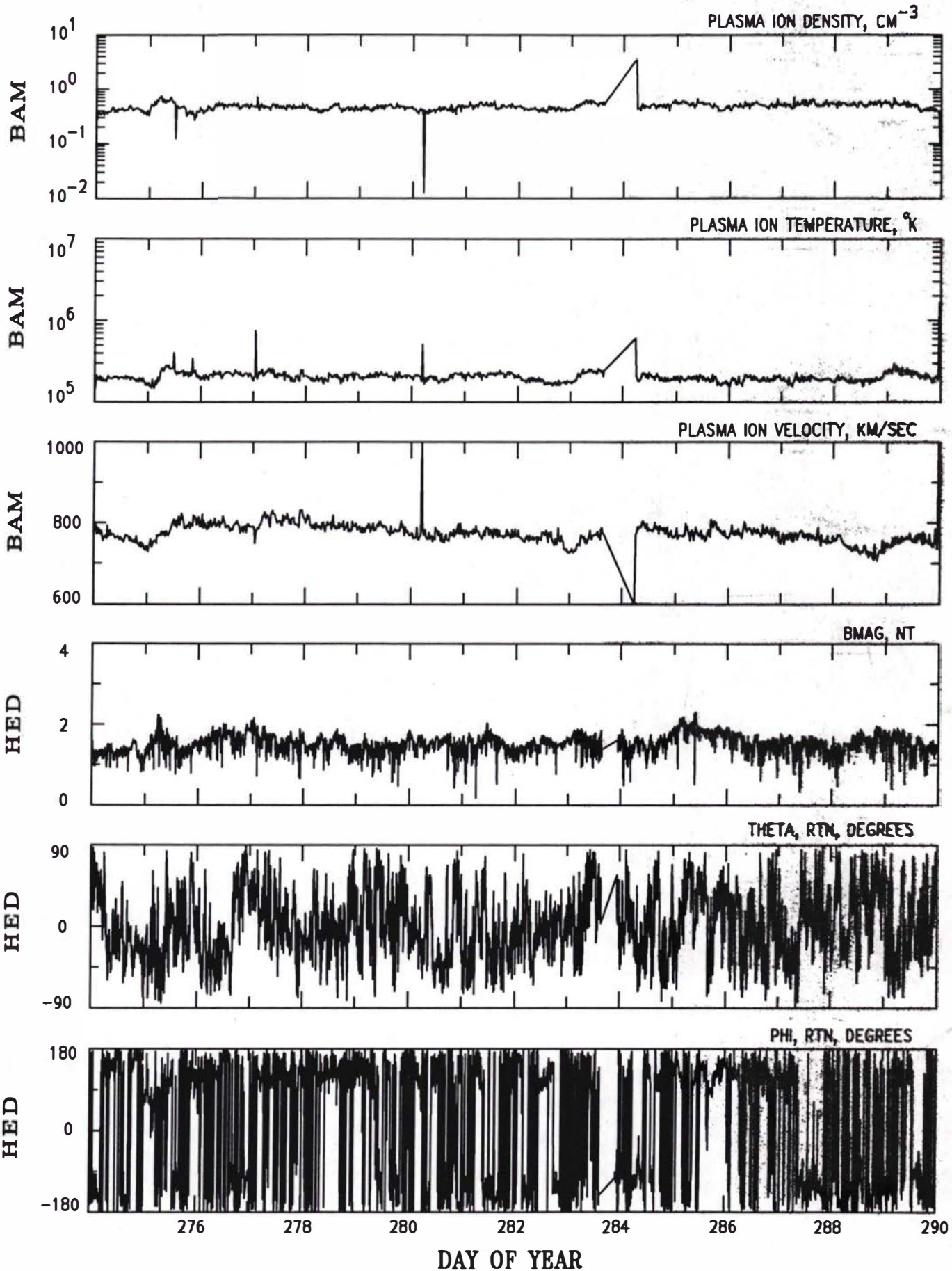


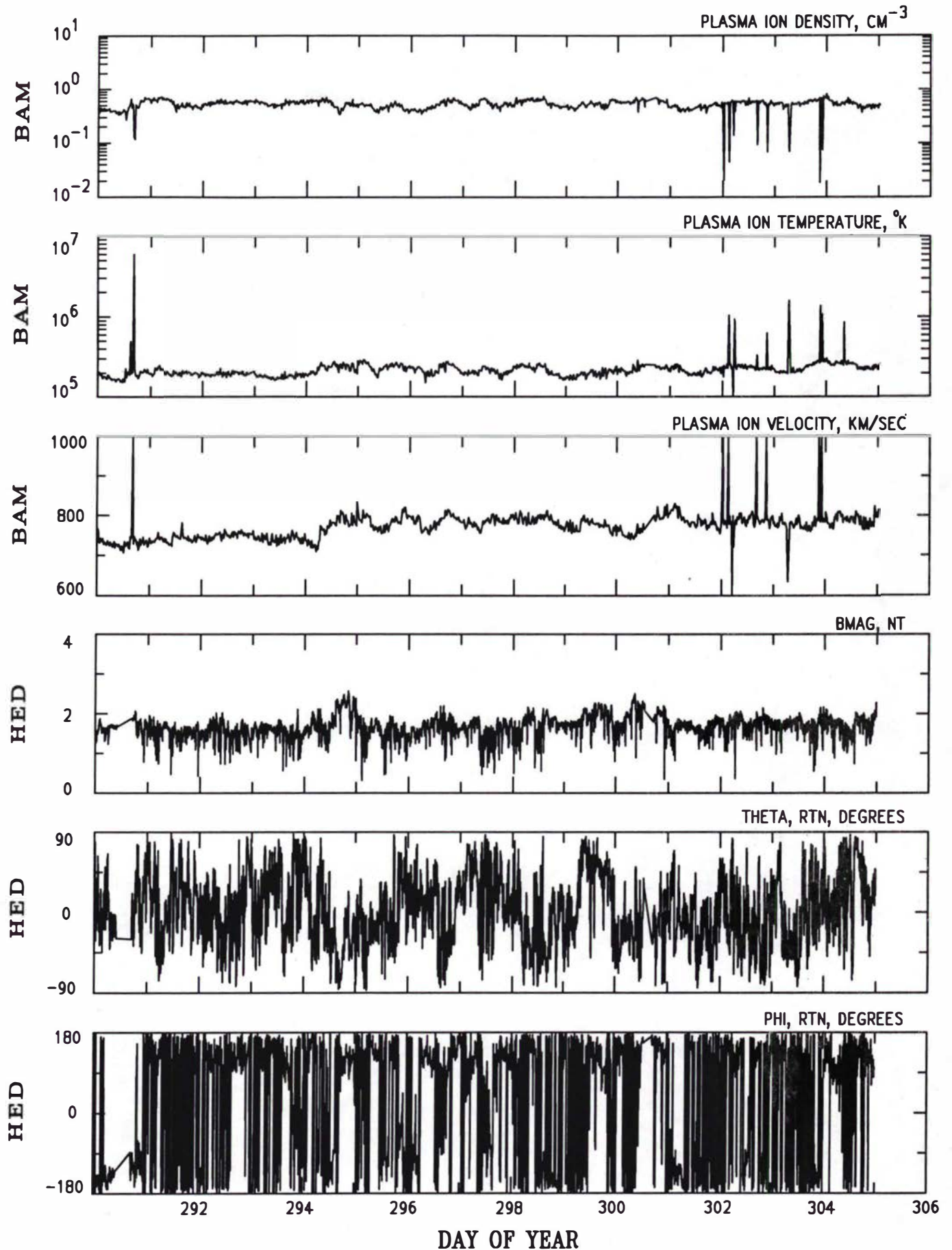
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



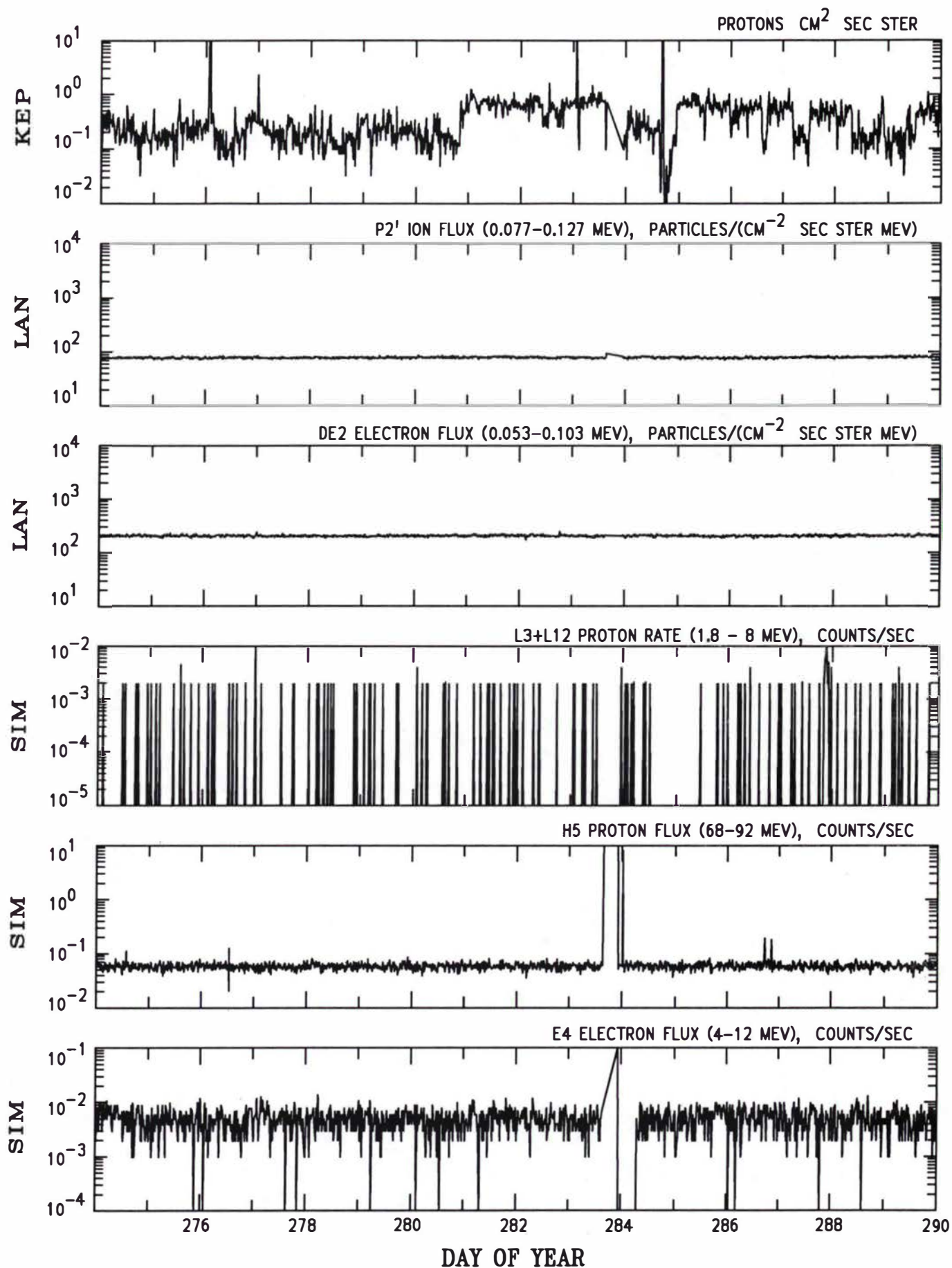
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



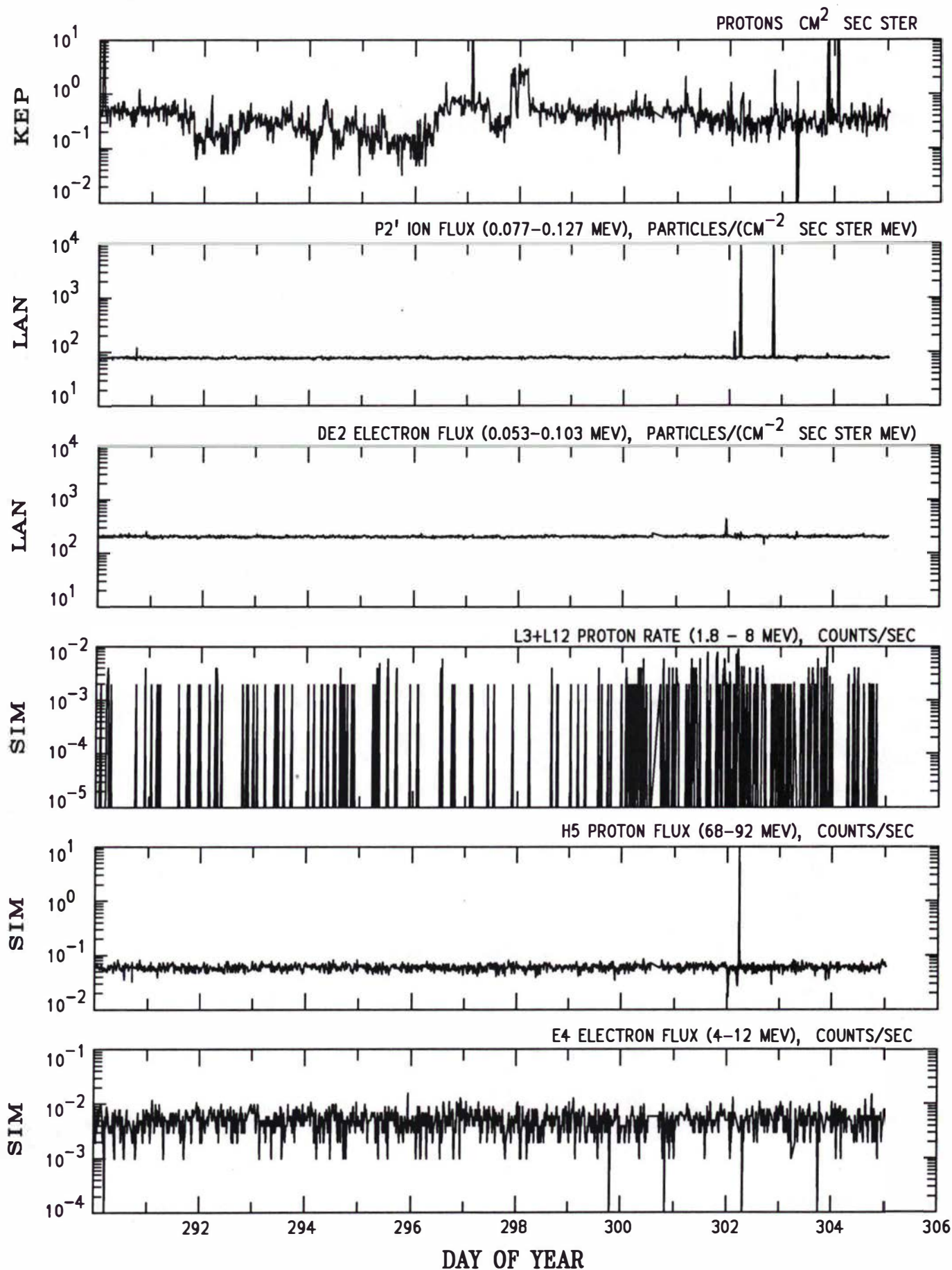
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



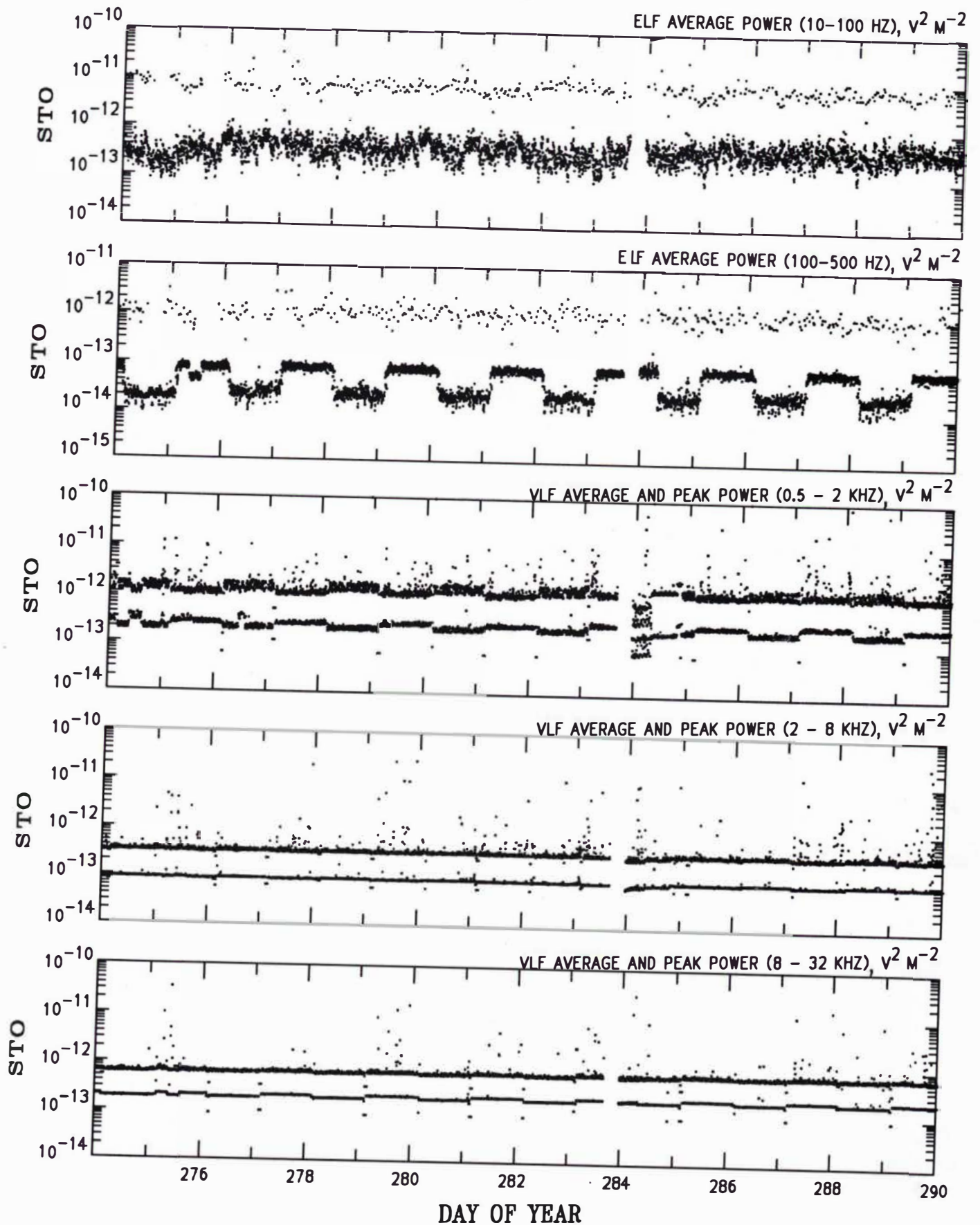
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



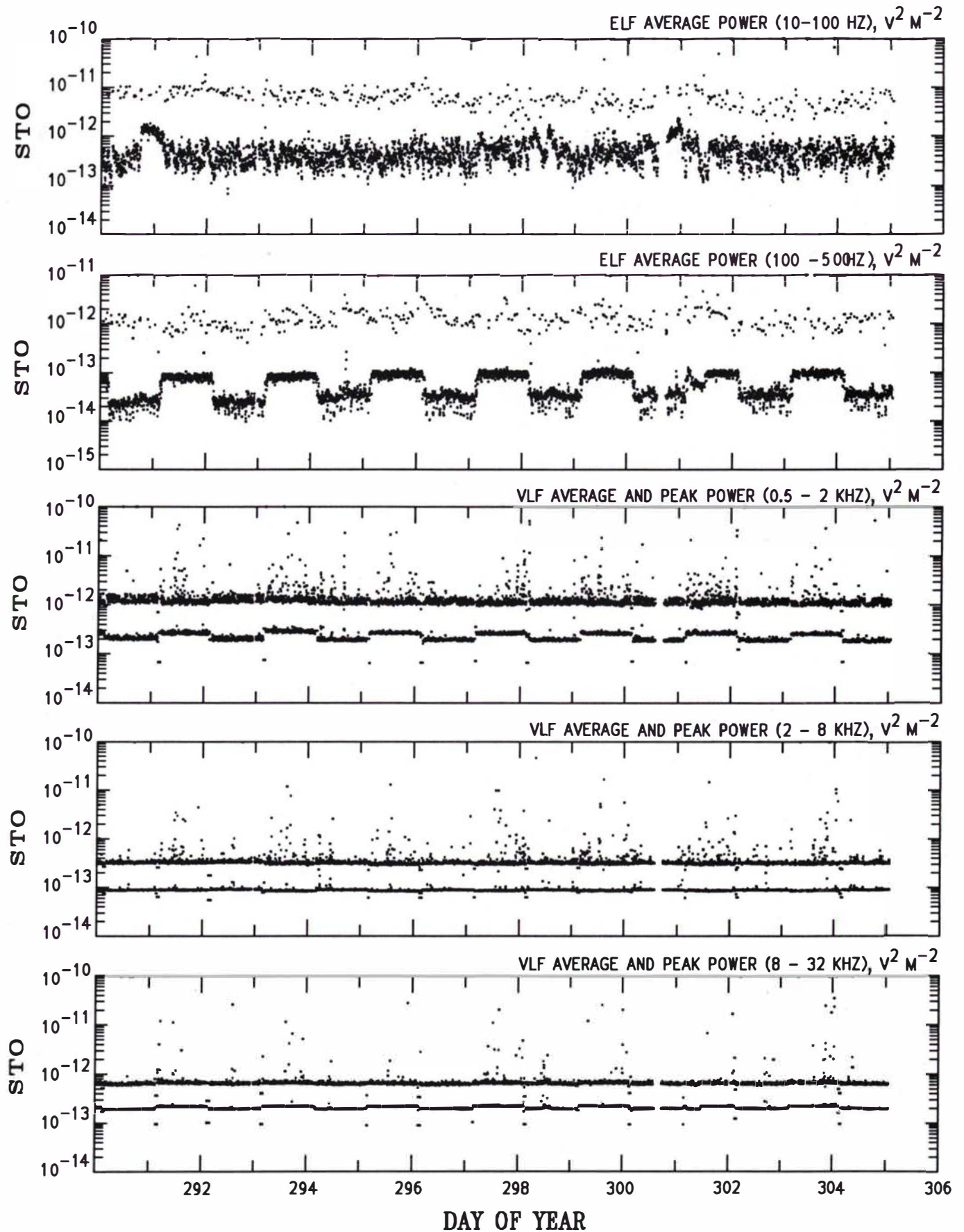
ULYSSES CDR - PLASMA WAVE

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



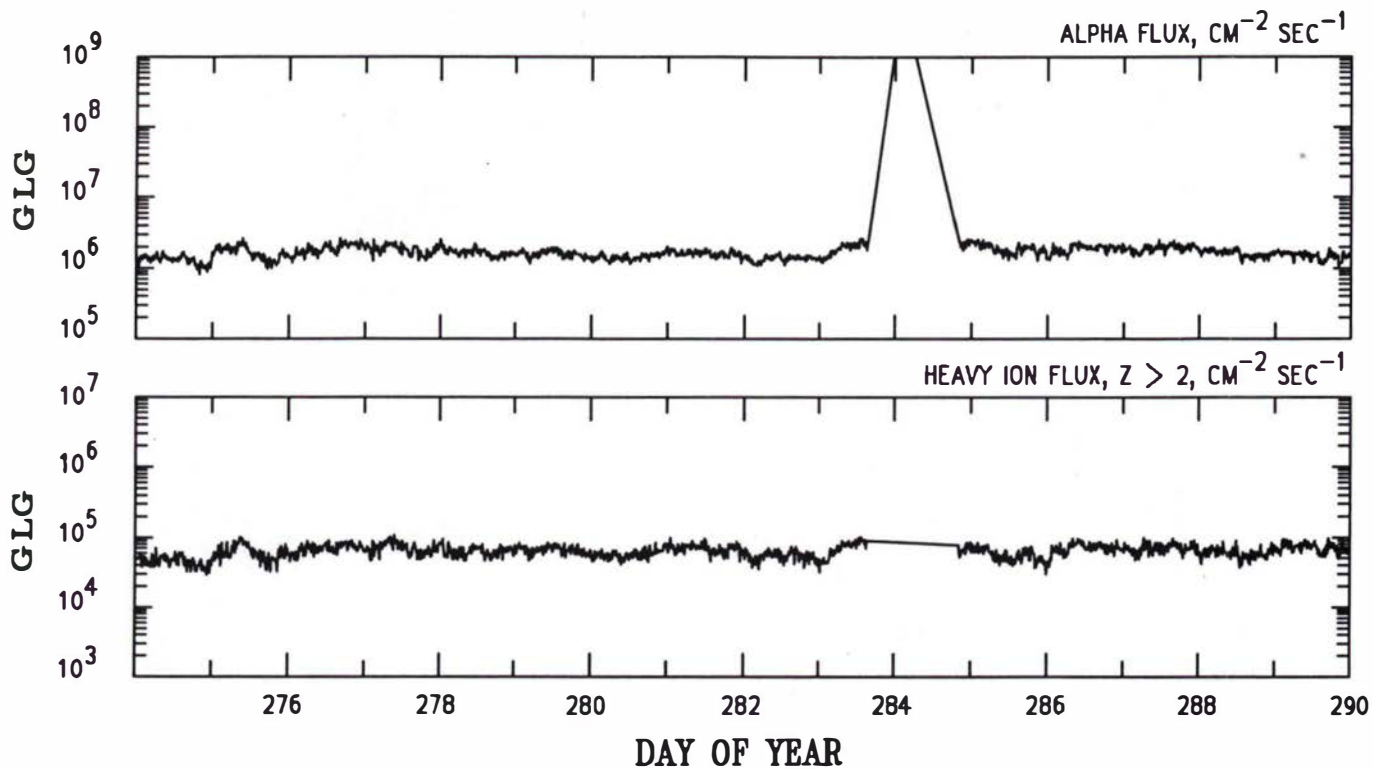
ULYSSES CDR - PLASMA WAVE

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



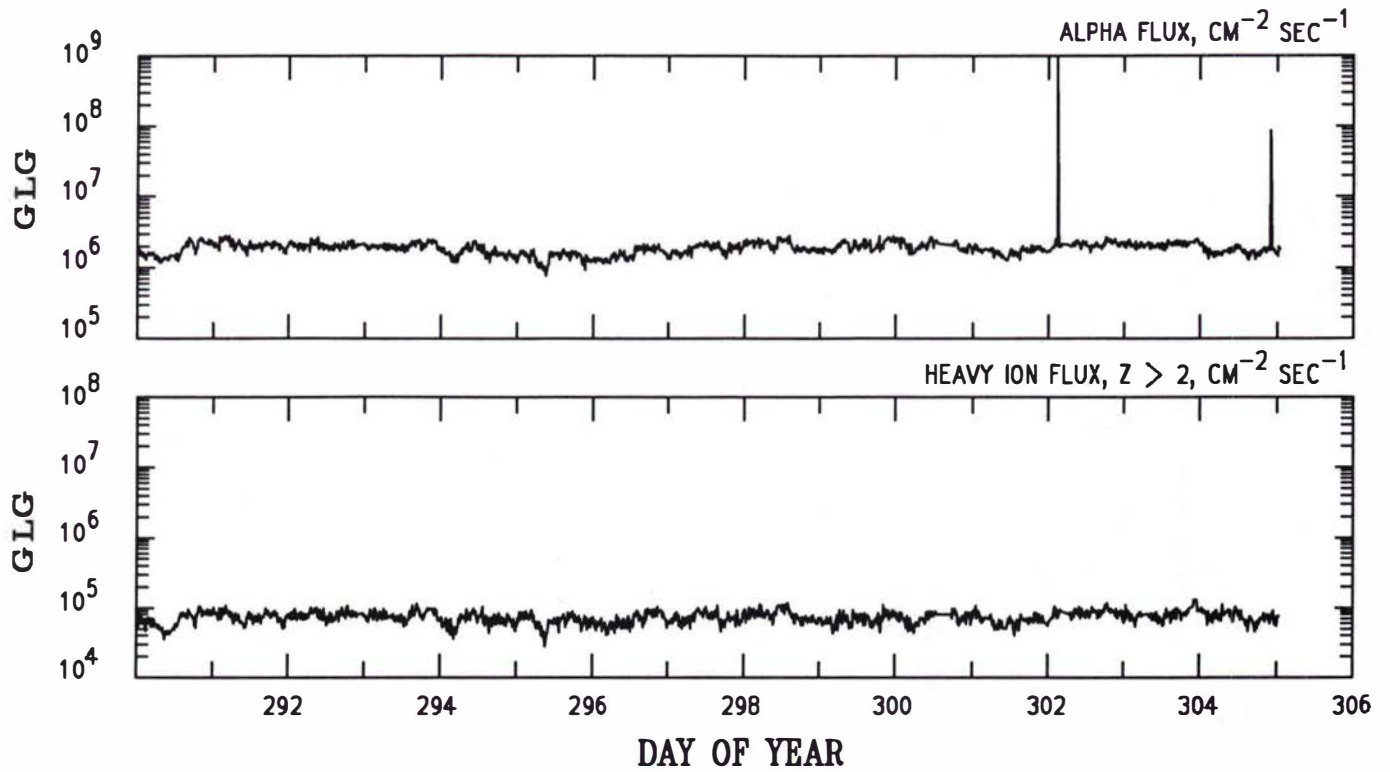
ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



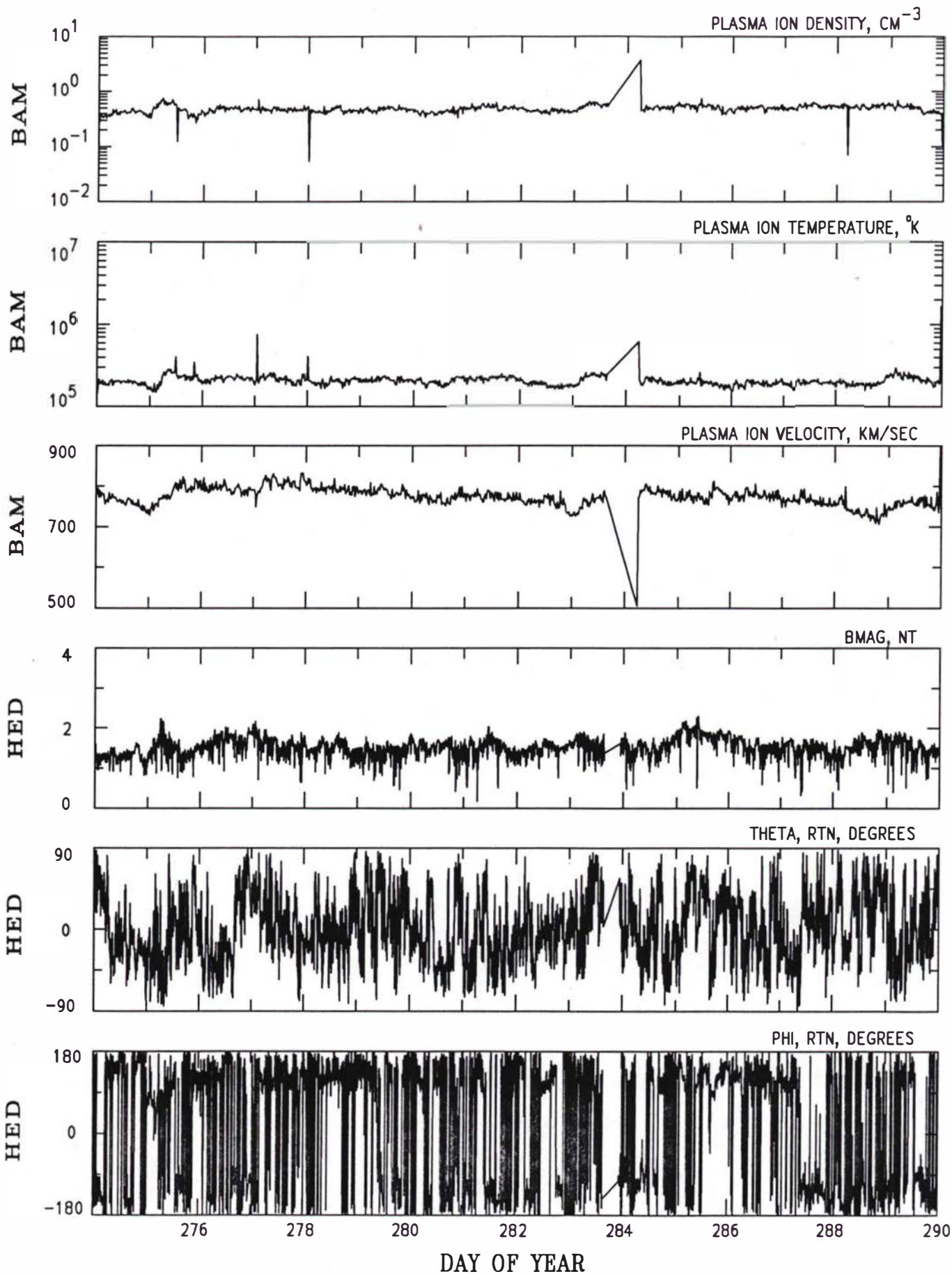
ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



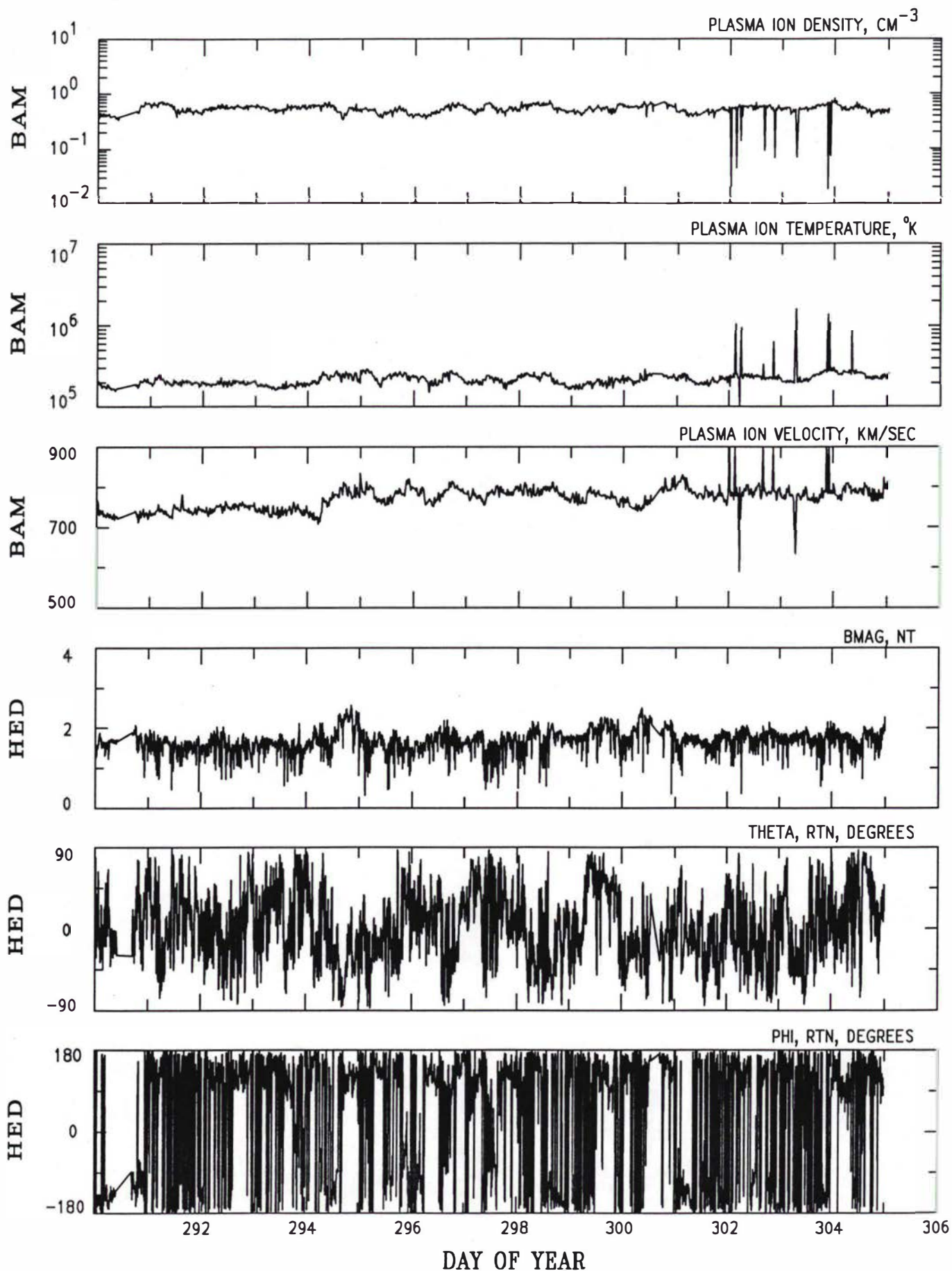
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



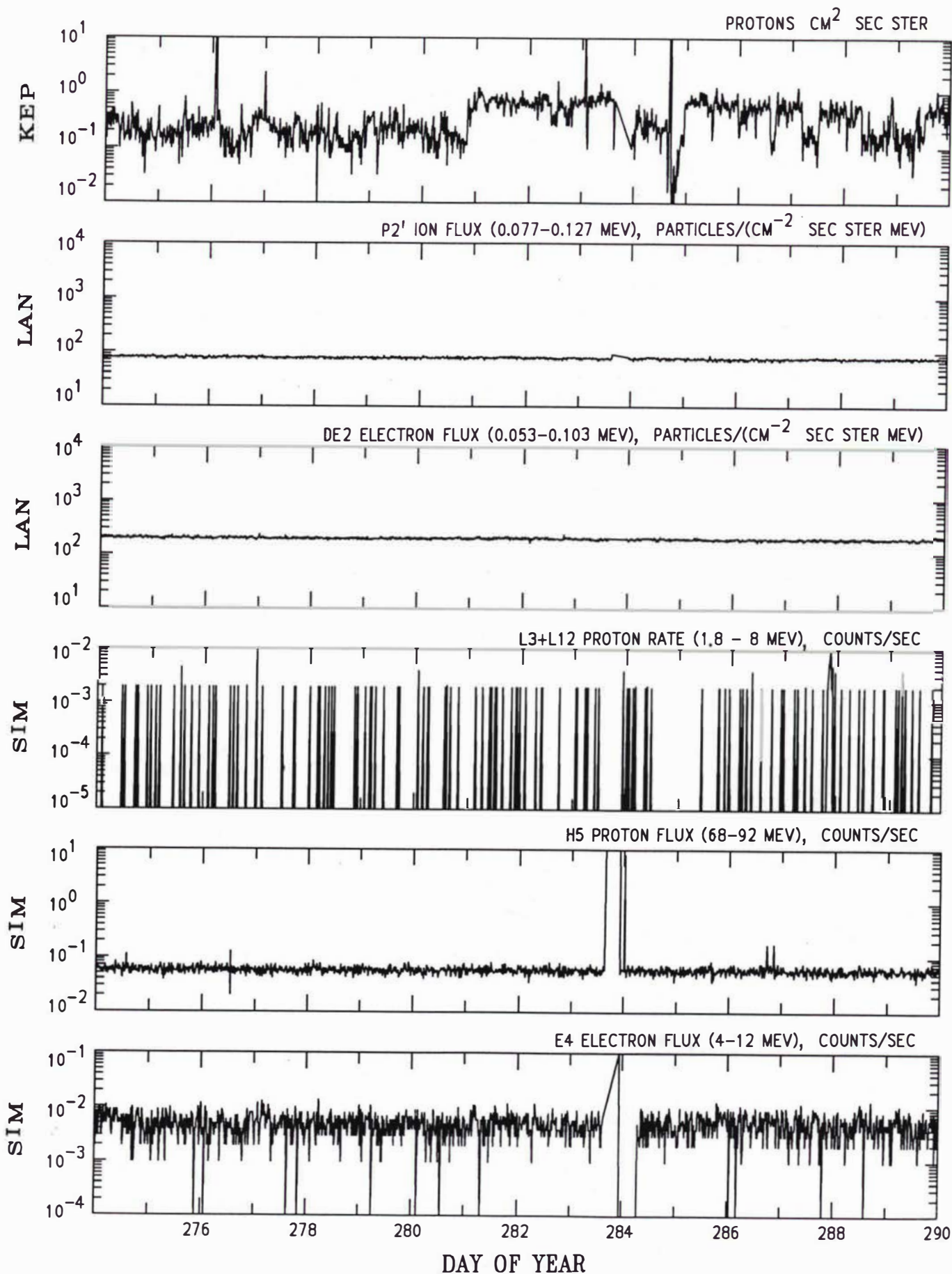
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



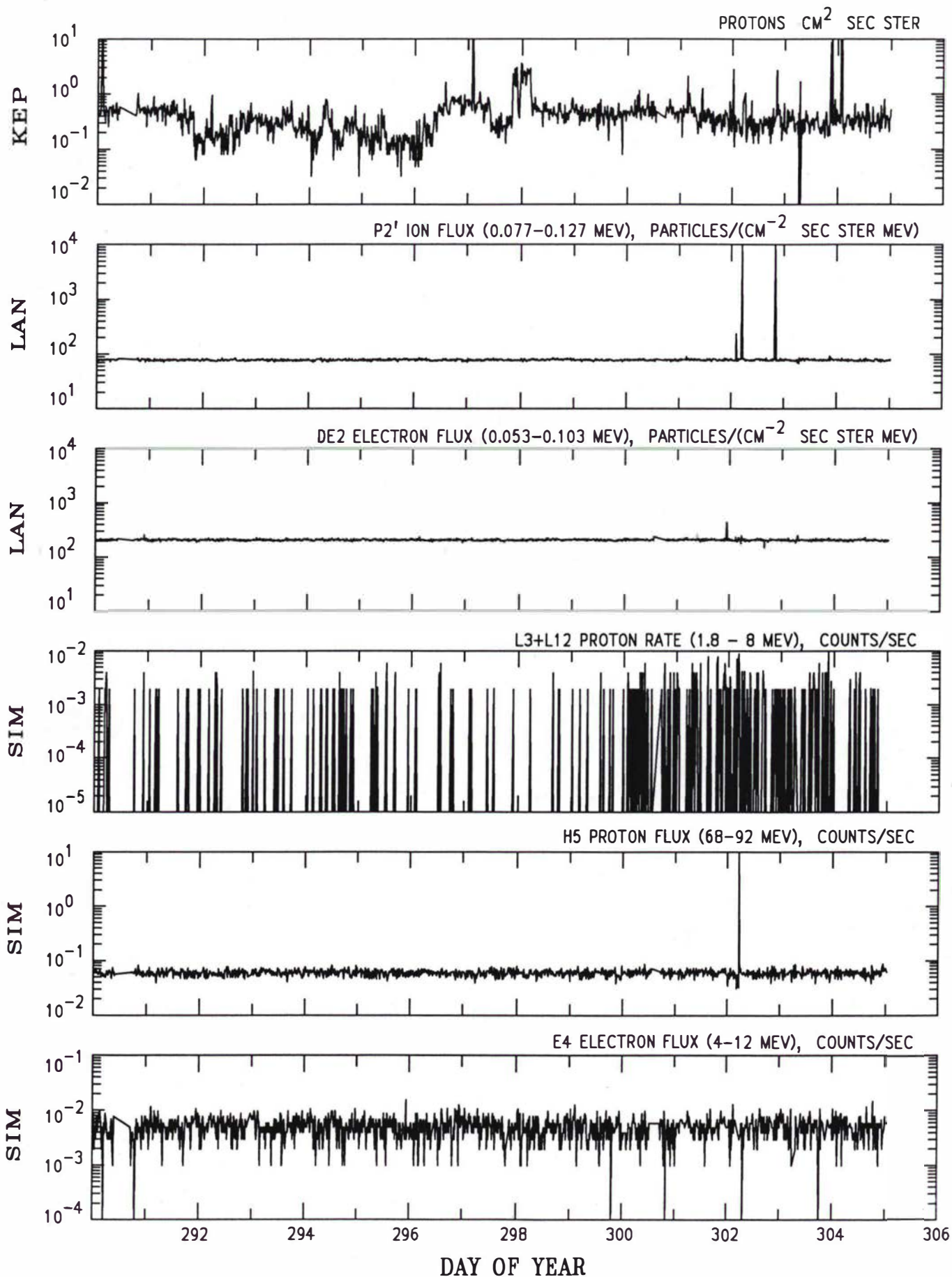
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



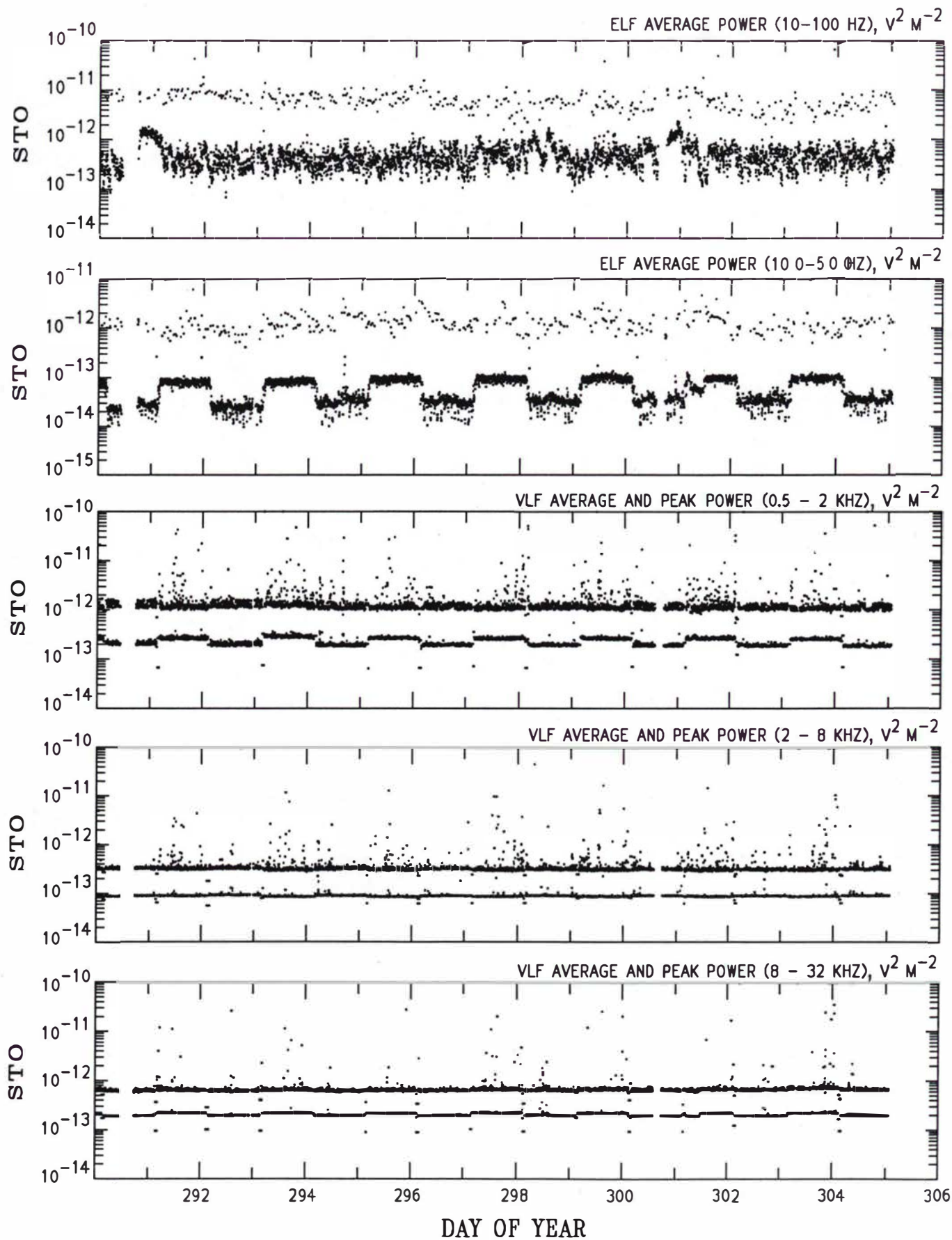
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



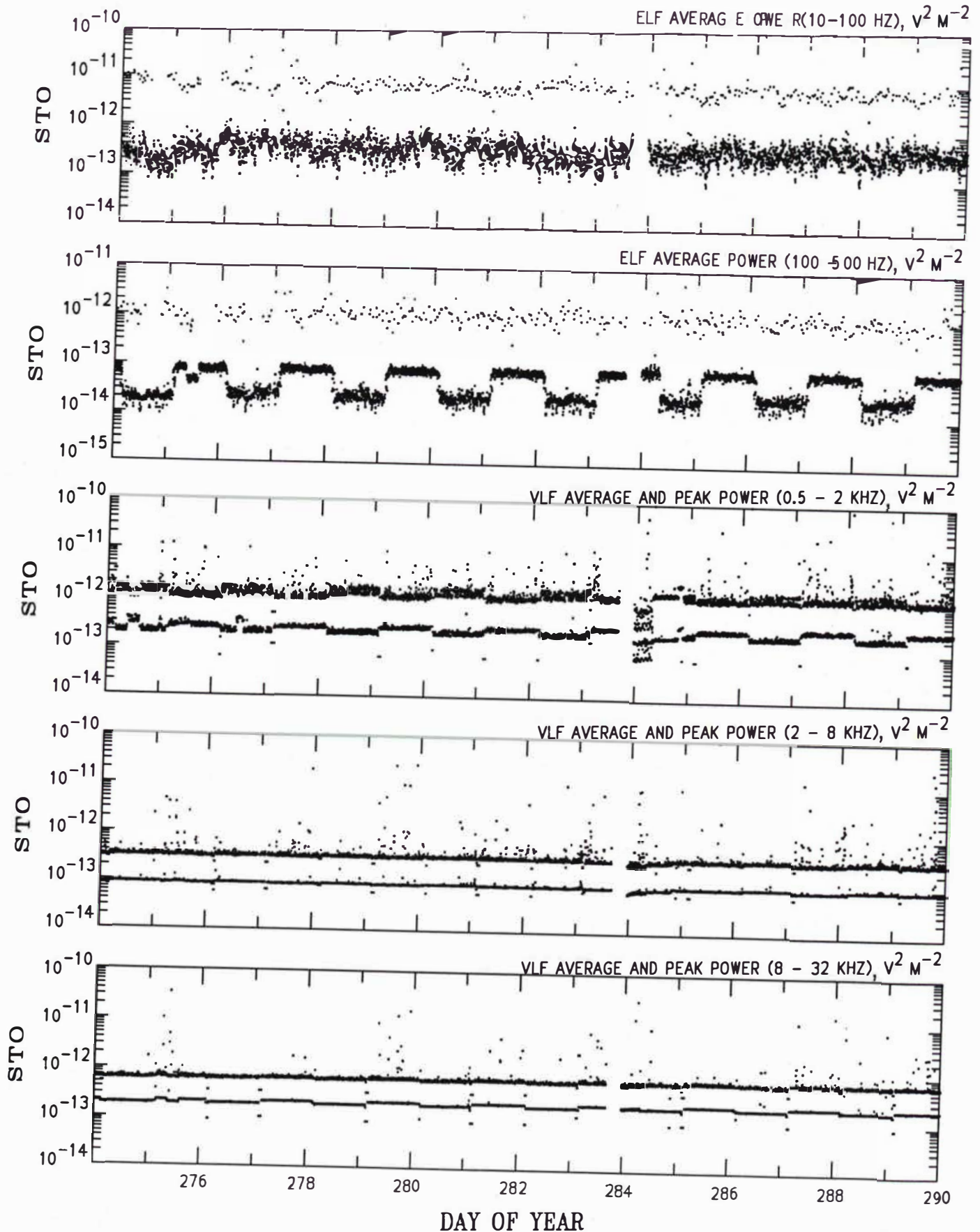
ULYSSES CDR - PLASMA WAVE

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



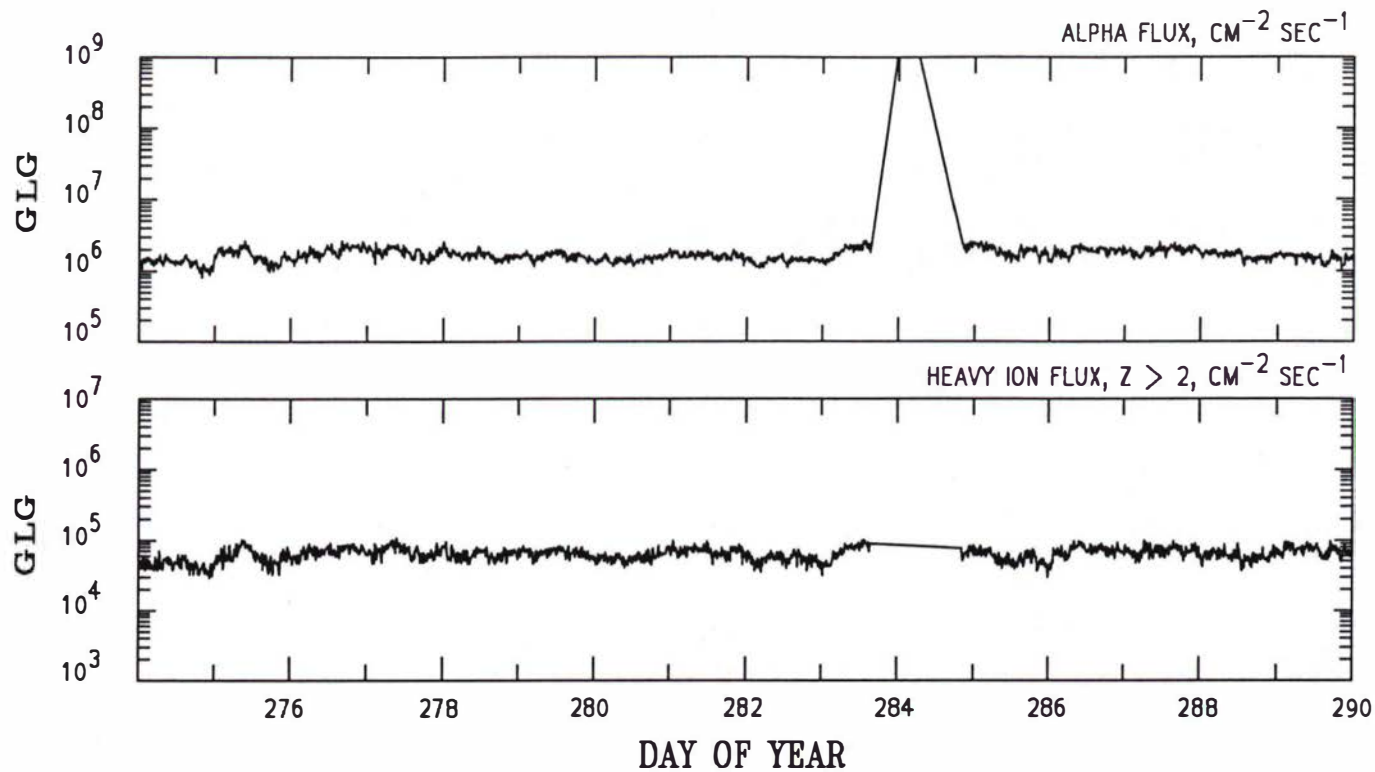
ULYSSES CDR - PLASMA WAVE

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000



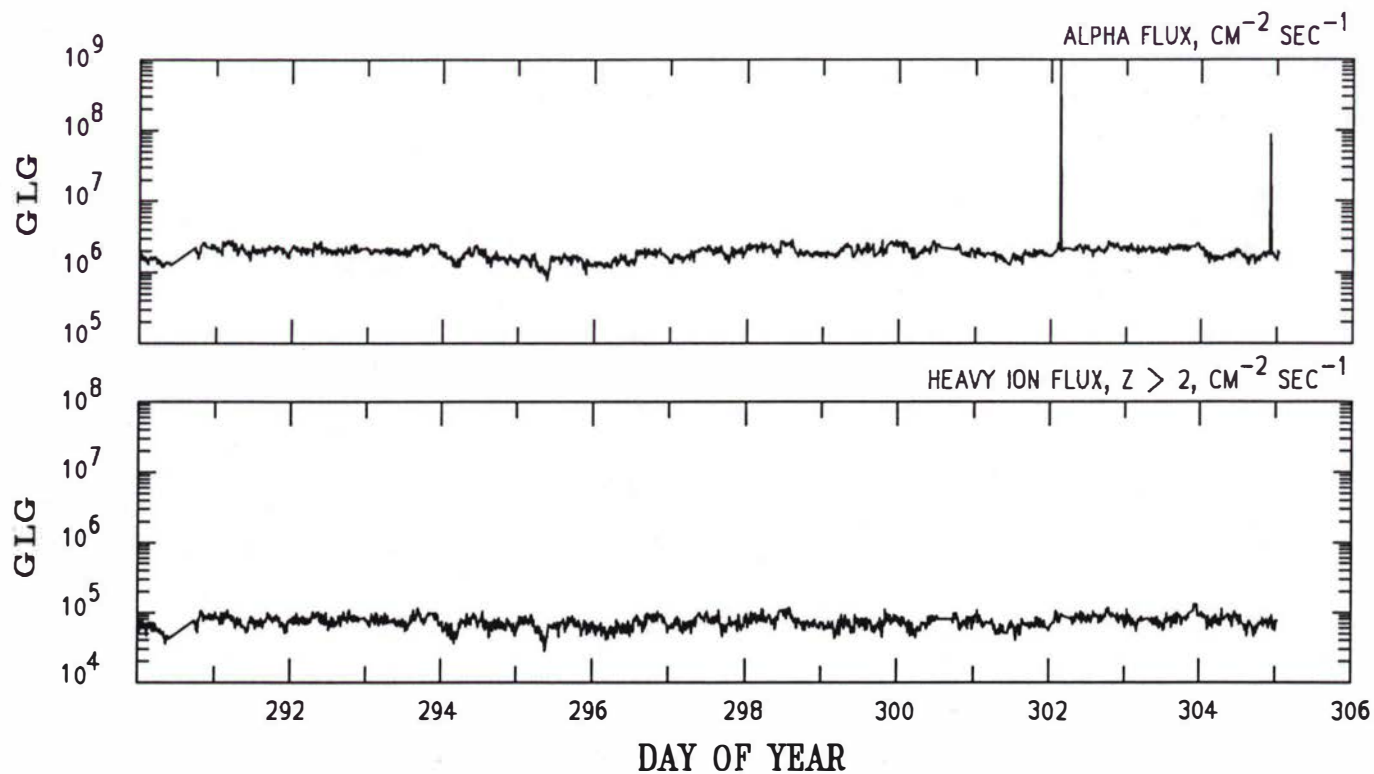
ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 274 OCT 1 00:00:00.000 - 94 290 OCT 17 00:00:00.000

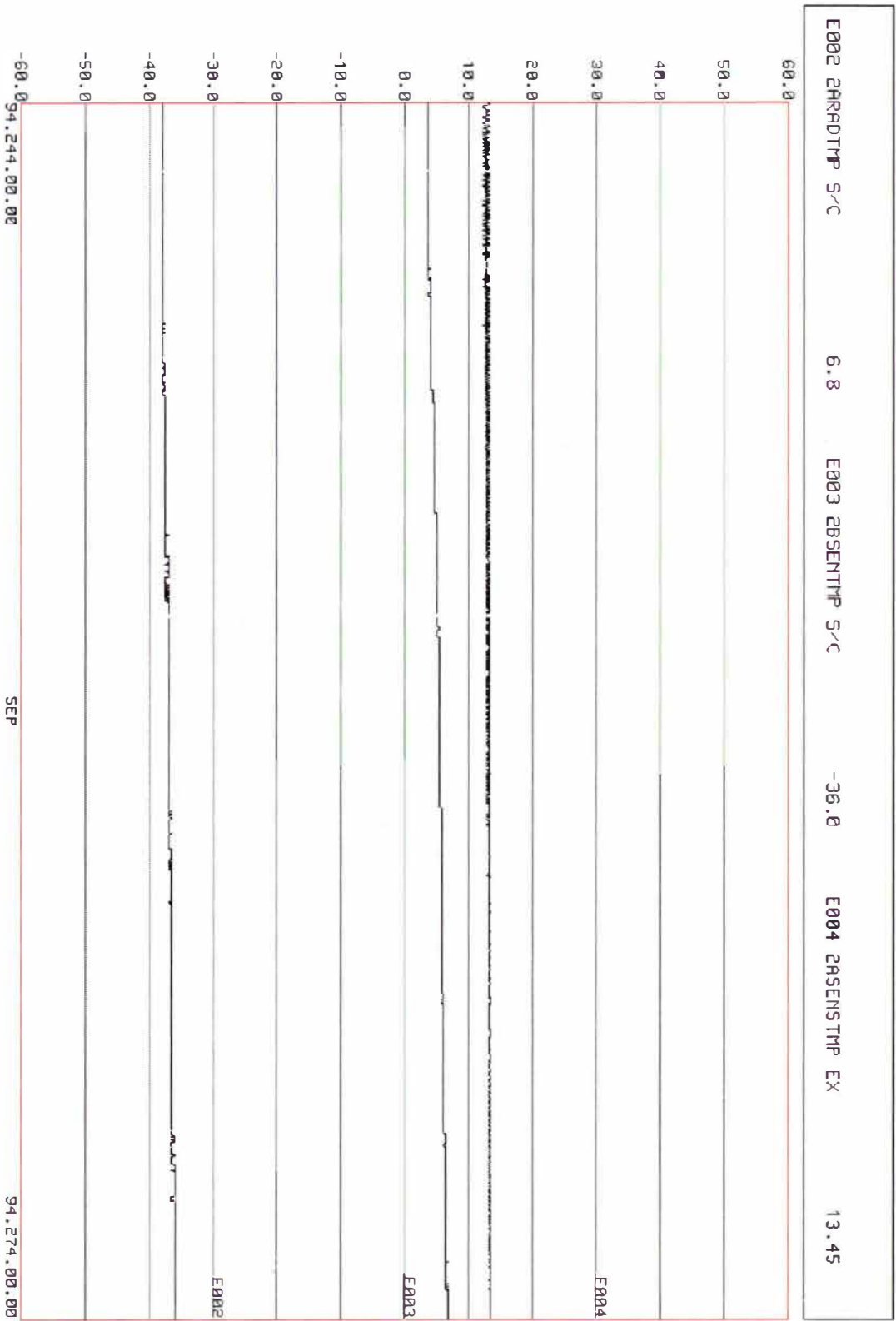


ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 290 OCT 17 00:00:00.000 - 94 306 NOV 2 00:00:00.000



.94.274.00.11.05.076 HUS monthly long term thermal data 818 RET



BATSE BURST TRIGGER

NO.: 03205

TIME: TJD=9626 SECONDS=15880

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY: PARTICLES.

BATSE BURST TRIGGER

NO.: 03206

TIME: TJD=9626 SECONDS=27357

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY: PARTICLES.

BATSE BURST TRIGGER

NO.: 03207

TIME: TJD=9626 SECONDS=33196

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

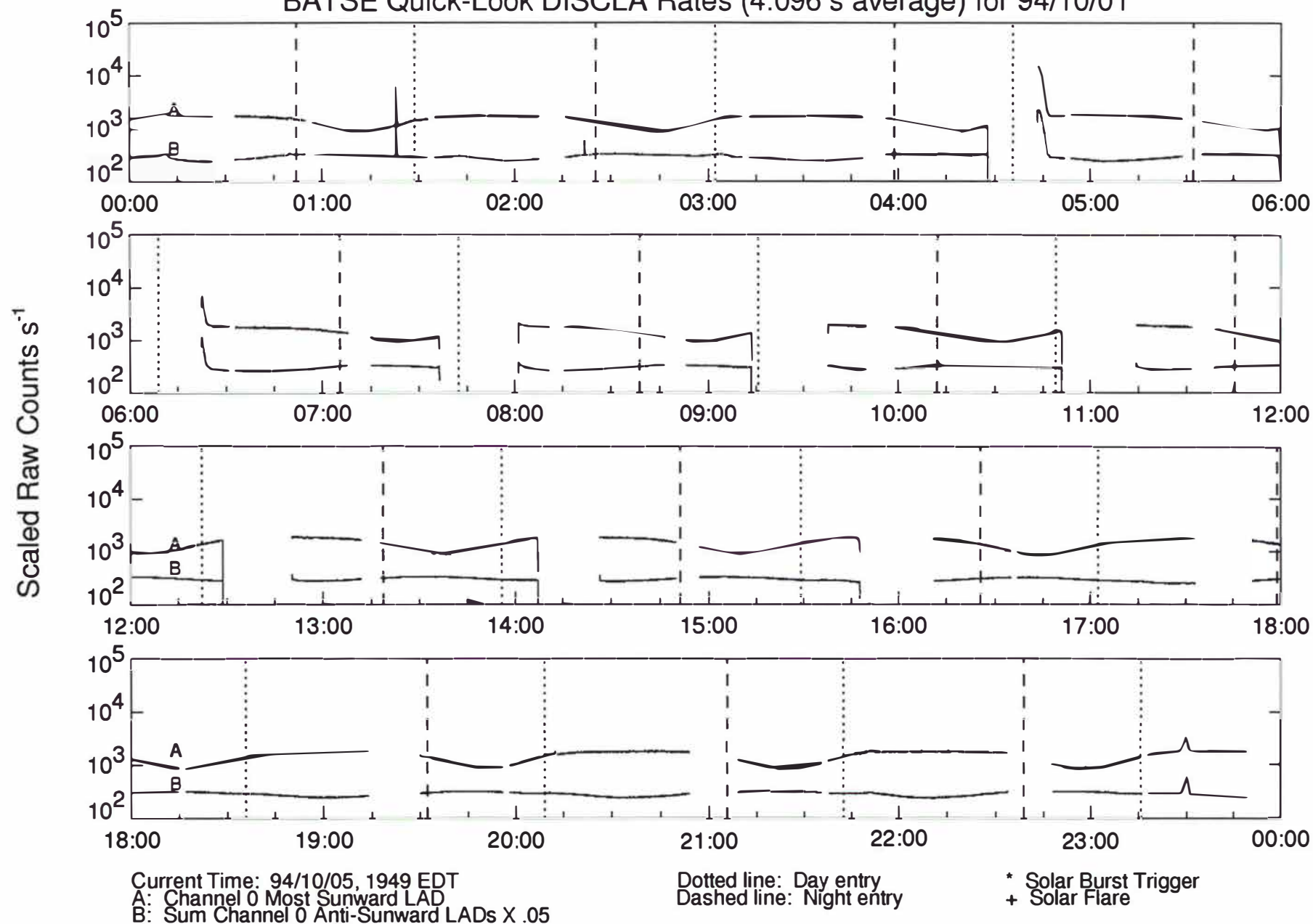
INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY: PARTICLES.

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/01



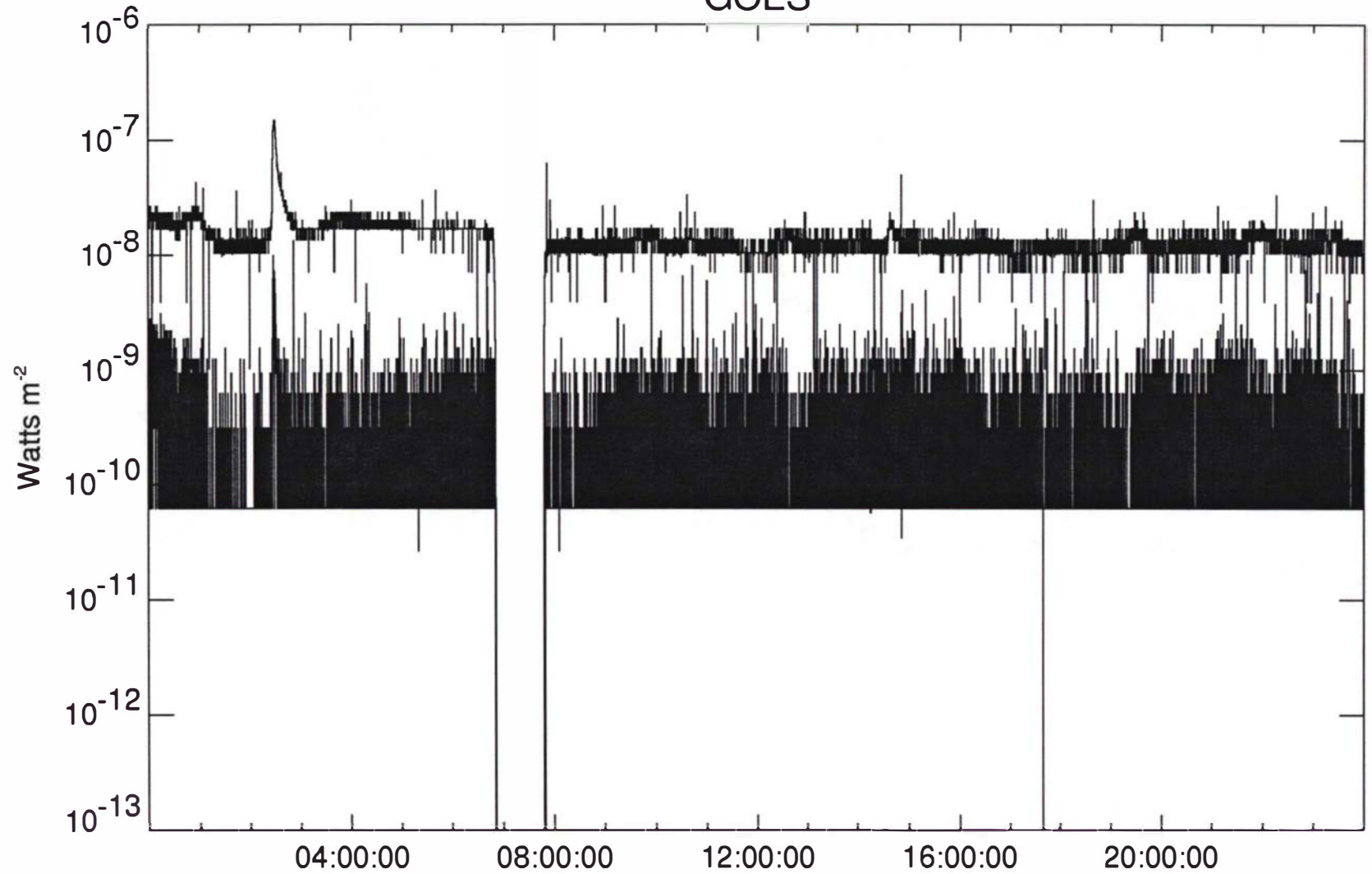
M

GOES

C

B

A

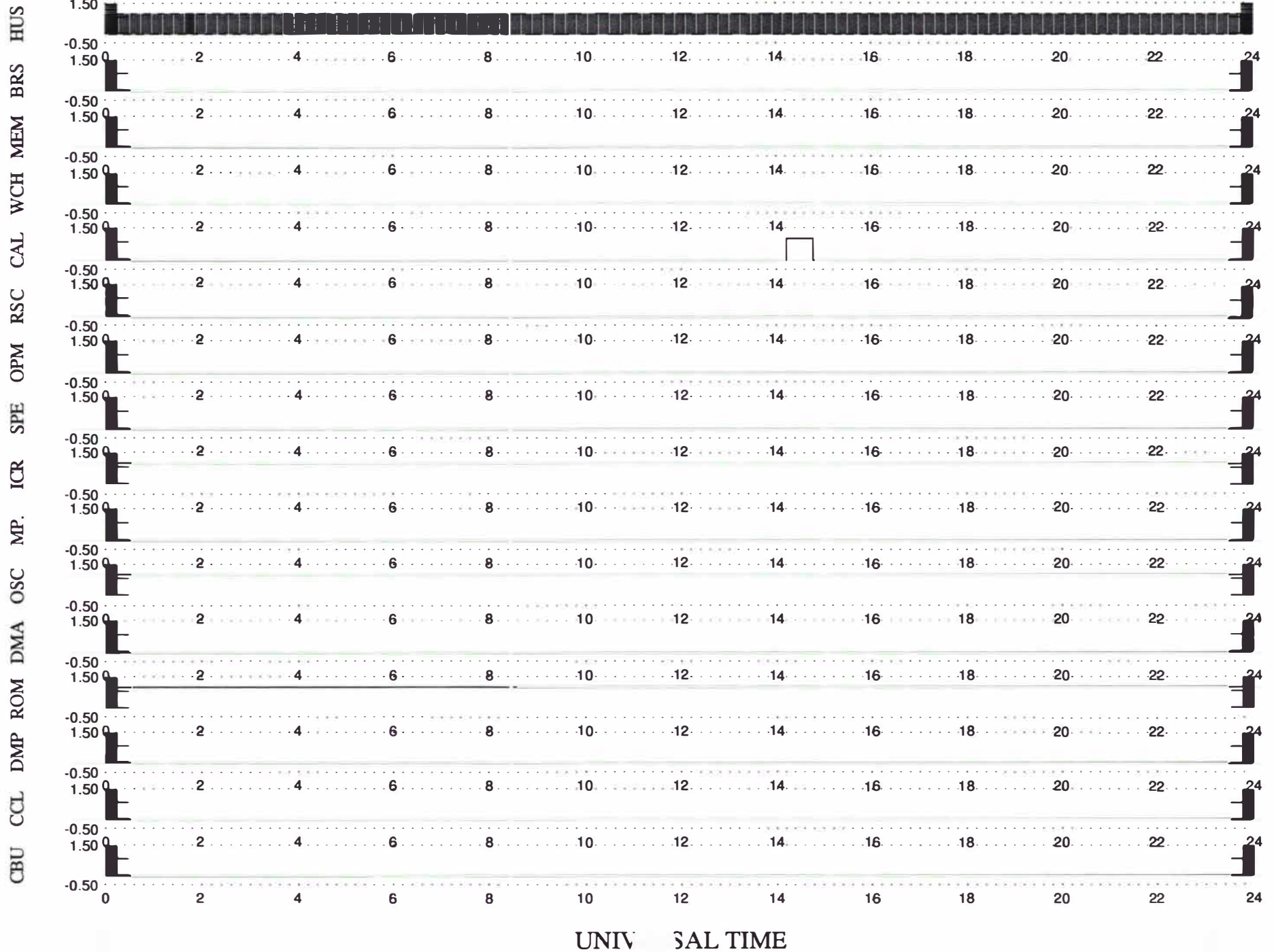


Data Start: 94/10/01, 0000:02 Plot created: 94/10/05, 1956

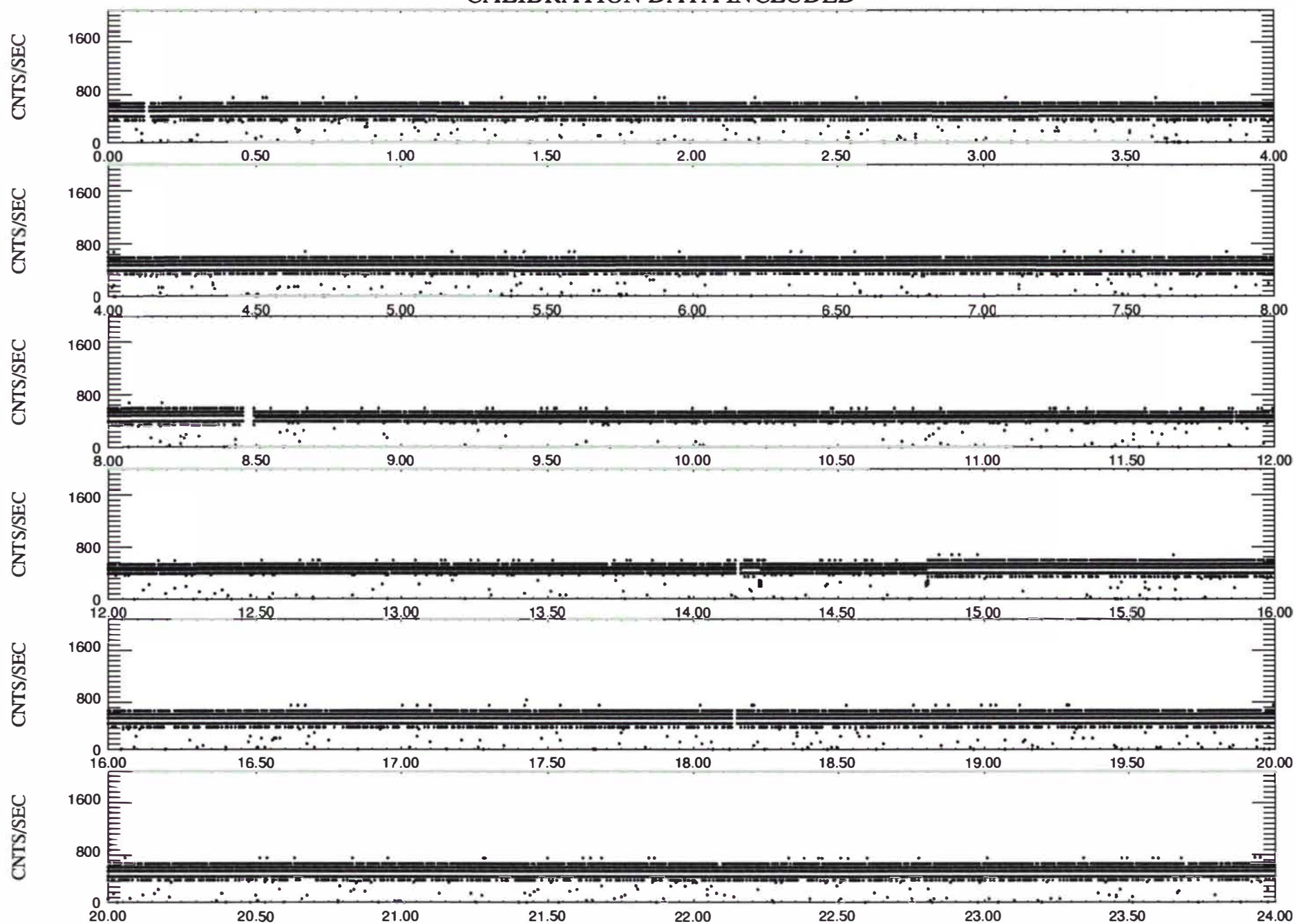
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

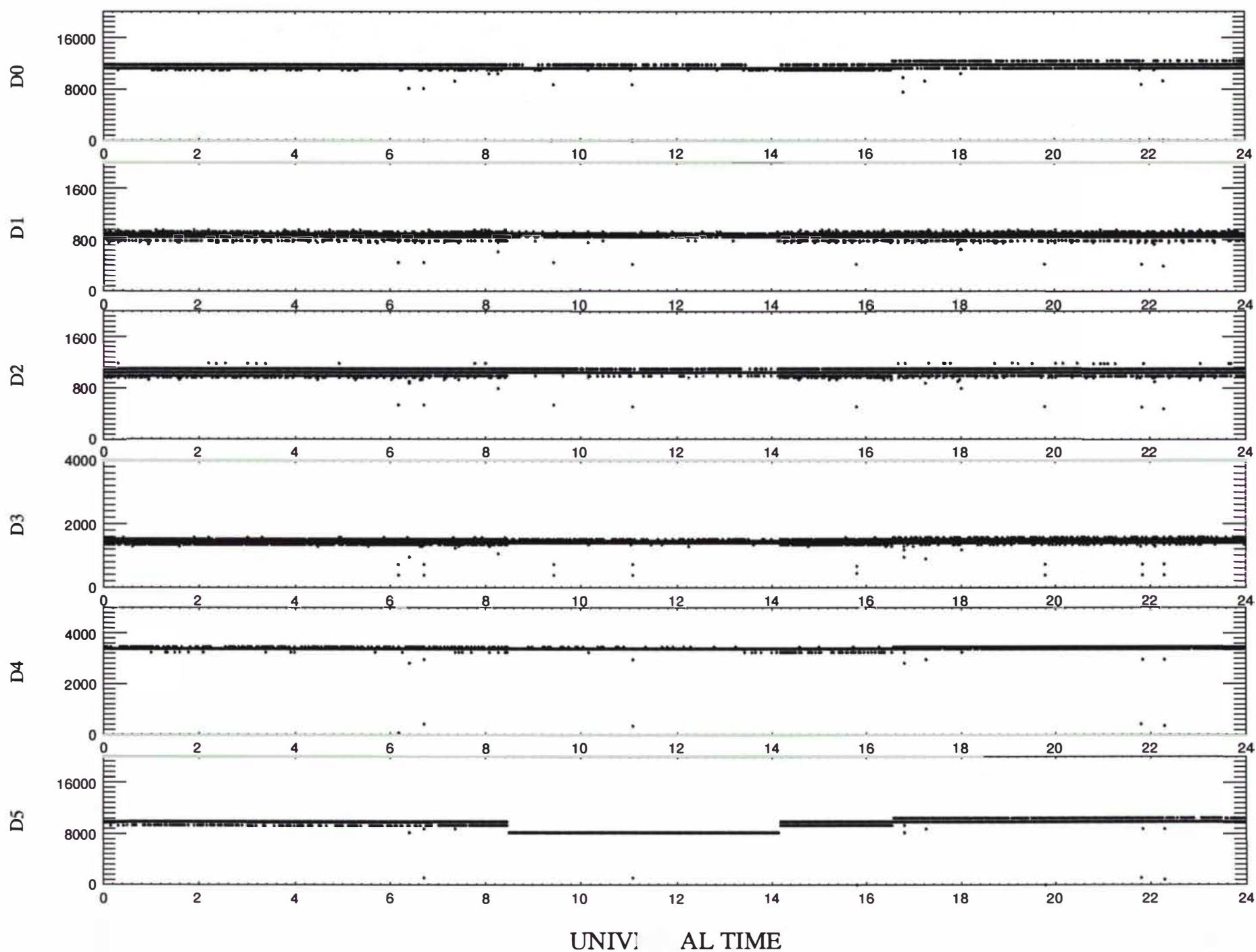
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



BATSE BURST TRIGGER

NO.: 3208

TIME: TJD=9627 SECONDS=13394

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY

BATSE BURST TRIGGER

NO.: 3209

TIME: TJD=9627 SECONDS=24855

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY

BATSE BURST TRIGGER

NO.: 3210

TIME: TJD=9627 SECONDS=30672

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

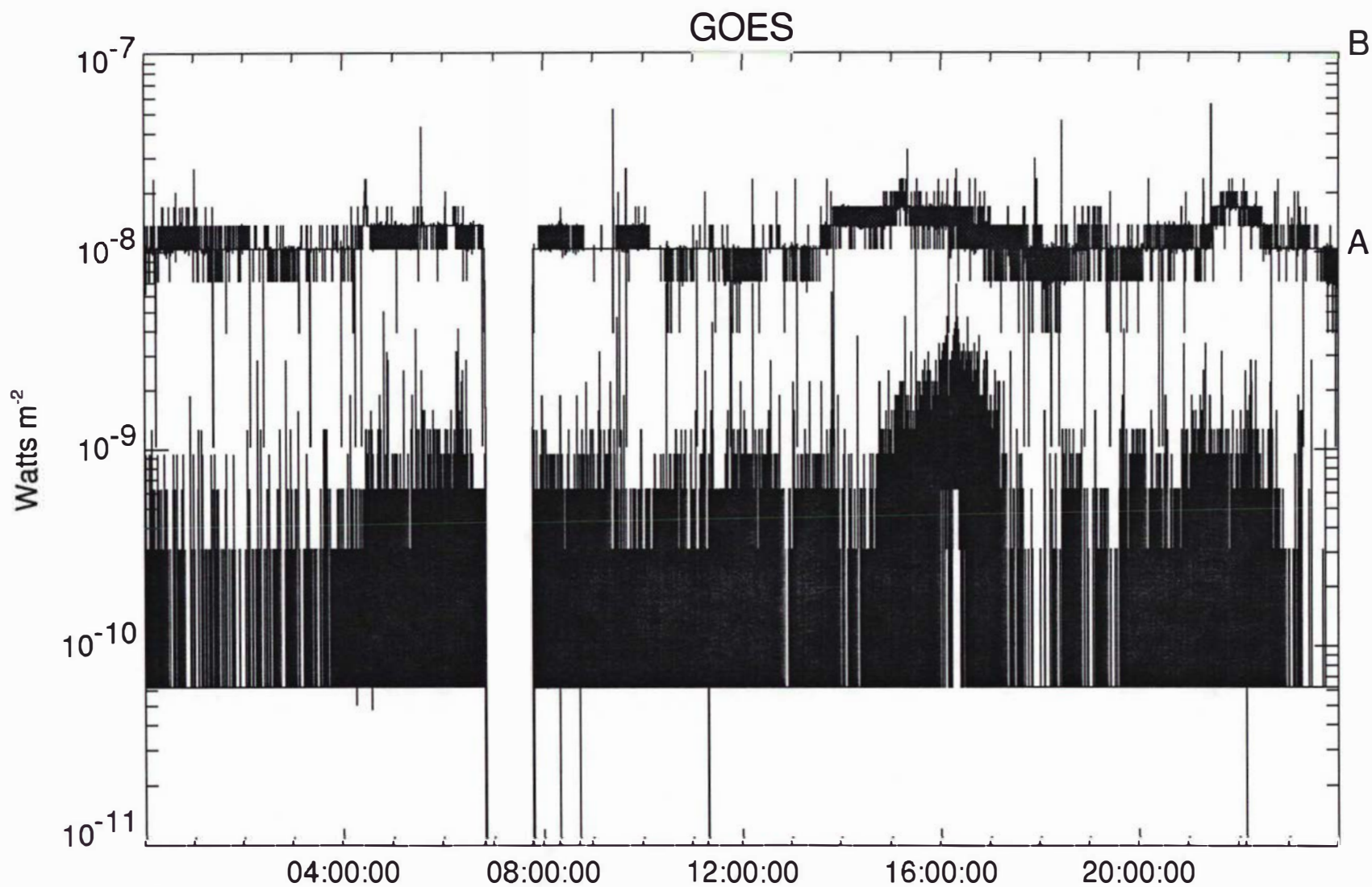
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY



Data Start: 94/10/02, 0000:02

Plot created: 94/10/05, 1957

Channel

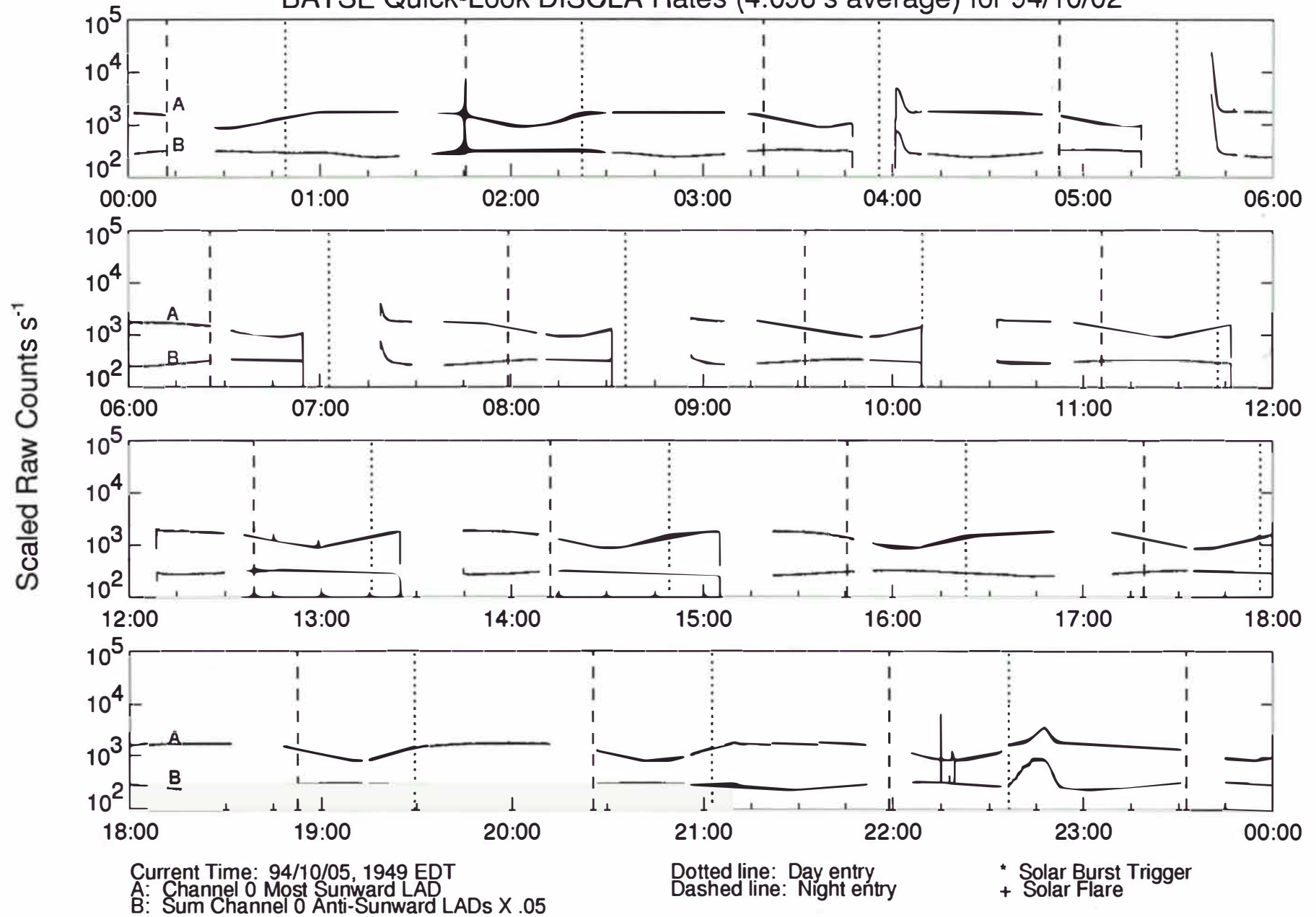
1 (1.0 - 8.0 Angstroms)

Background not subtracted

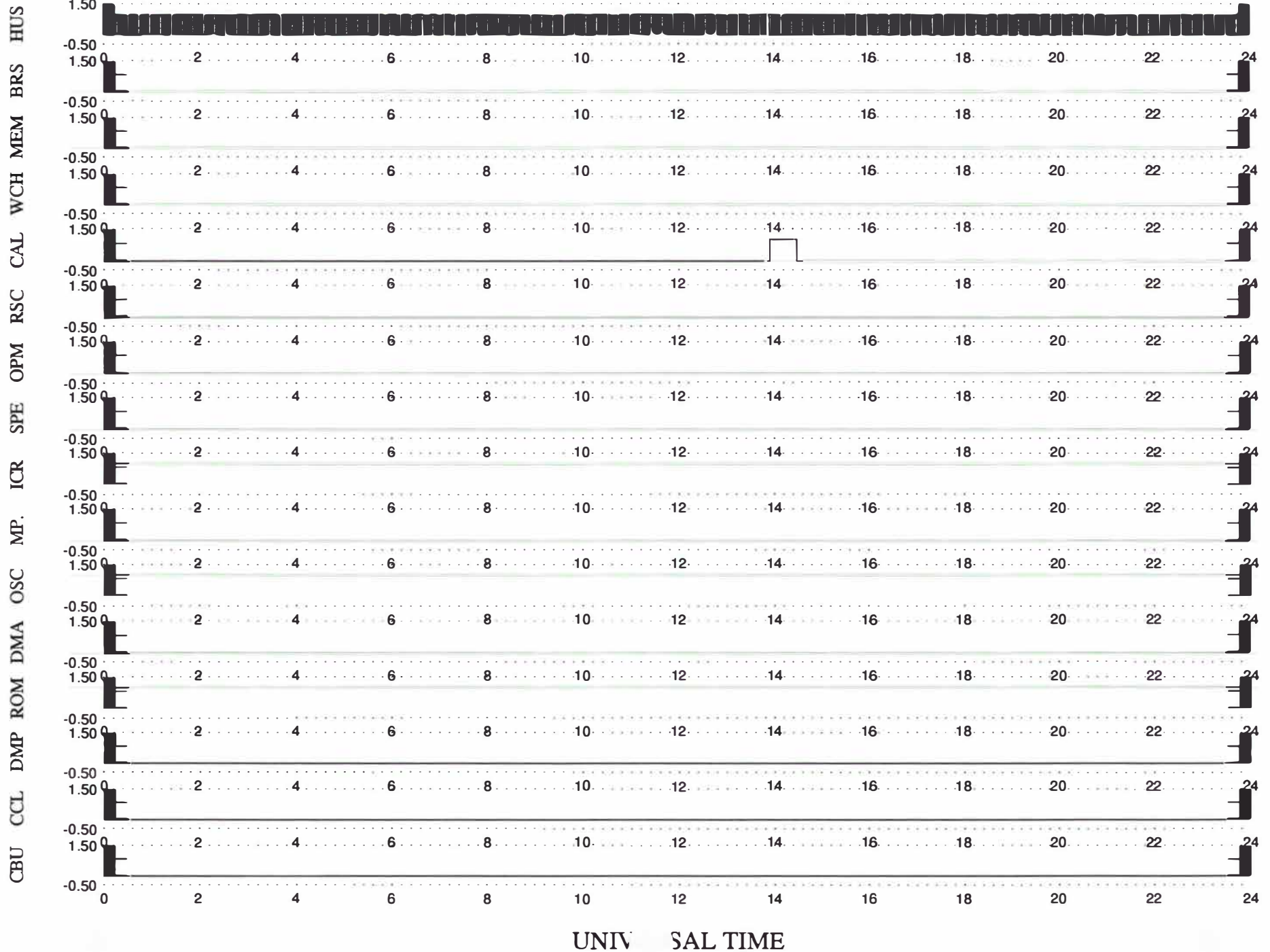
2 (0.5 - 4.0 Angstroms)

Background not subtracted

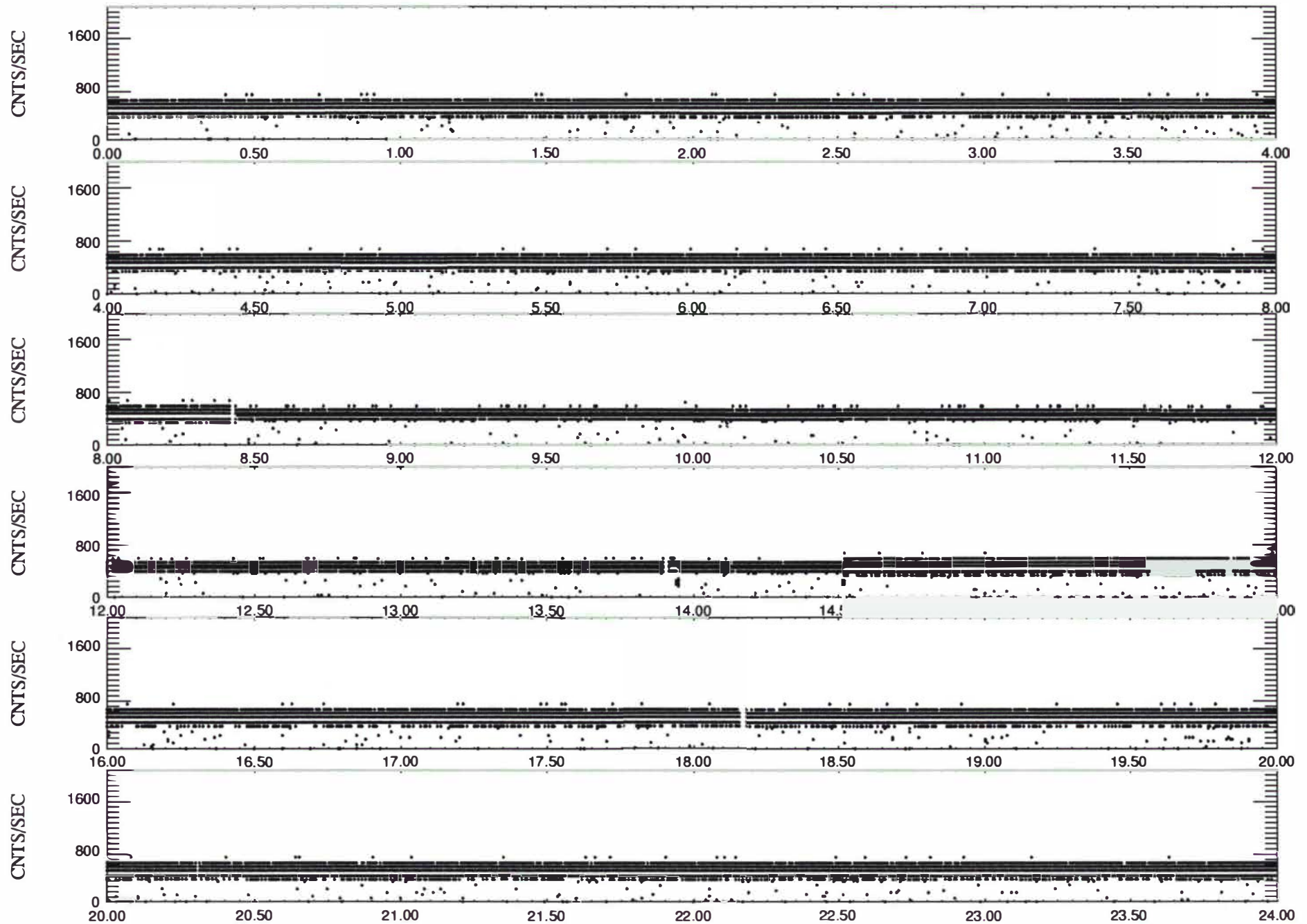
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/02



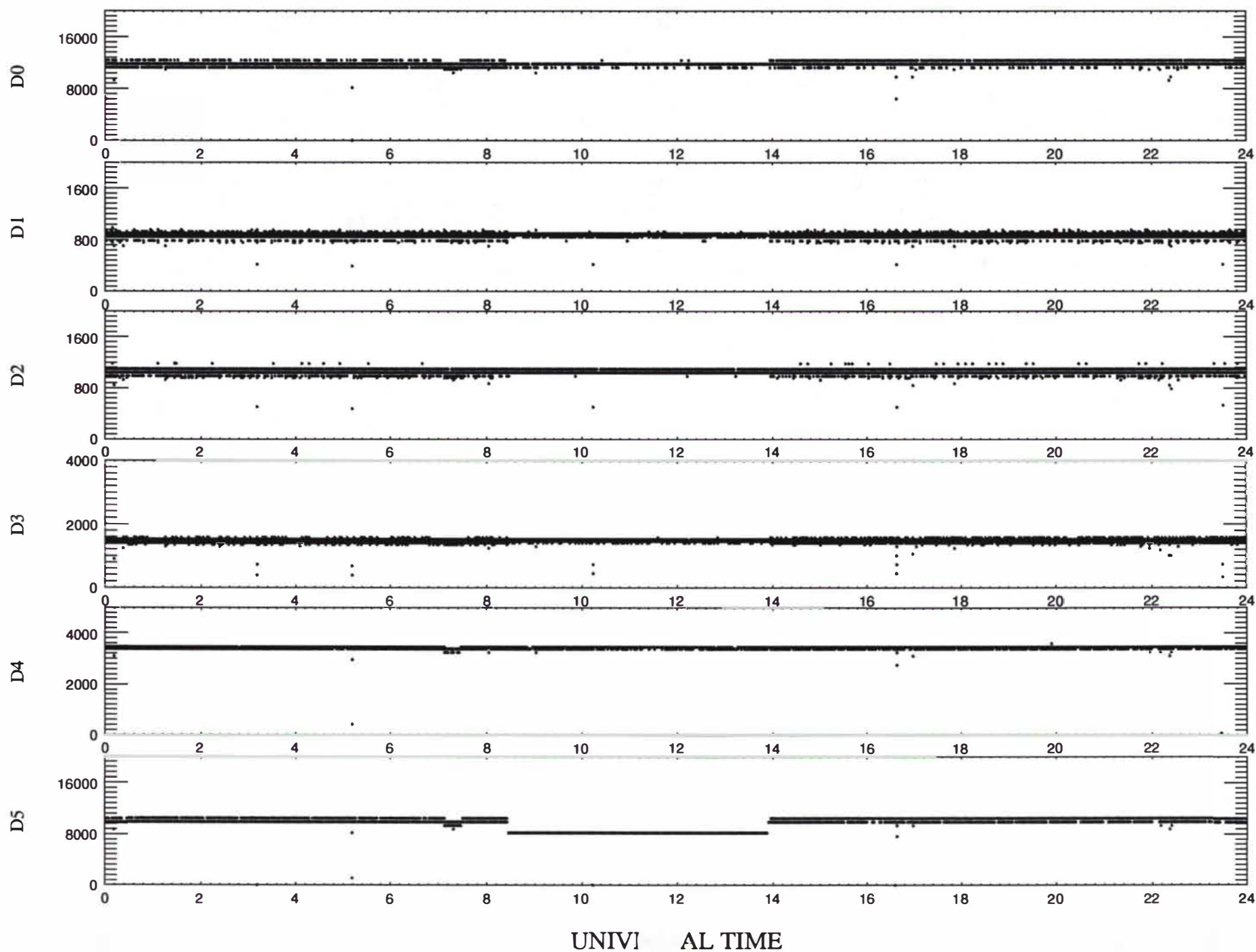
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From DEAL@ssl.msfc.nasa.gov Tue Oct 4 07:05 PDT 1994

Date: Tue, 4 Oct 1994 9:08:07 -0500 (CDT)

From: DEAL@ssl.msfc.nasa.gov

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

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03211

TIME: TJD=9628 SECONDS=16600

TYPE: SAA ENT SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY (PARTICLES)

From DEAL@ssl.msfc.nasa.gov Wed Oct 5 11:40 PDT 1994
Date: Wed, 5 Oct 1994 13:43:09 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3212

Helio cor

RI

BATSEARCH PROGRAM

BATSE BURST # 3212
EVENT OF 1994 OCT 3 DAY OF YEAR=276
EVENT CROSSING TIME AT BATSE : 19037. S. OR 05:17:17.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 188.000 34.000
BATSE PEAK COUNTING RATE: 7100 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/10/ 94 IS:
RA= 162.778 DEC= -59.782 DIST= 2.481 AU
BATSE-ULYSSES DISTANCE = 371105482. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 83.93 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 130.88 SECS.
CROSSING TIME AT ULYSSES IS 19168. S. OR 05:19:27 +/- 265.70 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/10/ 94 IS:
RA= 121.411 DEC= 21.300 DIST= 1.563 AU
MARS-BATSE DISTANCE = 233810800. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=120.67 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -397.77 SECS.
CROSSING TIME AT MARS IS 18639. S. OR 05:10:39 +/- 110.43 SECONDS

From DEAL@ssl.msfc.nasa.gov Wed Oct 5 11:40 PDT 1994
Date: Wed, 5 Oct 1994 13:42:38 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3212

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3212	941003	9628	19037	7100	188	+34

BATSE BURST TRIGGER

NO.: 03212

TIME: TJD=9628 SECONDS=19037

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=056.5 AZIMUTH=284.7 ERROR= DEGREES

COMMENTS:

BURST, PRECURSOR AT T-40, TOTAL DURATION ~130S. DOUBLE STRUCTURE, WEAK RESPONSE OVER 300KEV.

Helio corr removed

Date: Nov 4 '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

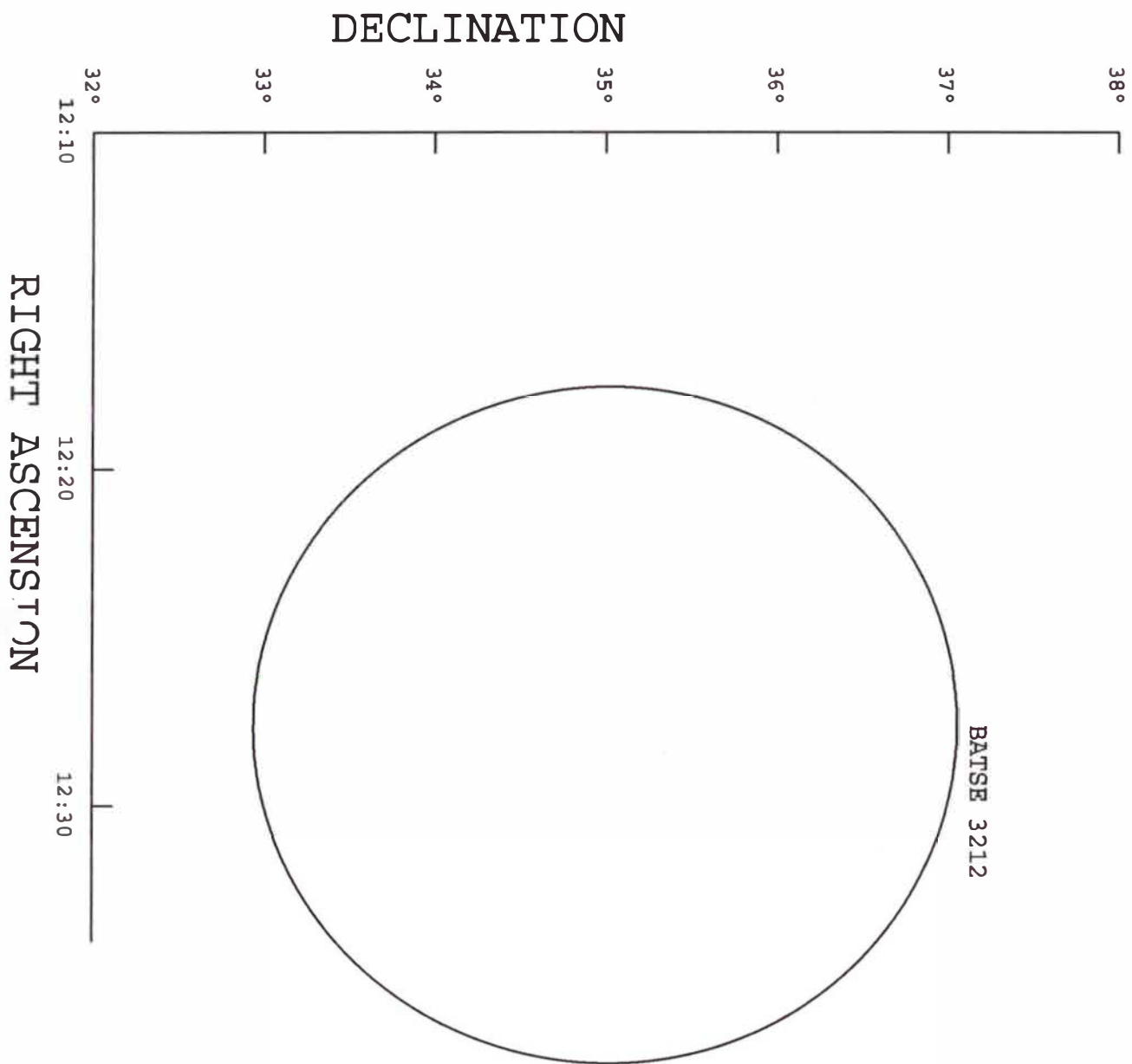
1 ULYSSES

2 BATSE

EVENT OF OCT 3, 1994 5:20

2-1

4/11/97



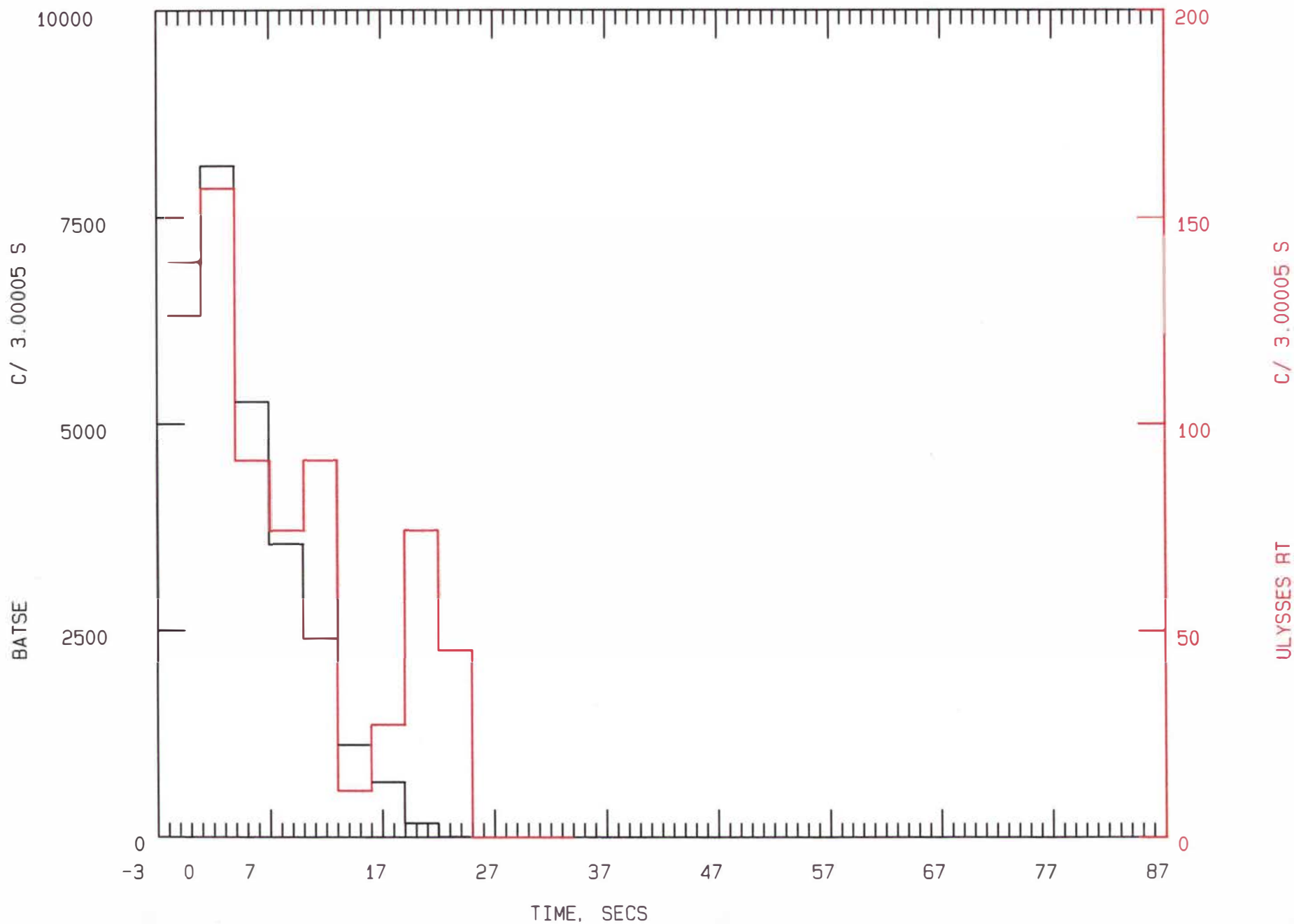
BATSE

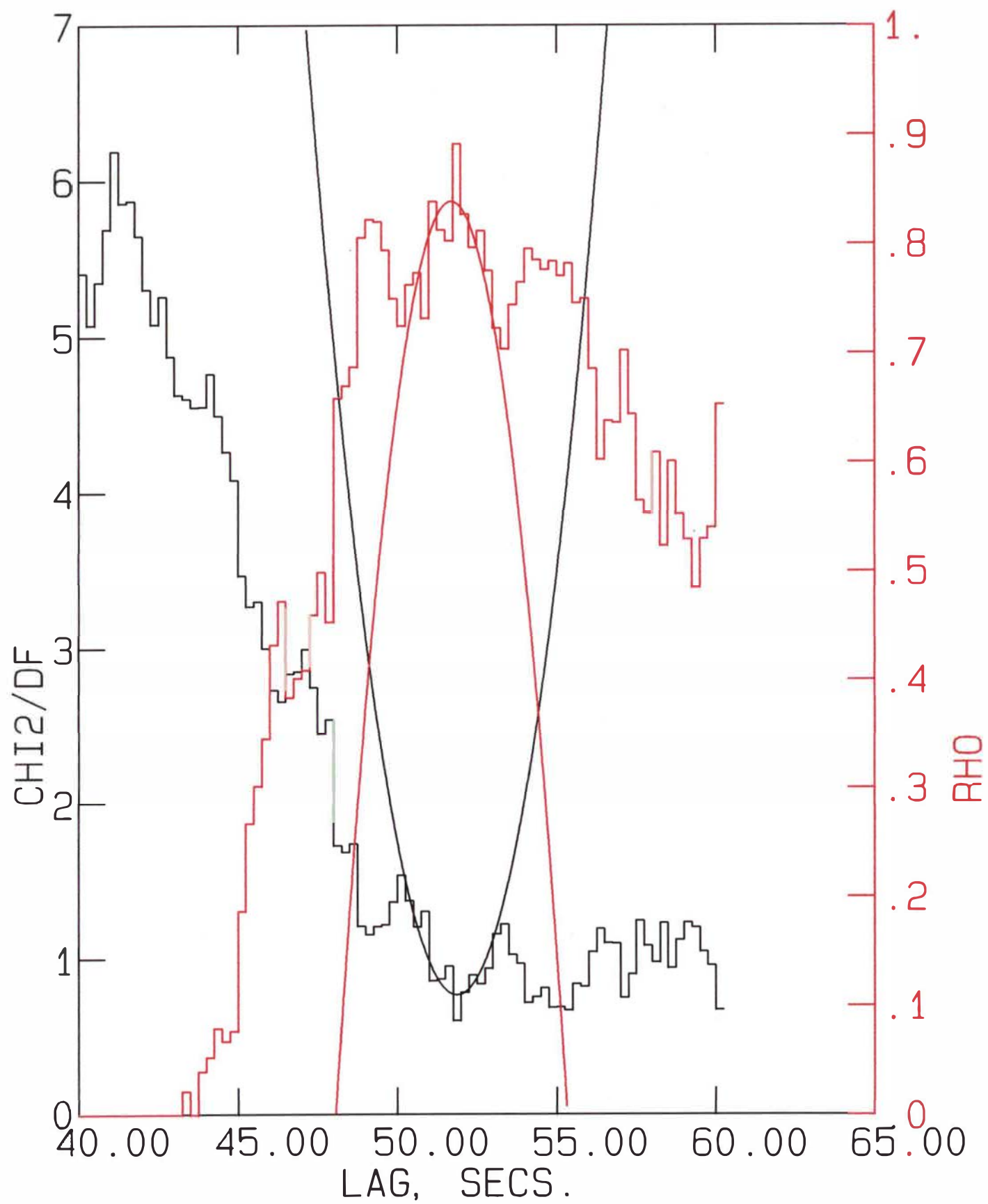
-ULYSSES RT CORRELATION

3/10/93

19037.874

4/11/97





ULYSSES RT

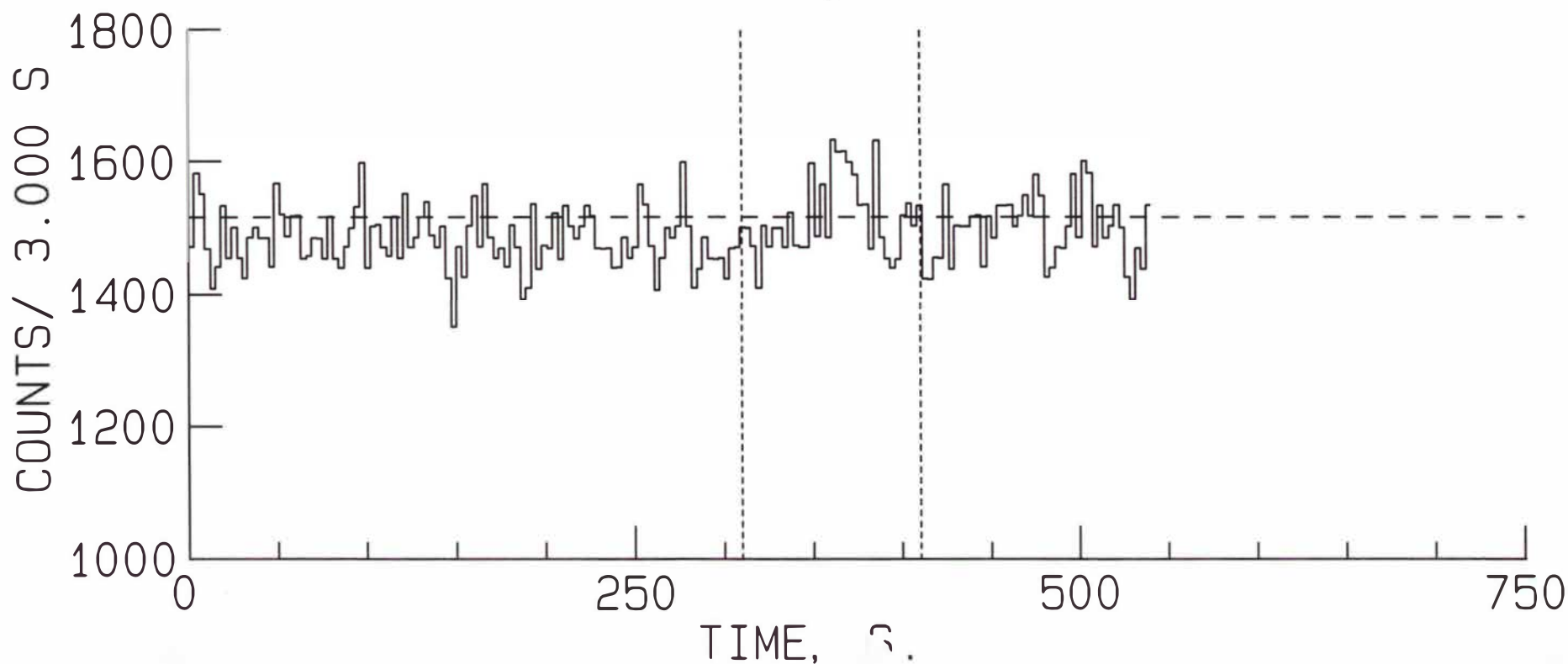
4 / 1 1 / 97

3/10/94 18900.229 s

0.250 S INTERVALS REGROUPED BY 12

22- 148 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



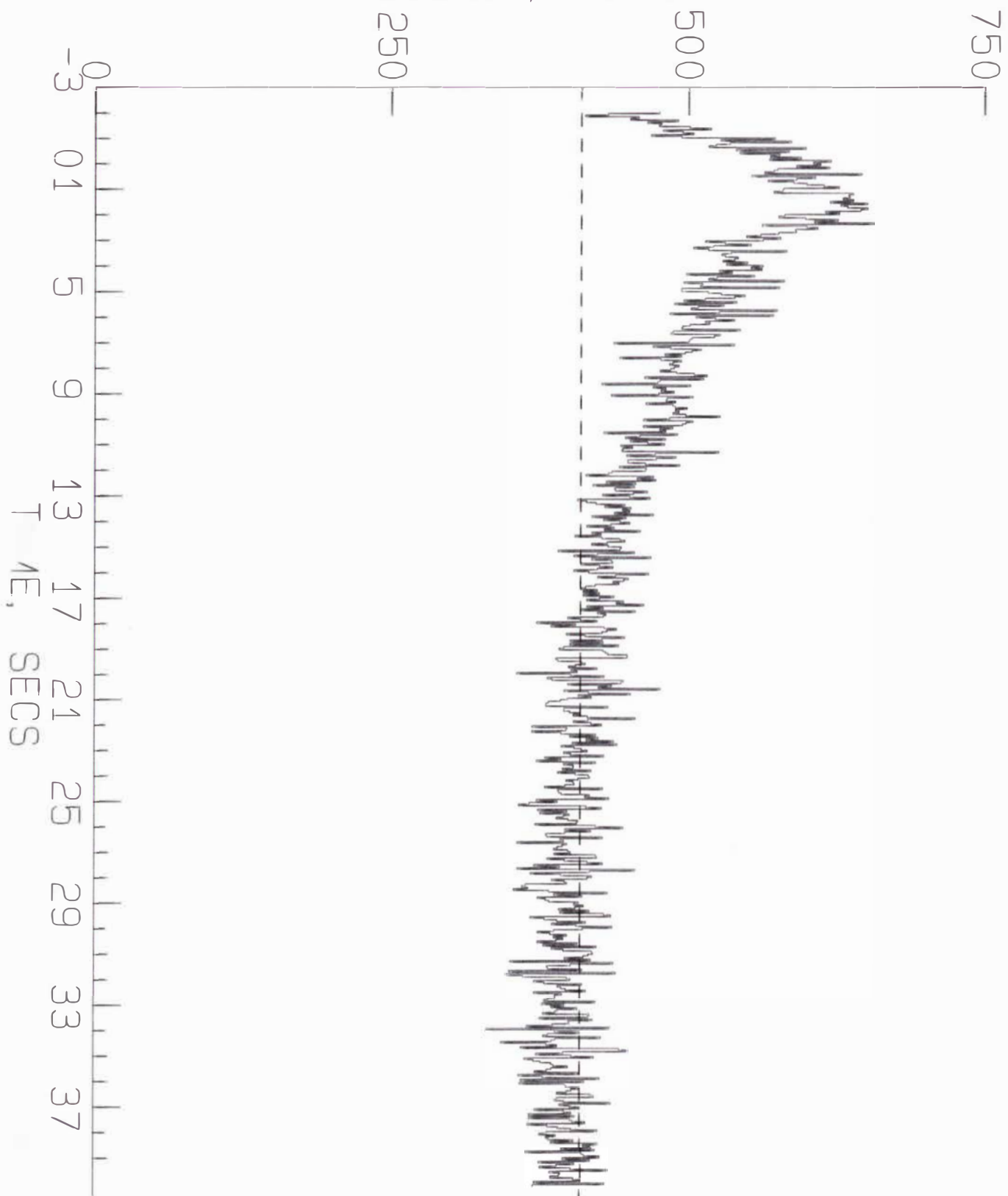
BATSE

03/10/93

19037.874

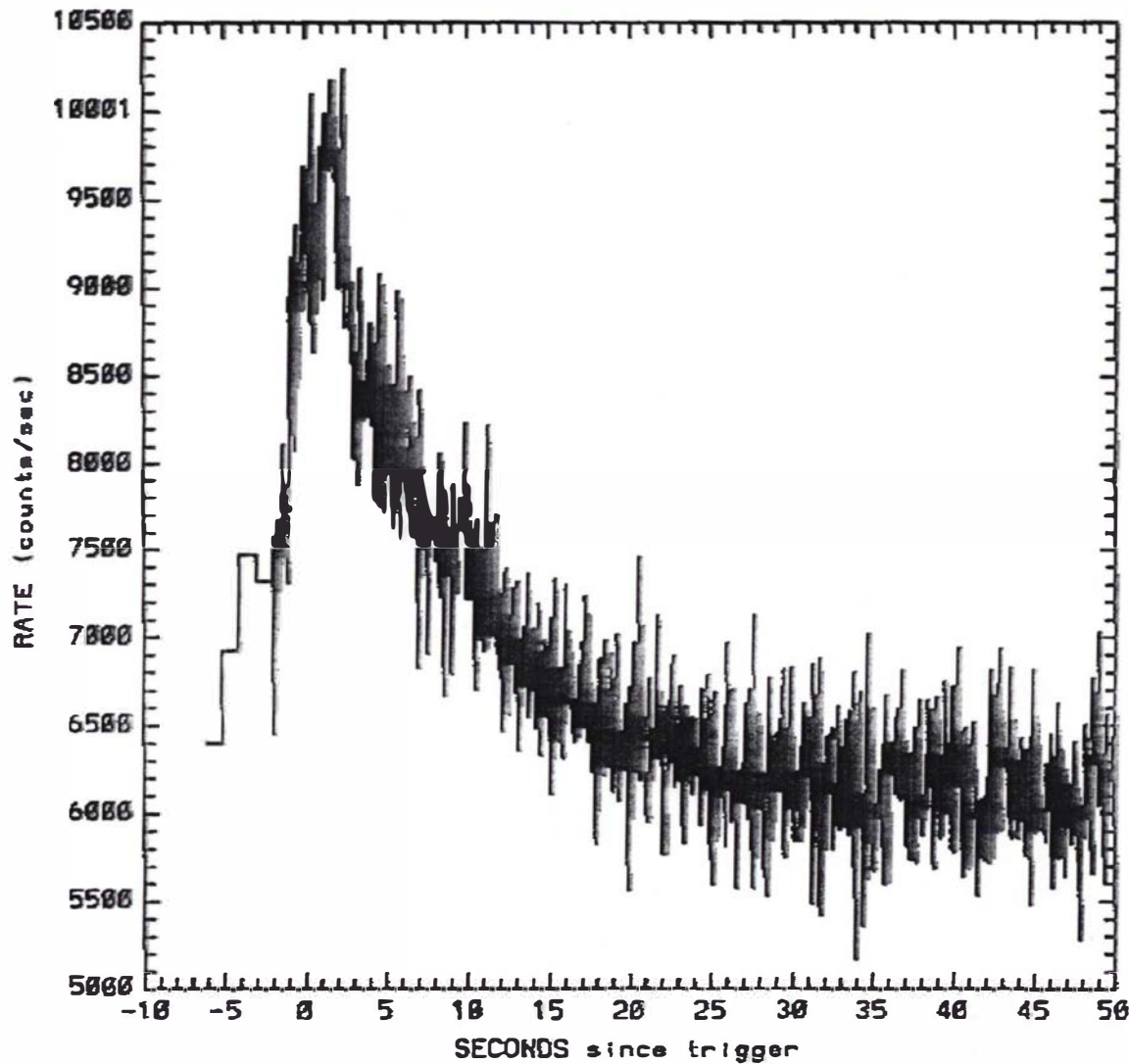
25- 100 keV

COUNTS/ .064 S



20/10/94

DISCSC Data for K. Hurley, No. 3212



28-OCT-1994 12:07.13

Created by KOPS 80
(Burst Display)
Version 2.22

Trigger = 3212

Trigger Time:
9628 / 19837.874Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 secondsDetectors [7..8]:
-6--2--Discriminators:
1 1, 2Quality Mask:
BDISP1

From DEAL@ssl.msfc.nasa.gov Tue Oct 4 07:22 PDT 1994
Date: Tue, 4 Oct 1994 9:24:56 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03213

TIME: TJD=9628 SECONDS=22345

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY (PARTICLES)

From DEAL@ssl.msfc.nasa.gov Tue Oct 4 07:24 PDT 1994
Date: Tue, 4 Oct 1994 9:27:19 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03214

TIME: TJD=9628 SECONDS=28162

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY (PARTICLES)

From DEAL@ssl.msfc.nasa.gov Wed Oct 5 11:39 PDT 1994
Date: Wed, 5 Oct 1994 13:41:23 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3215

BATSEARCH PROGRAM

NO

BATSE BURST # 3215
EVENT OF 1994 OCT 3 DAY OF YEAR=276
EVENT CROSSING TIME AT BATSE : 61292. S. OR 17:01:32.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 106.000 18.000
BATSE PEAK COUNTING RATE: 54000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/10/ 94 IS:
RA= 163.141 DEC= -59.990 DIST= 2.477 AU
BATSE-ULYSSES DISTANCE = 370489399. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 89.46 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 11.75 SECS.
CROSSING TIME AT ULYSSES IS 61304. S. OR 17:01:43 +/- 264.73 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/10/ 94 IS:
RA= 121.411 DEC= 21.300 DIST= 1.563 AU
MARS-BATSE DISTANCE = 233810800. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=165.12 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -753.77 SECS.
CROSSING TIME AT MARS IS 60538. S. OR 16:48:58 +/- 23.32 SECONDS

From DEAL@ssl.msfc.nasa.gov Wed Oct 5 11:38 PDT 1994
Date: Wed, 5 Oct 1994 13:40:46 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3215

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3215	941003	9628	61292	54000	106	+18

BATSE BURST TRIGGER

NO.: 03215

TIME: TJD=9628 SECONDS=61292

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=127.0 AZIMUTH=307.9 ERROR= DEGREES

COMMENTS:

INTENSE SINGLE PULSE ~.3 S. LONG. VISIBLE ABOVE 300KEV.

