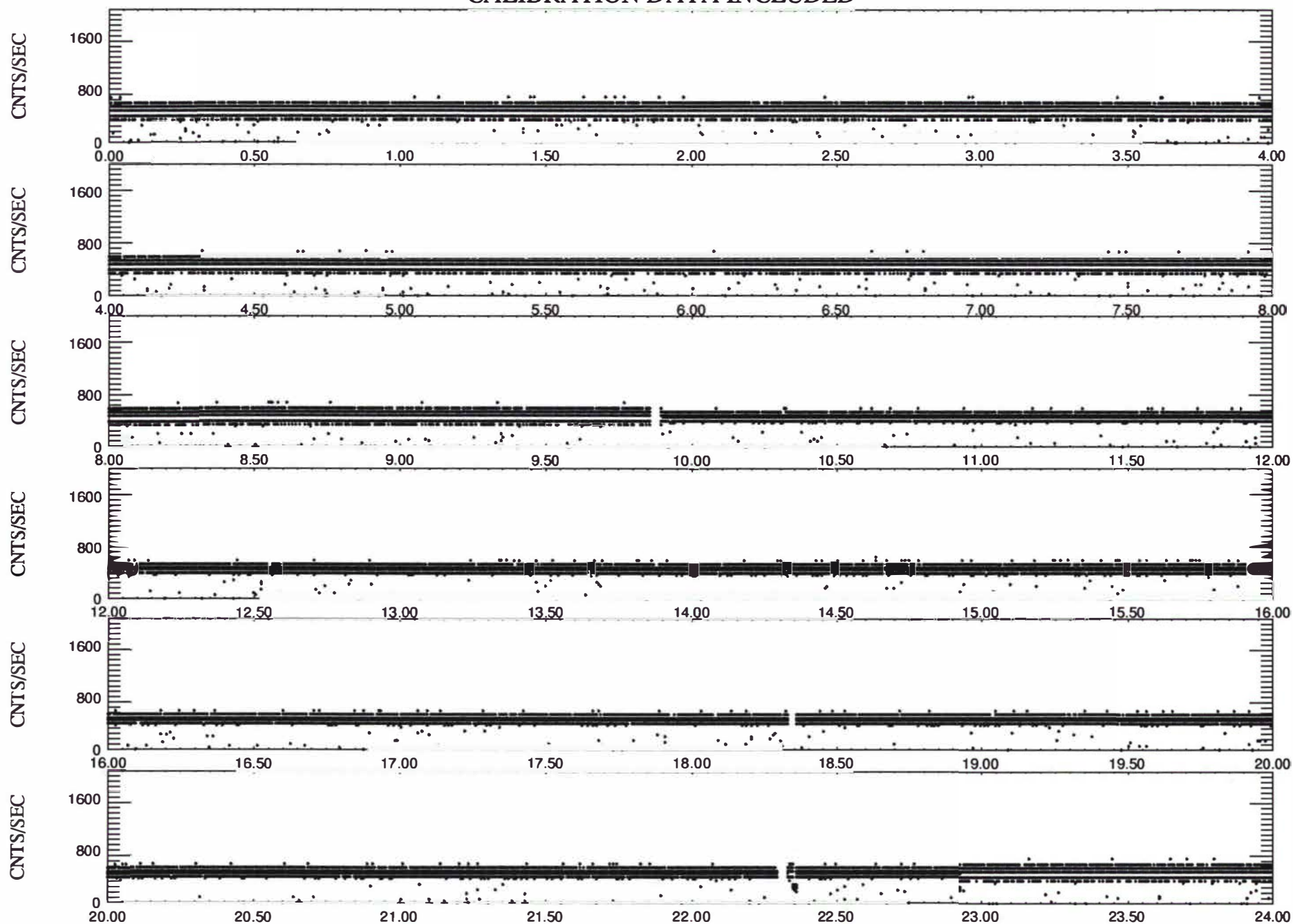
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

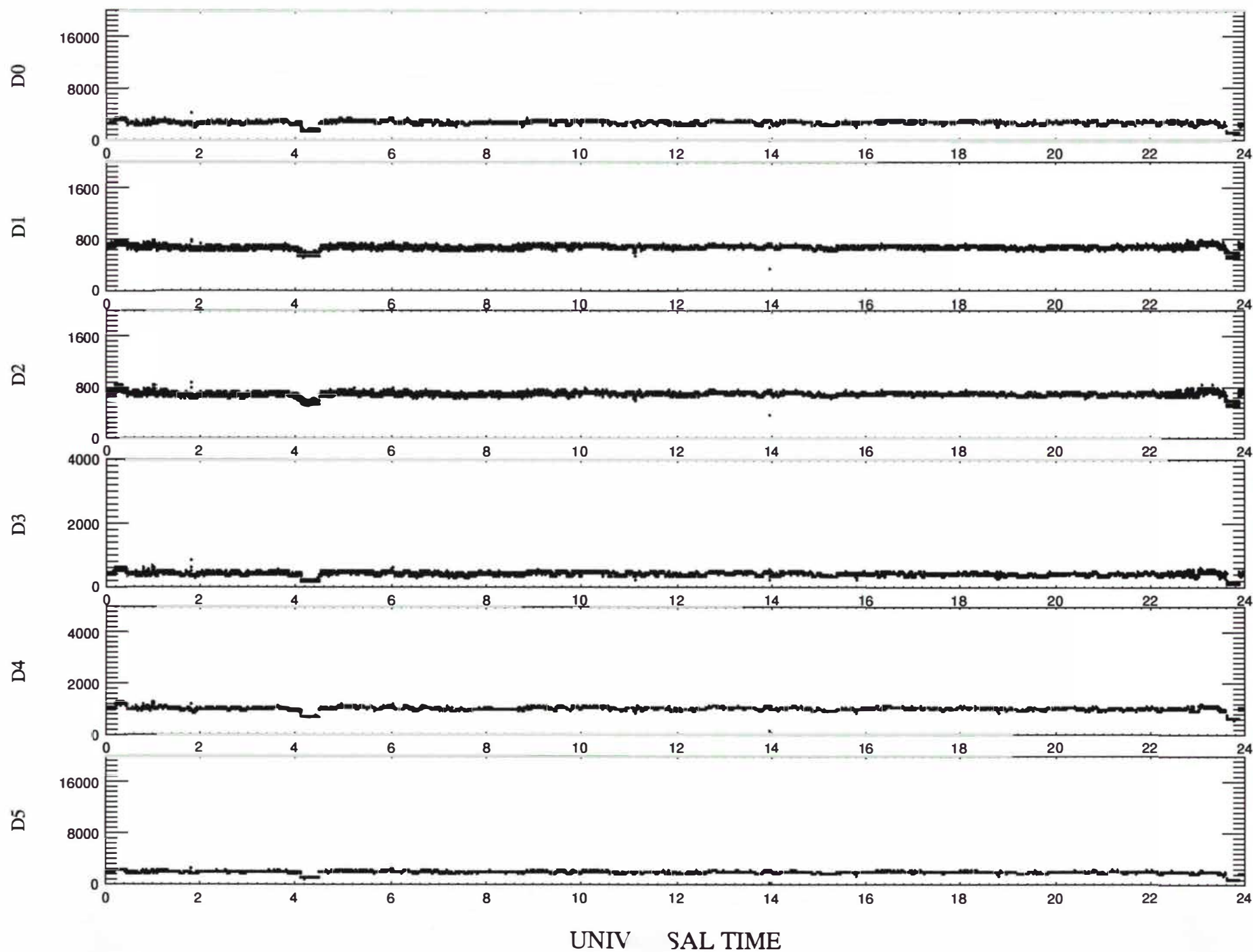
NO BURST (11)

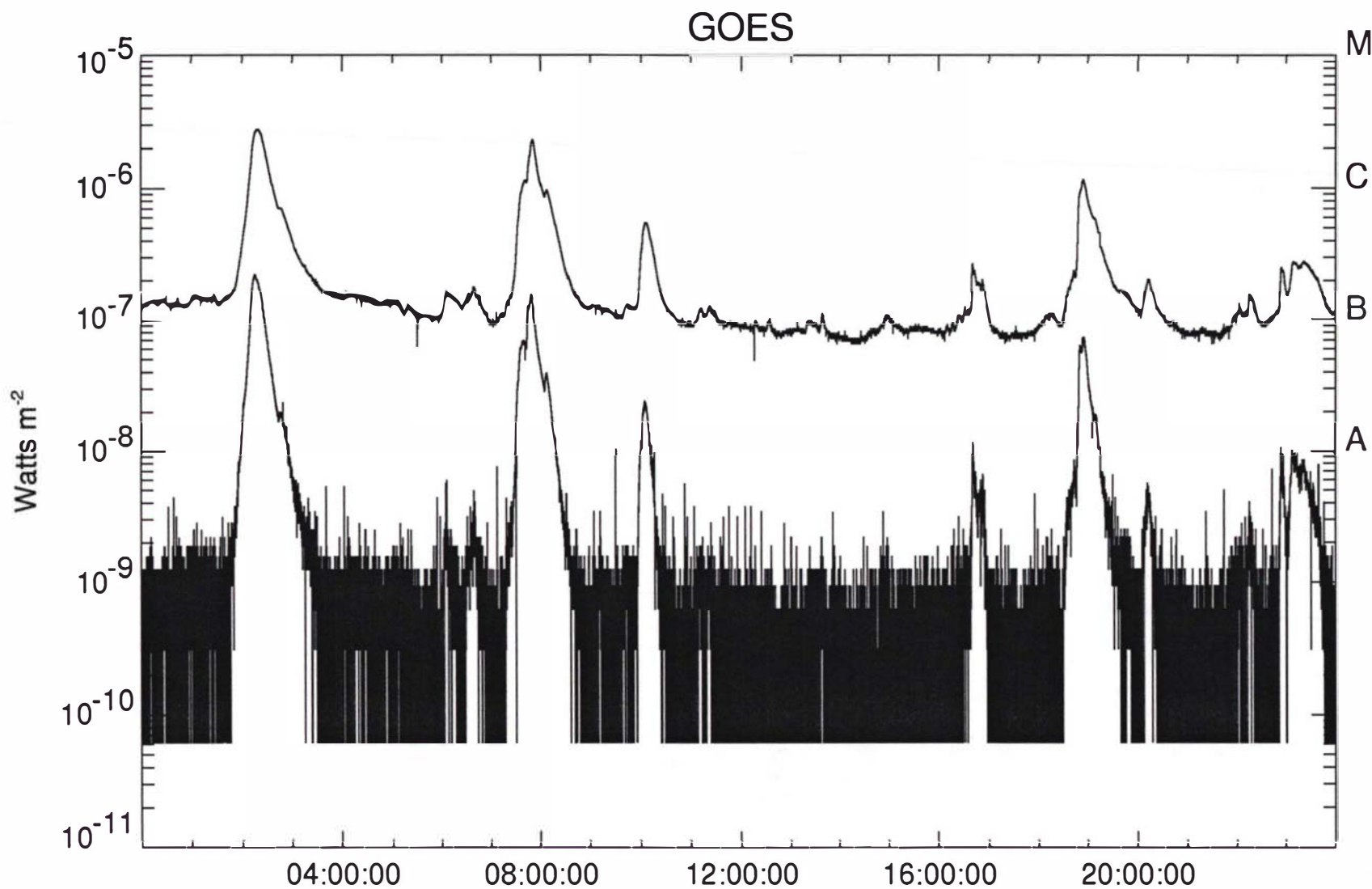


CALIBRATION DATA INCLUDED



UNIT SAL TIME





Data Start: 95/01/26, 0000:00

Plot created: 95/01/28, 0514

Channel

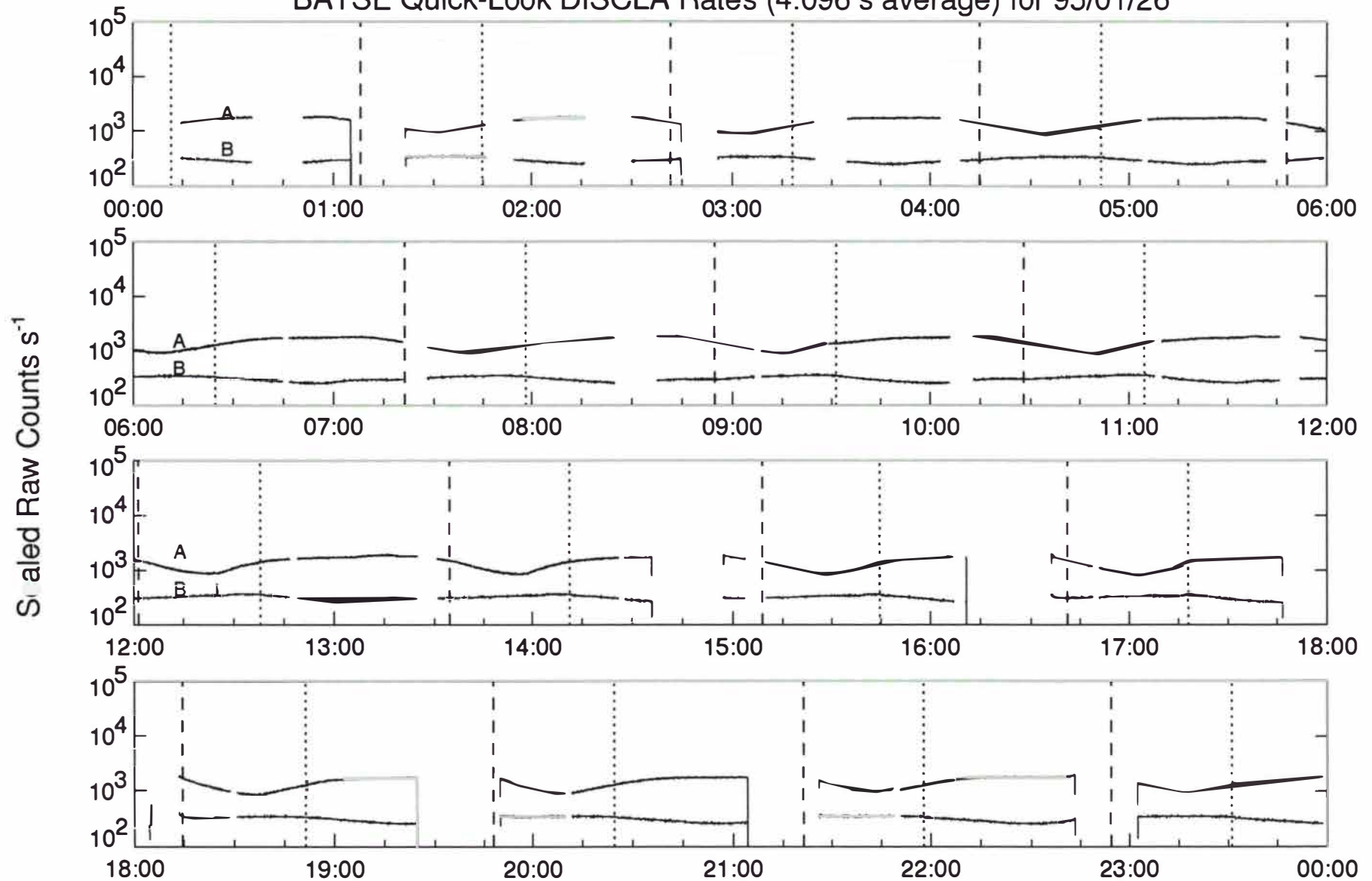
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/26

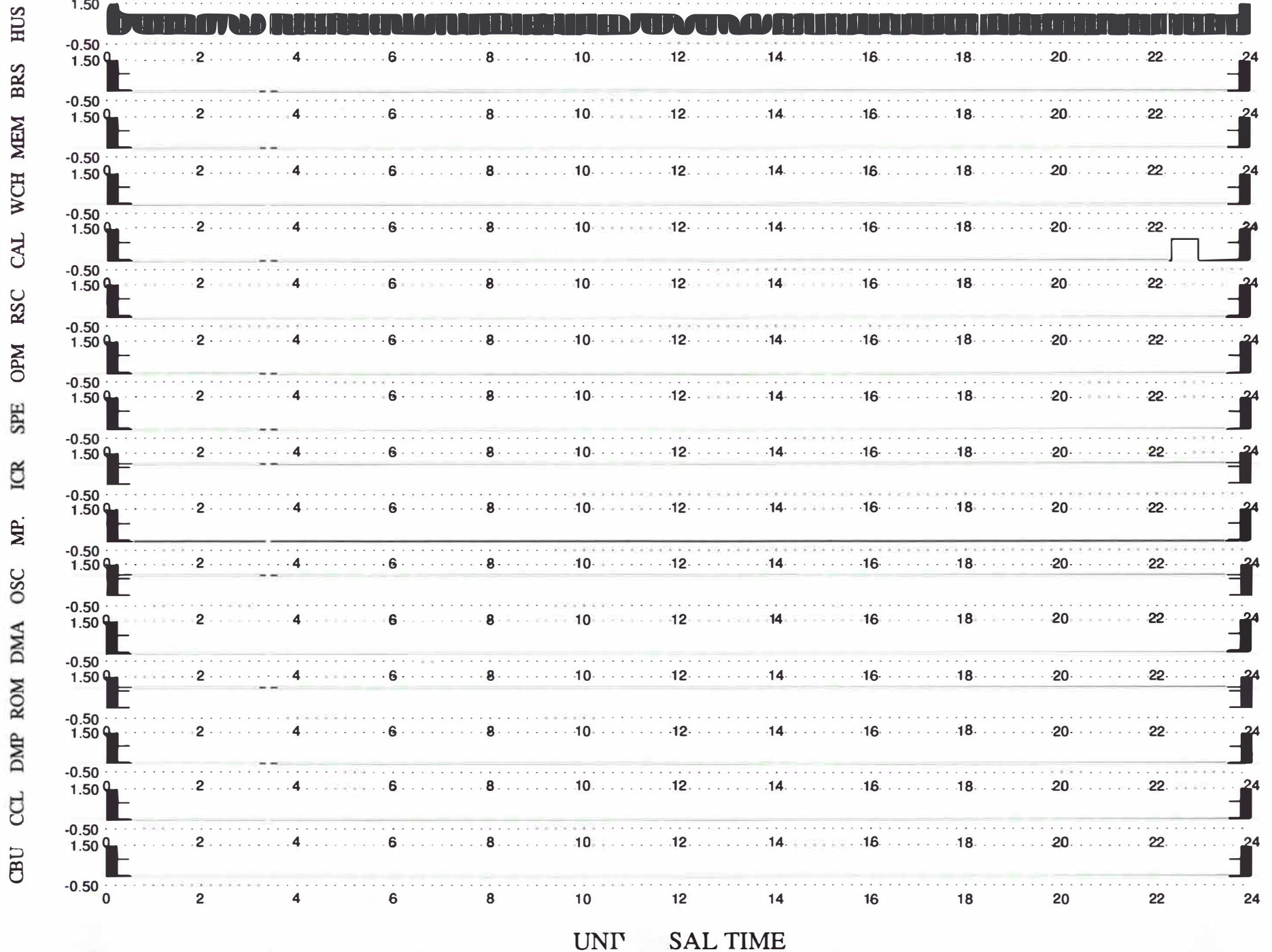


Current Time: 95/01/28, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

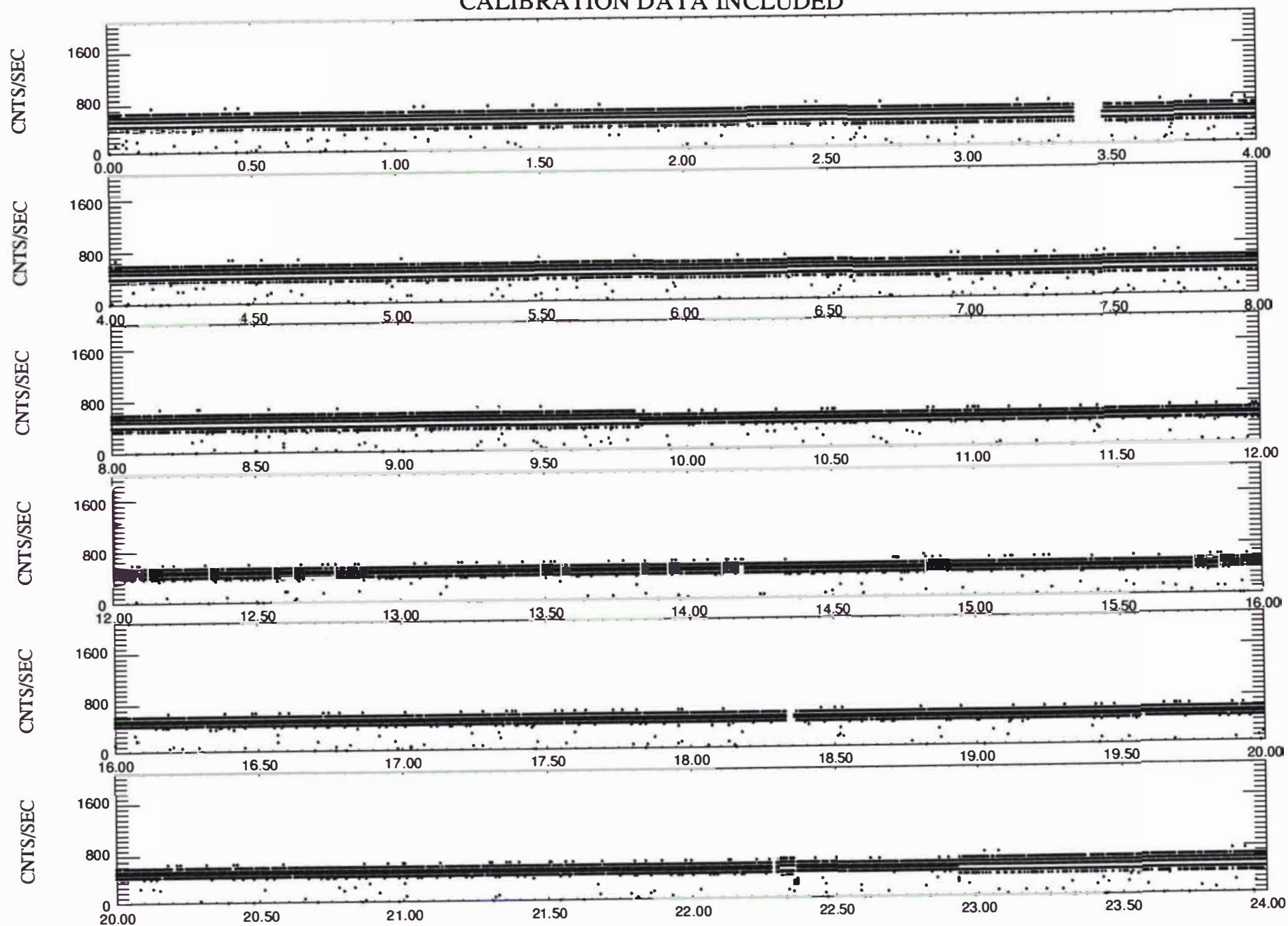
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

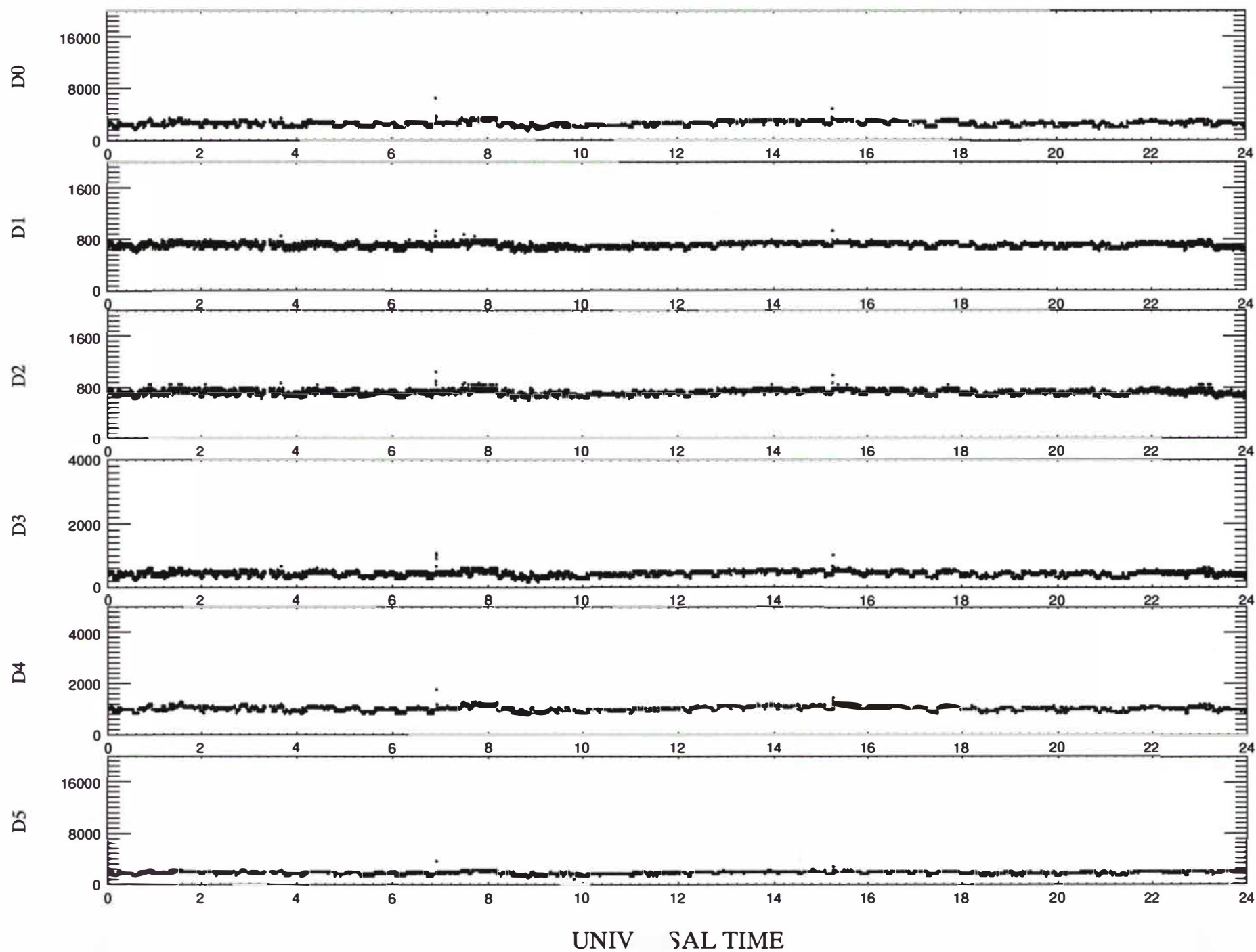
NO BURST (11)

