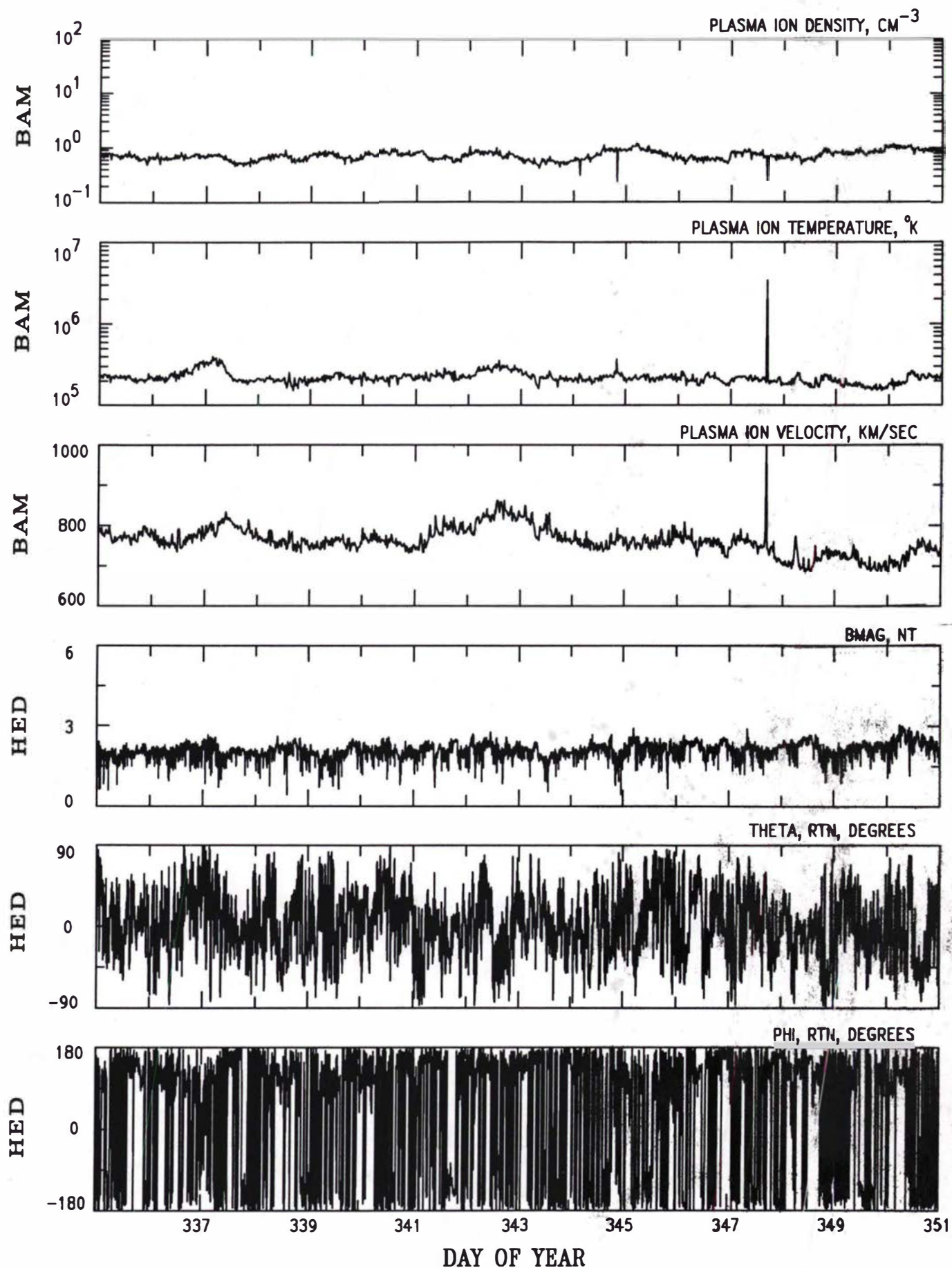


ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 335 DEC 1 00:00:00.000 - 94 351 DEC 17 00:00:00.000



100

40

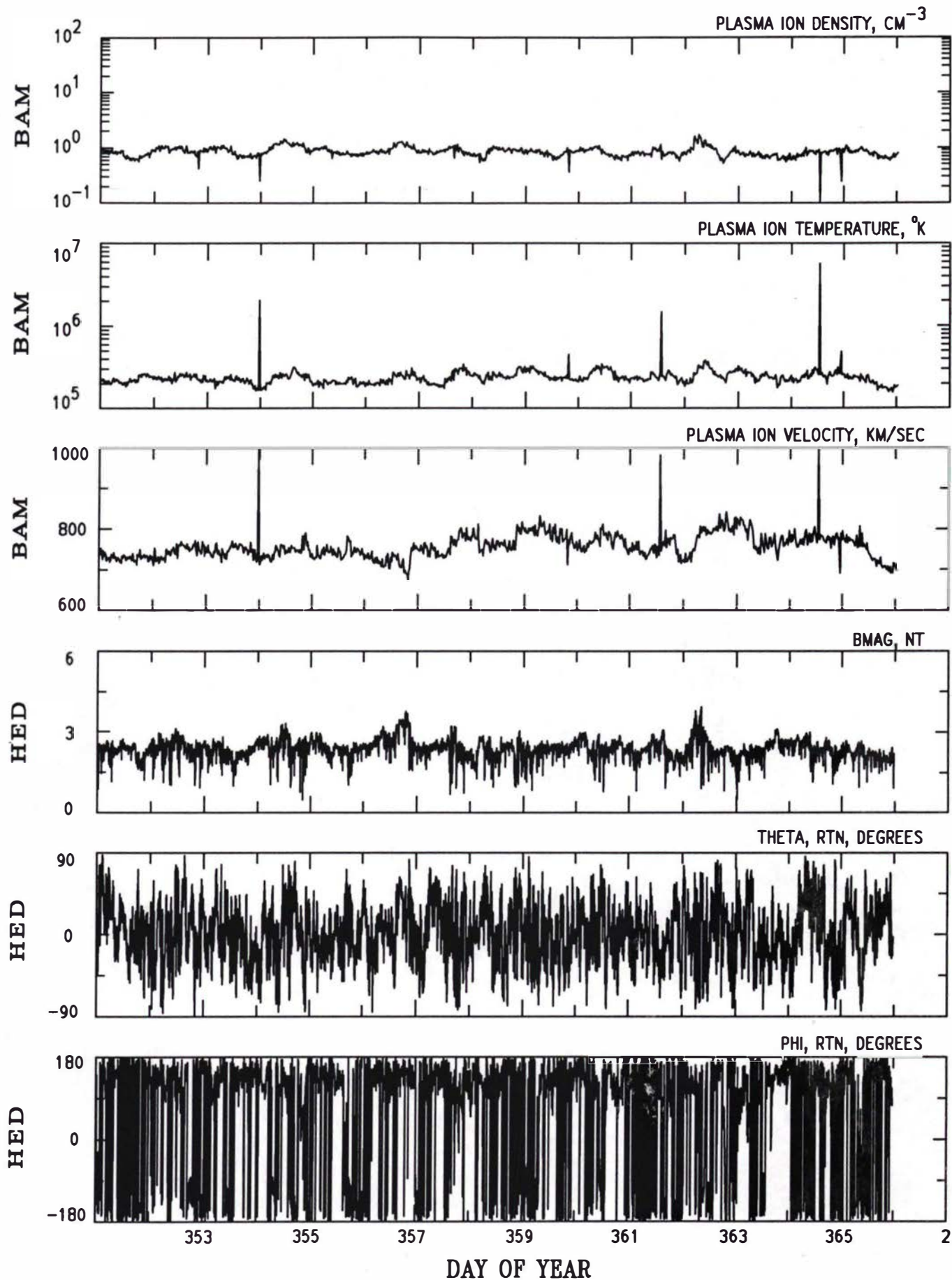
10,000

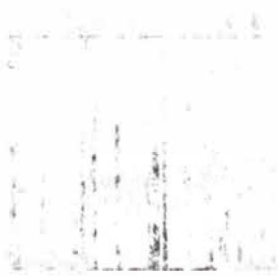
10,000

10,000

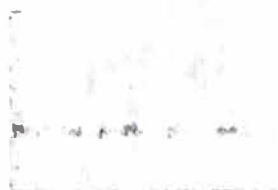
ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

94 351 DEC 17 00:00:00.000 - 95 002 JAN 2 00:00:00.000



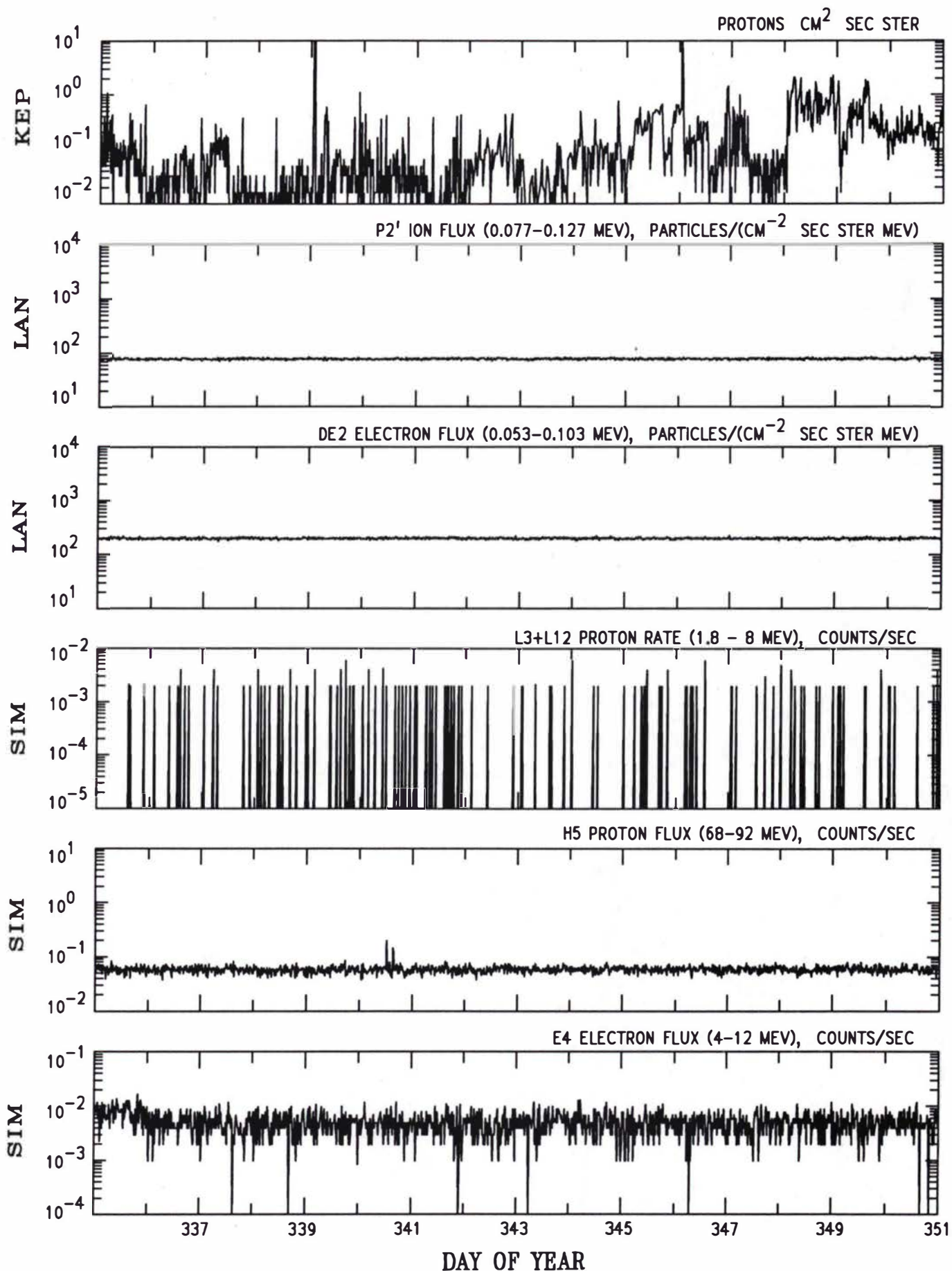


27 AUG 1951



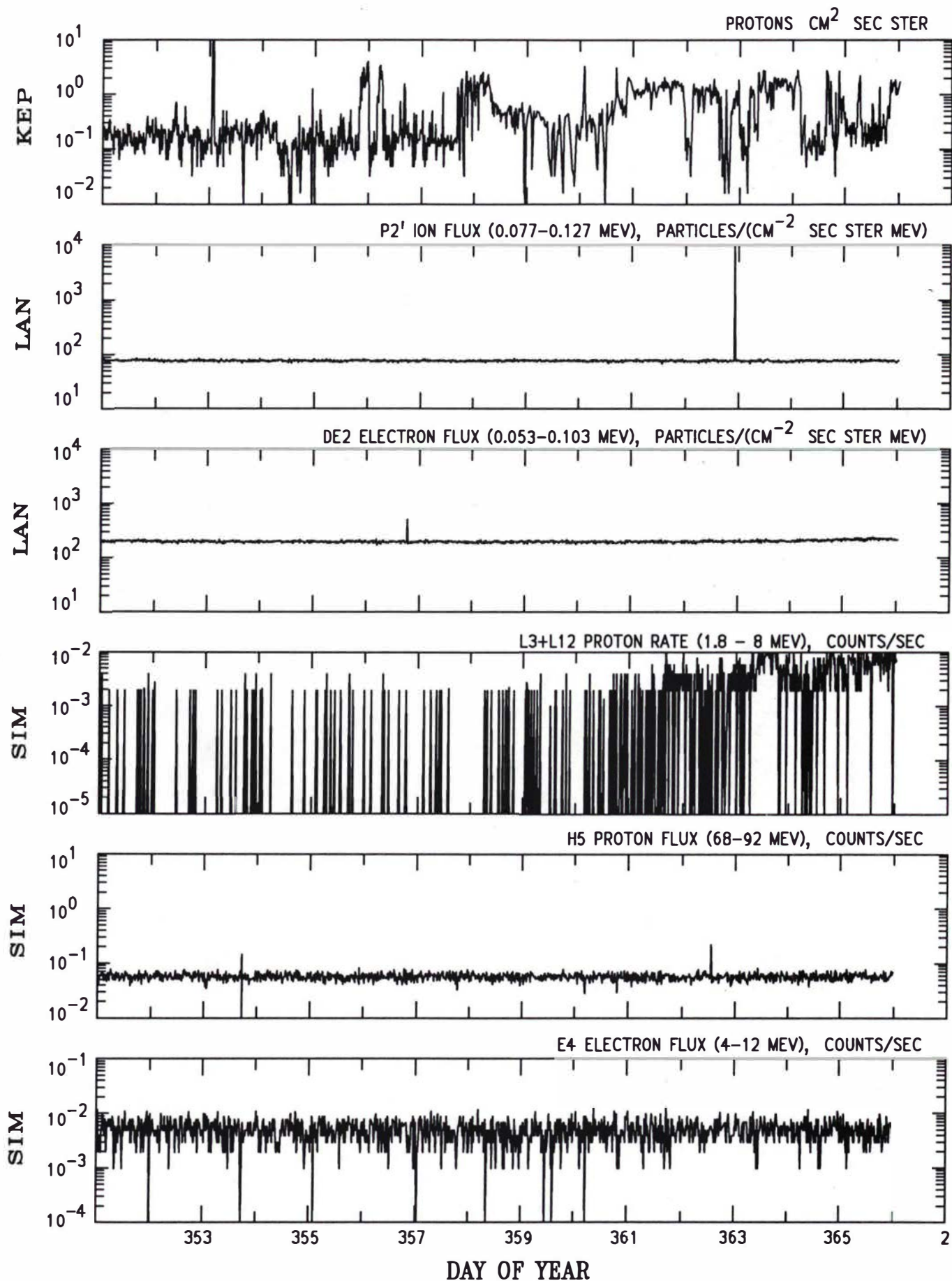
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 335 DEC 1 00:00:00.000 - 94 351 DEC 17 00:00:00.000



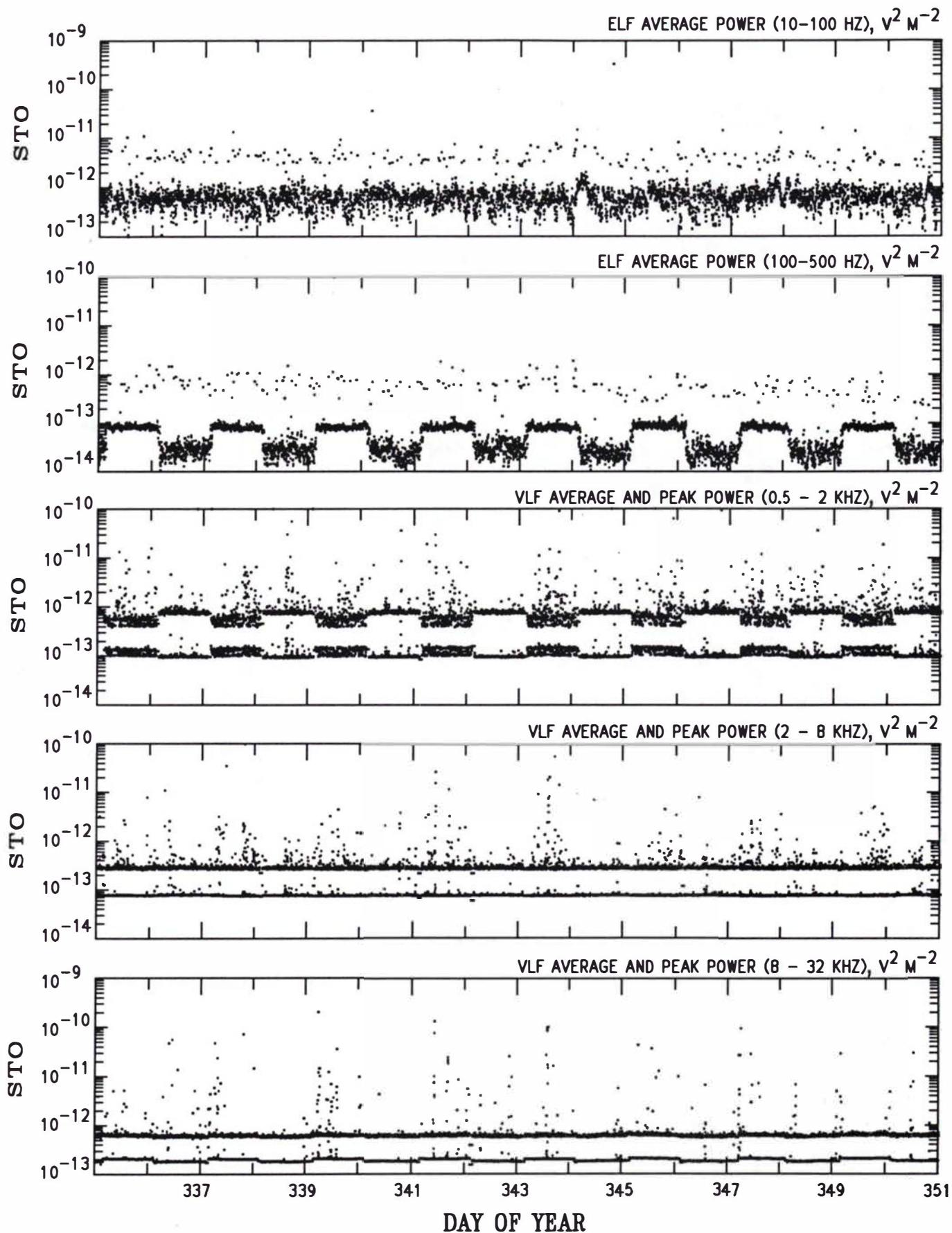
ULYSSES CDR - ENERGETIC PARTICLES, LOW ENERGY IONS AND COSMIC RAY

94 351 DEC 17 00:00:00.000 - 95 002 JAN 2 00:00:00.000



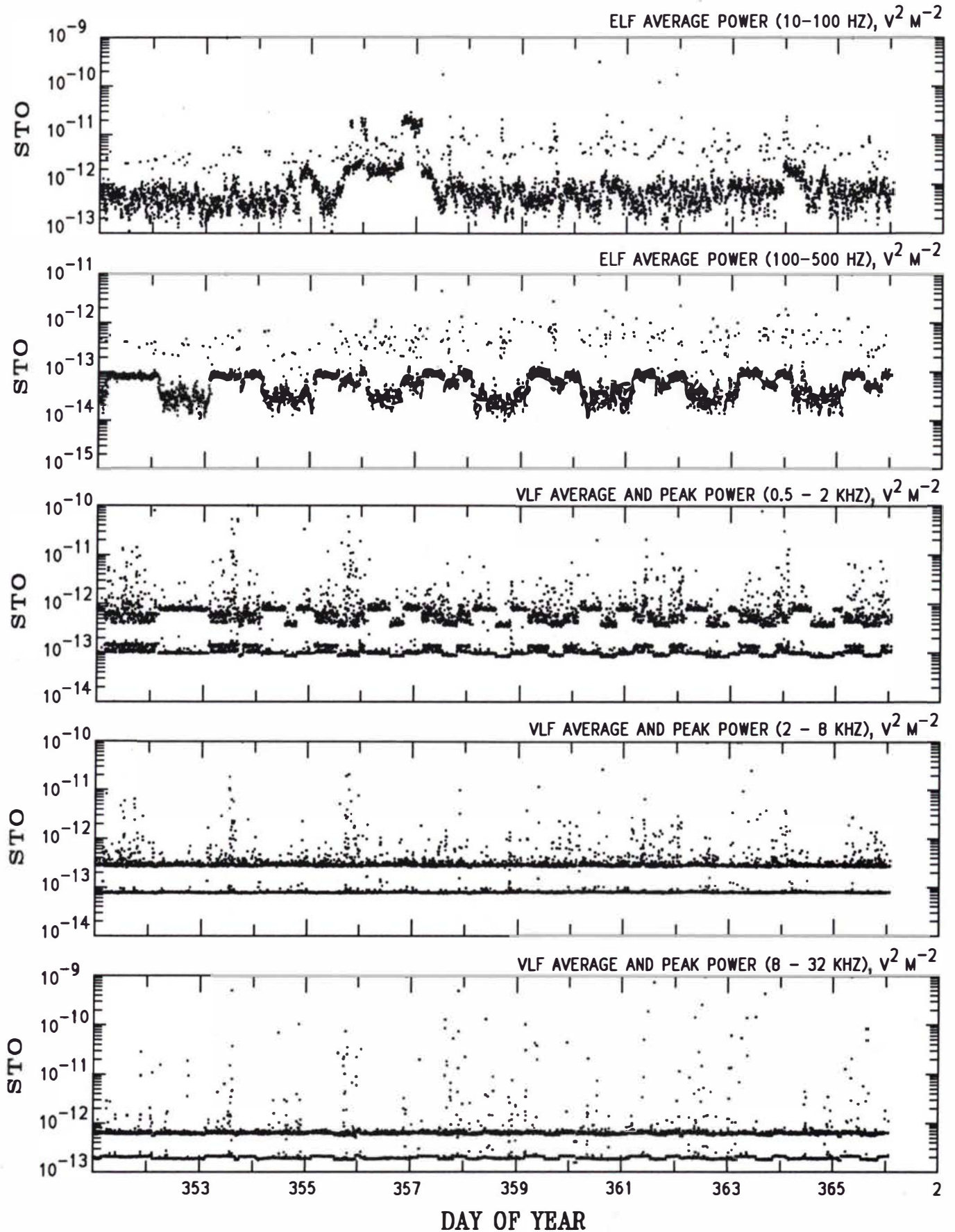
ULYSSES CDR - PLASMA WAVE

94 335 DEC 1 00:00:00.000 - 94 351 DEC 17 00:00:00.000



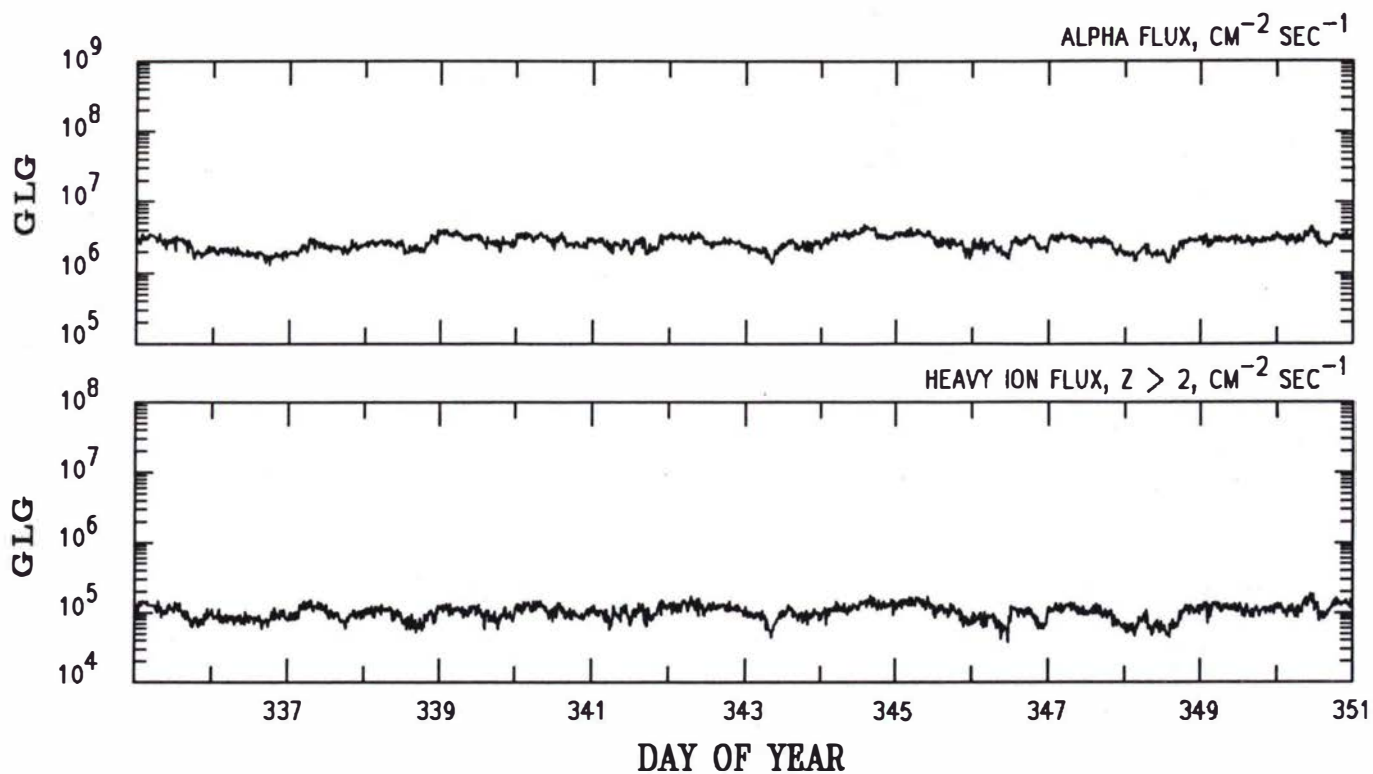
ULYSSES CDR - PLASMA WAVE

94 351 DEC 17 00:00:00.000 - 95 002 JAN 2 00:00:00.000



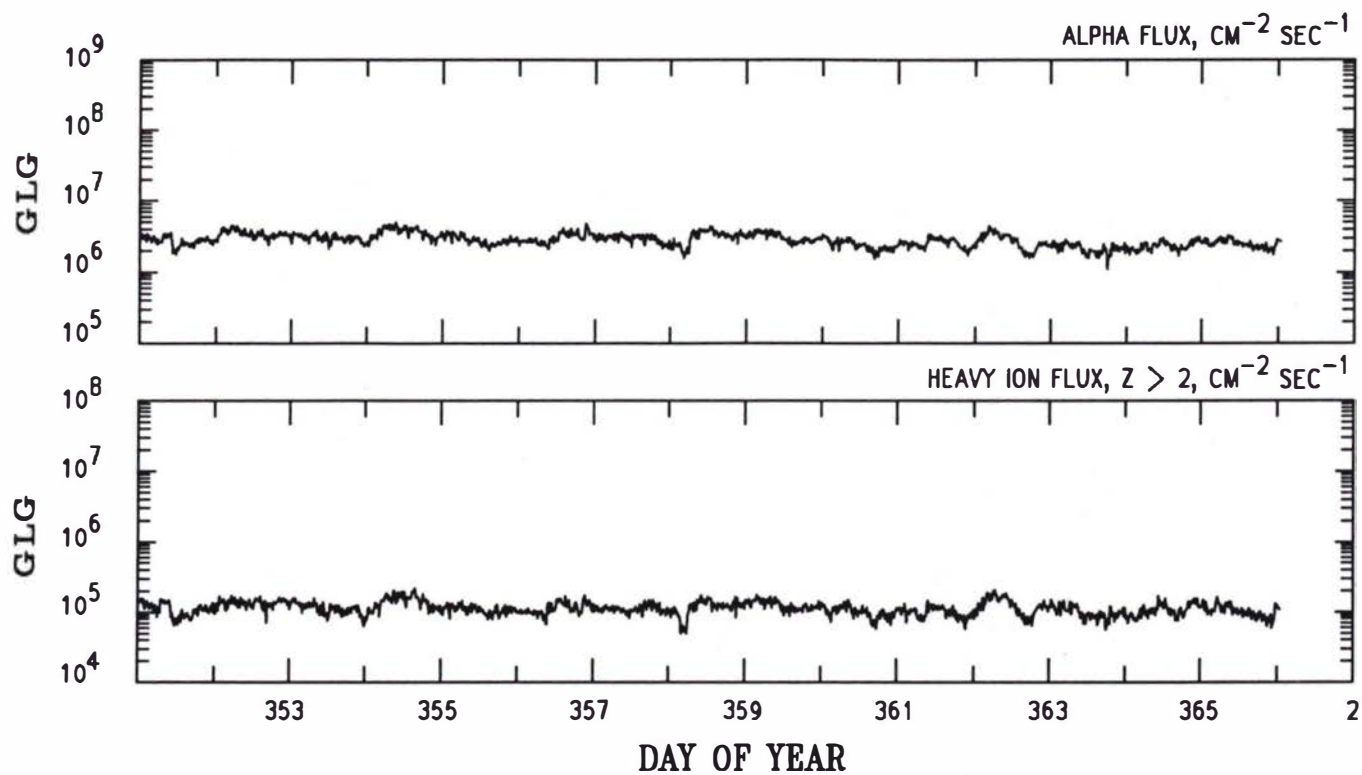
ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 335 DEC 1 00:00:00.000 - 94 351 DEC 17 00:00:00.000

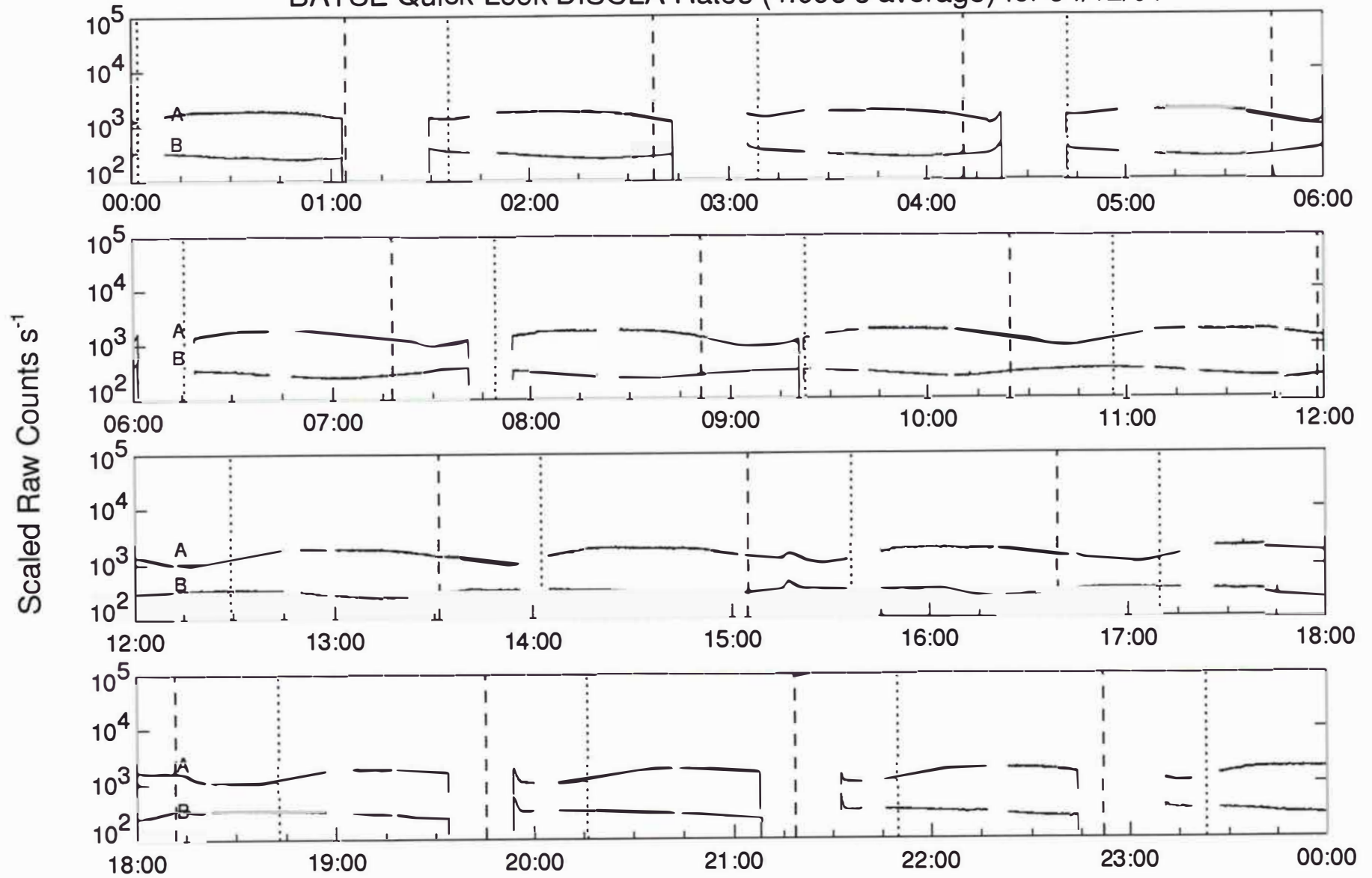


ULYSSES CDR - SOLAR WIND ION COMPOSITION

94 351 DEC 17 00:00:00.000 - 95 002 JAN 2 00:00:00.000



BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/01

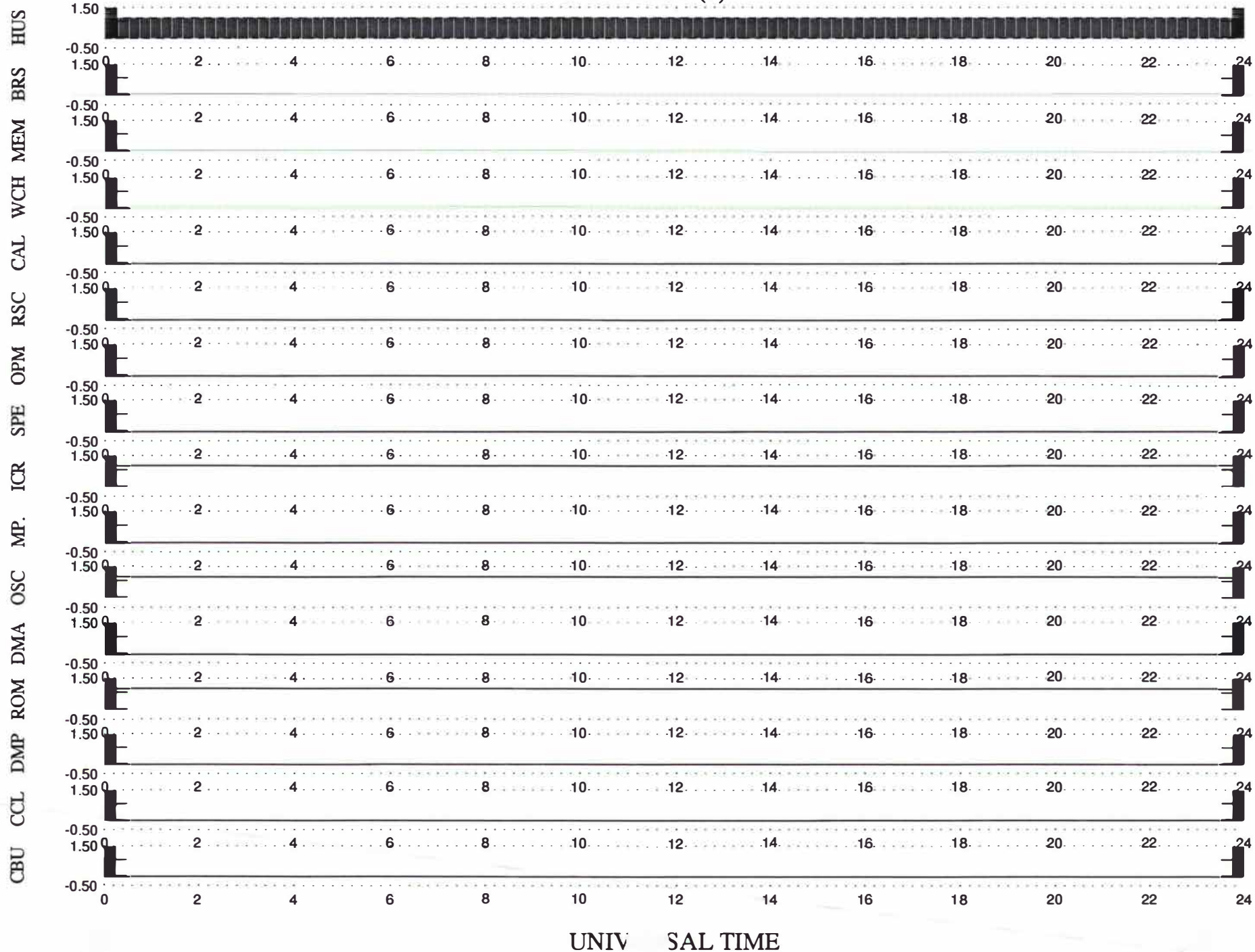


Current Time: 94/12/16, 1755 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

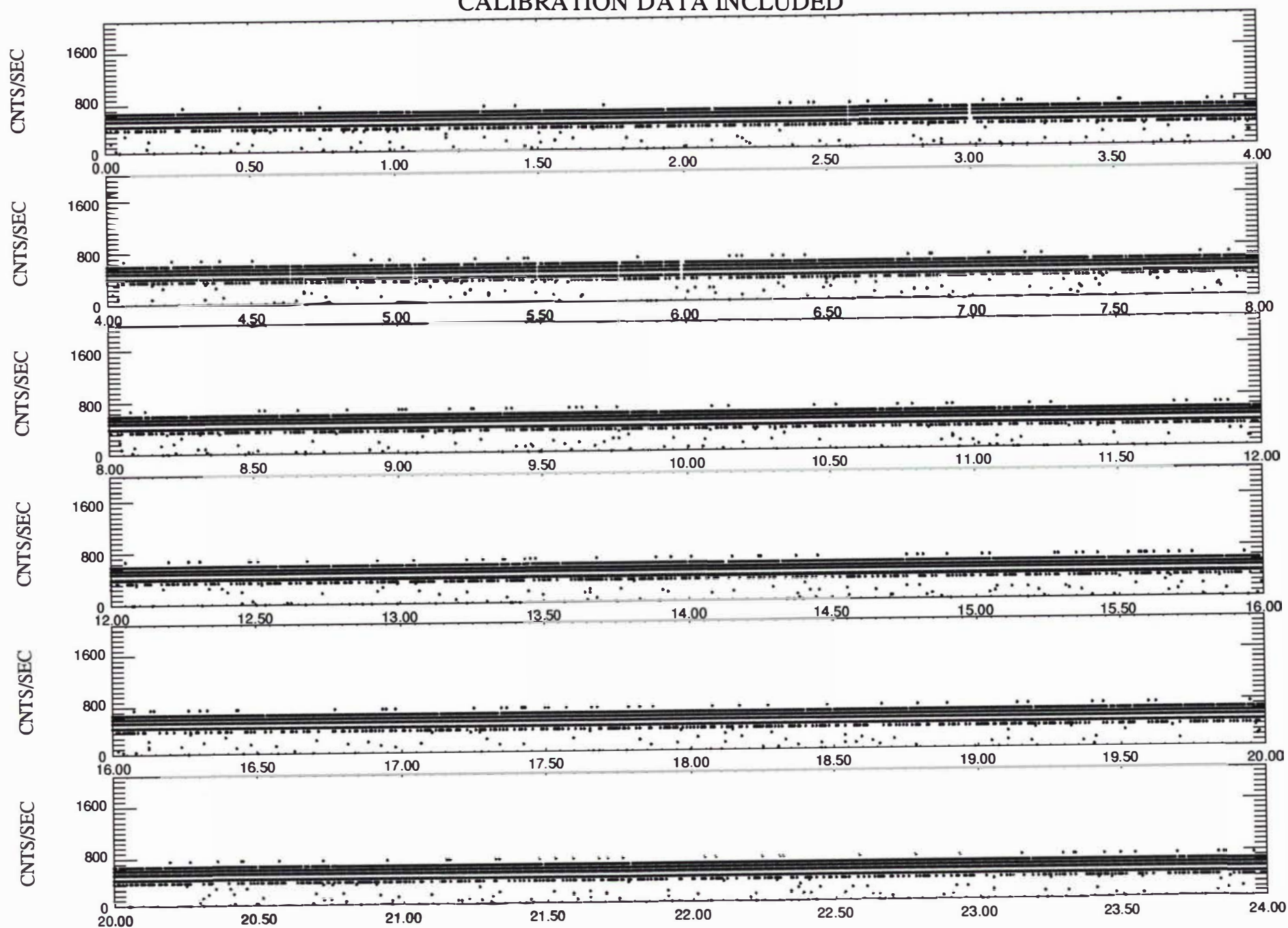
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

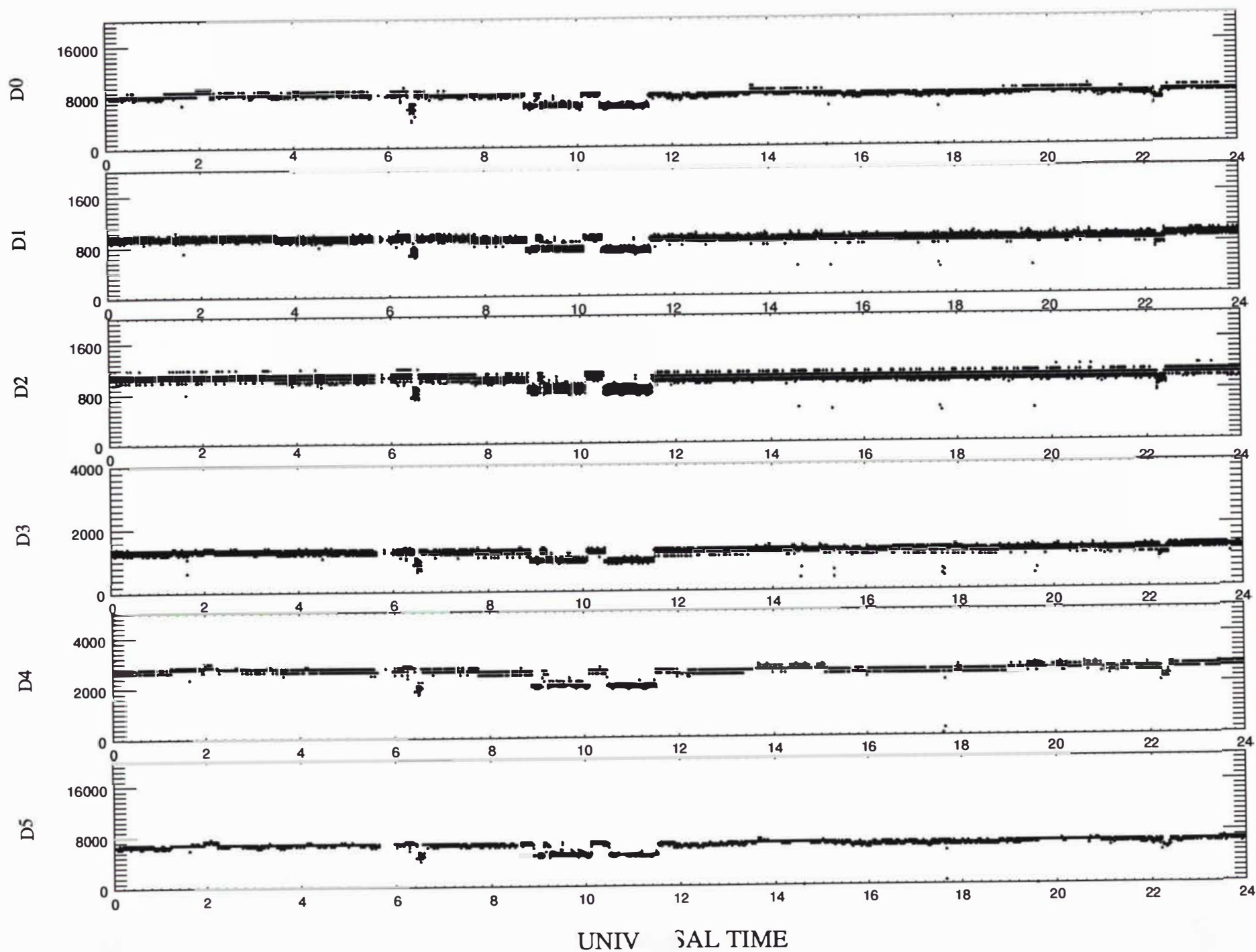
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From RICHARDSON@ssl.msfc.nasa.gov Tue Dec 6 06:48 PST 1994
Date: Tue, 6 Dec 1994 8:48:10 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3307

BATSEARCH PROGRAM

BATSE BURST # 3307
EVENT OF 1994 DEC 2 DAY OF YEAR=336
EVENT CROSSING TIME AT BATSE : 12736. S. OR 03:32:16.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 284.000 25.000
BATSE PEAK COUNTING RATE: 6000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 2/12/ 94 IS:
RA= 280.303 DEC= -70.728 DIST= 2.152 AU
BATSE-ULYSSES DISTANCE = 321902170. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 84.24 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 107.83 SECS.
CROSSING TIME AT ULYSSES IS 12844. S. OR 03:34:03 +/- 237.12 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 2/12/ 94 IS:
RA= 150.145 DEC= 14.747 DIST= 1.085 AU
MARS-BATSE DISTANCE = 162366784. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 60.02 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 270.61 SECS.
CROSSING TIME AT MARS IS 13007. S. OR 03:36:46 +/- 85.56 SECONDS

khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3307

TIME: TJD=9688 SECONDS=12736

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=91.5 AZIMUTH=53.3 ERROR= DEGREES

COMMENTS:

GRB. DOUBLE SPIKE WITH STRUCTURE. LASTING APROX. 50S. STARTING AT
~T-20S. NOT VISIBLE ABOVE 300KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3307	941202	9688	12736	6000	284	+25

7 / 12 / 94

ULYSSES RT

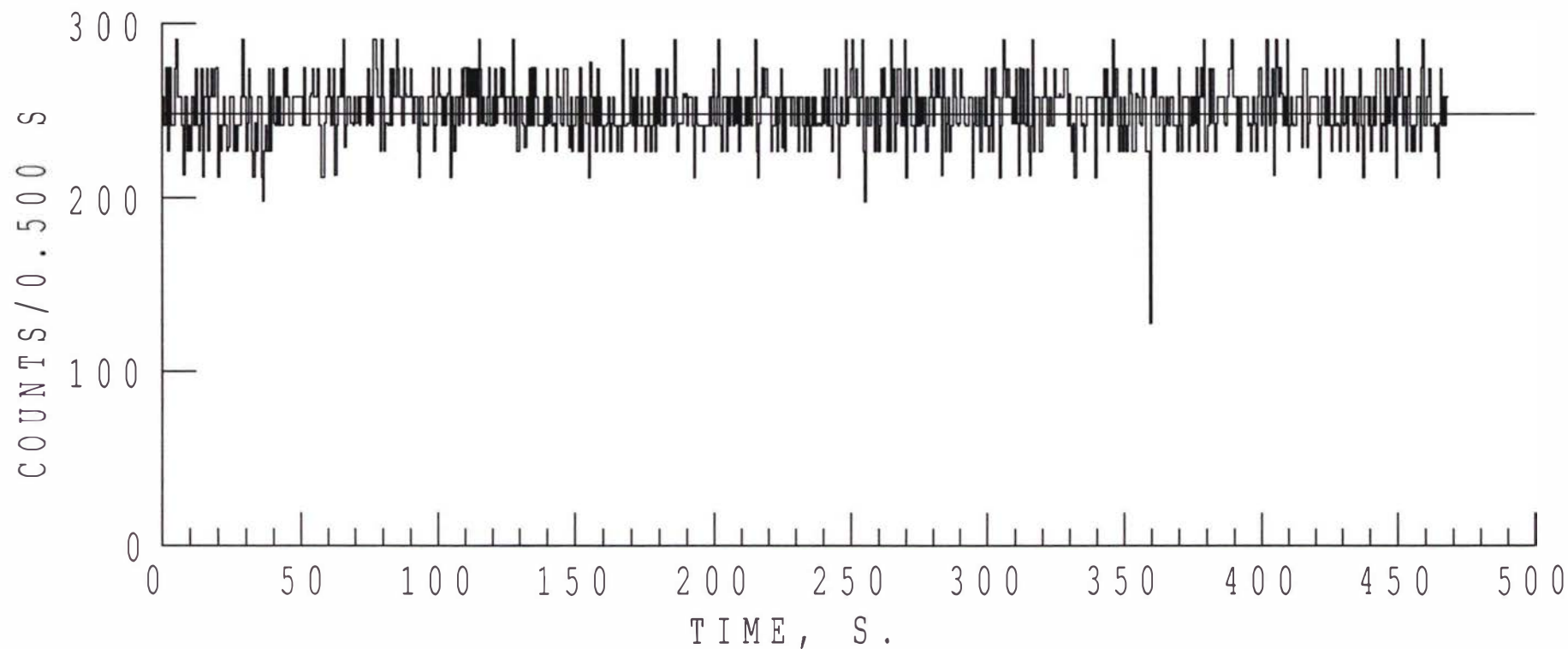
2 / 12 / 94 12600.070 s

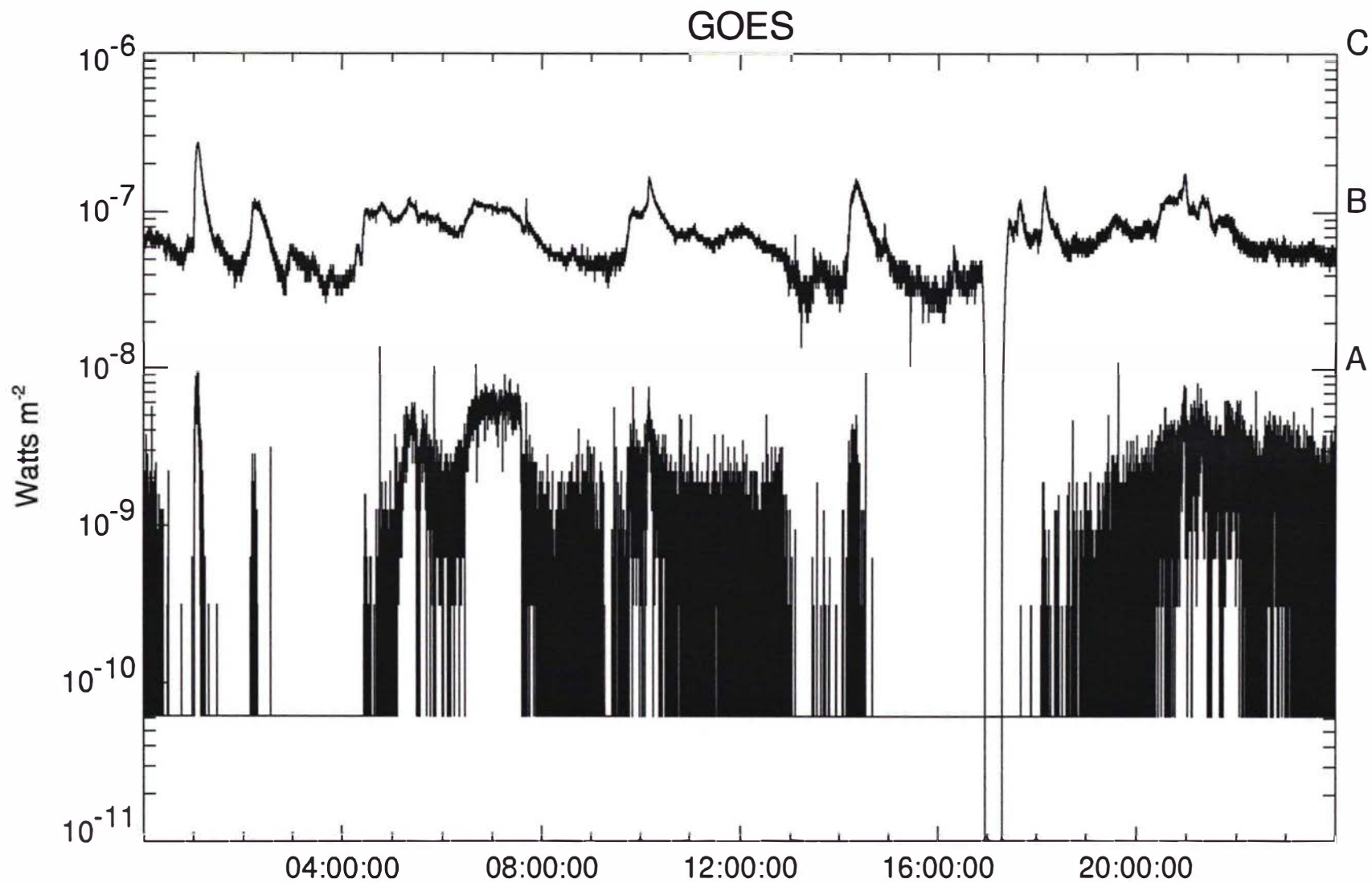
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





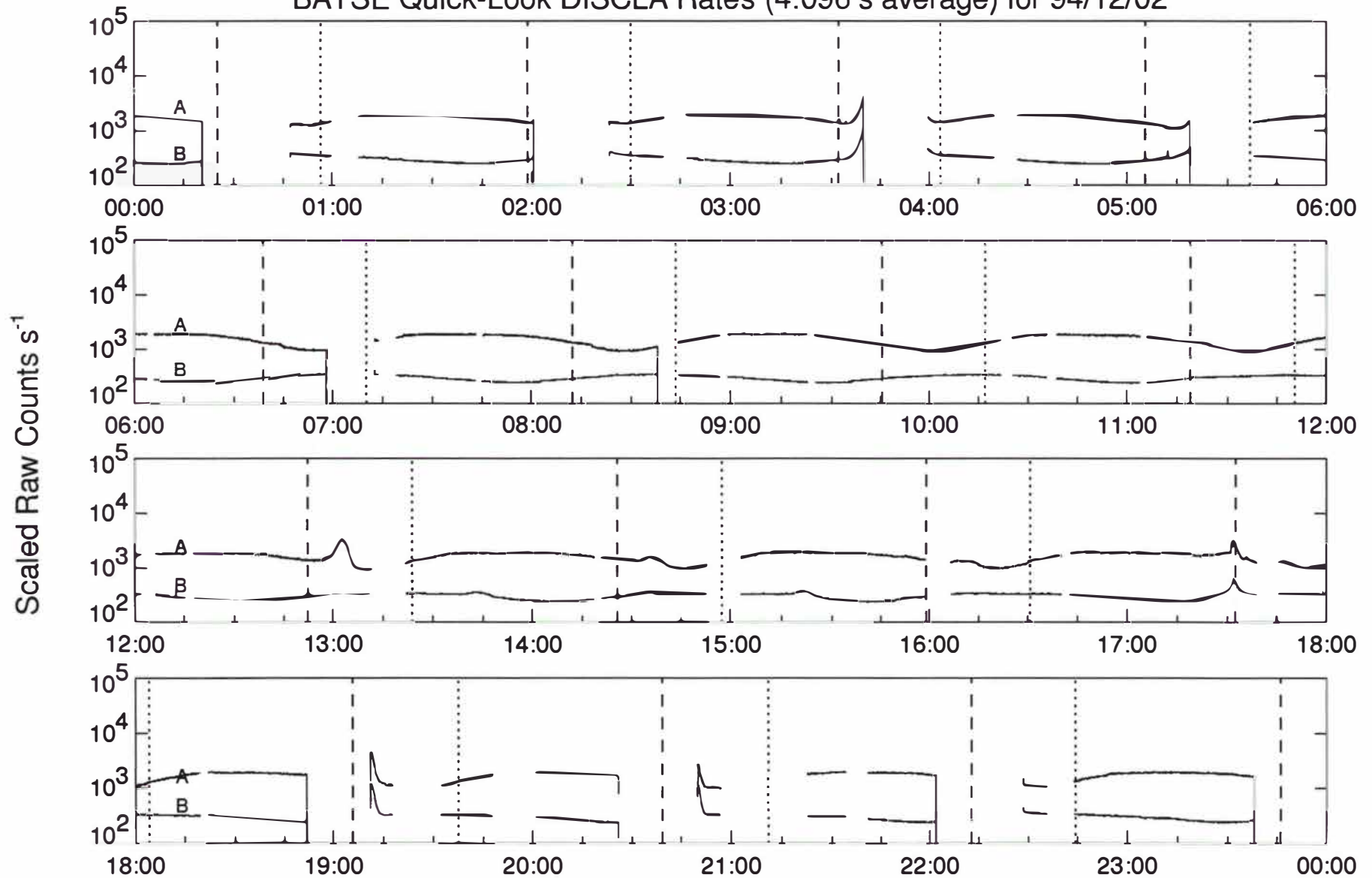
Data Start: 94/12/02, 0000:00

Plot created: 94/12/16, 1740

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 94/12/02

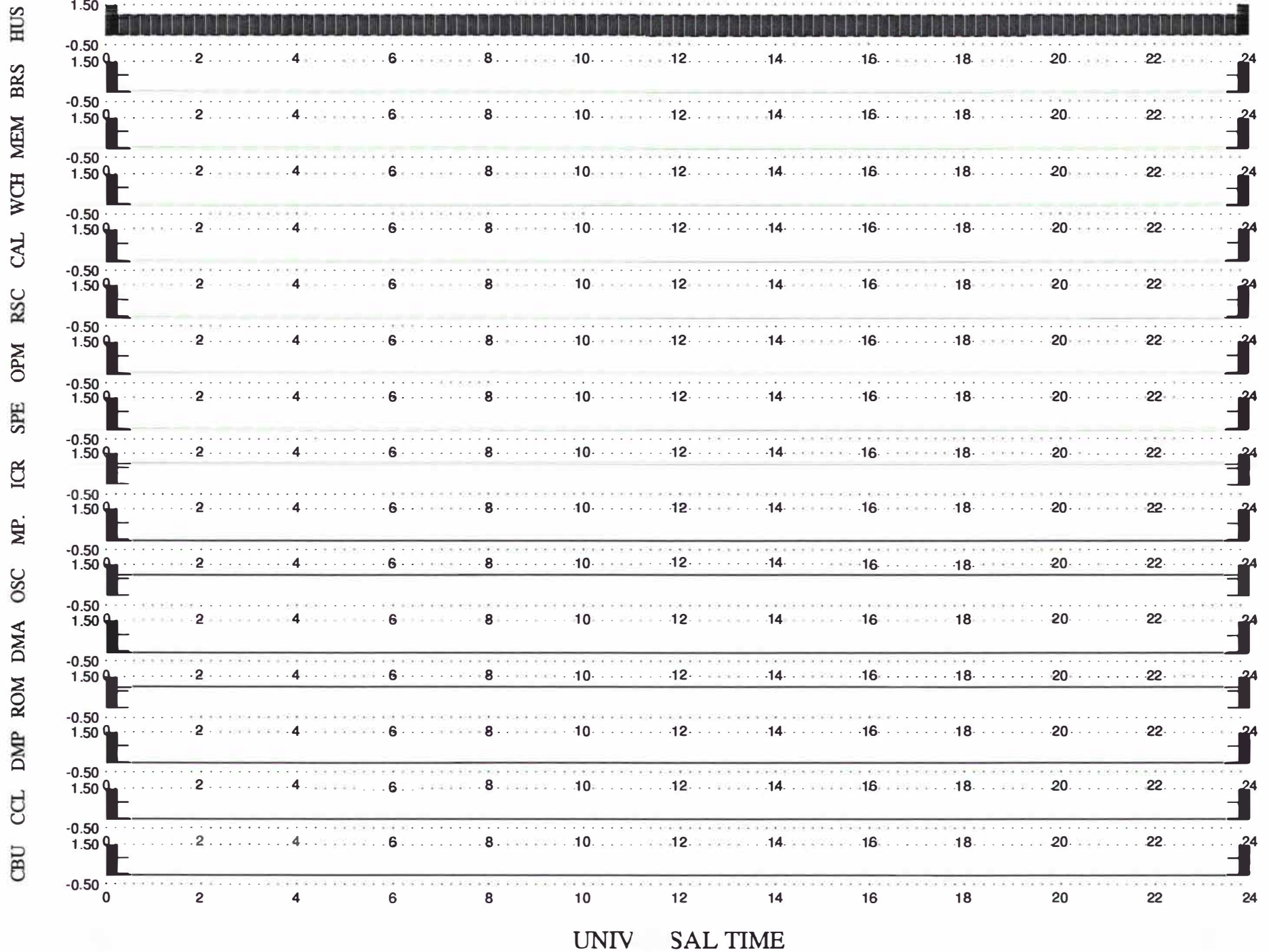


Current Time: 94/12/16, 1740 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

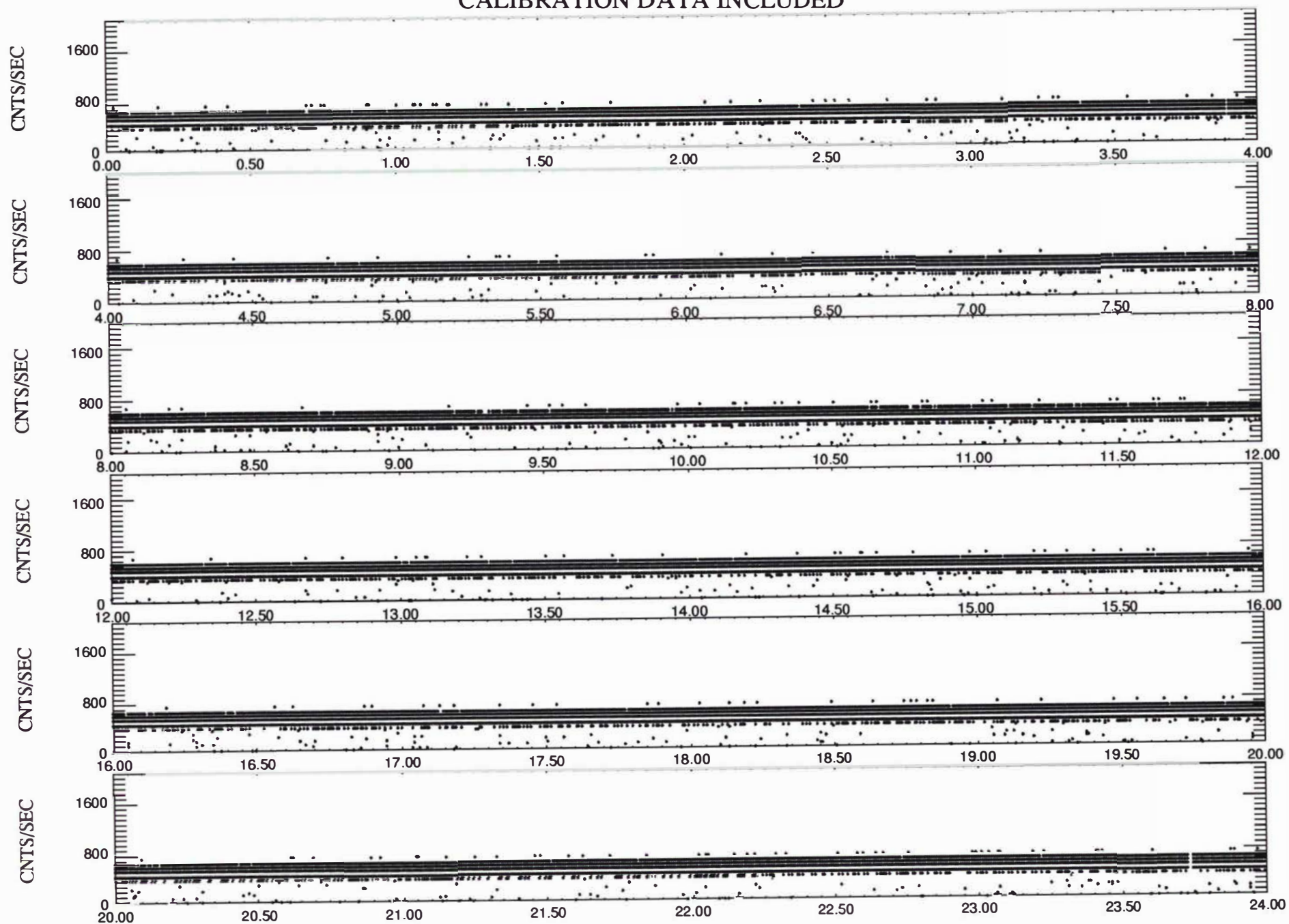
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

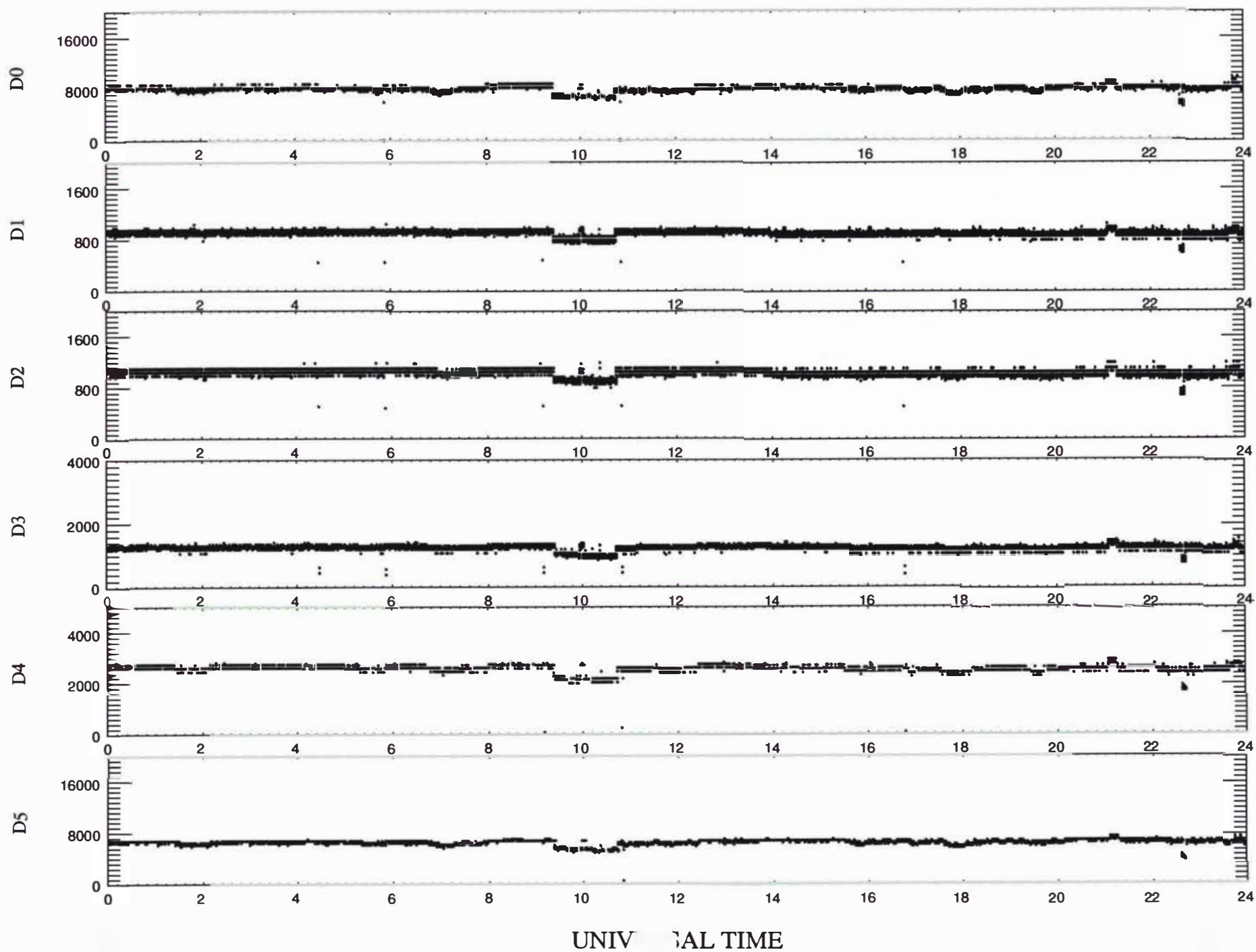
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From DEAL@ssl.msfc.nasa.gov Mon Dec 5 07:41 PST 1994
Date: Mon, 5 Dec 1994 9:41:20 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3308

BATSEARCH PROGRAM

BATSE BURST # 3308
EVENT OF 1994 DEC 3 DAY OF YEAR=337
EVENT CROSSING TIME AT BATSE : 62186. S. OR 17:16:26.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 9.000 -50.000
BATSE PEAK COUNTING RATE: 4000 C/S

NS

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/12/ 94 IS:
RA= 283.343 DEC= -69.944 DIST= 2.150 AU
BATSE-ULYSSES DISTANCE = 321688308. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=137.42 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -790.06 SECS.
CROSSING TIME AT ULYSSES IS 61396. S. OR 17:03:15 +/- 164.06 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/12/ 94 IS:
RA= 150.462 DEC= 14.667 DIST= 1.077 AU
MARS-BATSE DISTANCE = 161103216. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 47.13 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 365.62 SECS.
CROSSING TIME AT MARS IS 62552. S. OR 17:22:31 +/- 73.93 SECONDS

BATSE BURST TRIGGER

NO.: 03308

TIME: TJD=9689 SECONDS=62186

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=114.8 AZIMUTH=300.2 ERROR= DEGREES

COMMENTS:

BURST LASTING ~1S.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3308	941203	9689	62186	4000	009	-50

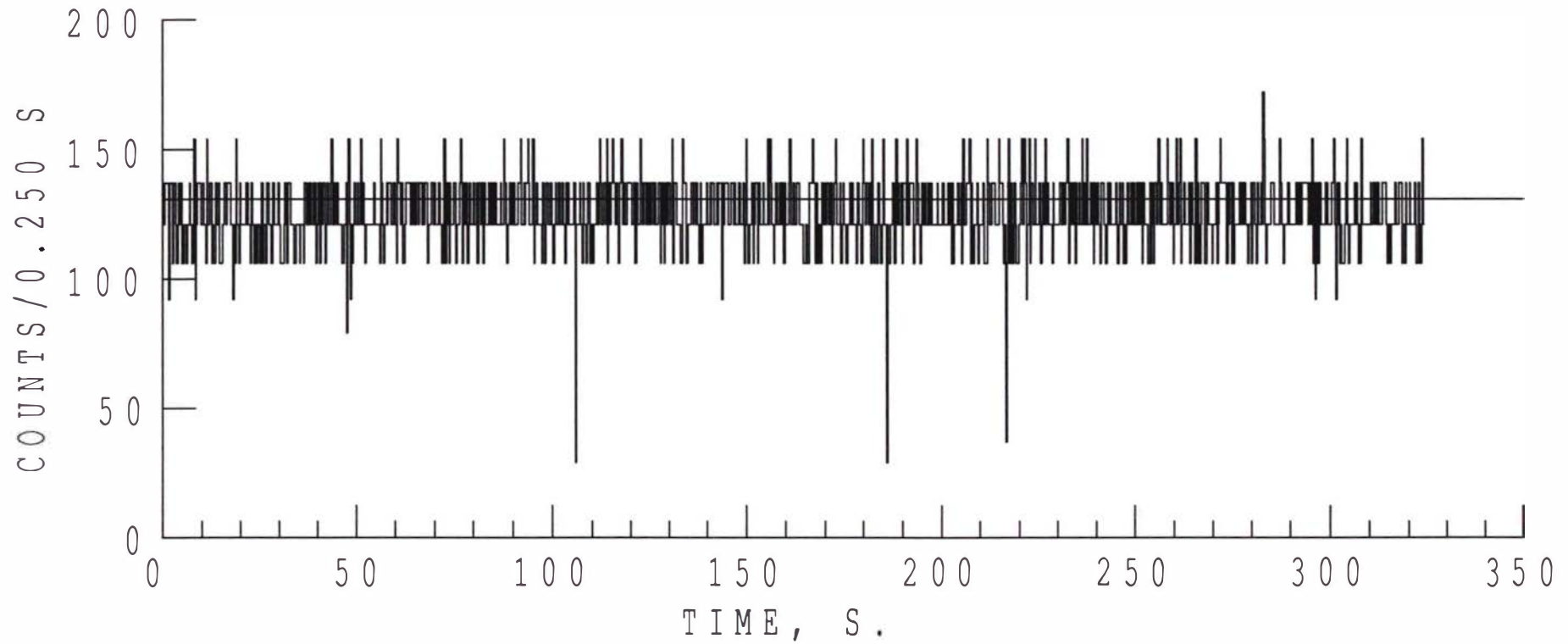
5 / 12 / 94

ULYSSES RT

3 / 12 / 94 61236.113 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Mon Dec 5 07:54 PST 1994
Date: Mon, 5 Dec 1994 9:53:08 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03309

TIME: TJD=9689 SECONDS=74240

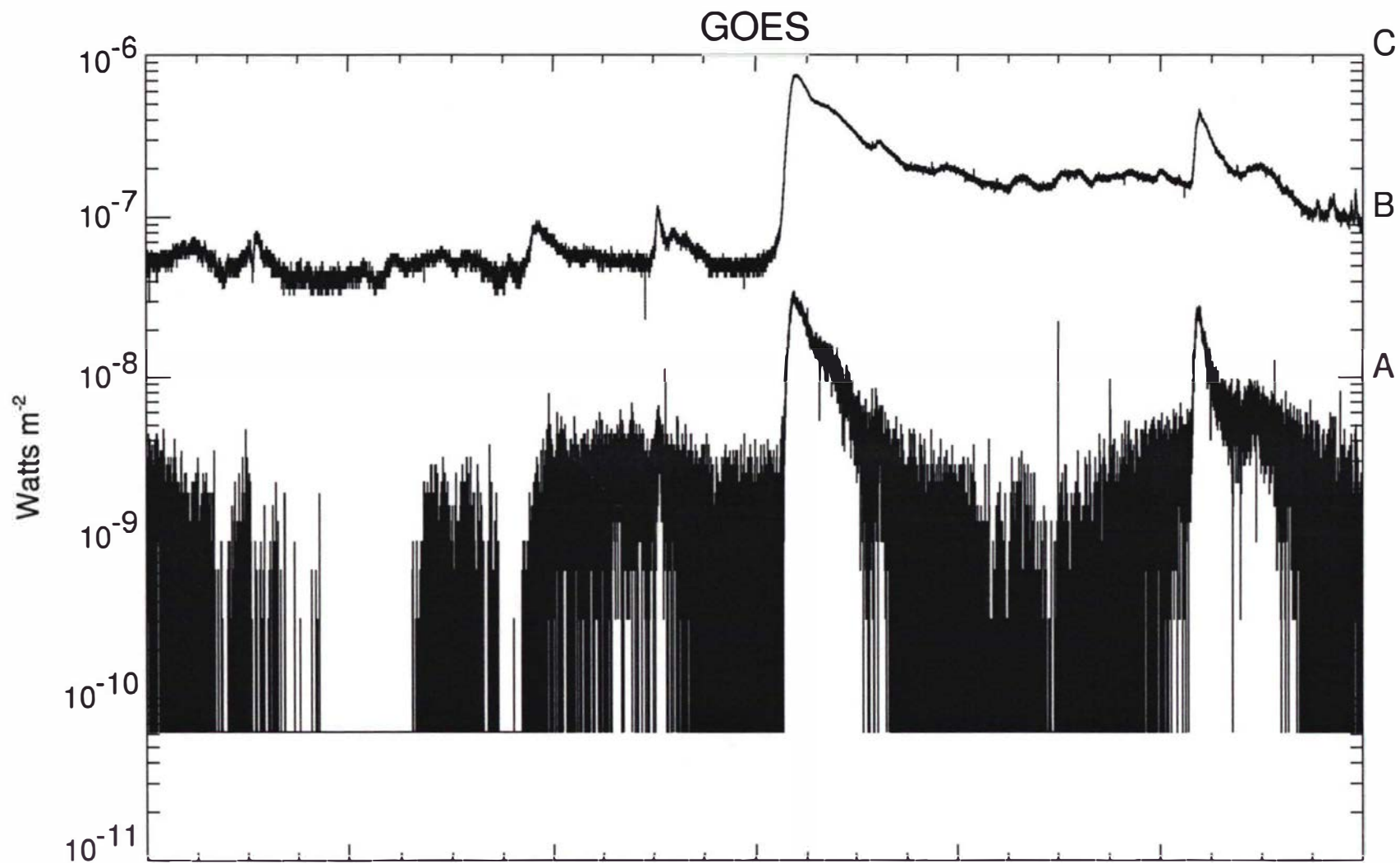
TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=95.1 AZIMUTH=0.8 ERROR= DEGREES

COMMENTS:
TERRESTRIAL GAMMA FLASH LASTING ~ 0.1 S.



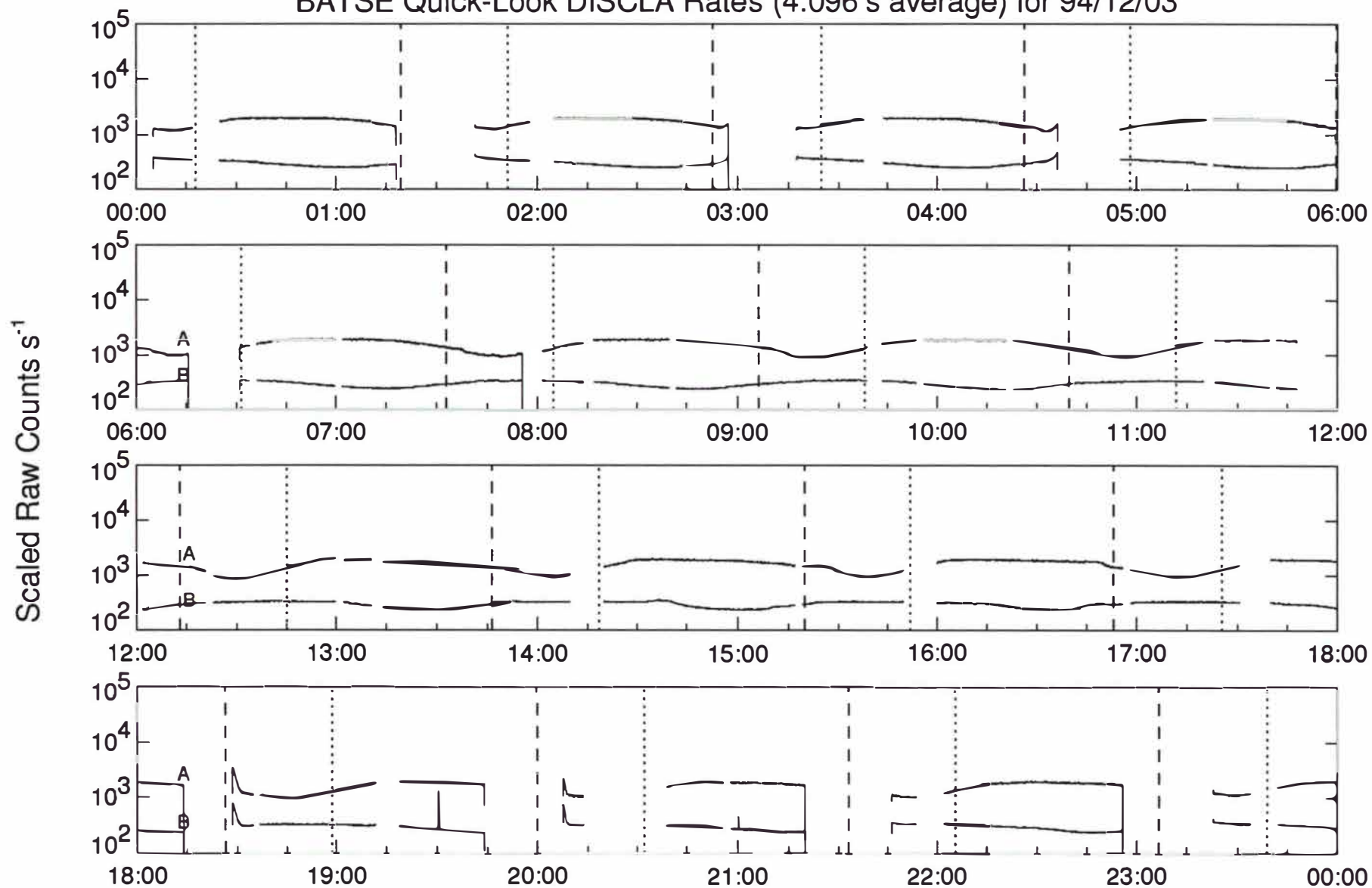
Data Start: 94/12/03, 0000:01

Plot created: 94/12/16, 1806

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/03

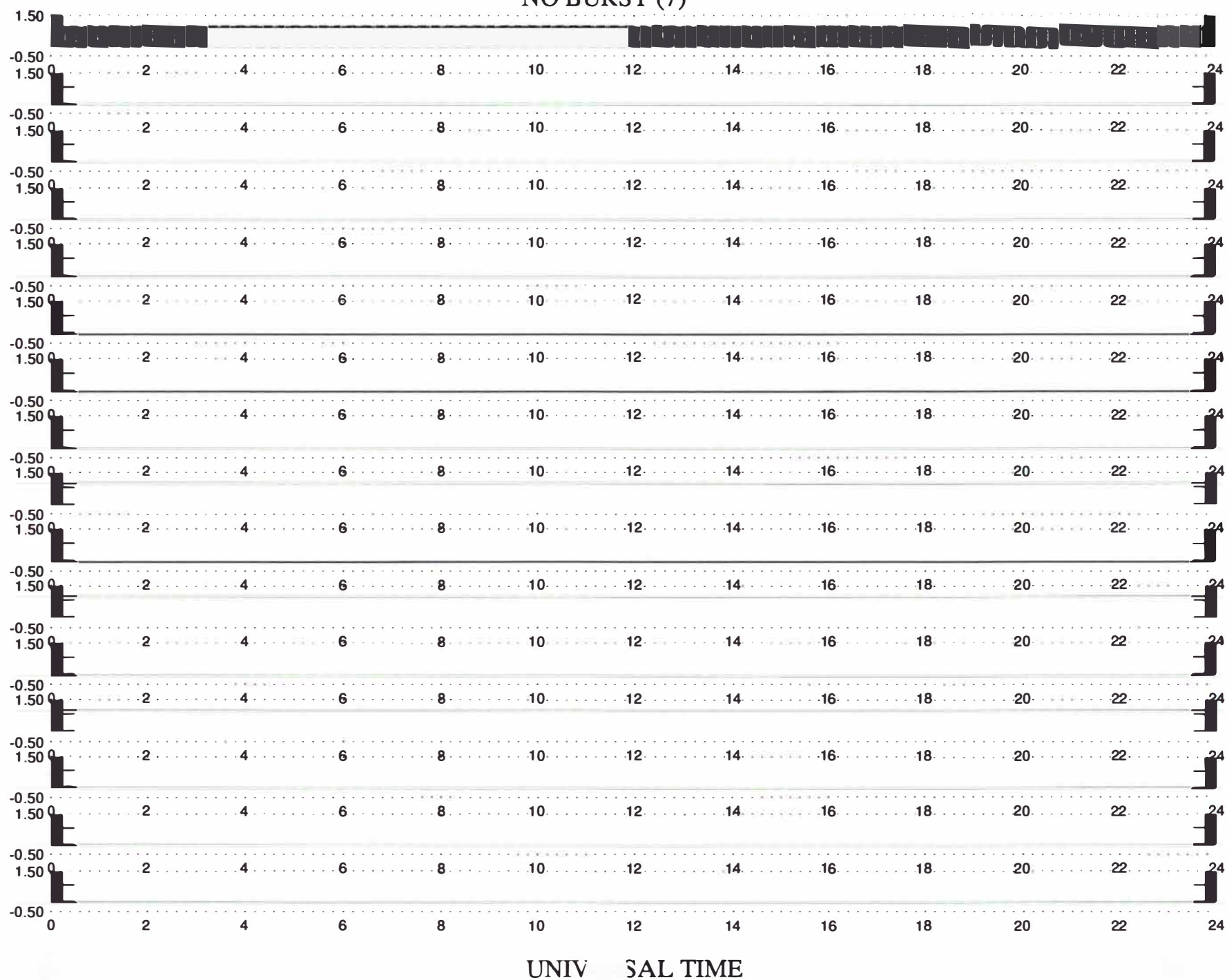


Current Time: 94/12/16, 1807 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

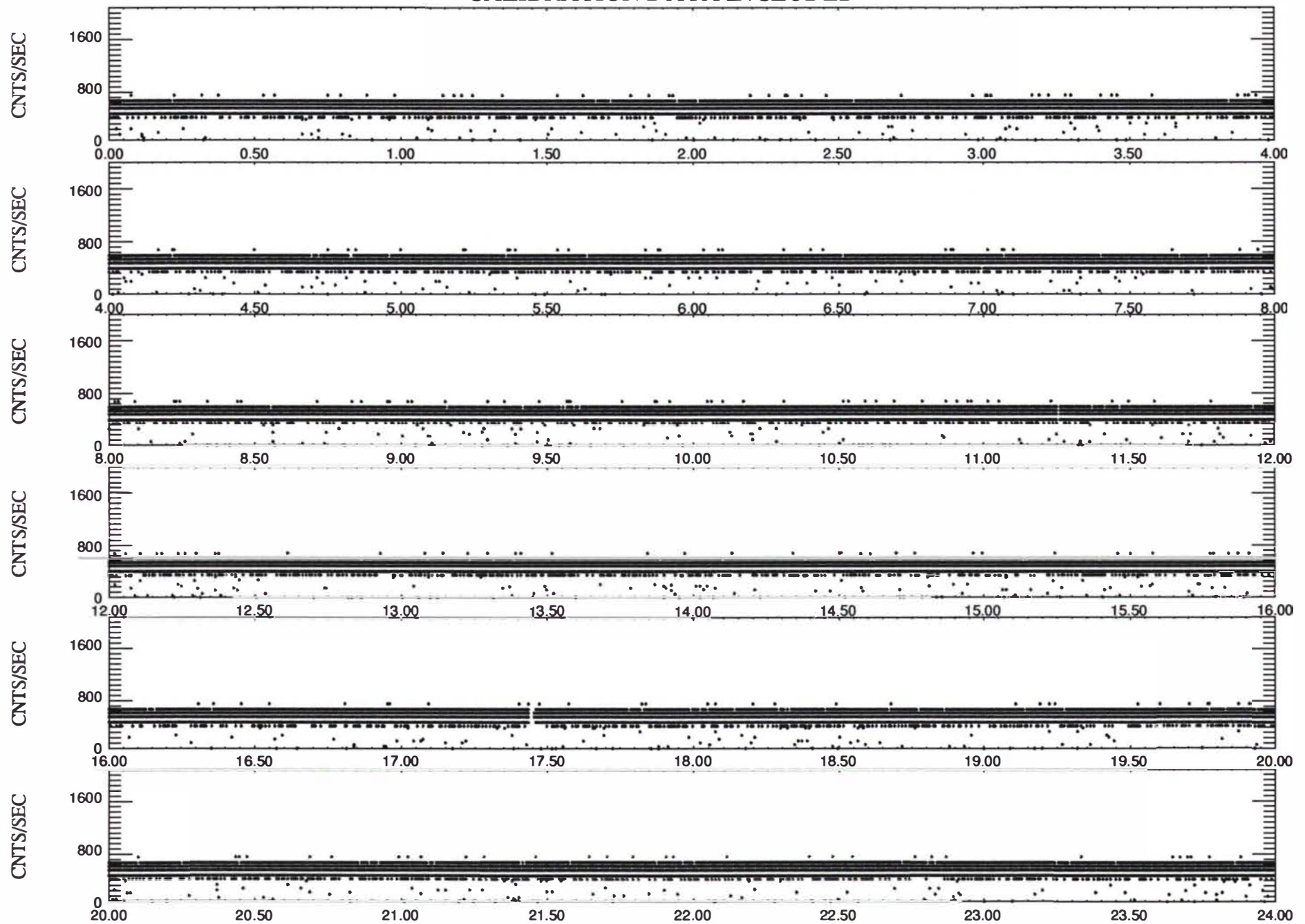
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

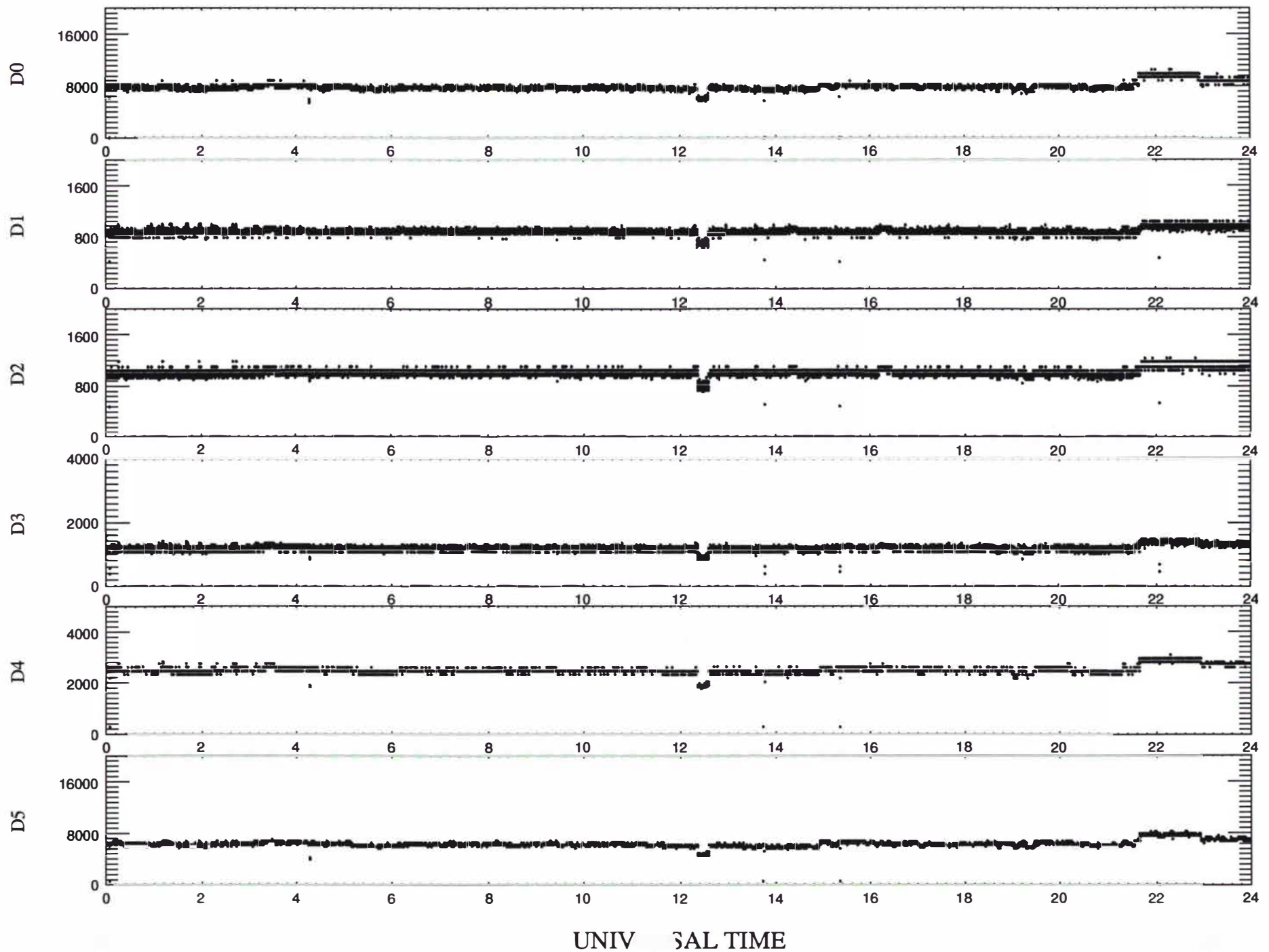
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
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CALIBRATION DATA INCLUDED



UNIV SAL TIME



From RICHARDSON@ssl.msfc.nasa.gov Tue Dec 6 09:26 PST 1994
Date: Tue, 6 Dec 1994 11:26:31 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3310

TIME: TJD=9690 SECONDS=74140

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

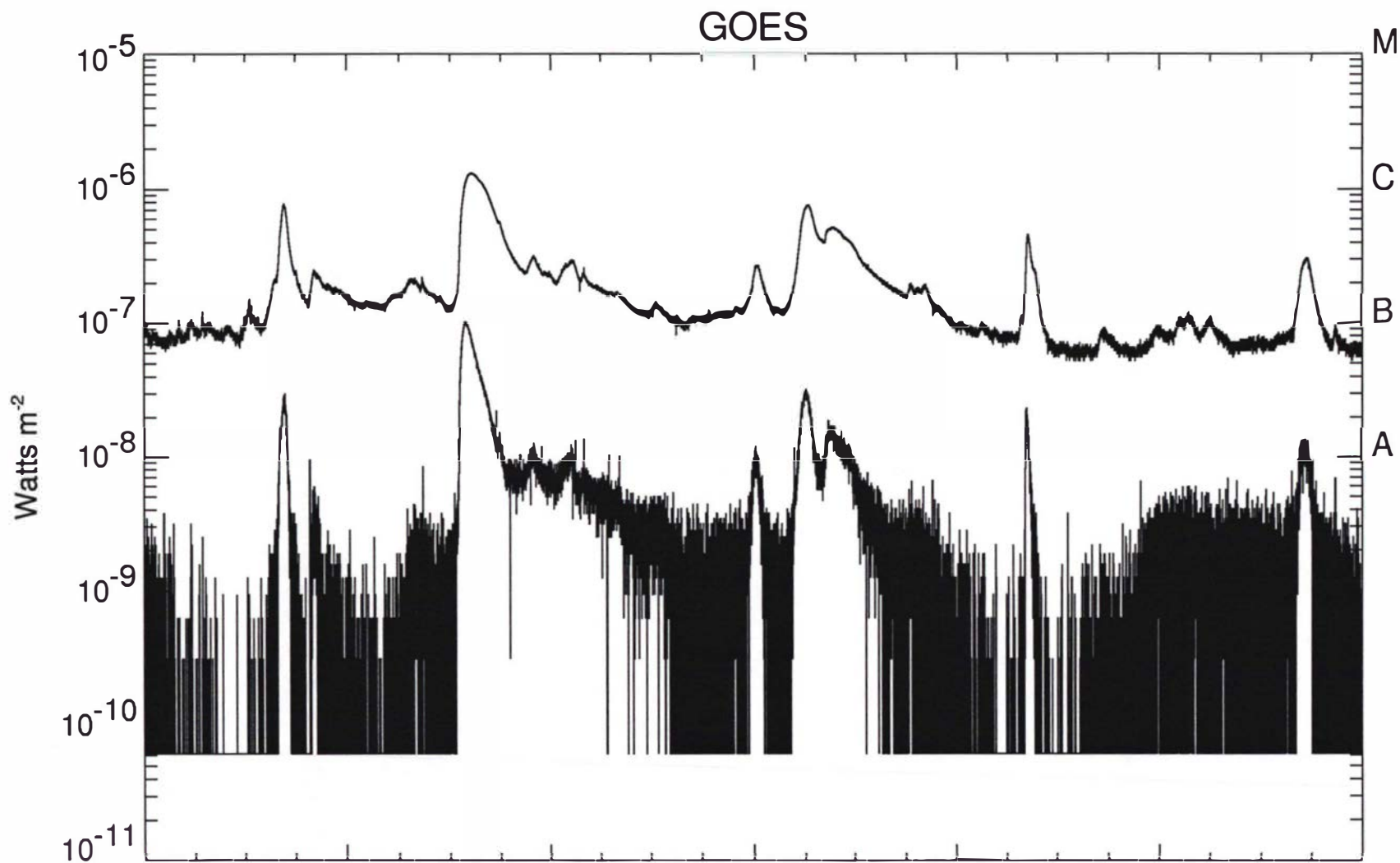
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=67.5 AZIMUTH=191.8 ERROR= DEGREES

COMMENTS:

TGF. SINGLE SPIKE LASTING APROX. 0.002 SEC. VISIBLE ABOVE 300KEV.



