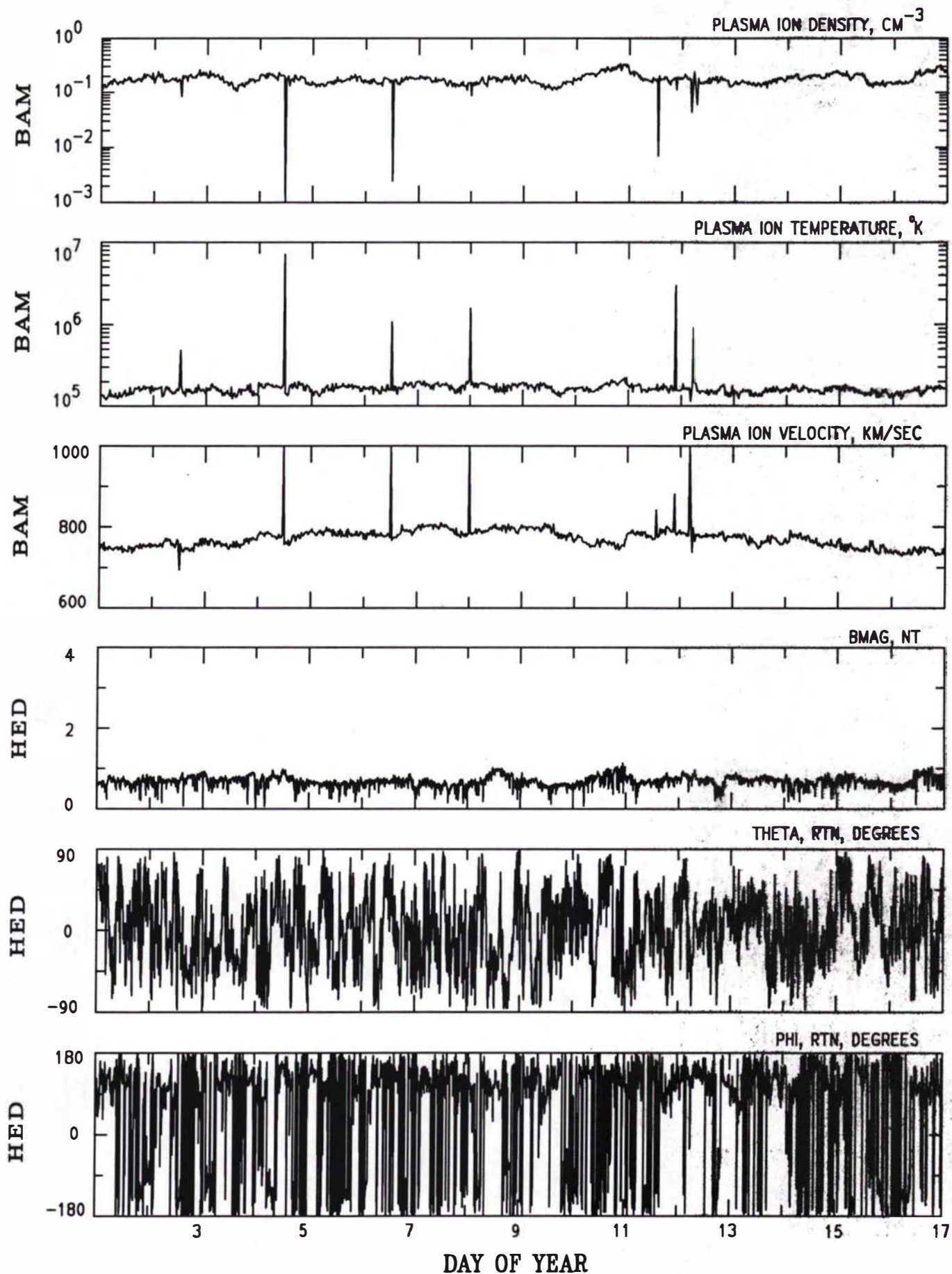


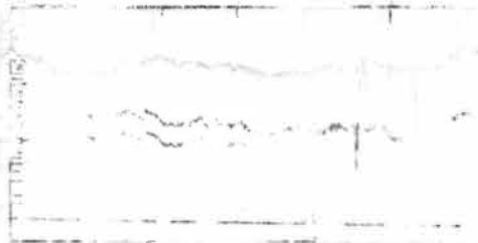
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



100-1000

ON DENSITY



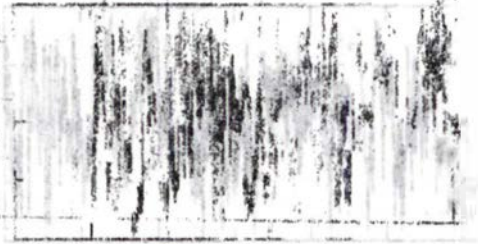
ON DENSITY



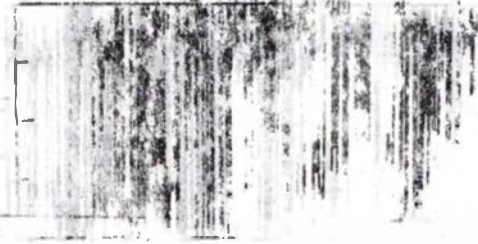
ON DENSITY



ON DENSITY

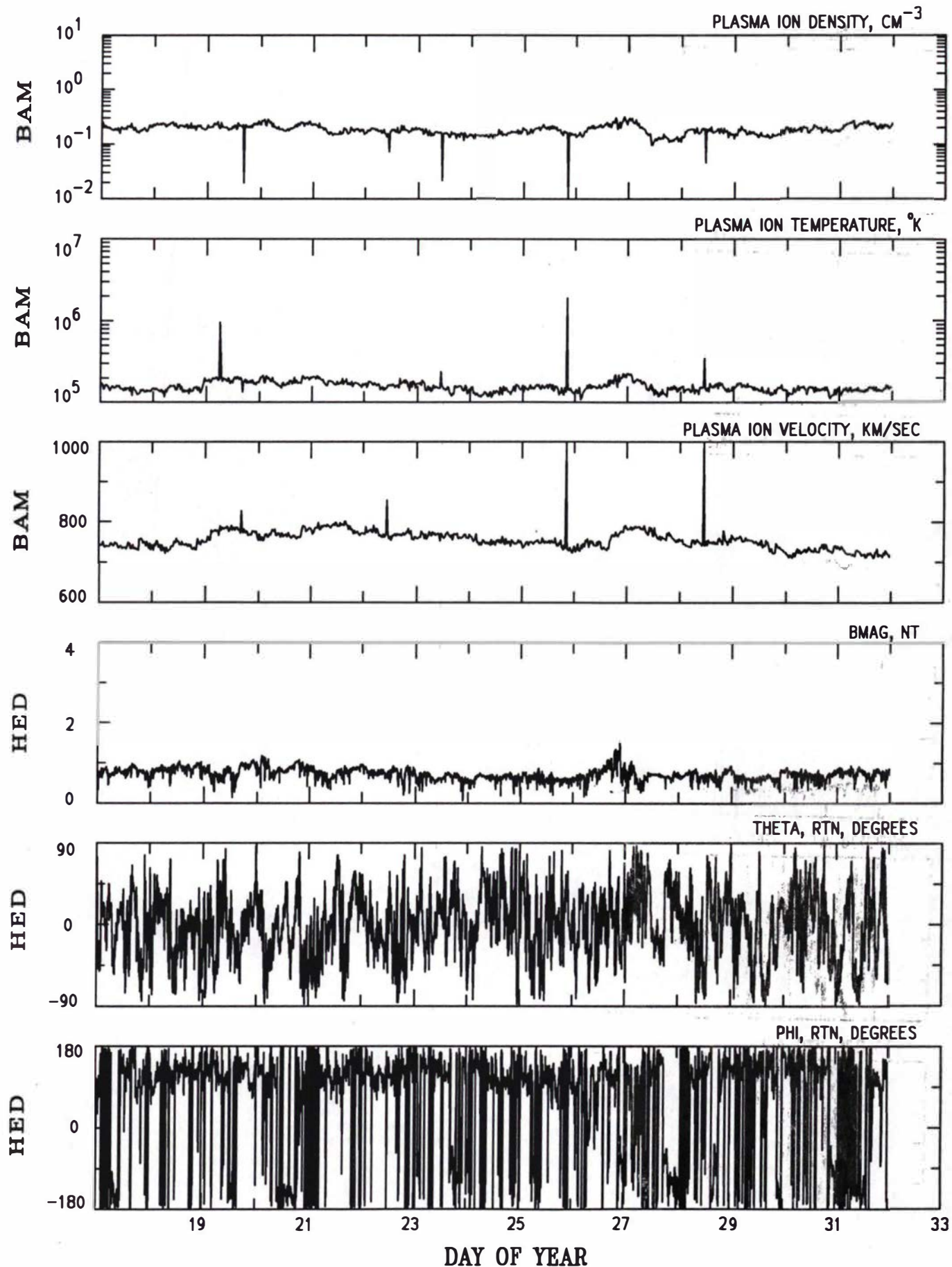


ON DENSITY



ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



1942

1942

1942

1942

1942

1942

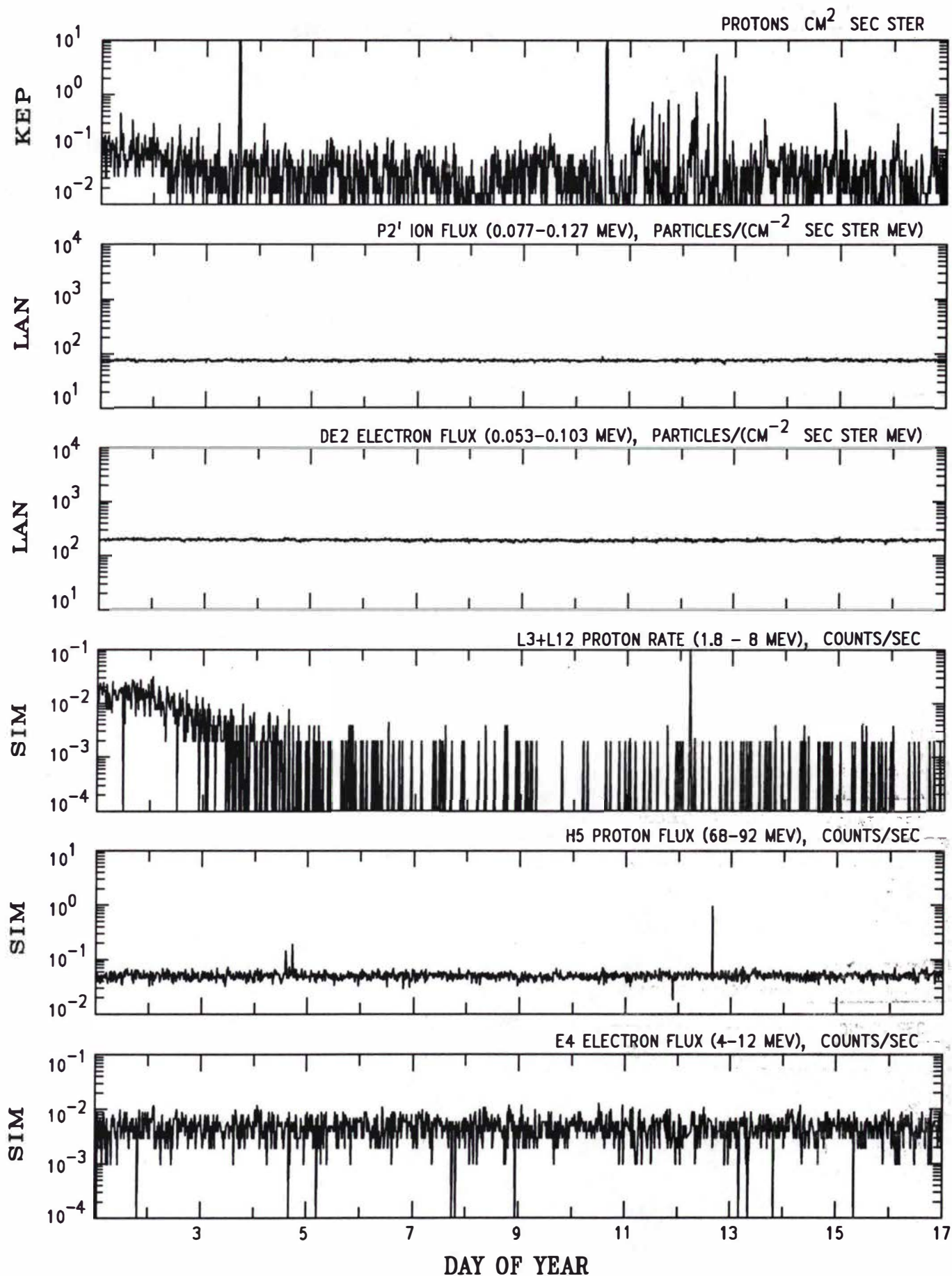
1942

1942

1942

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

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



1000 1000 1000



1000 1000 1000

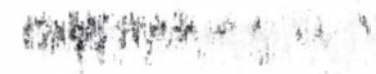
1000 1000 1000



1000 1000 1000

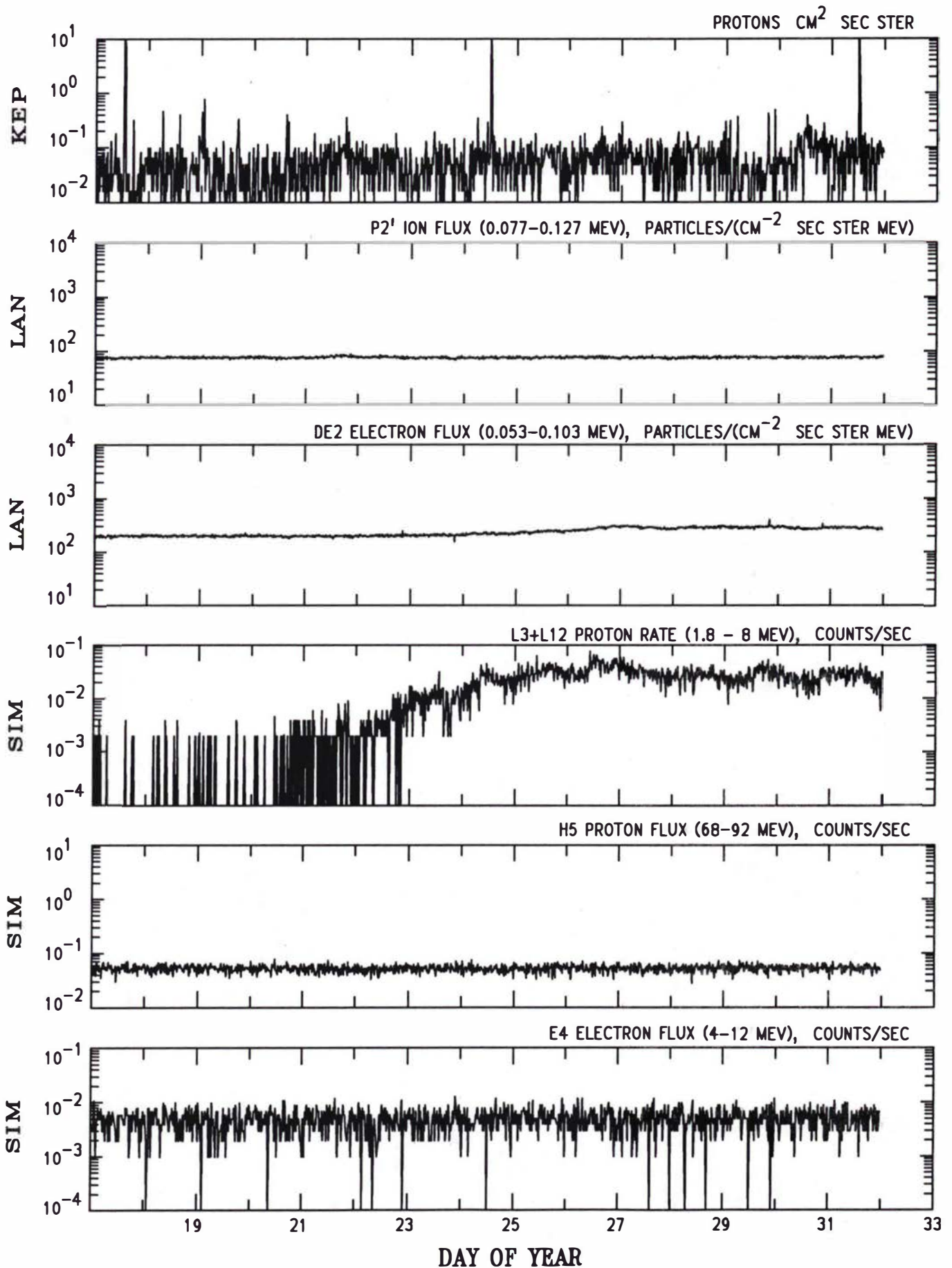


1000 1000 1000



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

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



100-100000-100000

100-100000-100000
100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

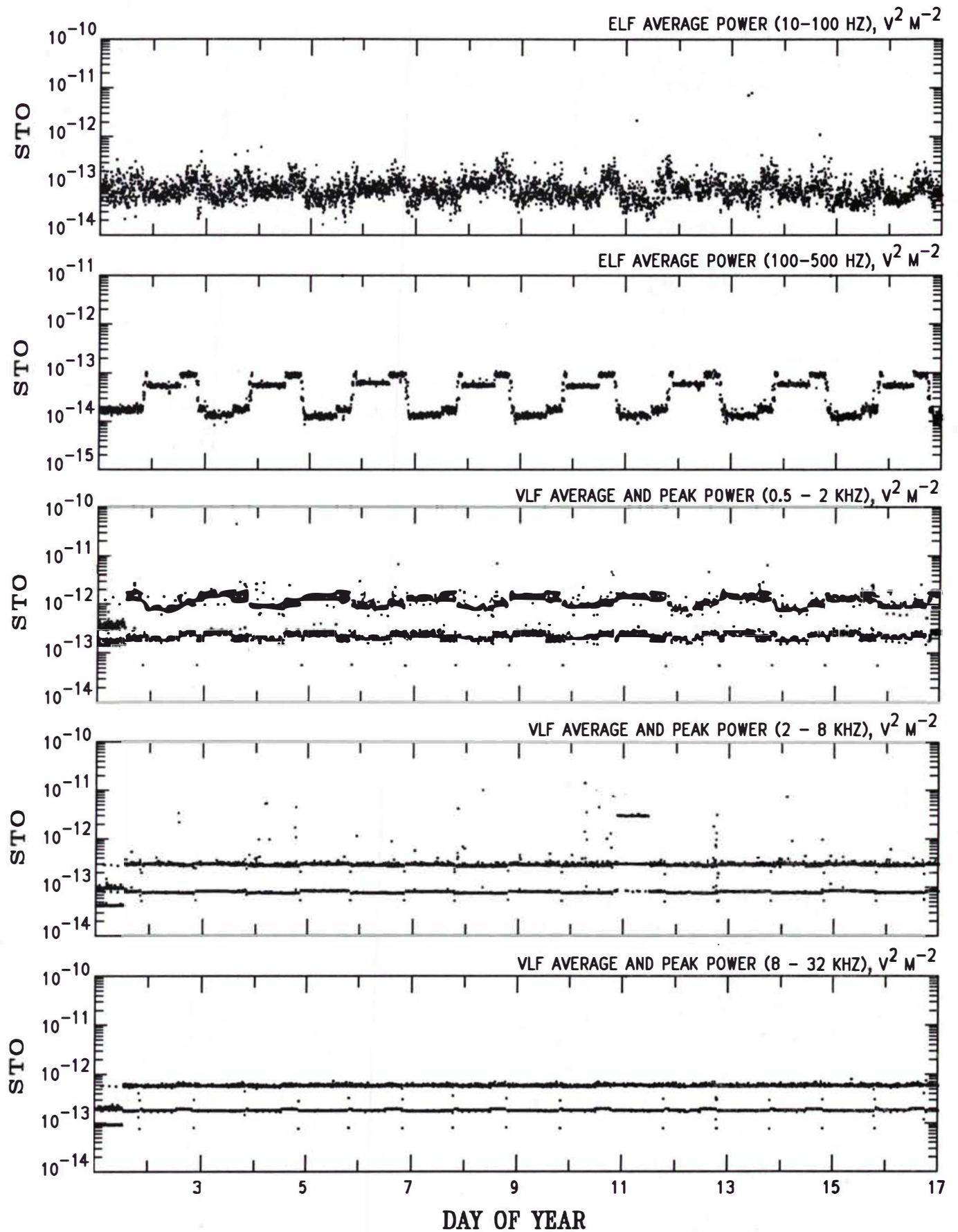
100-100000-100000

100-100000-100000

100-100000-100000

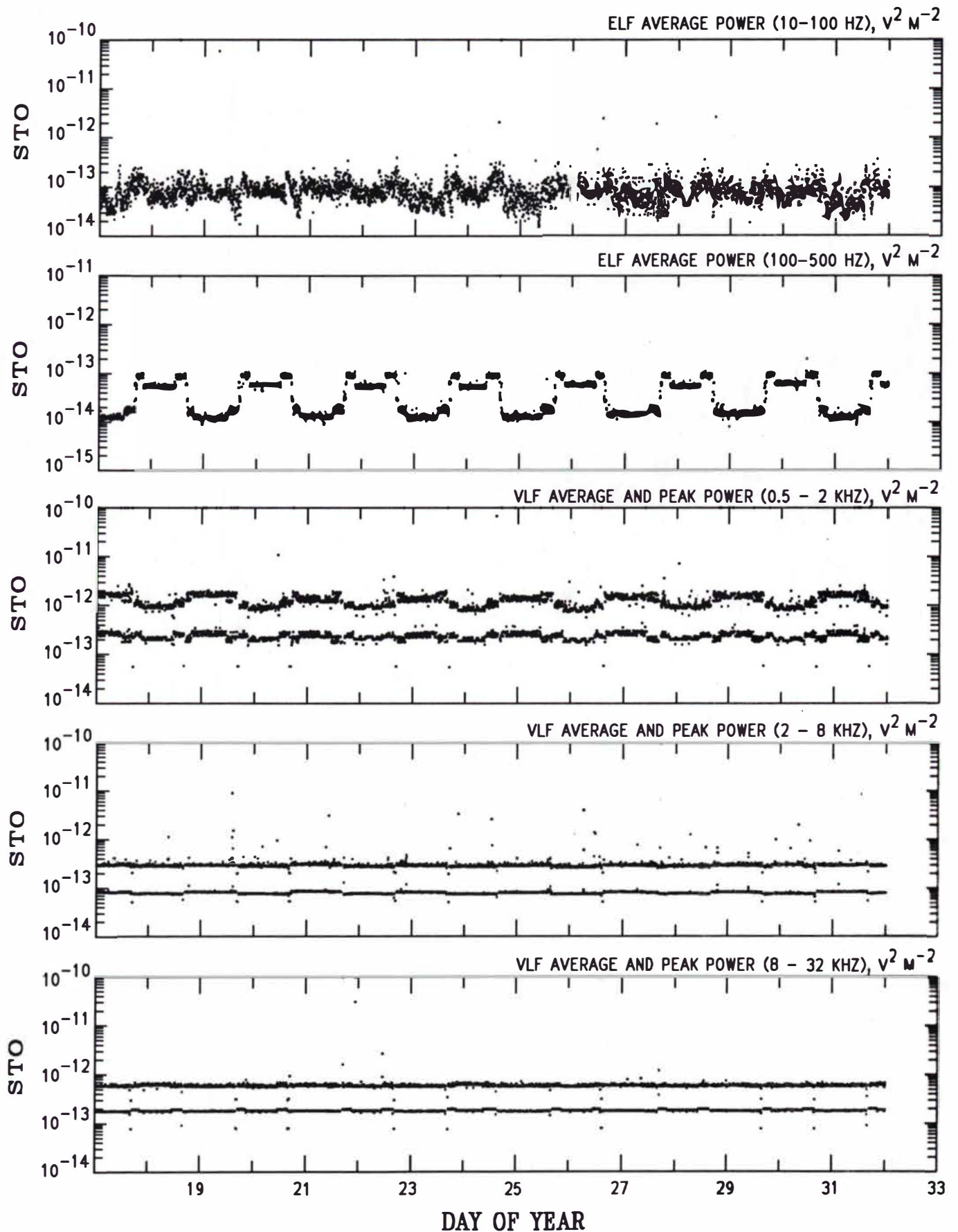
ULYSSES CDR - PLASMA WAVE

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



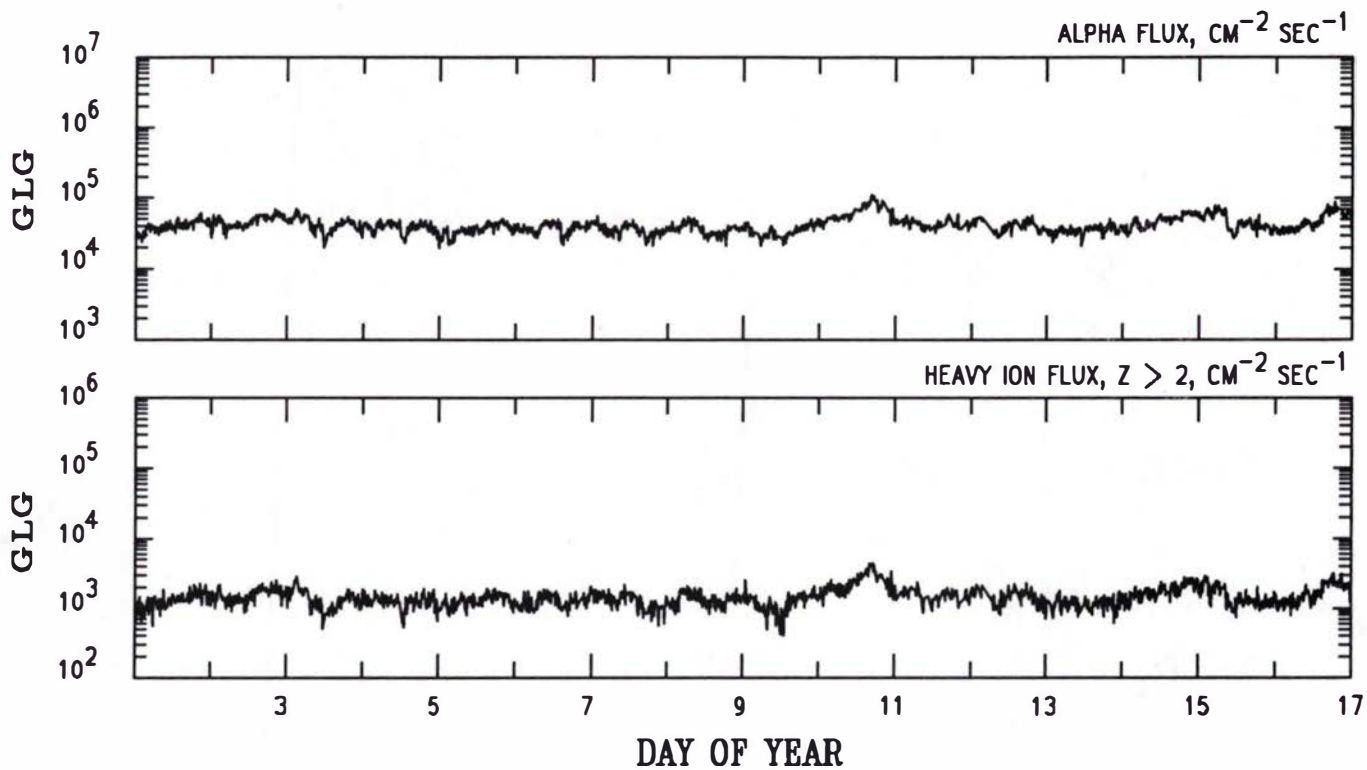
ULYSSES CDR - PLASMA WAVE

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



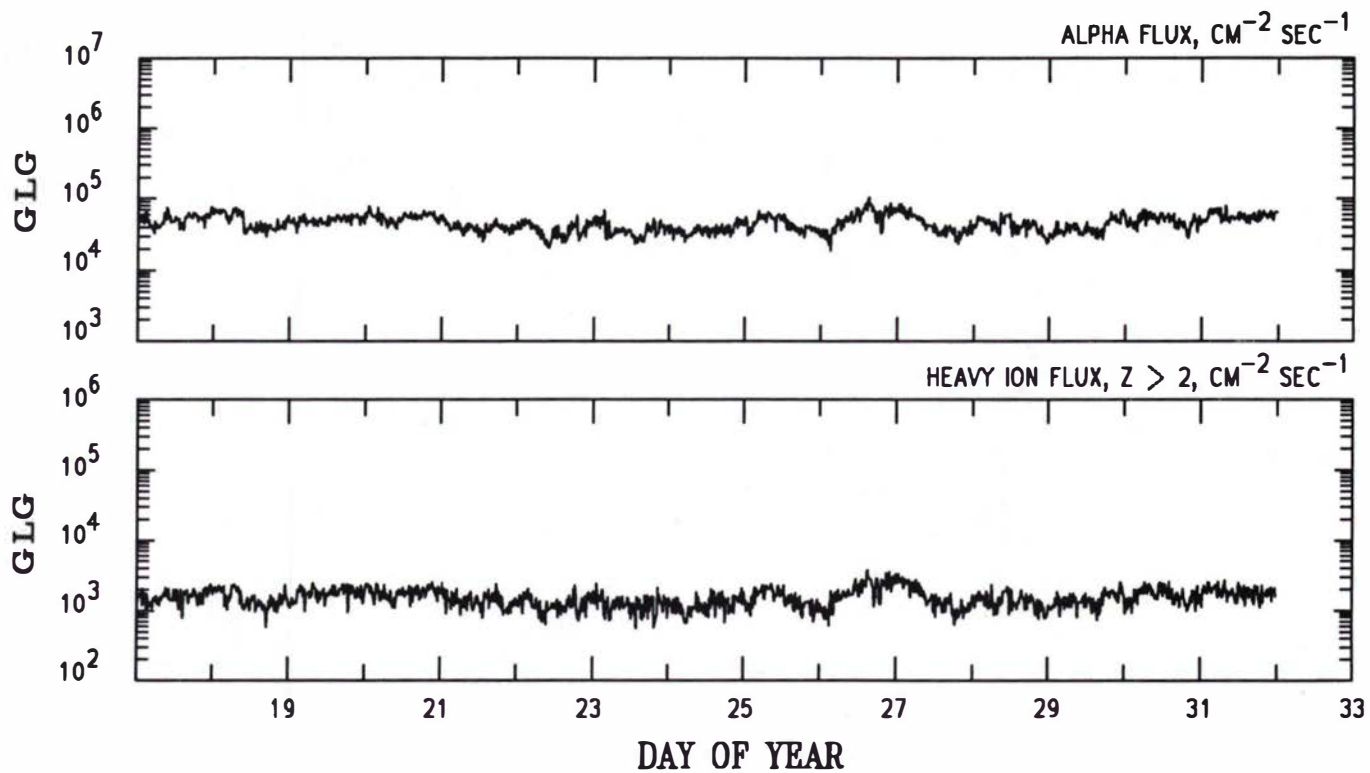
ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



.94.001.00.11.51.470

HUS monthly long term thermal data

818

RET

E002 2ARADTMP S/C

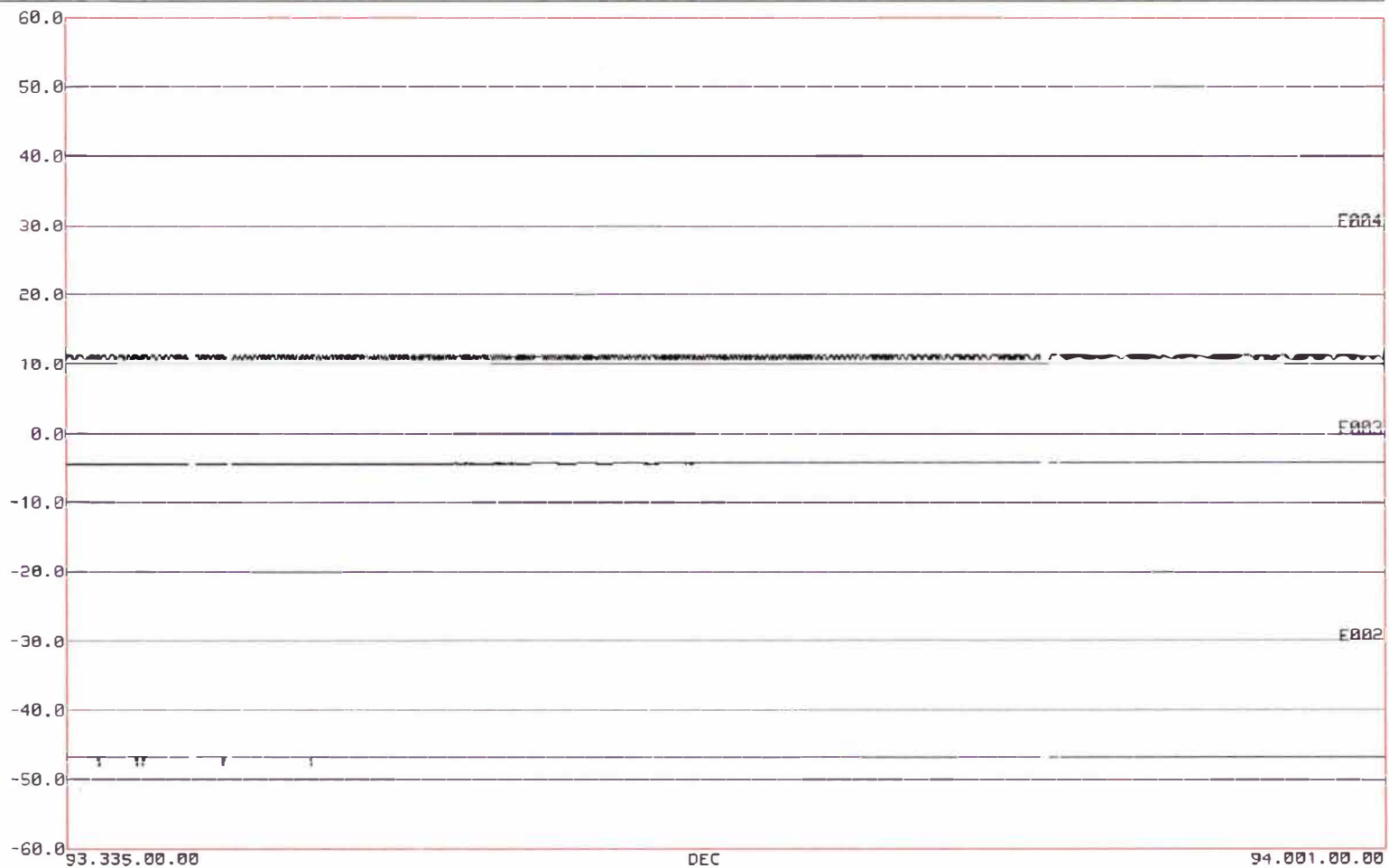
-4.1

E003 2BSENTMP S/C

-46.7

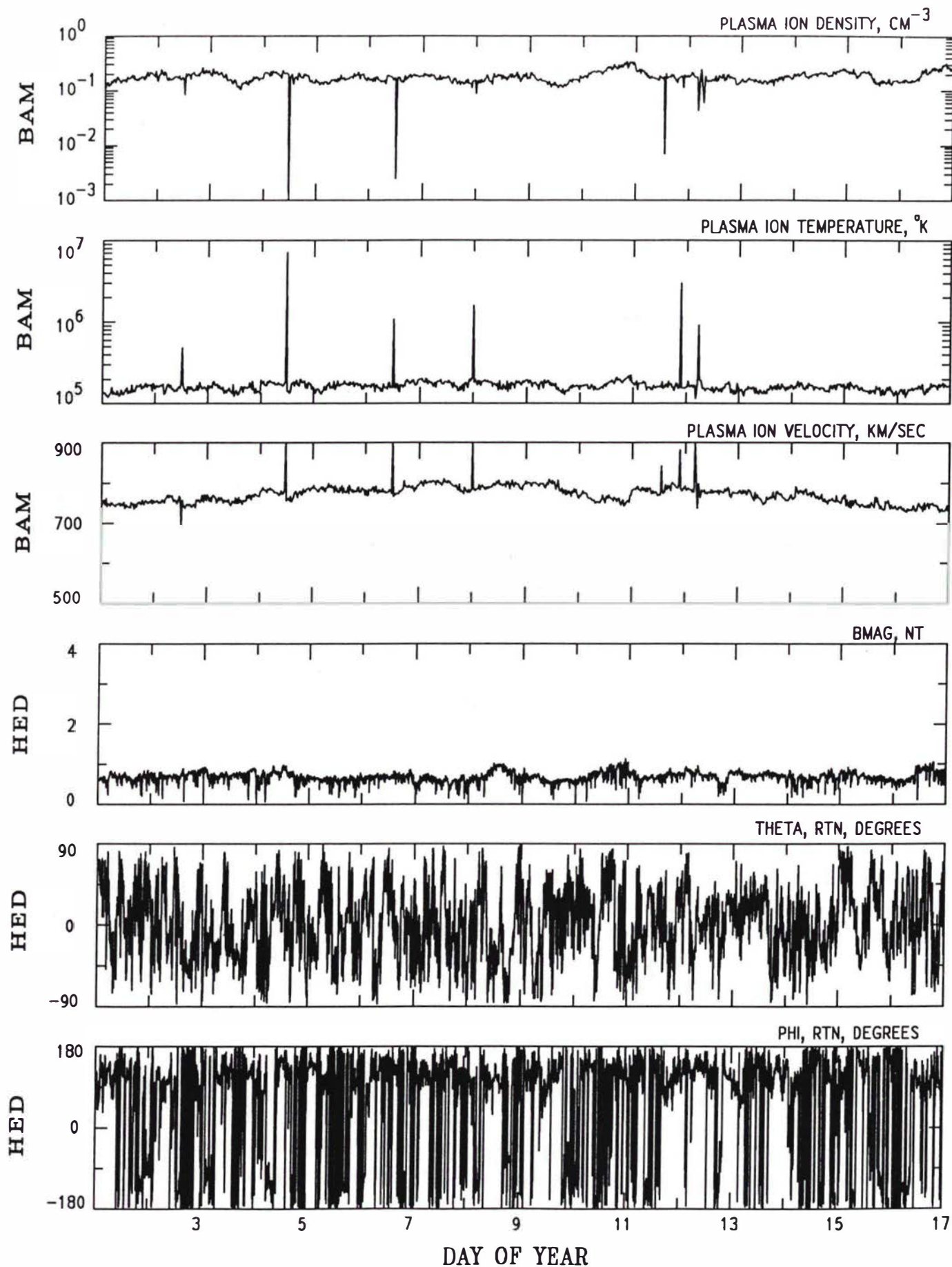
E004 2ASENSTMP EX

11.27



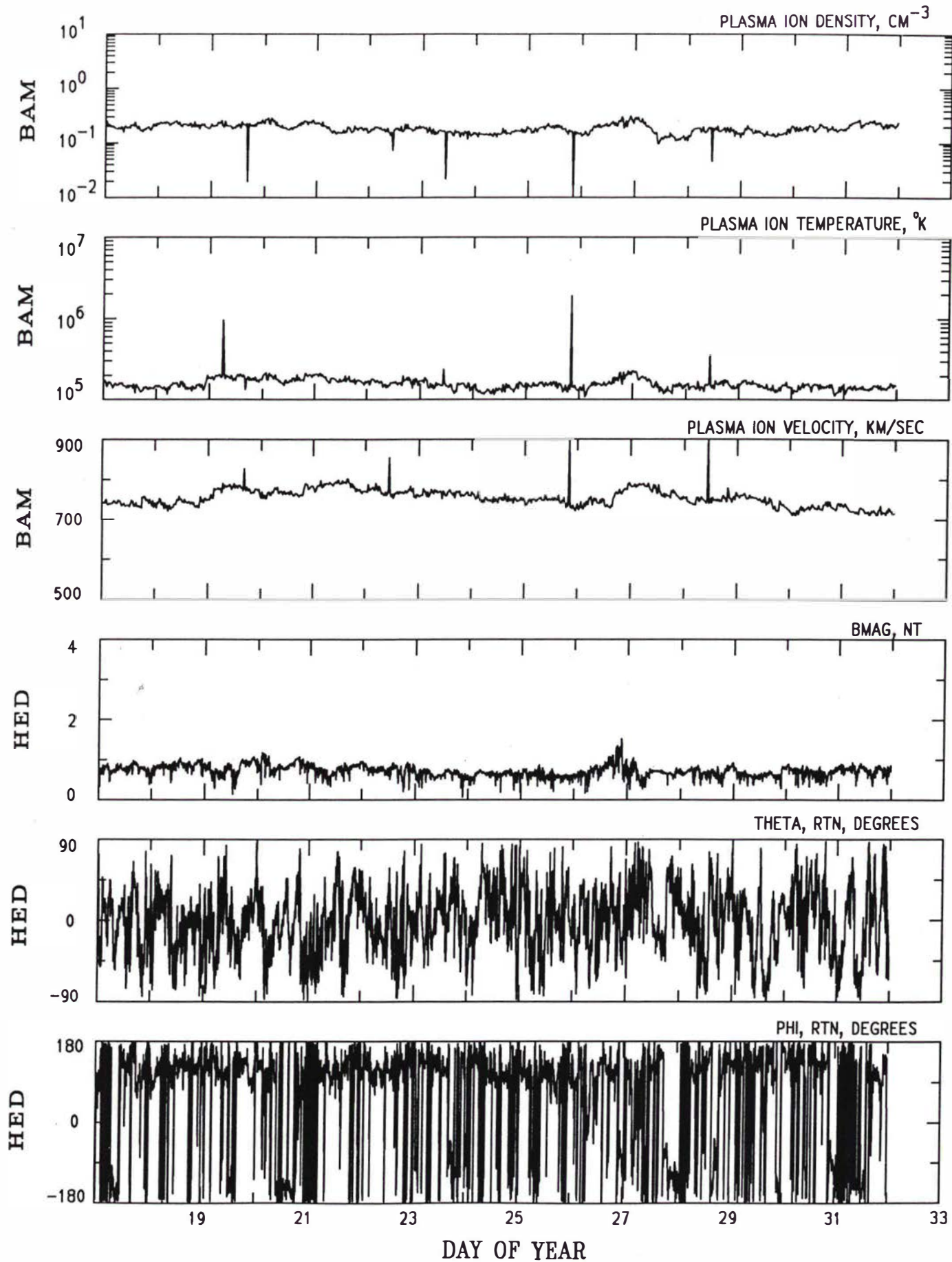
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



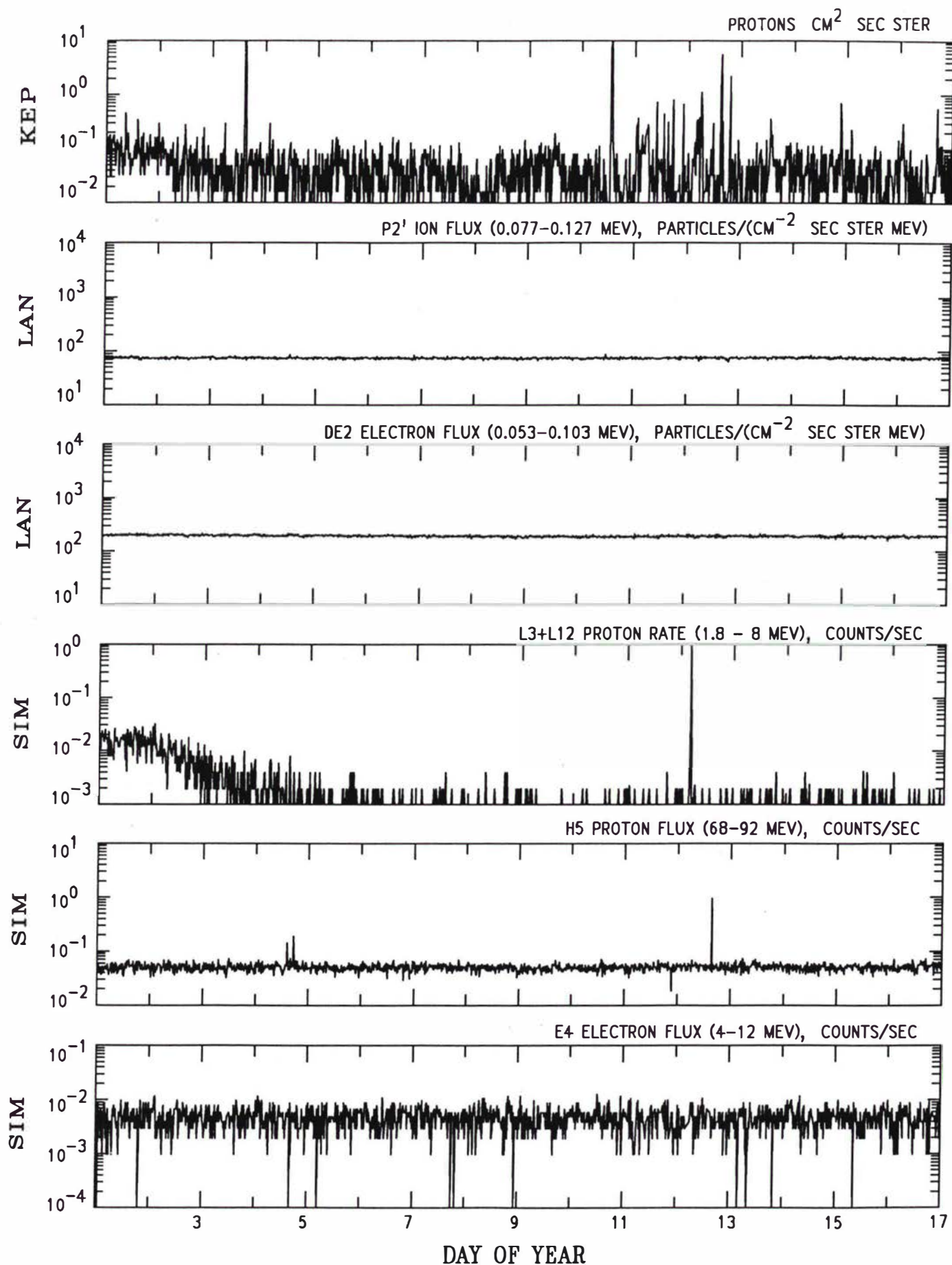
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



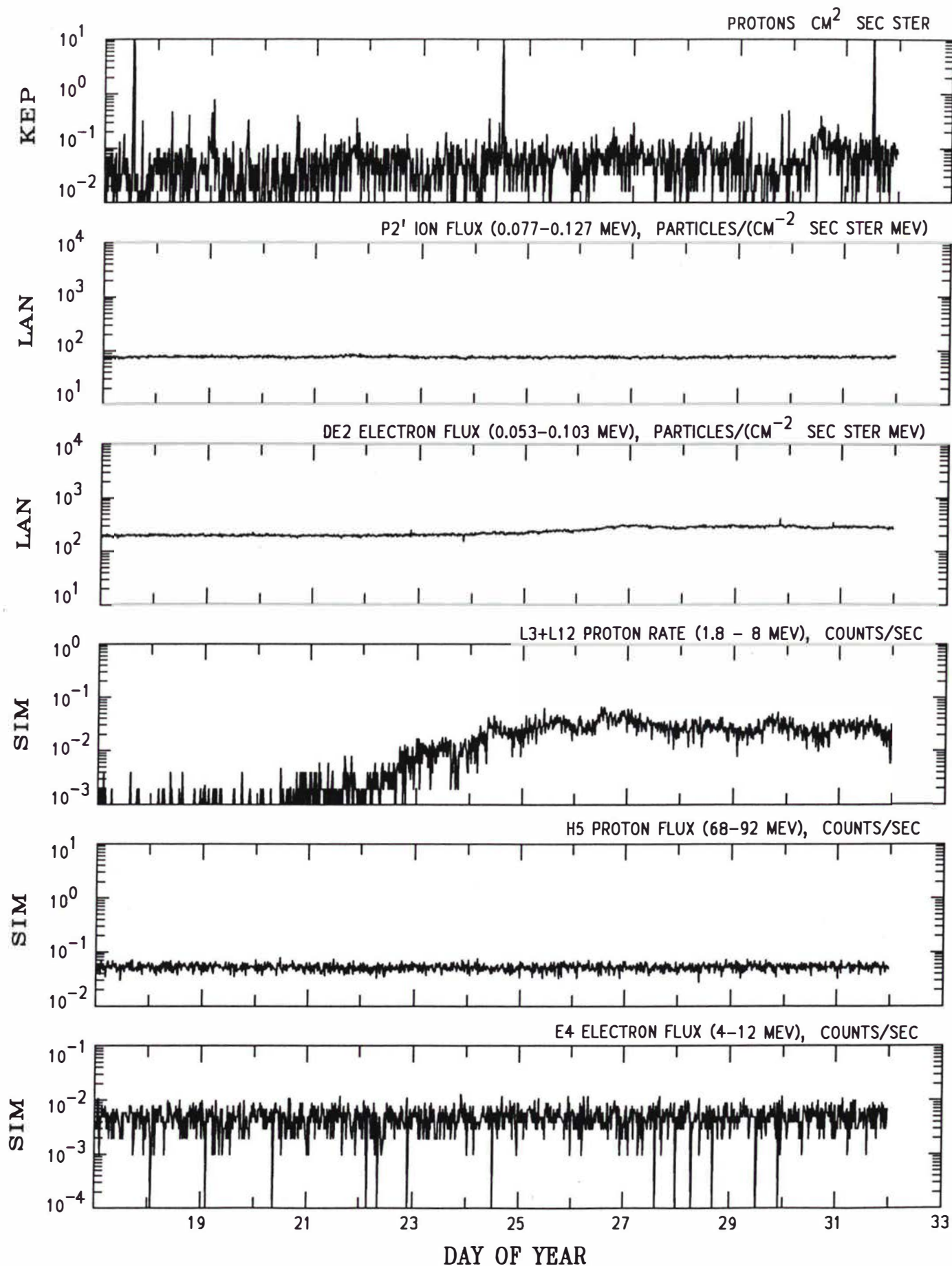
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



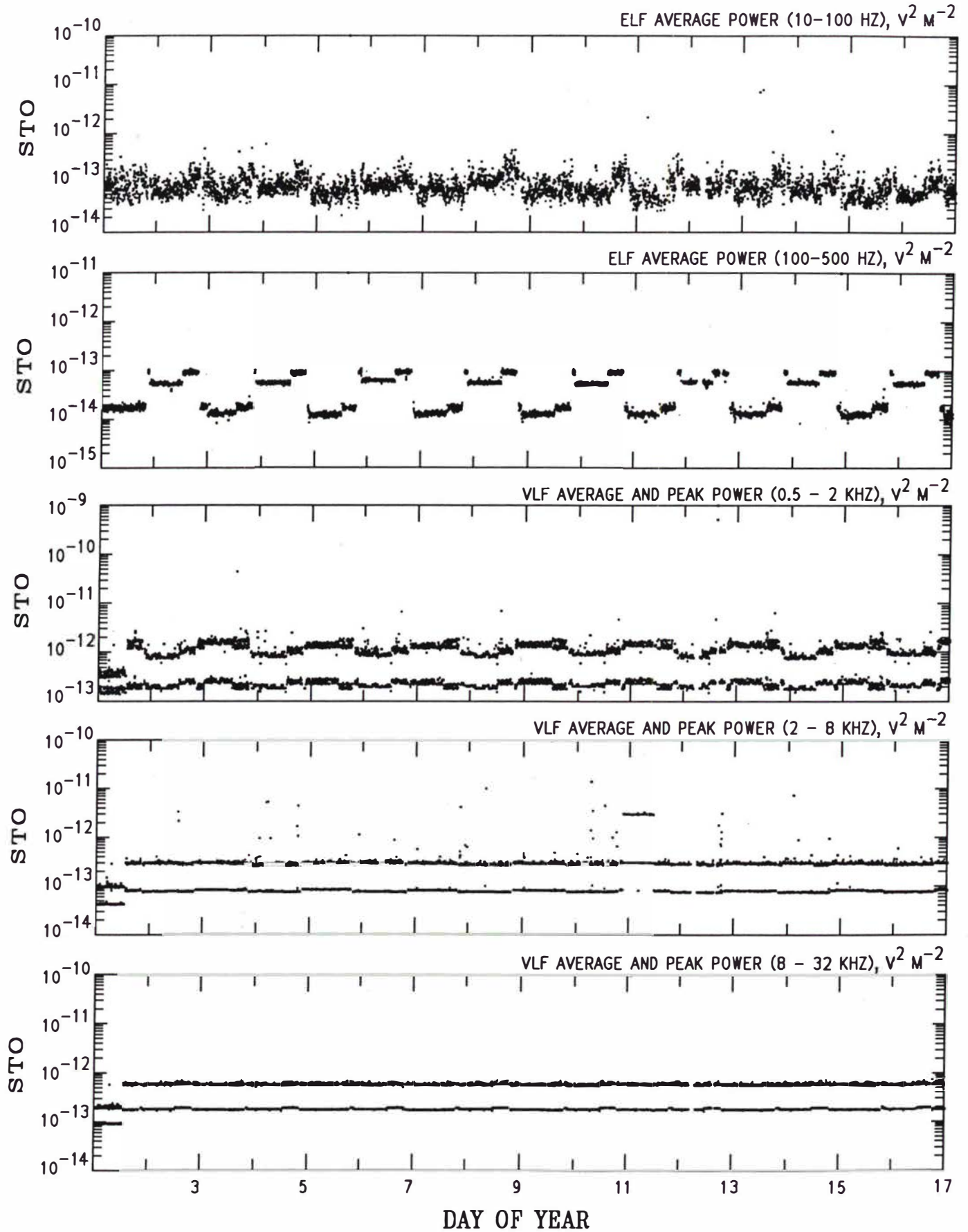
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



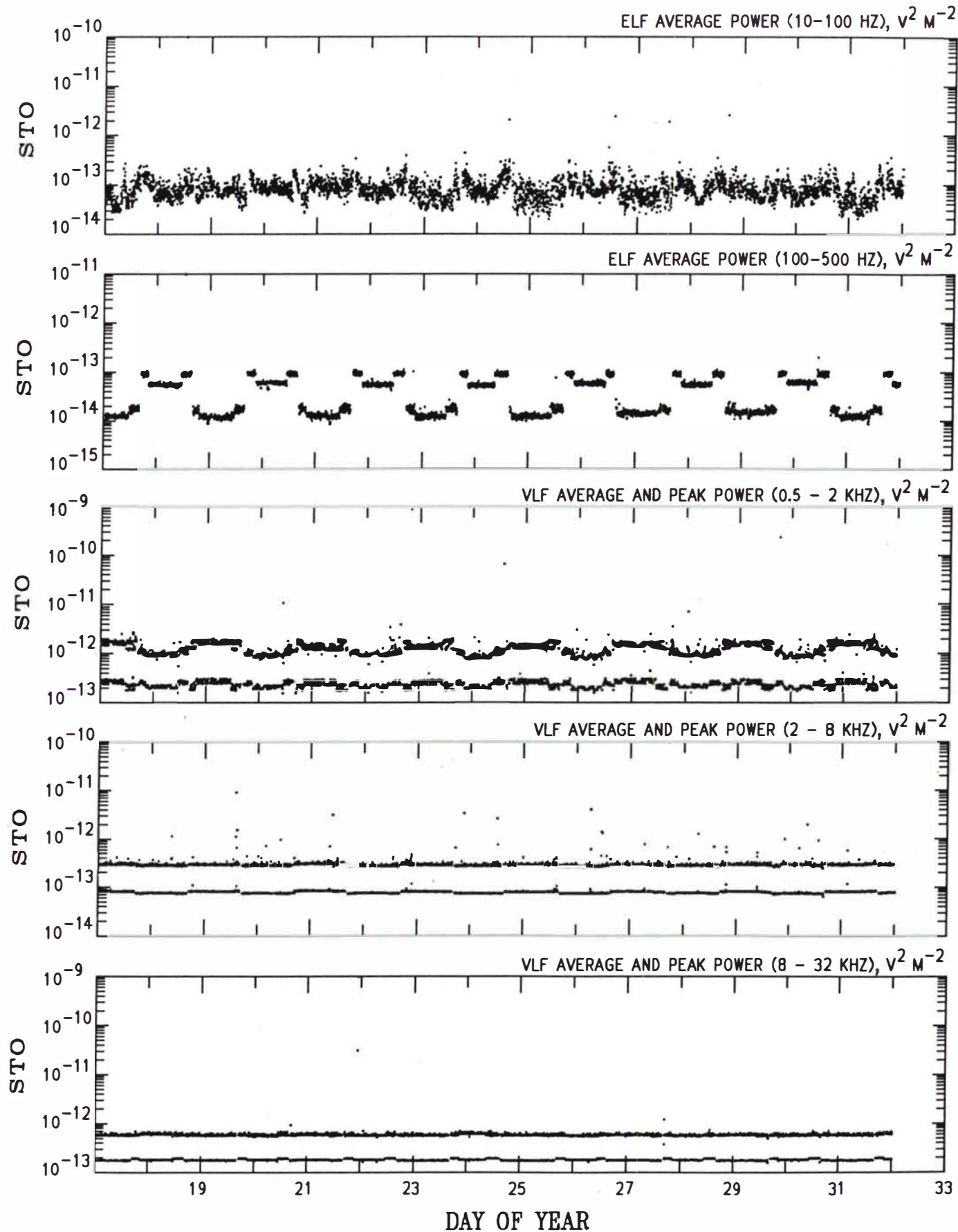
ULYSSES CDR - PLASMA WAVE

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



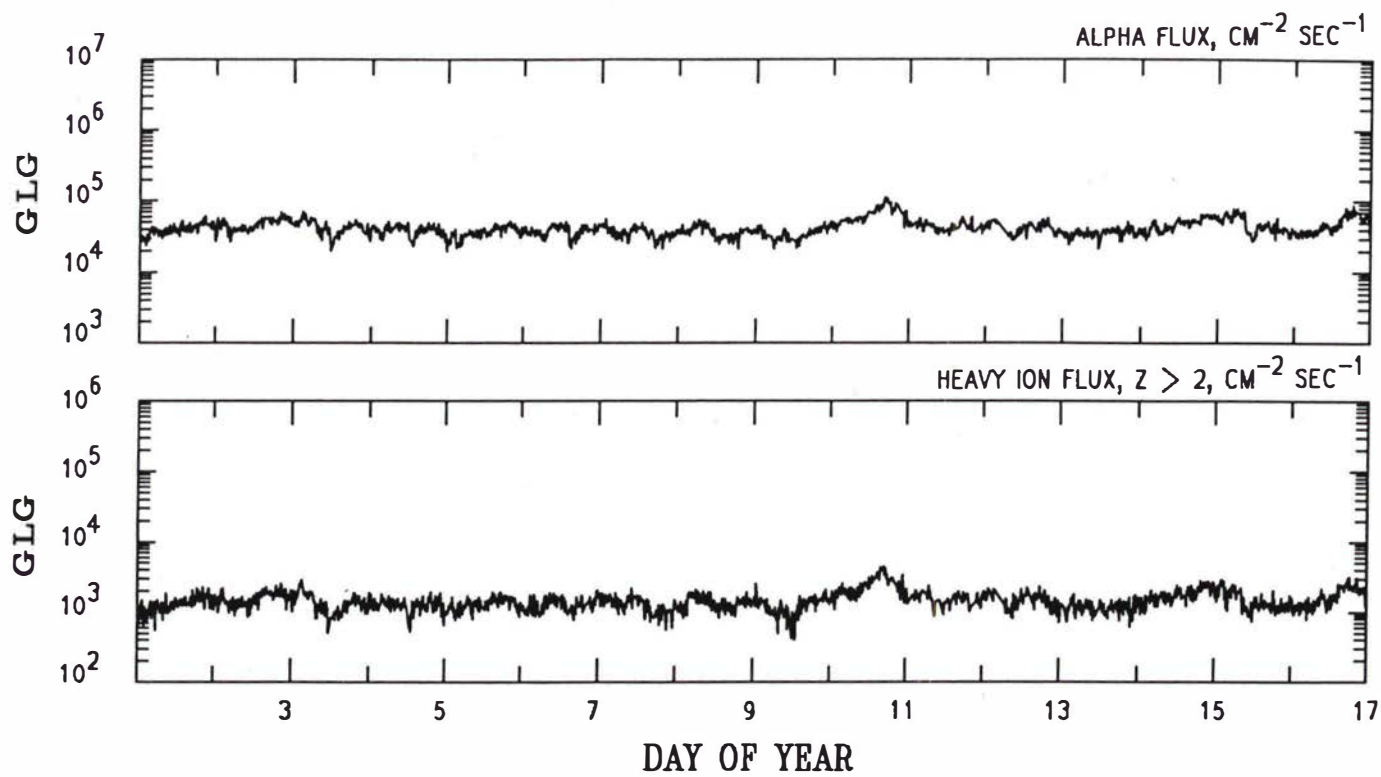
ULYSSES CDR - PLASMA WAVE

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



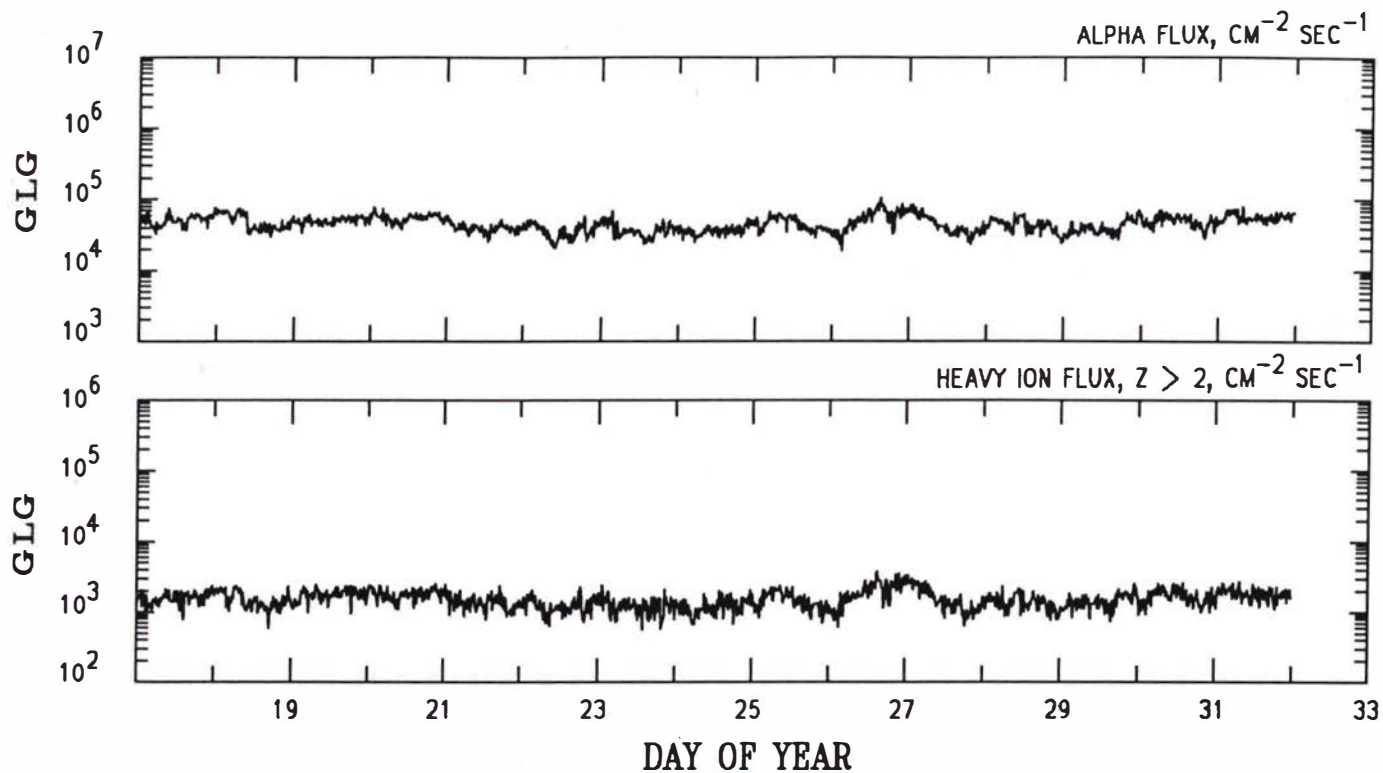
ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 001 JAN 1 00:00:00.000 - 94 017 JAN 17 00:00:00.000



ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 017 JAN 17 00:00:00.000 - 94 033 FEB 2 00:00:00.000



From BRIGGS@ssl.msfc.nasa.gov Sun Jan 2 14:21 PST 1994
Date: Sun, 2 Jan 1994 16:22:39 -0600 (CST)
From: "Michael S. Briggs, 205-544-7716, Code ES-64, MSFC" <BRIGGS@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, GROBAD@ESTEC.BITNET, LHEAVXCLINE@ssl.msfc.nasa.gov,
LHEAVXBARTHELMY@ssl.msfc.nasa.gov, LHEAVXKWOK@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

Content-Type: text

Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02723

TIME: TJD=9353 SECONDS=20769

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA EXIT.

From BRIGGS@ssl.msfc.nasa.gov Sun Jan 2 14:23 PST 1994
Date: Sun, 2 Jan 1994 16:24:47 -0600 (CST)
From: "Michael S. Briggs, 205-544-7716, Code ES-64, MSFC" <BRIGGS@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, GROBAD@ESTEC.BITNET, LHEAVXCLINE@ssl.msfc.nasa.gov,
LHEAVXBARTHELMY@ssl.msfc.nasa.gov, LHEAVXKWOK@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

Content-Type: text

Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02724

TIME: TJD=9353 SECONDS=26678

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA EXIT.

From BRIGGS@ssl.msfc.nasa.gov Sun Jan 2 15:43 PST 1994
Date: Sun, 2 Jan 1994 17:45:26 -0600 (CST)
From: BRIGGS@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2725
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2725
EVENT OF 1994 JAN 1 DAY OF YEAR= 1
EVENT CROSSING TIME AT BATSE : 30108. S. OR 08:21:48.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 97.000 -14.000
BATSE PEAK COUNTING RATE: 1300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 1/ 94 IS:
RA= 165.086 DEC= -41.861 DIST= 3.662 AU
BATSE-ULYSSES DISTANCE = 547813470. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=115.54 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -787.83 SECS.
CROSSING TIME AT ULYSSES IS 29320. S. OR 08:08:40 +/- 324.28 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 1/ 94 IS:
RA= 279.934 DEC= -23.954 DIST= 2.421 AU
MARS-BATSE DISTANCE = 362249696. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 38.06 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 951.38 SECS.
CROSSING TIME AT MARS IS 31059. S. OR 08:37:39 +/- 143.78 SECONDS

Nb

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2725	940101	9353	30108	1300	097	-14

BATSE BURST TRIGGER

NO.: 02725

TIME: TJD=9353 SECONDS=30108

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: 5.5 SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=96.9 AZIMUTH=224.5 ERROR= DEGREES

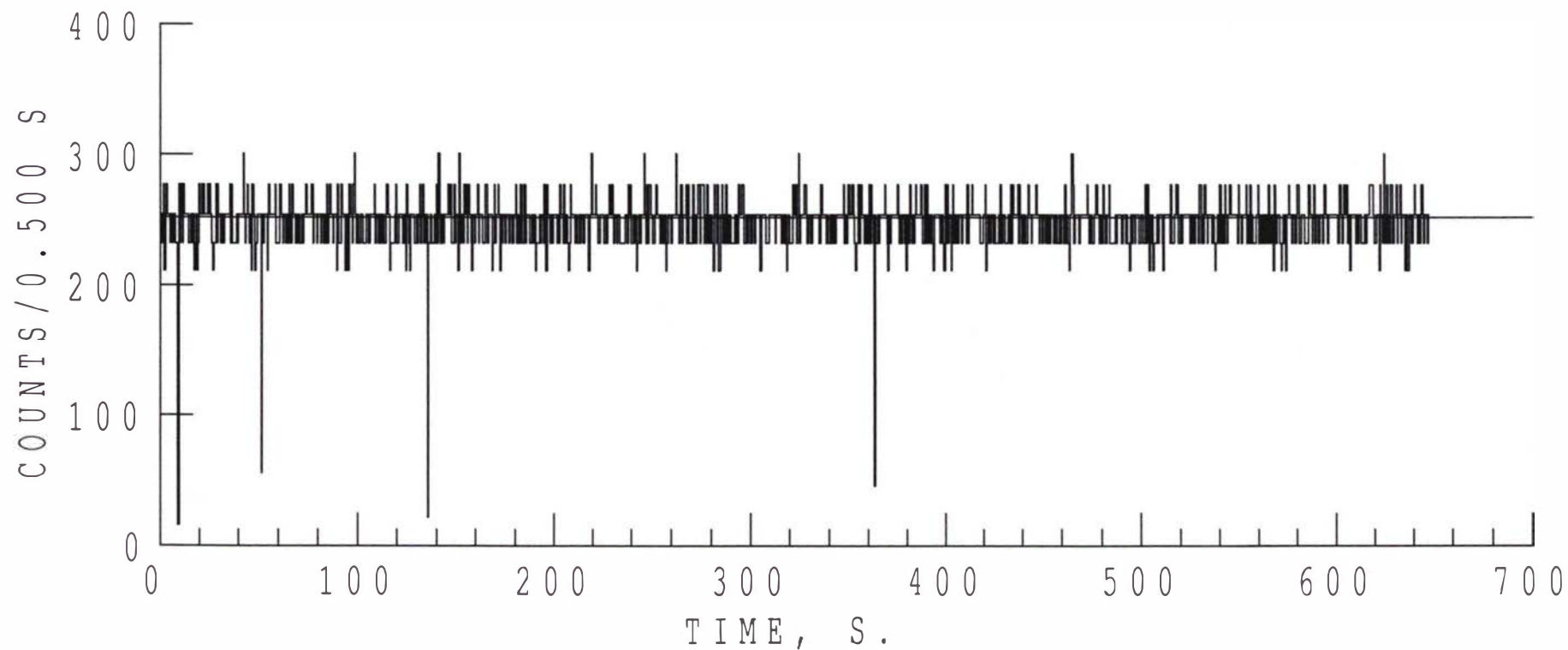
COMMENTS:

WEAK BURST OF ABOUT 5 S DURATION. BARELY SEEN BELOW 50 KEV. ONLY 1
SHORT SPIKE IS SEEN ABOVE 300 KEV. A "FRED".

4 / 1 / 94

ULYSSES RT
1 / 1 / 94 28980.404 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From BRIGGS@ssl.msfc.nasa.gov Sun Jan 2 16:07 PST 1994

Date: Sun, 2 Jan 1994 18:08:36 -0600 (CST)

From: "Michael S. Briggs, 205-544-7716, Code ES-64, MSFC" <BRIGGS@ssl.msfc.nasa.gov>

To: burst@comptel.unh.edu, GROBAD@ESTEC.BITNET, LHEAVXCLINE@ssl.msfc.nasa.gov,

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

Content-Type: text

Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02726

TIME: TJD=9353 SECONDS=44500

TYPE: FLARE

SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: 5.9 SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=97.8 AZIMUTH=10.9 ERROR= DEGREES

COMMENTS:

GOES C1.5

From BRIGGS@ssl.msfc.nasa.gov Sun Jan 2 16:45 PST 1994
Date: Sun, 2 Jan 1994 18:47:10 -0600 (CST)
From: BRIGGS@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2727
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2727
EVENT OF 1994 JAN 1 DAY OF YEAR= 1
EVENT CROSSING TIME AT BATSE : 56985. S. OR 15:49:45.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 312.000 -14.000
BATSE PEAK COUNTING RATE: 1300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 1/ 94 IS:
RA= 165.042 DEC= -41.943 DIST= 3.657 AU
BATSE-ULYSSES DISTANCE = 547043374. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 63.69 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 808.90 SECS.
CROSSING TIME AT ULYSSES IS 57794. S. OR 16:03:13 +/- 346.26 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 1/ 94 IS:
RA= 279.934 DEC= -23.954 DIST= 2.421 AU
MARS-BATSE DISTANCE = 362249696. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=148.18 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1026.68 SECS.
CROSSING TIME AT MARS IS 55958. S. OR 15:32:38 +/- 95.03 SECONDS

No

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2727	940101	9353	56985	1300	312	-14

BATSE BURST TRIGGER

NO.: 02727

TIME: TJD=9353 SECONDS=56985

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: 11.1 SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=124.1 AZIMUTH=25.7 ERROR= DEGREES

COMMENTS:

TOTAL DURATION ABOUT 70 S. THREE MAIN PEAKS: -5 TO +5 S, 35 TO 40 S, AND 40 TO 55 SEC. RETURNS TO BACKGROUND FROM 10 TO 35 SEC.
NOT SEEN ABOVE 300 KEV

BATSE BURST # 2727

4 / 1 / 94

ULYSSES RT

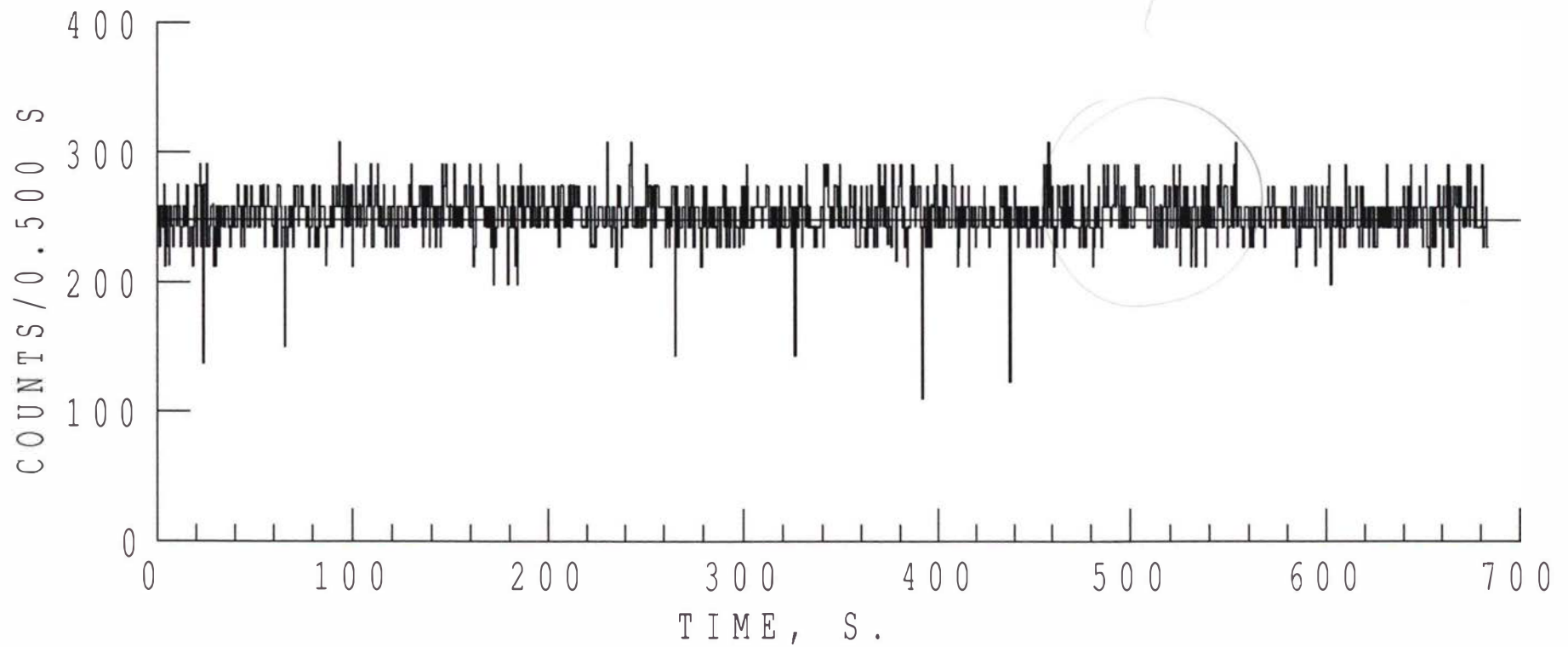
1 / 1 / 94 57456.102 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From BRIGGS@ssl.msfc.nasa.gov Mon Jan 3 13:29 PST 1994
Date: Mon, 3 Jan 1994 15:31:13 -0600 (CST)
From: BRIGGS@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2728
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2728
EVENT OF 1994 JAN 1 DAY OF YEAR= 1
EVENT CROSSING TIME AT BATSE : 78790. S. OR 21:53:10.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 113.000 40.000
BATSE PEAK COUNTING RATE: 16500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 1/ 94 IS:
RA= 165.007 DEC= -42.009 DIST= 3.653 AU
BATSE-ULYSSES DISTANCE = 546424580. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 85.42 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 145.46 SECS.
CROSSING TIME AT ULYSSES IS 78935. S. OR 21:55:35 +/- 367.64 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 1/ 94 IS:
RA= 279.934 DEC= -23.954 DIST= 2.421 AU
MARS-BATSE DISTANCE = 362249696. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 19.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1139.35 SECS.
CROSSING TIME AT MARS IS 79929. S. OR 22:12:09 +/- 87.17 SECONDS

RI Too weak

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2728	940101	9353	78790	16500	113	+40

BATSE BURST TRIGGER

NO.: 02728

TIME: TJD=9353 SECONDS=78790

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: 19.9 SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=69.8 AZIMUTH=174.2 ERROR= DEGREES

COMMENTS:

THIS BURST HAS TWO SIMILIAR PEAKS, THE FIRST FROM -0.5 TO 0.8 S, THE
SECOND FROM 1.2 TO 2.0 S. THE PEAKS ARE NARROWER ABOVE 300 KEV

ULYSSES RT

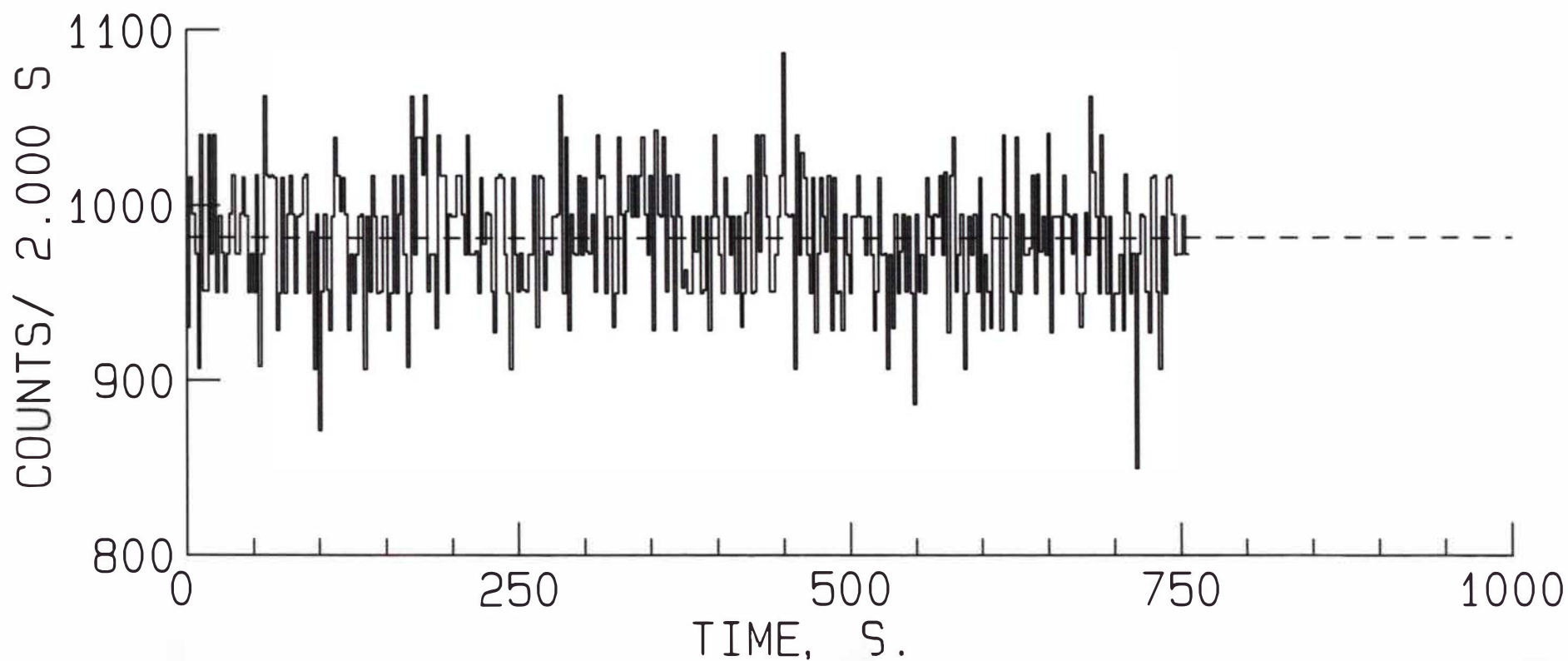
28 / 5 / 96

1 / 1/94 78552.171 s

0.500 S INTERVALS REGROUPED BY 4

20- 138 keV

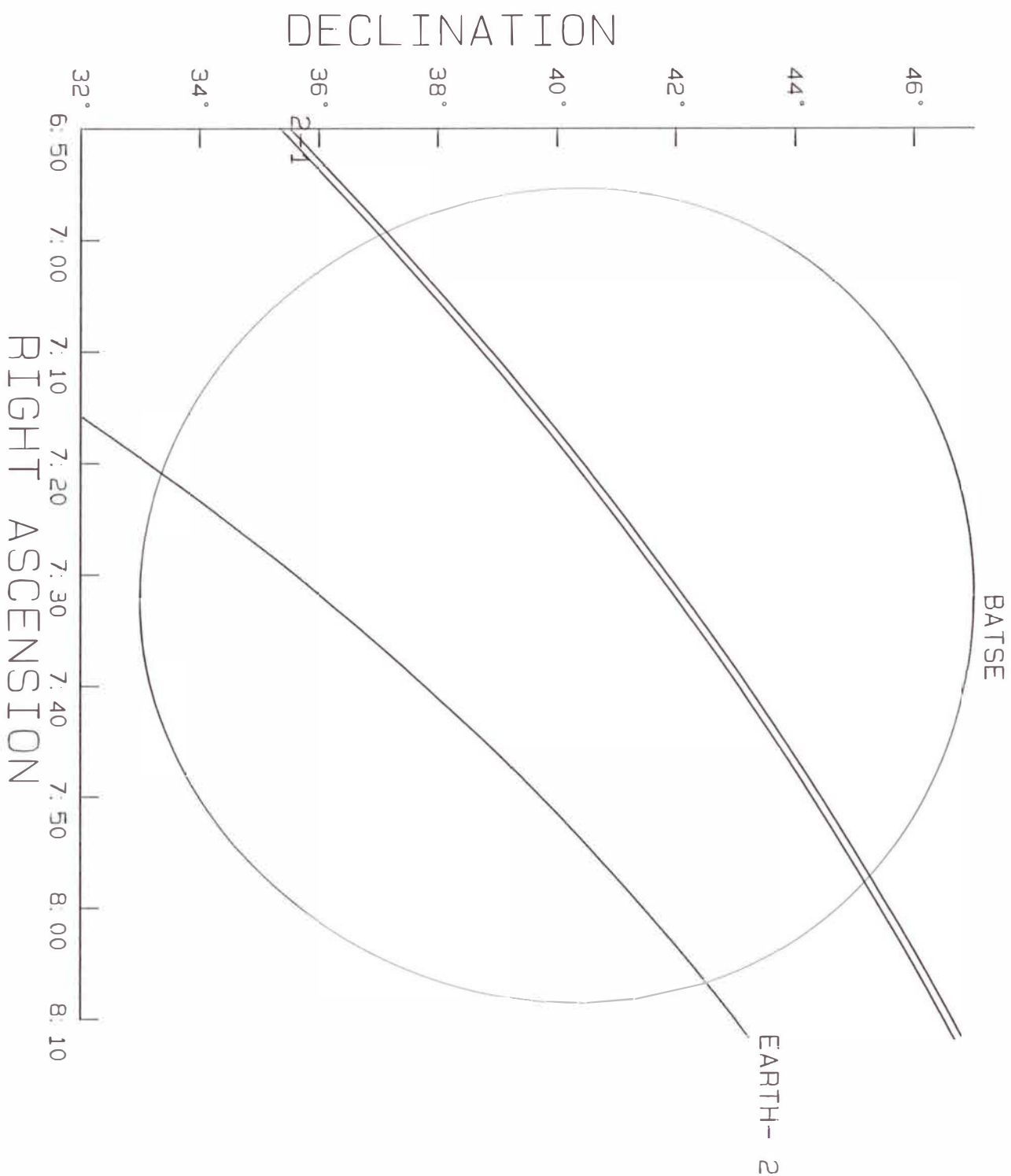
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



EARTH-N = EARTH AS SEEN FROM SATELLITE N
S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
1 ULYSSES 2 BATSE

EVENT OF JAN 1, 1994 21:55

8 / 8/95

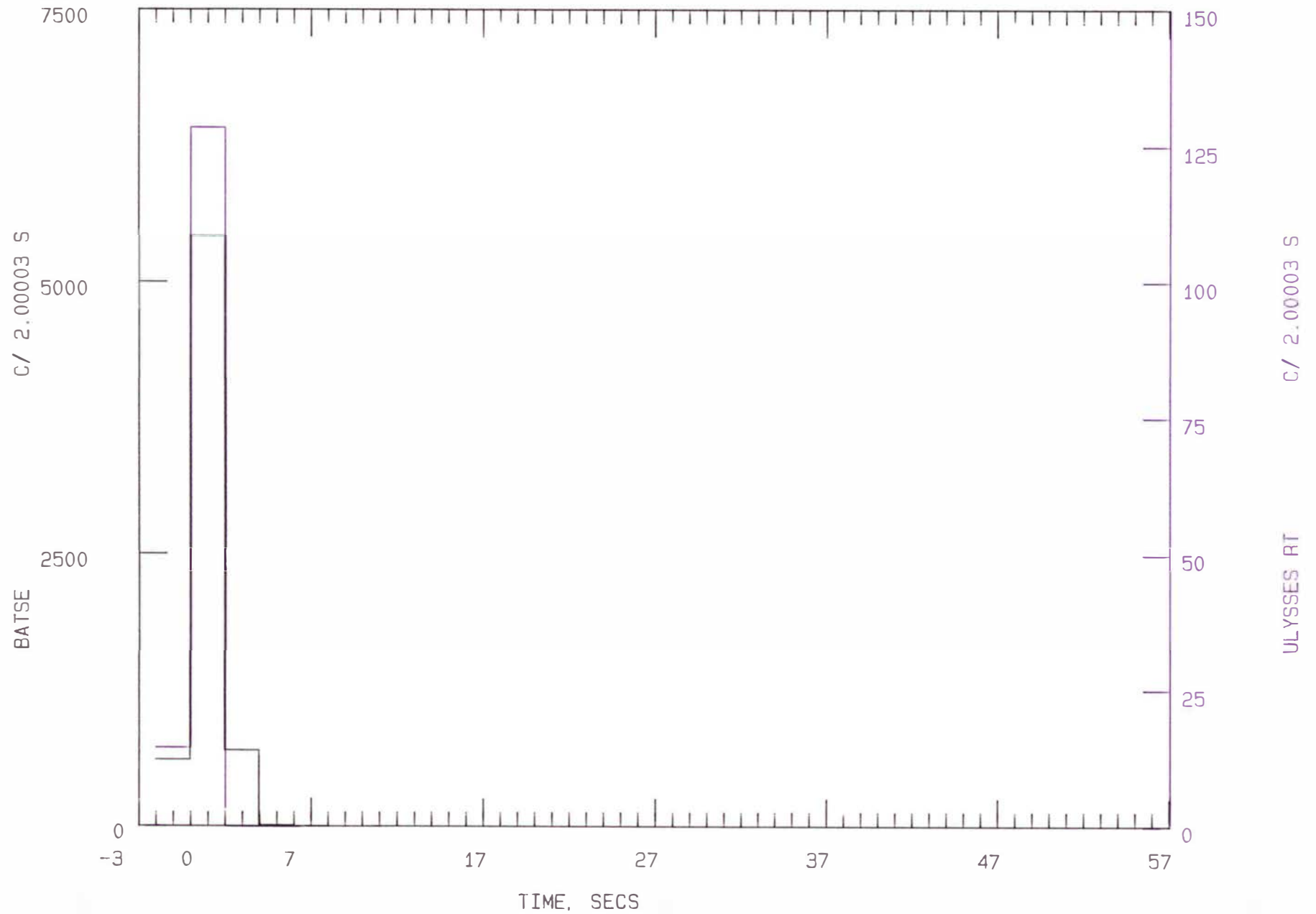


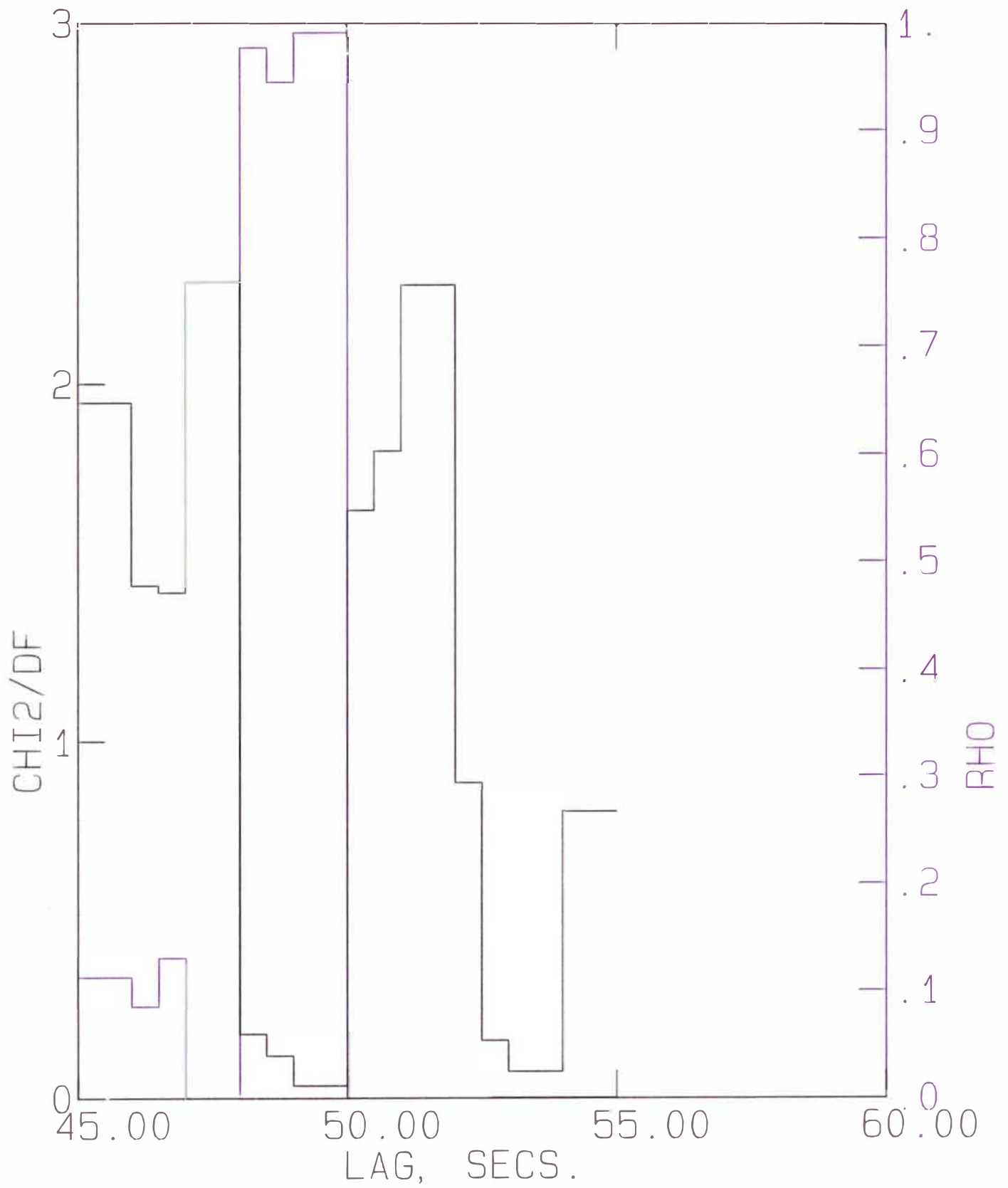
BATSE

-ULYSSES RT CORRELATION

1/ 1/94 78789.978

8/ 8/95





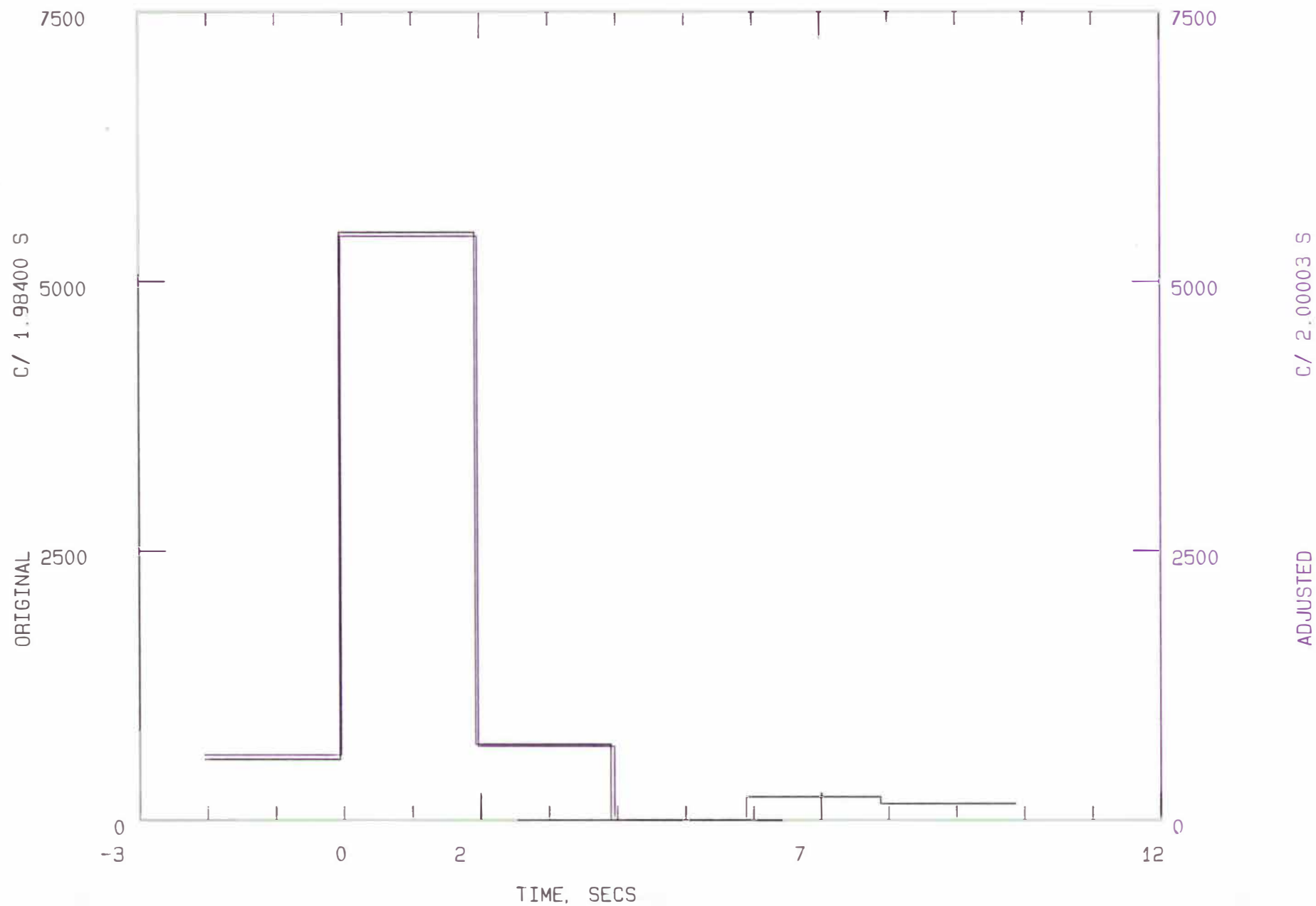
ORIGINAL AND ADJUSTED BATSE

TIME HISTORIES

1/ 1/94

78789.978

8/ 8/95



ULYSSES RT

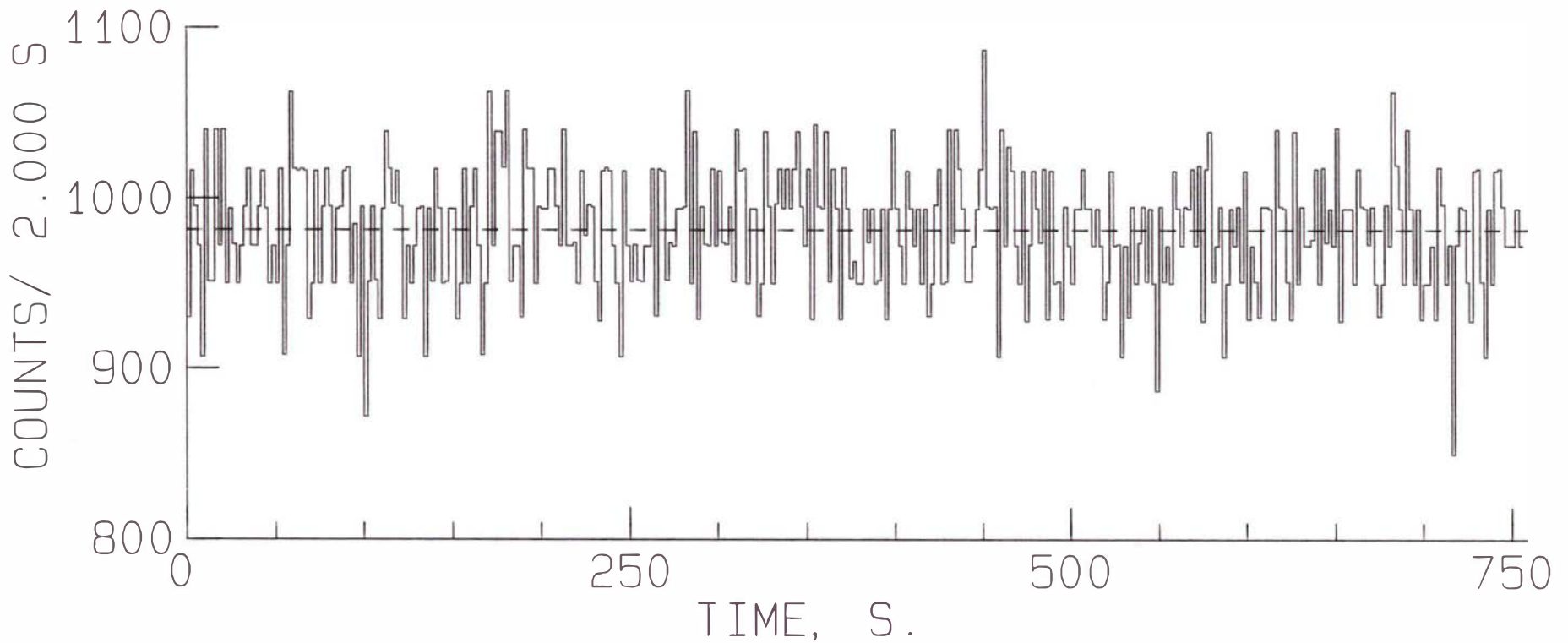
8/ 8/95

1/ 1/94 78552.172 s

.500 S INTERVALS REGROUPED BY 4

20- 138 keV

N= 10 M= 1
>3.0 SIGMA FLUCTUATIONS



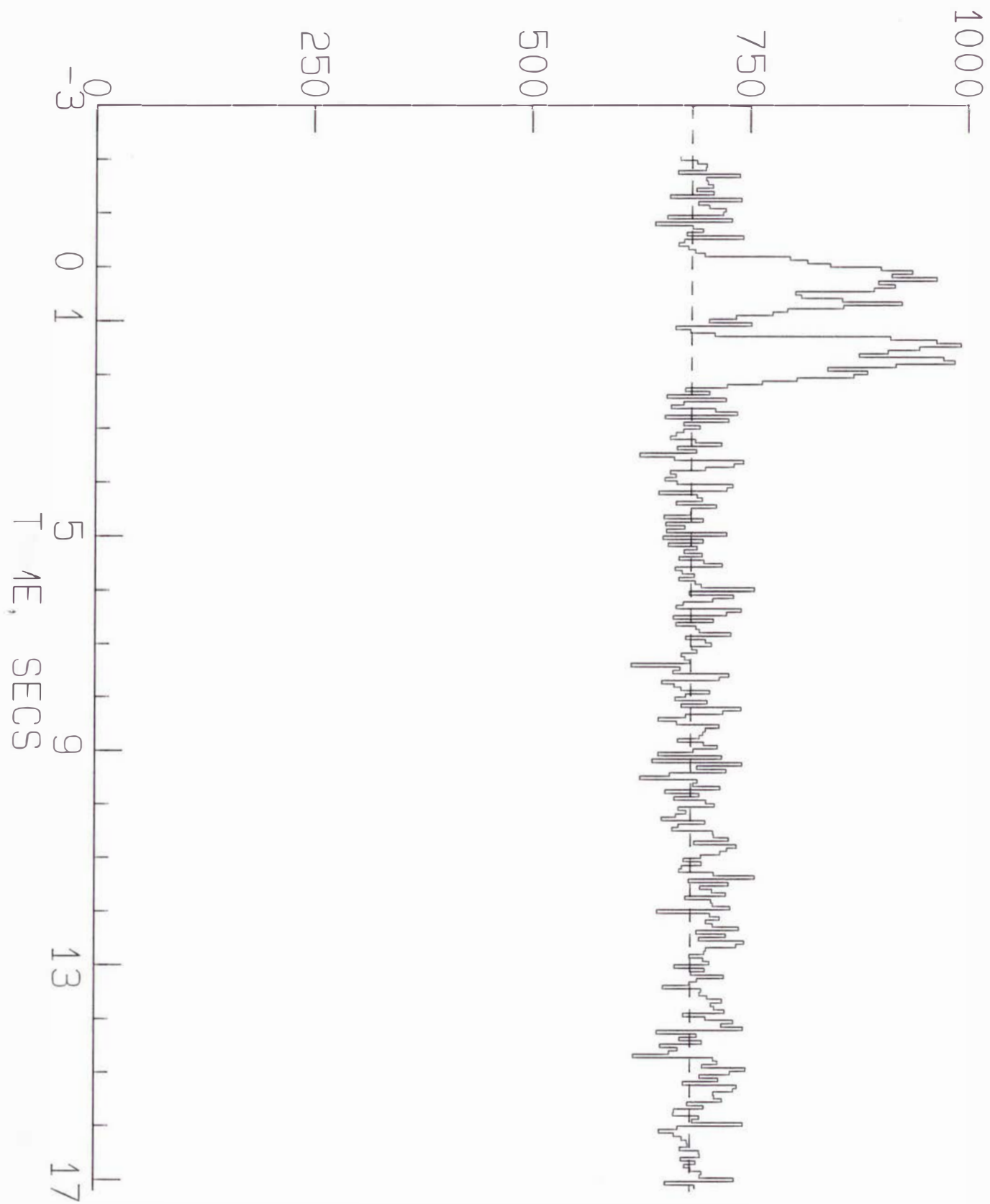
BATSE

01/01/94

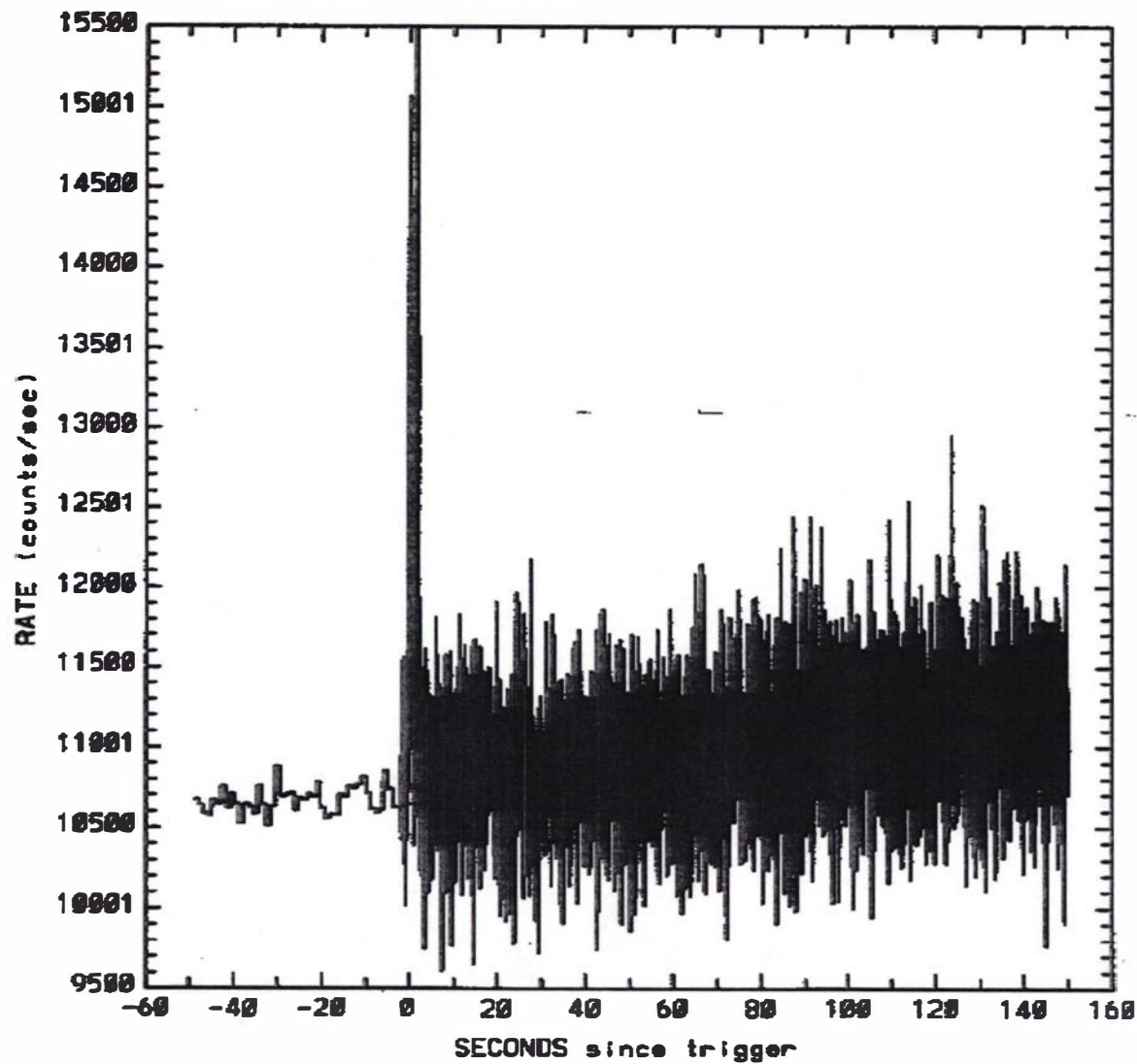
78789.978

25- 100 keV

COUNTS/ .064 S



DATA FOR K. HURLEY



19-JAN-1994 08:51:46

Created by NOPS 80
(Burst Display)
Version 2.28

Trigger = . 2728

Trigger Time:
9353 / 78789.978Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors (7..0).
11110000Discriminators:
(1..2)Quality Mask:
BDISP1

From BRIGGS@ssl.msfc.nasa.gov Mon Jan 3 13:32 PST 1994
Date: Mon, 3 Jan 1994 15:33:58 -0600 (CST)
From: BRIGGS@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2729
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2729
EVENT OF 1994 JAN 1 DAY OF YEAR= 1
EVENT CROSSING TIME AT BATSE : 81720. S. OR 22:42:00.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 185.000 57.000
BATSE PEAK COUNTING RATE: 13000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 1/ 94 IS:
RA= 165.002 DEC= -42.018 DIST= 3.652 AU
BATSE-ULYSSES DISTANCE = 546342046. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 79.56 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 330.13 SECS.
CROSSING TIME AT ULYSSES IS 82050. S. OR 22:47:30 +/- 366.18 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 1/ 94 IS:
RA= 279.934 DEC= -23.954 DIST= 2.421 AU
MARS-BATSE DISTANCE = 362249696. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 67.46 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 463.16 SECS.
CROSSING TIME AT MARS IS 82183. S. OR 22:49:43 +/- 200.80 SECONDS

RI

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2729	940101	9353	81720	13000	185	+57

BATSE BURST TRIGGER
NO.: 02729

TIME: TJD=9353 SECONDS=81720

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: 30.1 SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=41.2 AZIMUTH=125.9 ERROR= DEGREES

COMMENTS:

BRIGHT BURST. NOT MUCH EMISSION ABOVE 300 KEV. MAIN PEAK IS FROM -5 TO +5 SECONDS. APPARENTLY A SECOND AND THIRD PEAKS AT 15 TO 20 S AND 32 TO 36 SEC, THESE LATER PEAKS ARE MOST VISIBLE BELOW 100 KEV.

Helio corr removed

Date: Oct 28 '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? *No - poor stat.*

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

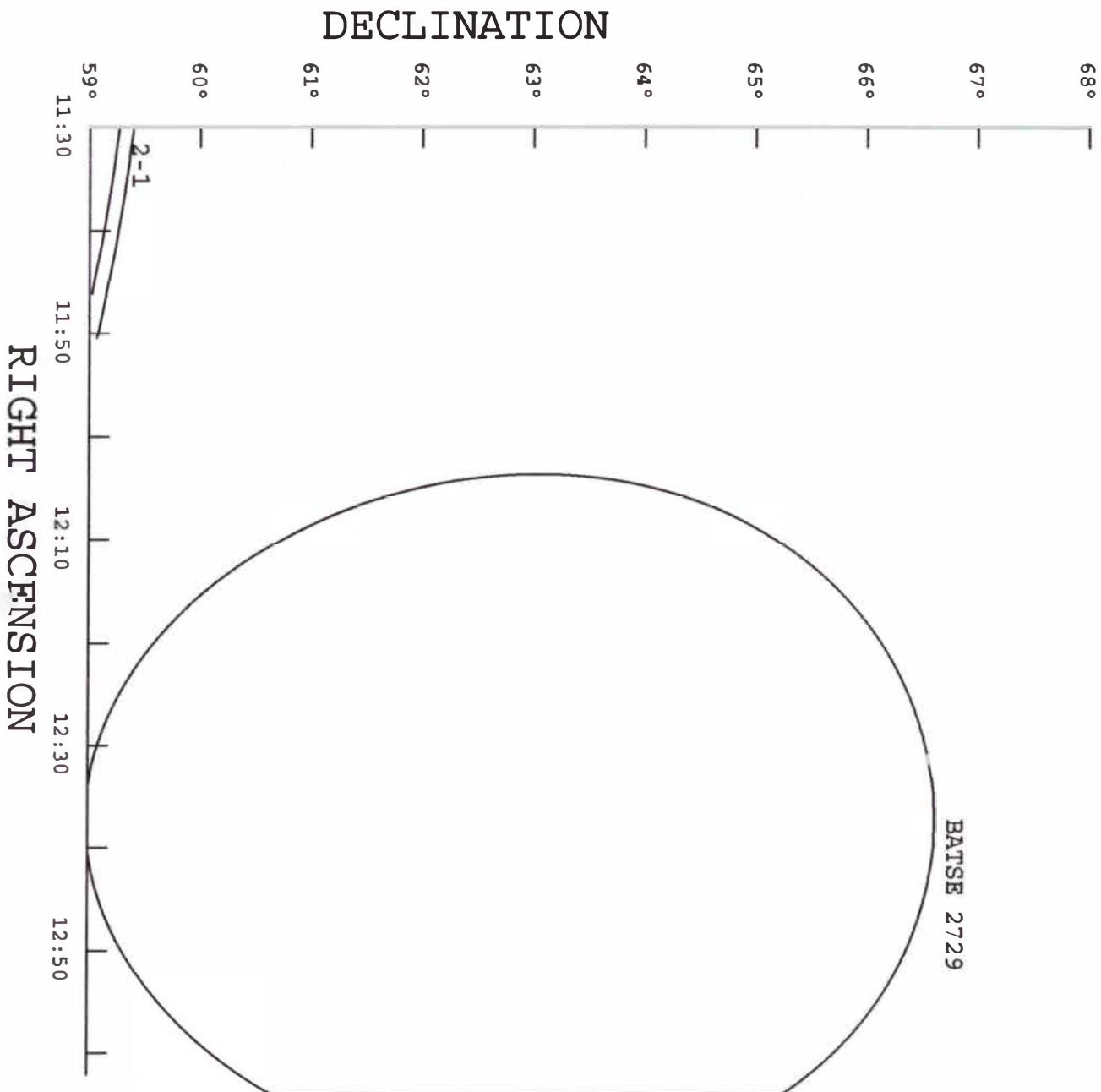
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 1, 1994 22:47

6/ 3/98



N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

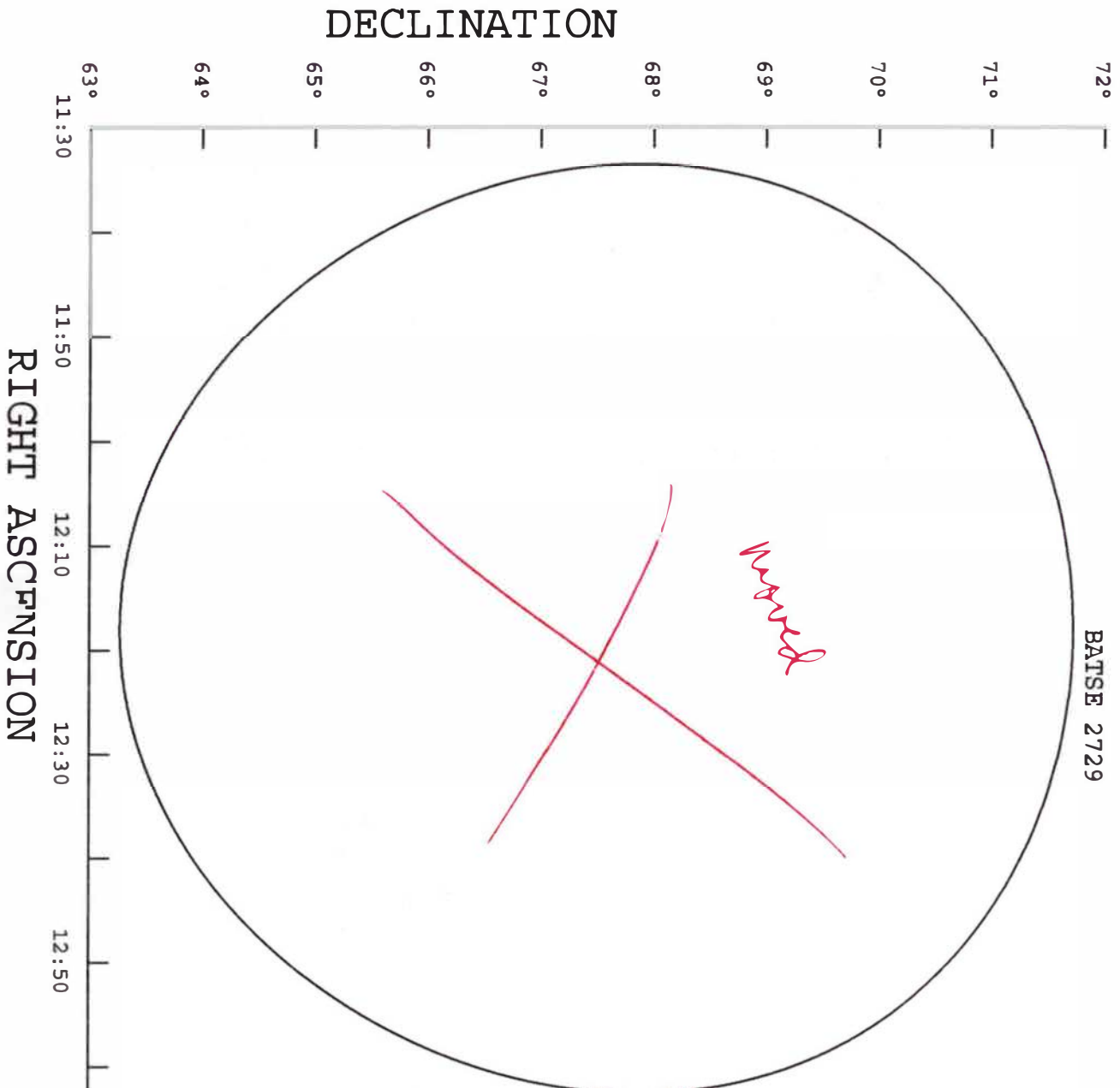
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 1, 1994 22:47

28/10/97



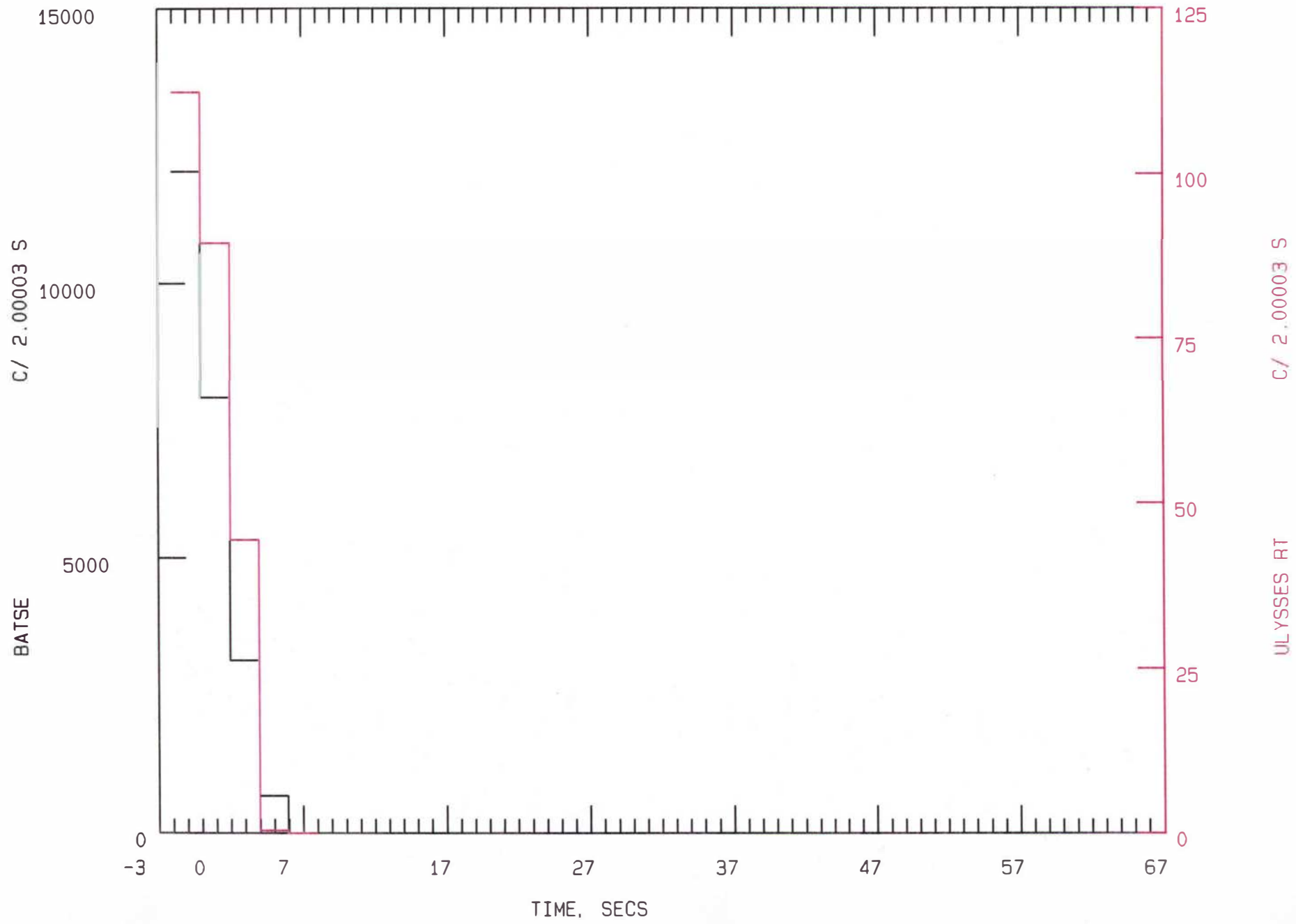
BATSE

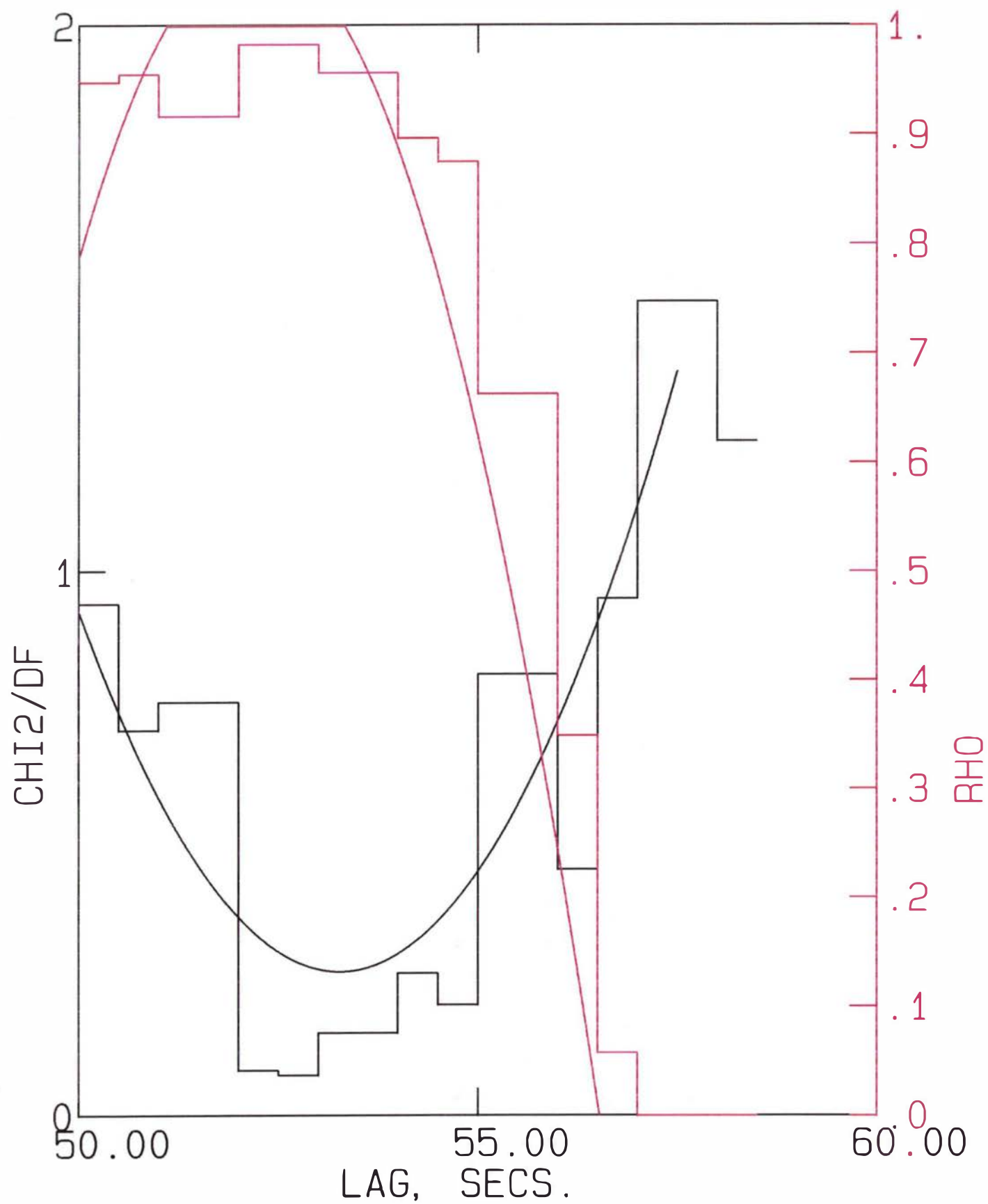
-ULYSSES RT CORRELATION

1/ 1/94

81720.922

28/10/97





ULYSSES RT

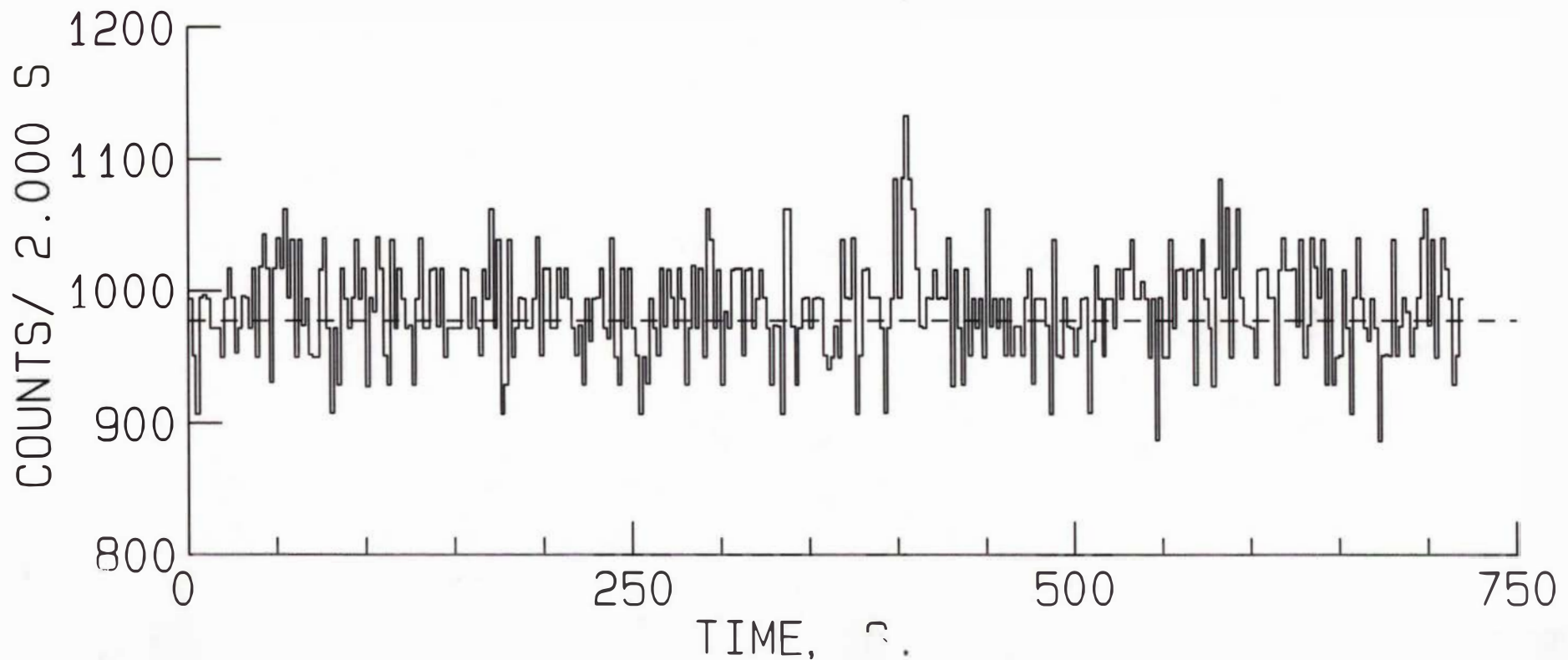
28/10/97

1/ 1/94 81684.219 s

0.500 S INTERVALS REGROUPED BY 4

20- 138 keV

N= 10 M= 1
>4.0 SIGMA FLUCTUATIONS



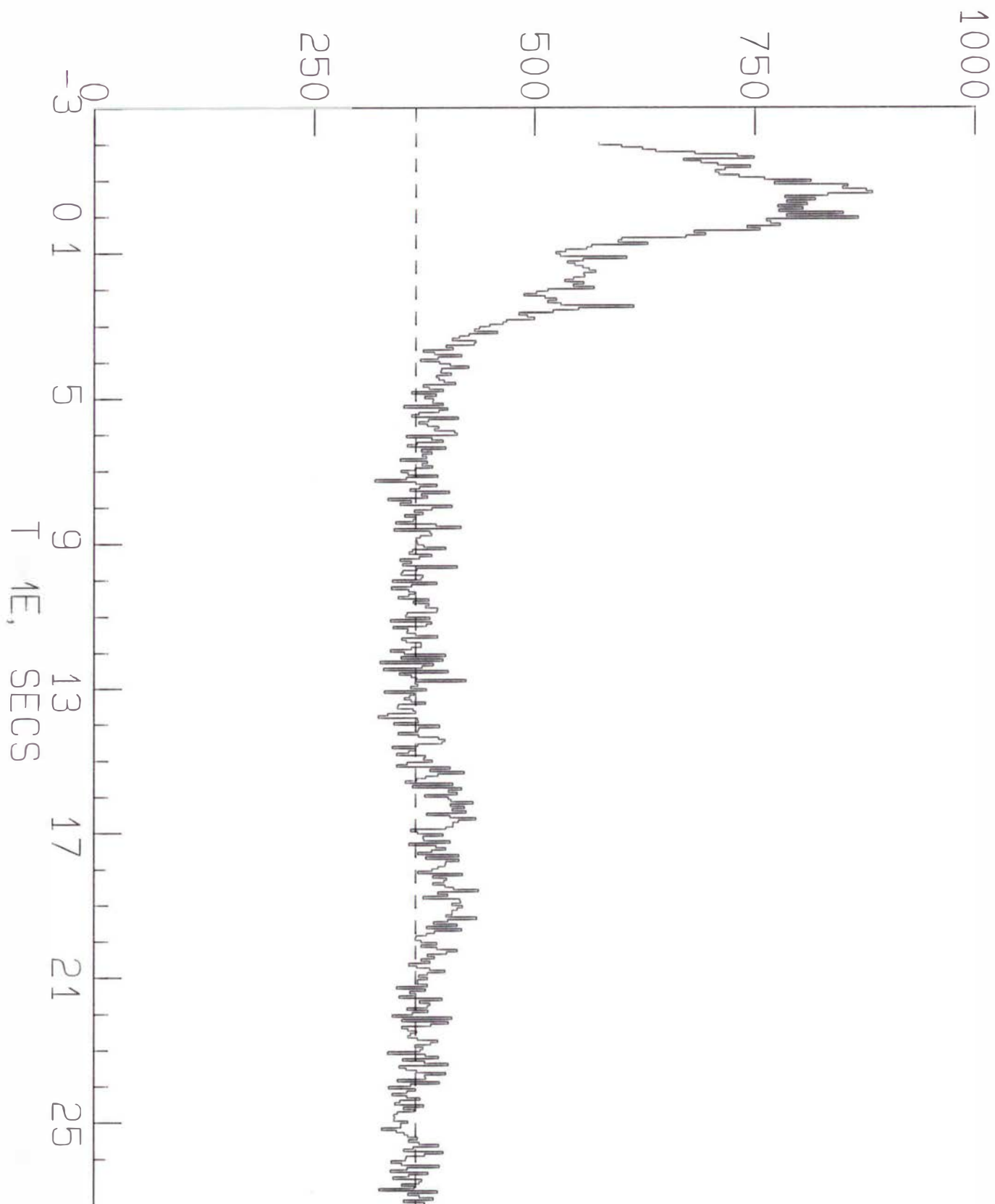
BATSE

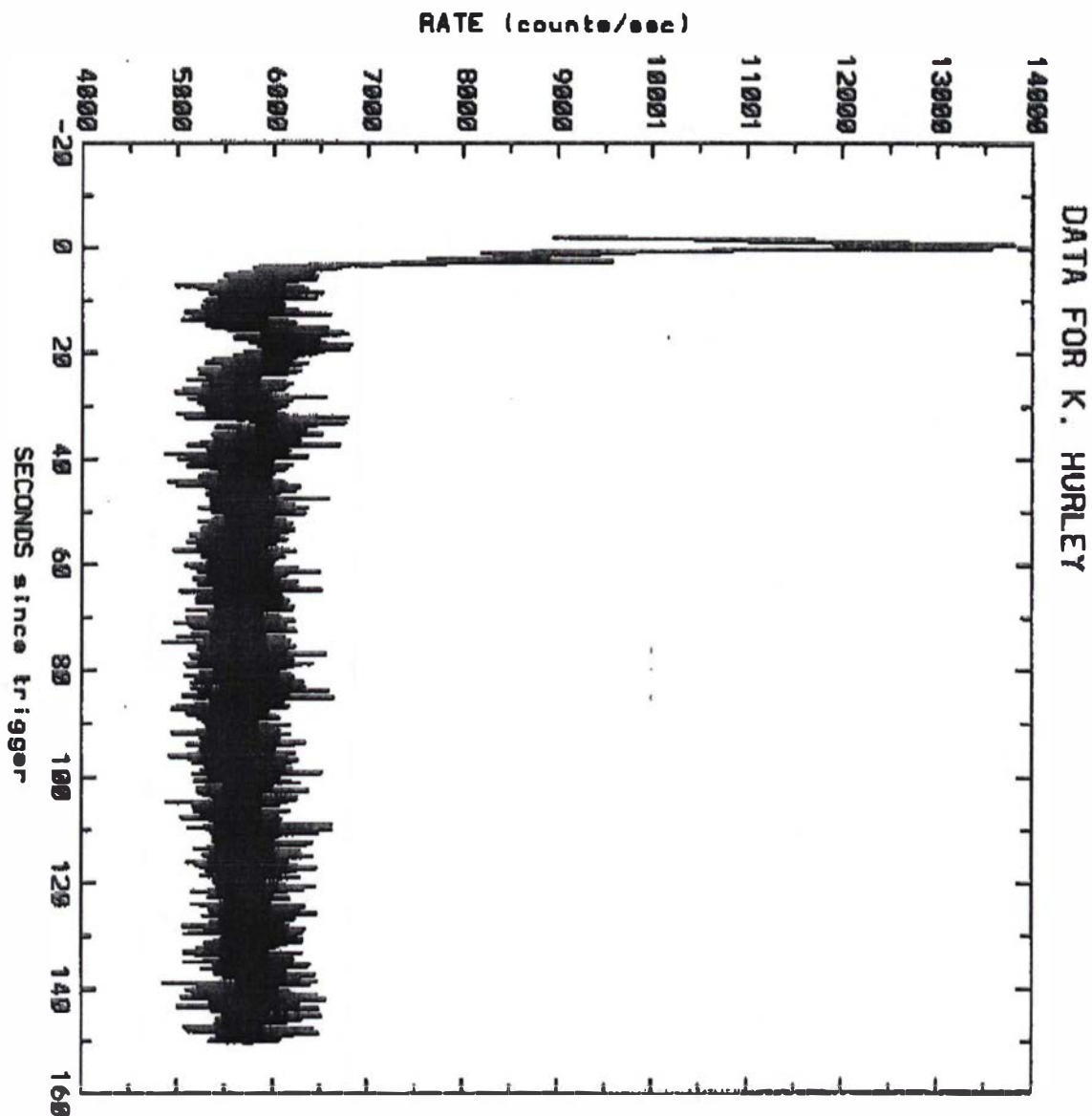
01/01/94

81720.922

25- 100 keV

COUNTS/ .064 S





19-JAN-1994 09:59:01

Created by MOPS BD
(Burst Display)
Version 2.28

Trigger # : 2729

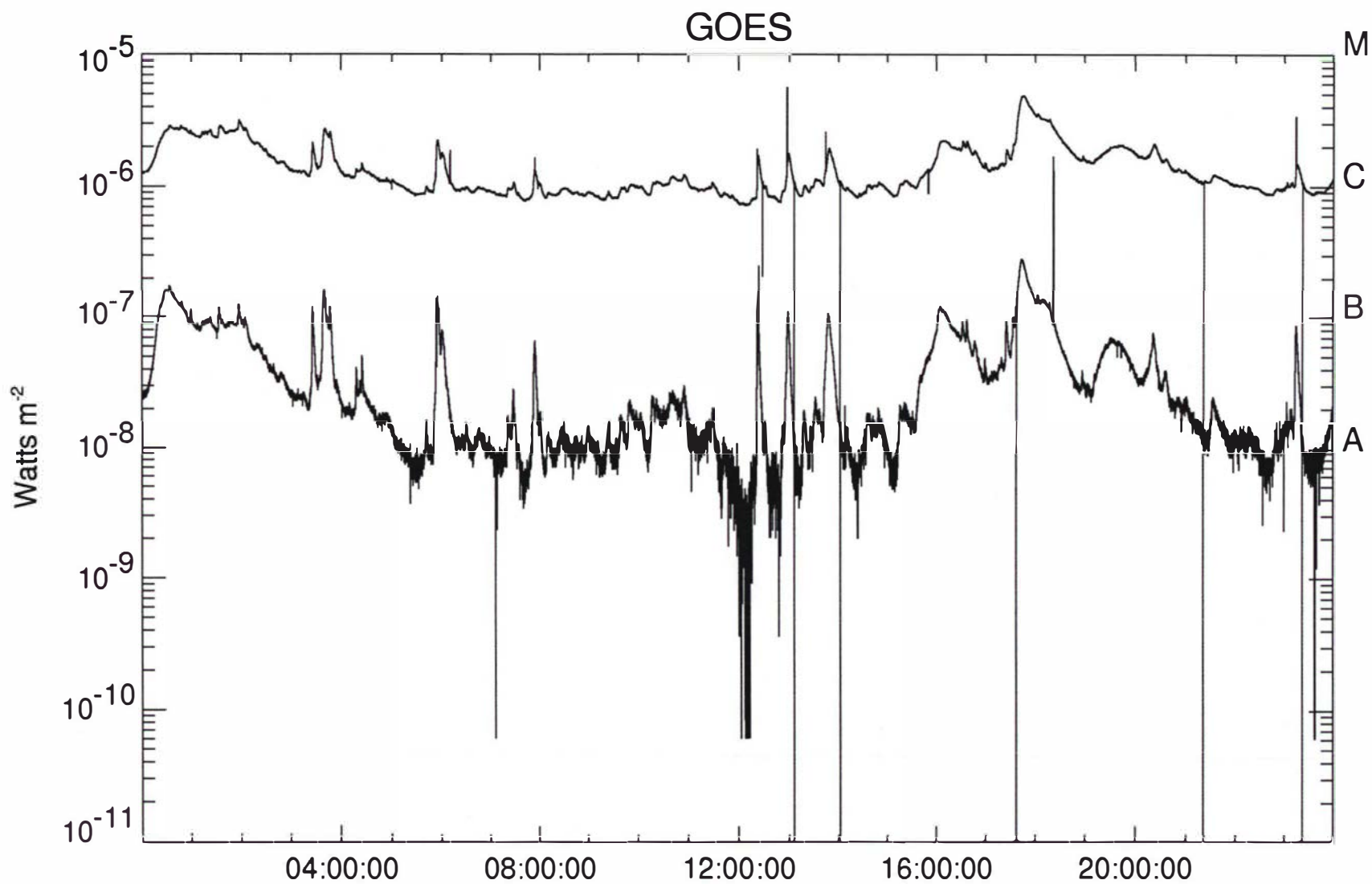
Trigger Time:

9353 / 81728.922

Burst Data Type:

DISCSC

Deadtime
Corrected: NBackground Data
Type: PRED + DISCSCMinimum Integ. Time:
0.004 (seconds)Detectors [7..0]:
00010001Discriminators:
1 1. 2]Quality Mask:
BDISP1



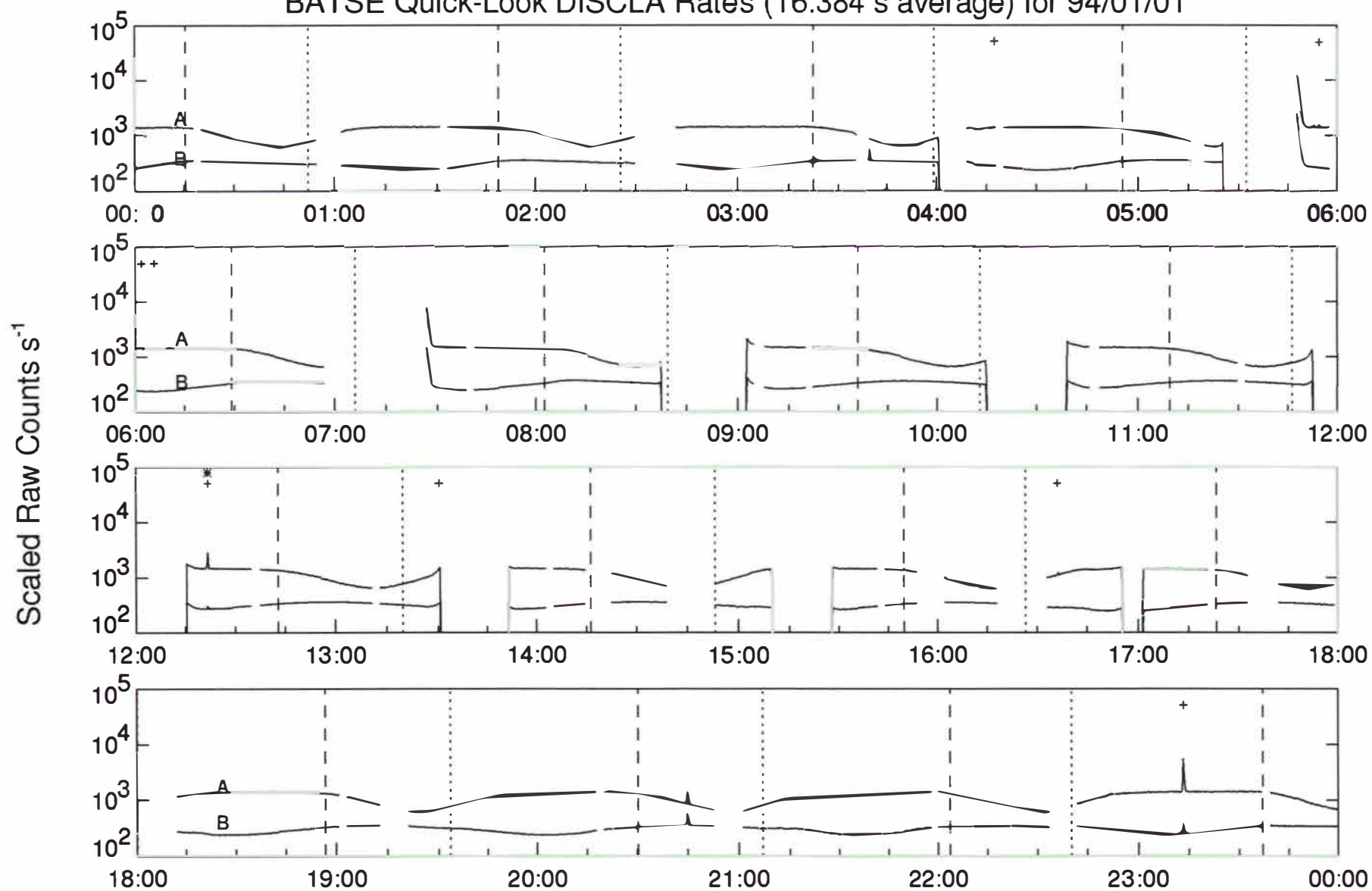
Data Start: 94/01/01, 0000:00

Plot created: 94/01/04, 1726

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/01

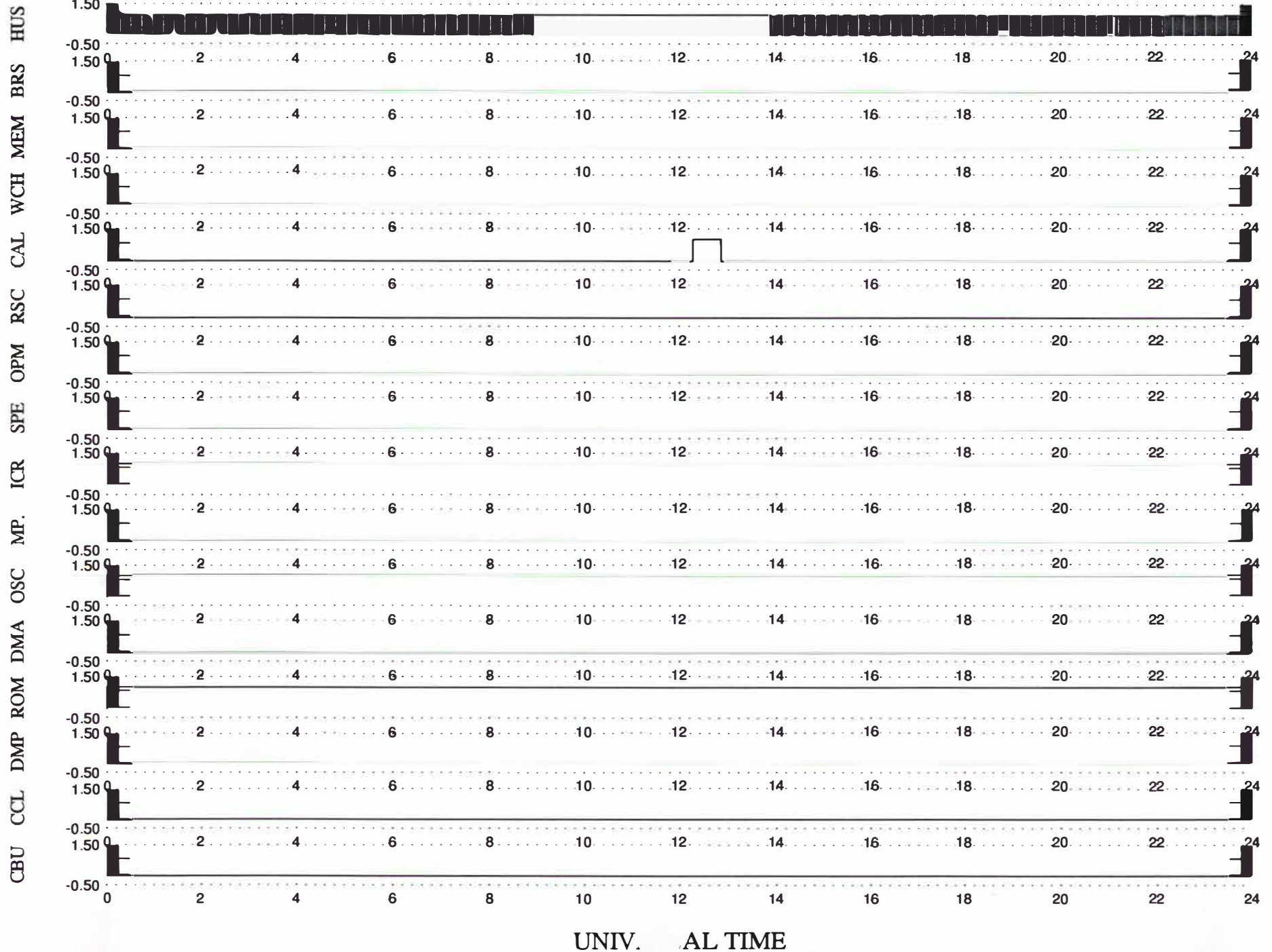


Current Time: 94/01/04, 1706 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

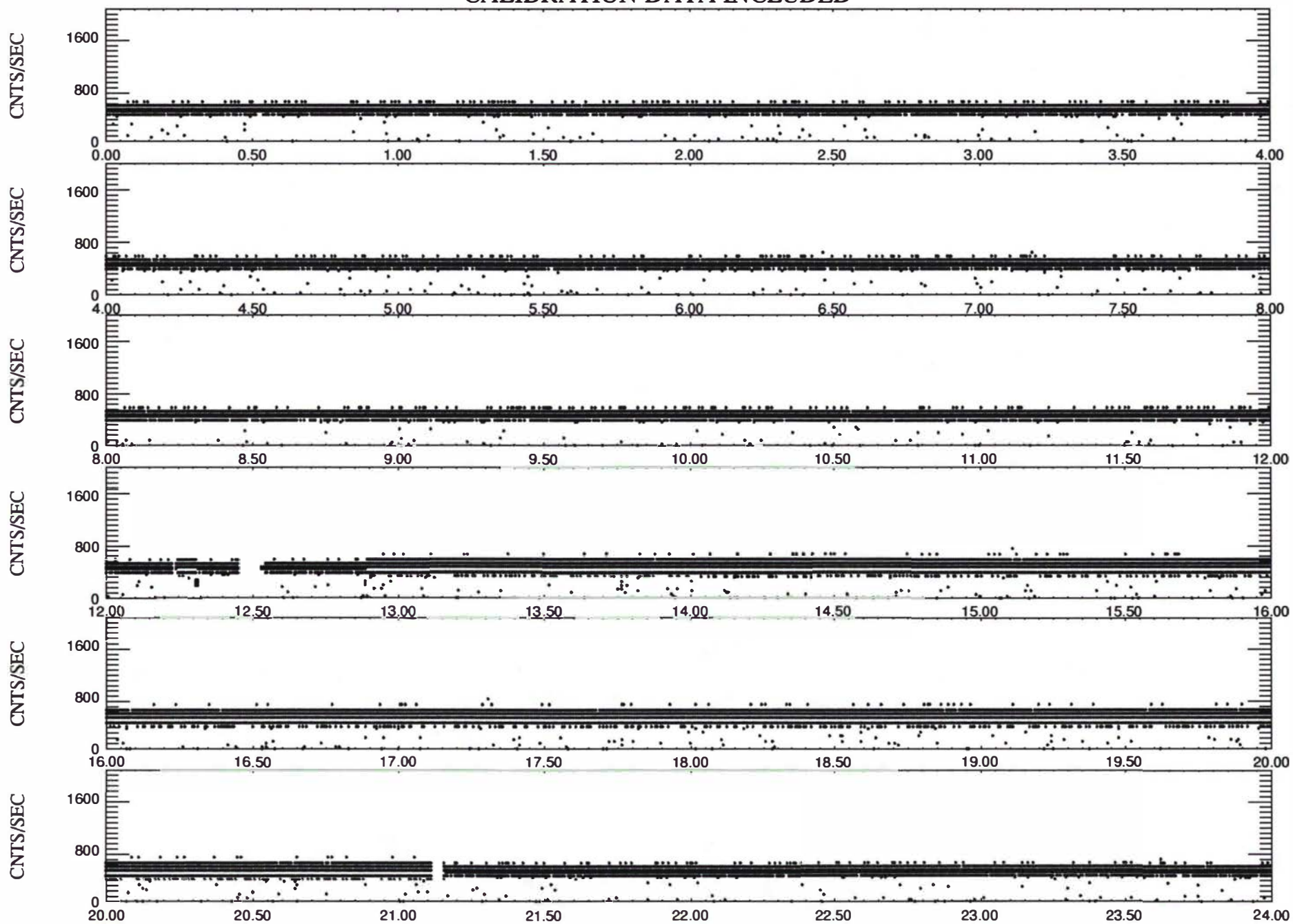
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

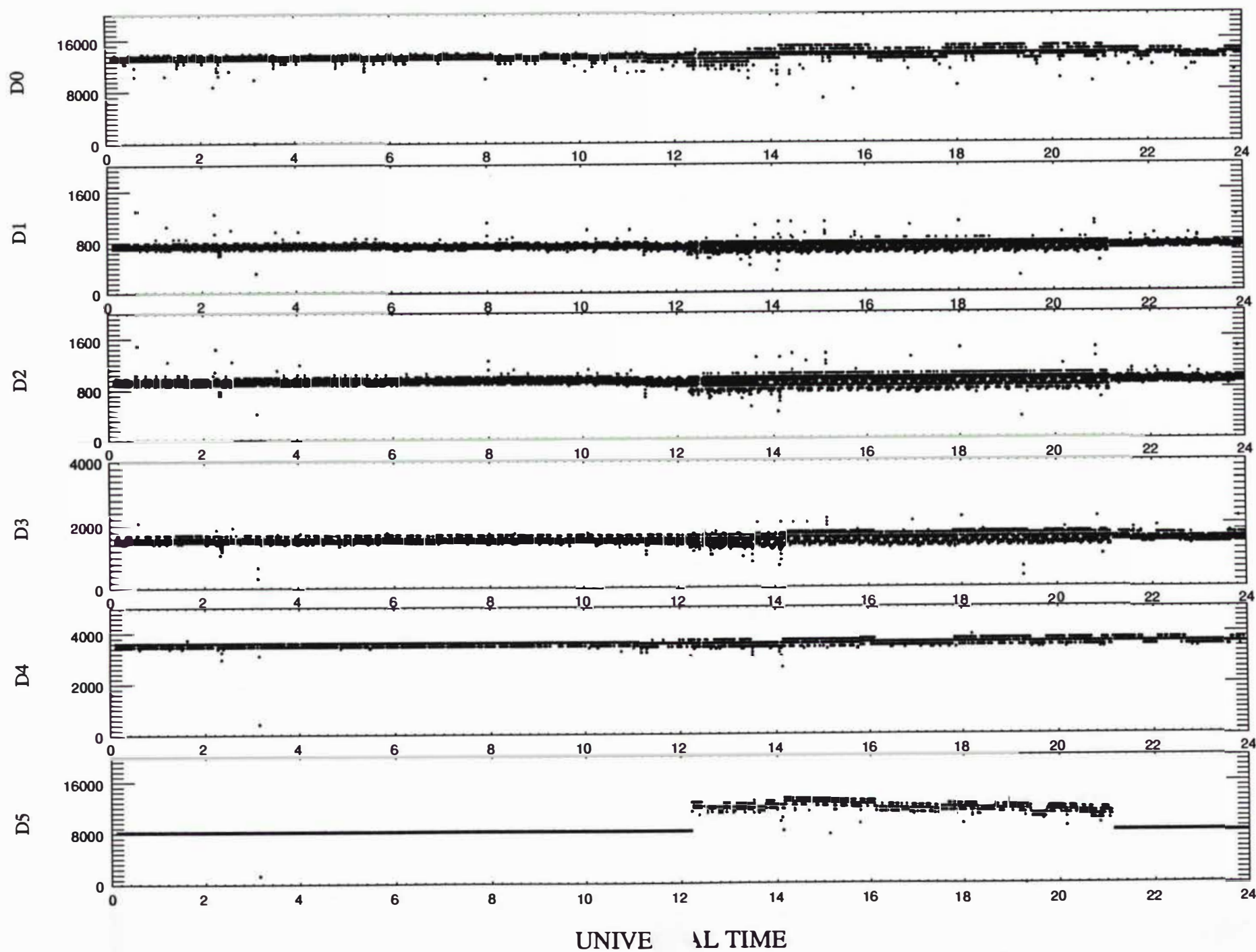
NO BURST (12)



CALIBRATION DATA INCLUDED



UNIV AL TIME



From BRAINERD@ssl.msfc.nasa.gov Tue Jan 4 09:53 PST 1994
Date: Tue, 4 Jan 1994 9:29:51 -0600 (CST)
From: "Jim Brainerd, (205) 544-4970" <BRAINERD@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, GROBAD@estec.bitnet, LHEAVXCLINE@ssl.msfc.nasa.gov,
LHEAVXBARTHELMY@ssl.msfc.nasa.gov, LHEAVXKWOK@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
Cc: BRAINERD@ssl.msfc.nasa.gov
Subject: Burst Trigger Message
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02730

TIME: TJD=9354 SECONDS=04381

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.