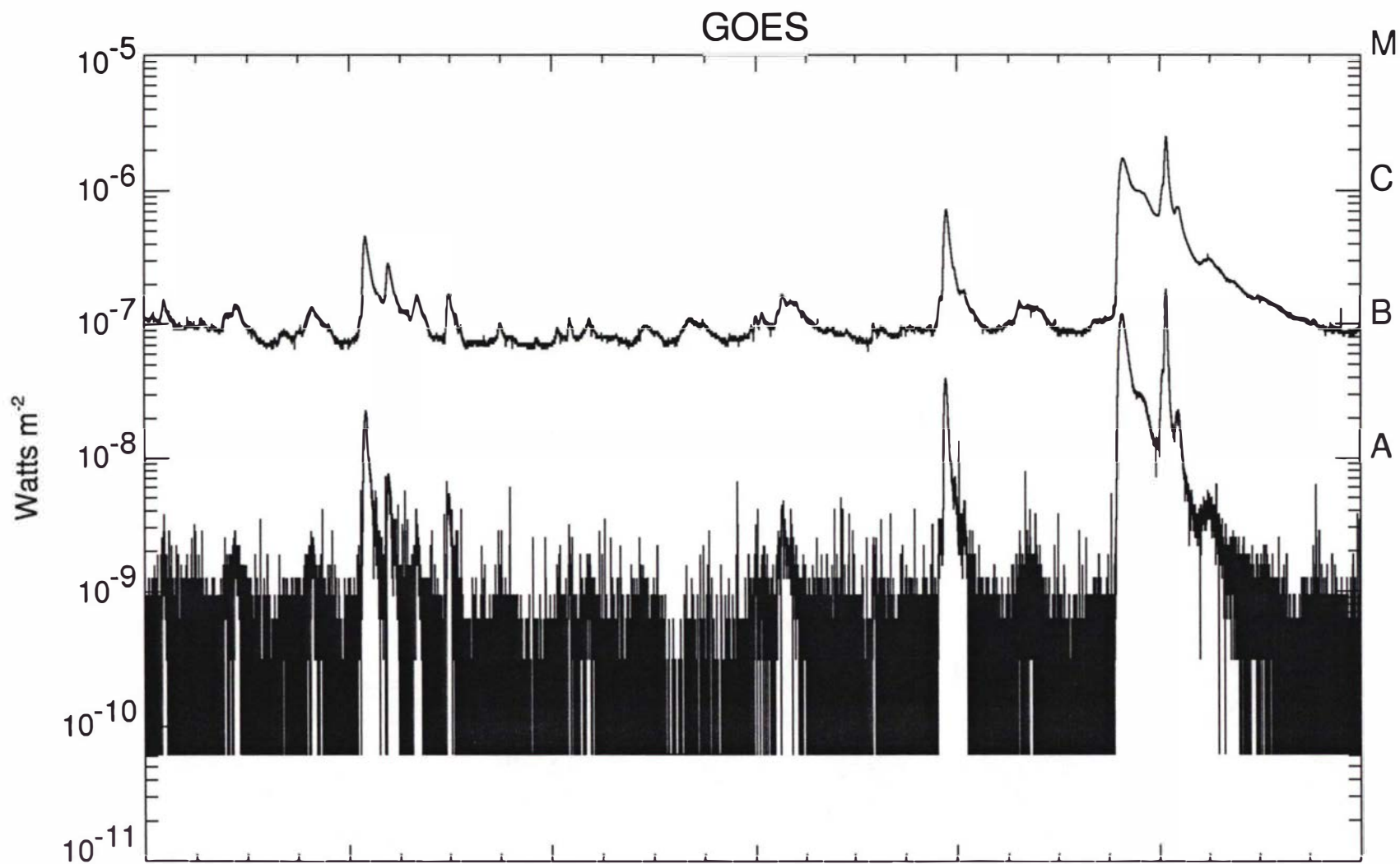


CALIBRATION DATA INCLUDED



UNT SAL TIME





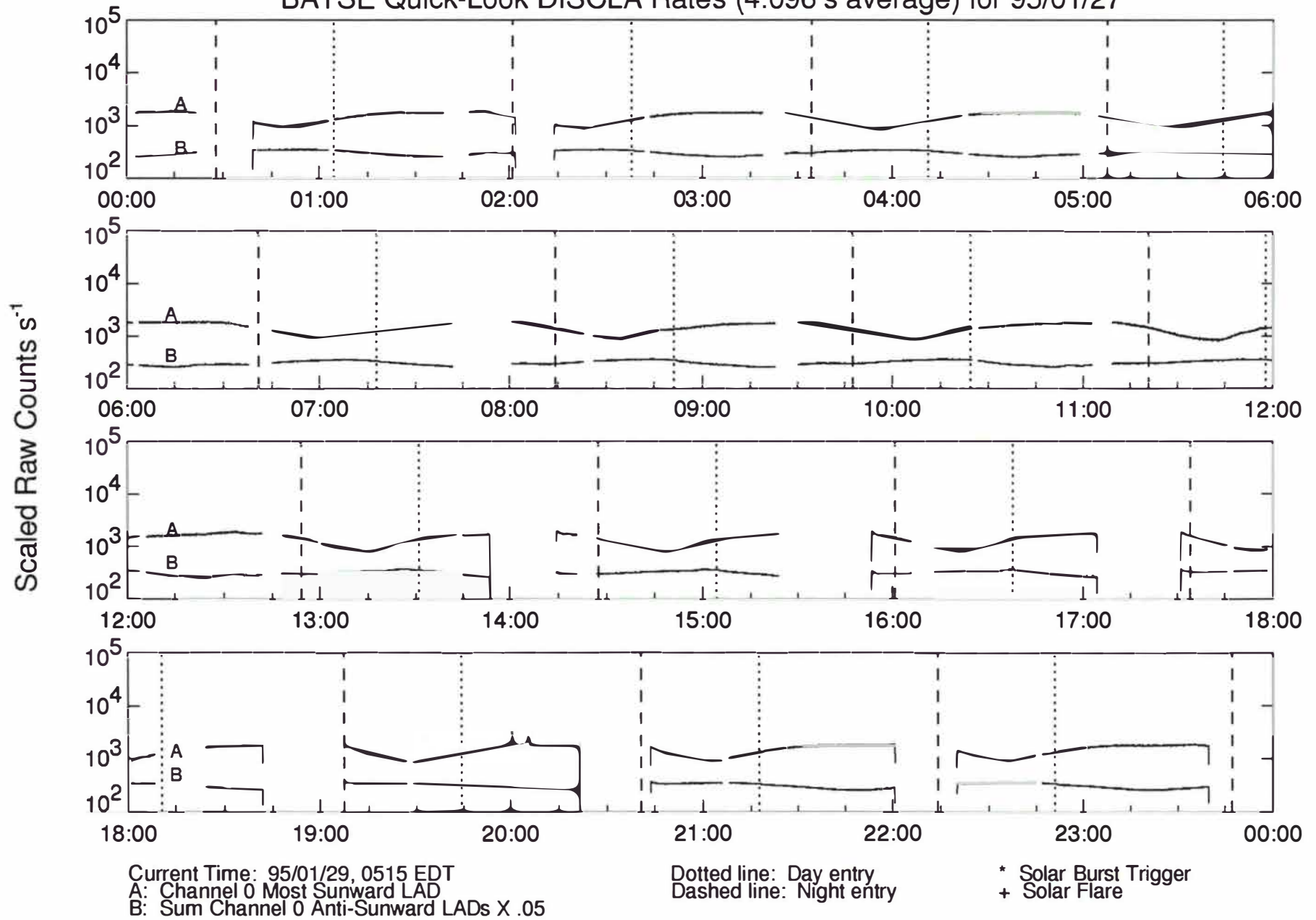
Data Start: 95/01/27, 0000:01

Plot created: 95/01/29, 0514

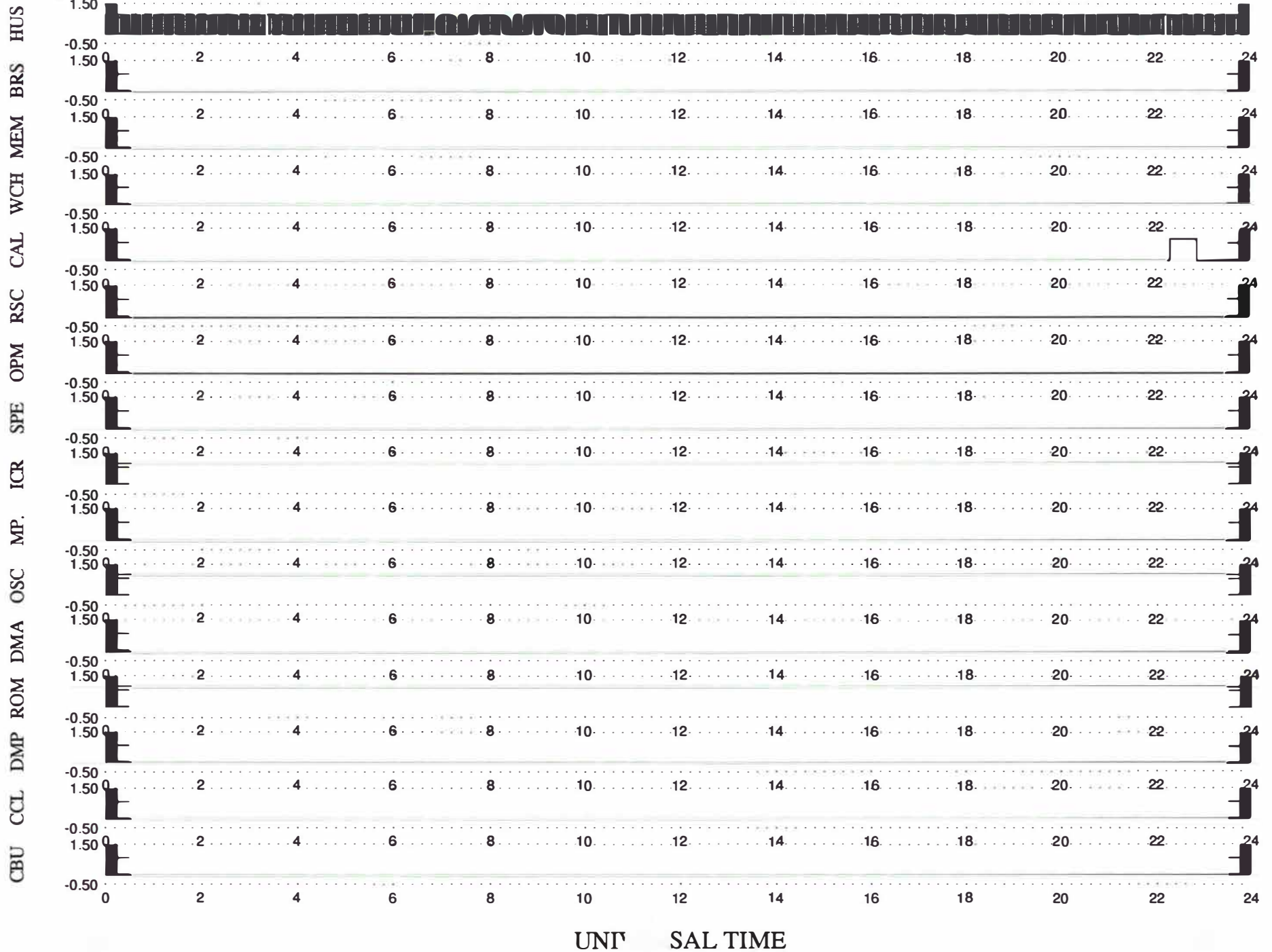
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

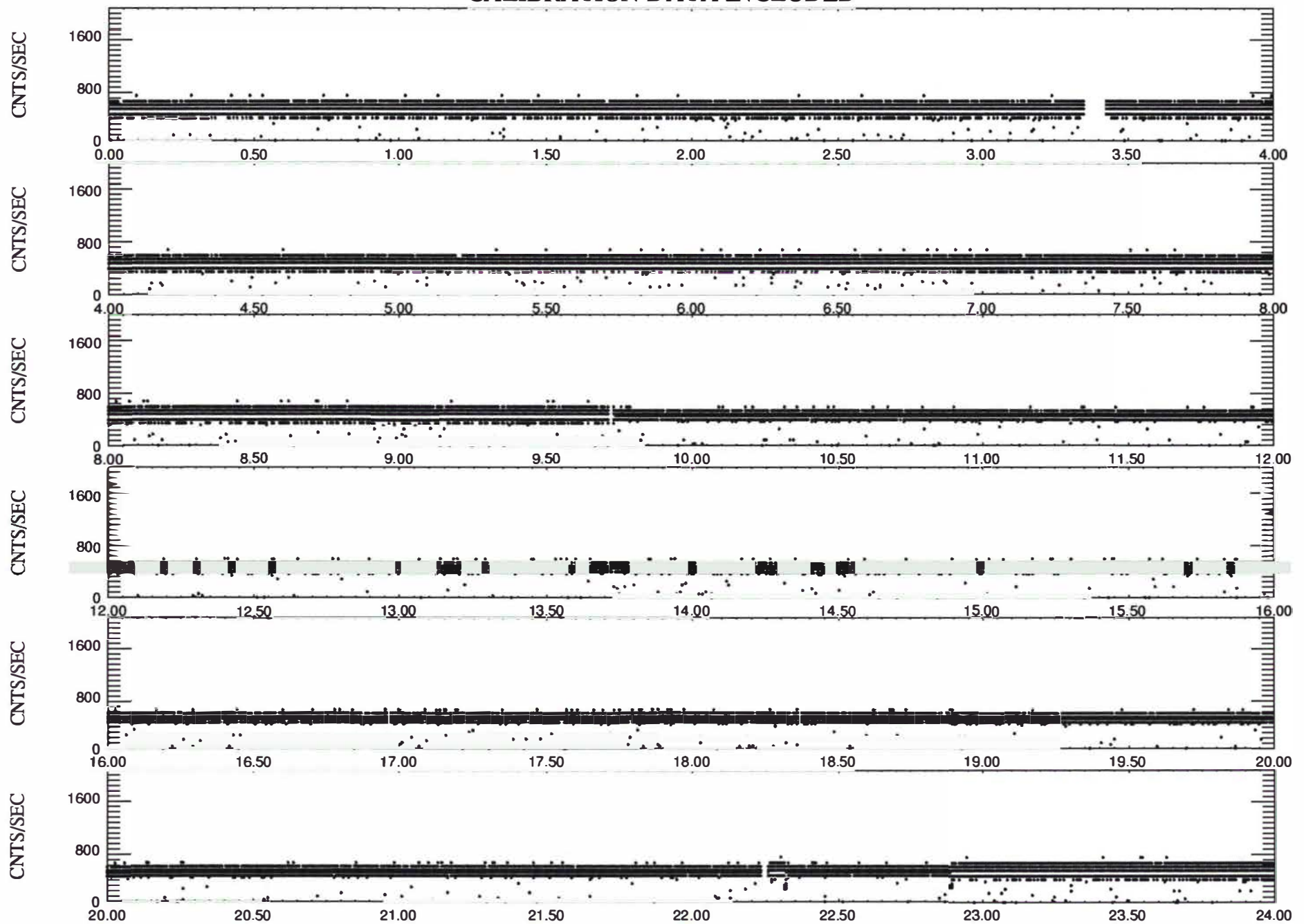
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/27



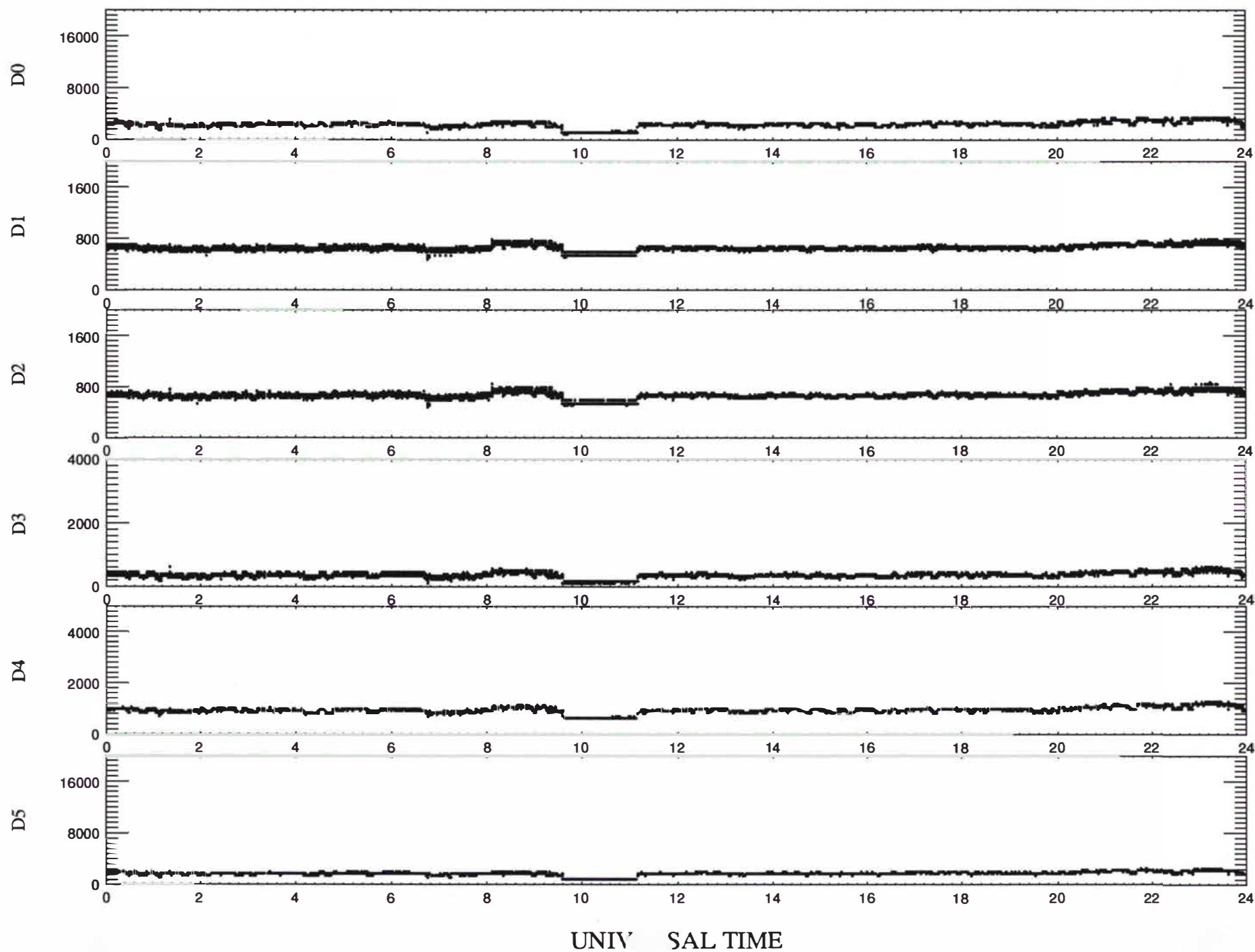
NO BURST (11)



CALIBRATION DATA INCLUDED



UNT \SAL TIME



From DEAL@ssl.msfc.nasa.gov Mon Jan 30 06:17 PST 1995
Date: Mon, 30 Jan 1995 8:13:33 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3376

TIME: TJD=9745 SECONDS=47488

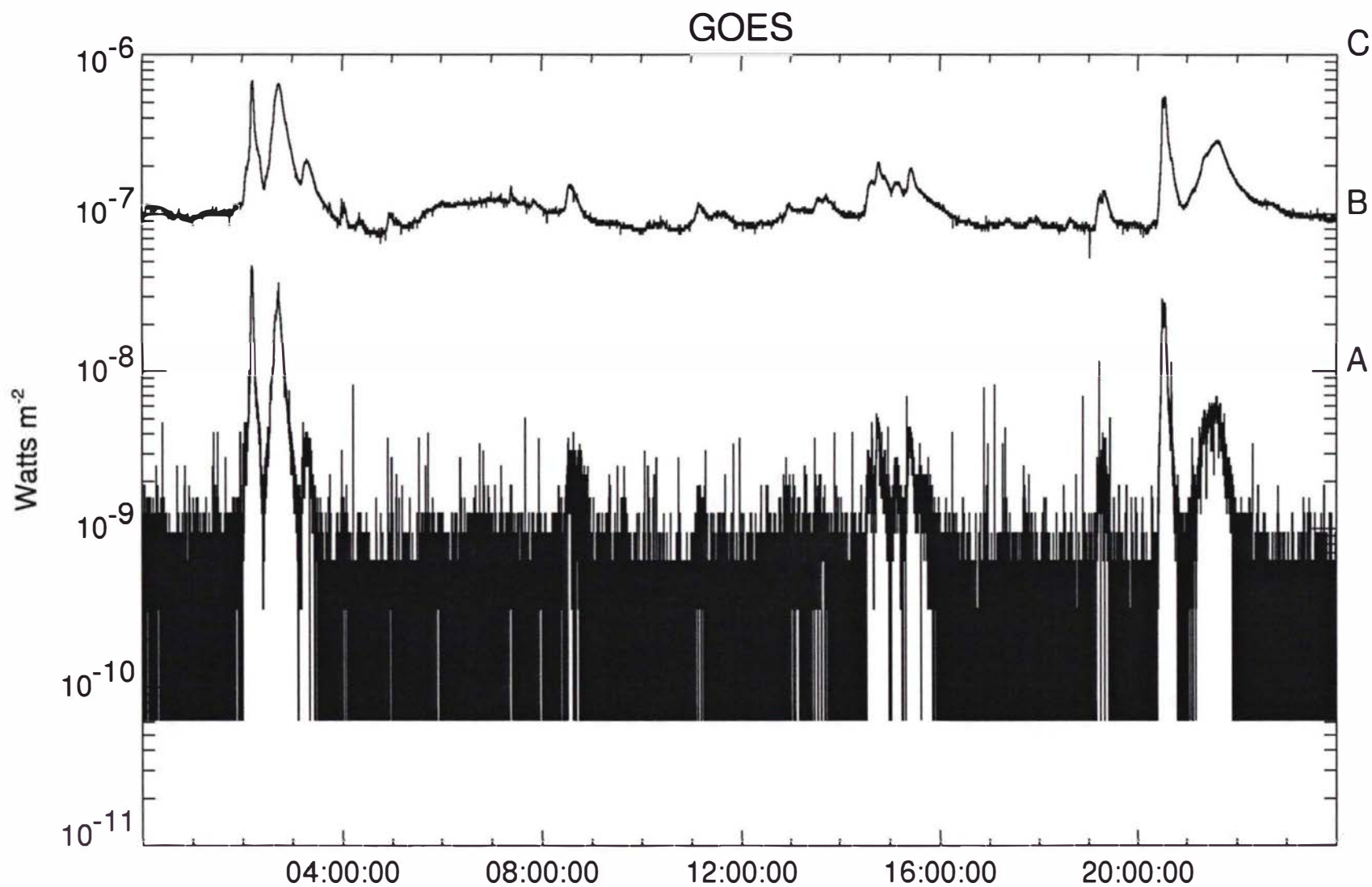
TYPE: SAA ENT SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY