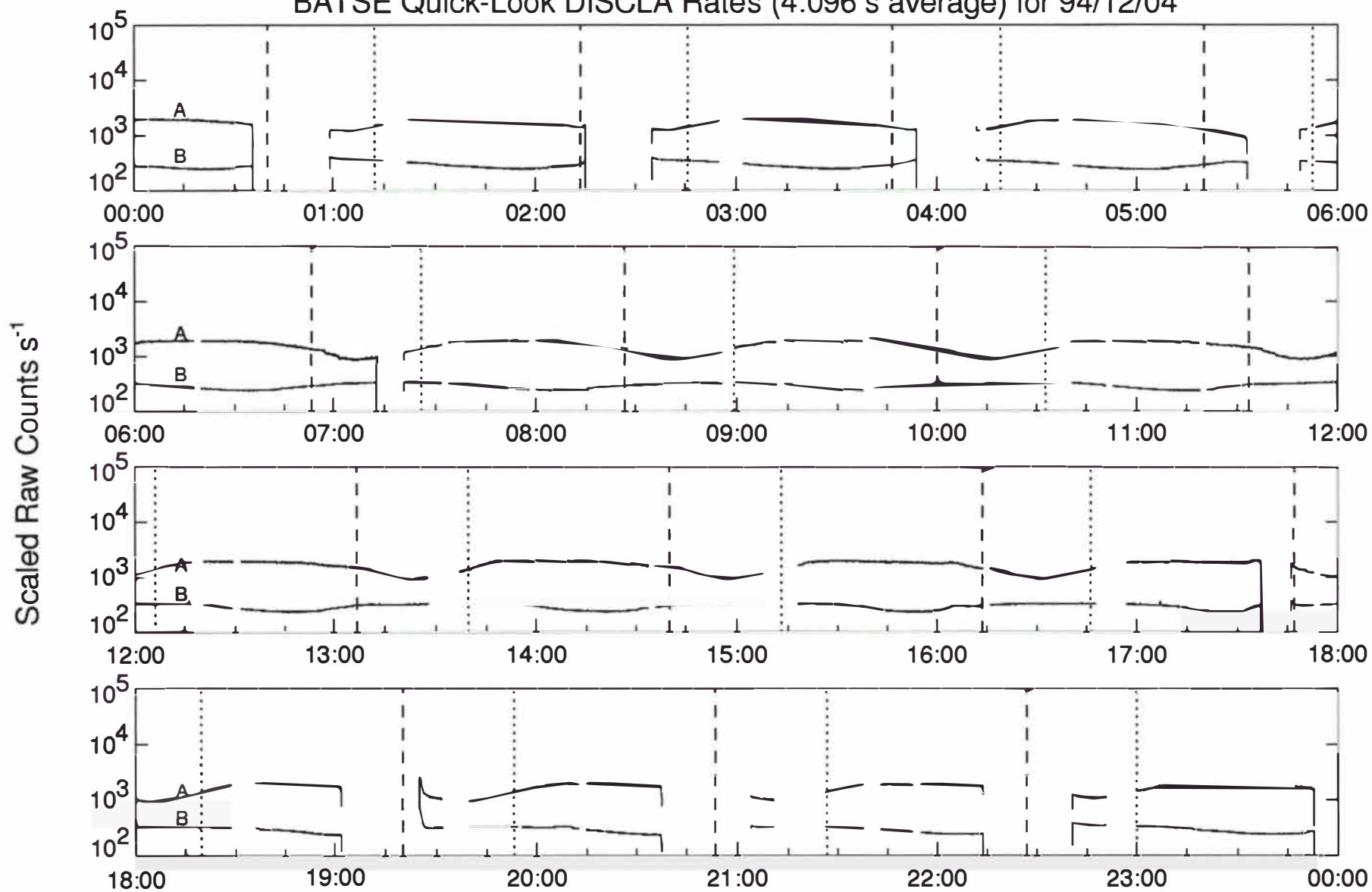
Data Start: 94/12/04, 0000:00

Plot created: 94/12/16, 1811

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 94/12/04

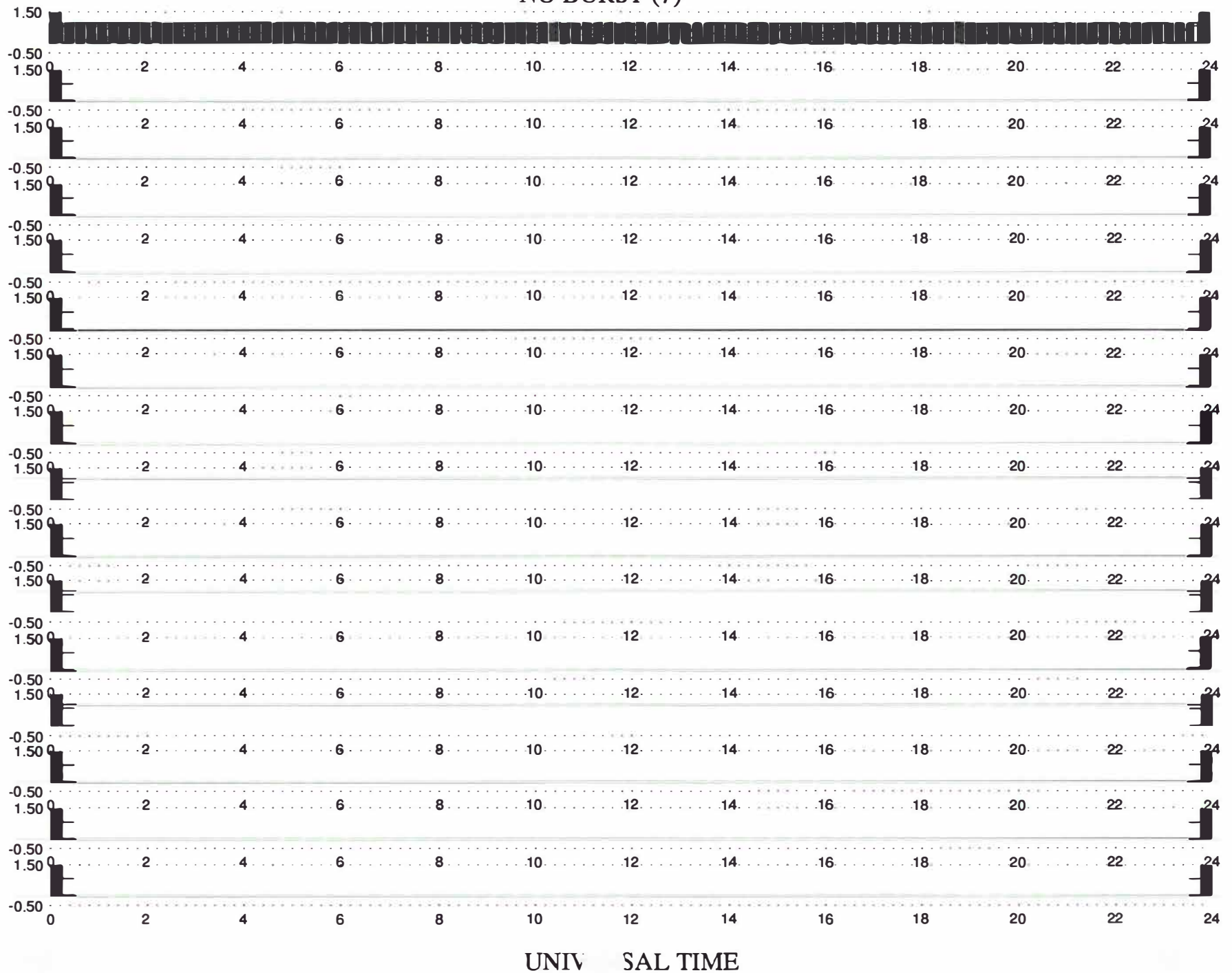


Current Time: 94/12/16, 1812 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

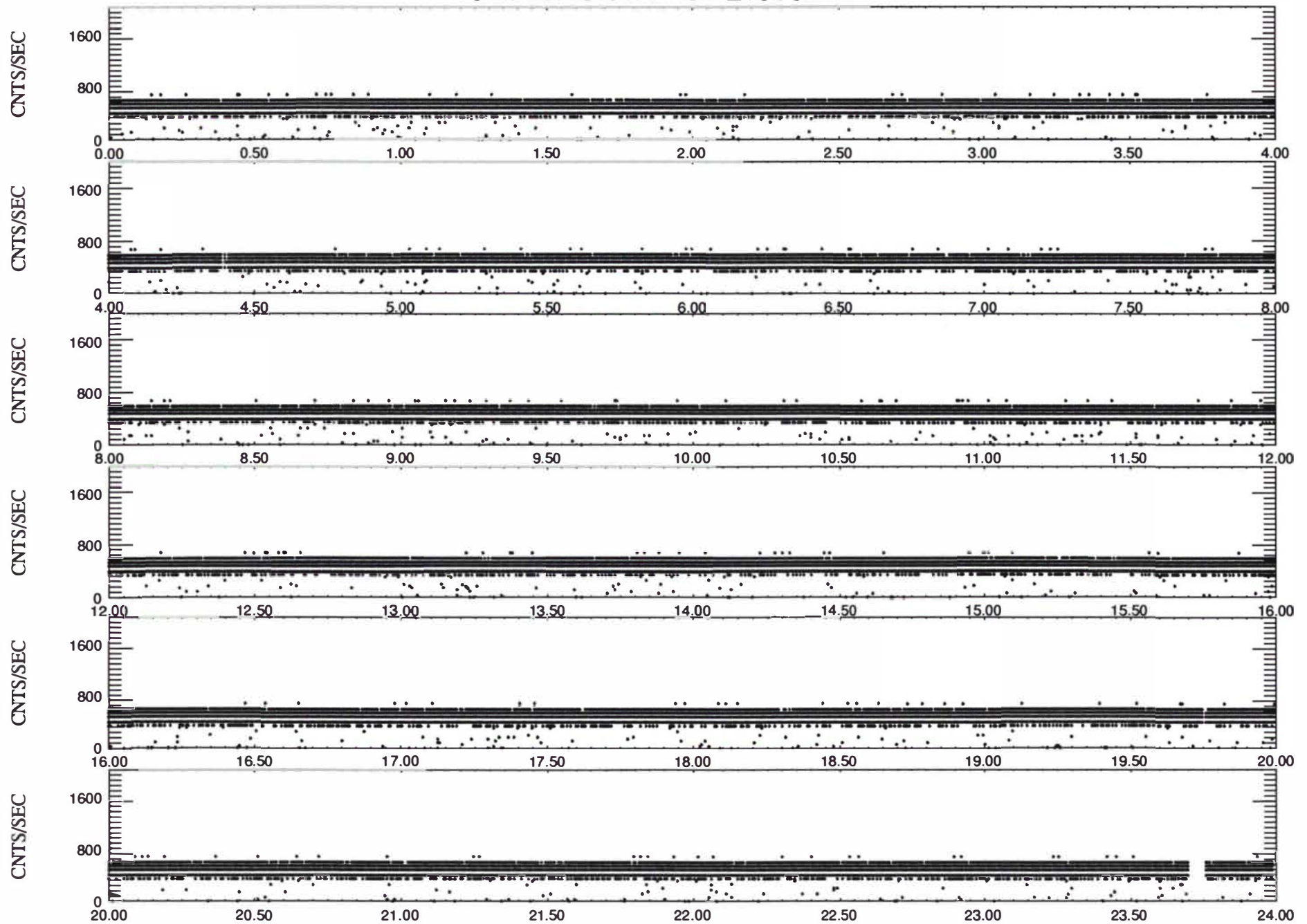
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

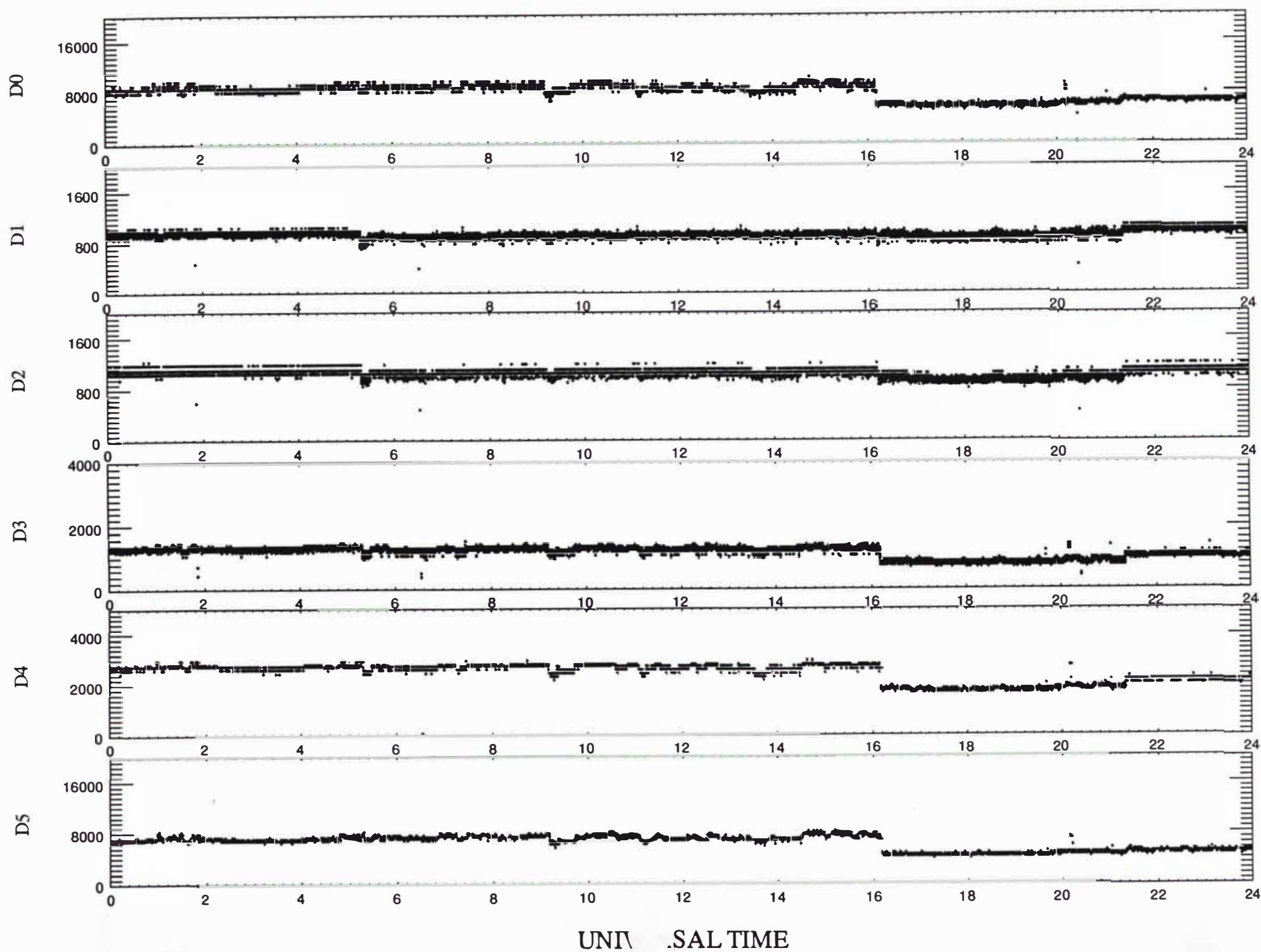
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From SAHI@ssl.msfc.nasa.gov Tue Dec 6 13:19 PST 1994
Date: Tue, 6 Dec 1994 15:19:14 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3311

BATSEARCH PROGRAM

BATSE BURST # 3311
EVENT OF 1994 DEC 5 DAY OF YEAR=339
EVENT CROSSING TIME AT BATSE : 29736. S. OR 08:15:36.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 136.000 -7.000
BATSE PEAK COUNTING RATE: 1000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 5/12/ 94 IS:
RA= 286.272 DEC= -69.096 DIST= 2.149 AU
BATSE-ULYSSES DISTANCE = 321524630. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 78.83 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 207.73 SECS.
CROSSING TIME AT ULYSSES IS 29944. S. OR 08:19:03 +/- 235.83 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 5/12/ 94 IS:
RA= 151.072 DEC= 14.515 DIST= 1.060 AU
MARS-BATSE DISTANCE = 158581152. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=153.80 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -474.62 SECS.
CROSSING TIME AT MARS IS 29261. S. OR 08:07:41 +/- 33.34 SECONDS

BATSE BURST TRIGGER

NO.: 3311

TIME: TJD=9691 SECONDS=29736

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=59 AZIMUTH=213 ERROR= DEGREES

COMMENTS:

BURST. WEAK SINGLE PULSE, FASTER RISE THAN DECAY. DUR.~30 SEC.
VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3311	941205	9691	29736	1000	136	-07

7 / 12 / 94

ULYSSES RT

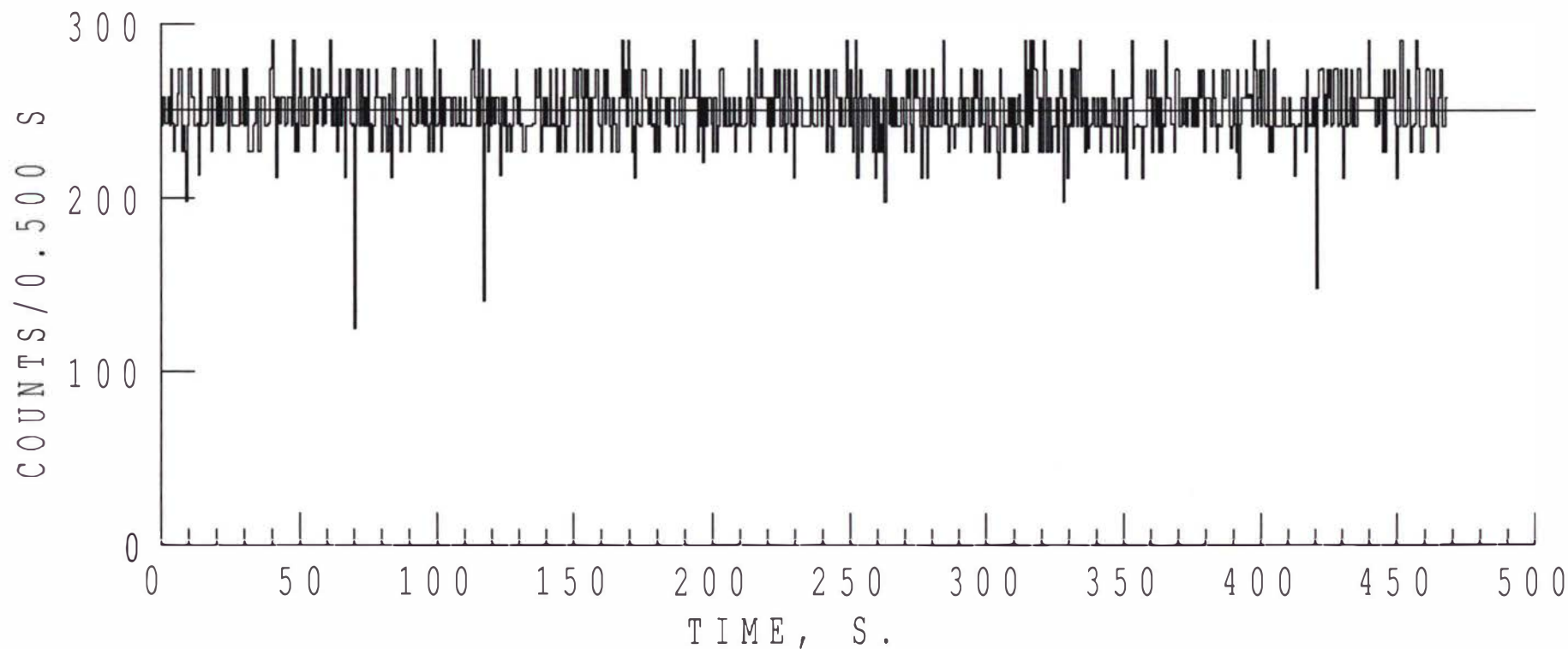
5 / 12 / 94 29700.154 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



Date: Aug 11 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

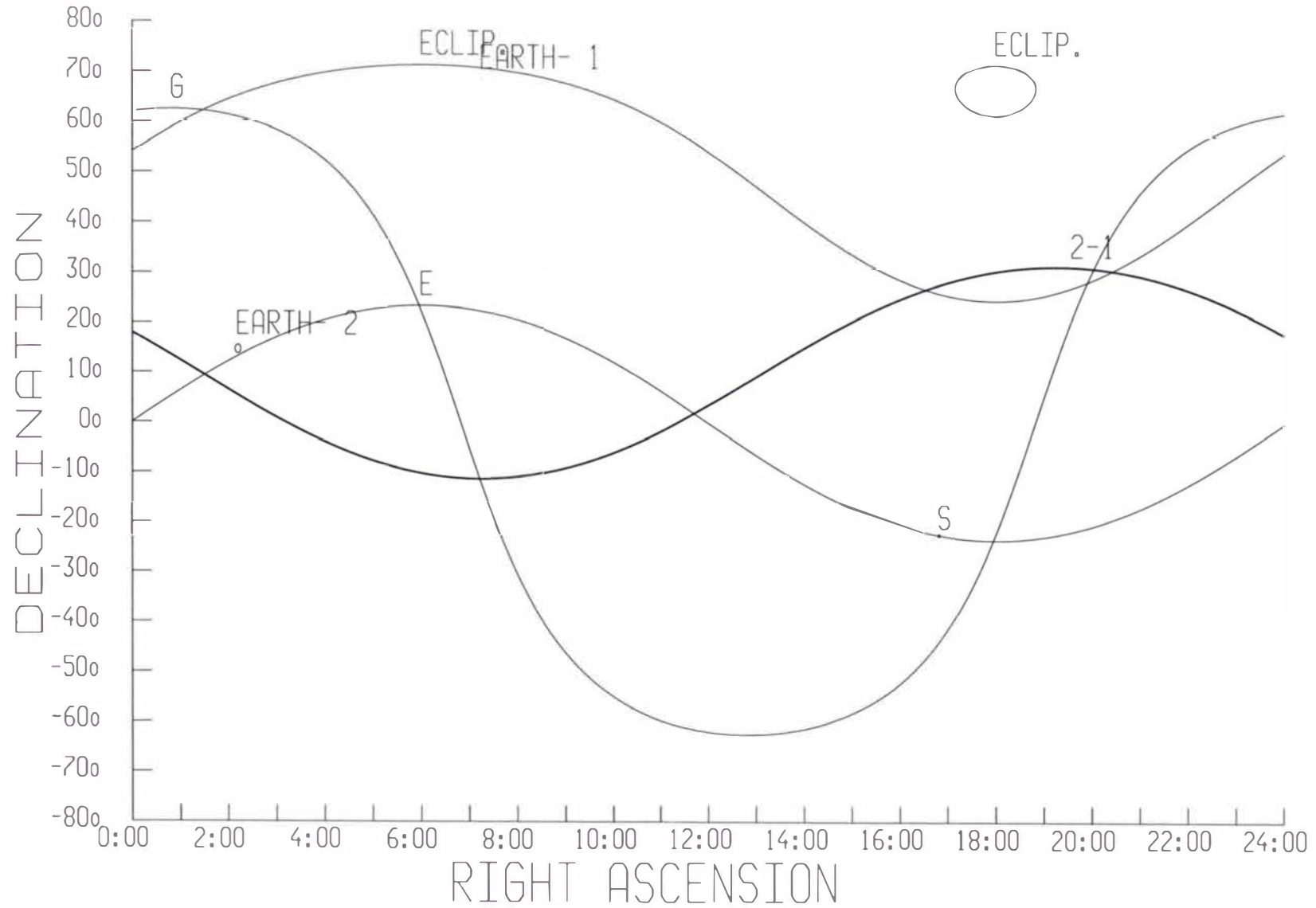
3. PVO Data

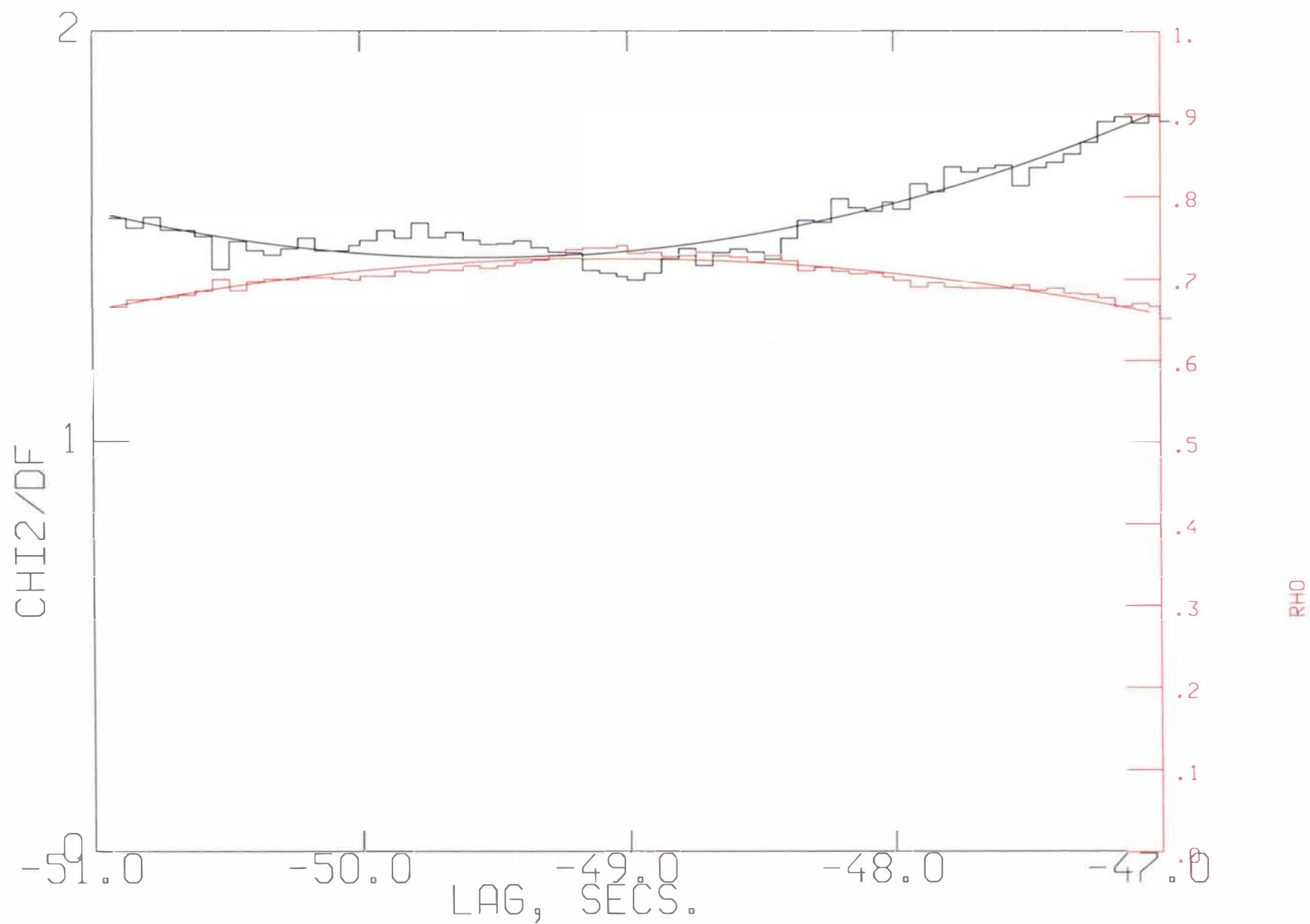
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

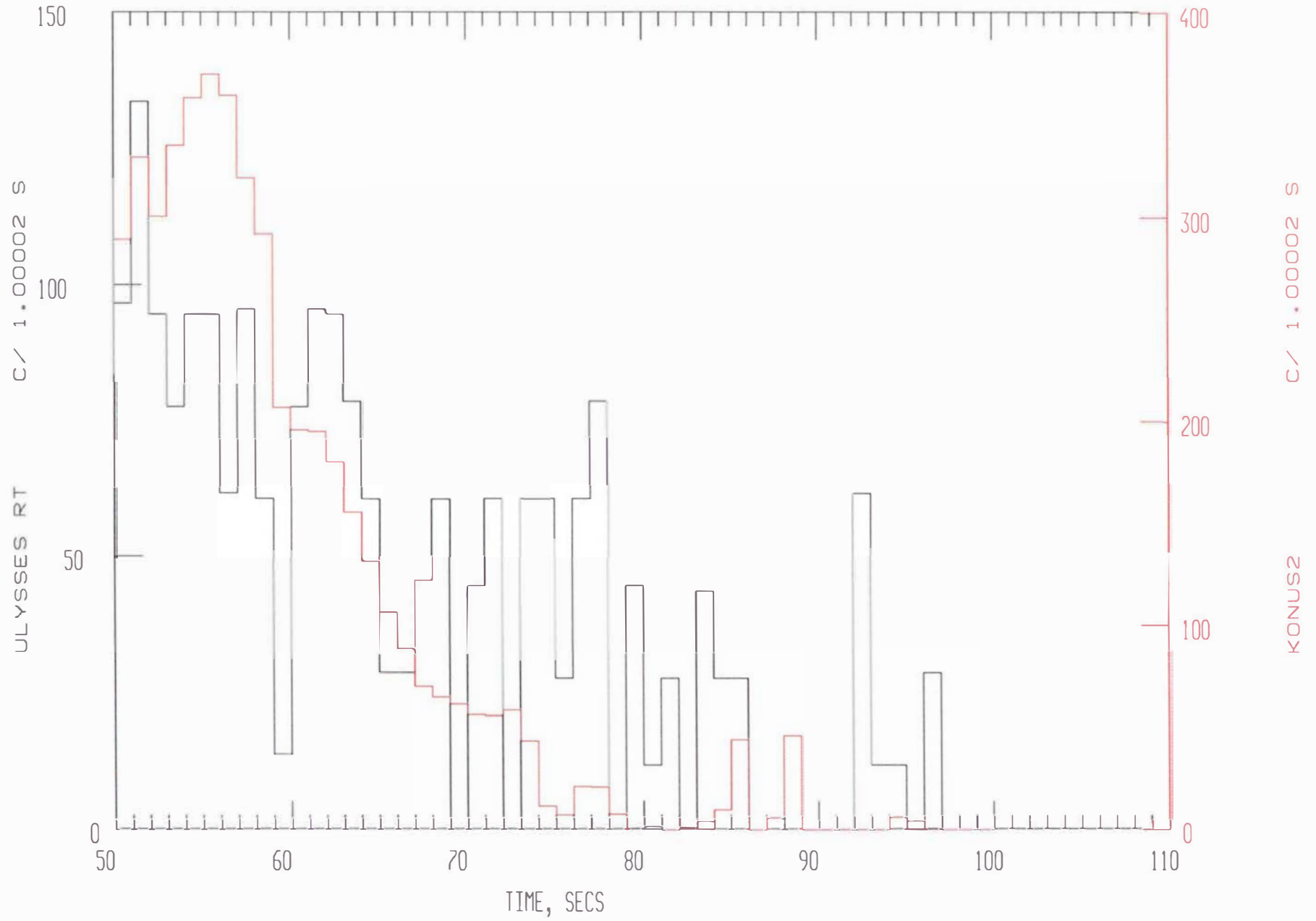
EVENT OF DEC 5, 1994 23:35

11/08/2011

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







KONUS 19941205 85000

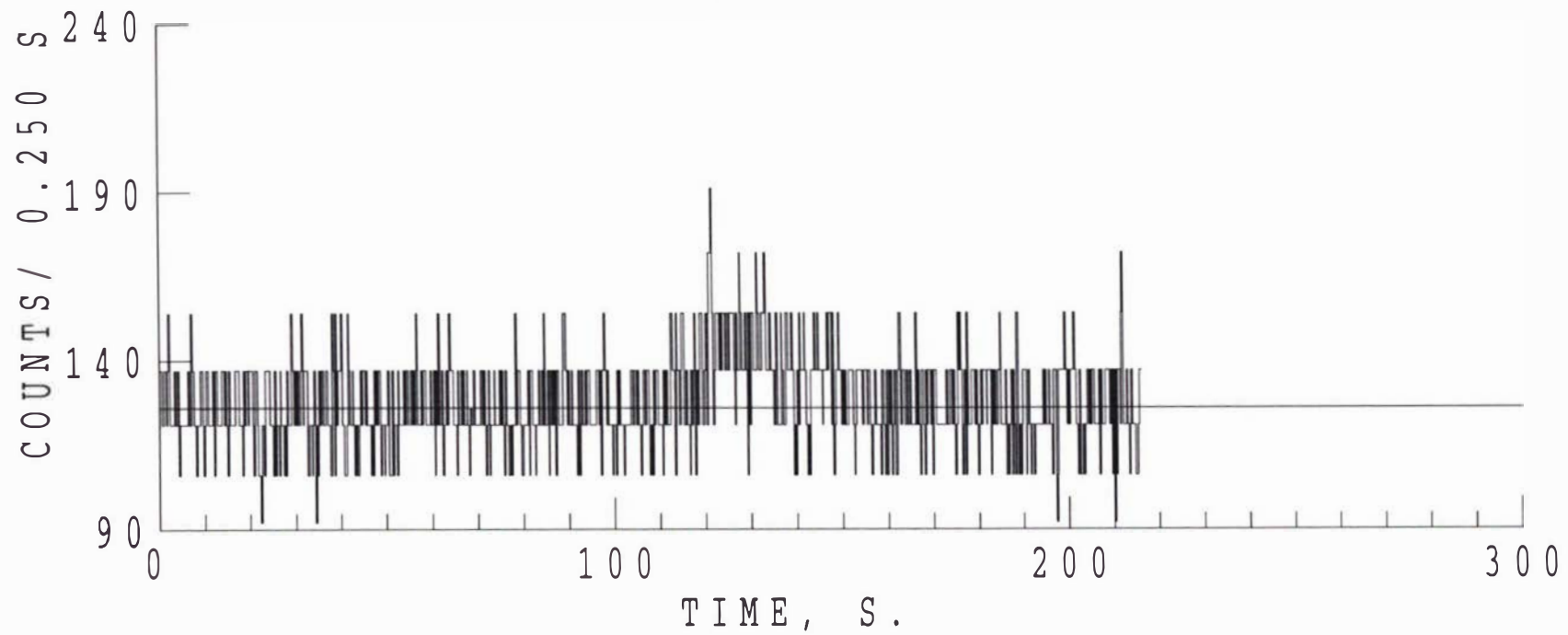
ULYSSES RT

09/08/11

05/12/94 84888.148 s

0 - 0 keV

W= 10 M= 2
>4.0 SIGMA FLUCTUATIONS

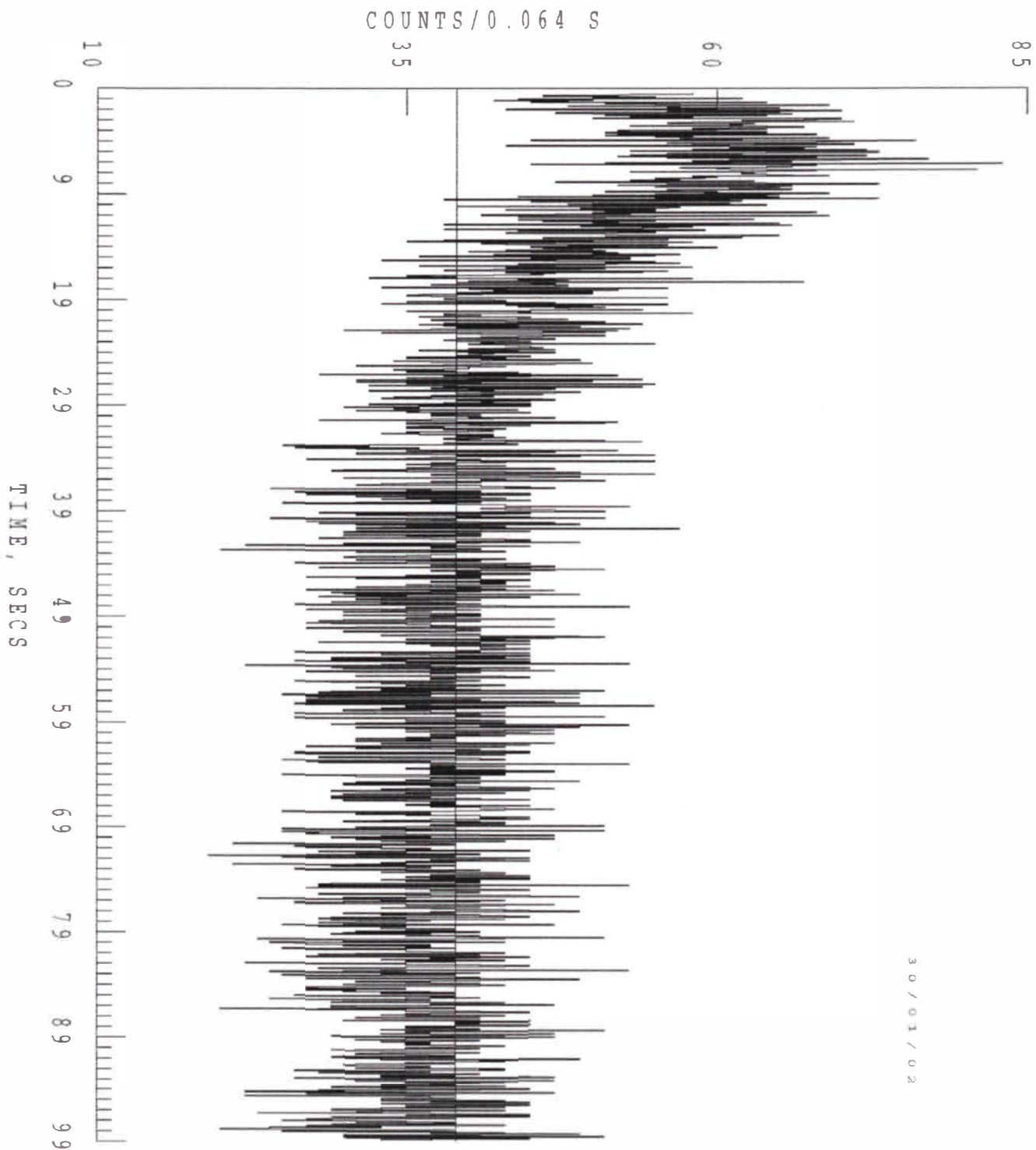


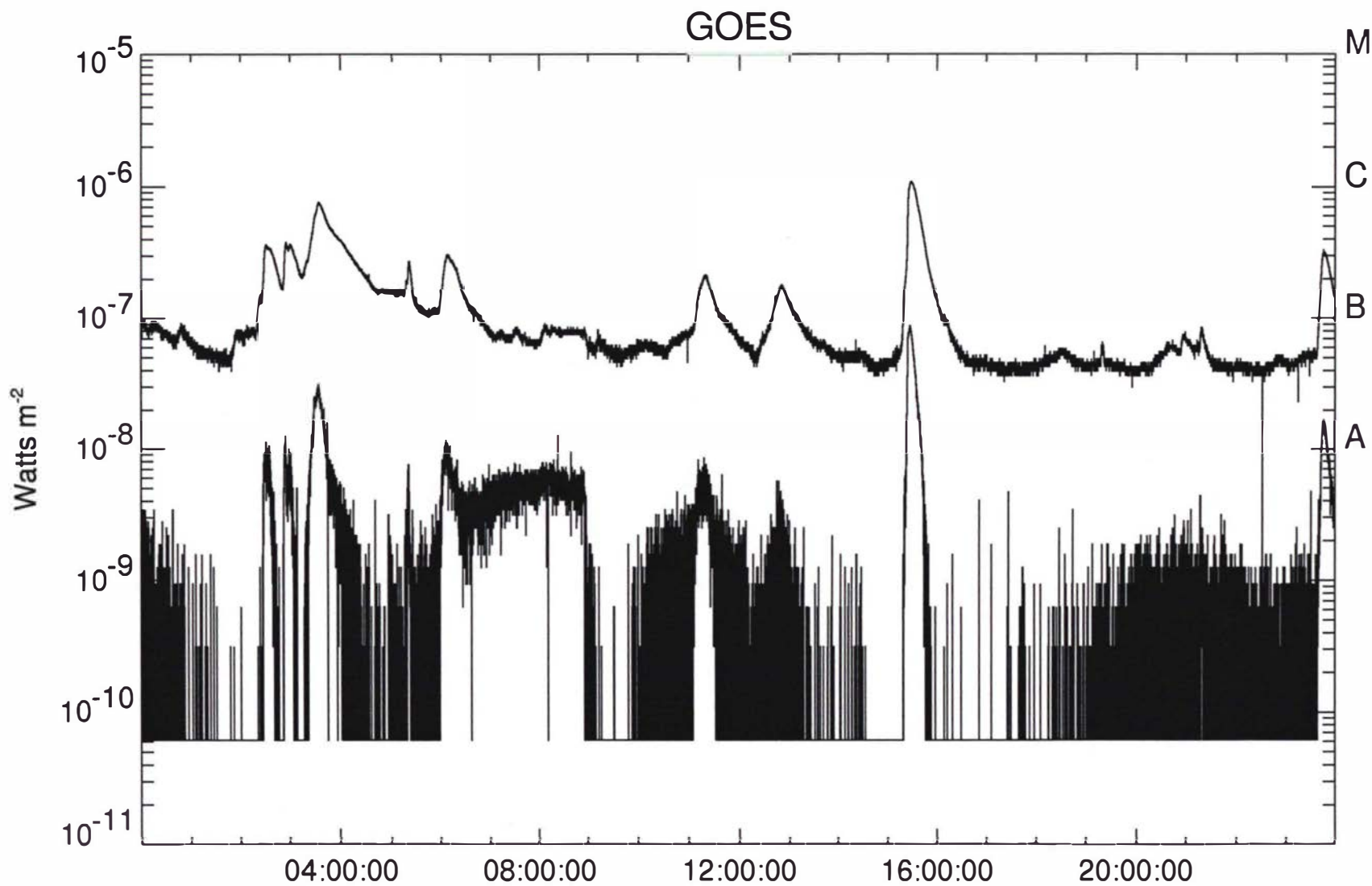
KONUS2

05/12/94

84820.074

50 - 200 keV





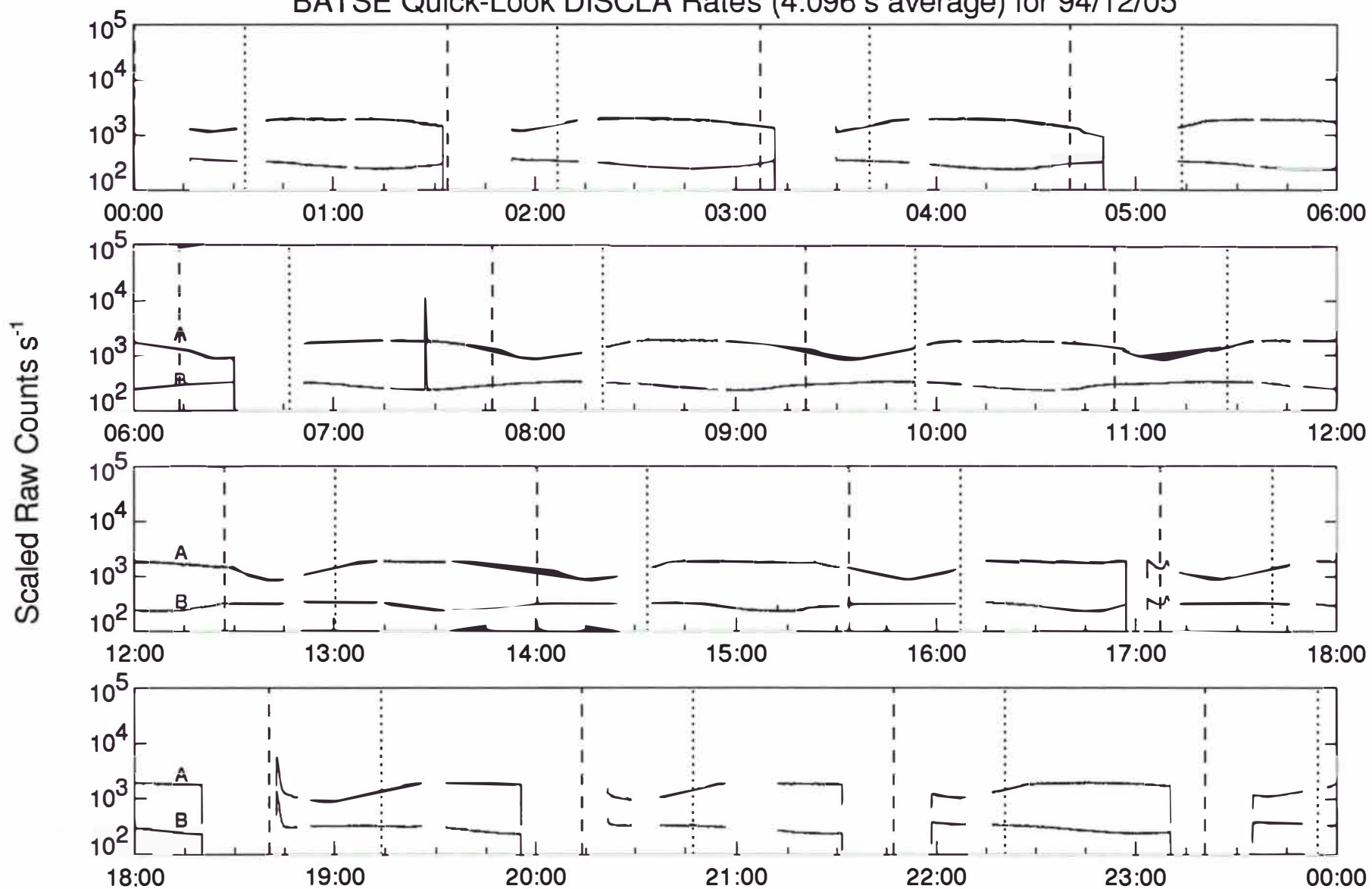
Data Start: 94/12/05, 0000:01

Plot created: 94/12/16, 1818

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 94/12/05



Current Time: 94/12/16, 1819 EDT

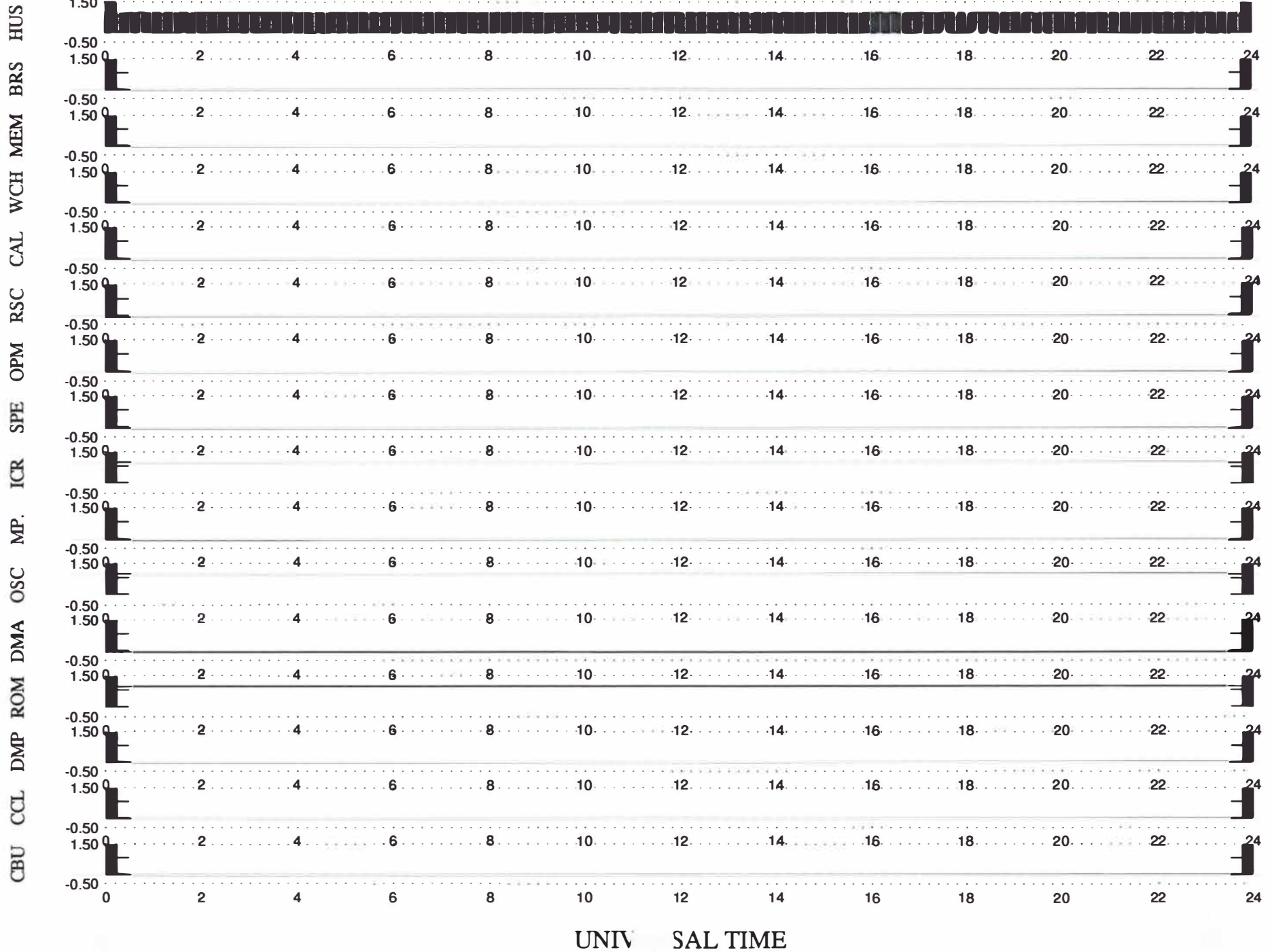
A: Channel 0 Most Sunward LAD

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

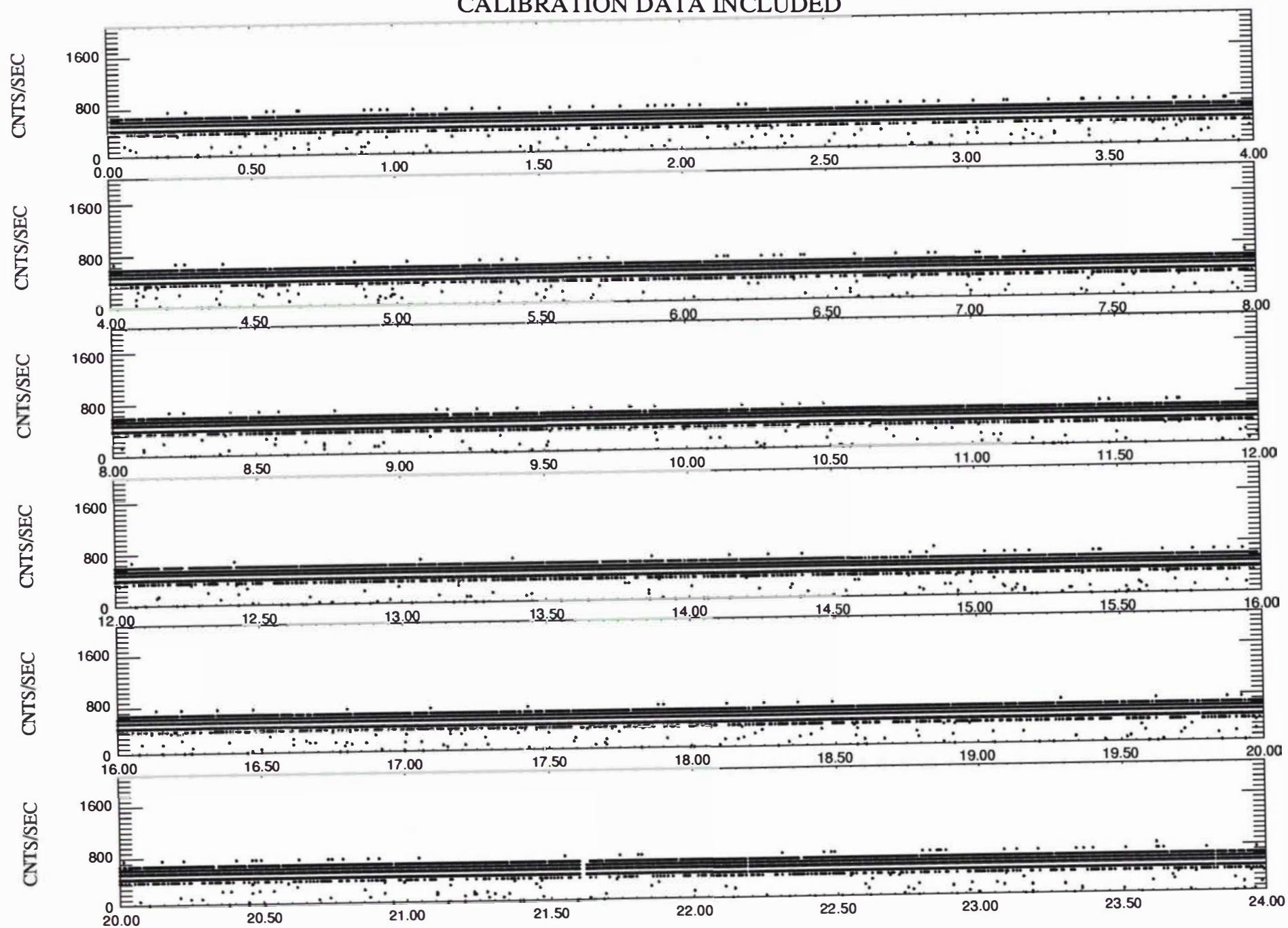
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

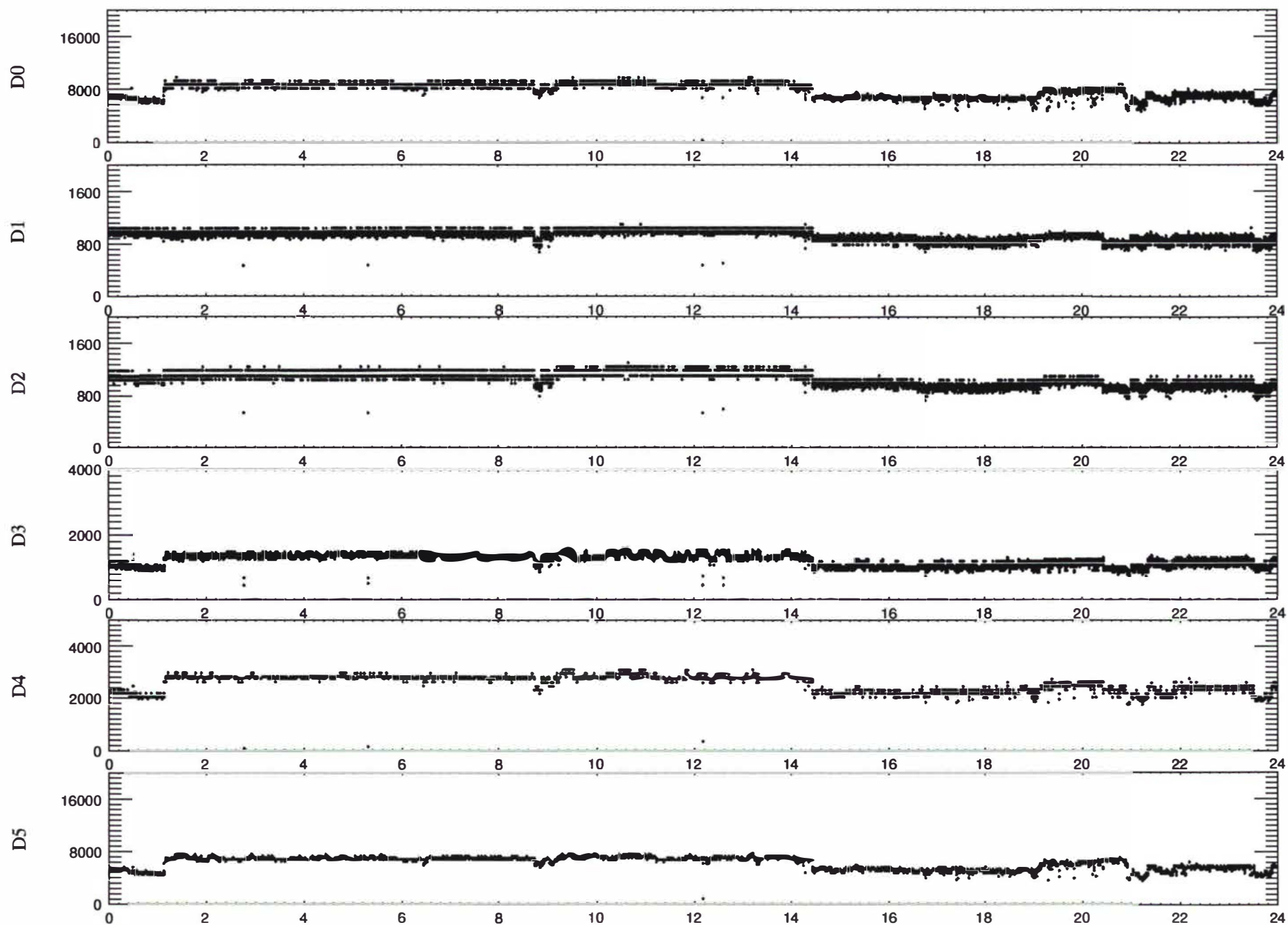
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



UNIV 3AL TIME

From HENZE@fender.msfc.nasa.gov Fri Dec 9 09:54 PST 1994

Date: Fri, 9 Dec 1994 11:44:05 -0600 (CST)

From: HENZE@fender.msfc.nasa.gov

To: burst@comptel.unh.edu, grobad@estec.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.: 03312

TIME: TJD=9693 SECONDS=45834

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.

From HENZE@fender.msfc.nasa.gov Fri Dec 9 12:35 PST 1994

Date: Fri, 9 Dec 1994 14:35:45 -0600 (CST)

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.: 03313

TIME: TJD=9693 SECONDS=58133

TYPE: TGF

SOLAR FLARE TRIGGER SIGNAL:N

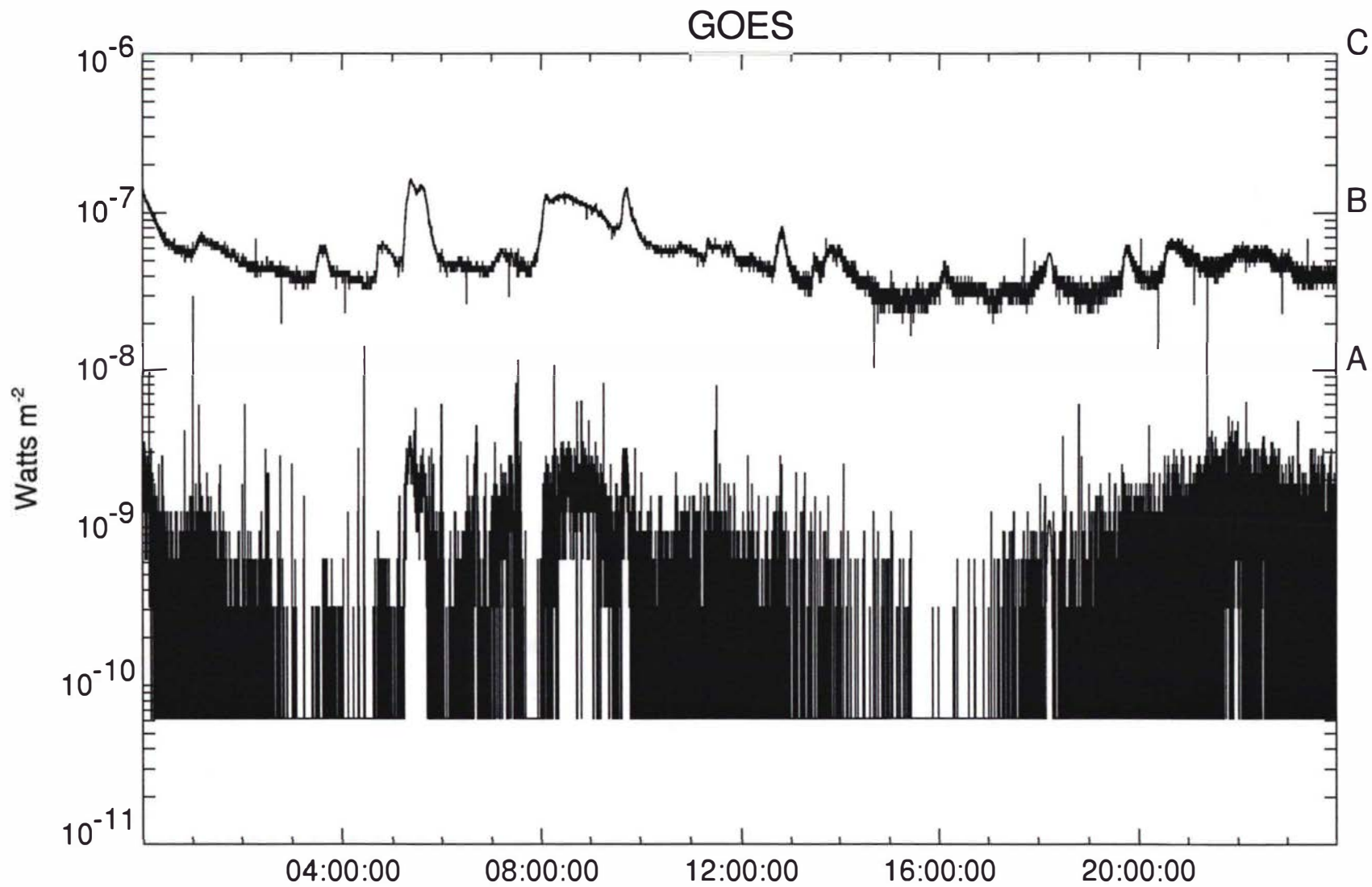
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=073.0 AZIMUTH=002.0 ERROR= DEGREES

COMMENTS:

TERRESTRIAL GAMMA-RAY FLASH. DUR. ~1 MS.



Data Start: 94/12/06, 0000:02

Plot created: 94/12/16, 1824

Channel

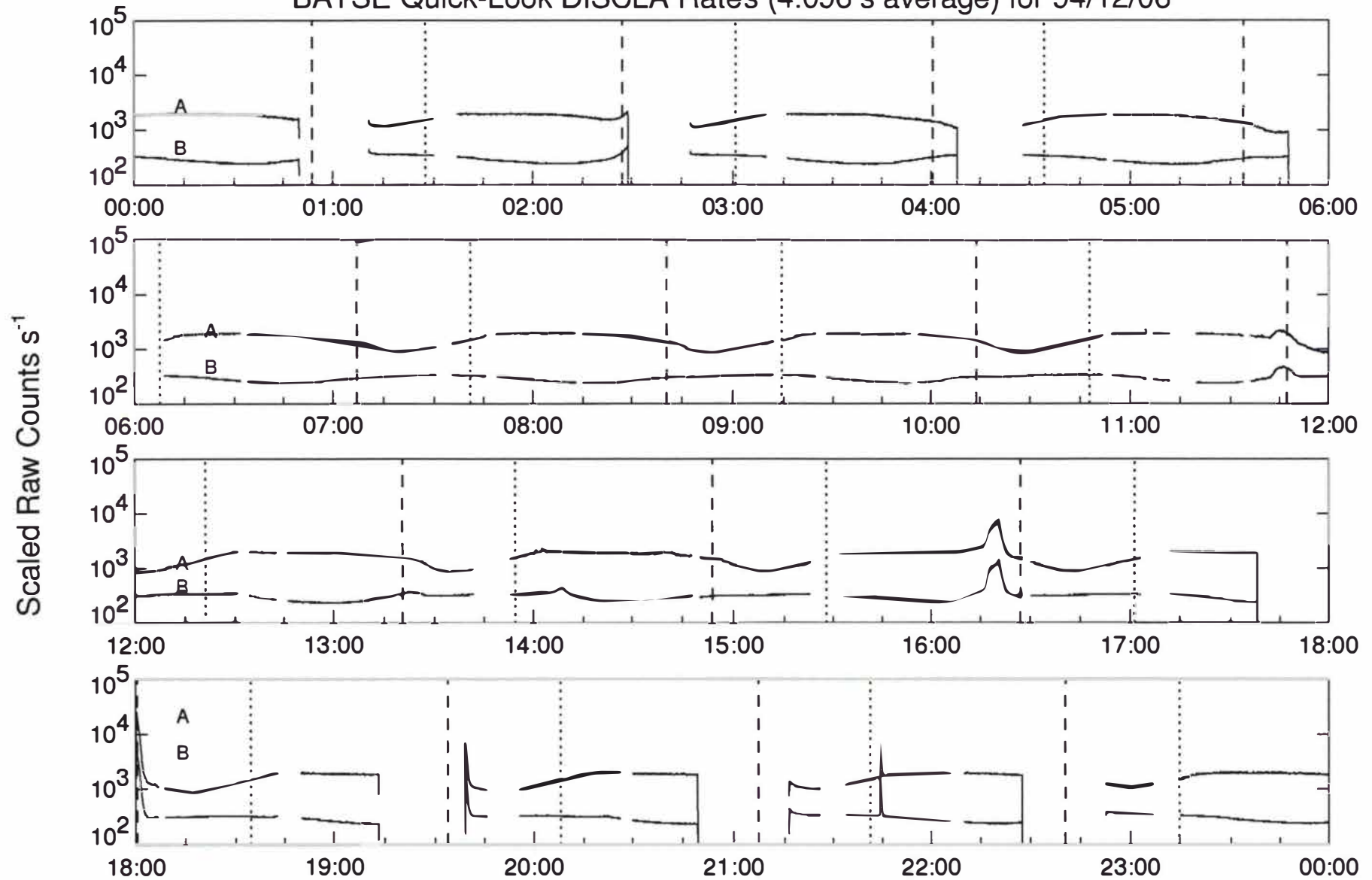
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/06

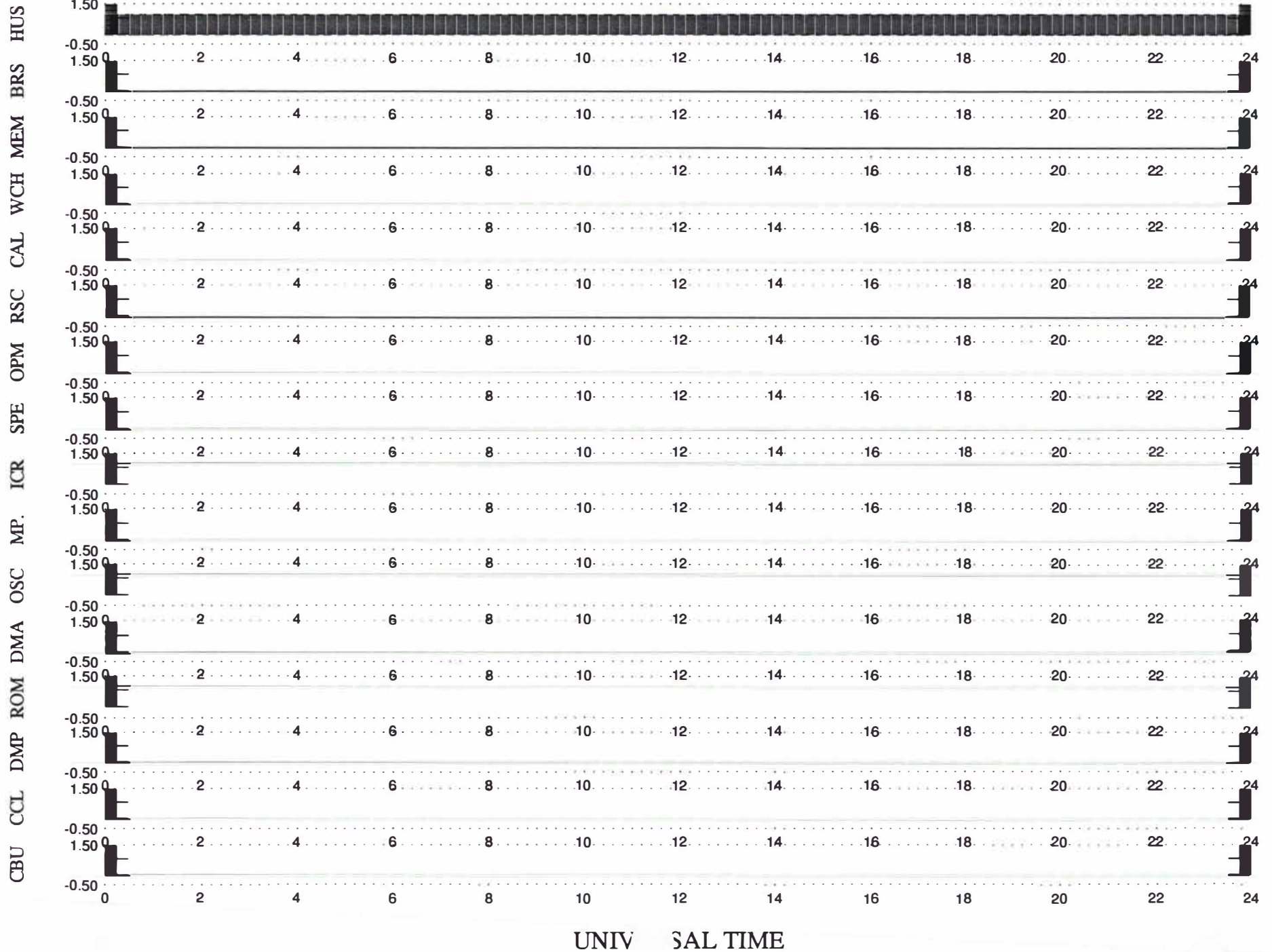


Current Time: 94/12/16, 1824 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

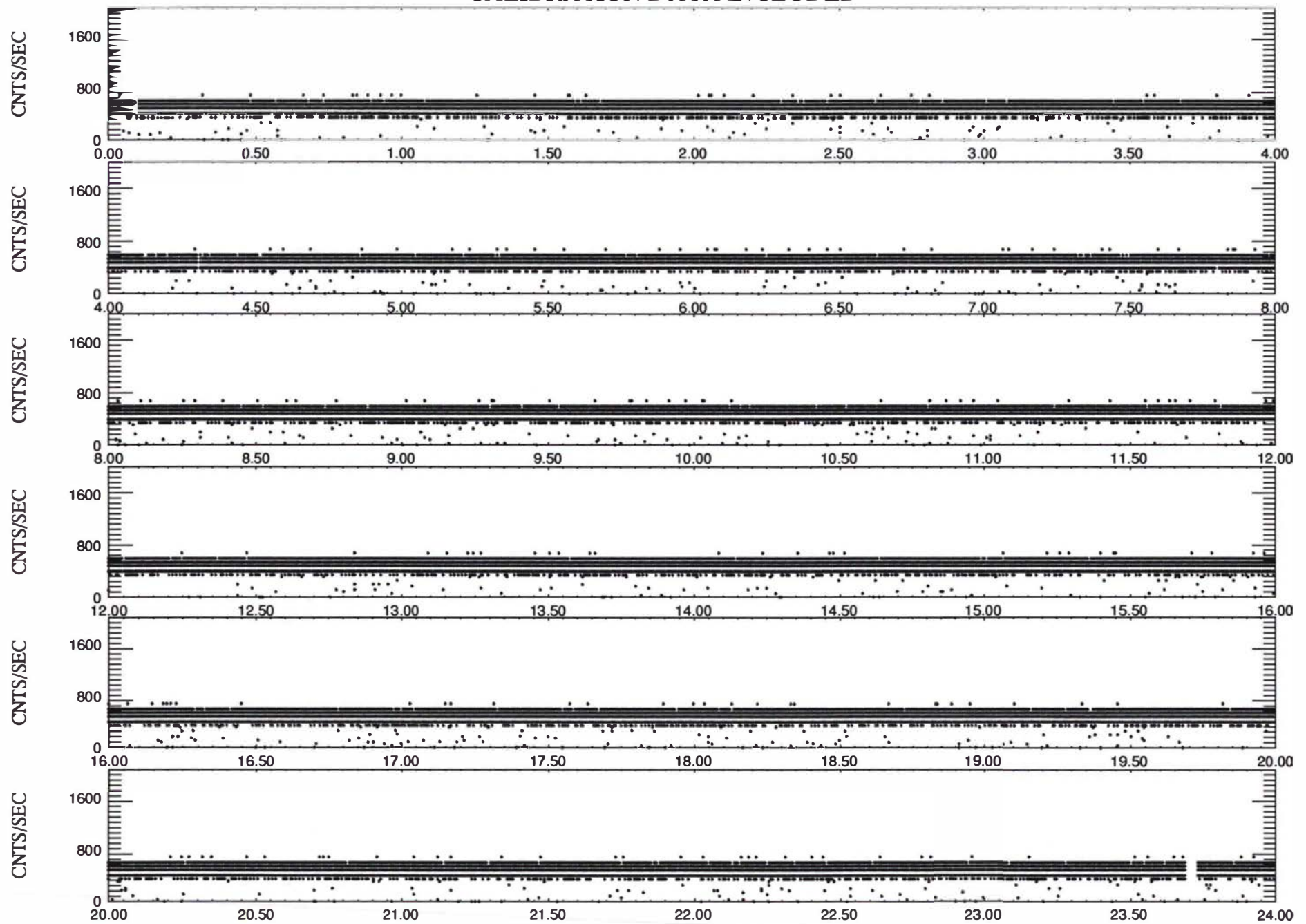
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

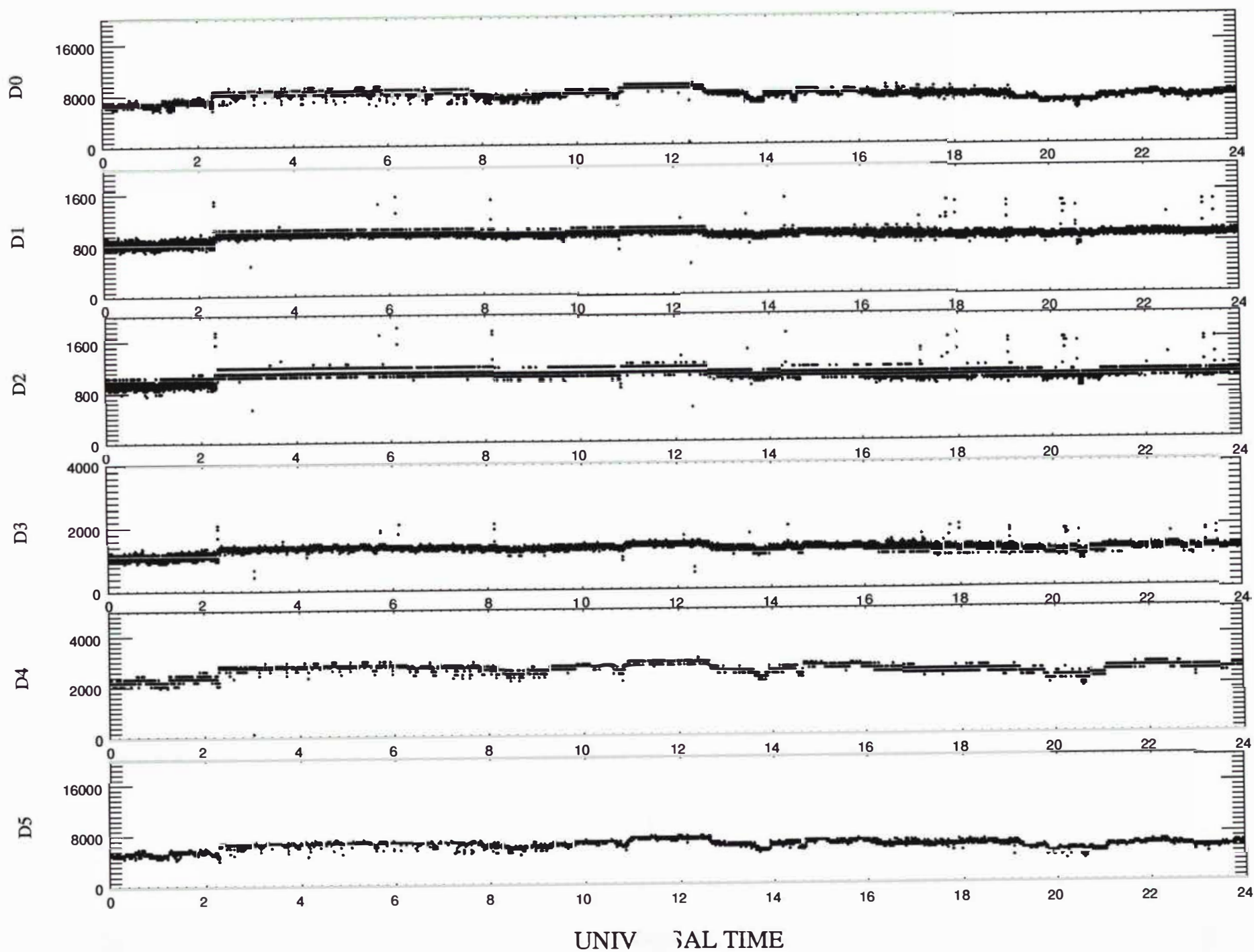
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From MALLOZZI@ssl.msfc.nasa.gov Fri Dec 9 13:13 PST 1994
Date: Fri, 9 Dec 1994 15:04:42 -0600 (CST)
From: "ROBERT S. MALLOZZI 205-544-6257" <MALLOZZI@ssl.msfc.nasa.gov>
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03314

TIME: TJD=9694 SECONDS=47312

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=081.8 AZIMUTH=253.8 ERROR= DEGREES

COMMENTS:

TERRESTRIAL GAMMA FLASH. APPROXIMATELY 1 MS DURATION. EXTREMELY
HARD SPECTRUM.

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

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

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

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

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

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

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

1 3 / 2 / 9 5

U L Y S S E S R T

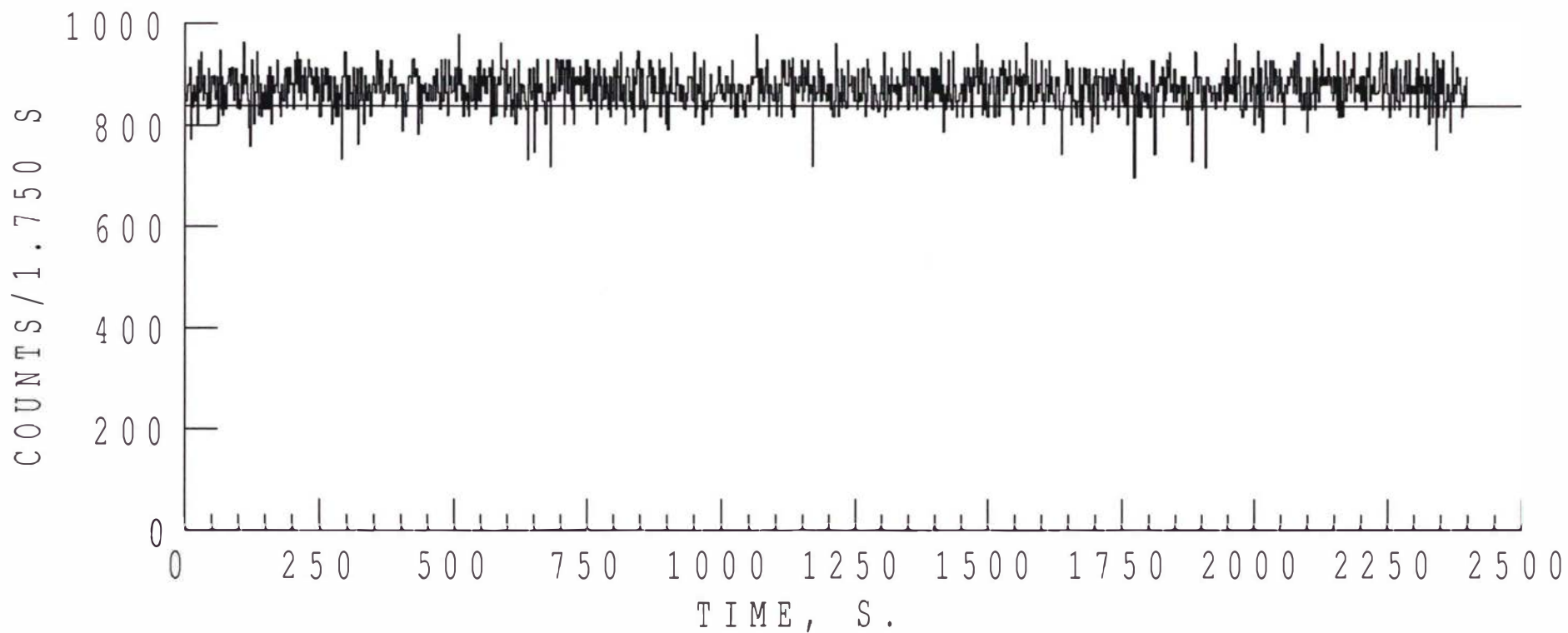
7 / 1 2 / 9 4 7 8 6 2 4 . 1 7 2 s

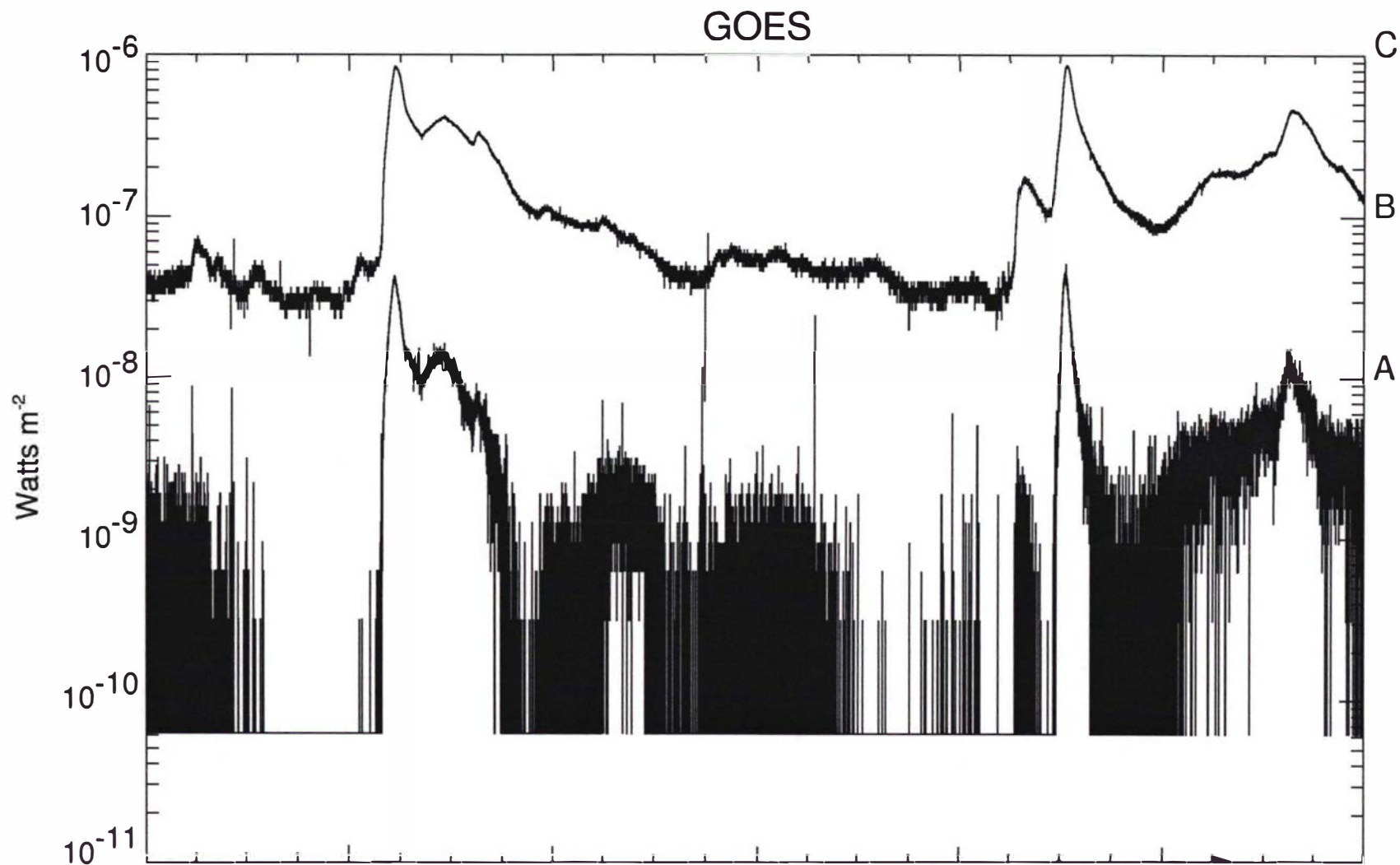
0 . 2 5 0 S I N T E R V A L S R E G R O U P E D B Y 7

0 - 0 k e V

N = 10 M = 2

> 4.0 SIGMA FLUCTUATIONS





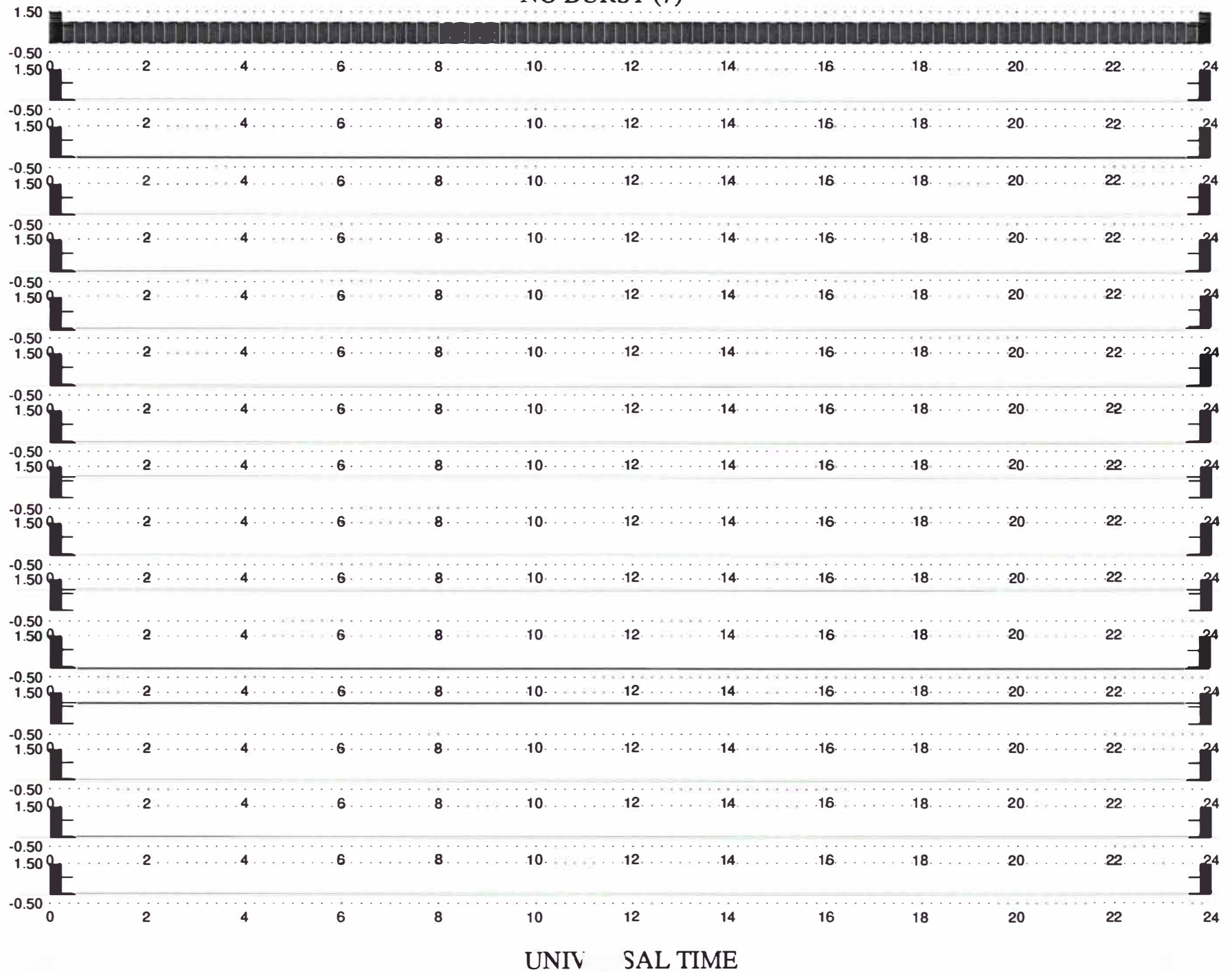
Data Start: 94/12/07, 0000:00

Plot created: 94/12/16, 1837

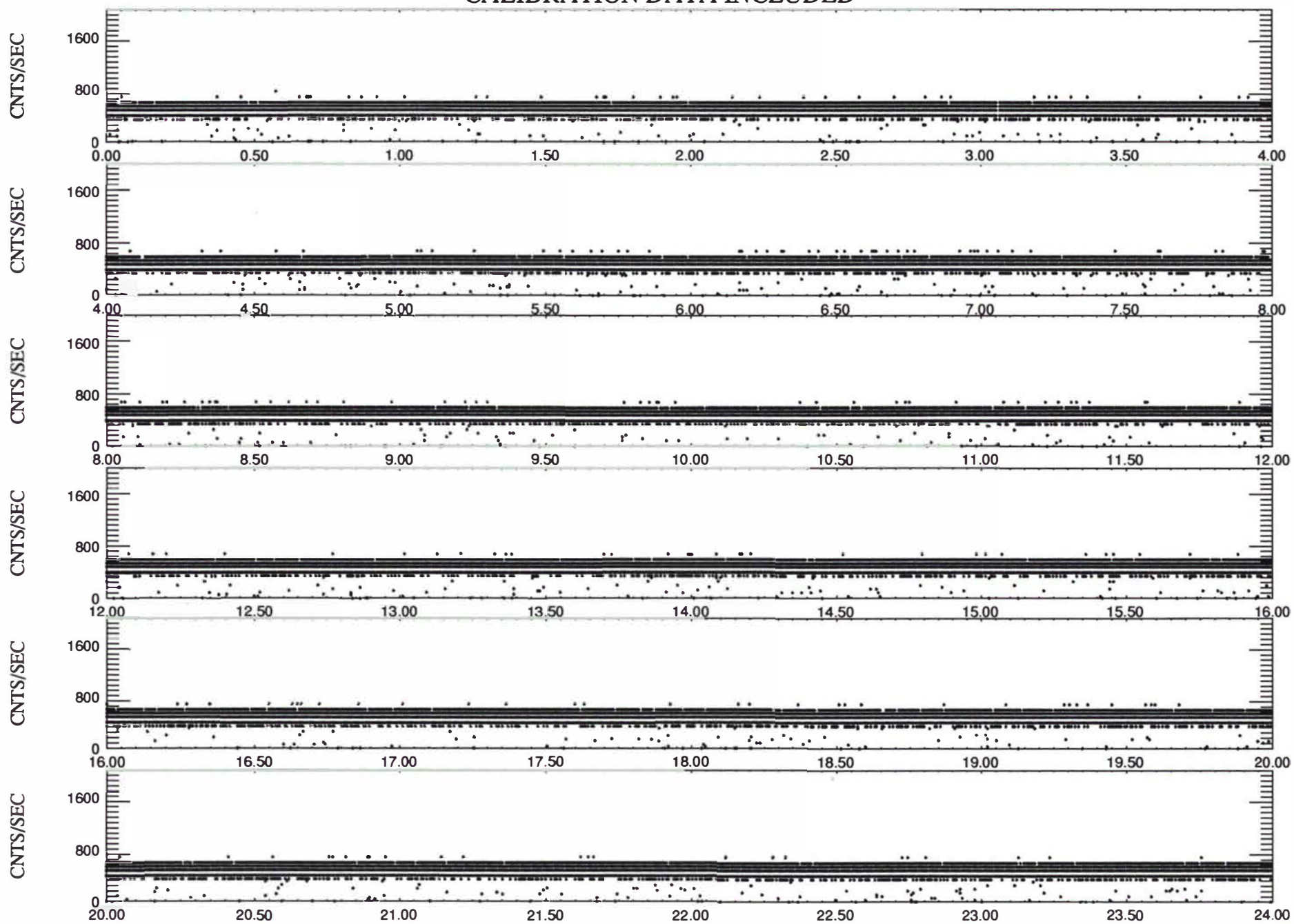
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

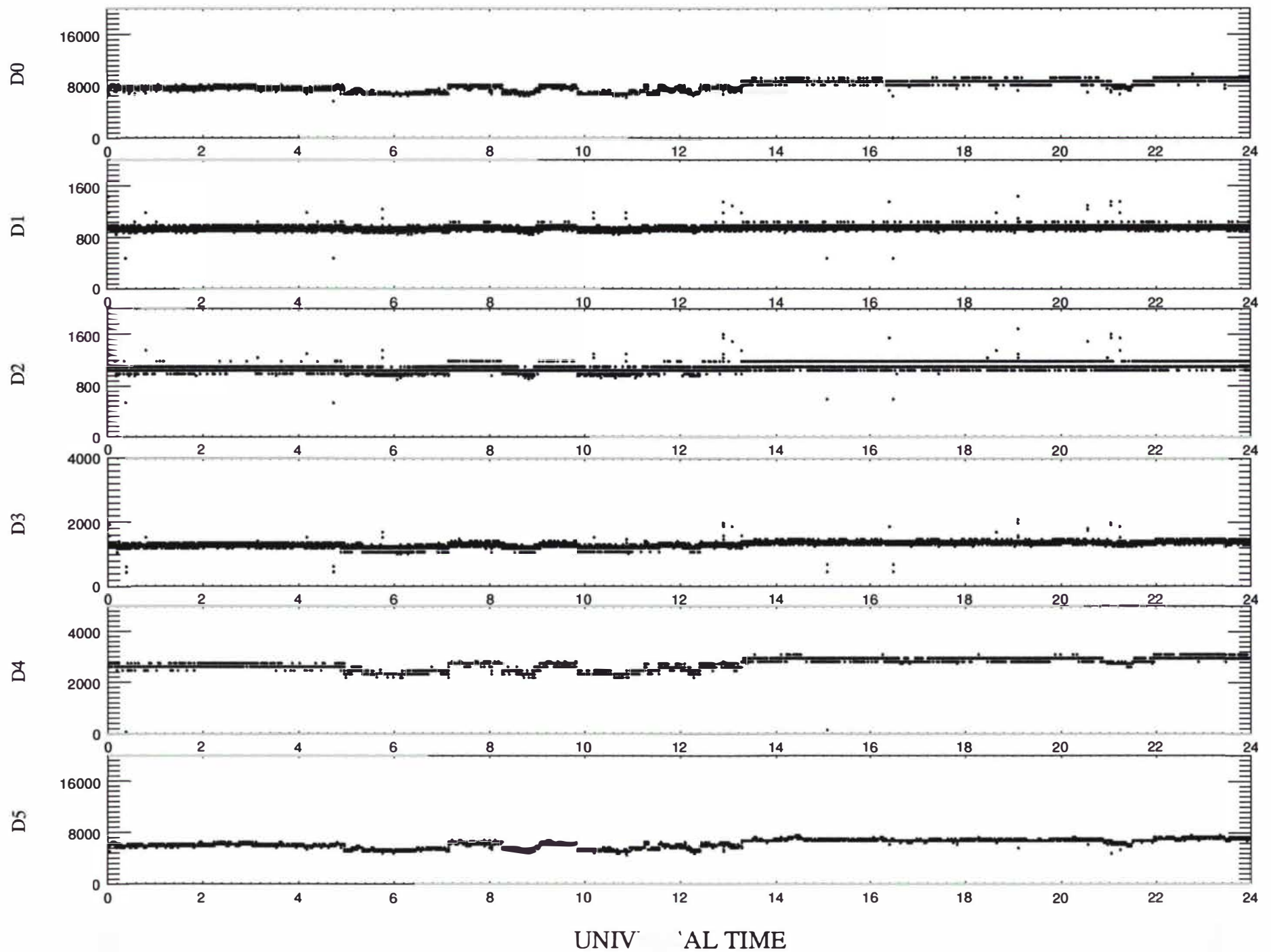
CBU CCL DMP ROM DMA OSC MP, ICR SPE OPM RSC CAL WCH MEM BRS HUS

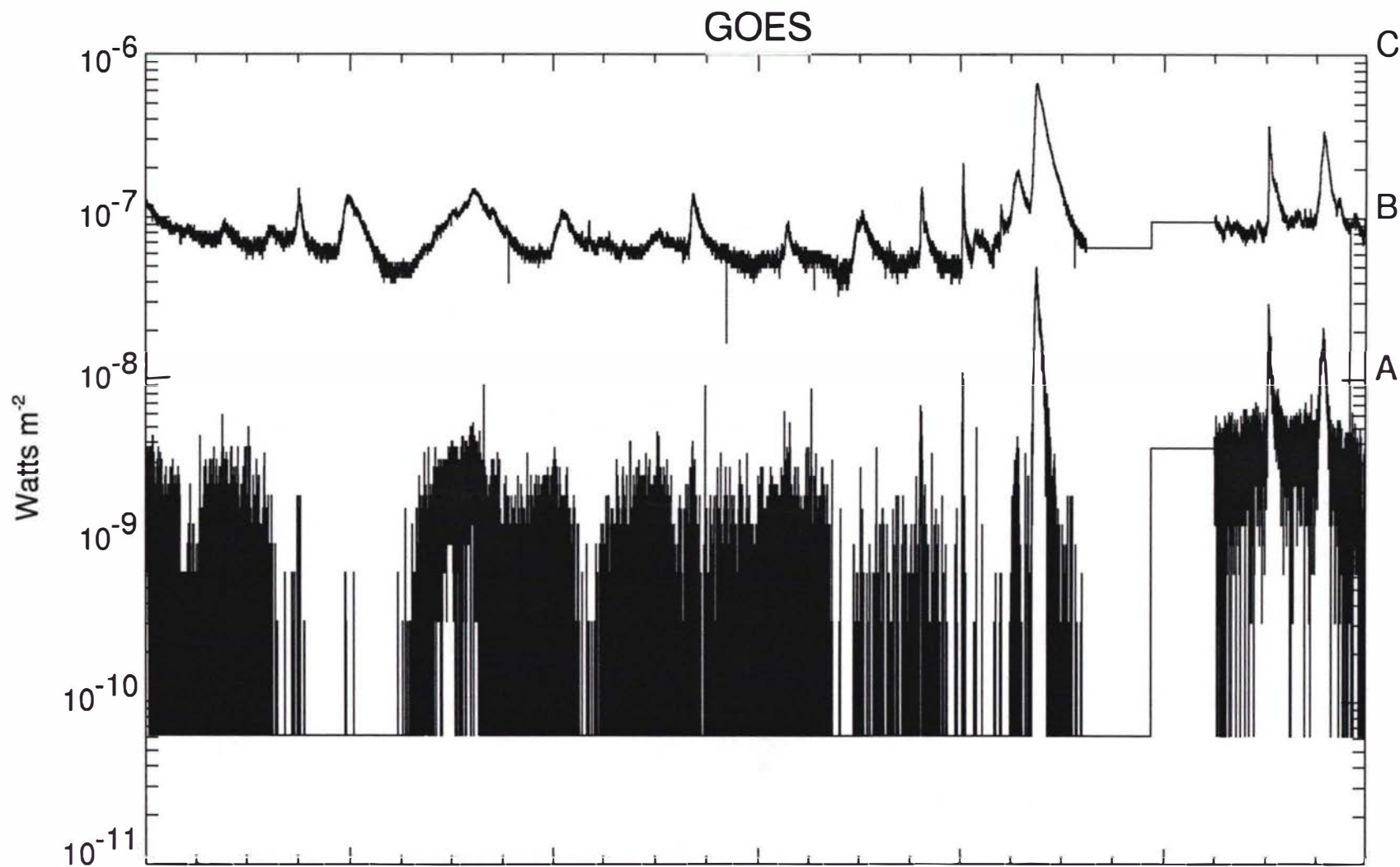


CALIBRATION DATA INCLUDED



UNIV SAL TIME





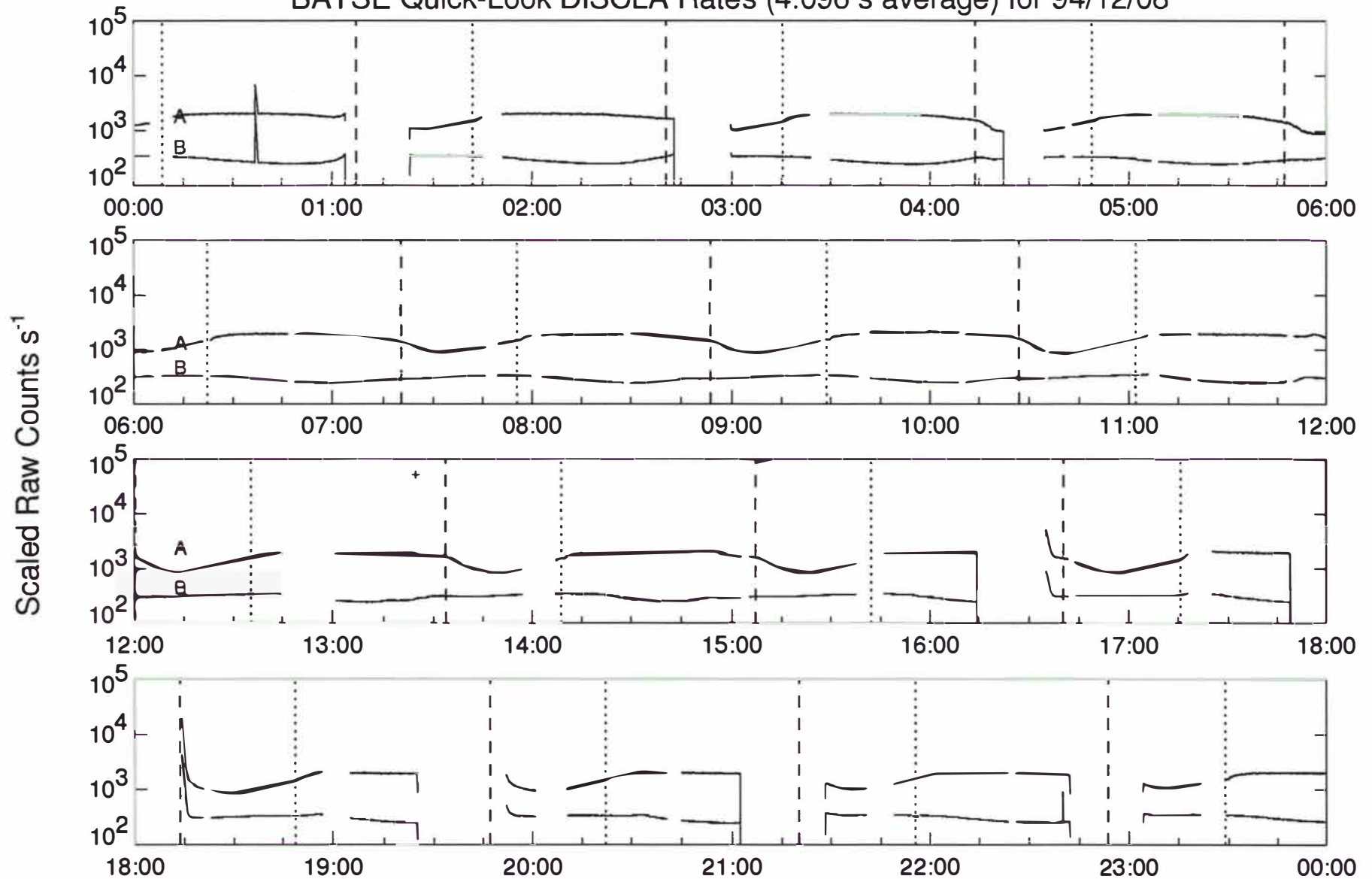
Data Start: 94/12/08, 0000:01

Plot created: 94/12/16, 1833

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 94/12/08

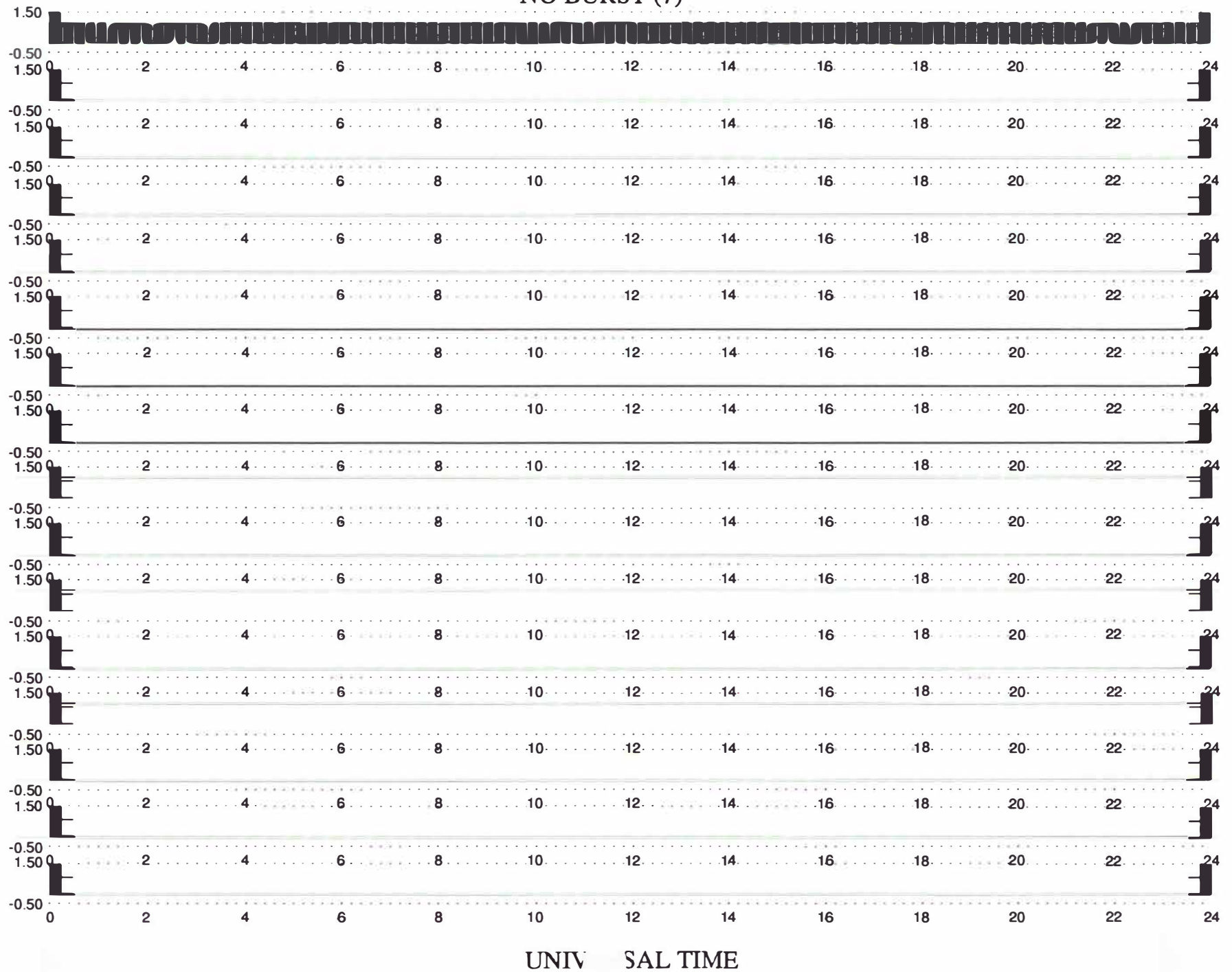


Current Time: 94/12/16, 1833 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

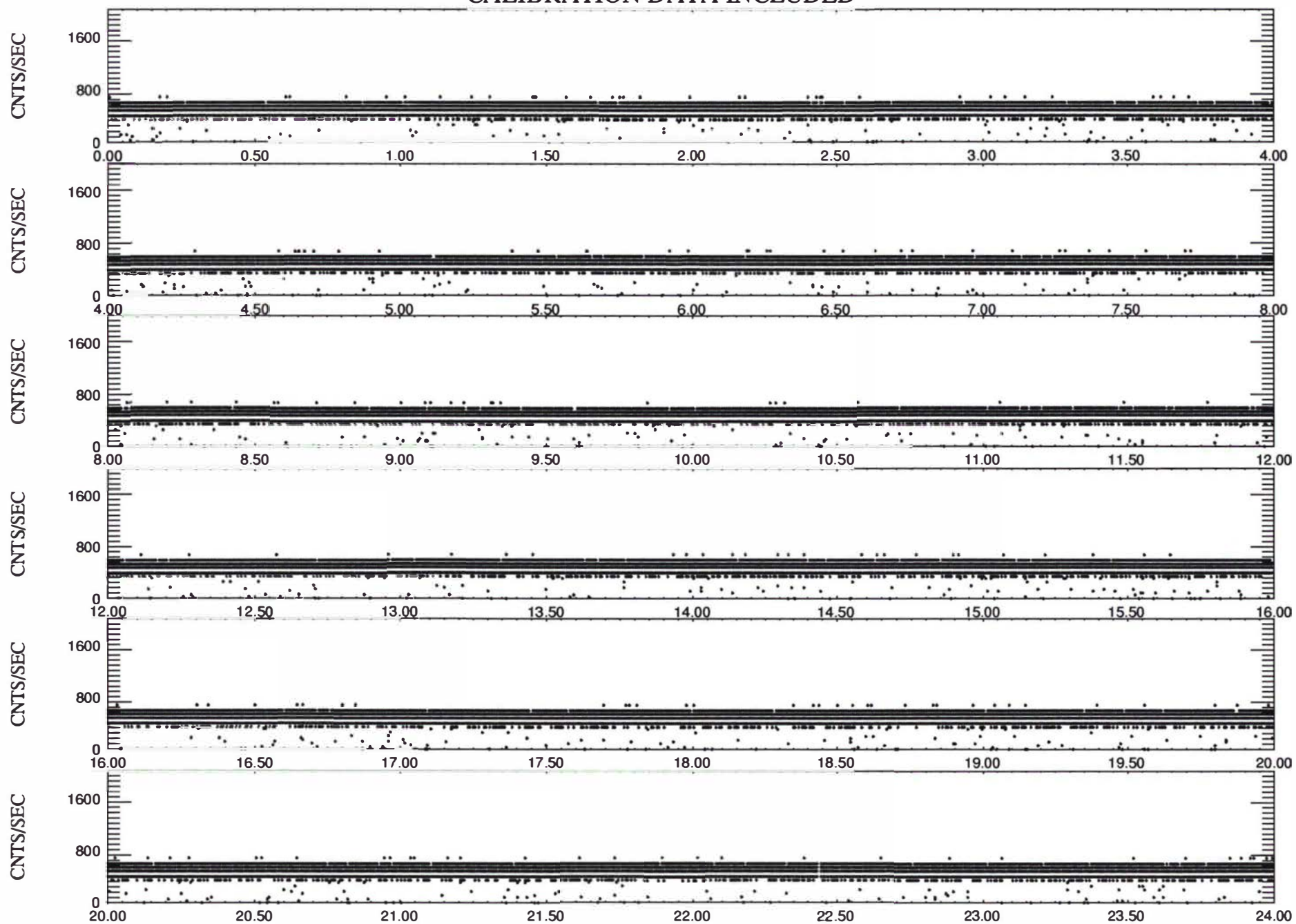
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

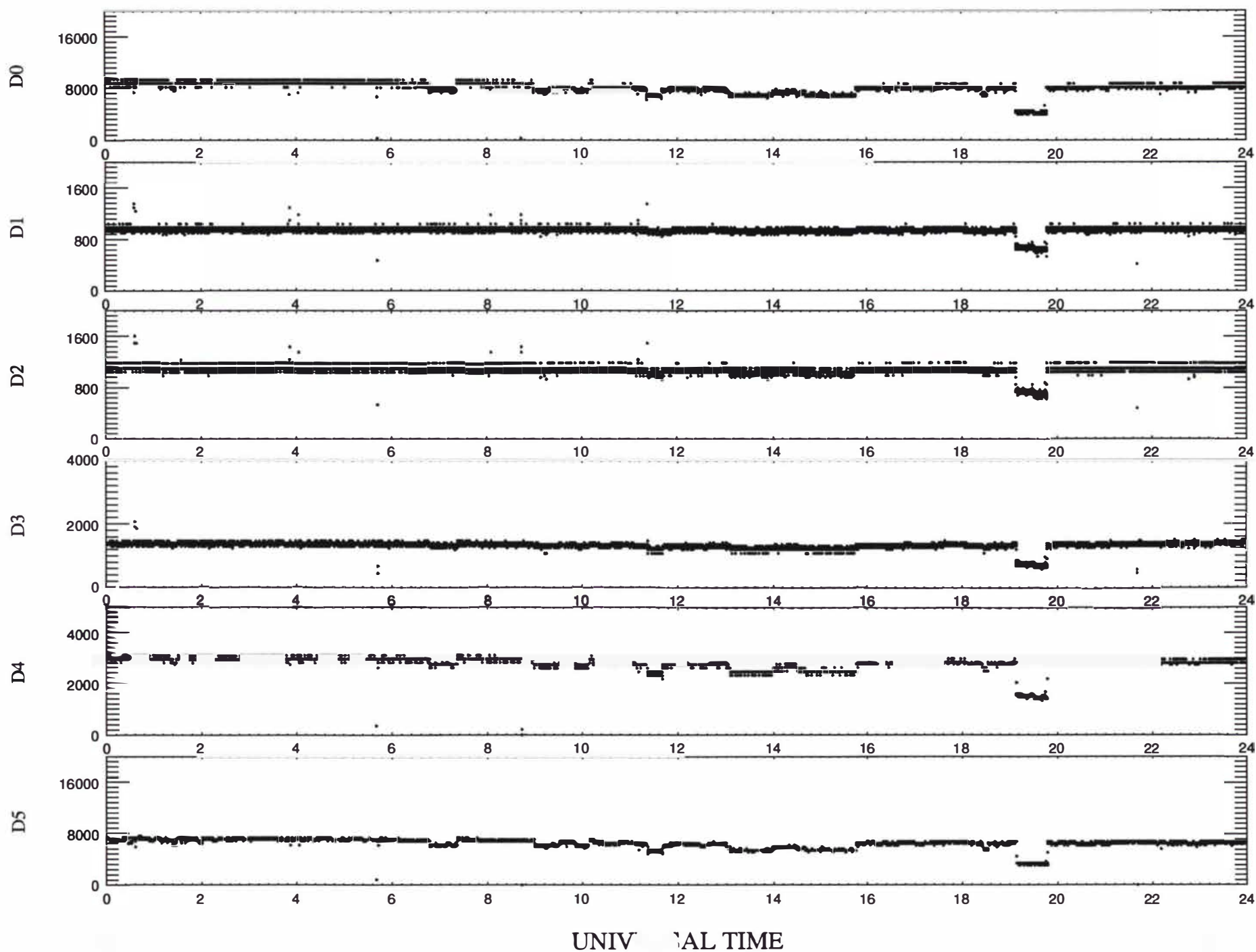
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

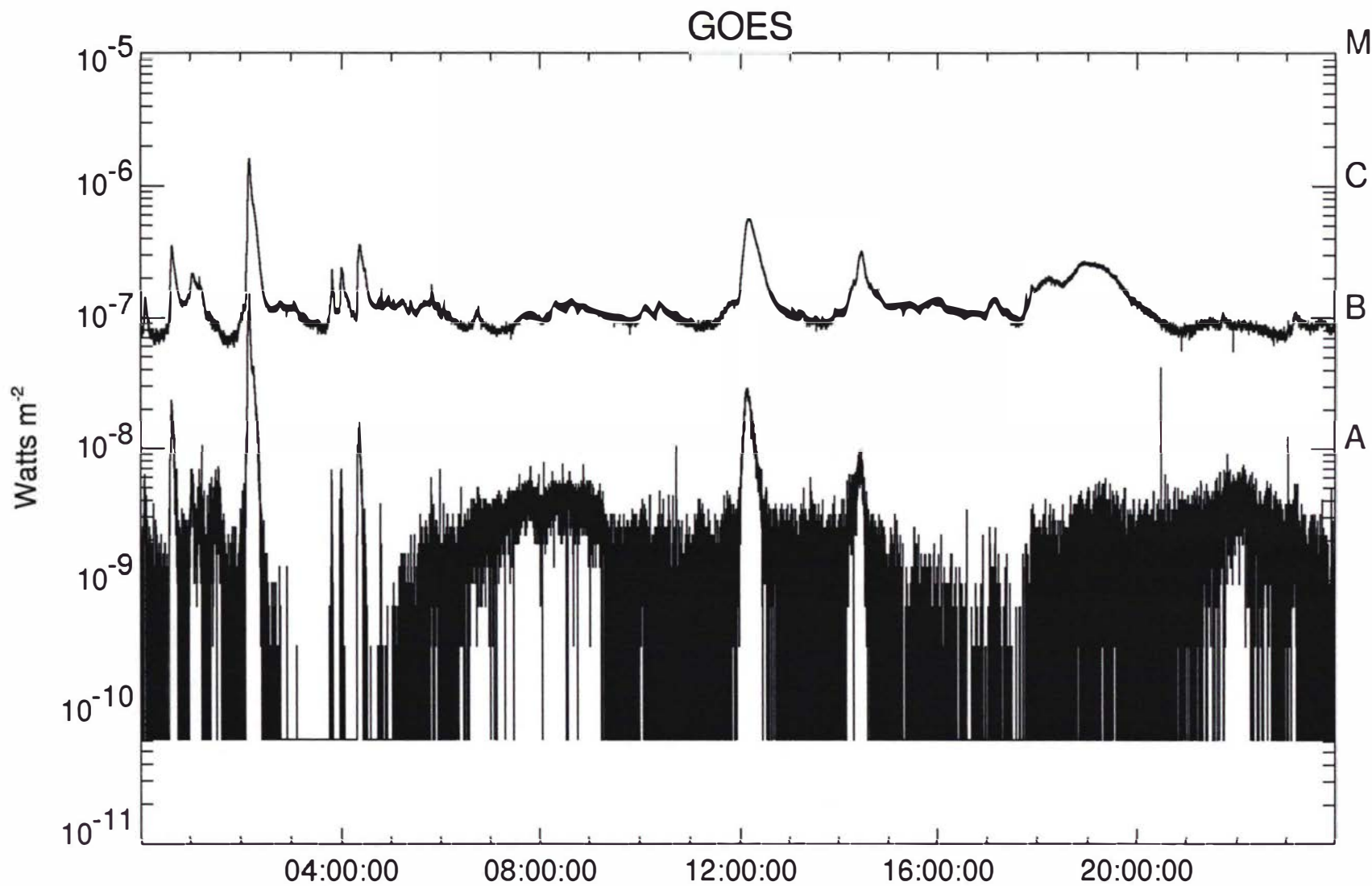


CALIBRATION DATA INCLUDED



UNIV SAL TIME





Data Start: 94/12/09, 0000:02

Plot created: 94/12/16, 1848

Channel

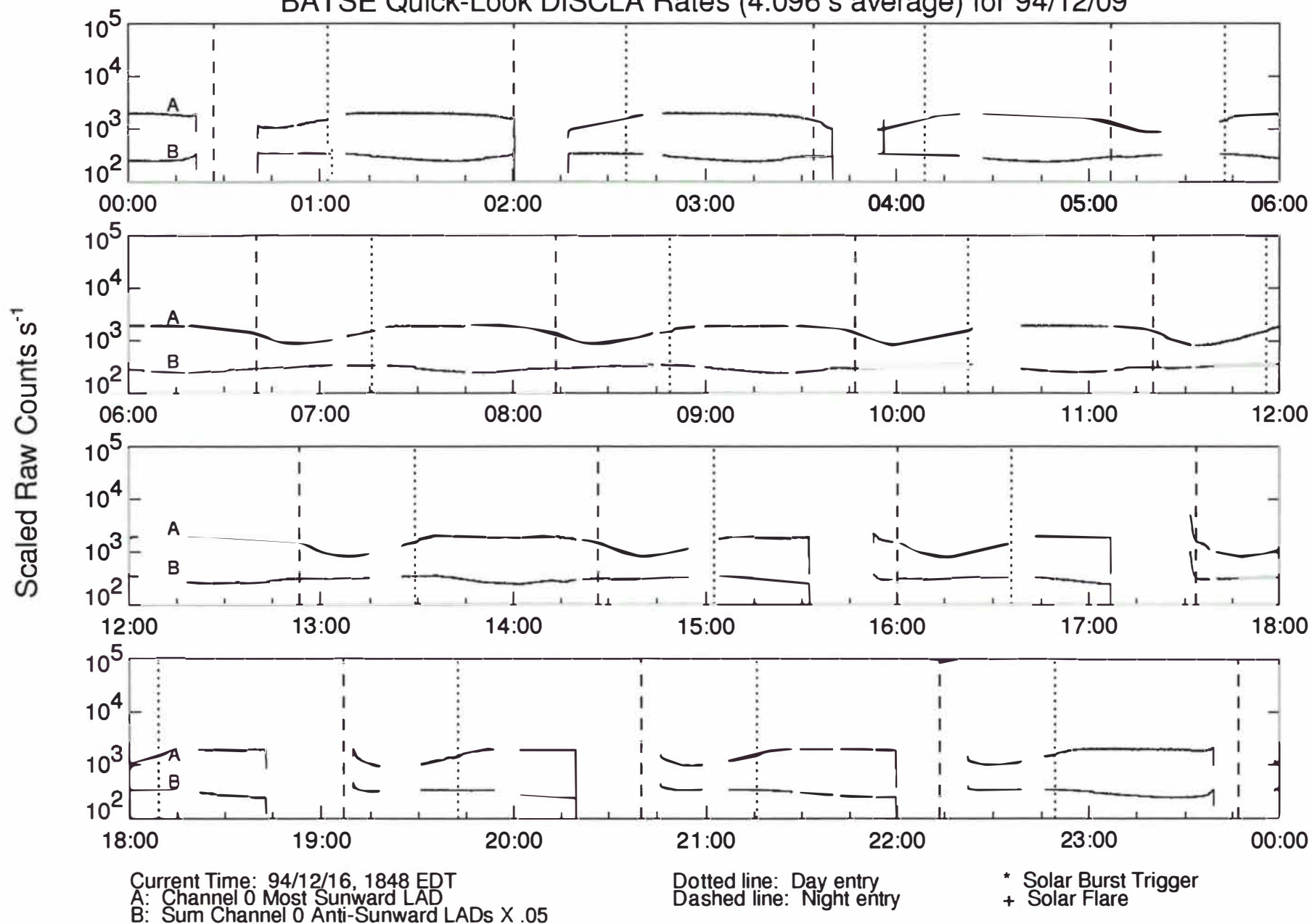
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/09



From DEAL@ssl.msfc.nasa.gov Mon Dec 12 06:22 PST 1994
Date: Mon, 12 Dec 1994 8:22:48 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03315

TIME: TJD=9695 SECONDS=36824

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=100.0 AZIMUTH=356.7 ERROR= DEGREES

COMMENTS:

TGF. LASTING ~ 2.5 MS.