5 / 10 / 94

ULYSSES RT

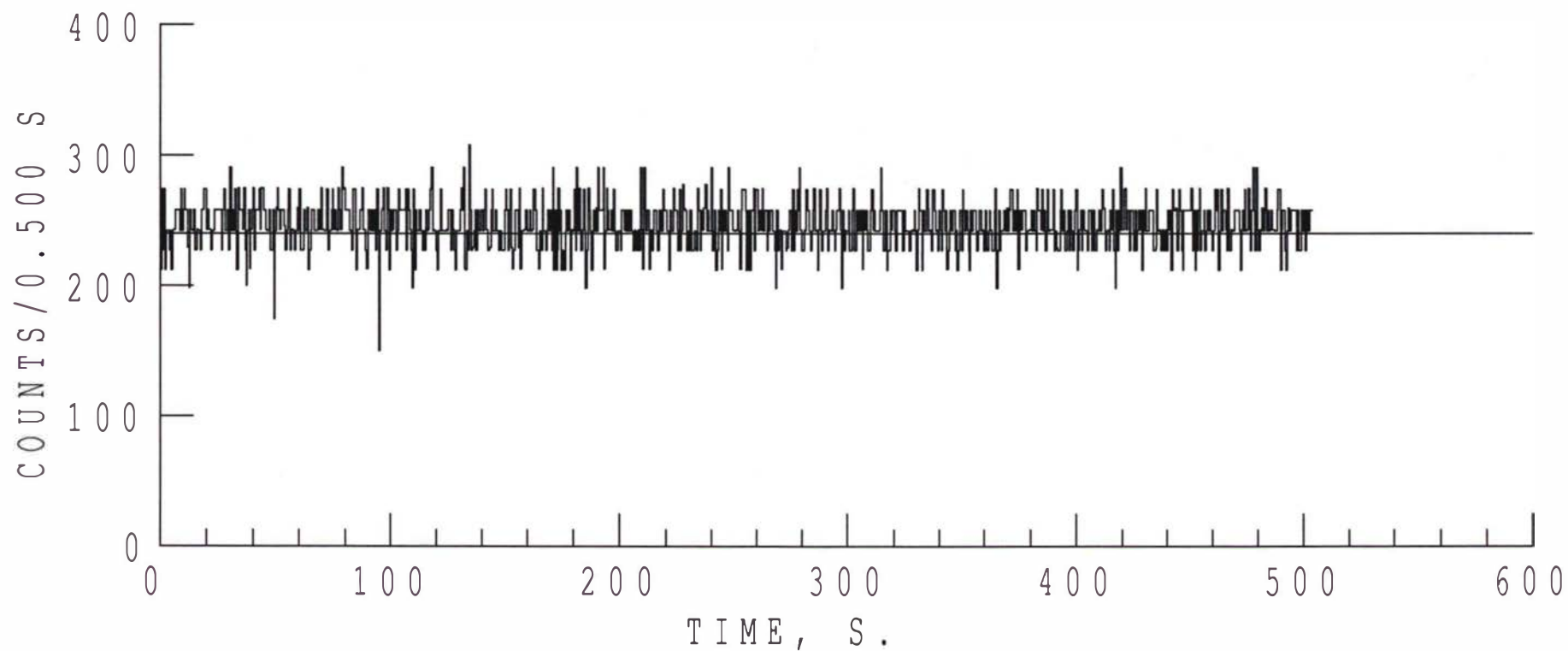
3 / 10 / 94 61056.203 s

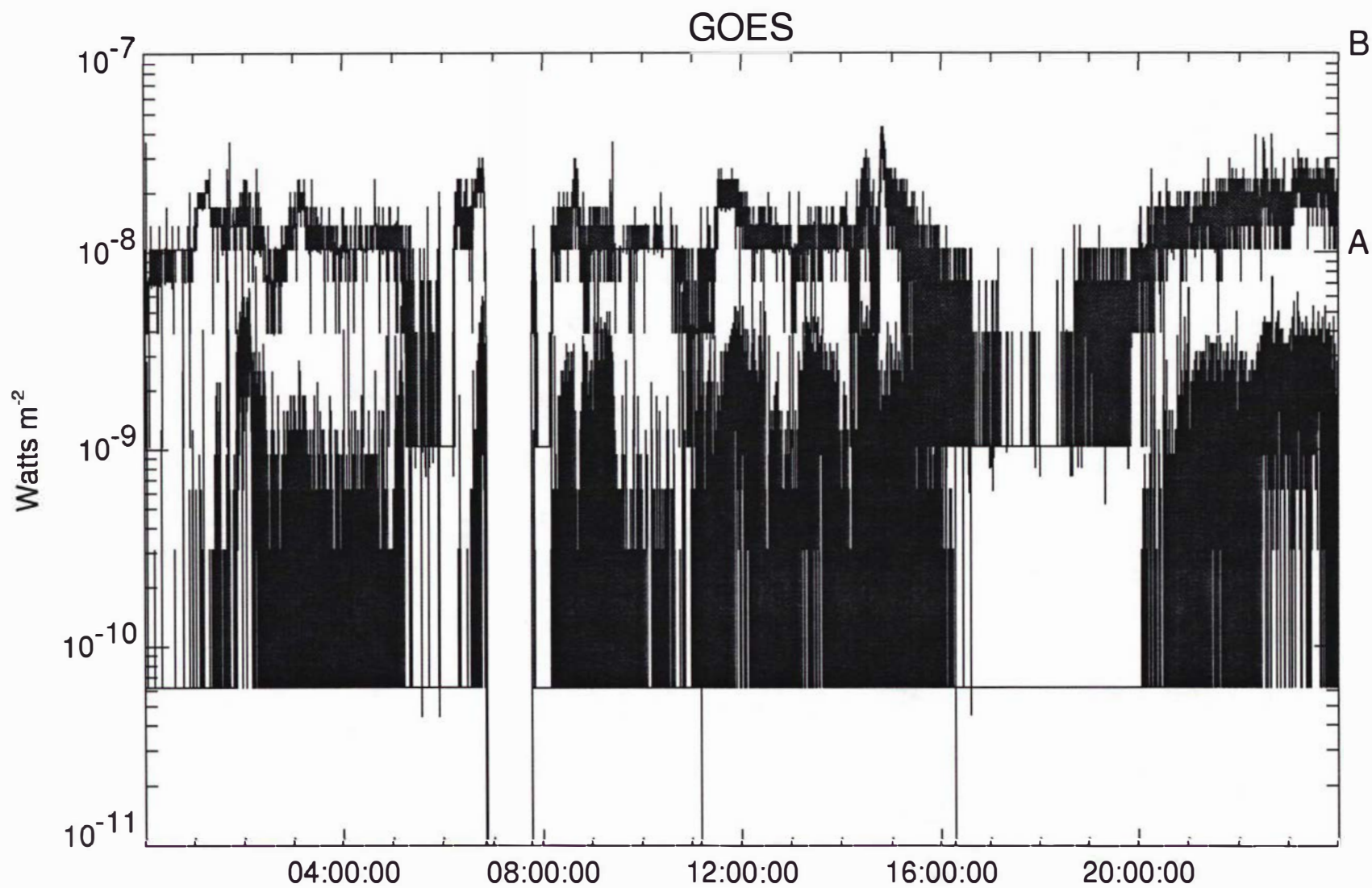
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





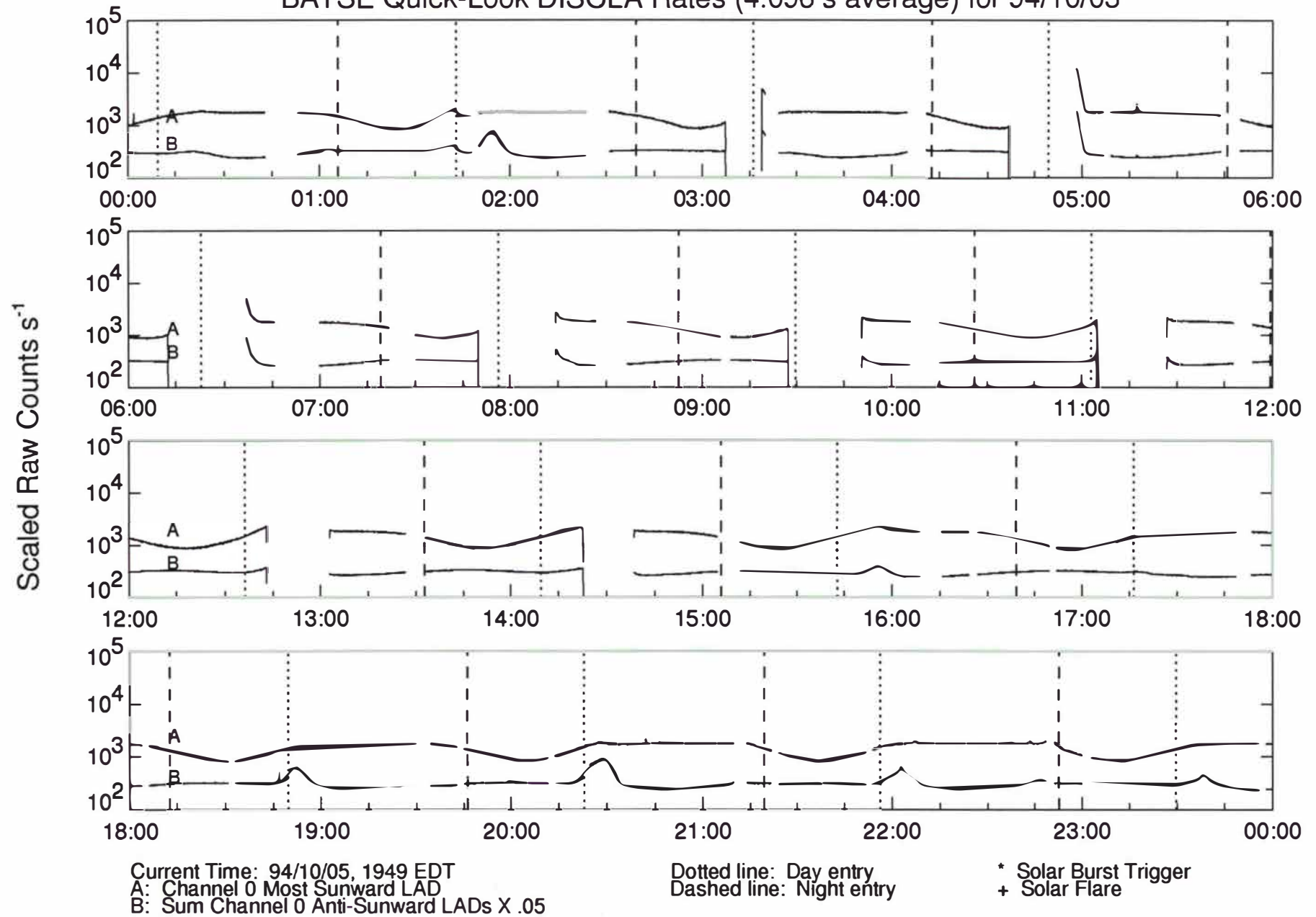
Data Start: 94/10/03, 0000:01

Plot created: 94/10/05, 1958

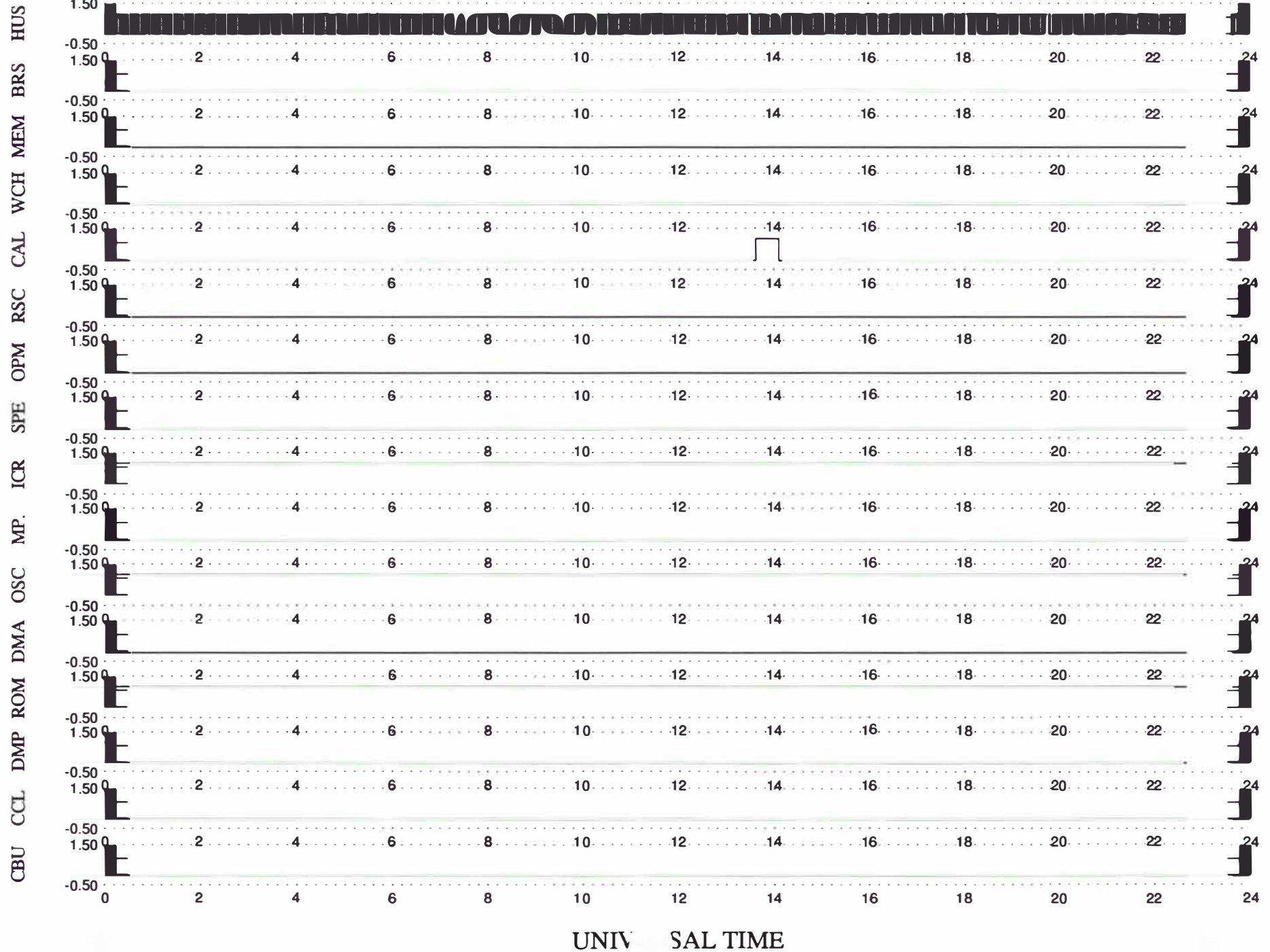
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

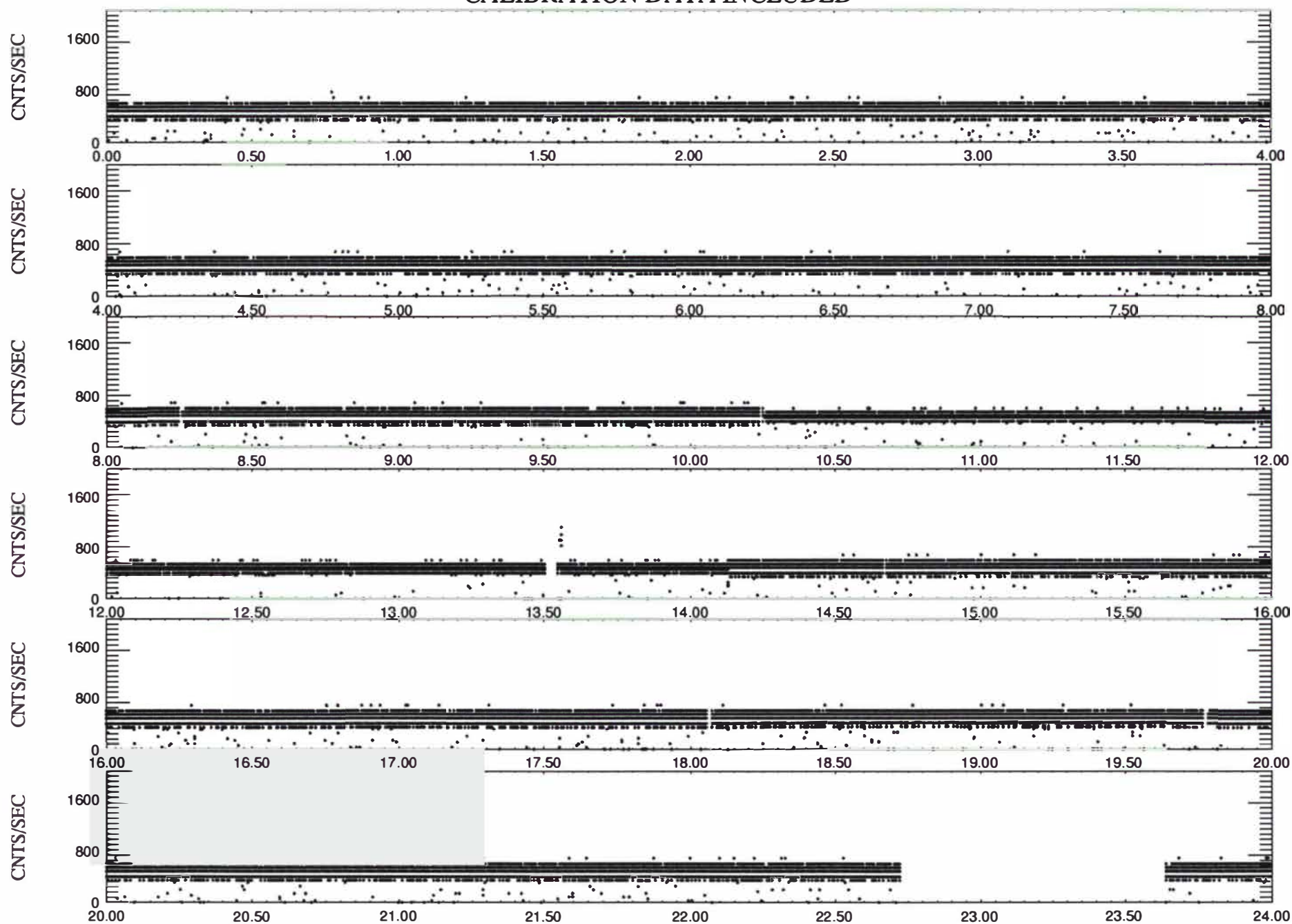
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/03



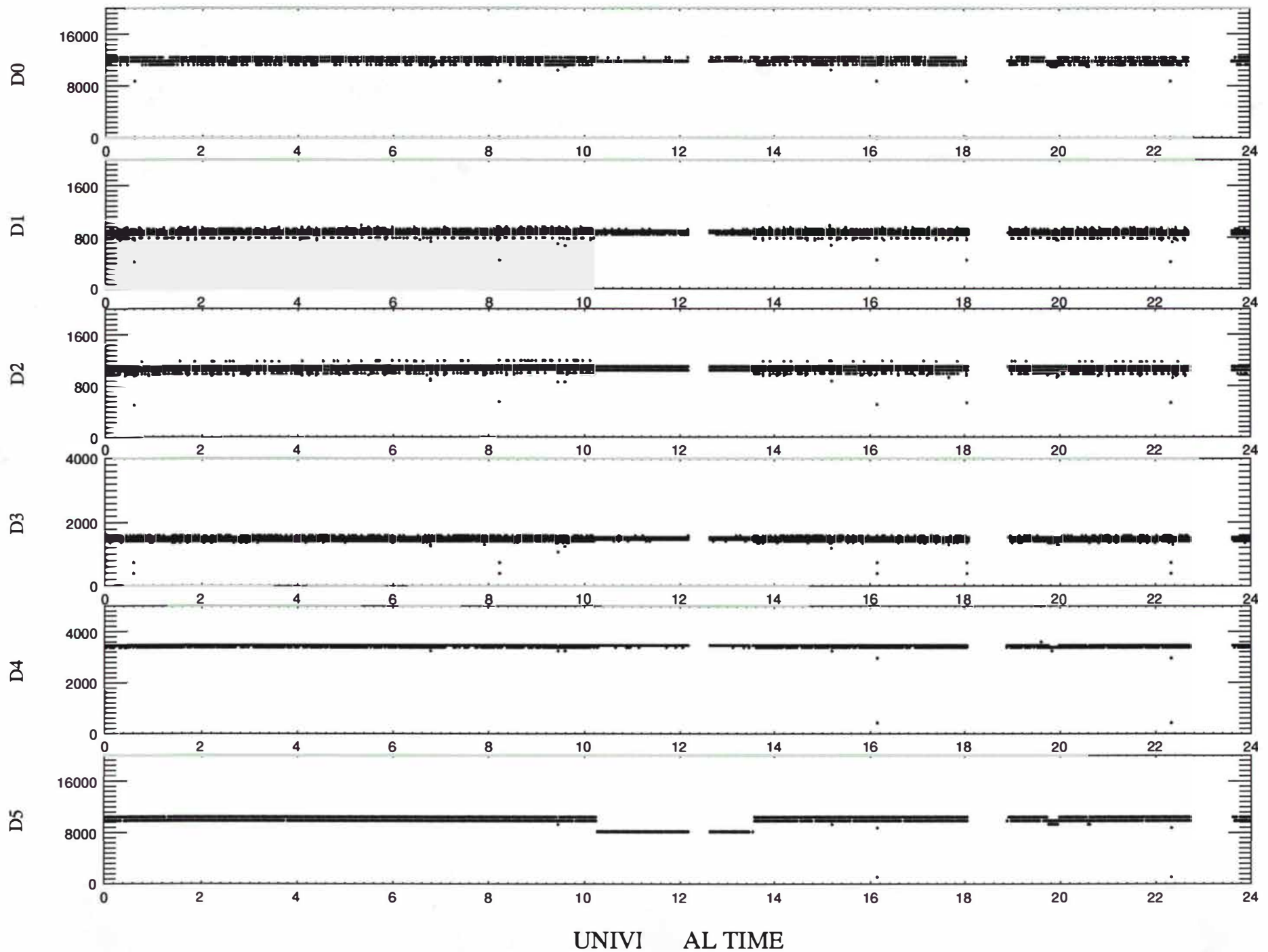
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HAGEDON@ssl.msfc.nasa.gov Thu Oct 6 08:21 PDT 1994
Date: Thu, 6 Oct 1994 10:23:48 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3216

TIME: TJD=9629 SECONDS=43473

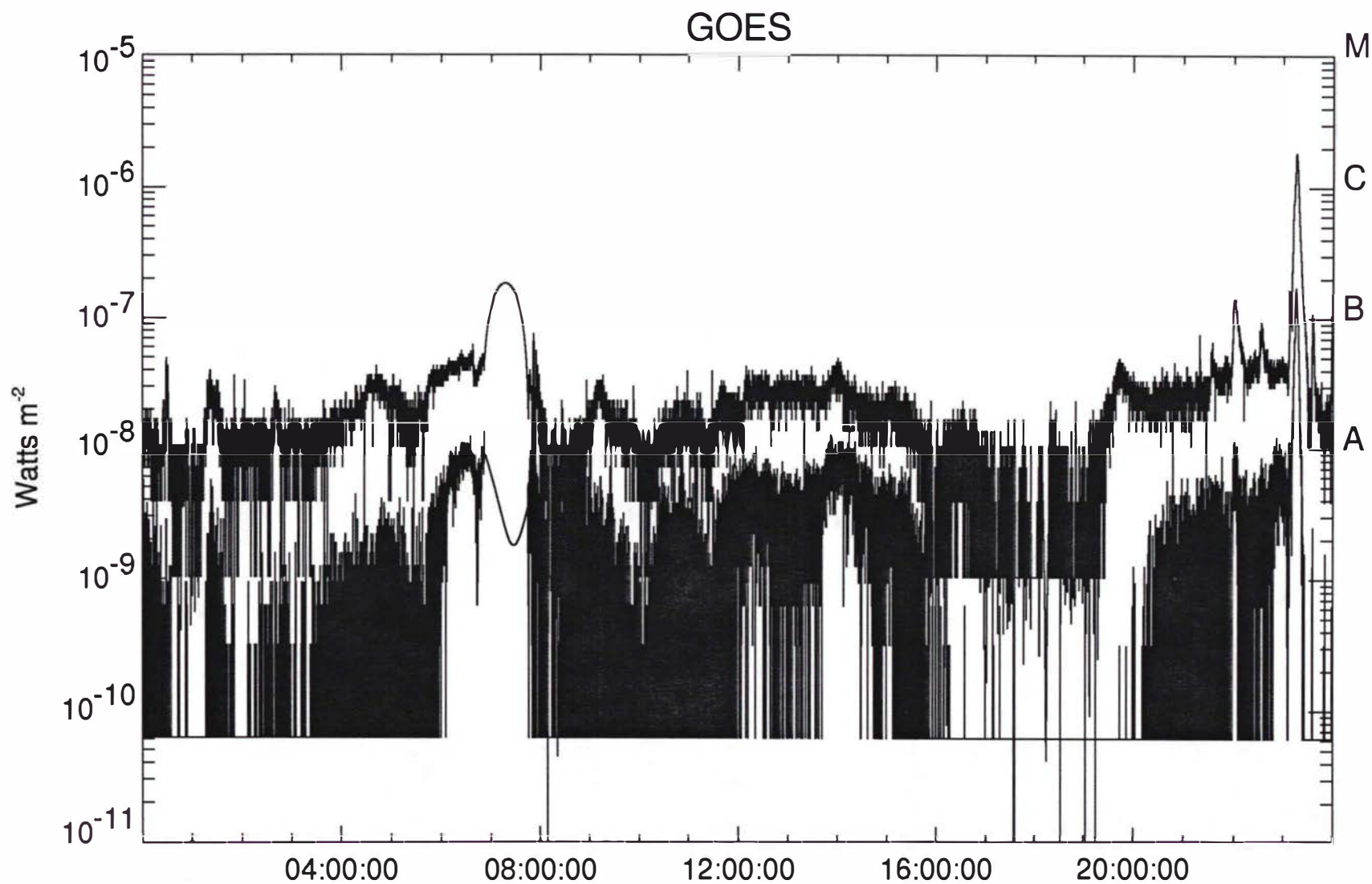
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



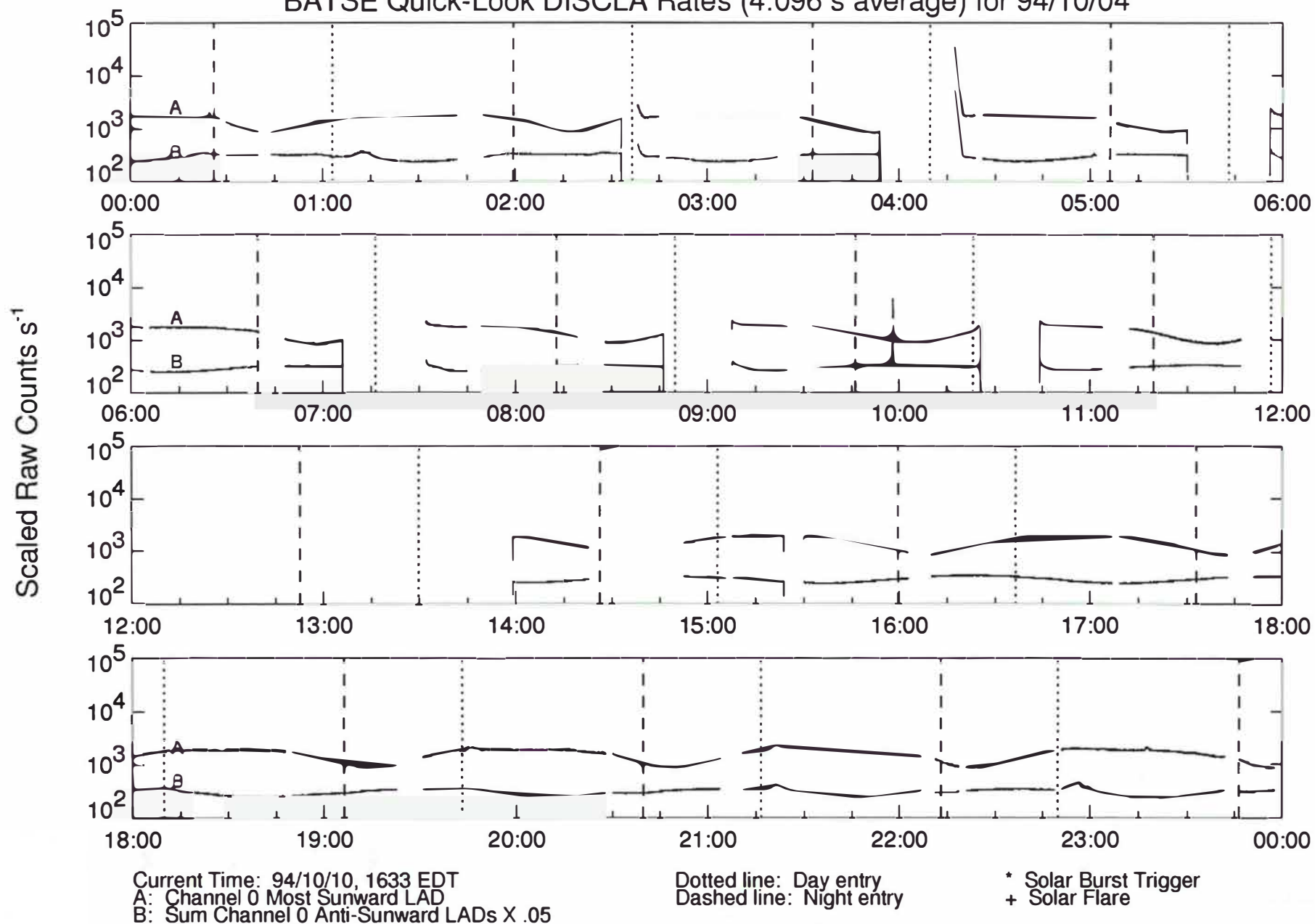
Data Start: 94/10/04, 0000:01

Plot created: 94/10/05, 1958

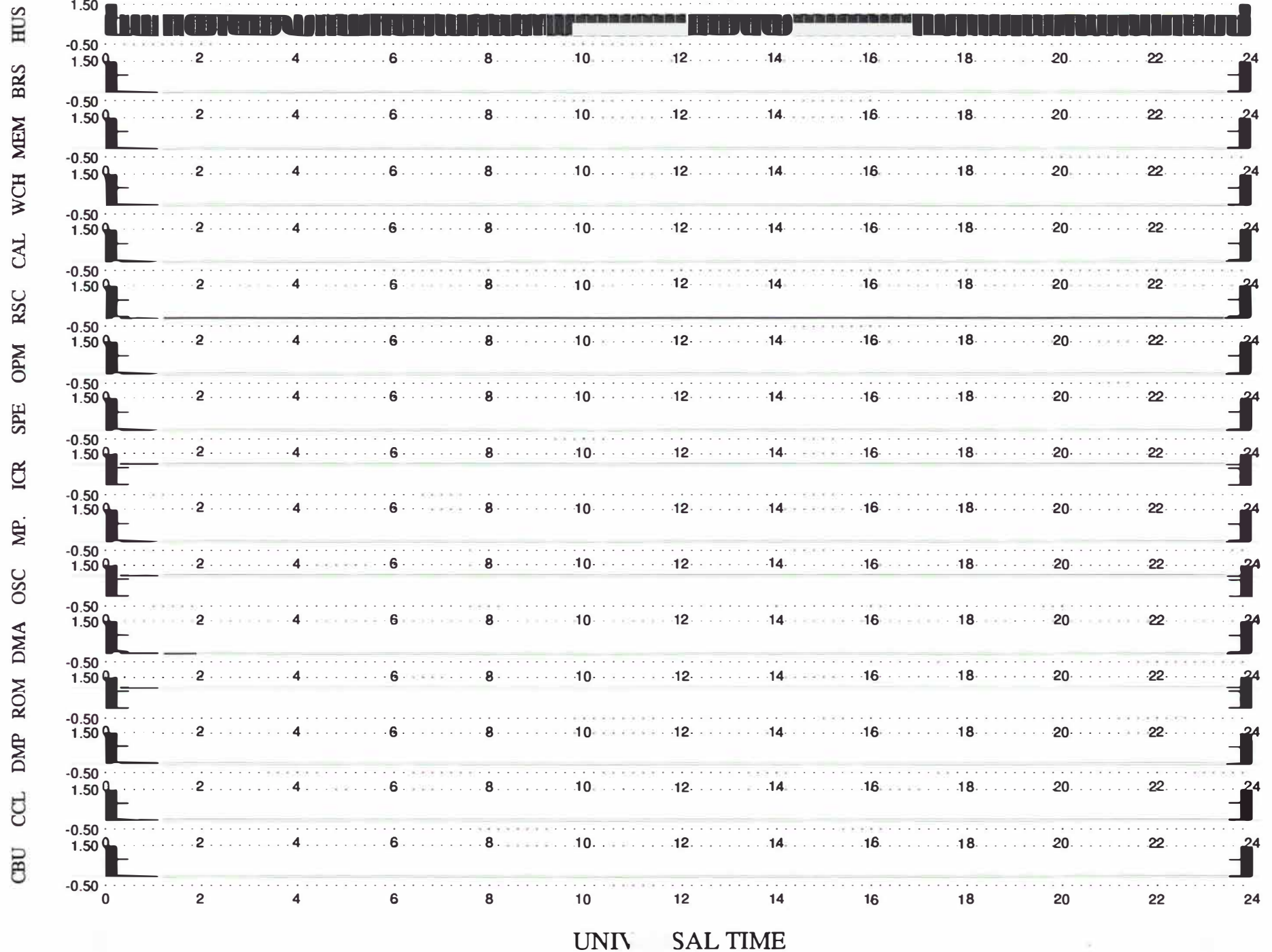
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

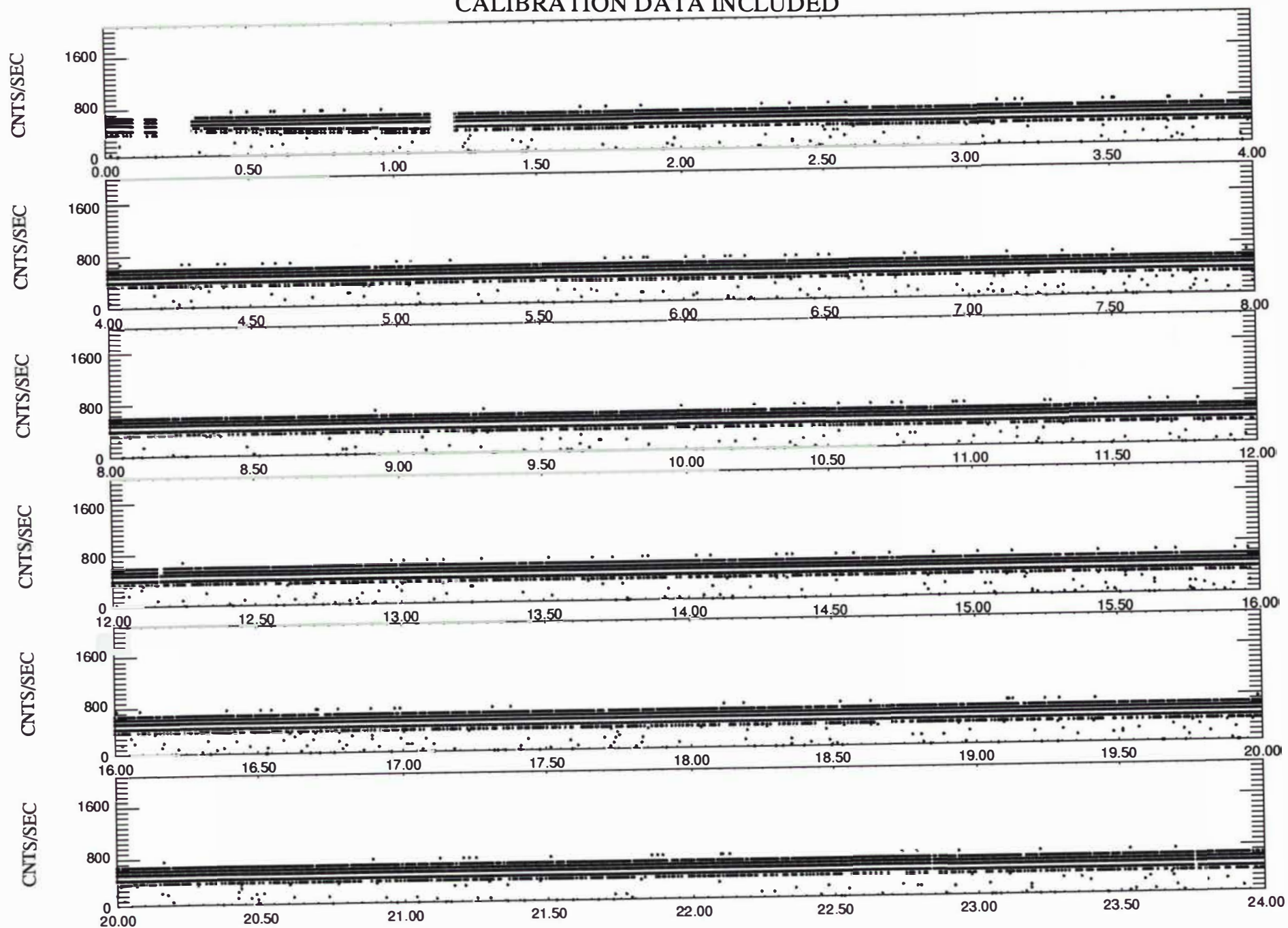
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/04



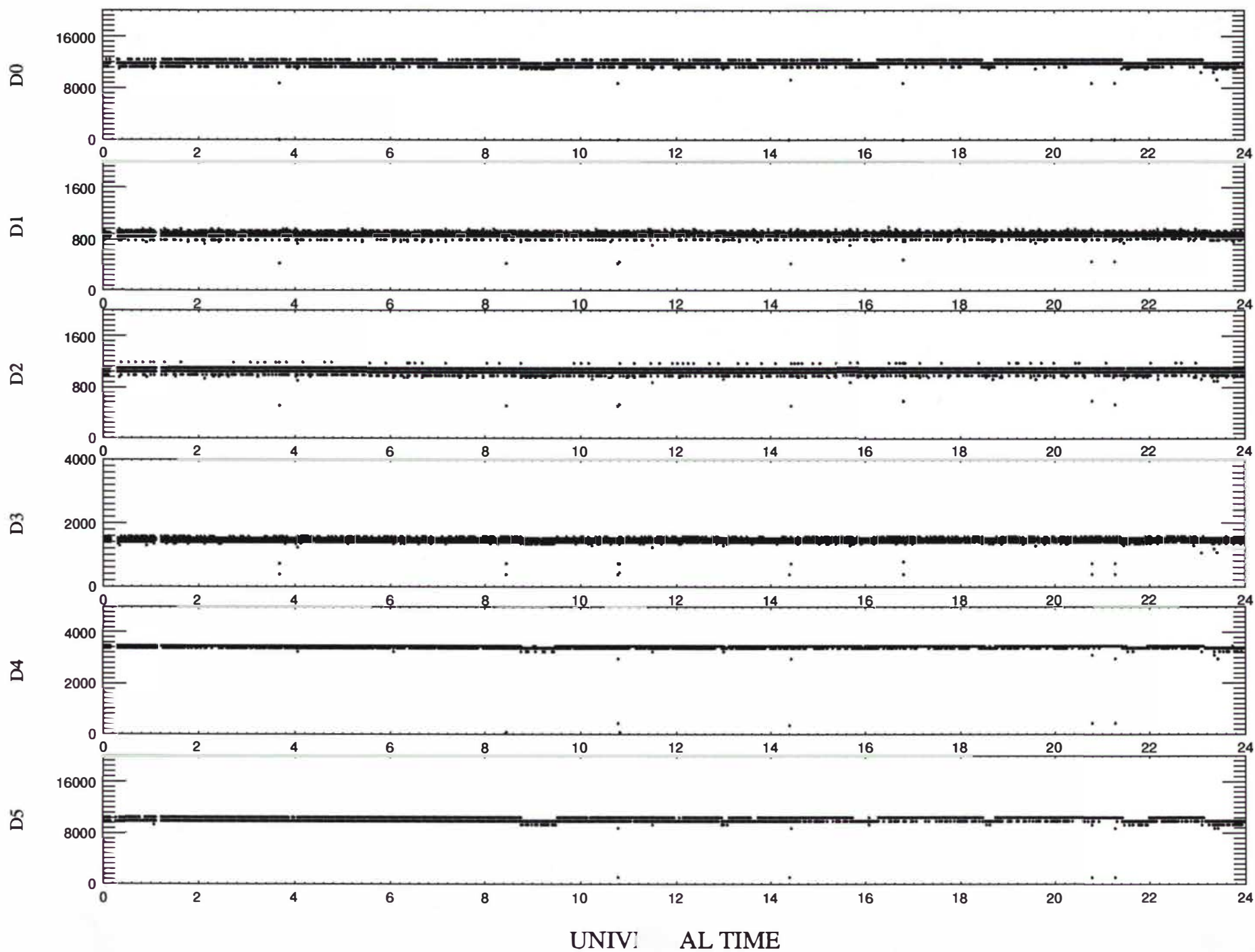
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HAGEDON@fender.msfc.nasa.gov Fri Oct 7 07:55 PDT 1994
Date: Fri, 7 Oct 1994 9:58:30 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3217

BATSEARCH PROGRAM

NO

BATSE BURST # 3217
EVENT OF 1994 OCT 5 DAY OF YEAR=278
EVENT CROSSING TIME AT BATSE : 14678. S. OR 04:04:38.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 253.000 6.000
BATSE PEAK COUNTING RATE: 4400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 5/10/ 94 IS:
RA= 164.249 DEC= -60.615 DIST= 2.464 AU
BATSE-ULYSSES DISTANCE = 368655202. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 85.39 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 98.93 SECS.
CROSSING TIME AT ULYSSES IS 14777. S. OR 04:06:16 +/- 264.31 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 5/10/ 94 IS:
RA= 122.608 DEC= 21.098 DIST= 1.549 AU
MARS-BATSE DISTANCE = 231705616. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 55.69 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 435.63 SECS.
CROSSING TIME AT MARS IS 15114. S. OR 04:11:53 +/- 117.46 SECONDS

BATSE BURST TRIGGER

NO.: 3217

TIME: TJD=9630 SECONDS=14678

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=87 AZIMUTH=57 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE WITH SUBSTRUCTURE. DUR.~70 SEC.
WEAKLY VISIBLE ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Fri Oct 7 07:55 PDT 1994
Date: Fri, 7 Oct 1994 9:57:46 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3217

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3217	941005	9630	14678	4400	253	+06

7 / 10 / 94

ULYSSES RT

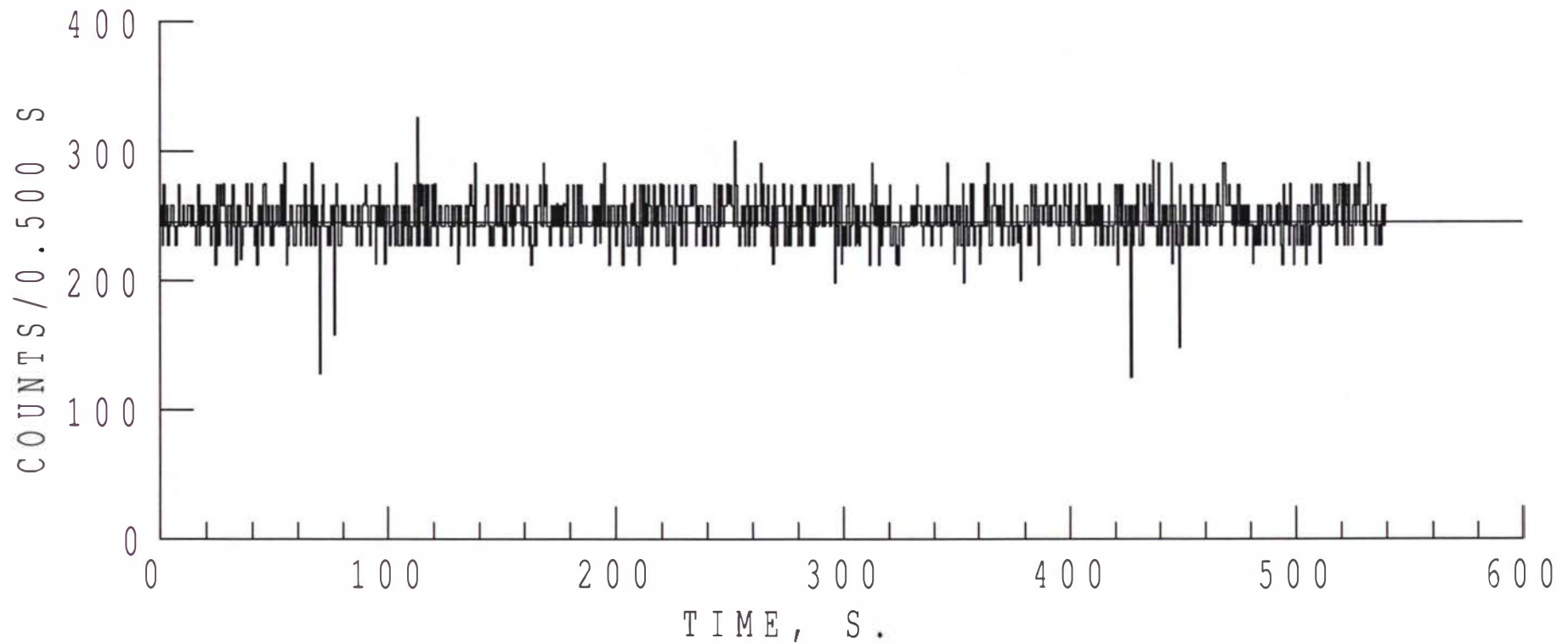
5 / 10 / 94 14508.113 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Fri Oct 7 07:59 PDT 1994
Date: Fri, 7 Oct 1994 10:01:41 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3218

BATSEARCH PROGRAM

BATSE BURST # 3218
EVENT OF 1994 OCT 5 DAY OF YEAR=278
EVENT CROSSING TIME AT BATSE : 40132. S. OR 11:08:52.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 325.000 44.000
BATSE PEAK COUNTING RATE: 9800 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 5/10/ 94 IS:
RA= 164.479 DEC= -60.743 DIST= 2.462 AU
BATSE-ULYSSES DISTANCE = 368284153. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 20.37 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1151.67 SECS.
CROSSING TIME AT ULYSSES IS 41284. S. OR 11:28:03 +/- 141.72 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 5/10/ 94 IS:
RA= 122.608 DEC= 21.098 DIST= 1.549 AU
MARS-BATSE DISTANCE = 231705616. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 68.26 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 286.33 SECS.
CROSSING TIME AT MARS IS 40418. S. OR 11:13:38 +/- 128.99 SECONDS

From HAGEDON@fender.msfc.nasa.gov Fri Oct 7 07:57 PDT 1994
Date: Fri, 7 Oct 1994 10:00:31 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3218

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3218	941005	9630	40132	9800	325	+44

BATSE BURST TRIGGER

NO.: 3218

TIME: TJD=9630 SECONDS=40132

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

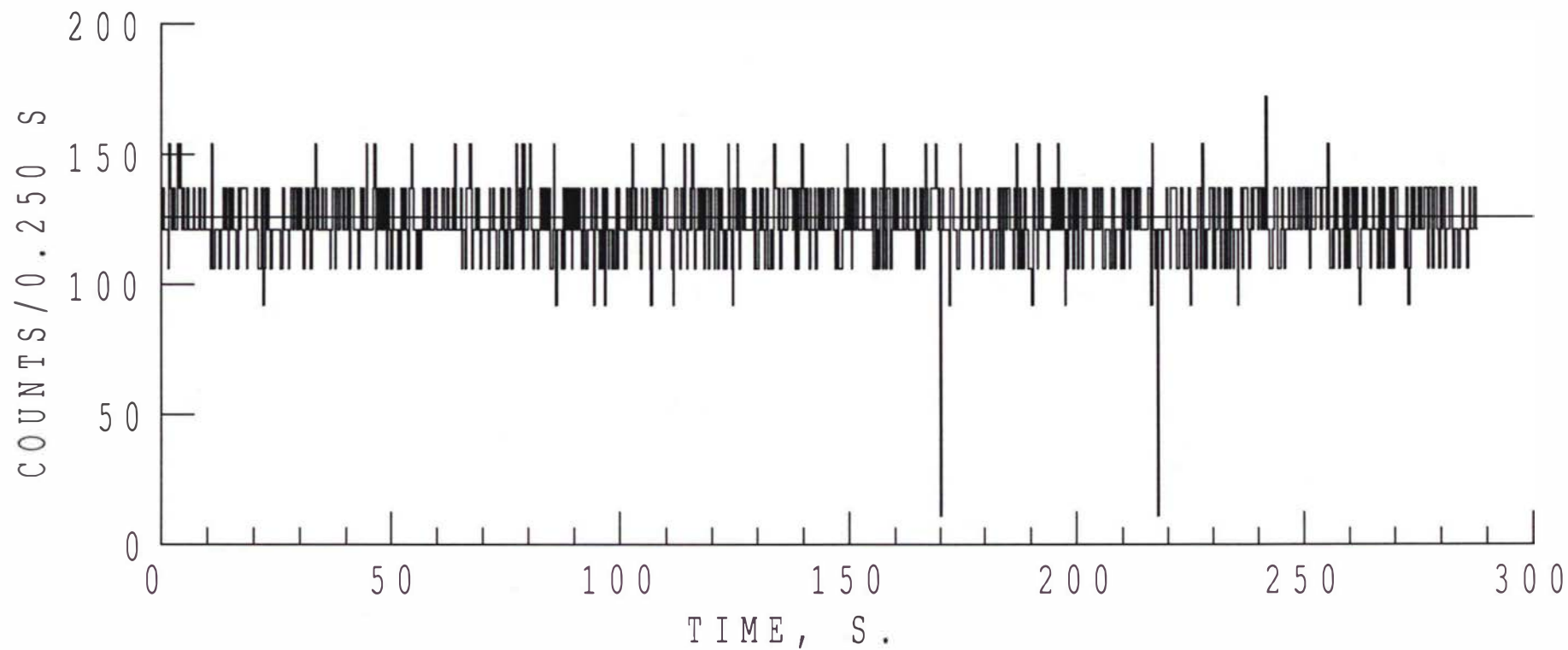
LOCATION: ZENITH=26 AZIMUTH=115 ERROR= DEGREES

COMMENTS:
BURST. SINGLE SPIKE WITH SUBSTRUCTURE. DUR.~90 MS. VISIBLE ABOVE 300 KEV.

7 / 10 / 94

ULYSSES RT
5 / 10 / 94 41148.066 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



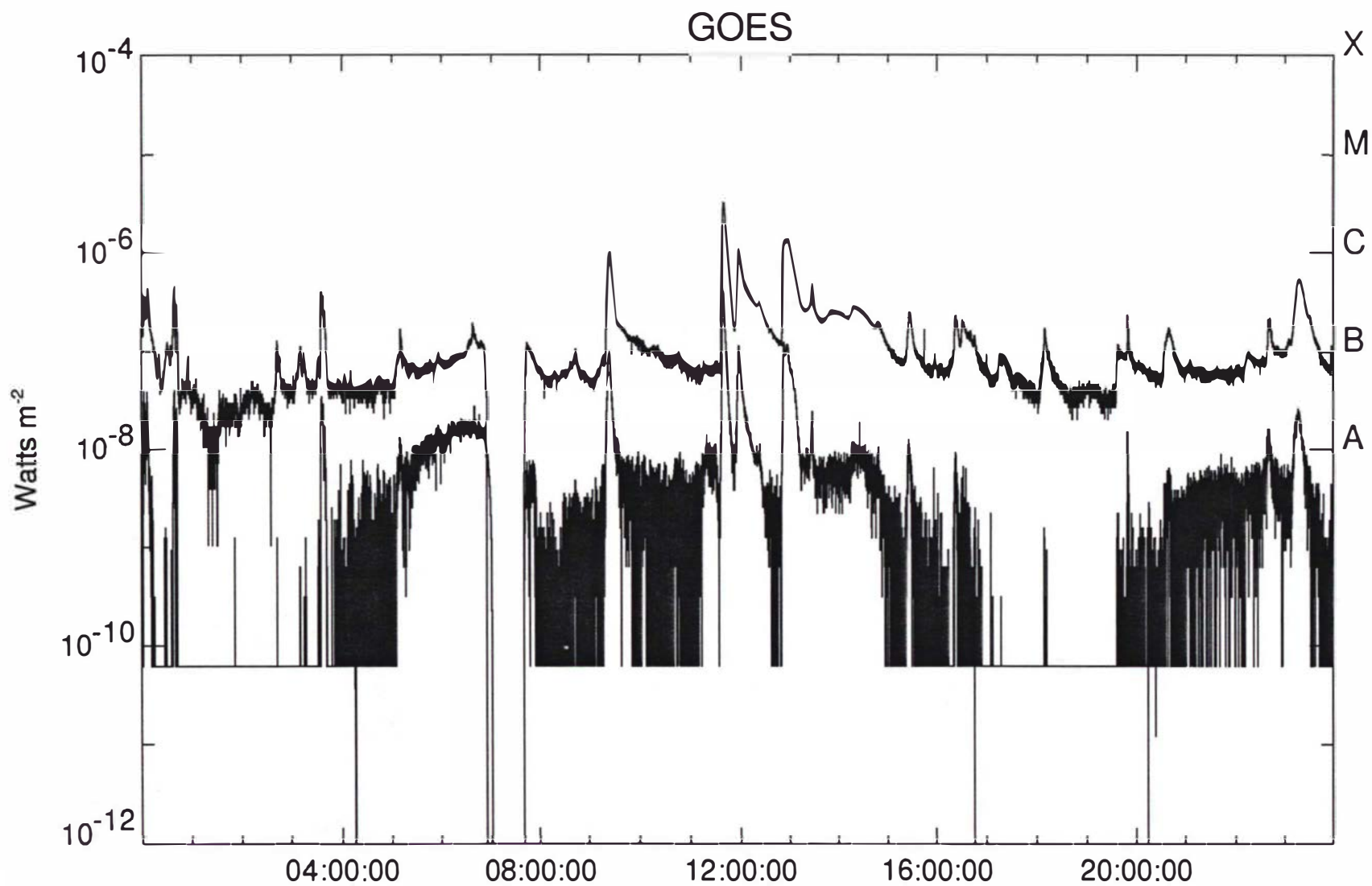
From vnp@isac.ernet.in Mon Sep 15 23:38 PDT 1997
From: vnp@isac.ernet.in
>Received: from sx07 by isac.ernet.in (AIX 3.2/UCB 5.64/4.03)
id AA19488; Tue, 16 Sep 1997 12:04:45 GMT
Date: Tue, 16 Sep 1997 12:04:44 +0000 (CUT)
Sender: vnp@sx07
To: khurley@sunspot.ssl.berkeley.edu
Subject: SROSS-C2 events of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

Dear Prof.Hurley,

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

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

Regards,
padmini



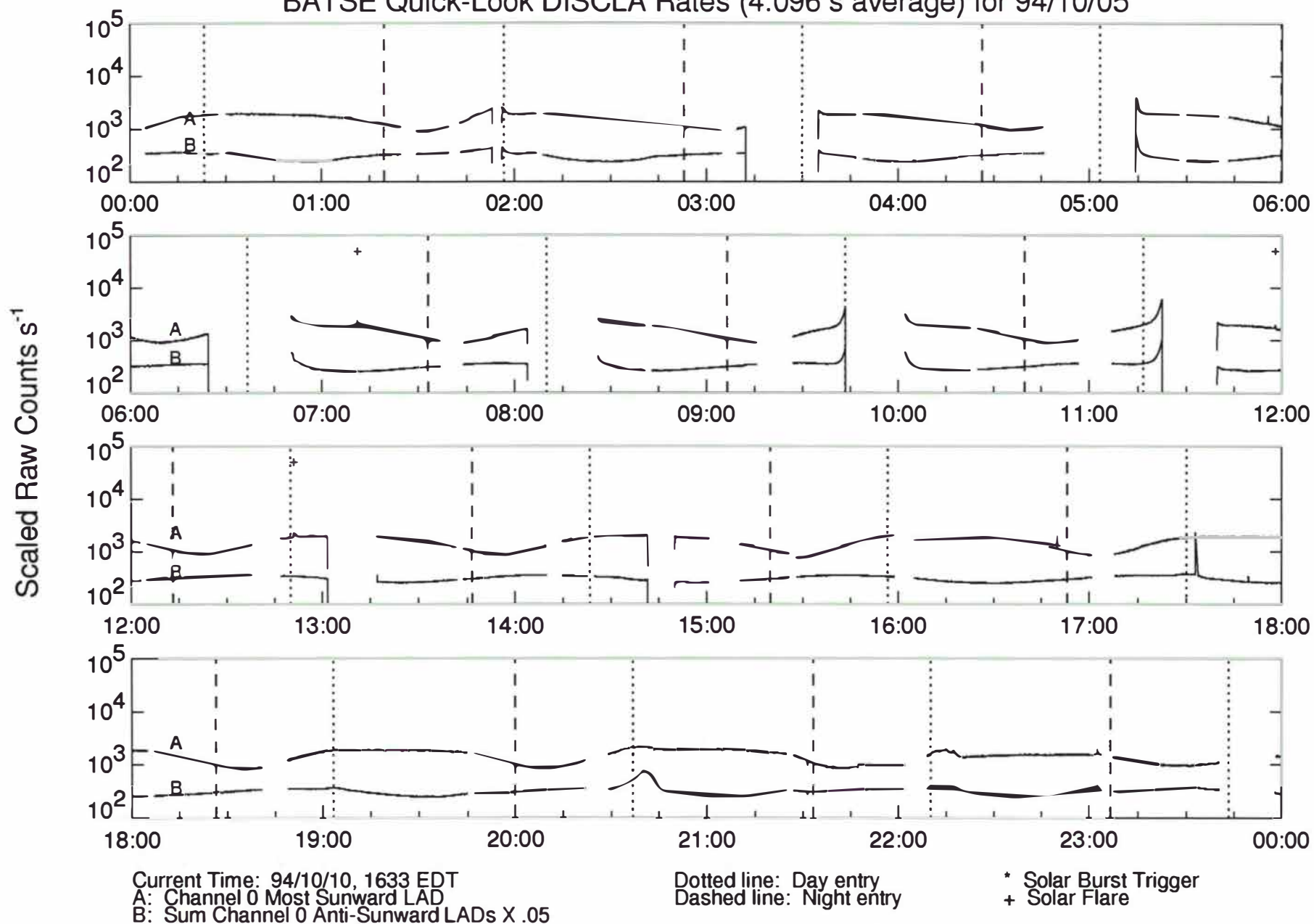
Data Start: 94/10/05, 0000:02

Plot created: 94/10/10, 1637

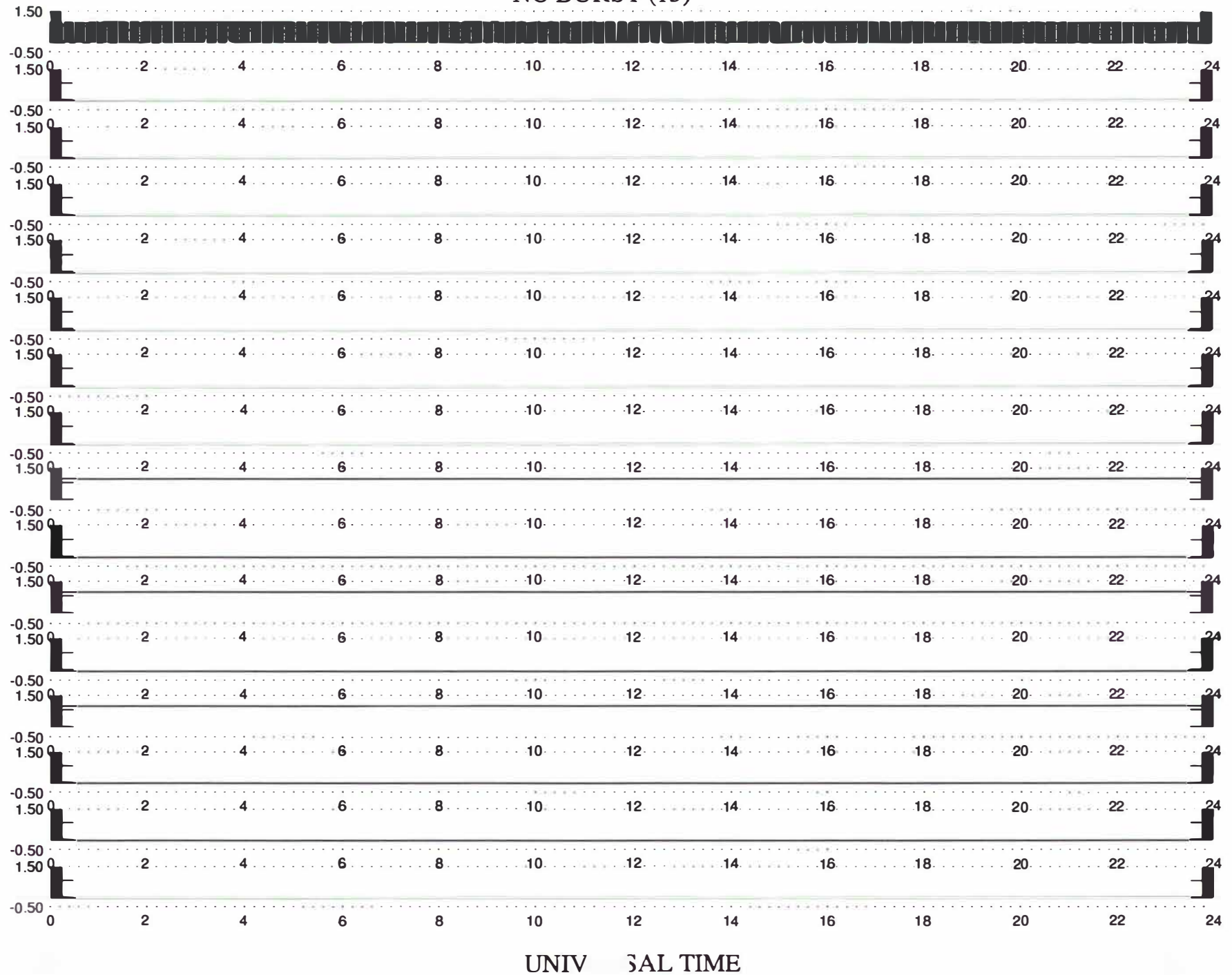
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

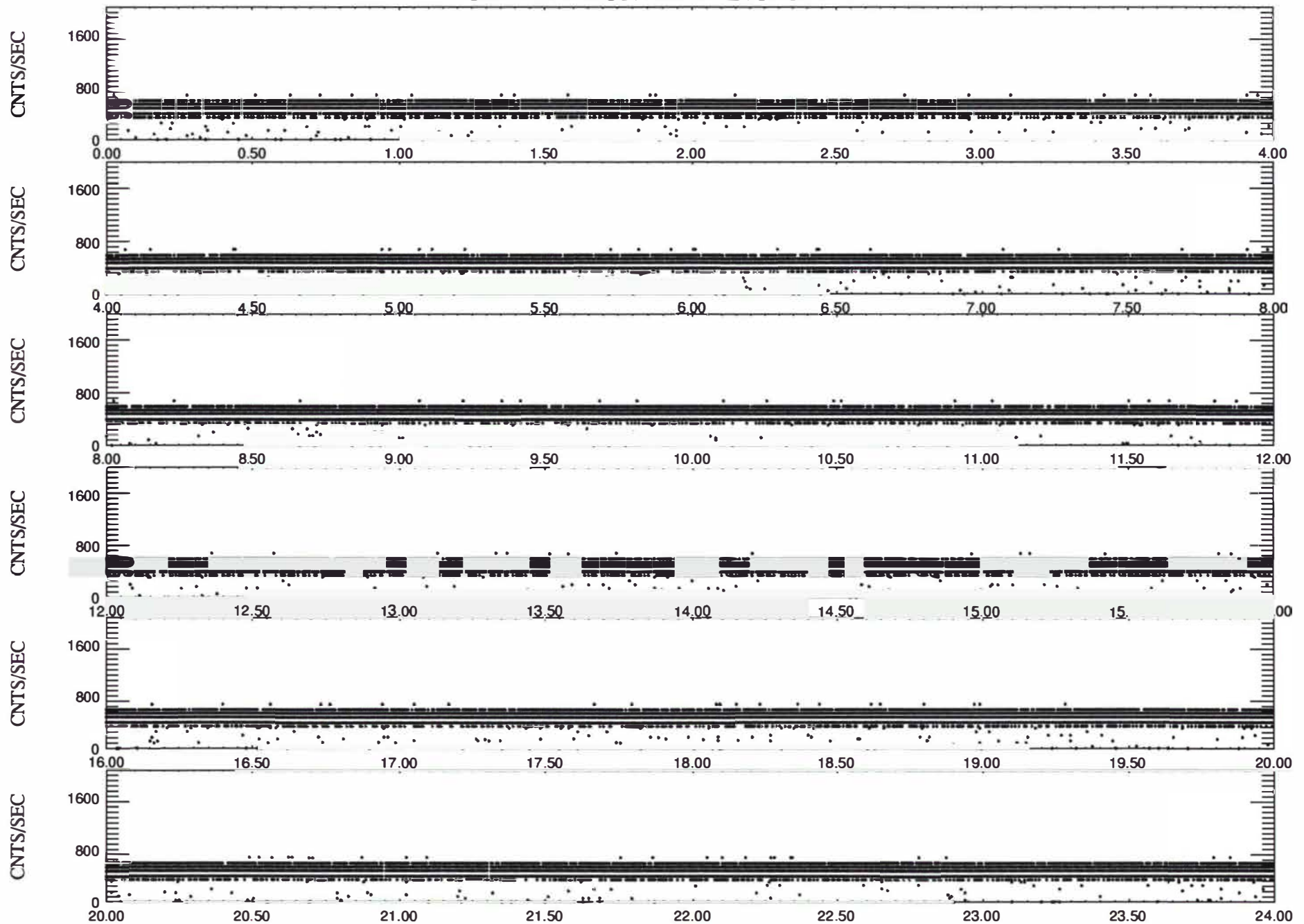
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/05



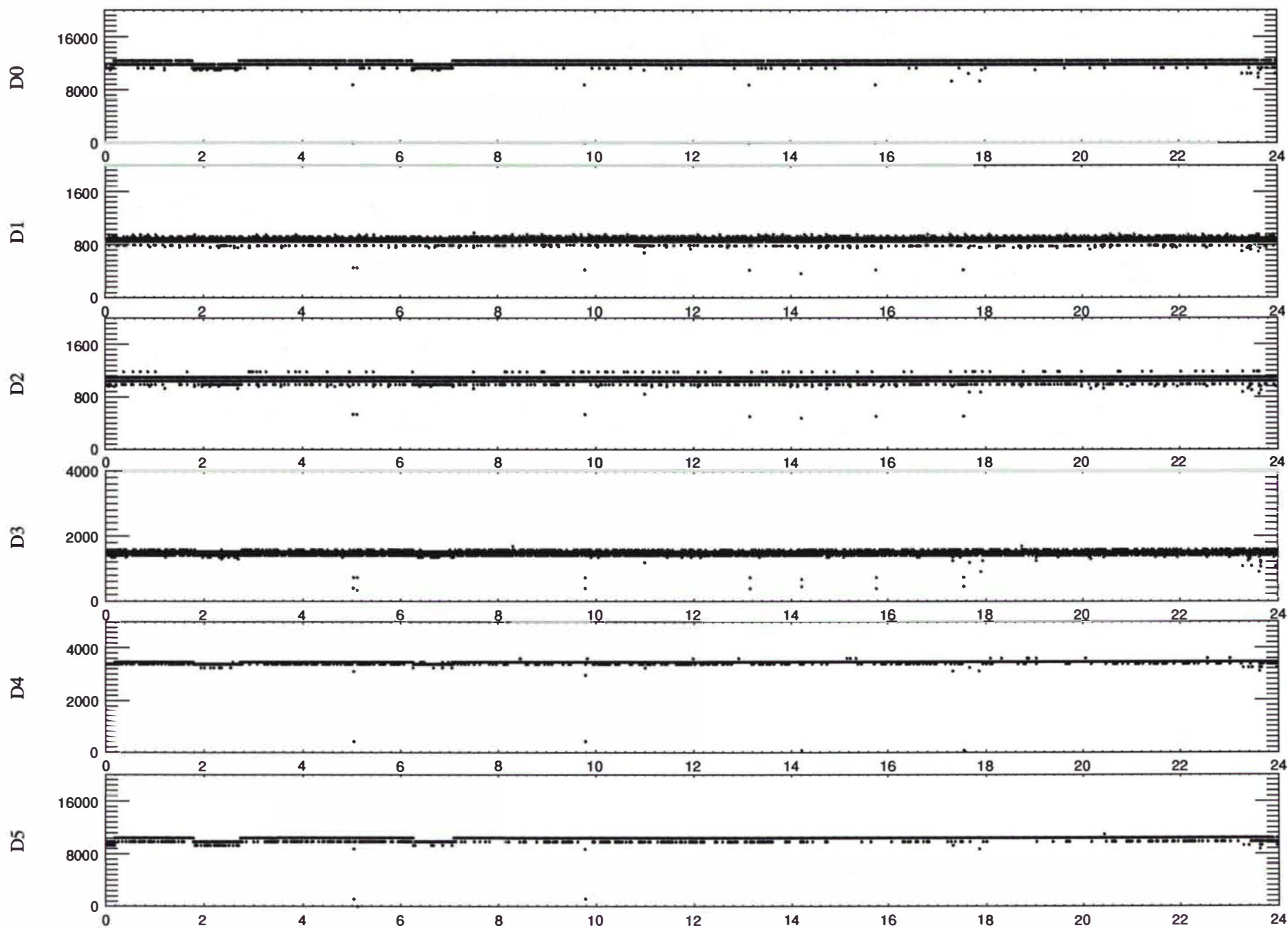
CBU CCL DMP ROM DMA OSC MP. ICR SPE OPM RSC CAL WCH MEM BRS HUS



CALIBRATION DATA INCLUDED



UNIV SAL TIME



UNIV: AL TIME

From DEAL@ssl.msfc.nasa.gov Fri Oct 7 08:27 PDT 1994

Date: Fri, 7 Oct 1994 10:23:47 -0500 (CDT)

From: DEAL@ssl.msfc.nasa.gov

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

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03219

TIME: TJD=9631 SECONDS=04234

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY

From DEAL@ssl.msfc.nasa.gov Fri Oct 7 08:30 PDT 1994
Date: Fri, 7 Oct 1994 10:32:39 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3220

BATSEARCH PROGRAM

BATSE BURST # 3220
EVENT OF 1994 OCT 6 DAY OF YEAR=279
EVENT CROSSING TIME AT BATSE : 47094. S. OR 13:04:54.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 209.000 -36.000
BATSE PEAK COUNTING RATE: 2500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 6/10/ 94 IS:
RA= 165.335 DEC= -61.211 DIST= 2.453 AU
BATSE-ULYSSES DISTANCE = 366934142. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=142.84 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -975.46 SECS.
CROSSING TIME AT ULYSSES IS 46119. S. OR 12:48:38 +/- 163.54 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 6/10/ 94 IS:
RA= 123.202 DEC= 20.995 DIST= 1.542 AU
MARS-BATSE DISTANCE = 230643552. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 81.07 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 119.44 SECS.
CROSSING TIME AT MARS IS 47213. S. OR 13:06:53 +/- 133.76 SECONDS

BATSE BURST TRIGGER

NO.: 03220

TIME: TJD=9631 SECONDS=47094

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=141.3 AZIMUTH=031.7 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 70S. MARGINALLY VISIBLE ABOVE 300 KEV.

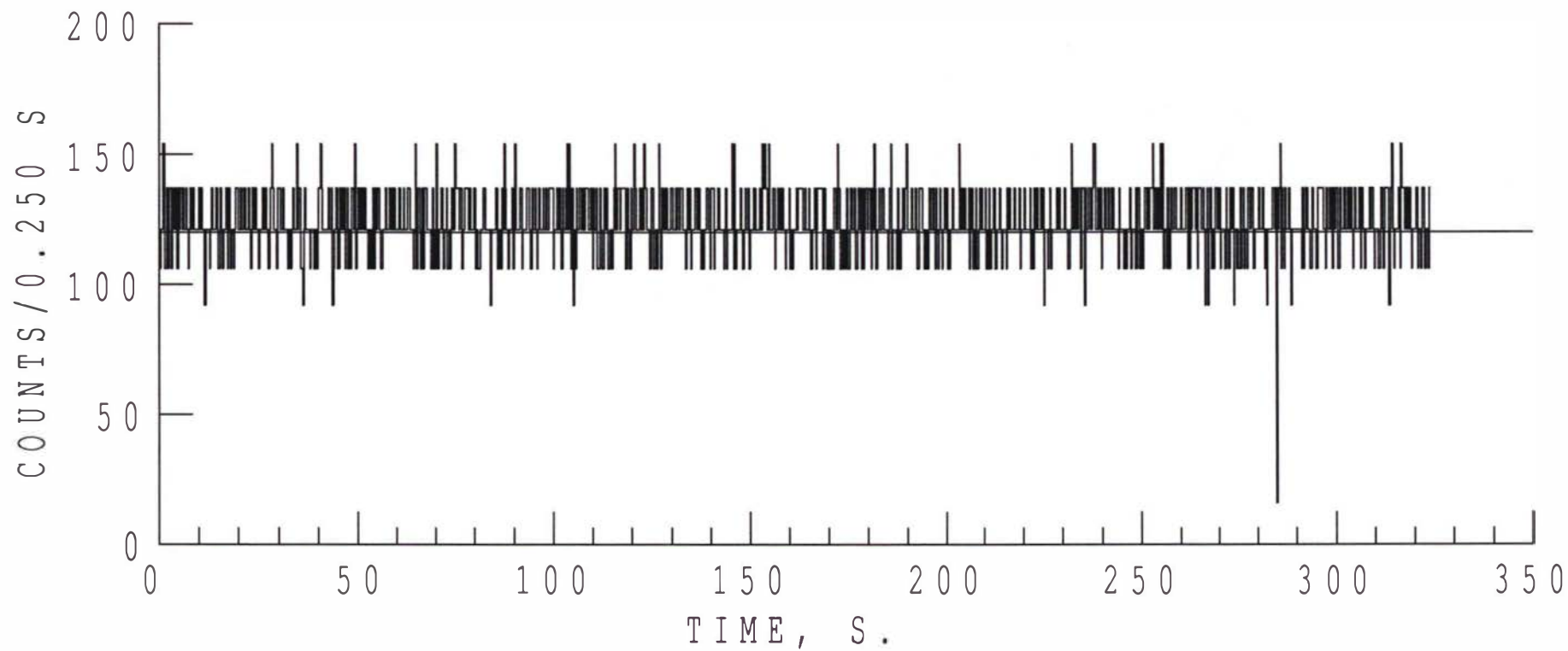
From DEAL@ssl.msfc.nasa.gov Fri Oct 7 08:29 PDT 1994
Date: Fri, 7 Oct 1994 10:32:18 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3220

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3220	941006	9631	47094	2500	209	-36

7 / 10 / 94

ULYSSES RT
6 / 10 / 94 45972.137 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Fri Oct 7 08:18 PDT 1994
Date: Fri, 7 Oct 1994 10:20:36 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03221

TIME: TJD=9631 SECONDS=77625

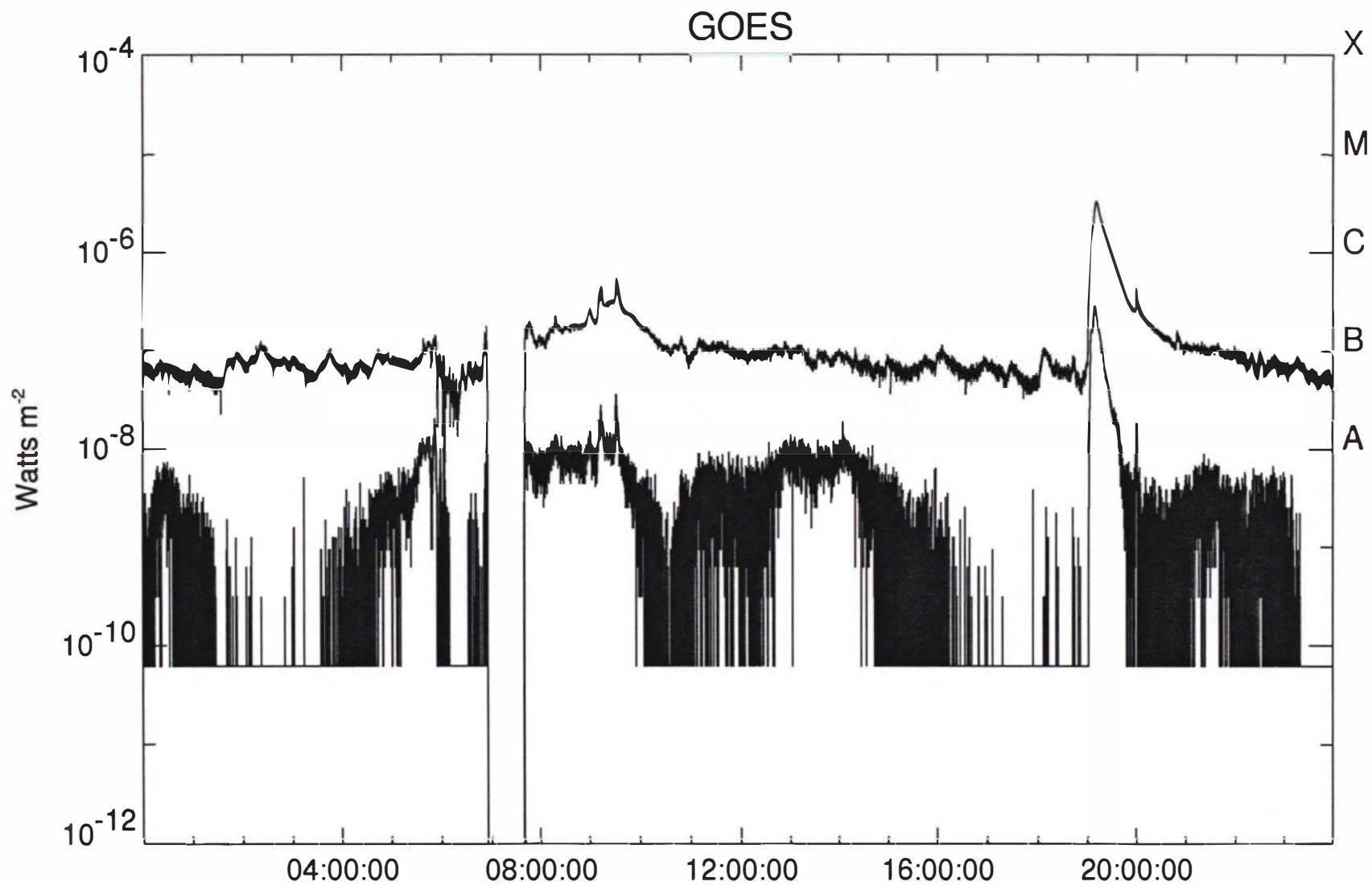
TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT



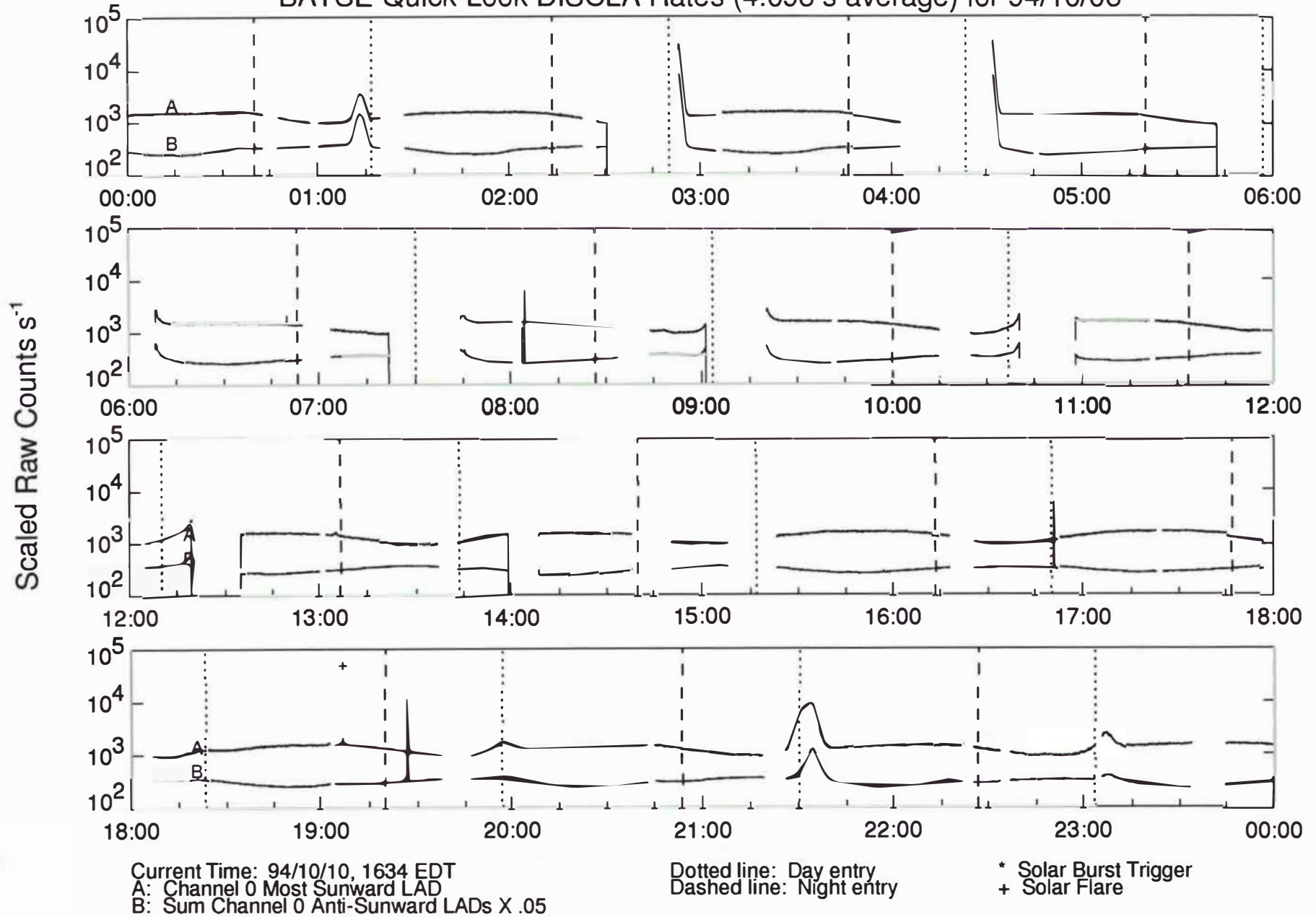
Data Start: 94/10/06, 0000:02

Plot created: 94/10/10, 1638

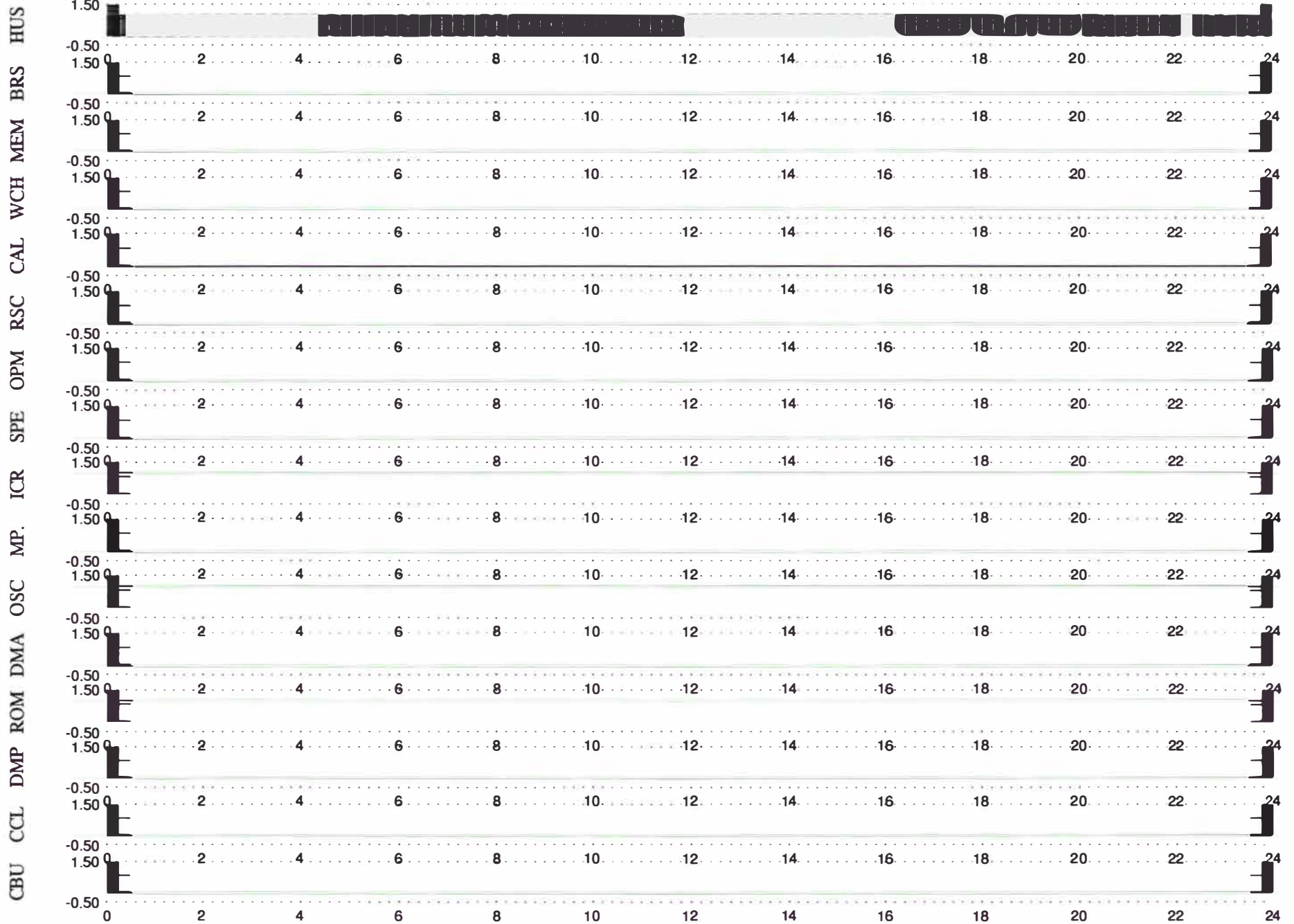
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

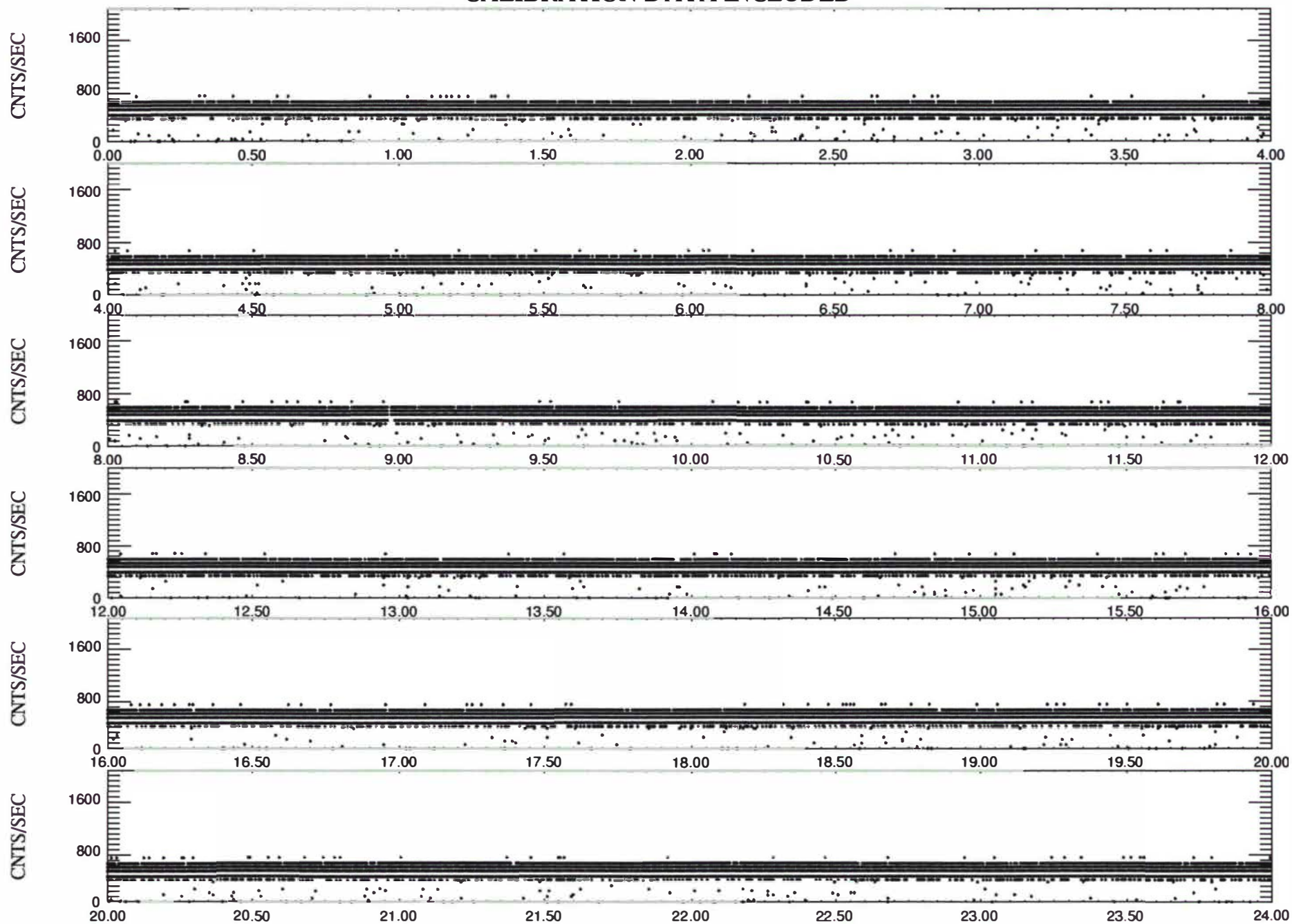
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/06



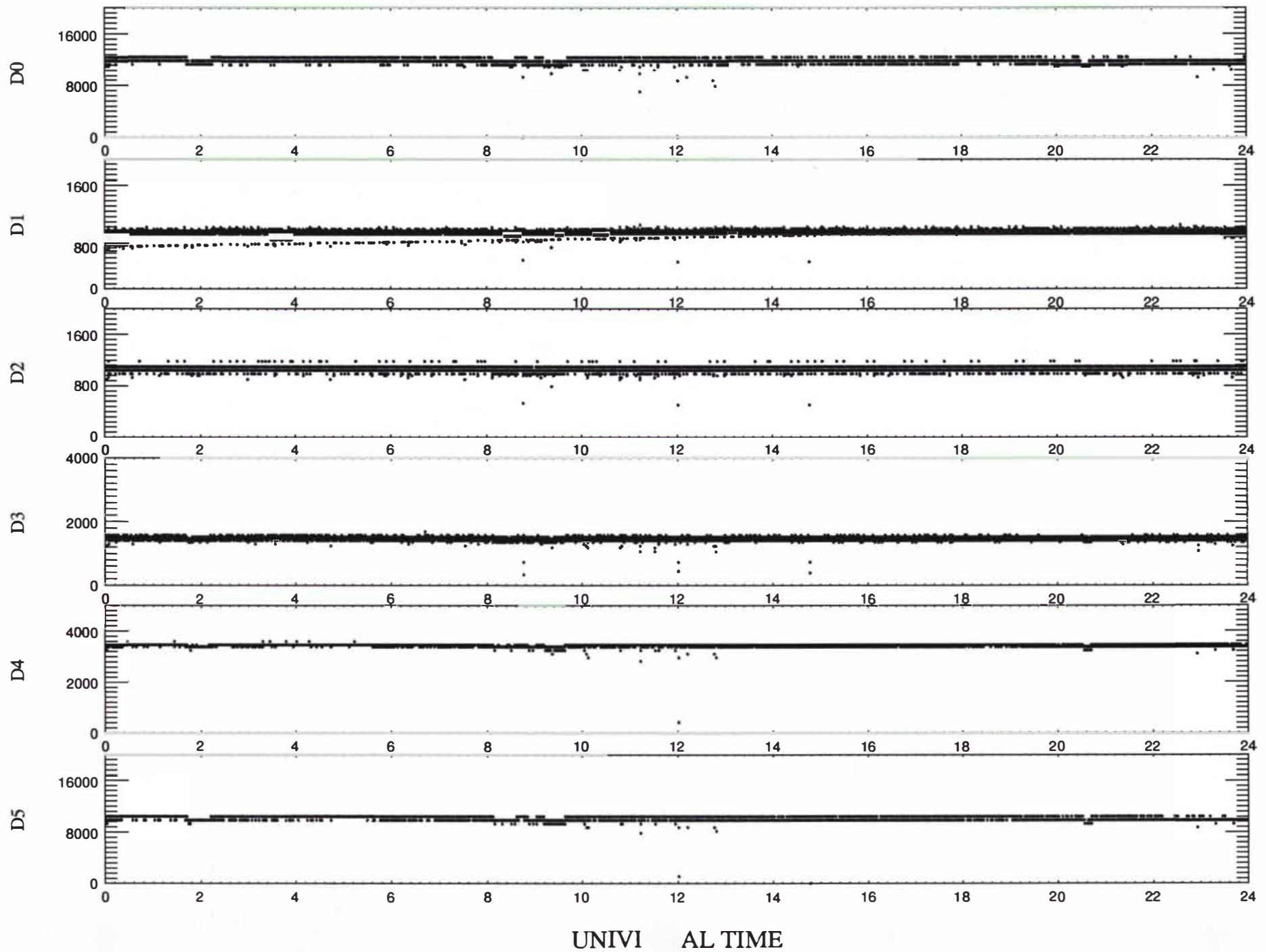
UNIV SAL TIME



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From SHARIFF@ssl.msfc.nasa.gov Sat Oct 8 14:31 PDT 1994

Date: Sat, 8 Oct 1994 16:33:53 -0500 (CDT)

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,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03222

TIME: TJD=9632 SECONDS=69193

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PREC. EVENT.

BATSE BURST TRIGGER

NO.: 03223

TIME: TJD=9632 SECONDS=75324

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PREC. EVENT.

BATSE BURST TRIGGER

NO.: 03224

TIME: TJD=9632 SECONDS=81078

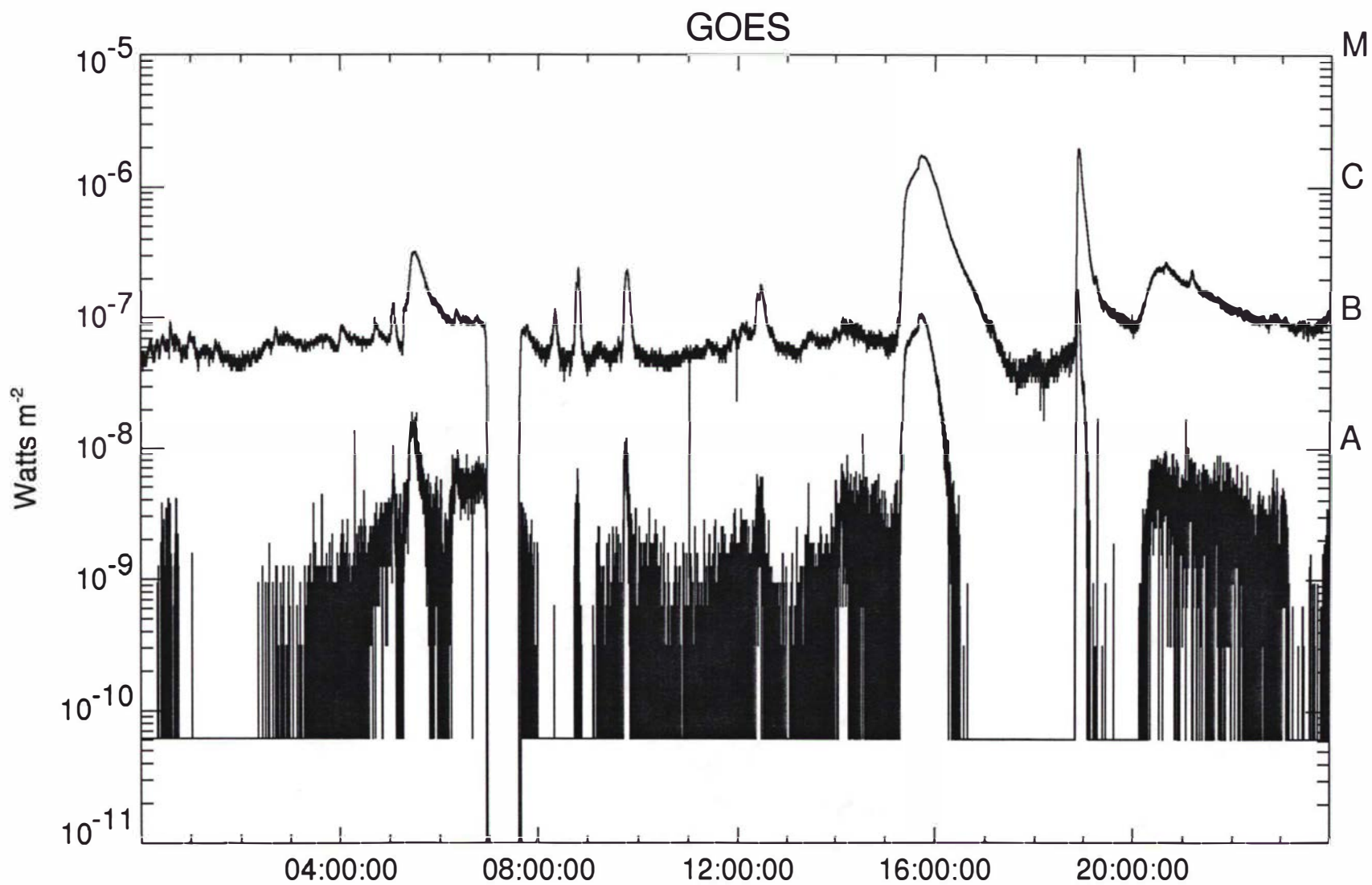
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PREC. EVENT.



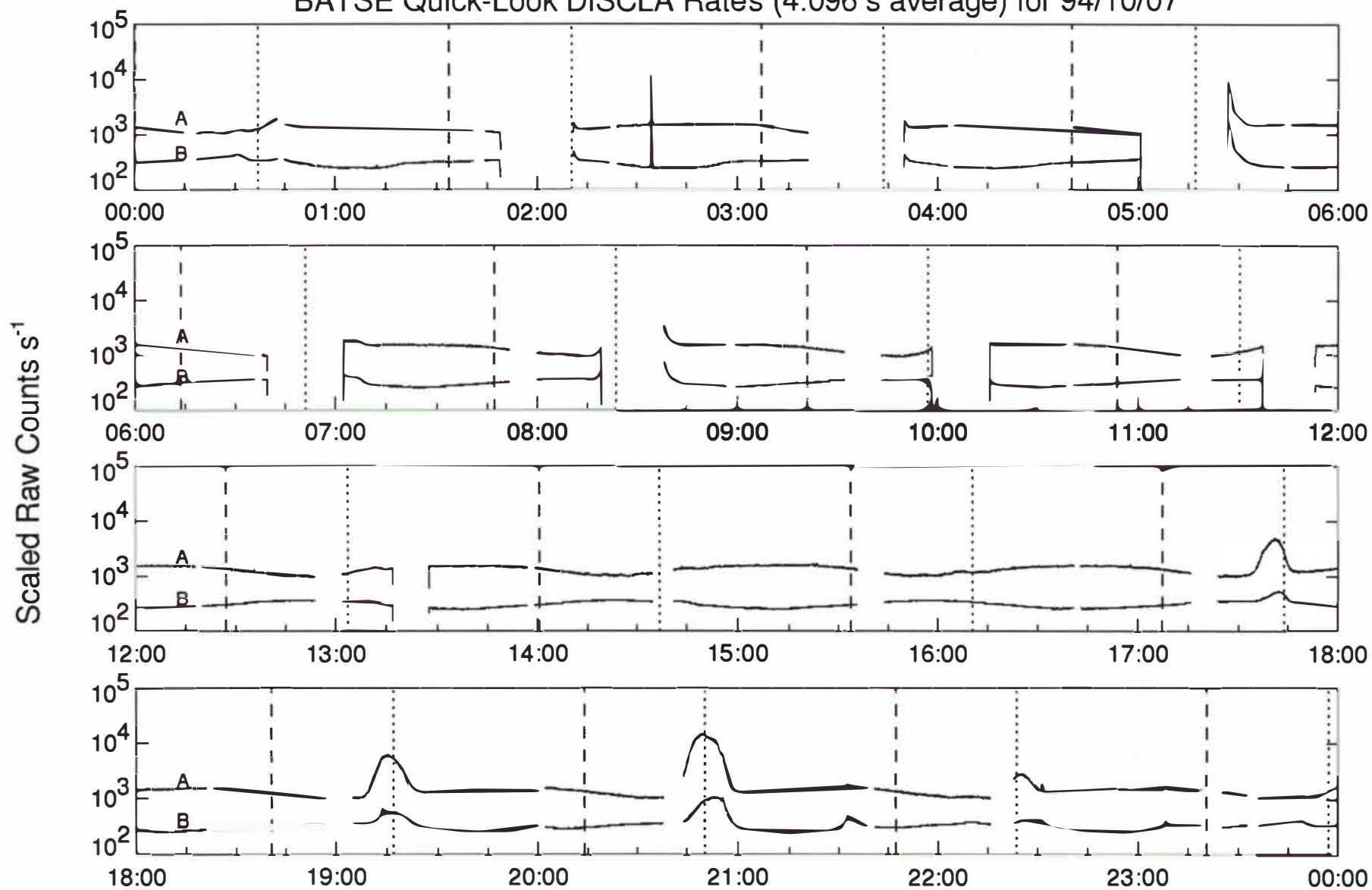
Data Start: 94/10/07, 0000:00

Plot created: 94/10/10, 1638

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/07

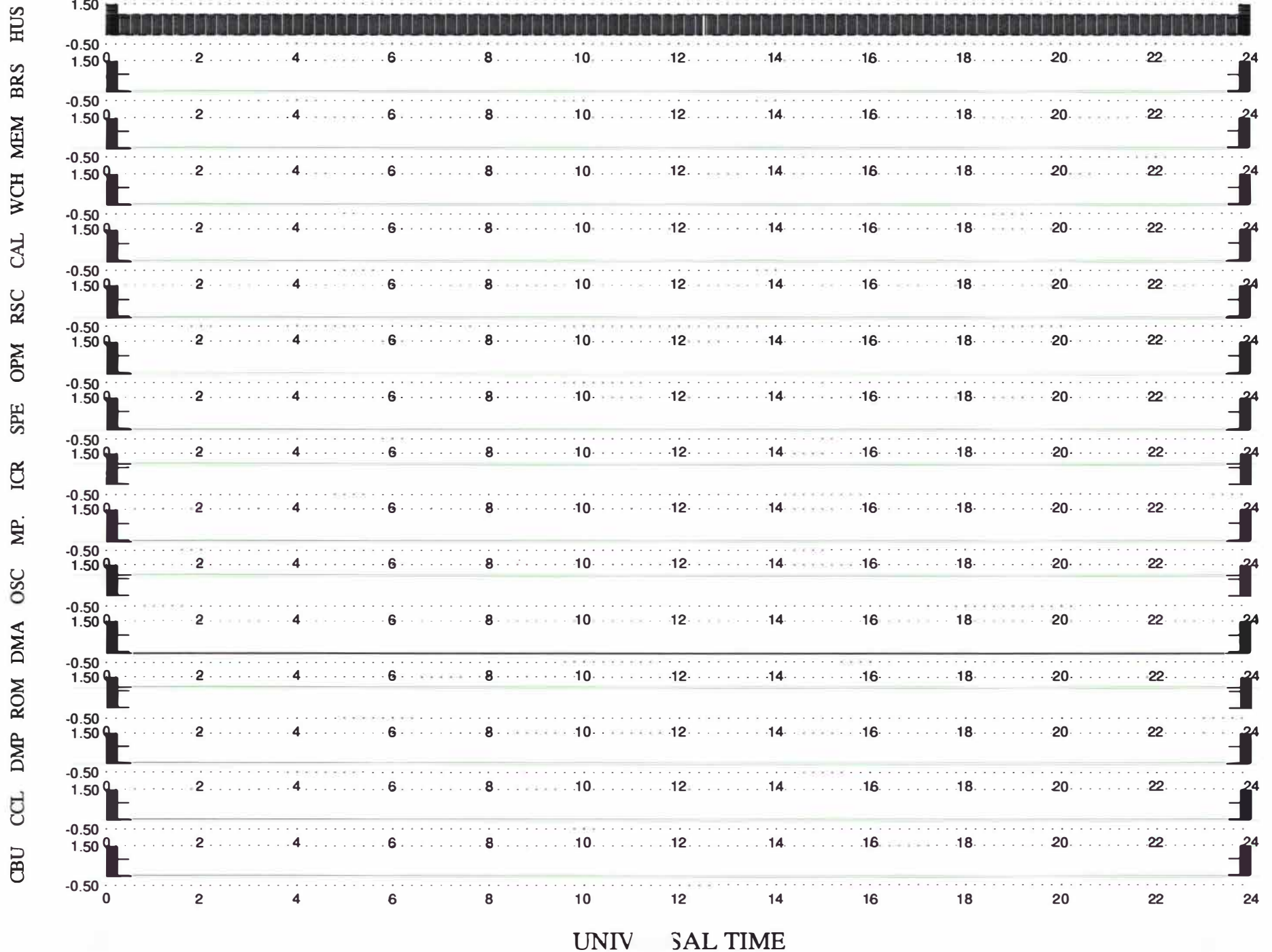


Current Time: 94/10/10, 1634 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

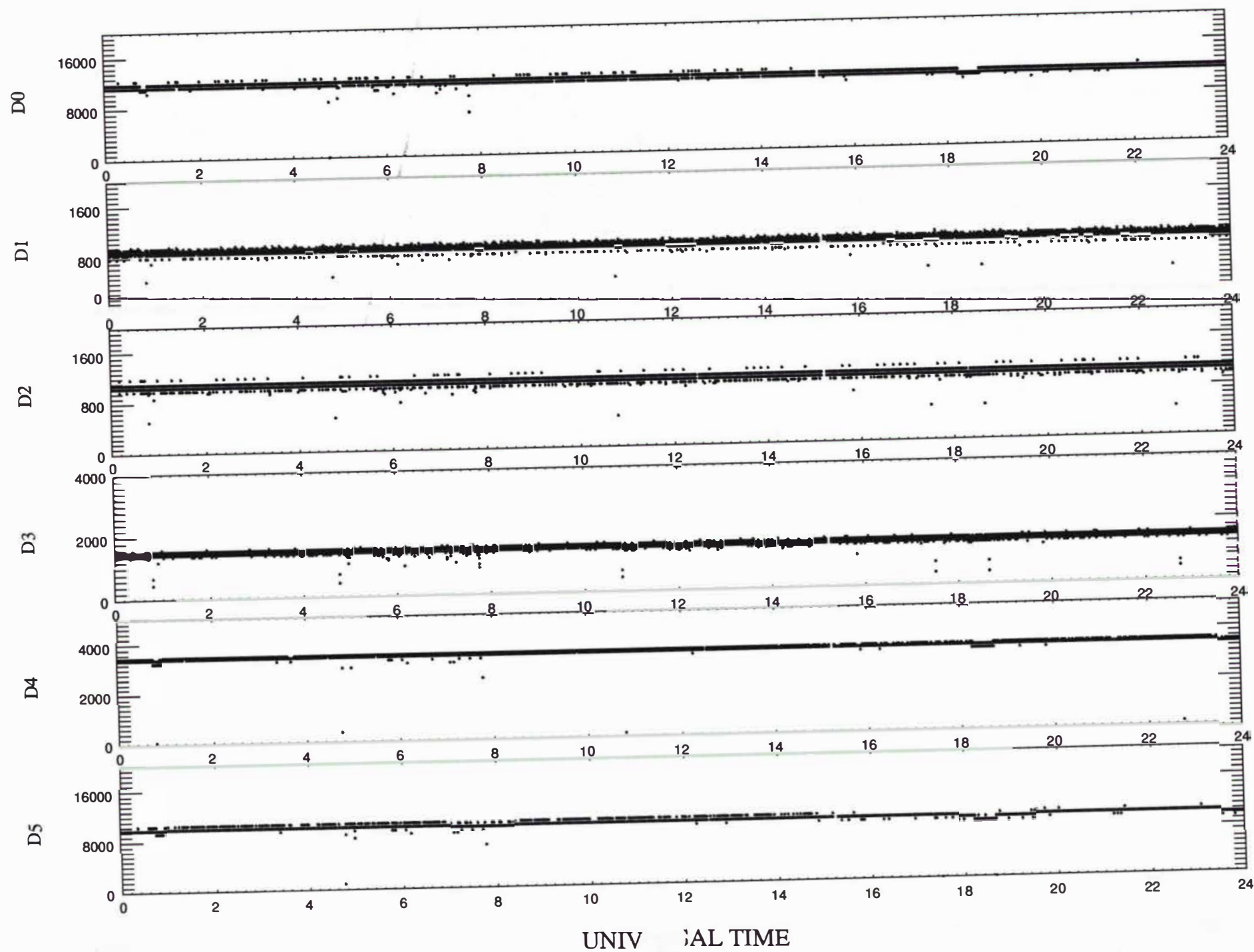
NO BURST (15)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From DEAL@ssl.msfc.nasa.gov Mon Oct 10 07:04 PDT 1994
Date: Mon, 10 Oct 1994 9:07:13 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03226

TIME: TJD=9633 SECONDS=16758

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY (PARTICLES)

From DEAL@ssl.msfc.nasa.gov Mon Oct 10 07:02 PDT 1994
Date: Mon, 10 Oct 1994 9:05:14 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03225

TIME: TJD=9633 SECONDS=04871

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA ENTRY (PARTICLES)

From DEAL@ssl.msfc.nasa.gov Tue Oct 11 09:34 PDT 1994
Date: Tue, 11 Oct 1994 11:37:23 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3227

BATSEARCH PROGRAM

TRIGGER

BATSE BURST # 3227
EVENT OF 1994 OCT 8 DAY OF YEAR=281
EVENT CROSSING TIME AT BATSE : 48772. S. OR 13:32:52.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 305.000 -53.000
BATSE PEAK COUNTING RATE: 45400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 8/10/ 94 IS:
RA= 167.001 DEC= -62.094 DIST= 2.436 AU
BATSE-ULYSSES DISTANCE = 364436994. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=119.77 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -603.50 SECS.
CROSSING TIME AT ULYSSES IS 48168. S. OR 13:22:48 +/- 224.04 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 8/10/ 94 IS:
RA= 124.379 DEC= 20.785 DIST= 1.527 AU
MARS-BATSE DISTANCE = 228500896. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 32.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 644.84 SECS.
CROSSING TIME AT MARS IS 49417. S. OR 13:43:36 +/- 80.34 SECONDS

From DEAL@ssl.msfc.nasa.gov Tue Oct 11 09:34 PDT 1994
Date: Tue, 11 Oct 1994 11:36:56 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3227

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3227	941008	9633	48772	45400	305	-53

BATSE BURST TRIGGER

NO.: 03227

TIME: TJD=9633 SECONDS=48772

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=125.1 AZIMUTH=124.7 ERROR= DEGREES

COMMENTS:
BURST LASTING ~ 50 S.. PRECURSOR. VISIBLE ABOVE 300 KEV.

Helio corr removed

Date: Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

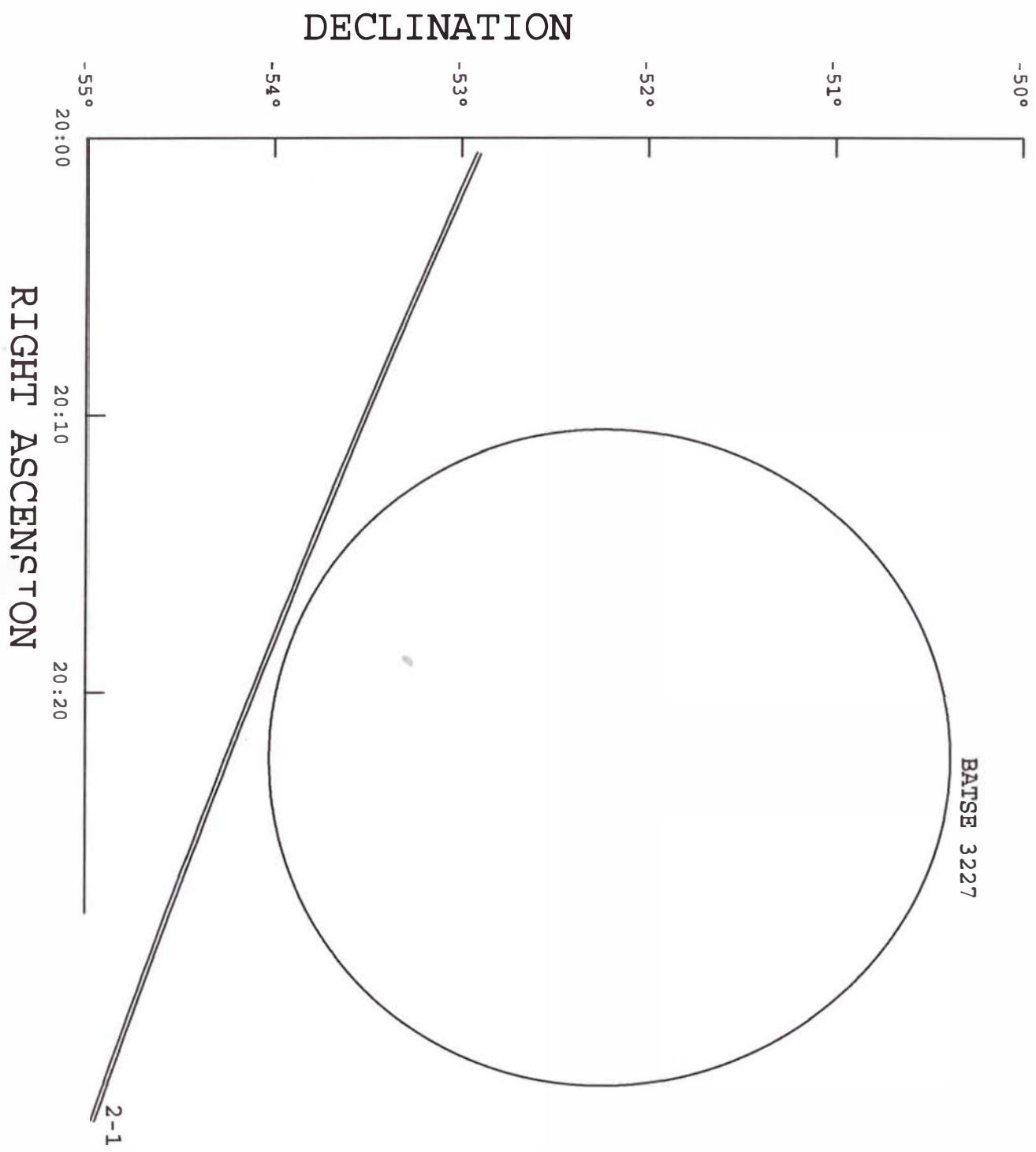
3. PVO Data

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

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 OCT 8, 1994 13:24

5 / 2/98



ULYSSES

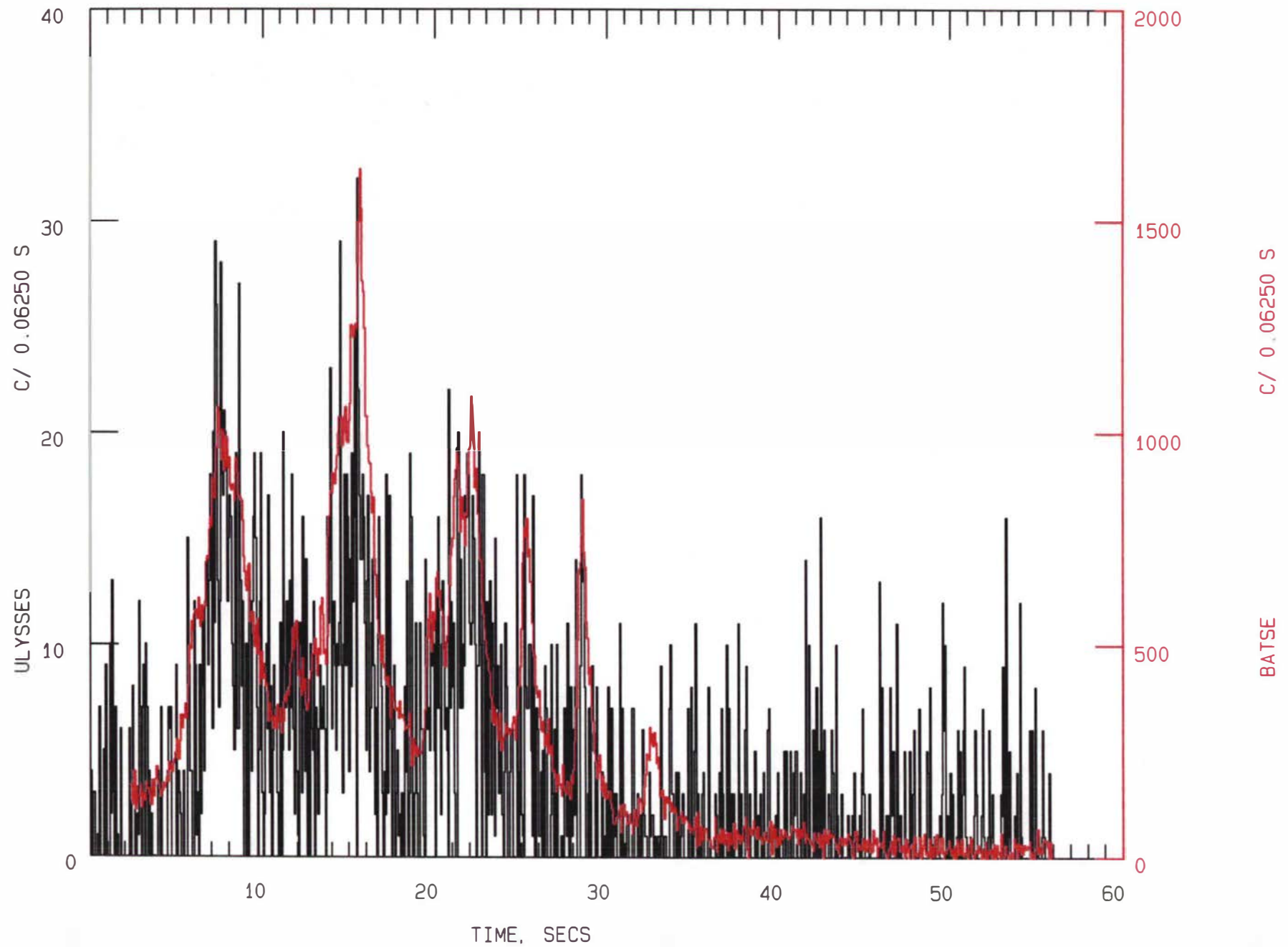
-BATSE

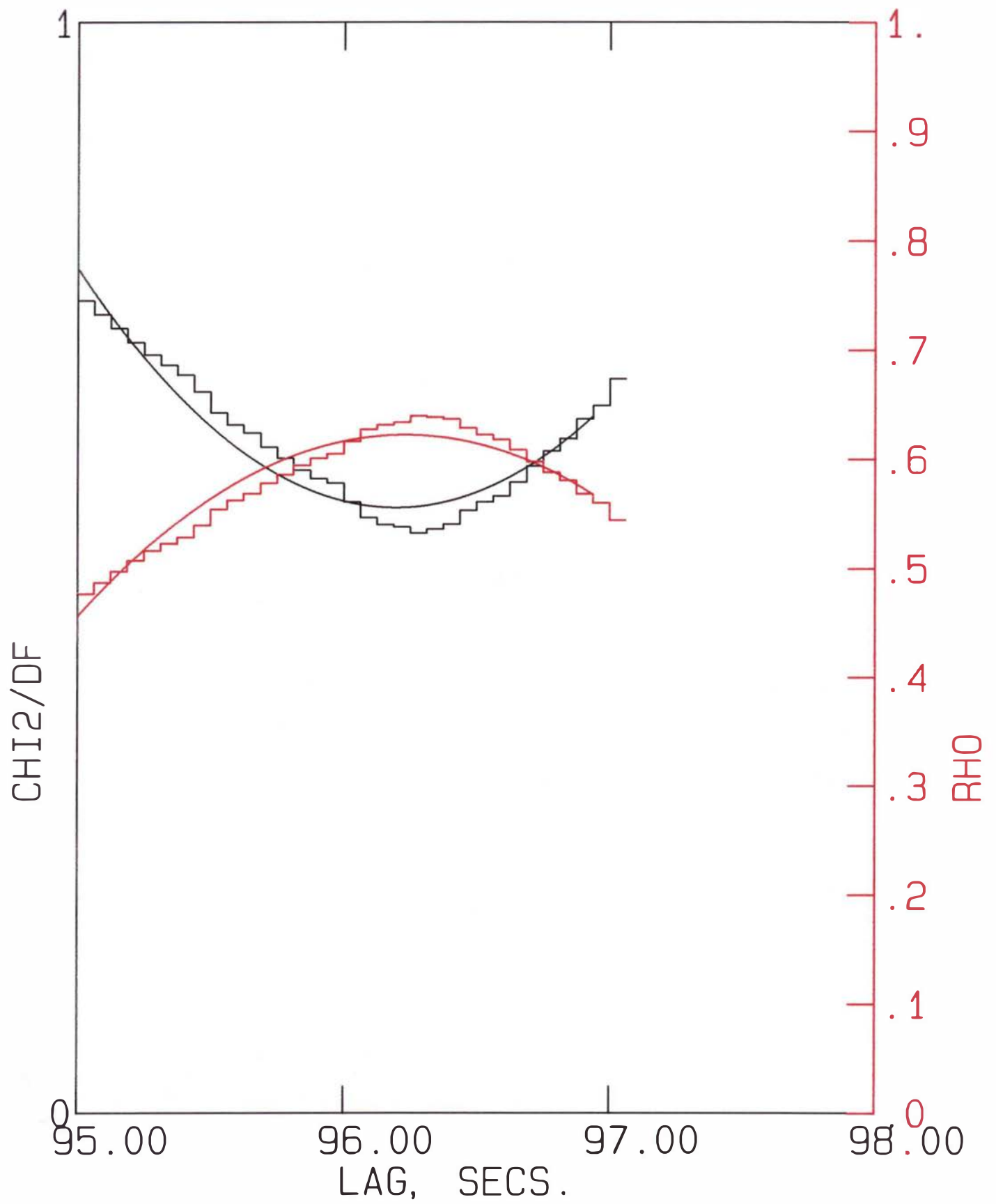
CORRELATION

08/10/94

48245.530

5/ 2/98





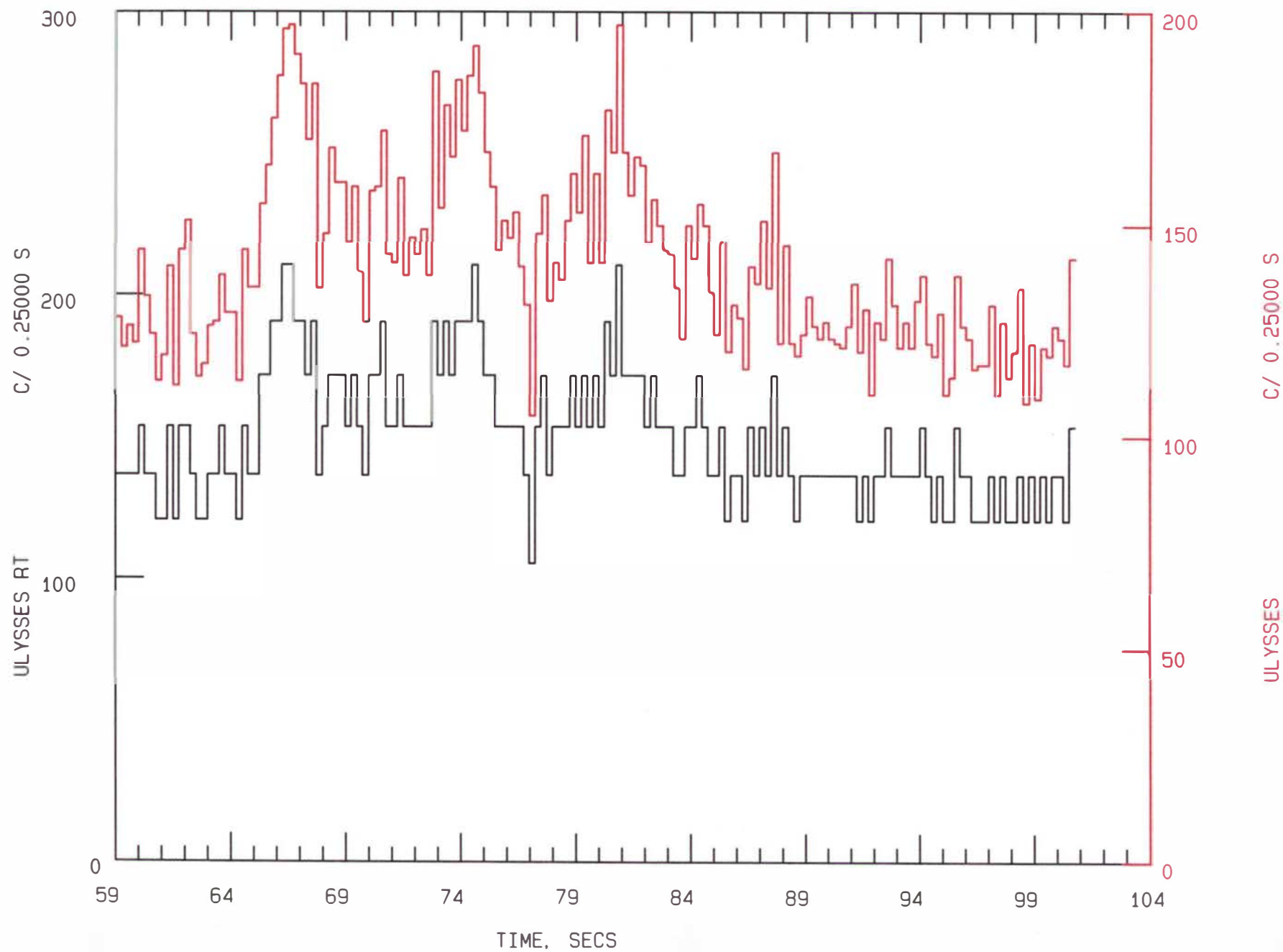
ULYSSES RT-ULYSSES

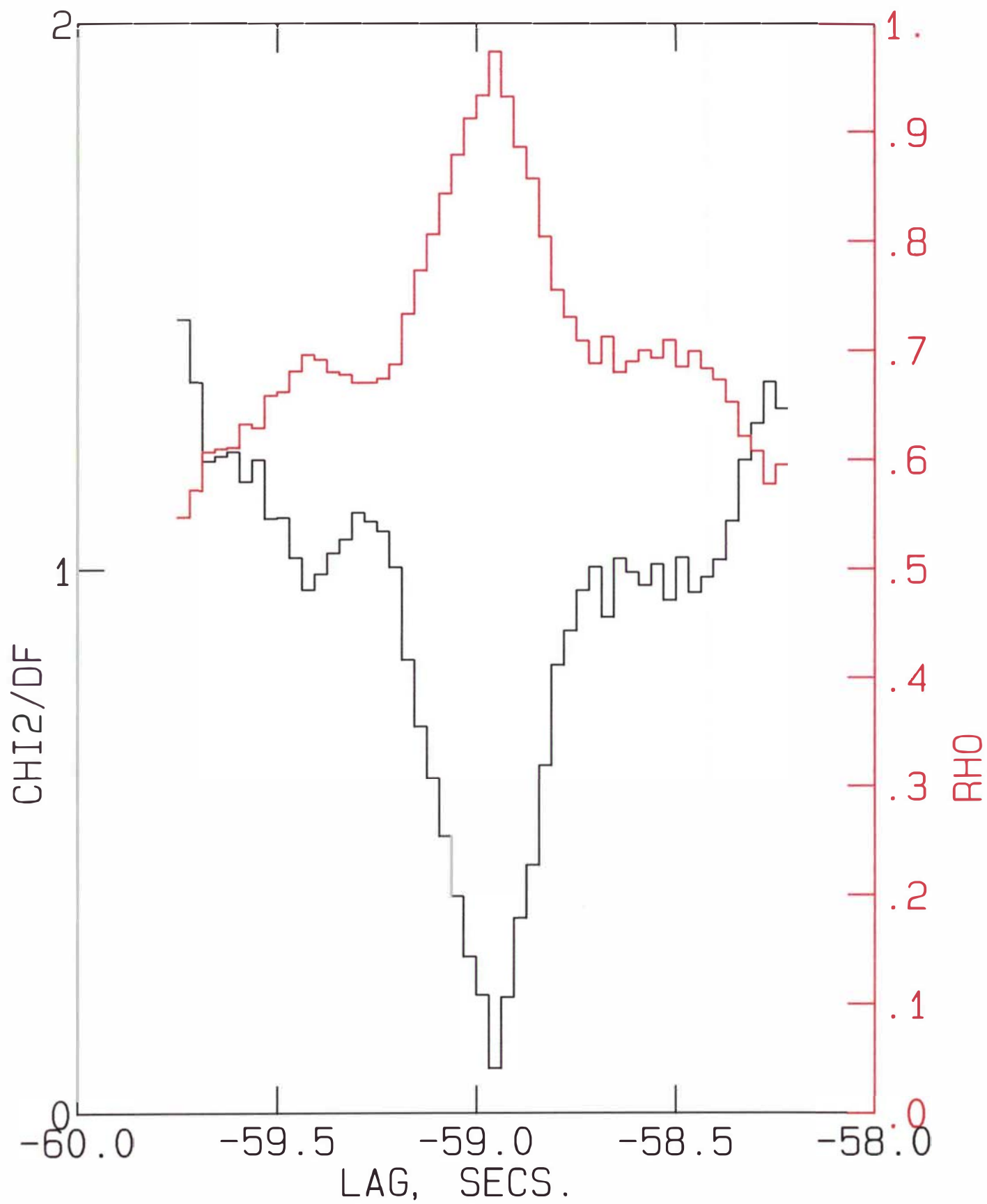
CORRELATION

8/10/94

48179.161

5/ 2/98

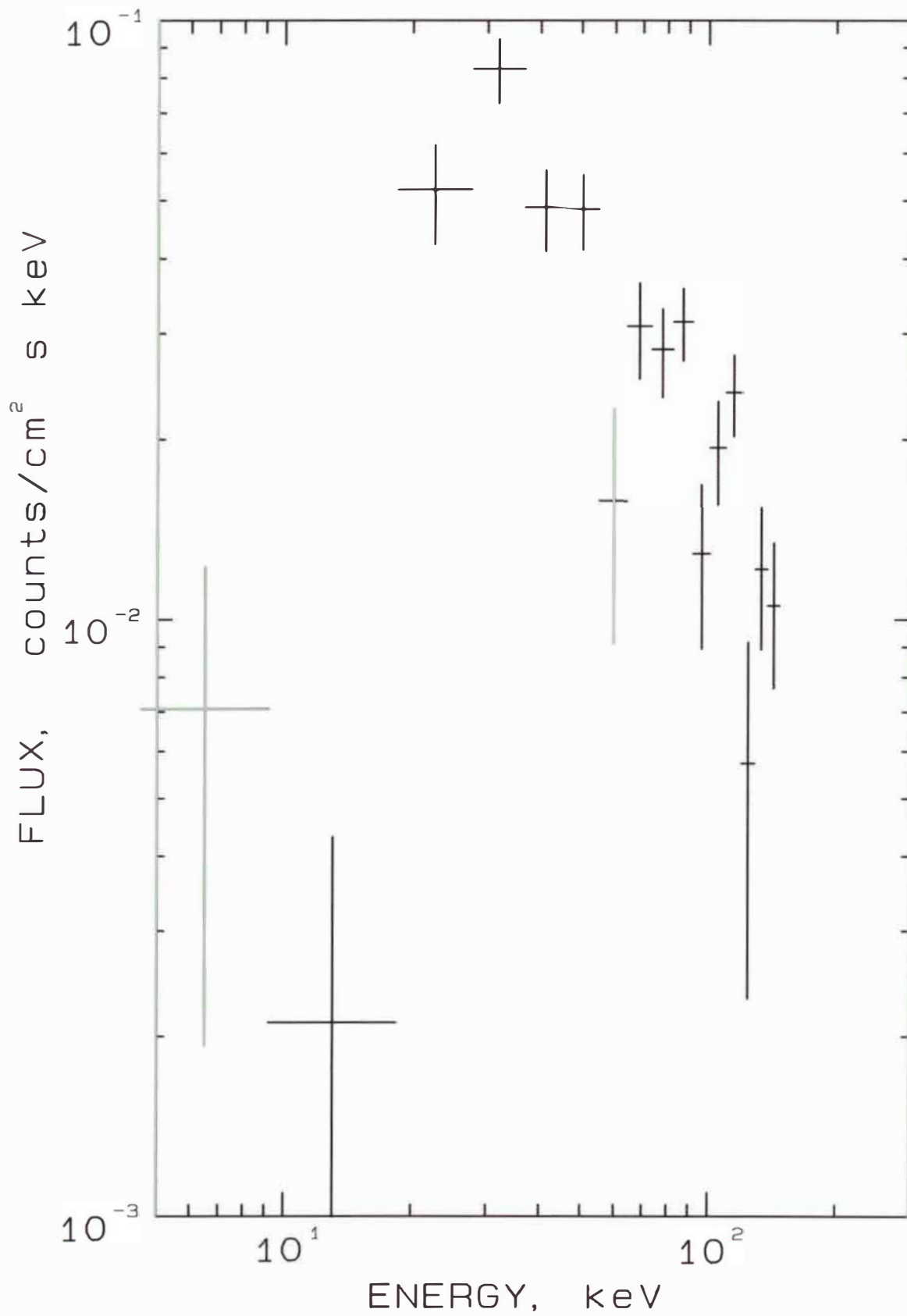




ULYSSES 08/10/94 48245.550

5/ 2/98

SPECTRUM INTEGRATED OVER 62.7 SECONDS, INTERVALS 2 TO 34



ULYSSES 08/10/94 48245.550 BURST SPECTRAL COUNT RATES

4- 18 keV

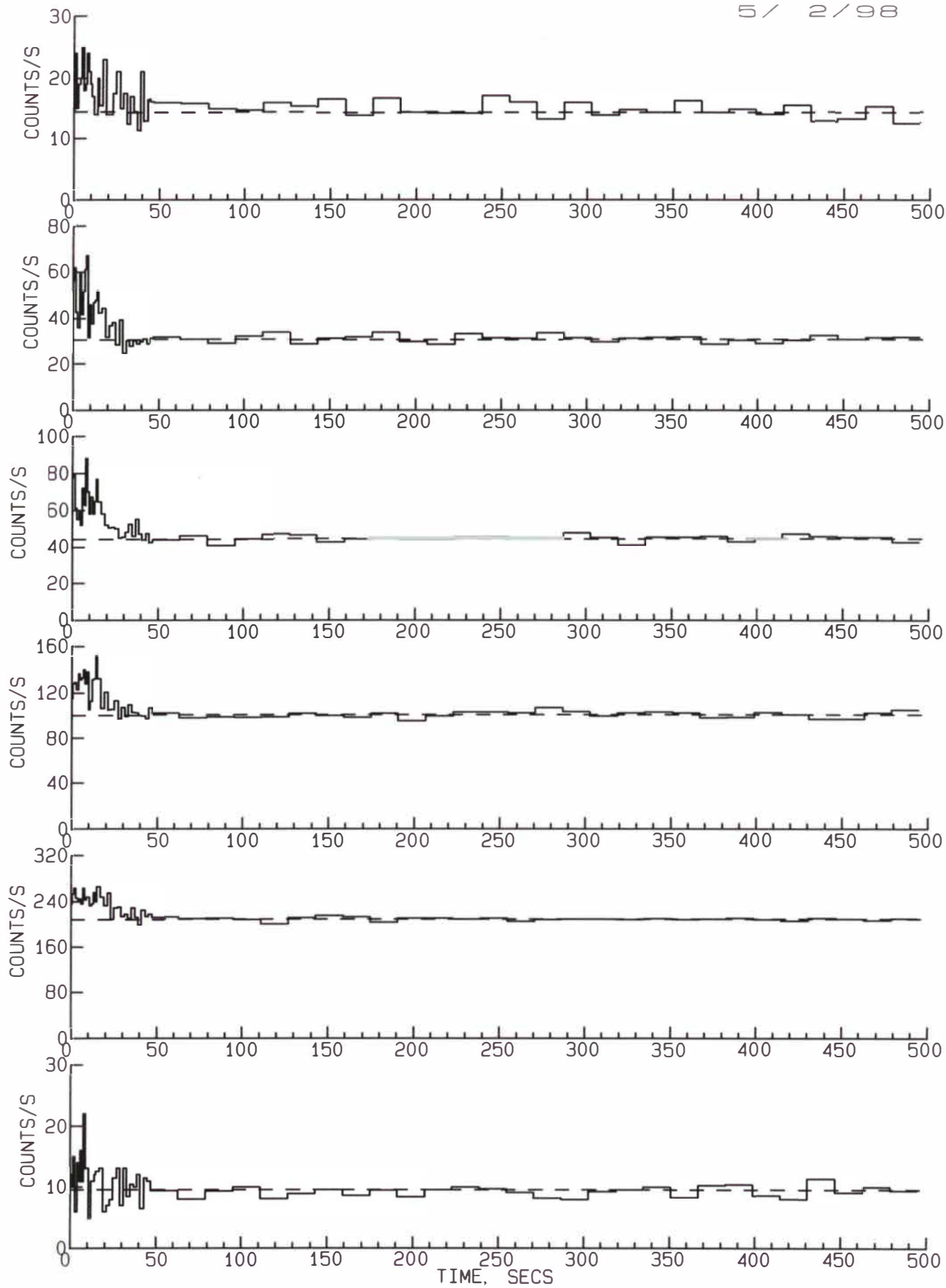
18- 46 keV

46- 73 keV

73-101 keV

101-128 keV

128-147 keV



5 / 2 / 98

ULYSSES

08/10/94

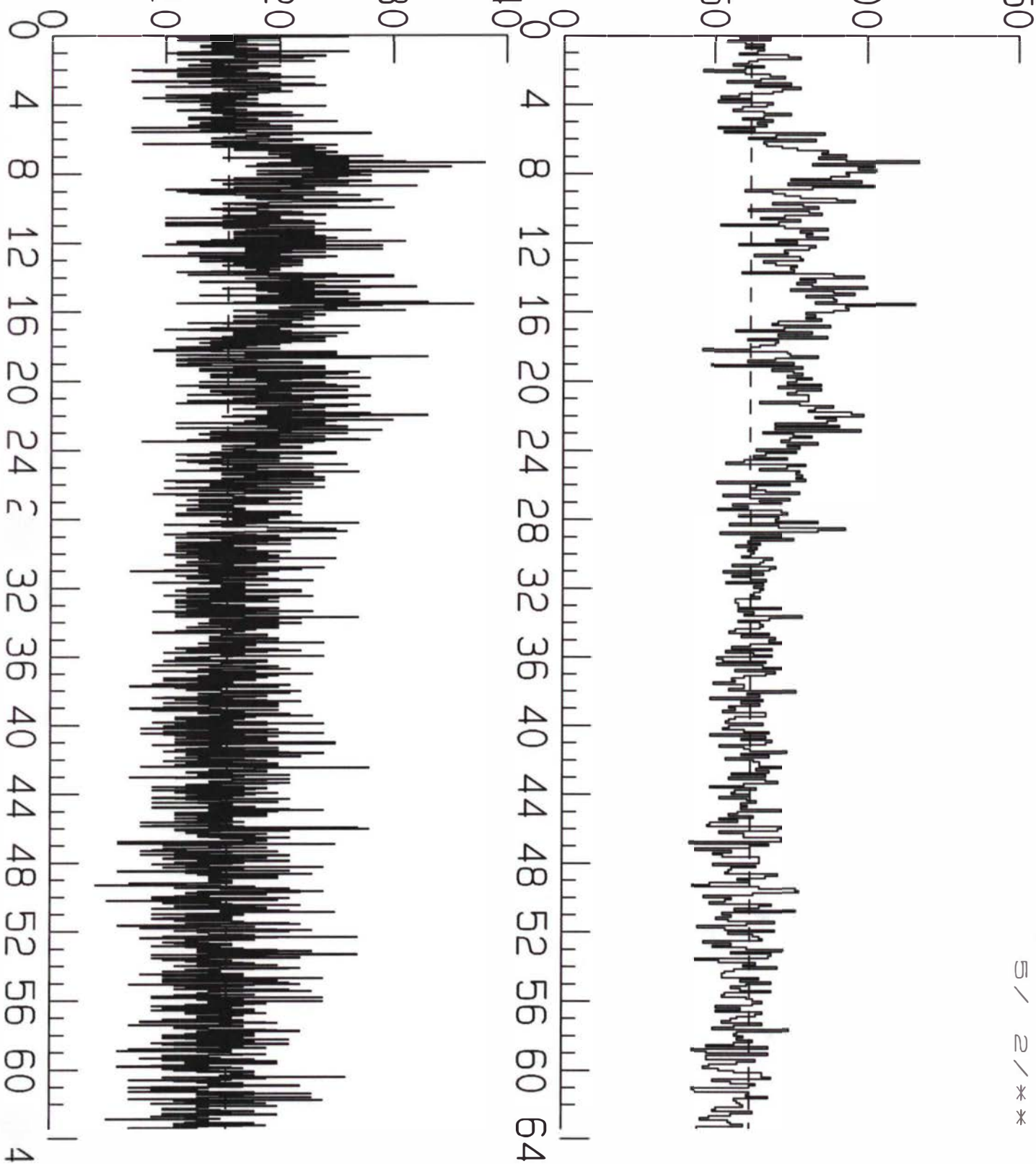
Ttrig=48245.530

22- 147 keV

COUNTS/0.031 S

COUNTS/0.125 S

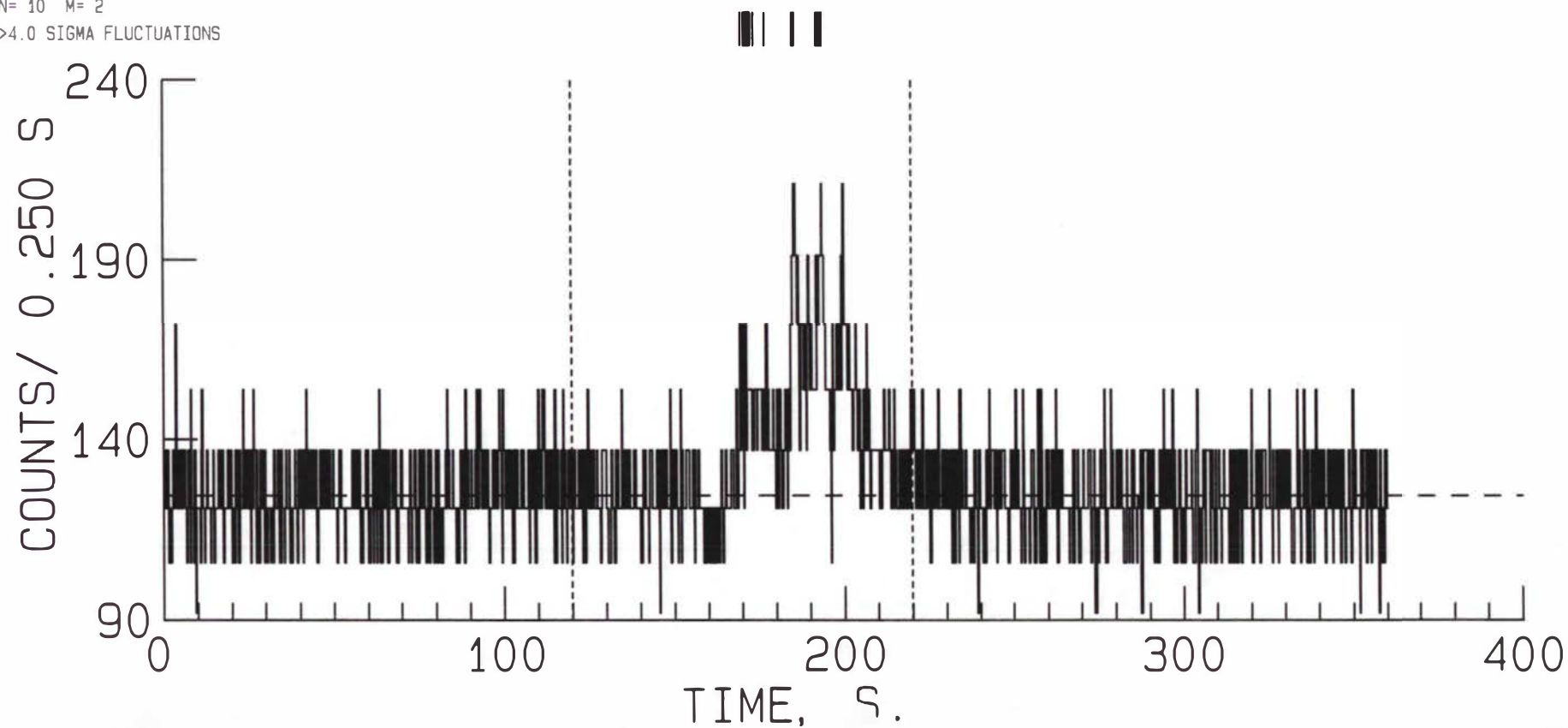
S / 2 / **



ULYSSES RT
8/10/94 48060.190 s
22- 147 keV

5 / 2 / 98

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



BATSE

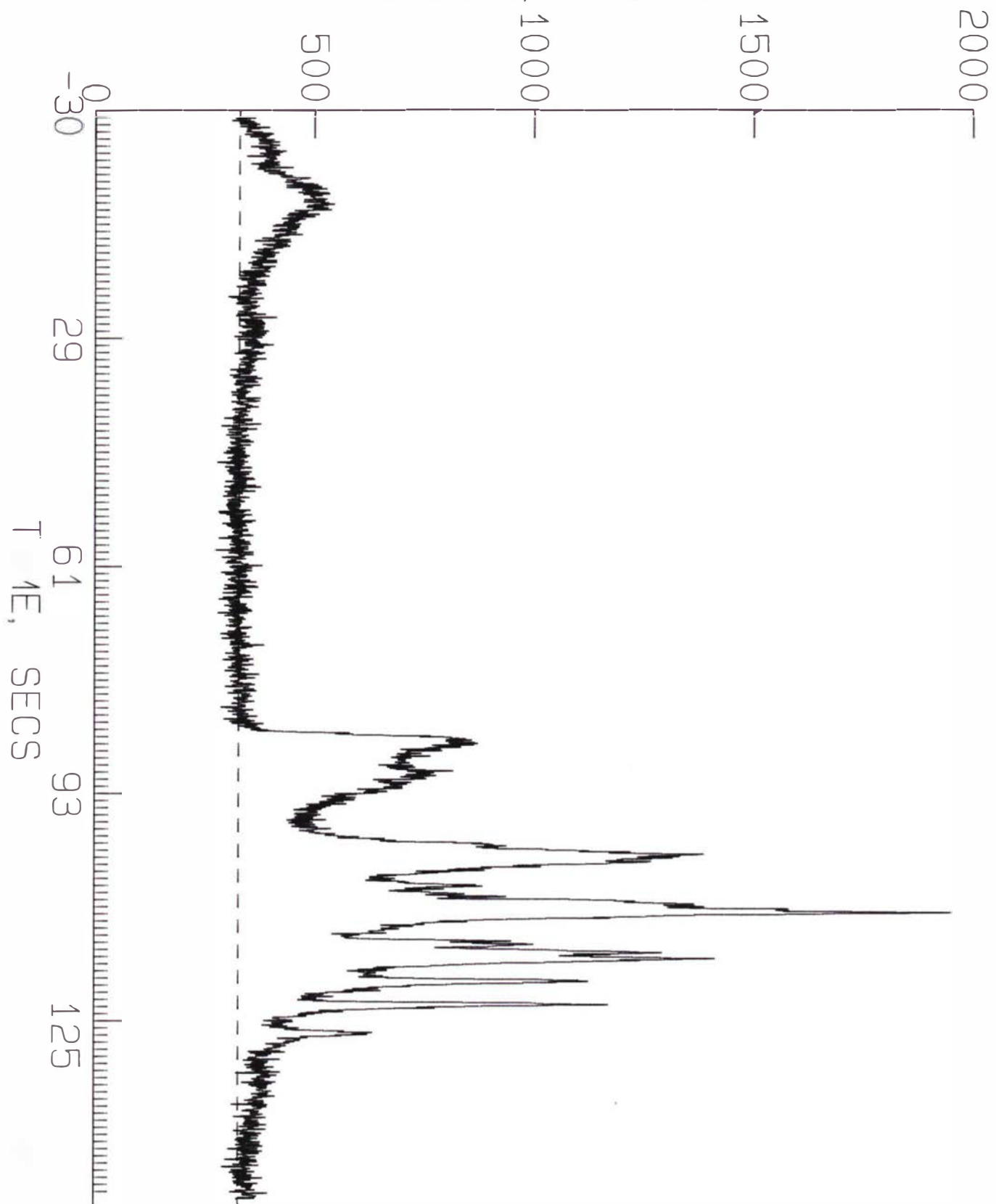
08/10/94

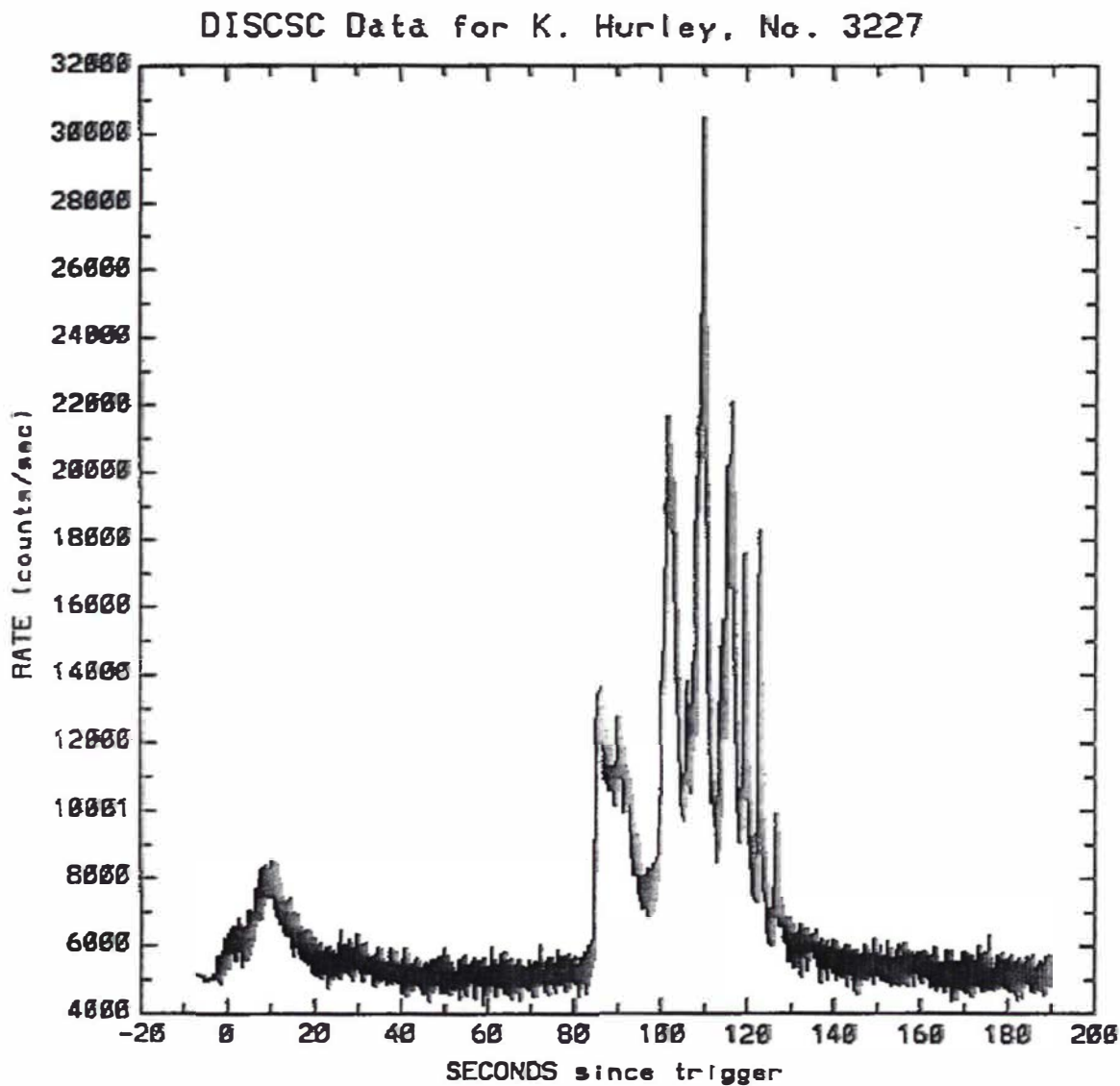
48772.786

25- 100 keV

COUNTS/ .064 S

5 / 11 / 94





26-OCT-1994 14:18:53

Created by MOPS 80
(Burst Display)
Version 2.22

Trigger #: 3227

Trigger Time:
9633 / 48772.786

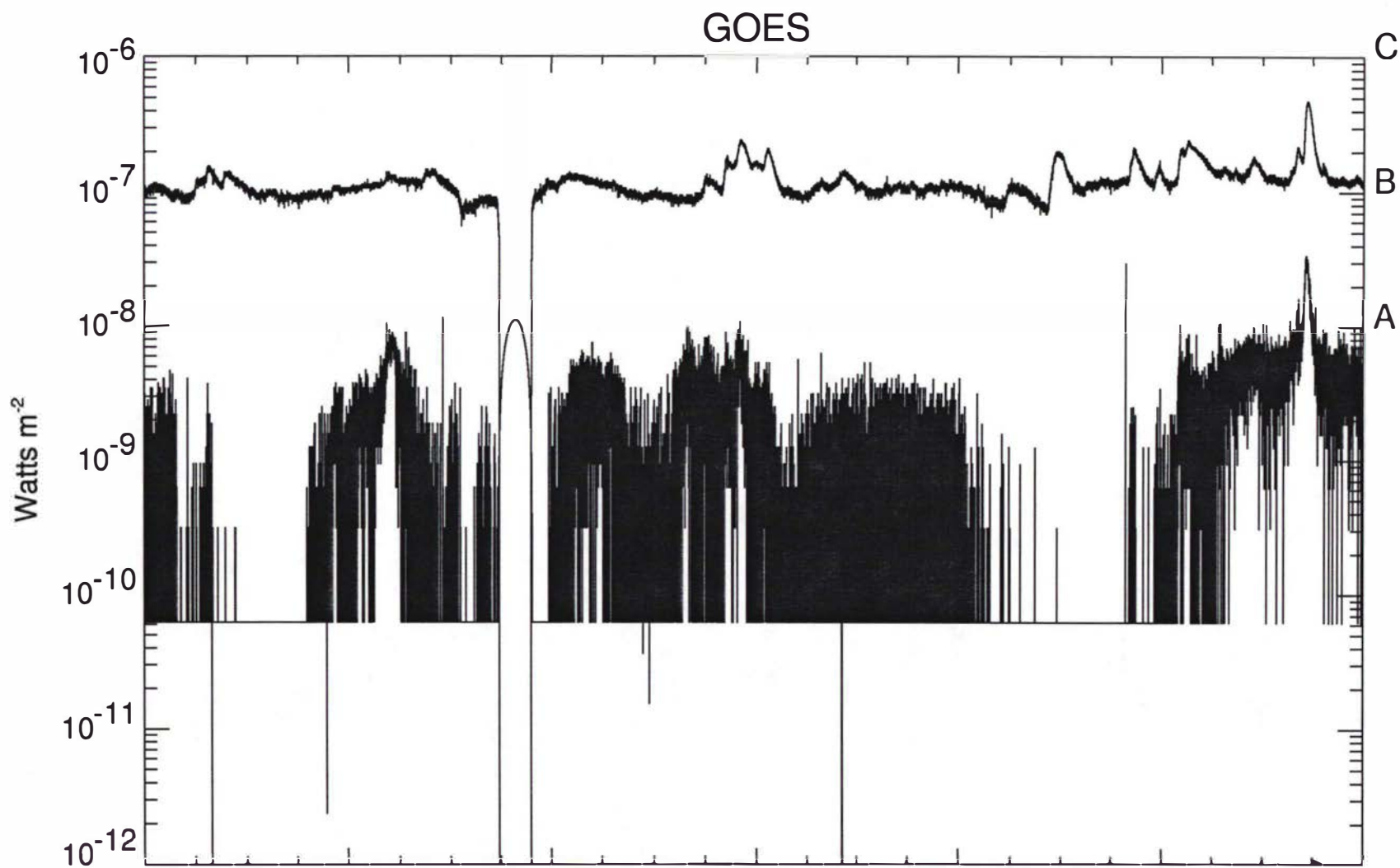
Burst Data Type:
DISCSC

Deadtime
Corrected: K
Background Data
Type: PREB + DISCLA
Minimum Integ. Time:
0.064 second(s)

Detectors [7..6]:
--5--1--

Discriminators:
(1, 2)

Quality Mask:
BDISPI



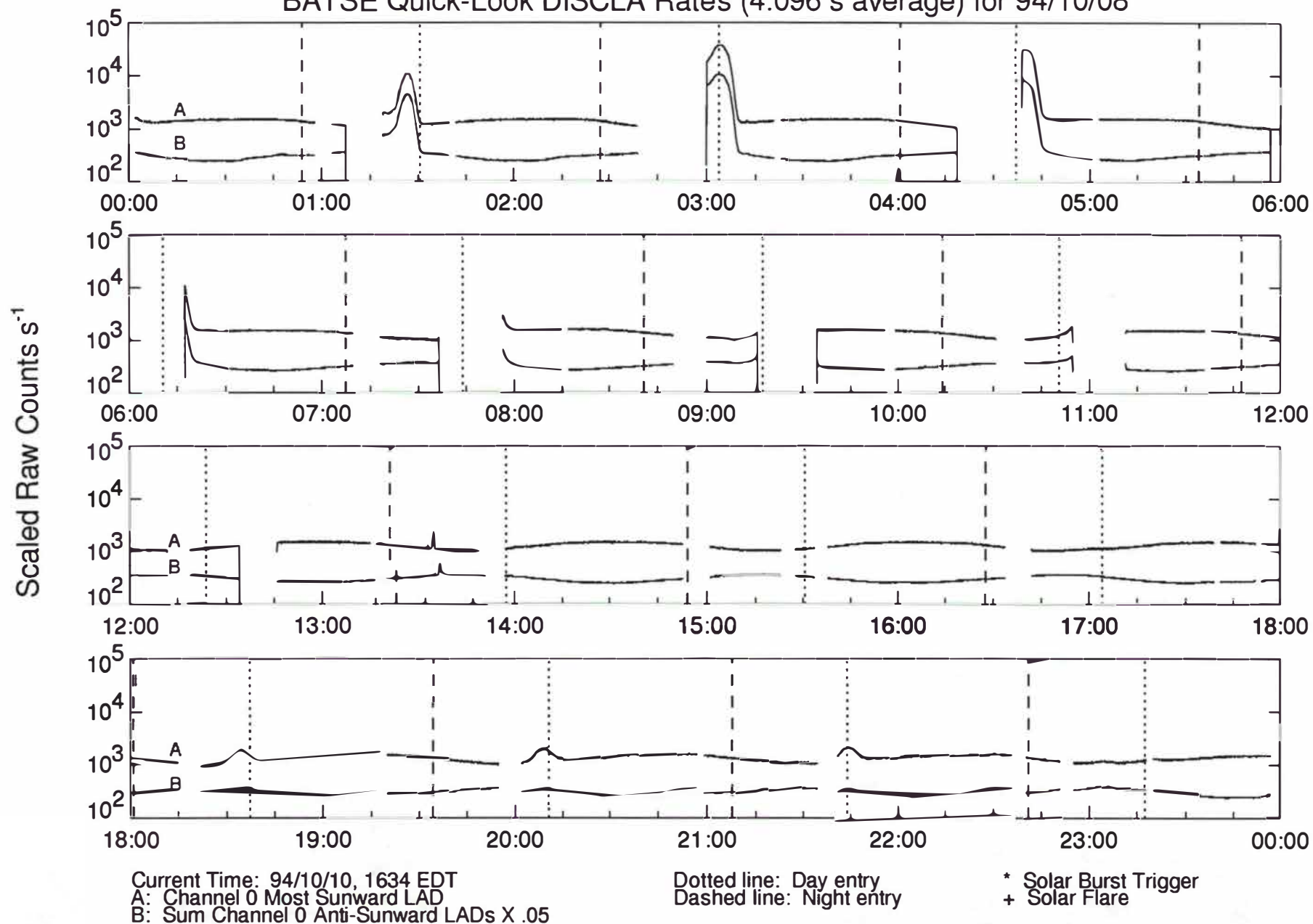
Data Start: 94/10/08, 0000:01

Plot created: 94/10/10, 1639

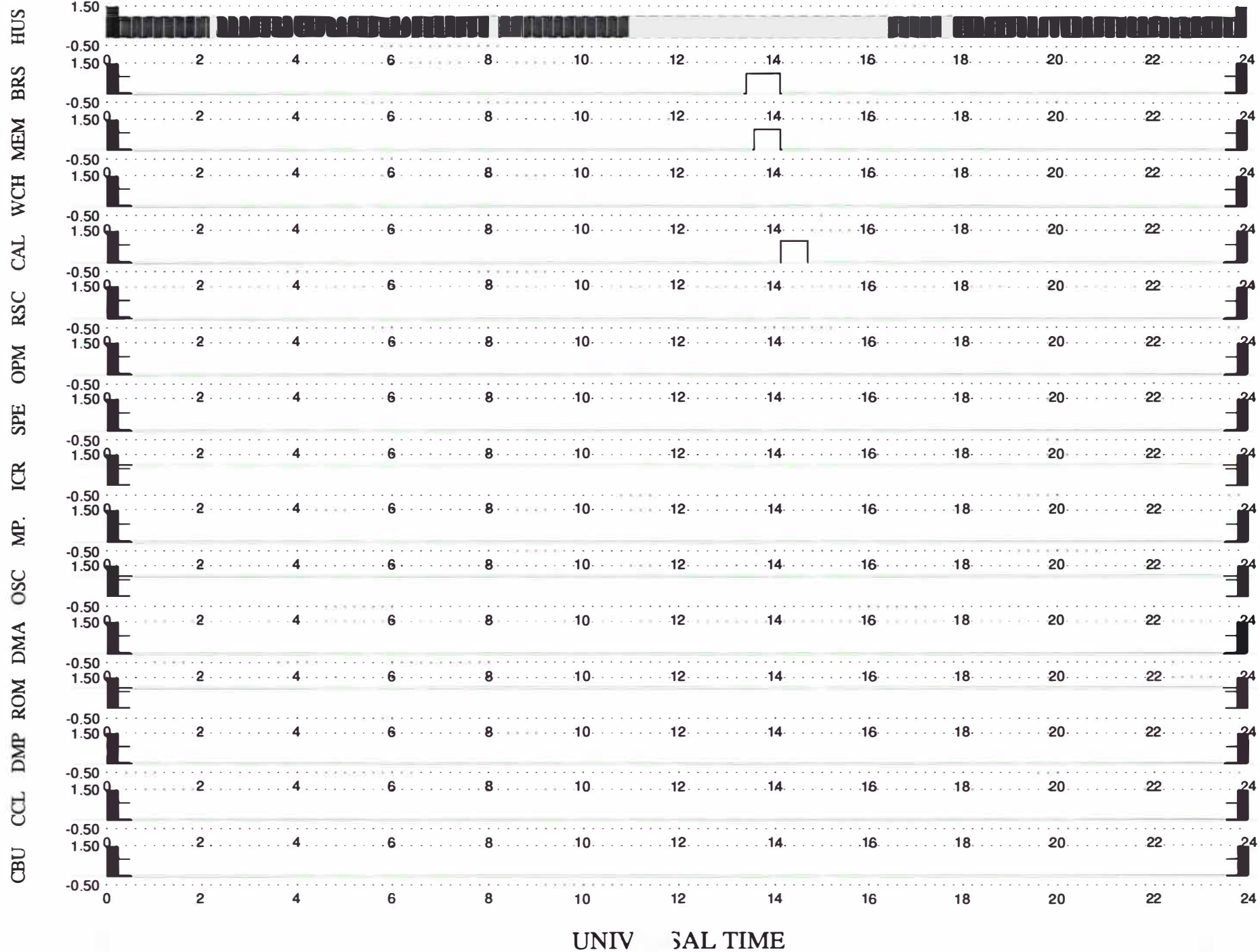
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

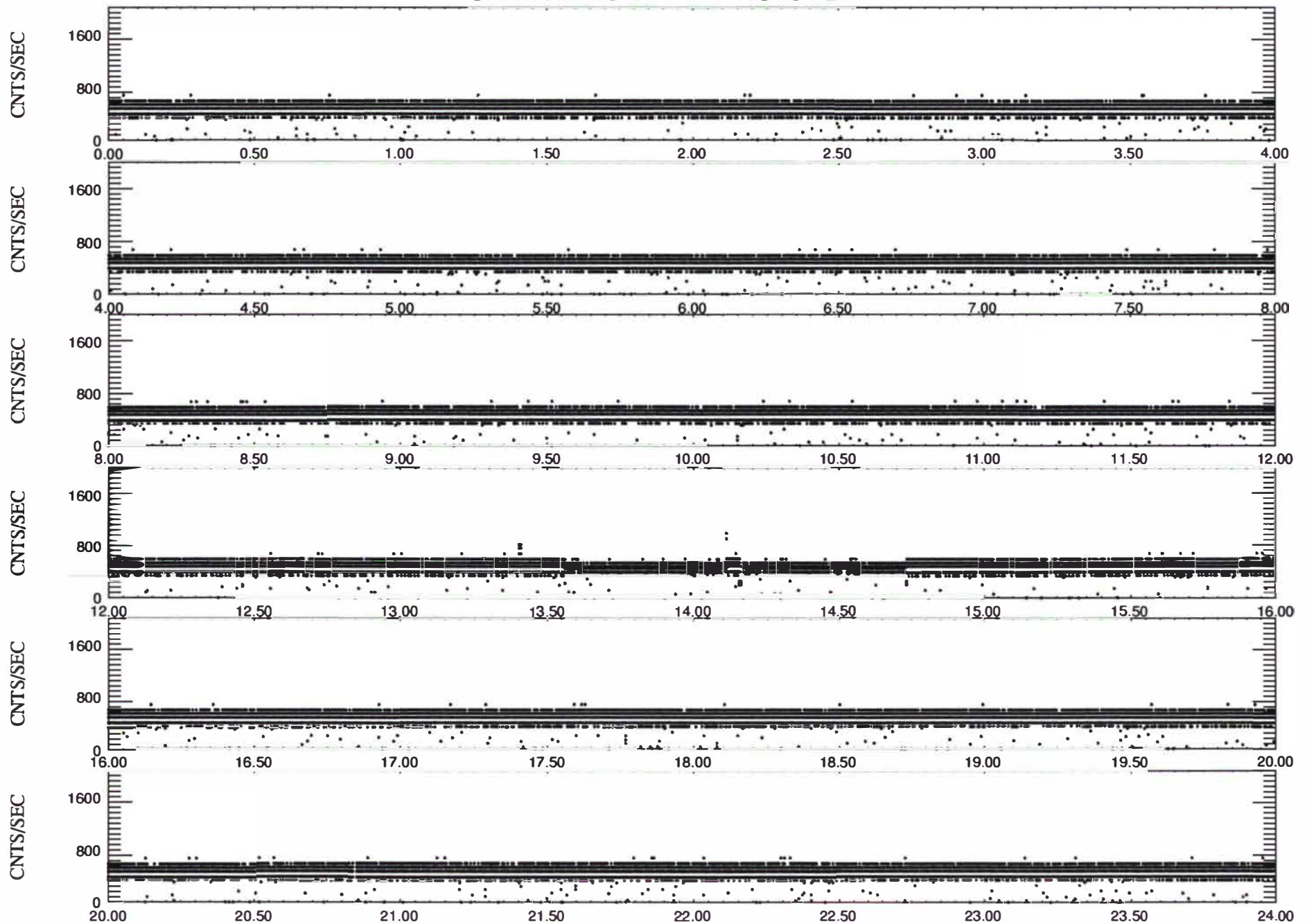
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/08



BURST NUMBER 0

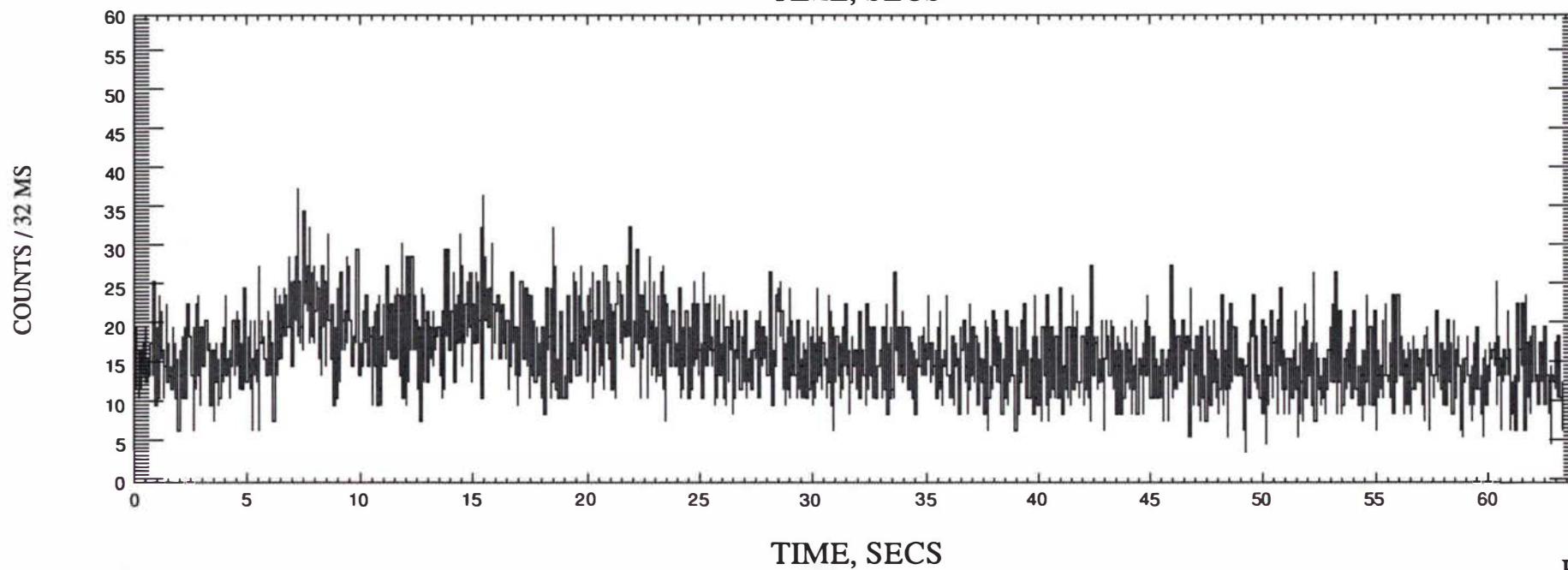
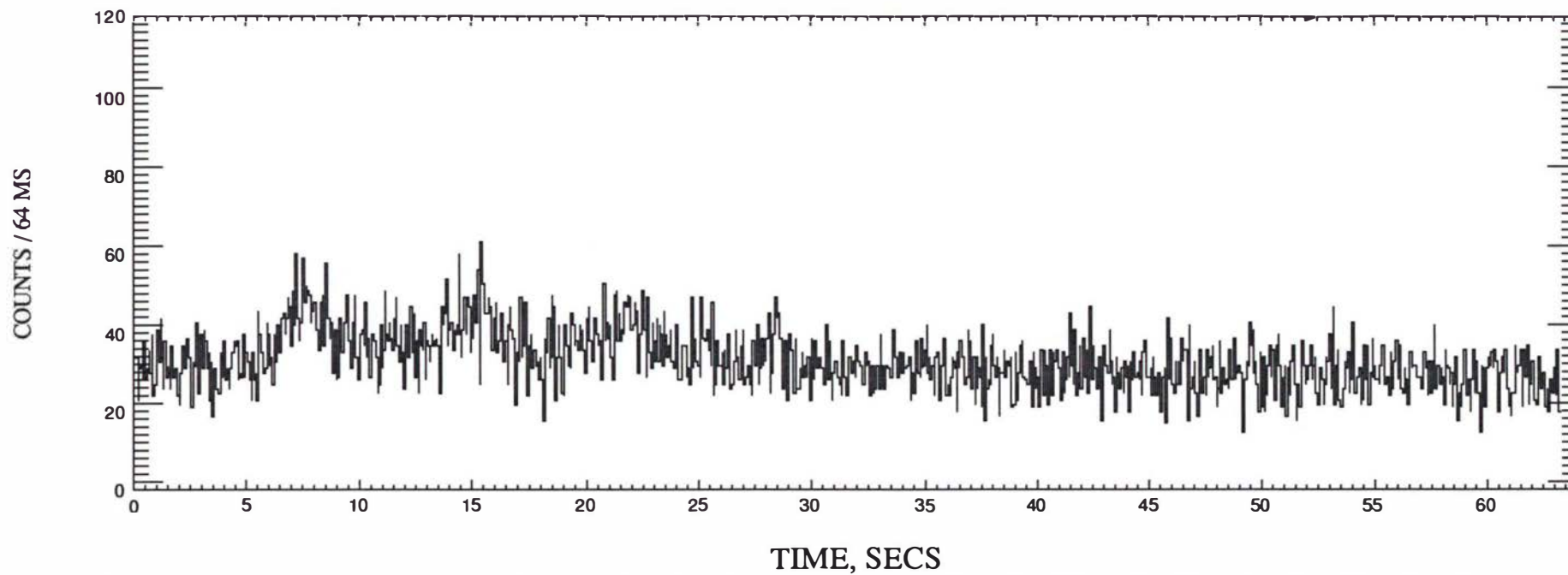


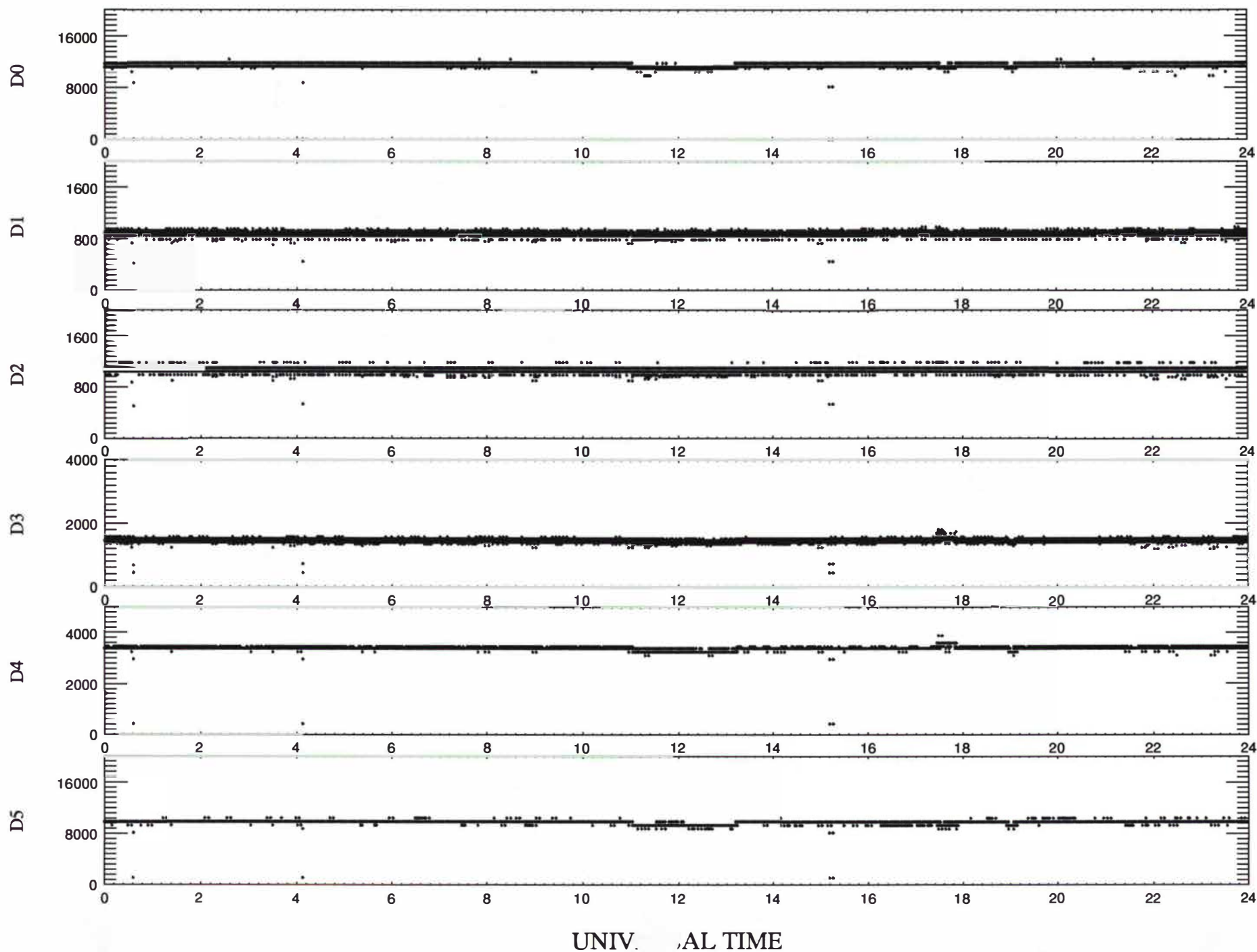
CALIBRATION DATA INCLUDED



UNIV SAL TIME

Burst Counter 0 at UT=13.401541722616 h=48245.550 s 13:24:05.550





From RICHARDSON@ssl.msfc.nasa.gov Tue Oct 11 07:29 PDT 1994
Date: Tue, 11 Oct 1994 9:31:08 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3228

TIME: TJD=9634 SECONDS=2442

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY

From RICHARDSON@ssl.msfc.nasa.gov Wed Oct 12 06:18 PDT 1994
Date: Wed, 12 Oct 1994 8:21:50 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3229

BATSEARCH PROGRAM

NO

BATSE BURST # 3229
EVENT OF 1994 OCT 9 DAY OF YEAR=282
EVENT CROSSING TIME AT BATSE : 12959. S. OR 03:35:59.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 353.000 -59.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 9/10/ 94 IS:
RA= 167.500 DEC= -62.351 DIST= 2.431 AU
BATSE-ULYSSES DISTANCE = 363720864. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=121.42 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -632.56 SECS.
CROSSING TIME AT ULYSSES IS 12326. S. OR 03:25:26 +/- 220.14 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 9/10/ 94 IS:
RA= 124.962 DEC= 20.678 DIST= 1.520 AU
MARS-BATSE DISTANCE = 227420480. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 51.33 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 474.03 SECS.
CROSSING TIME AT MARS IS 13433. S. OR 03:43:53 +/- 110.02 SECONDS

BATSE BURST TRIGGER

NO.: 3229

TIME: TJD=9634 SECONDS=12959

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=126.0 AZIMUTH=157.5 ERROR= DEGREES

COMMENTS:

GRB. SINGLE PULSE WITH STRUCTURE LASTING APROX. 5S. NOT VISIBLE ABOVE 300KEV.