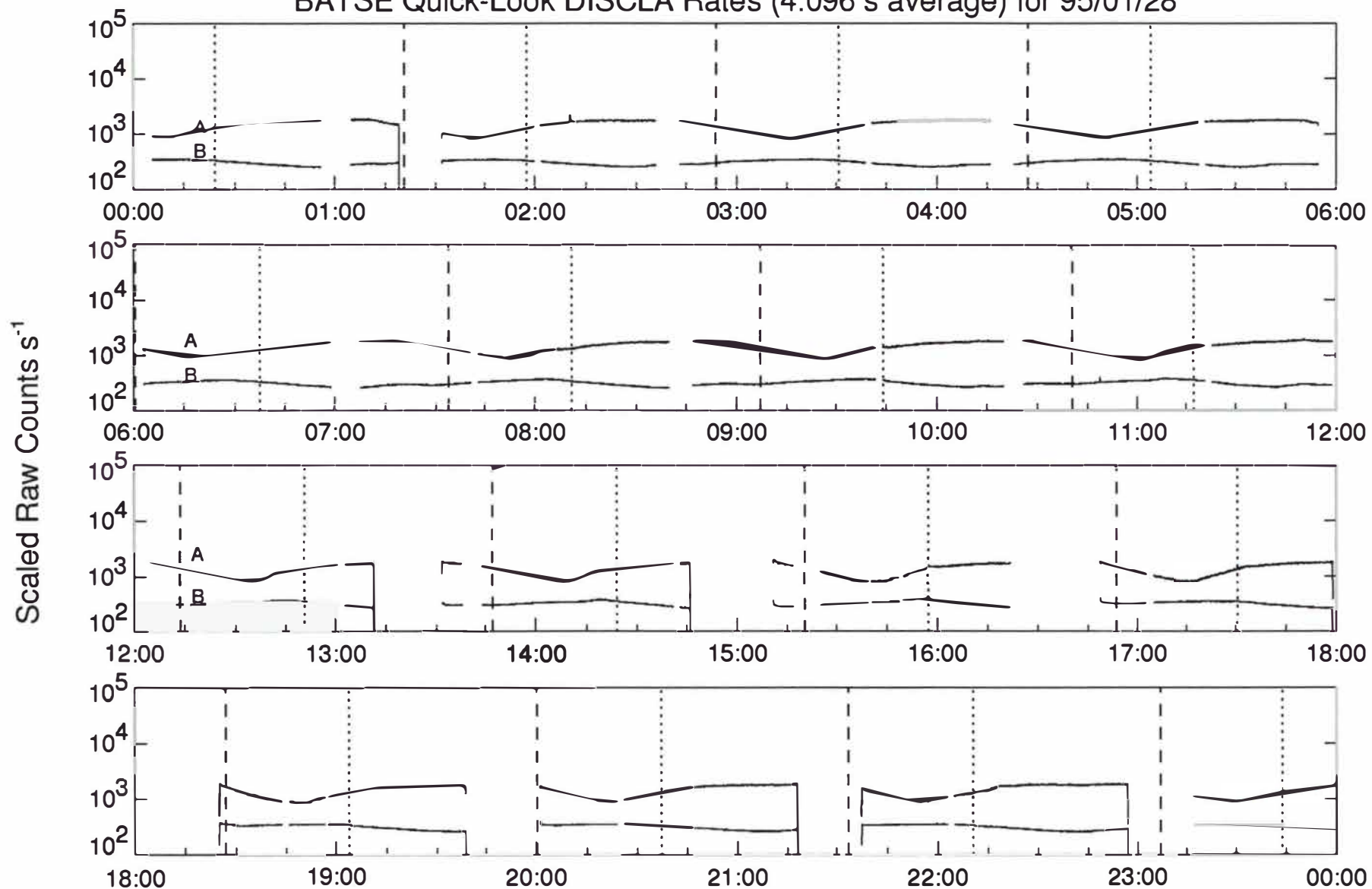
Data Start: 95/01/28, 0000:02

Plot created: 95/01/30, 0514

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/28



Current Time: 95/01/30, 0514 EDT

A: Channel 0 Most Sunward LAD

B: Sum Channel 0 Anti-Sunward LADs X .05

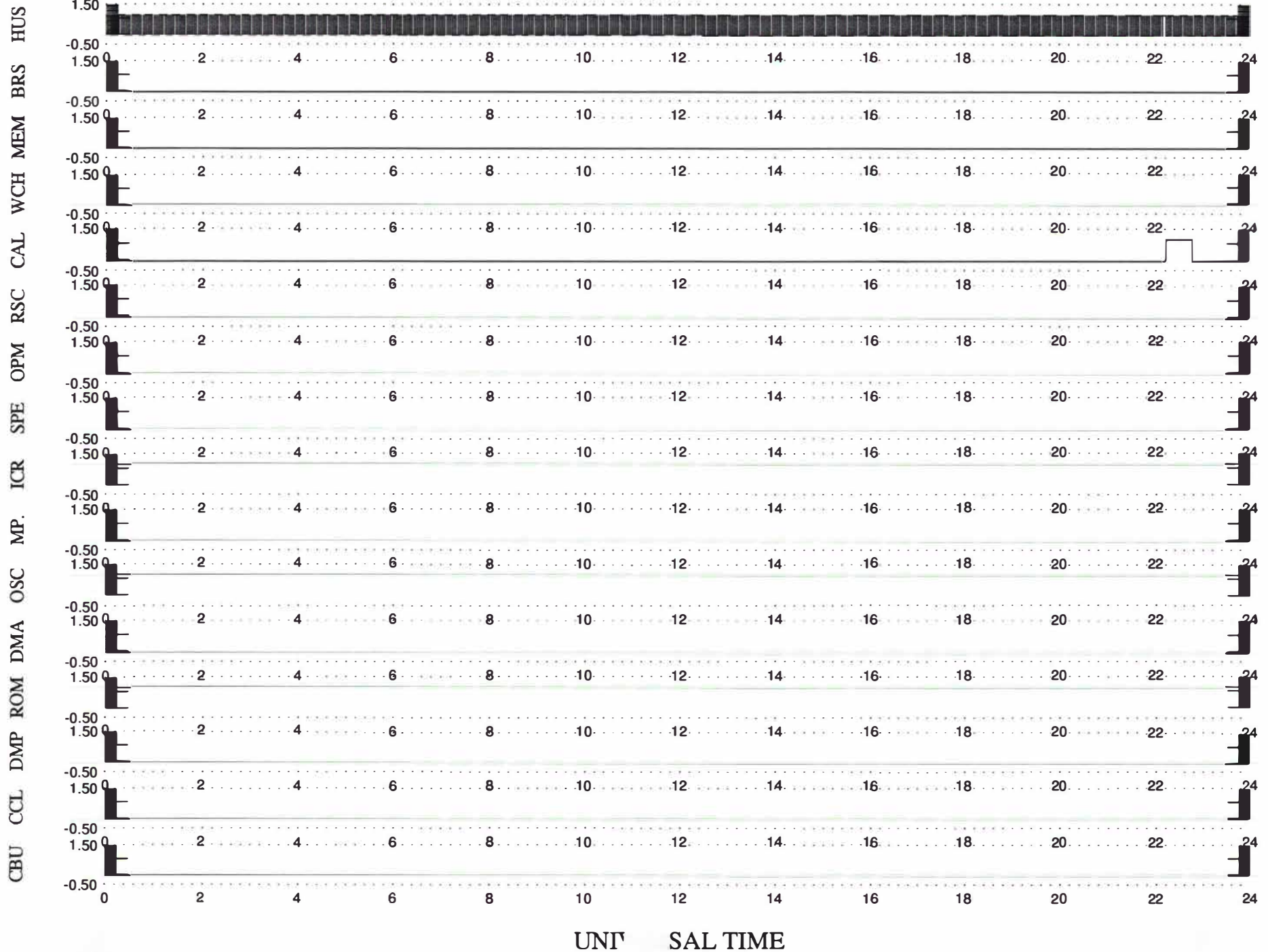
Dotted line: Day entry

Dashed line: Night entry

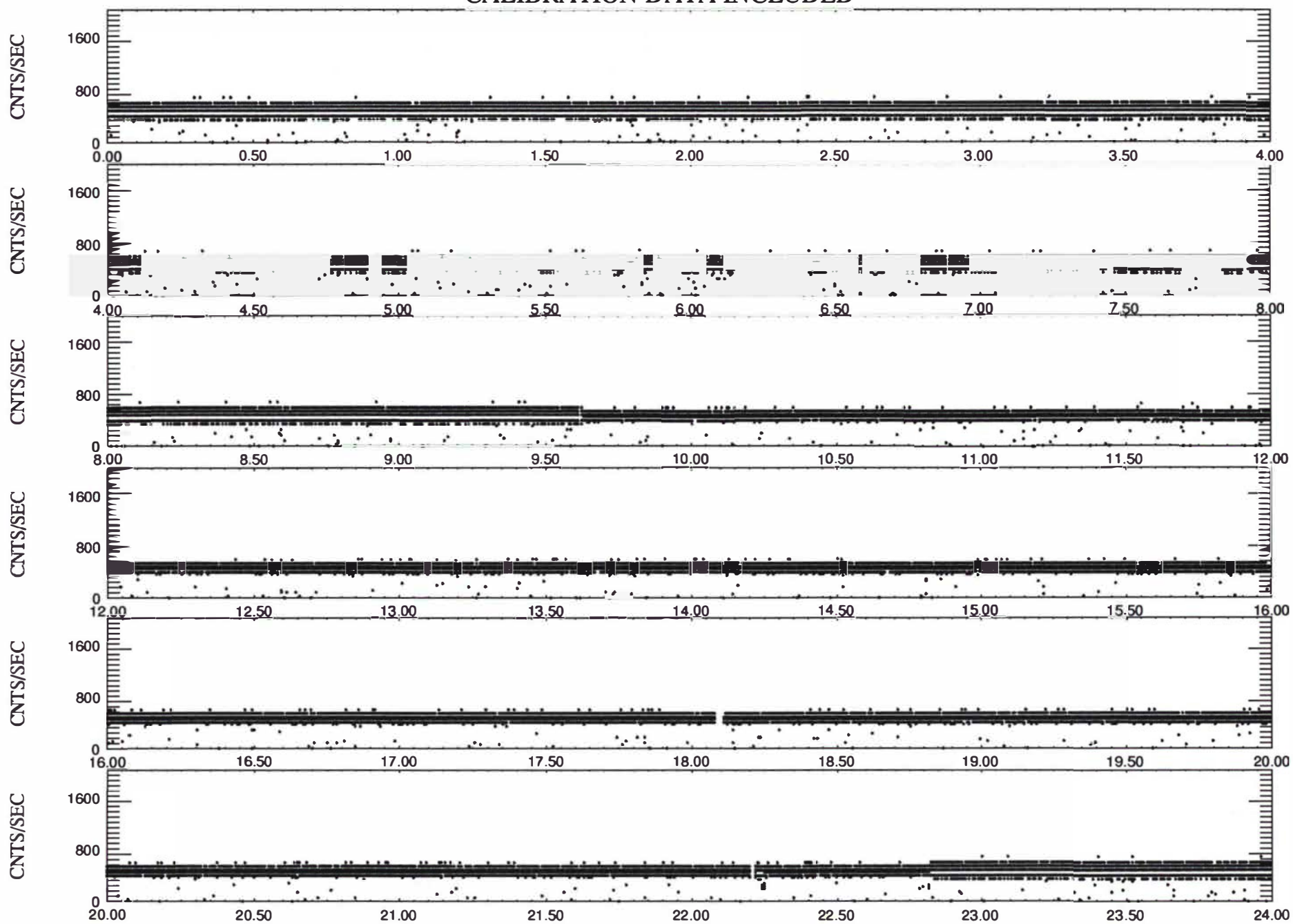
* Solar Burst Trigger

+ Solar Flare

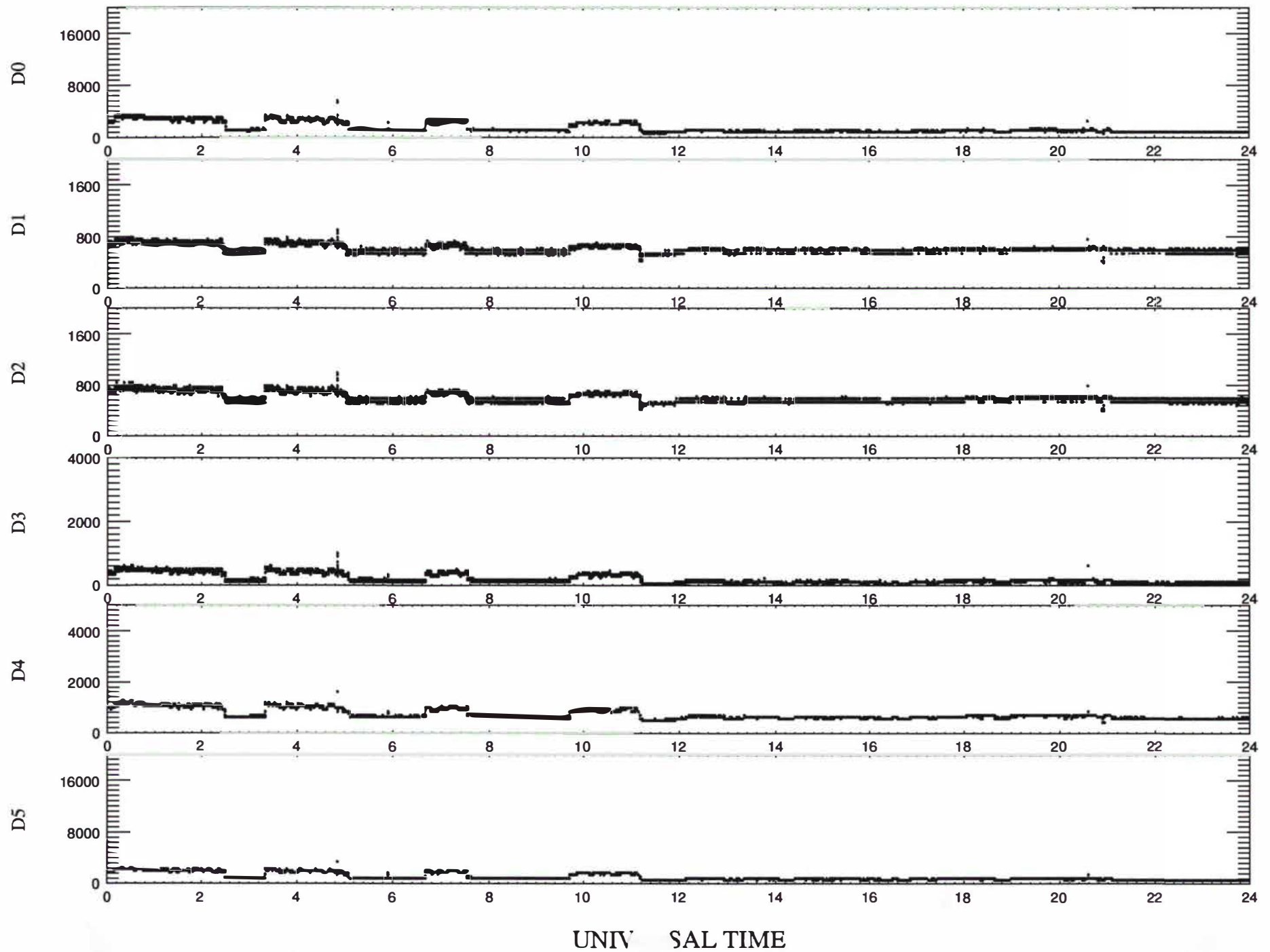
NO BURST (11)



CALIBRATION DATA INCLUDED



UNIT SAL TIME



From KOSHUT@ssl.msfc.nasa.gov Tue Jan 31 11:27 PST 1995
Date: Tue, 31 Jan 1995 13:27:23 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03377

TIME: TJD=9746 SECONDS=23619

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=144. AZIMUTH=199. ERROR= DEGREES

COMMENTS:

TERRESTIAL GAMMA FLASH. SINGLE PULSE, DURATION ~ 1 MS. OBSERVED
ABOVE 300 KEV.

From KOSHUT@ssl.msfc.nasa.gov Wed Feb 1 11:38 PST 1995
Date: Wed, 1 Feb 1995 13:37:00 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03377

TIME: TJD=9746 SECONDS=23619

TYPE: UNKNOWN SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

THIS MESSAGE IS A CORRECTION TO A PREVIOUS MESSAGE. THIS EVENT WAS
FIRST CLASSIFIED AS A TERRESTIAL GAMMA FLASH. AFTER LOOKING IN MORE
DETAIL WE HAVE REASON TO QUESTION THAT. THEREFORE WE ARE TENTATIVELY
RECLASSIFYING THIS BURST AS AN UNKNOWN EVENT.

From KOSHUT@ssl.msfc.nasa.gov Tue Jan 31 11:02 PST 1995
Date: Tue, 31 Jan 1995 13:02:30 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3378

BATSEARCH PROGRAM

NO

BATSE BURST # 3378
EVENT OF 1995 JAN 29 DAY OF YEAR= 29
EVENT CROSSING TIME AT BATSE : 65758. S. OR 18:15:58.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 255.000 7.000
BATSE PEAK COUNTING RATE: 3100 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 29/ 1/ 95 IS:
RA= 330.391 DEC= -33.182 DIST= 2.276 AU
BATSE-ULYSSES DISTANCE = 340486821. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 98.21 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -162.21 SECS.
CROSSING TIME AT ULYSSES IS 65596. S. OR 18:13:15 +/- 242.70 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 29/ 1/ 95 IS:
RA= 151.955 DEC= 16.219 DIST= 0.696 AU
MARS-BATSE DISTANCE = 104191312. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 79.57 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 62.93 SECS.
CROSSING TIME AT MARS IS 65821. S. OR 18:17:00 +/- 60.30 SECONDS

BATSE BURST TRIGGER

NO.: 03378

TIME: TJD=9746 SECONDS=65758

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=81. AZIMUTH=329. ERROR= DEGREES

COMMENTS:

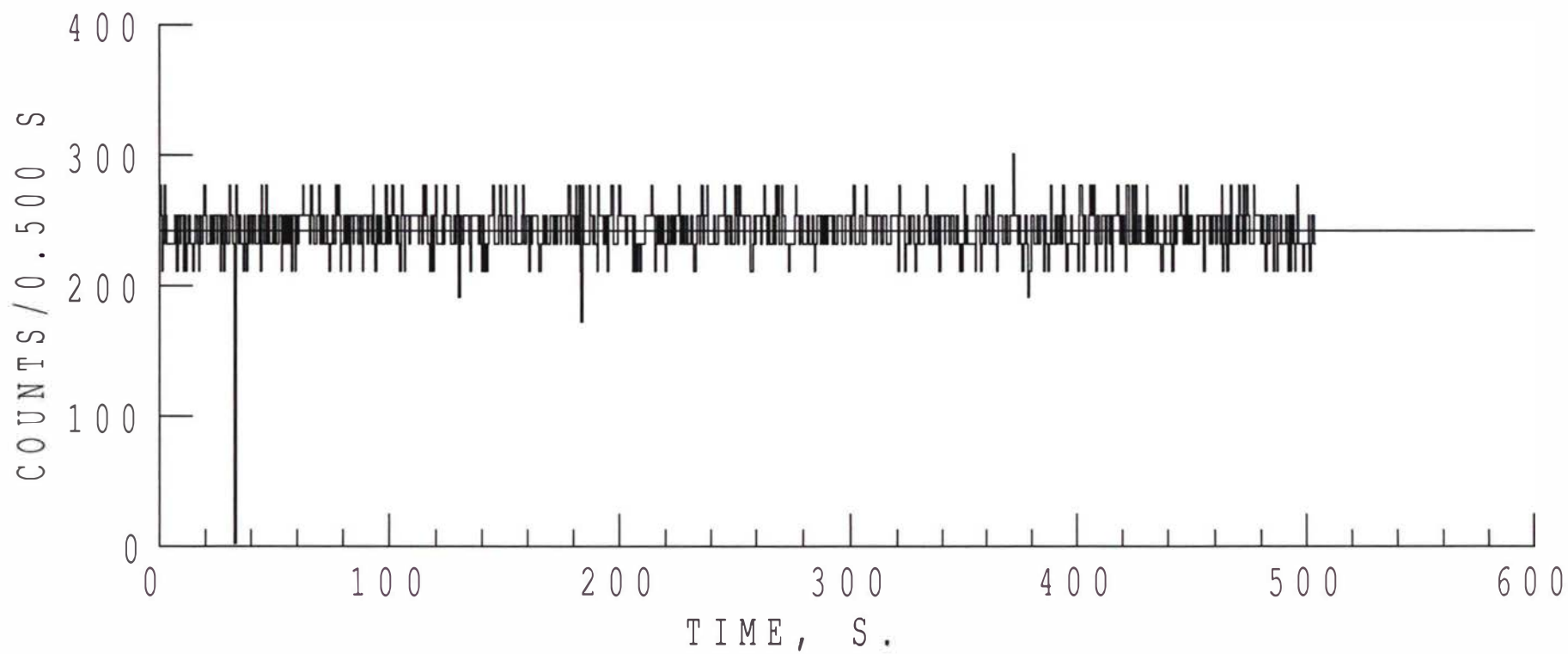
BURST OF ~ 10 SECONDS DURATION. SINGLE PULSE FOLLOWED BY LOW-LEVEL
EMISSION. BACKGROUND SUBTRACTED PEAK RATE ~ 3100 C/S. NOT OBSERVED
ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3378	950129	9746	65758	3100	255	+07

1 / 2 / 95

ULYSSES RT
29 / 1 / 95 65340.113 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From KOSHUT@ssl.msfc.nasa.gov Wed Feb 1 06:31 PST 1995
Date: Wed, 1 Feb 1995 8:31:07 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3379

BATSEARCH PROGRAM

BATSE BURST # 3379
EVENT OF 1995 JAN 29 DAY OF YEAR= 29
EVENT CROSSING TIME AT BATSE : 79470. S. OR 22:04:30.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.) Ad
BURST ARRIVAL DIRECTION: 353.000 -53.000
BATSE PEAK COUNTING RATE: 5000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 29/ 1/ 95 IS:
RA= 330.456 DEC= -33.080 DIST= 2.276 AU
BATSE-ULYSSES DISTANCE = 340558085. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=154.37 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1024.24 SECS.
CROSSING TIME AT ULYSSES IS 78446. S. OR 21:47:25 +/- 119.75 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 29/ 1/ 95 IS:
RA= 151.955 DEC= 16.219 DIST= 0.696 AU
MARS-BATSE DISTANCE = 104191312. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 40.33 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 264.96 SECS.
CROSSING TIME AT MARS IS 79735. S. OR 22:08:54 +/- 43.07 SECONDS

BATSE BURST TRIGGER

NO.: 03379

TIME: TJD=9746 SECONDS=79470

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=73. AZIMUTH=73. ERROR= DEGREES

COMMENTS:

BURST OF ~ 1 SECOND DURATION. SINGLE PULSE WITH NO SIGNIFICANT
SUBSTRUCTURE. BACKGROUND SUBTRACTED PEAK RATE ~ 5000 C/S. NO EMISSION
OBSERVED ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3379	950129	9746	79470	5000	353	-53

1 / 2 / 95

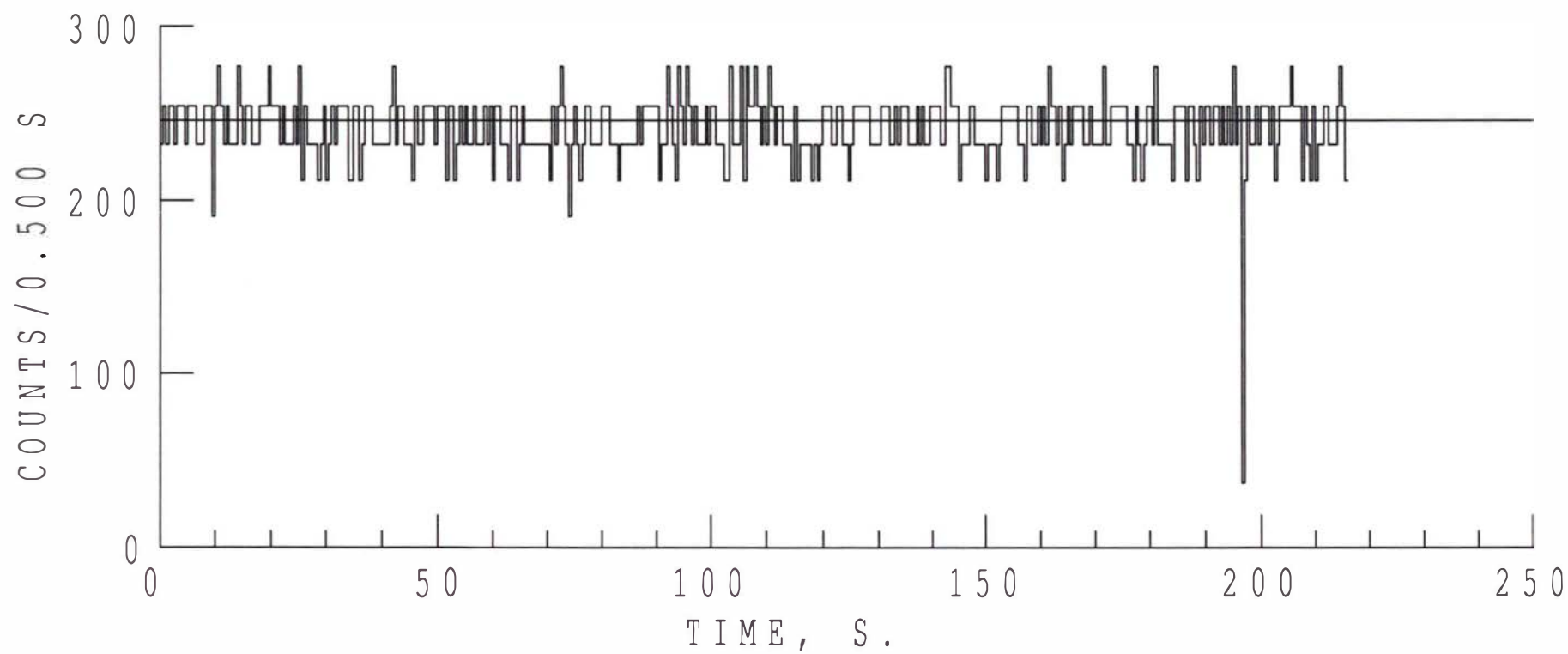
ULYSSES RT

29 / 1 / 95 78336.367 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From KOSHUT@ssl.msfc.nasa.gov Tue Jan 31 07:46 PST 1995
Date: Tue, 31 Jan 1995 9:46:45 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03380

TIME: TJD=9746 SECONDS=85909

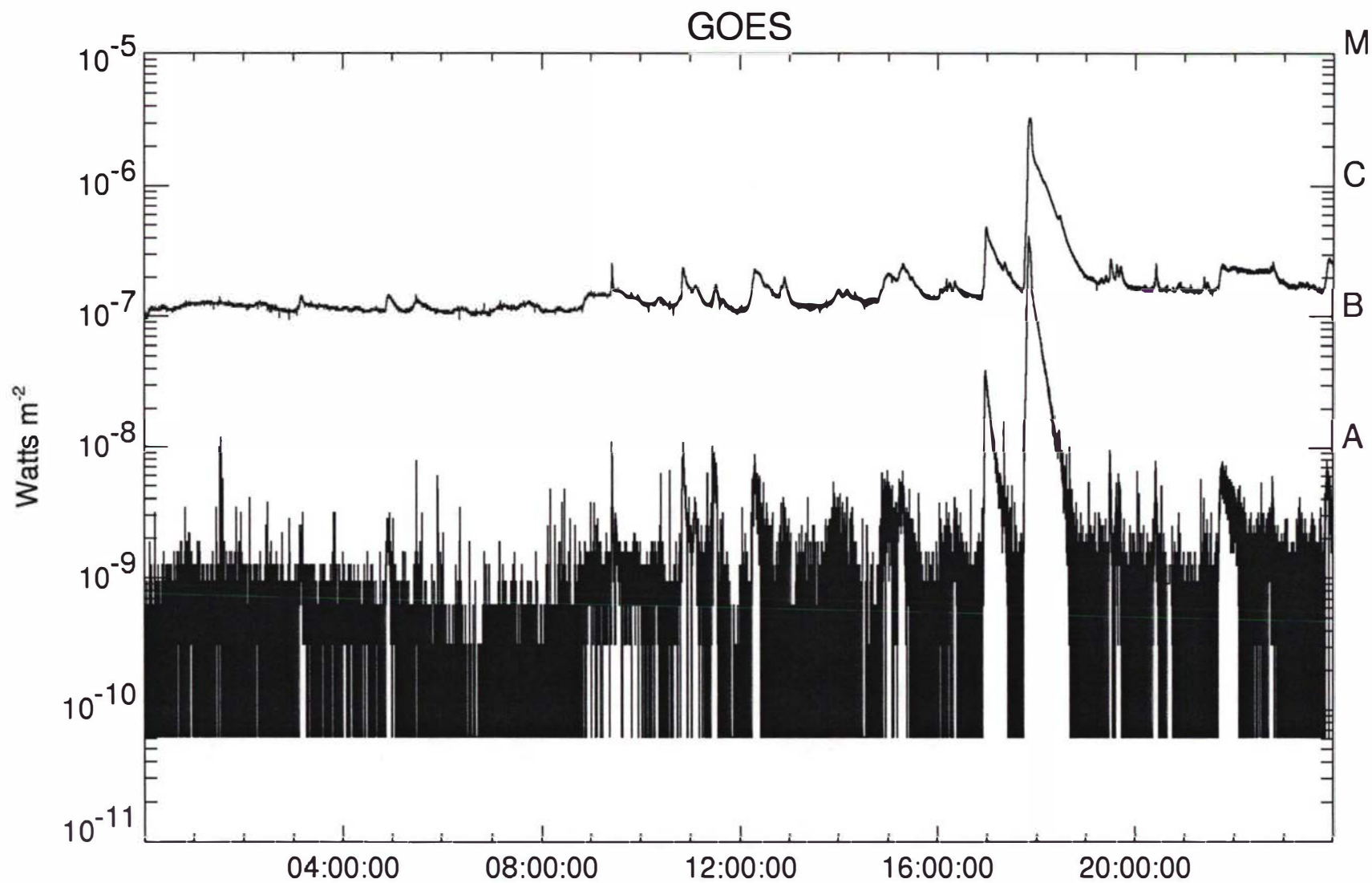
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
TRIGGERED ON ENTRY INTO SAA.