From DEAL@ssl.msfc.nasa.gov Mon Dec 12 09:21 PST 1994
Date: Mon, 12 Dec 1994 11:21:21 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3316

TIME: TJD=9695 SECONDS=55933

TYPE: SAA ENT SOLAR FLARE TRIGGER SIGNAL:N

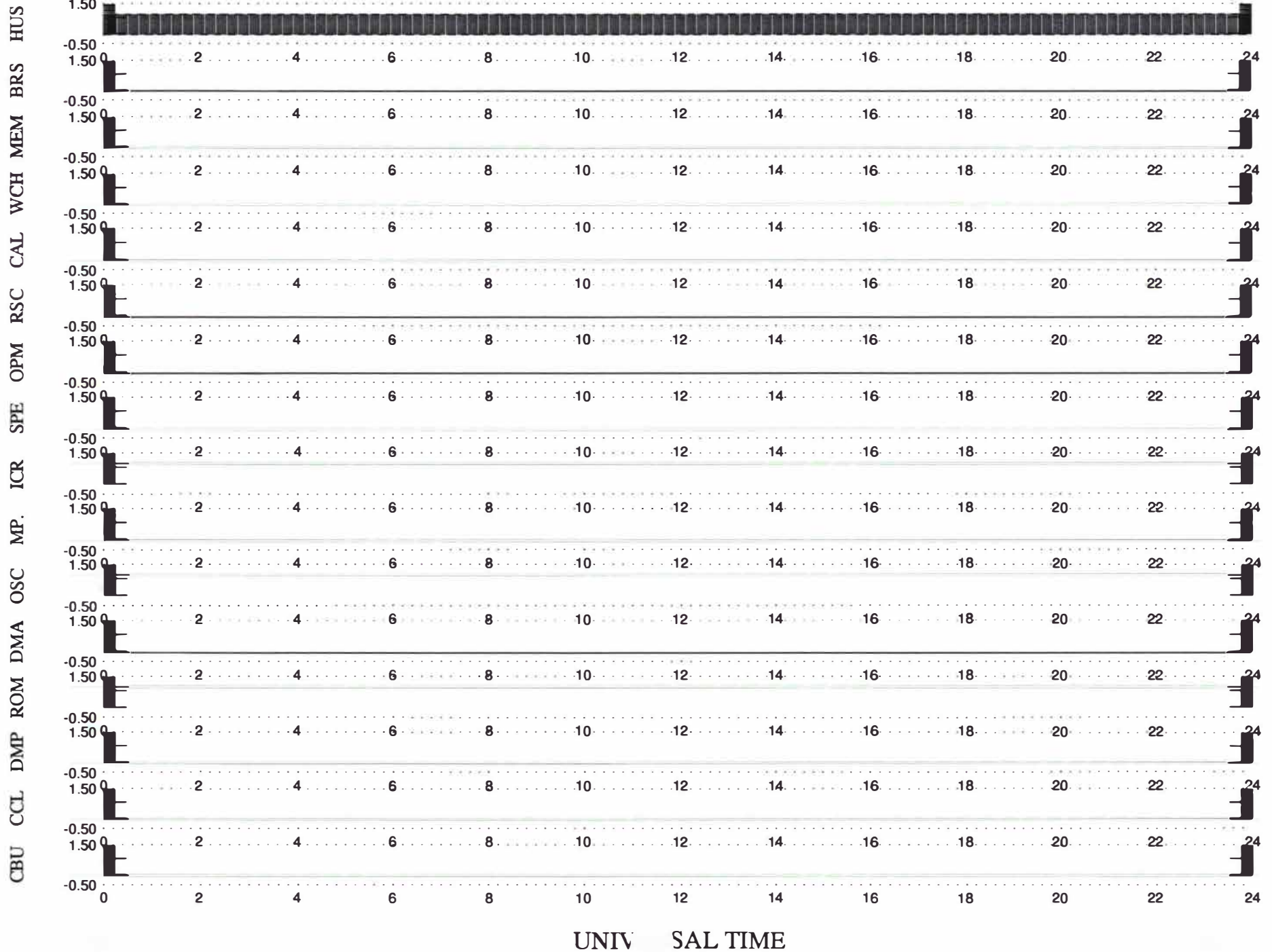
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

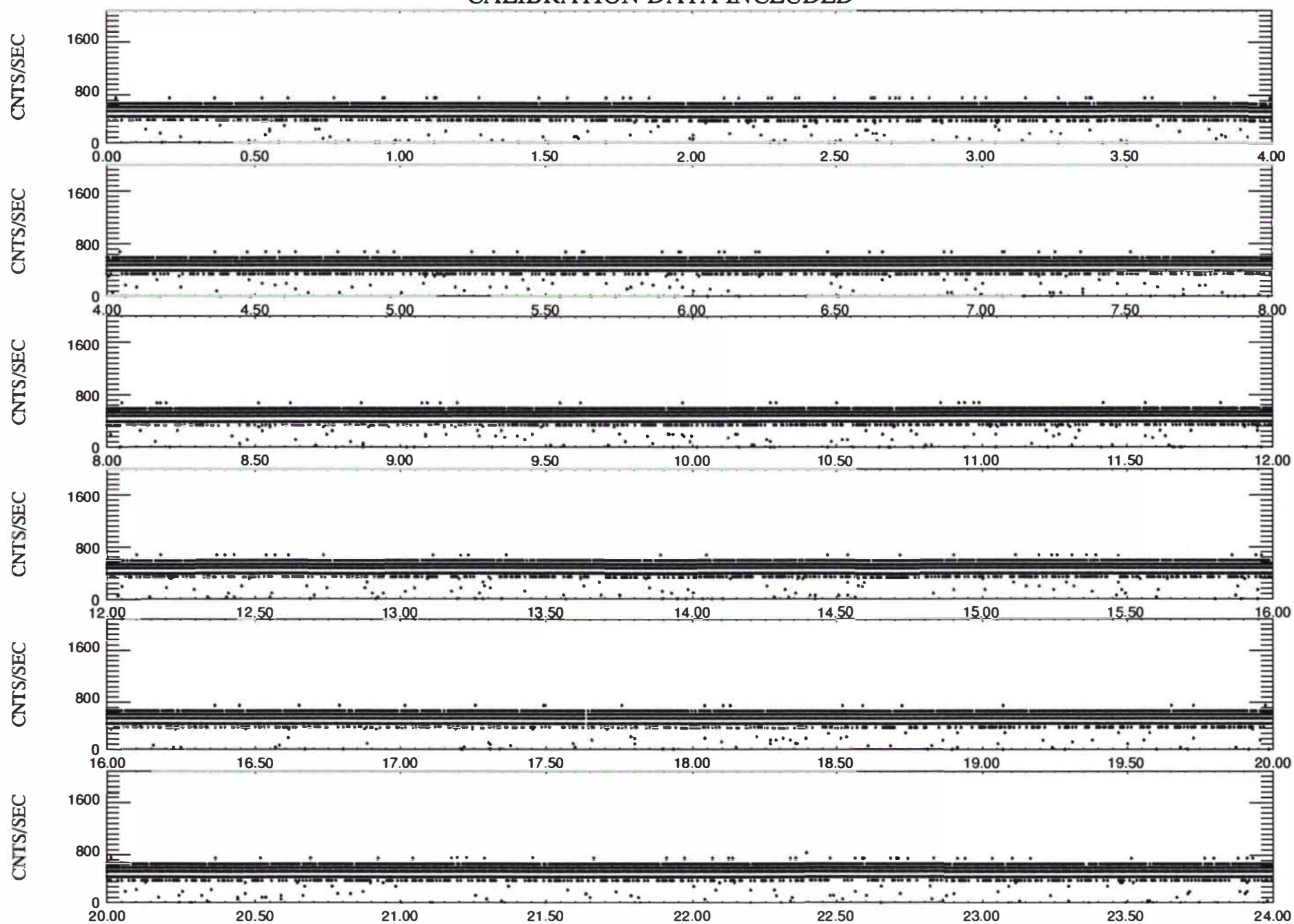
LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.

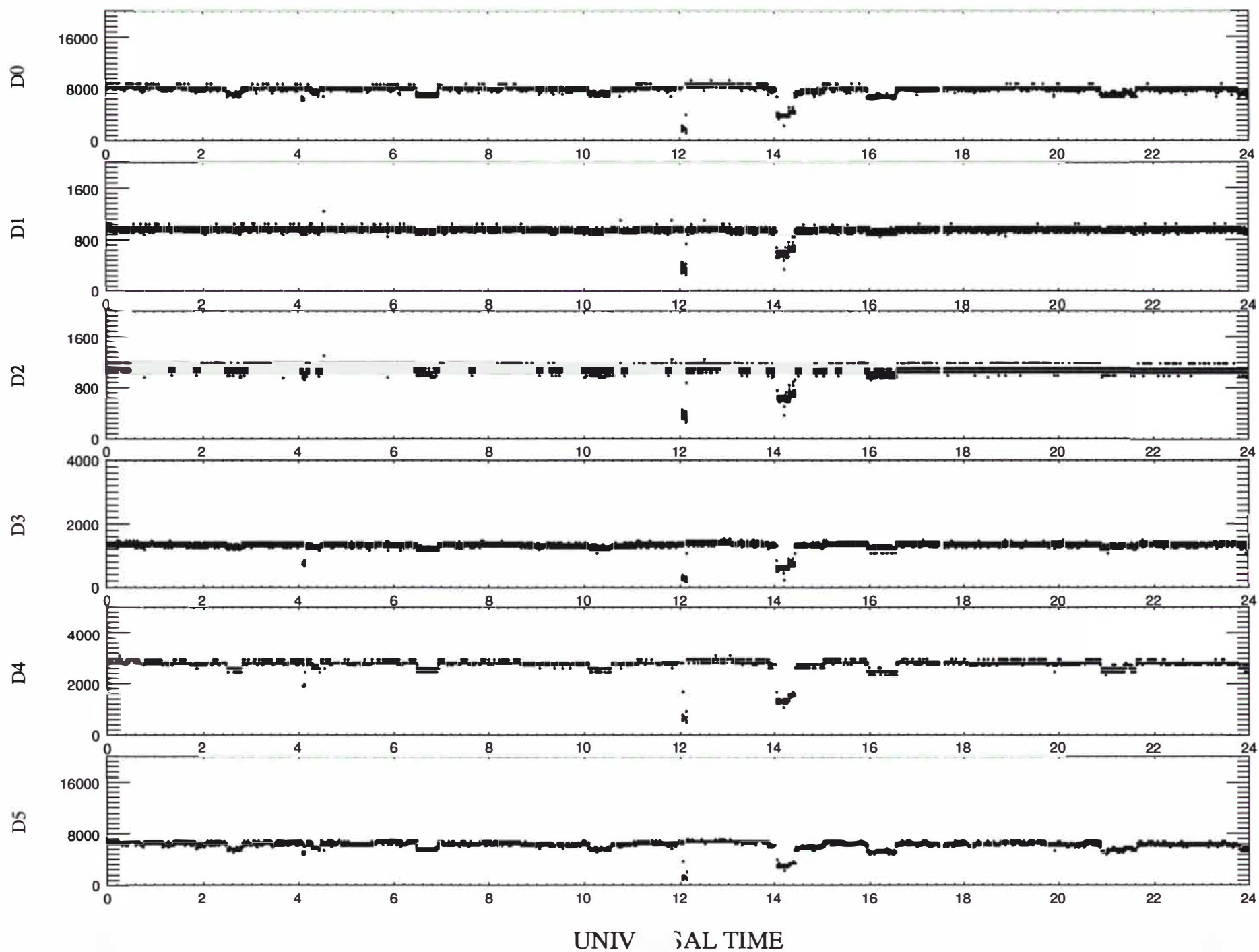
NO BURST (7)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From RICHARDSON@ssl.msfc.nasa.gov Mon Dec 12 09:29 PST 1994
Date: Mon, 12 Dec 1994 11:29:51 -0600 (CST)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3317

TIME: TJD=9696 SECONDS=60592

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA EXIT

Date: Aug 10 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

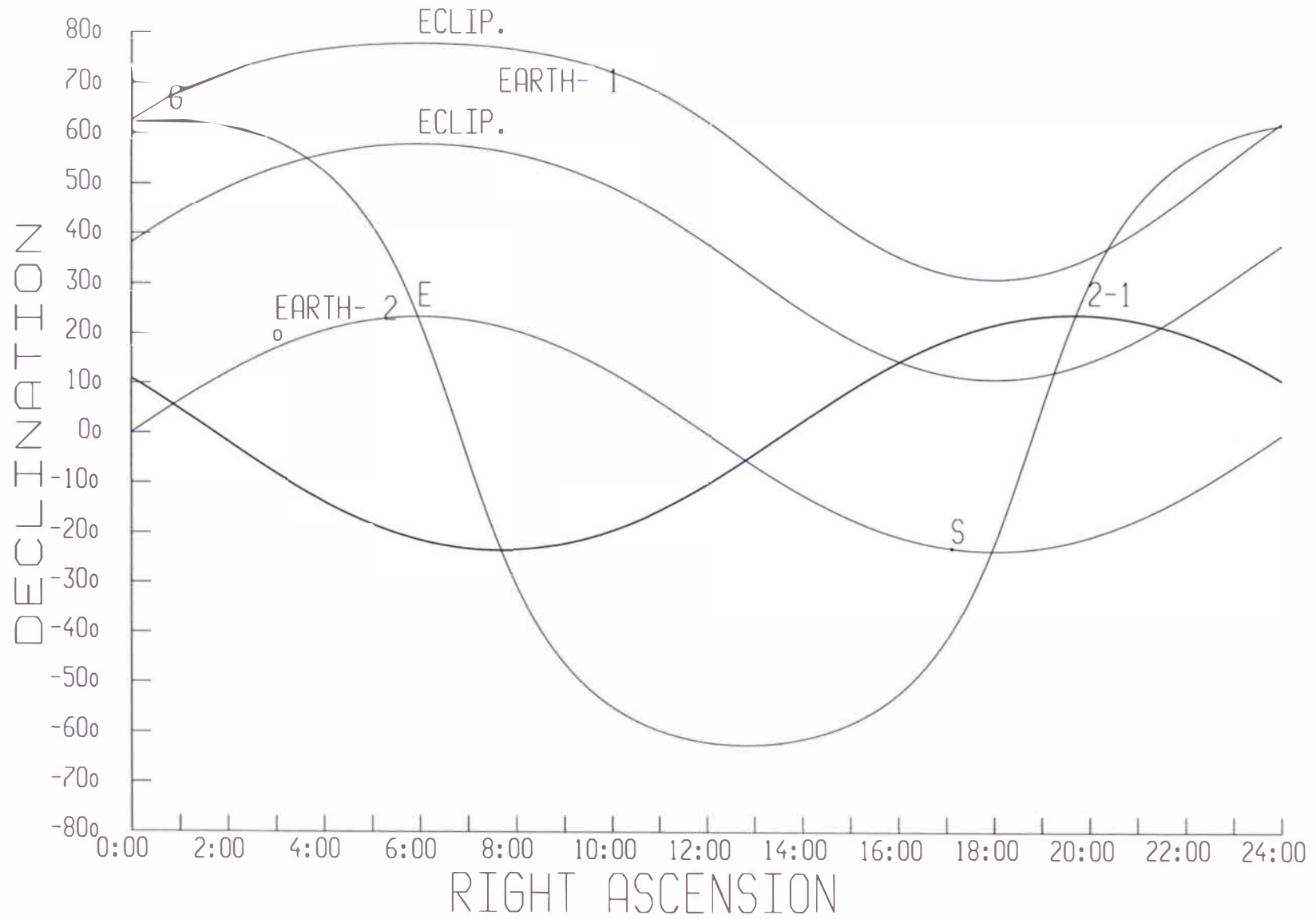
3. PVO Data

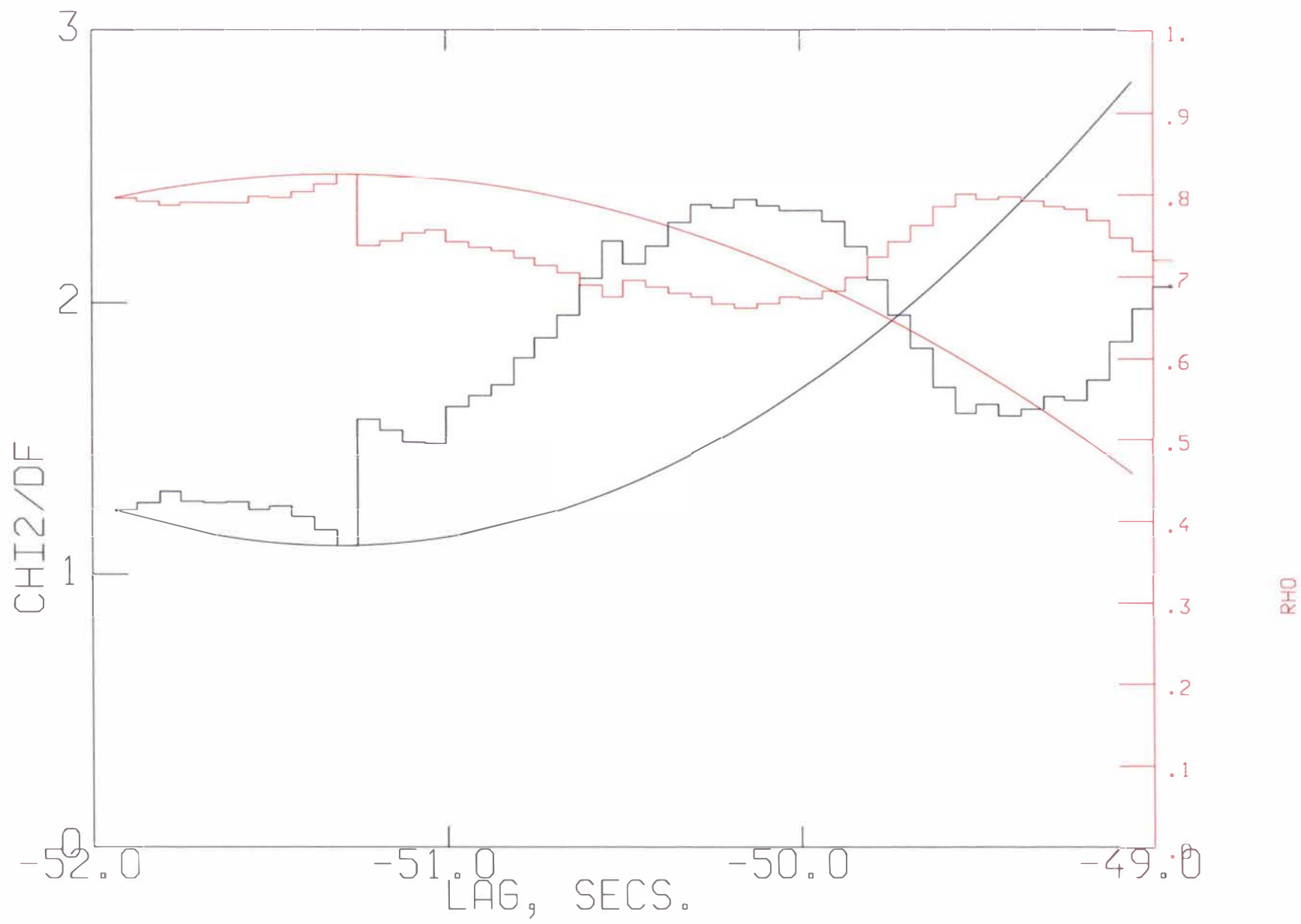
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

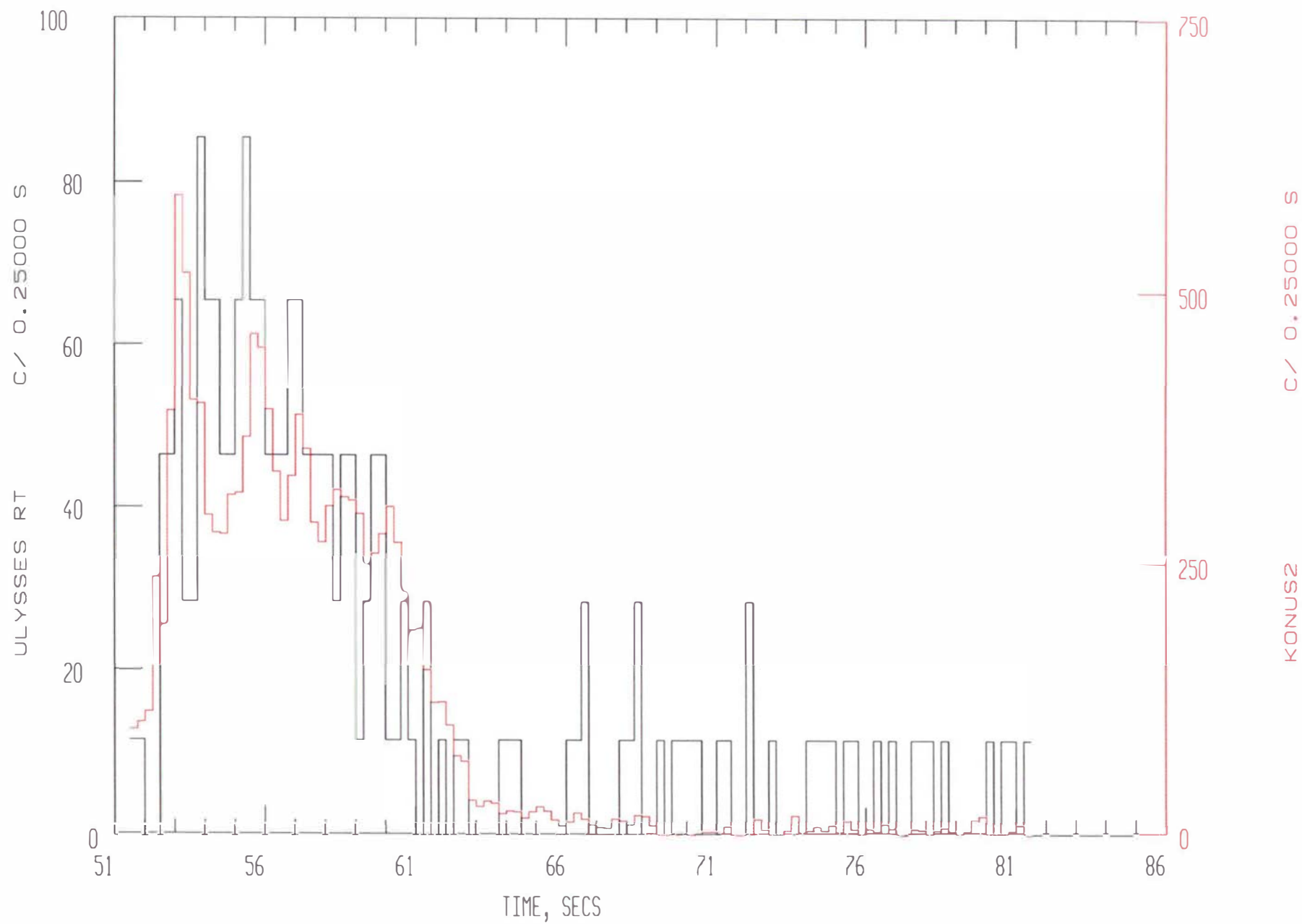
EVENT OF DEC 10, 1994 3:10

10/08/2011

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







KONUS 19941210 11458

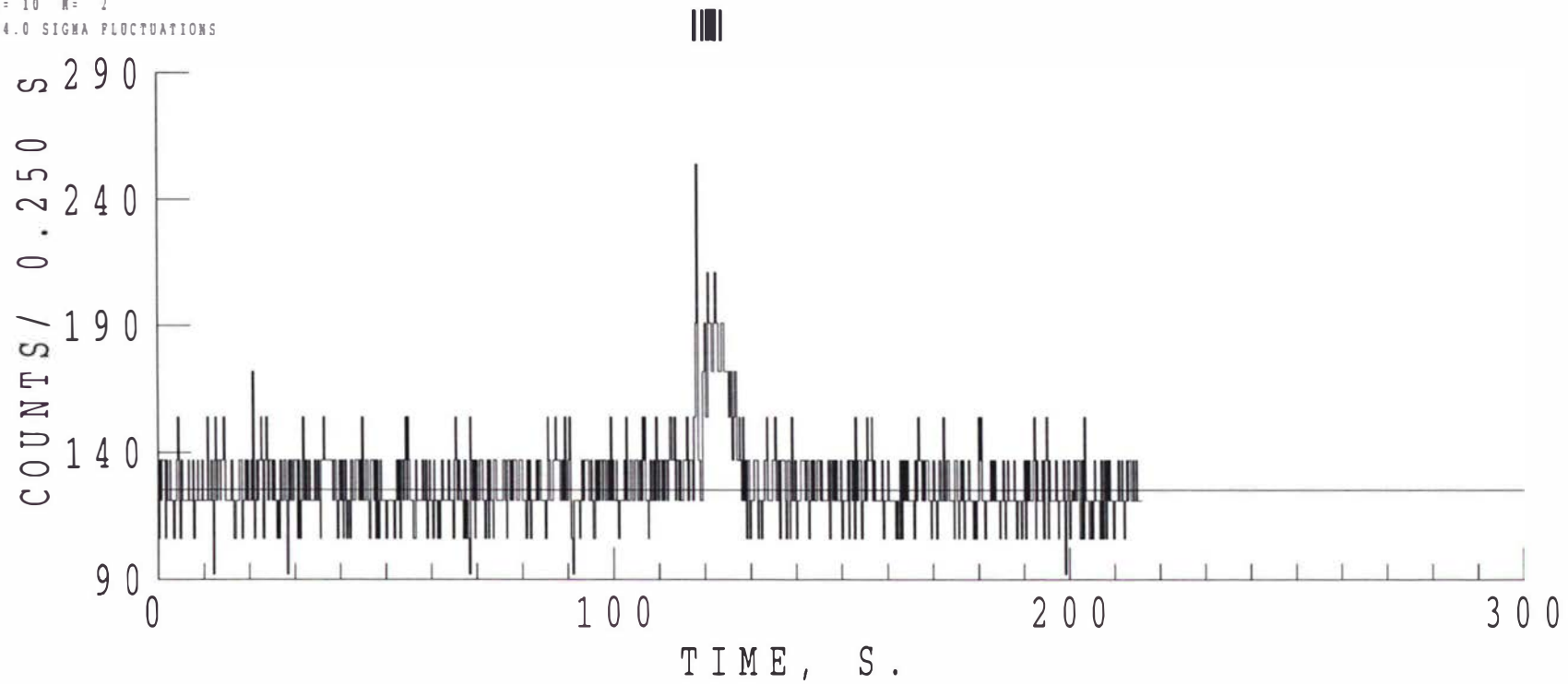
ULYSSES RT

09/08/11

10/12/94 11340.139 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLOUTATIONS

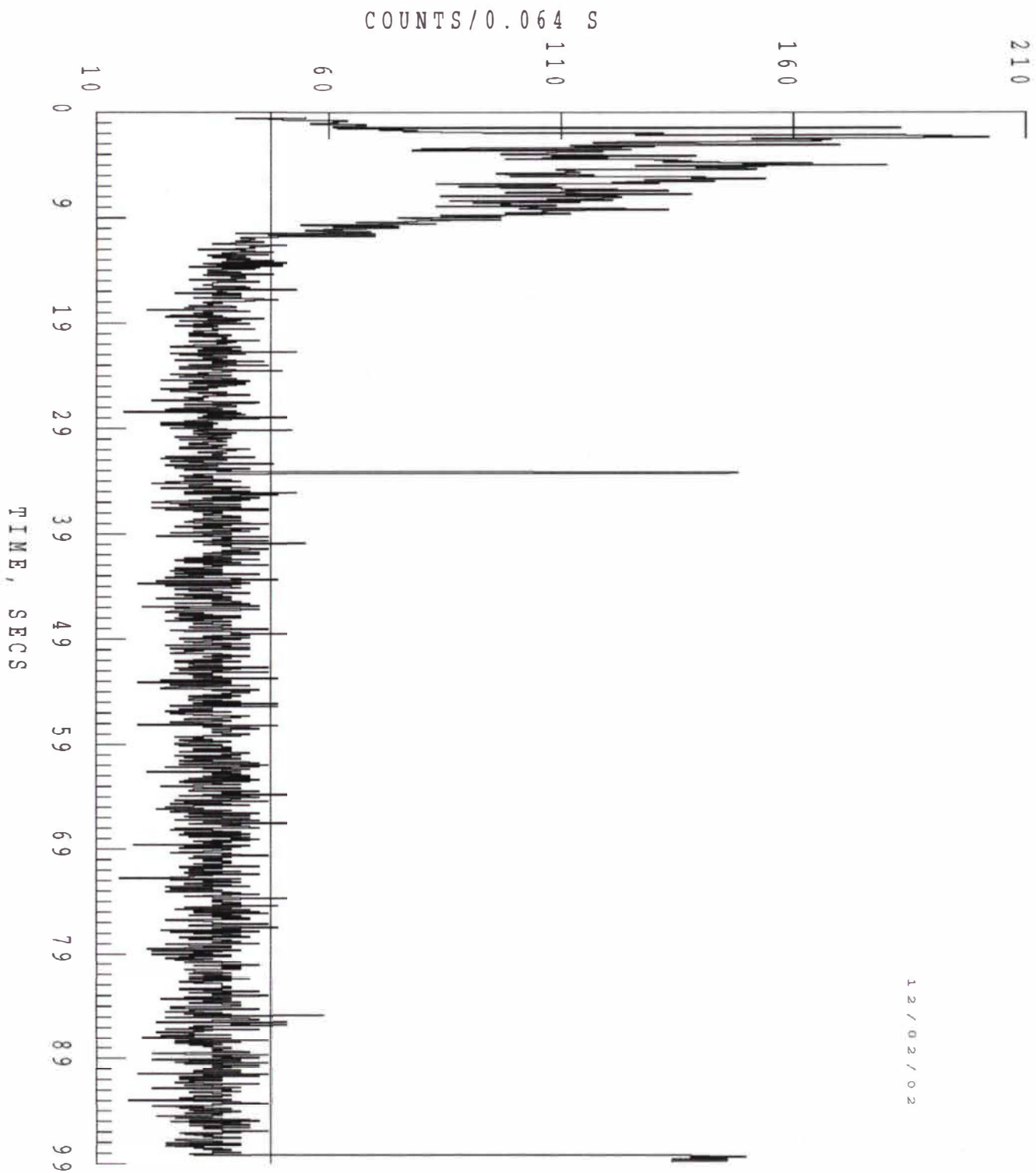


KONUS2

10/12/94

11452.523

50 - 200 keV



KONUS2 19941210 11452

ULYSSES RT

12 / 02 / 02

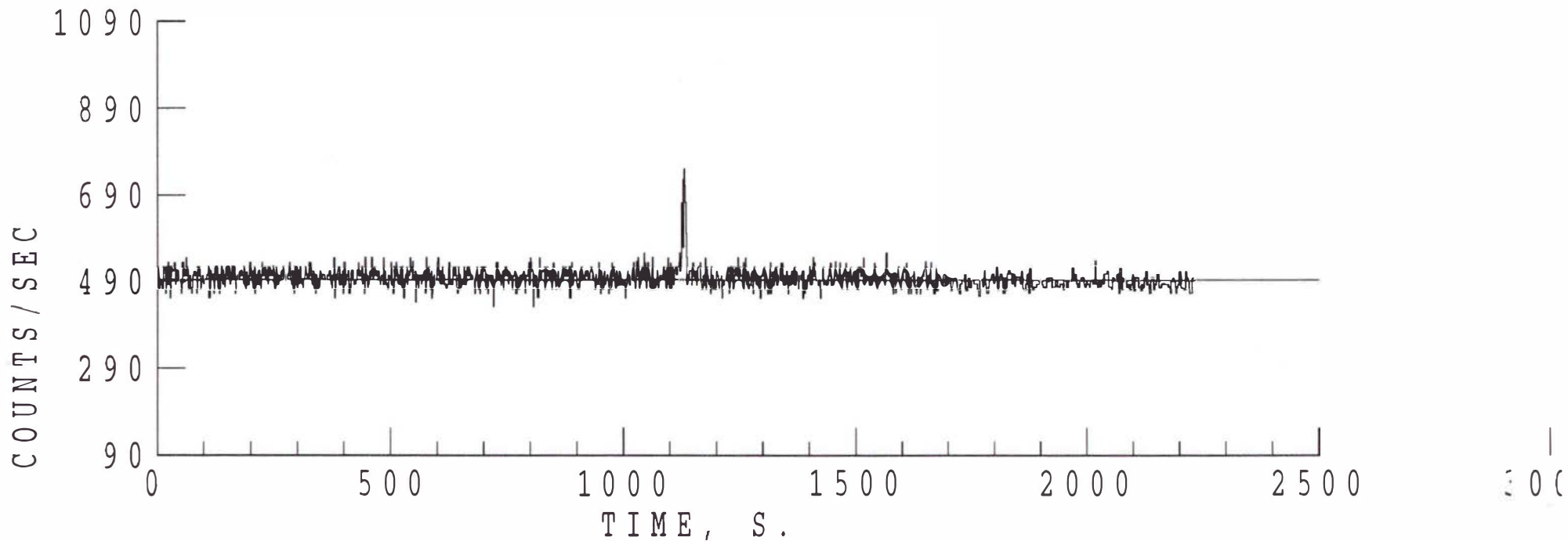
10 / 12 / 94 10332.121 s

INTERVALS REGROUPED BY 6

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS

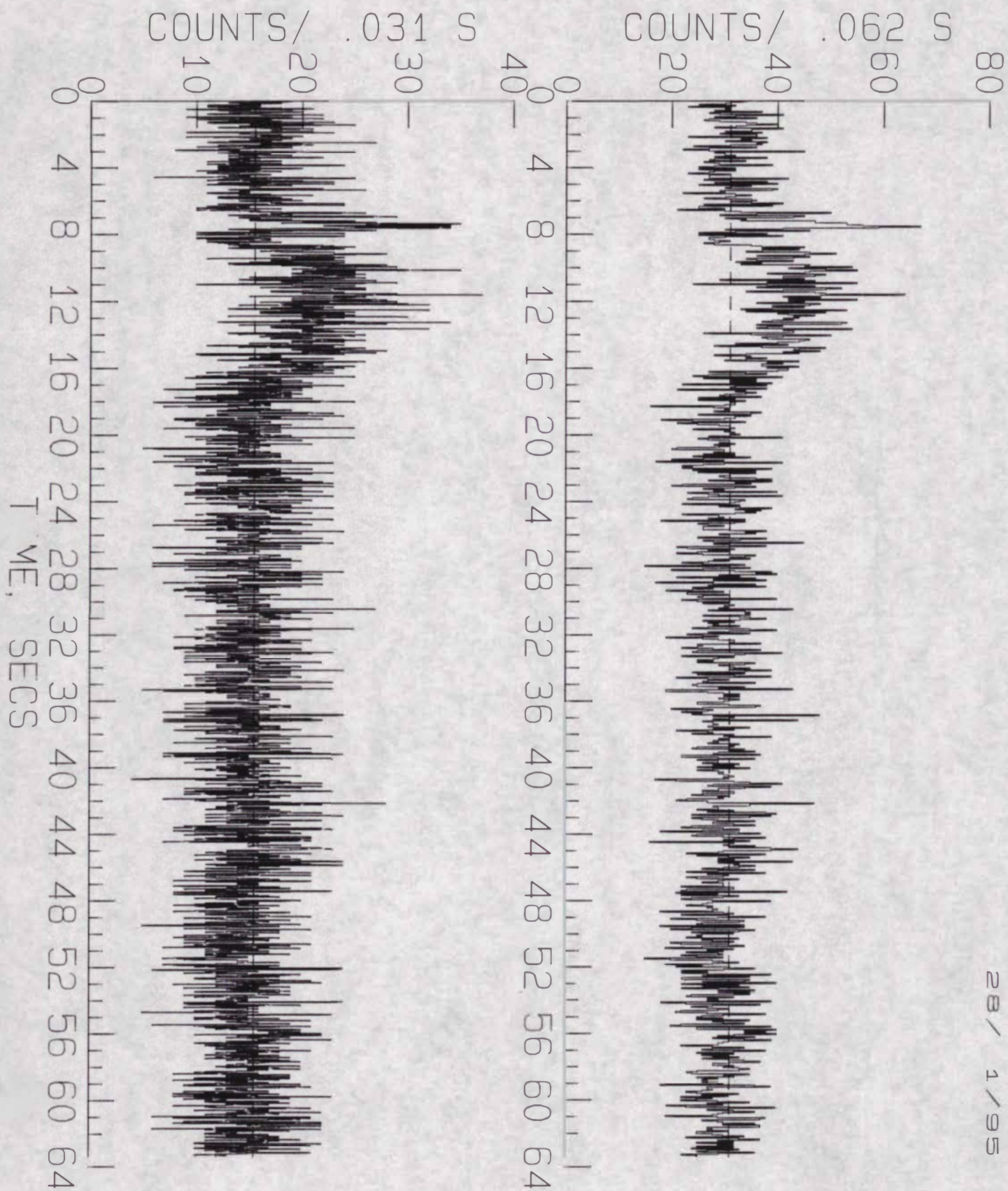


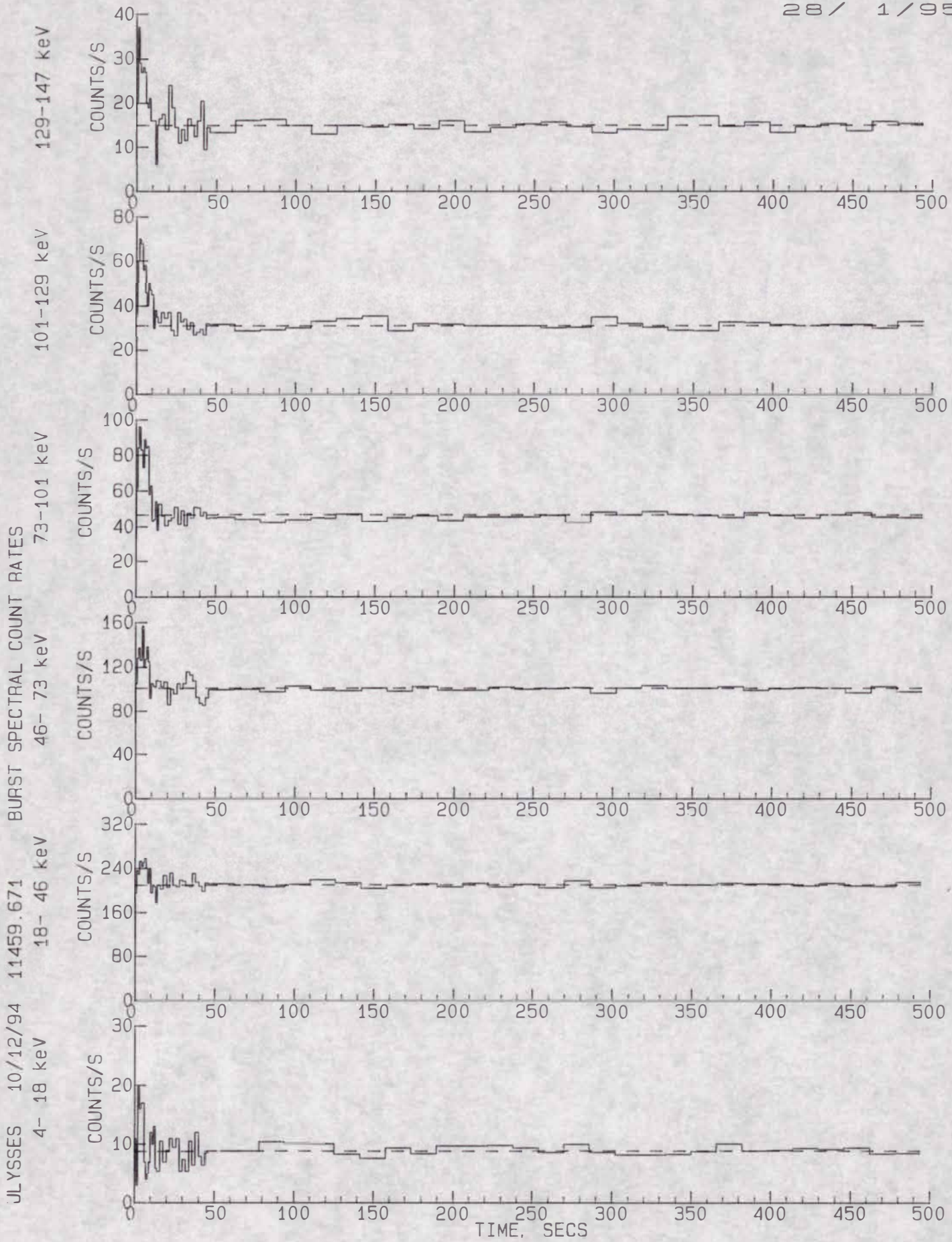
ULYSSES

10/12/94

Ttrig=11458.386

28 / 1 / 95

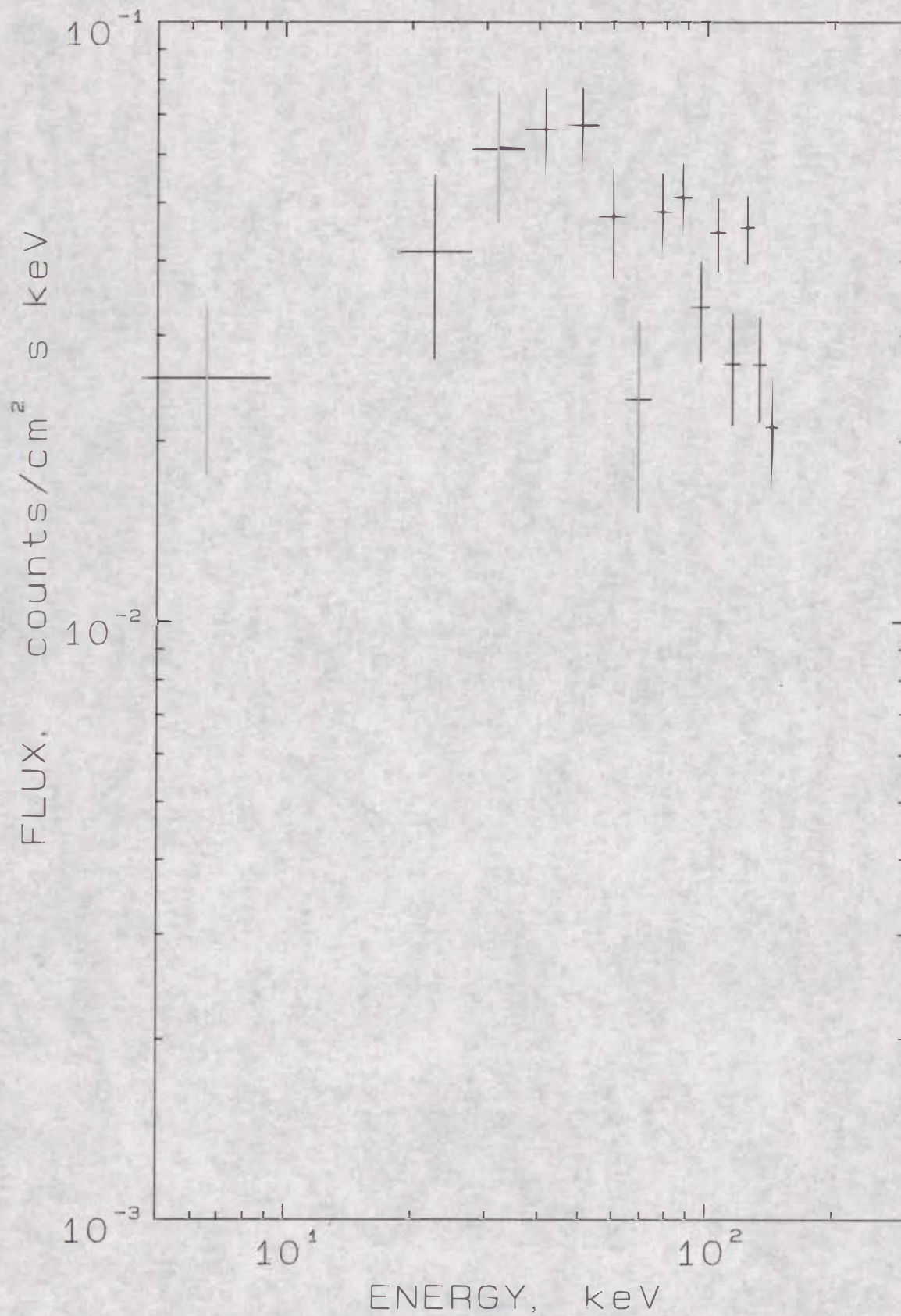




ULYSSES 10/12/94 11459.671

28/ 1/95

SPECTRUM INTEGRATED OVER 20.0 SECONDS. INTERVALS 2 TO 19



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

Table 1

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

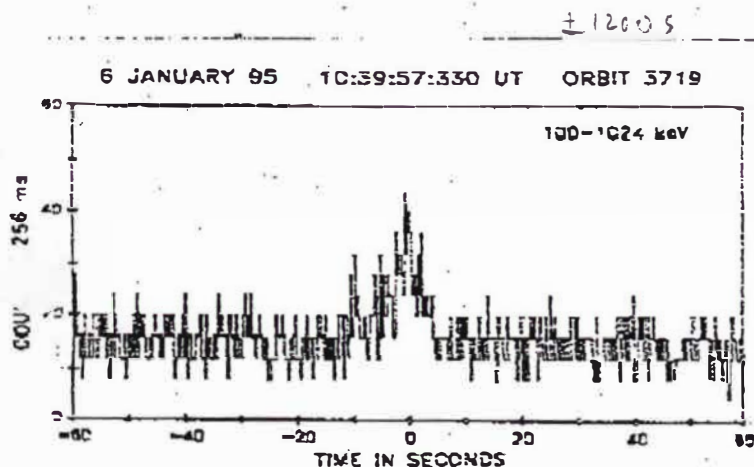
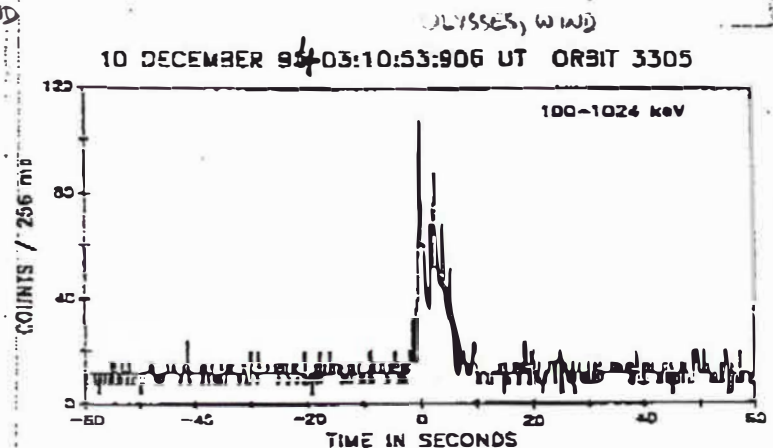
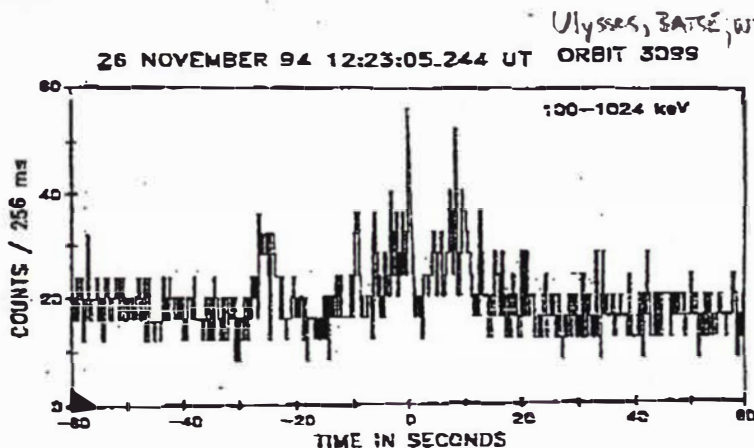
I shall send the profiles after getting your fax No. again.

With best regards,

sincerely yours,

Krishnan
(Krishnan)

Profiles follow:



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

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

इसरो उपग्रह केन्द्र

अन्तरिक्ष विभाग

भारत सरकार

हवाई पत्तन मार्ग, विमानपुर डाक घर,

बैंगलूर - 560 017, भारत

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

दूरभाष : 566251

UC BERKELEY



ISRO SATELLITE CENTRE

DEPARTMENT OF SPACE

GOVERNMENT OF INDIA

AIRPORT ROAD, VIMANAPURA P. O.,

BANGALORE-560 017. INDIA

Telegram : UPAGRAH Telex : 0845-2325 & 2769

Telephone : 566251

Dr TMK Marar

Head, Technical Physics Div

Feb 13, 1995

Dear Kevin,

HAPPY NEW YEAR!

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

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

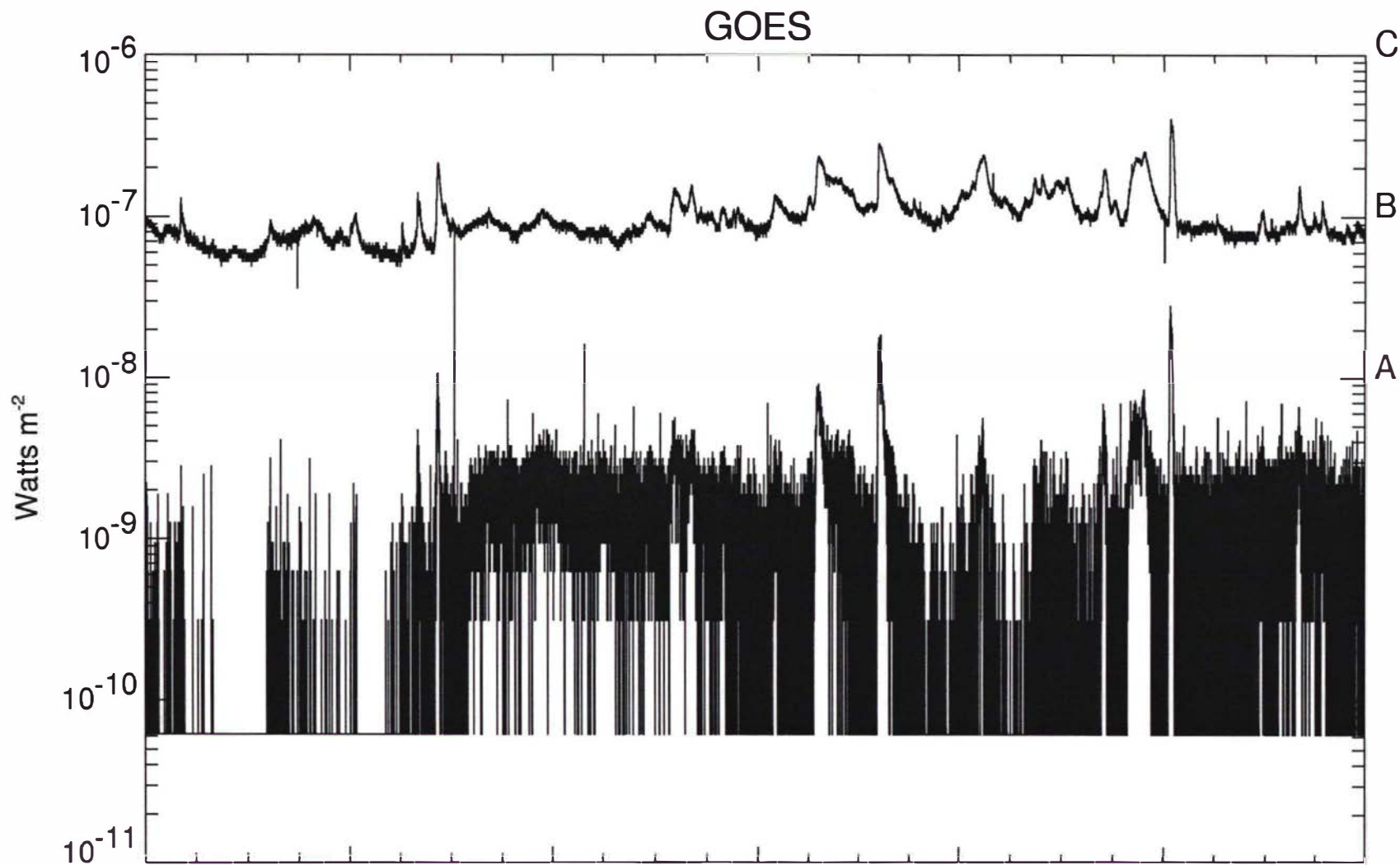
Our email system is unreliable at present. Hence I am requesting you to send emails to me through Mrs Christina of Indian Institute of Astrophysics Library who has agreed to call me whenever she receives any email addressed to me. Her address is as follows:

chris@iiap.ernet.in

(Please write as subject: attention: DR MARAR)

Important messages should however be exchanged via fax.

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



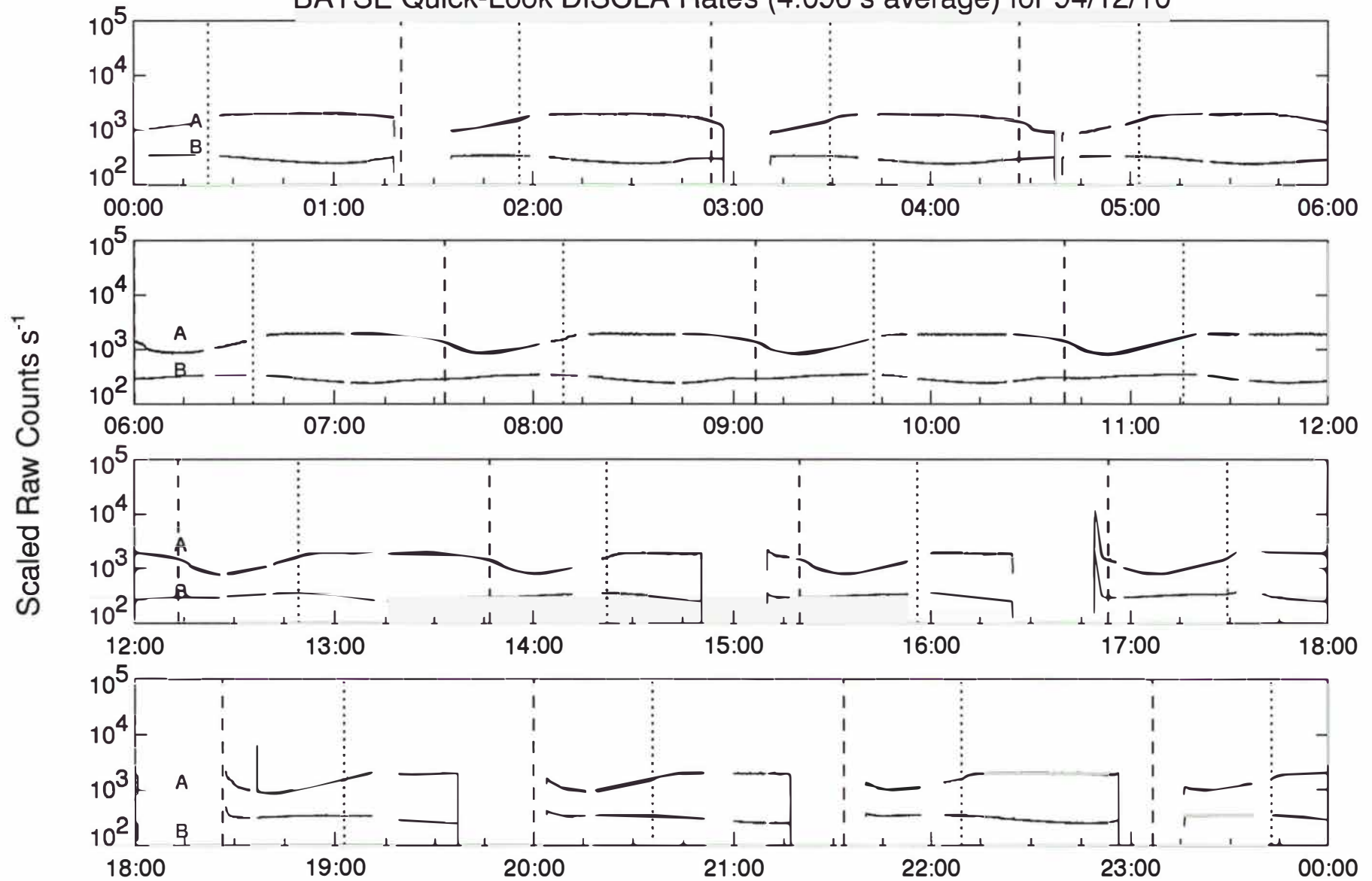
Data Start: 94/12/10, 0000:00

Plot created: 94/12/16, 1934

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 94/12/10

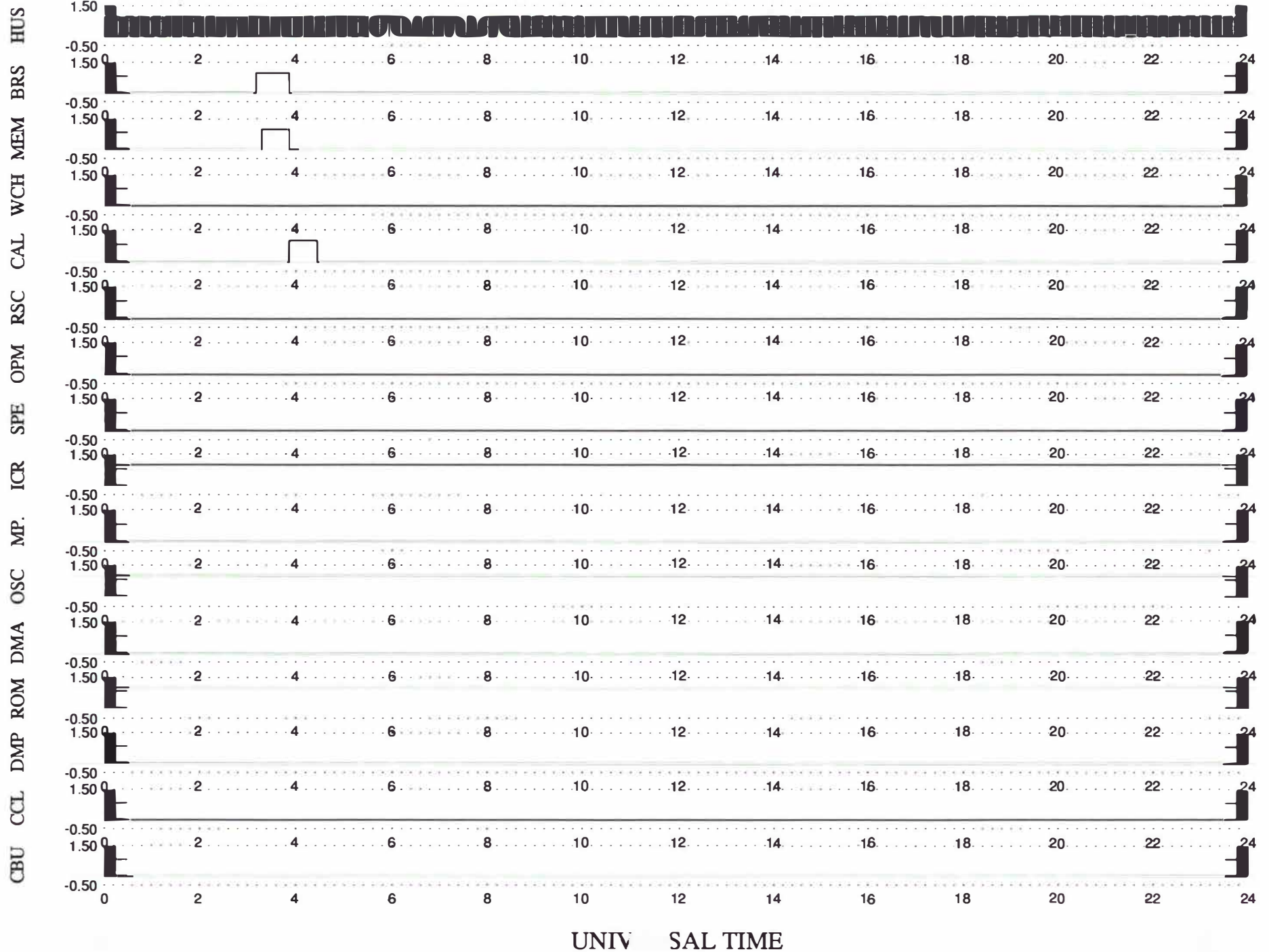


Current Time: 94/12/16, 1934 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

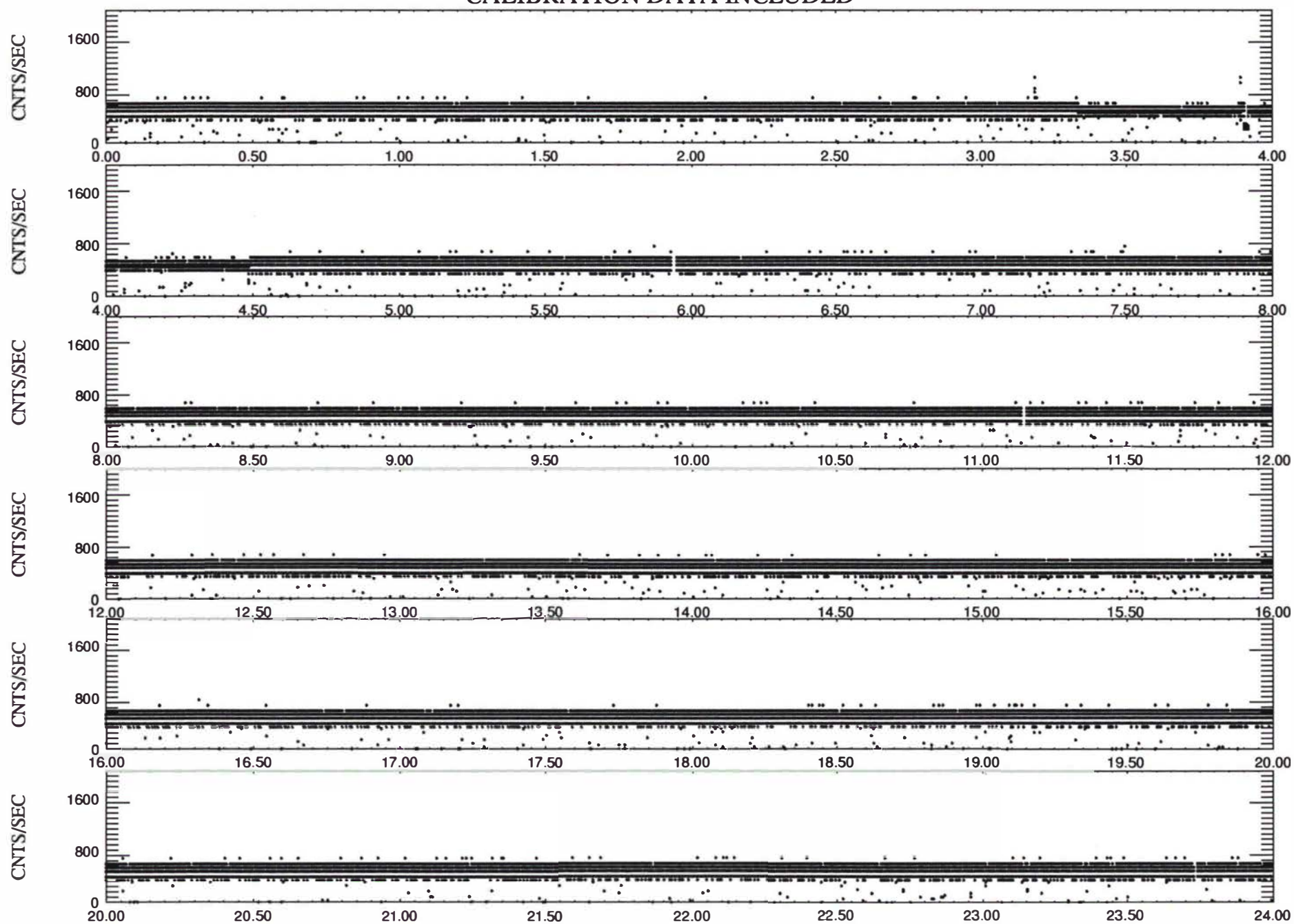
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

BURST NUMBER 8

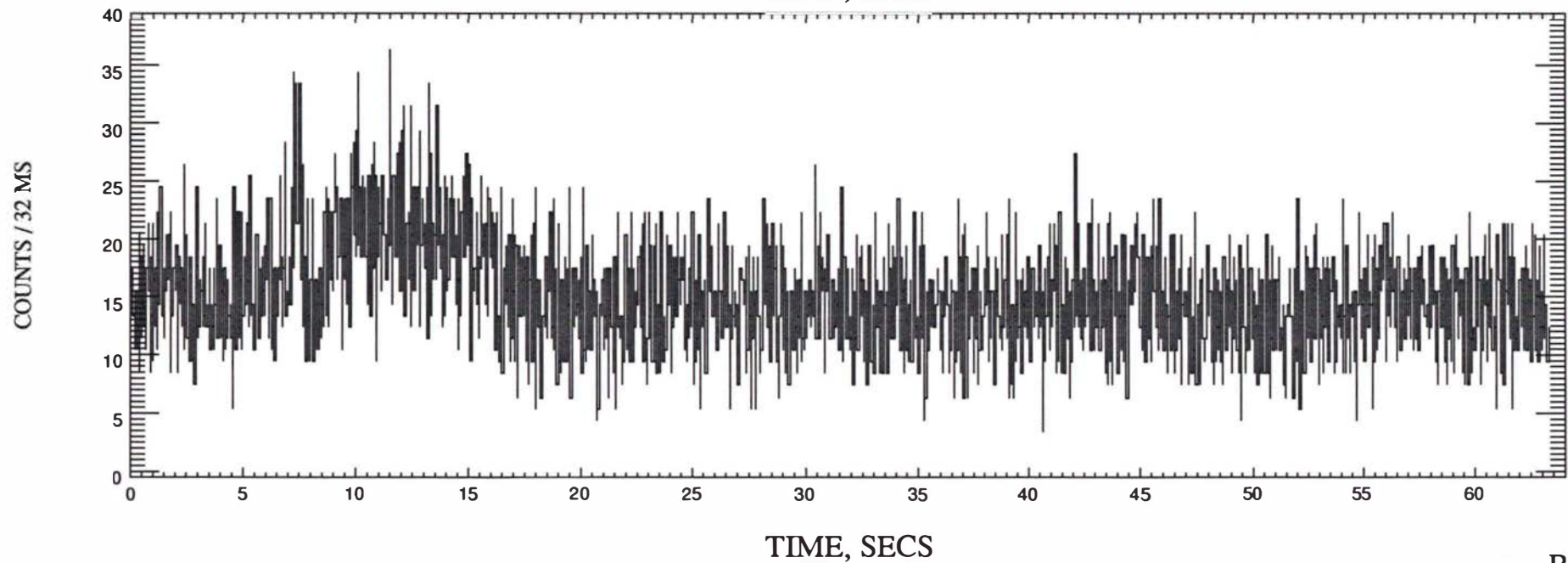
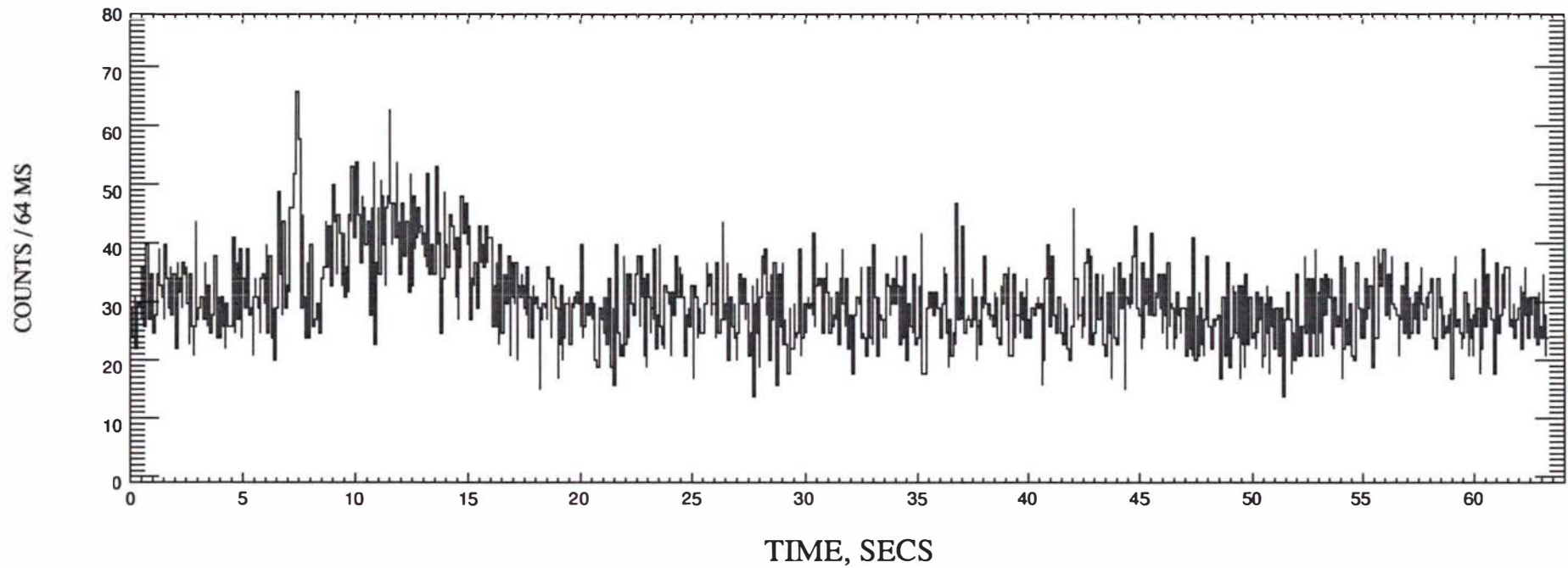


CALIBRATION DATA INCLUDED

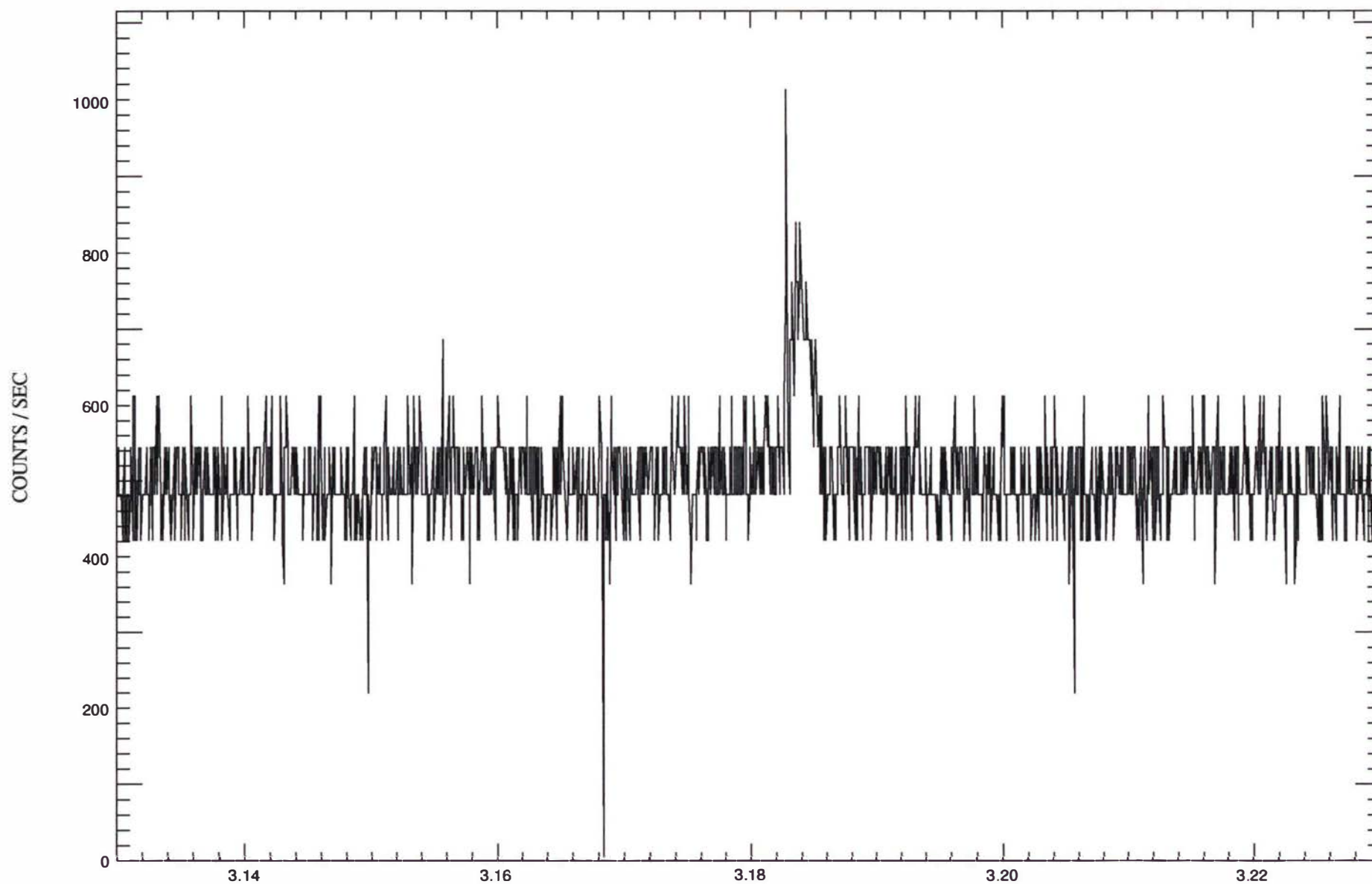


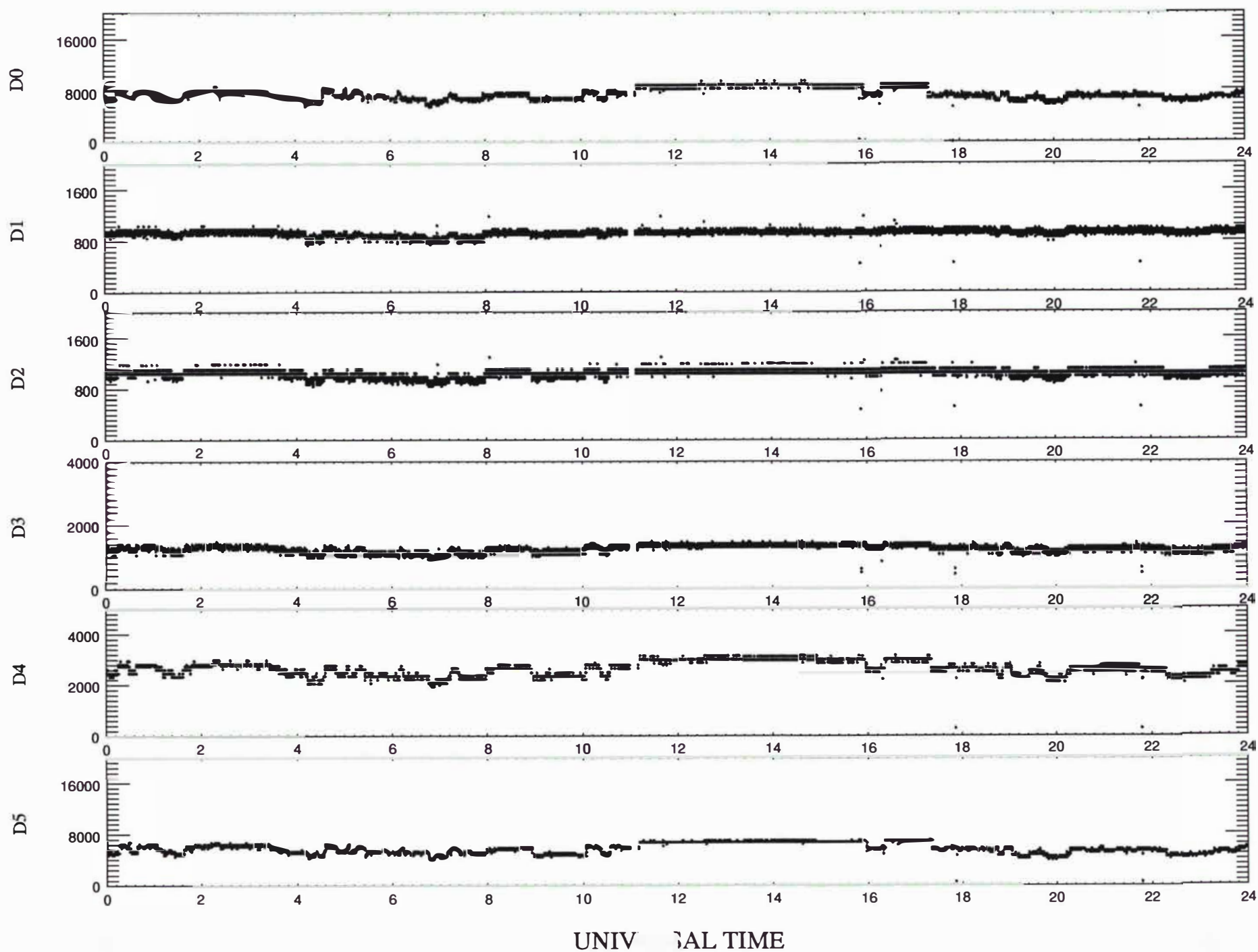
UNIV SAL TIME

Burst Counter 8 at UT= 3.182881749471 h=11458.374 s 03:10:58.374

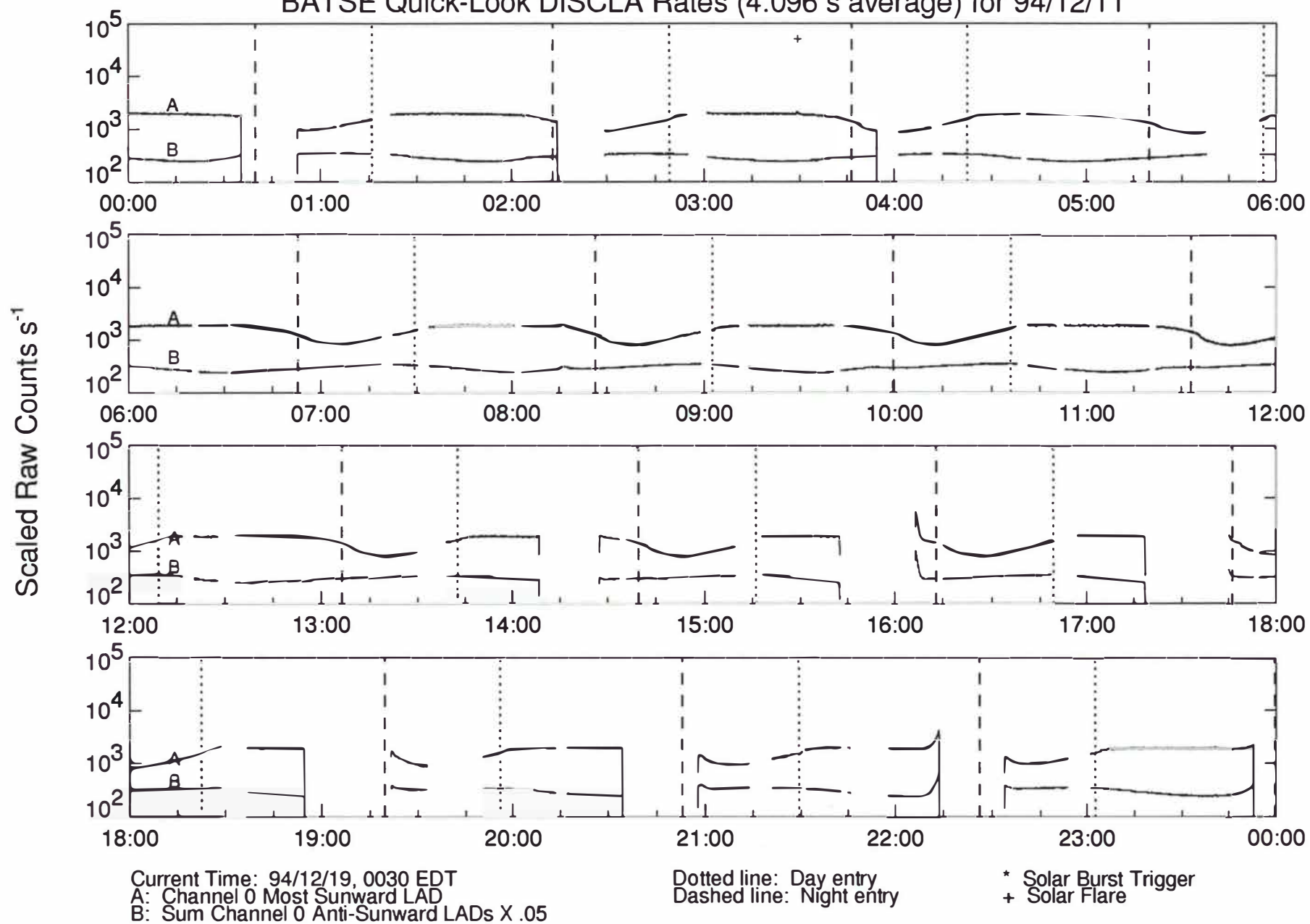


CALIBRATION DATA INCLUDED

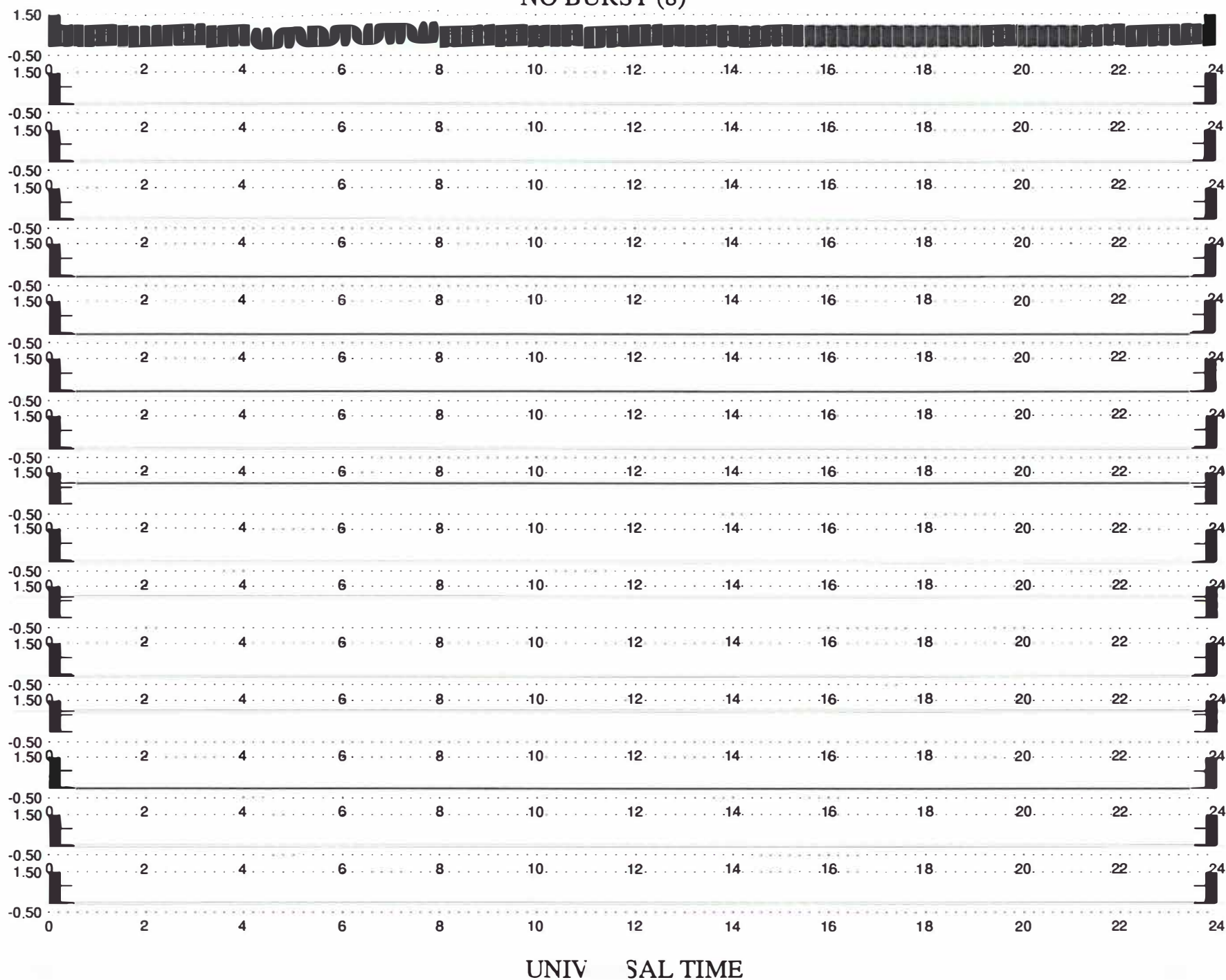




BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/11



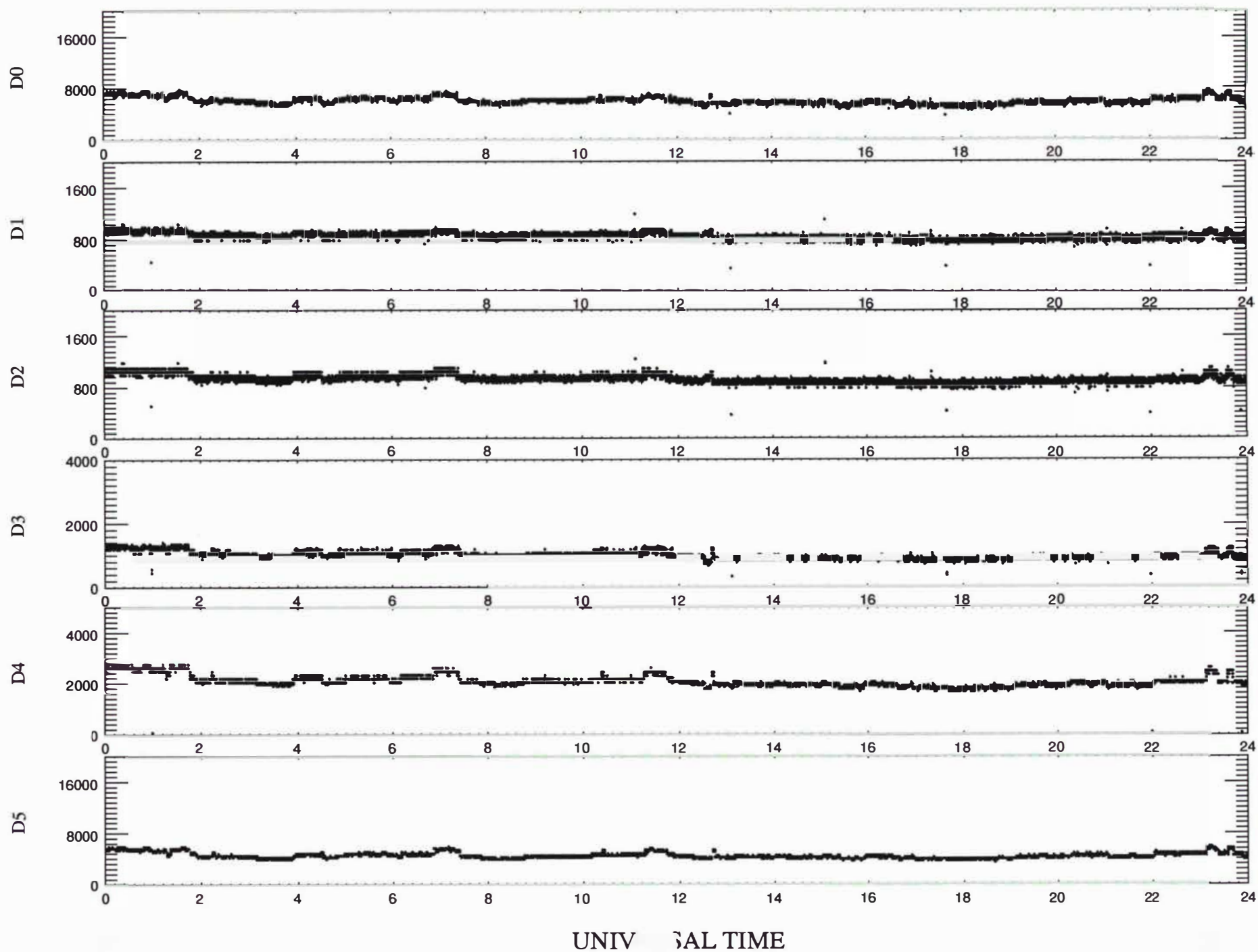
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