From RICHARDSON@ssl.msfc.nasa.gov Wed Oct 12 06:18 PDT 1994
Date: Wed, 12 Oct 1994 8:21:16 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: RICHARDSON@ssl.msfc.nasa.gov
Subject: BATSE Burst 3229

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3229	941009	9634	12959	3000	353	-59

12 / 10 / 94

ULYSSES RT

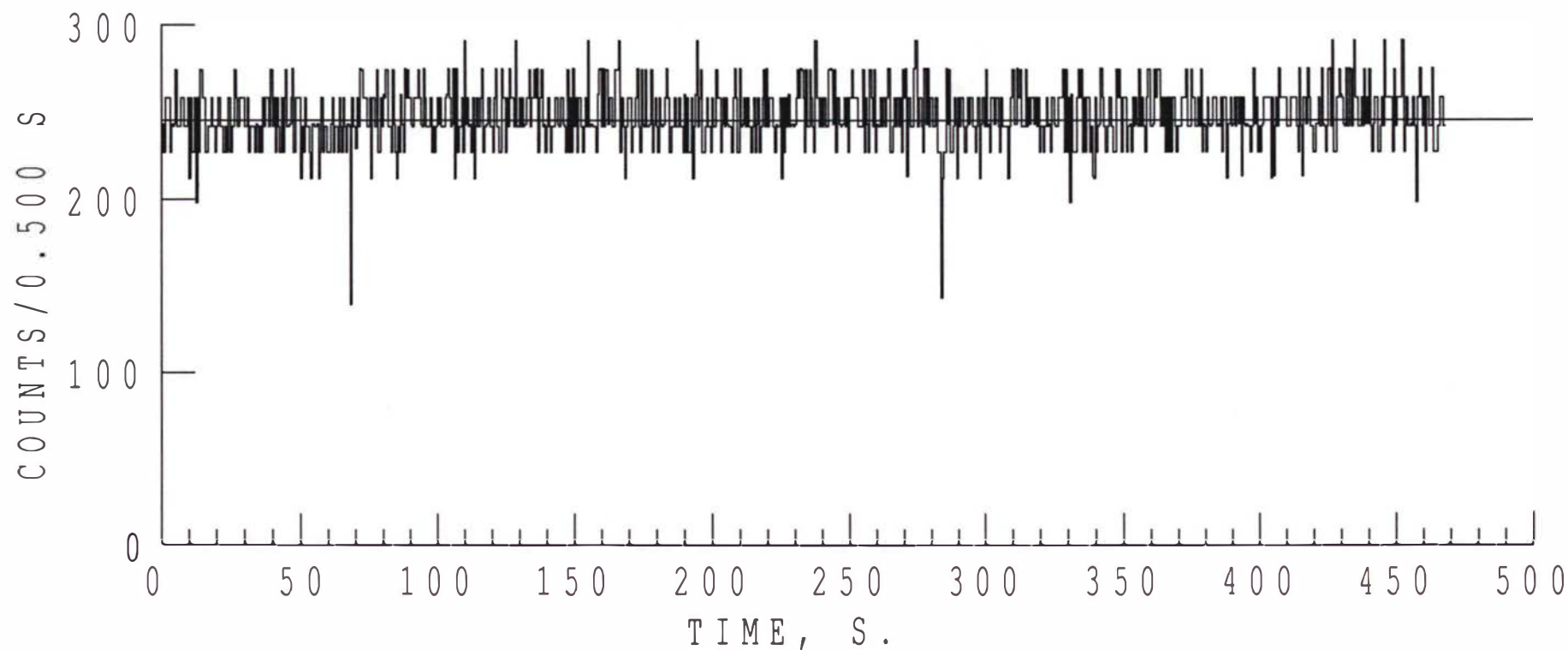
9 / 10 / 94 12096.065 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From RICHARDSON@ssl.msfc.nasa.gov Tue Oct 11 07:34 PDT 1994
Date: Tue, 11 Oct 1994 9:37:32 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3230

TIME: TJD=9634 SECONDS=76027

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

From RICHARDSON@ssl.msfc.nasa.gov Tue Oct 11 07:38 PDT 1994
Date: Tue, 11 Oct 1994 9:40:47 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3231

TIME: TJD=9634 SECONDS=86291

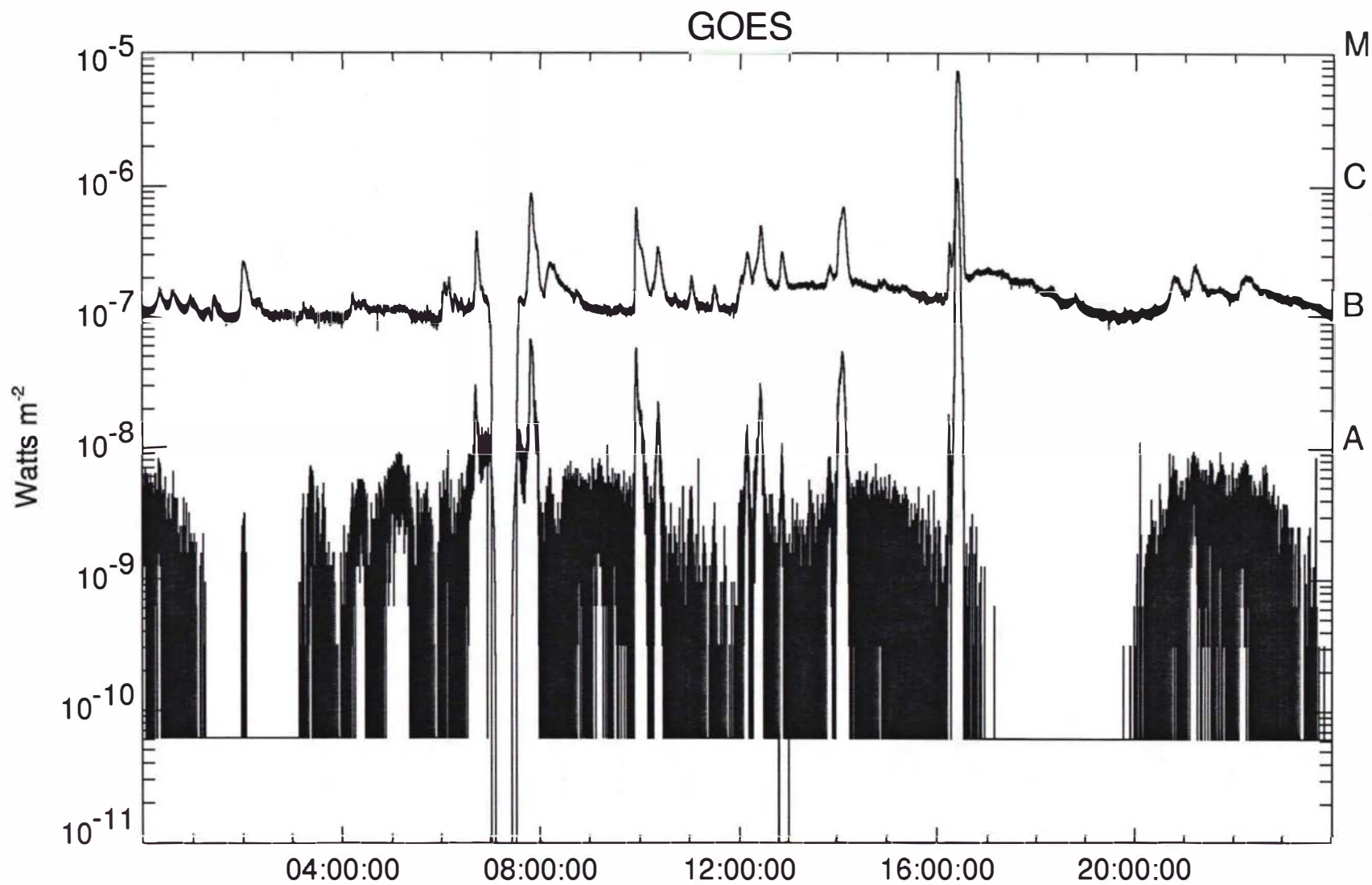
TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY



Data Start: 94/10/09, 0000:02

Plot created: 94/10/10, 1639

Channel

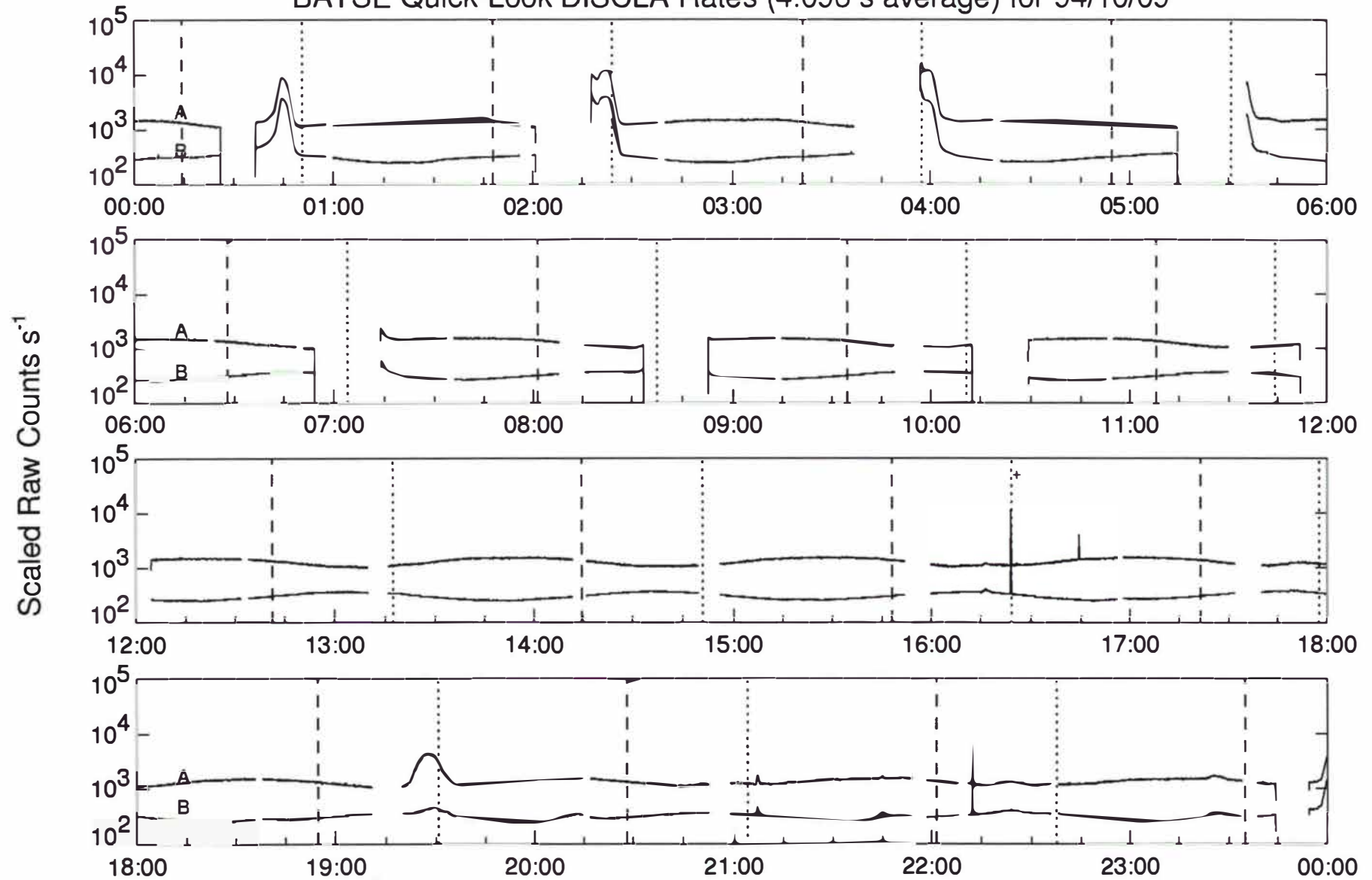
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/09

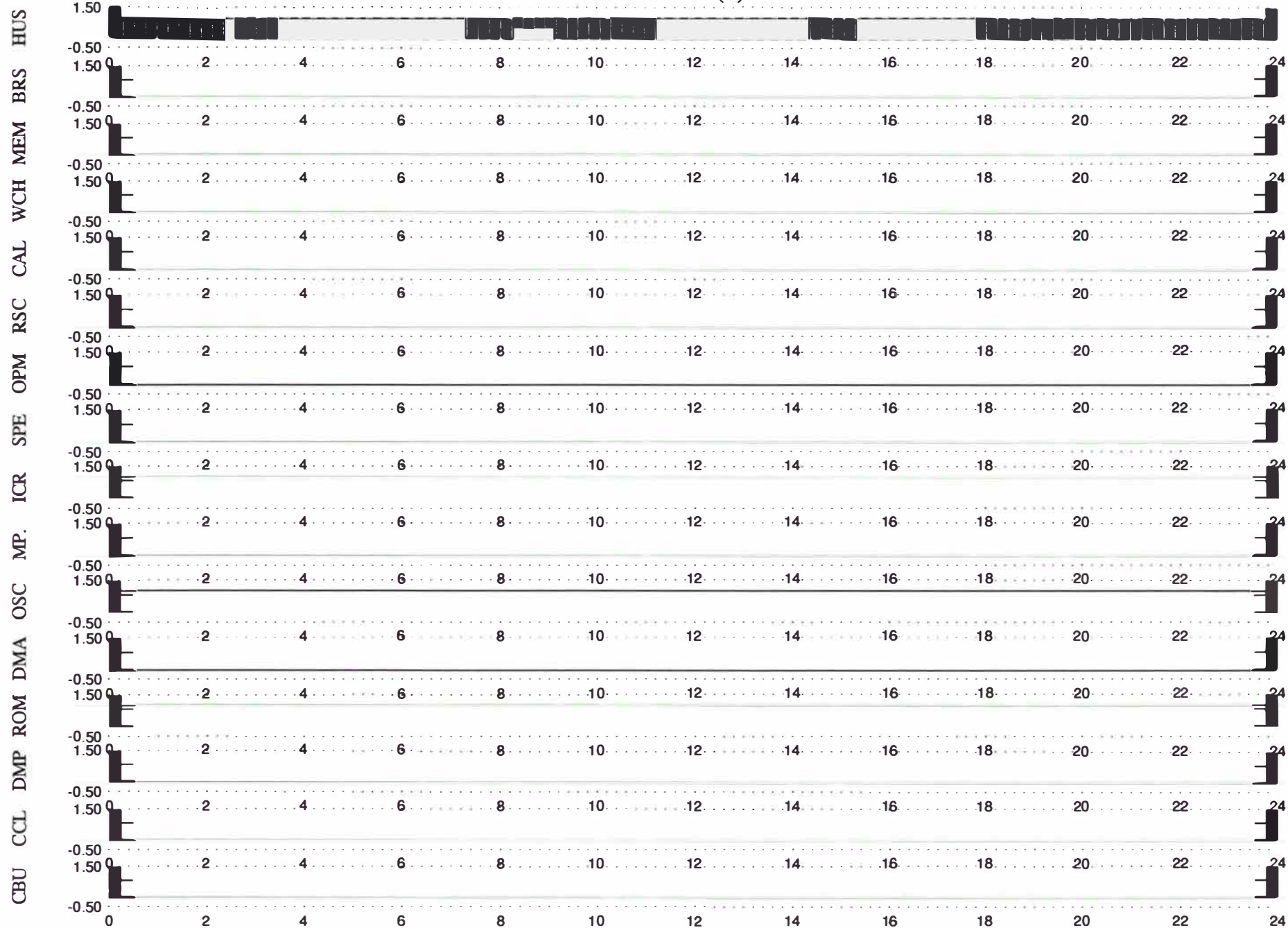


Current Time: 94/10/12, 1408 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

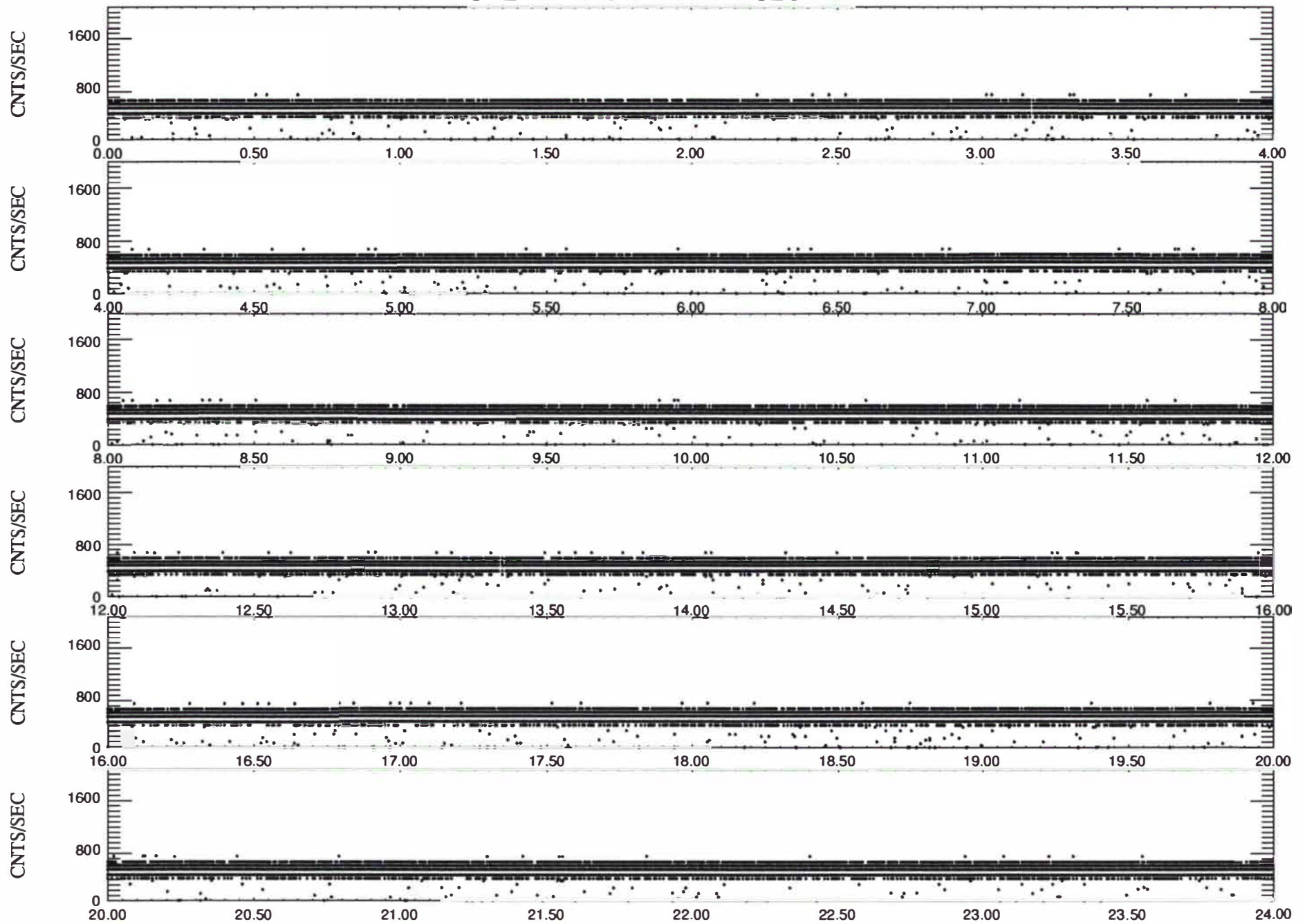
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

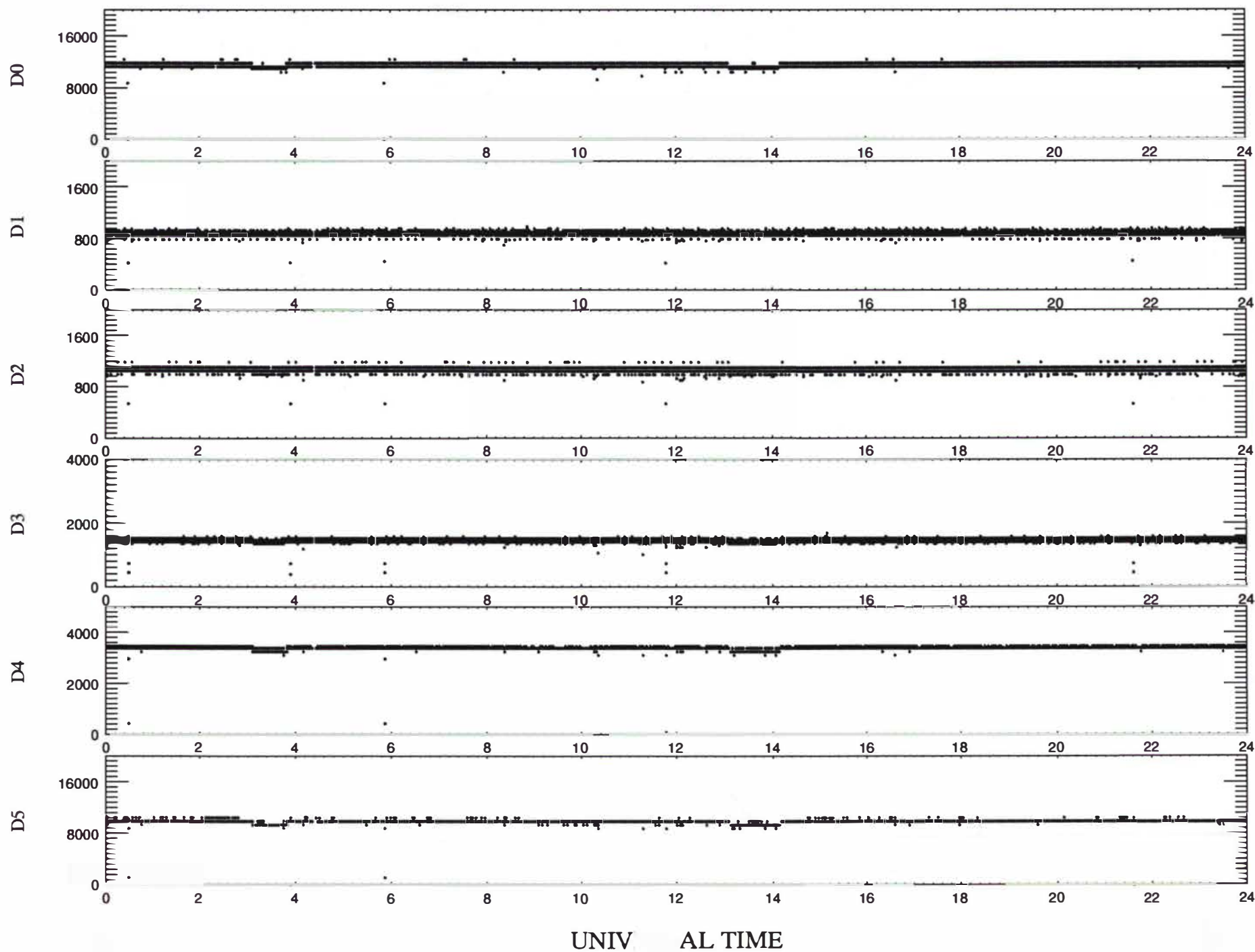
UNIV SAL TIME



CALIBRATION DATA INCLUDED



UNIV 3AL TIME



From HAGEDON@ssl.msfc.nasa.gov Tue Oct 11 10:18 PDT 1994
Date: Tue, 11 Oct 1994 12:20:45 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3232

TIME: TJD=9635 SECONDS=11766

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA EXIT.

BATSE BURST TRIGGER

NO.: 3233

TIME: TJD=9635 SECONDS=43763

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=88 AZIMUTH=344 ERROR= DEGREES

COMMENTS:
TGF. DUR.~0.6MS. STRONGLY VISIBLE ABOVE 300 KEV. ORIGINATES FROM EARTH.

BATSE BURST TRIGGER

NO.: 3234

TIME: TJD=9635 SECONDS=61669

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT.

BATSE BURST TRIGGER

NO.: 3235

TIME: TJD=9635 SECONDS=67579

TYPE: PARTICL

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

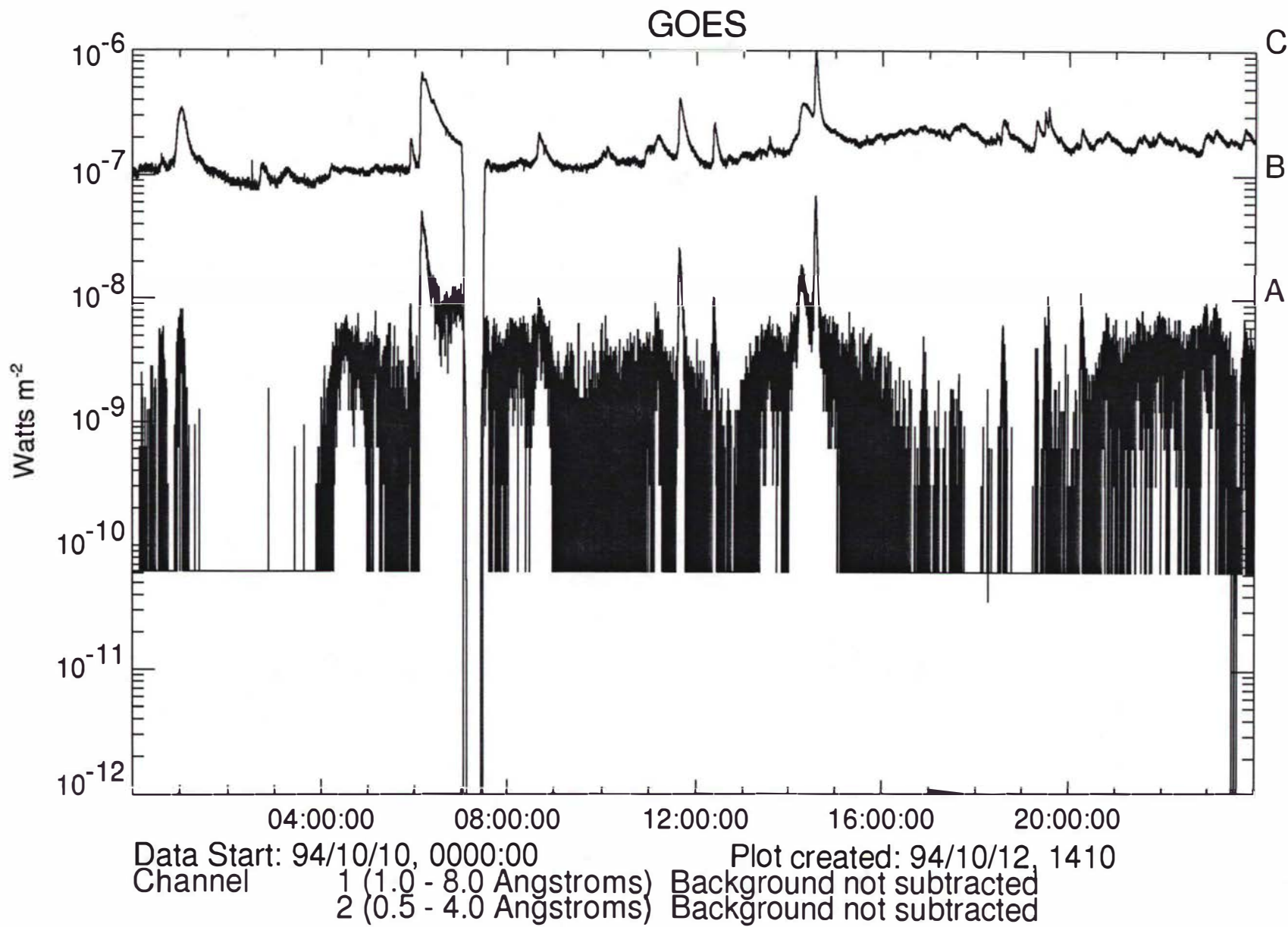
LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT.

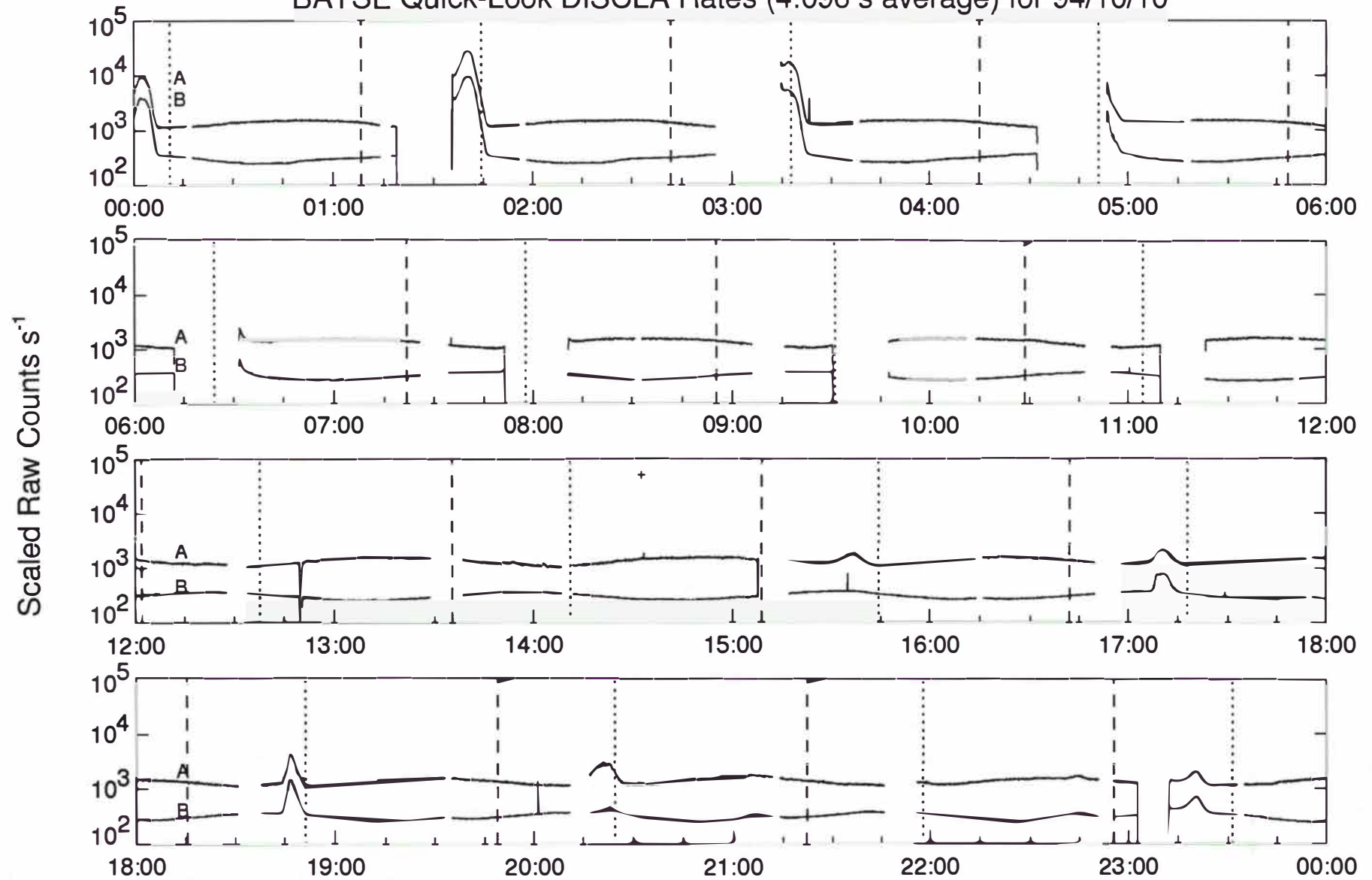
From ULSMG@jplsp2.jpl.nasa.gov Mon Oct 10 13:20 PDT 1994
Date: Mon, 10 Oct 1994 13:21:04 -0700 (PDT)
From: Peggy Greutert (reply to ULSSCI) <ULSMG@jplsp.jpl.nasa.gov>
To: KHURLEY@SUNSPOT.ssl.berkeley.edu, "MPE::HUS"@jplsp.jpl.nasa.gov
Cc: ULSMG@jplsp.jpl.nasa.gov
Subject: DNEL

A Disconnect of Non-Essential Loads occurred at 283.15:31:18 (SCET).
All Ulysses instruments are off. Recovery action is underway and will
continue throughout the day.

Regards,
Peggy Greutert
Ulysses Spacecraft Team



BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/10

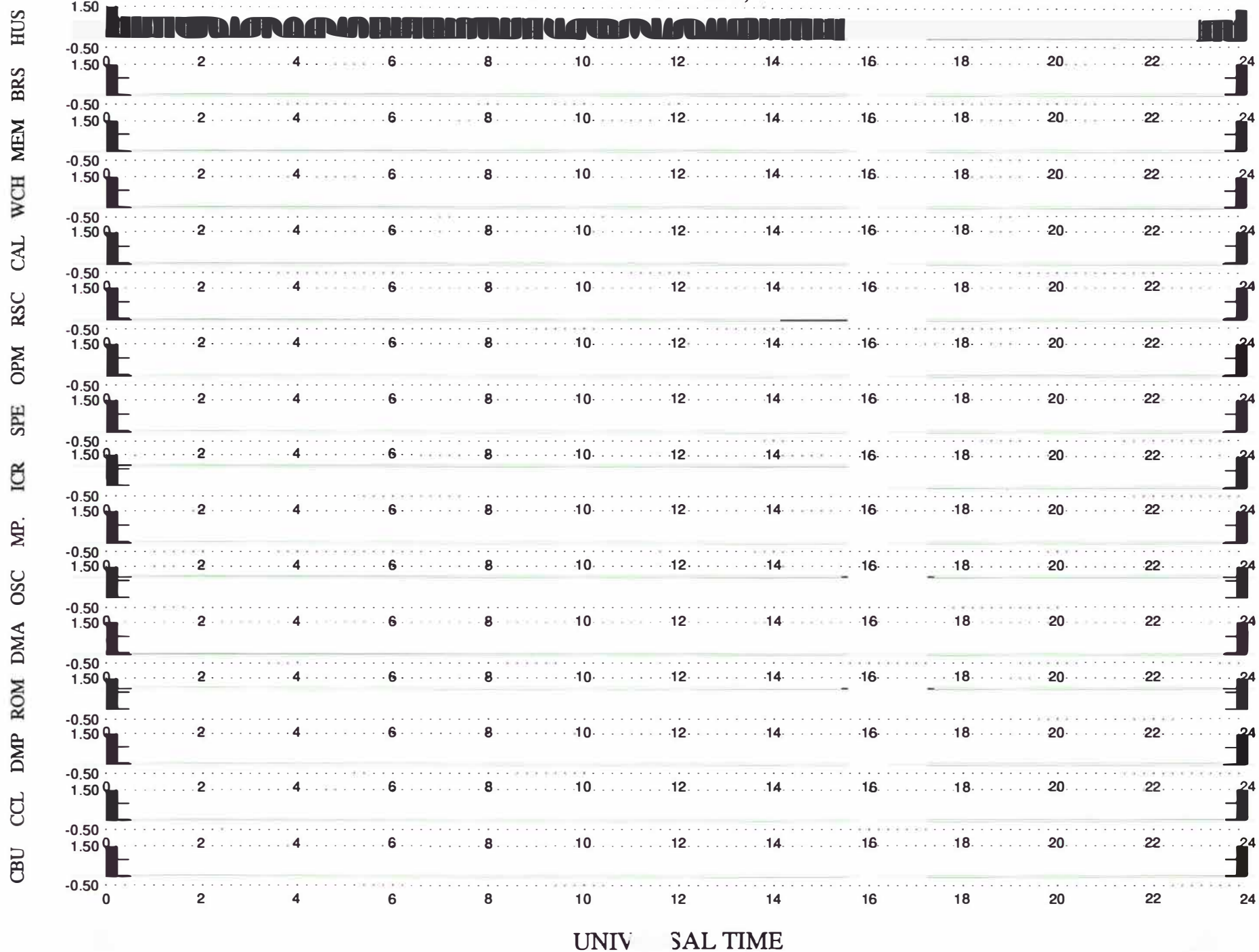


Current Time: 94/10/12, 1409 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

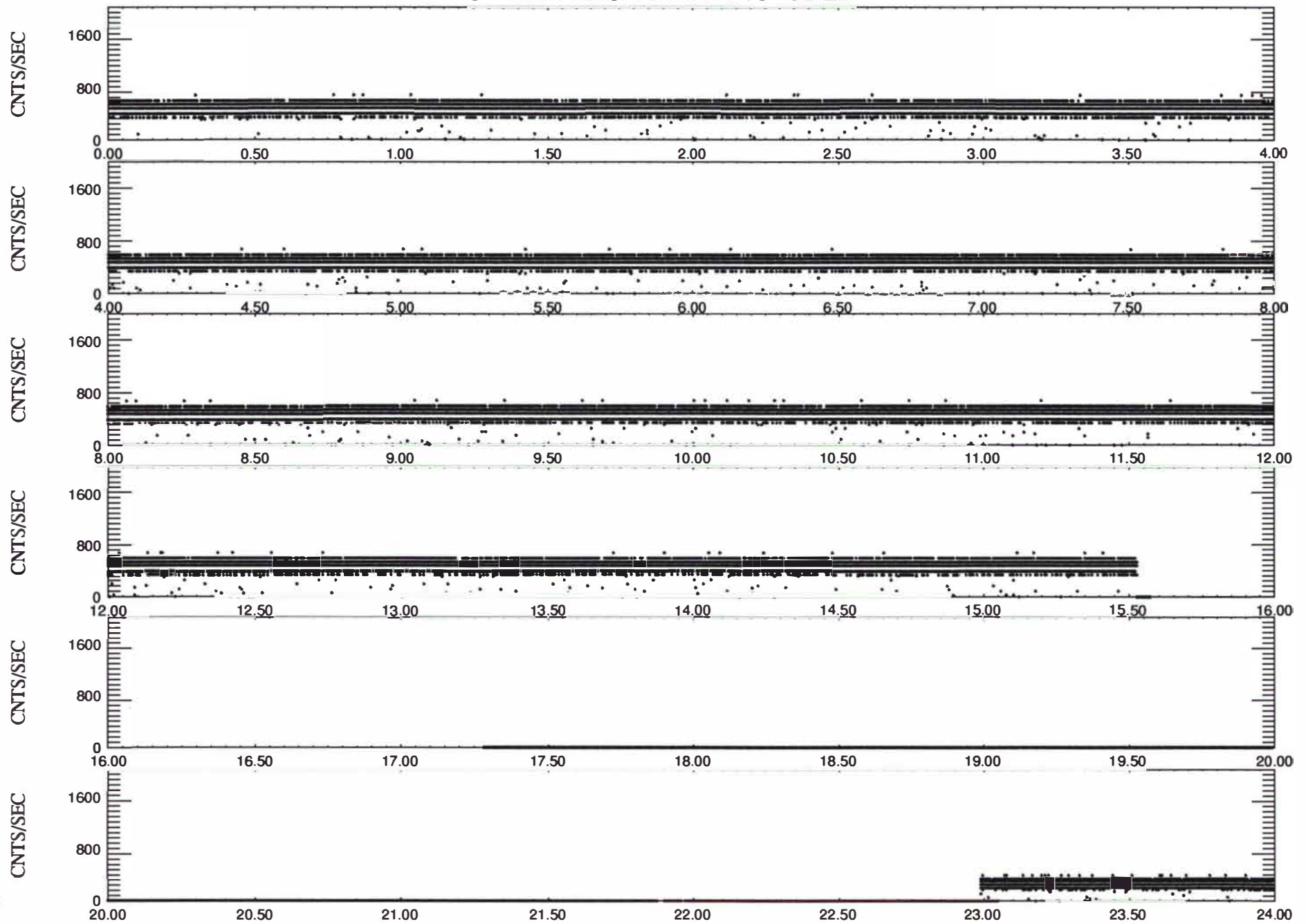
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

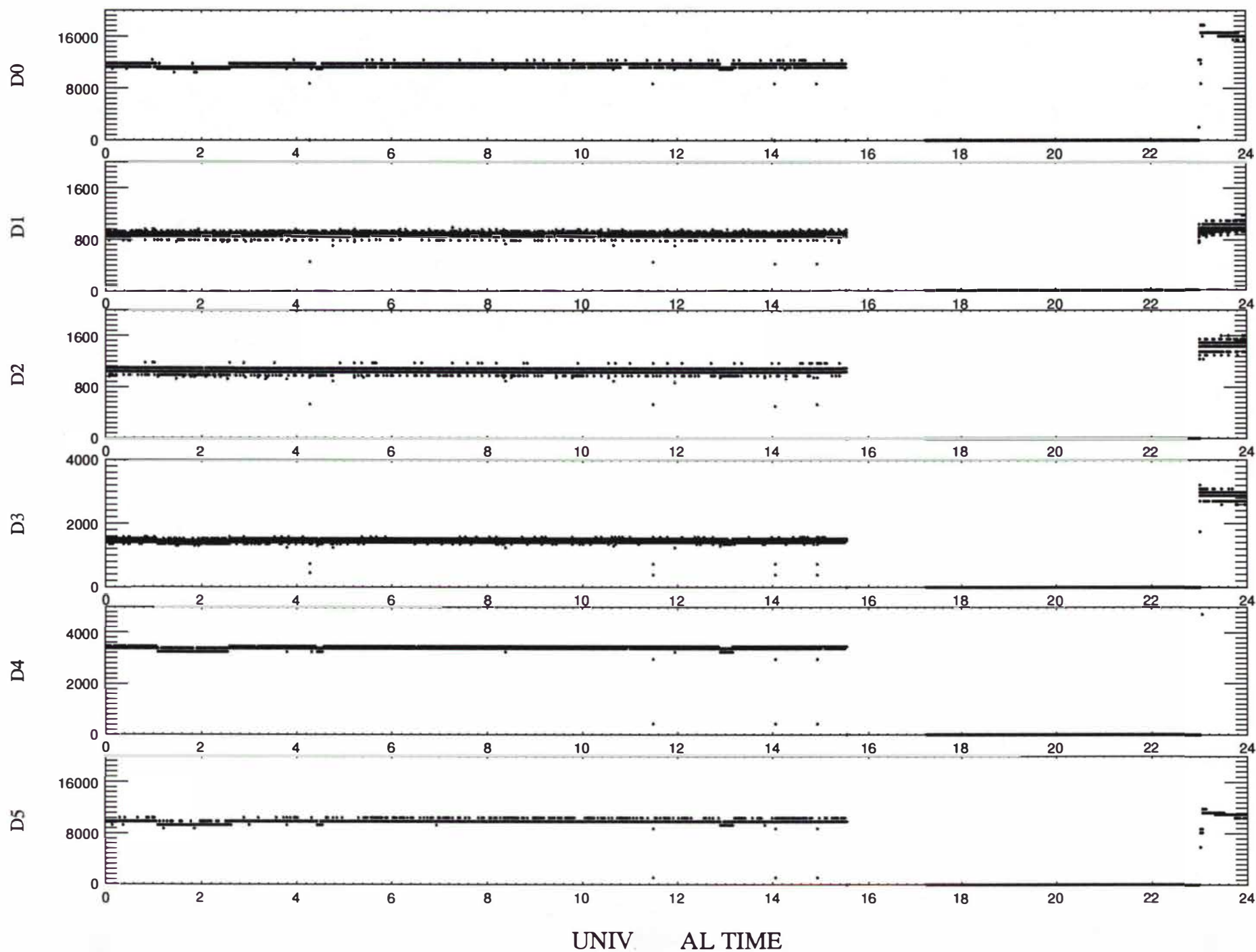
BURST NUMBER 1, 0



CALIBRATION DATA INCLUDED



UNIV 3AL TIME



From HENZE@fender.msfc.nasa.gov Wed Oct 12 14:52 PDT 1994
Date: Wed, 12 Oct 1994 16:55:08 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@fender.msfc.nasa.gov, LHEAVXBARTHELMY@fender.msfc.nasa.gov,
15733SCHAEFER@fender.msfc.nasa.gov, CASS09BAND@fender.msfc.nasa.gov,
CASS09GRUBER@fender.msfc.nasa.gov, CASS09MATTESON@fender.msfc.nasa.gov,
PACIESAS@fender.msfc.nasa.gov, HORACK@fender.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03236

TIME: TJD=9636 SECONDS=03321

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA. MISTAKE IN DEFINITION OF SAA BOUNDARY.

From HENZE@fender.msfc.nasa.gov Thu Oct 13 10:12 PDT 1994
Date: Thu, 13 Oct 1994 12:15:54 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3237

BATSEARCH PROGRAM

BATSE BURST # 3237
EVENT OF 1994 OCT 11 DAY OF YEAR=284
EVENT CROSSING TIME AT BATSE : 60011. S. OR 16:40:11.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 123.000 31.000
BATSE PEAK COUNTING RATE: 9000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 11/10/ 94 IS:
RA= 169.787 DEC= -63.481 DIST= 2.411 AU
BATSE-ULYSSES DISTANCE = 360633421. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 78.53 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 239.14 SECS.
CROSSING TIME AT ULYSSES IS 60250. S. OR 16:44:10 +/- 258.31 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 11/10/ 94 IS:
RA= 126.118 DEC= 20.461 DIST= 1.506 AU
MARS-BATSE DISTANCE = 225241968. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=169.10 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -737.76 SECS.
CROSSING TIME AT MARS IS 59273. S. OR 16:27:53 +/- 13.47 SECONDS

BATSE BURST TRIGGER

NO.: 03237

TIME: TJD=9636 SECONDS=60011

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=075.3 AZIMUTH=295.4 ERROR= DEGREES

COMMENTS:

GRB. SINGLE PULSE, DUR. ~20 S. POSSIBLE EMISSION FROM ~T+50 TO ~T+60 S.
WEAKLY VISIBLE ABOVE 300 KEV.

From HENZE@fender.msfc.nasa.gov Thu Oct 13 10:12 PDT 1994
Date: Thu, 13 Oct 1994 12:15:34 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HENZE@fender.msfc.nasa.gov
Subject: BATSE Burst 3237

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3237	941011	9636	60011	9000	123	+31

13 / 10 / 94

ULYSSES RT

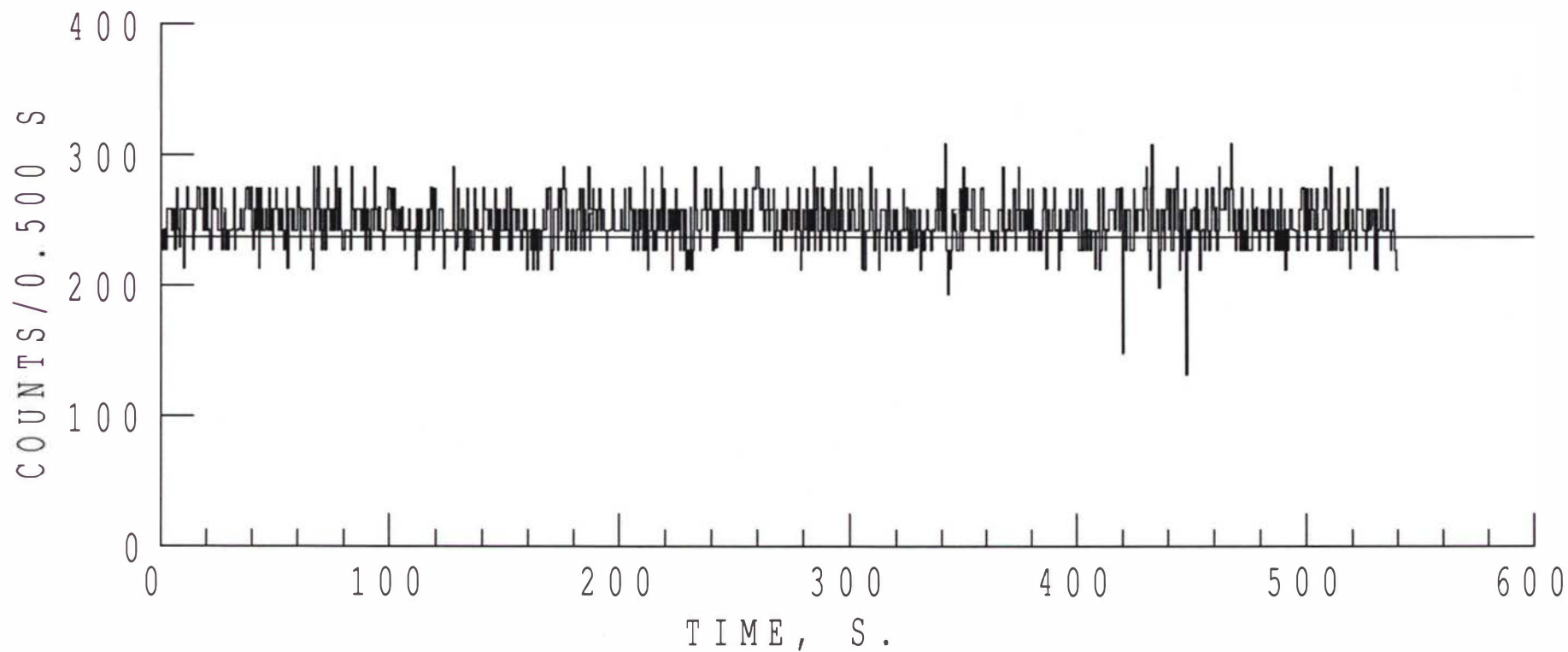
11/10/94 59976.152 s

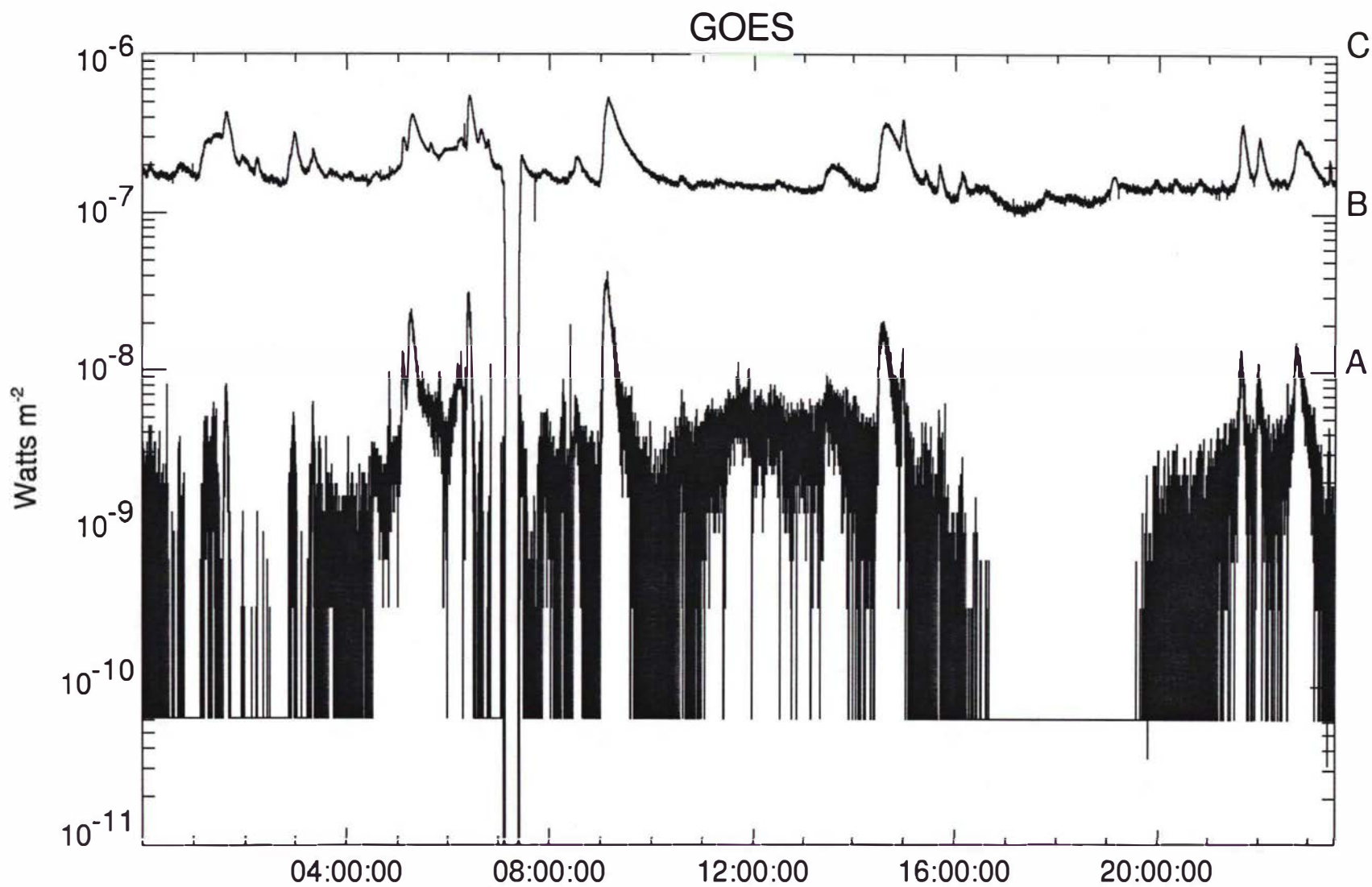
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





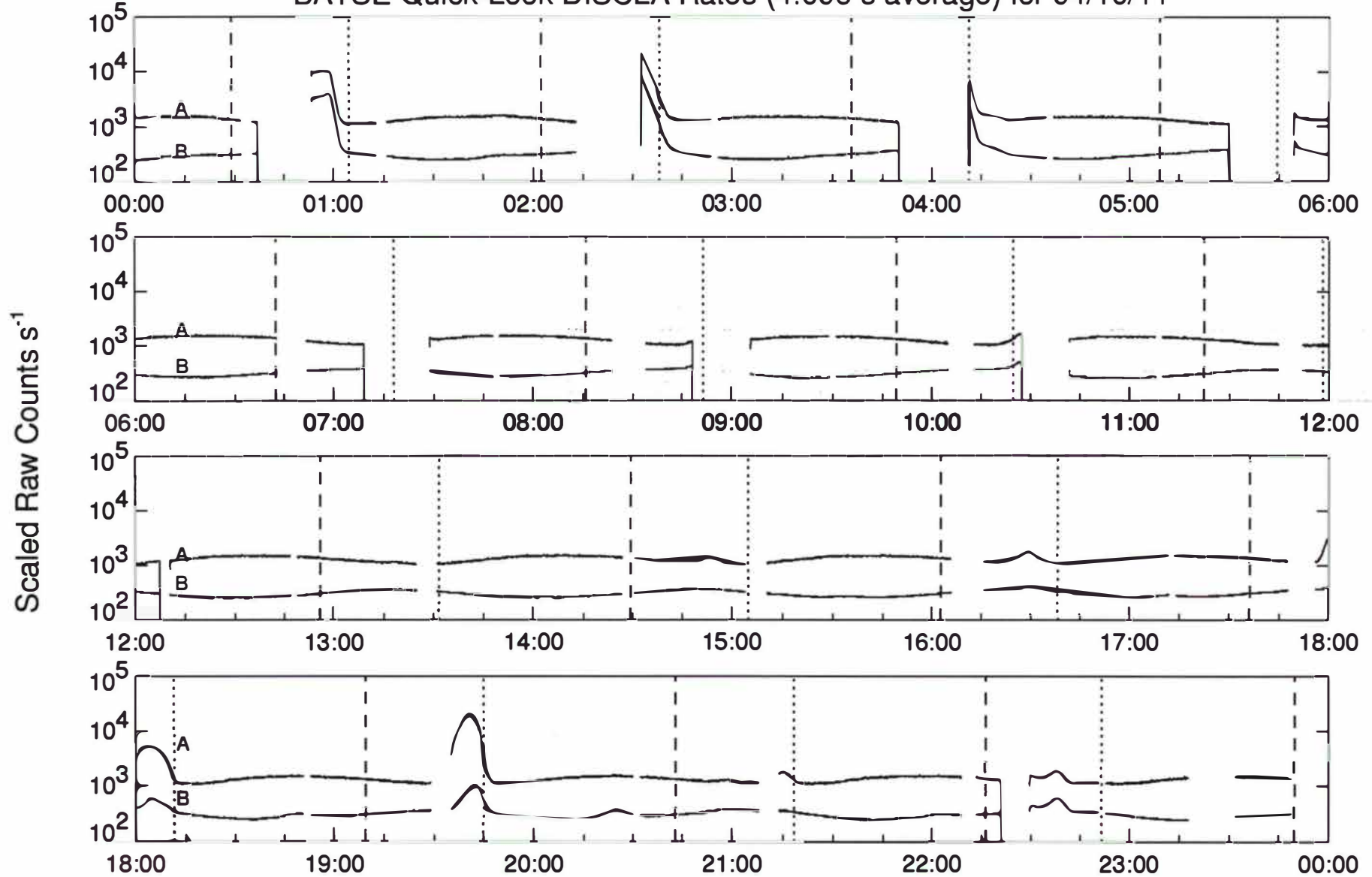
Data Start: 94/10/11, 0000:01

Plot created: 94/10/12, 1411

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/11

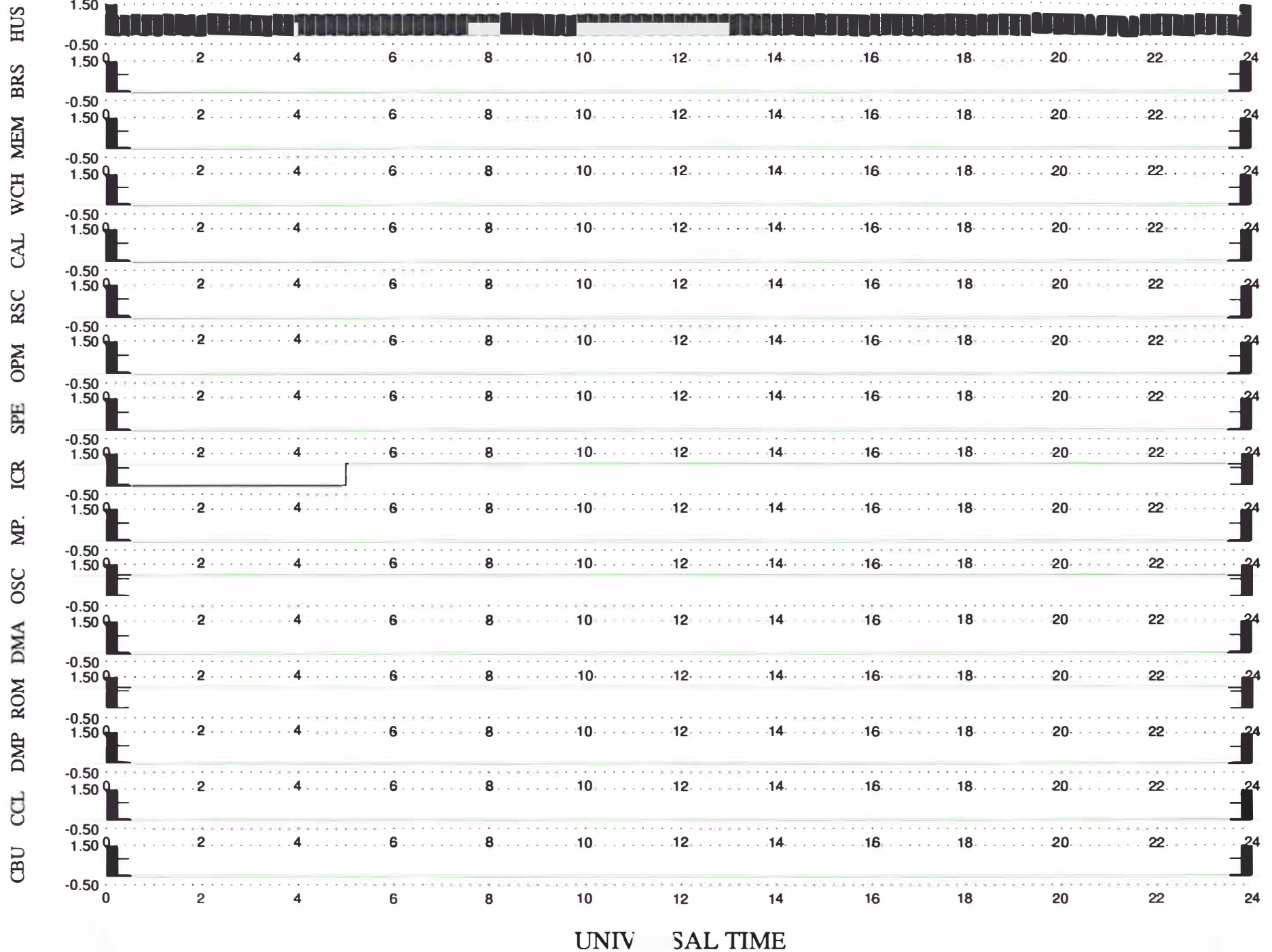


Current Time: 94/10/24, 1645 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

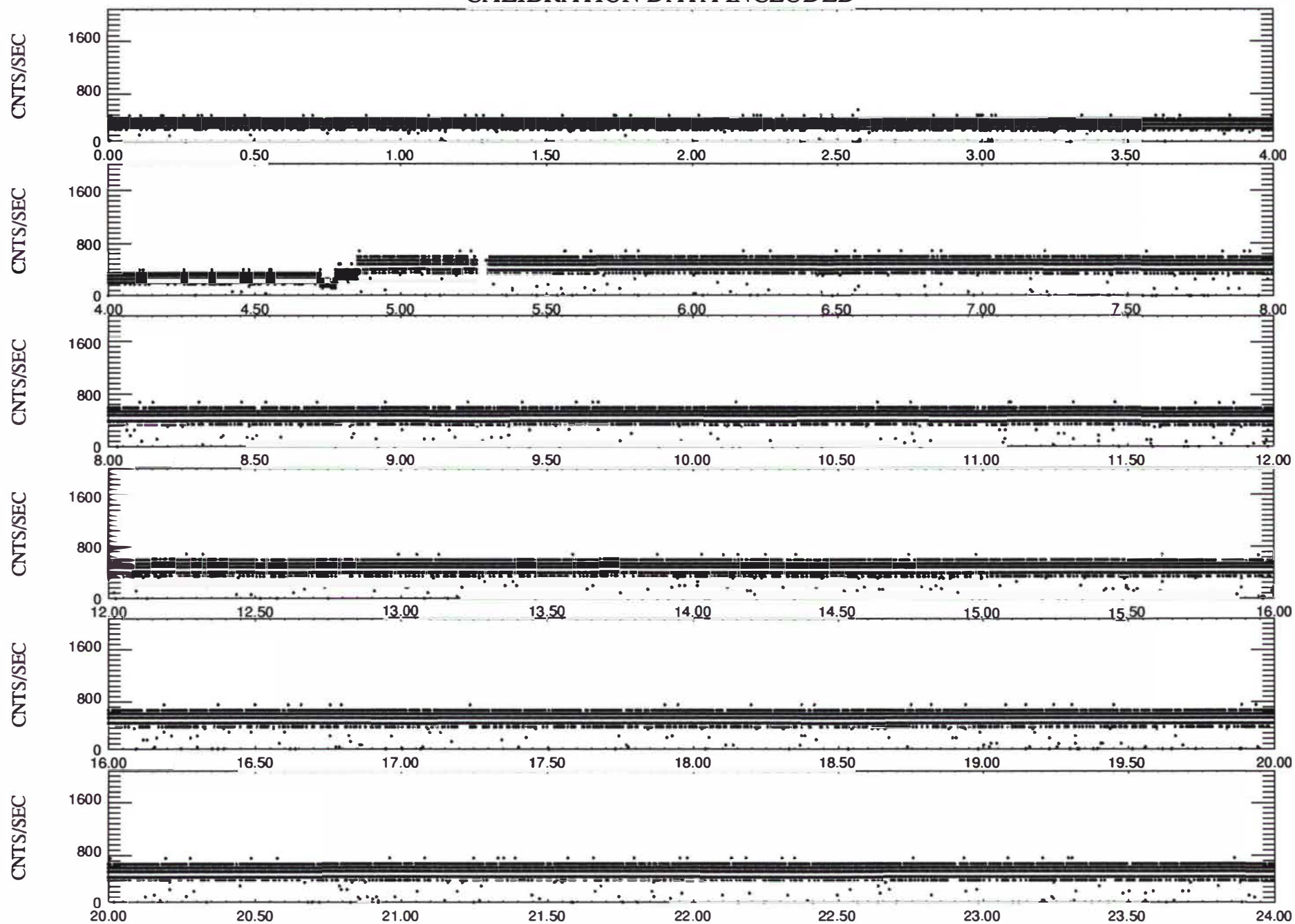
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

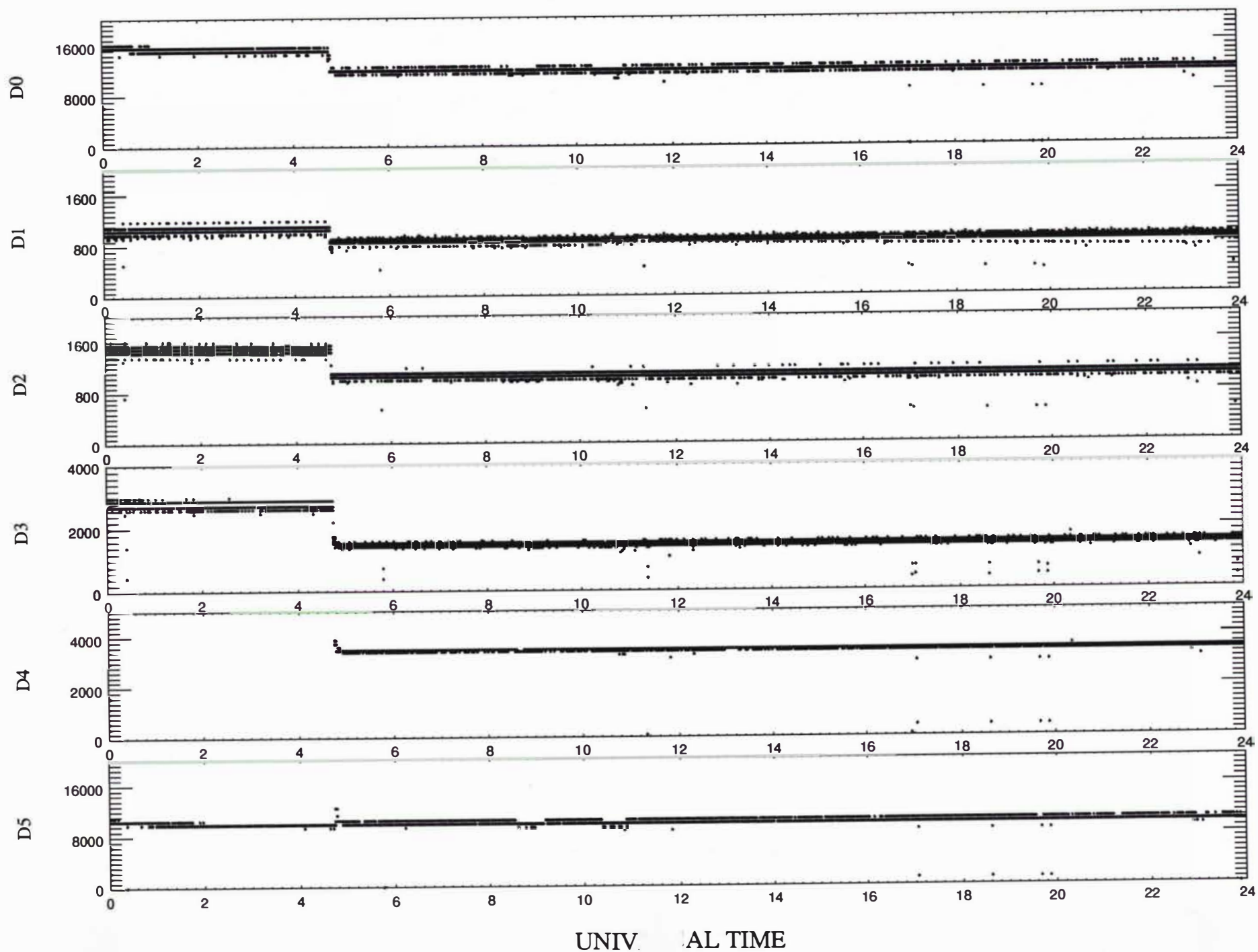
NO BURST (0)



CALIBRATION DATA INCLUDED



UNIV 3AL TIME



From DEAL@ssl.msfc.nasa.gov Thu Oct 13 08:19 PDT 1994
Date: Thu, 13 Oct 1994 10:22:20 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3238

BATSEARCH PROGRAM

BATSE BURST # 3238
EVENT OF 1994 OCT 12 DAY OF YEAR=285
EVENT CROSSING TIME AT BATSE : 10833. S. OR 03:00:33.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 46.000 49.000
BATSE PEAK COUNTING RATE: 5000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 12/10/ 94 IS:
RA= 170.191 DEC= -63.674 DIST= 2.407 AU
BATSE-ULYSSES DISTANCE = 360116707. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 32.87 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1008.95 SECS.
CROSSING TIME AT ULYSSES IS 11842. S. OR 03:17:21 +/- 178.50 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 12/10/ 94 IS:
RA= 126.691 DEC= 20.352 DIST= 1.498 AU
MARS-BATSE DISTANCE = 224144016. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=111.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -270.63 SECS.
CROSSING TIME AT MARS IS 10562. S. OR 02:56:02 +/- 116.89 SECONDS

BATSE BURST TRIGGER

NO.: 3238

TIME: TJD=9637 SECONDS=10833

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=033.5 AZIMUTH=241.8 ERROR= DEGREES

COMMENTS:

DOUBLE PEAK BURST. FIRST PEAK ~6S. IN DURATION. SECOND PEAK ~3S. IN DURATION NOT
VISIBLE ABOVE 300KEV.

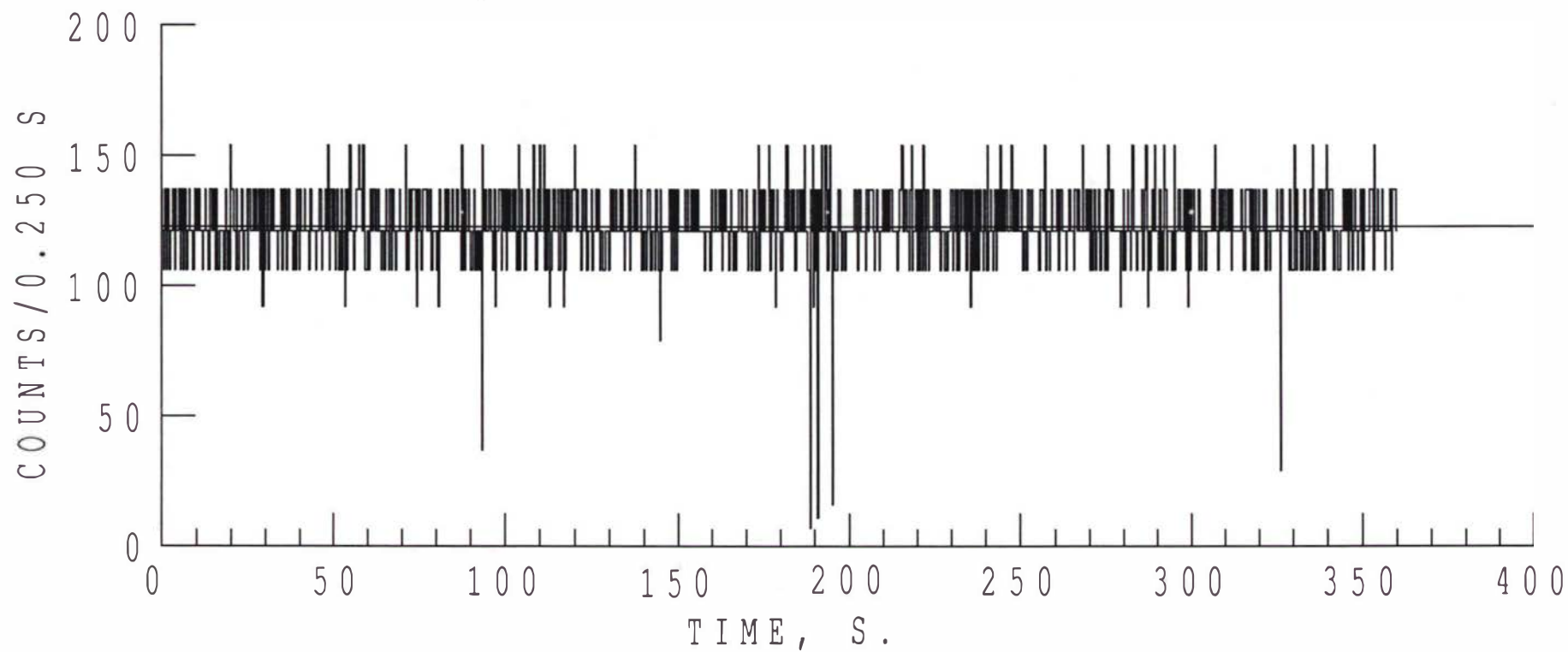
From DEAL@ssl.msfc.nasa.gov Thu Oct 13 08:18 PDT 1994
Date: Thu, 13 Oct 1994 10:21:56 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3238

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3238	941012	9637	10833	5000	046	+49

13 / 10 / 94

ULYSSES RT
12 / 10 / 94 11664.067 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Thu Oct 13 08:09 PDT 1994
Date: Thu, 13 Oct 1994 10:12:08 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3239

TIME: TJD=9637 SECONDS=68401

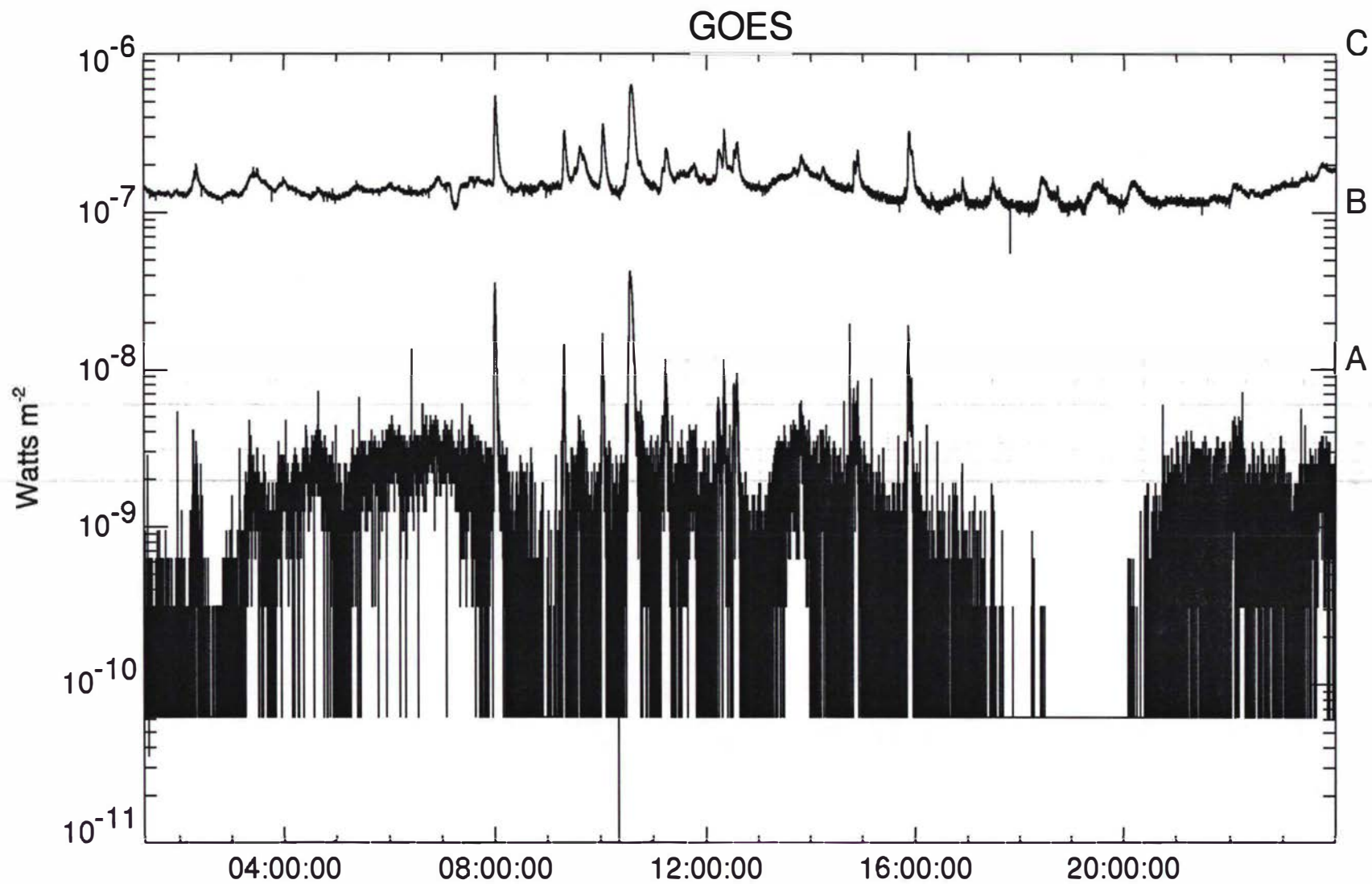
TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

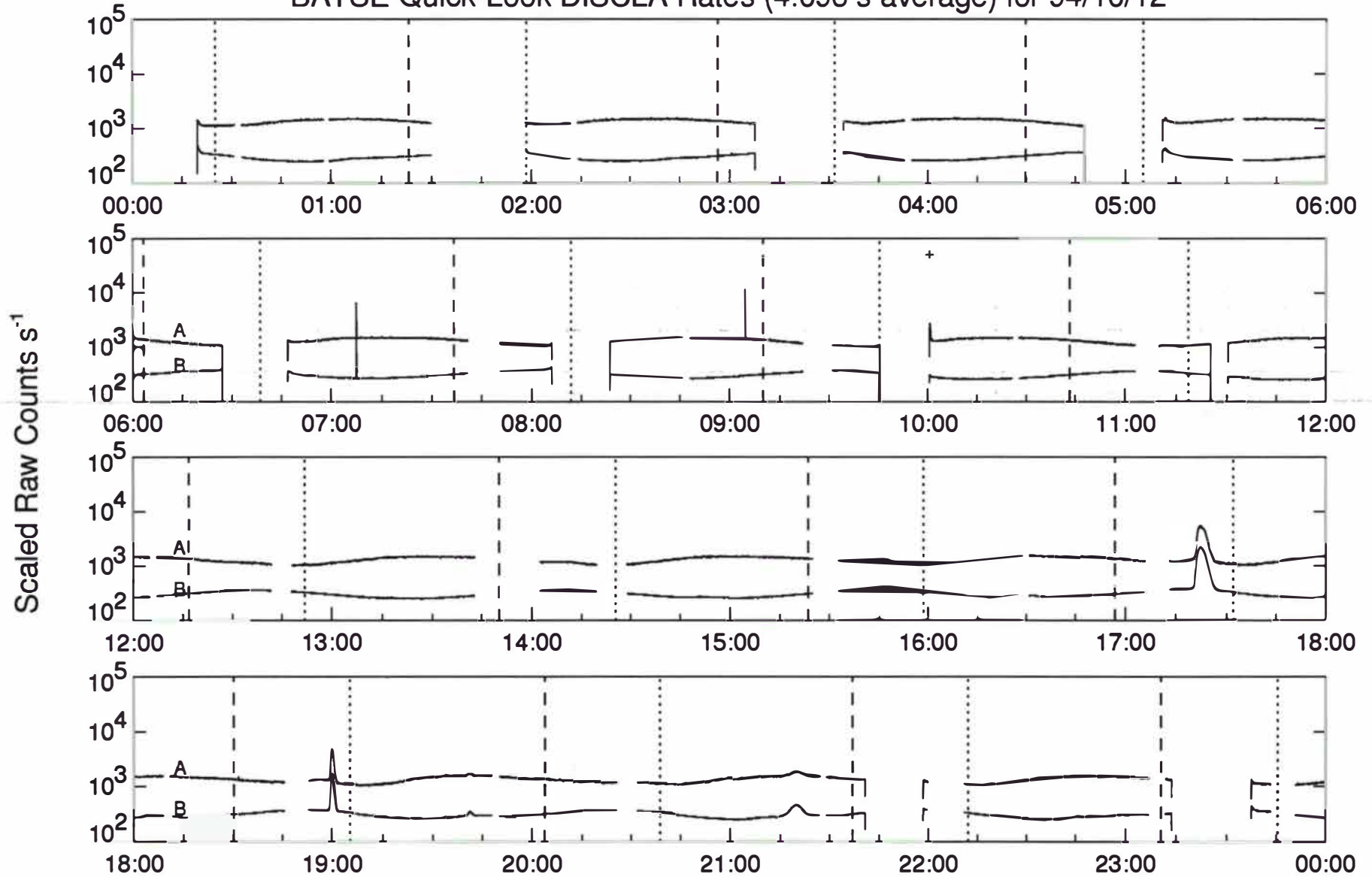


Data Start: 94/10/12, 0120:06

Plot created: 94/10/24, 1658

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

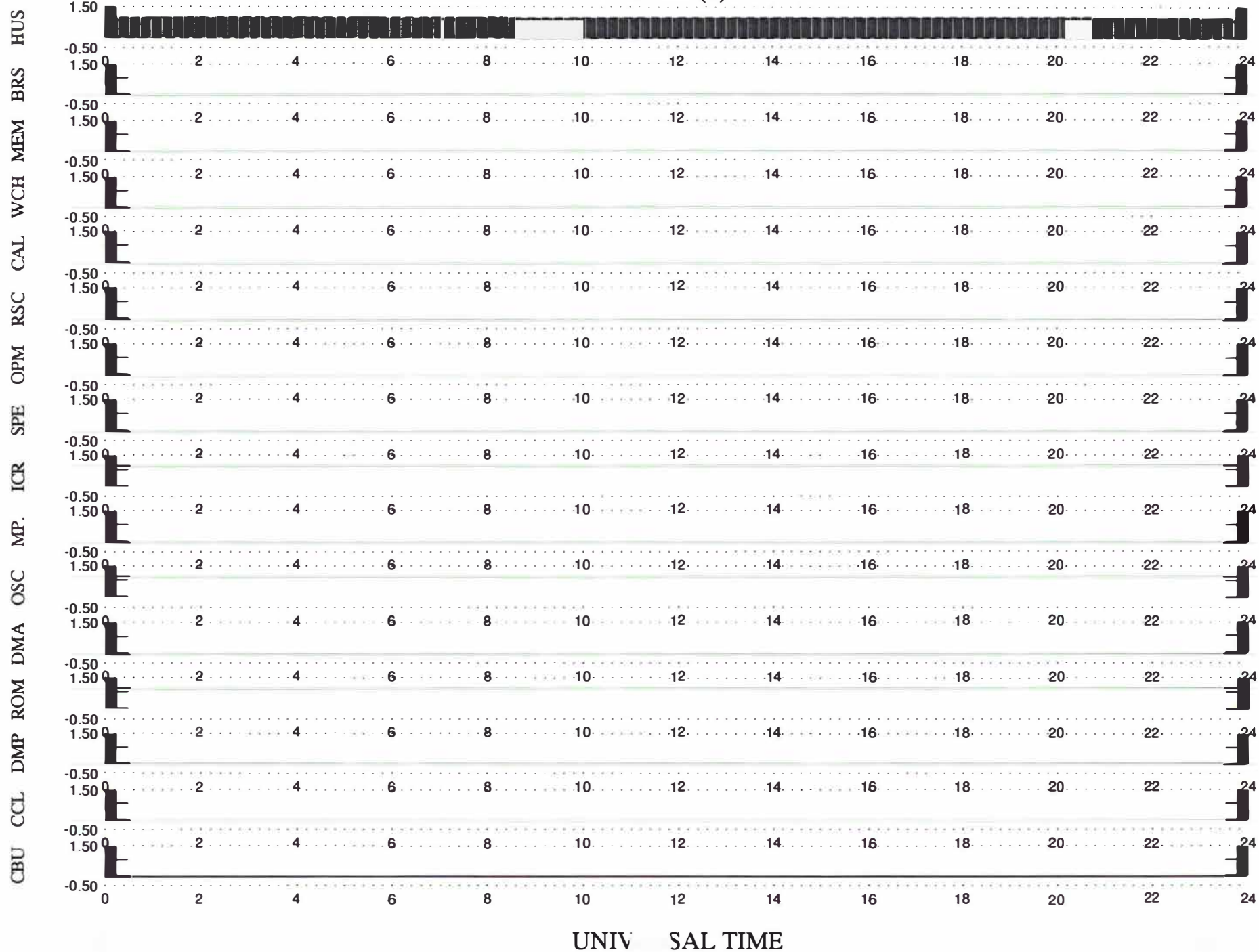
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/12



Current Time: 94/10/24, 1645 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

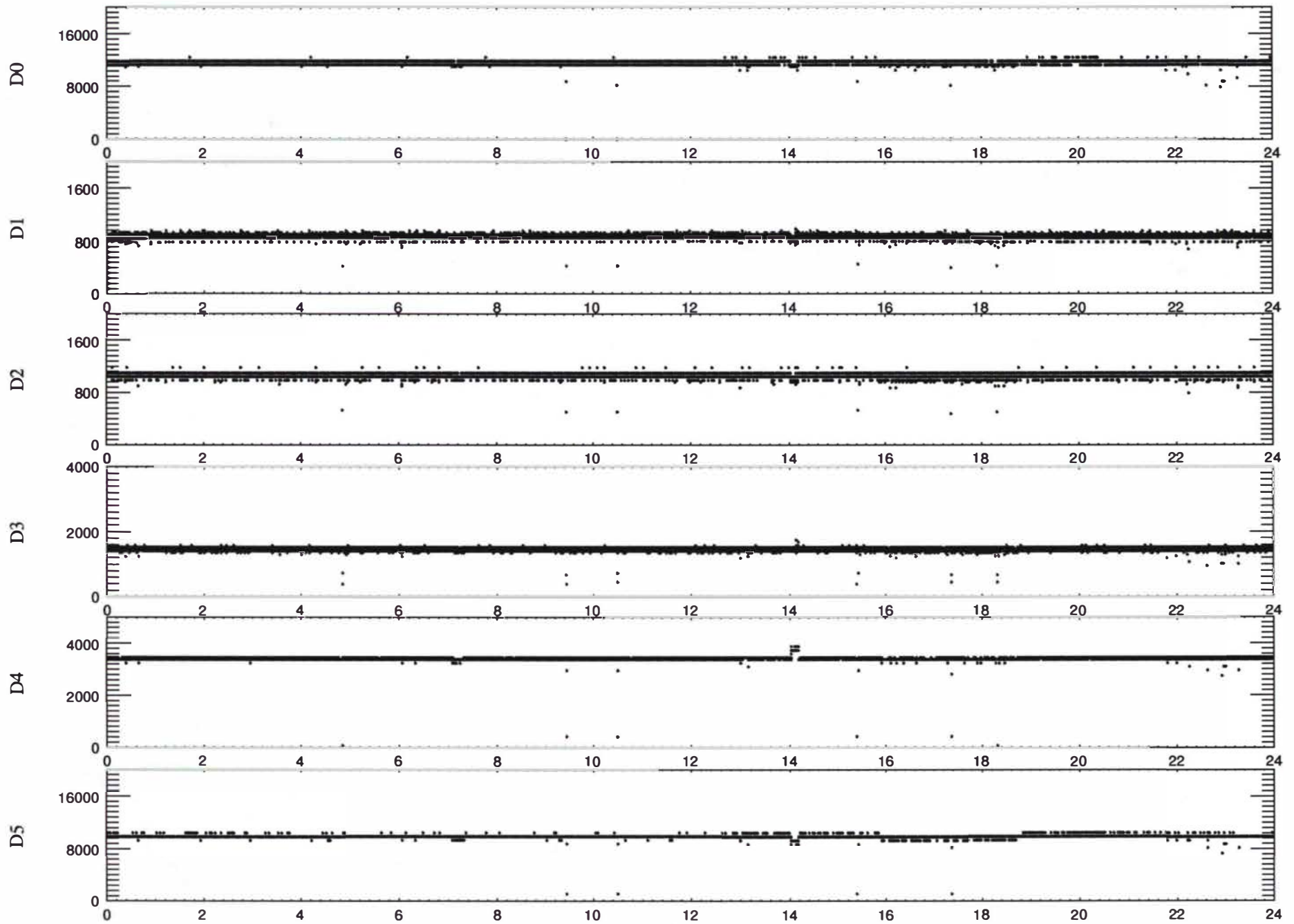
* Solar Burst Trigger
 + Solar Flare



CALIBRATION DATA INCLUDED



UNIV SAL TIME



UNIV: AL TIME

From MALLOZZI@ssl.msfc.nasa.gov Fri Oct 14 12:05 PDT 1994
Date: Fri, 14 Oct 1994 14:08:56 -0500 (CDT)
From: MALLOZZI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3240

NO

BATSEARCH PROGRAM

BATSE BURST # 3240
EVENT OF 1994 OCT 13 DAY OF YEAR=286
EVENT CROSSING TIME AT BATSE : 83191. S. OR 23:06:31.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 156.000 -38.000
BATSE PEAK COUNTING RATE: 5700 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 13/10/ 94 IS:
RA= 171.980 DEC= -64.499 DIST= 2.392 AU
BATSE-ULYSSES DISTANCE = 357916455. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=151.86 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1052.80 SECS.
CROSSING TIME AT ULYSSES IS 82138. S. OR 22:48:58 +/- 131.76 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 13/10/ 94 IS:
RA= 127.260 DEC= 20.241 DIST= 1.491 AU
MARS-BATSE DISTANCE = 223040400. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=115.80 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -323.84 SECS.
CROSSING TIME AT MARS IS 82867. S. OR 23:01:07 +/- 111.37 SECONDS

BATSE BURST TRIGGER

NO.: 03240

TIME: TJD=9638 SECONDS=83191

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=149.4 AZIMUTH=313.9 ERROR= DEGREES

COMMENTS:

DOUBLE PEAK BURST OF TOTAL DURATION APPROX. 7 SECONDS.
BOTH PEAKS CLEARLY OBSERVED ABOVE 300 KEV.

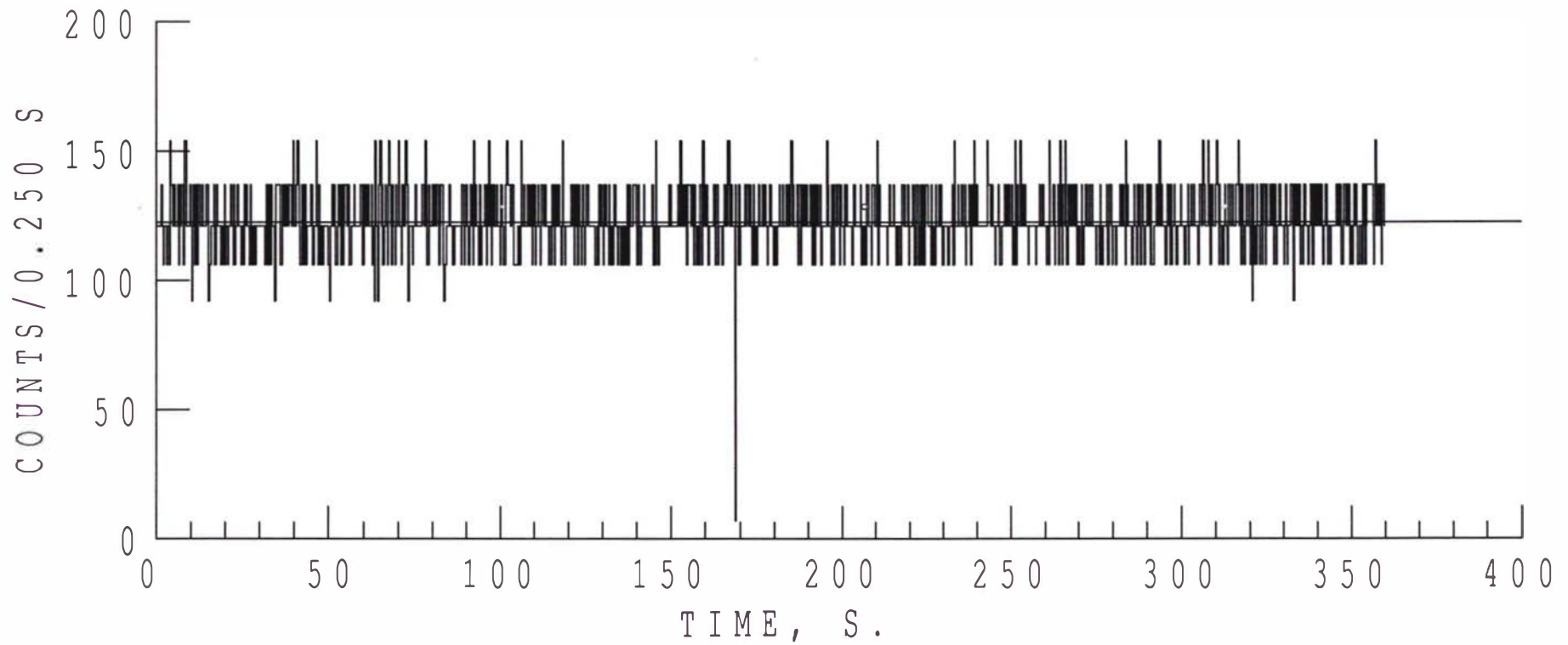
From MALLOZZI@ssl.msfc.nasa.gov Mon Oct 17 07:48 PDT 1994
Date: Mon, 17 Oct 1994 9:51:41 -0500 (CDT)
From: MALLOZZI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: MALLOZZI@ssl.msfc.nasa.gov
Subject: BATSE Burst 3240

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3240	941013	9638	83191	8500	152	-23

17 / 10 / 94

ULYSSES RT
13 / 10 / 94 82152.047 s
0 - 0 keV

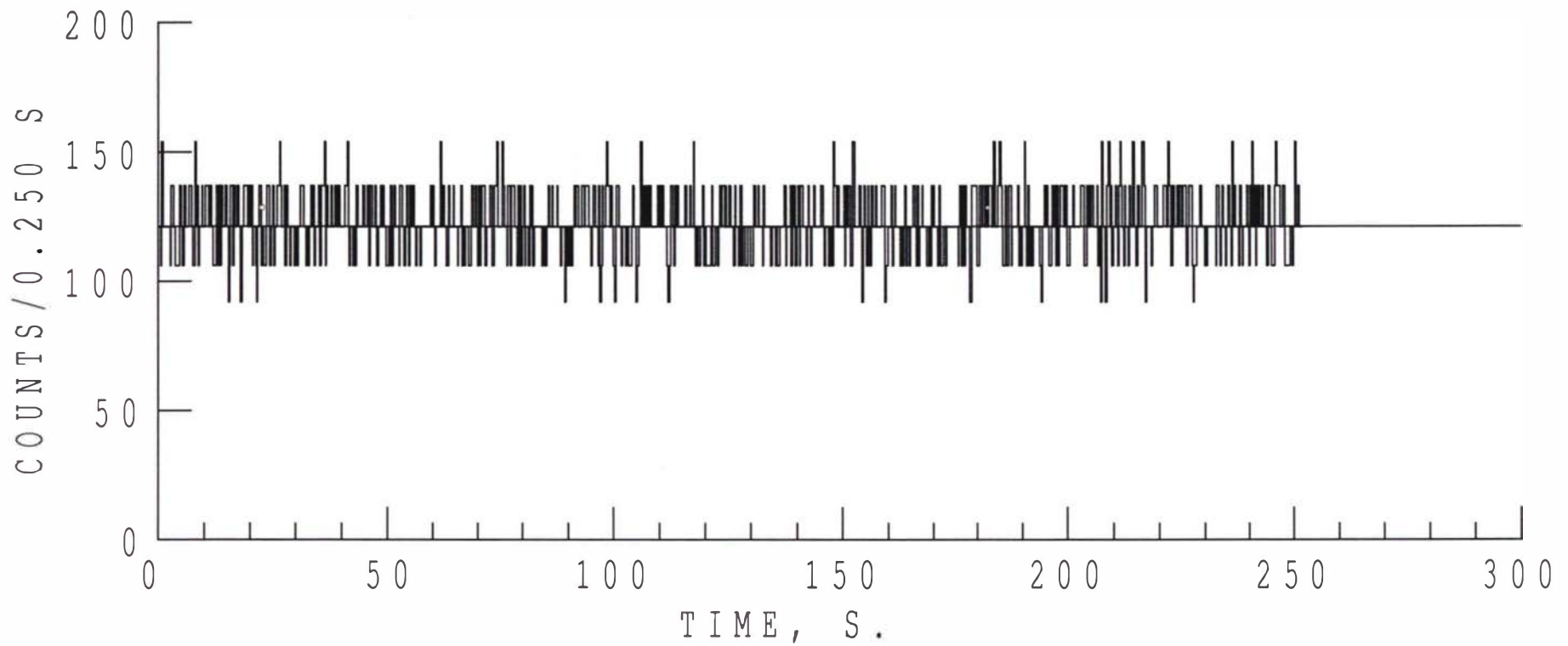
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



17 / 10 / 94

ULYSSES RT
13 / 10 / 94 82008.039 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



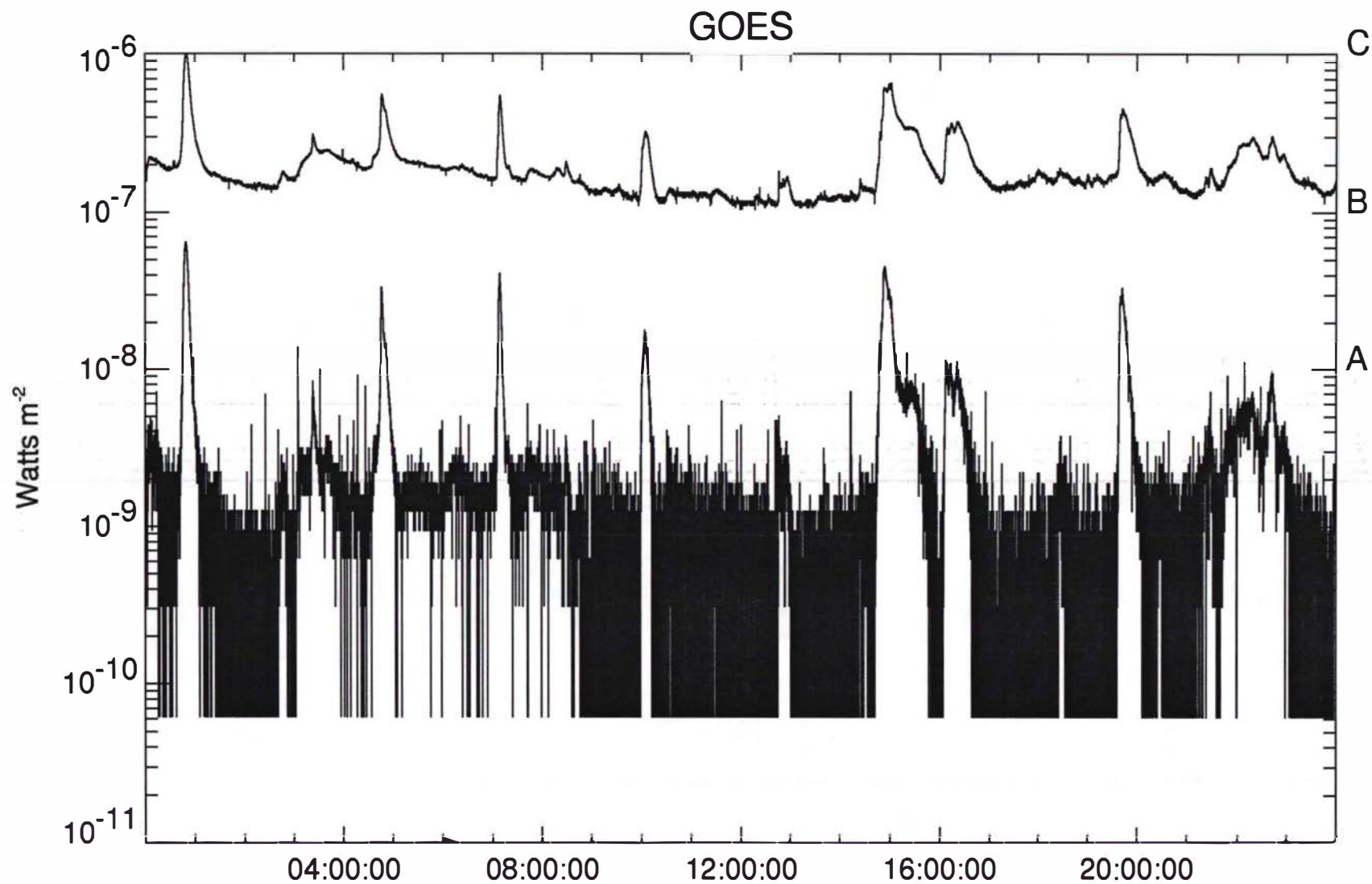
From vnp@isac.ernet.in Mon Sep 15 23:38 PDT 1997
From: vnp@isac.ernet.in
>Received: from sx07 by isac.ernet.in (AIX 3.2/UCB 5.64/4.03)
id AA19488; Tue, 16 Sep 1997 12:04:45 GMT
>: Tue, 16 Sep 1997 12:04:44 +0000 (CUT)
^ Sender: vnp@sx07
To: khurley@sunspot.ssl.berkeley.edu
Subject: SROSS-C2 events of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

Dear Prof.Hurley,

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

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

Regards,
padmini



Data Start: 94/10/13, 0000:00

Plot created: 94/10/24, 1659

Channel

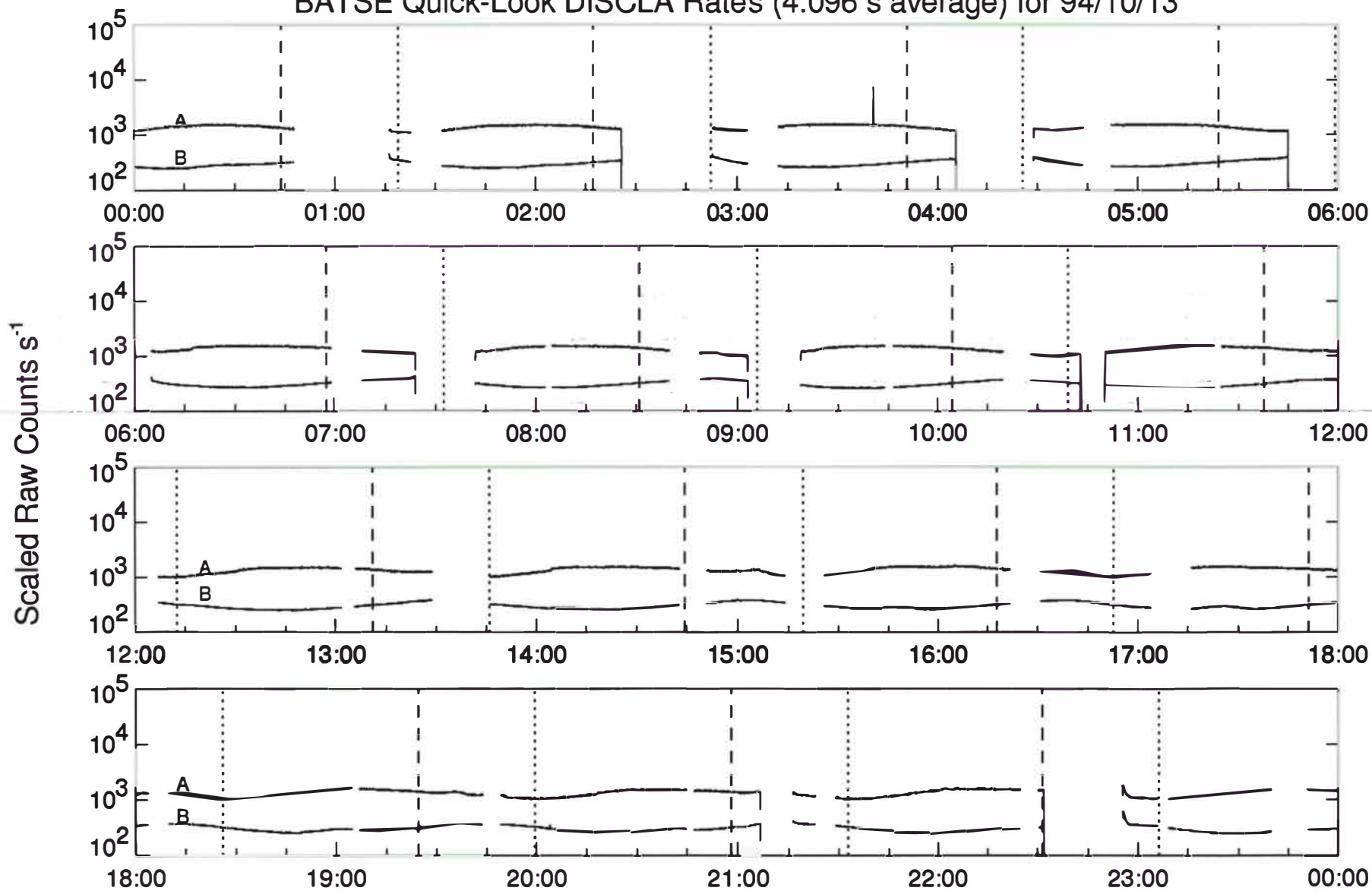
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/13

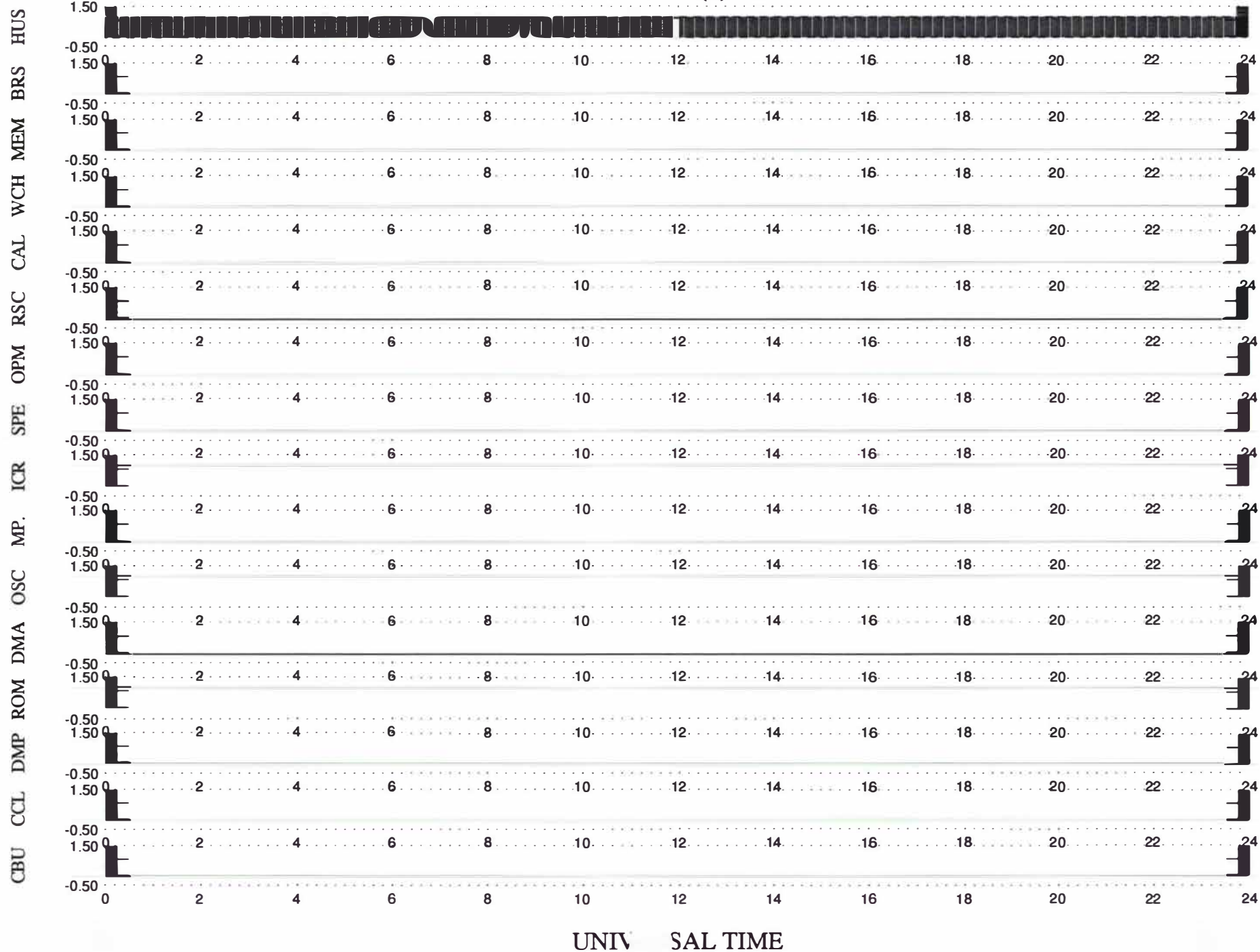


Current Time: 94/10/24, 1645 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

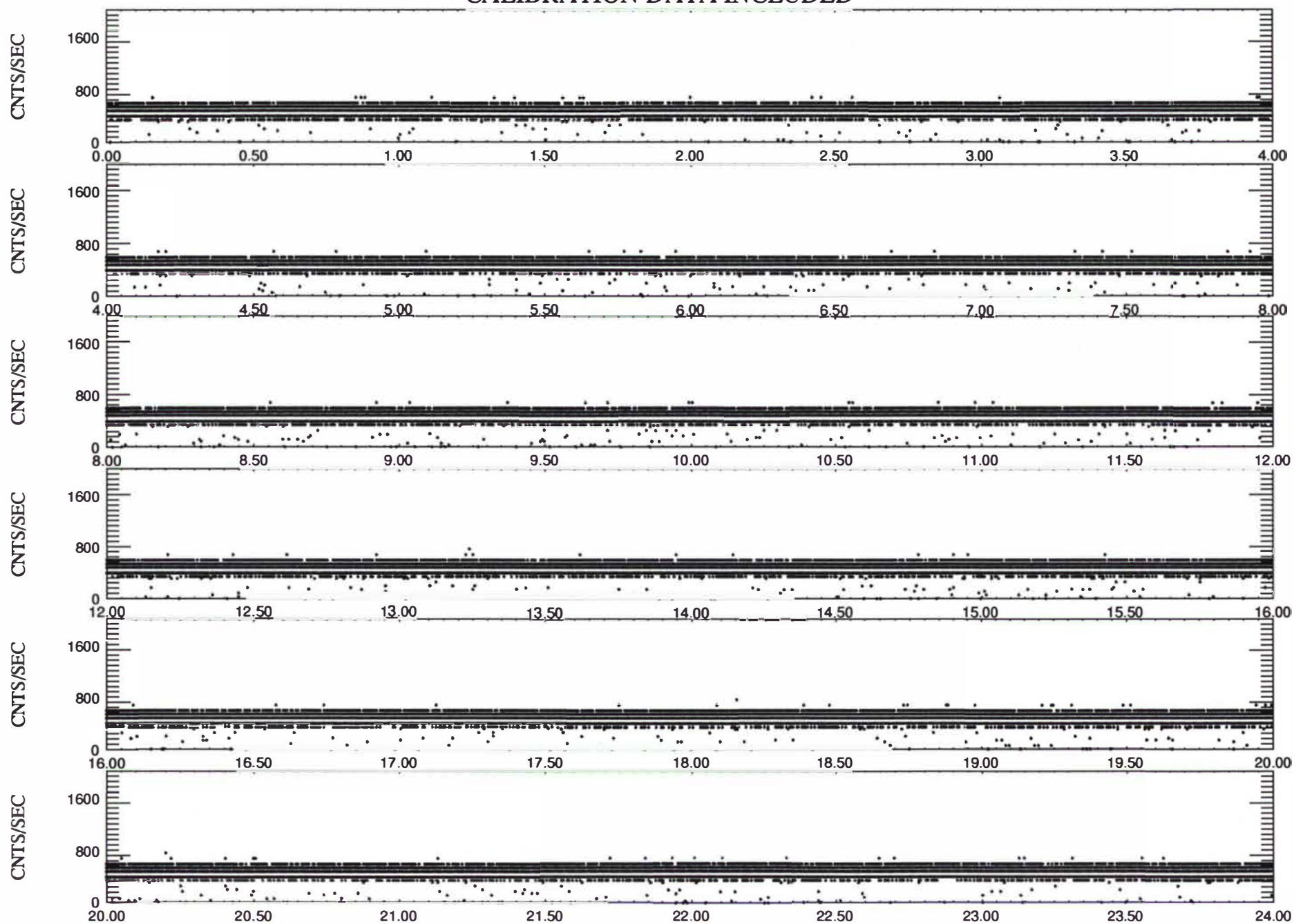
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

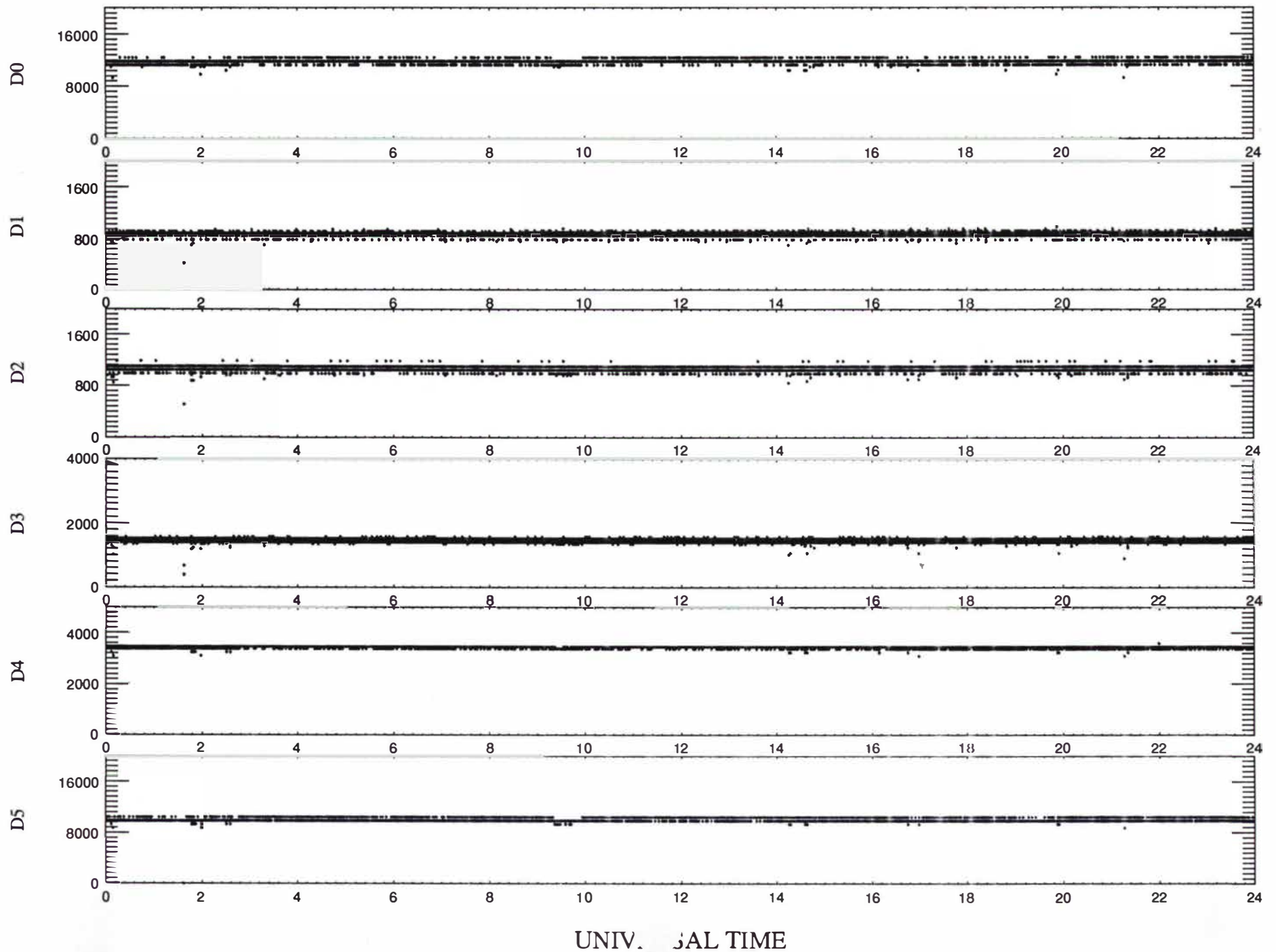
NO BURST (0)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From SHARIFF@ssl.msfc.nasa.gov Sat Oct 15 13:24 PDT 1994
Date: Sat, 15 Oct 1994 15:27:13 -0500 (CDT)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3241

BATSEARCH PROGRAM

BATSE BURST # 3241
EVENT OF 1994 OCT 14 DAY OF YEAR=287
EVENT CROSSING TIME AT BATSE : 33608. S. OR 09:20:08.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 33.000 7.000
BATSE PEAK COUNTING RATE: 55000 C/S

TRIGGER

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/10/ 94 IS:
RA= 172.414 DEC= -64.690 DIST= 2.389 AU
BATSE-ULYSSES DISTANCE = 357418074. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 64.38 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 515.54 SECS.
CROSSING TIME AT ULYSSES IS 34124. S. OR 09:28:43 +/- 244.46 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/10/ 94 IS:
RA= 127.826 DEC= 20.129 DIST= 1.483 AU
MARS-BATSE DISTANCE = 221931152. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 87.91 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 26.99 SECS.
CROSSING TIME AT MARS IS 33635. S. OR 09:20:34 +/- 128.85 SECONDS

BATSE BURST TRIGGER

NO.: 03241

TIME: TJD=9639 SECONDS=33608

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=067.2 AZIMUTH=203.8 ERROR= DEGREES

COMMENTS:

BURST, COMPLEX, LASTING ~90 SECONDS. VISIBLE ABOVE 300KEV.