From BRAINERD@ssl.msfc.nasa.gov Tue Jan 4 09:45 PST 1994
Date: Tue, 4 Jan 1994 9:52:46 -0600 (CST)
From: "Jim Brainerd, (205) 544-4970" <BRAINERD@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, GROBAD@estec.bitnet, LHEAVXCLINE@ssl.msfc.nasa.gov,
LHEAVXBARTHELMY@ssl.msfc.nasa.gov, LHEAVXKWOK@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
Cc: BRAINERD@ssl.msfc.nasa.gov
Subject: Burst Trigger Message
Content-Type: text
Content-Length: 1216

BATSE BURST TRIGGER

NO.: 02731

TIME: TJD=9354 SECONDS=09322

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=098.2 AZIMUTH=010.0 ERROR= DEGREES

COMMENTS:
SOLAR FLARE GOES C1.5, 15 SECONDS IN DURATION, NOT SEEN ABOVE 100 KEV.

From BRAINERD@ssl.msfc.nasa.gov Tue Jan 4 09:43 PST 1994
Date: Tue, 4 Jan 1994 11:00:11 -0600 (CST)
From: BRAINERD@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: BRAINERD@ssl.msfc.nasa.gov
Subject: Crossing Windows for BATSE Burst 2732
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2732
EVENT OF 1994 JAN 2 DAY OF YEAR= 2
EVENT CROSSING TIME AT BATSE : 9952. S. OR 02:45:52.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 11.000 46.000
BATSE PEAK COUNTING RATE: 6000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 2/ 1/ 94 IS:
RA= 164.977 DEC= -42.063 DIST= 3.649 AU
BATSE-ULYSSES DISTANCE = 545924345. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 19.03 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1721.50 SECS.
CROSSING TIME AT ULYSSES IS 11674. S. OR 03:14:33 +/- 179.22 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 2/ 1/ 94 IS:
RA= 280.766 DEC= -23.906 DIST= 2.420 AU
MARS-BATSE DISTANCE = 362056832. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 72.90 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 355.19 SECS.
CROSSING TIME AT MARS IS 10307. S. OR 02:51:47 +/- 205.80 SECONDS

RI

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2732	940102	9354	09952	6000	011	+46

BATSE BURST TRIGGER

NO.: 02732

TIME: TJD=9354 SECONDS=09952

TYPE: BURST

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=118.1 AZIMUTH=122.0 ERROR= DEGREES

COMMENTS:

MULTISPIKED COSMIC BURST OF 7 SECONDS DURATION, NOT SEEN ABOVE 300 KEV.

Date:

Helio corr removed
Jan 22 '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 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

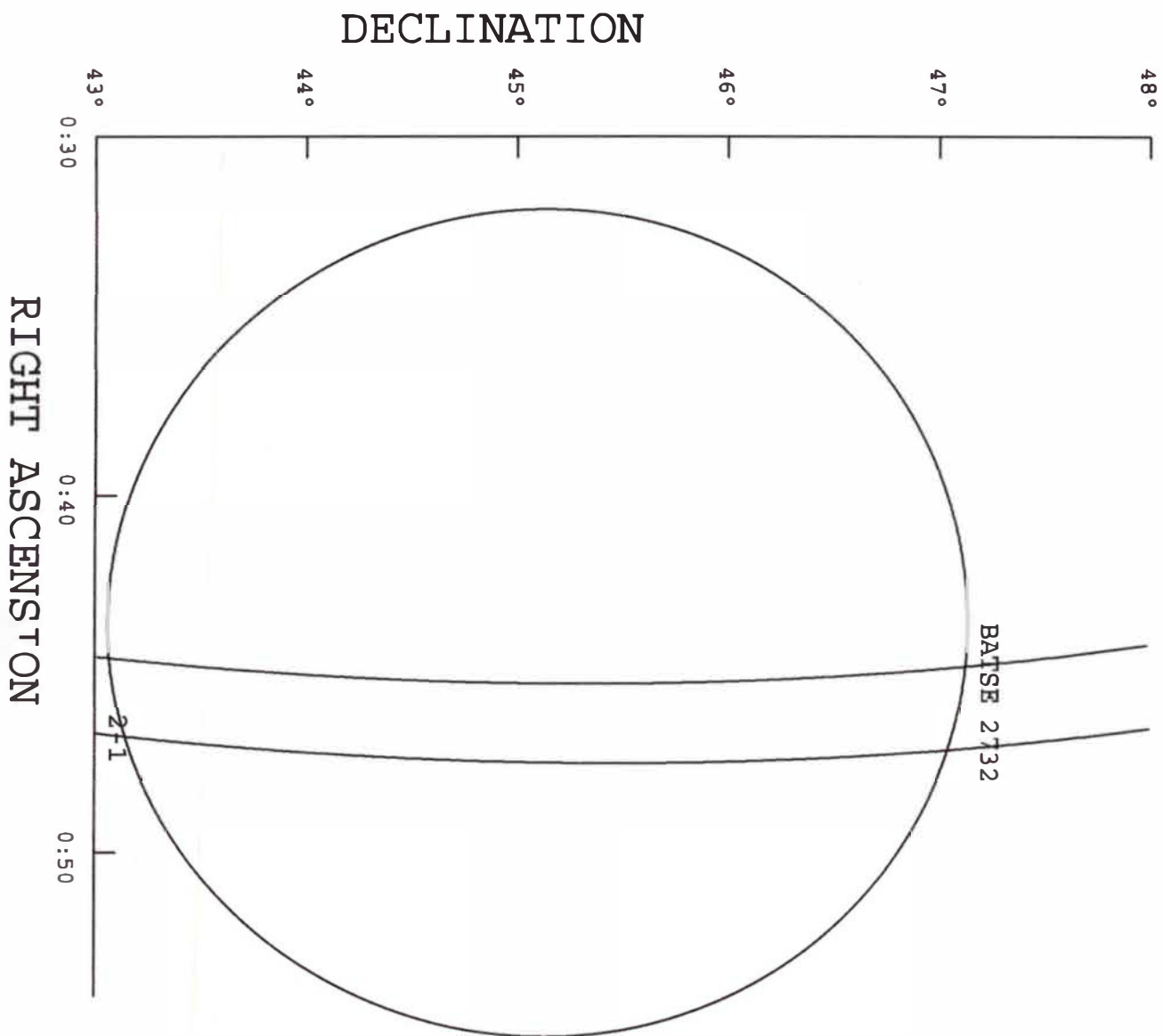
E=ECLIPTIC

G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 2, 1994 3:13



22 / 1/98

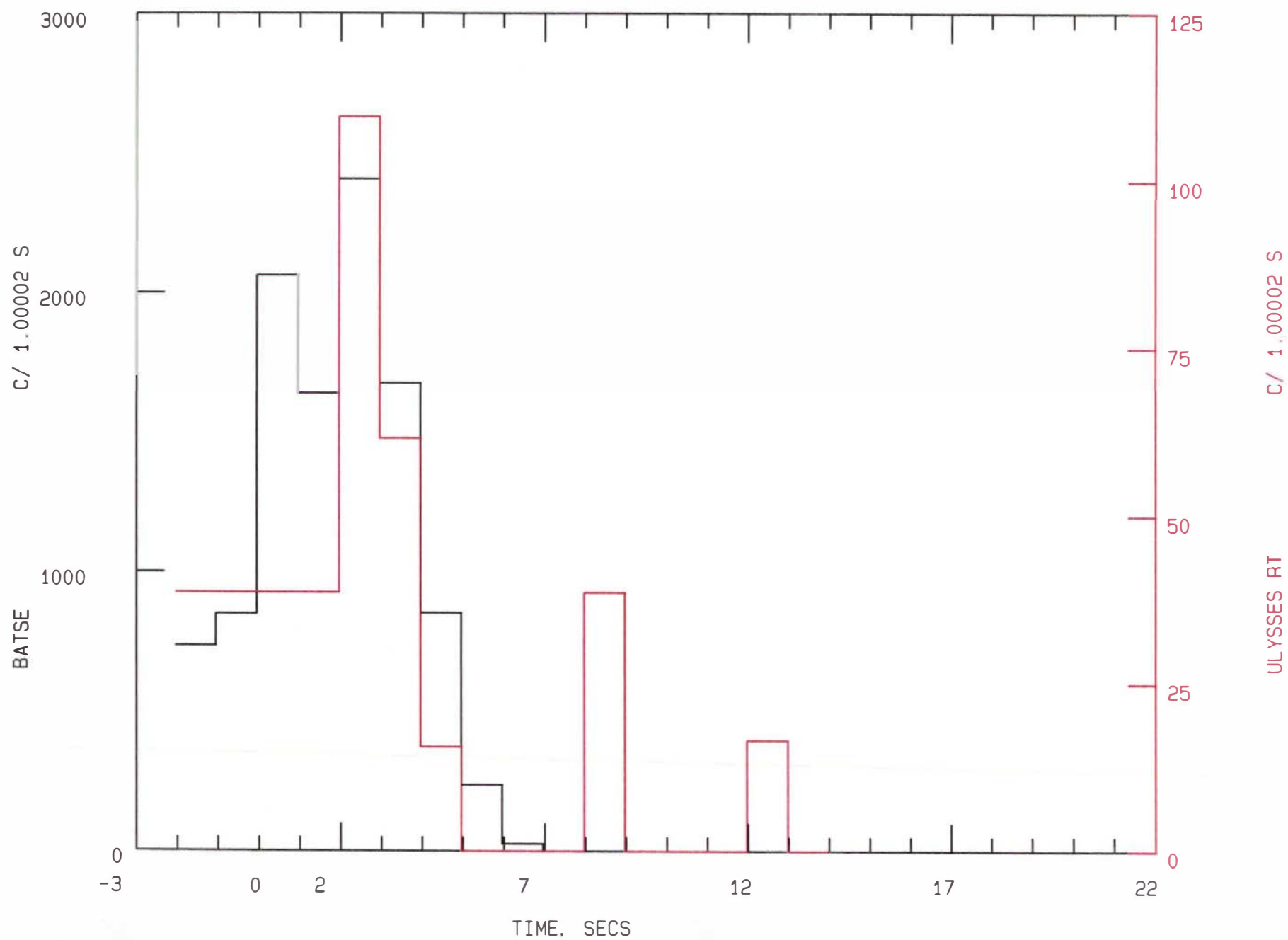
BATSE

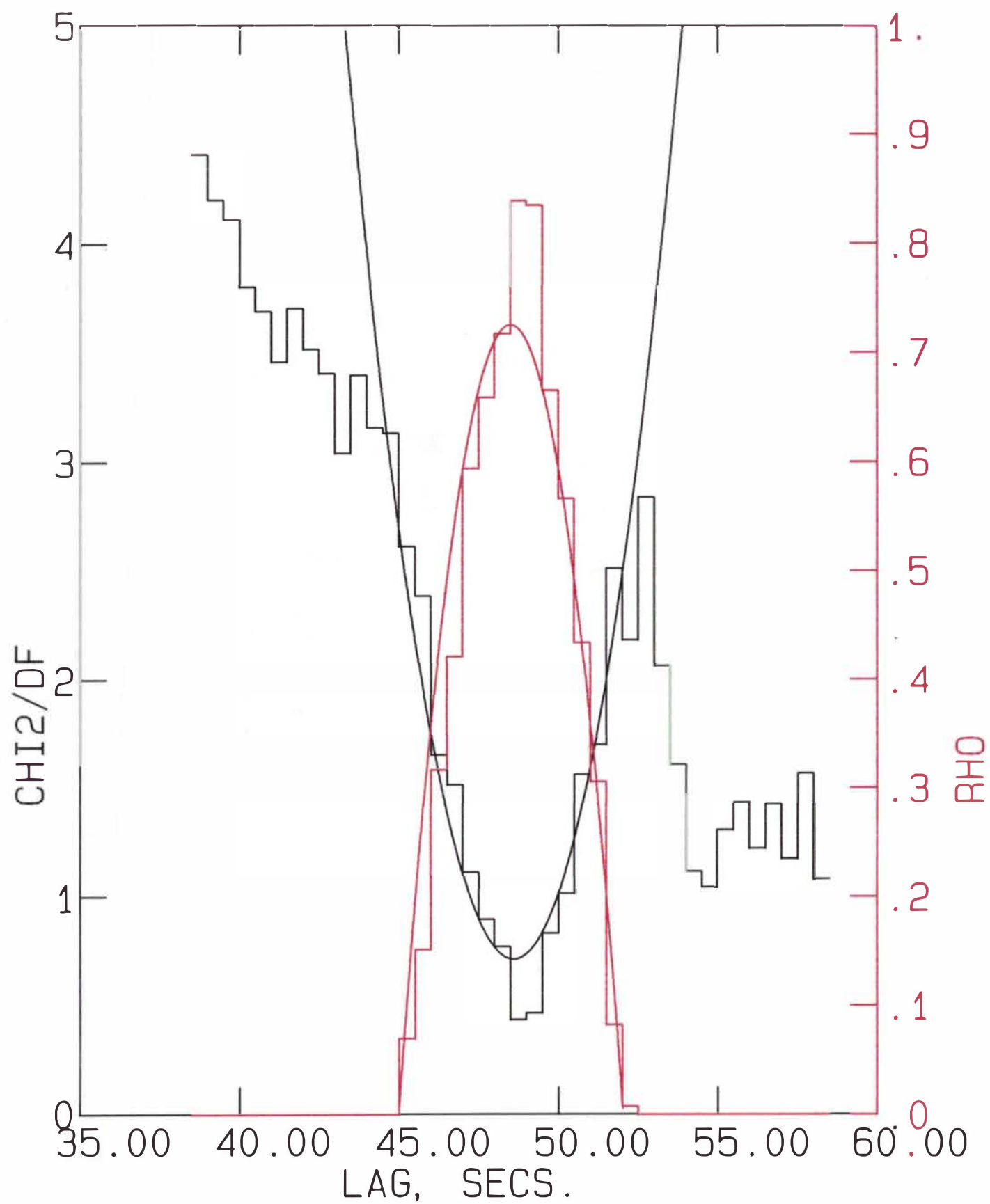
-ULYSSES RT CORRELATION

2/ 1/94

9952.730

22/ 1/98





ULYSSES RT

22 / 1 / 98

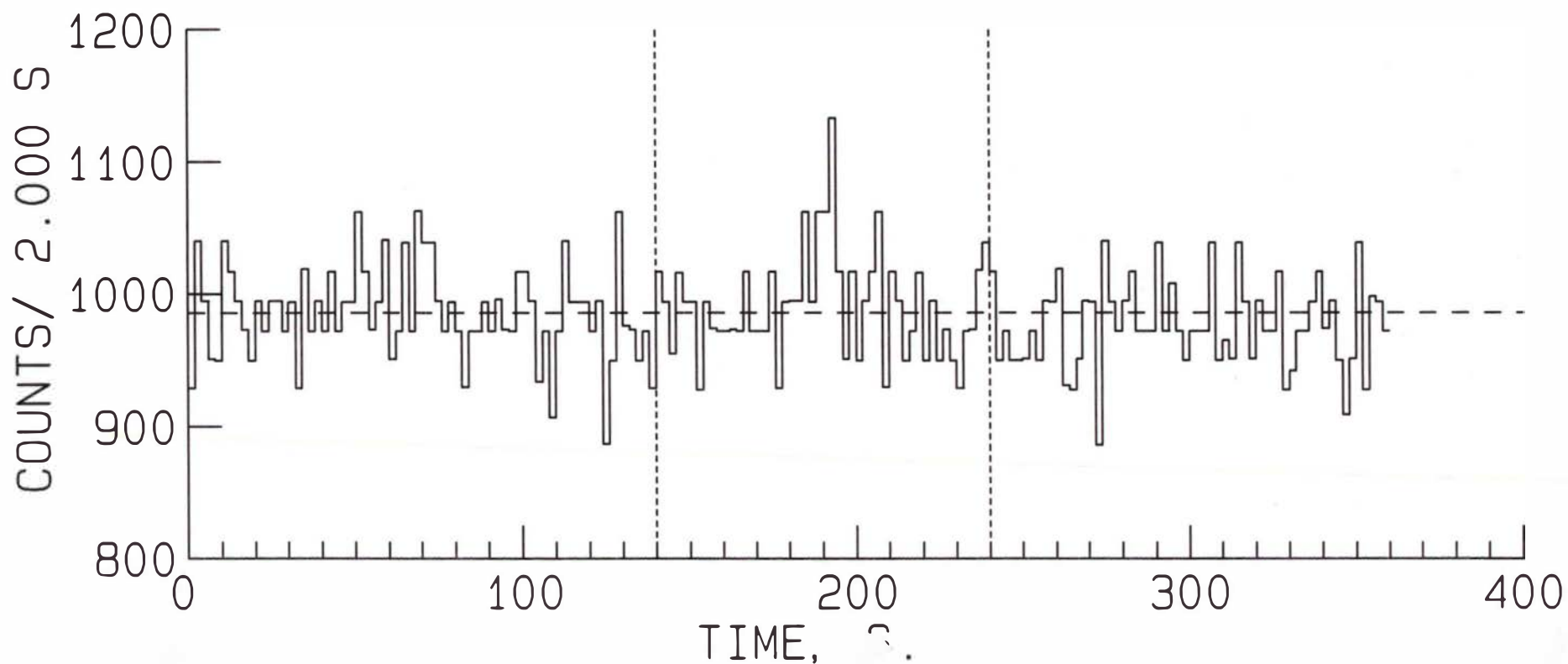
2 / 1 / 94 11484.472 s

0.500 S INTERVALS REGROUPED BY 4

20- 139 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS

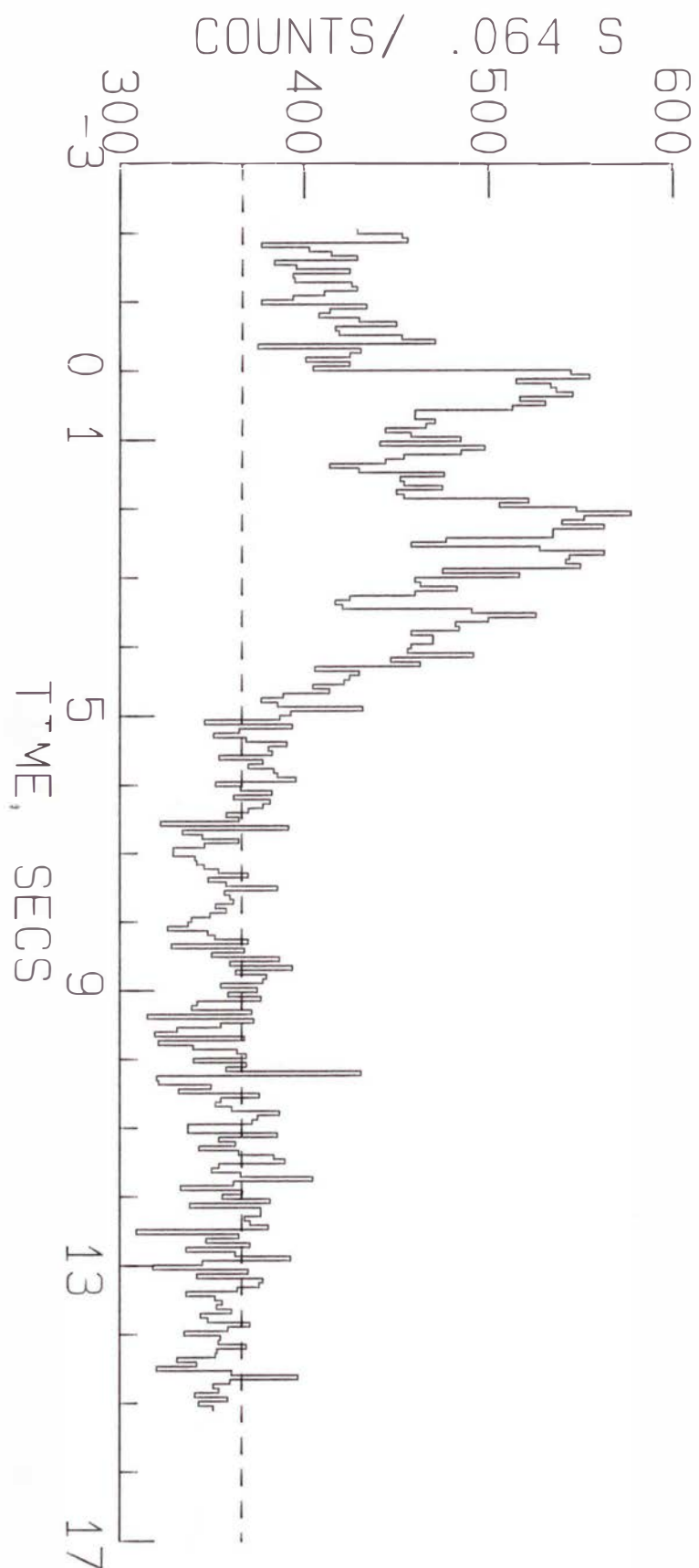


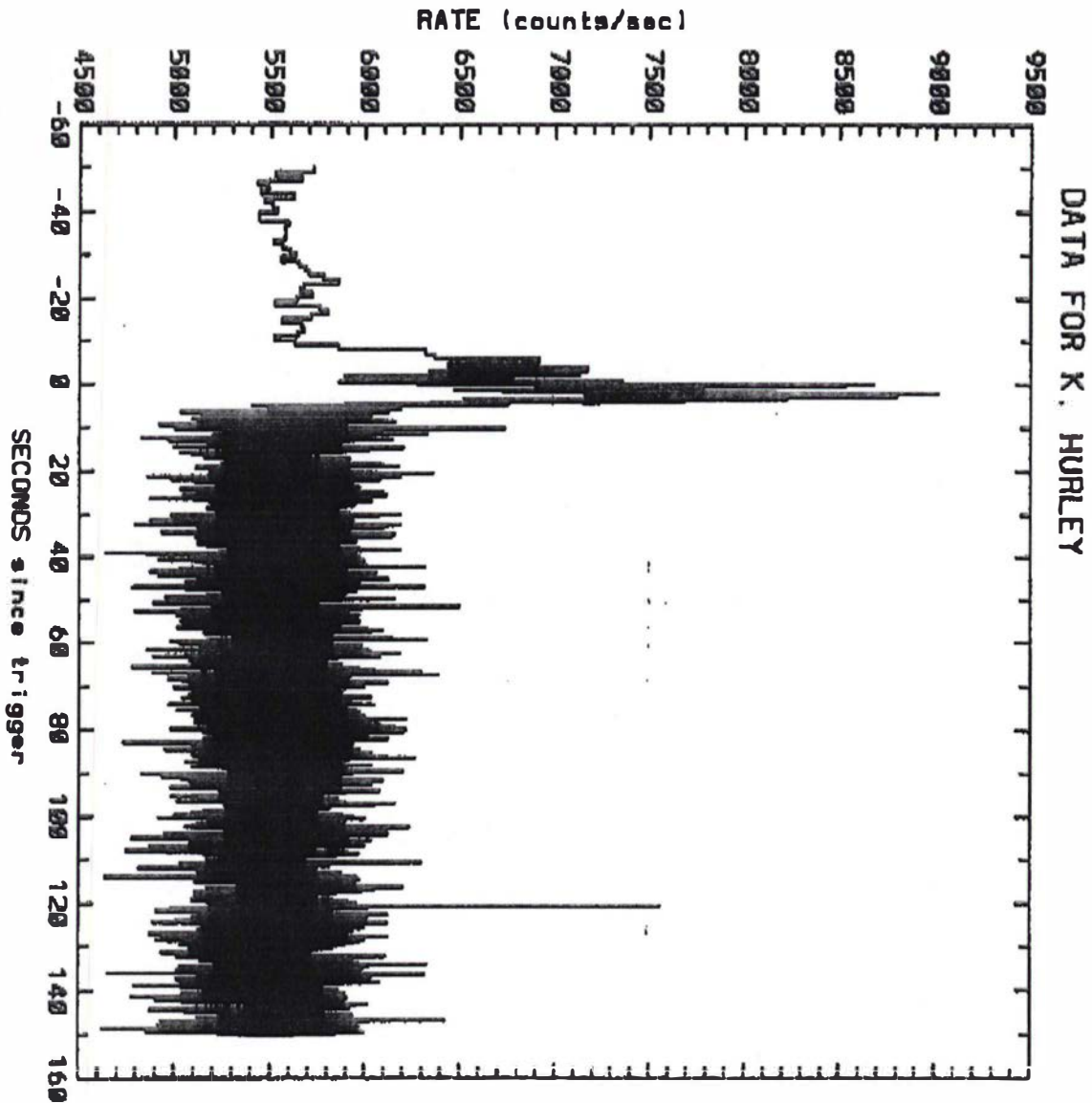
BATSE

02/01/94

9952.730

25- 100 keV





10-JAN-1994 09:04.32
 Created by MIPS BD
 (Burst Display)
 Version 2.28

Trigger # = 2732
 Trigger Time:
 9054 / 9952.738
 Burst Data Type:
 DISCSC

Deadtime
 Corrected: N
 Background Data
 Type: PREB + DISCLA
 Minimum Integ. Time:
 0.004 seconds
 Detectors (7..9):
 00100010
 Discriminators:
 1 1. 21
 Quality Mask:
 BDTSP1

BATSE BURST TRIGGER

NO.: 02733

TIME: TJD=9354 SECONDS=54631

TYPE: FLARE

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=098.2 AZIMUTH=010.0 ERROR= DEGREES

COMMENTS:

SOLAR FLARE GOES B9.2, 40 SECOND DURATION, NOT SEEN ABOVE 100 KEV.

BATSE BURST TRIGGER

NO.: 02734

TIME: TJD=9354 SECONDS=79813

TYPE: PARTICL

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

PARTICLE EVENT.

BATSE BURST TRIGGER

NO.: 02735

TIME: TJD=9354 SECONDS=82194

TYPE: FLARE

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

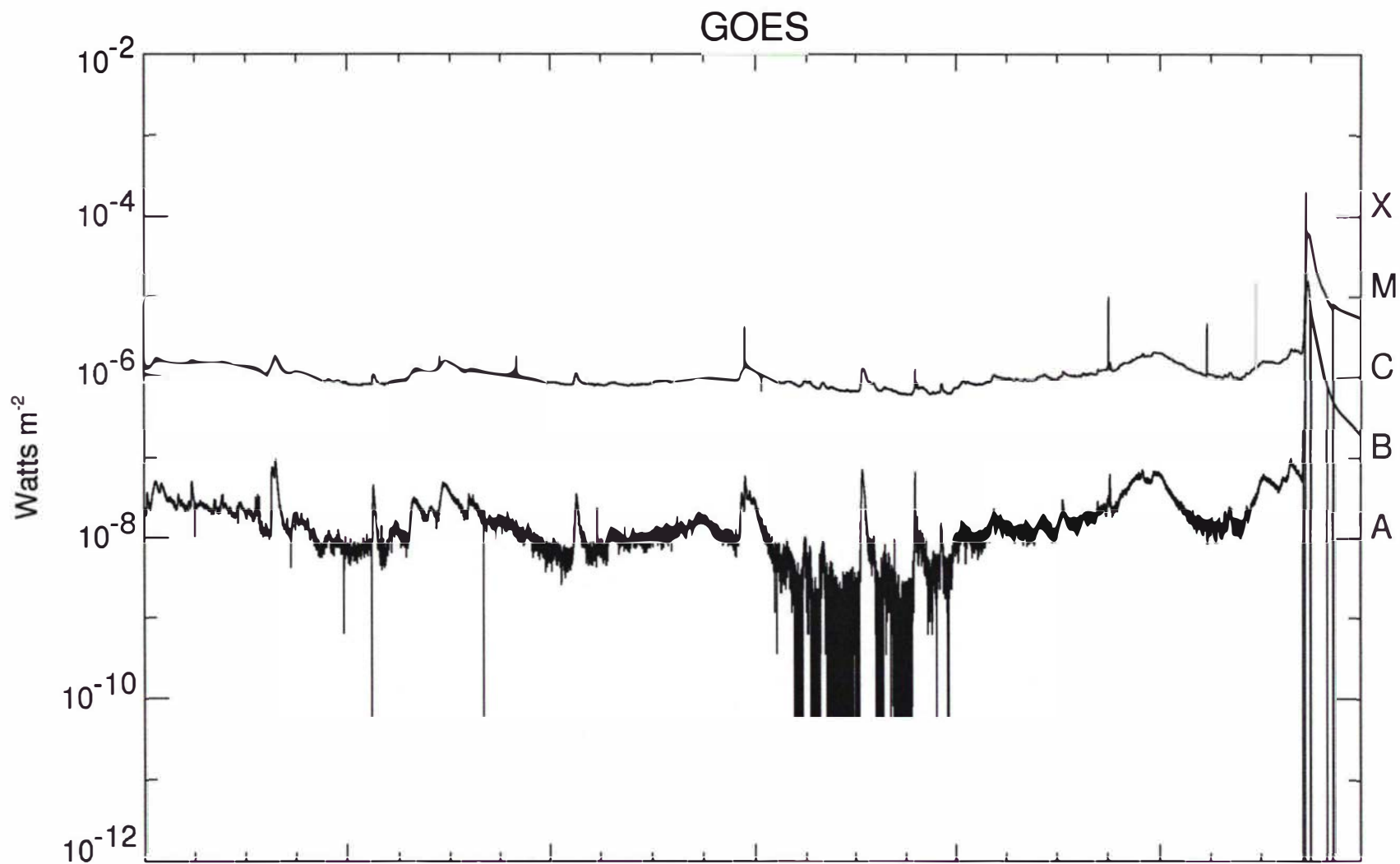
INTENSITY: COUNTS/CM2

LOCATION: ZENITH=098.2 AZIMUTH=010.0 ERROR= DEGREES

COMMENTS:

SOLAR FLARE GOES M6.5, DURATION OF OVER 450 SECONDS, PRECURSOR 50 SECONDS BEFORE TRIGGER. SEEN ABOVE 100 KEV, NOT SEEN ABOVE 300 KEV.

Yes - trigger

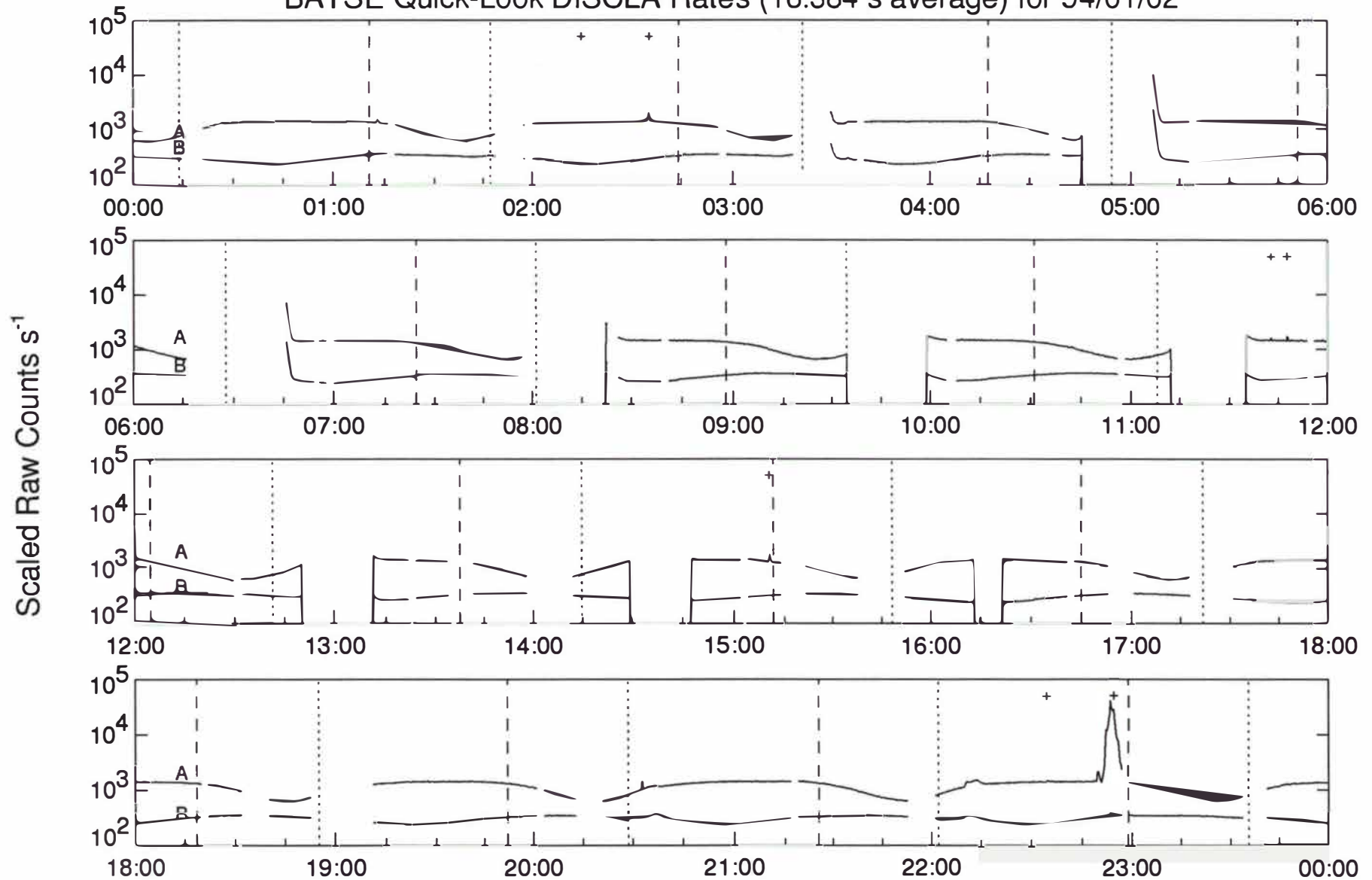


Data Start: 94/01/02, 0000:02

Plot created: 94/01/04, 1726

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 (16.384 s average) for 94/01/02



Current Time: 94/01/04, 1707 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

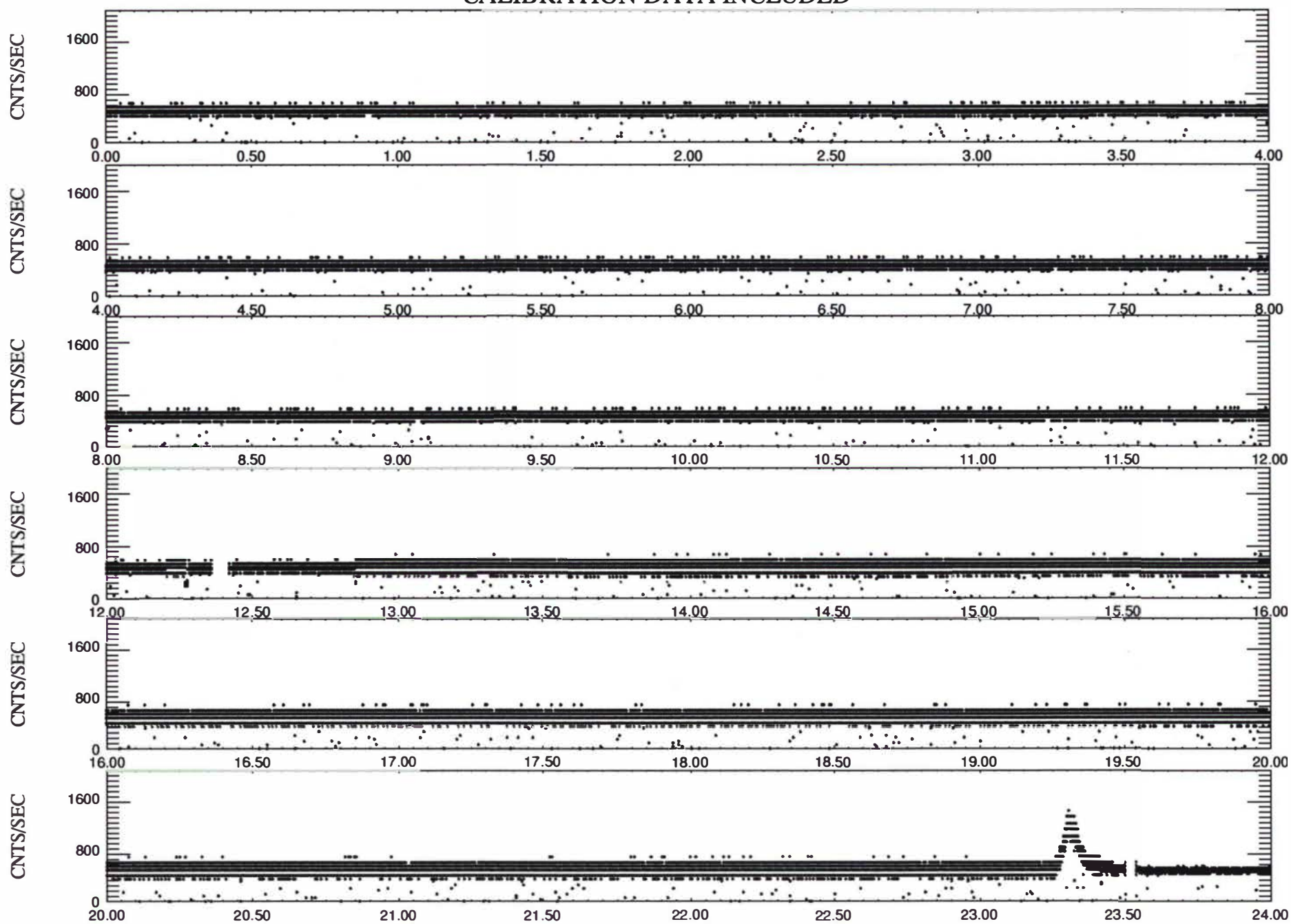
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 13

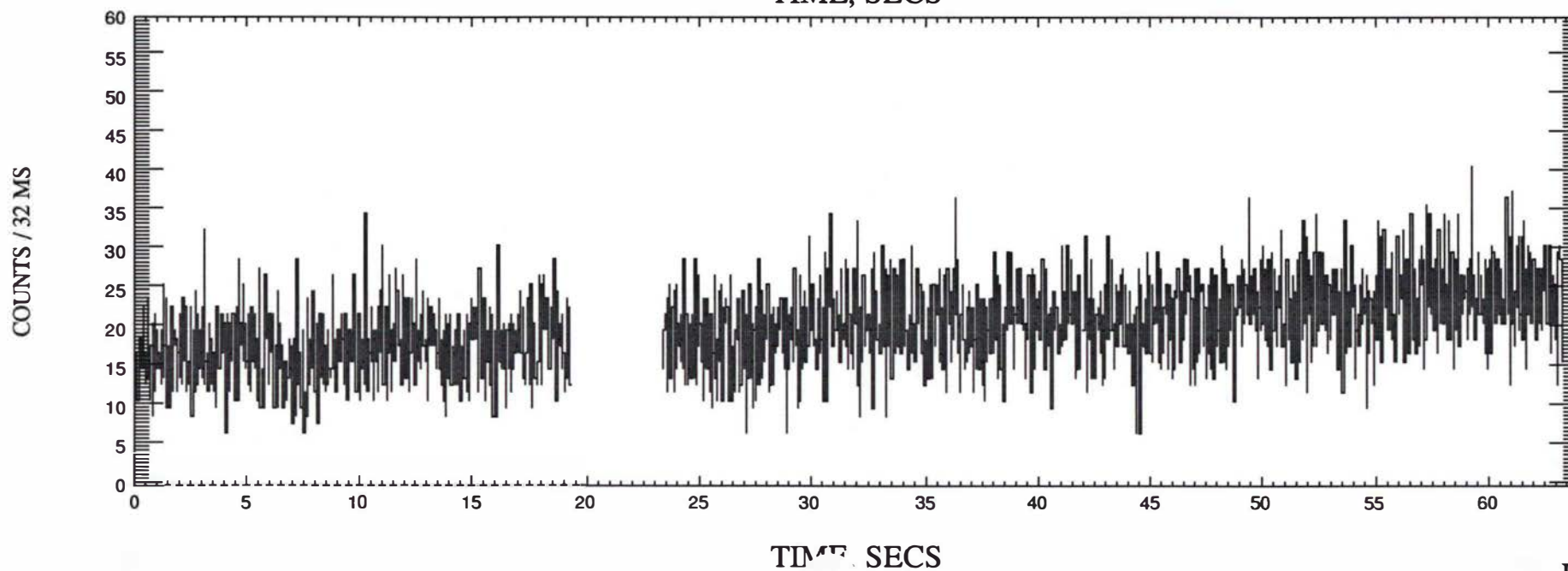
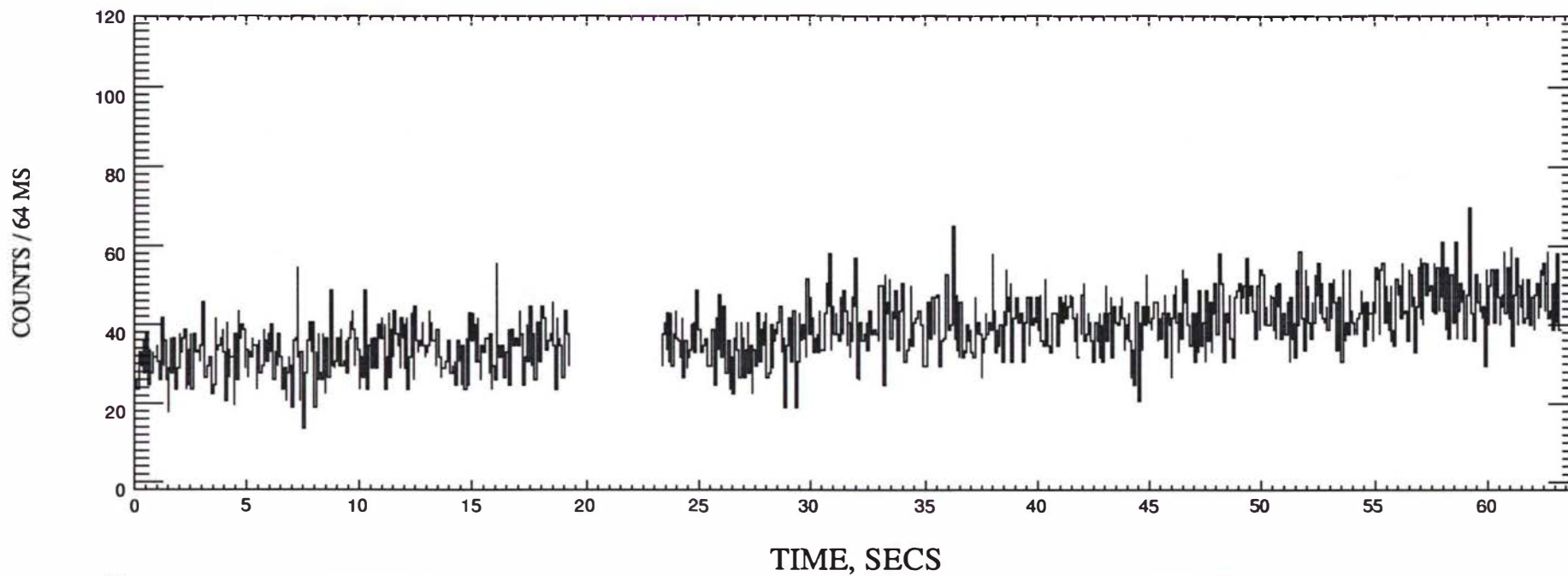


CALIBRATION DATA INCLUDED

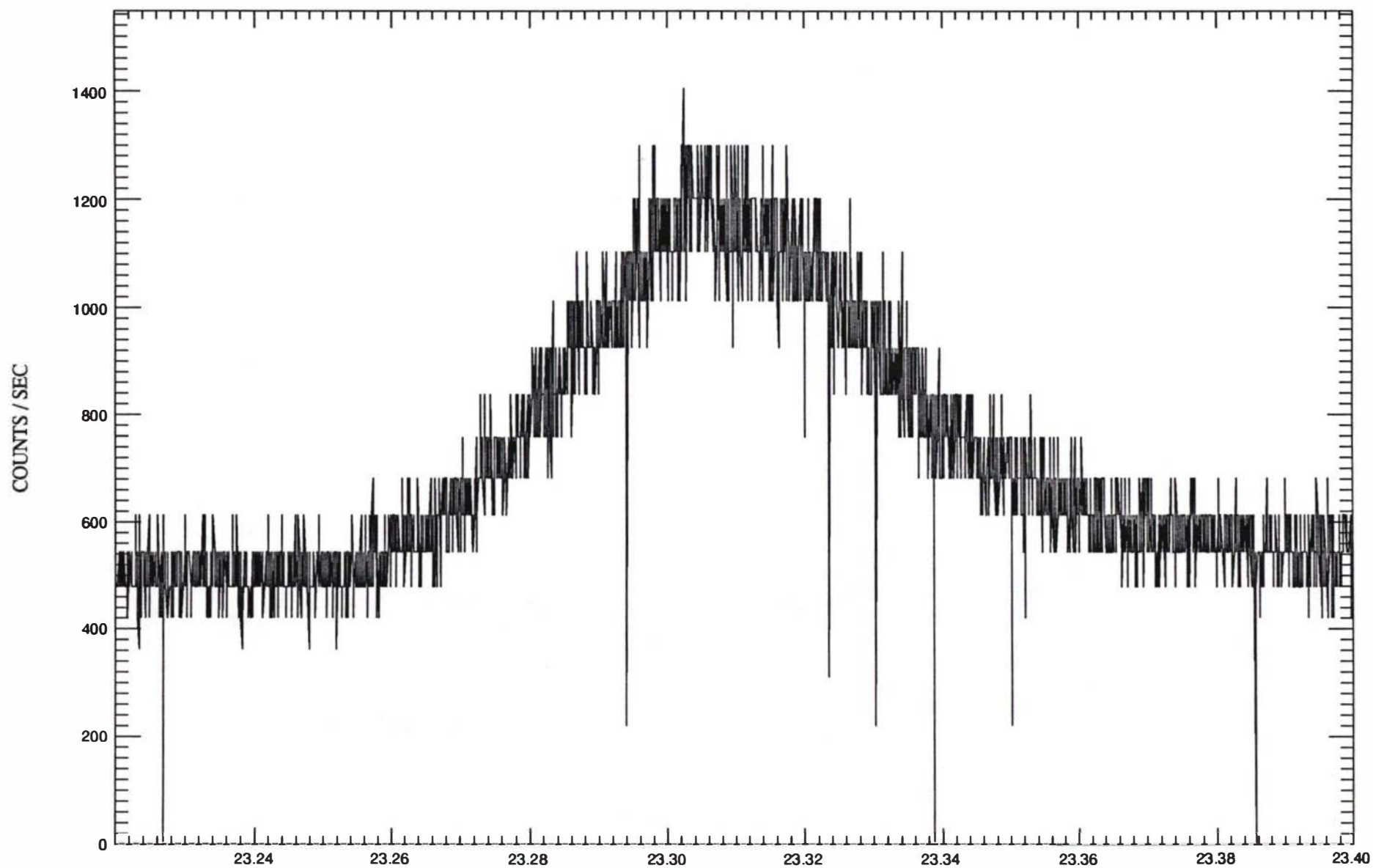


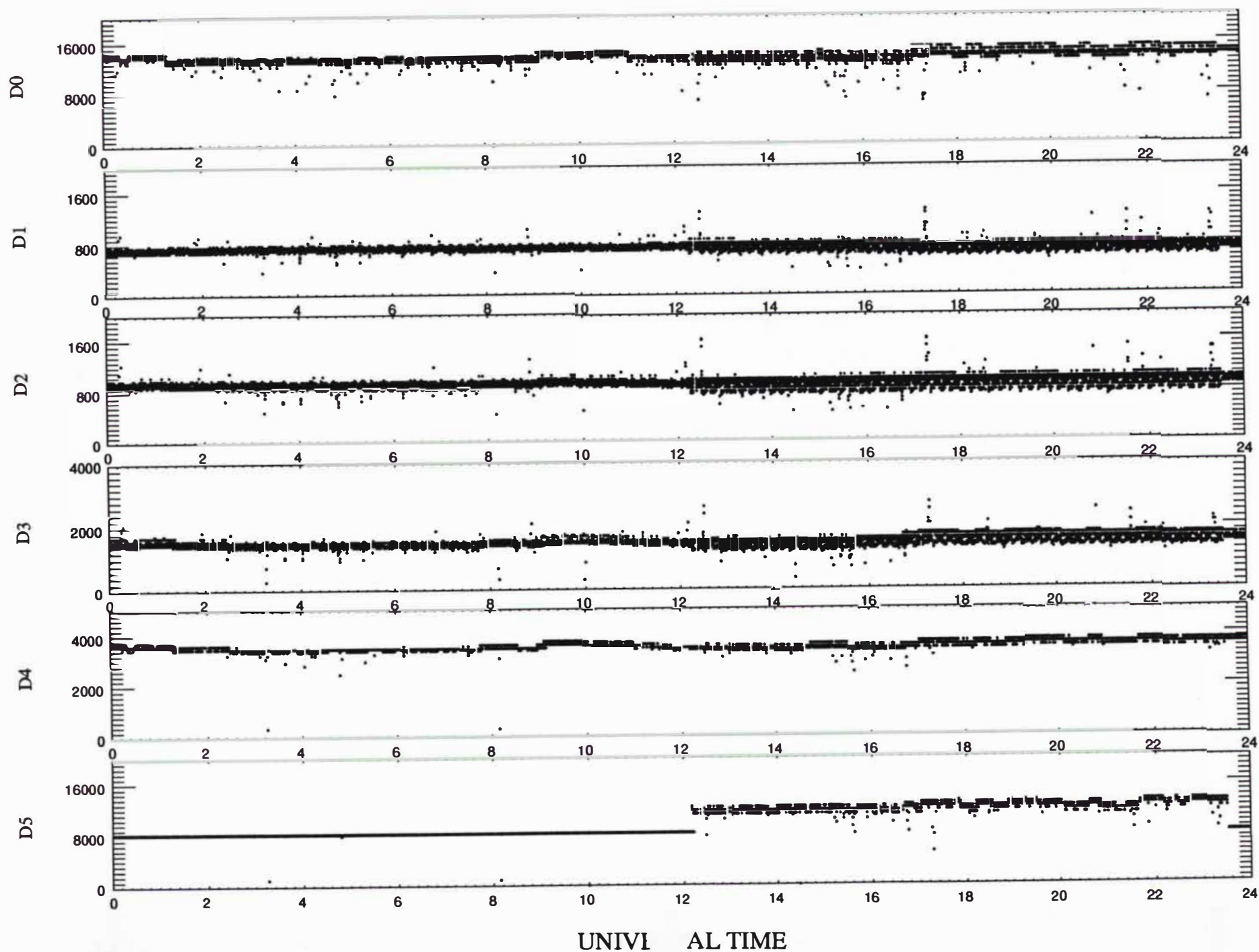
UNIV. TIME

Burst Counter 13 at UT=23.266515079074 h=83759.454 s 23:15:59.454



CALIBRATION DATA INCLUDED





From MEEGAN@ssl.msfc.nasa.gov Tue Jan 4 13:49 PST 1994
Date: Tue, 4 Jan 1994 15:51:15 -0600 (CST)
From: MEEGAN@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2736
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2736
EVENT OF 1994 JAN 3 DAY OF YEAR= 3
EVENT CROSSING TIME AT BATSE : 79976. S. OR 22:12:56.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 267.000 7.000
BATSE PEAK COUNTING RATE: 16000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/ 1/ 94 IS:
RA= 164.700 DEC= -42.541 DIST= 3.620 AU
BATSE-ULYSSES DISTANCE = 541496056. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 76.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 430.23 SECS.
CROSSING TIME AT ULYSSES IS 80406. S. OR 22:20:06 +/- 361.10 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/ 1/ 94 IS:
RA= 281.598 DEC= -23.854 DIST= 2.419 AU
MARS-BATSE DISTANCE = 361860992. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=146.01 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1000.84 SECS.
CROSSING TIME AT MARS IS 78975. S. OR 21:56:15 +/- 101.95 SECONDS

RI

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2736	940103	9355	79976	16000	267	+07

BATSE BURST TRIGGER

NO.: 02736

TIME: TJD=9355 SECONDS=79976

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= 89. AZIMUTH= 10. ERROR= DEGREES

COMMENTS:

FAST RISE, SLOW DECAY. ABOUT 8 S LONG. SEEN ABOVE 300KEV.

Helco corr removed

Date: Jan 22 '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

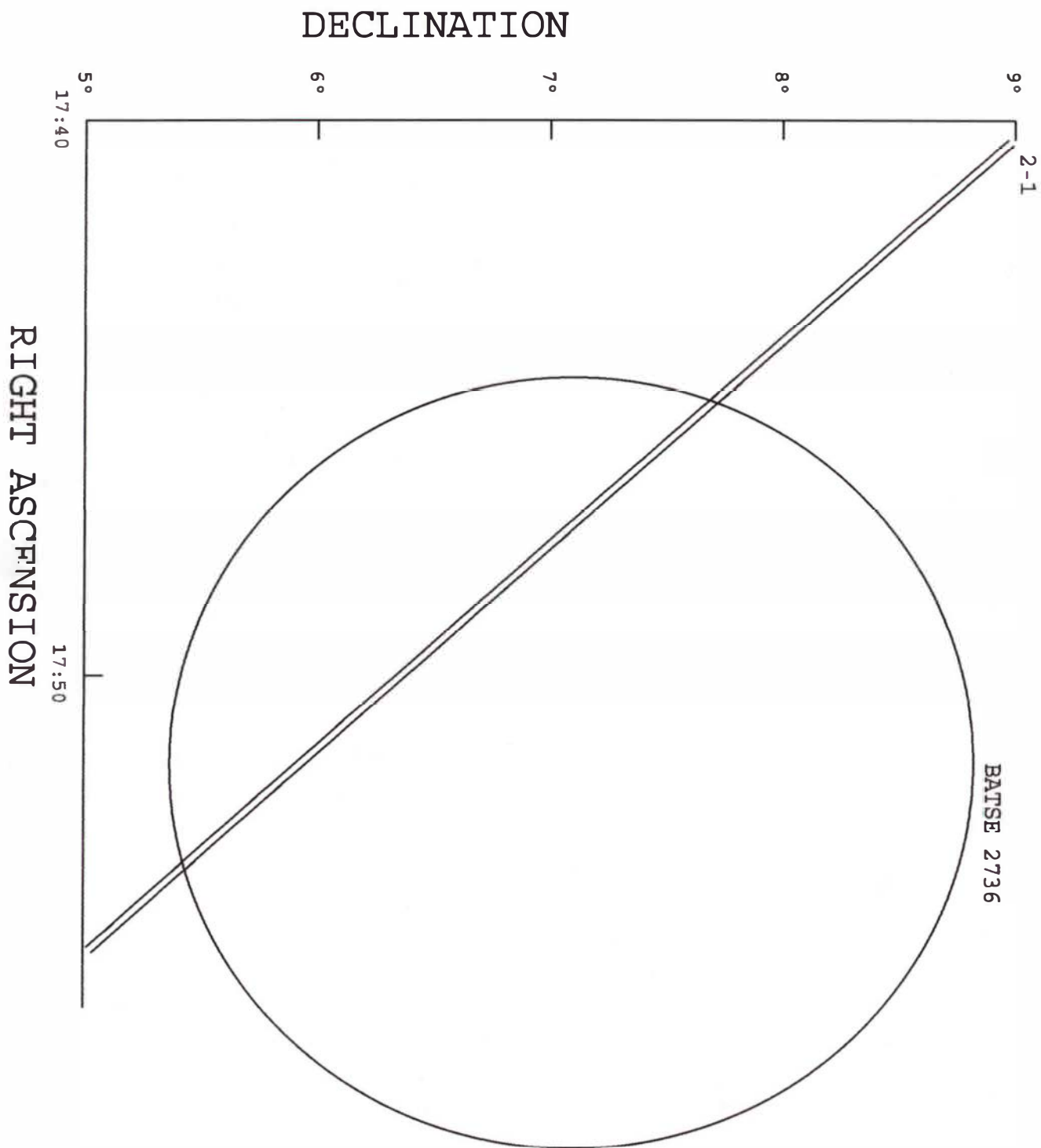
G=GALACTIC EQUATOR

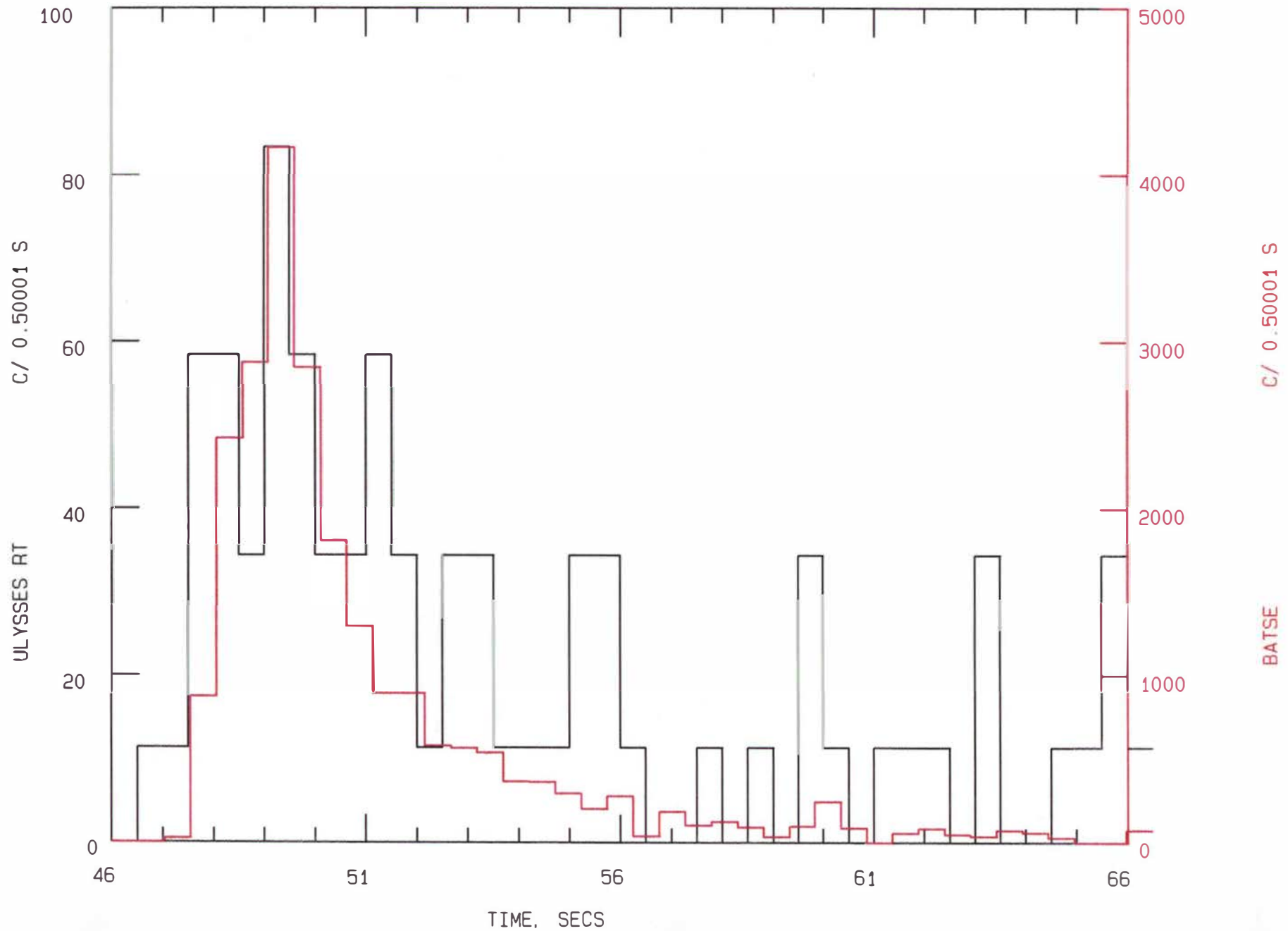
1 ULYSSES

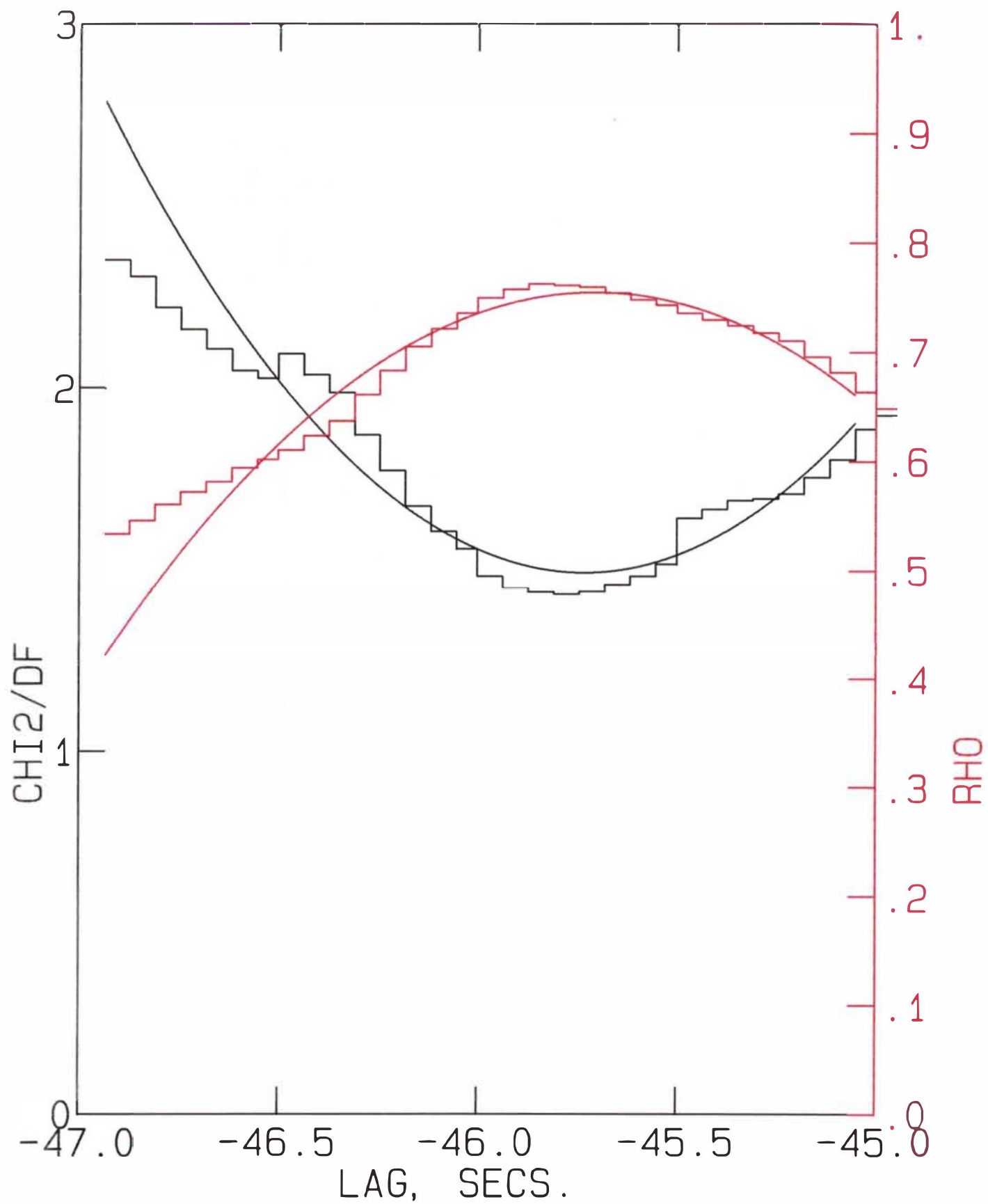
2 BATSE

EVENT OF JAN 3, 1994 22:19

22 / 1/98







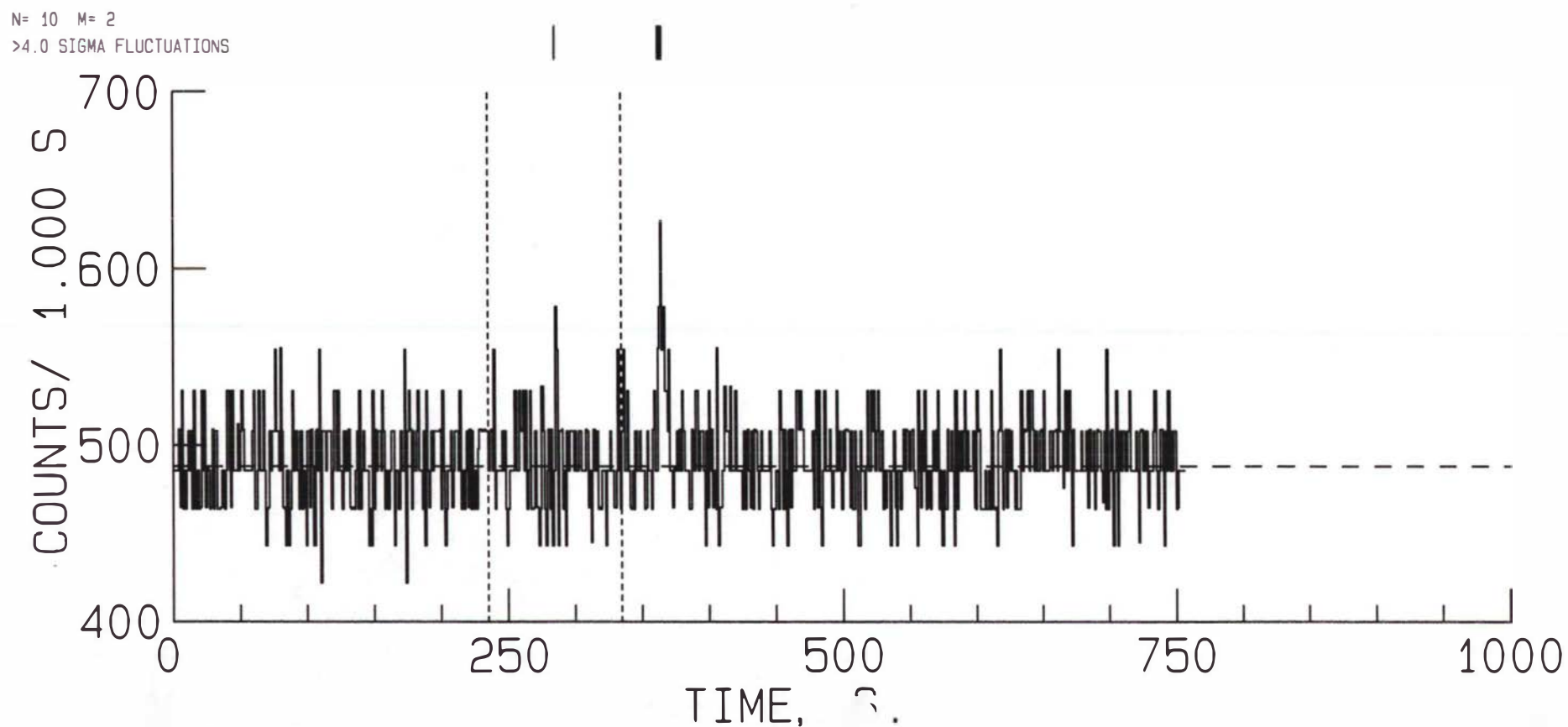
ULYSSES RT

22 / 1 / 98

3 / 1 / 94 80028.369 s

0.500 S INTERVALS REGROUPED BY 2

20 - 140 keV



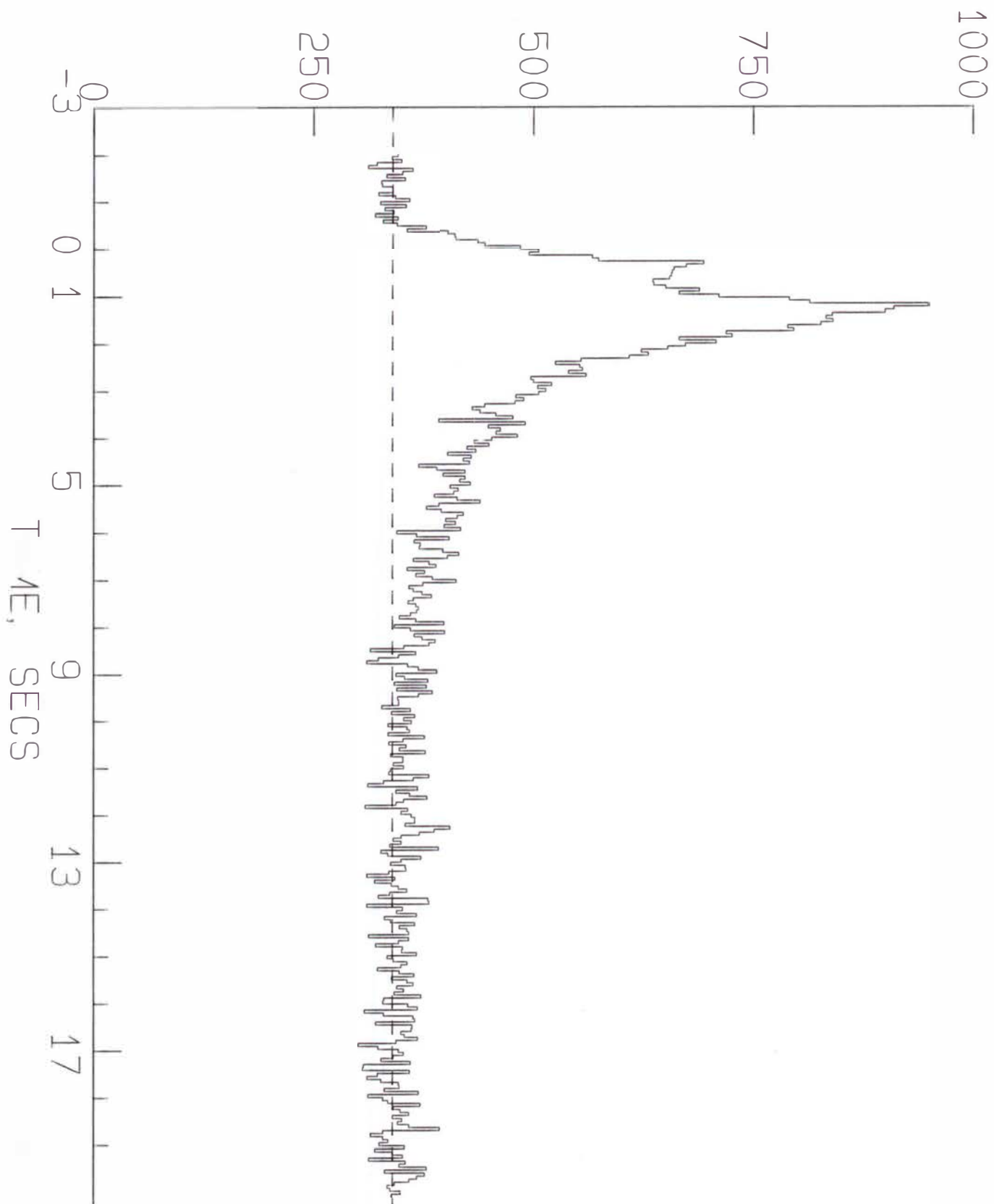
BATSE

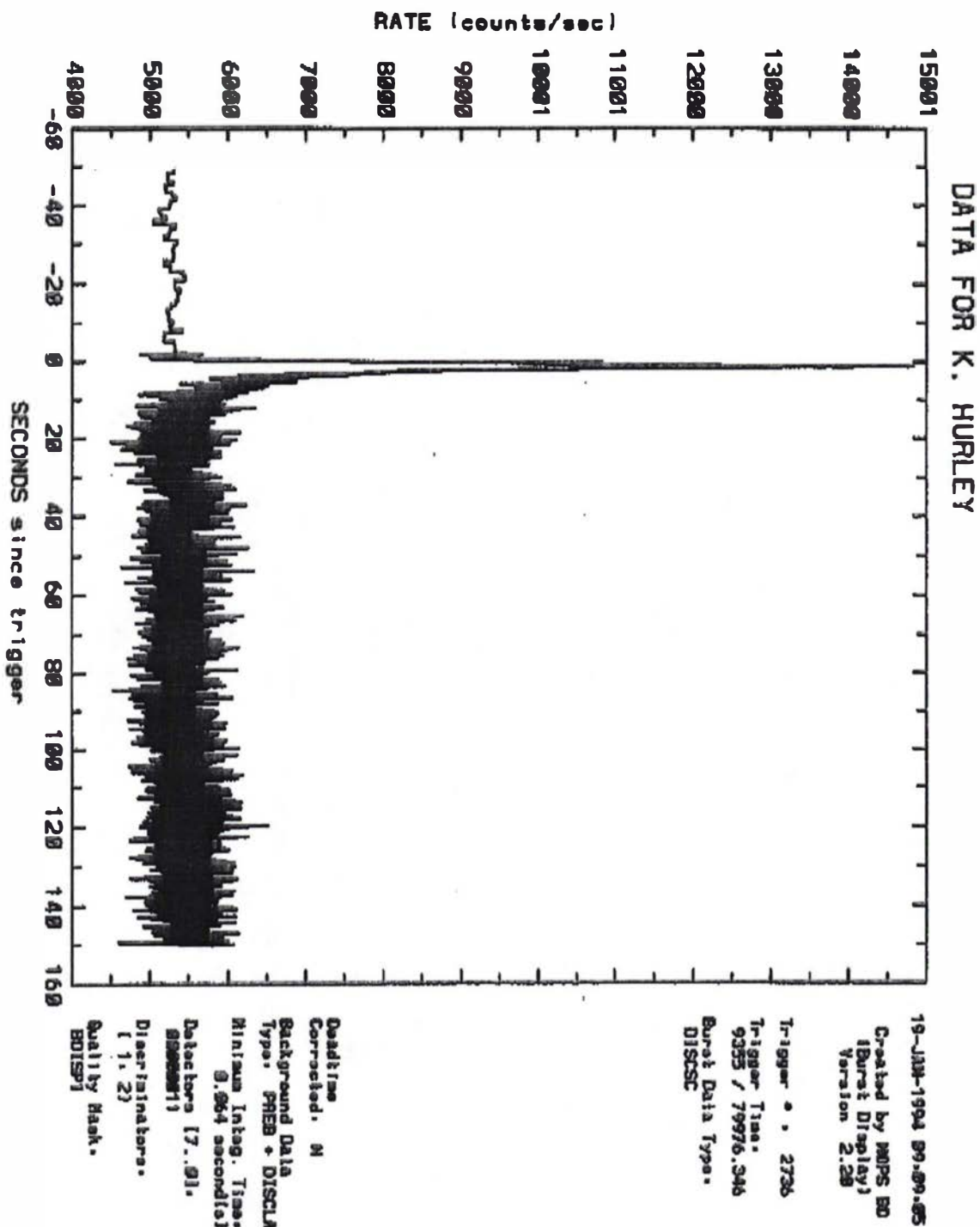
03/01/94

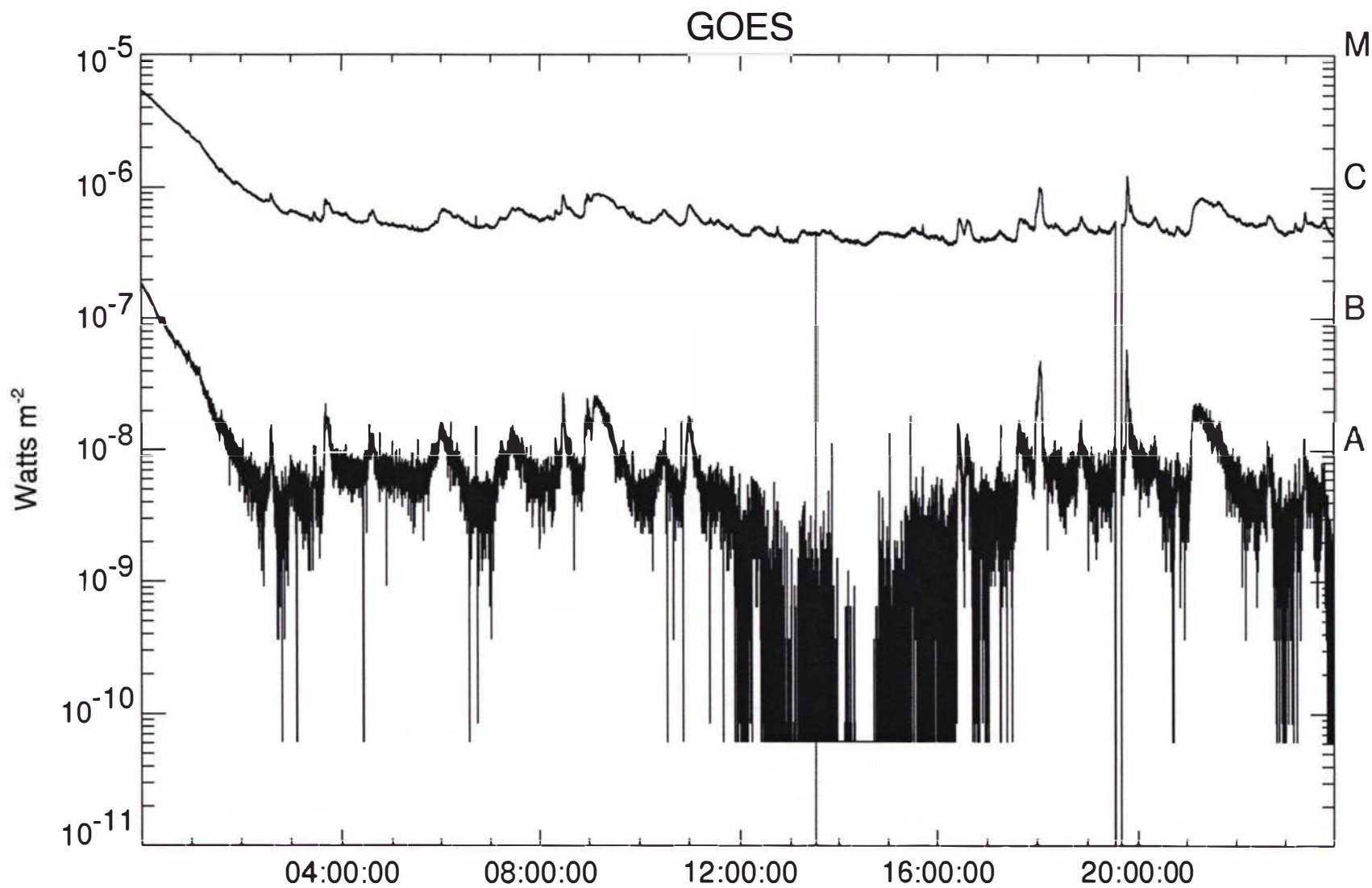
79976.346

25- 100 keV

COUNTS/ .064 S





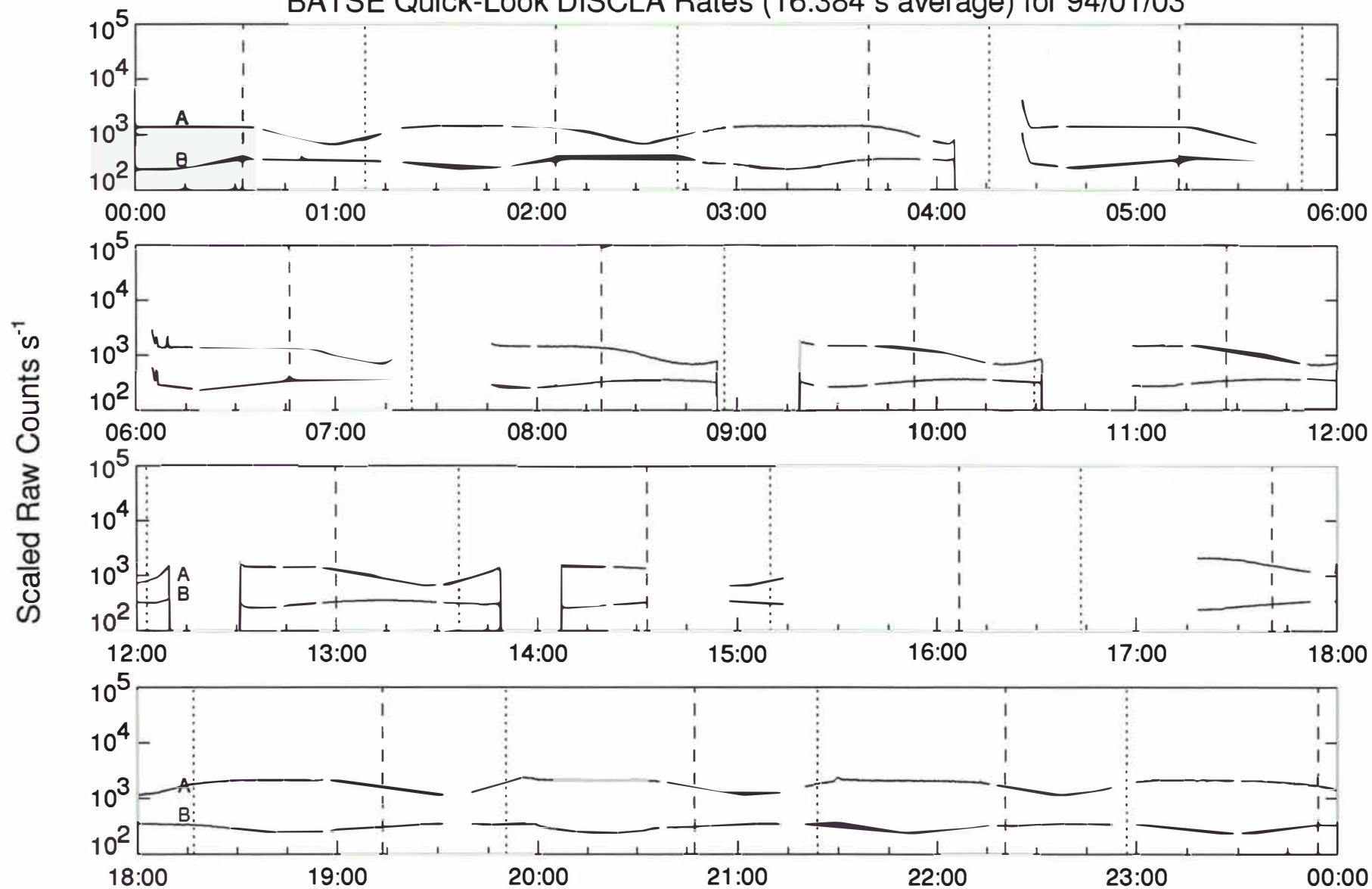


Data Start: 94/01/03, 0000:02

Plot created: 94/01/04, 1726

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted
2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/03

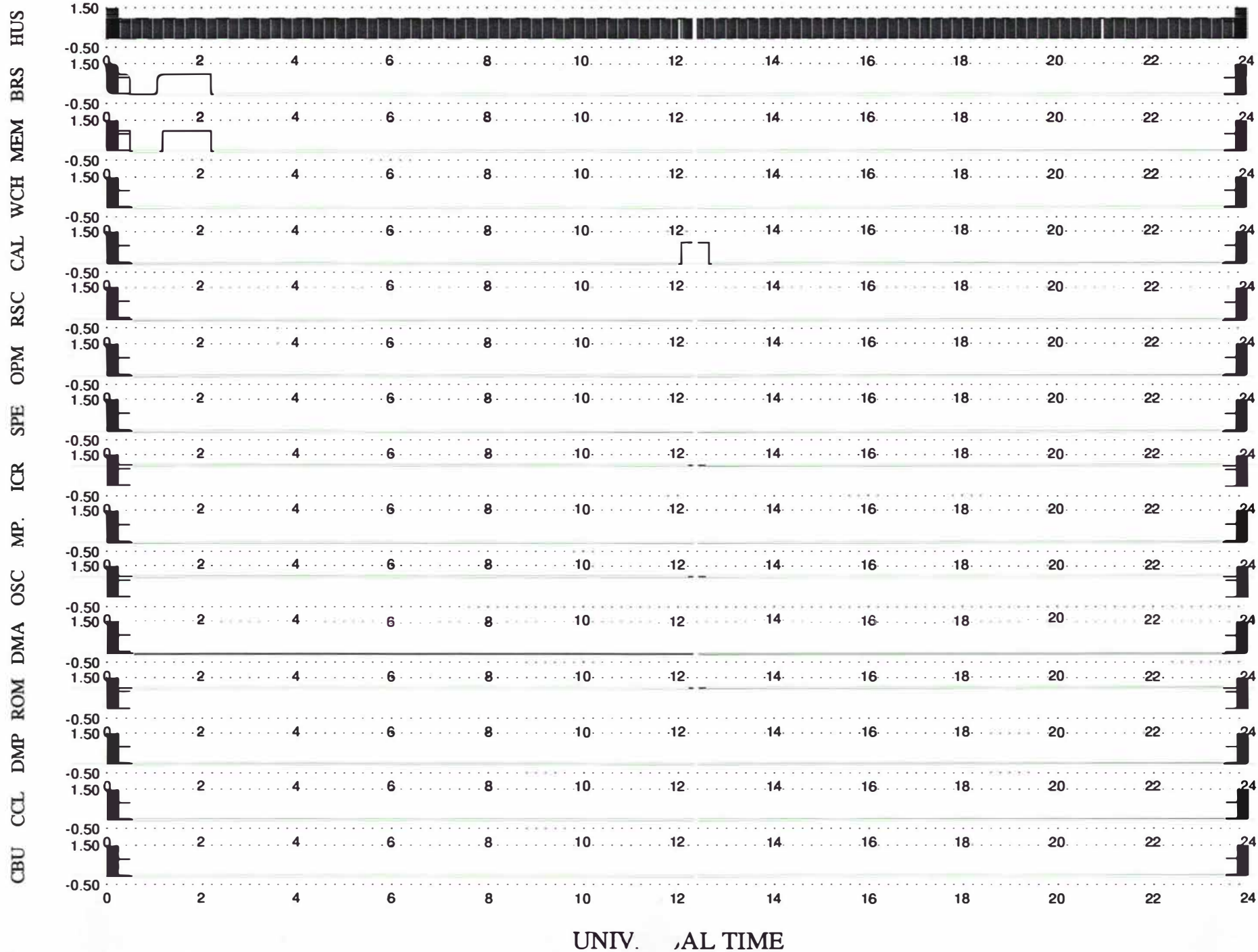


Current Time: 94/01/06, 1710 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

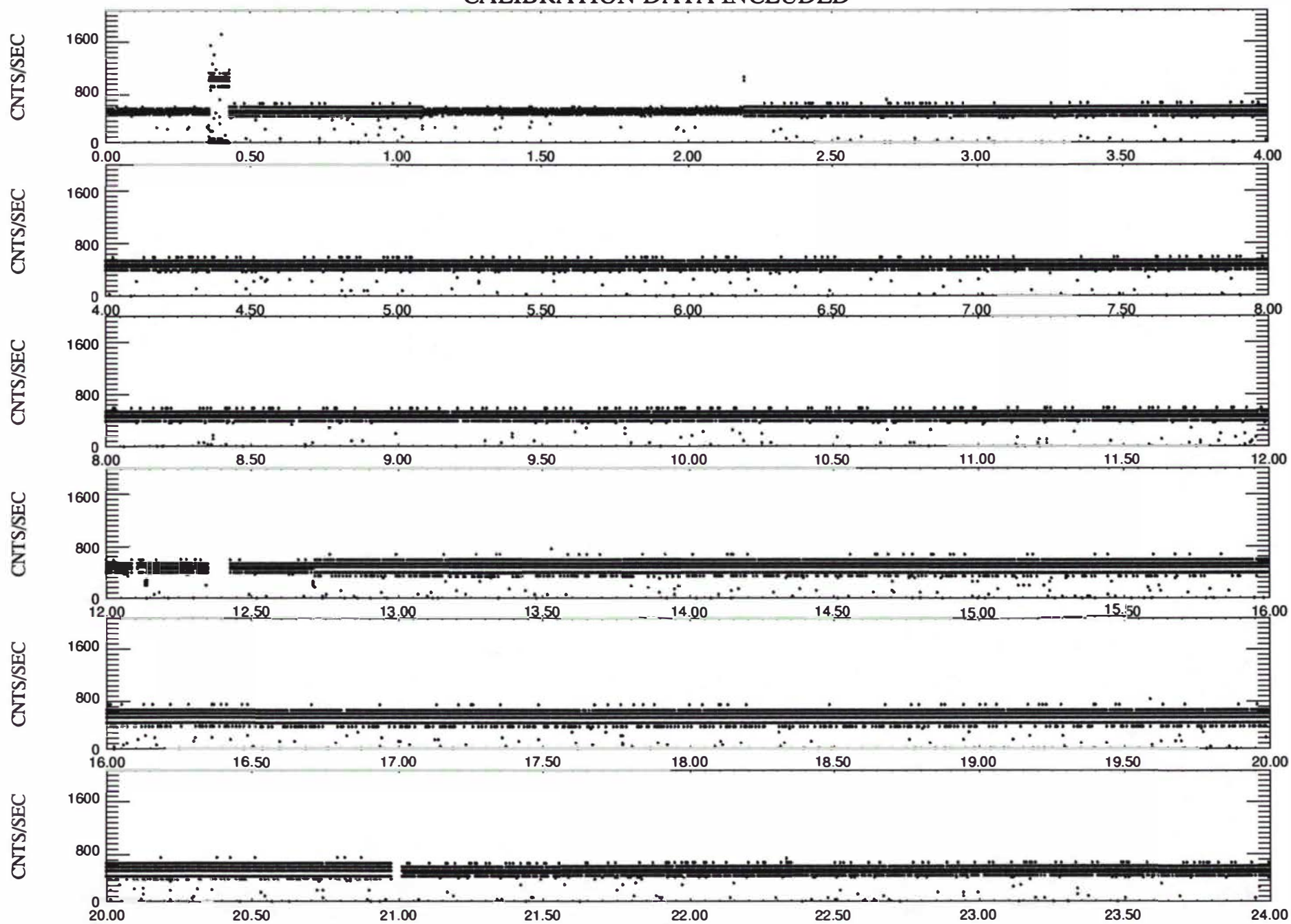
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 14

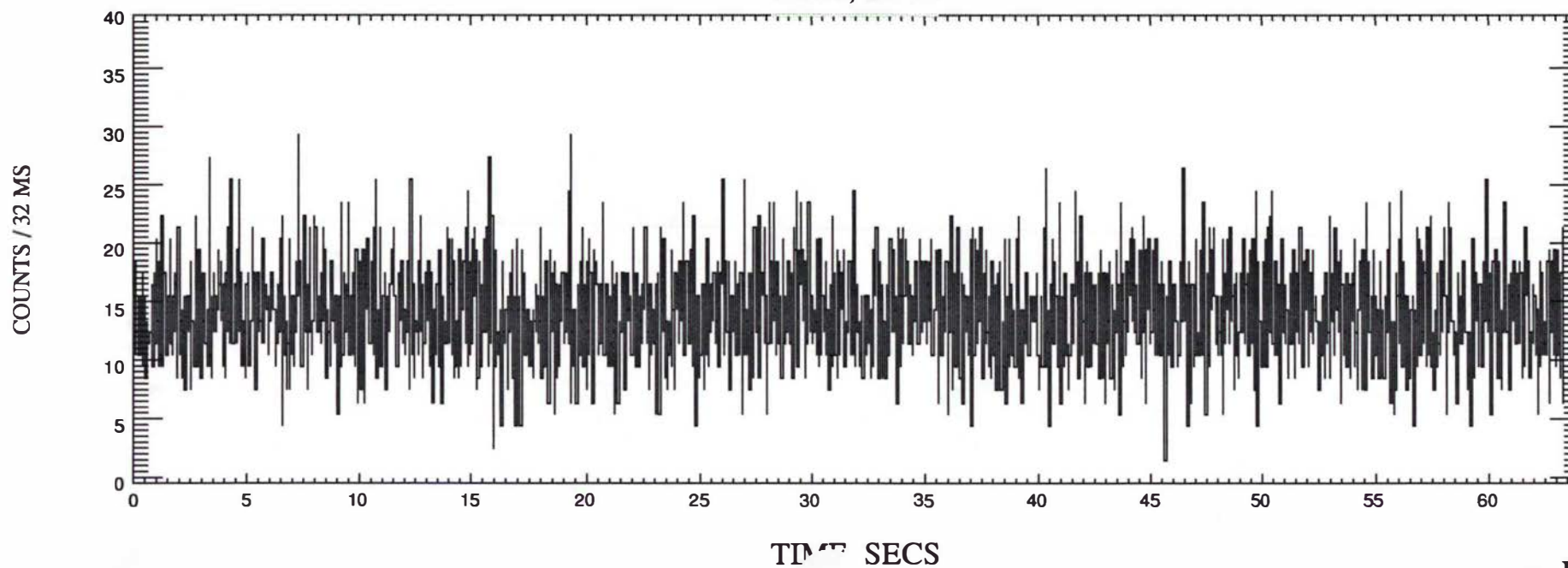
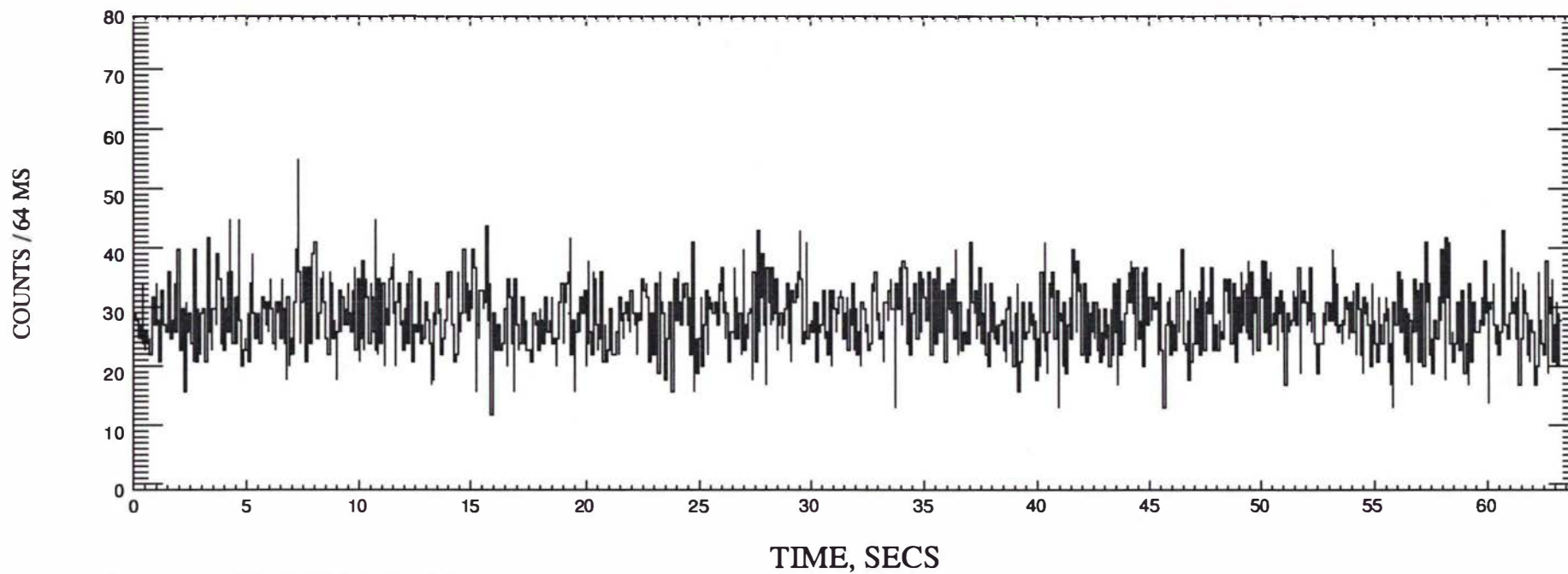


CALIBRATION DATA INCLUDED

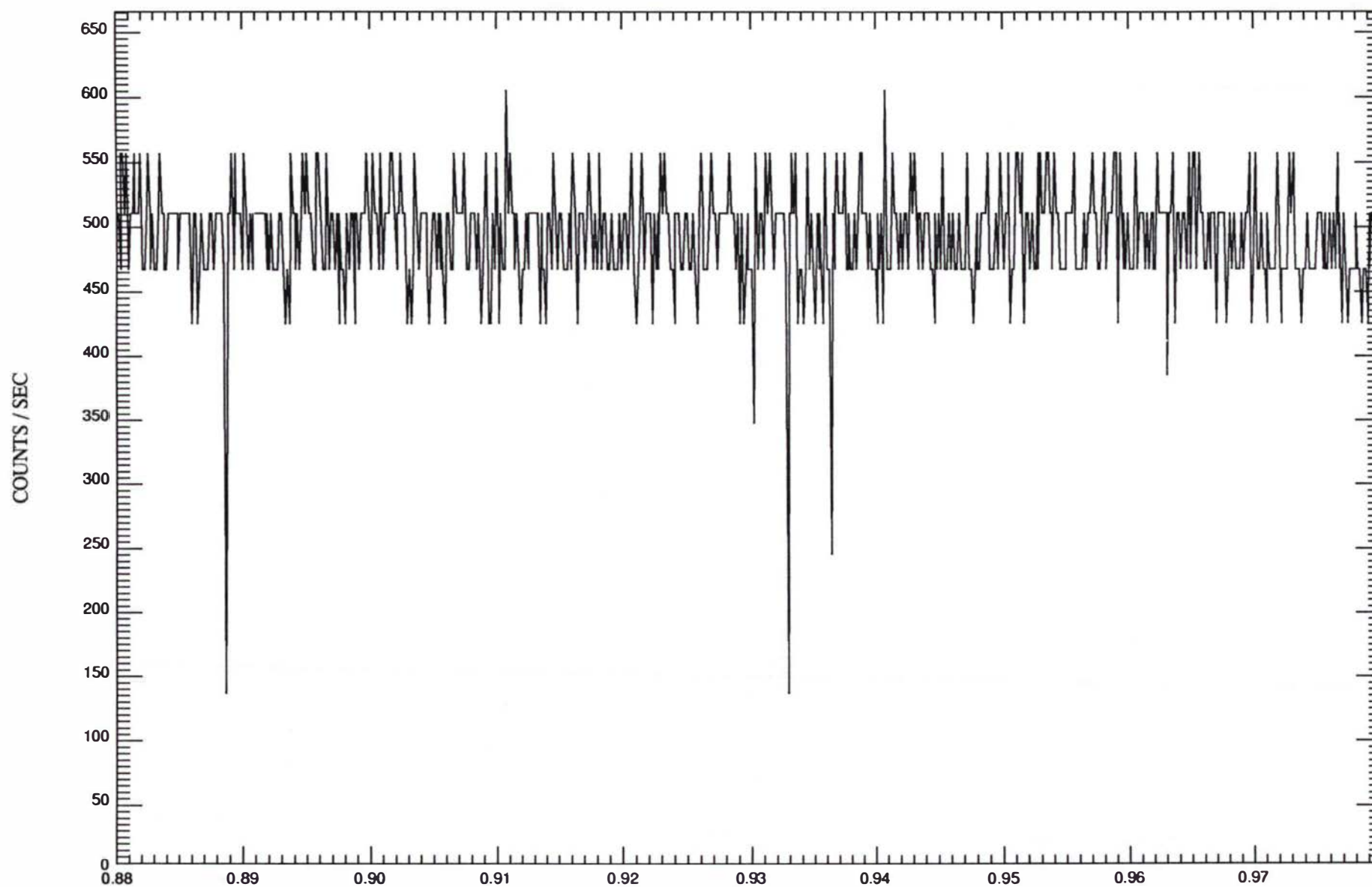


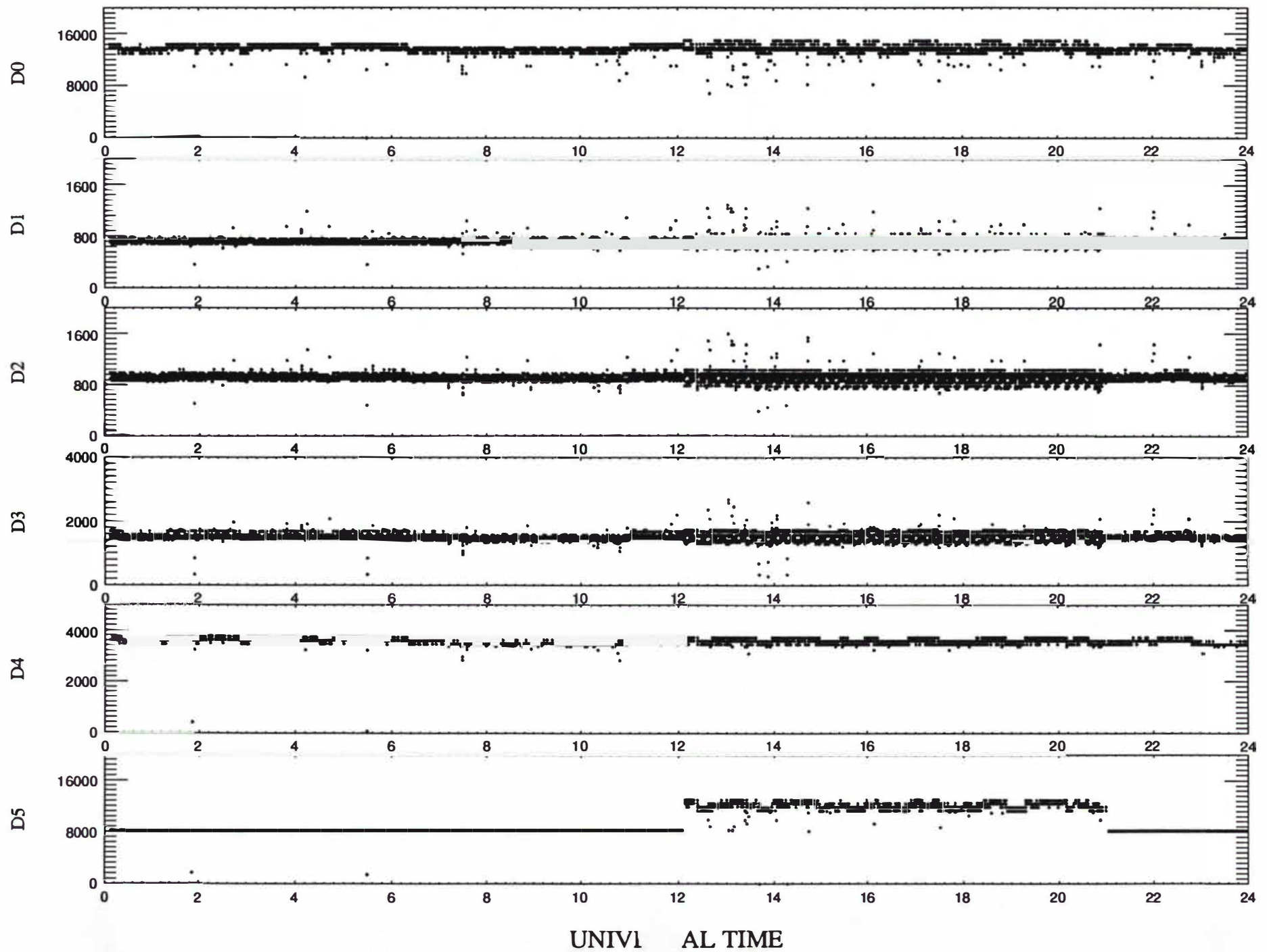
UNIV AL TIME

Burst Counter 14 at UT= 0.931405008104 h= 3353.058 s 00:55:53.058



CALIBRATION DATA INCLUDED





NO.: 02737

TIME: TJD=9356 SECONDS=02280

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.

BATSE BURST TRIGGER

NO.: 02738

TIME: TJD=9356 SECONDS=20046

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SOLAR FLARE OF DURATION APPROX. 20 SEC.
NO EMISSION ABOVE 100 KEV.

BATSE BURST TRIGGER

NO.: 02739

TIME: TJD=9356 SECONDS=80878

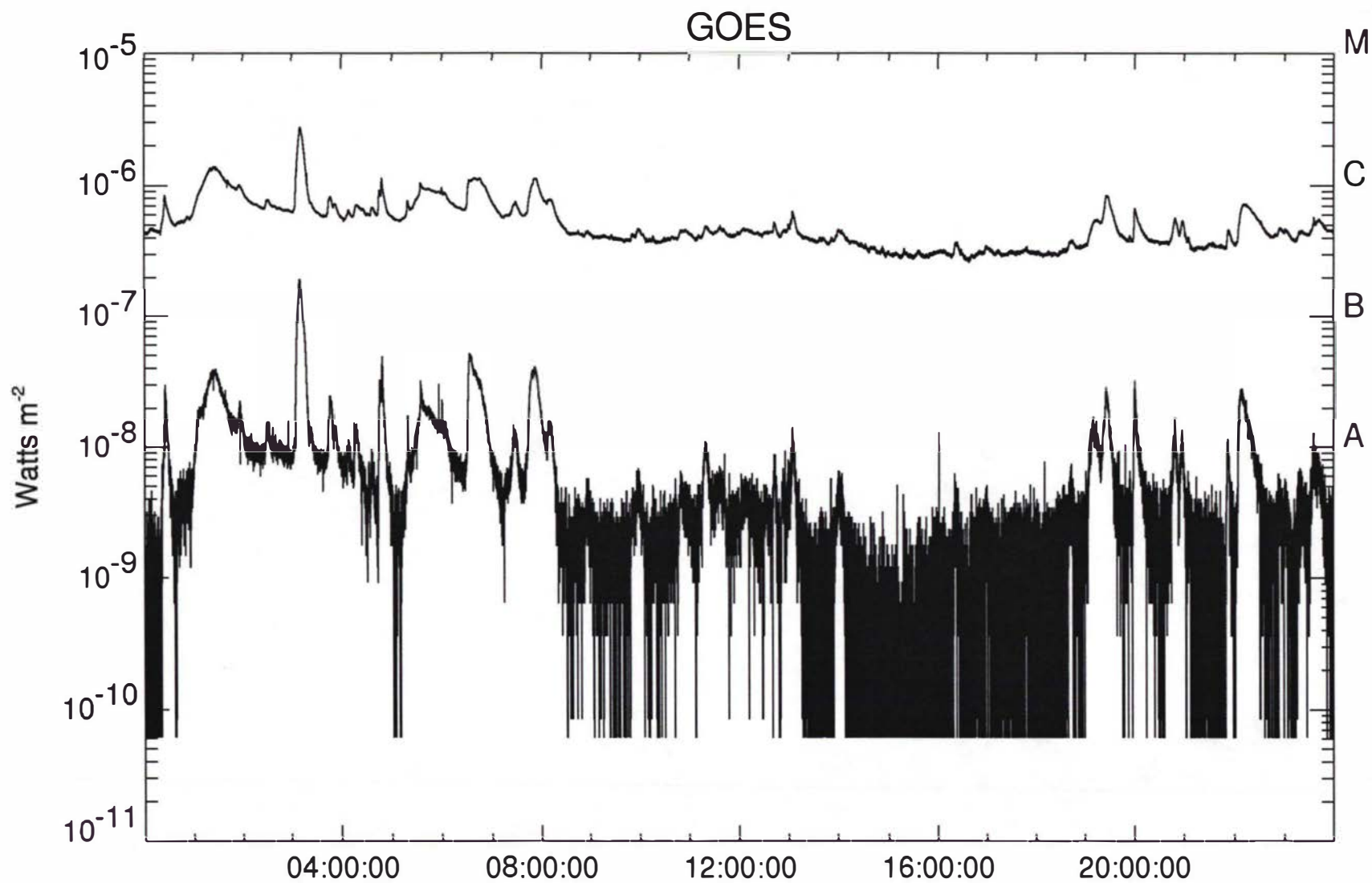
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.



Data Start: 94/01/04, 0000:02

Plot created: 94/01/06, 1711

Channel

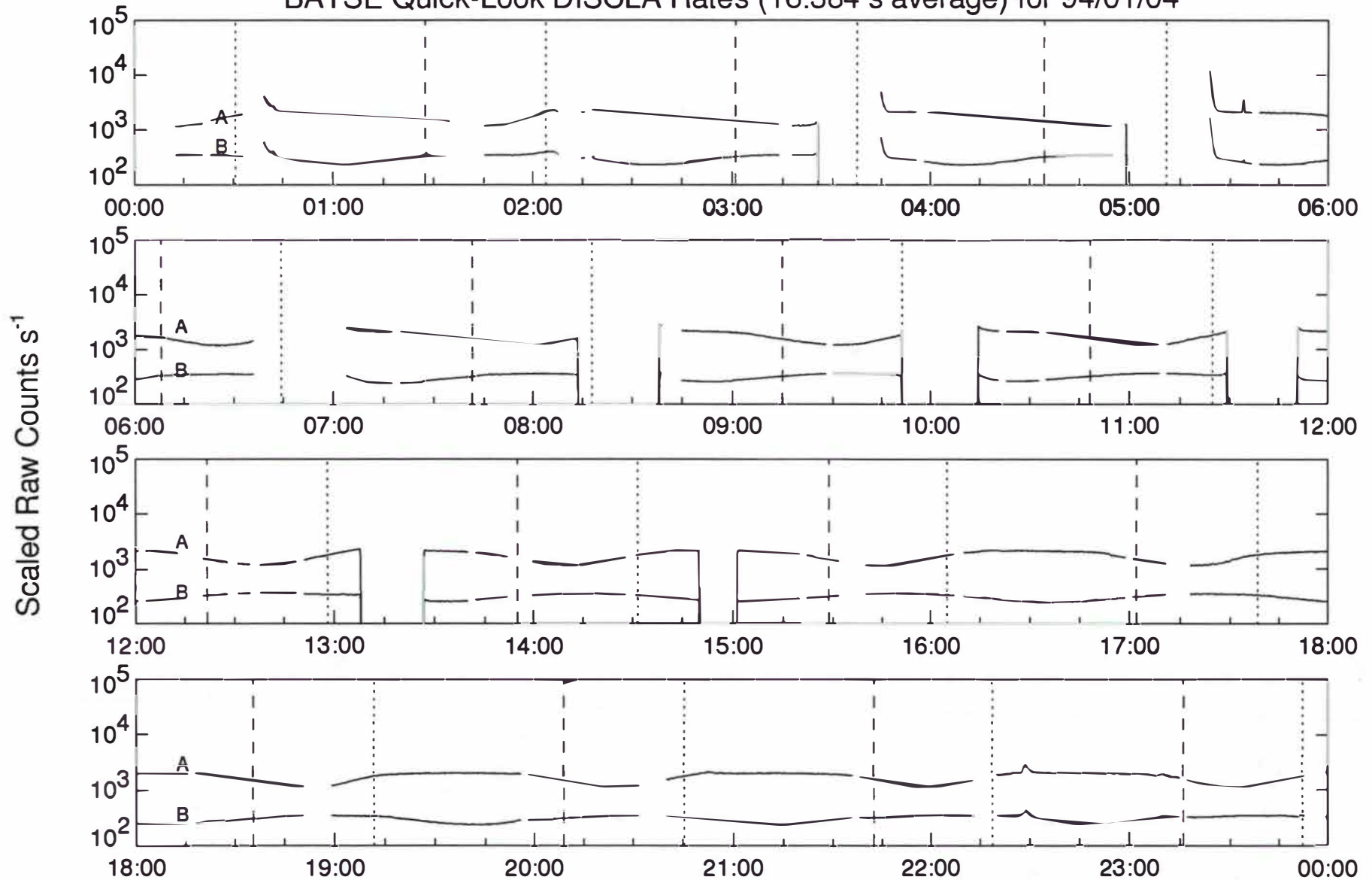
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/04

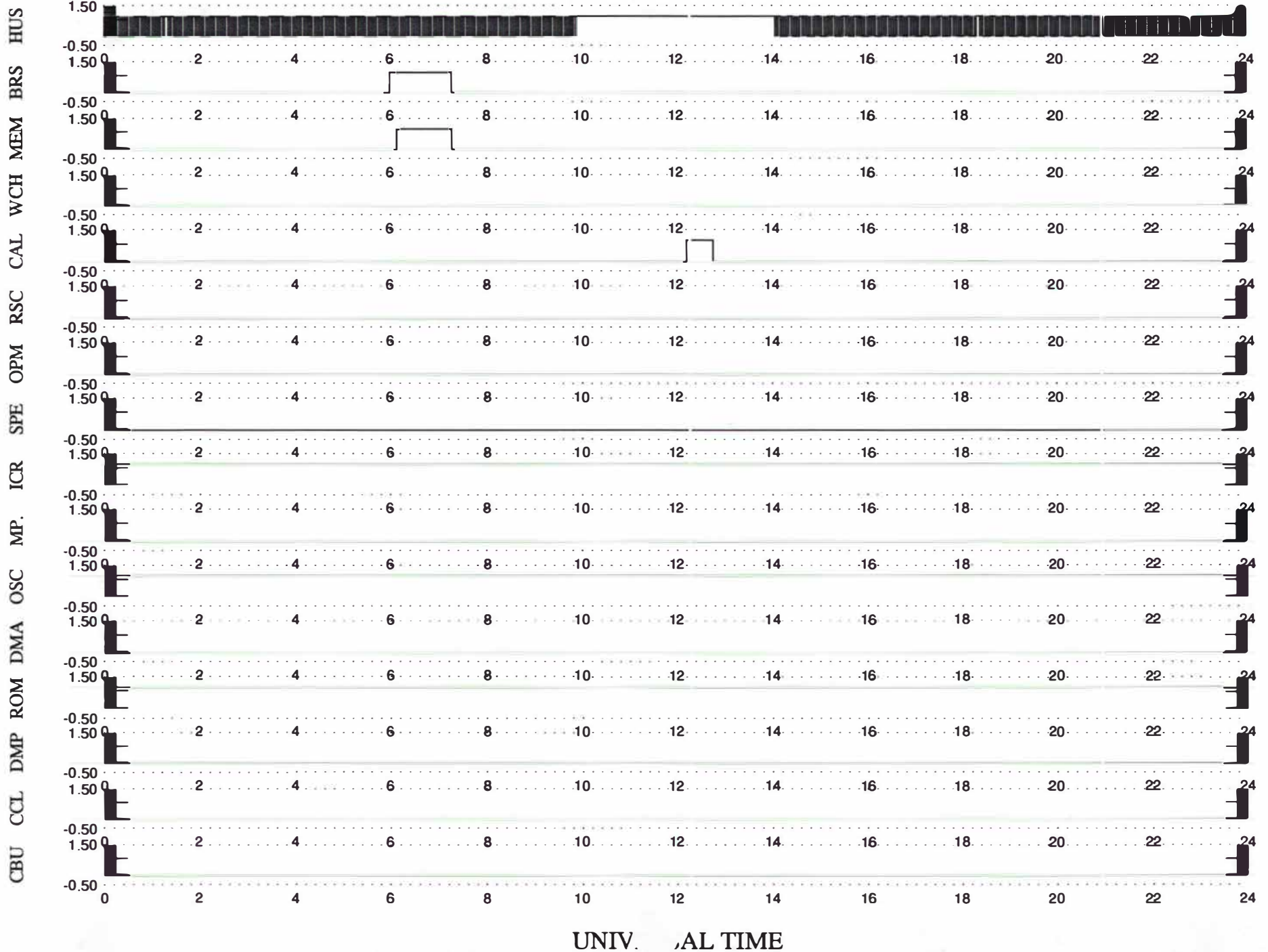


Current Time: 94/01/06, 1711 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

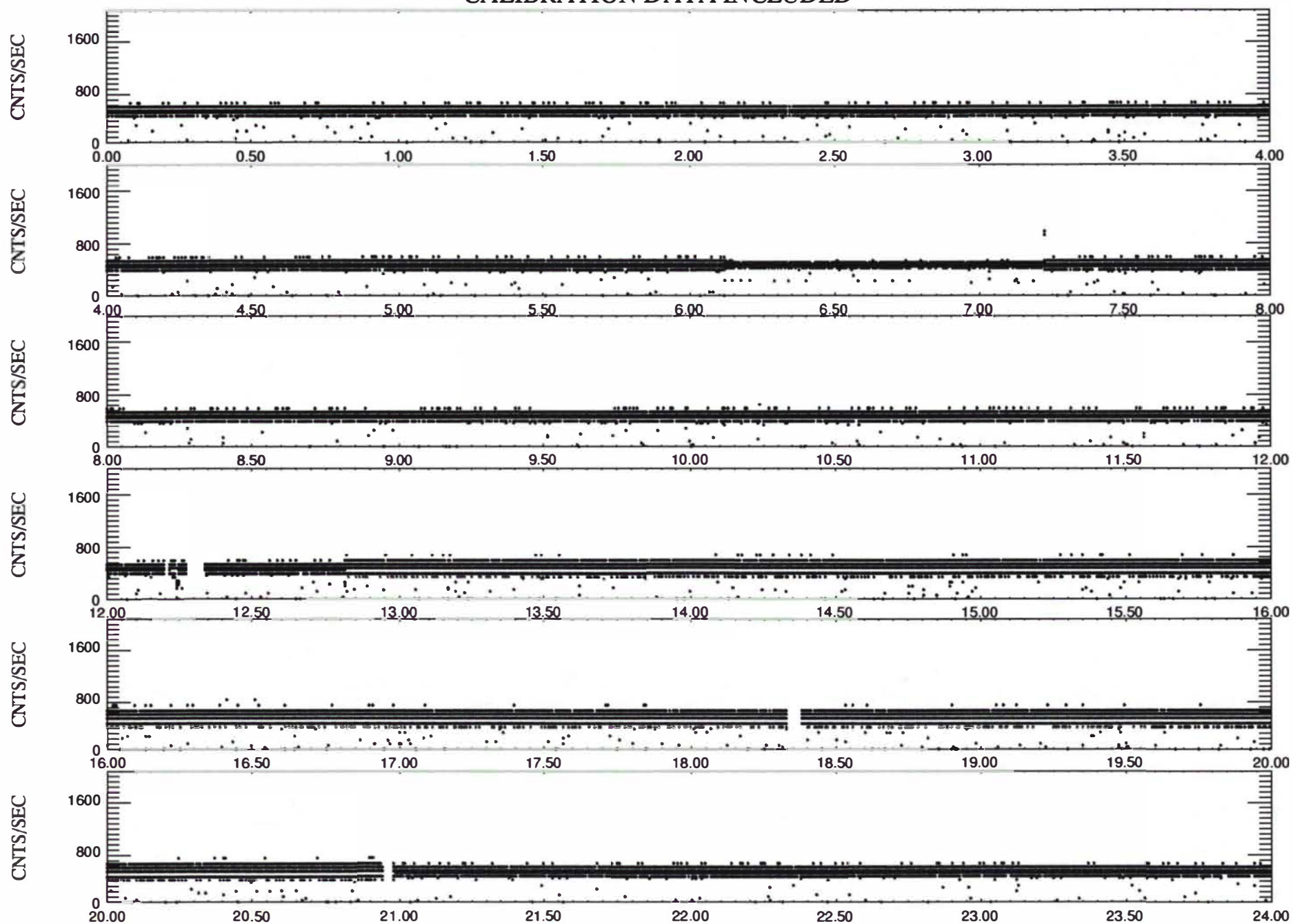
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 15

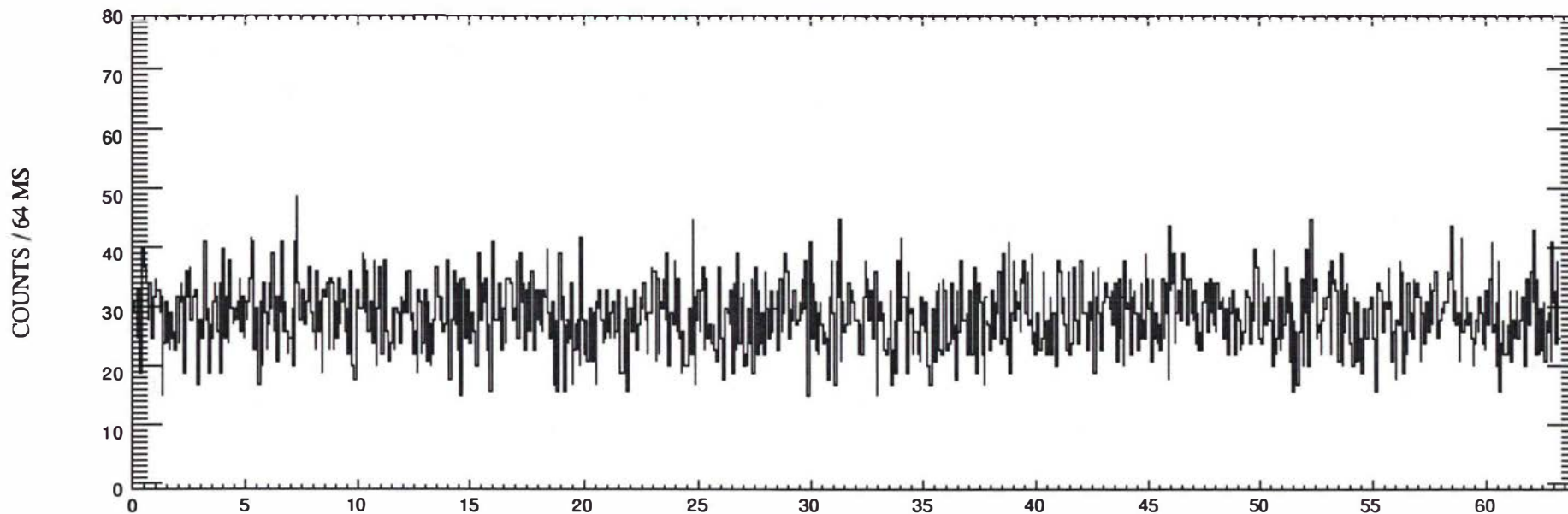


CALIBRATION DATA INCLUDED

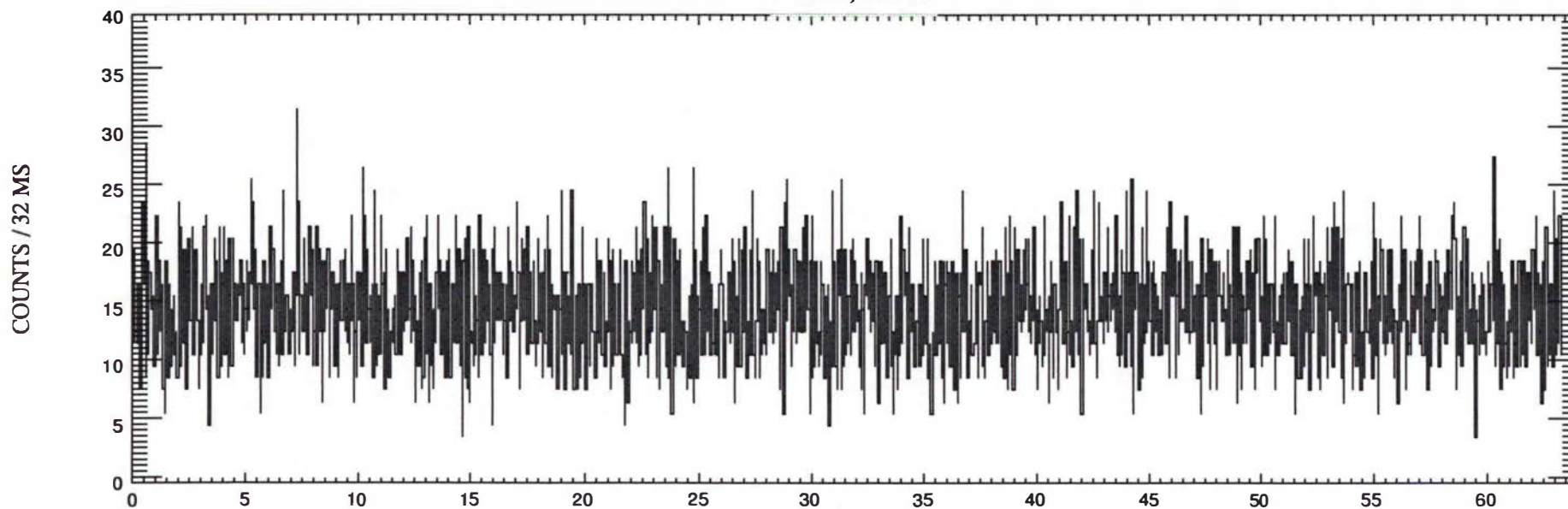


UNIV. TIME

Burst Counter 15 at UT= 5.964730957879 h=21473.031 s 05:57:53.031

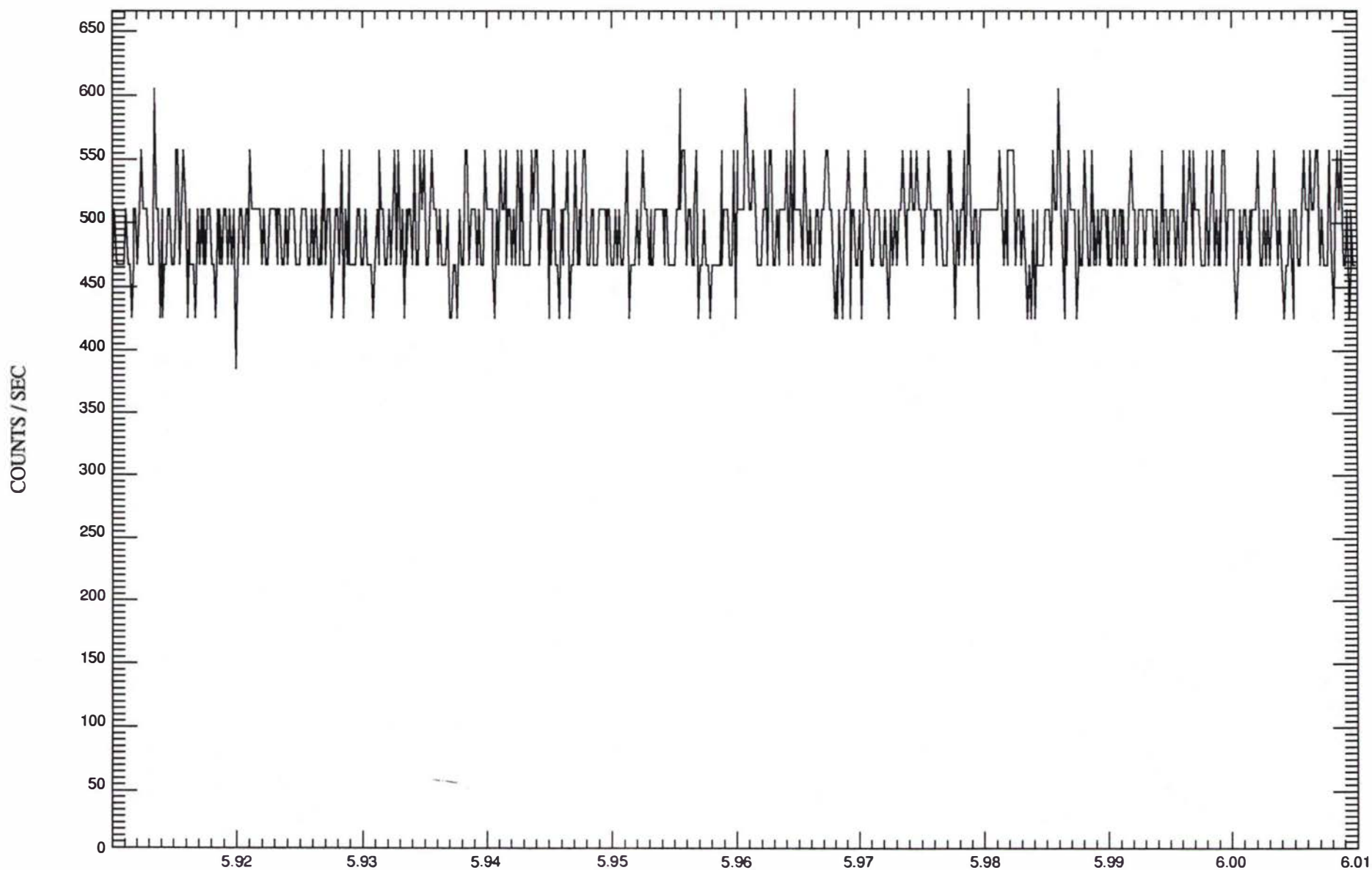


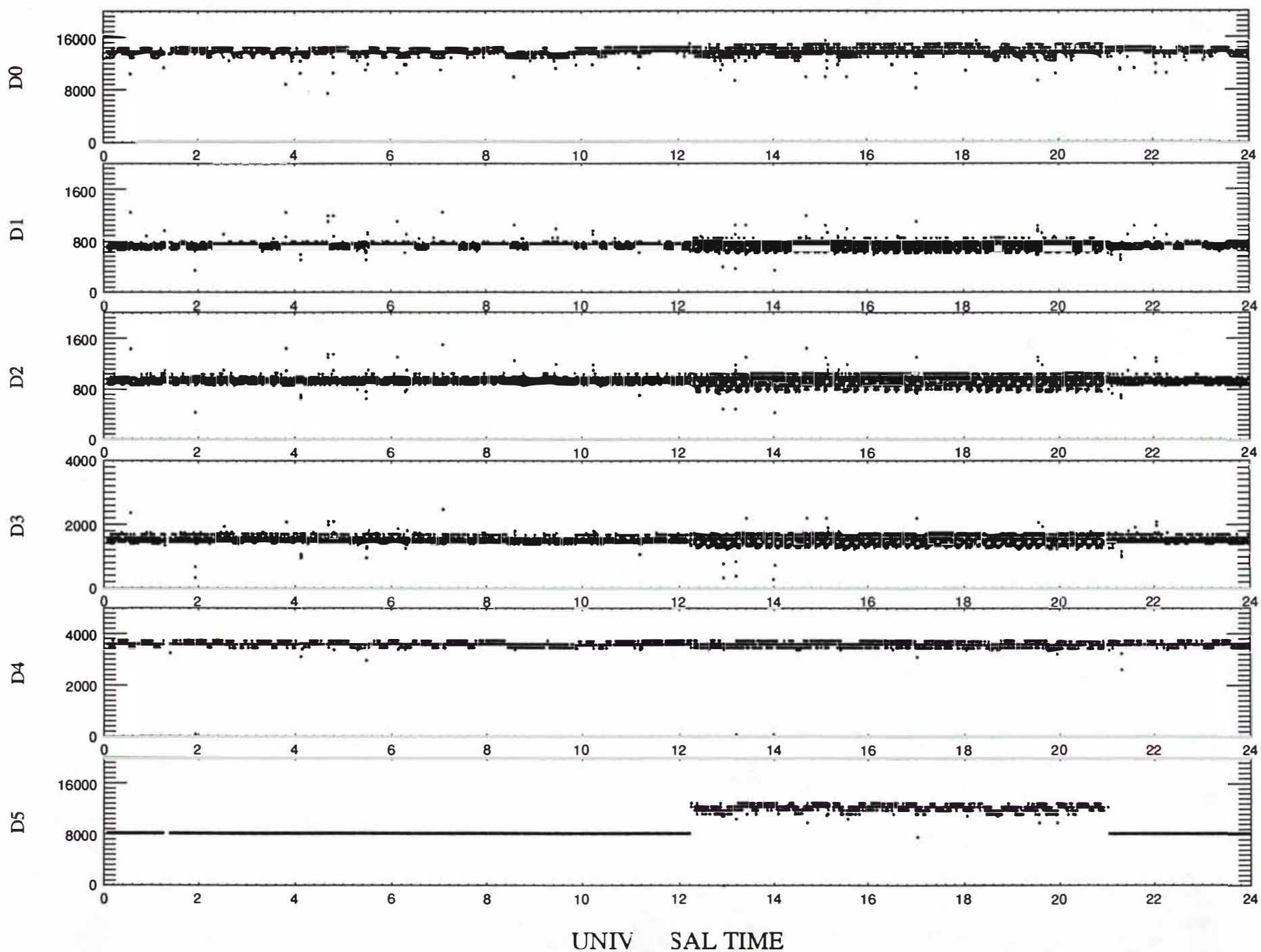
TIME, SECS



TIME, SECS

CALIBRATION DATA INCLUDED





From RICHARDSON@ssl.msfc.nasa.gov Fri Jan 7 09:17 PST 1994
Date: Fri, 7 Jan 1994 11:18:39 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 02740

TIME: TJD=9357 SECONDS=50523

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SOLAR FLARE. GOES C1.9, LASTING APROX. 100S. MARGINALLY VISIBLE ABOVE 100
KEV.

From RICHARDSON@ssl.msfc.nasa.gov Fri Jan 7 09:19 PST 1994
Date: Fri, 7 Jan 1994 11:21:01 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02741

TIME: TJD=9357 SECONDS=78409

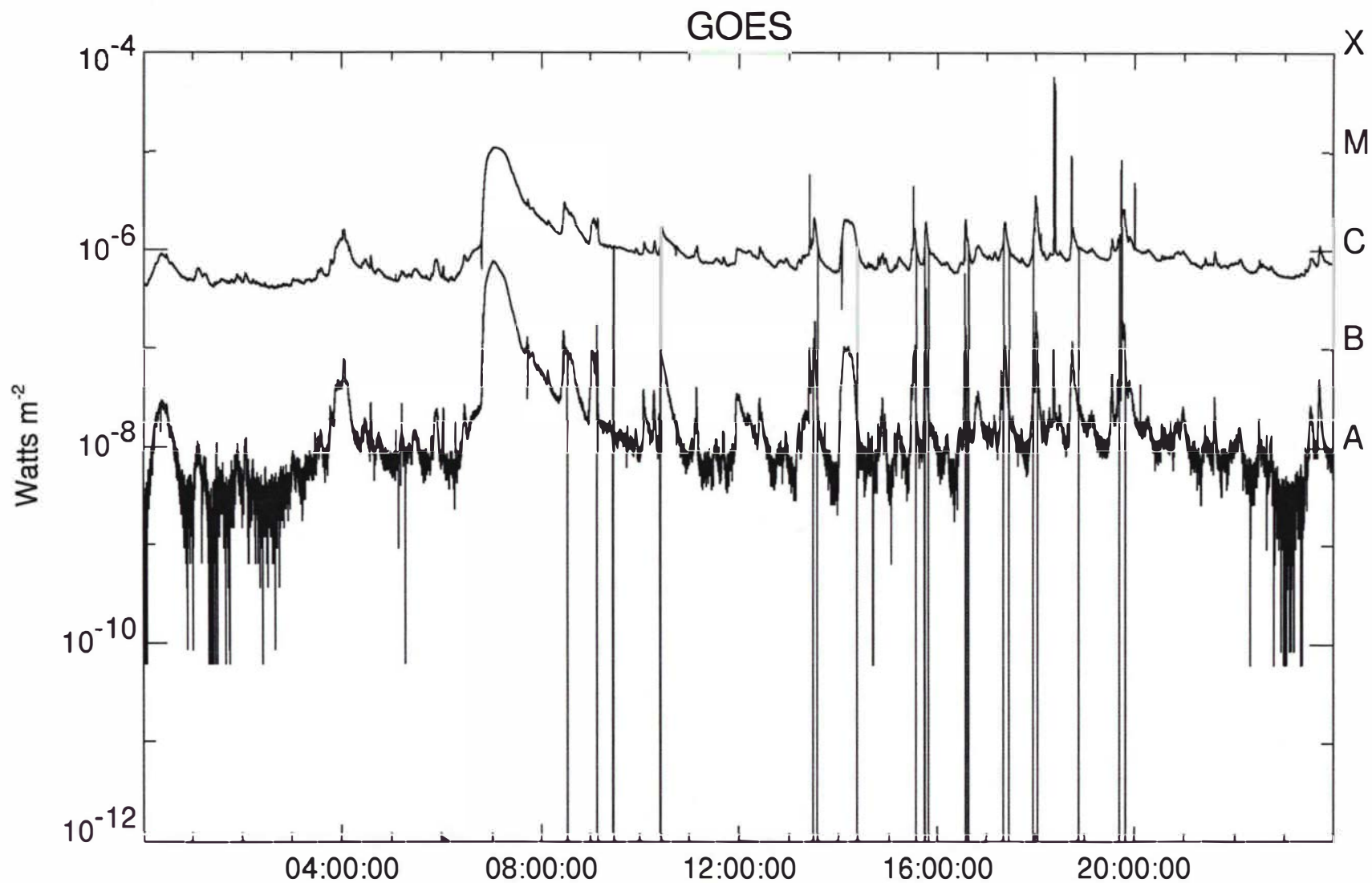
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT.



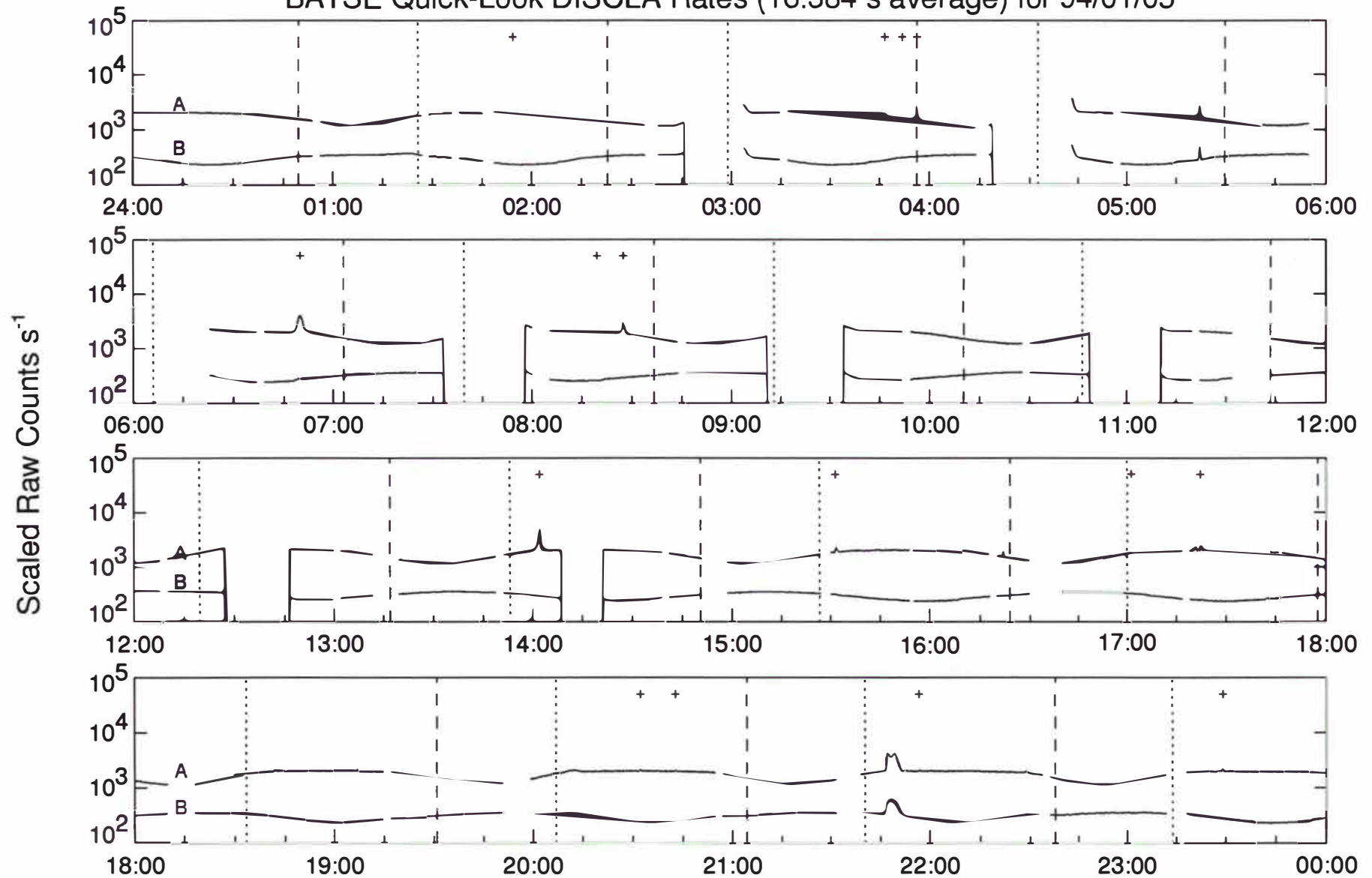
Data Start: 94/01/05, 0000:02

Plot created: 94/01/06, 1711

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 (16.384 s average) for 94/01/05

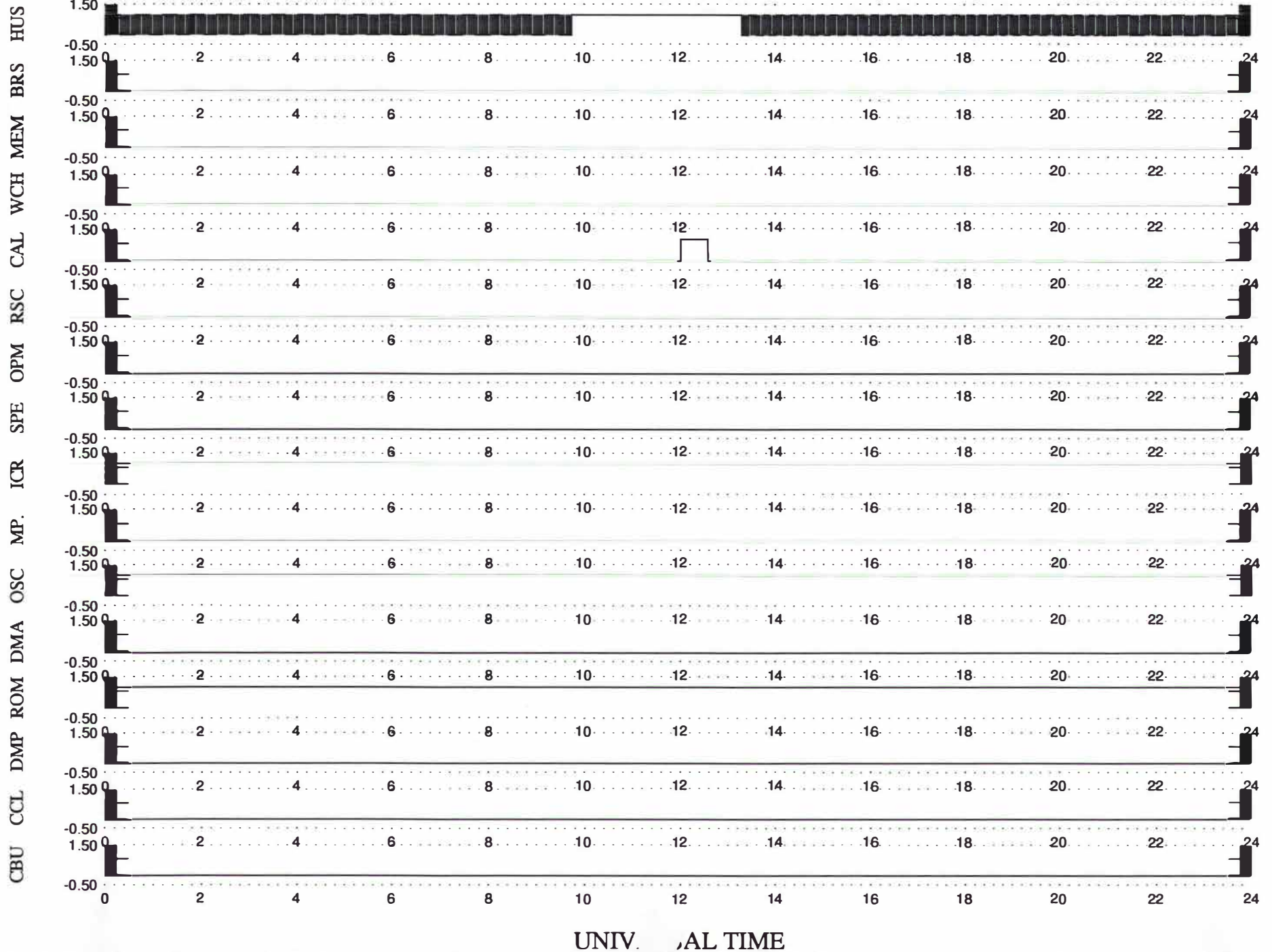


Current Time: 94/01/12, 1926 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

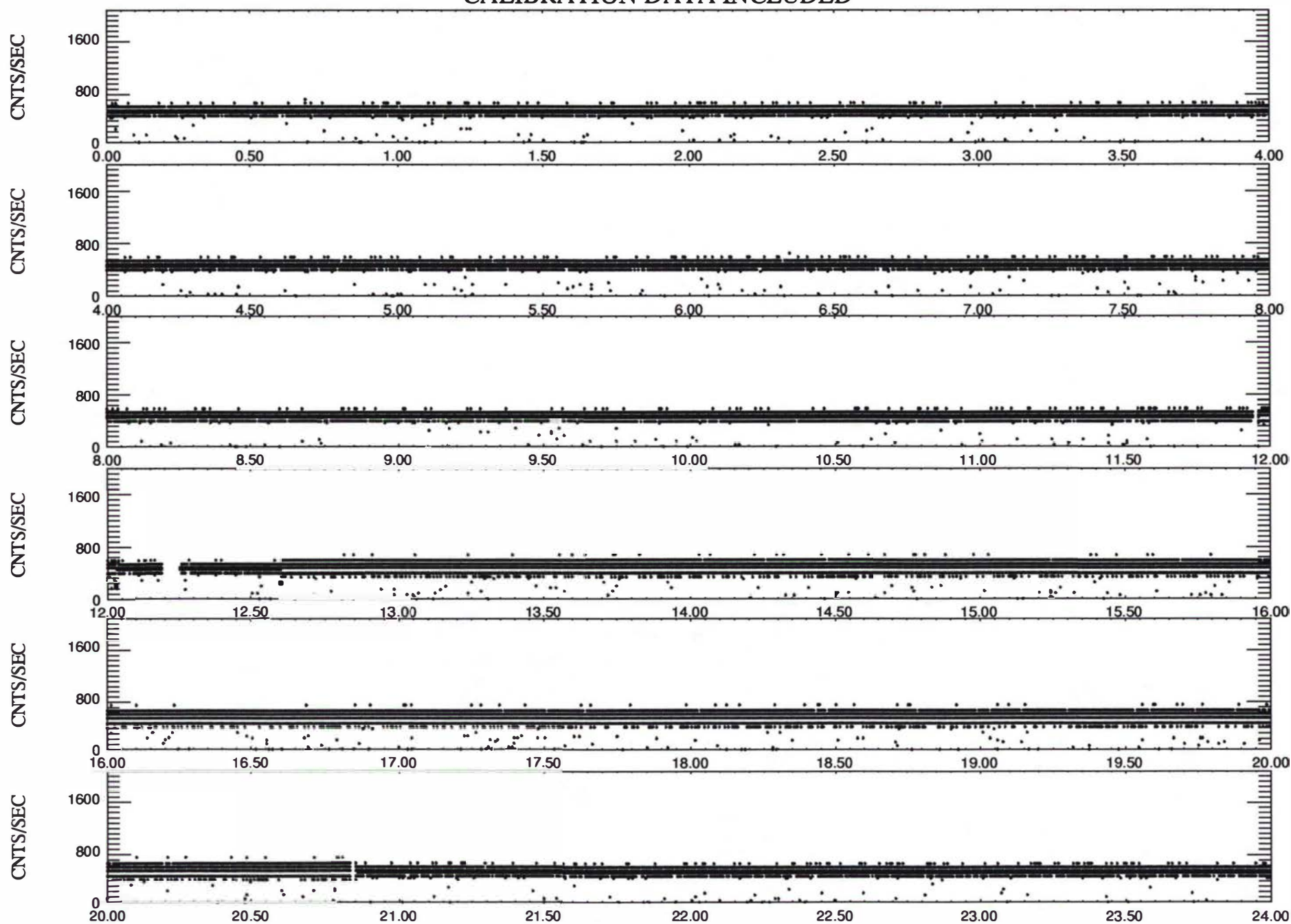
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

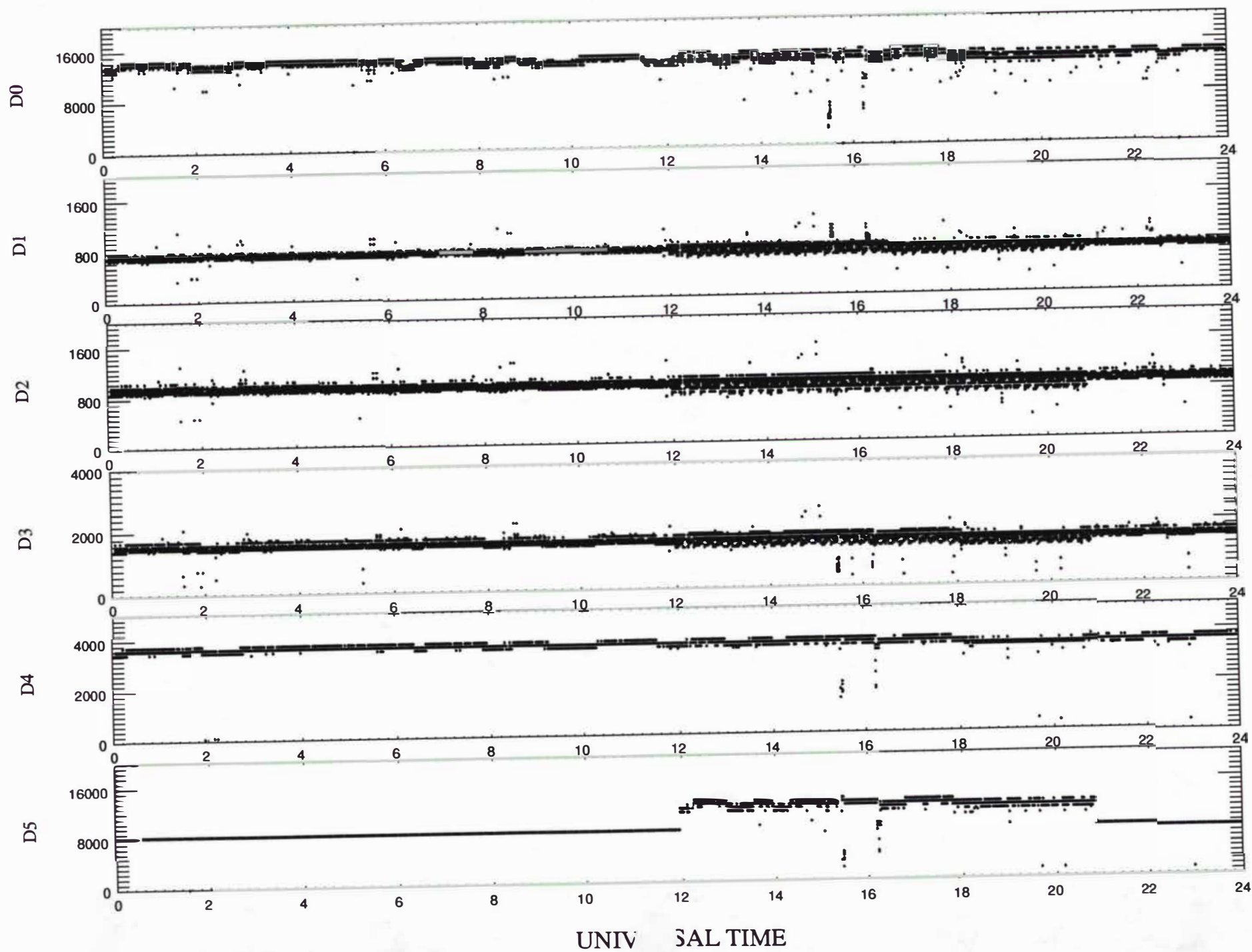
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV AL TIME



BATSE BURST TRIGGER

NO.: 02742

TIME: TJD=9358 SECONDS=14718

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES C-4.9 FLARE LASTING APPROXIMATELY 55 SECONDS. MODERATELY COMPLEX TIME HISTORY, NOT SEEN ABOVE 300 KEV.