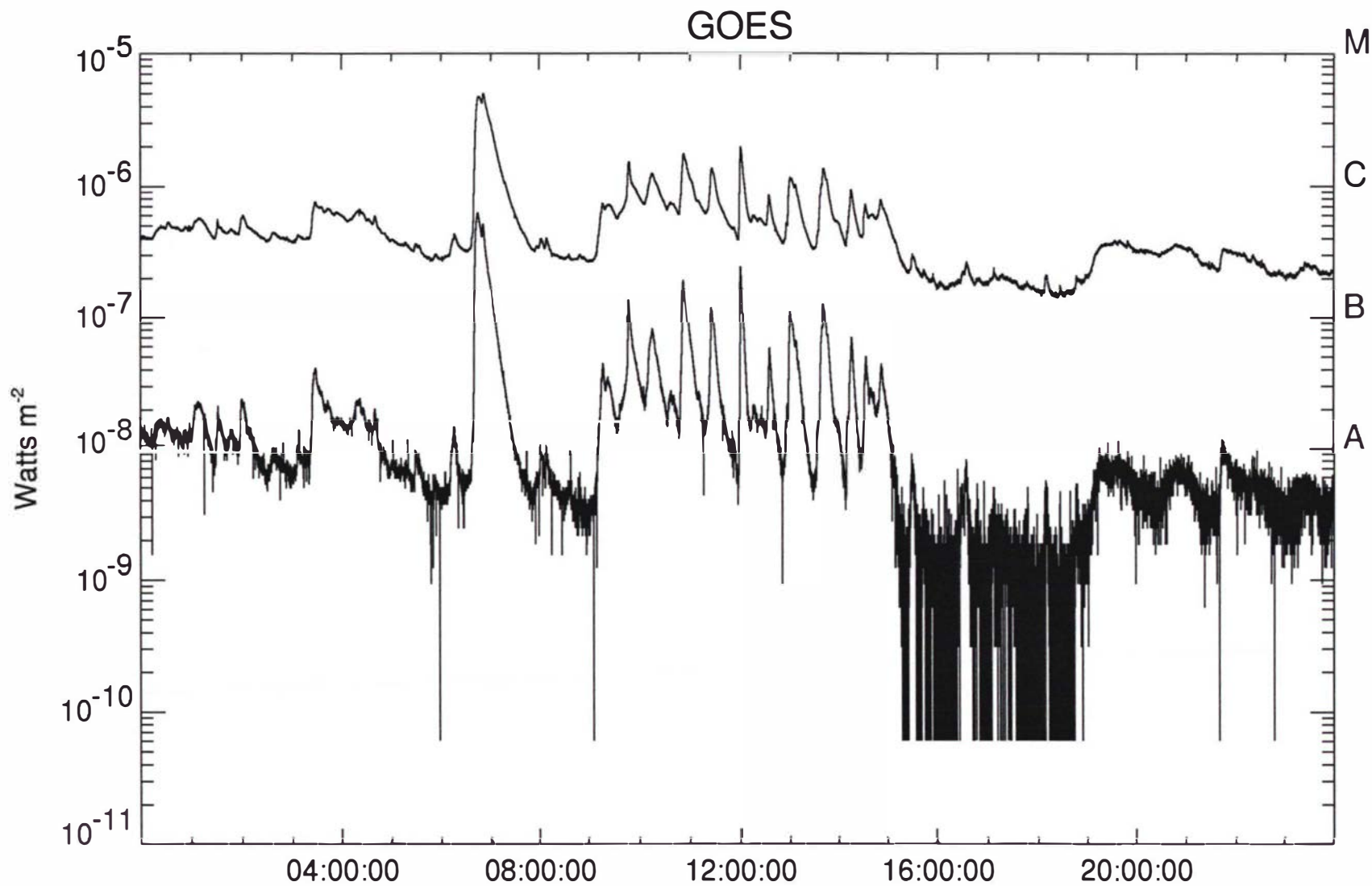


CALIBRATION DATA INCLUDED



UNIV SAL TIME





Data Start: 94/12/12, 0000:02

Plot created: 94/12/19, 0032

Channel

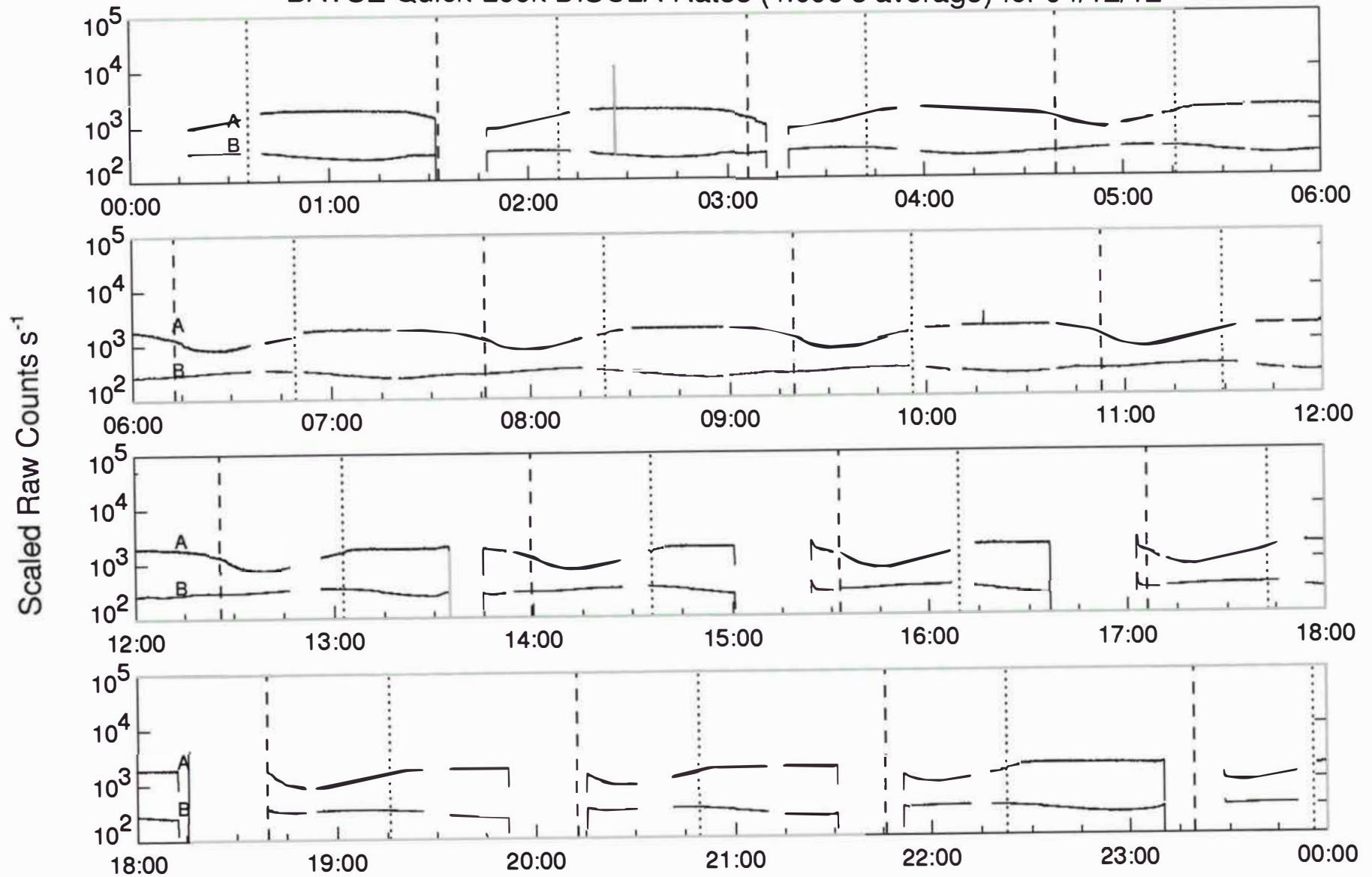
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

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

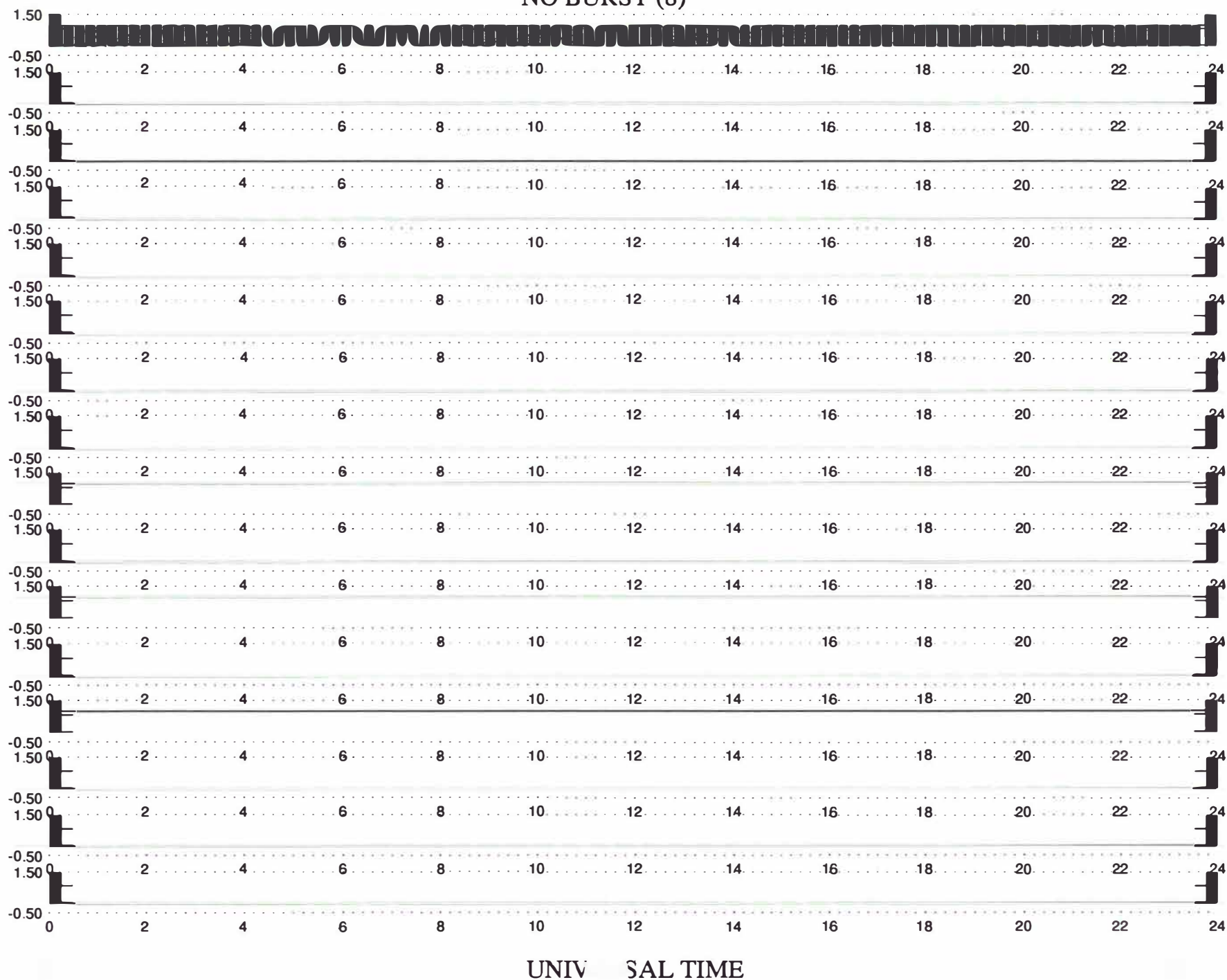


Current Time: 94/12/19, 0033 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

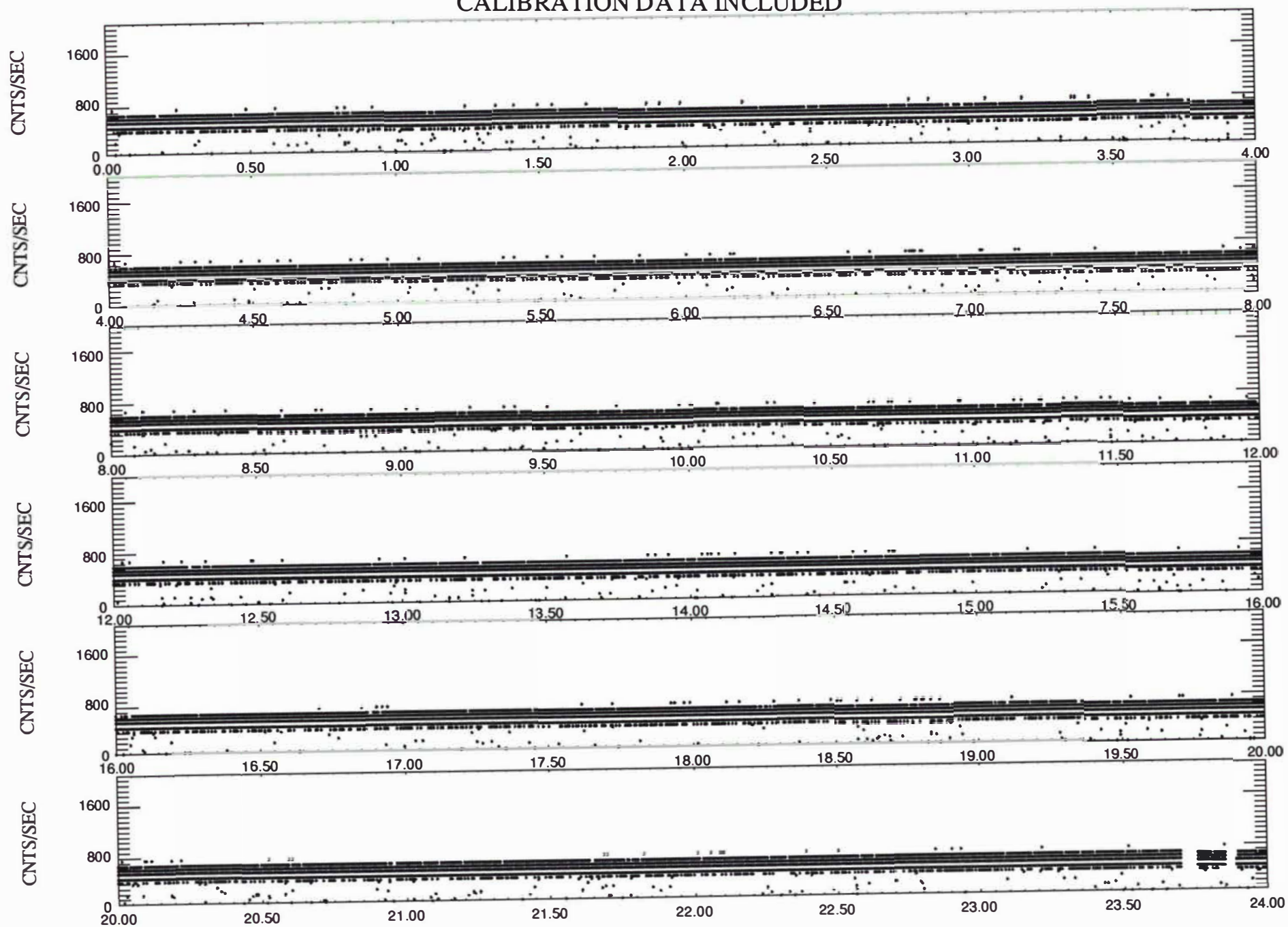
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

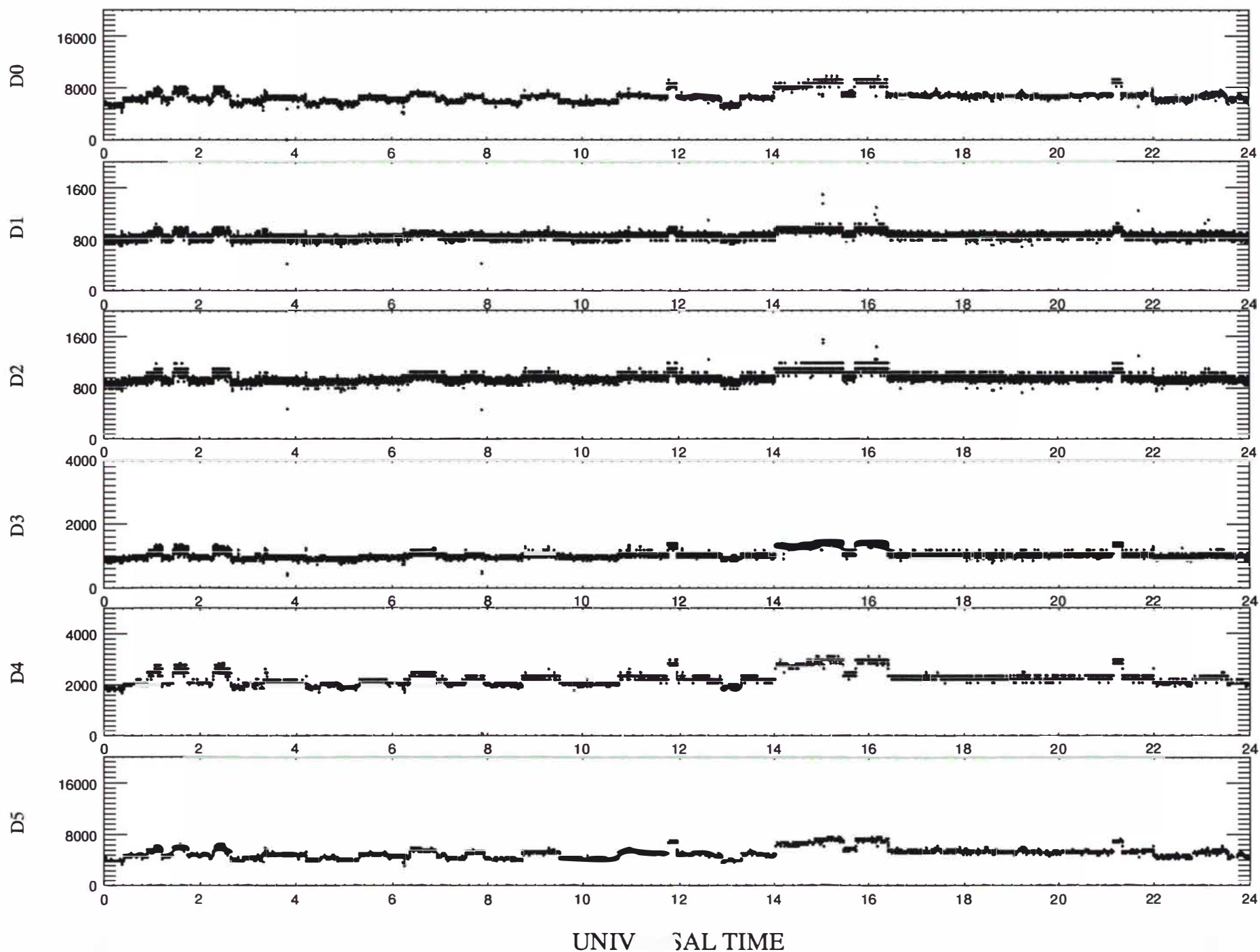
CBU CCL DMP ROM DMA OSC MP. ICR SPE OPM RSC CAL WCH MEM BRS HUS

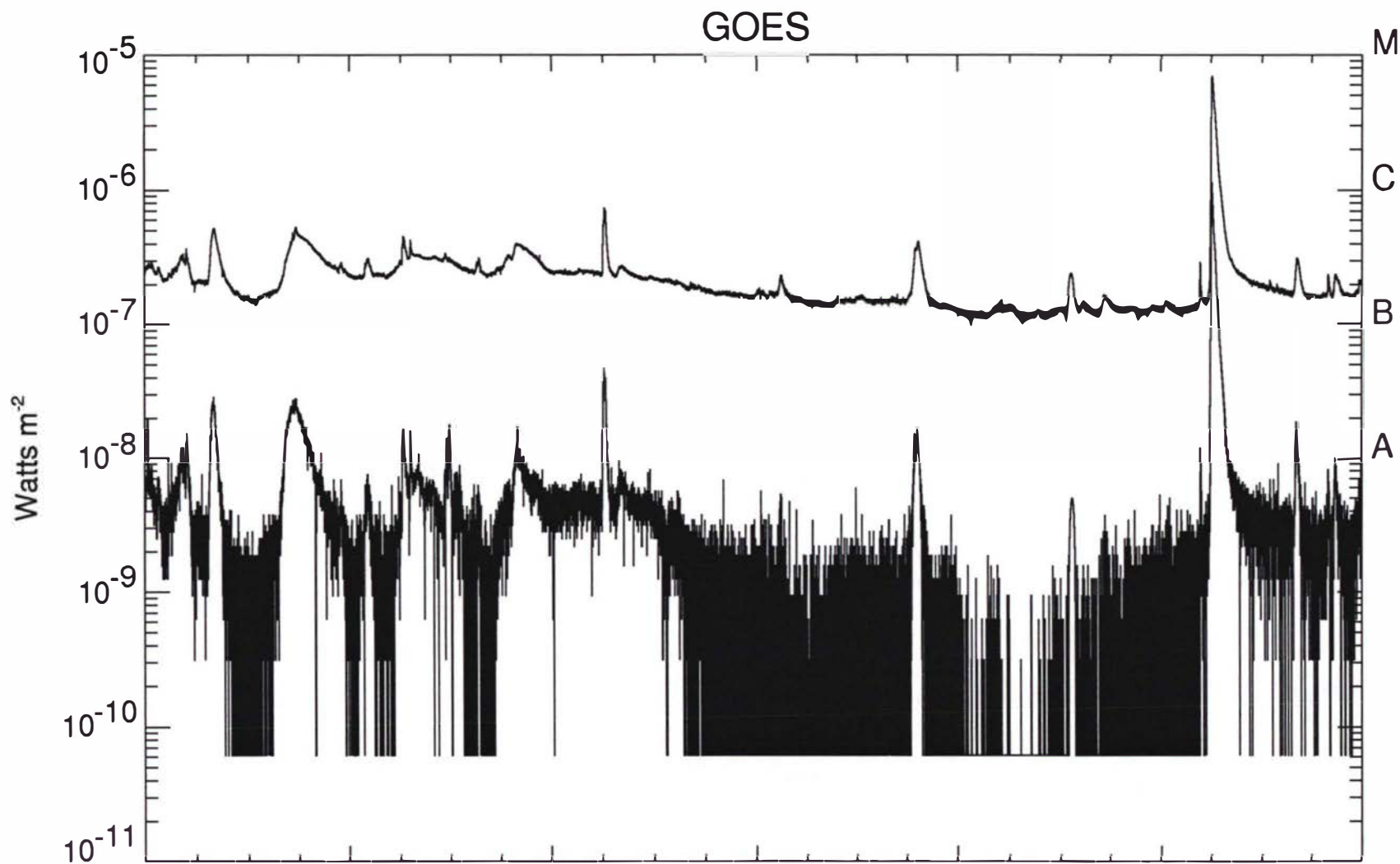


CALIBRATION DATA INCLUDED



UNIV SAL TIME





Data Start: 94/12/13, 0000:00

Plot created: 94/12/19, 0039

Channel

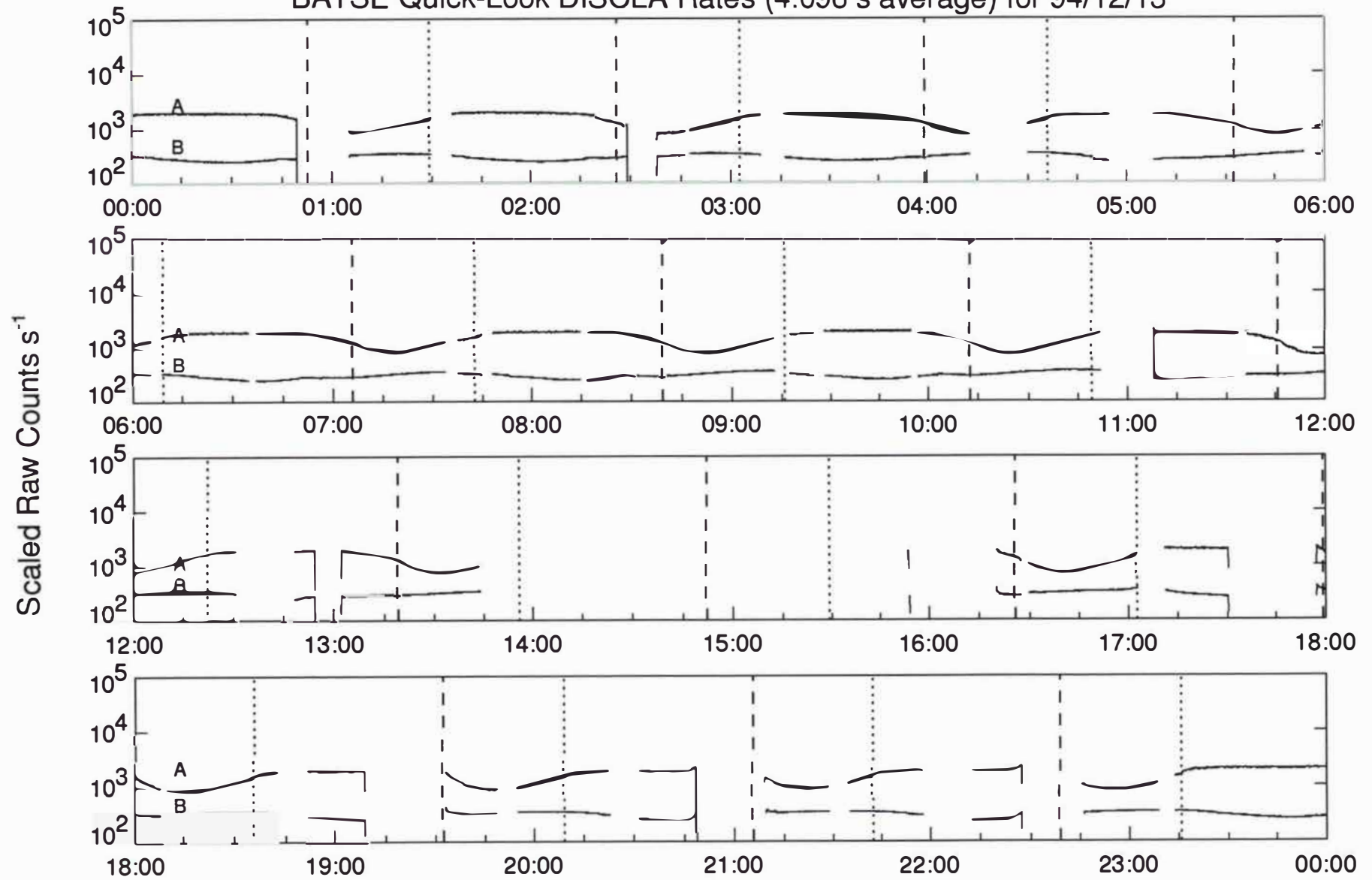
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/13

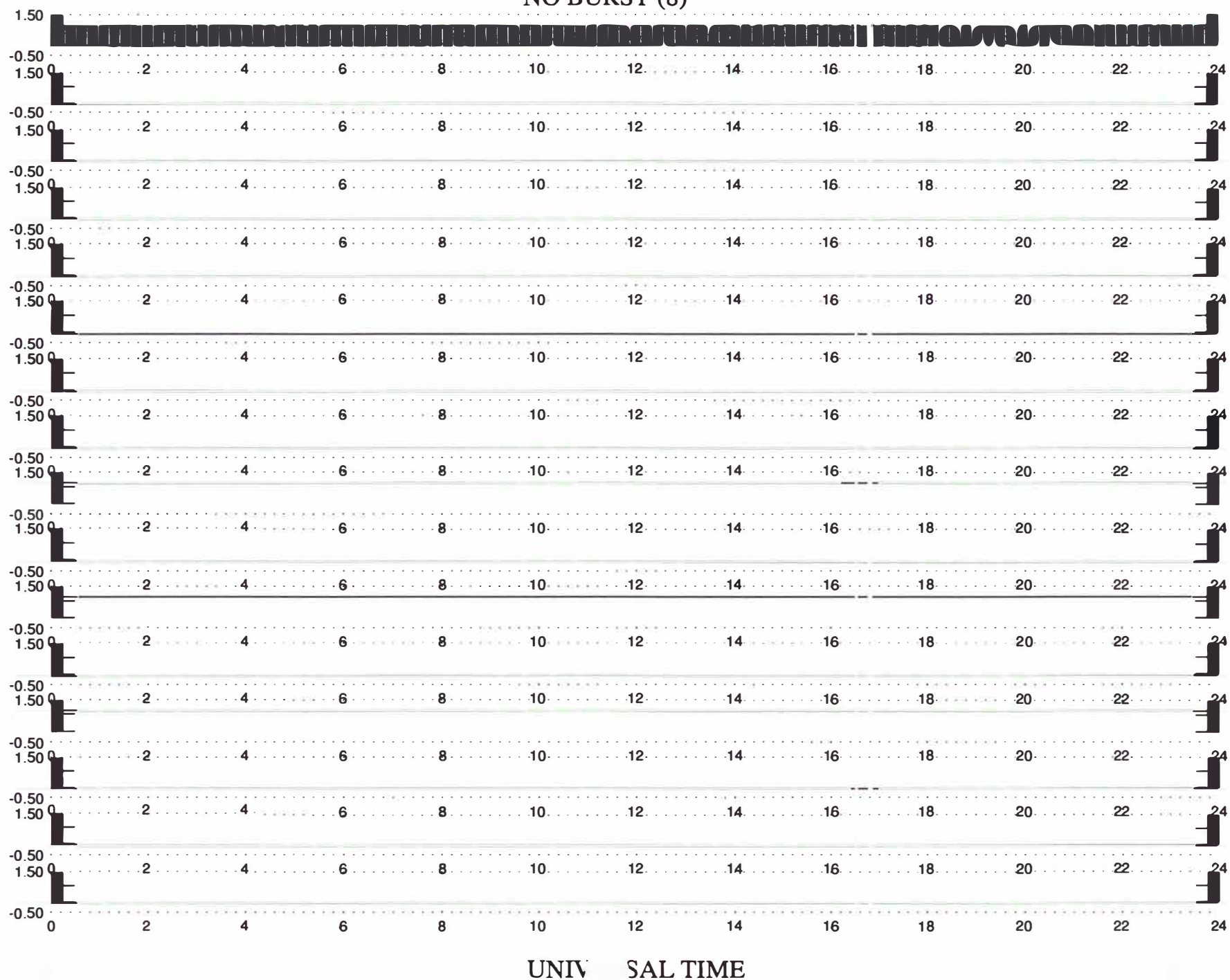


Current Time: 94/12/19, 0039 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

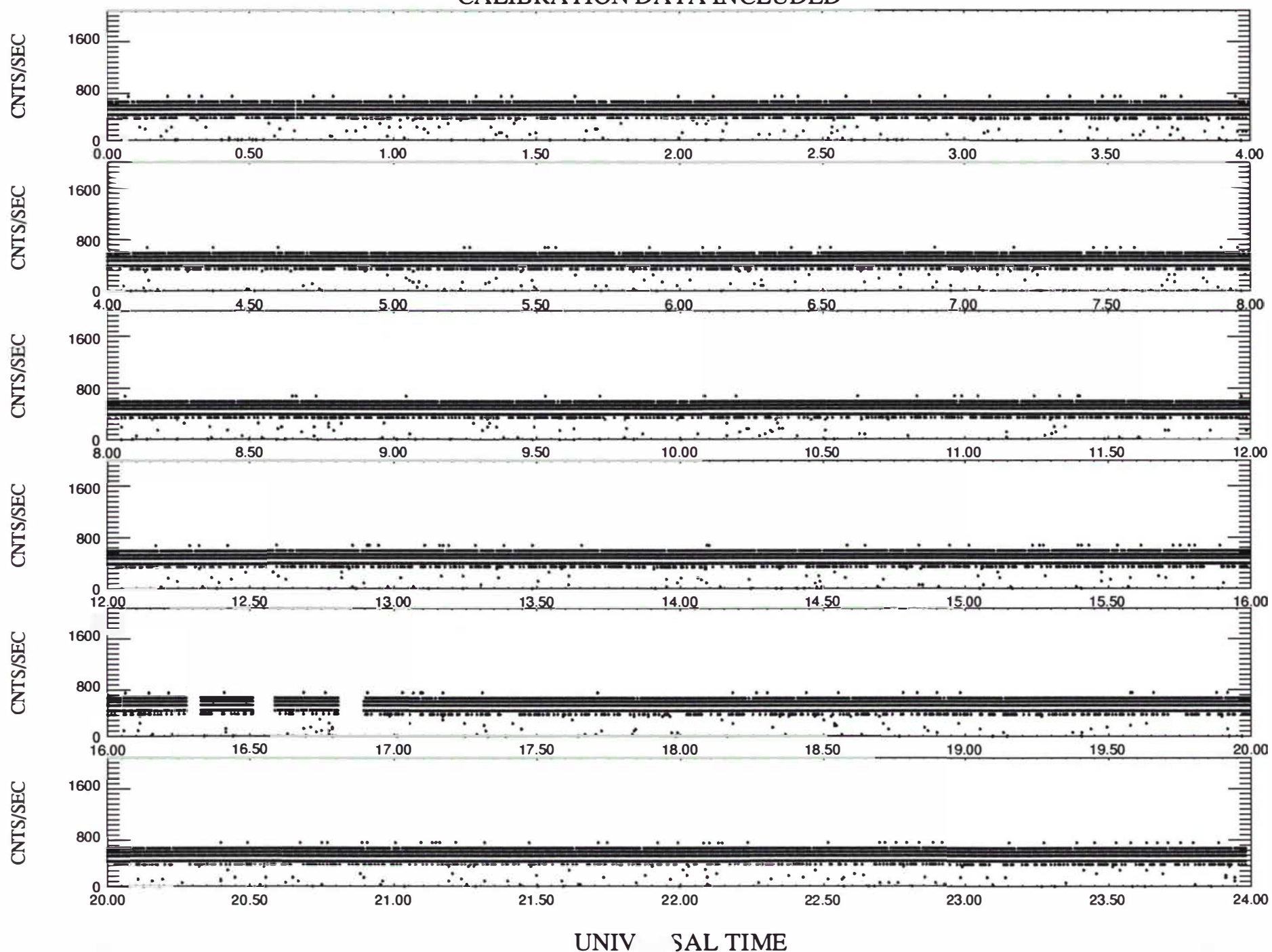
Dotted line: Day entry
 Dashed line: Night entry

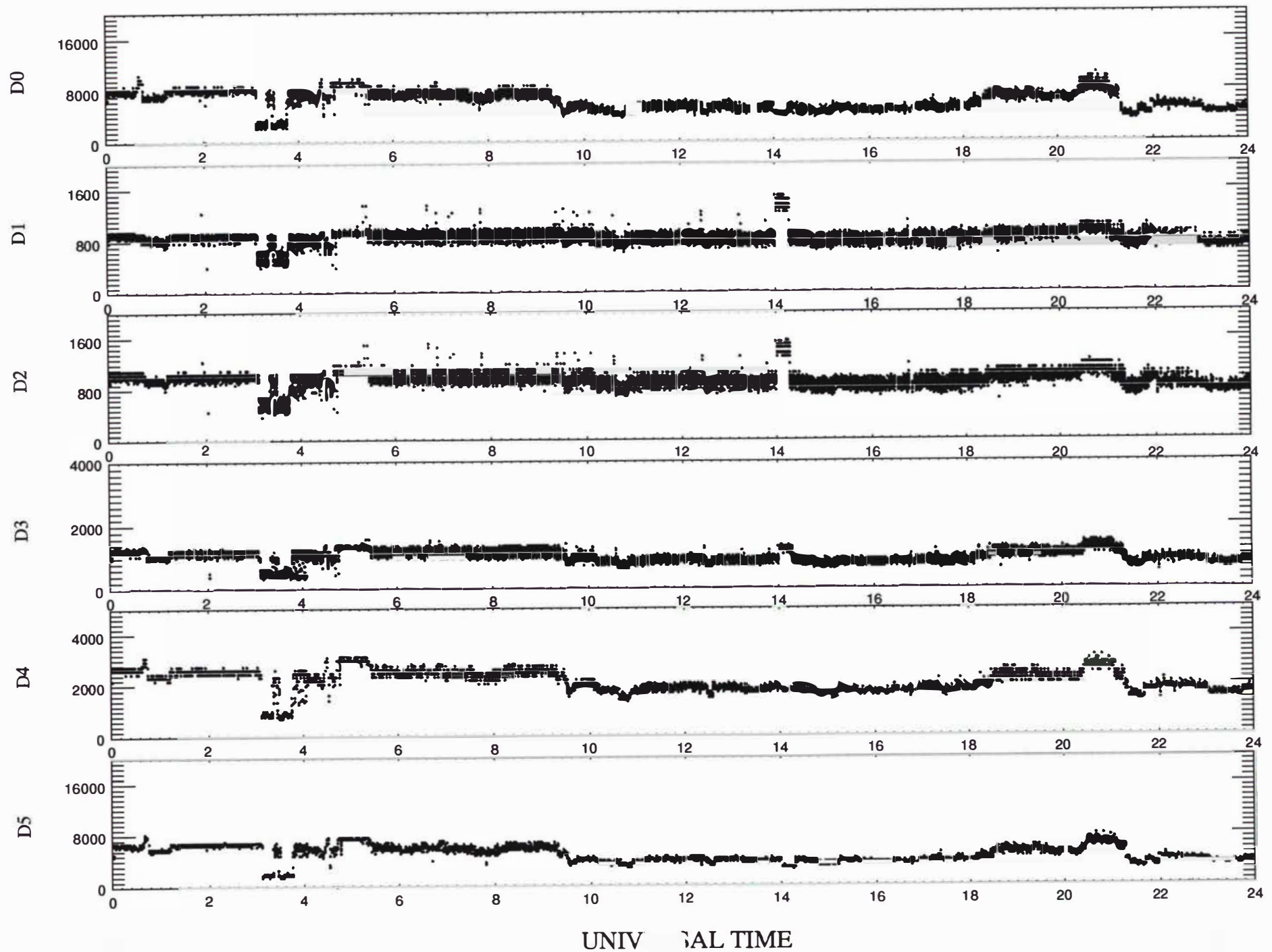
* Solar Burst Trigger
 + Solar Flare

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



CALIBRATION DATA INCLUDED





From SAHI@ssl.msfc.nasa.gov Fri Dec 16 09:44 PST 1994
Date: Fri, 16 Dec 1994 11:44:06 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3318

TIME: TJD=9700 SECONDS=20238

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES M 2.5 SOLAR FLARE. DUR. ~250 SEC. NOT VISIBLE ABOVE 300 KEV.

From SAHI@ssl.msfc.nasa.gov Fri Dec 16 10:03 PST 1994
Date: Fri, 16 Dec 1994 12:03:29 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3319

BATSEARCH PROGRAM

BATSE BURST # 3319
EVENT OF 1994 DEC 14 DAY OF YEAR=348
EVENT CROSSING TIME AT BATSE : 50920. S. OR 14:08:40.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 222.000 -56.000
BATSE PEAK COUNTING RATE: 6000 C/S

ND

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 14/12/ 94 IS:
RA= 299.656 DEC= -63.669 DIST= 2.151 AU
BATSE-ULYSSES DISTANCE = 321779117. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=142.75 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -854.43 SECS.
CROSSING TIME AT ULYSSES IS 50066. S. OR 13:54:25 +/- 149.81 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 14/12/ 94 IS:
RA= 153.432 DEC= 13.973 DIST= 0.985 AU
MARS-BATSE DISTANCE = 147381440. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 89.89 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 0.94 SECS.
CROSSING TIME AT MARS IS 50921. S. OR 14:08:40 +/- 85.37 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3319

TIME: TJD=9700 SECONDS=50920

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=65 AZIMUTH=333 ERROR= DEGREES

COMMENTS:

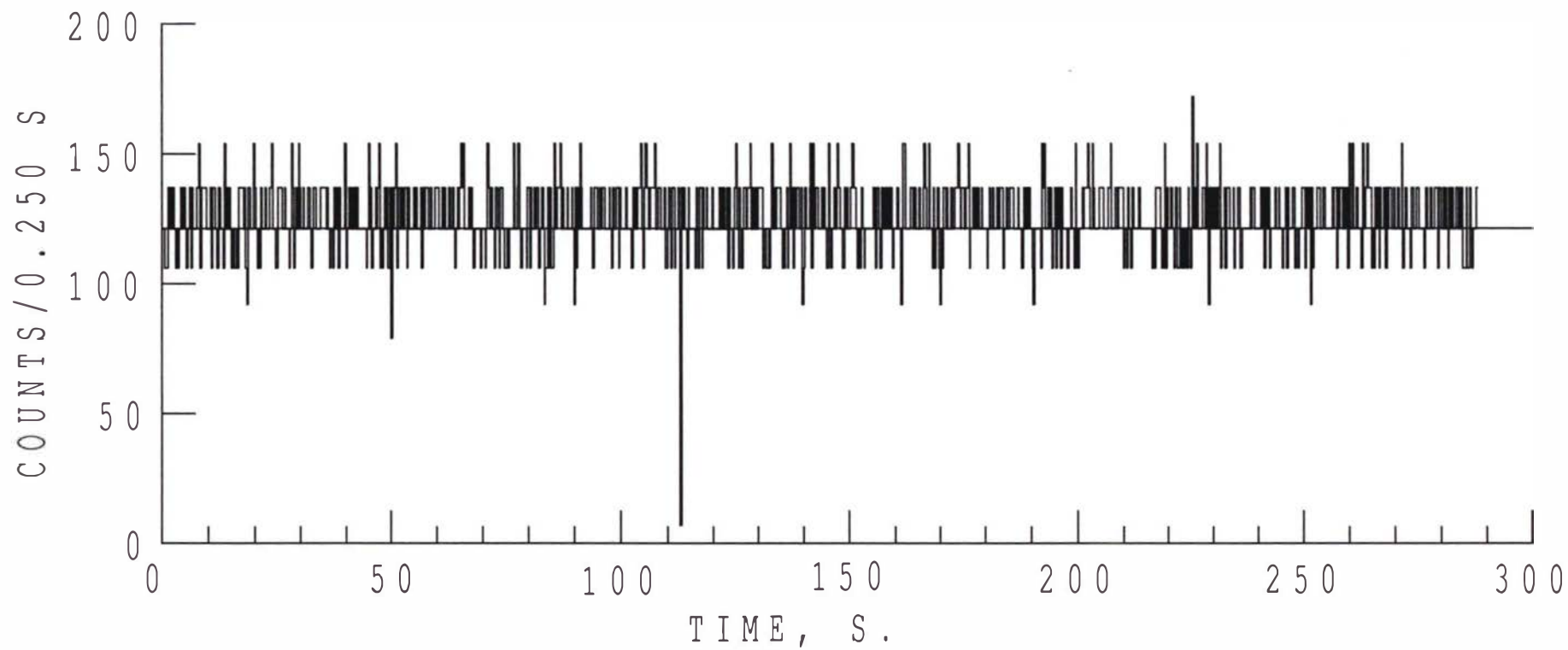
BURST. SINGLE PULSE, SOME SUBSTRUCTURE, DUR.~4 SEC. NOT VISIBLE ABOVE

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3319	941214	9700	50920	6000	222	-56

19 / 12 / 94

ULYSSES RT
14 / 12 / 94 49932.098 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



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

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

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

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

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

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

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

13 / 2 / 95

ULYSSES RT

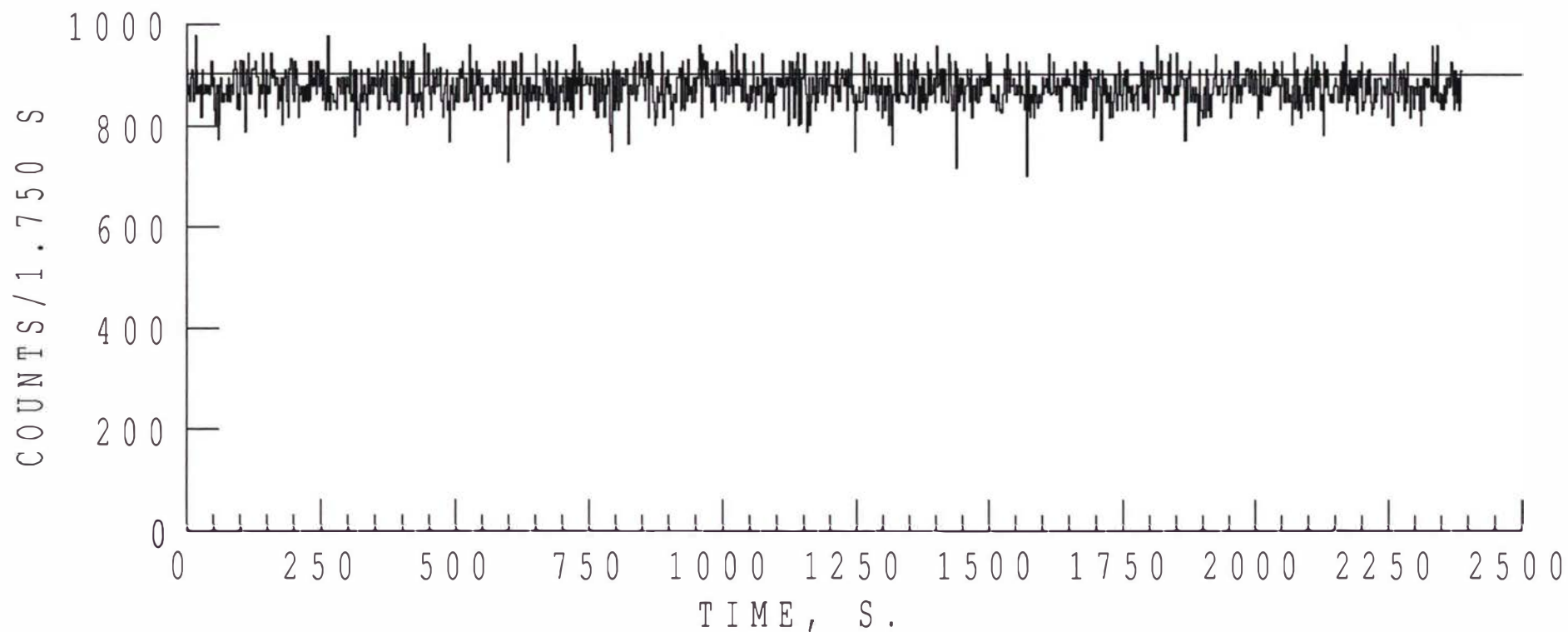
14/12/94 60228.031 s

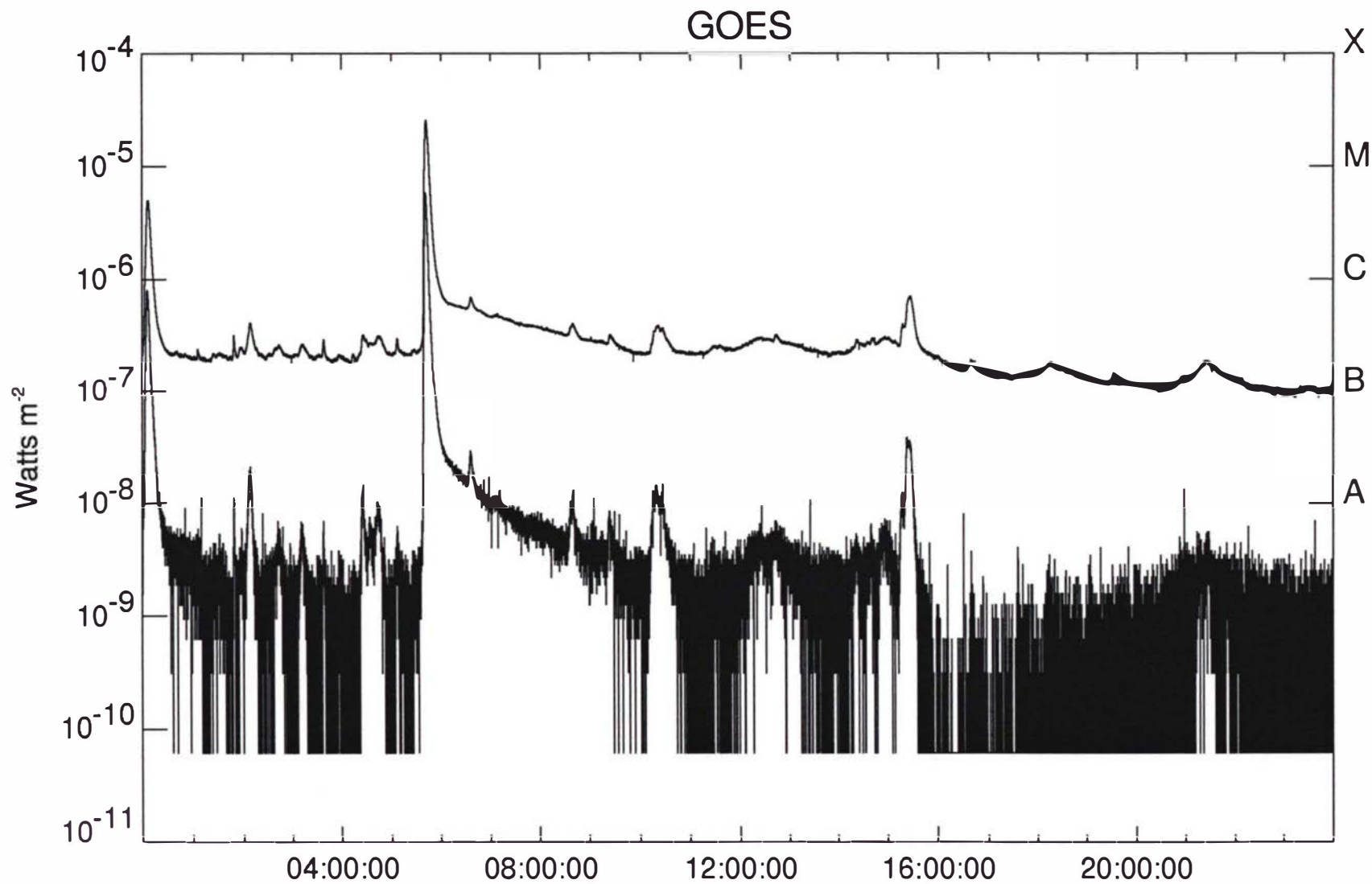
0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 94/12/14, 0000:01

Plot created: 94/12/19, 0042

Channel

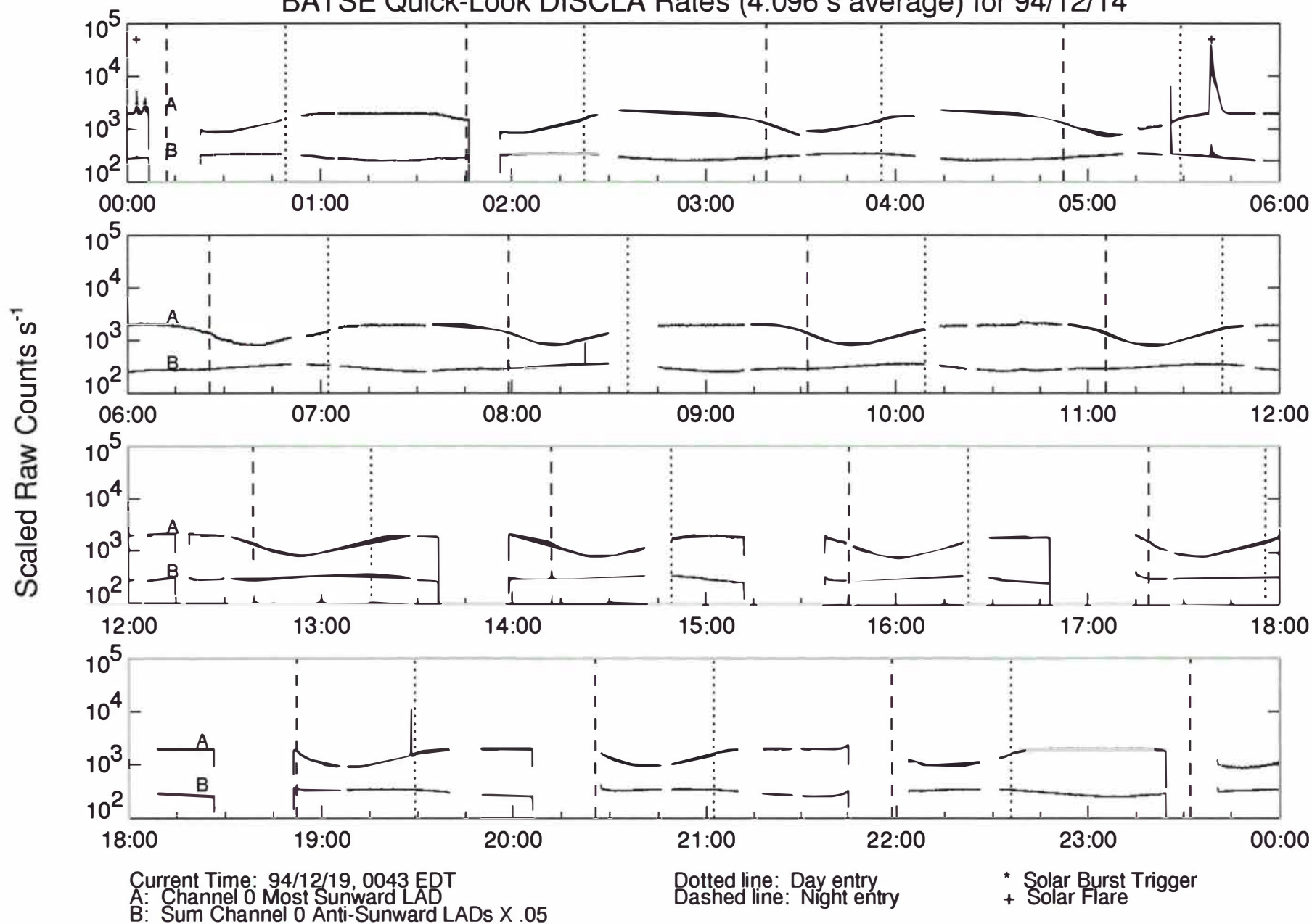
1 (1.0 - 8.0 Angstroms)

Background not subtracted

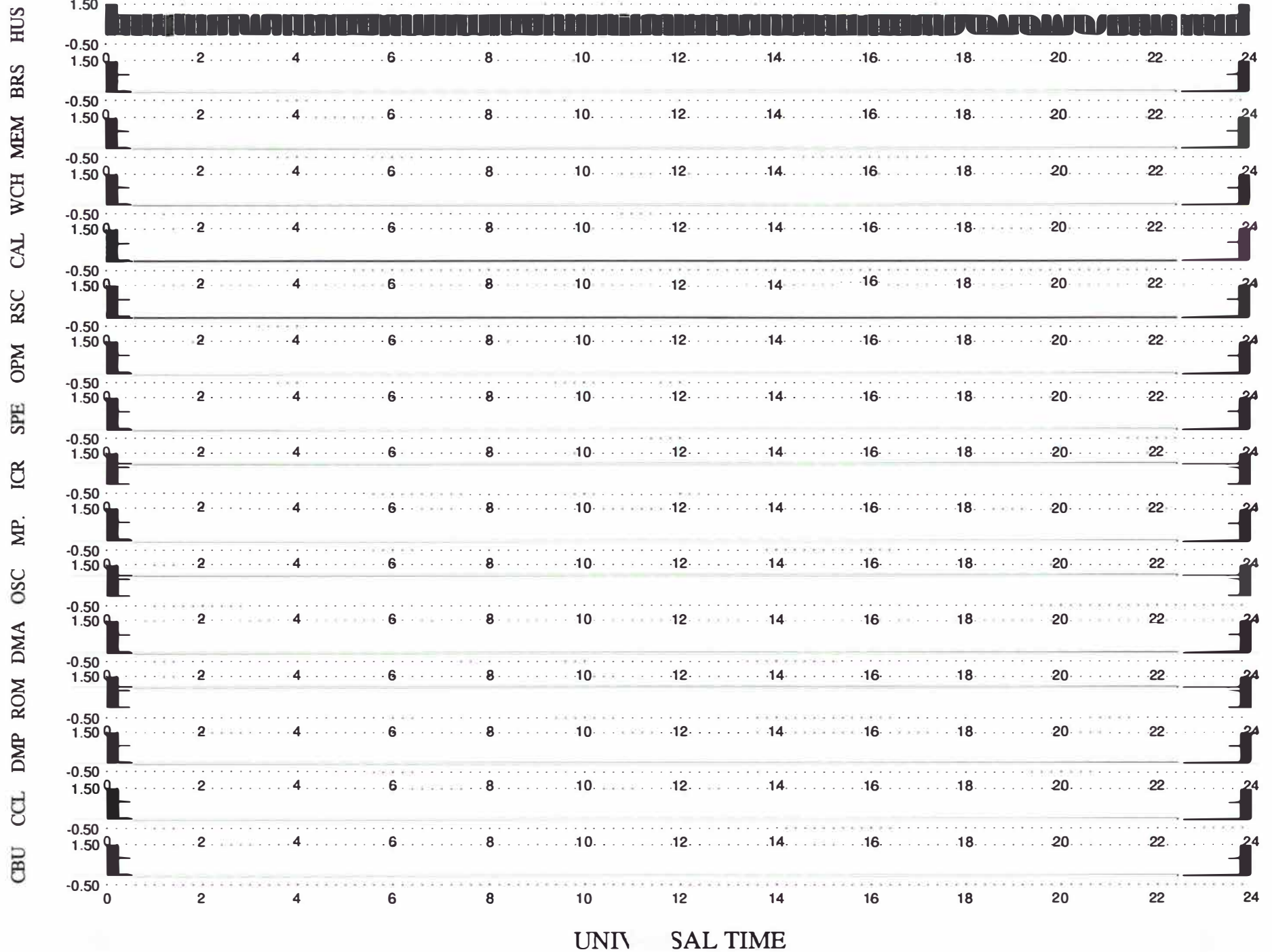
2 (0.5 - 4.0 Angstroms)

Background not subtracted

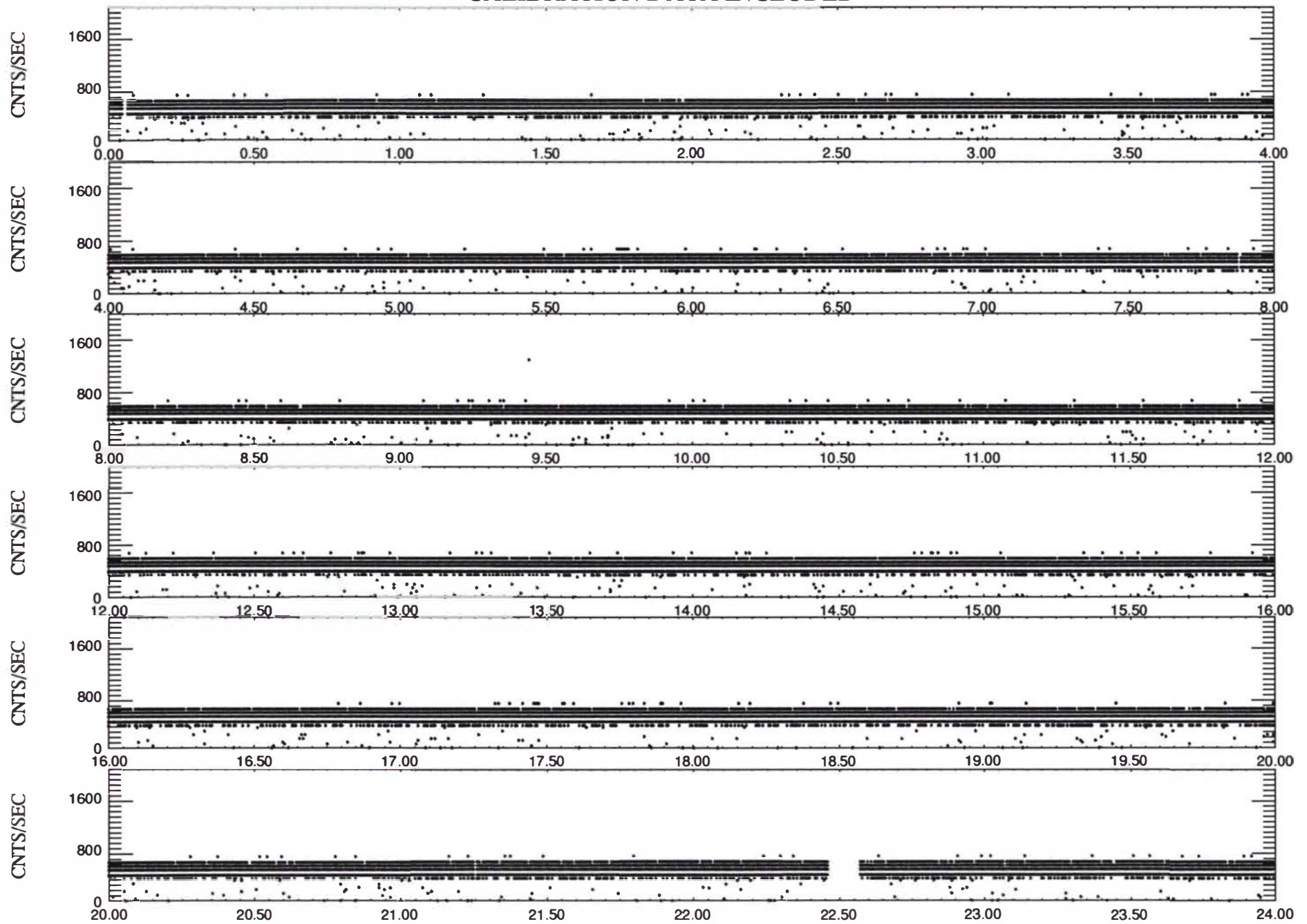
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/14



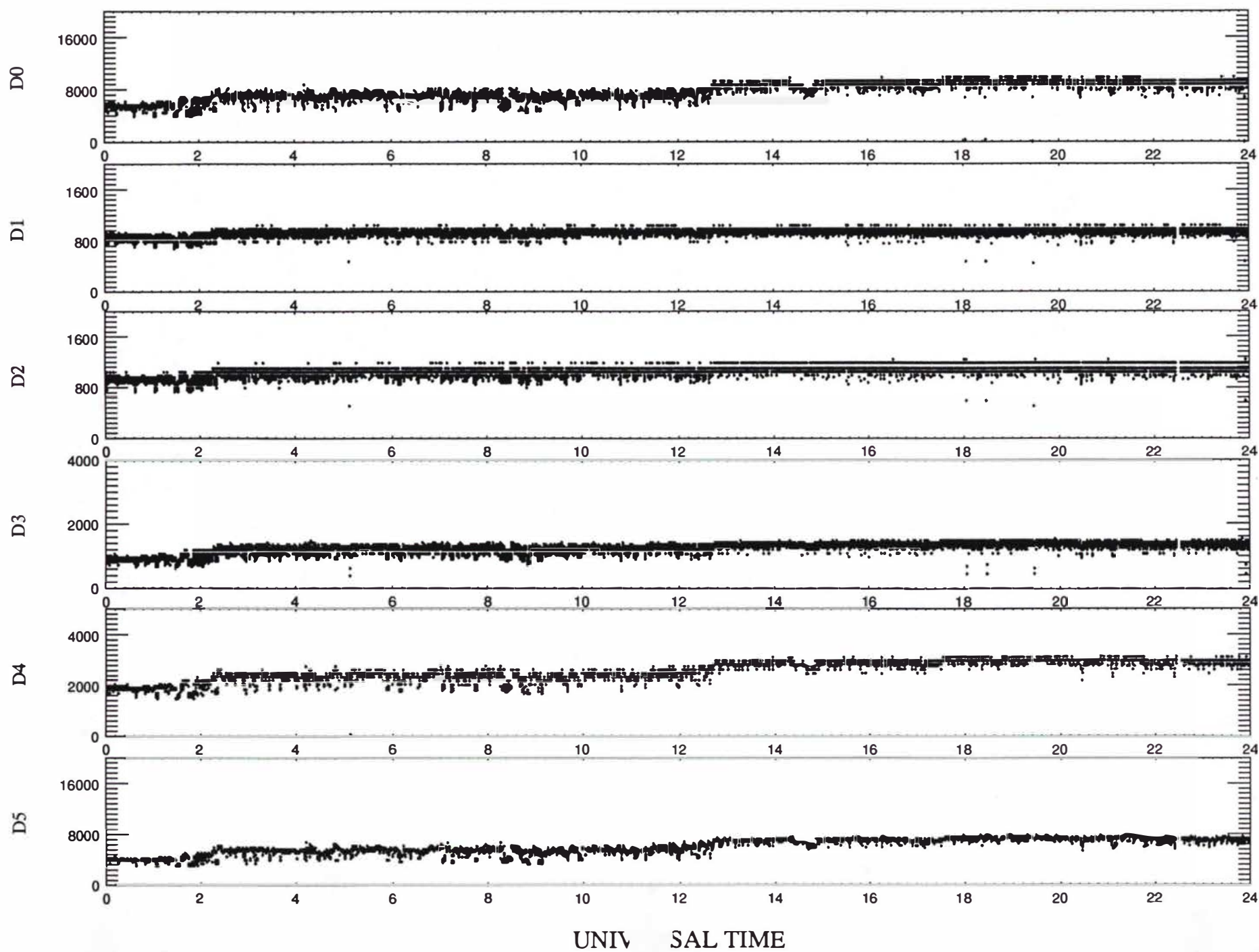
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From DEAL@ssl.msfc.nasa.gov Mon Dec 19 06:35 PST 1994
Date: Mon, 19 Dec 1994 8:35:03 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3320

BATSEARCH PROGRAM

BATSE BURST # 3320
EVENT OF 1994 DEC 15 DAY OF YEAR=349
EVENT CROSSING TIME AT BATSE : 1570. S. OR 00:26:10.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 135.000 23.000
BATSE PEAK COUNTING RATE: 5000 C/S

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 15/12/ 94 IS:
RA= 300.168 DEC= -63.401 DIST= 2.151 AU
BATSE-ULYSSES DISTANCE = 321836970. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 41.60 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 802.78 SECS.
CROSSING TIME AT ULYSSES IS 2373. S. OR 00:39:32 +/- 185.94 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 15/12/ 94 IS:
RA= 153.653 DEC= 13.929 DIST= 0.977 AU
MARS-BATSE DISTANCE = 146158640. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=160.15 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -458.56 SECS.
CROSSING TIME AT MARS IS 1111. S. OR 00:18:31 +/- 21.78 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3320

TIME: TJD=9701 SECONDS=01570

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=68.8 AZIMUTH=211.2 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 50S. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3320	941215	9701	01570	5000	135	+23

19 / 12 / 94

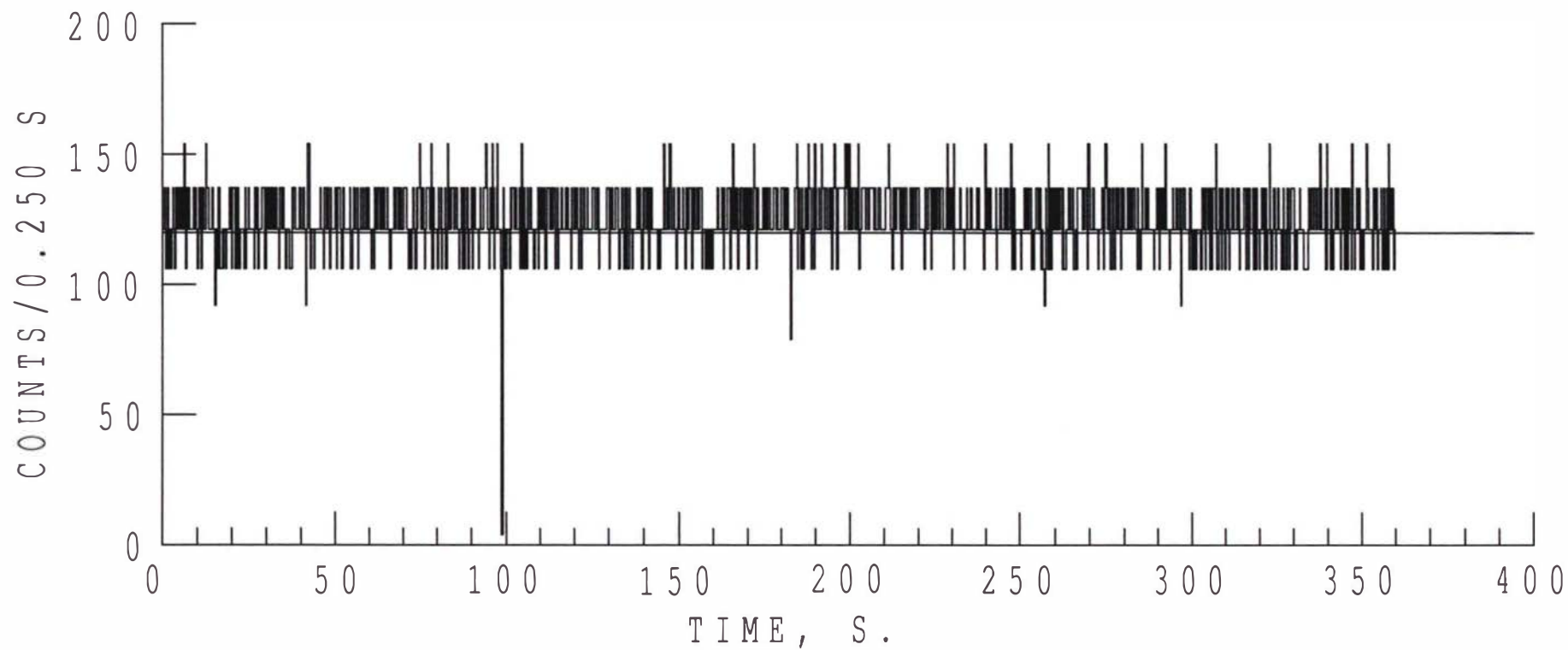
ULYSSES RT

15 / 12 / 94 2196.042 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Mon Dec 19 06:36 PST 1994
Date: Mon, 19 Dec 1994 8:36:44 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3321

BATSEARCH PROGRAM

BATSE BURST # 3321
EVENT OF 1994 DEC 15 DAY OF YEAR=349
EVENT CROSSING TIME AT BATSE : 29330. S. OR 08:08:50.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 154.000 -19.000
BATSE PEAK COUNTING RATE: 3300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 15/12/ 94 IS:
RA= 300.538 DEC= -63.199 DIST= 2.152 AU
BATSE-ULYSSES DISTANCE = 321884907. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 86.27 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 69.87 SECS.
CROSSING TIME AT ULYSSES IS 29400. S. OR 08:09:59 +/- 237.08 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 15/12/ 94 IS:
RA= 153.653 DEC= 13.929 DIST= 0.977 AU
MARS-BATSE DISTANCE = 146158640. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=147.07 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -409.20 SECS.
CROSSING TIME AT MARS IS 28921. S. OR 08:02:00 +/- 39.80 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3321

TIME: TJD=9701 SECONDS=29330

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=57.3 AZIMUTH=262.8 ERROR= DEGREES

COMMENTS:
BURST WITH STRUCTURE LASTING ~ 40S. NOT VISIBLE ABOVE 300 KEV.

cc: DEAL@ssl.msfc.nasa.gov
Subject: BATSE Burst 3321

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3321	941215	9701	29330	3300	154	-19

19 / 12 / 94

ULYSSES RT

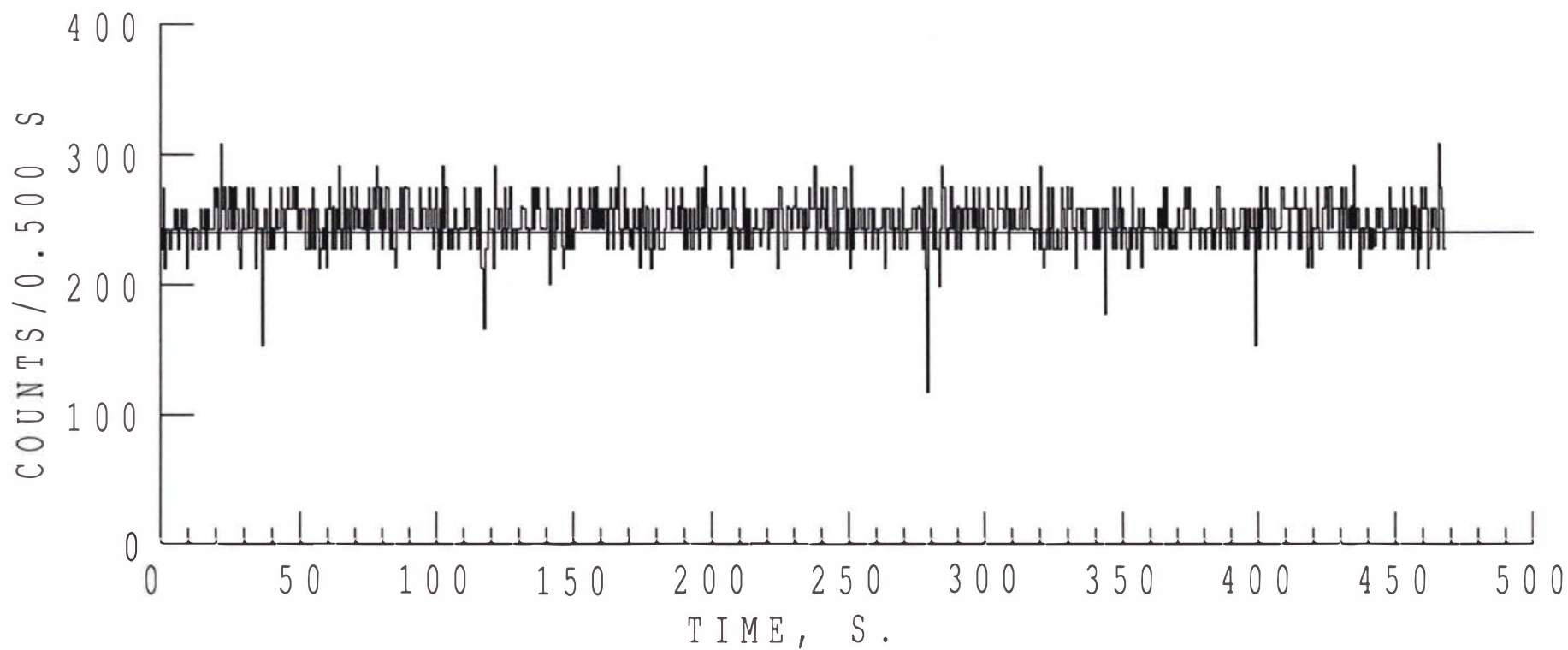
15 / 12 / 94 29160.064 s

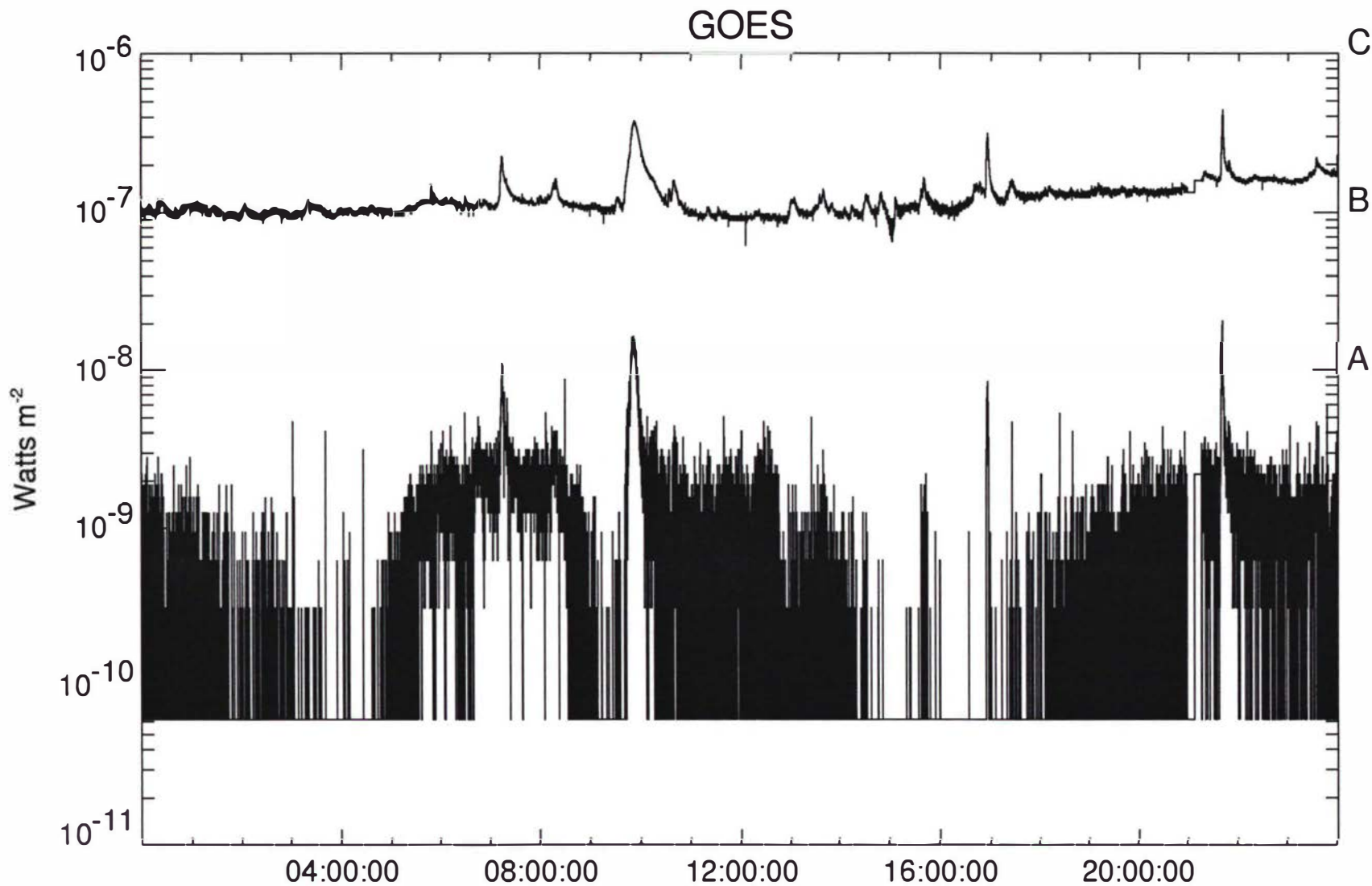
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 94/12/15, 0000:02

Plot created: 94/12/19, 0046

Channel

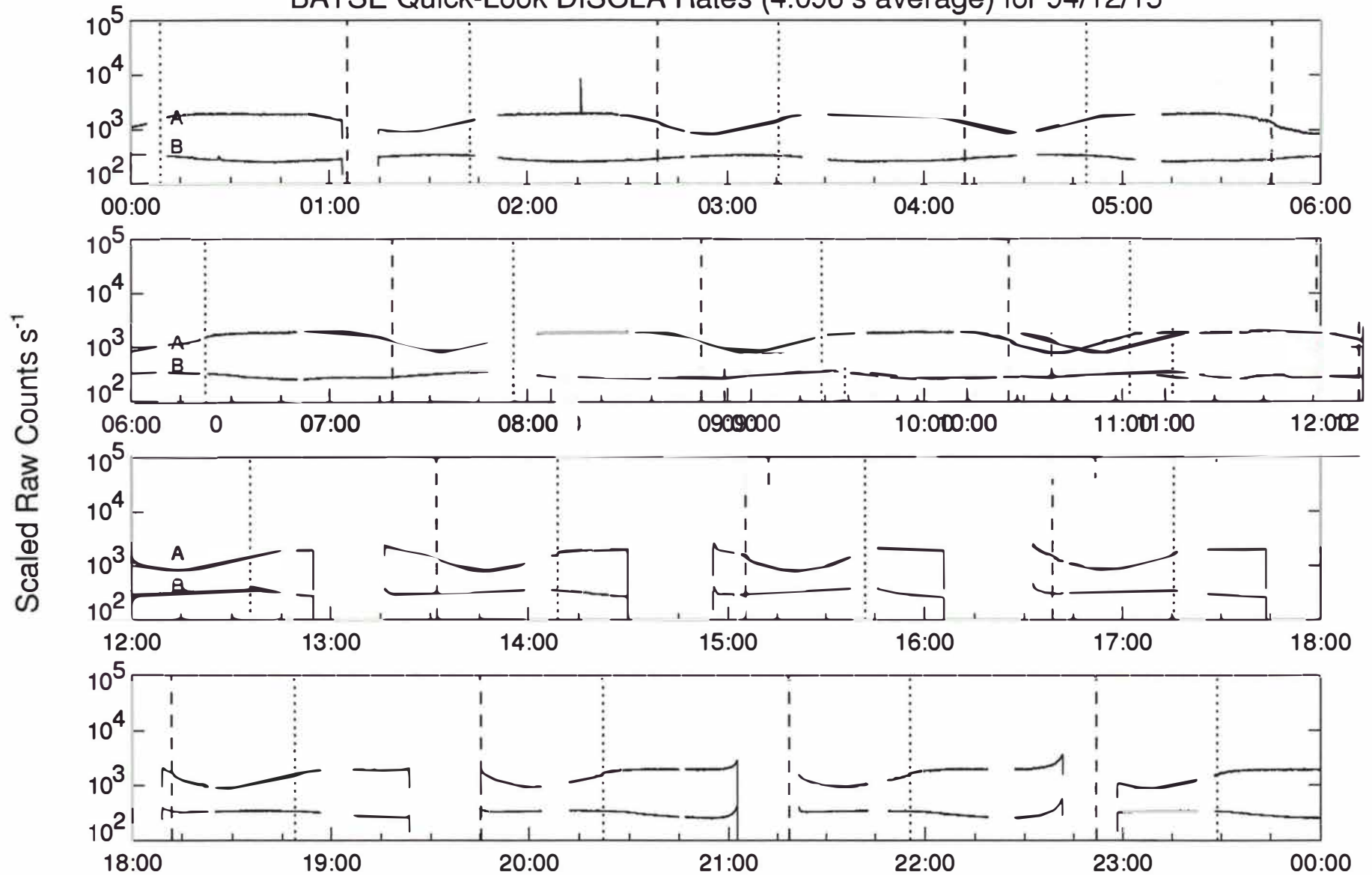
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/15

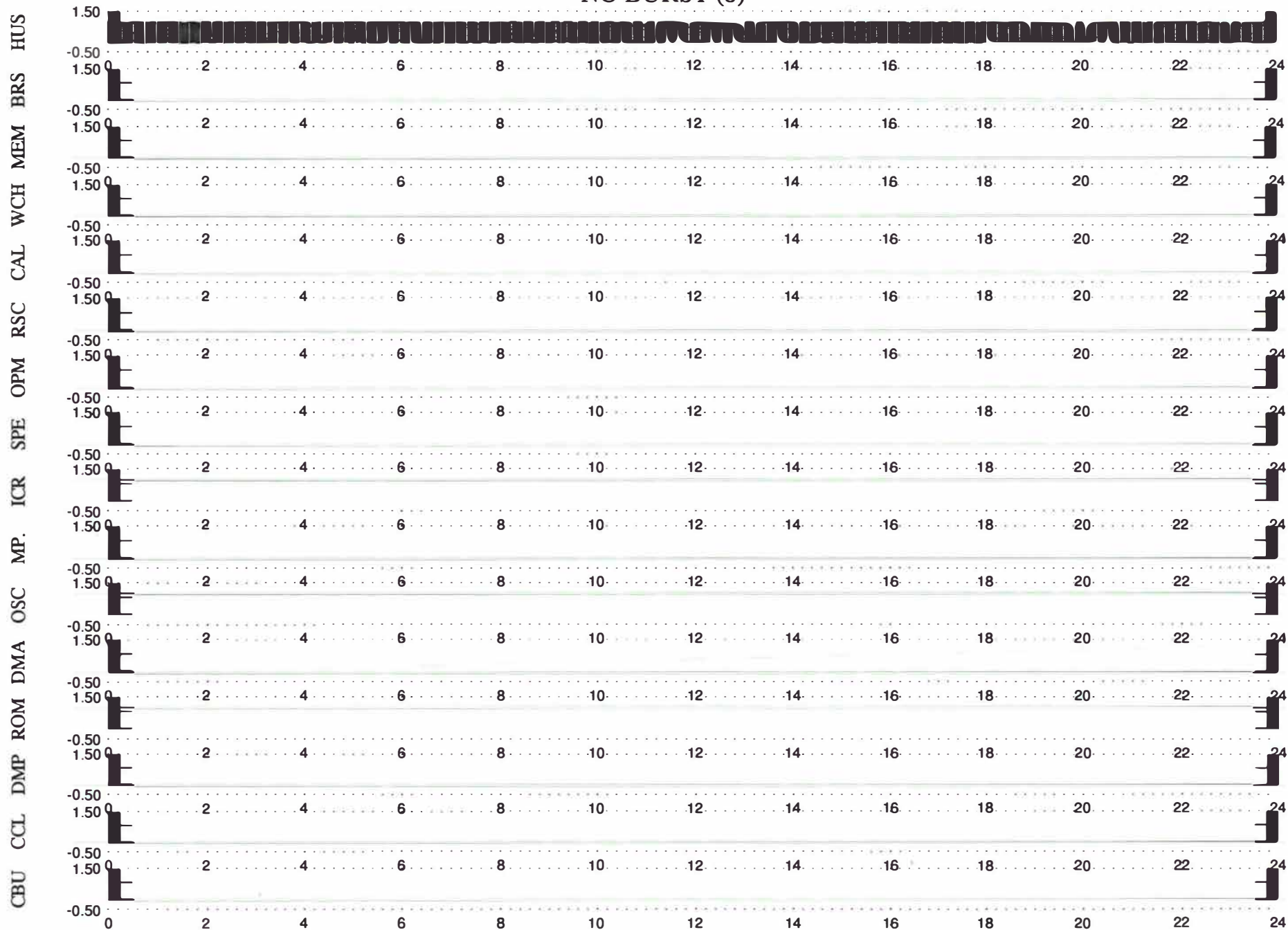


Current Time: 94/12/19, 0047 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

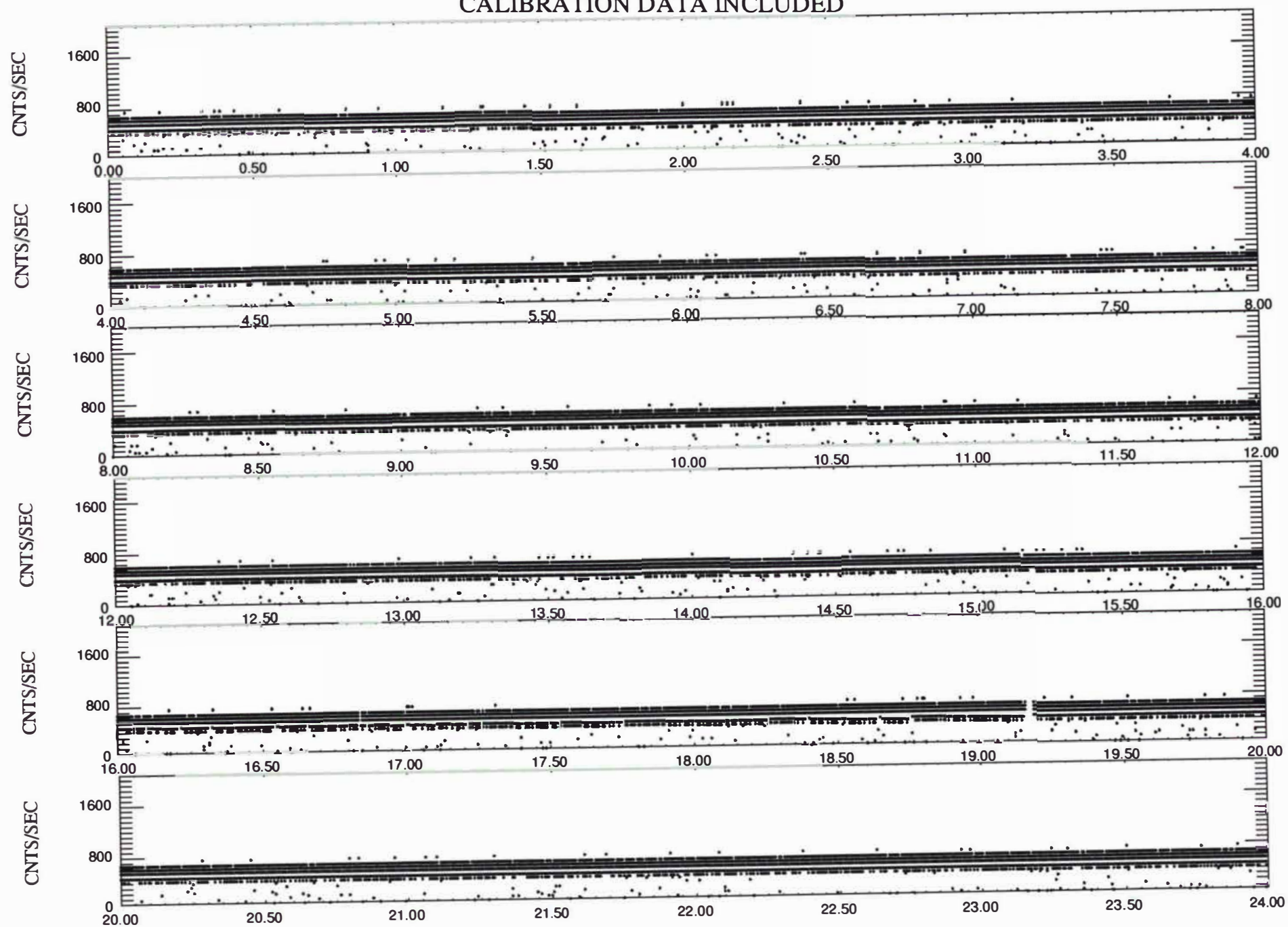
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

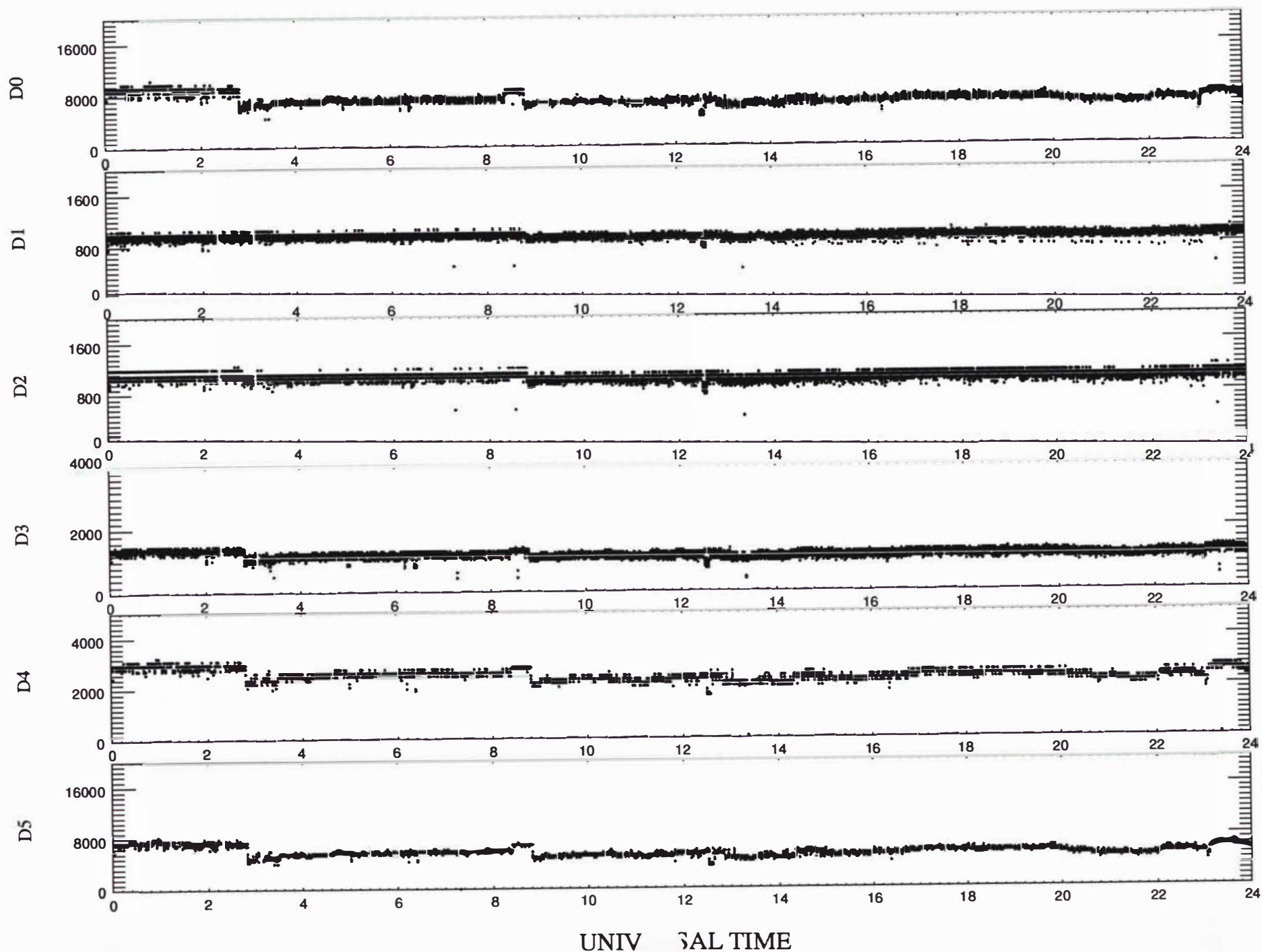
UNIV SAL TIME

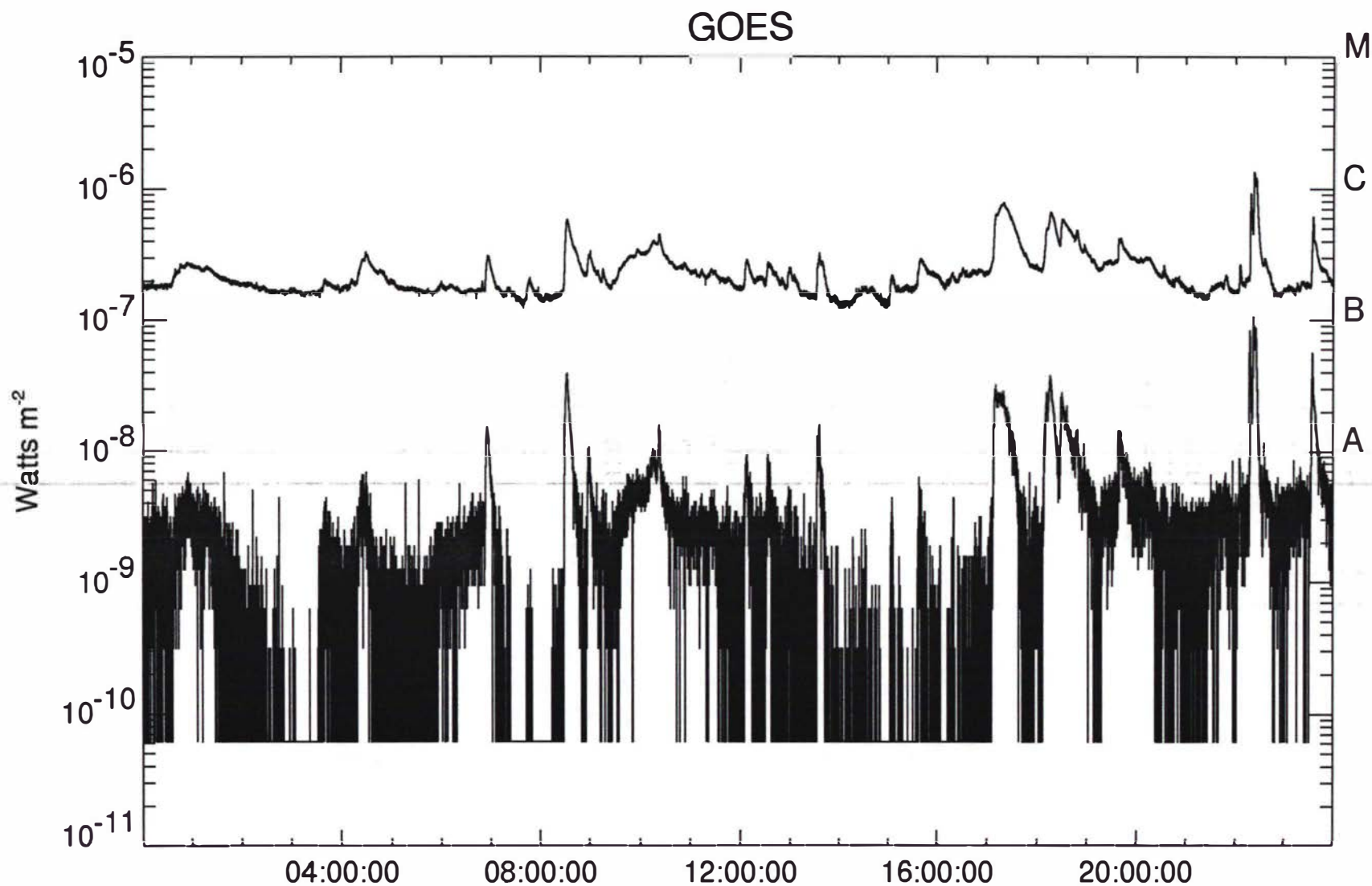


CALIBRATION DATA INCLUDED



UNIV SAL TIME





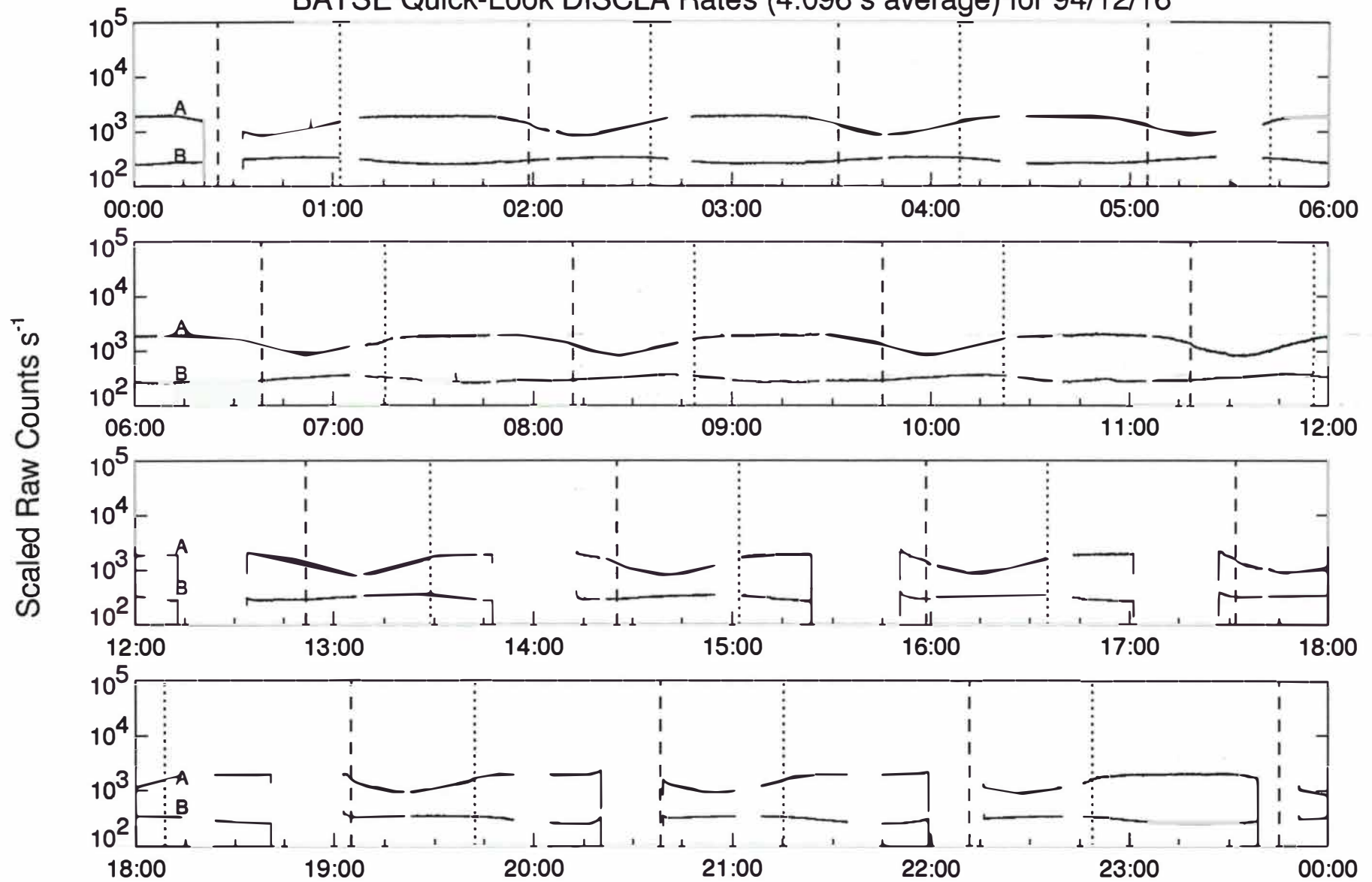
Data Start: 94/12/16, 0000:00

Plot created: 94/12/20, 1442

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 94/12/16

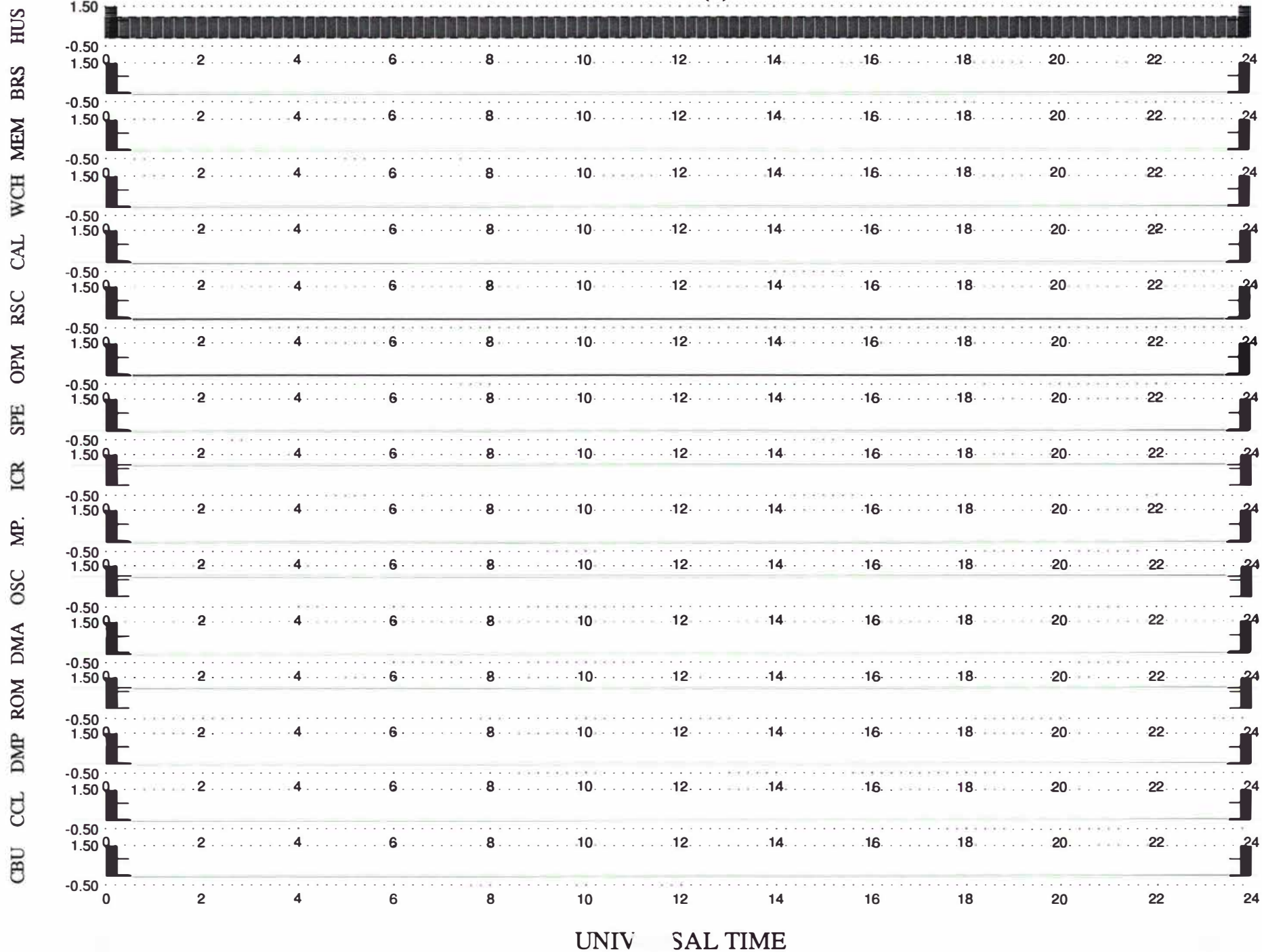


Current Time: 94/12/20, 1443 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