From SHARIFF@ssl.msfc.nasa.gov Sat Oct 15 13:23 PDT 1994
Date: Sat, 15 Oct 1994 15:26:47 -0500 (CDT)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: SHARIFF@ssl.msfc.nasa.gov
Subject: BATSE Burst 3241

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3241	941014	9639	33608	55000	033	+07

Helio corr removed

Date: Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

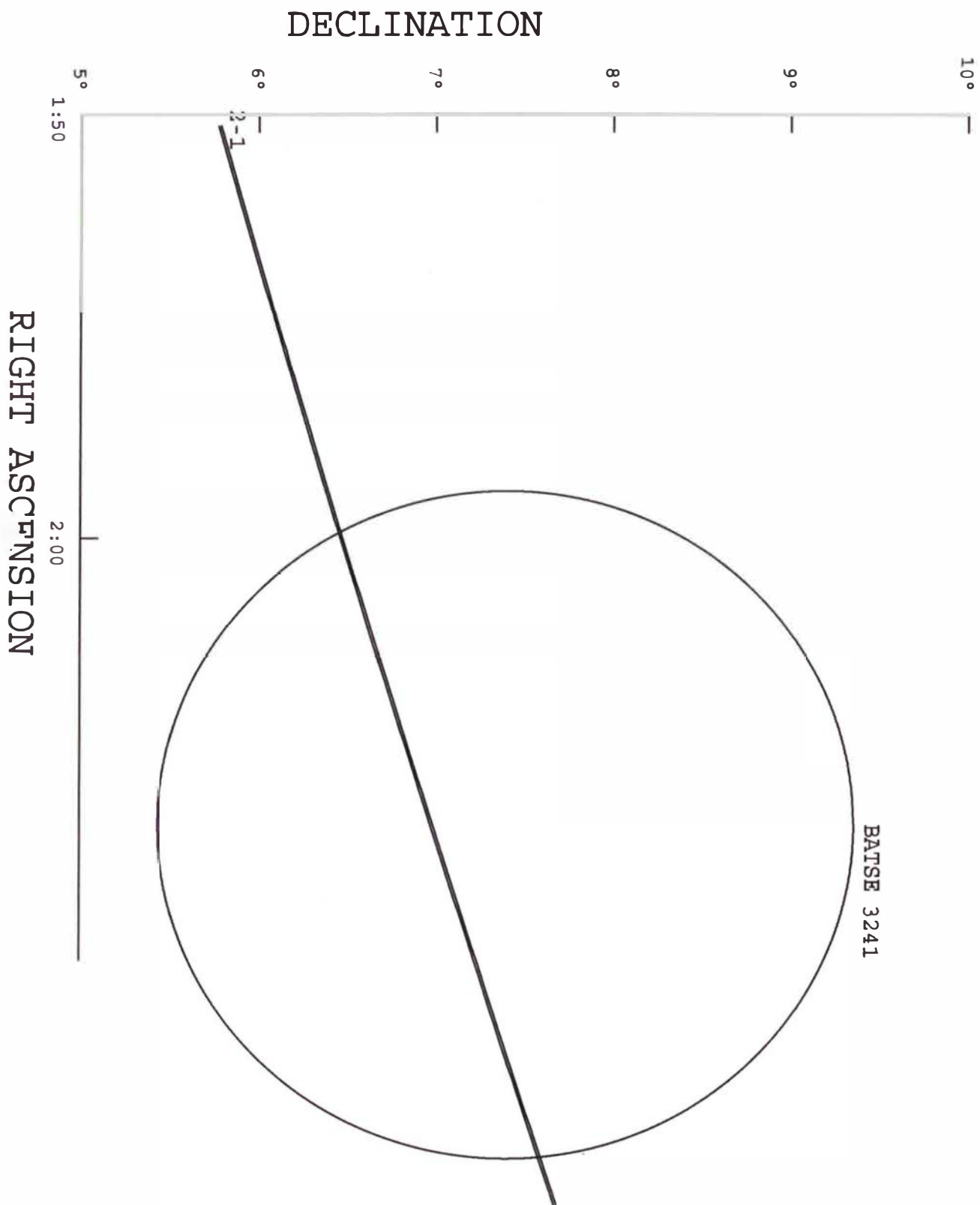
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF OCT 14, 1994 9:29

5 / 2/98



ULYSSES

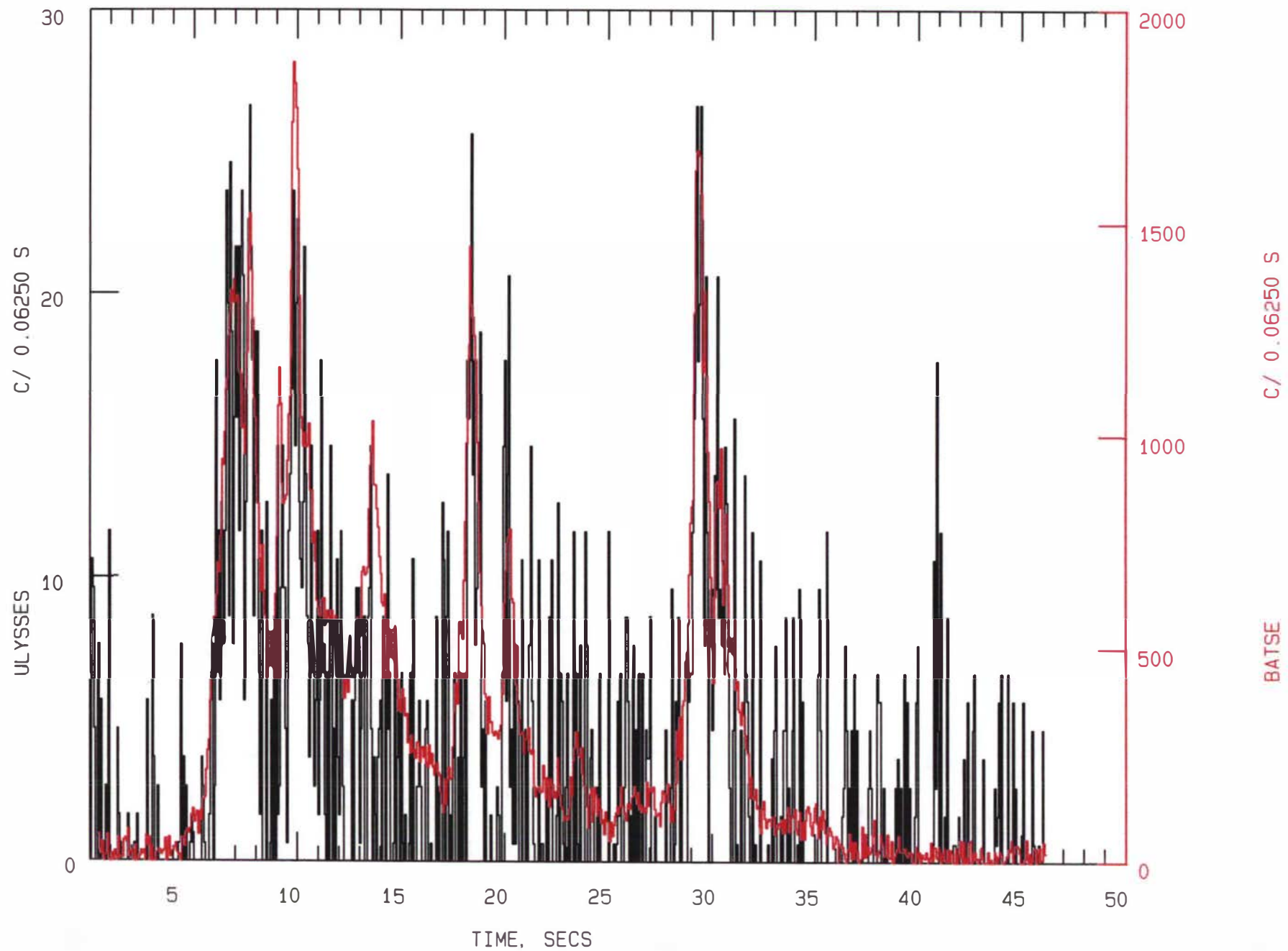
-BATSE

CORRELATION

14/10/94

34151.338

5/ 2/98



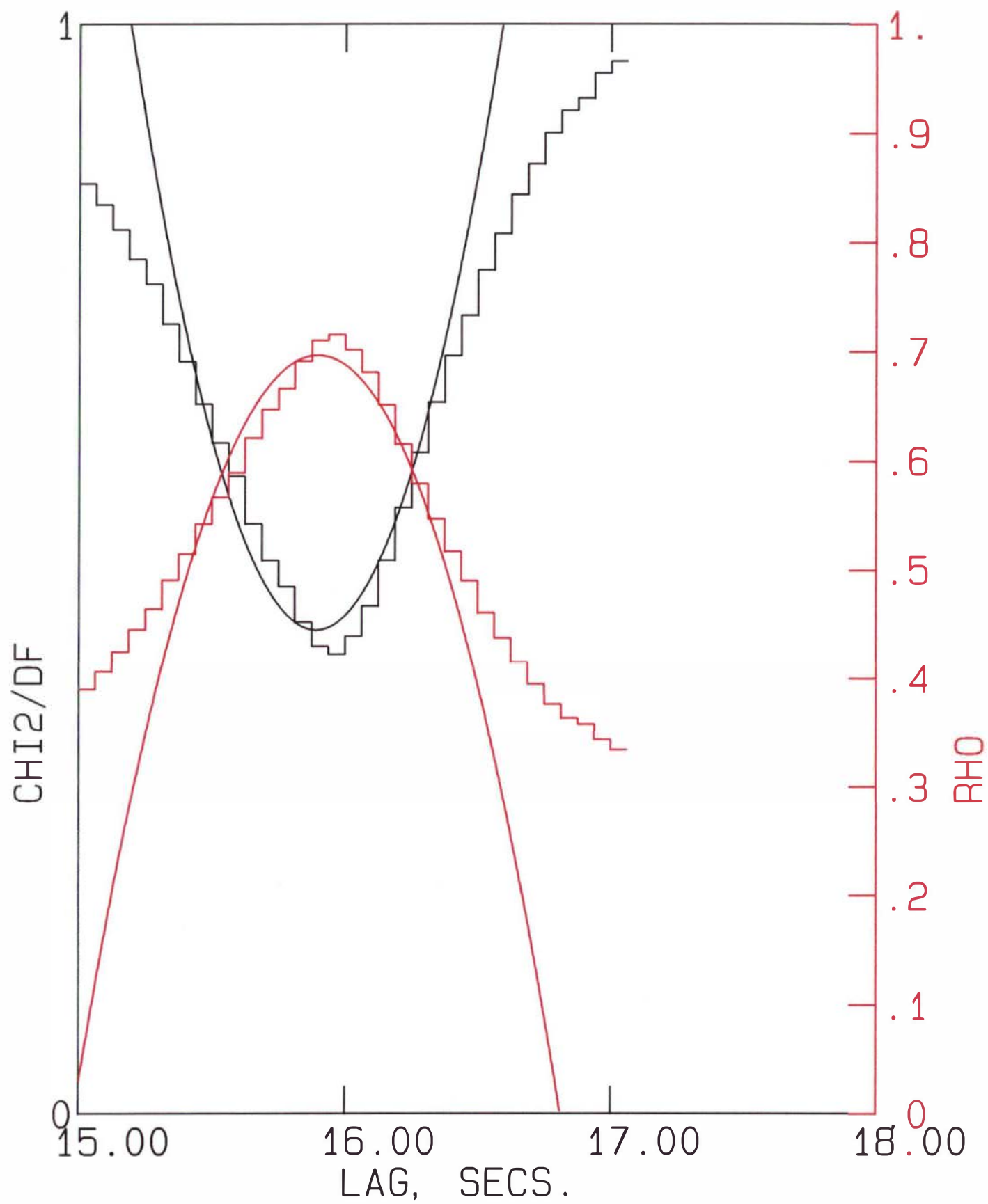
ULYSSES

-BATSE

CORRELATION

14/10/94

34151.338



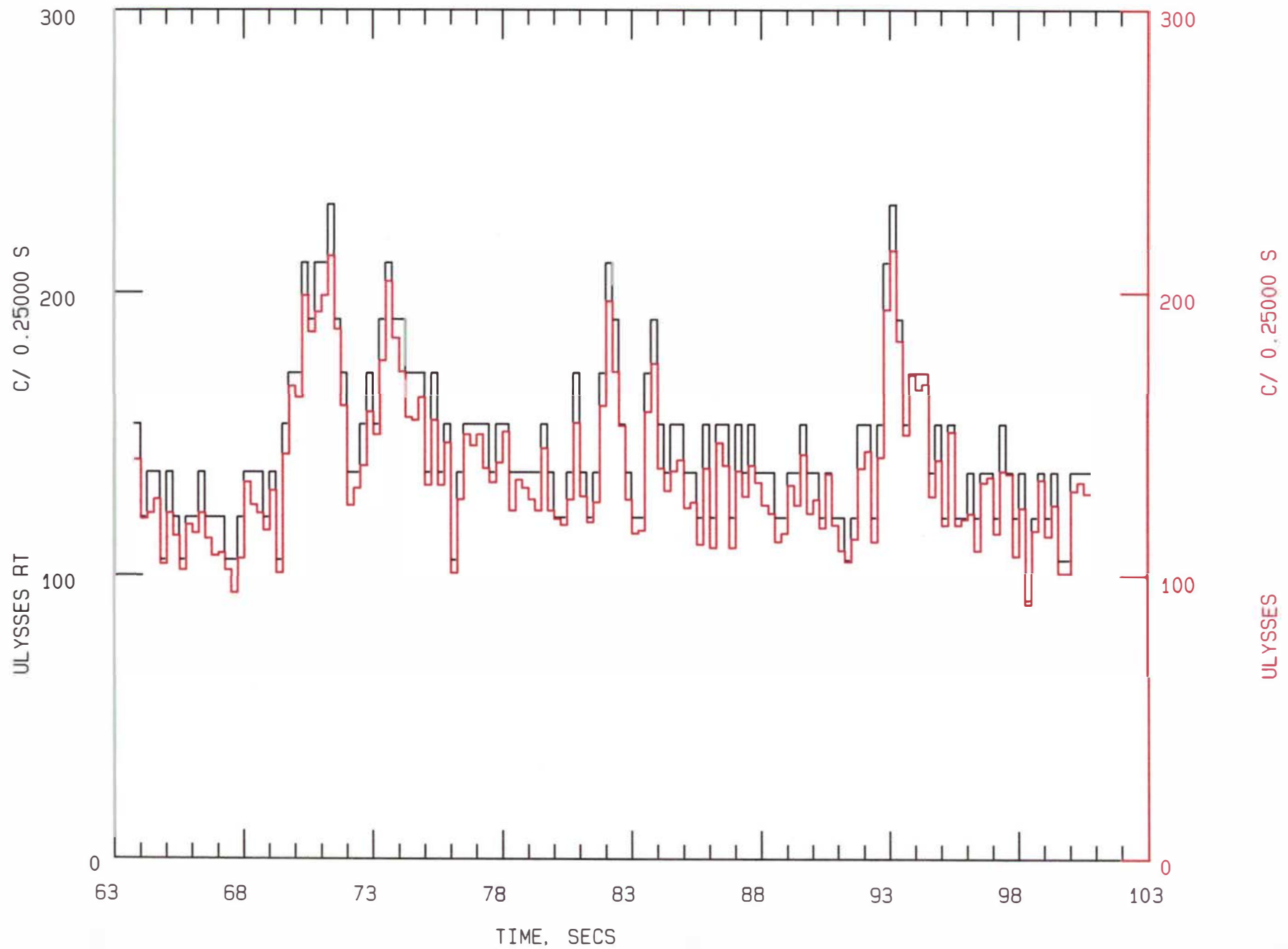
ULYSSES RT-ULYSSES

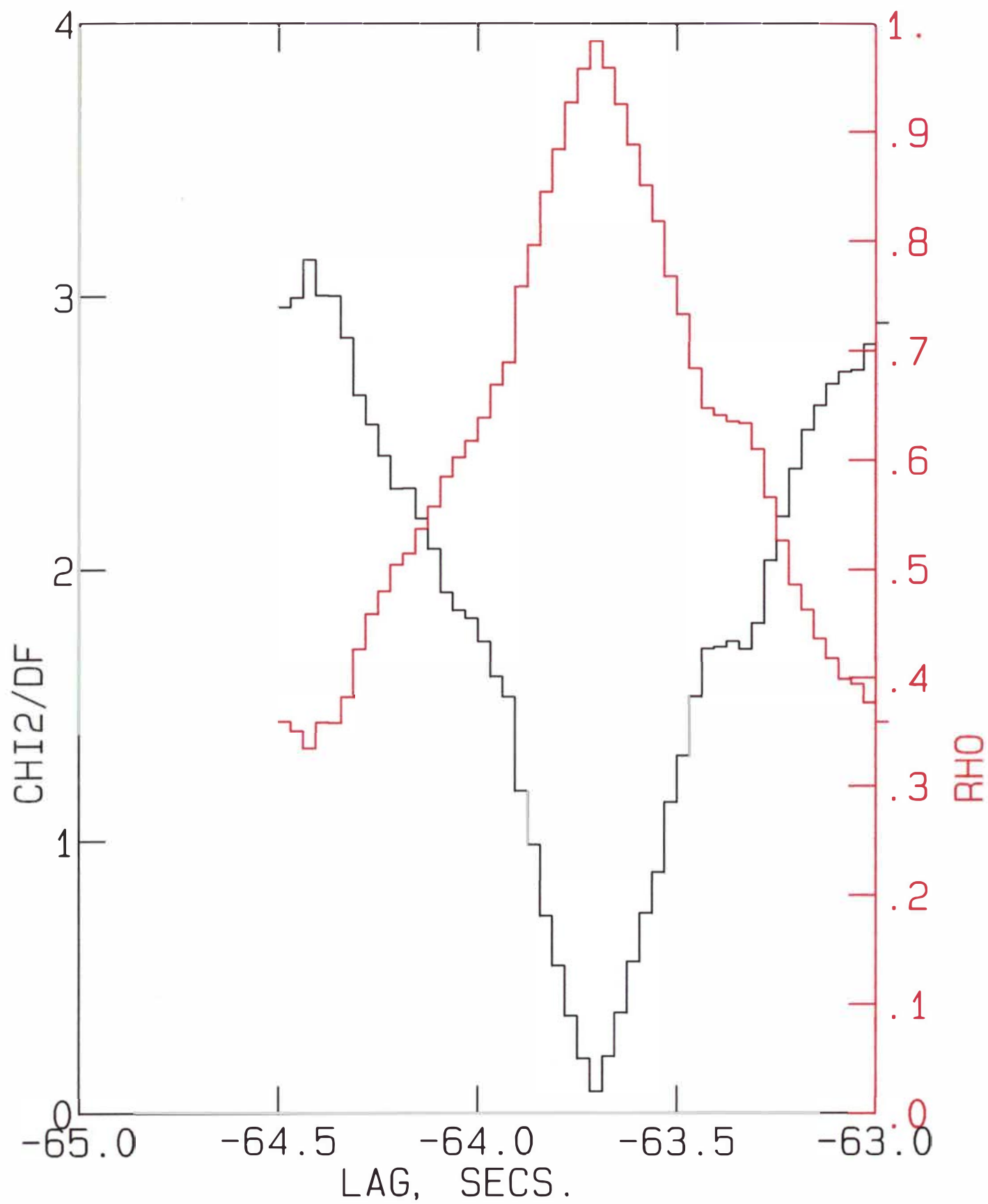
CORRELATION

14/10/94

34080.226

5/ 2/98

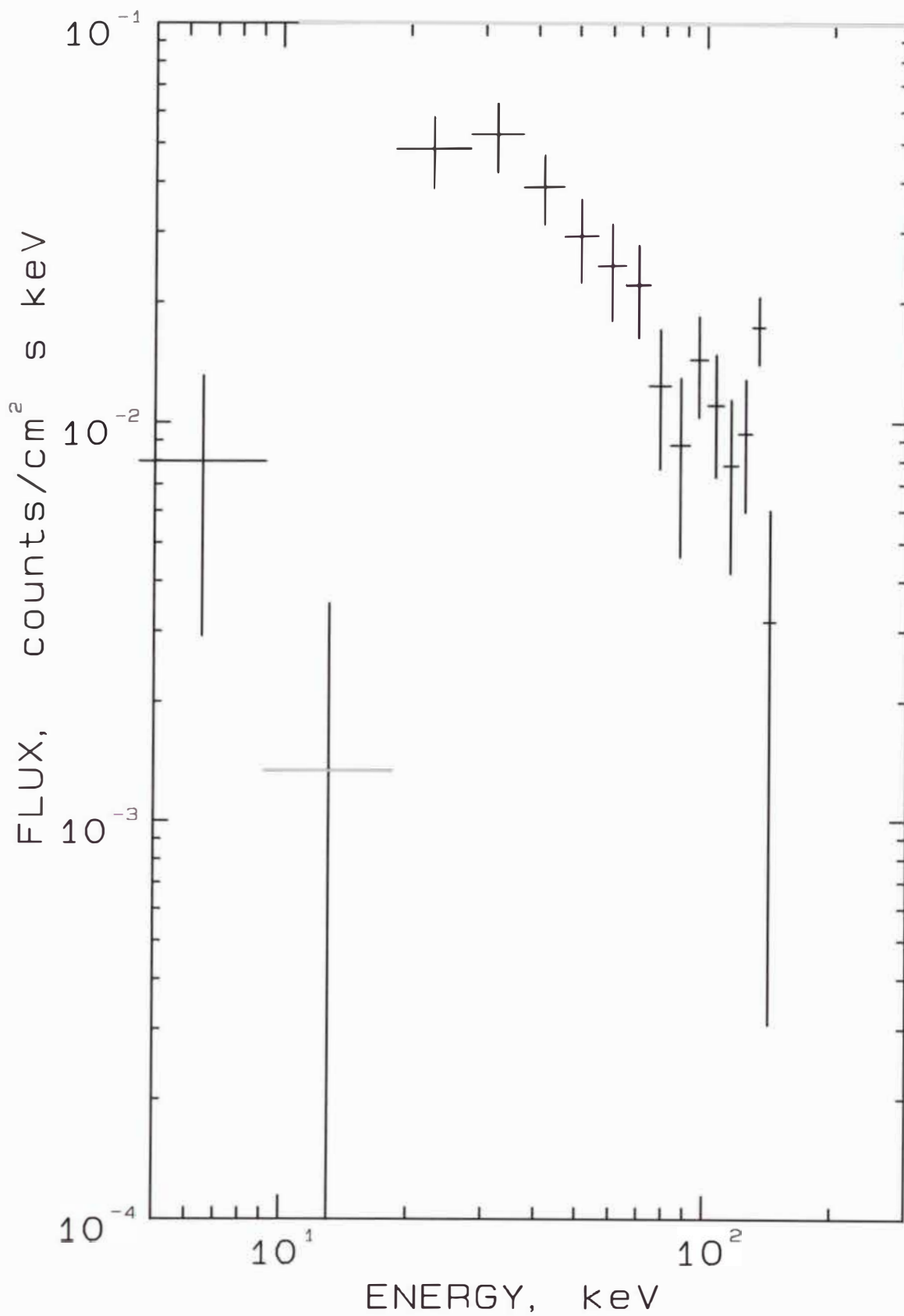




ULYSSES 14/10/94 34151.324

5/ 2/98

SPECTRUM INTEGRATED OVER 61.7 SECONDS, INTERVALS 2 TO 32



ULYSSES 14/10/94 34151.324 BURST SPECTRAL COUNT RATES

4- 18 keV

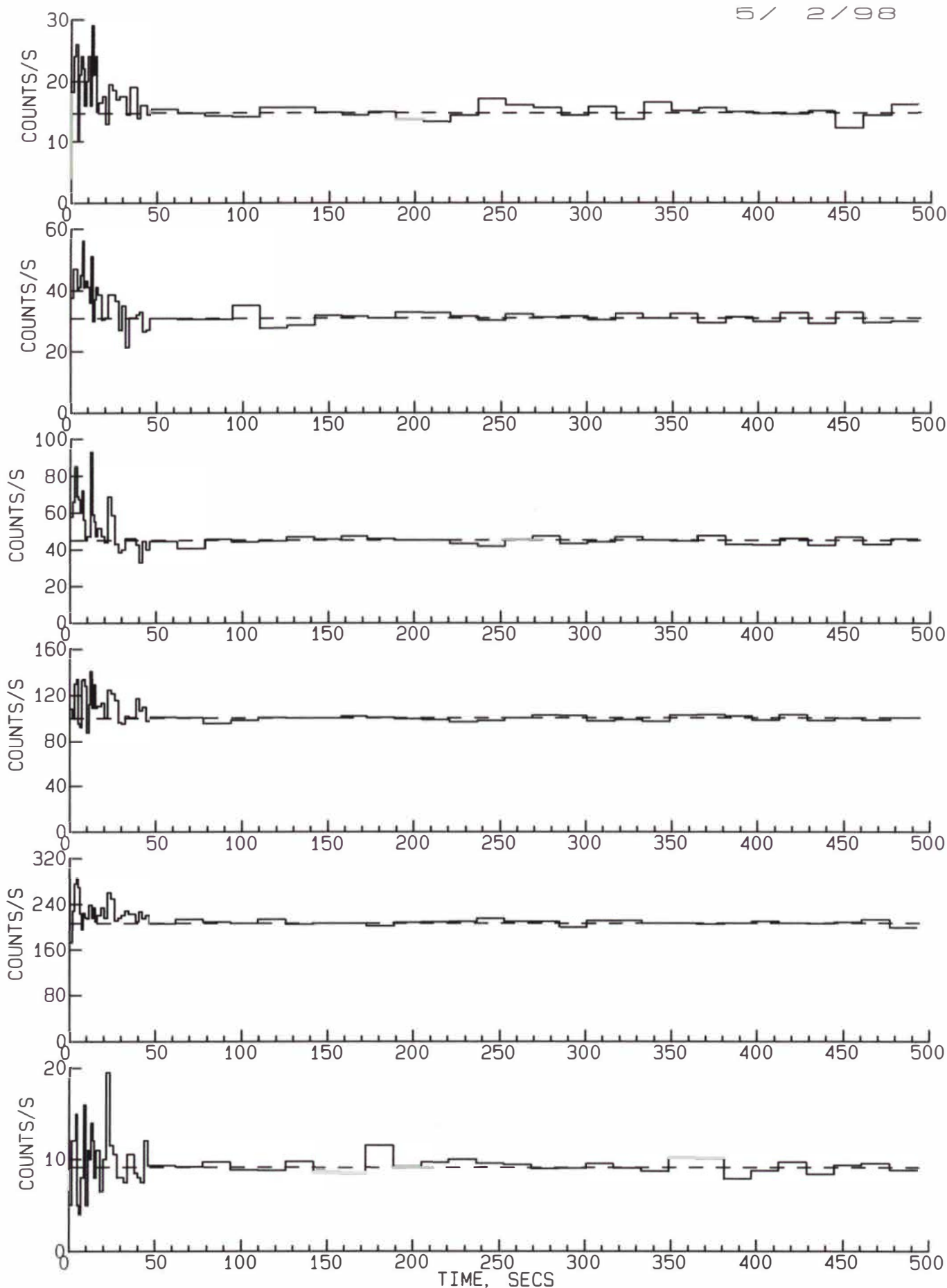
18- 45 keV

45- 73 keV

73-101 keV

101-128 keV

128-147 keV



ULYSSES

14/10/94

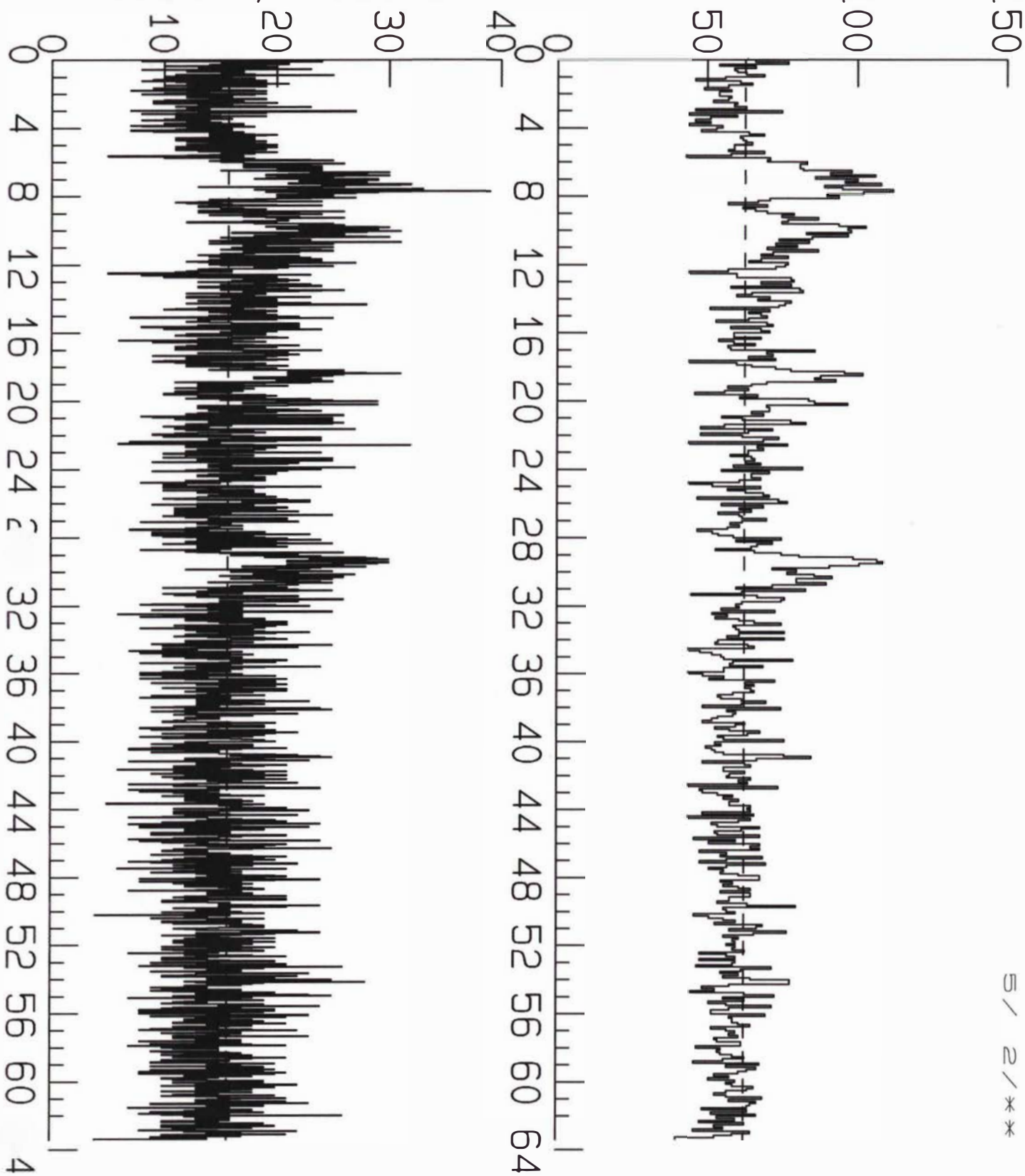
Ttrig=34151.338

22- 147 keV

COUNTS/0.031 S

COUNTS/0.125 S

5 / 2 / **



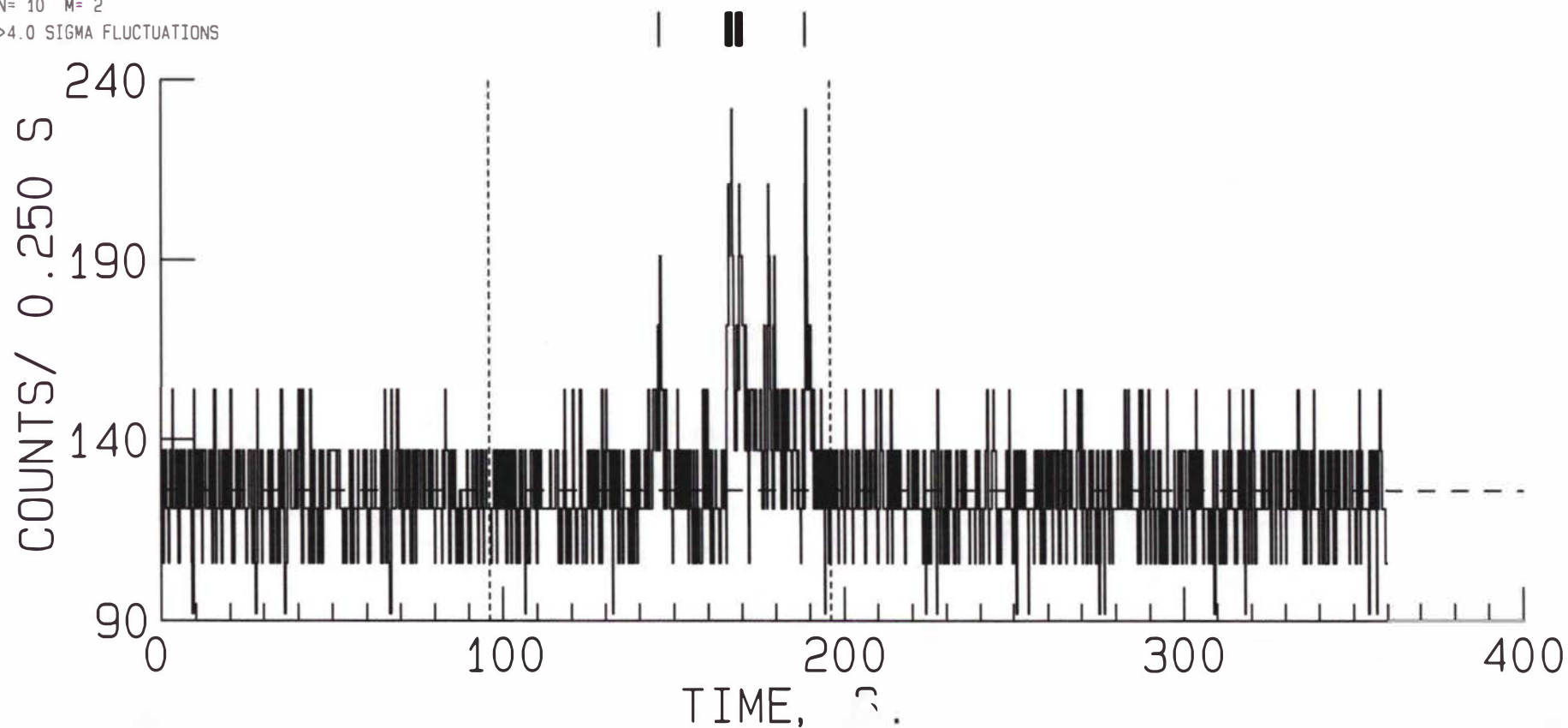
ULYSSES RT

5 / 2 / 98

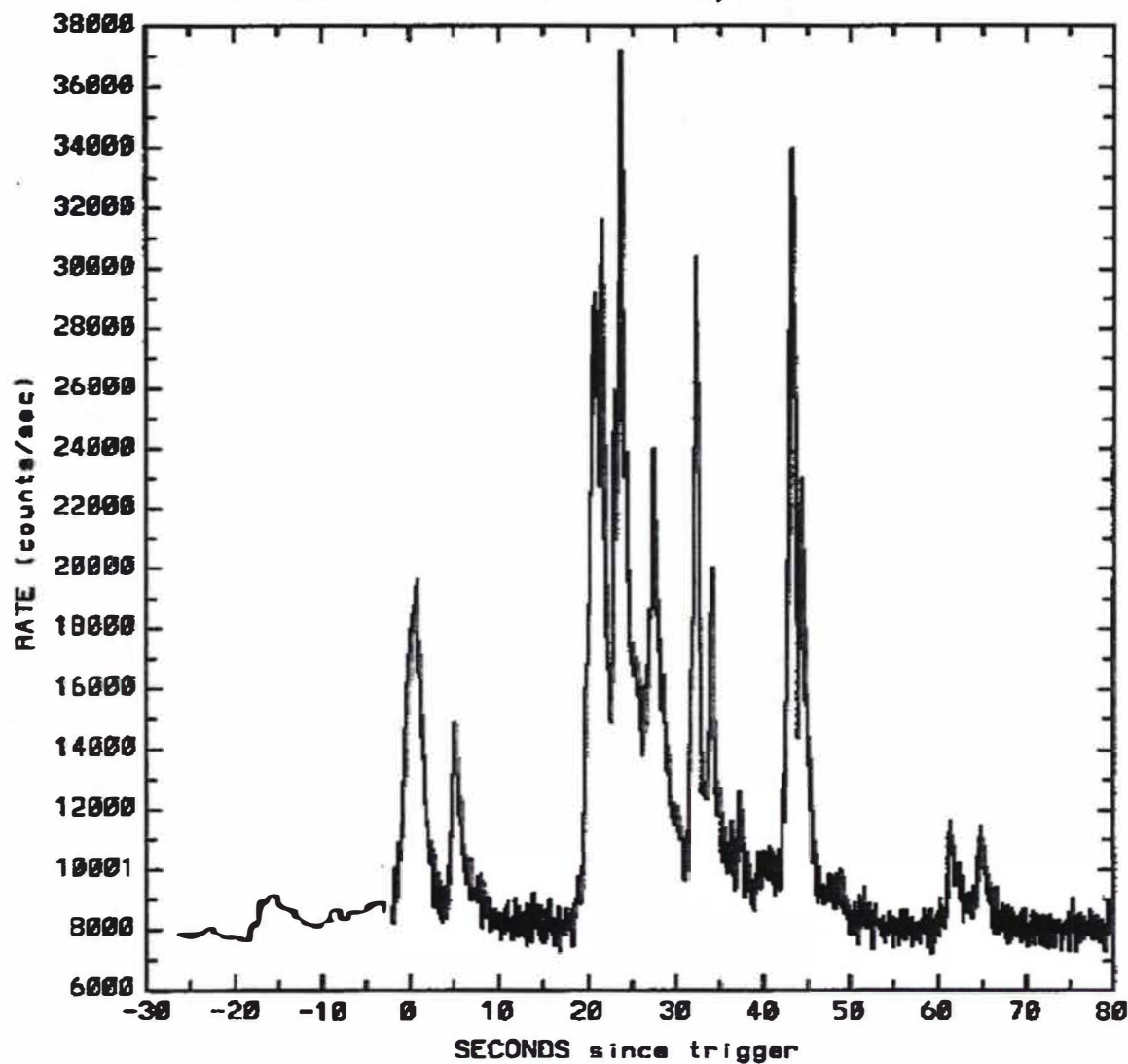
14/10/94 33984.209 s

22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



DISCSC Data for K. Hurley, No. 3241



17-OCT-1994 11.14.21

Created by MOPS 80
(Burst Display)
Version 2.22

Trigger # : 3241

Trigger Time:
9639 / 33608.114

Burst Data Type:
DISCSC

Deadtime
Corrected: N

Background Data
Type: PREB + DISCLA

Minimum Integ. Time:
0.064 second(s)

Detectors [7..8]:
76-4----

Discriminators:
(1, 2)

Quality Mask:
BDISP1

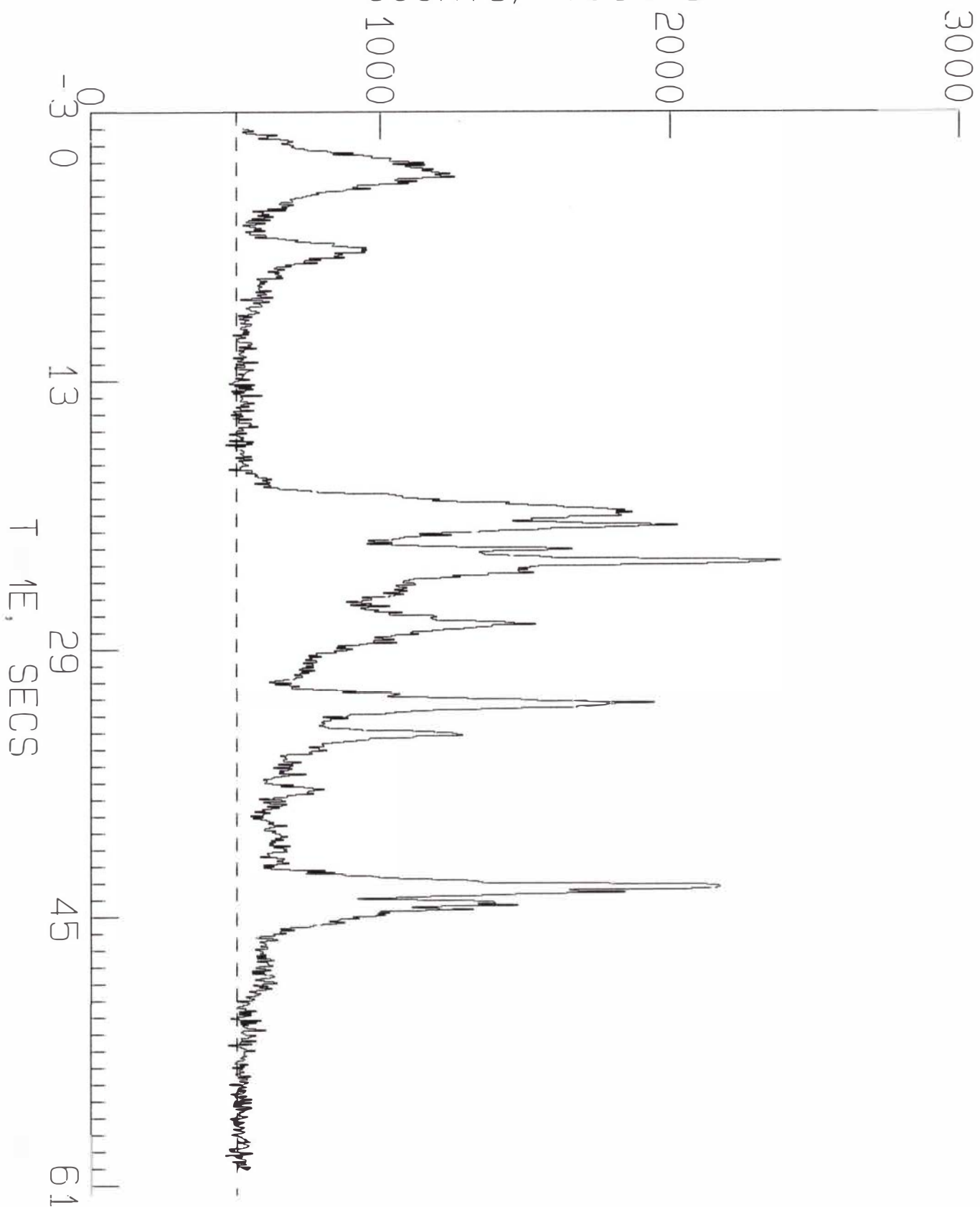
BATSE

14/10/94

33608.114

25- 100 keV

COUNTS/ .064 S



17/10/94

From SHARIFF@ssl.msfc.nasa.gov Sat Oct 15 13:28 PDT 1994
Date: Sat, 15 Oct 1994 15:31:06 -0500 (CDT)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3242

BATSEARCH PROGRAM

BATSE BURST # 3242
EVENT OF 1994 OCT 14 DAY OF YEAR=287
EVENT CROSSING TIME AT BATSE : 83716. S. OR 23:15:16.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 166.000 20.000
BATSE PEAK COUNTING RATE: 16000 C/S

RI

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/10/ 94 IS:
RA= 173.006 DEC= -64.950 DIST= 2.385 AU
BATSE-ULYSSES DISTANCE = 356741962. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 94.88 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -101.20 SECS.
CROSSING TIME AT ULYSSES IS 83615. S. OR 23:13:34 +/- 254.31 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/10/ 94 IS:
RA= 127.826 DEC= 20.129 DIST= 1.483 AU
MARS-BATSE DISTANCE = 221931152. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=144.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -600.59 SECS.
CROSSING TIME AT MARS IS 83115. S. OR 23:05:15 +/- 66.02 SECONDS

BATSE BURST TRIGGER

NO.: 03242

TIME: TJD=9639 SECONDS=83716

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=092.4 AZIMUTH=332.5 ERROR= DEGREES

COMMENTS:

BURST, SINGLE PULSE, LASTING~ 12 SECONDS. NOT VISIBLE ABOVE 300 KEV.

From SHARIFF@ssl.msfc.nasa.gov Sat Oct 15 13:27 PDT 1994
Date: Sat, 15 Oct 1994 15:30:38 -0500 (CDT)
From: SHARIFF@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: SHARIFF@ssl.msfc.nasa.gov
Subject: BATSE Burst 3242

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3242	941014	9639	83716	16000	166	+20

Date:

Feb 5 '98

Helio corr removed

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

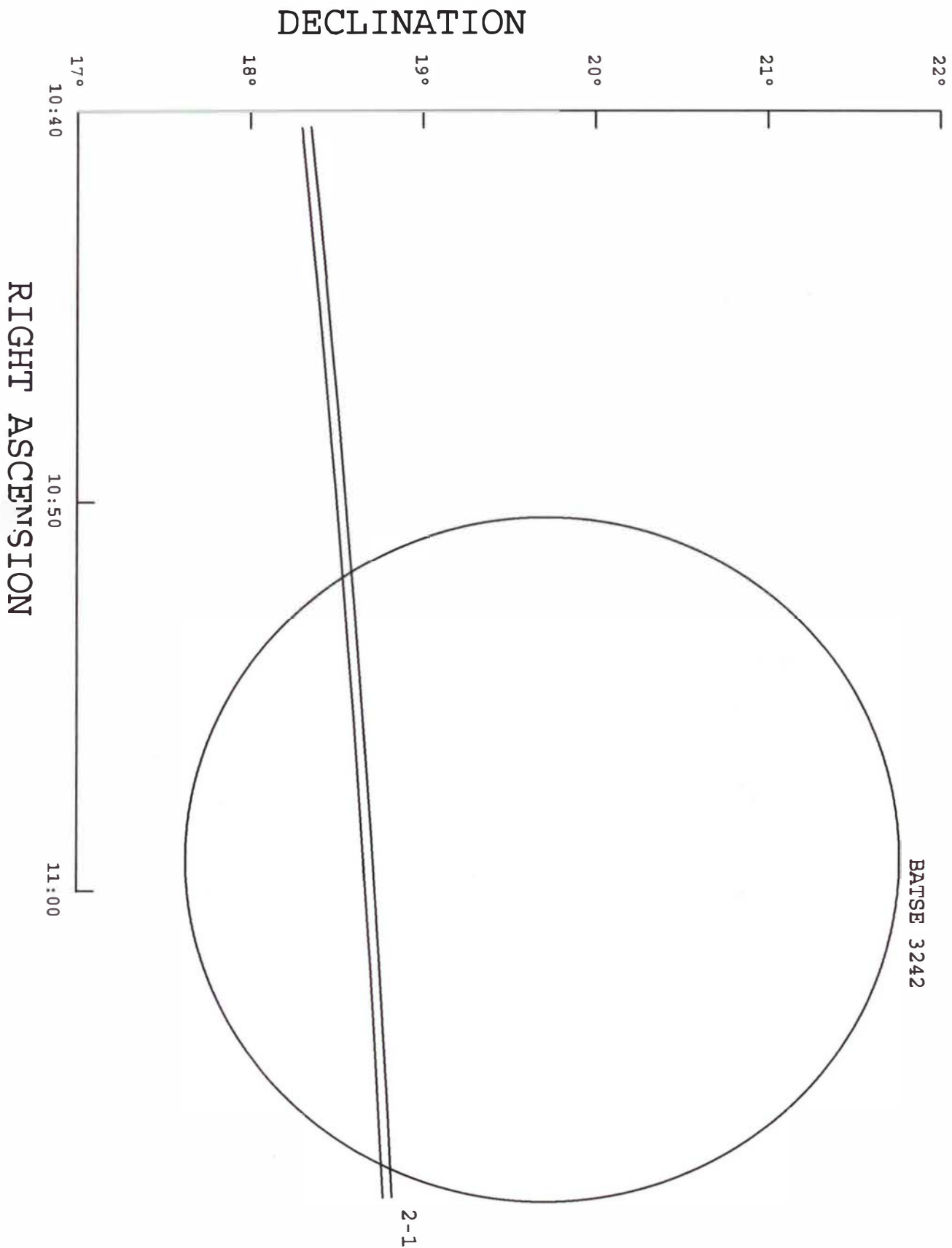
G=GALACTIC EQUATOR

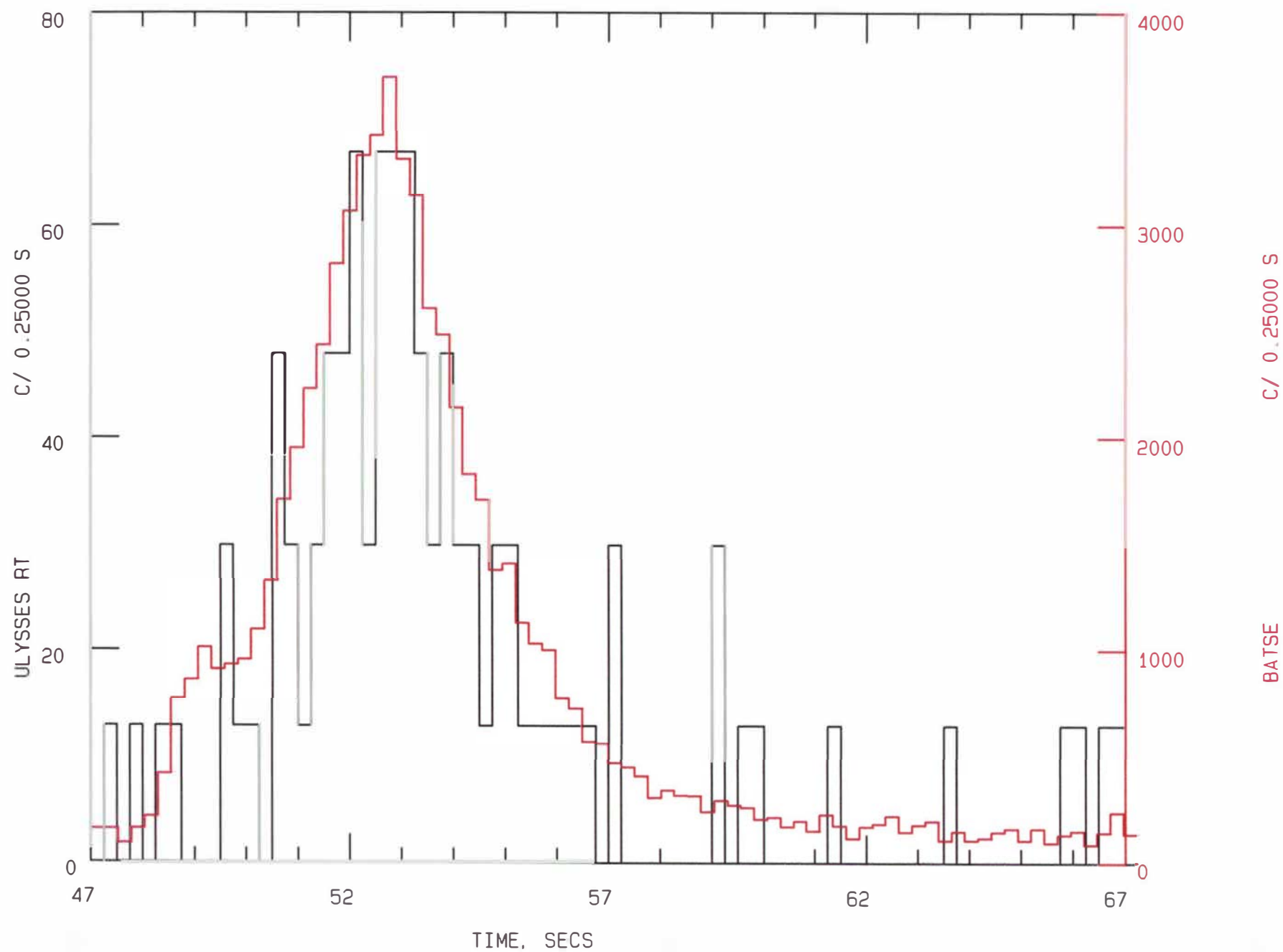
1 ULYSSES

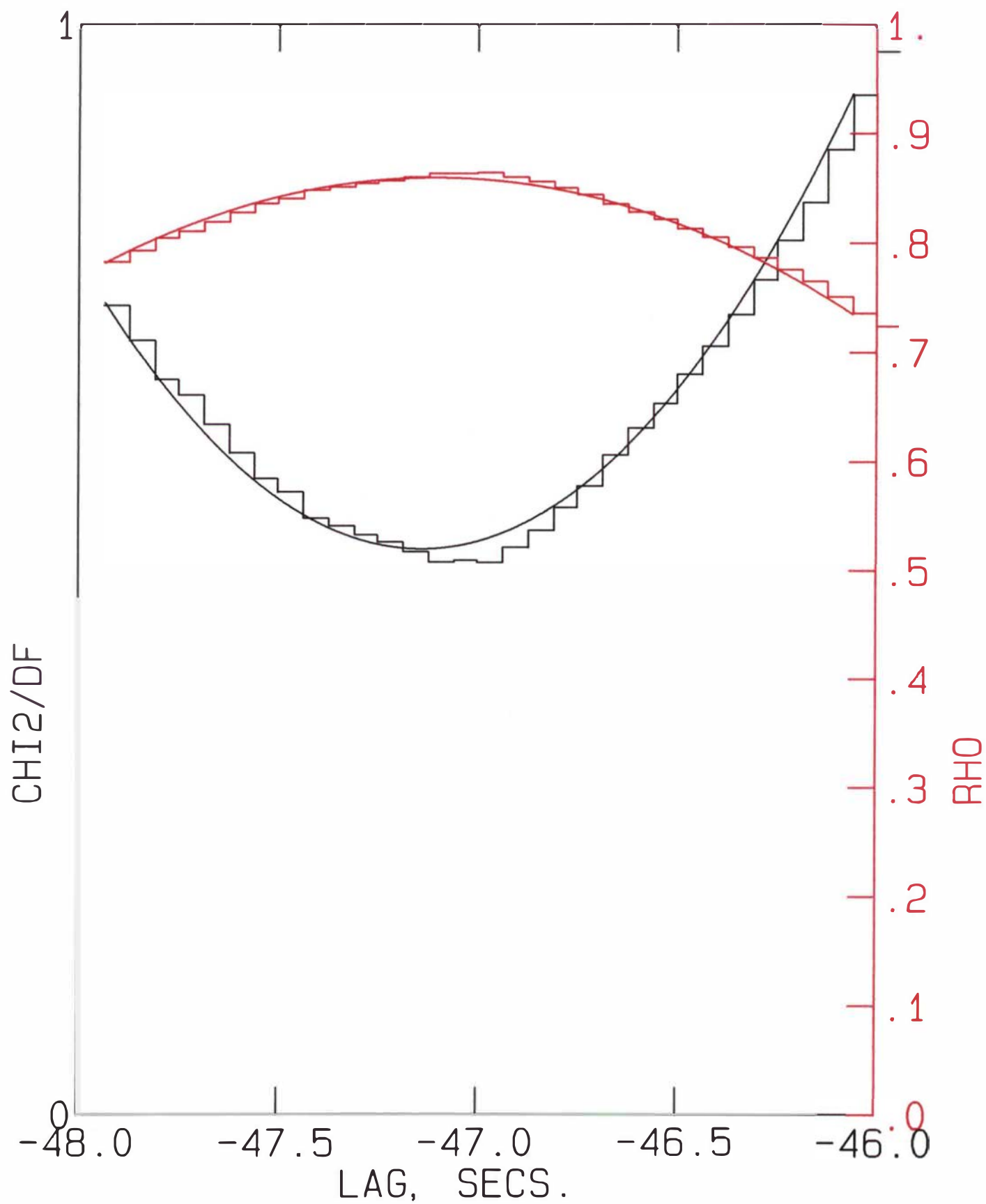
2 BATSE

EVENT OF OCT 14, 1994 23:12

5 / 2/98







ULYSSES RT

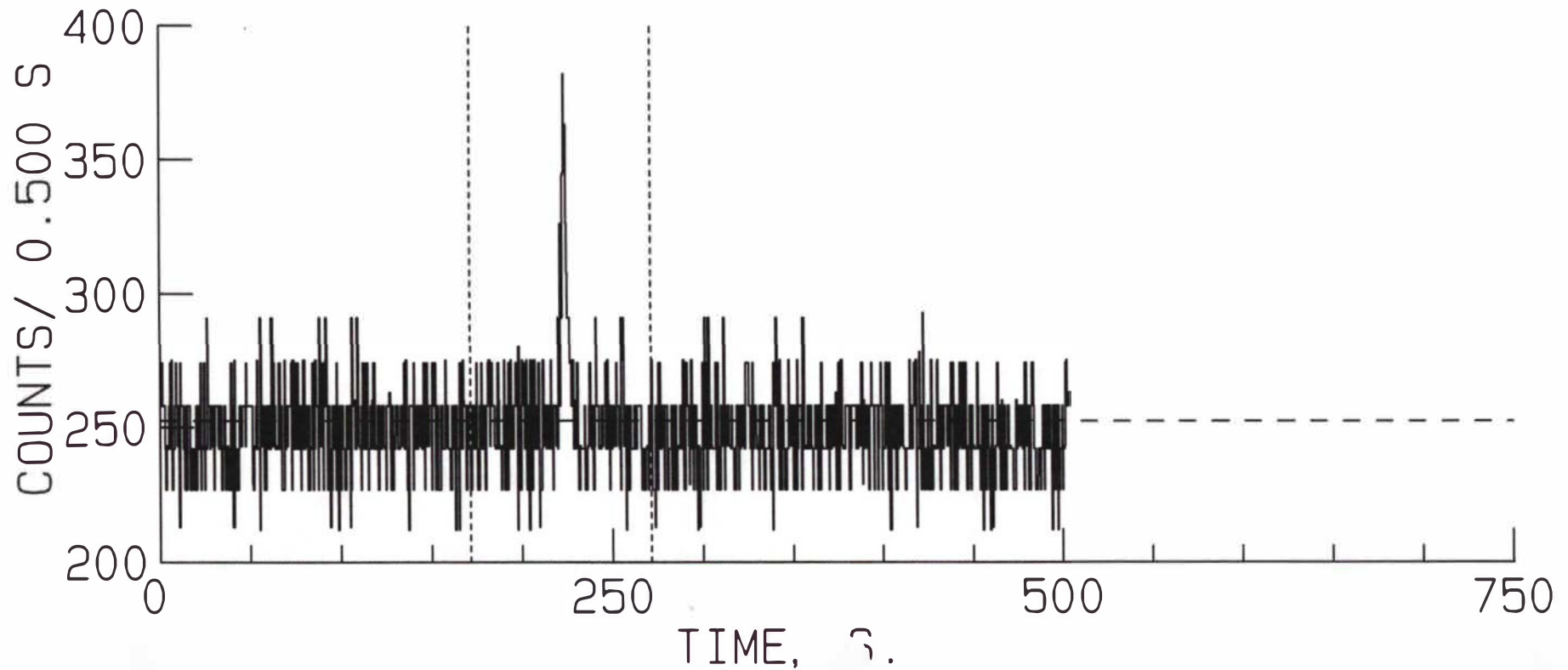
5 / 2 / 98

14/10/94 83376.117 s

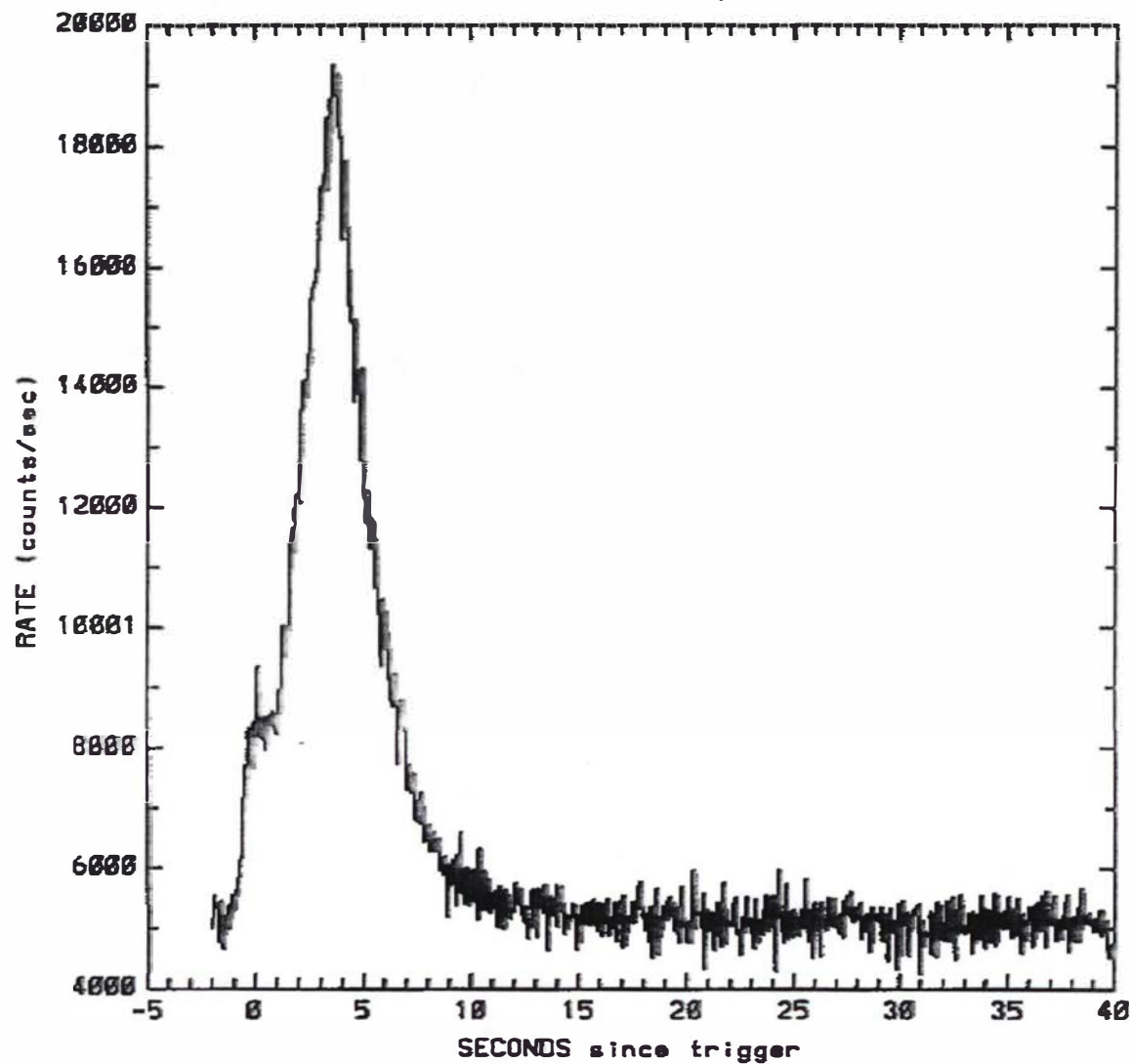
0.250 S INTERVALS REGROUPED BY 2

22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



DISCSC Data for K. Hurley, No. 3242



18-OCT-1994 13:39:38

Created by MOPS 80
(Burst Display)
Version 2.22

Trigger # . 3242

Trigger Time:
9639 / 83716.786Burst Data Type:
DISCSCDeadtime
Corrected: XBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
8.864 secondsDetectors [7..8]:
----32--Discriminators:
[1, 2]Quality Mask:
B01SP1

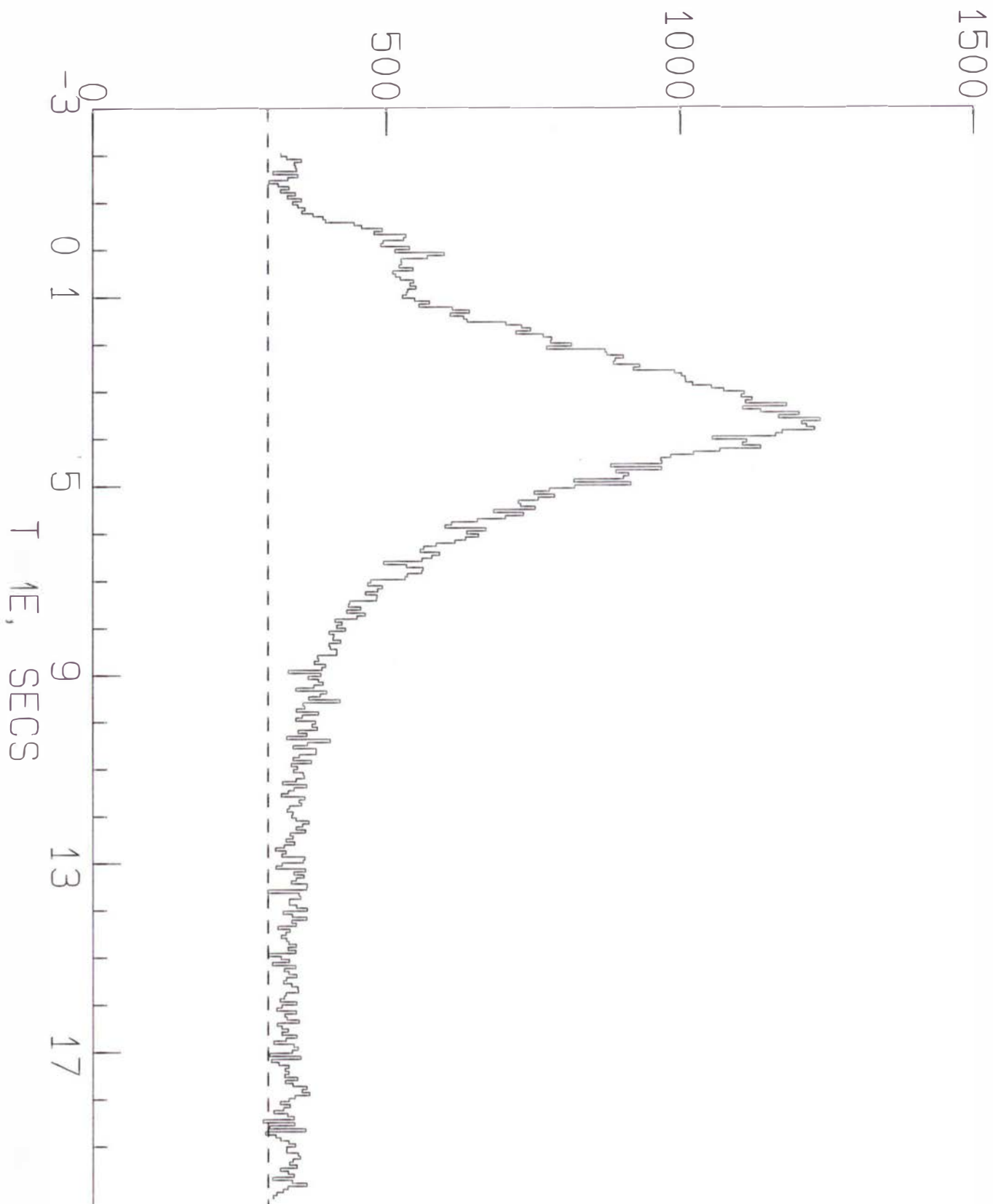
BATSE

14/10/94

83716.786

25- 100 keV

COUNTS/ .064 S



19/10/94

17 / 10 / 94

ULYSSES RT

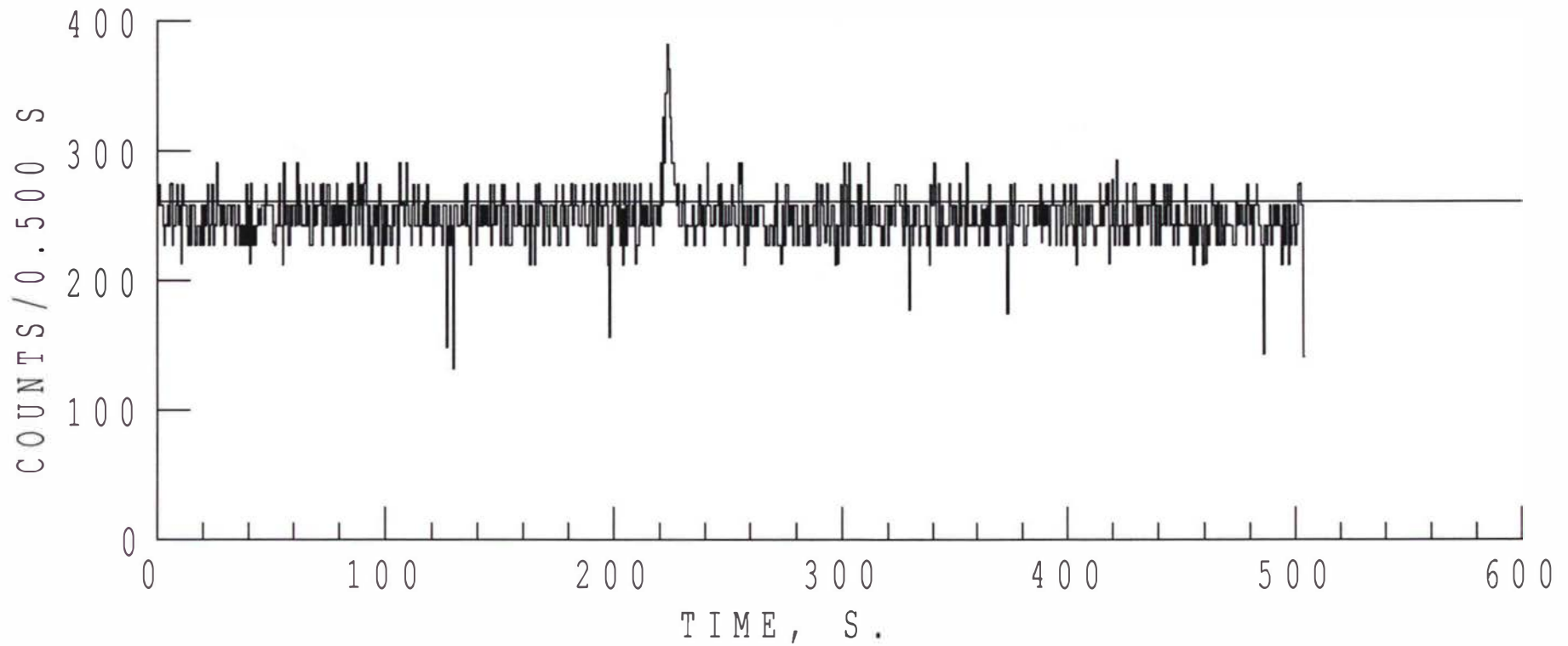
14 / 10 / 94 83376.117 s

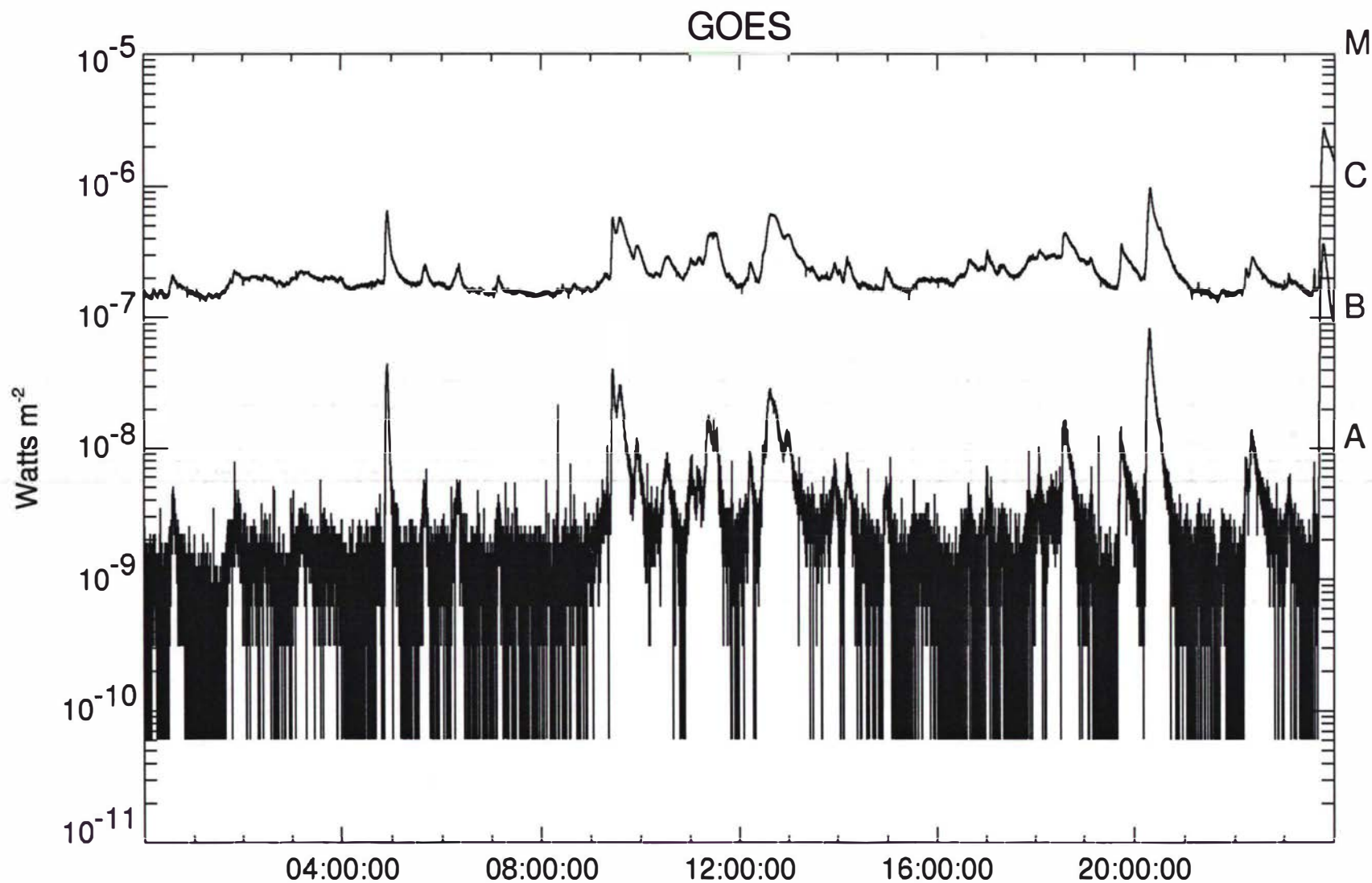
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





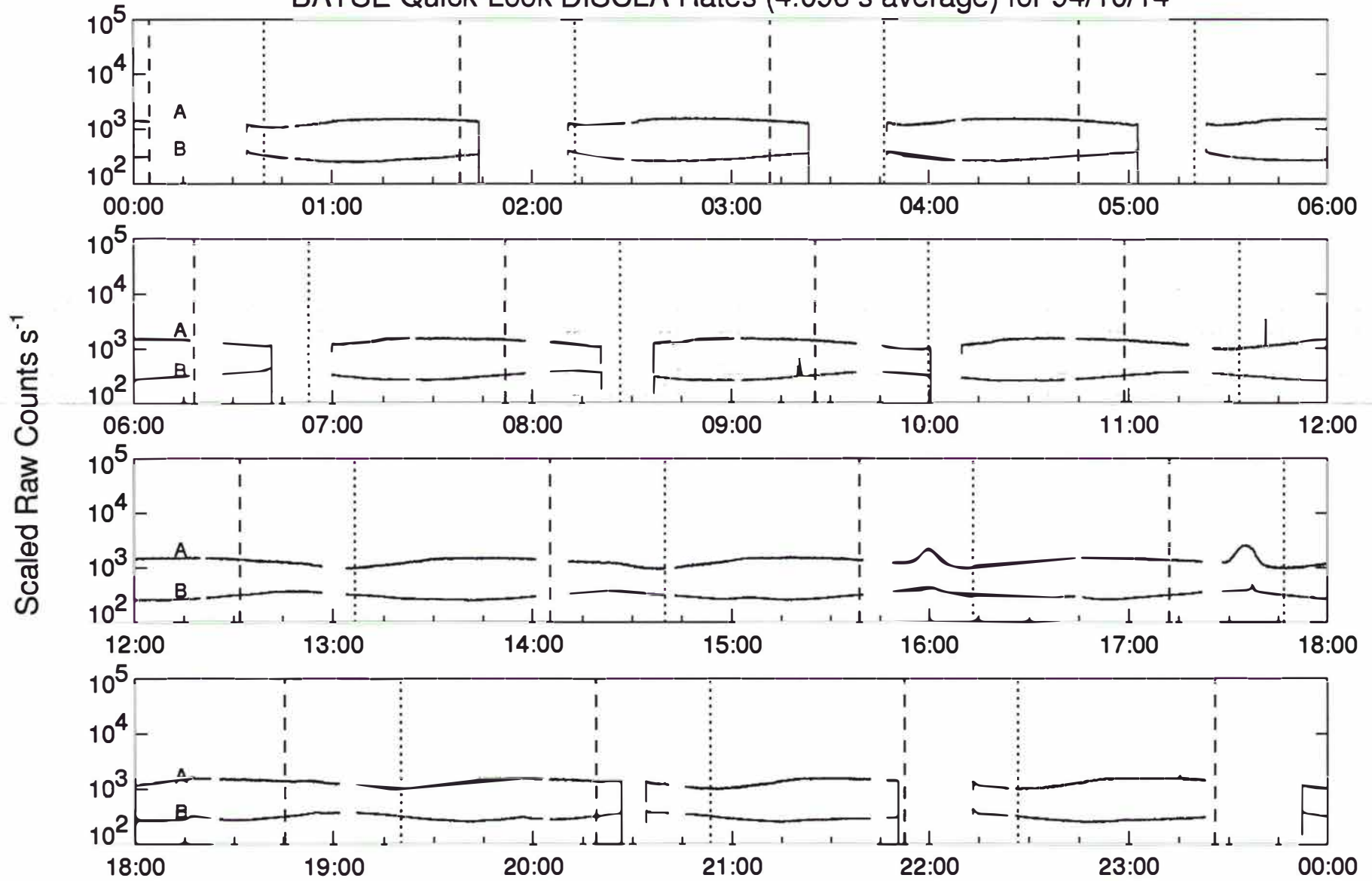
Data Start: 94/10/14, 0000:01

Plot created: 94/10/24, 1659

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/14

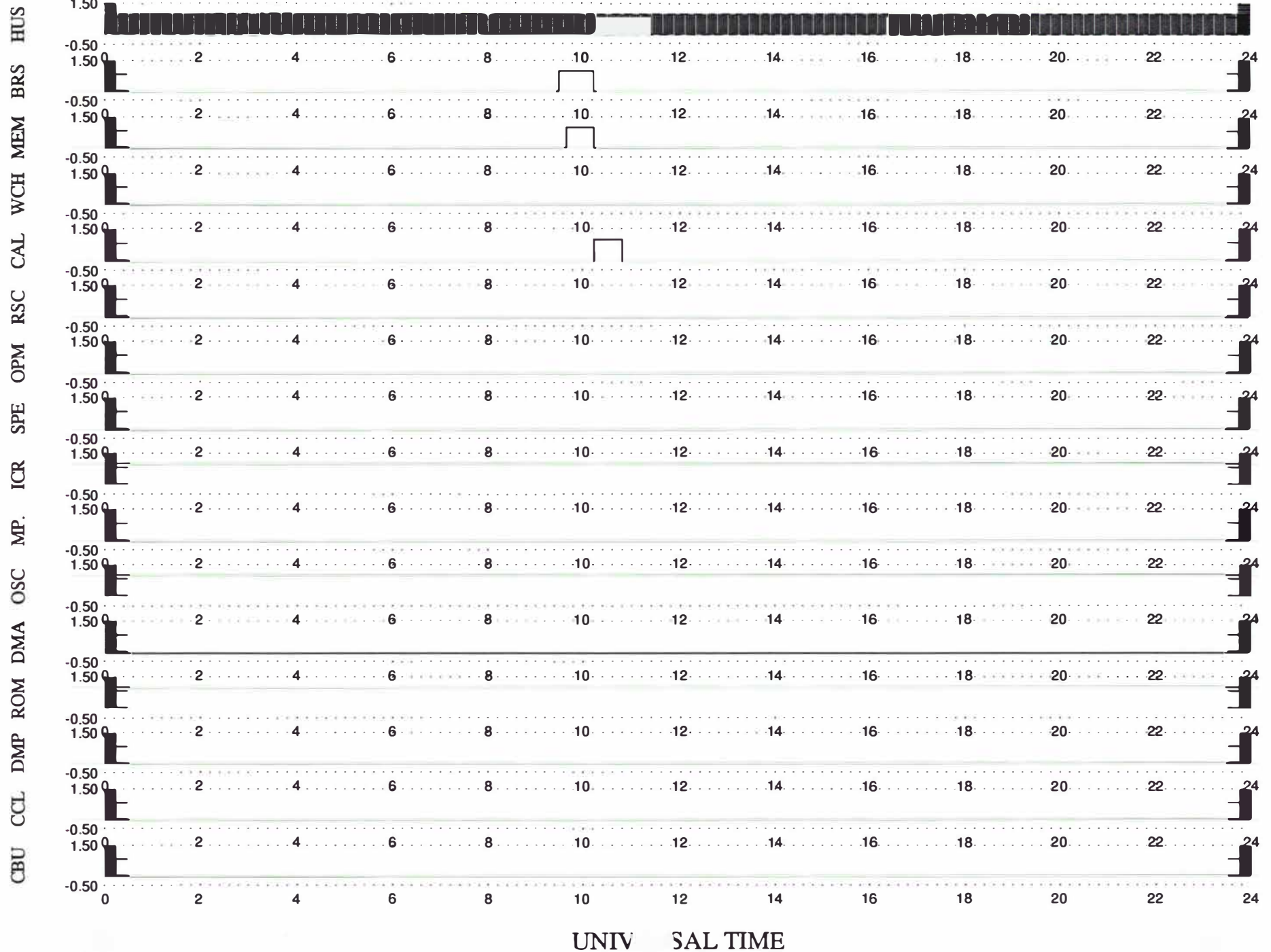


Current Time: 94/10/24, 1646 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

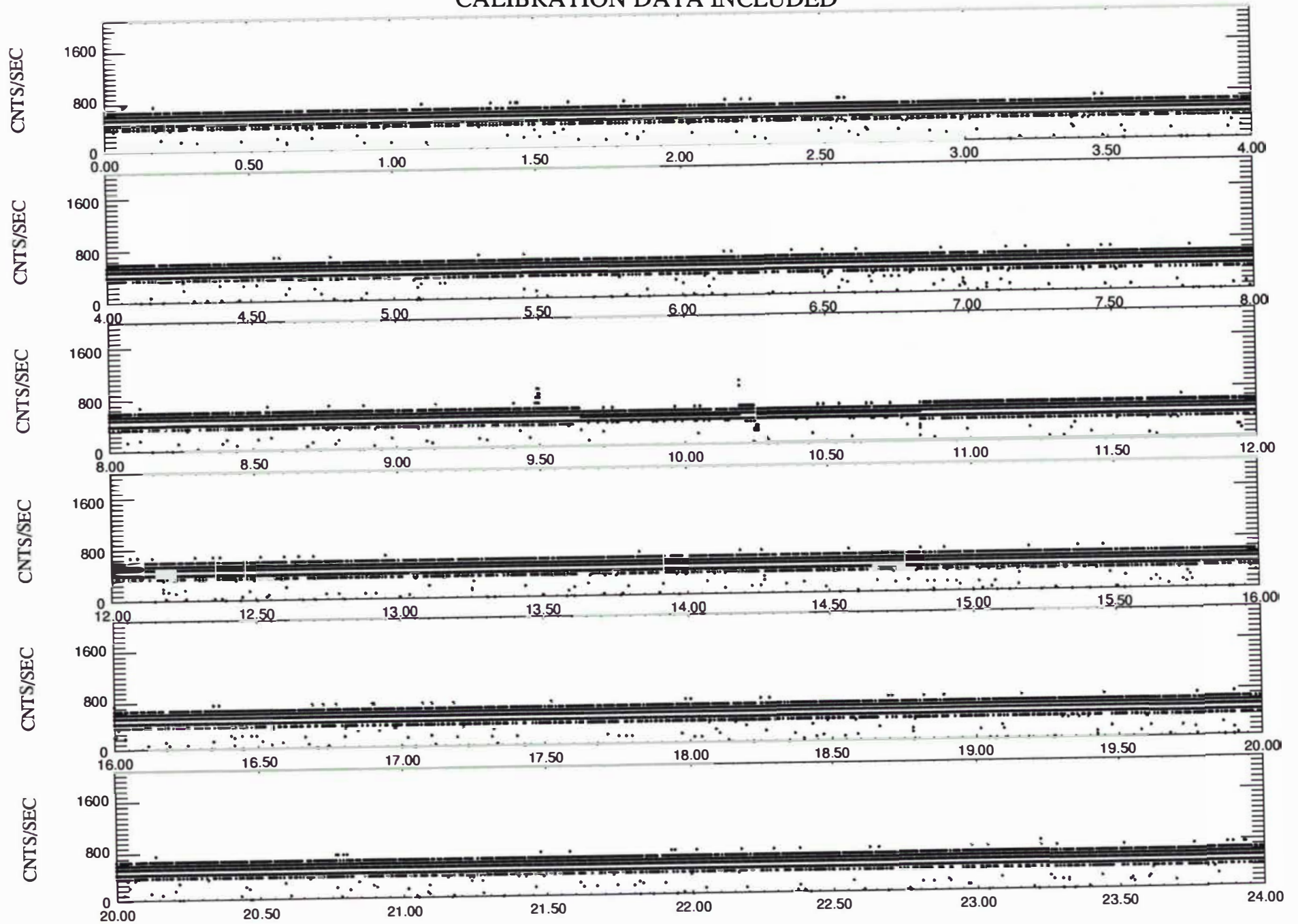
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 1

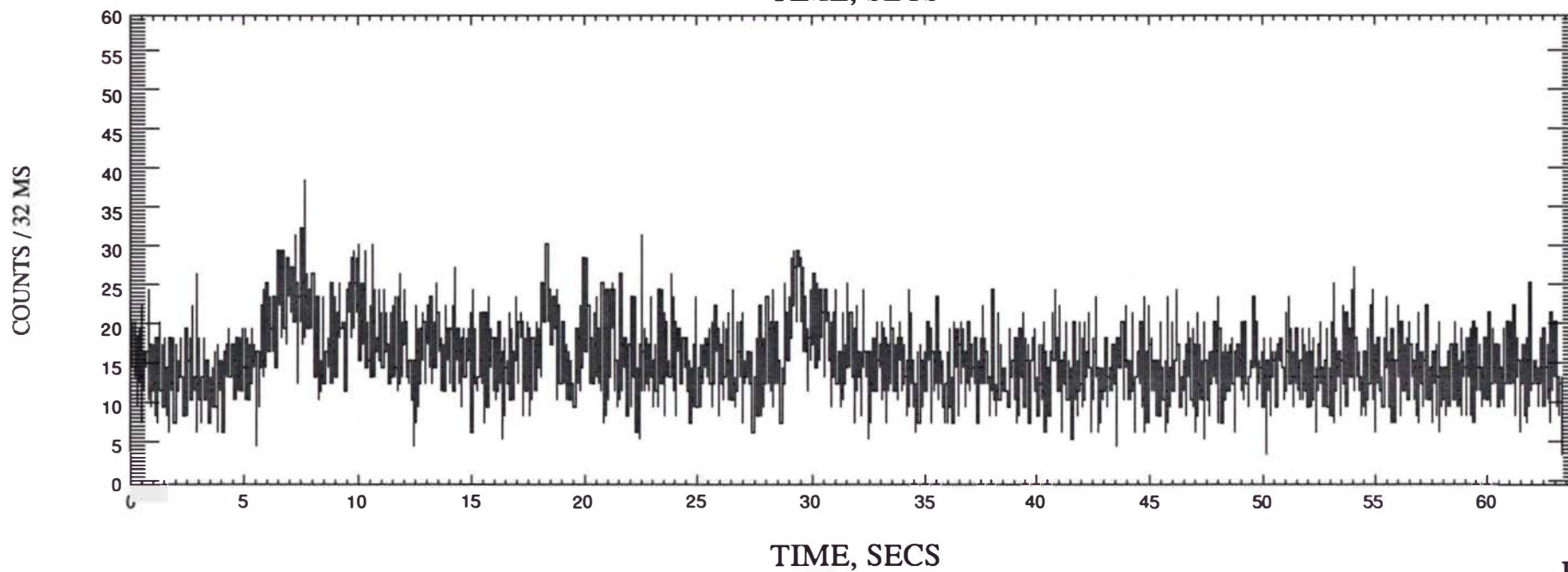
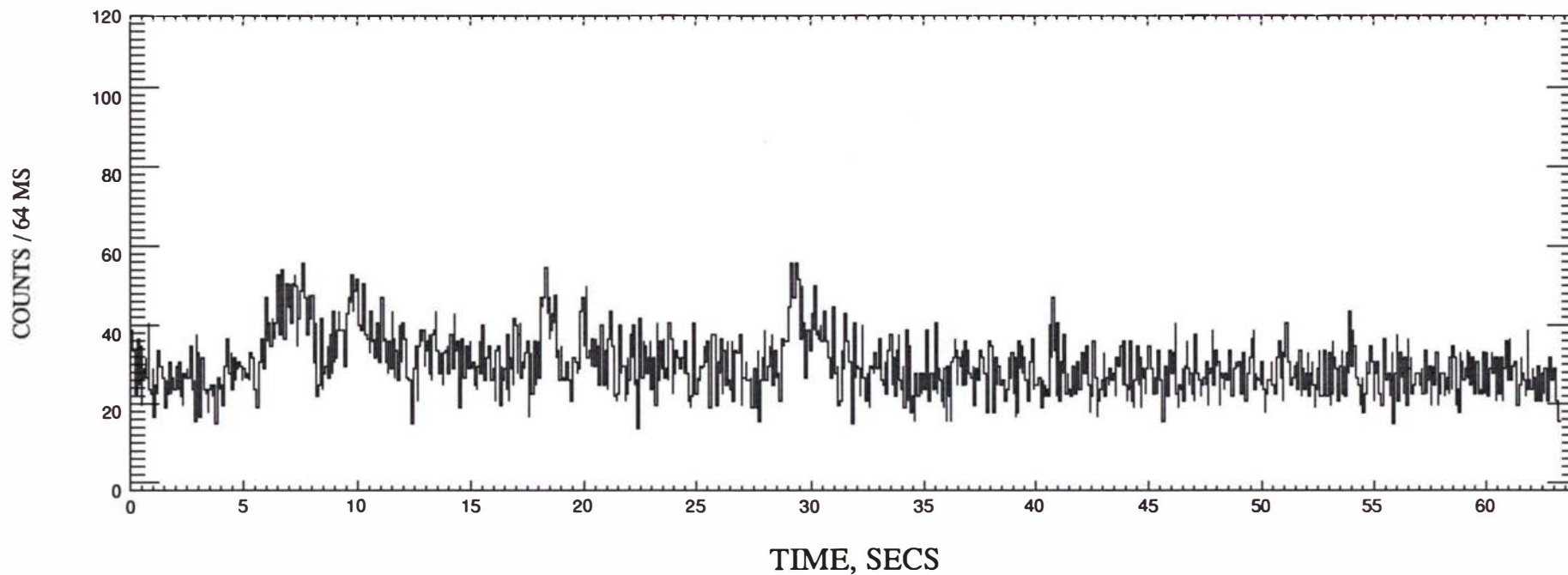


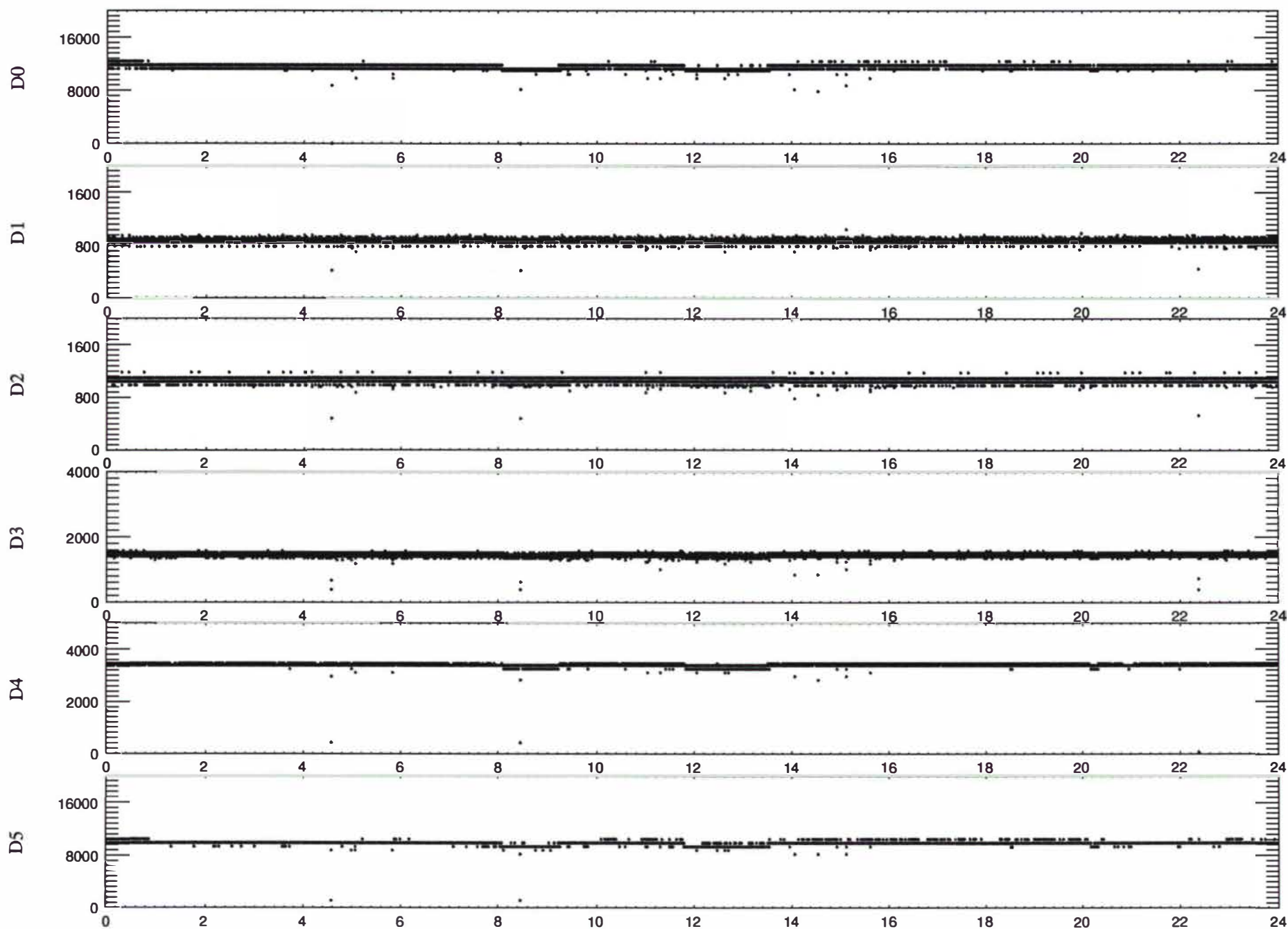
CALIBRATION DATA INCLUDED



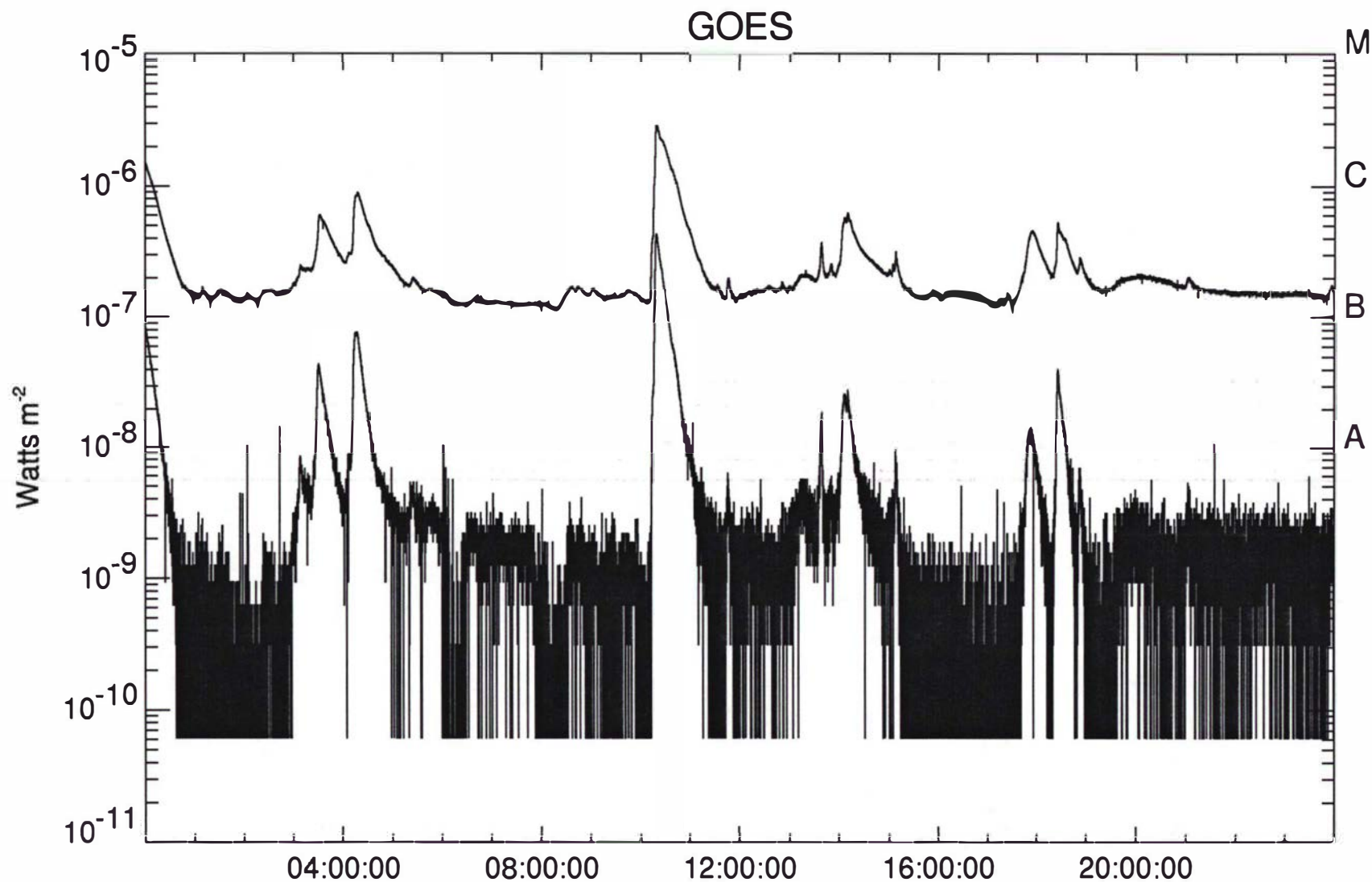
UNIV SAL TIME

Burst Counter 1 at UT= 9.486478797065 h=34151.324 s 09:29:11.324





UNIV. AL TIME



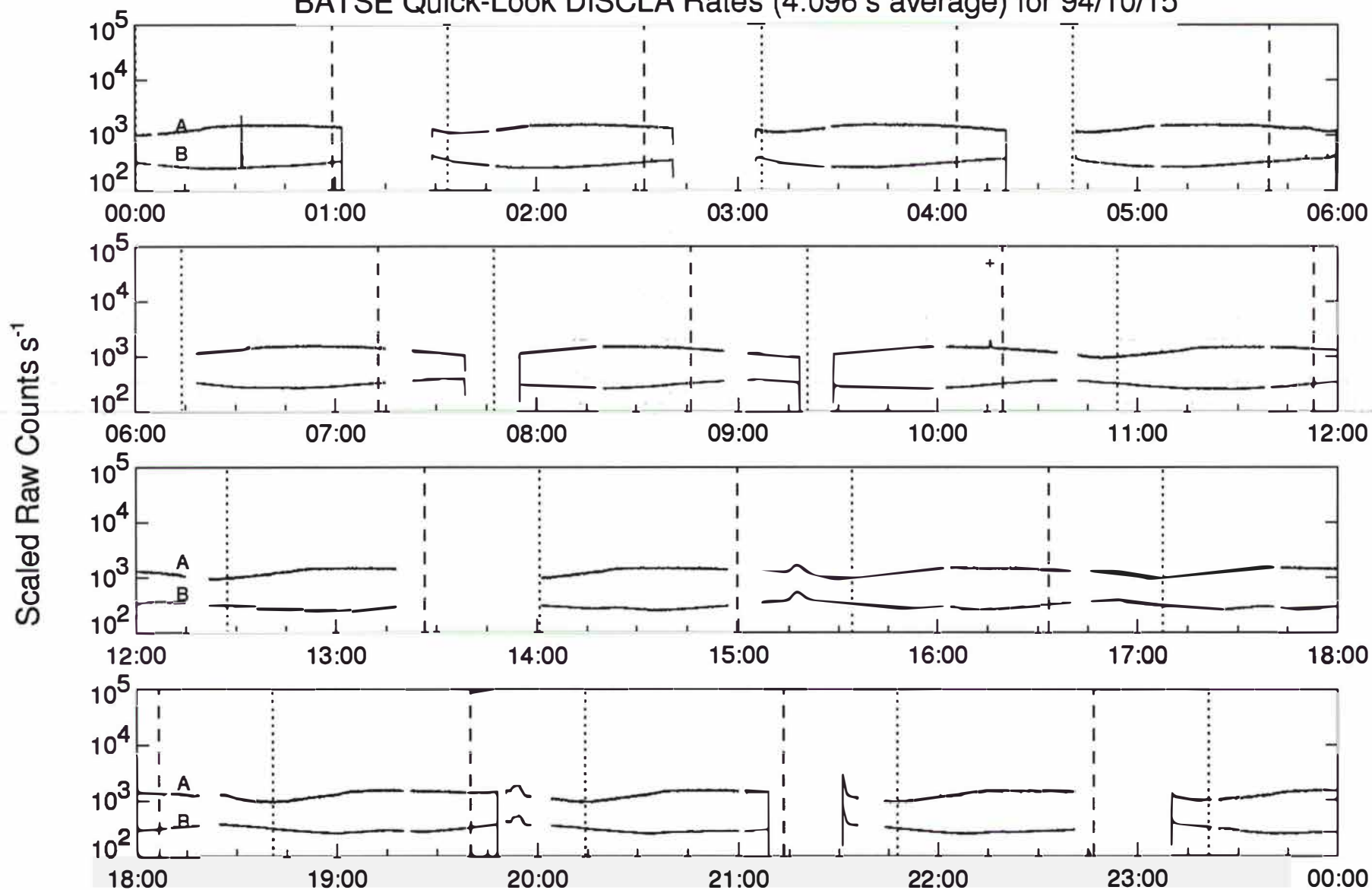
Data Start: 94/10/15, 0000:02

Plot created: 94/10/24, 1659

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/15

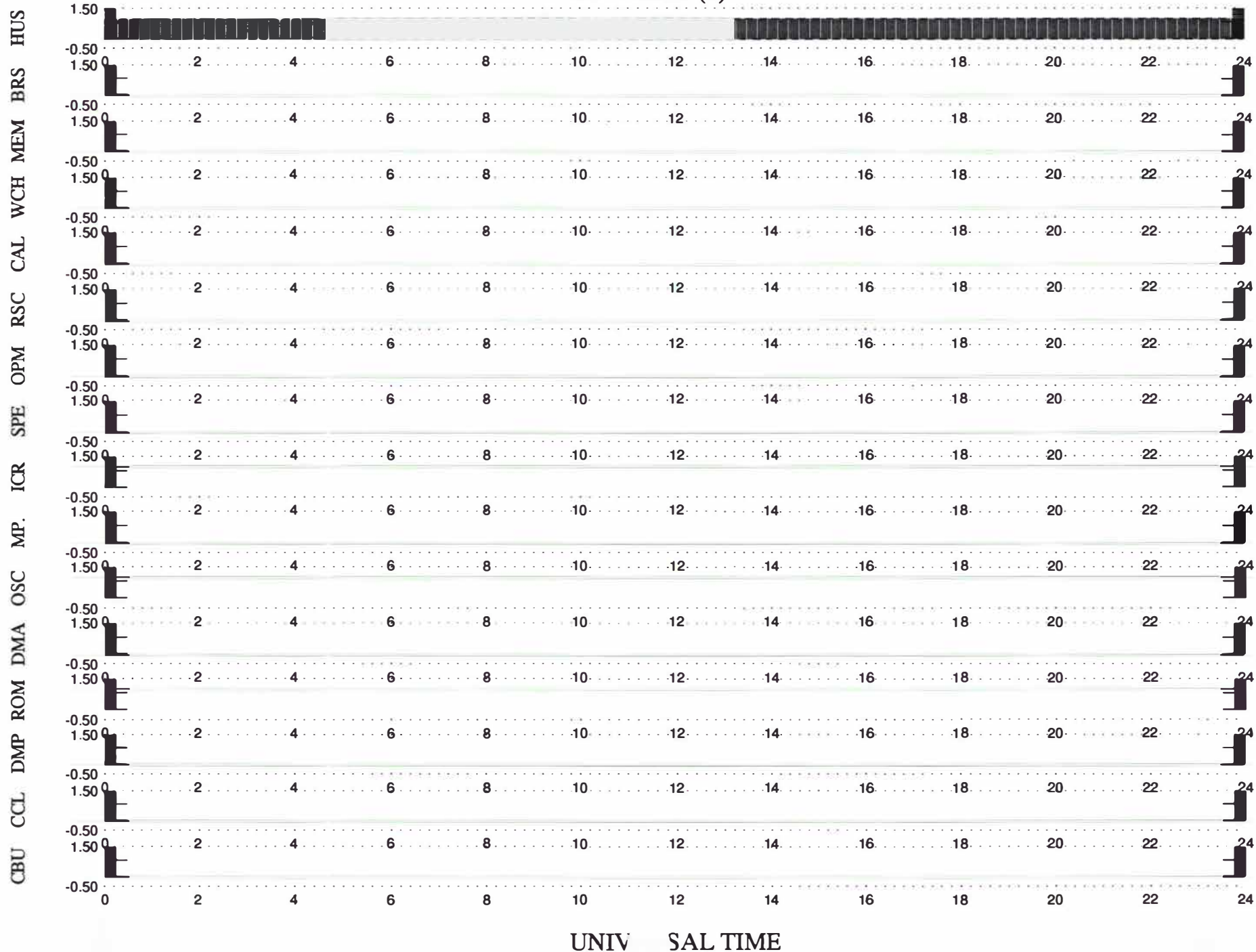


Current Time: 94/10/24, 1646 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

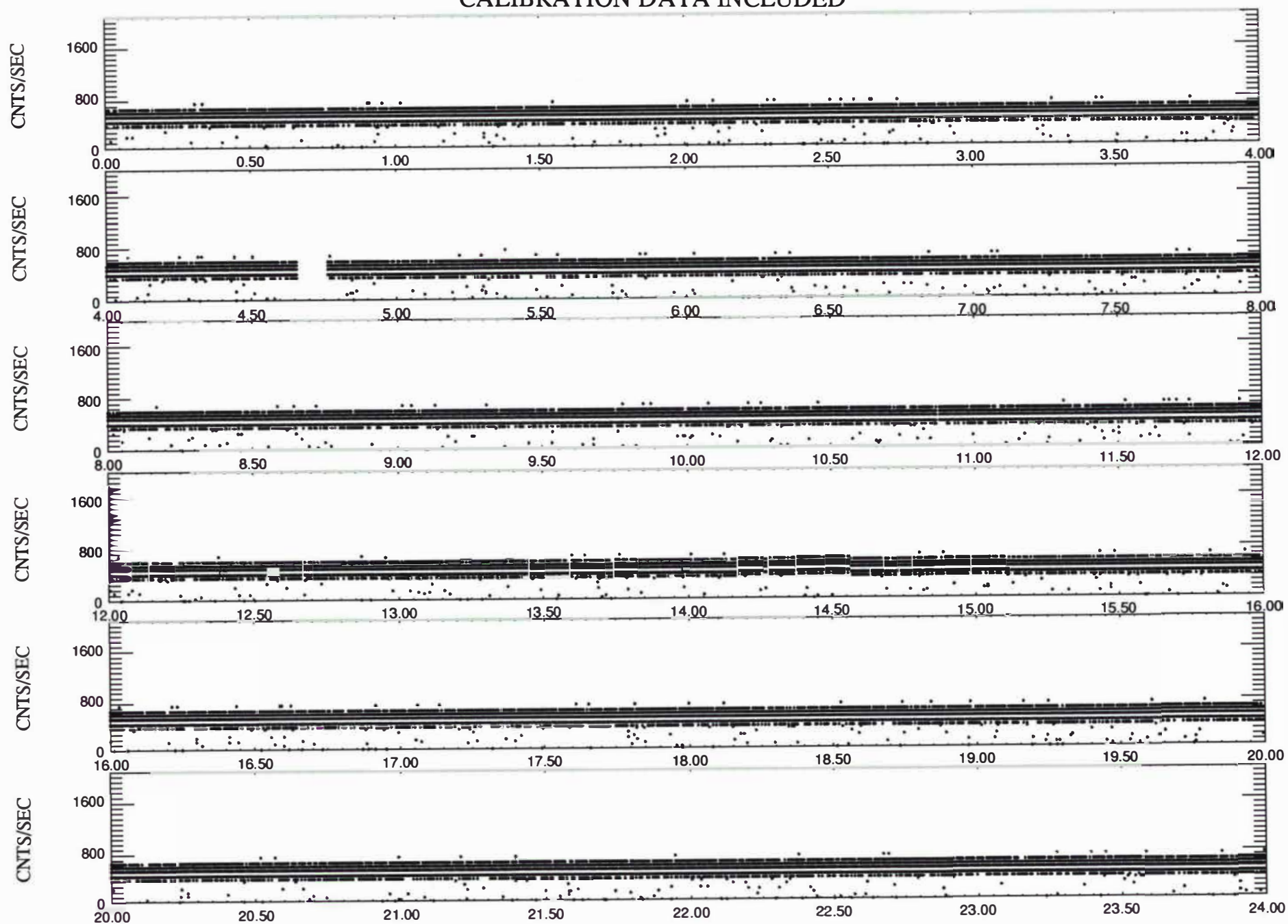
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

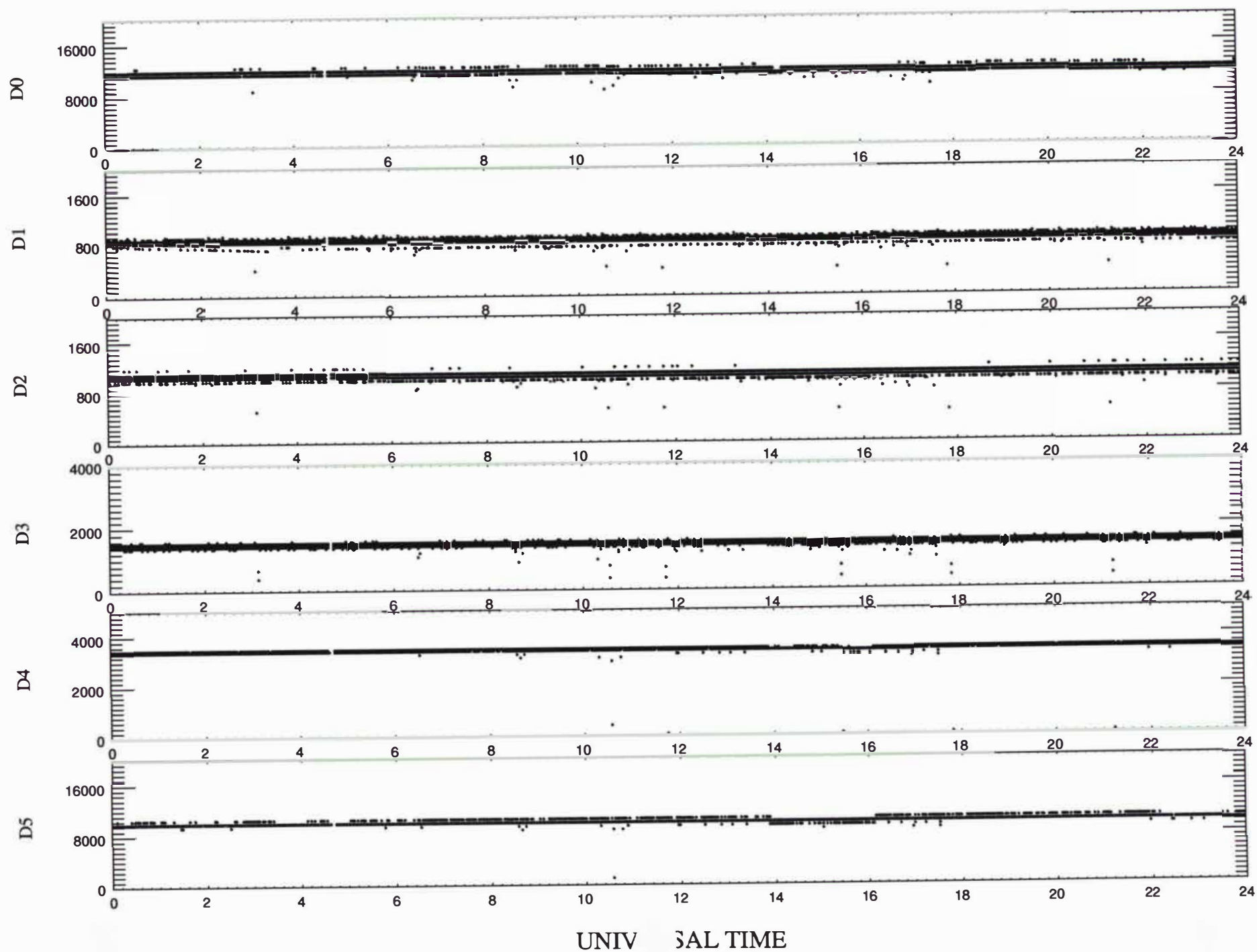
NO BURST (1)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From root Thu Dec 1 09:14 1994
Received: by space6.ssl.berkeley.edu (AIX 2.1 2/4.03)
id AA08269; Thu, 1 Dec 94 09:14:50
Received: from jplsp2.jpl.nasa.gov by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA24284; Thu, 1 Dec 1994 09:13:35 +0800
Date: Thu, 1 Dec 1994 9:12:40 -0800 (PST)
From: ULSDMT@jplsp.jpl.nasa.gov
To: khurley@space6.ssl.berkeley.edu
Message-Id: <941201091240.21201434@jplsp.jpl.nasa.gov>
Subject: Data Status
Content-Length: 649
Status: R

STATUS.TXT

Effective date is 1 December 1994

EDR data through 19 November
CDR data through 31 October
SEDR data through 31 October

June 1994 CD-ROM (version 2) has been received

=====

Note: An error in the Oct 1994 SEDR has been discovered. There are three adjacent records all timed at doy 289, 0300 UT. It was caused by an error in our software which has been fixed. New versions of the Oct fixed and floating point files have been put onto JPLSP. The October CD-ROM was held pending this repair. It will be sent to the vendor this week.

From DEAL@ssl.msfc.nasa.gov Tue Oct 18 06:14 PDT 1994
Date: Tue, 18 Oct 1994 8:17:59 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3243

BATSEARCH PROGRAM

No

BATSE BURST # 3243
EVENT OF 1994 OCT 16 DAY OF YEAR=289
EVENT CROSSING TIME AT BATSE : 29994. S. OR 08:19:54.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 27.000 -31.000
BATSE PEAK COUNTING RATE: 900 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 16/10/ 94 IS:
RA= 174.475 DEC= -65.571 DIST= 2.374 AU
BATSE-ULYSSES DISTANCE = 355138284. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 99.79 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -201.42 SECS.
CROSSING TIME AT ULYSSES IS 29793. S. OR 08:16:32 +/- 249.61 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 16/10/ 94 IS:
RA= 128.946 DEC= 19.903 DIST= 1.469 AU
MARS-BATSE DISTANCE = 219696064. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 69.99 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 250.74 SECS.
CROSSING TIME AT MARS IS 30245. S. OR 08:24:04 +/- 123.36 SECONDS

BATSE BURST TRIGGER

NO.: 03243

TIME: TJD=9641 SECONDS=29994

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=102.7 AZIMUTH=188.3 ERROR= DEGREES

COMMENTS:

BURST ~2S. IN DURATION. VISIBLE ABOVE 300 KEV.

From DEAL@ssl.msfc.nasa.gov Tue Oct 18 06:14 PDT 1994
Date: Tue, 18 Oct 1994 8:17:37 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3243

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3243	941016	9641	29994	900	027	-31

18 / 10 / 94

ULYSSES RT

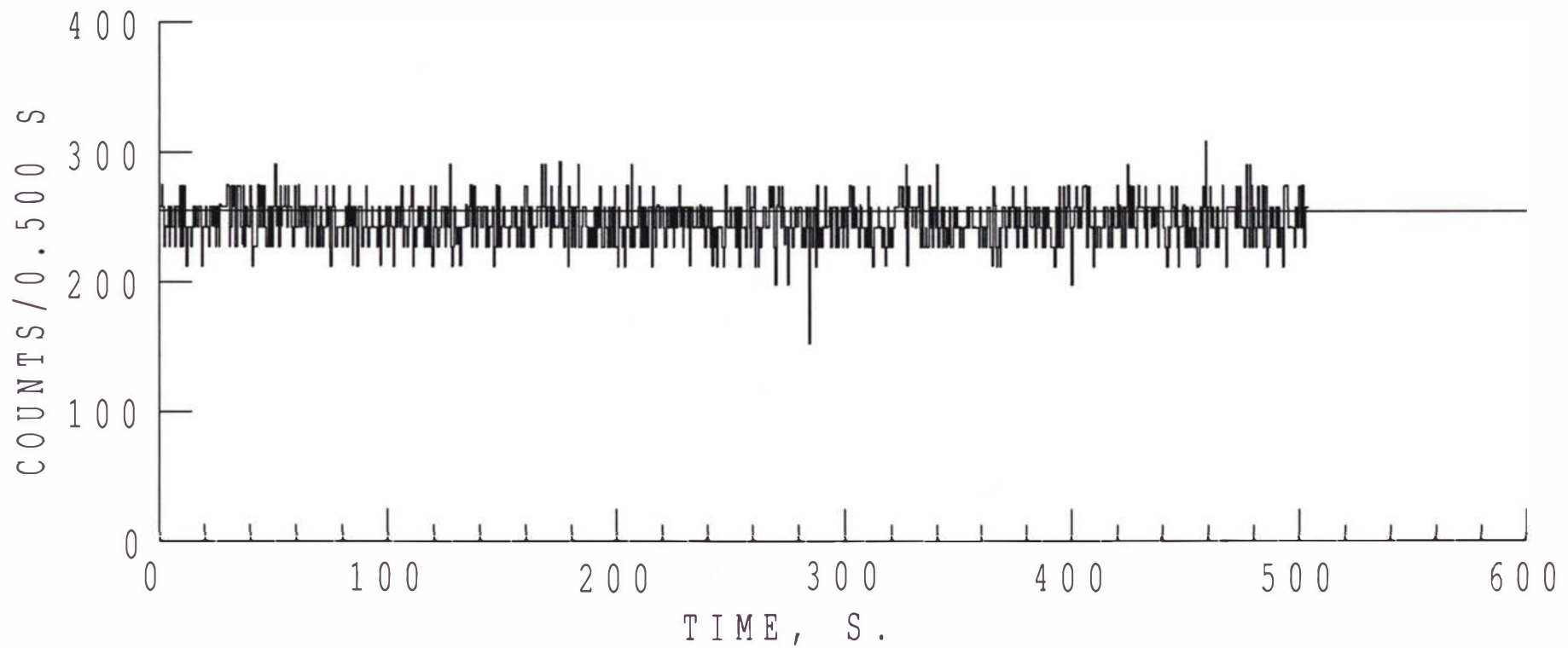
16/10/94 29556.238 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Wed Oct 19 09:31 PDT 1994
Date: Wed, 19 Oct 1994 11:35:02 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03244

TIME: TJD=9641 SECONDS=79228

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

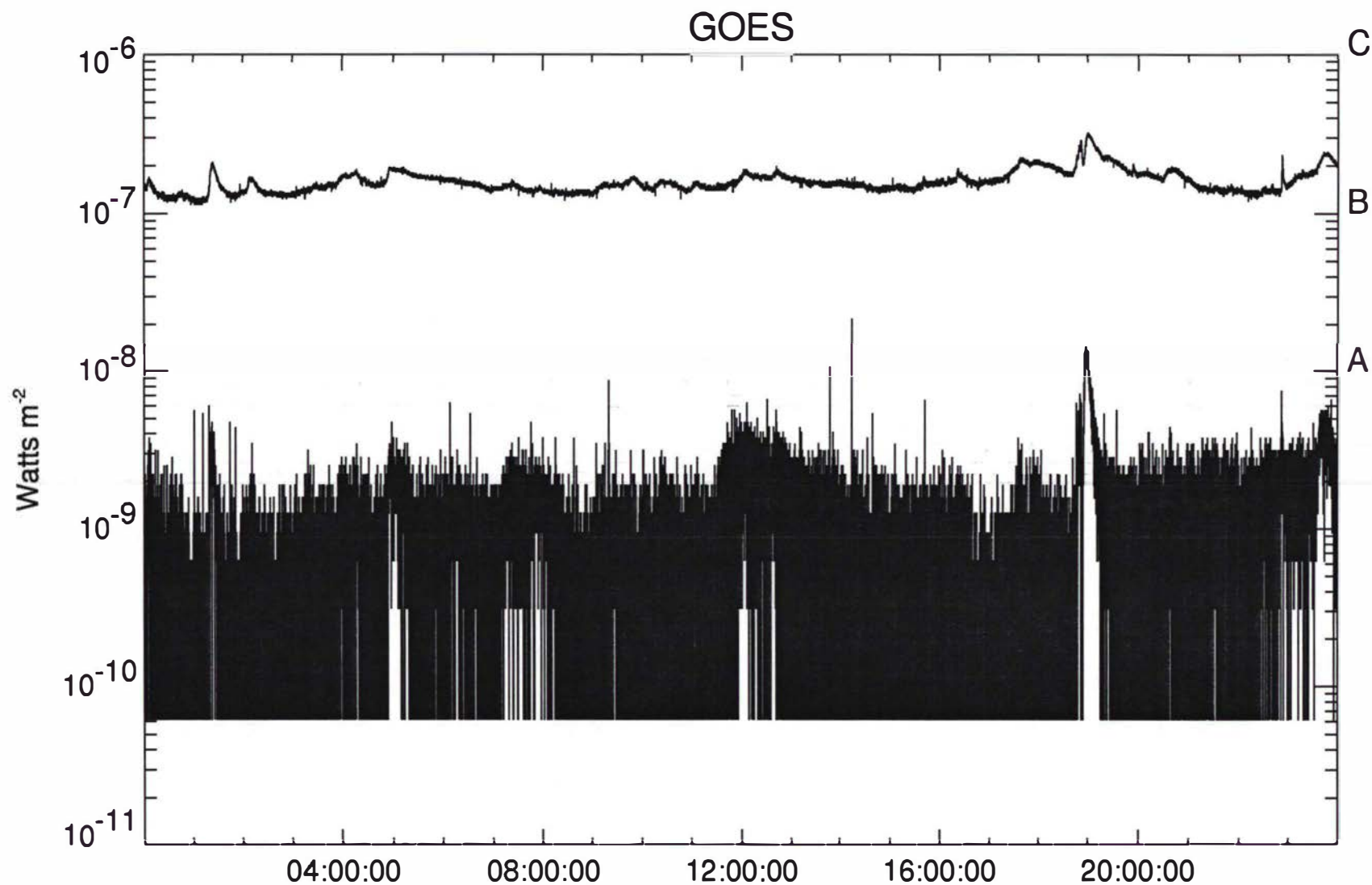
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=163.7 AZIMUTH=076.1 ERROR= DEGREES

COMMENTS:

TERRESTRIAL GAMMA FLASH. 0.3 MS. LONG. VERY HARD SPECTRUM.



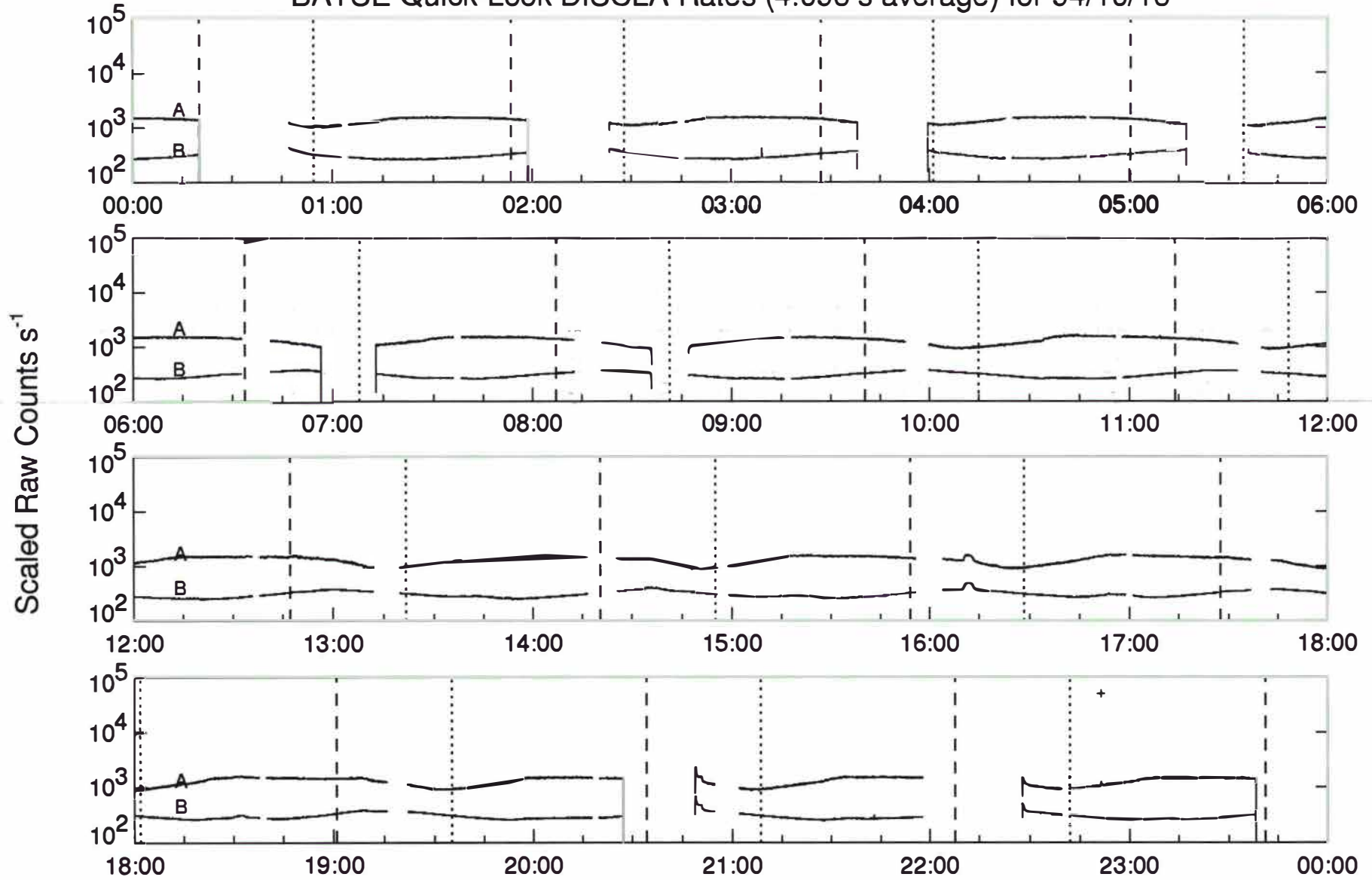
Data Start: 94/10/16, 0000:02

Plot created: 94/10/24, 1700

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/16

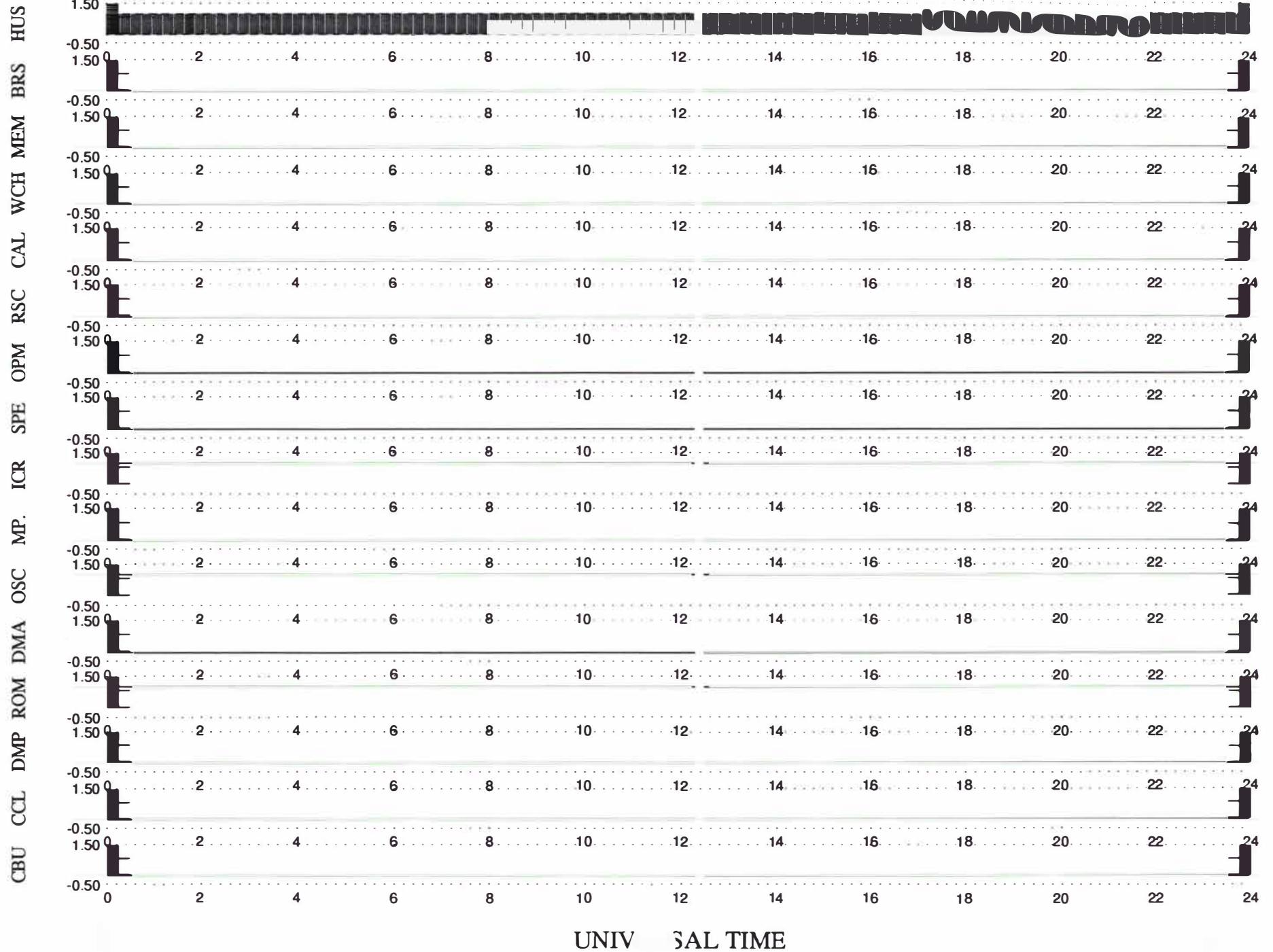


Current Time: 94/10/24, 1646 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

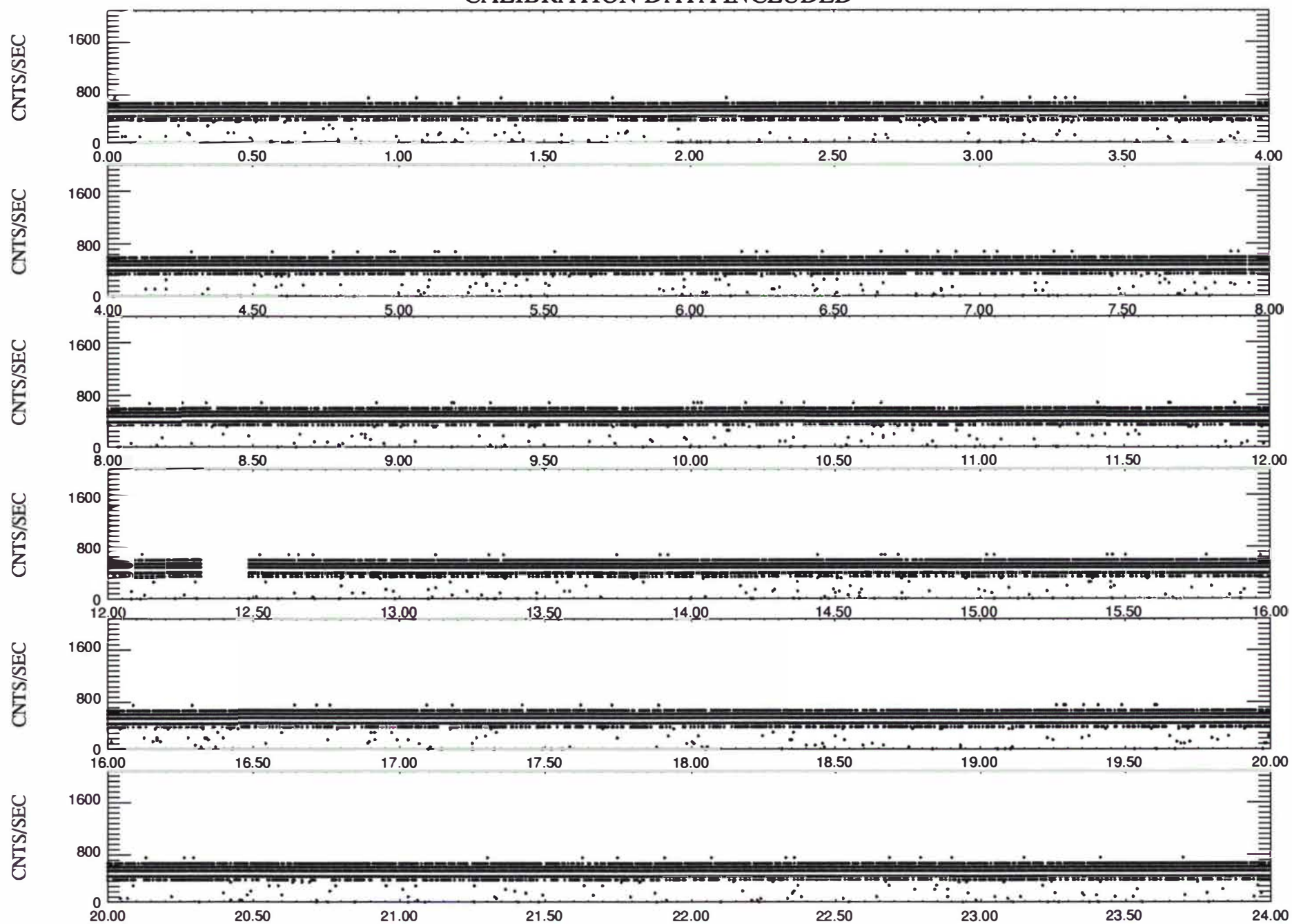
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

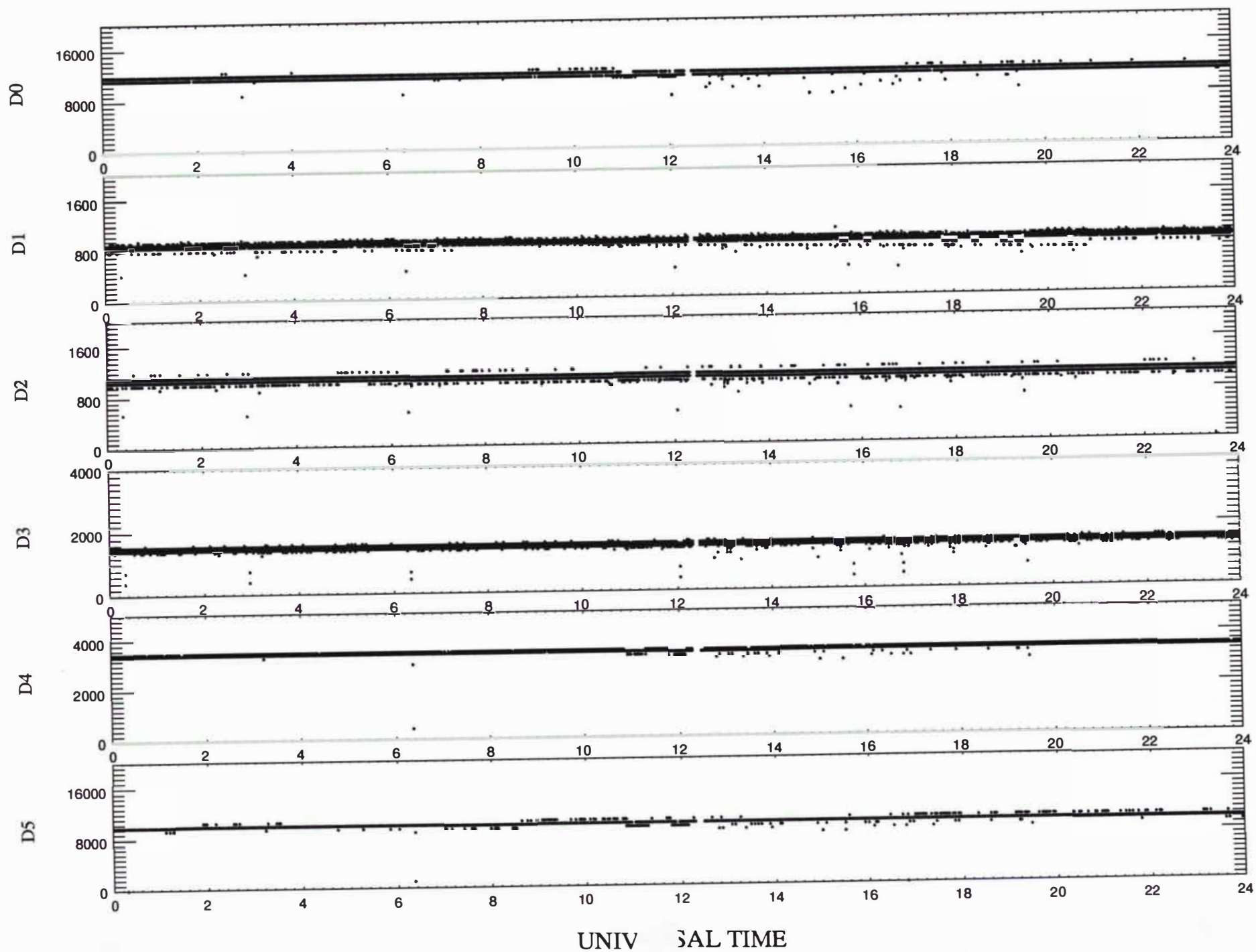
NO BURST (1)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From ulsdtmt@jplsp.DNET.NASA.GOV Thu Dec 1 14:59 PST 1994
Date: Thu, 1 Dec 94 17:58:53 -0500
From: ulsdtmt@jplsp.DNET.NASA.GOV
To: "khurley@sunspot.ssl.berkeley.edu"@east.DNET.NASA.GOV (SENT TO @LIST1.DIS)
Subject: Kourou data in October product

1 December 1994

Dear Colleague,

A small portion of the data for the month of October was obtained from the Kourou station due to an outage of the DSS. The time affected is doy 290 from SCET 09:55 to 17:02 UT. This data was not put into the QEDR files; only the DISKULSDMT area and the CD-ROM. Should you notice any peculiarities, please contact us and ULSSCI.

mahalo,
Jo4hn Johnson

From KOSHUT@fender.msfc.nasa.gov Tue Oct 18 11:04 PDT 1994
Date: Tue, 18 Oct 1994 13:07:32 -0500 (CDT)
From: KOSHUT@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3245

BATSEARCH PROGRAM

TRIGGER

BATSE BURST # 3245
EVENT OF 1994 OCT 17 DAY OF YEAR=290
EVENT CROSSING TIME AT BATSE : 37173. S. OR 10:19:33.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 303.000 11.000
BATSE PEAK COUNTING RATE: 45000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 17/10/ 94 IS:
RA= 175.677 DEC= -66.058 DIST= 2.366 AU
BATSE-ULYSSES DISTANCE = 353896558. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 65.42 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 490.98 SECS.
CROSSING TIME AT ULYSSES IS 37664. S. OR 10:27:43 +/- 243.84 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 17/10/ 94 IS:
RA= 129.500 DEC= 19.788 DIST= 1.461 AU
MARS-BATSE DISTANCE = 218570304. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 31.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 621.99 SECS.
CROSSING TIME AT MARS IS 37795. S. OR 10:29:54 +/- 75.48 SECONDS

BATSE BURST TRIGGER

NO.: 03245

TIME: TJD=9642 SECONDS=37173

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=64. AZIMUTH=103. ERROR= DEGREES

COMMENTS:

STRONG BURST OF ~ 250 SECONDS DURATION. LOW INTENSITY EMISSION BEGINS AT
~ TRIGGER - 70 SECONDS. THE PEAK RATE (~ 45000 C/S) IS OBSERVED AT ~
TRIGGER + 25 SECONDS. THE TIME HISTORY CONTAINS MANY SIGNIFICANT RAPID
FLUCTUATIONS. EMISSION ABOVE 300 KEV IS OBSERVED.

From KOSHUT@fender.msfc.nasa.gov Tue Oct 18 11:04 PDT 1994
Date: Tue, 18 Oct 1994 13:07:07 -0500 (CDT)
From: KOSHUT@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: KOSHUT@fender.msfc.nasa.gov
Subject: BATSE Burst 3245

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3245	941017	9642	37173	45000	303	+11

Date:

Helio corr removed
Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

Trigger data corrupted
RT used

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

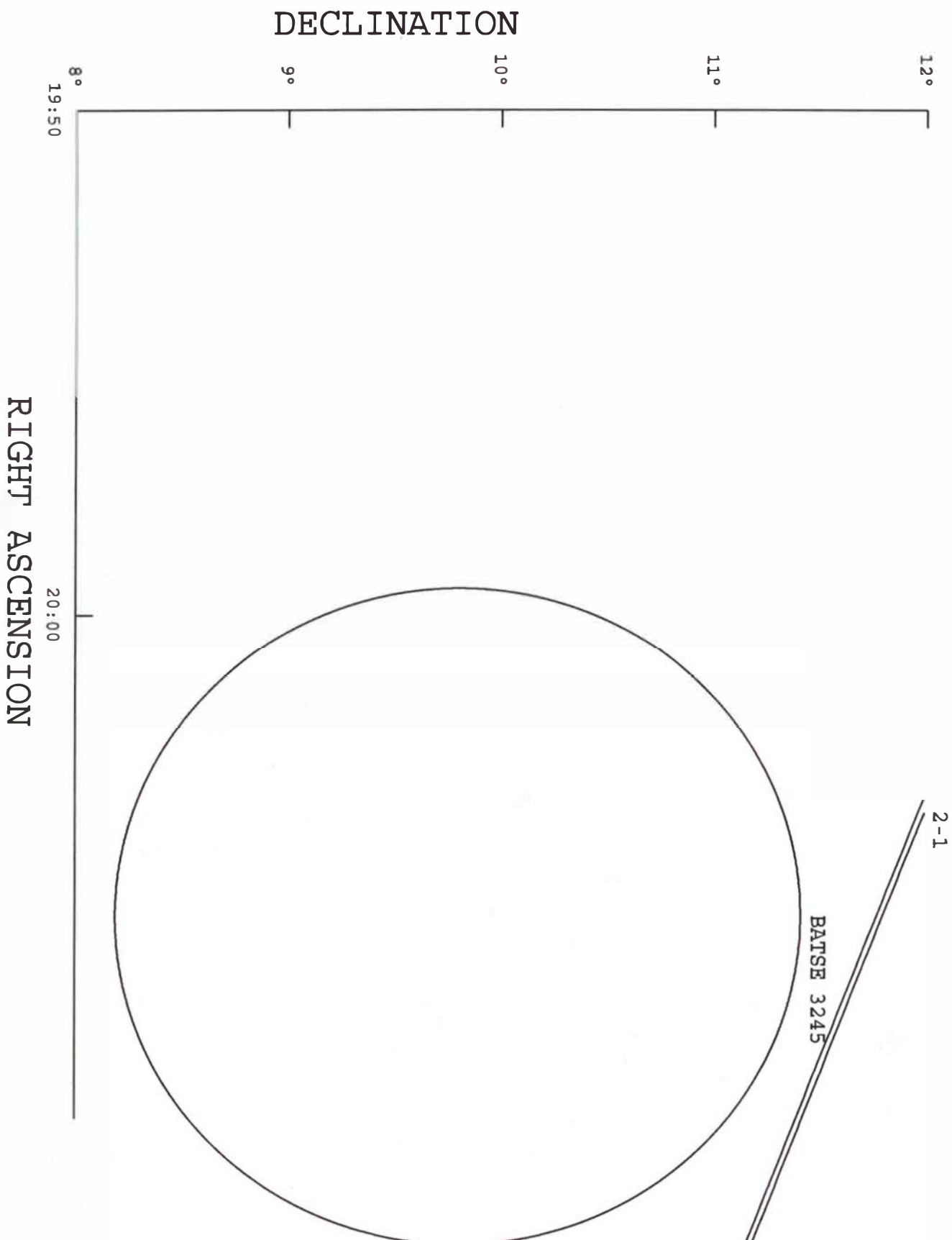
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF OCT 17, 1994 10:26

5 / 2/98



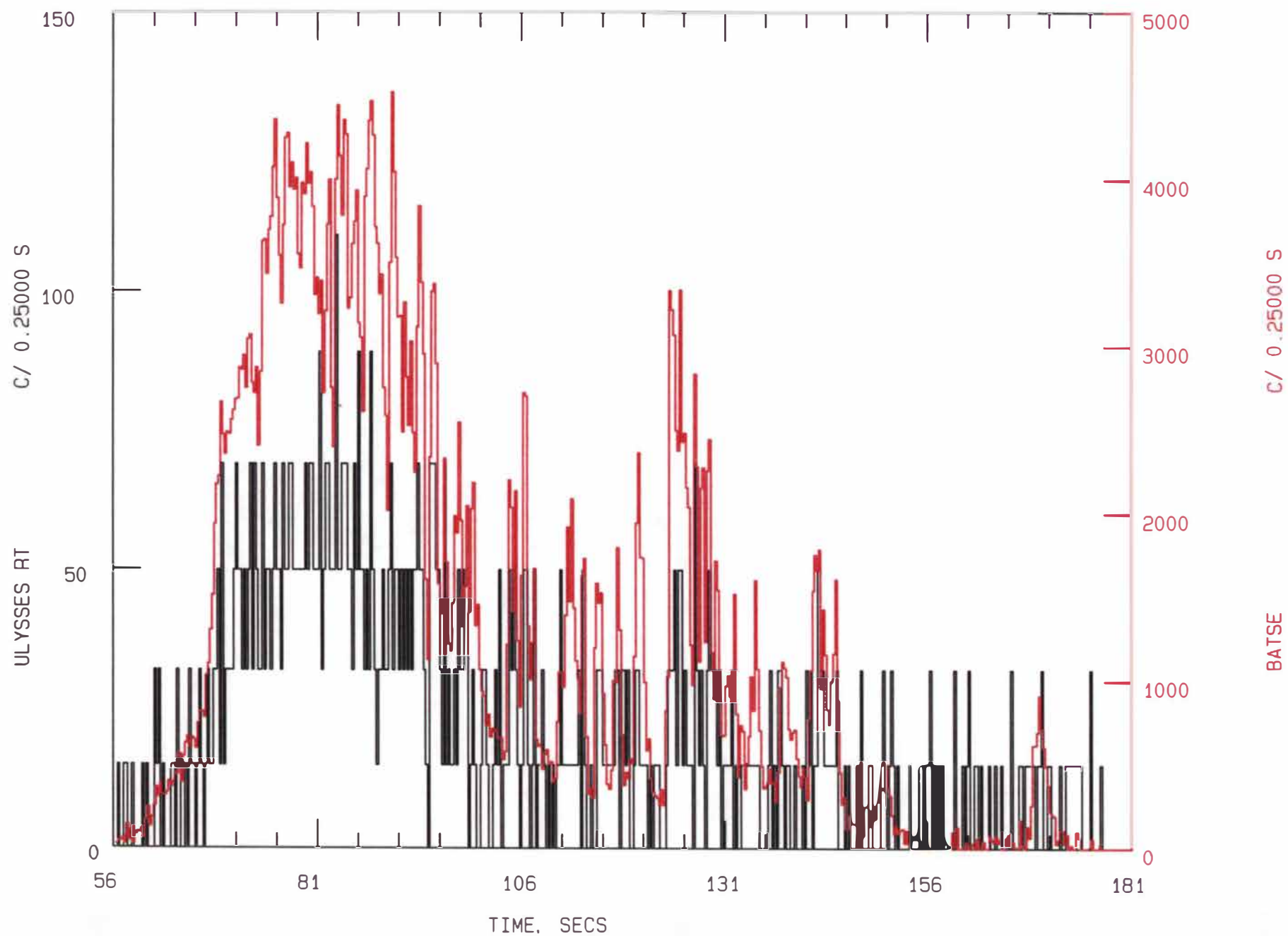
ULYSSES RT-BATSE

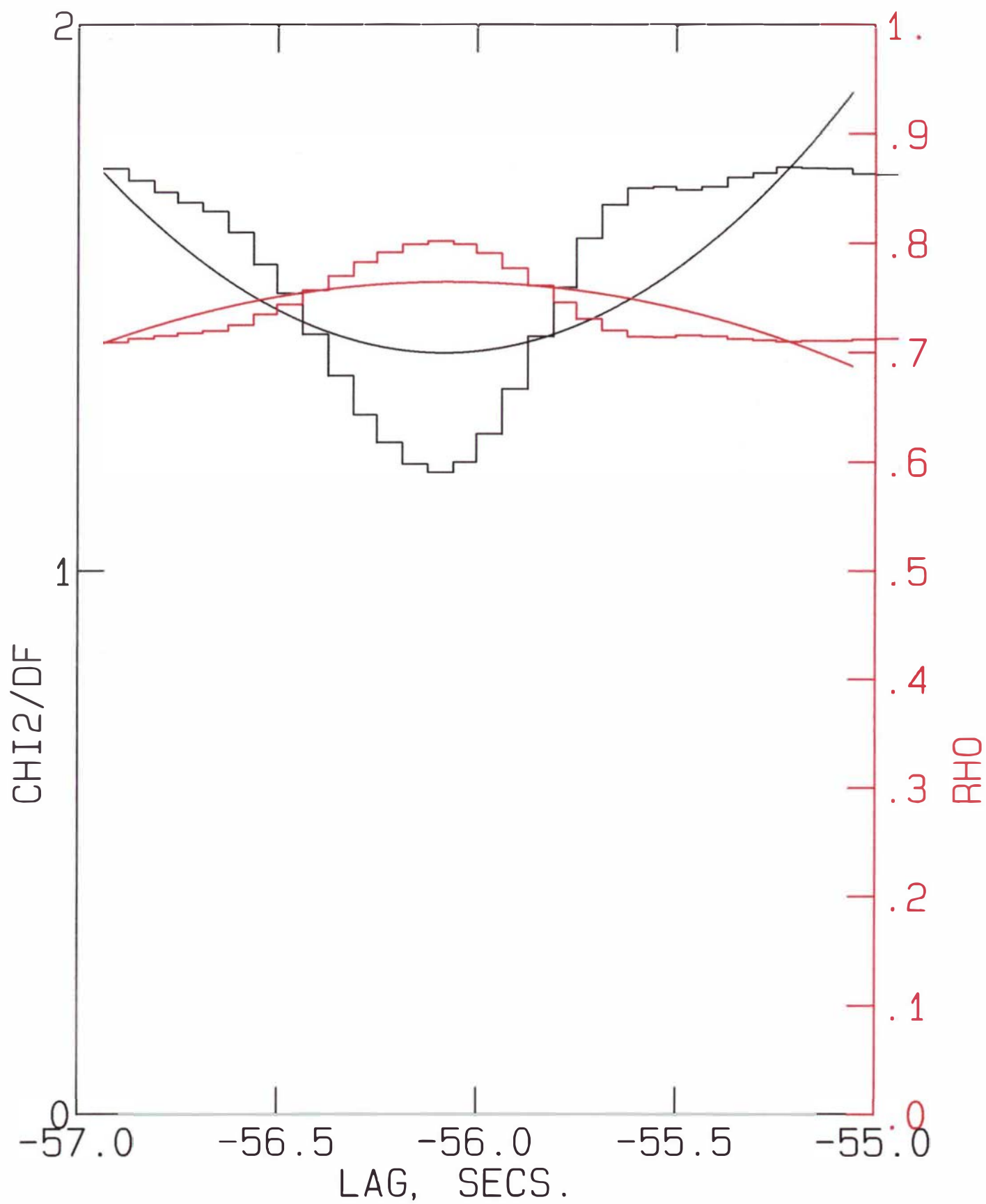
CORRELATION

17/10/94

37604.131

5/ 2/98





ULYSSES RT

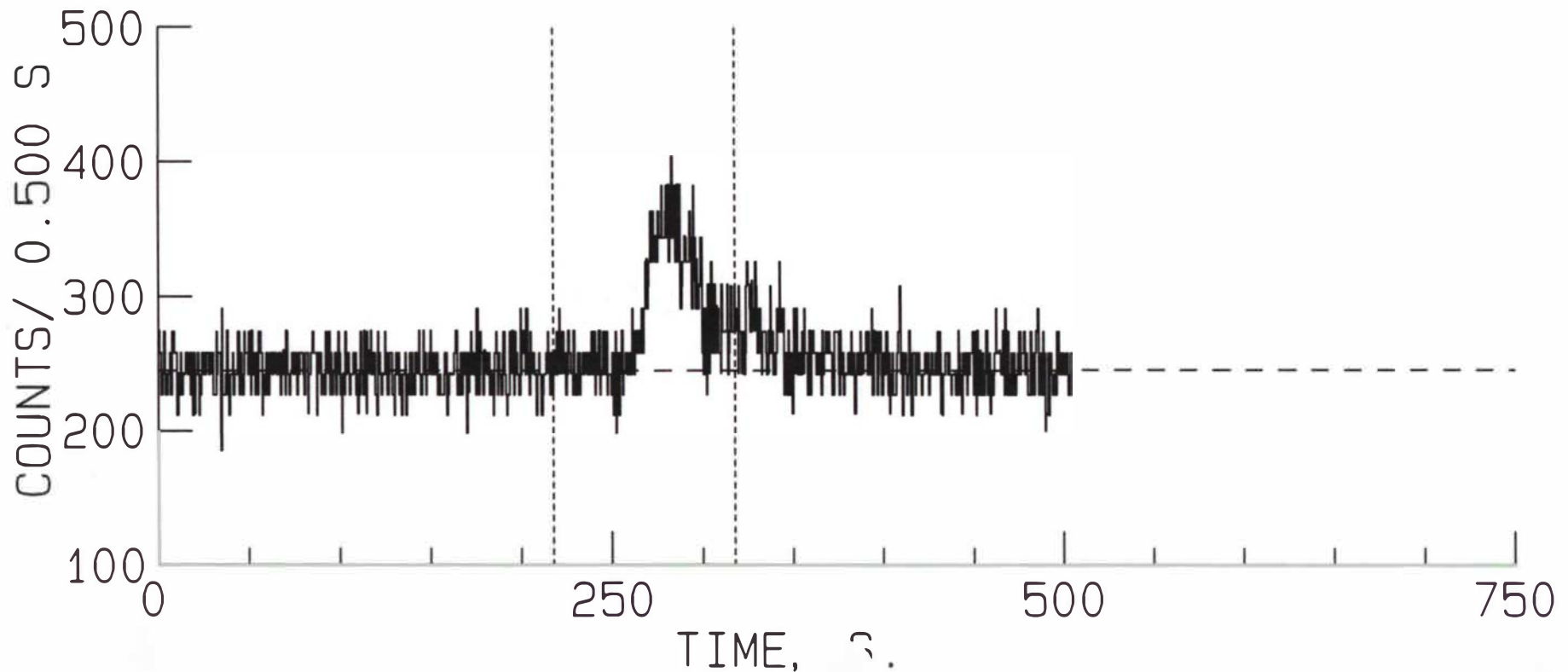
5 / 2 / 98

17/10/94 37404.174 s

0.250 S INTERVALS REGROUPED BY 2

22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



COMPTEL/BATSE/IPN Burst Localizations

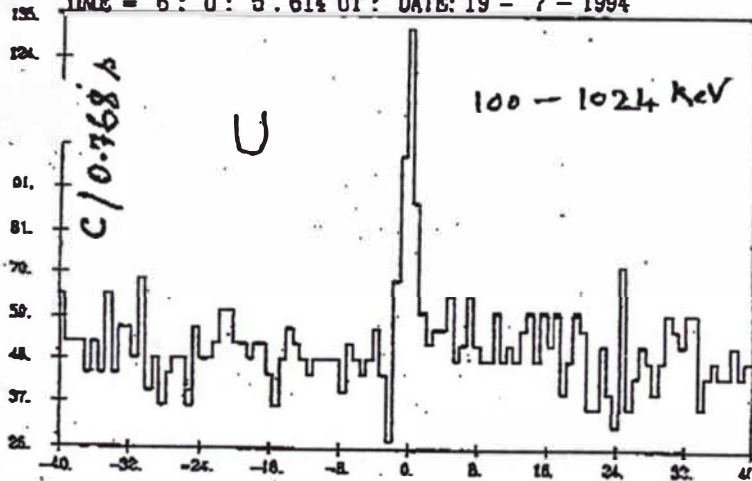
All Coordinates Epoch J2000.0

UB= Ulysses/BATSE UP = Ulysses/PVO BP= BATSE/PVO							BATSE Position					COMPTTEL Position				
Center							Radius									
Burst	Rf	Ra	Dec	Raduis	(-/+)	D (AU)	Ra	Dec	lg	Smin	Rf	Ra	Dec	lg	Smin	
GRB910425	UB	1	115.140	23.172	51.733	0.053	2.848	91.29	-22.77	1.02	0.27	3	90.20	-22.20	0.92	0.28
GRB910503	UB	1	117.730	22.657	30.352	0.010	3.042	87.45	38.74	0.87	0.03	3	87.00	38.60	0.44	0.30
GRB910601	UB	1	307.038	-20.538	52.936	0.011	3.708	310.12	32.34	0.17	0.02	3	309.90	32.70	0.46	0.37
GRB910627	UB	1	134.824	18.425	66.820	0.031	4.215	197.99	-2.48	0.28	1.28	3	199.40	-5.00	1.63	0.96
	UP	1	133.523	18.792	68.352	0.036	3.621	-	-	-	1.53	-	-	-	-	0.71
GRB910709	NA	NA	NA	NA	NA	NA	NA	172.77	81.67	2.31	NA	3	144.10	75.60	1.80	NA
GRB910814	UB	1	328.558	-13.966	45.699	0.018	4.918	346.35	30.43	0.48	1.89	3	343.80	29.50	0.39	0.19
	UP	1	328.287	-14.629	46.428	0.019	4.626	-	-	-	1.87	-	-	-	-	0.17
GRB911118	UB	1	166.979	6.889	30.110	0.017	4.972	167.03	-20.85	0.36	2.37	3	166.30	-22.50	1.11	0.71
	UP	1	162.619	8.562	32.018	0.019	4.248	-	-	-	2.29	-	-	-	-	0.75
	BP	1	190.131	-2.55	30.766	0.086	0.813	-	-	-	1.76	-	-	-	-	0.23
GRB920622	UB	1	150.167	6.66	41.335	0.009	5.800	162.1	47.17	0.31	0.43	3	162.50	49.20	0.81	2.44
GRB920627	UB	1	150.590	6.327	23.540	0.049	5.869	166.02	-2.58	0.65	5.74		166.80	-8.50	1.18	1.61
GRB920830	UB	1	338.192	0.949	86.268	0.018	?	258.53	-73.99	0.54	1.81	3	259.00	-74.50	1.35	1.78
GRB930118	NA	NA	NA	NA	NA	NA	NA	228.40	-34.30	?	NA	4	221.80	-34.80	1.47	NA
GRB930131	UB	1	161.411	-14.563	22.256	0.011	4.218	182.04	-8.24	2.16	1.09	3	186.20	-7.90	1.77	2.93
GRB930309	UB	1	332.600	14.645	36.601	0.035	3.998	325.41	51.73	0.72	0.93	3	322.70	55.20	0.74	4.67
GRB930612	UB	1	143.974	-11.184	63.928	0.053	4.870	103.07	-69.76	0.4	0.07	3	106.50	-71.00	1.60	0.17
GRB930704	UB	1	146.146	-11.823	82.959	0.113	5.089	100.9	60.8	0.59	2.01	3	99.30	62.80	1.08	0.07
	BM	1	159.825	8.635	68.701	2.319	1.981	-	-	-	1.04	-	-	-	-	0.45
GRB931229	NA	NA	NA	NA	NA	NA	NA	240.06	19.7	1.4	NA	3	241.90	21.00	2.35	NA
GRB940217	UB	1	328.736	51.947	69.334	0.050	3.038	29.07	4.55	0.69	0.84	3	30.10	3.10	0.32	0.94
GRB940301	UB	1	321.914	52.508	59.395	0.136	2.953	103.51	64.35	0.35	0.02	3	102.70	64.00	0.40	0.17
GRB940314	UB	1	314.850	51.972	64.530	0.220	?	354.86	-2.14	0.94	0.77	3	356.00	-1.40	1.43	0.92
GRB940520	UB	1	300.149	41.387	40.380	0.133	2.986	323.5	6.93	0.88	0.16	3	324.70	7.70	0.70	0.27
GRB940619	UB	1	303.998	39.140	69.375	0.211	3.039	299.05	-29.89	0.34	0.20	3	298.50	-31.50	1.15	1.44
GRB940708	UB	1	308.119	39.489	17.431	0.038	?	301.58	24.66	1.02	1.61	3	300.50	22.70	1.03	0.56
GRB940728	UB	1	133.614	-41.397	36.245	0.131	?	85.49	-39.87	1.44	0.17	3	85.10	-38.00	1.10	0.75
GRB940921	UB	2	155.516	-55.210	54.361	0.121	2.583	196.59	-18.71	?	6.49	4	207.10	-16.40	0.68	0.75
GRB941017	NA	NA	NA	NA	NA	NA	NA	302.63	11.10	?	NA	4	301.70	13.30	2.10	NA
GRB950208	UB	2	334.715	-27.012	83.397	0.022	2.301	337.06	54.19	?	2.17	4	344.80	56.00	1.95	0.05
GRB950421	UB	2	177.048	-19.097	81.048	0.226	2.171	71.92	-63.03	?	1.41	4	70.10	-61.70	1.43	0.11
GRB950425	UB	2	178.121	-21.566	17.005	0.207	2.154	163.16	-35.21	?	1.90	4	164.90	-33.80	0.34	0.11
GRB950522	UB	2	7.656	42.578	86.989	0.063	2.039	109.57	19.31	?	1.60	4	110.81	20.34	1.14	1.47
1 Hurley, K. et al Huntsville workshop (1995)							Smin = minimum distance between point and IPN annulus									
2 BACODINE/IPN burst alert messages (Hurley)																
3 BATSE 3B Catalog																
4 Meegan, C. Priv. Comm. (Trigger Messages)																

SCROSS-C2 GRB CANDIDATES

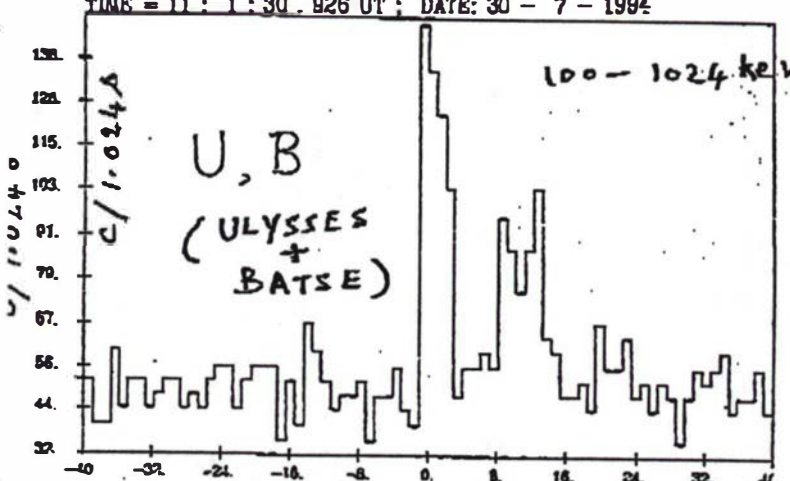
t-40s - t+ 65s 768 ms ch2. norb= 11284 ra=196.7 dec=-40.4

TIME = 6: 0: 5.614 UT; DATE: 19 - 7 - 1994



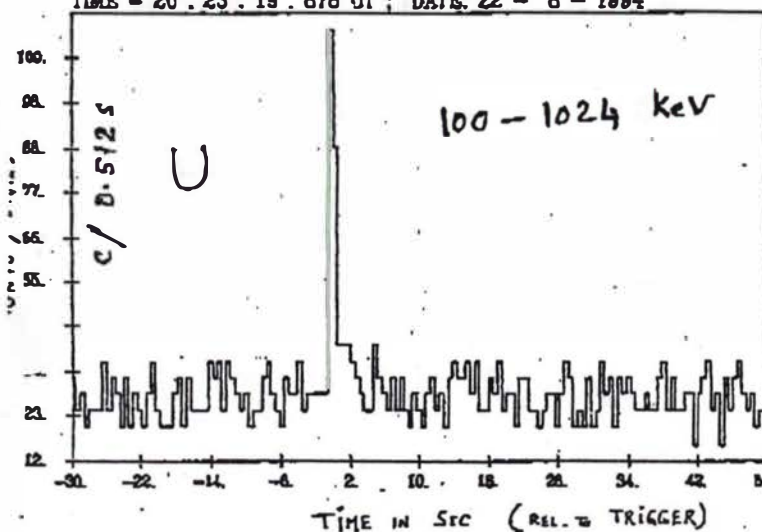
t-40s - t+ 65s 1024 ms ch2. norb= 12966 ra=154.8 dec=-45.8

TIME = 11: 1: 30.926 UT; DATE: 30 - 7 - 1994



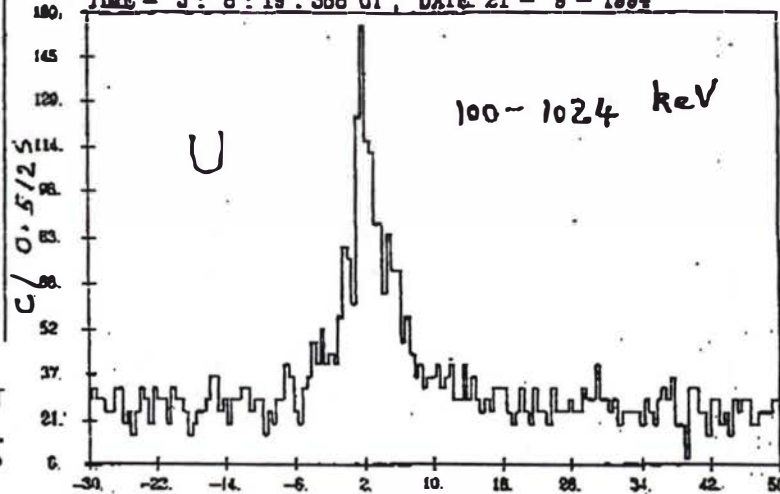
t-30s - t+ 50s 512 ms ch2. norb= 18502 ra=95.1 dec=-42.1

TIME = 20: 29: 19.878 UT; DATE: 22 - 8 - 1994



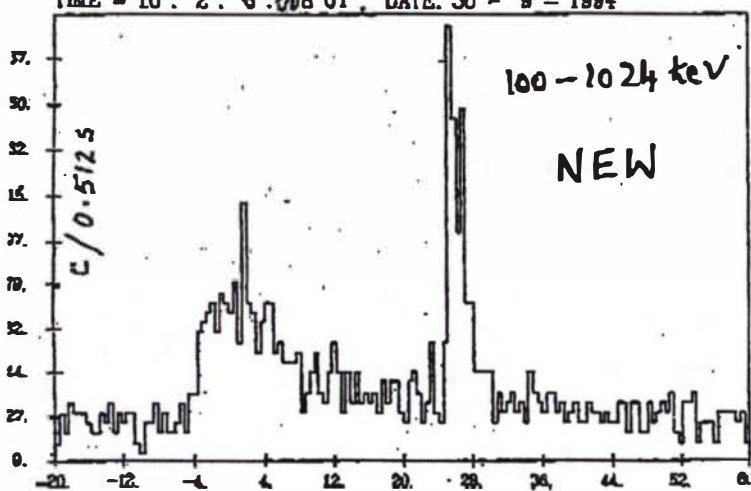
t-30s - t+ 50s 512 ms ch2. norb= 20951 ra=238.5 dec=-47.8

TIME = 5: 8: 19.388 UT; DATE: 21 - 9 - 1994



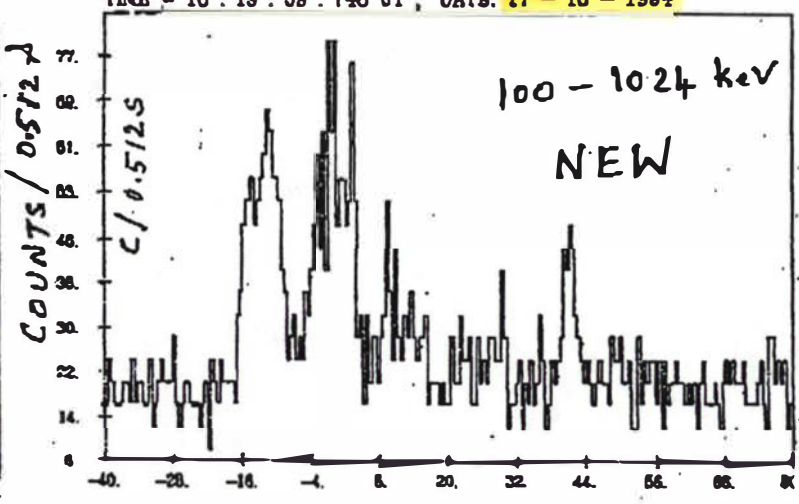
t-20s - t+ 60s 512 ms ch2. norb= 22341 ra=182.5 dec=-45.9

TIME = 10: 2: 6.008 UT; DATE: 30 - 9 - 1994



t-40s - t+ 60s 512 ms ch2. norb= 24922 ra=98.5 dec=-41.8

TIME = 10: 19: 59.748 UT; DATE: 17 - 10 - 1994



TIME IN SEC.