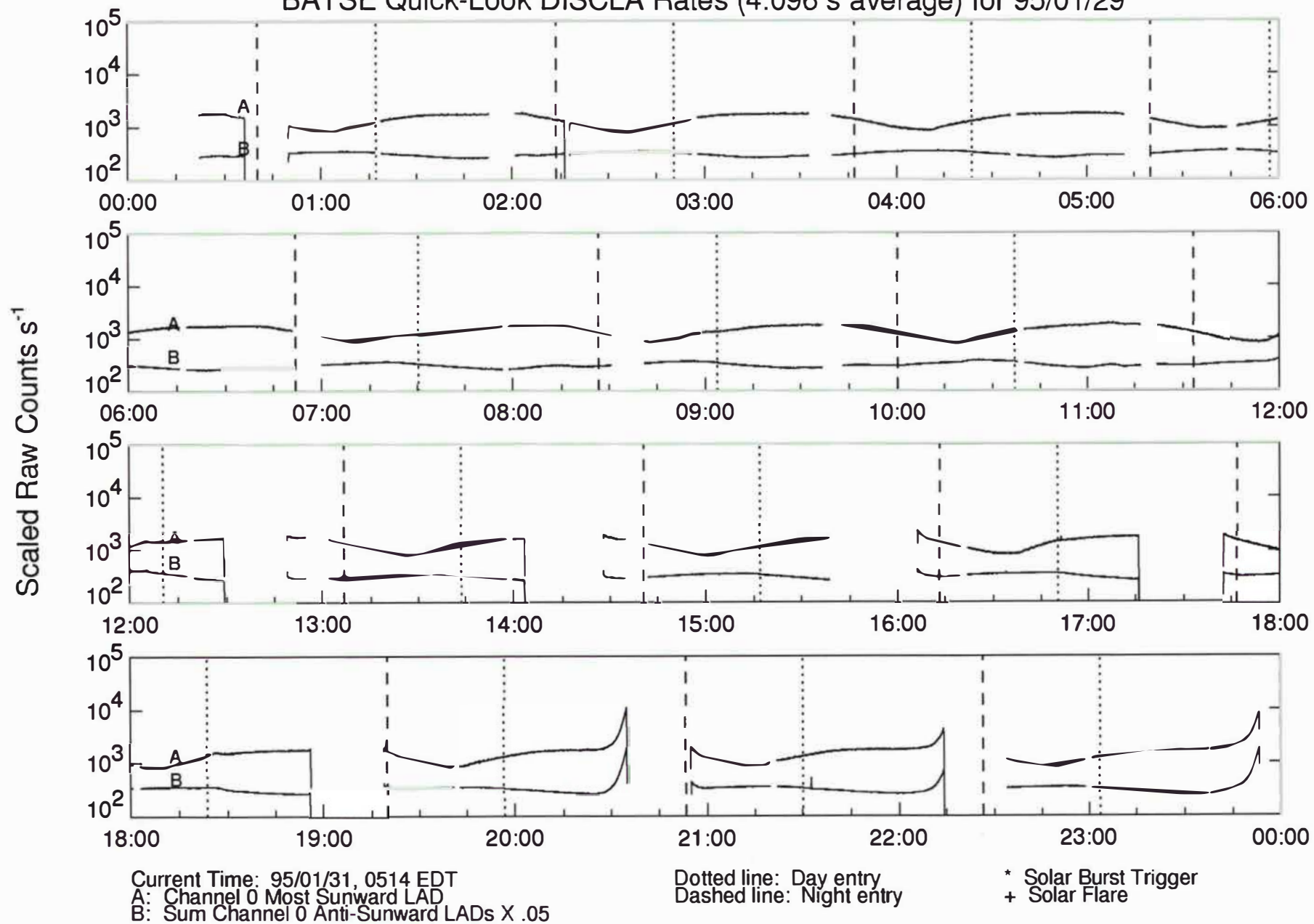
Data Start: 95/01/29, 0000:00

Plot created: 95/01/31, 0514

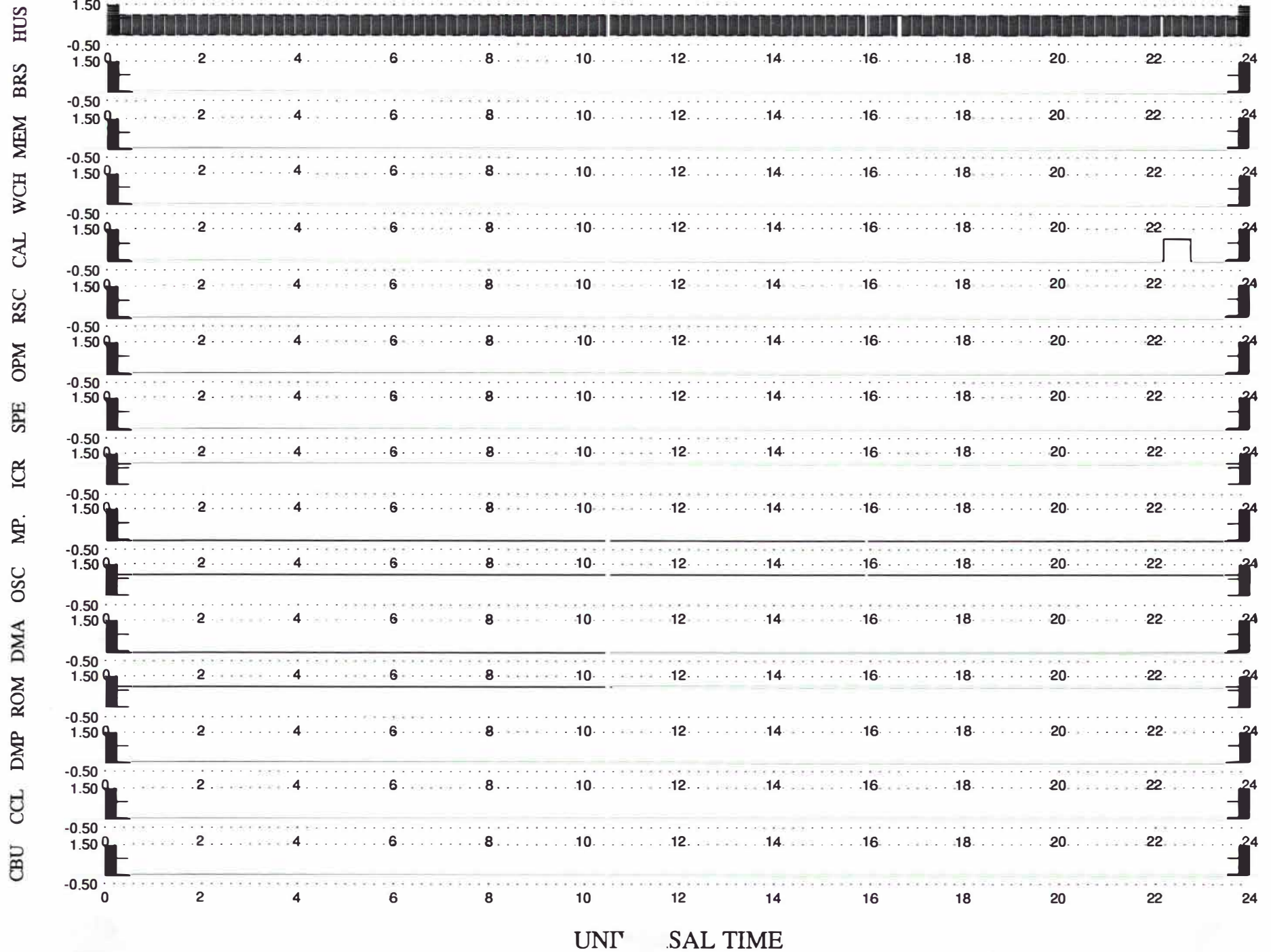
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

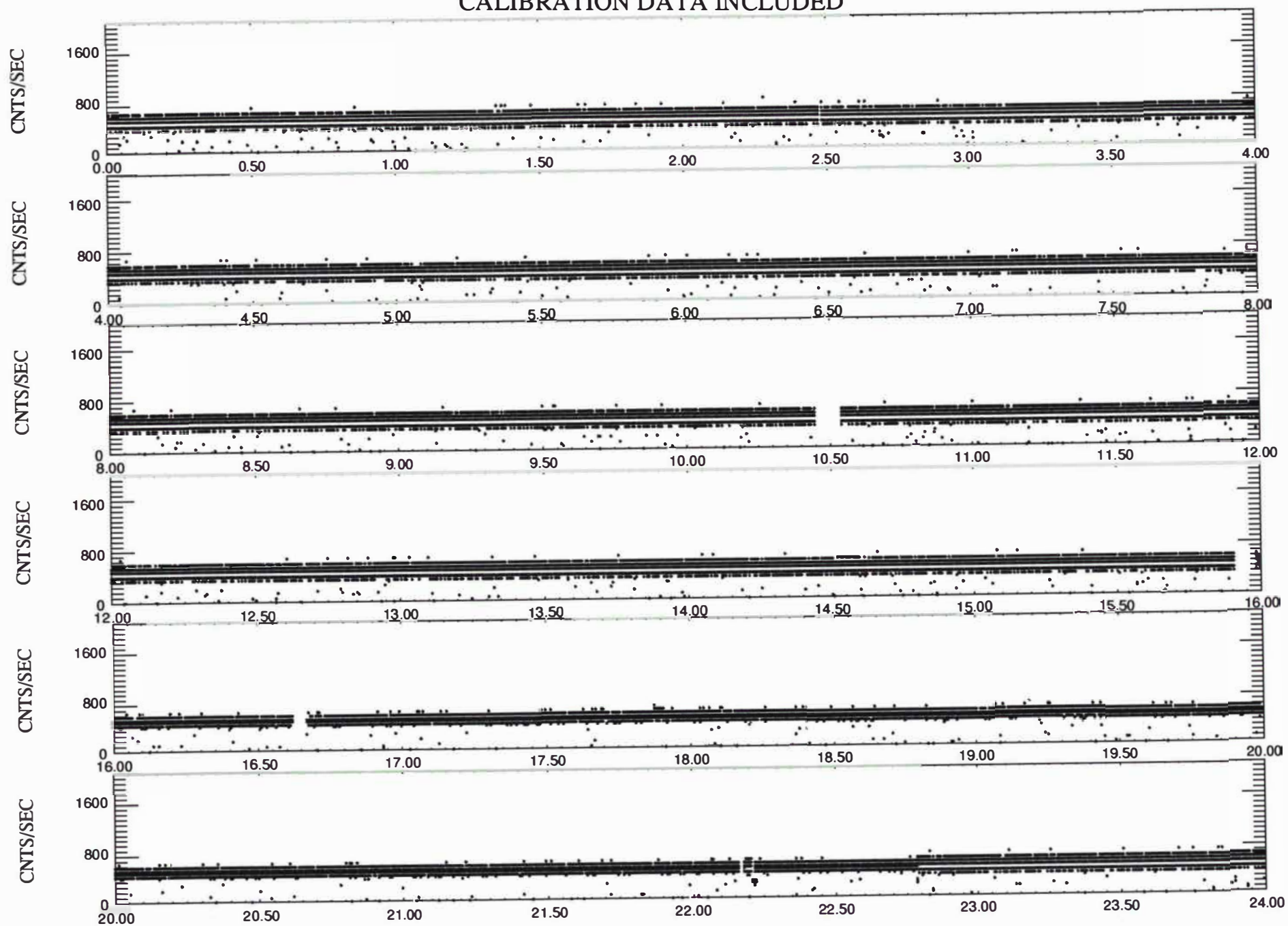
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/29



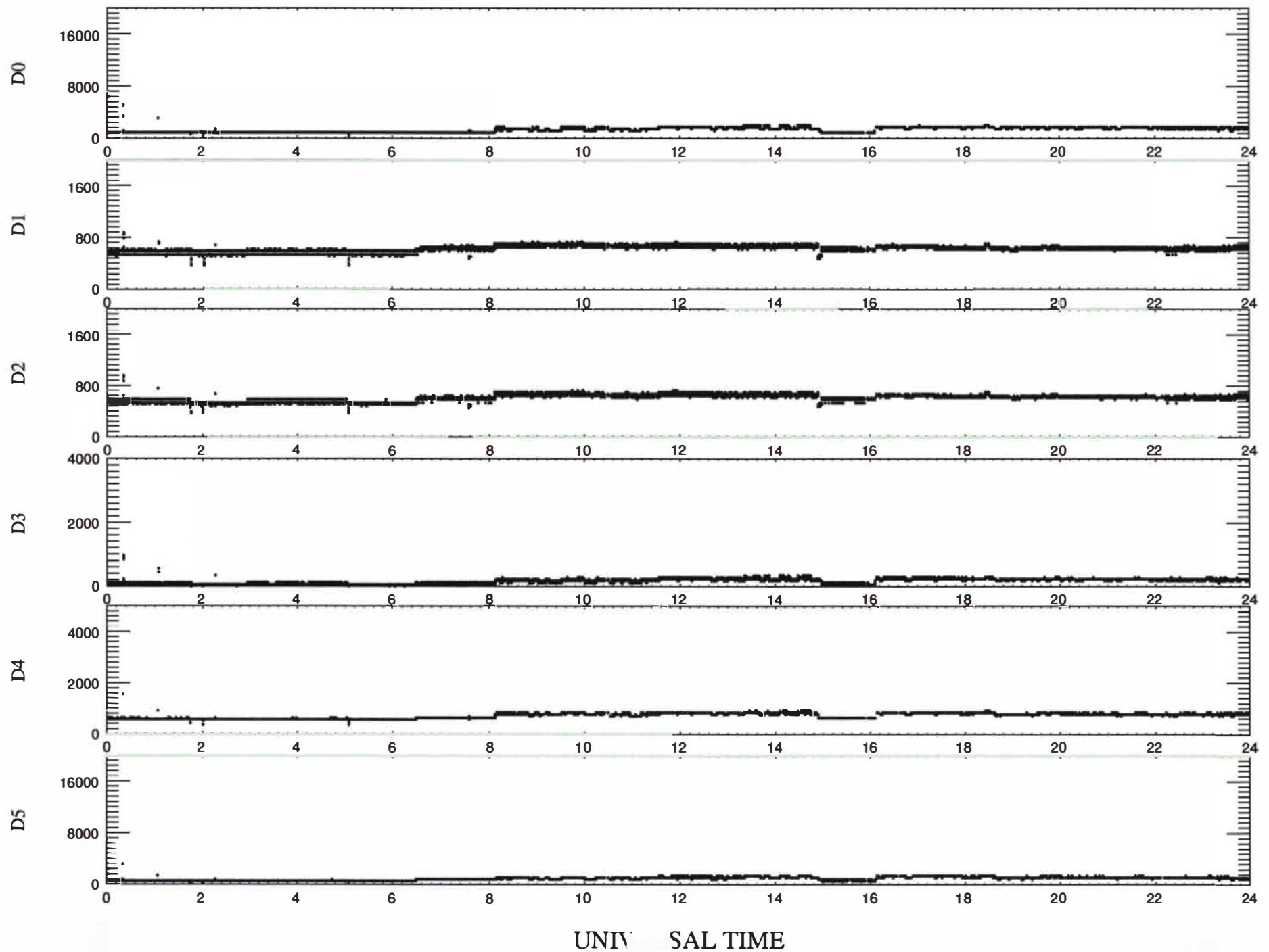
NO BURST (11)



CALIBRATION DATA INCLUDED



UNF. SAL TIME



From vnp@isac.ernet.in Mon Sep 15 23:38 PDT 1997
From: vnp@isac.ernet.in
>Received: from sx07 by isac.ernet.in (AIX 3.2/UCB 5.64/4.03)
id AA19488; Tue, 16 Sep 1997 12:04:45 GMT
>: Tue, 16 Sep 1997 12:04:44 +0000 (CUT)
Sender: vnp@sx07
To: khurley@sunspot.ssl.berkeley.edu
Subject: SROSS-C2 events of 94-95
Mime-Version: 1.0

Dear Prof.Hurley,
Thank you very much for the reply. I shall be grateful if you could kindly confirm whether any other spacecraft recorded events of particle/solar/cosmic origin listed below

1. 5 Oct 94 11:31:56 UT --peak lasted 40s came back to bg. followed by another peak at 11:34 UT in both 20-100keV (LE)channel and 100-1024keV (HE)channel.
Solar geophysical data(SGD) reports class C3.0 flare at 11:36UT lasting until 11:58UT.
BATSE solar flare data base reports event at 11:57UT
2. 5 Oct 94 19:49:07 UT - light curve shows rapid variability in LEC
SGD reports B1.9 flare between 19:33 and 19:51 with peak at 19:49.
3. 13 Oct 94 16:08:57 UT -- peak lasts 50s in LEC and 30s in HEC.
SGD reports B3.7 flare between 16:06 and 16:48 with peak at 16:18.
4. 15 Feb 95 12:00:28 UT --light curve shows rapid variability in LEC.
16 Feb 95 11:45:42 UT -- peak lasts 80s in LEC and 60s in HEC.
SGD reports B1.2 flare between 11:52 and 12:02 with peak at 11:56UT
6. 30 Jan 95 12:11:10UT -- peak lasted 30s in LEC and HEC
SGD reports B9.2 flare at 11:57 upto 12:22 peak at 12:11UT
7. 30 Jan 95 19:02:41 UT --peak saturated (>2048c/s) in LEC lasted 80s in LEC & HEC
SGD reports C4.8 flare between 19:04 and 19:17 peak at 19:08 UT
8. 29 Mar 95 19:16:19 --light curve shows rapid variability in LEC
SGD reports C1.9 flare between 18:51 and 19:05 peak at 18:52 UT

Regards,
padmini

From HAGEDON@ssl.msfc.nasa.gov Wed Feb 1 10:10 PST 1995
Date: Wed, 1 Feb 1995 12:10:30 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3381

TIME: TJD=9747 SECONDS=35450

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT.

From HAGEDON@ssl.msfc.nasa.gov Thu Feb 2 09:33 PST 1995
Date: Thu, 2 Feb 1995 11:33:21 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3382

TIME: TJD=9747 SECONDS=62616

TYPE: UNKNOWN SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

THIS EVENT IS OF AN UNKNOWN TYPE AND IS STILL UNDER INVESTIGATION.

From HAGEDON@ssl.msfc.nasa.gov Wed Feb 1 10:13 PST 1995
Date: Wed, 1 Feb 1995 12:13:28 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3383

TIME: TJD=9747 SECONDS=71487

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.

From HAGEDON@fender.msfc.nasa.gov Wed Feb 1 10:21 PST 1995
Date: Wed, 1 Feb 1995 12:20:56 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3384

BATSEARCH PROGRAM

No

BATSE BURST # 3384
EVENT OF 1995 JAN 30 DAY OF YEAR= 30
EVENT CROSSING TIME AT BATSE : 76360. S. OR 21:12:40.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 56.000 -31.000
BATSE PEAK COUNTING RATE: 3900 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/ 1/ 95 IS:
RA= 330.848 DEC= -32.463 DIST= 2.279 AU
BATSE-ULYSSES DISTANCE = 340990624. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=109.73 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -383.95 SECS.
CROSSING TIME AT ULYSSES IS 75976. S. OR 21:06:16 +/- 230.05 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/ 1/ 95 IS:
RA= 151.638 DEC= 16.356 DIST= 0.694 AU
MARS-BATSE DISTANCE = 103757720. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 76.95 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 78.16 SECS.
CROSSING TIME AT MARS IS 76438. S. OR 21:13:58 +/- 59.72 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3384	950130	9747	76360	3900	056	-31

BATSE BURST TRIGGER

NO.: 3384

TIME: TJD=9747 SECONDS=76360

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=90 AZIMUTH=120 ERROR= DEGREES

COMMENTS:

BURST. WEAK SINGLE SPIKE. DUR.~0.07 SEC. NOT VISIBLE ABOVE 300 KEV.

1 / 2 / 95

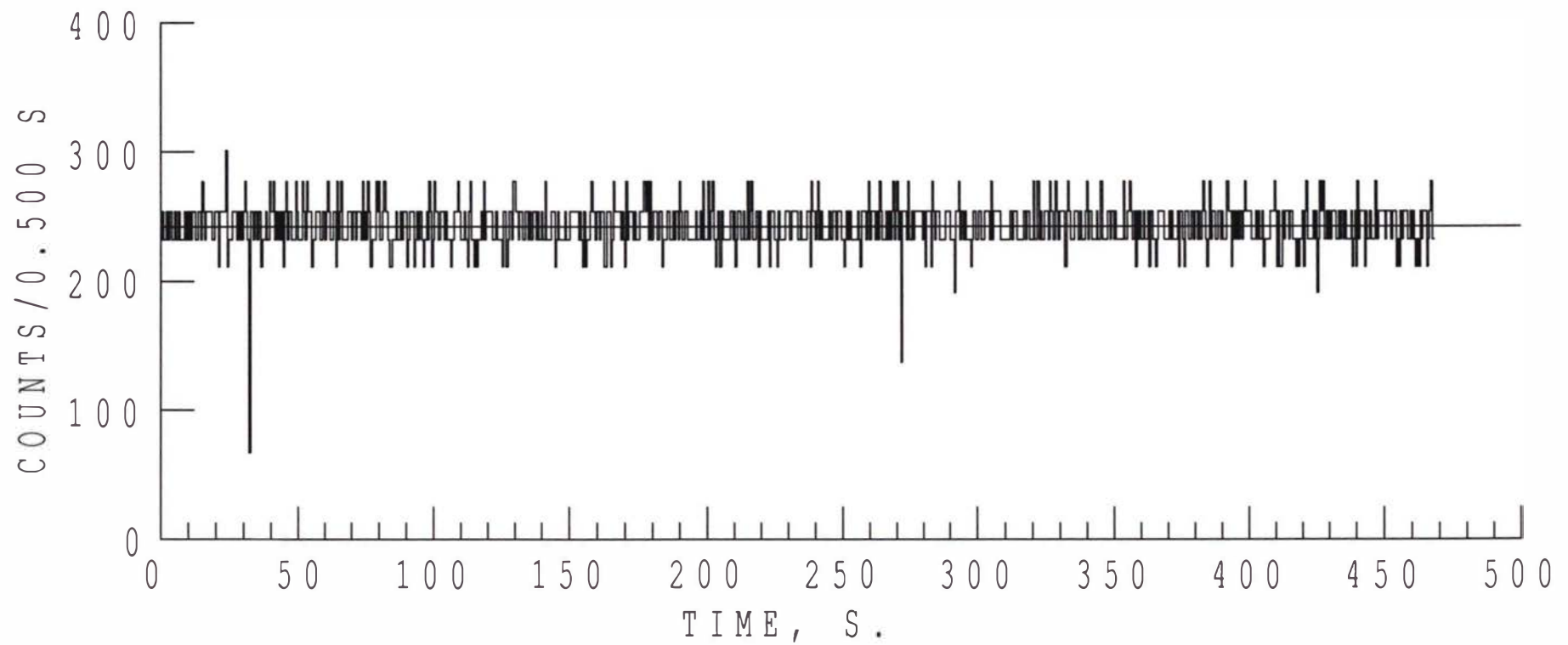
ULYSSES RT

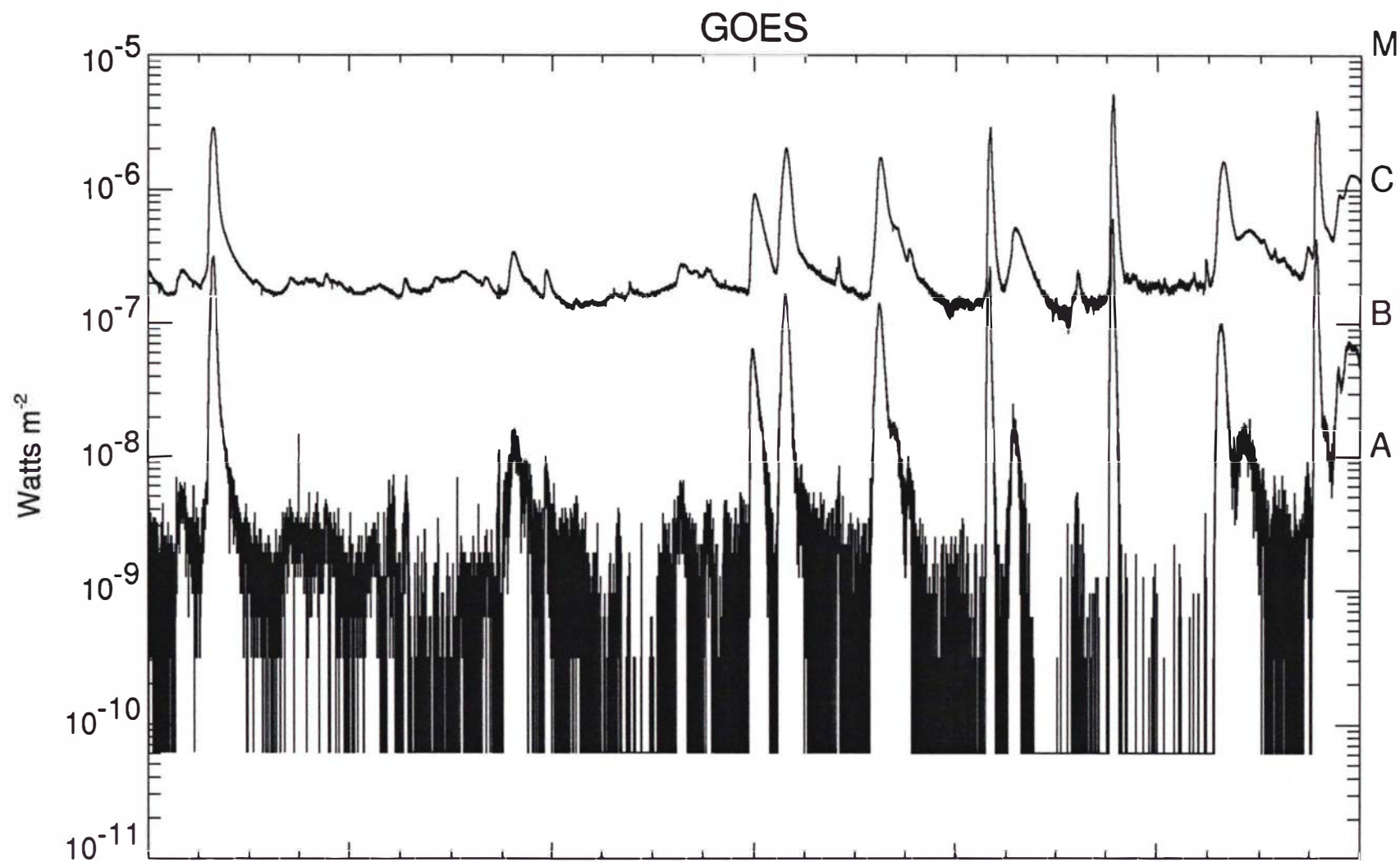
30 / 1 / 95 75744.039 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