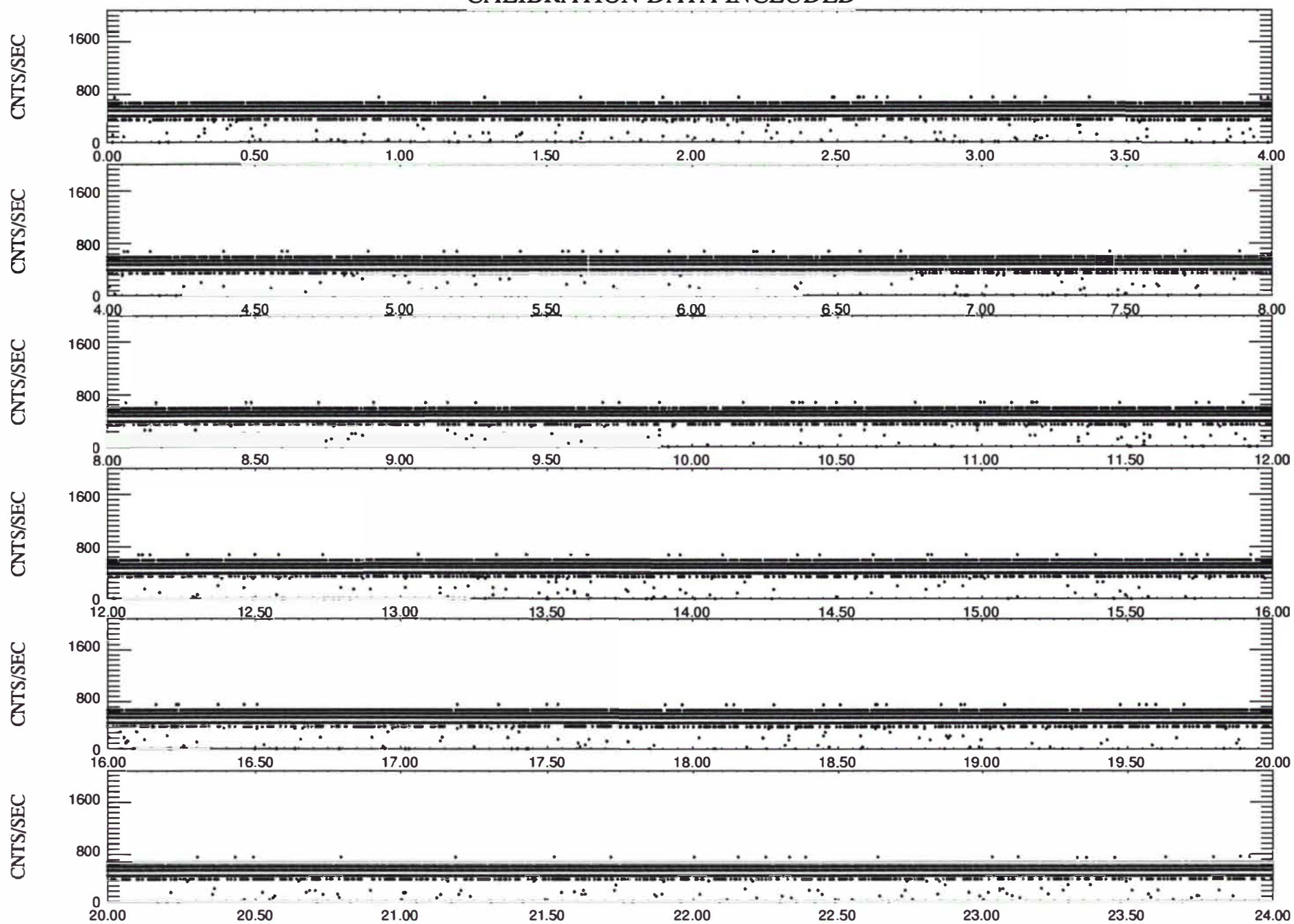
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

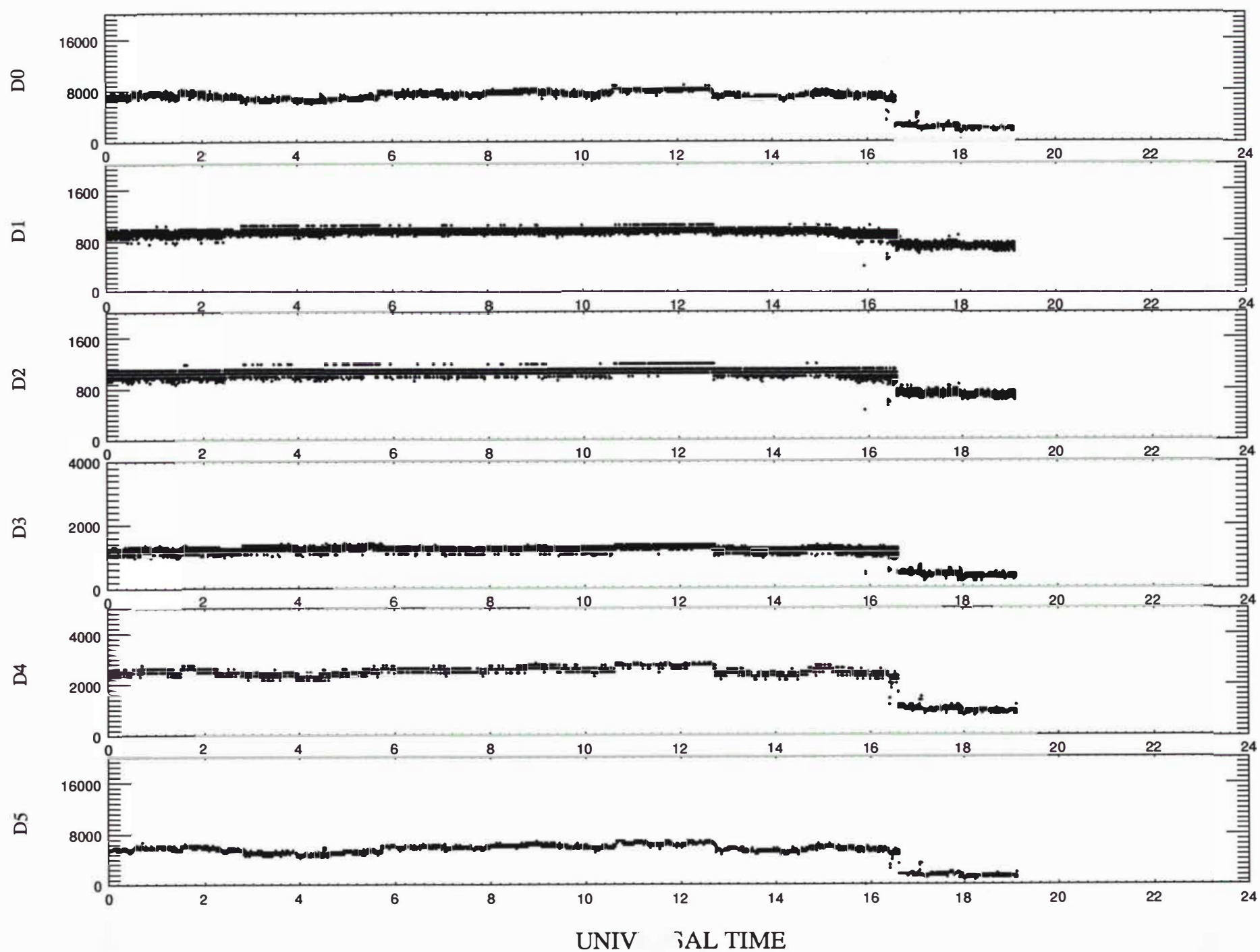
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From DEAL@ssl.msfc.nasa.gov Tue Dec 20 09:26 PST 1994
Date: Tue, 20 Dec 1994 11:26:10 -0600 (CST)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3322

BATSEARCH PROGRAM

BATSE BURST # 3322
EVENT OF 1994 DEC 17 DAY OF YEAR=351
EVENT CROSSING TIME AT BATSE : 14491. S. OR 04:01:31.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 117.000 -80.000
BATSE PEAK COUNTING RATE: 3600 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 17/12/ 94 IS:
RA= 302.596 DEC= -62.035 DIST= 2.154 AU
BATSE-ULYSSES DISTANCE = 322181125. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=142.07 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -847.67 SECS.
CROSSING TIME AT ULYSSES IS 13643. S. OR 03:47:23 +/- 151.82 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 17/12/ 94 IS:
RA= 154.066 DEC= 13.850 DIST= 0.961 AU
MARS-BATSE DISTANCE = 143729856. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 84.19 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 48.53 SECS.
CROSSING TIME AT MARS IS 14540. S. OR 04:02:19 +/- 83.55 SECONDS

khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3322

TIME: TJD=9703 SECONDS=14491

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=97.2 AZIMUTH=314.0 ERROR= DEGREES

COMMENTS:

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

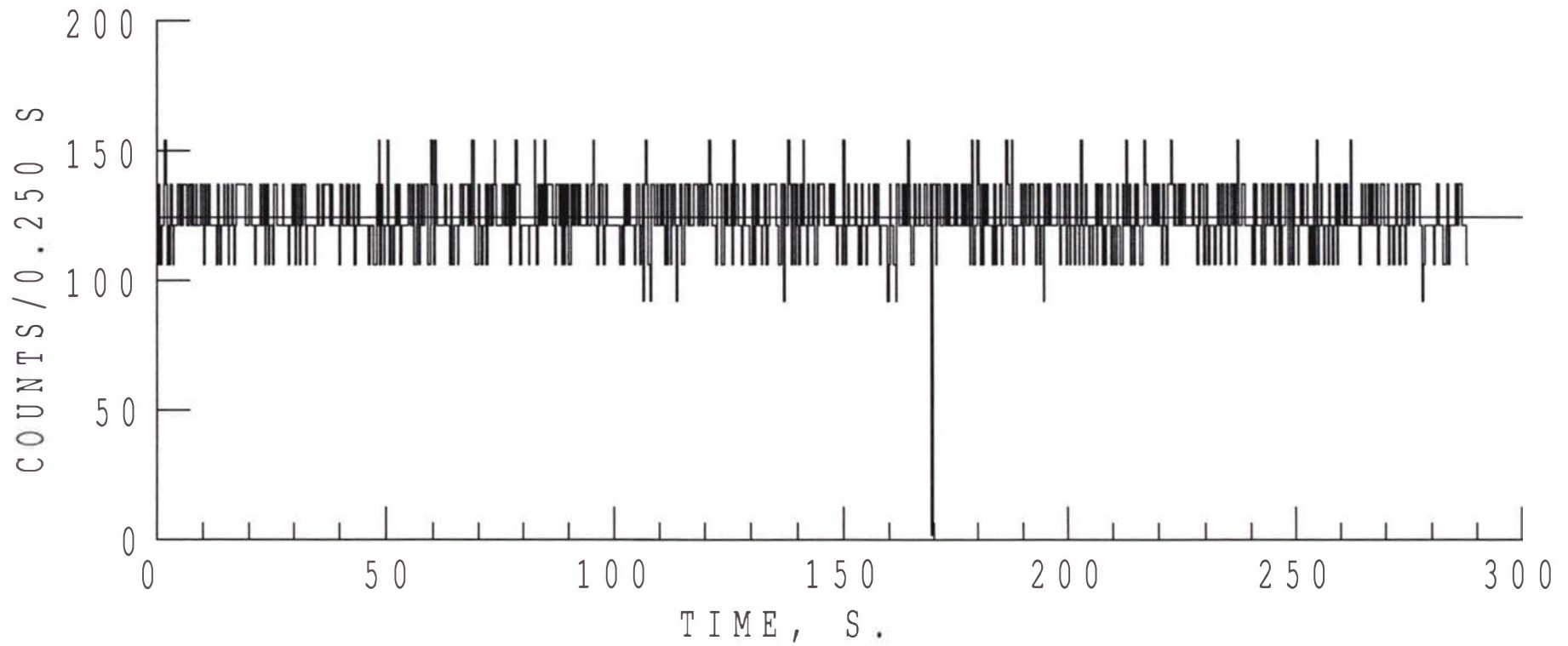
Subject: BATSE Burst 3322

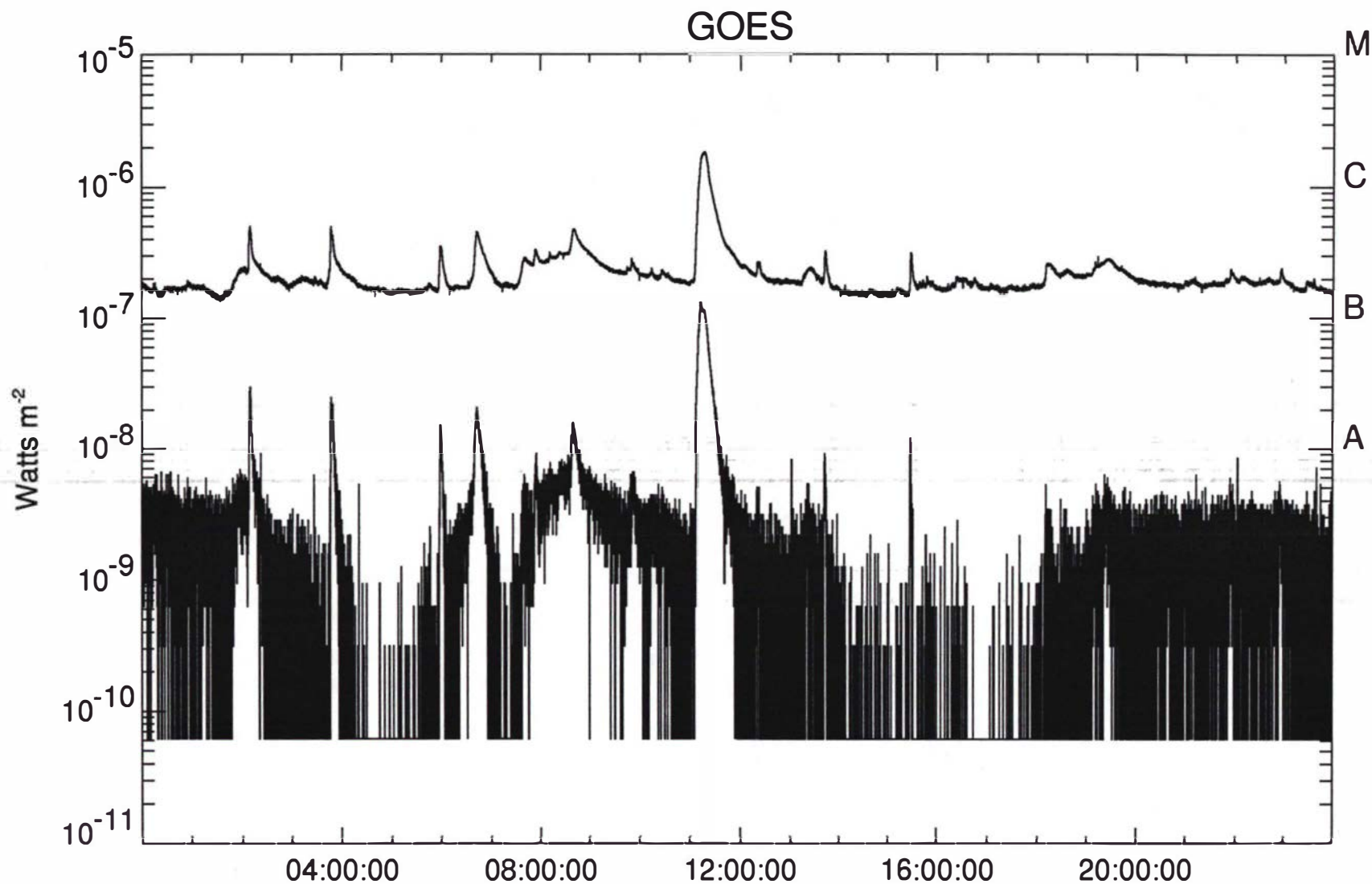
BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3322	941217	9703	14491	3600	117	-80

20 / 12 / 94

ULYSSES RT
17 / 12 / 94 13500.179 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



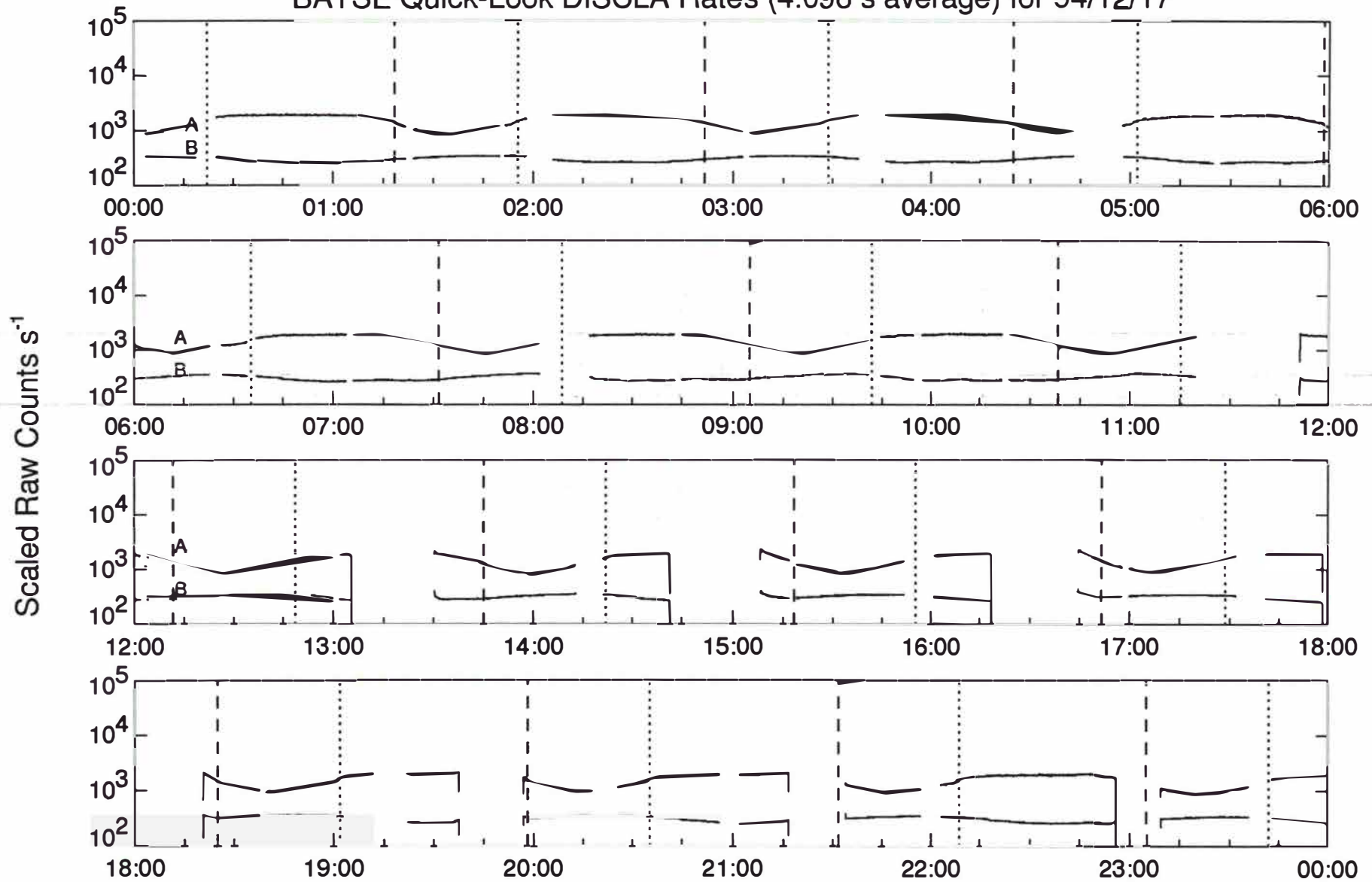


Data Start: 94/12/17, 0000:01

Plot created: 94/12/20, 1446

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 94/12/17

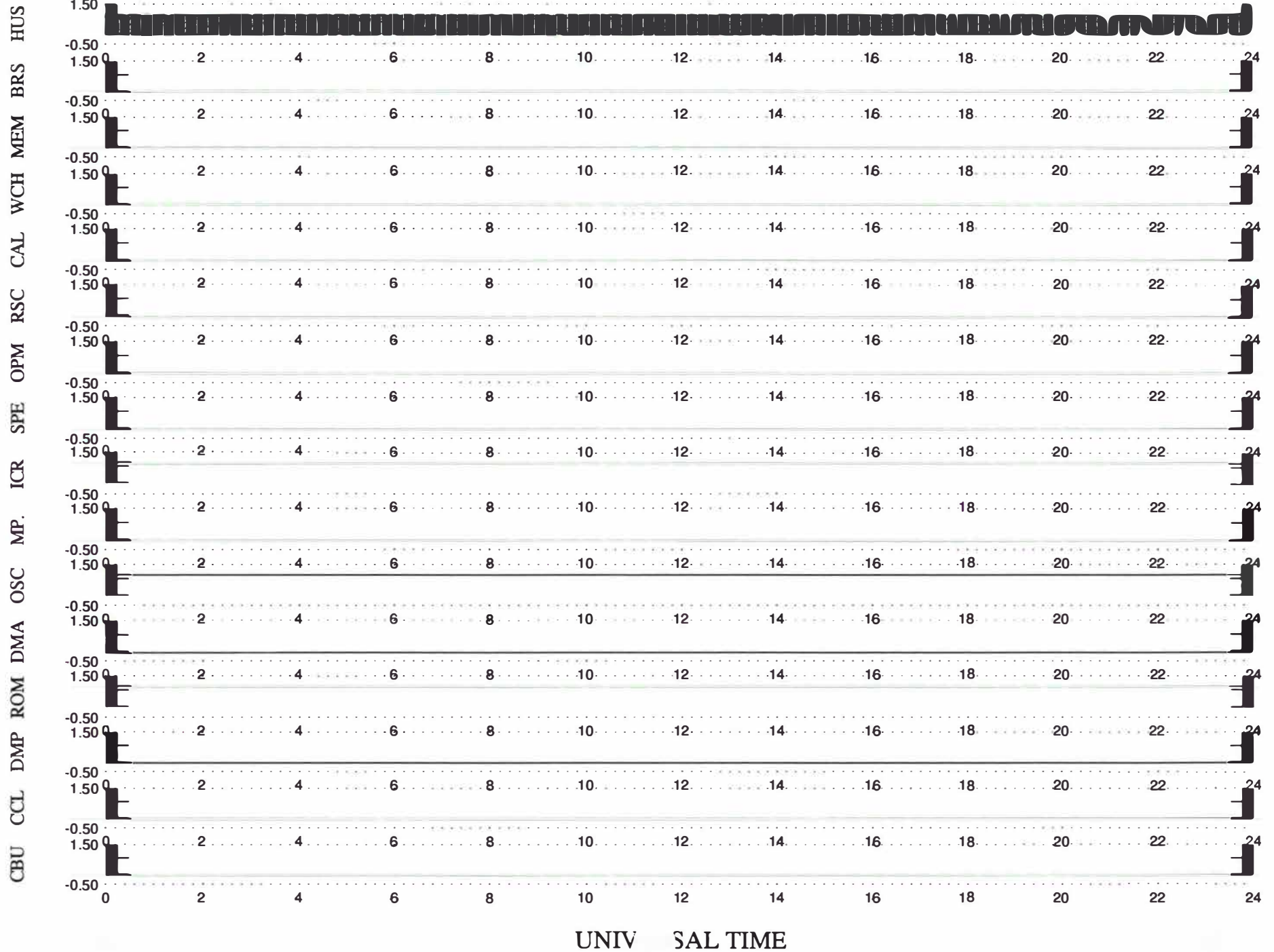


Current Time: 94/12/20, 1447 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

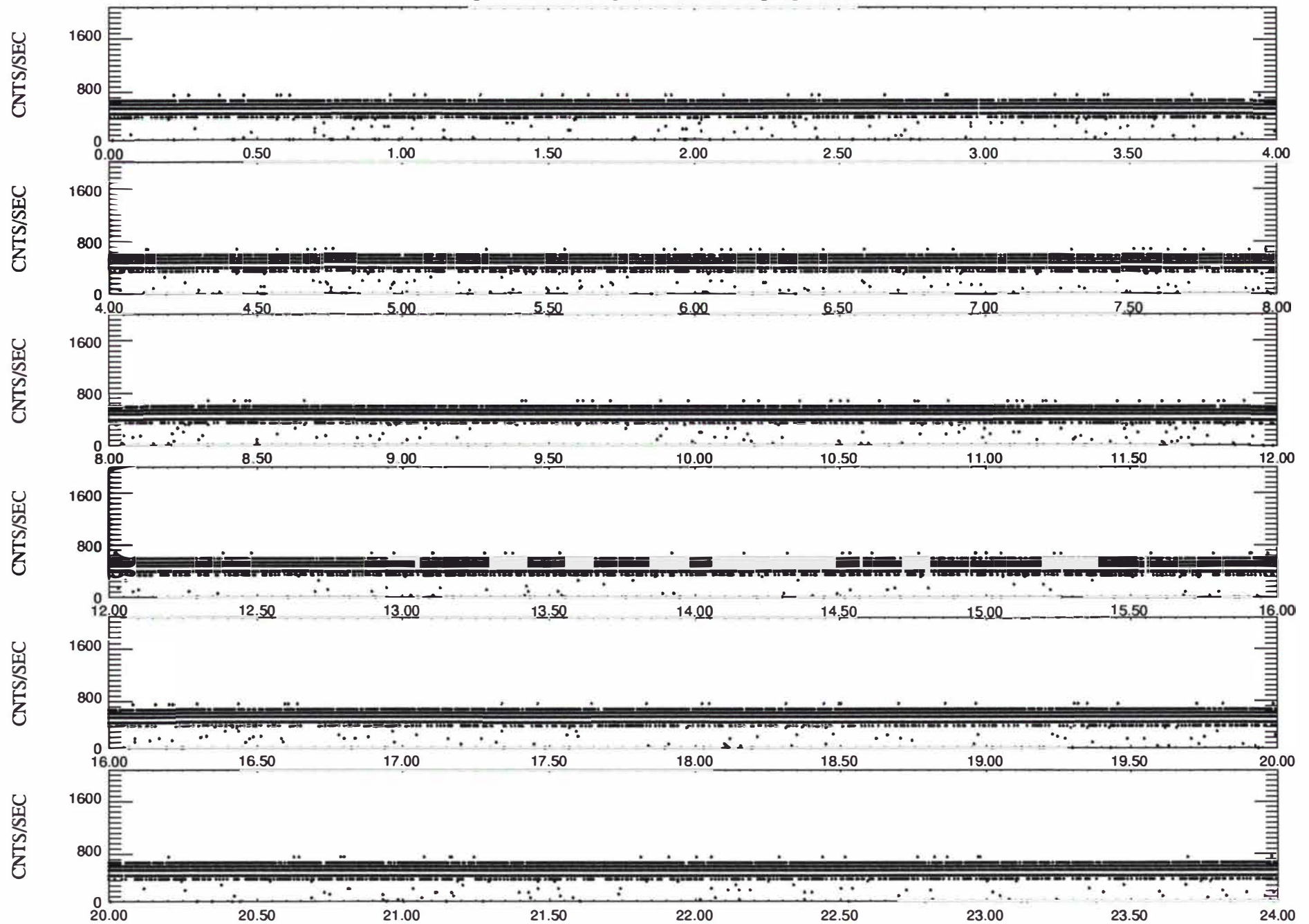
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

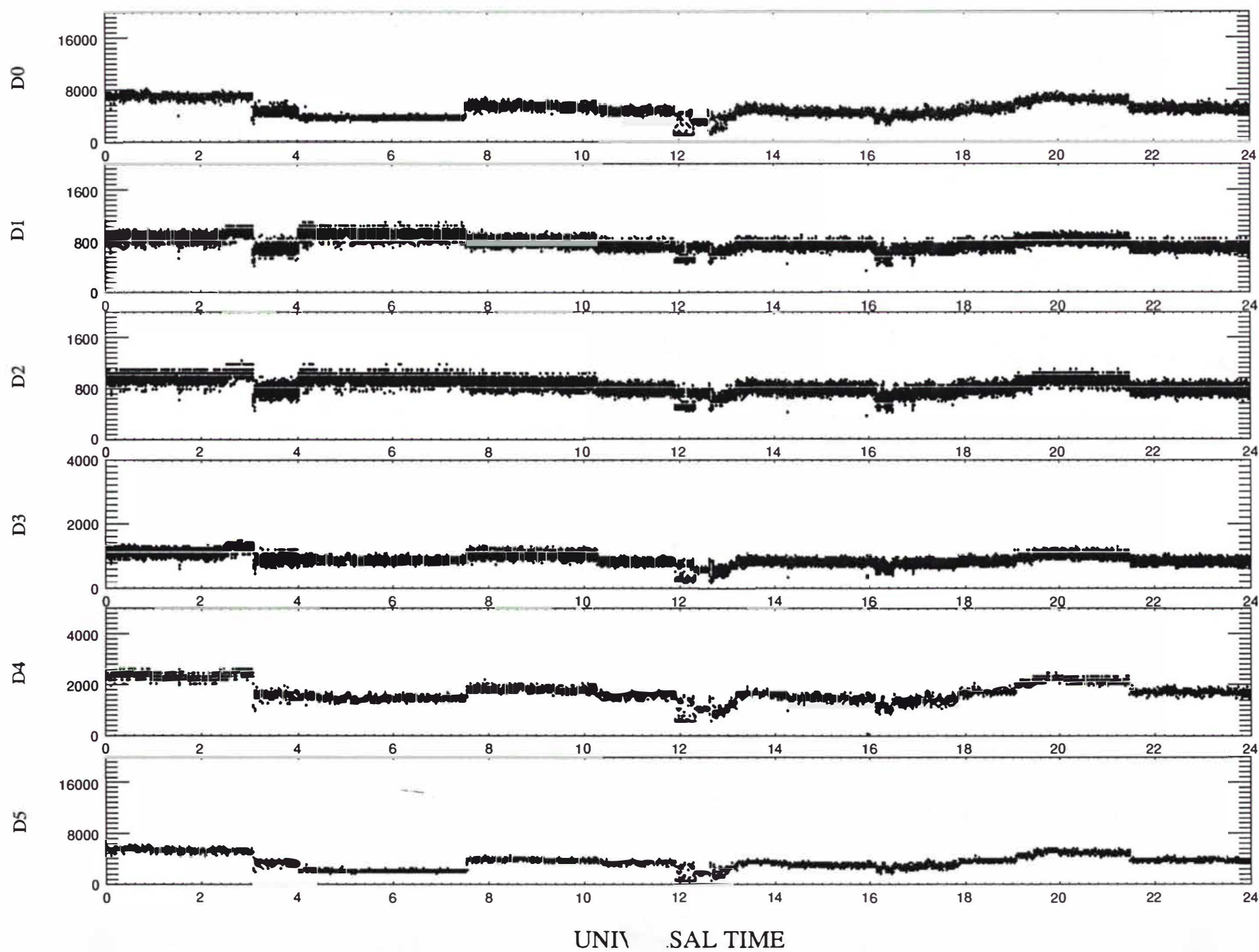
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From KOSHUT@ssl.msfc.nasa.gov Tue Dec 20 09:13 PST 1994
Date: Tue, 20 Dec 1994 11:13:41 -0600 (CST)
From: KOSHUT@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3323

BATSEARCH PROGRAM

ND

BATSE BURST # 3323
EVENT OF 1994 DEC 18 DAY OF YEAR=352
EVENT CROSSING TIME AT BATSE : 42027. S. OR 11:40:27.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 185.000 47.000
BATSE PEAK COUNTING RATE: 5000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/12/ 94 IS:
RA= 303.995 DEC= -61.184 DIST= 2.155 AU
BATSE-ULYSSES DISTANCE = 322445206. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 36.86 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 860.59 SECS.
CROSSING TIME AT ULYSSES IS 42888. S. OR 11:54:47 +/- 175.08 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/12/ 94 IS:
RA= 154.259 DEC= 13.816 DIST= 0.953 AU
MARS-BATSE DISTANCE = 142524544. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=138.06 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -353.64 SECS.
CROSSING TIME AT MARS IS 41673. S. OR 11:34:33 +/- 49.79 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3323

TIME: TJD=9704 SECONDS=42027

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=43. AZIMUTH=164. ERROR= DEGREES

COMMENTS:

SHORT BURST OF ~ 640 MS DURATION. SINGLE PULSE WITH NO SIGNIFICANT
SUBSTRUCTURE (BACKGROUND-SUBTRACTED PEAK RATE ~ 5000 C/S). EMISSION
ABOVE 300 KEV IS OBSERVED.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3323	941218	9704	42027	5000	185	+47

20 / 12 / 94

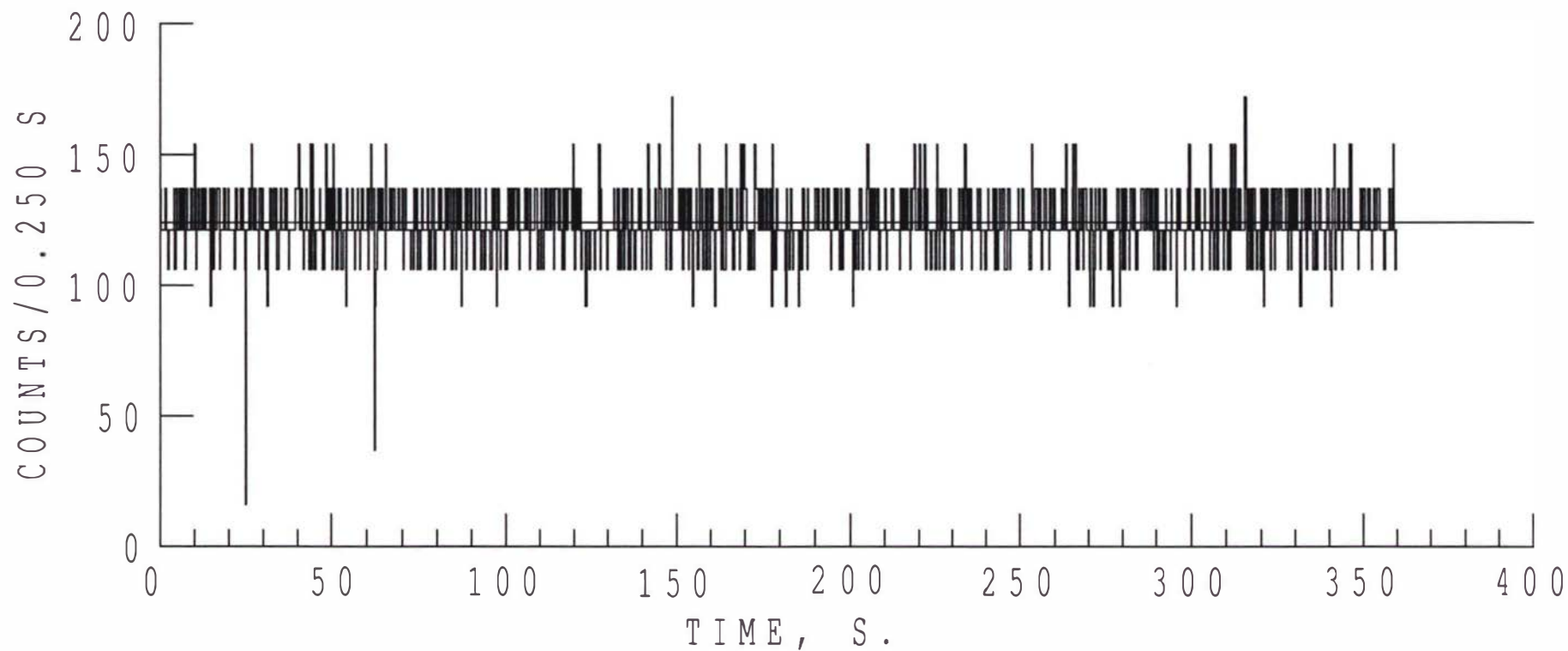
ULYSSES RT

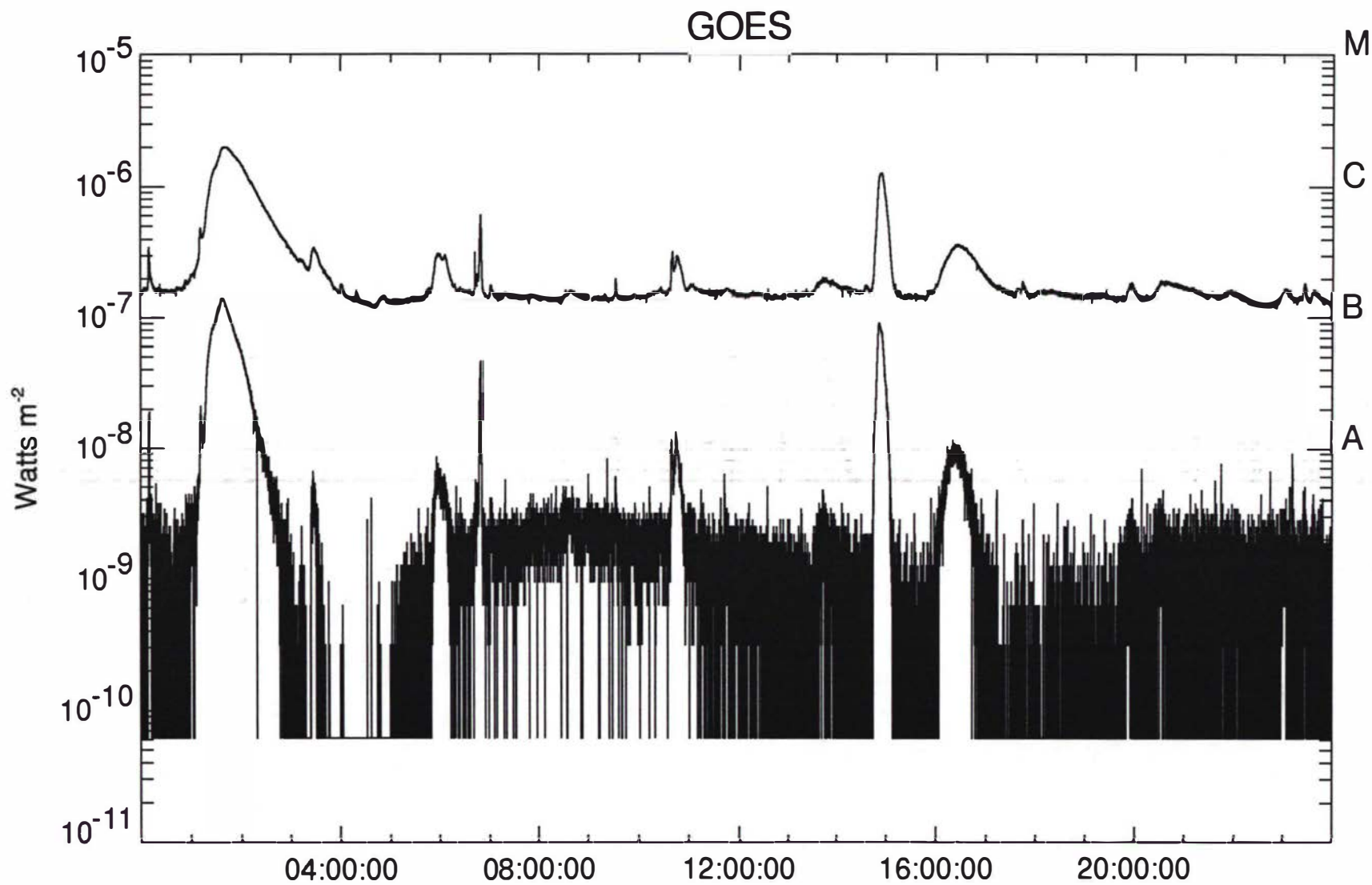
18 / 12 / 94 42696.035 s

0 - 0 keV

W= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





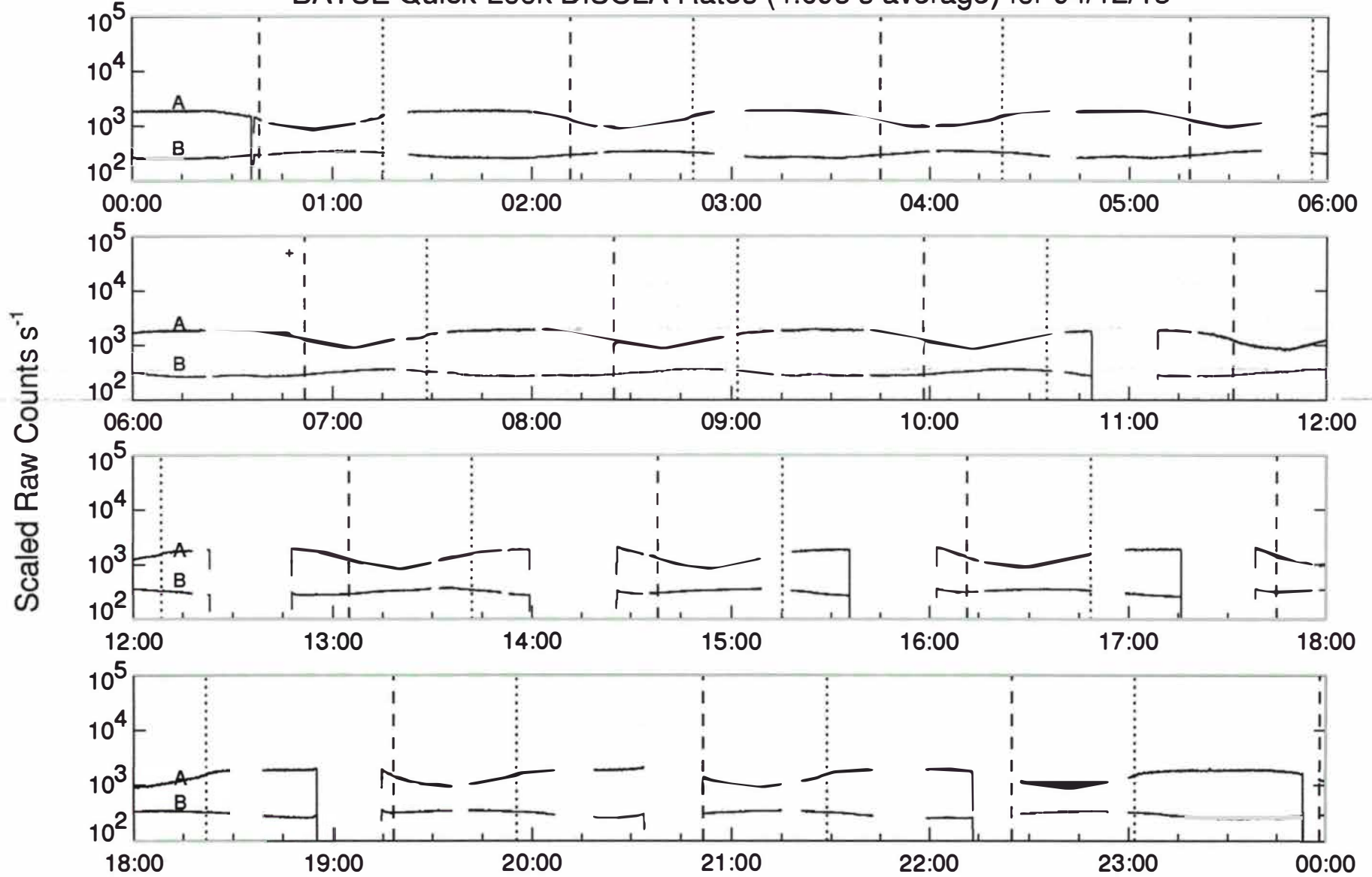
Data Start: 94/12/18, 0000:02

Plot created: 94/12/20, 1501

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

Background not subtracted
Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/18

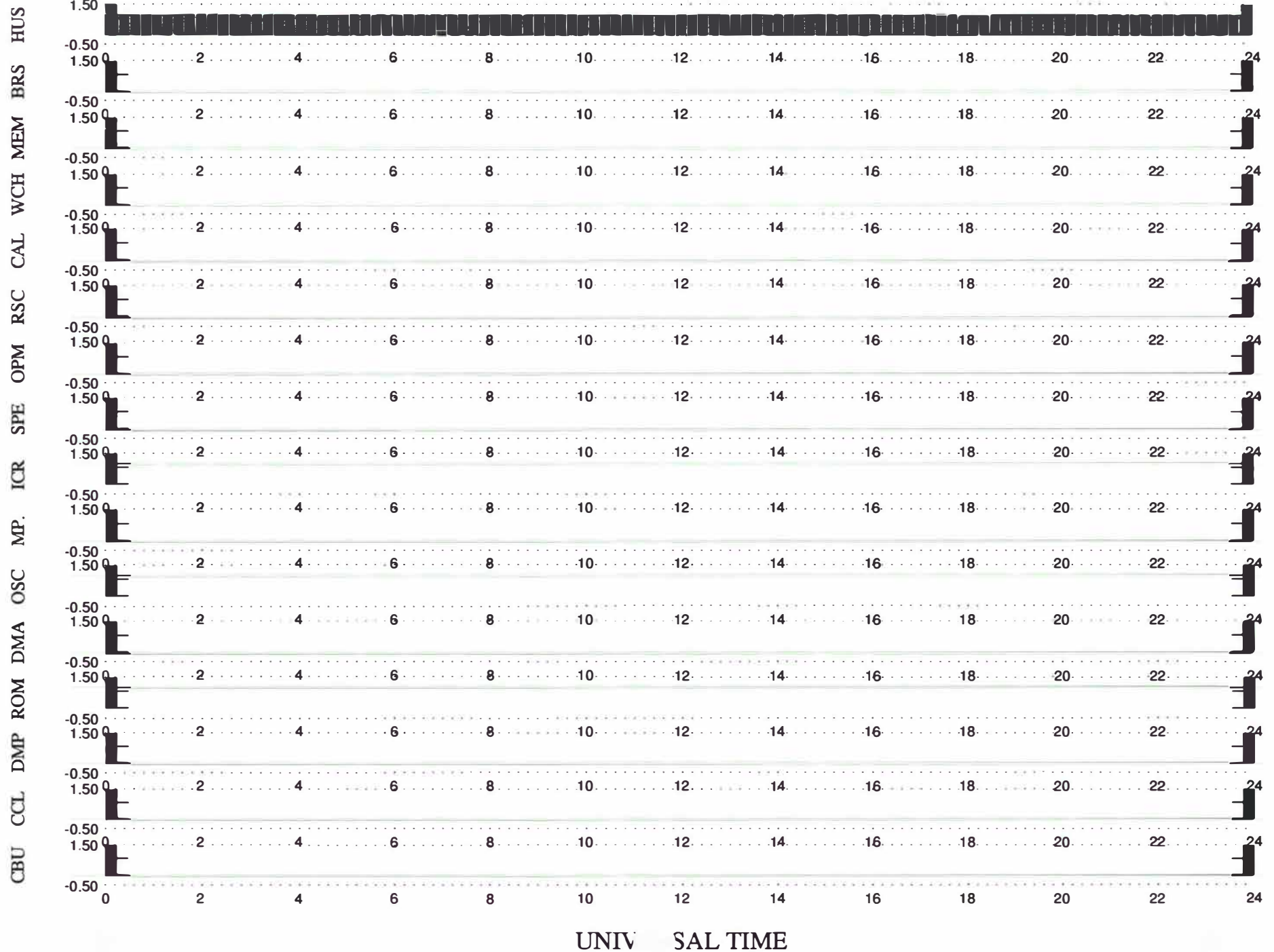


Current Time: 94/12/20, 1502 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

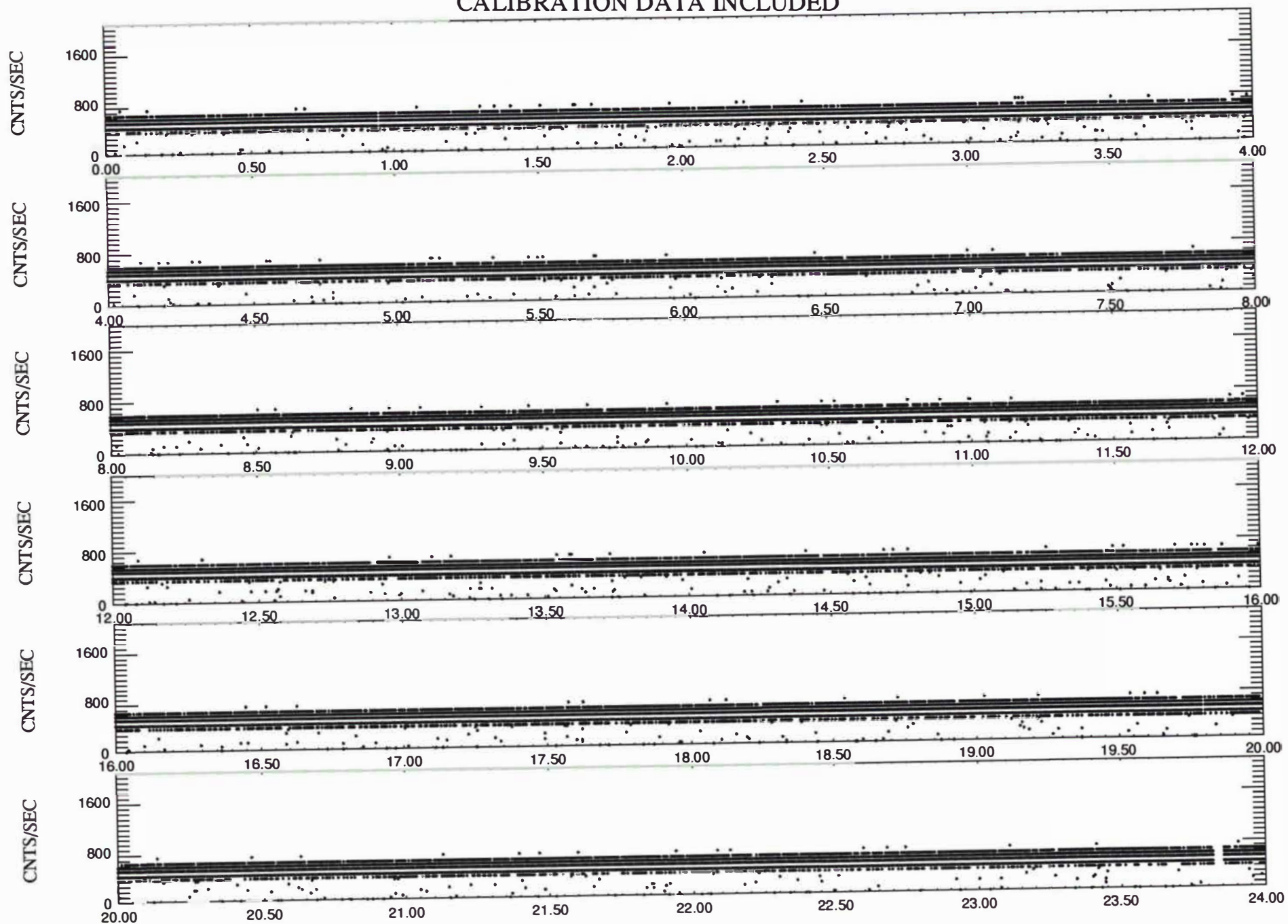
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

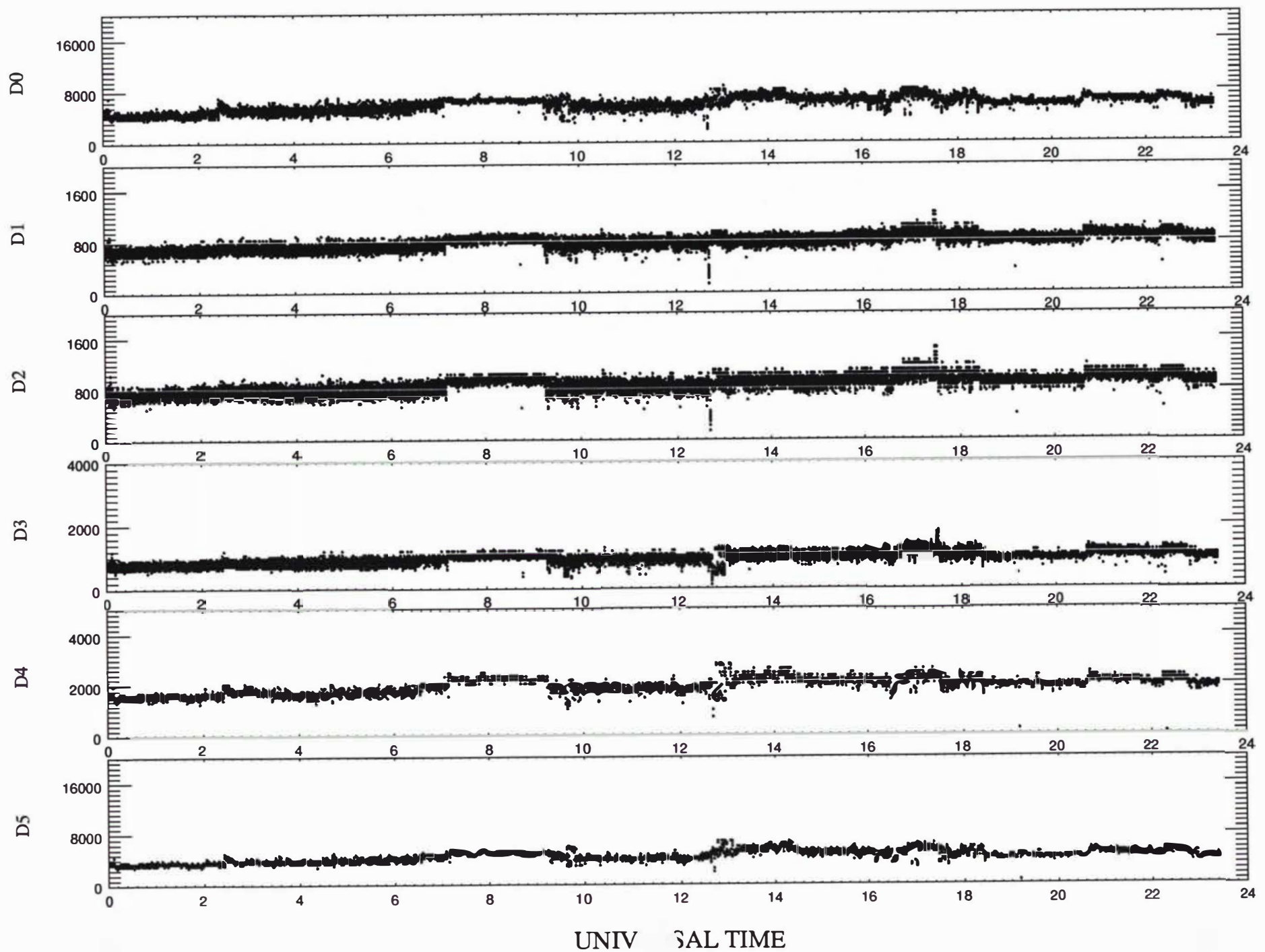
NO BURST (8)

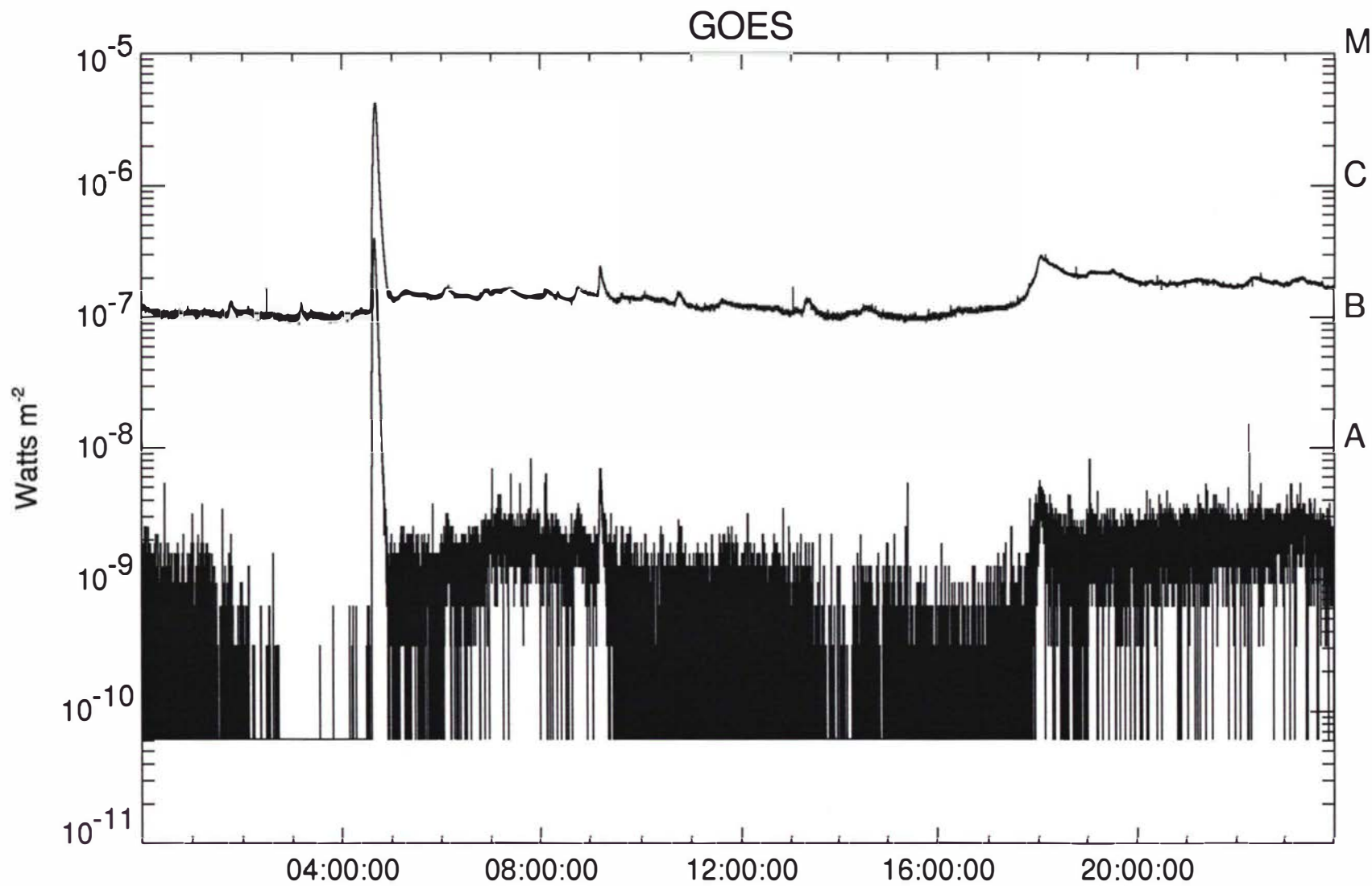


CALIBRATION DATA INCLUDED



UNIV SAL TIME





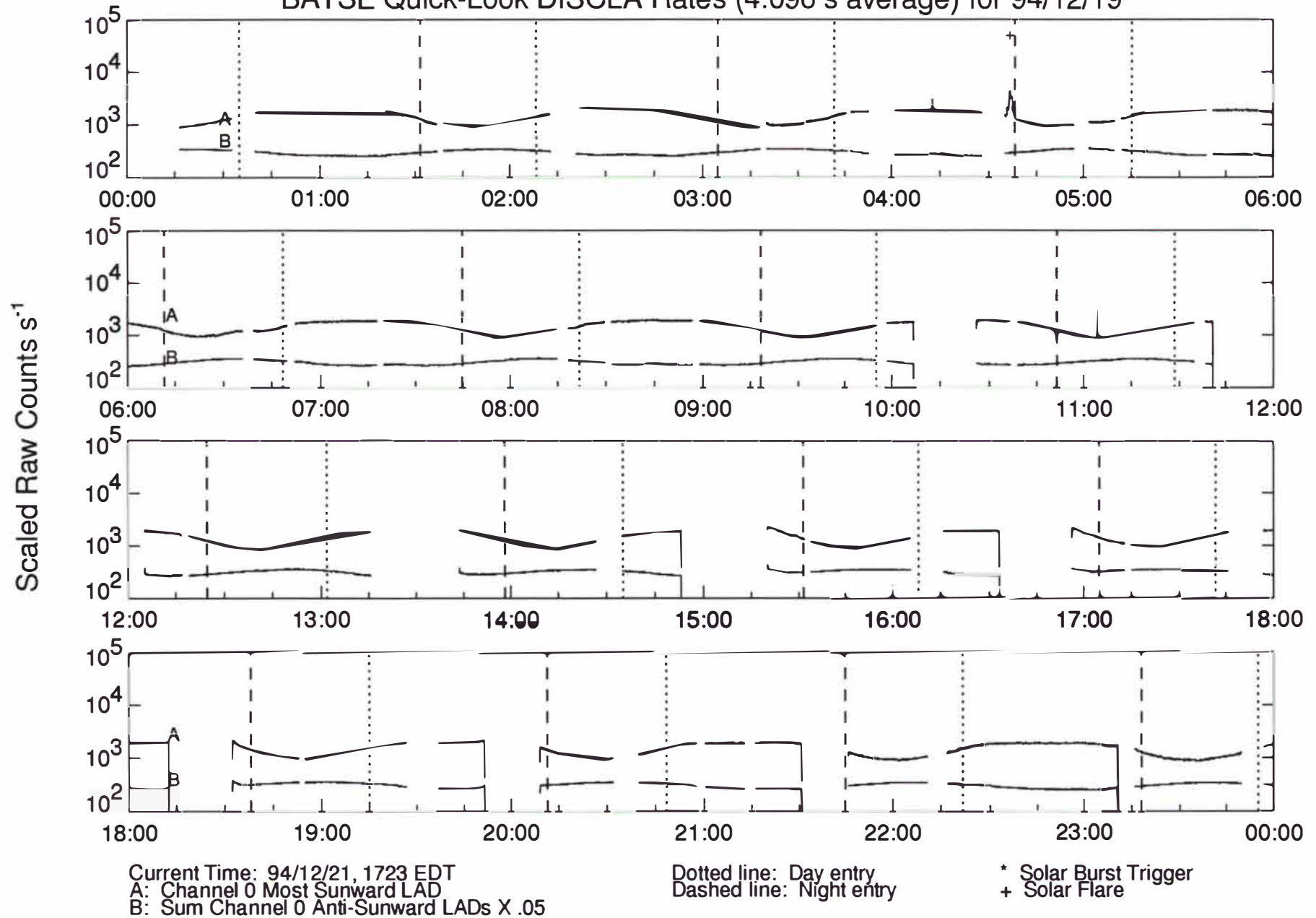
Data Start: 94/12/19, 0000:00

Plot created: 94/12/21, 1722

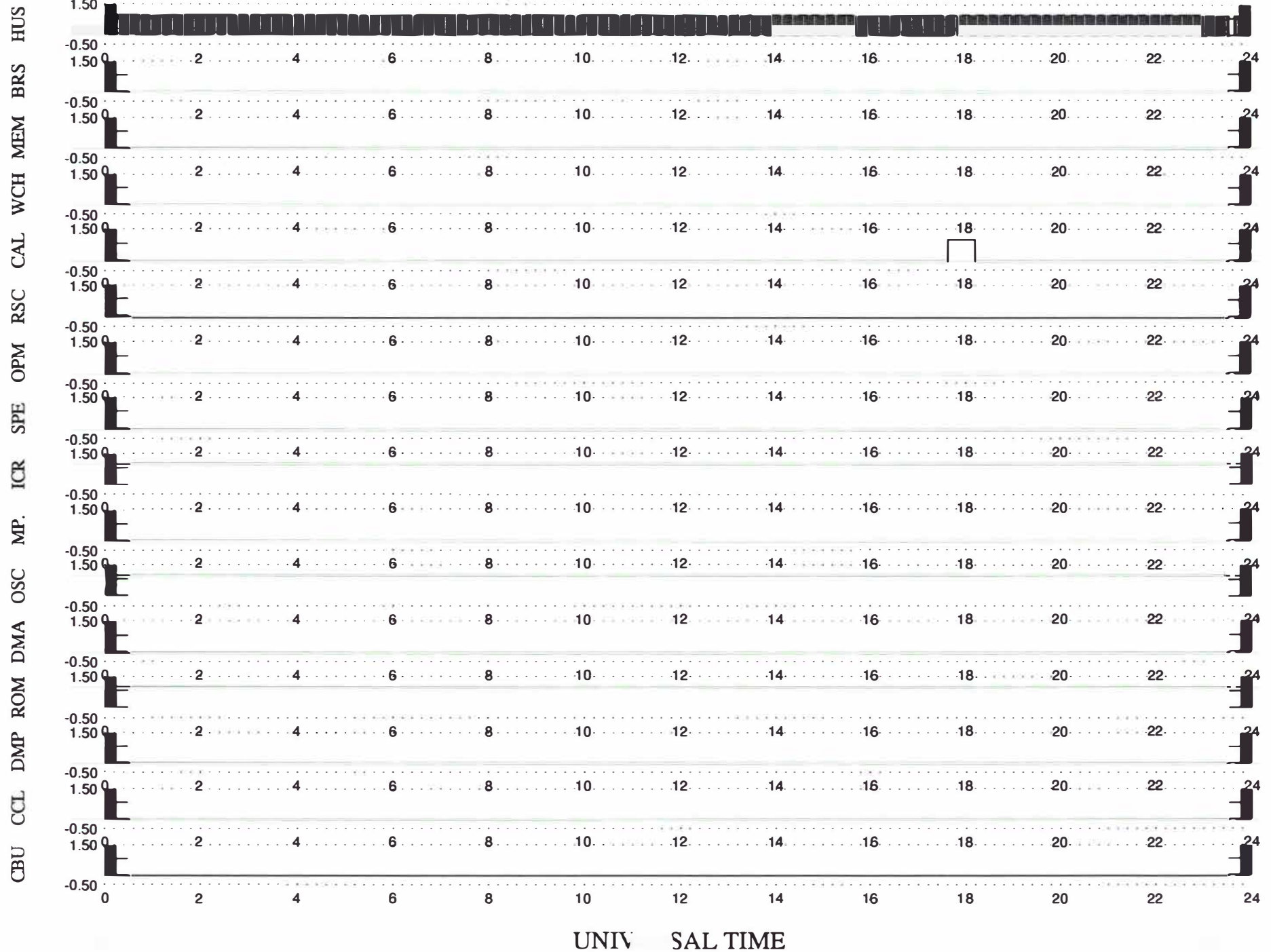
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

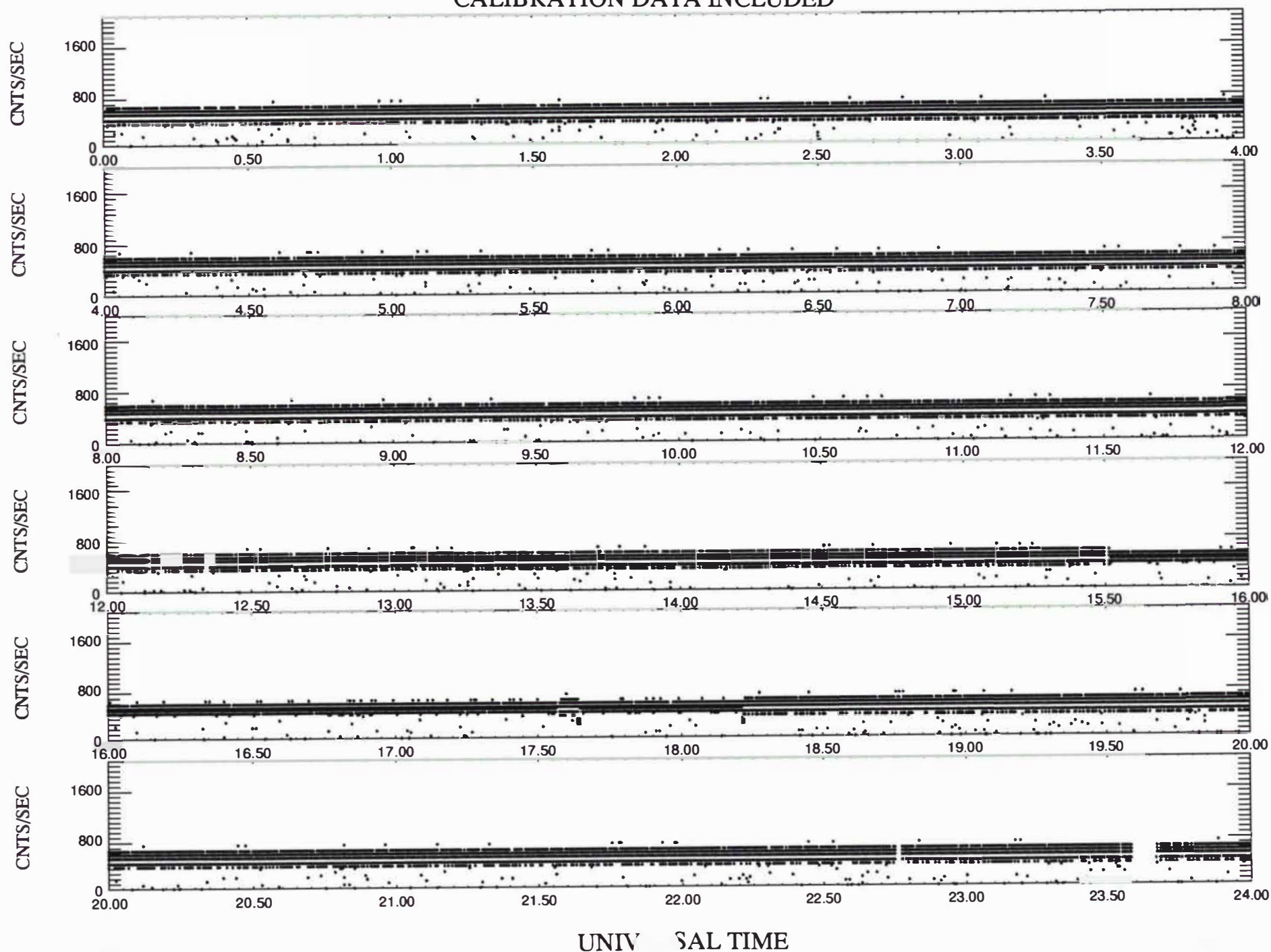
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/19



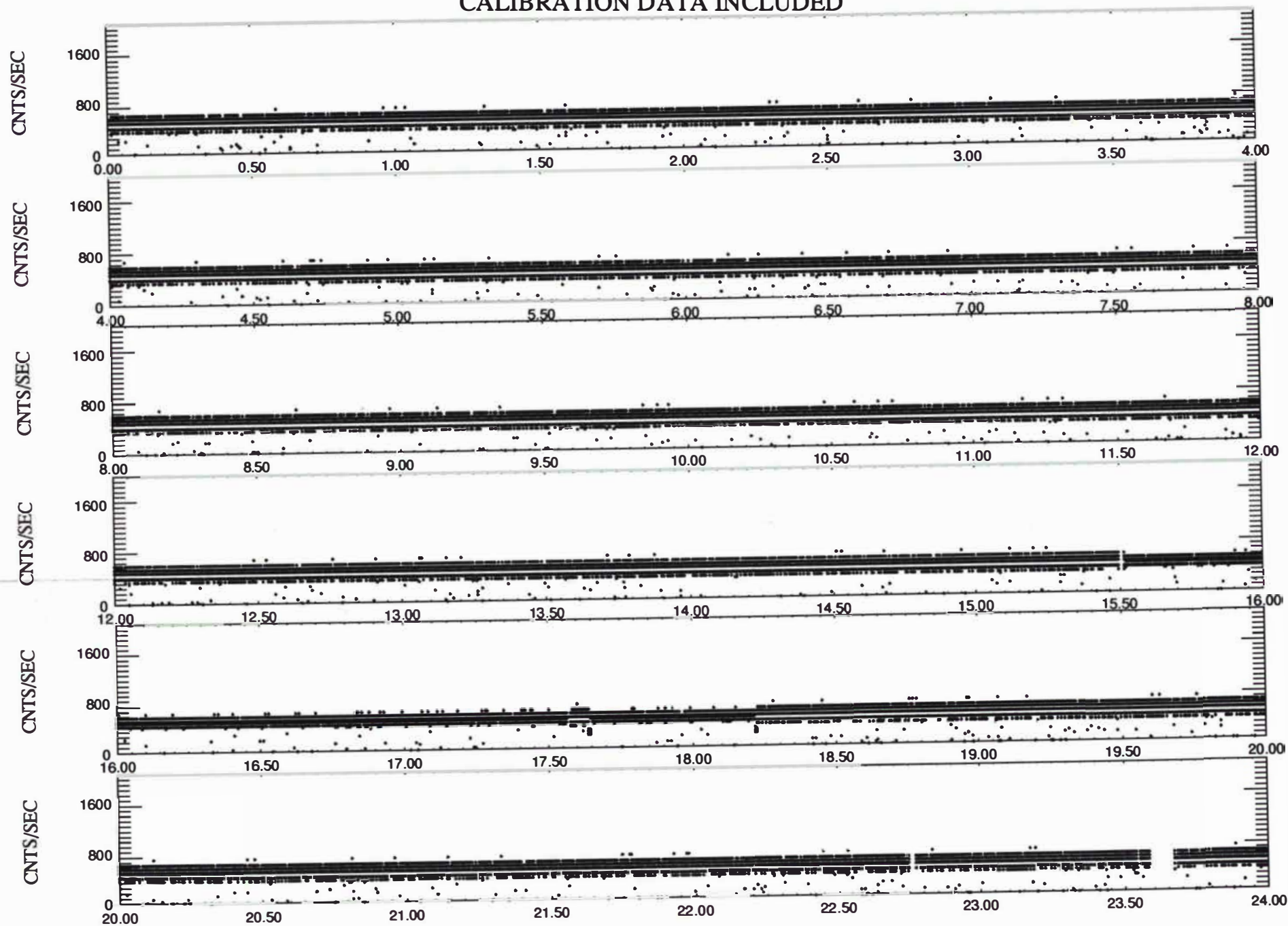
NO BURST (8)



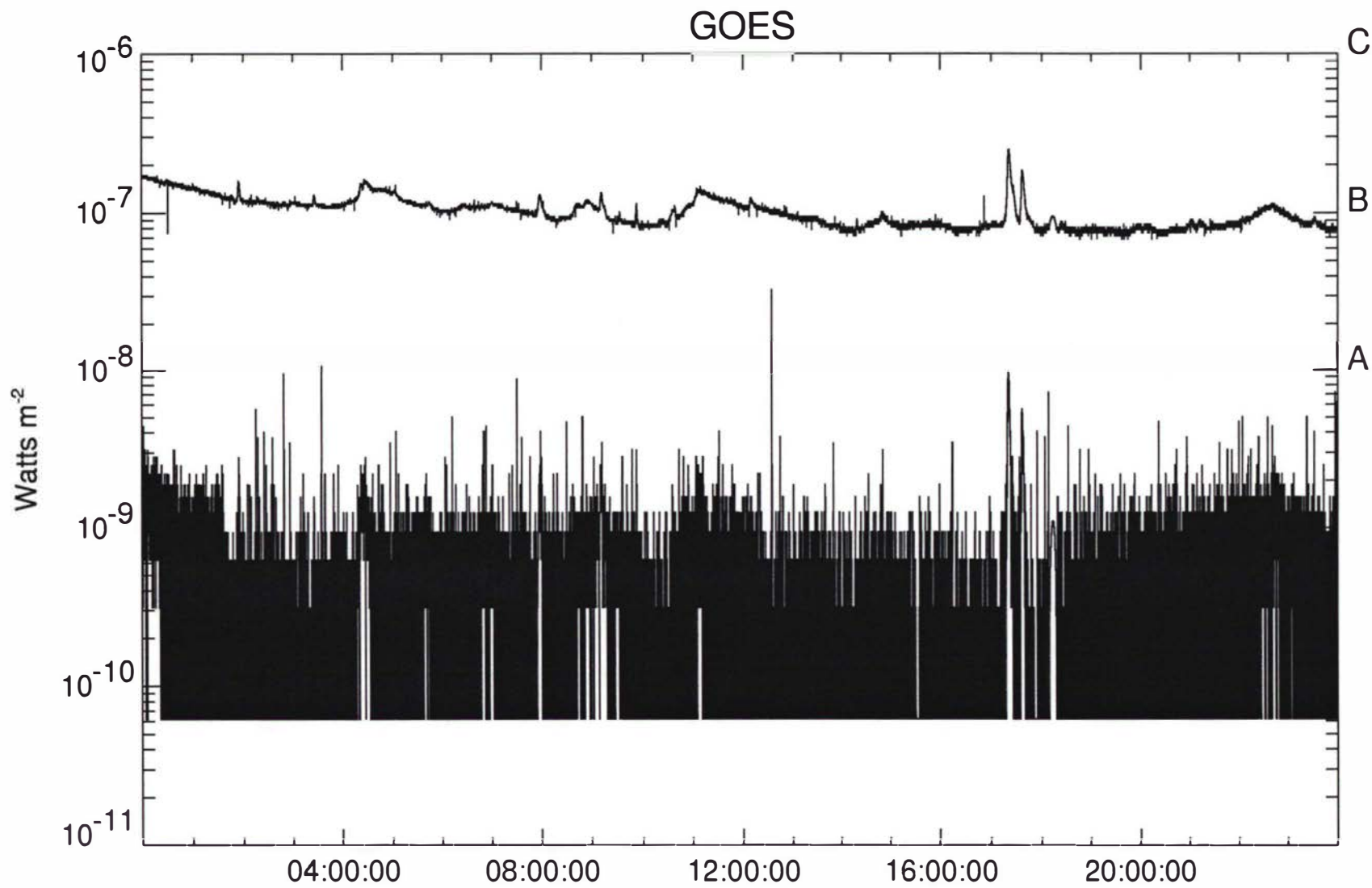
CALIBRATION DATA INCLUDED



CALIBRATION DATA INCLUDED



UNIV. TIME



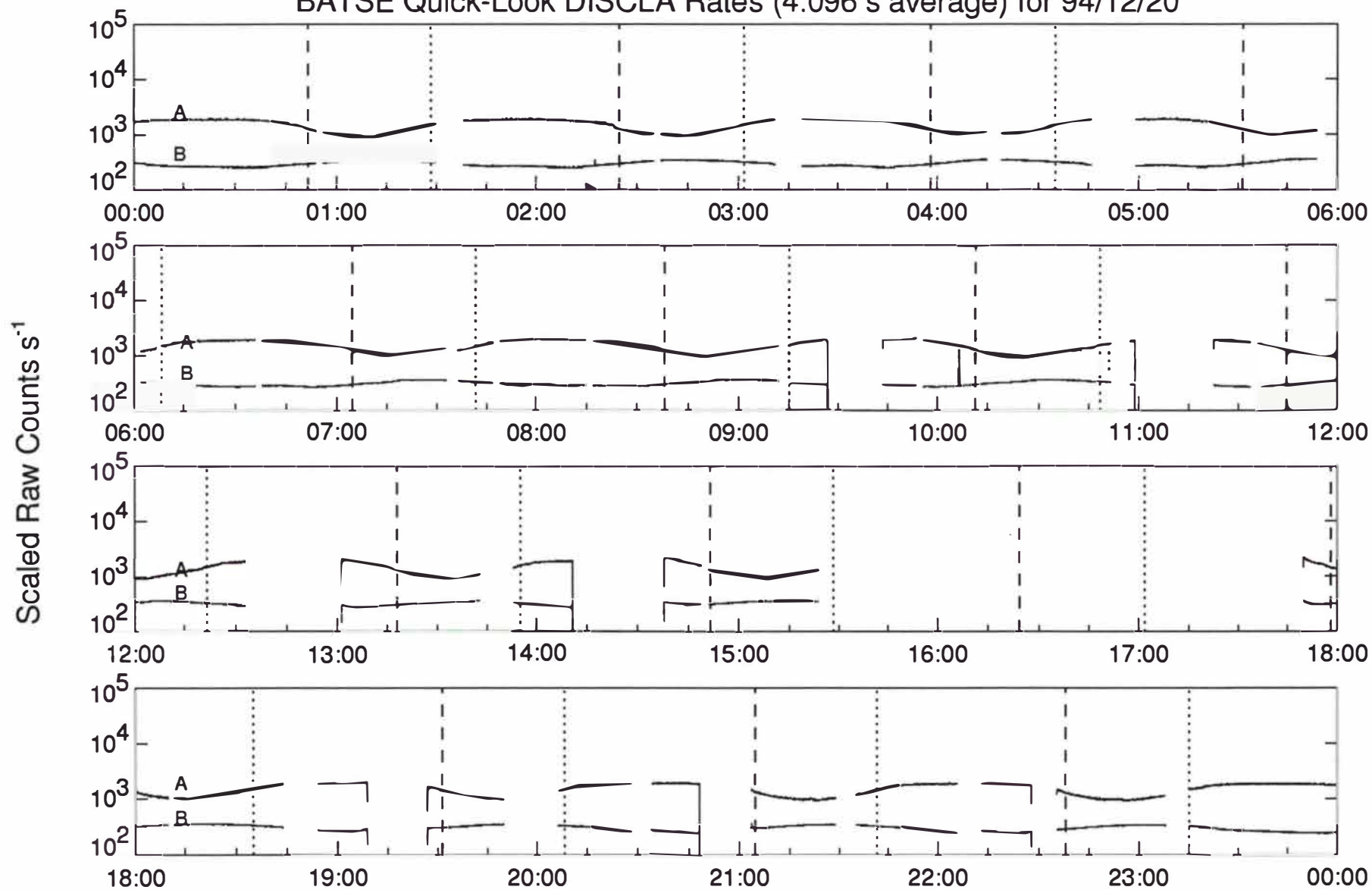
Data Start: 94/12/20, 0000:01

Plot created: 94/12/23, 1450

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 94/12/20

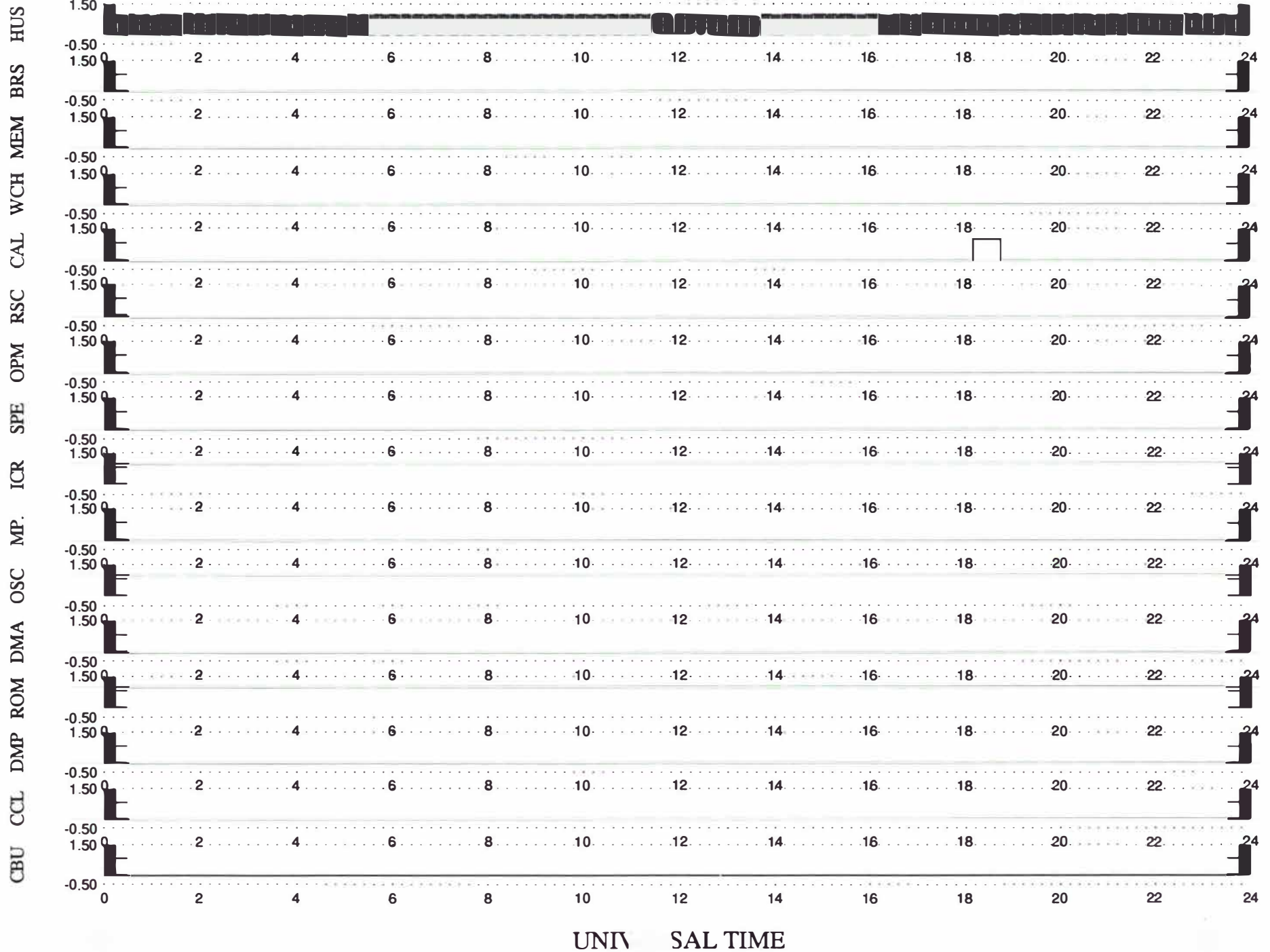


Current Time: 94/12/23, 1451 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

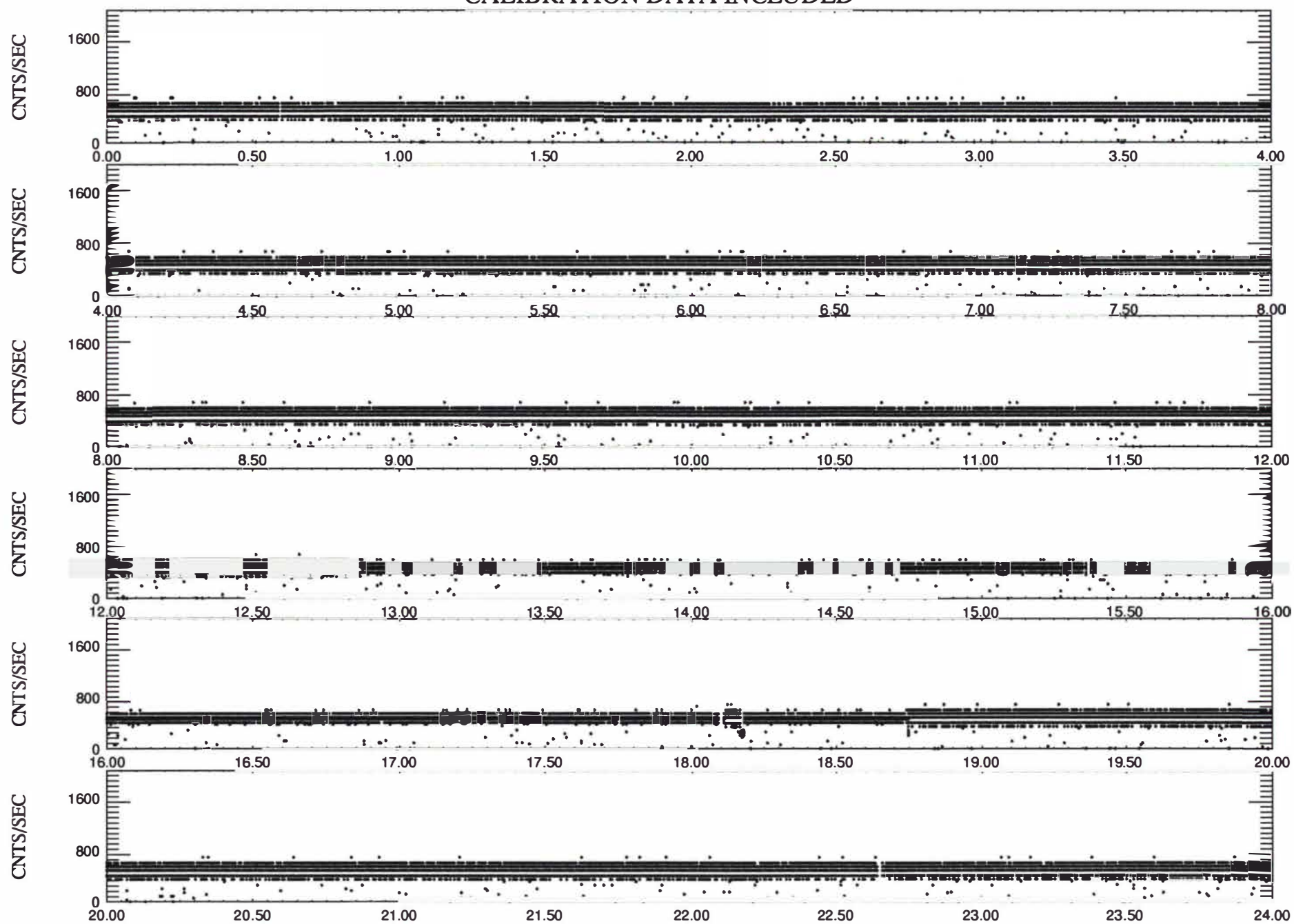
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

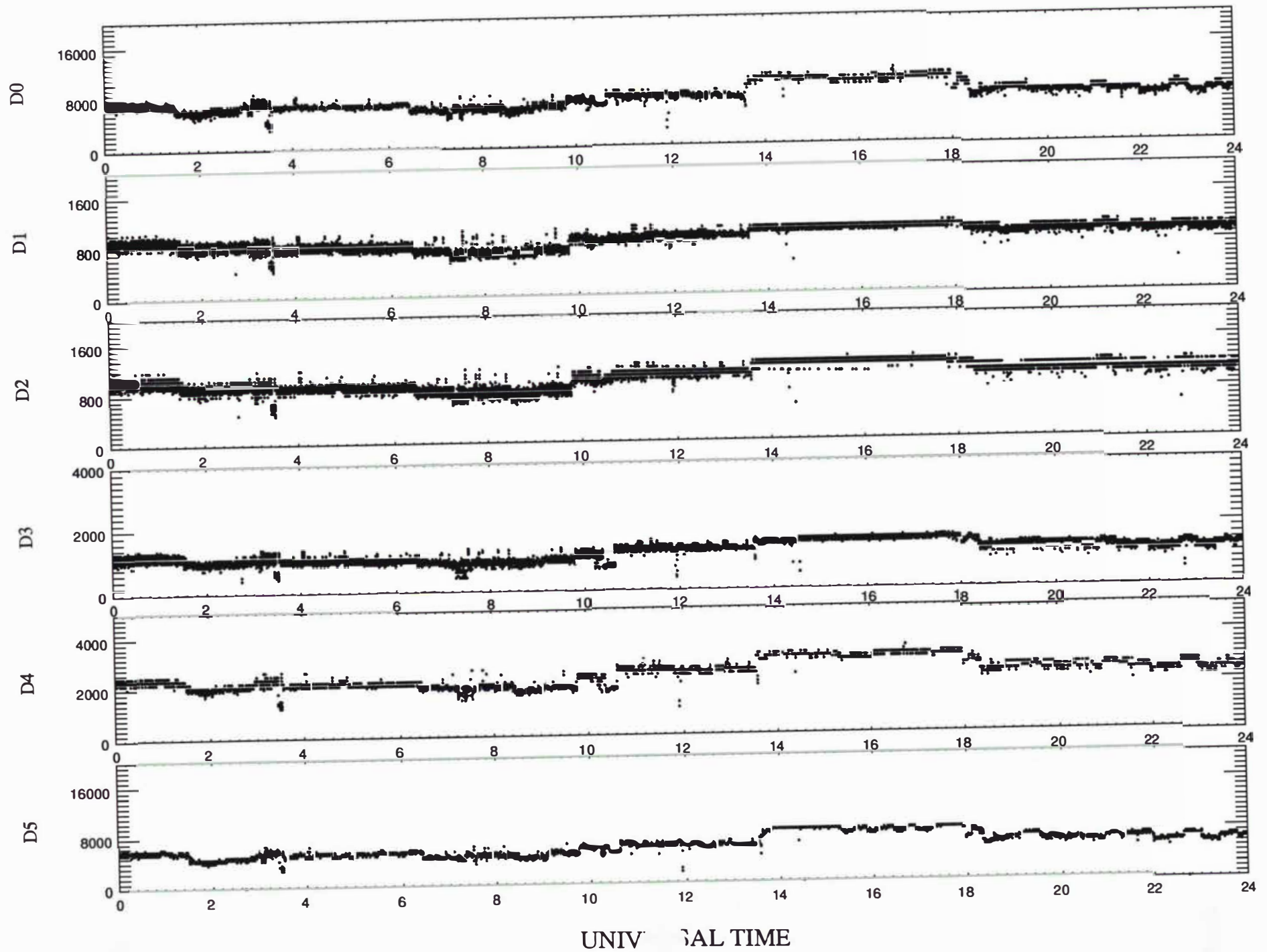
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



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

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

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

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

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

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

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

1 3 / 2 / 9 5

U L Y S S E S R T

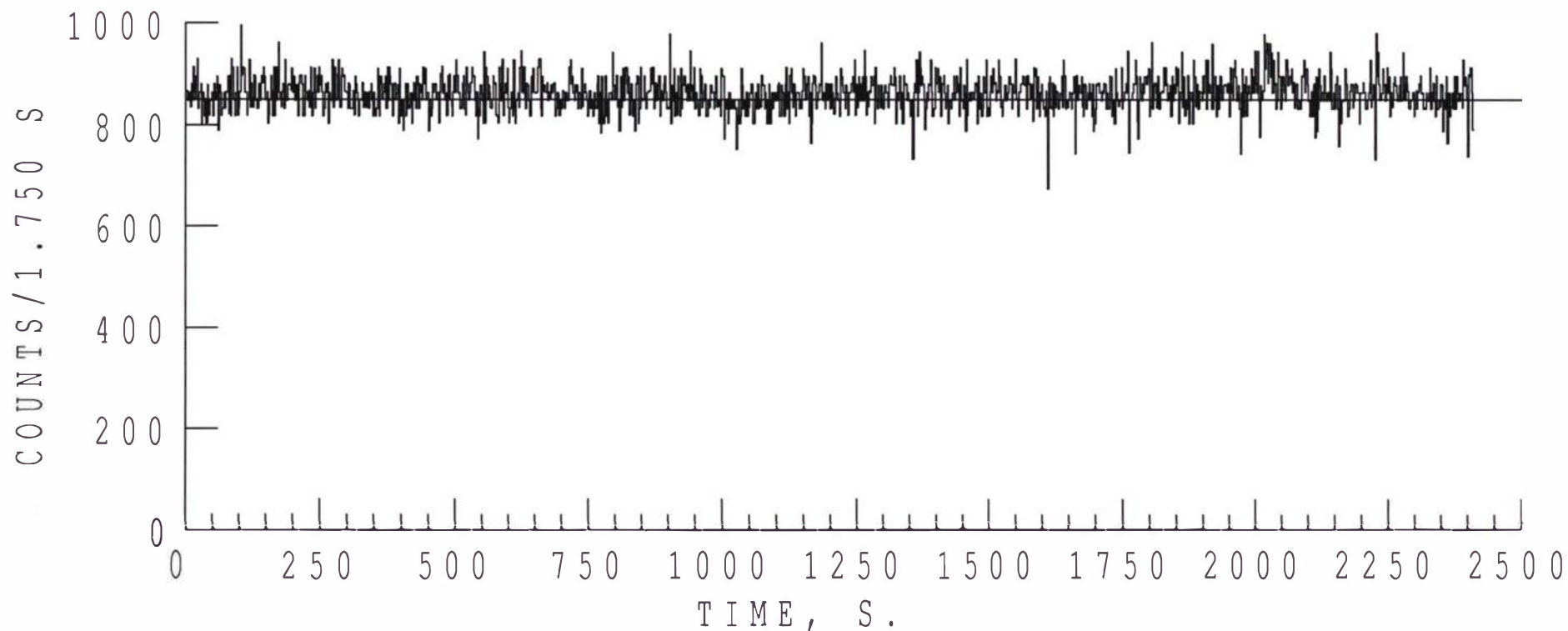
2 1 / 1 2 / 9 4 2 6 6 4 0 . 0 6 1 s

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

0 - 0 k e V

N = 10 M = 2

> 4.0 SIGMA FLUCTUATIONS



Date: Aug 10 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

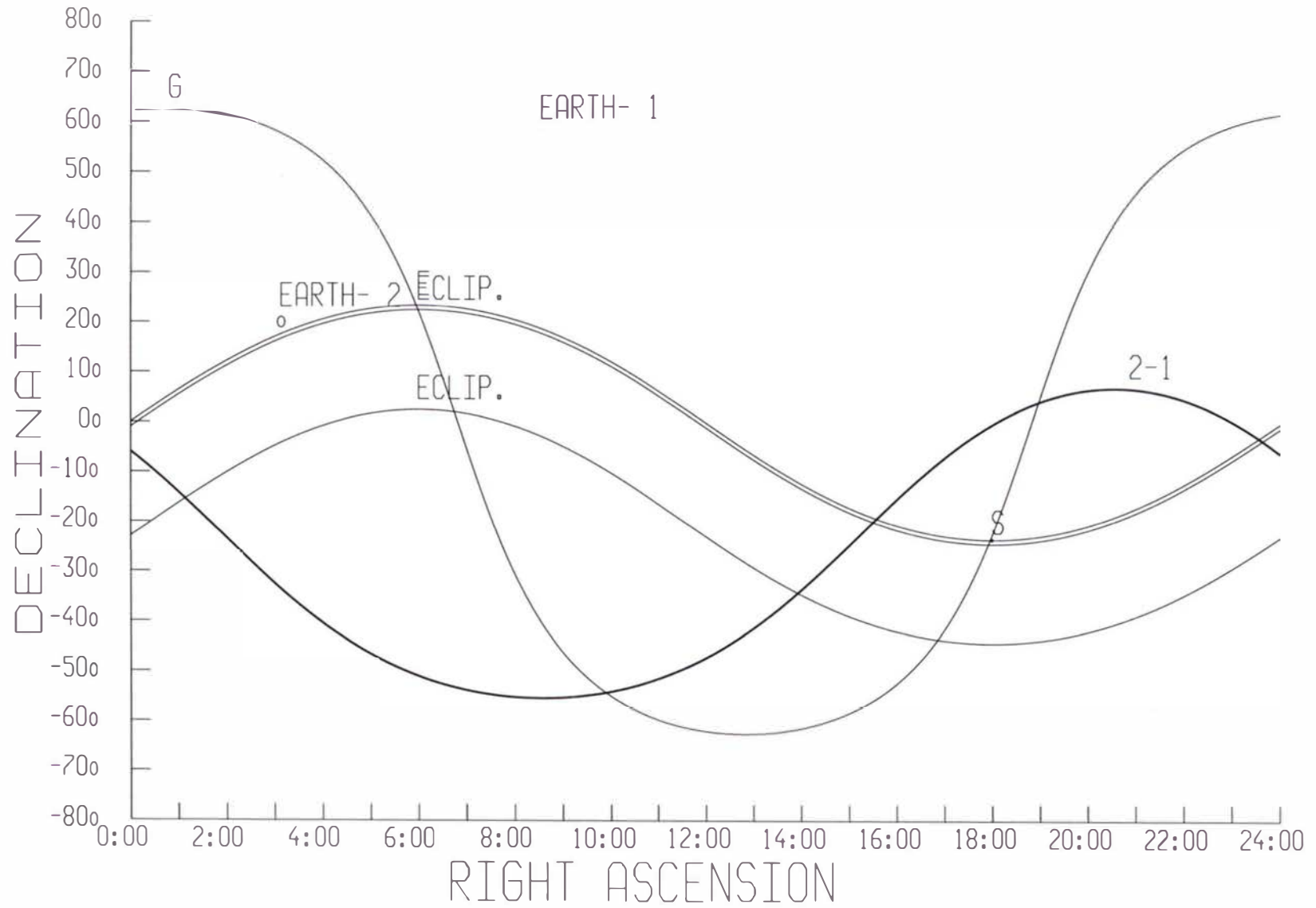
3. PVO Data

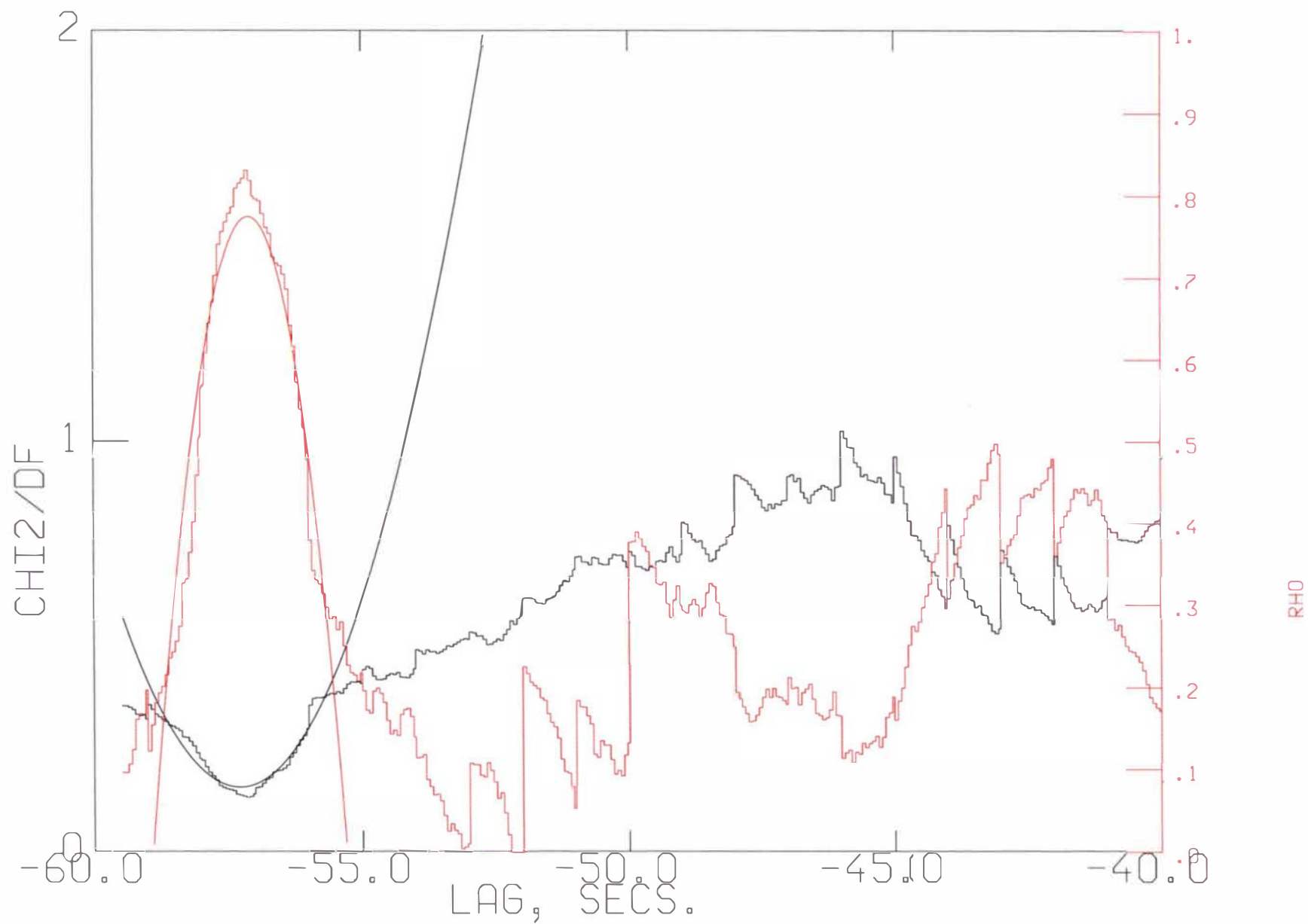
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