PAGE 2 OF
2

U = CONFIRMED BY ULYSSES

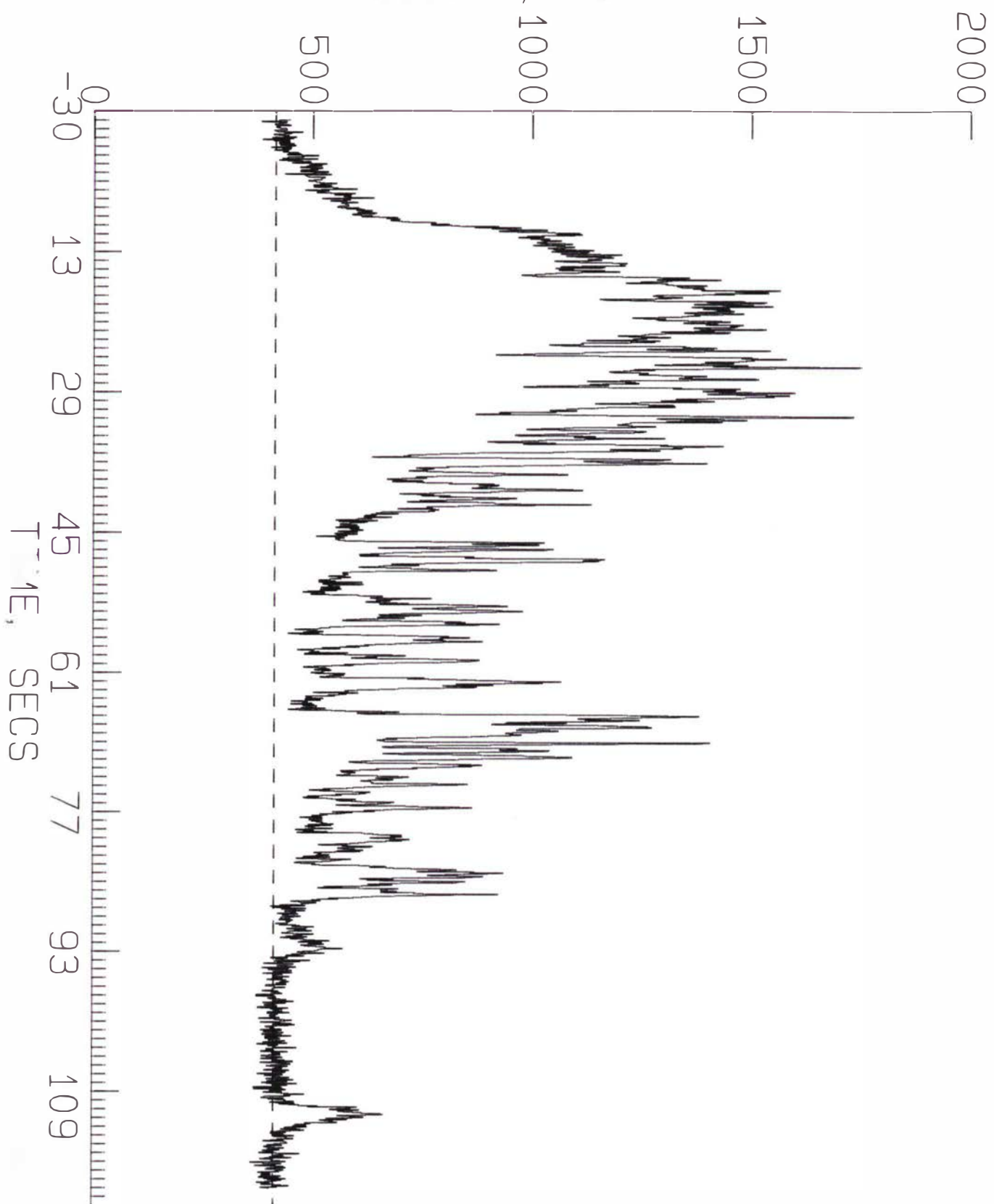
BATSE

17/10/94

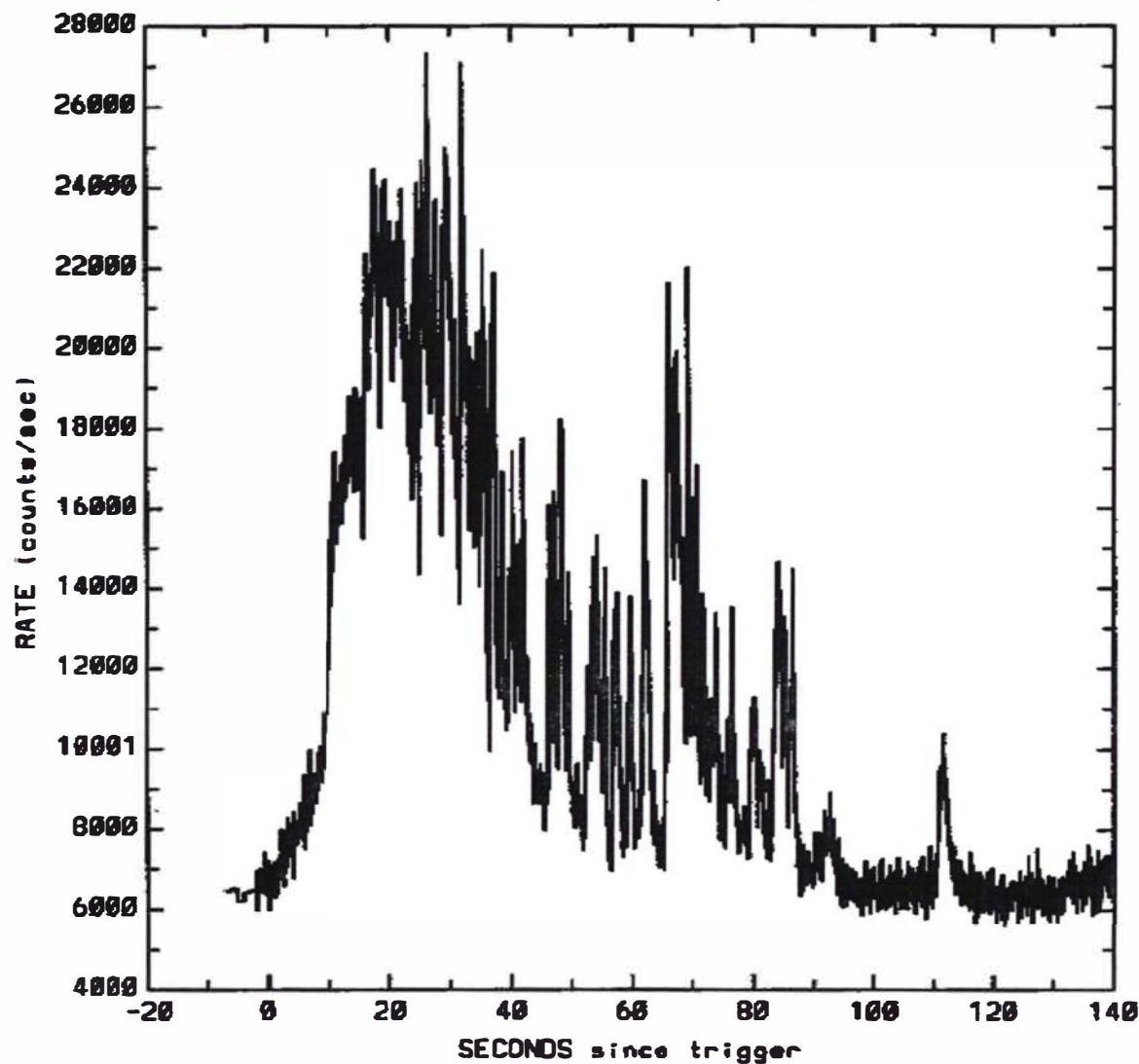
37173.938

25- 100 keV

COUNTS/ .064 S



DISCSC Data for K. Hurley, No. 3245



15-FEB-1995 09:56.17

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

Trigger # : 3245

Trigger Time:
9642 / 37173.938Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..8].
---4---8Discriminators:
(1, 2)Quality Mask:
BD[SP]

From KOSHUT@fender.msfc.nasa.gov Tue Oct 18 13:51 PDT 1994
Date: Tue, 18 Oct 1994 15:54:46 -0500 (CDT)
From: KOSHUT@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3246

BATSEARCH PROGRAM

BATSE BURST # 3246
EVENT OF 1994 OCT 17 DAY OF YEAR=290
EVENT CROSSING TIME AT BATSE : 59056. S. OR 16:24:16.0 NO
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 207.000 0.000
BATSE PEAK COUNTING RATE: 4500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 17/10/ 94 IS:
RA= 175.964 DEC= -66.172 DIST= 2.364 AU
BATSE-ULYSSES DISTANCE = 353608366. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=110.25 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -408.29 SECS.
CROSSING TIME AT ULYSSES IS 58648. S. OR 16:17:27 +/- 235.92 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 17/10/ 94 IS:
RA= 129.500 DEC= 19.788 DIST= 1.461 AU
MARS-BATSE DISTANCE = 218570304. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=101.75 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -148.49 SECS.
CROSSING TIME AT MARS IS 58908. S. OR 16:21:47 +/- 121.67 SECONDS

BATSE BURST TRIGGER

NO.: 03246

TIME: TJD=9642 SECONDS=59056

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=108. AZIMUTH=16. ERROR= DEGREES

COMMENTS:

BURST OF ~ 30 SECONDS DURATION, WITH SOME SUBSTRUCTURE. PEAK RATE
(~4500 C/S) IS OBSERVED AT ~ TRIGGER + 8 SECONDS. NO EMISSION OBSERVED
ABOVE 300 KEV.

From KOSHUT@fender.msfc.nasa.gov Tue Oct 18 13:50 PDT 1994
Date: Tue, 18 Oct 1994 15:54:11 -0500 (CDT)
From: KOSHUT@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: KOSHUT@fender.msfc.nasa.gov
Subject: BATSE Burst 3246

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3246	941017	9642	59056	4500	207	0

3 / 2 / 95

ULYSSES RT

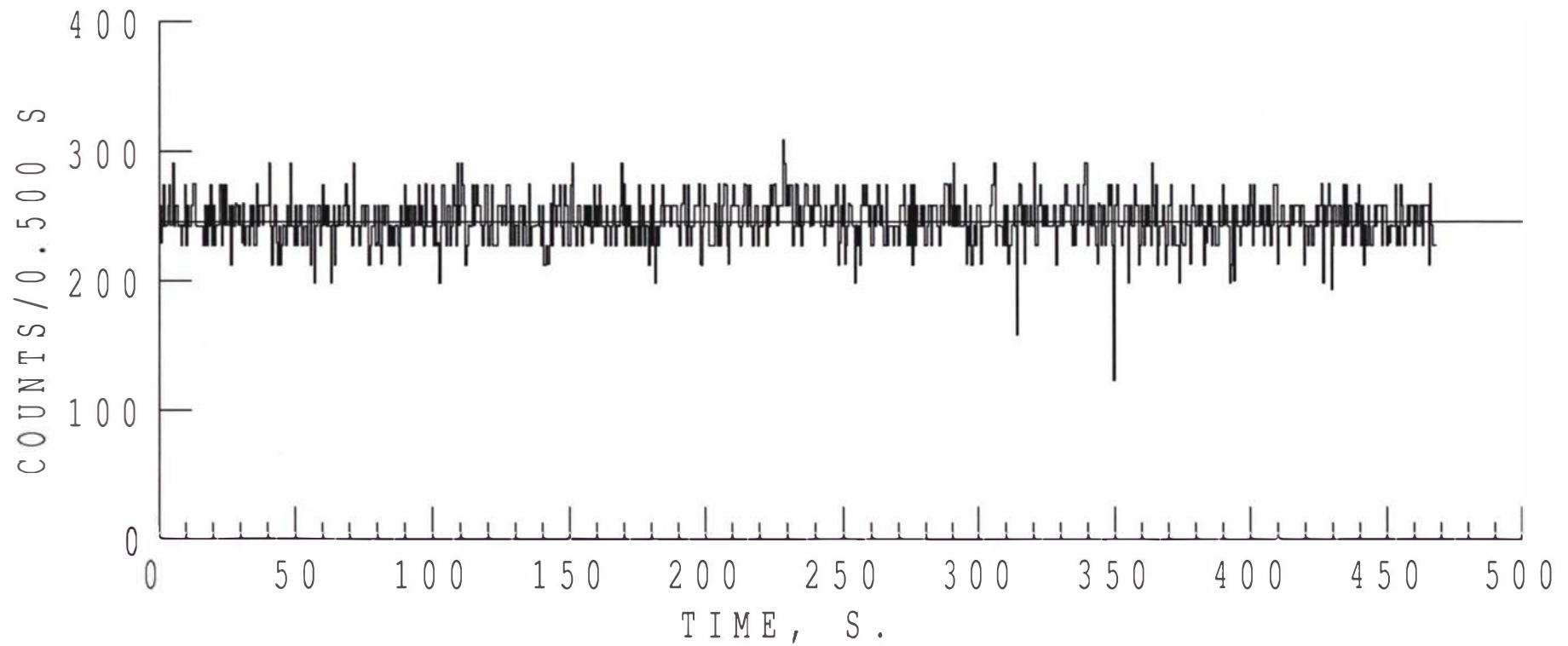
17/10/94 58428.047 s

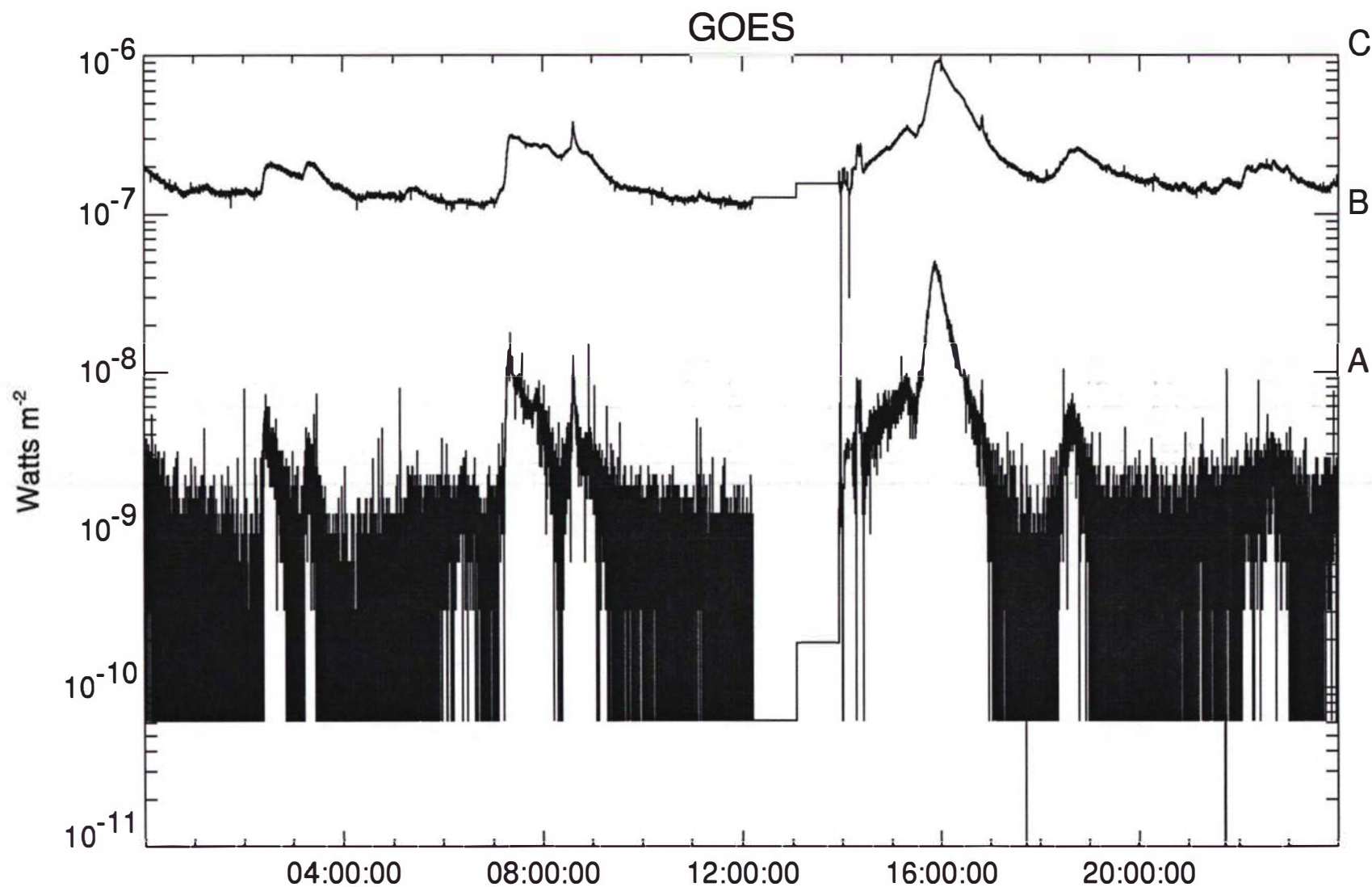
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



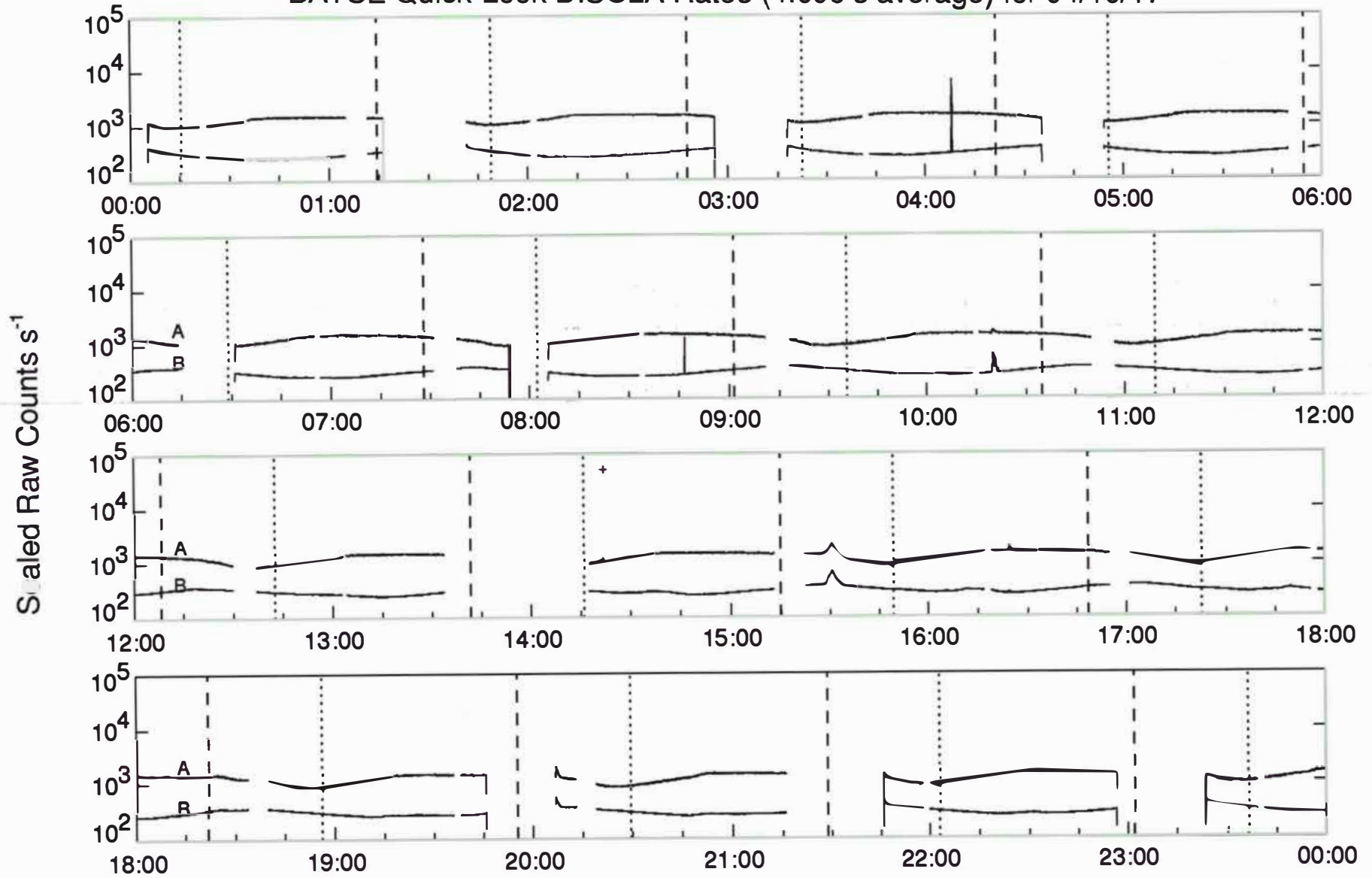


Data Start: 94/10/17, 0000:00

Plot created: 94/10/24, 1713

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

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/17

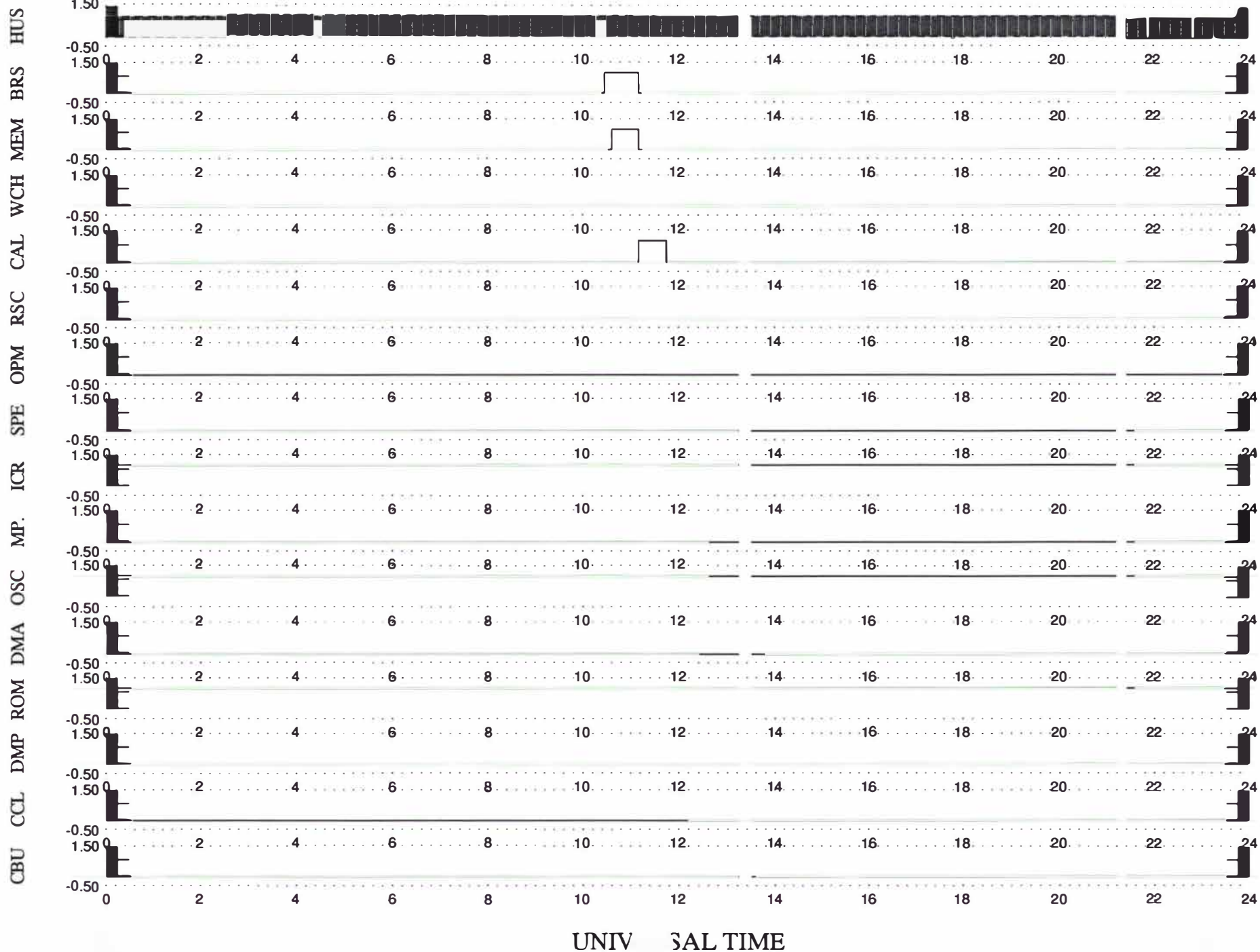


Current Time: 94/10/24, 1647 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

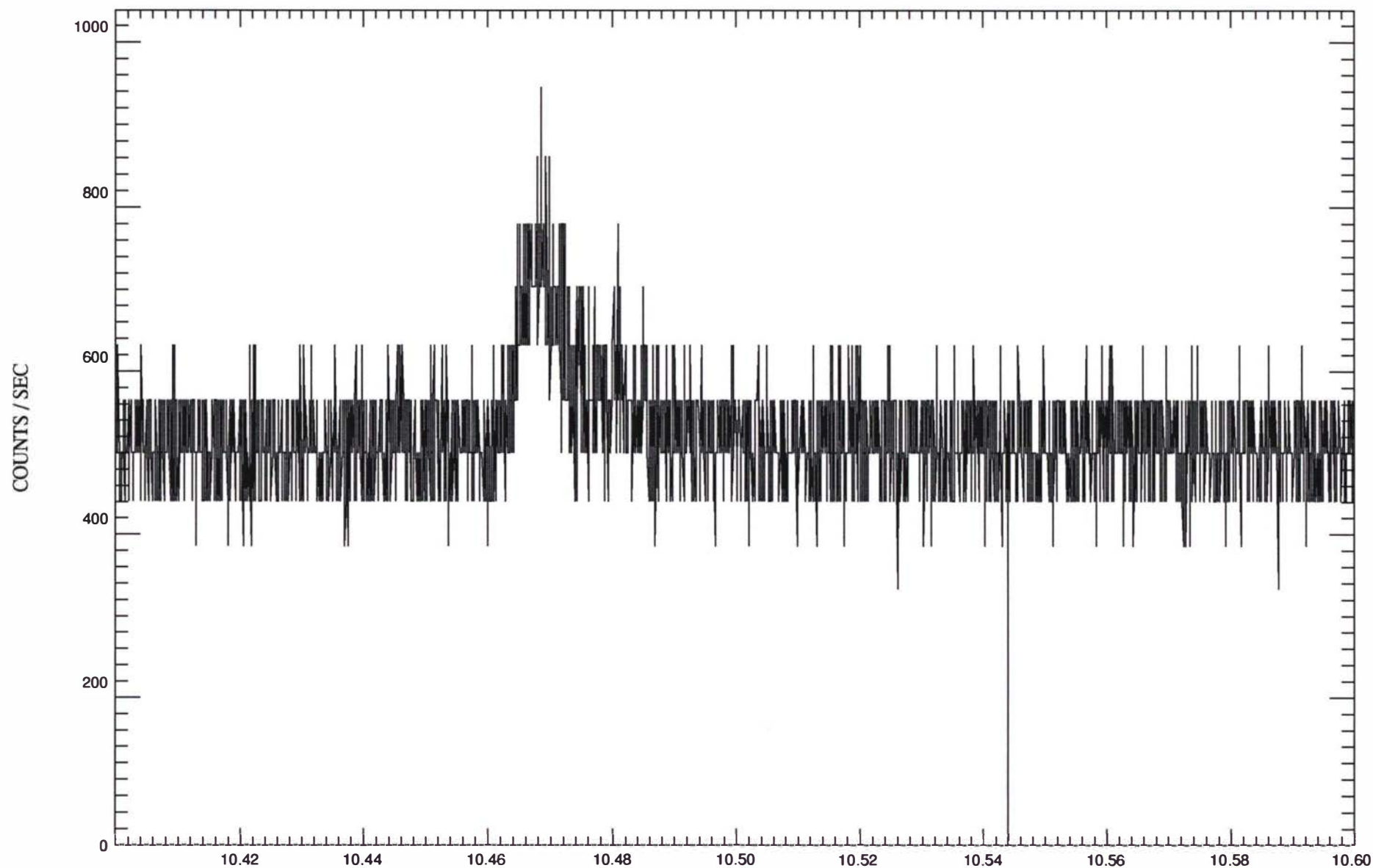
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 2



CALIBRATION DATA INCLUDED



Burst Count 94290 10:28:07.534 s 10:28:07.534

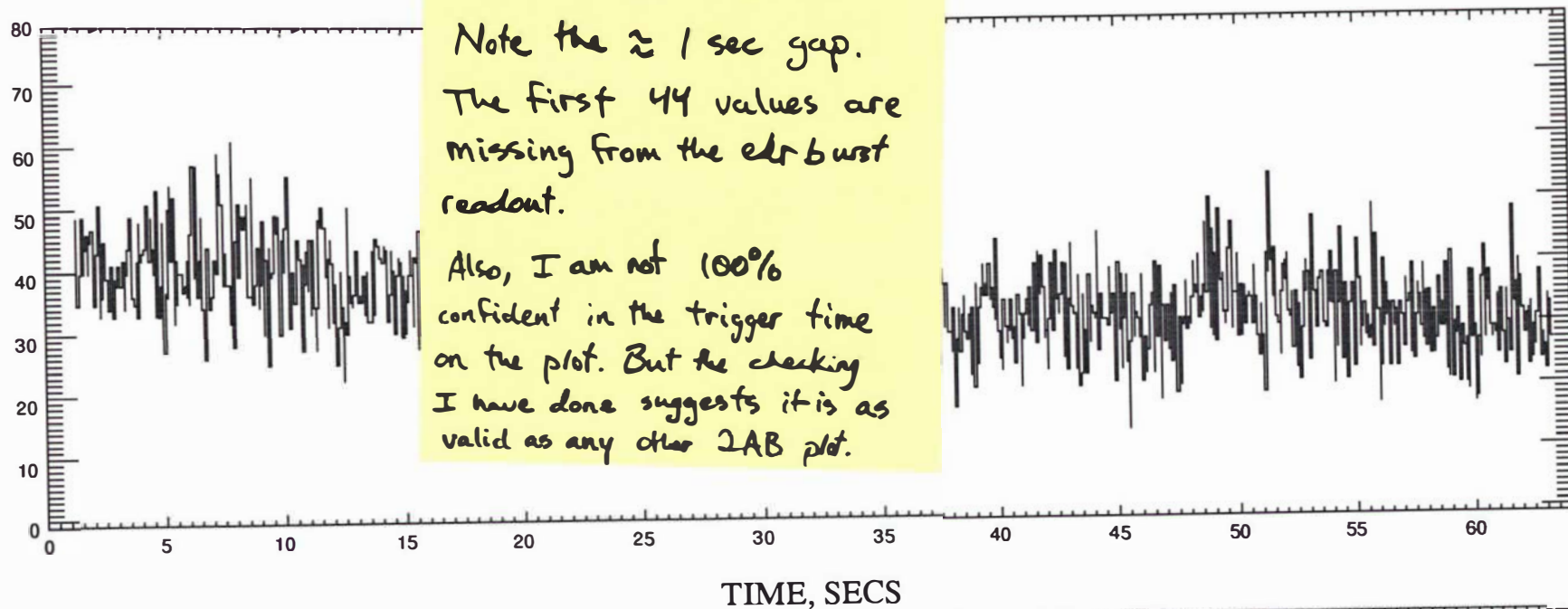
Success for 94290!

Note the ≈ 1 sec gap.

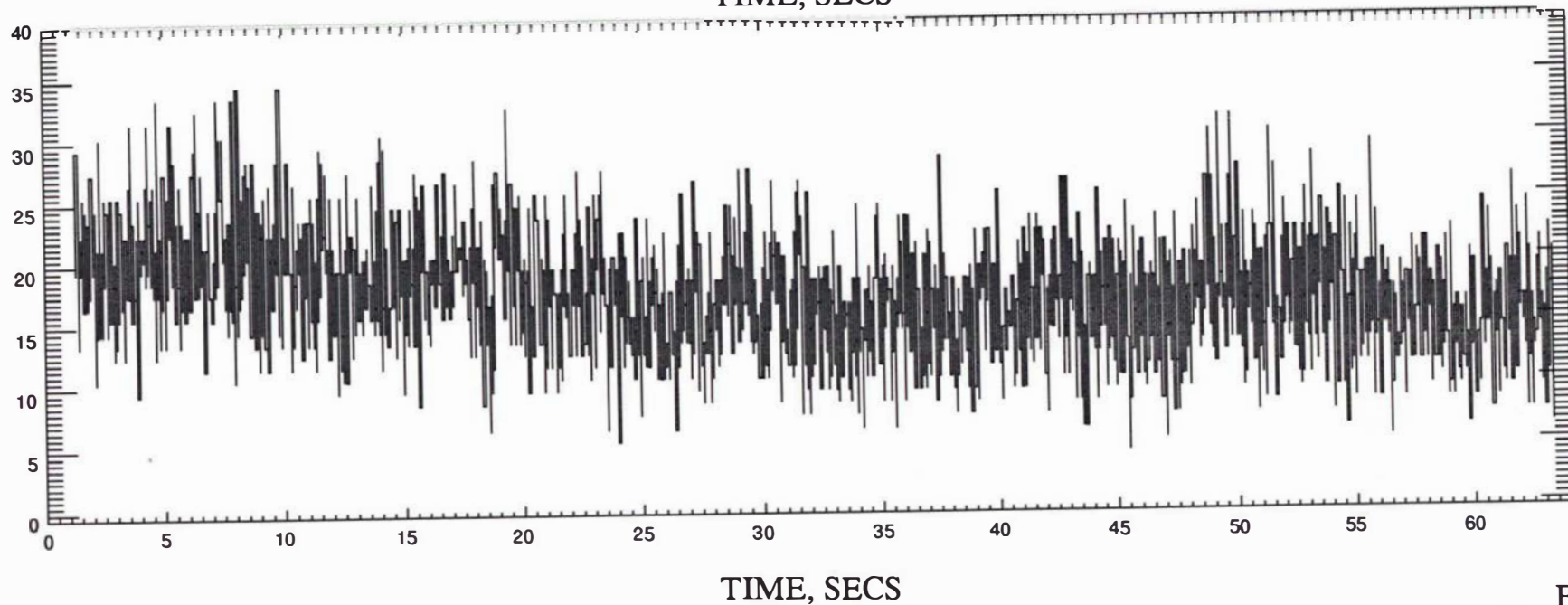
The first 44 values are missing from the edr burst readout.

Also, I am not 100% confident in the trigger time on the plot. But the checking I have done suggests it is as valid as any other LAB plot.

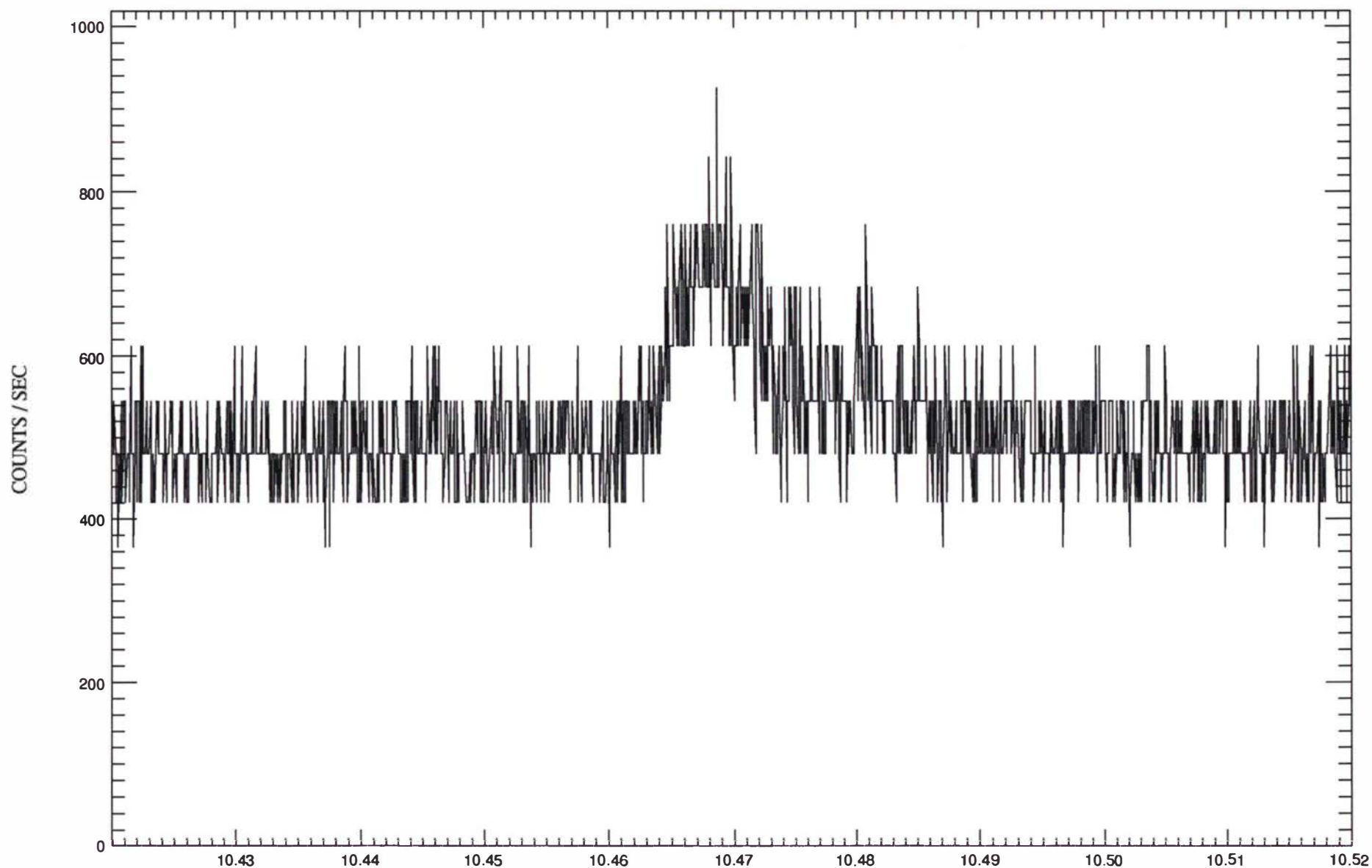
COUNTS / 64 MS



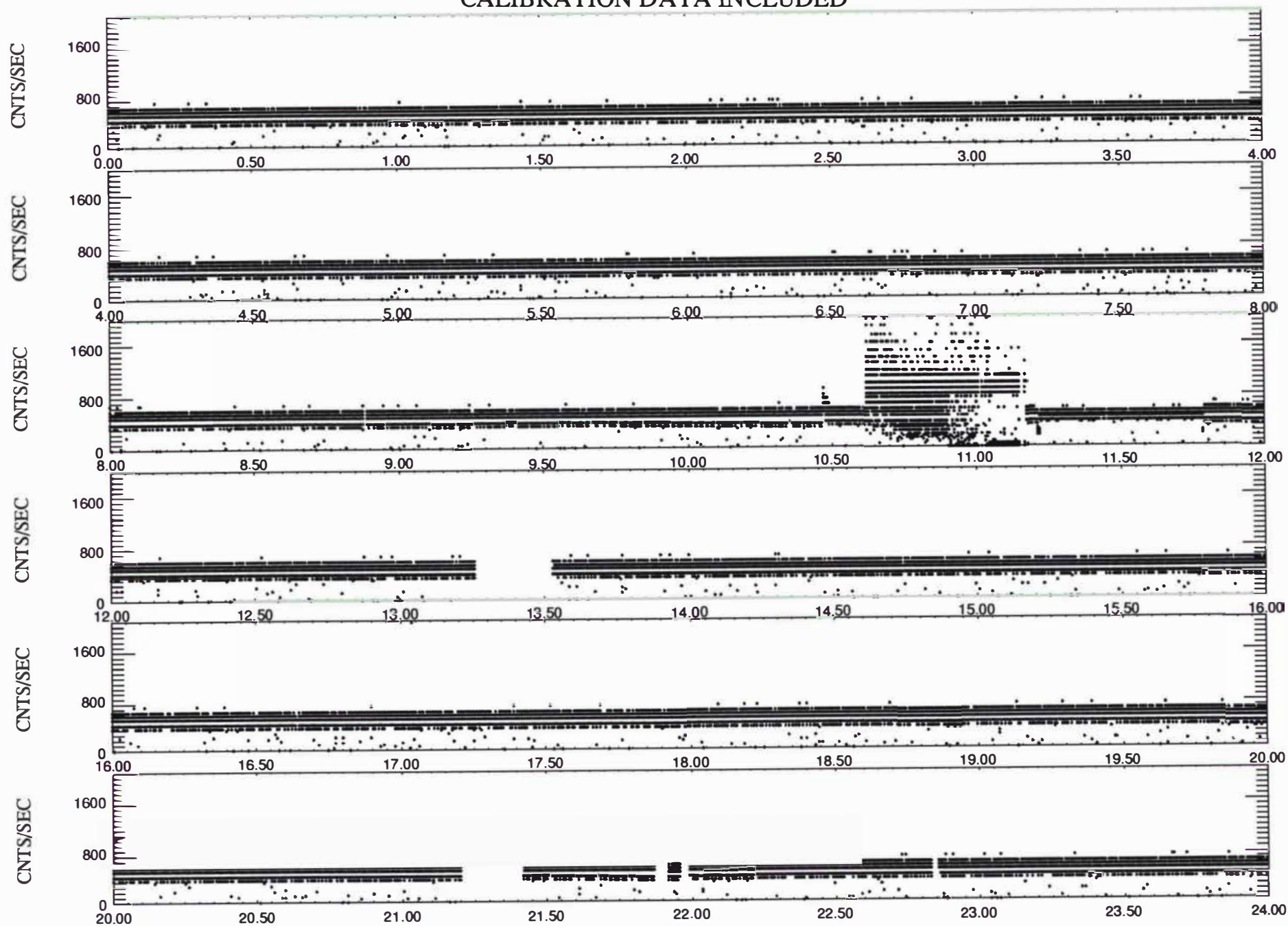
COUNTS / 32 MS



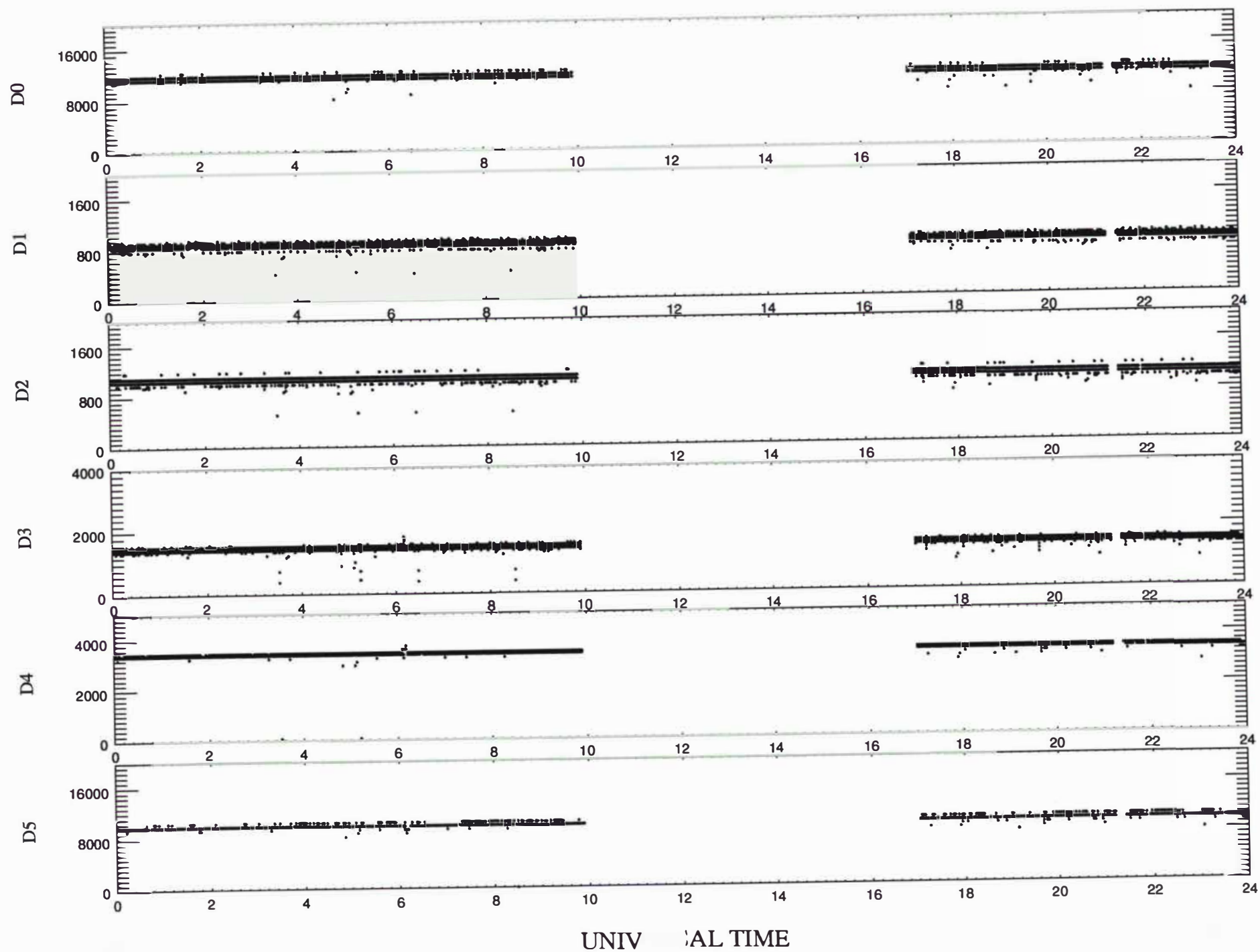
CALIBRATION DATA INCLUDED



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 06:55 PDT 1994
Date: Thu, 20 Oct 1994 8:58:47 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3247

BATSEARCH PROGRAM

BATSE BURST # 3247
EVENT OF 1994 OCT 18 DAY OF YEAR=291
EVENT CROSSING TIME AT BATSE : 21730. S. OR 06:02:10.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 59.000 -14.000
BATSE PEAK COUNTING RATE: 5000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/10/ 94 IS:
RA= 176.618 DEC= -66.427 DIST= 2.359 AU
BATSE-ULYSSES DISTANCE = 352963071. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 92.40 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -49.27 SECS.
CROSSING TIME AT ULYSSES IS 21681. S. OR 06:01:20 +/- 253.48 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/10/ 94 IS:
RA= 130.051 DEC= 19.673 DIST= 1.453 AU
MARS-BATSE DISTANCE = 217439120. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=102.43 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -156.11 SECS.
CROSSING TIME AT MARS IS 21574. S. OR 05:59:33 +/- 120.60 SECONDS

BATSE BURST TRIGGER

NO.: 3247

TIME: TJD=9643 SECONDS=21730

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=96 AZIMUTH=221 ERROR= DEGREES

COMMENTS:

BURST. COMPLEX EVENT. WEAK EMISSION BEGINS AT ~T-100, WEAK EPISODE
FROM ~T-30 TO T+5, MAIN EPISODE FROM ~T+90 TO T+215 AND WEAK PULSE AT
~T+350. TOTAL DUR.~450 SEC. MAIN EPISODE VISIBLE ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 06:55 PDT 1994
Date: Thu, 20 Oct 1994 8:58:24 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3247

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3247	941018	9643	21730	5000	059	-14

20 / 10 / 94

ULYSSES RT

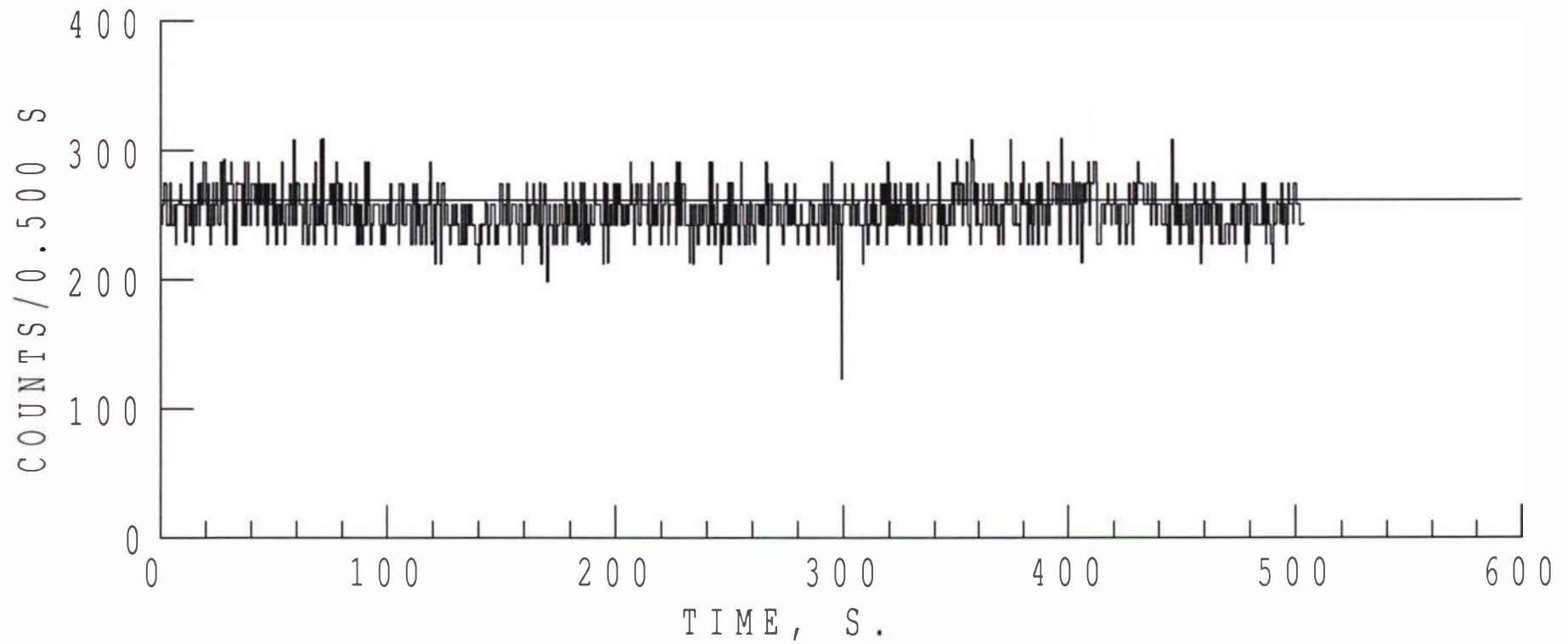
18 / 10 / 94 21420.176 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 06:58 PDT 1994
Date: Thu, 20 Oct 1994 9:01:17 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3248

BATSEARCH PROGRAM

NO

BATSE BURST # 3248
EVENT OF 1994 OCT 18 DAY OF YEAR=291
EVENT CROSSING TIME AT BATSE : 31003. S. OR 08:36:43.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 329.000 -3.000
BATSE PEAK COUNTING RATE: 4400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/10/ 94 IS:
RA= 176.742 DEC= -66.475 DIST= 2.359 AU
BATSE-ULYSSES DISTANCE = 352843050. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 72.25 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 358.75 SECS.
CROSSING TIME AT ULYSSES IS 31362. S. OR 08:42:41 +/- 250.06 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/10/ 94 IS:
RA= 130.051 DEC= 19.673 DIST= 1.453 AU
MARS-BATSE DISTANCE = 217439120. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 24.91 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 657.85 SECS.
CROSSING TIME AT MARS IS 31661. S. OR 08:47:40 +/- 63.02 SECONDS

BATSE BURST TRIGGER

NO.: 3248

TIME: TJD=9643 SECONDS=31003

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=71 AZIMUTH=134 ERROR= DEGREES

COMMENTS:

BURST. TWO SHORT PULSES, THE SECOND WITH SUBSTRUCTURE. TOTAL DUR.~4 SEC.
SECOND PULSE VISIBLE ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 06:57 PDT 1994
Date: Thu, 20 Oct 1994 9:00:56 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3248

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3248	941018	9643	31003	4400	329	-03

20 / 10 / 94

ULYSSES RT

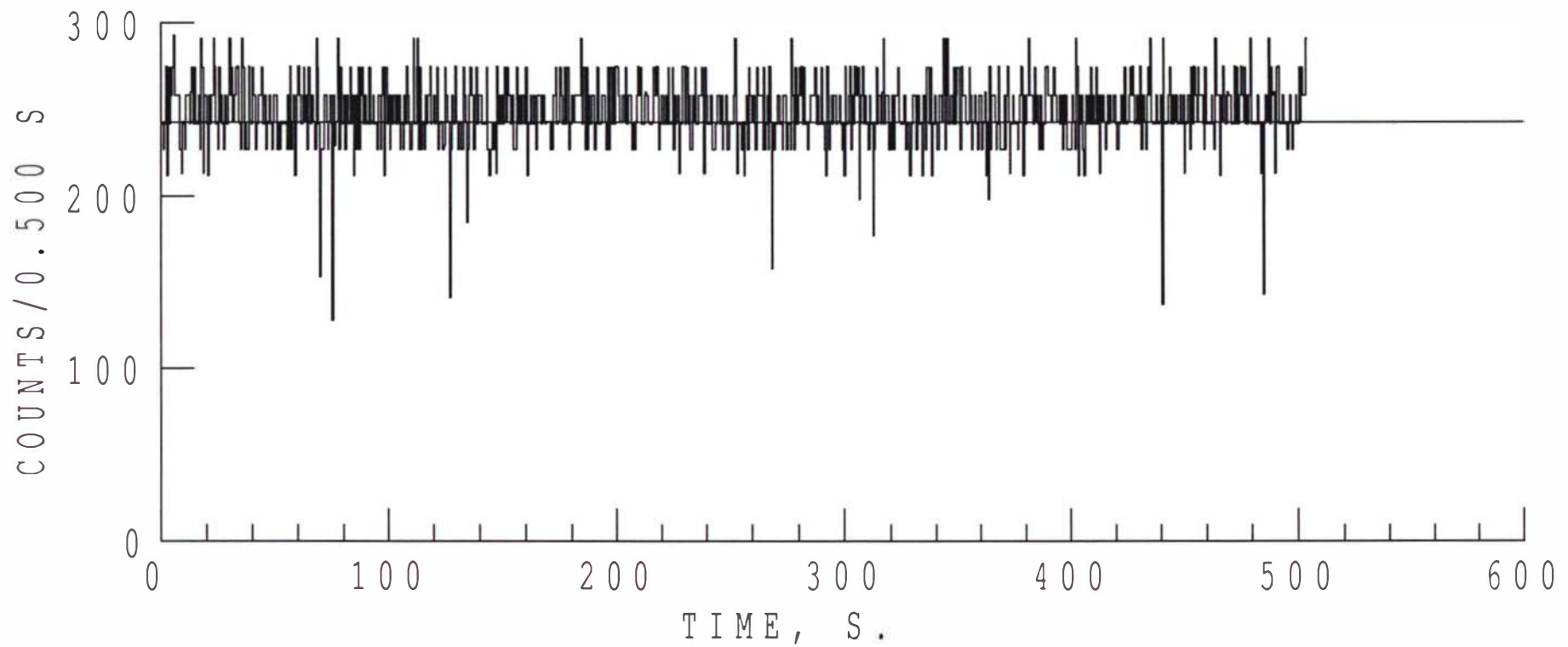
18 / 10 / 94 31104.102 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 07:08 PDT 1994
Date: Thu, 20 Oct 1994 9:12:16 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3249

BATSEARCH PROGRAM

NO

BATSE BURST # 3249
EVENT OF 1994 OCT 18 DAY OF YEAR=291
EVENT CROSSING TIME AT BATSE : 42757. S. OR 11:52:37.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 56.000 -4.000
BATSE PEAK COUNTING RATE: 2500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/10/ 94 IS:
RA= 176.902 DEC= -66.536 DIST= 2.358 AU
BATSE-ULYSSES DISTANCE = 352688325. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 81.95 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 164.71 SECS.
CROSSING TIME AT ULYSSES IS 42922. S. OR 11:55:21 +/- 254.74 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/10/ 94 IS:
RA= 130.051 DEC= 19.673 DIST= 1.453 AU
MARS-BATSE DISTANCE = 217439120. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=103.57 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -170.17 SECS.
CROSSING TIME AT MARS IS 42587. S. OR 11:49:46 +/- 119.82 SECONDS

BATSE BURST TRIGGER

NO.: 3249

TIME: TJD=9643 SECONDS=42757

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=86 AZIMUTH=222 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE WITH SUBSTRUCTURE. DUR.~8 SEC. MARGINAL
ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 07:07 PDT 1994
Date: Thu, 20 Oct 1994 9:10:57 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3249

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3249	941018	9643	42757	2500	056	-04

20 / 10 / 94

ULYSSES RT

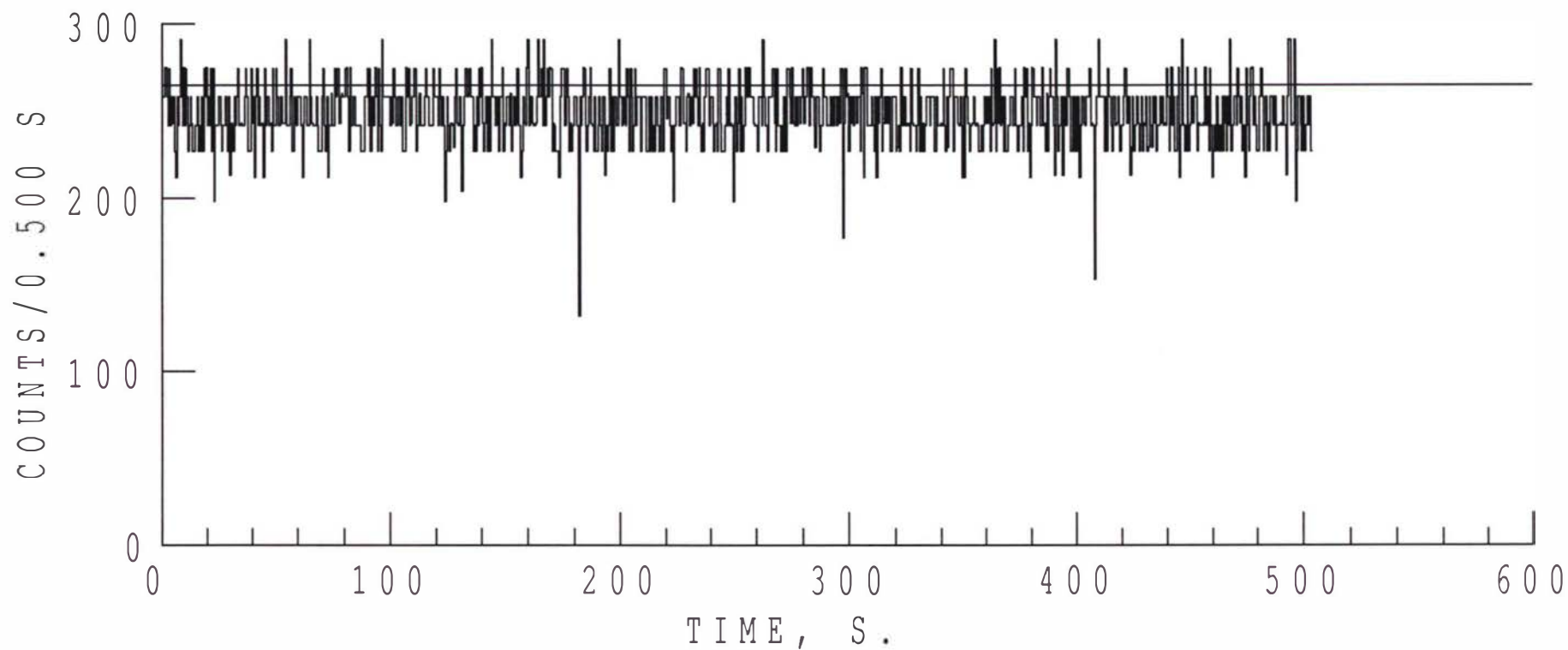
18 / 10 / 94 42660.055 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 12:45 PDT 1994
Date: Thu, 20 Oct 1994 14:49:05 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3250

BATSEARCH PROGRAM

100

BATSE BURST # 3250
EVENT OF 1994 OCT 18 DAY OF YEAR=291
EVENT CROSSING TIME AT BATSE : 47291. S. OR 13:08:11.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 59.000 -85.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/10/ 94 IS:
RA= 176.964 DEC= -66.559 DIST= 2.357 AU
BATSE-ULYSSES DISTANCE = 352628296. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=153.86 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1055.94 SECS.
CROSSING TIME AT ULYSSES IS 46235. S. OR 12:50:35 +/- 123.93 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/10/ 94 IS:
RA= 130.051 DEC= 19.673 DIST= 1.453 AU
MARS-BATSE DISTANCE = 217439120. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 72.02 DEG.
BATSE BURST TRIGGER

NO.: 3250

TIME: TJD=9643 SECONDS=47291

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=155 AZIMUTH=166 ERROR= DEGREES

COMMENTS:
BURST. ALMOST NO DATA (DURING REORIENTATION GAP).
UNKNOWN STRUCTURE, DURATION AND HARDNESS.

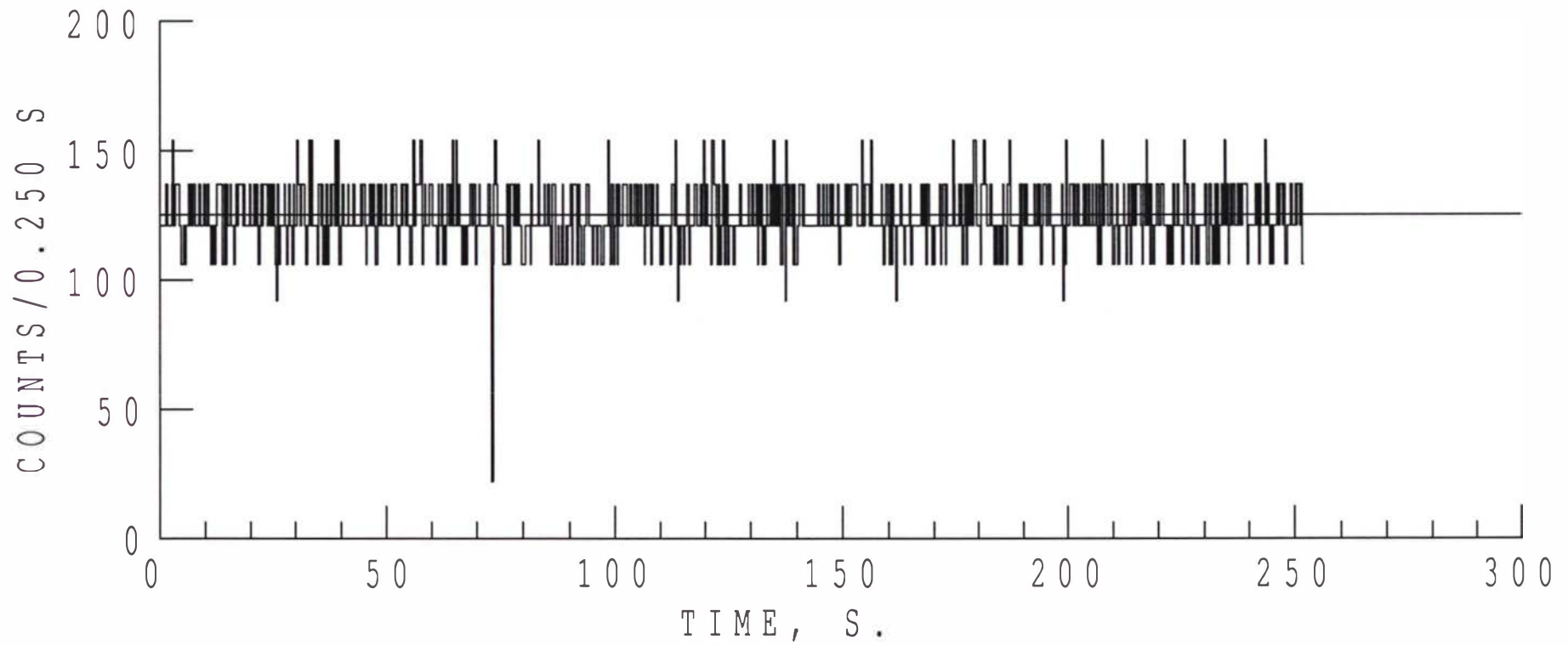
From HAGEDON@fender.msfc.nasa.gov Thu Oct 20 12:45 PDT 1994
Date: Thu, 20 Oct 1994 14:48:40 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3250

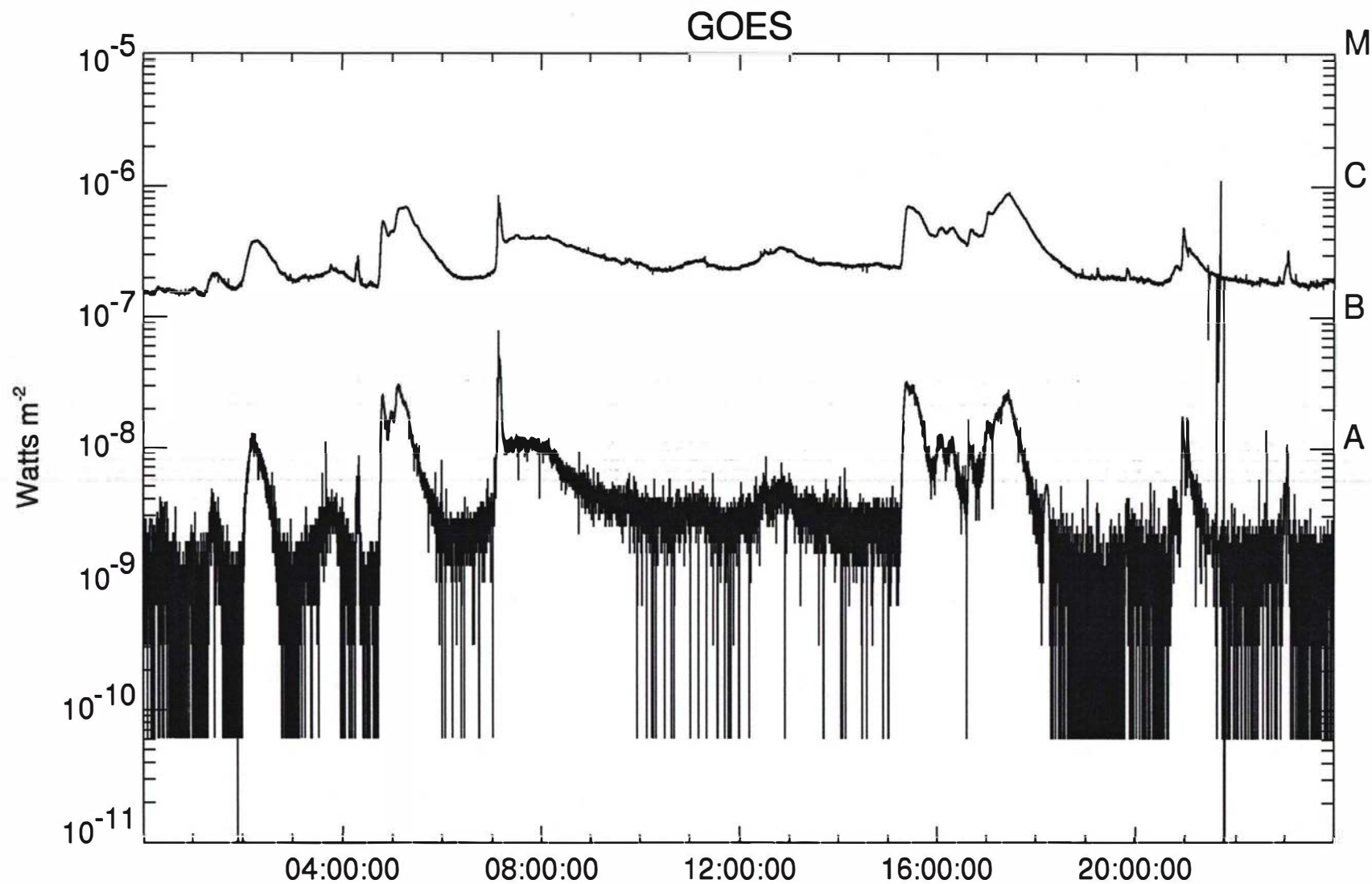
BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3250	941018	9643	47291	3000	059	-85

20 / 10 / 94

ULYSSES RT
18 / 10 / 94 46116.117 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





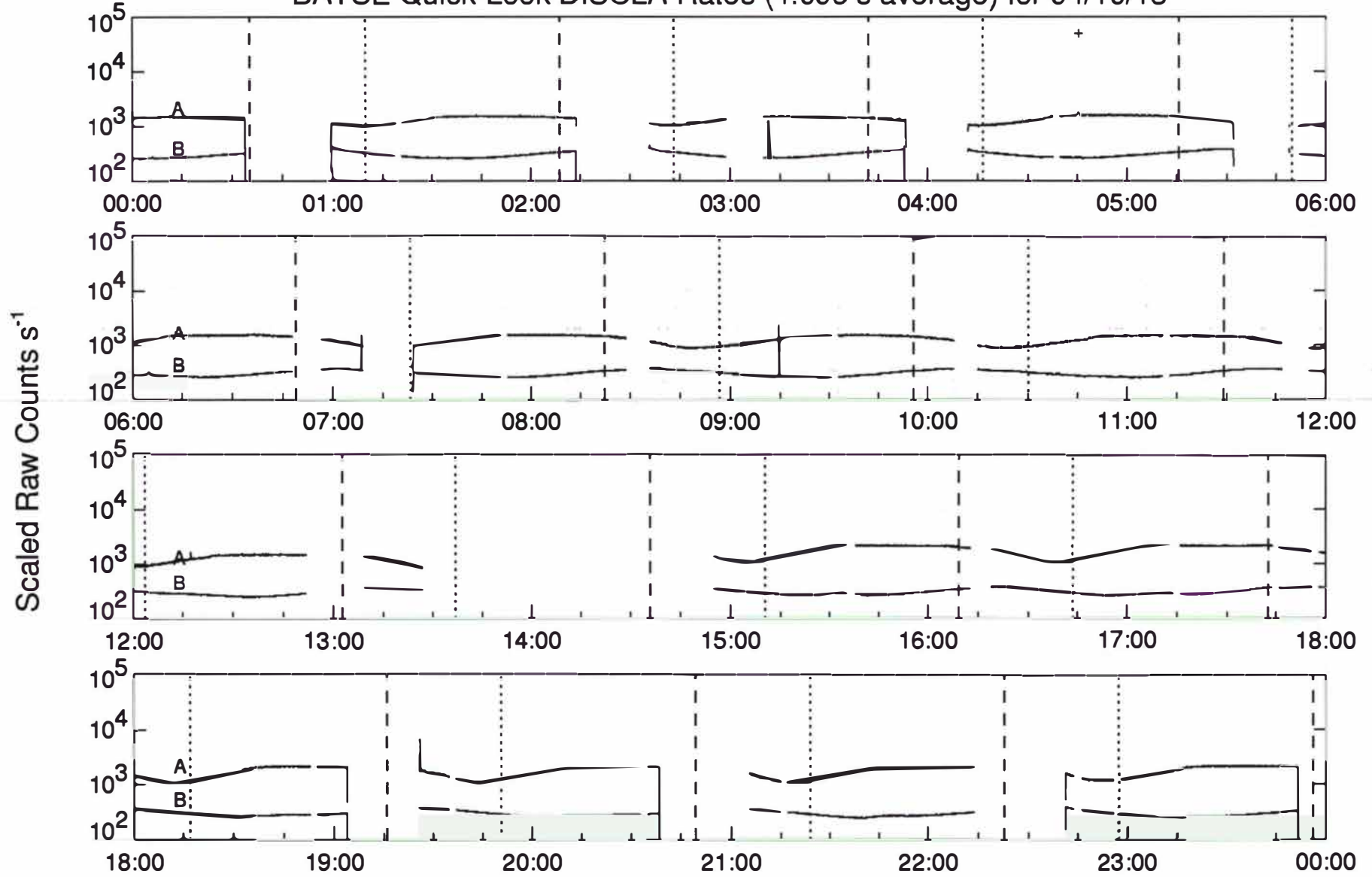
Data Start: 94/10/18, 0000:01

Plot created: 94/10/24, 1713

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/18

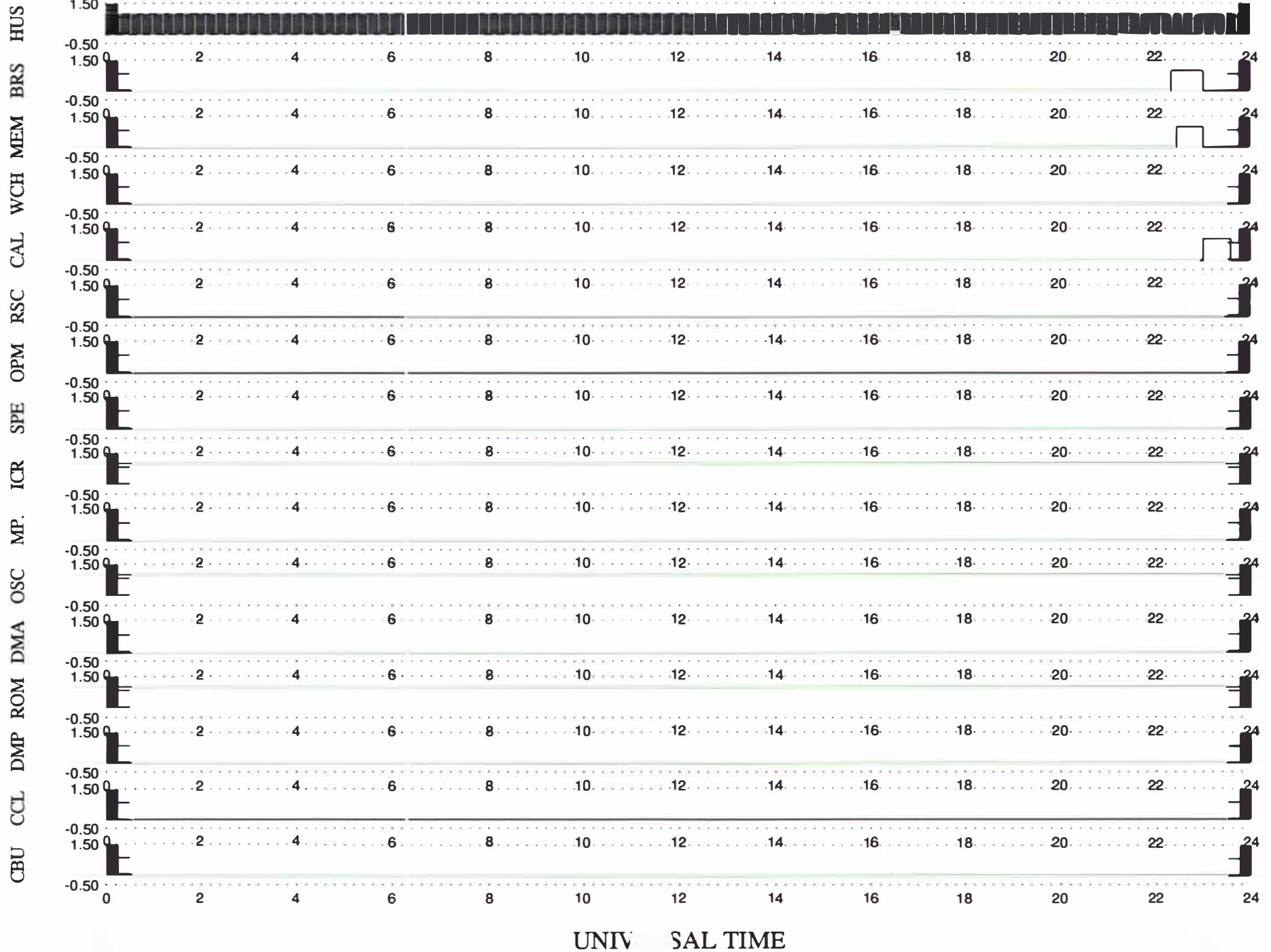


Current Time: 94/10/24, 1647 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

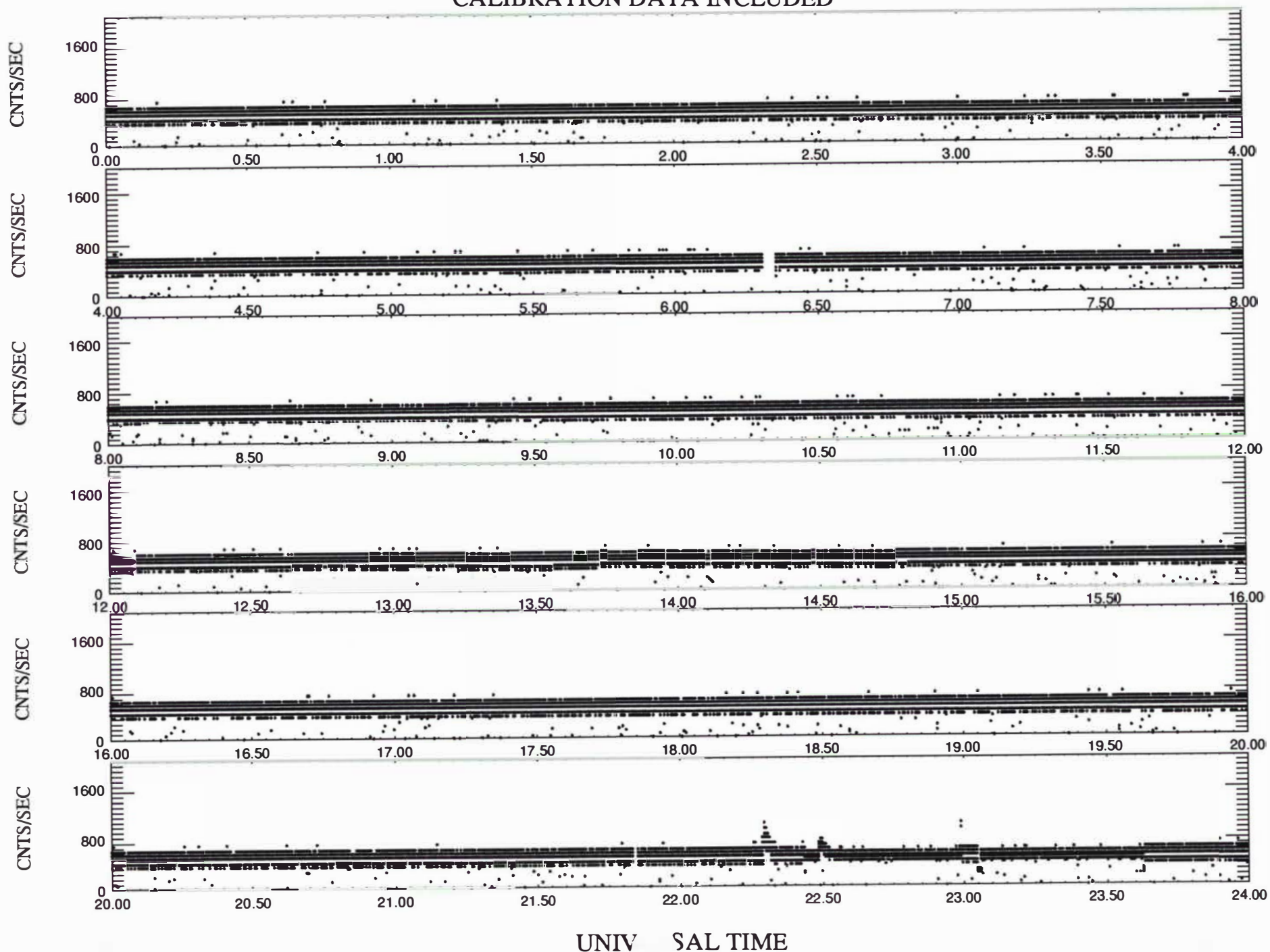
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

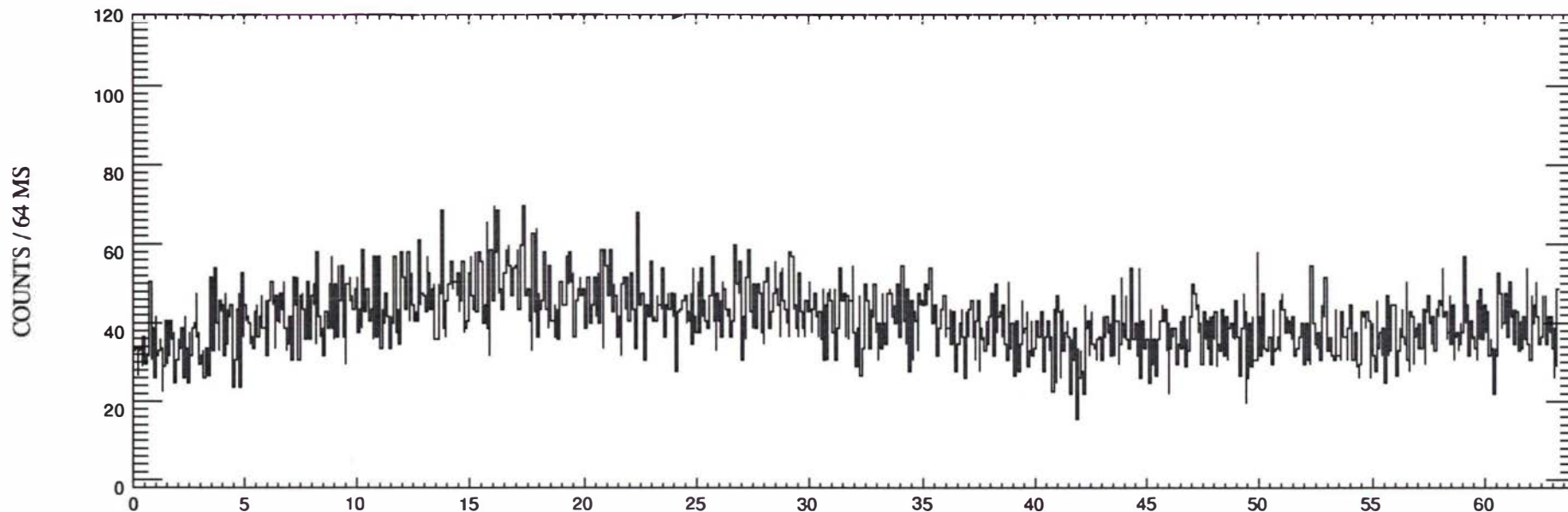
BURST NUMBER 3



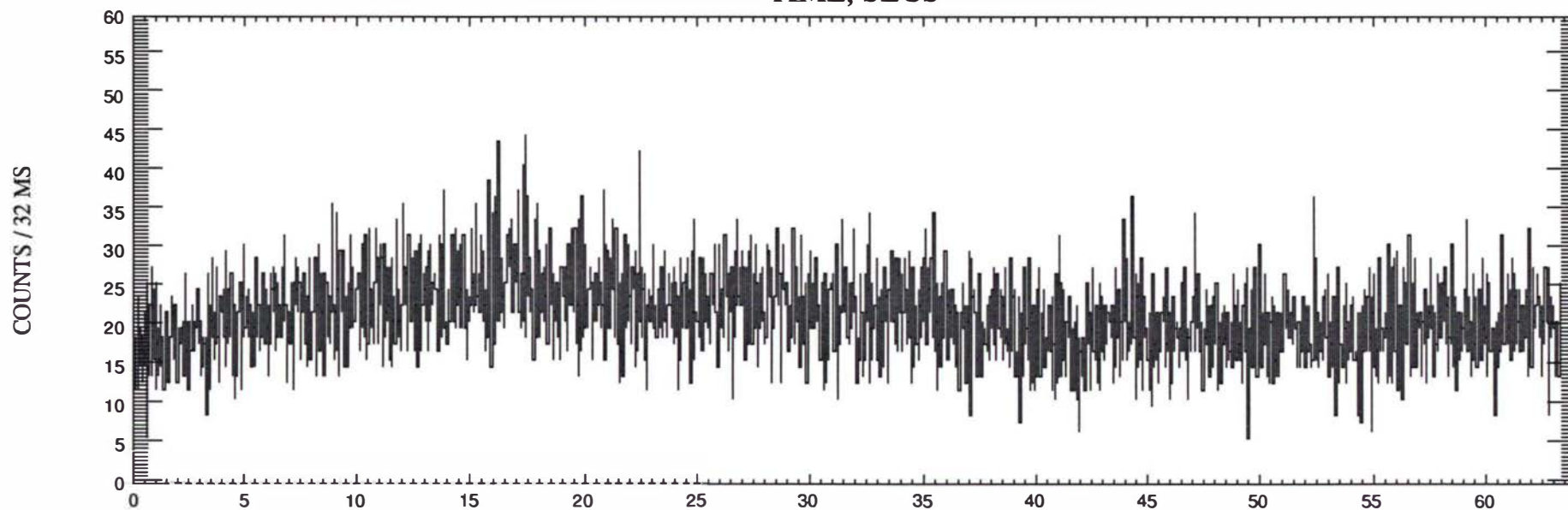
CALIBRATION DATA INCLUDED



Burst Counter 3 at UT=22.281831236945 h=80214.592 s 22:16:54.592

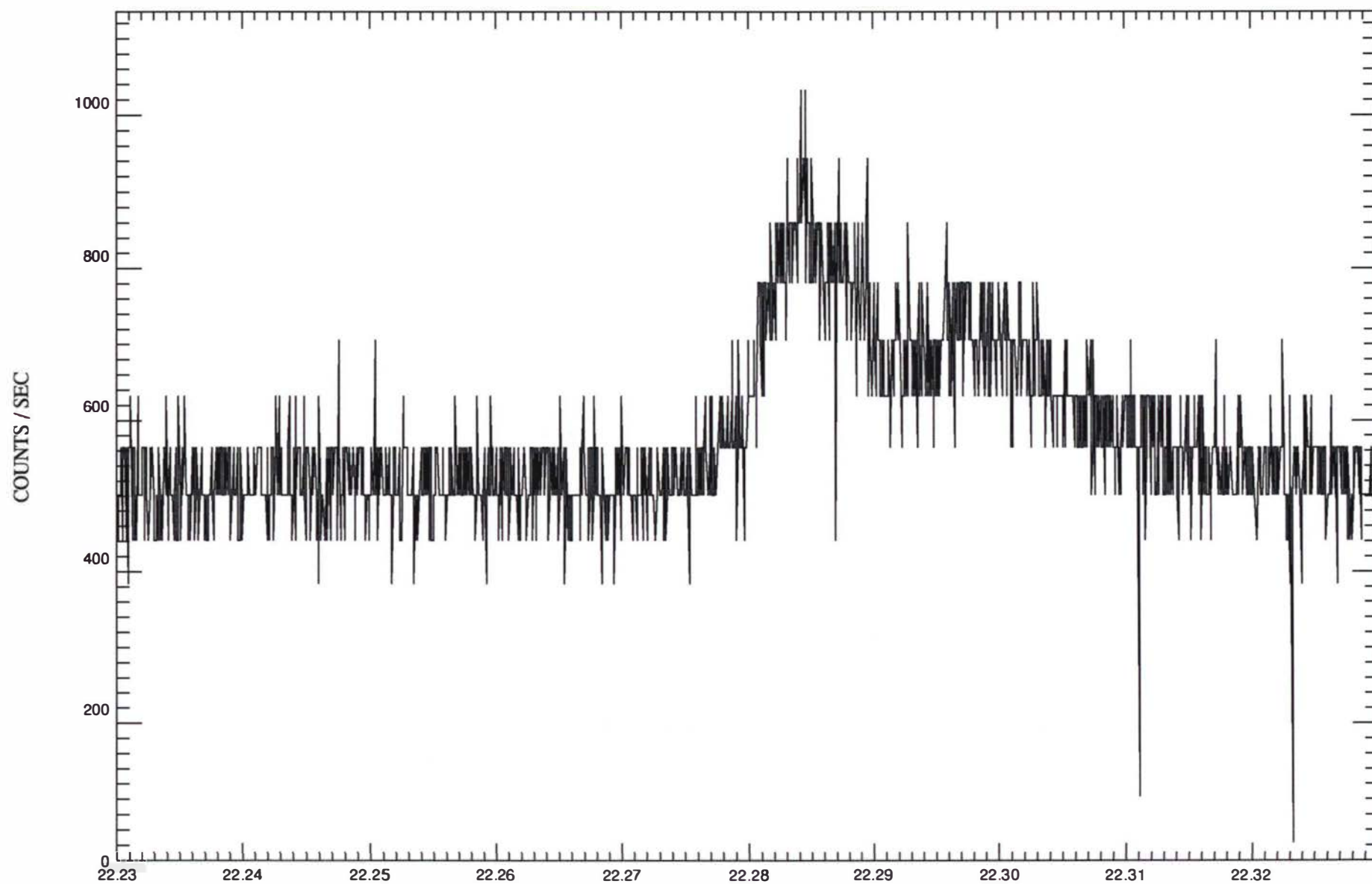


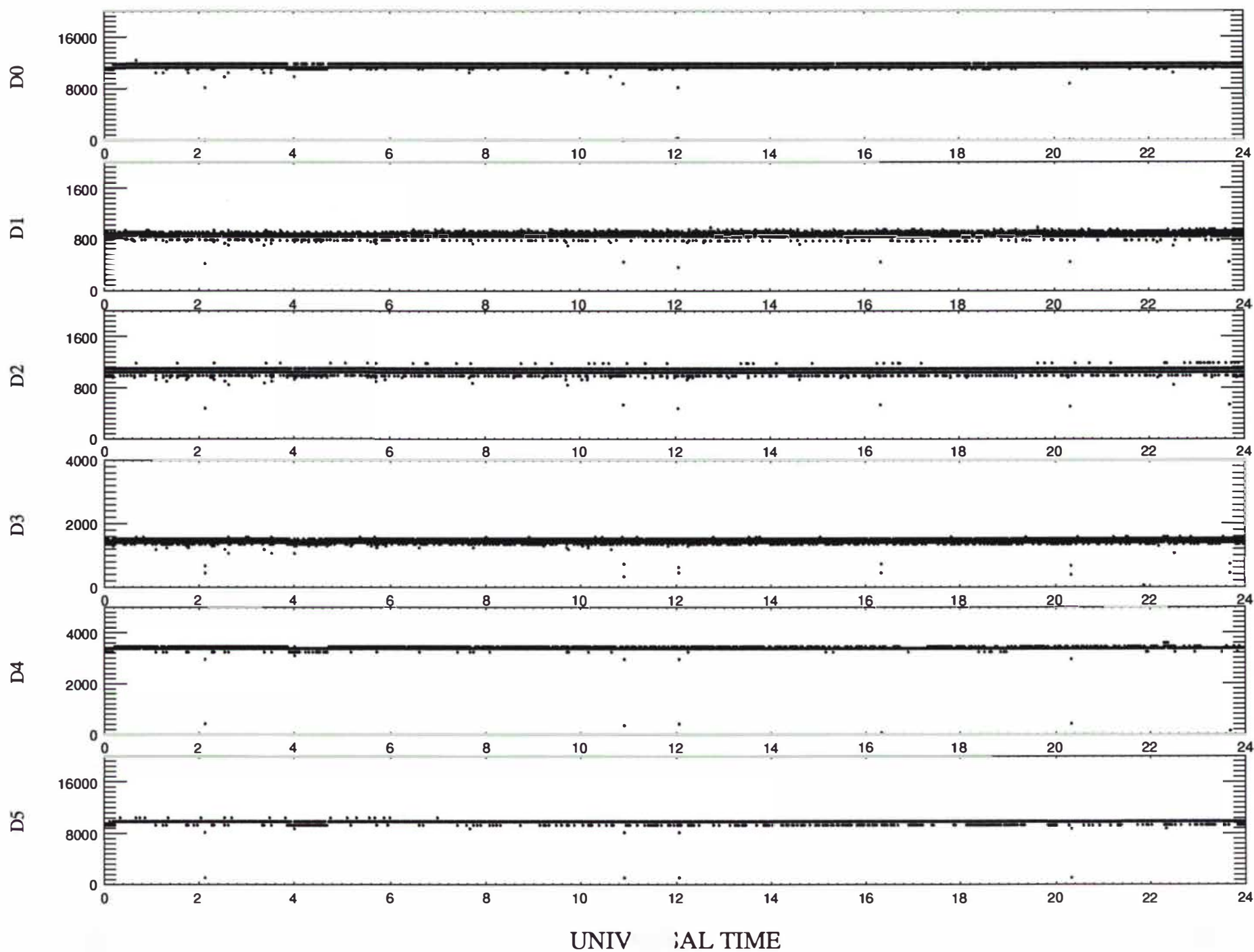
TIME, SECS

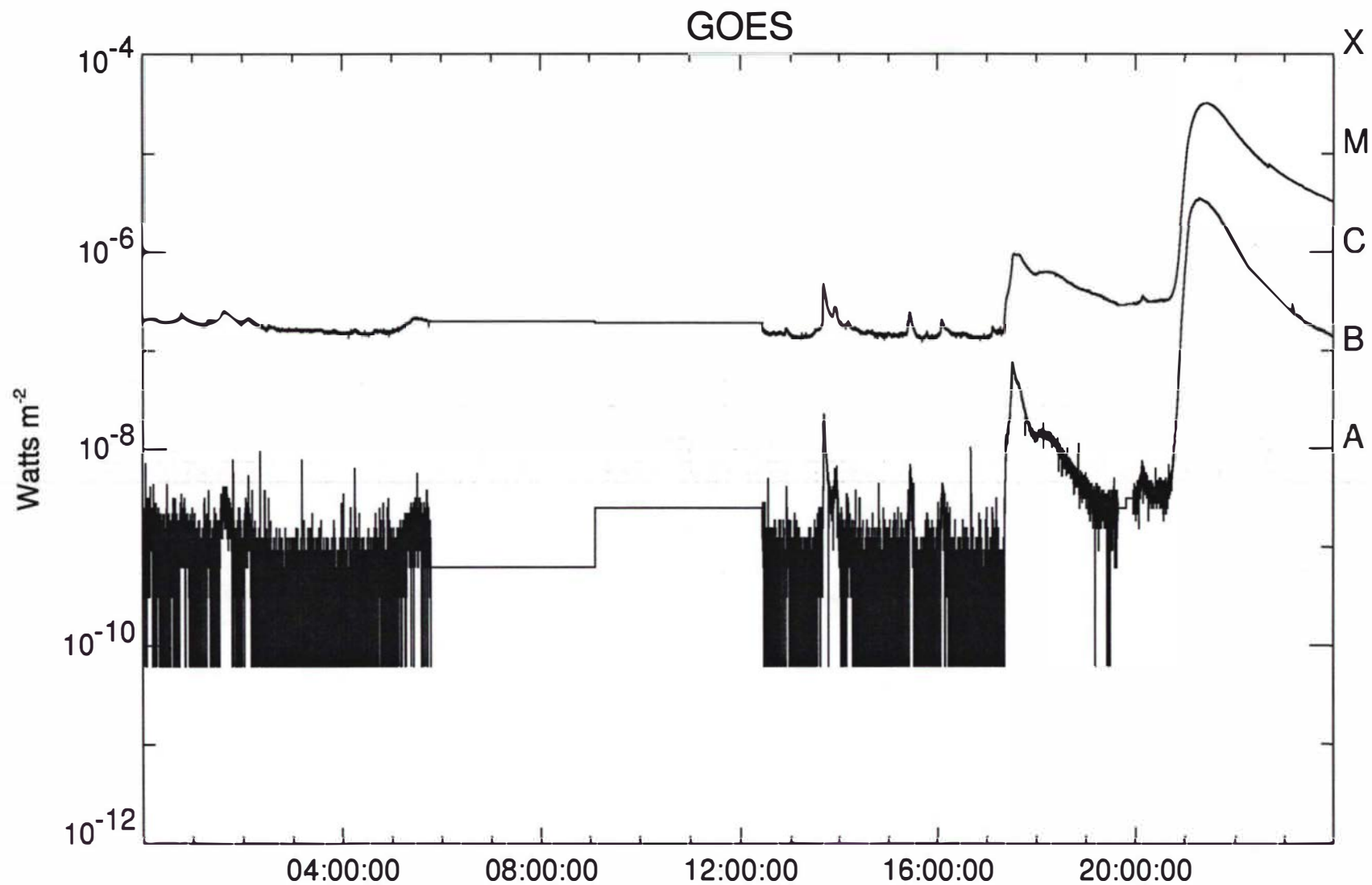


TIME, SECS

CALIBRATION DATA INCLUDED







Data Start: 94/10/19, 0000:02

Plot created: 94/10/24, 1713

Channel

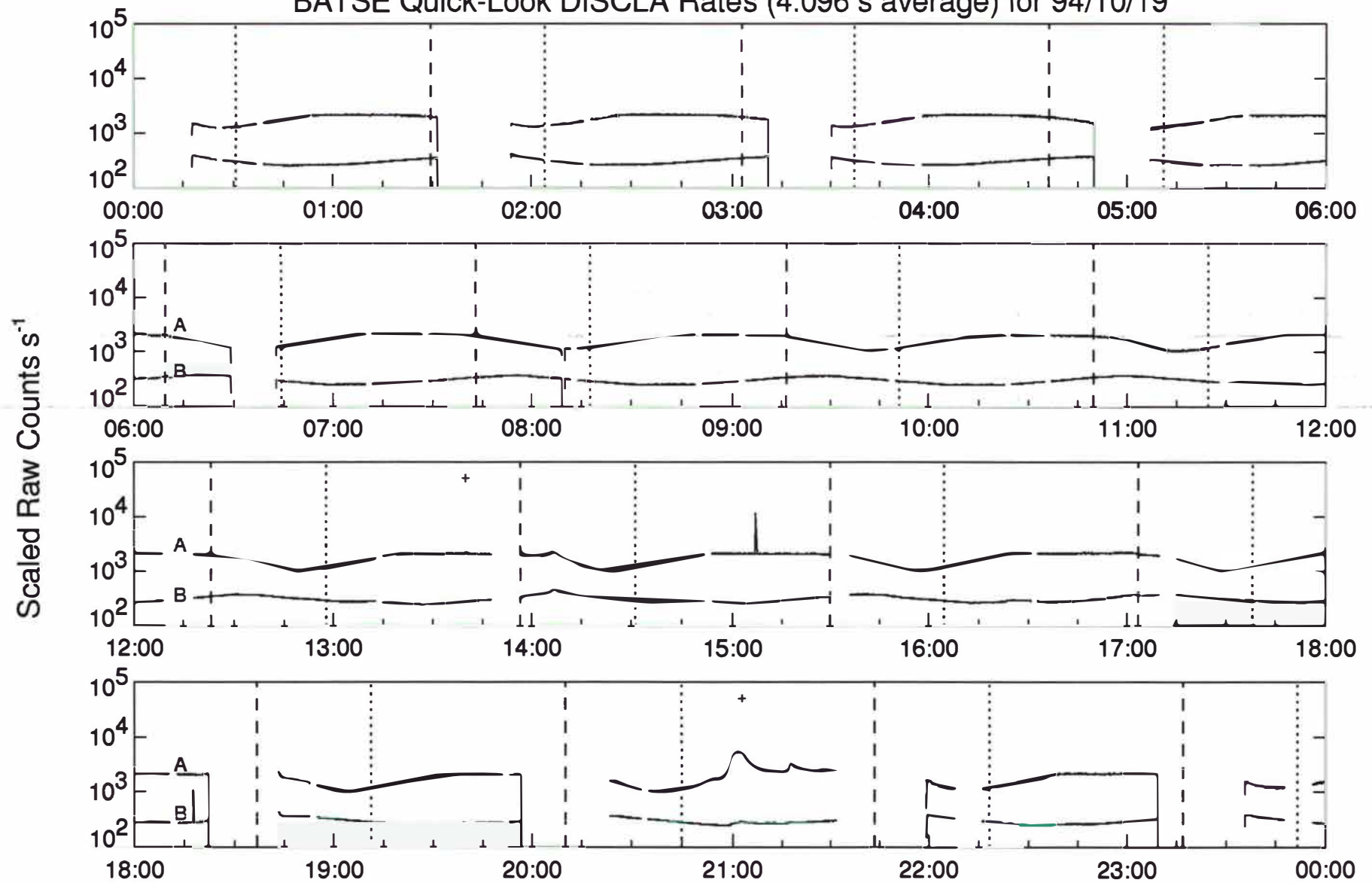
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/19

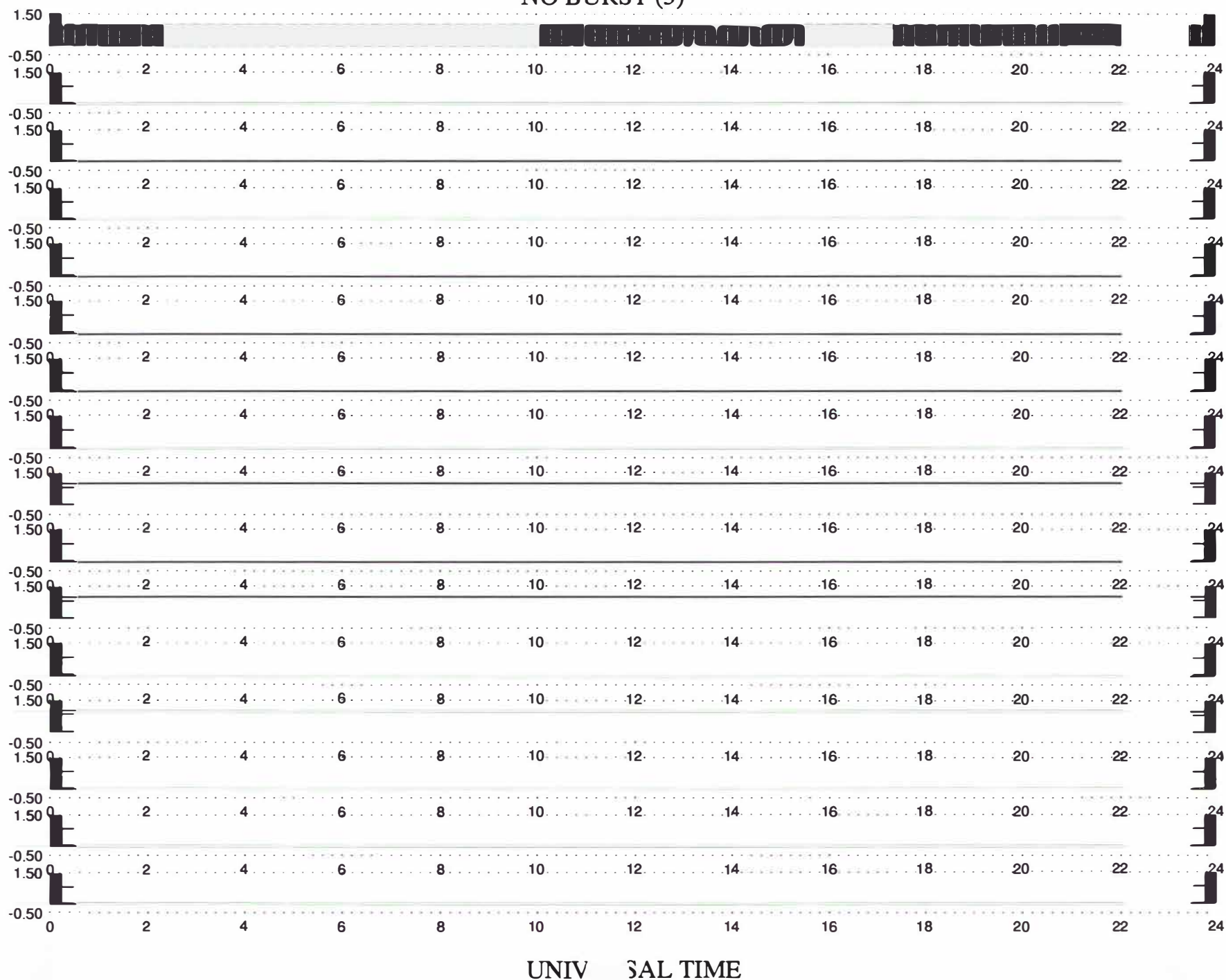


Current Time: 94/10/24, 1647 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

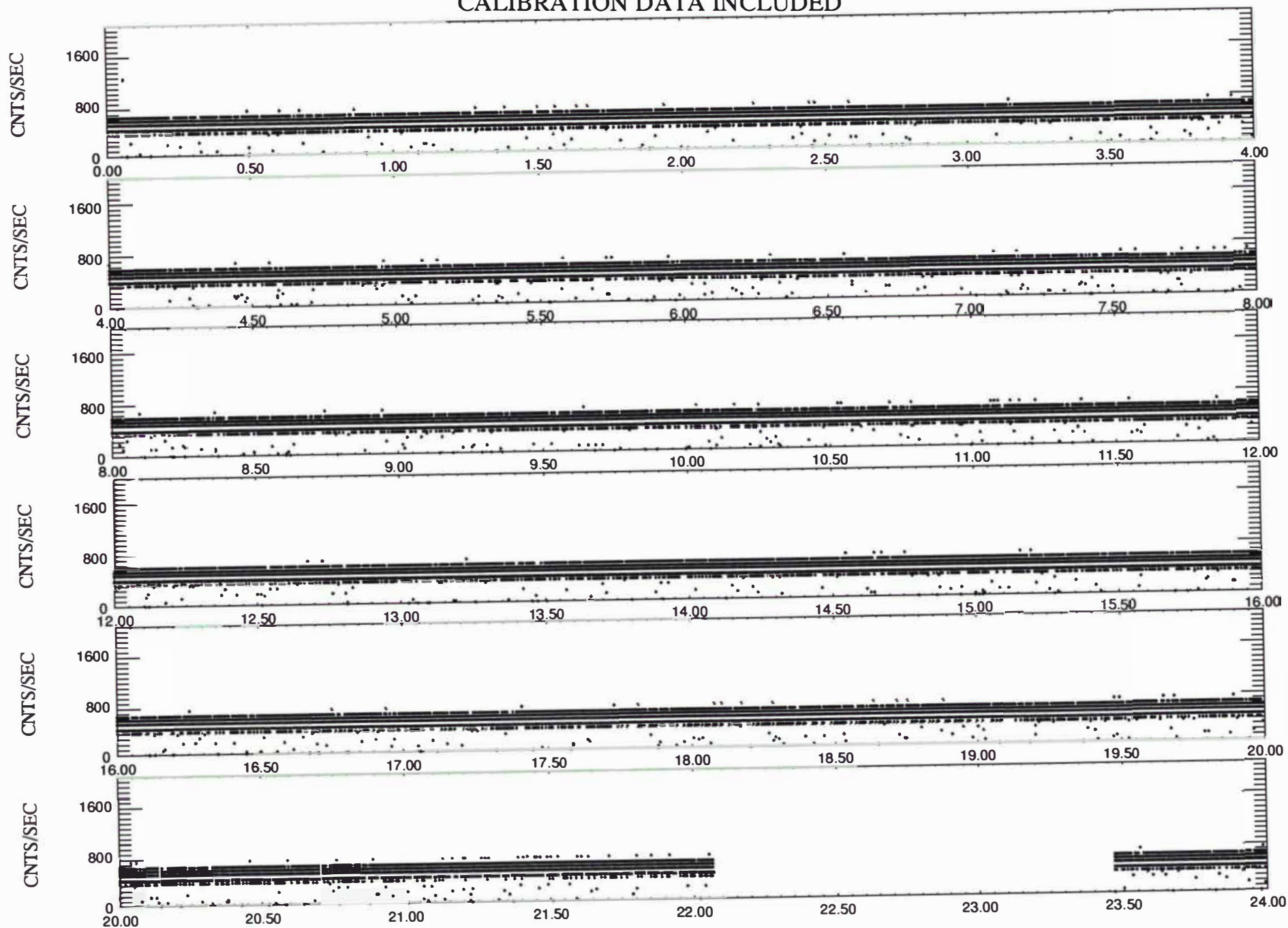
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

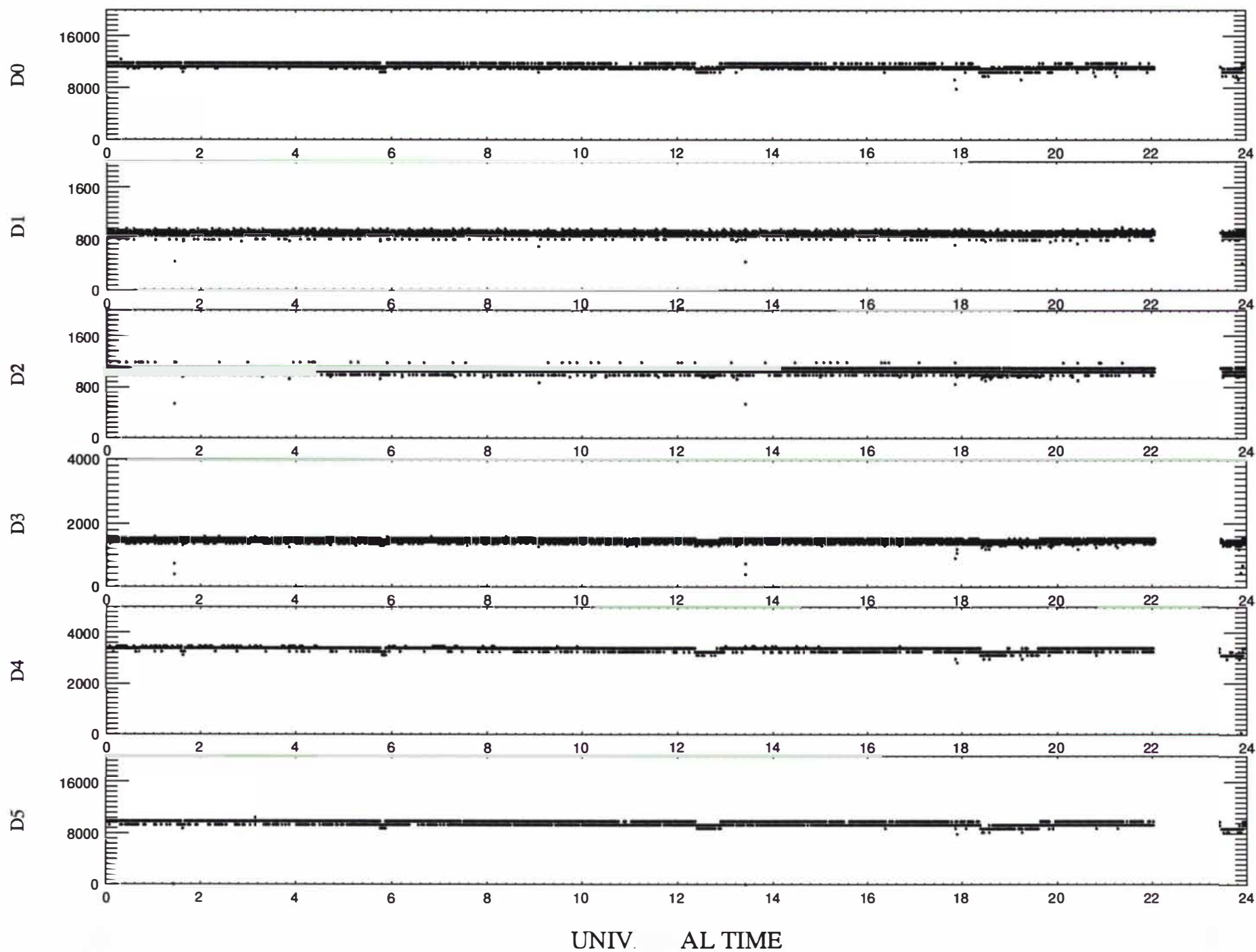
CPU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HENZE@fender.msfc.nasa.gov Fri Oct 21 15:13 PDT 1994
Date: Fri, 21 Oct 1994 17:17:25 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3251

Helio corr removed

BATSEARCH PROGRAM

BATSE BURST # 3251
EVENT OF 1994 OCT 20 DAY OF YEAR=293
EVENT CROSSING TIME AT BATSE : 66000. S. OR 18:20:00.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 160.000 -1.000
BATSE PEAK COUNTING RATE: 6400 C/S

RI

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 20/10/ 94 IS:
RA= 179.683 DEC= -67.549 DIST= 2.341 AU
BATSE-ULYSSES DISTANCE = 350161573. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=112.06 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -438.76 SECS.
CROSSING TIME AT ULYSSES IS 65561. S. OR 18:12:41 +/- 231.27 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 20/10/ 94 IS:
RA= 131.142 DEC= 19.441 DIST= 1.438 AU
MARS-BATSE DISTANCE = 215160608. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=145.08 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -588.47 SECS.
CROSSING TIME AT MARS IS 65412. S. OR 18:10:11 +/- 62.39 SECONDS

BATSE BURST TRIGGER

NO.: 03251

TIME: TJD=9645 SECONDS=66000

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=075.4 AZIMUTH=034.6 ERROR= DEGREES

COMMENTS:

TWO PULSES, TOTAL DUR. 52 S. NOT VISIBLE ABOVE 300 KEV.
FIRST PULSE HAS MUCH SUBSTRUCTURE, DUR. ~20 S.
SECOND PULSE DUR. ~6 S, MAX. AT ~T+48 S.

From HENZE@fender.msfc.nasa.gov Fri Oct 21 15:13 PDT 1994
Date: Fri, 21 Oct 1994 17:17:00 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HENZE@fender.msfc.nasa.gov
Subject: BATSE Burst 3251

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3251	941020	9645	66000	6400	160	-01

Date: Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

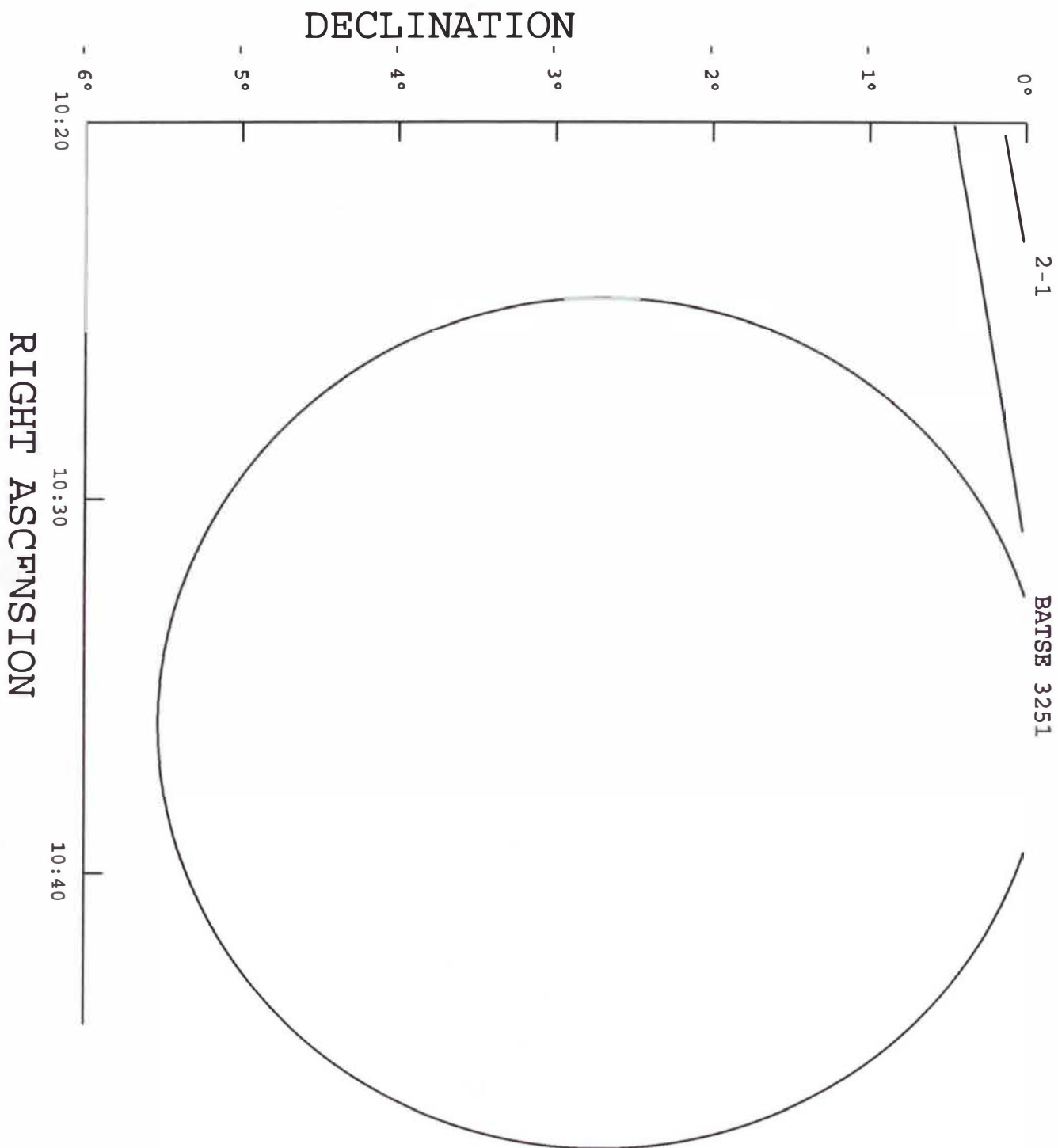
3. PVO Data

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

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 OCT 20, 1994 18:13

5 / 2 / 98



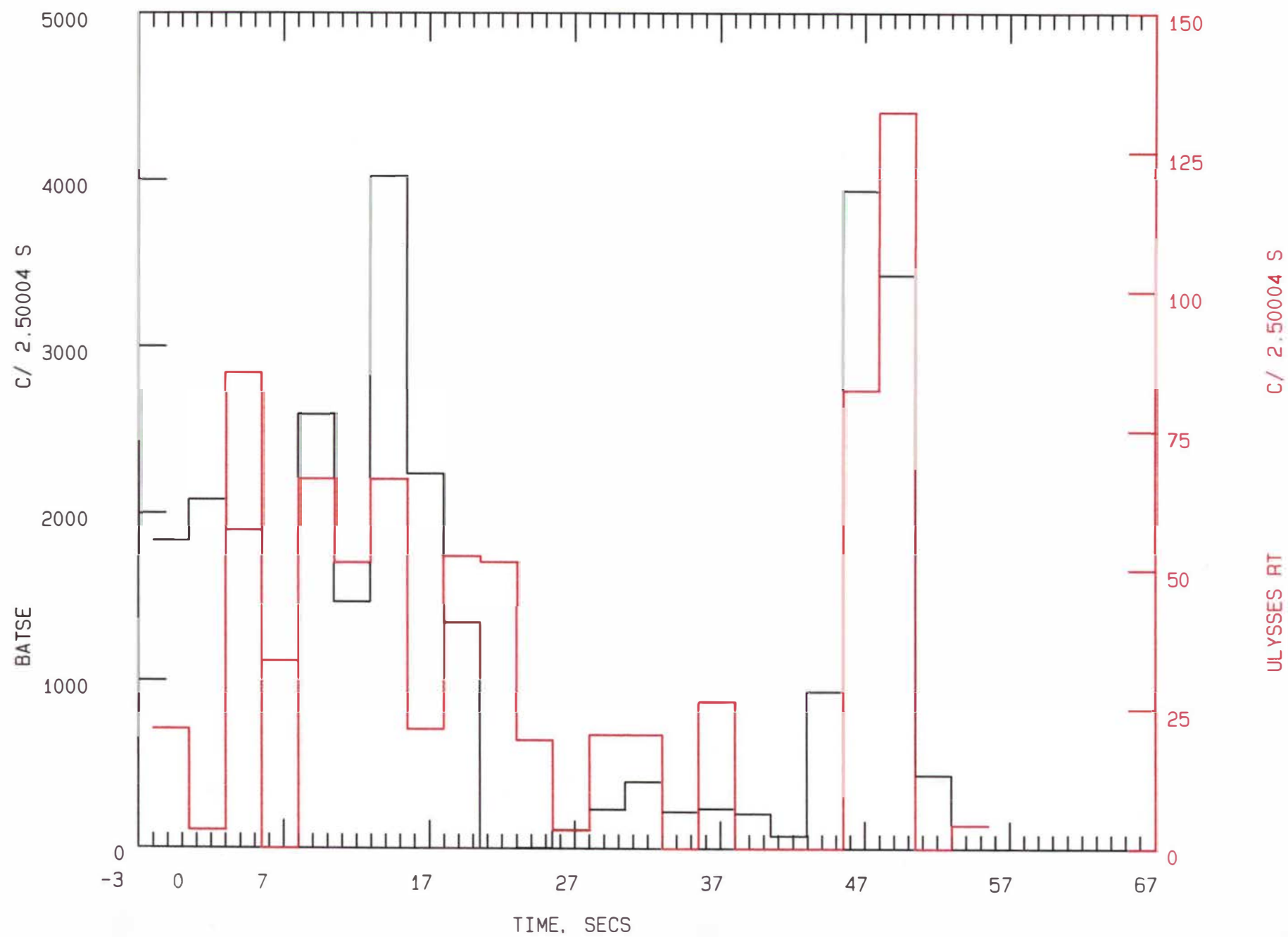
BATSE

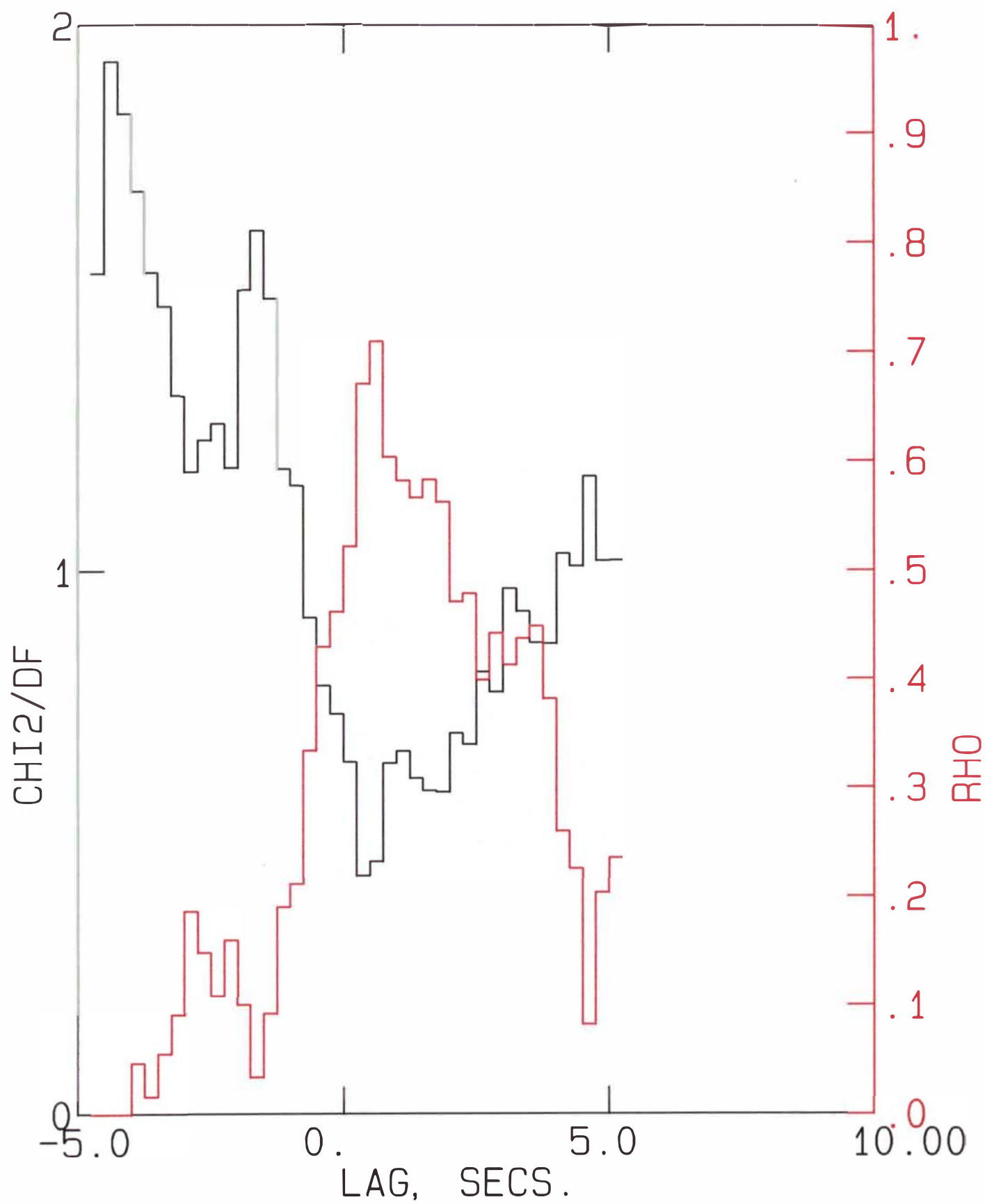
-ULYSSES RT CORRELATION

20/10/94

66000.562

5/ 2/98





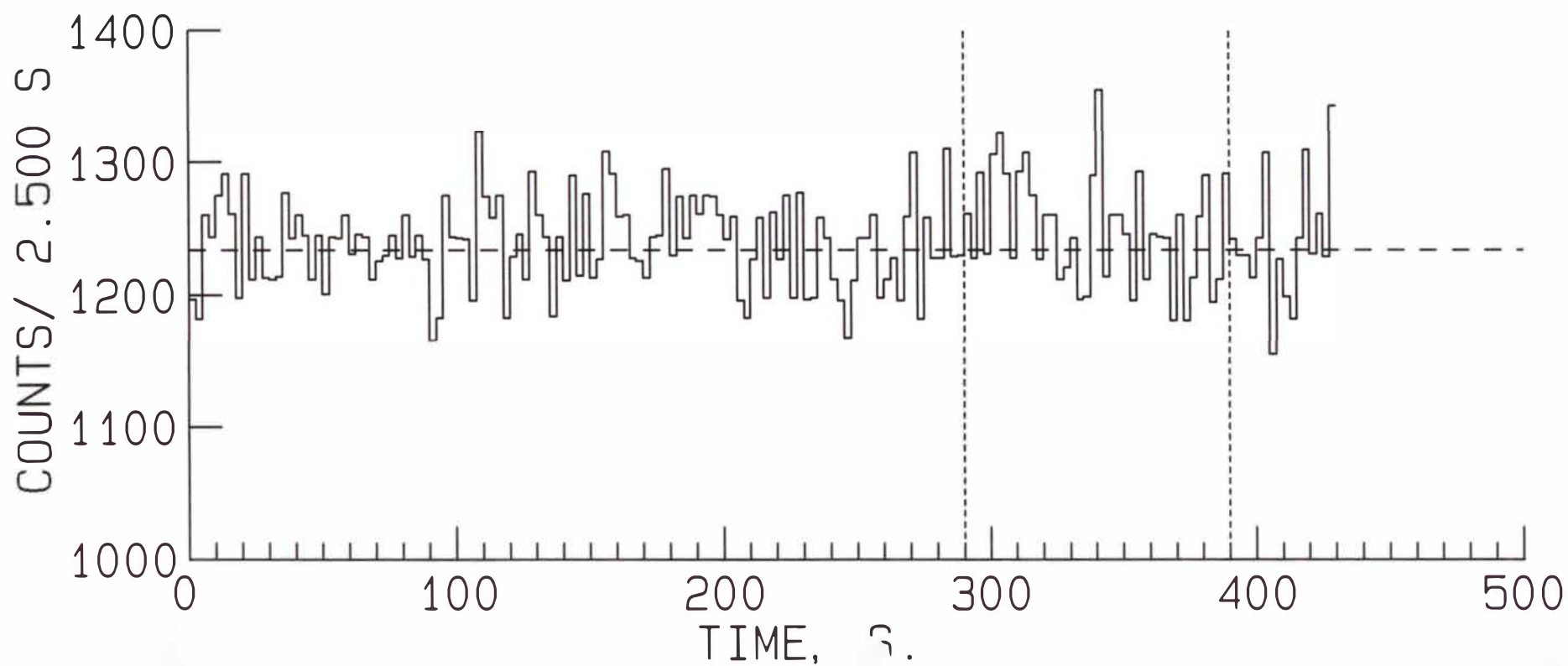
ULYSSES RT

5 / 2 / 98

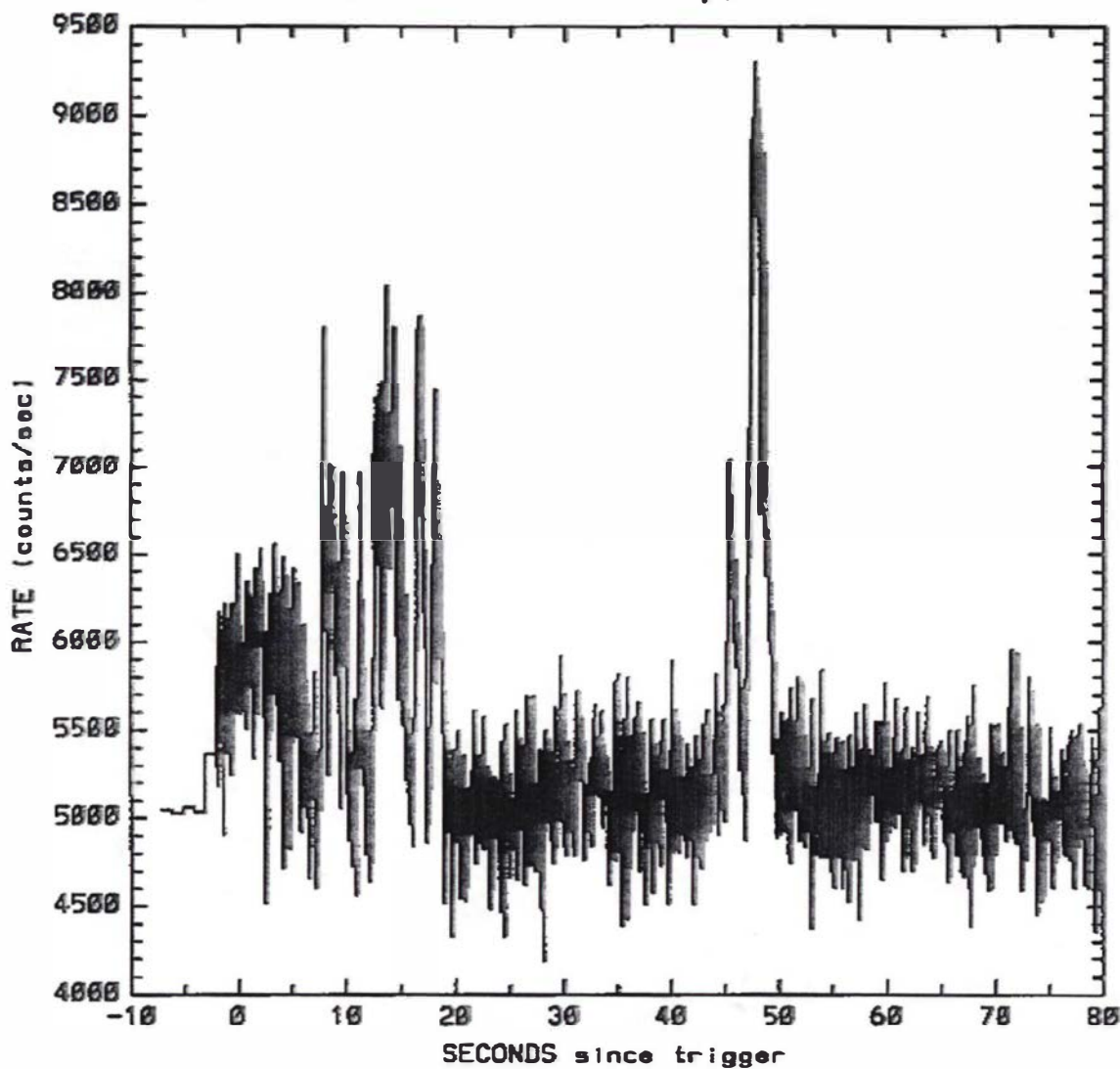
20/10/94 65304.045 s

0.250 S INTERVALS REGROUPED BY 10

22- 147 keV



DISCSC Data for K. Hurley, No. 3251



24-OCT-1994 09:21:51

Created by ROPS BD
(Burst Display)
Version 2.22

Trigger #: 3251

Trigger Time:
9645 / 66888.562

Burst Data Type:
DISCSC

Deadtime
Corrected: K

Background Data
Type: PREB + DISCLA

Minimum Integ. Time:
0.064 seconds

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

Discriminators:
(1, 2)

Quality Mask:
BDISP1

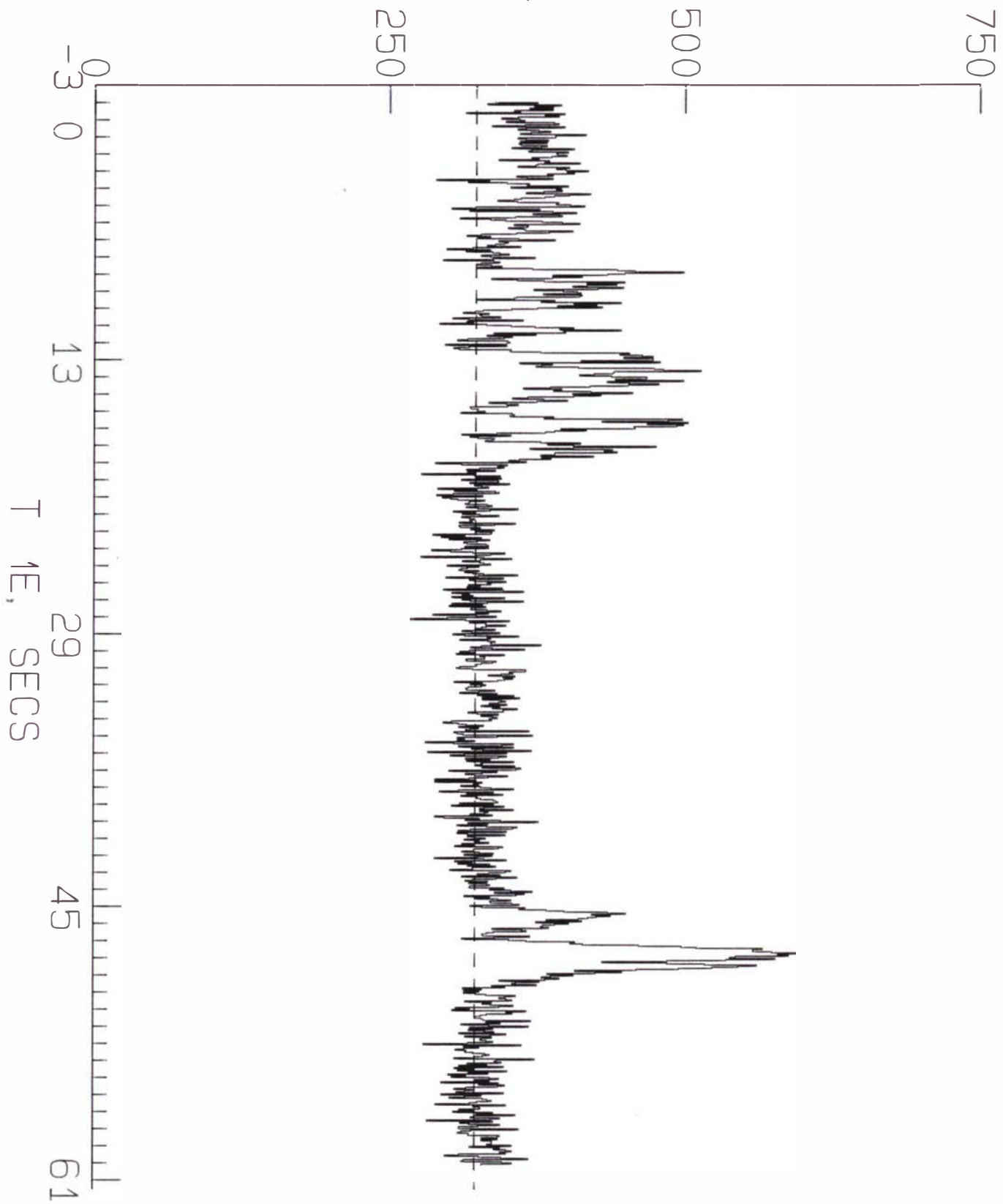
BATSE

20/10/94

66000.562

25- 100 keV

COUNTS/ .064 S



5 / 11 / 94

From HENZE@fender.msfc.nasa.gov Fri Oct 21 12:17 PDT 1994

Date: Fri, 21 Oct 1994 14:20:09 -0500 (CDT)

From: HENZE@fender.msfc.nasa.gov

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

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

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

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

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

khurley@sunspot.ssl.berkeley.edu

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03252

TIME: TJD=9645 SECONDS=70789

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SAA EVENT (AFTER EXIT FROM NOMINAL SAA BOX).

From HENZE@fender.msfc.nasa.gov Fri Oct 21 15:16 PDT 1994
Date: Fri, 21 Oct 1994 17:20:22 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3253

BATSEARCH PROGRAM

TRIGGER

BATSE BURST # 3253
EVENT OF 1994 OCT 20 DAY OF YEAR=293
EVENT CROSSING TIME AT BATSE : 72327. S. OR 20:05:27.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 47.000 -25.000
BATSE PEAK COUNTING RATE: 61000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 20/10/ 94 IS:
RA= 179.775 DEC= -67.582 DIST= 2.340 AU
BATSE-ULYSSES DISTANCE = 350081393. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 98.97 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -182.11 SECS.
CROSSING TIME AT ULYSSES IS 72145. S. OR 20:02:24 +/- 247.49 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 20/10/ 94 IS:
RA= 131.142 DEC= 19.441 DIST= 1.438 AU
MARS-BATSE DISTANCE = 215160608. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 86.94 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 38.35 SECS.
CROSSING TIME AT MARS IS 72365. S. OR 20:06:05 +/- 125.01 SECONDS

BATSE BURST TRIGGER

NO.: 03253

TIME: TJD=9645 SECONDS=72327

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL: N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=088.0 AZIMUTH=146.1 ERROR= DEGREES

COMMENTS:

THREE PULSES, TOTAL DUR. ~80 S. SECOND PULSE STRONGEST, MAX. ~T+27 S.
VISIBLE ABOVE 300 KEV.