BATSE BURST TRIGGER

NO.: 2743

TIME: TJD=9358 SECONDS=38099

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SMALL FLARE, UNCLASSIFIED EVENT IN GOES DATA. DURATION APPROXIMATELY 40 SECONDS. NOT SEEN ABOVE 300 KEV.

BATSE BURST TRIGGER

NO.: 02744

TIME: TJD=9358 SECONDS=45451

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

MODERATE EVENT OCCURRING IN DATA GAP. GOES C-4.2 FLARE NOT SEEN ABOVE AN ENERGY OF 300 KEV. DURATION IS APPROXIMATELY 55 SECONDS.

BATSE BURST TRIGGER

NO.: 02745

TIME: TJD=9358 SECONDS=61272

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

WEAK FLARE LASTING APPROX. 35-40 S. GOES B-8.5 EVENT
NOT SEEN ABOVE 100 KEV.

BATSE BURST TRIGGER

NO.: 02746

TIME: TJD=9358 SECONDS=70021

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

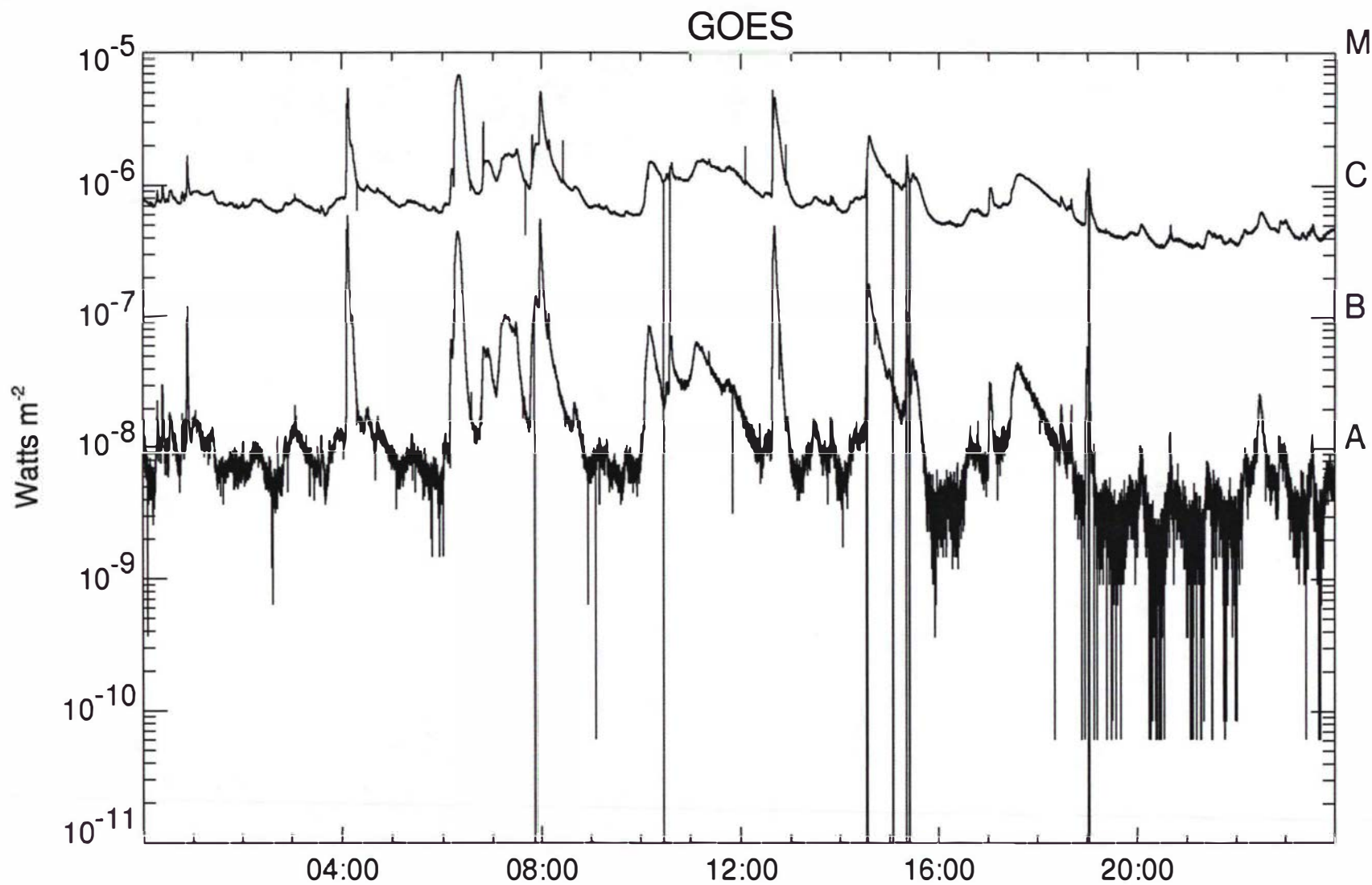
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

ELECTRON PRECIPITATION EVENT.



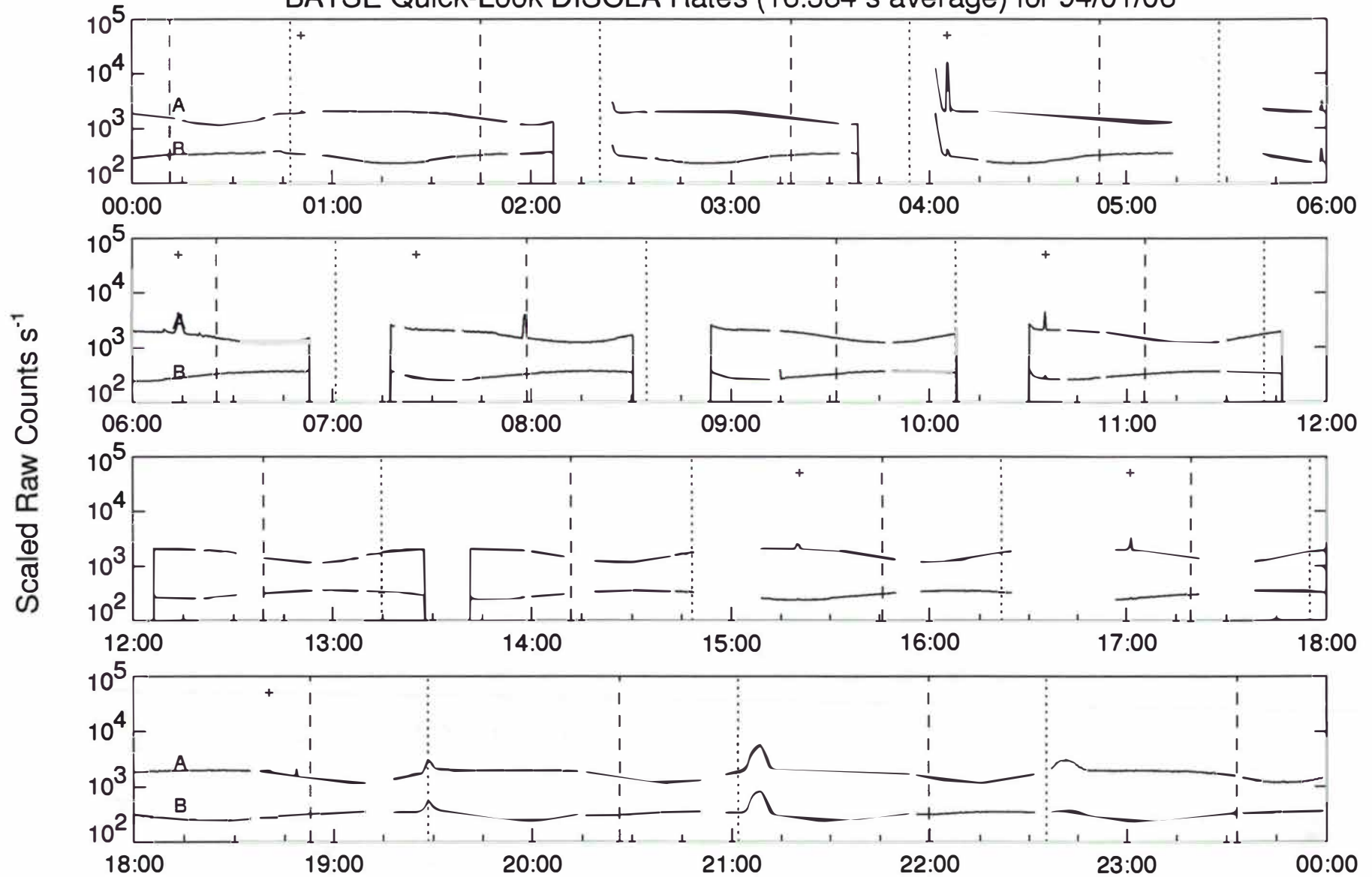
Data Start: 06-Jan-94 00:00:0

Plot created: 10-Jan-94 17:2

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/06



Current Time: 94/01/12, 1926 EDT

A: Channel 1 Most Sunward LAD

B: Sum Channel 1 Anti-Sunward LADs X .05

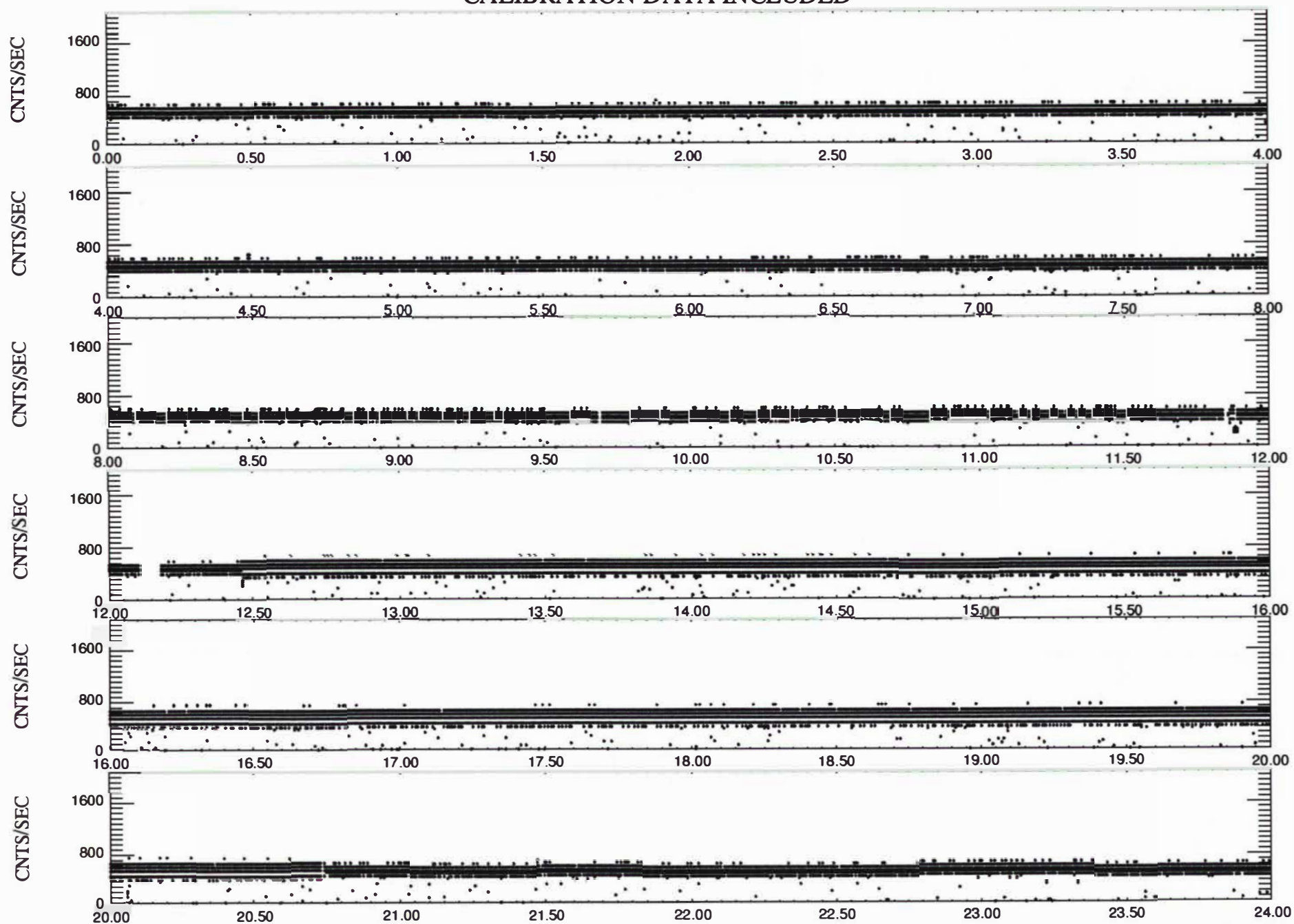
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

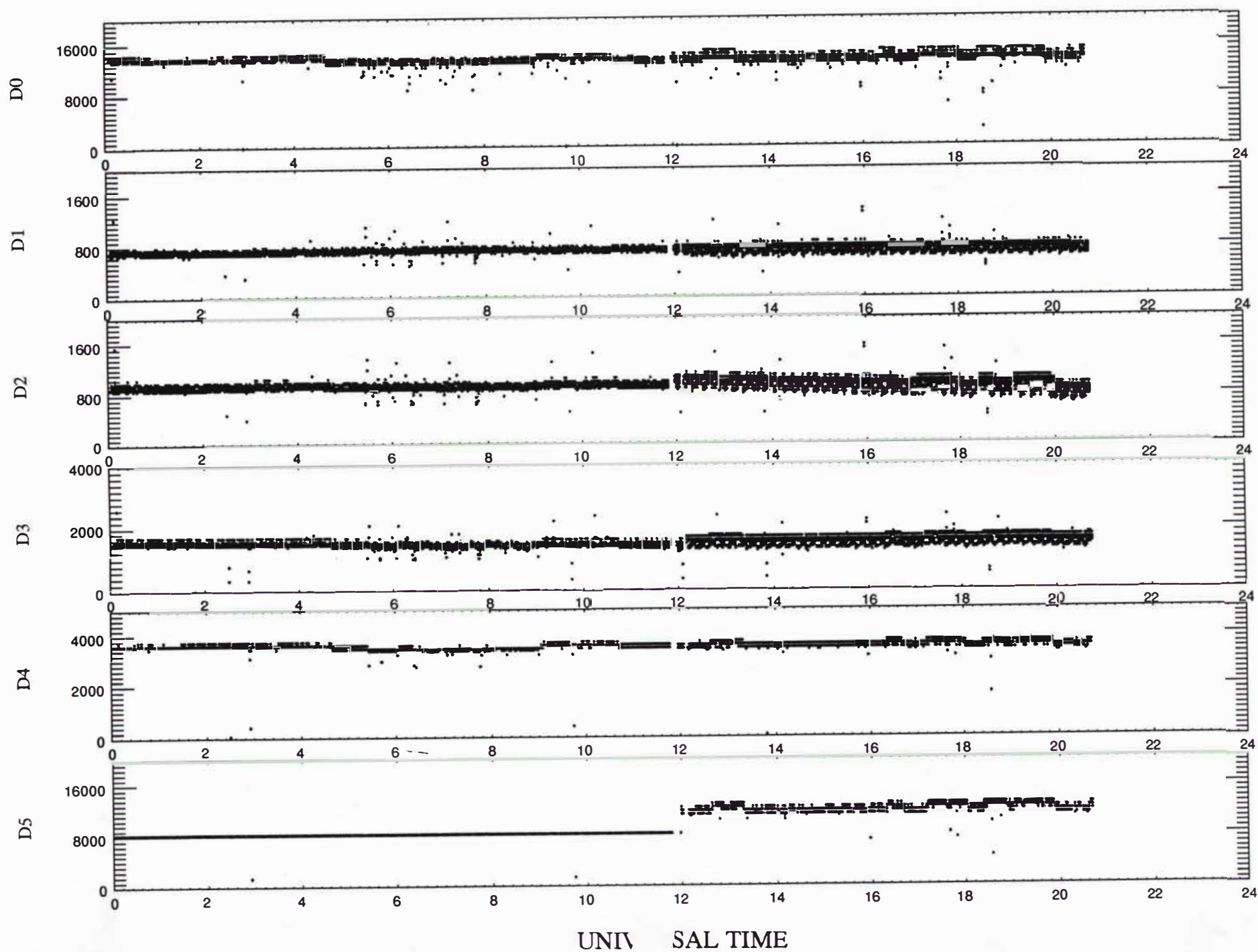
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



CALIBRATION DATA INCLUDED



UNIV AL TIME



From SHARIFF@ssl.msfc.nasa.gov Mon Jan 10 09:31 PST 1994
Date: Mon, 10 Jan 1994 11:33:13 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02747

TIME: TJD=9359 SECONDS=41234

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

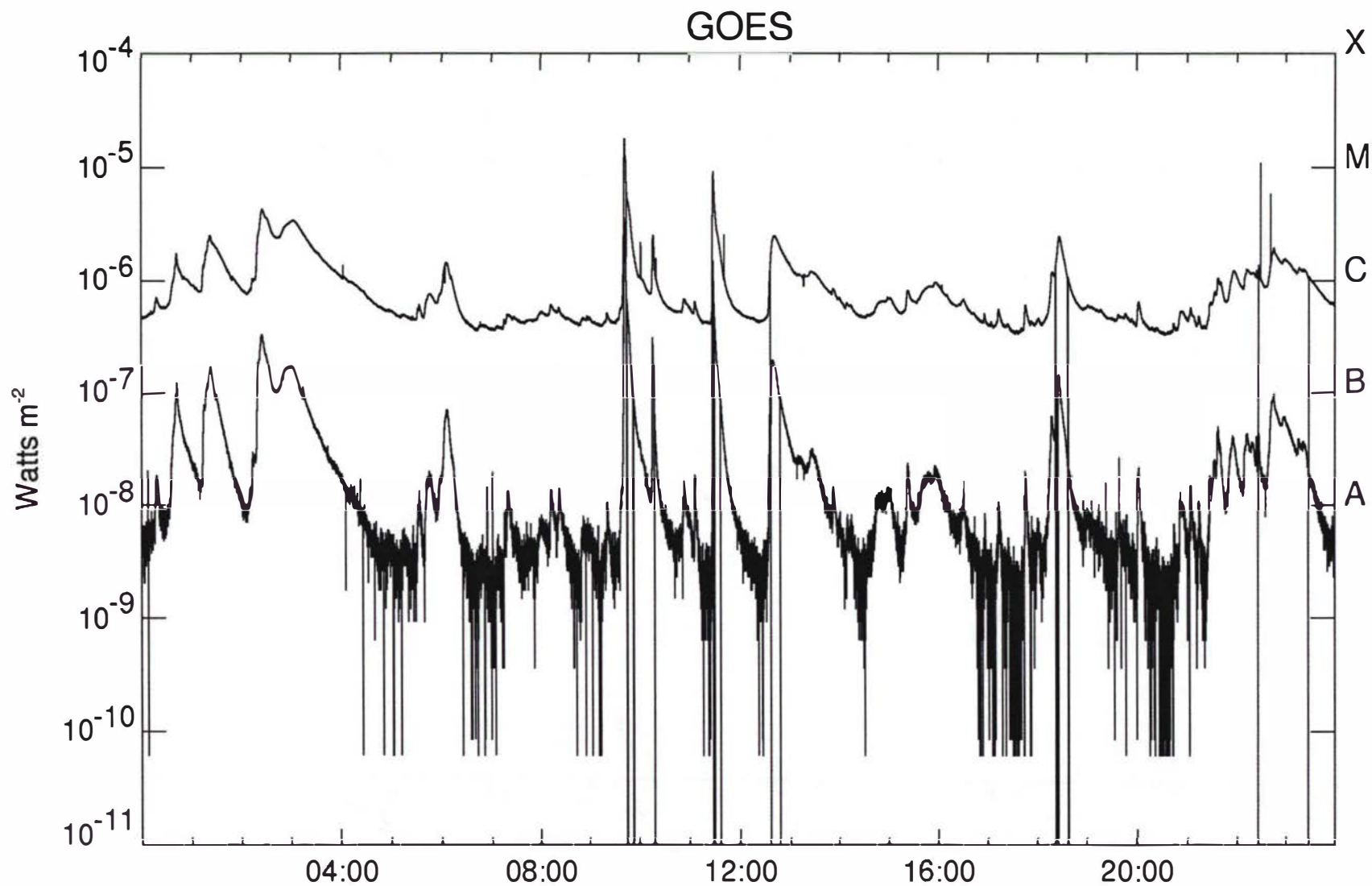
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SOLAR FLARE, GOES C8.0, LASTING ~75S. NOT VISIBLE ABOVE 300KEV.



Data Start: 07-Jan-94 00:00:0

Plot created: 10-Jan-94 17:2

Channel

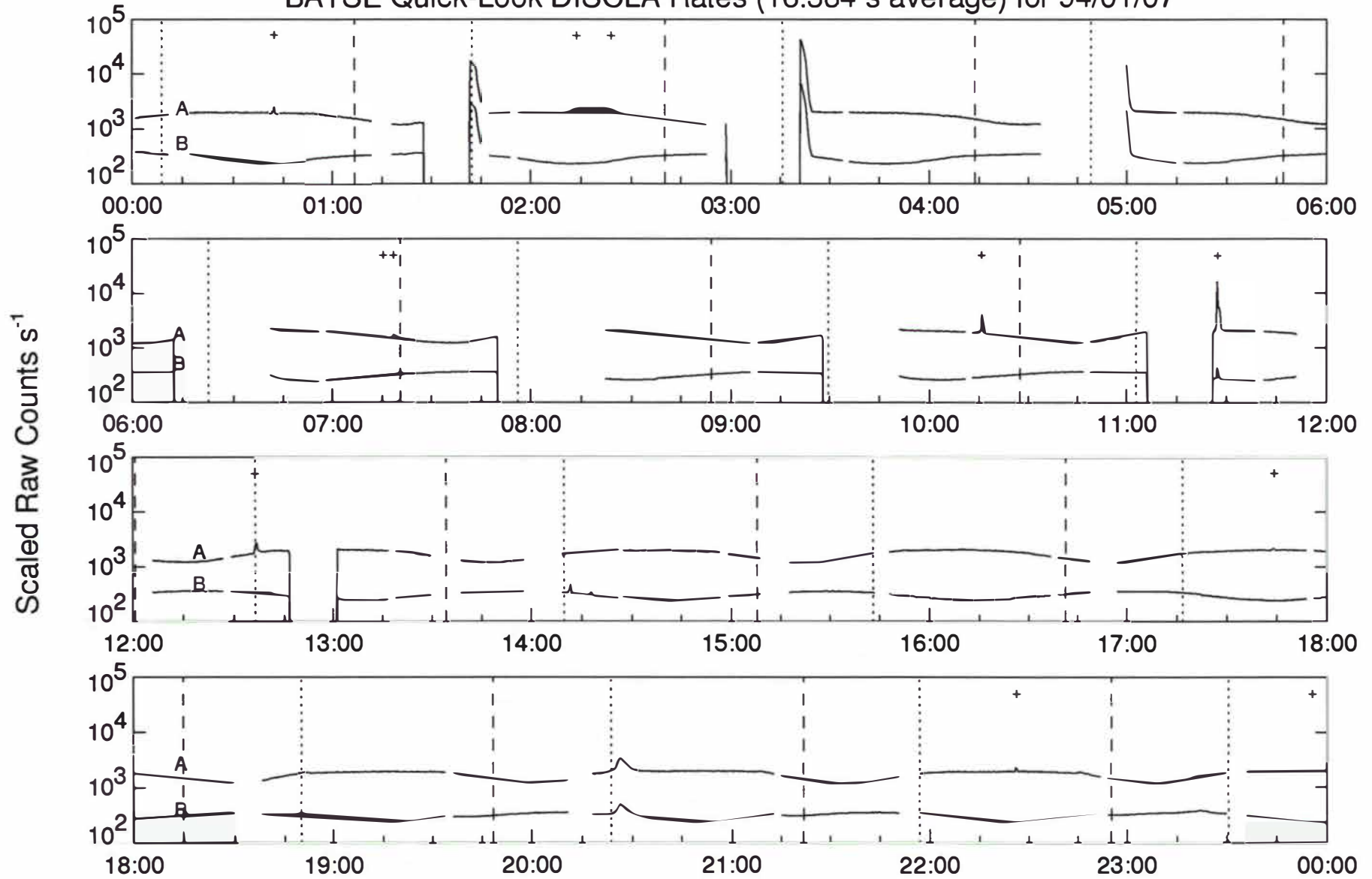
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/07

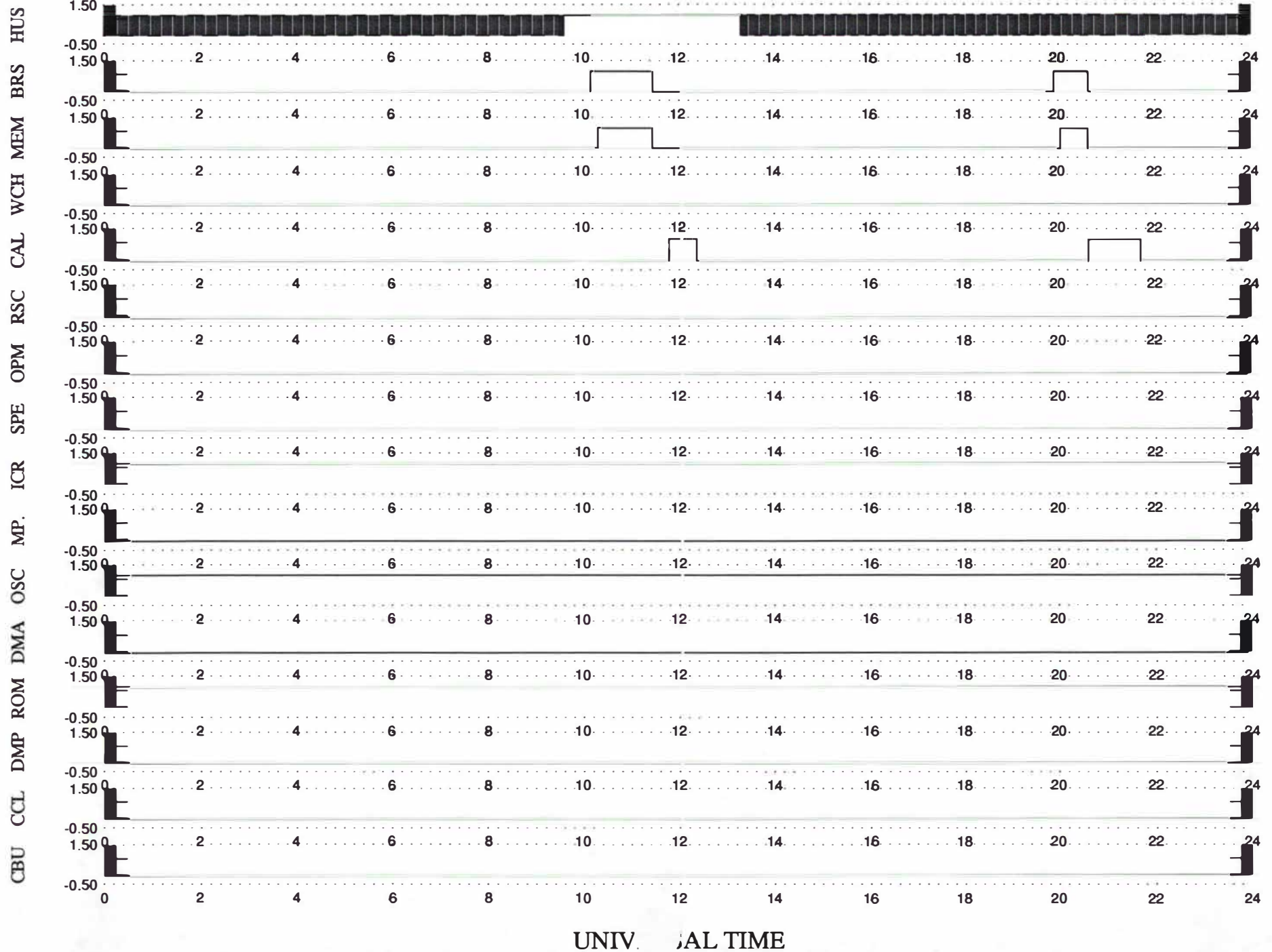


Current Time: 94/01/12, 1926 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

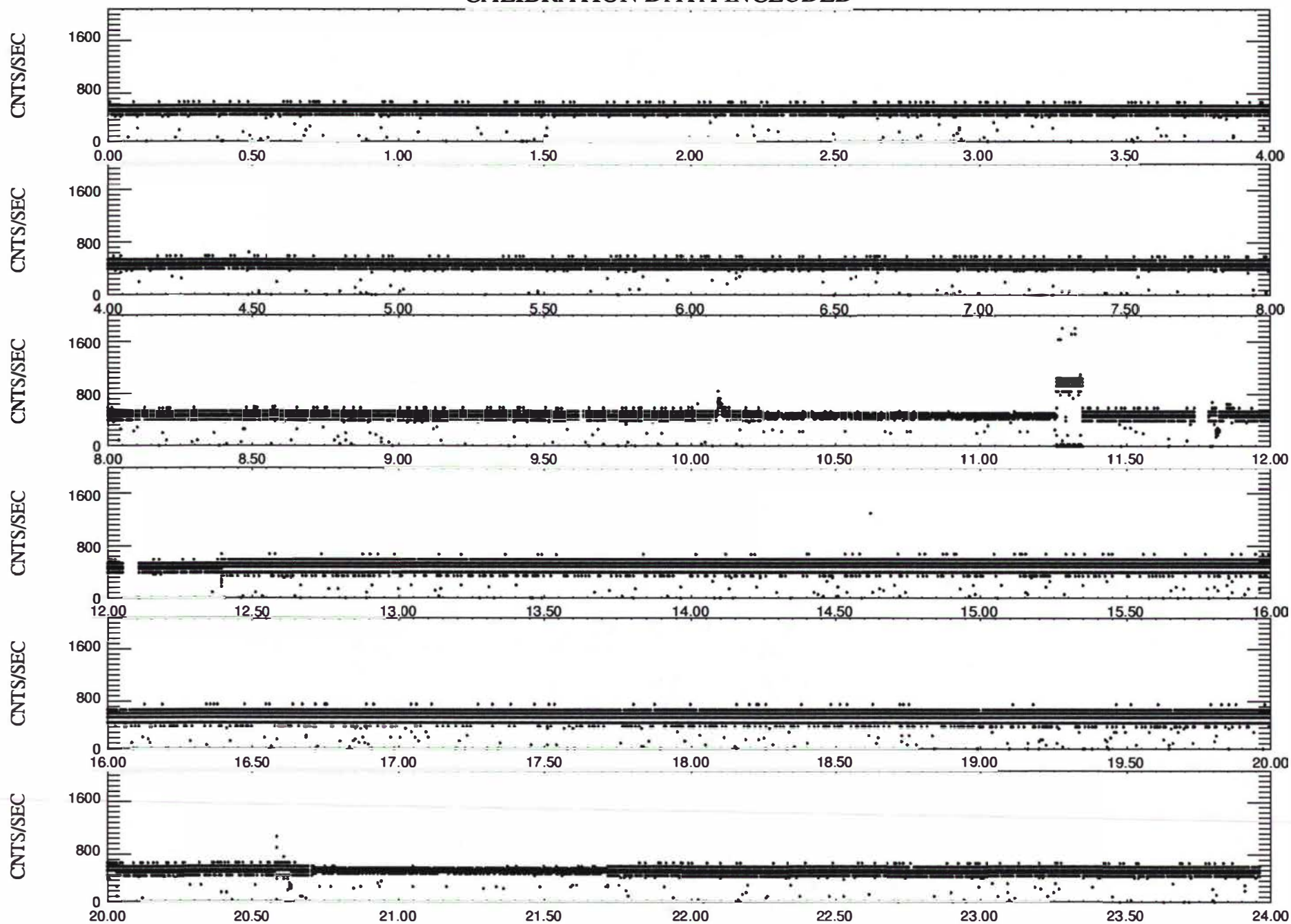
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 0, 1

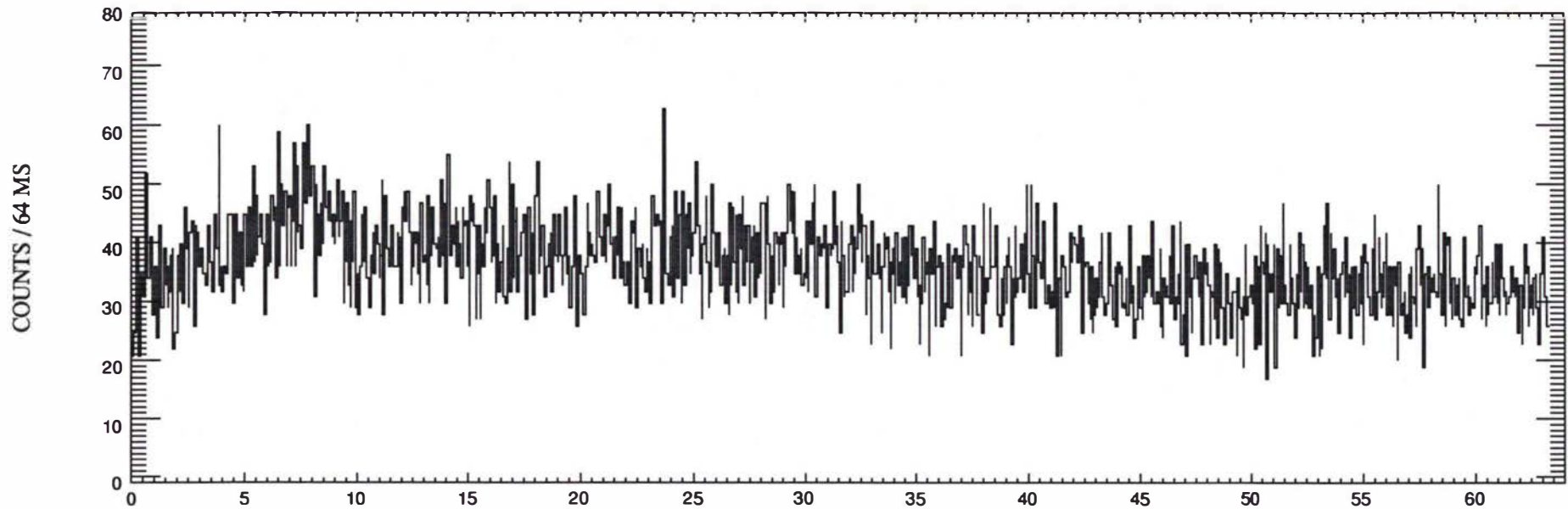


CALIBRATION DATA INCLUDED

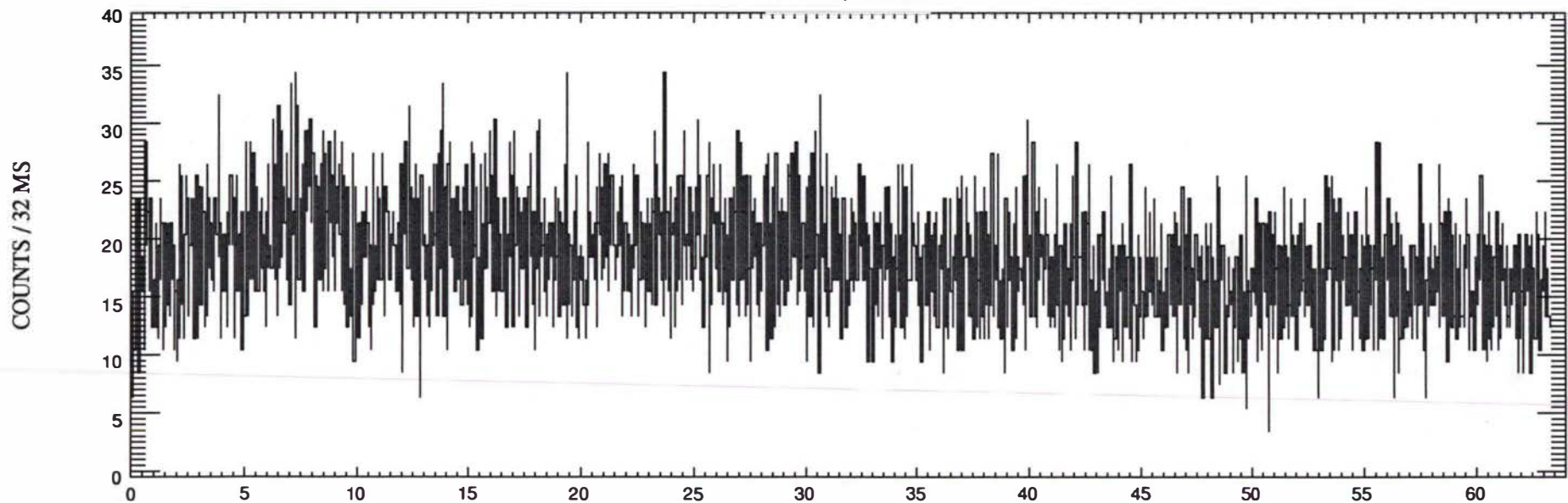


UNIV AL TIME

Burst Counter 0 at UT=10.091046824985 h=36327.769 s 10:05:27.769

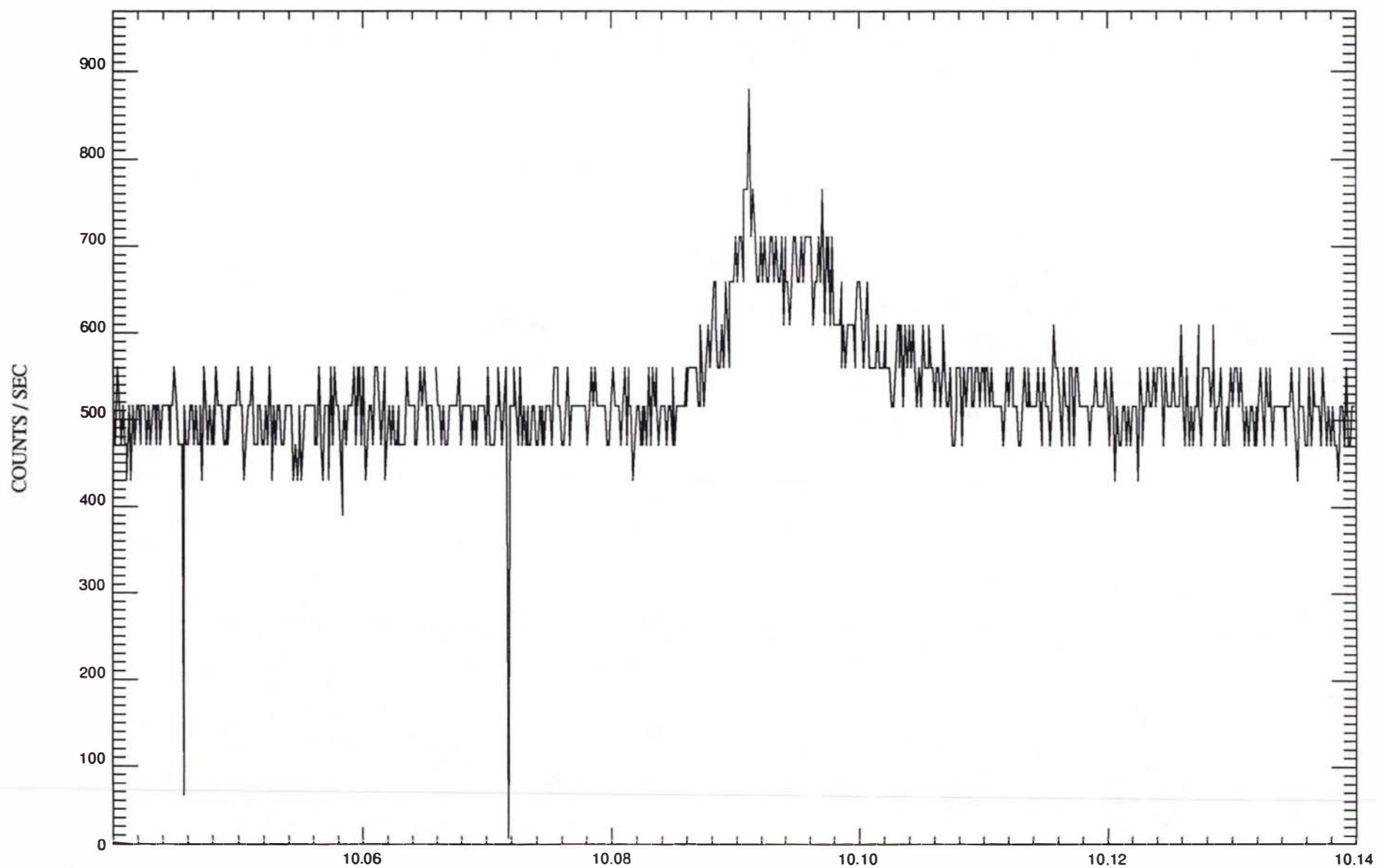


TIME, SECS

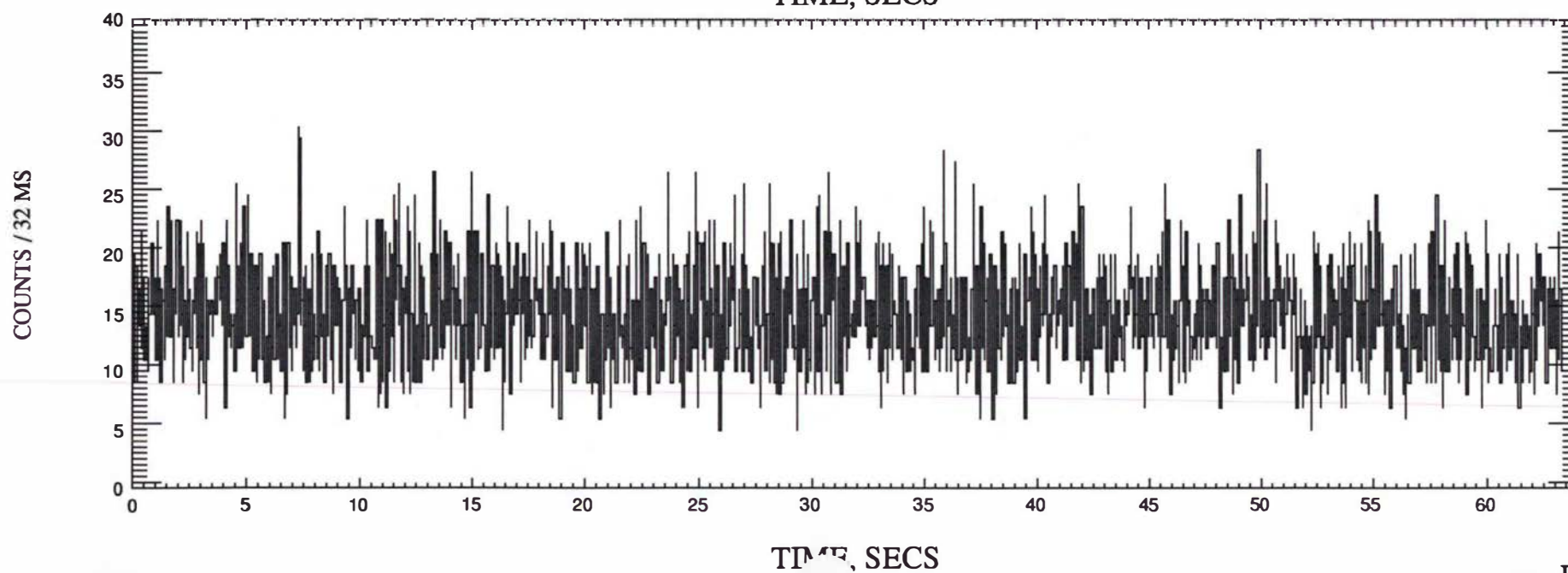
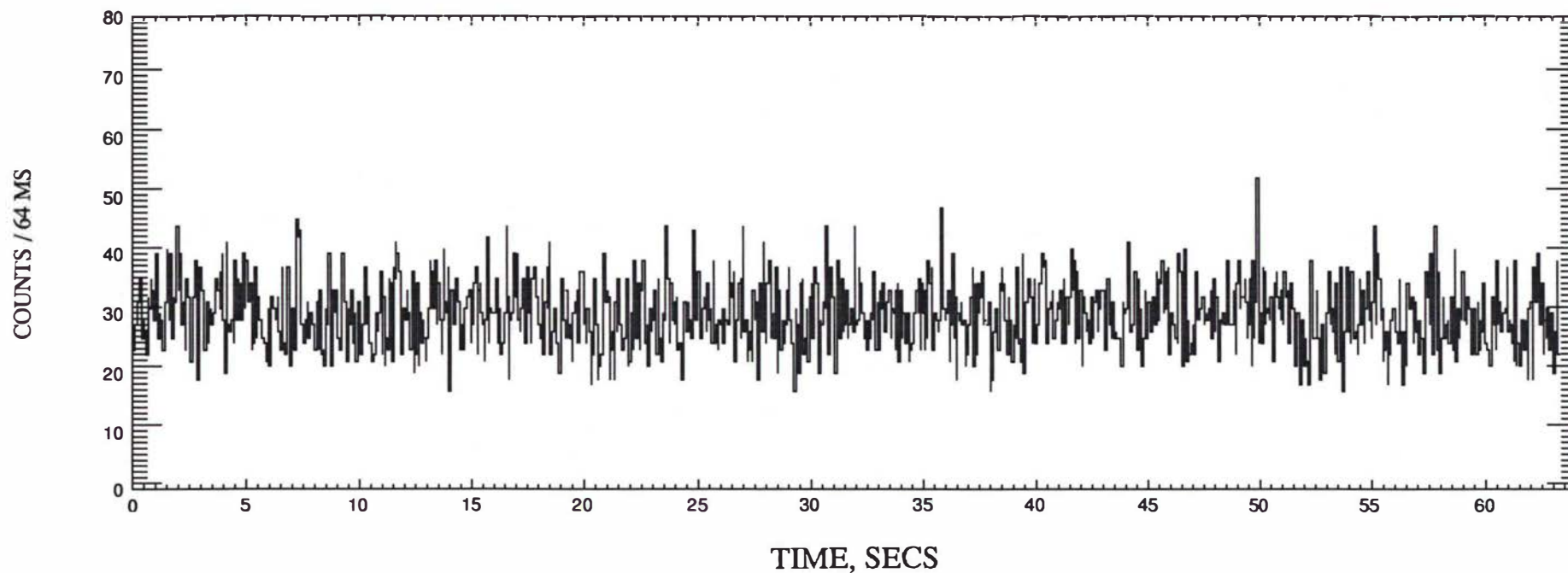


TIME, SECS

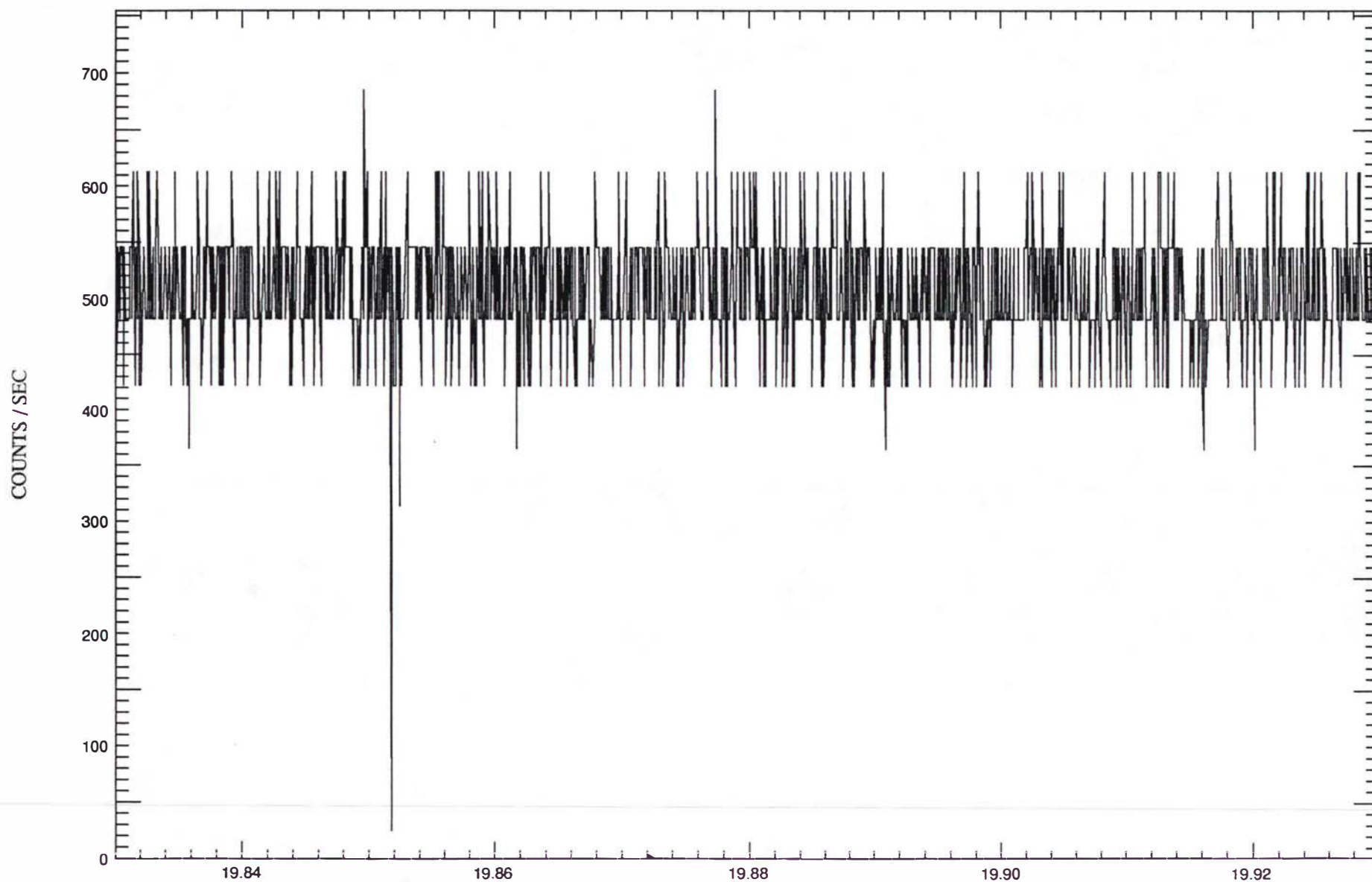
CALIBRATION DATA INCLUDED



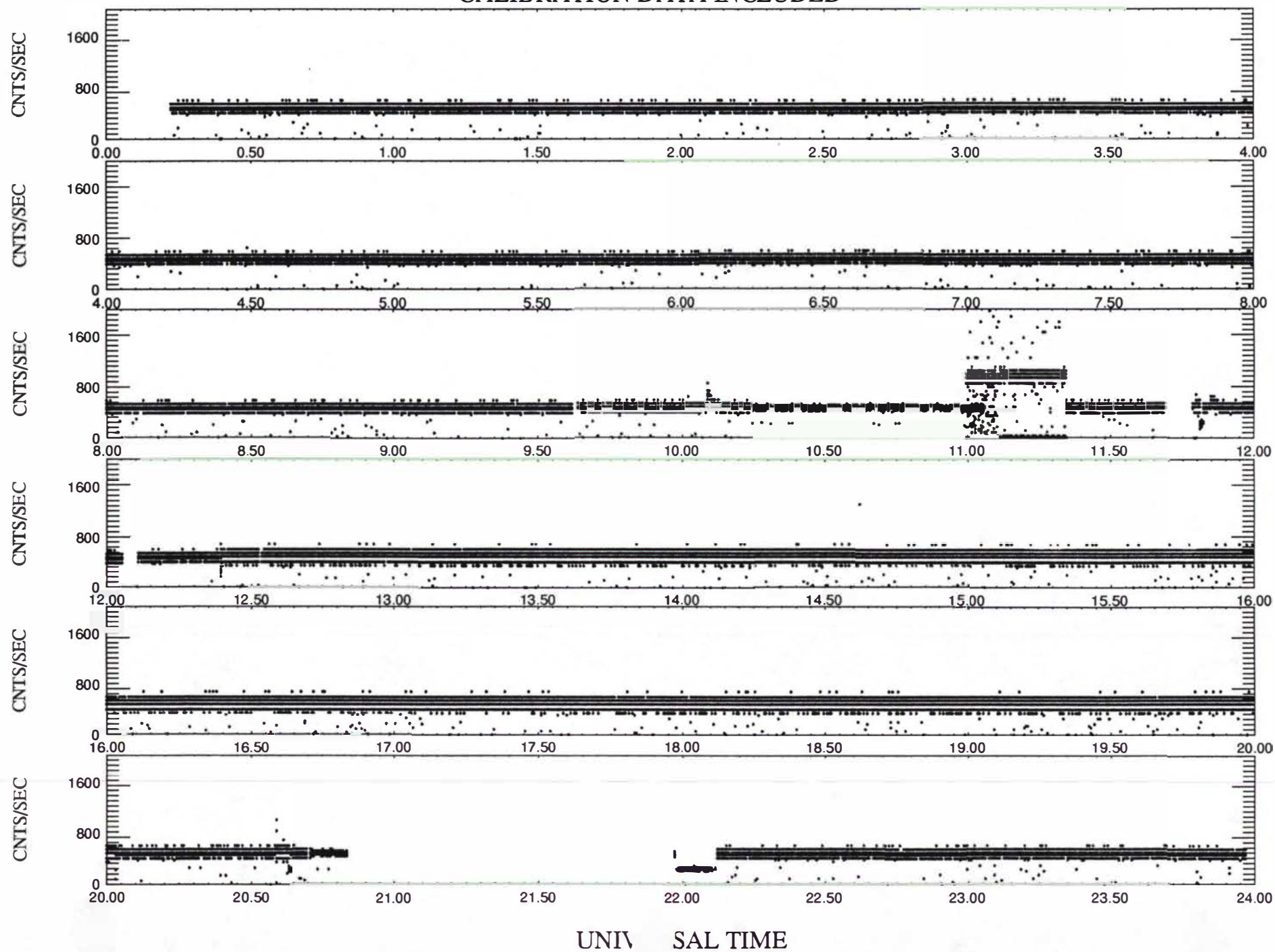
Burst Counter 1 at UT=19.877588191562 h=71559.317 s 19:52:39.317

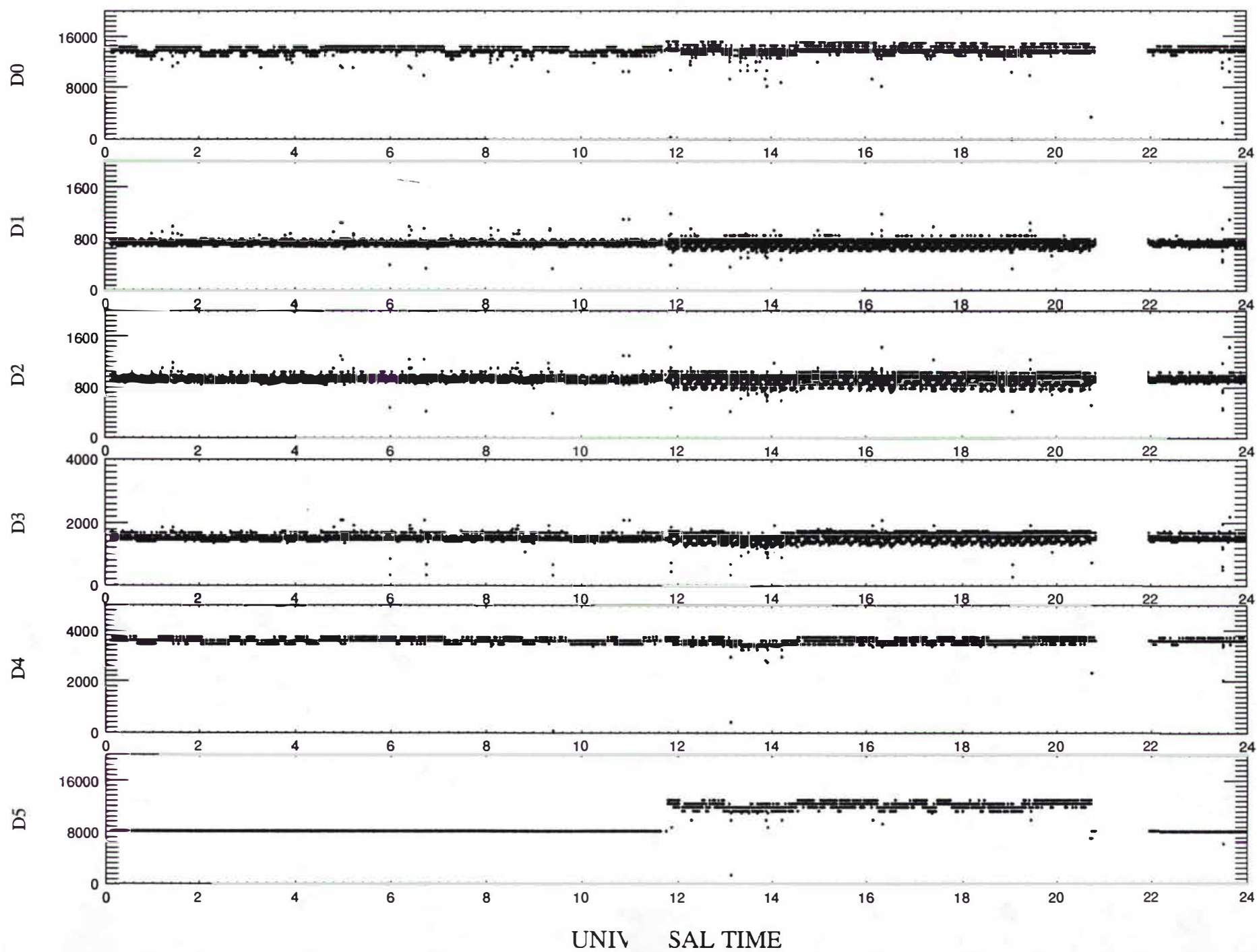


CALIBRATION DATA INCLUDED



CALIBRATION DATA INCLUDED





From MALLOZZI@ssl.msfc.nasa.gov Sun Jan 9 17:38 PST 1994
Date: Sun, 9 Jan 1994 19:40:07 -0600 (CST)
From: MALLOZZI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2748
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2748
EVENT OF 1994 JAN 8 DAY OF YEAR= 8
EVENT CROSSING TIME AT BATSE : 23697. S. OR 06:34:57.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 61.000 -39.000
BATSE PEAK COUNTING RATE: 5300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 8/ 1/ 94 IS:
RA= 163.925 DEC= -43.679 DIST= 3.550 AU
BATSE-ULYSSES DISTANCE = 531039225. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=107.99 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -547.19 SECS.
CROSSING TIME AT ULYSSES IS 23150. S. OR 06:25:49 +/- 334.18 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 8/ 1/ 94 IS:
RA= 285.759 DEC= -23.529 DIST= 2.412 AU
MARS-BATSE DISTANCE = 360838176. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 75.24 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 306.59 SECS.
CROSSING TIME AT MARS IS 24004. S. OR 06:40:03 +/- 206.73 SECONDS

No

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2748	940108	9360	23697	5300	061	-39

BATSE BURST TRIGGER

NO.: 02748

TIME: TJD=9360 SECONDS=23697

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=071.5 AZIMUTH=225.1 ERROR= DEGREES

COMMENTS:

SINGLE PEAK BURST OF DURATION ~0.5 SECONDS.
POSSIBLE SLIGHT EMISSION ABOVE 300 KEV.

CATSEARCH PROGRAM

EVENT BURST # 2748
EVENT OF 1994 JAN 8 DAY OF YEAR= 8
EVENT CROSSING TIME AT BATSE : 23697. S. OR 06:34:57.1
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 76.230 -25.140
BATSE PEAK COUNTING RATE: 0000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
POSITION OF ULYSSES ON 8/ 1/ 94 IS:
RA= 163.979 DEC= -43.608 DIST= 3.554 AU
BATSE-ULYSSES DISTANCE = 531694856. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=108.59 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -565.33 SECS.
CROSSING TIME AT ULYSSES IS 23132. S. OR 06:25:31.8 +/- 333.27 SECONDS

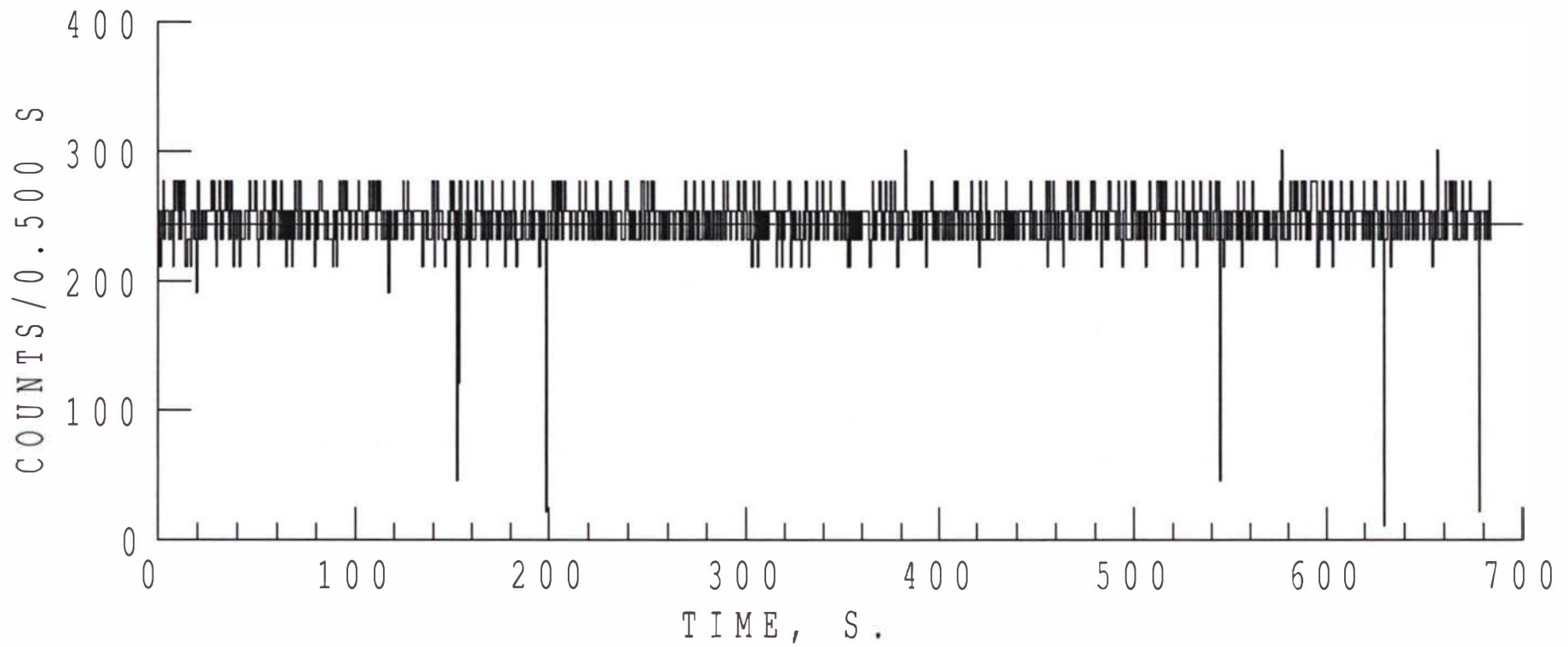
9 / 11 / 95

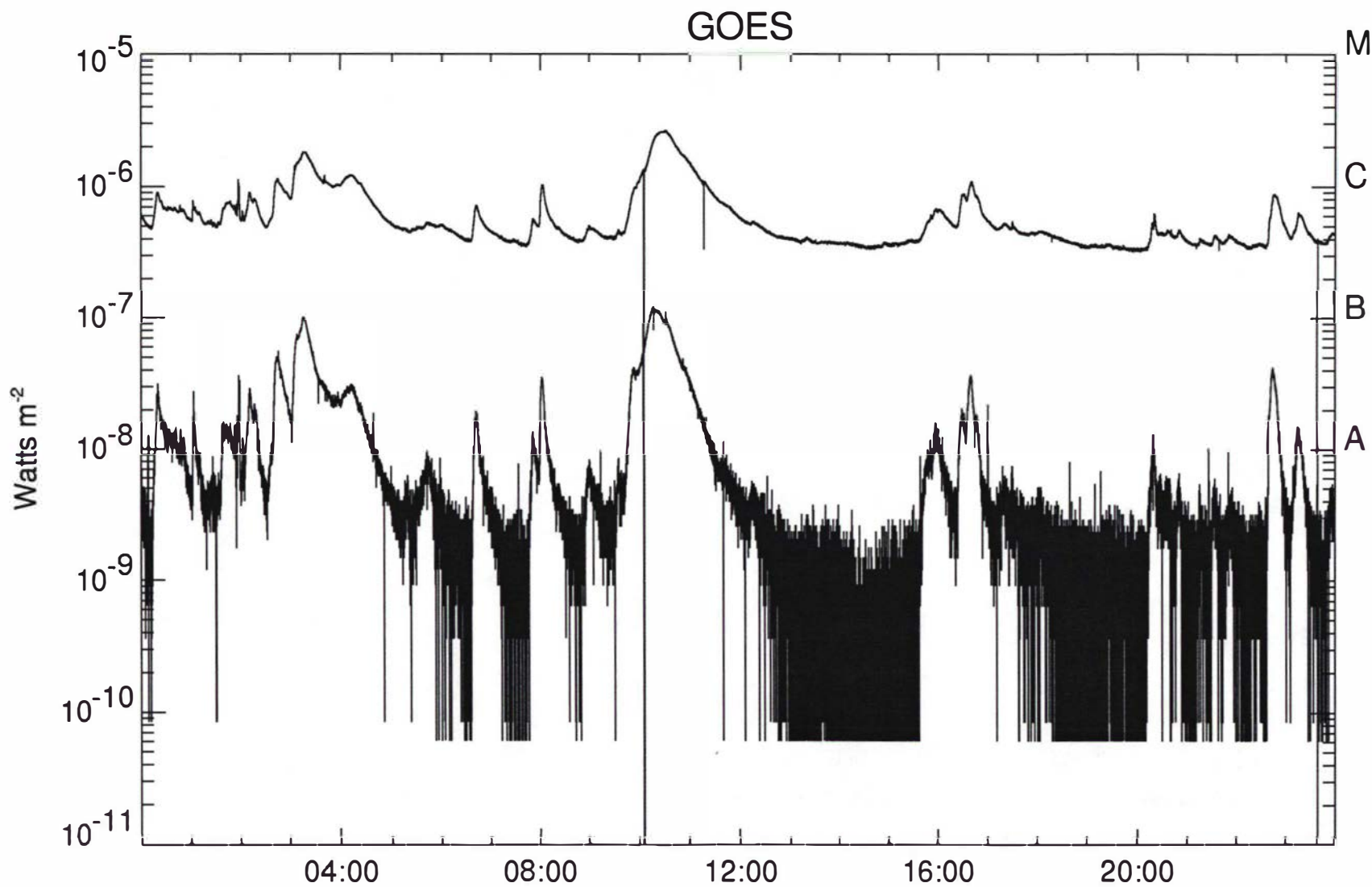
ULYSSES RT

8 / 1 / 94 22788.156 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





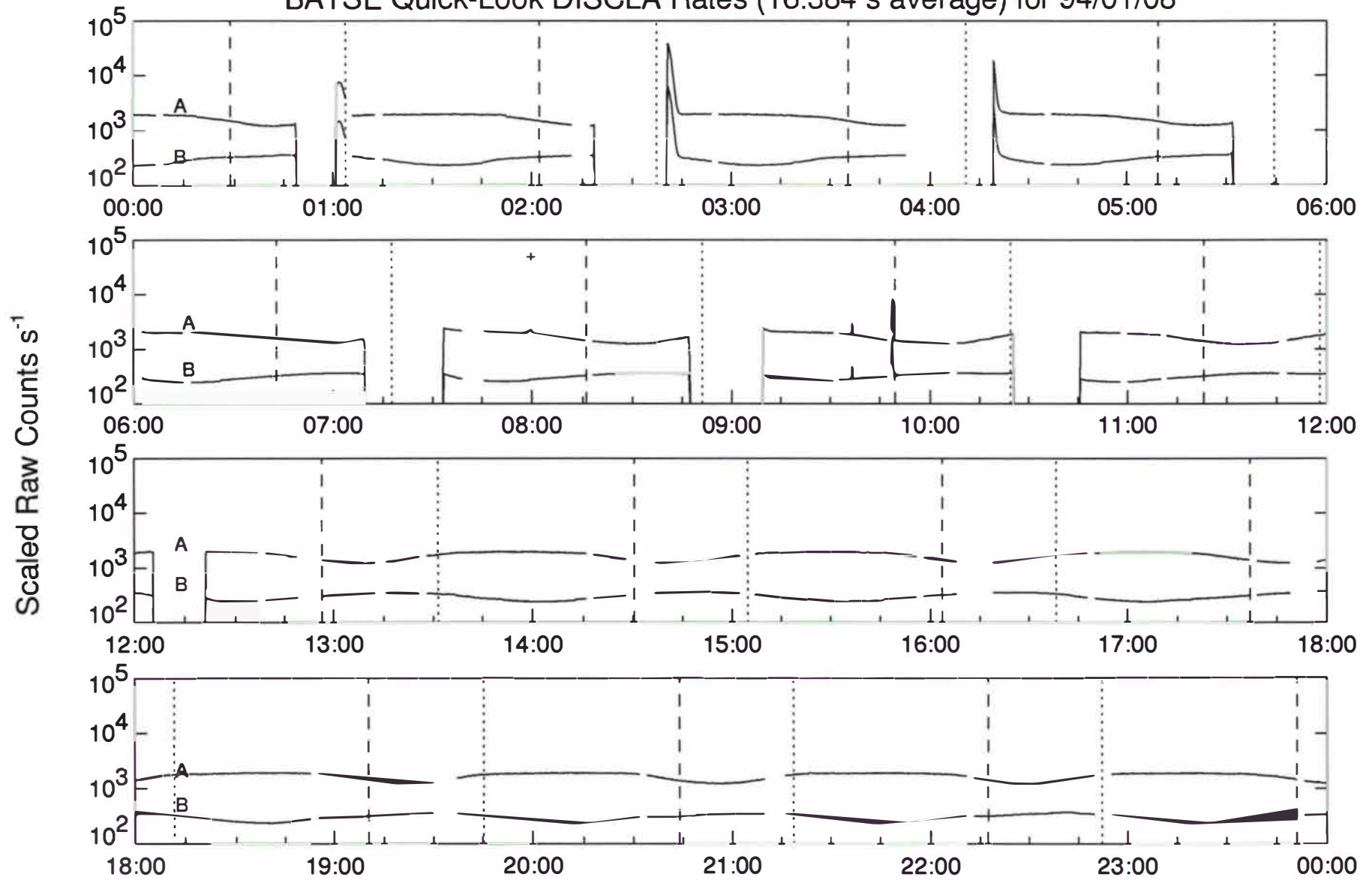
Data Start: 08-Jan-94 00:00:0

Plot created: 10-Jan-94 17:2

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

Background not subtracted
Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/08

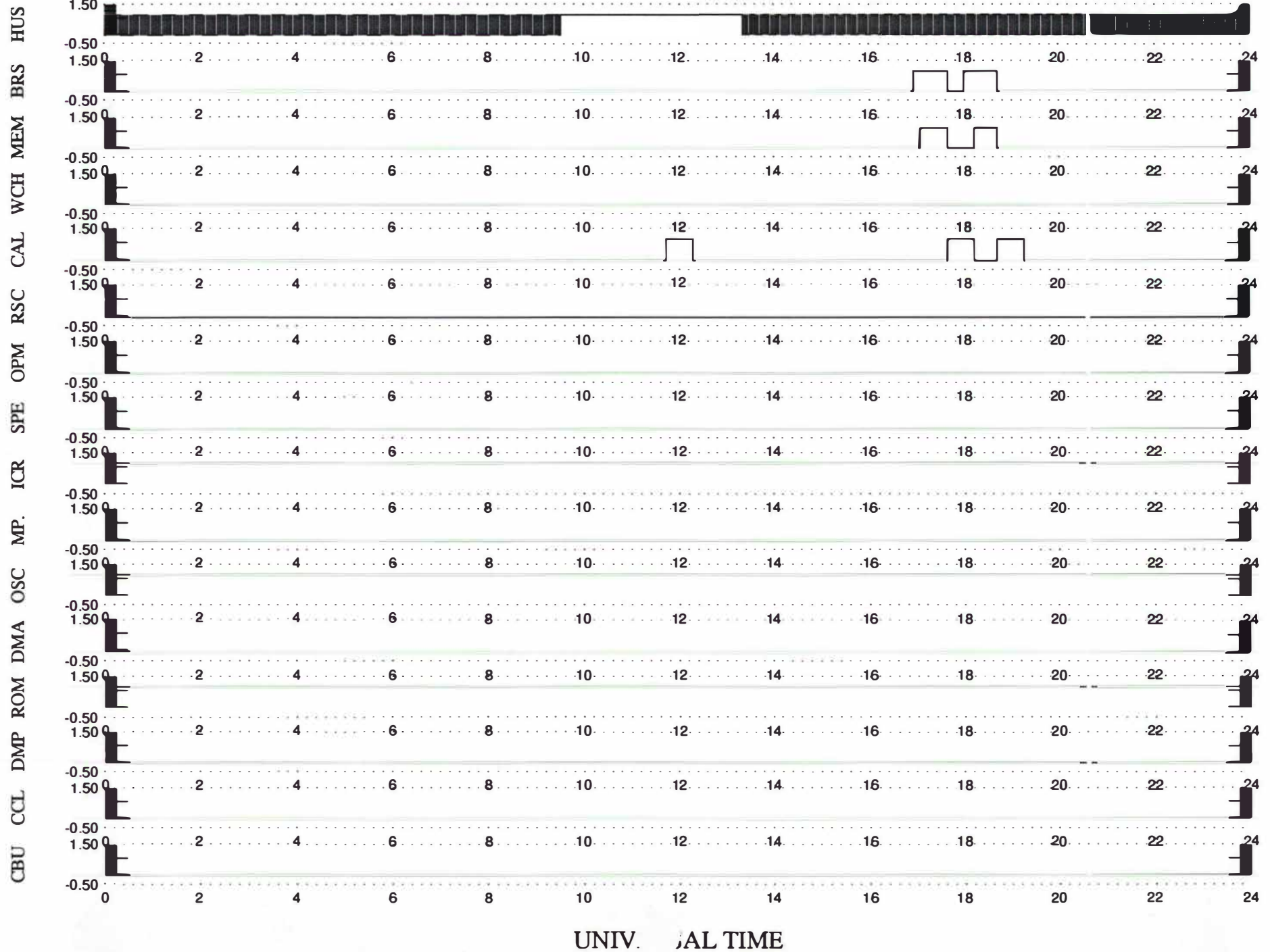


Current Time: 94/01/12, 1927 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

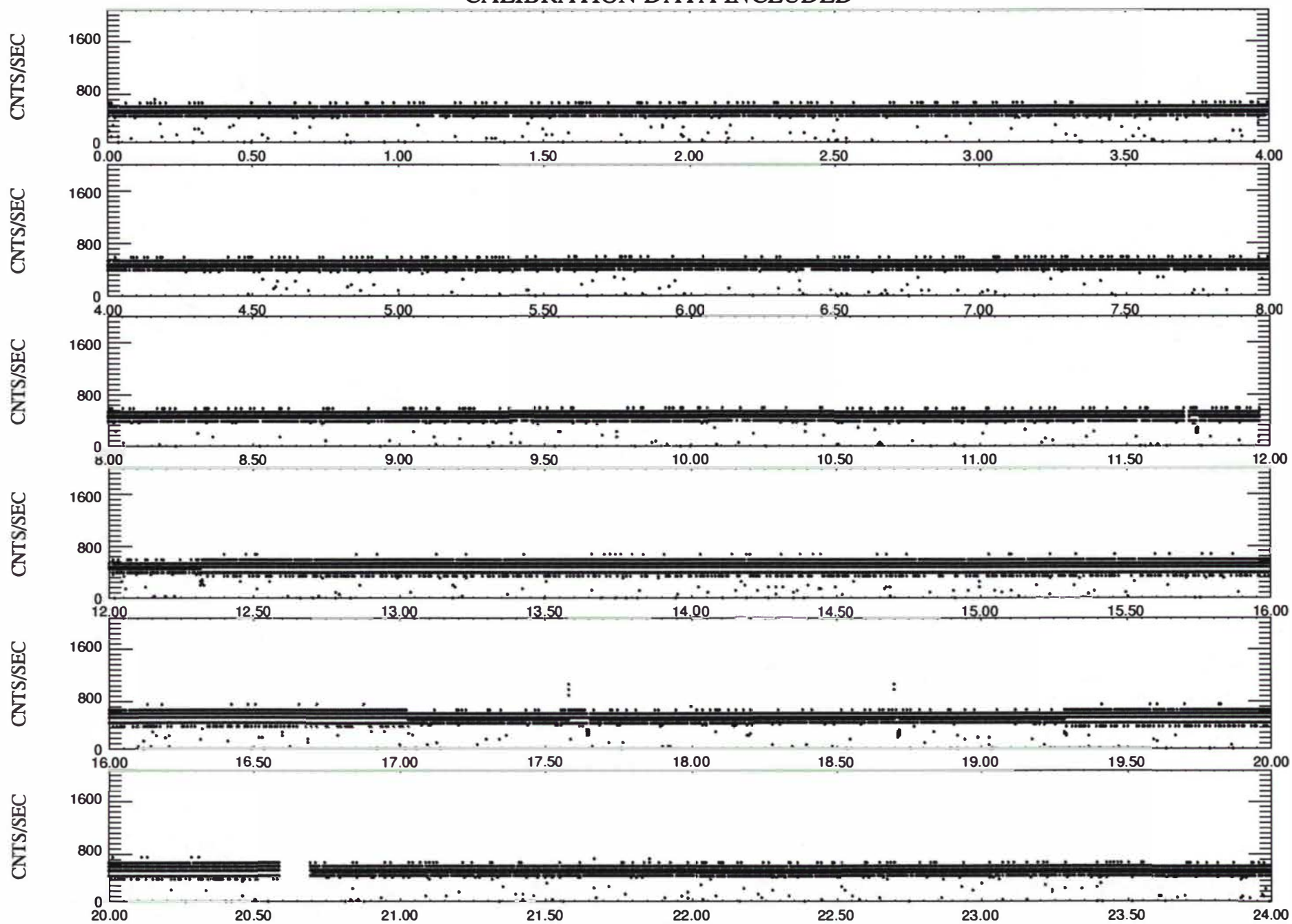
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 2, 3

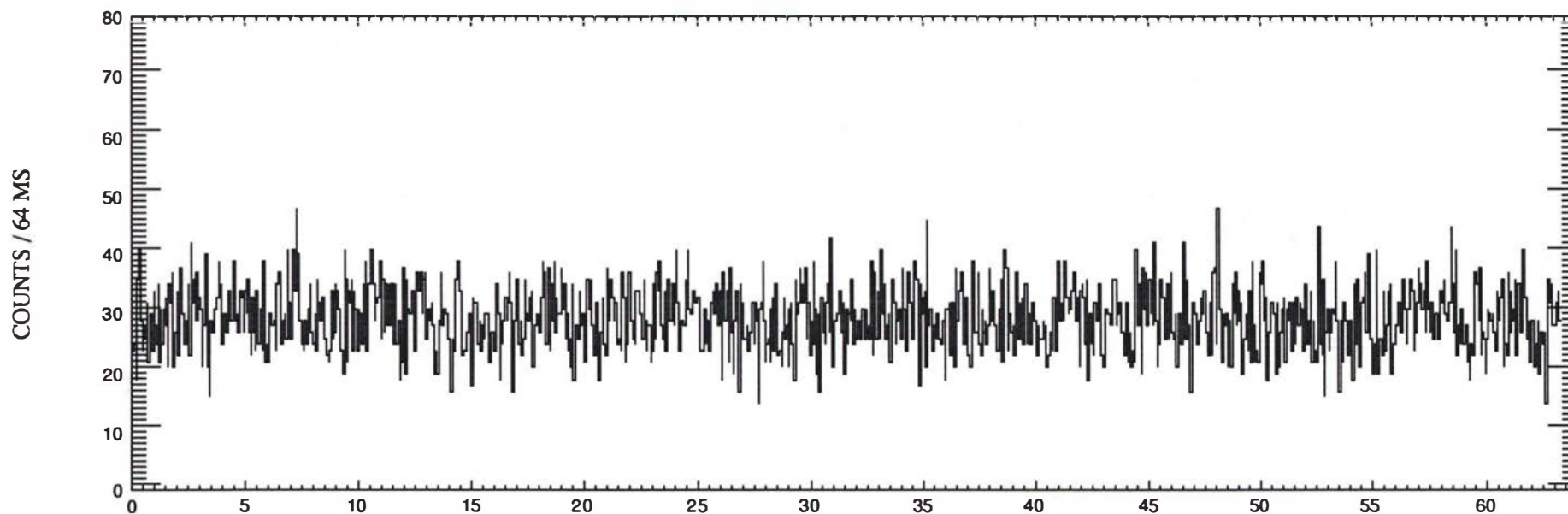


CALIBRATION DATA INCLUDED

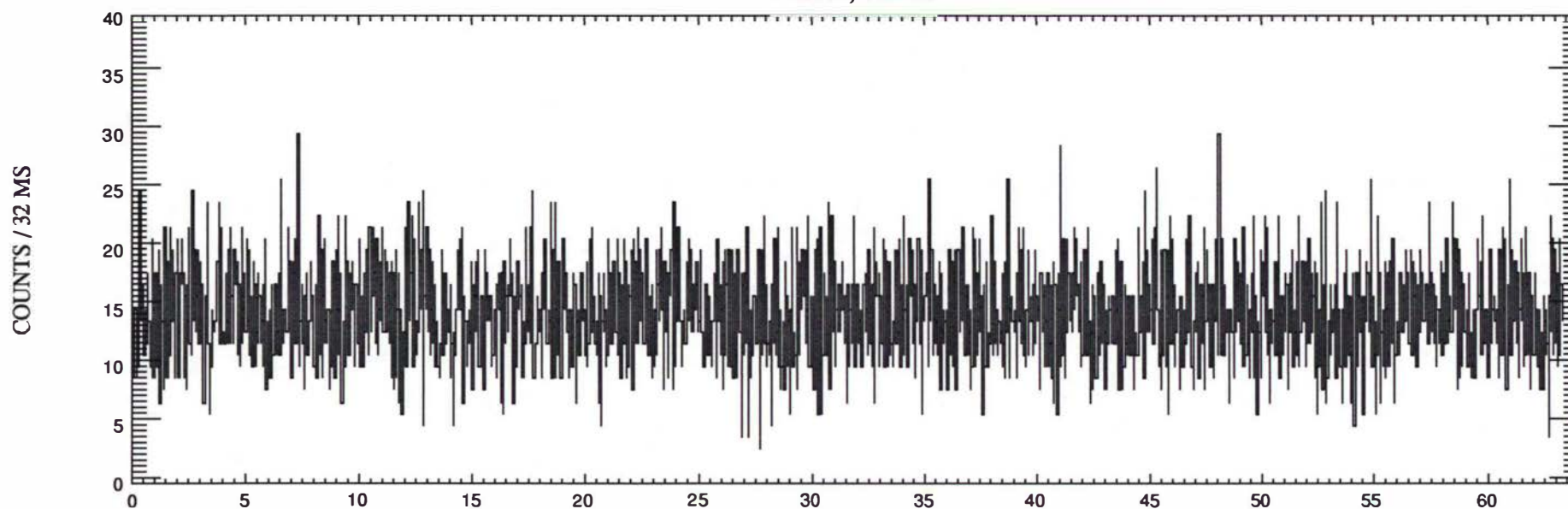


UNIV AL TIME

Burst Counter 2 at UT=16.878295423720 h=60761.864 s 16:52:41.864



TIME, SECS



TIME, SECS

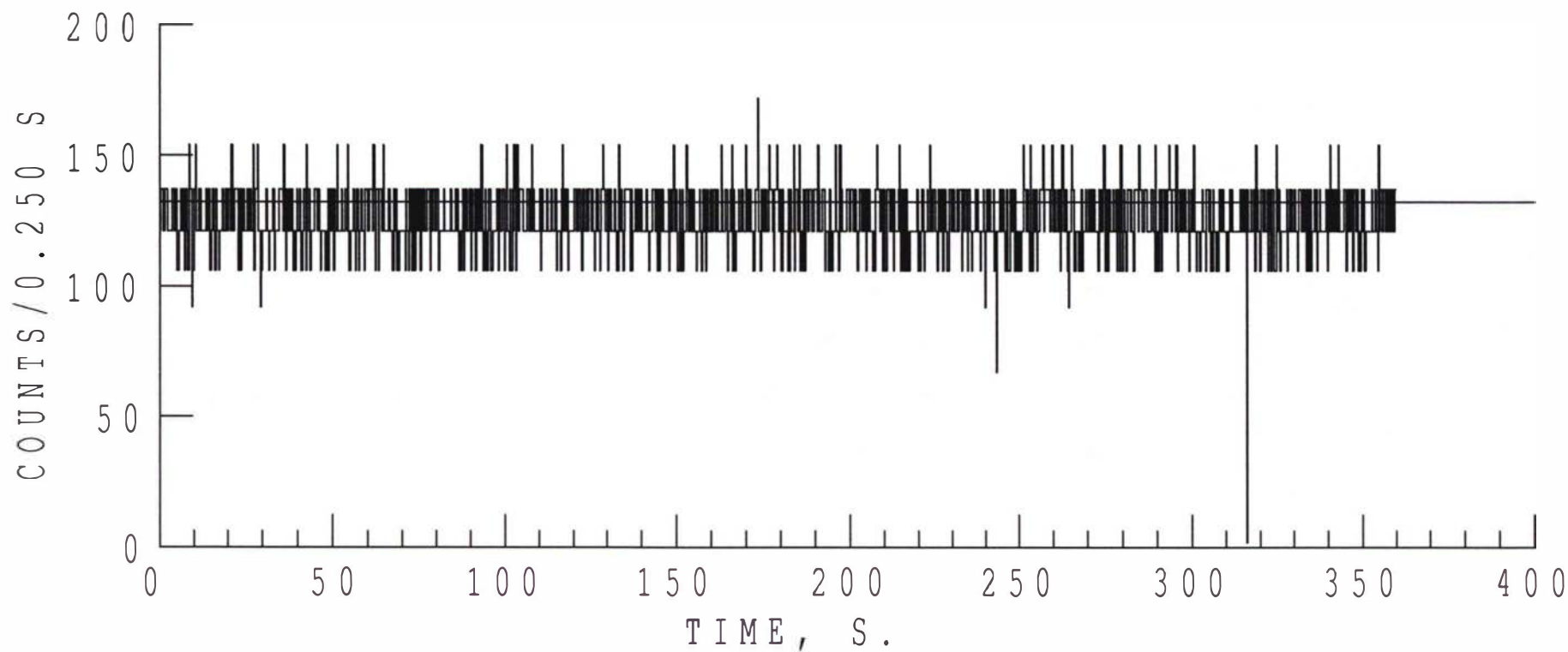
HUS trigger #1

11 / 1 / 94

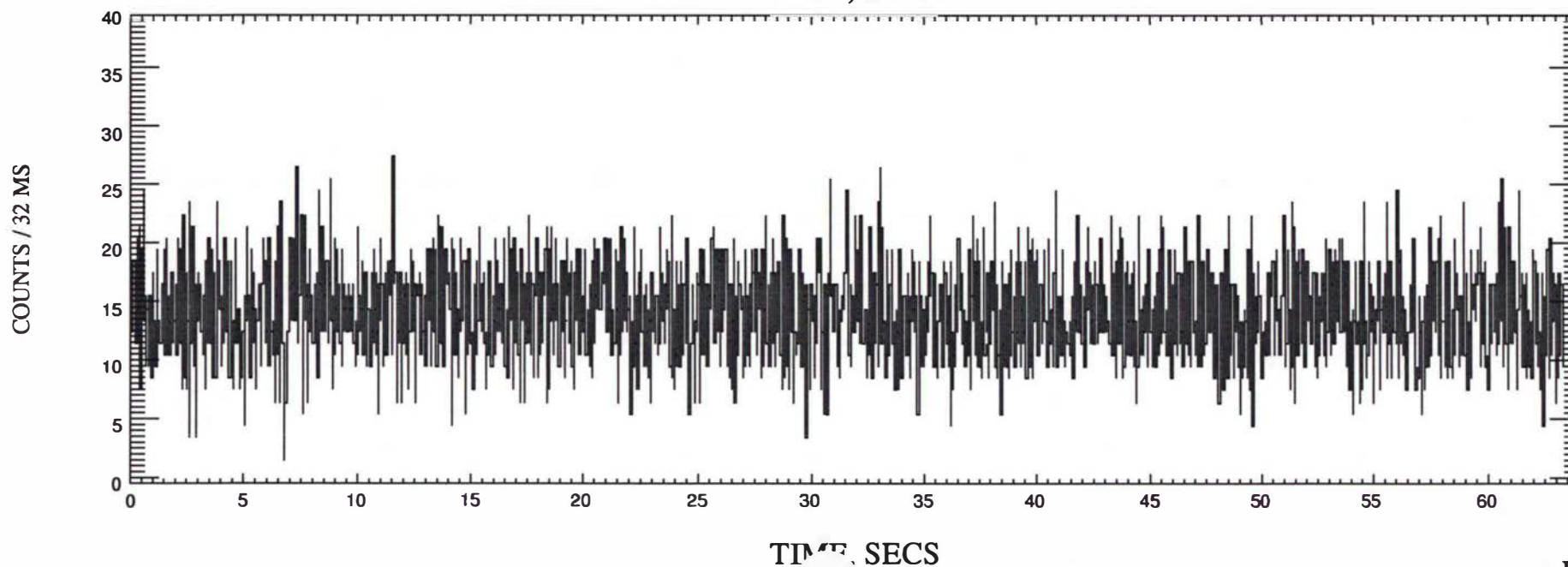
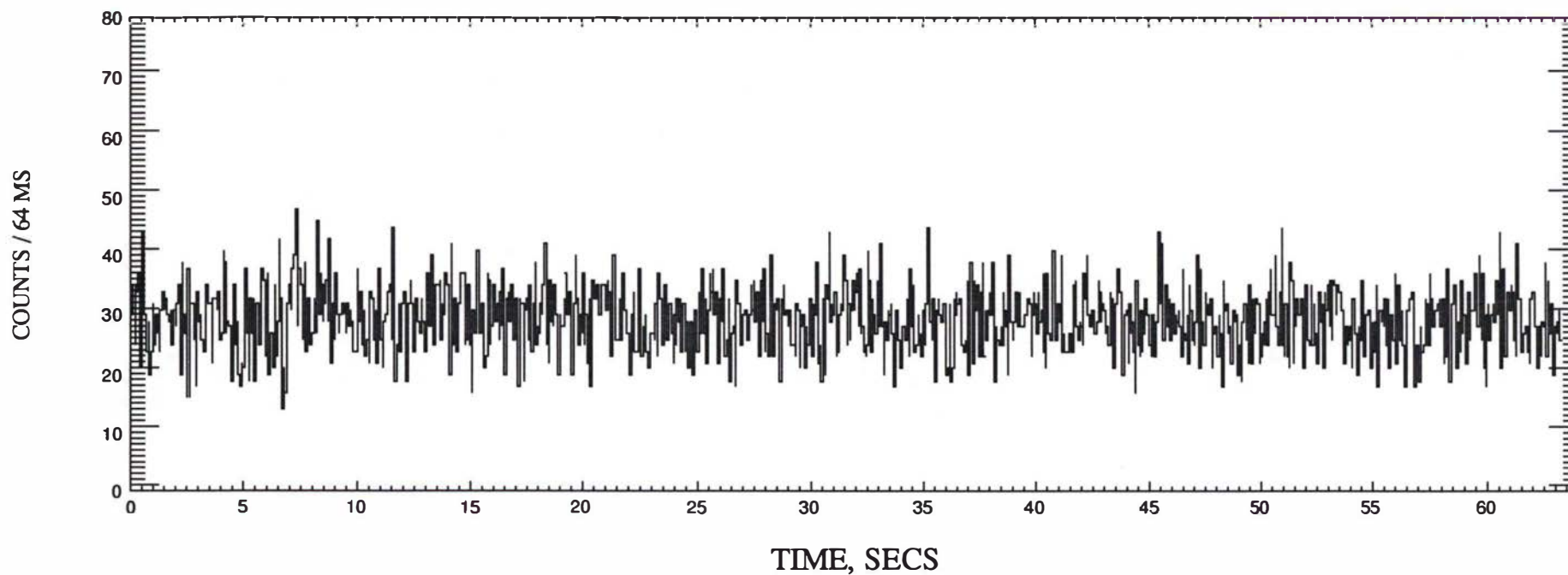
ULYSSES RT
8 / 1 / 94 60588.238 s
0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



Burst Counter 3 at UT=17.993381356133 h=64776.173 s 17:59:36.173



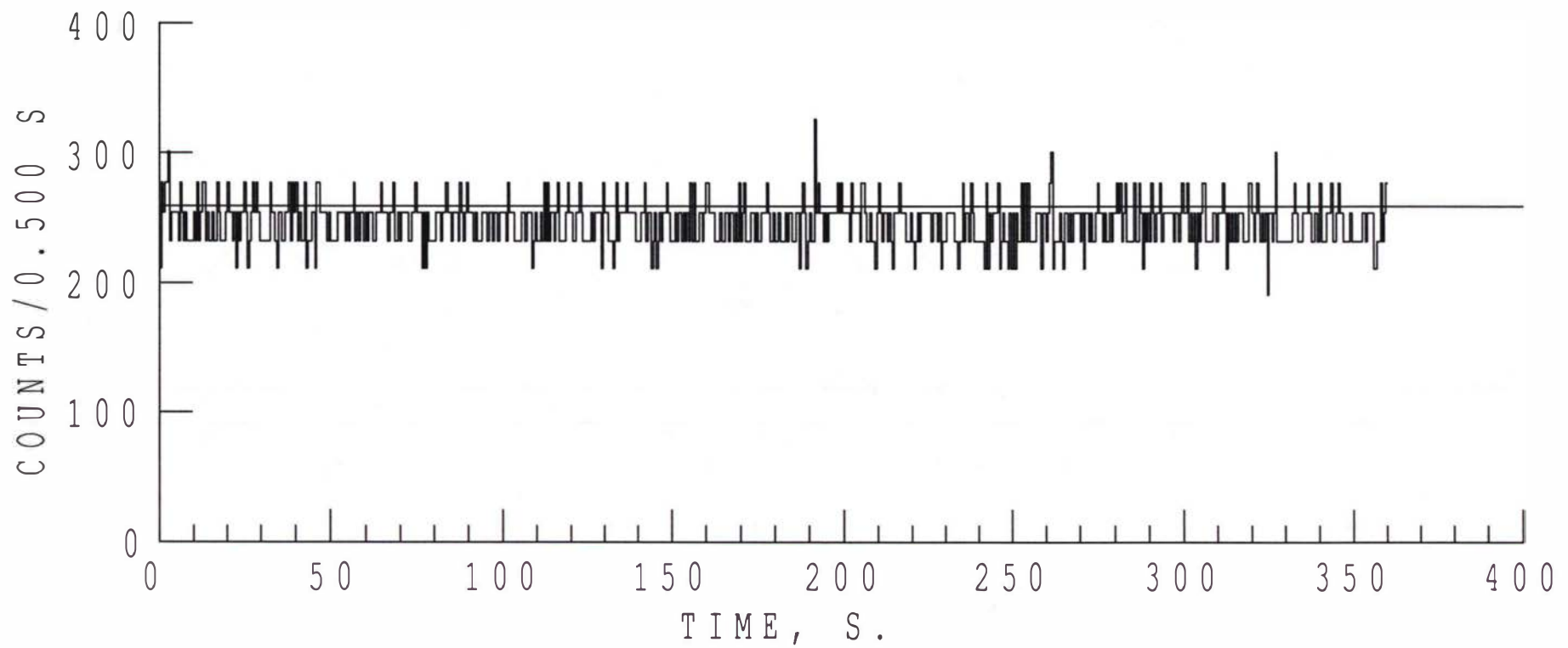
HUS trigger #2

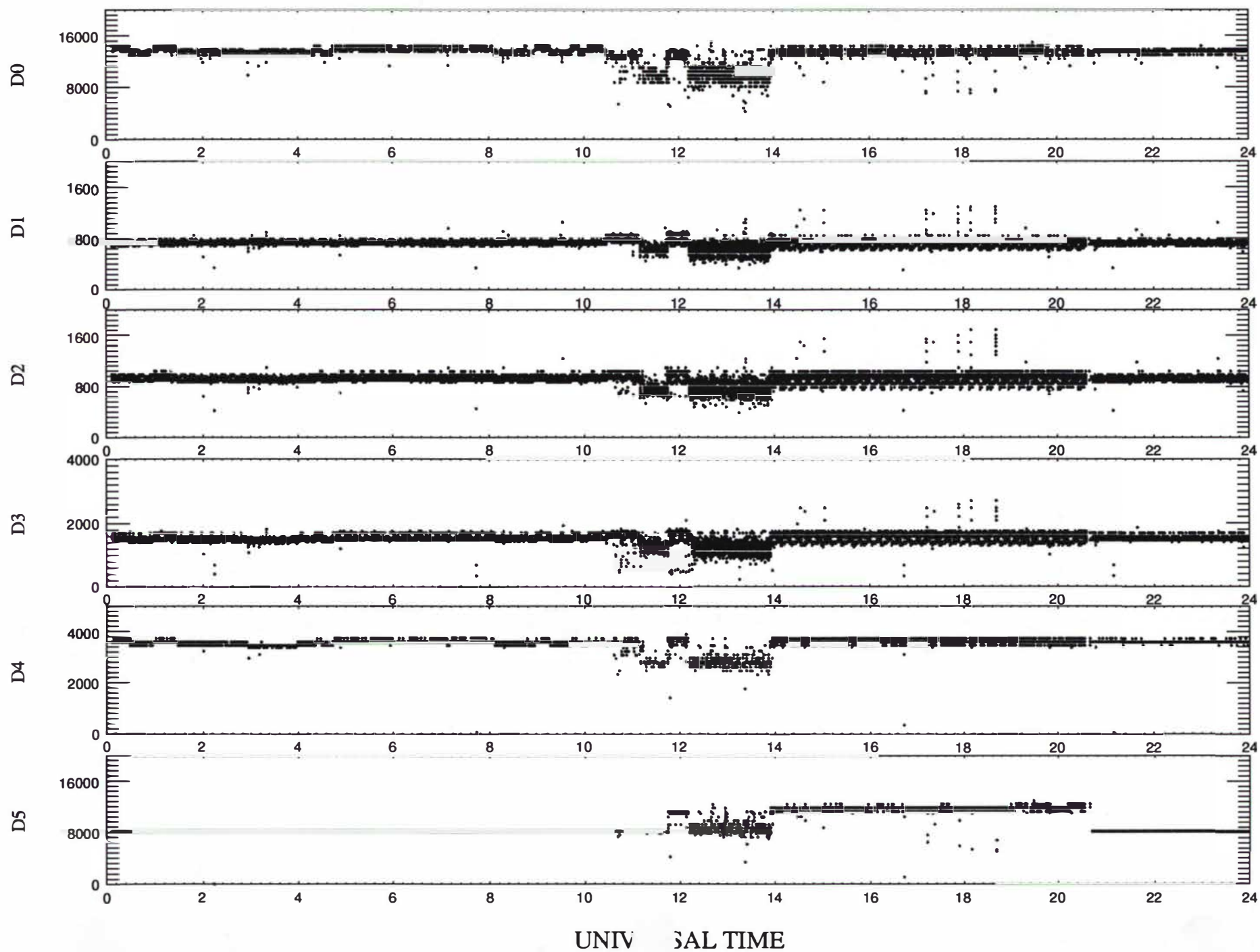
11 / 1 / 94

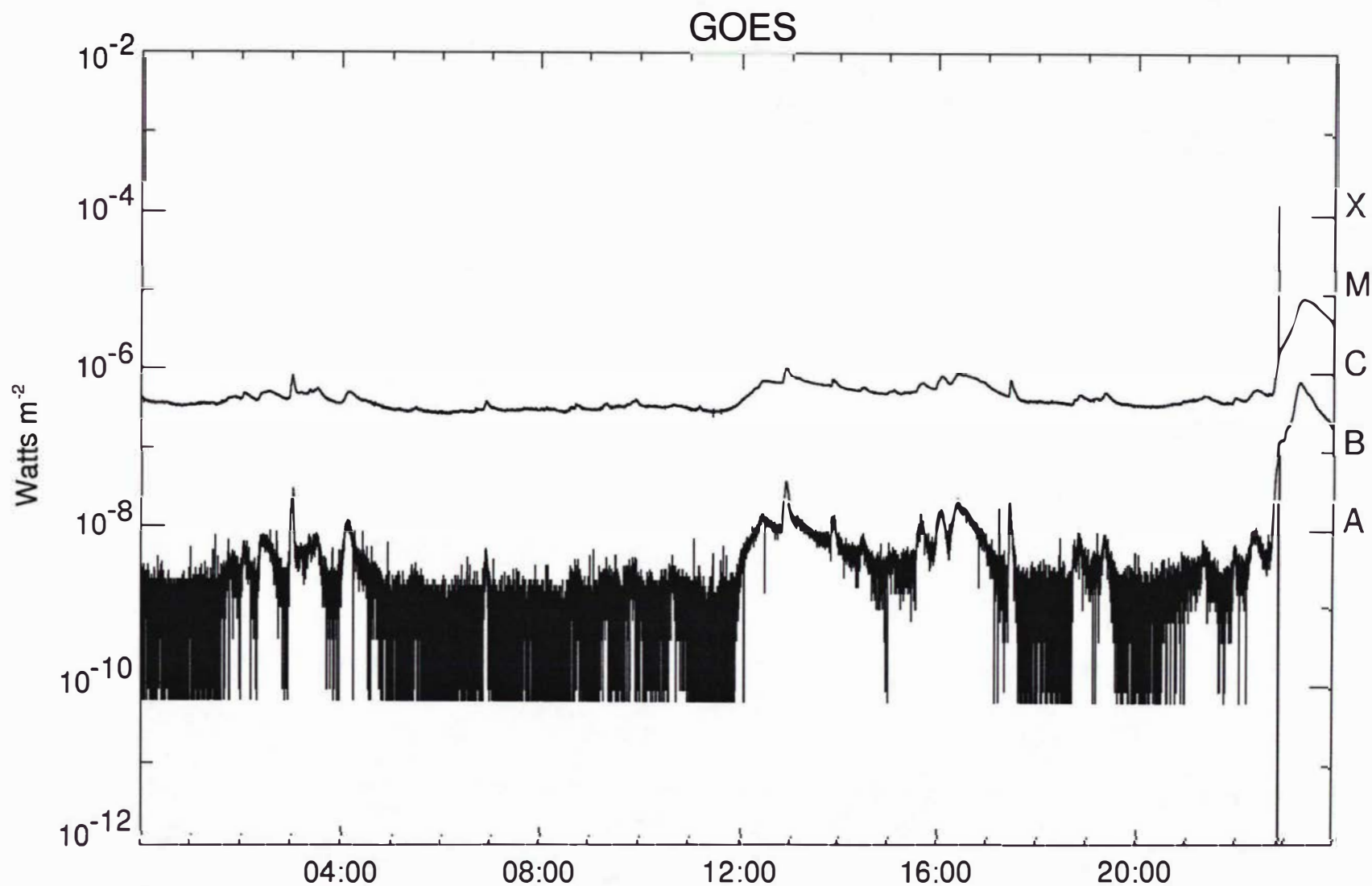
ULYSSES RT
8 / 1 / 94 64584.305 s
0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS







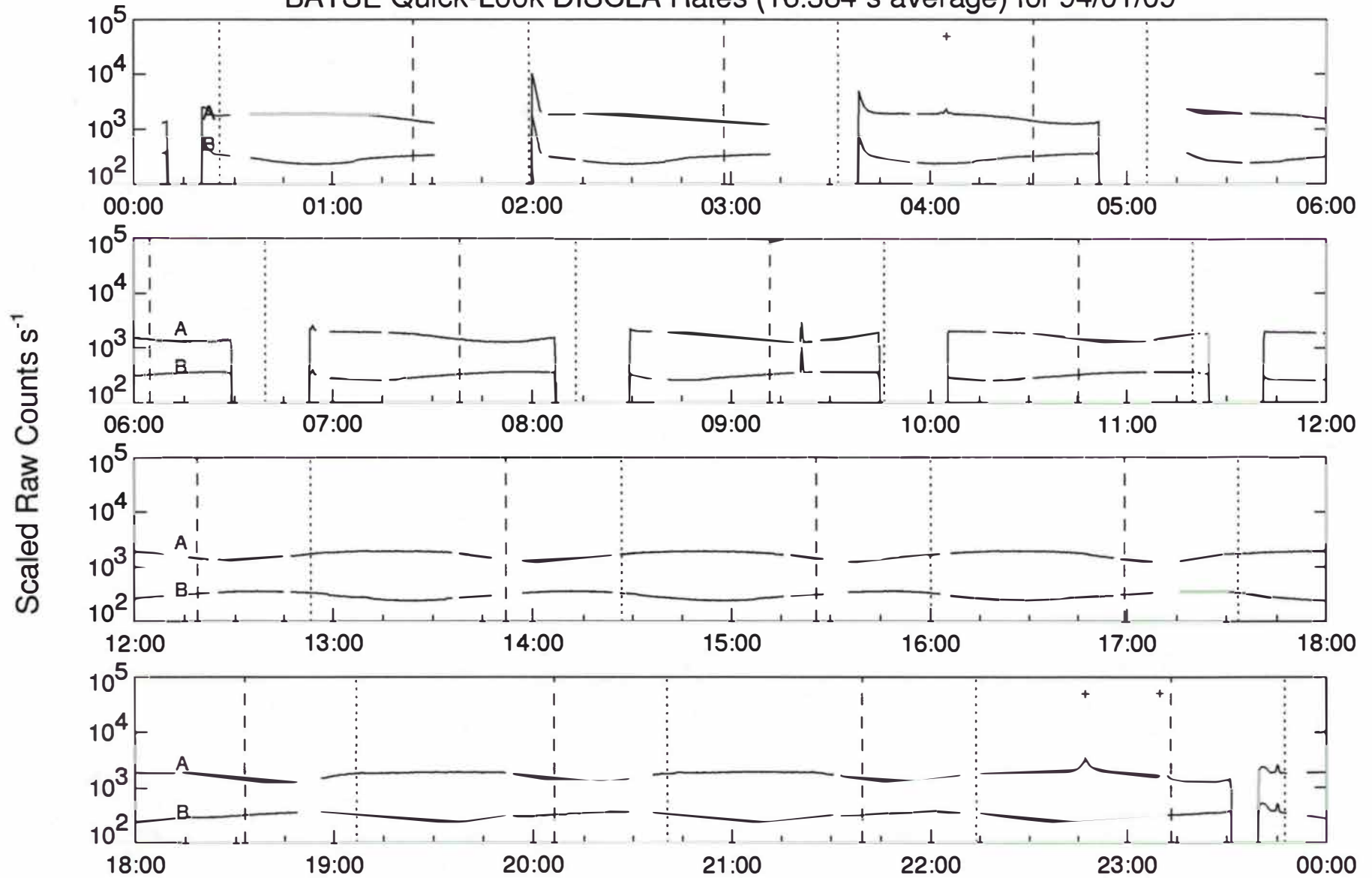
Data Start: 09-Jan-94 00:00:0

Plot created: 10-Jan-94 17:2

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 (16.384 s average) for 94/01/09



Current Time: 94/01/12, 1927 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

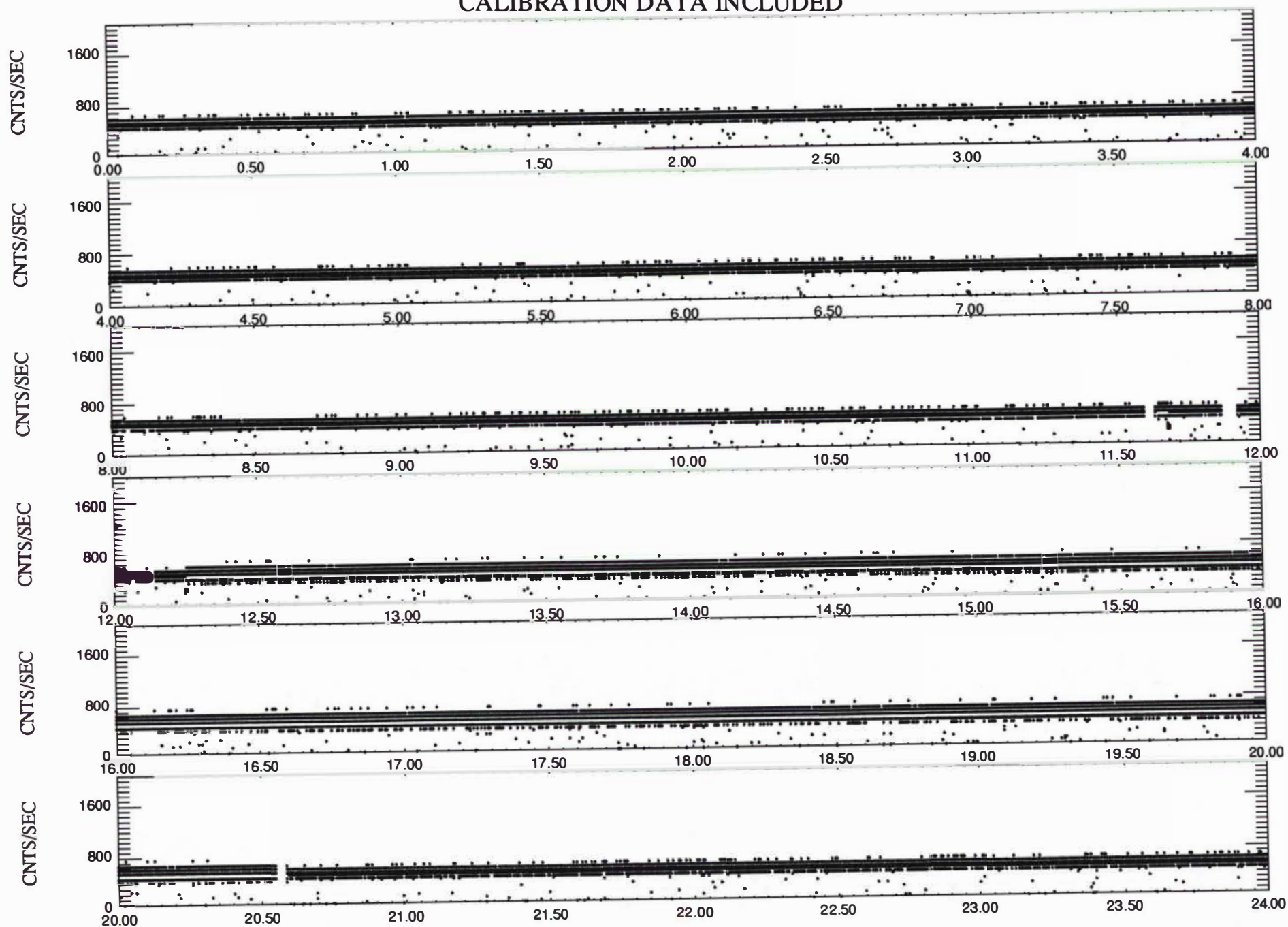
NO BURST (3)

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

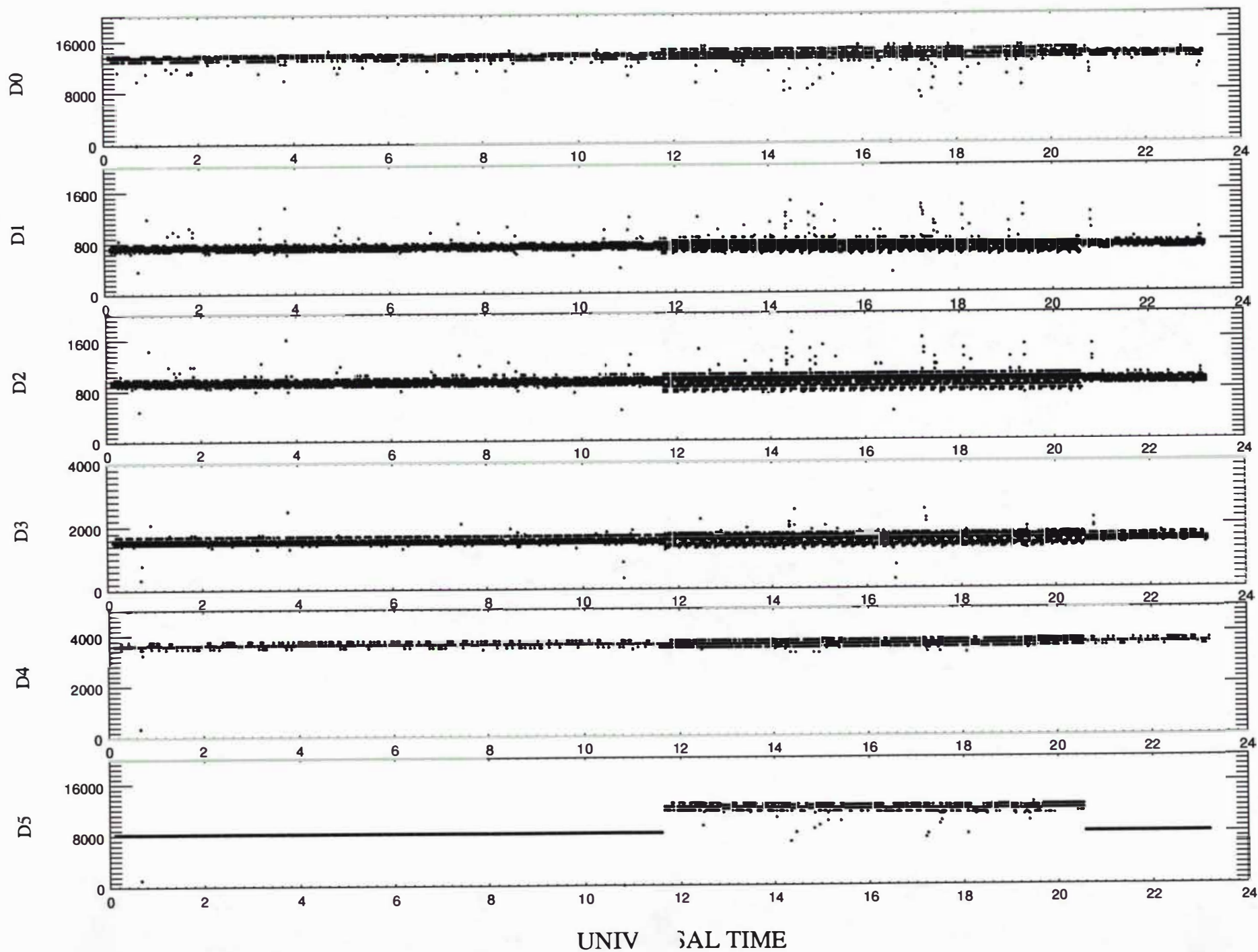


UNIV JAL TIME

CALIBRATION DATA INCLUDED



UNIV CAL TIME



From HAGEDON@fender.msfc.nasa.gov Wed Jan 12 10:28 PST 1994
Date: Wed, 12 Jan 1994 12:30:50 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2749
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2749
EVENT OF 1994 JAN 10 DAY OF YEAR= 10
EVENT CROSSING TIME AT BATSE : 6743. S. OR 01:52:23.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 333.000 -10.000
BATSE PEAK COUNTING RATE: 5800 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 10/ 1/ 94 IS:
RA= 163.557 DEC= -44.145 DIST= 3.521 AU
BATSE-ULYSSES DISTANCE = 526785136. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 54.99 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1008.22 SECS.
CROSSING TIME AT ULYSSES IS 7751. S. OR 02:09:11 +/- 315.17 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 10/ 1/ 94 IS:
RA= 287.423 DEC= -23.368 DIST= 2.409 AU
MARS-BATSE DISTANCE = 360408832. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=134.56 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -843.52 SECS.
CROSSING TIME AT MARS IS 5899. S. OR 01:38:19 +/- 135.91 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2749	940110	9362	06743	5800	333	-10

BATSE BURST TRIGGER

NO.: 2749

TIME: TJD=9362 SECONDS=06743

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=103 AZIMUTH=308 ERROR= DEGREES

COMMENTS:

BURST. SHORT SINGLE PULSE. DUR.~4 SEC. FASTER RISE THAN DECAY.
NOT VISIBLE ABOVE 300 KEV.

BATSE BURST # 2749

12 / 1 / 94

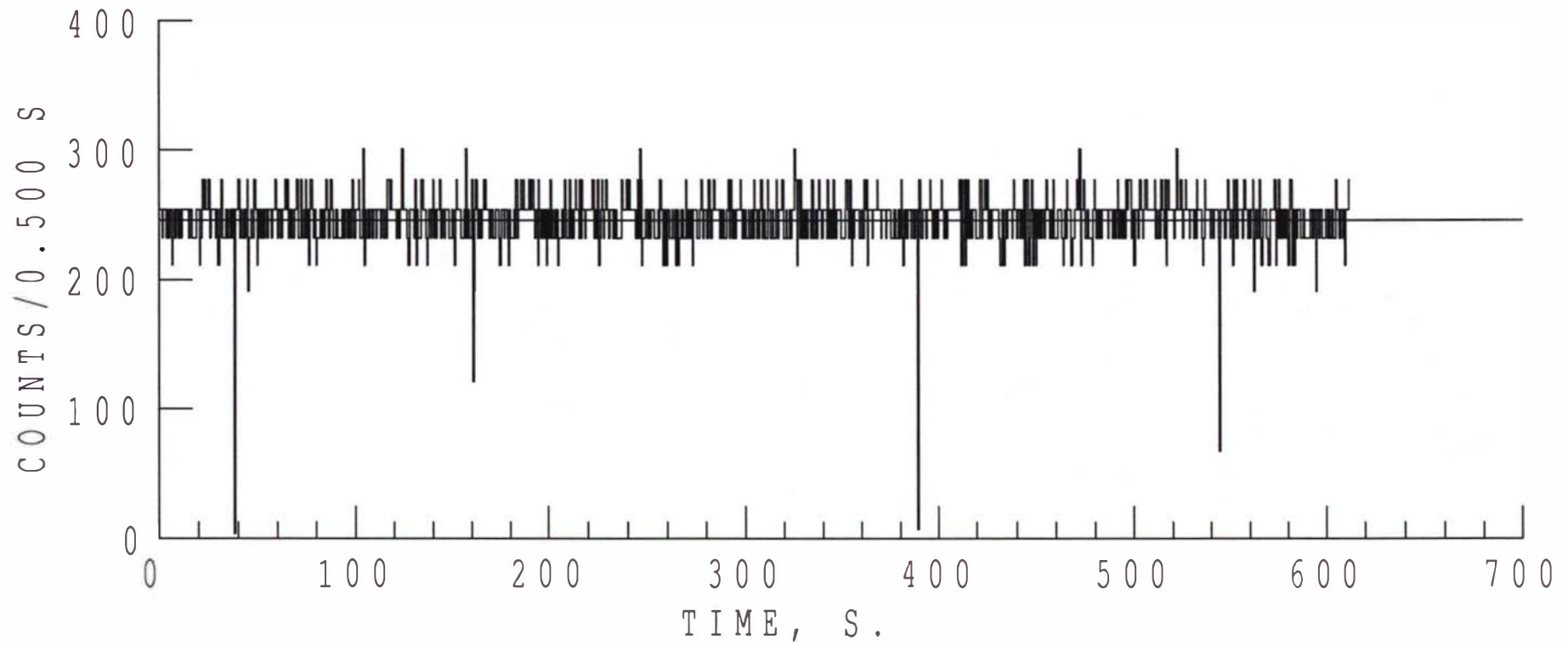
ULYSSES RT

10 / 1 / 94 7452.092 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Wed Jan 12 10:32 PST 1994
Date: Wed, 12 Jan 1994 12:34:32 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2750
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2750
EVENT OF 1994 JAN 10 DAY OF YEAR= 10
EVENT CROSSING TIME AT BATSE : 33937. S. OR 09:25:37.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 170.000 63.000
BATSE PEAK COUNTING RATE: 2600 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 10/ 1/ 94 IS:
RA= 163.489 DEC= -44.226 DIST= 3.516 AU
BATSE-ULYSSES DISTANCE = 526055274. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 72.65 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 523.33 SECS.
CROSSING TIME AT ULYSSES IS 34460. S. OR 09:34:20 +/- 348.73 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 10/ 1/ 94 IS:
RA= 287.423 DEC= -23.368 DIST= 2.409 AU
MARS-BATSE DISTANCE = 360408832. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 56.95 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 655.61 SECS.
CROSSING TIME AT MARS IS 34593. S. OR 09:36:32 +/- 184.91 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2750	940110	9362	33937	2600	170	+63

BATSE BURST TRIGGER

NO.: 2750

TIME: TJD=9362 SECONDS=33937

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=128 AZIMUTH=096 ERROR= DEGREES

COMMENTS:

BURST. WEAK, SINGLE PULSE. DUR.~13 SEC. FASTER RISE THAN DECAY.
NOT VISIBLE ABOVE 300 KEV.

BATS2 BURST# 2750

12 / 1 / 94

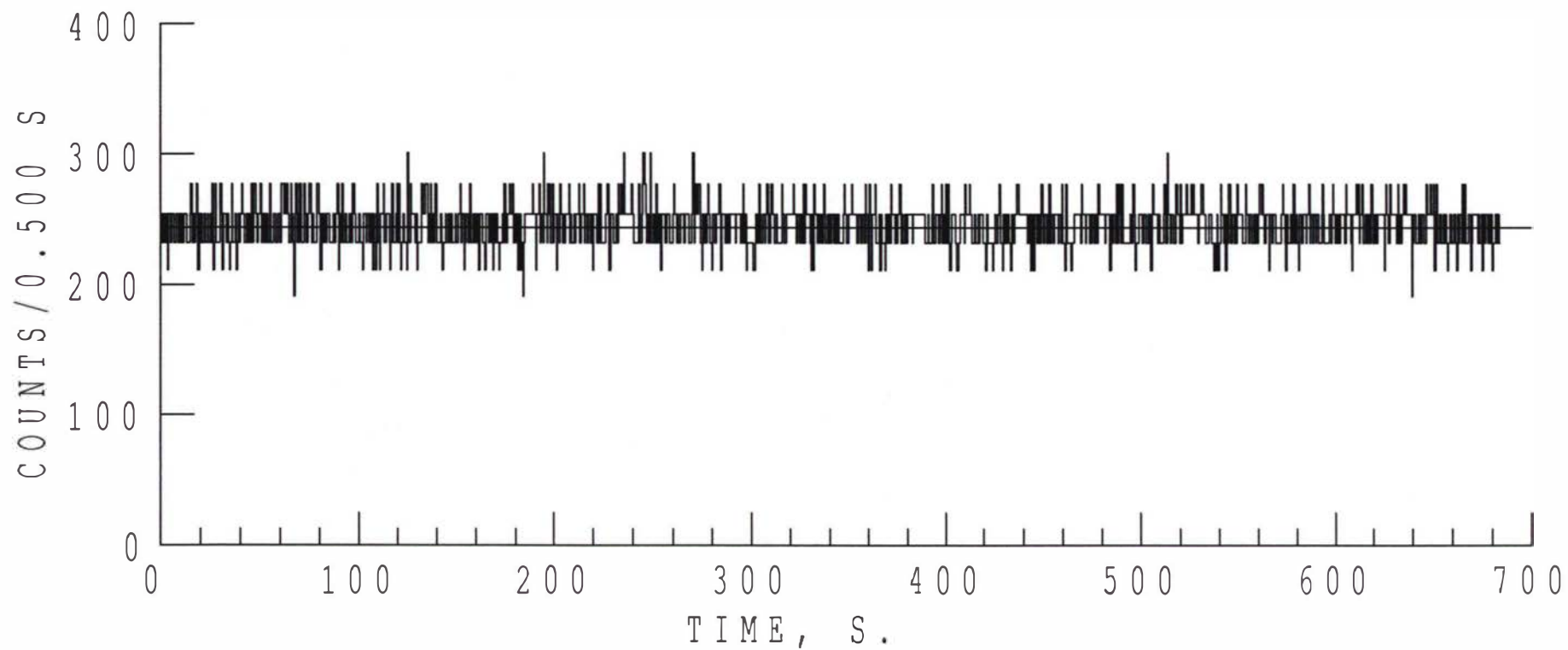
ULYSSES RT

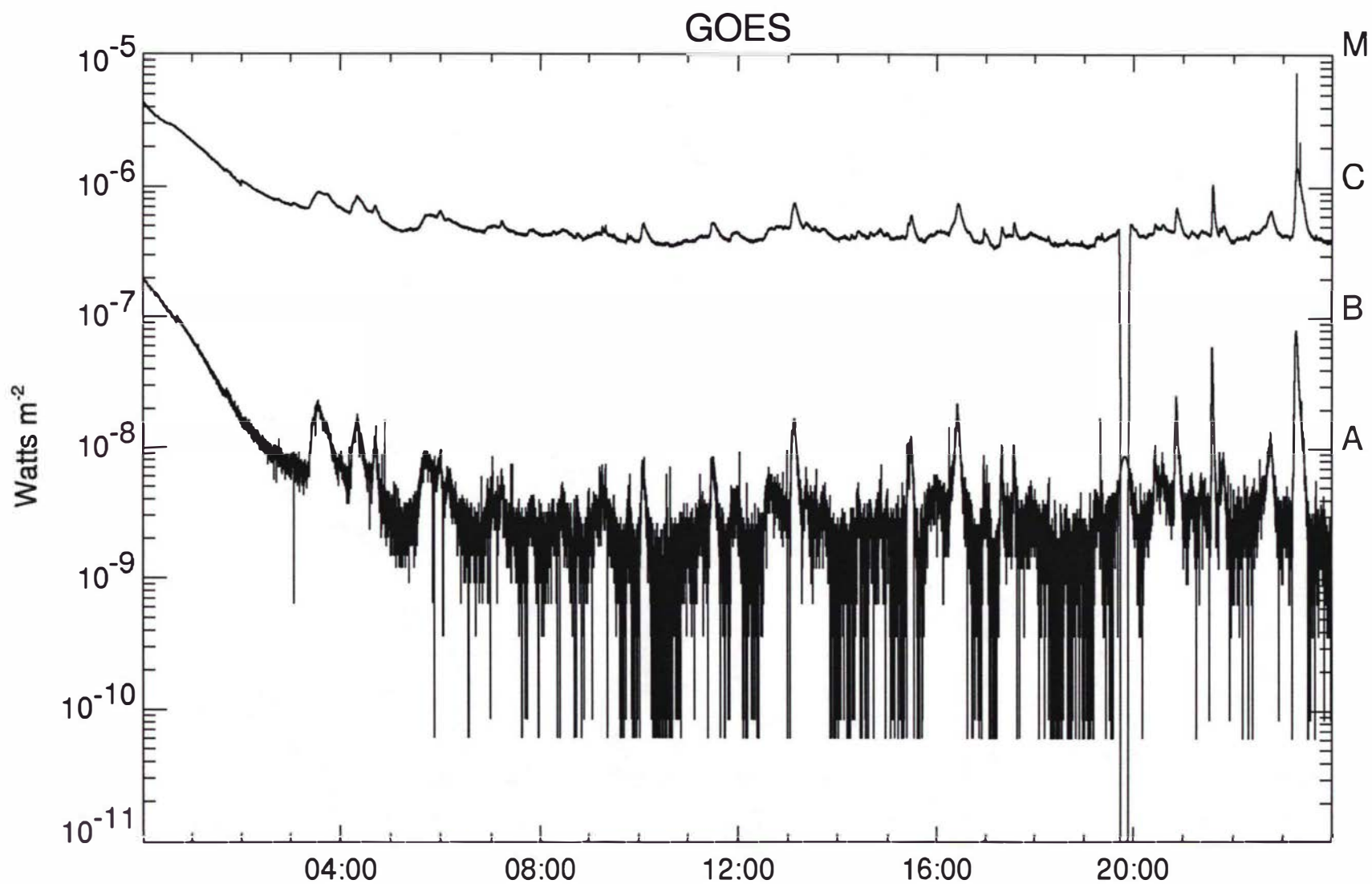
10 / 1 / 94 34128.004 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





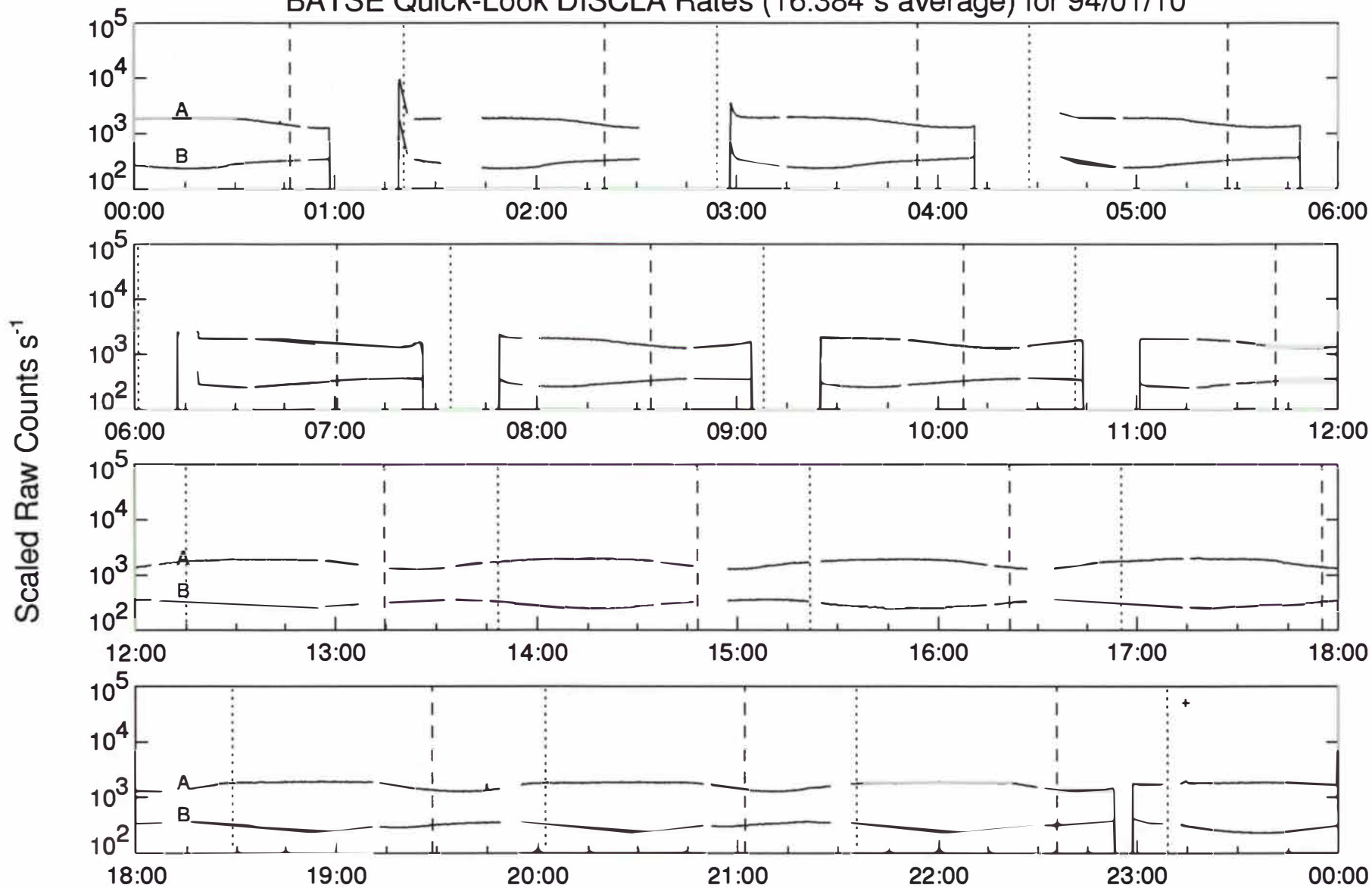
Data Start: 10-Jan-94 00:00:0

Plot created: 12-Jan-94 19:2

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 (16.384 s average) for 94/01/10

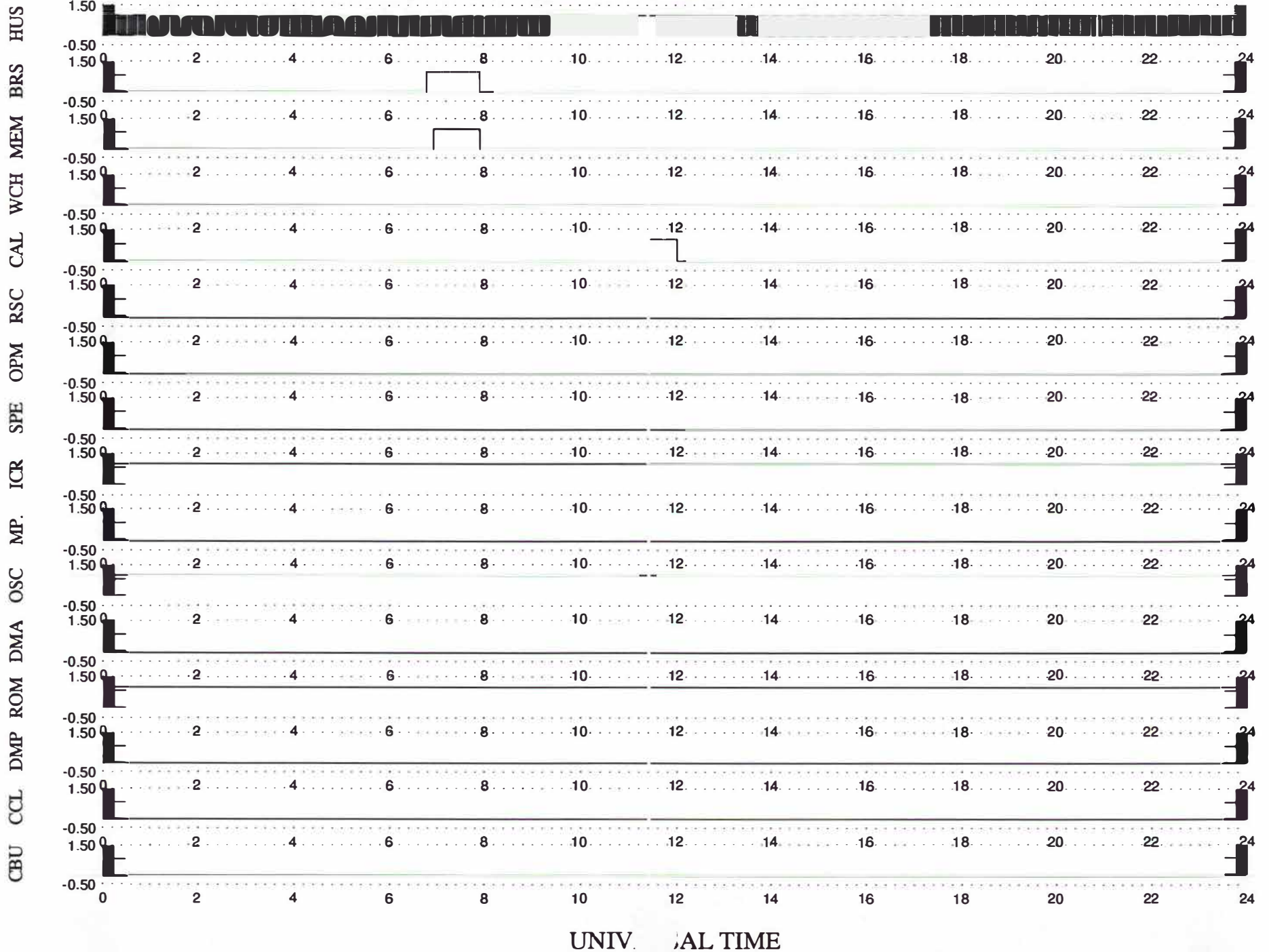


Current Time: 94/01/12, 1927 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

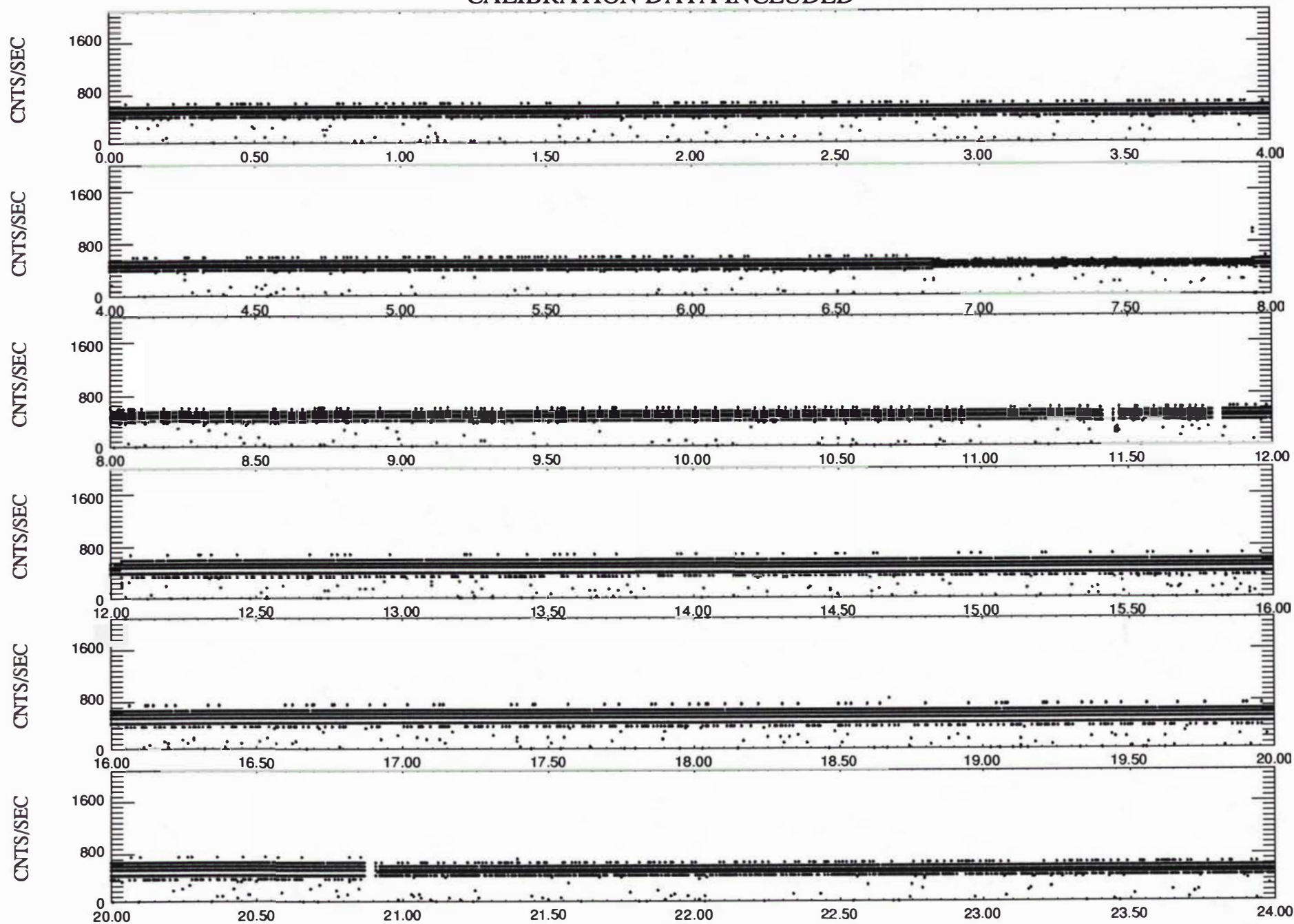
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 4

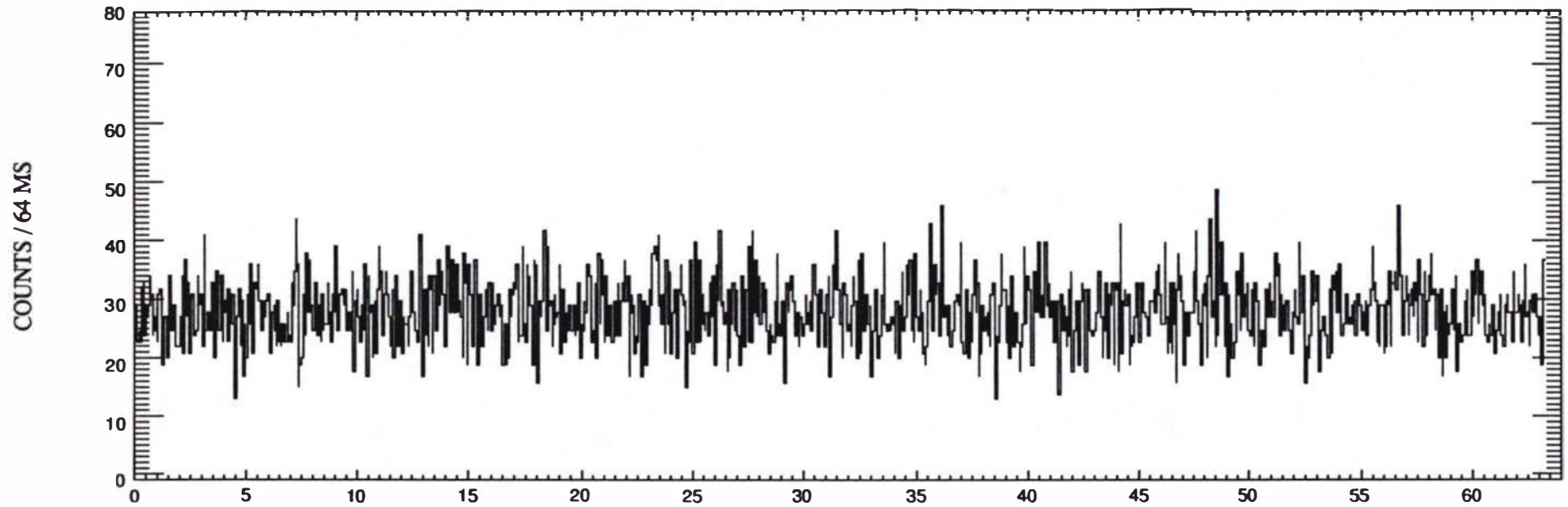


CALIBRATION DATA INCLUDED

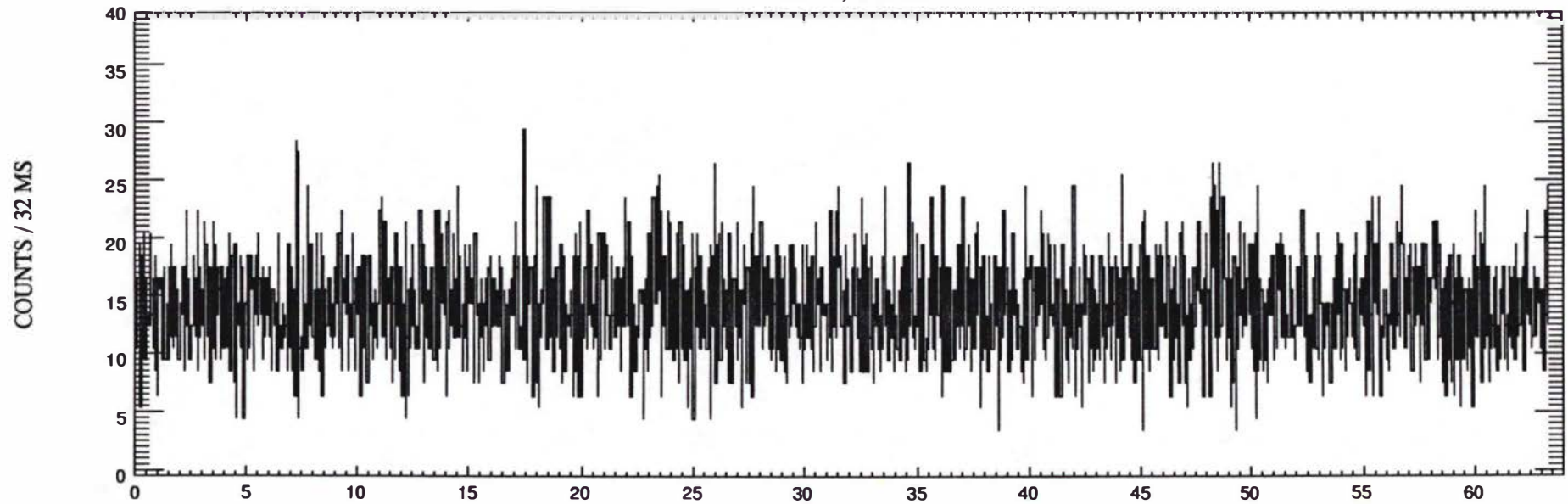


UNIV AL TIME

Burst Counter 4 at UT= 6.683843421936 h=24061.836 s 06:41:01.836

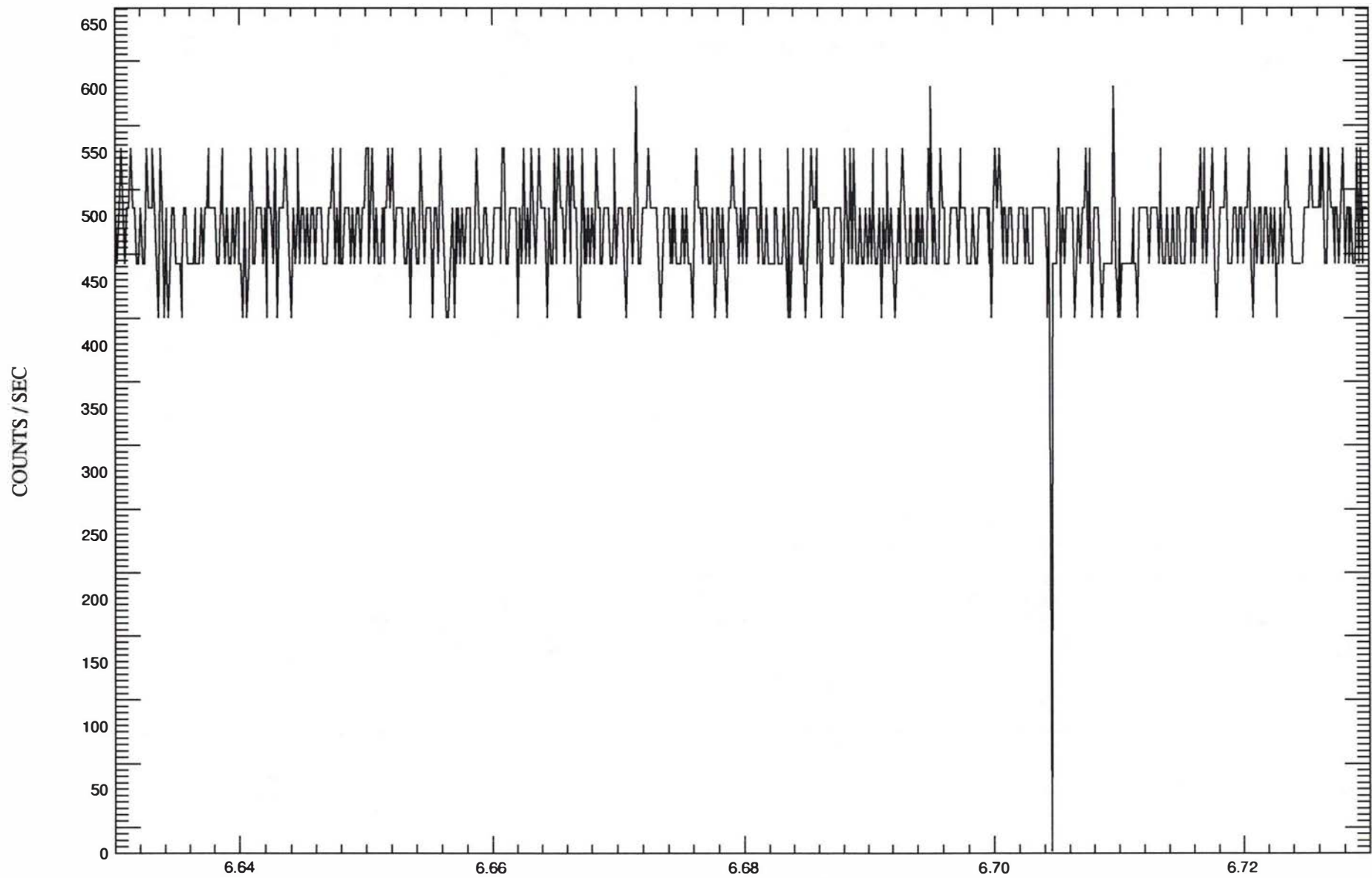


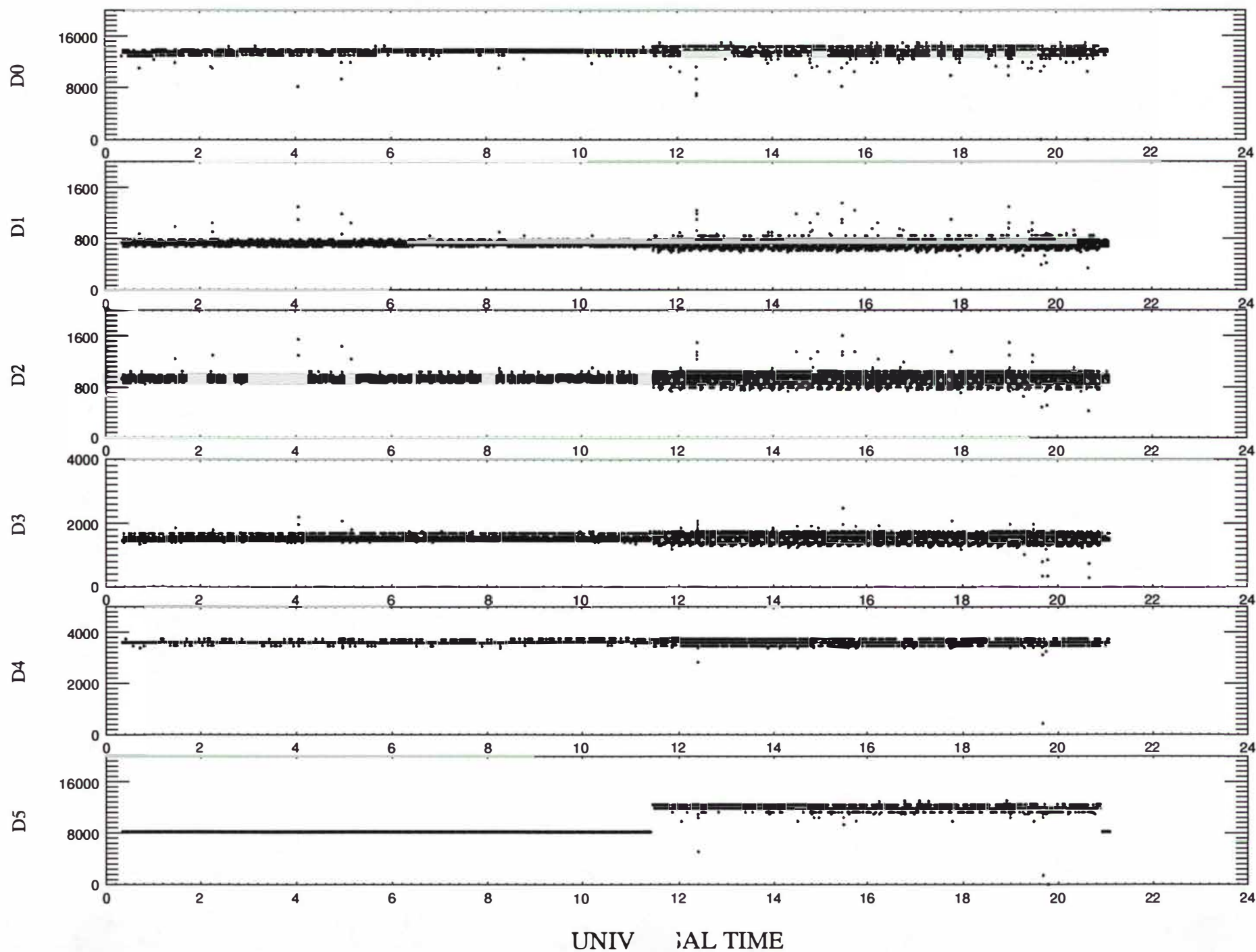
TIME, SECS



TIME, SECS

CALIBRATION DATA INCLUDED





From MALLOZZI@ssl.msfc.nasa.gov Wed Jan 12 13:18 PST 1994
Date: Wed, 12 Jan 1994 15:20:39 -0600 (CST)
From: MALLOZZI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2751
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2751
EVENT OF 1994 JAN 11 DAY OF YEAR= 11
EVENT CROSSING TIME AT BATSE : 32017. S. OR 08:53:37.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 146.000 -54.000
BATSE PEAK COUNTING RATE: 1800 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 11/ 1/ 94 IS:
RA= 163.275 DEC= -44.476 DIST= 3.501 AU
BATSE-ULYSSES DISTANCE = 523788146. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=165.31 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1690.03 SECS.
CROSSING TIME AT ULYSSES IS 30327. S. OR 08:25:26 +/- 101.27 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 11/ 1/ 94 IS:
RA= 288.254 DEC= -23.281 DIST= 2.408 AU
MARS-BATSE DISTANCE = 360189920. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 83.85 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 128.78 SECS.
CROSSING TIME AT MARS IS 32146. S. OR 08:55:45 +/- 209.35 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2751	940111	9363	32017	1800	146	-54

BATSE BURST TRIGGER

NO.: 02751

TIME: TJD=9363 SECONDS=32017

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=027.1 AZIMUTH=172.7 ERROR= DEGREES

COMMENTS:

SINGLE PULSE BURST OF DURATION APPROX. 25 SECONDS.
NO EMISSION ABOVE 300 KEV.