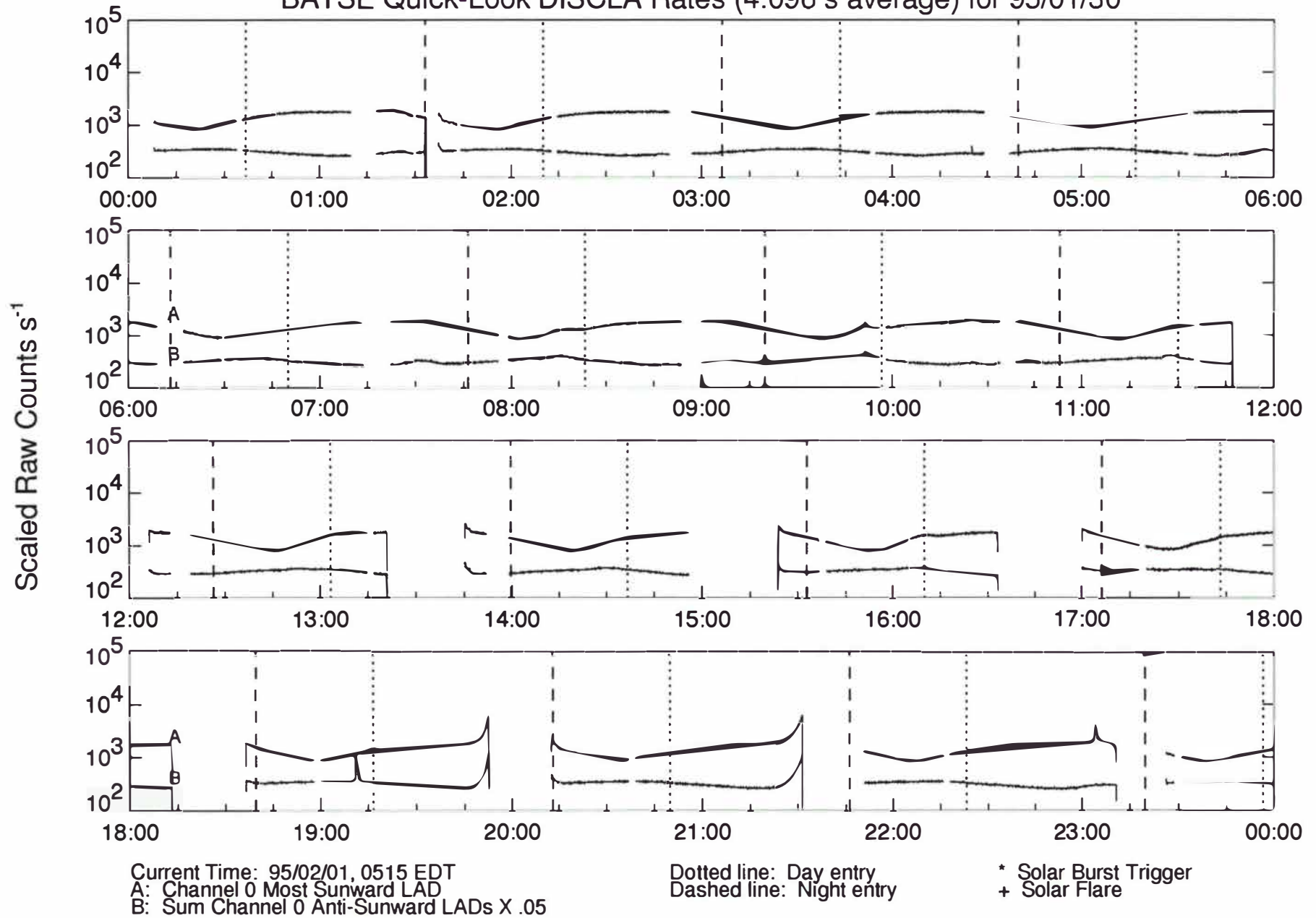
Data Start: 95/01/30, 0000:01

Plot created: 95/02/01, 0514

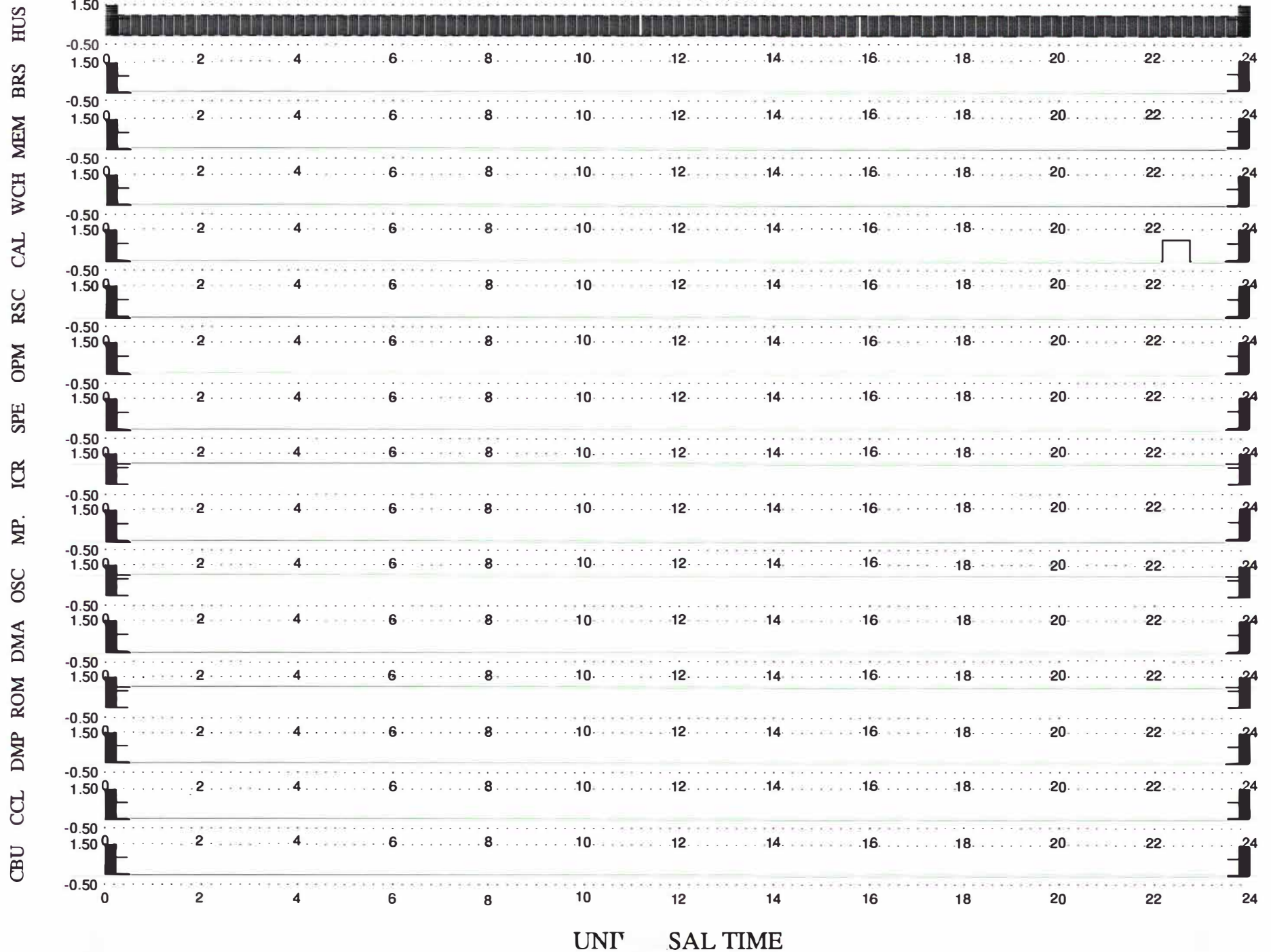
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

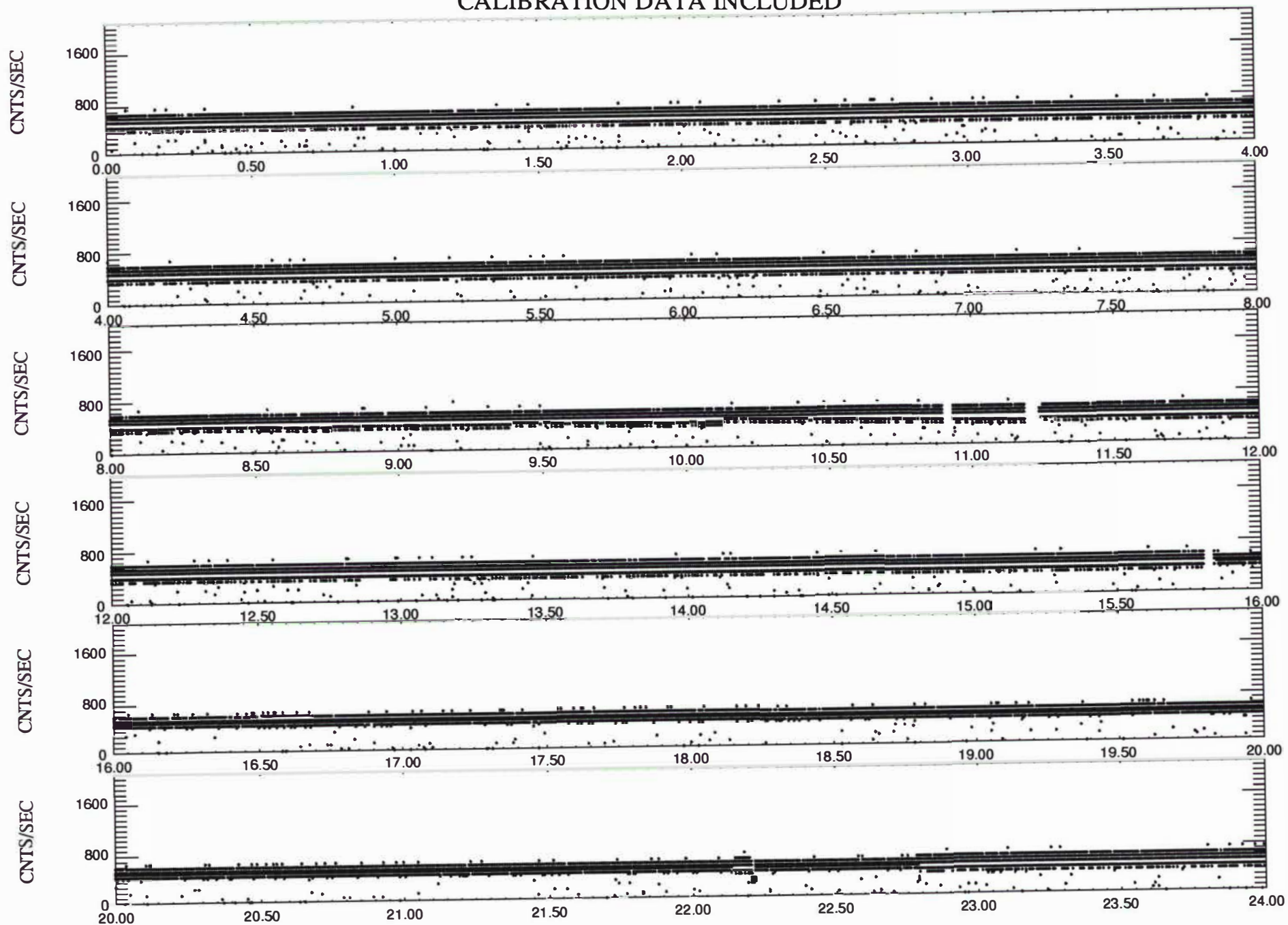
BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/30



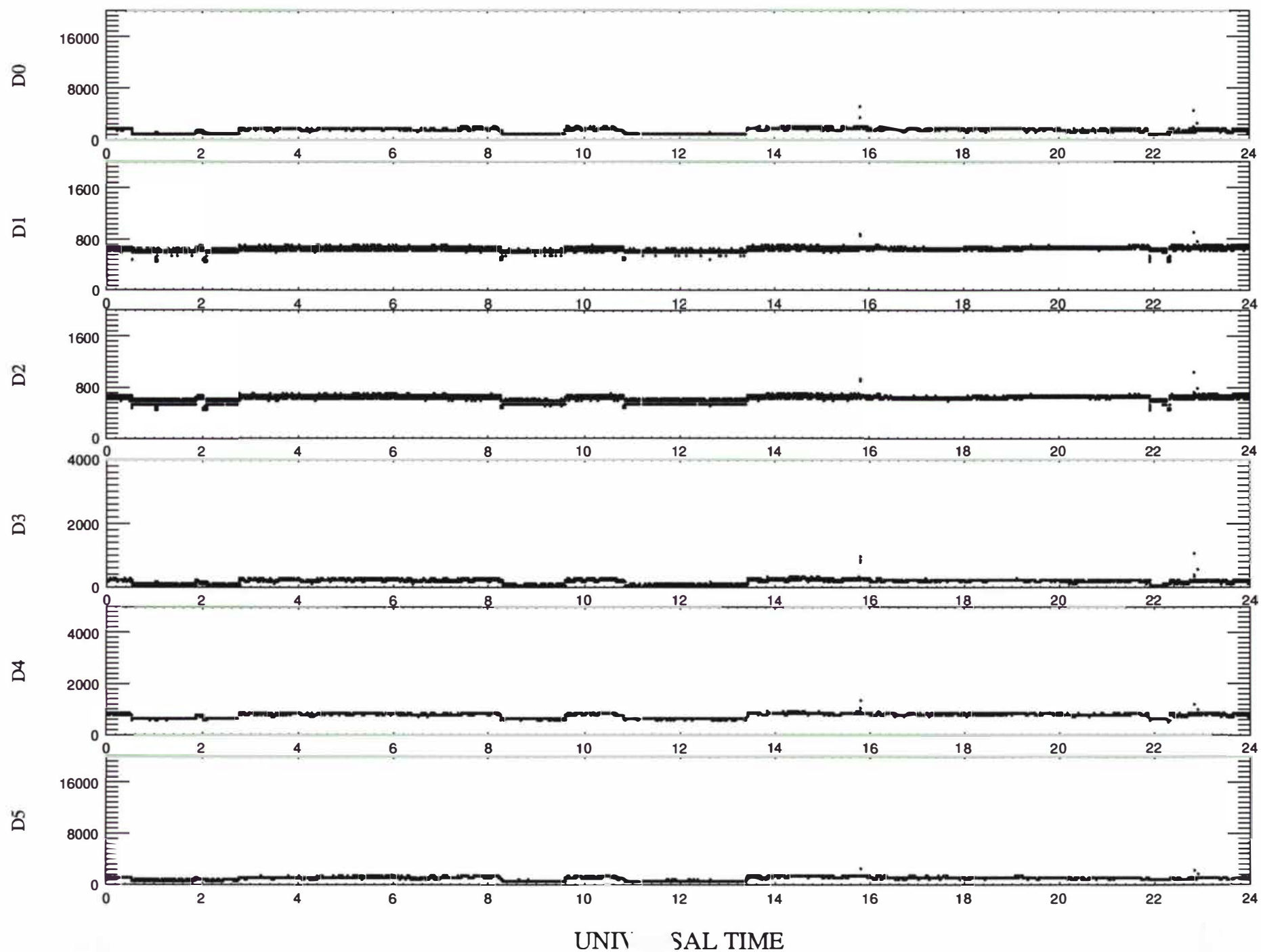
NO BURST (11)

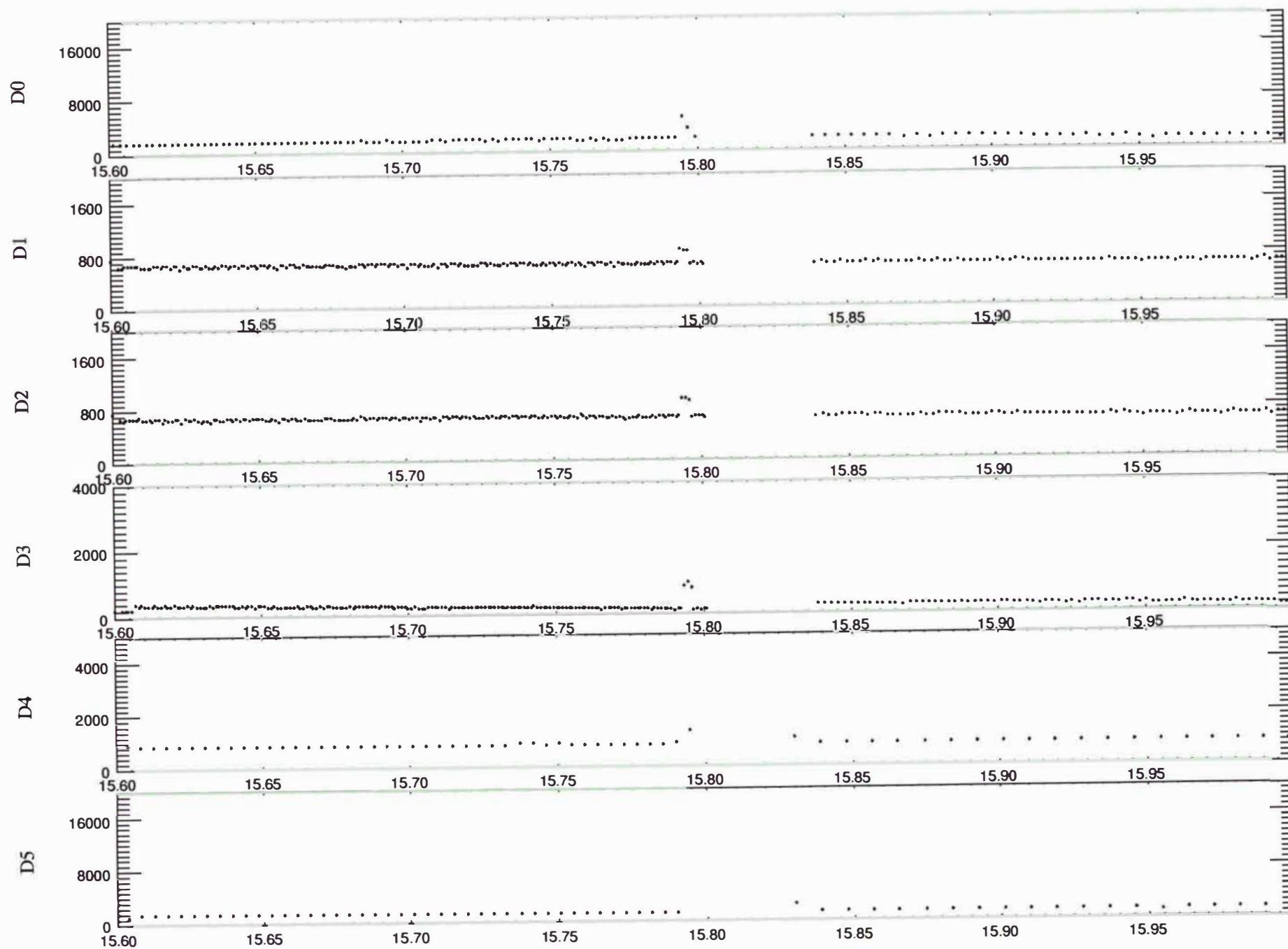


CALIBRATION DATA INCLUDED

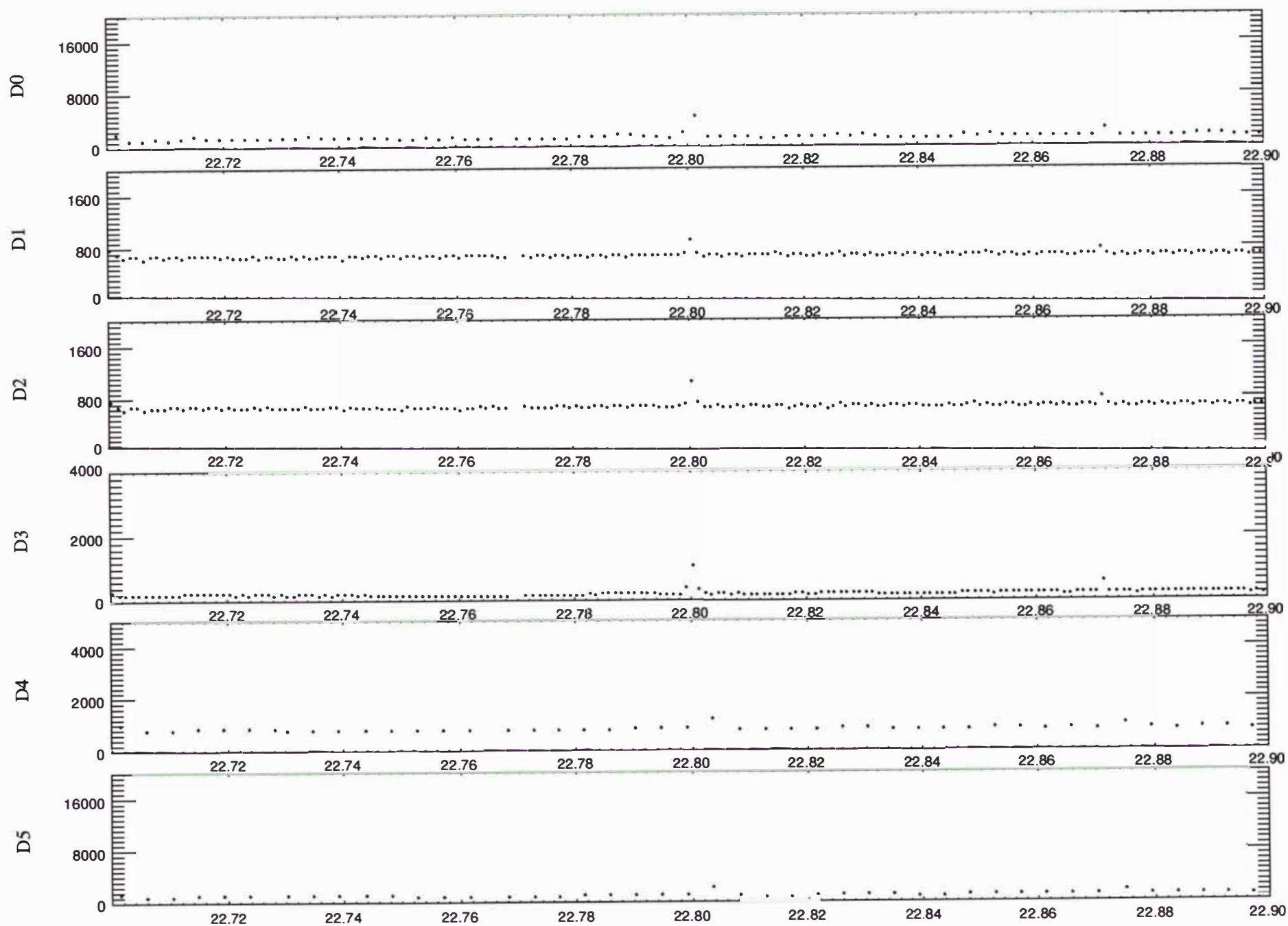


UNT \SAL TIME





UNIV SAL TIME



UNIV CAL TIME

From DEAL@ssl.msfc.nasa.gov Wed Feb 1 11:58 PST 1995
Date: Wed, 1 Feb 1995 13:56:43 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3385

BATSEARCH PROGRAM

BATSE BURST # 3385
EVENT OF 1995 JAN 31 DAY OF YEAR= 31
EVENT CROSSING TIME AT BATSE : 41735. S. OR 11:35:35.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 7.000 23.000
BATSE PEAK COUNTING RATE: 1500 C/S

RI

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 31/ 1/ 95 IS:
RA= 331.322 DEC= -31.707 DIST= 2.283 AU
BATSE-ULYSSES DISTANCE = 341490931. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=115.52 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -490.70 SECS.
CROSSING TIME AT ULYSSES IS 41244. S. OR 11:27:24 +/- 221.02 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 31/ 1/ 95 IS:
RA= 151.311 DEC= 16.494 DIST= 0.691 AU
MARS-BATSE DISTANCE = 103355312. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 52.70 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 208.90 SECS.
CROSSING TIME AT MARS IS 41944. S. OR 11:39:03 +/- 50.79 SECONDS

BATSE BURST TRIGGER

NO.: 3385

TIME: TJD=9748 SECONDS=41735

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=27.8 AZIMUTH=166.5 ERROR= DEGREES

COMMENTS:

BURST LASTING ~14 S. VISIBLE ABOVE 300 KEV.