From HENZE@fender.msfc.nasa.gov Fri Oct 21 15:15 PDT 1994
Date: Fri, 21 Oct 1994 17:19:21 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HENZE@fender.msfc.nasa.gov
Subject: BATSE Burst 3253

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3253	941020	9645	72327	61000	047	-25

Date:

Feb 5 '98

Helio corr removed

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

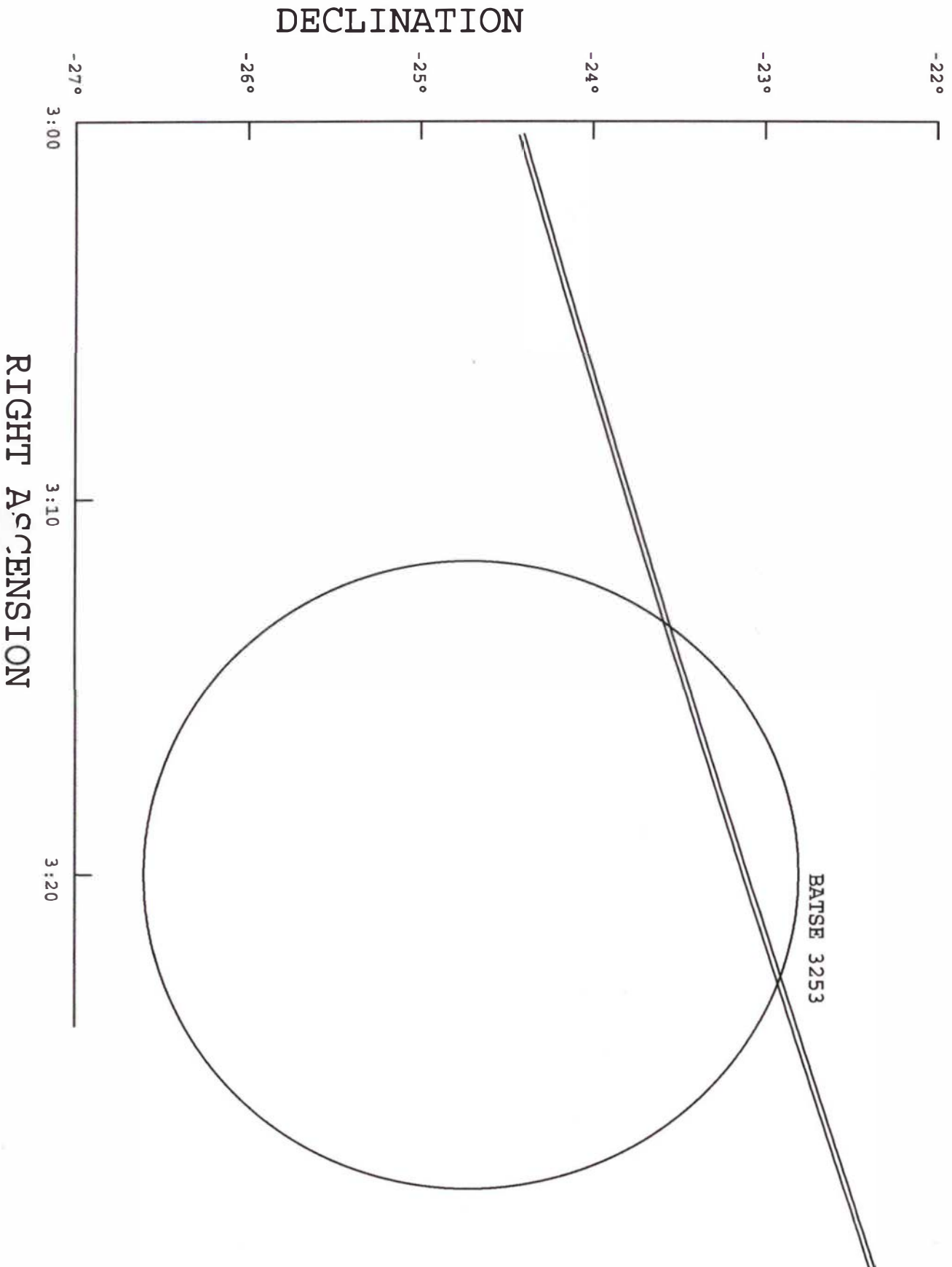
3. PVO Data

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

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

EVENT OF OCT 20, 1994 20:03

5 / 2/98



ULYSSES

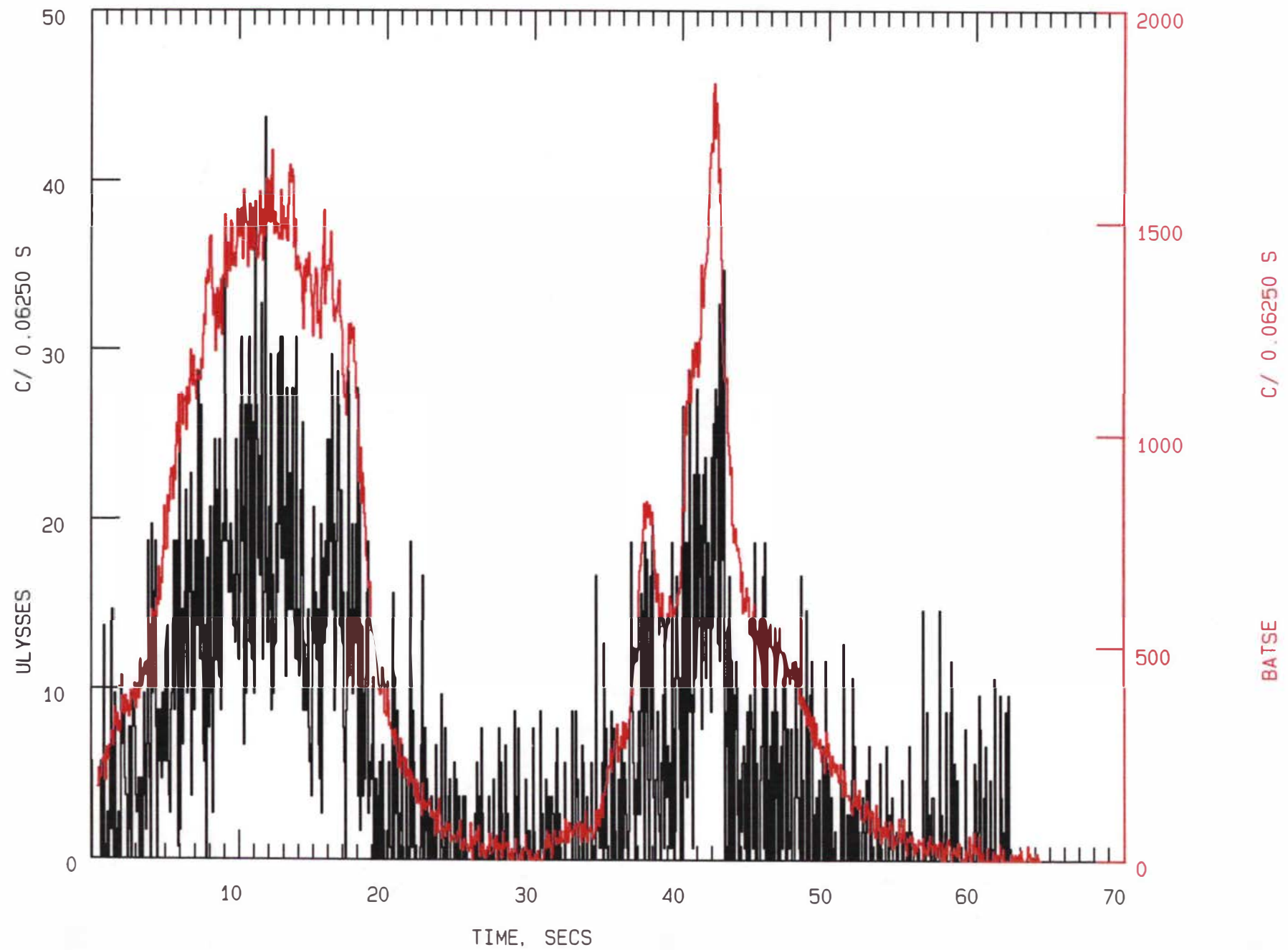
-BATSE

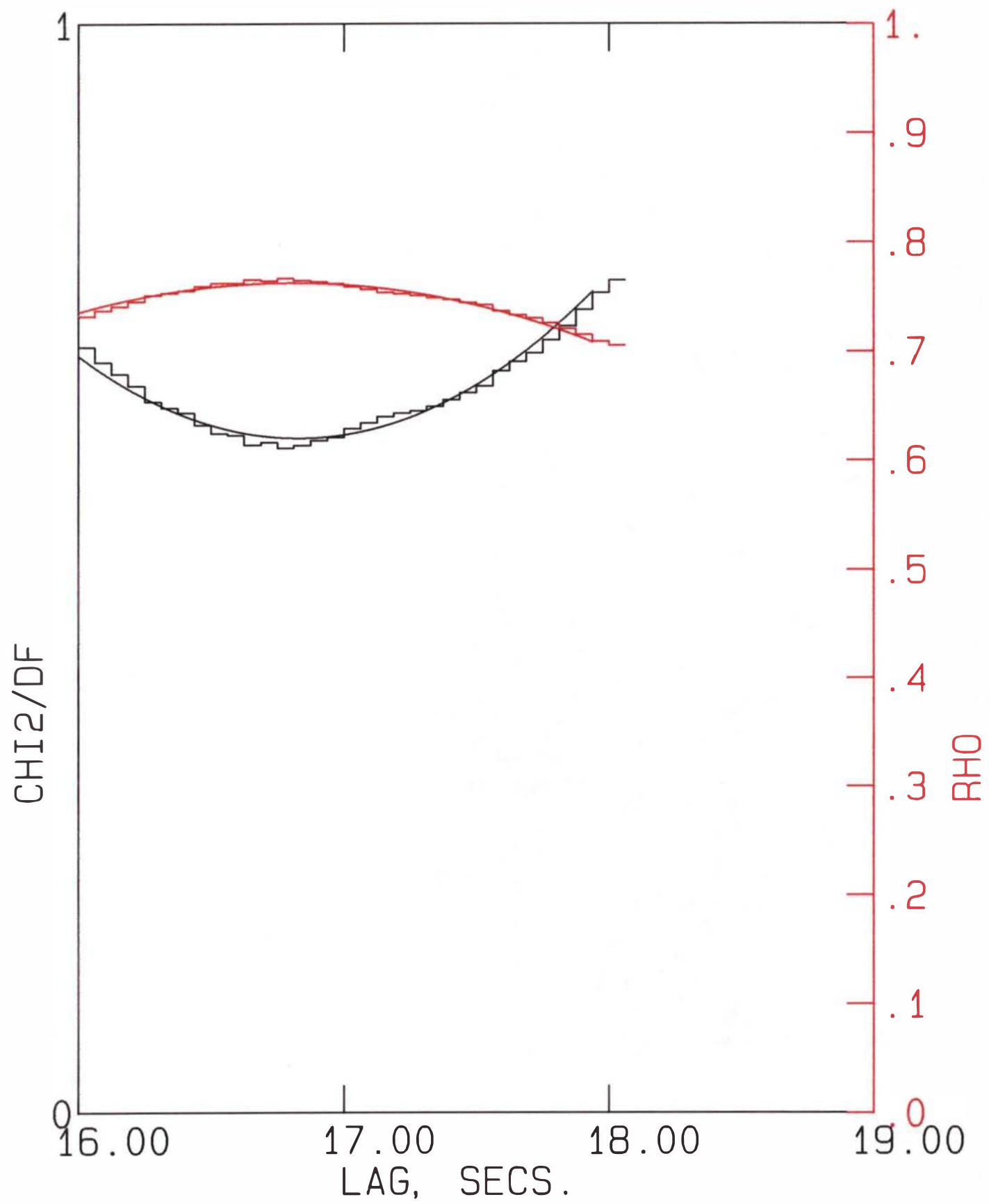
CORRELATION

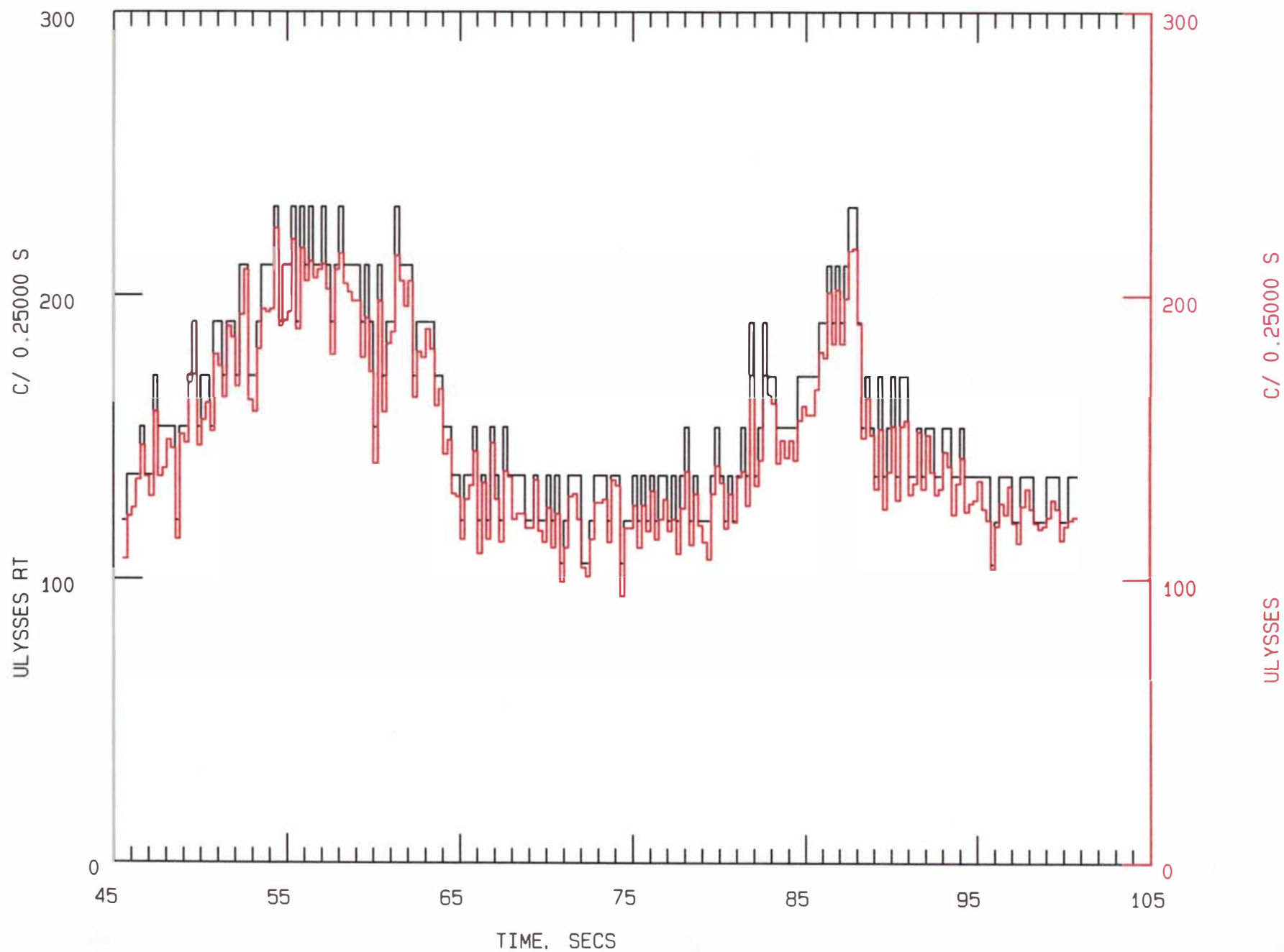
20/10/94

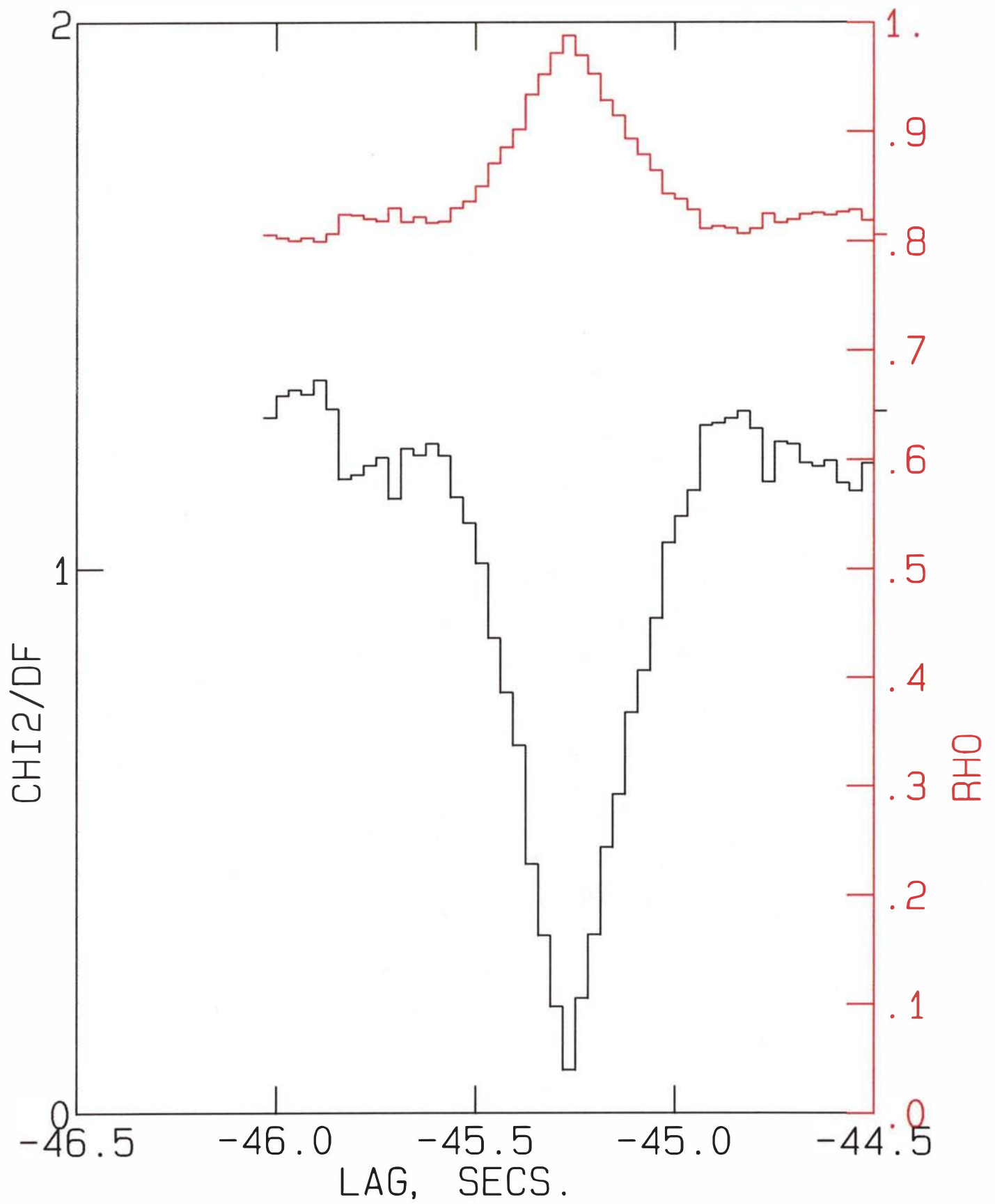
72187.782

5/ 2/98





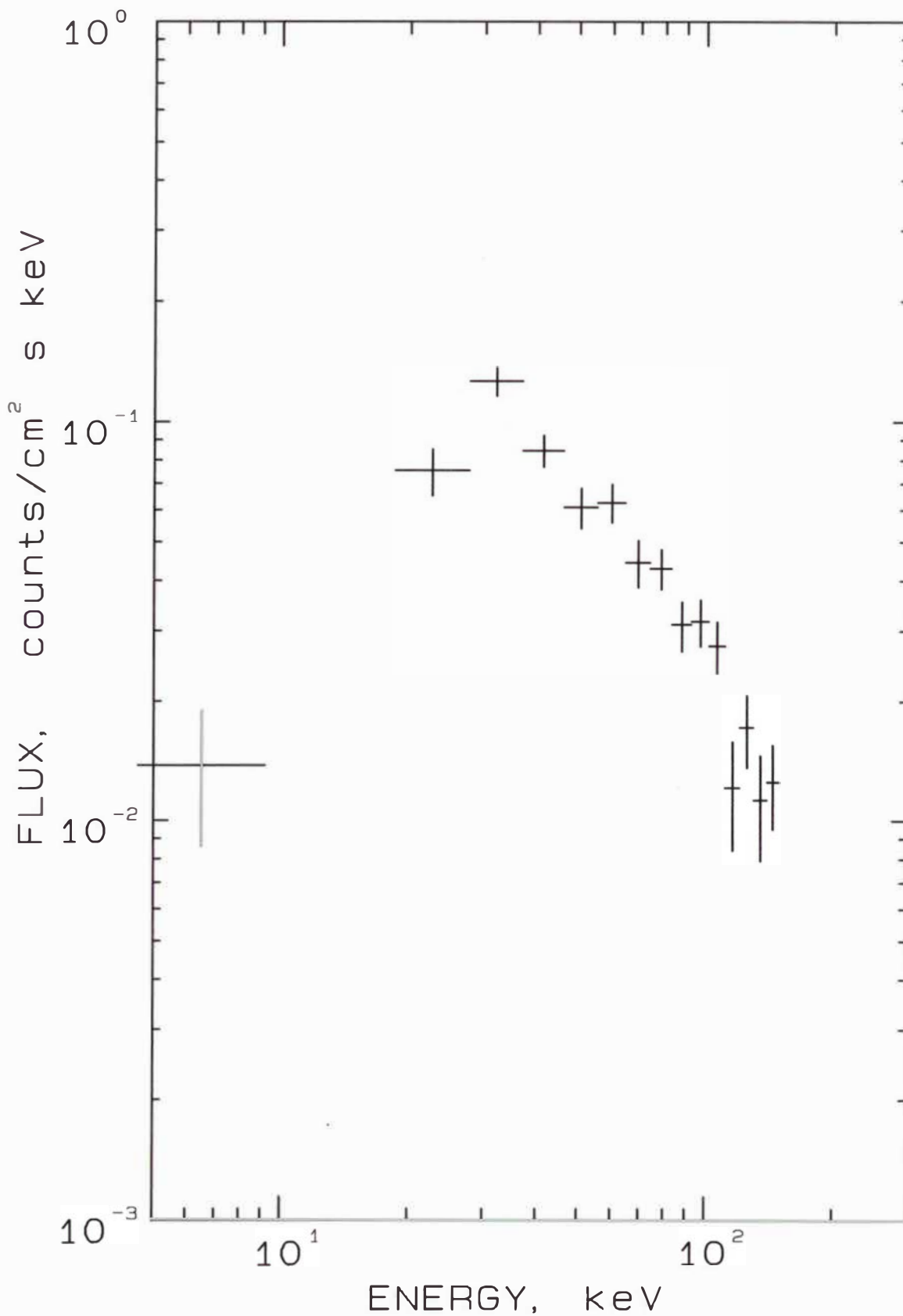




ULYSSES 20/10/94 72187.821

5/ 2/98

SPECTRUM INTEGRATED OVER 63.1 SECONDS, INTERVALS 2 TO 34



ULYSSES 20/10/94 72187.821 BURST SPECTRAL COUNT RATES

4- 18 keV

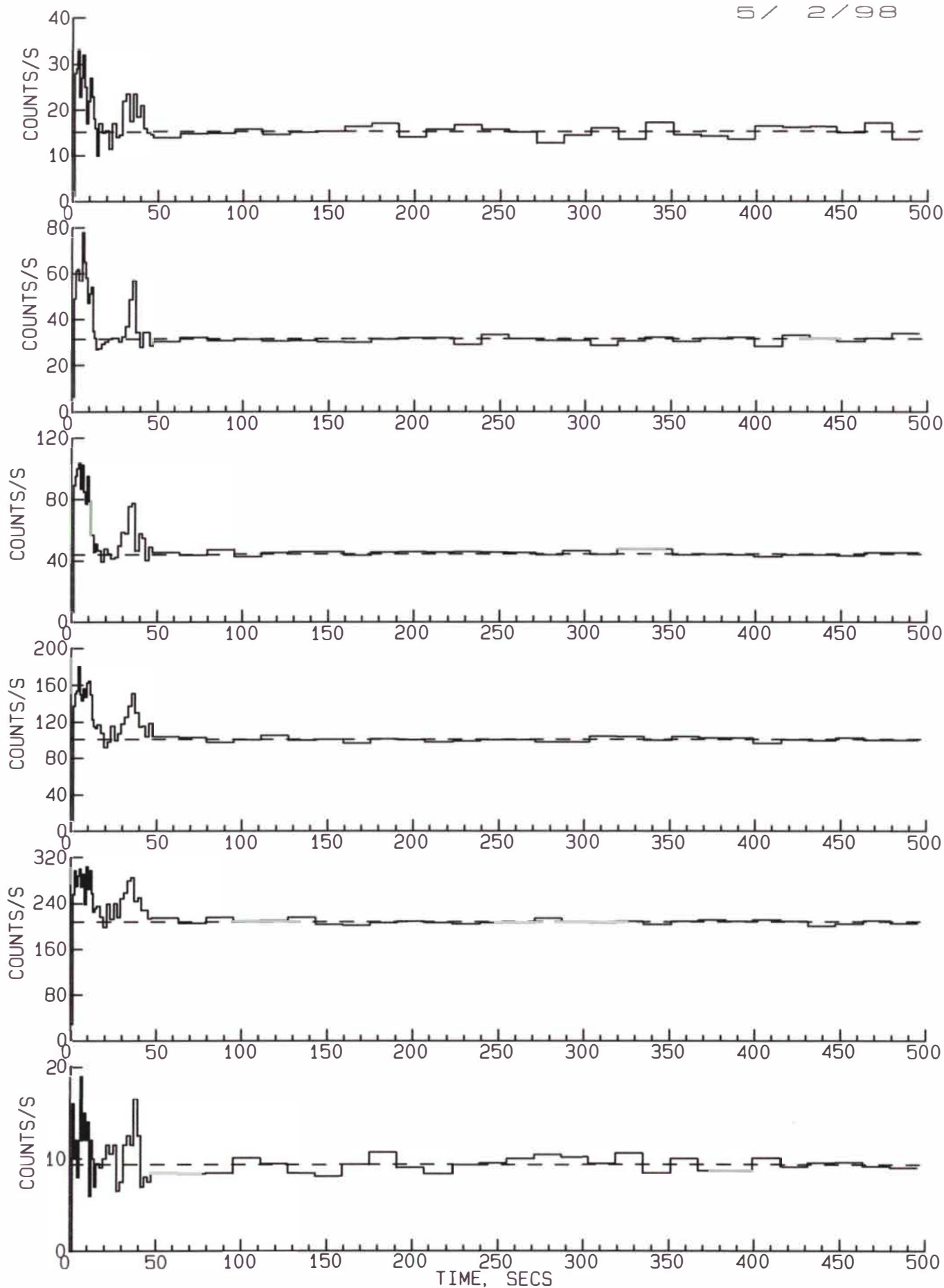
18- 45 keV

45- 73 keV

73-101 keV

101-128 keV

128-147 keV



5 / 2 / 98

ULYSSES

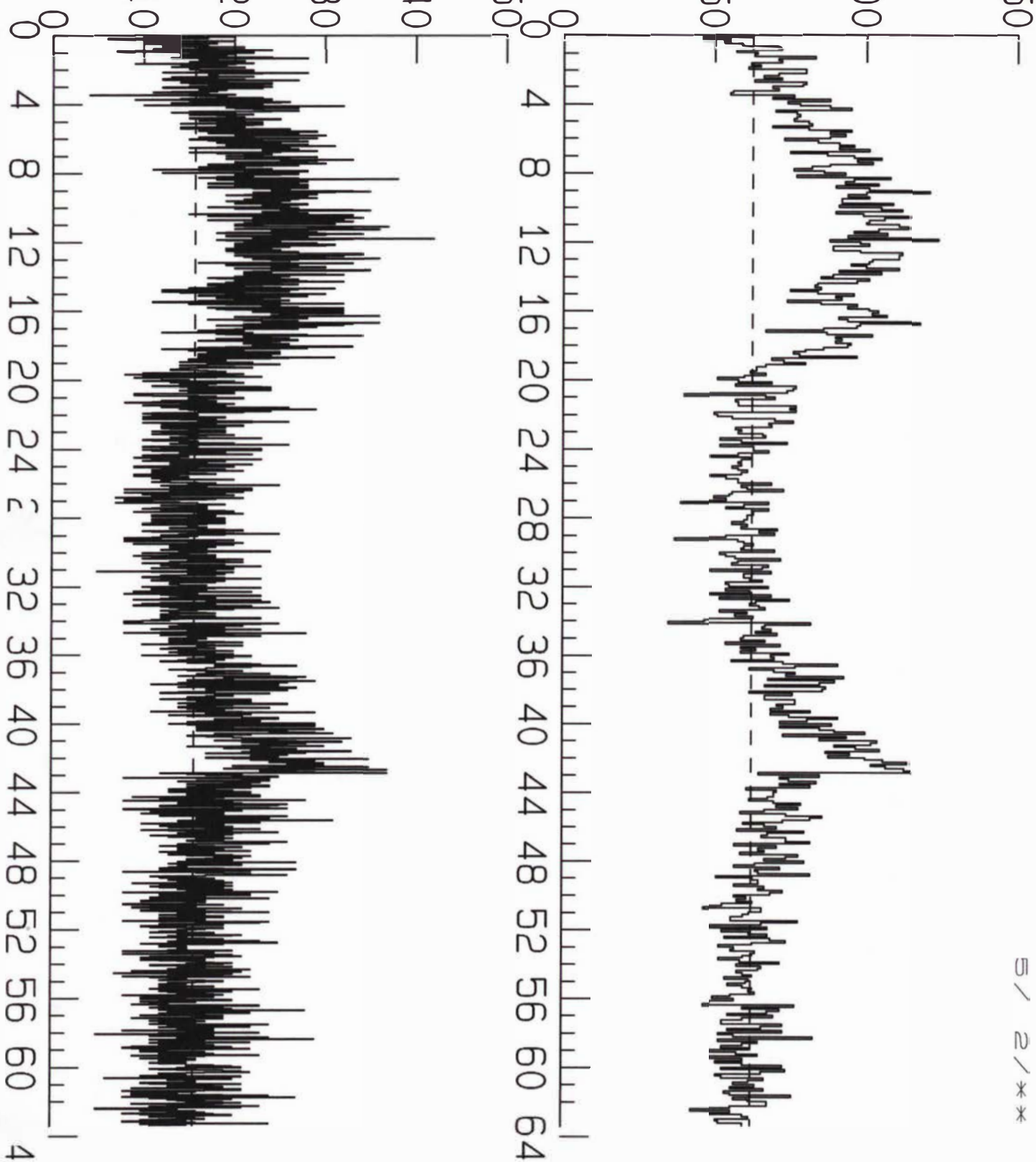
20/10/94

Ttrig=72187.782

22- 147 keV

COUNTS/0.031 S

COUNTS/0.125 S

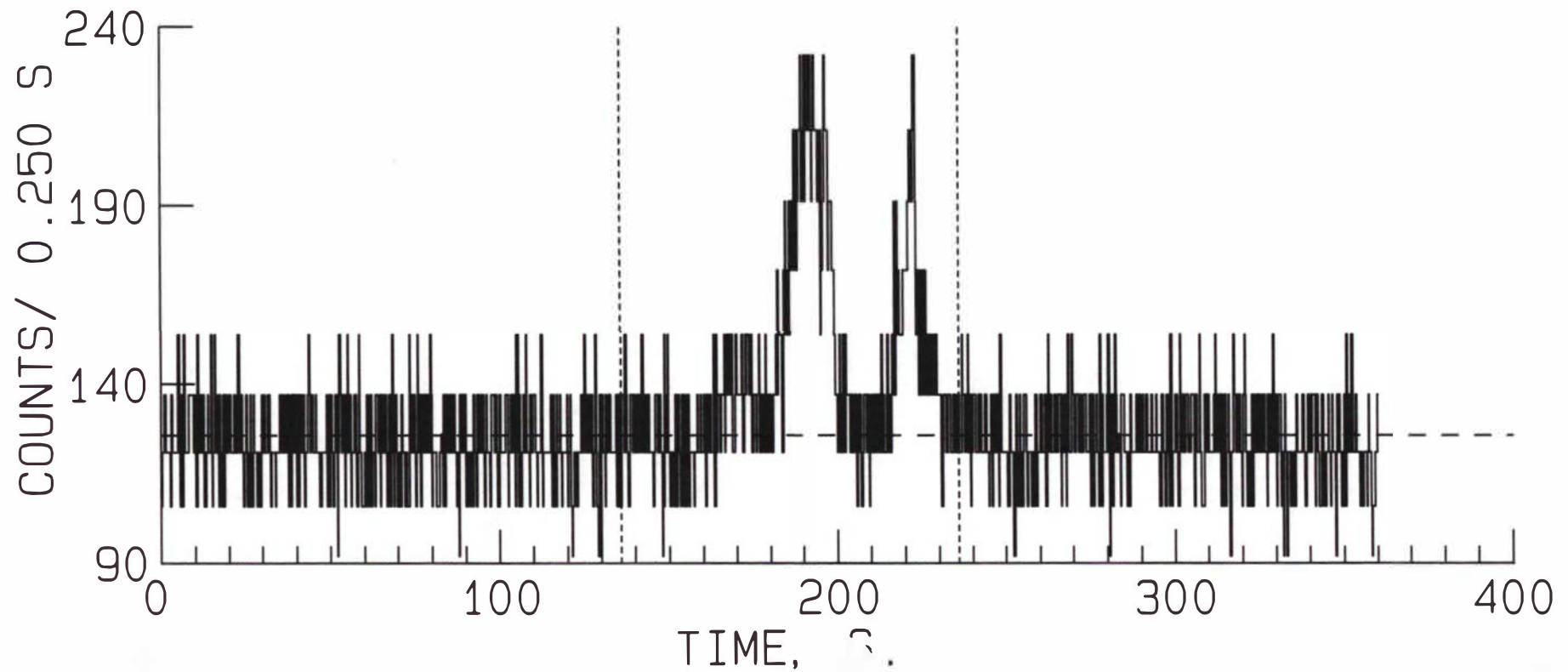


5 / 2 **

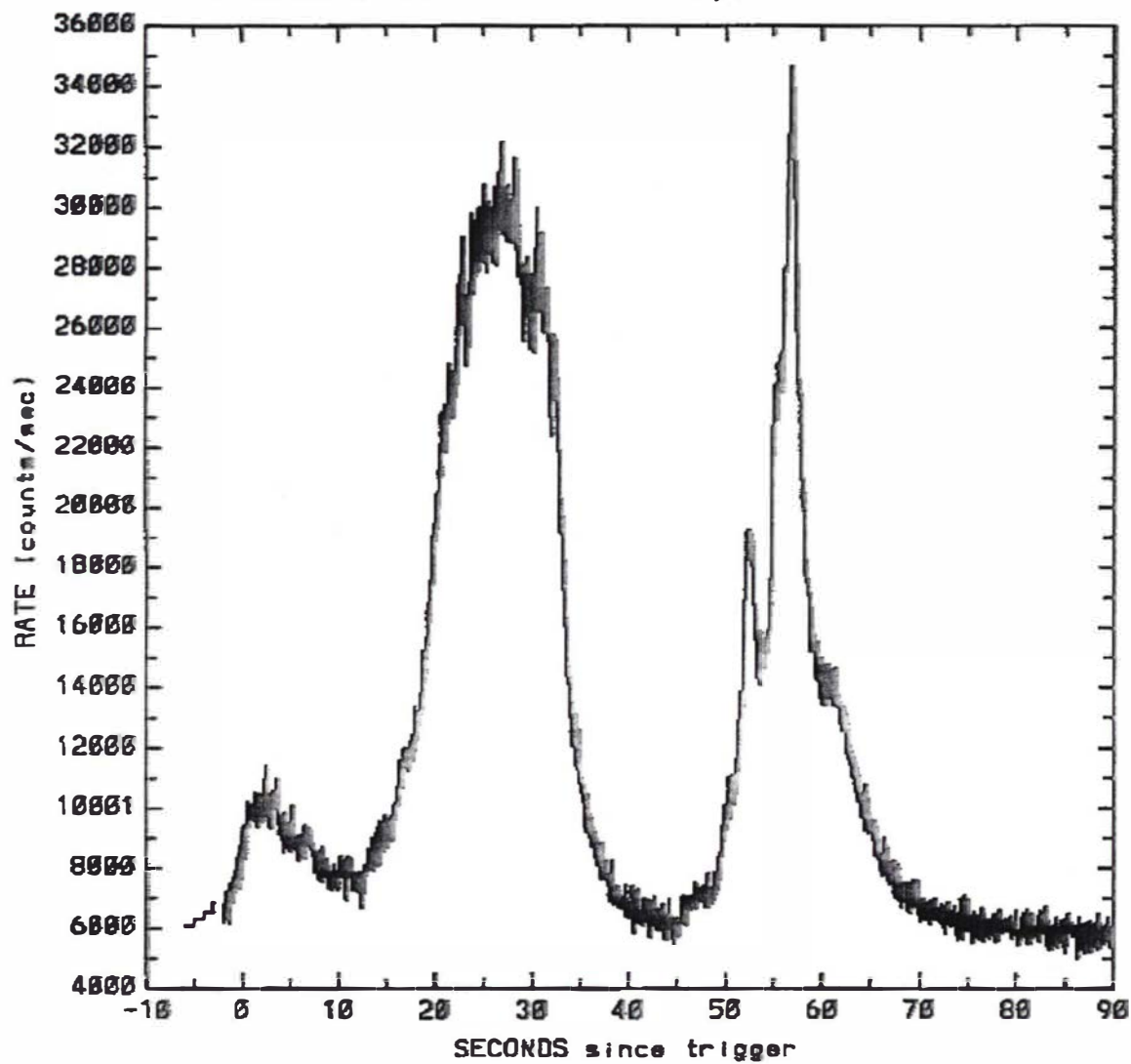
ULYSSES RT
20/10/94 72000.164 s
22- 147 keV

5 / 2 / 98

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



DISCSC Data for K. Hurley, No. 3253



24-OCT-1994 09:11:51

Created by ROPS BD
(Burst Display)
Version 2.22

Trigger # . 3253

Trigger Time:
9645 / 72327.794Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAKinross Integ. Time:
0.064 secondsDetectors [7..8]:
--54----Discriminators:
[1, 2]Quality Mask:
BDISP1

BATSE

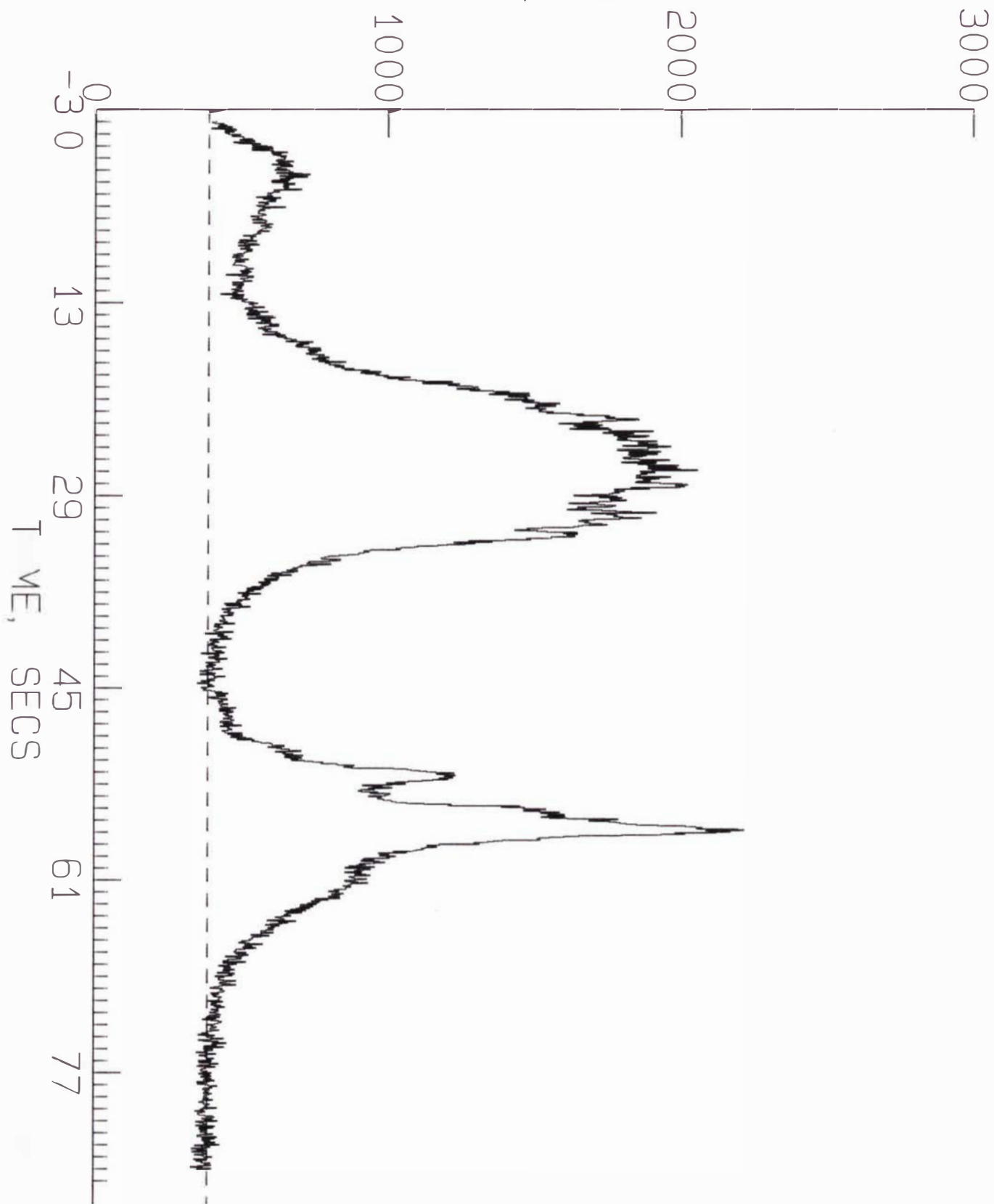
20/10/94

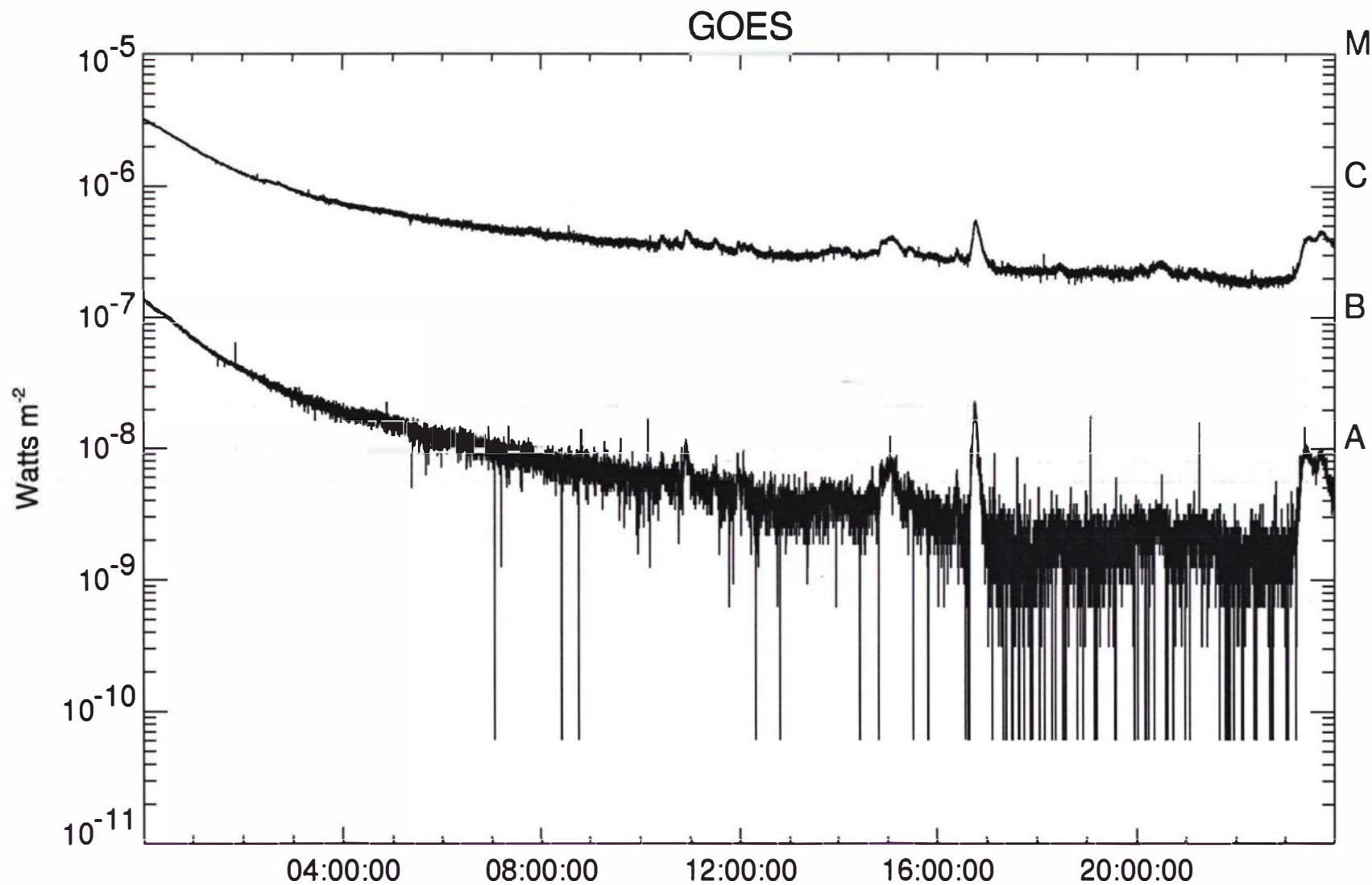
72327.794

25- 100 keV

COUNTS/ .064 S

5/11/94





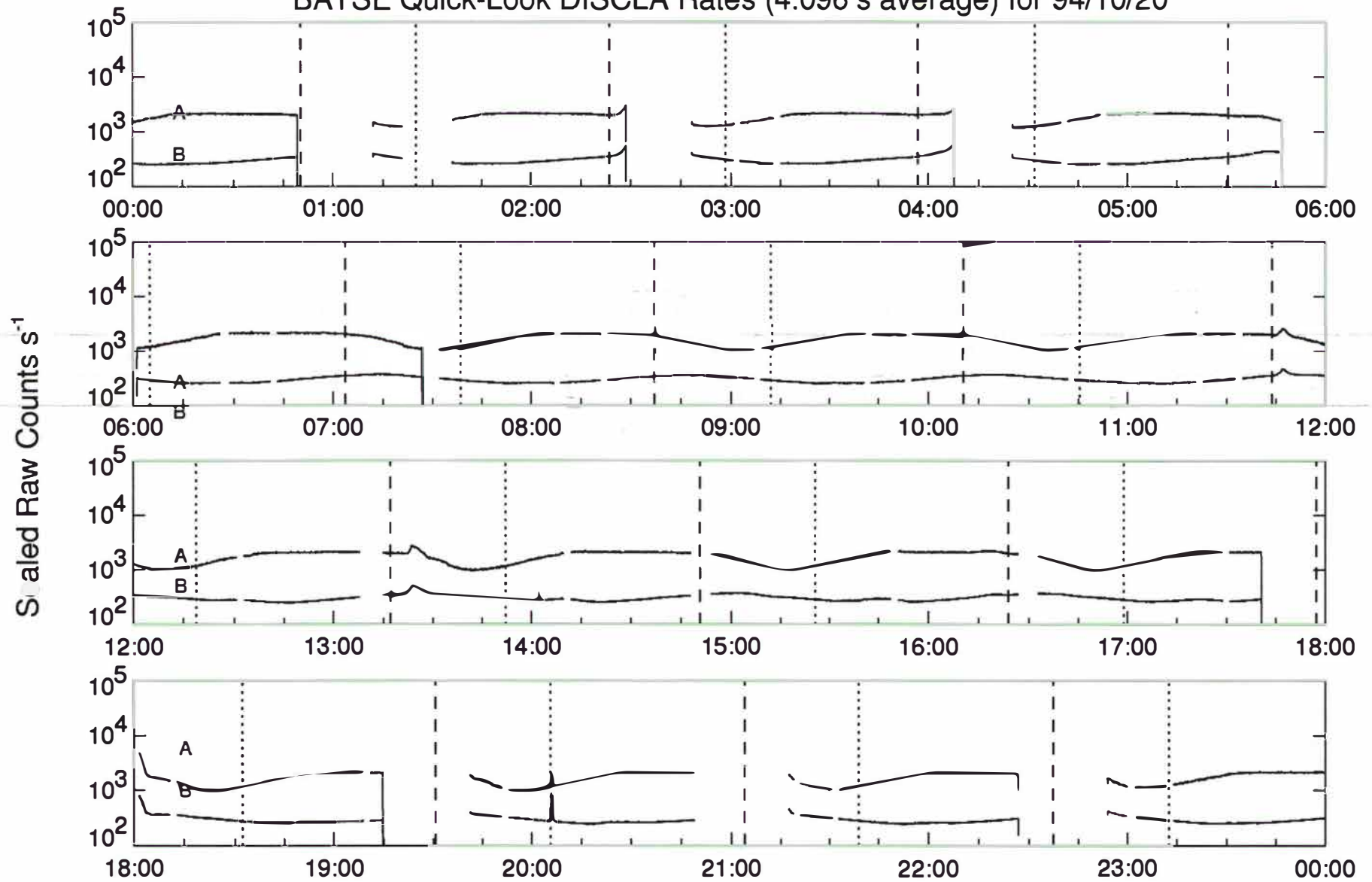
Data Start: 94/10/20, 0000:00

Plot created: 94/10/24, 1722

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/20

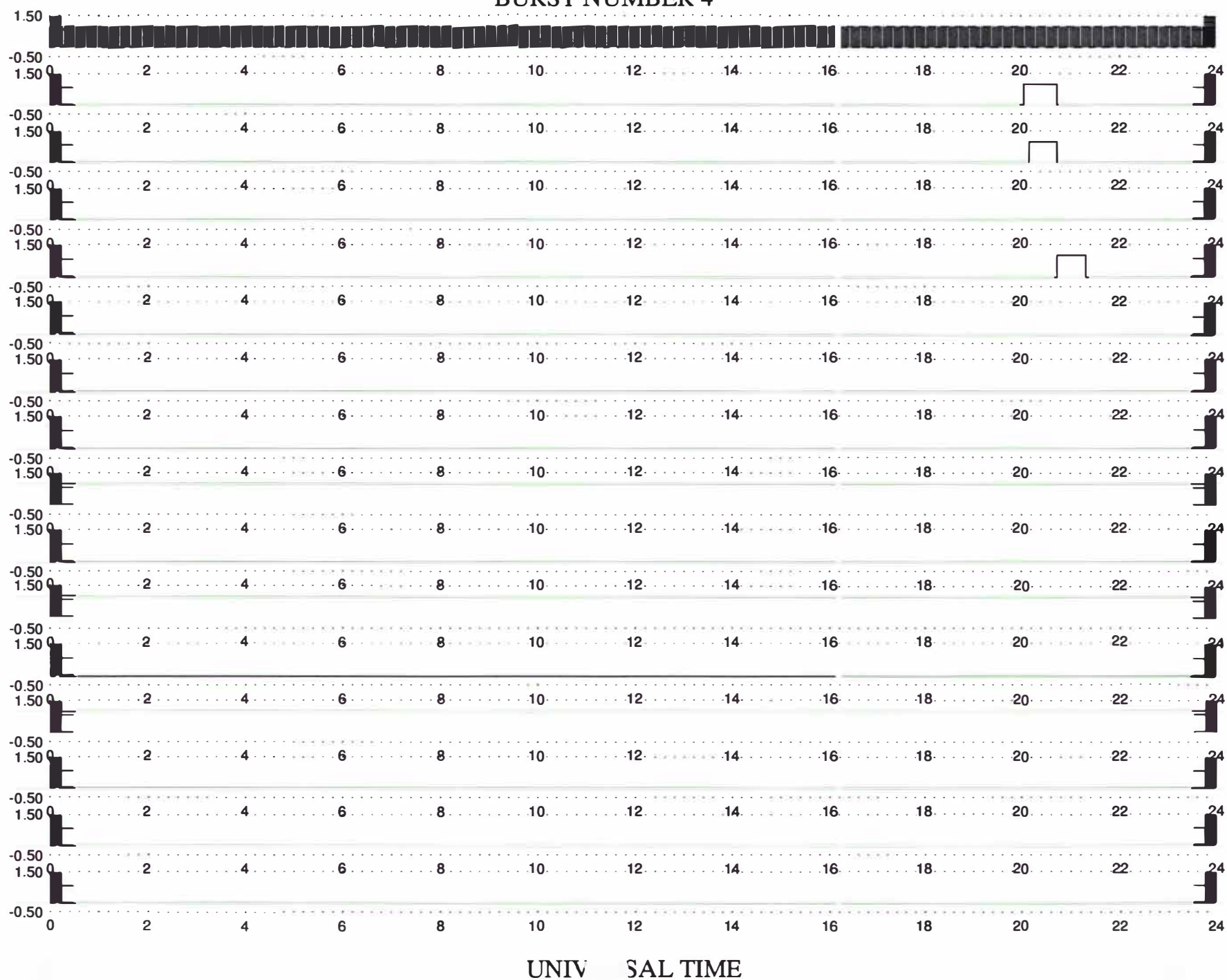


Current Time: 94/10/24, 1647 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

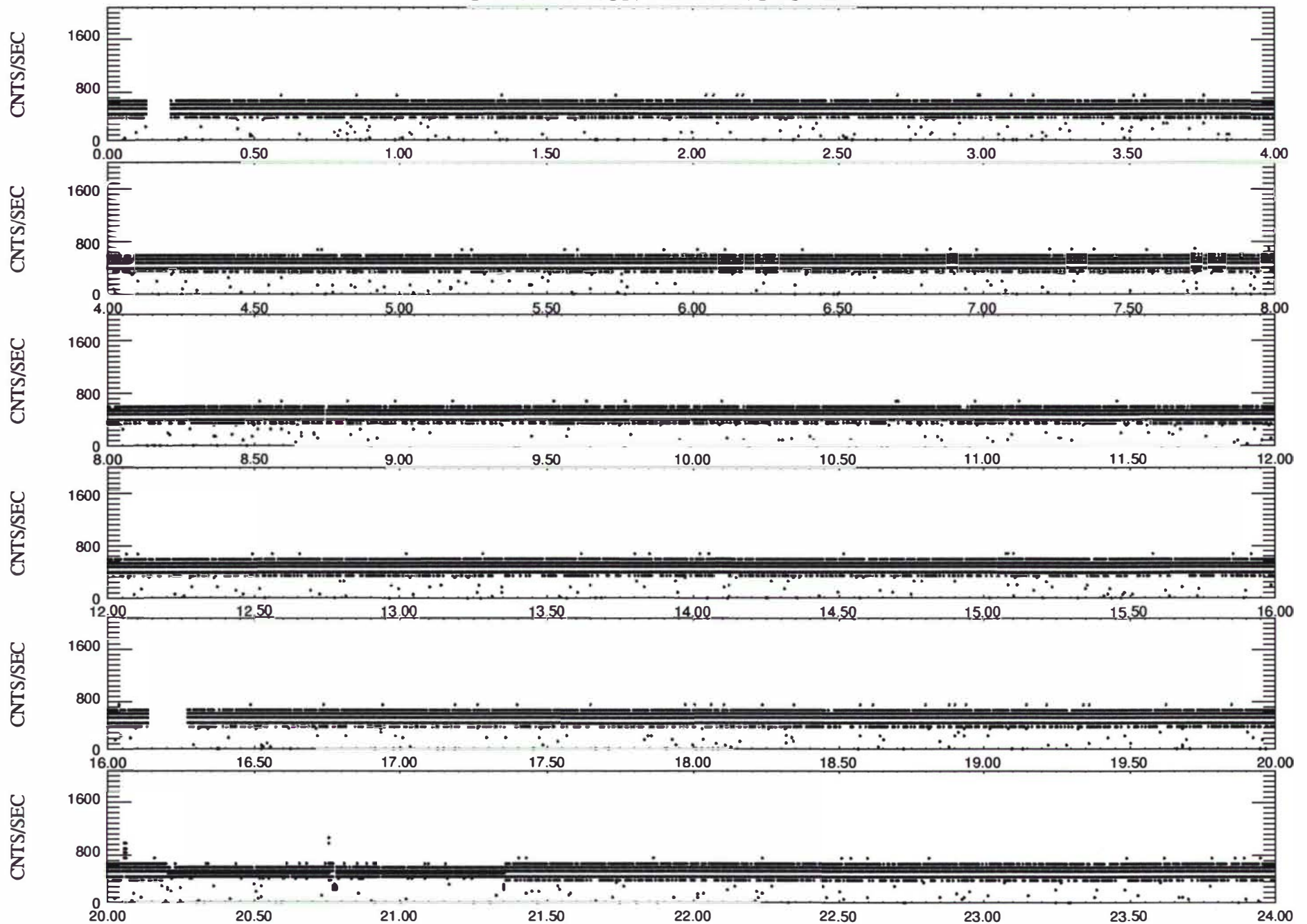
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

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

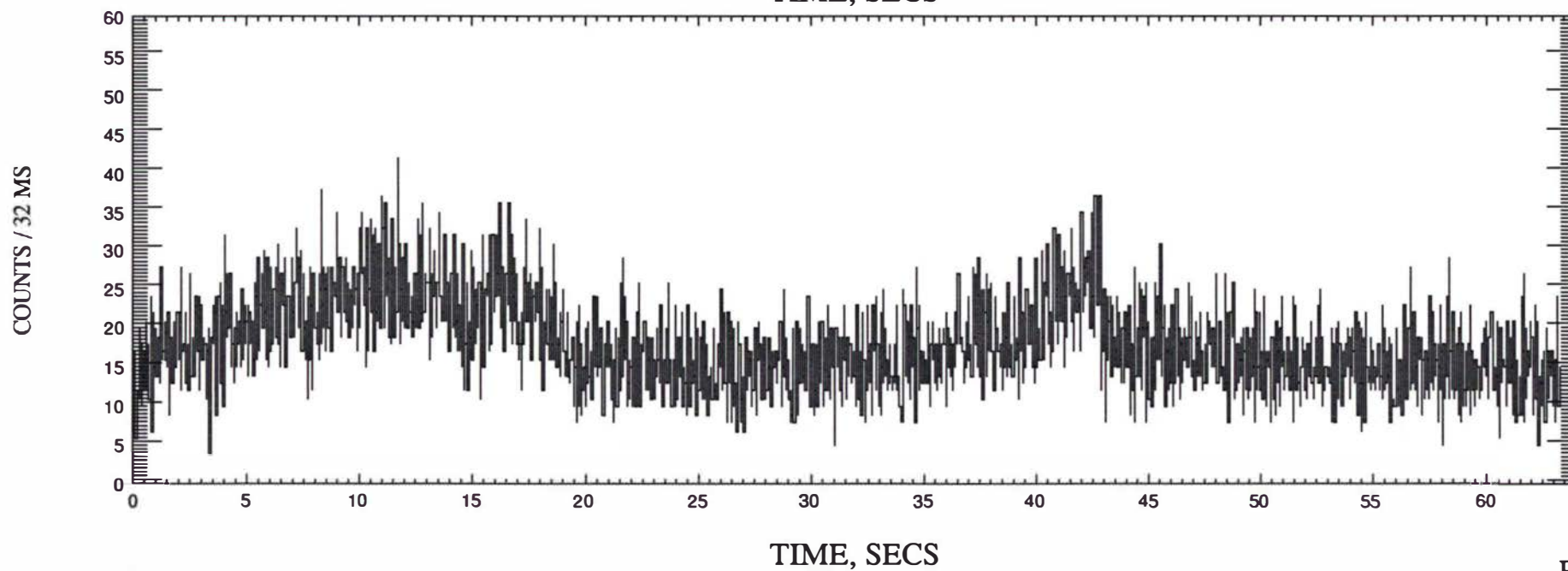
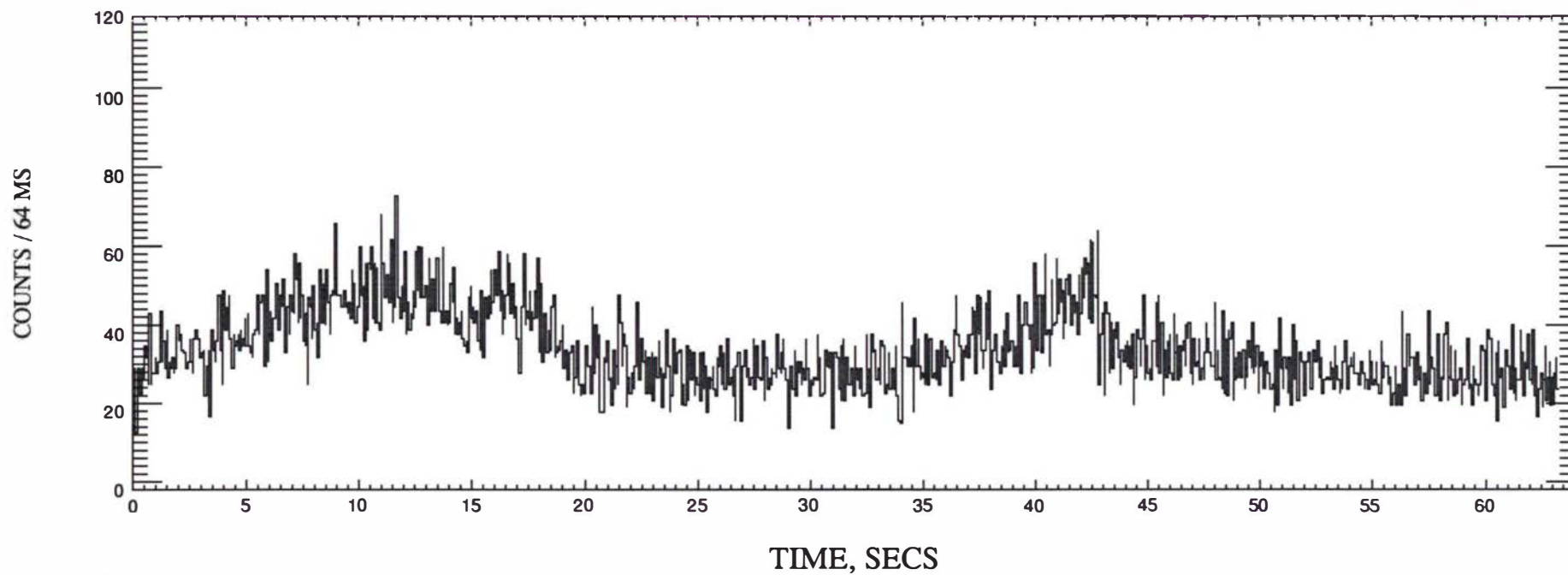


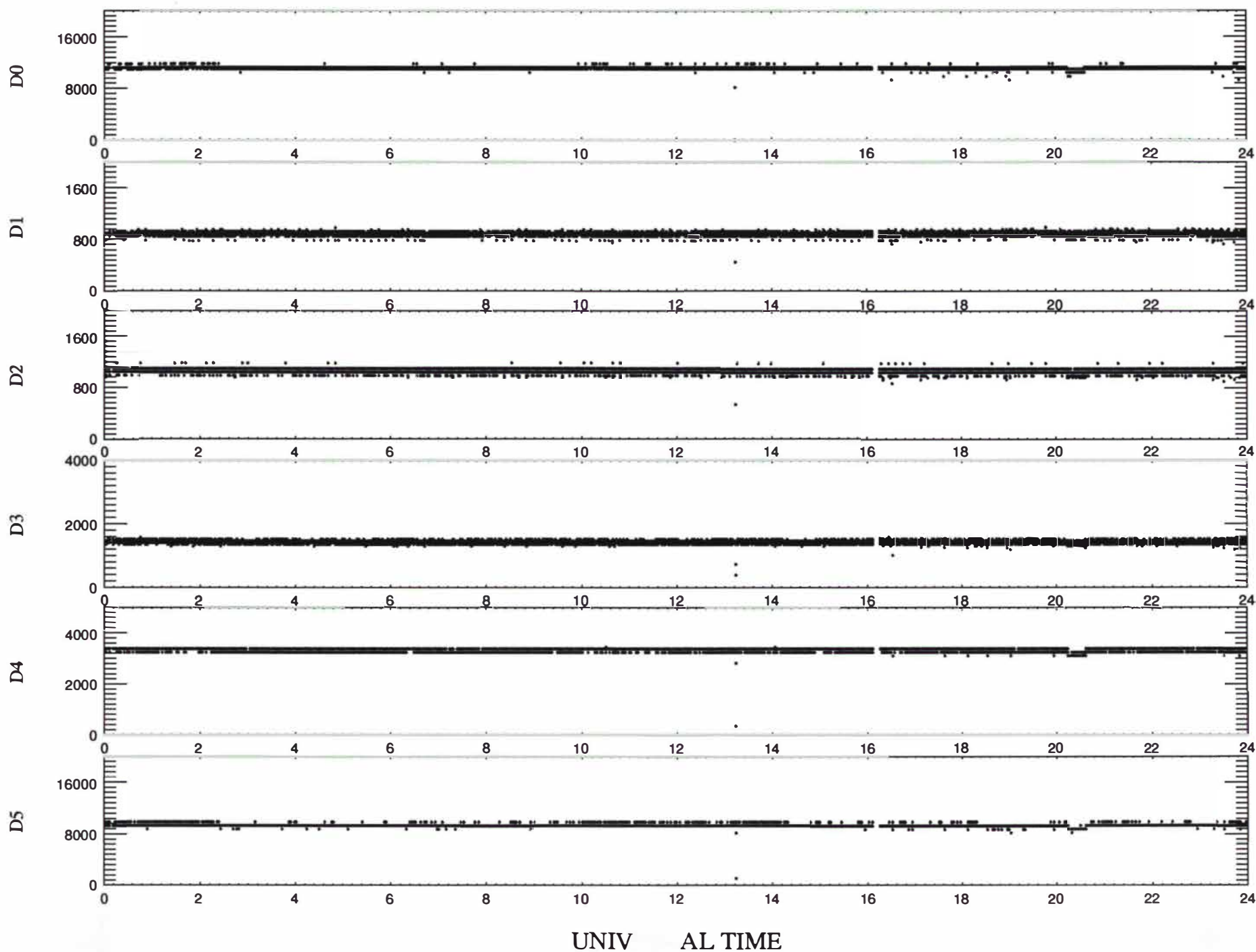
CALIBRATION DATA INCLUDED



UNIV SAL TIME

Burst Counter 4 at UT=20.052172427707 h=72187.821 s 20:03:07.821





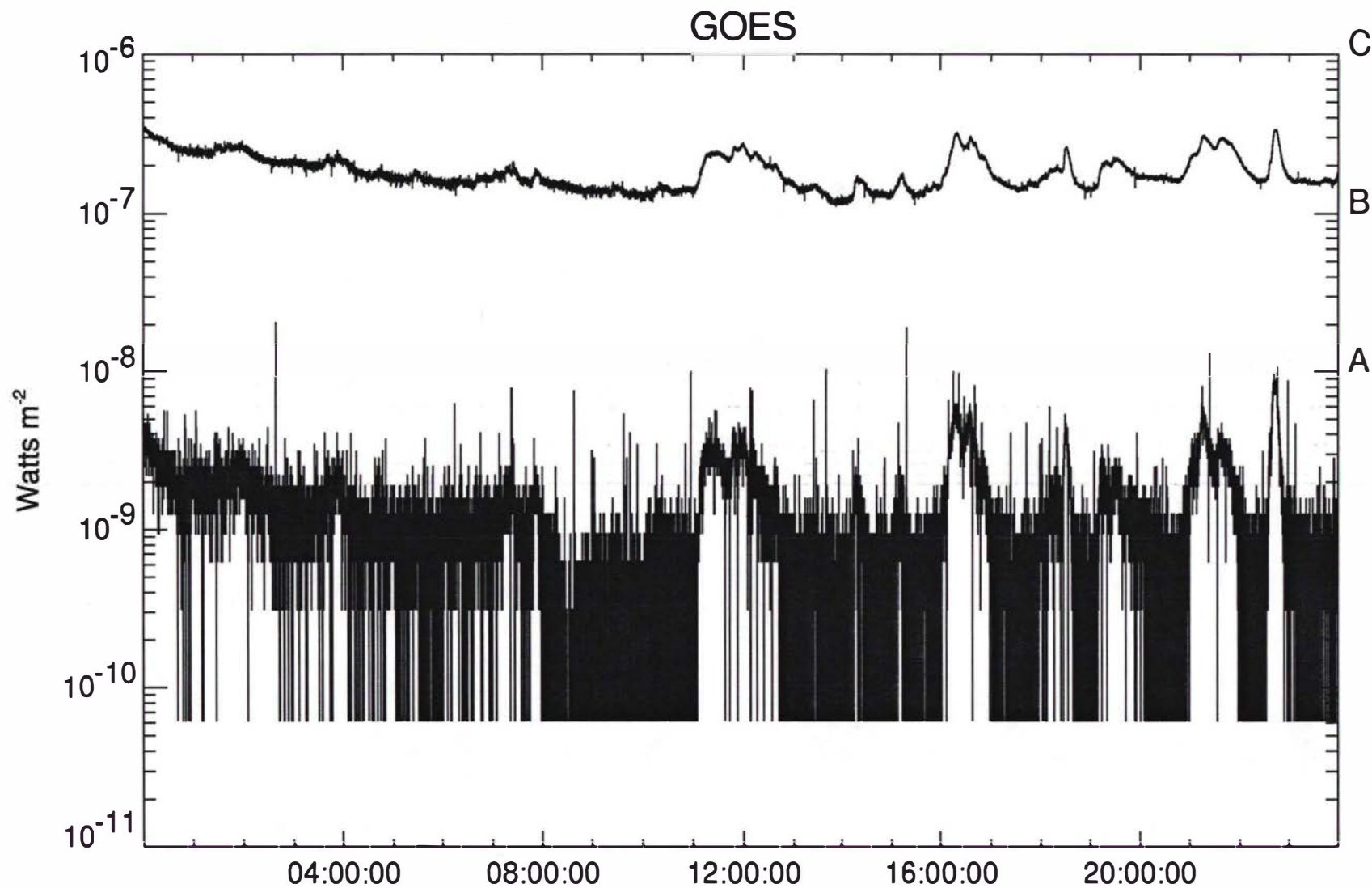
From bgoldstein@jplsp.DNET.NASA.GOV Thu Feb 2 18:08 PST 1995
Date: Thu, 2 Feb 95 21:08:39 -0500
From: bgoldstein@jplsp.DNET.NASA.GOV (Bruce Goldstein, (818) 354-7366)
To: "khurley@sunspot.ssl.berkeley.edu"@EAST.DNET.NASA.GOV (SENT TO ULSDMT,@INTERTEAM)
Subject: Problem with spacecraft attitude on 94294 in final SEDR

We have found that on Day 294 of 1994, for several hours in the vicinity of 10:00, that the spacecraft attitude information on the final SEDR is incorrect. This is true both in the right ascension-declination system, and in the celestial latitude and longitude system. At this time the right ascension goes from 306 to 0 degrees, and I suspect that the DMT software must be interpolating the right ascension giving crazy results. Khee Chan says that is the only time in the mission that the RA passes the 360-0 boundary, and Reggie Sakurai has checked the SEDR and found no other time during the mission during which this occurs.

This affects our data for this time period.

(OOPS, above should say 360 rather than 306 degrees).

Bruce Goldstein



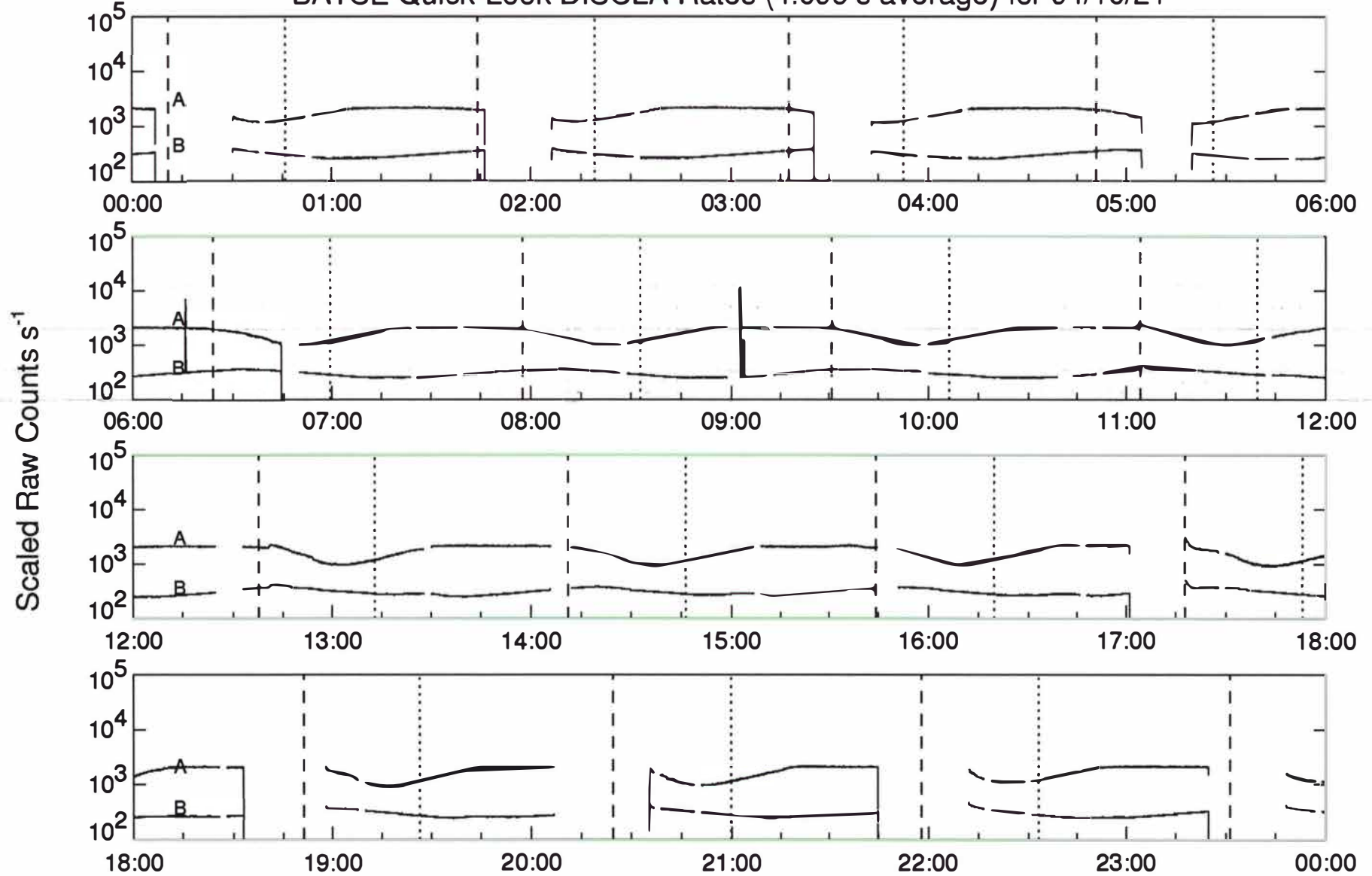
Data Start: 94/10/21, 0000:01

Plot created: 94/10/24, 1723

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/21

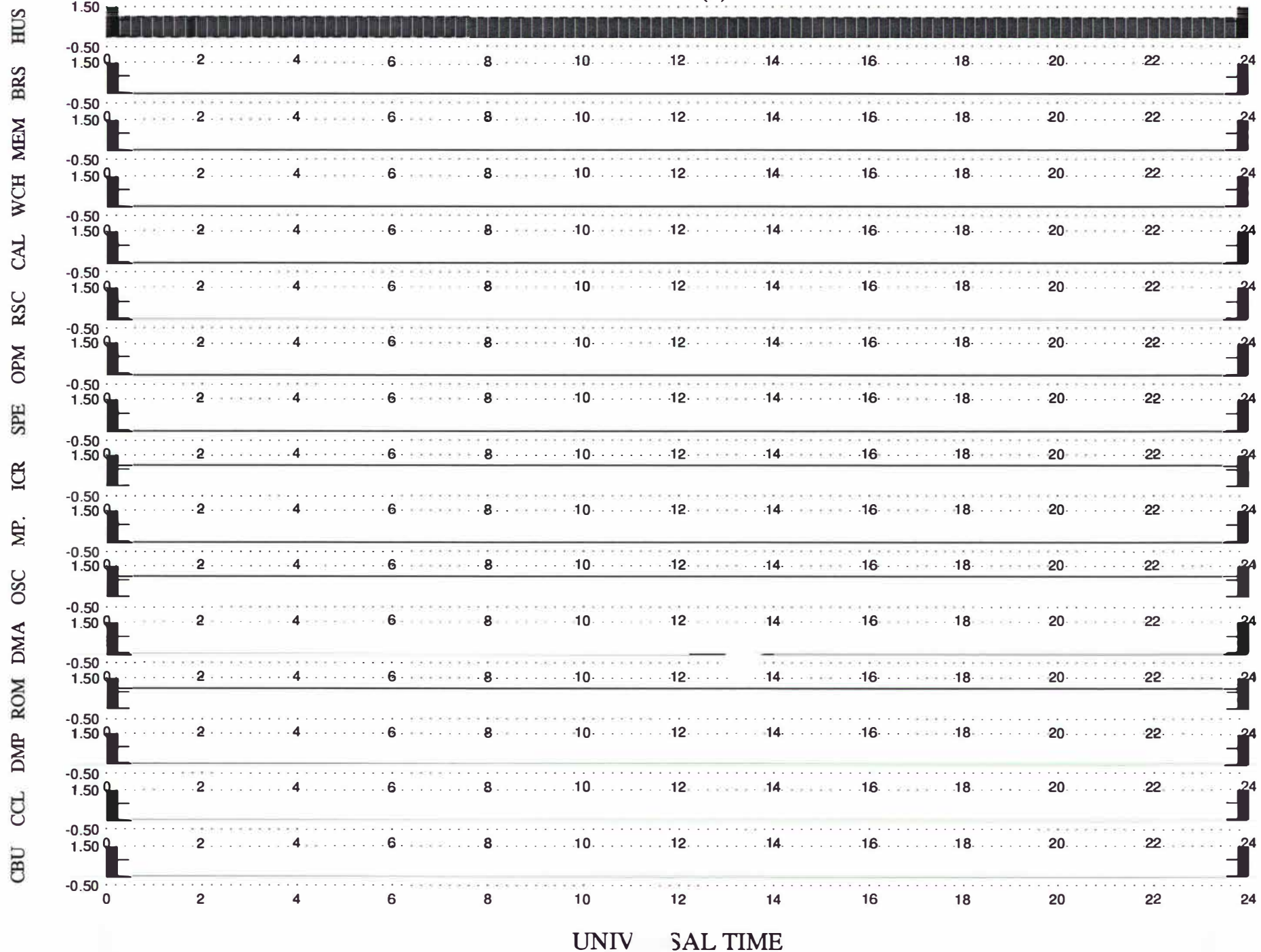


Current Time: 94/10/24, 1647 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

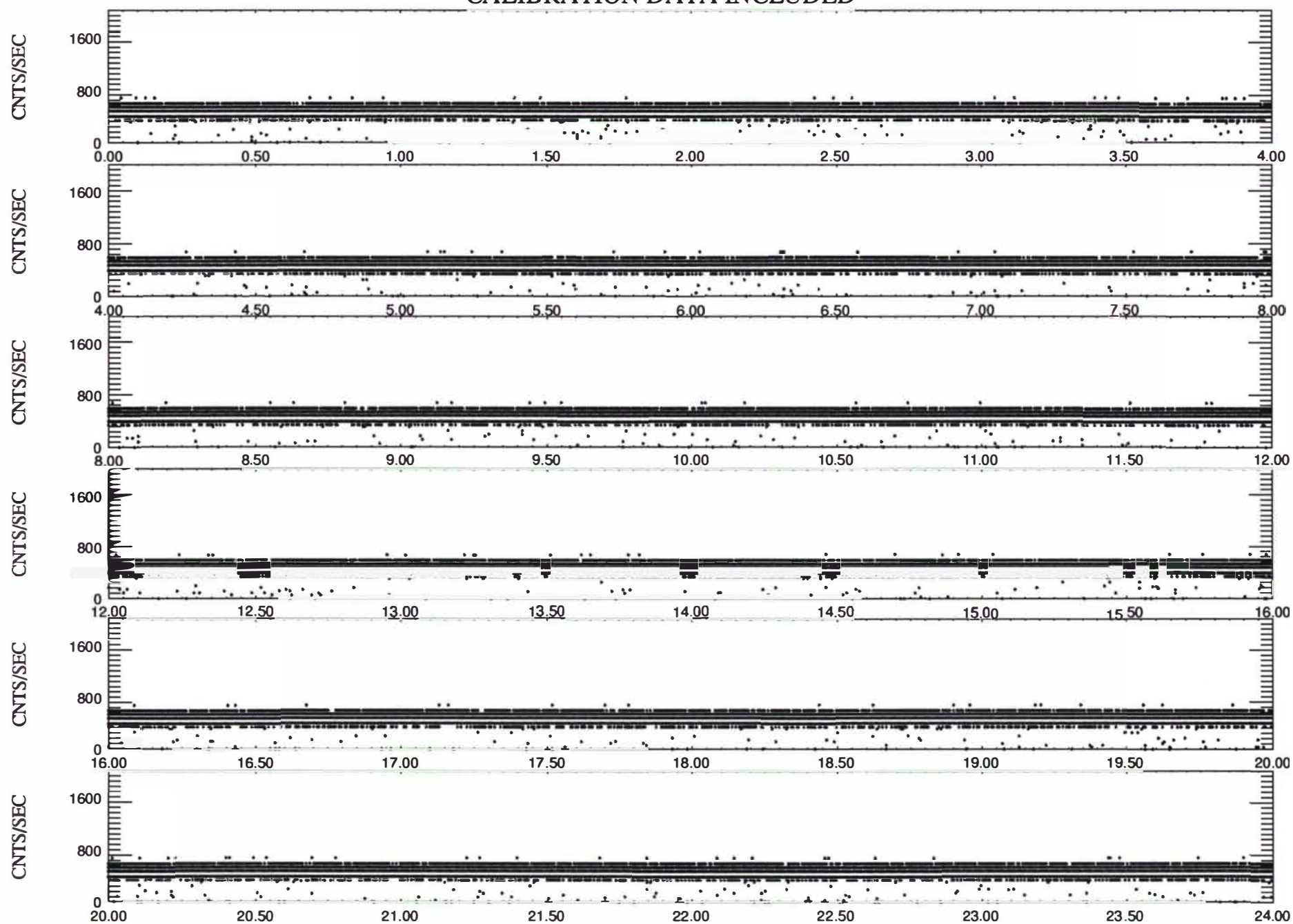
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

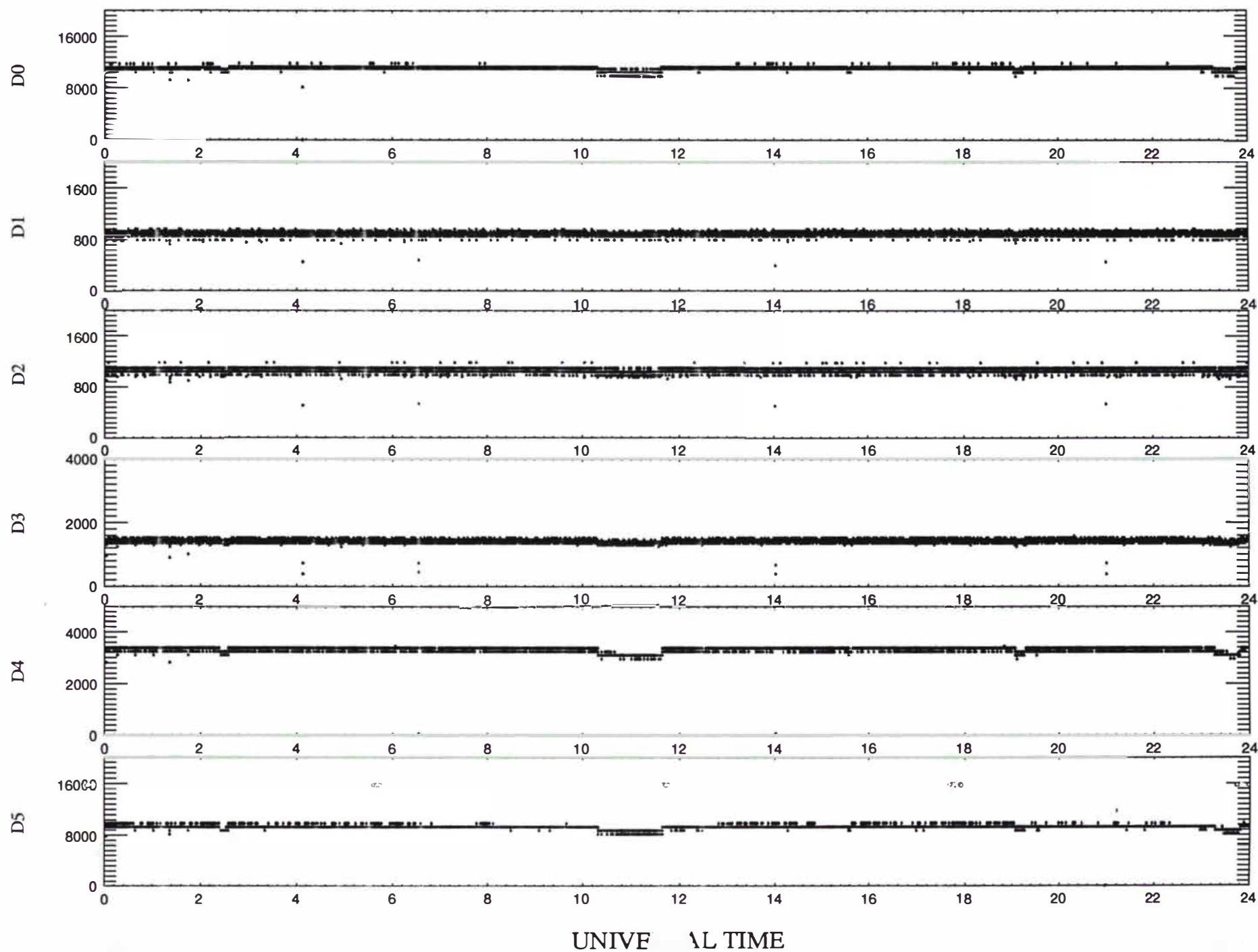
NO BURST (4)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From kommers@space.mit.edu Wed Oct 28 08:04 PST 1998
Date: Wed, 28 Oct 98 11:04:13 EST
From: Jeff Kommers <kommers@space.mit.edu>
To: khurley@sunspot.ssl.berkeley.edu
Subject: unique event

Hi Kevin

I'm looking through my list of "unkown" low-energy events for possible activity from SGRs. I've got one pretty strong (1.3 ph/cm/cm/s in 25-100 keV) event that is shorter than 1.024 s. It happened in the BATSE data on TJD 9647 (22 Oct 1994) at 50780.3 s. Its best-fit position in my catalog is RA = 28.3, Dec = 56.1 (+/- 7 deg) which is nowhere near any known SGRs.

I didn't see anything in the IPN3 Master Burst List but I wanted to call your attention to it anyway in case Ulysses might have something there.

Jeff

KOMMERS

28 / 10 / 98

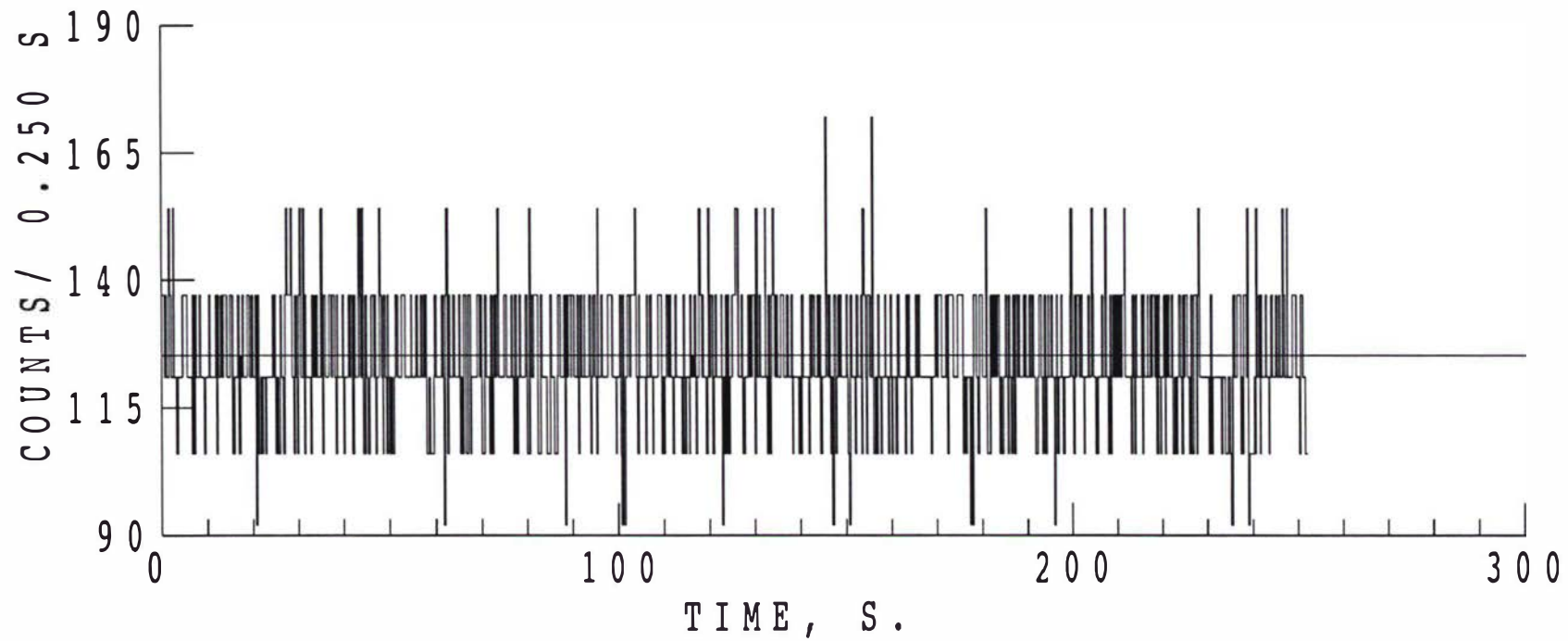
ULYSSES RT

22 / 10 / 94 51768.047 s

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



KOMMERS

ULYSSES RT

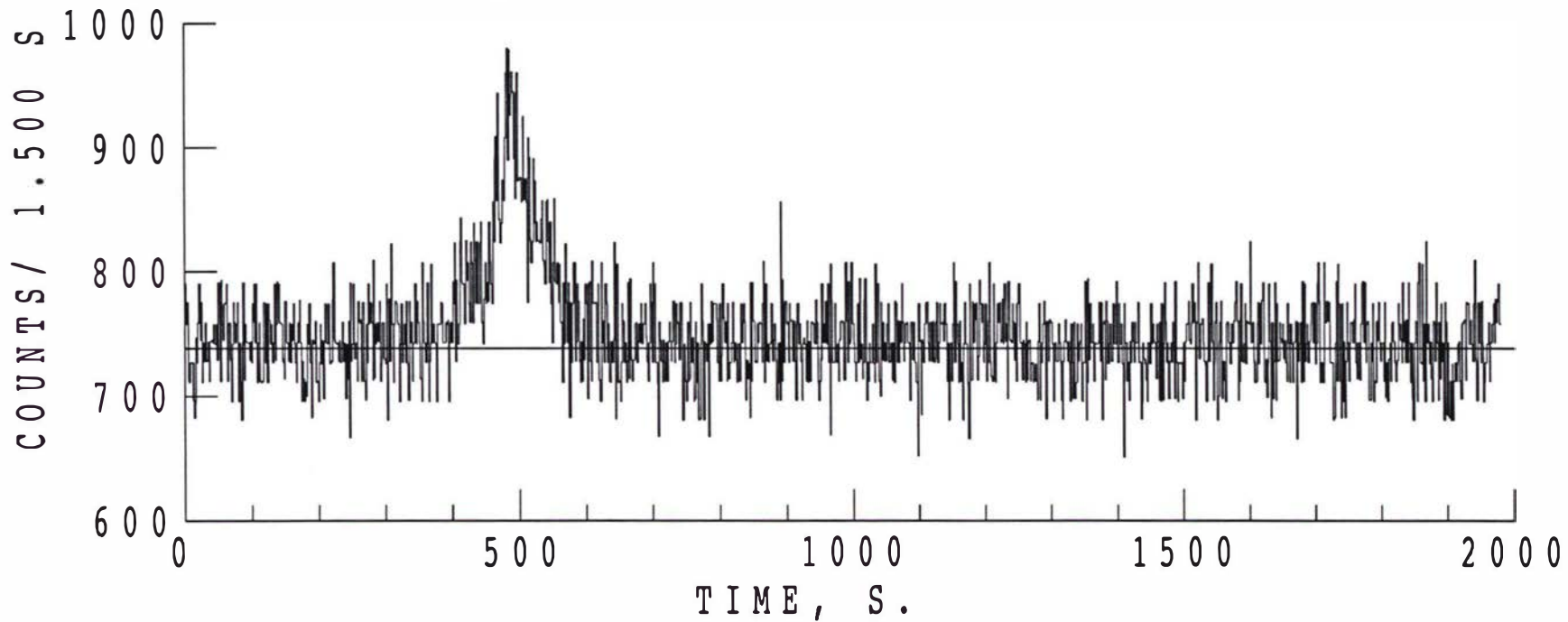
28 / 10 / 98

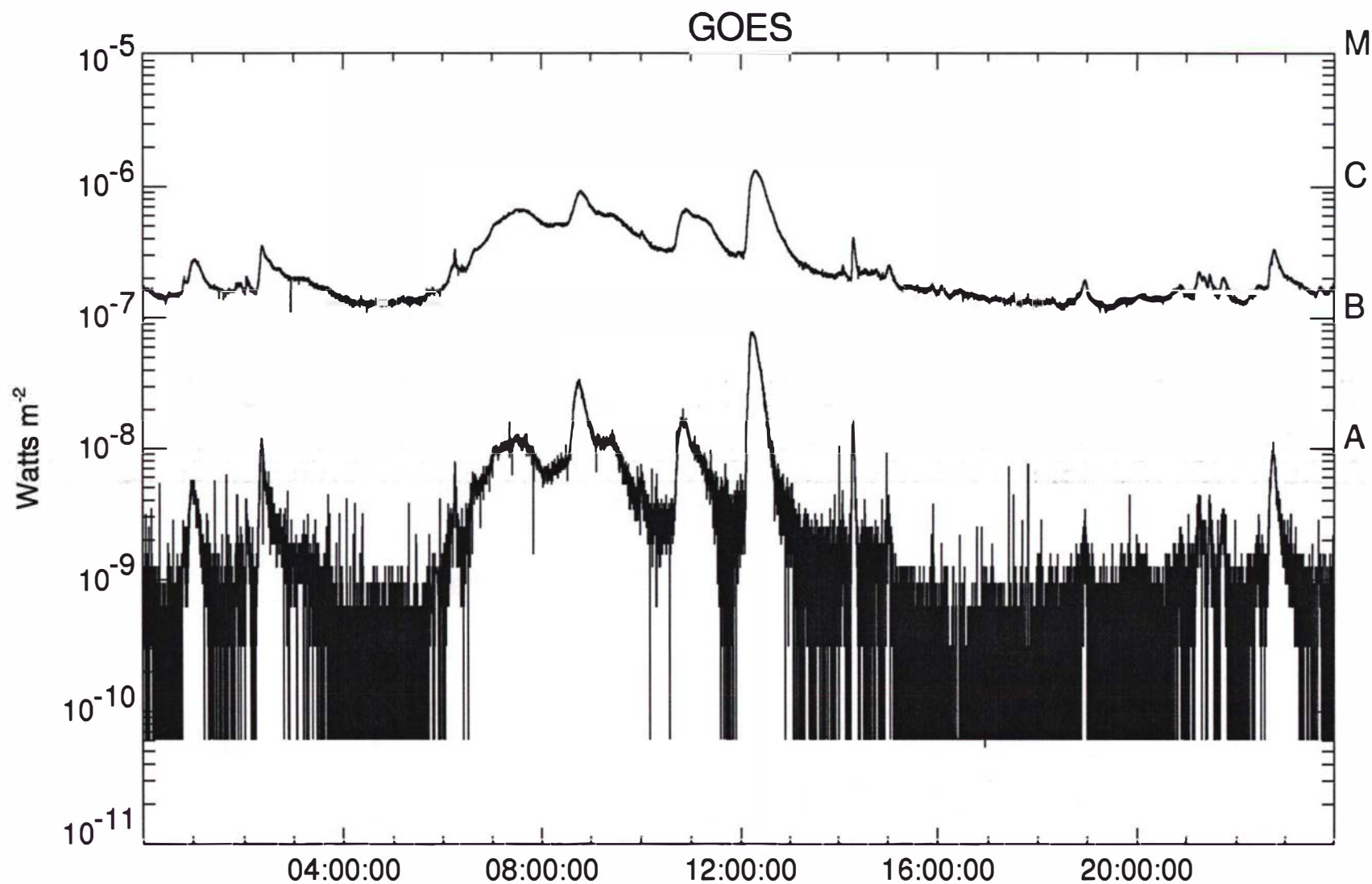
22 / 10 / 94 50904.031 s

0.250 S INTERVALS REGROUPED BY 6

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





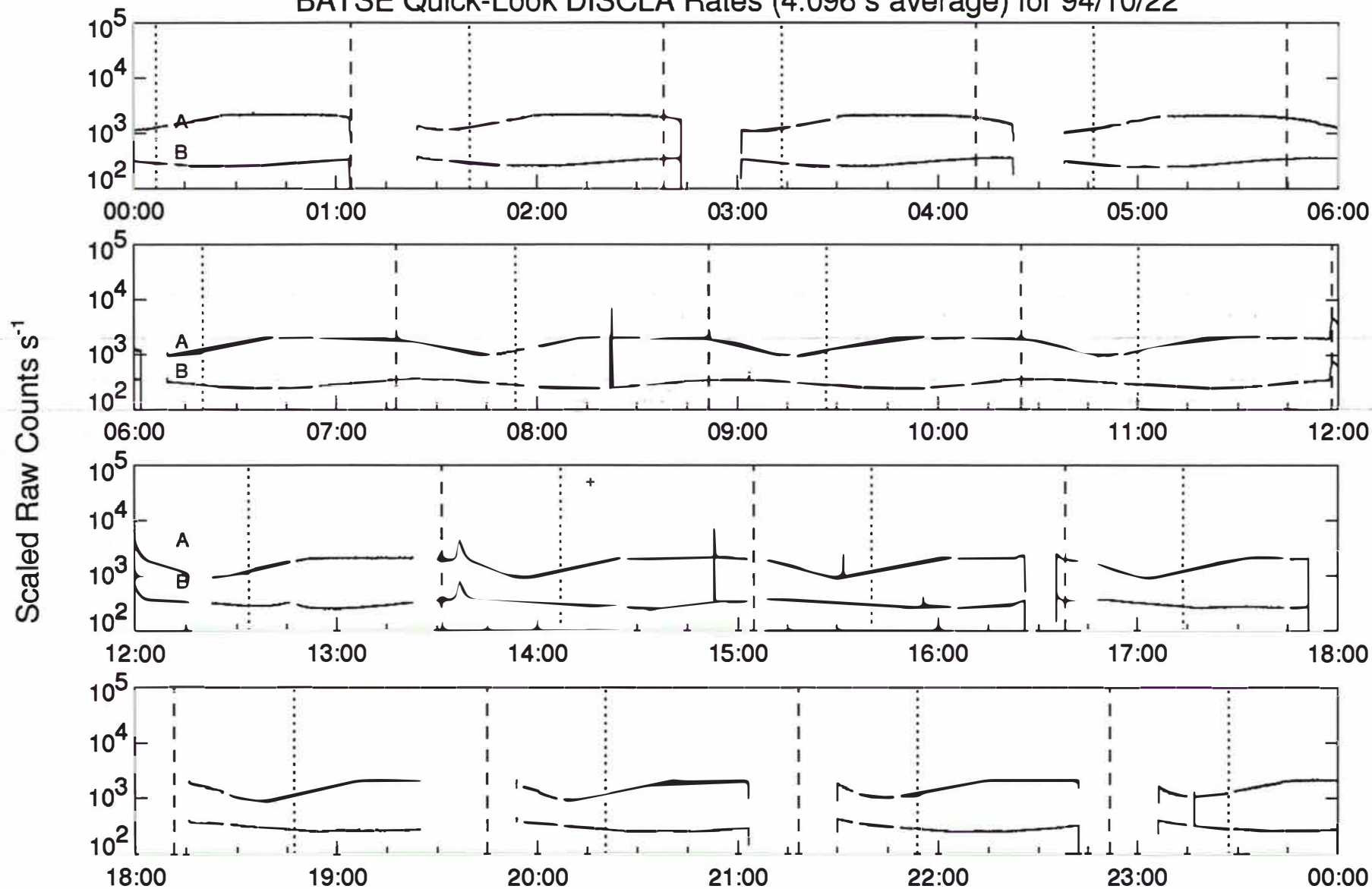
Data Start: 94/10/22, 0000:03

Plot created: 94/10/24, 1723

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/22

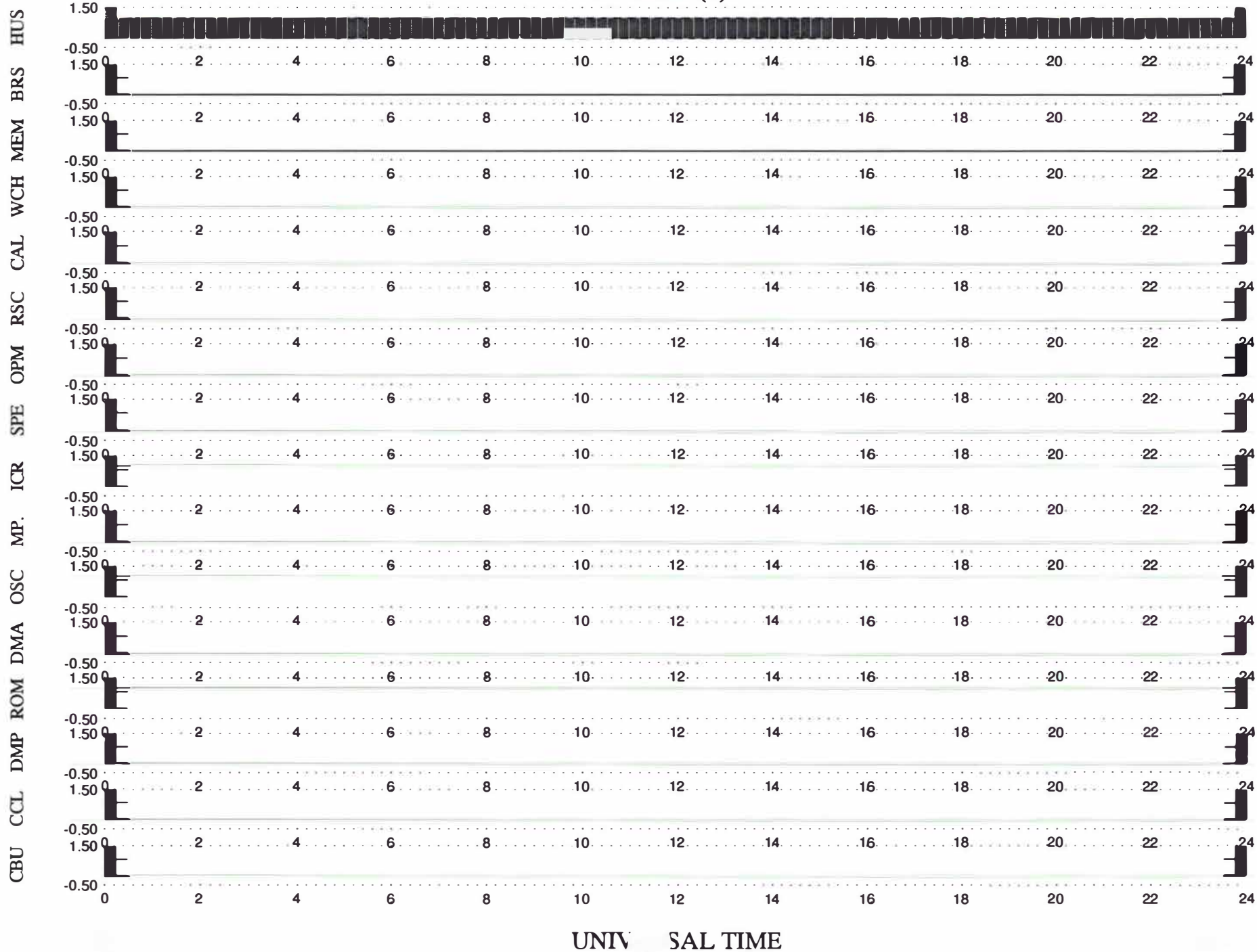


Current Time: 94/10/24, 1648 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

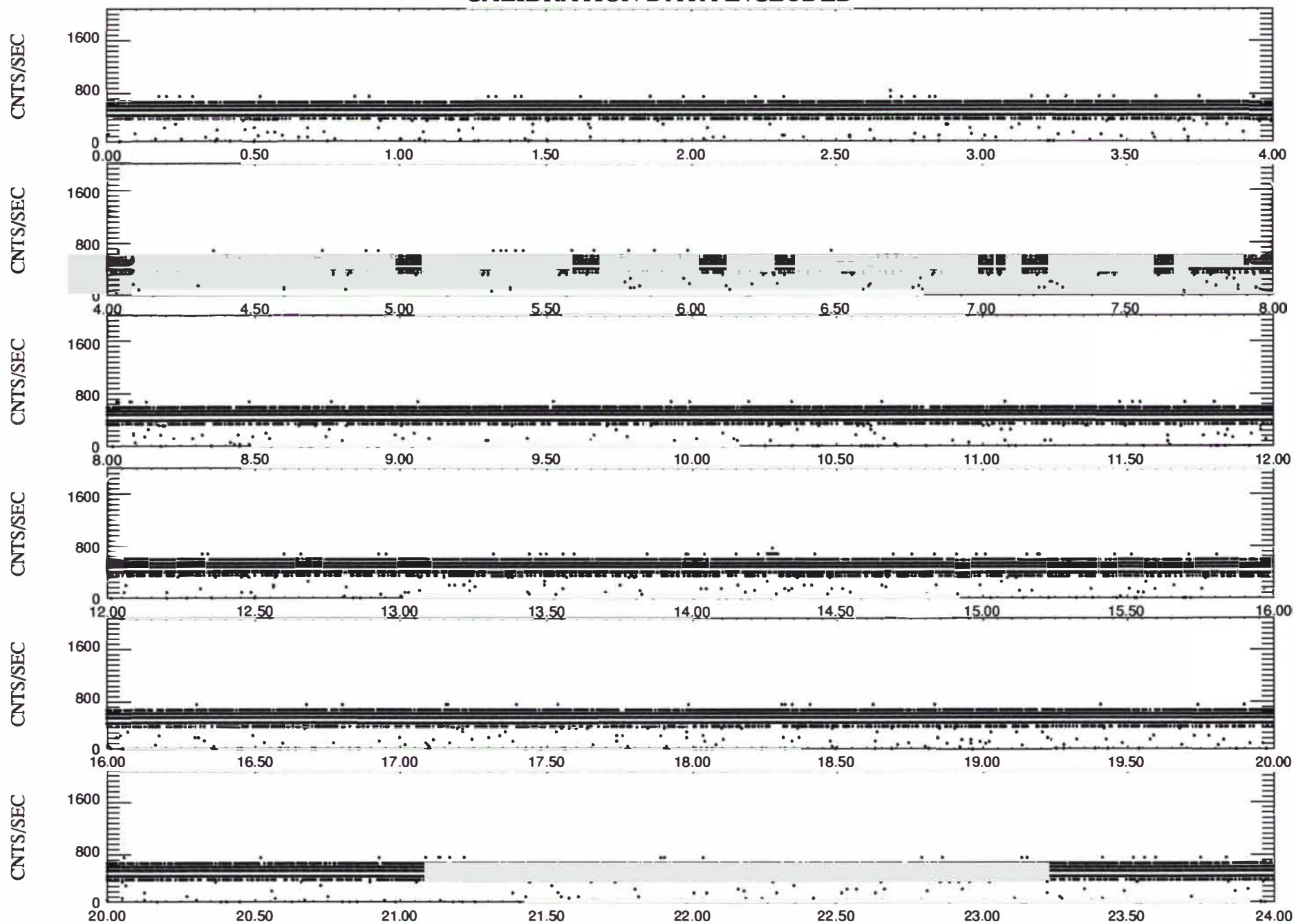
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

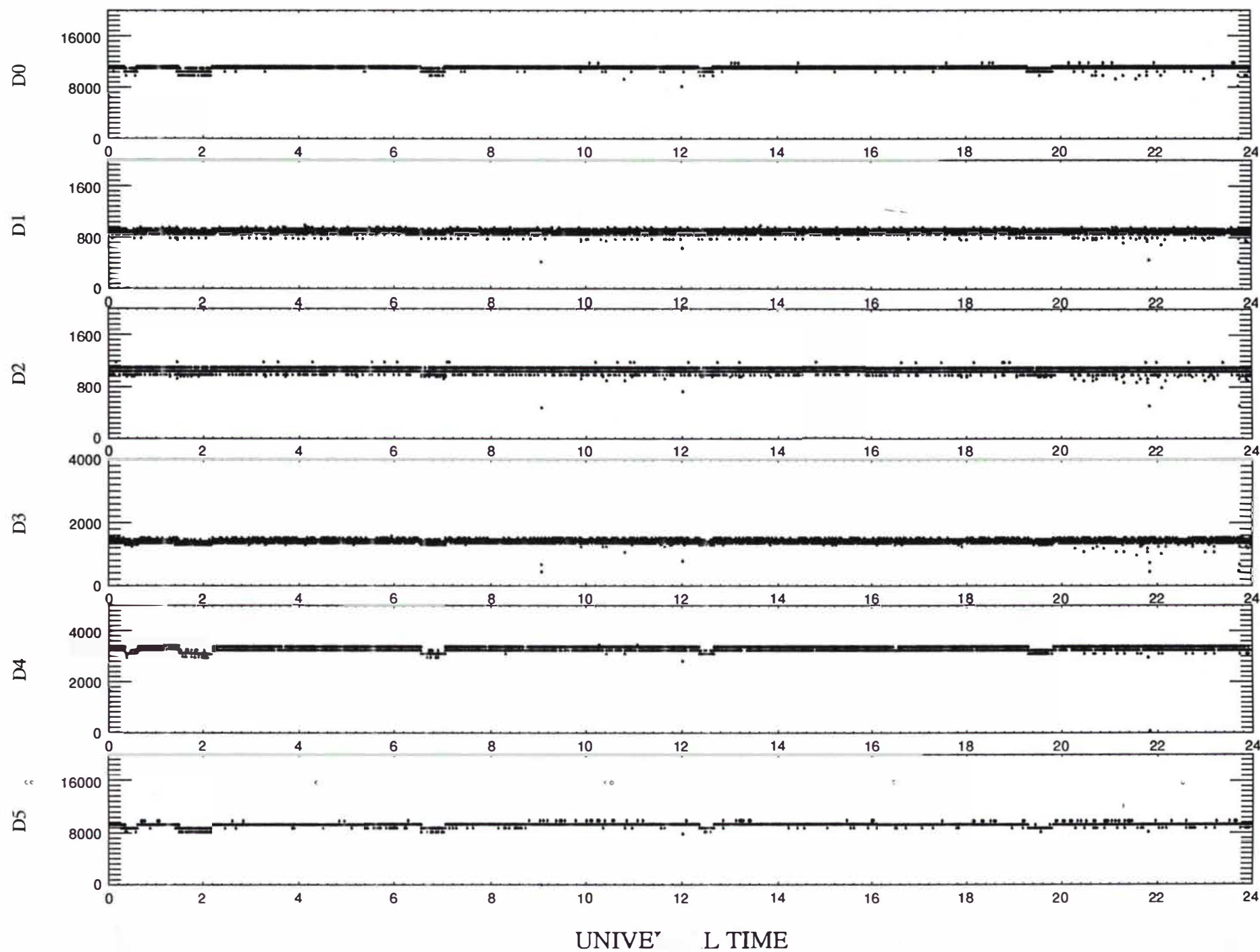
NO BURST (4)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From DEAL@ssl.msfc.nasa.gov Tue Oct 25 07:38 PDT 1994
Date: Tue, 25 Oct 1994 9:42:11 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3254

TIME: TJD=9648 SECONDS=07028

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY

From DEAL@ssl.msfc.nasa.gov Tue Oct 25 07:44 PDT 1994
Date: Tue, 25 Oct 1994 9:48:15 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3255

BATSEARCH PROGRAM

Trigger

BATSE BURST # 3255
EVENT OF 1994 OCT 23 DAY OF YEAR=296
EVENT CROSSING TIME AT BATSE : 16472. S. OR 04:34:32.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 211.000 -82.000
BATSE PEAK COUNTING RATE: 11000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 23/10/ 94 IS:
RA= 182.938 DEC= -68.619 DIST= 2.323 AU
BATSE-ULYSSES DISTANCE = 347546866. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=165.21 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH=-1120.91 SECS.
CROSSING TIME AT ULYSSES IS 15351. S. OR 04:15:51 +/- 84.34 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 23/10/ 94 IS:
RA= 132.749 DEC= 19.089 DIST= 1.415 AU
MARS-BATSE DISTANCE = 211702832. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 72.72 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 209.79 SECS.
CROSSING TIME AT MARS IS 16682. S. OR 04:38:01 +/- 120.25 SECONDS

BATSE BURST TRIGGER

NO.: 3255

TIME: TJD=9648 SECONDS=16472

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=015.9 AZIMUTH=160.1 ERROR= DEGREES

COMMENTS:

MULTI-PEAK BURST LASTING ~36S. VISIBLE ABOVE 300 KEV.

From DEAL@ssl.msfc.nasa.gov Tue Oct 25 07:44 PDT 1994
Date: Tue, 25 Oct 1994 9:47:50 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3255

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3255	941023	9648	16472	11000	211	-82

Helio corr removed

Date: Jan 5 '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 starts*

2. BATSE Data

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

3. PVO Data

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

EVENT OF OCT 23, 1994 4:16

5 / 2 / 98

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

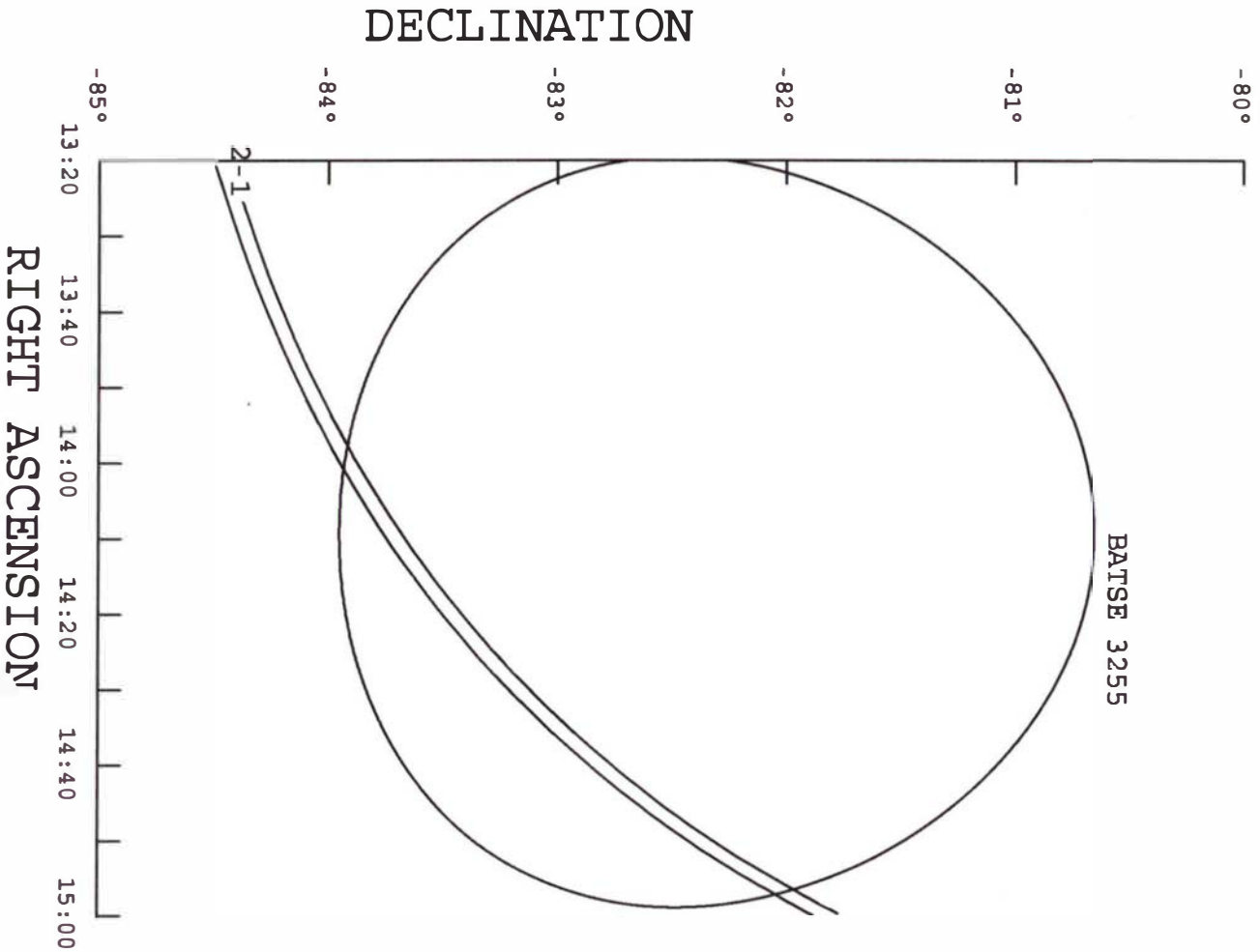
S=SUN

E=ECLIPTIC

G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE



ULYSSES

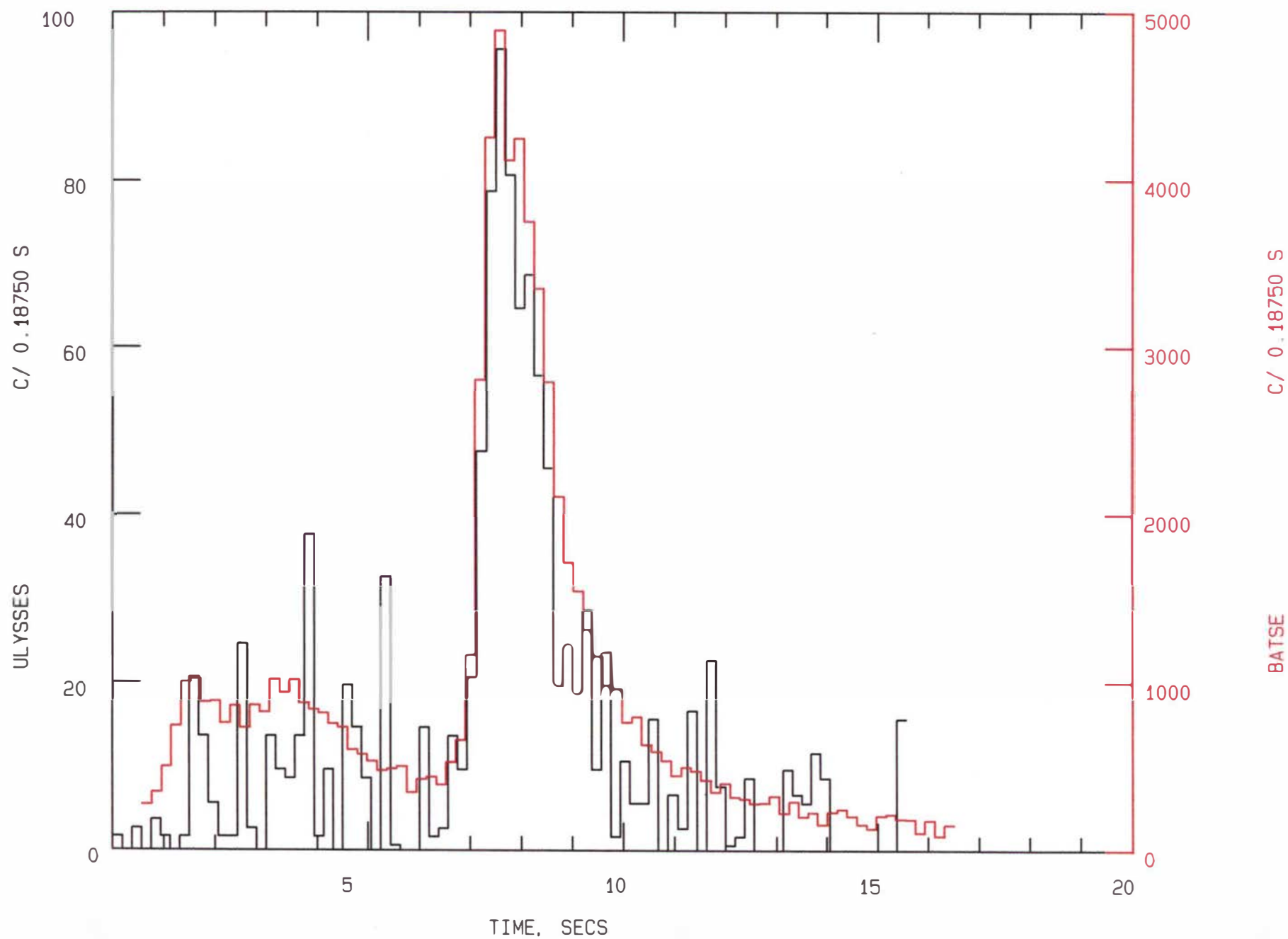
-BATSE

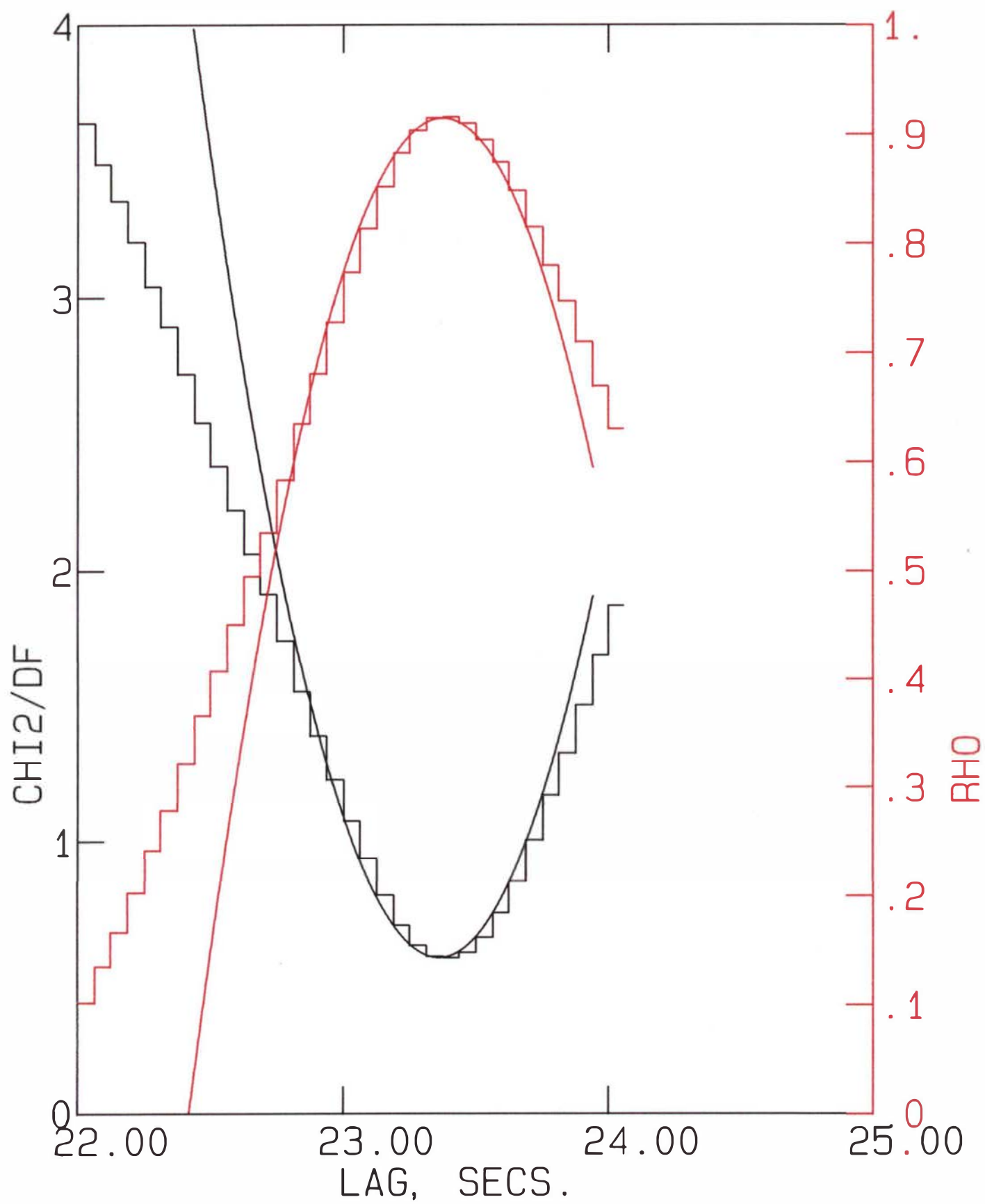
CORRELATION

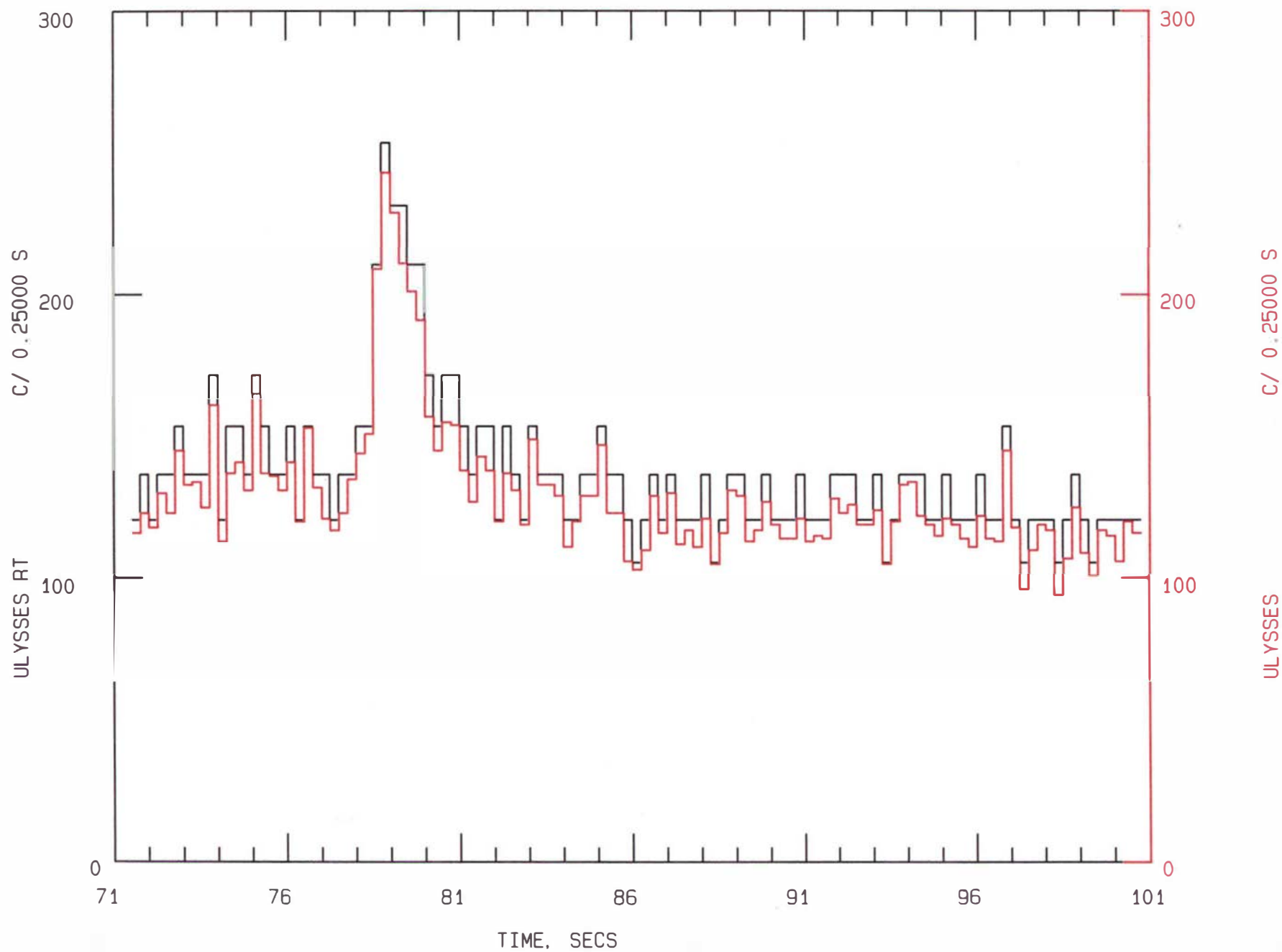
23/10/94

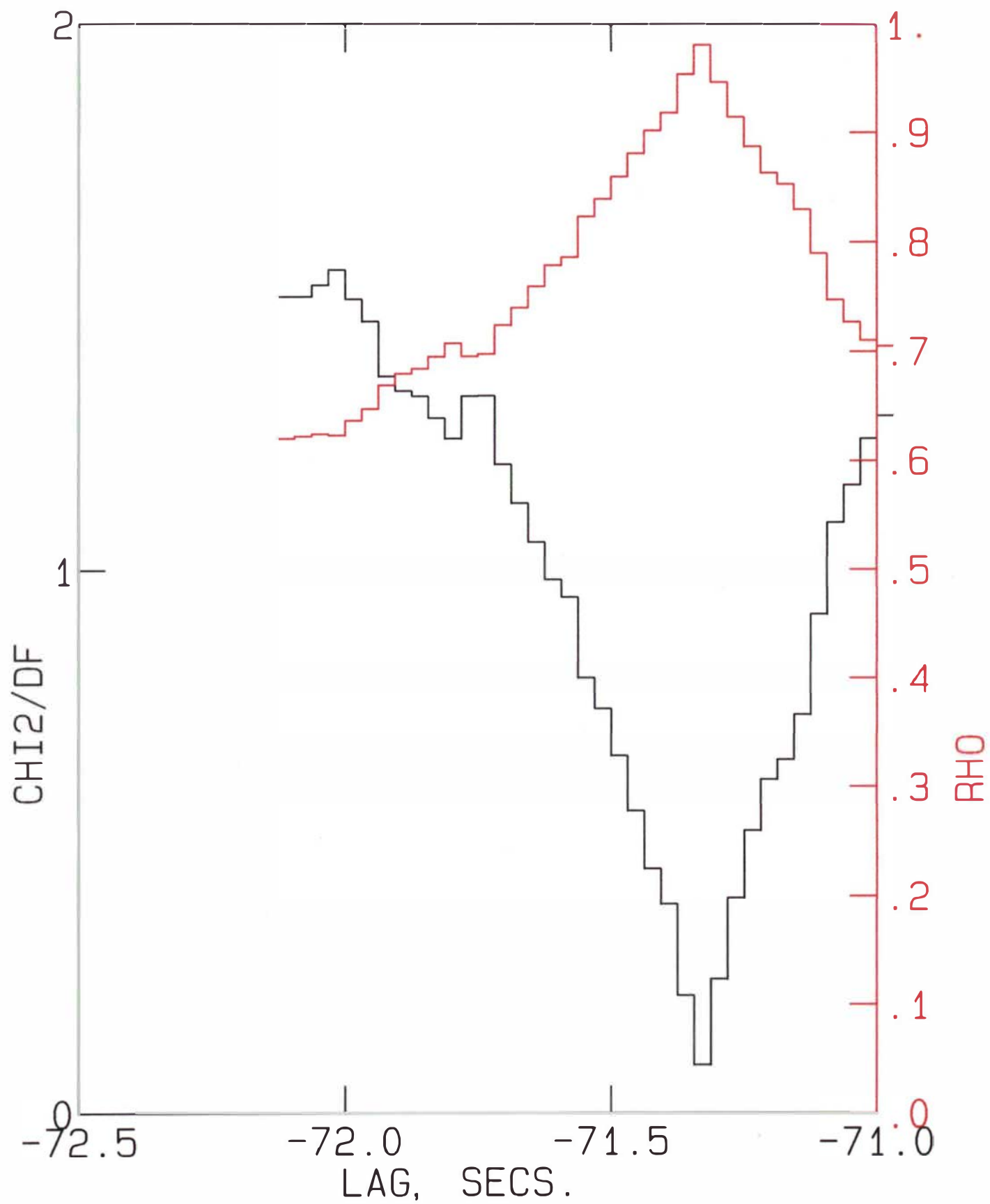
15385.744

5/ 2/98





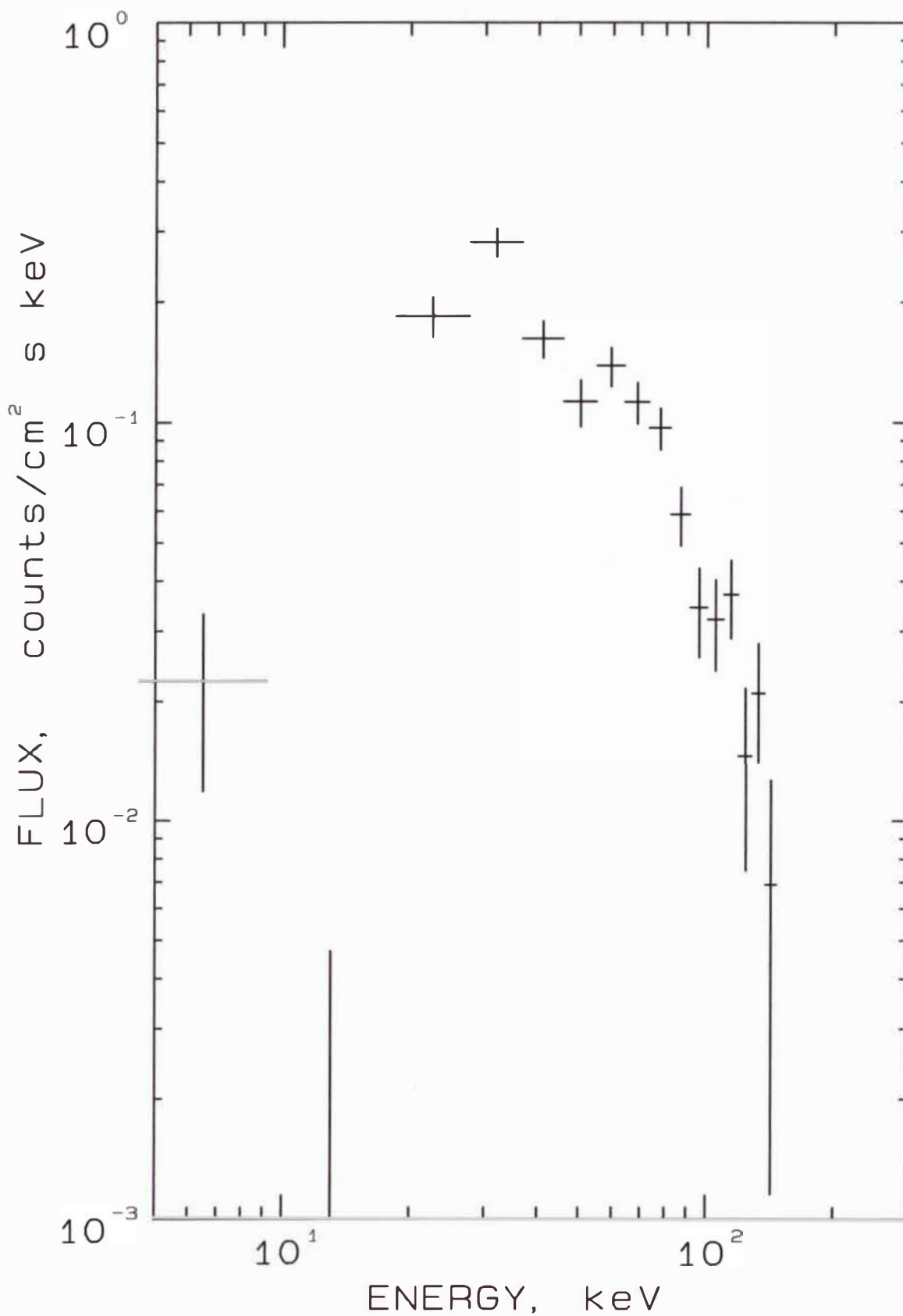




ULYSSES 23/10/94 15385.748

5/ 2/98

SPECTRUM INTEGRATED OVER 10.1 SECONDS, INTERVALS 2 TO 12



ULYSSES 23/10/94 15385.748 BURST SPECTRAL COUNT RATES

4- 18 keV

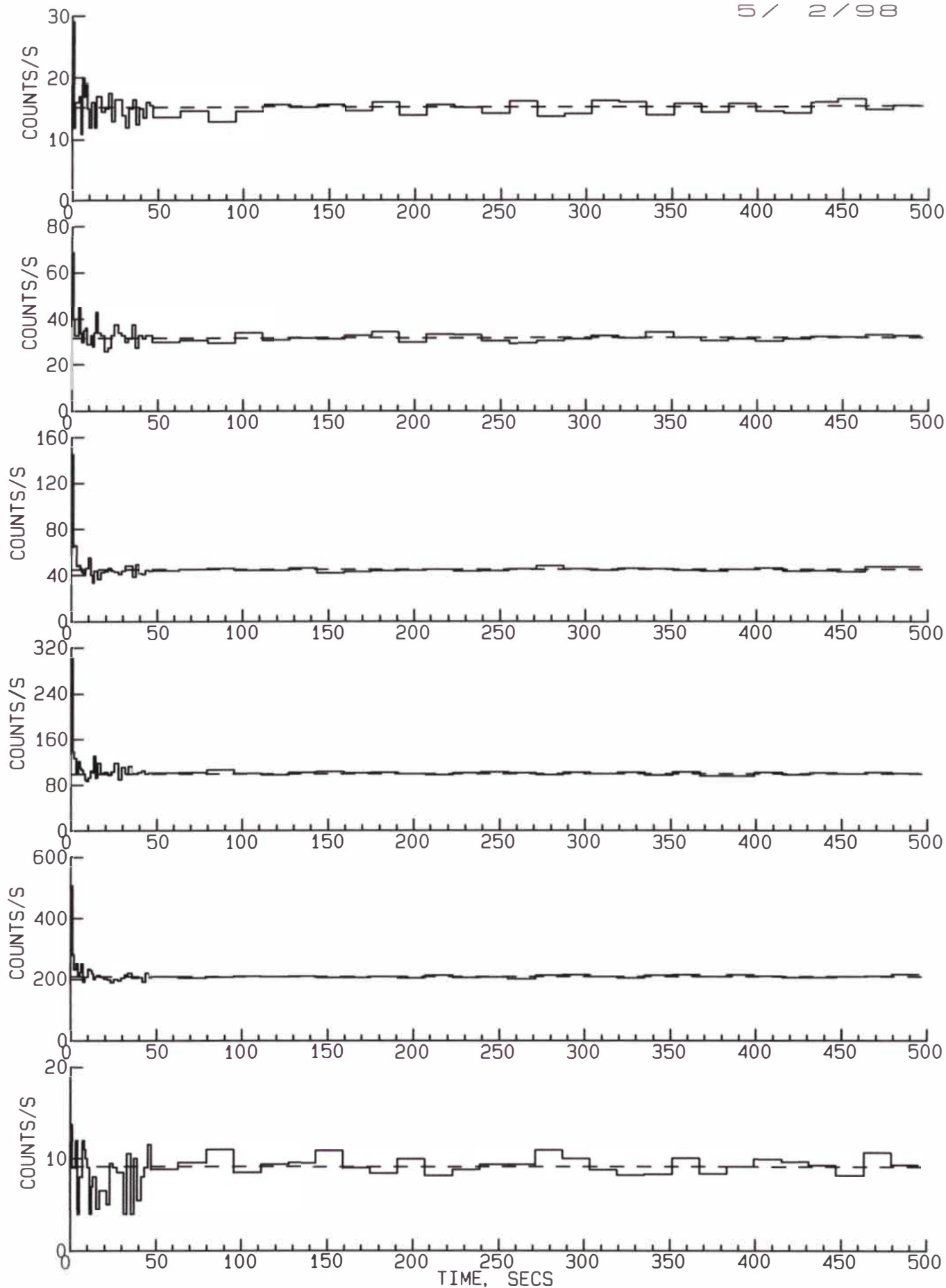
18- 45 keV

45- 73 keV

73-101 keV

101-128 keV

128-147 keV



5 / 2 / 98

ULYSSES

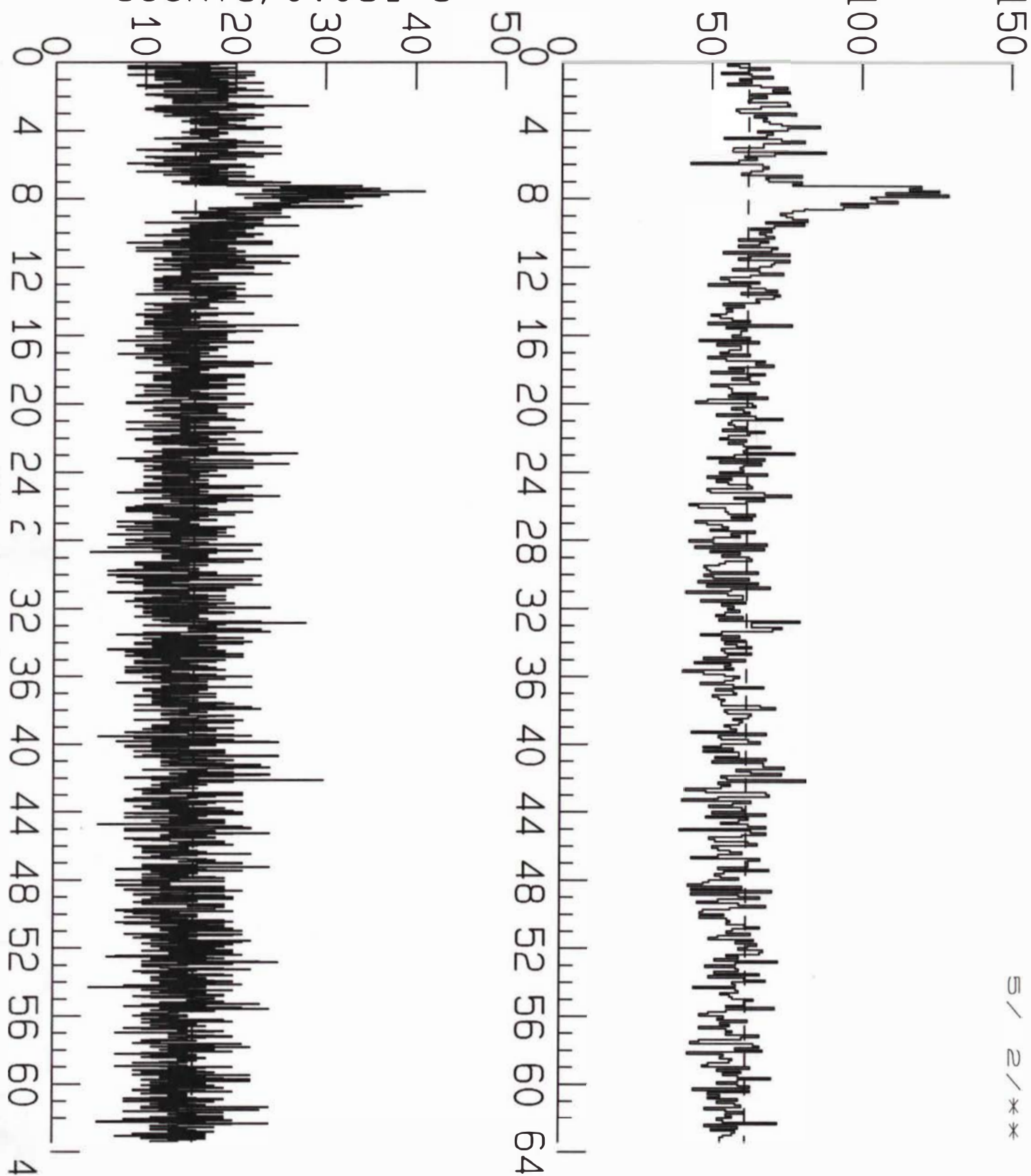
23/10/94

Ttrig=15385.744

22- 147 keV

COUNTS/0.031 S

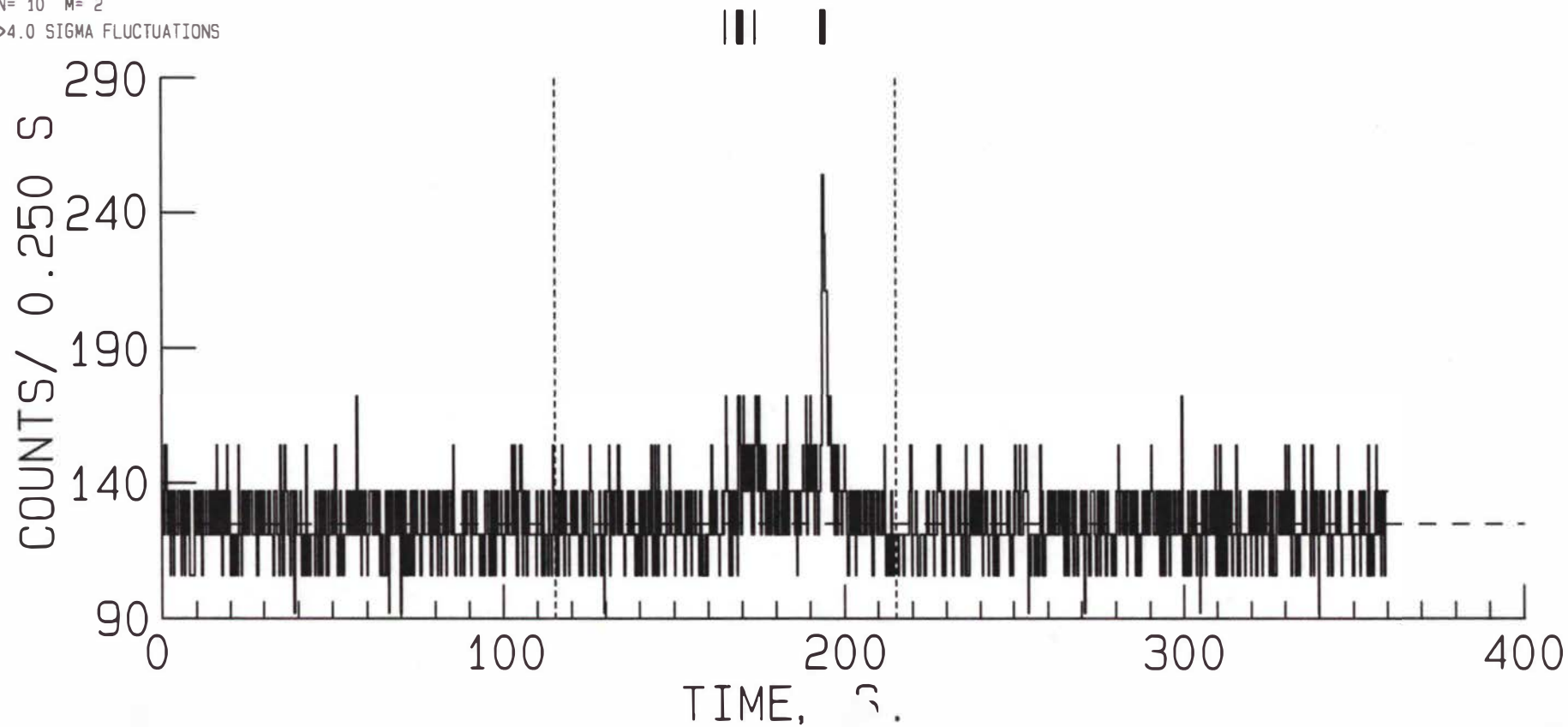
COUNTS/0.125 S



ULYSSES RT
23/10/94 15192.008 s
22- 147 keV

5 / 2 / 98

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



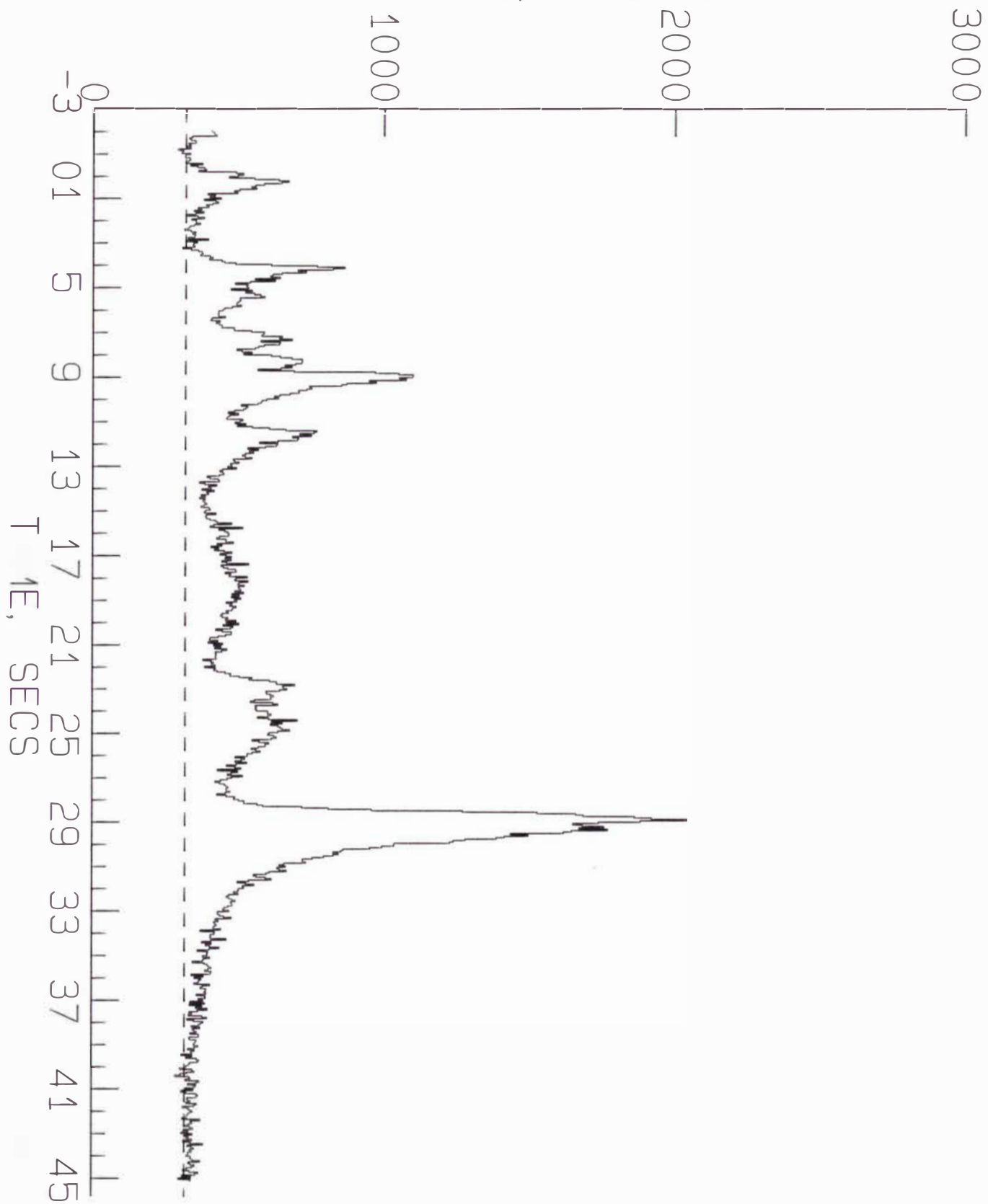
BATSE

23/10/94

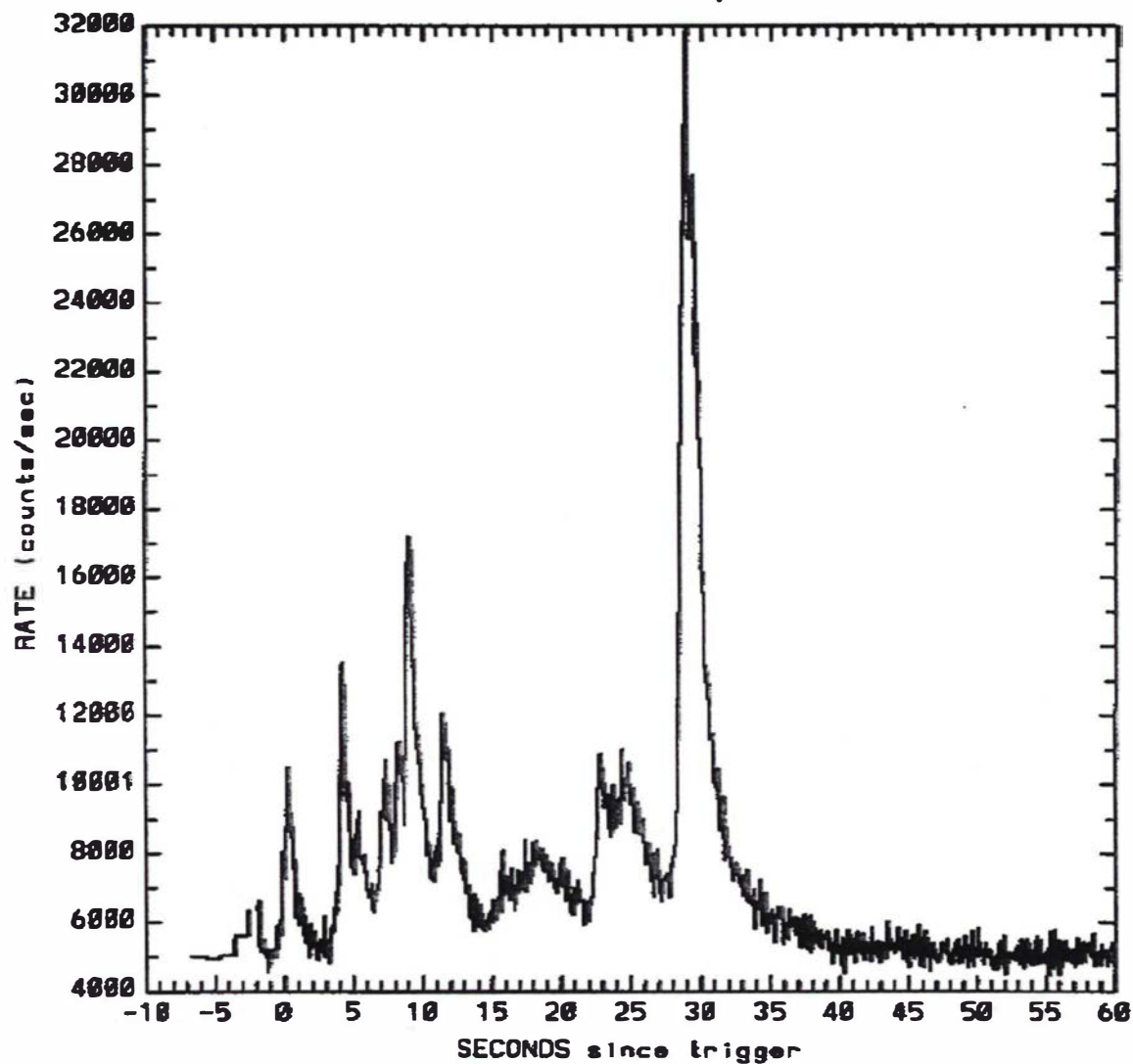
16472.242

25- 100 keV

COUNTS/ .064 S



DISCSC Data for K. Hurley, No. 3255



4-NOV-1994 09:58.47

Created by NOPS 80
(Burst Display)
Version 2.22

Trigger # . 3255

Trigger Time:
9648 / 16472.242Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 secondsDetectors [7..8]:
-6-4----Discriminators:
[1. 2]Quality Mask:
BDISP1

From DEAL@ssl.msfc.nasa.gov Tue Oct 25 07:48 PDT 1994
Date: Tue, 25 Oct 1994 9:52:16 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3256

BATSEARCH PROGRAM

NO

BATSE BURST # 3256
EVENT OF 1994 OCT 23 DAY OF YEAR=296
EVENT CROSSING TIME AT BATSE : 44125. S. OR 12:15:25.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 353.000 56.000
BATSE PEAK COUNTING RATE: 4000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 23/10/ 94 IS:
RA= 183.394 DEC= -68.759 DIST= 2.321 AU
BATSE-ULYSSES DISTANCE = 347211414. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 13.59 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1125.73 SECS.
CROSSING TIME AT ULYSSES IS 45251. S. OR 12:34:10 +/- 114.36 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 23/10/ 94 IS:
RA= 132.749 DEC= 19.089 DIST= 1.415 AU
MARS-BATSE DISTANCE = 211702832. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 82.40 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 93.35 SECS.
CROSSING TIME AT MARS IS 44218. S. OR 12:16:58 +/- 122.94 SECONDS

BATSE BURST TRIGGER

NO.: 3256

TIME: TJD=9648 SECONDS=44125

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=159.4 AZIMUTH=237.6 ERROR= DEGREES

COMMENTS:

BURST LASTING ~10S. VISIBLE ABOVE 300 KEV.