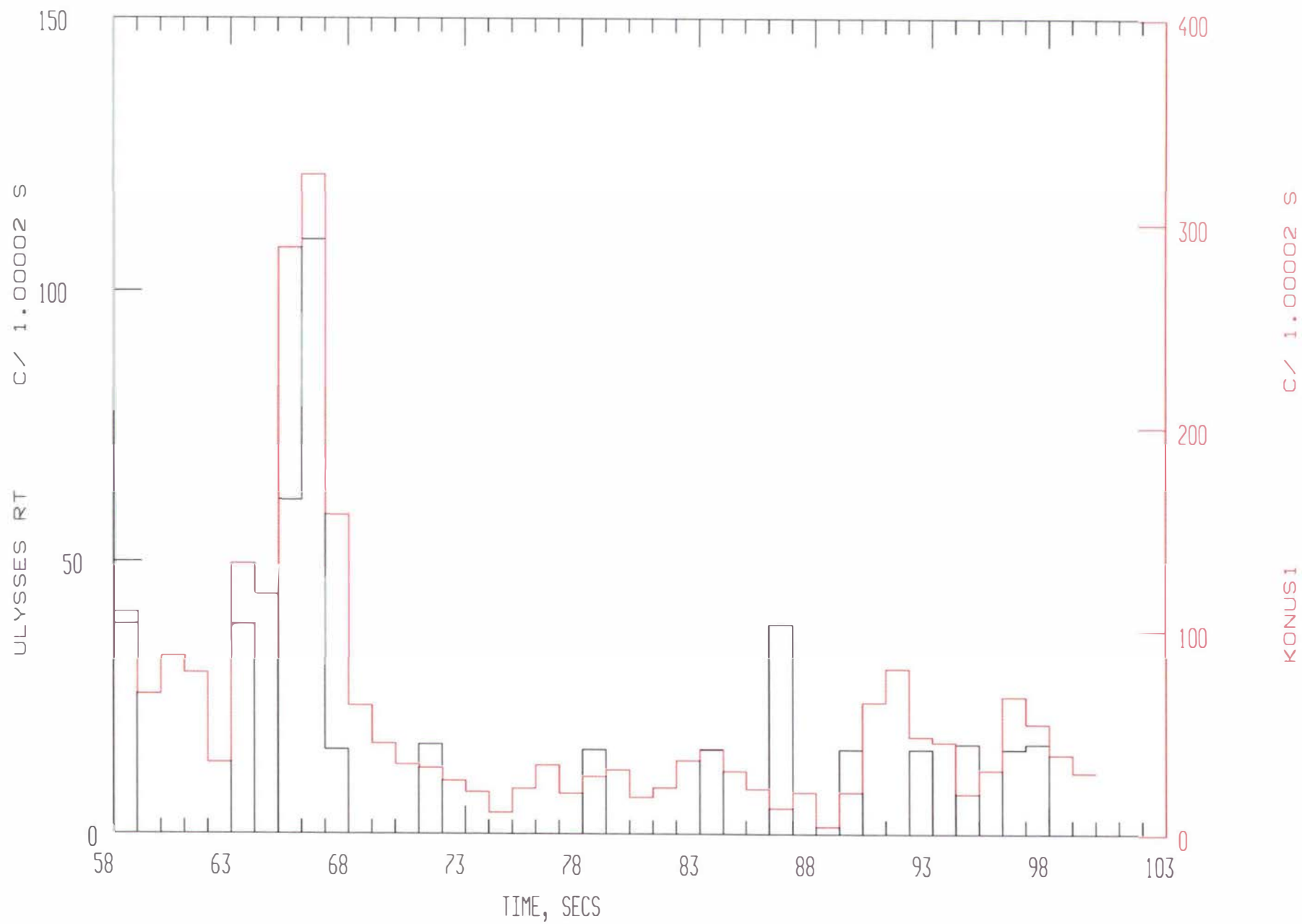
EVENT OF DEC 21, 1994 22:06

10/08/2011

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







KONUS 19941221 79648

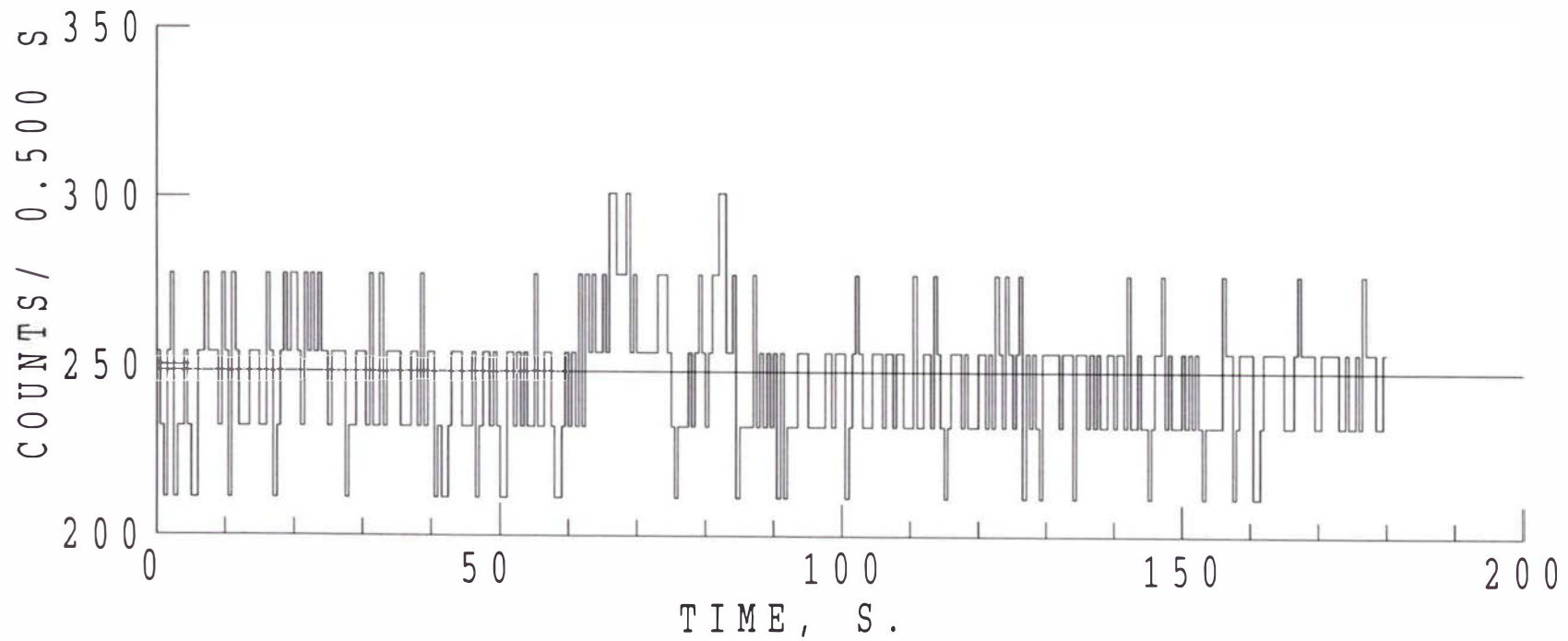
ULYSSES RT

09/08/11

21/12/94 79560.297 s

0 - 0 keV

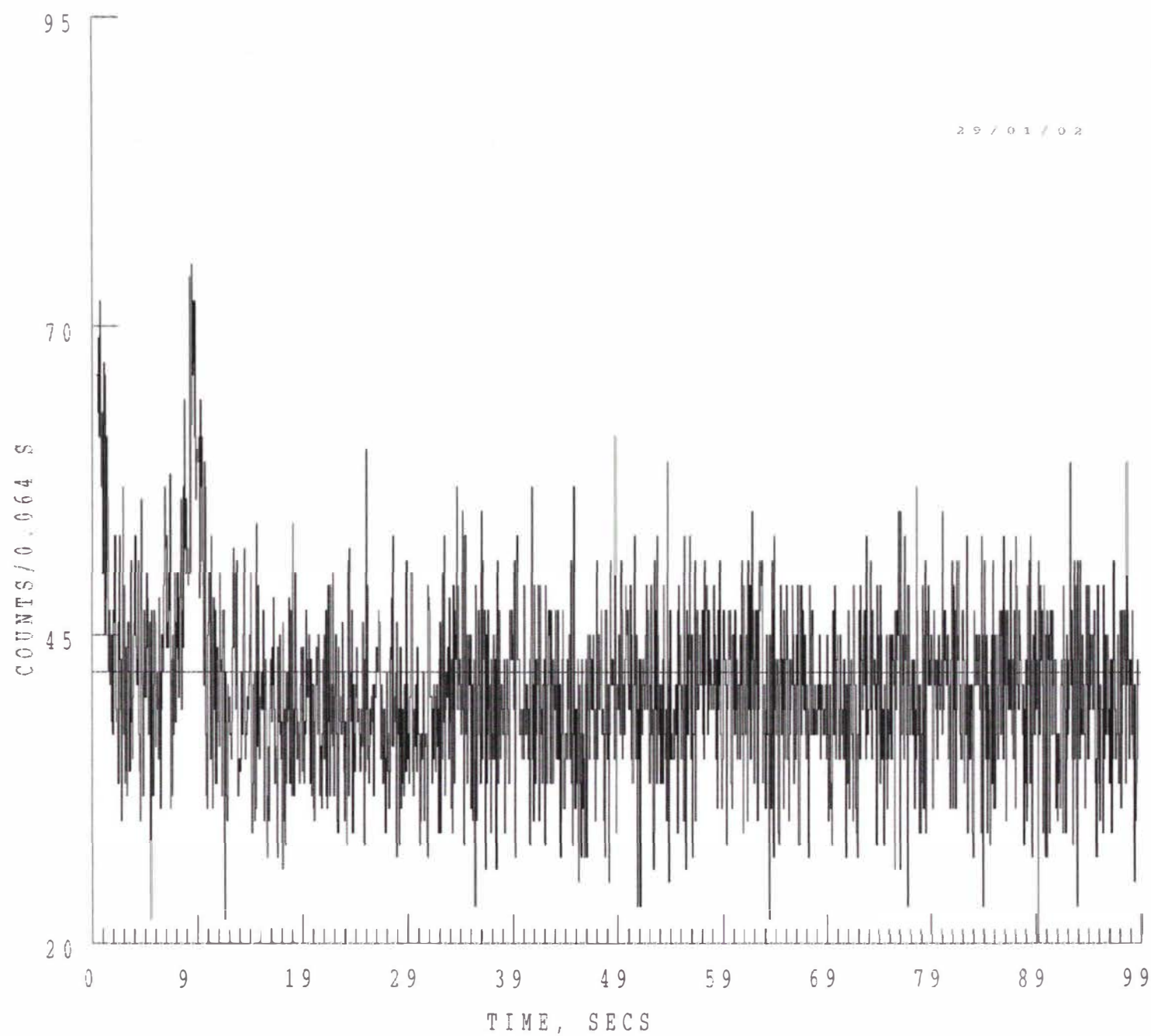
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS

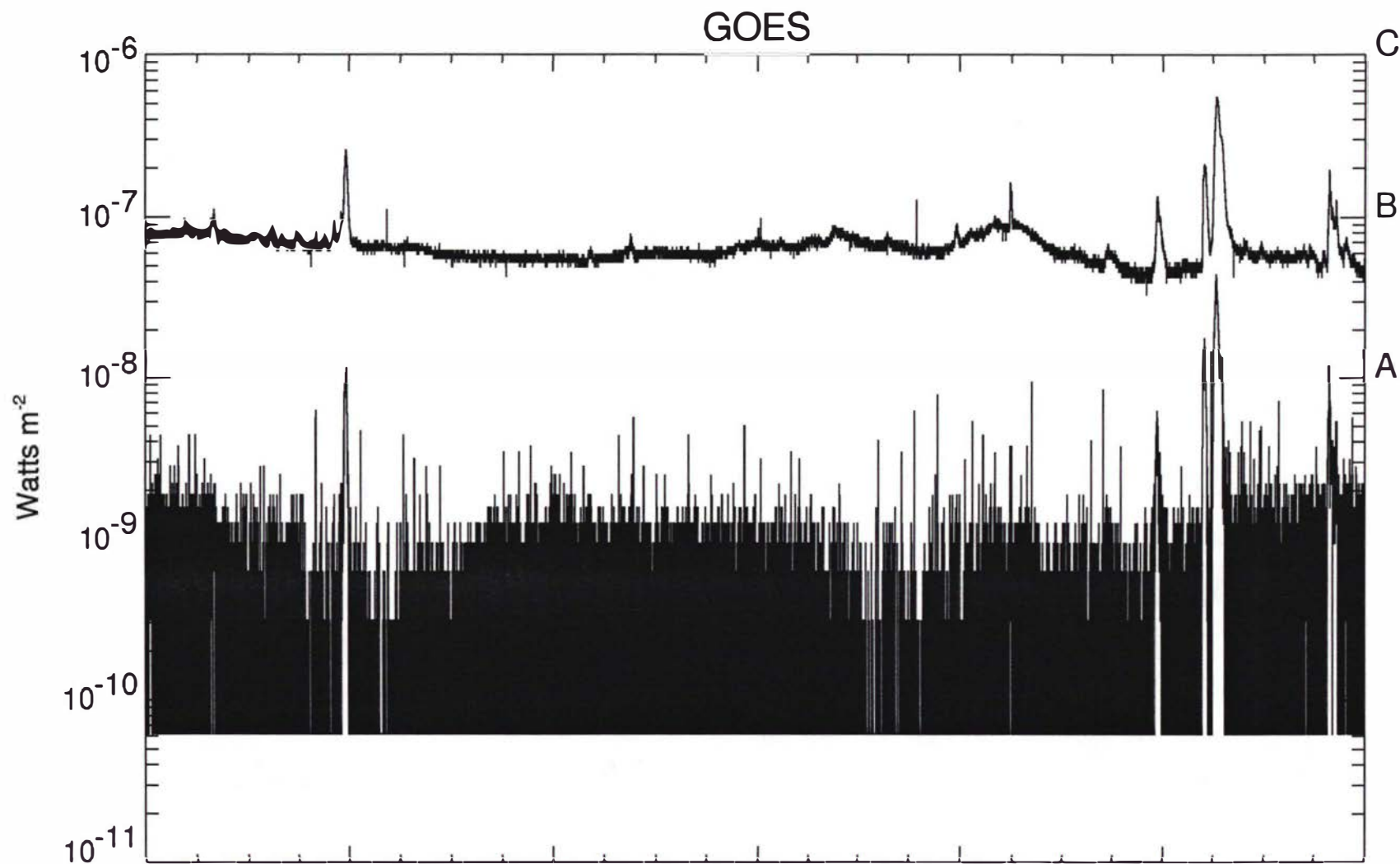


21/12/94 80075.215

200 Rev

KONUS1





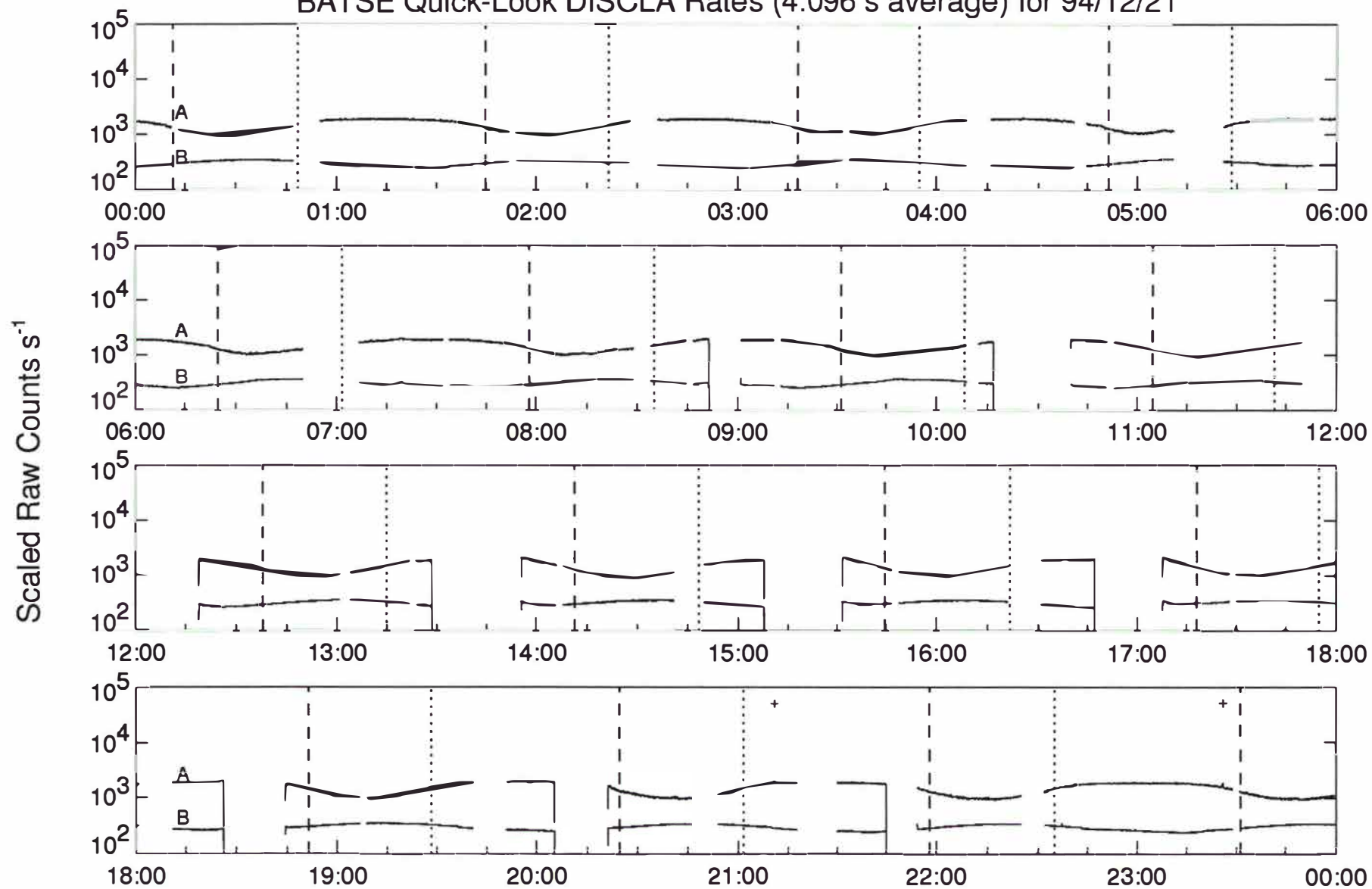
Data Start: 94/12/21, 0000:03

Plot created: 94/12/23, 1453

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 94/12/21



Current Time: 94/12/23, 1454 EDT

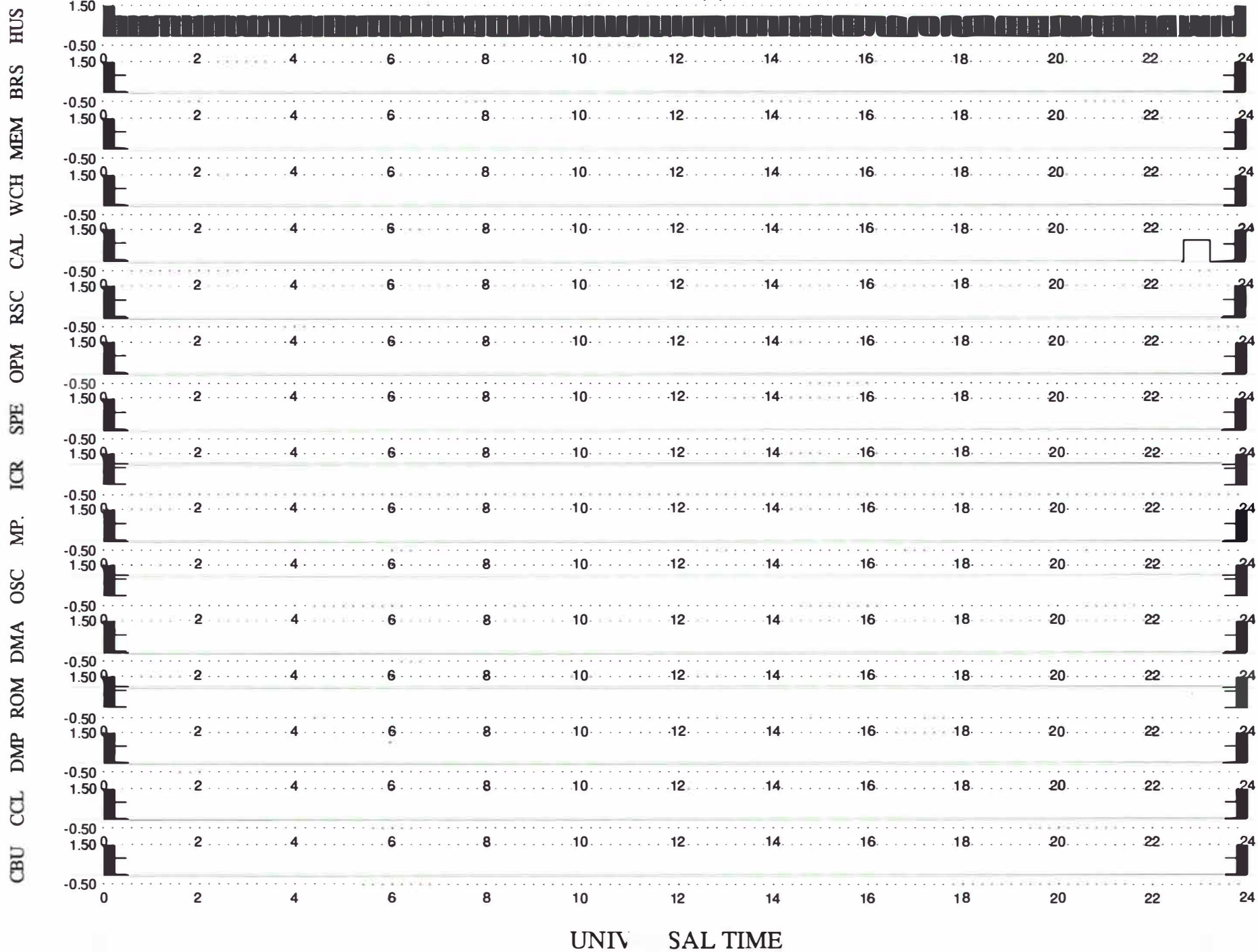
A: Channel 0 Most Sunward LAD

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

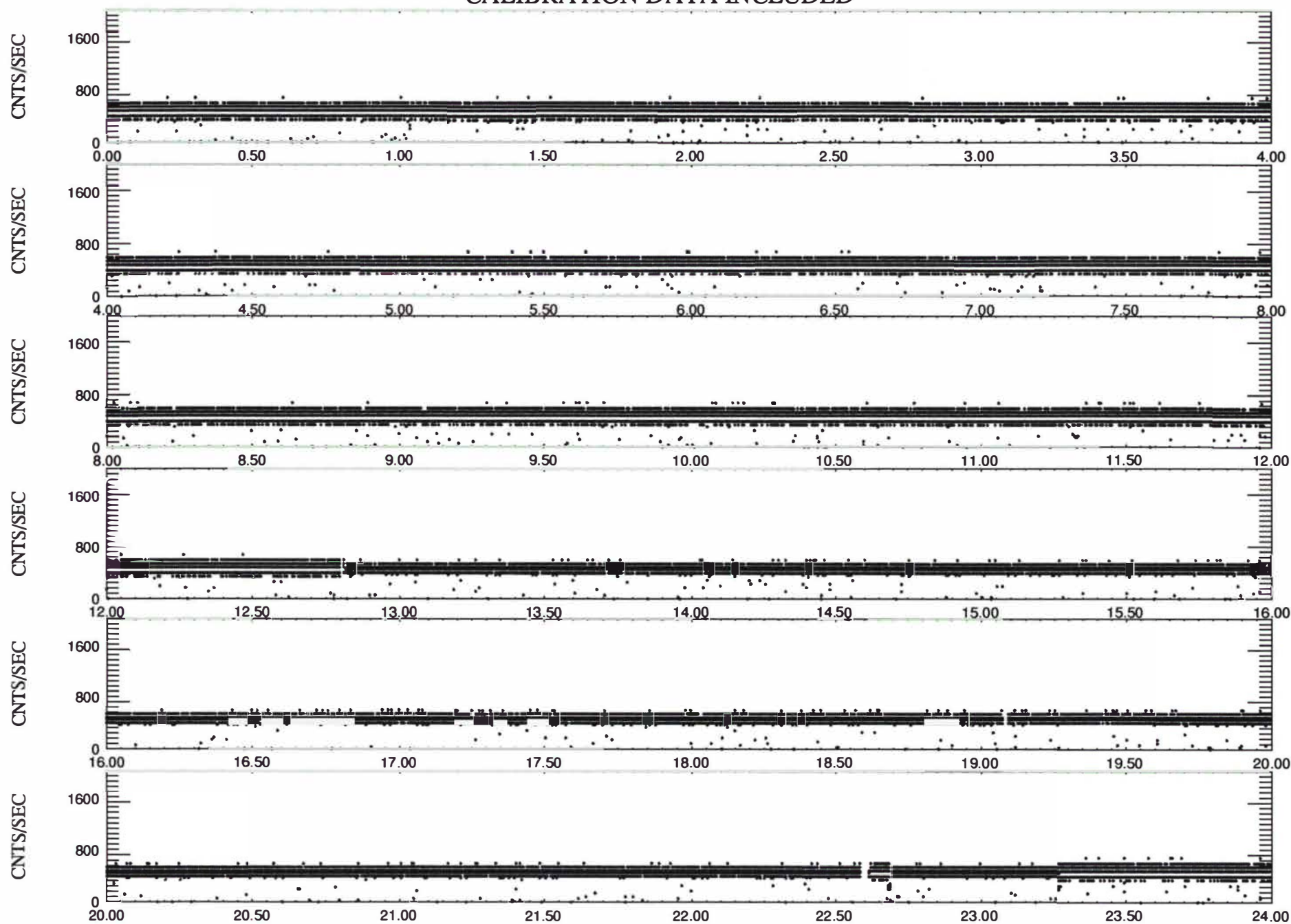
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

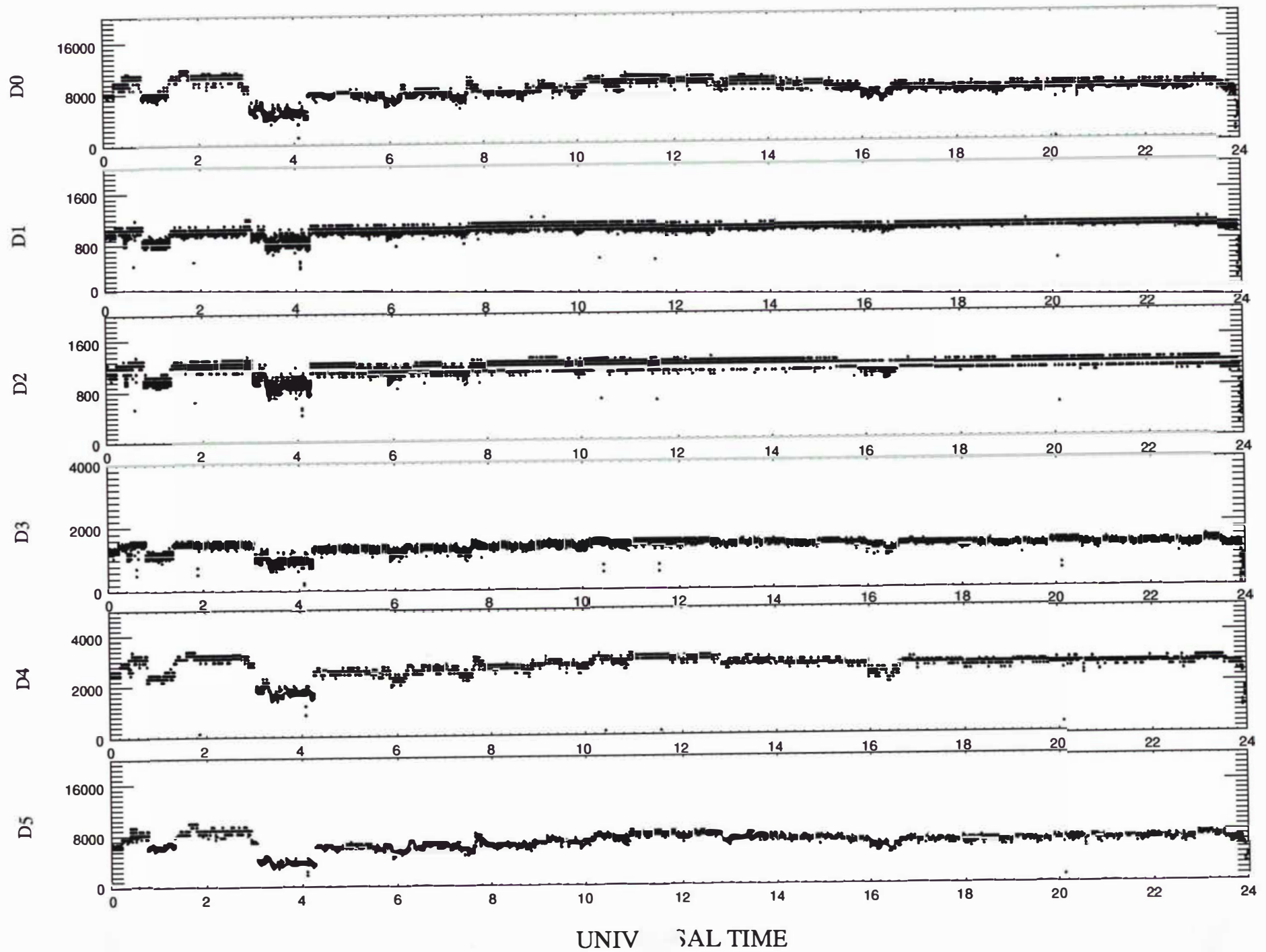
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIT SAL TIME



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

Kevin,

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

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

The list of files is attached.

Roger and J

<This message contains 1 attachments (not printed)>

Timing error in Korus window!

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

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

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

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

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

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

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

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

Date: Aug 10 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

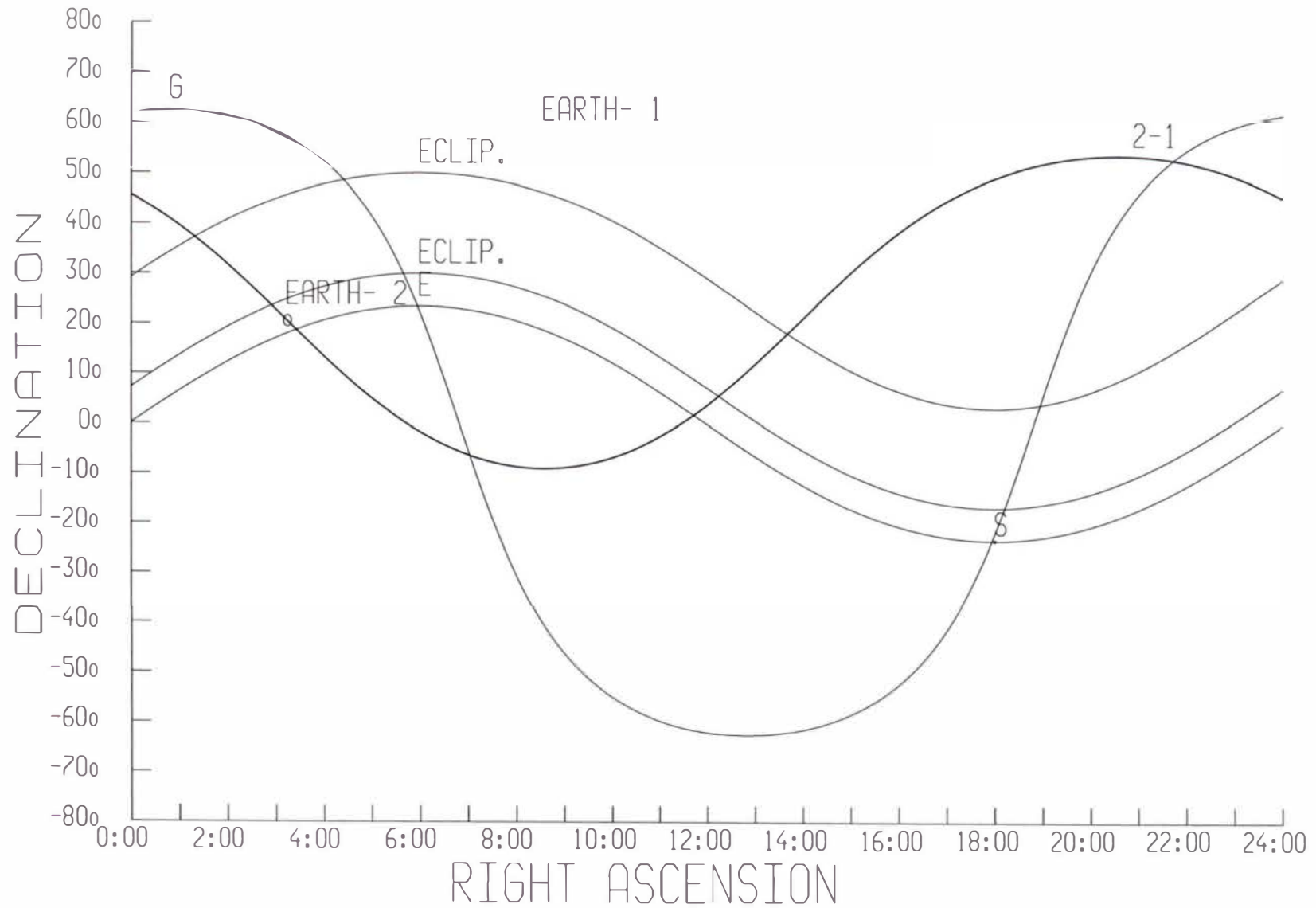
3. PVO Data

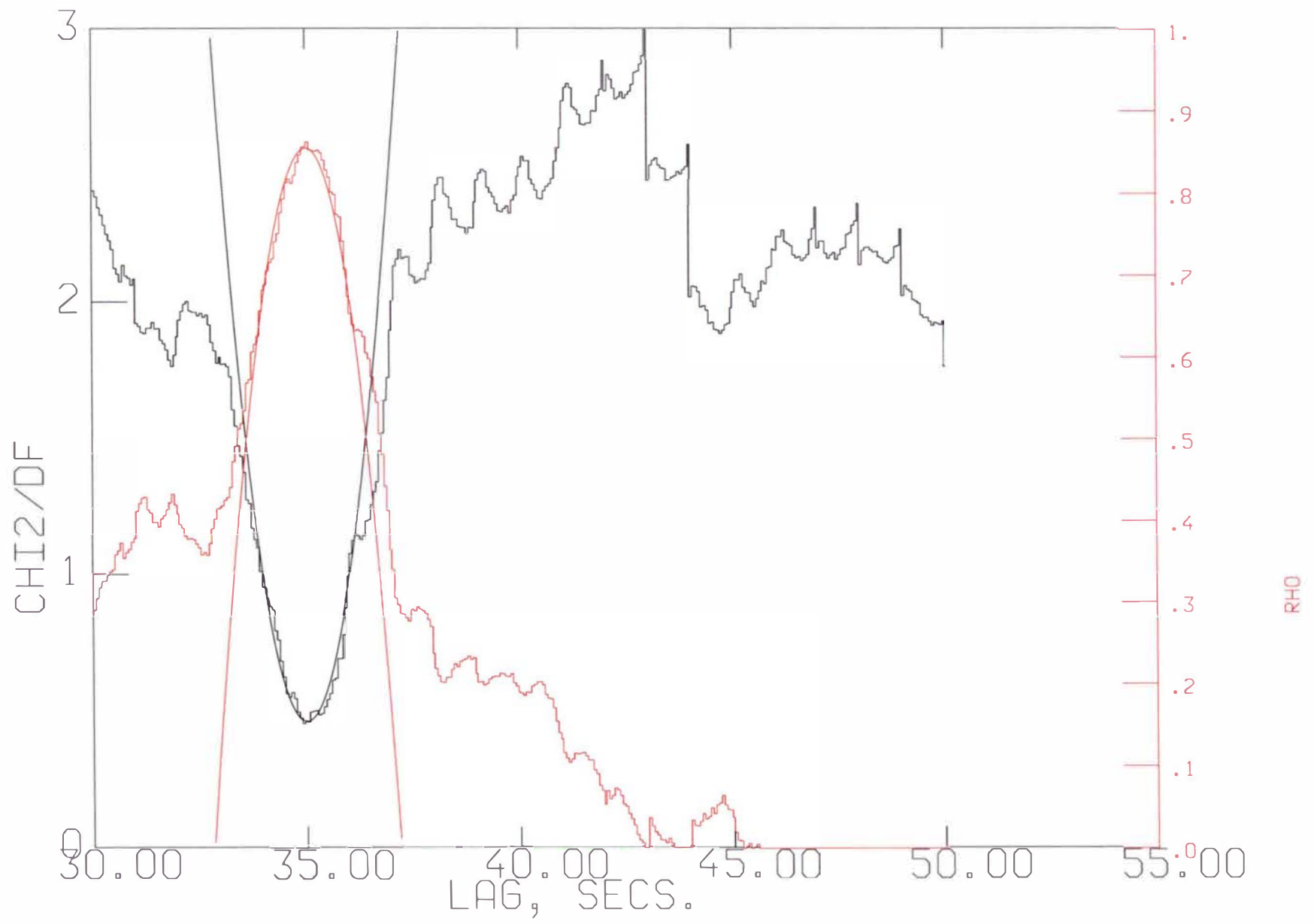
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

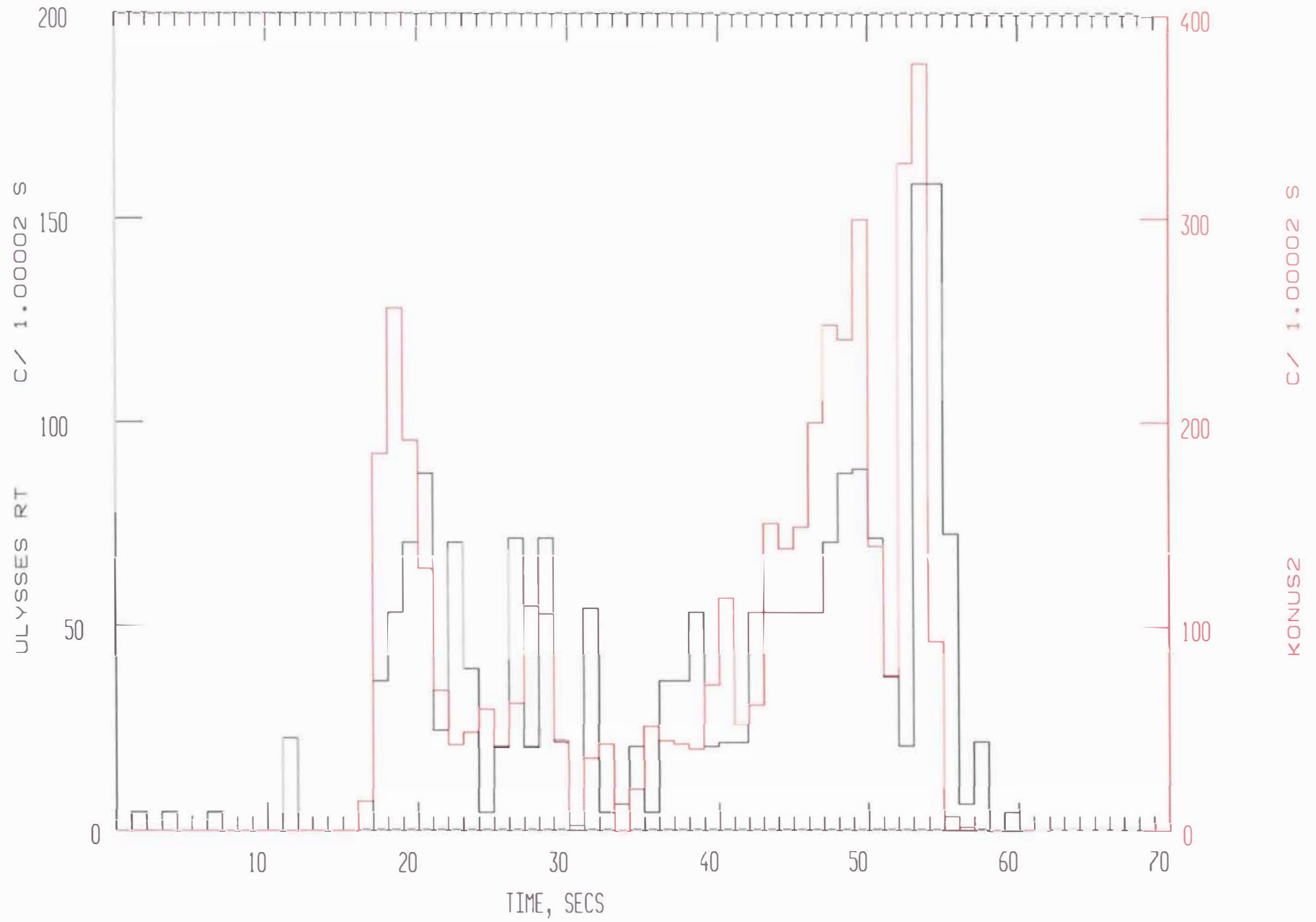
EVENT OF DEC 22, 1994 5:43

10/08/2011

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







KONUS 19941222 20644

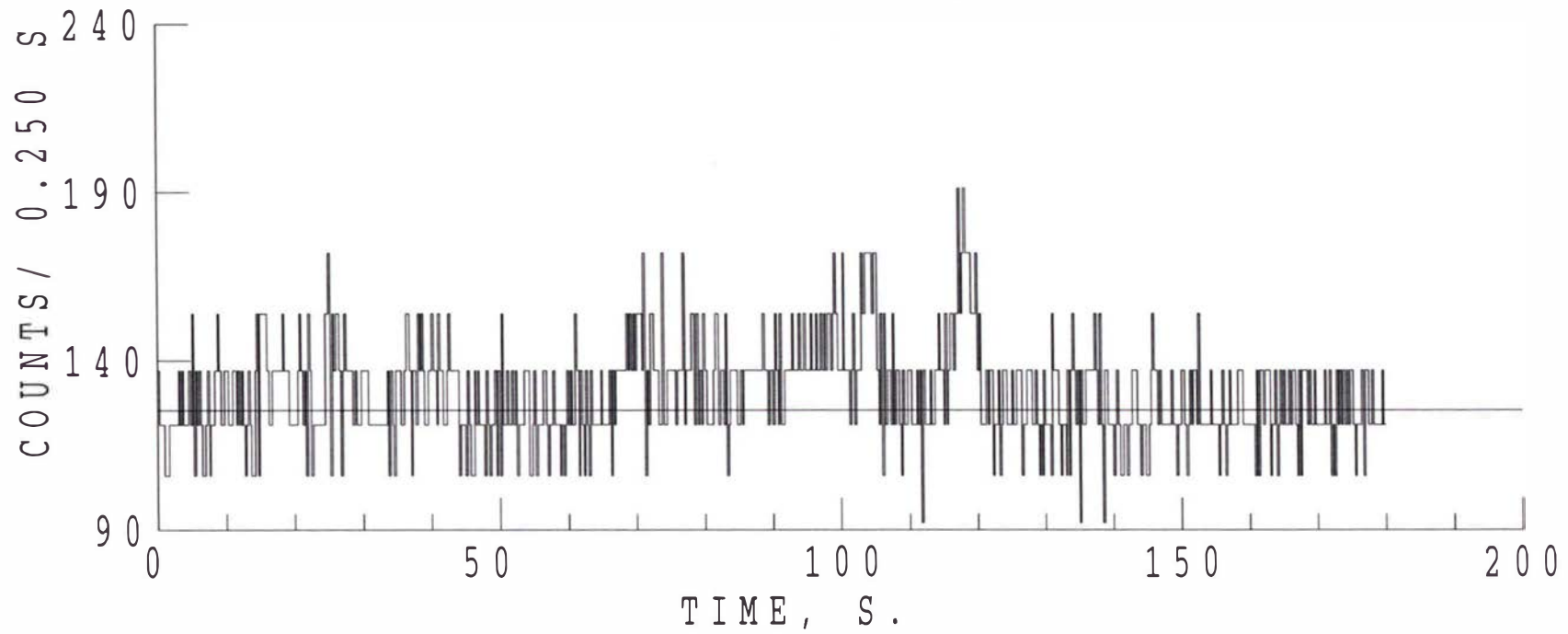
ULYSSES RT

09/08/11

22/12/94 20556.049 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



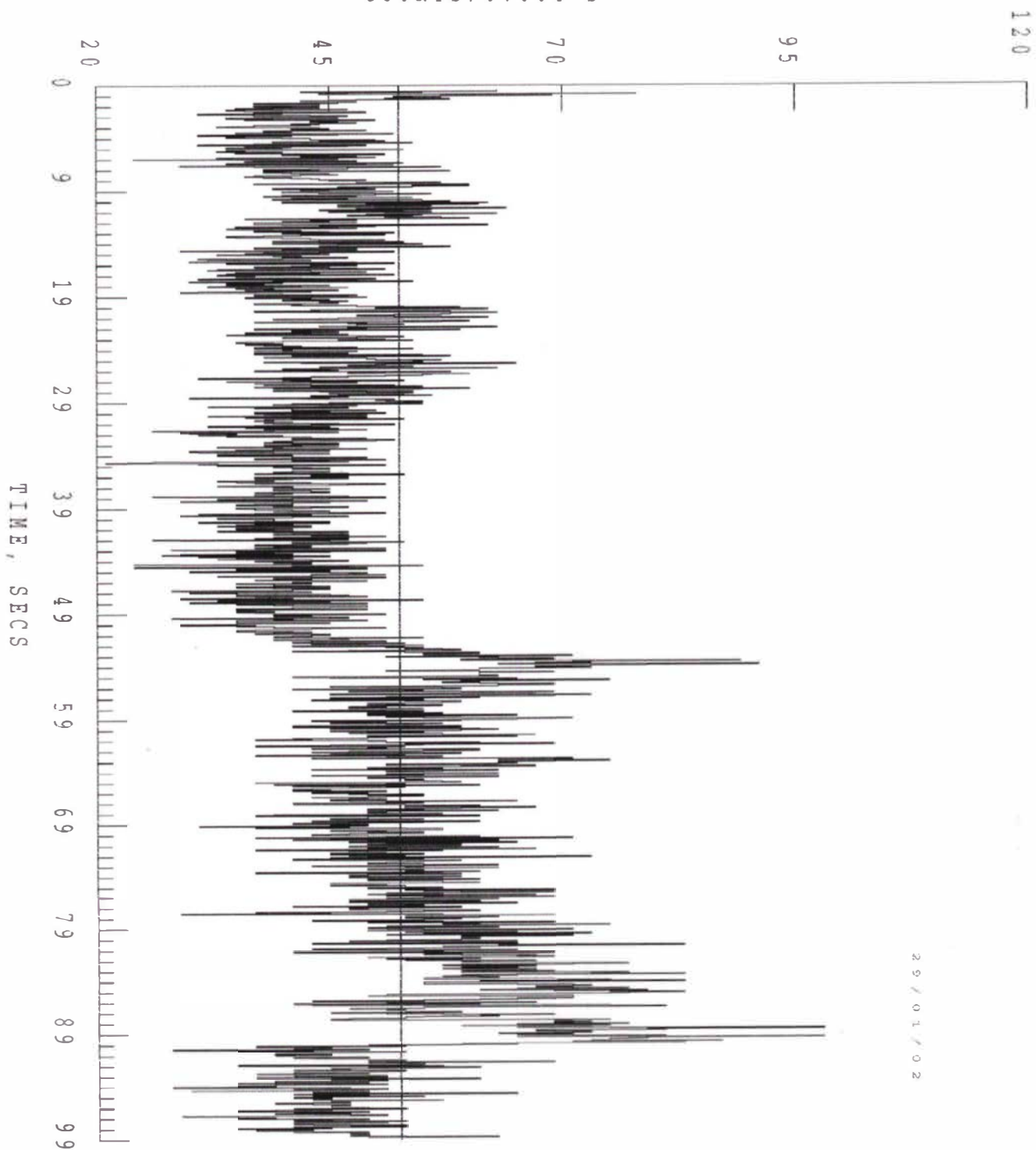
KONUS2

22/12/94

20160.243

50 200 keV

COUNTS/0.064 S



From HENZE@ssl.msfc.nasa.gov Tue Dec 27 10:09 PST 1994
Date: Tue, 27 Dec 1994 12:09:45 -0600 (CST)
From: HENZE@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3324

BATSEARCH PROGRAM

BATSE BURST # 3324
EVENT OF 1994 DEC 22 DAY OF YEAR=356
EVENT CROSSING TIME AT BATSE : 27146. S. OR 07:32:26.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 30.000 -34.000
BATSE PEAK COUNTING RATE: 1900 C/S

no

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 22/12/ 94 IS:
RA= 307.714 DEC= -58.679 DIST= 2.162 AU
BATSE-ULYSSES DISTANCE = 323375056. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=122.38 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -577.67 SECS.
CROSSING TIME AT ULYSSES IS 26568. S. OR 07:22:48 +/- 199.38 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 22/12/ 94 IS:
RA= 154.936 DEC= 13.718 DIST= 0.921 AU
MARS-BATSE DISTANCE = 137772336. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 53.57 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 272.89 SECS.
CROSSING TIME AT MARS IS 27419. S. OR 07:36:58 +/- 68.34 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03324

TIME: TJD=9708 SECONDS=27146

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=148.8 AZIMUTH=309.6 ERROR= DEGREES

COMMENTS:
SINGLE PULSE. DURATION APPROX. 45 S.

Subject: BATSE Burst 3324

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3324	941222	9708	27146	1900	030	-34

27 / 12 / 94

ULYSSES RT

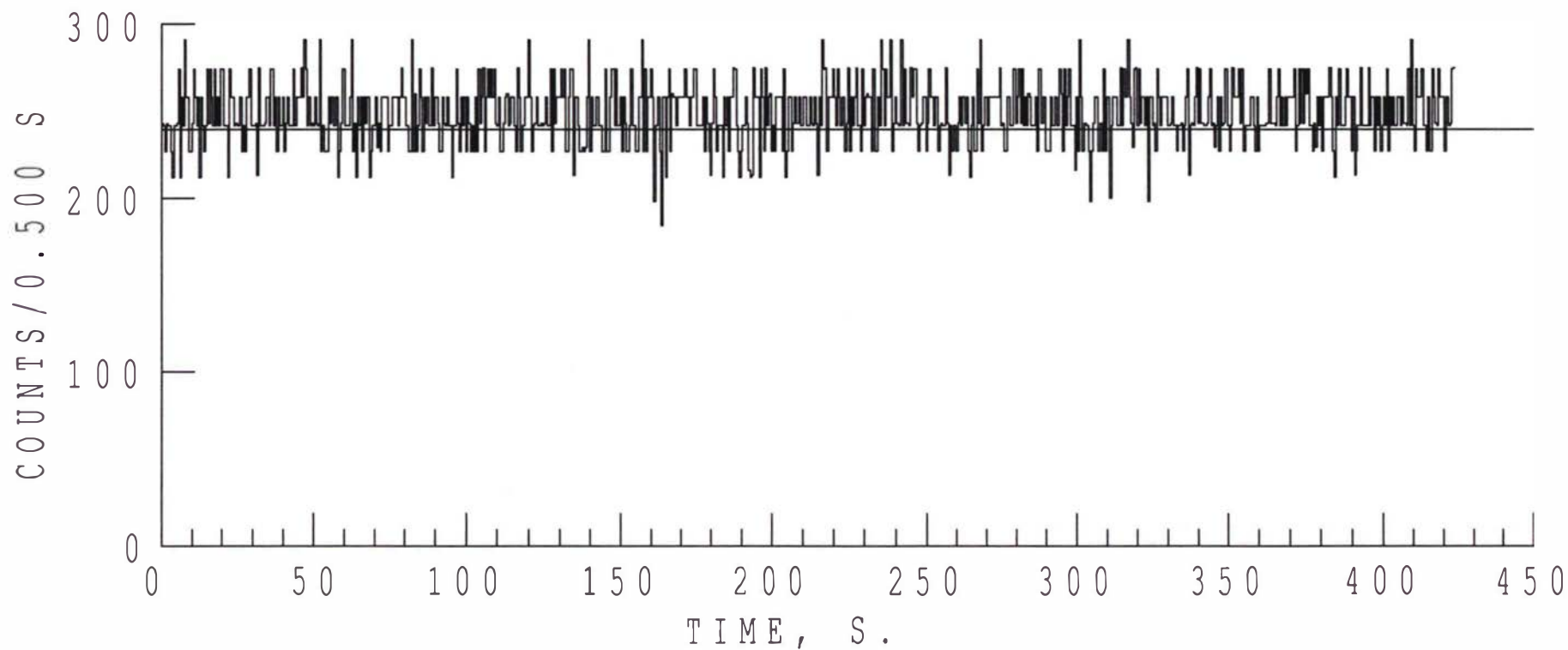
22 / 12 / 94 26352.156 s

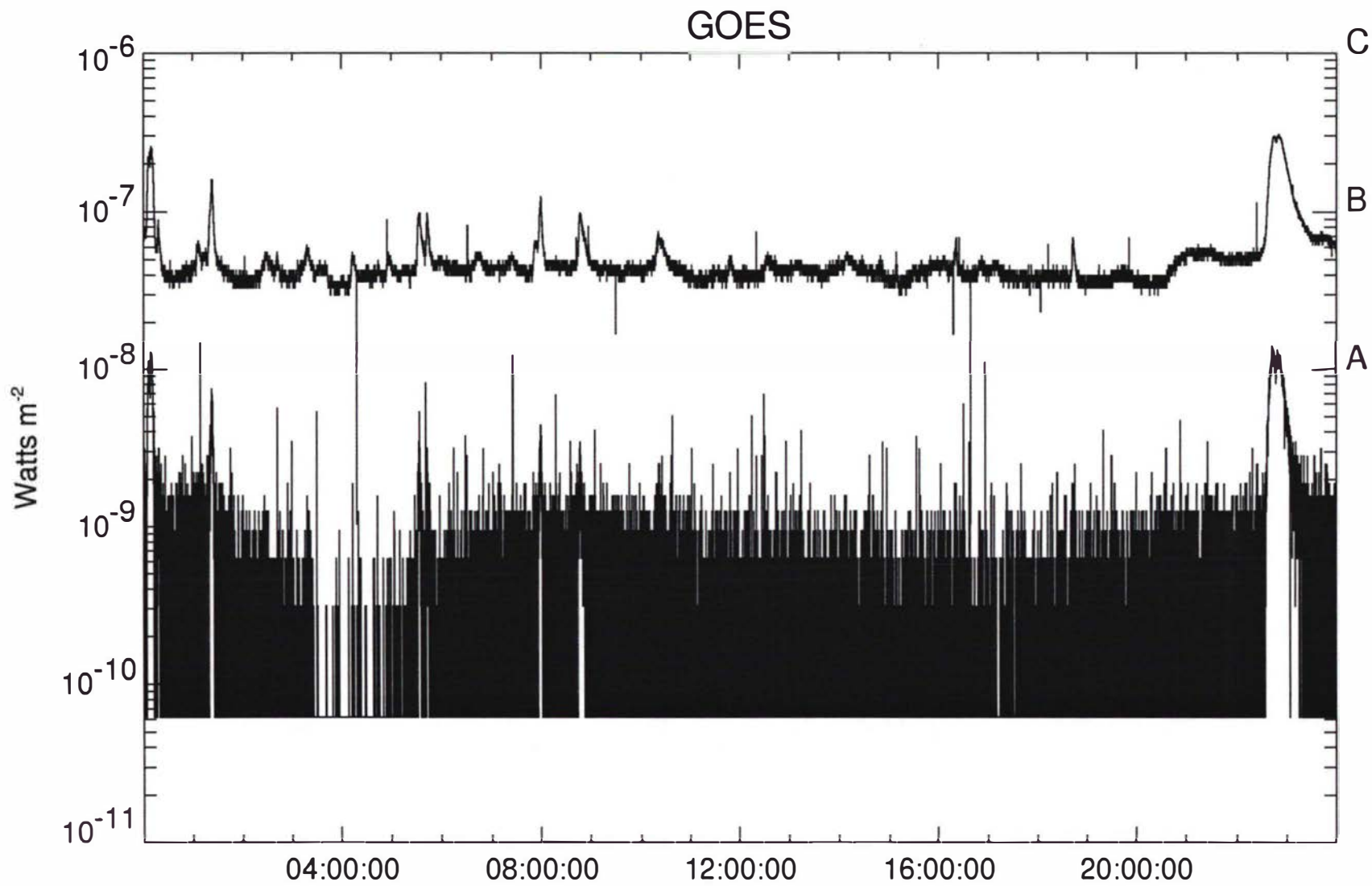
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 94/12/22, 0000:01

Plot created: 94/12/26, 1440

Channel

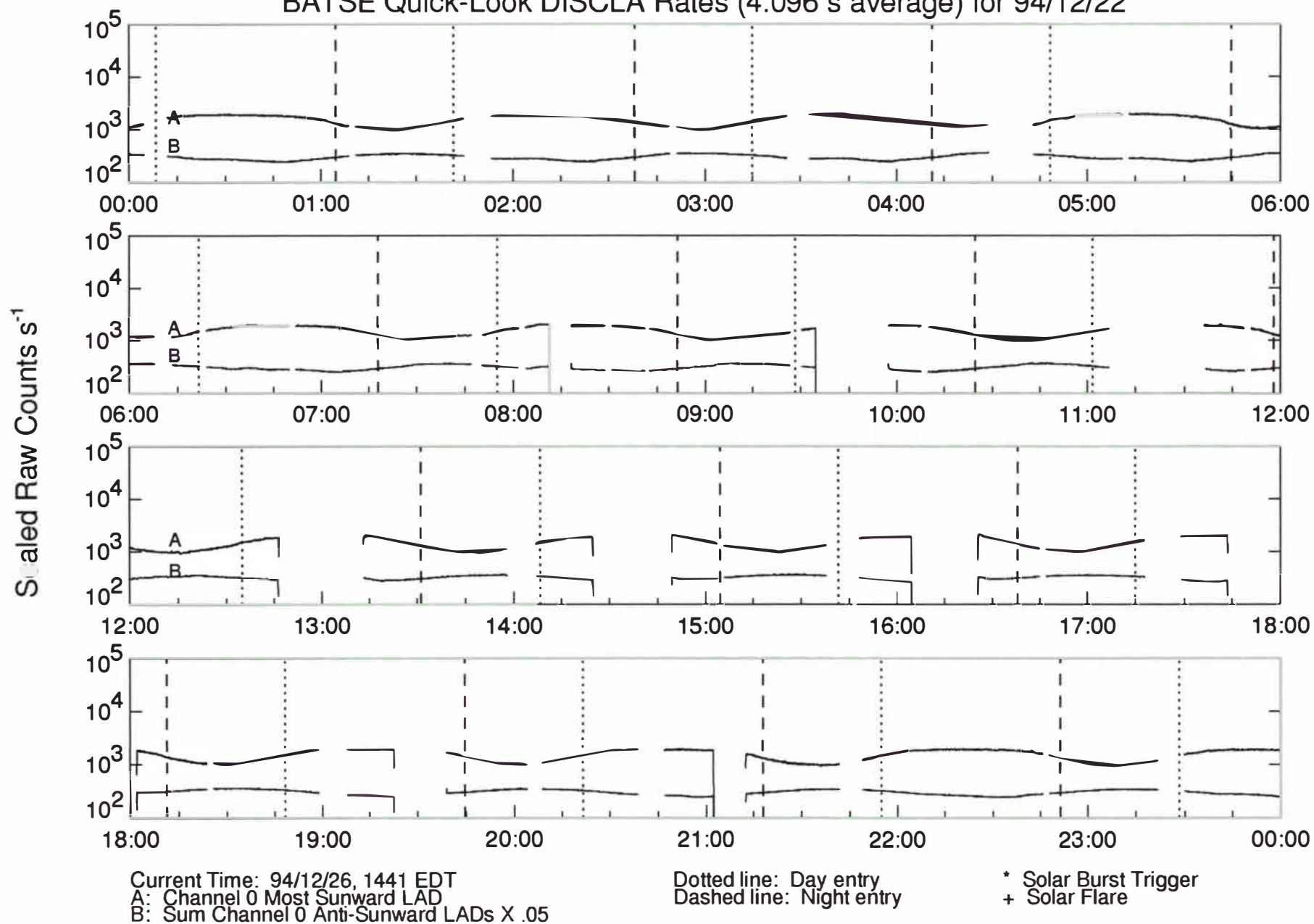
1 (1.0 - 8.0 Angstroms)

Background not subtracted

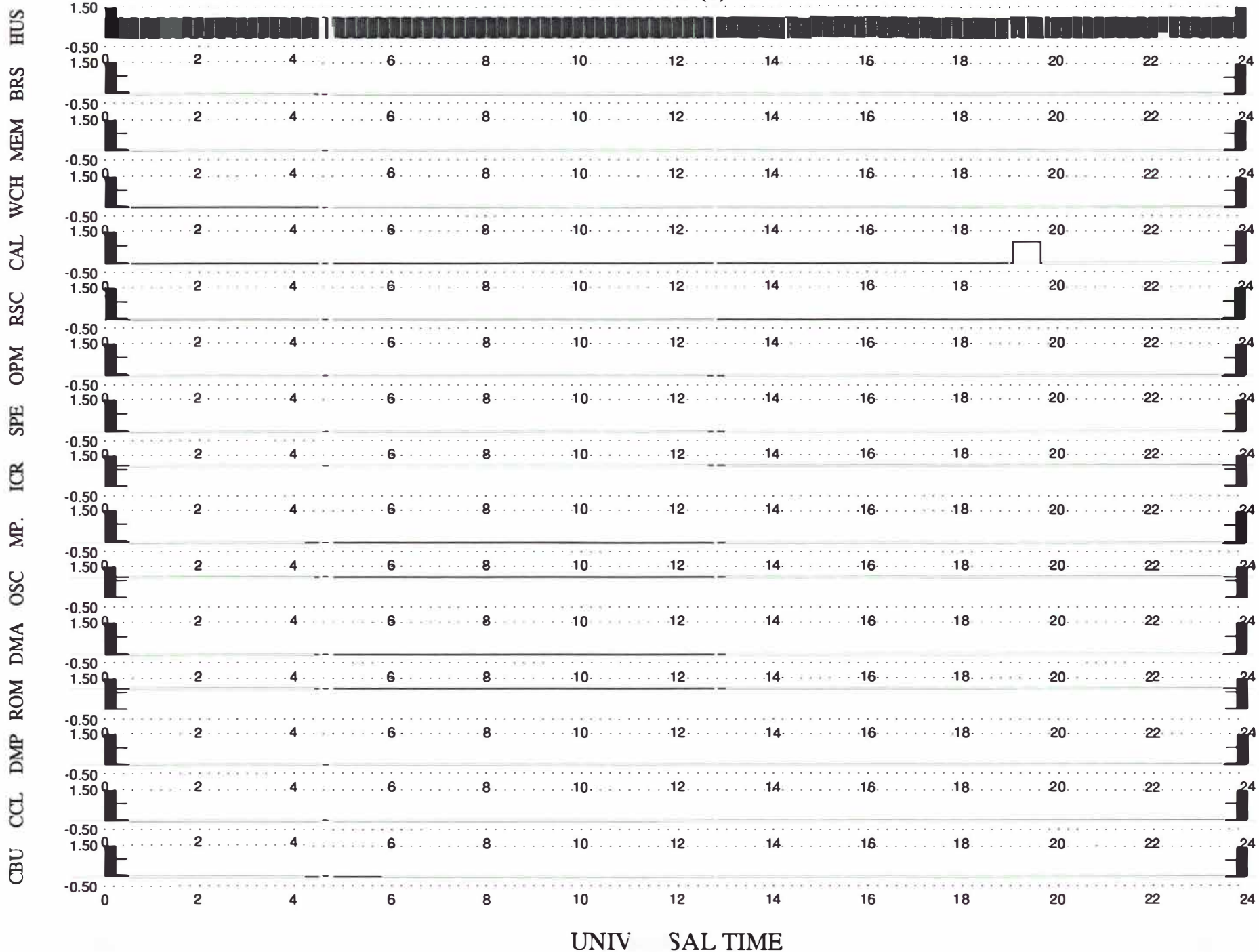
2 (0.5 - 4.0 Angstroms)

Background not subtracted

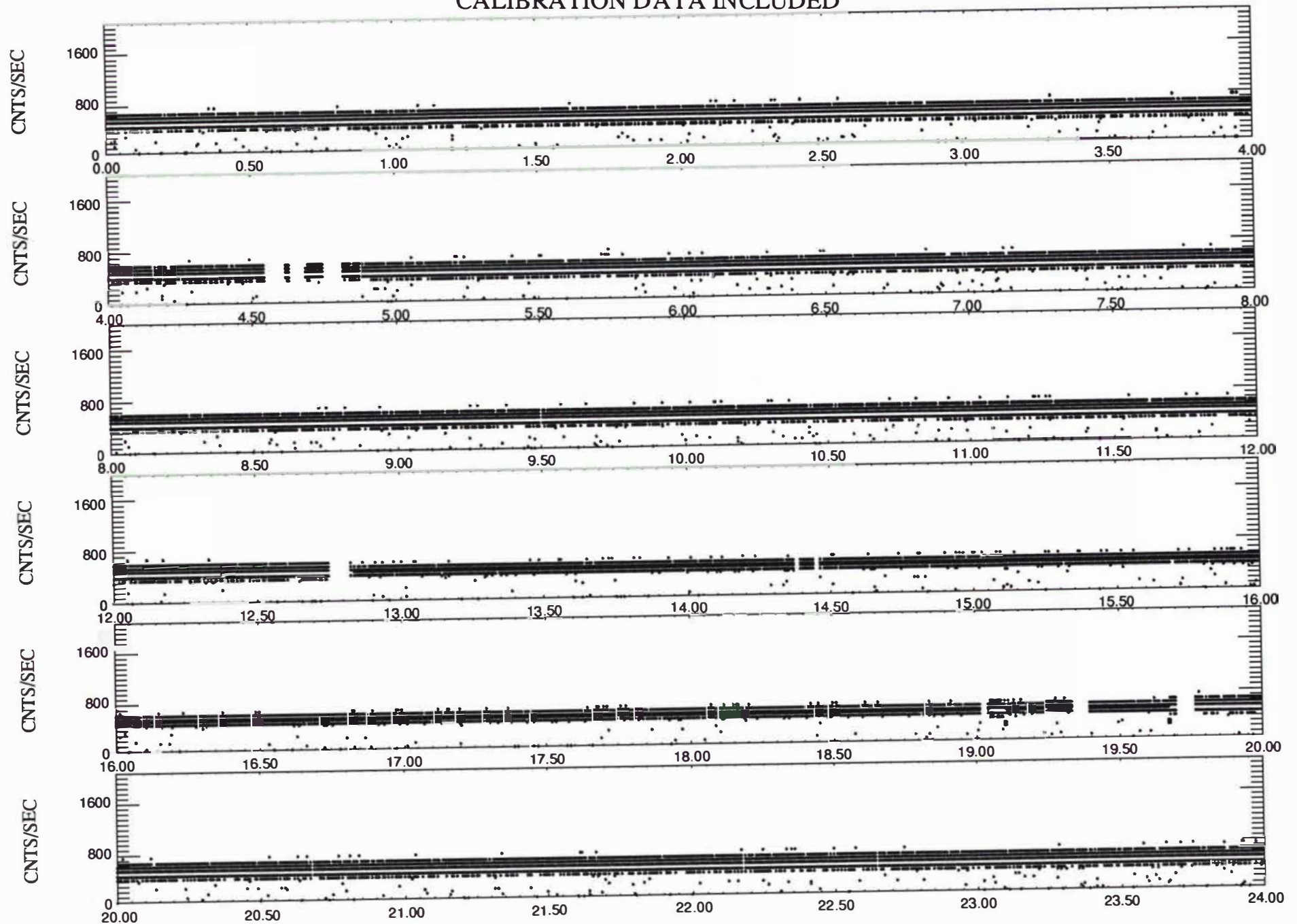
BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/22



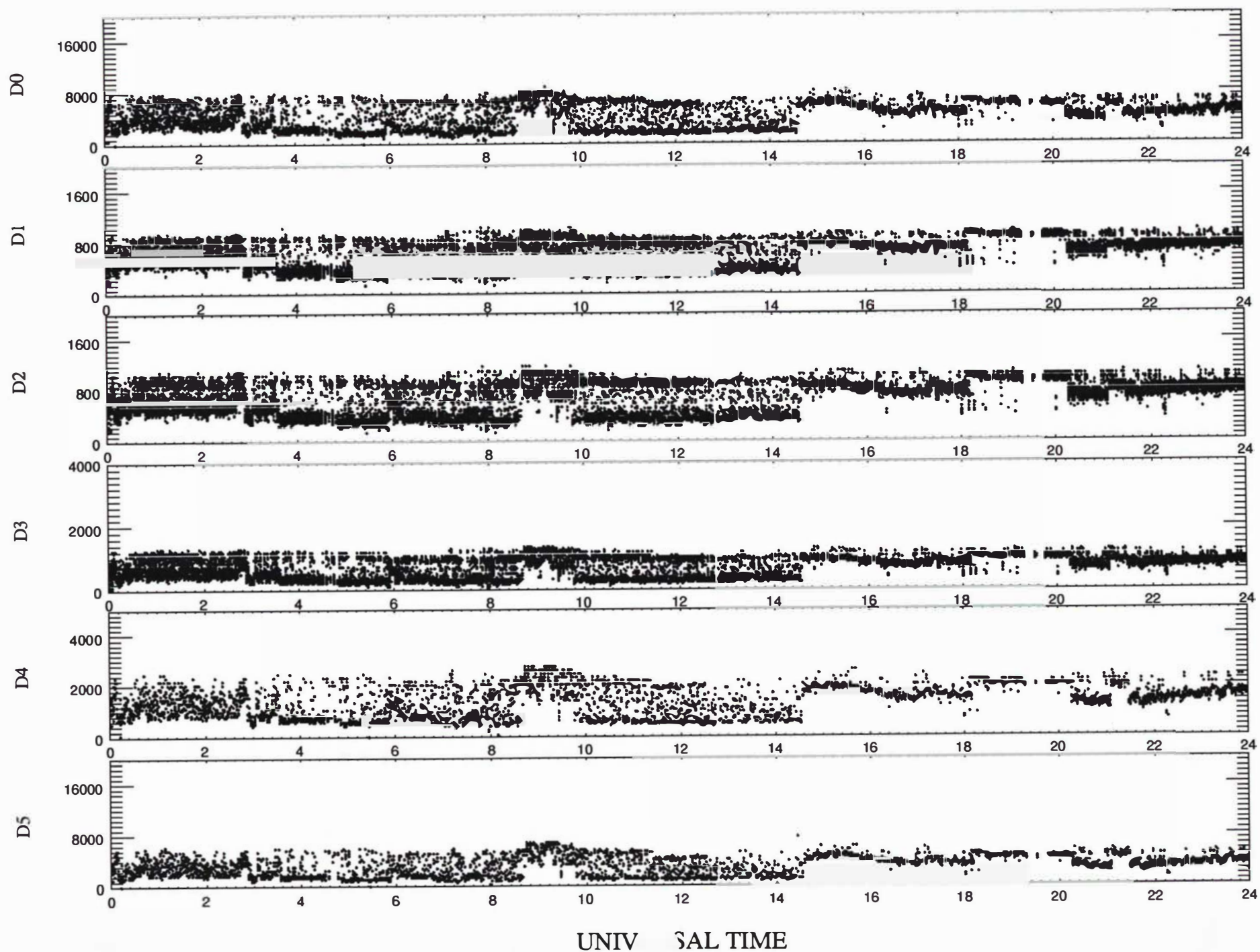
NO BURST (8)

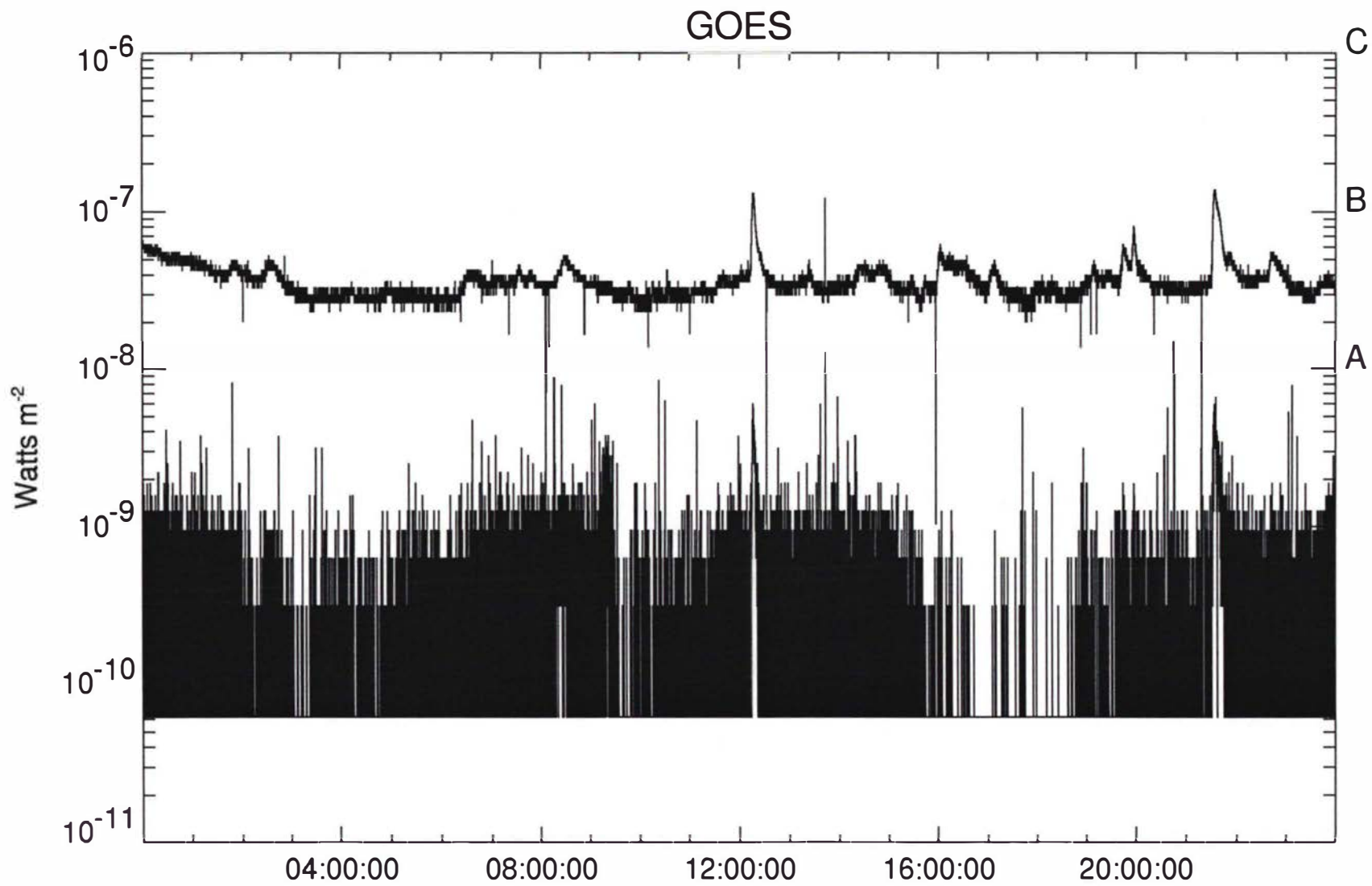


CALIBRATION DATA INCLUDED



UNIV SAL TIME





Data Start: 94/12/23, 0000:02

Plot created: 94/12/26, 1444

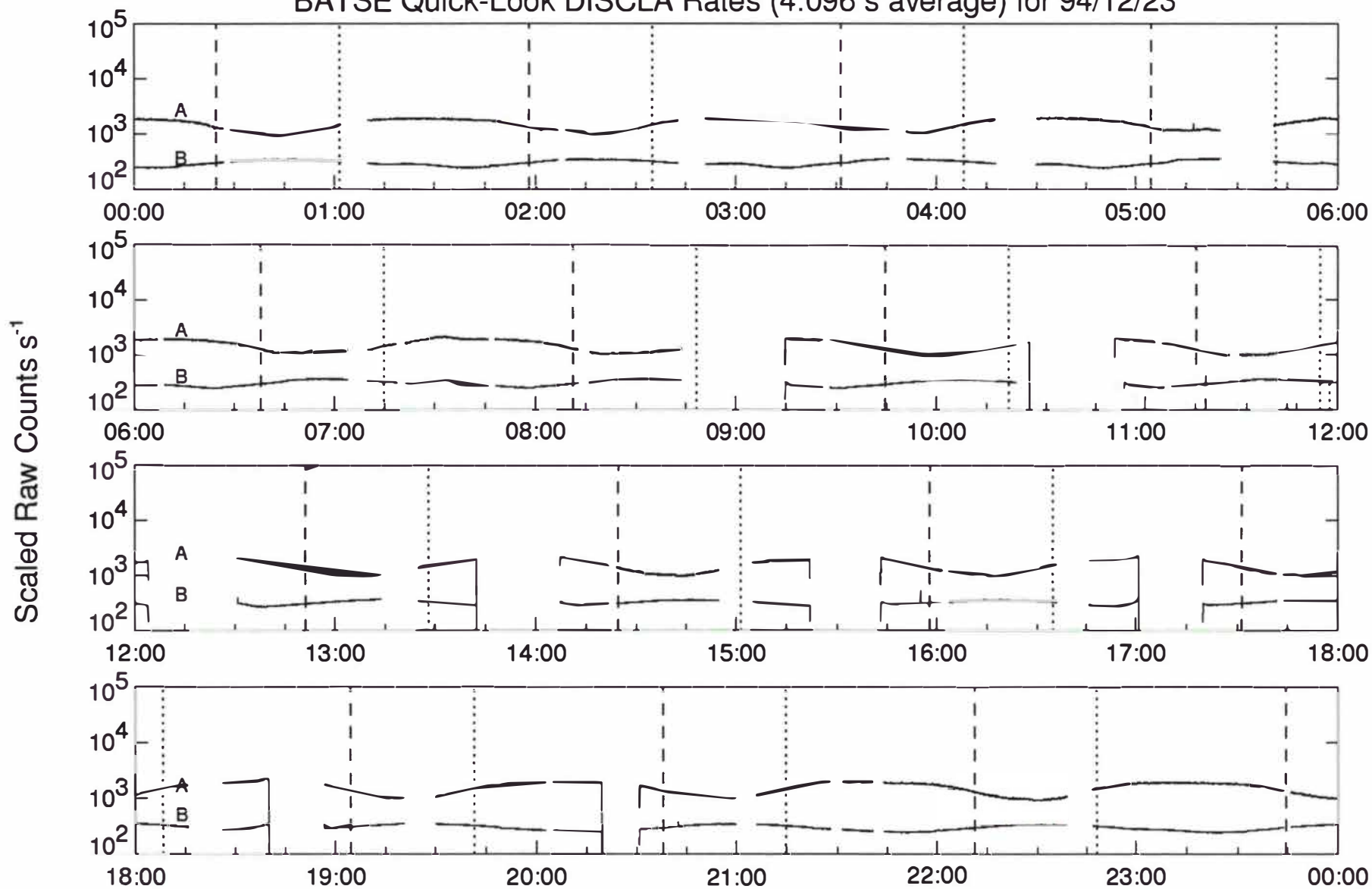
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/23

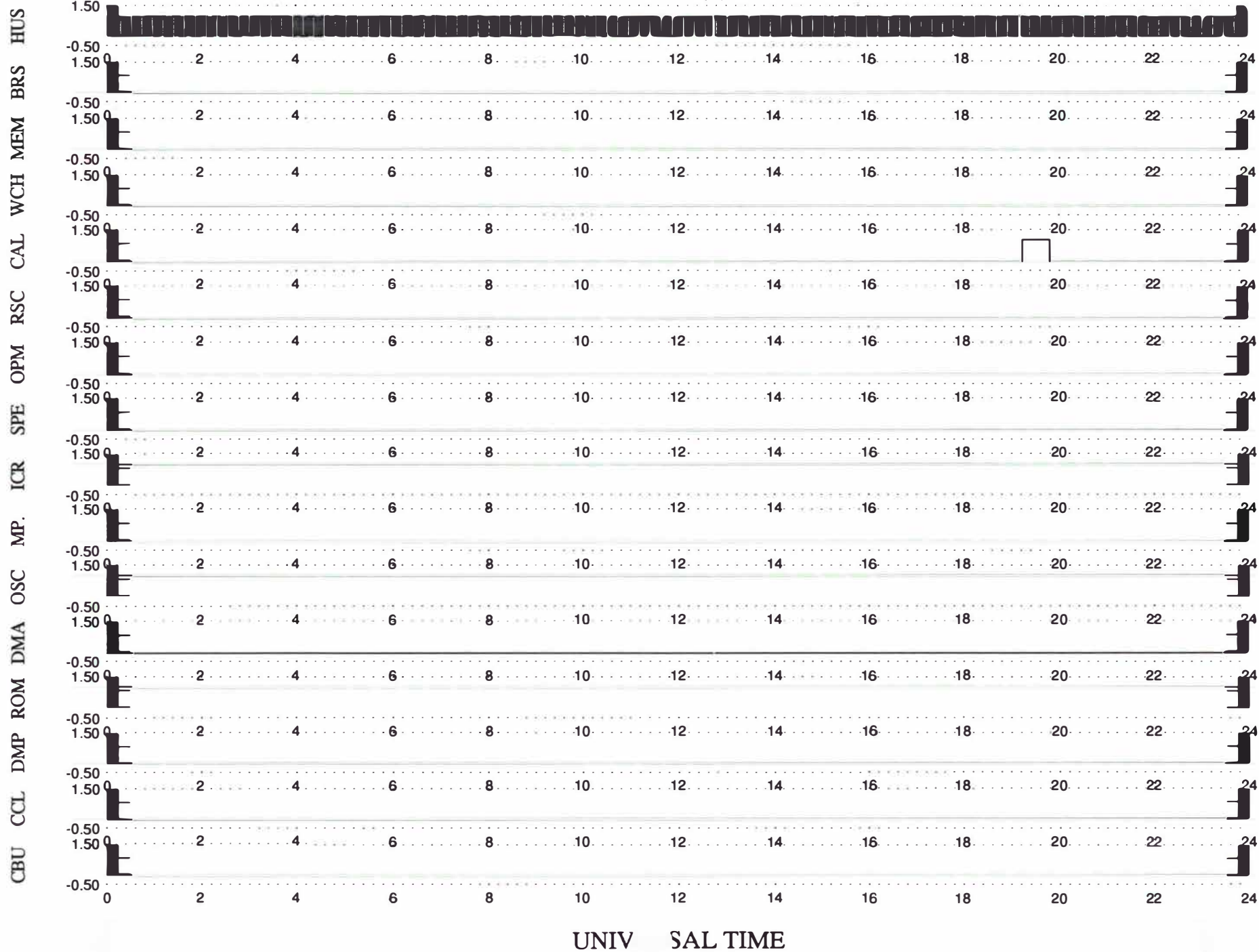


Current Time: 94/12/26, 1445 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

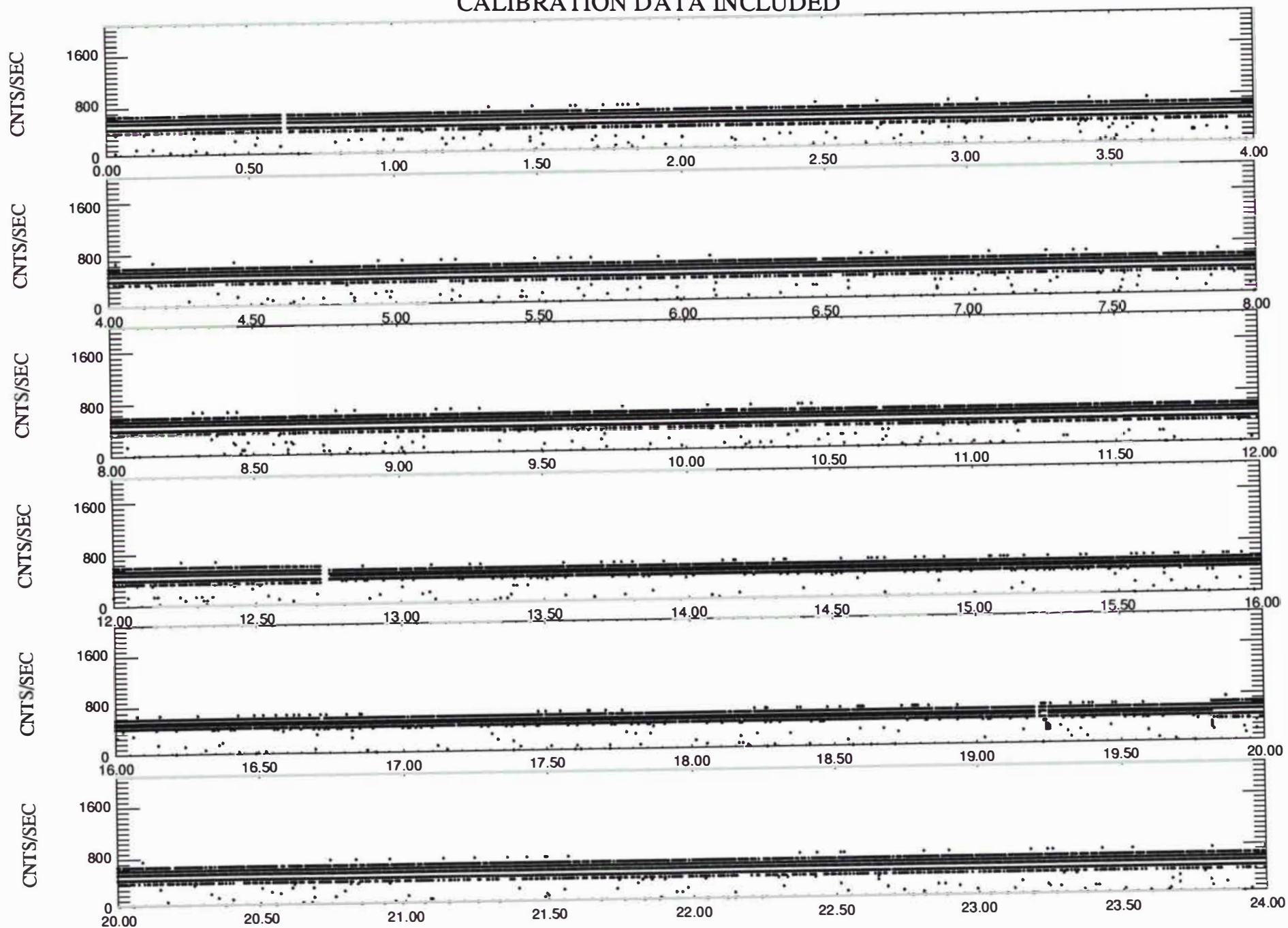
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

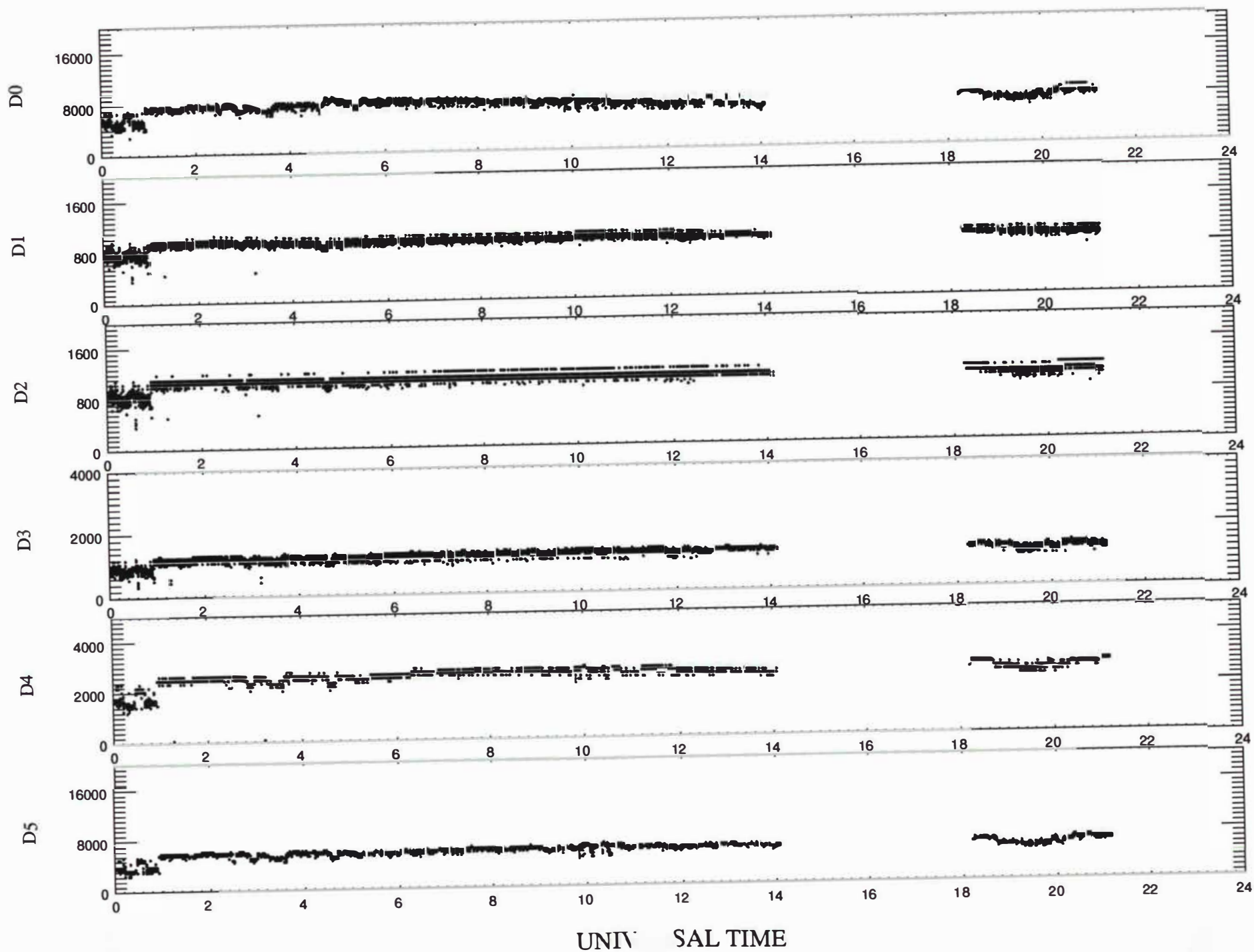
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From HENZE@ssl.msfc.nasa.gov Tue Dec 27 10:12 PST 1994
Date: Tue, 27 Dec 1994 12:12:10 -0600 (CST)
From: HENZE@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3325

BATSEARCH PROGRAM

NO

BATSE BURST # 3325
EVENT OF 1994 DEC 24 DAY OF YEAR=358
EVENT CROSSING TIME AT BATSE : 13333. S. OR 03:42:13.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 216.000 27.000
BATSE PEAK COUNTING RATE: 1400 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 24/12/ 94 IS:
RA= 309.344 DEC= -57.457 DIST= 2.165 AU
BATSE-ULYSSES DISTANCE = 323917914. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 65.75 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 443.72 SECS.
CROSSING TIME AT ULYSSES IS 13777. S. OR 03:49:36 +/- 227.78 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 24/12/ 94 IS:
RA= 155.213 DEC= 13.692 DIST= 0.905 AU
MARS-BATSE DISTANCE = 135443264. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=122.00 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -239.43 SECS.
CROSSING TIME AT MARS IS 13094. S. OR 03:38:13 +/- 62.88 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03325

TIME: TJD=9710 SECONDS=13333

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=25.4 AZIMUTH=114.6 ERROR= DEGREES

COMMENTS:

SINGLE PULSE, DURATION APPROX. 19 S.