Batse # 2751

13 / 1 / 94

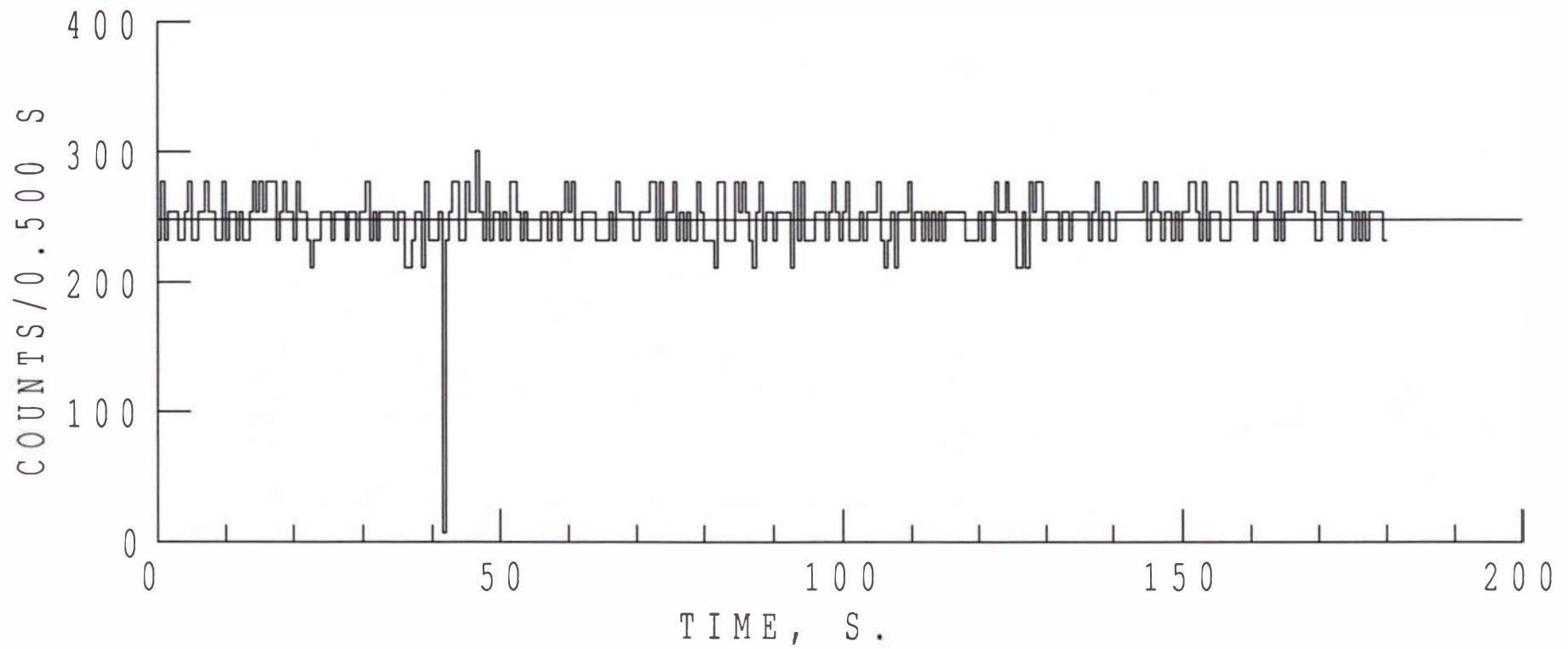
ULYSSES RT

11 / 1 / 94 30240.277 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From MALLOZZI@ssl.msfc.nasa.gov Wed Jan 12 13:14 PST 1994
Date: Wed, 12 Jan 1994 15:16:39 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02752

TIME: TJD=9363 SECONDS=57976

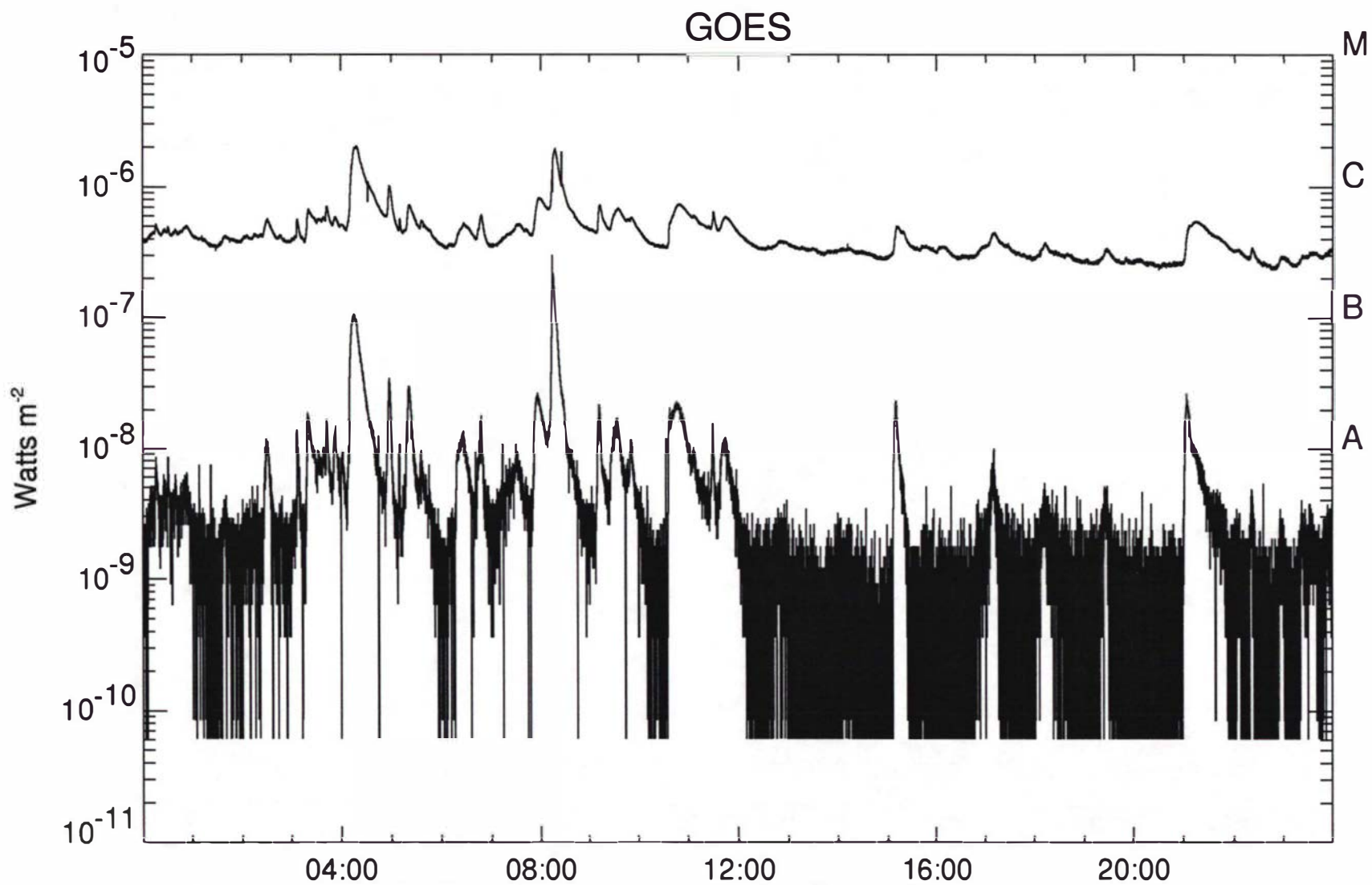
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.



Data Start: 11-Jan-94 00:00:0

Plot created: 12-Jan-94 19:2

Channel

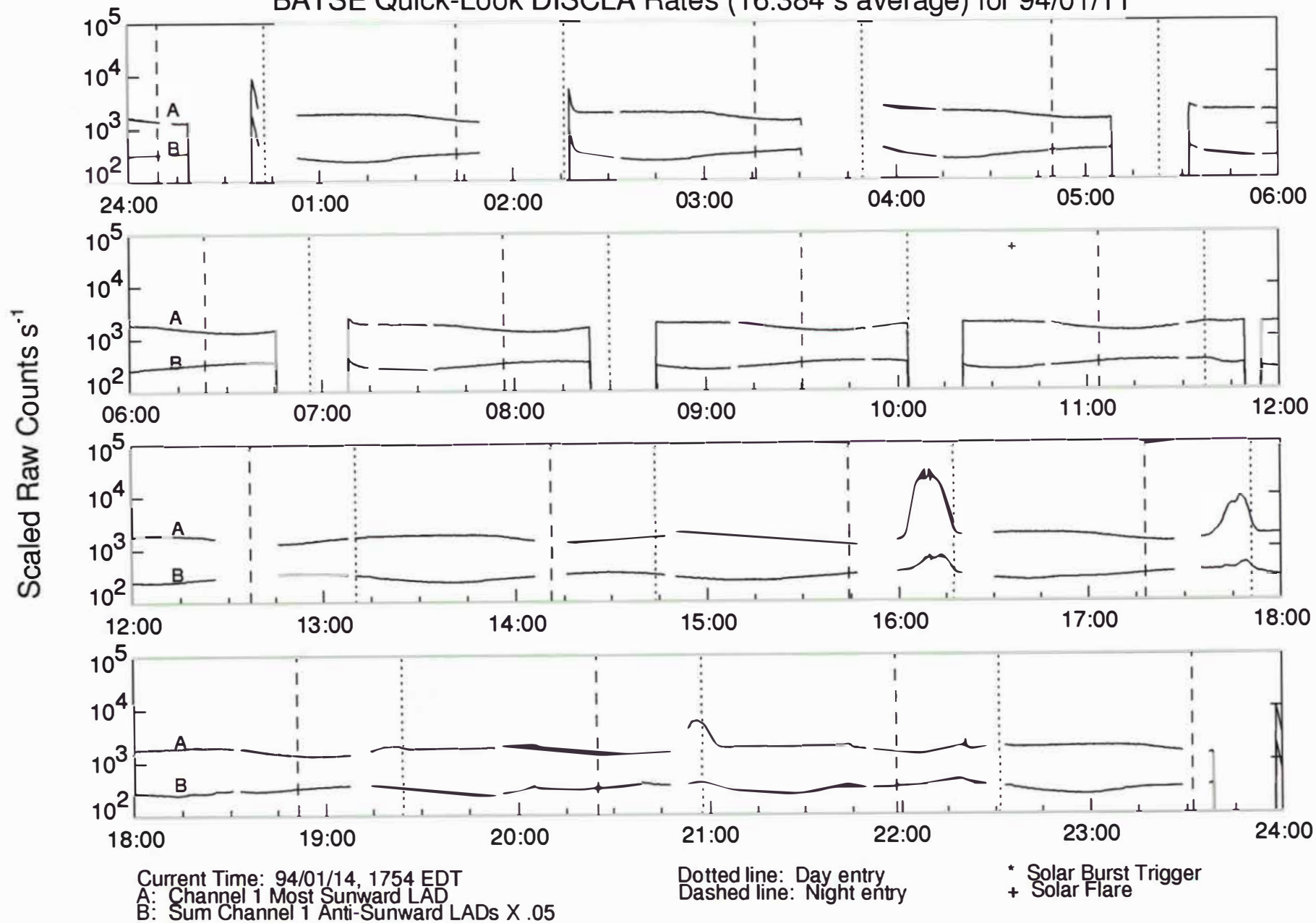
1 (1.0 - 8.0 Angstroms)

Background not subtracted

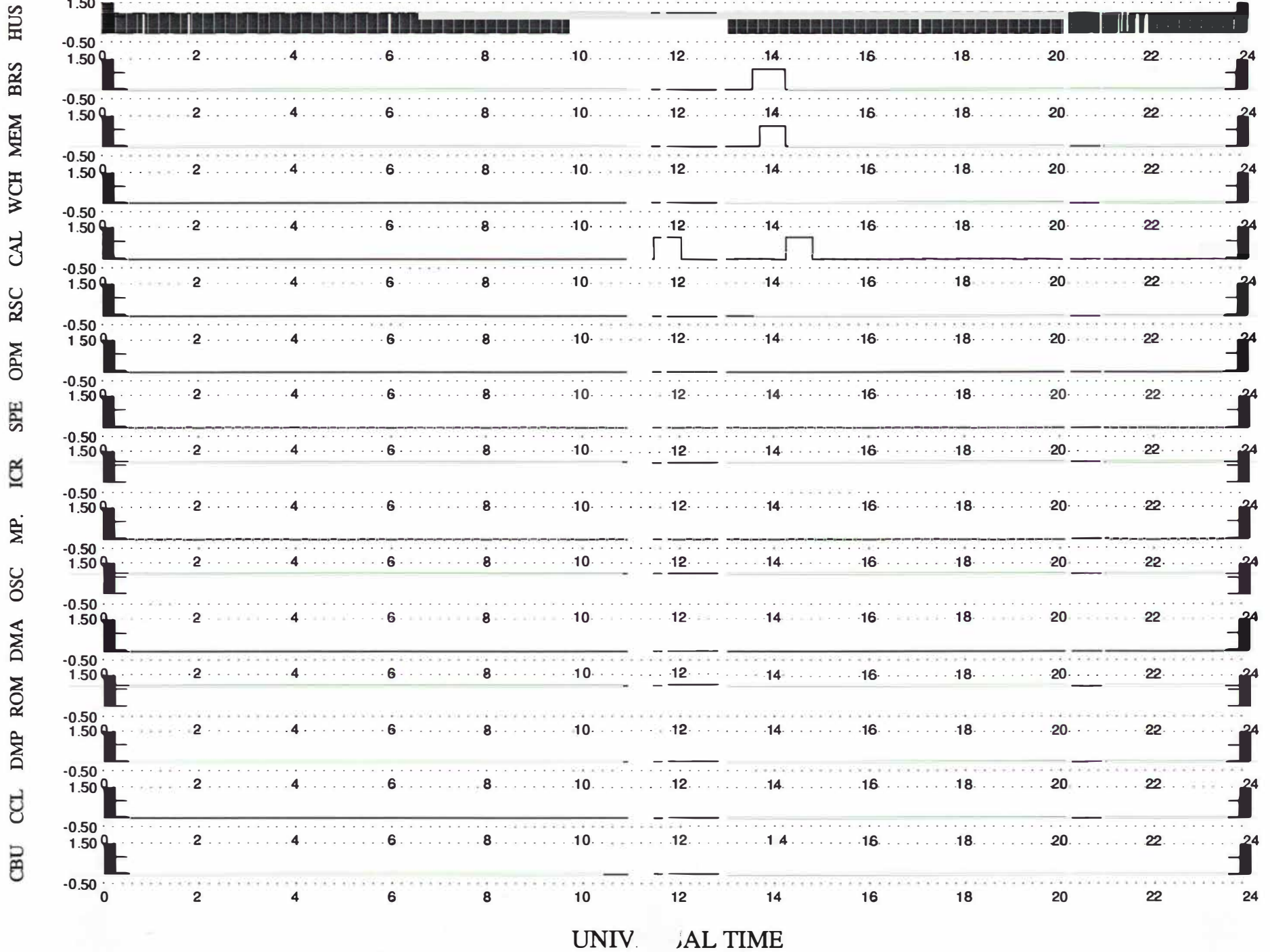
2 (0.5 - 4.0 Angstroms)

Background not subtracted

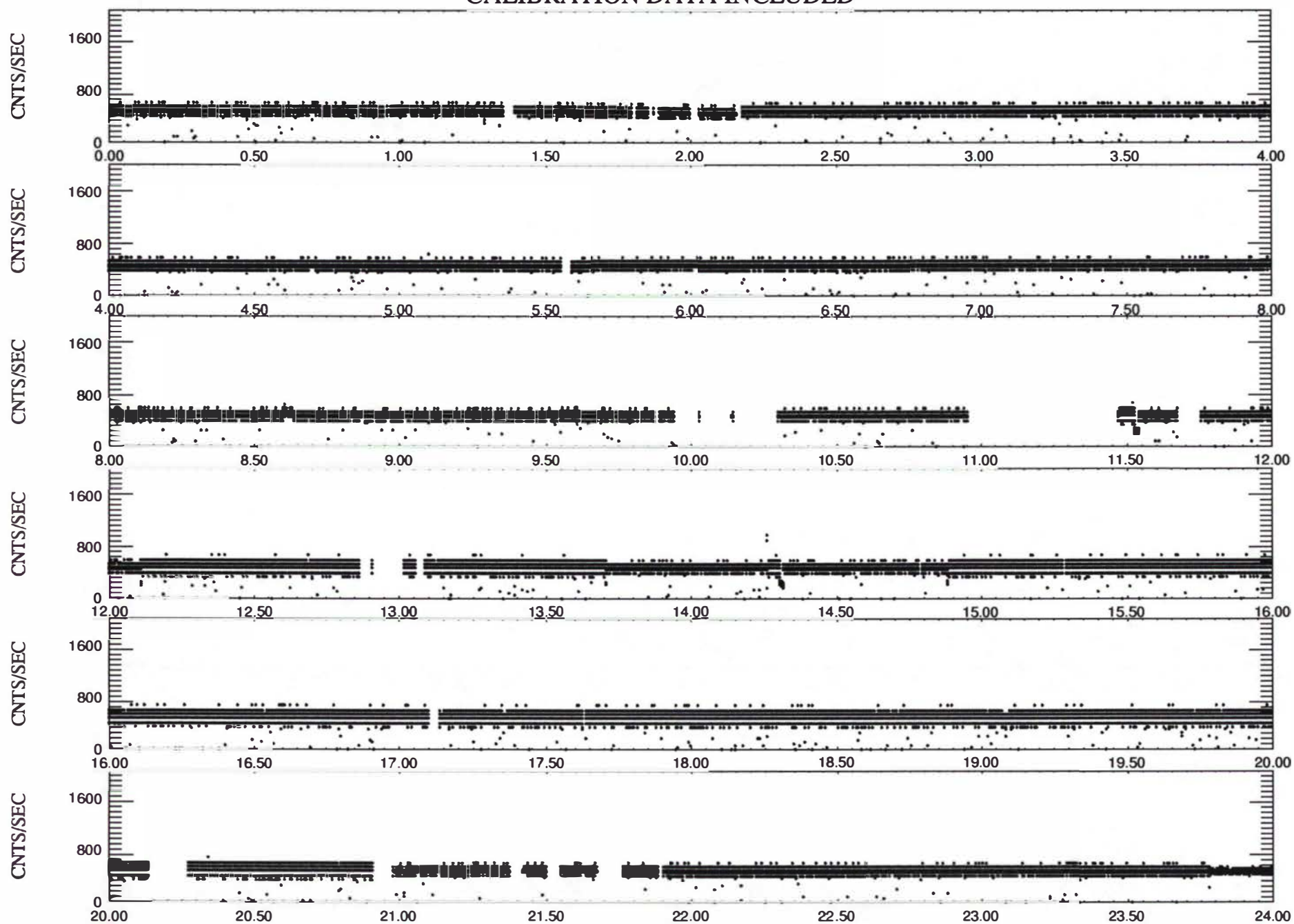
BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/11



BURST NUMBER 5, 6

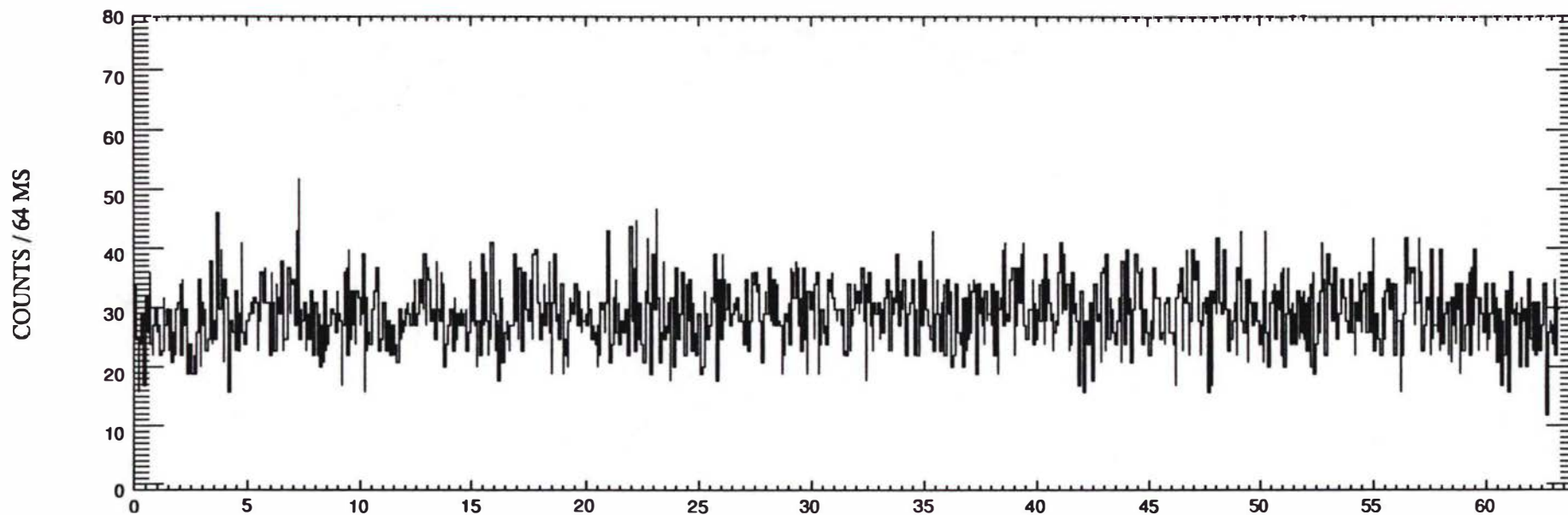


CALIBRATION DATA INCLUDED

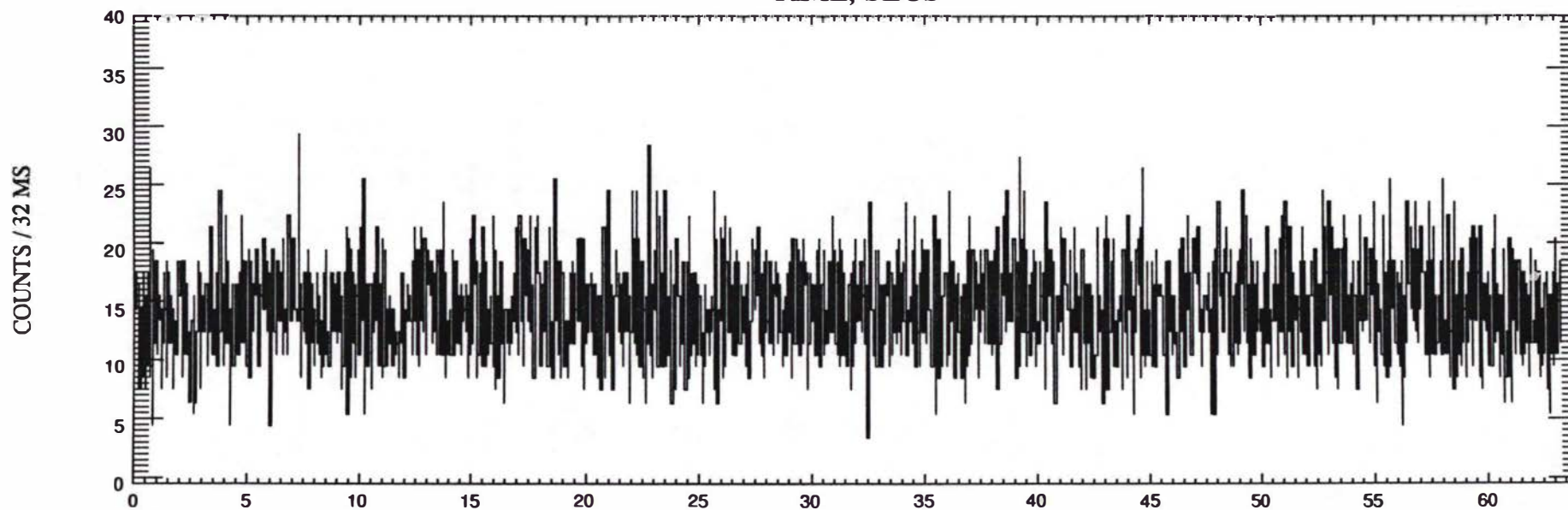


UNIV AL TIME

Burst Counter 5 at UT=13.549912291633 h=48779.684 s 13:32:59.684

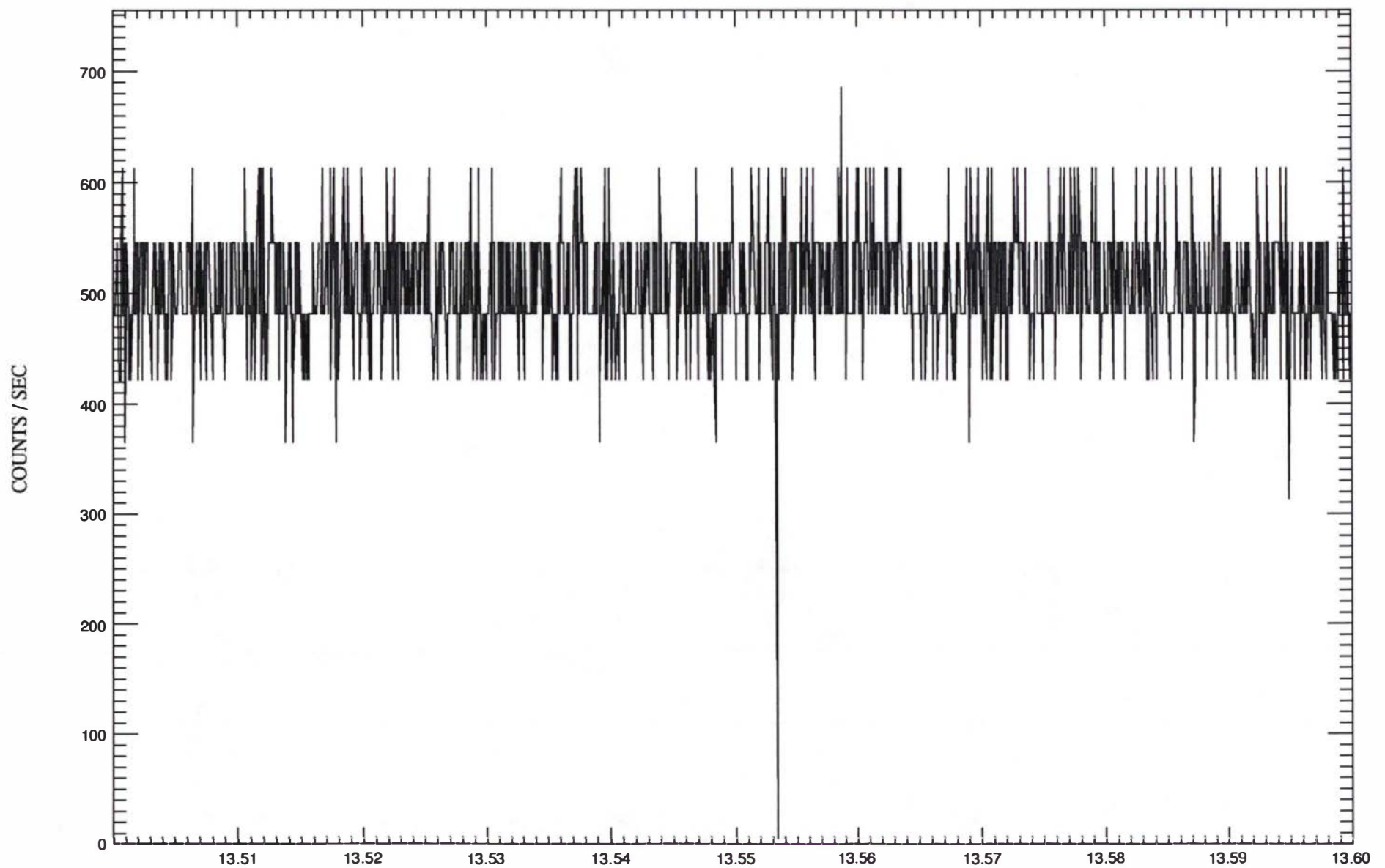


TIME, SECS

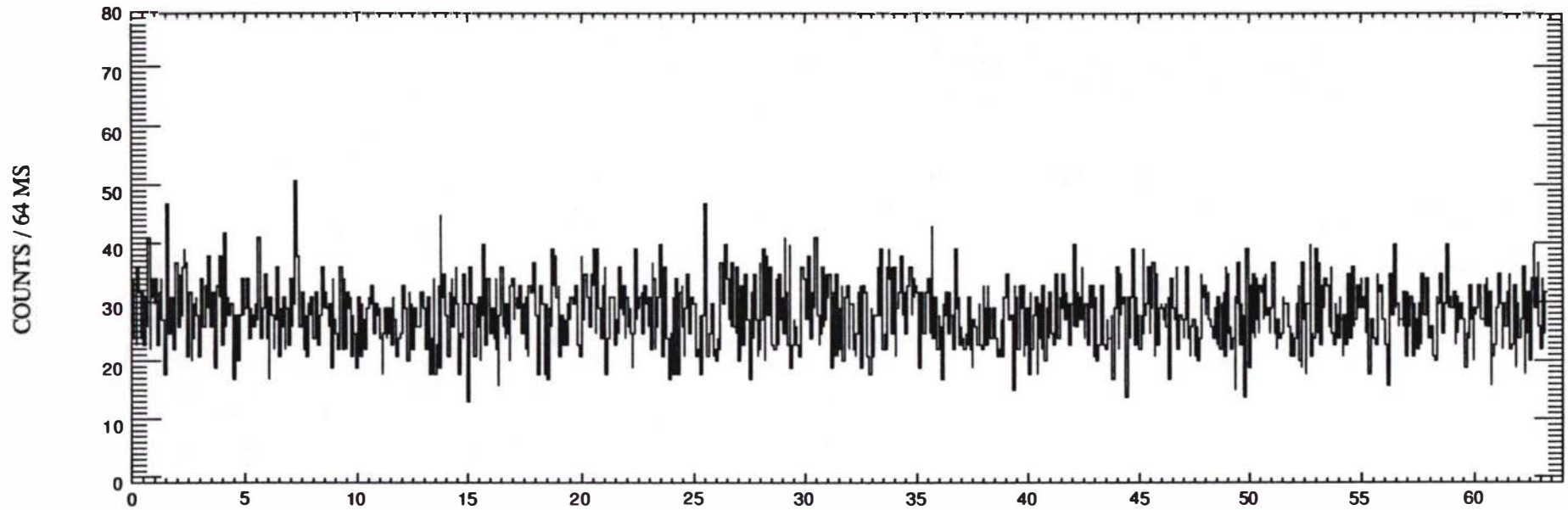


TIME, SECS

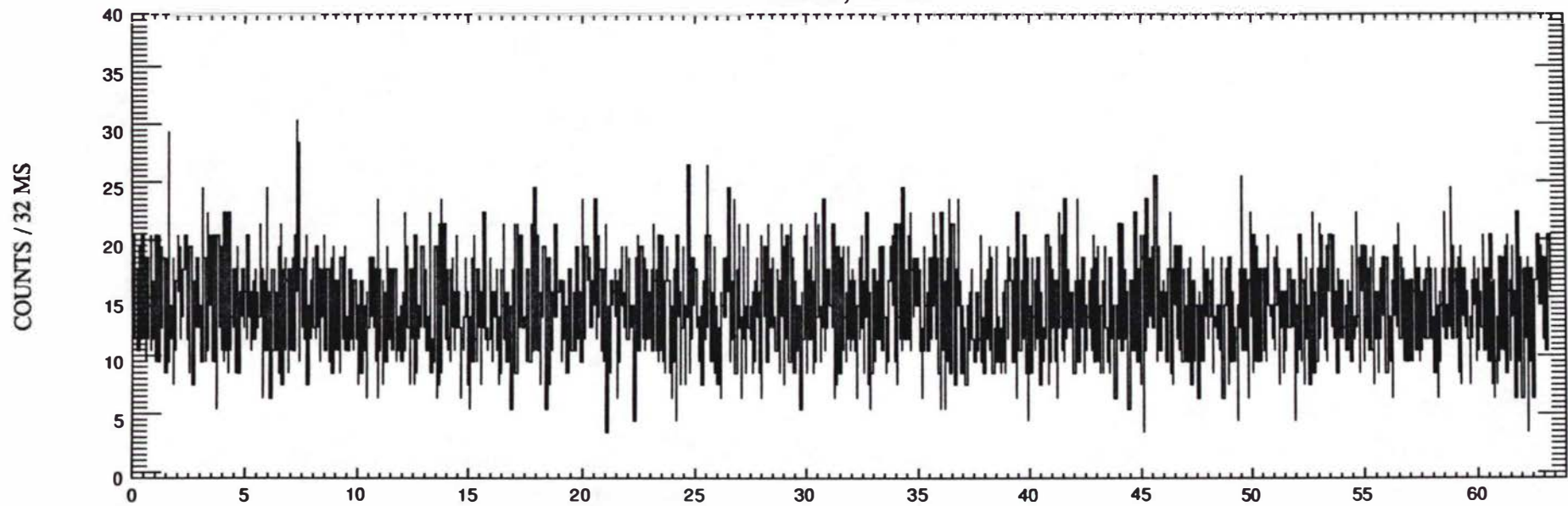
CALIBRATION DATA INCLUDED



Burst Counter 6 at UT=23.616110009087 h=85017.996 s 23:36:57.996

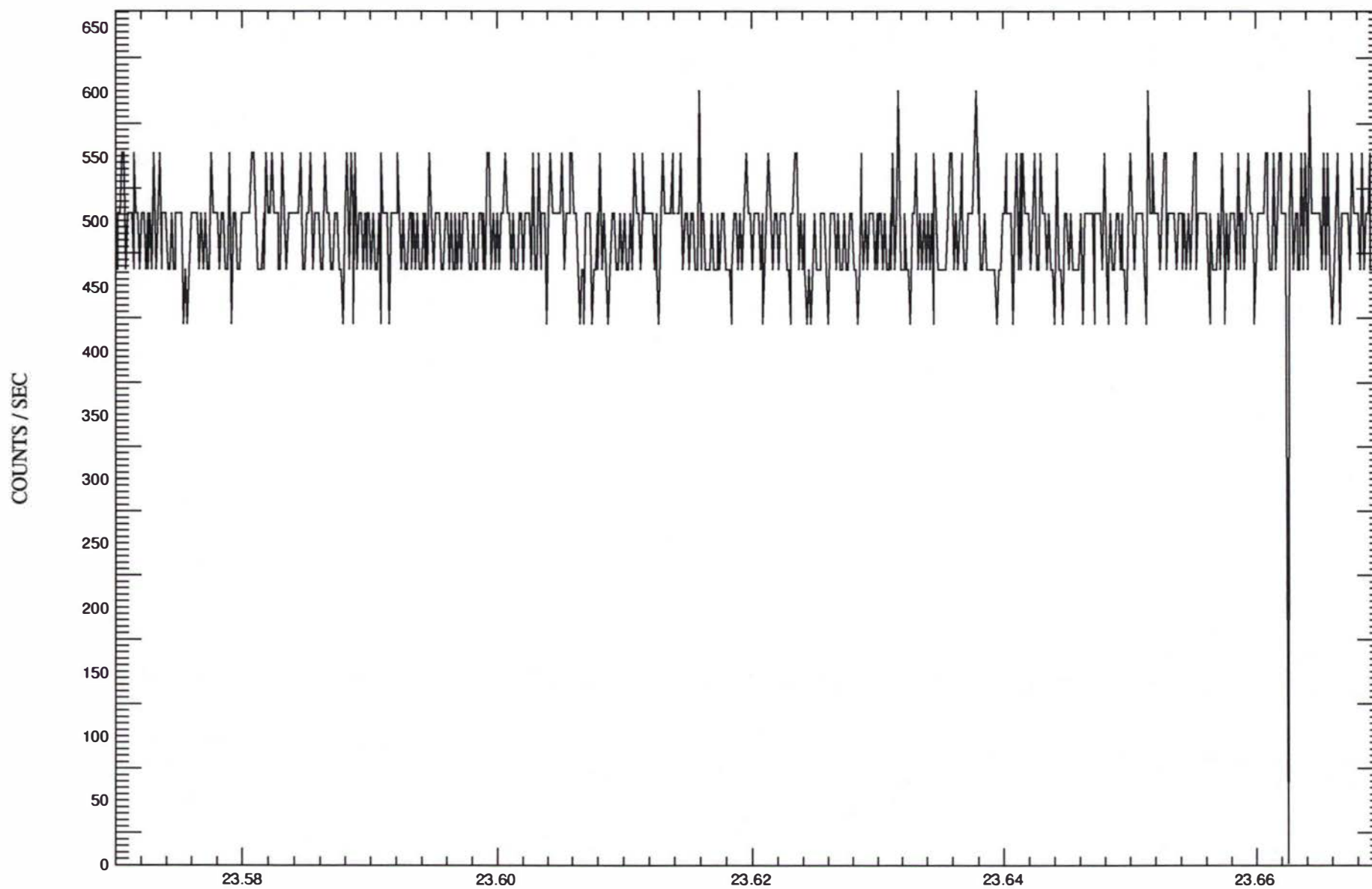


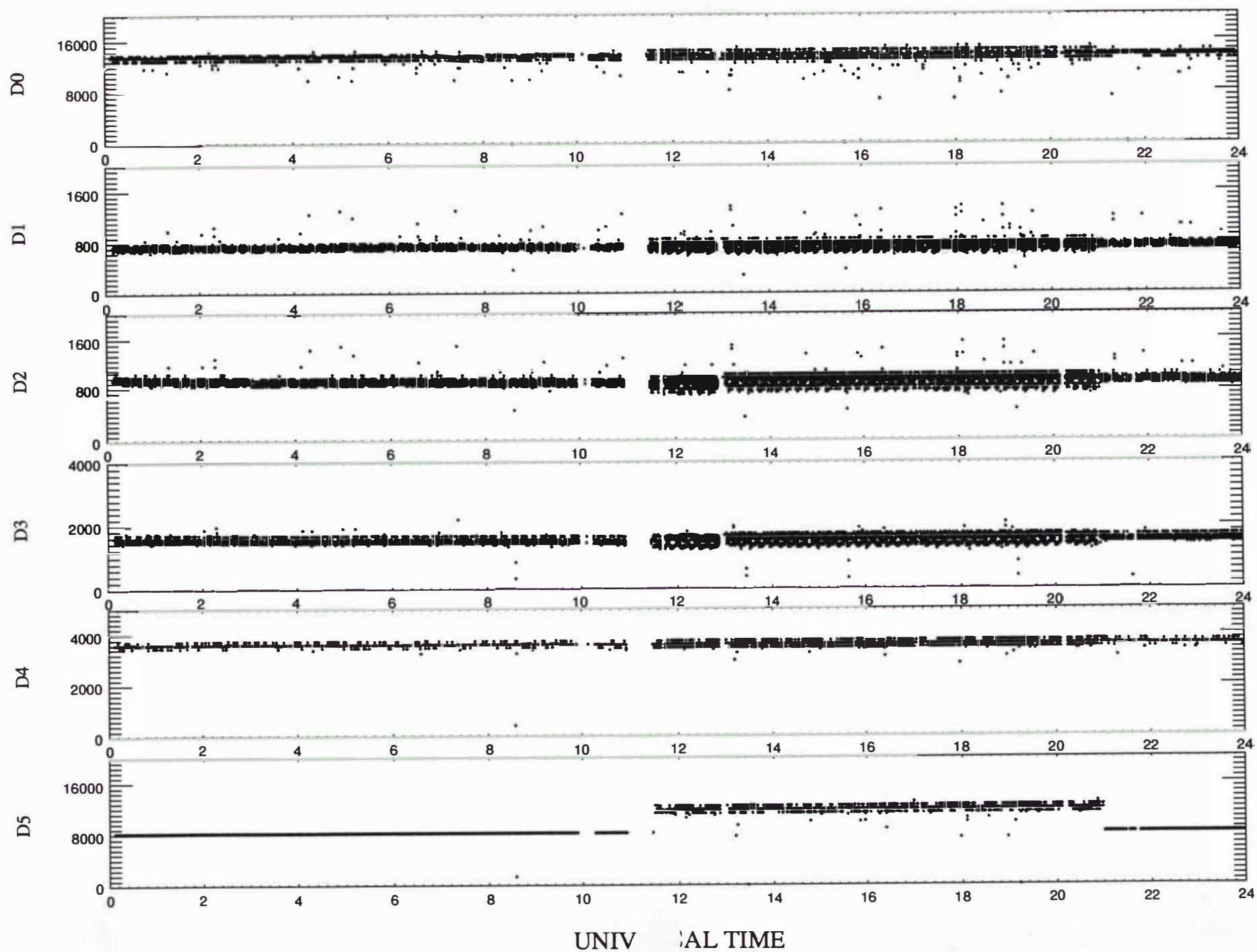
TIME, SECS



TIME, SECS

CALIBRATION DATA INCLUDED





From DEAL@ssl.msfc.nasa.gov Fri Jan 14 09:39 PST 1994
Date: Fri, 14 Jan 1994 11:41:30 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2753
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2753
EVENT OF 1994 JAN 12 DAY OF YEAR= 12
EVENT CROSSING TIME AT BATSE : 45983. S. OR 12:46:23.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 232.000 23.000
BATSE PEAK COUNTING RATE: 4000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 12/ 1/ 94 IS:
RA= 163.010 DEC= -44.772 DIST= 3.483 AU
BATSE-ULYSSES DISTANCE = 521110628. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 87.66 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 71.10 SECS.
CROSSING TIME AT ULYSSES IS 46054. S. OR 12:47:34 +/- 352.61 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 12/ 1/ 94 IS:
RA= 289.085 DEC= -23.189 DIST= 2.406 AU
MARS-BATSE DISTANCE = 359968224. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=107.81 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -367.34 SECS.
CROSSING TIME AT MARS IS 45616. S. OR 12:40:15 +/- 192.89 SECONDS

RI Too weak

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2753	940112	9364	45983	4000	232	+23

BATSE BURST TRIGGER

NO.: 02753

TIME: TJD=9364 SECONDS=45983

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=091.1 AZIMUTH=047.5 ERROR= DEGREES

COMMENTS:

BURST, MULTIPLE PEAKS. DUR.~25S. VISIBLE ABOVE 300KEV.

ULYSSES RT

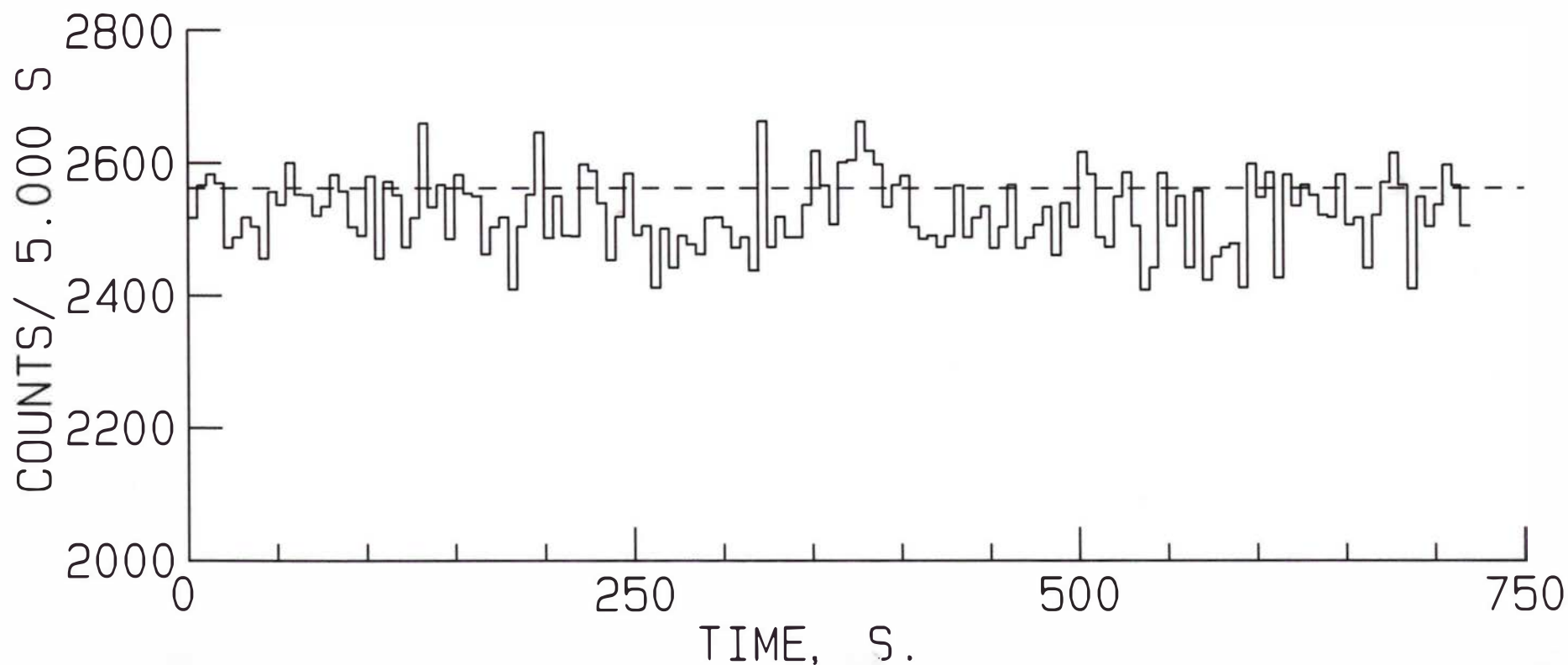
28 / 5 / 96

12 / 1 / 94 45684.104 s

0.250 S INTERVALS REGROUPED BY 20

20 - 139 keV

N = 10 M = 1
>4.0 SIGMA FLUCTUATIONS



ULYSSES RT

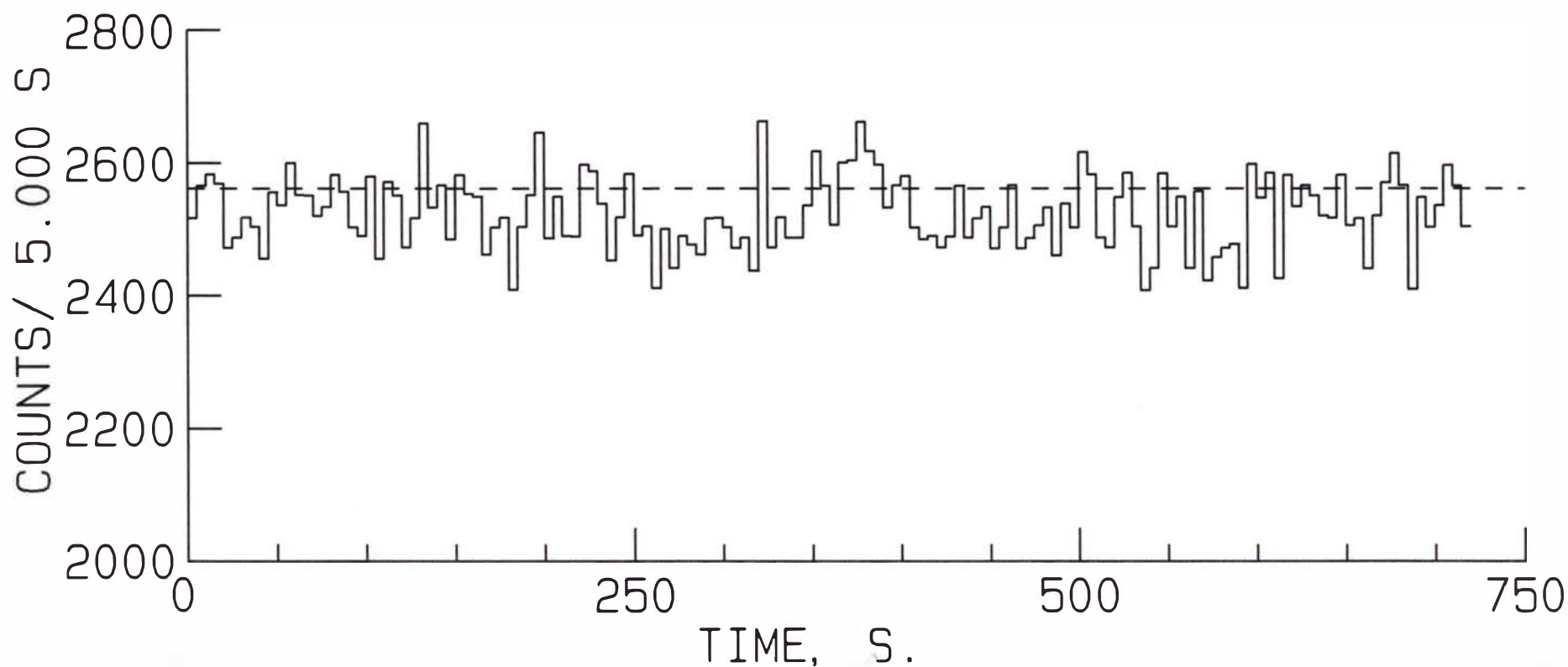
28 / 5 / 96

12 / 1 / 94 45684.104 s

0.250 S INTERVALS REGROUPED BY 20

20 - 139 keV

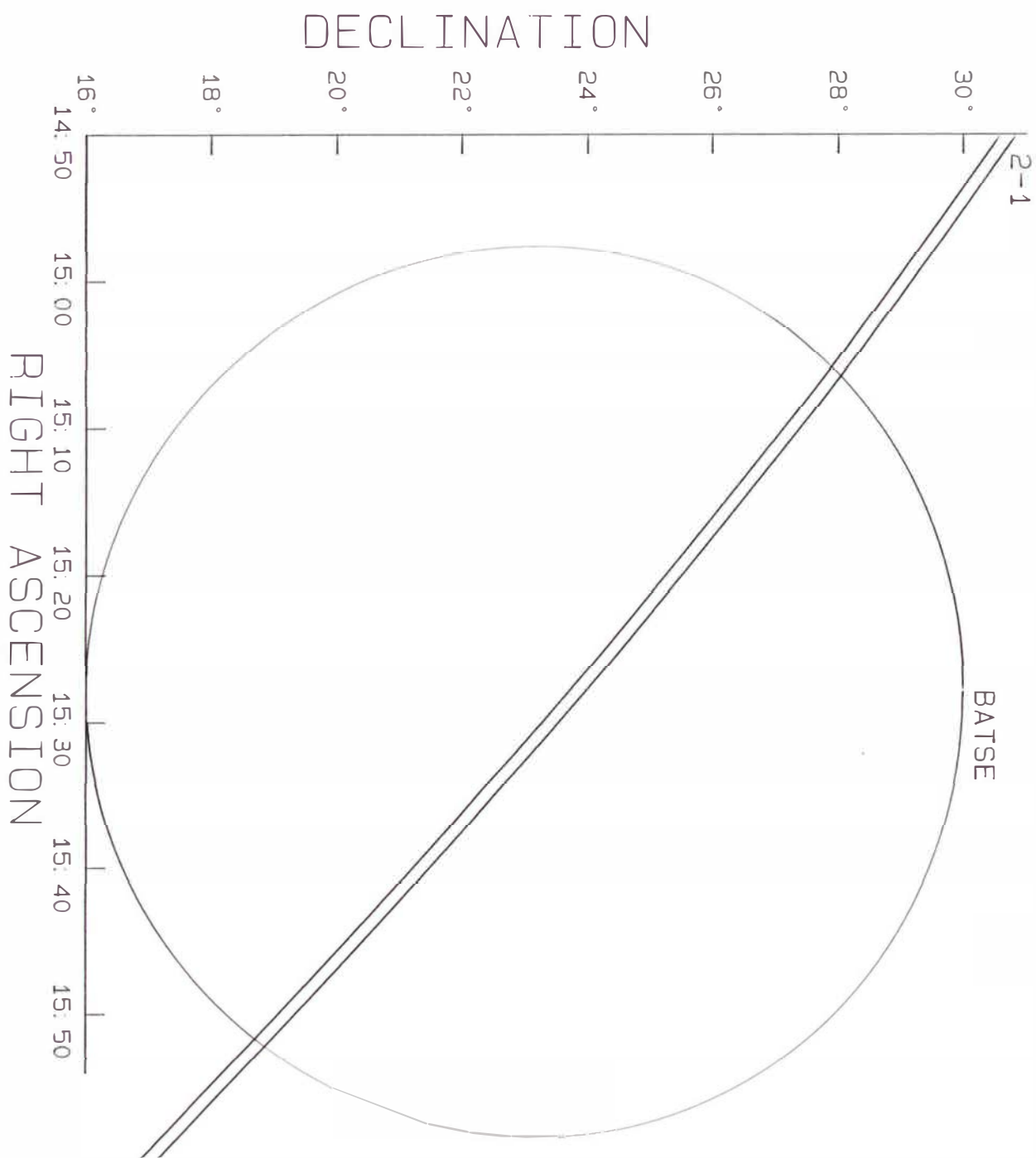
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



EARTH-N = EARTH AS SEEN FROM SATELLITE N
 S=SUN E=ECLIPTIC G=GALACTIC EQUATOR
 1 ULYSSES 2 BATSE

EVENT OF JAN 12, 1994 12: 46

8/ 8/95



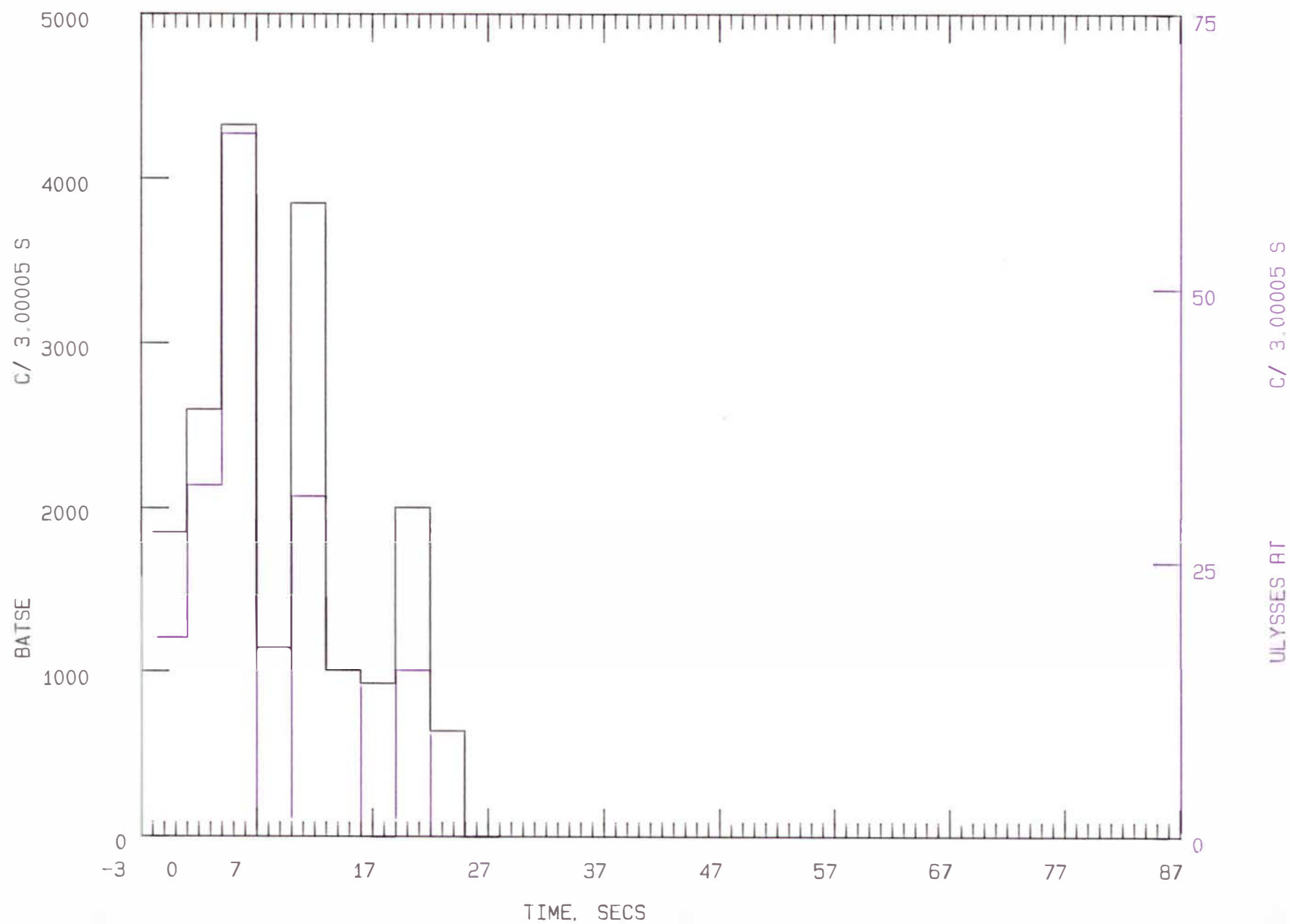
BATSE

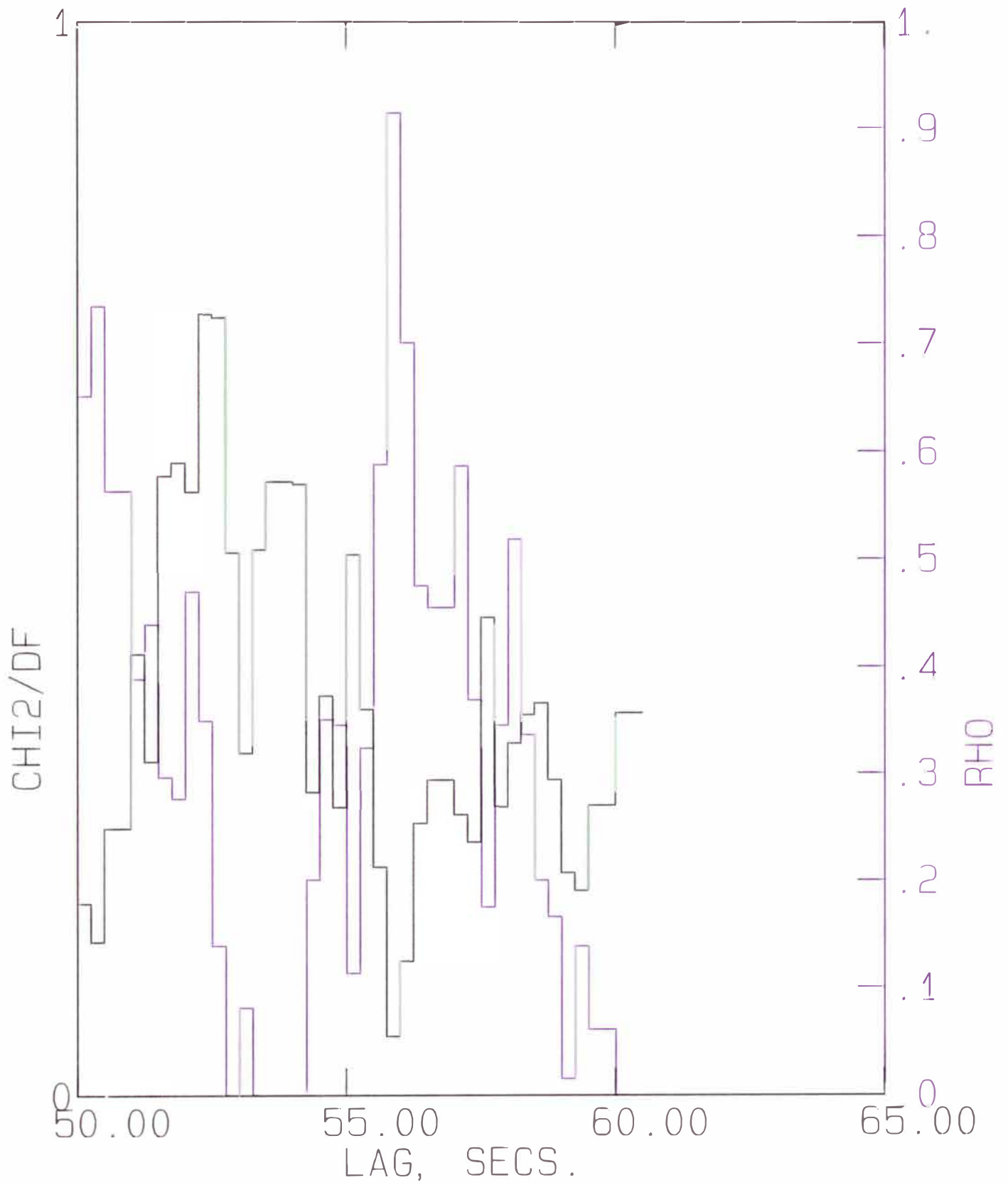
-ULYSSES RT CORRELATION

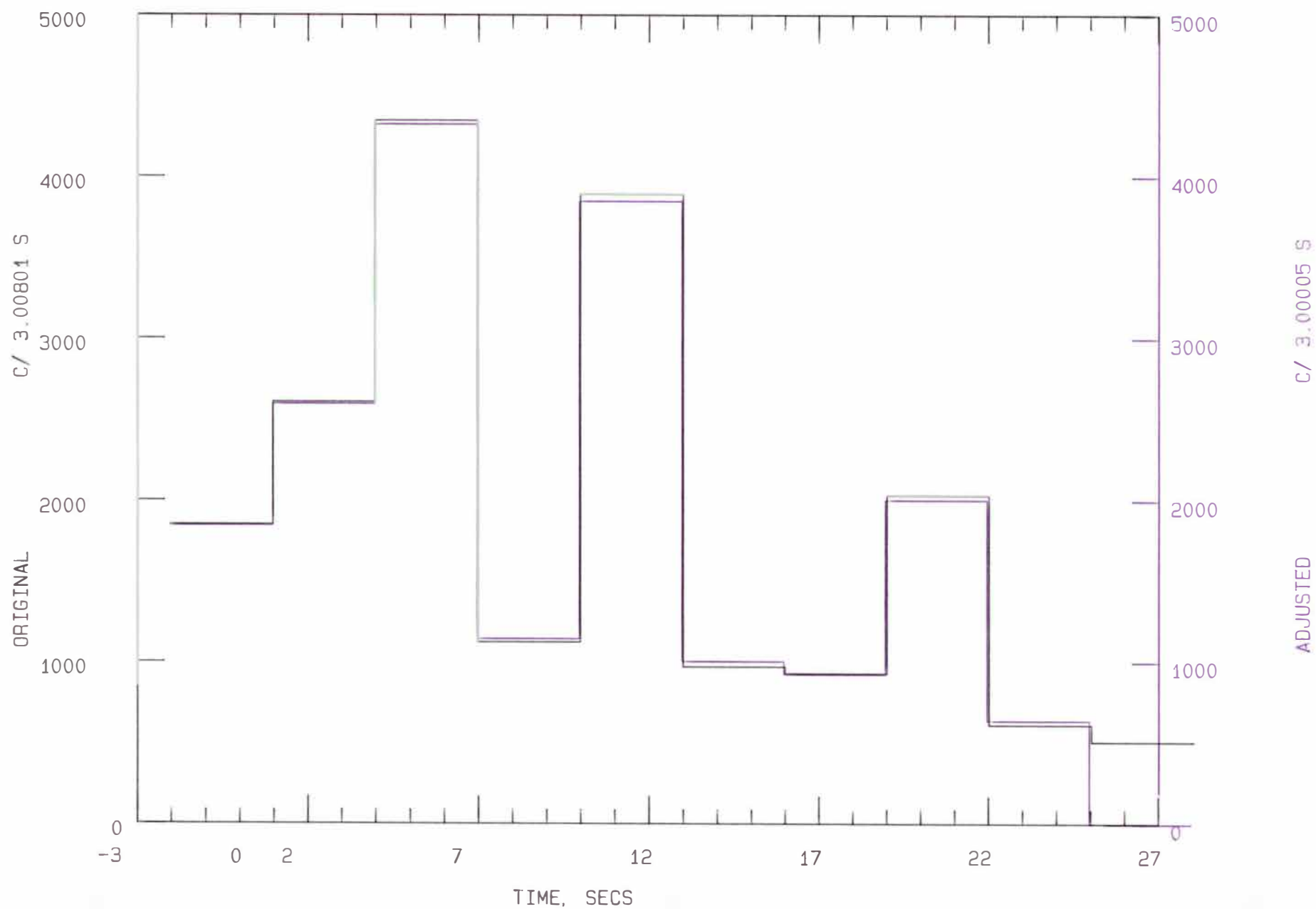
12/ 1/94

45983.386

8/ 8/95







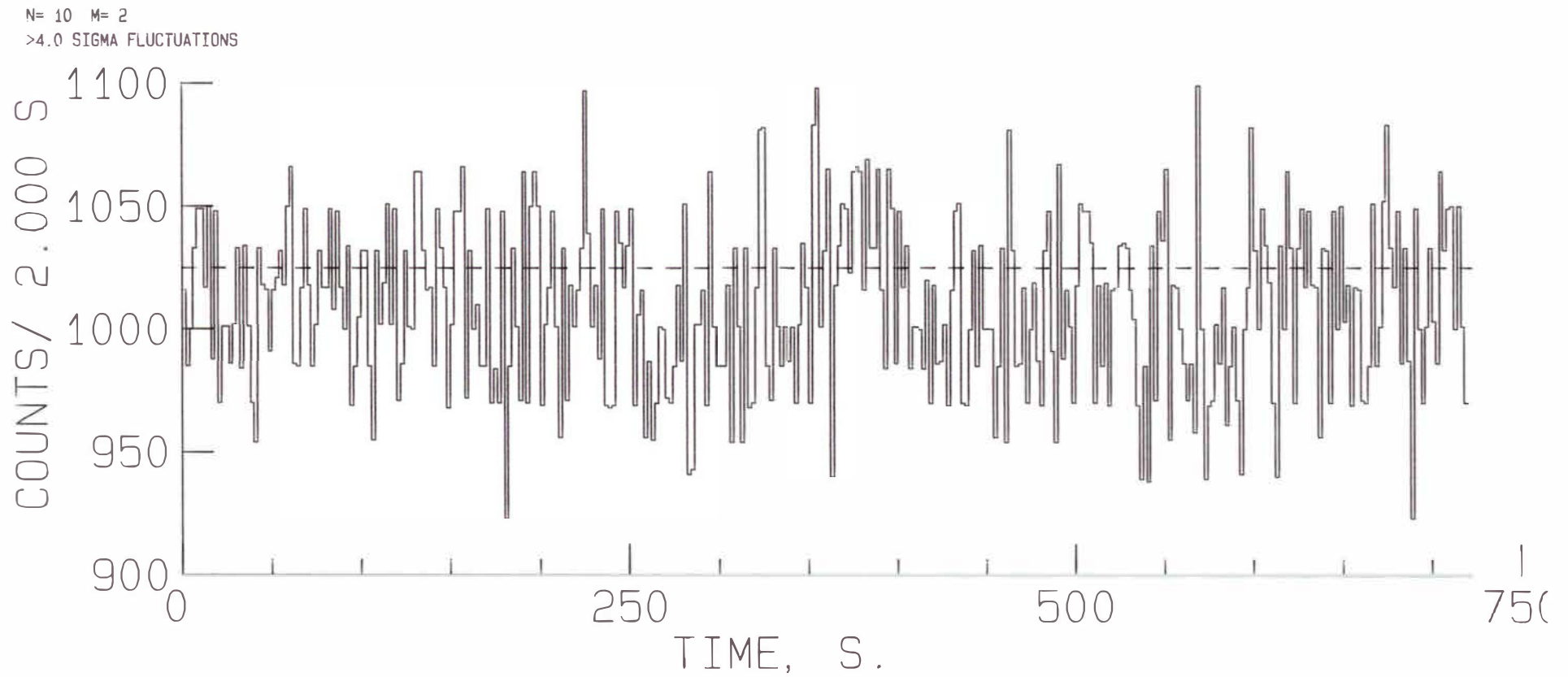
ULYSSES RT

8/ 8/95

12/ 1/94 45684.105 s

.250 S INTERVALS REGROUPED BY 8

20- 139 keV



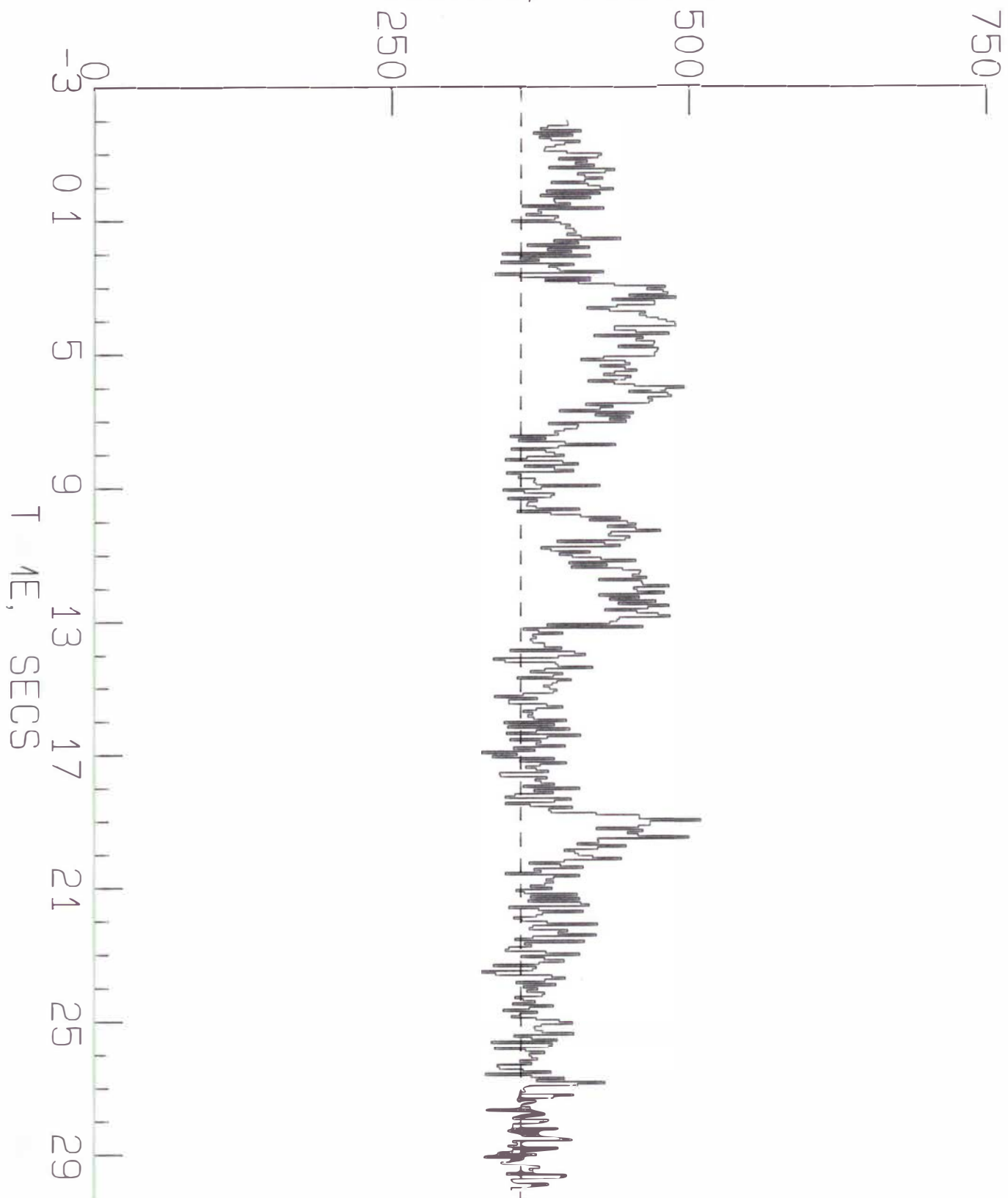
BATSE

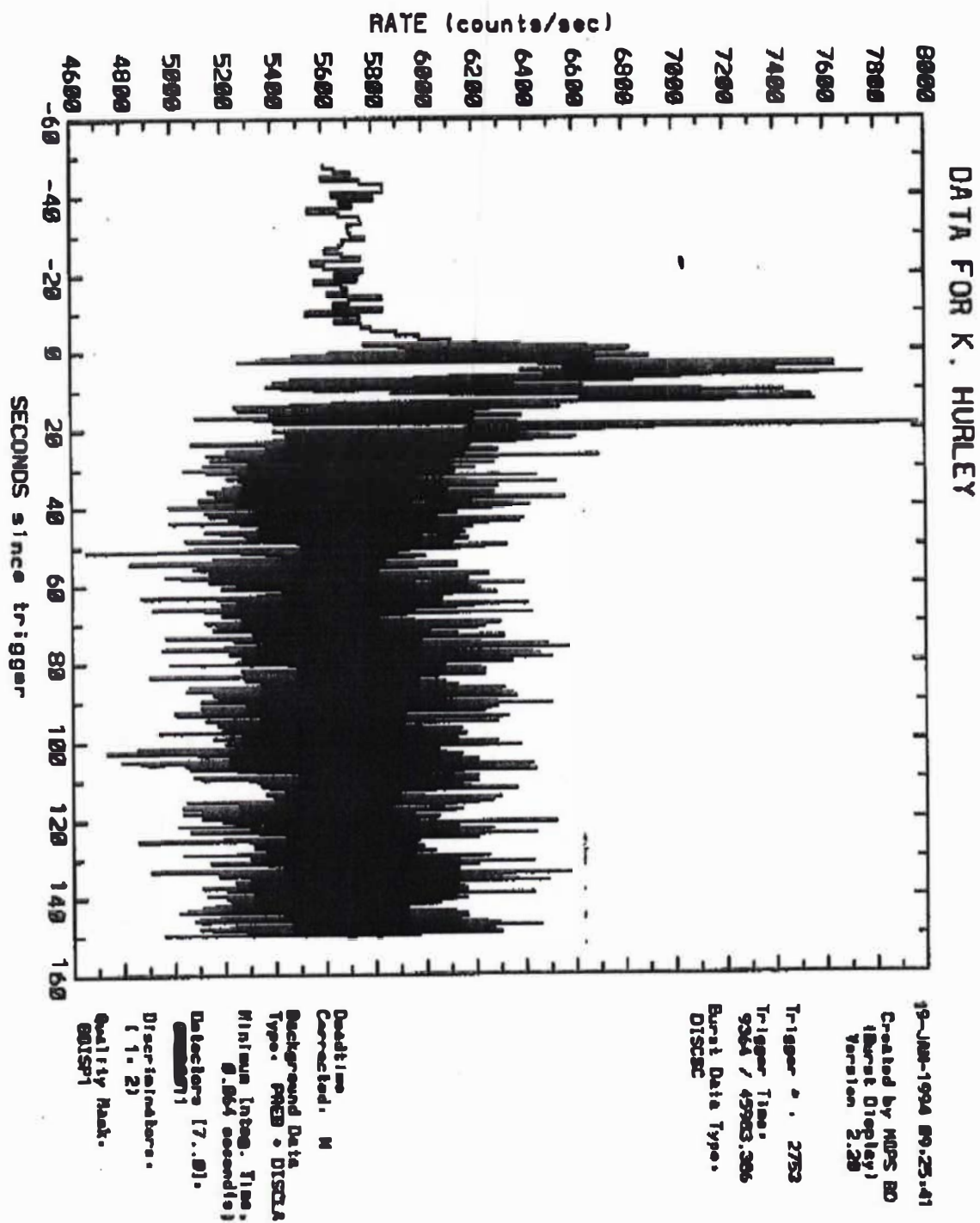
12/01/94

45983.386

25- 100 keV

COUNTS/ .064 S





From MEEGAN@ssl.msfc.nasa.gov Fri Jan 14 11:57 PST 1994
Date: Fri, 14 Jan 1994 13:59:46 -0600 (CST)
From: MEEGAN@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02754

TIME: TJD=9364 SECONDS=49046

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= 59. AZIMUTH= 98. ERROR= DEGREES

COMMENTS:

TERRESTRIAL GAMMA-RAY FLASH. ABOUT 1/2 MS LONG.

From DEAL@ssl.msfc.nasa.gov Fri Jan 14 09:44 PST 1994
Date: Fri, 14 Jan 1994 11:46:18 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2755
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2755
EVENT OF 1994 JAN 12 DAY OF YEAR= 12
EVENT CROSSING TIME AT BATSE : 71612. S. OR 19:53:32.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 48.000 64.000
BATSE PEAK COUNTING RATE: 7500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 12/ 1/ 94 IS:
RA= 162.940 DEC= -44.848 DIST= 3.479 AU
BATSE-ULYSSES DISTANCE = 520428453. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 40.10 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1327.85 SECS.
CROSSING TIME AT ULYSSES IS 72940. S. OR 20:15:39 +/- 264.30 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 12/ 1/ 94 IS:
RA= 289.085 DEC= -23.189 DIST= 2.406 AU
MARS-BATSE DISTANCE = 359968224. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 56.72 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 658.91 SECS.
CROSSING TIME AT MARS IS 72271. S. OR 20:04:30 +/- 184.28 SECONDS

N/O

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2755	940112	9364	71612	7500	048	+64

BATSE BURST TRIGGER

NO.: 02755

TIME: TJD=9364 SECONDS=71612

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=166.1 AZIMUTH=154.8 ERROR= DEGREES

COMMENTS:

BURST, SINGLE SPIKE. DUR~ 0.15S. MARGINALLY VISIBLE ABOVE 300KEV.

1 4 / 1 / 9 4

ULYSSES RT

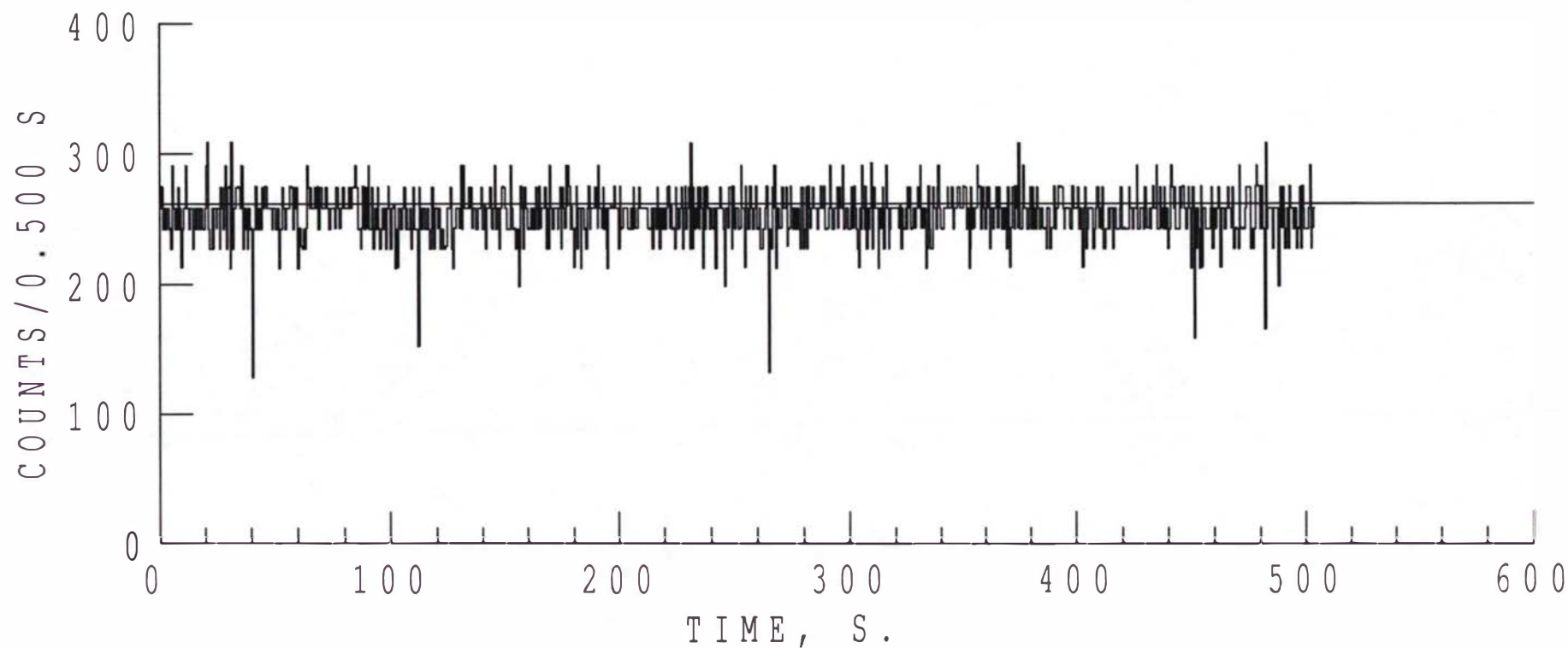
12 / 1 / 94 72684.023 s

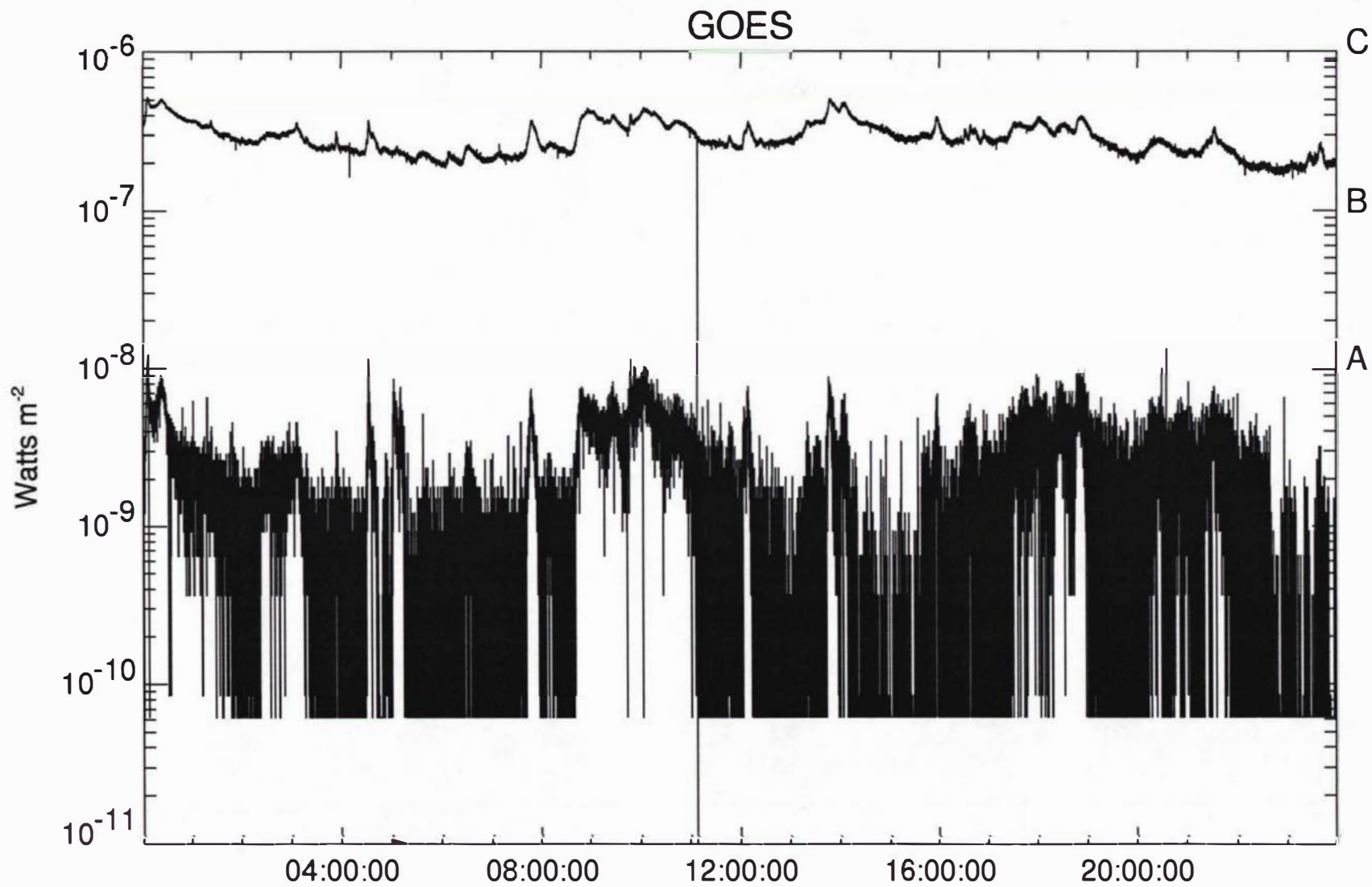
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





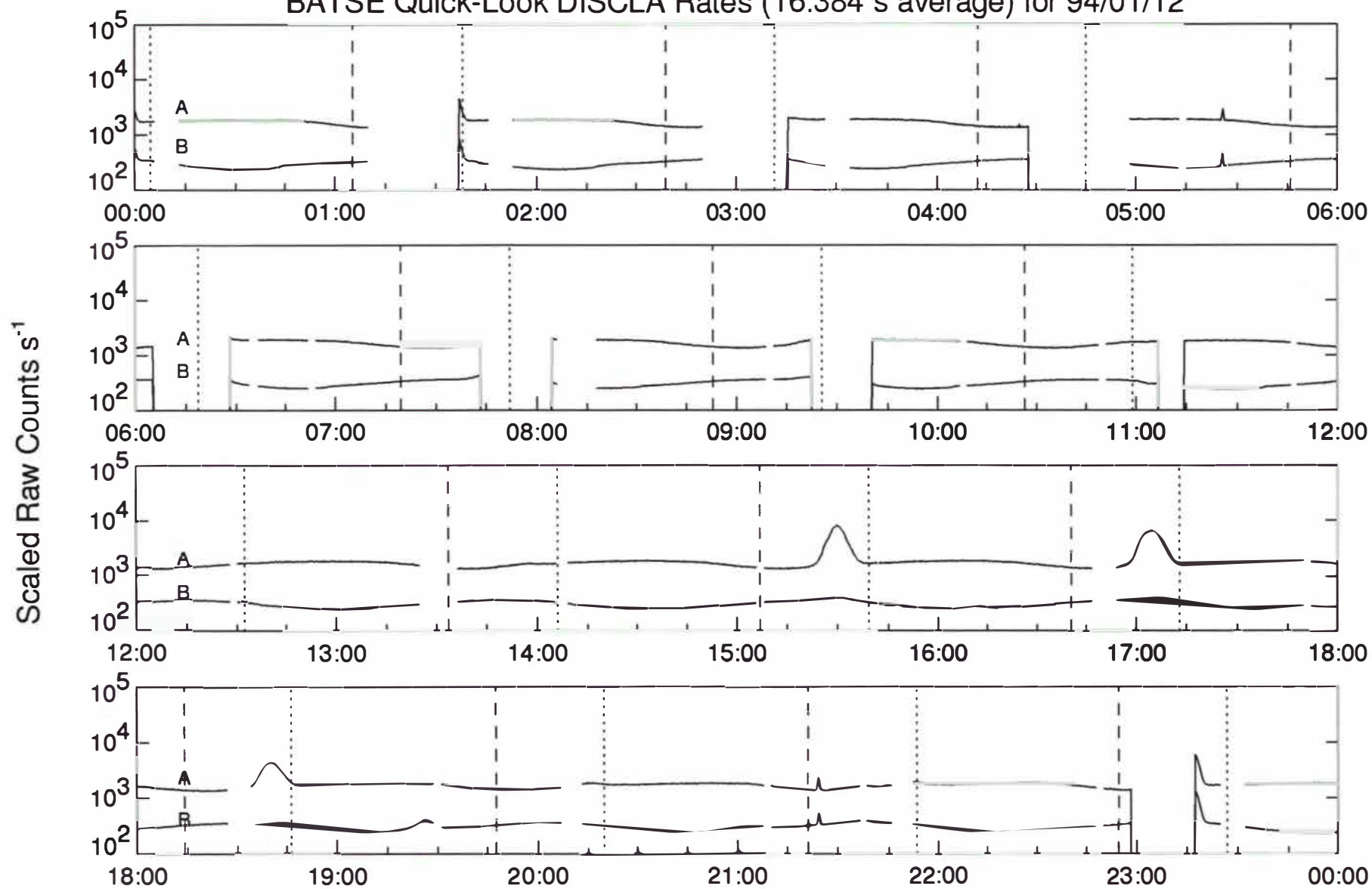
Data Start: 94/01/12, 0000:00

Plot created: 94/01/14, 1757

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 (16.384 s average) for 94/01/12

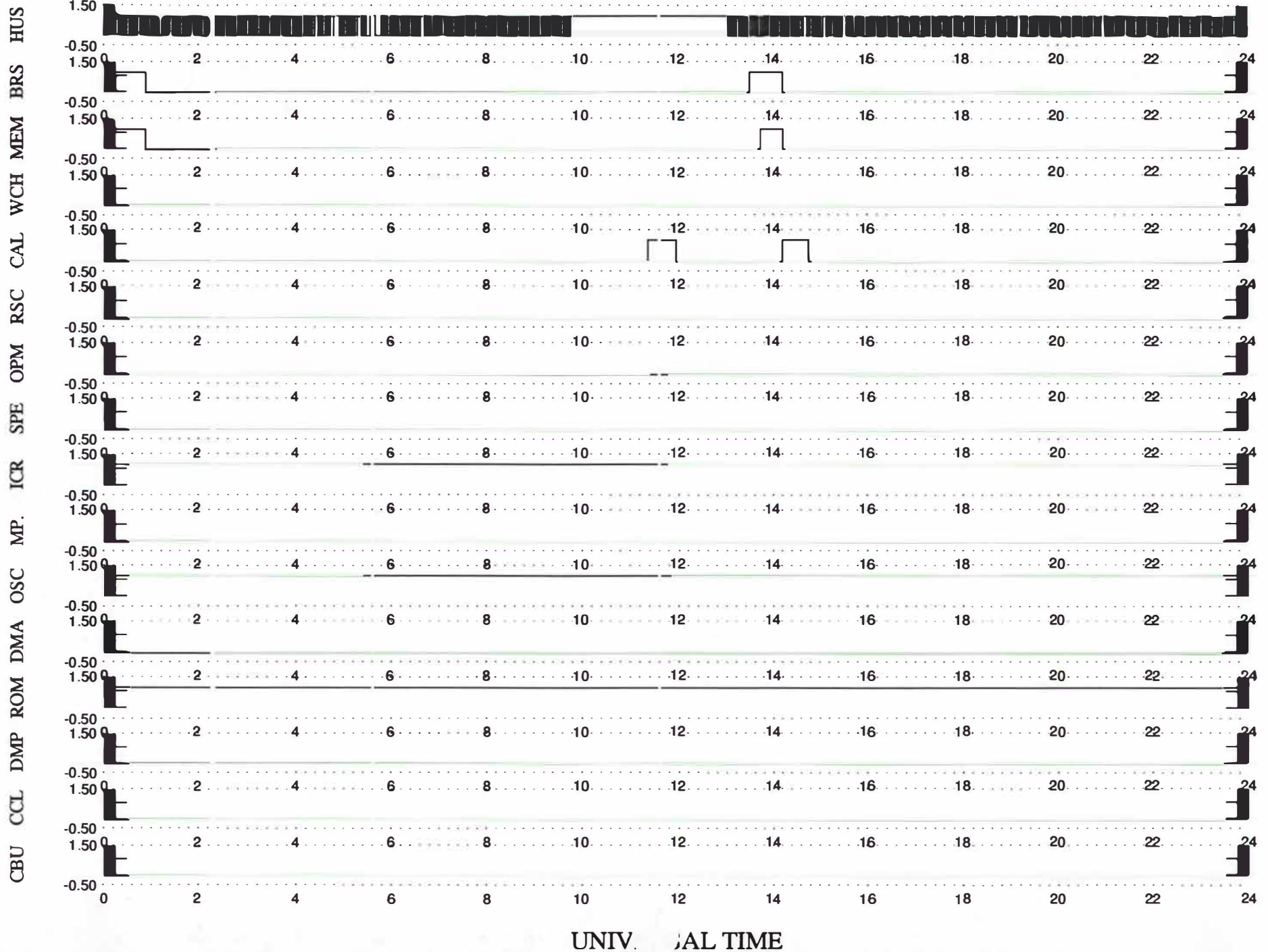


Current Time: 94/01/14, 1754 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

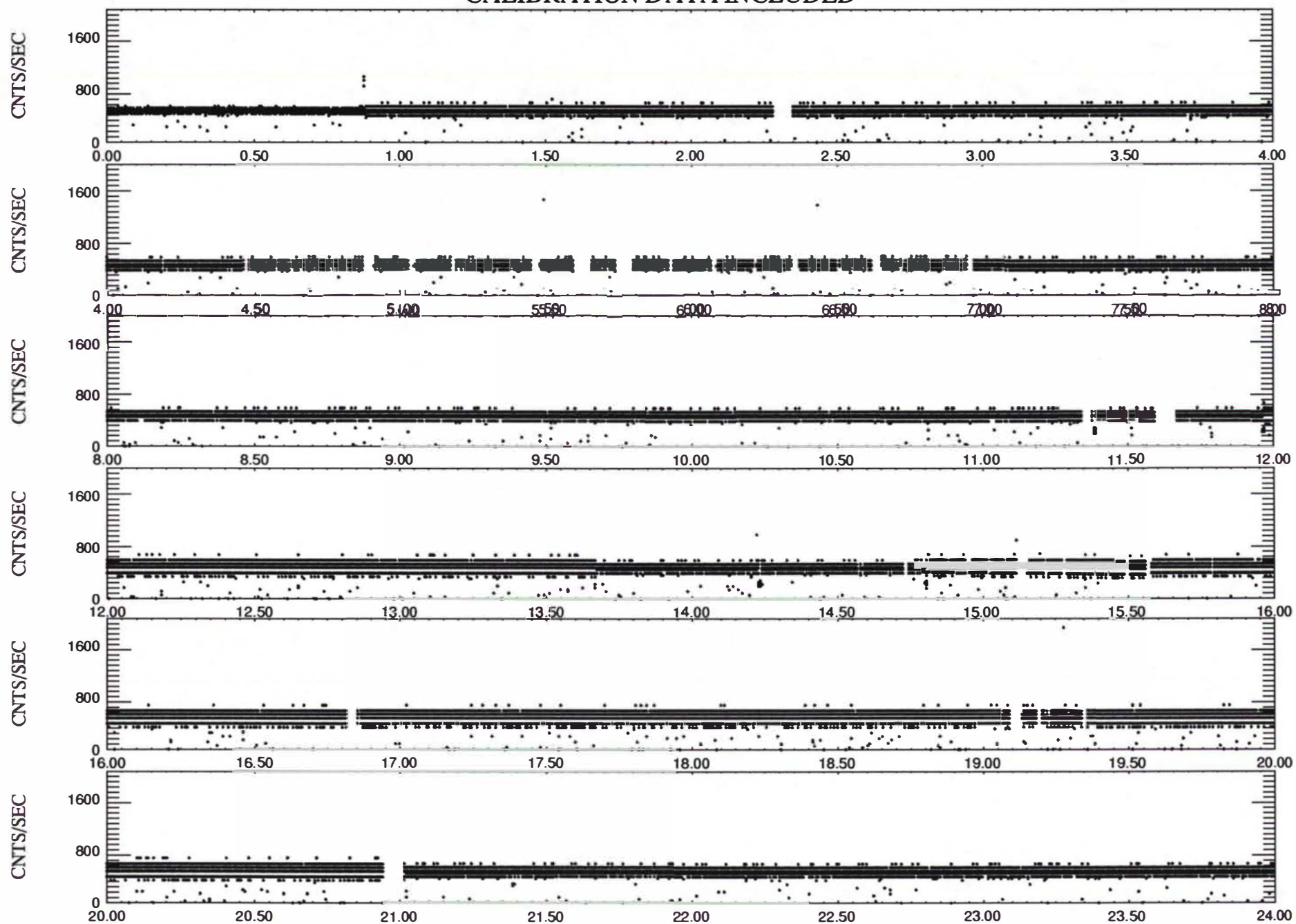
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 7

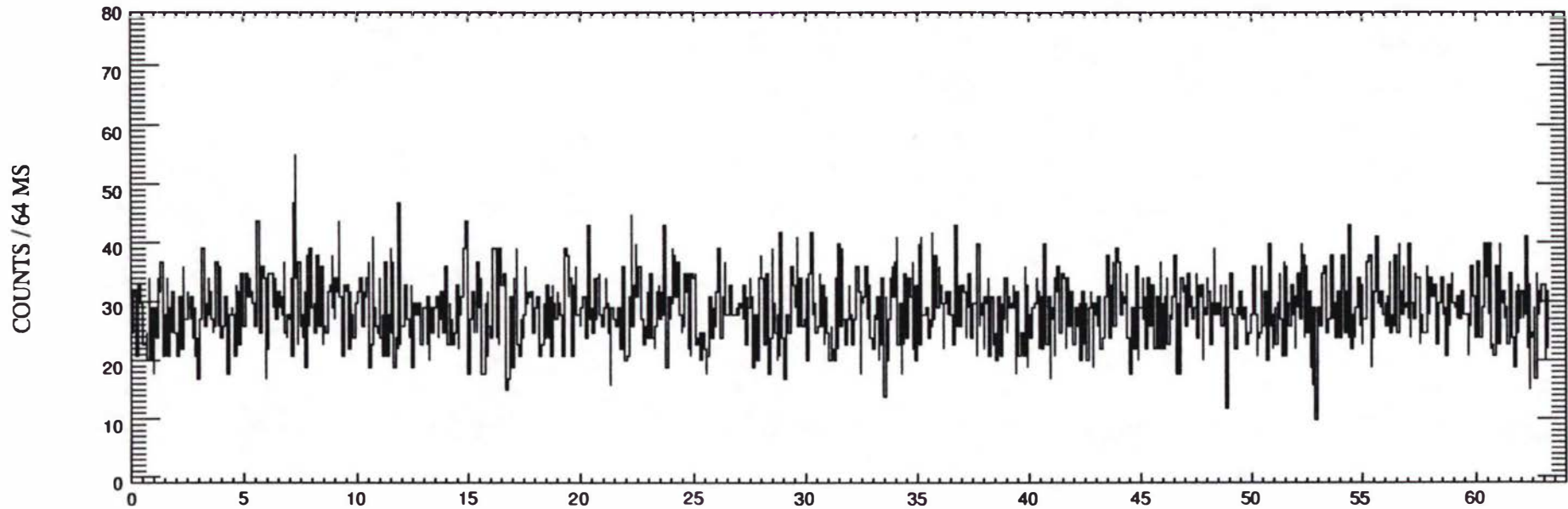


CALIBRATION DATA INCLUDED

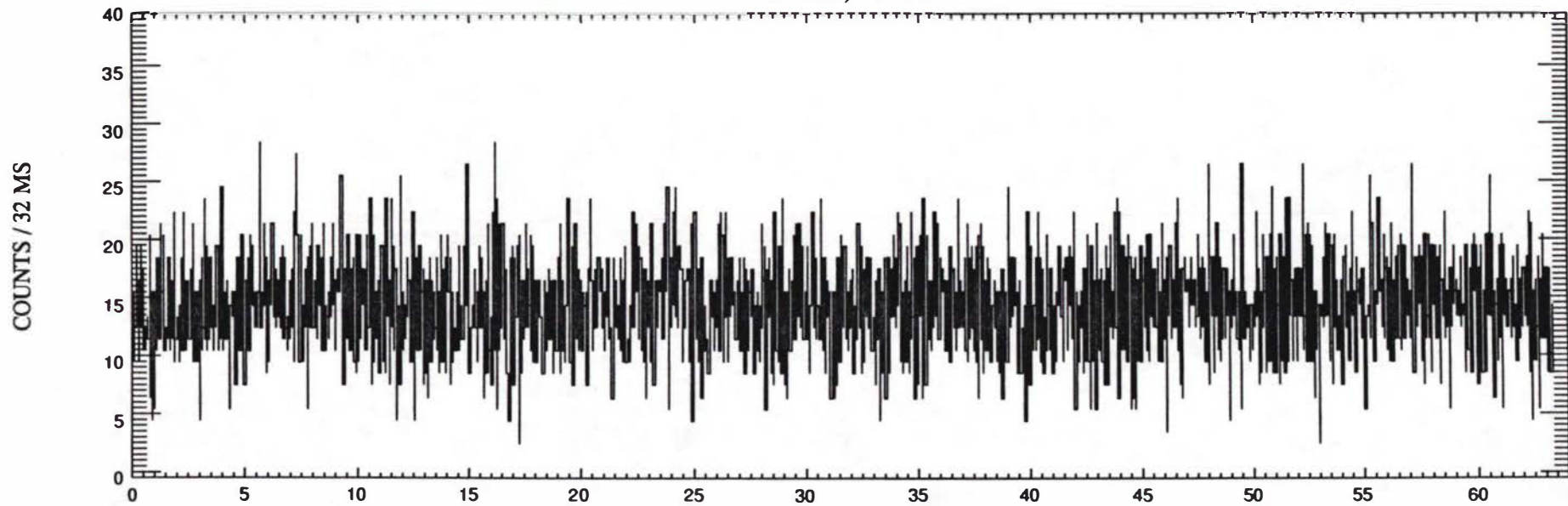


UNIV CAL TIME

Burst Counter 7 at UT=13.515212643941 h=48654.766 s 13:30:54.766

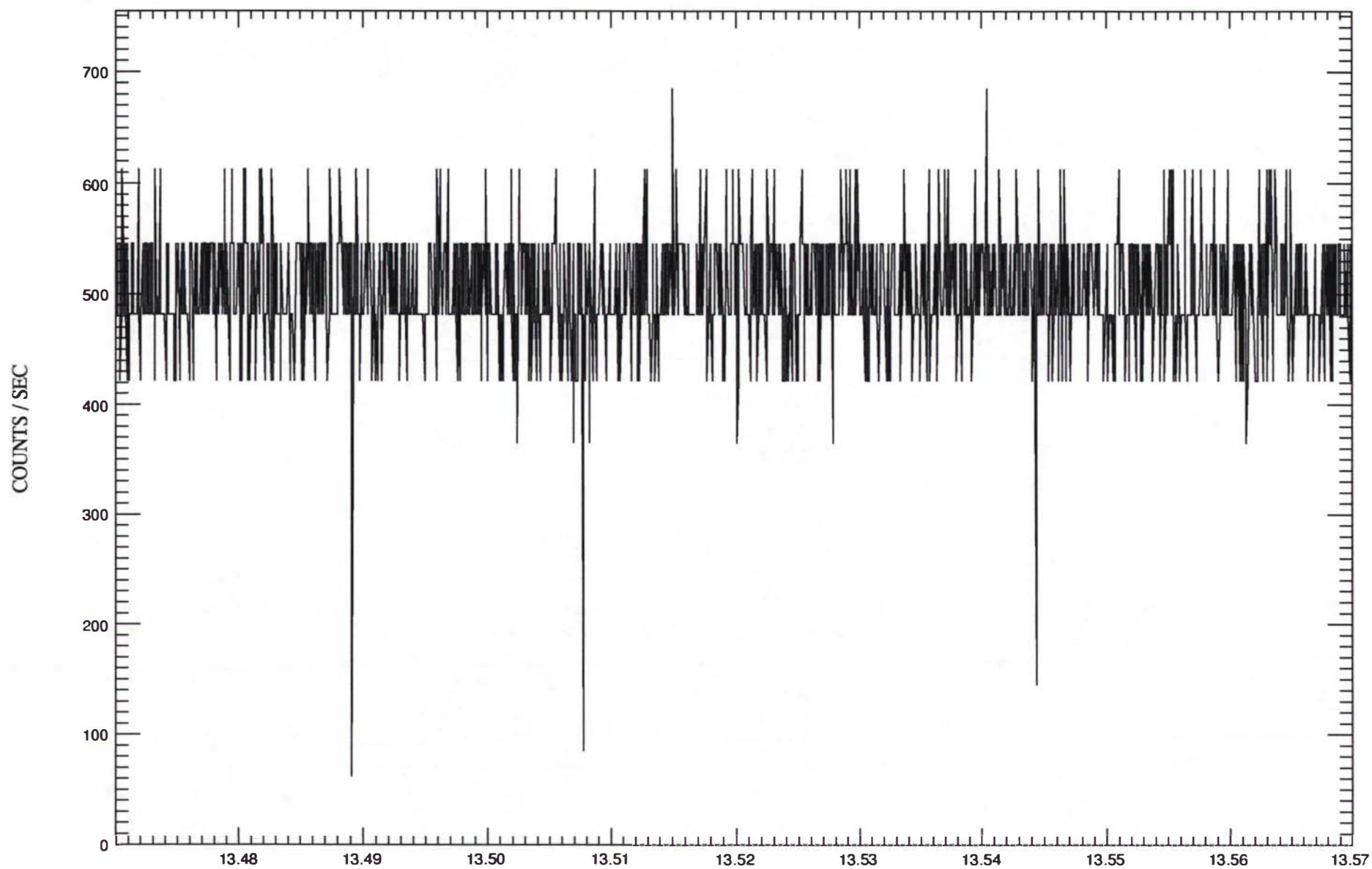


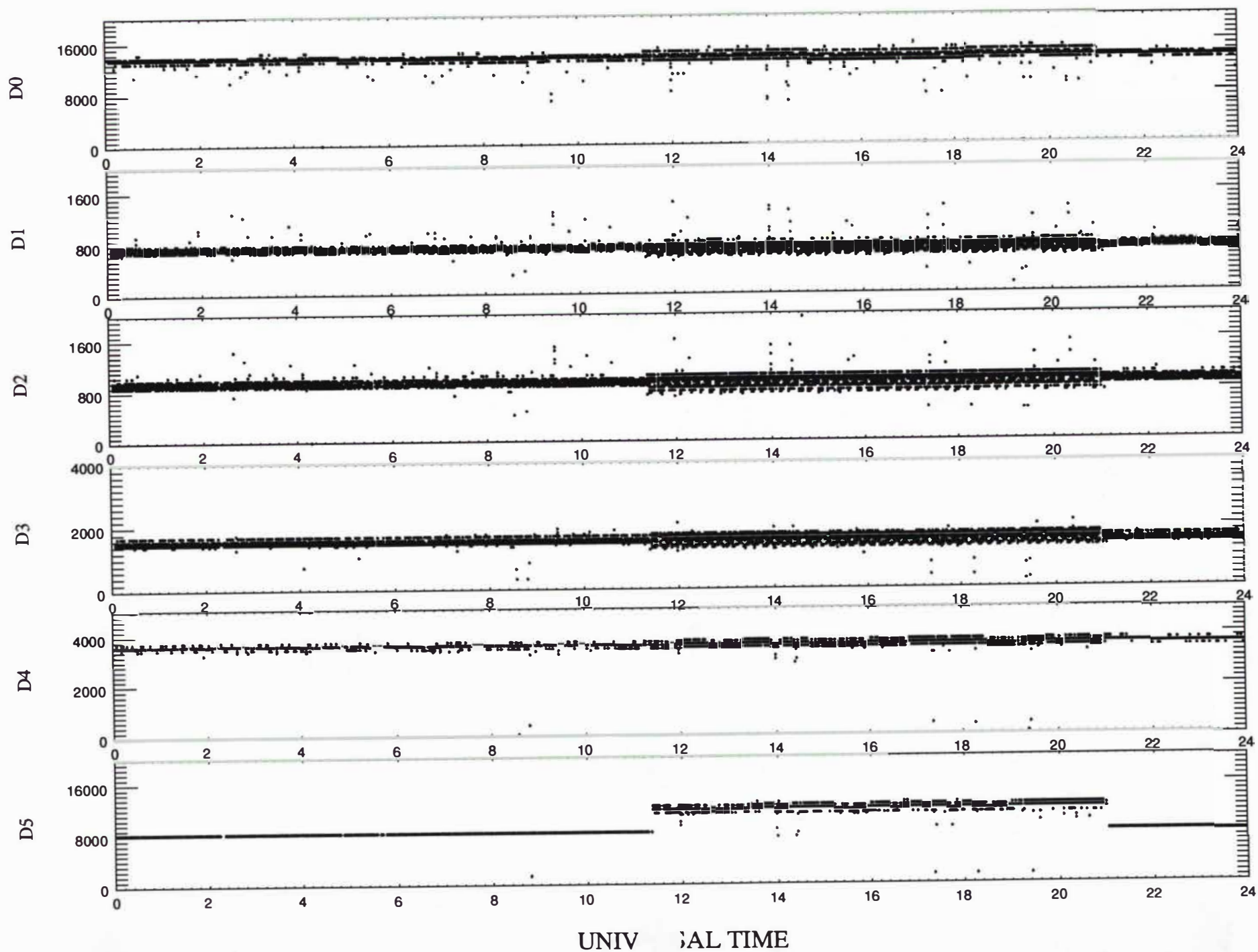
TIME, SECS



TIME, SECS

CALIBRATION DATA INCLUDED





From HAGEDON@ssl.msfc.nasa.gov Tue Jan 18 09:33 PST 1994
Date: Tue, 18 Jan 1994 11:36:11 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2756
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2756
EVENT OF 1994 JAN 13 DAY OF YEAR= 13
EVENT CROSSING TIME AT BATSE : 60474. S. OR 16:47:54.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 208.000 -27.000
BATSE PEAK COUNTING RATE: 2300 C/S

RI

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 13/ 1/ 94 IS:
RA= 162.730 DEC= -45.067 DIST= 3.466 AU
BATSE-ULYSSES DISTANCE = 518439245. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=139.84 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1321.68 SECS.
CROSSING TIME AT ULYSSES IS 59152. S. OR 16:25:52 +/- 223.55 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 13/ 1/ 94 IS:
RA= 289.915 DEC= -23.093 DIST= 2.405 AU
MARS-BATSE DISTANCE = 359743776. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=107.06 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -352.00 SECS.
CROSSING TIME AT MARS IS 60122. S. OR 16:42:01 +/- 193.82 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2756	940113	9365	60474	2300	208	-27

BATSE BURST TRIGGER

NO.: 02756

TIME: TJD=9365 SECONDS=60474

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=37 AZIMUTH=62 ERROR= DEGREES

COMMENTS:

BURST. WEAK SINGLE PULSE. DUR.~6 SEC. NOT VISIBLE ABOVE 300 KEV.
TRIGGERED DURING DATA GAP.

Helio corr removed

Date: Jan 22 '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 - TTS data*

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?

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

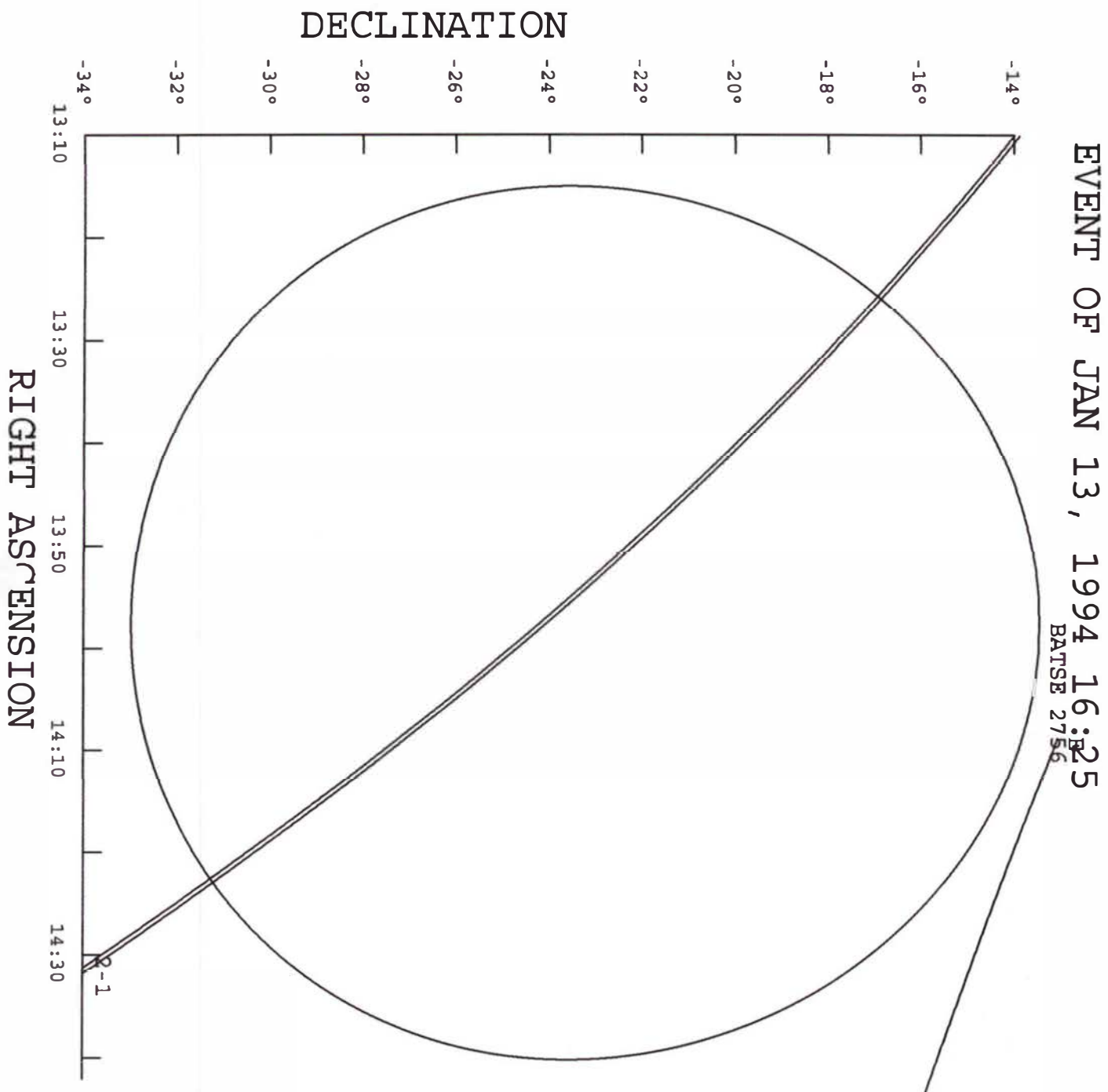
S=SUN

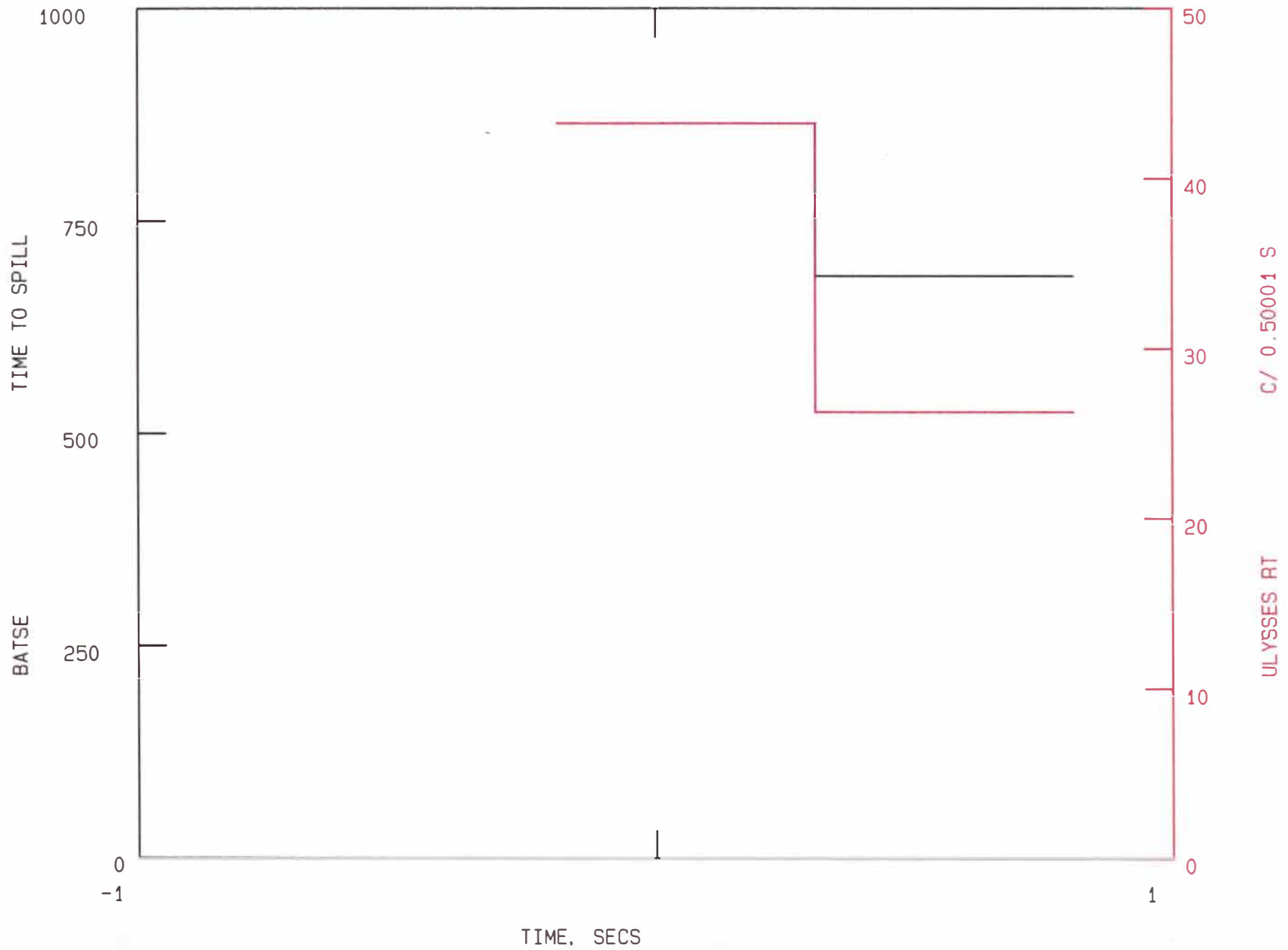
E=ECLIPTIC

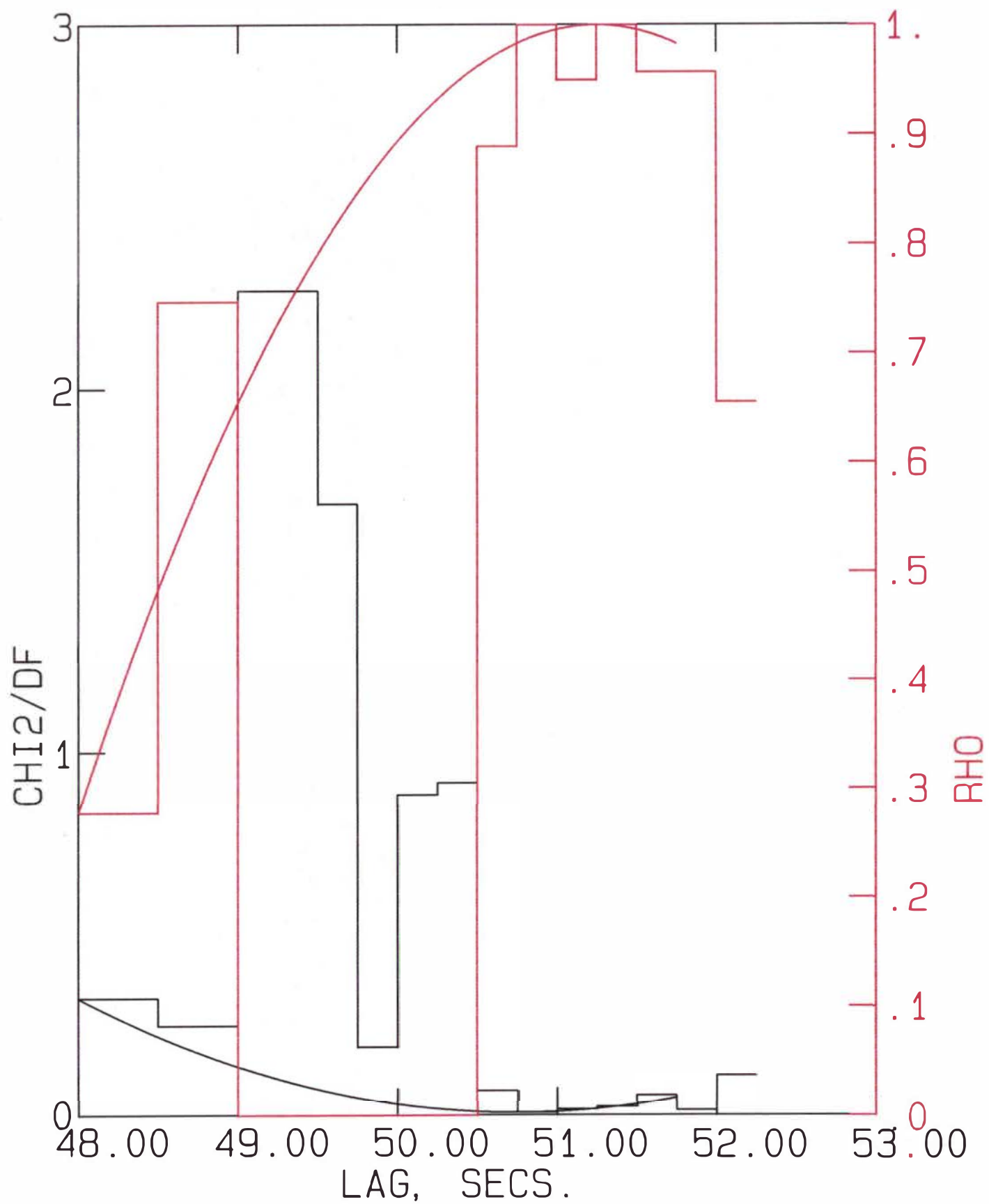
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE







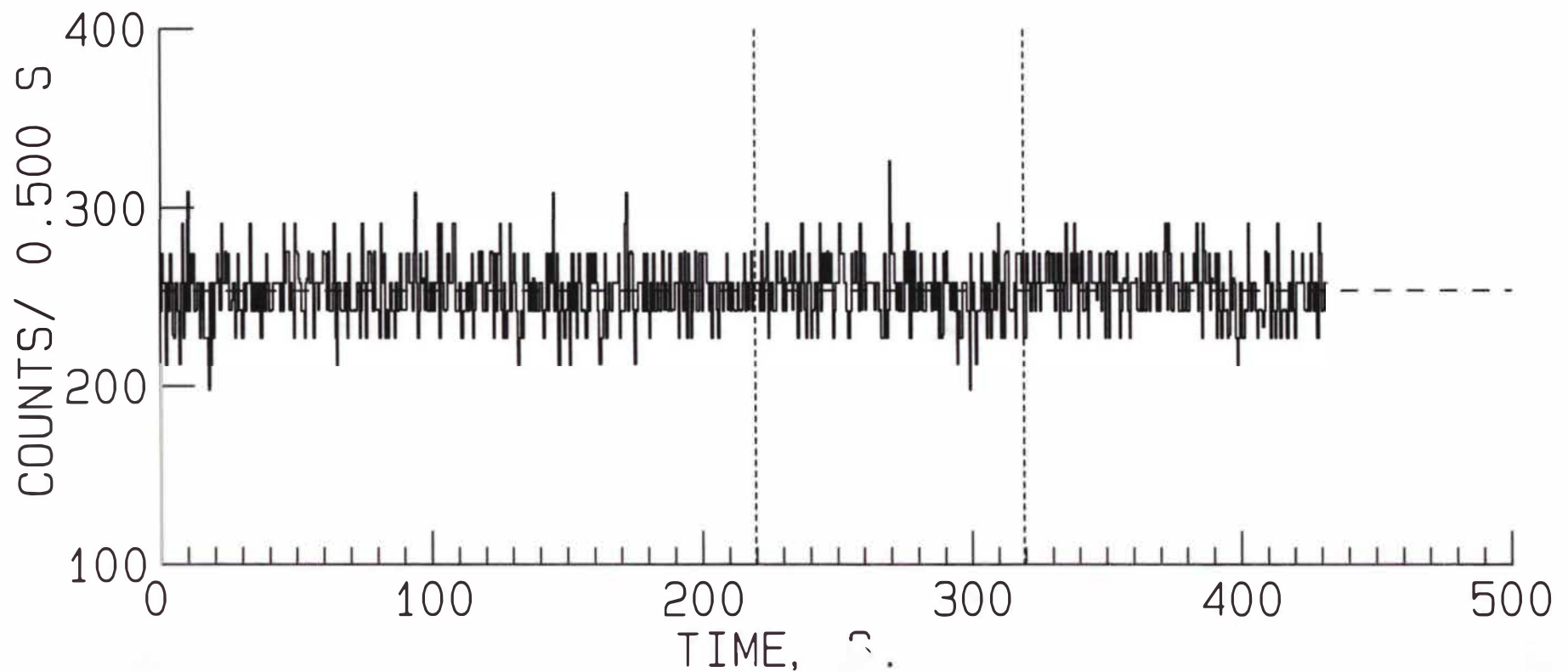
ULYSSES RT

22 / 1 / 98

13 / 1 / 94 58932.144 s

0.250 S INTERVALS REGROUPED BY 2

20- 140 keV



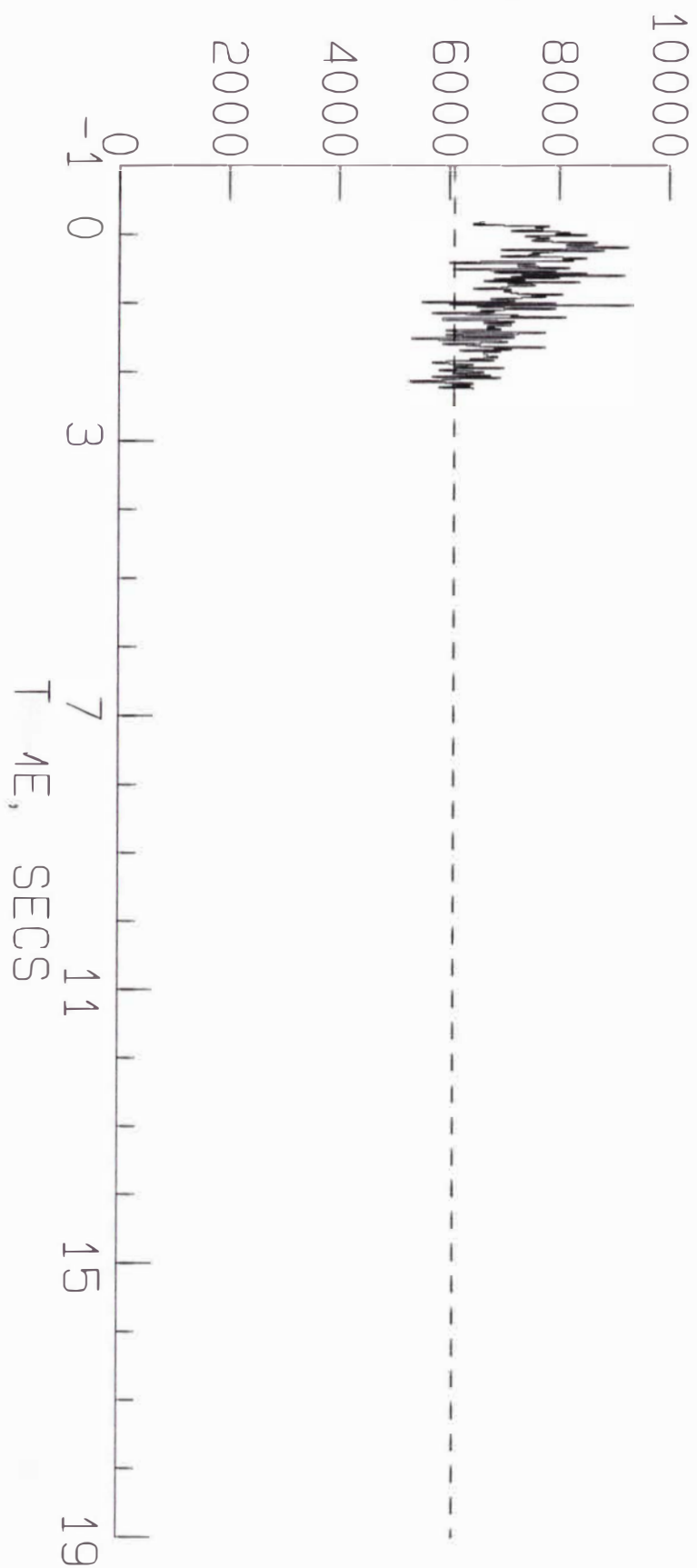
BATSE

13/01/94

60474.010

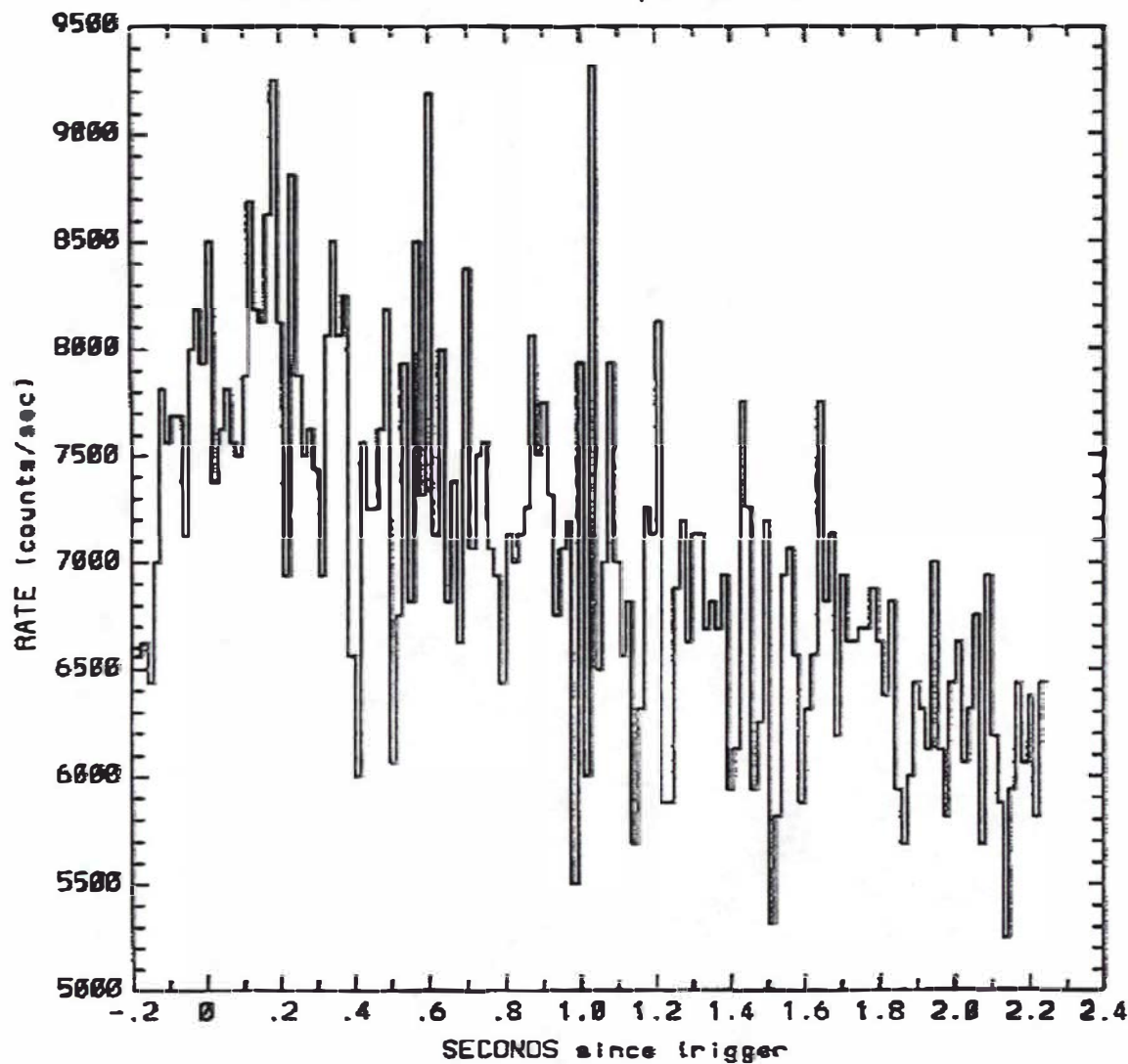
25- 100 keV

COUNTS/S TTS



19/10/94

TTE Data for K. Hurley. No. 2756

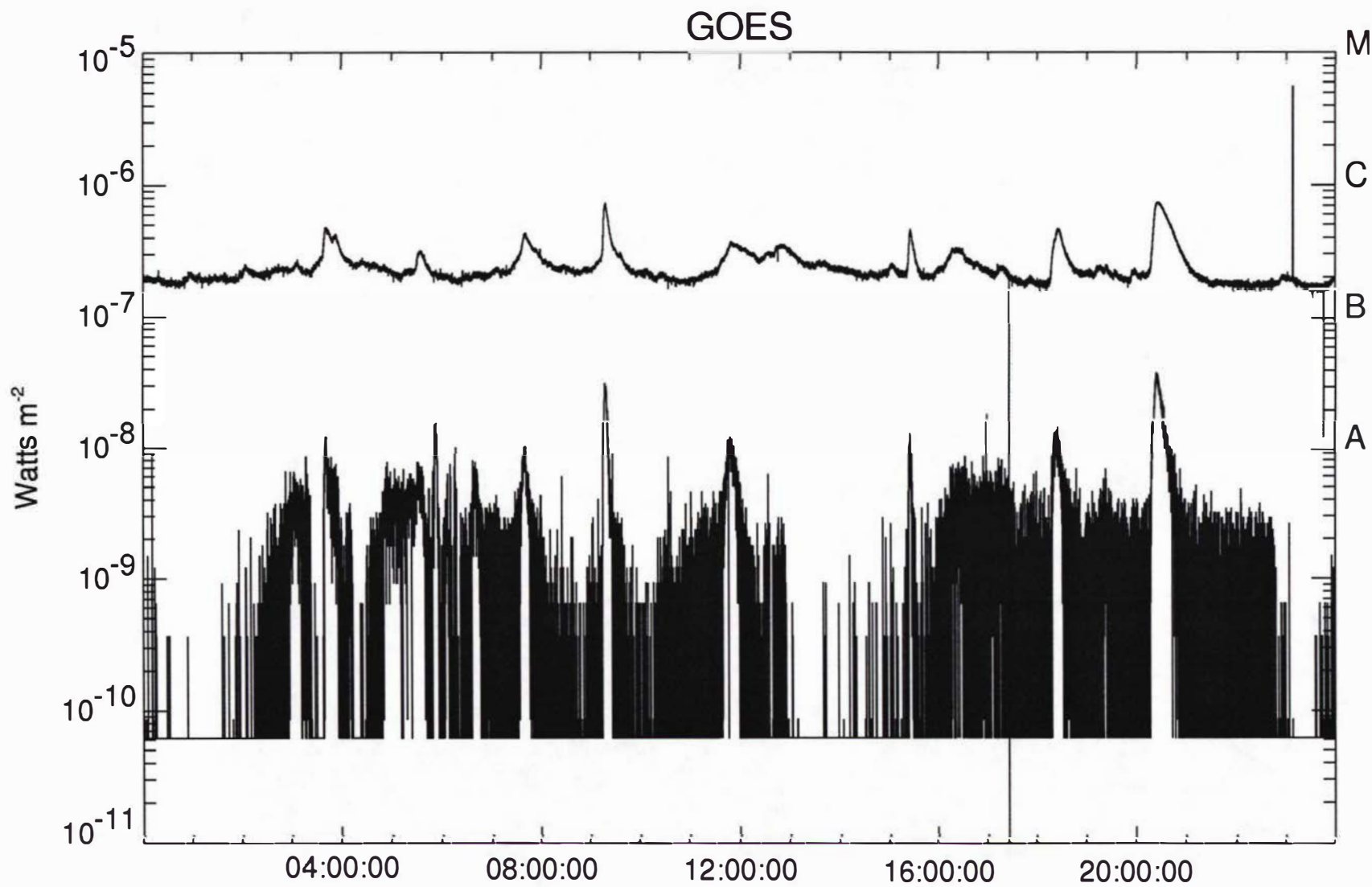


18-OCT-1994 14:15:28

Created by MDPS BD
(Burst Display)
Version 2.22

Trigger # : 2756

Trigger Time:
9365 / 68474.816Burst Data Type:
TTEMultiple Events
Ignored: 26Deadtime
Corrected: K
Background Data
Type: DISCLA
Minimum Integ. Time:
0.016000 secondsDetectors [7..8].
---4---6Discriminators:
[1. 2]Quality Mask:
BDISP1



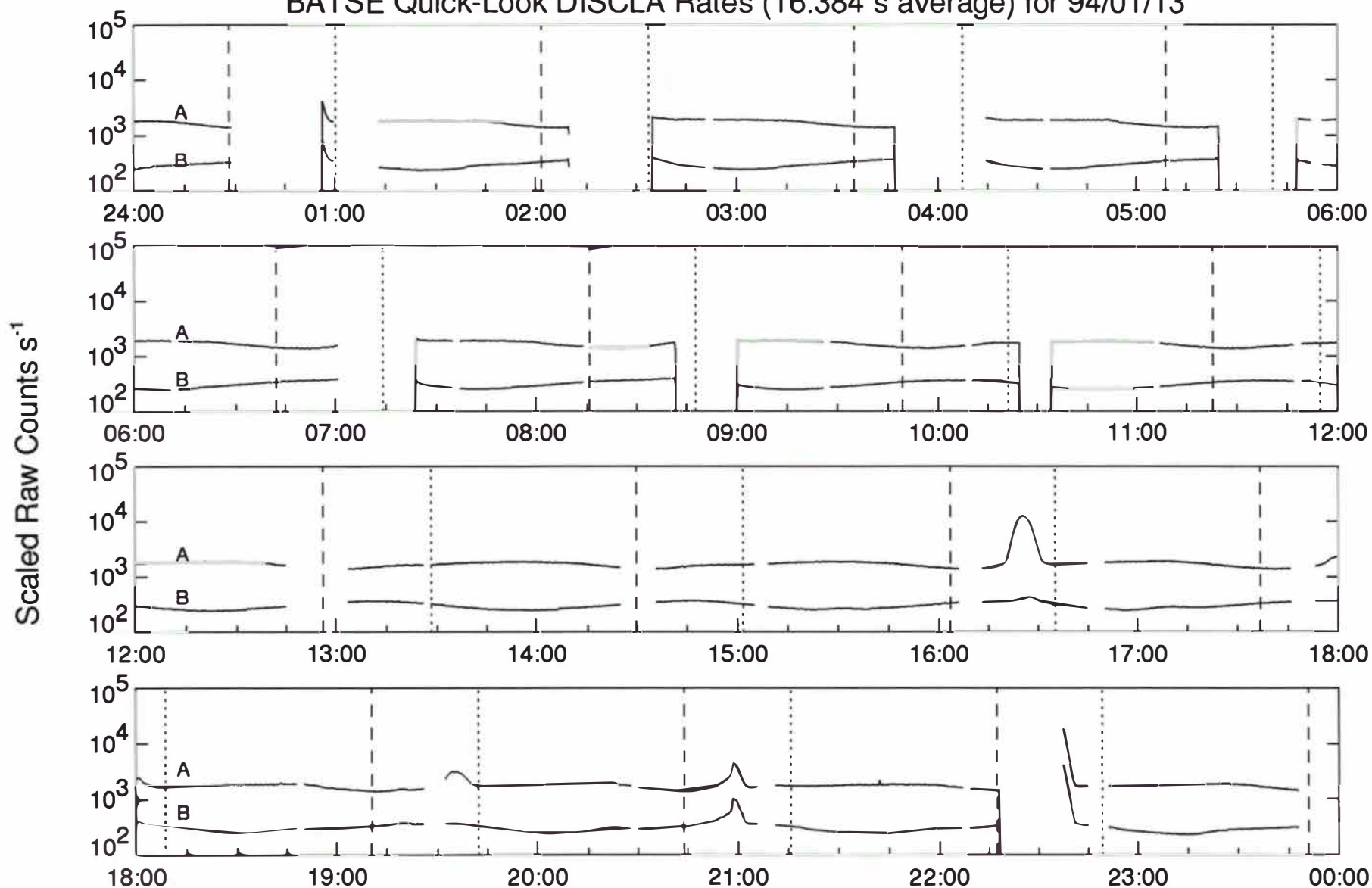
Data Start: 94/01/13, 0000:00

Plot created: 94/01/14, 1757

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/13



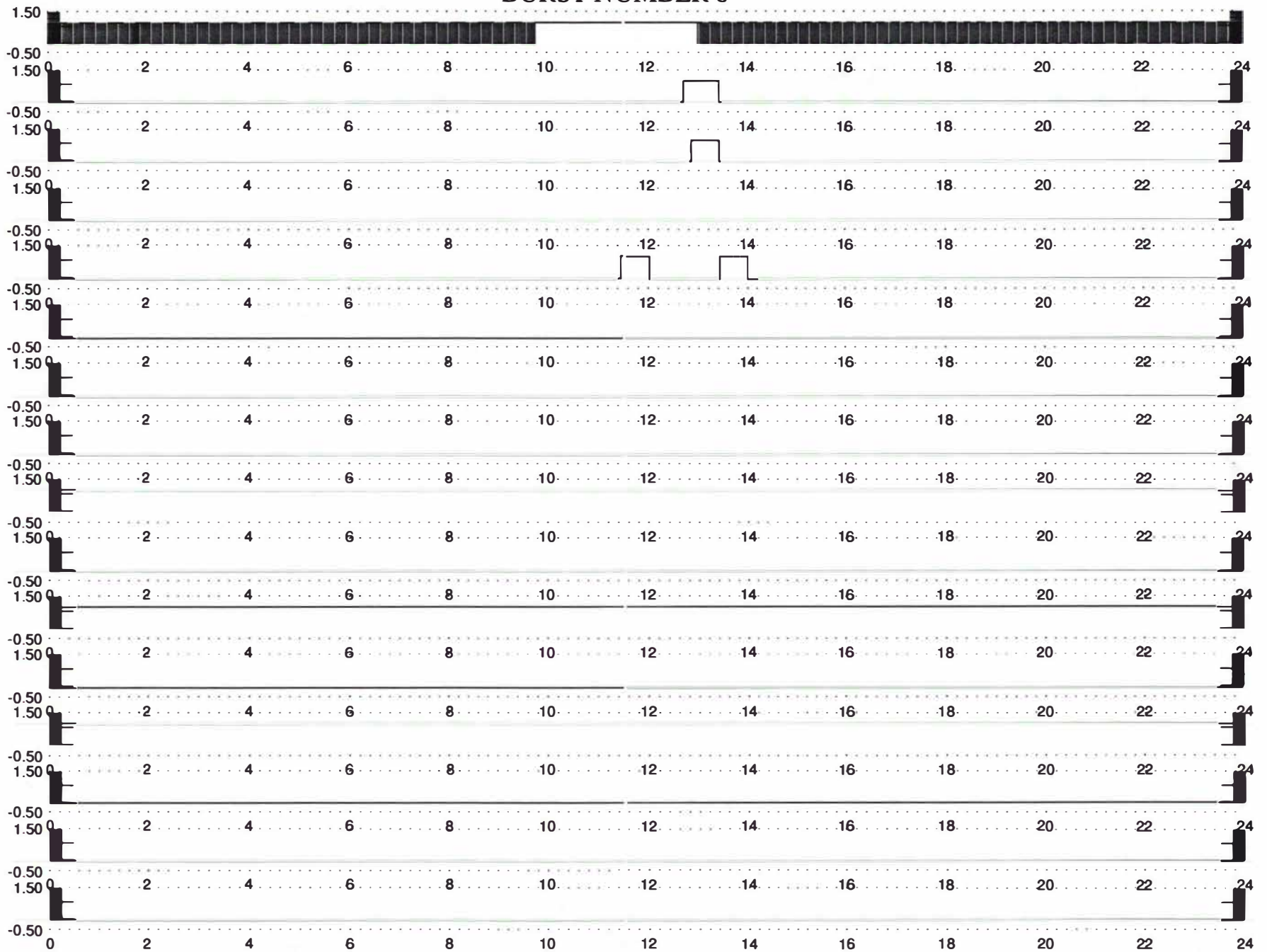
Current Time: 94/01/19, 1749 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

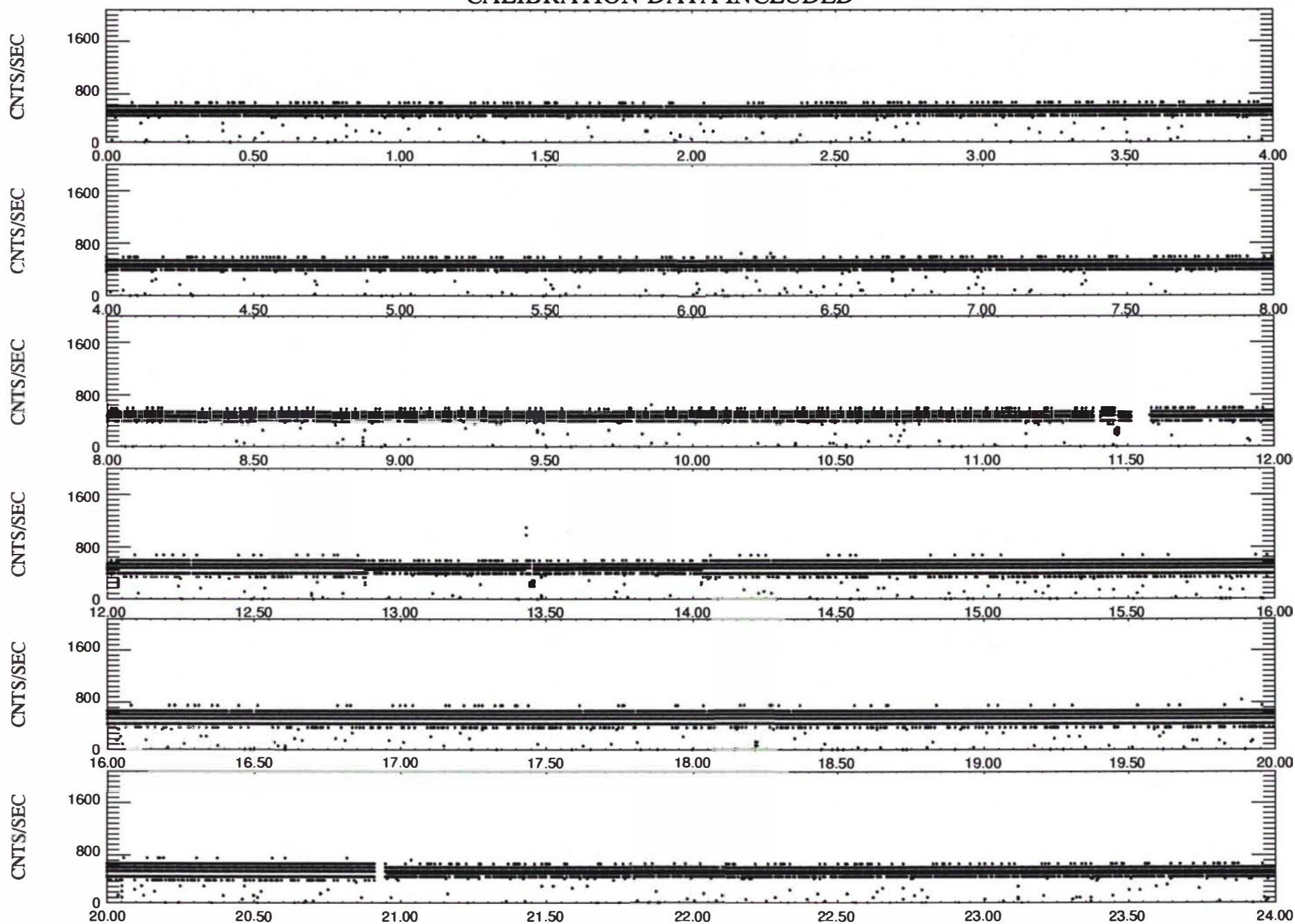
BURST NUMBER 8

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



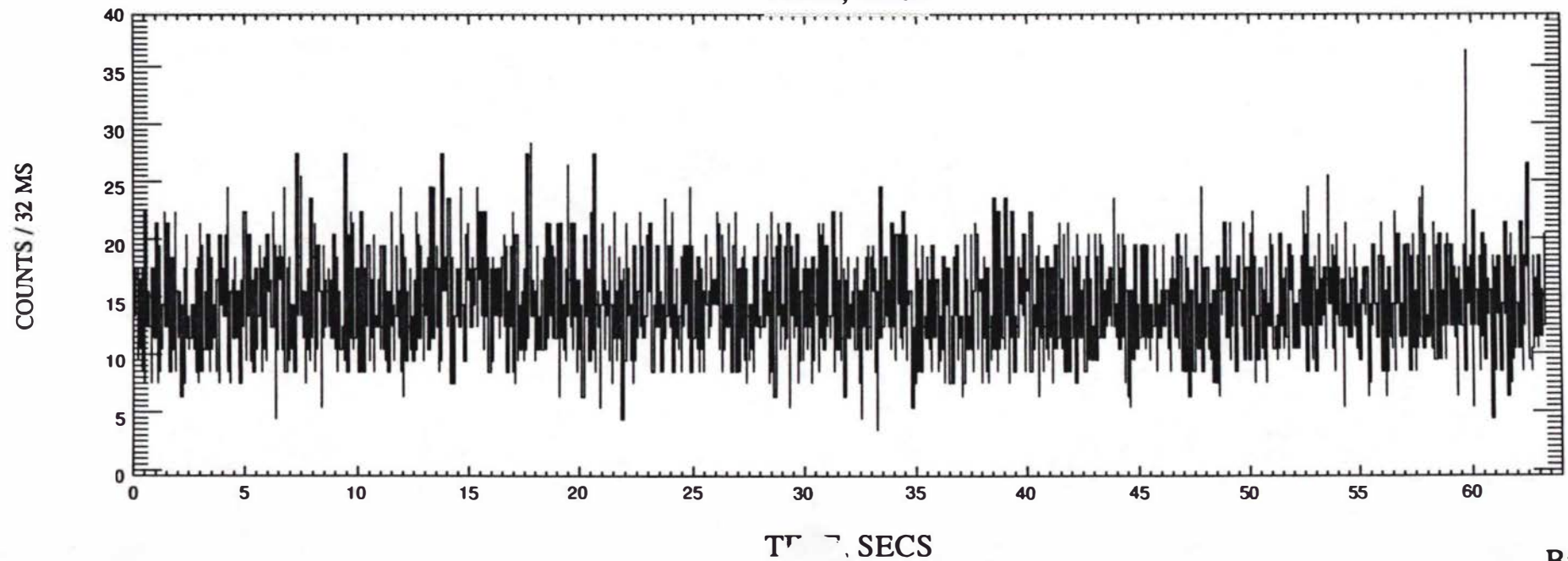
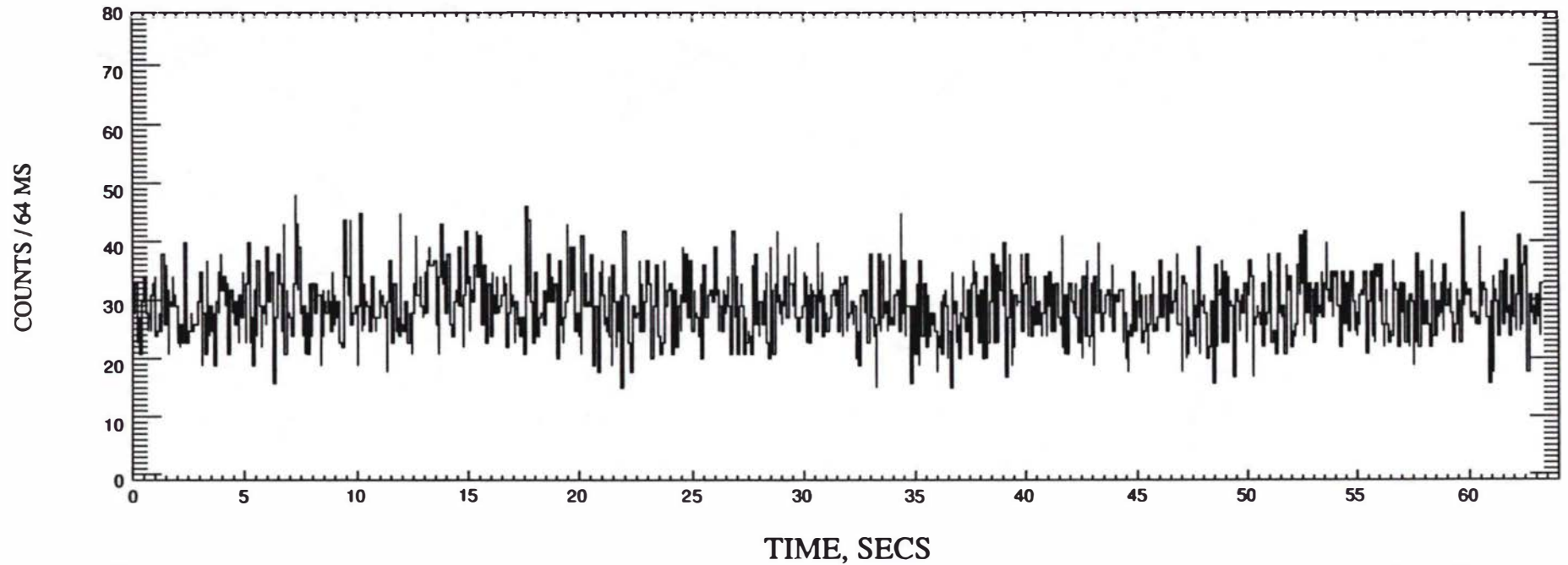
UNIV. AL TIME

CALIBRATION DATA INCLUDED

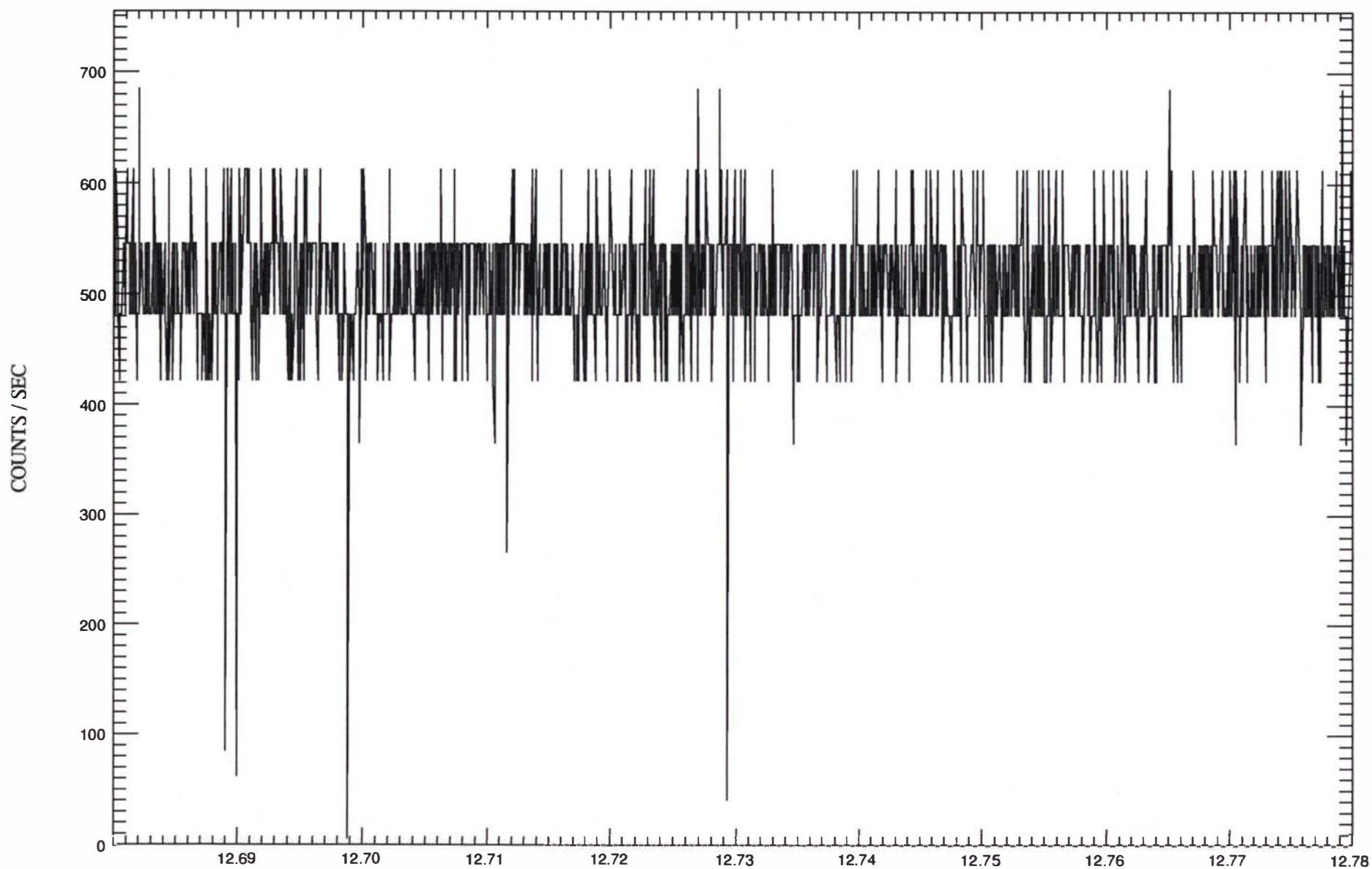


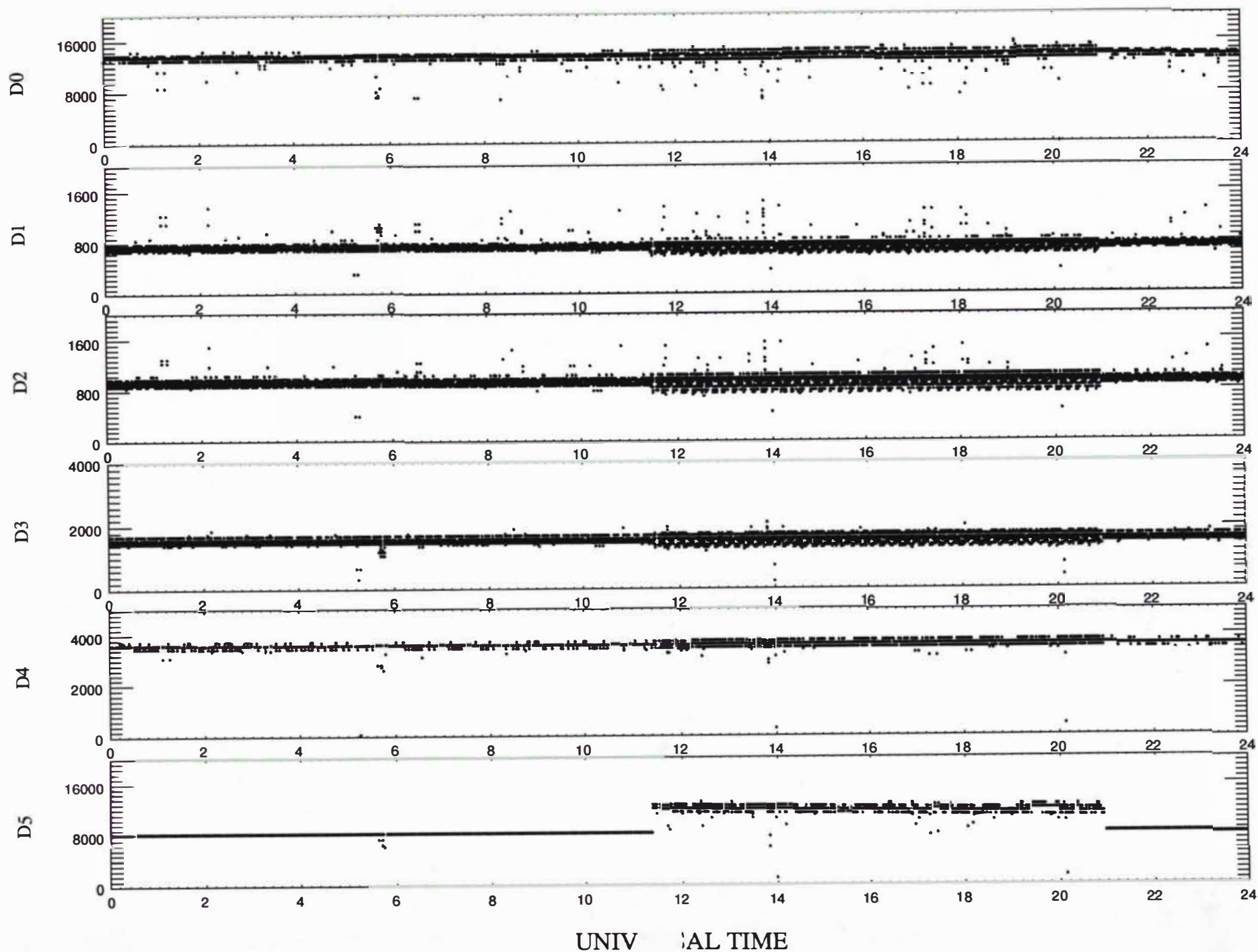
UNIV AL TIME

Burst Counter 8 at UT=12.727098956638 h=45817.556 s 12:43:37.556



CALIBRATION DATA INCLUDED





From SHARIFF@ssl.msfc.nasa.gov Tue Jan 18 09:46 PST 1994
Date: Tue, 18 Jan 1994 11:48:49 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2757
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2757
EVENT OF 1994 JAN 14 DAY OF YEAR= 14
EVENT CROSSING TIME AT BATSE : 20274. S. OR 05:37:54.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 337.000 -38.000
BATSE PEAK COUNTING RATE: 6500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/ 1/ 94 IS:
RA= 162.598 DEC= -45.201 DIST= 3.457 AU
BATSE-ULYSSES DISTANCE = 517225590. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 83.35 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 199.67 SECS.
CROSSING TIME AT ULYSSES IS 20474. S. OR 05:41:13 +/- 350.56 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/ 1/ 94 IS:
RA= 290.745 DEC= -22.993 DIST= 2.403 AU
MARS-BATSE DISTANCE = 359516640. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=137.91 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -889.90 SECS.
CROSSING TIME AT MARS IS 19384. S. OR 05:23:04 +/- 126.05 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2757	940114	9366	20274	6500	337	-38

BATSE BURST TRIGGER

NO.: 02757

TIME: TJD=9366 SECONDS=20274

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=073.5 AZIMUTH=292.2 ERROR= DEGREES

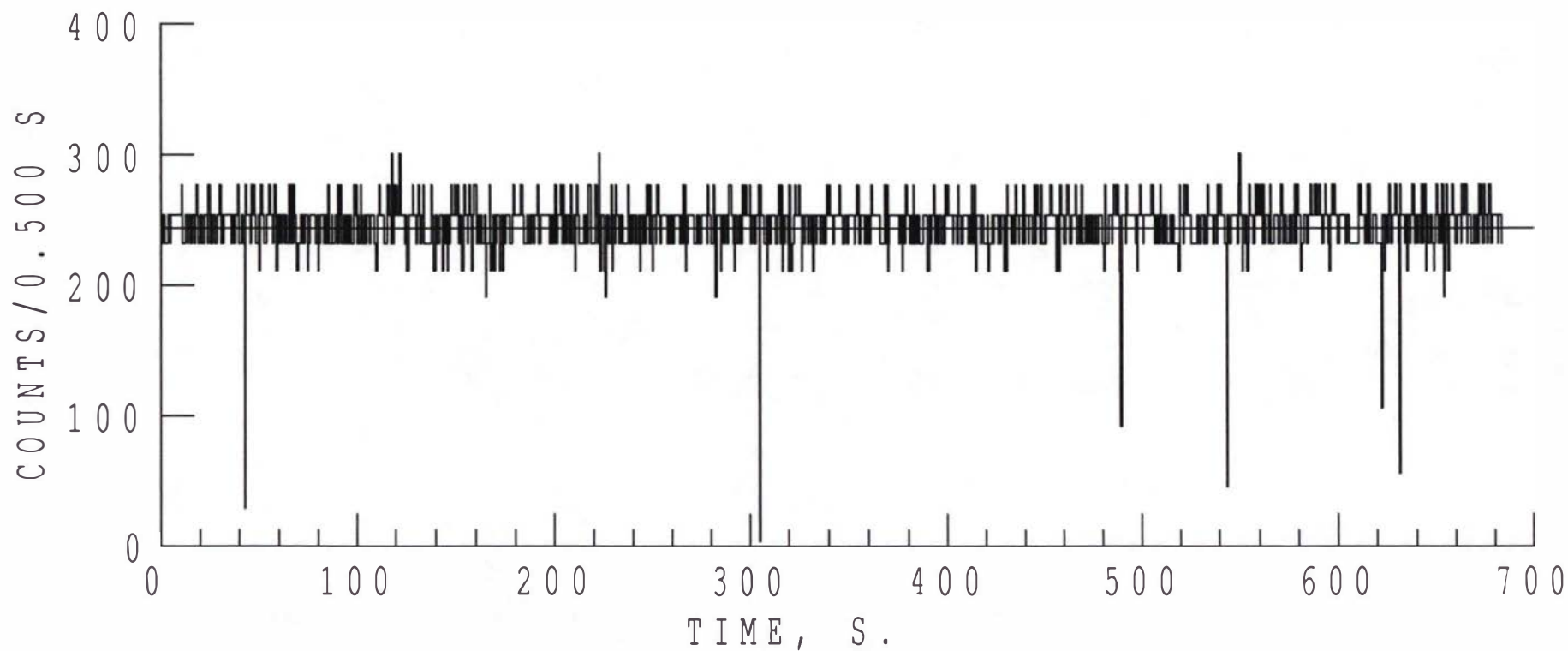
COMMENTS:

BURST, SINGLE SPIKE, LSTING ~0.08S. NOT VISIBLE ABOVE 300KEV.