Helio corr removed

Date: Feb 10 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T₀?
- ☒ Error circle position and radius from public catalog used?
- ☐ If MER data were used, is a 30 ms systematic error included? *N/A*

3. PVO Data

- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

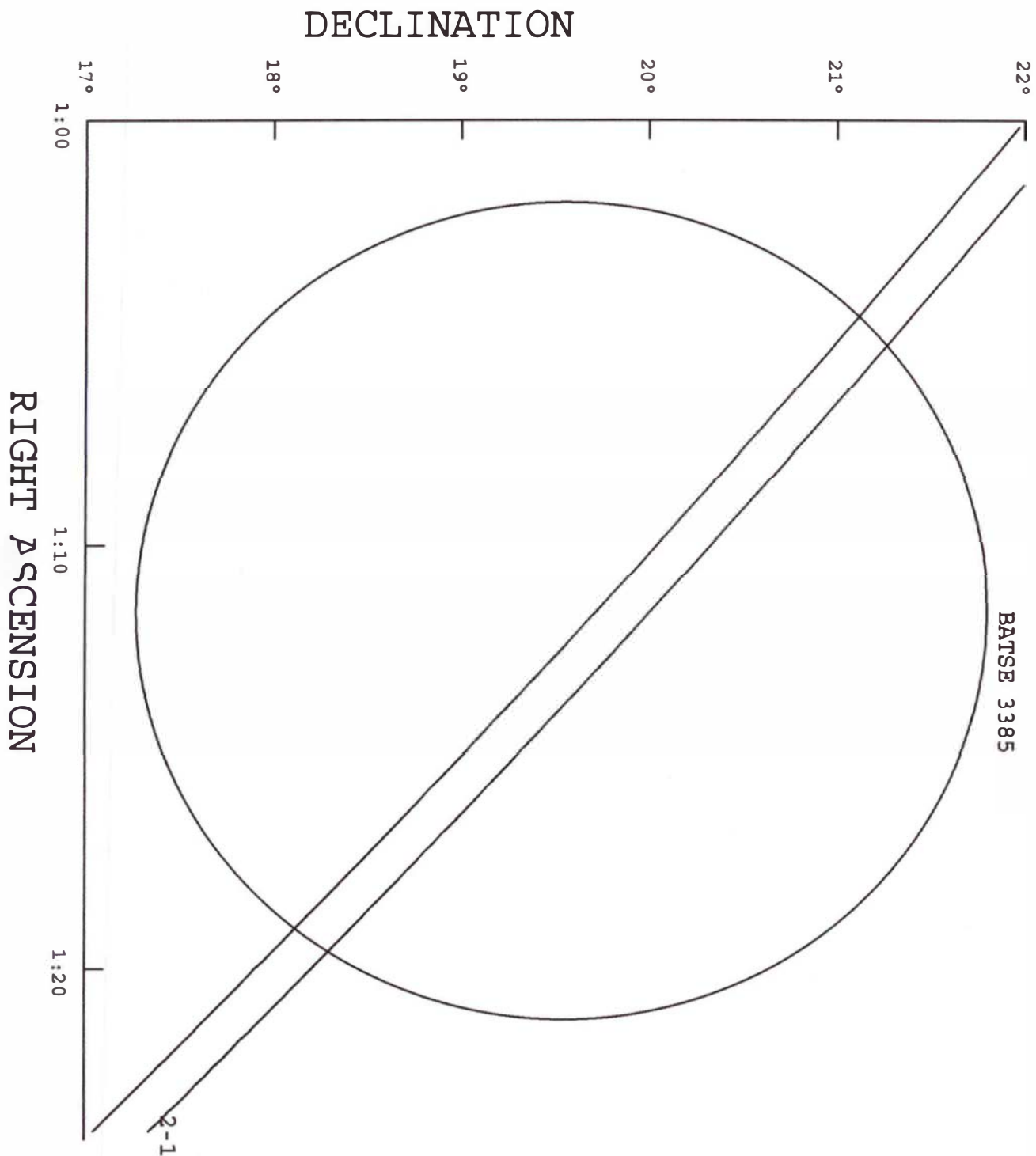
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 31, 1995 11:27

10/ 2/98



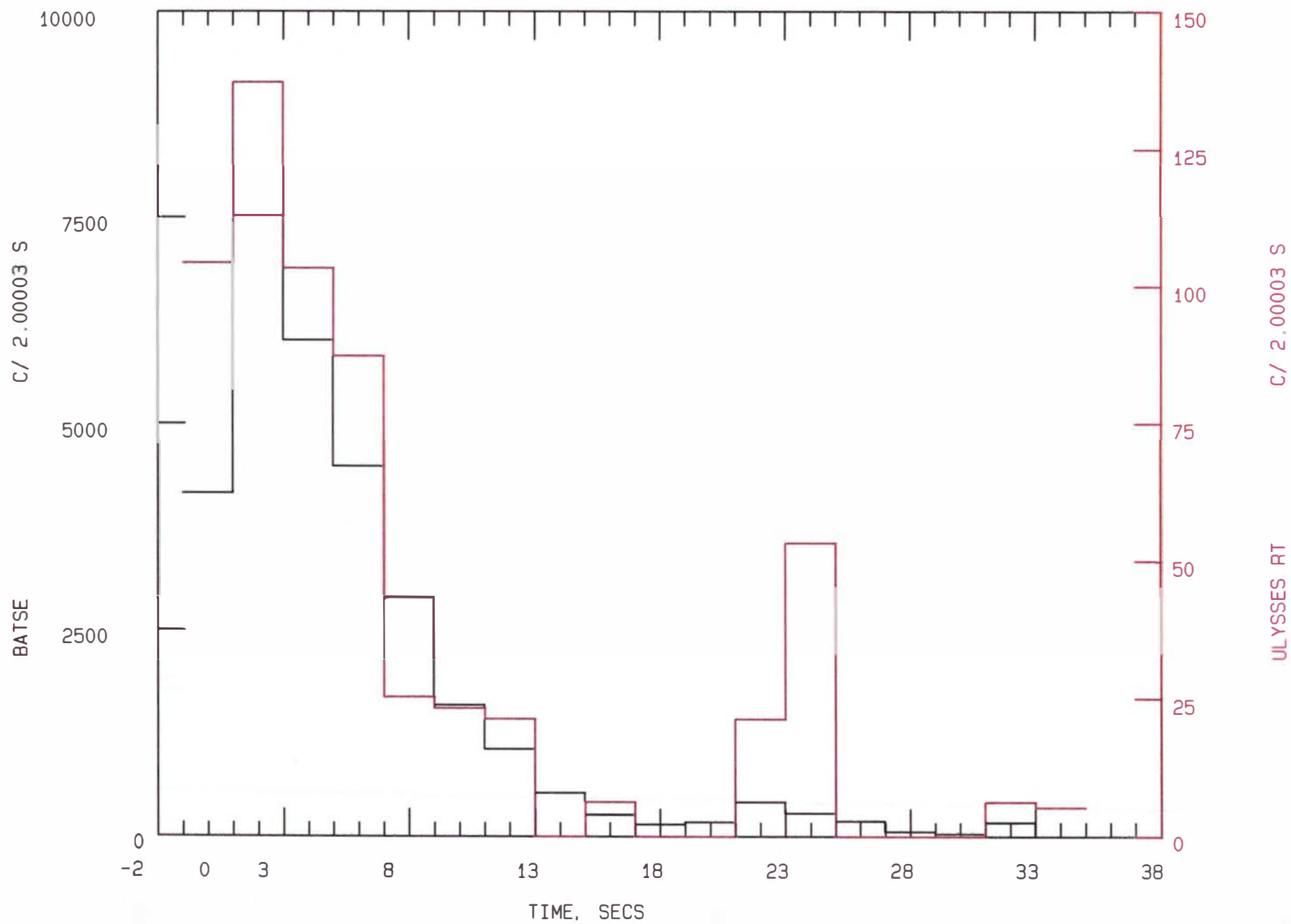
BATSE

-ULYSSES RT CORRELATION

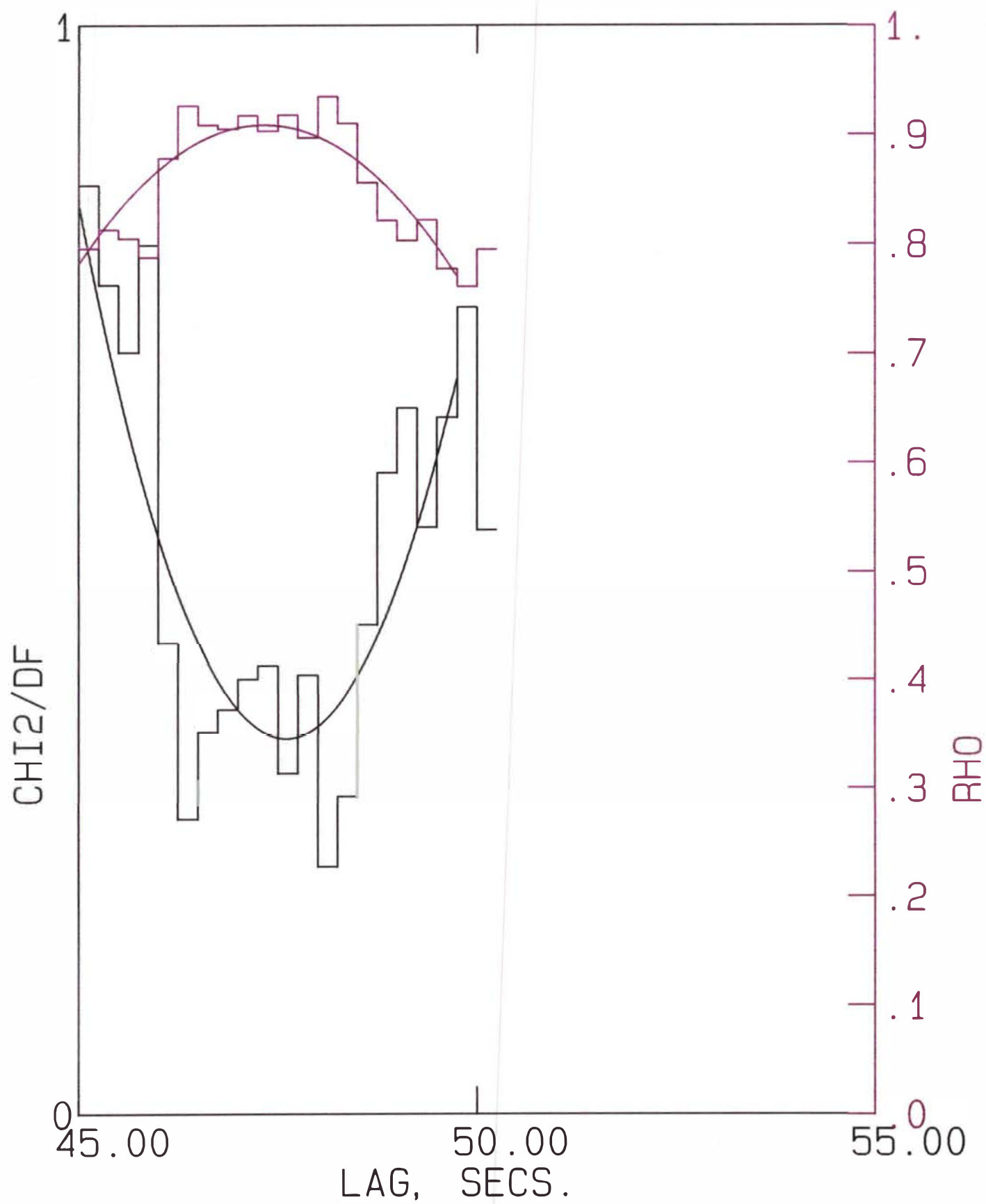
31/ 1/95

41735.858

10/ 2/98





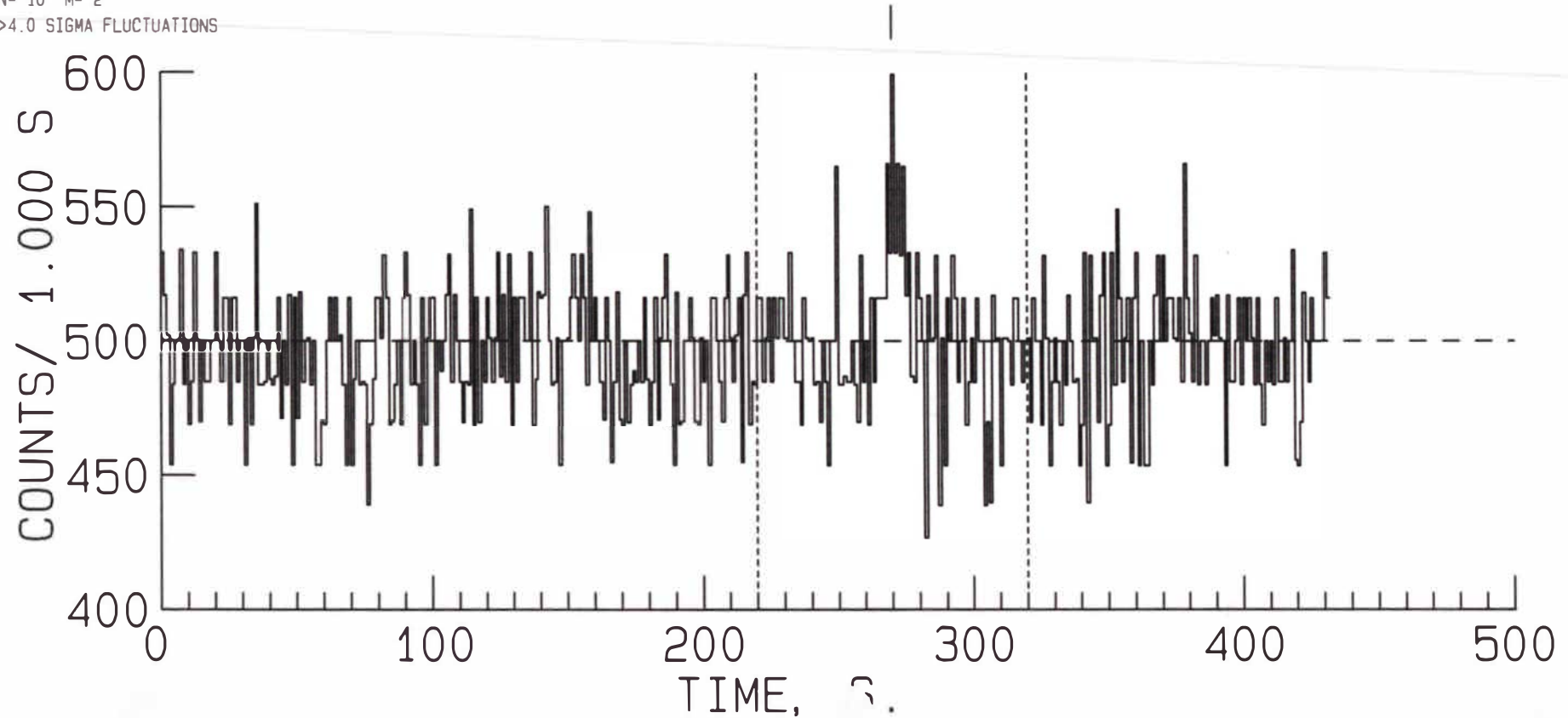


ULYSSES RT

10 / 2 / 98

31 / 1 / 95 41040.077 s
0.250 S INTERVALS REGROUPED BY 4
21- 146 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS

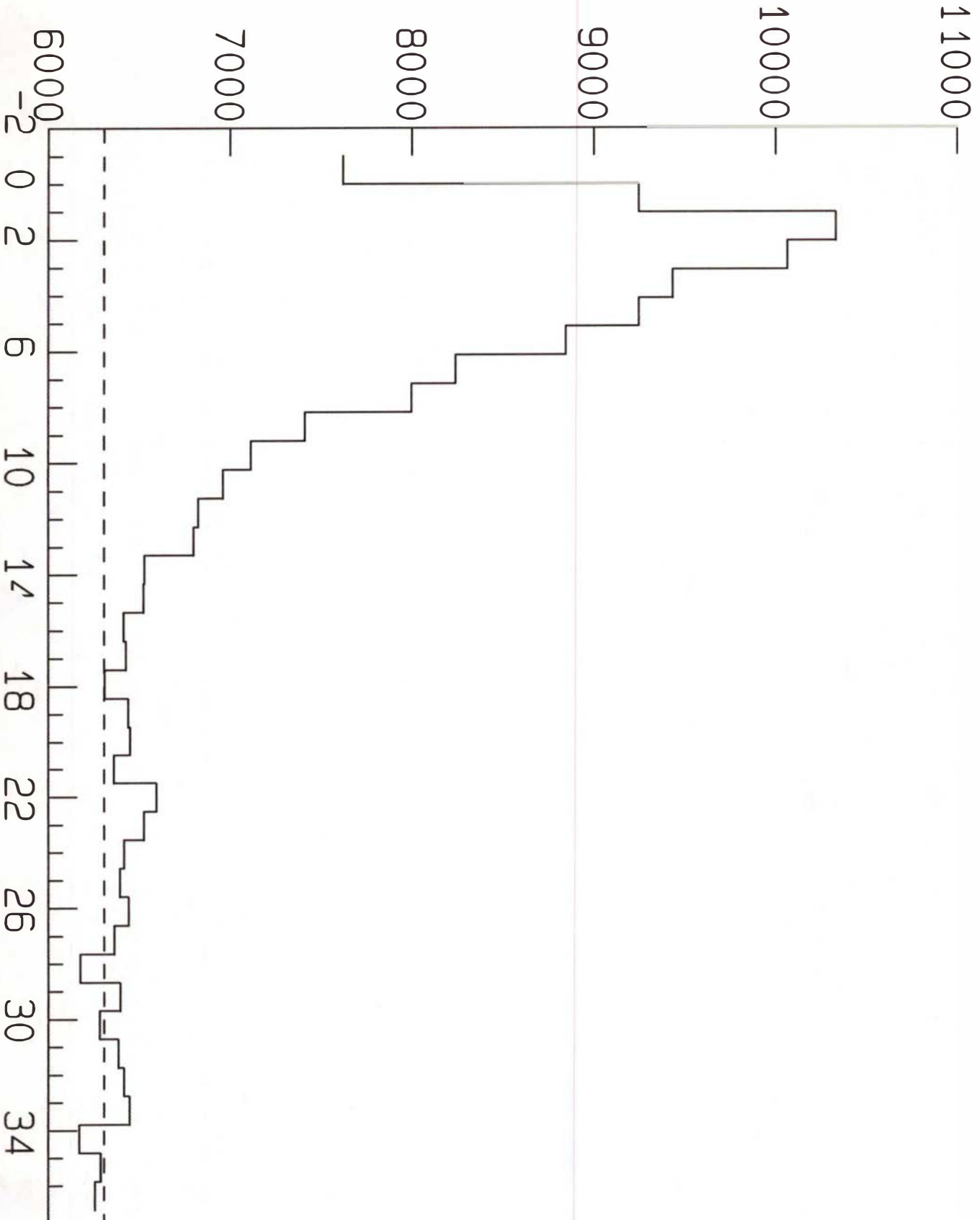


BATSE

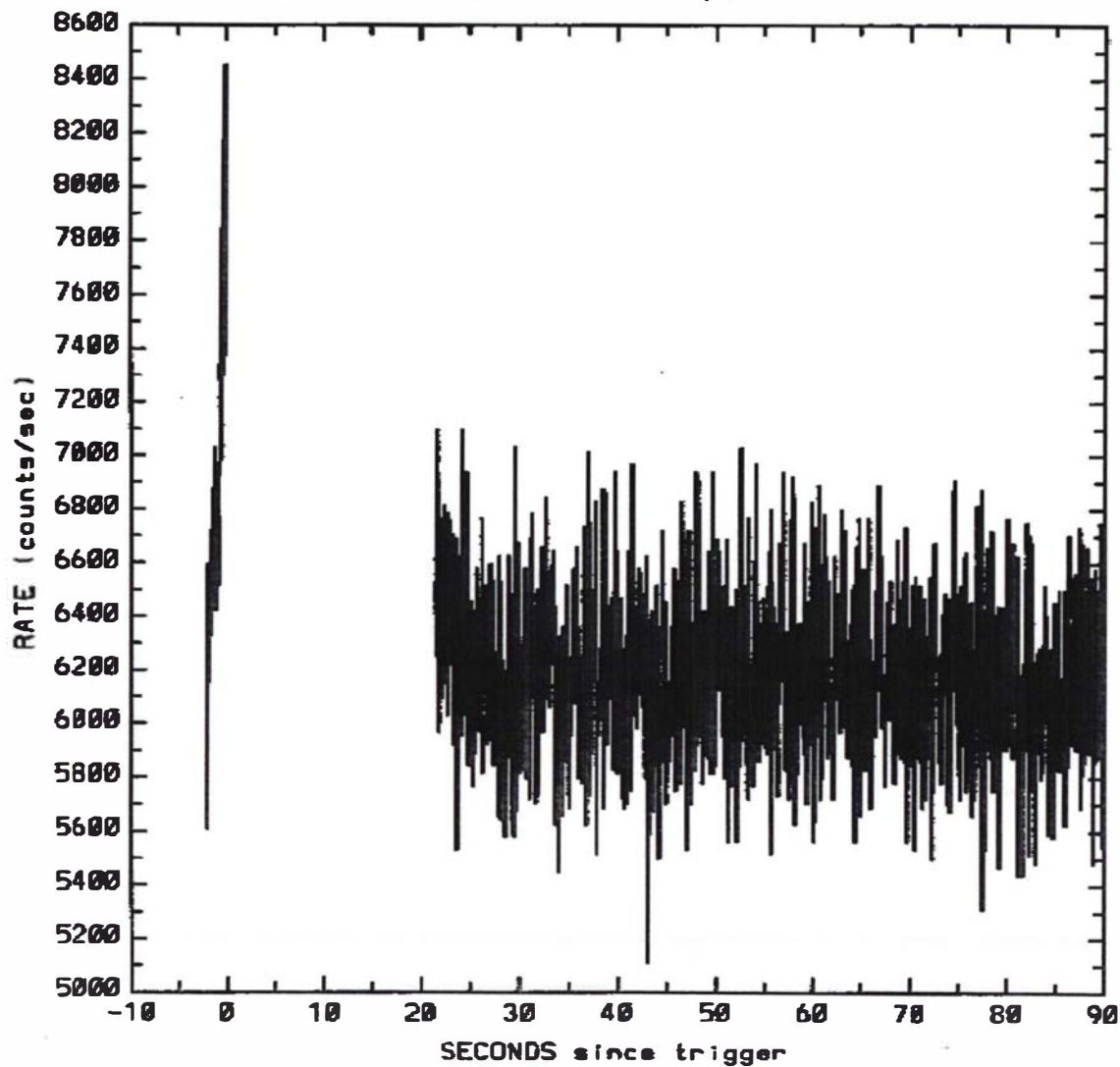
31/01/95

41735.858

25- 100 keV
COUNTS/1.024 S



DISCSC Data for K. Hurley, No. 3385



2-FEB-1995 15:04:51

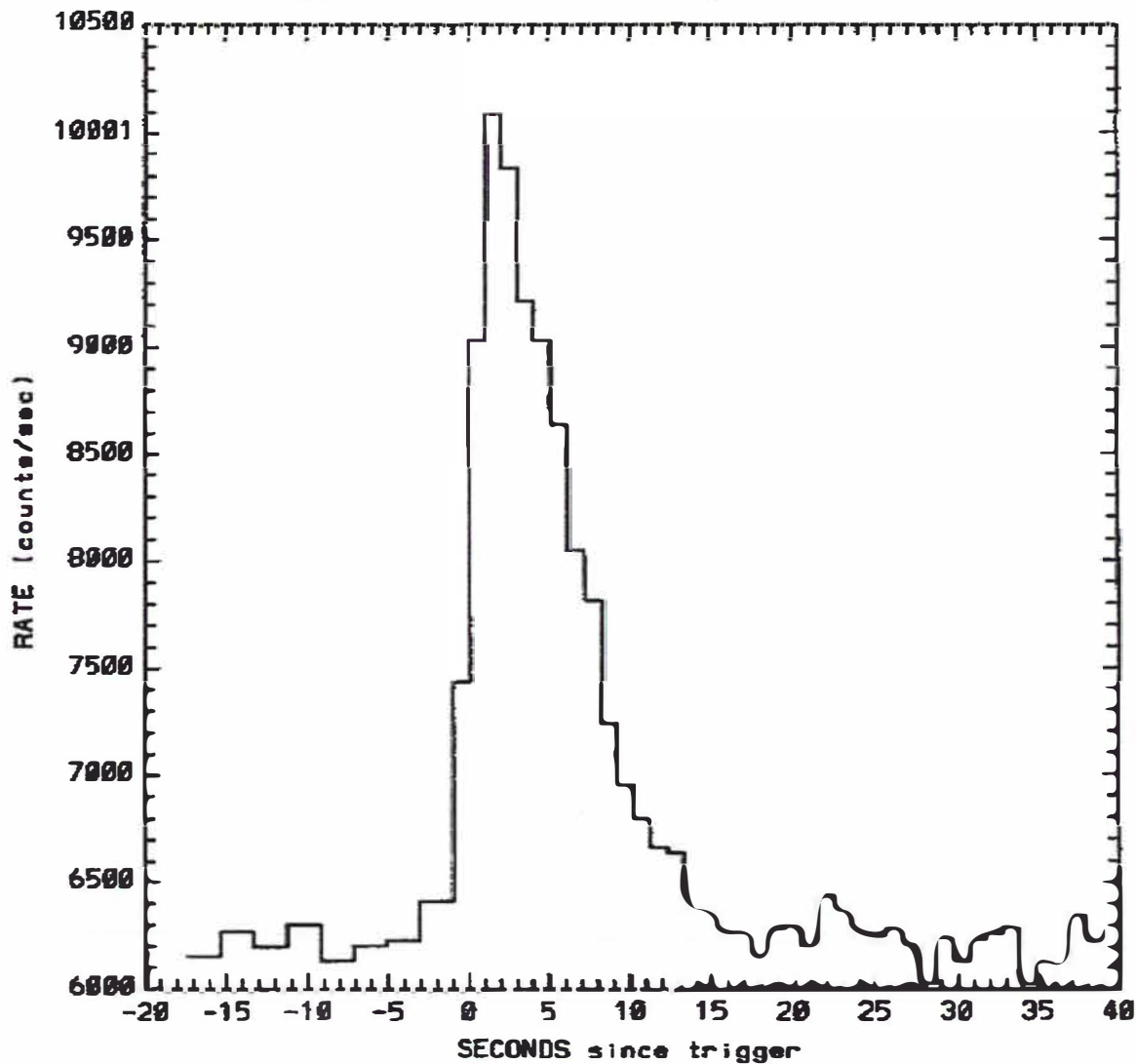
Created by MOPS 80
(Burst Display)
Version t2.23

Trigger # : 3385

Trigger Time:
9748 / 41735.058Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..8].
-6-6----Discriminators:
(1..2)Quality Mask:
80ISP1

Jan 31 '95

DISCLB Data for K. Hurley, No. 3385



22-JAN-1996 14:33:46

Created by WOPPS 80
{Burst Display}
Version 12.25

Trigger # : 3385

Trigger Time:
9748 / 41735.858Burst Data Type:
DISCLBDeadtime
Corrected: NBackground Data
Type: NoneMinimum Integ. Time:
1.024 secondsDetectors (7.8):
-6-4----Discriminators:
(1 , 2)Quality Mask:
80ISP1

From DEAL@ssl.msfc.nasa.gov Wed Feb 1 08:55 PST 1995

Date: Wed, 1 Feb 1995 10:55:17 -0600 (CST)

From: DEAL@ssl.msfc.nasa.gov

To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,

LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,

15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,

CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,

PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,

khurley@sunspot.ssl.berkeley.edu

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3386

TIME: TJD=9748 SECONDS=55085

TYPE: OTHER

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

ACCIDENTAL TRIGGER WHEN CHANGING BURST CRITERIA.

From DEAL@ssl.msfc.nasa.gov Wed Feb 1 08:16 PST 1995
Date: Wed, 1 Feb 1995 10:15:55 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03387

TIME: TJD=9748 SECONDS=68963

TYPE: SAA ENT SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY

Date: June 24 2003

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

- ☒ ~~Jim~~ Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Is the order of the data in CORREL such that a vernier is done on the data with the best time resolution?