From DEAL@ssl.msfc.nasa.gov Tue Oct 25 07:48 PDT 1994
Date: Tue, 25 Oct 1994 9:50:25 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3256

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3256	941023	9648	44125	4000	353	+56

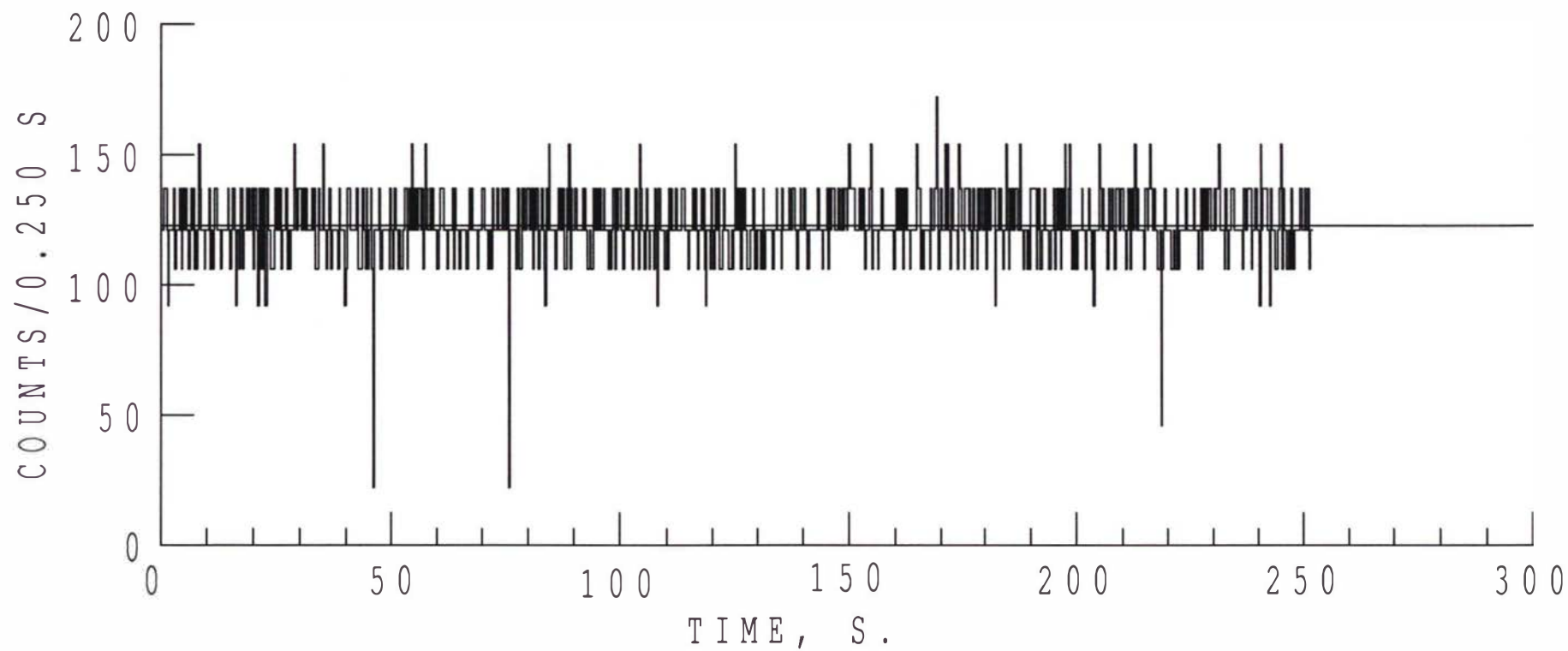
26 / 10 / 94

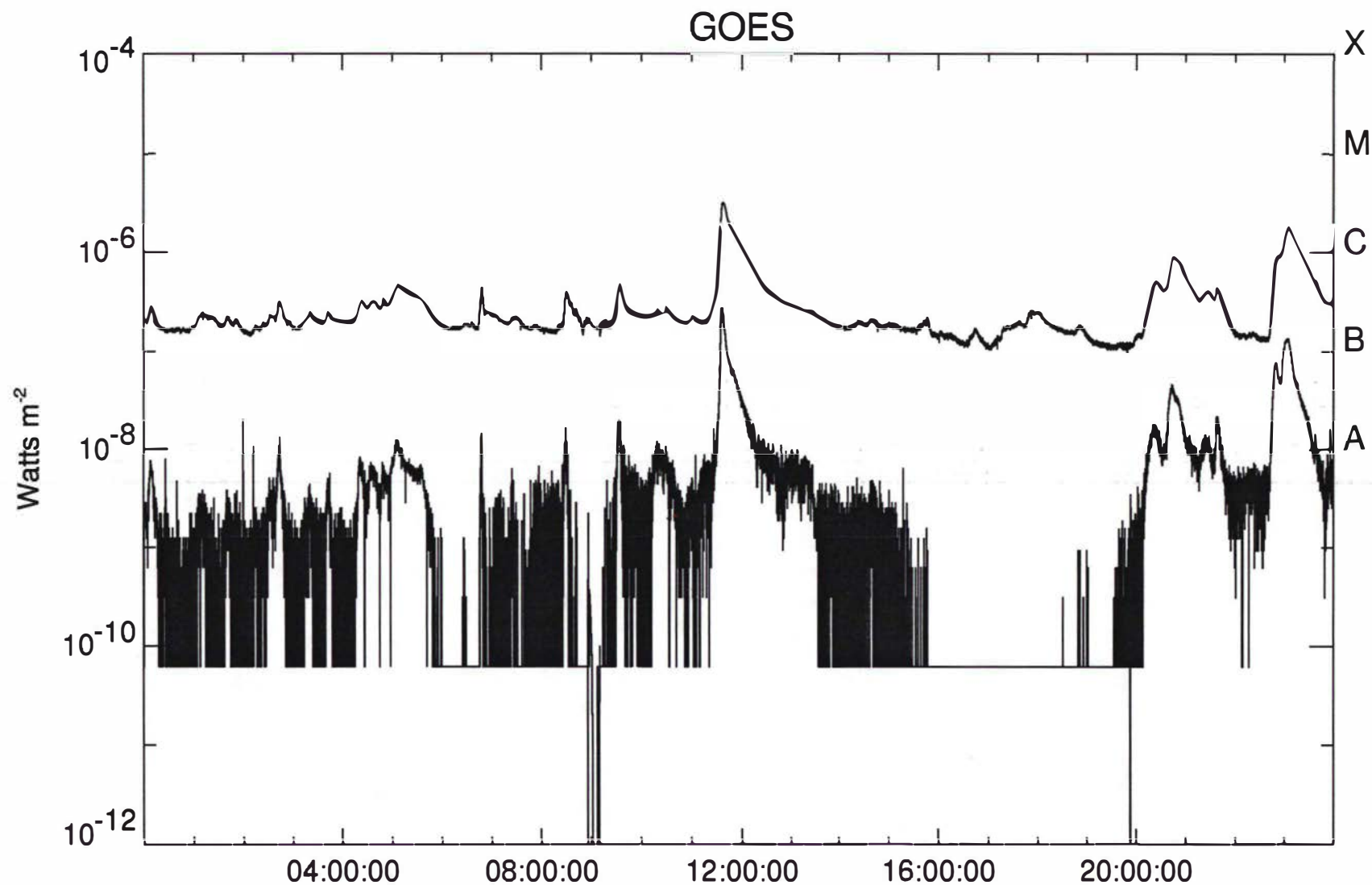
ULYSSES RT

23 / 10 / 94 42120.031 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





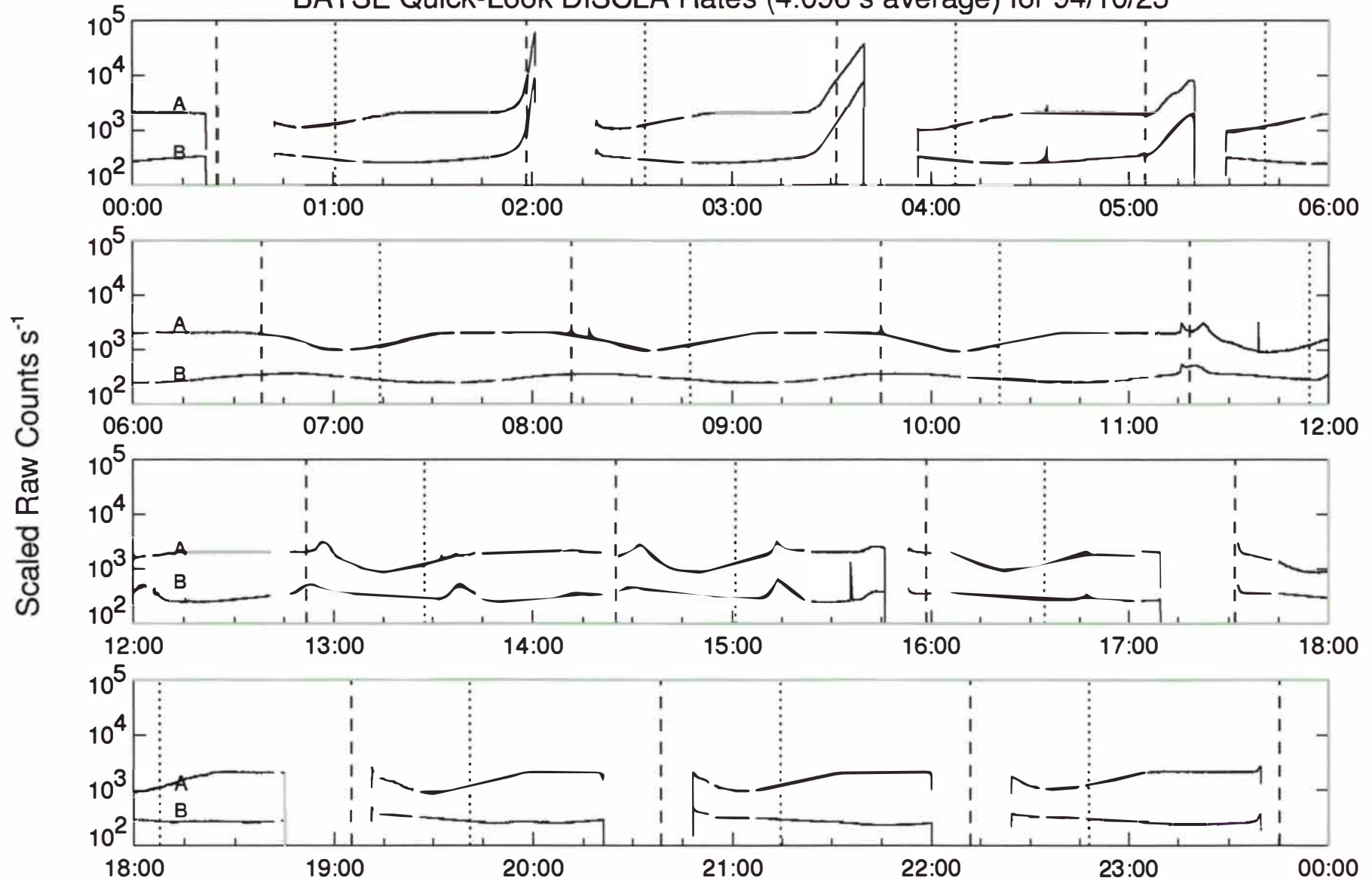
Data Start: 94/10/23, 0000:00

Plot created: 94/10/24, 1724

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/23

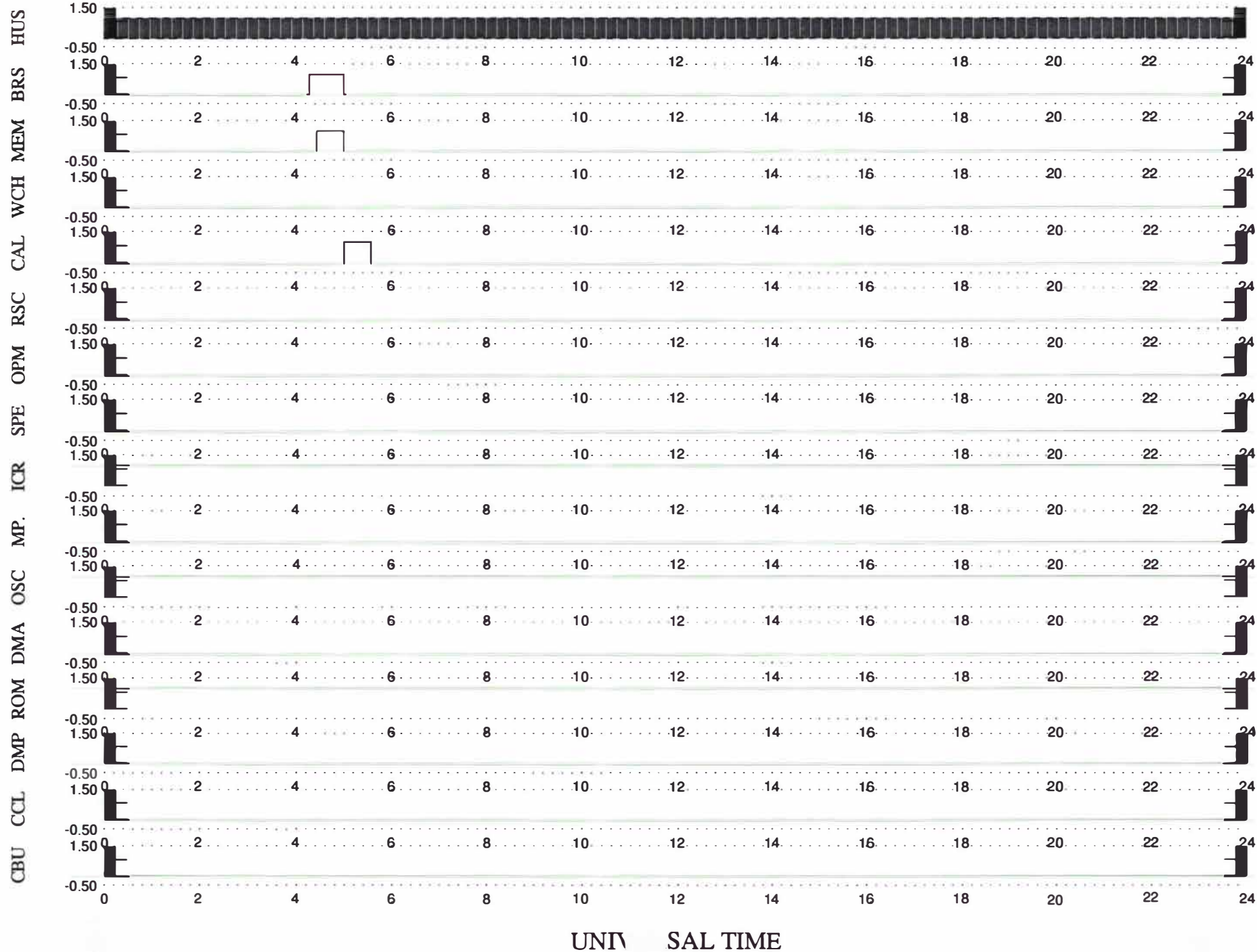


Current Time: 94/10/26, 1535 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

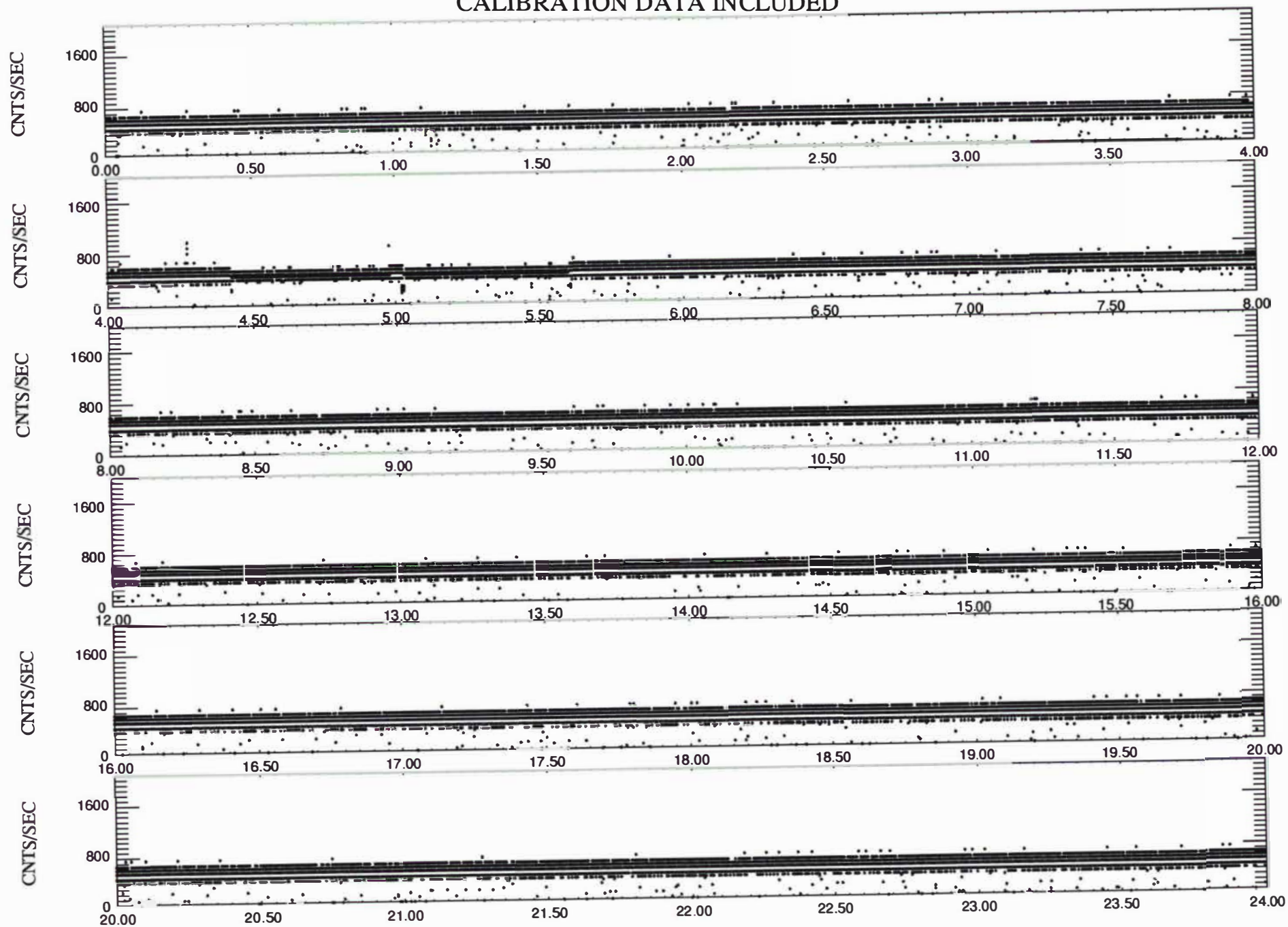
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 5

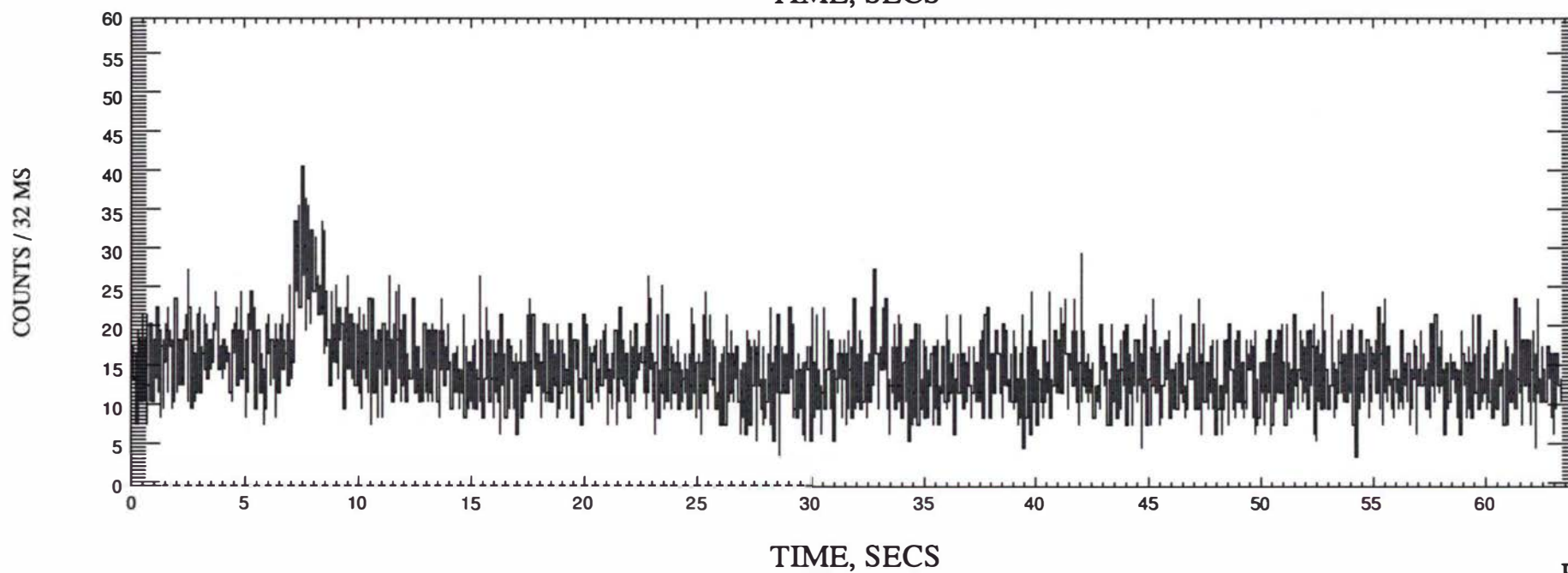
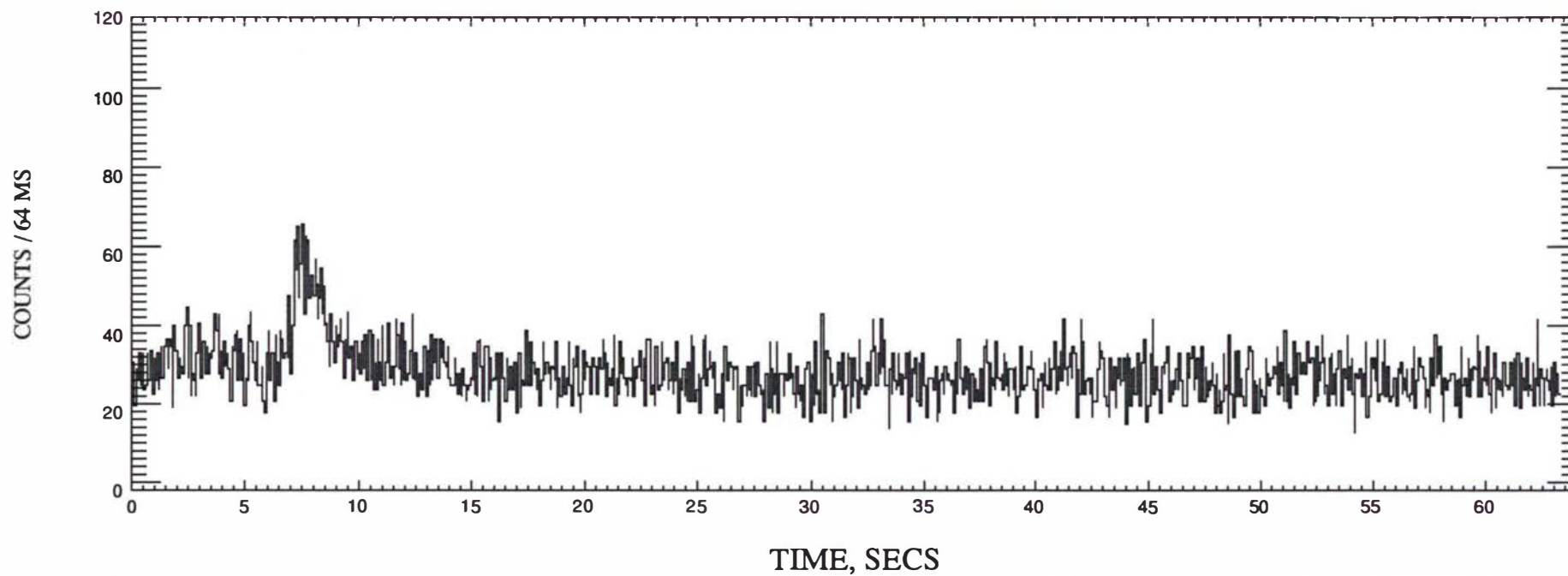


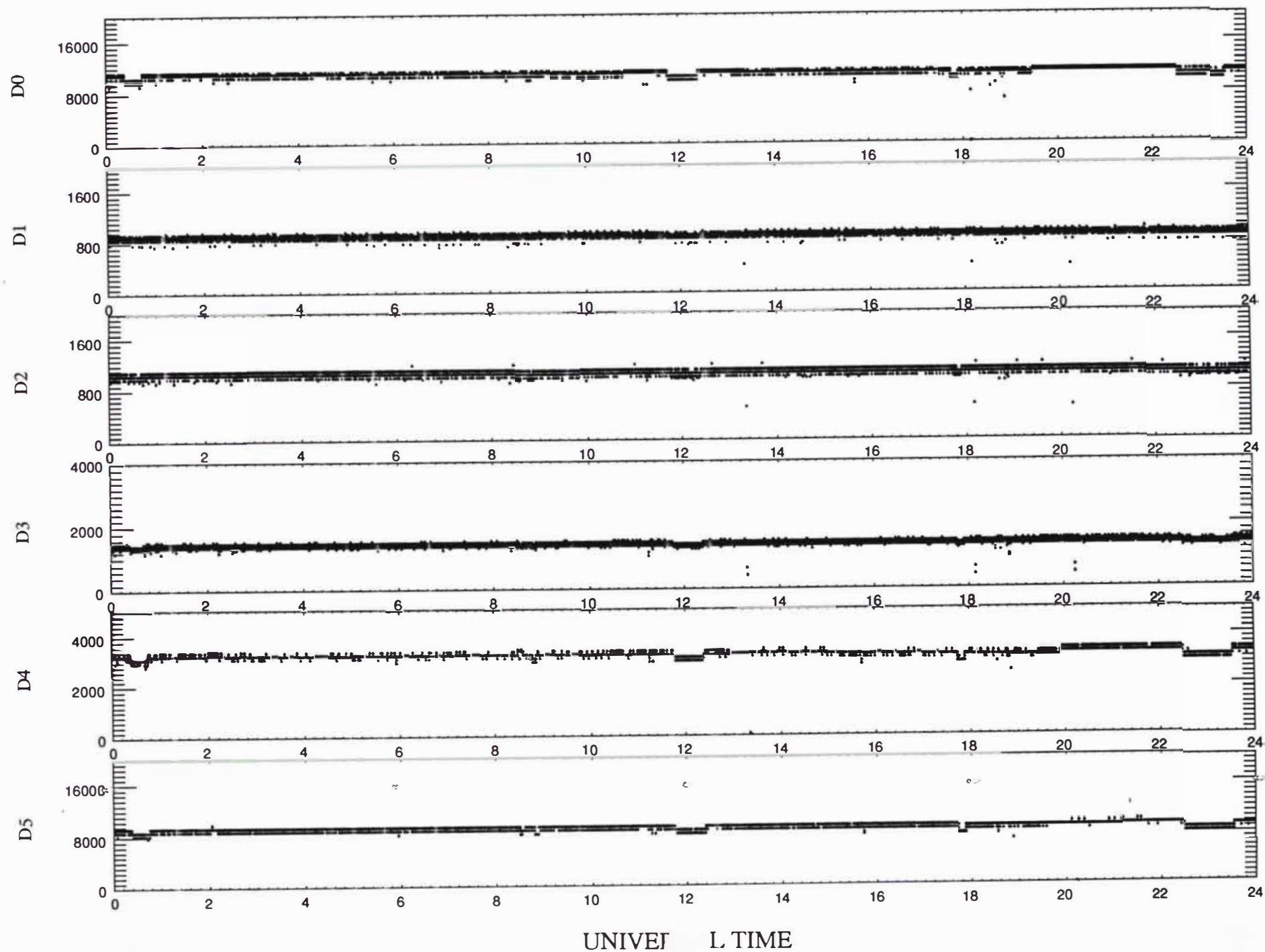
CALIBRATION DATA INCLUDED

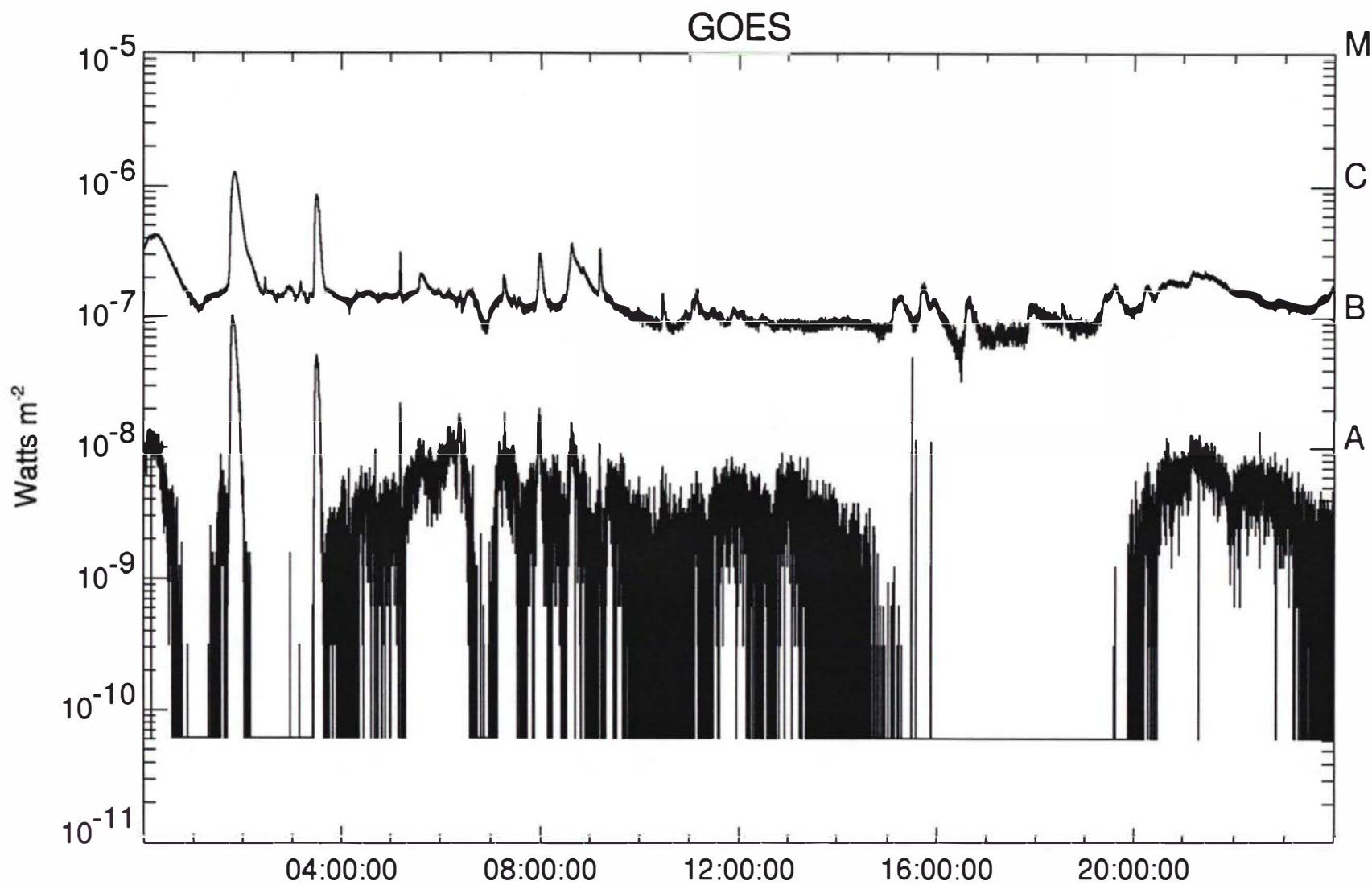


UNIT SAL TIME

Burst Counter 5 at UT= 4.273818897671 h=15385.748 s 04:16:25.748







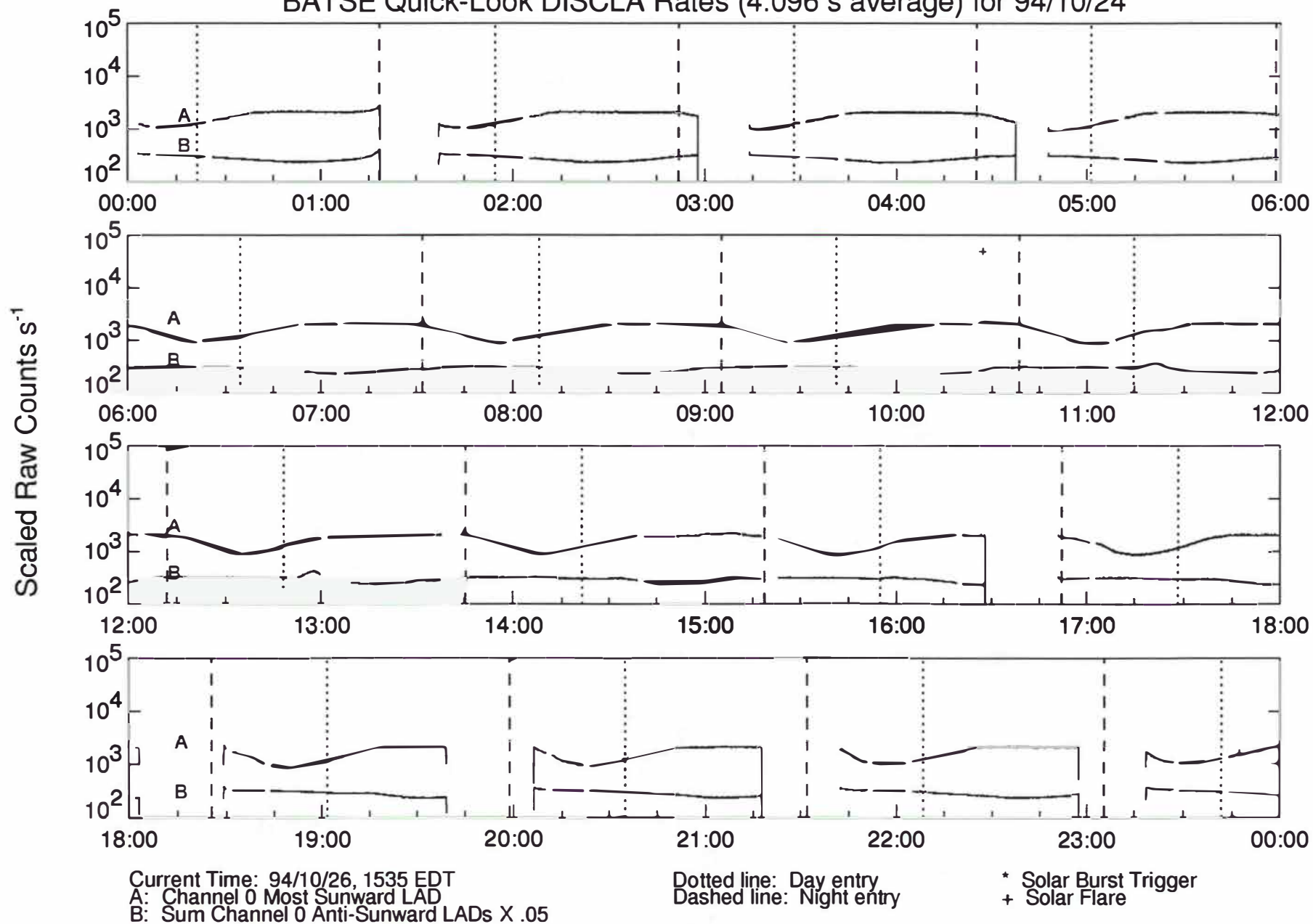
Data Start: 94/10/24, 0000:01

Plot created: 94/10/26, 1536

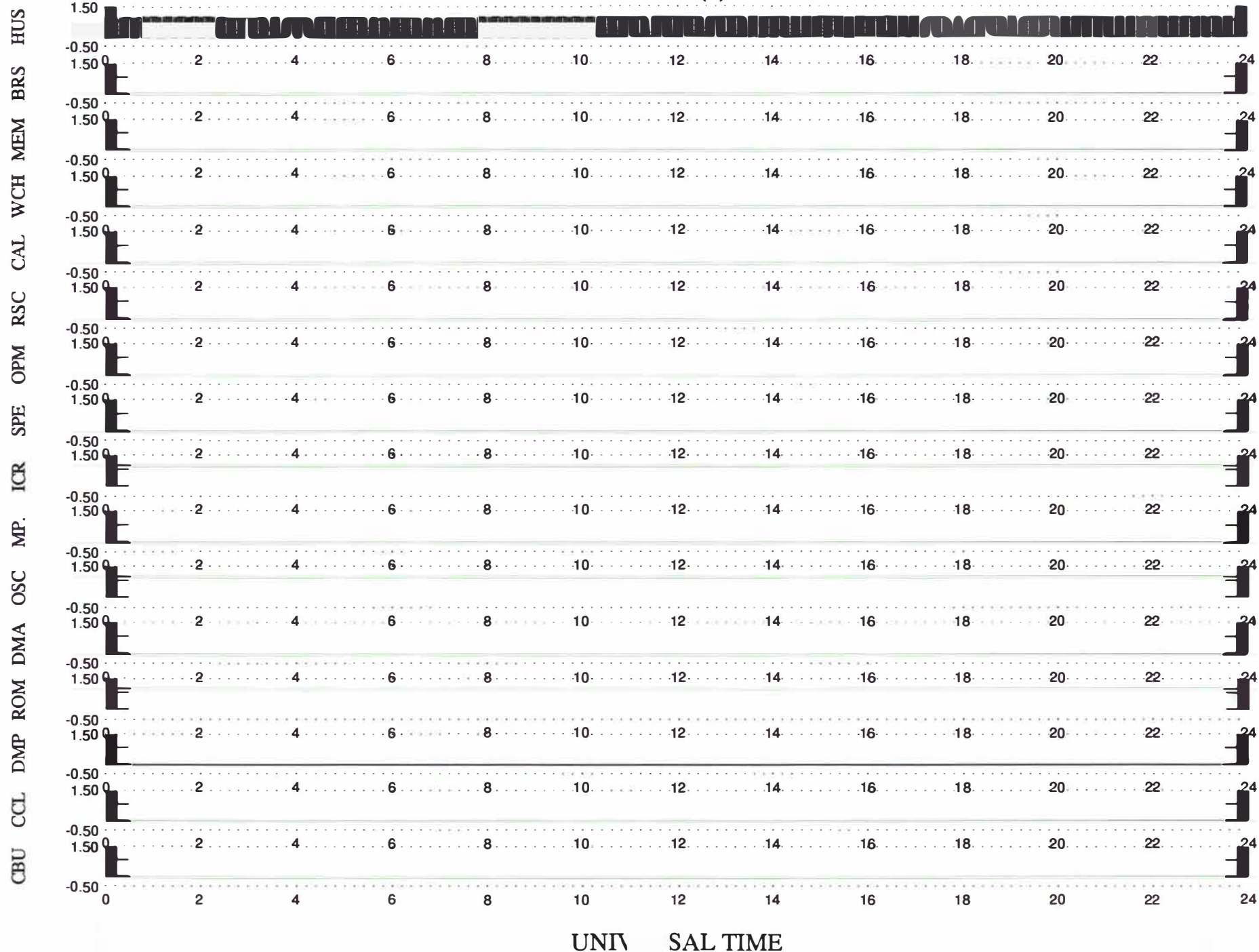
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

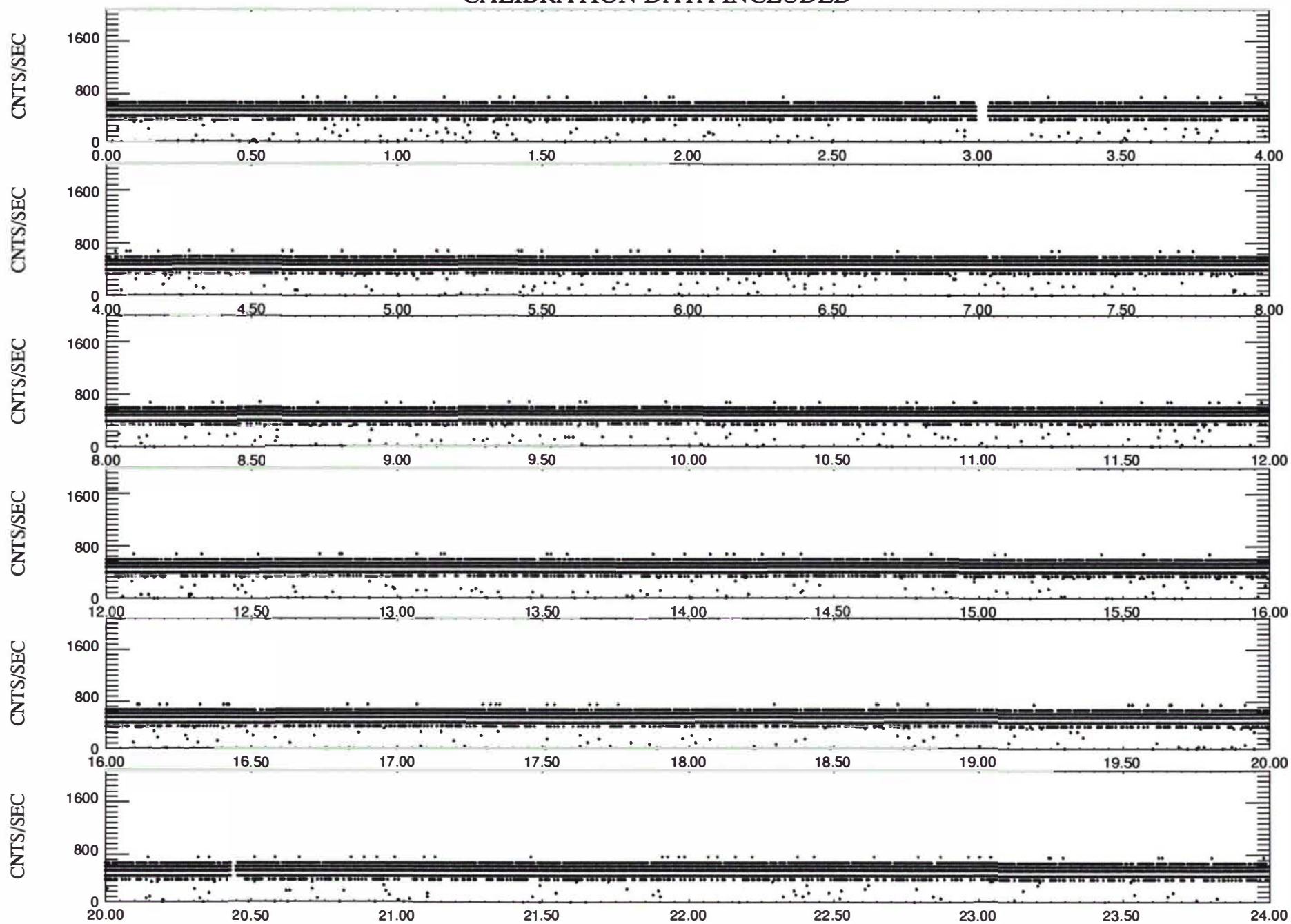
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/24



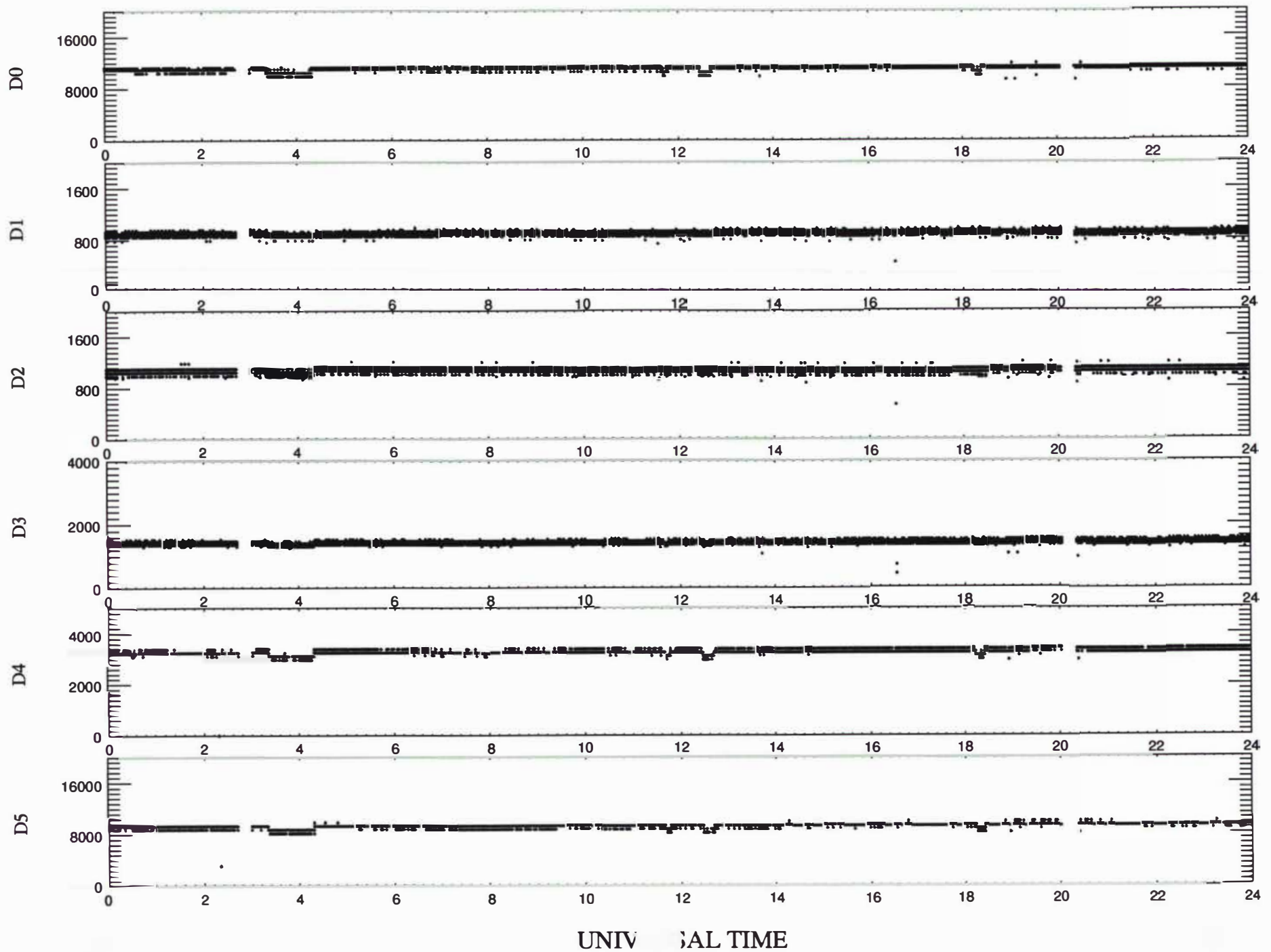
NO BURST (5)

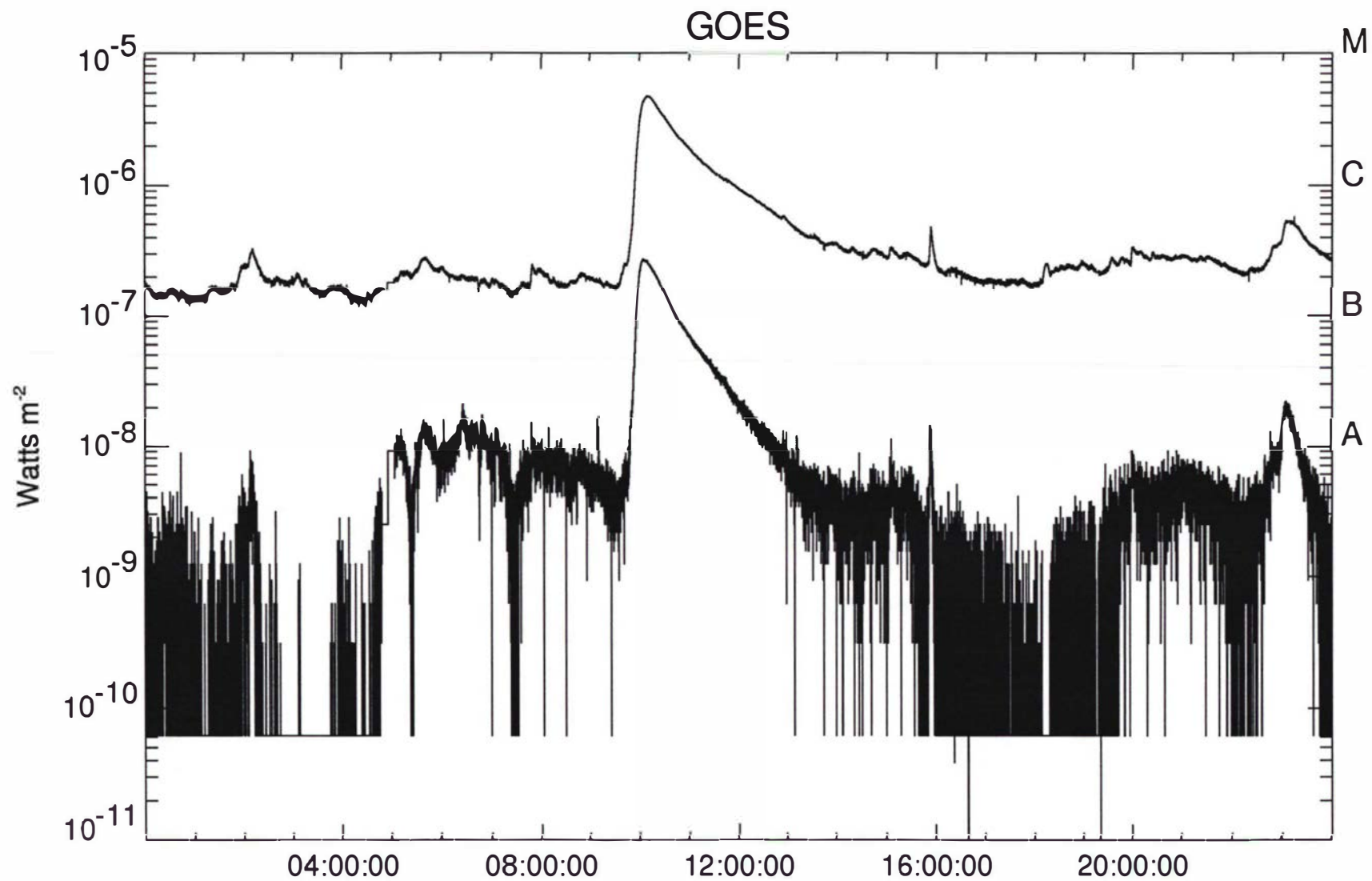


CALIBRATION DATA INCLUDED



UNIV SAL TIME





Data Start: 94/10/25, 0000:03

Plot created: 94/10/26, 1536

Channel

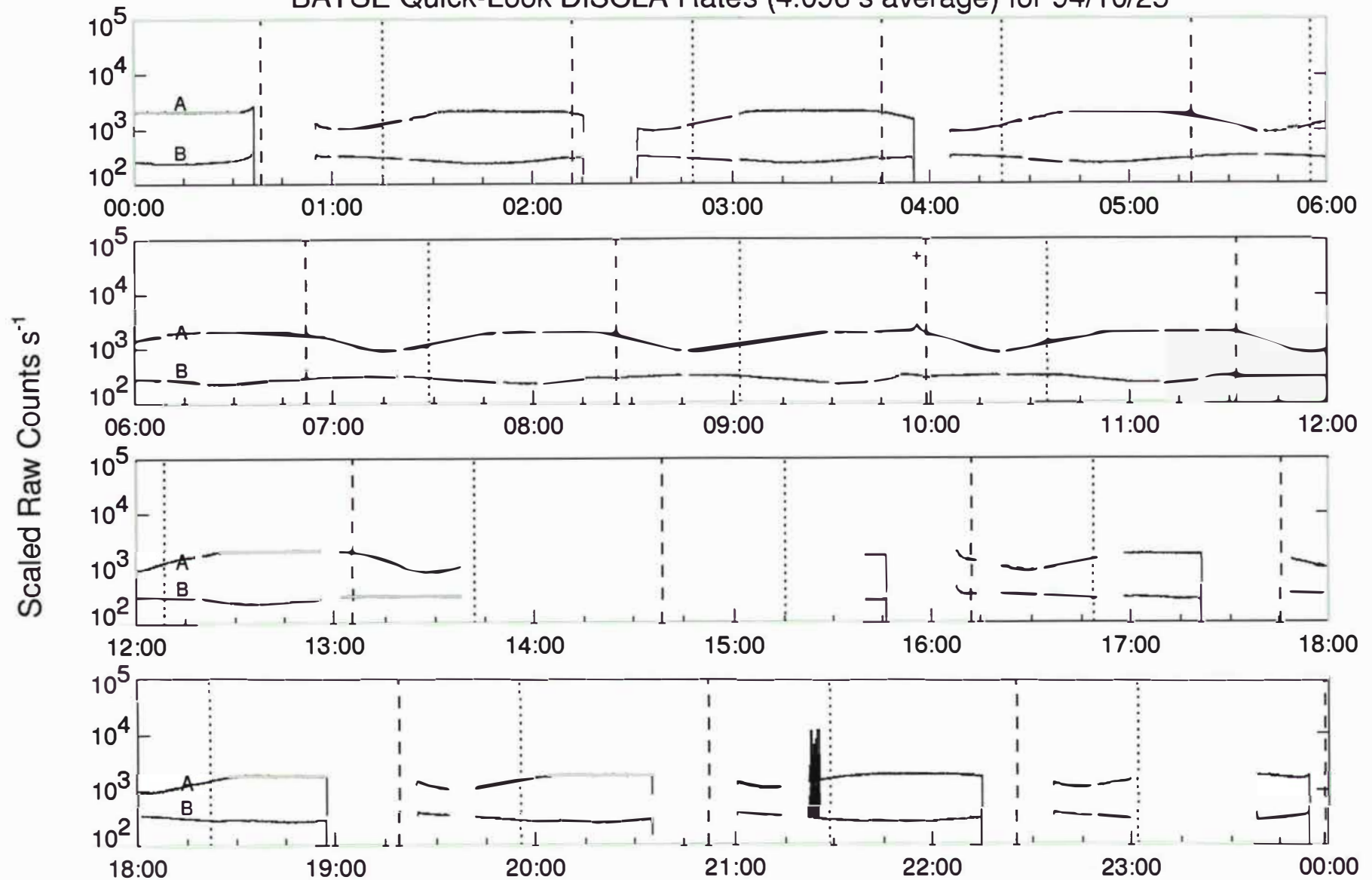
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/25

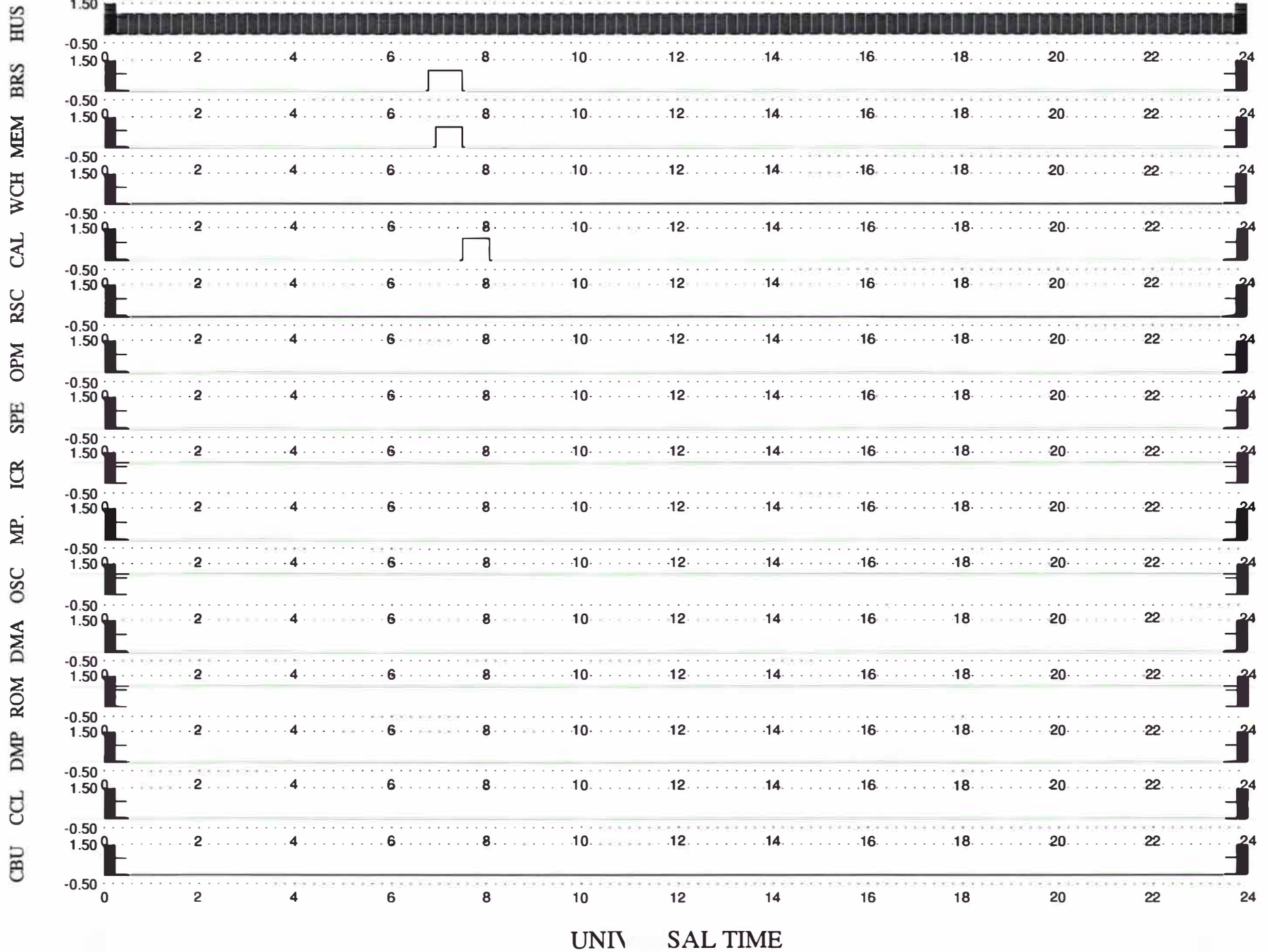


Current Time: 94/11/08, 1312 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

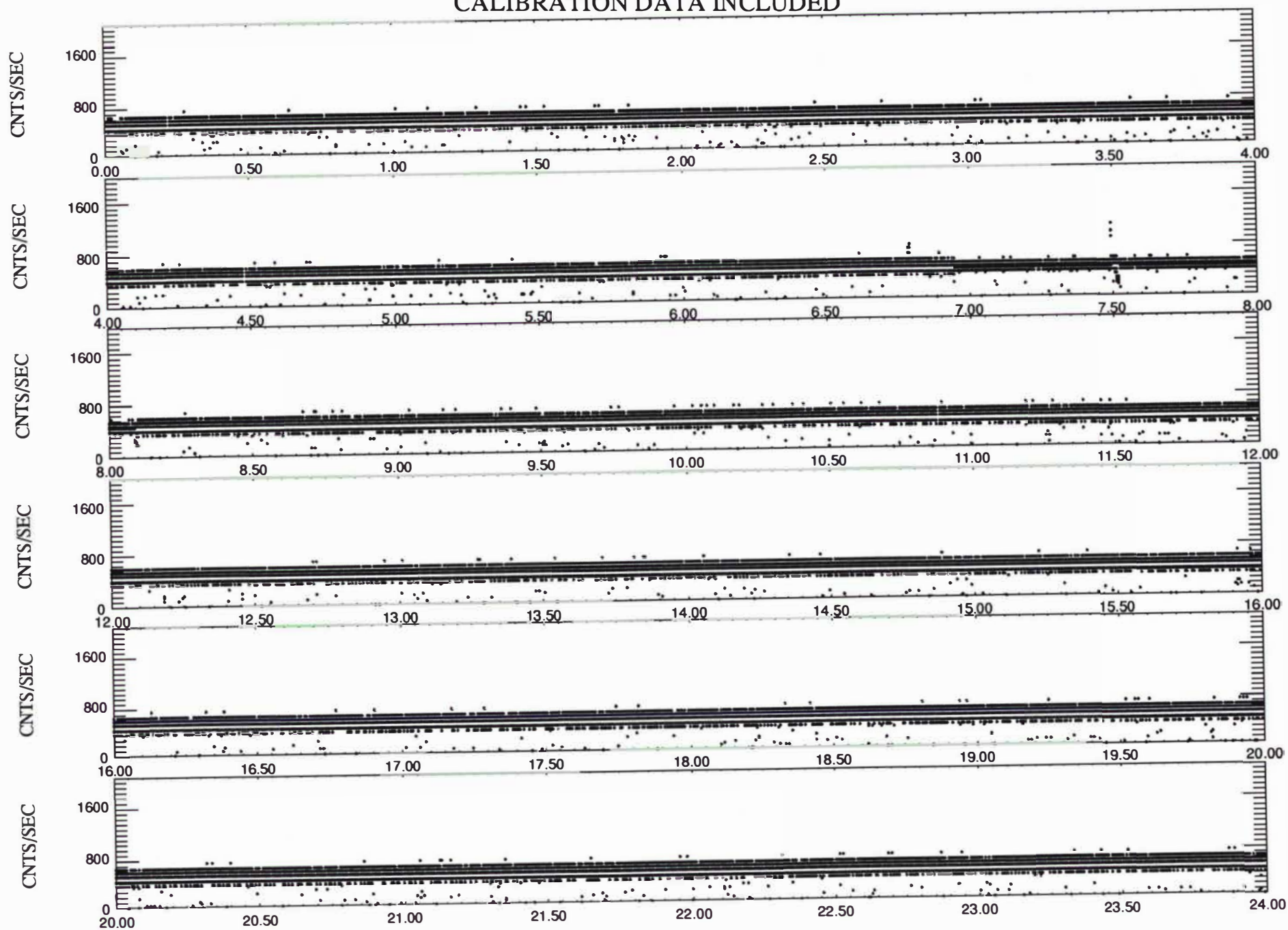
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURSTNUMBER 6

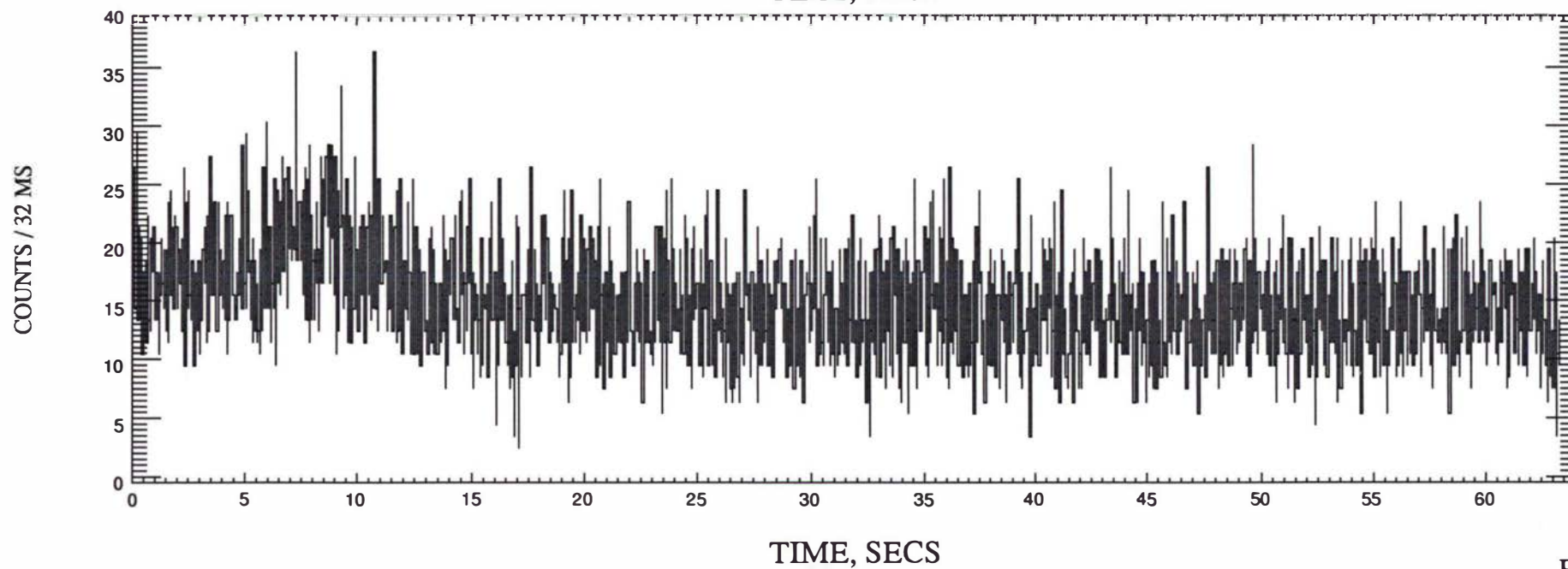
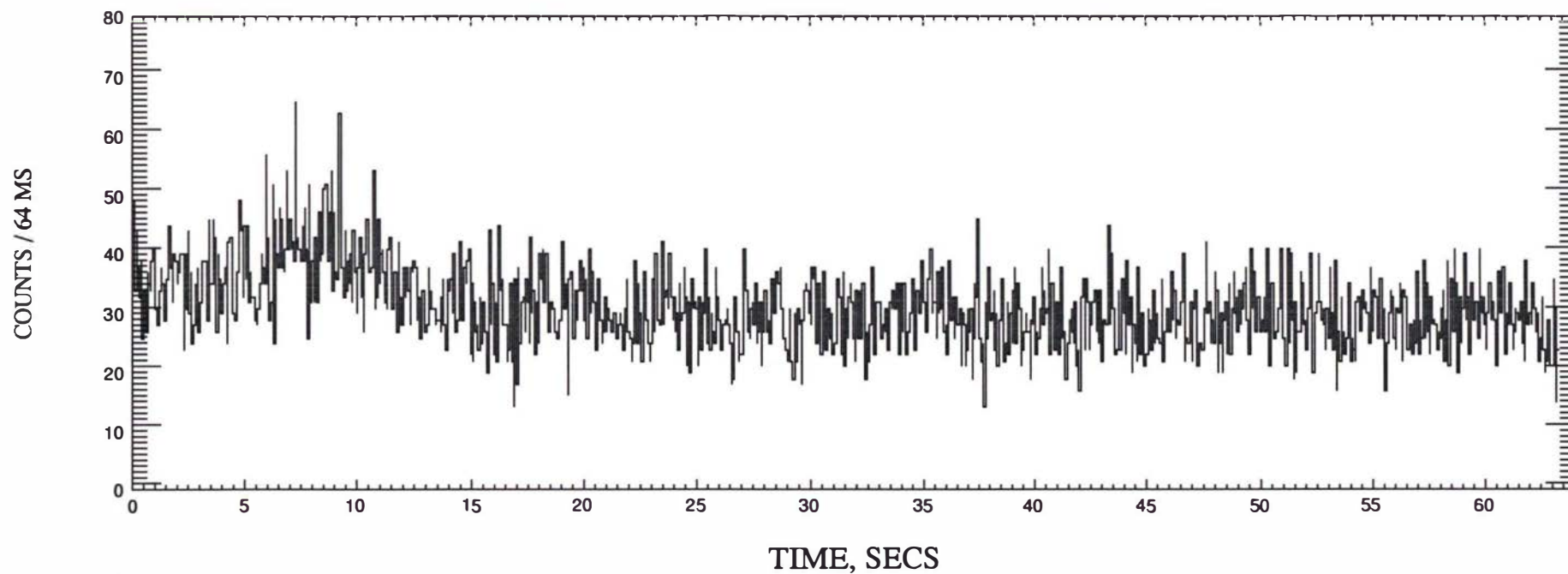


CALIBRATION DATA INCLUDED

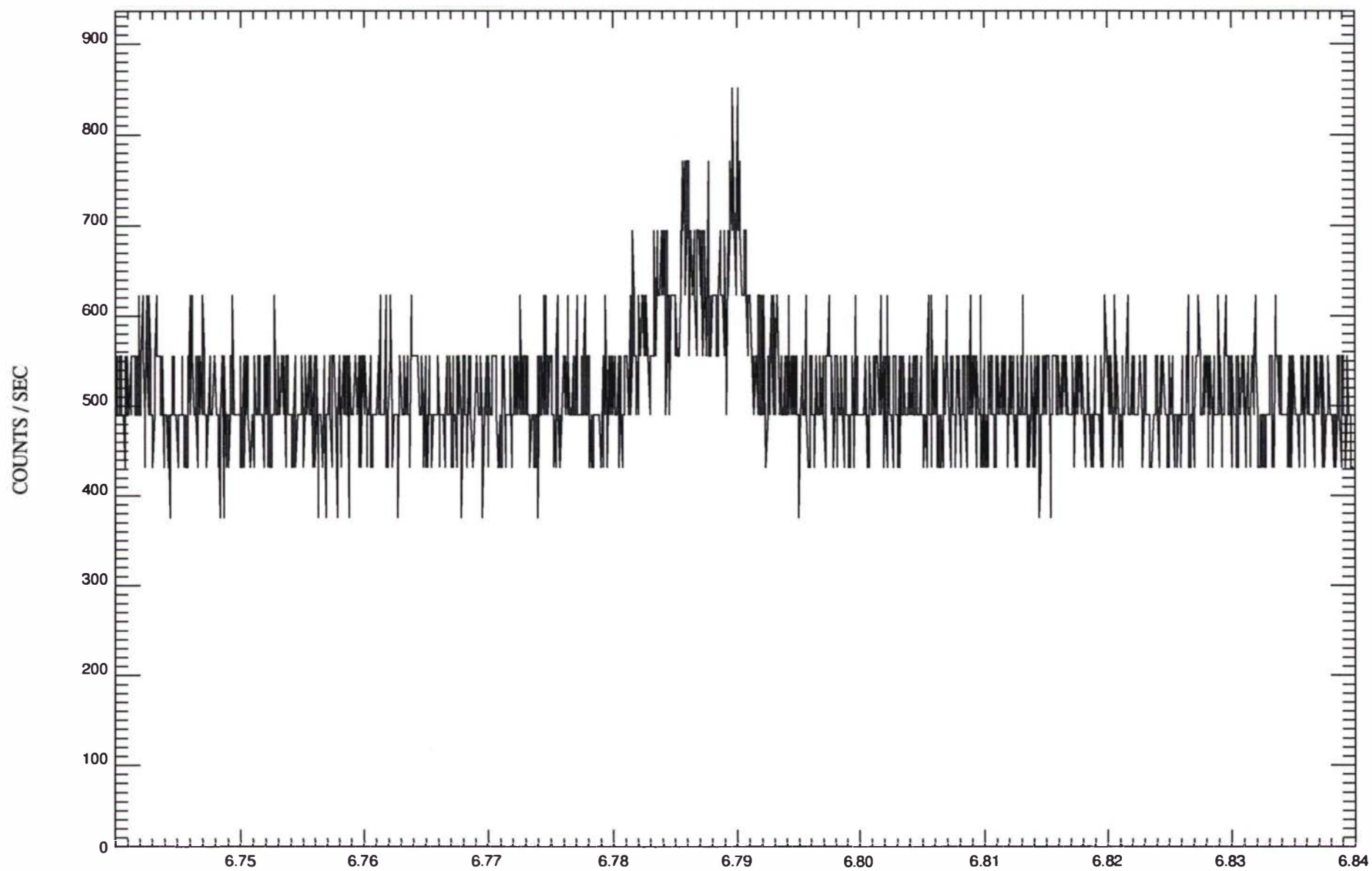


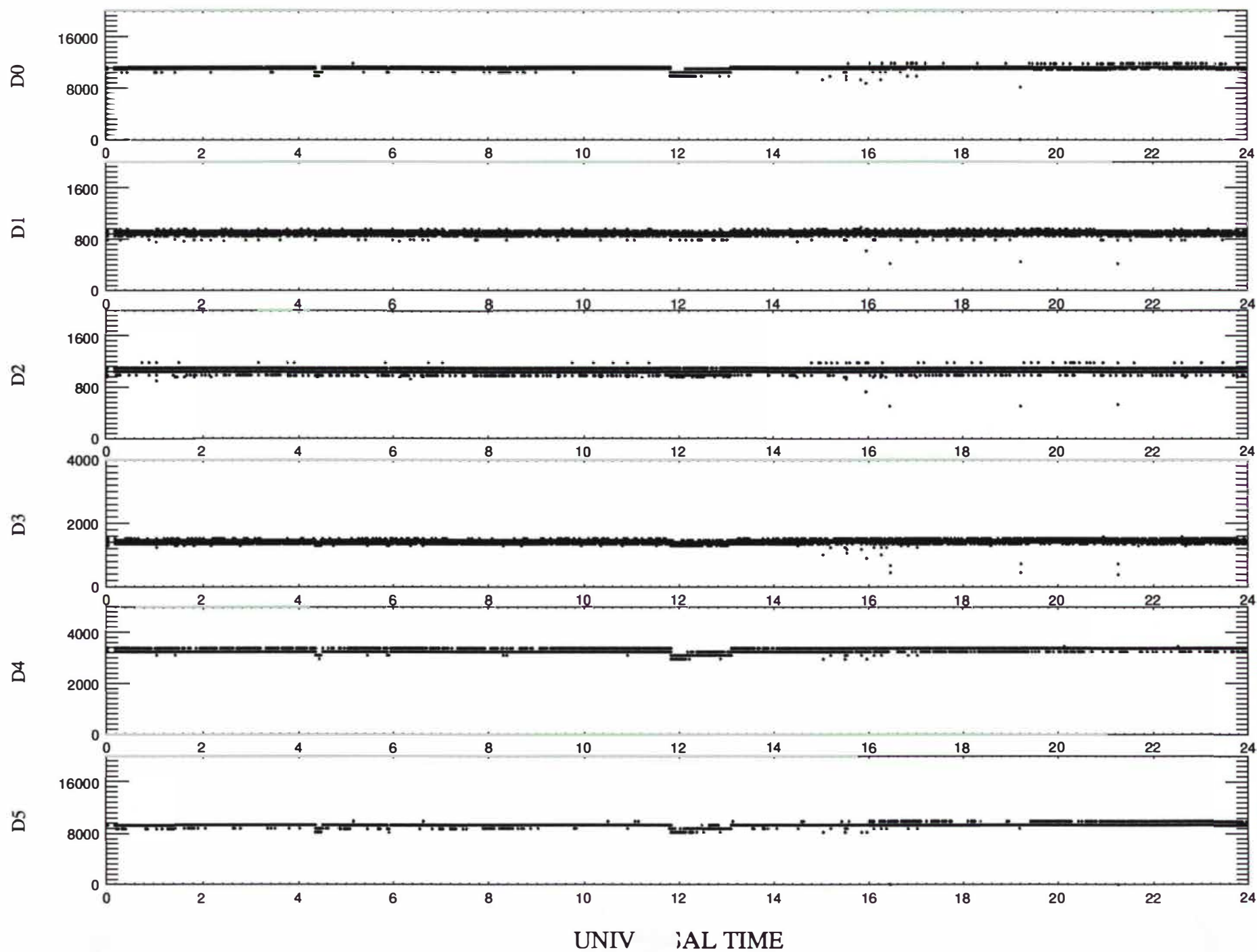
UNIV SAL TIME

Burst Counter 6 at UT= 6.789779485067 h=24443.206 s 06:47:23.206



CALIBRATION DATA INCLUDED





From RICHARDSON@ssl.msfc.nasa.gov Fri Oct 28 09:34 PDT 1994
Date: Fri, 28 Oct 1994 11:34:38 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3257

BATSEARCH PROGRAM

RL

BATSE BURST # 3257
EVENT OF 1994 OCT 26 DAY OF YEAR=299
EVENT CROSSING TIME AT BATSE : 10355. S. OR 02:52:35.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 206.000 -6.000
BATSE PEAK COUNTING RATE: 8000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 26/10/ 94 IS:
RA= 187.316 DEC= -69.878 DIST= 2.303 AU
BATSE-ULYSSES DISTANCE = 344513459. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=114.98 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -485.24 SECS.
CROSSING TIME AT ULYSSES IS 9870. S. OR 02:44:29 +/- 223.49 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 26/10/ 94 IS:
RA= 134.320 DEC= 18.734 DIST= 1.392 AU
MARS-BATSE DISTANCE = 208197808. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=105.22 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -182.28 SECS.
CROSSING TIME AT MARS IS 10173. S. OR 02:49:32 +/- 113.58 SECONDS

BATSE BURST TRIGGER

NO.: 3257

TIME: TJD=9651 SECONDS=10355

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=60.2 AZIMUTH=28.3 ERROR= DEGREES

COMMENTS:

GRB. FAST RISE, EXPONENTIAL DECAY. LASTING ~50S. VISIBLE ABOVE 300KEV.

From RICHARDSON@ssl.msfc.nasa.gov Fri Oct 28 09:34 PDT 1994
Date: Fri, 28 Oct 1994 11:34:06 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: RICHARDSON@ssl.msfc.nasa.gov
Subject: BATSE Burst 3257

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3257	941026	9651	10355	8000	206	-06

RT data files which may contain ~ 0.5 s timing error because they follow a trigger

2 hour time range from beginning of burst that extract falls in: DATA USED ?

b02:0126	extract	beg time:0244	e91270_2A1_02.73_02.84.ascii.Z	N
b03:0219	extract	beg time:0244	e91270_2A1_02.73_02.84.ascii.Z	N
b01:0121	extract	beg time:0310	e91360_2A1_03.16_03.37.ascii.Z	N
:0932	extract	beg time:1025	e92010_2A1_10.42_10.48.ascii.Z	Y (TRIGGER)
b01:0845	extract	beg time:1015	e92058_2A1_10.25_10.75.ascii.Z	N
b01:0609	extract	beg time:0723	e92111_2A1_07.38_07.54.ascii.Z	N
b01:0629	extract	beg time:0634	e92174_2A1_06.57_06.87.ascii.Z	N
b01:0541	extract	beg time:0549	e92190_2A1_5.76_5.90.ascii.Z	Y (SAR 1300)
b02:2032	extract	beg time:2058	e92205_2A1_20.97_22.66.ascii.Z	Y (TRIGGER)
b01:1202	extract	beg time:1240	e92209_2A1_12.67_12.85.ascii.Z	N
b01:1717	extract	beg time:1831	e92213_2A1_18.51_18.82.ascii.Z	N
b01:1142	extract	beg time:1301	e92303_2A1_13.02_13.28.ascii	Y
b03:0736	extract	beg time:0844	q92313_2A1_8.70_8.96.ascii.Z	N
b03:0736	extract	beg time:0844	e92313_2A1_08.74_09.02.ascii.Z	N
b14:1730	extract	beg time:1905	q92314_2A1_19.08_19.30.ascii.Z	N
b15:1825	extract	beg time:1905	q92314_2A1_19.08_19.30.ascii.Z	N
b02:0156	extract	beg time:0344	e92315_2A1_3.10_3.36.ascii.Z	N
b03:0322	extract	beg time:0344	e92315_2A1_3.10_3.36.ascii.Z	N
b06:0819	extract	beg time:0844	e92315_2A1_8.71_8.85.ascii.Z	N
b08:1211	extract	beg time:1340	e92315_2A1_13.66_13.96.ascii.Z	N
b08:1211	extract	beg time:1344	e92315_2A1_13.74_14.03.ascii.Z	N
b02:0600	extract	beg time:0644	e92316_2A1_6.76_7.04.ascii.Z	N
b02:0135	extract	beg time:0329	e93012_2A1_3.50_3.72.ascii.Z	Y
b03:0227	extract	beg time:0329	e93012_2A1_3.50_3.72.ascii.Z	Y
b04:0315	extract	beg time:0329	e93012_2A1_3.50_3.72.ascii.Z	Y
b01:1105	extract	beg time:1150	q93077_2A1_11.83_12.05.ascii.Z	Y
b01:0745	extract	beg time:0756	q93096_2A1_7.71_7.85.ascii.Z	Y (TRIGGER)
b01:0745	extract	beg time:0856	q93096_2A1_8.40_8.50.ascii.Z	N
b01:1445	extract	beg time:1530	e93126_2A1_15.50_15.65.ascii.Z	N
b01:1445	extract	beg time:1548	e93126_2A1_15.80_15.95.ascii.Z	N
b01:0334	extract	beg time:0434	e93265_2A1_04.56_04.64.ascii.Z	N
b01:0900	extract	beg time:0943	e93272_2A1_09.71_09.98.ascii.Z	Y (SAR 1806)
b01:1654	extract	beg time:1707	e93287_2A1_17.11_17.37.ascii.Z	Y
b01:2215	extract	beg time:2240	e93294_2A1_22.67_22.85.ascii.Z	N
b01:0824	extract	beg time:0840	e93303_2A1_08.66_08.81.ascii.Z	N
b01:0352	extract	beg time:0510	e93318_2A1_05.17_05.42.ascii.Z	N
b01:0641	extract	beg time:0824	e93340_2A1_08.40_08.61.ascii.Z	N
b02:0602	extract	beg time:0733	e94026_2A1_07.55_07.71.ascii.Z	N
b05:1140	extract	beg time:1240	e94044_2A1_12.66_12.76.ascii.Z	Y
b01:0204	extract	beg time:0326	e94047_2A1_03.44_03.62.ascii.Z	N
b01:0113	extract	beg time:0124	e94049_2A1_01.40_02.50.ascii.Z	N
b03:1943	extract	beg time:2123	e94058_2A1_21.38_21.49.ascii.Z	N
b01:0346	extract	beg time:0505	e94061_2A1_05.08_05.25.ascii.Z	Y (Trigger; but RT data probably used)
b01:0047	extract	beg time:0128	e94062_2A1_01.47_01.63.ascii.Z	N
b01:2113	extract	beg time:2142	e94202_2A1_21.70_21.98.ascii.Z	N
b01:2113	extract	beg time:2144	e94202_2A1_21.74_22.14.ascii.Z	N
b01:1047	extract	beg time:1143	e94242_2A1_11.71_11.86.ascii.Z	N
b01:0647	extract	beg time:0728	e94298_2A1_07.47_07.51.ascii.Z	N
b01:0128	extract	beg time:0241	e94299_2A1_02.68_02.80.ascii.Z	Y
b09:1148	extract	beg time:1348	e94321_2A1_13.80_14.47.ascii.Z	N
b10:1238	extract	beg time:1348	e94321_2A1_13.80_14.47.ascii.Z	N
b11:1328	extract	beg time:1348	e94321_2A1_13.80_14.47.ascii.Z	N
b01:1952	extract	beg time:2040	e94326_2A1_20.66_20.78.ascii.Z	N
b01:0223	extract	beg time:0406	e95042_2A1_04.10_04.76.ascii.Z	N
b01:0640	extract	beg time:0740	e95072_2A1_07.67_07.81.ascii.Z	N
b01:0144	extract	beg time:0158	e95216_2A1_01.96_02.09.ascii.Z	Y (Trigger)
b02:1628	extract	beg time:1718	e95339_2A1_17.30_17.45.ascii.Z	N
b03:1718	extract	beg time:1718	e95339_2A1_17.30_17.45.ascii.Z	N
b01:1124	extract	beg time:1205	e95362_2A1_12.09_12.87.ascii.Z	N

Timing error in portion of data after burst

Hello corr removed
Date: Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

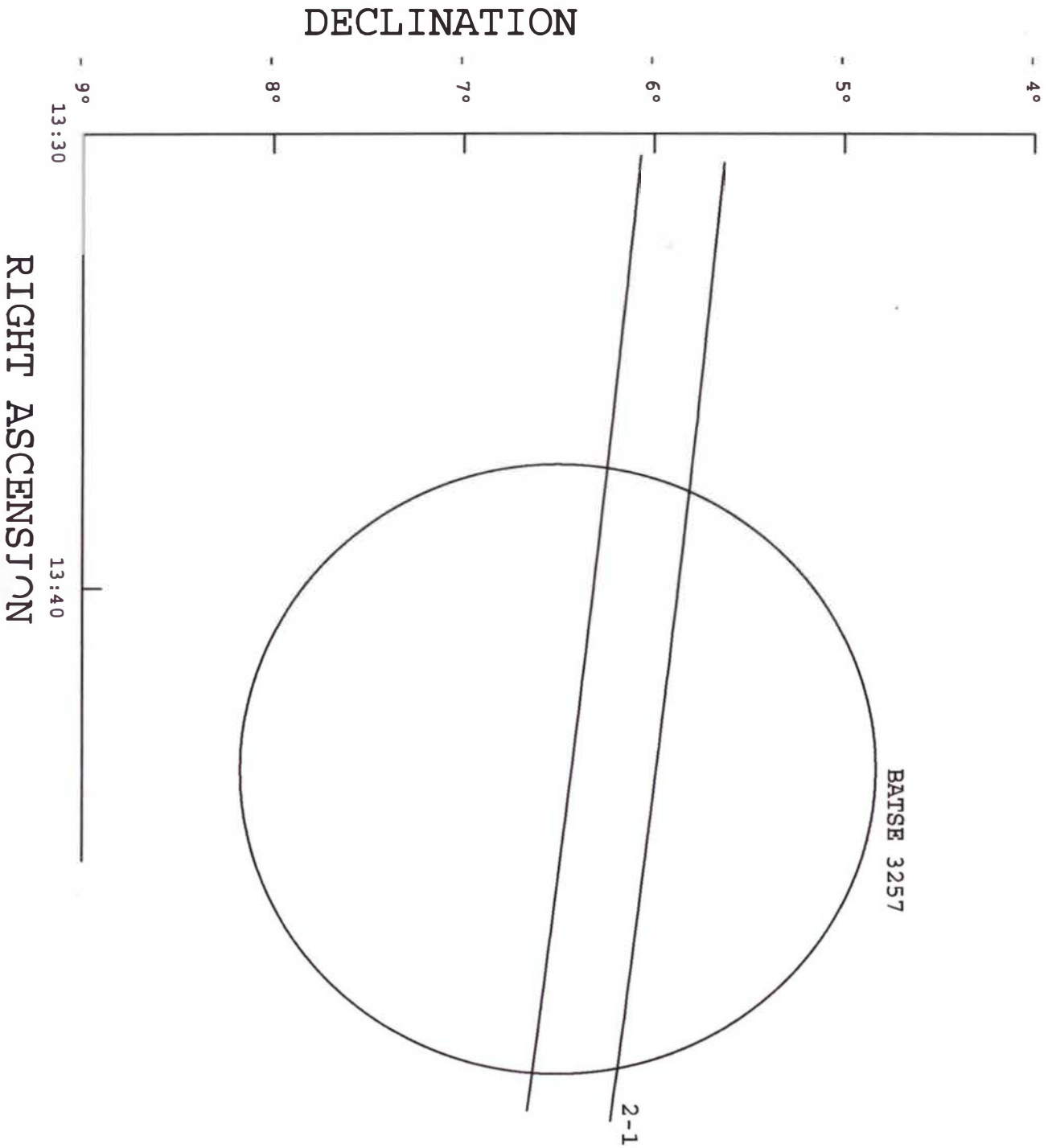
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF OCT 26, 1994 2:43

5 / 2/98



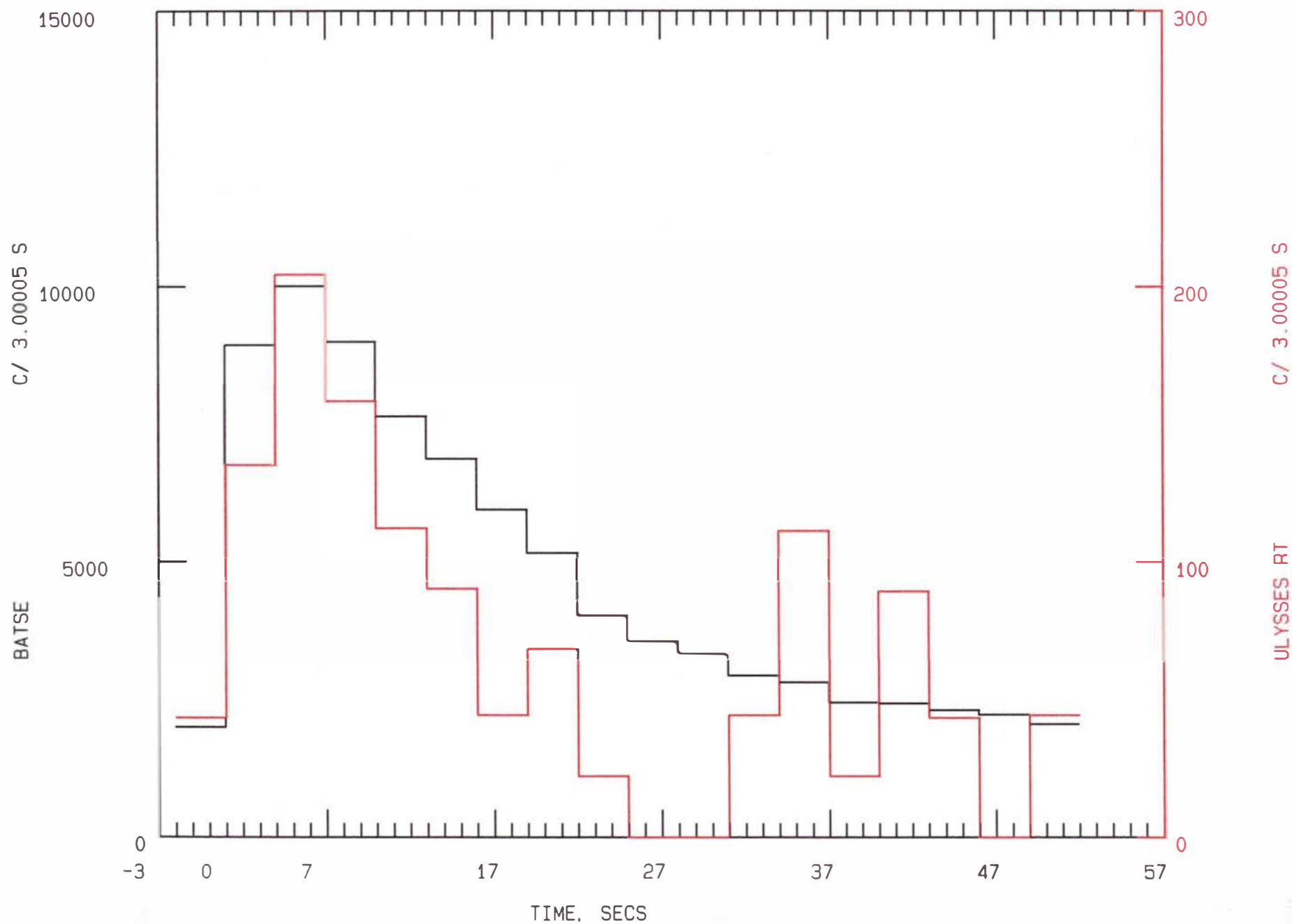
BATSE

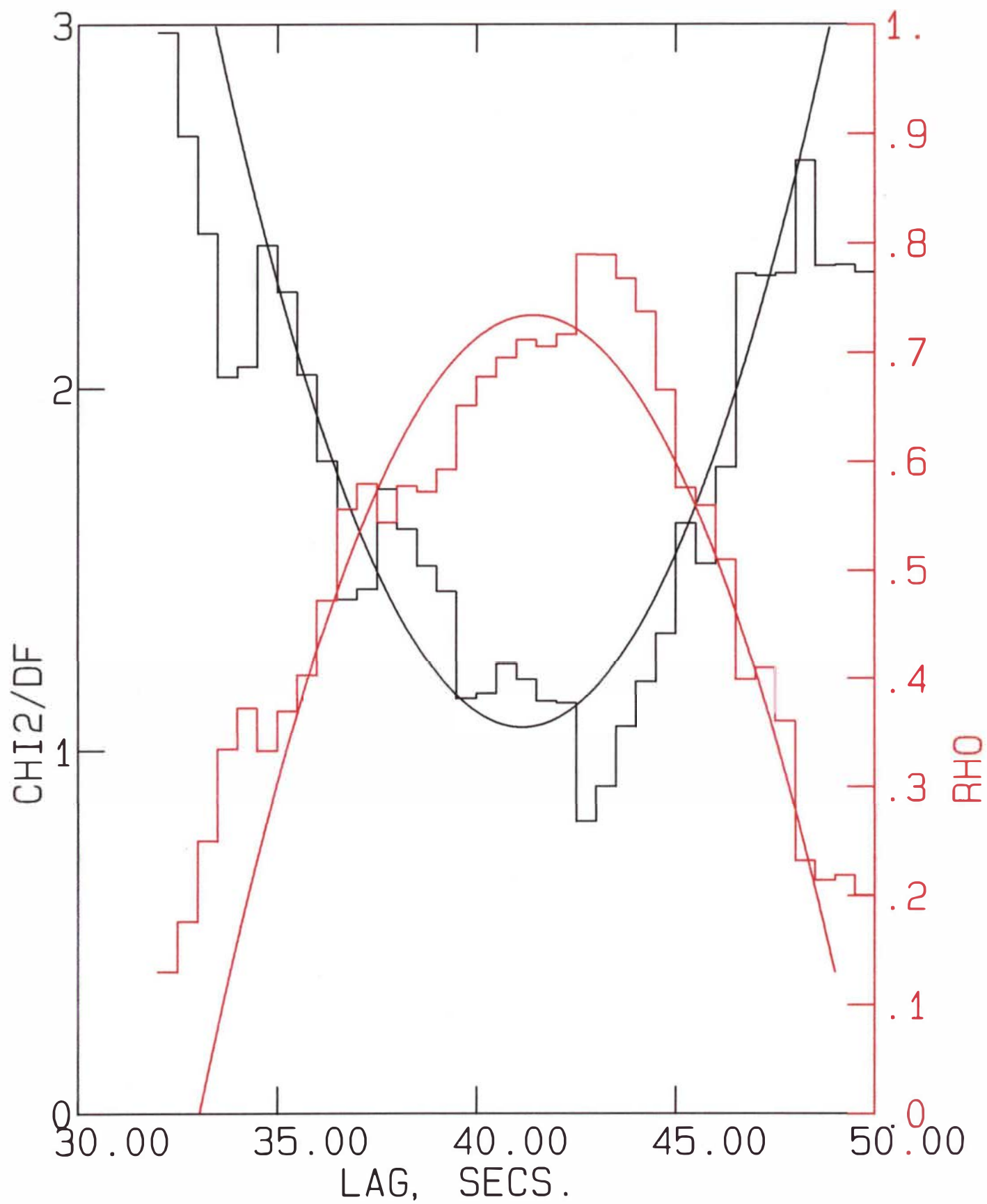
-ULYSSES RT CORRELATION

26/10/94

10355.634

5/ 2/98





ULYSSES RT

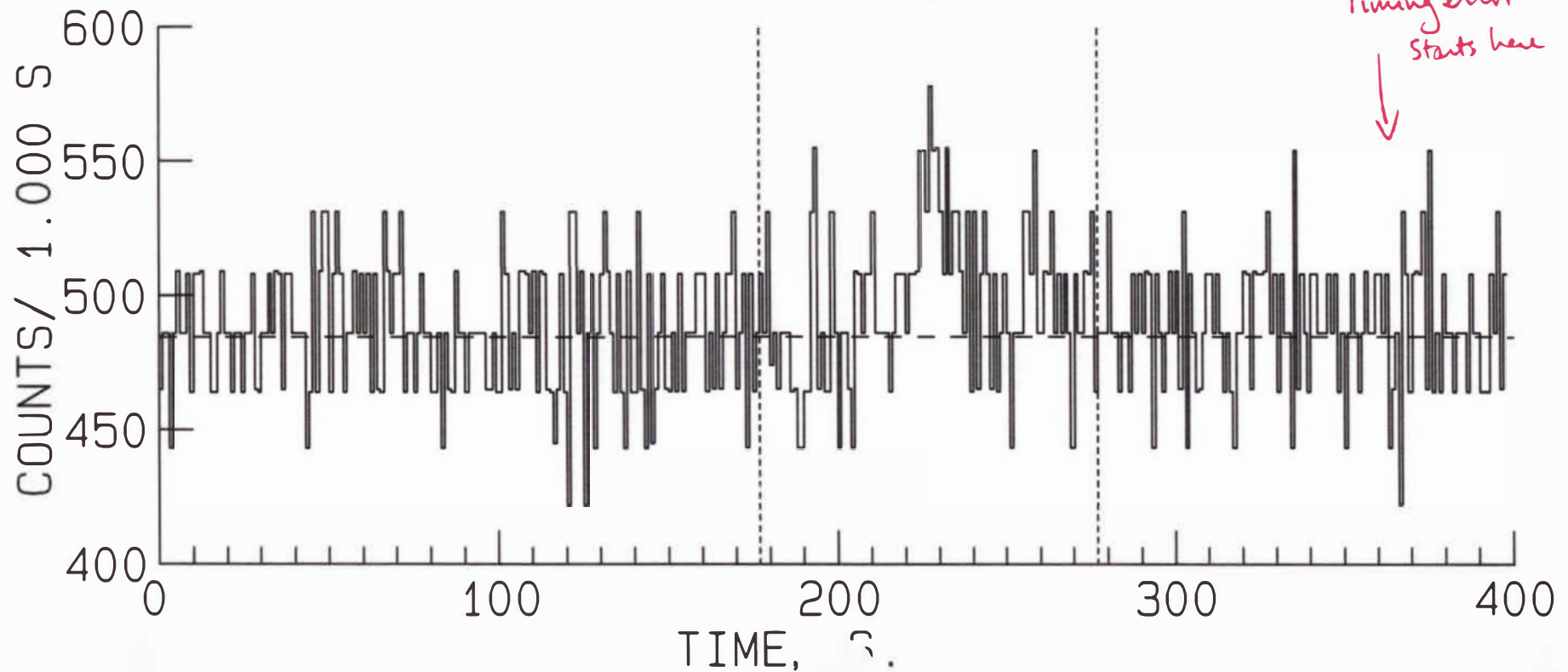
5 / 2 / 98

26/10/94 9648.266 s

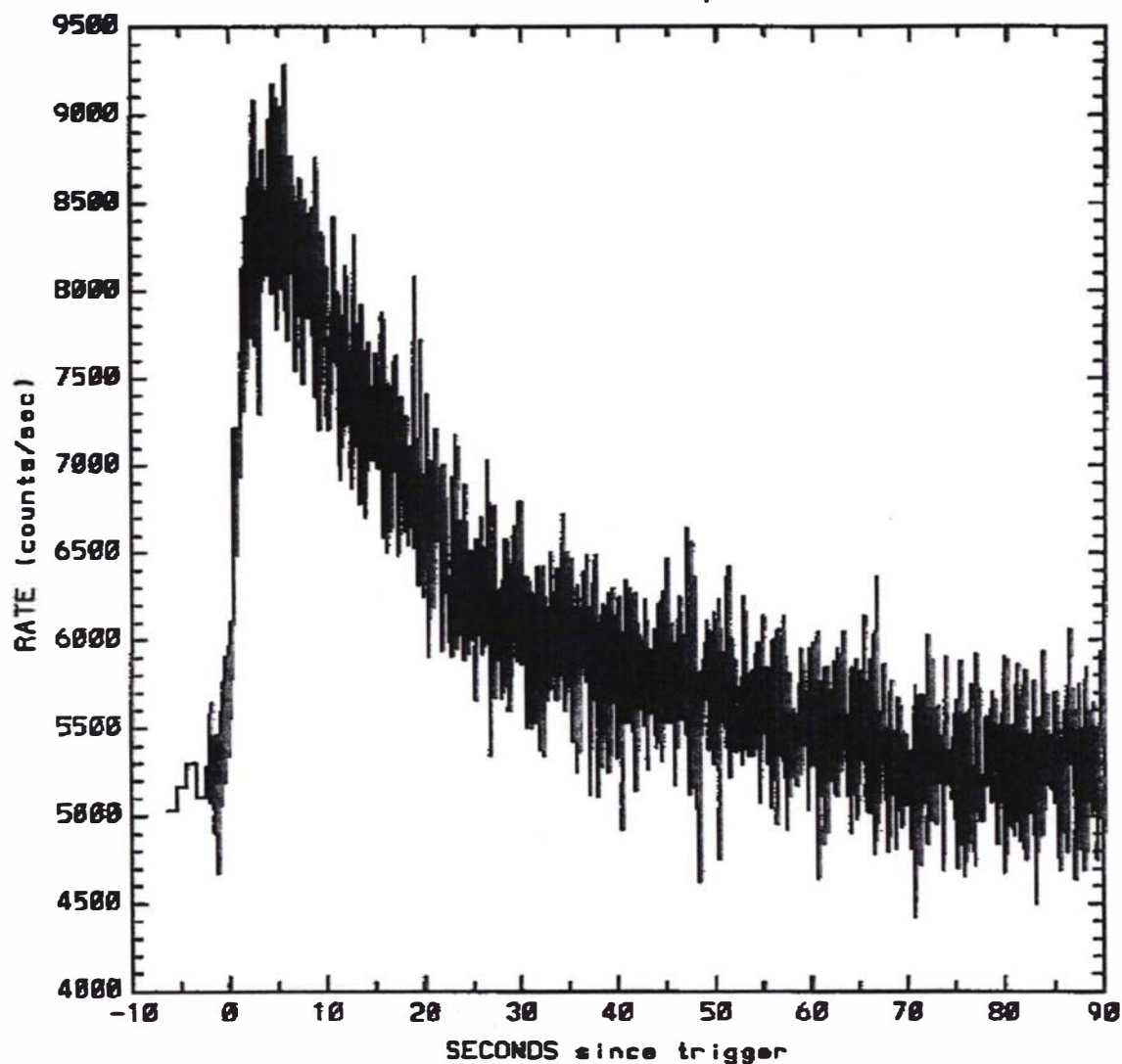
0.500 S INTERVALS REGROUPED BY 2

22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



DISCSC Data for K. Hurley, No. 3257



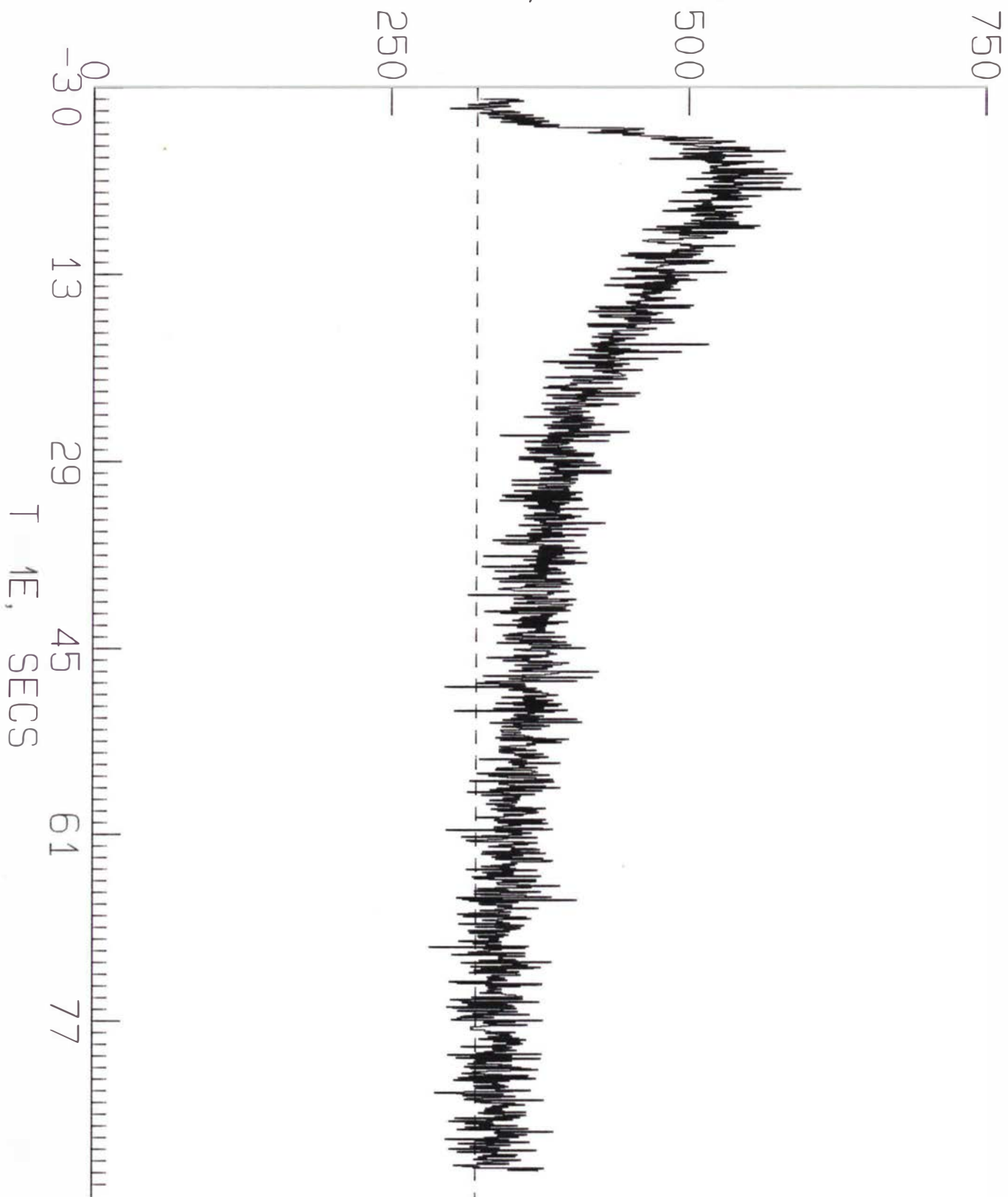
BATSE

26/10/94

10355.634

25- 100 keV

COUNTS/ .064 S



From RICHARDSON@ssl.msfc.nasa.gov Fri Oct 28 09:27 PDT 1994
Date: Fri, 28 Oct 1994 11:27:22 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3258

TIME: TJD=9651 SECONDS=59818

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=83.5 AZIMUTH=191.4 ERROR= DEGREES

COMMENTS:

TGF WITH STRUCTURE, LASTING ~0.0025SEC. VISIBLE ABOVE 300KEV.

From RICHARDSON@ssl.msfc.nasa.gov Fri Oct 28 09:38 PDT 1994
Date: Fri, 28 Oct 1994 11:38:16 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3259

BATSEARCH PROGRAM

RI

BATSE BURST # 3259
EVENT OF 1994 OCT 26 DAY OF YEAR=299
EVENT CROSSING TIME AT BATSE : 79850. S. OR 22:10:50.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 109.000 33.000
BATSE PEAK COUNTING RATE: 7250 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 26/10/ 94 IS:
RA= 188.614 DEC= -70.215 DIST= 2.298 AU
BATSE-ULYSSES DISTANCE = 343706591. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 62.53 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 528.88 SECS.
CROSSING TIME AT ULYSSES IS 80379. S. OR 22:19:38 +/- 234.63 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 26/10/ 94 IS:
RA= 134.320 DEC= 18.734 DIST= 1.392 AU
MARS-BATSE DISTANCE = 208197808. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=153.23 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -620.07 SECS.
CROSSING TIME AT MARS IS 79230. S. OR 22:00:29 +/- 44.88 SECONDS

BATSE BURST TRIGGER

NO.: 3259

TIME: TJD=9651 SECONDS=79850

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=121.7 AZIMUTH=110.8 ERROR= DEGREES

COMMENTS:

GRB. FAST RISE, EXPONENTIAL DECAY. LASTING~80SEC. VISIBLE ABOVE 300KEV.

From RICHARDSON@ssl.msfc.nasa.gov Fri Oct 28 09:37 PDT 1994
Date: Fri, 28 Oct 1994 11:36:58 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: RICHARDSON@ssl.msfc.nasa.gov
Subject: BATSE Burst 3259

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3259	941026	9651	79850	7250	109	+33

Helio corr removed

Date:

Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

- ☐ 2.042 s subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T₀? *Apparently - it's not in FILE.bcd, but it was in a previous version of FILE.b. ...*
- ☒ 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

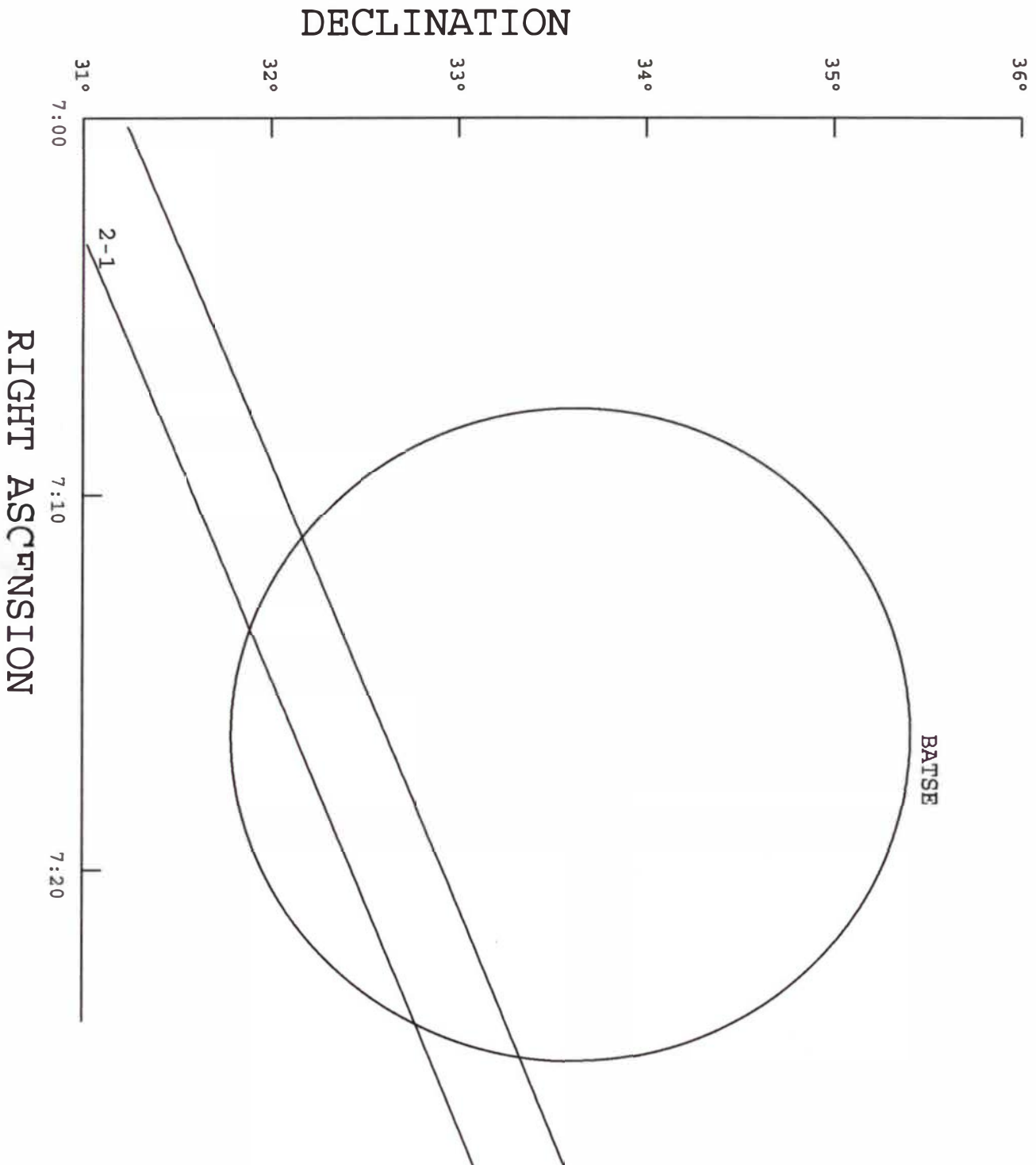
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF OCT 26, 1994 22:18

5 / 2/98



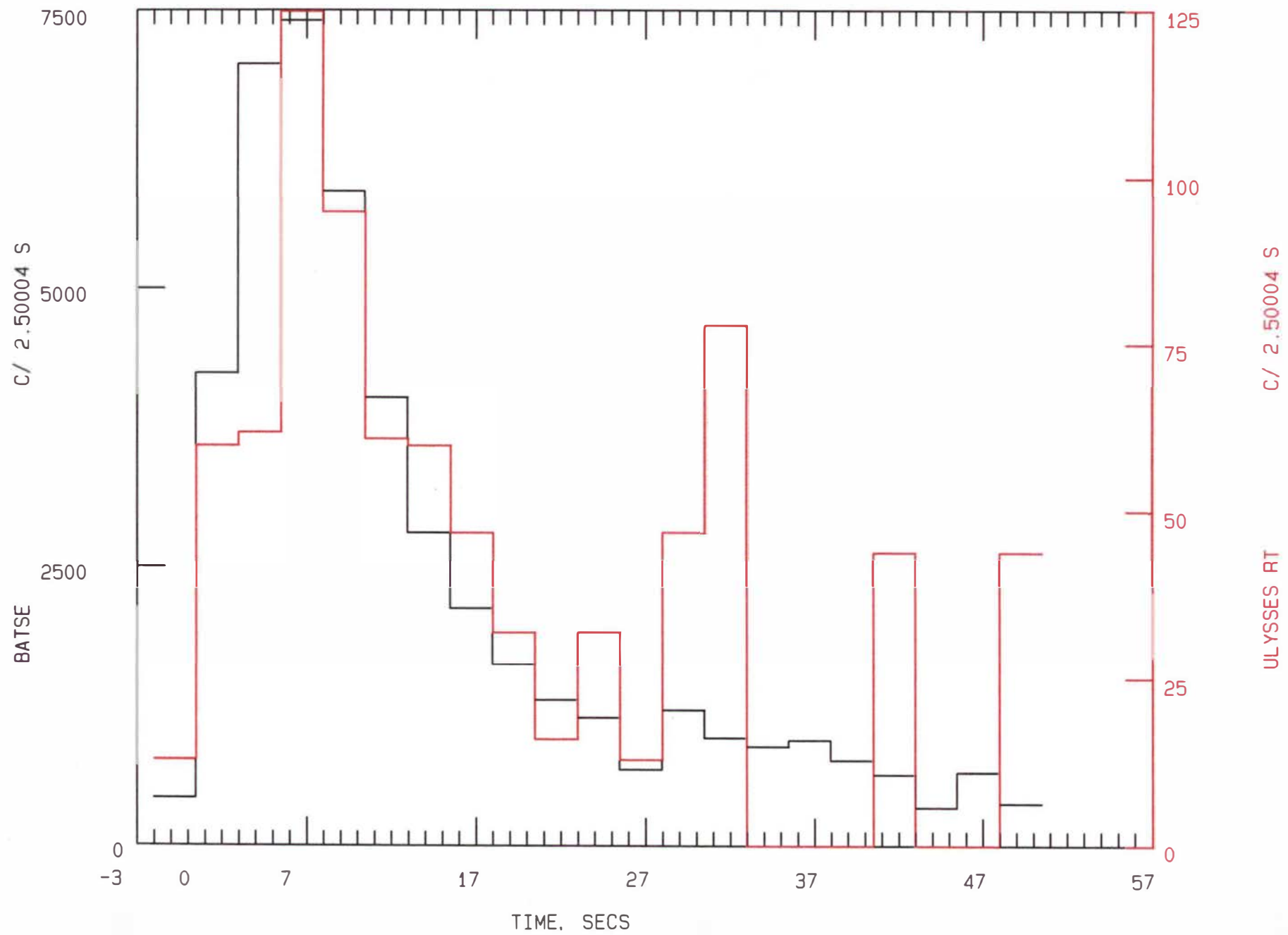
BATSE

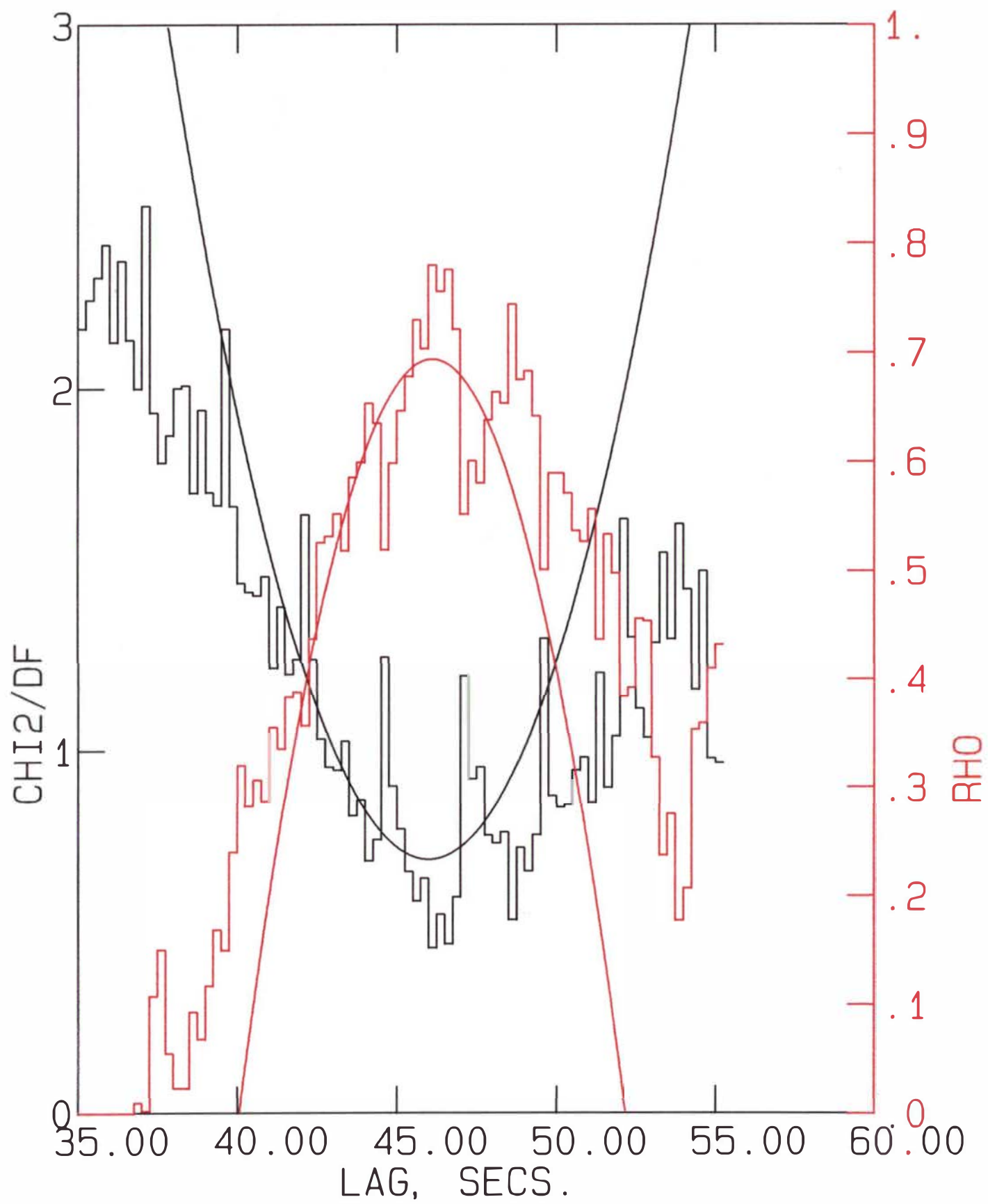
-ULYSSES RT CORRELATION

26/10/94

79850.162

5/ 2/98



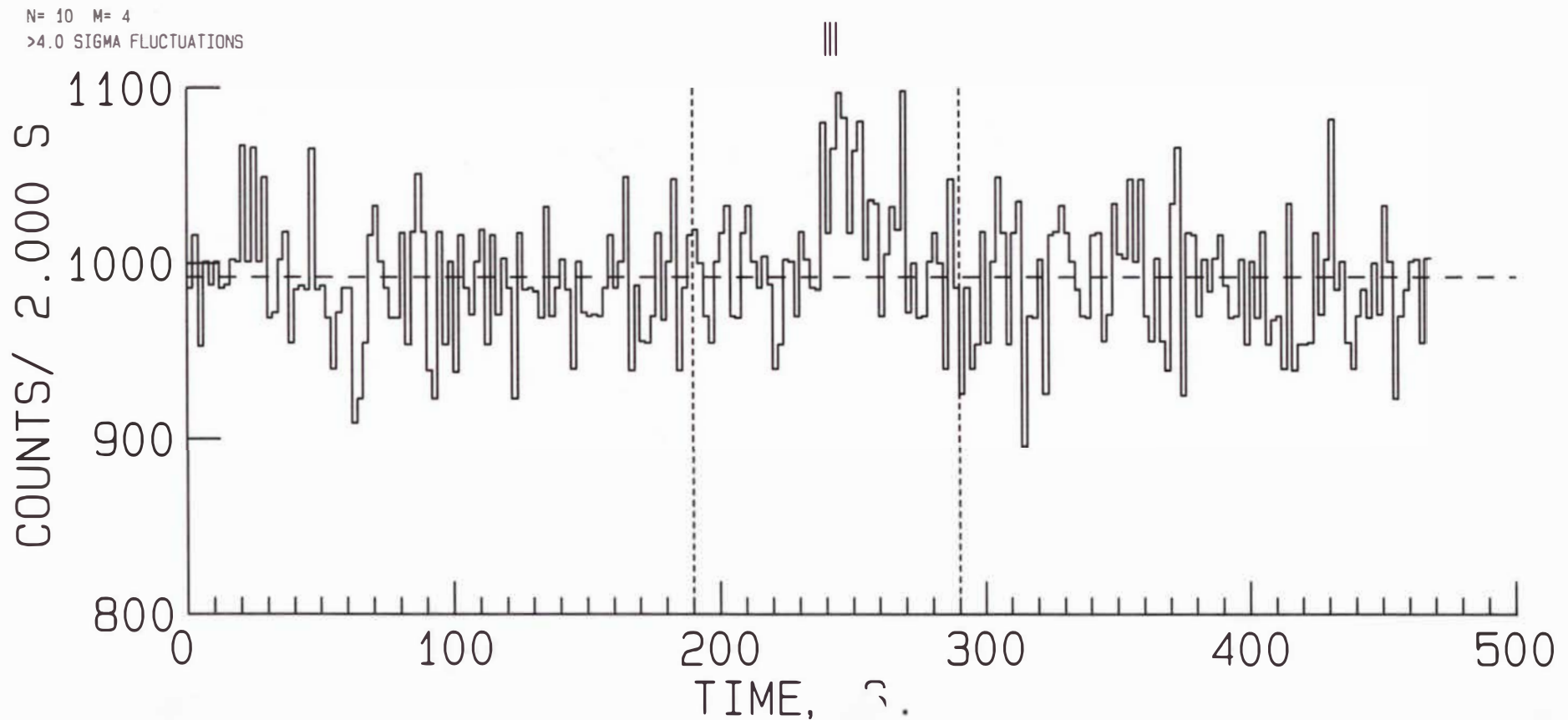


ULYSSES RT

5 / 2 / 98

26/10/94 80136.124 s

0.250 S INTERVALS REGROUPED BY 8
22- 147 keV



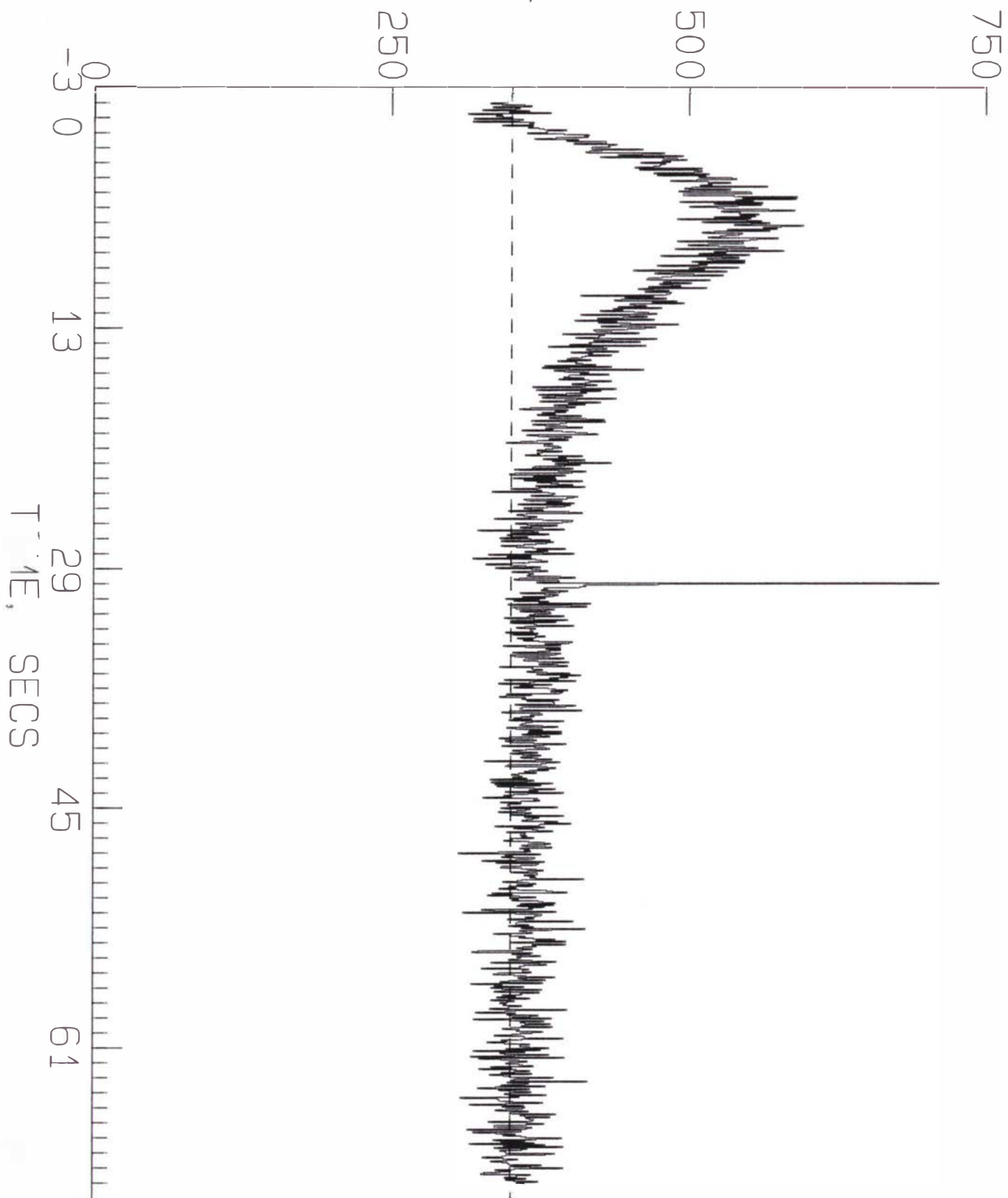
BATSE

26/10/94

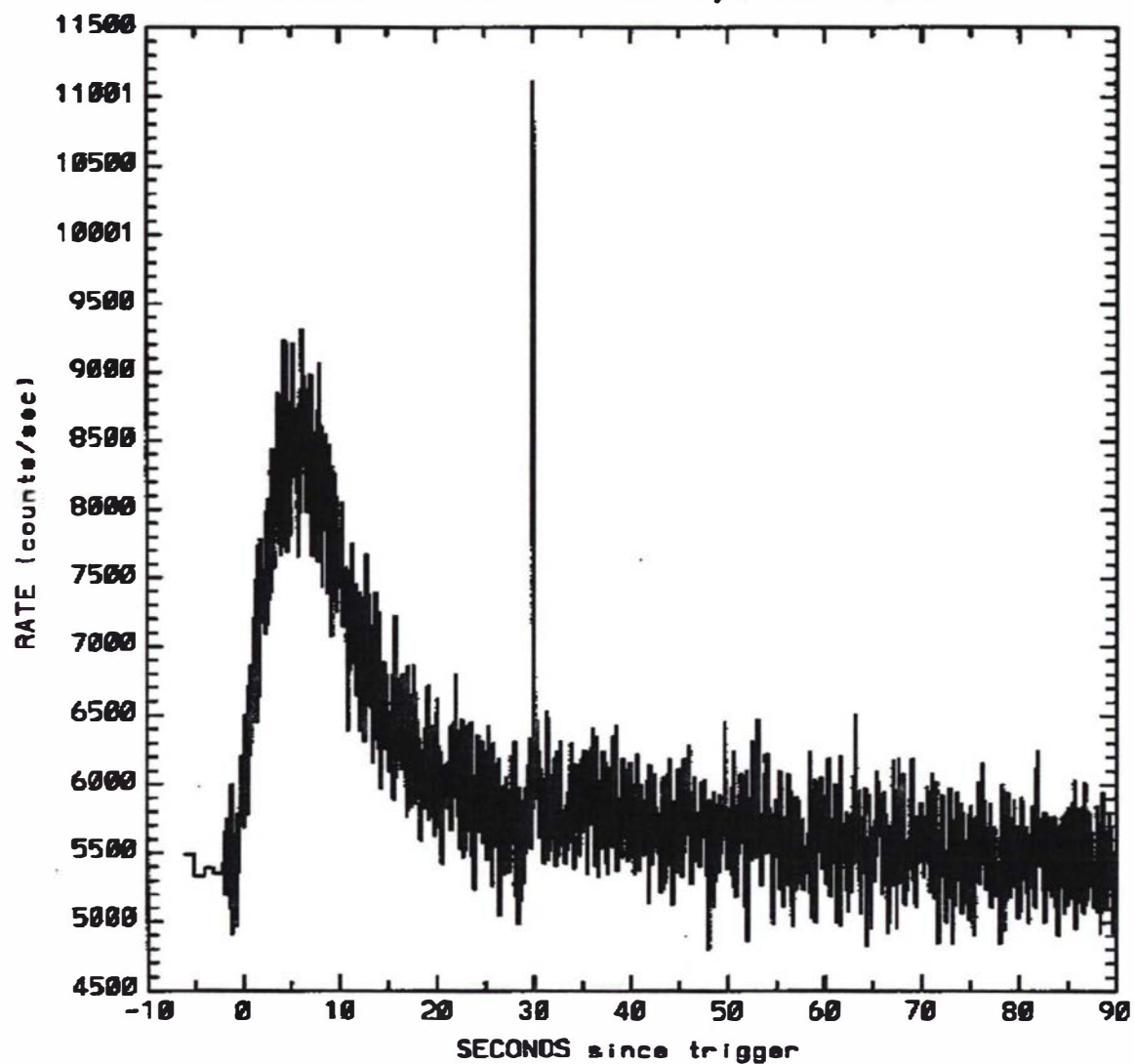
79850.162

25- 100 keV

COUNTS/ .064 S



DISCSC Data for K. Hurley. No. 3259

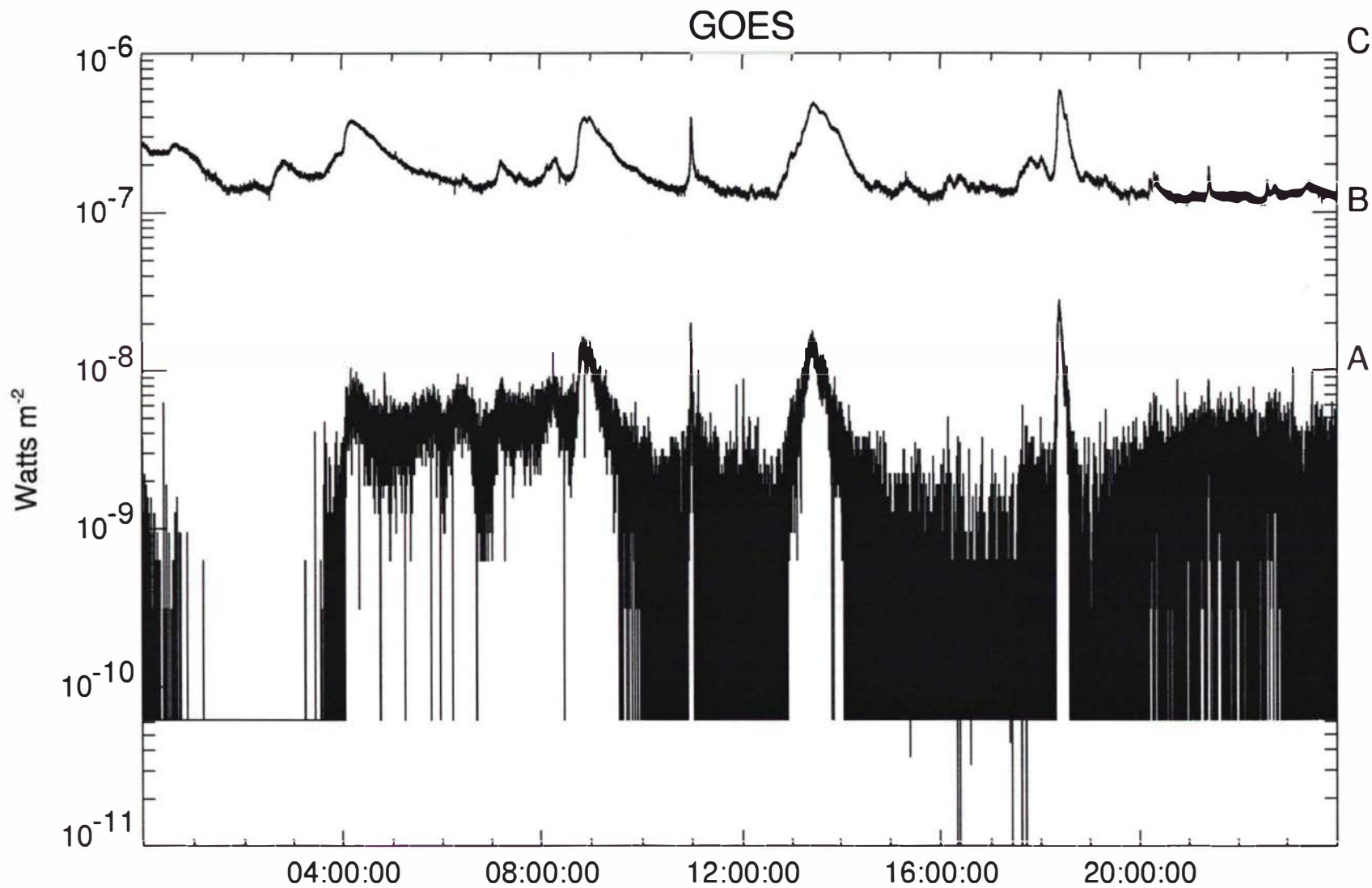


15-FEB-1995 18:23.23

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

Trigger # : 3259

Trigger Time:
9651 / 79858.162Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 secondsDetectors [7..8]:
--5--1-Discriminators:
1 1, 21Quality Mask:
801SP1



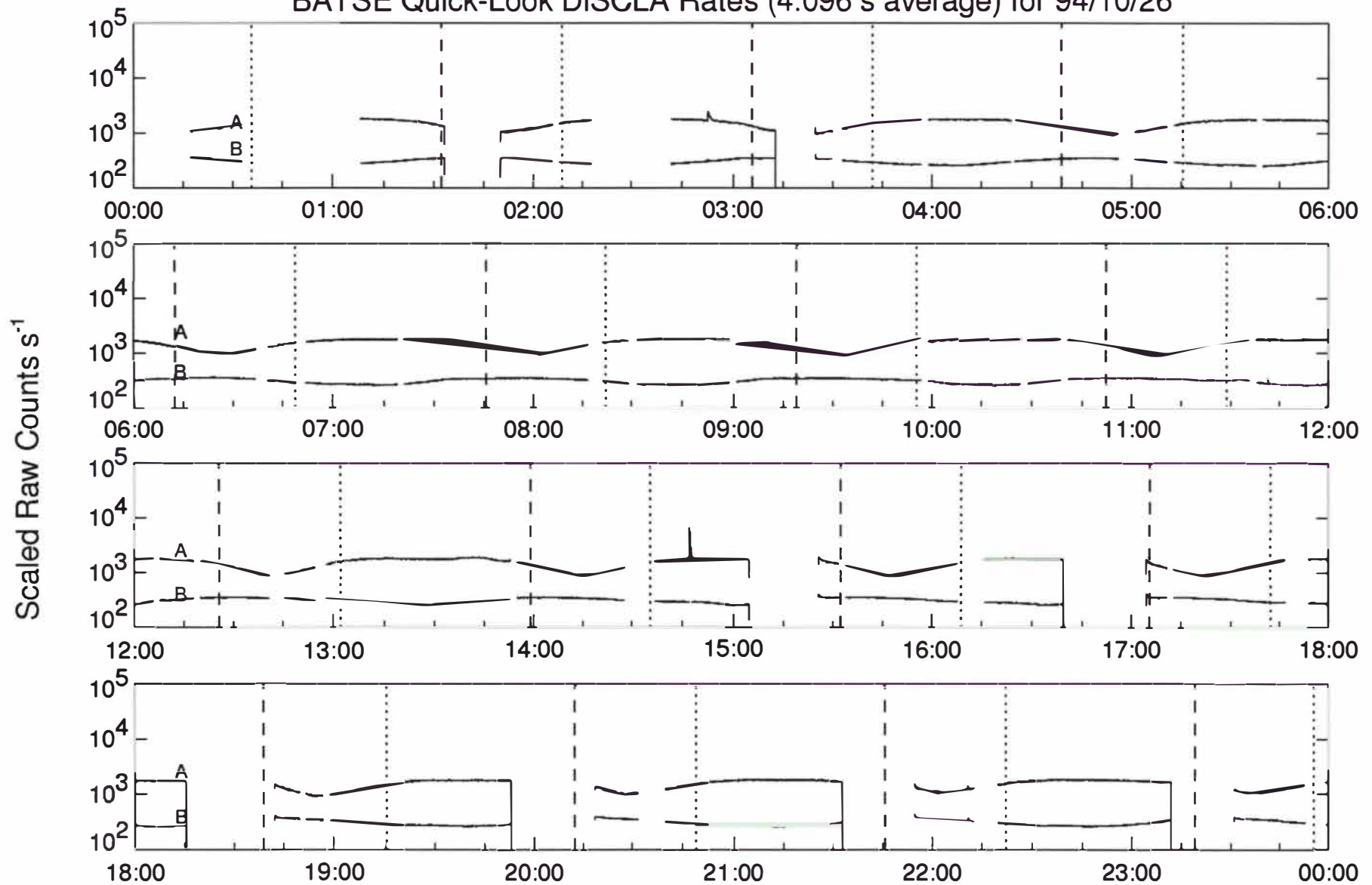
Data Start: 94/10/26, 0000:01

Plot created: 94/11/08, 1333

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/26

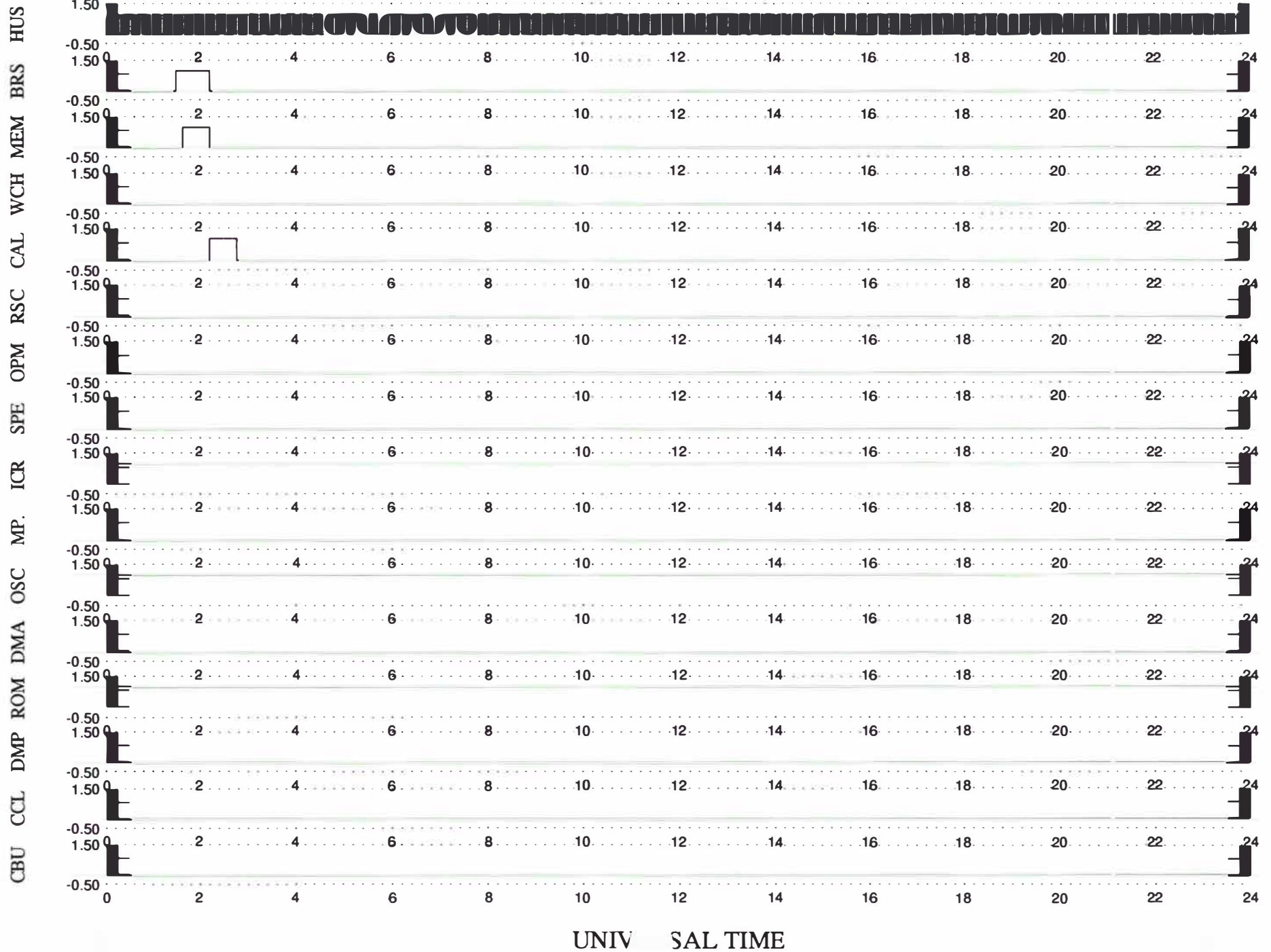


Current Time: 94/11/08, 1313 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

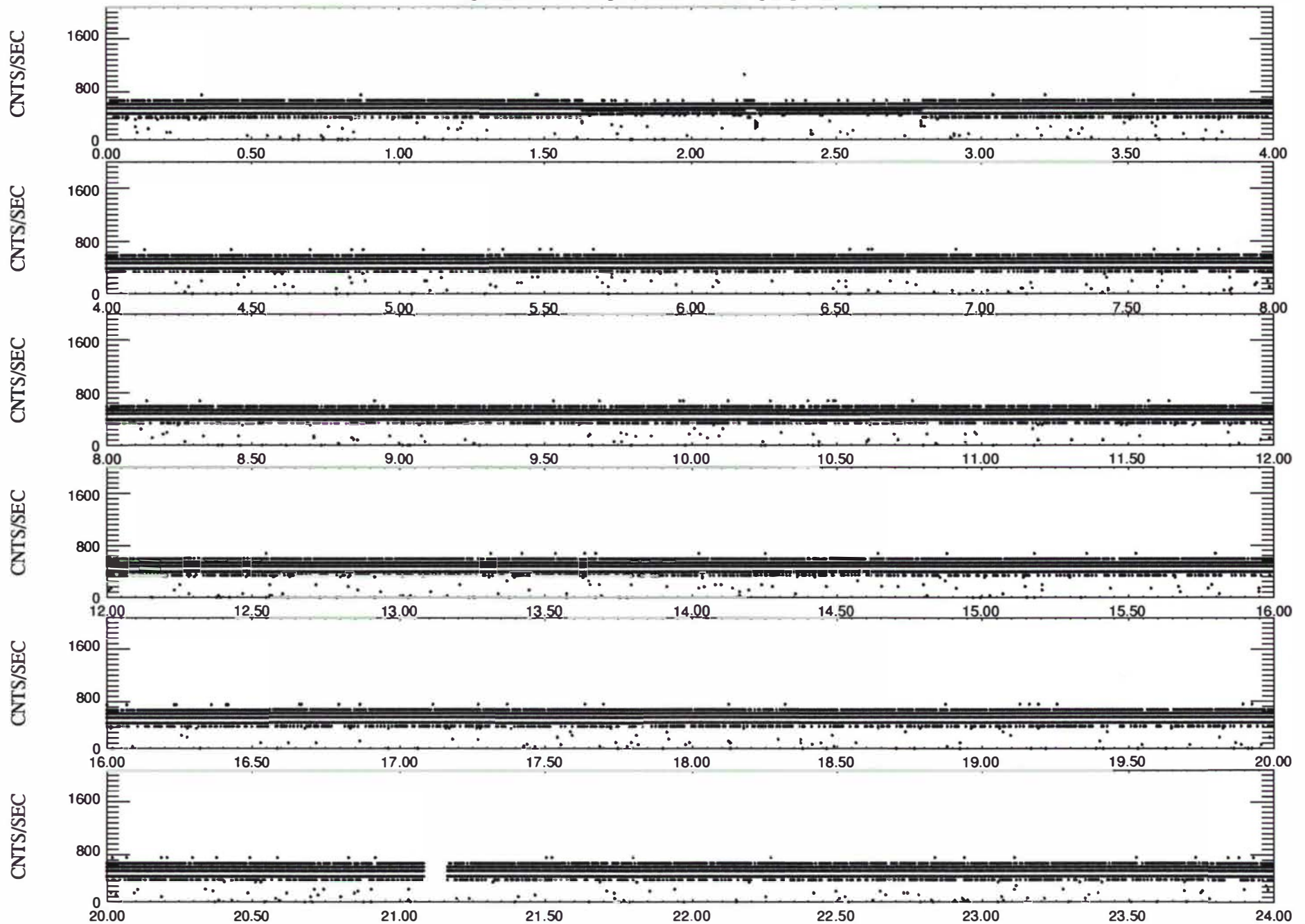
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 7