1 8 / 1 / 9 4

ULYSSES RT
14 / 1 / 94 20124.129 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From SHARIFF@ssl.msfc.nasa.gov Tue Jan 18 09:35 PST 1994
Date: Tue, 18 Jan 1994 11:38:07 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02758

TIME: TJD=9366 SECONDS=50680

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PREC. EVENT.

From SHARIFF@ssl.msfc.nasa.gov Tue Jan 18 09:50 PST 1994
Date: Tue, 18 Jan 1994 11:52:40 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2759
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2759
EVENT OF 1994 JAN 14 DAY OF YEAR= 14
EVENT CROSSING TIME AT BATSE : 77300. S. OR 21:28:20.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 98.000 -14.000
BATSE PEAK COUNTING RATE: 1400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/ 1/ 94 IS:
RA= 162.432 DEC= -45.367 DIST= 3.447 AU
BATSE-ULYSSES DISTANCE = 515744180. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=117.80 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -802.31 SECS.
CROSSING TIME AT ULYSSES IS 76498. S. OR 21:14:57 +/- 302.02 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/ 1/ 94 IS:
RA= 290.745 DEC= -22.993 DIST= 2.403 AU
MARS-BATSE DISTANCE = 359516640. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 39.04 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 931.44 SECS.
CROSSING TIME AT MARS IS 78231. S. OR 21:43:51 +/- 145.29 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2759	940114	9366	77300	1400	098	-14

BATSE BURST TRIGGER
NO.: 02759

TIME: TJD=9366 SECONDS=77300

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=081.1 AZIMUTH=183.7 ERROR= DEGREES

COMMENTS:

BURST, MULTIPLE PEAKS, LASTING ~40S. MARGINALLY VISIBLE ABOVE 300KEV.

Batle # 2759

18 / 1 / 94

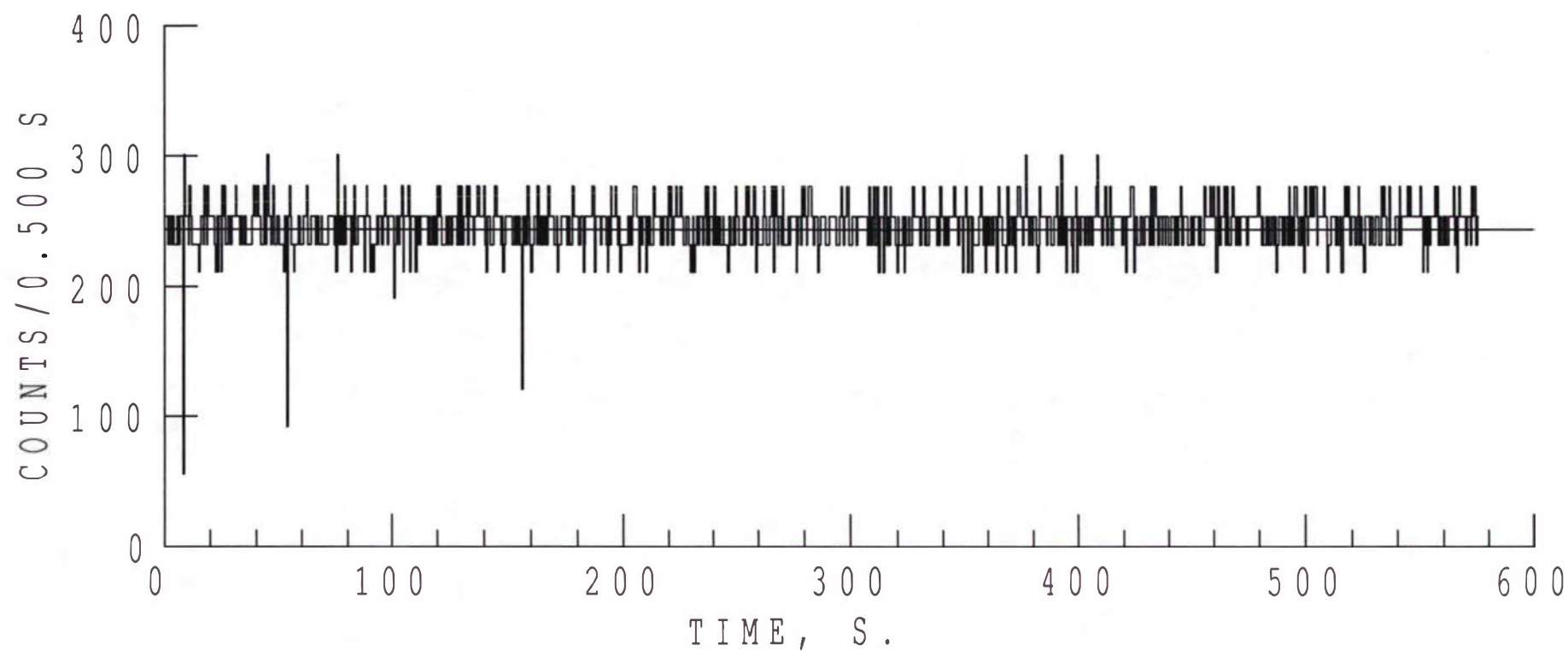
ULYSSES RT

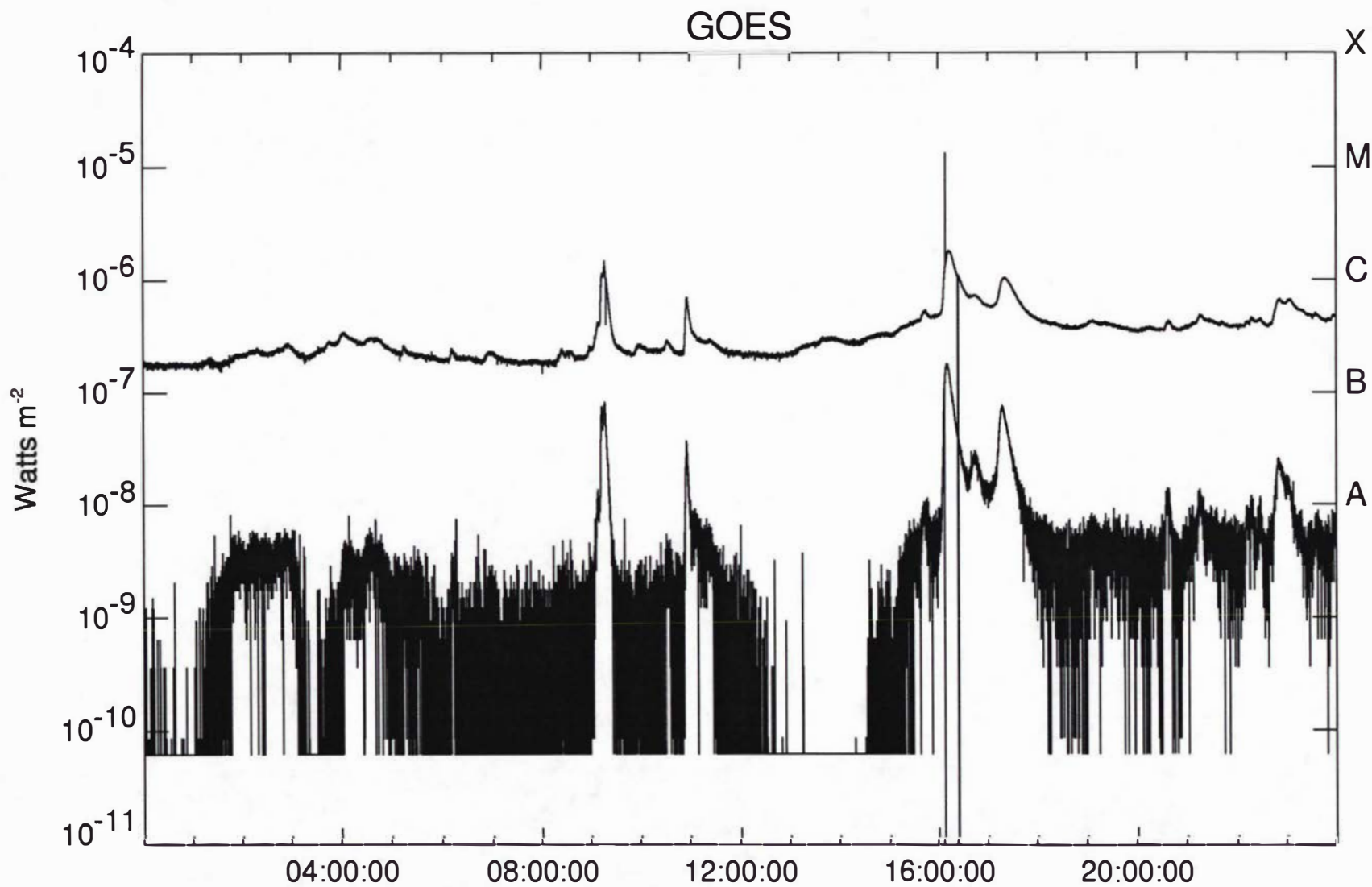
14 / 1 / 94 76212.492 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





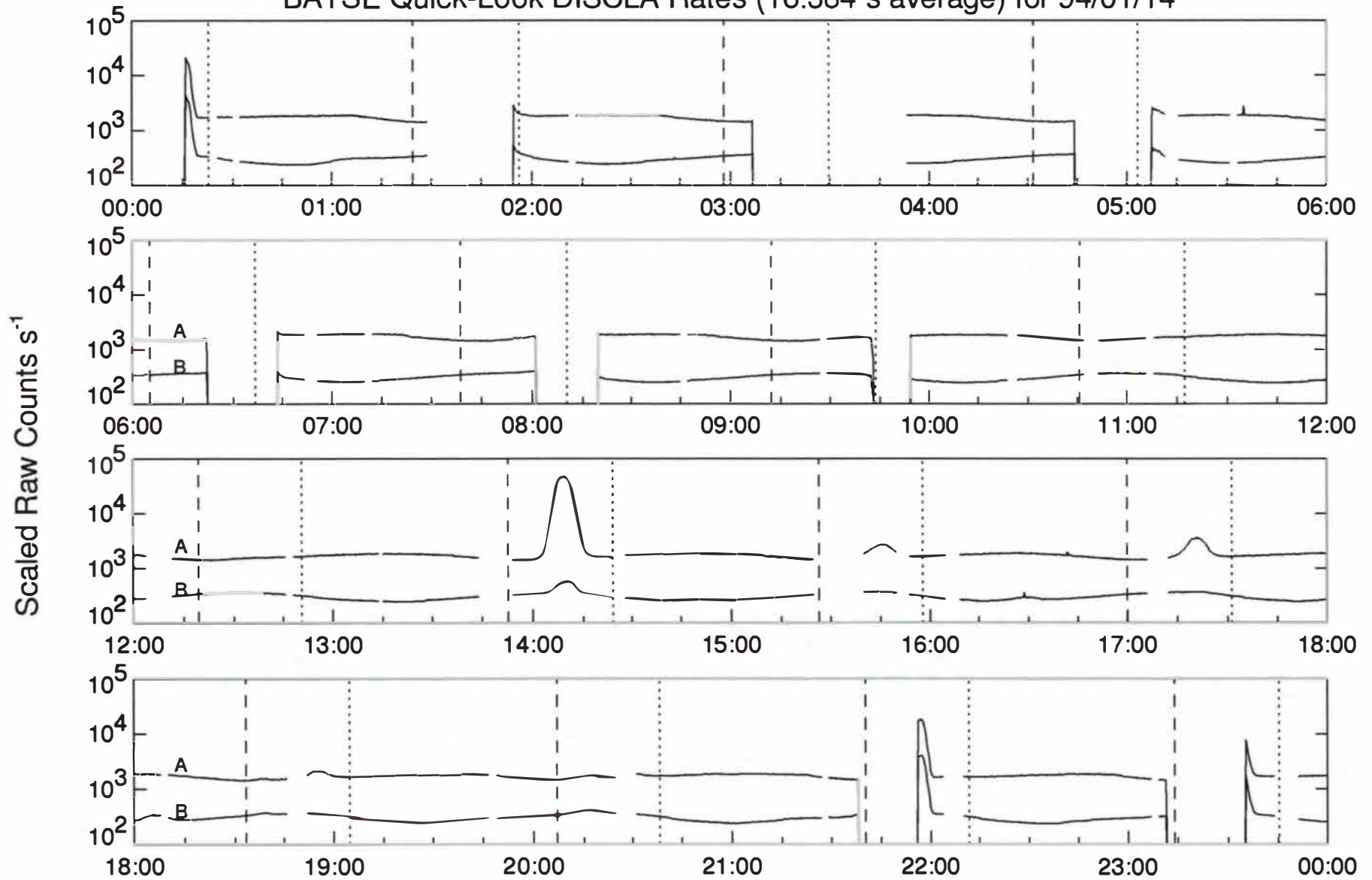
Data Start: 94/01/14, 0000:00

Plot created: 94/01/19, 1759

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 (16.384 s average) for 94/01/14

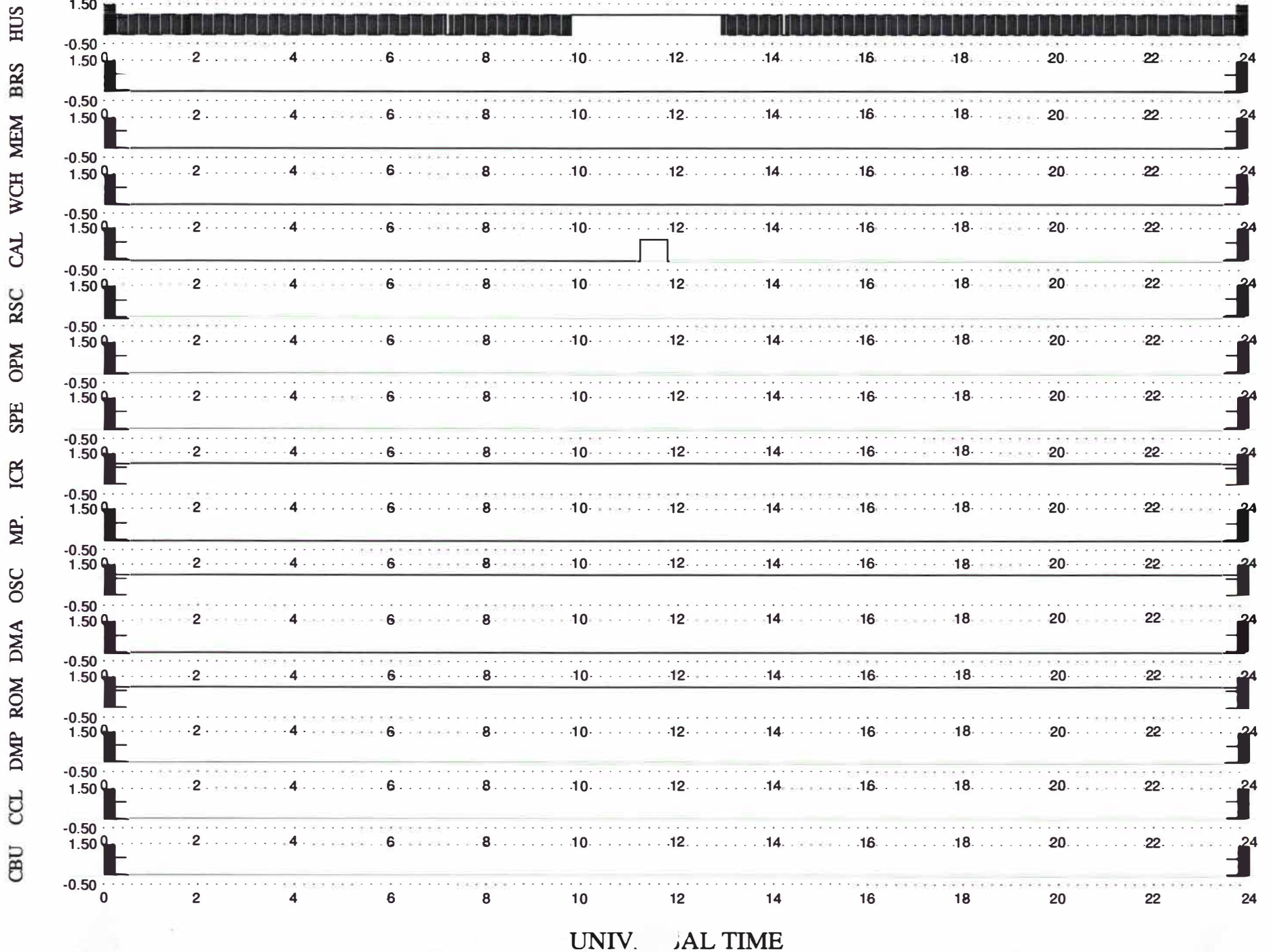


Current Time: 94/01/19, 1749 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

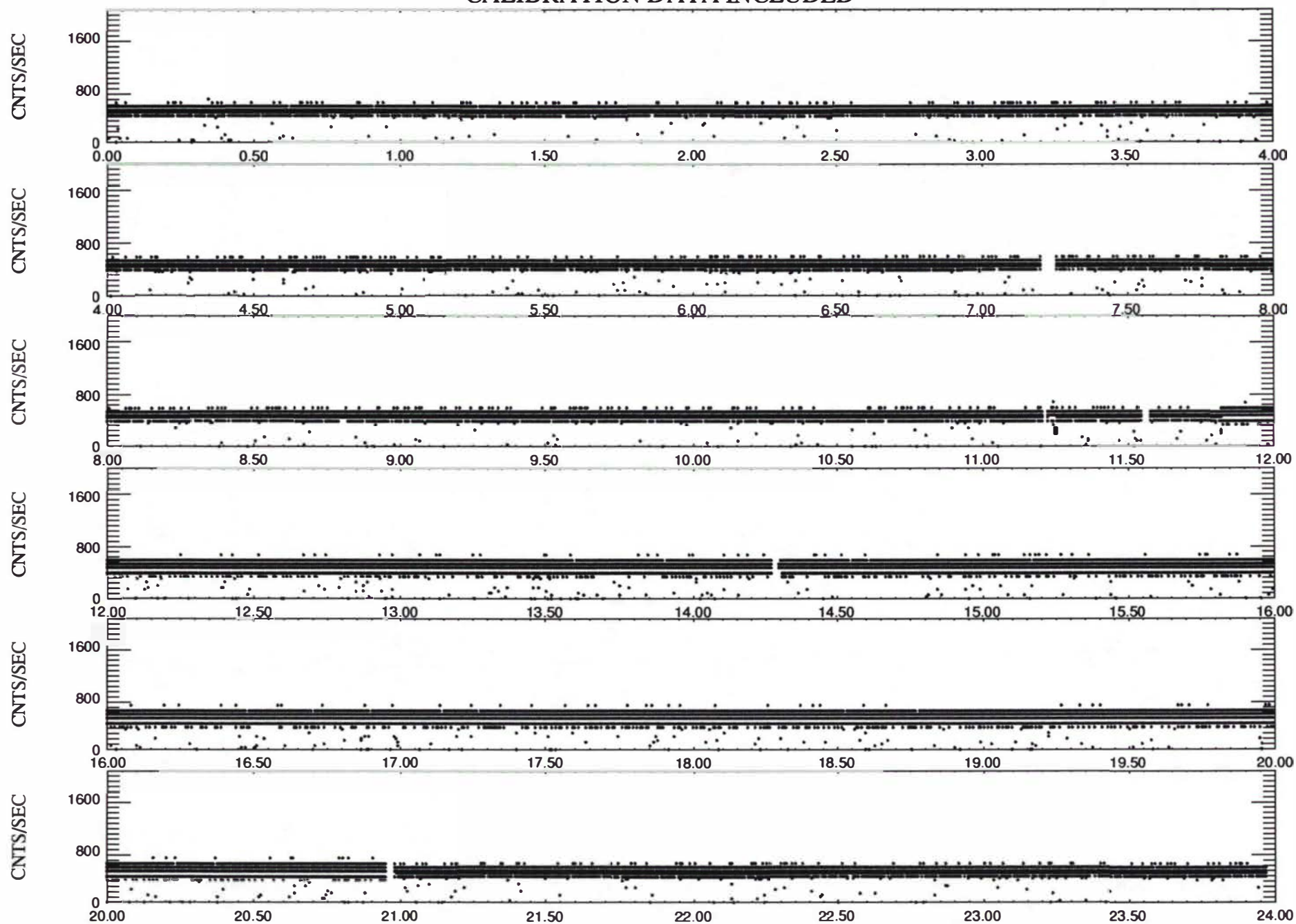
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

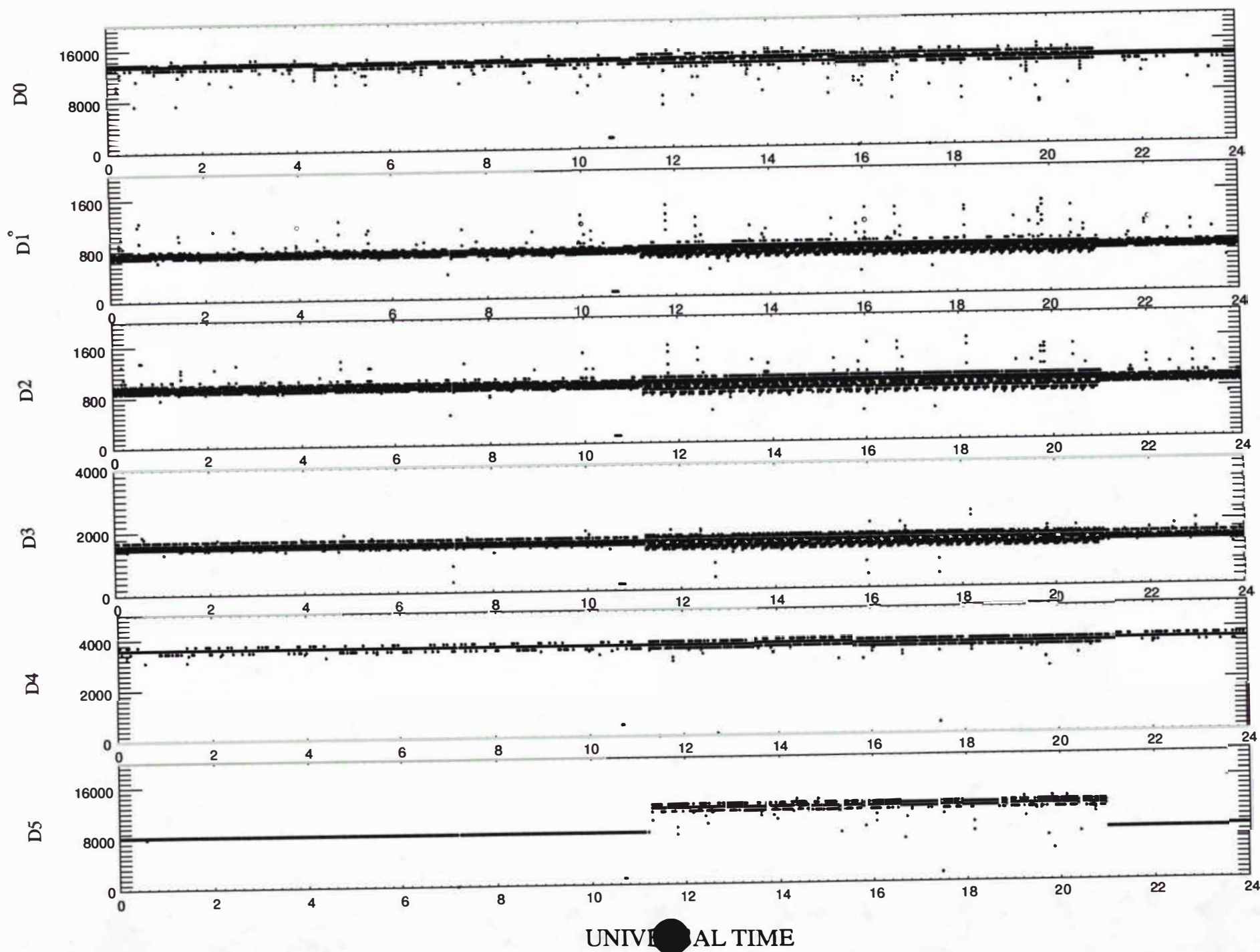
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV TIME



From ZMYEWSKI@ssl.msfc.nasa.gov Tue Jan 18 10:40 PST 1994
Date: Tue, 18 Jan 1994 12:43:00 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2760
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2760
EVENT OF 1994 JAN 15 DAY OF YEAR= 15
EVENT CROSSING TIME AT BATSE : 13410. S. OR 03:43:30.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 216.000 58.000
BATSE PEAK COUNTING RATE: 4400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 15/ 1/ 94 IS:
RA= 162.364 DEC= -45.432 DIST= 3.444 AU
BATSE-ULYSSES DISTANCE = 515156594. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 67.44 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 659.29 SECS.
CROSSING TIME AT ULYSSES IS 14069. S. OR 03:54:29 +/- 335.52 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 15/ 1/ 94 IS:
RA= 291.574 DEC= -22.889 DIST= 2.402 AU
MARS-BATSE DISTANCE = 359286912. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 77.98 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 249.54 SECS.
CROSSING TIME AT MARS IS 13660. S. OR 03:47:39 +/- 207.30 SECONDS

NO

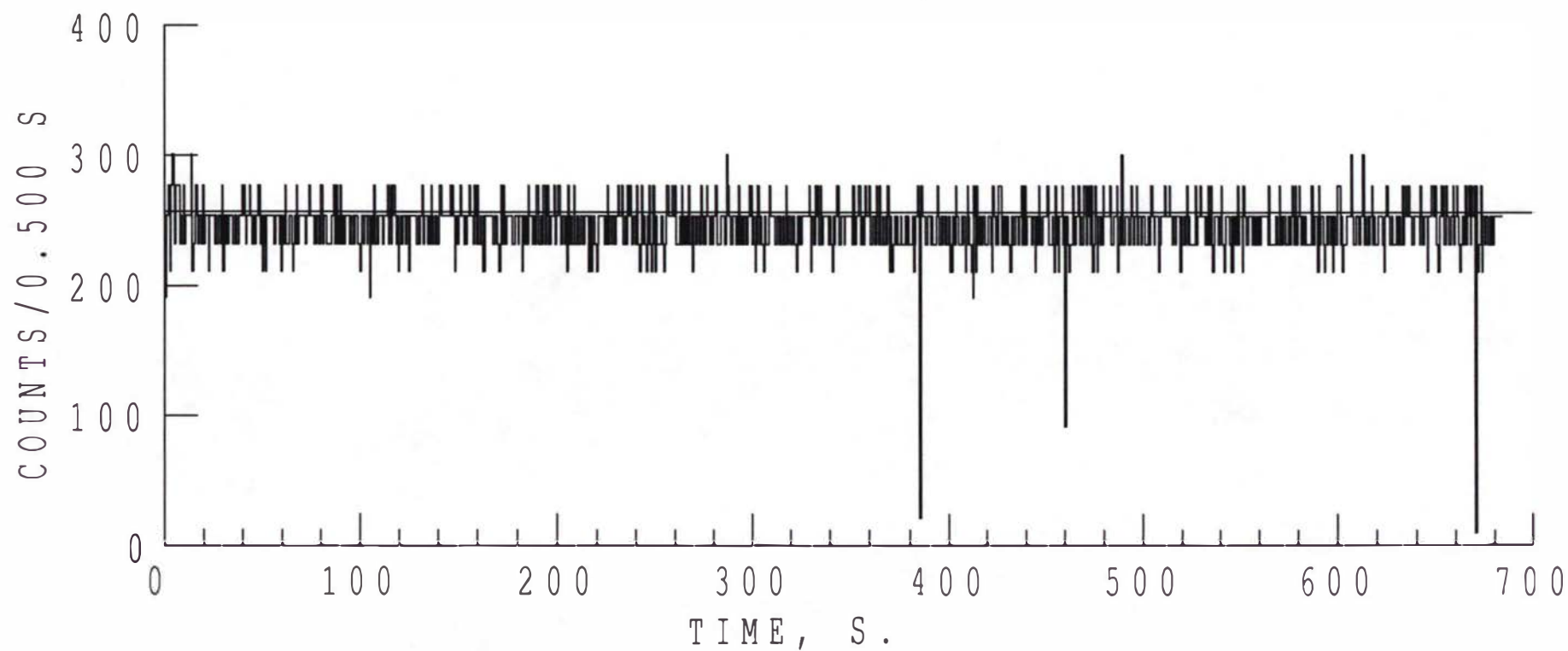
From ZMYEWSKI@ssl.msfc.nasa.gov Tue Jan 18 10:40 PST 1994
Date: Tue, 18 Jan 1994 12:42:35 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: ZMYEWSKI@ssl.msfc.nasa.gov
Subject: BATSE Burst 2760
Content-Type: text
Content-Length: 108

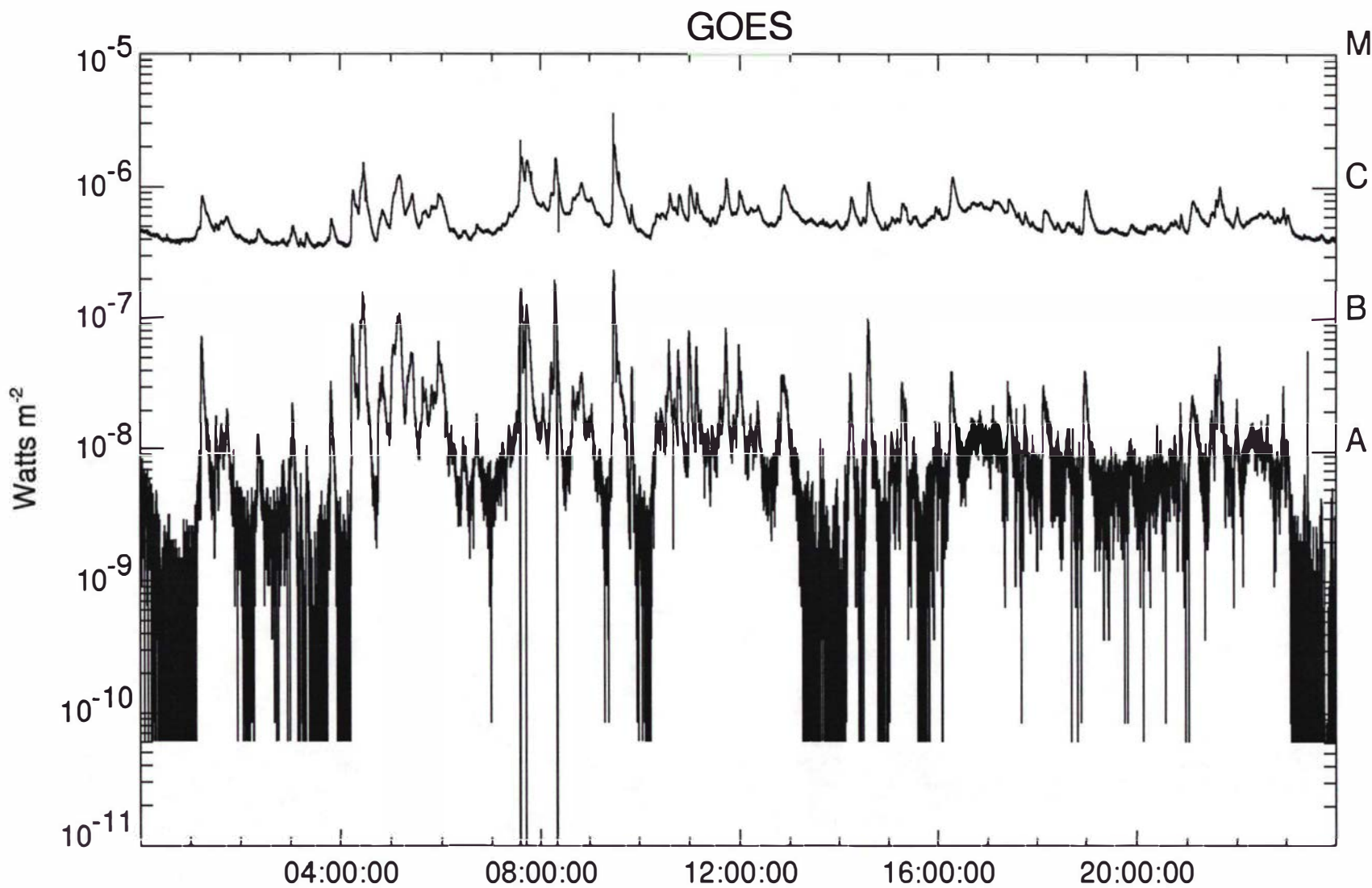
BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2760	940115	9367	13410	4400	216	+58

18 / 1 / 94

ULYSSES RT
15 / 1 / 94 13716.362 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





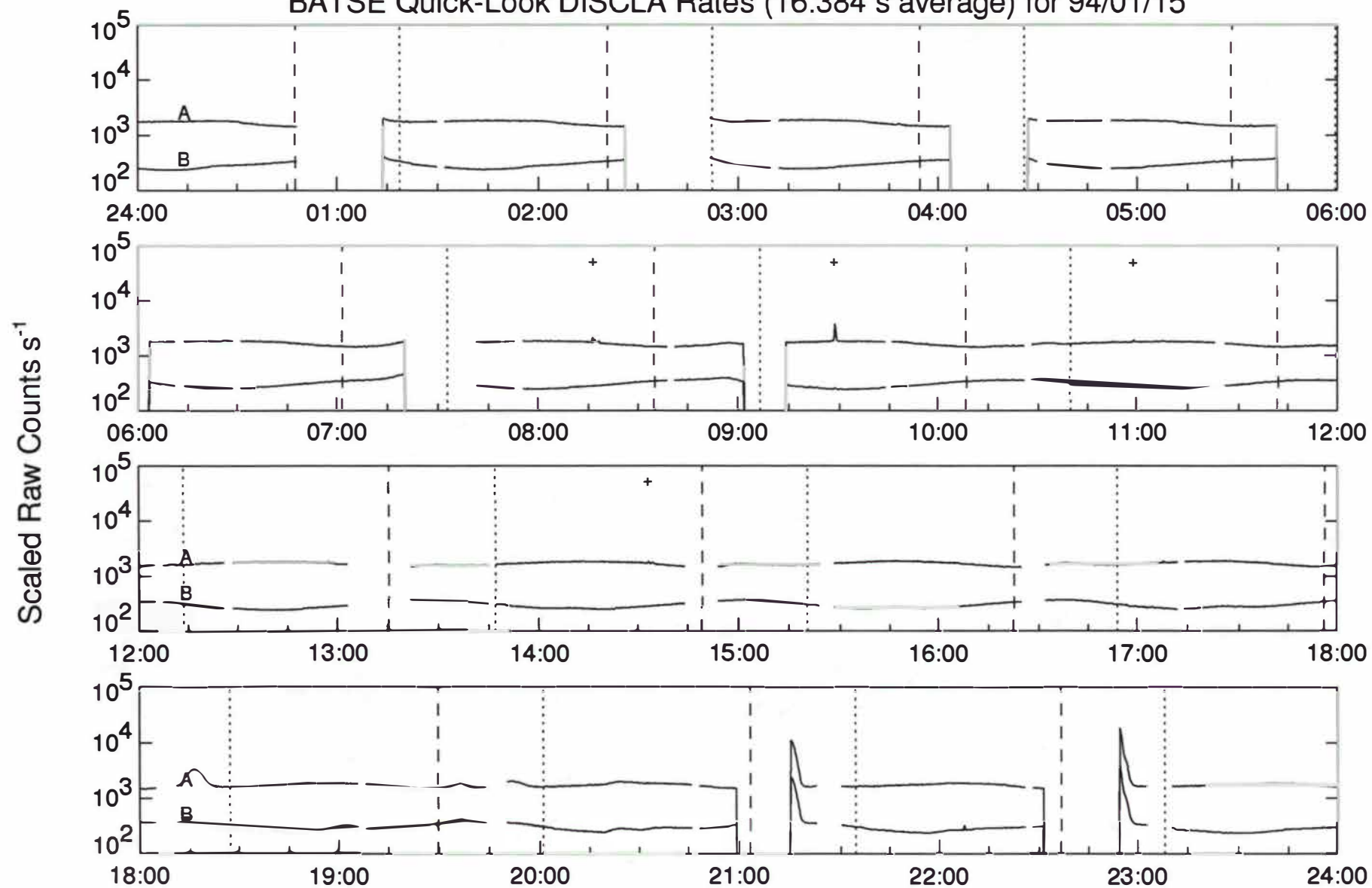
Data Start: 94/01/15, 0000:02

Plot created: 94/01/19, 1800

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 (16.384 s average) for 94/01/15

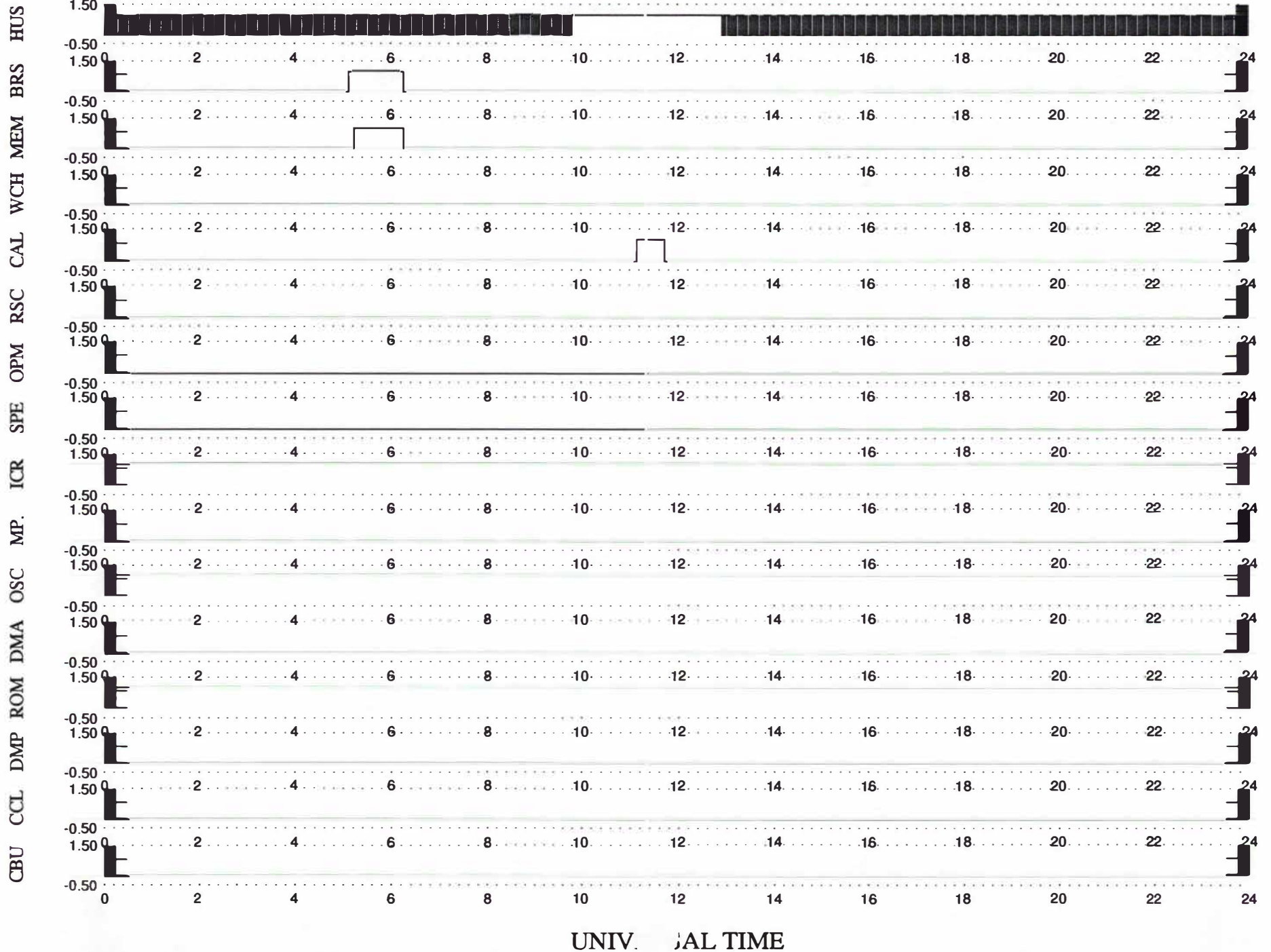


Current Time: 94/01/19, 1749 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

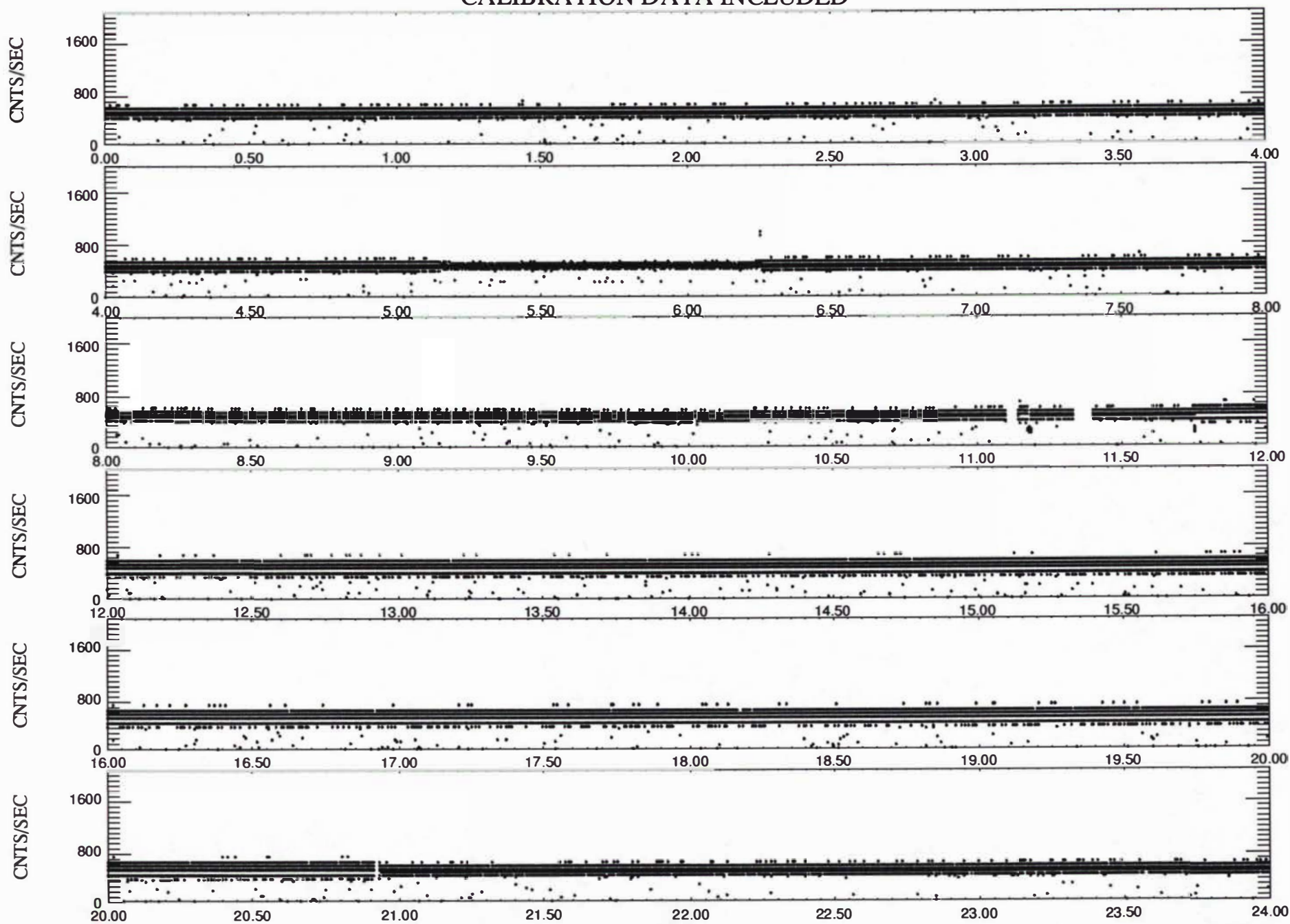
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 9

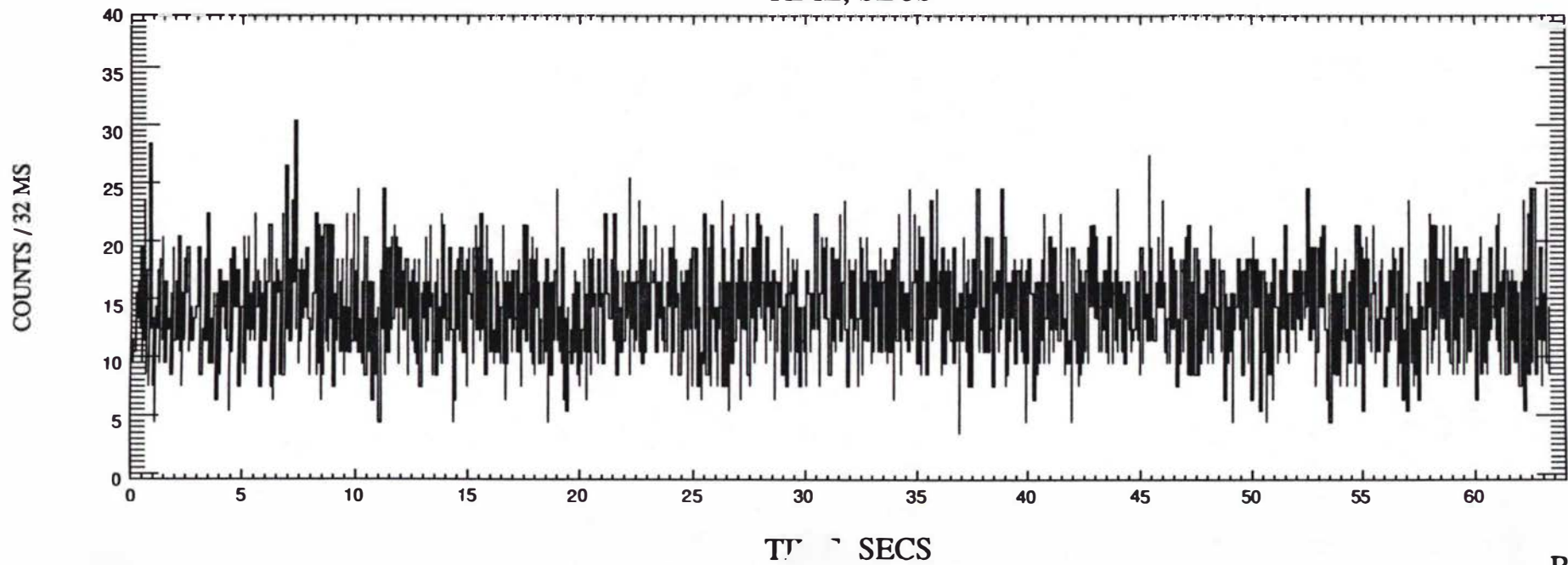
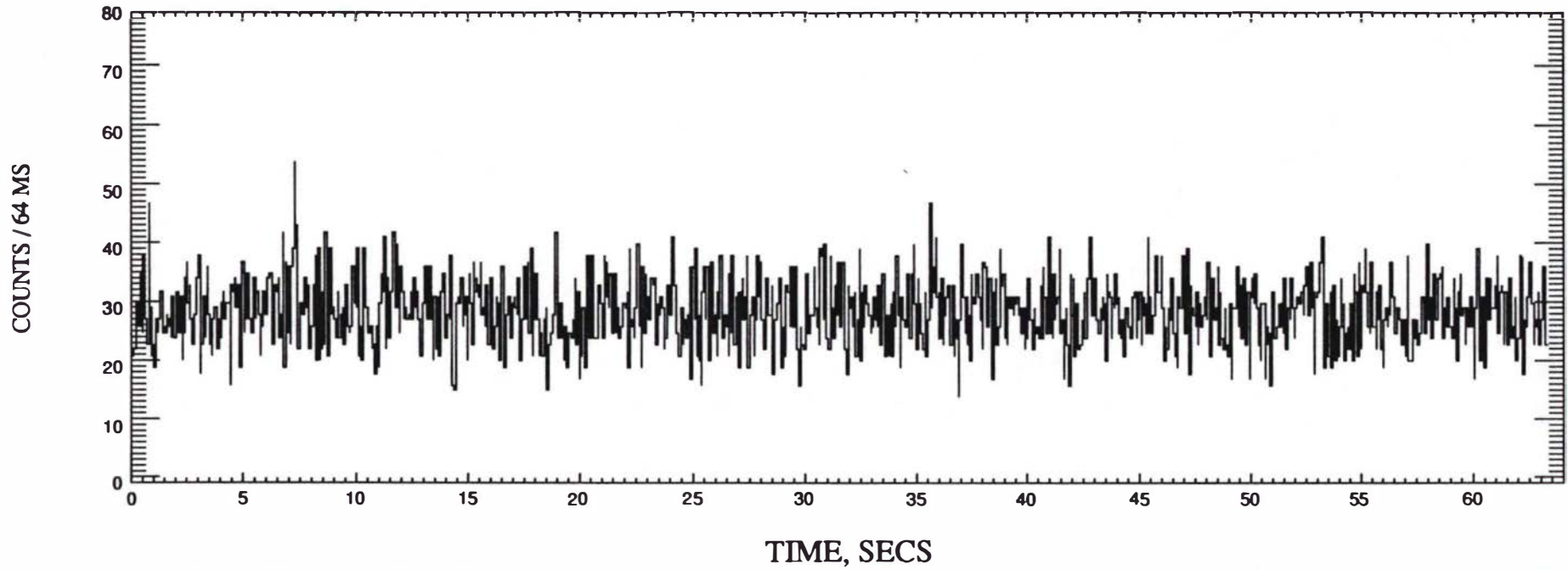


CALIBRATION DATA INCLUDED

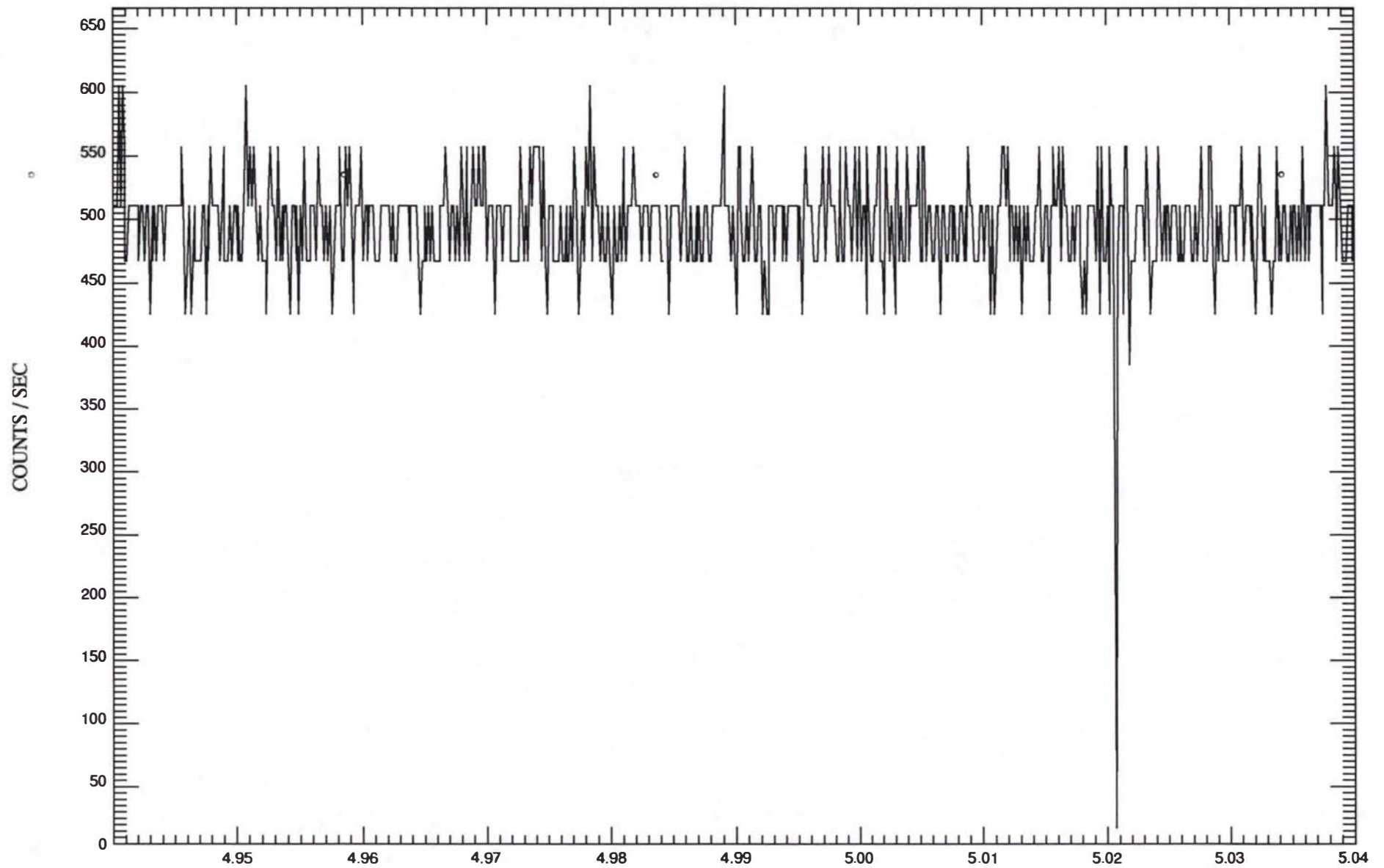


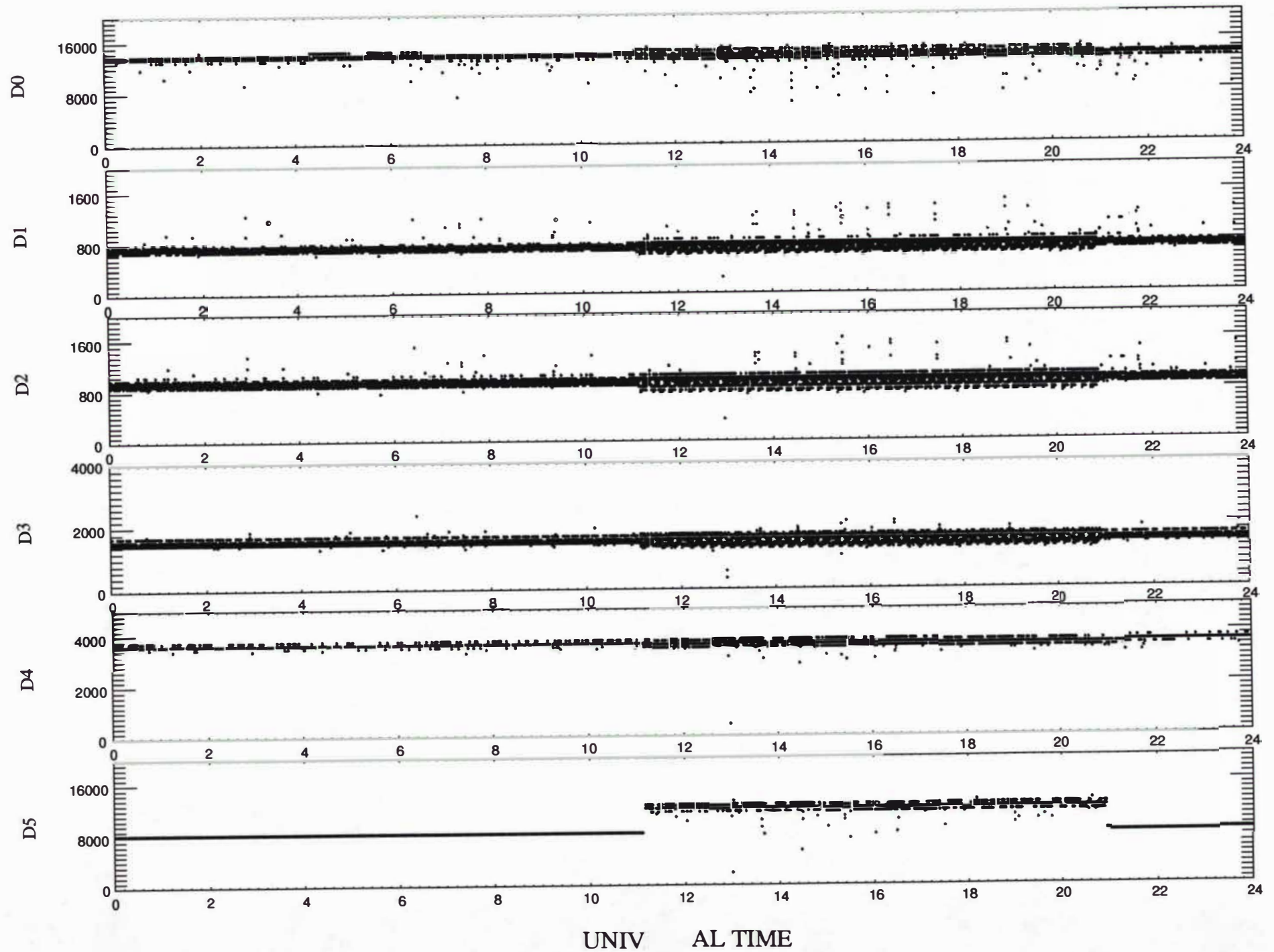
UNIV AL TIME

Burst Counter 9 at UT= 4.989177949693 h=17961.041 s 04:59:21.041



CALIBRATION DATA INCLUDED





From KOSHUT@ssl.msfc.nasa.gov Wed Jan 19 06:30 PST 1994

Date: Wed, 19 Jan 1994 8:33:18 -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,
LHEAVXKWOK@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

Content-Type: text

Content-Length: 1215

BATSE BURST TRIGGER

NO.: 2761

TIME: TJD=9368 SECONDS=68226

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

PARTICLE PRECIPITATION EVENT.

From KOSHUT@ssl.msfc.nasa.gov Wed Jan 19 07:21 PST 1994

Date: Wed, 19 Jan 1994 9:24:09 -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,
LHEAVXKWOK@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

Content-Type: text

Content-Length: 1296

BATSE BURST TRIGGER

NO.: 2762

TIME: TJD=9368 SECONDS=83342

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

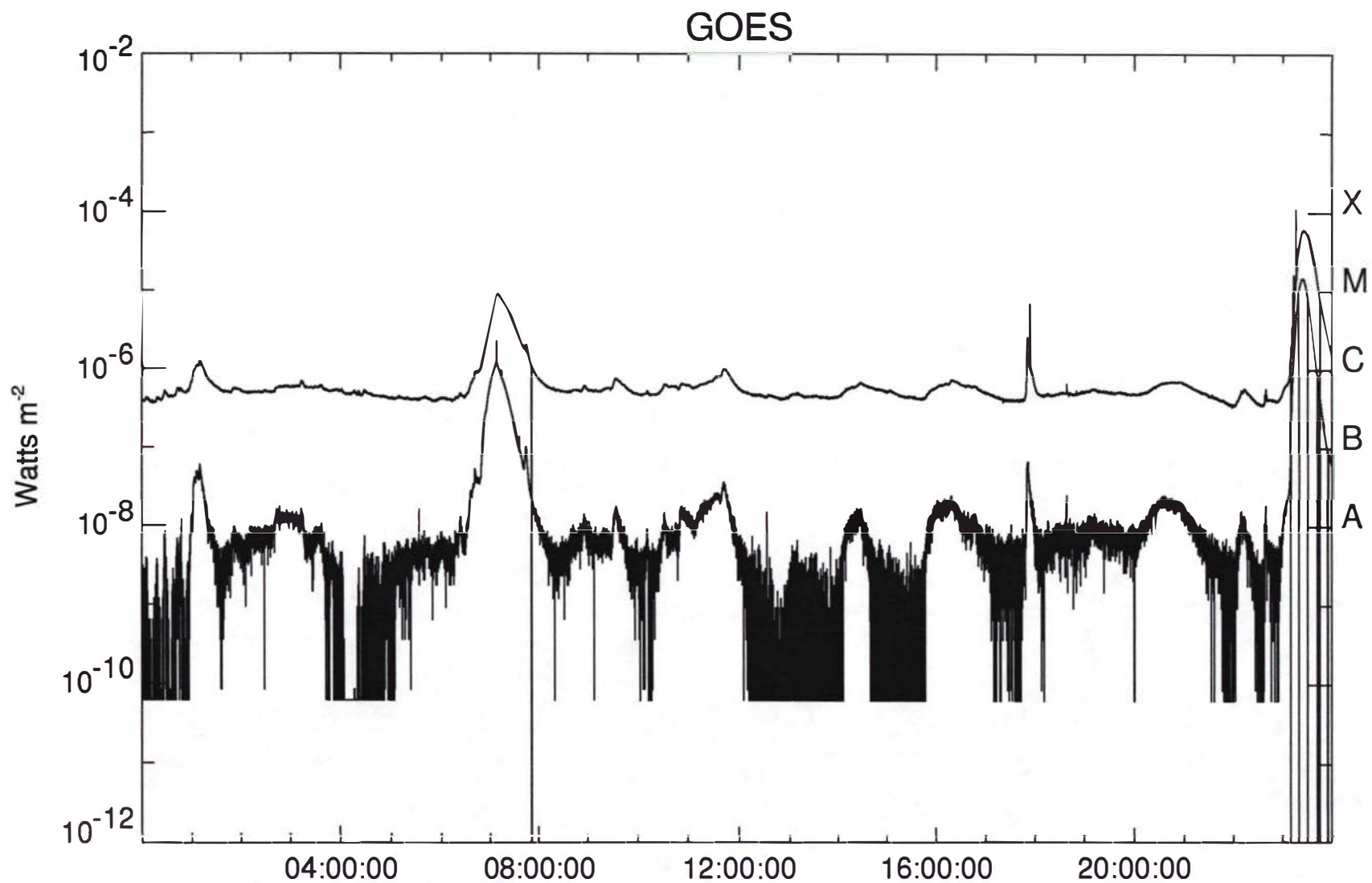
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

STRONG SOLAR FLARE OF ~ 800 SECONDS DURATION. NOT OBSERVED ABOVE 300 KEV. CLASSIFIED AS M6.1 FLARE IN GOES X-RAY DATA.



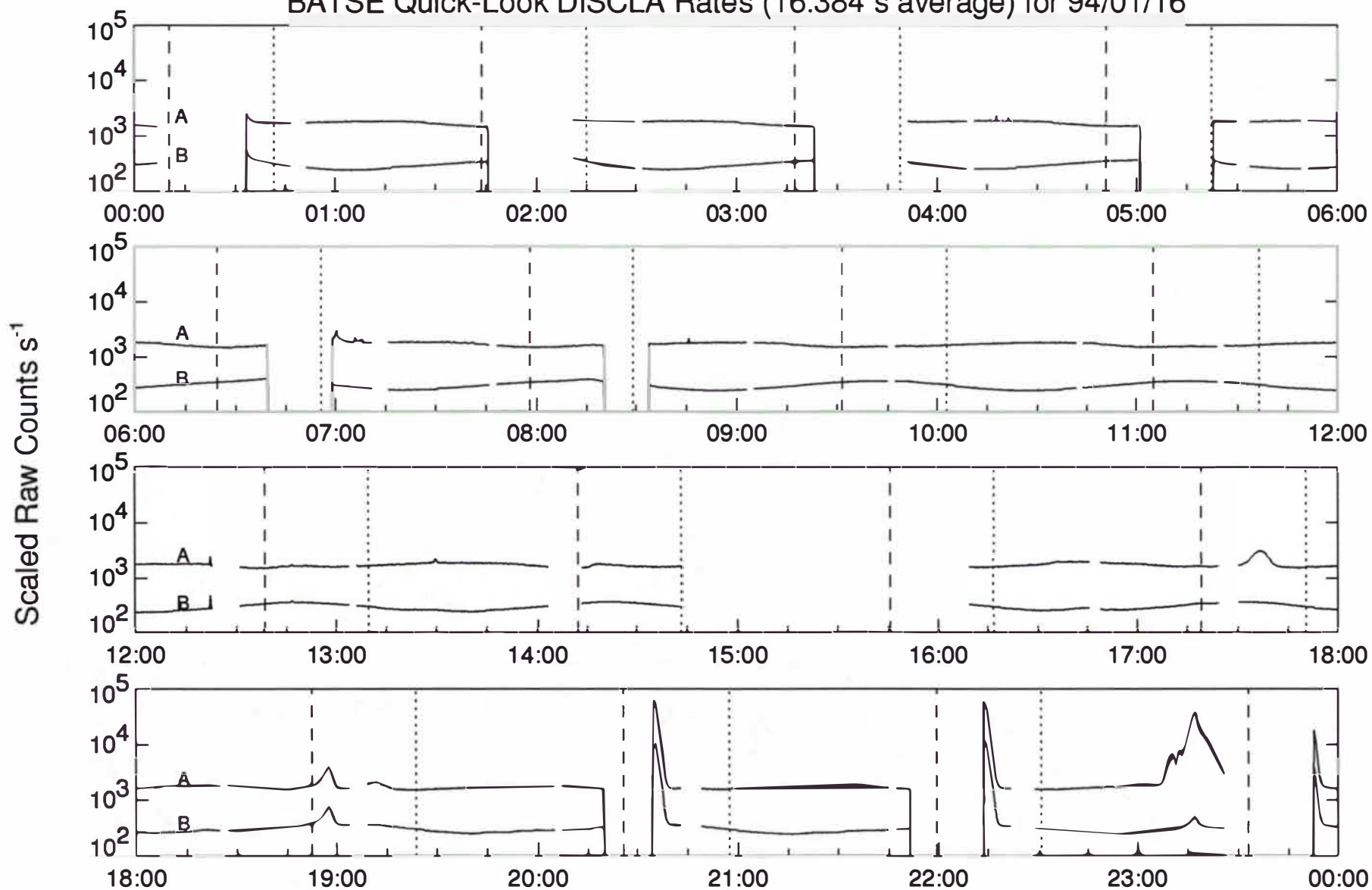
Data Start: 94/01/16, 0000:02

Plot created: 94/01/19, 1804

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/16

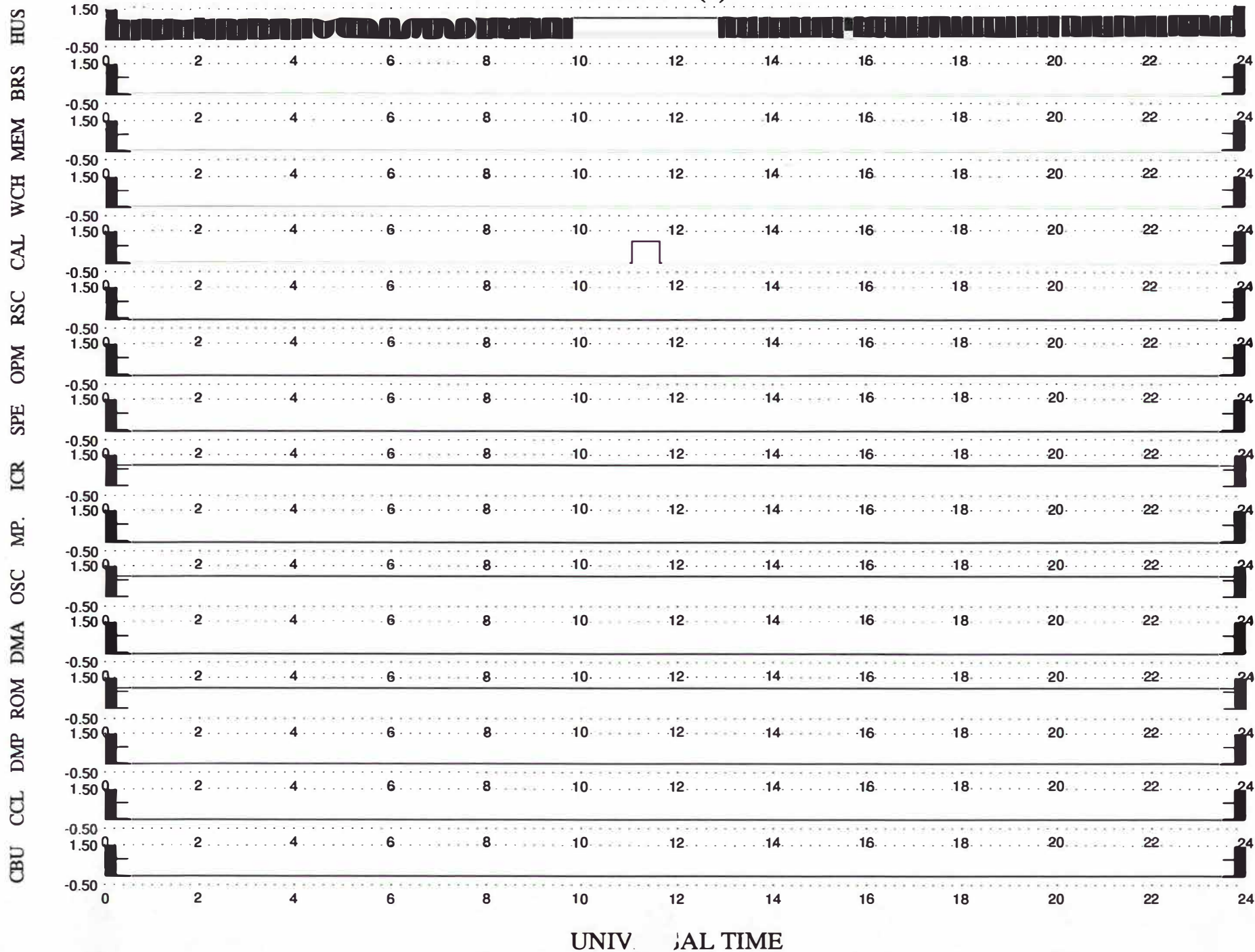


Current Time: 94/01/19, 1753 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

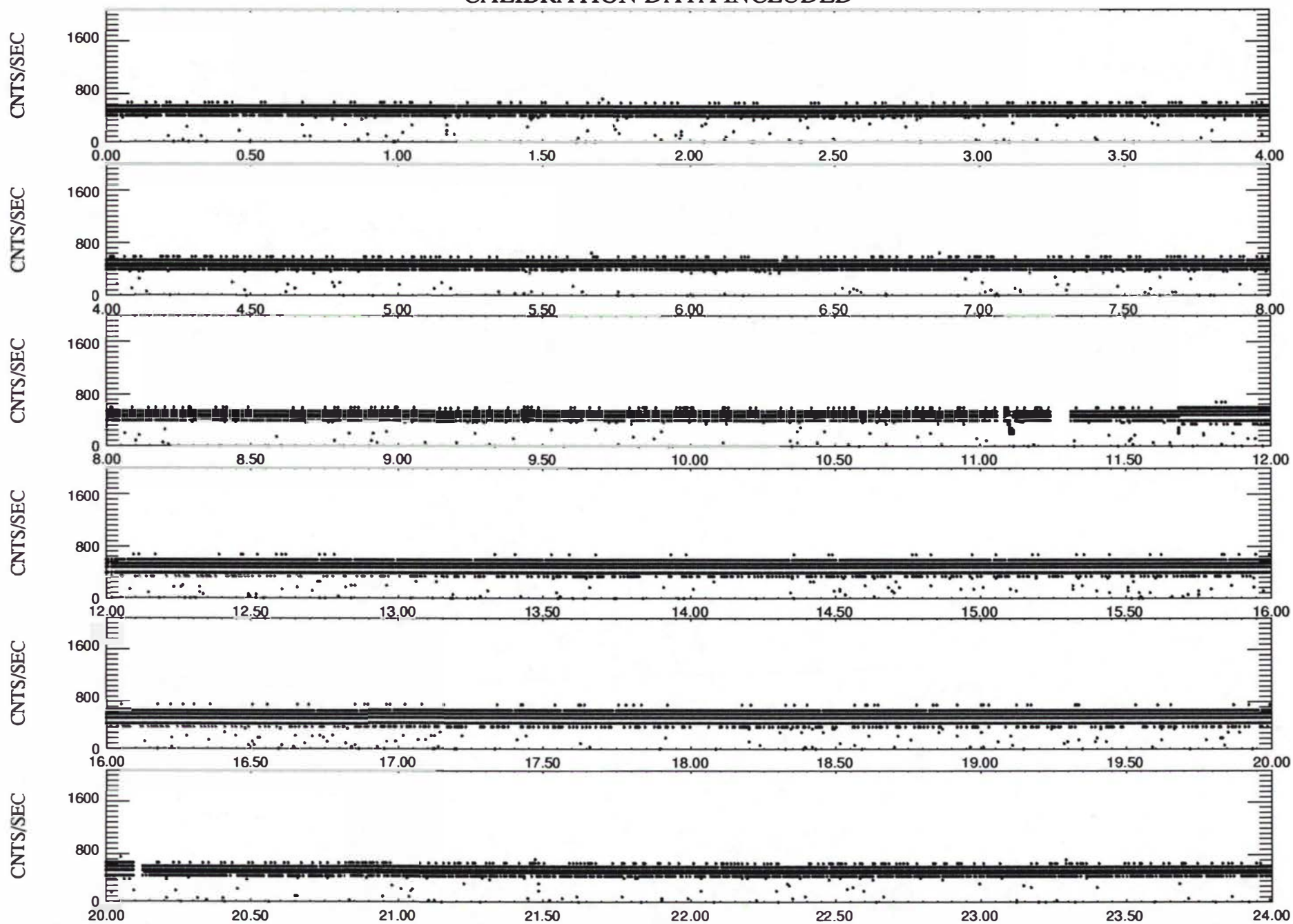
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

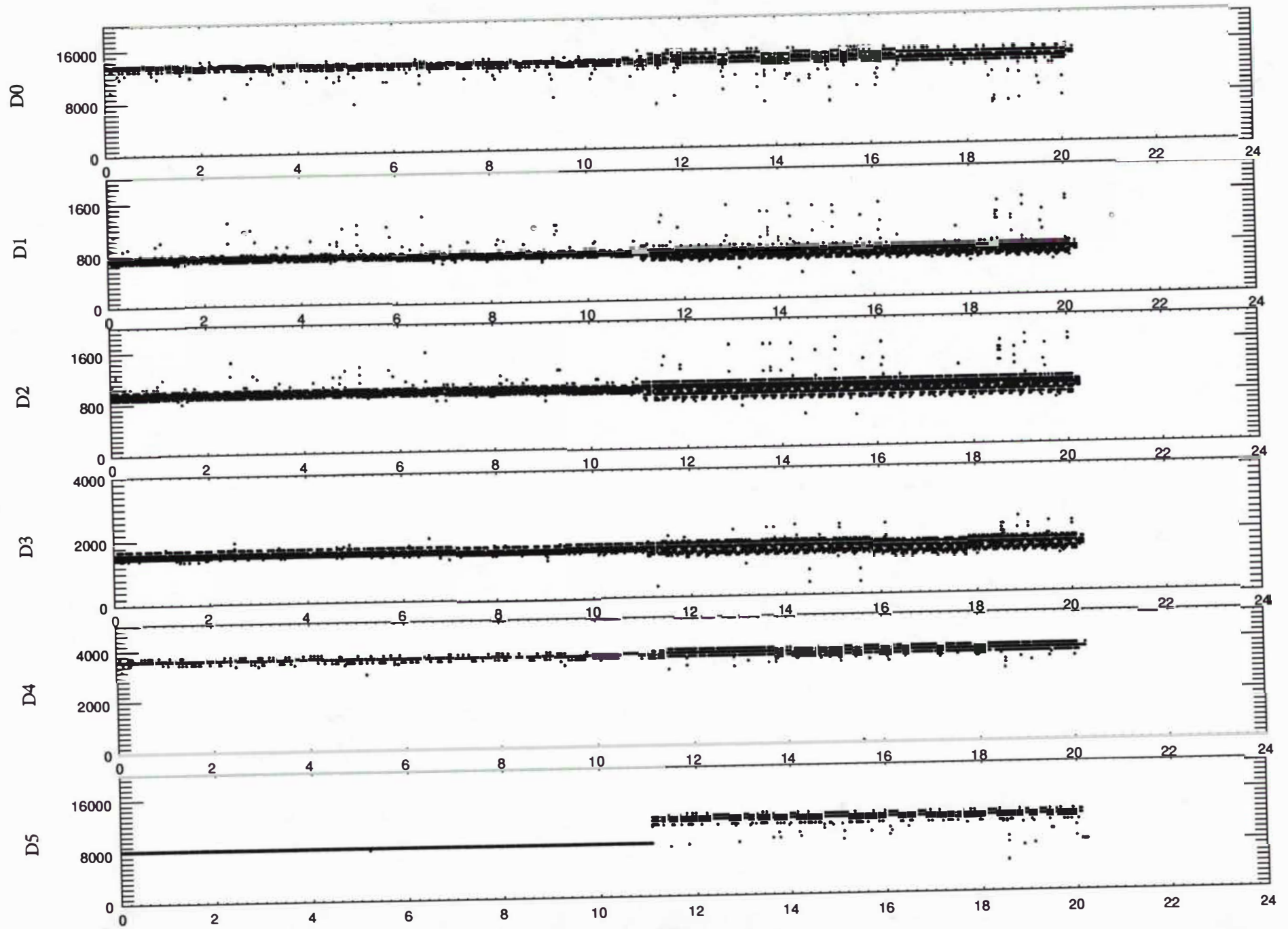
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIV AL TIME



UNIV. AL TIME

From PREECE@ssl.msfc.nasa.gov Mon Jan 24 10:34 PST 1994
Date: Mon, 24 Jan 1994 12:37:14 -0600 (CST)
From: PREECE@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02763

TIME: TJD=9369 SECONDS=40529

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SMALL SOLAR FLARE, GOES C1 UNCLASSIFIED. TWO SPIKES, 60 S TOTAL DURATION.

From PREECE@ssl.msfc.nasa.gov Mon Jan 24 11:21 PST 1994
Date: Mon, 24 Jan 1994 13:24:14 -0600 (CST)
From: PREECE@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02764

TIME: TJD=9369 SECONDS=68407

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

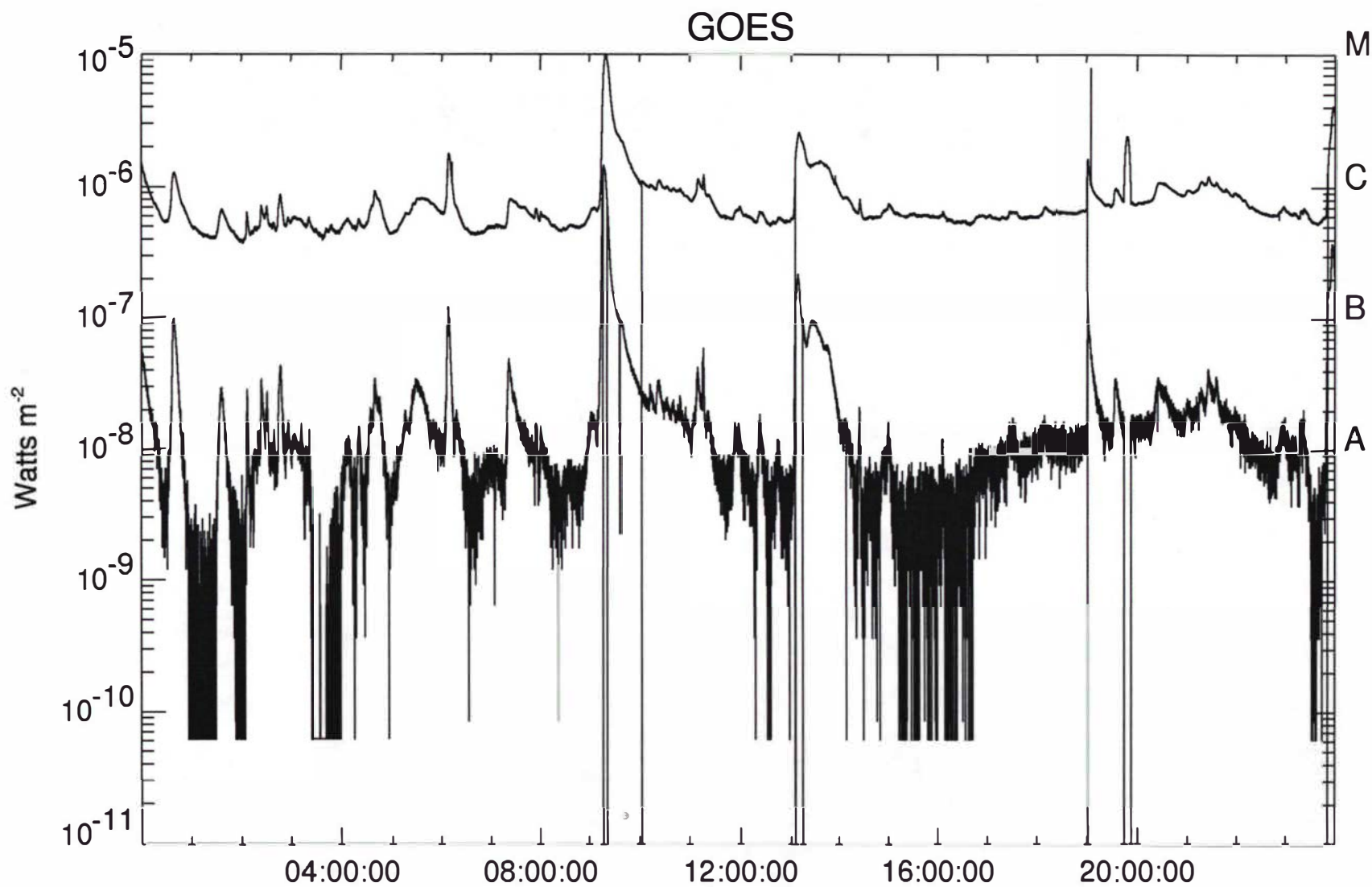
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES C1.5 SOLAR FLARE, AT LEAST 60 S TOTAL DURATION. NOT VISIBLE ABOVE 300 KEV.



Data Start: 94/01/17, 0000:02

Plot created: 94/01/19, 1806

Channel

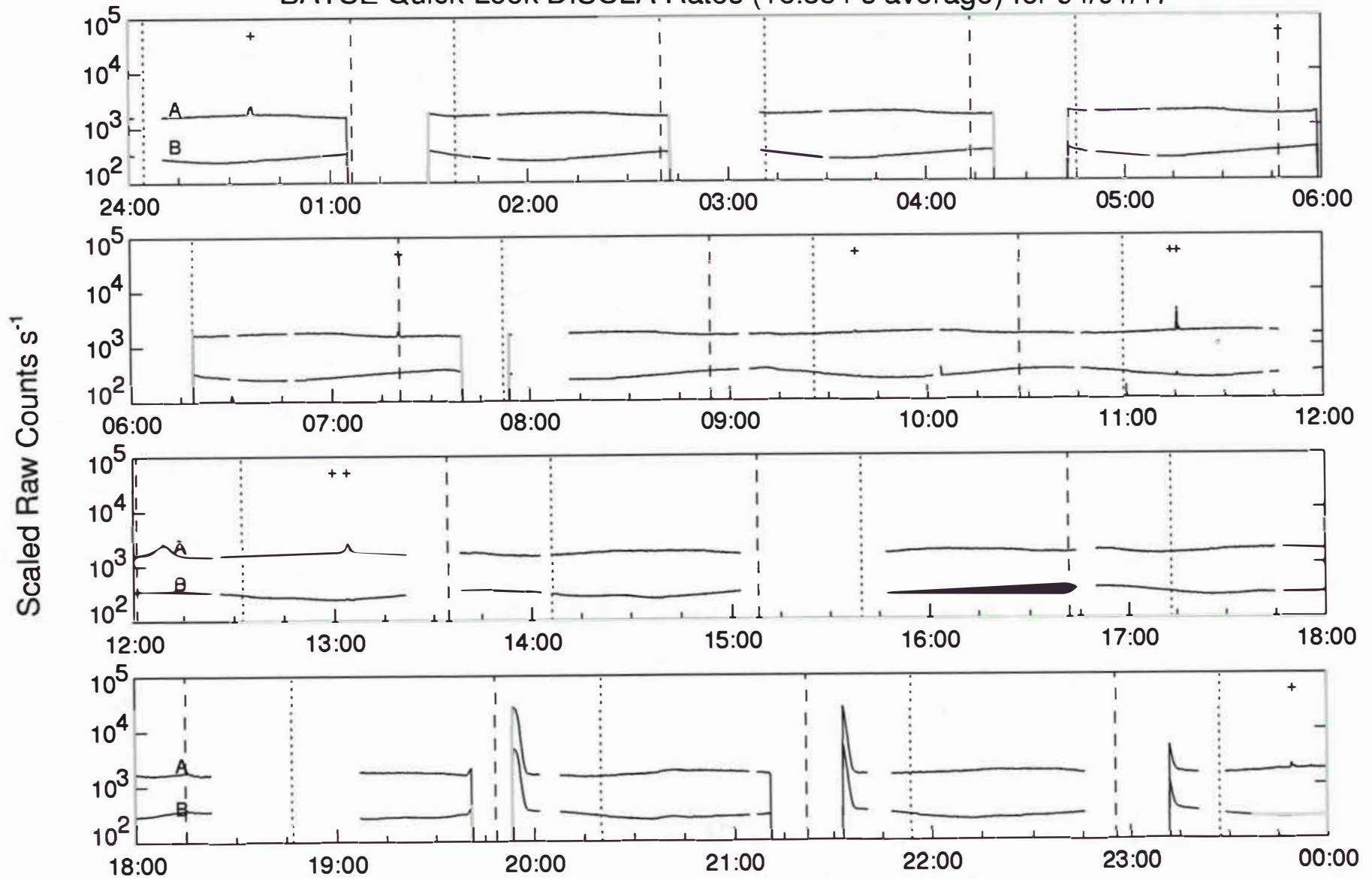
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/17

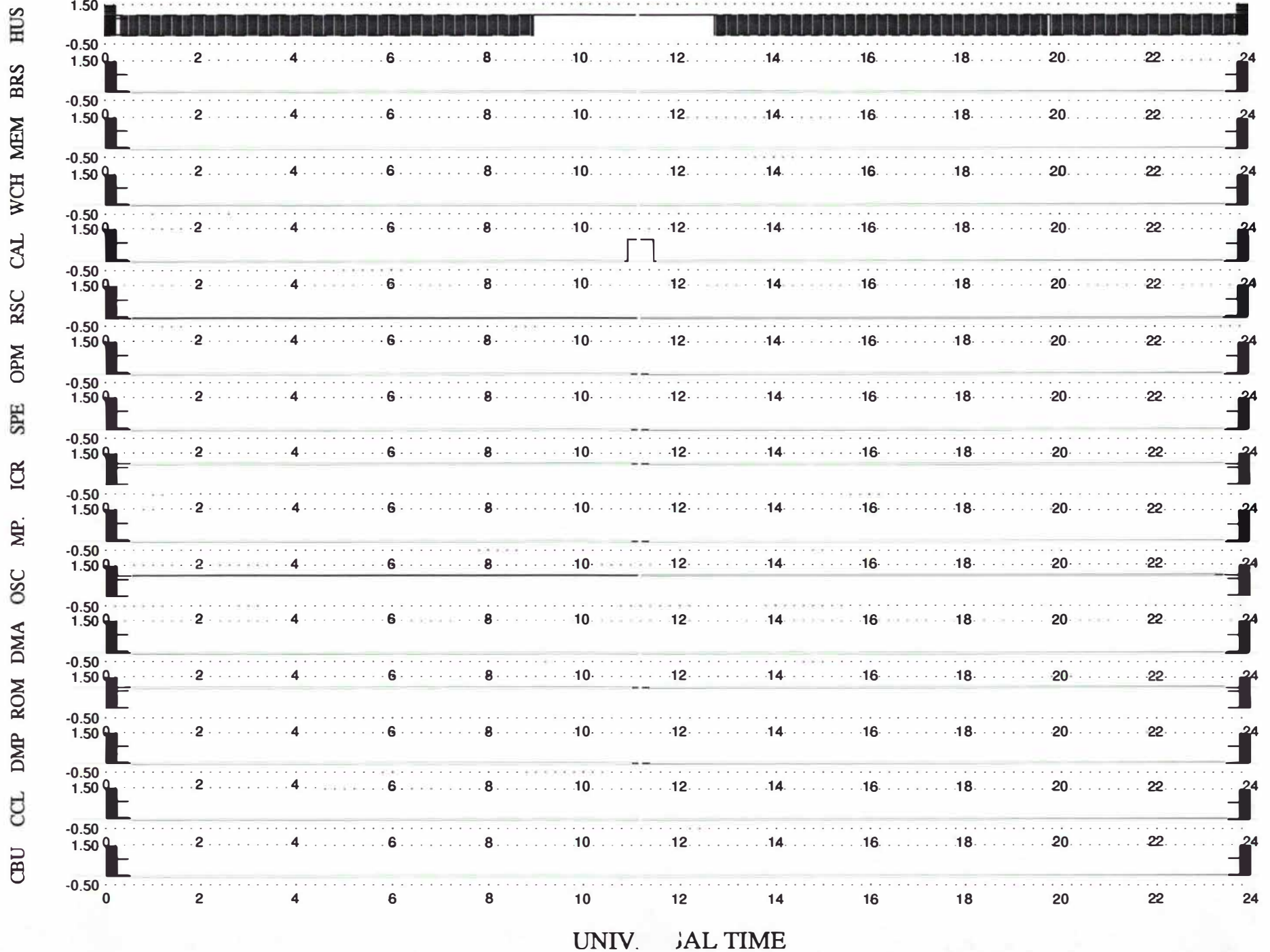


Current Time: 94/01/28, 1217 EDT
A: Channel 1 Most Sunward LAD
B: Sum Channel 1 Anti-Sunward LADs X .05

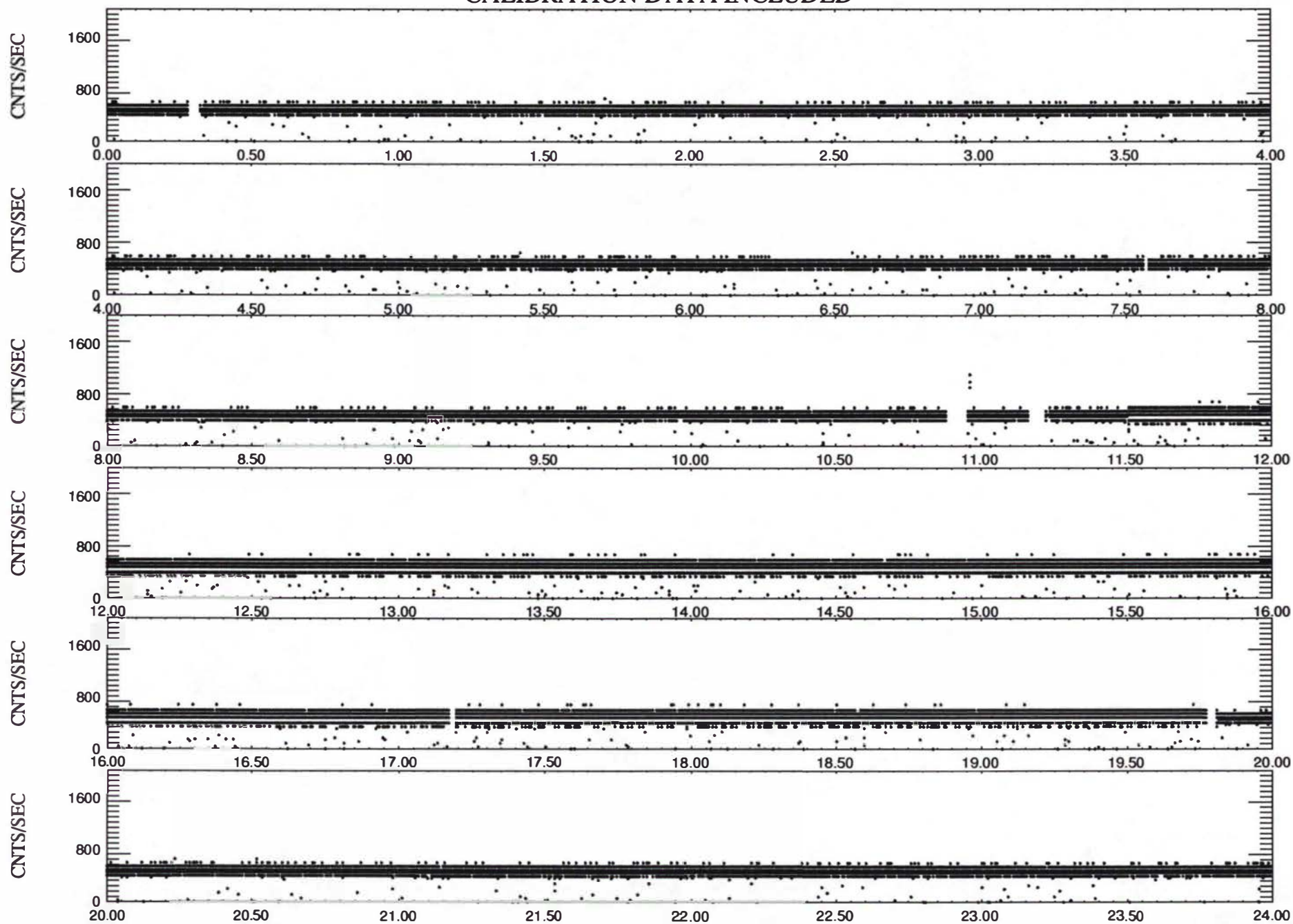
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

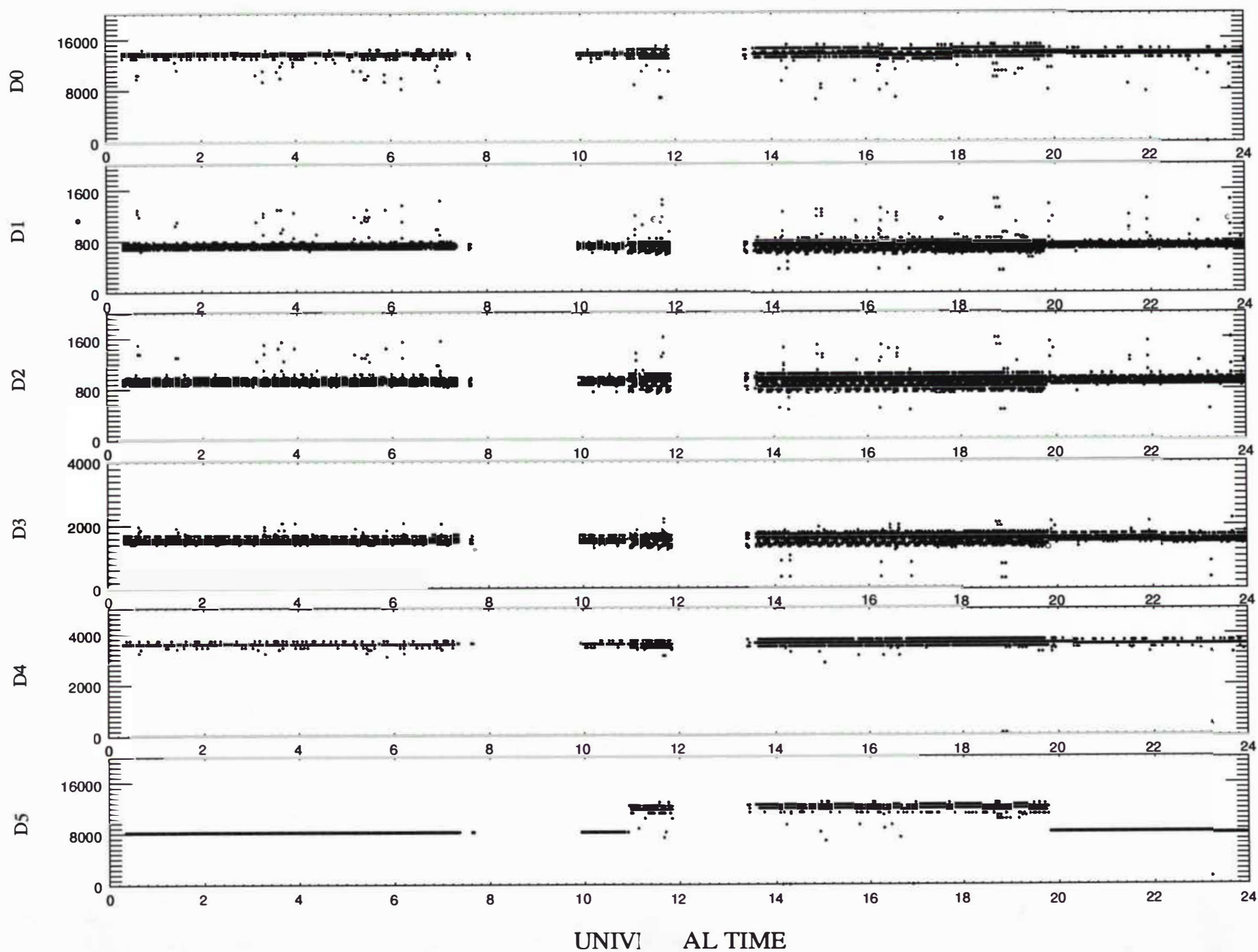
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIV AL TIME



From HAGEDON@ssl.msfc.nasa.gov Tue Jan 25 09:44 PST 1994
Date: Tue, 25 Jan 1994 11:47:35 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 2765

TIME: TJD=9370 SECONDS=7082

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

UNCLASSIFIED SOLAR FLARE. DUR.~25 SEC. SINGLE MULTI-PEAKED EPISODE.
NOT VISIBLE ABOVE 100 KEV.

From HAGEDON@ssl.msfc.nasa.gov Tue Jan 25 09:49 PST 1994
Date: Tue, 25 Jan 1994 11:51:50 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 2766

TIME: TJD=9370 SECONDS=15633

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES C2.8 SOLAR FLARE. SINGLE PULSE WITH SUBSTRUCTURE. DUR.~60 SEC.
NOT VISIBLE ABOVE 100KEV.

From SHARIFF@ssl.msfc.nasa.gov Tue Jan 25 10:47 PST 1994
Date: Tue, 25 Jan 1994 12:49:59 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2767
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2767
EVENT OF 1994 JAN 18 DAY OF YEAR= 18
EVENT CROSSING TIME AT BATSE : 39401. S. OR 10:56:41.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 281.000 -69.000
BATSE PEAK COUNTING RATE: 1400 C/S

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/ 1/ 94 IS:
RA= 161.461 DEC= -46.241 DIST= 3.395 AU
BATSE-ULYSSES DISTANCE = 507876196. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=123.51 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -935.28 SECS.
CROSSING TIME AT ULYSSES IS 38466. S. OR 10:41:05 +/- 281.03 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/ 1/ 94 IS:
RA= 294.057 DEC= -22.550 DIST= 2.397 AU
MARS-BATSE DISTANCE = 358582784. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=132.88 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -813.86 SECS.
CROSSING TIME AT MARS IS 38587. S. OR 10:43:07 +/- 139.82 SECONDS

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2767	940118	9370	39401	1400	281	-69

BATSE BURST TRIGGER

NO.: 02767

TIME: TJD=9370 SECONDS=39401

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=031.6 AZIMUTH=309.4 ERROR= DEGREES

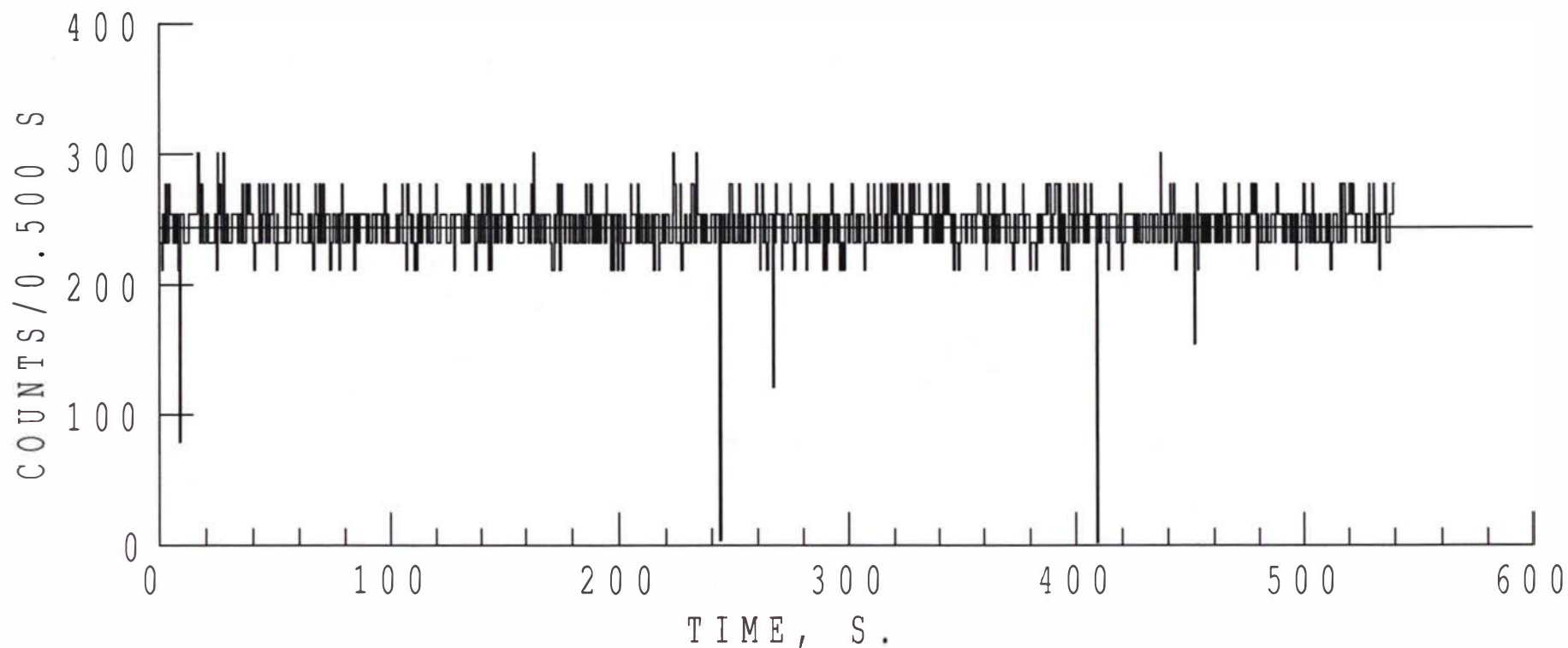
COMMENTS:

BURST, SINGLE PEAK, LASTING ~ 2 SECONDS. NOT VISIBLE ABOVE 300KEV. LATER EMISSION
STARTING ~T+20S MIGHT BE SOLAR.

25 / 1 / 94

ULYSSES RT
18 / 1 / 94 38196.246 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From SHARIFF@ssl.msfc.nasa.gov Tue Jan 25 10:41 PST 1994
Date: Tue, 25 Jan 1994 12:43:55 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02768

TIME: TJD=9370 SECONDS=58113

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PREC. EVENT.

From SHARIFF@ssl.msfc.nasa.gov Tue Jan 25 10:44 PST 1994
Date: Tue, 25 Jan 1994 12:46:46 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02769

TIME: TJD=9370 SECONDS=68435

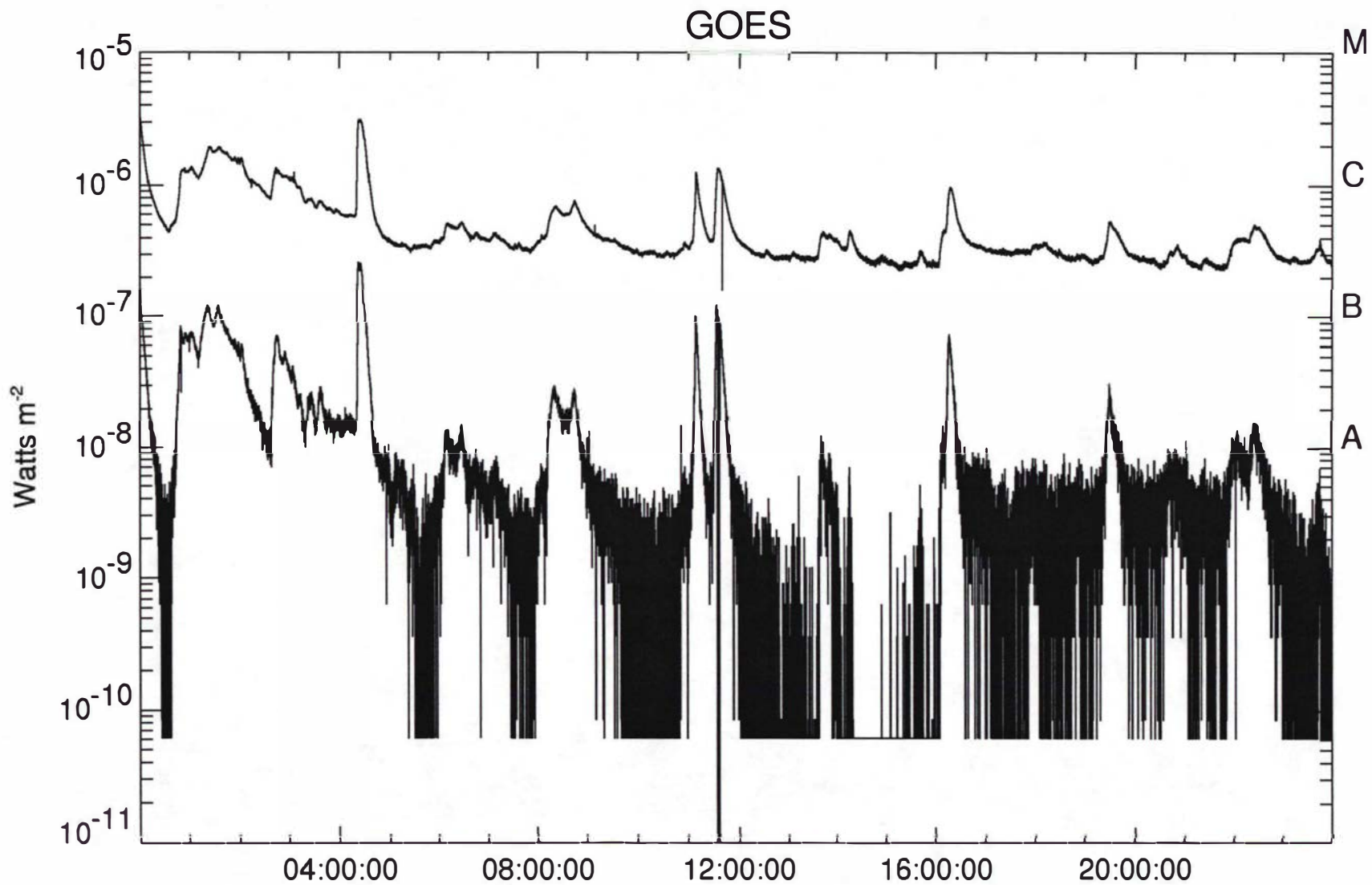
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PREC. EVENT.



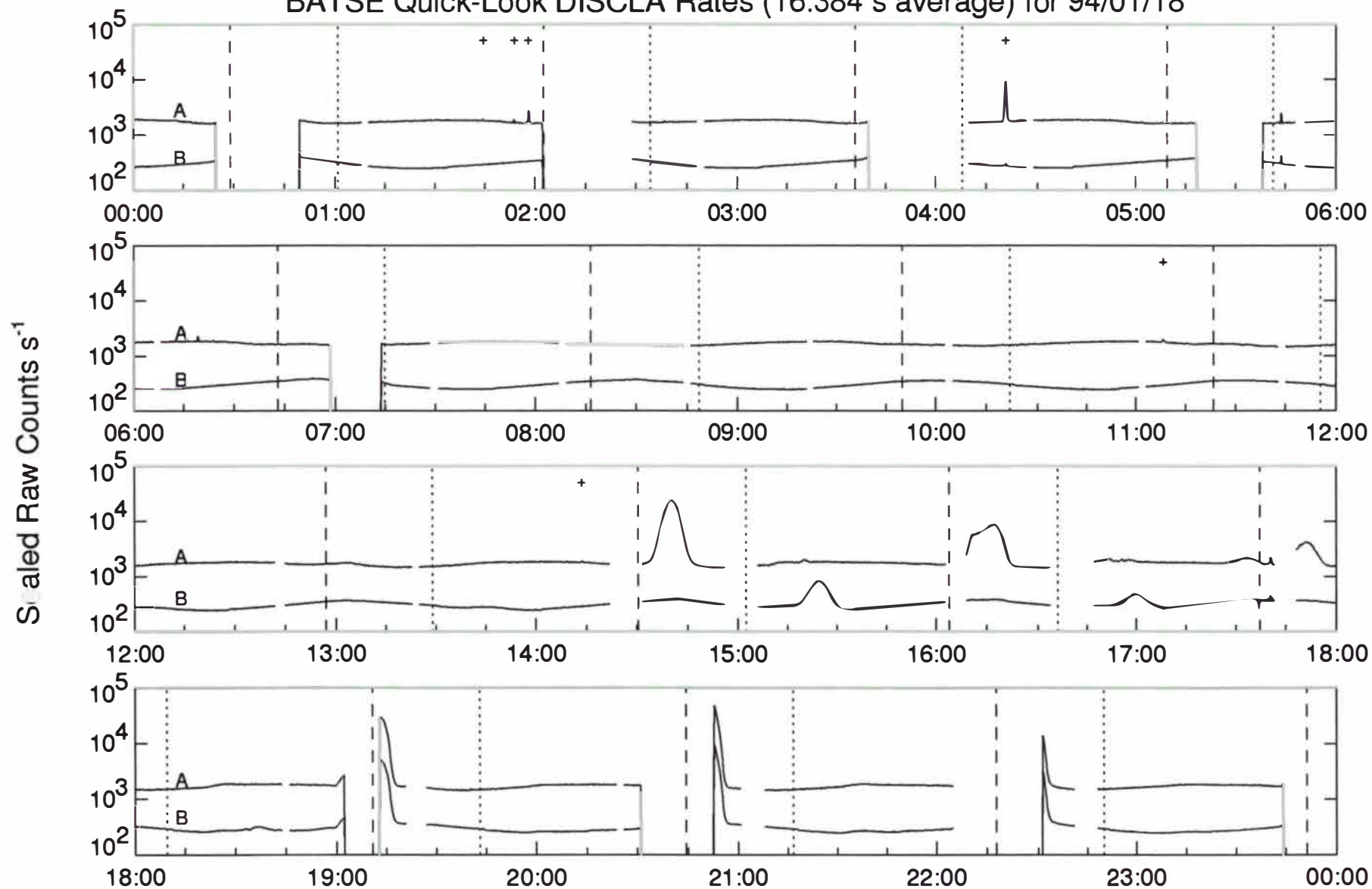
Data Start: 94/01/18, 0000:02

Plot created: 94/01/19, 1806

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 (16.384 s average) for 94/01/18

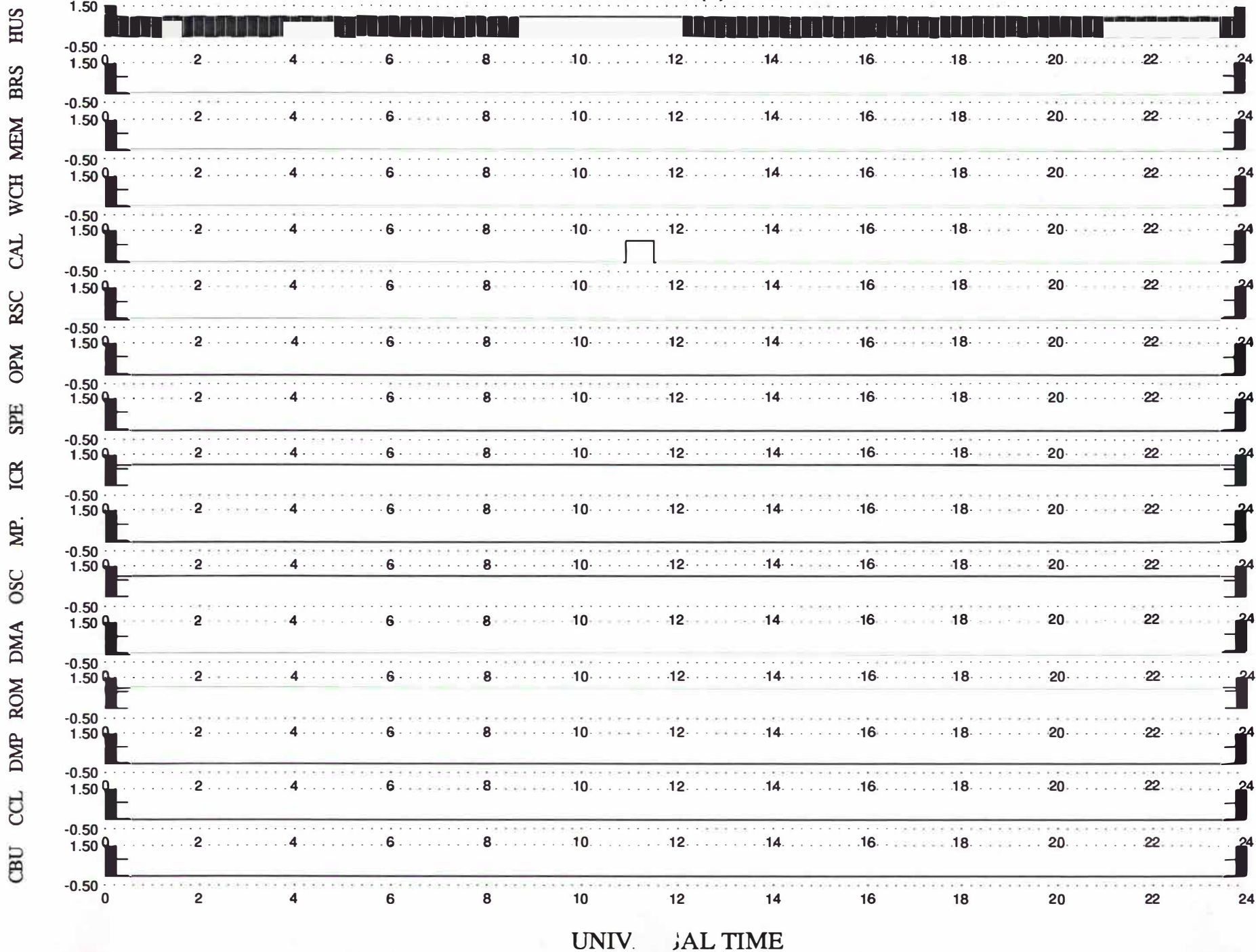


Current Time: 94/01/28, 1217 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

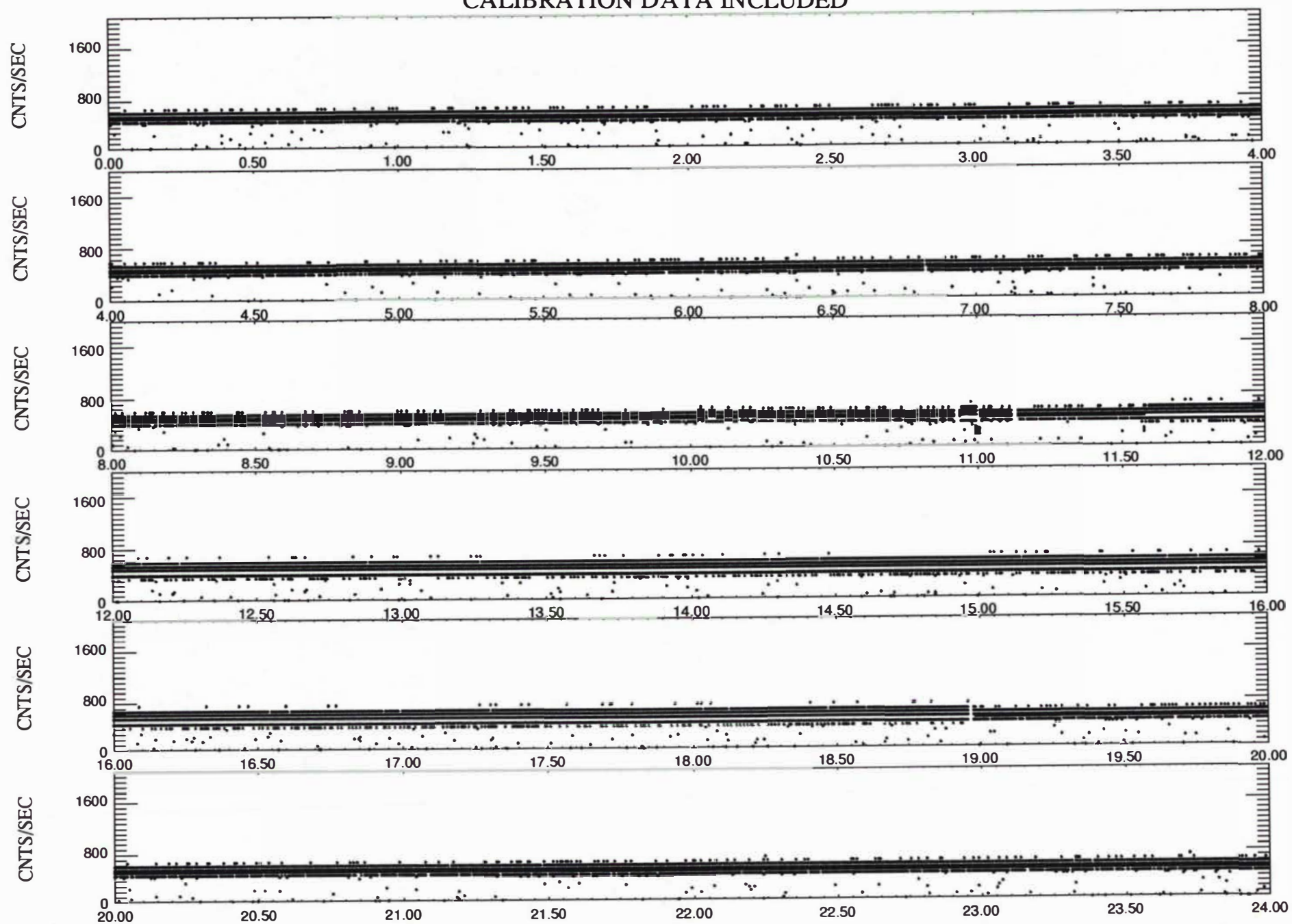
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

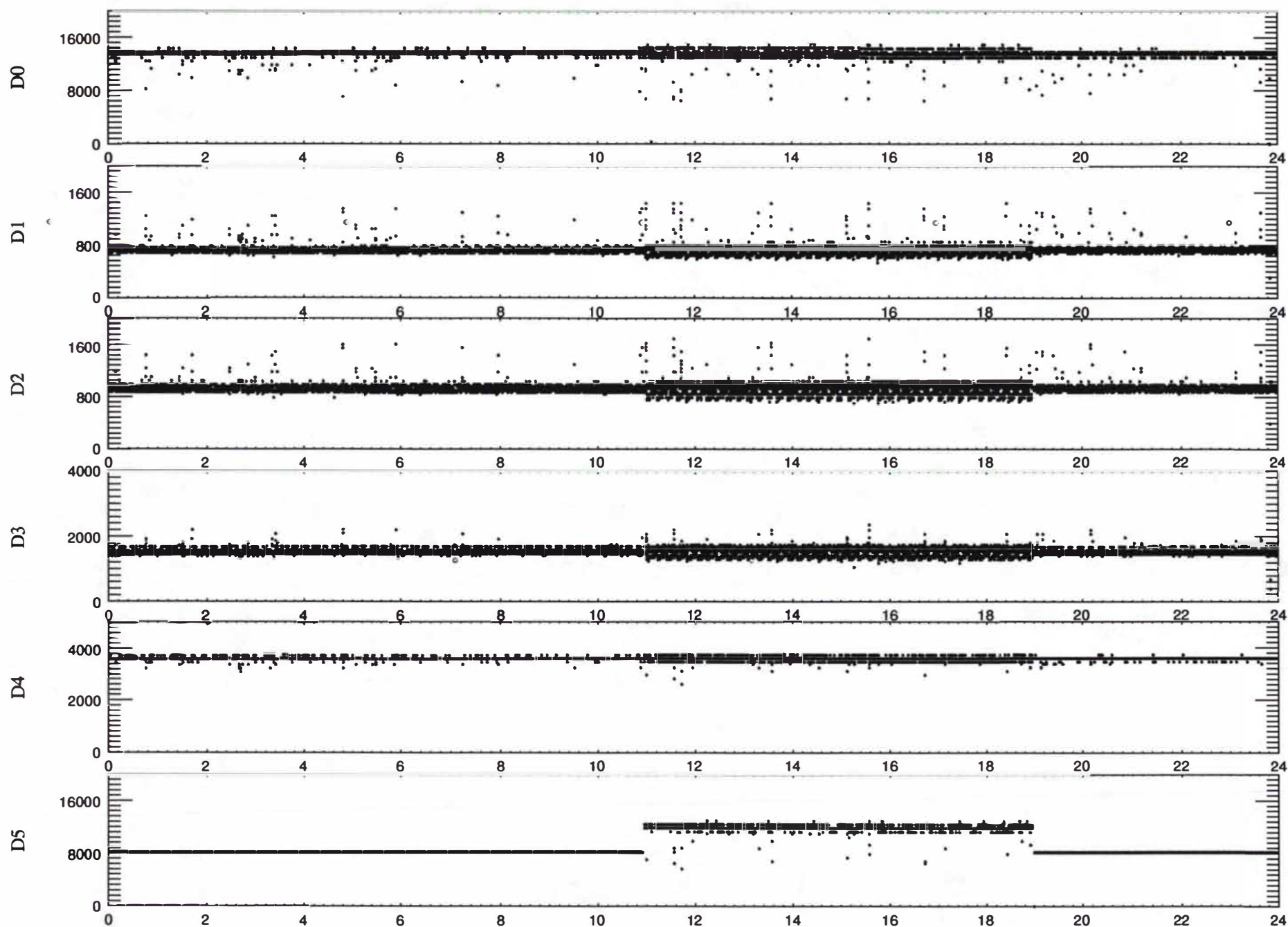
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIV. TIME



UNIV. AL TIME

From RICHARDSON@ssl.msfc.nasa.gov Wed Jan 26 10:00 PST 1994
Date: Wed, 26 Jan 1994 12:02:52 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2770
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2770
EVENT OF 1994 JAN 19 DAY OF YEAR= 19
EVENT CROSSING TIME AT BATSE : 9730. S. OR 02:42:10.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 339.000 -68.000
BATSE PEAK COUNTING RATE: 3300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 19/ 1/ 94 IS:
RA= 161.270 DEC= -46.399 DIST= 3.385 AU
BATSE-ULYSSES DISTANCE = 506455171. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=114.41 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -698.18 SECS.
CROSSING TIME AT ULYSSES IS 9032. S. OR 02:30:31 +/- 306.48 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 19/ 1/ 94 IS:
RA= 294.883 DEC= -22.428 DIST= 2.395 AU
MARS-BATSE DISTANCE = 358343424. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=127.04 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -719.97 SECS.
CROSSING TIME AT MARS IS 9010. S. OR 02:30:10 +/- 154.72 SECONDS

No

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2770	940119	9371	09730	3300	339	-68

BATSE BURST TRIGGER

NO.: 02770

TIME: TJD=9371 SECONDS=09730

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=045.4 AZIMUTH=285.1 ERROR= DEGREES

COMMENTS:

BURST, COMPLEX, LASTING ~250S., VISIBLE ABOVE 300KEV.,

Batse # 2770

26 / 1 / 94

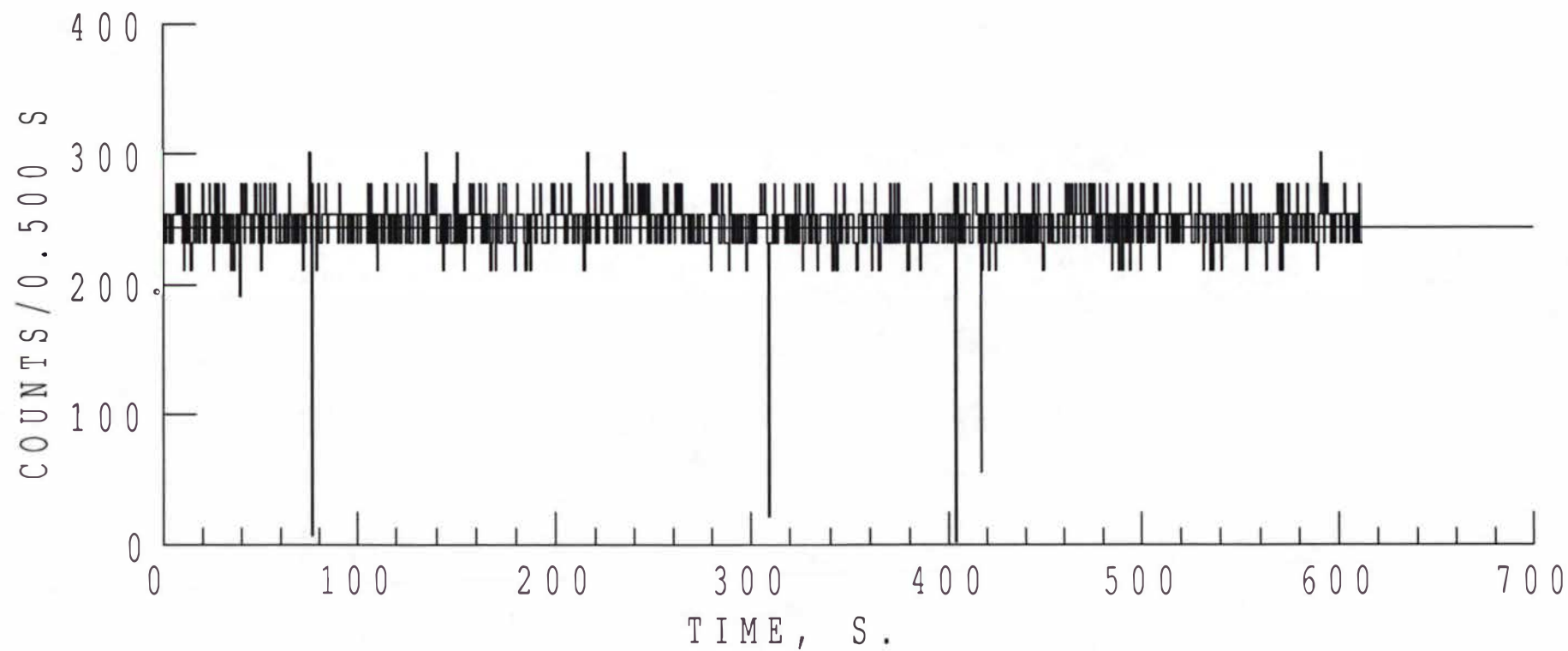
ULYSSES RT

19 / 1 / 94 8712.129 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From RICHARDSON@ssl.msfc.nasa.gov Wed Jan 26 09:40 PST 1994
Date: Wed, 26 Jan 1994 11:43:40 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02771

TIME: TJD=9371 SECONDS=30498

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SOLAR FLARE, GOES B4.7, LASTING ~30S. NOT VISIBLE ABOVE 300KEV.

From RICHARDSON@ssl.msfc.nasa.gov Wed Jan 26 09:44 PST 1994
Date: Wed, 26 Jan 1994 11:47:34 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02772

TIME: TJD=9371 SECONDS=32978

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SOLAR FLARE, GOES UNCLASSIFIED, LASTING ~20S. NOT VISIBLE ABOVE 100KEV.