2. BATSE Data

- ☐ BATSE ephemeris for T_0 ? N/A
- ☐ Error circle position and radius from public catalog used? N/A
- ☐ If MER data were used, is a 30 ms systematic error included? N/A

3. NEAR Data

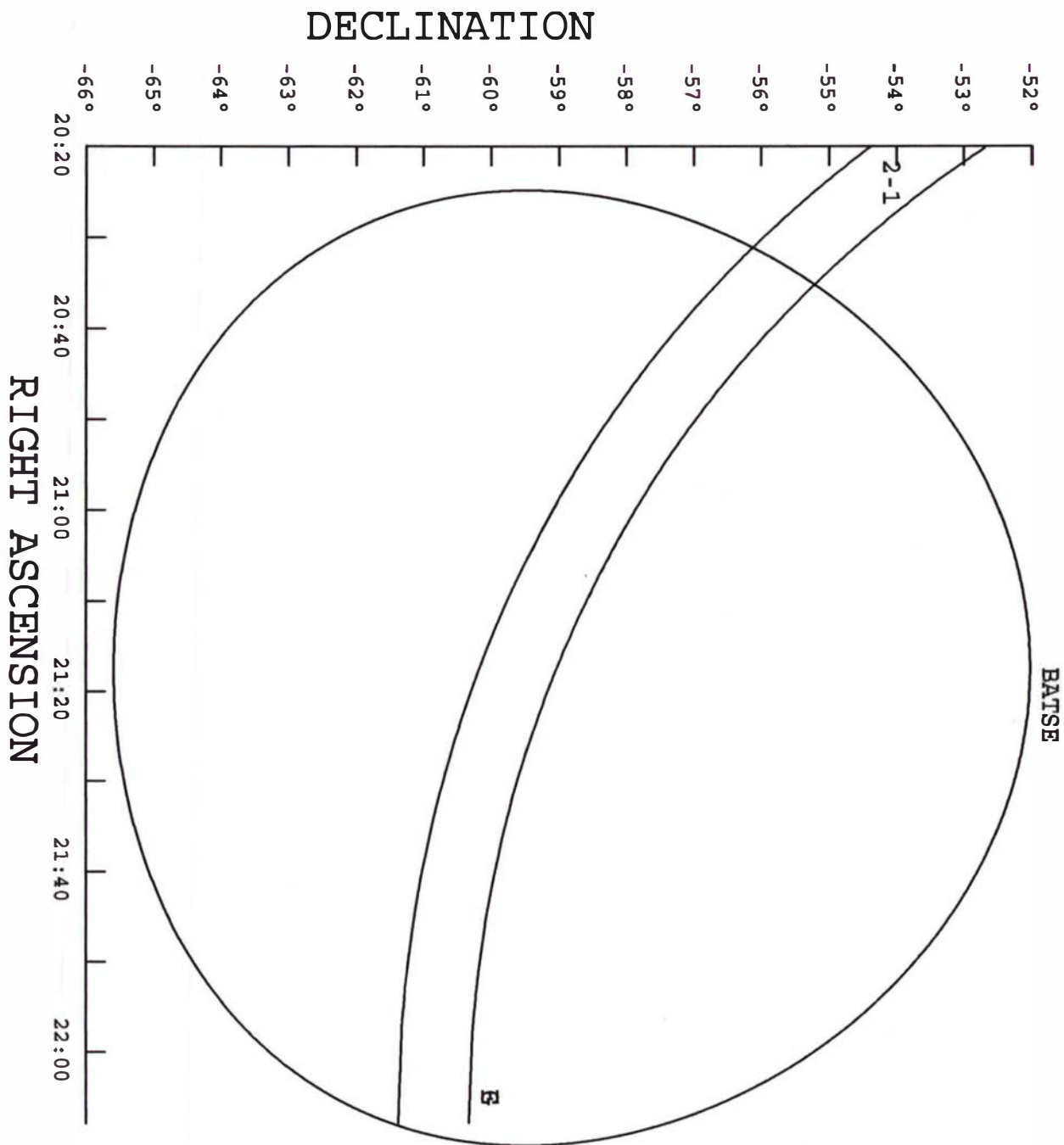
- ☐ Final, correct time used? (Files postmarked vwx@boccl, from from Teresa Sheets, postmarked May 2 1999 or later have the correct time; files on website have incorrect times)
- ☐ BATSE >100 keV data used for NEAR correlation?

- ☒ ACCESS database updated?

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

EVENT OF JAN 31, 1995 21:49

24 / 6 / 3



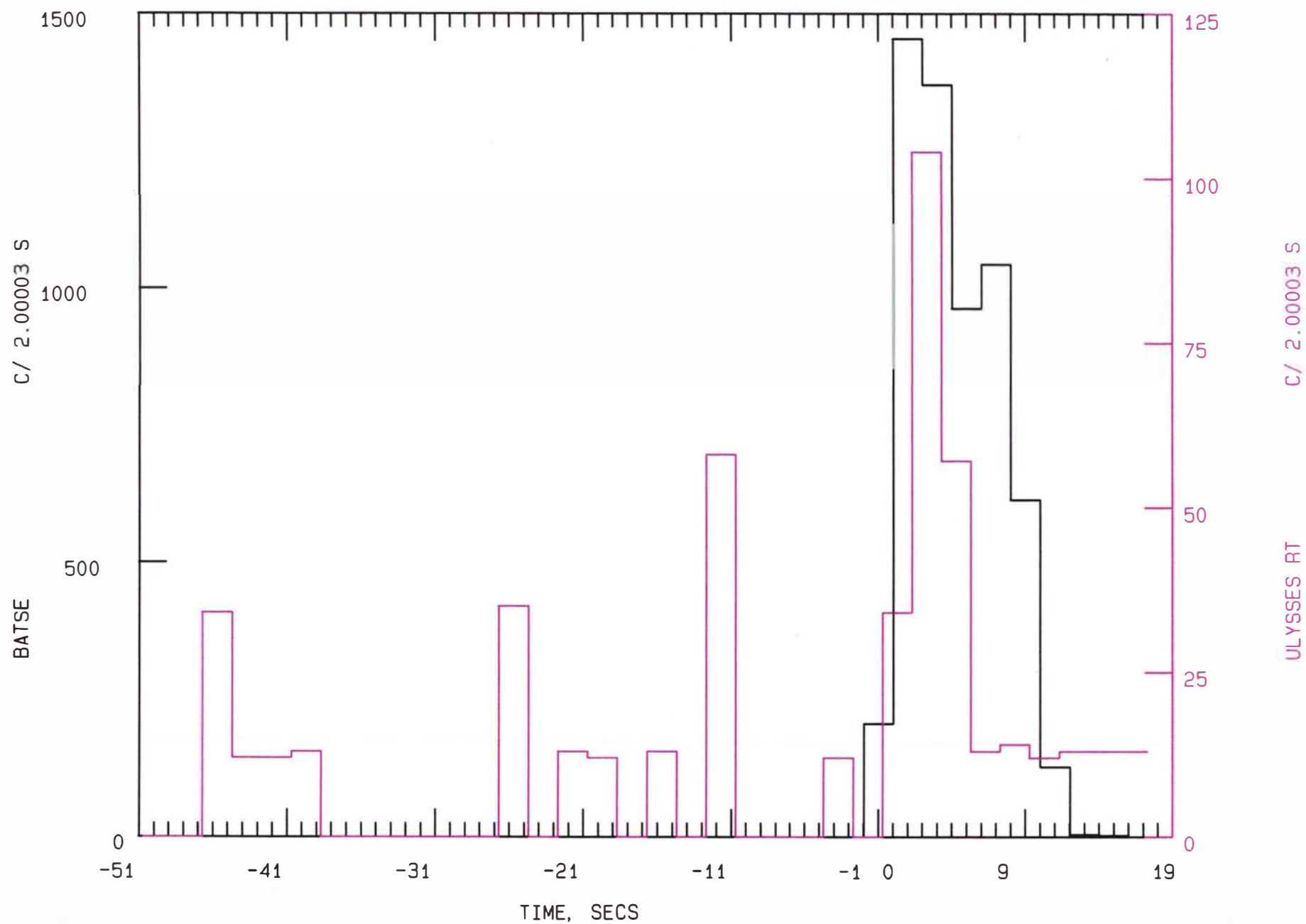
BATSE

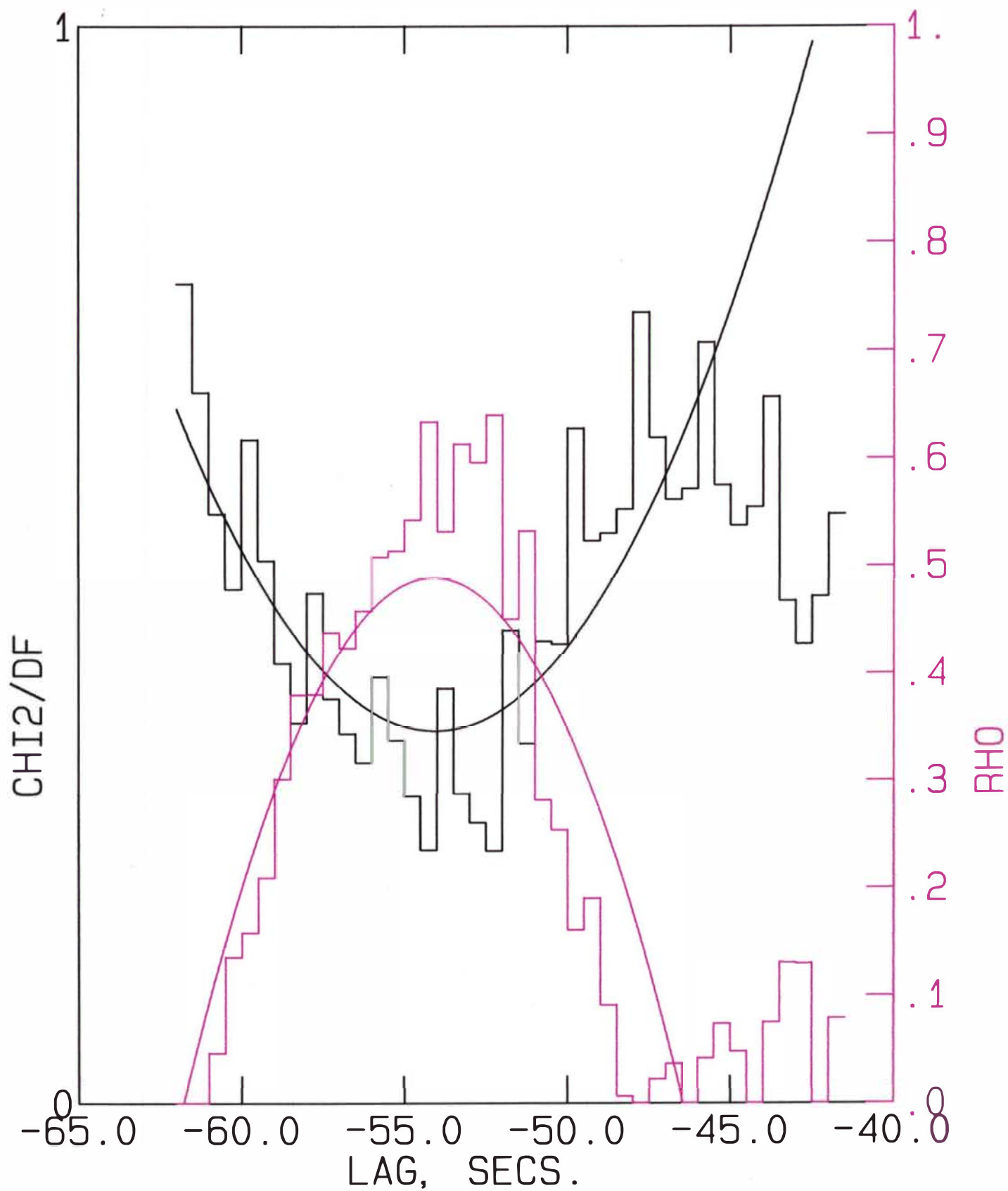
-ULYSSES RT CORRELATION

31/01/95

78592.178

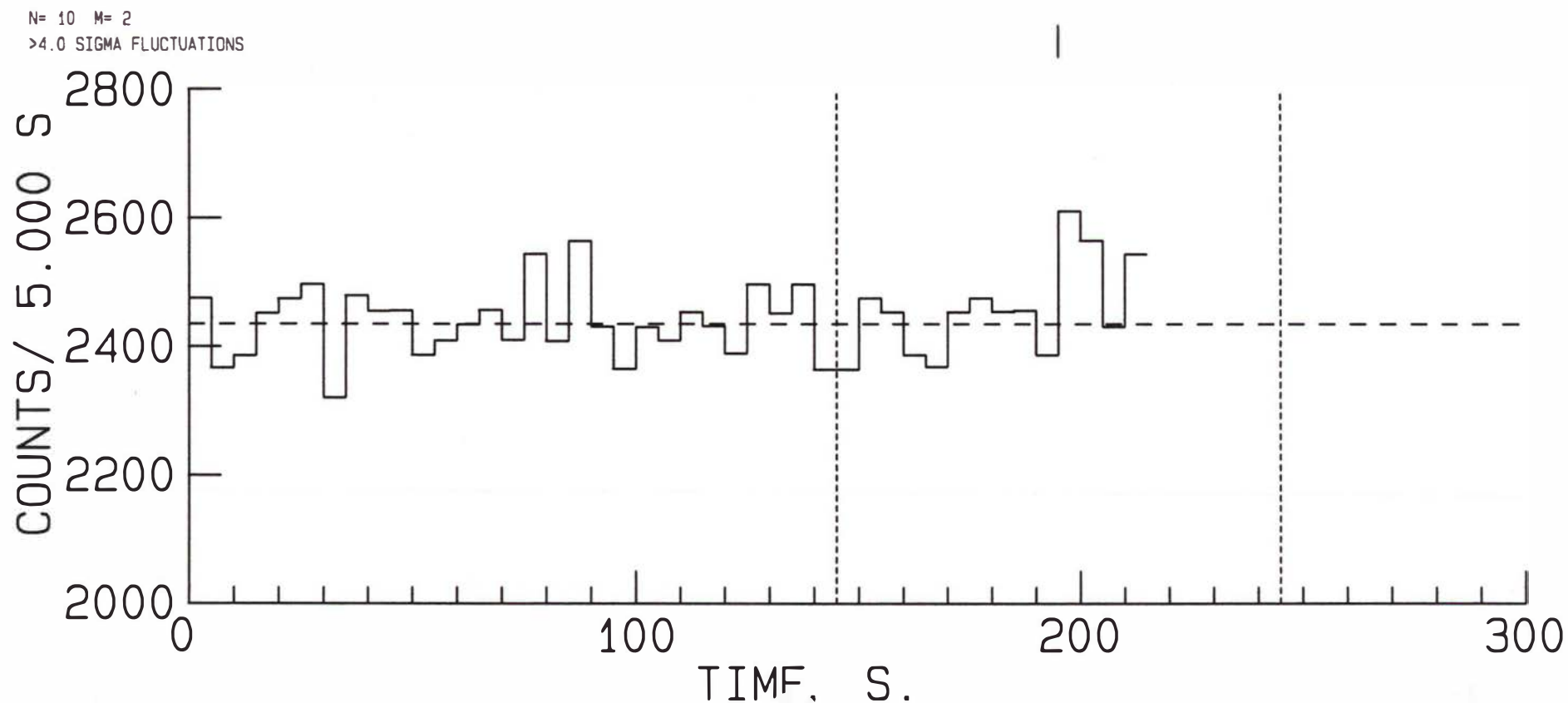
24/ 6/ 3





ULYSSES RT
31/ 1/95 77400.305 s
0.500 S INTERVALS REGROUPED BY 10
21- 146 keV

24 / 6 / 3



From DEAL@ssl.msfc.nasa.gov Wed Feb 1 08:18 PST 1995

Date: Wed, 1 Feb 1995 10:18:34 -0600 (CST)

From: DEAL@ssl.msfc.nasa.gov

To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3388

TIME: TJD=9748 SECONDS=74848

TYPE: SAA ENT SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY

950131	11	35	35	S2	70	130	20	0.4	12		BGR ✓
950131	21	49	48	S1	265	80		>5	15		BGR
950201	22	01	00.232	S1	793	2027	152	1.1	1	5	40 ✓
950202	11	32	49	S2	140	60		<0.2	6		BGR
950203	01	47	11.728	S1	4380	2800	80	0.95	4	250	41 Sol
950204	00	38	38.654	S2	145	710	620	0.16	0.1	45	42
950204	15	42	24.557	S1	15400	8240	180	0.95	1.5	260	43 Sol
950207	00	46	14	S2	150	95		<0.1	40		BGR ✓
950207	13	52	53.785	S1	115	360	50	4.6	6	25	44
950207	20	10	30	S1	65	20		2.4	50		BGR
950208	02	10	24.432	S2	1144	1824	670	0.02	1	60	45
950210	02	20	24.148	S1	1350	3900	700	3.2	0.04	0.16	47
950211	02	24	57.749	S2	2750	11630	6560	<0.06	0.03	0.14	48 ✓
950211	04	25	45.869	S2	230	480	240	0.4	8	12	49
950211	20	07	49.074	S1	1170	1570	460	60	12	60	50 ✓
950211	23	26	12	S2	30	40	15	<0.2	30		BGR ✓
950218	11	57	51.463	S2	1275	620		0.95	5	40	51 Sol
950220	03	18	27.878	S2	550	185		0.95	40	240	52 Sol
950221	20	45	01	S2	36	150	40	1.7	24		BGR
950222	21	04	23	S2	100	90	35	<0.1	30		BGR
950223	02	23	03	S1	120	160	30	2.0	18		BGR ✓
950224	09	23	19	S2	115	80		<0.1	30		BGR
950225	15	09	09	S2	35	35		<0.1	200		BGR ✓
950226	14	49	11.255	S1	300	375	120	2.5	3	78	54
950227	08	41	54	S1	70	160	30	1.05	25		BGR
950228	05	38	53	S2	150	105		<0.1	90		BGR
950301	04	55	54	S1	270	90		1.4	320		BGR
950301	21	02	11	S2	140	220	60	<0.1	340		BGR ✓
950302	23	52	57.178	S2	240	260	70	<0.1	0.5	1.5	55 ✓
950304	05	38	10	S2	75	70	15	<0.1	100		BGR
950304	10	27	41.062	S1	360	490	250	4.5	0.5	55	56 ✓
950305	15	05	09.427	S1	200	640	400	1.2	1	25	58 ✓
950307	04	05	33.254	S2	280	480	70	0.15	7	1	59
950310	21	46	28	S2	110	140	50	<0.1	210		BGR ✓
950313	01	56	27	S1	45	50		>7	30		BGR
950313	06	16	19	S2	140	50	10	<0.15	15		BGR ✓
950313	07	37	34	S1	45	85	25	4	6		BGR ✓
950316	11	45	42	S2	40	115	75	<0.07	40		BGR
950317	19	53	43	S2		85		0.7	6		BGR
950317	20	28	32	S1	40	60		1.5	32		BGR
950319	18	32	54.499	S2	720	1560	400	0.65	1	10	62 ✓
950325	07	10	41.574	S2	345	1460	1570	0.2	1	230	63 ✓
950325	17	36	32.815	S1	1320	2710	900	3.2	1	43	64 ✓
950327	06	13	10	S1	30	65	20	1.3	18		BGR
950327	07	18	43	S2	20	45	10	0.3	60		BGR ✓
950327	19	15	55.518	S1	500	200		0.9	12	4	65 Sol
950327	23	47	52	S2	60	85	35	0.2	90		BGR
950329	06	47	45.958	S2	720	170		0.9	115	140	66 Sol
950329	18	51	52.697	S2	2540	2090	10	0.86	94	40	67 Sol
950329	21	56	10.723	S2	3270	3440	50	0.9	1	25	68 Sol
950401	11	50	47.034	S2	470	840	530	<0.05	3	58	69 ✓
950401	20	43	55.068	S2	200	700	340	0.3	3	18	70 ✓
950403	02	26	54	S1	30	90	20	4.0	18		BGR
950403	13	19	45.179	S1	1030	2840	800	1.0	1	15	71 ✓
950403	23	33	48.194	S2	4650	10000	4700	0.06	0.5	60	72 ✓
950405	04	14	12	S2	95	30		<0.2	6		BGR ✓
950407	15	15	22.052	S1	1230	4780	1920	2.1	14	60	74 ✓
950408	09	32	55.553	S1	180	320	210	4.5	5	8	75
950409	02	17	33	S2	70	50		<0.15	20		BGR
950409	15	43	10.676	S1	520	290		>8	2	10	76
950411	07	51	01.753	S1	440	1180	610	1.4	2	7	78 ✓
940412	00	48	03	S2	30	120	20	0.4	6		BGR ✓
950412	14	50	33	S1	60	110	40	3.0	10		BGR
950414	11	21	22.798	S1	590	1400	1160	>2	0.13	0.03	79
950416	03	41	46.766	S1	2670	3420	620	20	0.5	4	80 ✓
950416	10	42	21	S2	30	40		<0.2	15		BGR

From cline@lheavx.gsfc.nasa.gov Fri Feb 2 05:41 PST 1996

Date: Fri, 2 Feb 1996 05:41:51 -0800

Mime-Version: 1.0

To: Bonnard.Teegarden@cesr.cnes.fr, KHURLEY@sunspot.ssl.berkeley.edu,
palmer@lheamail.gsfc.nasa.gov, seifert@lheamail.gsfc.nasa.gov

From: cline@lheavx.gsfc.nasa.gov (T L Cline)

Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

Here is Sergei Golenetskii's latest Konus burst list, for your information. Note that, including the non-triggered-mode 'BGR' events they confidently identify, there are over 300 events so far.

- TLC

DATE	Trigger T0 time (UT)	Sensor	KONUS-WIND		N(S1)/N(S2)		Duration		Trigger number
			Max counts per sec				T<T0	T>T0	
			G1	G2	G3	in G2			
941113	12 09 15	S1	145	85		2.5	115		BGR ✓
941114	02 02 40	S2	110	128	30	0.25	12		BGR ✓
941117	03 14 38.191	S2	406	550	74	0.17	40	5	2 ✓
941117	14 07 57	S2	150	140		<0.15	5		BGR ✓
941119	19 31 09.175	S2	370	703	160	0.23	7	20	4 ✓
941120	20 23 17.924	S1	215	328	30	>15	2	25	5 ✓
941121	17 25 00.945	S1	1652	1656	300	21	3	50	6 ✓
941125	22 04 30.156	S2	115	308	109	0.95	1.5	5	7 ✓
941126	00 20 46	S1	150	205	200	>14	18		BGR ✓
941126	12 22 37.952	S1	860	1430	330	4.2	40	45	8 ✓
941126	16 54 20	S1	55	75		>10	26		BGR ✓
941126	19 56 49.732	S1	290	390	211	6.7	20	26	9
941127	14 30 25.680	S2	200	400	95	0.17	8	7	10 ✓
941127	15 39 10	S1	210	57		2.7	260		BGR ✓
941128	15 37 00	S1	75	90	32	>15	55		BGR ✓
941205	23 33 40.074	S2	370	460	188	0.06	6	30	11 ✓
941207	22 10 32	S2	265	175		<0.2	7		BGR ✓
941210	03 10 52.523	S2	900	2350	1385	0.12	1	15	14 ✓
941214	17 03 51	S1	40	45	29	>6	12		BGR ✓
941214	05 38 45.226	S1	3479	1266	14	1.0	12	240	18 Sol
941221	07 44 08	S2	55	115	30	0.8	20		BGR
941221	22 14 35.215	S1	260	496	165	1.5	55	11	19 ✓
941222	05 36 00.243	S2	334	1360	1066	0.36	7	105	20 ✓
941228	07 39 45.915	S1	300	637	519	4.4	5	90	28 ✓
941228	16 55 23	S2	40	36	23	0.25	25		BGR ✓
941229	12 58 05	S1	46	108	31	1.8	15		BGR ✓
941229	22 51 08.781	S2	396	381	140	0.09	7	25	29 ✓
941230	20 52 53	S1	74	117	52	8.4	158		BGR ✓
941230	23 43 44	S2	55	70	16	<0.2	4.5		BGR ✓
950104	07 18 39.613	S2	258	550	219	0.75	2.8	20	31 ✓
950104	09 00 58	S2	140	143	40	<0.1	25		BGR ✓
950110	06 02 15	S2	332	180		<0.1	3600		BGR
950110	13 37 57.084	S2	234	422	213	0.05	38	100	32 ✓
950111	04 49 12.241	S1	586	620	100	>19	92	24	33 ✓
950111	12 18 49.196	S1	225	435	164	1.85	26	50	34 ✓
950112	07 45 37.120	S2	1305	1800	336	0.04	2.5	44	35 ✓
950113	05 59 13	S1	283	180	26	>10	52		BGR ✓
950113	17 38 32	S2	85	162	35	<0.06	75		BGR ✓
950114	01 00 38	S1	46	110		1.6	6		BGR ✓
950114	04 03 01	S2	23	76		0.5	70		BGR ✓
950114	07 30 30.766	S2	205	406	60	<0.05	1	100	36 ✓
950114	13 10 34.865	S1	1320	2828	516	3.1	1	10	37 ✓
950115	02 49 32	S2	40	47	34	<0.15	24		BGR ✓
950117	01 36 00	S2	56	82	42	0.2	108		BGR ✓
950118	12 22 54	S2	57	105	17	<0.1	35		BGR ✓
950125	14 51 52.253	S1	380	600	140	8.2	3.8	11	39