Subject: BATSE Burst 3325

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3325	941224	9710	13333	1400	216	+27

BATSE BURST# 3325

ULYSSES RT

4 / 5 / 98

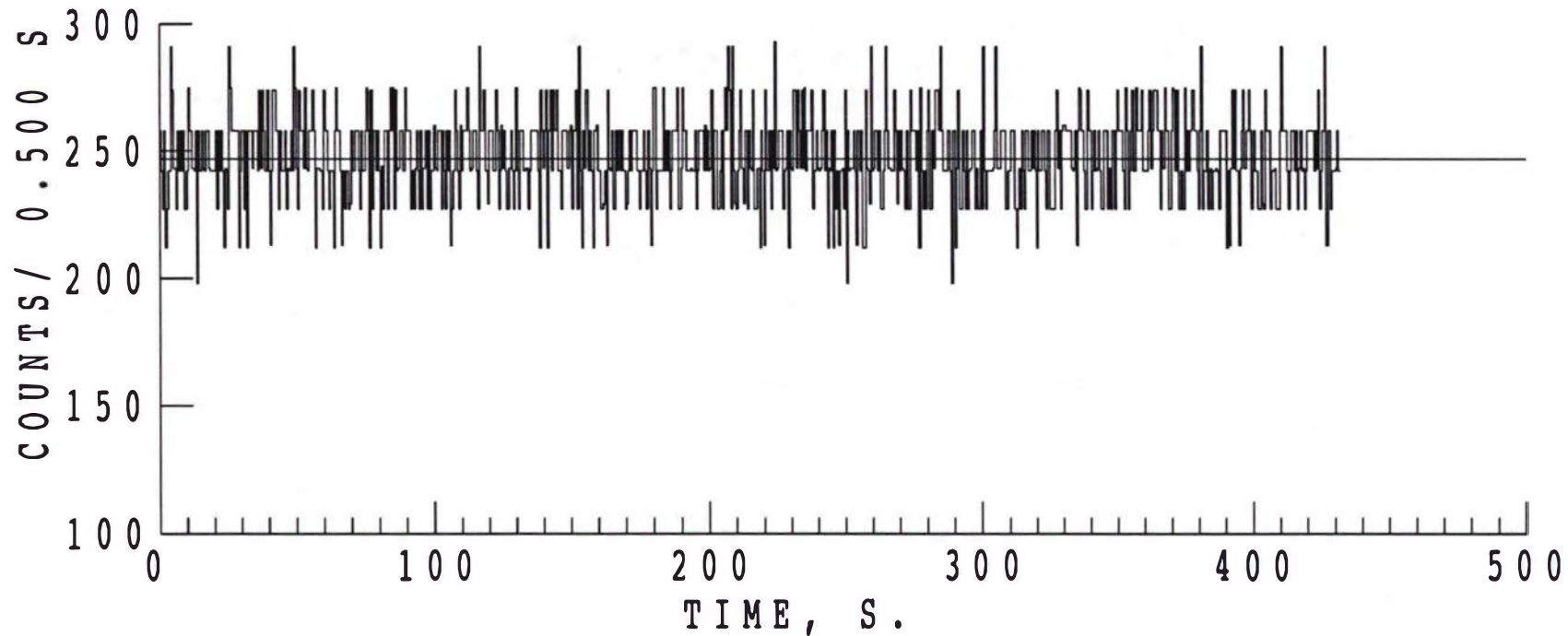
24/12/94 13752.121 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M=10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HENZE@ssl.msfc.nasa.gov Tue Dec 27 10:06 PST 1994

Date: Tue, 27 Dec 1994 12:06:27 -0600 (CST)

From: HENZE@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.: 03326

TIME: TJD=9710 SECONDS=64650

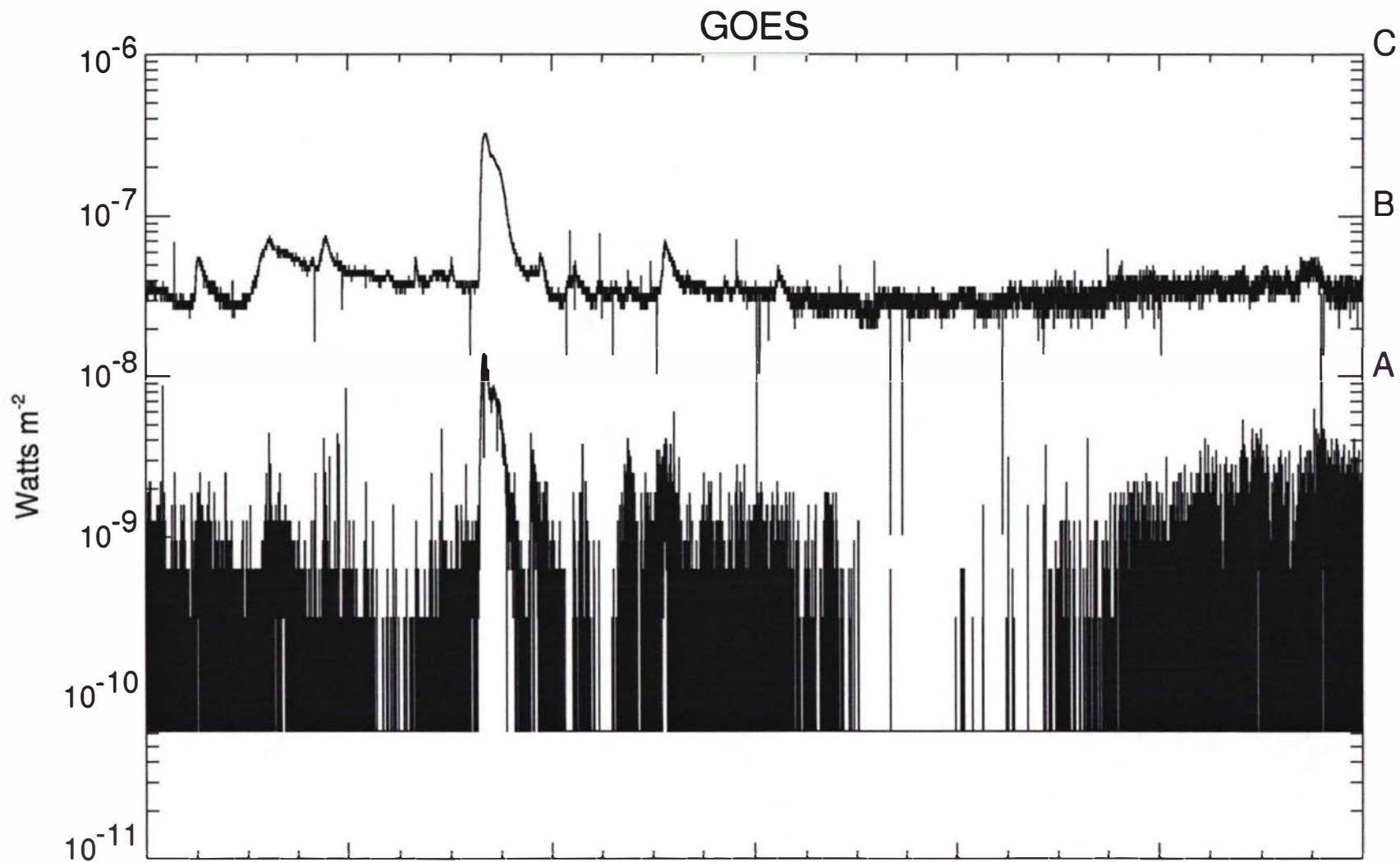
TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



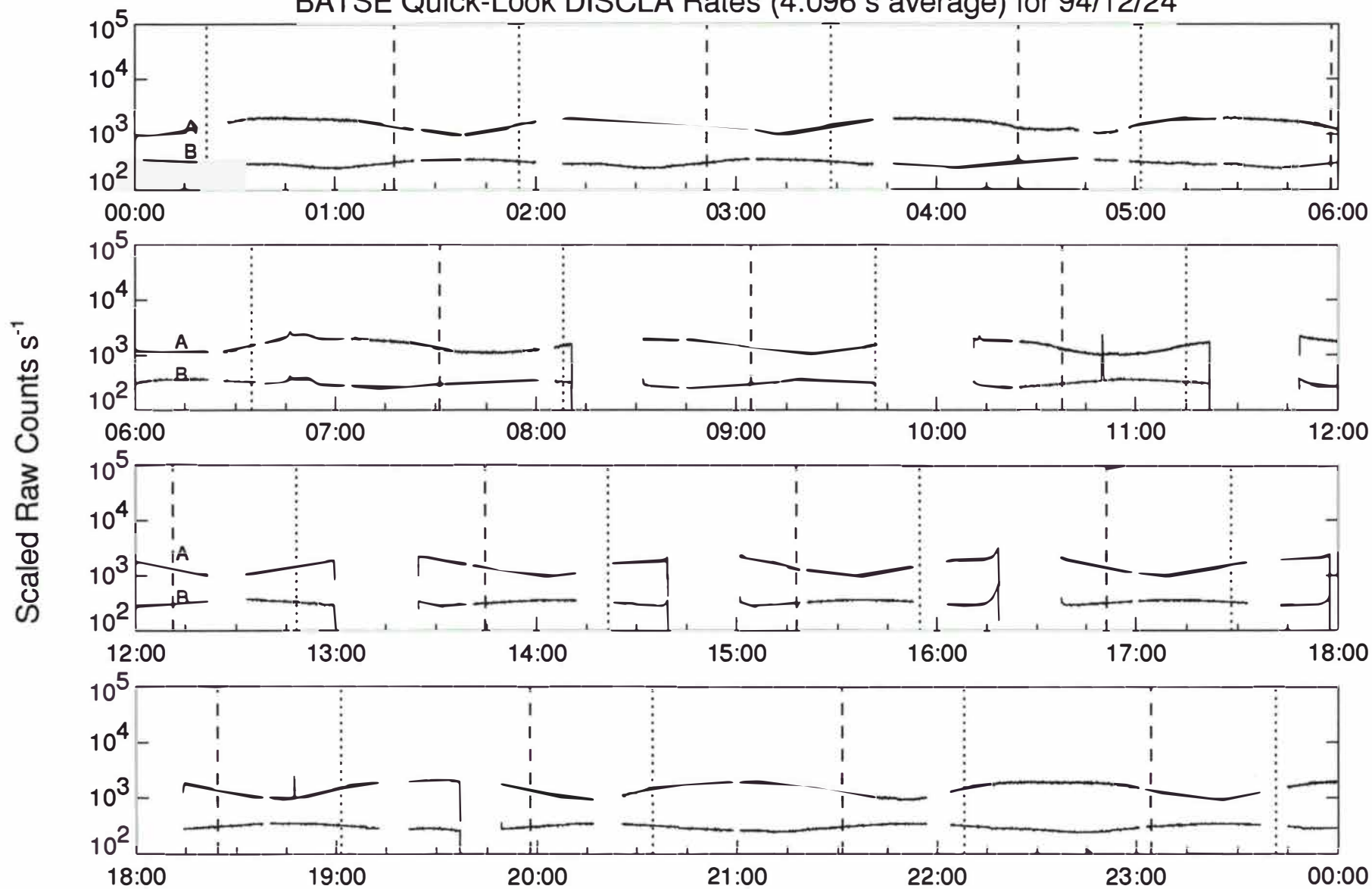
Data Start: 94/12/24, 0000:00

Plot created: 94/12/26, 1448

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 94/12/24

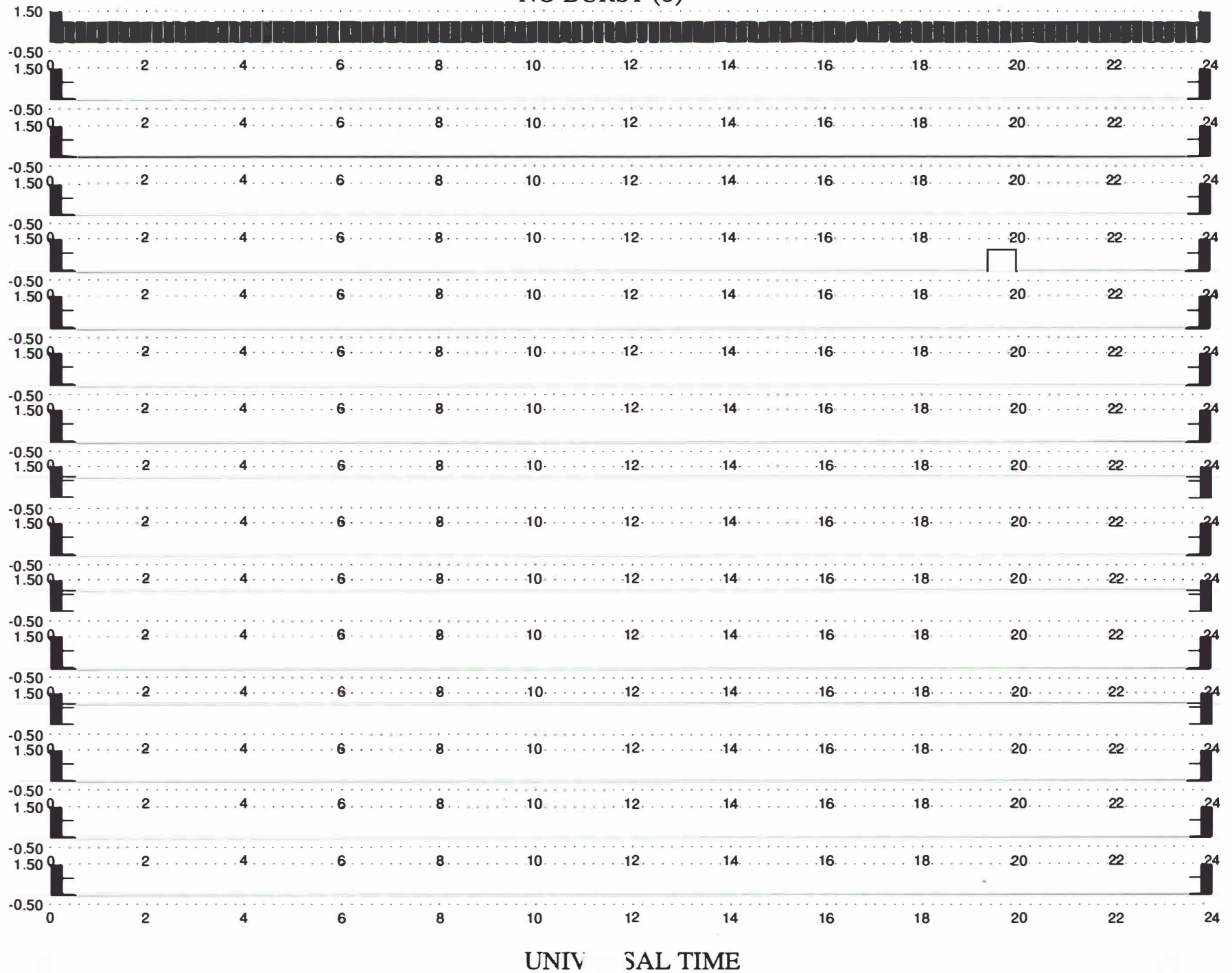


Current Time: 94/12/26, 1449 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

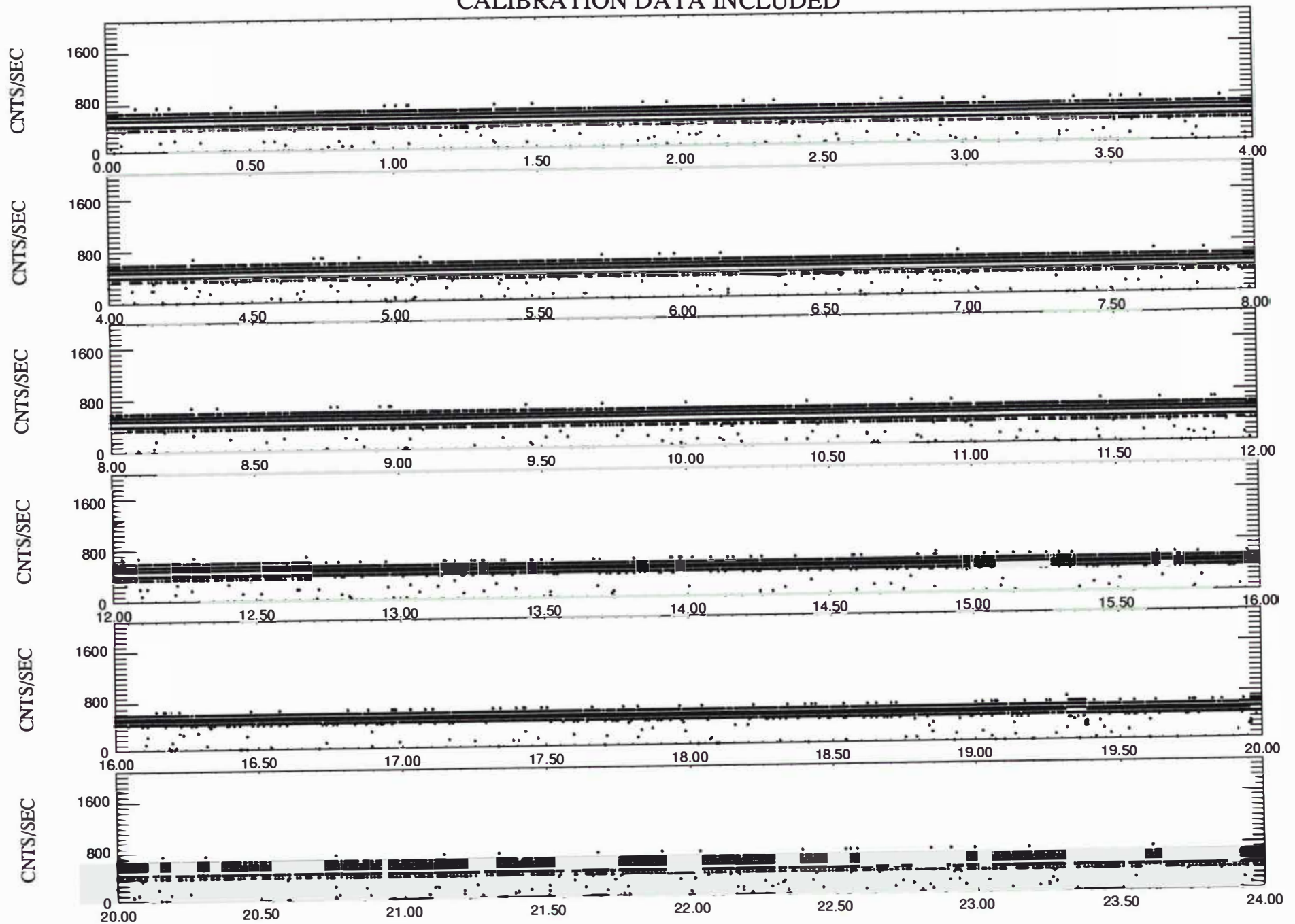
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

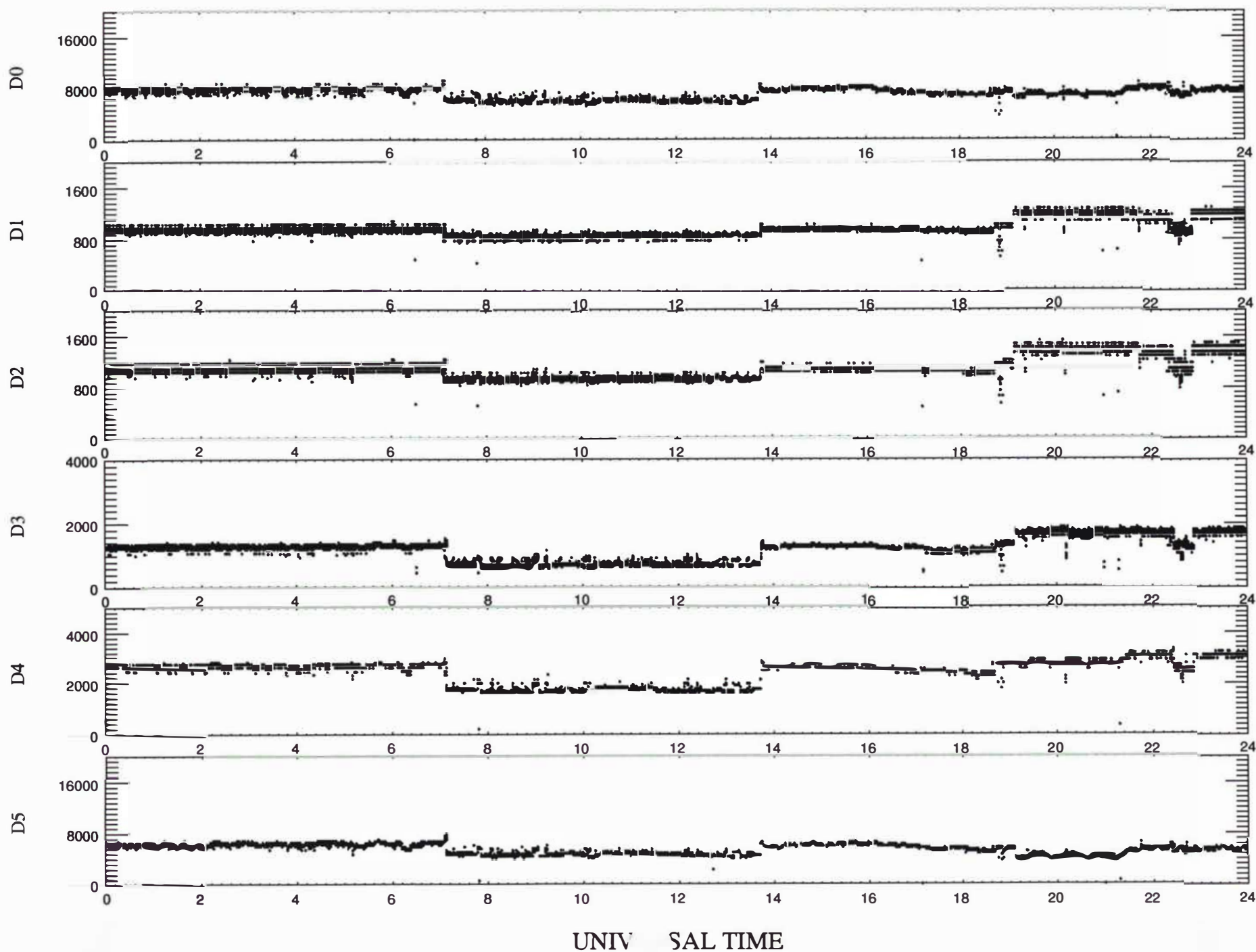
CBU	CCL	DMP	ROM	DMA	OSC	MP.	ICR	SPE	OPM	RSC	CAL	WCH	MEM	BRS	HUS
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

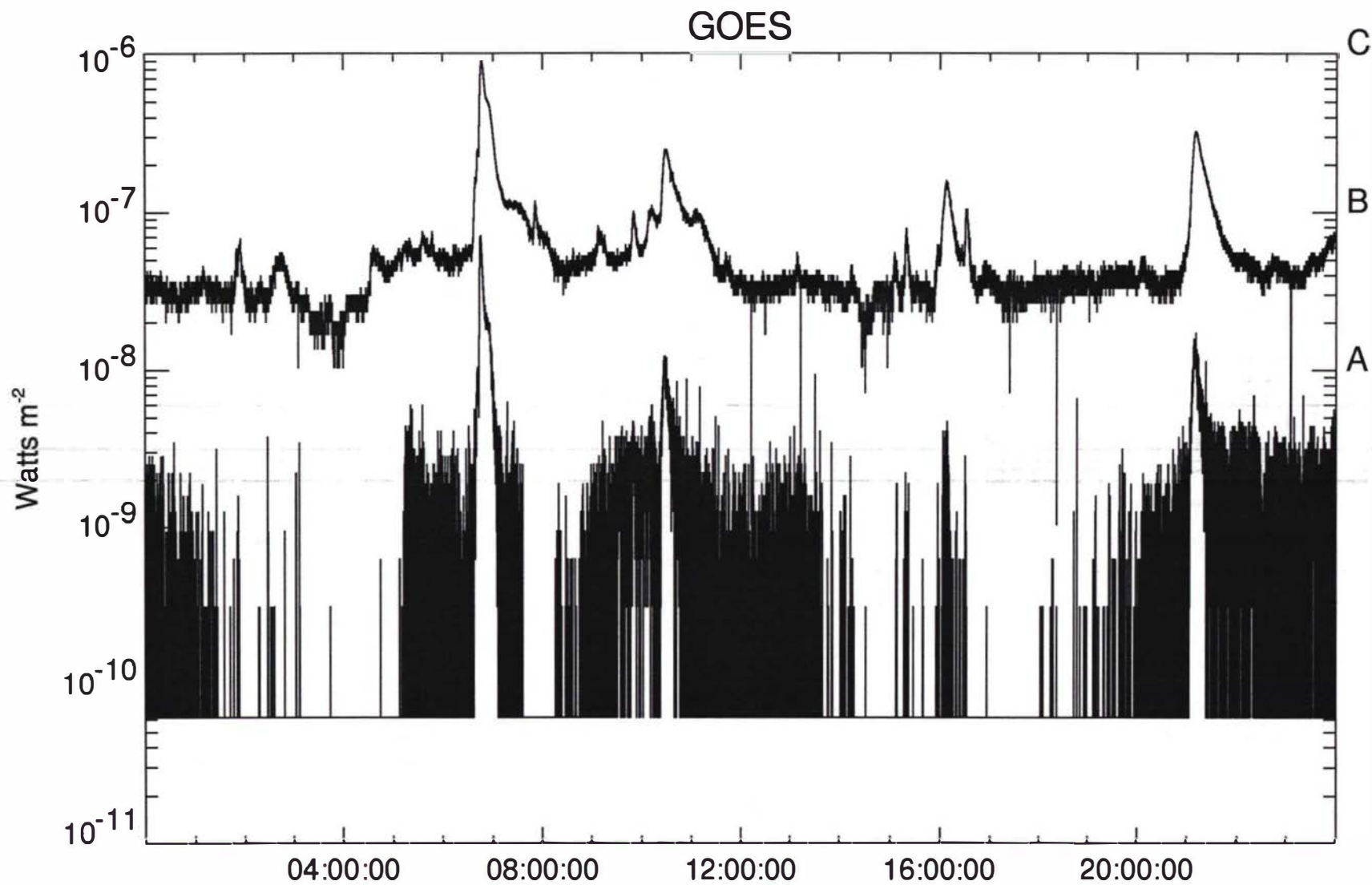


CALIBRATION DATA INCLUDED



UNIV SAL TIME





Data Start: 94/12/25, 0000:01

Plot created: 95/01/05, 1650

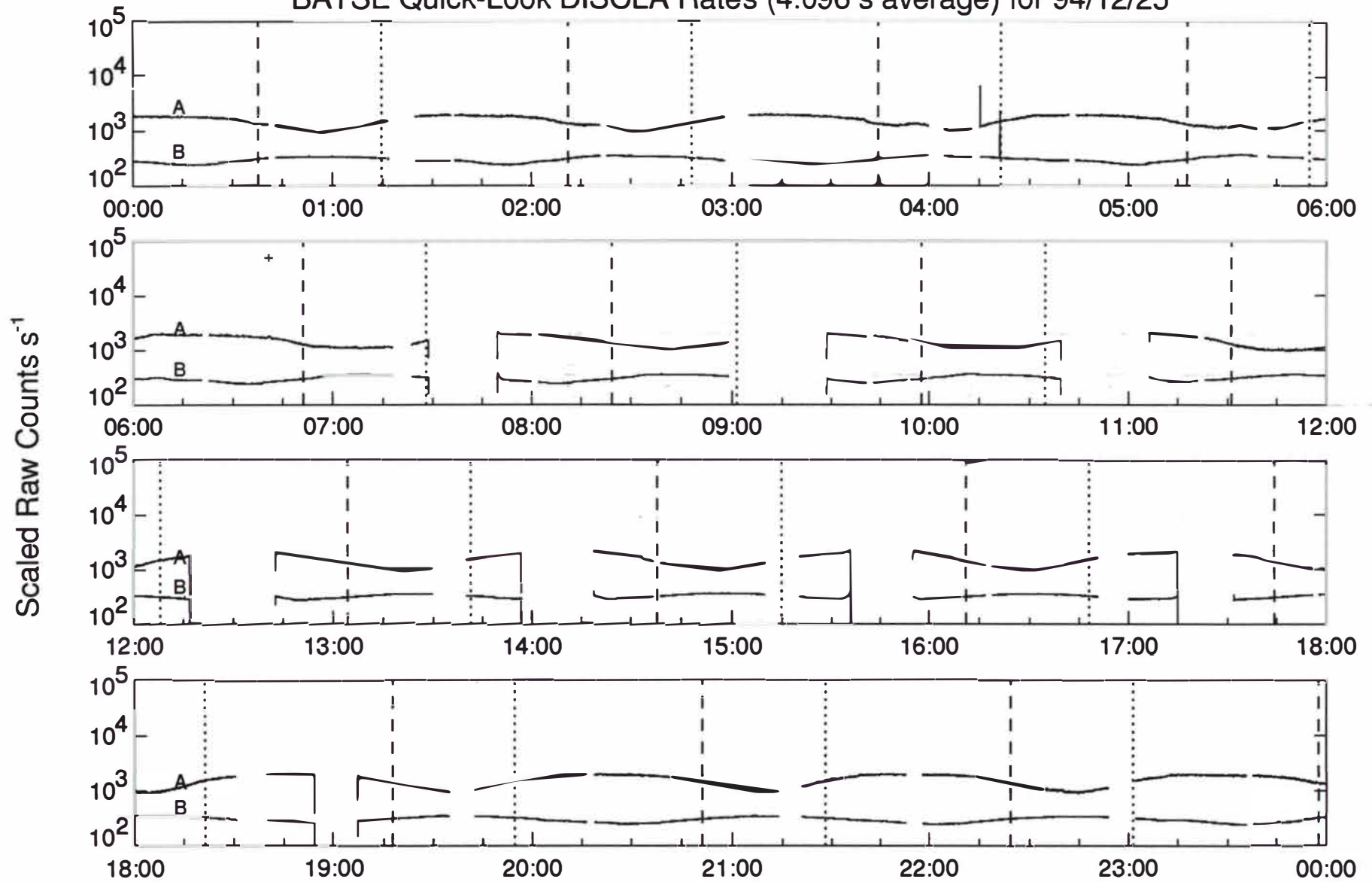
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/25

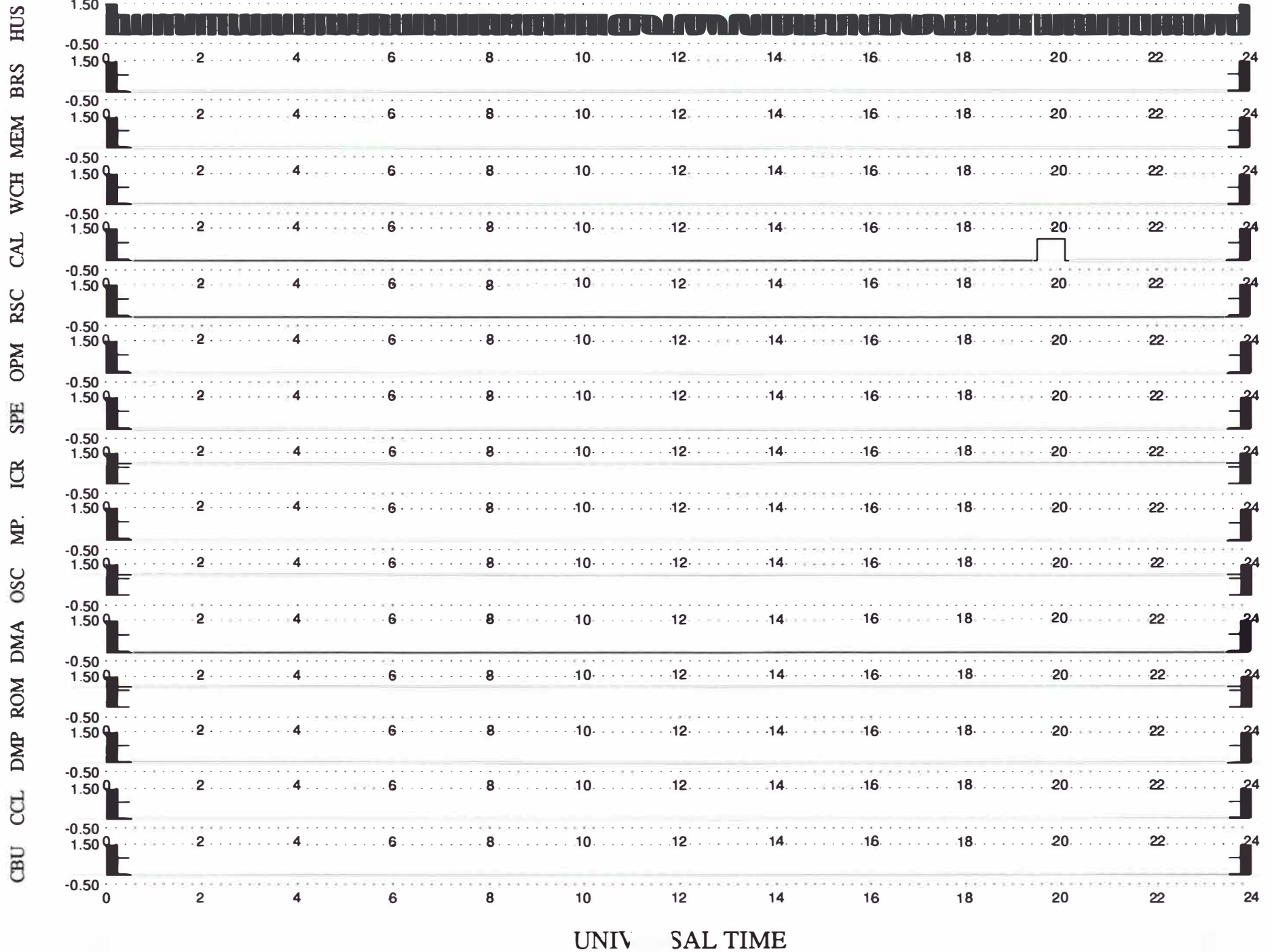


Current Time: 95/01/05, 1651 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

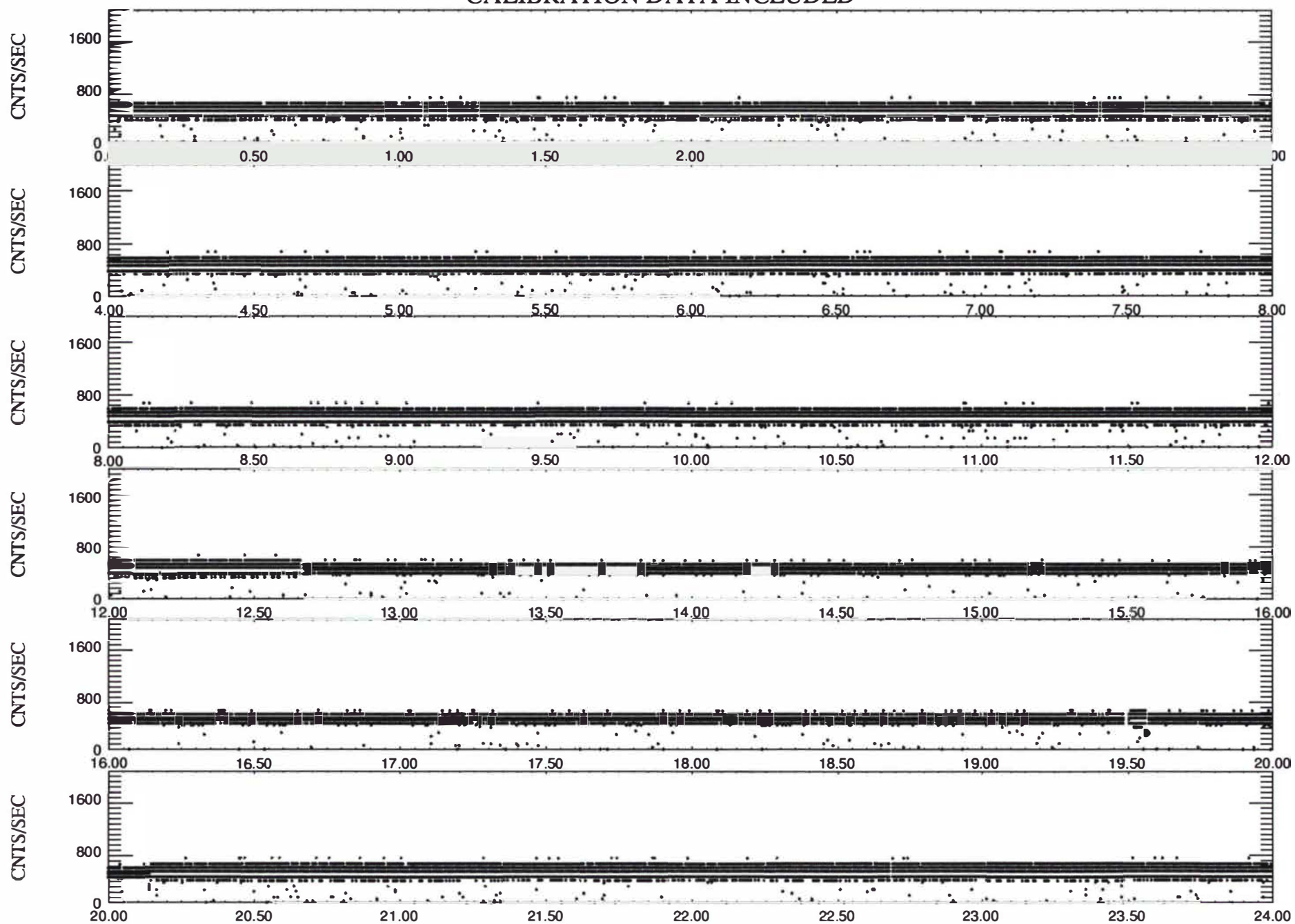
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

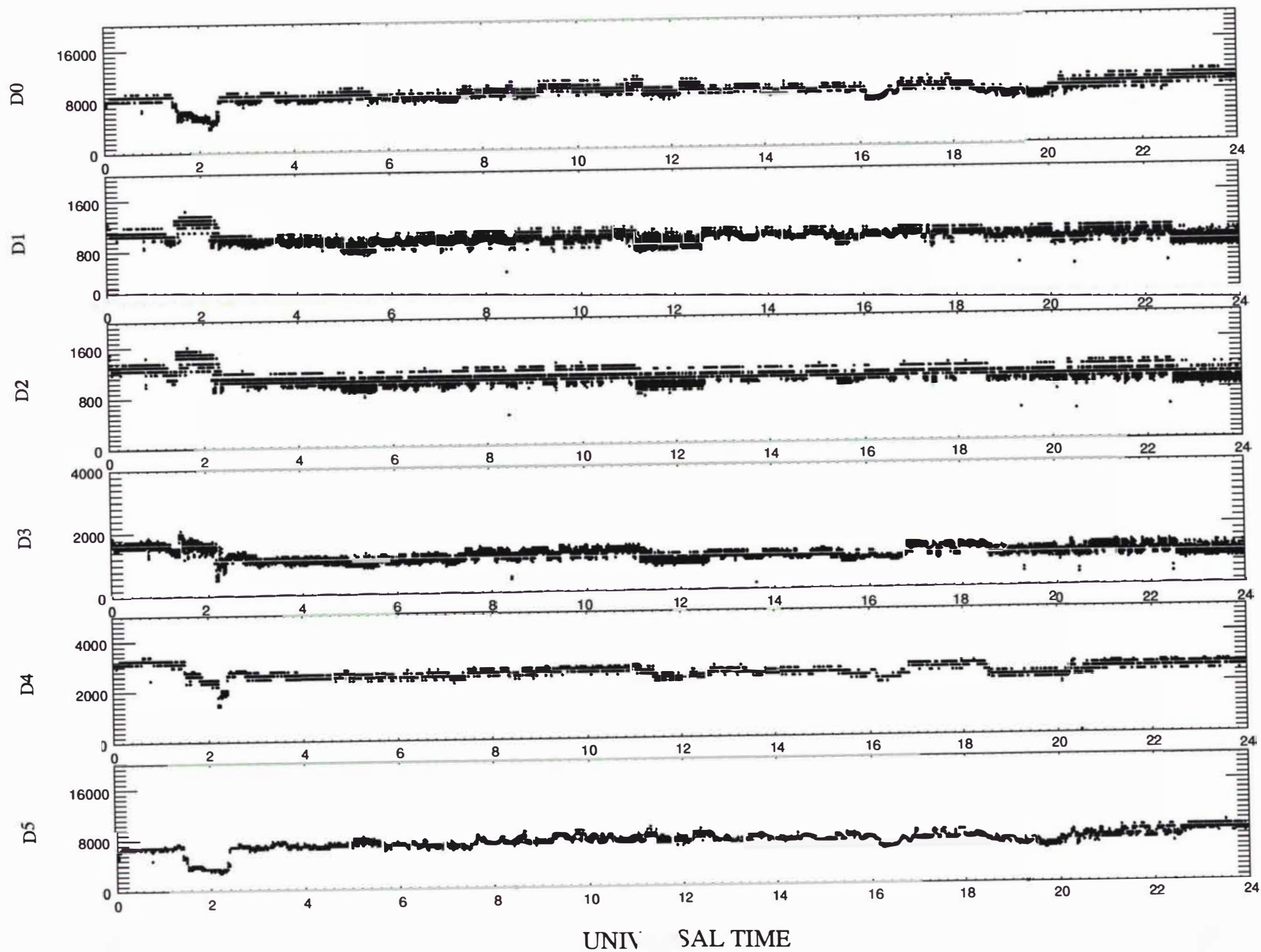
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



BATSE # Date TJD sec Max ct/s RA Dec
3328 941226 9712 85949 3000 138 +04

BATSEARCH PROGRAM

BATSE BURST # 3328
EVENT OF 1994 DEC 26 DAY OF YEAR=360
EVENT CROSSING TIME AT BATSE : 85949. S. OR 23:52:29.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 138.000 4.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 26/12/ 94 IS:
RA= 311.687 DEC= -55.562 DIST= 2.171 AU
BATSE-ULYSSES DISTANCE = 324854469. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 51.81 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 669.94 SECS.
CROSSING TIME AT ULYSSES IS 86619. S. OR 24:03:38 +/- 208.04 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 26/12/ 94 IS:
RA= 155.449 DEC= 13.683 DIST= 0.890 AU
MARS-BATSE DISTANCE = 133150360. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=160.25 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -418.01 SECS.
CROSSING TIME AT MARS IS 85531. S. OR 23:45:30 +/- 19.71 SECONDS

NO

From SAHI@ssl.msfc.nasa.gov Wed Dec 28 09:40 PST 1994
Date: Wed, 28 Dec 1994 11:40:53 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03328

TIME: TJD=9712 SECONDS=85949

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=068.2 AZIMUTH=221.7 ERROR= DEGREES

COMMENTS:

SINGLE PULSE, DUR.~ 30 SEC. RISE FASTER THAN FALL. NOT VISIBLE ABOVE 300 KEV.

31 / 12 / 94

ULYSSES RT

27 / 12 / 94

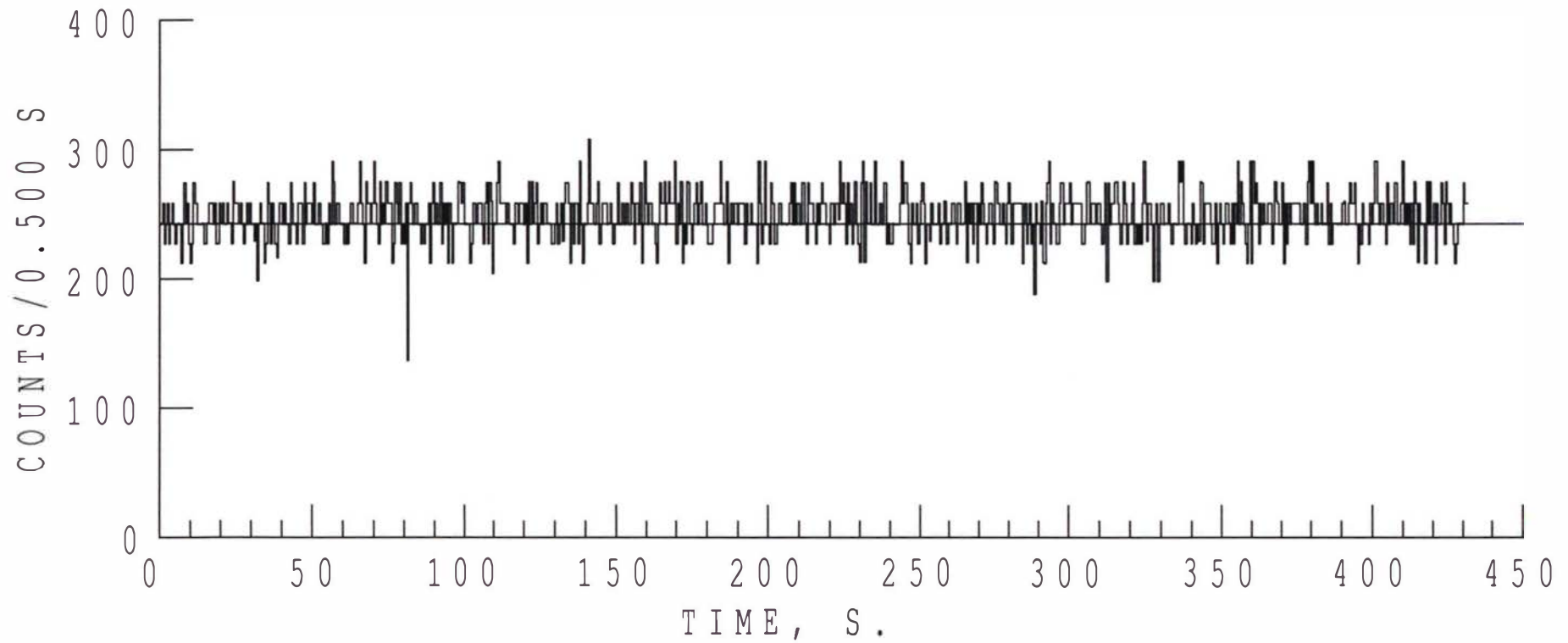
0.010 s

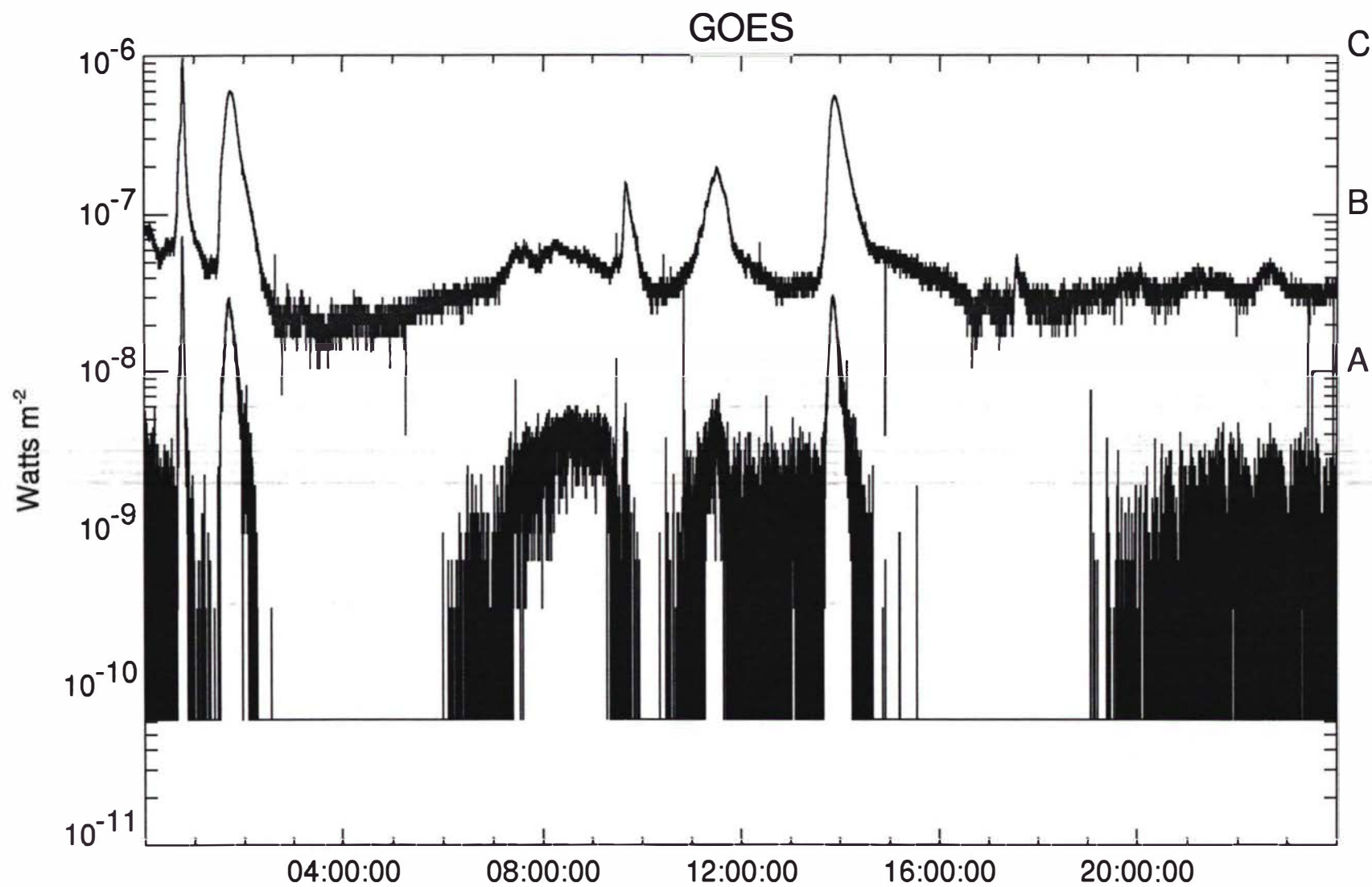
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





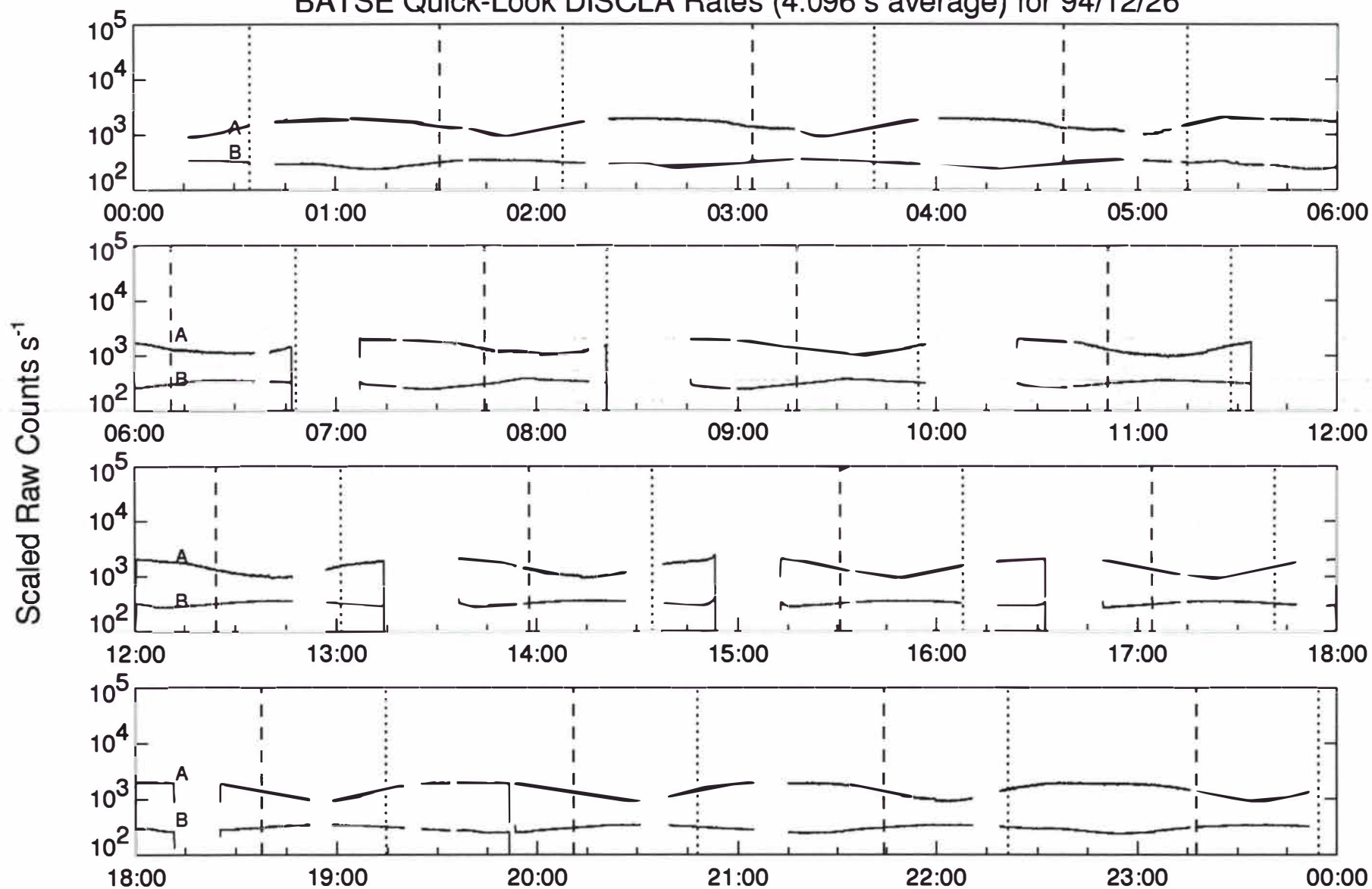
Data Start: 94/12/26, 0000:02

Plot created: 95/01/05, 1654

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 94/12/26

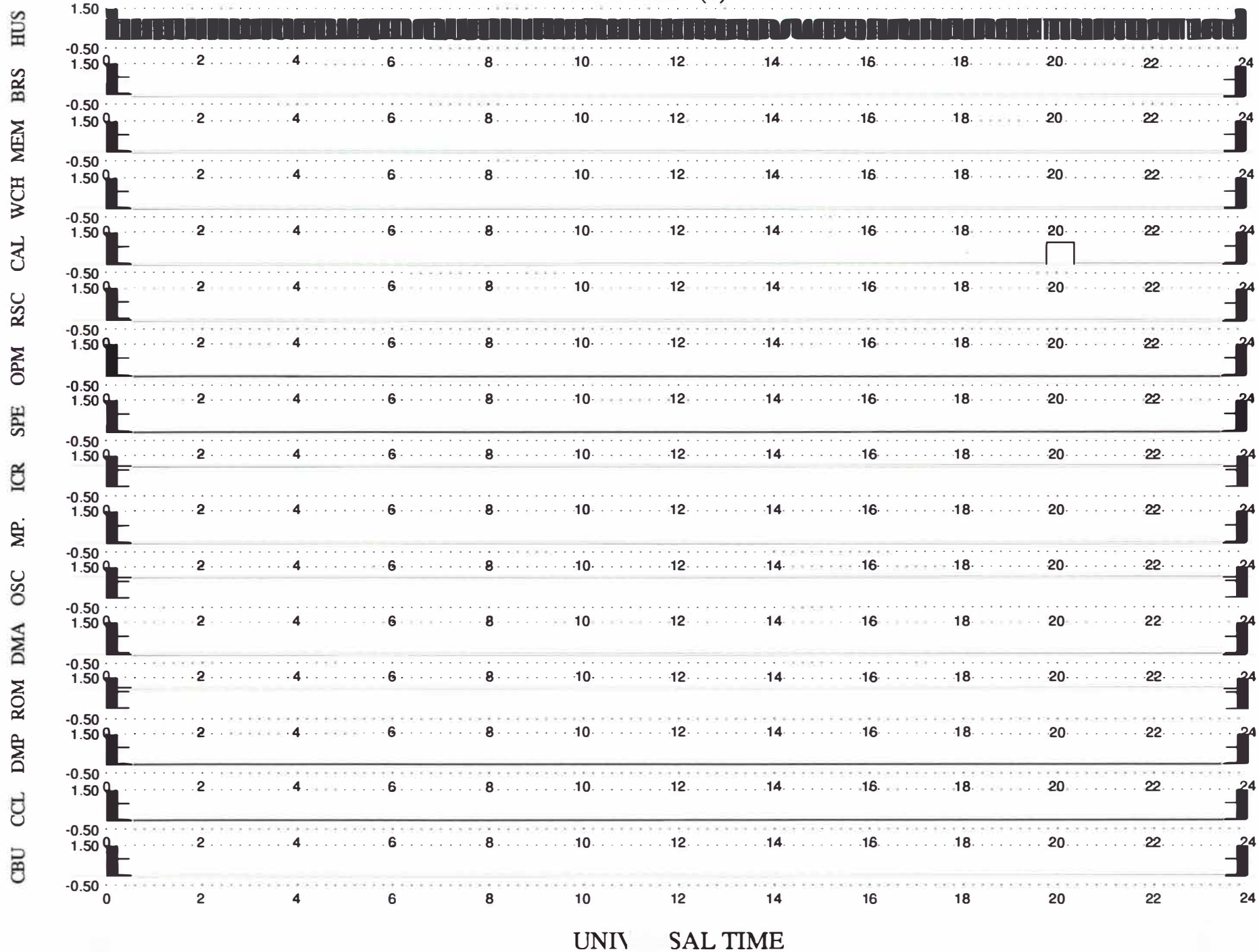


Current Time: 95/01/05, 1656 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

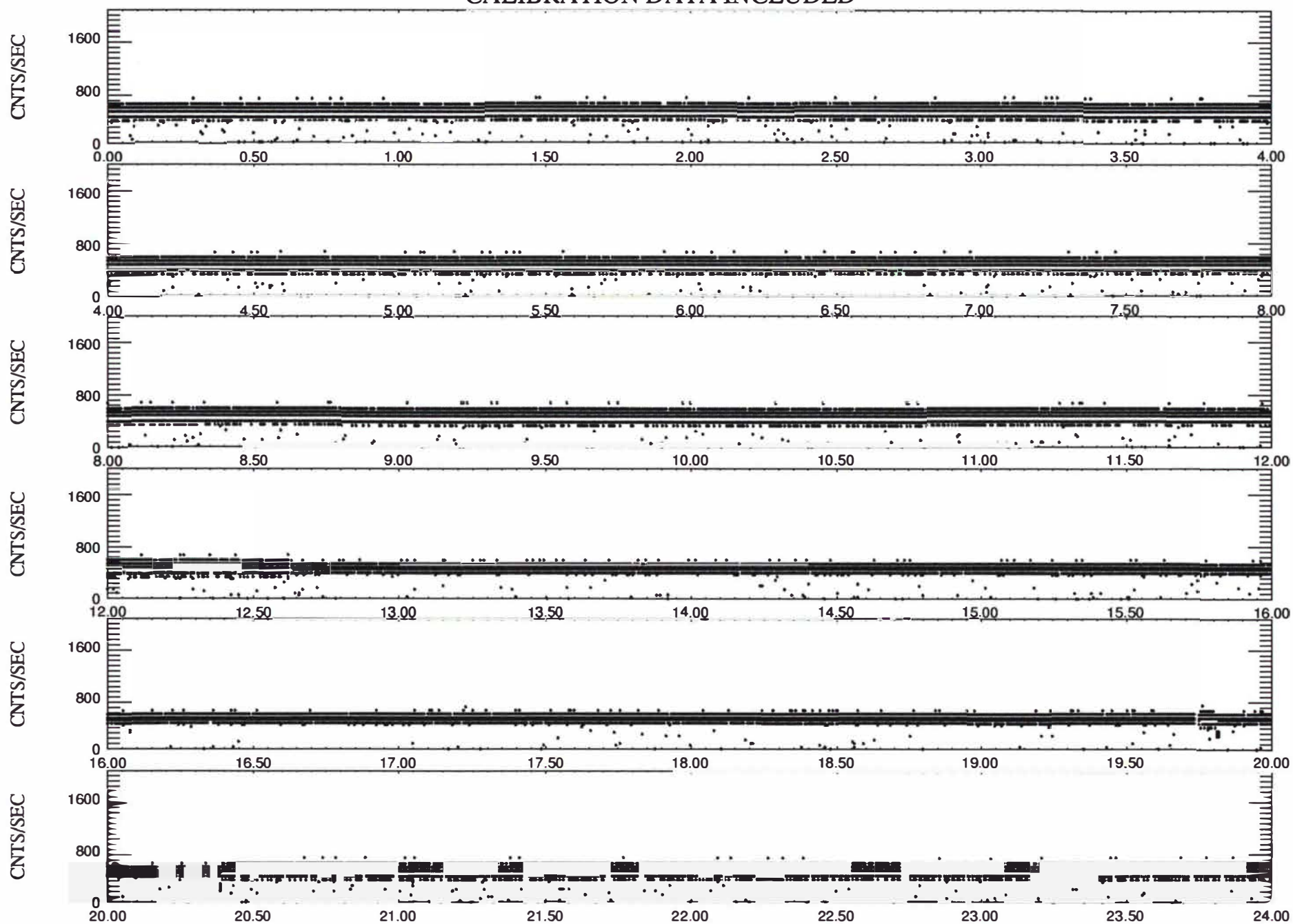
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

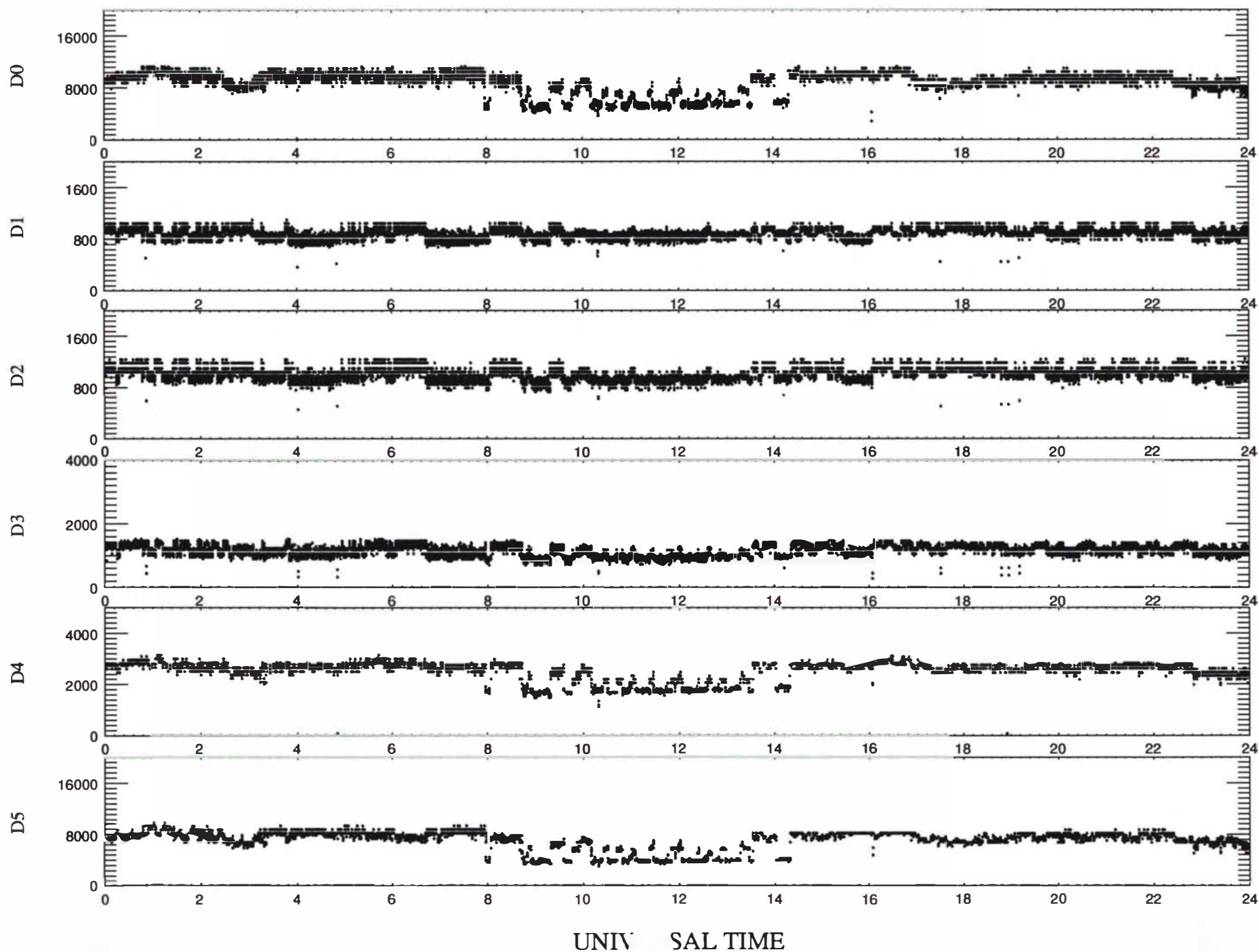
NO BURST (8)

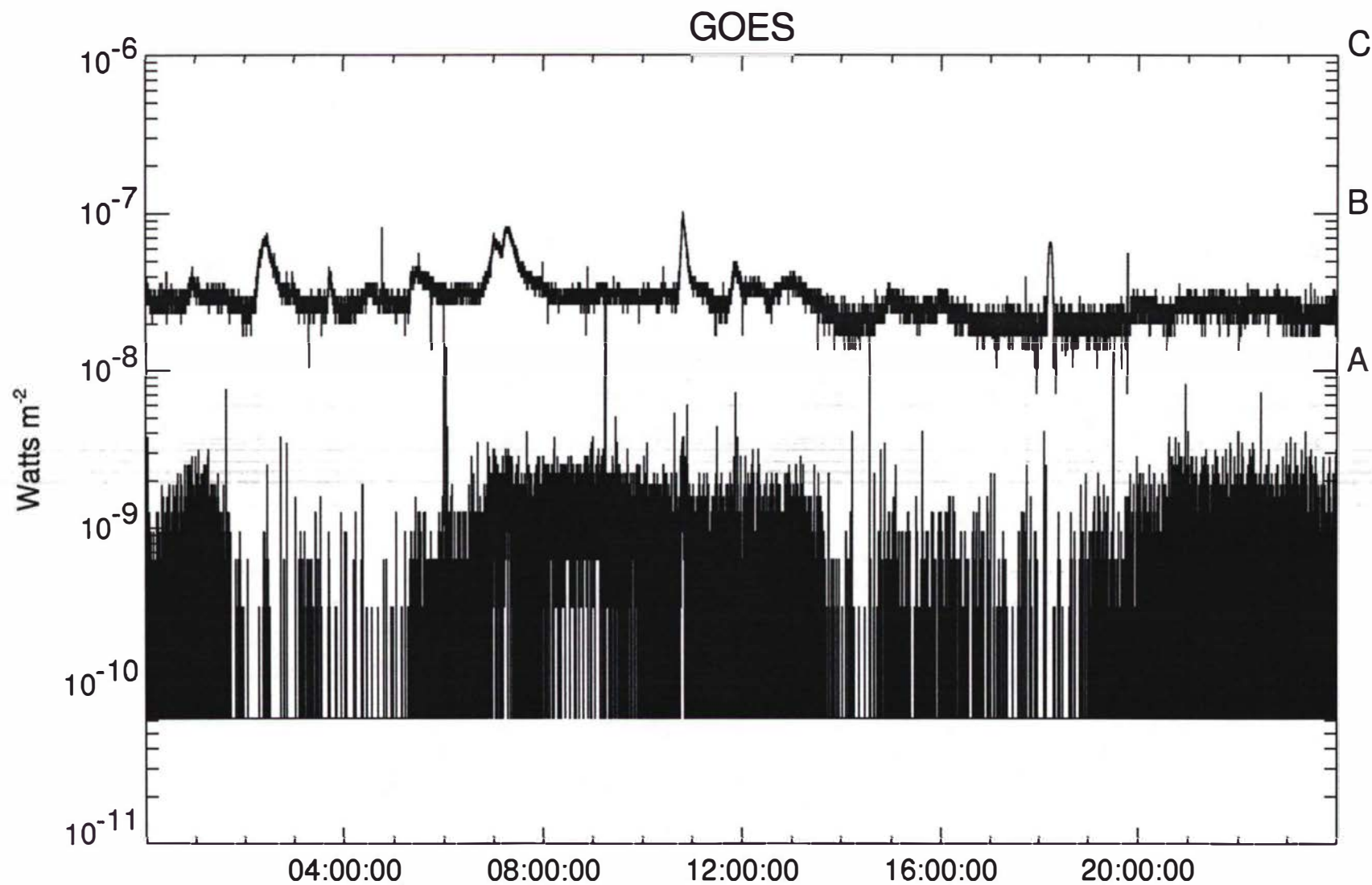


CALIBRATION DATA INCLUDED



UNIV SAL TIME





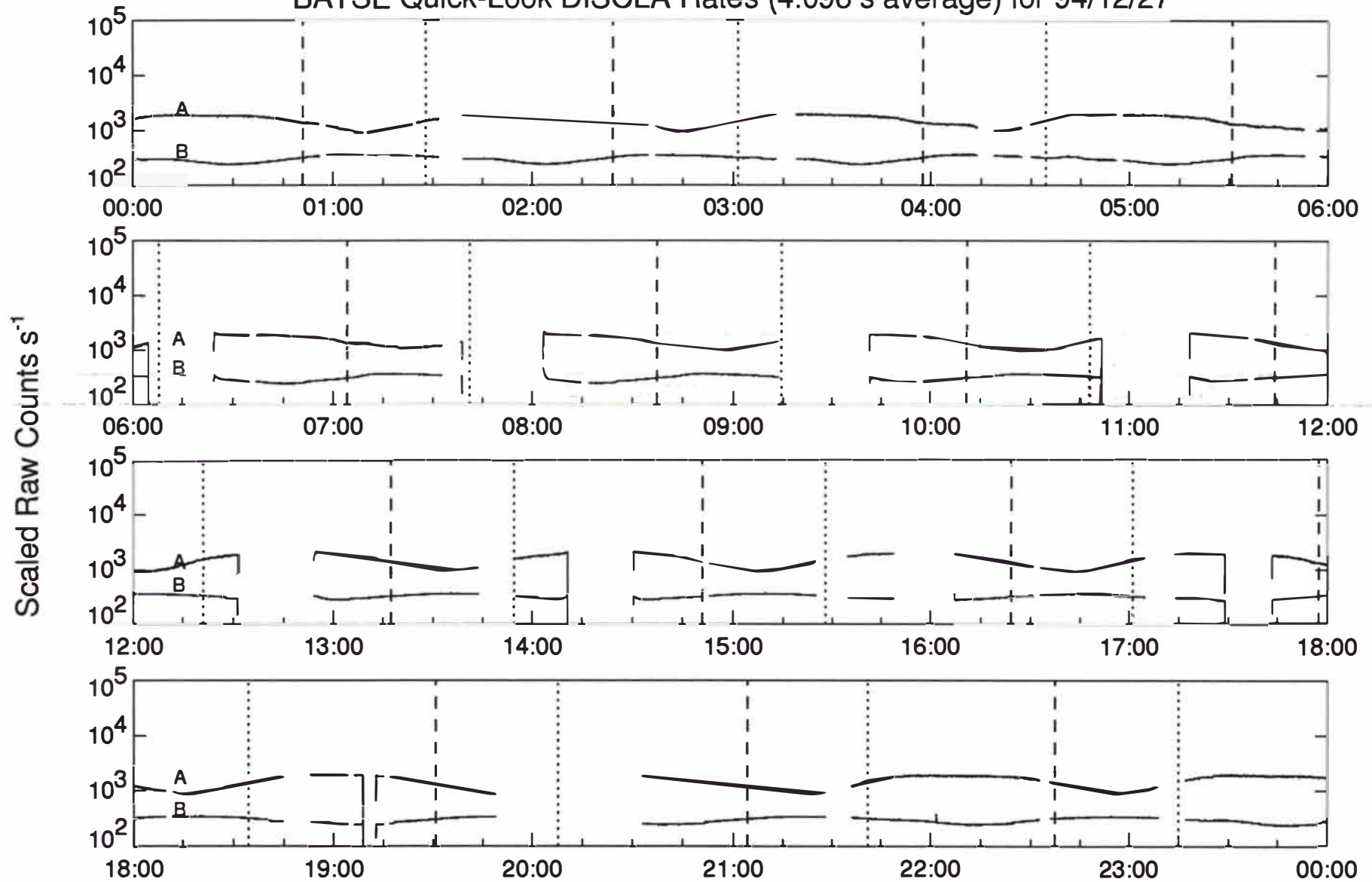
Data Start: 94/12/27, 0000:00

Plot created: 95/01/05, 1726

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/27



Current Time: 95/01/05, 1727 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

From SAHI@ssl.msfc.nasa.gov Wed Dec 28 09:31 PST 1994
Date: Wed, 28 Dec 1994 11:31:28 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03327

TIME: TJD=9712 SECONDS=24401

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

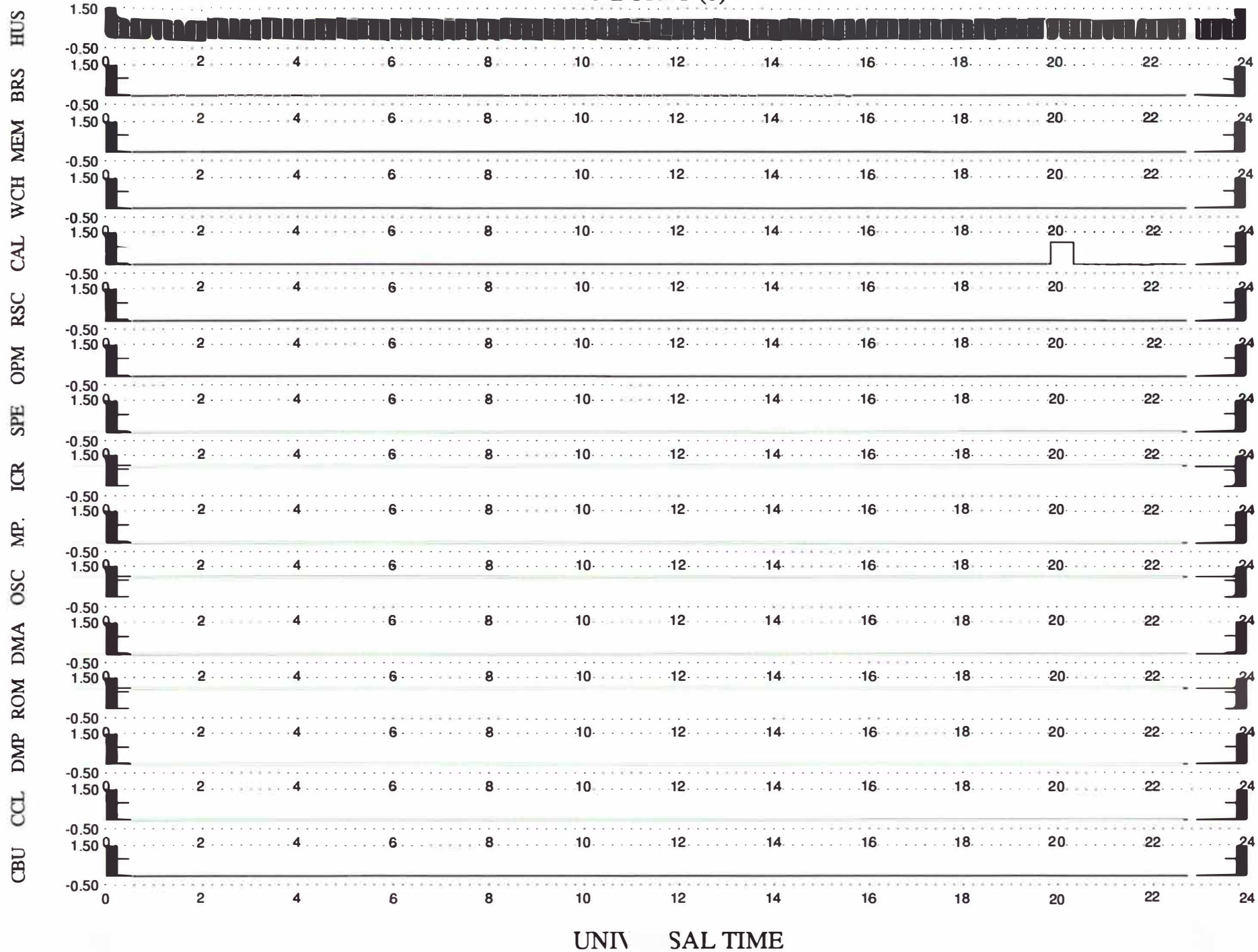
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

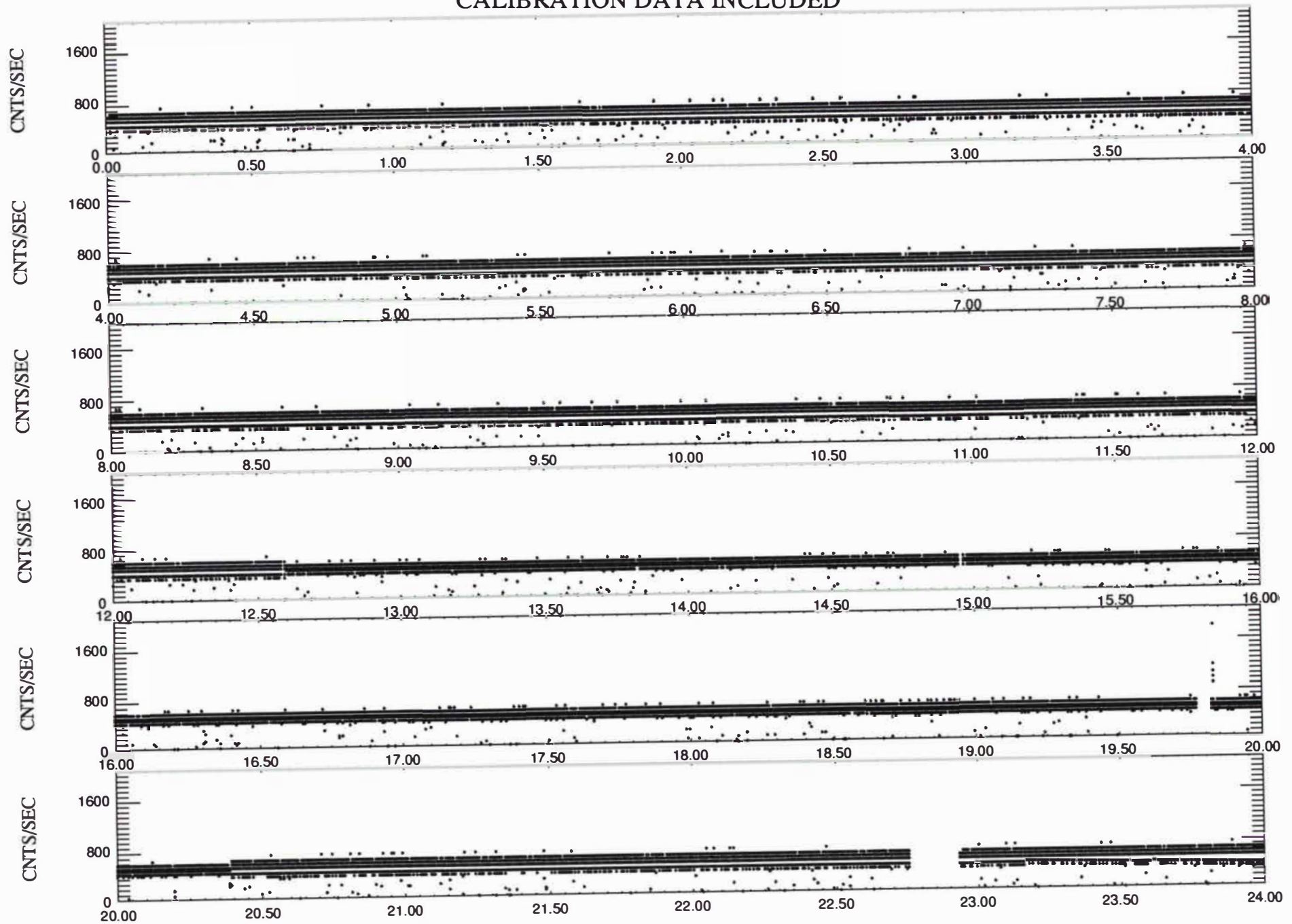
LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.

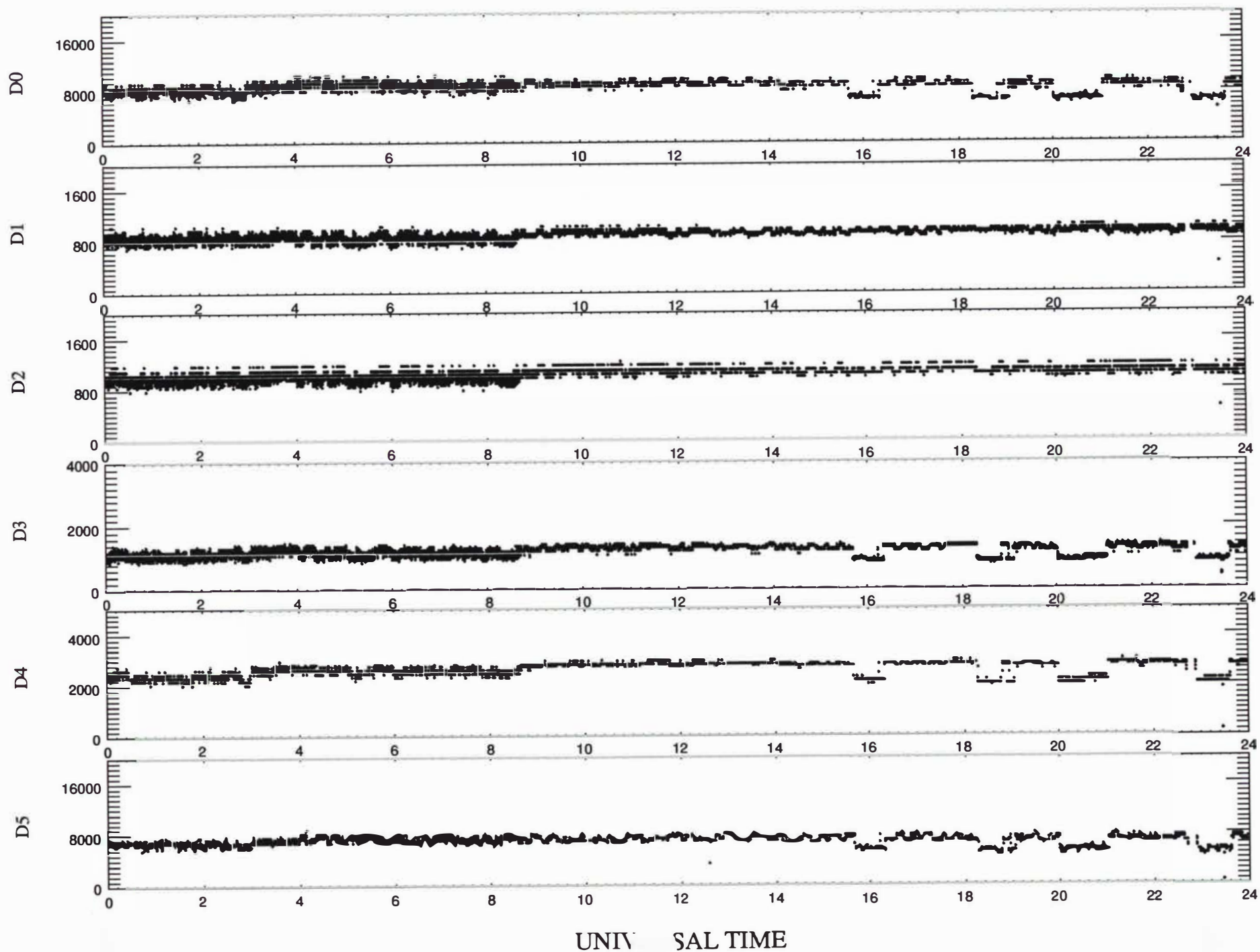
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From SAHI@ssl.msfc.nasa.gov Wed Dec 28 09:48 PST 1994
Date: Wed, 28 Dec 1994 11:47:56 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03329

TIME: TJD=9713 SECONDS=21882

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY

From SAHI@ssl.msfc.nasa.gov Fri Dec 30 12:21 PST 1994
Date: Fri, 30 Dec 1994 14:21:22 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3330

BATSEARCH PROGRAM

BATSE BURST # 3330
EVENT OF 1994 DEC 28 DAY OF YEAR=362
EVENT CROSSING TIME AT BATSE : 27581. S. OR 07:39:41.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 359.000 -49.000
BATSE PEAK COUNTING RATE: 35000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 28/12/ 94 IS:
RA= 312.711 DEC= -54.674 DIST= 2.175 AU
BATSE-ULYSSES DISTANCE = 325329452. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=151.39 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -952.67 SECS.
CROSSING TIME AT ULYSSES IS 26628. S. OR 07:23:48 +/- 125.75 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 28/12/ 94 IS:
RA= 155.640 DEC= 13.691 DIST= 0.875 AU
MARS-BATSE DISTANCE = 130897688. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 40.20 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 333.50 SECS.
CROSSING TIME AT MARS IS 27914. S. OR 07:45:14 +/- 53.99 SECONDS

RI

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3330

TIME: TJD=9714 SECONDS=27581

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=128.6 AZIMUTH=337.0 ERROR= DEGREES

COMMENTS:

TRIGGERED ON SMALL PULSE, DUR.~0.4 SEC. MAIN PULSE AT T+4 SEC,
DUR.~90 SEC. VISIBLE ABOVE 300 KEV.

Subject: BATSE Burst 3330

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3330	941228	9714	27581	35000	359	-49

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

Kevin:

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

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

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

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

U....(08697 sec)

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

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

KEVIN:

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

x means sent with pointers
✓ means sent to TLC

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

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

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

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

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

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

Helio corr removed

Date: Feb 9 '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?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

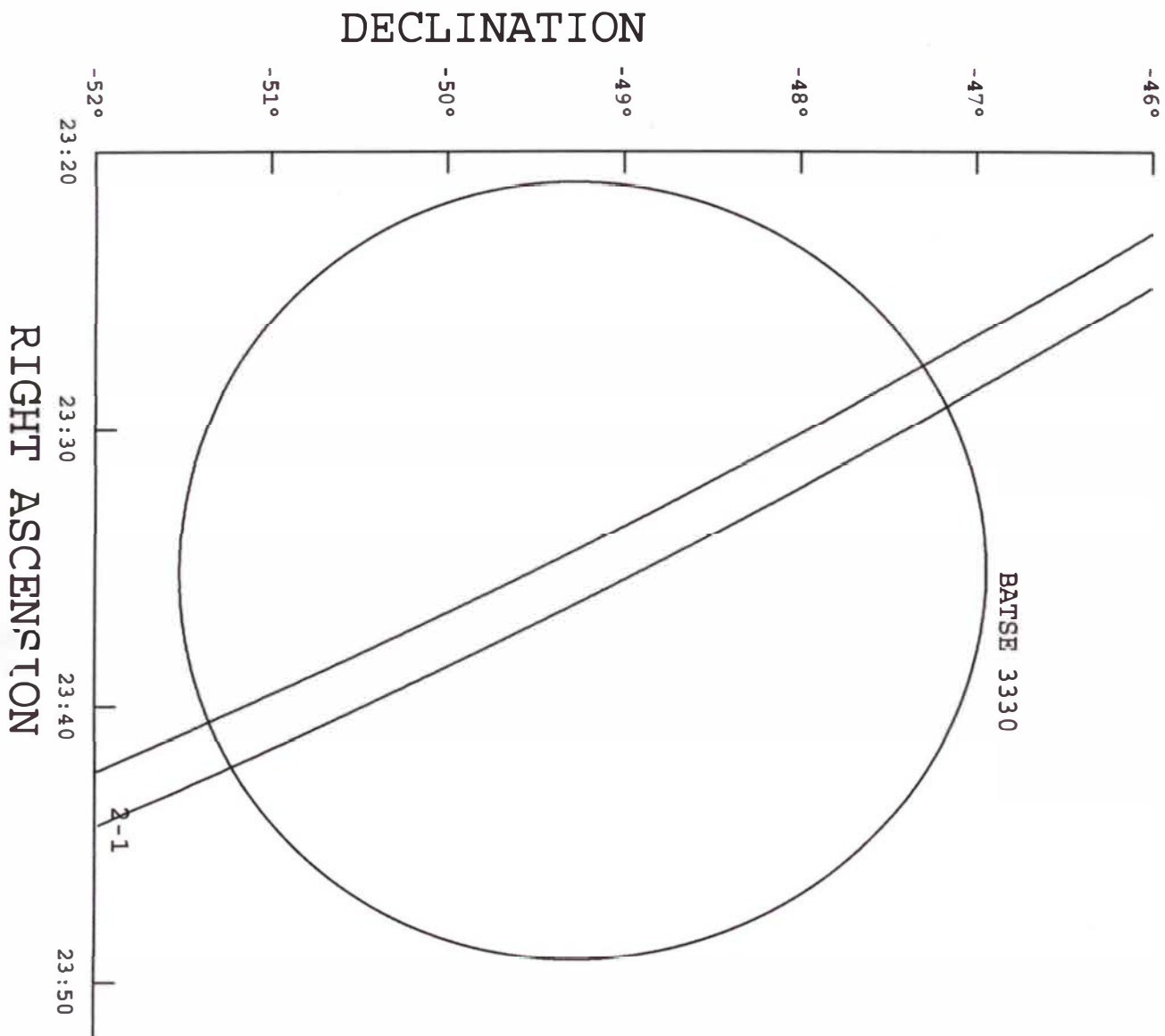
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF DEC 28, 1994 7:22

9 / 2/98



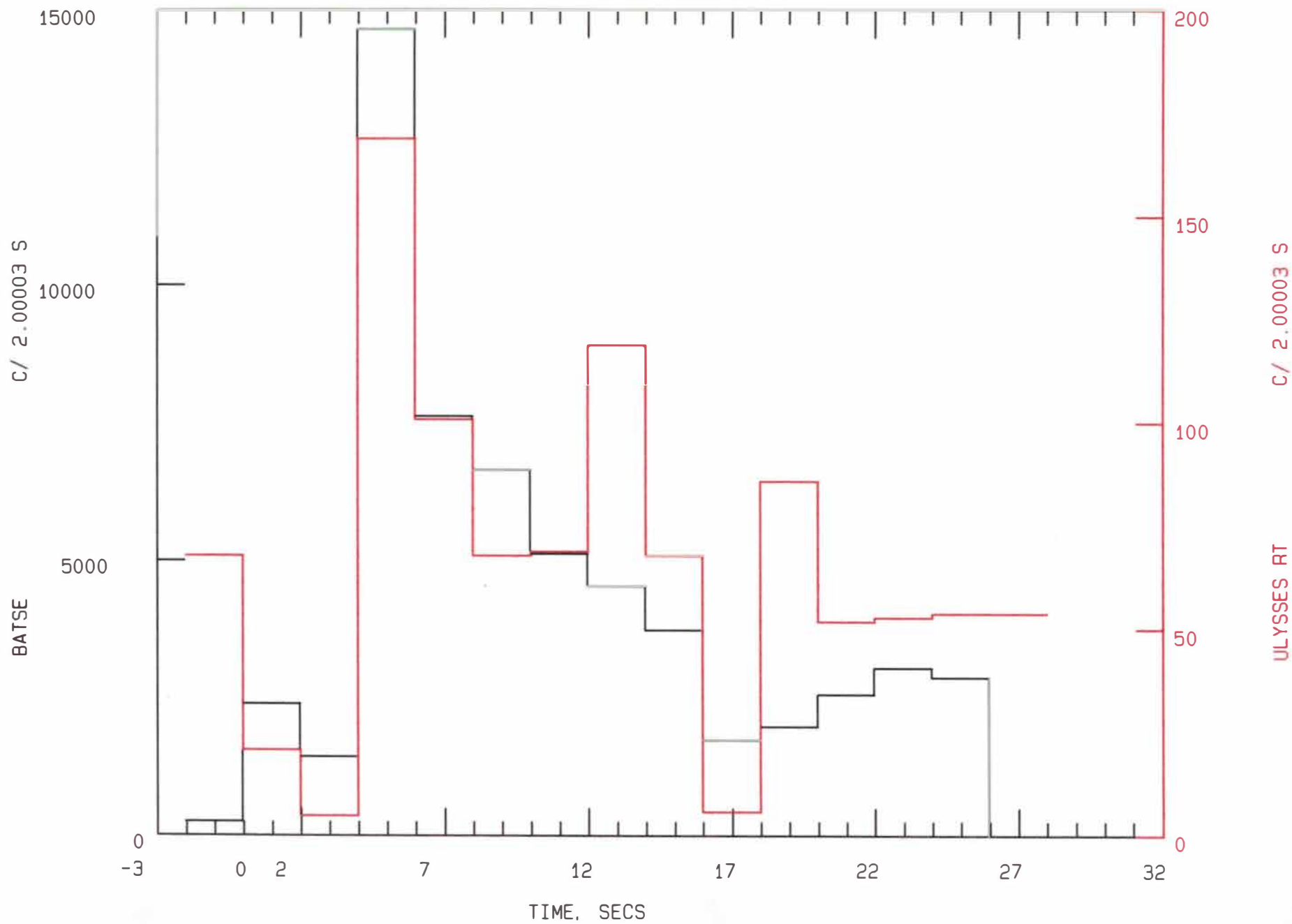
BATSE

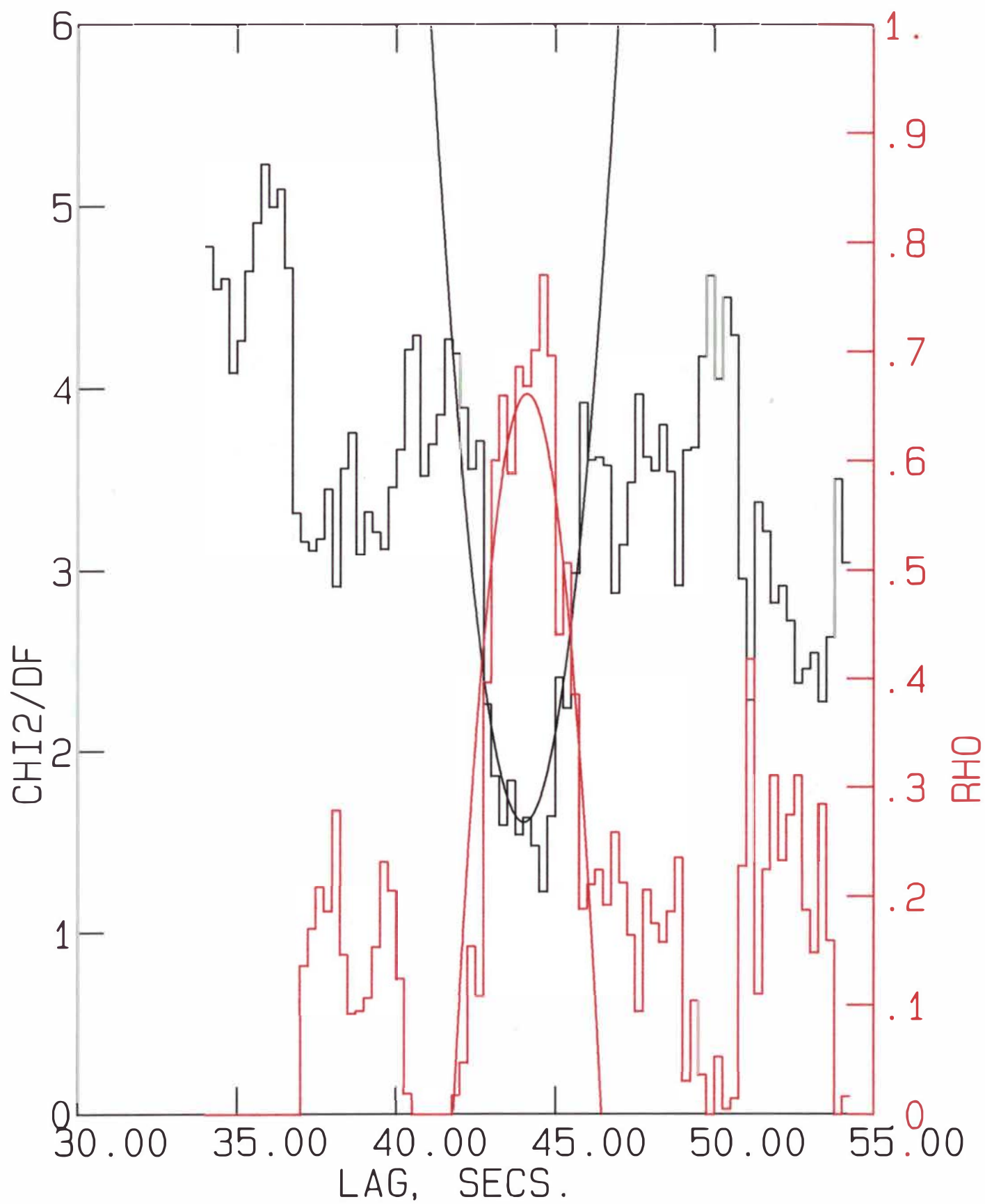
-ULYSSES RT CORRELATION

28/12/94

27581.234

9/ 2/98



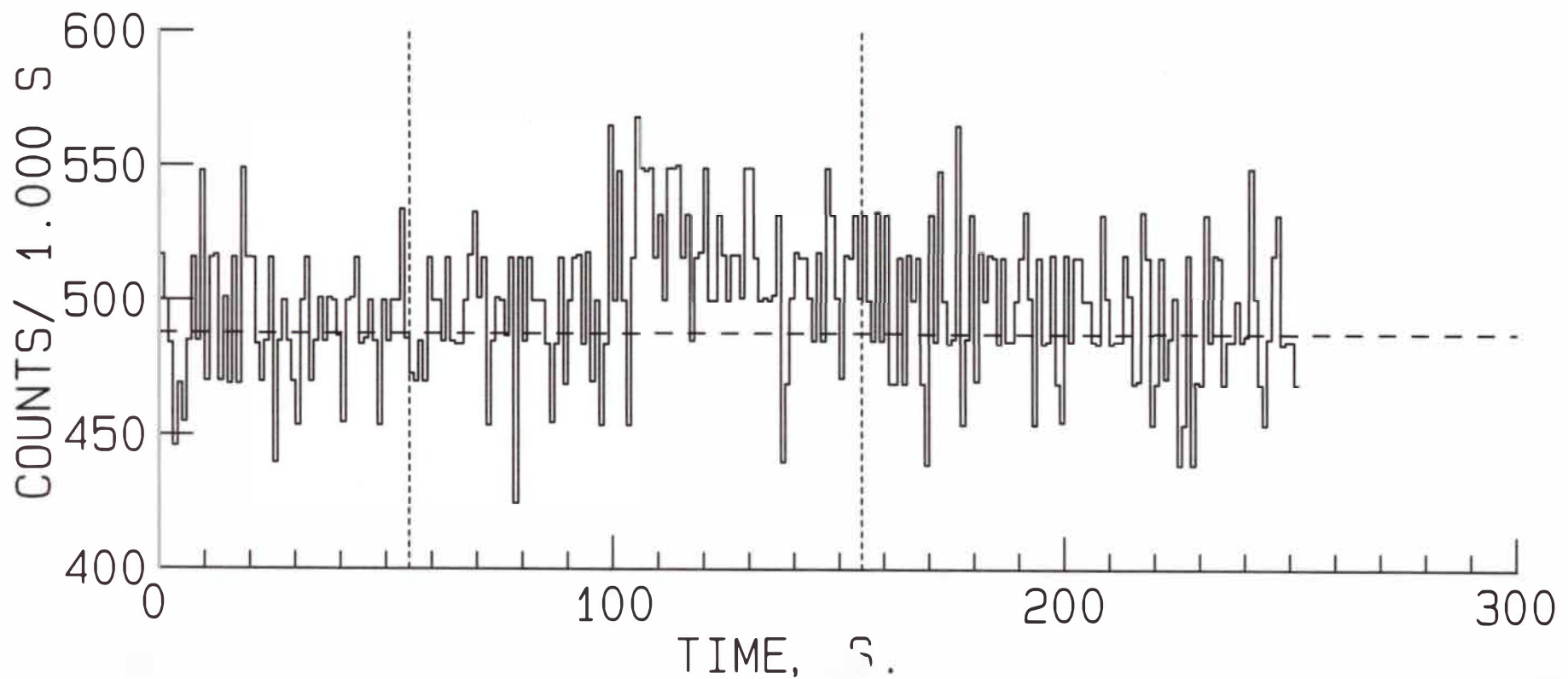


ULYSSES RT

9 / 2 / 98

28/12/94 26496.133 s

0.250 S INTERVALS REGROUPED BY 4
22- 147 keV



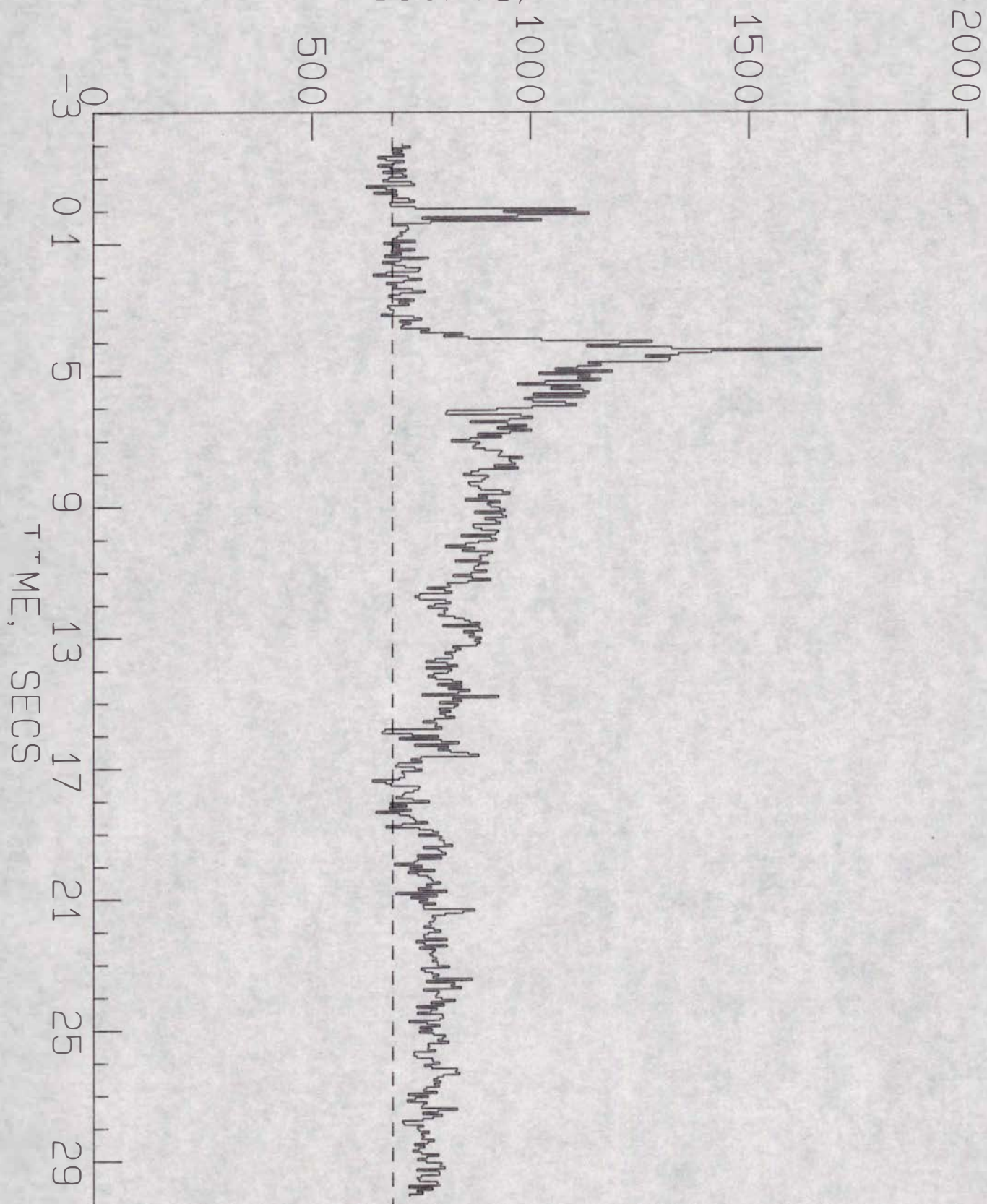
BATSE

28/12/94

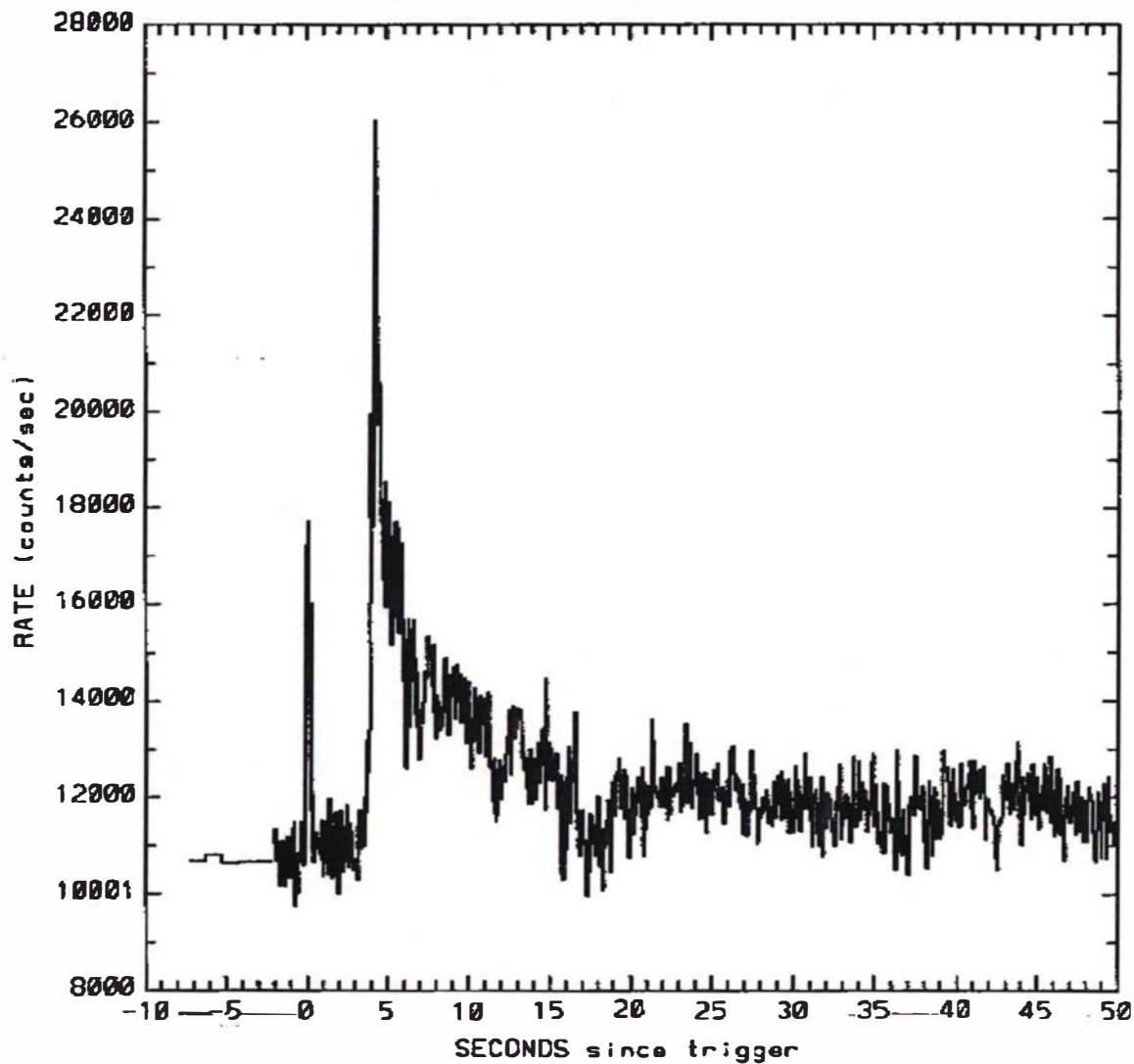
27581.234

25- 150 keV

COUNTS/ .064 S



DISCSC Data for K. Hurley, No. 3330



9-JAN-1995 14:48.25

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

Trigger # . 3330

Trigger Time:
9714 / 27581.234Burst Data Type:
DISCSCDeadtime
Corrected. NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..8].
7--321-Discriminators:
(1. 2)Quality Mask:
80ISP1

From SAHI@ssl.msfc.nasa.gov Fri Dec 30 12:09 PST 1994
Date: Fri, 30 Dec 1994 14:09:28 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03331

TIME: TJD=9714 SECONDS=75401

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=093.0 AZIMUTH=084.3 ERROR= DEGREES

COMMENTS:

TERRESTRIAL GAMMA FLASH, DUR.~0.003 SEC. NOT VISIBLE BELOW 50 KEV.