From RICHARDSON@ssl.msfc.nasa.gov Wed Jan 26 10:02 PST 1994
Date: Wed, 26 Jan 1994 12:05:20 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2773
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2773
EVENT OF 1994 JAN 19 DAY OF YEAR= 19
EVENT CROSSING TIME AT BATSE : 56680. S. OR 15:44:40.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 133.000 35.000
BATSE PEAK COUNTING RATE: 9000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 19/ 1/ 94 IS:
RA= 161.107 DEC= -46.528 DIST= 3.378 AU
BATSE-ULYSSES DISTANCE = 505285065. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 94.64 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -136.27 SECS.
CROSSING TIME AT ULYSSES IS 56544. S. OR 15:42:23 +/- 339.59 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 19/ 1/ 94 IS:
RA= 294.883 DEC= -22.428 DIST= 2.395 AU
MARS-BATSE DISTANCE = 358343424. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 20.20 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1121.77 SECS.
CROSSING TIME AT MARS IS 57802. S. OR 16:03:21 +/- 88.70 SECONDS

RI

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2773	940119	9371	56680	9000	133	+35

NO.: 02773 BATSE BURST TRIGGER

TIME: TJD=9371 SECONDS=56680

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=110.2 AZIMUTH=138.1 ERROR= DEGREES

COMMENTS:

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

Helio corr removed

Date: Jan 22 '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 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

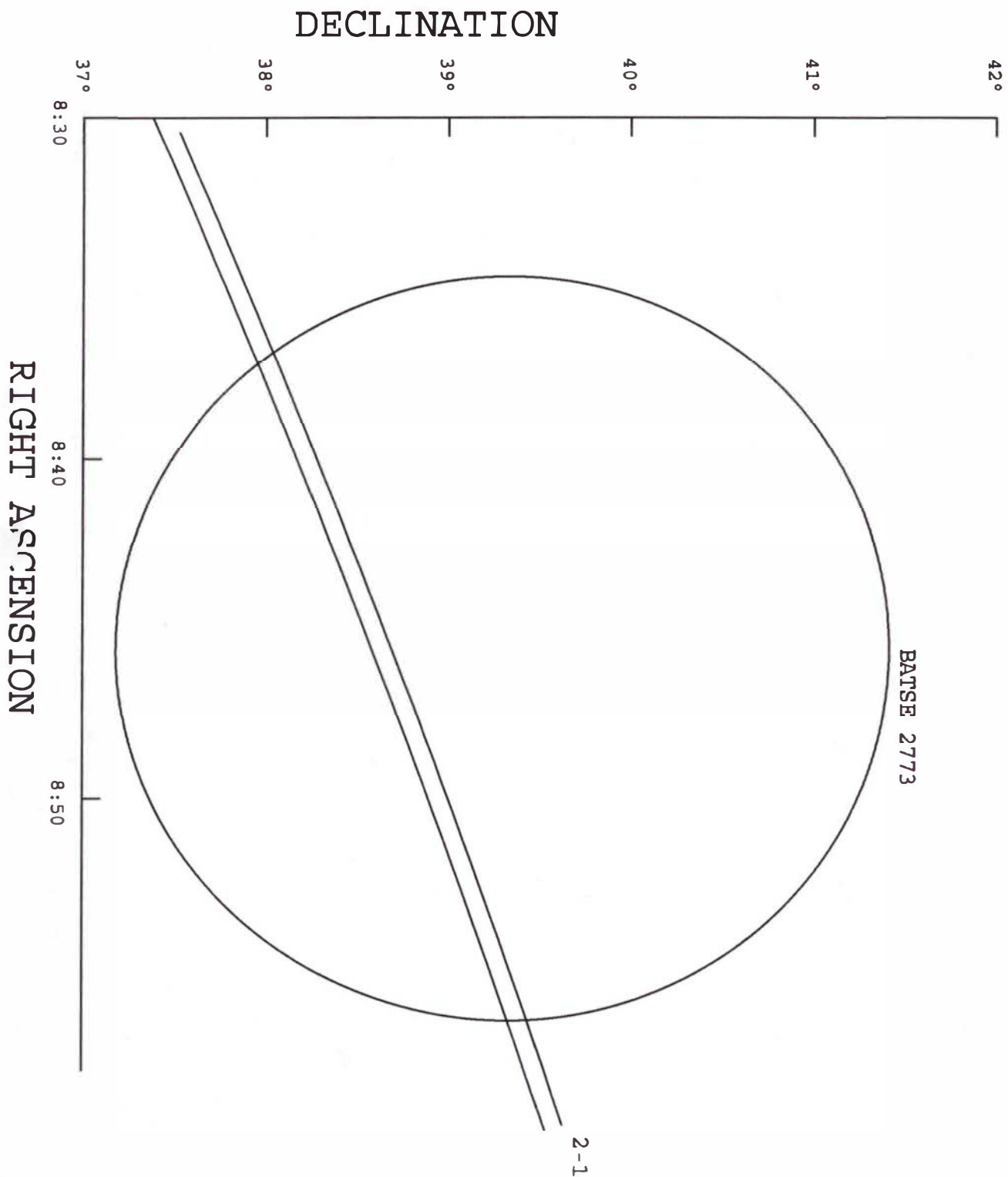
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 19, 1994 15:44

22/ 1/98



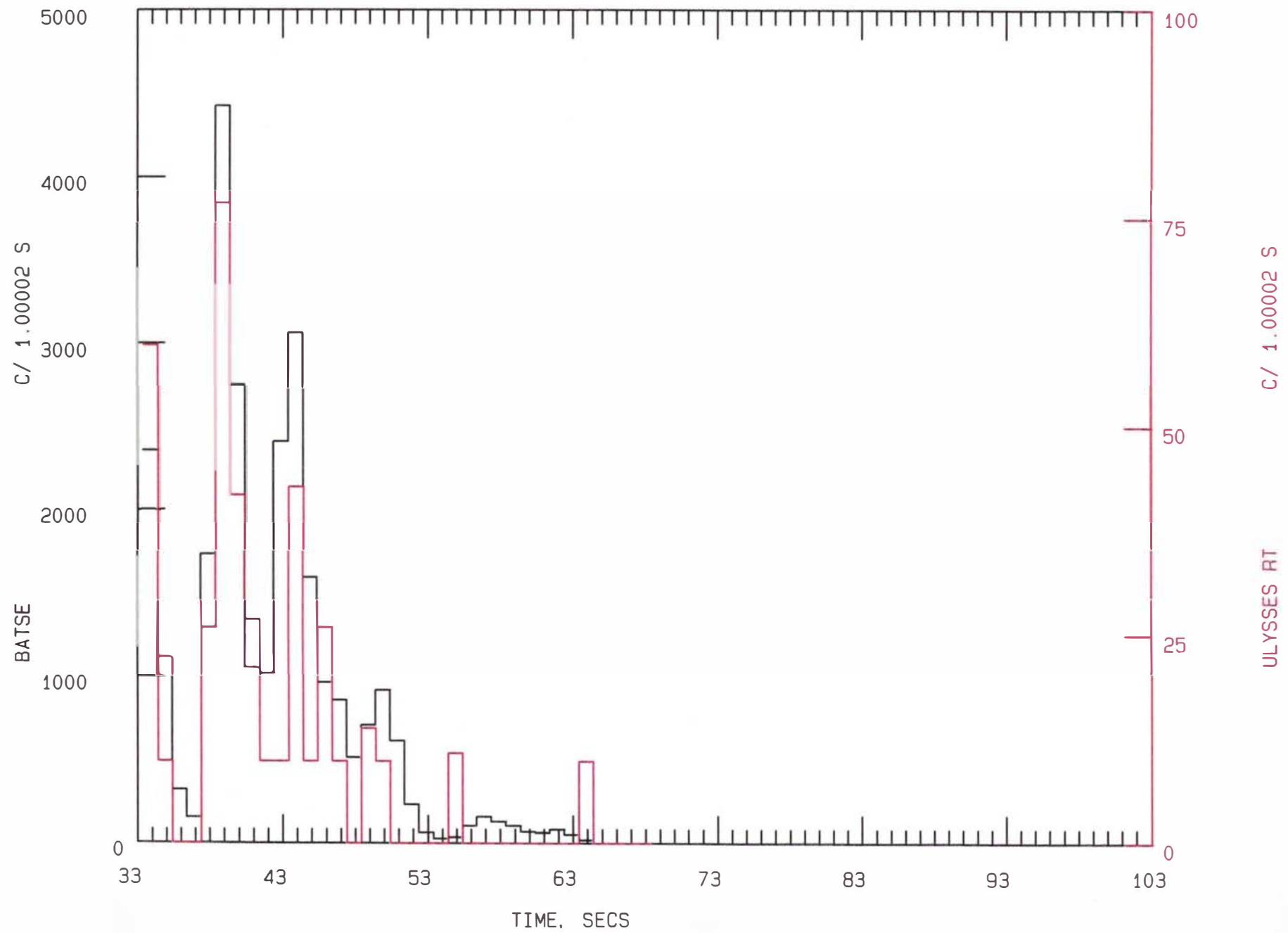
BATSE

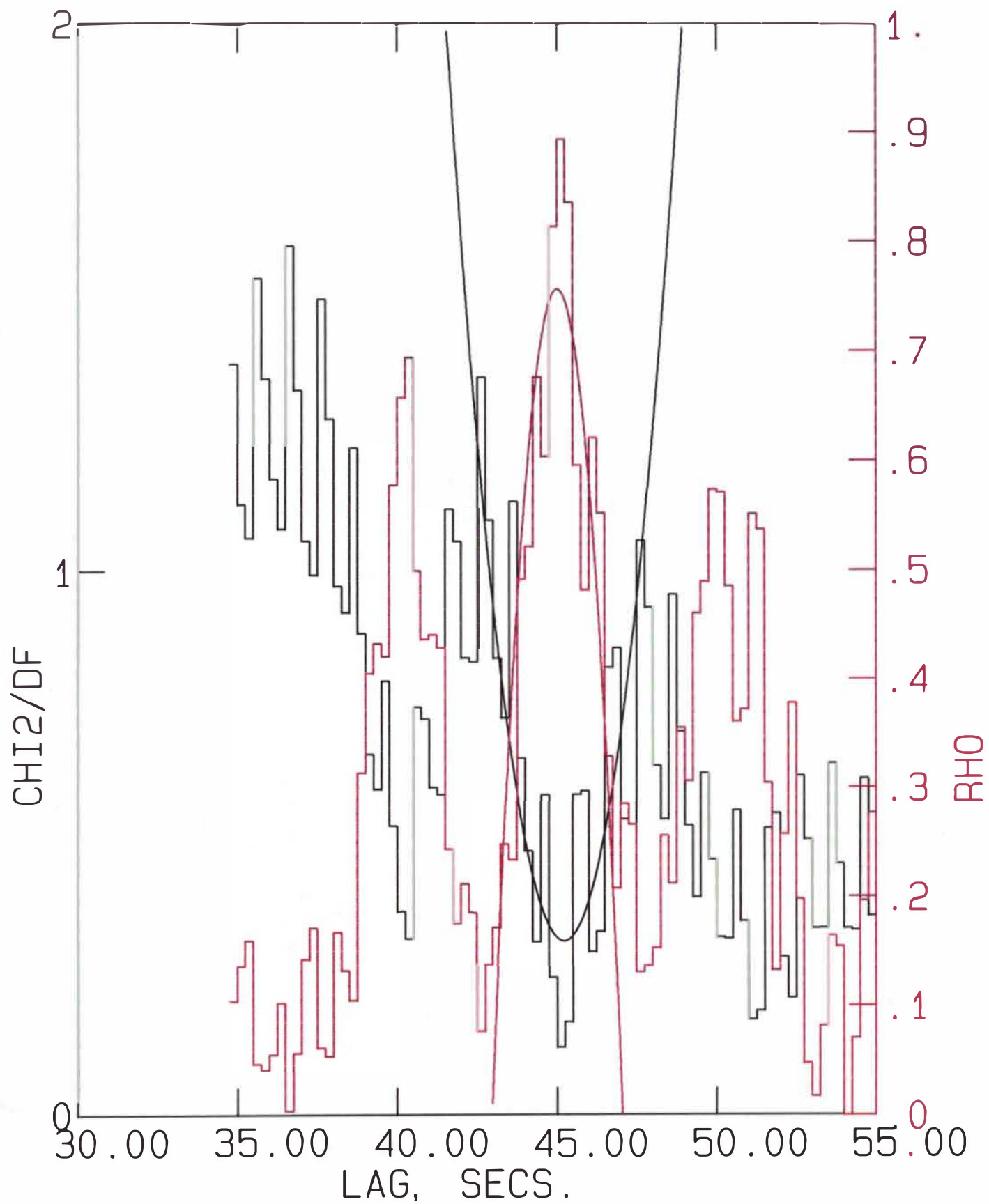
-ULYSSES RT CORRELATION

19/ 1/94

56680.346

22/ 1/98





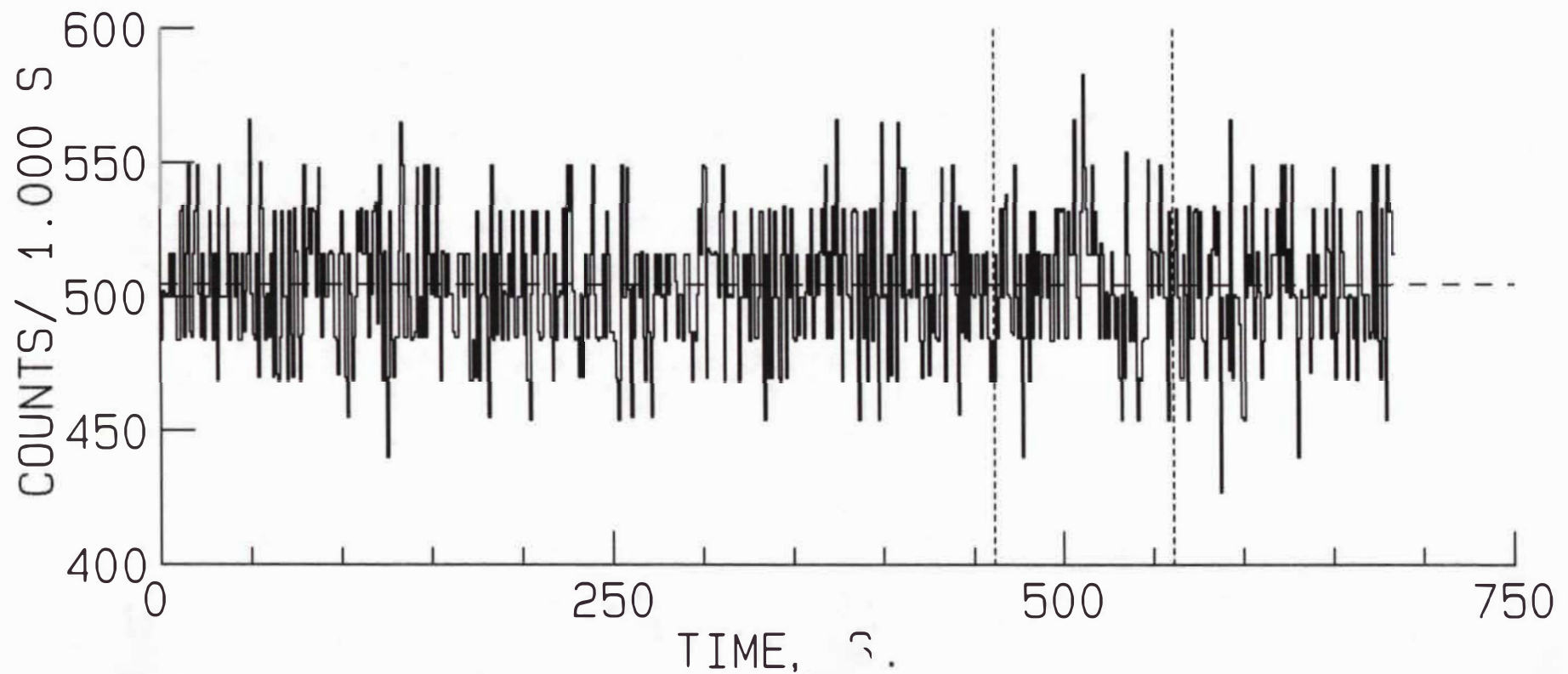
ULYSSES RT

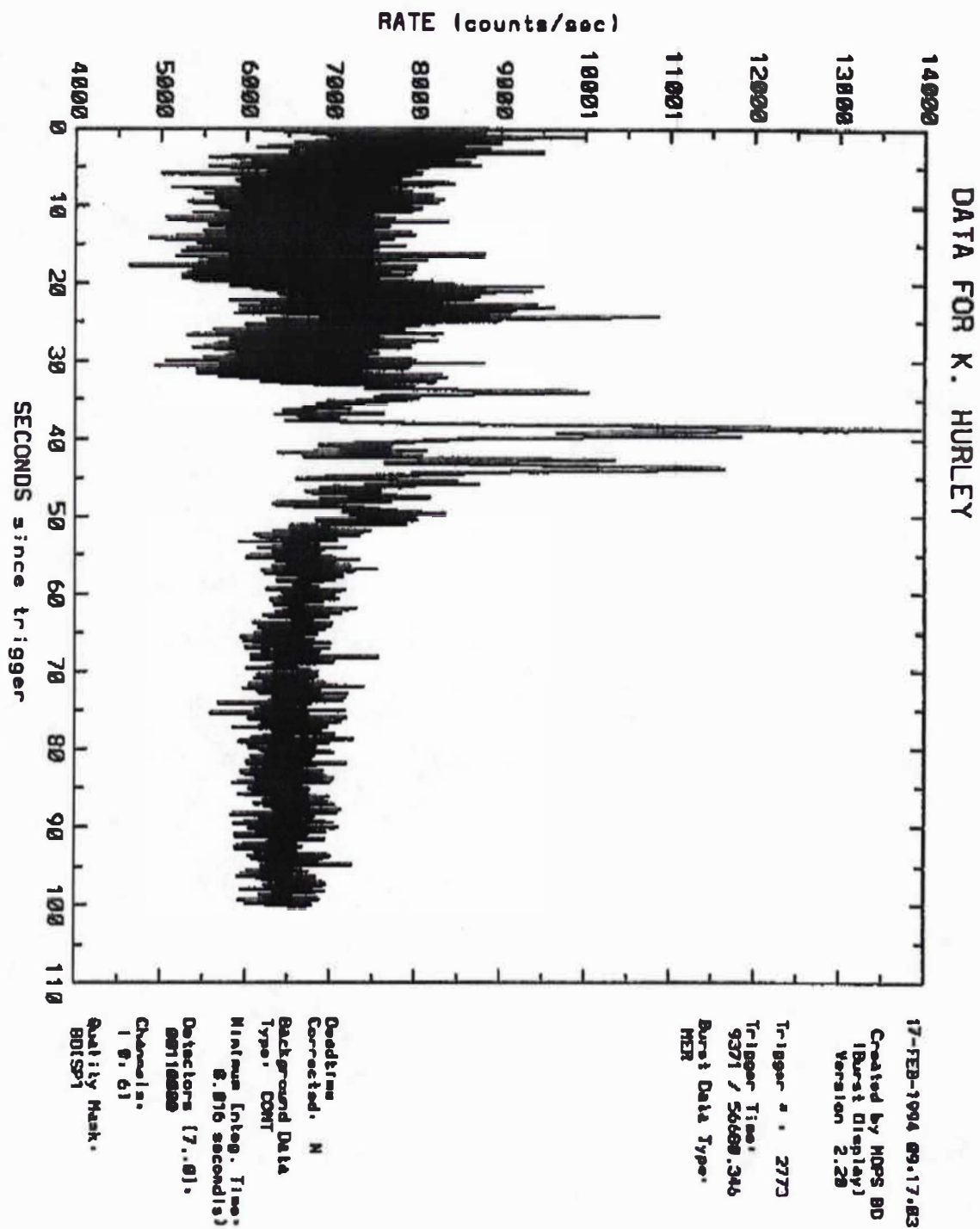
22 / 1 / 98

19 / 1 / 94 56196.112 s

0.250 S INTERVALS REGROUPED BY 4

20- 138 keV





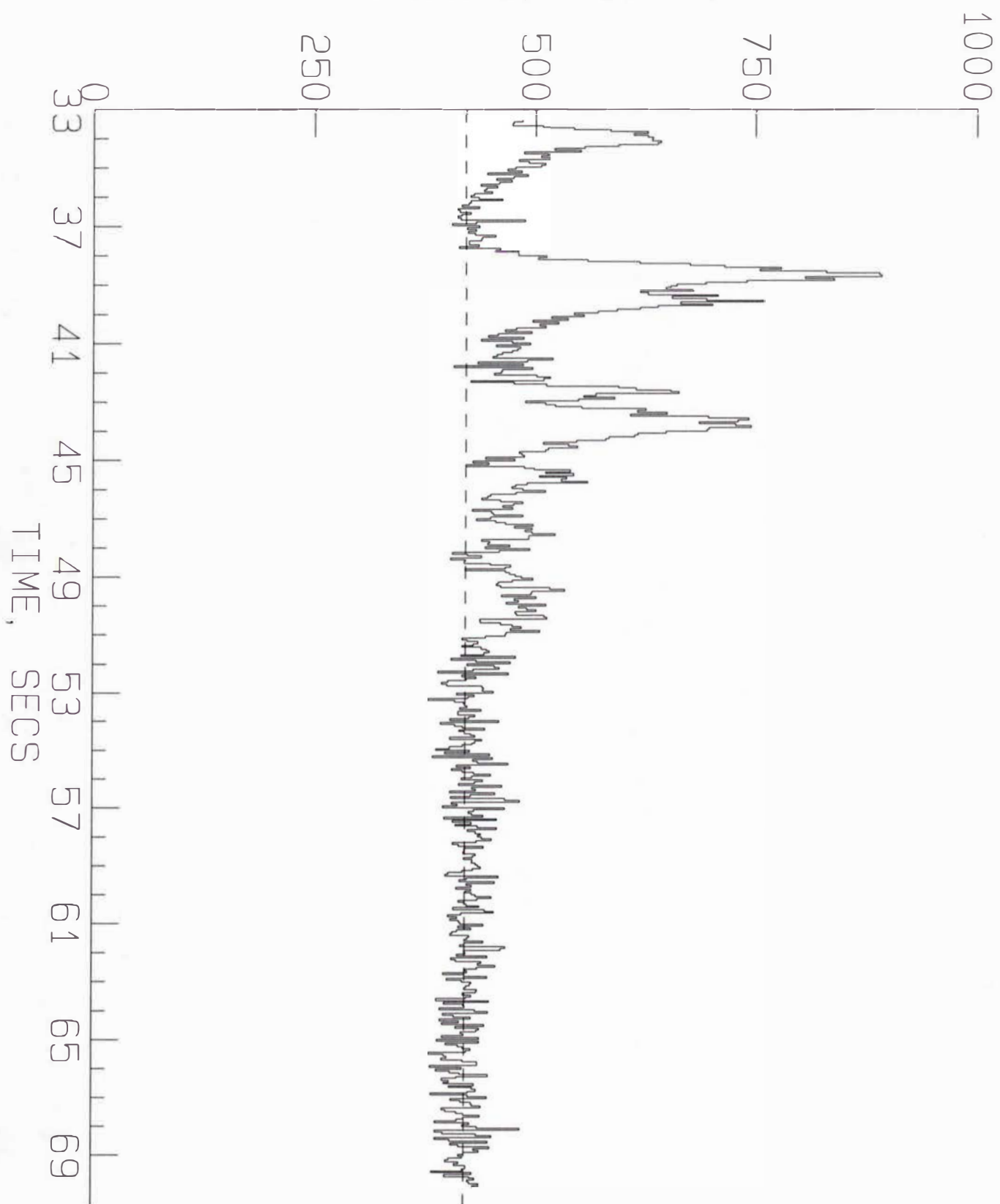
BATSE

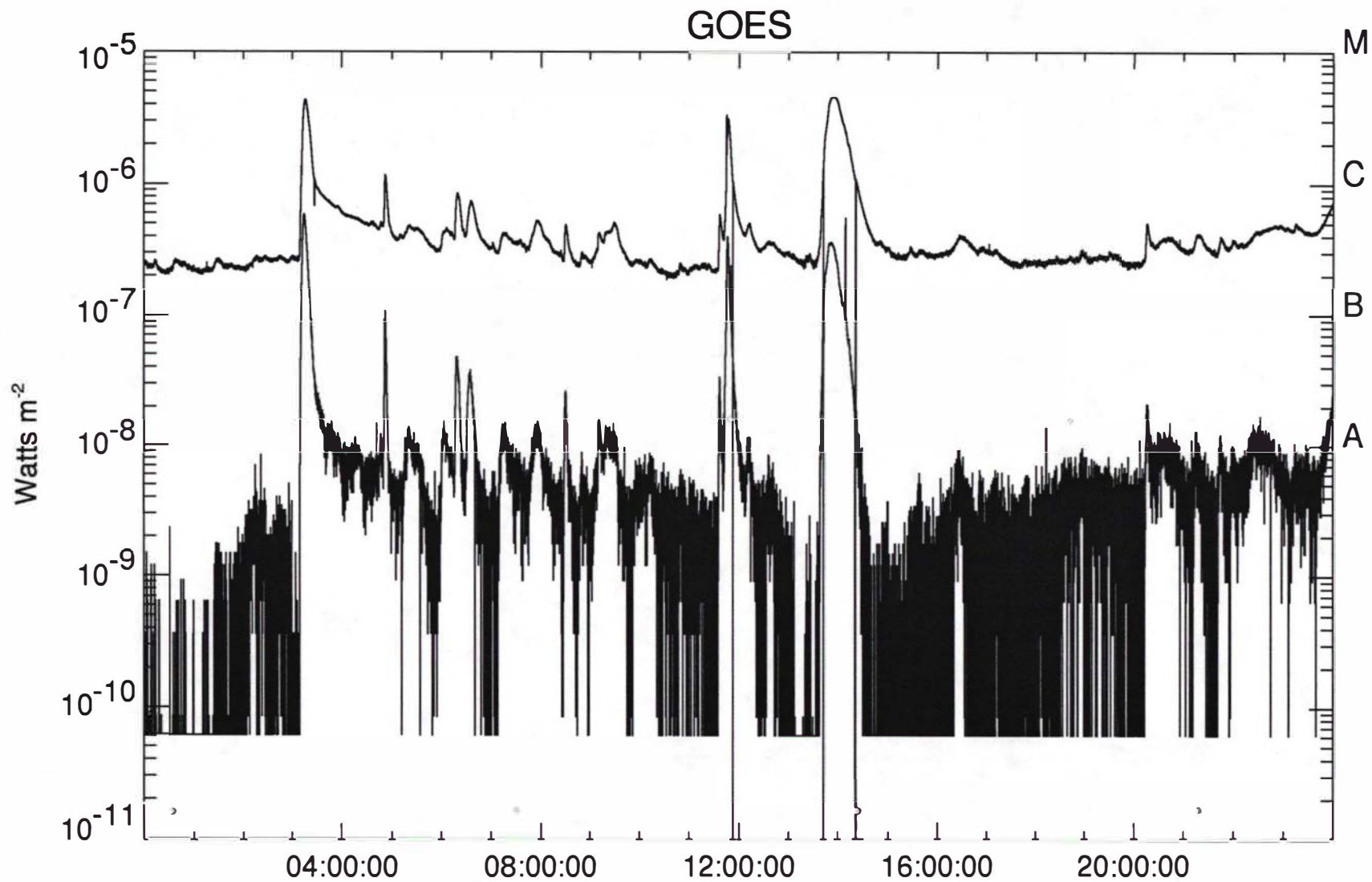
19/01/94

56680.346

25- 100 keV

COUNTS/ .064 S





Data Start: 94/01/19, 0000:01

Plot created: 94/01/20, 2126

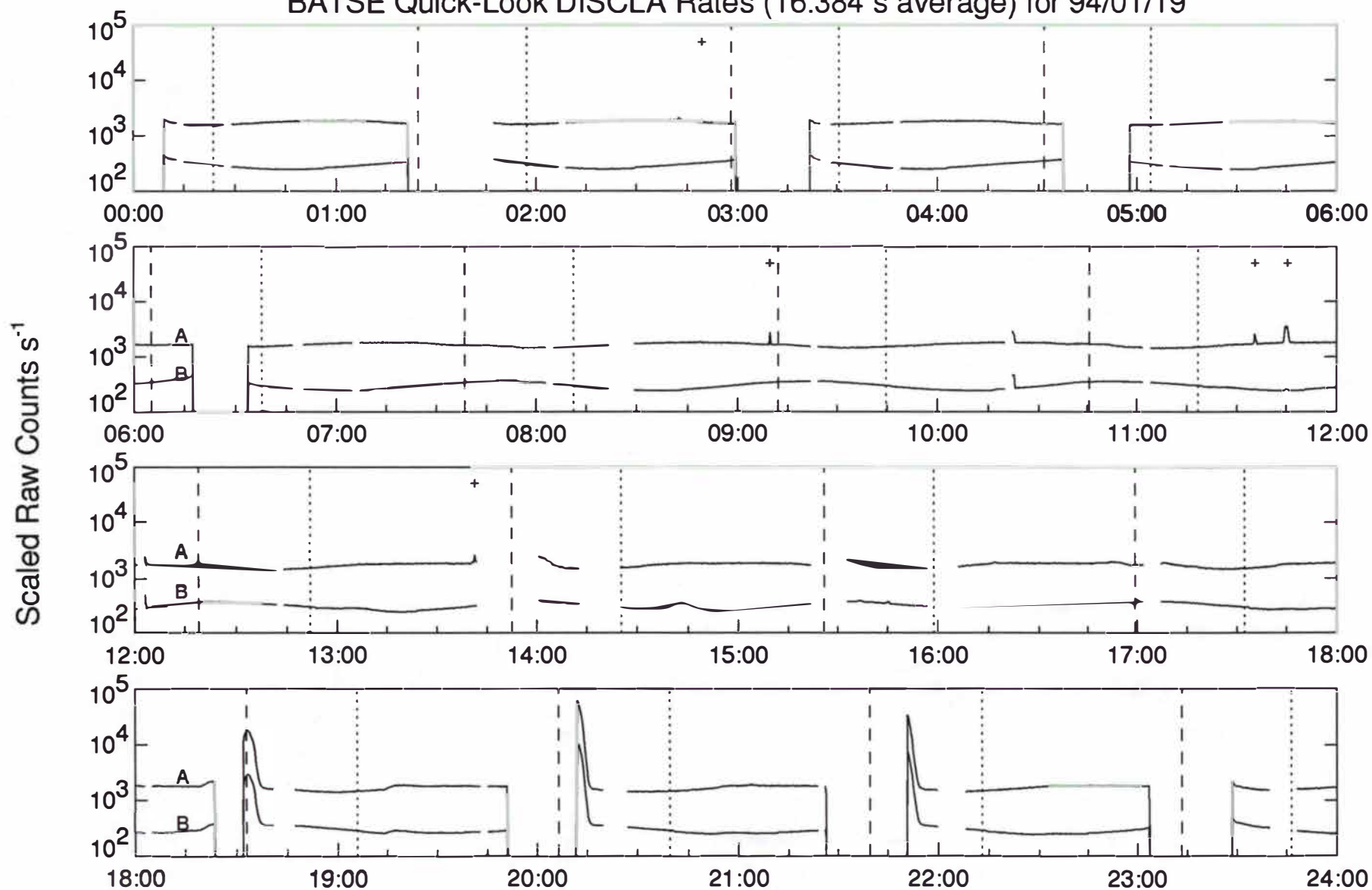
Channel 1 (1.0 - 8.0 Angstroms)

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/19

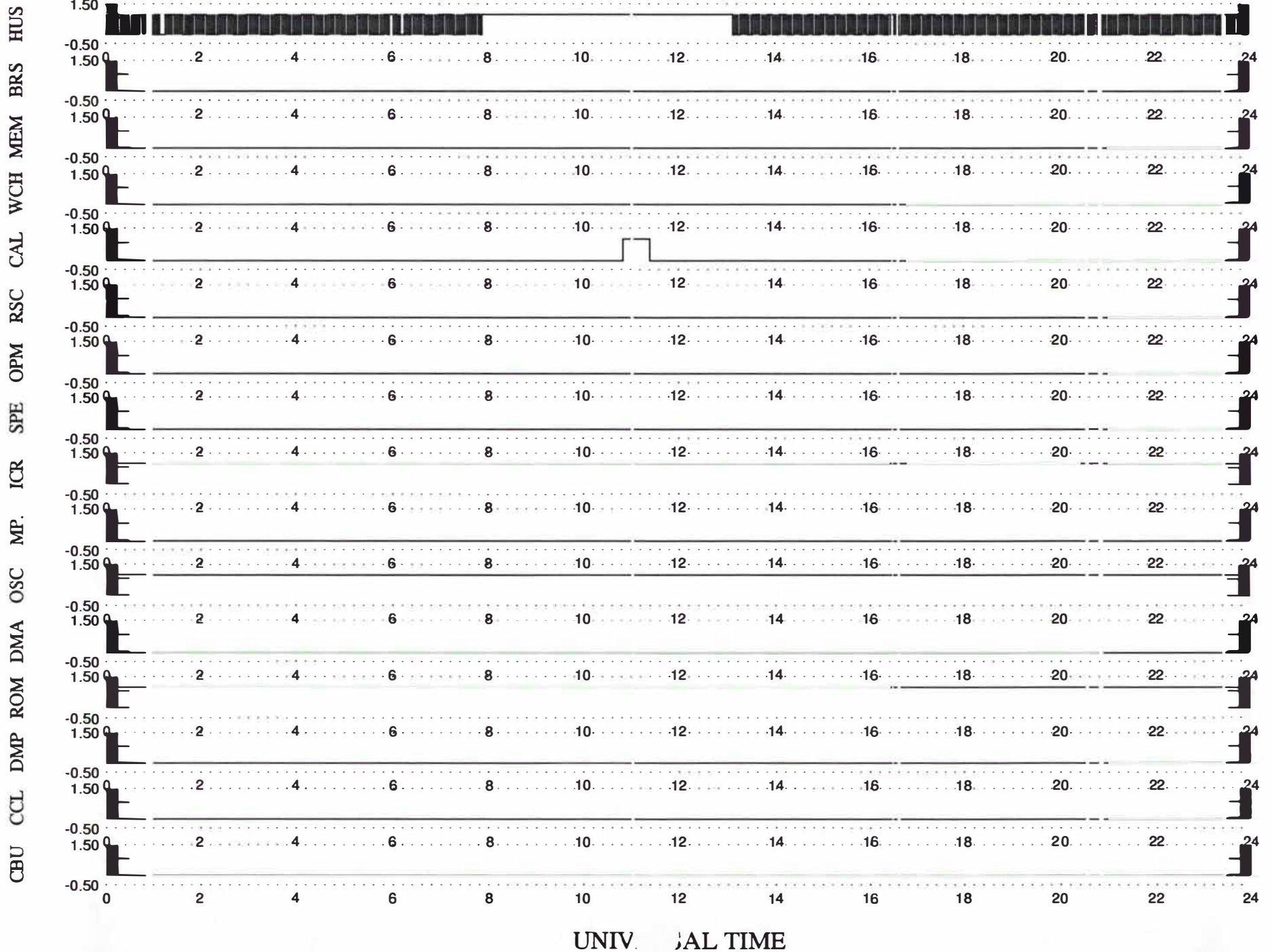


Current Time: 94/01/28, 1217 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

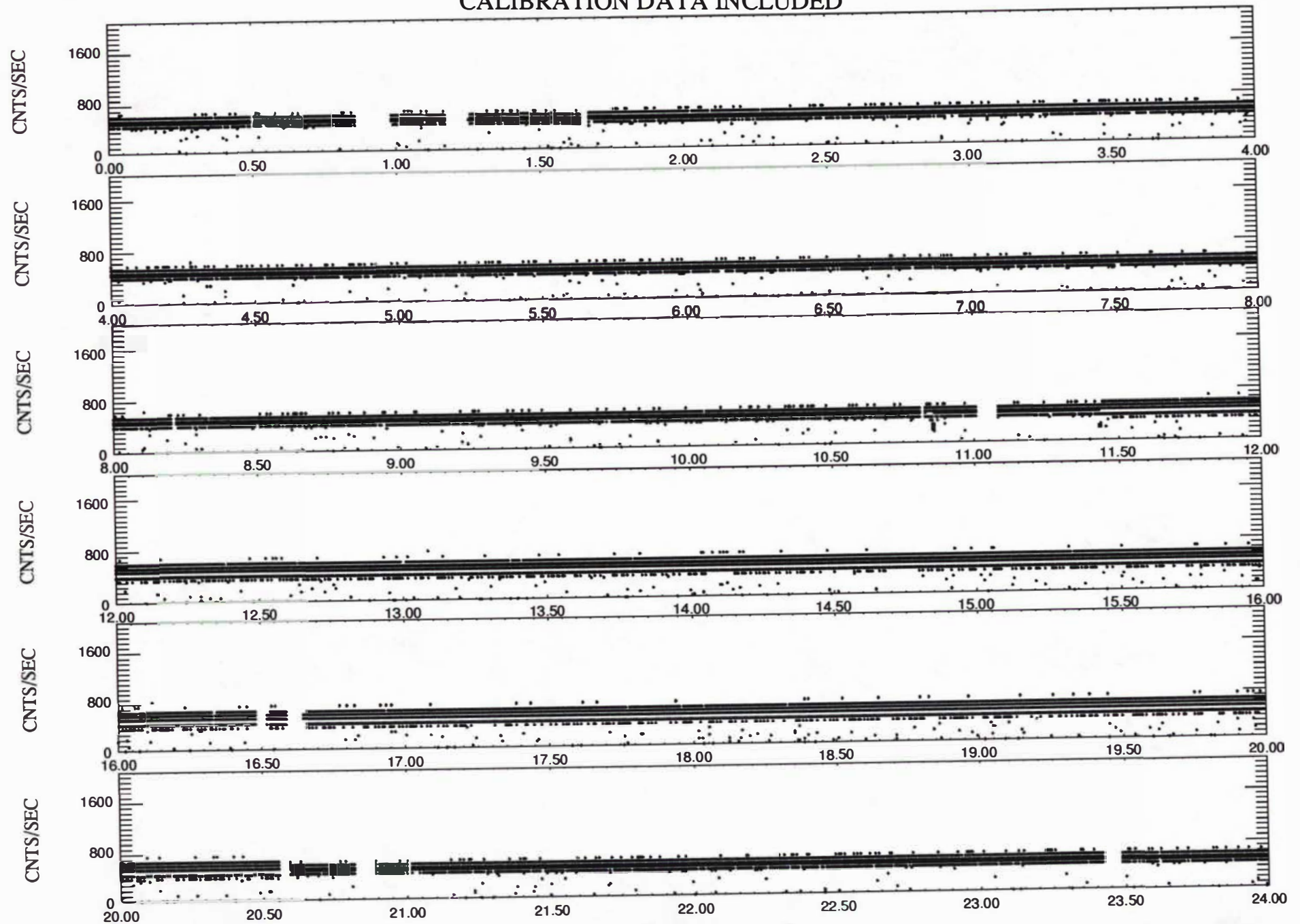
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

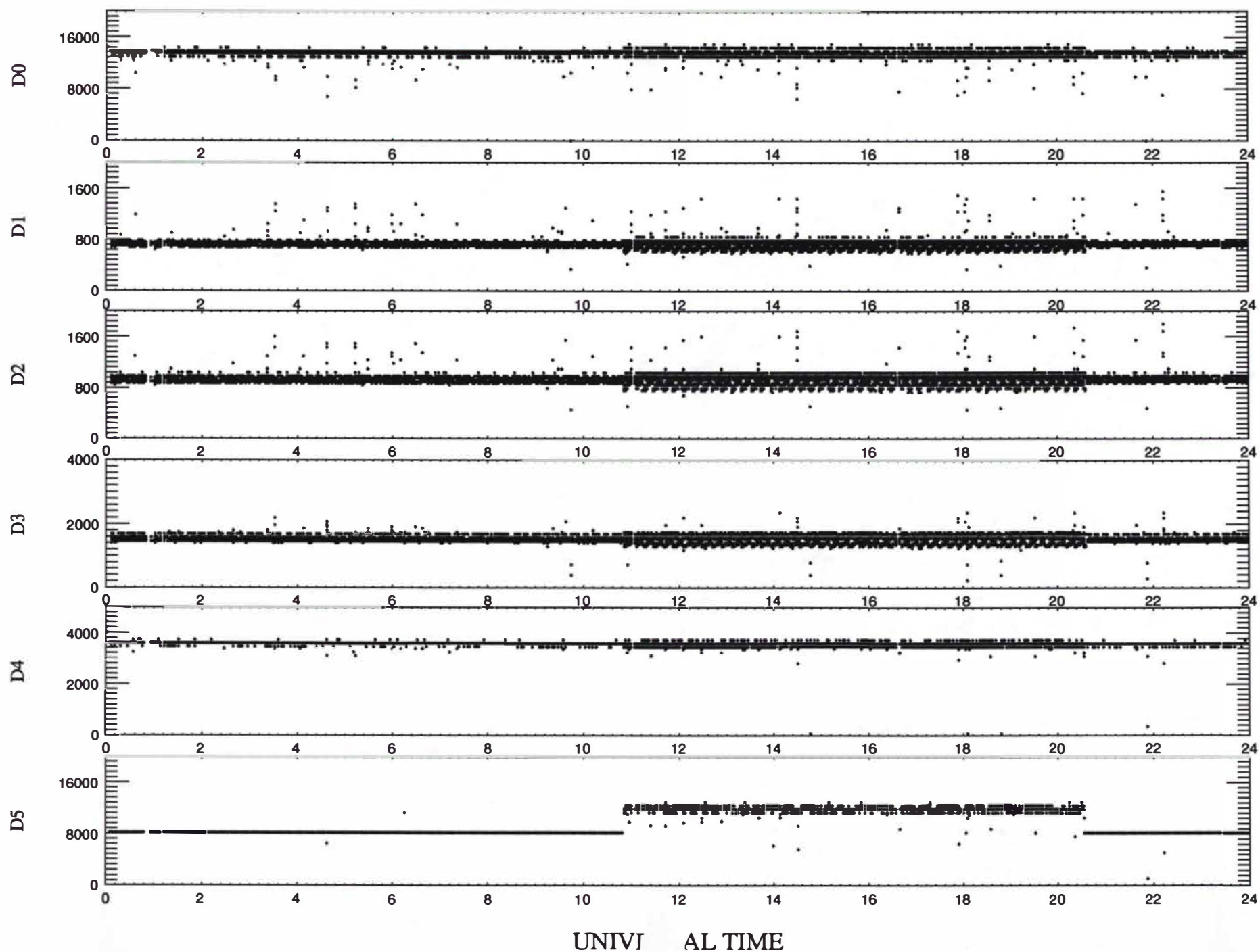
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIV AL TIME



From ZMYEWSKI@ssl.msfc.nasa.gov Wed Jan 26 08:45 PST 1994
Date: Wed, 26 Jan 1994 10:48:05 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2774
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2774
EVENT OF 1994 JAN 20 DAY OF YEAR= 20
EVENT CROSSING TIME AT BATSE : 38611. S. OR 10:43:31.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 104.000 -41.000
BATSE PEAK COUNTING RATE: 2100 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 20/ 1/ 94 IS:
RA= 160.866 DEC= -46.716 DIST= 3.366 AU
BATSE-ULYSSES DISTANCE = 503600850. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=139.50 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1277.37 SECS.
CROSSING TIME AT ULYSSES IS 37334. S. OR 10:22:13 +/- 220.01 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 20/ 1/ 94 IS:
RA= 295.708 DEC= -22.302 DIST= 2.394 AU
MARS-BATSE DISTANCE = 358101888. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 64.23 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 519.32 SECS.
CROSSING TIME AT MARS IS 39130. S. OR 10:52:10 +/- 194.65 SECONDS

ND

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2774	940120	9372	38611	2100	104	-41

BATSE BURST TRIGGER

NO.: 02774

TIME: TJD=9372 SECONDS=38611

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=54.4 AZIMUTH=199.6 ERROR= DEGREES

COMMENTS:

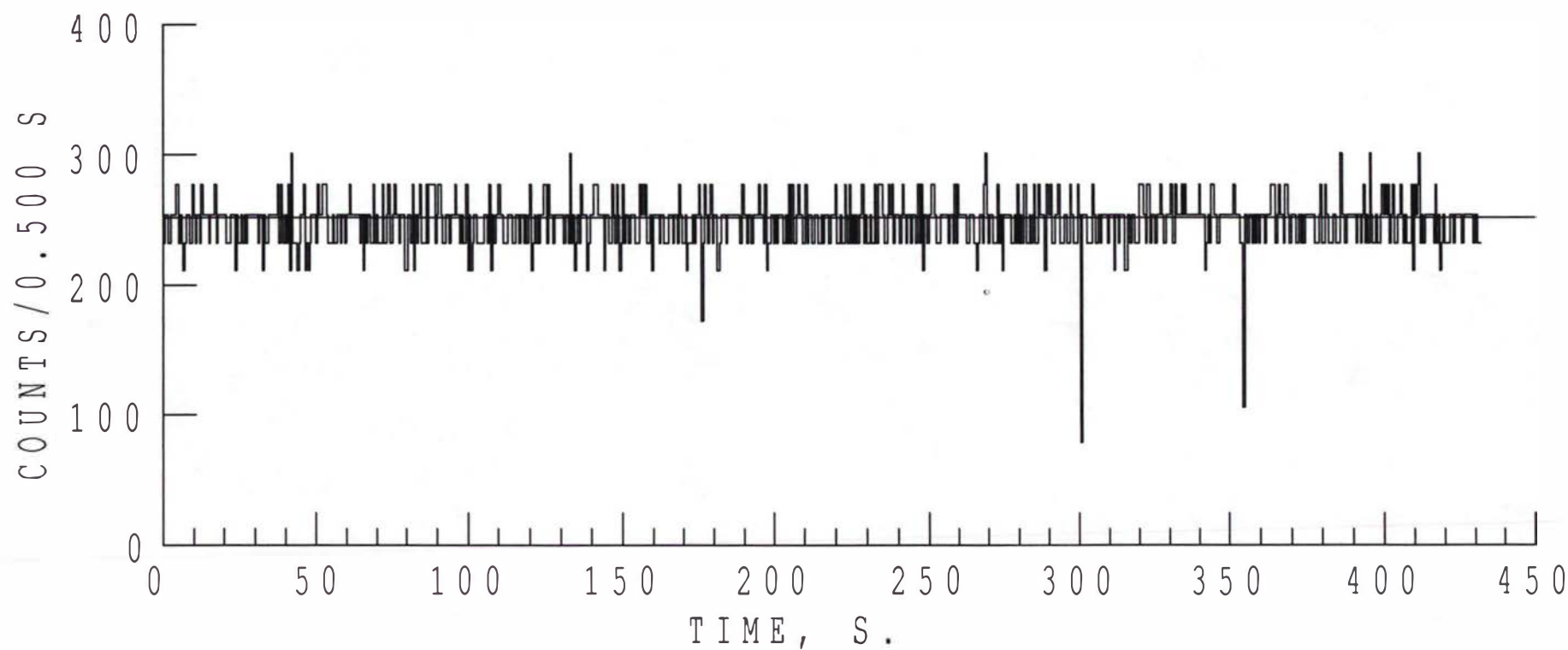
GRB LASTING APPROX. 40 SEC. NOT VISIBLE ABOVE 300KEV.

Batse # 2774

26 / 1 / 94

ULYSSES RT
20 / 1 / 94 37116.398 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From ZMYEWSKI@ssl.msfc.nasa.gov Wed Jan 26 08:46 PST 1994
Date: Wed, 26 Jan 1994 10:49:47 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2775
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2775
EVENT OF 1994 JAN 20 DAY OF YEAR= 20
EVENT CROSSING TIME AT BATSE : 45117. S. OR 12:31:57.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 112.000 -54.000
BATSE PEAK COUNTING RATE: 2700 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 20/ 1/ 94 IS:
RA= 160.843 DEC= -46.734 DIST= 3.365 AU
BATSE-ULYSSES DISTANCE = 503442201. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=148.68 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1434.53 SECS.
CROSSING TIME AT ULYSSES IS 43682. S. OR 12:08:02 +/- 179.79 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 20/ 1/ 94 IS:
RA= 295.708 DEC= -22.302 DIST= 2.394 AU
MARS-BATSE DISTANCE = 358101888. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 76.37 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 281.50 SECS.
CROSSING TIME AT MARS IS 45399. S. OR 12:36:38 +/- 205.82 SECONDS

No

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2775	940120	9372	45117	2700	112	-54

BATSE BURST TRIGGER

NO.: 02775

TIME: TJD=9372 SECONDS=45117

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=144.1 AZIMUTH=111.8 ERROR= DEGREES

COMMENTS:

GRB LASTING APPROX. 10 SECONDS. NOT VISIBLE ABOVE 300KEV.

CATSEARCH PROGRAM

BATSE BURST # 2775
EVENT OF 1994 JAN 20 DAY OF YEAR= 20
EVENT CROSSING TIME AT BATSE : 45117. S. OR 12:31:57.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 146.750 85.060
BATSE PEAK COUNTING RATE: 0000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
POSITION OF ULYSSES ON 20/ 1/ 94 IS:
RA= 161.004 DEC= -46.611 DIST= 3.373 AU
BATSE-ULYSSES DISTANCE = 504554424. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 48.19 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1122.02 SECS.
CROSSING TIME AT ULYSSES IS 46239. S. OR 12:50:39.0 +/- 284.83 SECONDS

9 / 11 / 95

ULYSSES RT

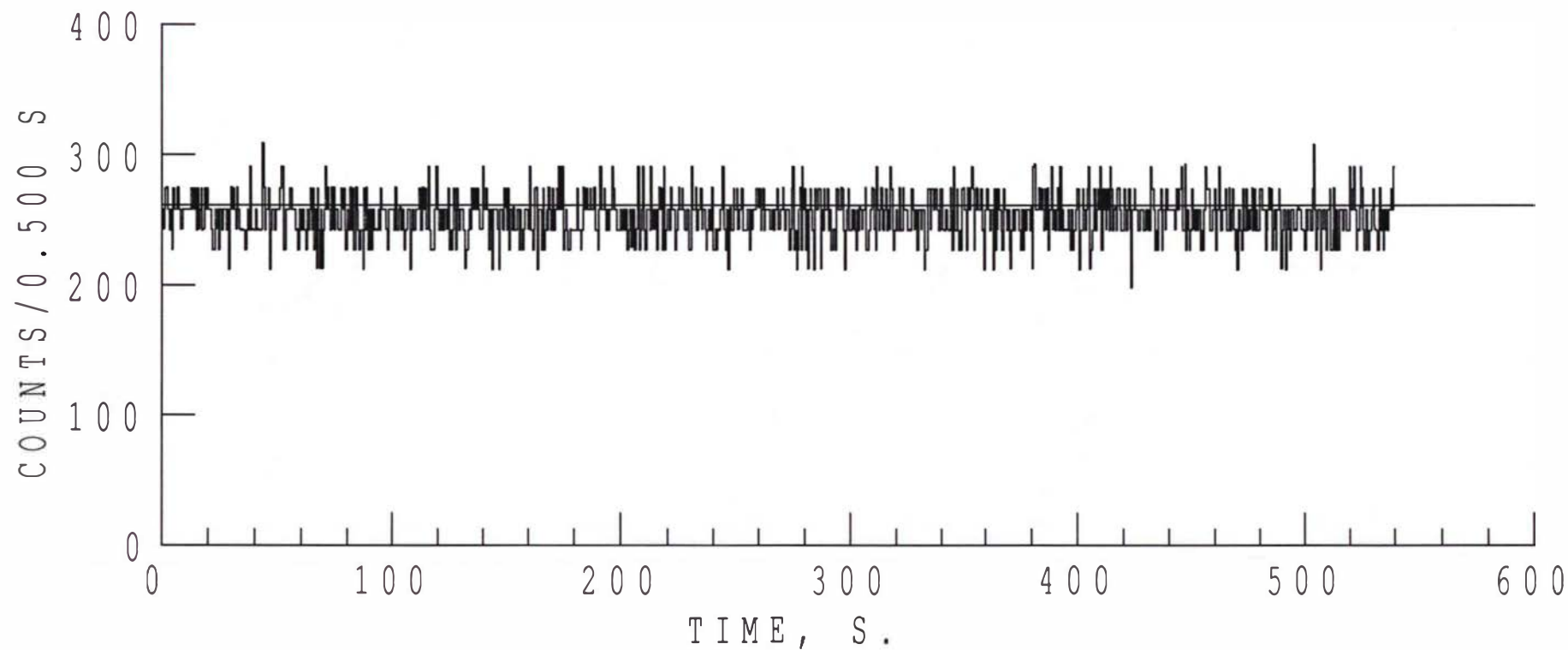
20 / 1 / 94 45972.039 s

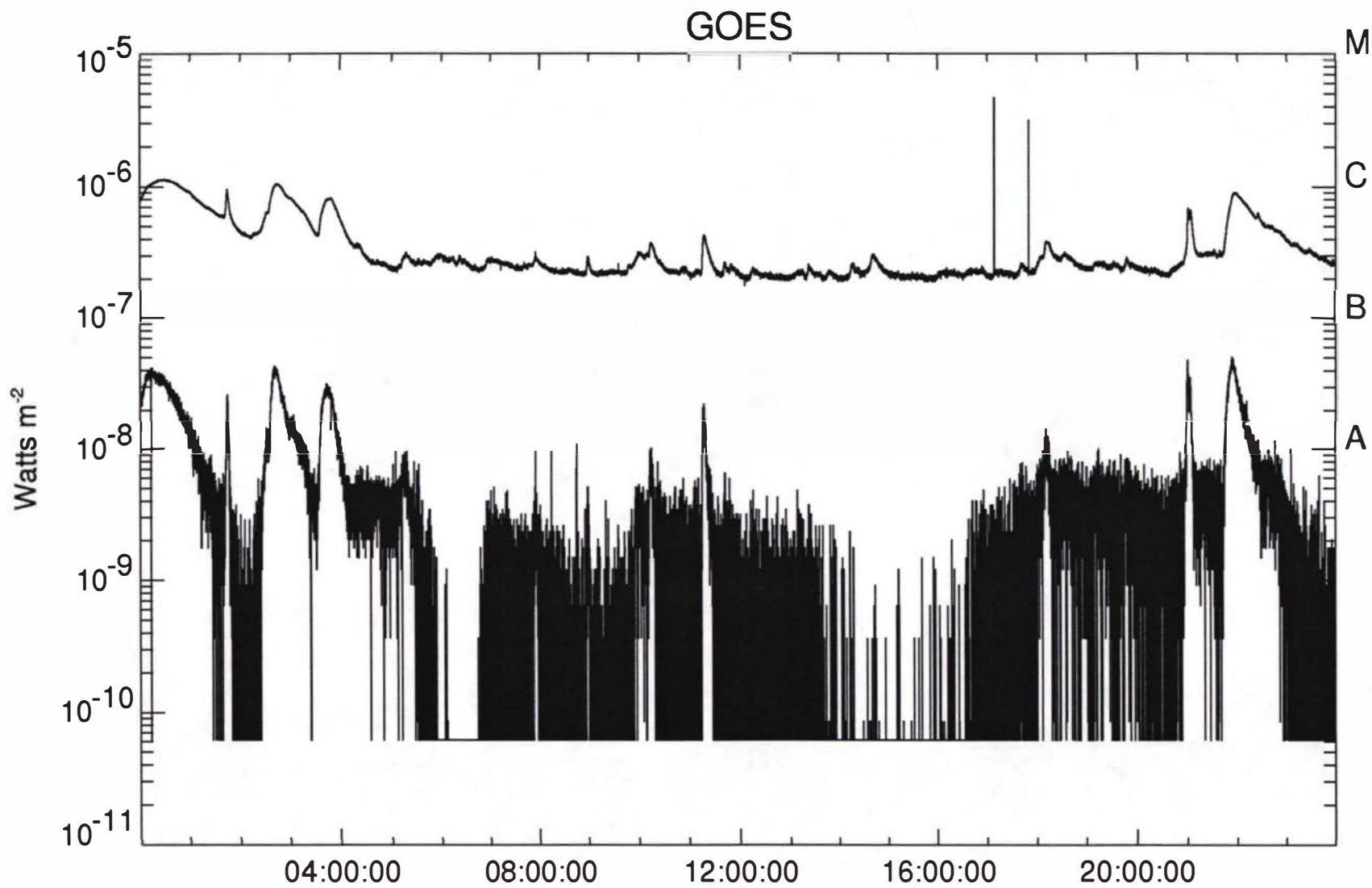
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 94/01/20, 0000:01

Plot created: 94/01/21, 1805

Channel

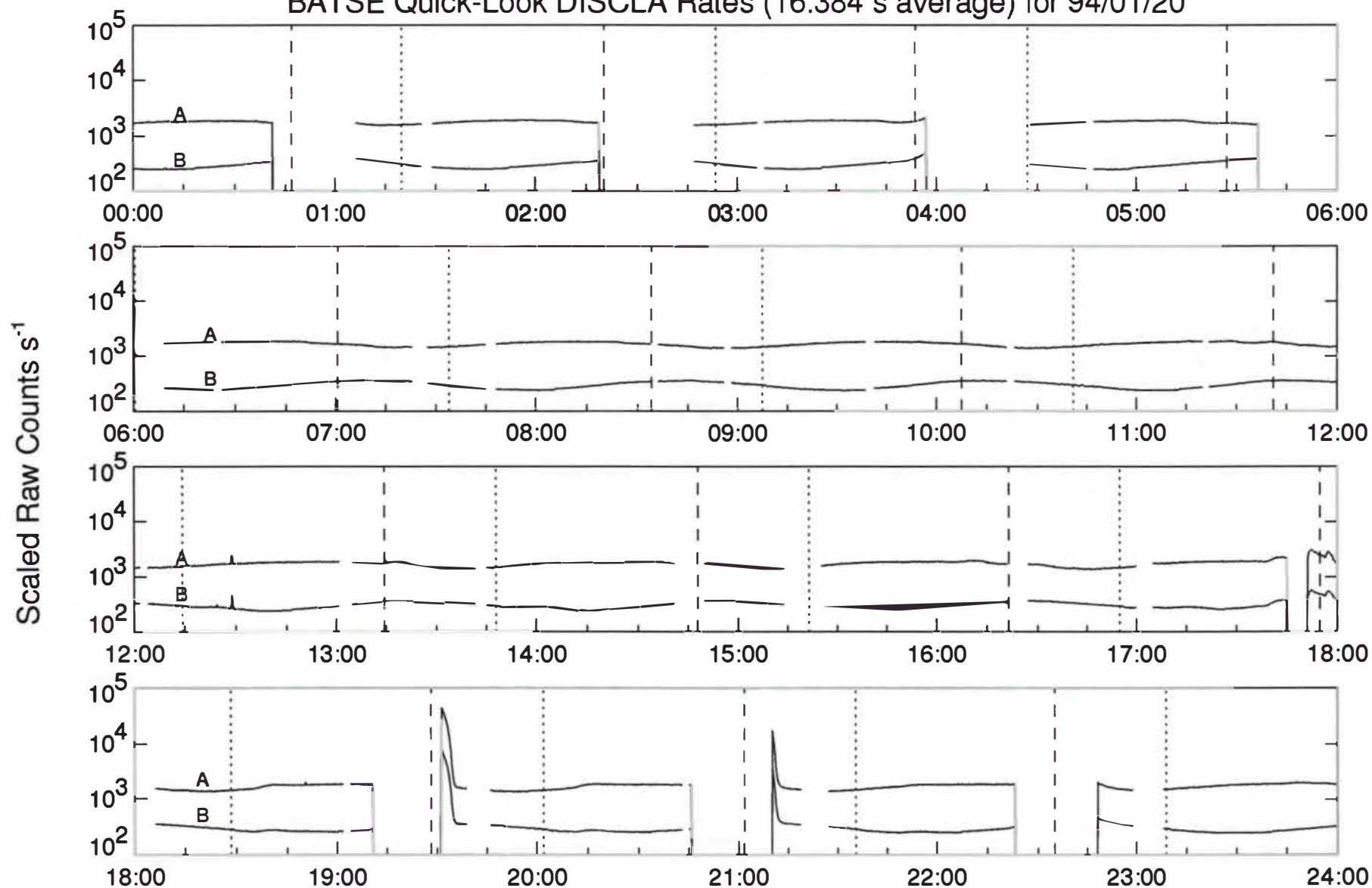
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/20

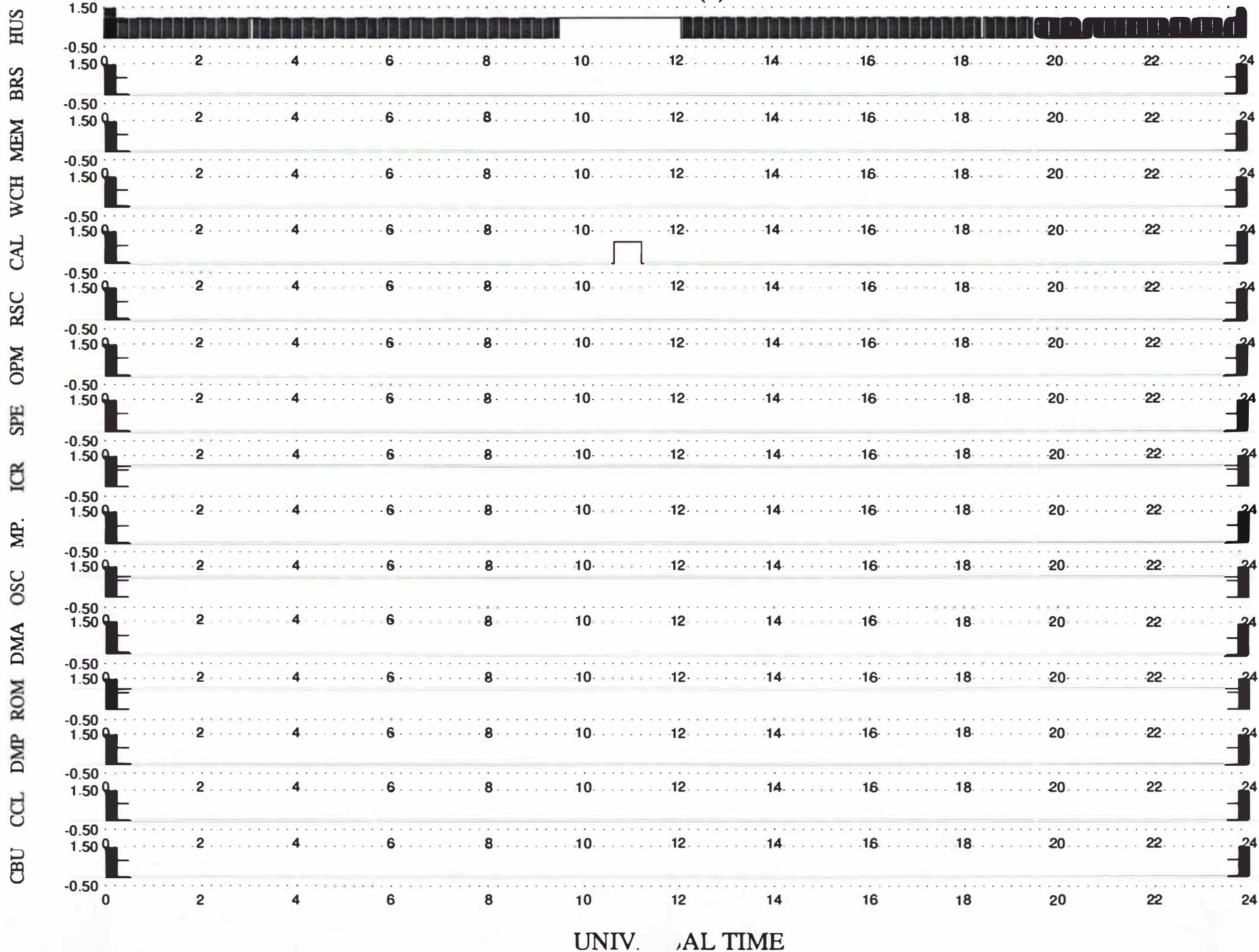


Current Time: 94/01/28, 1217 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

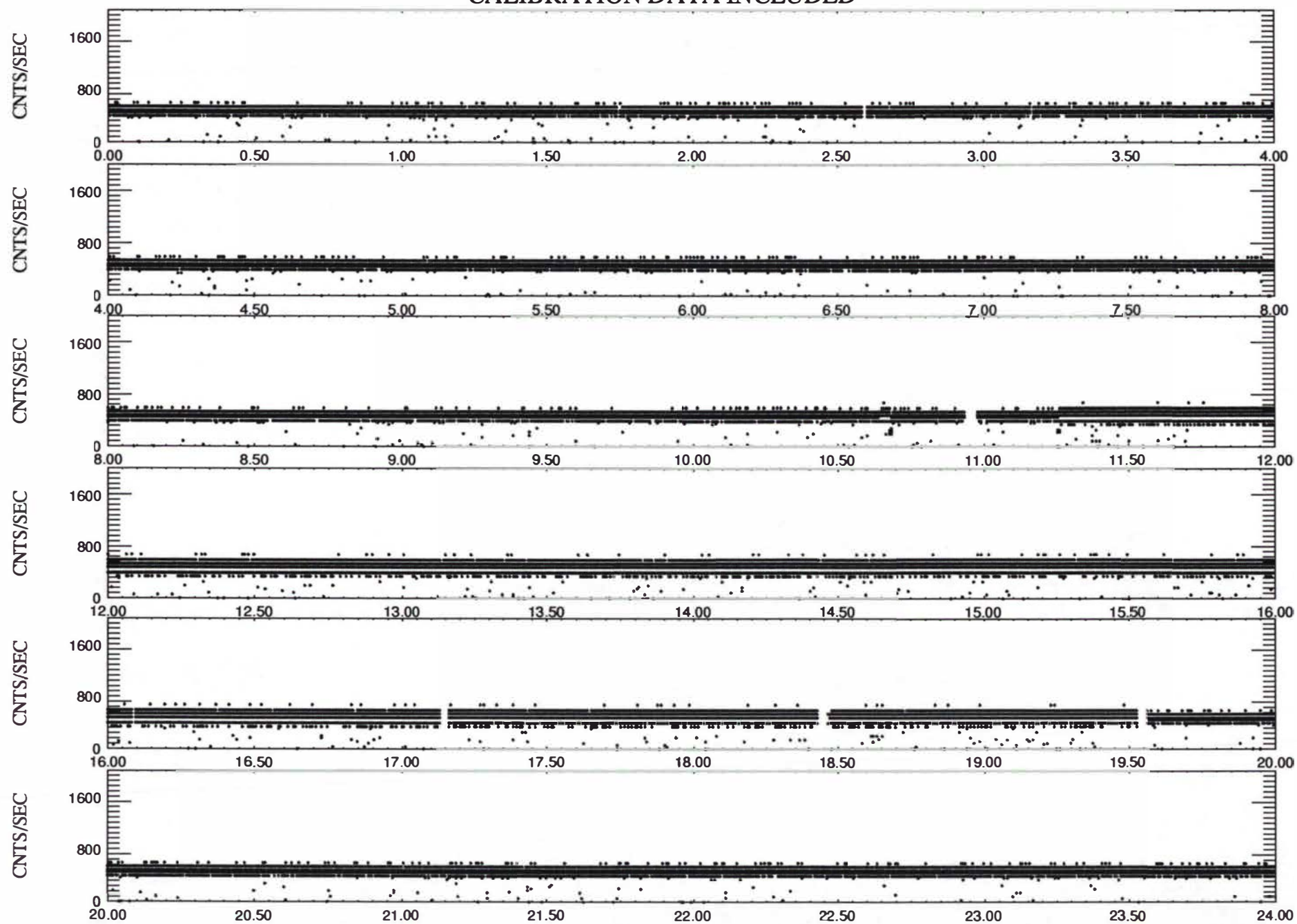
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

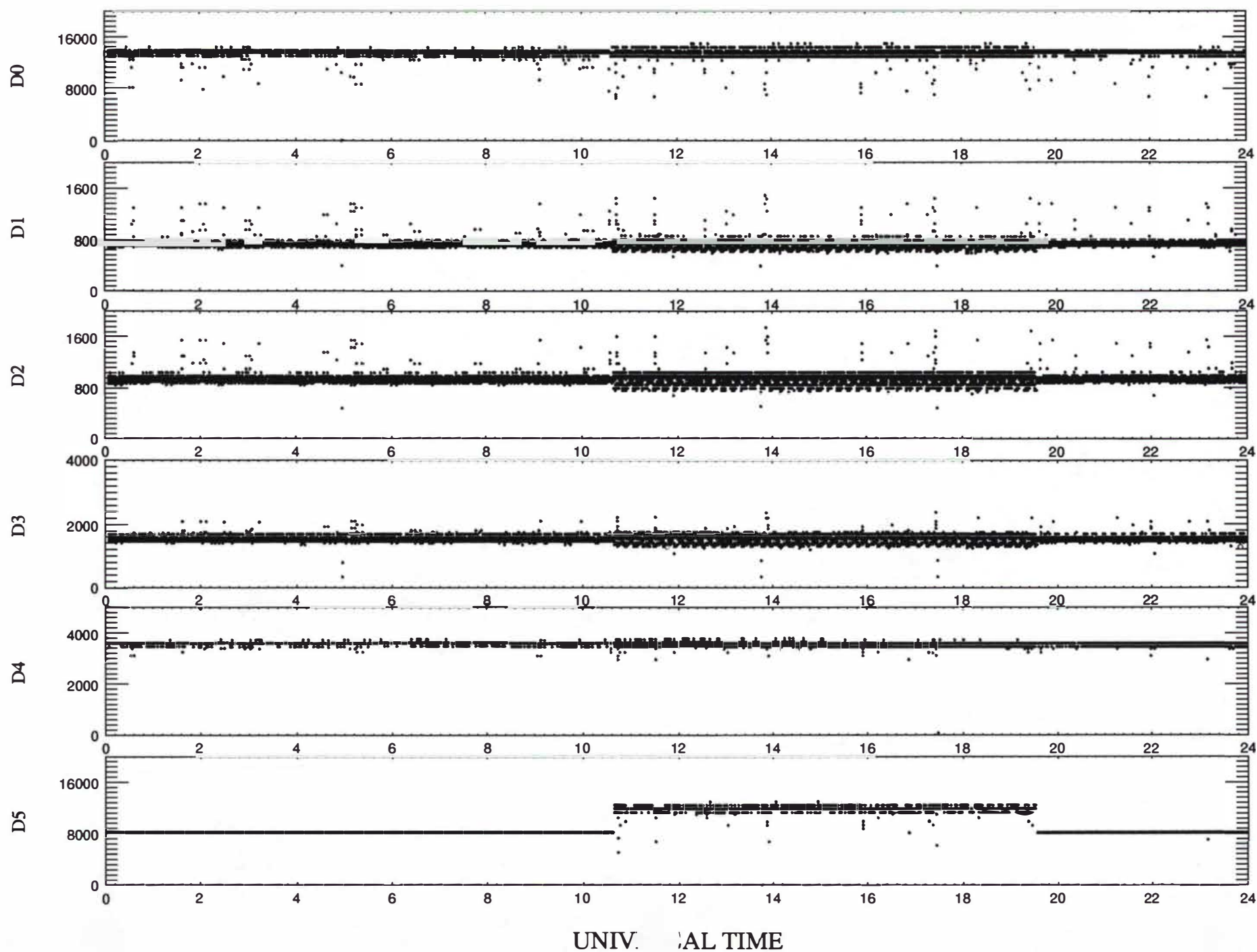
NO BURST (9)

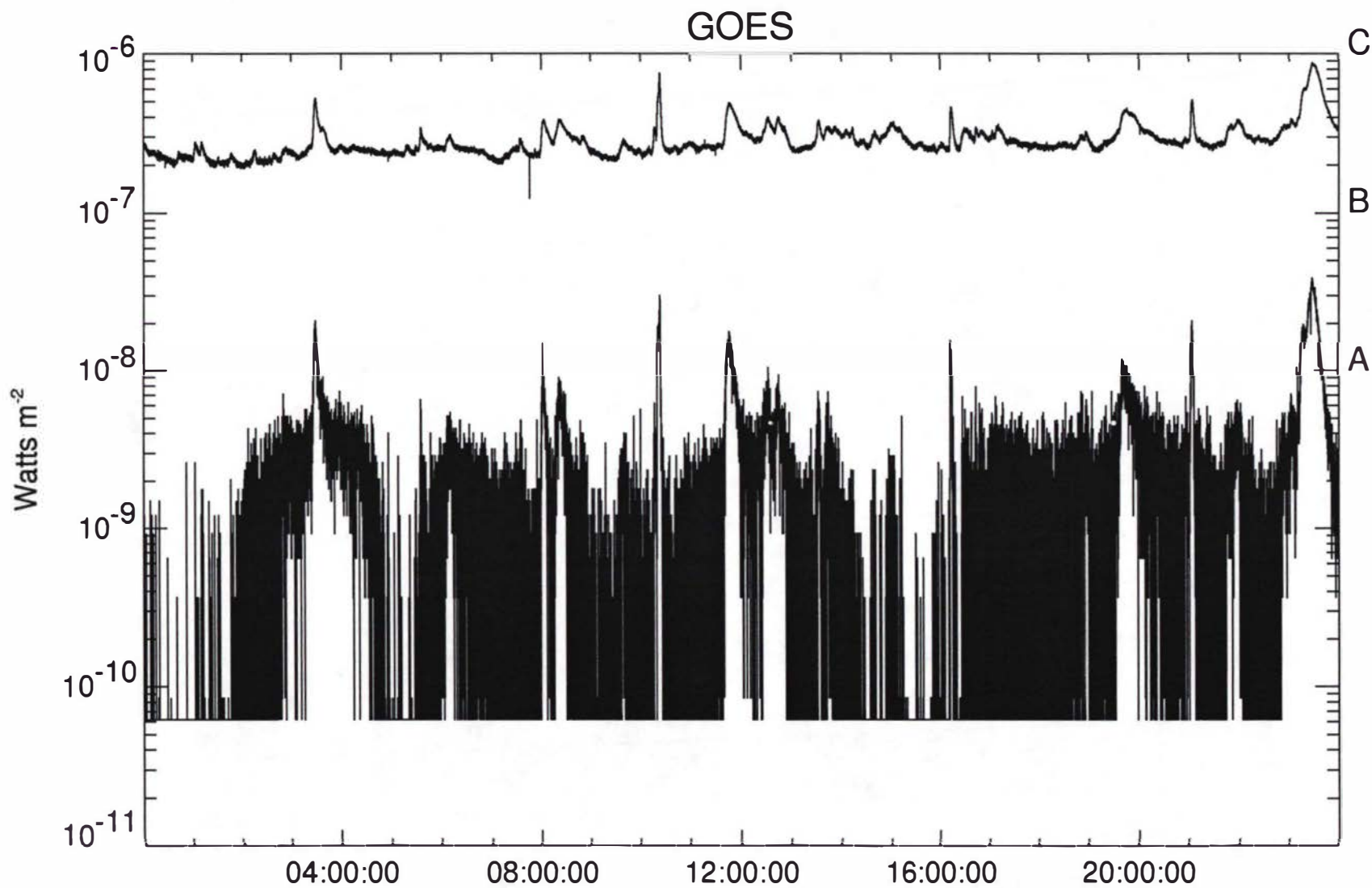


CALIBRATION DATA INCLUDED



UNIV. AL TIME





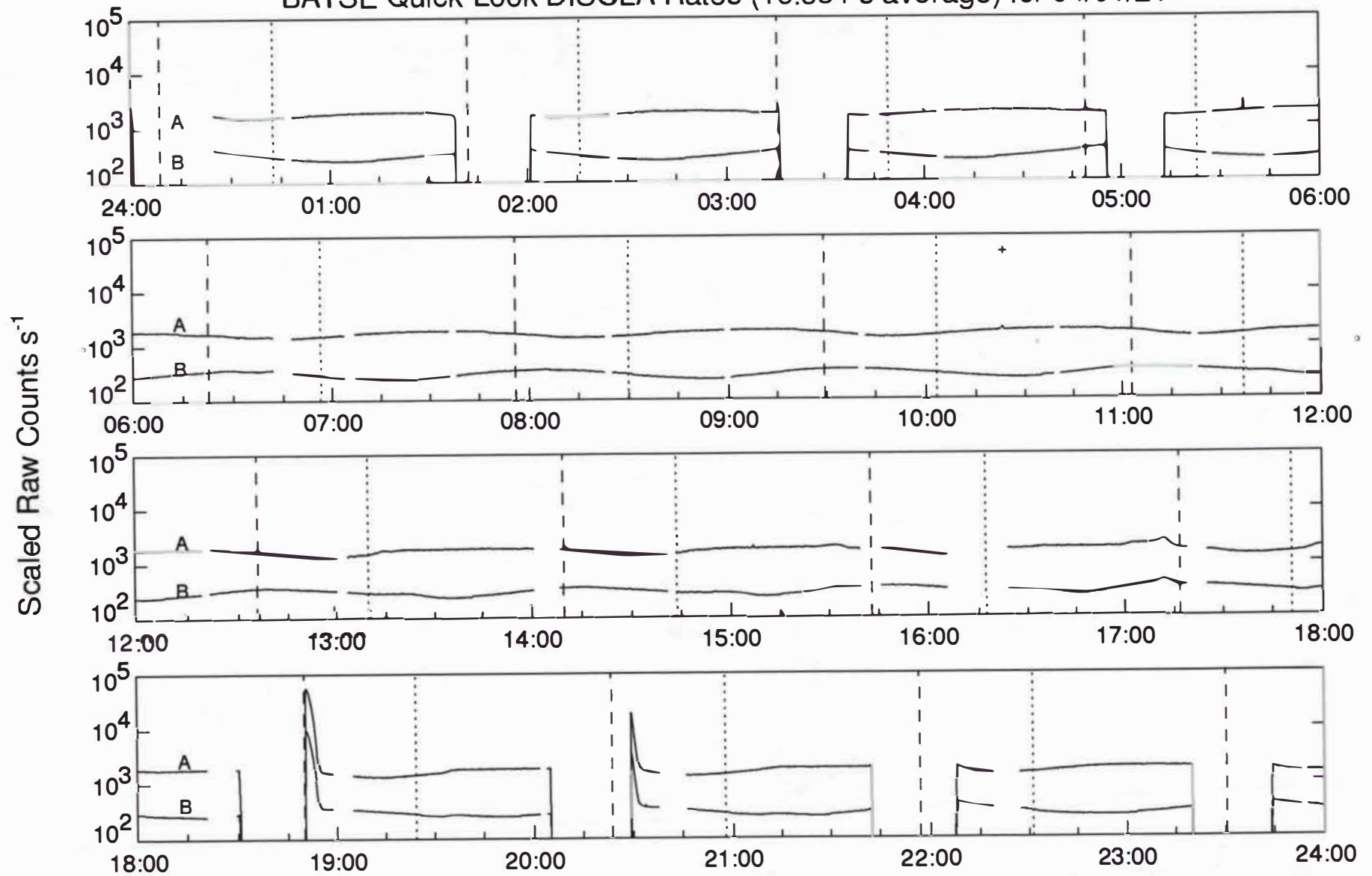
Data Start: 94/01/21, 0000:01

Plot created: 94/01/28, 1209

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/21

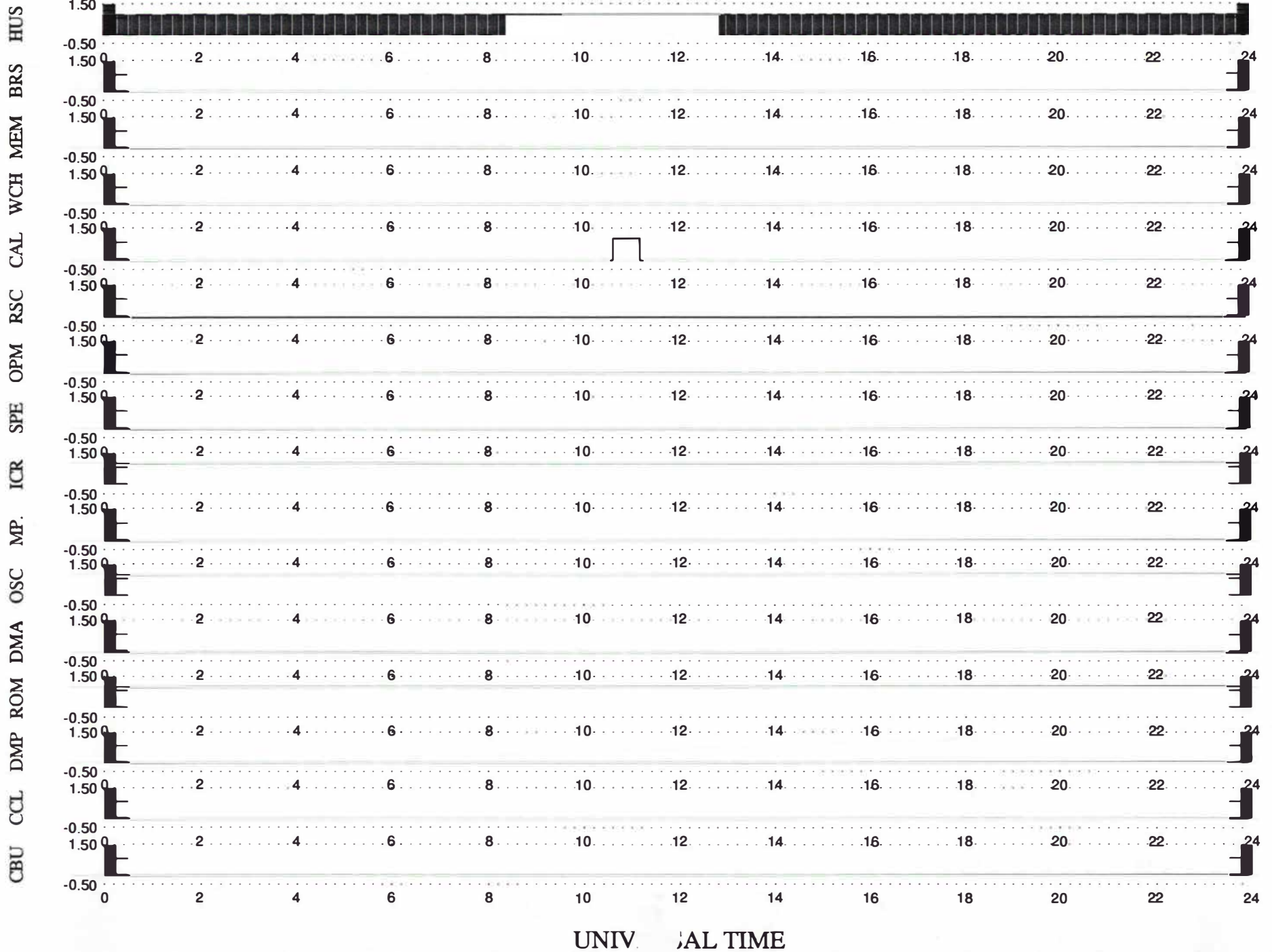


Current Time: 94/01/28, 1217 EDT
A: Channel 1 Most Sunward LAD
B: Sum Channel 1 Anti-Sunward LADs X .05

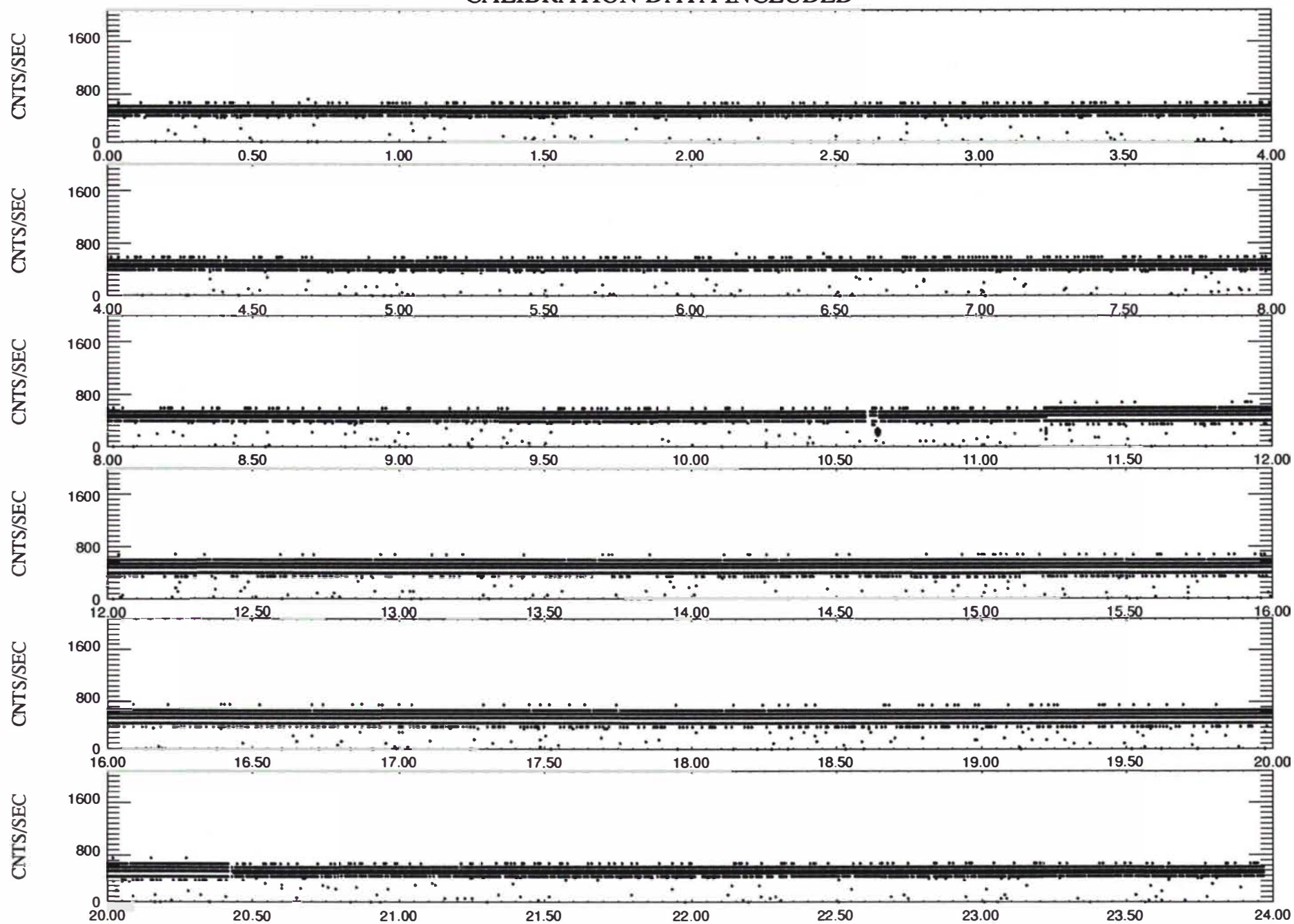
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

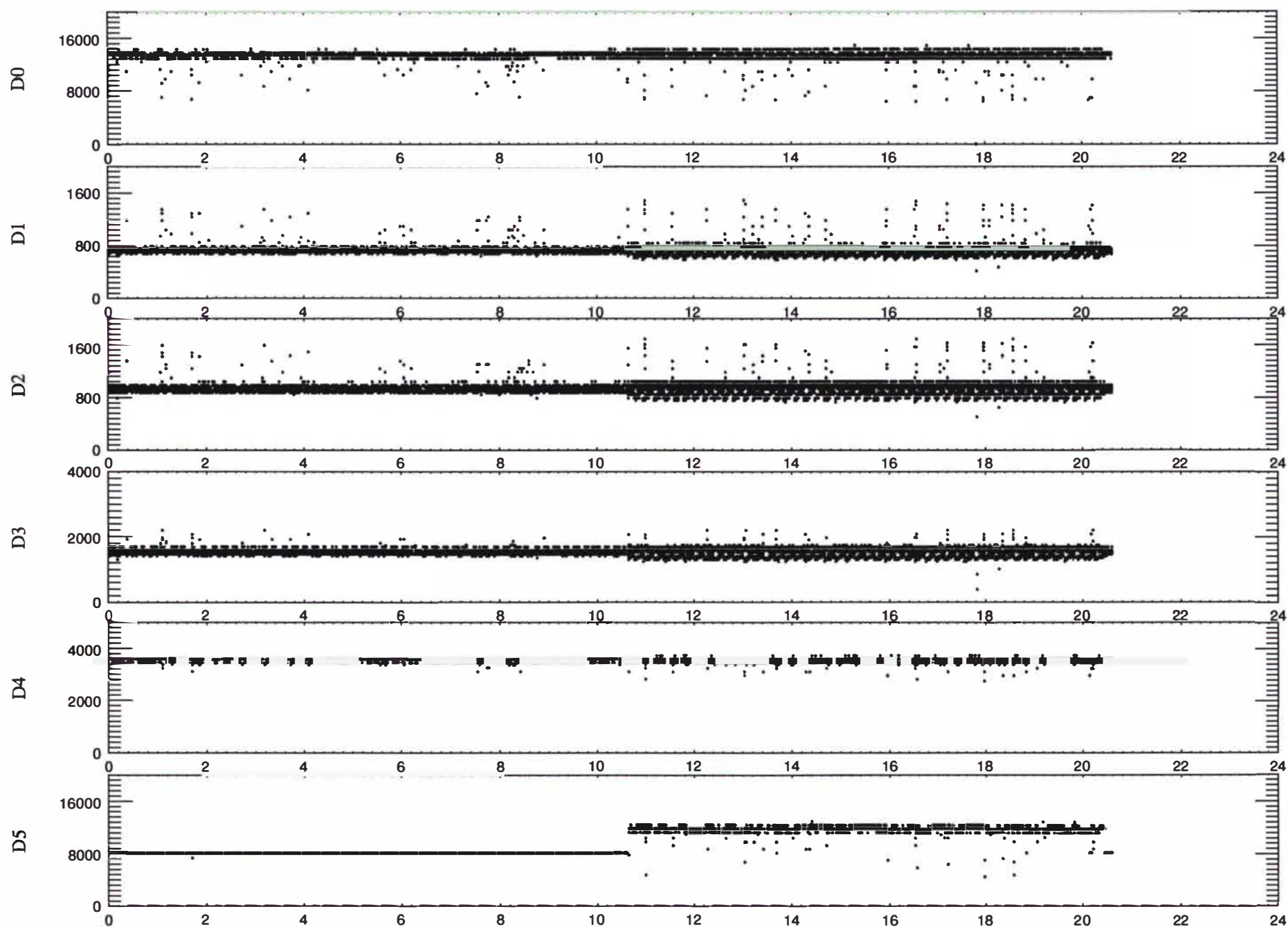
NO BURST (9)



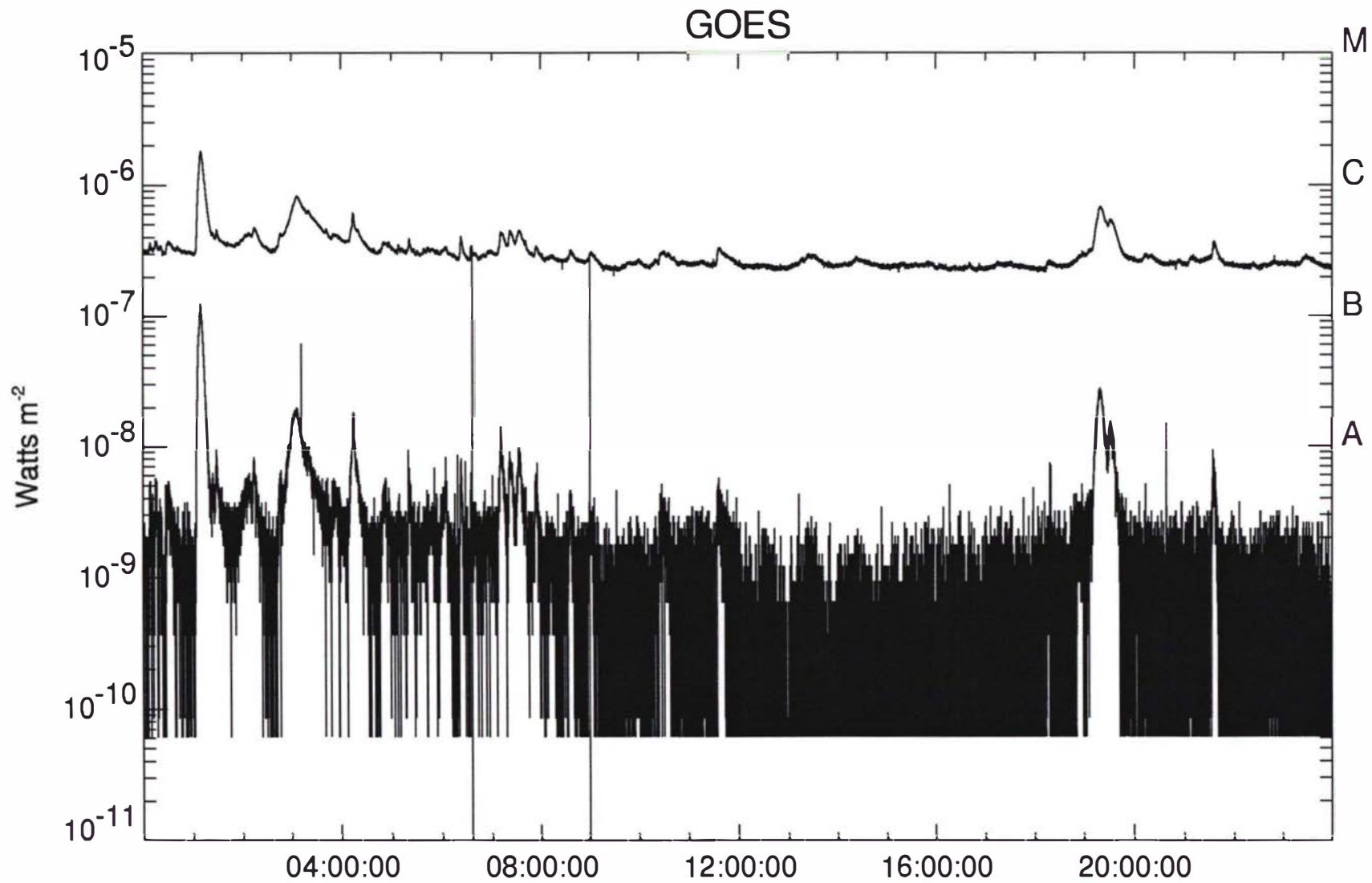
CALIBRATION DATA INCLUDED



UNIV AL TIME



UNIVI AL TIME



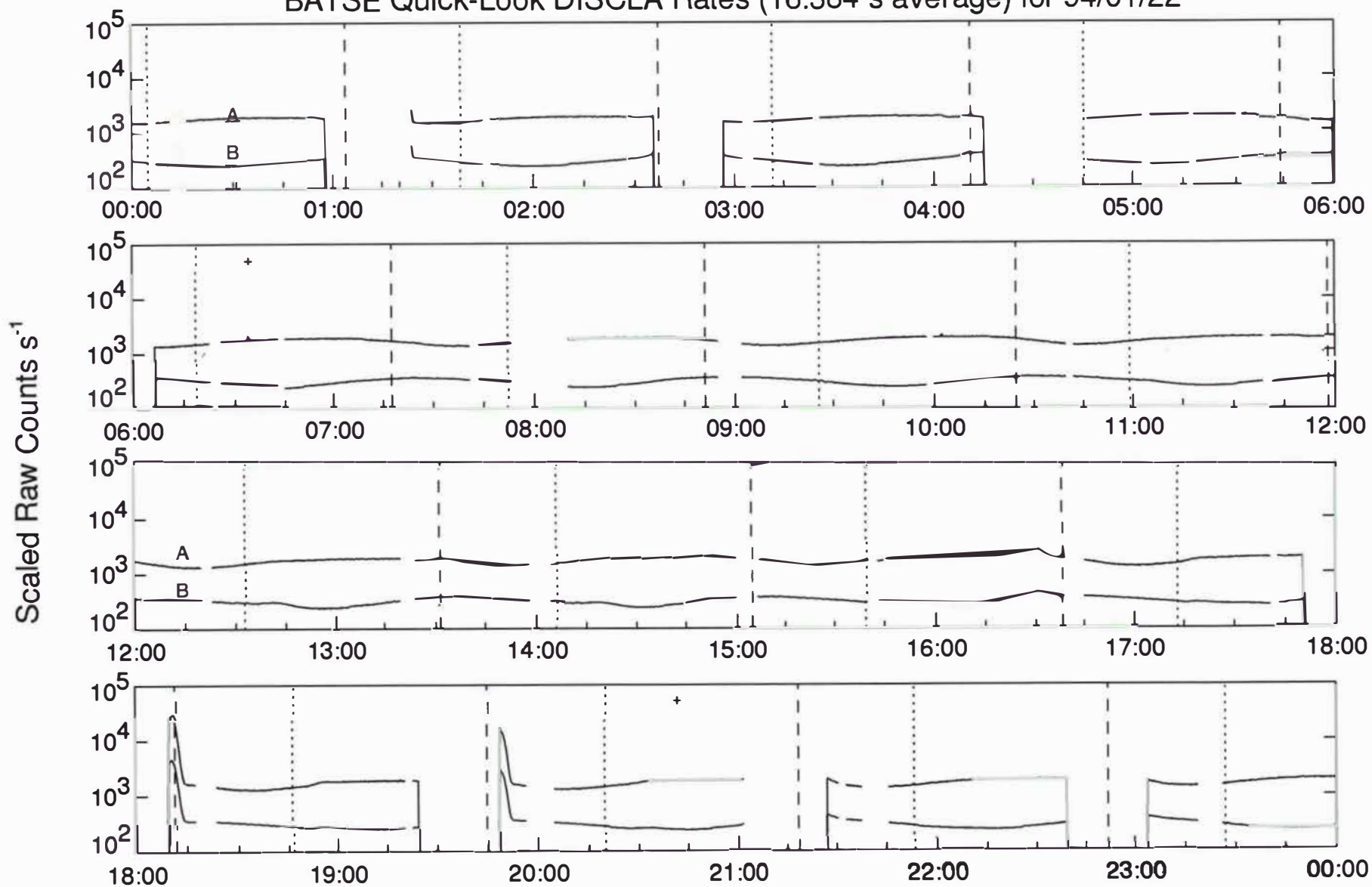
Data Start: 94/01/22, 0000:01

Plot created: 94/01/28, 1209

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 (16.384 s average) for 94/01/22



Current Time: 94/01/28, 1217 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

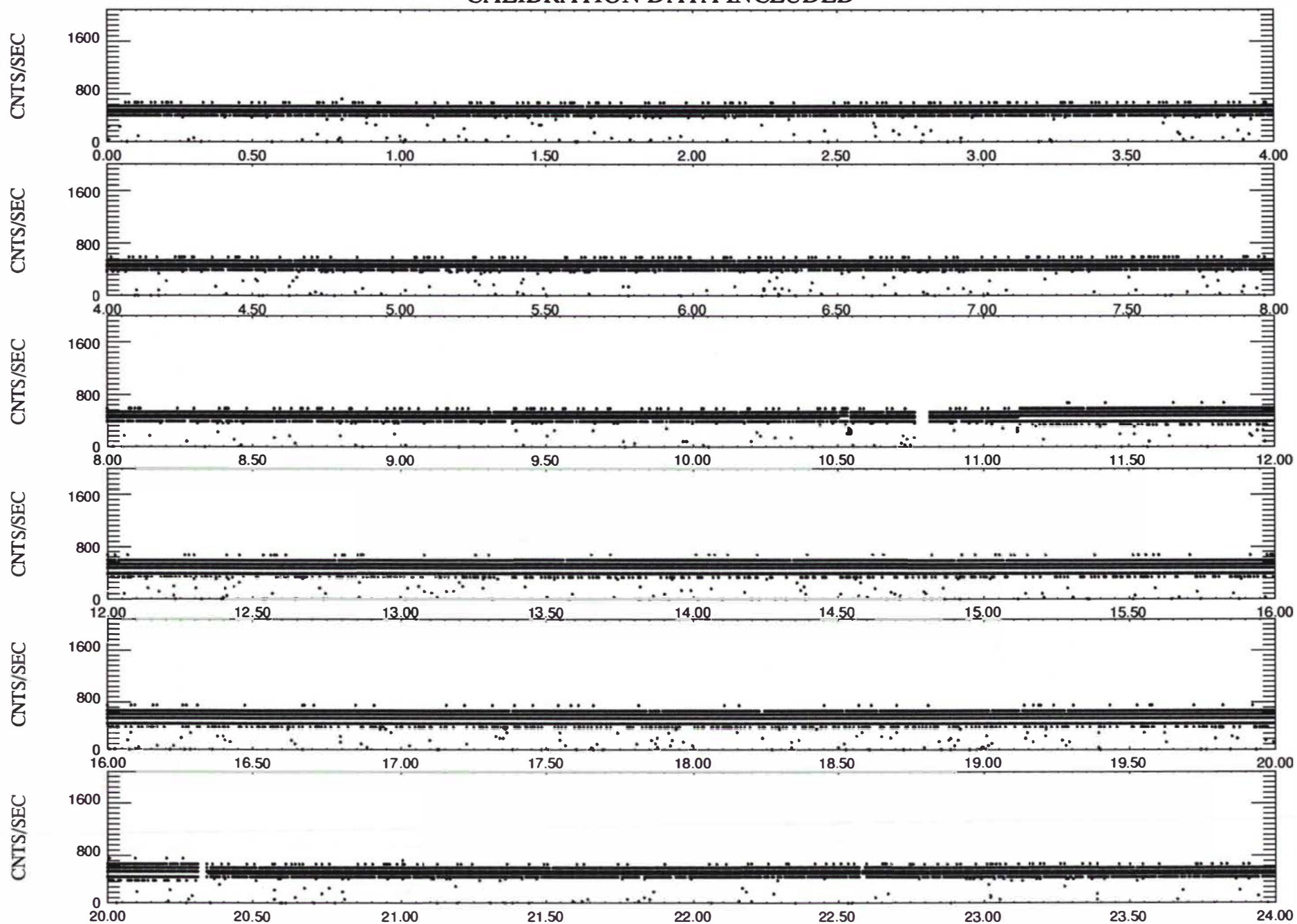
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

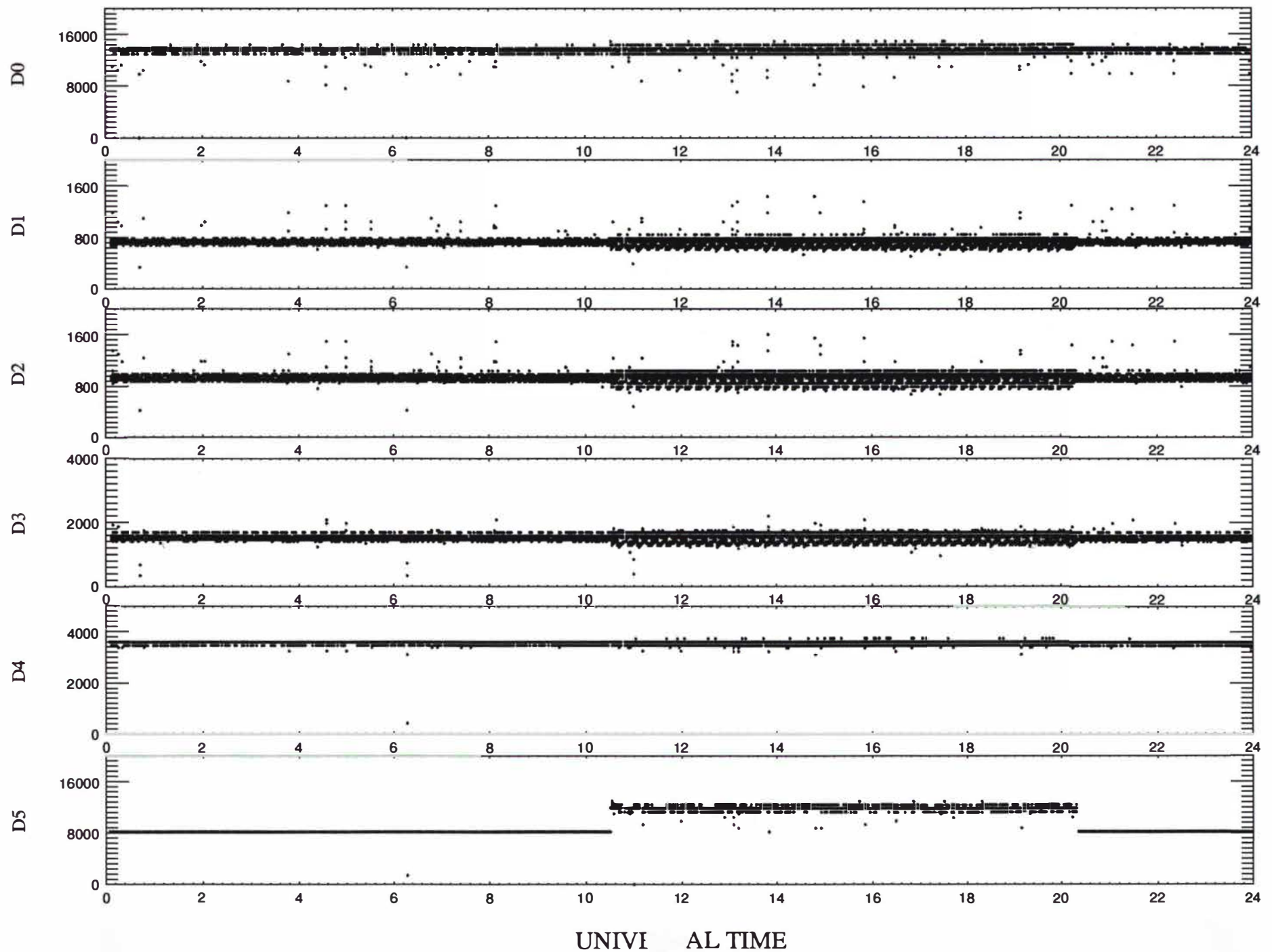
UNIV. JAL TIME

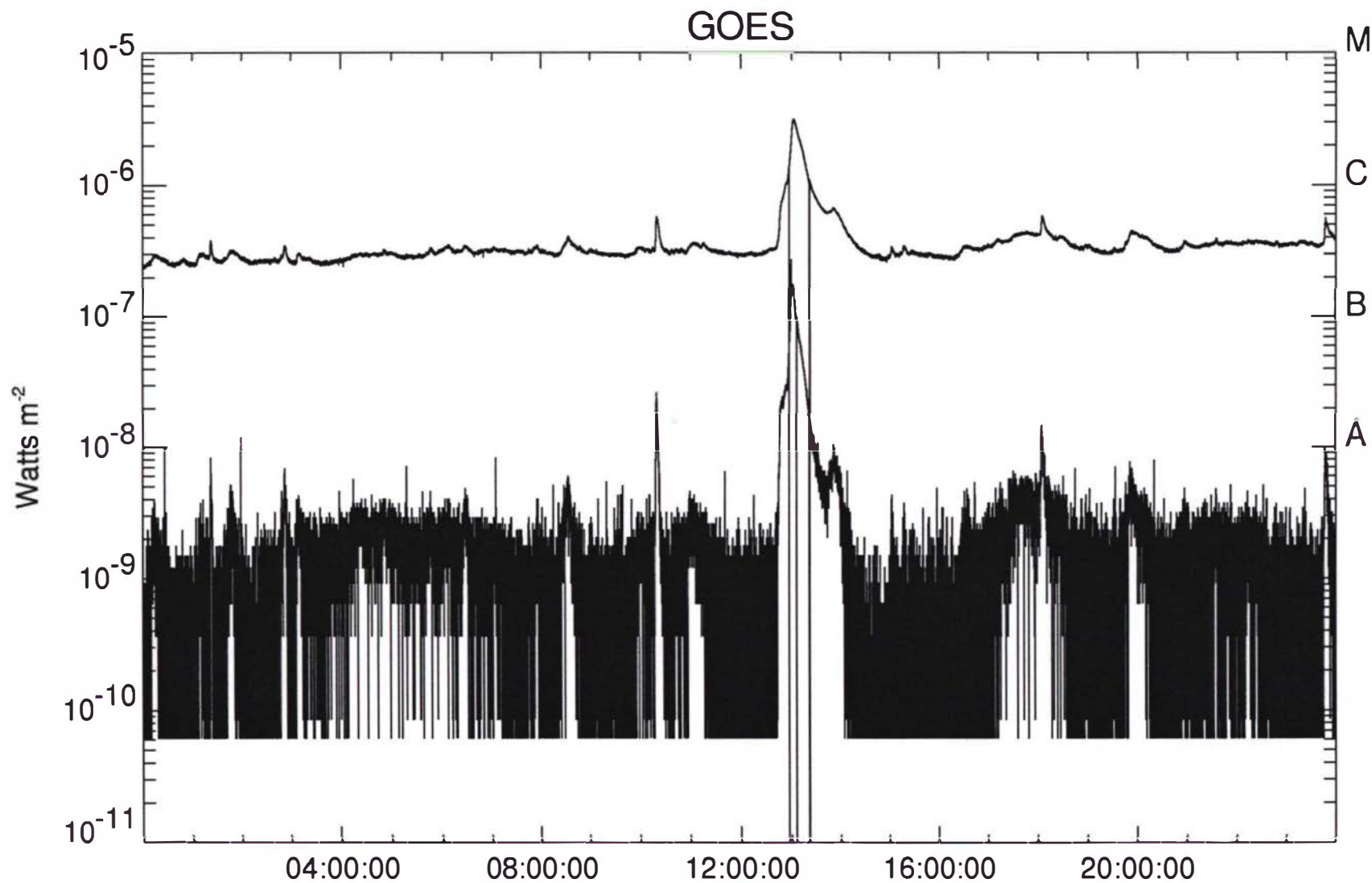


CALIBRATION DATA INCLUDED



UNIV AL TIME





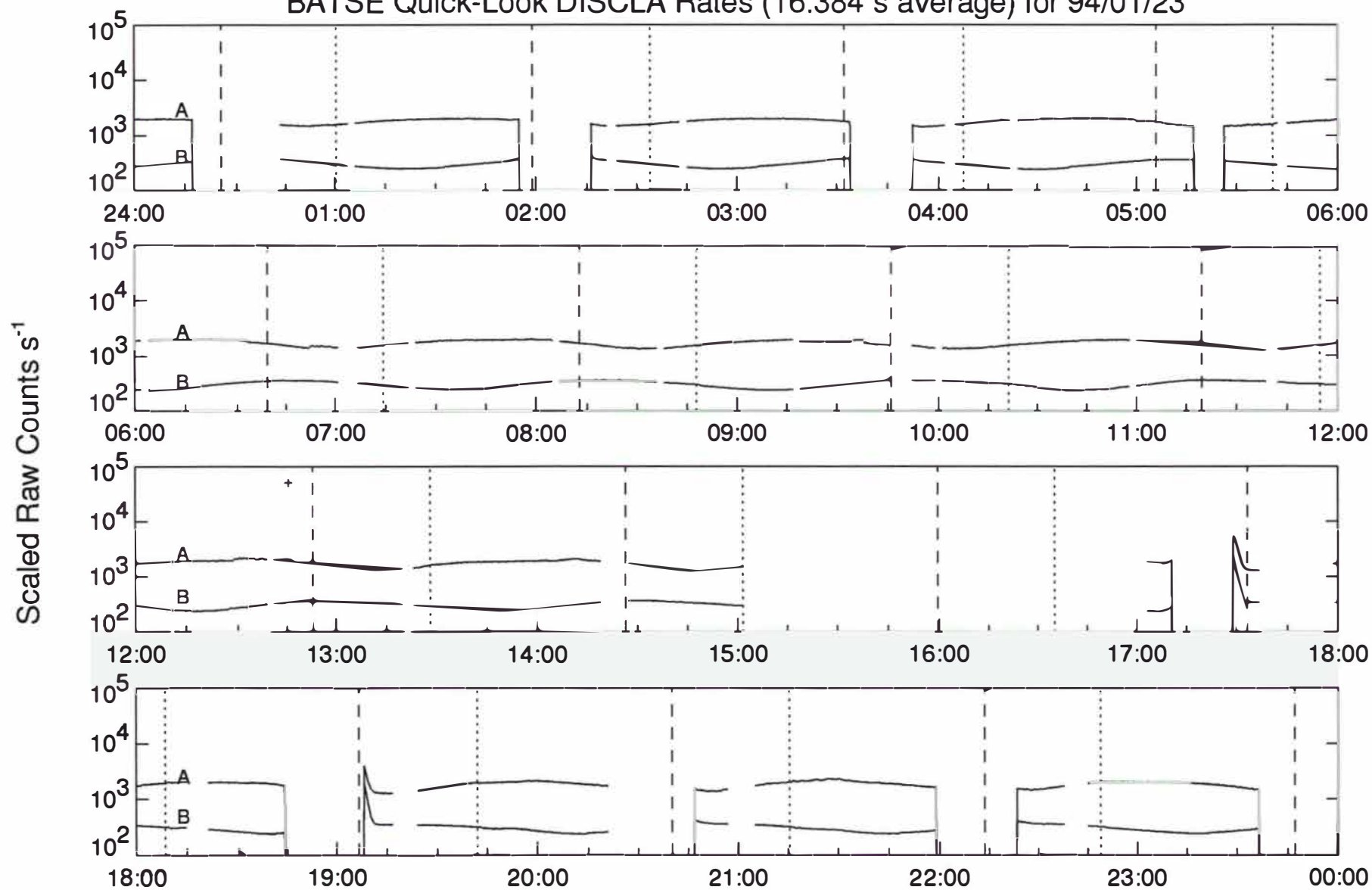
Data Start: 94/01/23, 0000:01

Plot created: 94/01/28, 1209

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/23

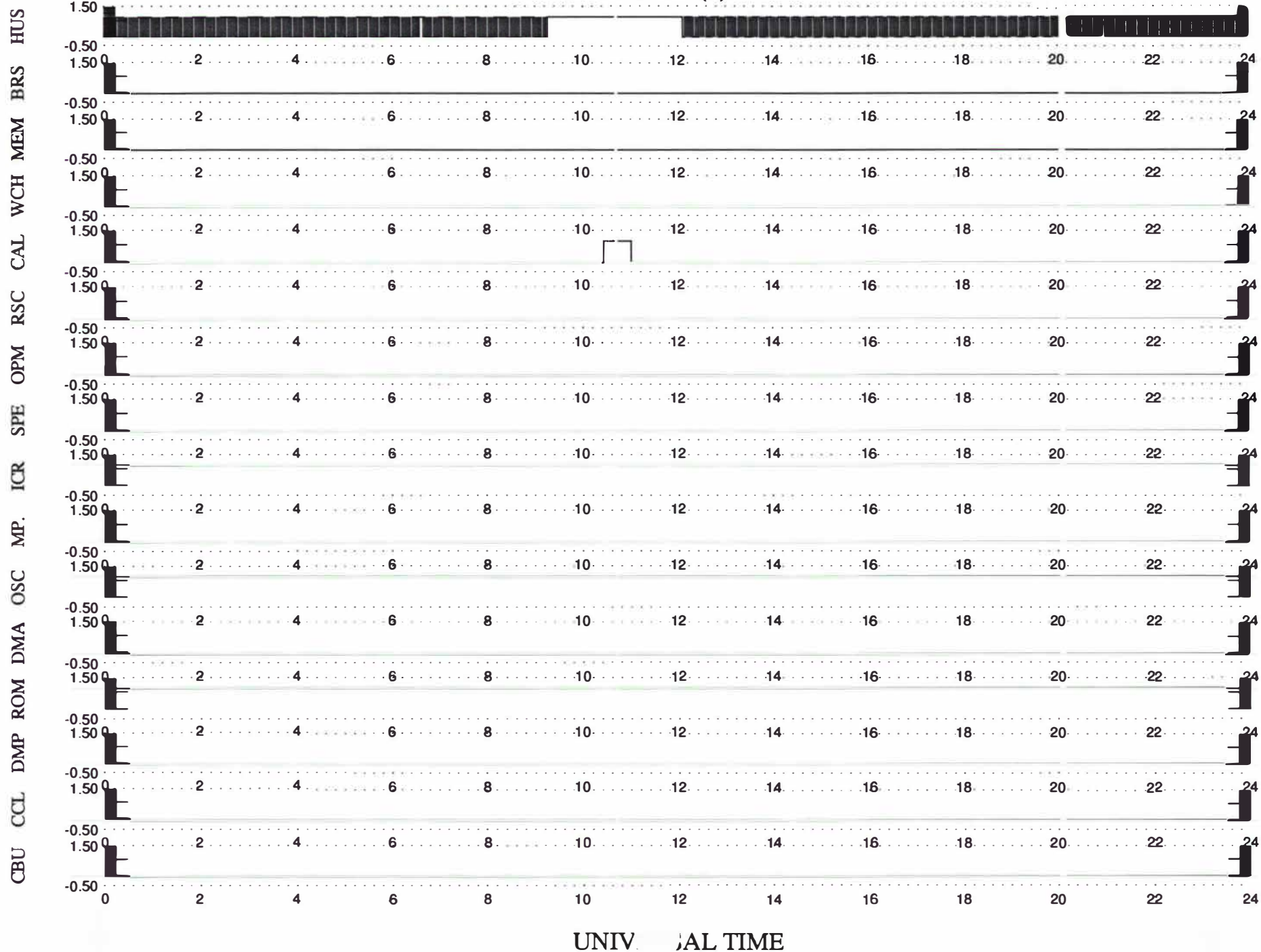


Current Time: 94/01/28, 1217 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

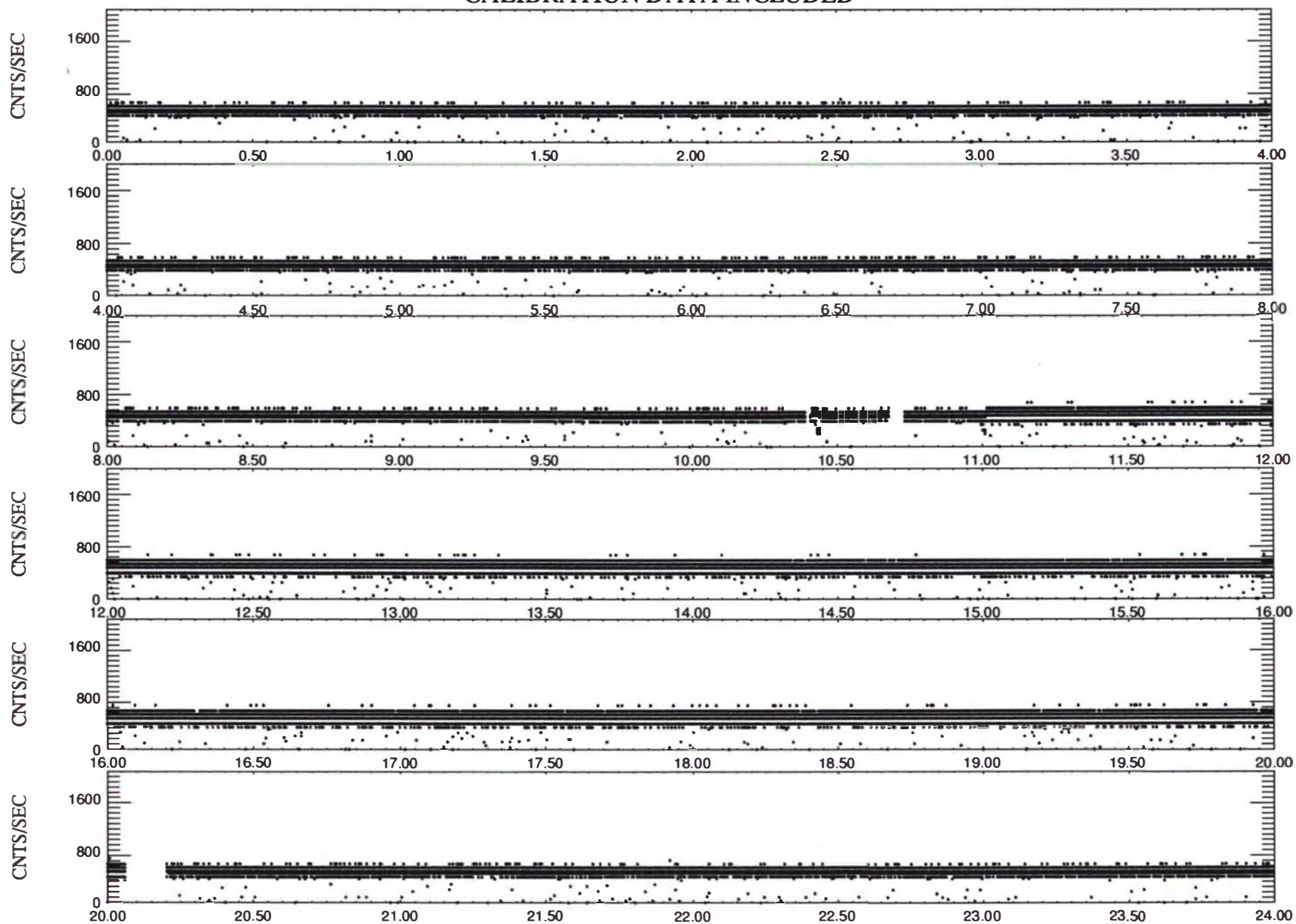
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

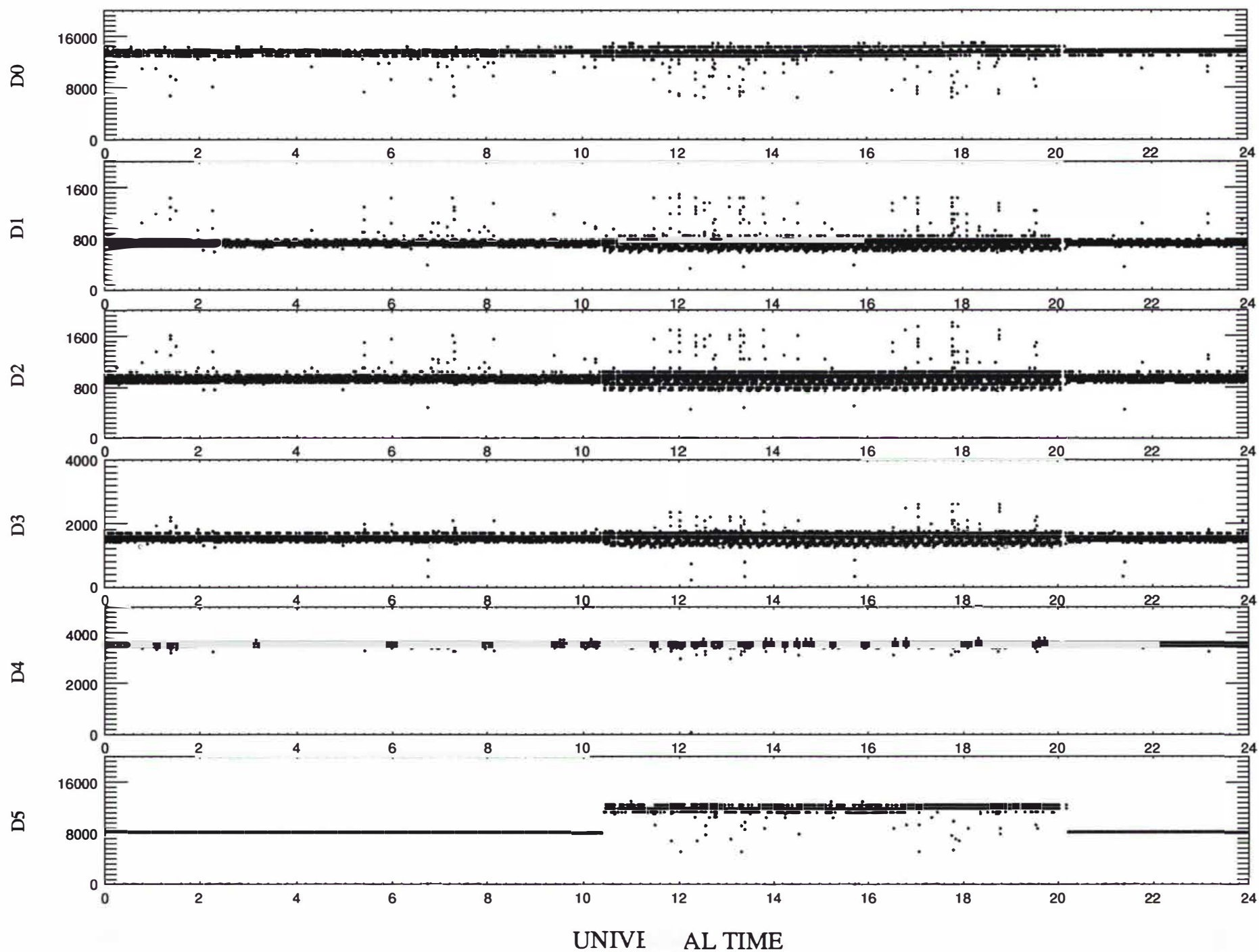
NO BURST (9)



CALIBRATION DATA INCLUDED



UNIV AL TIME



From SHARIFF@ssl.msfc.nasa.gov Thu Jan 27 09:57 PST 1994
Date: Thu, 27 Jan 1994 12:00:45 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2776
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2776
EVENT OF 1994 JAN 24 DAY OF YEAR= 24
EVENT CROSSING TIME AT BATSE : 50280. S. OR 13:58:00.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 86.000 -18.000
BATSE PEAK COUNTING RATE: 2500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 24/ 1/ 94 IS:
RA= 159.506 DEC= -47.668 DIST= 3.309 AU
BATSE-ULYSSES DISTANCE = 495032501. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=114.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -677.47 SECS.
CROSSING TIME AT ULYSSES IS 49603. S. OR 13:46:42 +/- 301.16 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 24/ 1/ 94 IS:
RA= 298.998 DEC= -21.758 DIST= 2.387 AU
MARS-BATSE DISTANCE = 357115904. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 51.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 746.02 SECS.
CROSSING TIME AT MARS IS 51026. S. OR 14:10:26 +/- 172.56 SECONDS

Ad

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2776	940124	9376	50280	2500	086	-18

BATSE BURST TRIGGER

NO.: 02776

TIME: TJD=9376 SECONDS=50280

TYPE: BURST

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=095.6 AZIMUTH=237.1 ERROR= DEGREES

COMMENTS:

BURST, TWO SPIKES, LASTING ~2 SECONDS. VISIBLE ABOVE 300KEV.

BATSE BURST# 2776

ULYSSES RT

4 / 5 / 98

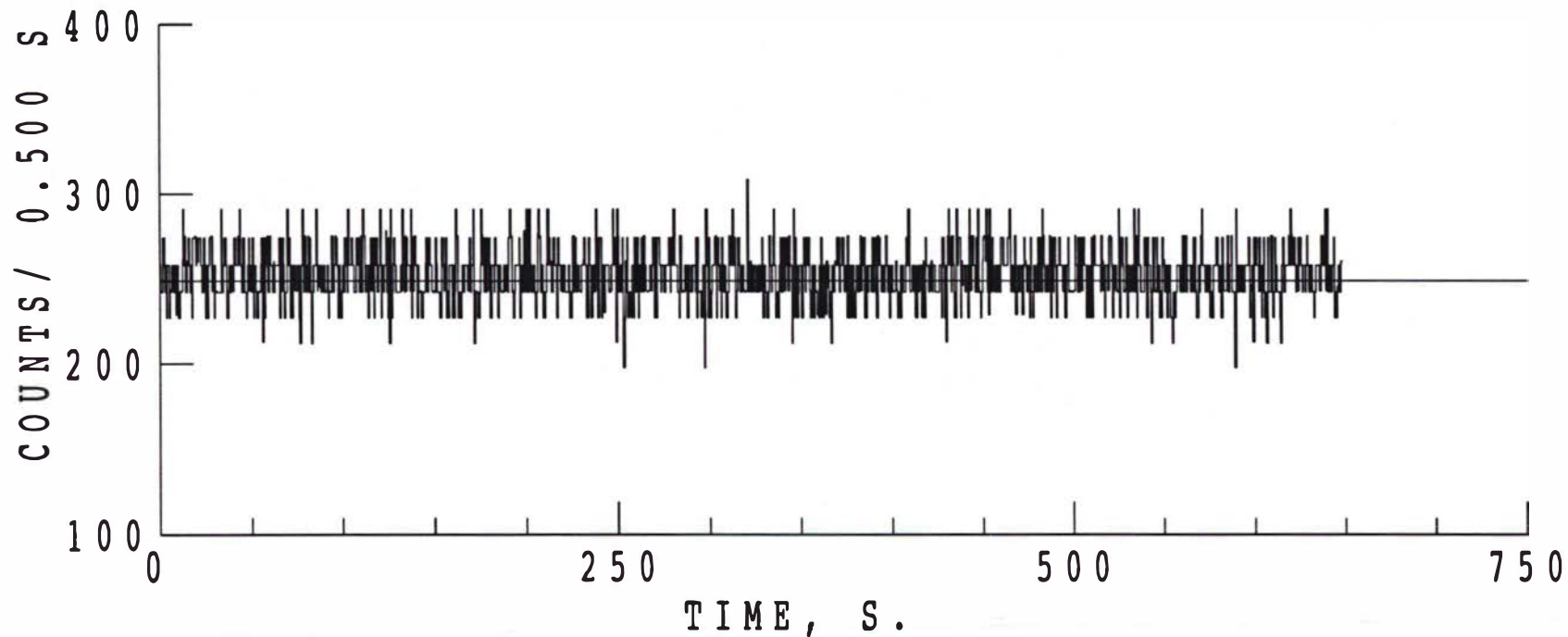
24 / 1 / 94 49572.188 s

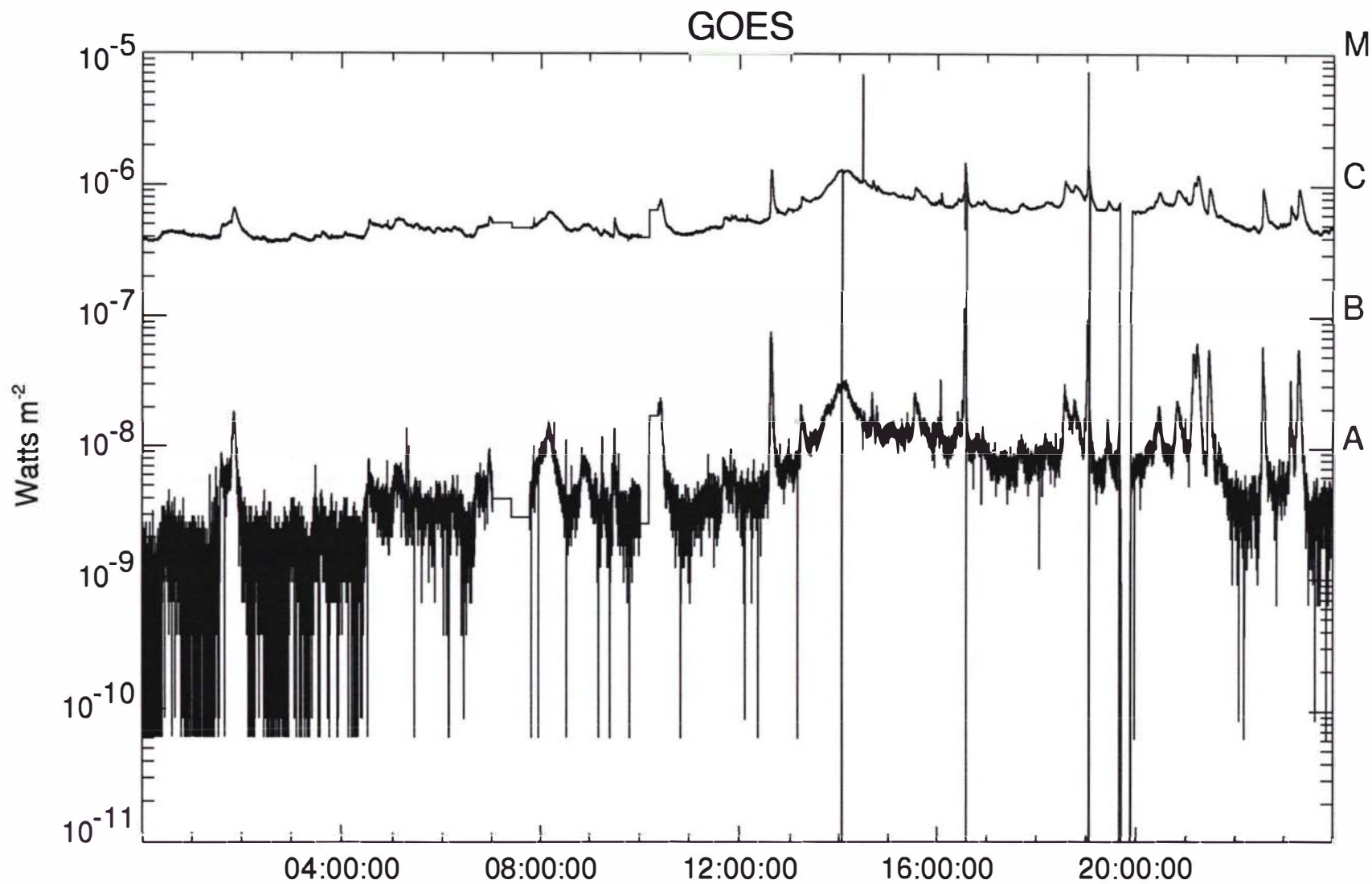
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M=10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





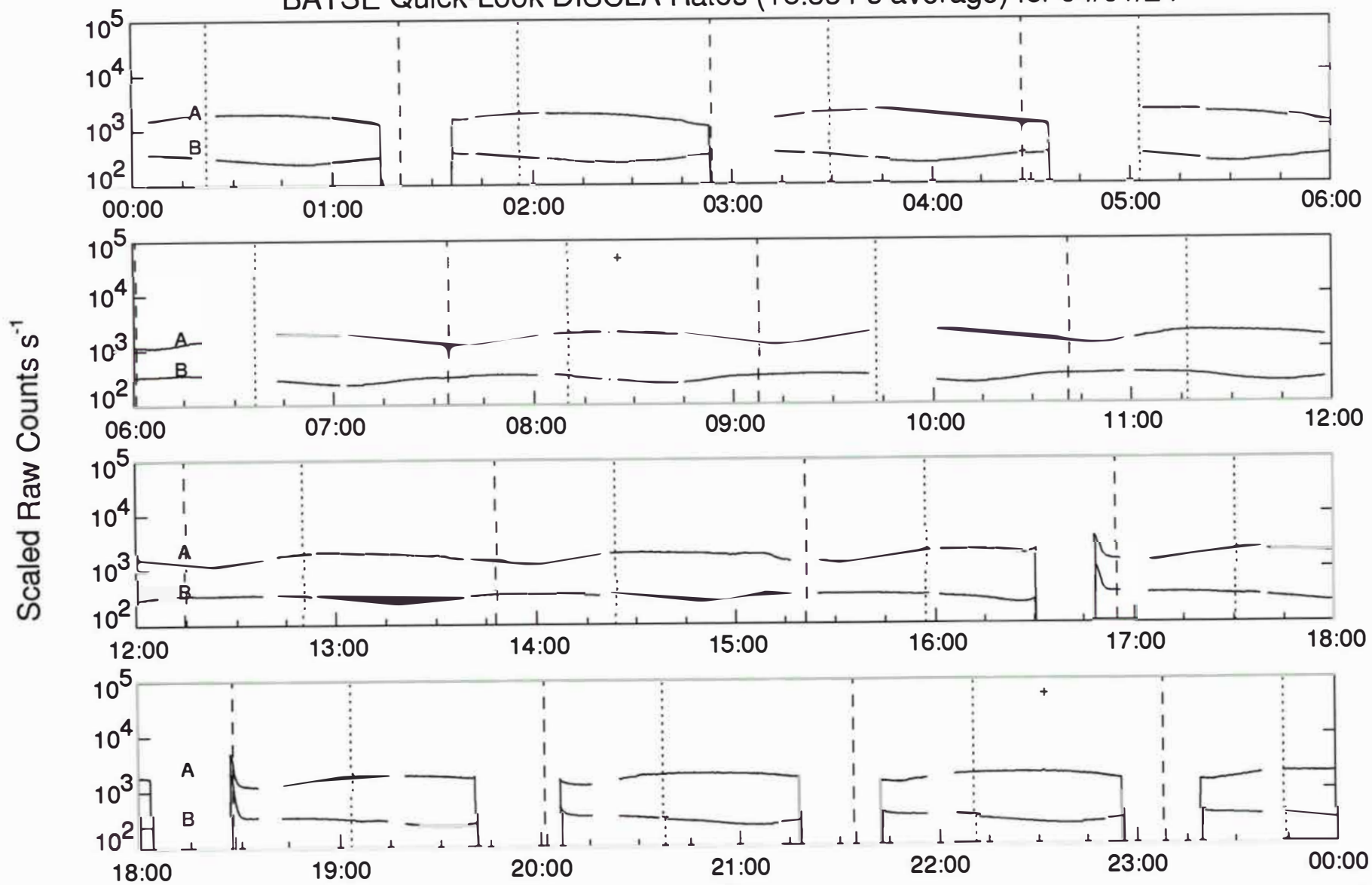
Data Start: 94/01/24, 0000:00

Plot created: 94/01/28, 1210

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/24

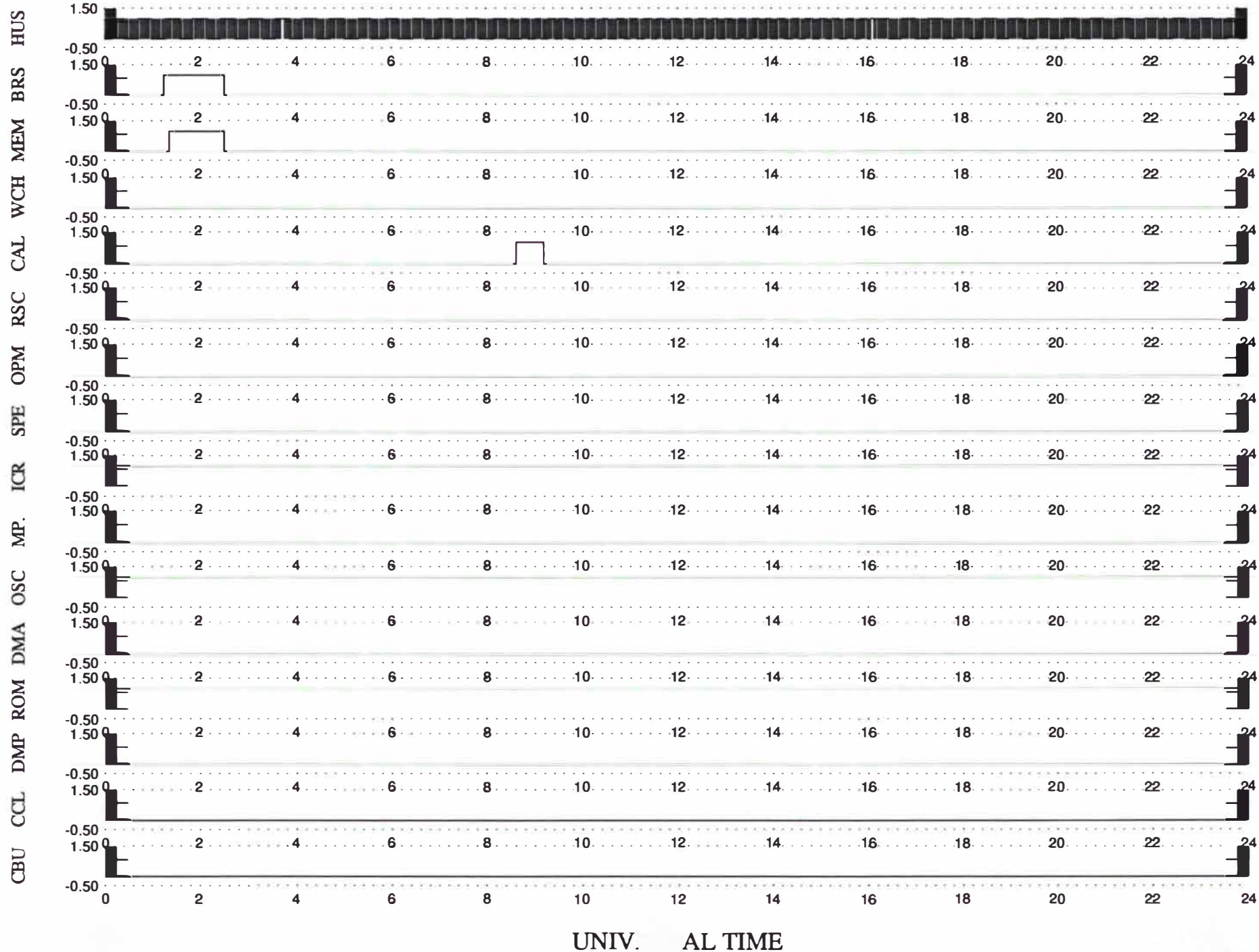


Current Time: 94/01/28, 1218 EDT
A: Channel 1 Most Sunward LAD
B: Sum Channel 1 Anti-Sunward LADs X .05

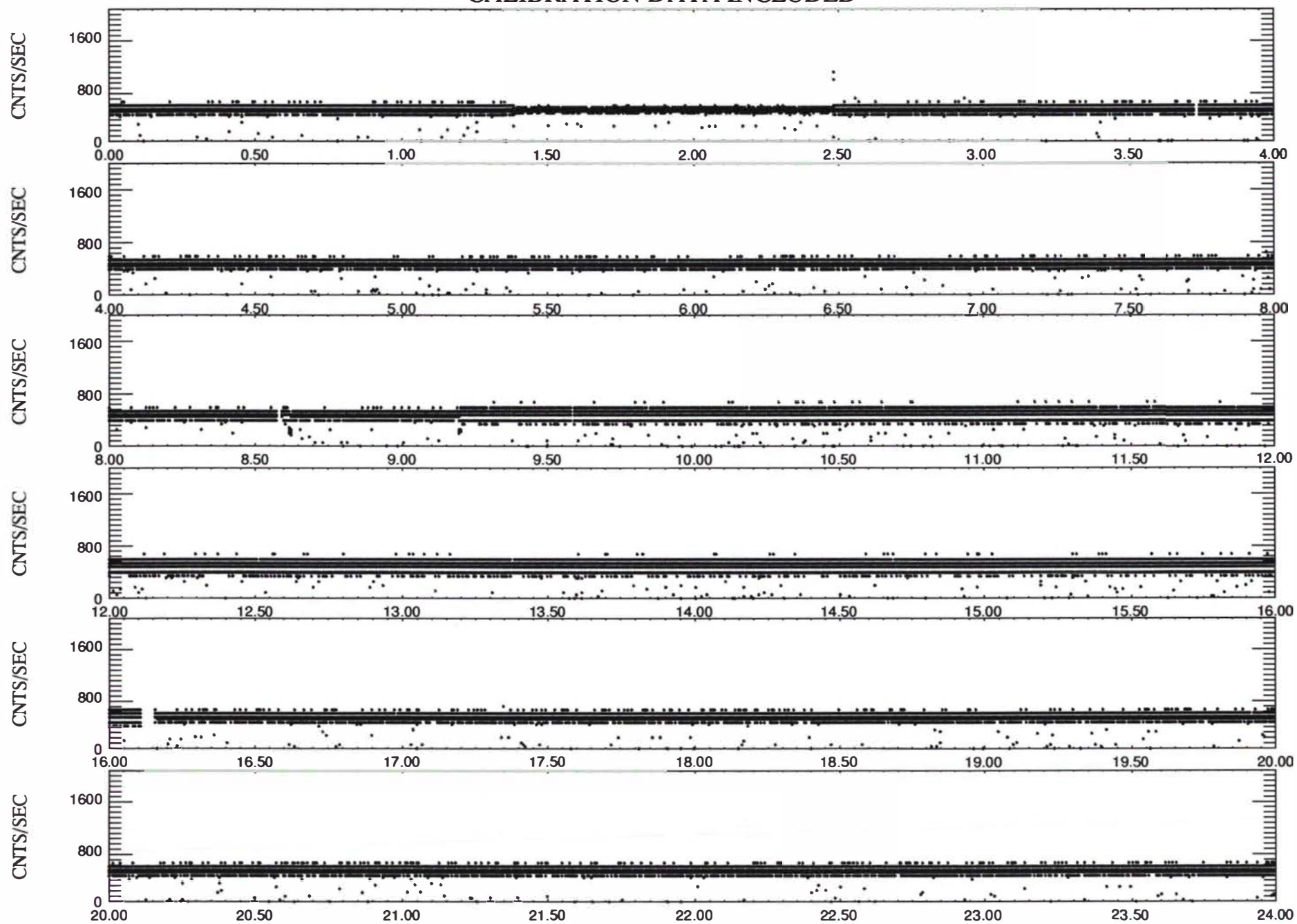
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

BURST NUMBER 10

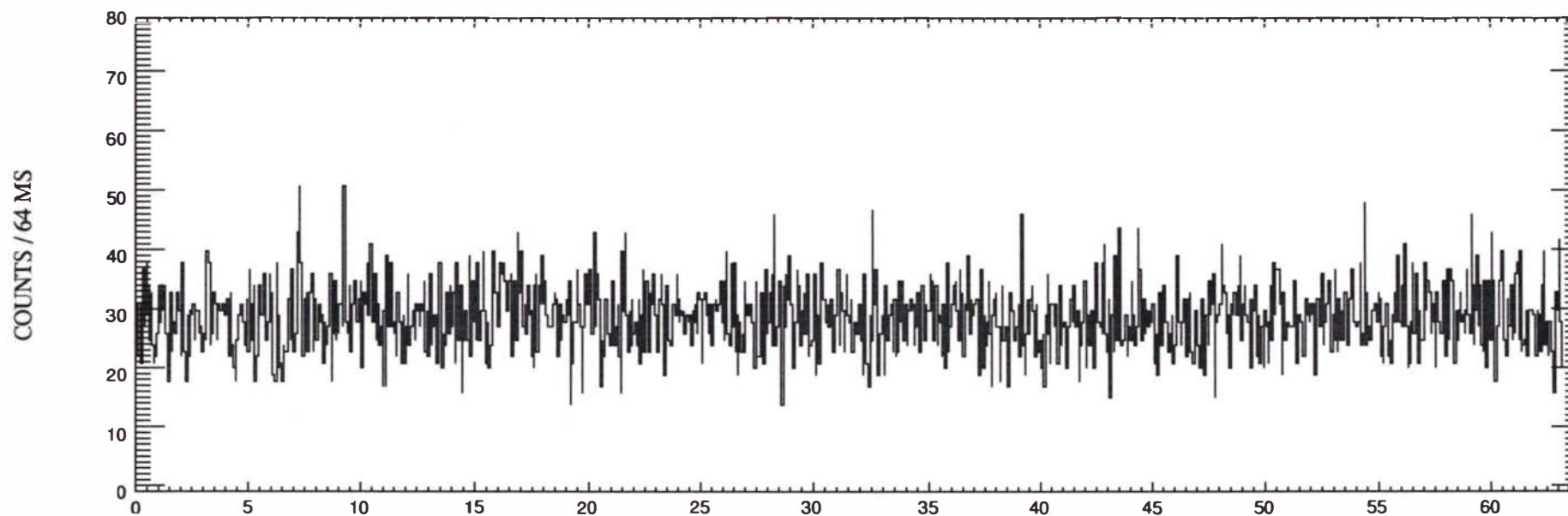


CALIBRATION DATA INCLUDED

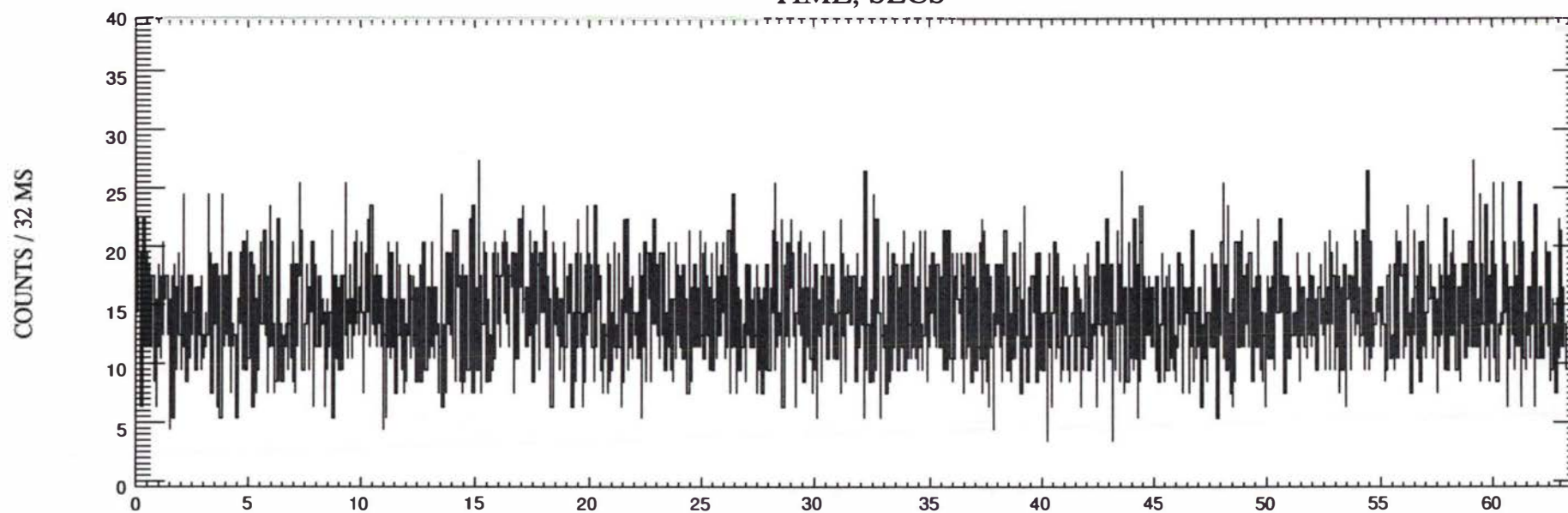


UNIV. TIME

Burst Counter 10 at UT= 1.219402186076 h= 4389.848 s 01:13:09.848

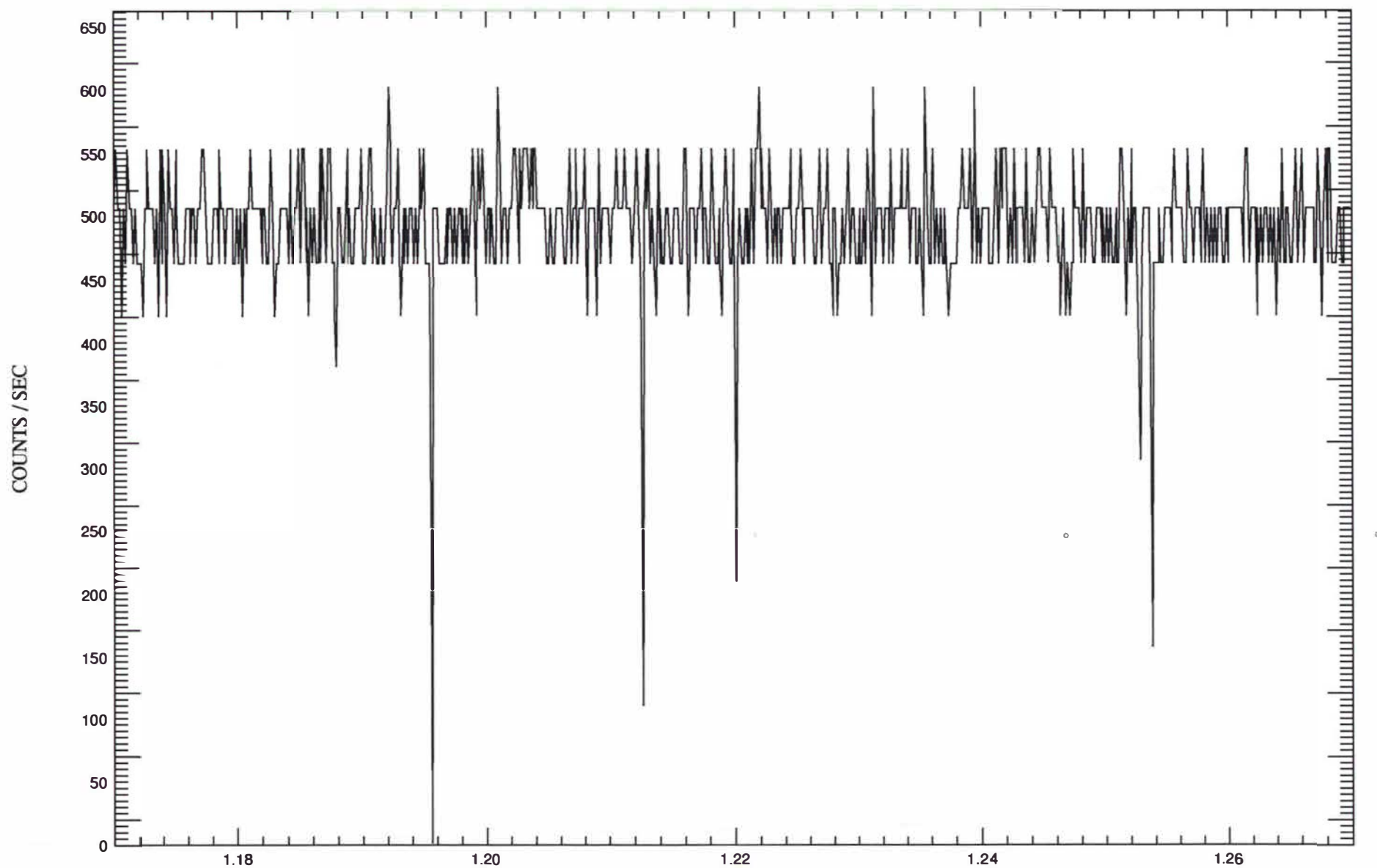


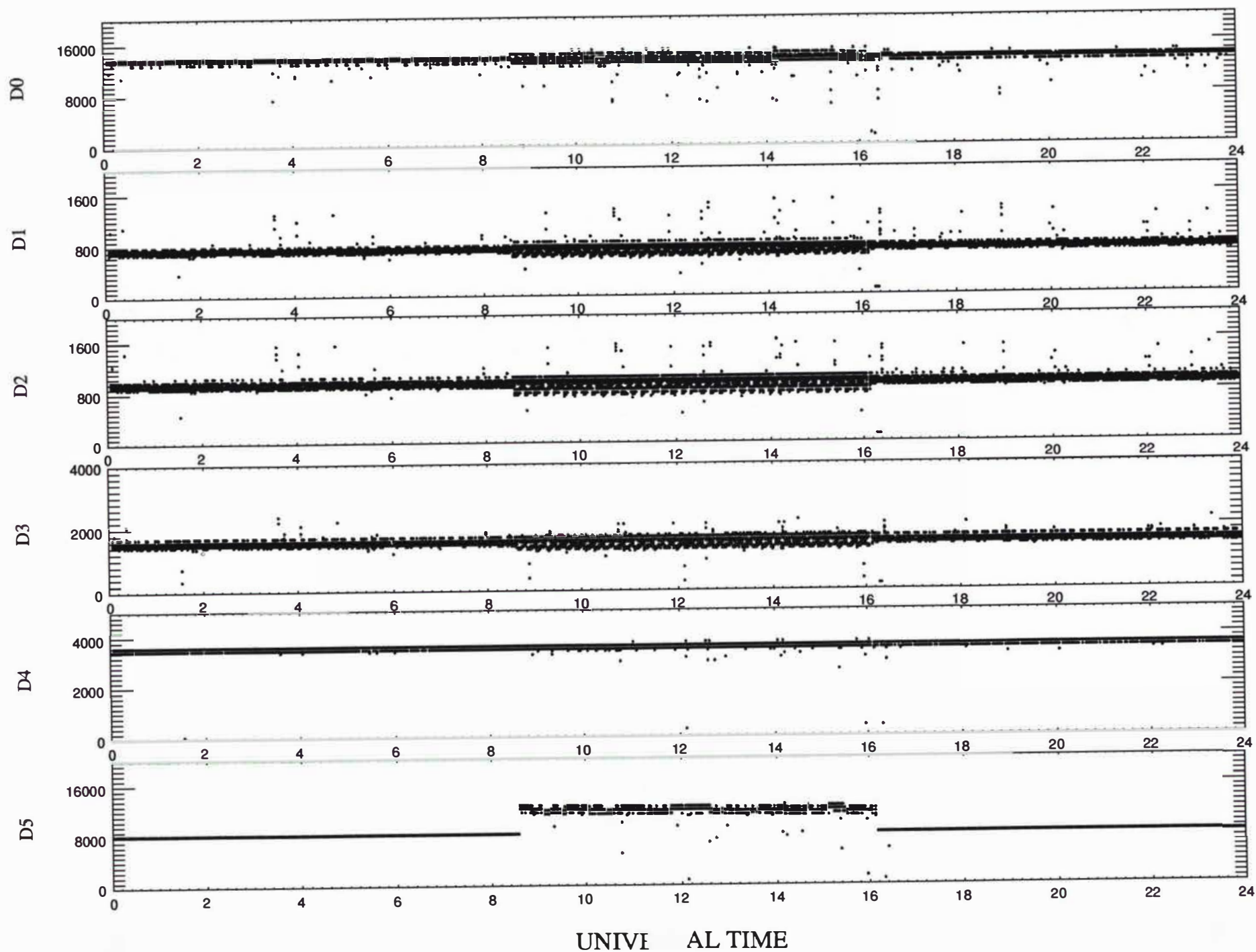
TIME, SECS



TIME, SECS

CALIBRATION DATA INCLUDED





From HAGEDON@ssl.msfc.nasa.gov Thu Jan 27 08:47 PST 1994
Date: Thu, 27 Jan 1994 10:49:45 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 2777

TIME: TJD=9377 SECONDS=12916

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

UNCLASSIFIED SOLAR FLARE. SINGLE PULSE. DUR.~20 SEC.
BARELY VISIBLE ABOVE 100KEV.