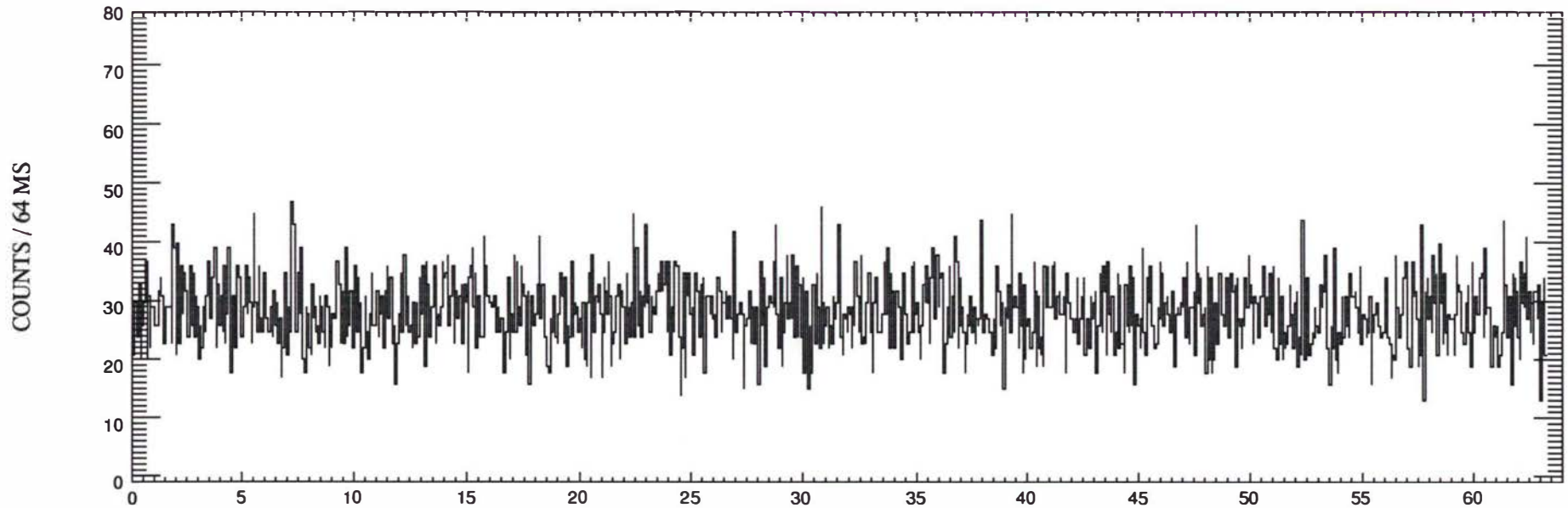


CALIBRATION DATA INCLUDED

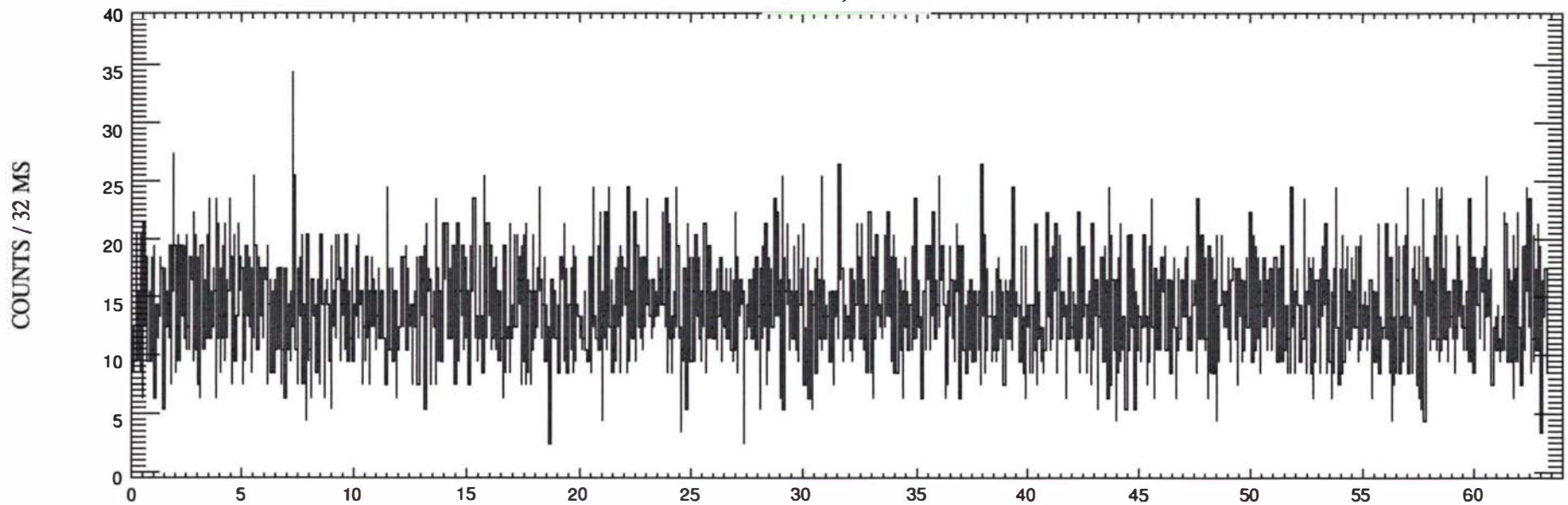


UNIV SAL TIME

Burst Counter 7 at UT= 1.474872949388 h= 5309.543 s 01:28:29.543

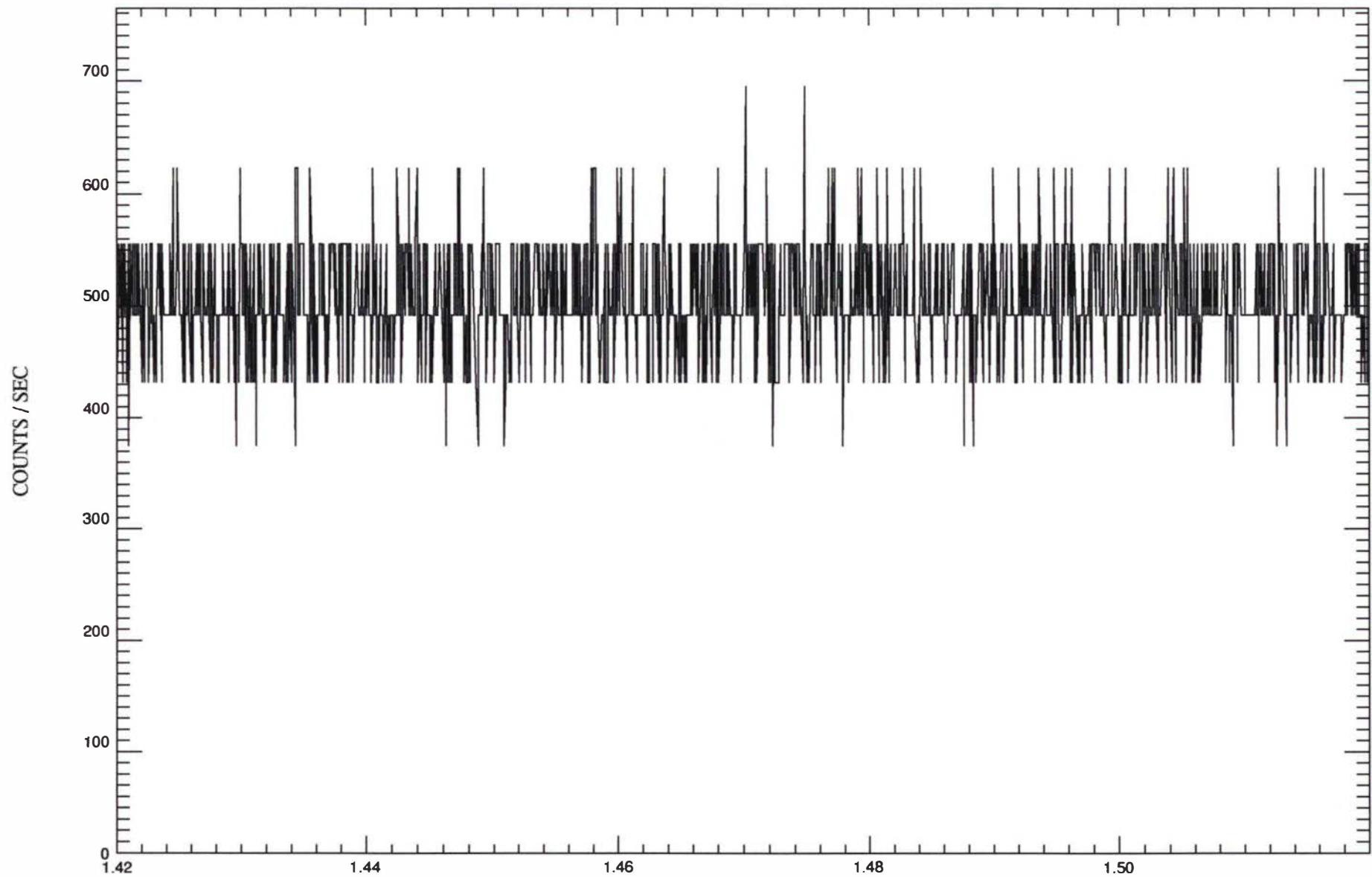


TIME, SECS

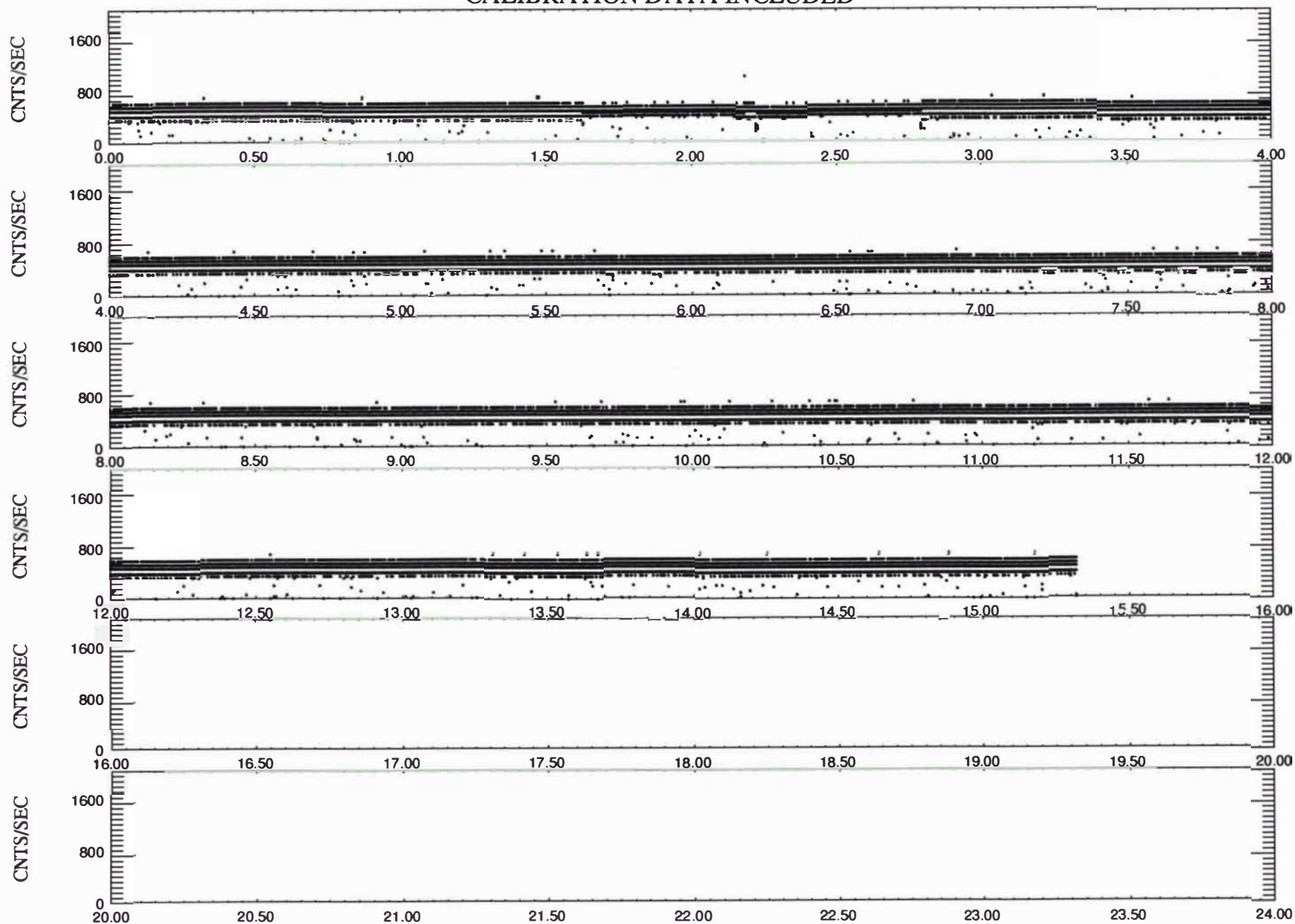


TIME, SECS

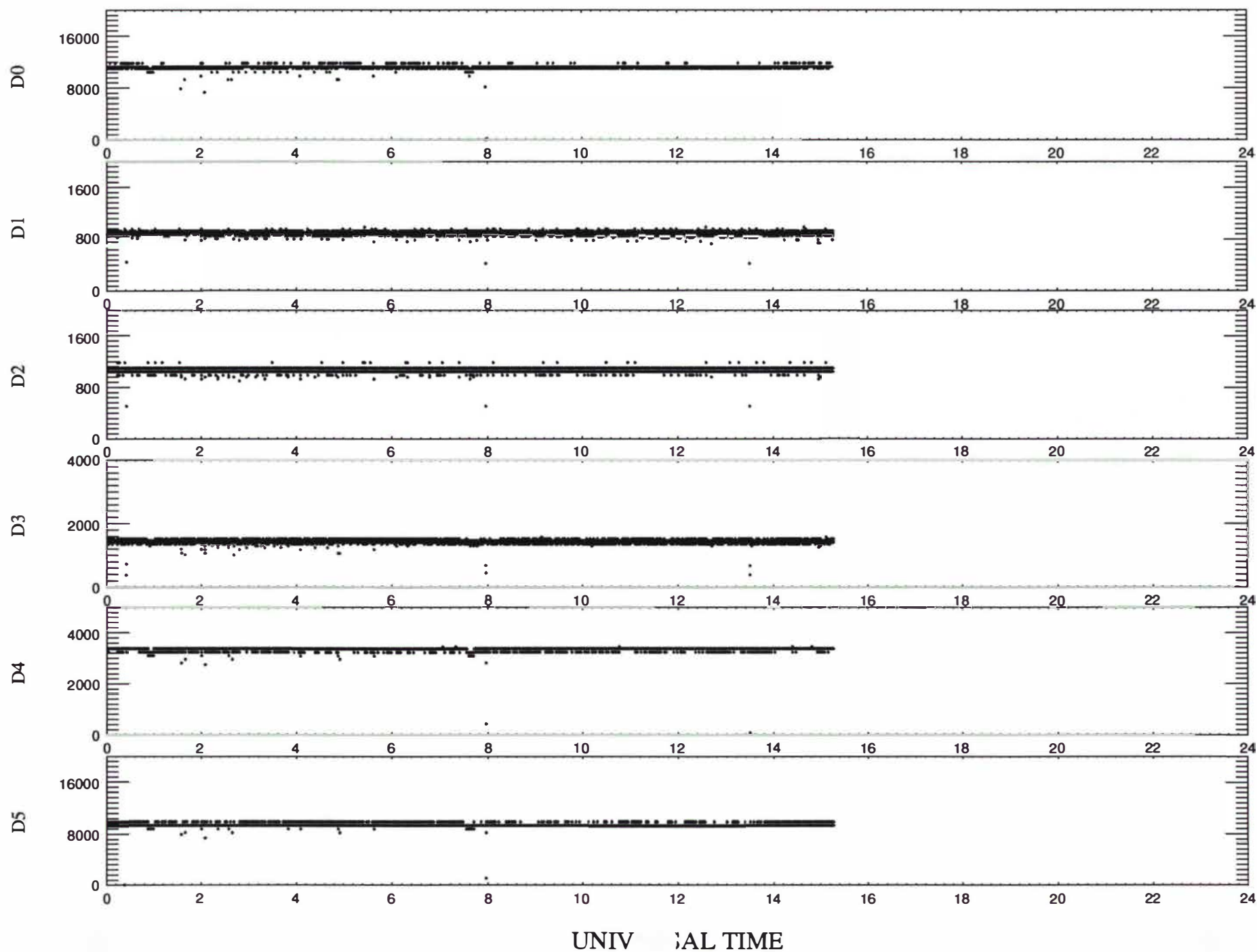
CALIBRATION DATA INCLUDED

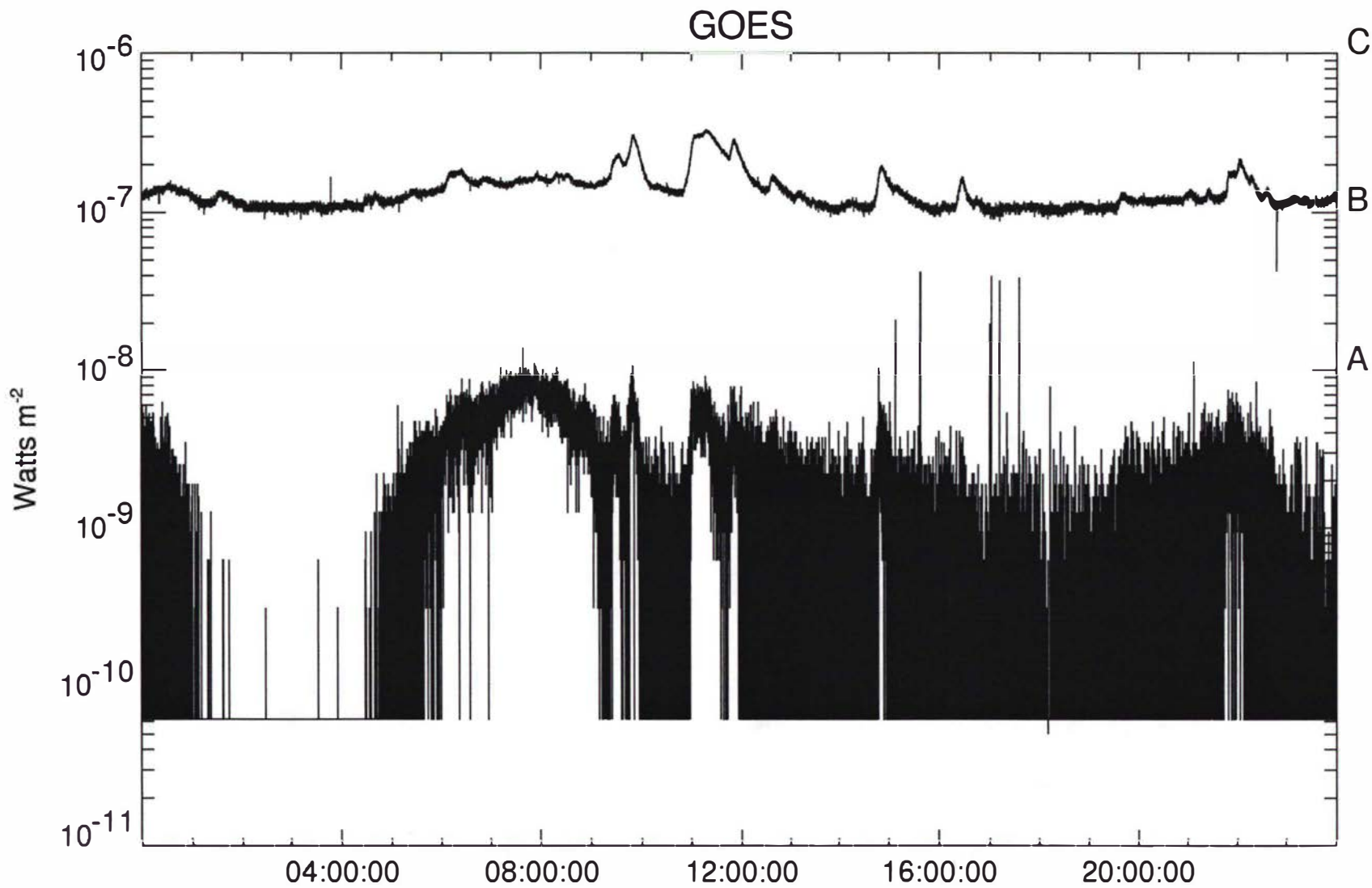


CALIBRATION DATA INCLUDED



UNIV TIME





Data Start: 94/10/27, 0000:02

Plot created: 94/11/08, 1333

Channel

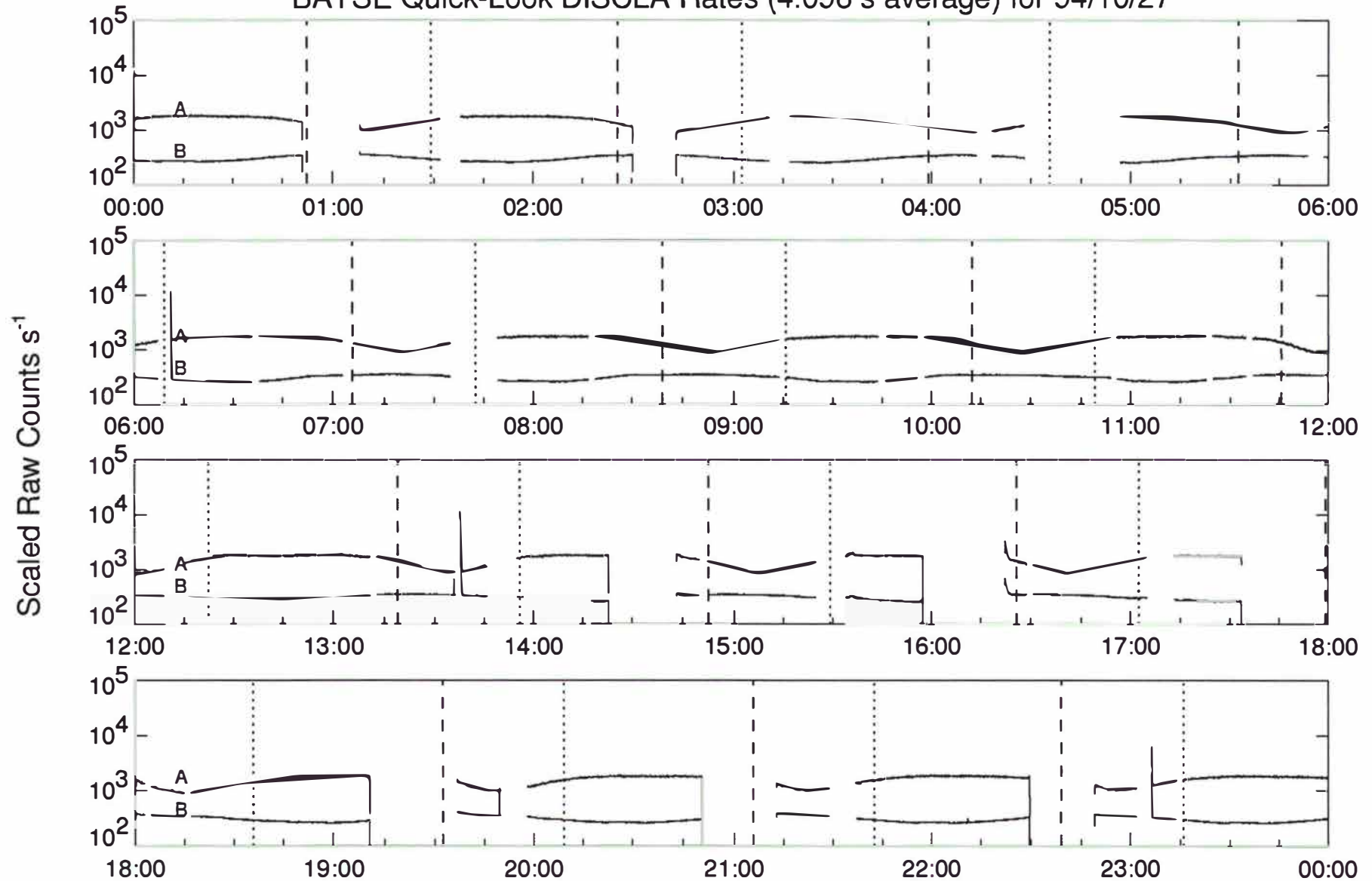
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/27

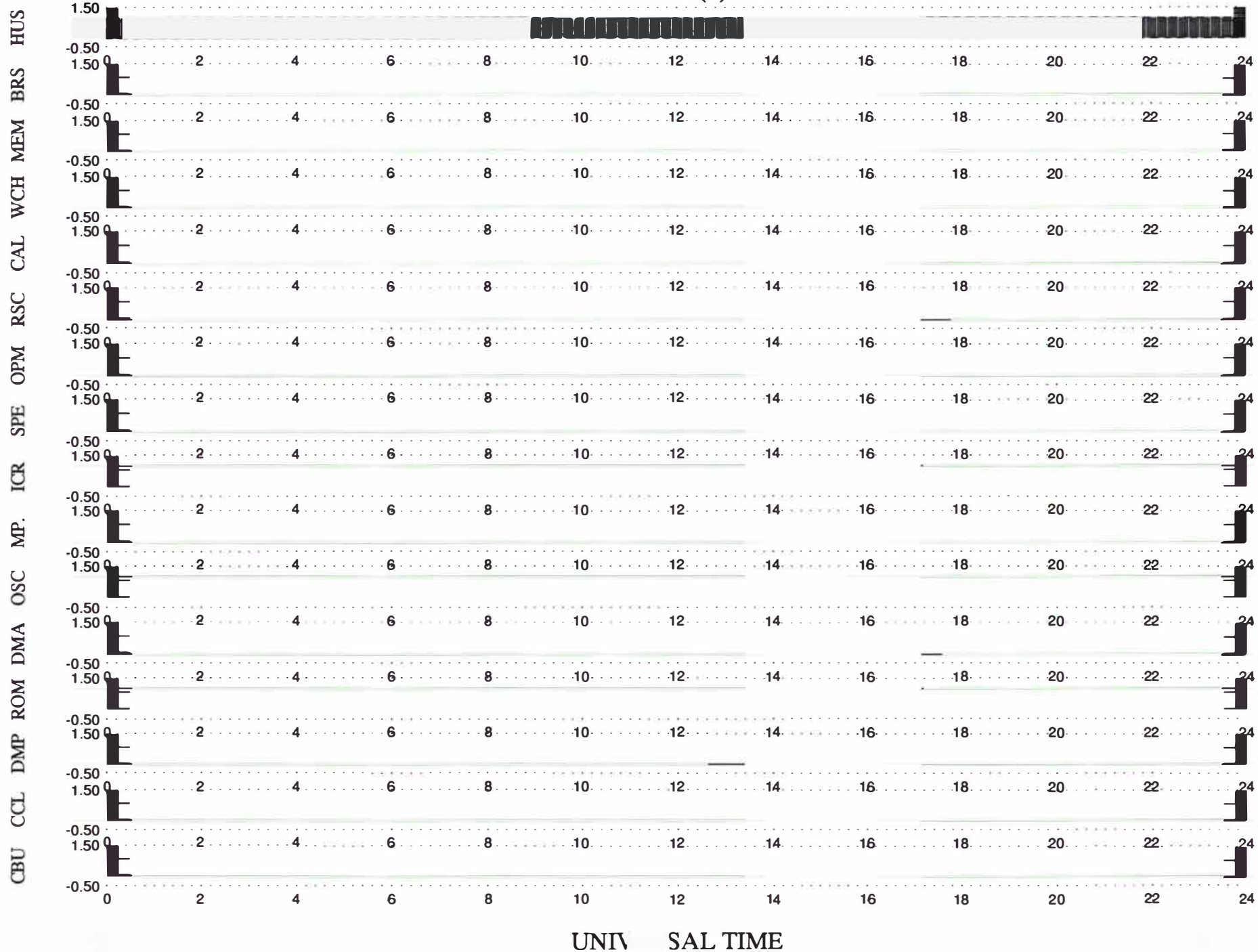


Current Time: 94/11/08, 1313 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

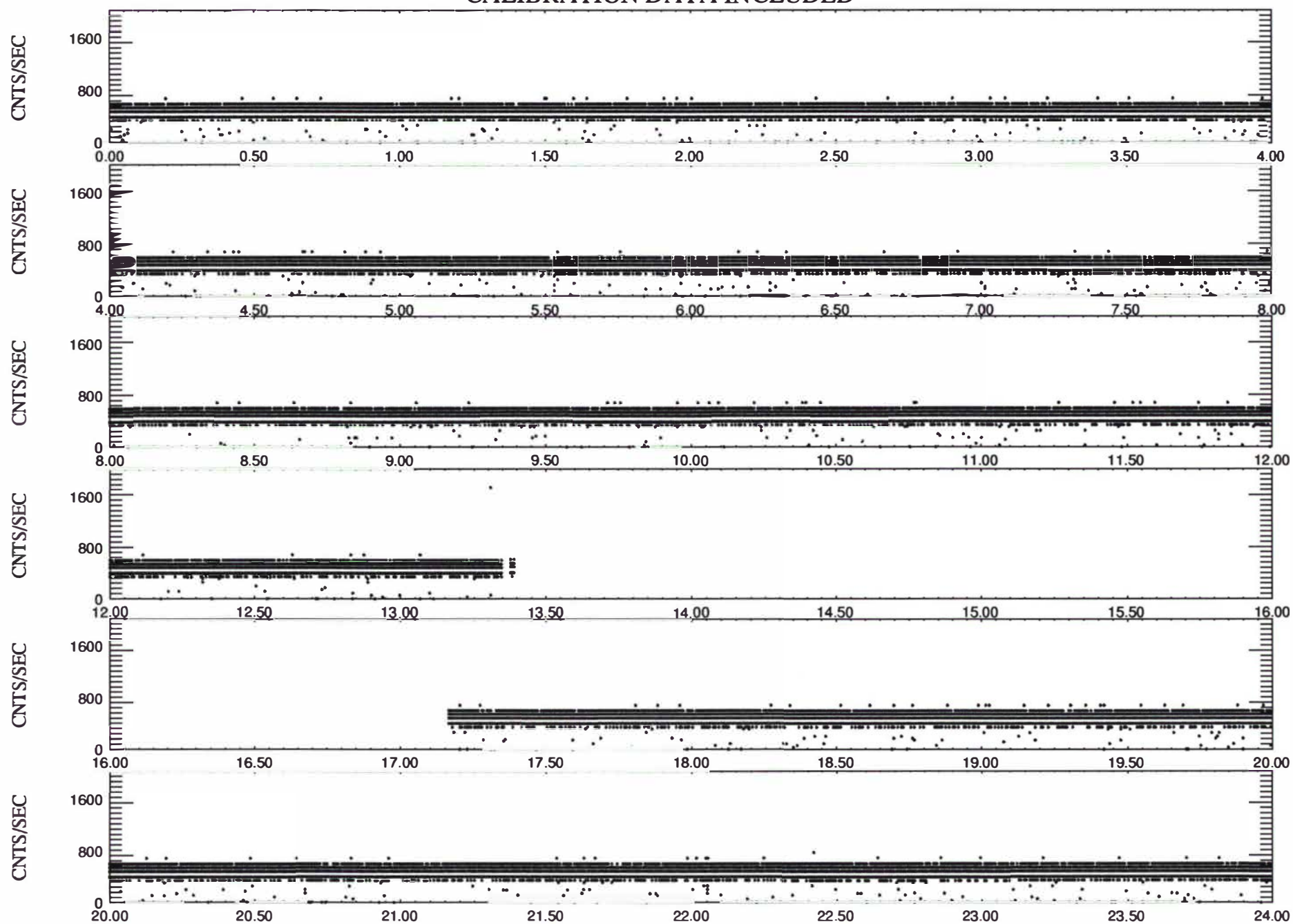
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

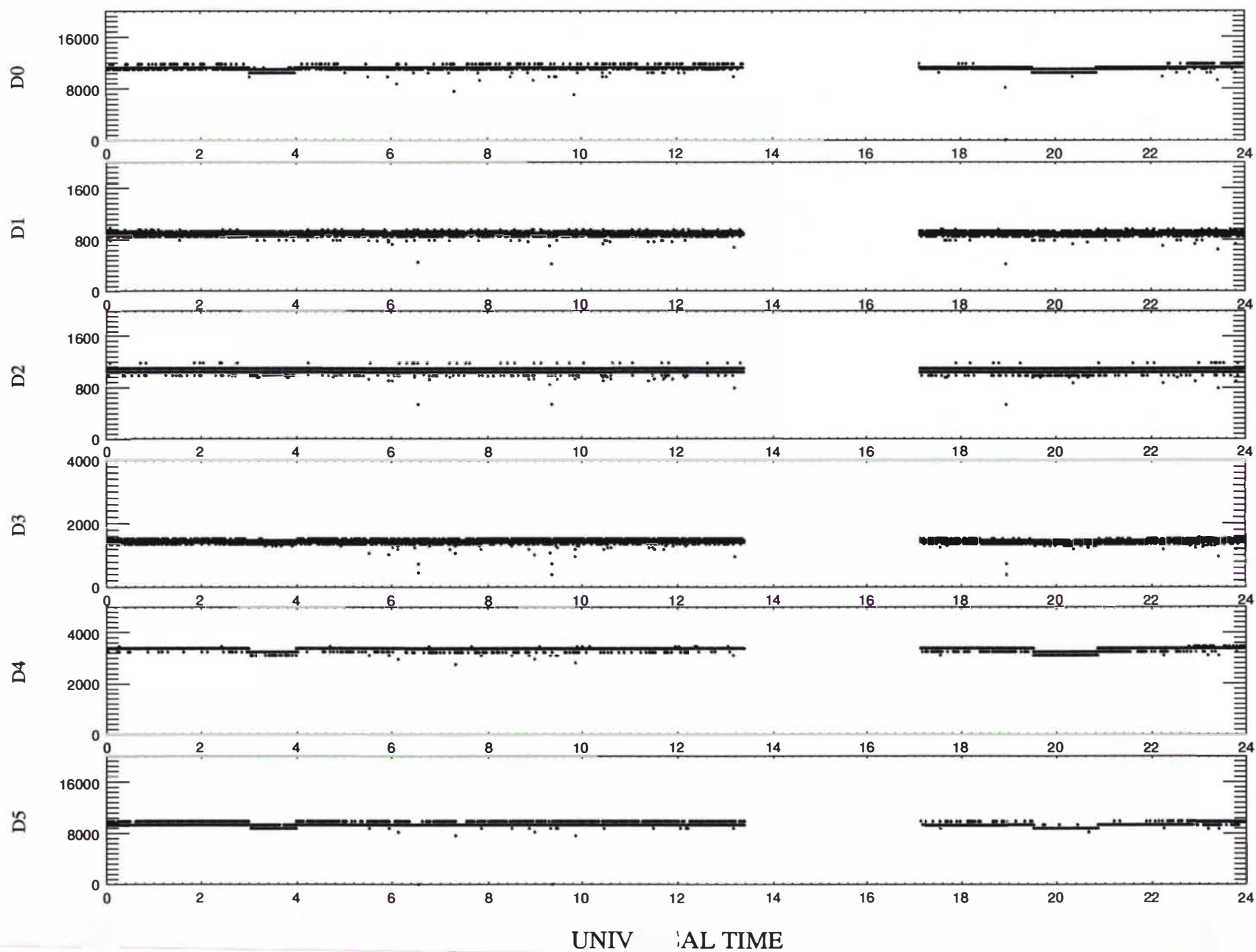
NO BURST (7)

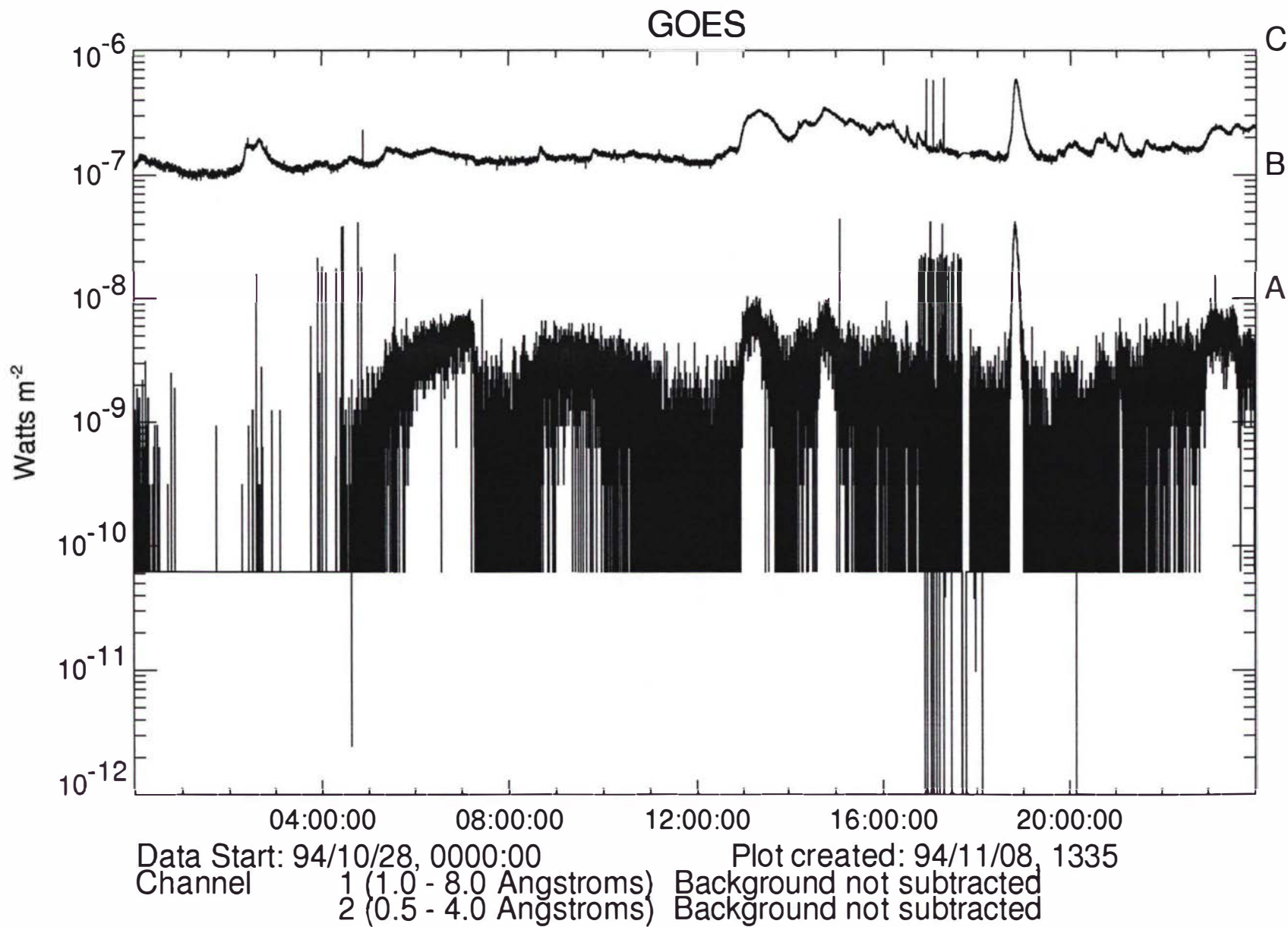


CALIBRATION DATA INCLUDED

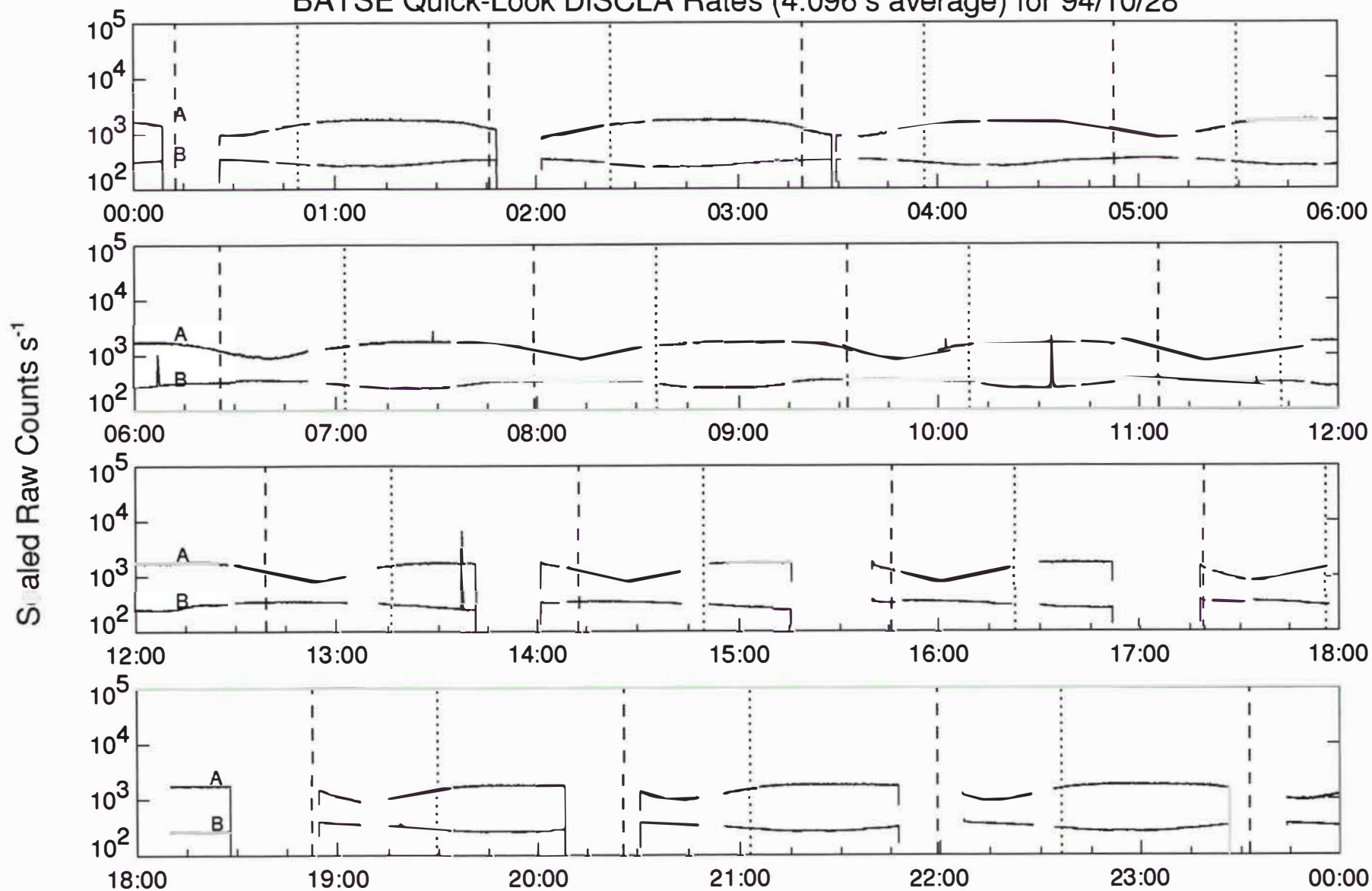


UNIV SAL TIME





BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/28

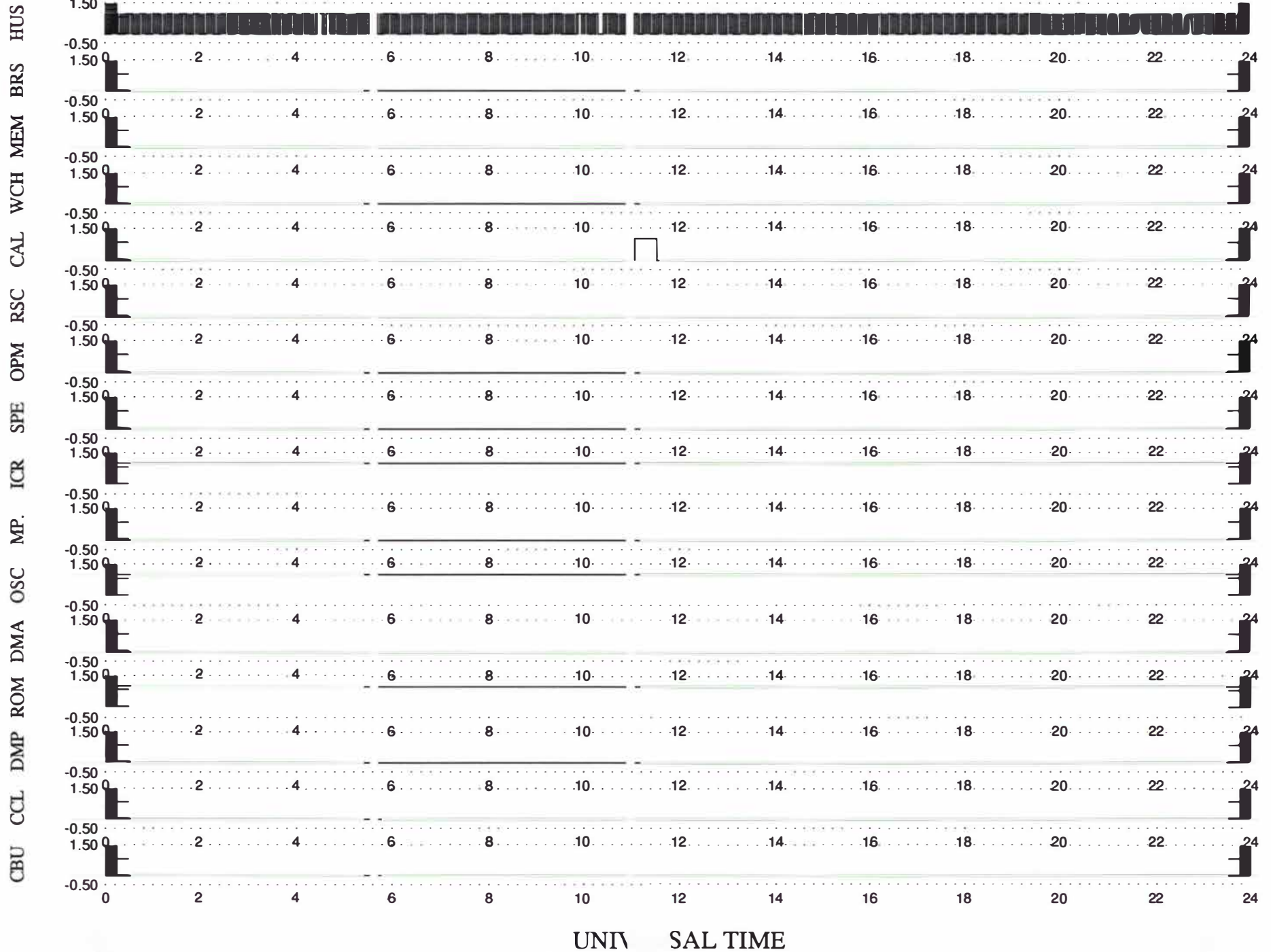


Current Time: 94/11/08, 1313 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

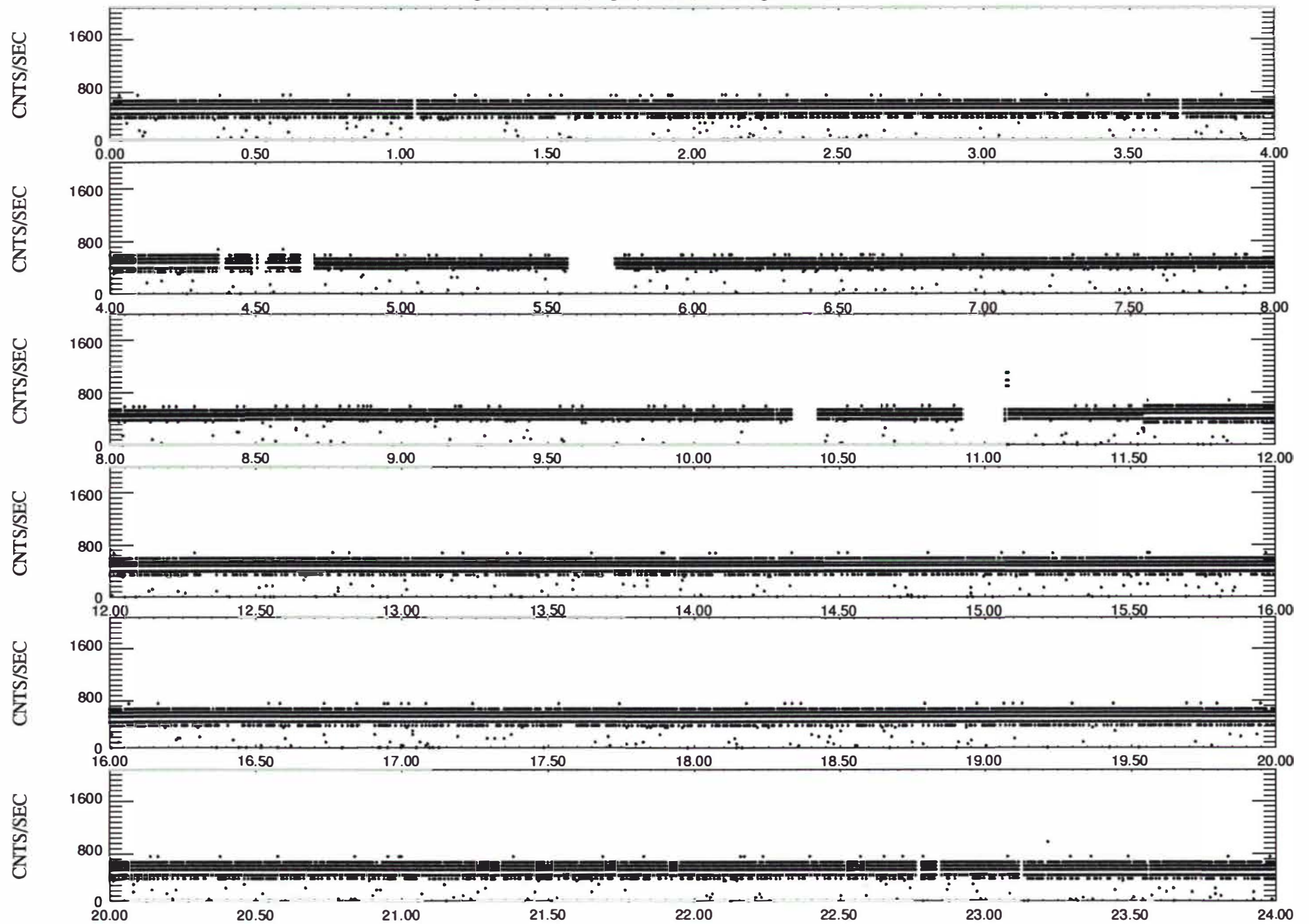
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

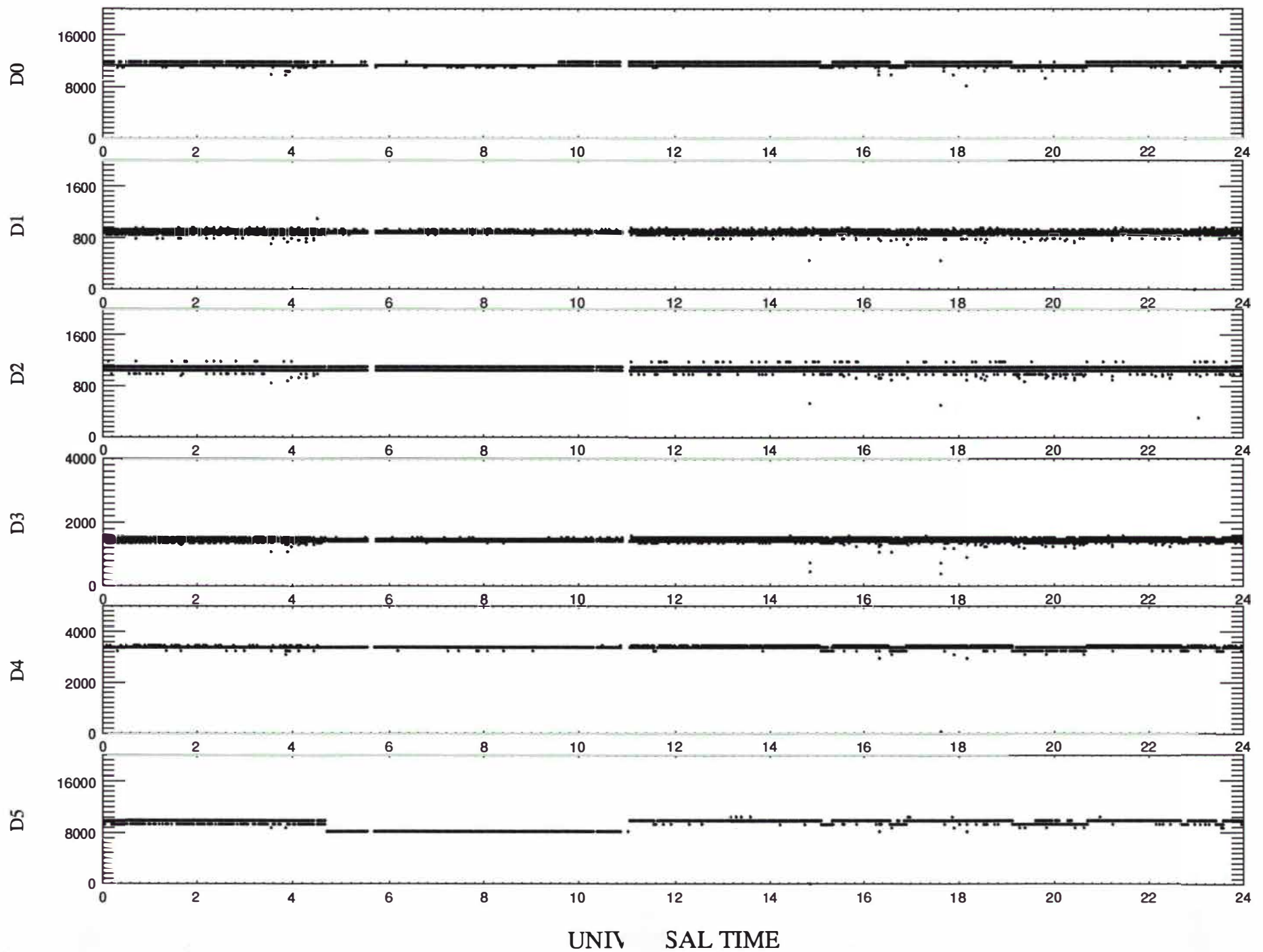
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From RICHARDSON@fender.msfc.nasa.gov Tue Nov 1 06:58 PST 1994

Date: Tue, 1 Nov 1994 8:58:16 -0600 (CST)

From: RICHARDSON@fender.msfc.nasa.gov

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

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

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

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

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

khurley@sunspot.ssl.berkeley.edu

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3260

TIME: TJD=9654 SECONDS=36958

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

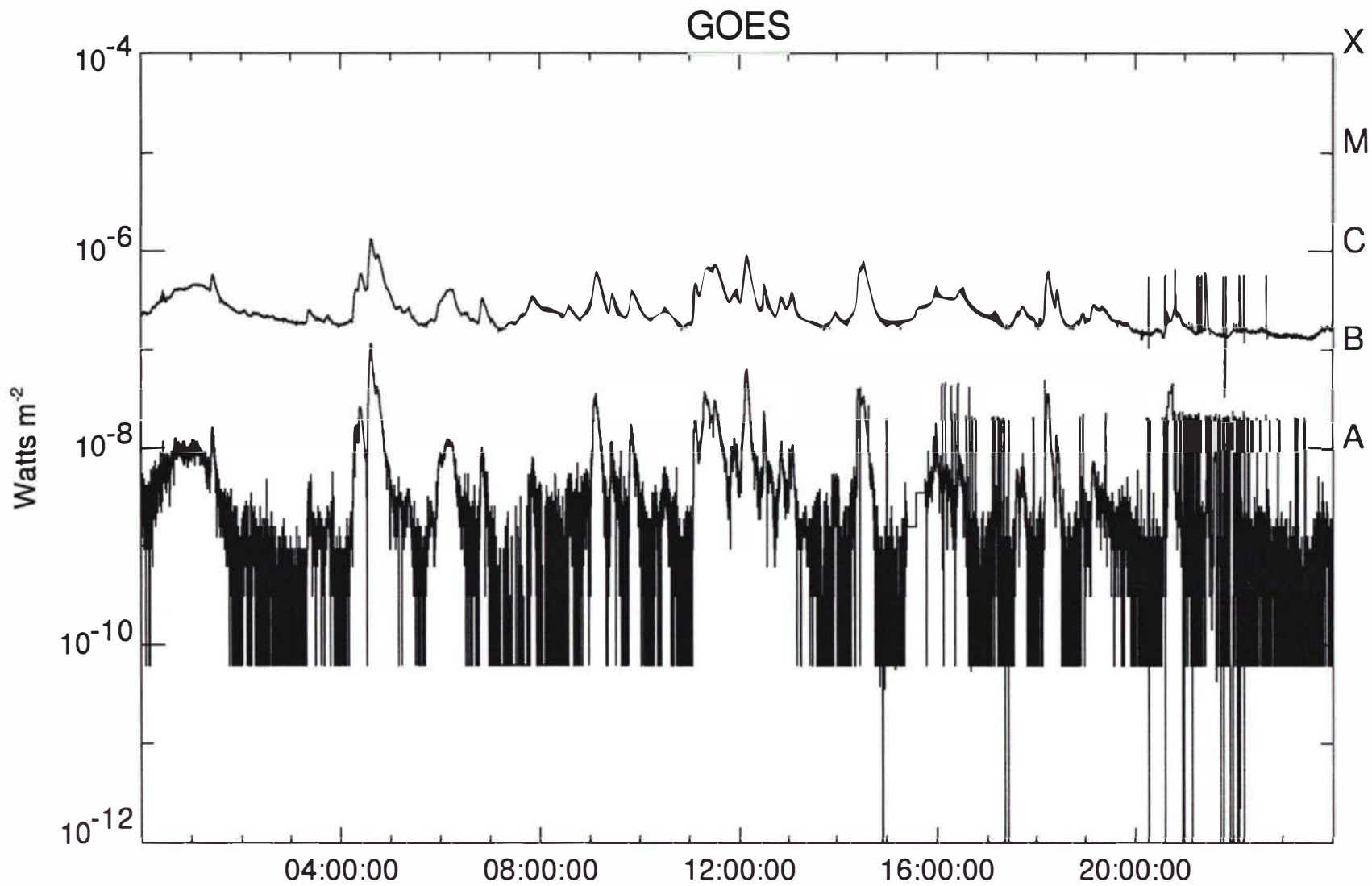
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

PARTICLES AT A DISTANCE.



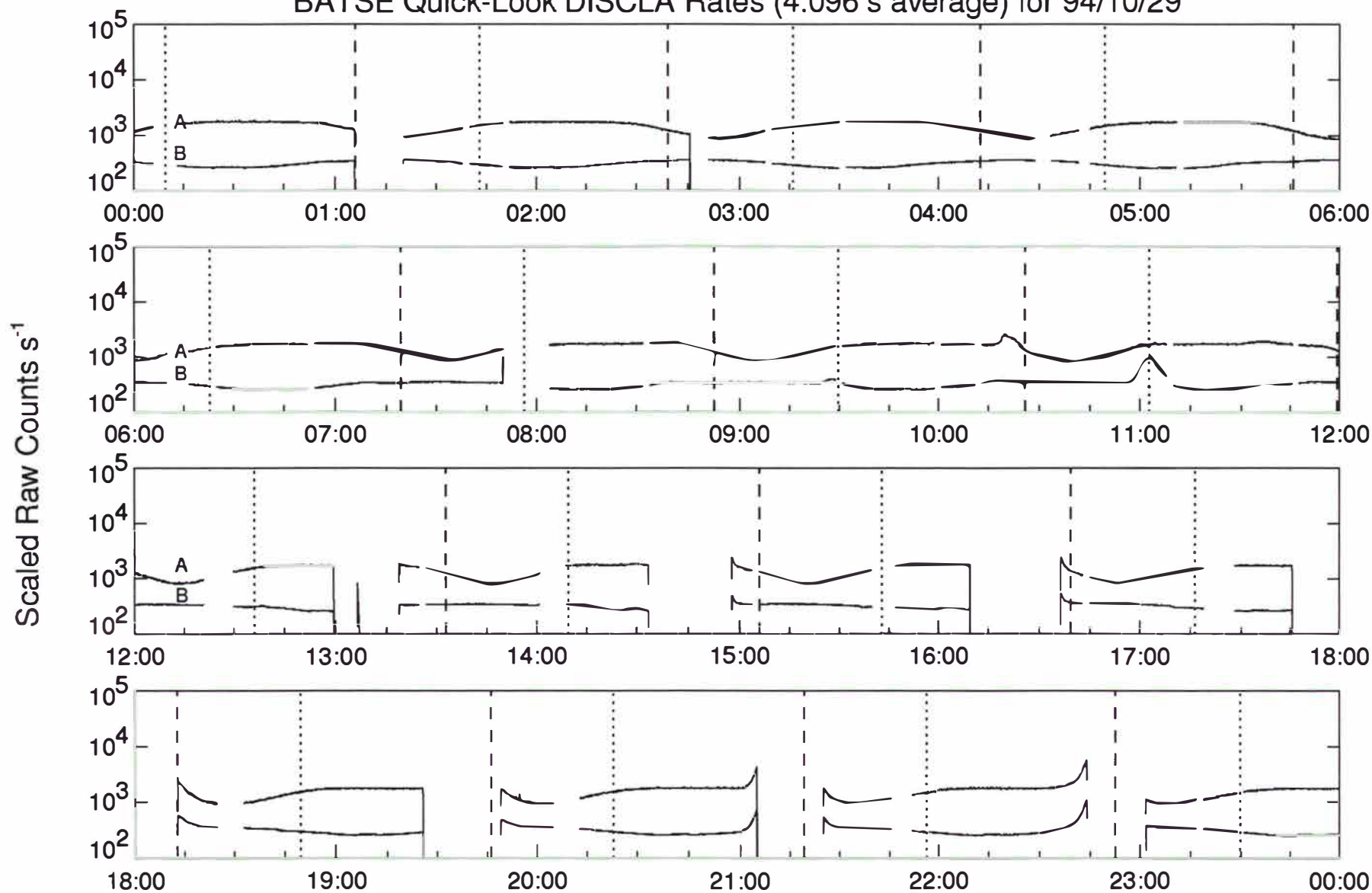
Data Start: 94/10/29, 0000:01

Plot created: 94/11/08, 1336

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/29

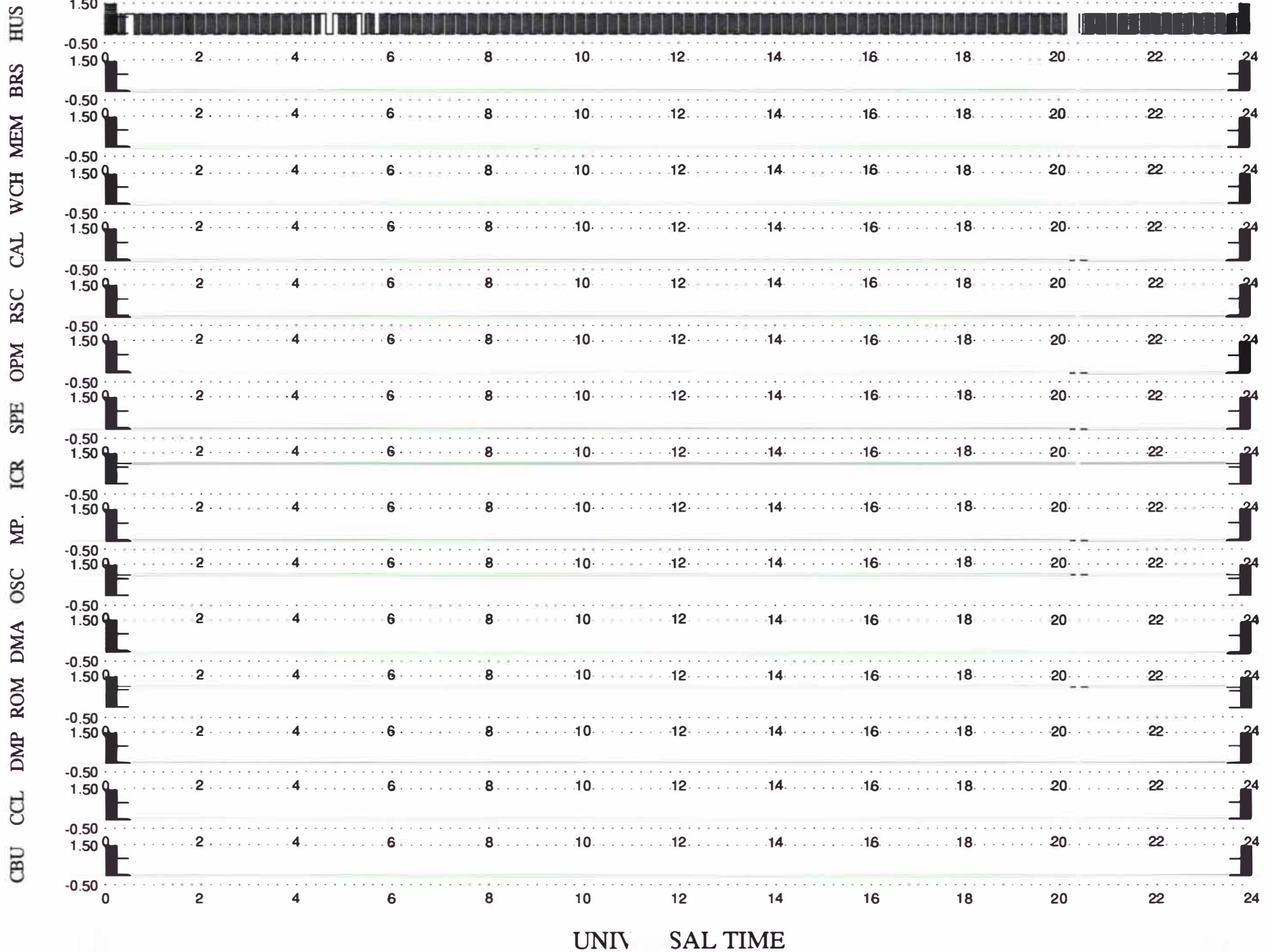


Current Time: 94/11/08, 1313 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

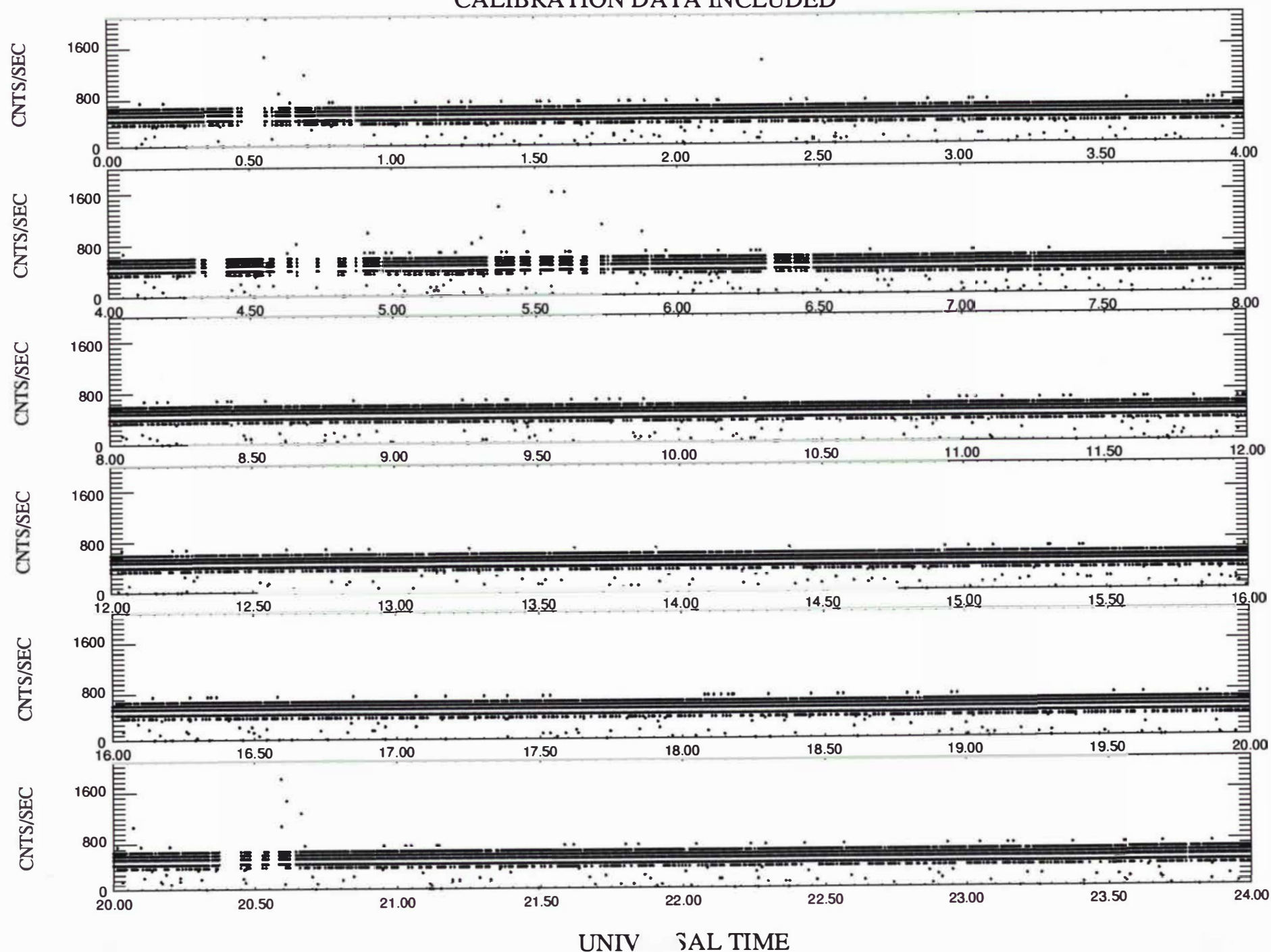
Dotted line: Day entry
 Dashed line: Night entry

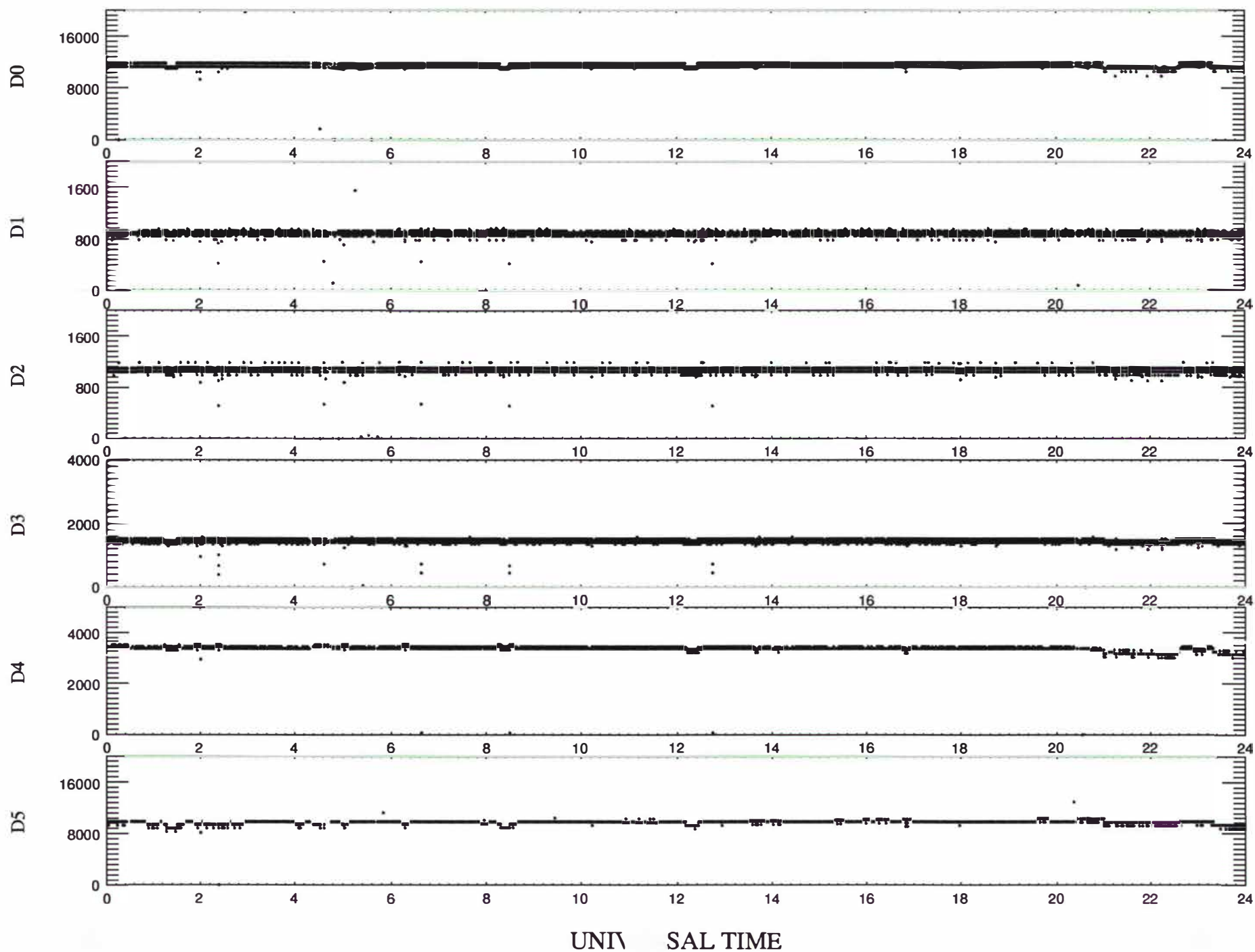
* Solar Burst Trigger
 + Solar Flare

NO BURST (7)



CALIBRATION DATA INCLUDED





From RICHARDSON@fender.msfc.nasa.gov Tue Nov 1 07:01 PST 1994
Date: Tue, 1 Nov 1994 9:01:19 -0600 (CST)
From: RICHARDSON@fender.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@fender.msfc.nasa.gov, LHEAVXBARTHELMY@fender.msfc.nasa.gov,
15733SCHAEFER@fender.msfc.nasa.gov, CASS09BAND@fender.msfc.nasa.gov,
CASS09GRUBER@fender.msfc.nasa.gov, CASS09MATTESON@fender.msfc.nasa.gov,
PACIESAS@fender.msfc.nasa.gov, HORACK@fender.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3263

TIME: TJD=9655 SECONDS=42901

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

From HENZE@fender.msfc.nasa.gov Mon Oct 31 11:28 PST 1994
Date: Mon, 31 Oct 1994 13:27:56 -0600 (CST)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3264

BATSEARCH PROGRAM

BATSE BURST # 3264
EVENT OF 1994 OCT 30 DAY OF YEAR=303
EVENT CROSSING TIME AT BATSE : 55421. S. OR 15:23:41.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 72.000 -62.000
BATSE PEAK COUNTING RATE: 2800 C/S

Probably a TGF

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/10/ 94 IS:
RA= 195.221 DEC= -71.697 DIST= 2.274 AU
BATSE-ULYSSES DISTANCE = 340119768. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=139.24 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -859.40 SECS.
CROSSING TIME AT ULYSSES IS 54562. S. OR 15:09:21 +/- 165.54 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/10/ 94 IS:
RA= 136.358 DEC= 18.257 DIST= 1.360 AU
MARS-BATSE DISTANCE = 203453648. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 85.20 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 56.79 SECS.
CROSSING TIME AT MARS IS 55478. S. OR 15:24:37 +/- 118.27 SECONDS

BATSE BURST TRIGGER

NO.: 3264

TIME: TJD=9655 SECONDS=55421

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=46.6 AZIMUTH=183.1 ERROR= DEGREES

COMMENTS:

TGF, SINGLE SPIKE, LASTING ~0.0005SEC. VISIBLE ABOVE 300KEV.

From HENZE@fender.msfc.nasa.gov Mon Oct 31 11:27 PST 1994
Date: Mon, 31 Oct 1994 13:27:25 -0600 (CST)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HENZE@fender.msfc.nasa.gov
Subject: BATSE Burst 3264

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3264	941030	9655	55421	2800	072	-62

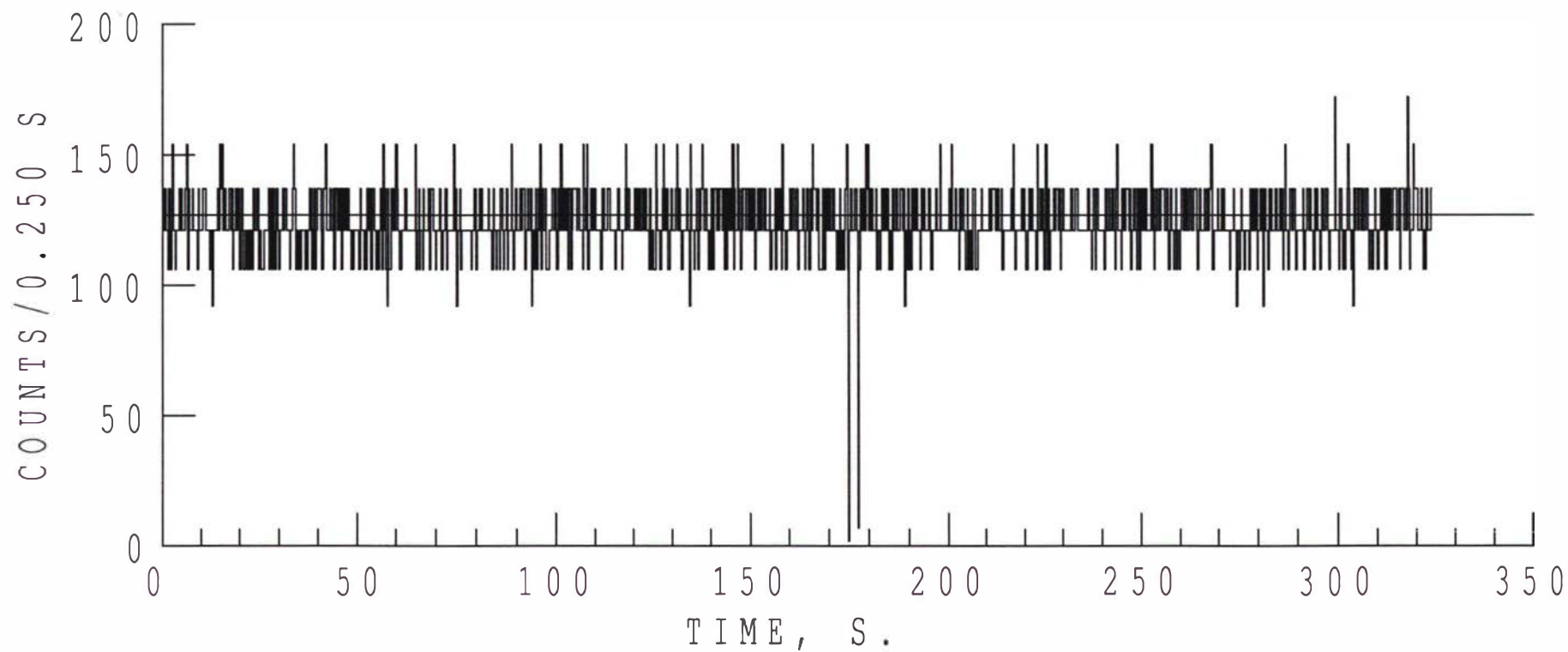
31/10/94

ULYSSES RT

30/10/94 54396.207 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From RICHARDSON@fender.msfc.nasa.gov Tue Nov 1 07:09 PST 1994
Date: Tue, 1 Nov 1994 9:09:13 -0600 (CST)
From: RICHARDSON@fender.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@fender.msfc.nasa.gov, LHEAVXBARTHELMY@fender.msfc.nasa.gov,
15733SCHAEFER@fender.msfc.nasa.gov, CASS09BAND@fender.msfc.nasa.gov,
CASS09GRUBER@fender.msfc.nasa.gov, CASS09MATTESON@fender.msfc.nasa.gov,
PACIESAS@fender.msfc.nasa.gov, HORACK@fender.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3265

TIME: TJD=9655 SECONDS=79246

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

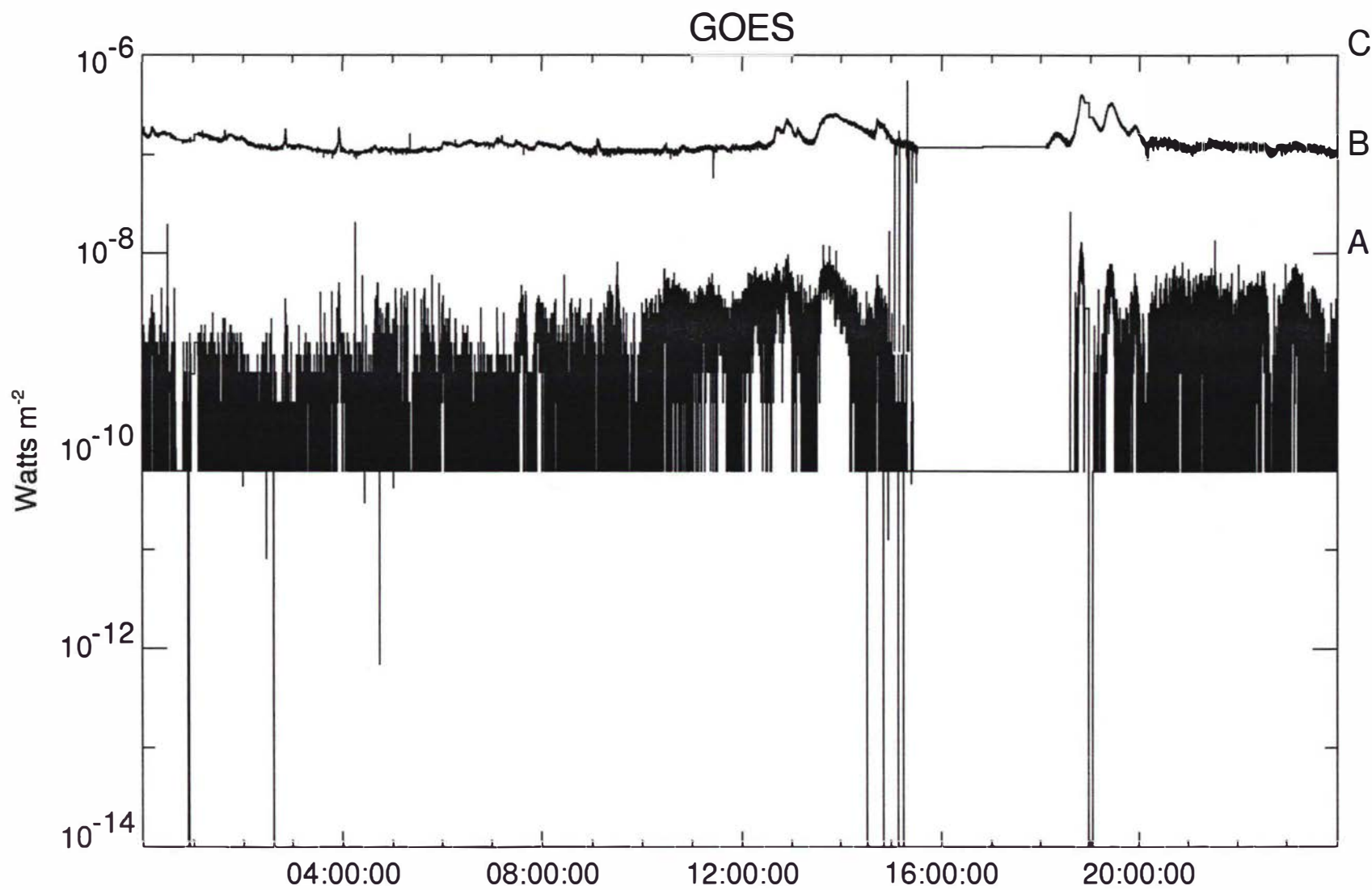
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY

M



Data Start: 94/10/30, 0000:02

Plot created: 94/11/08, 1336

Channel

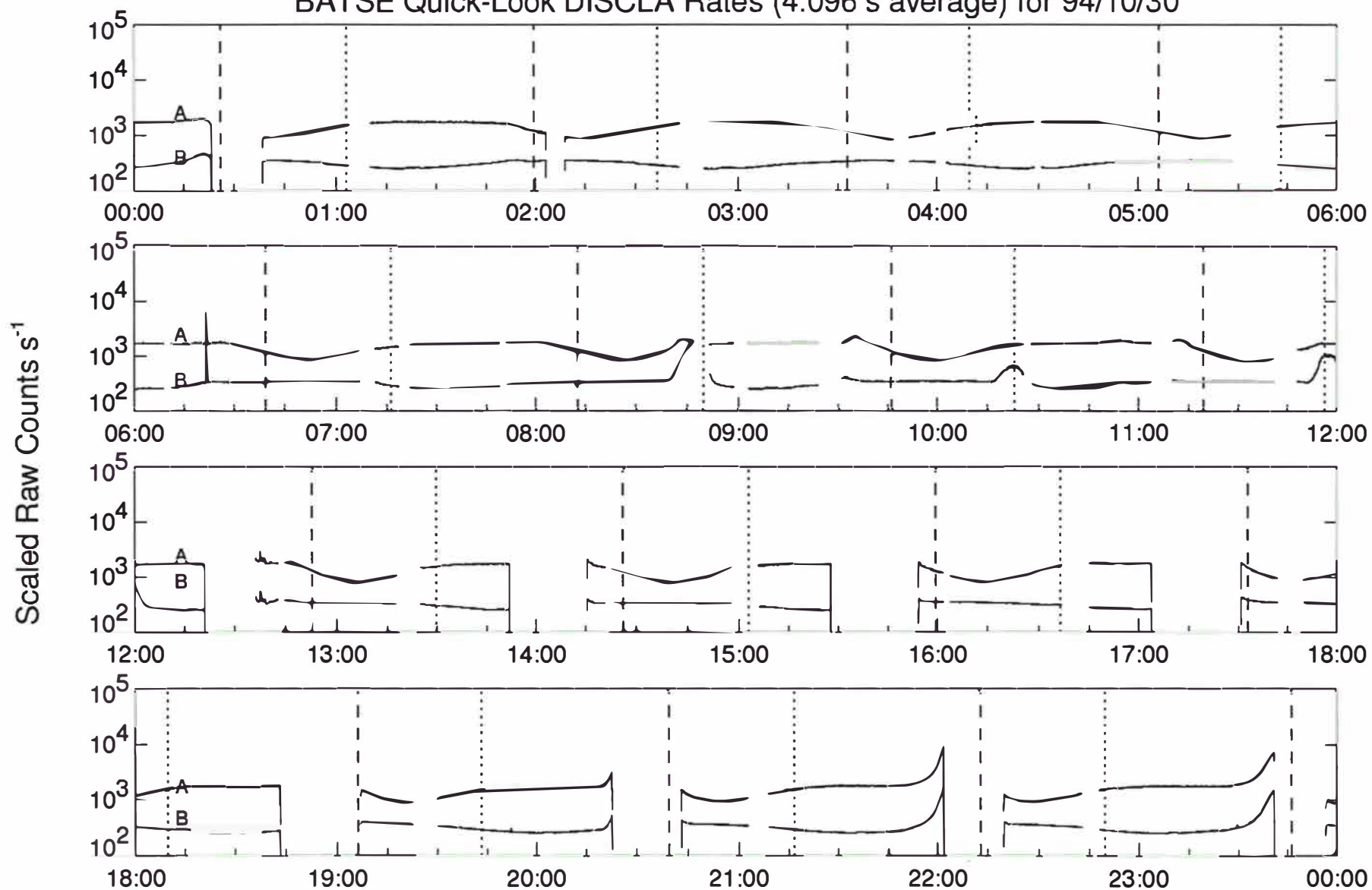
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/30

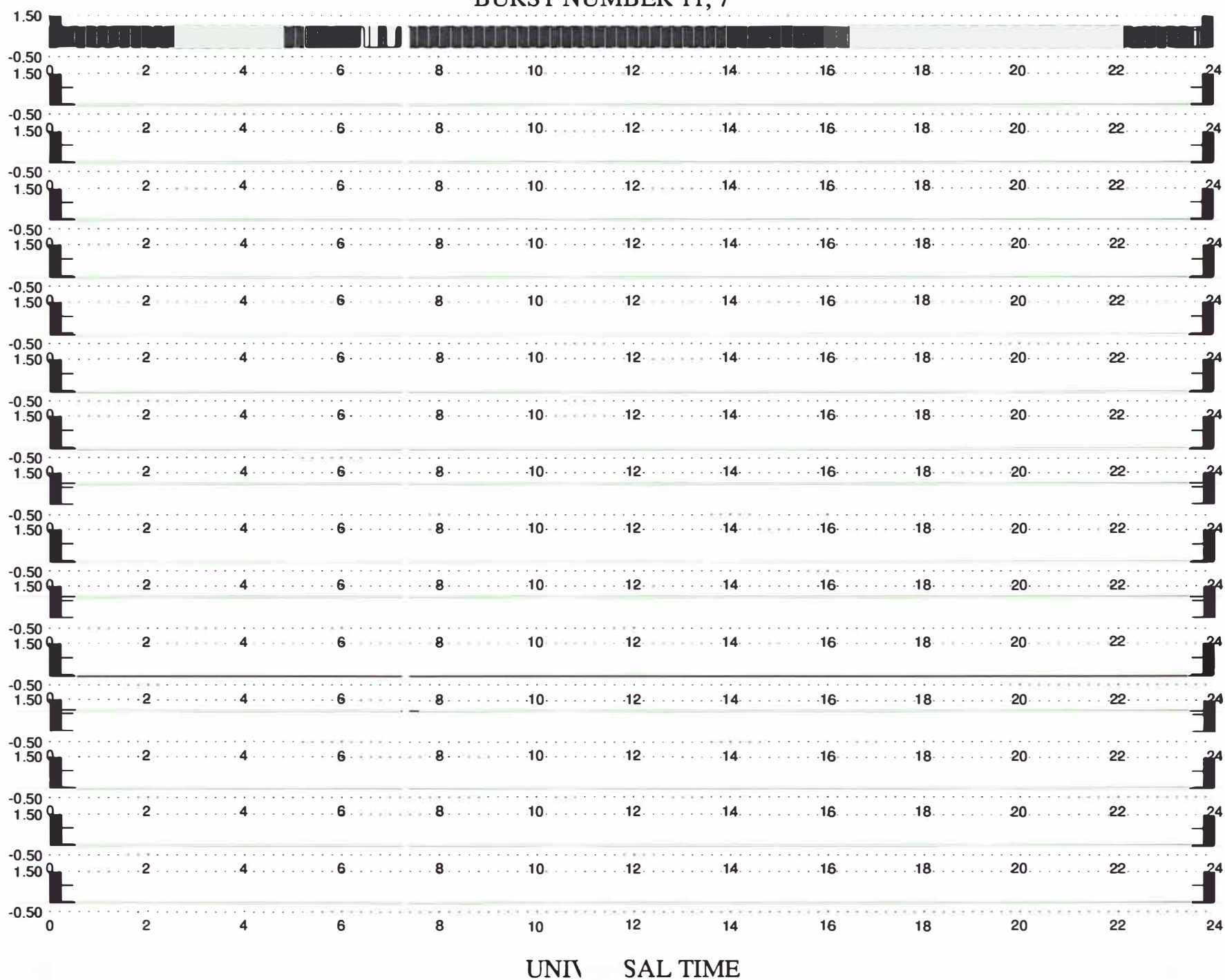


Current Time: 94/11/08, 1313 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

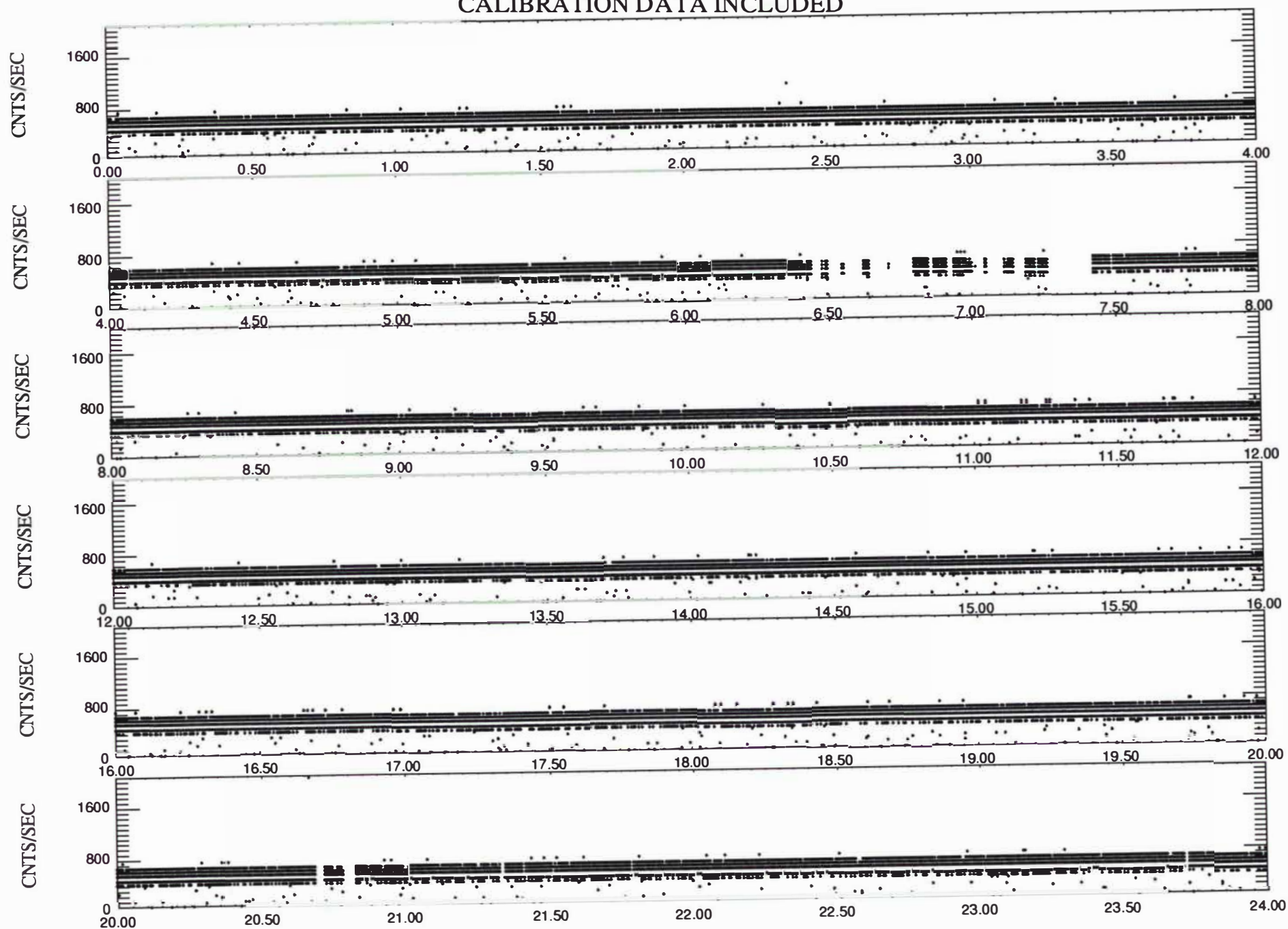
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

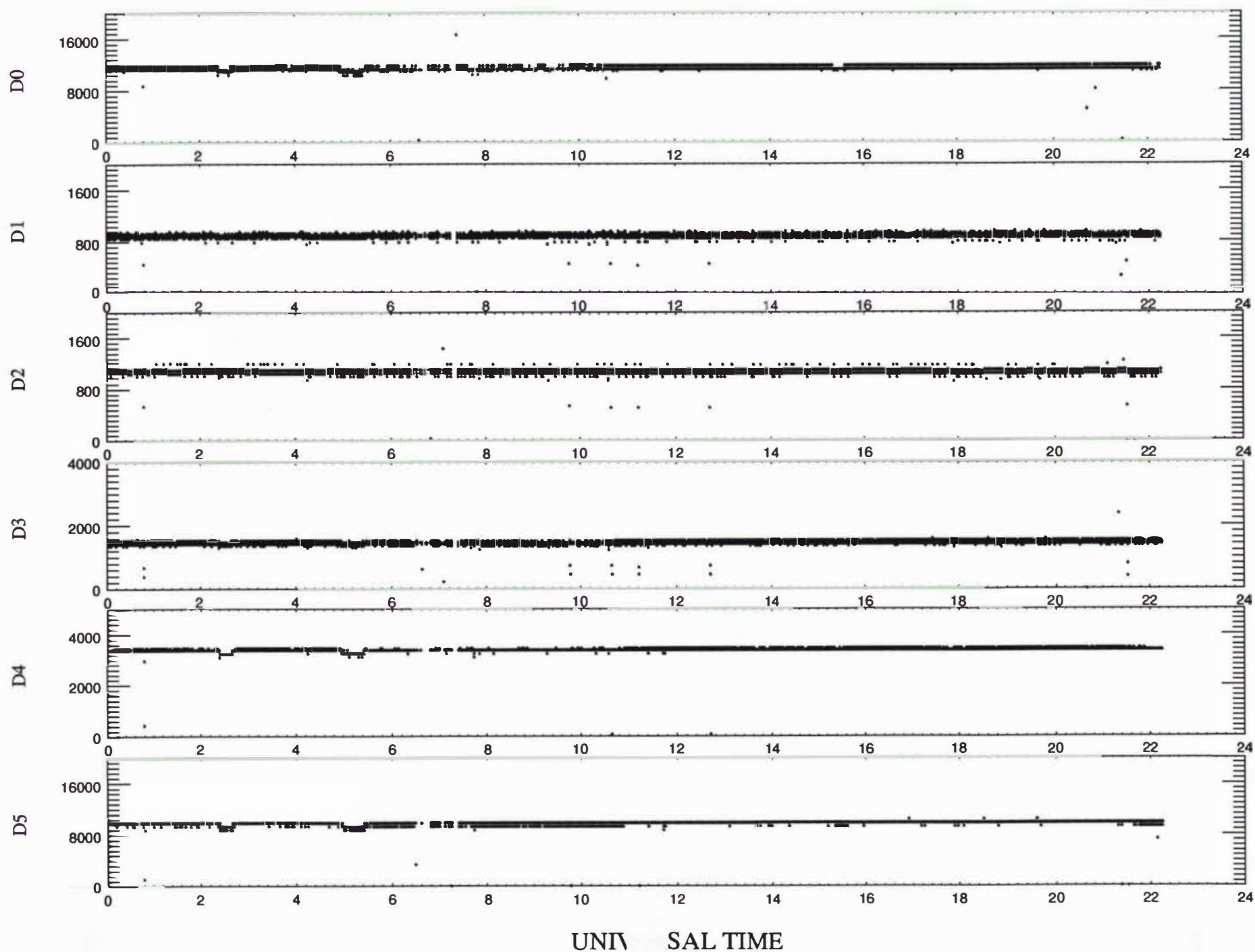
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HAGEDON@fender.msfc.nasa.gov Wed Nov 2 08:17 PST 1994
Date: Wed, 2 Nov 1994 10:17:01 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3266

BATSEARCH PROGRAM

BATSE BURST # 3266
EVENT OF 1994 OCT 31 DAY OF YEAR=304
EVENT CROSSING TIME AT BATSE : 2822. S. OR 00:47:02.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 27.000 85.000
BATSE PEAK COUNTING RATE: 7000 C/S

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 31/10/ 94 IS:
RA= 196.067 DEC= -71.864 DIST= 2.271 AU
BATSE-ULYSSES DISTANCE = 339712981. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 13.26 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1102.95 SECS.
CROSSING TIME AT ULYSSES IS 3925. S. OR 01:05:24 +/- 111.87 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 31/10/ 94 IS:
RA= 136.857 DEC= 18.138 DIST= 1.352 AU
MARS-BATSE DISTANCE = 202255568. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=106.38 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -190.25 SECS.
CROSSING TIME AT MARS IS 2632. S. OR 00:43:51 +/- 109.49 SECONDS

BATSE BURST TRIGGER

NO.: 3266

TIME: TJD=9656 SECONDS=02822

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=162 AZIMUTH=34 ERROR= DEGREES

COMMENTS:

BURST. 5 SHORT SPIKES, TOTAL DUR.~0.7 SEC. VISIBLE ABOVE 300 KEV.

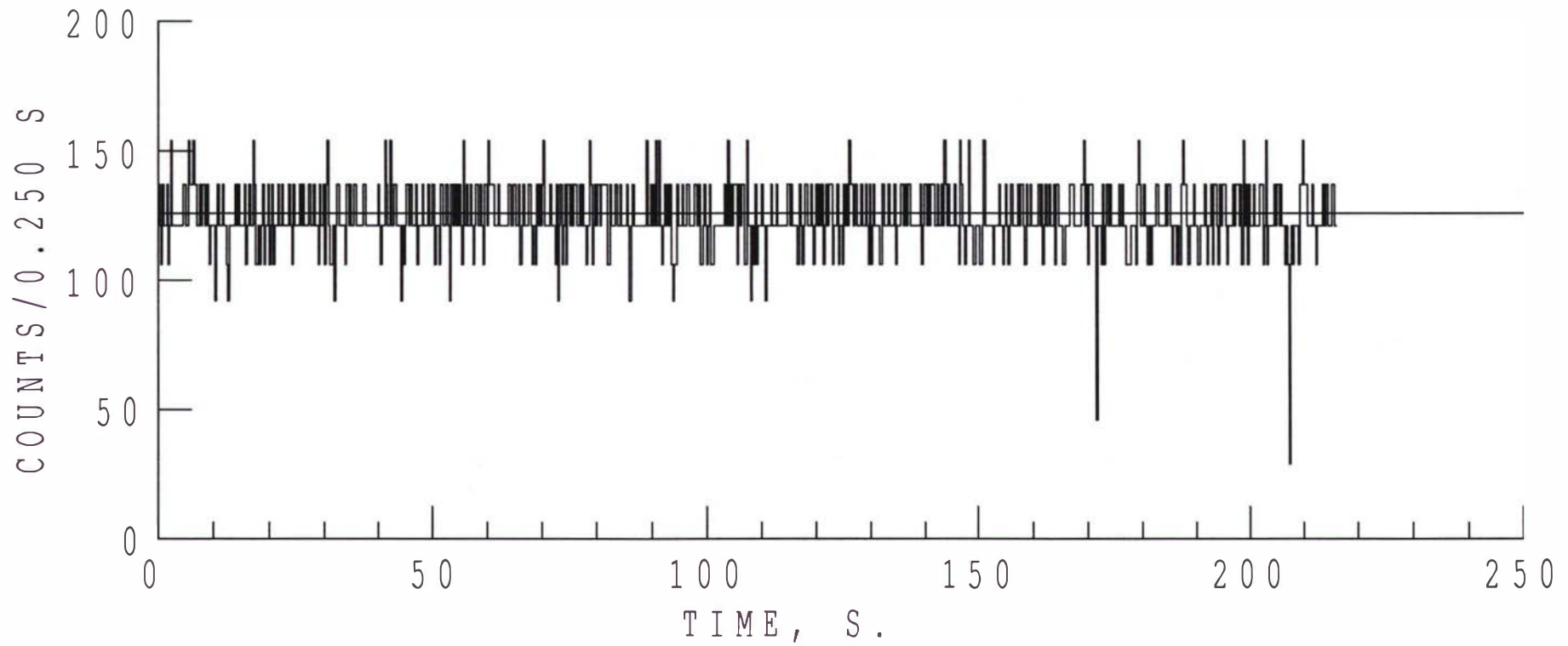
From HAGEDON@fender.msfc.nasa.gov Wed Nov 2 08:16 PST 1994
Date: Wed, 2 Nov 1994 10:16:35 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3266

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3266	941031	9656	02822	7000	027	+85

2 / 1 1 / 9 4

ULYSSES RT
31/10/94 3816.165 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Wed Nov 2 08:18 PST 1994
Date: Wed, 2 Nov 1994 10:18:57 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3267

BATSEARCH PROGRAM

No

BATSE BURST # 3267
EVENT OF 1994 OCT 31 DAY OF YEAR=304
EVENT CROSSING TIME AT BATSE : 16948. S. OR 04:42:28.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 38.000 -60.000
BATSE PEAK COUNTING RATE: 2400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 31/10/ 94 IS:
RA= 196.842 DEC= -72.007 DIST= 2.268 AU
BATSE-ULYSSES DISTANCE = 339357769. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=132.82 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -769.33 SECS.
CROSSING TIME AT ULYSSES IS 16179. S. OR 04:29:38 +/- 182.48 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 31/10/ 94 IS:
RA= 136.857 DEC= 18.138 DIST= 1.352 AU
MARS-BATSE DISTANCE = 202255568. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 69.95 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 231.25 SECS.
CROSSING TIME AT MARS IS 17179. S. OR 04:46:19 +/- 113.55 SECONDS

BATSE BURST TRIGGER

NO.: 3267

TIME: TJD=9656 SECONDS=16948

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=53 AZIMUTH=203 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE. FASTER RISE THAN DECAY. DUR. ~40 SEC.
NOT VISIBLE ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Wed Nov 2 08:18 PST 1994
Date: Wed, 2 Nov 1994 10:18:28 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3267

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3267	941031	9656	16948	2400	038	-60

2 / 11 / 94

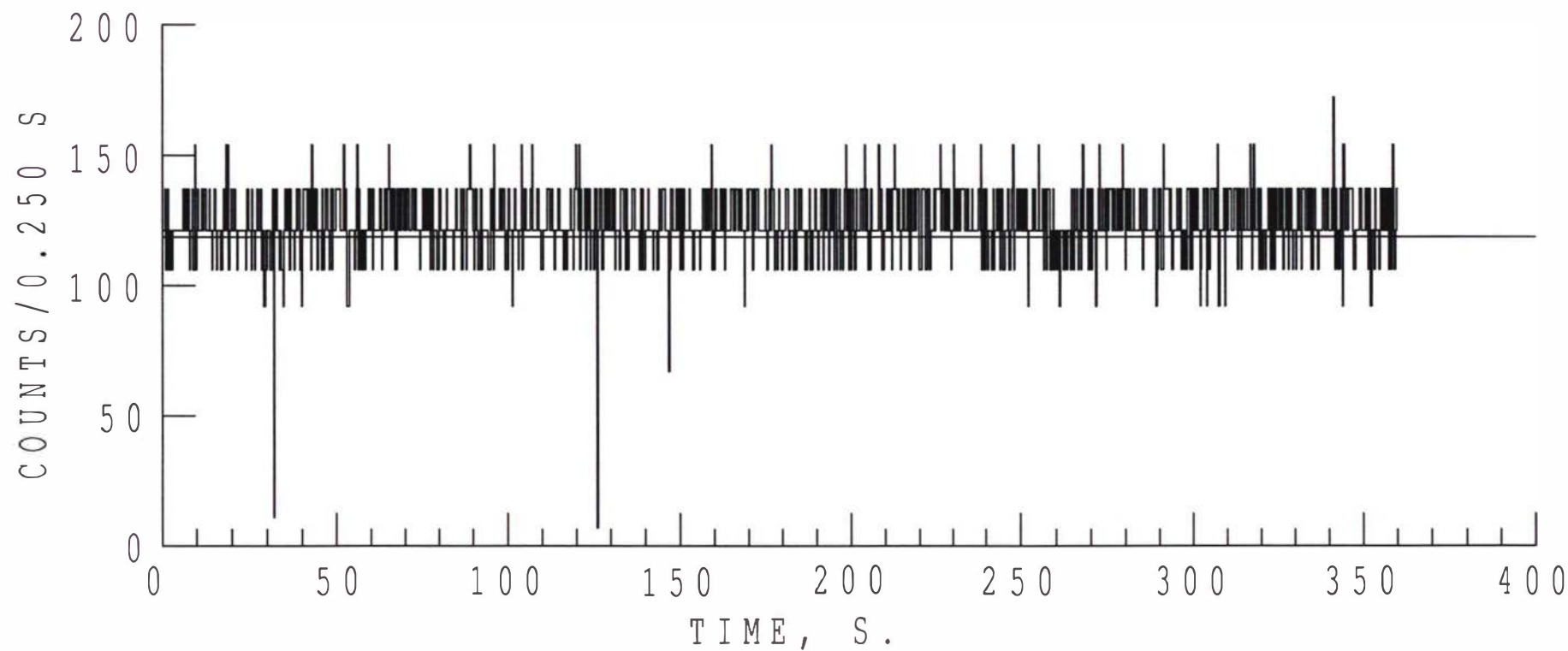
ULYSSES RT

31 / 10 / 94 15984.158 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Wed Nov 2 07:51 PST 1994
Date: Wed, 2 Nov 1994 9:51:35 -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,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3268

TIME: TJD=9656 SECONDS=29029

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=92 AZIMUTH=85 ERROR= DEGREES

COMMENTS:

BURST. MULTI-PEAKED EVENT. TOTAL DUR.~80 SEC. MAX AT ~T+20 SEC.
NOT VISIBLE ABOVE 300 KEV.

From HAGEDON@ssl.msfc.nasa.gov Wed Nov 2 09:55 PST 1994
Date: Wed, 2 Nov 1994 11:55:16 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3268

TIME: TJD=9656 SECONDS=29029

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

ALTHOUGH THIS TRIGGER HAS THE COMPLEX STRUCTURE OF A BURST, AFTER CLOSER
EXAMINATION OF THE 8 DETECTOR PLOTS IT WAS RECLASSIFIED AS A PARTICLE EVENT.
IT IS NOT A BURST AS MY PREVIOUS MESSAGE INDICATED. SORRY FOR THE CONFUSION.

From HAGEDON@fender.msfc.nasa.gov Wed Nov 2 08:24 PST 1994
Date: Wed, 2 Nov 1994 10:23:57 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3269

BATSEARCH PROGRAM

RI

BATSE BURST # 3269
EVENT OF 1994 OCT 31 DAY OF YEAR=304
EVENT CROSSING TIME AT BATSE : 40918. S. OR 11:21:58.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 220.000 -24.000
BATSE PEAK COUNTING RATE: 30000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 31/10/ 94 IS:
RA= 198.018 DEC= -72.224 DIST= 2.265 AU
BATSE-ULYSSES DISTANCE = 338821545. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=130.24 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -730.04 SECS.
CROSSING TIME AT ULYSSES IS 40188. S. OR 11:09:47 +/- 188.70 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 31/10/ 94 IS:
RA= 136.857 DEC= 18.138 DIST= 1.352 AU
MARS-BATSE DISTANCE = 202255568. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 88.68 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 15.50 SECS.
CROSSING TIME AT MARS IS 40934. S. OR 11:22:13 +/- 117.33 SECONDS

BATSE BURST TRIGGER

NO.: 3269

TIME: TJD=9656 SECONDS=40918

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=44 AZIMUTH=9 ERROR= DEGREES

COMMENTS:

BURST. COMPLEX EVENT. DUR. ~20 SEC. VISIBLE ABOVE 300 KEV.

From HAGEDON@fender.msfc.nasa.gov Wed Nov 2 08:23 PST 1994
Date: Wed, 2 Nov 1994 10:23:38 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Subject: BATSE Burst 3269

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3269	941031	9656	40918	30000	220	-24

Date:

Helio corr removed
Feb 5 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

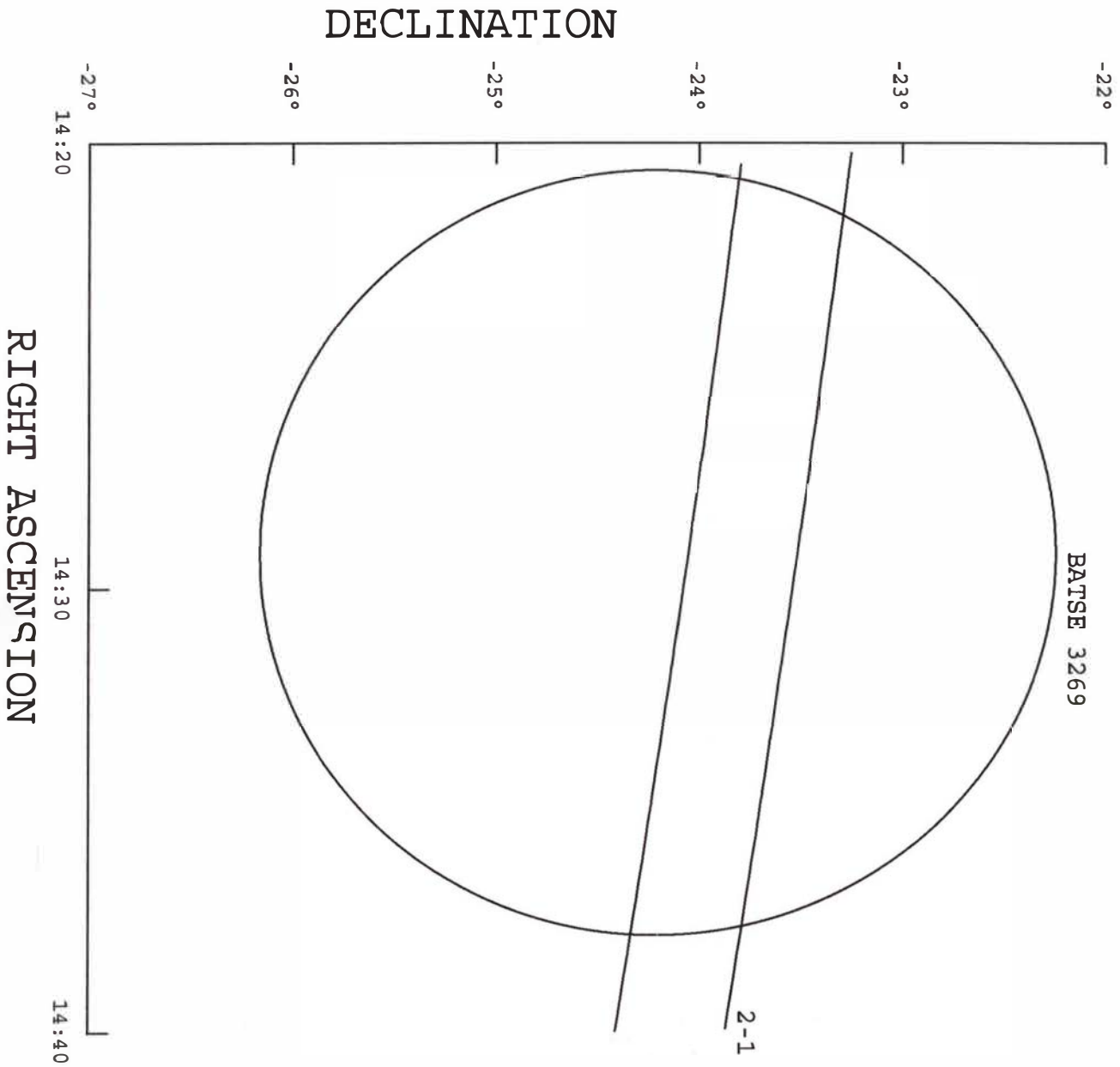
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF OCT 31, 1994 11:09

5 / 2/98



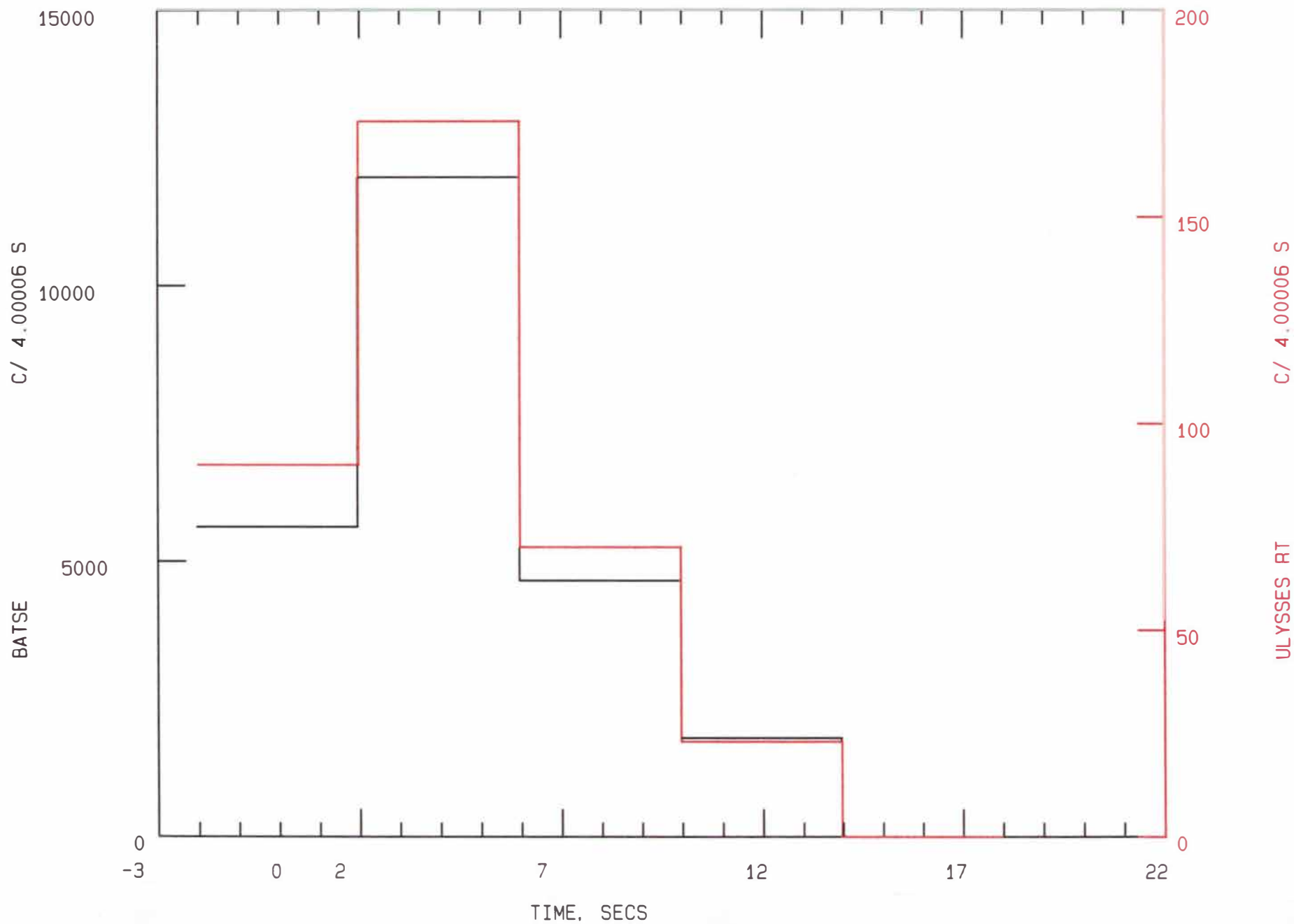
BATSE

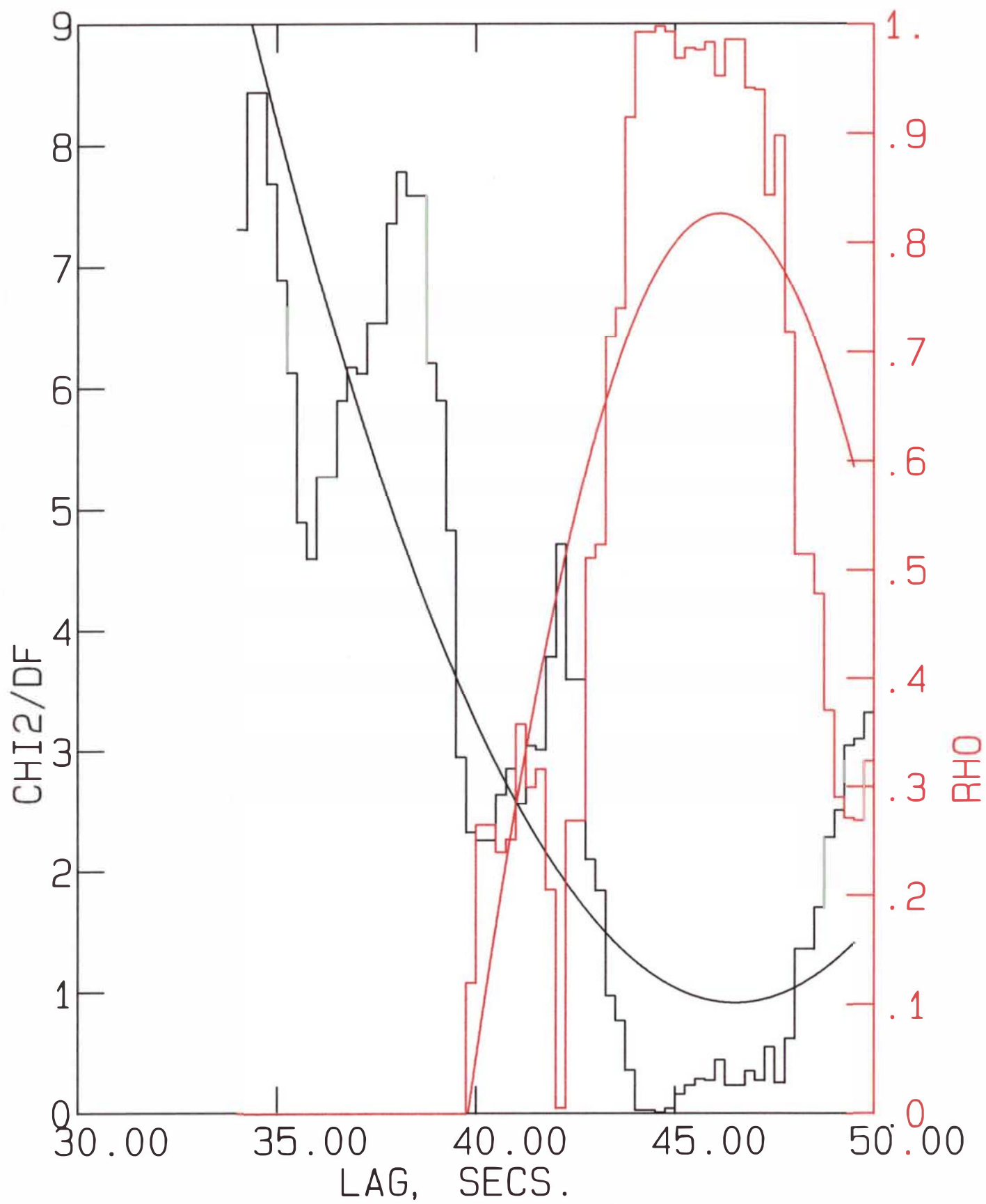
-ULYSSES RT CORRELATION

31/10/94

40918.642

5/ 2/98





ULYSSES RT

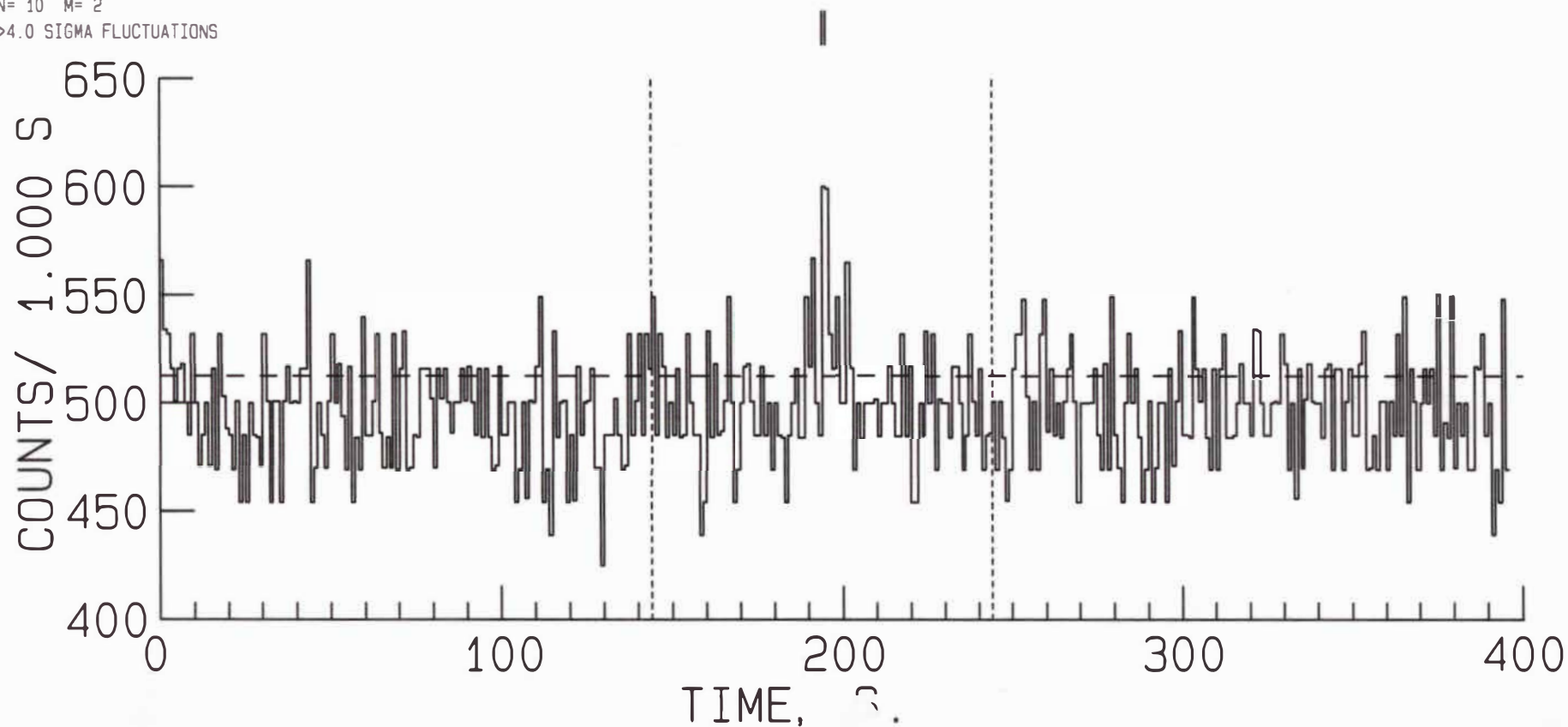
5 / 2 / 98

31/10/94 39996.134 s

0.250 S INTERVALS REGROUPED BY 4

22- 147 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



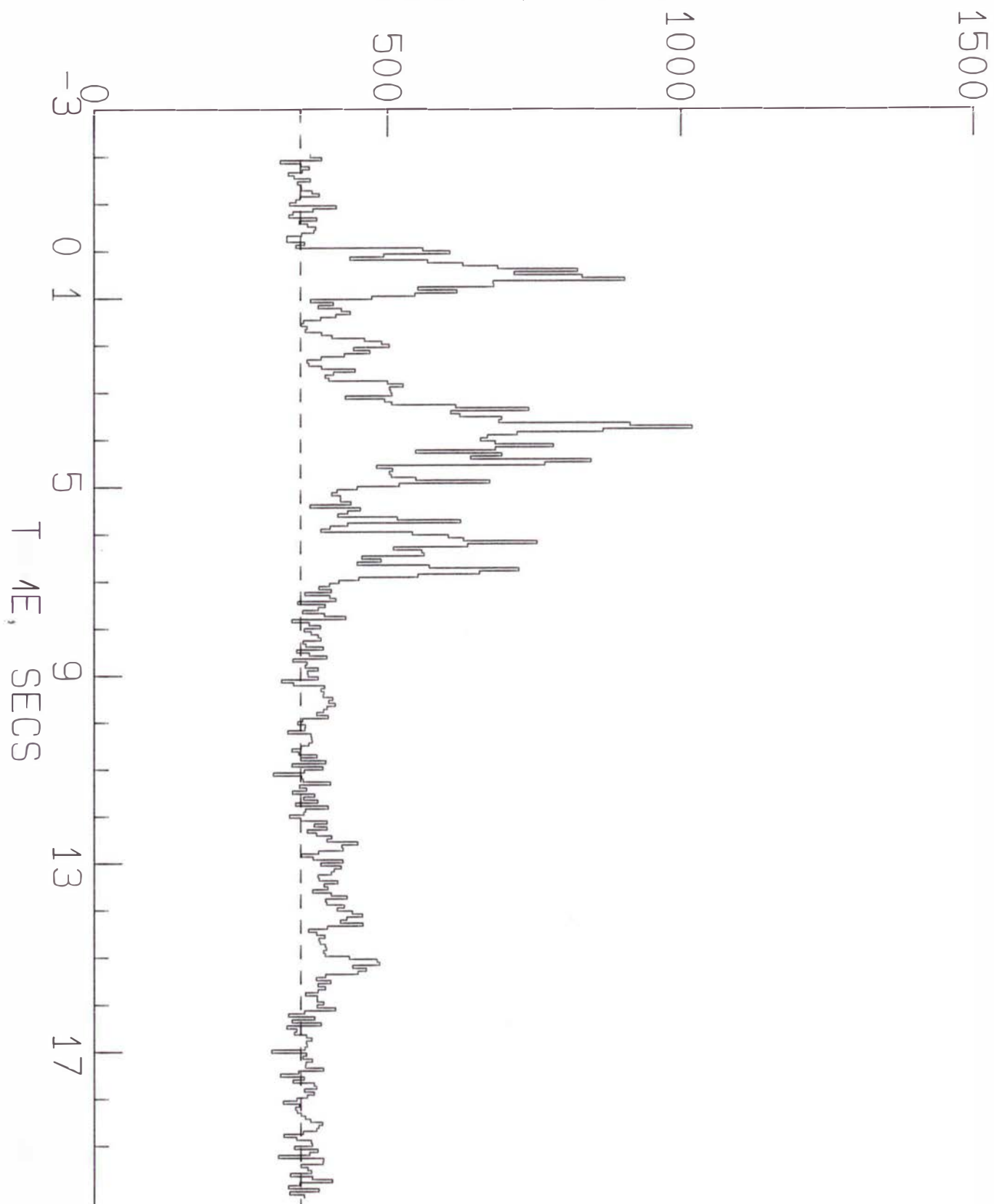
BATSE

31/10/94

40918.642

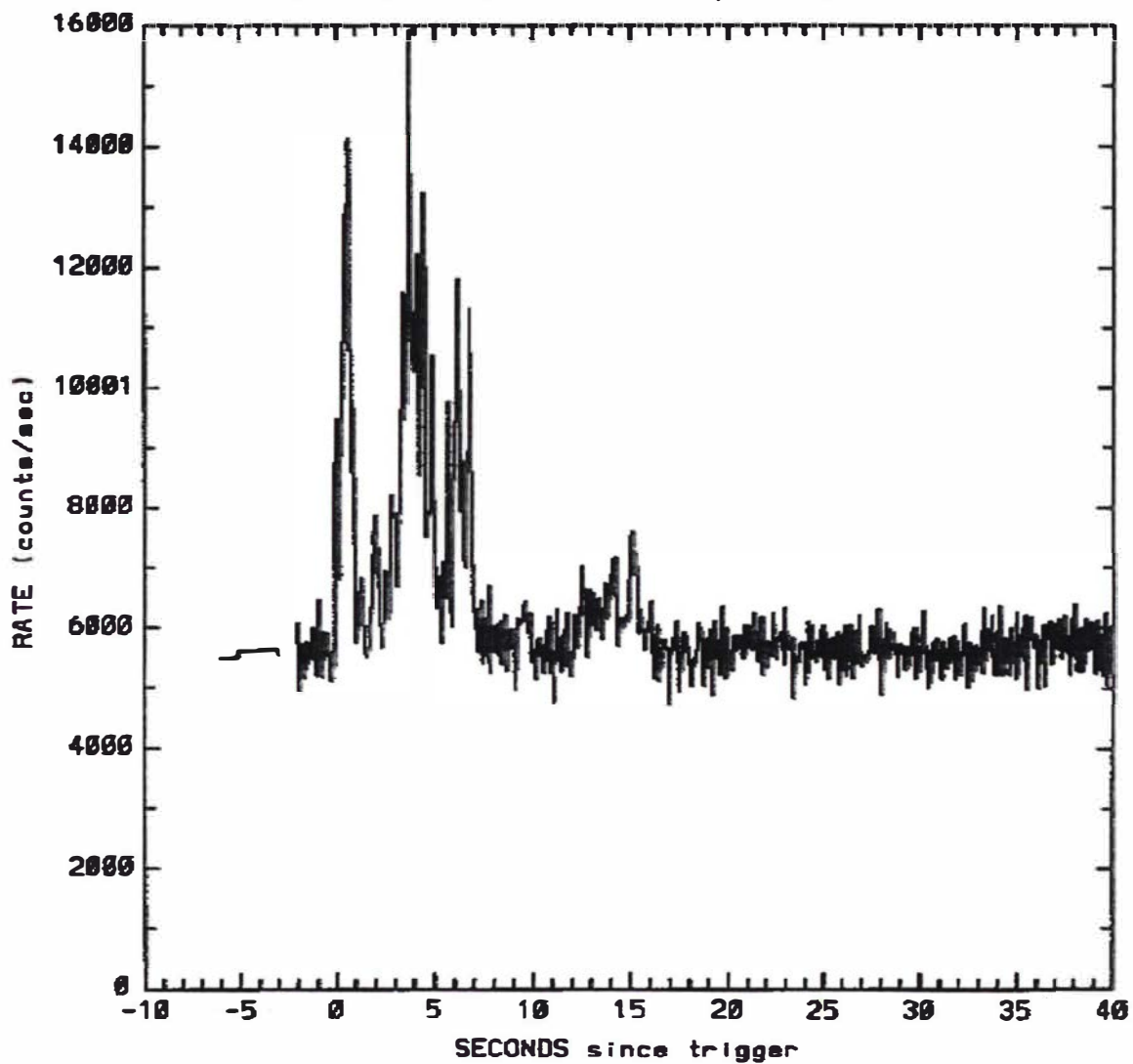
25- 100 keV

COUNTS/ .064 S



5/11/94

DISCSC Data for K. Hurley. No. 3269



4-MAY-1994 18:16:44

Created by NDPS 80
(Burst Display)
Version 2.22

Trigger # : 3269

Trigger Time:
9656 / 48918.642Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..8]:
-----2-8Discriminators:
[1. 2]Quality Mask:
B0ISP1

From HAGEDON@ssl.msfc.nasa.gov Wed Nov 2 08:08 PST 1994
Date: Wed, 2 Nov 1994 10:08:37 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3270

TIME: TJD=9656 SECONDS=70819

TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.

From HAGEDON@ssl.msfc.nasa.gov Wed Nov 2 08:13 PST 1994
Date: Wed, 2 Nov 1994 10:13:14 -0600 (CST)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3271

TIME: TJD=9656 SECONDS=76730

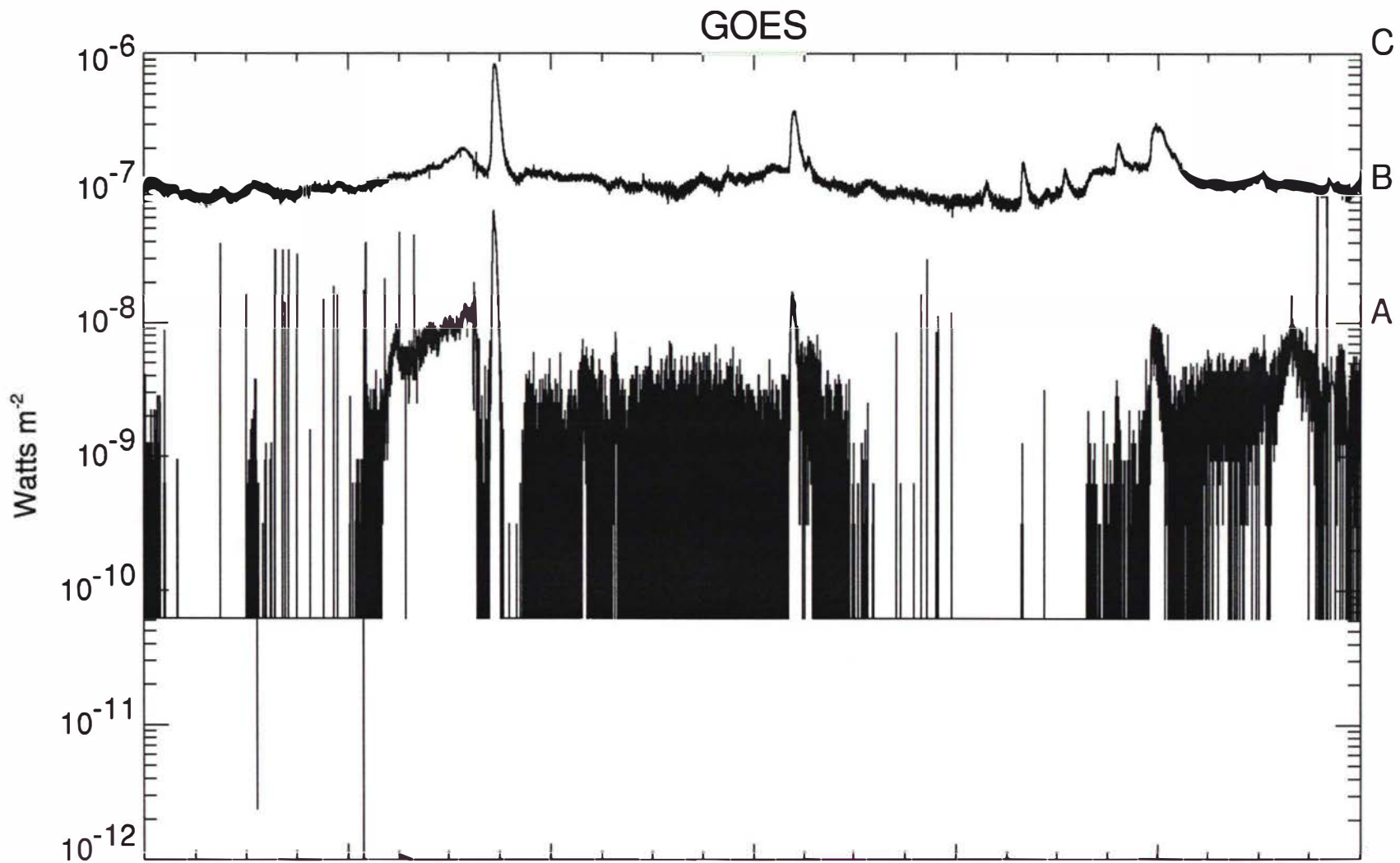
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



Data Start: 94/10/31, 0000:00

Plot created: 94/11/08, 1337

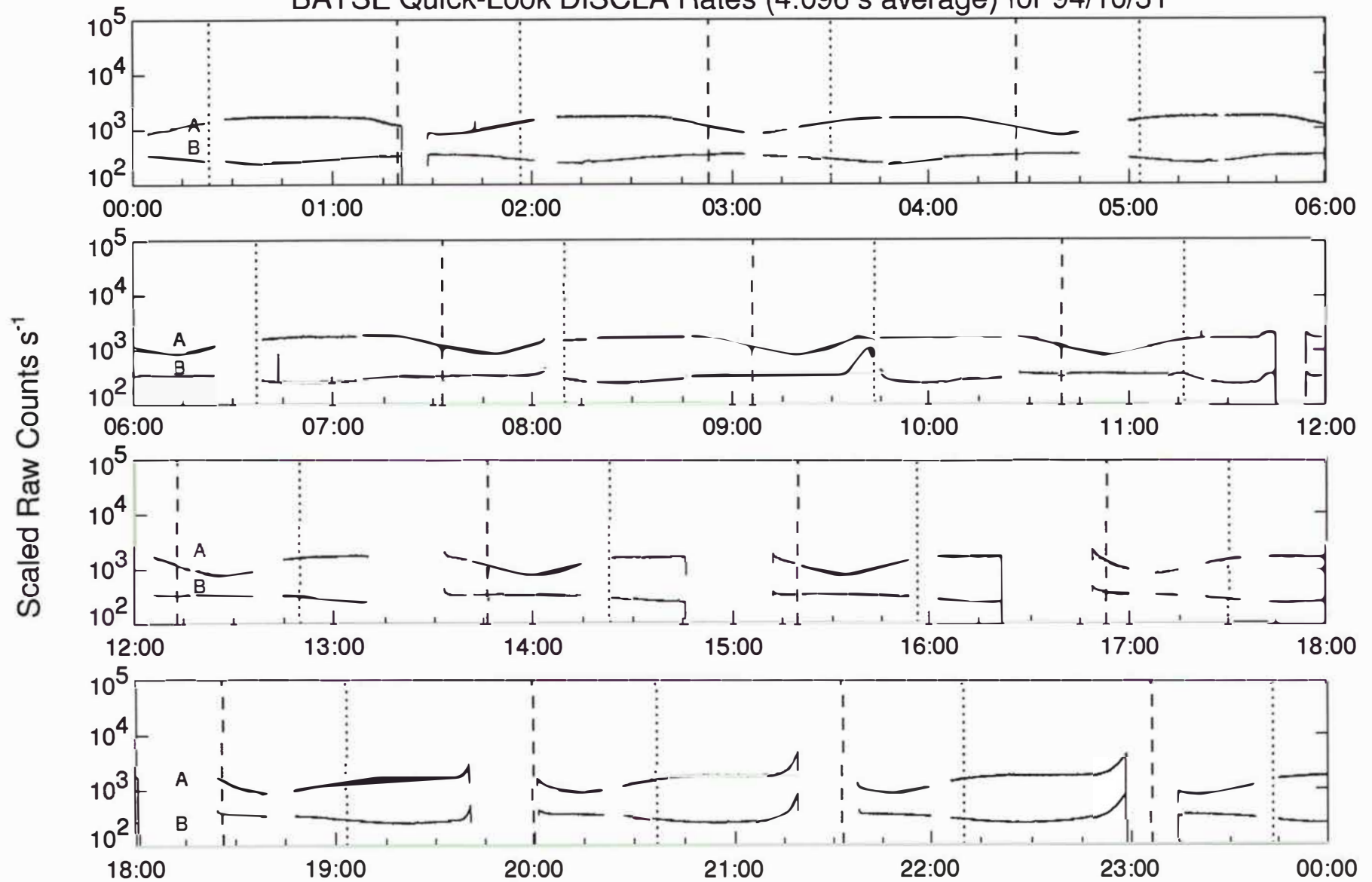
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/10/31



Current Time: 94/11/08, 1313 EDT

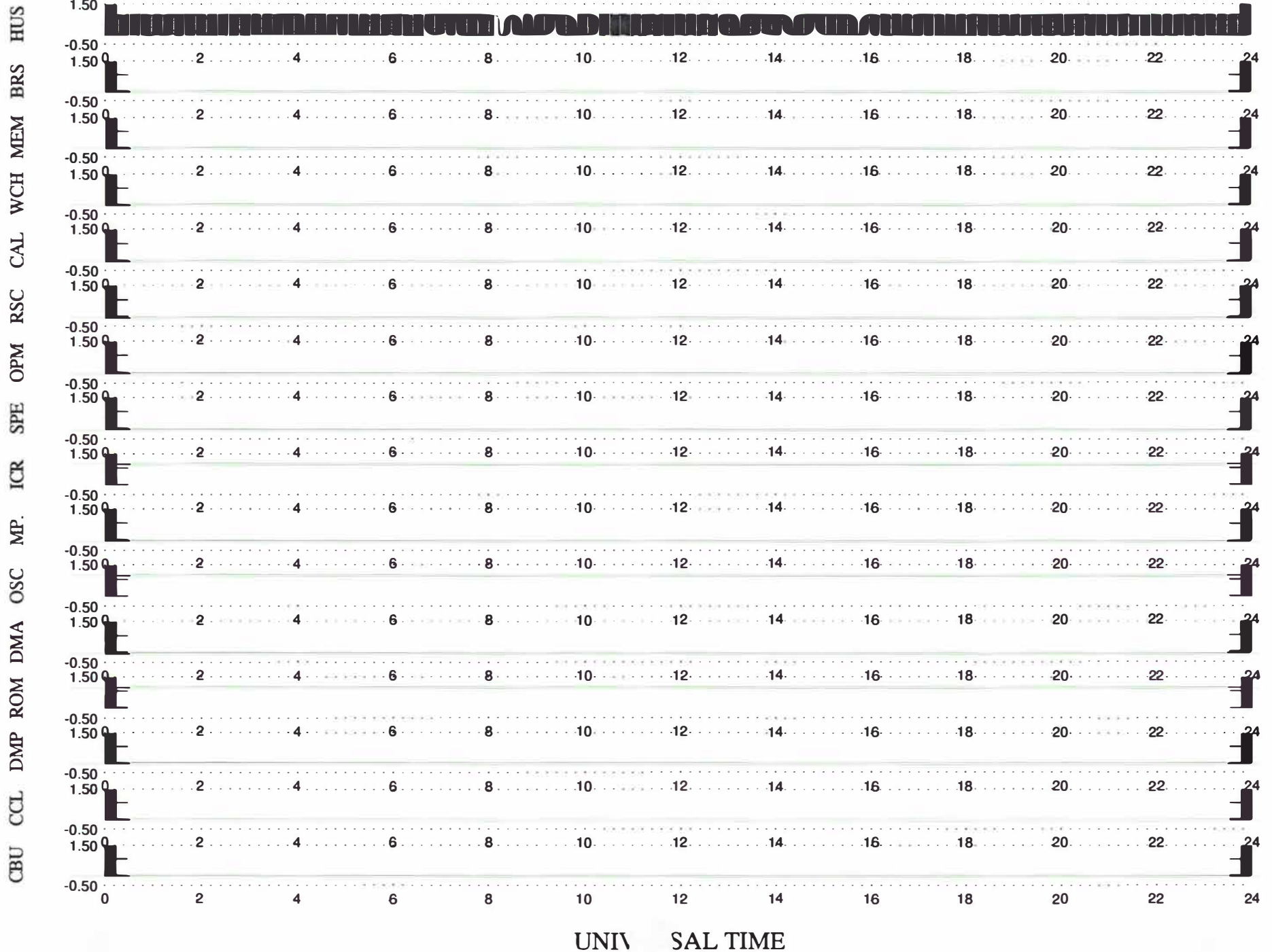
A: Channel 0 Most Sunward LAD

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

Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

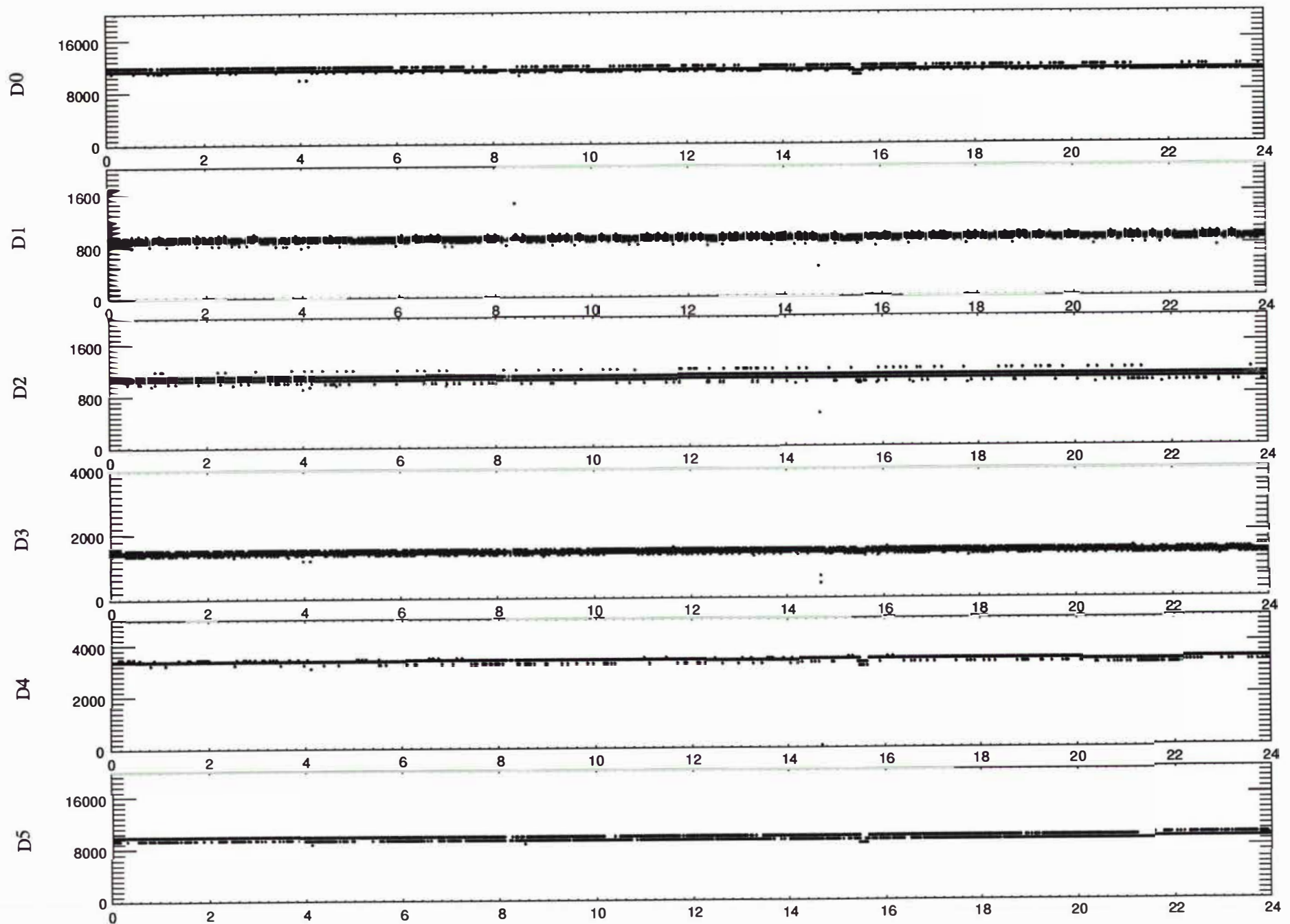
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



UNIV SAL TIME