K O N U S

1 2 / 2 / 9 6

U L Y S S E S R T

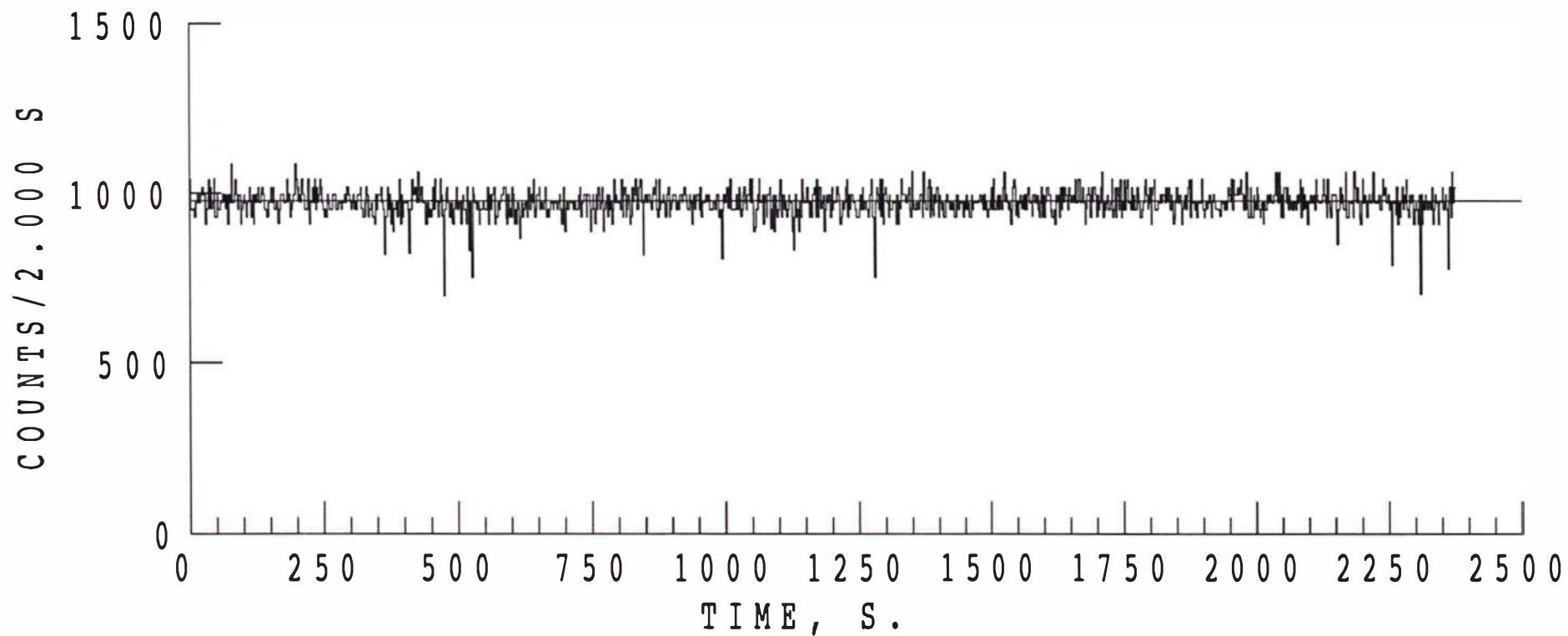
3 1 / 1 / 9 5 7 7 4 0 0 . 3 0 5 s

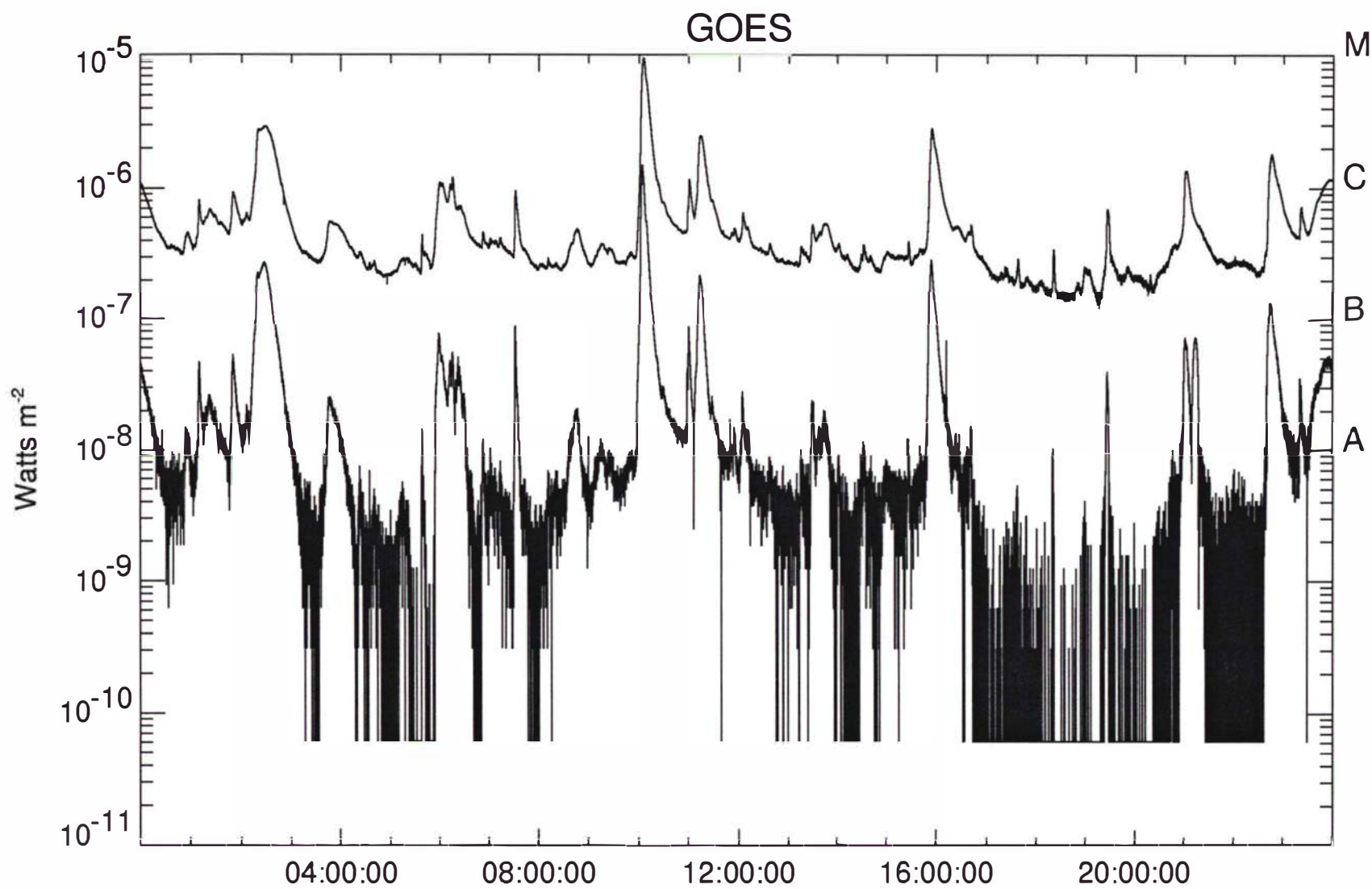
0 . 5 0 0 S I N T E R V A L S R E G R O U P E D B Y 4

0 - 0 k e V

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 95/01/31, 0000:02

Plot created: 95/02/02, 0514

Channel

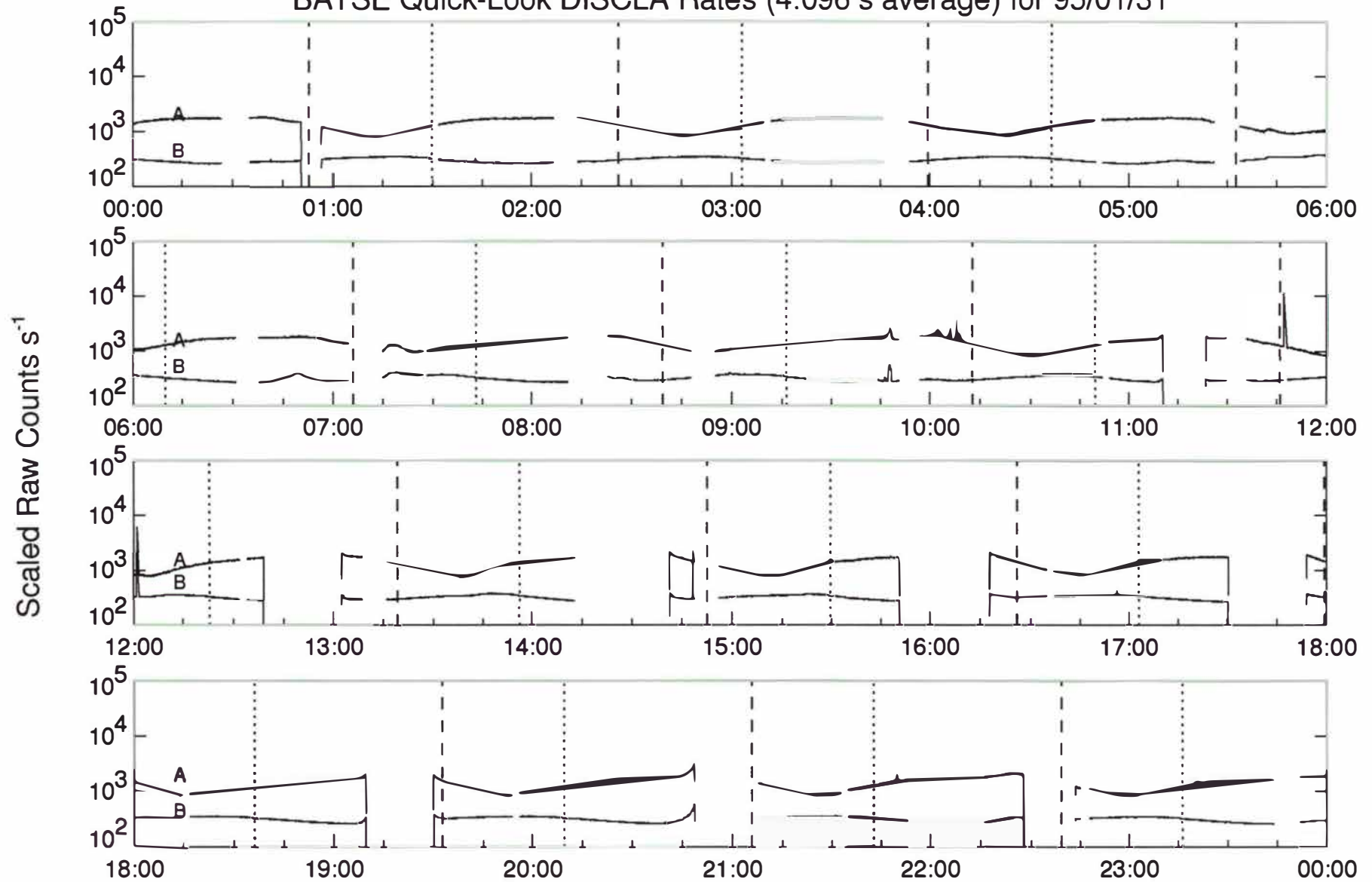
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/01/31



Current Time: 95/02/02, 0514 EDT

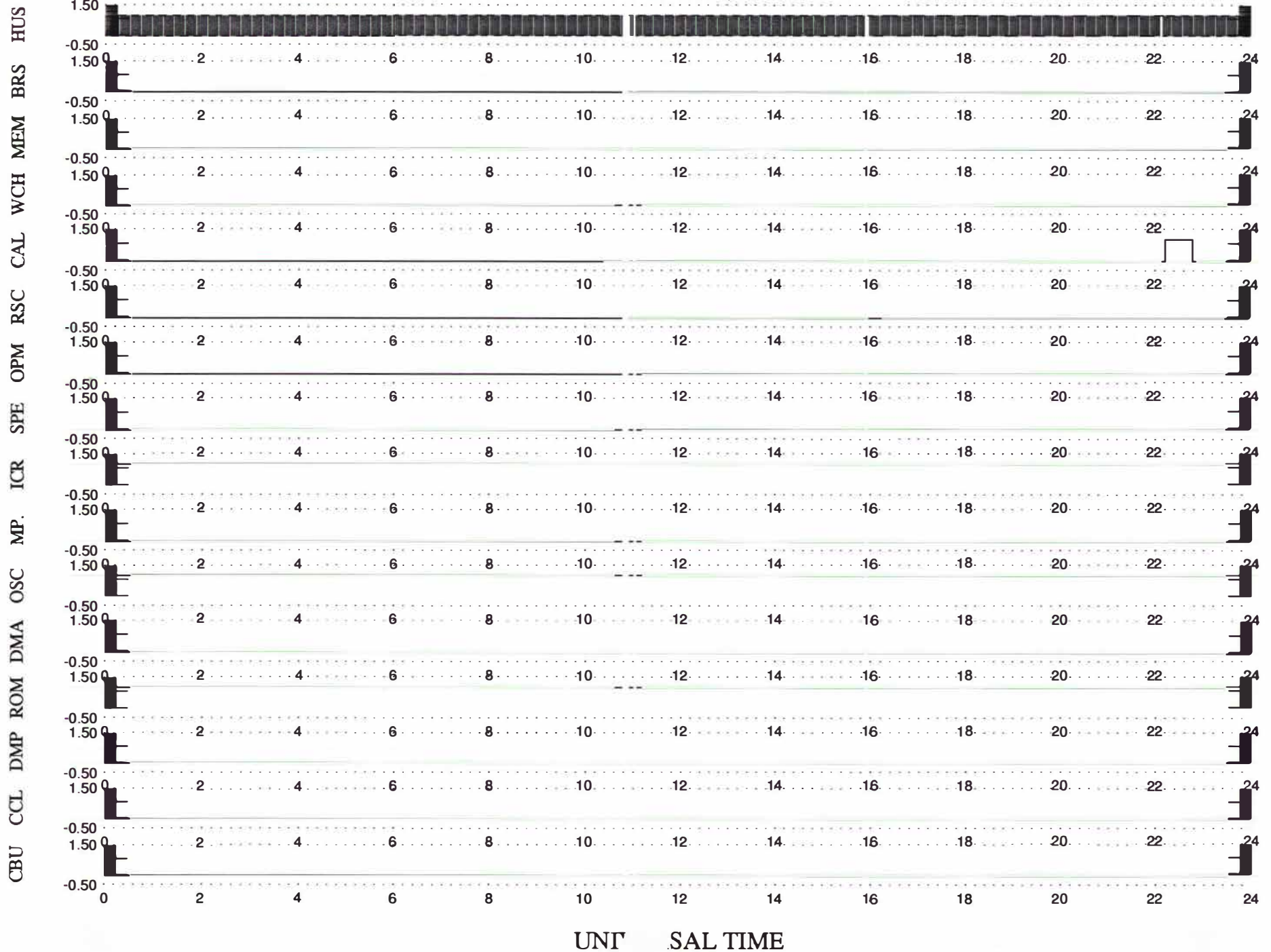
A: Channel 0 Most Sunward LAD

B: Sum Channel 0 Anti-Sunward LADs X .05

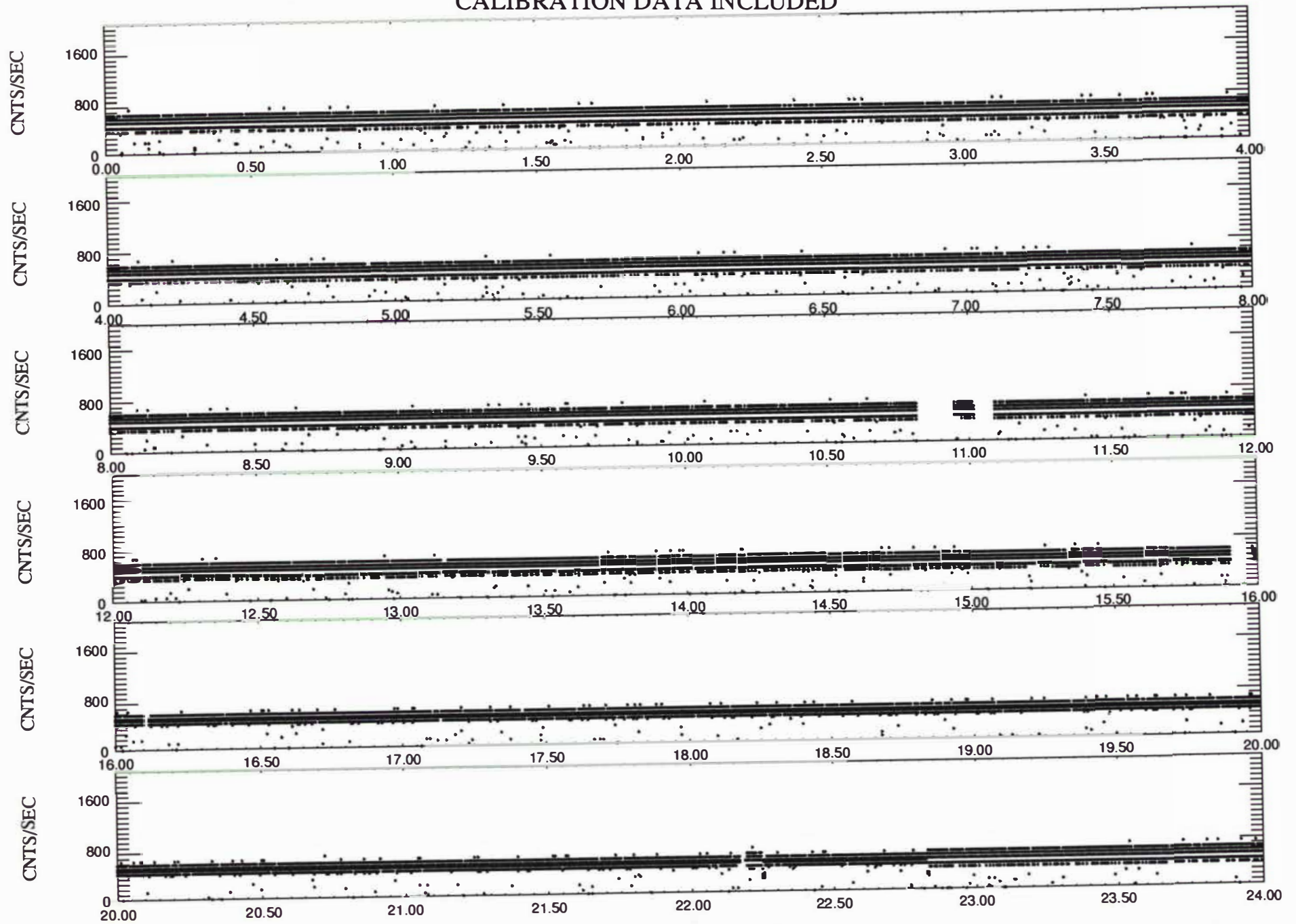
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

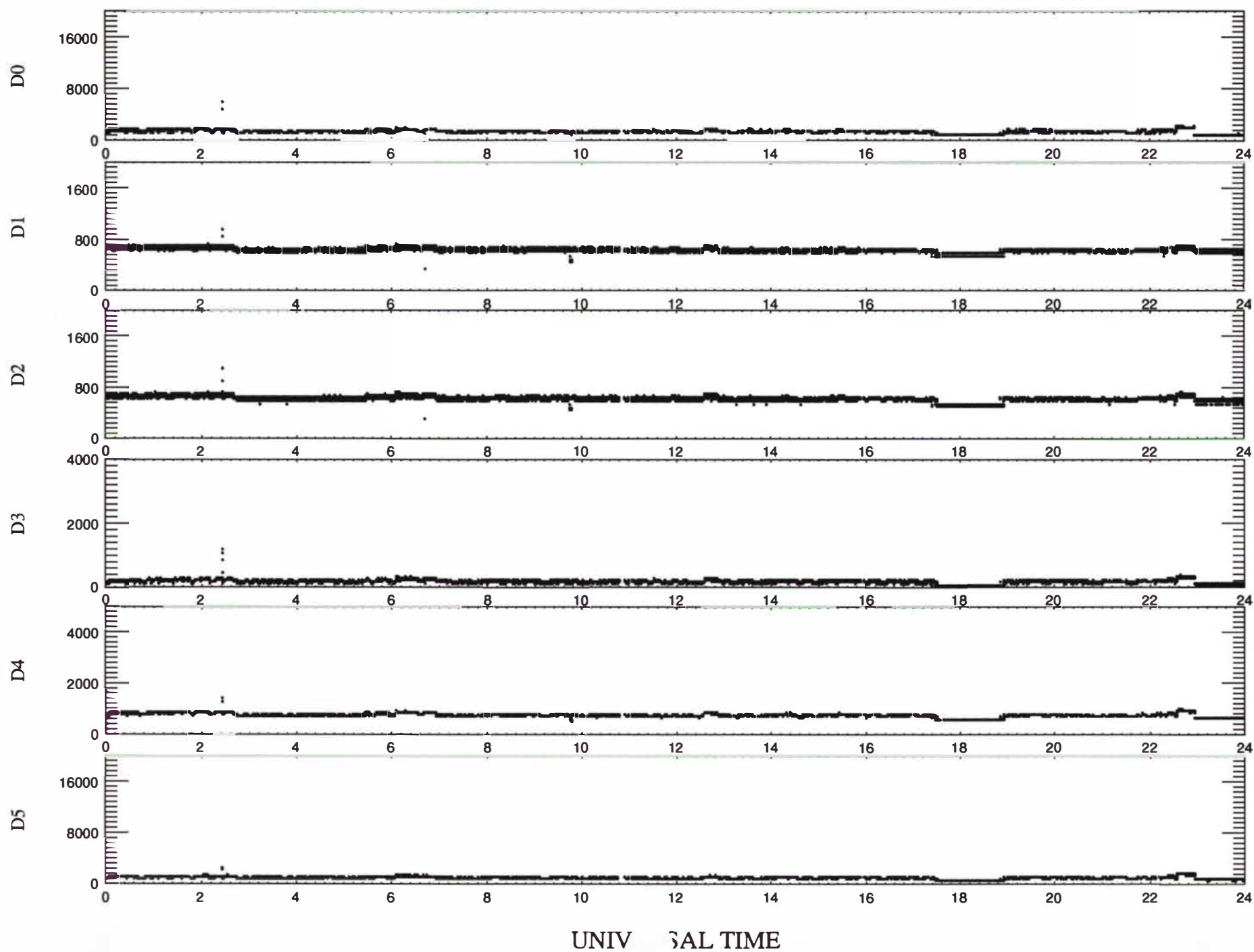
NO BURST (11)



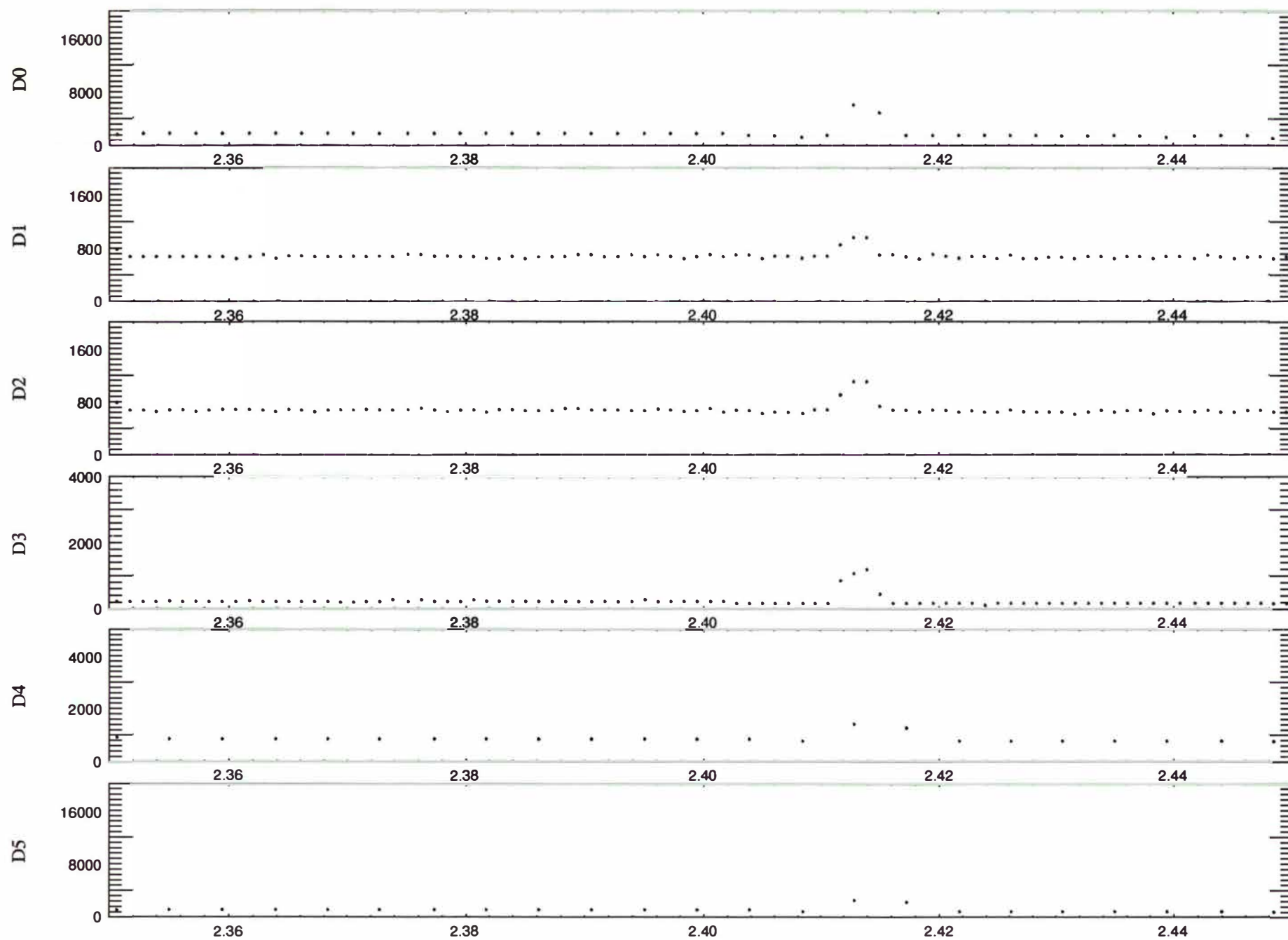
CALIBRATION DATA INCLUDED



UNIFORM SAL TIME



No.	Date	Description	Amount	Balance	Total
1	Jan 1	Balance forward			
2	Jan 10	Jan 10			
3	Jan 20	Jan 20			
4	Jan 30	Jan 30			
5	Feb 1	Feb 1			
6	Feb 10	Feb 10			
7	Feb 20	Feb 20			
8	Feb 30	Feb 30			
9	Mar 1	Mar 1			
10	Mar 10	Mar 10			
11	Mar 20	Mar 20			
12	Mar 30	Mar 30			
13	Apr 1	Apr 1			
14	Apr 10	Apr 10			
15	Apr 20	Apr 20			
16	Apr 30	Apr 30			
17	May 1	May 1			
18	May 10	May 10			
19	May 20	May 20			
20	May 30	May 30			
21	Jun 1	Jun 1			
22	Jun 10	Jun 10			
23	Jun 20	Jun 20			
24	Jun 30	Jun 30			
25	Jul 1	Jul 1			
26	Jul 10	Jul 10			
27	Jul 20	Jul 20			
28	Jul 30	Jul 30			
29	Aug 1	Aug 1			
30	Aug 10	Aug 10			
31	Aug 20	Aug 20			
32	Aug 30	Aug 30			
33	Sep 1	Sep 1			
34	Sep 10	Sep 10			
35	Sep 20	Sep 20			
36	Sep 30	Sep 30			
37	Oct 1	Oct 1			
38	Oct 10	Oct 10			
39	Oct 20	Oct 20			
40	Oct 30	Oct 30			
41	Nov 1	Nov 1			
42	Nov 10	Nov 10			
43	Nov 20	Nov 20			
44	Nov 30	Nov 30			
45	Dec 1	Dec 1			
46	Dec 10	Dec 10			
47	Dec 20	Dec 20			
48	Dec 30	Dec 30			
49	Jan 1	Jan 1			
50	Jan 10	Jan 10			
51	Jan 20	Jan 20			
52	Jan 30	Jan 30			
53	Feb 1	Feb 1			
54	Feb 10	Feb 10			
55	Feb 20	Feb 20			
56	Feb 30	Feb 30			
57	Mar 1	Mar 1			
58	Mar 10	Mar 10			
59	Mar 20	Mar 20			
60	Mar 30	Mar 30			
61	Apr 1	Apr 1			
62	Apr 10	Apr 10			
63	Apr 20	Apr 20			
64	Apr 30	Apr 30			
65	May 1	May 1			
66	May 10	May 10			
67	May 20	May 20			
68	May 30	May 30			
69	Jun 1	Jun 1			
70	Jun 10	Jun 10			
71	Jun 20	Jun 20			
72	Jun 30	Jun 30			
73	Jul 1	Jul 1			
74	Jul 10	Jul 10			
75	Jul 20	Jul 20			
76	Jul 30	Jul 30			
77	Aug 1	Aug 1			
78	Aug 10	Aug 10			
79	Aug 20	Aug 20			
80	Aug 30	Aug 30			
81	Sep 1	Sep 1			
82	Sep 10	Sep 10			
83	Sep 20	Sep 20			
84	Sep 30	Sep 30			
85	Oct 1	Oct 1			
86	Oct 10	Oct 10			
87	Oct 20	Oct 20			
88	Oct 30	Oct 30			
89	Nov 1	Nov 1			
90	Nov 10	Nov 10			
91	Nov 20	Nov 20			
92	Nov 30	Nov 30			
93	Dec 1	Dec 1			
94	Dec 10	Dec 10			
95	Dec 20	Dec 20			
96	Dec 30	Dec 30			
97	Jan 1	Jan 1			
98	Jan 10	Jan 10			
99	Jan 20	Jan 20			
100	Jan 30	Jan 30			



UNIV SAL TIME