From HAGEDON@ssl.msfc.nasa.gov Thu Jan 27 08:49 PST 1994
Date: Thu, 27 Jan 1994 10:52:27 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 2778

TIME: TJD=9377 SECONDS=66632

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

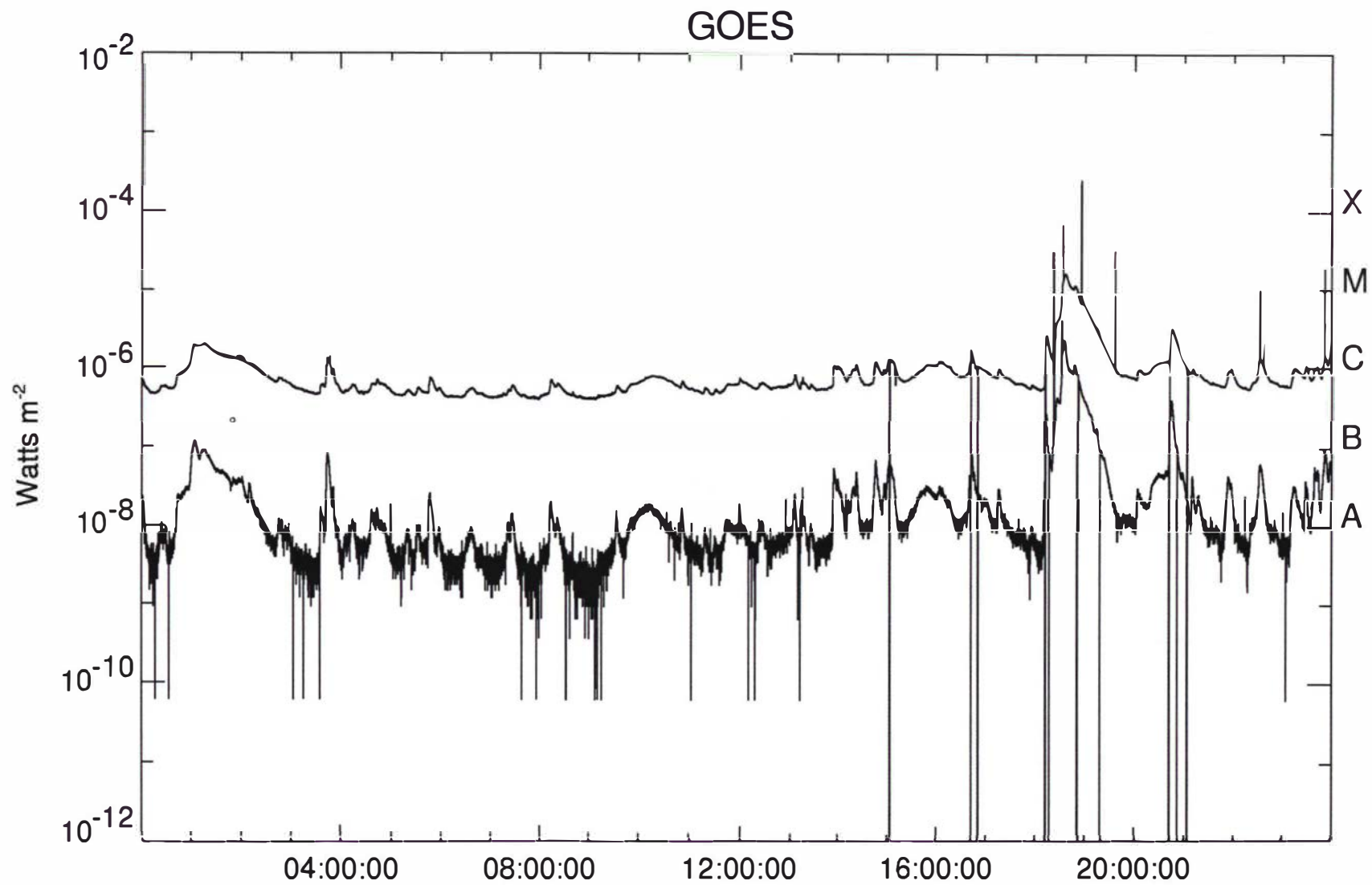
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES M1.6 SOLAR FLARE. DUR.>50 SEC. MULTI-PEAKED.
MARGINALLY VISIBLE ABOVE 100KEV.



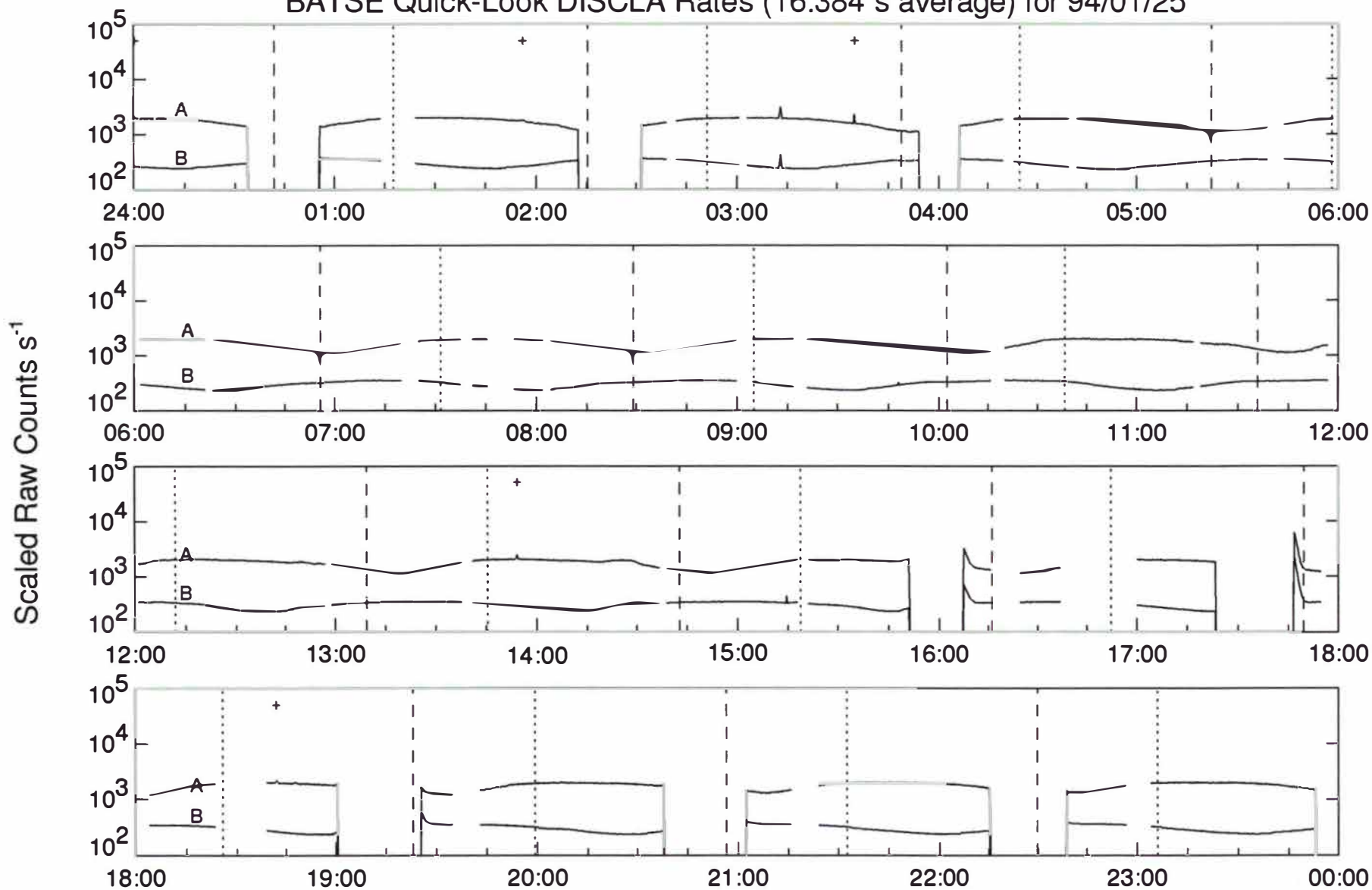
Data Start: 94/01/25, 0000:00

Plot created: 94/01/28, 1210

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 (16.384 s average) for 94/01/25



Current Time: 94/01/28, 1218 EDT
A: Channel 1 Most Sunward LAD
B: Sum Channel 1 Anti-Sunward LADs X .05

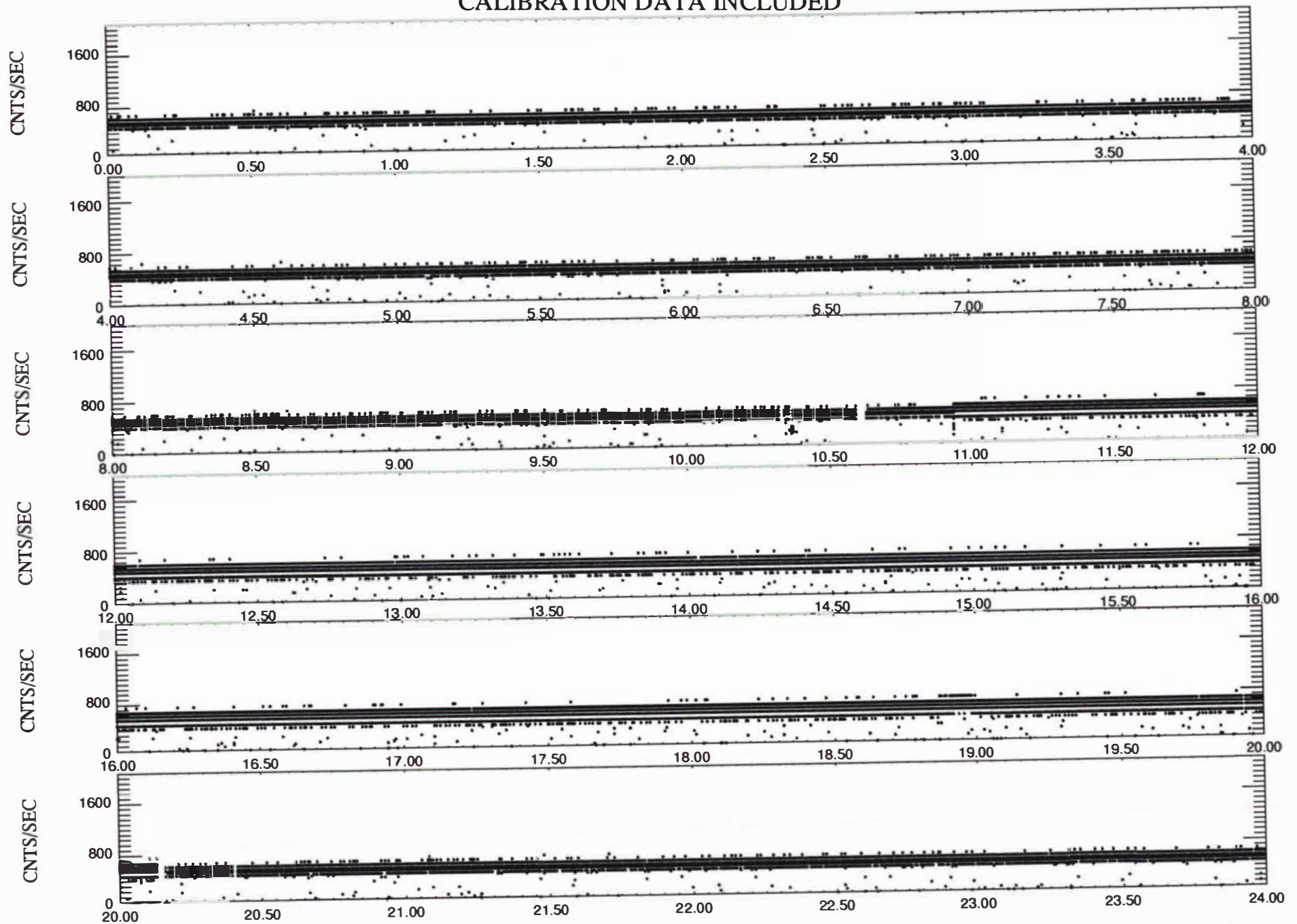
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

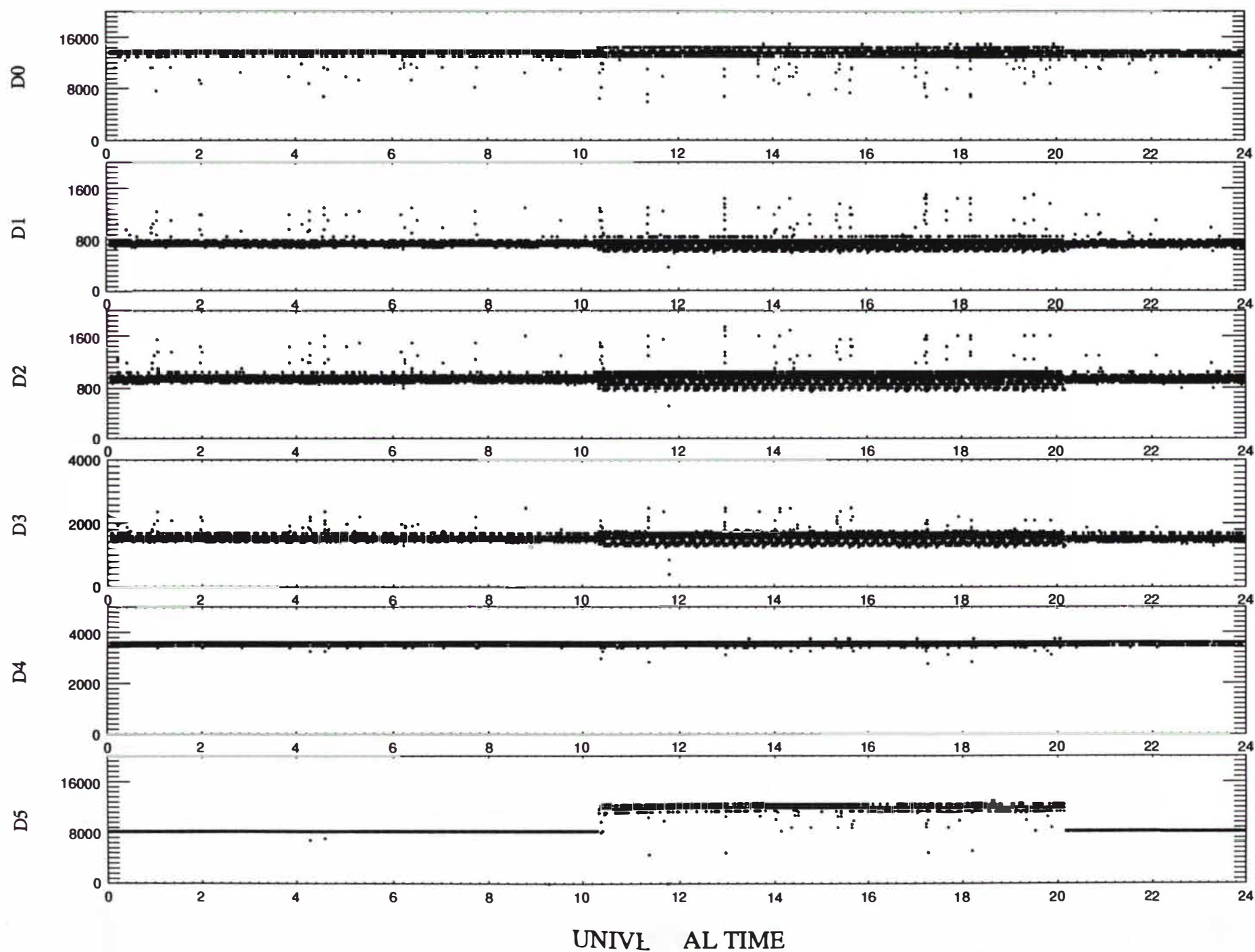
CBU CCL DMP ROM DMA OSC MP. ICR SPE OPM RSC CAL WCH MEM BRS HUS



CALIBRATION DATA INCLUDED



UNIVI AL TIME



From ZMYEWSKI@ssl.msfc.nasa.gov Fri Jan 28 10:14 PST 1994
Date: Fri, 28 Jan 1994 12:12:16 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 02779

TIME: TJD=9378 SECONDS=20393

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=86.6 AZIMUTH=358.9 ERROR= DEGREES

COMMENTS:

GOES C1.4 SOLAR FLARE LASTING APPROX. 25 SECONDS. RED LIMIT EVENT.
MARGINALLY VISIBLE ABOVE 300KEV.

From ZMYEWSKI@ssl.msfc.nasa.gov Fri Jan 28 10:26 PST 1994
Date: Fri, 28 Jan 1994 12:29:56 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2780
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2780
EVENT OF 1994 JAN 26 DAY OF YEAR= 26
EVENT CROSSING TIME AT BATSE : 28219. S. OR 07:50:19.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 184.000 84.000
BATSE PEAK COUNTING RATE: 8500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 26/ 1/ 94 IS:
RA= 158.882 DEC= -48.053 DIST= 3.286 AU
BATSE-ULYSSES DISTANCE = 491534919. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 47.43 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1109.06 SECS.
CROSSING TIME AT ULYSSES IS 29328. S. OR 08:08:48 +/- 276.50 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 26/ 1/ 94 IS:
RA= 300.636 DEC= -21.462 DIST= 2.384 AU
MARS-BATSE DISTANCE = 356612160. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 65.95 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 484.72 SECS.
CROSSING TIME AT MARS IS 28704. S. OR 07:58:23 +/- 195.96 SECONDS

100

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2780	940126	9378	28219	8500	184	+84

BATSE BURST TRIGGER

NO.: 02780

TIME: TJD=9378 SECONDS=28219

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=84.1 AZIMUTH=184.2 ERROR= DEGREES

COMMENTS:

GRB LASTING APPROX. 100 SECONDS. VISIBLE ABOVE 300KEV.

CATSEARCH PROGRAM

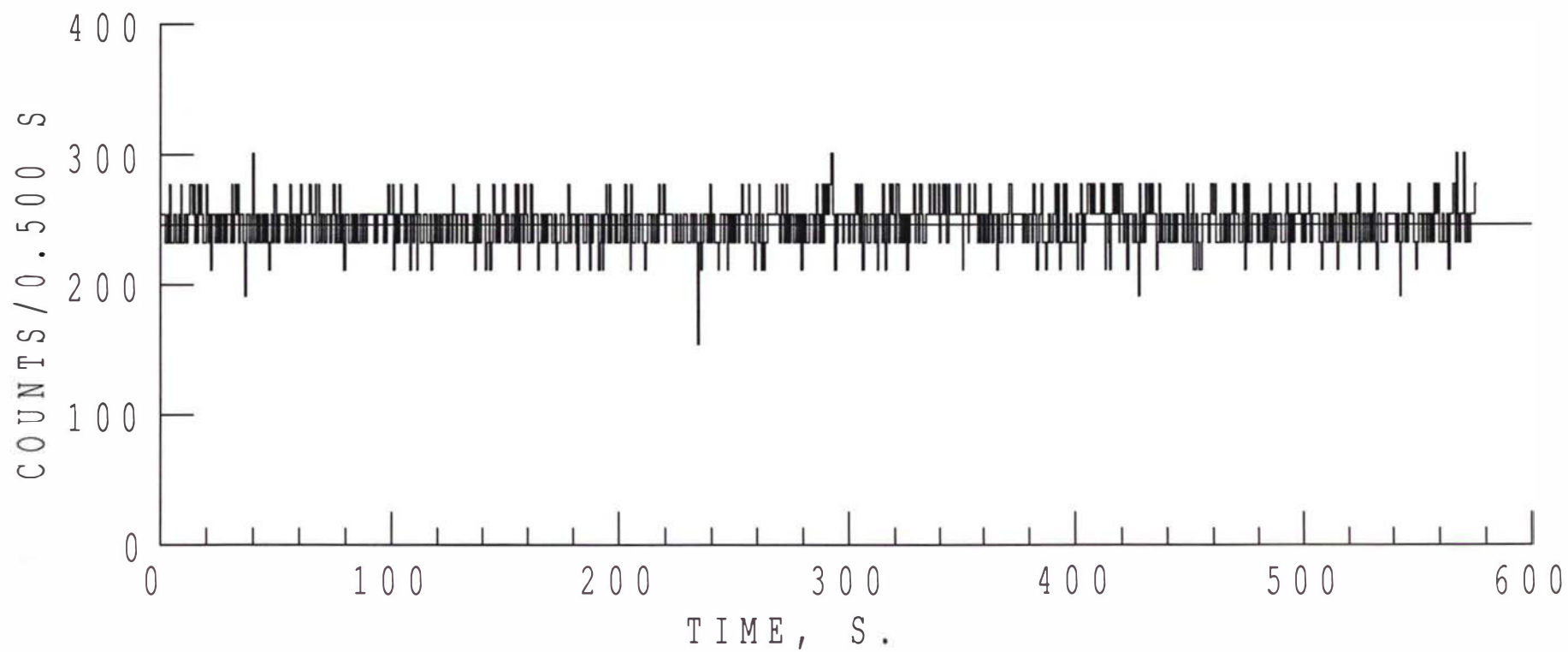
BATSE BURST # 2780
EVENT OF 1994 JAN 26 DAY OF YEAR= 26
EVENT CROSSING TIME AT BATSE : 28220. S. OR 07:50:19.5
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 130.980 9.040
BATSE PEAK COUNTING RATE: 0000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
POSITION OF ULYSSES ON 26/ 1/ 94 IS:
RA= 159.003 DEC= -47.982 DIST= 3.290 AU
BATSE-ULYSSES DISTANCE = 492192976. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=117.83 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -766.40 SECS.
CROSSING TIME AT ULYSSES IS 27453. S. OR 07:37:33.1 +/- 290.44 SECONDS

9 / 11 / 95

ULYSSES RT
26 / 1 / 94 27180.260 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From ZMYEWSKI@ssl.msfc.nasa.gov Fri Jan 28 10:22 PST 1994
Date: Fri, 28 Jan 1994 12:20:44 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1377

BATSE BURST TRIGGER

NO.: 02781

TIME: TJD=9378 SECONDS=59974

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=88.1 AZIMUTH=358.8 ERROR= DEGREES

COMMENTS:

GOES C3.7 SOLARE FLARE LASTING APPROX. 110 SECONDS. TWO PEAKS. FIRST
PEAK LASTS APPROX. 20 SECONDS. SECOND PEAK, WHICH OCCURS APPROX. 60
SECONDS AFTER THE FIRST, HAS DUR. APPROX. 25SEC. NOT VIS. ABOVE 300KEV.

From ZMYEWSKI@ssl.msfc.nasa.gov Fri Jan 28 10:28 PST 1994
Date: Fri, 28 Jan 1994 12:31:25 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2782
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2782
EVENT OF 1994 JAN 26 DAY OF YEAR= 26
EVENT CROSSING TIME AT BATSE : 68184. S. OR 18:56:24.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 19.000 49.000
BATSE PEAK COUNTING RATE: 1500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 26/ 1/ 94 IS:
RA= 158.712 DEC= -48.154 DIST= 3.280 AU
BATSE-ULYSSES DISTANCE = 490621833. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 26.35 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1466.46 SECS.
CROSSING TIME AT ULYSSES IS 69650. S. OR 19:20:50 +/- 198.40 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 26/ 1/ 94 IS:
RA= 300.636 DEC= -21.462 DIST= 2.384 AU
MARS-BATSE DISTANCE = 356612160. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 81.20 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 181.98 SECS.
CROSSING TIME AT MARS IS 68366. S. OR 18:59:25 +/- 206.85 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2782	940126	9378	68184	1500	019	+49

BATSE BURST TRIGGER

NO.: 02782

TIME: TJD=9378 SECONDS=68184

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=173.7 AZIMUTH=104.8 ERROR= DEGREES

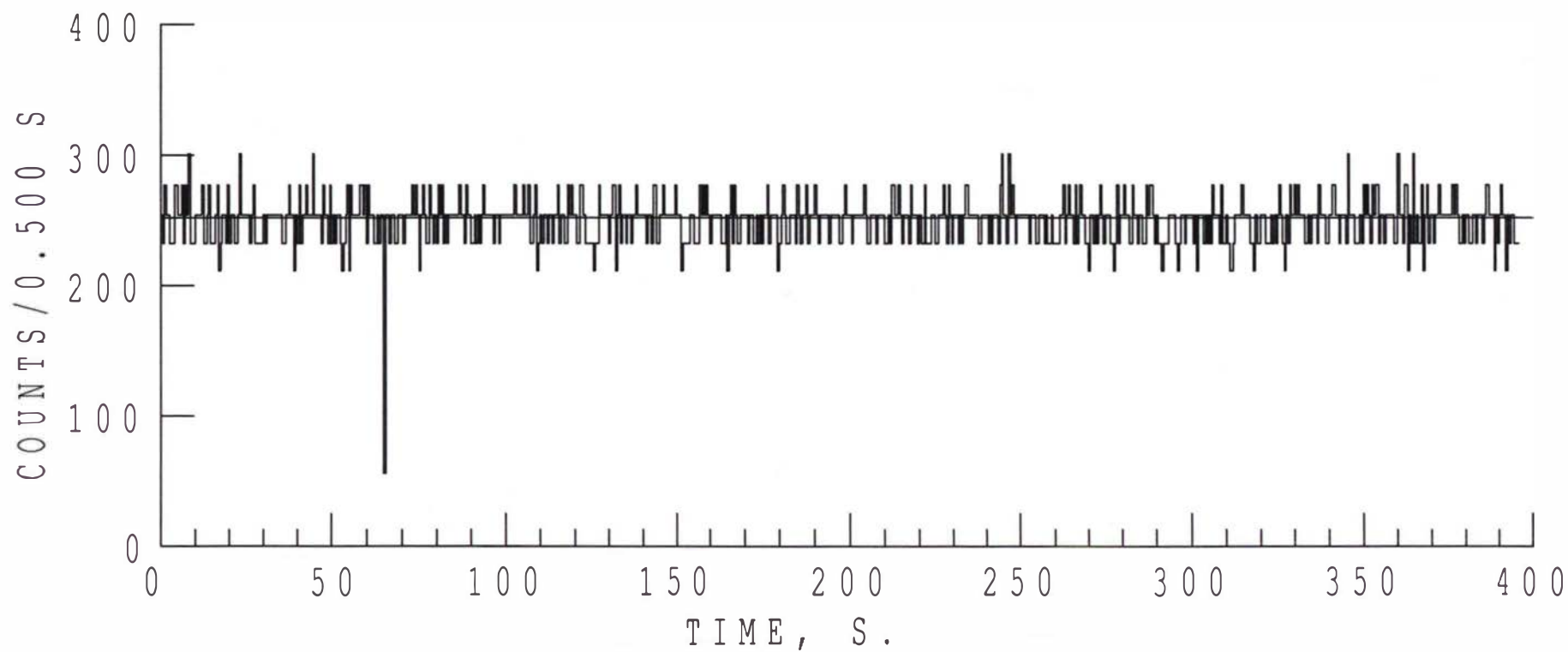
COMMENTS:

GRB LASTING APPROX. 30 SECONDS. WEAK EVENT. NOT VISIBLE ABOVE 300KEV.

28 / 1 / 94

ULYSSES RT
26 / 1 / 94 69444.414 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From ZMYEWSKI@ssl.msfc.nasa.gov Fri Jan 28 10:23 PST 1994
Date: Fri, 28 Jan 1994 12:26:18 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1296

BATSE BURST TRIGGER

NO.: 02783

TIME: TJD=9378 SECONDS=81423

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

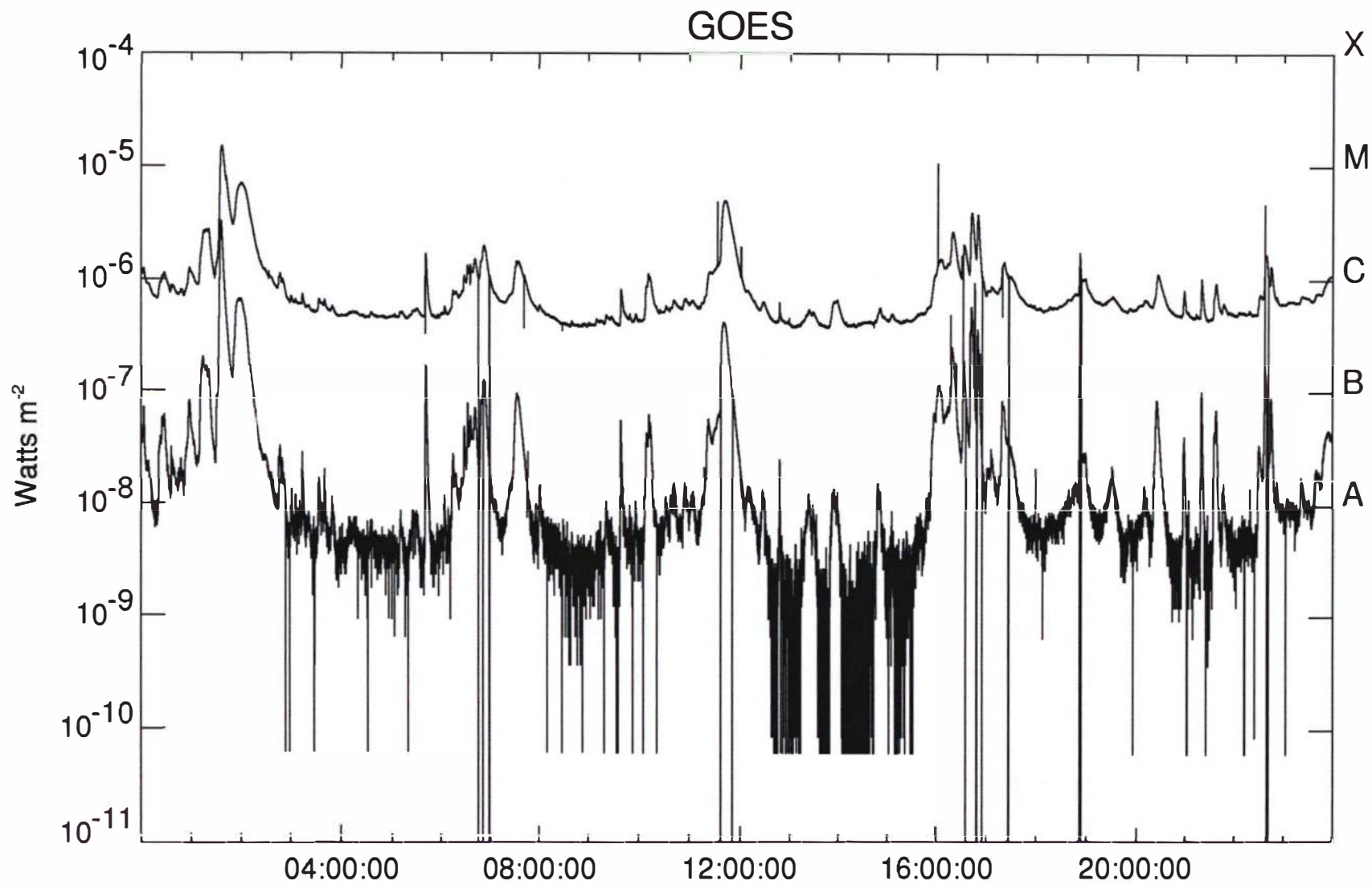
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=88.8 AZIMUTH=359.0 ERROR= DEGREES

COMMENTS:

GOES C1.6 SOLAR FLARE LASTING APPROX. 250 SECONDS. NOT VISIBLE ABOVE
300KEV.



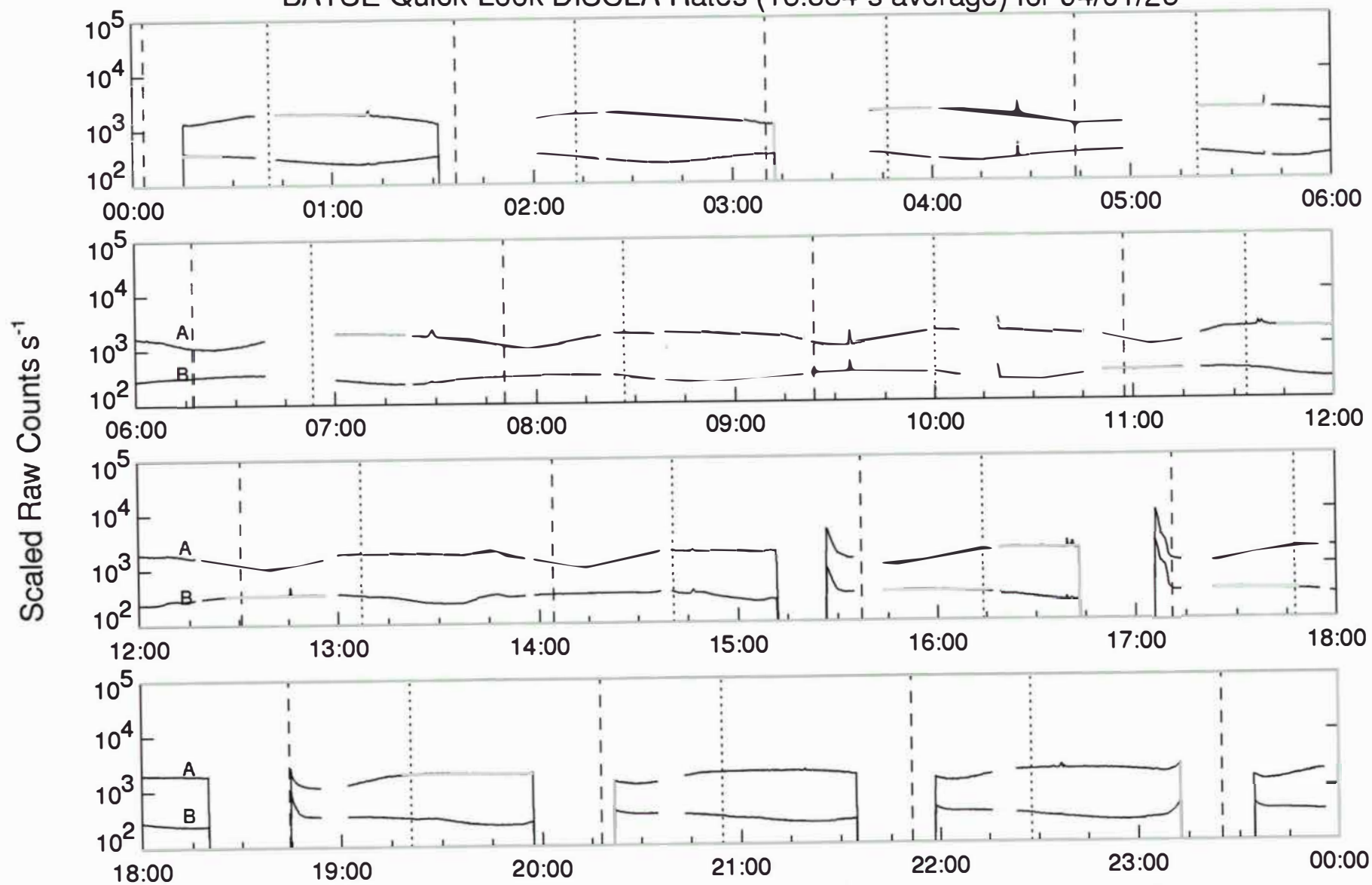
Data Start: 94/01/26, 0000:00

Plot created: 94/01/28, 1210

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 (16.384 s average) for 94/01/26



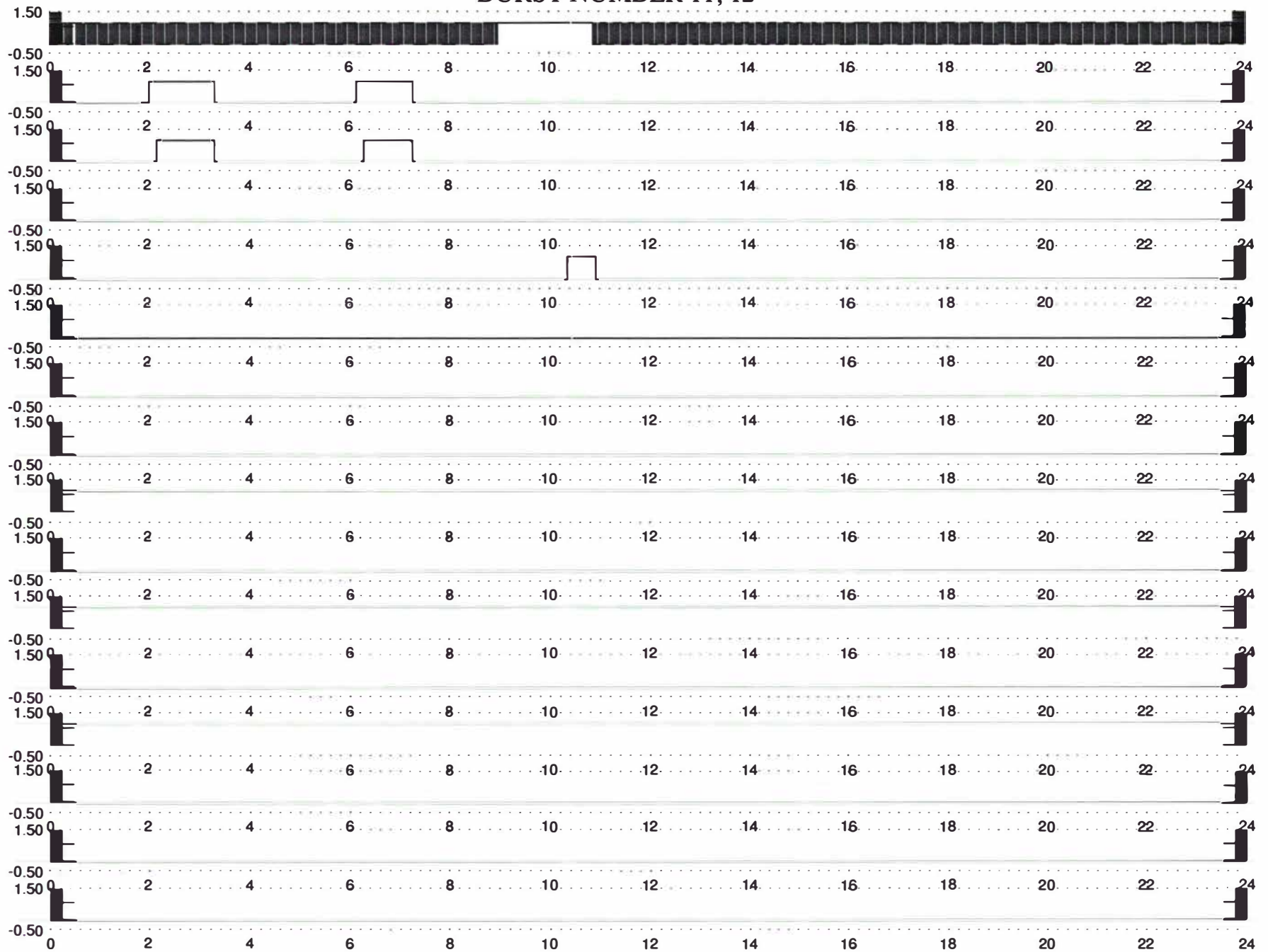
Current Time: 94/01/28, 1218 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

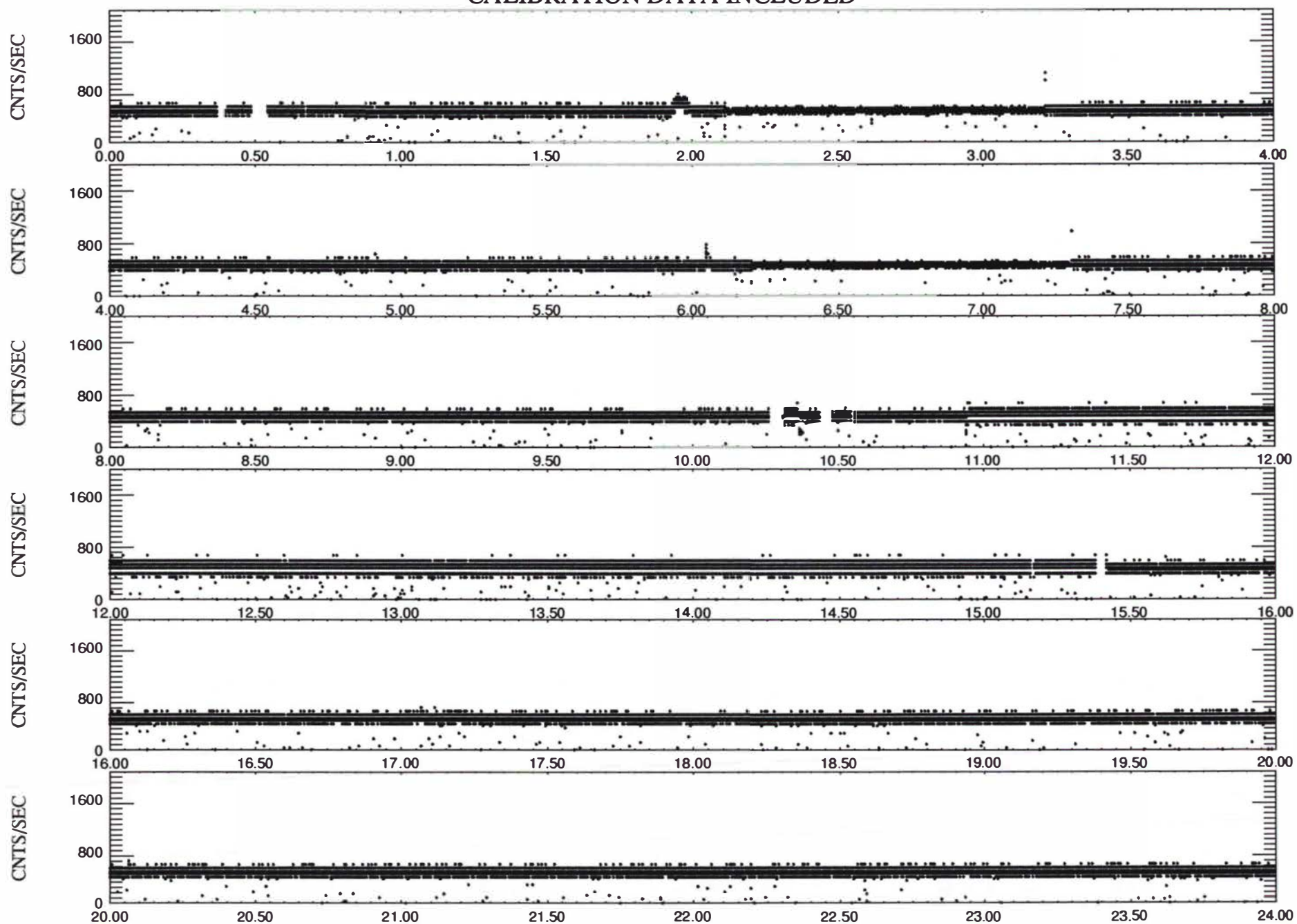
HUS
BRS
MEM
WCH
CAL
RSC
OPM
SPE
ICR
MP.
OSC
DMA
ROM
DMP
CCL
CBU

BURST NUMBER 11, 12



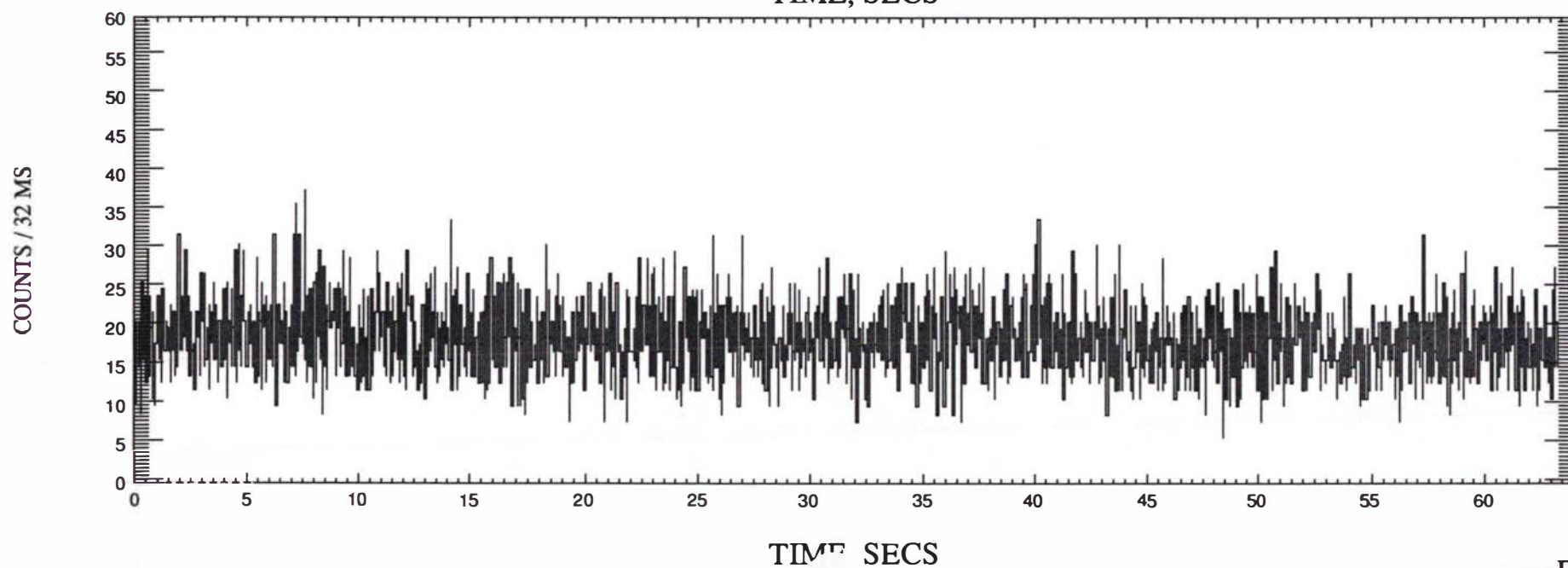
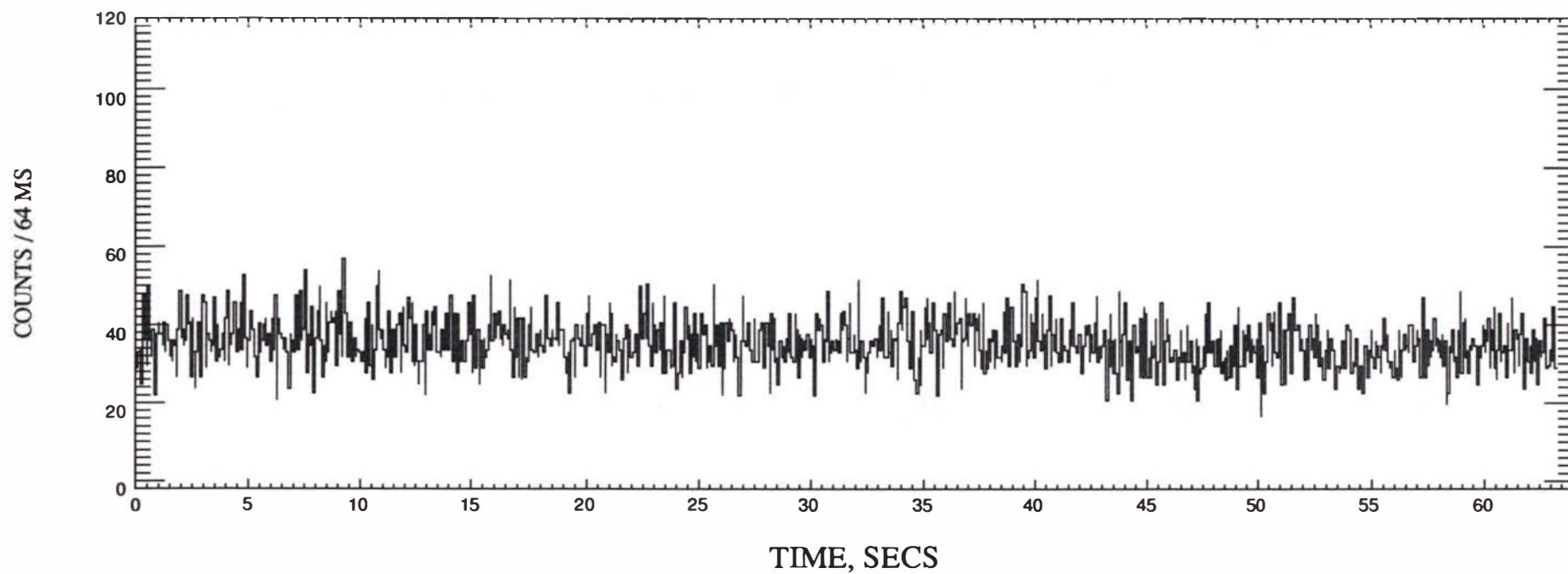
UNIV. AL TIME

CALIBRATION DATA INCLUDED

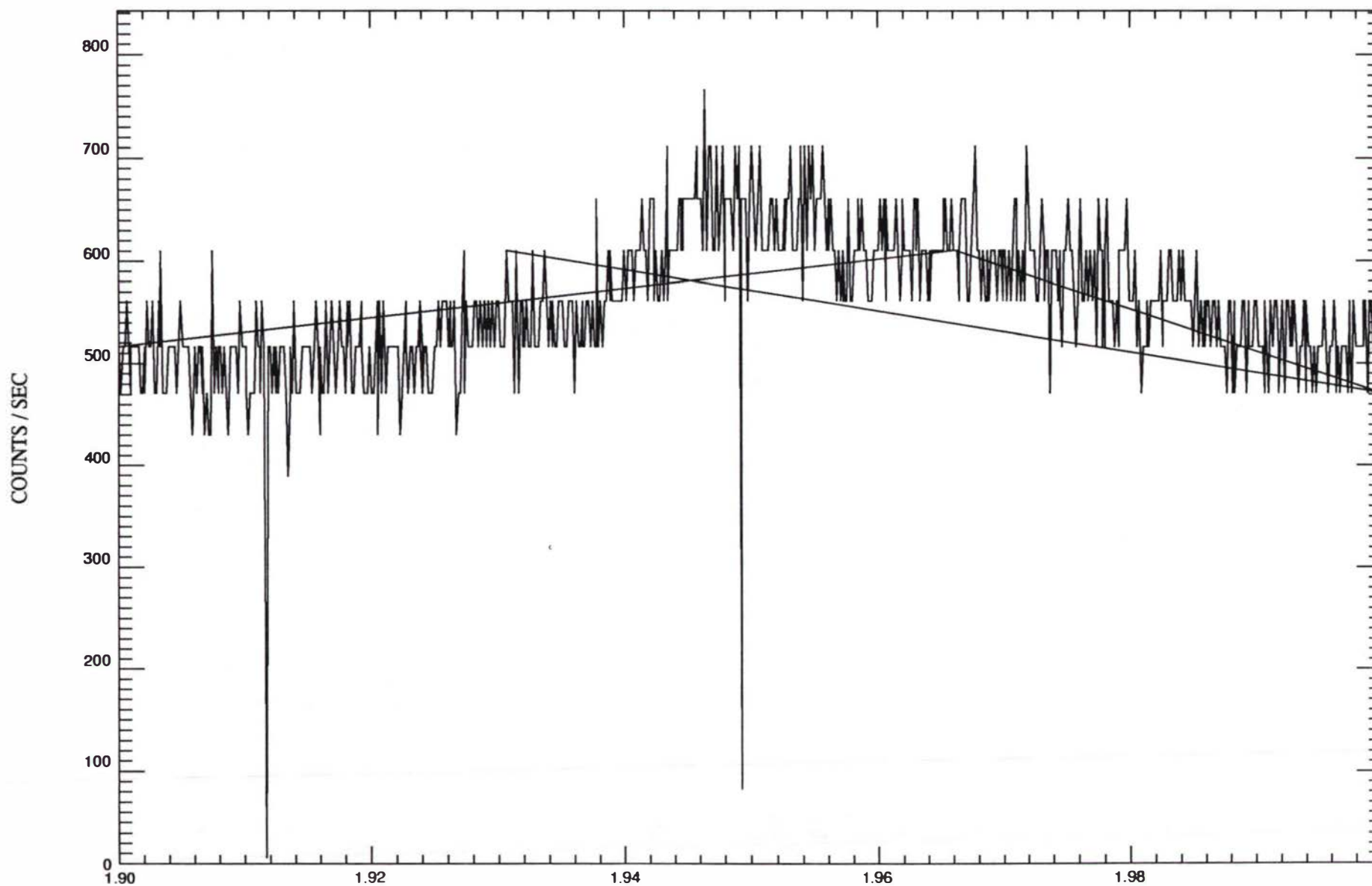


UNIV AL TIME

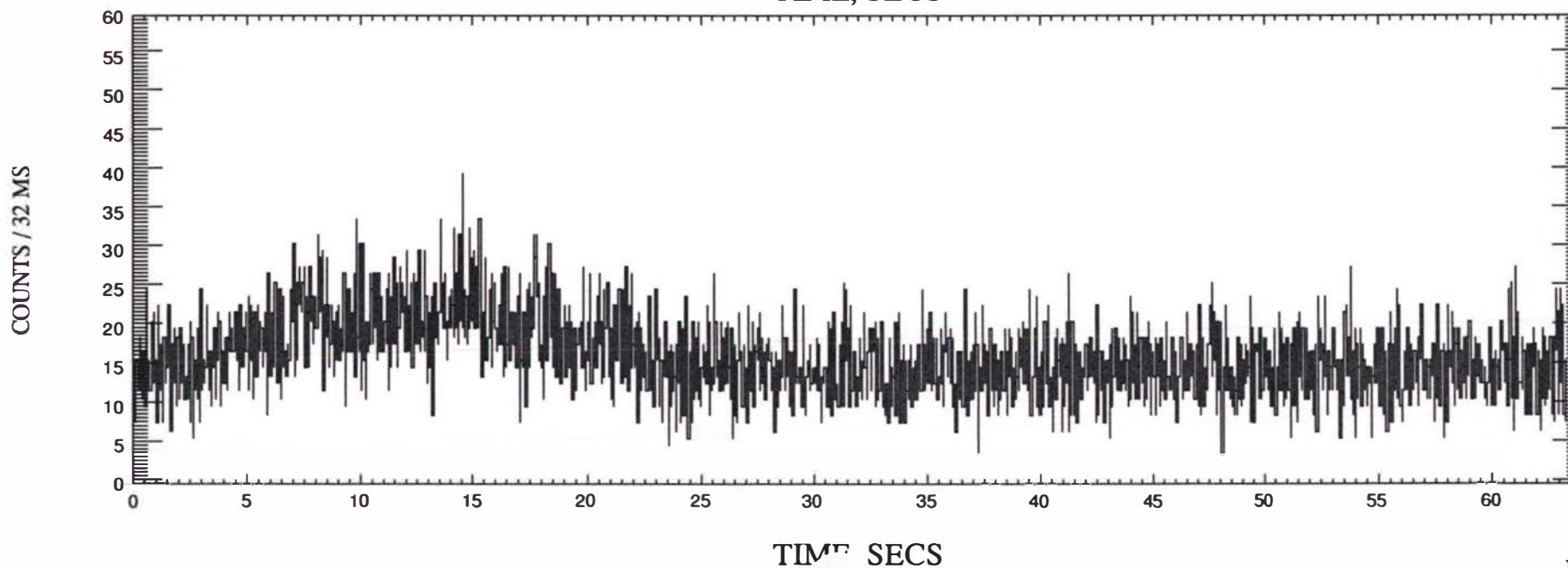
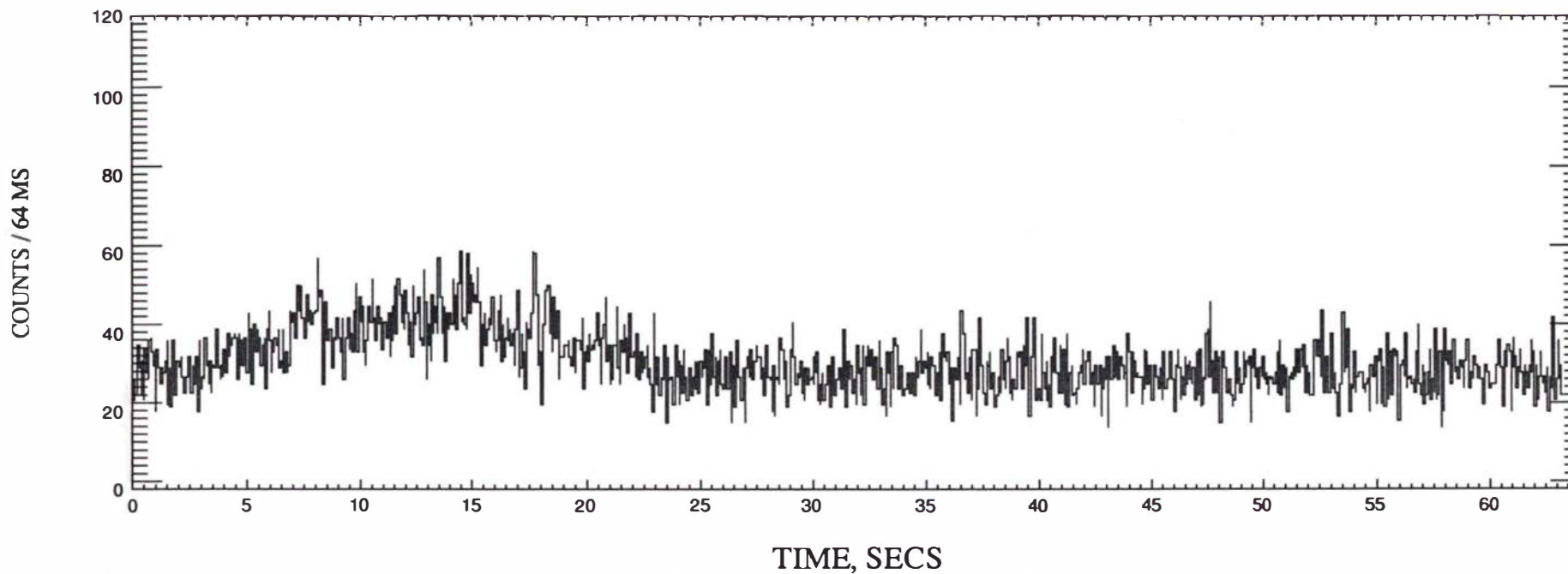
Burst Counter 11 at UT= 1.946579678853 h= 7007.687 s 01:56:47.687



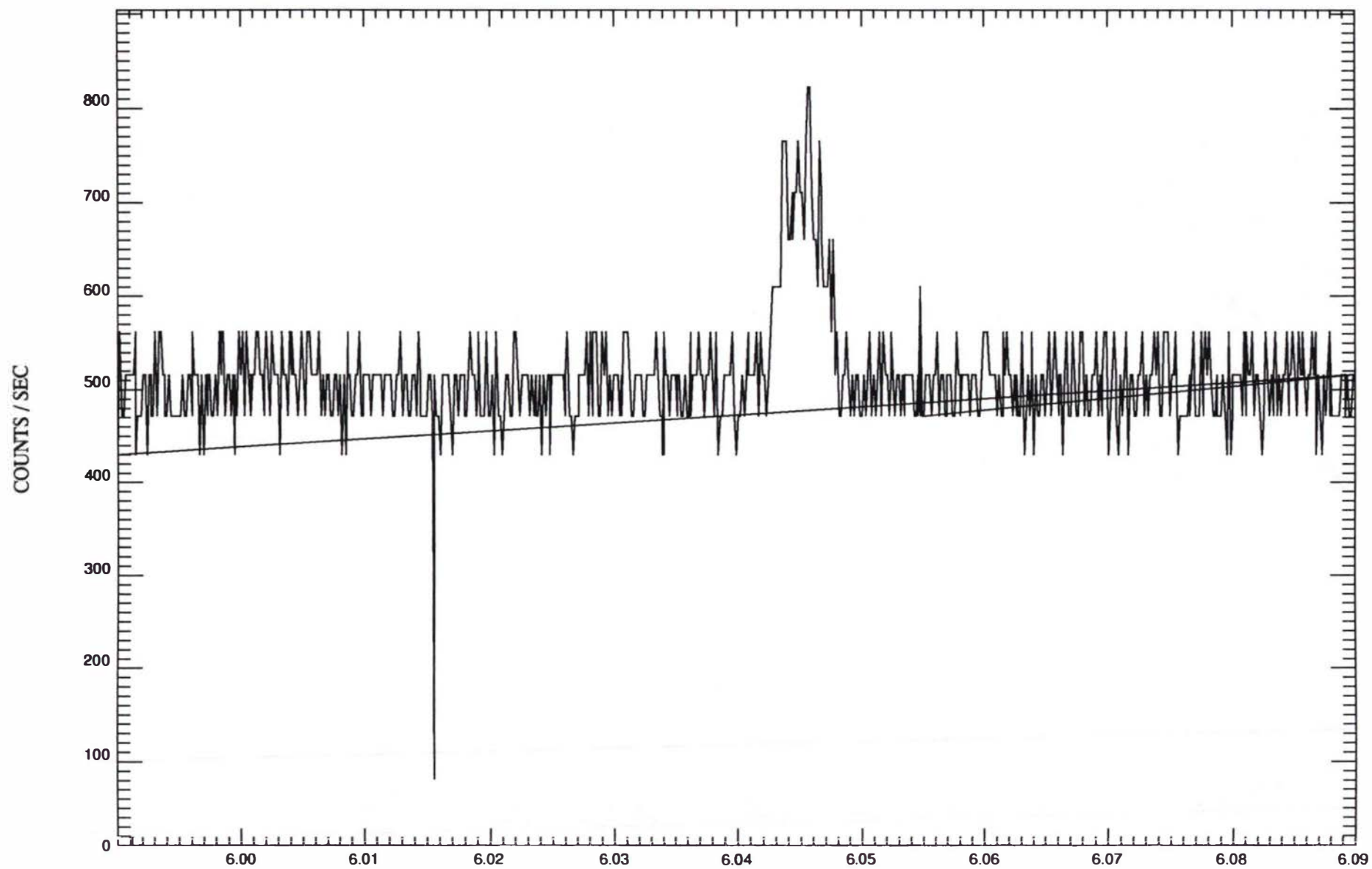
CALIBRATION DATA INCLUDED

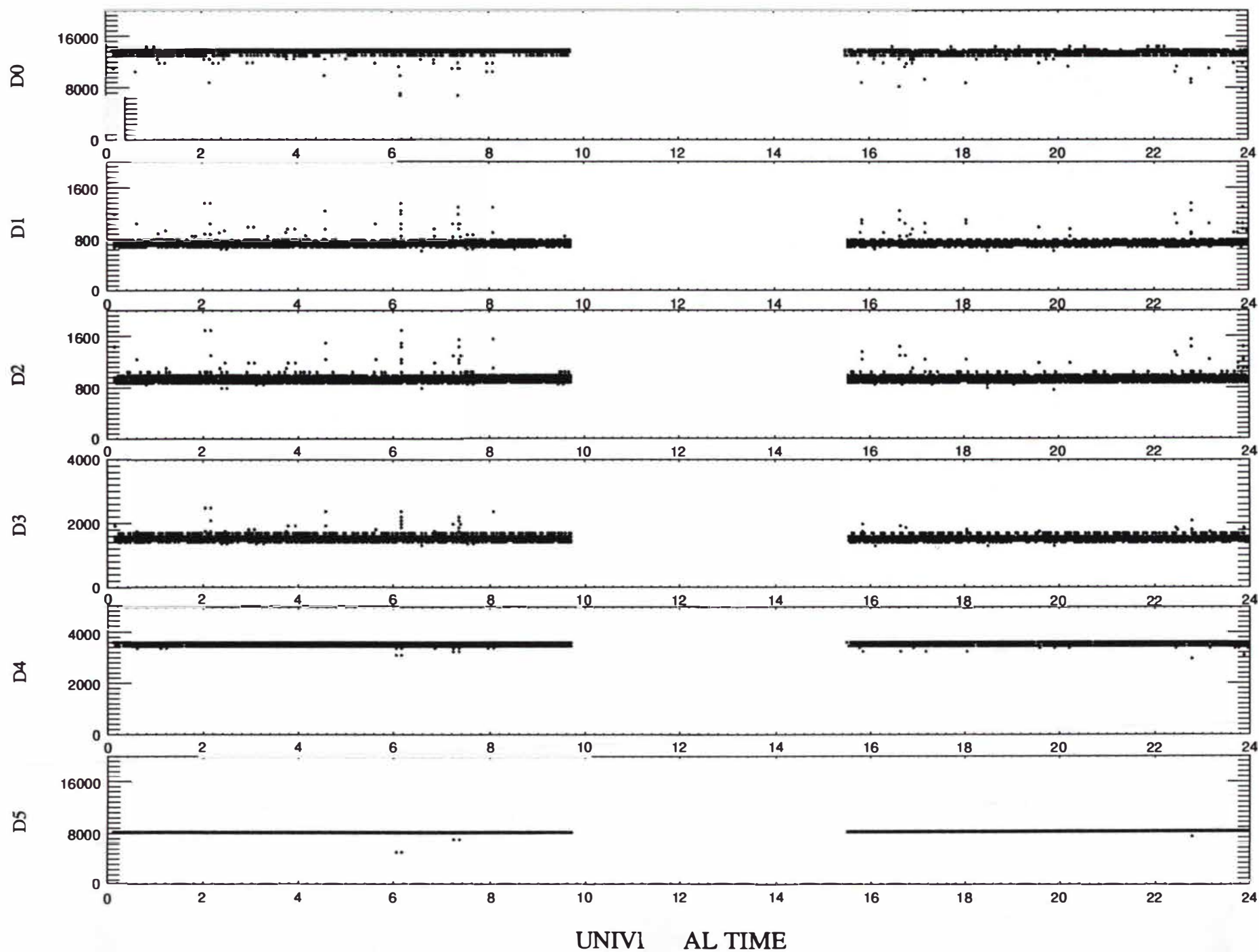


Burst Counter 12 at UT= 6.043761473762 h=21757.541 s 06:02:37.541



CALIBRATION DATA INCLUDED





BATSE BURST TRIGGER

NO.: 02784

TIME: TJD=9379 SECONDS=07985

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=88.4 AZIMUTH=2.7 ERROR= DEGREES

COMMENTS:

GOES C1.0 SOLAR FLARE LASTING APPROX. 150 SECONDS. NOT VISIBLE ABOVE 300KEV.

BATSE BURST TRIGGER

NO.: 02785

TIME: TJD=9379 SECONDS=17916

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=94.1 AZIMUTH=358.0 ERROR= DEGREES

COMMENTS:

GOES M2.7 SOLARE FLARE. THIS EVENT TRIGGERED TWICE, SO TRIGGER #2786 IS THE SAME EVENT. THIS PART OF THE EVENT HAS ONLY DISCSC DATA AND LASTS APPROX. 300 SECONDS, AND IS MARGINALLY VISIBLE ABOVE 100KEV.

BATSE BURST TRIGGER

NO.: 02786

TIME: TJD=9379 SECONDS=18516

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=88.6 AZIMUTH=358.2 ERROR= DEGREES

COMMENTS:

GOES M2.7 SOLAR FLARE LASTING APPROX. 200 SECONDS. NOT VISIBLE ABOVE 300KEV. THIS IS THE SECOND TRIGGER OF THE SAME SOLAR FLARE -- TRIGGER #2785 BEING THE FIRST.

From ZMYEWSKI@ssl.msfc.nasa.gov Tue Feb 1 07:15 PST 1994
Date: Tue, 1 Feb 1994 9:18:24 -0600 (CST)
From: ZMYEWSKI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2787
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2787
EVENT OF 1994 JAN 27 DAY OF YEAR= 27
EVENT CROSSING TIME AT BATSE : 34365. S. OR 09:32:45.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 314.000 72.000
BATSE PEAK COUNTING RATE: 2810 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 27/ 1/ 94 IS:
RA= 158.485 DEC= -48.284 DIST= 3.272 AU
BATSE-ULYSSES DISTANCE = 489436747. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 26.23 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1464.52 SECS.
CROSSING TIME AT ULYSSES IS 35830. S. OR 09:57:09 +/- 197.50 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 27/ 1/ 94 IS:
RA= 301.454 DEC= -21.307 DIST= 2.382 AU
MARS-BATSE DISTANCE = 356357856. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 86.30 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 76.75 SECS.
CROSSING TIME AT MARS IS 34442. S. OR 09:34:01 +/- 207.11 SECONDS

No

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2787	940127	9379	34365	2810	314	+72

BATSE BURST TRIGGER

NO.: 02787

TIME: TJD=9379 SECONDS=34365

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=-1.1 AZIMUTH=137.5 ERROR= DEGREES

COMMENTS:

GRB LASTING APPROX. 60 SECONDS. TWO PEAKS. FIRST PEAK IS APPROX. 25 SECONDS
IN DURATION. SECOND PEAK OCCURS APPROX. 15 SECONDS LATER AND LASTS APPROX.
10 SECONDS.
NOT VISIBLE ABOVE 300KEV.

BATSE BURST#2787

1 / 2 / 94

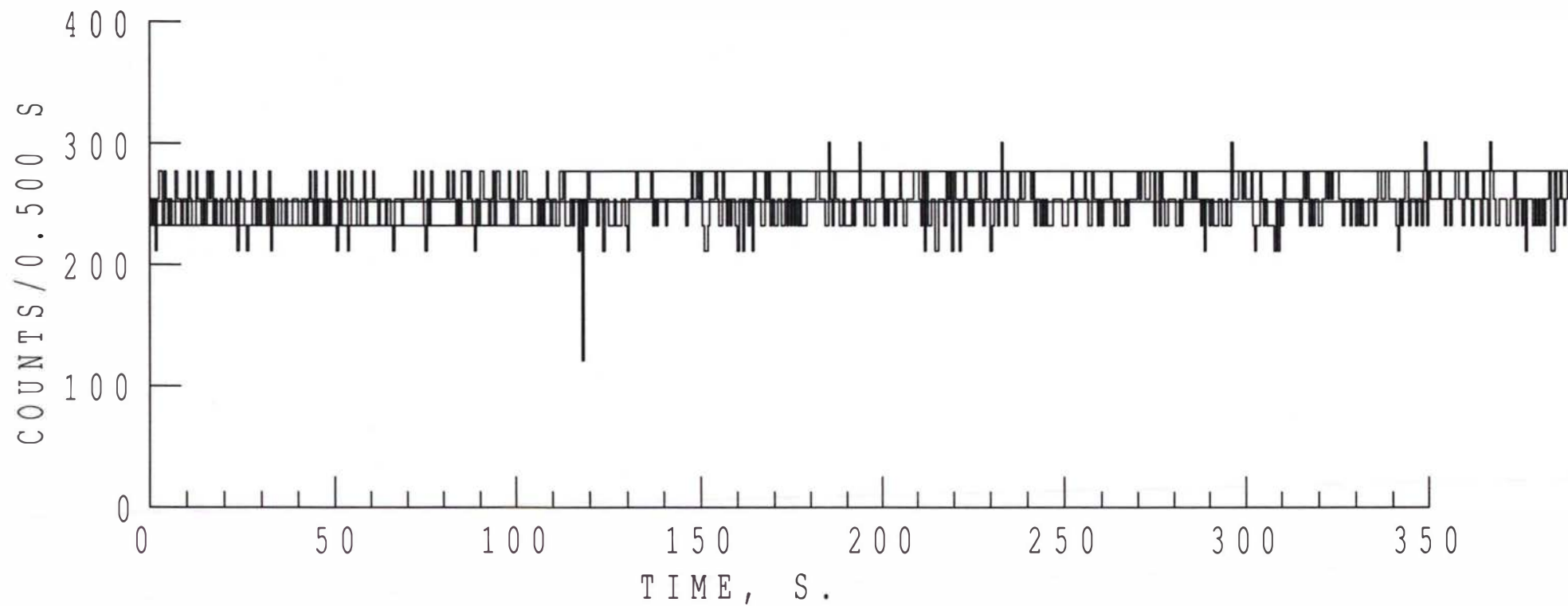
ULYSSES RT

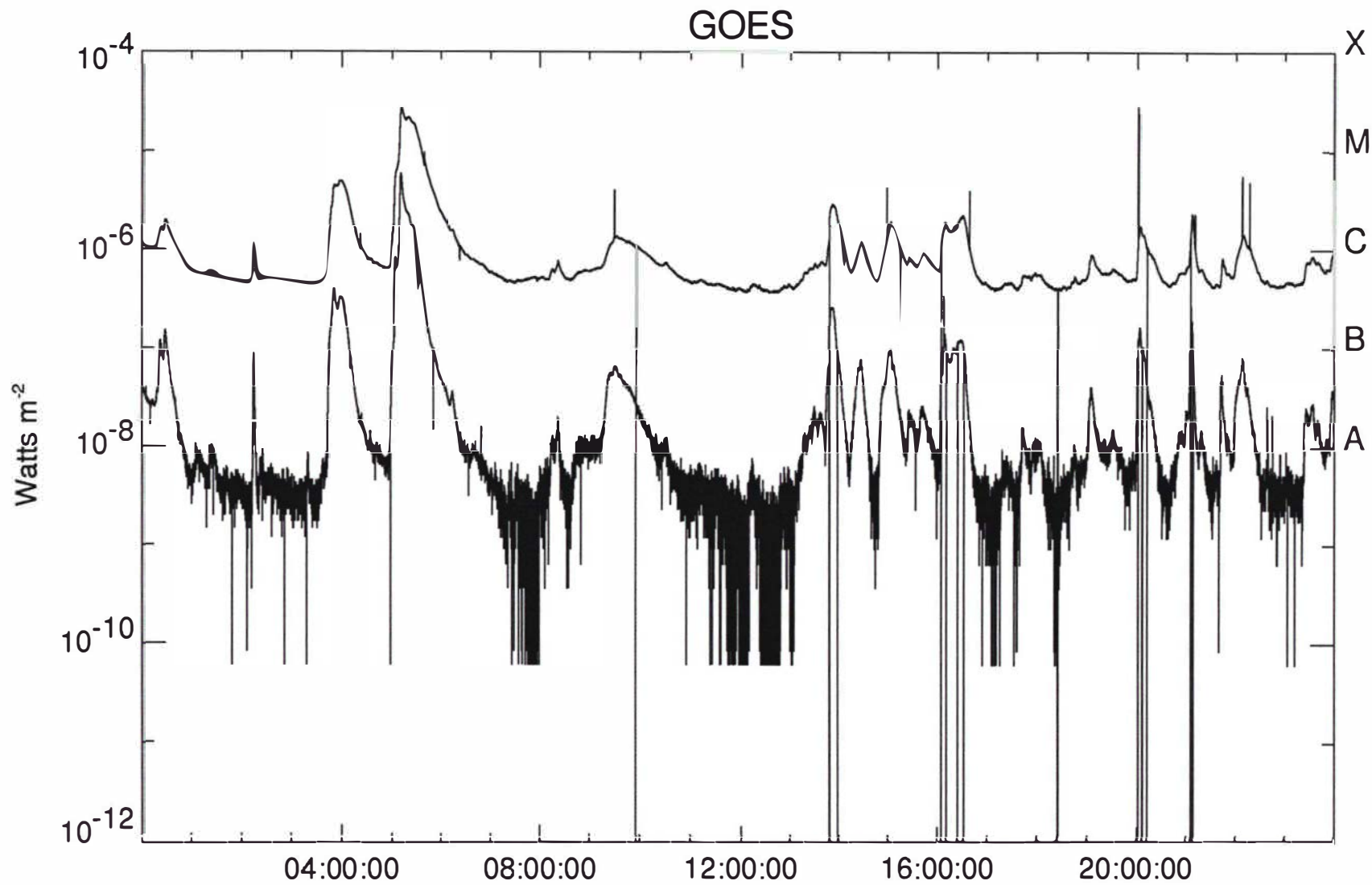
27 / 1 / 94 35640.223 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 94/01/27, 0000:00

Plot created: 94/01/28, 1211

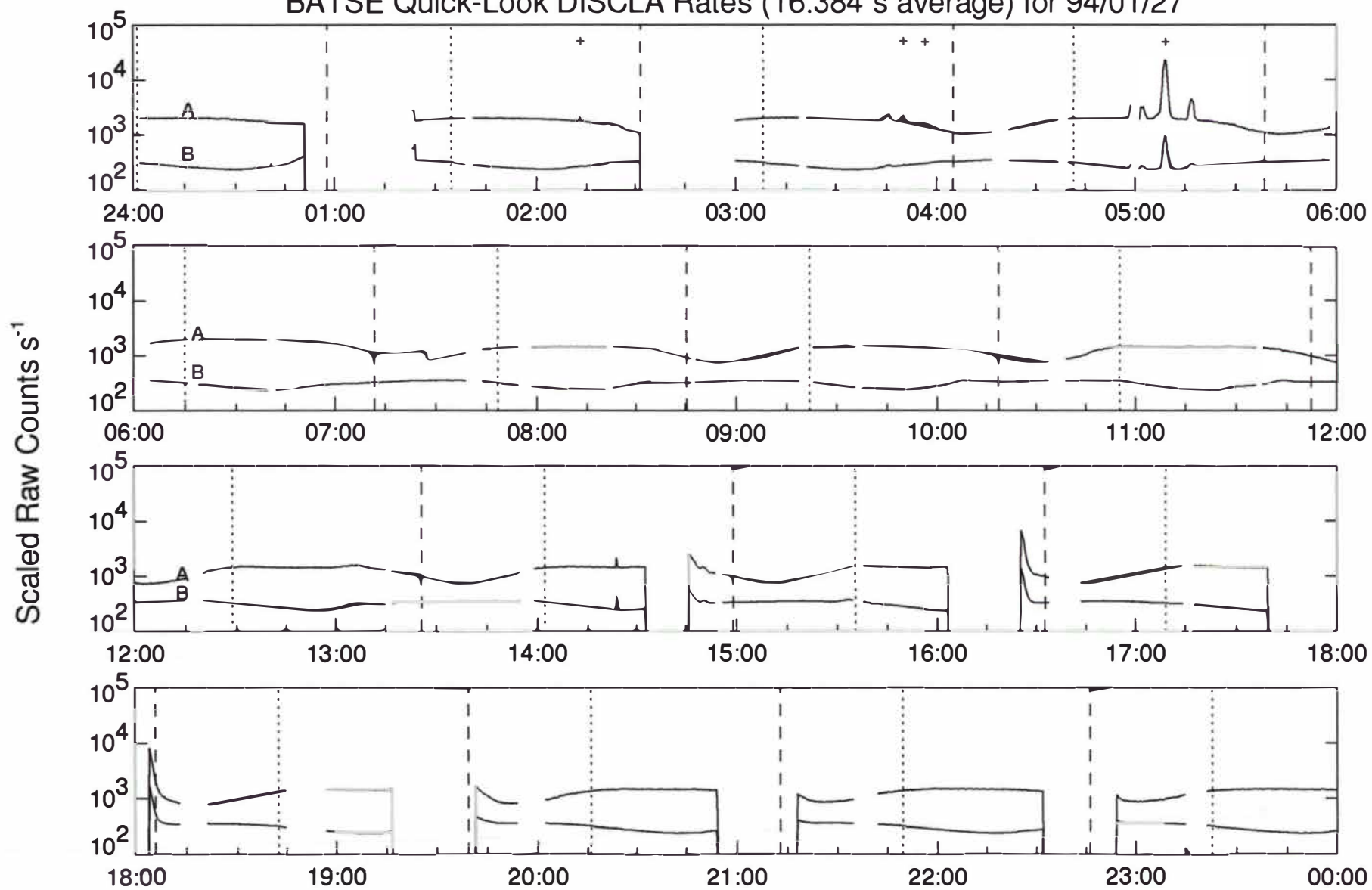
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/27

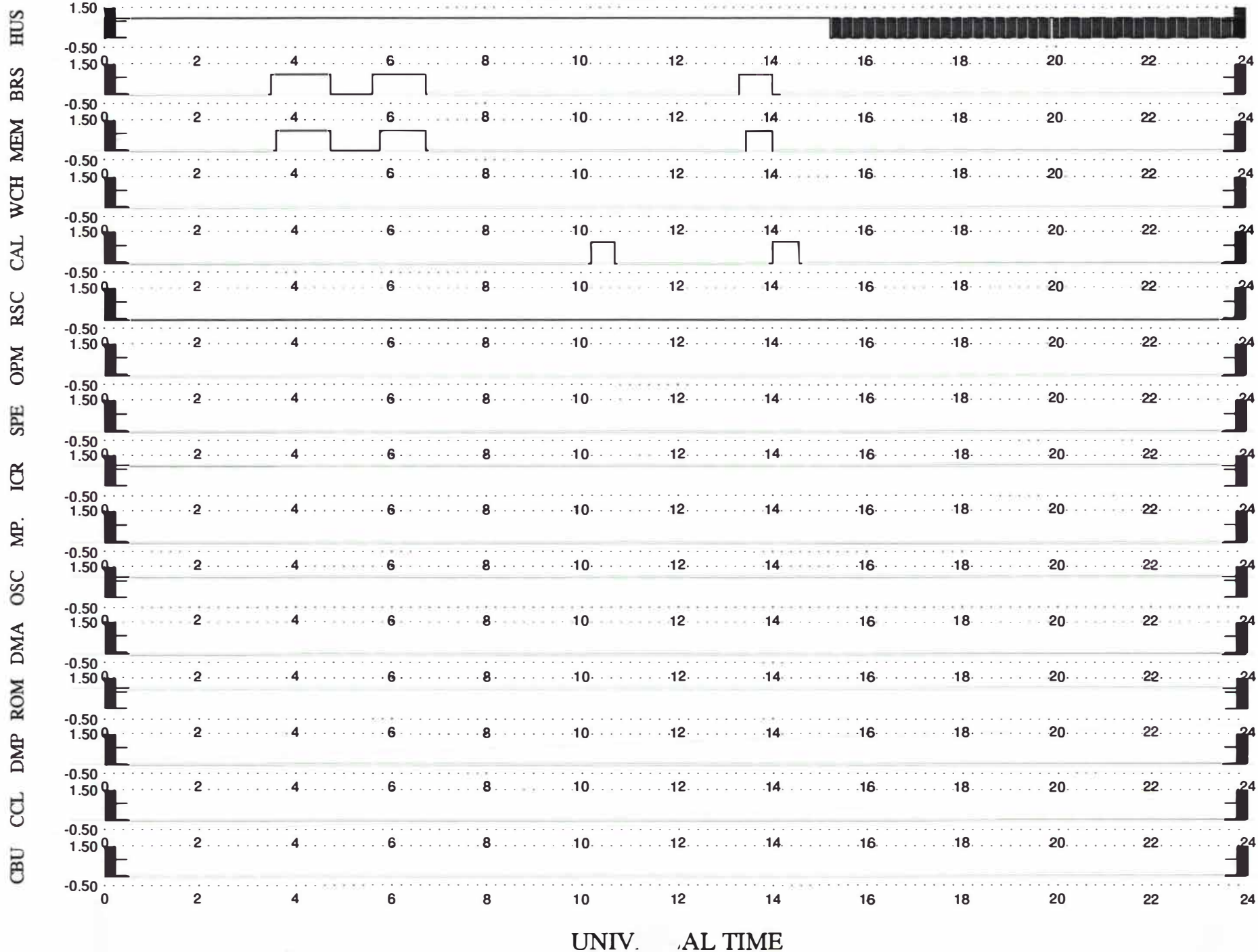


Current Time: 94/01/31, 1436 EDT
A: Channel 1 Most Sunward LAD
B: Sum Channel 1 Anti-Sunward LADs X .05

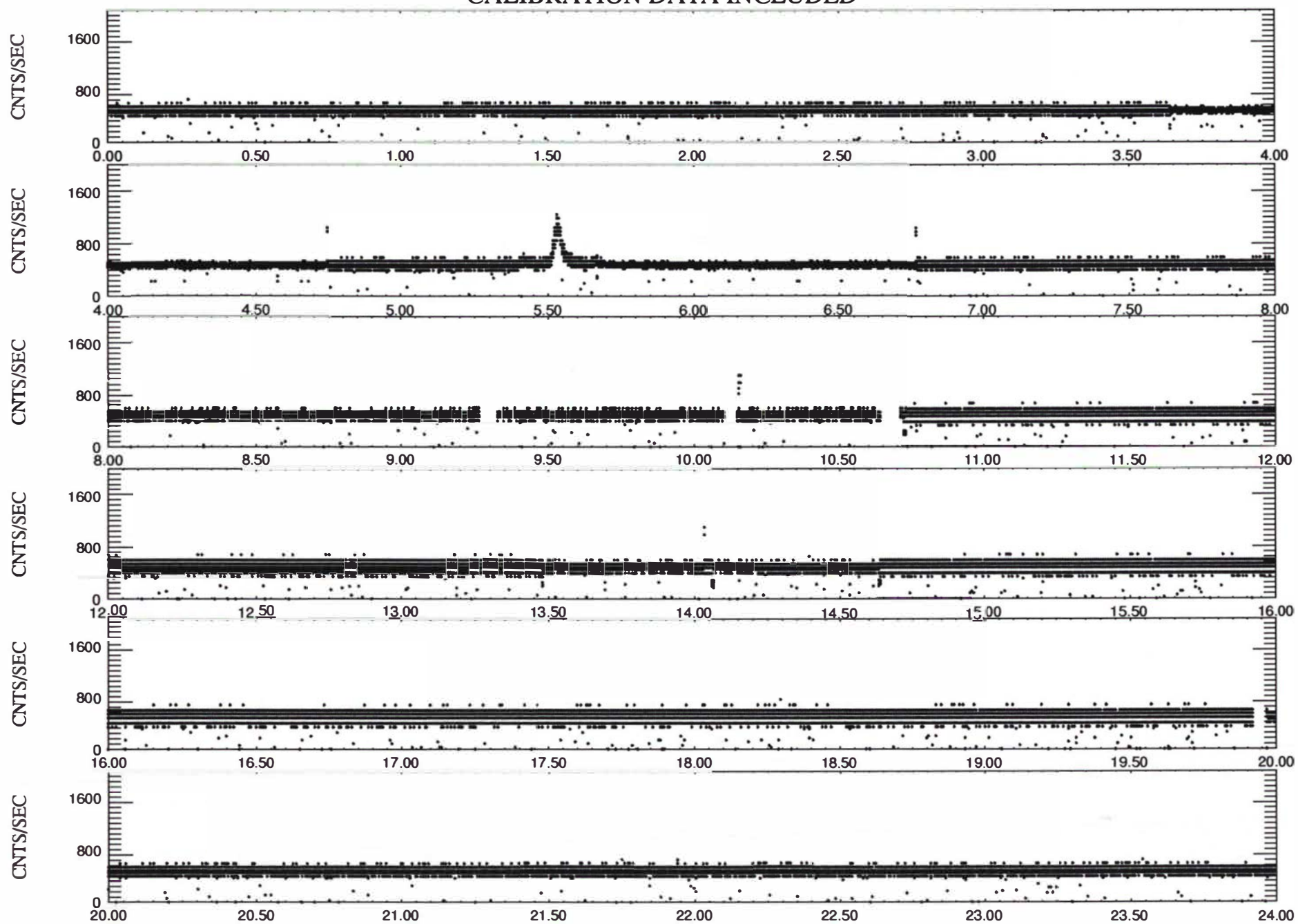
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

BURST NUMBER 13 - 15

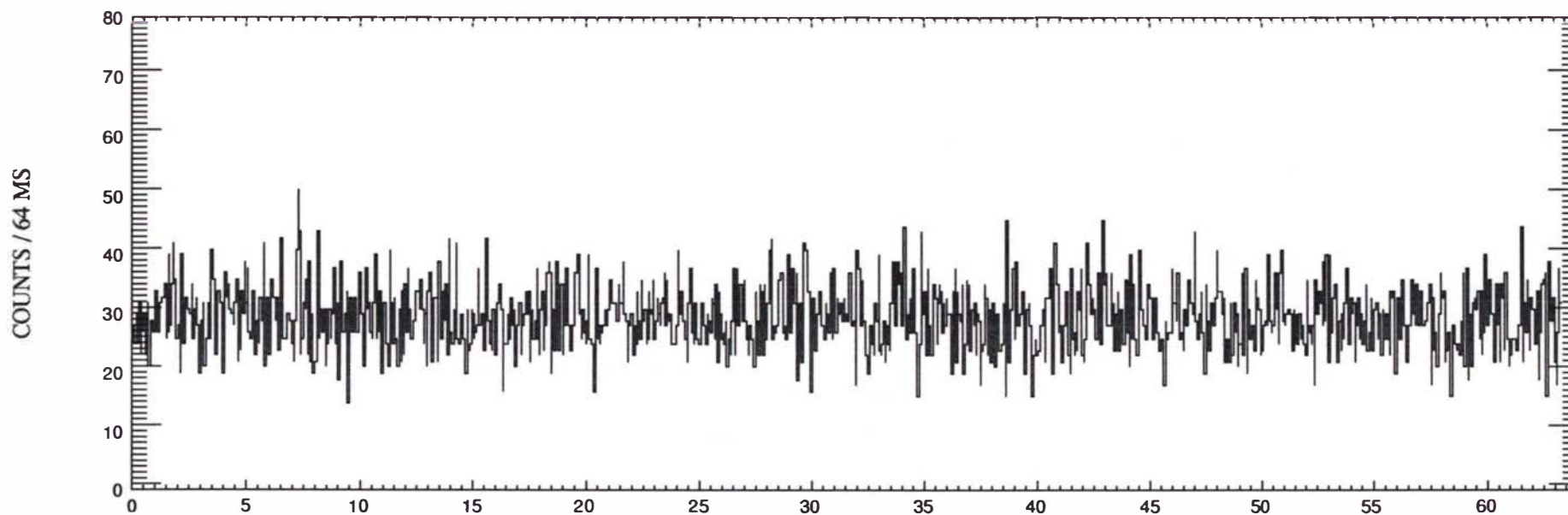


CALIBRATION DATA INCLUDED

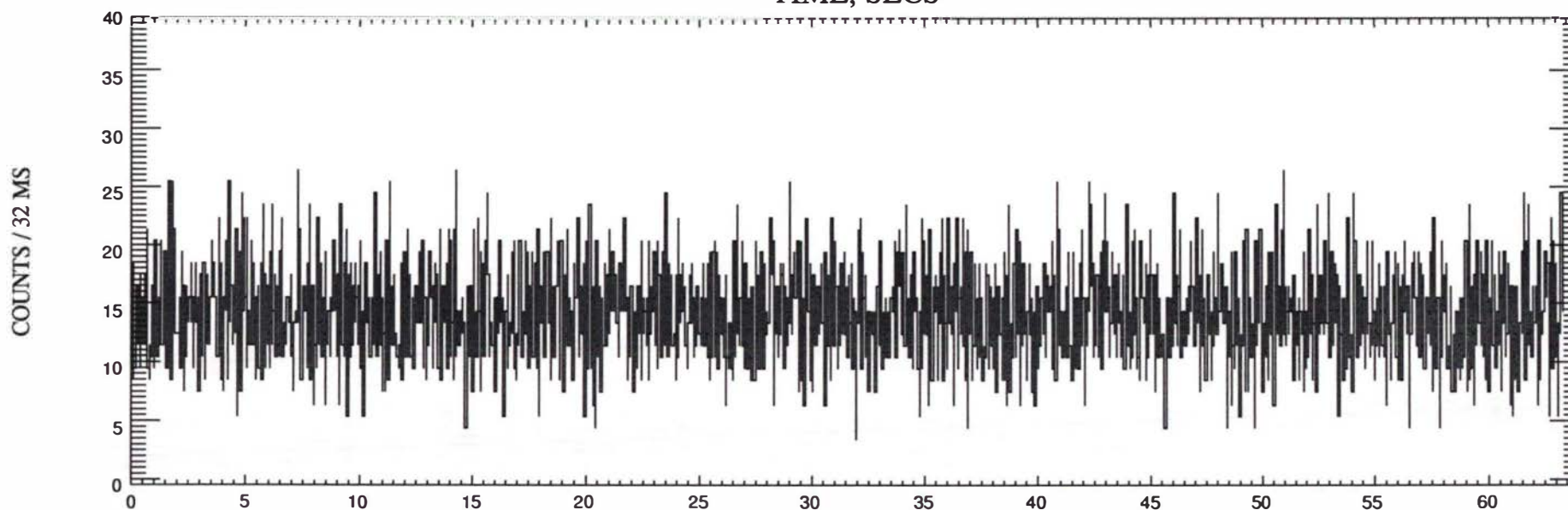


UNIV AL TIME

Burst Counter 13 at UT= 3.491522814433 h=12569.482 s 03:29:29.482

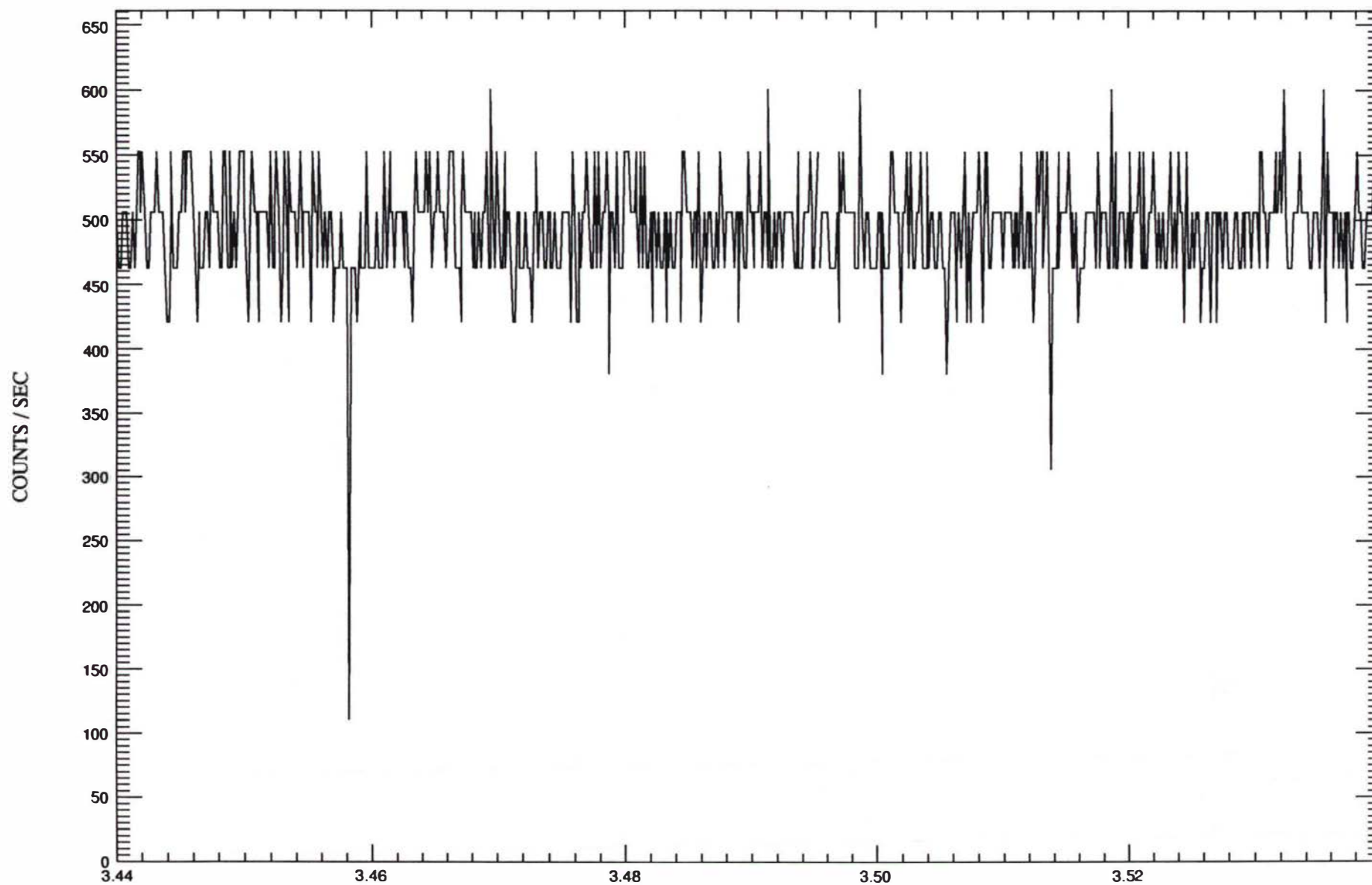


TIME, SECS

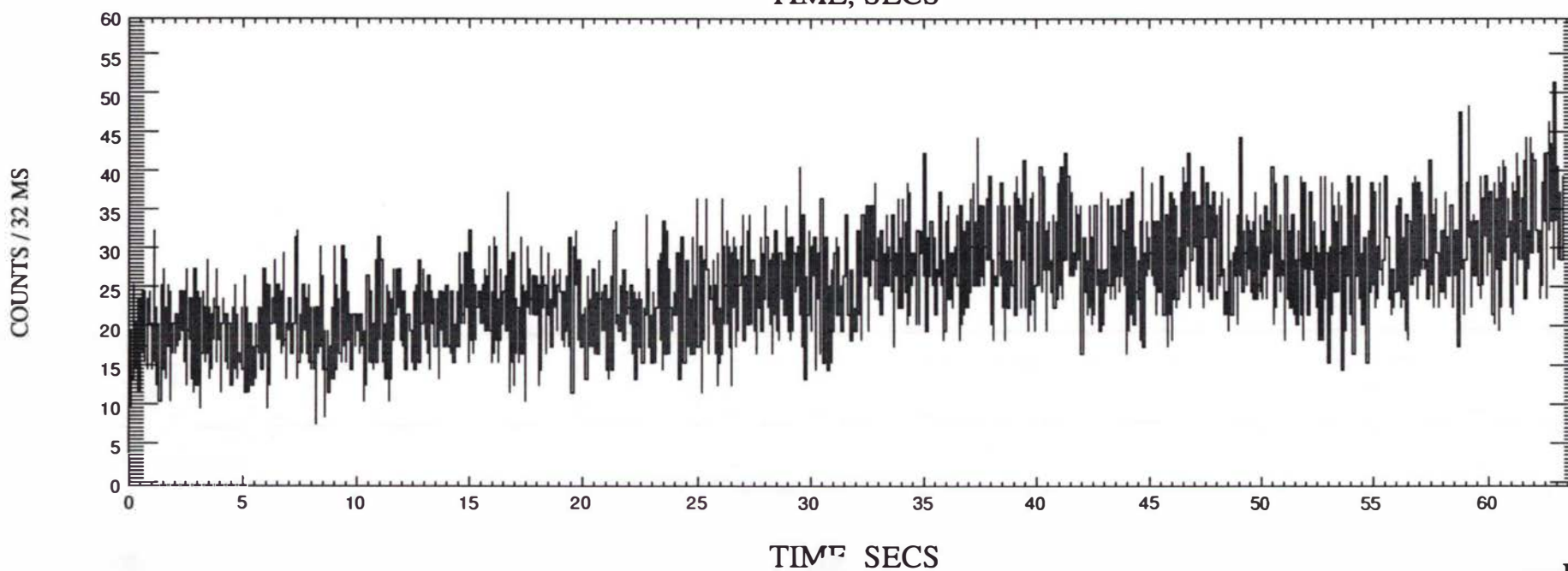
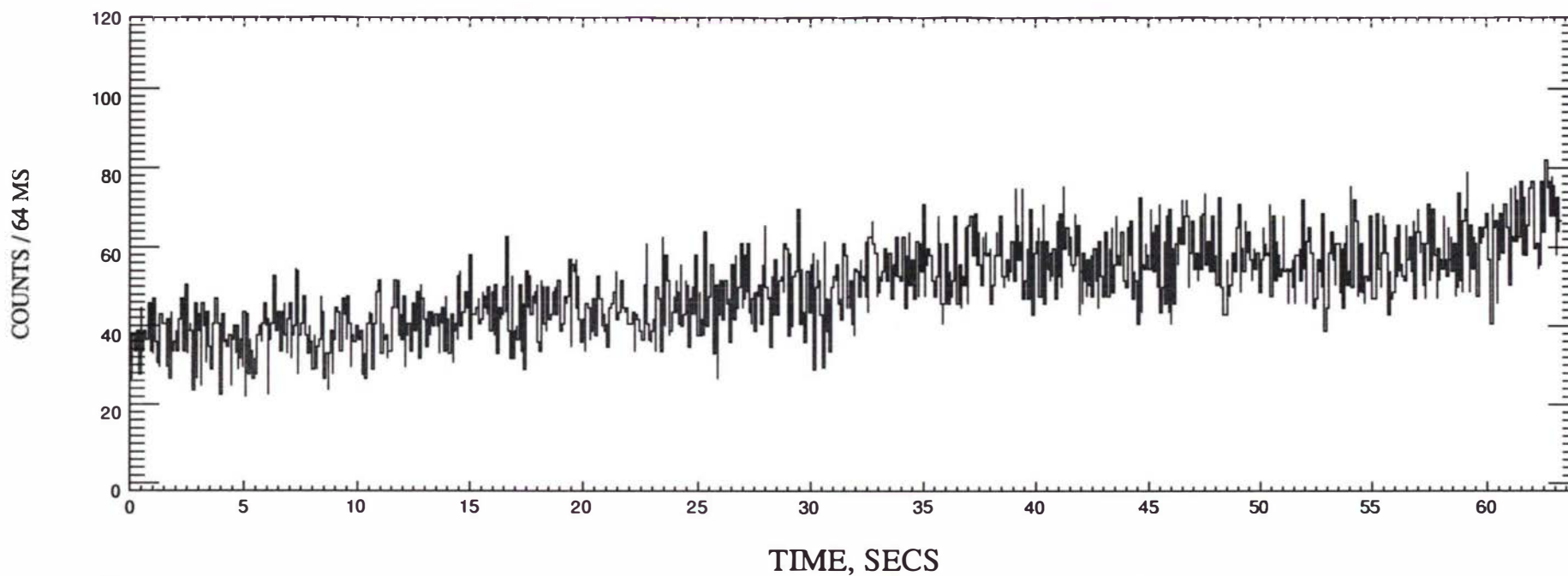


TIME, SECS

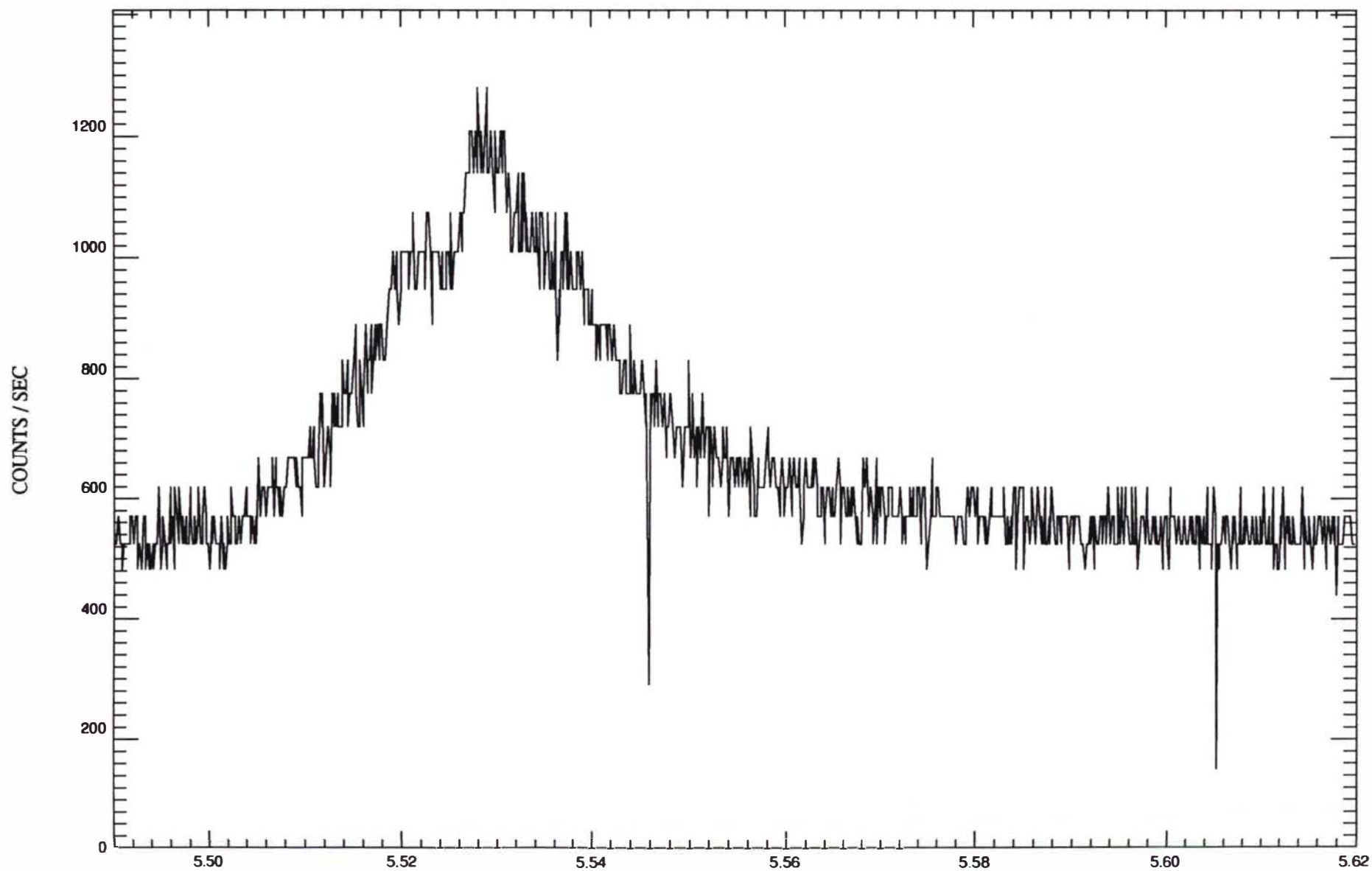
CALIBRATION DATA INCLUDED



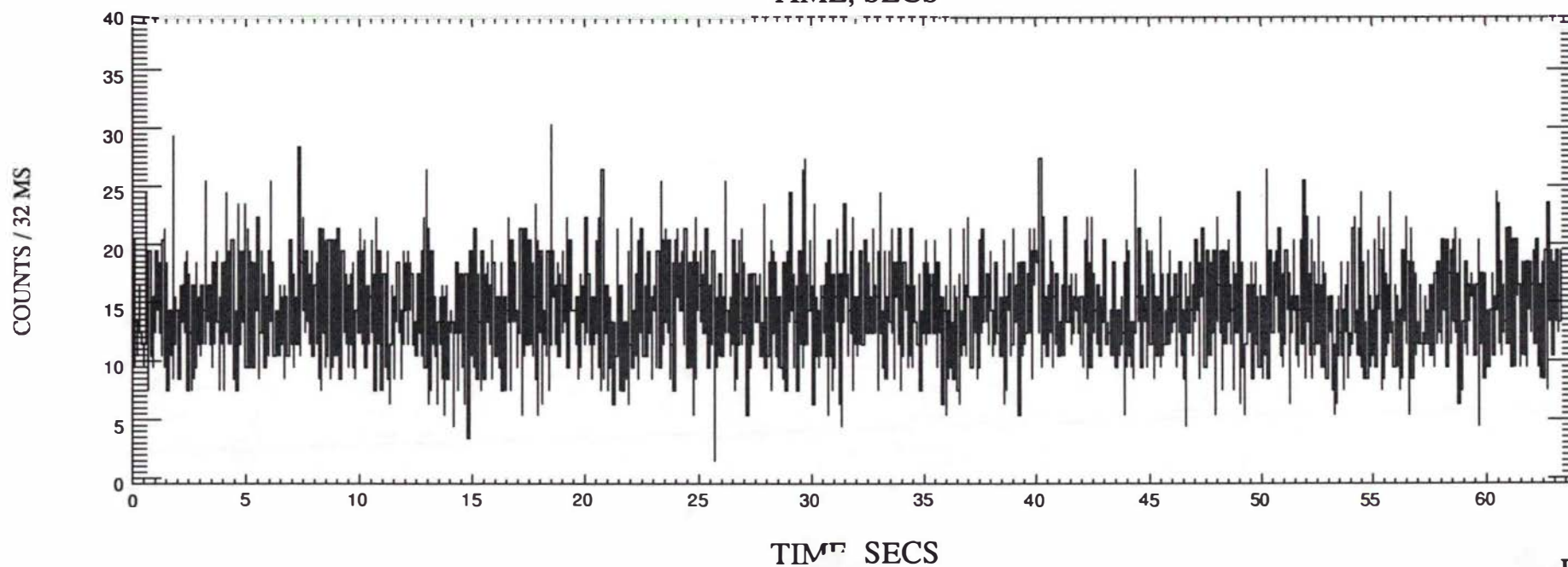
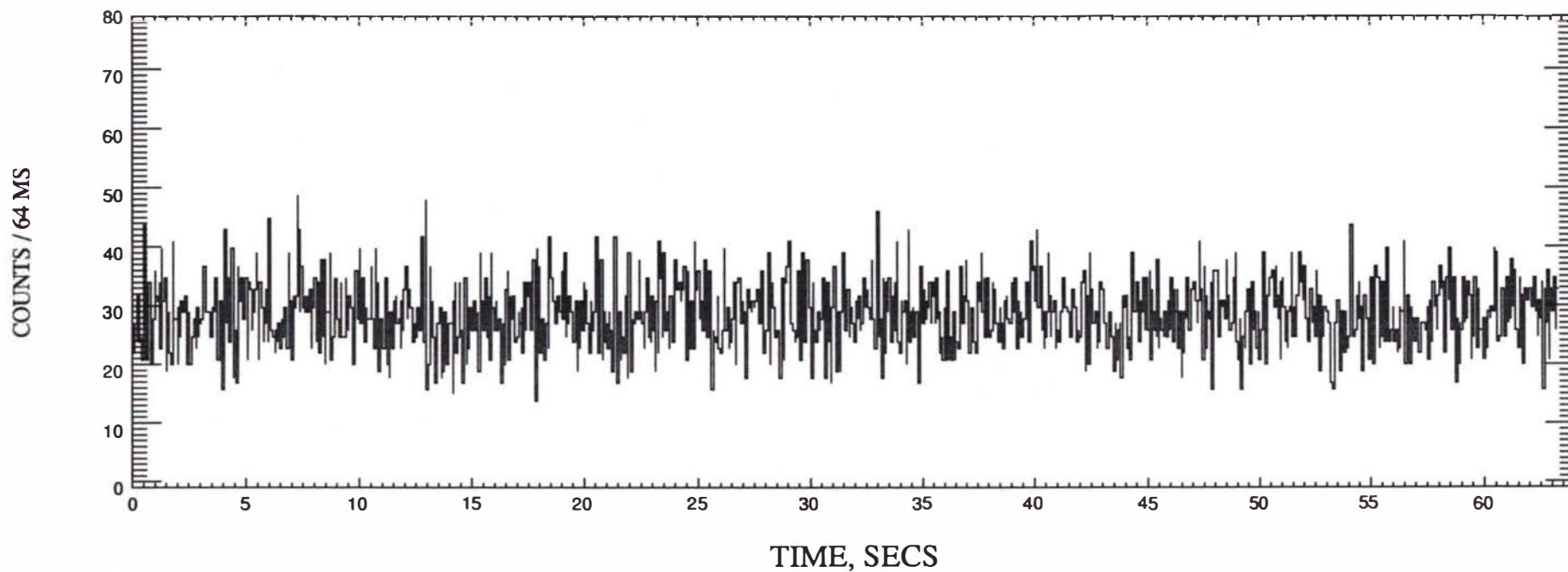
Burst Counter 14 at UT= 5.511972448561 h=19843.101 s 05:30:43.101



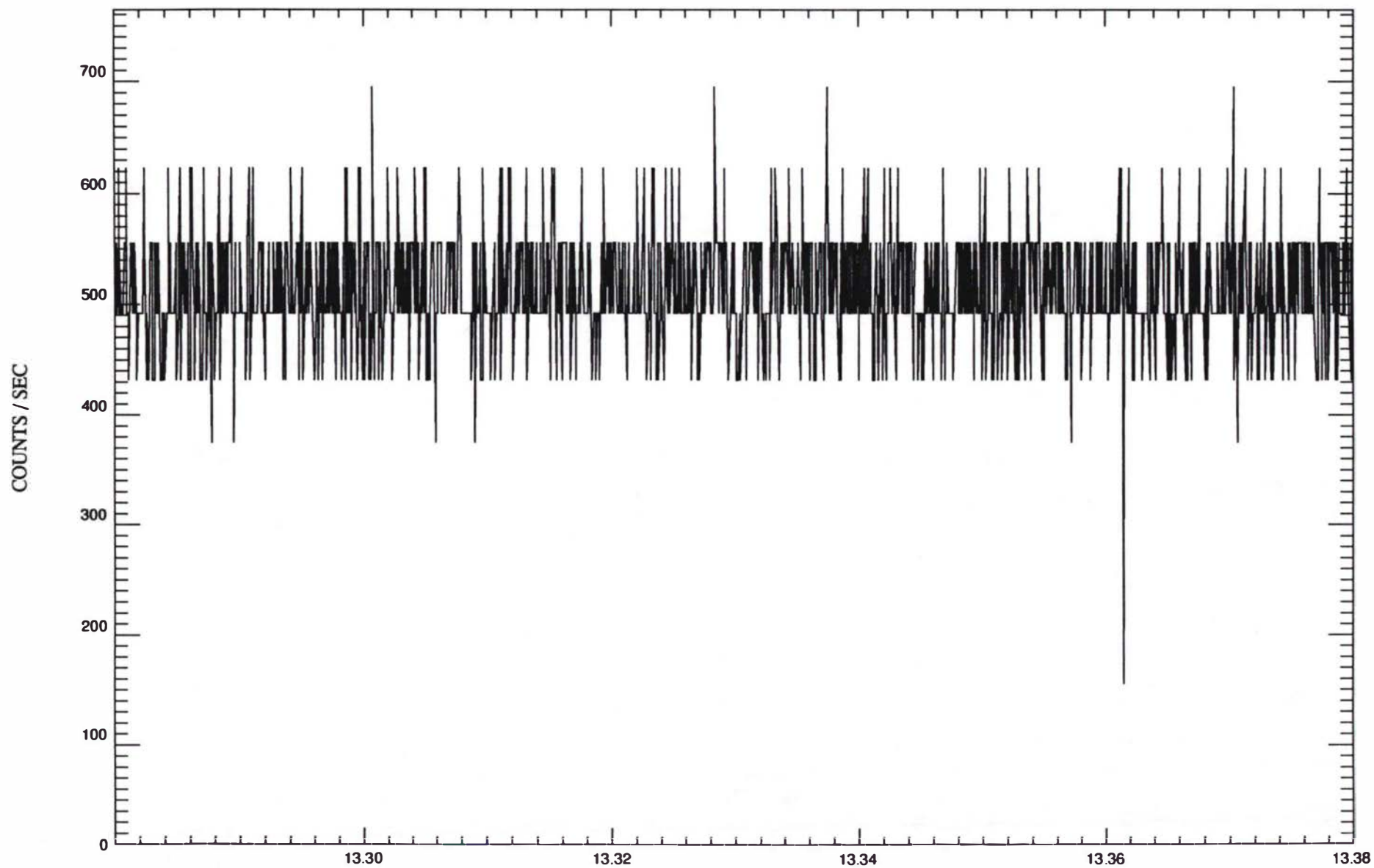
CALIBRATION DATA INCLUDED

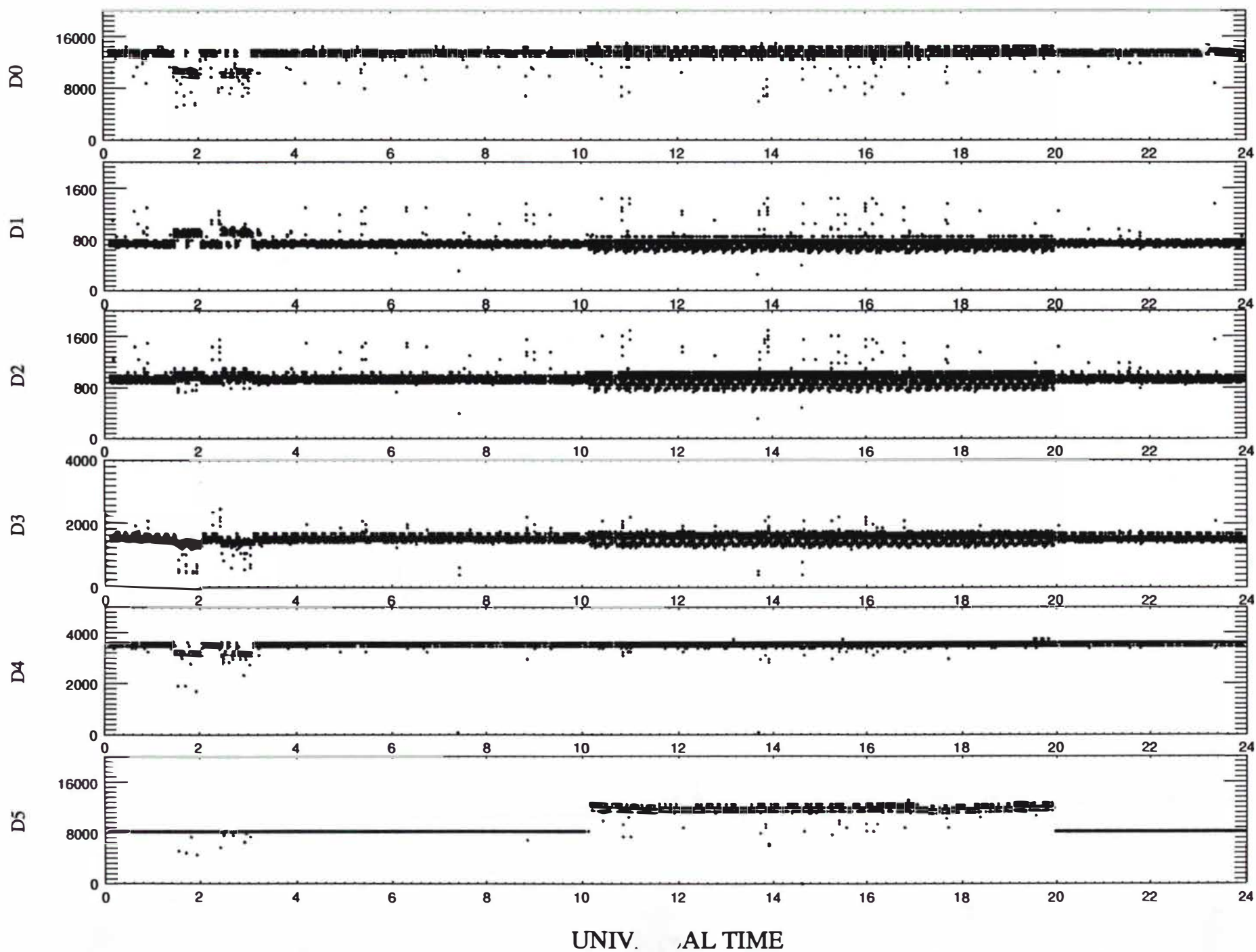


Burst Counter 15 at UT=13.328516392178 h=47982.659 s 13:19:42.659



CALIBRATION DATA INCLUDED





From SHARIFF@ssl.msfc.nasa.gov Sat Jan 29 16:33 PST 1994
Date: Sat, 29 Jan 1994 18:36:48 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2788
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2788
EVENT OF 1994 JAN 28 DAY OF YEAR= 28
EVENT CROSSING TIME AT BATSE : 20733. S. OR 05:45:33.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 174.000 -6.000
BATSE PEAK COUNTING RATE: 6000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 28/ 1/ 94 IS:
RA= 158.165 DEC= -48.462 DIST= 3.261 AU
BATSE-ULYSSES DISTANCE = 487805747. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=135.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1159.66 SECS.
CROSSING TIME AT ULYSSES IS 19573. S. OR 05:26:13 +/- 230.55 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 28/ 1/ 94 IS:
RA= 302.270 DEC= -21.149 DIST= 2.380 AU
MARS-BATSE DISTANCE = 356102016. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 57.54 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 637.59 SECS.
CROSSING TIME AT MARS IS 21371. S. OR 05:56:10 +/- 183.68 SECONDS

NO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2788	940128	9380	20733	6000	174	-06

BATSE BURST TRIGGER

NO.: 02788

TIME: TJD=9380 SECONDS=20733

TYPE: BURST

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=044.3 AZIMUTH=158.2 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE, LASTING ~1.5 SECONDS. VISIBLE ABOVE 300KEV.

3 1 / 1 / 9 4

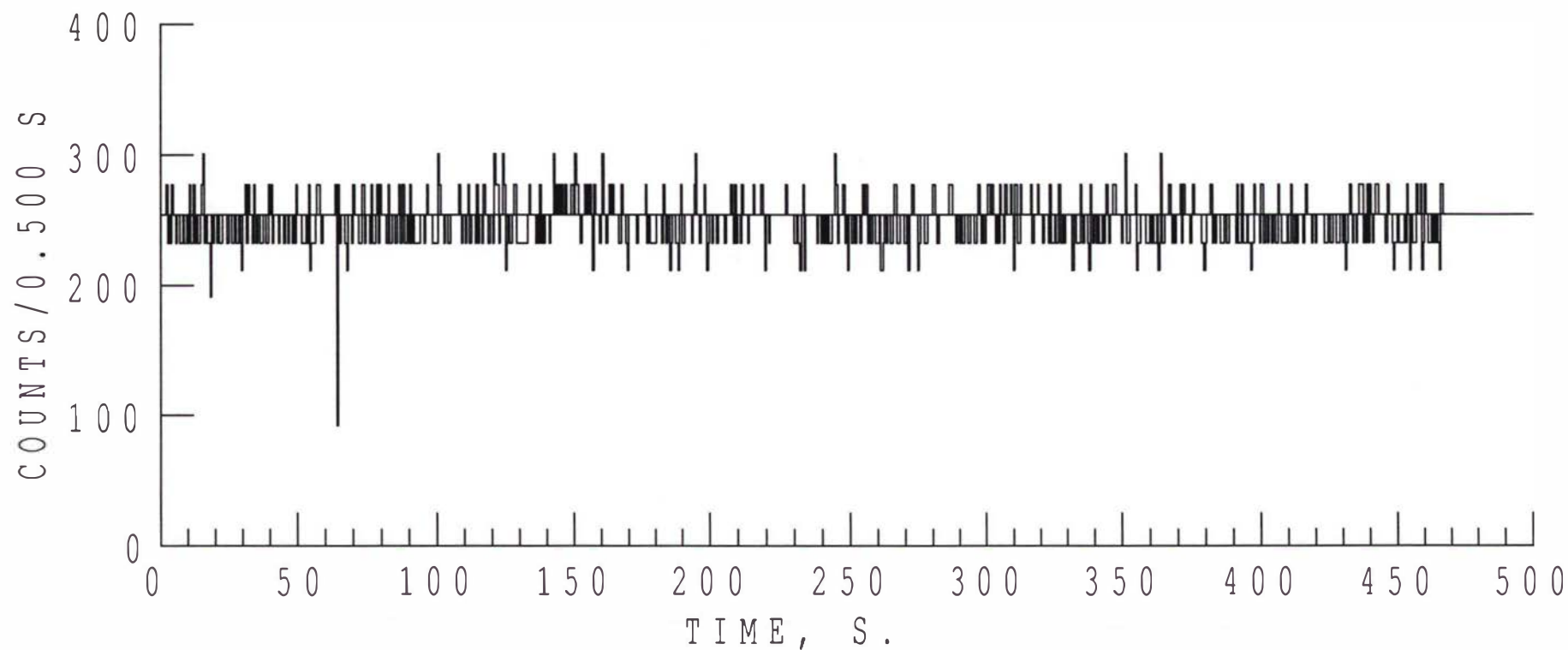
ULYSSES RT

28 / 1 / 94 19332.342 s

0 - 0 keV

M= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From SHARIFF@ssl.msfc.nasa.gov Sat Jan 29 16:25 PST 1994
Date: Sat, 29 Jan 1994 18:28:25 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02789

TIME: TJD=9380 SECONDS=39106

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SOLAR FLARE. UNCLASSIFIED GOES, LASTING ~35 SECONDS. NOT VISIBLE ABOVE 100KEV.

From SHARIFF@ssl.msfc.nasa.gov Sat Jan 29 16:39 PST 1994
Date: Sat, 29 Jan 1994 18:42:30 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: SHARIFF@ssl.msfc.nasa.gov
Subject: BATSE Burst 2790
Content-Type: text
Content-Length: 108

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2790	940128	9380	60665	13000	227	-10

RI

From SHARIFF@ssl.msfc.nasa.gov Sat Jan 29 16:28 PST 1994
Date: Sat, 29 Jan 1994 18:31:30 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02790

TIME: TJD=9380 SECONDS=60665

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=040.0 AZIMUTH=076.4 ERROR= DEGREES

COMMENTS:

BURST, COMPLEX, MULTIPLE PEAKS, DUR > 60 SECONDS, VISIBLE ABOVE 300KEV.

Helio corr removed

Date: *Nov 14 '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? *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 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

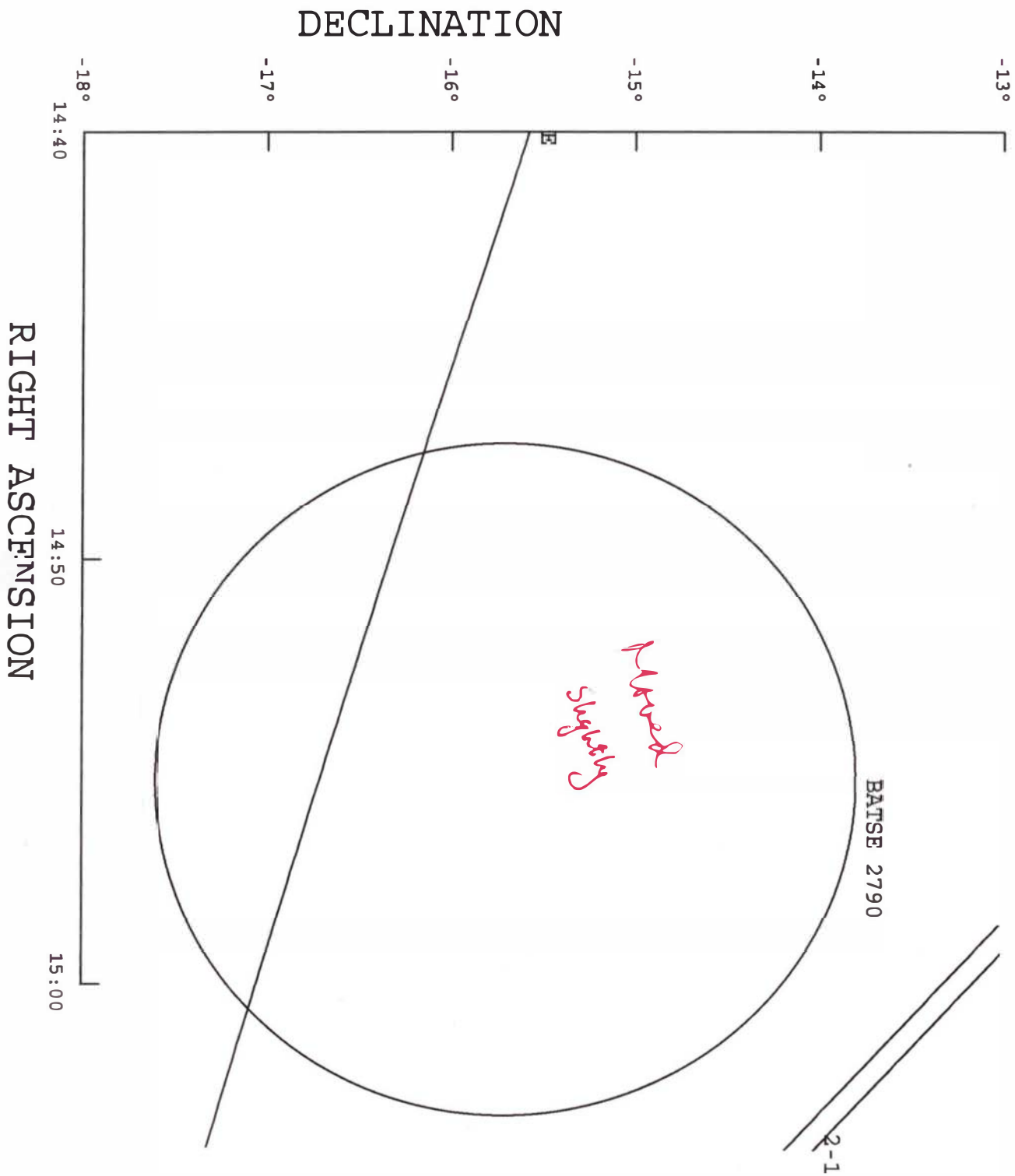
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 28, 1994 16:38

14/11/97



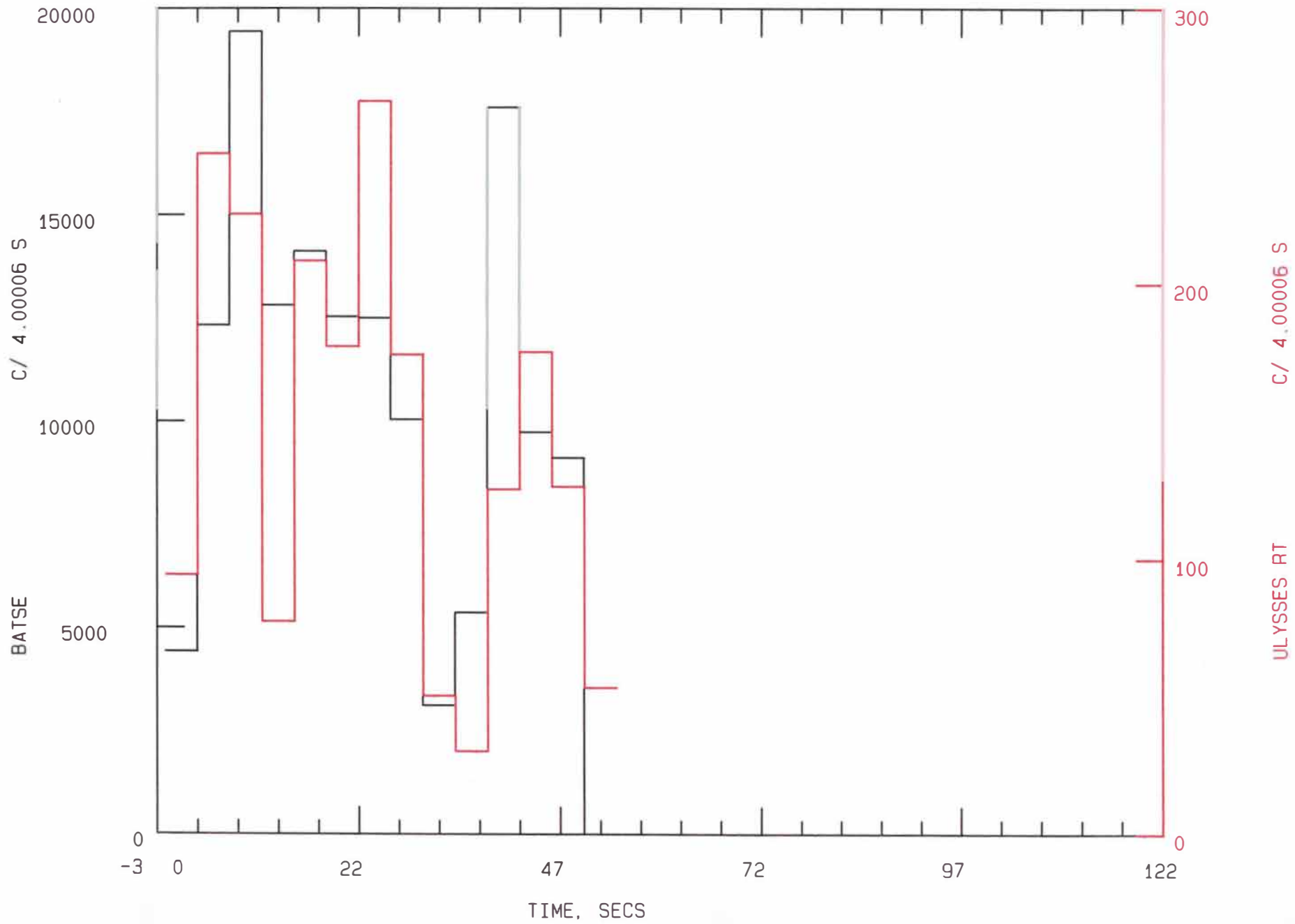
BATSE

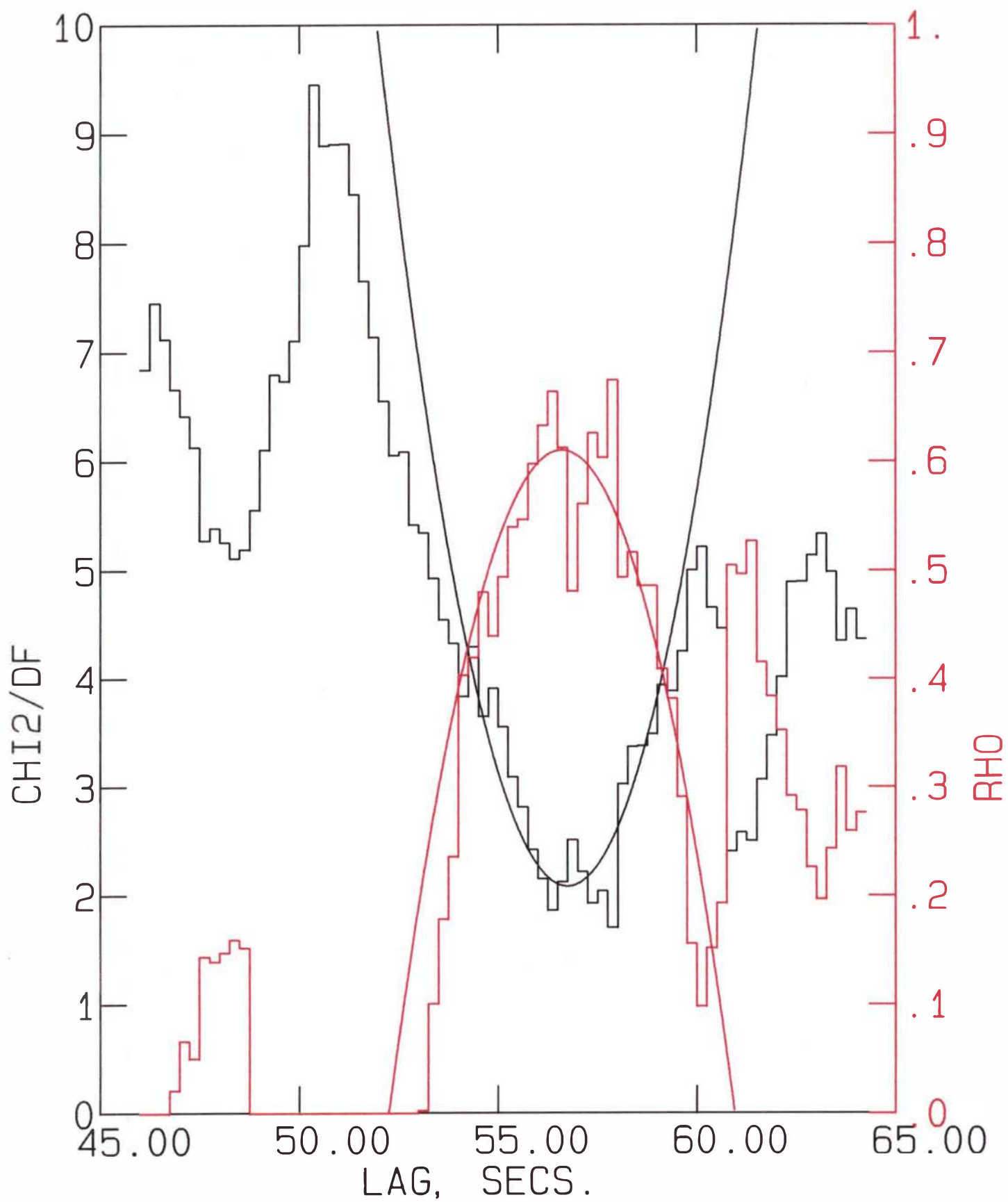
-ULYSSES RT CORRELATION

28/ 1/94

60665.498

14/11/97





ULYSSES RT

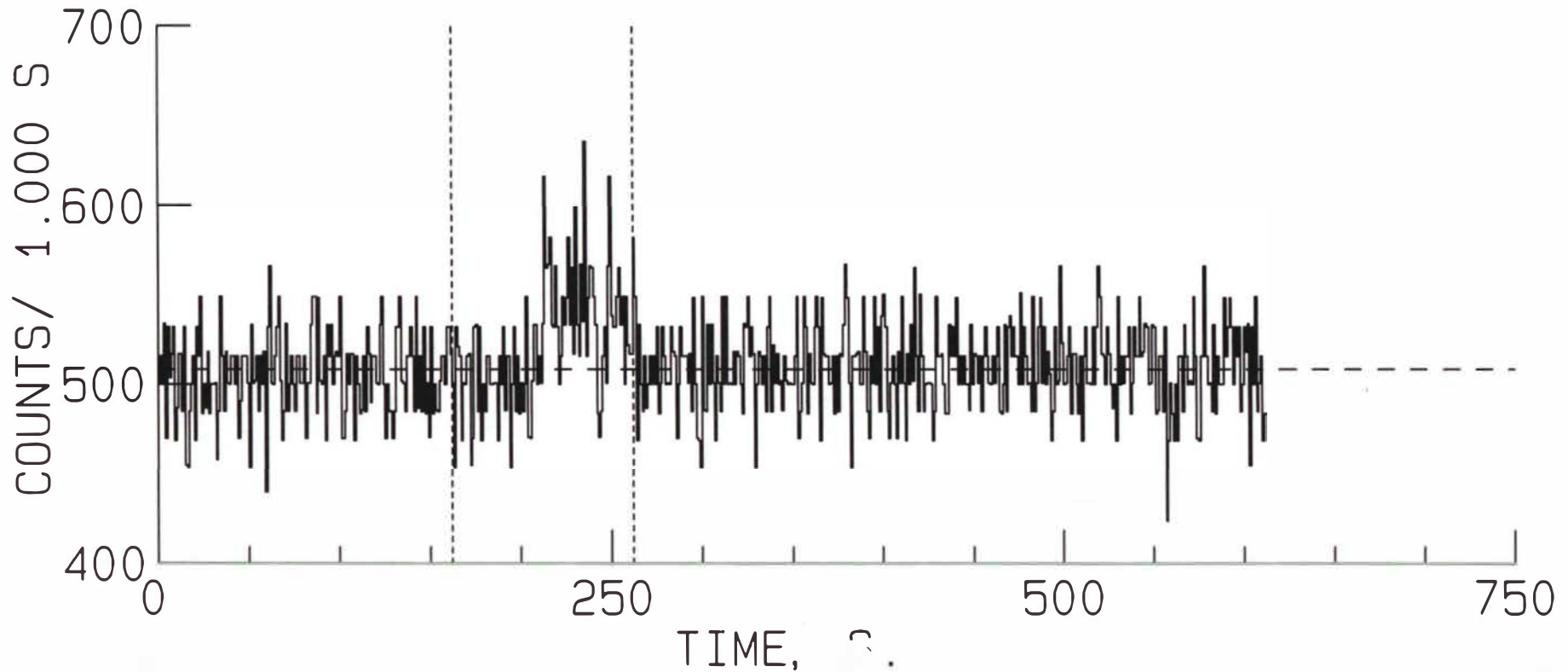
14/11/97

28/ 1/94 59760.220 s

0.250 S INTERVALS REGROUPED BY 4

21- 140 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



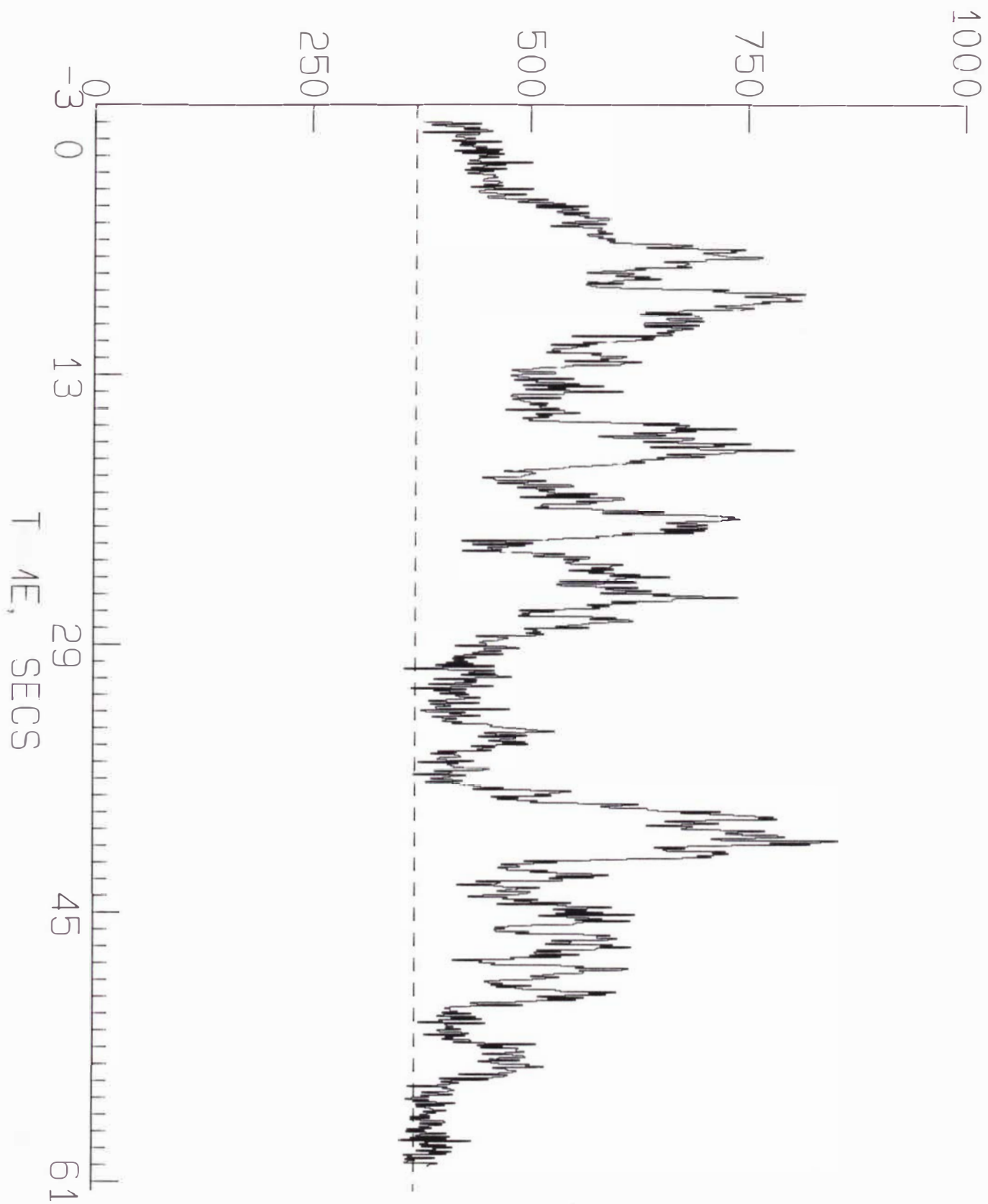
BATSE

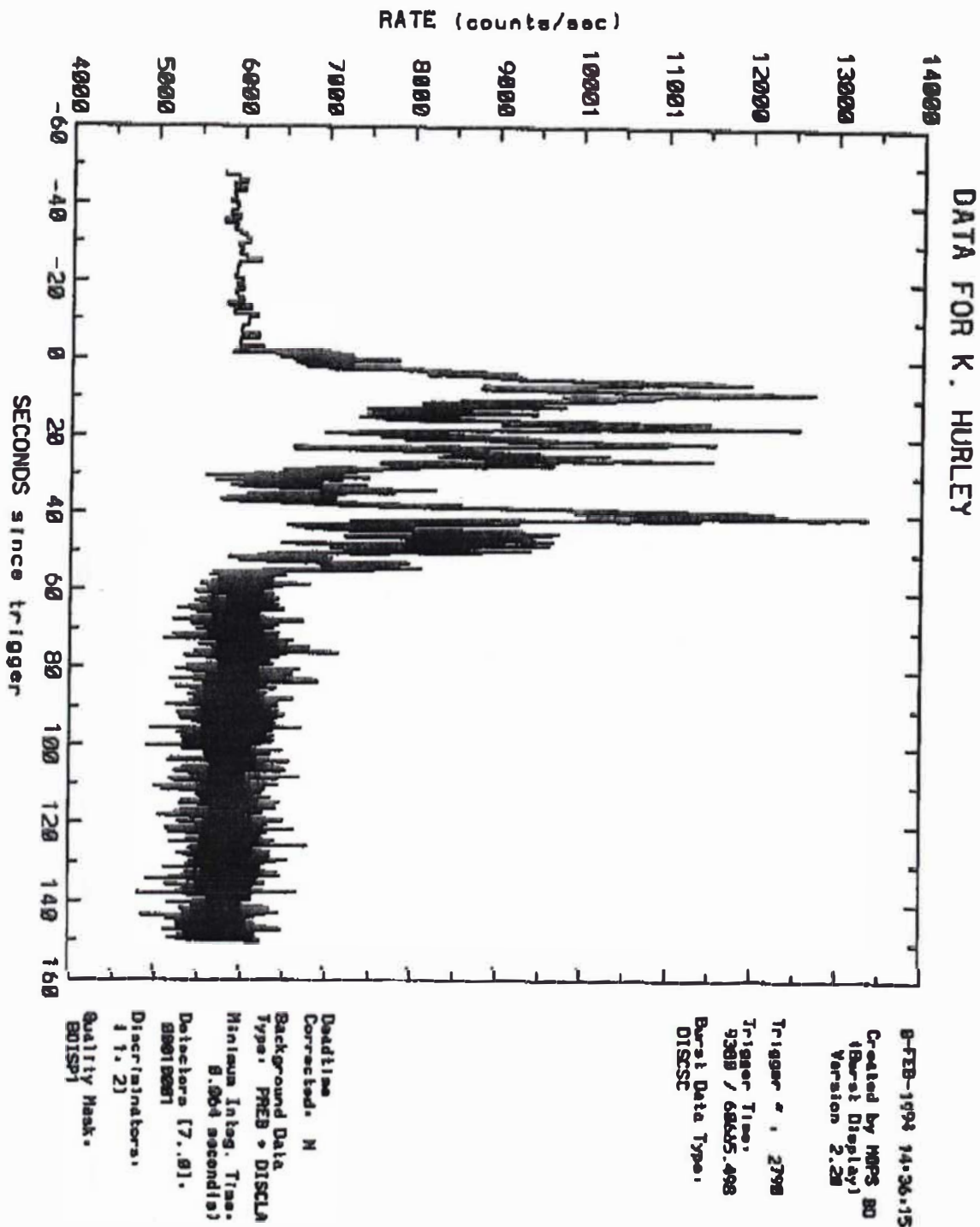
28/01/94

60665.498

25- 100 keV

COUNTS/ .064 S





To: Schaefer, Barthelmy, Palmer, Harrison, Mahoney

From khurley@space6.ssl.berkeley.edu Mon Jan 31 15:43 PST 1994

Date: Mon, 31 Jan 94 16:38:54

From: khurley@space6.ssl.berkeley.edu

Content-Type: text

Content-Length: 2525

Ulysses observed the January 28 burst (BATSE #2790) as a clear rate increase. Scott Barthelmy has faxed me a copy of the BATSE light curve and I have derived a rough position (aligning the Ulysses and BATSE light curves by eye). Since I do not have the BATSE digital data, or the ephemeris, this location is quite preliminary. Eventually the radius of the error annulus should be a factor of two or three smaller.

SATELLITE POSITIONAL INFORMATION AND BURST ARRIVAL TIME

NO	NAME	DIST. FROM EARTH, KM.	ALPHA, DEG.	DELTA, DEG.
1	ULYSSES	486939117.0000+/-	500.0000000 158.51320+/-	.00500 -48.81610+/-
2	BATSE	6700.0000+/-	100.0000000 .00000+/-	180.00000 .00000+/-

JULIAN DAY NUMBER IS 34361.19 DAYS SINCE 1900 JAN 0.5

14.80 BY 15.00 CM MAP FOR RA= 221.00 TO 231.00, DEC= -15.00 TO -5.00

INTERSATELLITE CORRELATIONS

SEPARATION BETWEEN SATELLITES 1 AND 2 IS 1624.26753 LIGHT SECONDS. TIME DELAY IS
CORRELATION BETWEEN SATELLITE 1 (ULYSSES) AND SATELLITE 2 (BATSE)
GIVES A CIRCLE OF RADIUS 64.558187 DEGREES CENTERED AT ALPHA=158.513639 DEGREES, DELTA=-48.81610
ERROR IN DETERMINATION OF RADIUS IS .087848 DEGREES OR 10.541738 ' TOTAL WIDTH
(.009696 DUE TO POSITION, .078152 DEGREES DUE TO TIMING)
INTERSATELLITE TIMING ERROR IS 2000000 MICROSECONDS

BASED ON THIS ANNULUS, THE EARTH CROSSING TIME IS 60657.994+/- .016 SECS.

AT SATELLITE 1, EARTH SUBTENDS .000749 DEGREES HALF ANGLE CENTERED AT ALPHA=338.513200 DE
AT SATELLITE 2, EARTH SUBTENDS 71.859982 DEGREES HALF ANGLE CENTERED AT ALPHA=180.000000 DE

CIRCLE CENTERED AT ALPHA=227.000 DEG, DELTA=-10.000 DEG, RADIUS= 5.000 DEG WILL BE TRACED WITH
MINIMUM DISTANCE BETWEEN THE POINT OR CENTER OF THE CIRCLE AND THE TRIANGULATION ANNULUS IS
CIRCLE CENTERED AT ALPHA=222.900 DEG, DELTA=-12.800 DEG, RADIUS= 3.000 DEG WILL BE TRACED WITH
MINIMUM DISTANCE BETWEEN THE POINT OR CENTER OF THE CIRCLE AND THE TRIANGULATION ANNULUS IS

SUN IS AT ALPHA=310.961772 DEGREES, DELTA=-18.128874 DEGREES
TODAY IS 31/ 1/94

Dear Bill,

I hope the radio observation went OK. There were two other fairly intense GRBs which Ulysses and BATSE observed in the past week, but they were at low declinations and rather poorly localized, so I didn't bother to send you the coordinates.

Actually, I am writing for another reason. You probably know that Mars Observer is being reincarnated at JPL. The payload appears to be a reduced, JPL-only package, for political and economic reasons, and does NOT include the gamma-ray spectrometer. My question is this. Do you have any insight into what is happening at JPL? Could we slip in a very small GRB detector, say 500 g worth of scintillator, like I described at Huntsville? A mission like this is just too good to miss, and it's really essential to maintain the network.

Kevin

From root Fri Feb 11 16:41 1994

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

id AA04899; Fri, 11 Feb 94 16:41:32

Received: from elroy.jpl.nasa.gov by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)

id AA12082; Fri, 11 Feb 1994 15:45:17 +0800

Received: from heagl.Jpl.Nasa.Gov by elroy.jpl.nasa.gov (4.1/SMI-4.1+DXR)

id AA27247; Fri, 11 Feb 94 15:49:02 PST

Received: by heagl.Jpl.Nasa.Gov (4.1/SMI-4.1+DXRs2.0)

id AA03740; Fri, 11 Feb 94 15:54:44 PST

Date: Fri, 11 Feb 94 15:54:44 PST

From: wam@heagl.jpl.nasa.gov (Bill Mahoney)

Message-Id: <9402112354.AA03740@heagl.Jpl.Nasa.Gov>

To: khurley@space6.ssl.berkeley.edu

Subject: Bursts

Cc: wam@heagl.jpl.nasa.gov

Content-Length: 2114

Status: R

Dear Kevin:

We have now looked twice at the annulus of the 28 Jan burst using the 70-meter antenna at Goldstone (2.3 GHz). Unfortunately, it is very clumsy to use the antenna for astronomy. During an observation of 5 February the RA was converted to hour angle using the wrong sign so that only the center point of the arc was correct. A fairly strong radio source (100 mJy) was seen near that point, but it may have been too far off the center of your annulus.

A second run was made this morning, presumably along the correct arc, and the source near the middle was still present. The source is not listed in the Molonglo catalog (408 MHz) which means it probably has a strength of less than 1 Jy if it is constant. Plans are to make another observation a week from tomorrow at both 2.3 and 8.4 GHz.

Regarding the reincarnation of Mars Observer, an advisory panel has been meeting at JPL during the last couple of days to form a recommendation on the new payload. The nominal payload is limited to about 100 kg with a total cost of no more than about \$25 M. According the John Callas (a member of our Group who is working on that Project), NASA had dictated that the only instruments to be considered are exact copies of those flown on Mars Observer (perhaps with minor interfacing changes). If this is true, it would appear the only hope for a burst monitor is Boynton's instrument. Although he is hoping for a boom, it sounds like Boynton would accept mounting the instrument

From SHARIFF@ssl.msfc.nasa.gov Sat Jan 29 16:30 PST 1994
Date: Sat, 29 Jan 1994 18:33:34 -0600 (CST)
From: SHARIFF@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 02791

TIME: TJD=9380 SECONDS=71218

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

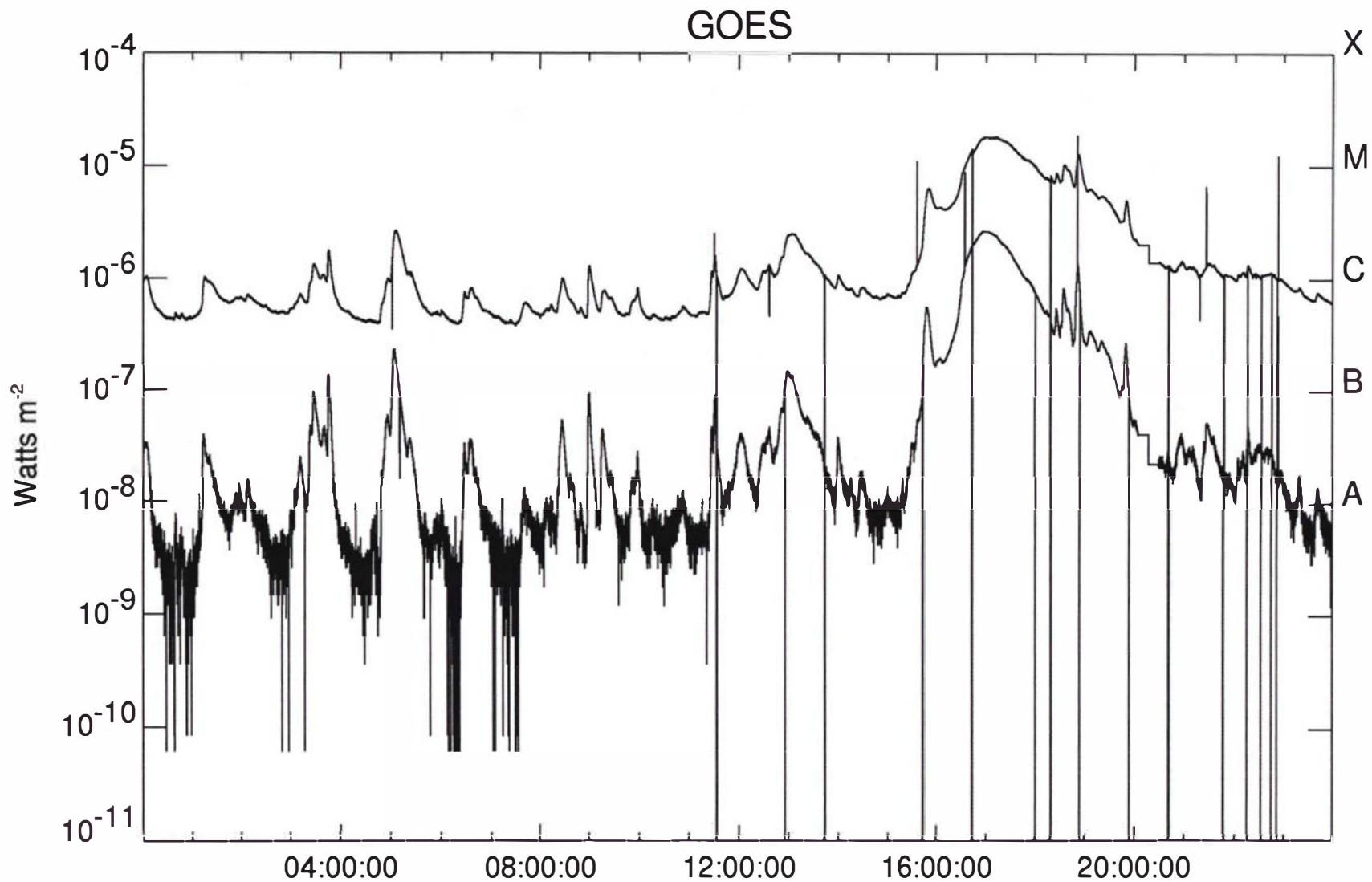
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SOLAR FLARE, GOES C4.5, LASTING ~ 45S. NOT VISIBLE ABOVE 300KEV.



Data Start: 94/01/28, 0000:00

Plot created: 94/01/31, 1438

Channel

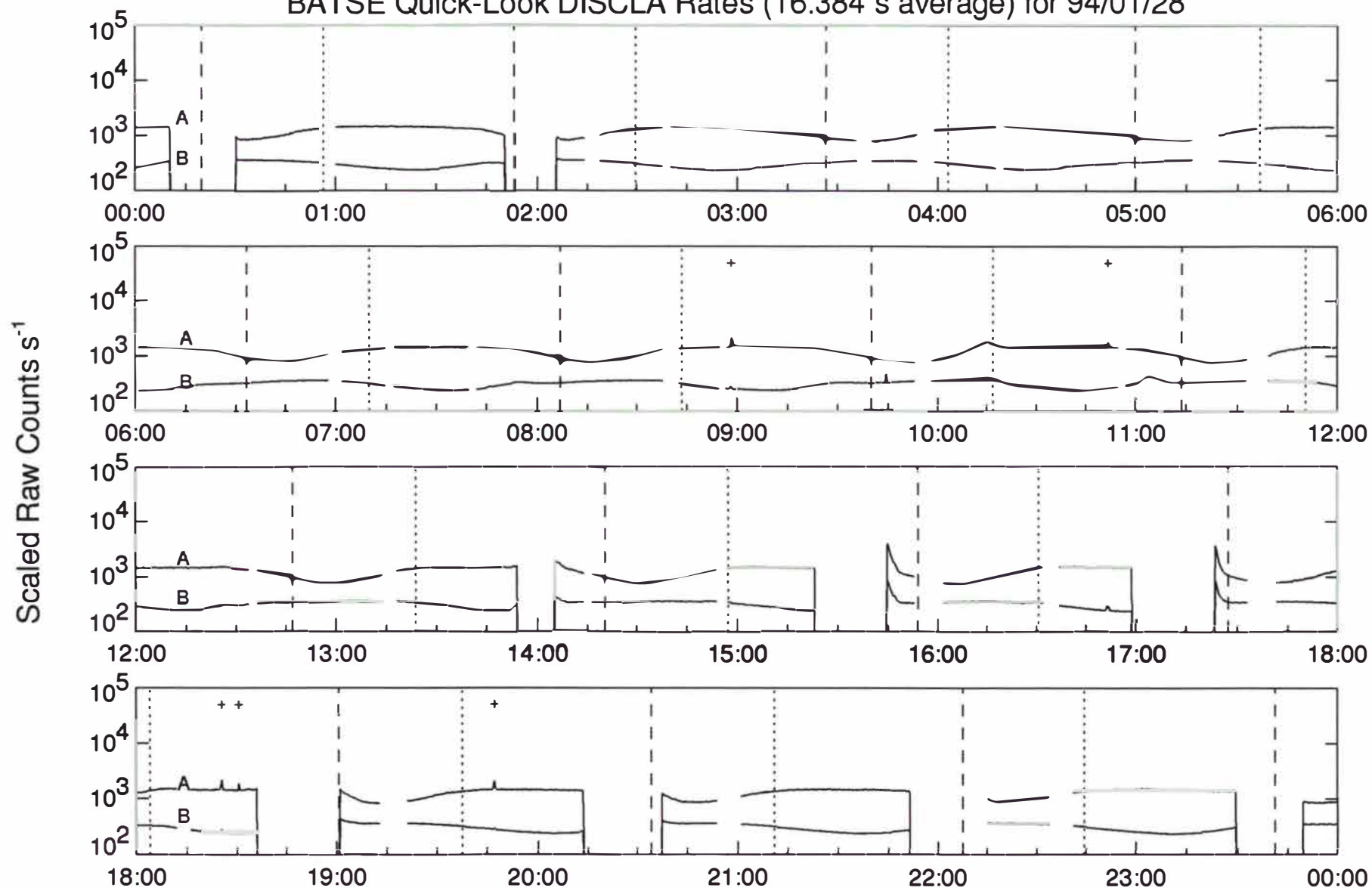
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/28

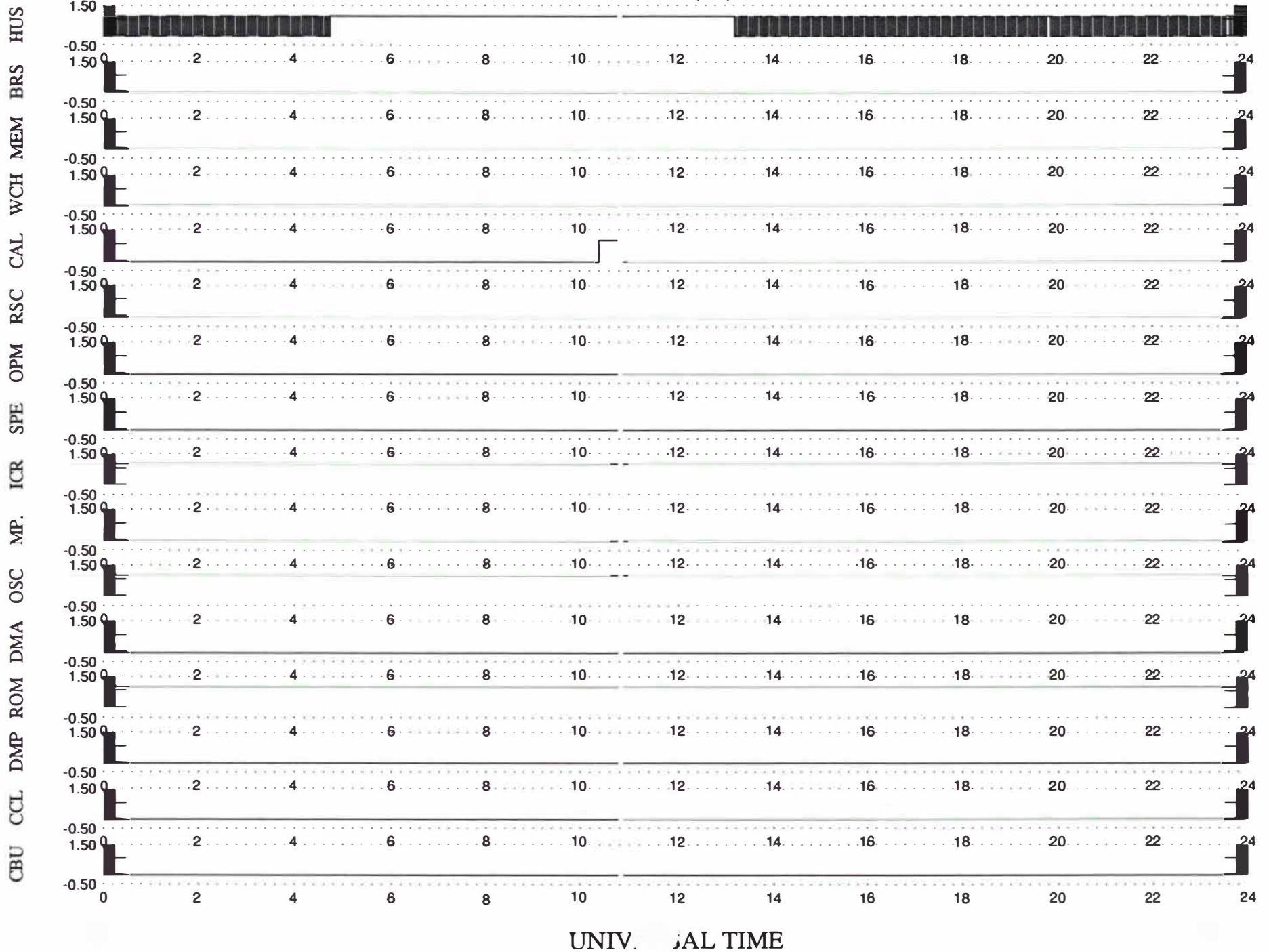


Current Time: 94/01/31, 1436 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

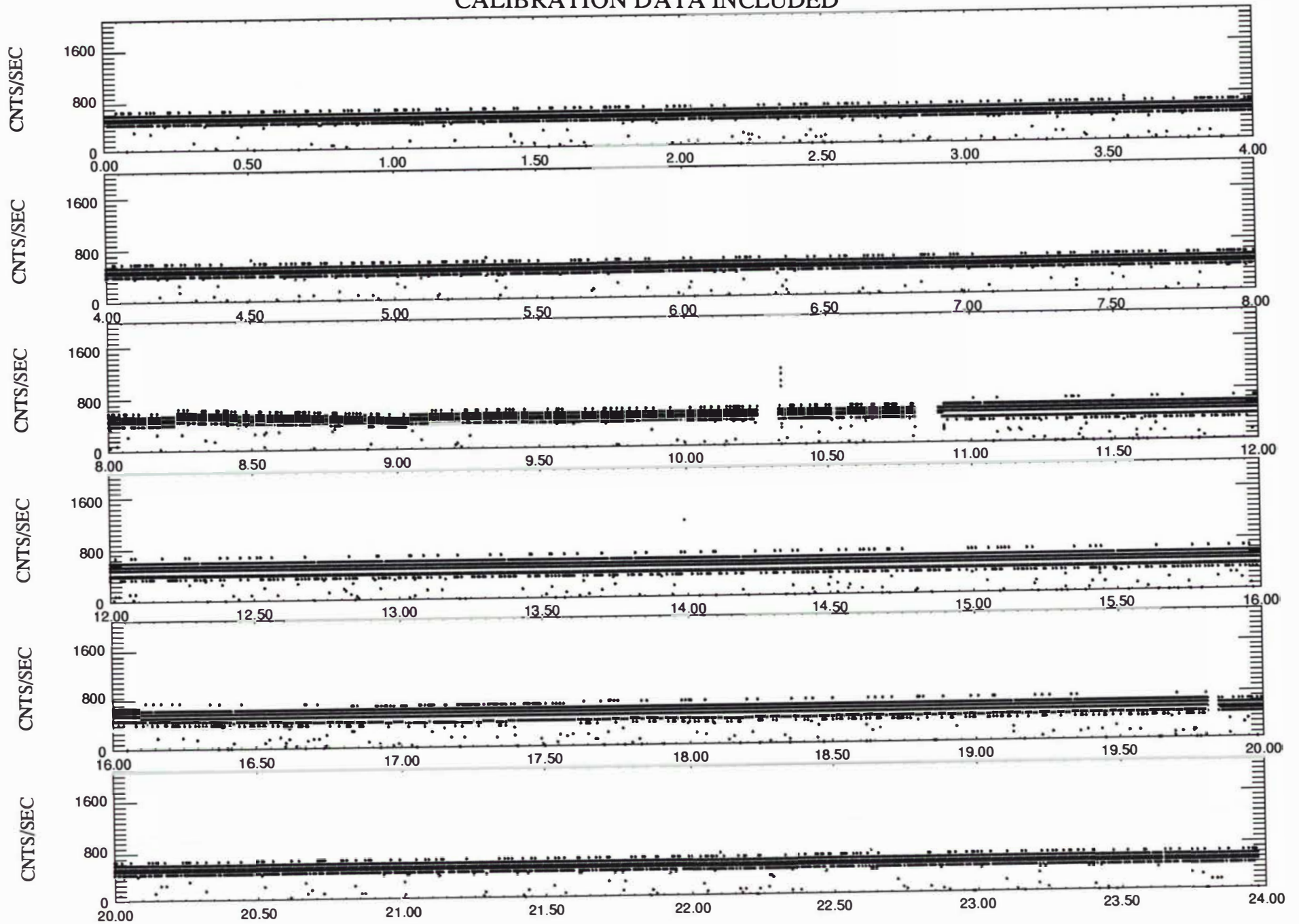
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

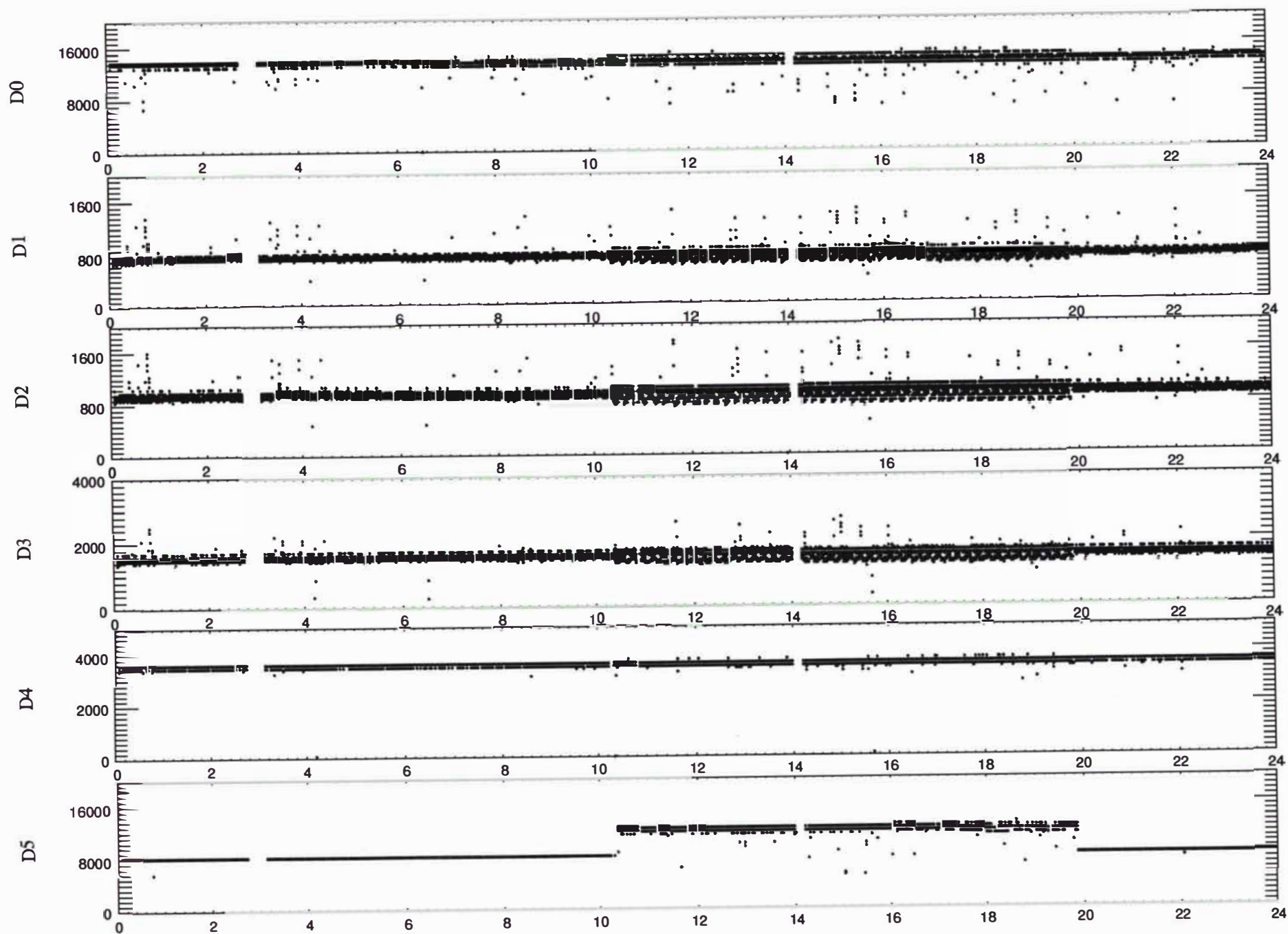
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV. TIME



UNIV AL TIME

From HAGEDON@ssl.msfc.nasa.gov Mon Jan 31 08:46 PST 1994
Date: Mon, 31 Jan 1994 10:49:22 -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,
LHEAVXKWOK@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
Content-Type: text
Content-Length: 1215

BATSE BURST TRIGGER

NO.: 2792

TIME: TJD=9381 SECONDS=13086

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES M2.4 SOLAR FLARE. DUR. ~400 SEC. NOT VISIBLE ABOVE 100 KEV.

From HAGEDON@ssl.msfc.nasa.gov Mon Jan 31 08:53 PST 1994
Date: Mon, 31 Jan 1994 10:56:53 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 2793
Content-Type: text
Content-Length: 1135

BATSEARCH PROGRAM

BATSE BURST # 2793
EVENT OF 1994 JAN 29 DAY OF YEAR= 29
EVENT CROSSING TIME AT BATSE : 38597. S. OR 10:43:17.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 126.000 28.000
BATSE PEAK COUNTING RATE: 20500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 29/ 1/ 94 IS:
RA= 157.694 DEC= -48.712 DIST= 3.245 AU
BATSE-ULYSSES DISTANCE = 485509514. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 98.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -231.51 SECS.
CROSSING TIME AT ULYSSES IS 38365. S. OR 10:39:25 +/- 324.76 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 29/ 1/ 94 IS:
RA= 303.085 DEC= -20.987 DIST= 2.379 AU
MARS-BATSE DISTANCE = 355844608. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 7.50 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1176.82 SECS.
CROSSING TIME AT MARS IS 39774. S. OR 11:02:53 +/- 44.76 SECONDS

HO RI

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
2793	940129	9381	38597	20500	126	+28

BATSE BURST TRIGGER

NO.: 2793

TIME: TJD=9381 SECONDS=38597

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=99 AZIMUTH=177 ERROR= DEGREES

COMMENTS:

BURST. MULTIPLE SPIKES. DUR.~6 SEC. POST CURSOR AT ~T+10 SEC.
VISIBLE ABOVE 300 KEV.

GROCSE/LLNL

burstlog

Tue Sep 13 10:49:58 1994

4

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SUMMARY

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Date (UTC)	TJD	SOD	Trig#	Hunts_RA (J2000)	Hunts_DEC	Hunts_error	BACO-Hunts	Raw data
1/29/94	9381	38599	2793	125.75	27.73	? 0.6035	4.3 deg	
3/29/94	9440	42636	2896	179.98	8.24	? 1.731	~4 deg	
4/28/94	9470	38193	2952	350.59	-0.98	2063 32.0 deg	59. deg	
6/23/94	9526	19547	3040	249.88	11.22	7.809 2.0 deg	5.3 deg	
8/27/94	9591	19087	3139	280.42	-5.11	4365 ?	9.6 deg - 191MB	
8/28/94	9592	24439	3141	340.56	50.57	? 3.839	8.3 deg - 194MB	
9/07/94	9602	30336	3159	105.71	73.56	? 6.252	18.6 deg - 223MB	

Date:

Helio corr removed
Jan 22 '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 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

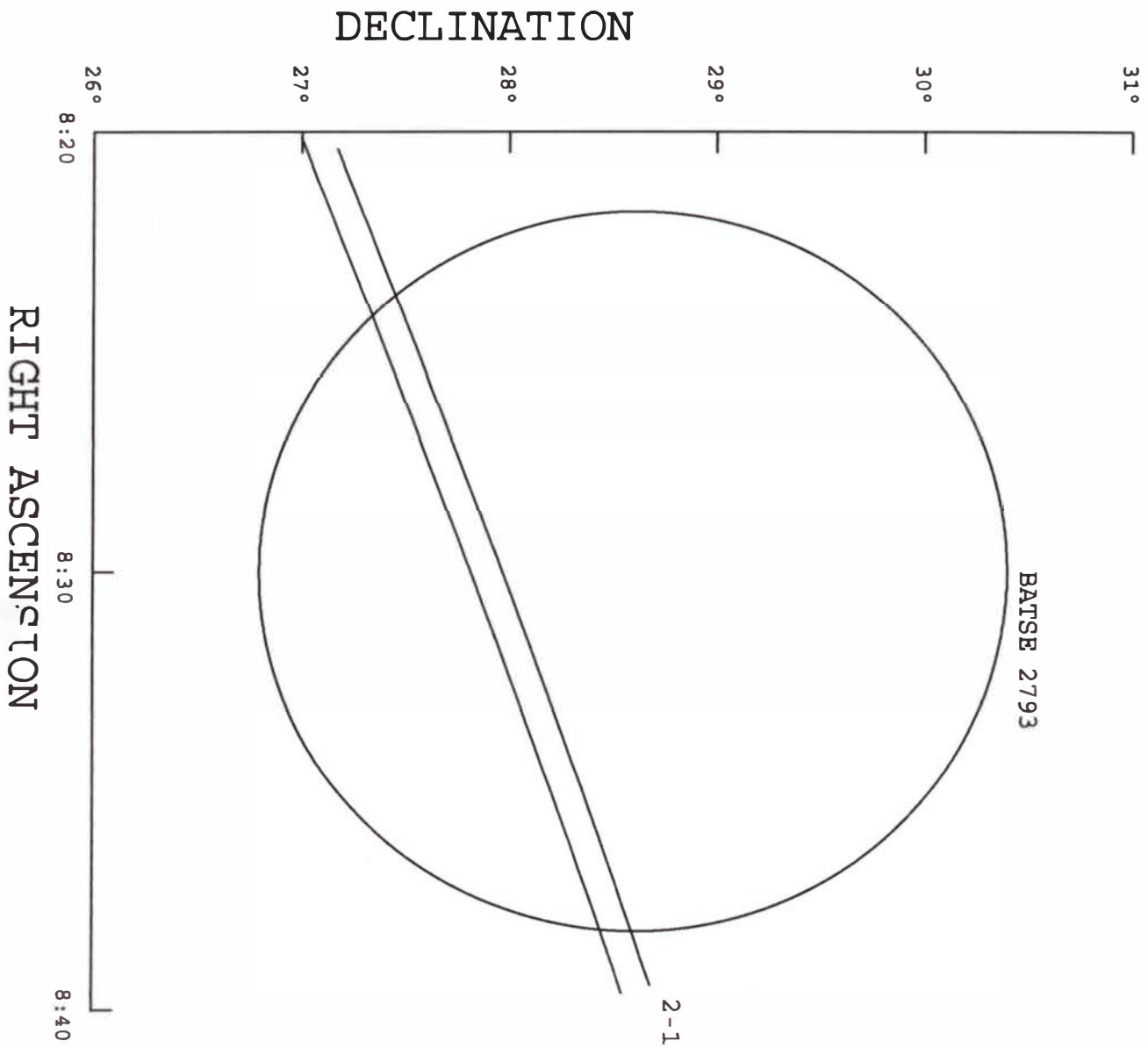
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF JAN 29, 1994 10:38

22/ 1/98



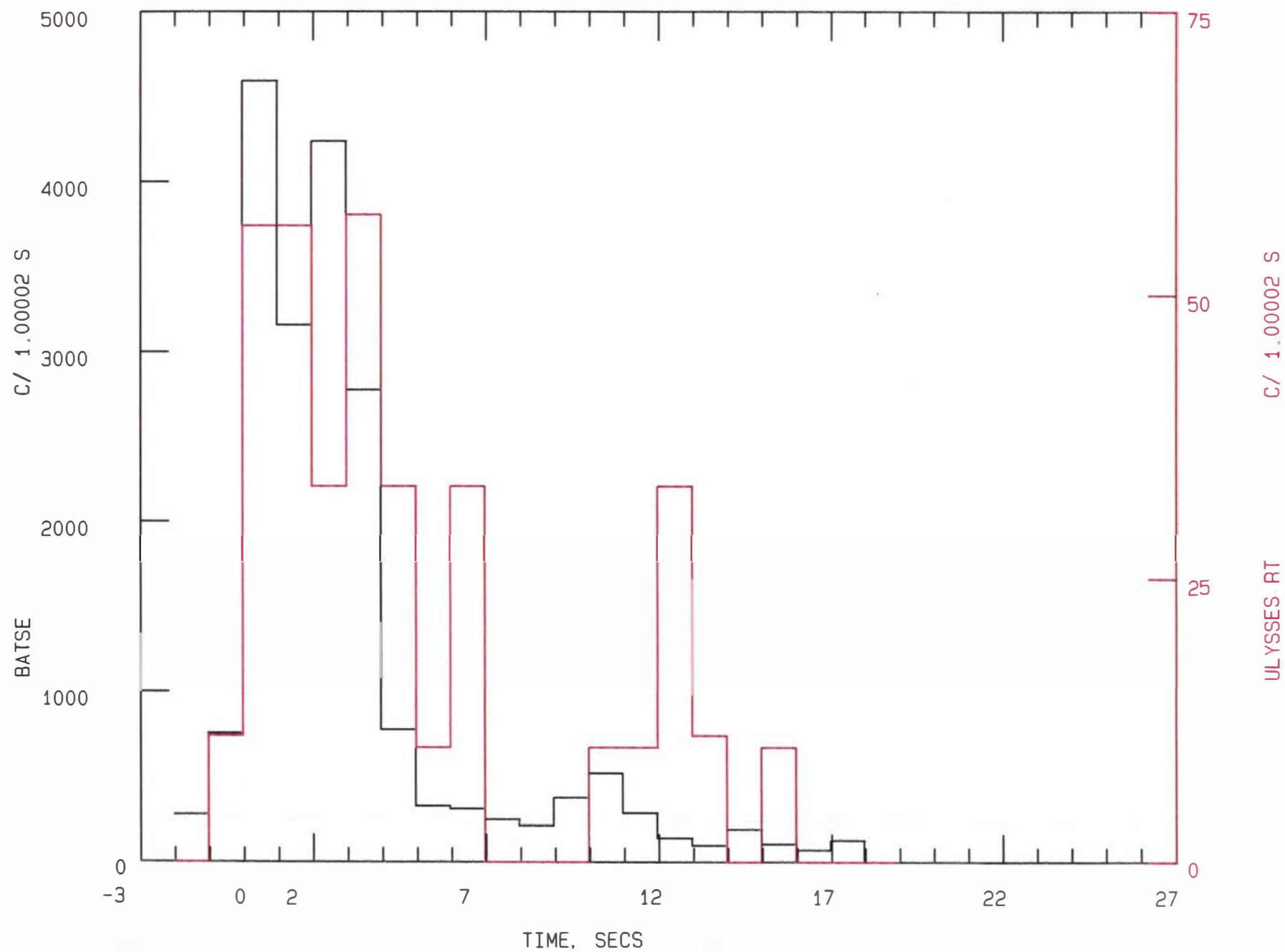
BATSE

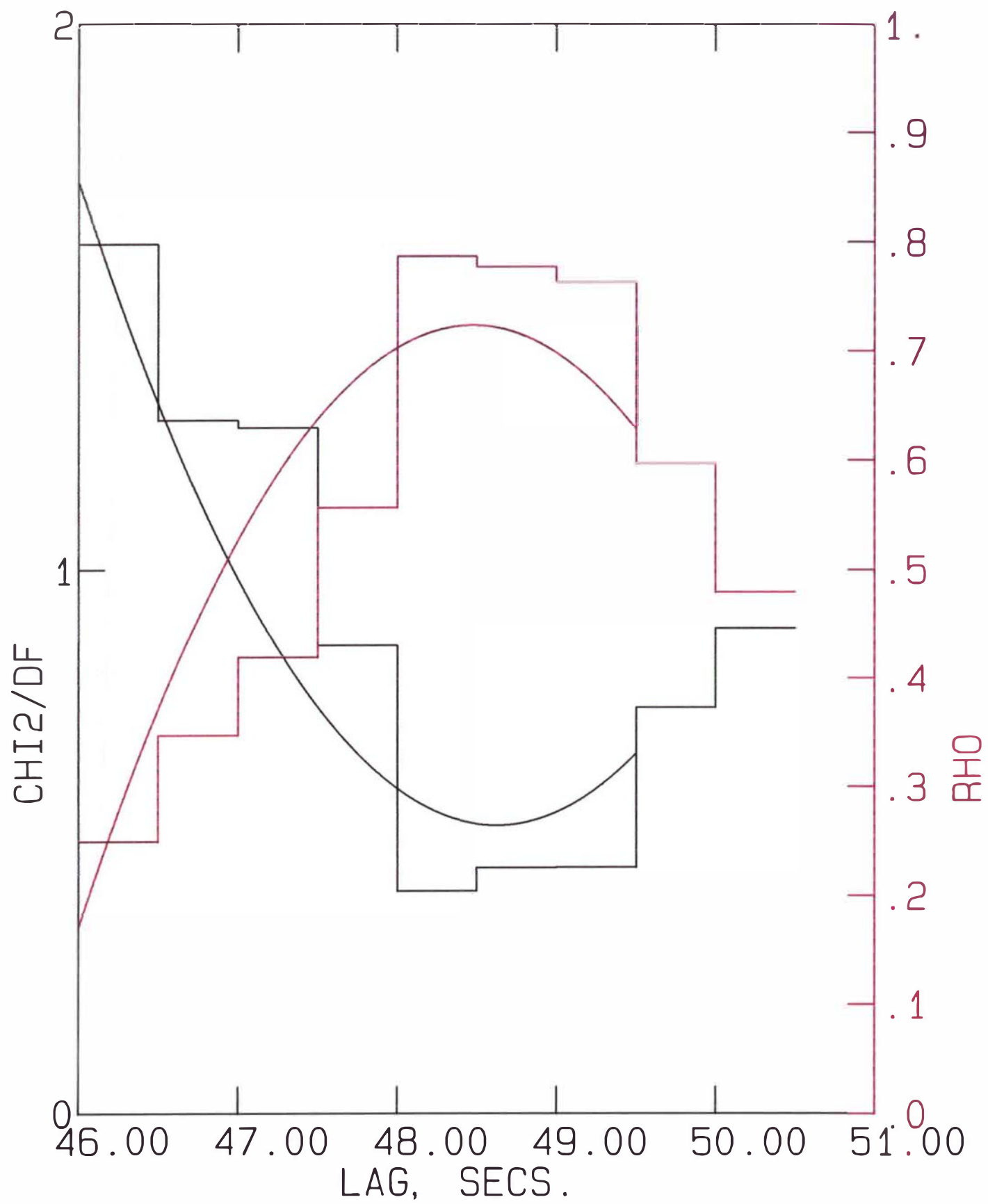
-ULYSSES RT CORRELATION

29/ 1/94

38597.786

22/ 1/98





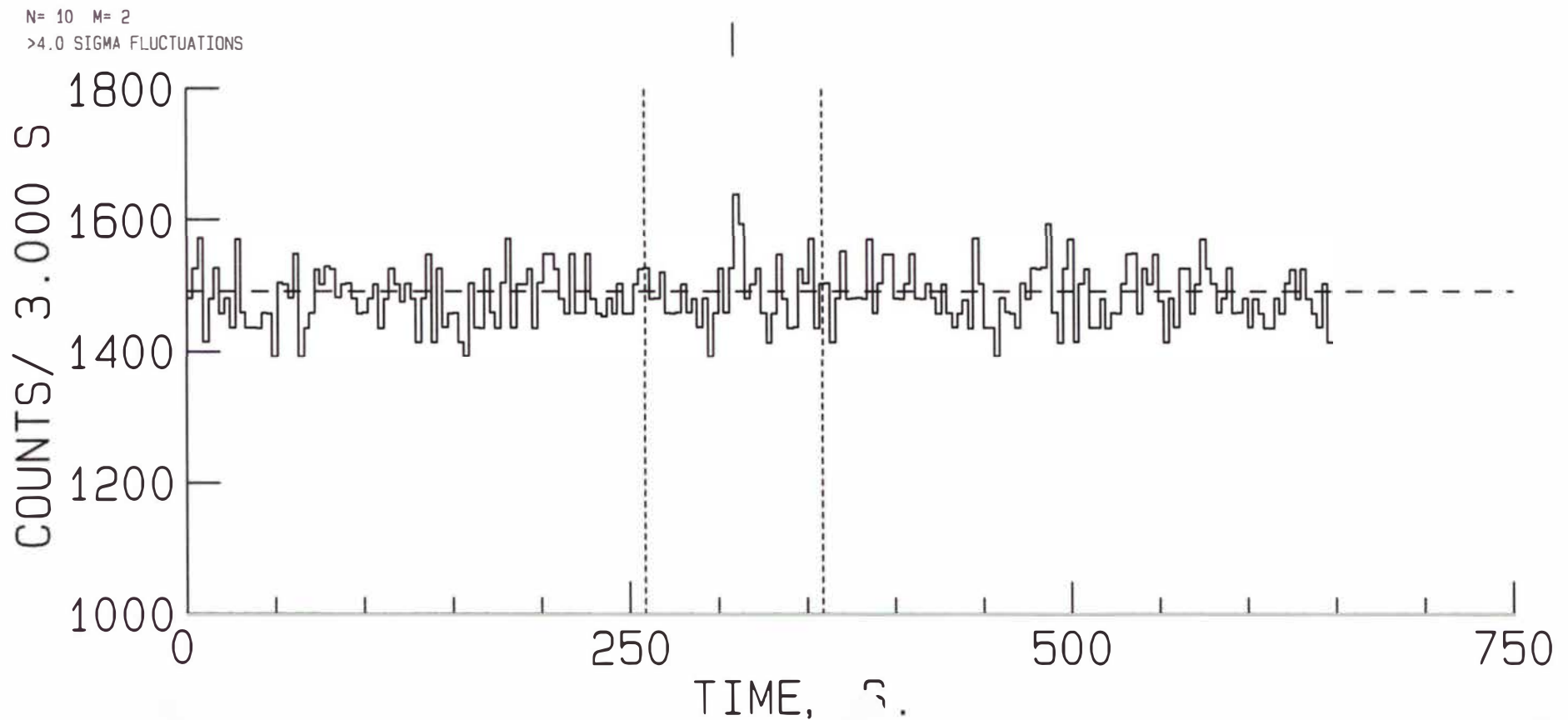
ULYSSES RT

22 / 1 / 98

29 / 1 / 94 38052.471 s

0.500 S INTERVALS REGROUPED BY 6

20 - 139 keV



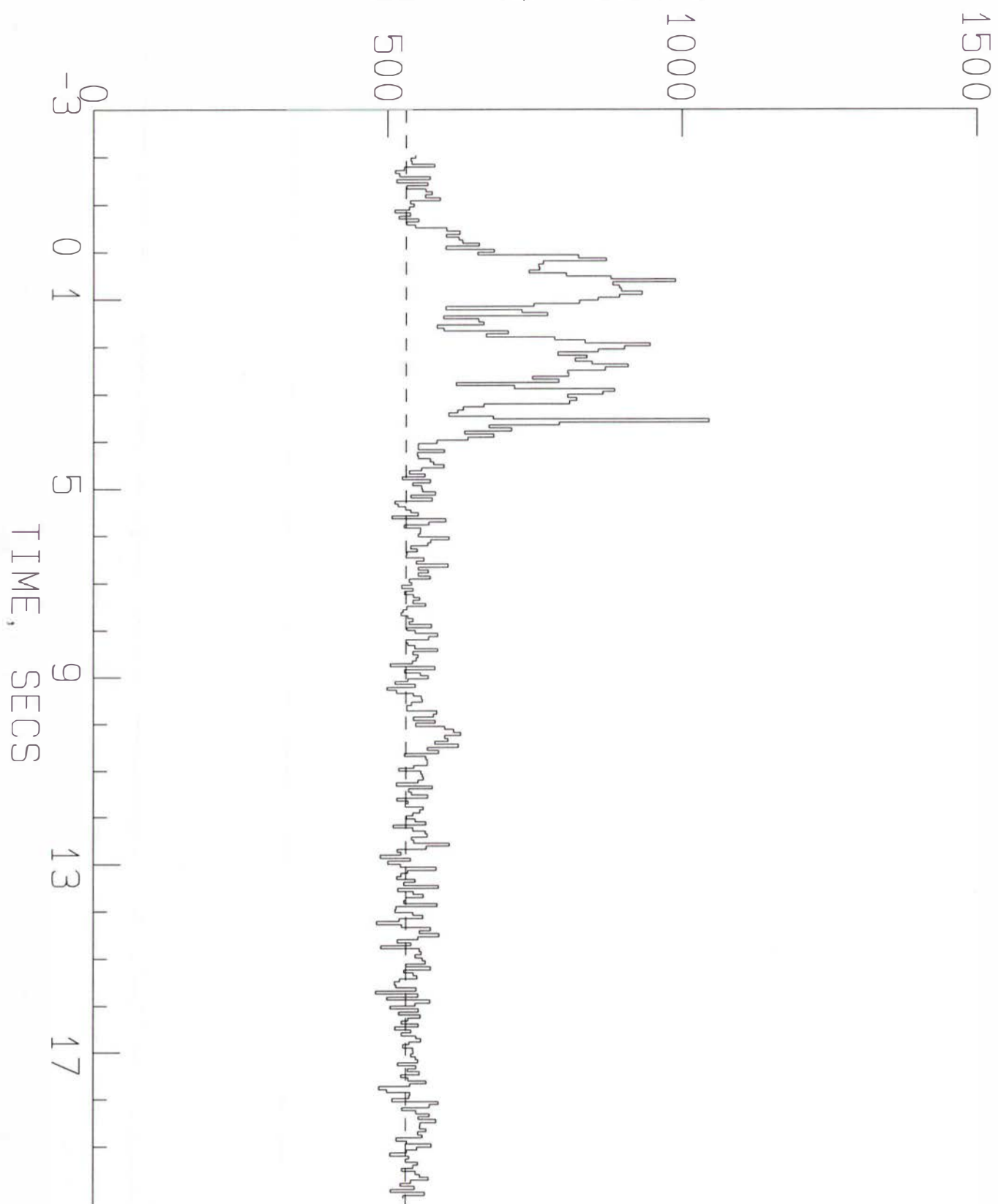
BATSE

29/01/94

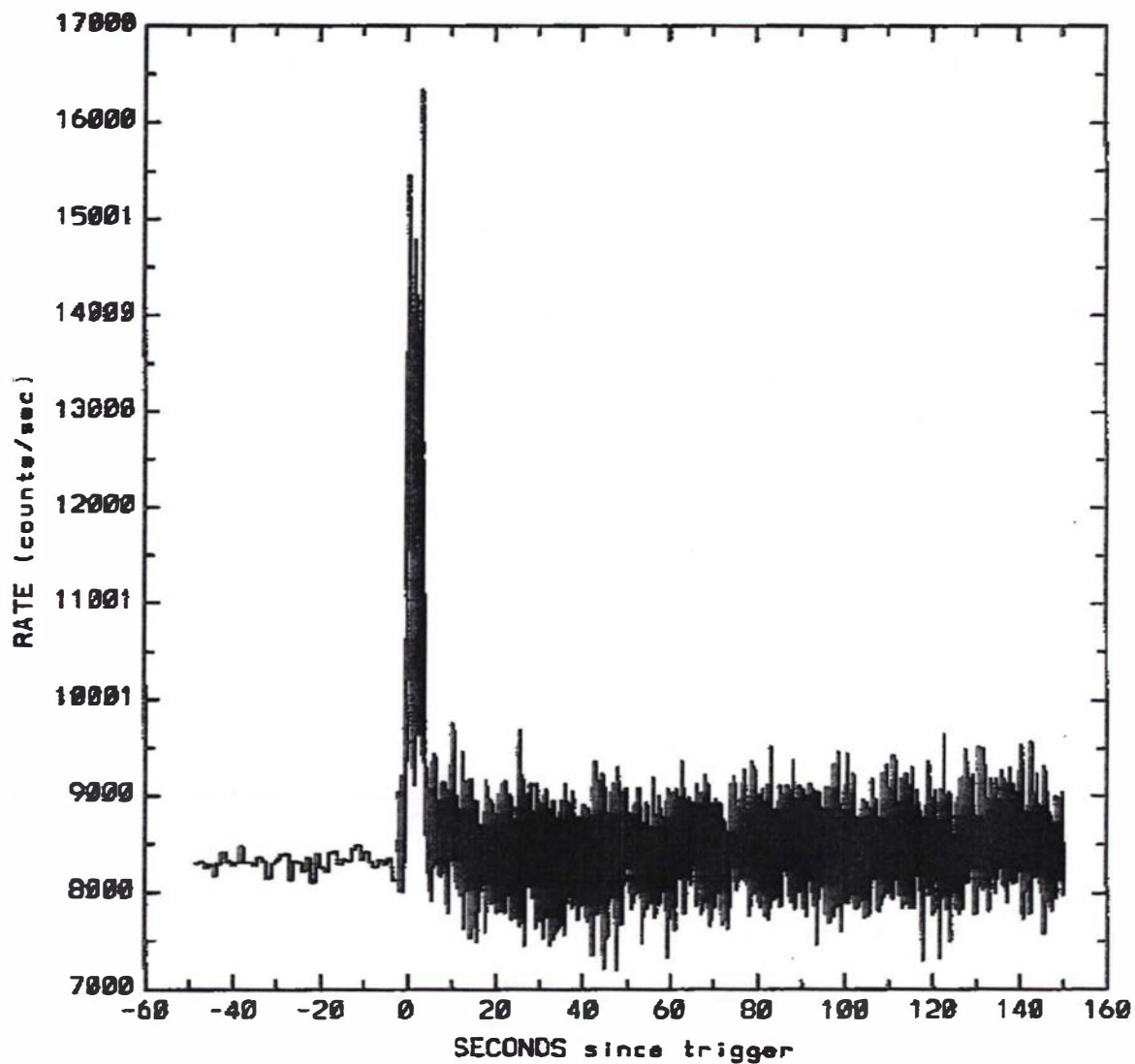
38597.786

25- 100 keV

COUNTS/ .064 S



DATA FOR K. HURLEY



8-FEB-1994 14:44:54

Created by MOPS BD
(Burst Display)
Version 2.29

Trigger = 2793

Trigger Time:
9381 / 38597.786Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 secondsDetectors [7..0]:
10110000Discriminators:
1 1, 2Quality Mask:
BDISP1

From root Mon Feb 7 15:46 1994
Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)
id AA02268; Mon, 7 Feb 94 15:46:24
Received: from xtelab.gsfc.nasa.gov by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA13098; Mon, 7 Feb 1994 14:50:14 +0800
Received: by xtelab.gsfc.nasa.gov (4.1/1.35)
id AA01796; Mon, 7 Feb 94 17:53:46 EST
Date: Mon, 7 Feb 94 17:53:46 EST
From: scott@xtelab.gsfc.nasa.gov (Scott Barthelmy)
Message-Id: <9402072253.AA01796@xtelab.gsfc.nasa.gov>
To: khurley@space6.ssl.berkeley.edu
Subject: ok & a question
Cc: scott@xtelab.gsfc.nasa.gov
Content-Length: 1083
Status: R

Kevin,

07 Feb 94

No problem about tomorrow. Unless the geometry of the McNamara position, the BACODINE position, and the IPN arc are particularly fortunate, we will probably not invoke our CTIO or VLA ToO's. The VLA is out because of too much tiling for a half degree FOV. And the CTIO Schmidt is out for the same reason with a 0.8deg FOV CCD. And of course KPNO Schmidt is out because Dec=-50 is too far south.

However, what is the possibility of Ulysses detecting anything for BATSE trigger #2793? BACODINE sent a notice to the LLNL GROCSE system and they got good images of that region. So now the question would be to narrow down the scan region. The particulars are:

TJD 9381

SOD 38599 (actually maybe a sec or two sooner than this)

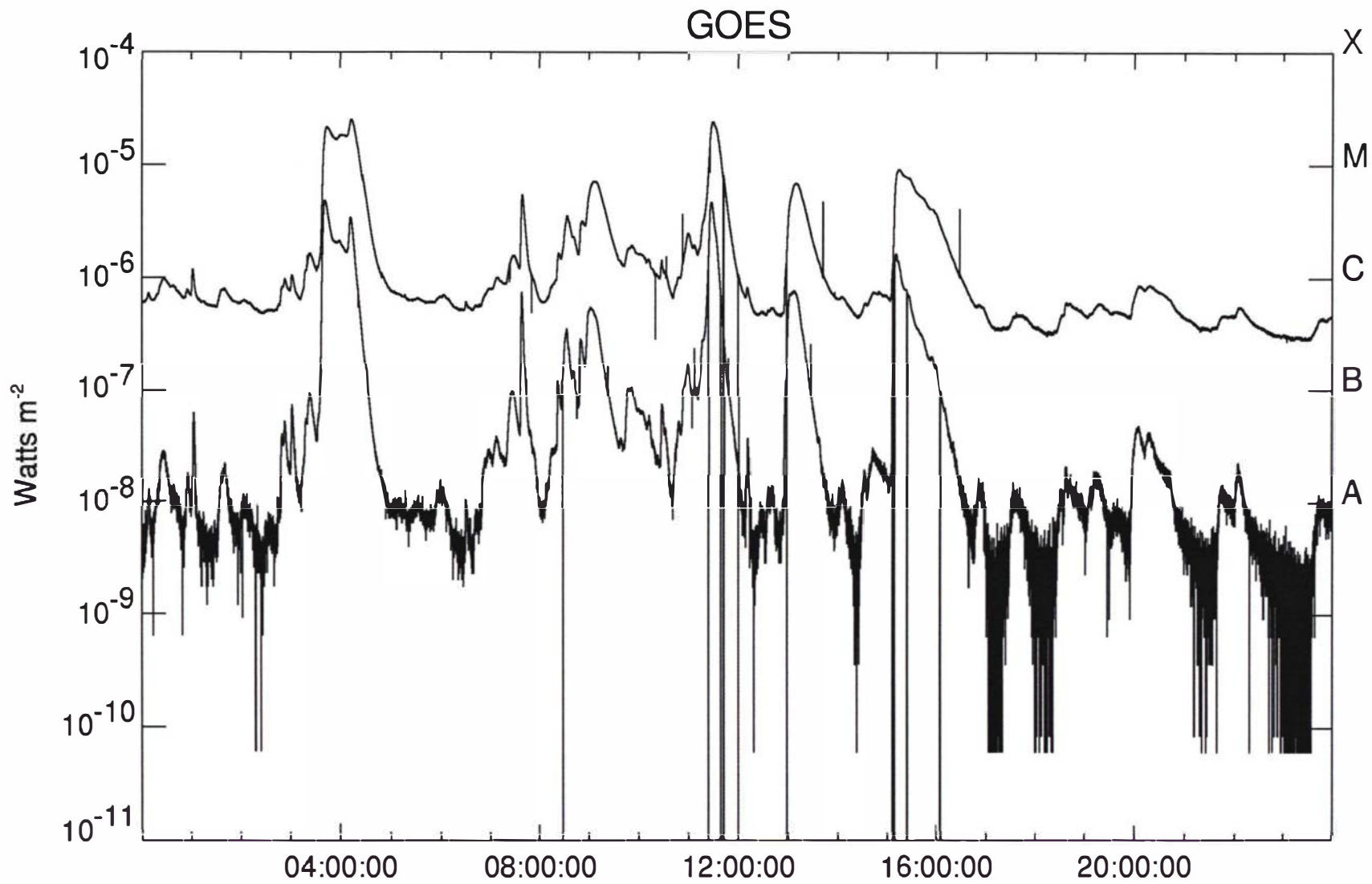
BACODINE RA 129.89

Dec +30.01

It was a 6sec burst of about the same intensity as the 9386.56816 burst.
I can send light curves if you are interested.

If you would like to talk more about either of these items, please do not hesitate to call (or e-mail): 301-286-3106.

--scott



Data Start: 94/01/29, 0000:02

Plot created: 94/01/31, 1439

Channel

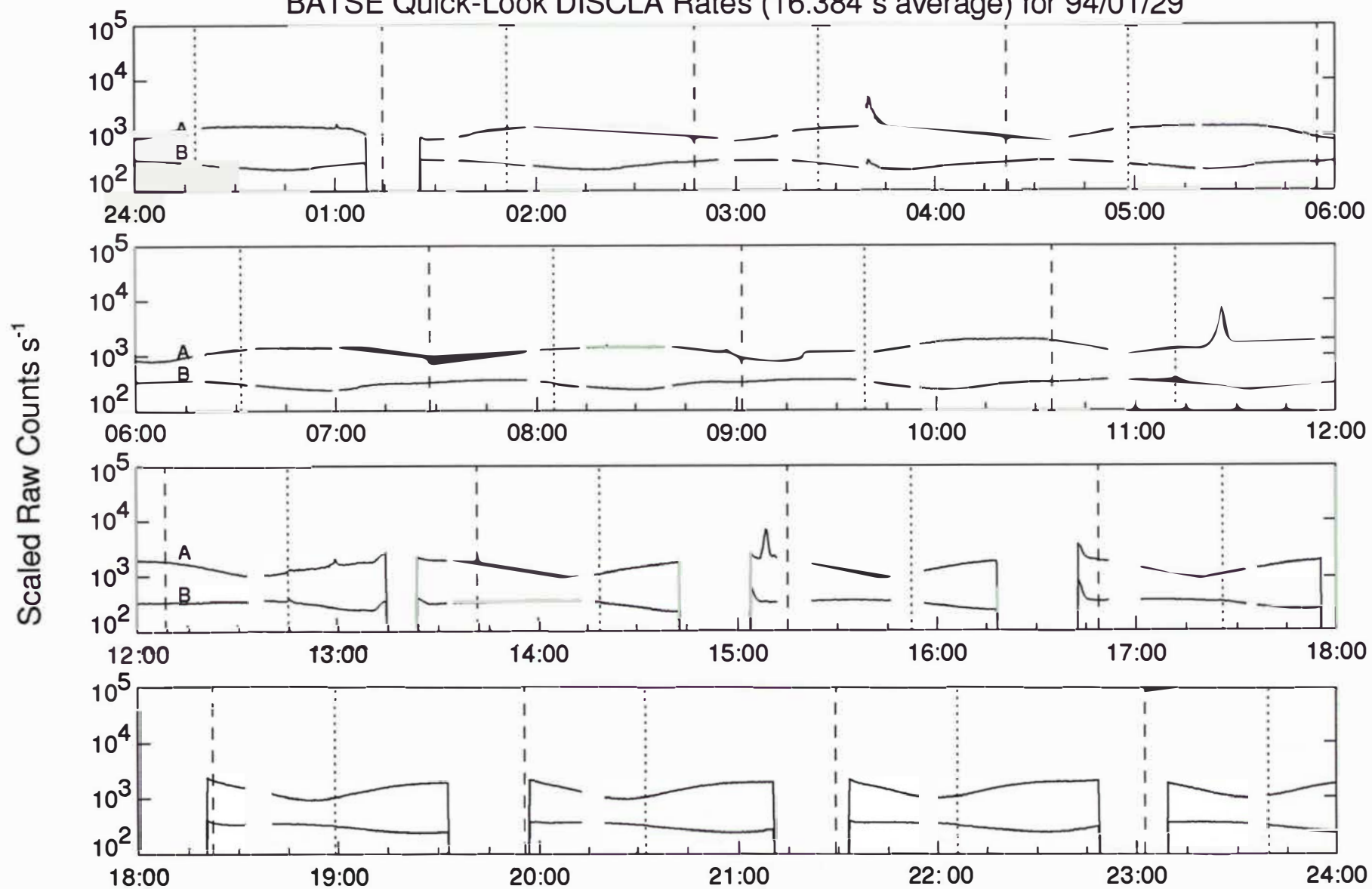
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/29

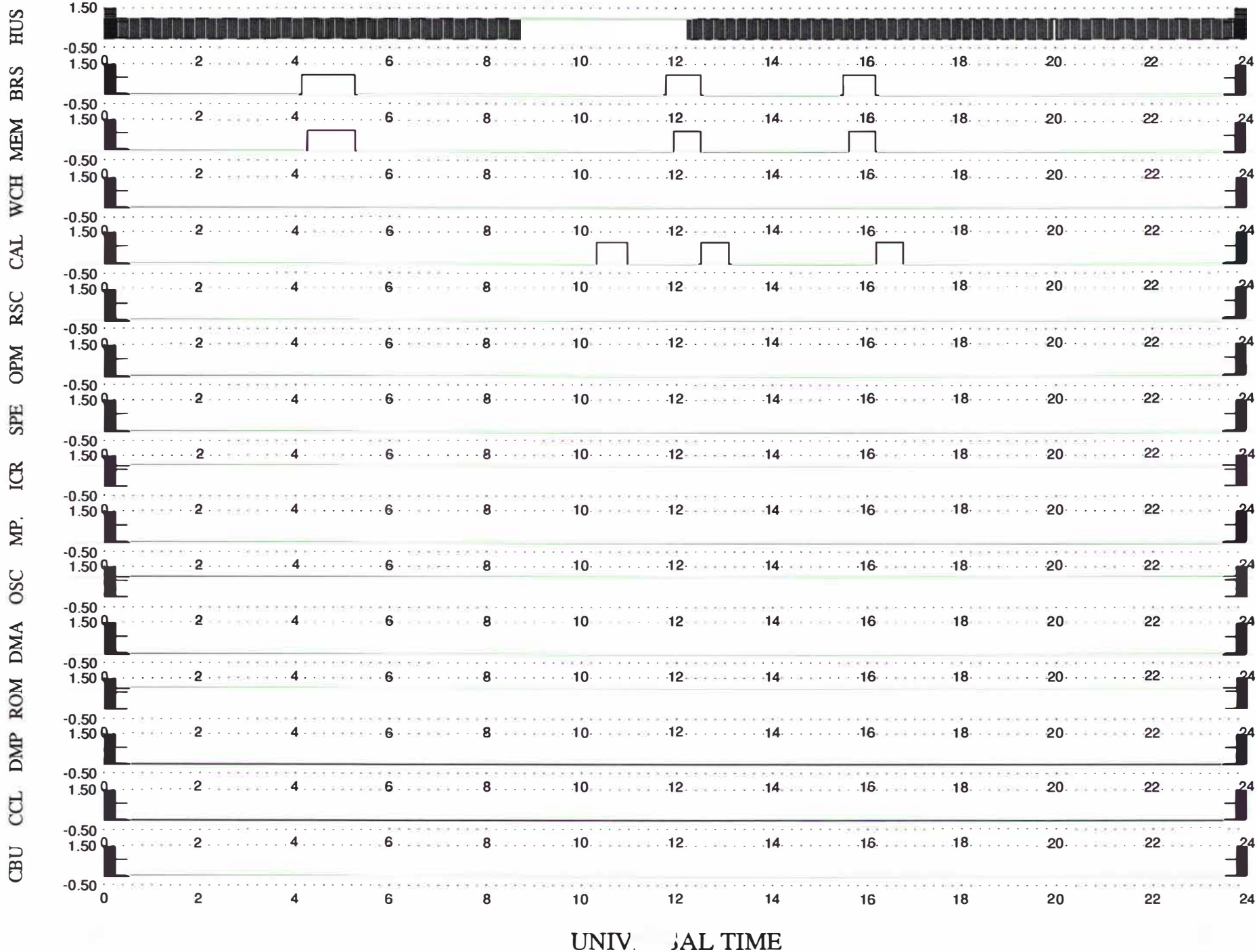


Current Time: 94/01/31, 1436 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

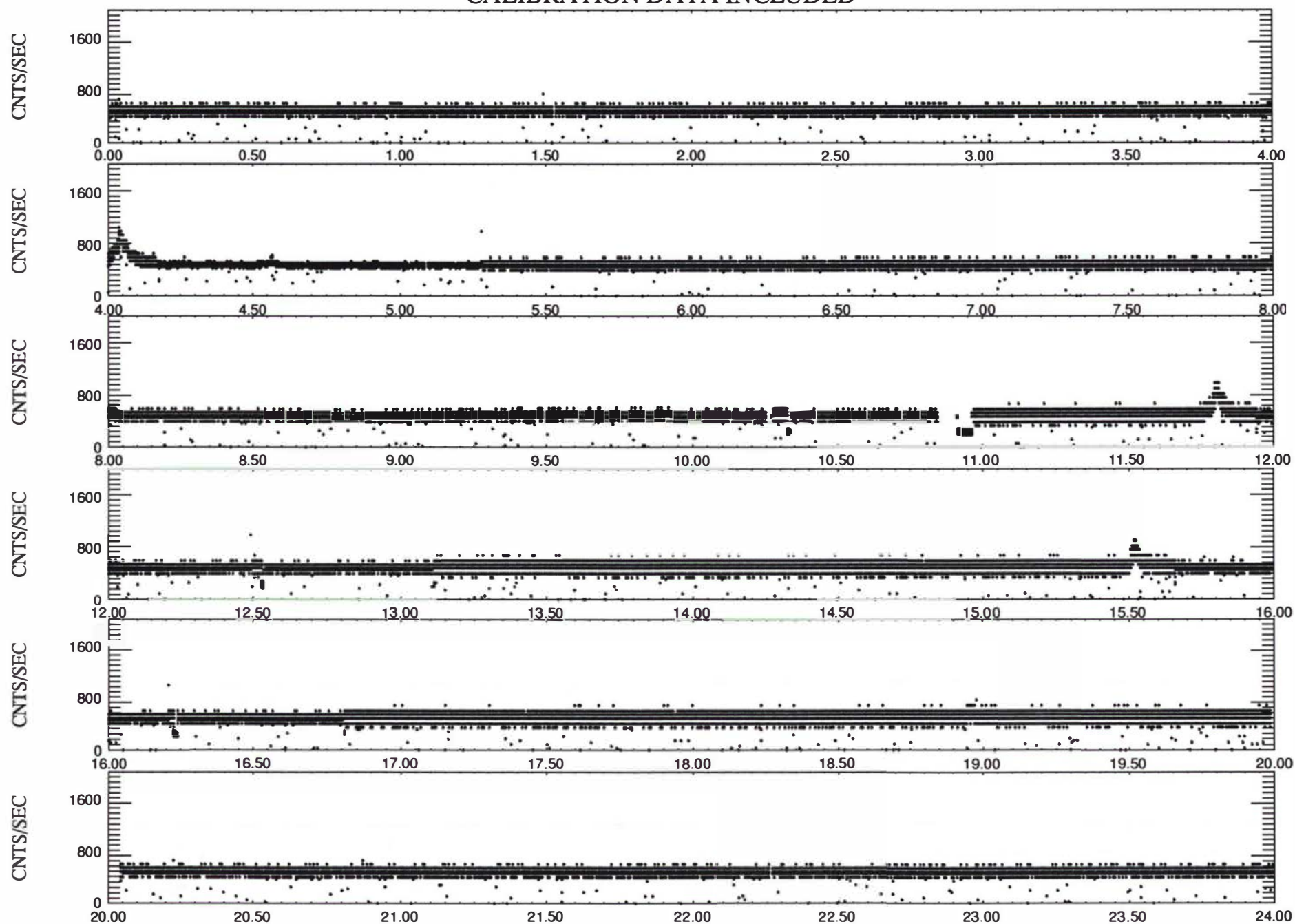
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 0 - 2

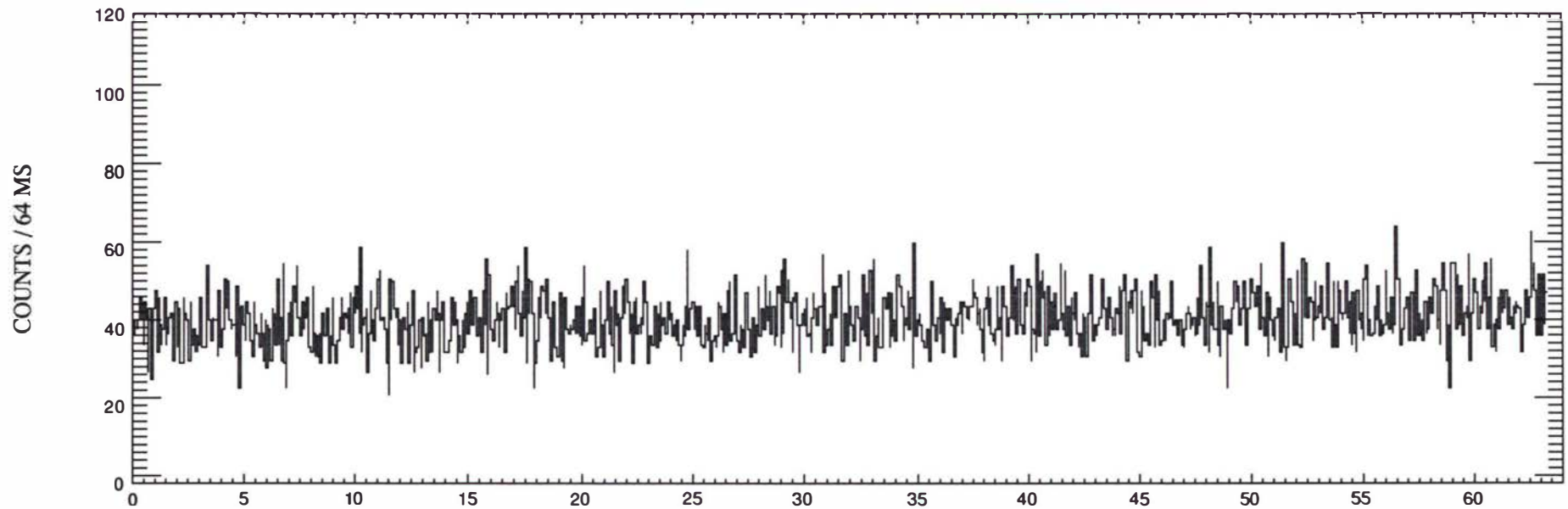


CALIBRATION DATA INCLUDED

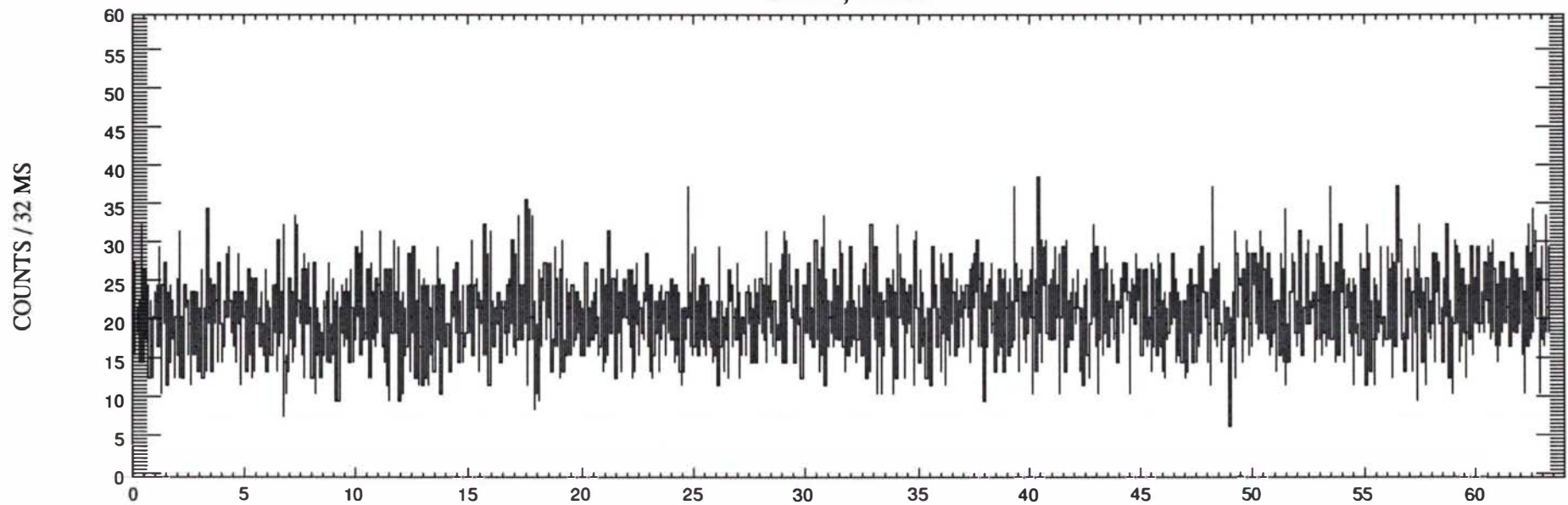


UNIV JAL TIME

Burst Counter 0 at UT= 4.011584960090 h=14441.706 s 04:00:41.706

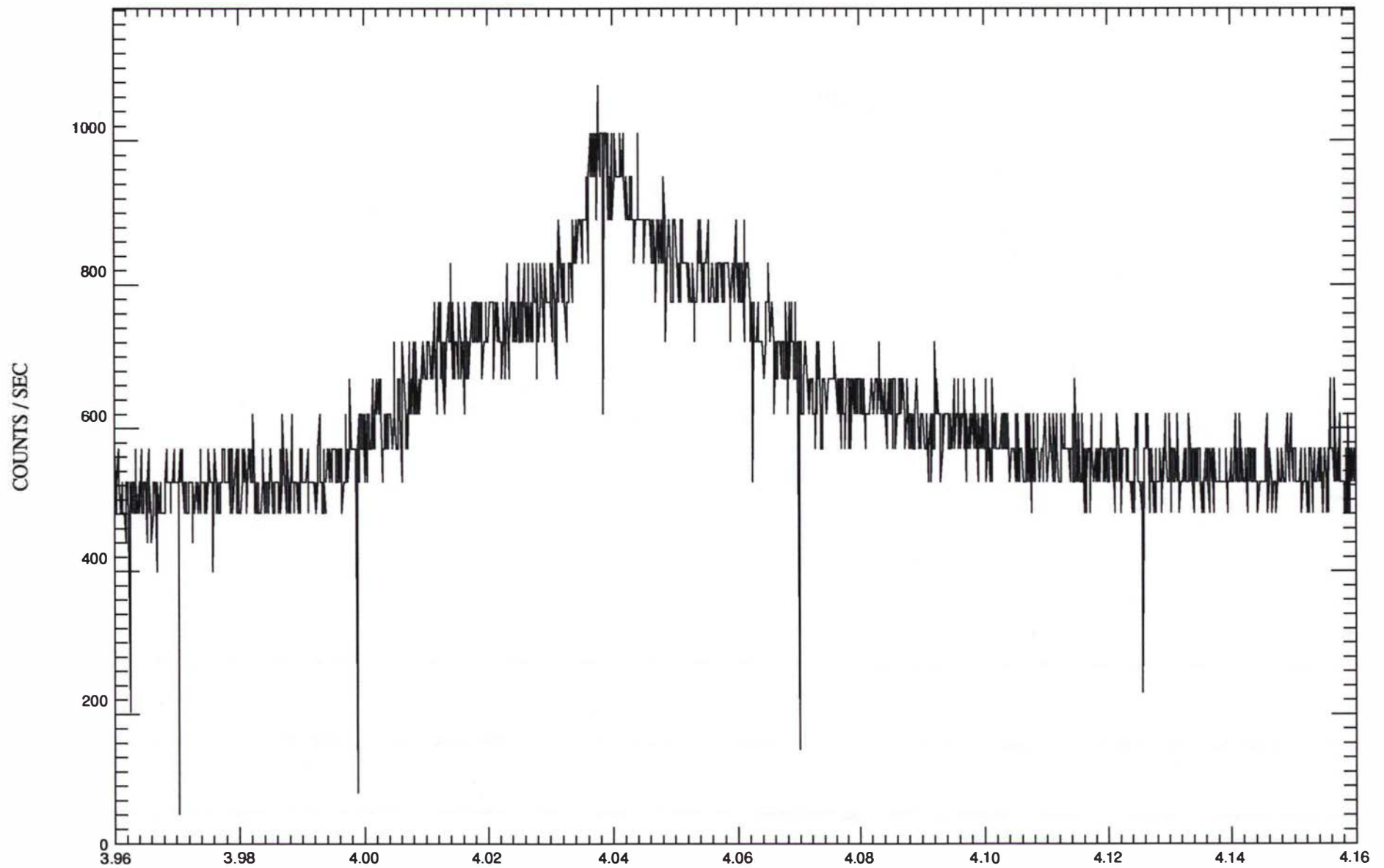


TIME, SECS

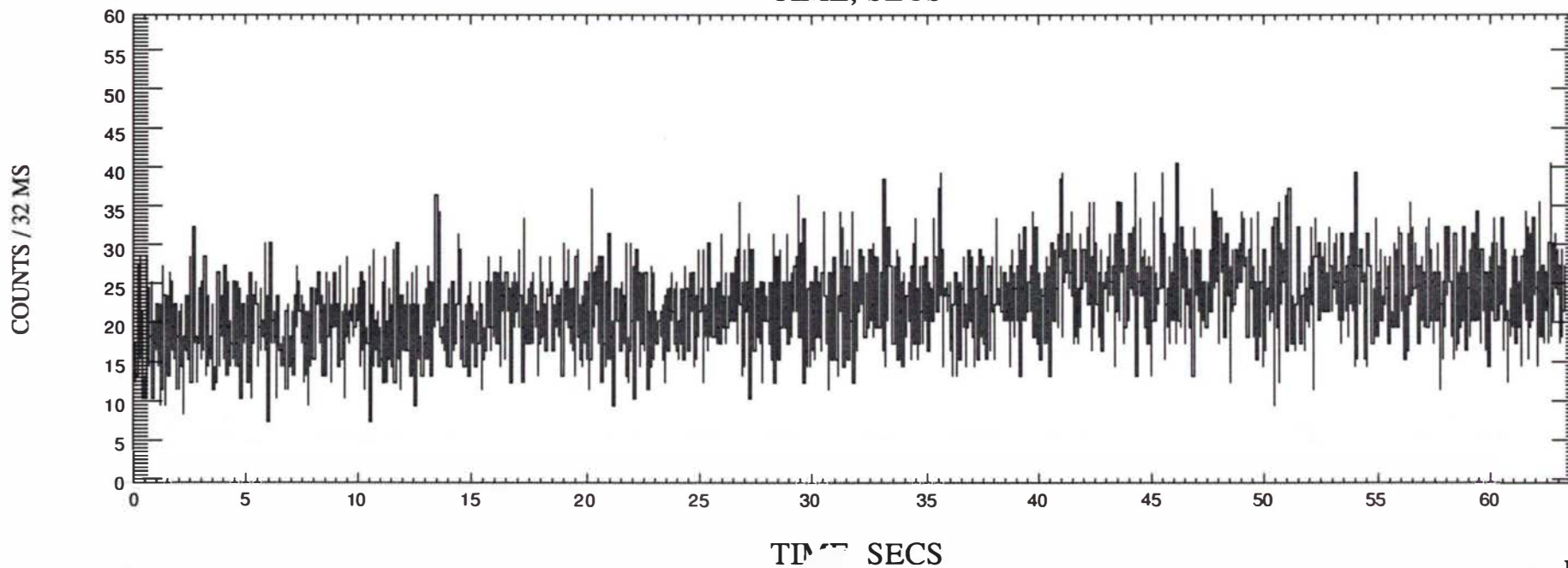
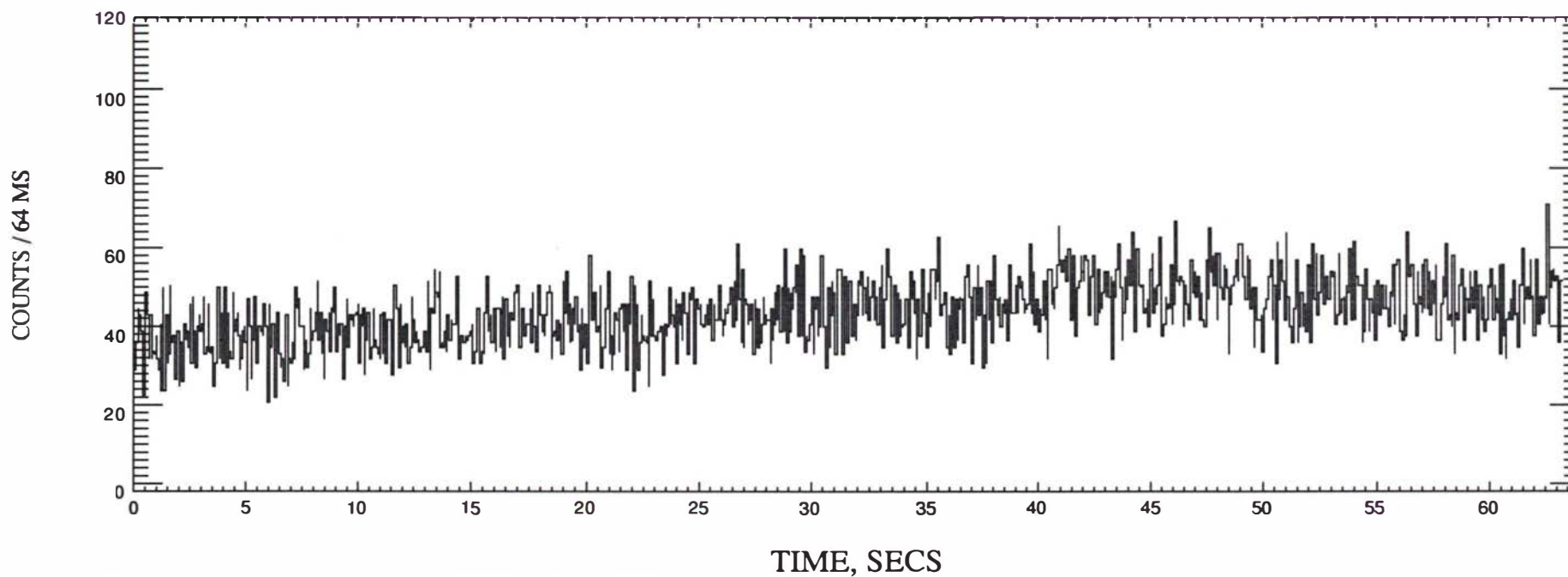


TIME, SECS

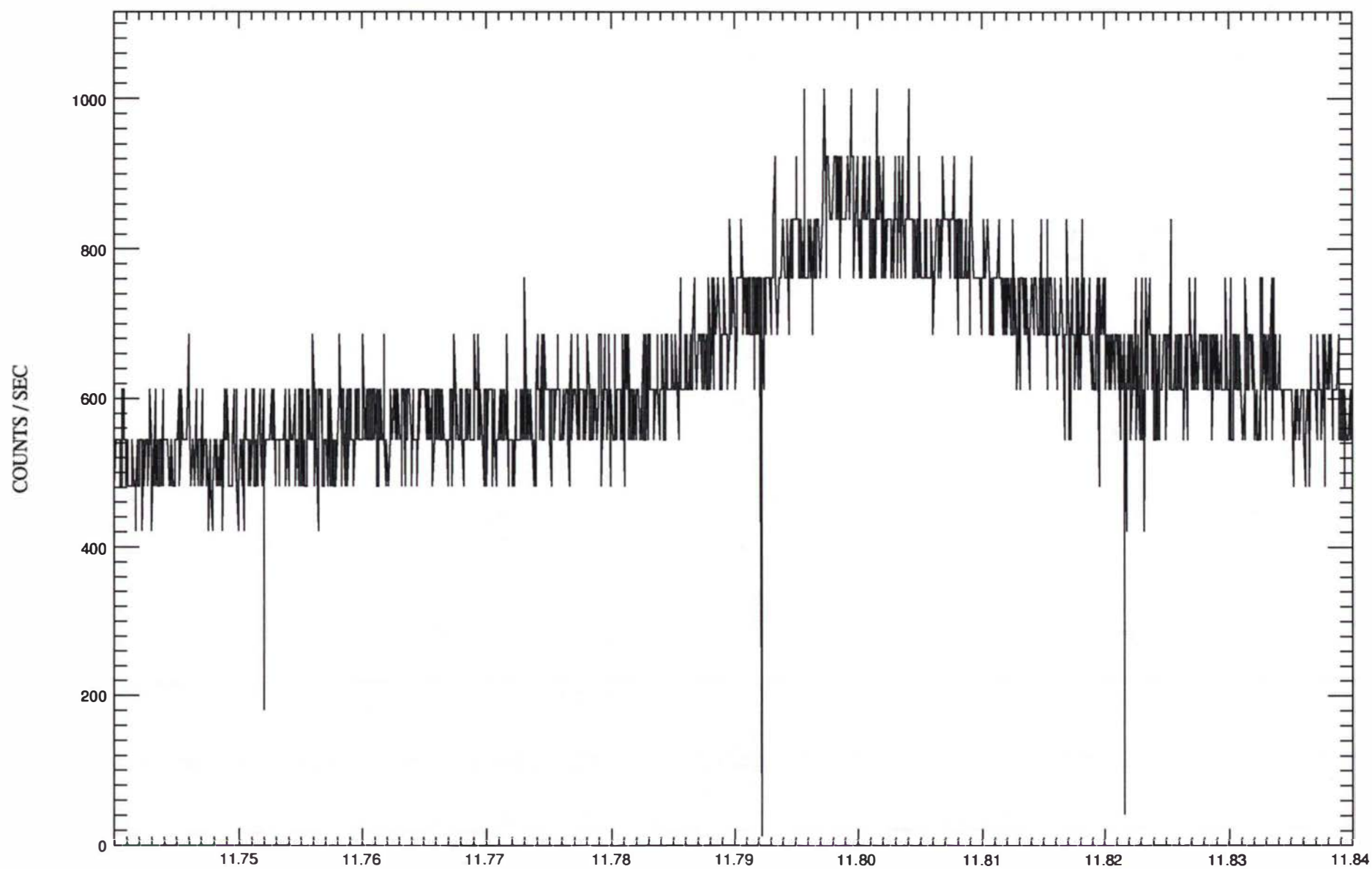
CALIBRATION DATA INCLUDED



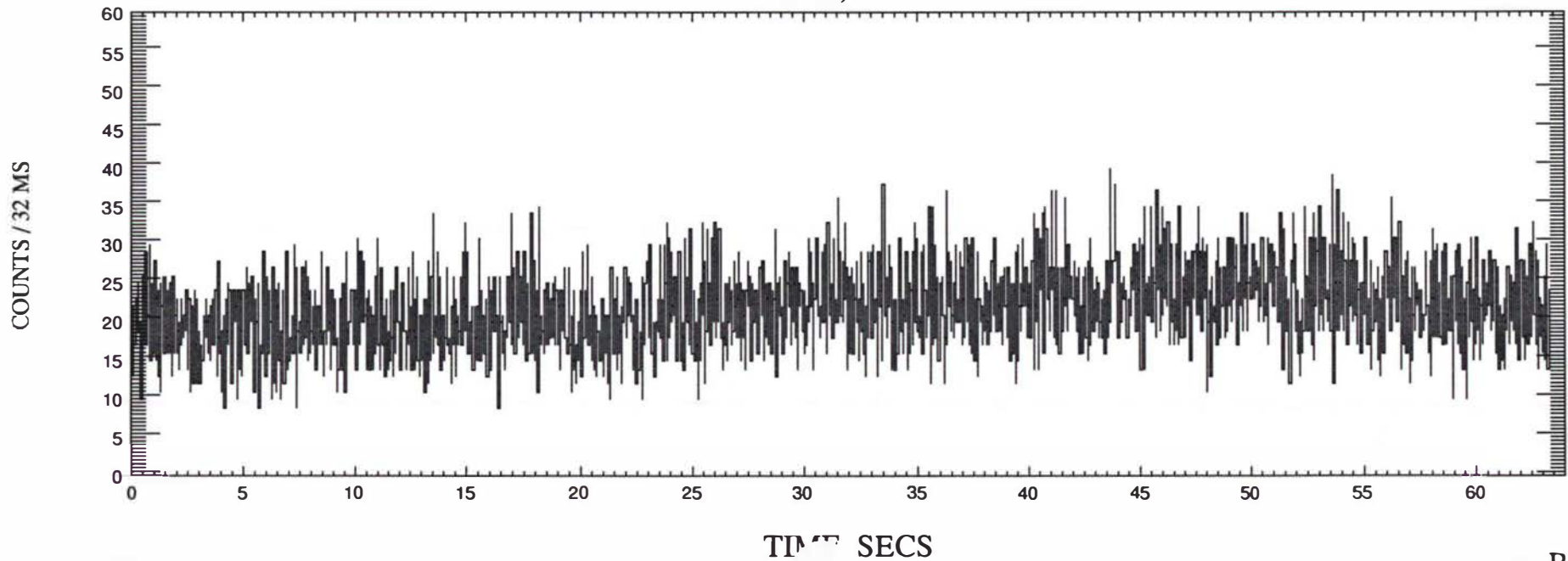
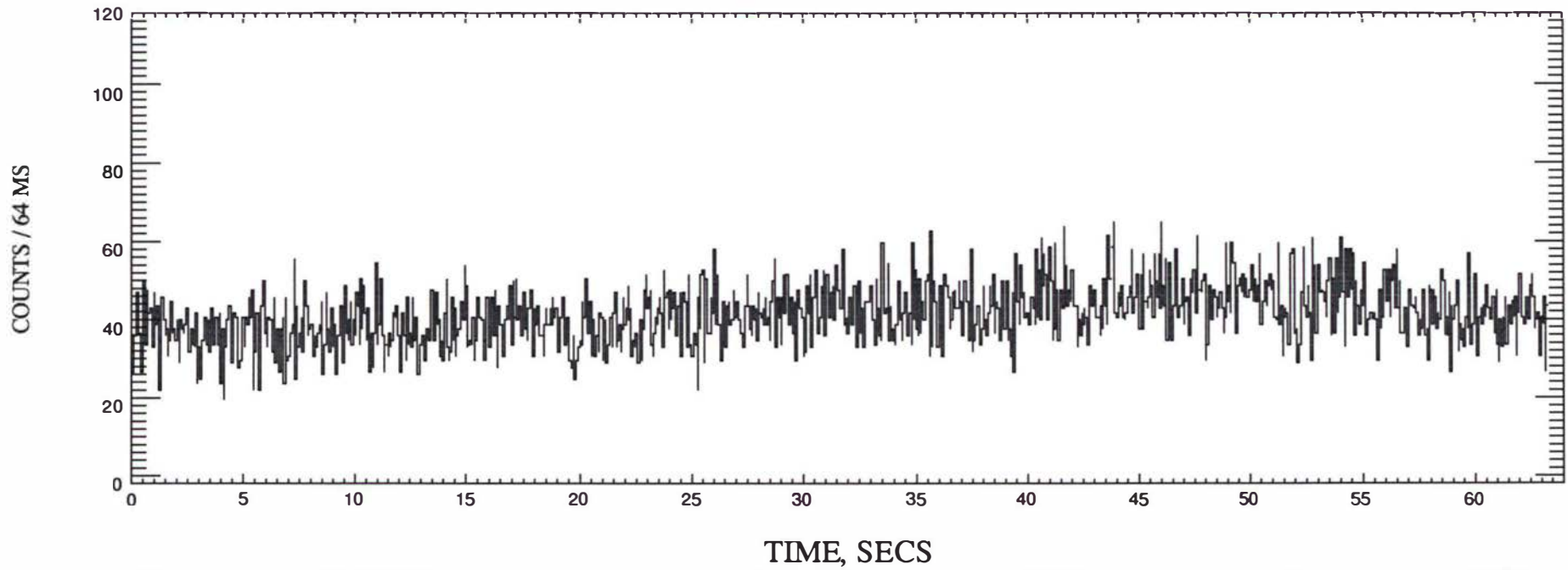
Burst Counter 1 at UT=11.788063129849 h=42437.027 s 11:47:17.027



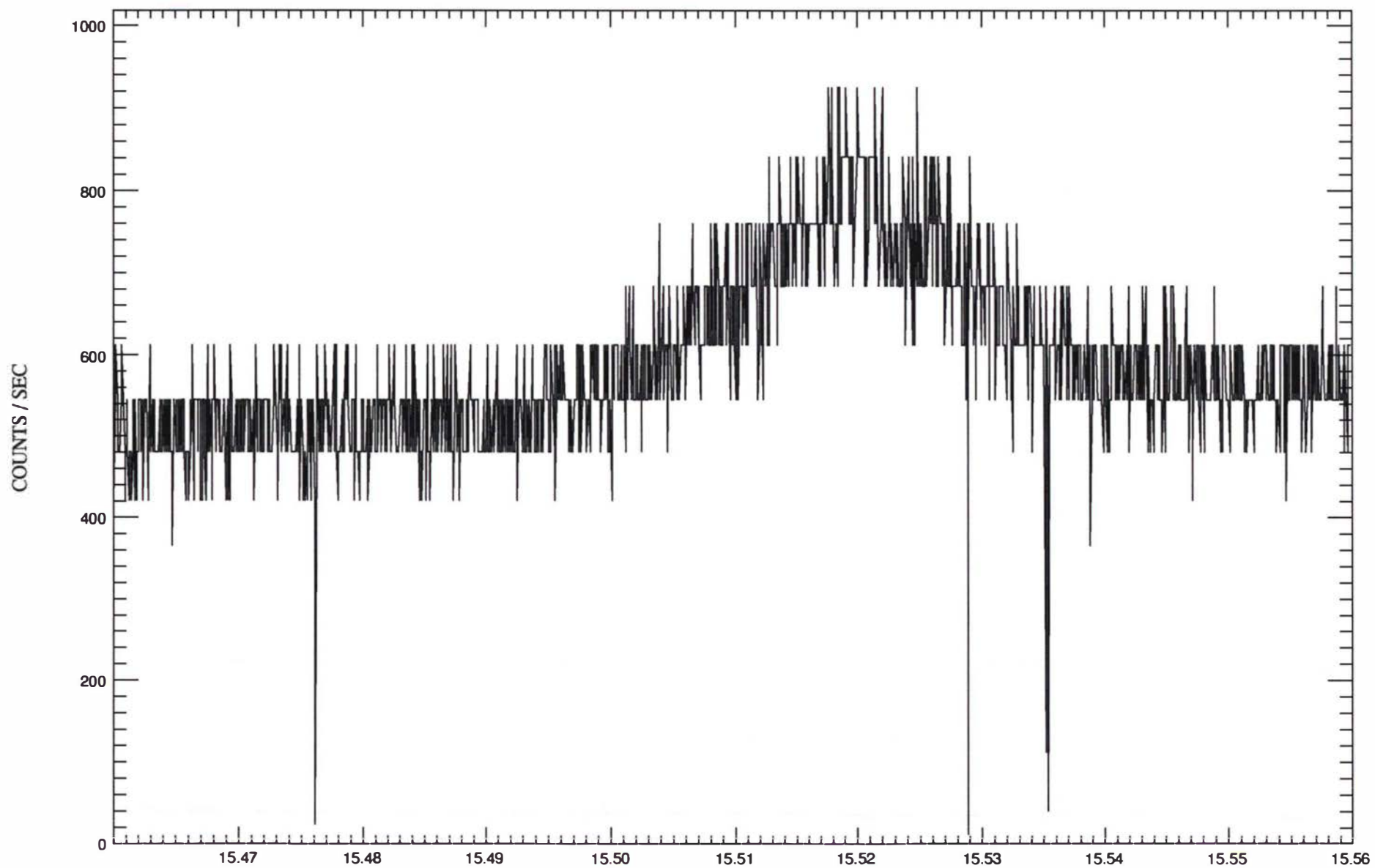
CALIBRATION DATA INCLUDED

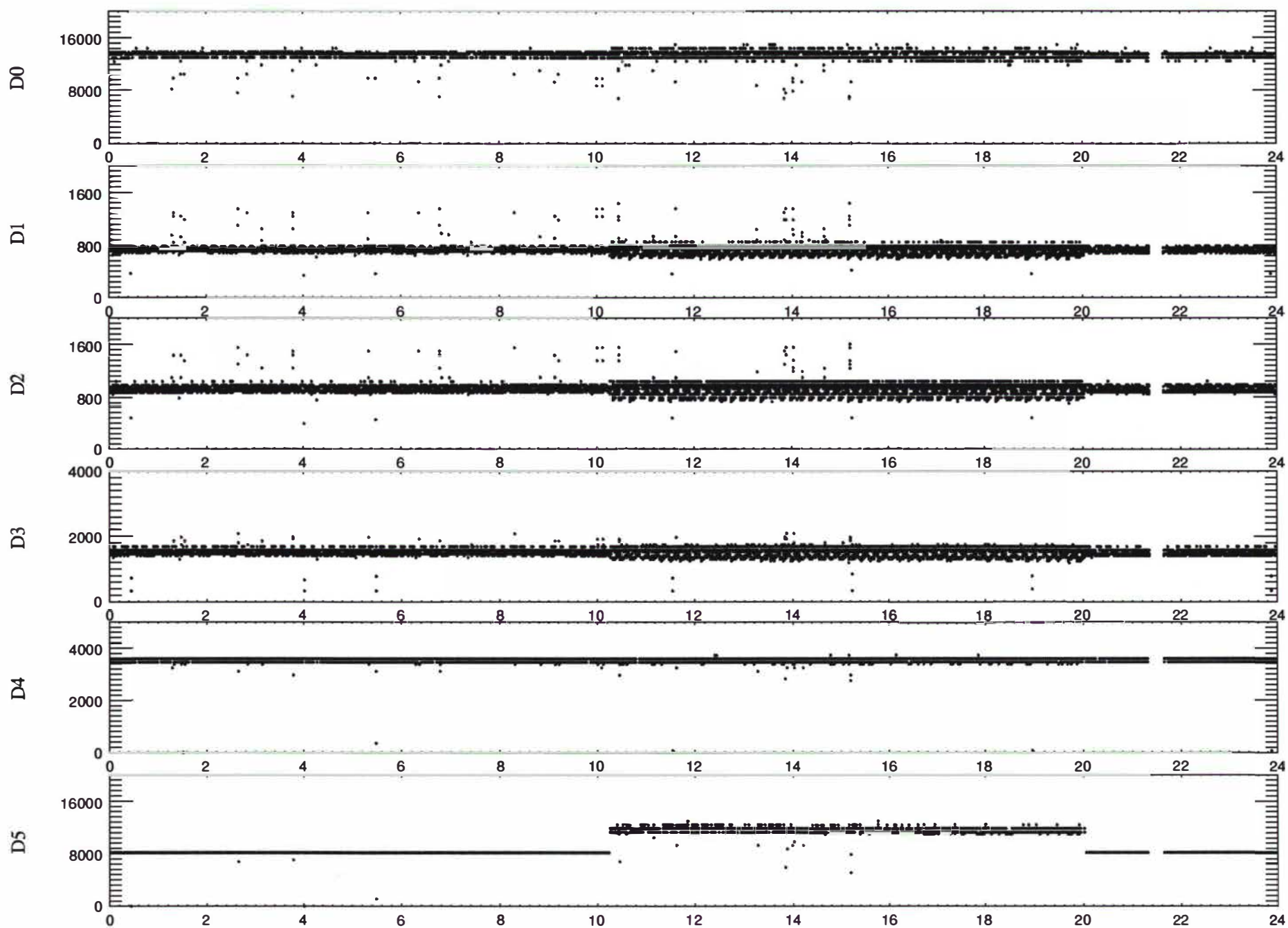


Burst Counter 2 at UT=15.508537012736 h=55830.733 s 15:30:30.733

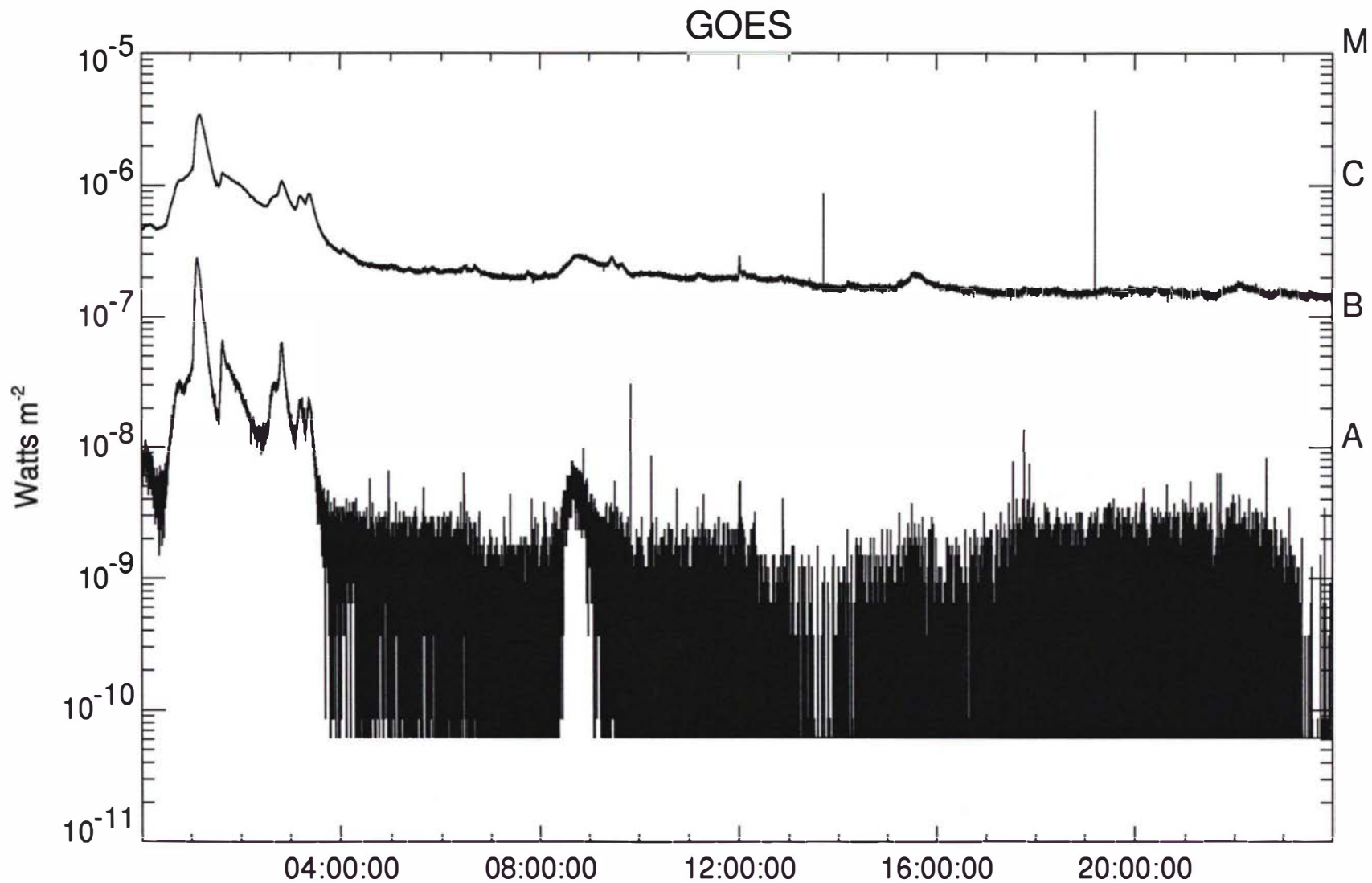


CALIBRATION DATA INCLUDED





UNIV. AL TIME



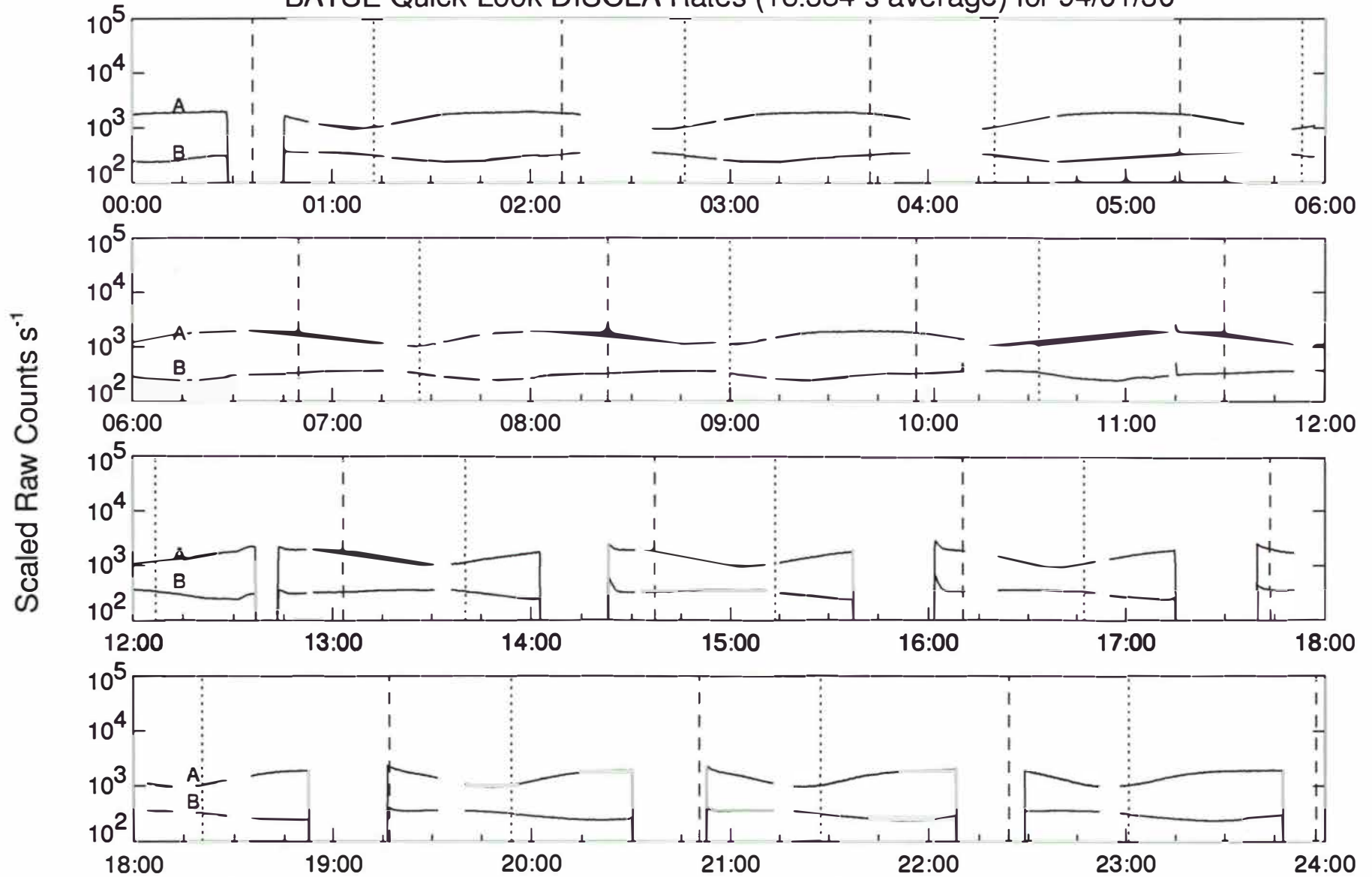
Data Start: 94/01/30, 0000:02

Plot created: 94/01/31, 1439

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 (16.384 s average) for 94/01/30

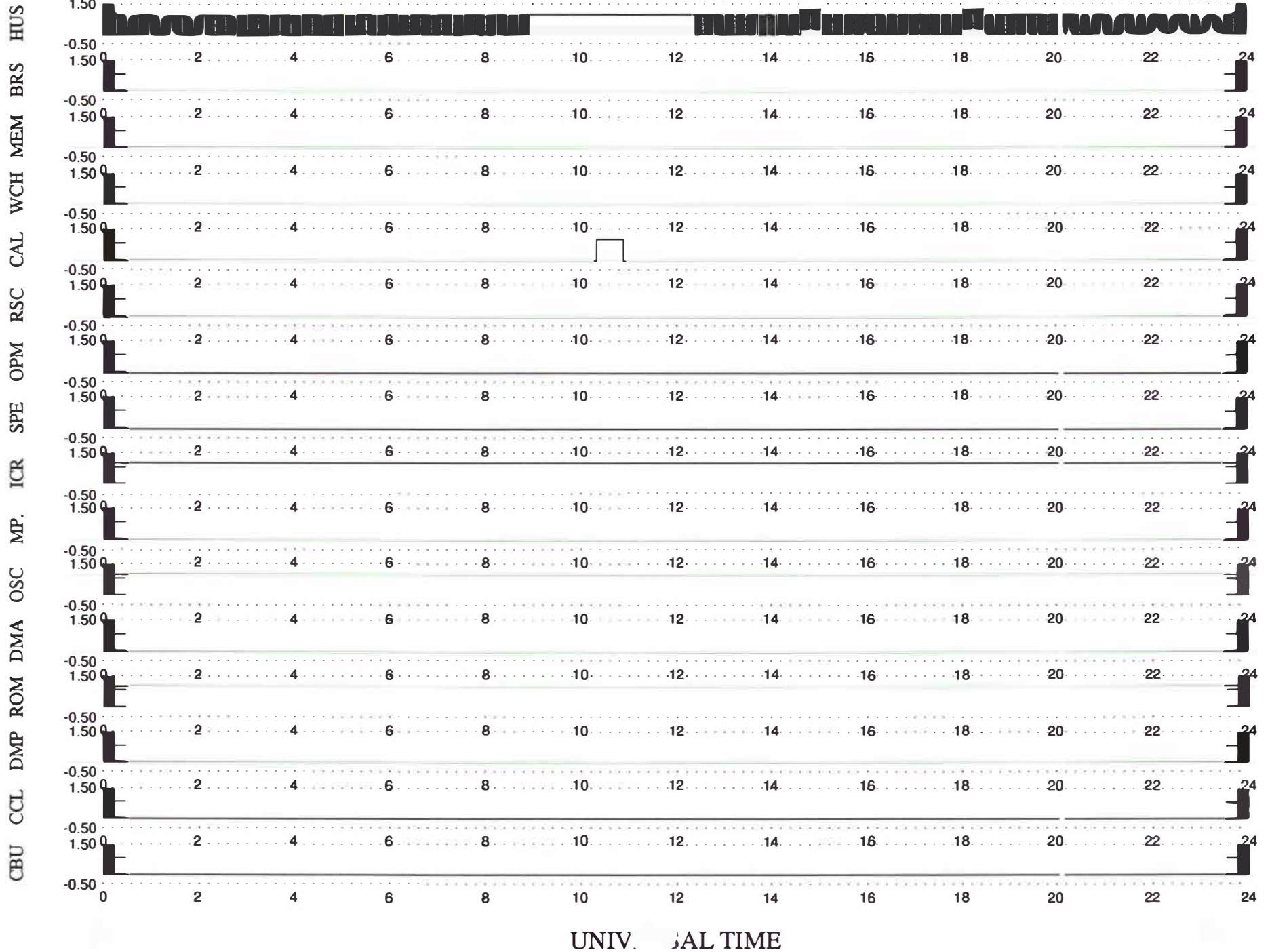


Current Time: 94/02/03, 2009 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

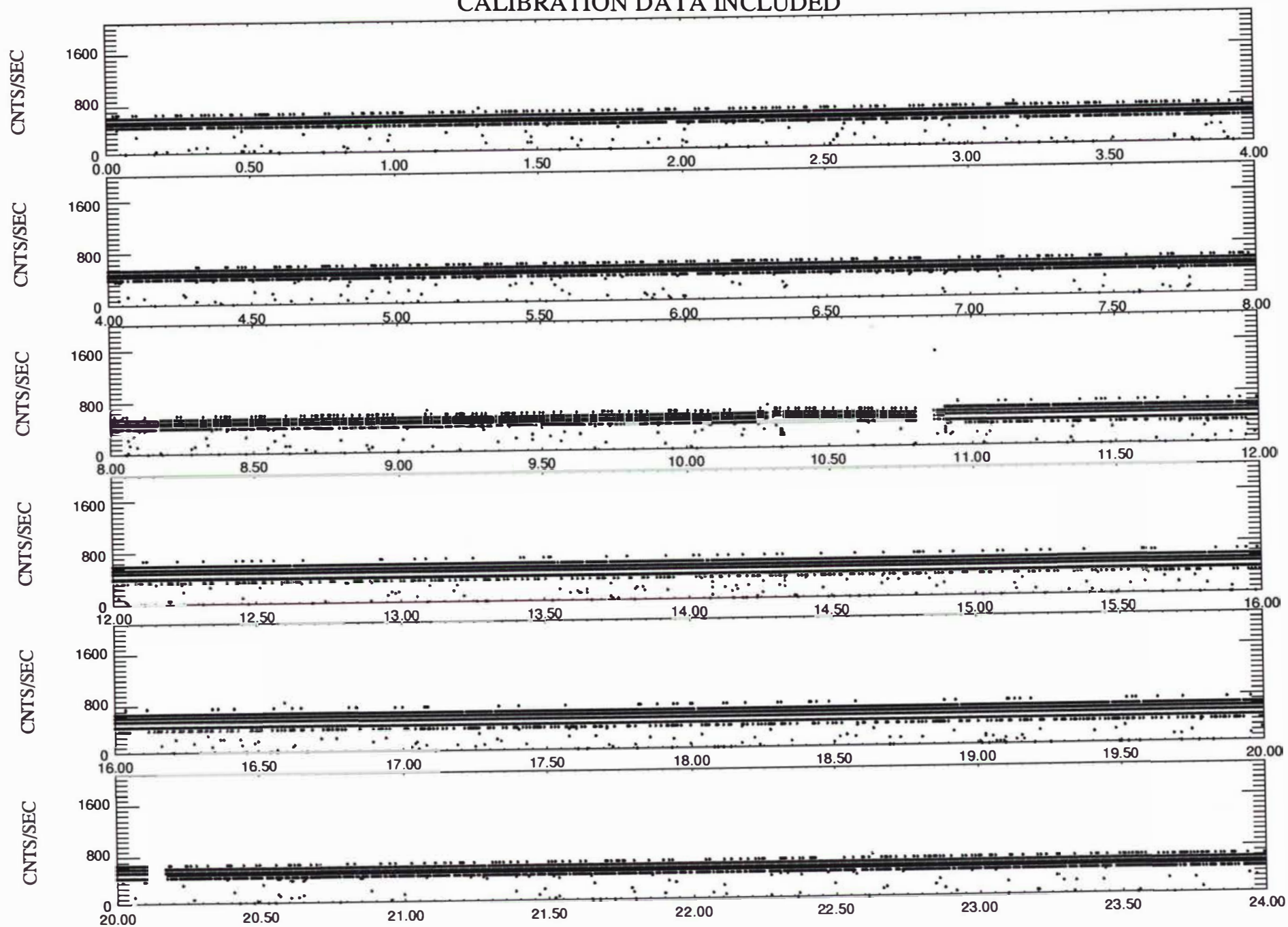
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

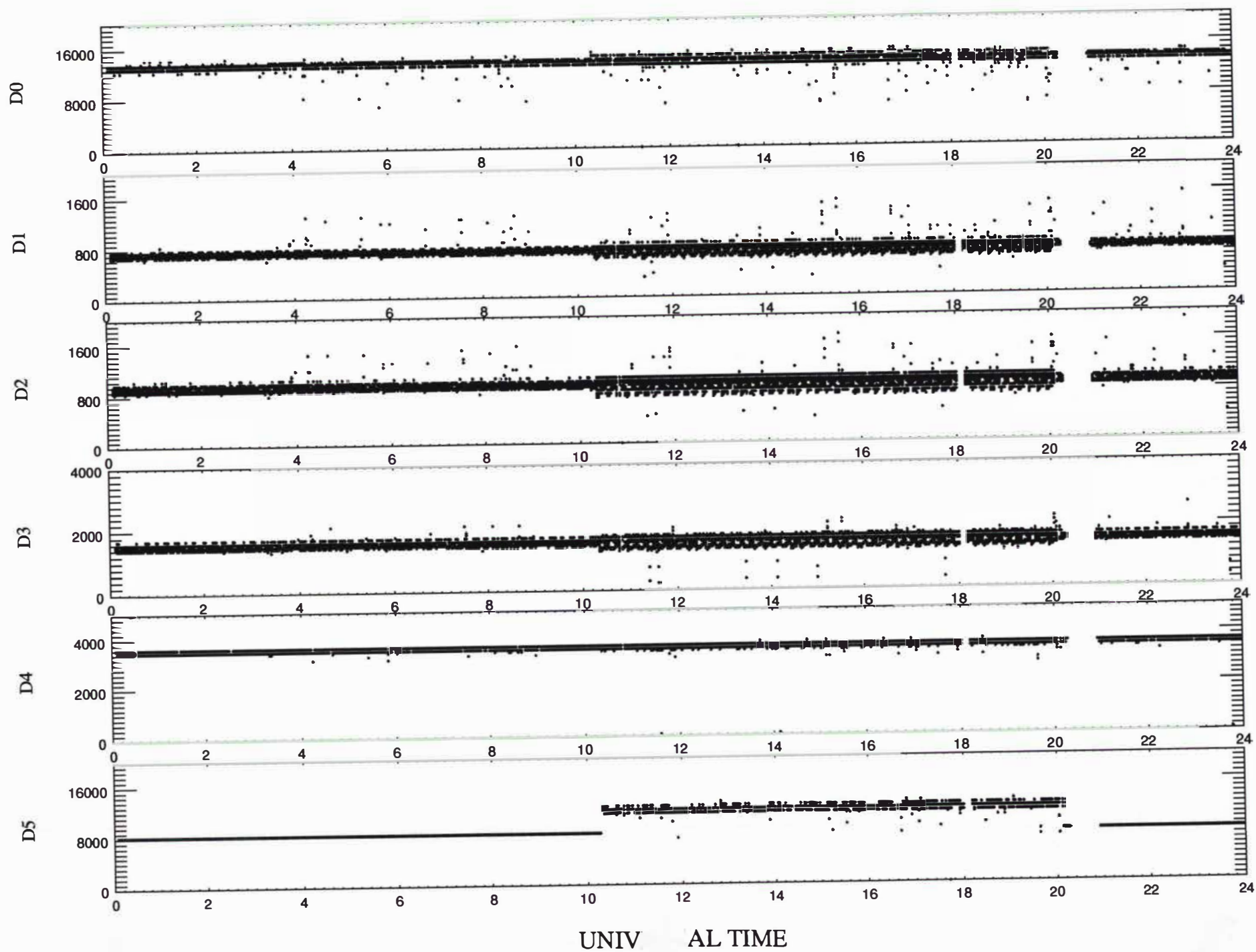
NO BURST (2)

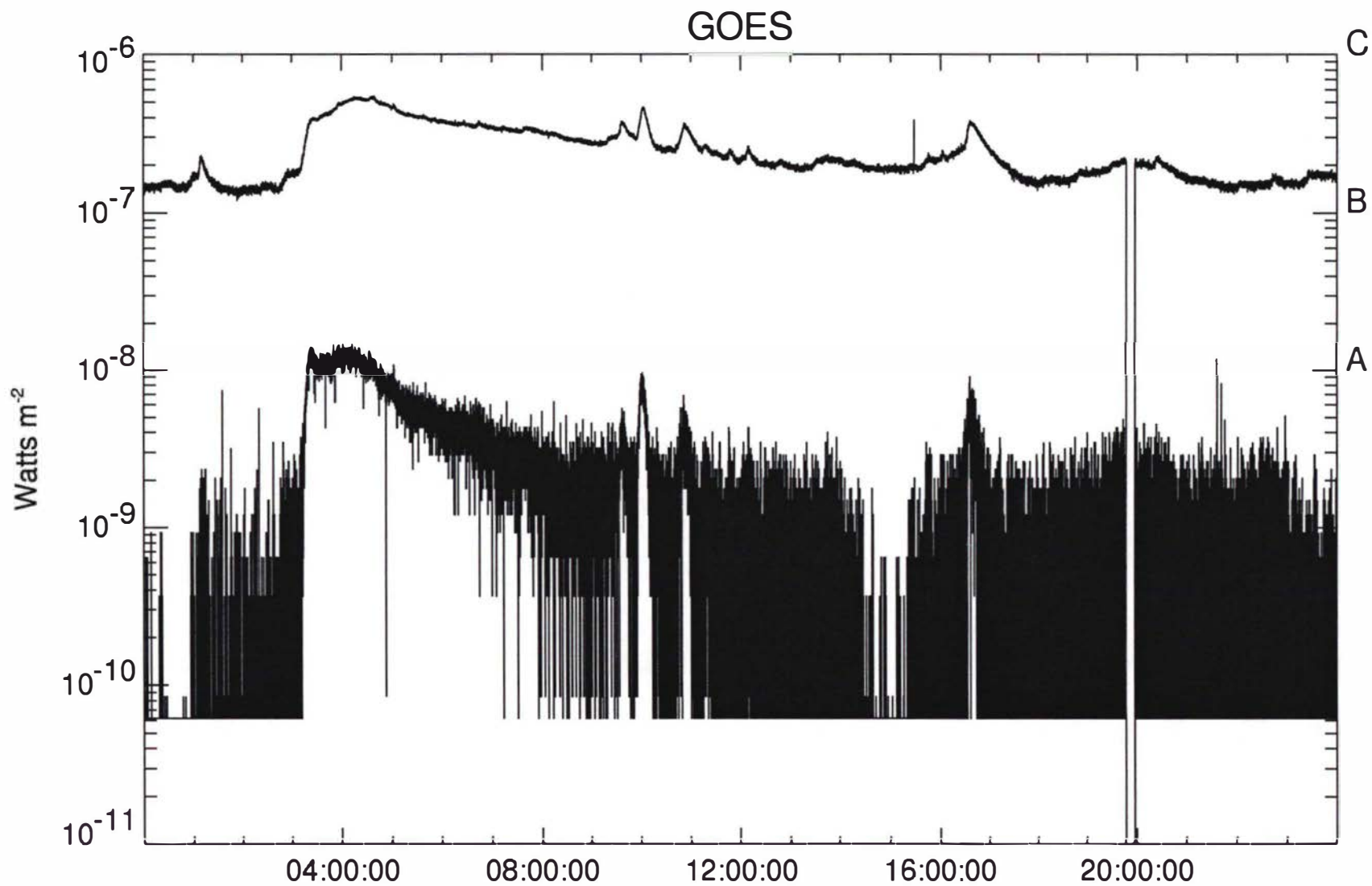


CALIBRATION DATA INCLUDED



UNIV AL TIME





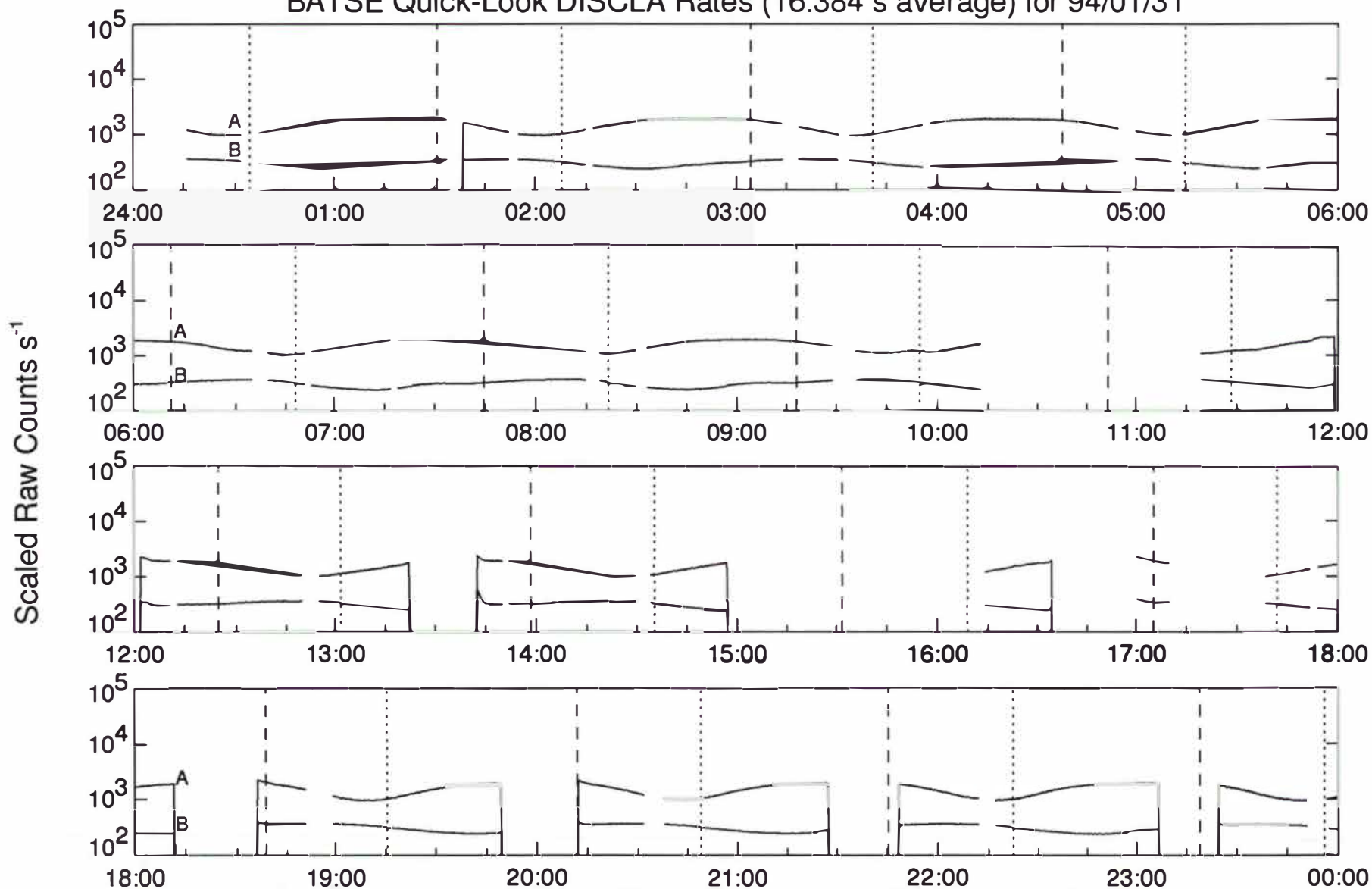
Data Start: 94/01/31, 0000:02

Plot created: 94/02/03, 2011

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (16.384 s average) for 94/01/31

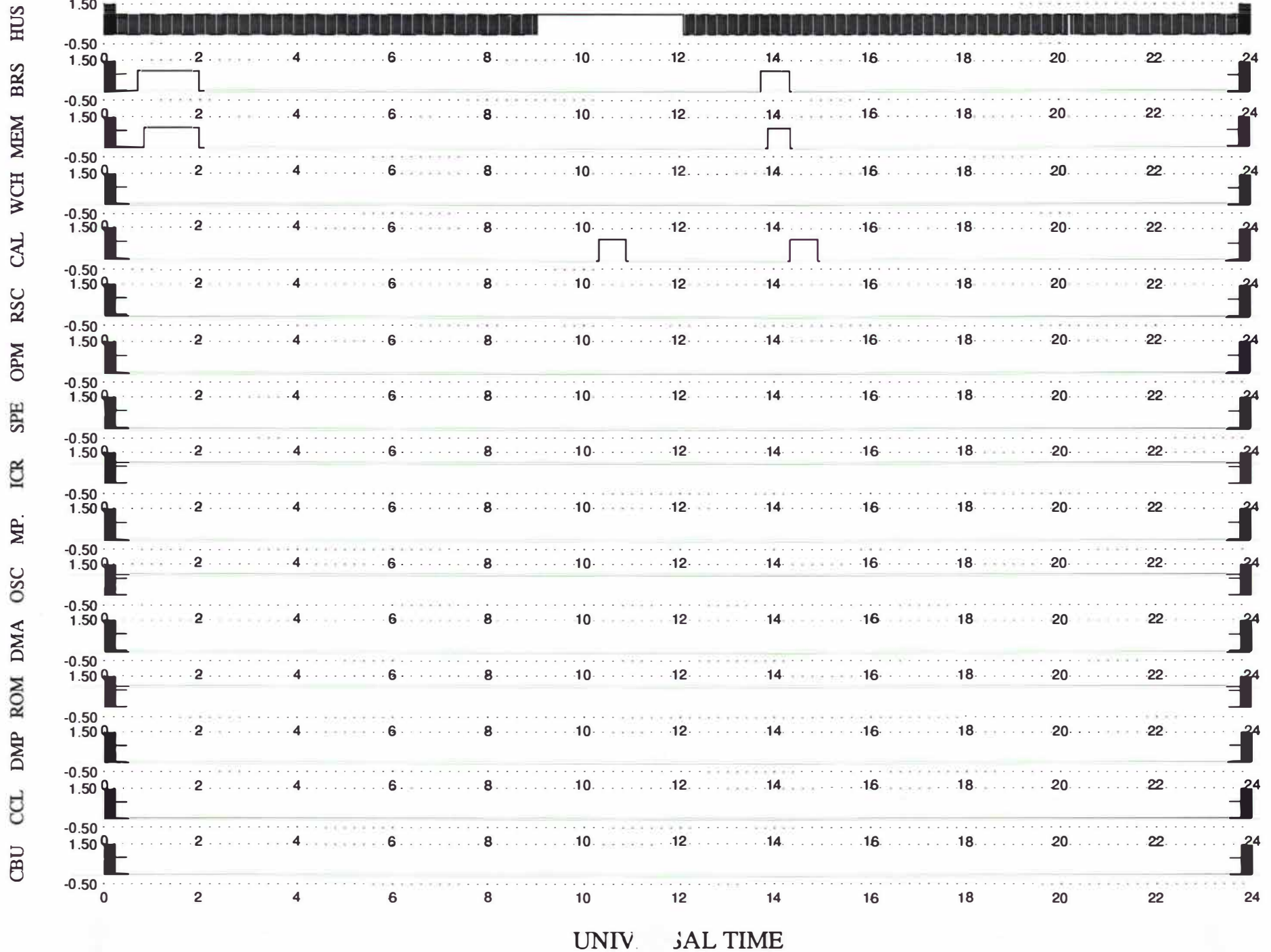


Current Time: 94/02/03, 2009 EDT
 A: Channel 1 Most Sunward LAD
 B: Sum Channel 1 Anti-Sunward LADs X .05

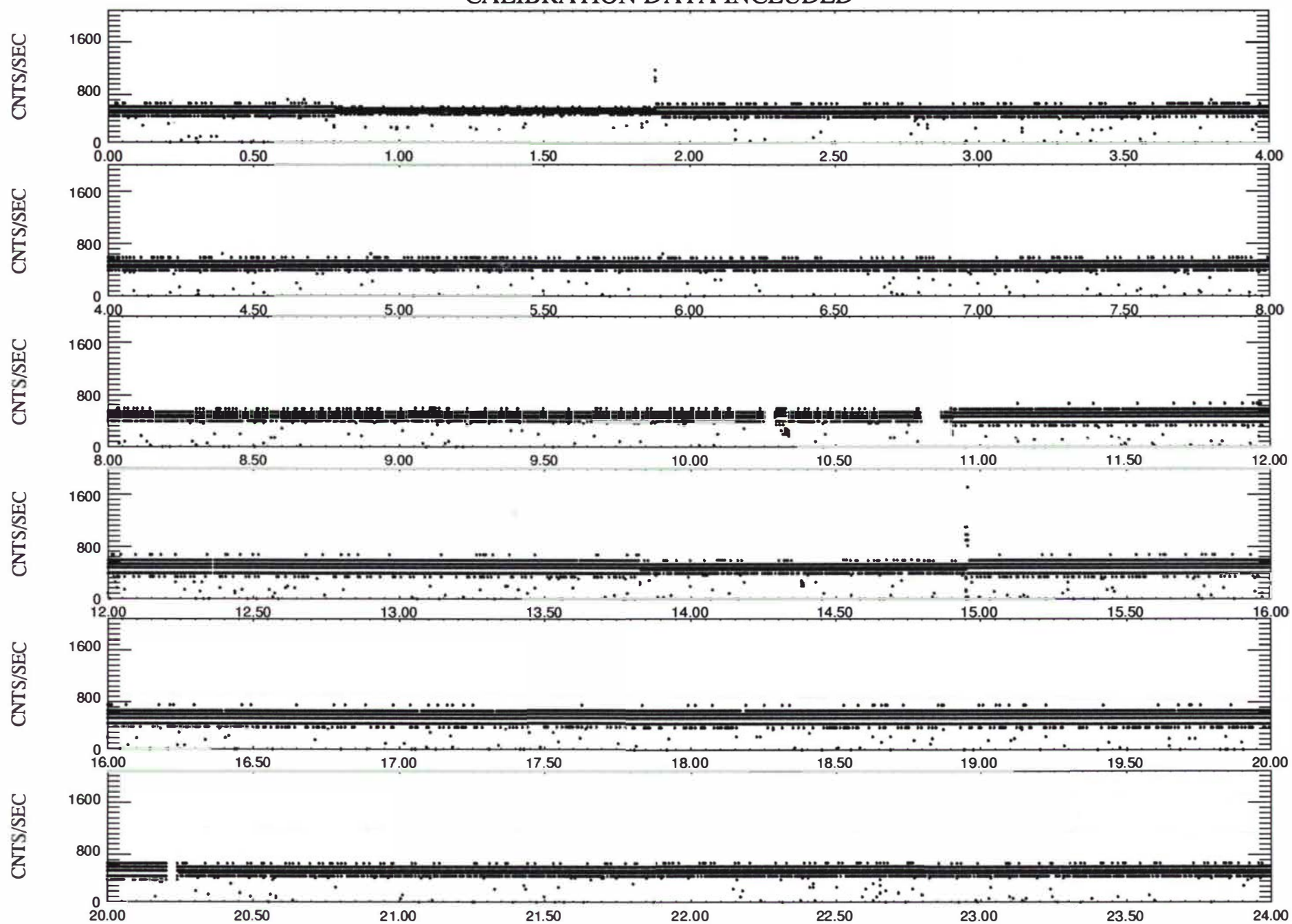
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 3, 4

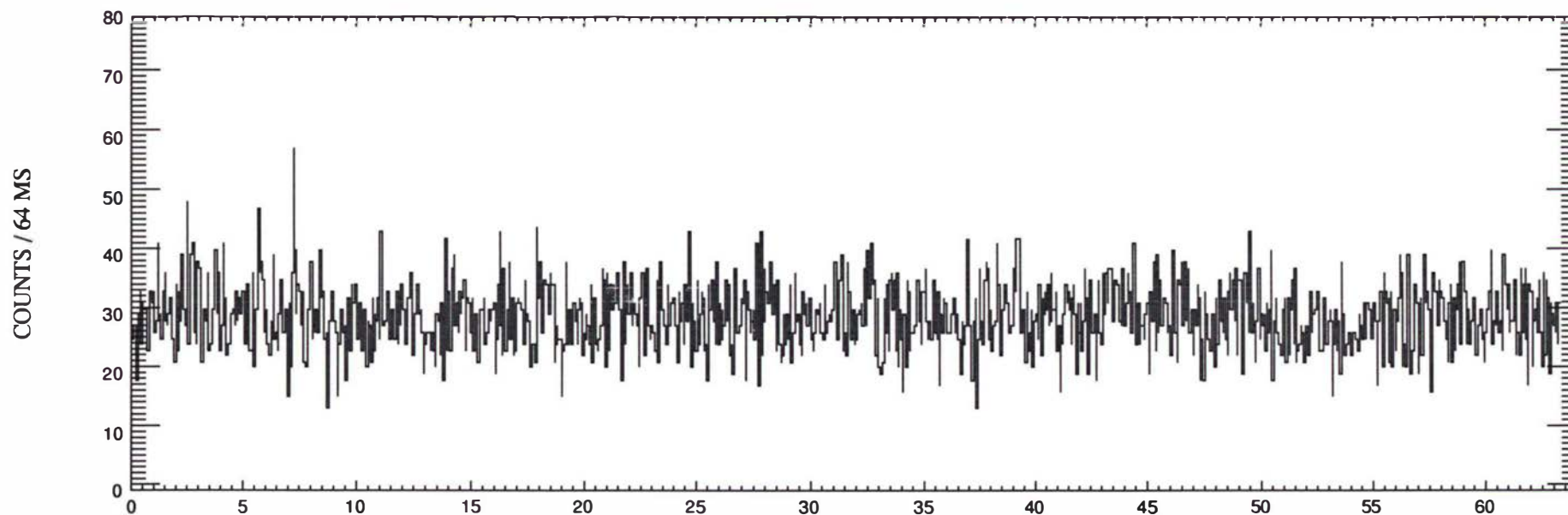


CALIBRATION DATA INCLUDED

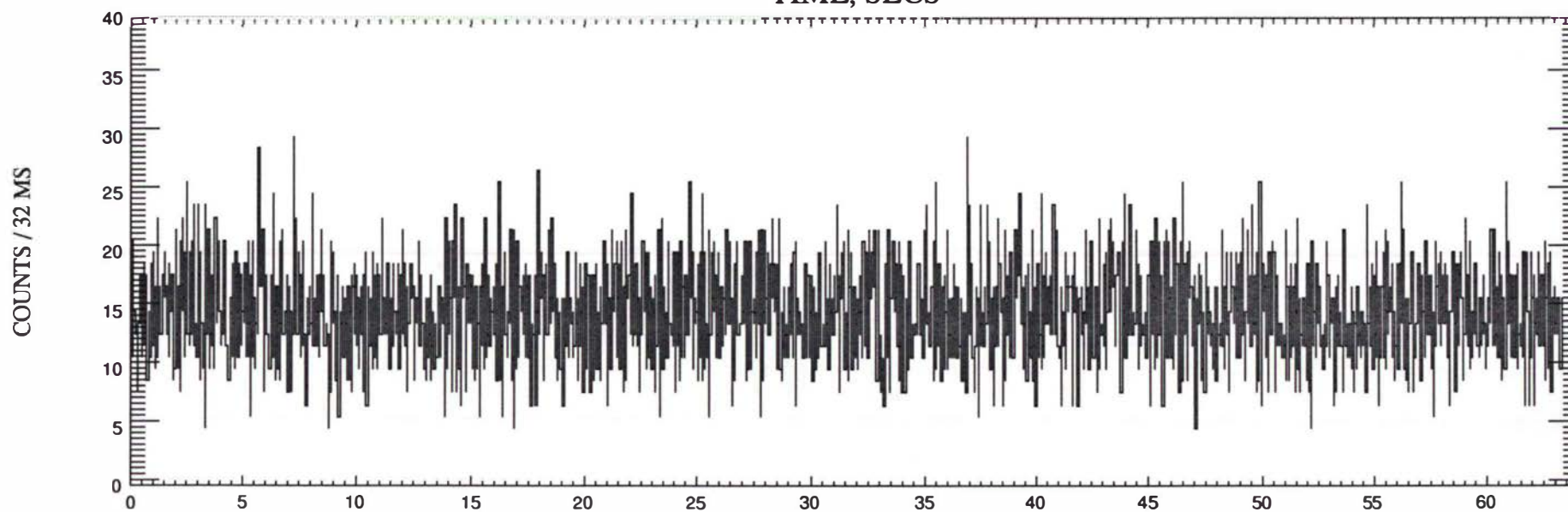


UNIV UNIV TIME

Burst Counter 3 at UT= 0.617834218343 h= 2224.203 s 00:37:04.203



TIME, SECS



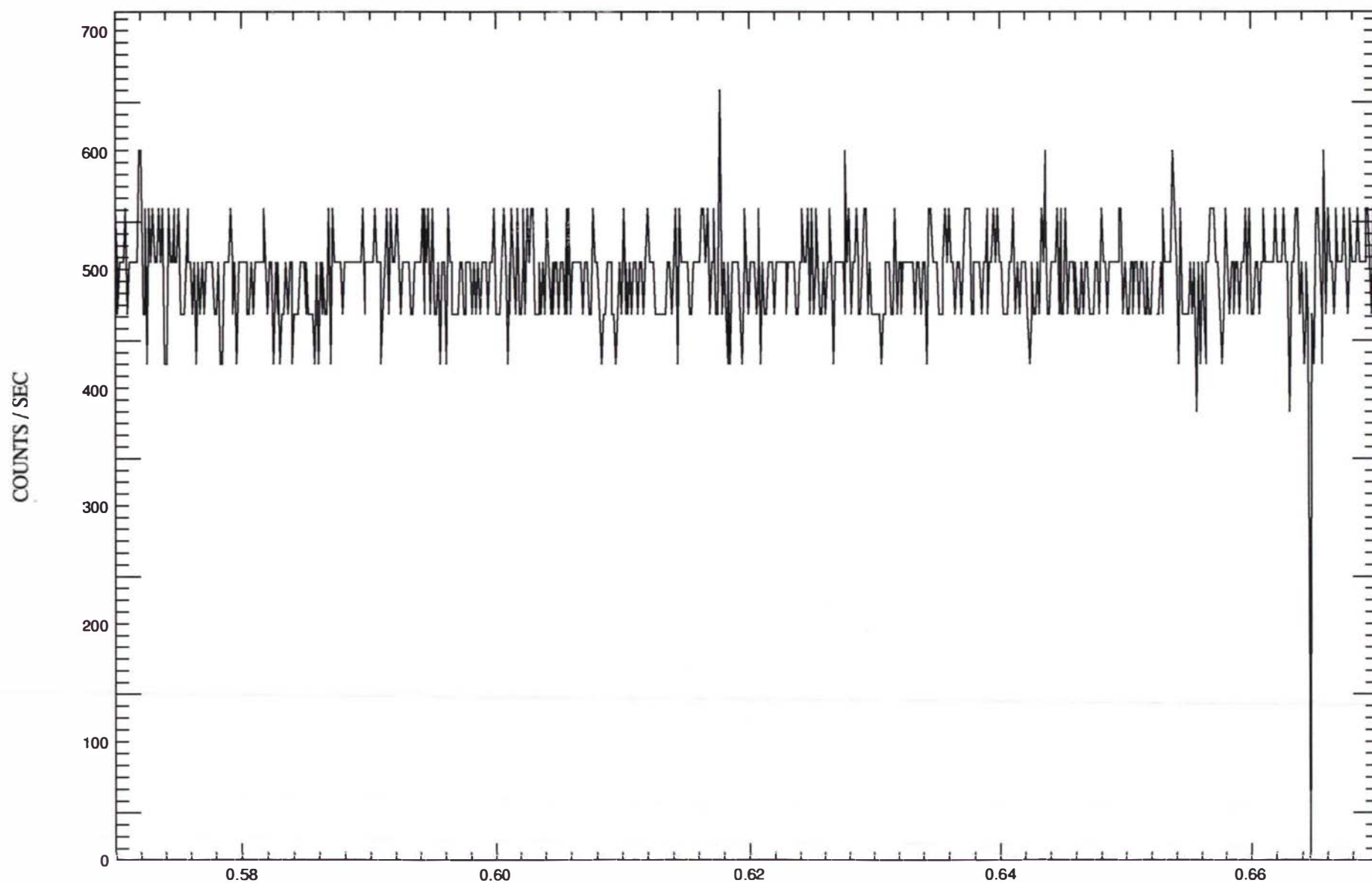
TIME, SECS

1891

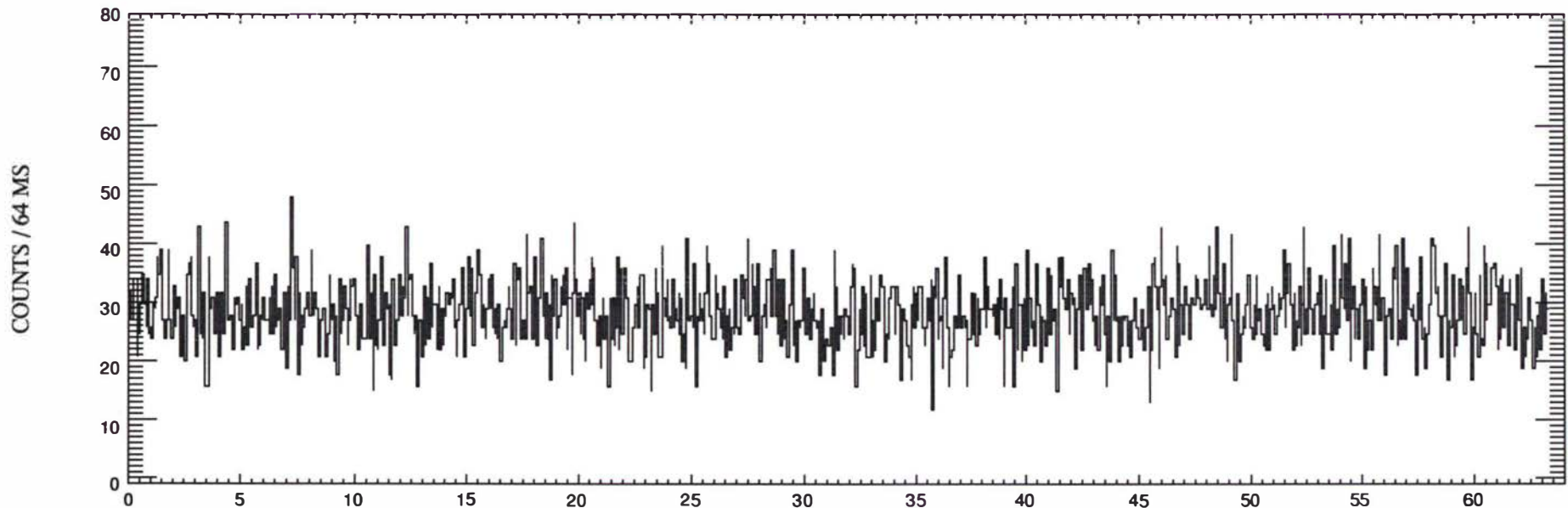
MEMORANDUM

TO THE SECRETARY OF THE INTERIOR
FROM THE COMMISSIONER OF THE GENERAL LAND OFFICE
SUBJECT: [illegible]

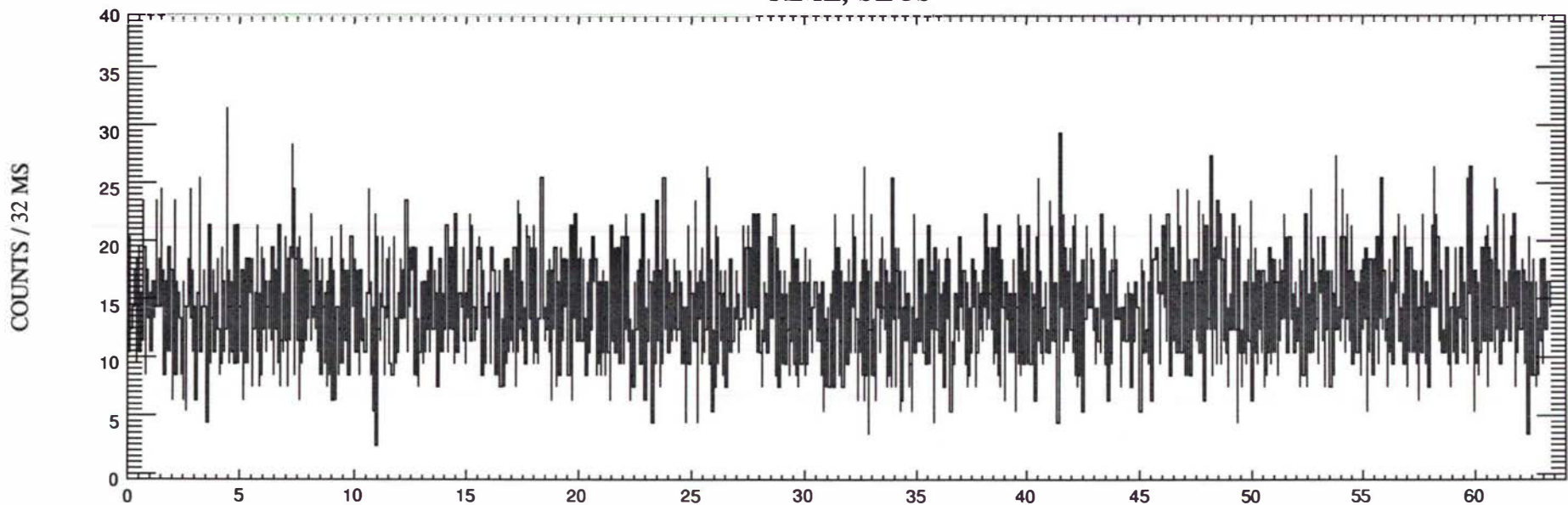
CALIBRATION DATA INCLUDED



Burst Counter 4 at UT=13.677412503560 h=49238.685 s 13:40:38.685



TIME, SECS



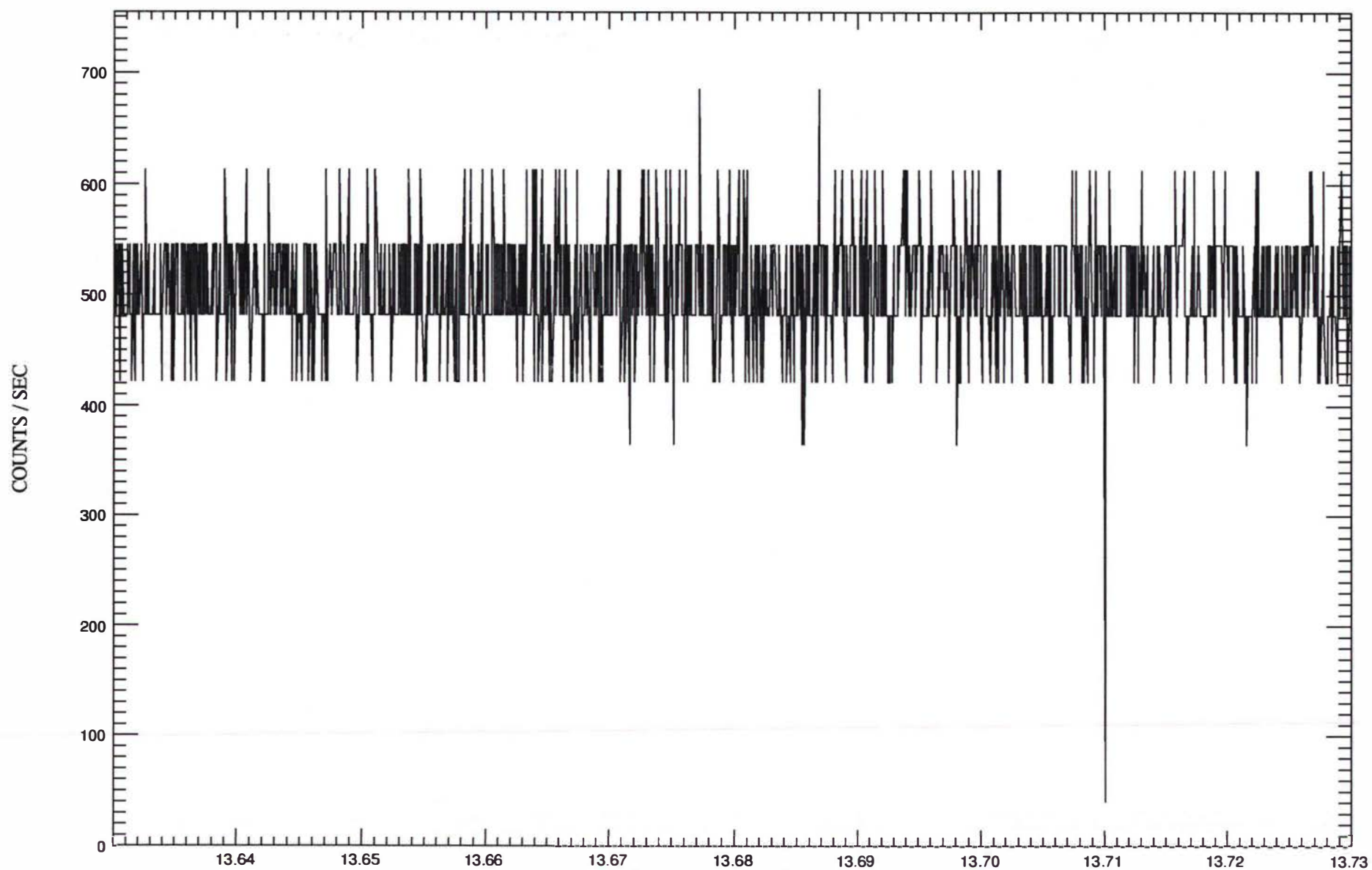
TIME, SECS

THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILL., U.S.A.

THE UNIVERSITY OF CHICAGO PRESS
1207 EAST 58TH STREET
CHICAGO, ILL. 60637
U.S.A.

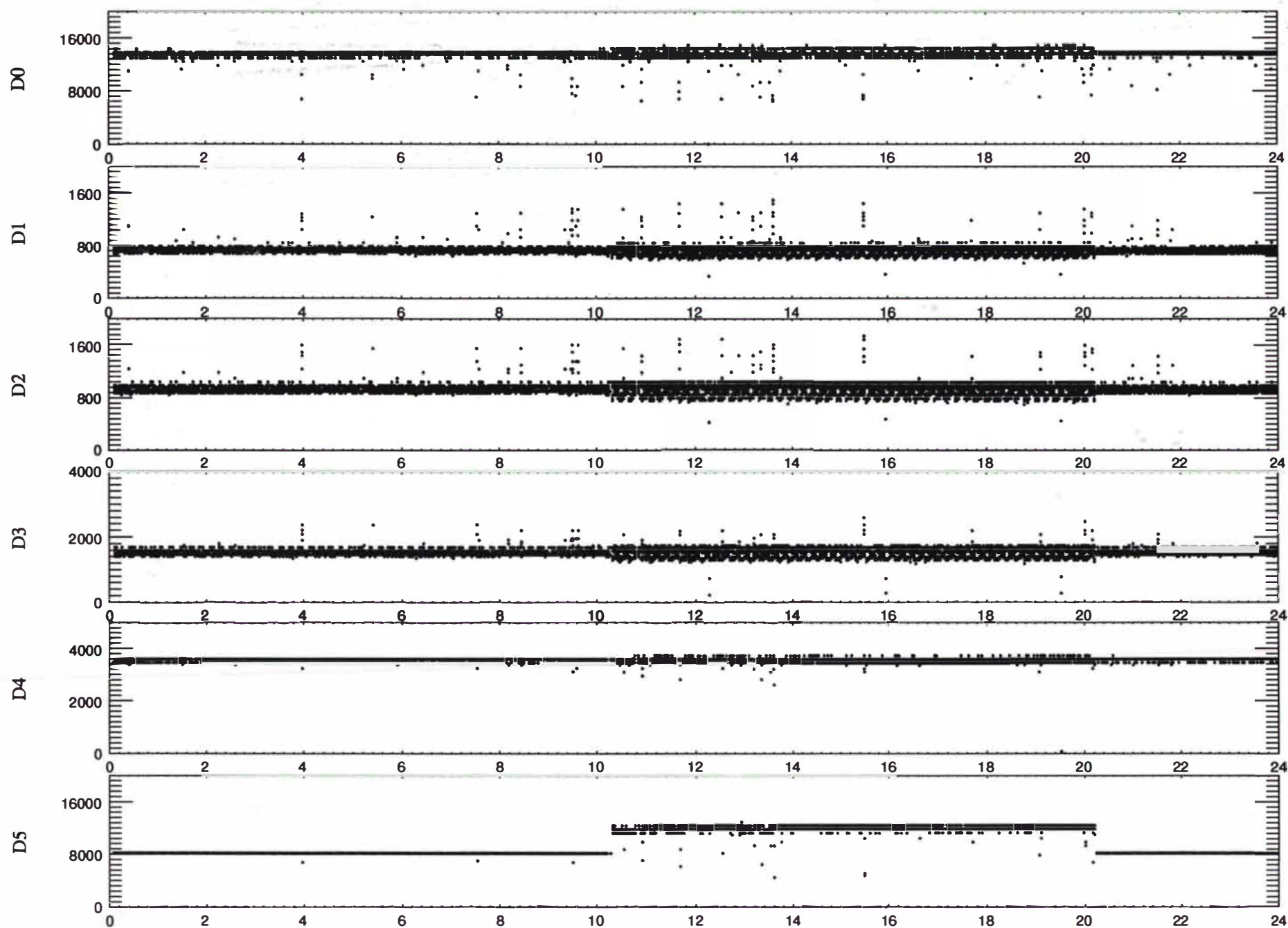
CALIBRATION DATA INCLUDED



continued

THESE COMMENTS WERE MADE BY THE JUDGE IN HIS

STATE



UNIV AL TIME