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

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

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

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

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

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

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

13 / 2 / 95

ULYSSES RT

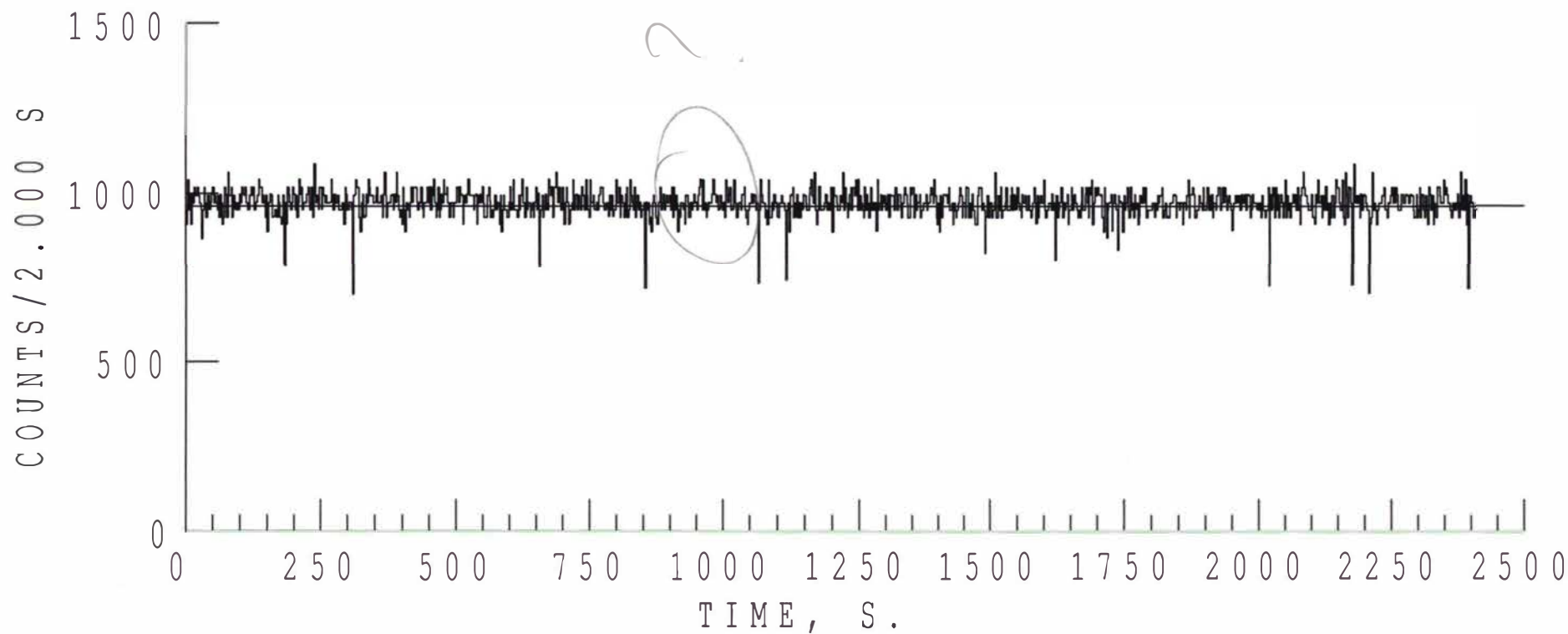
28/12/94 59724.258 s

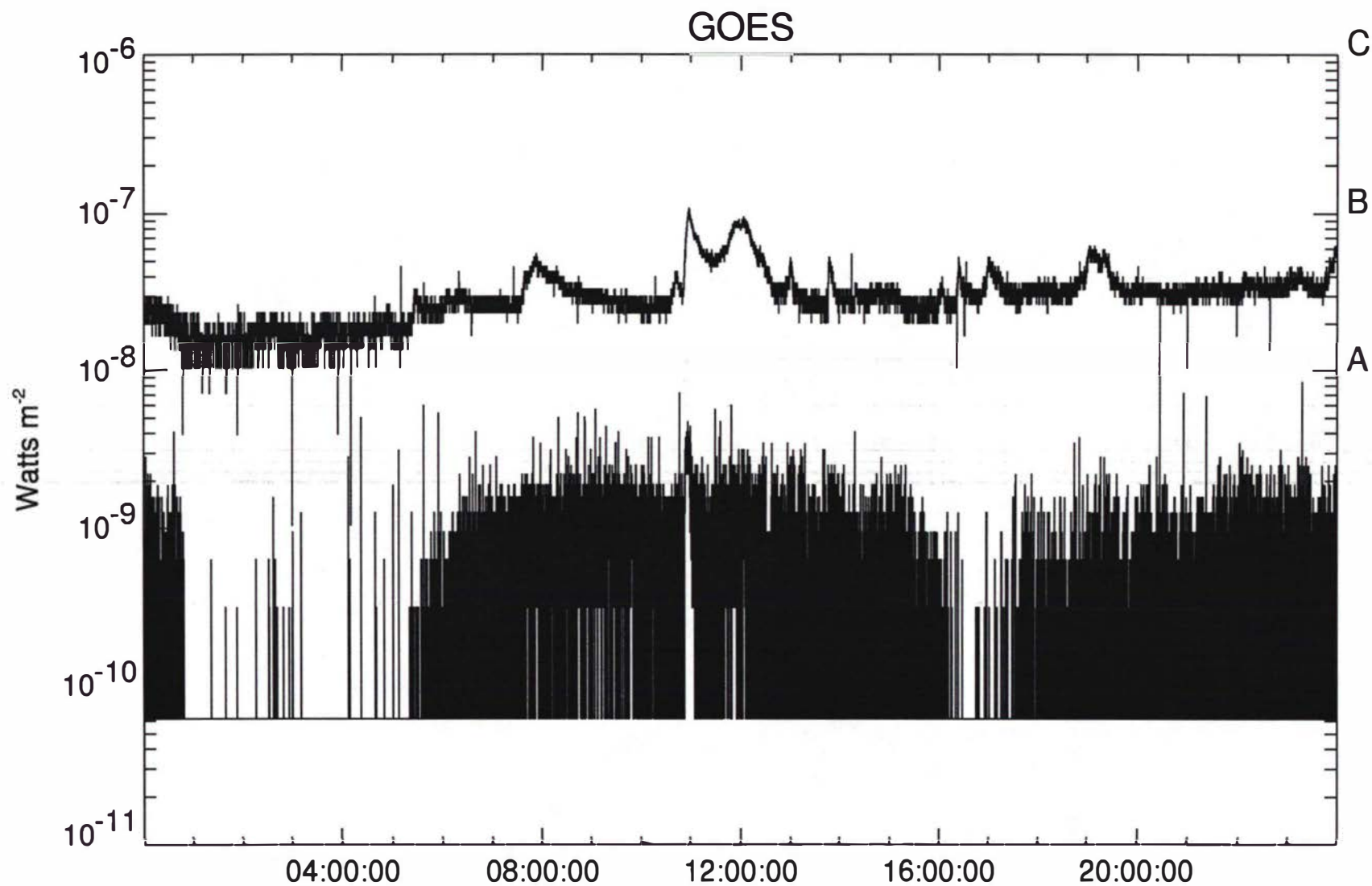
0.500 S INTERVALS REGROUPED BY 4

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 94/12/28, 0000:01

Plot created: 95/01/05, 1730

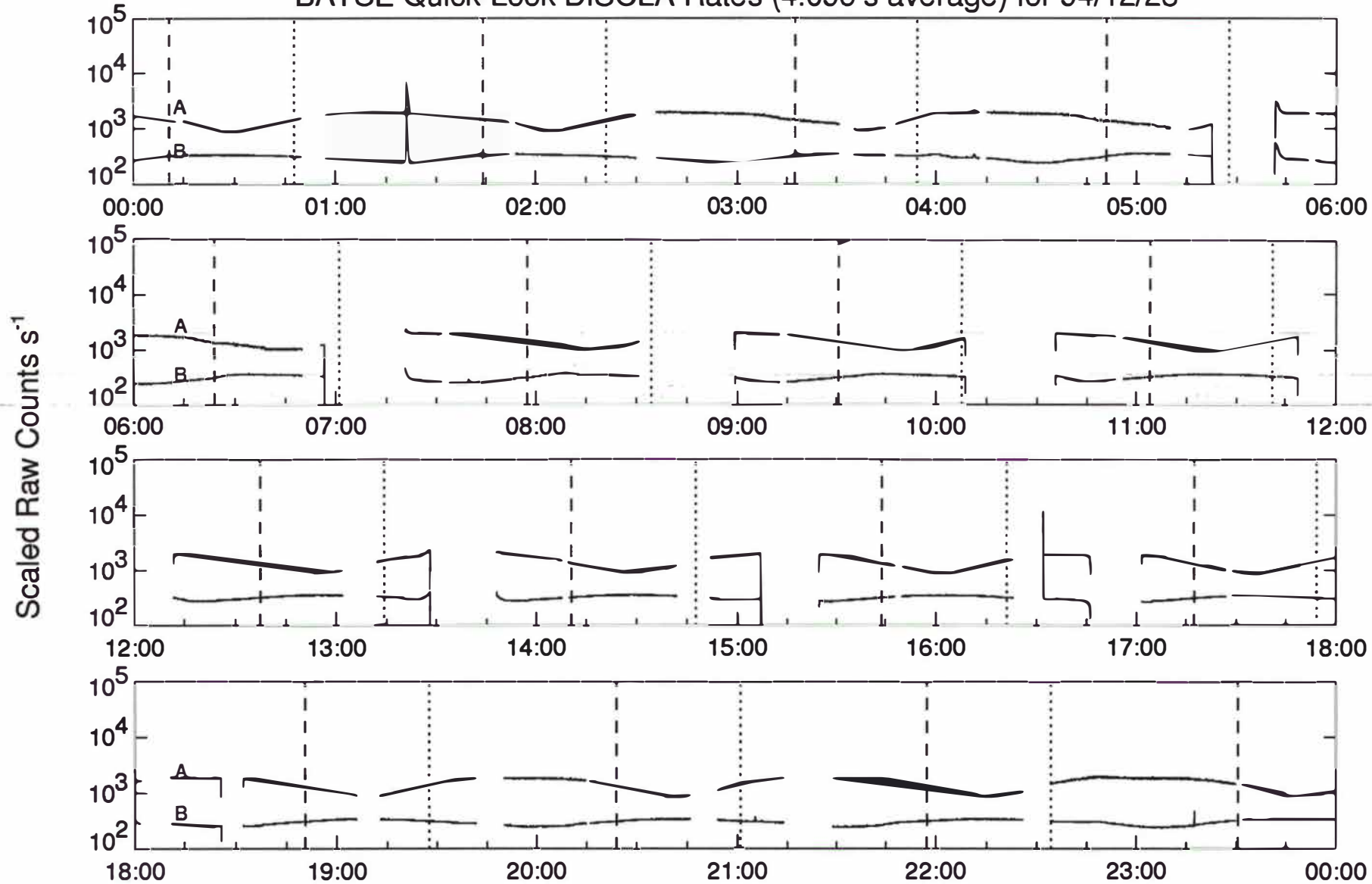
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 94/12/28

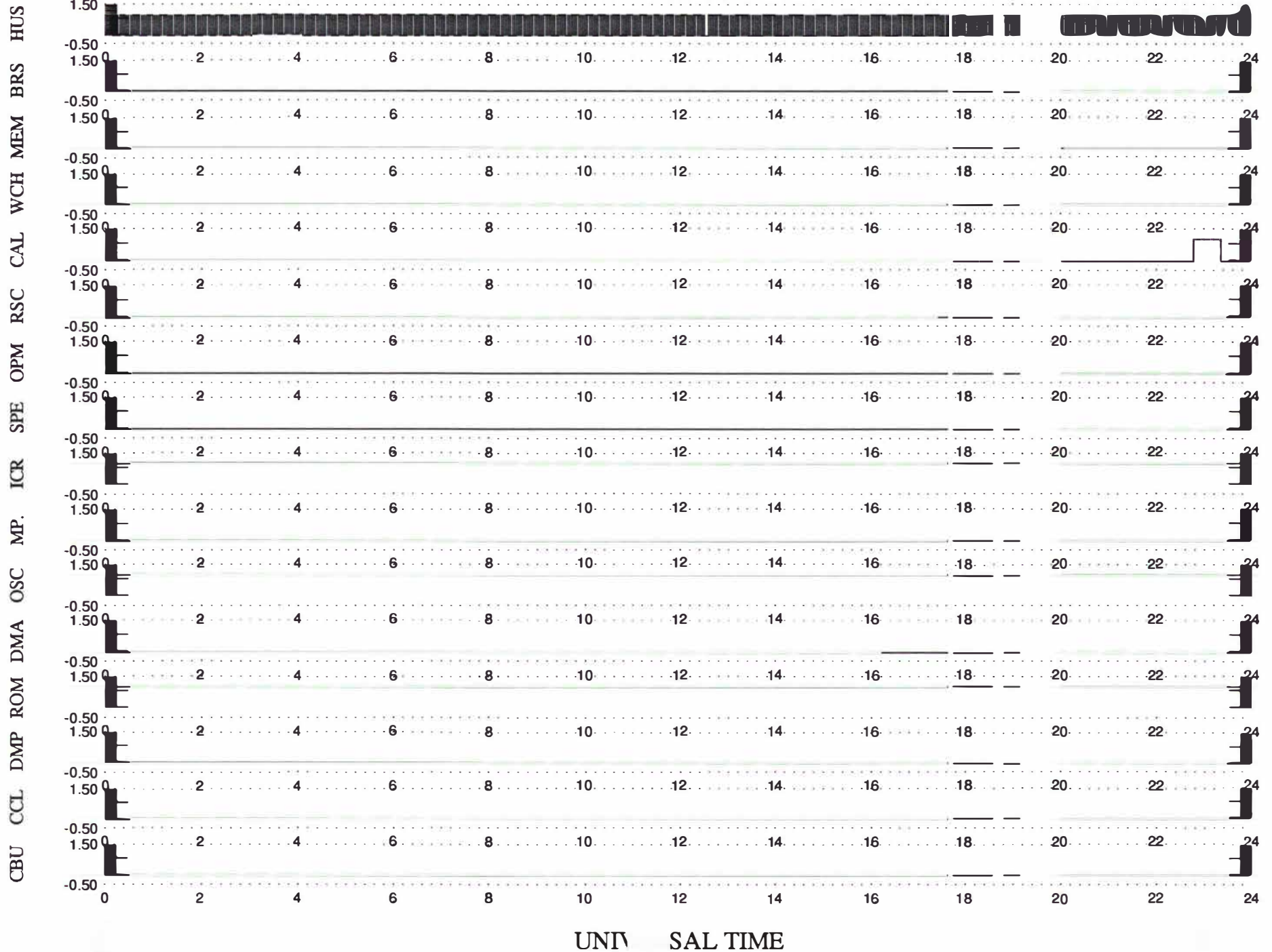


Current Time: 95/01/05, 1731 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

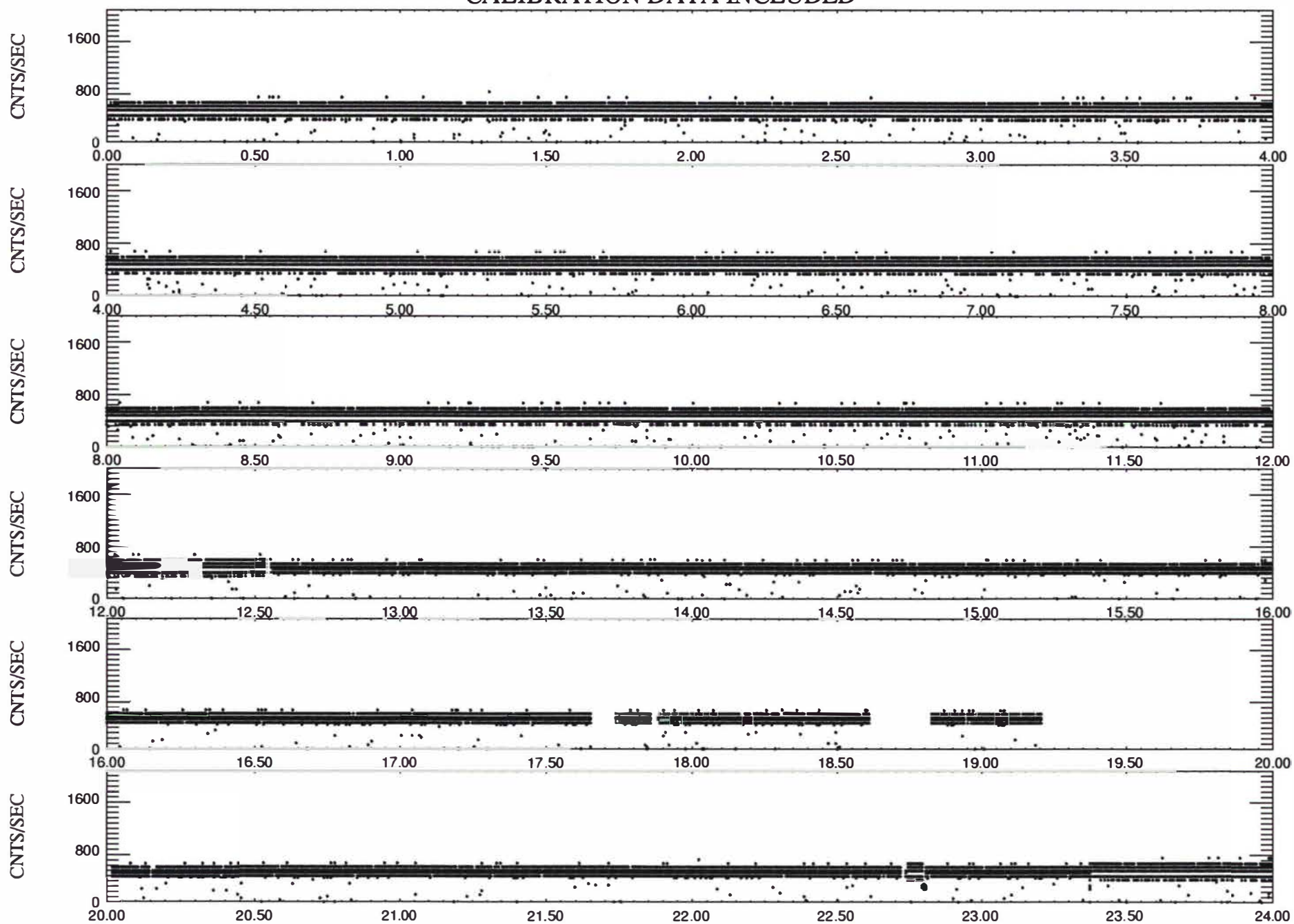
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

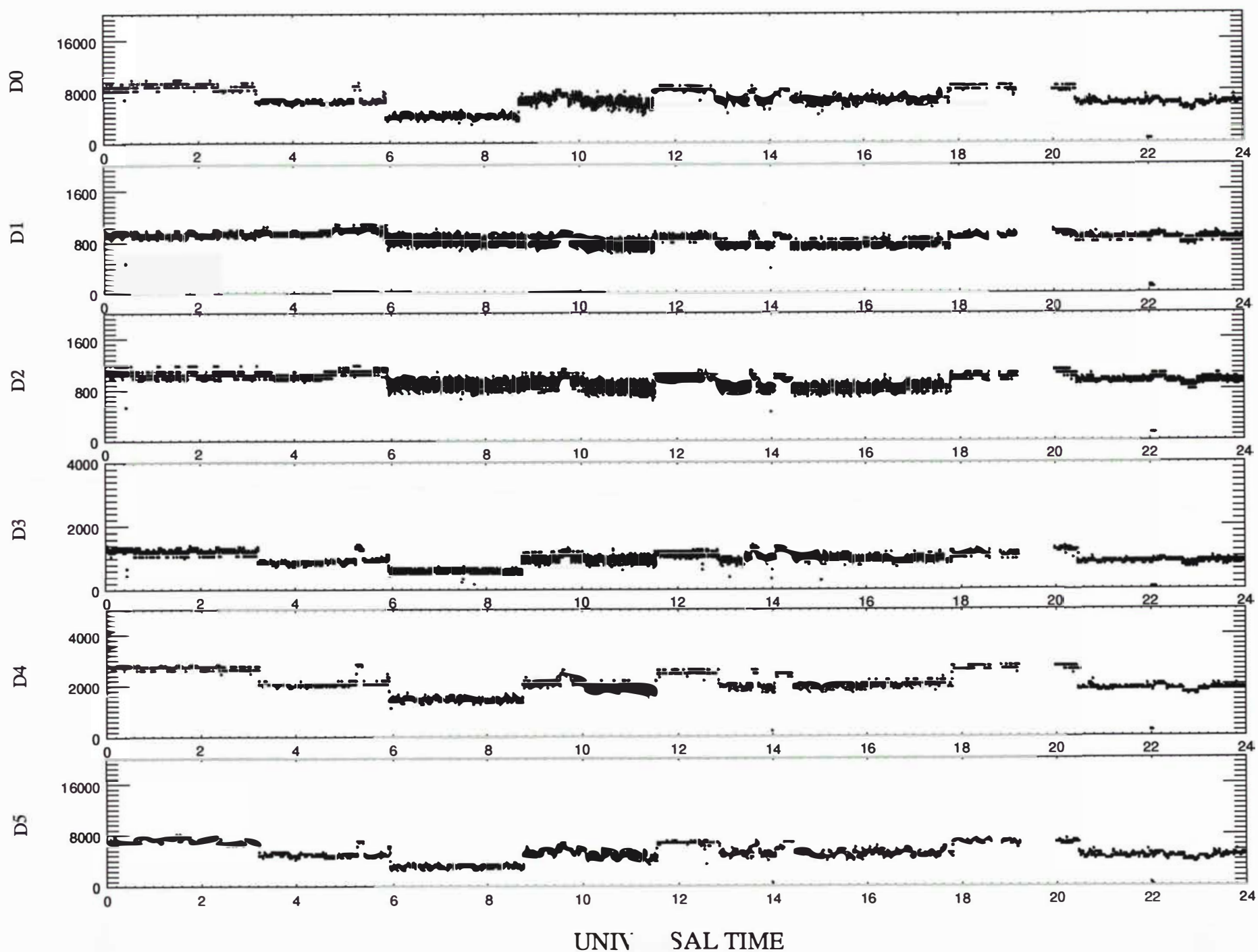
NO BURST (8)



CALIBRATION DATA INCLUDED



UNIV SAL TIME



From SAHI@ssl.msfc.nasa.gov Tue Jan 3 10:24 PST 1995
Date: Tue, 3 Jan 1995 12:24:03 -0600 (CST)
From: SAHI@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03332

TIME: TJD=9715 SECONDS=17243

TYPE: PARTICL SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
PARTICLE EVENT.

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

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

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

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

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

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

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

Date: Aug 10 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

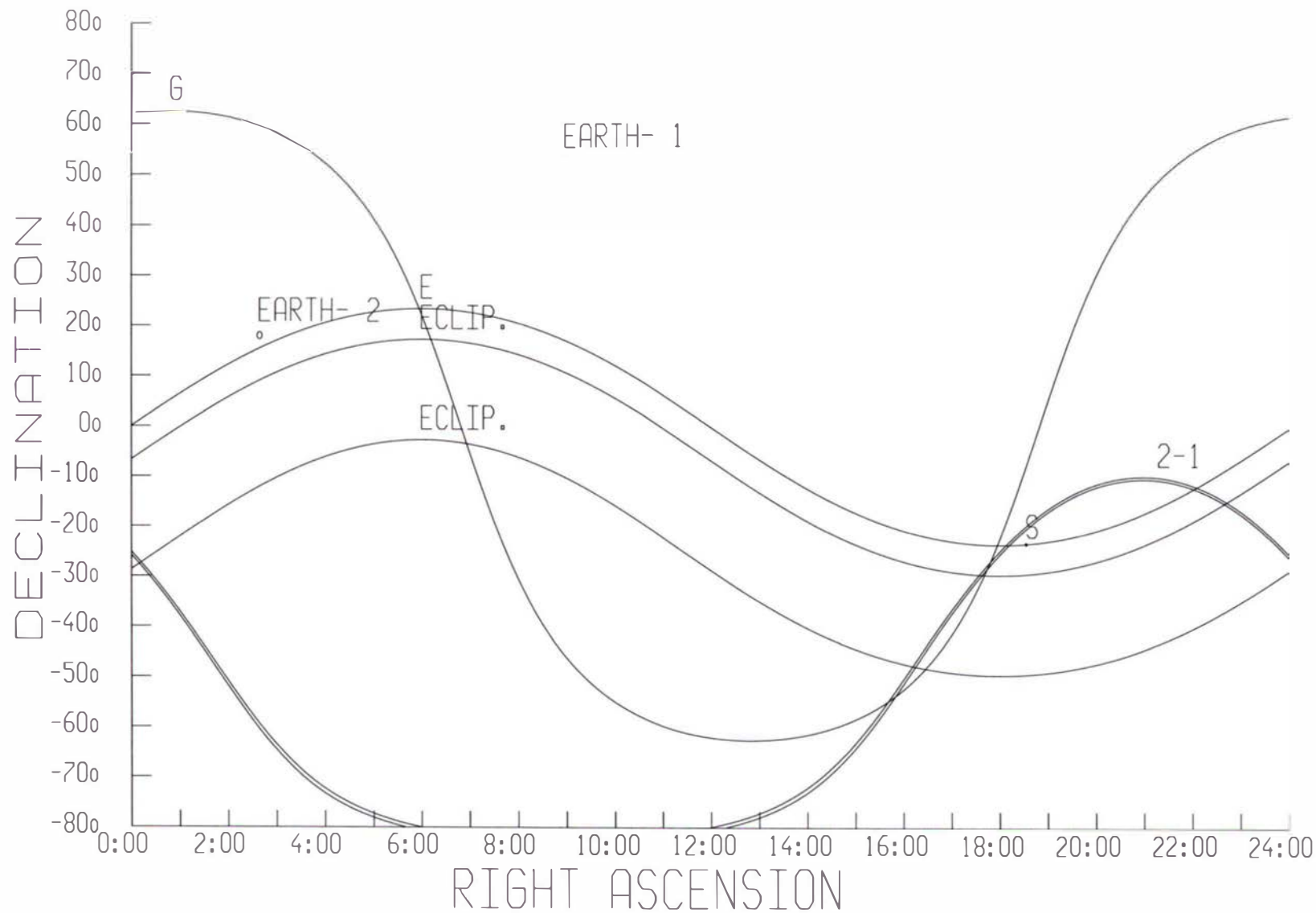
3. PVO Data

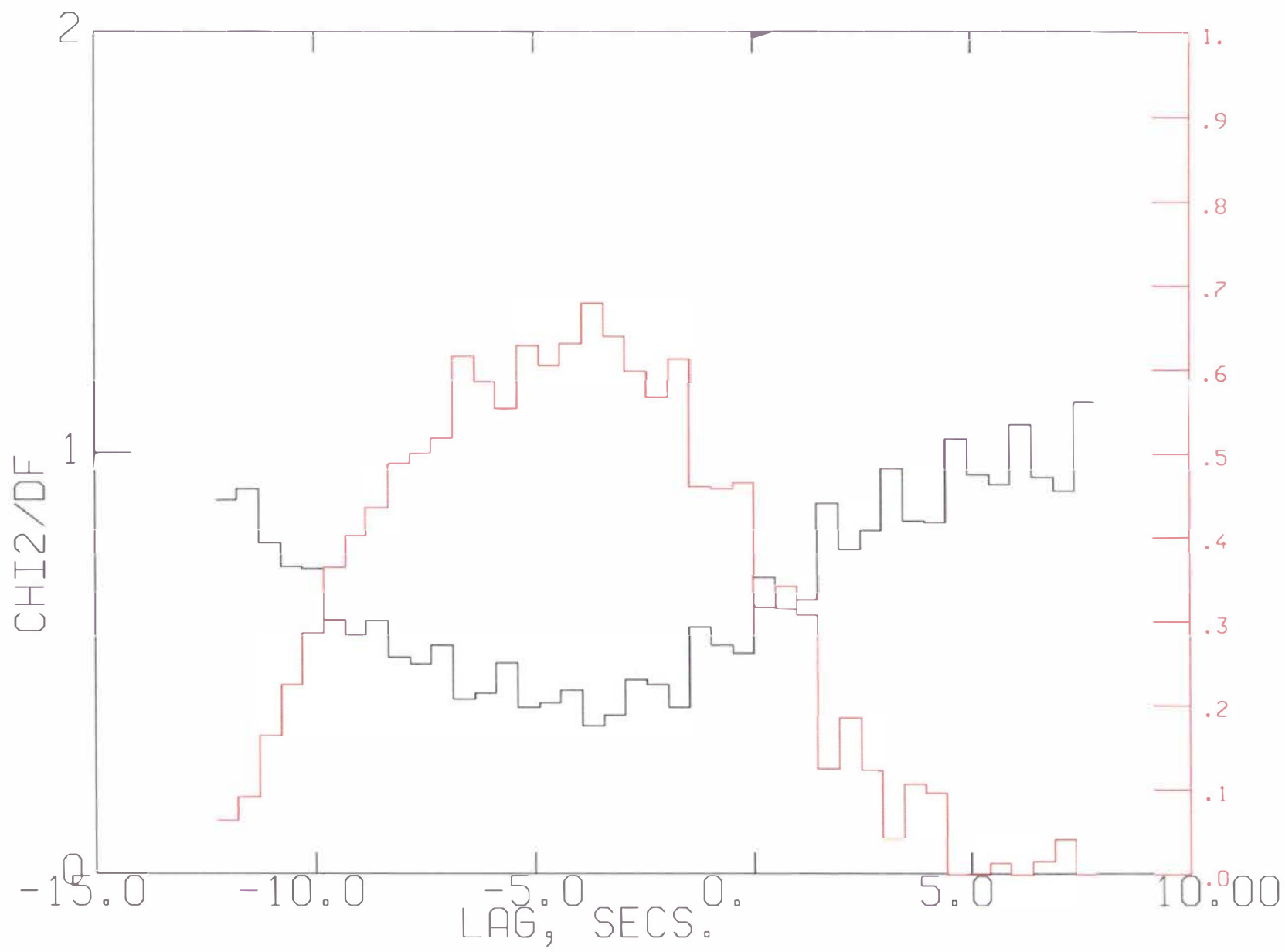
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

EVENT OF DEC 29, 1994 12:44

10/08/2011

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





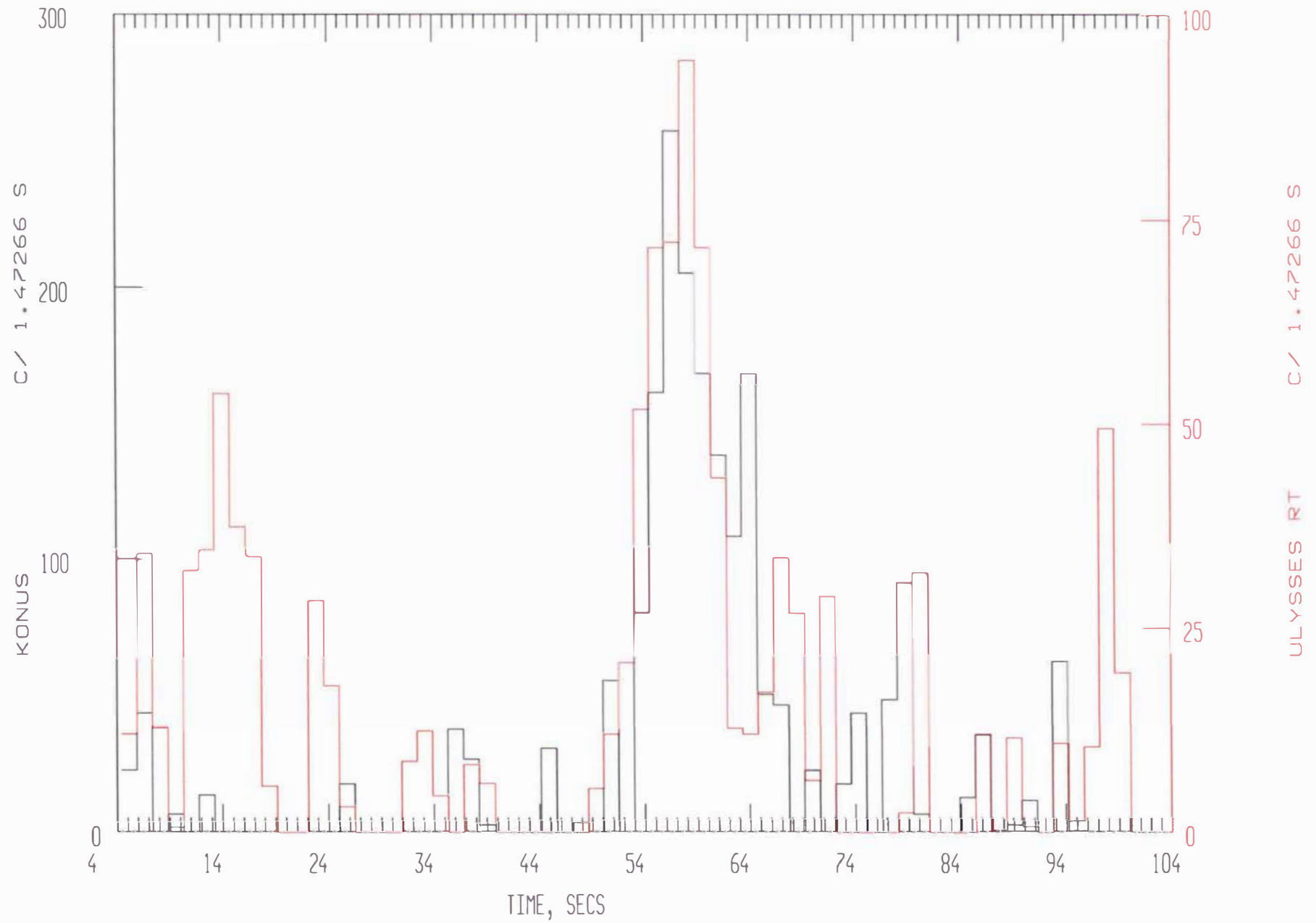
KONUS

-ULYSSES RT CORRELATION

29/12/94

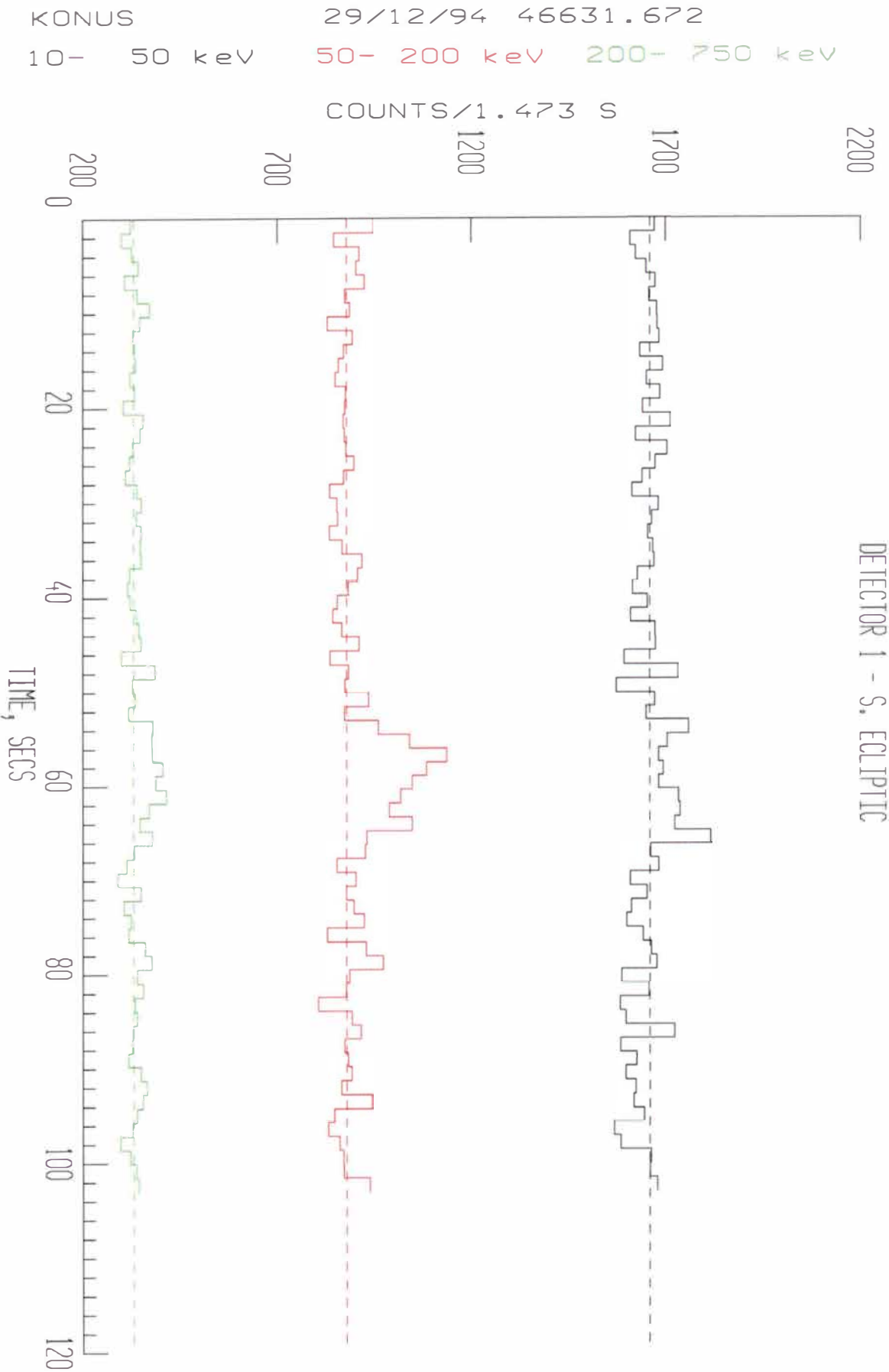
46631.672

10/ 8/11

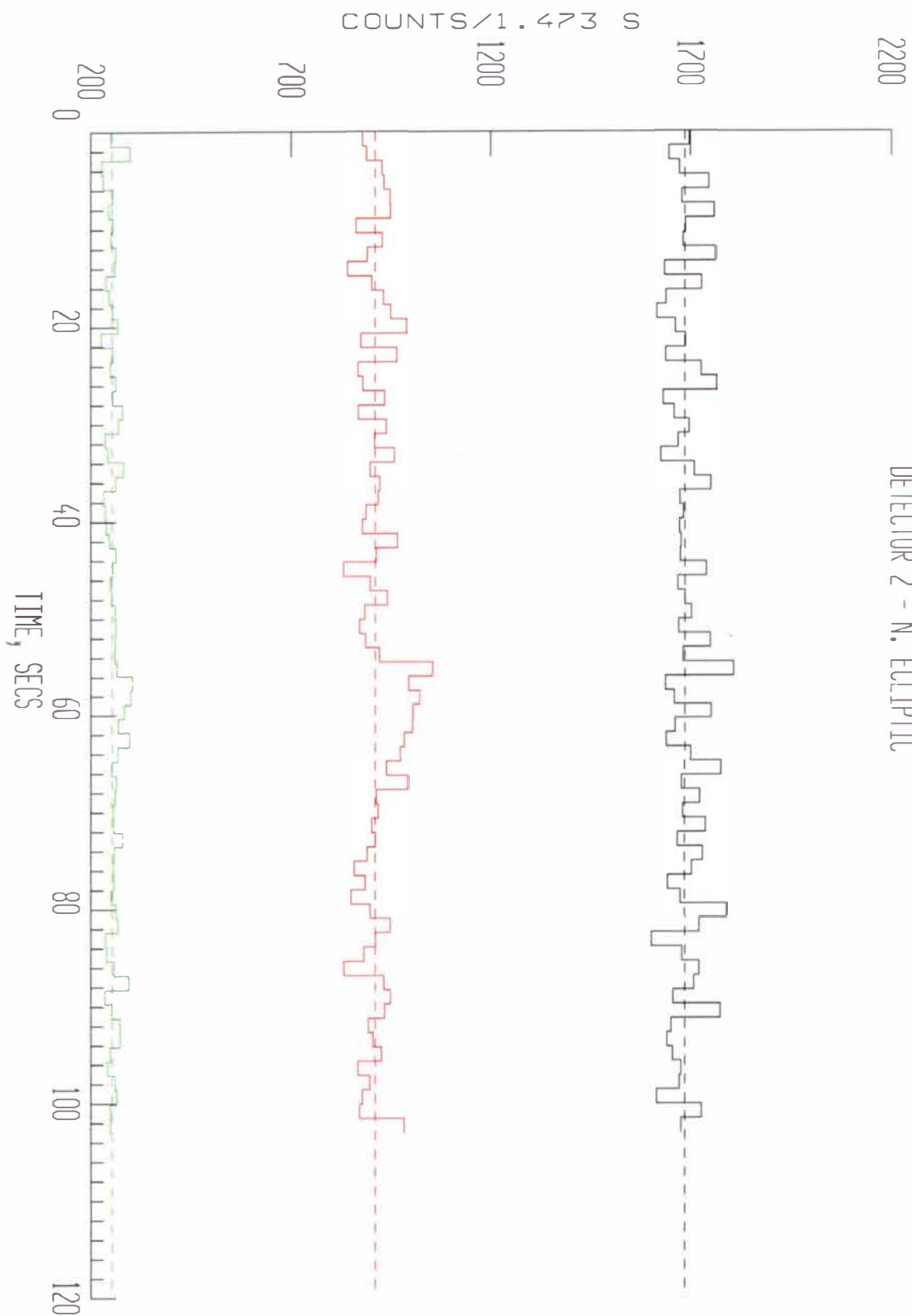


10/08/2011

DETECTOR 1 - S. ECLIPSE



KONUS 29/12/94 46631.672
10- 50 keV 50- 200 keV 200- 750 keV



KONUS 19941229 45918

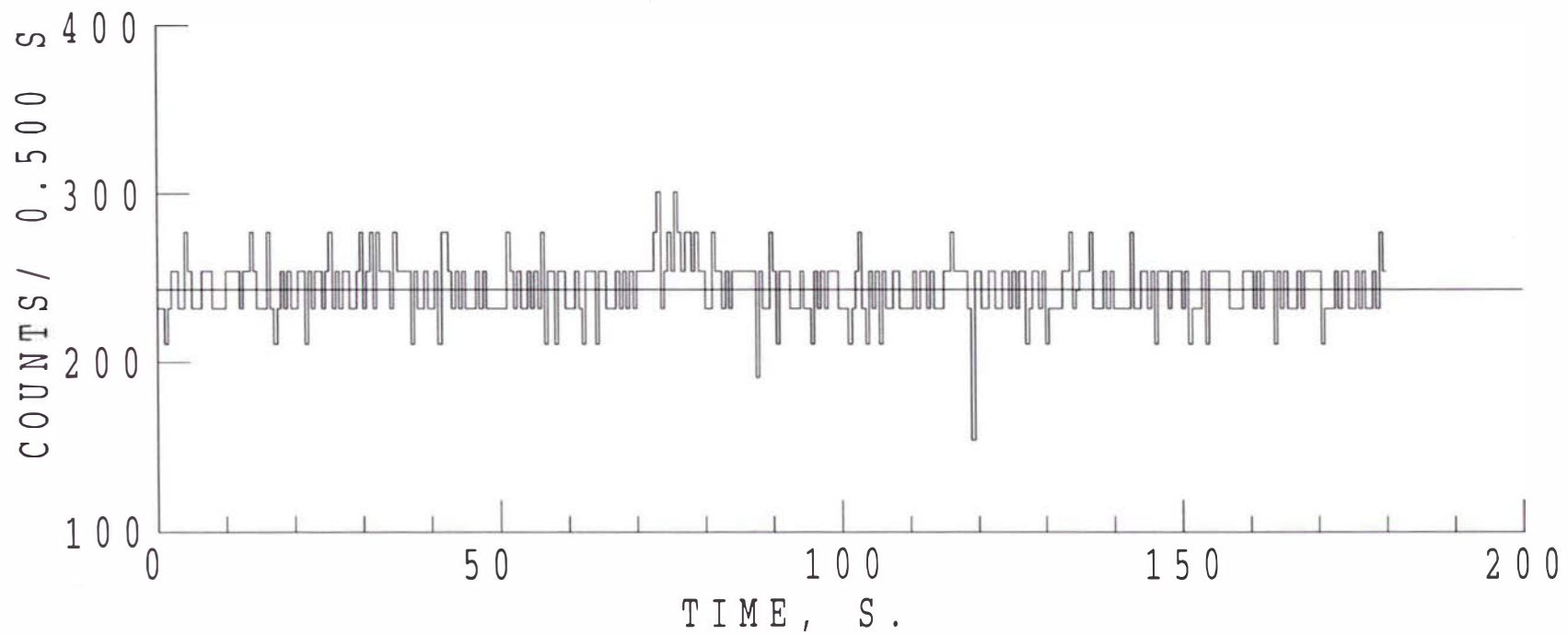
ULYSSES RT

09 / 08 / 11

29 / 12 / 94 45828.121 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HENZE@fender.msfc.nasa.gov Tue Jan 3 10:05 PST 1995
Return-Path: <HENZE@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA04221; Tue, 3 Jan 1995 10:05:24 +0800
Date: Tue, 3 Jan 1995 12:05:04 -0600 (CST)
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
Message-Id: <950103120504.20c010b9@fender.msfc.nasa.gov>
Subject: Burst Trigger Message
Content-Type: text
Content-Length: 1215
X-Lines: 15
Status: RO

BATSE BURST TRIGGER

NO.: 03333

TIME: TJD=9715 SECONDS=51541

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=110.3 AZIMUTH=295.7 ERROR= DEGREES

COMMENTS:

Single pulse, dur. ~25 ms. Not visible above 300 keV.

ND

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3333	941229	9715	51541	4700	073	-65

BATSEARCH PROGRAM

BATSE BURST # 3333
EVENT OF 1994 DEC 29 DAY OF YEAR=363
EVENT CROSSING TIME AT BATSE : 51541. S. OR 14:19:01.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 73.000 -65.000
BATSE PEAK COUNTING RATE: 4700 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 29/12/ 94 IS:
RA= 313.667 DEC= -53.814 DIST= 2.178 AU
BATSE-ULYSSES DISTANCE = 325806326. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=127.54 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -662.12 SECS.
CROSSING TIME AT ULYSSES IS 50879. S. OR 14:07:58 +/- 189.56 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 29/12/ 94 IS:
RA= 155.719 DEC= 13.702 DIST= 0.868 AU
MARS-BATSE DISTANCE = 129787792. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 80.64 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 70.41 SECS.
CROSSING TIME AT MARS IS 51611. S. OR 14:20:11 +/- 75.23 SECONDS

3 / 1 / 95

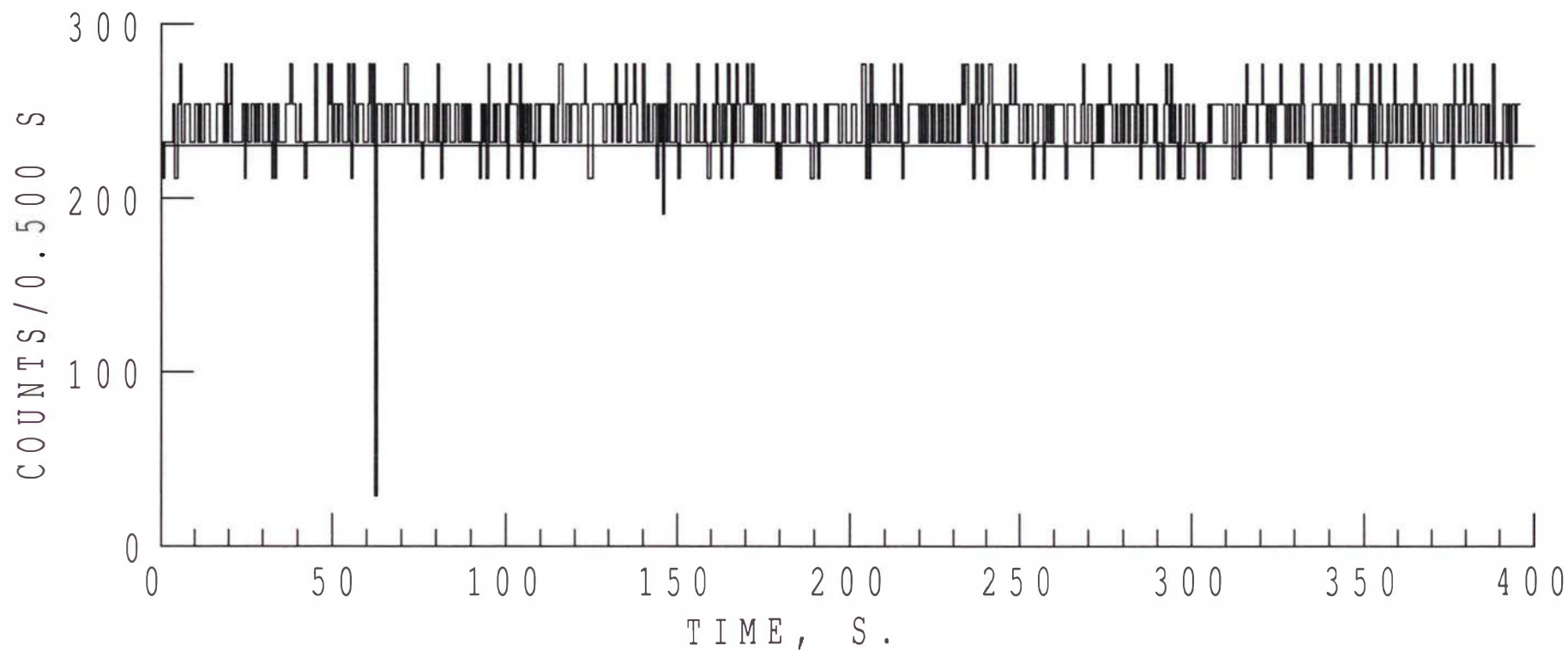
ULYSSES RT

29/12/94 50688.211 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



 BATSEARCH PROGRAM

ATSE BURST # 3334
 EVENT OF 1994 DEC 29 DAY OF YEAR=363
 EVENT CROSSING TIME AT BATSE : 82258. S. OR 22:50:58.0
 COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
 BURST ARRIVAL DIRECTION: 259.000 40.000
 BATSE PEAK COUNTING RATE: 9000 C/S

TRIGGER?

*Trigger seems to be associated
 with later event ~834515*

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
 INTERPOLATED POSITION OF ULYSSES ON 29/12/ 94 IS:
 RA= 313.930 DEC= -53.575 DIST= 2.179 AU
 BATSE-ULYSSES DISTANCE = 325945036. KM.
 ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 75.18 DEG.
 LIGHT TRAVEL TIME ALONG PROJECTED PATH= 278.18 SECS.
 CROSSING TIME AT ULYSSES IS 82536. S. OR 22:55:36 +/- 236.70 SECONDS

It's an RI anyway

EVENT CROSSING TIME AT MARS WILL BE FOUND
 POSITION OF MARS ON 29/12/ 94 IS:
 RA= 155.719 DEC= 13.702 DIST= 0.868 AU
 MARS-BATSE DISTANCE = 129787792. KM.
 ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 88.93 DEG.
 LIGHT TRAVEL TIME ALONG PROJECTED PATH= 8.10 SECS.
 CROSSING TIME AT MARS IS 82266. S. OR 22:51:06 +/- 75.27 SECONDS
 BATSE BURST TRIGGER

NO.: 03334

ME: TJD=9715 SECONDS=82258

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=059.5 AZIMUTH=090.7 ERROR= DEGREES

COMMENTS:

SEVERAL SPIKES, TOTAL DUR. ~40 S. MAX AT ~T+25 S.
 VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3334	941229	9715	82258	9000	259	+40

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

KEVIN:

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

x means sent with planning

✓ means sent to TLC

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

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

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

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

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

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

Helio corr removed

Date: Nov 7 '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

- ☒ ~~0.042 s~~ subtracted for bursts prior to June 25 1992 and DISCSC programs prior to Version 2.16 (August 28 1992)? *N/A*
- ☒ BATSE ephemeris for T_0 ?
- ☒ Error circle position and radius from public catalog used?
- ☒ If MER data were used, is a 30 ms systematic error included?

3. PVO Data

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

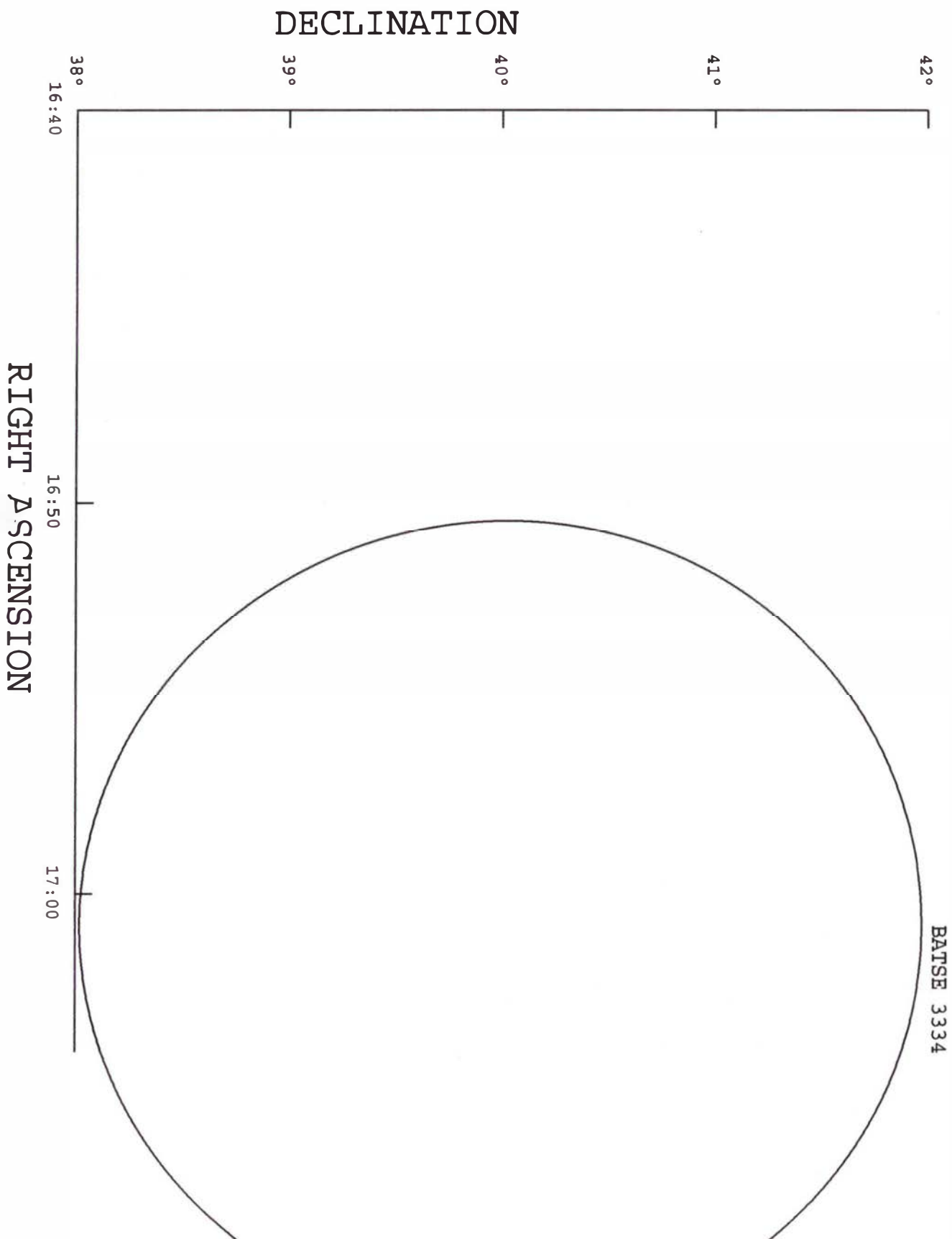
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF DEC 29, 1994 22:54

7/11/97



N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

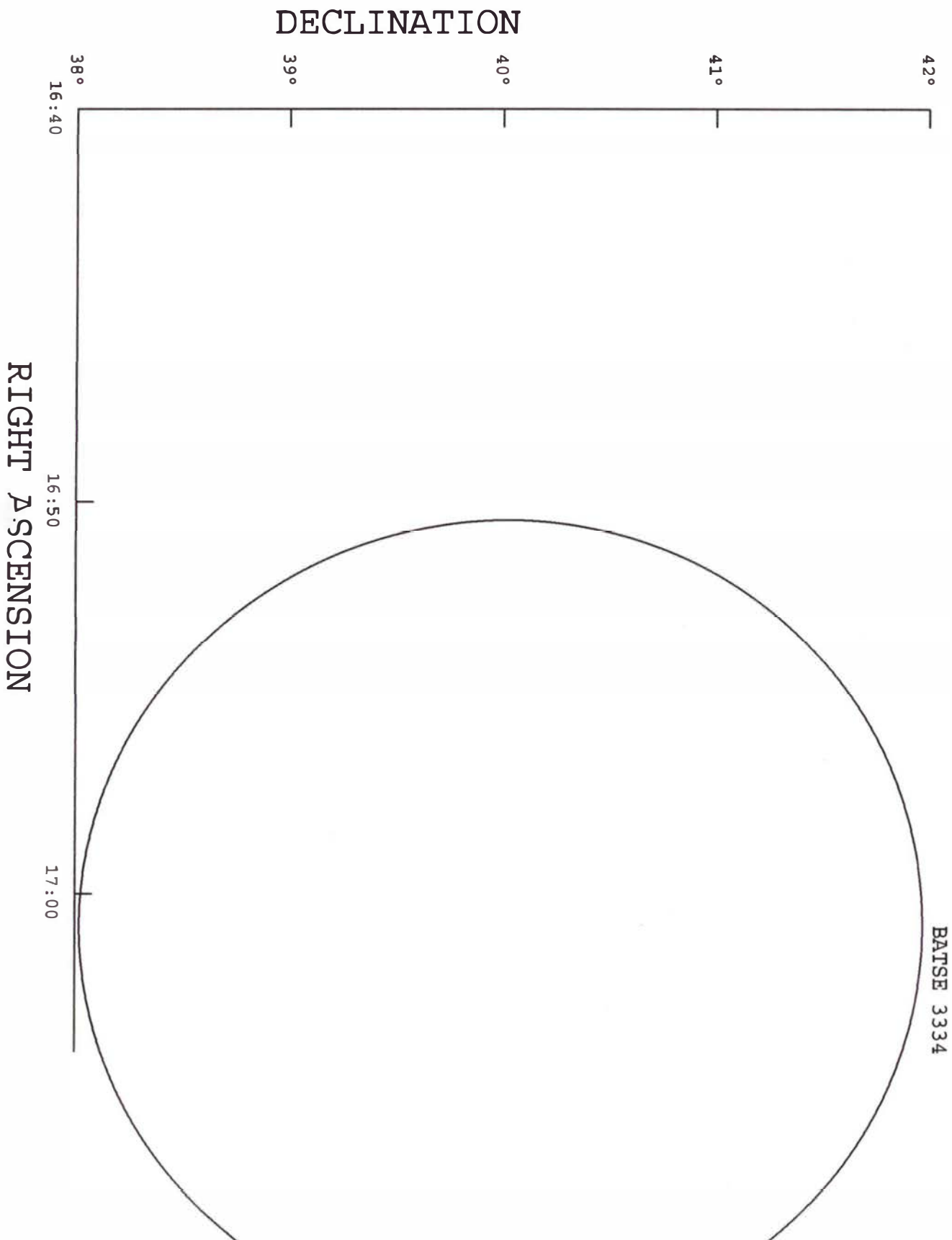
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF DEC 29, 1994 22:54

7/11/97



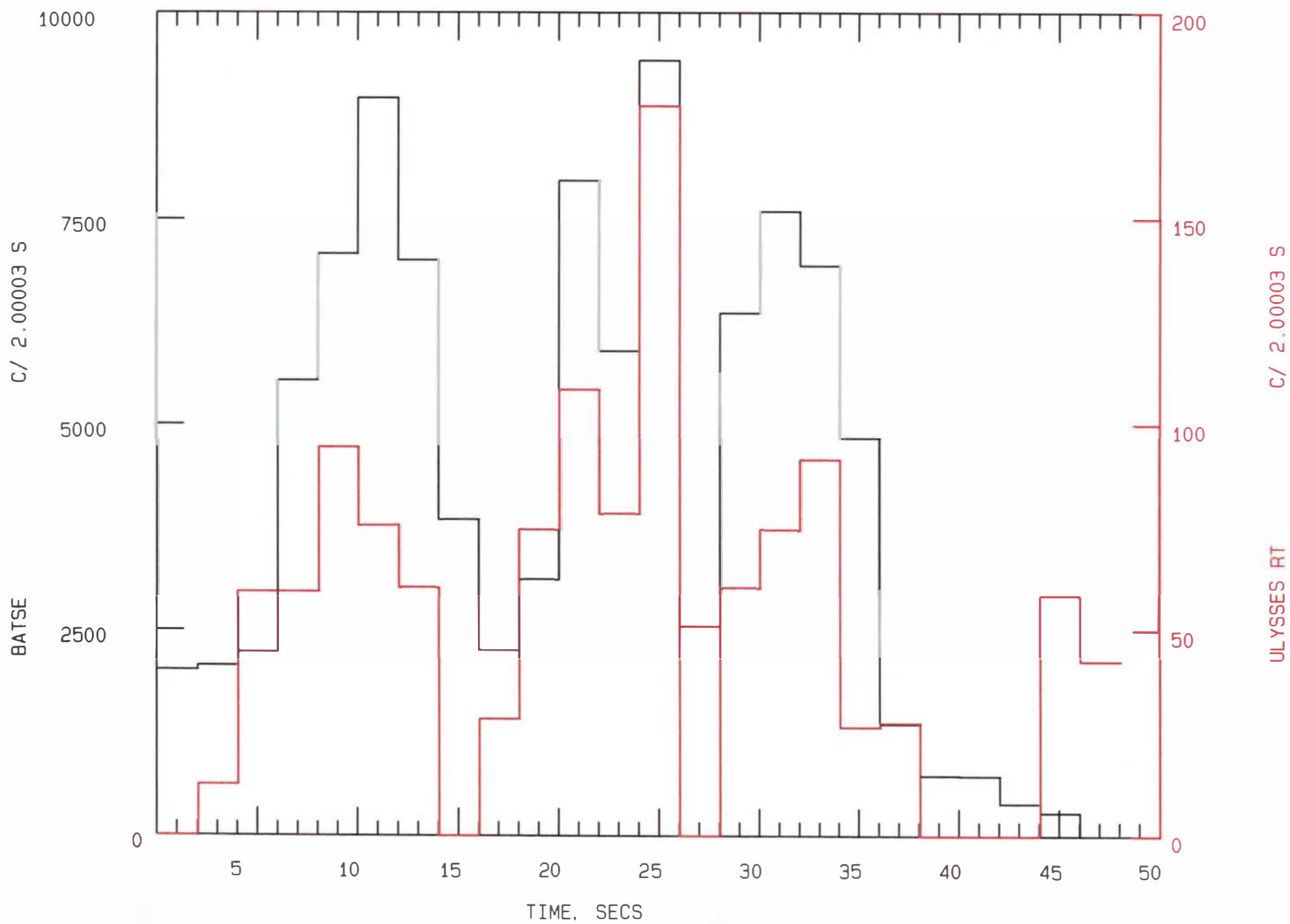
BATSE

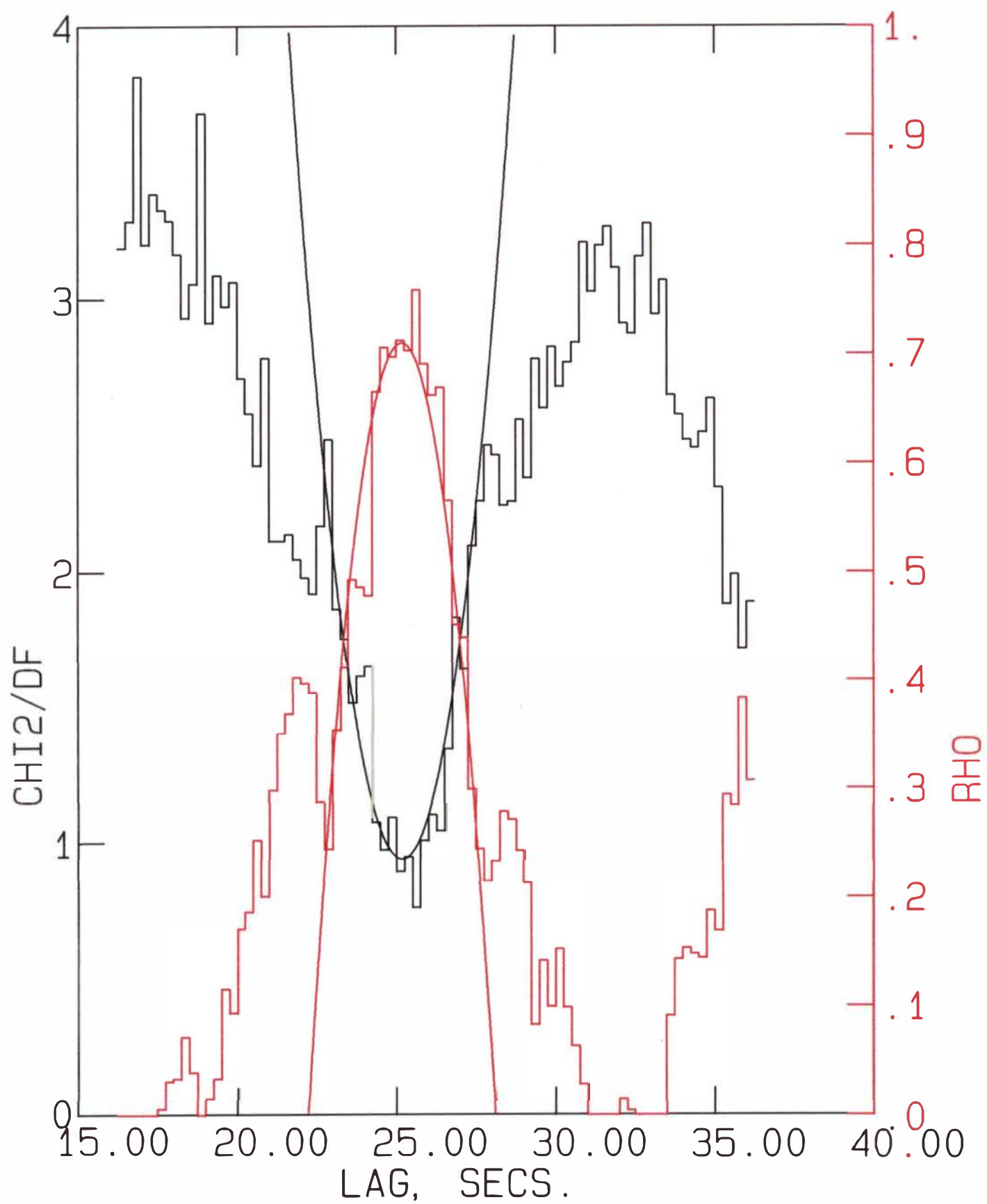
-ULYSSES RT CORRELATION

94/12/29

82258.610

7/11/97





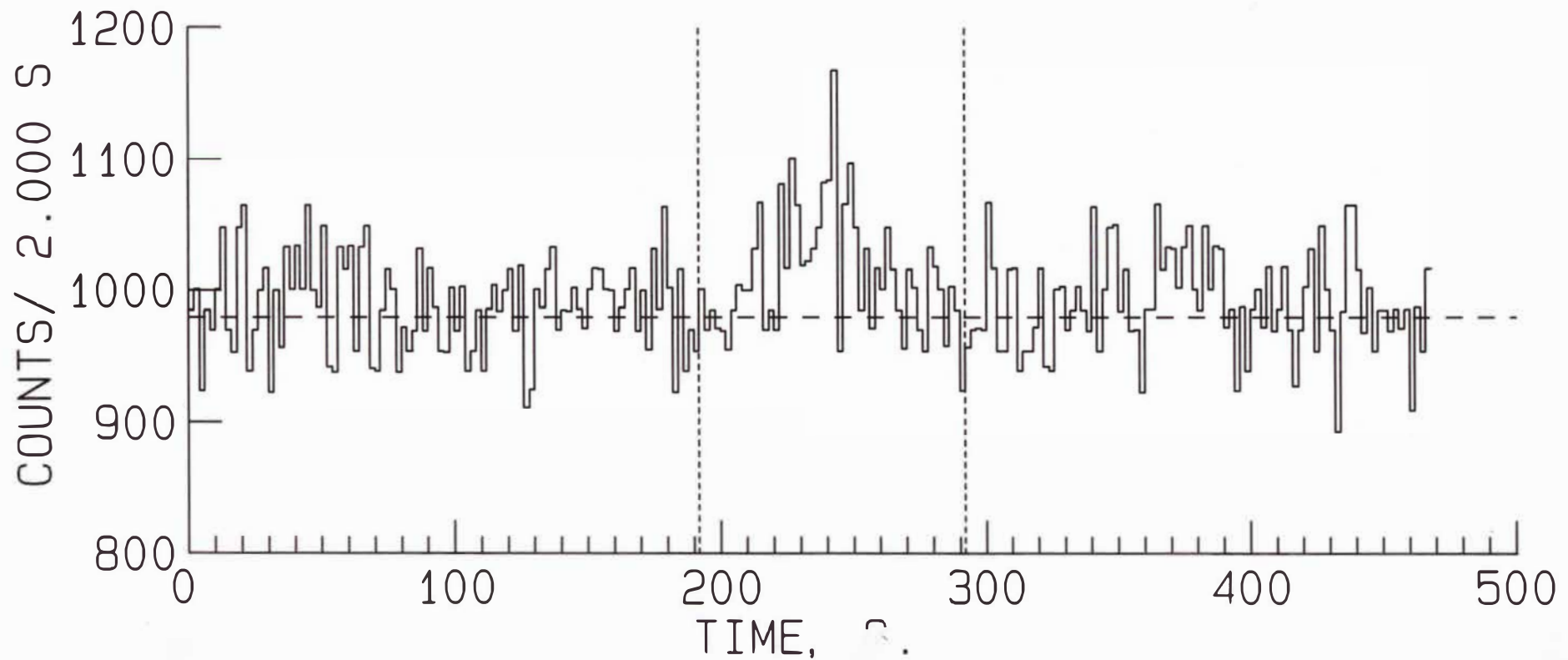
ULYSSES RT

7 / 11 / 97

29/12/94 82296.054 s

0.250 S INTERVALS REGROUPED BY 8

21- 146 keV



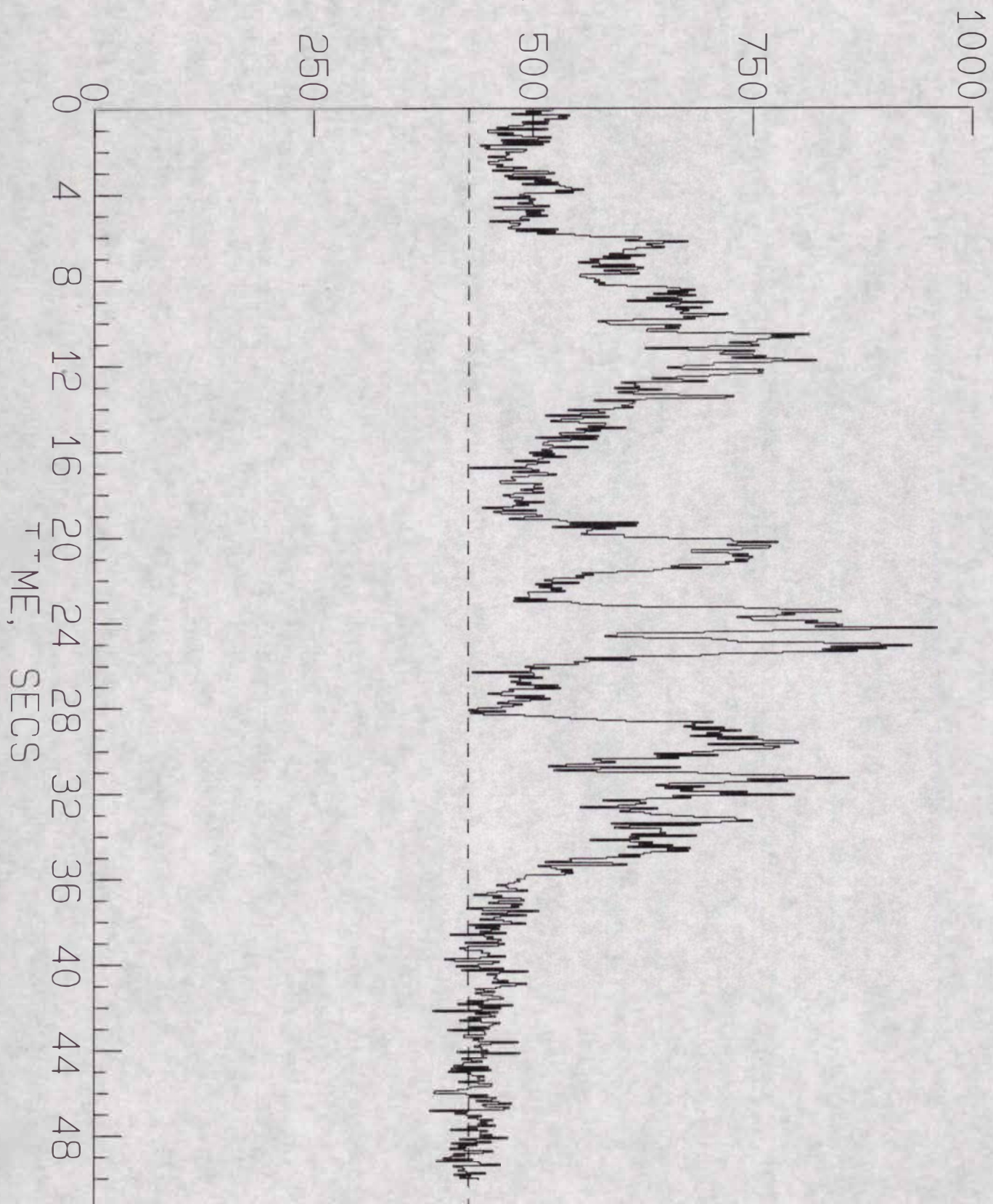
BATSE

94/12/29

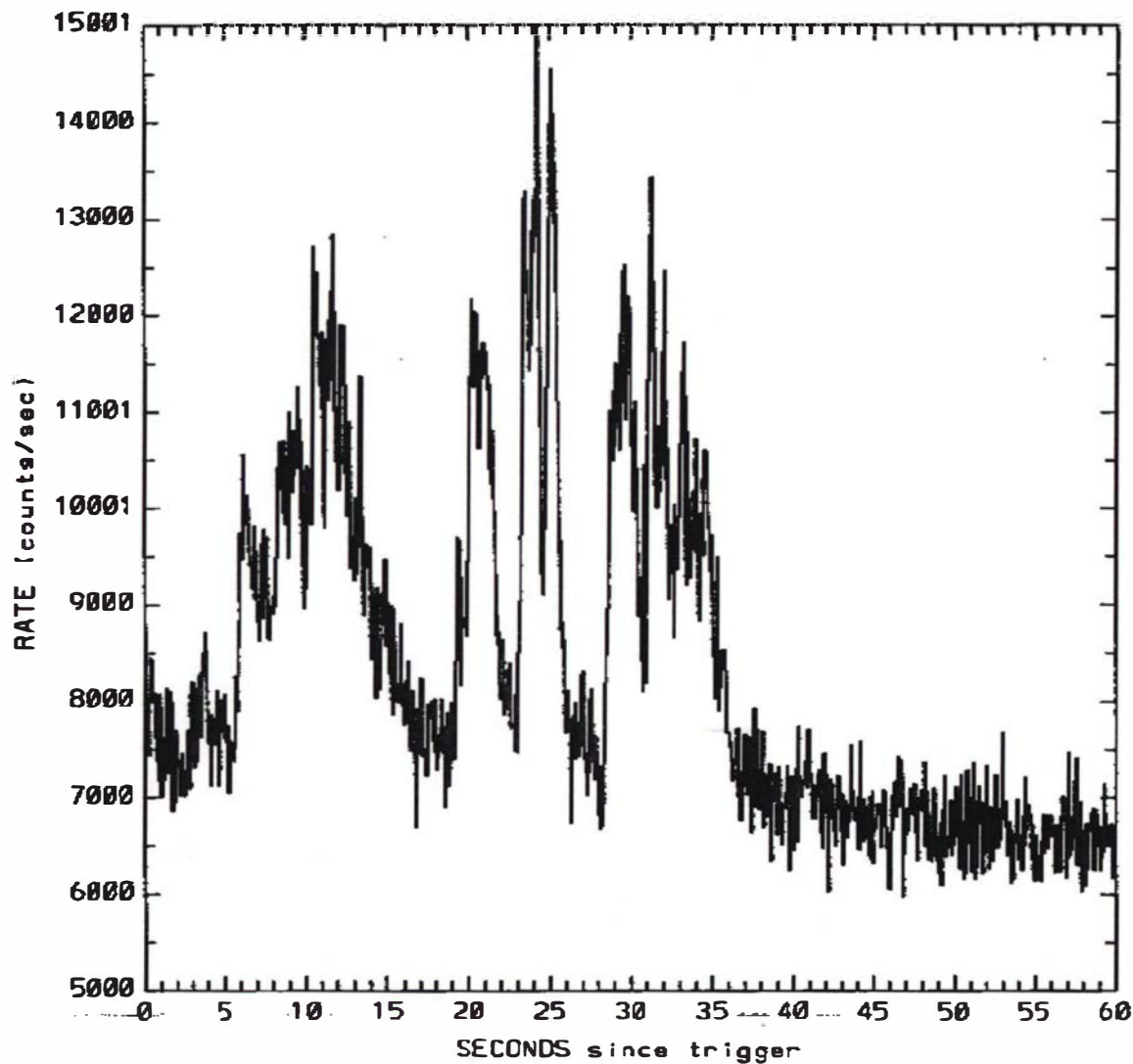
82258.610

25- 100 keV

COUNTS/ .064 S



MER Data for K. Hurley. No. 3334

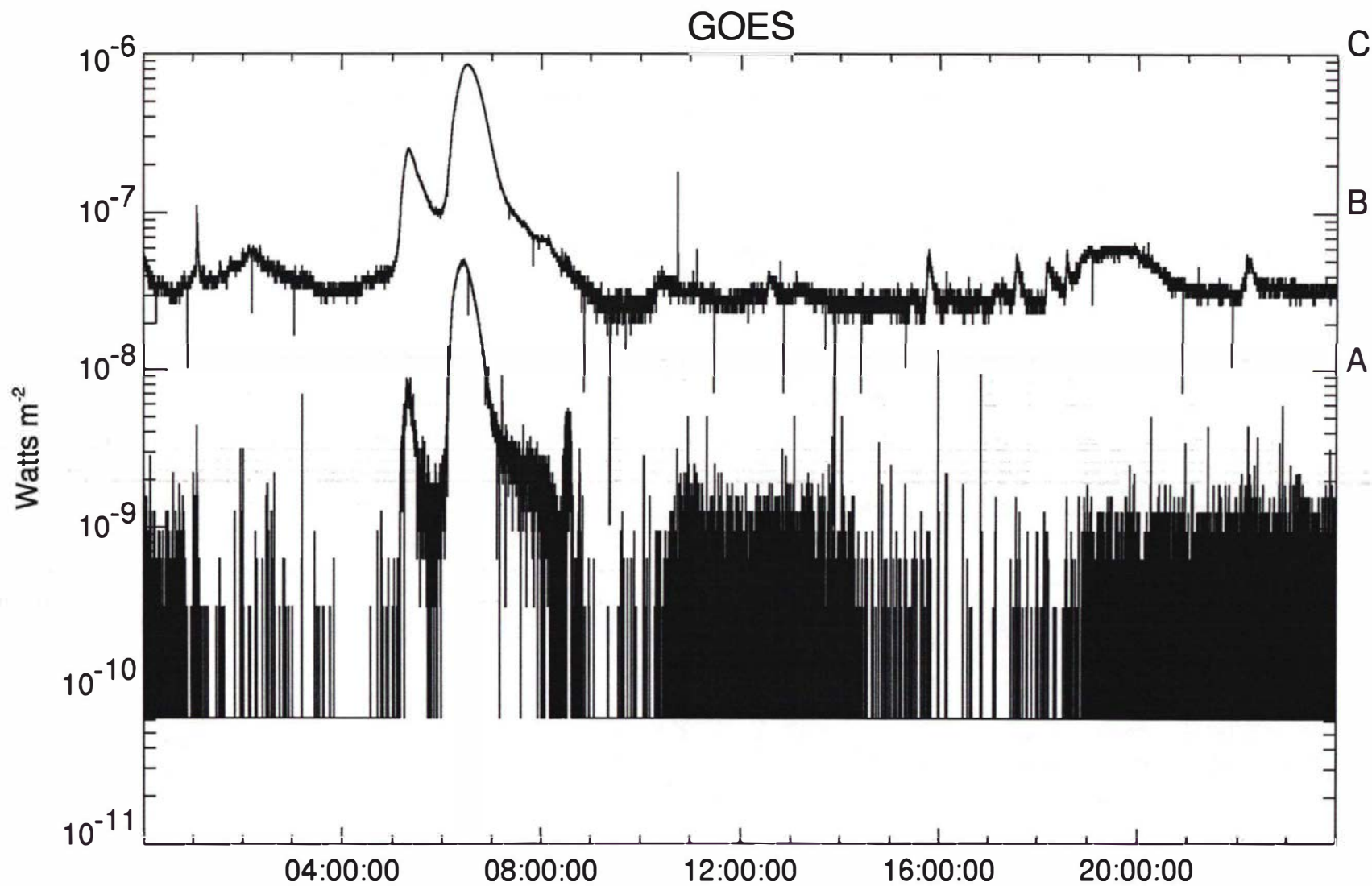


9-JAN-1995 14:45.86

Created by MOPS BD
IBurst Display
Version 12.23

Trigger # : 3334

Trigger Time:
9715 / 82258.618Burst Data Type:
MERDeadtime
Corrected: NBackground Data
Type: CONTMinimum Integ. Time:
0.064 secondsDetectors [7..8]:
---4---0Channels:
1 8, 61Quality Mask:
BD[SP1]



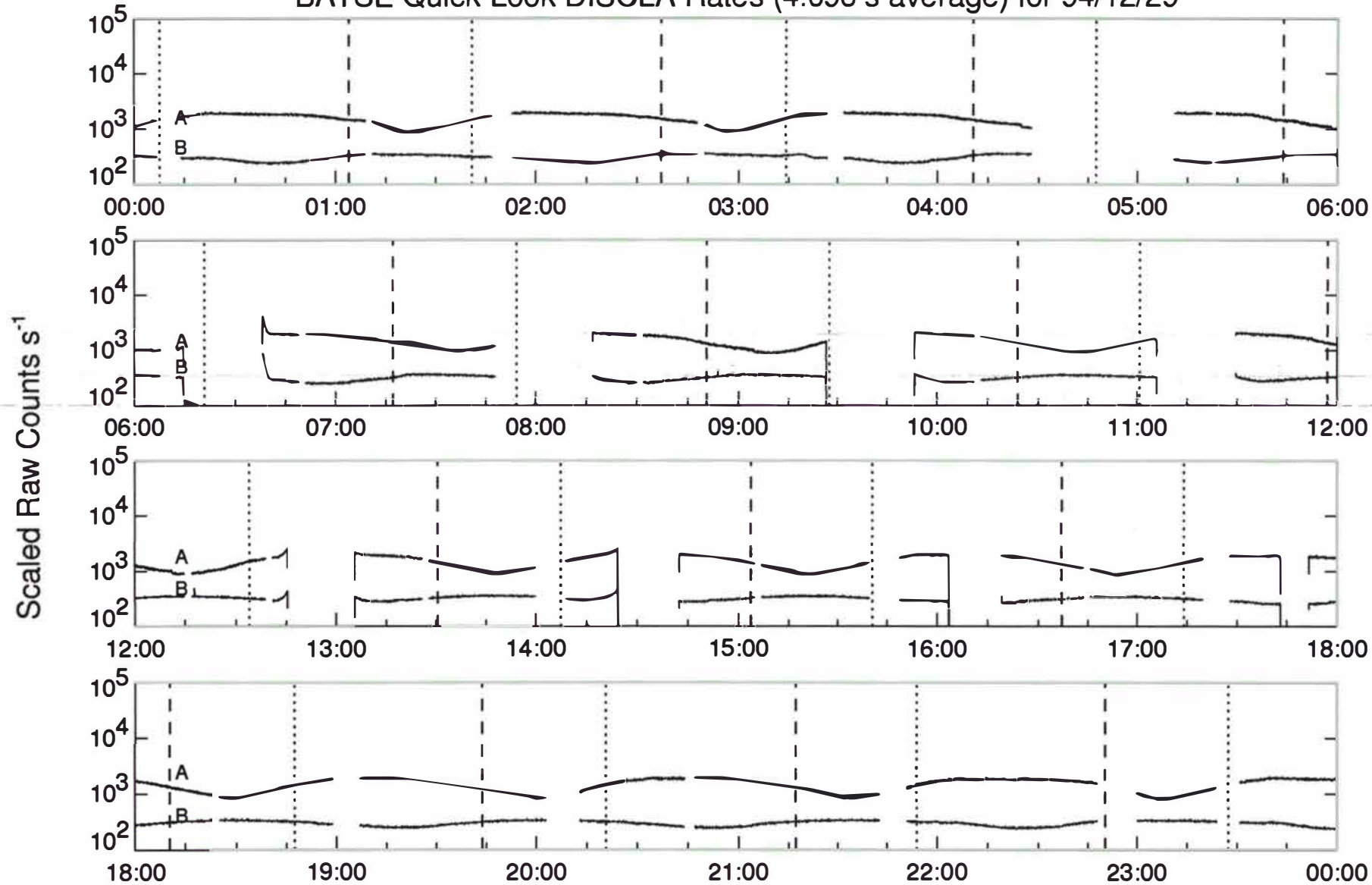
Data Start: 94/12/29, 0000:02

Plot created: 95/01/05, 1733

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 94/12/29



Current Time: 95/01/05, 1734 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

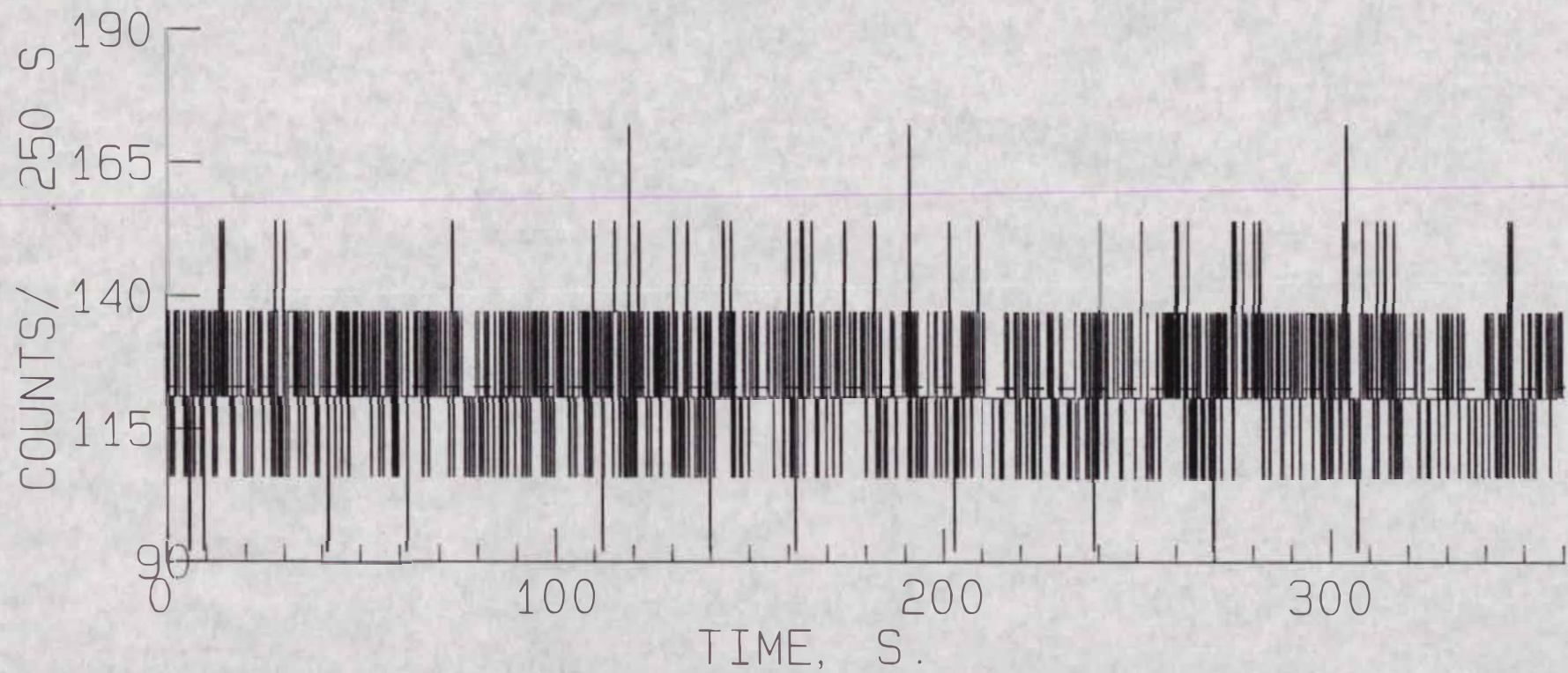
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

ULYSSES RT
29/12/94 83196.070 s
0- 0 keV

16 / 1 / 95

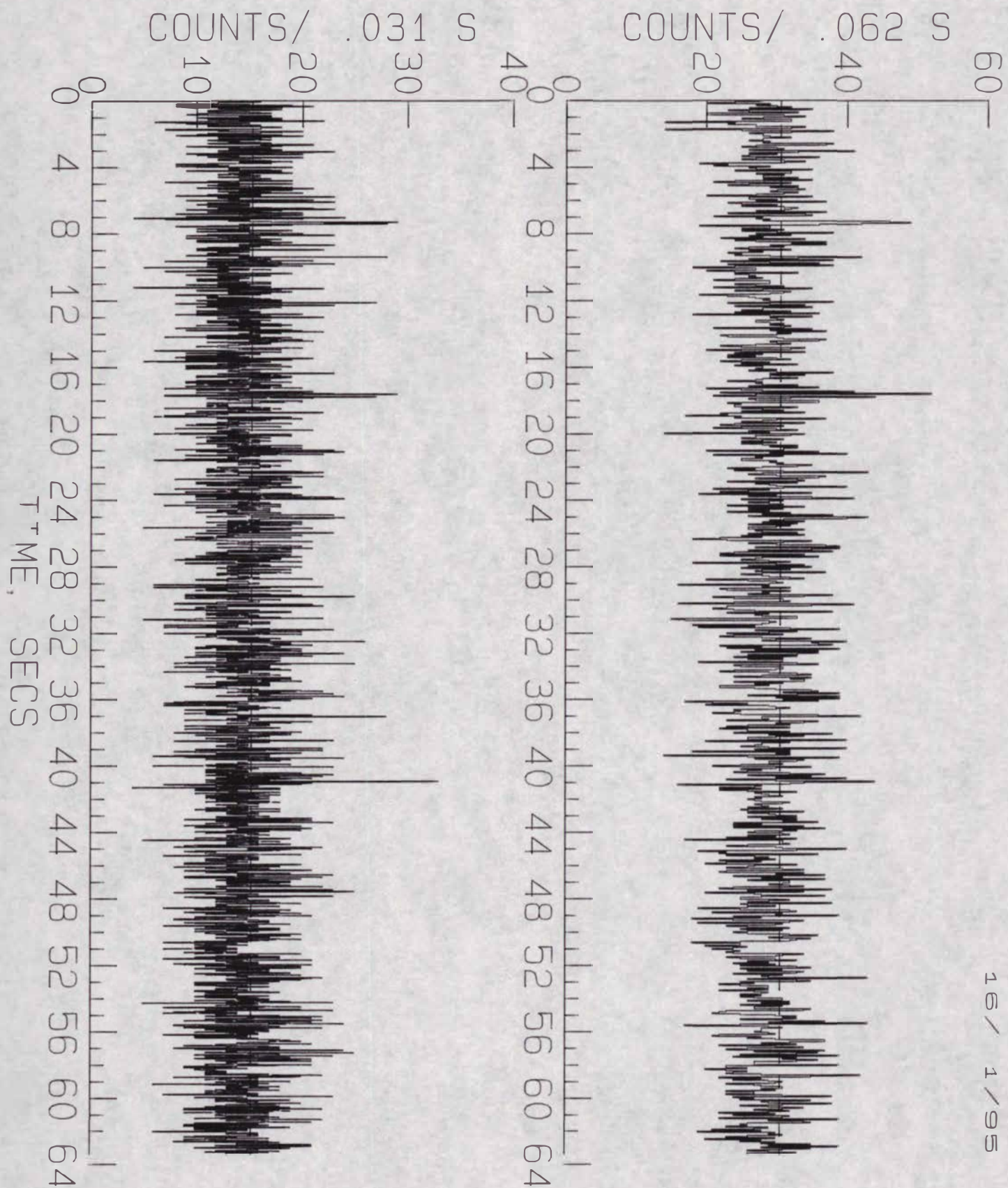
N= 10 M= 4
>4.0 SIGMA FLUCTUATIONS



ULYSSES

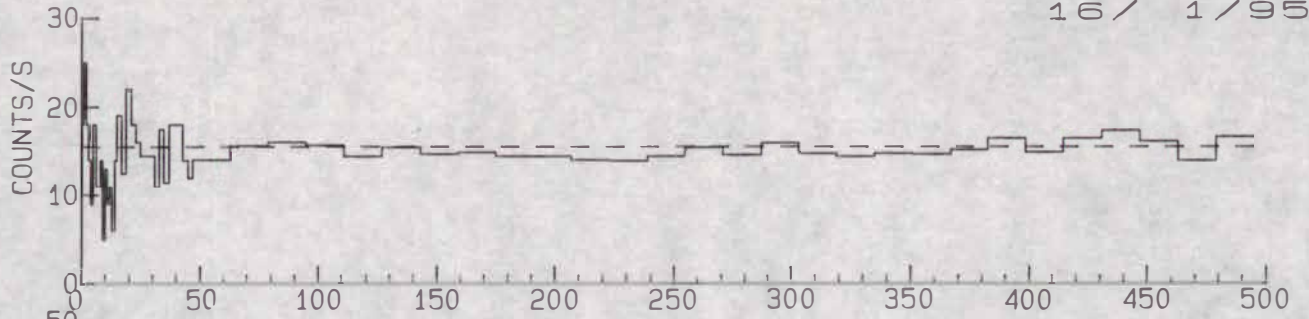
29/12/94

Ttrig=83451.452

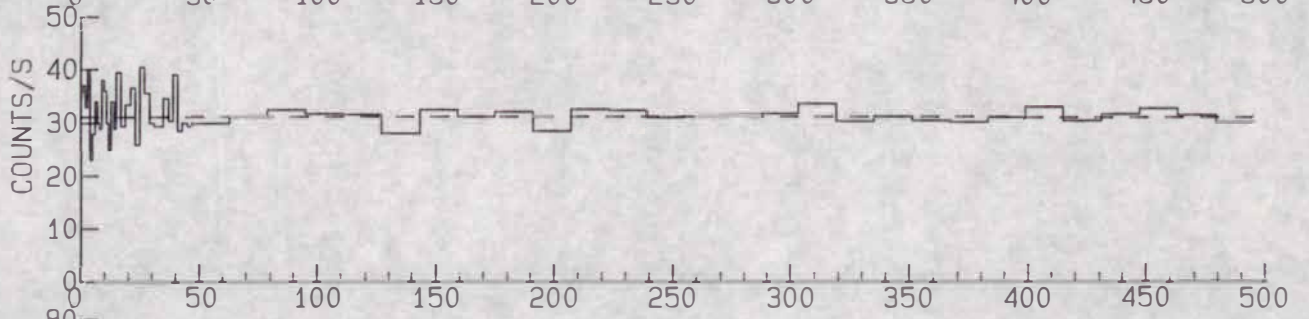


JULY 29/12/94 83387.441 BURST SPECTRAL COUNT RATES

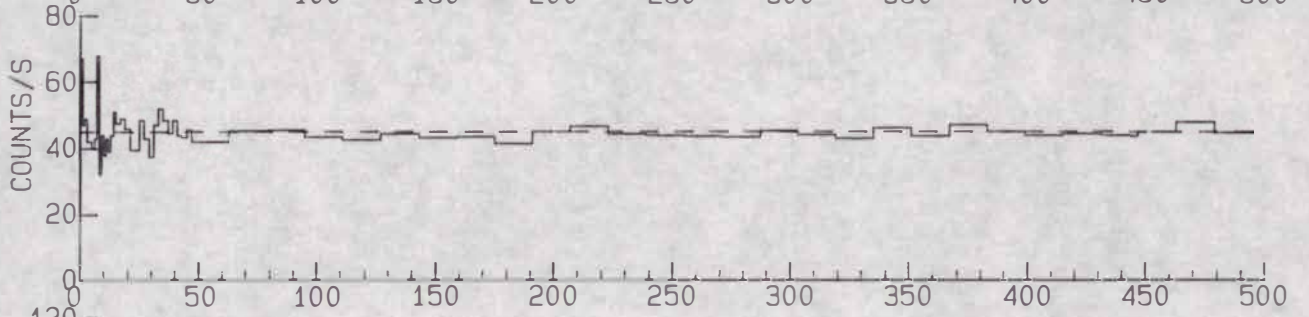
129-147 keV



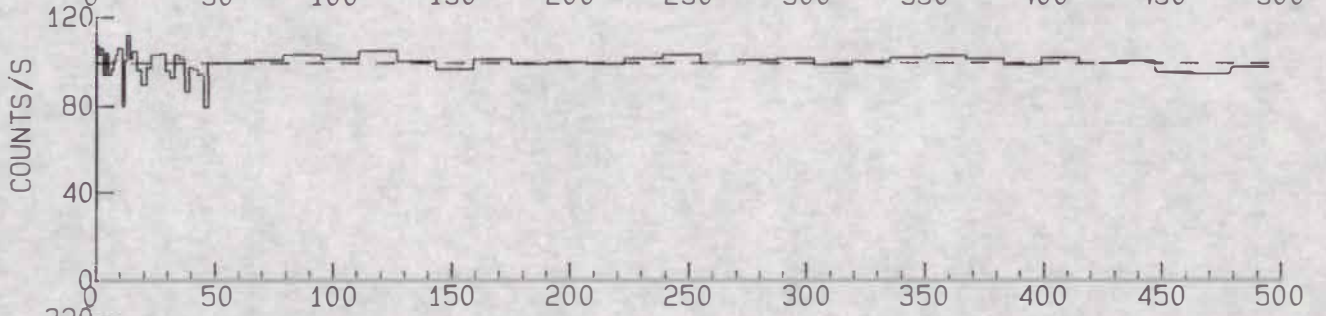
101-129 keV



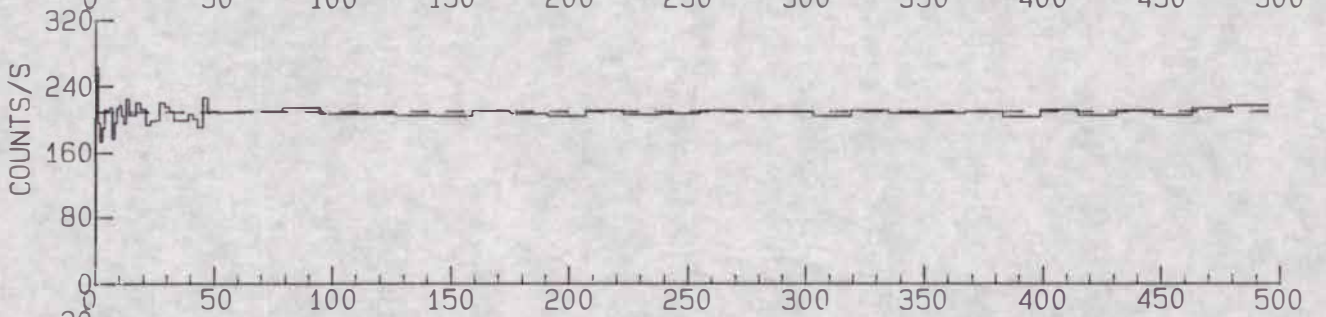
73-101 keV



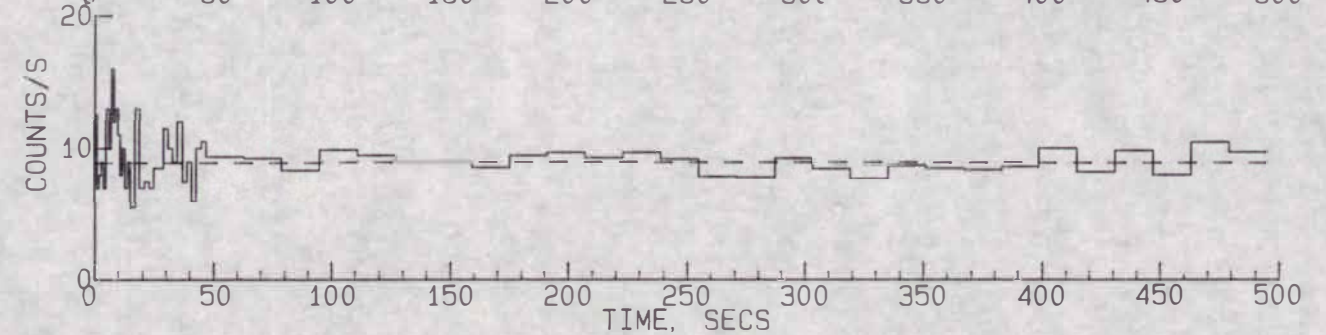
46-73 keV



18-46 keV



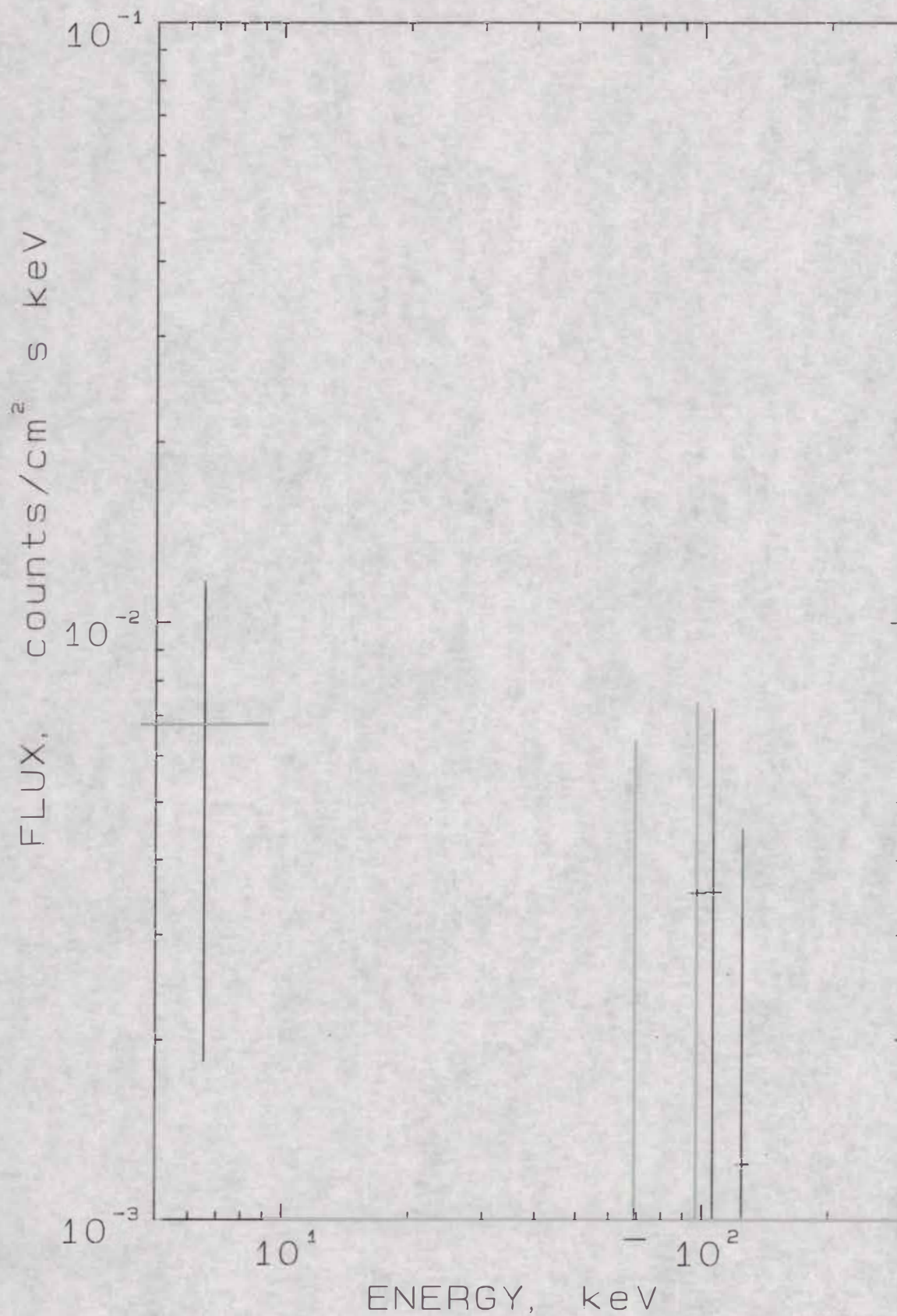
4-18 keV



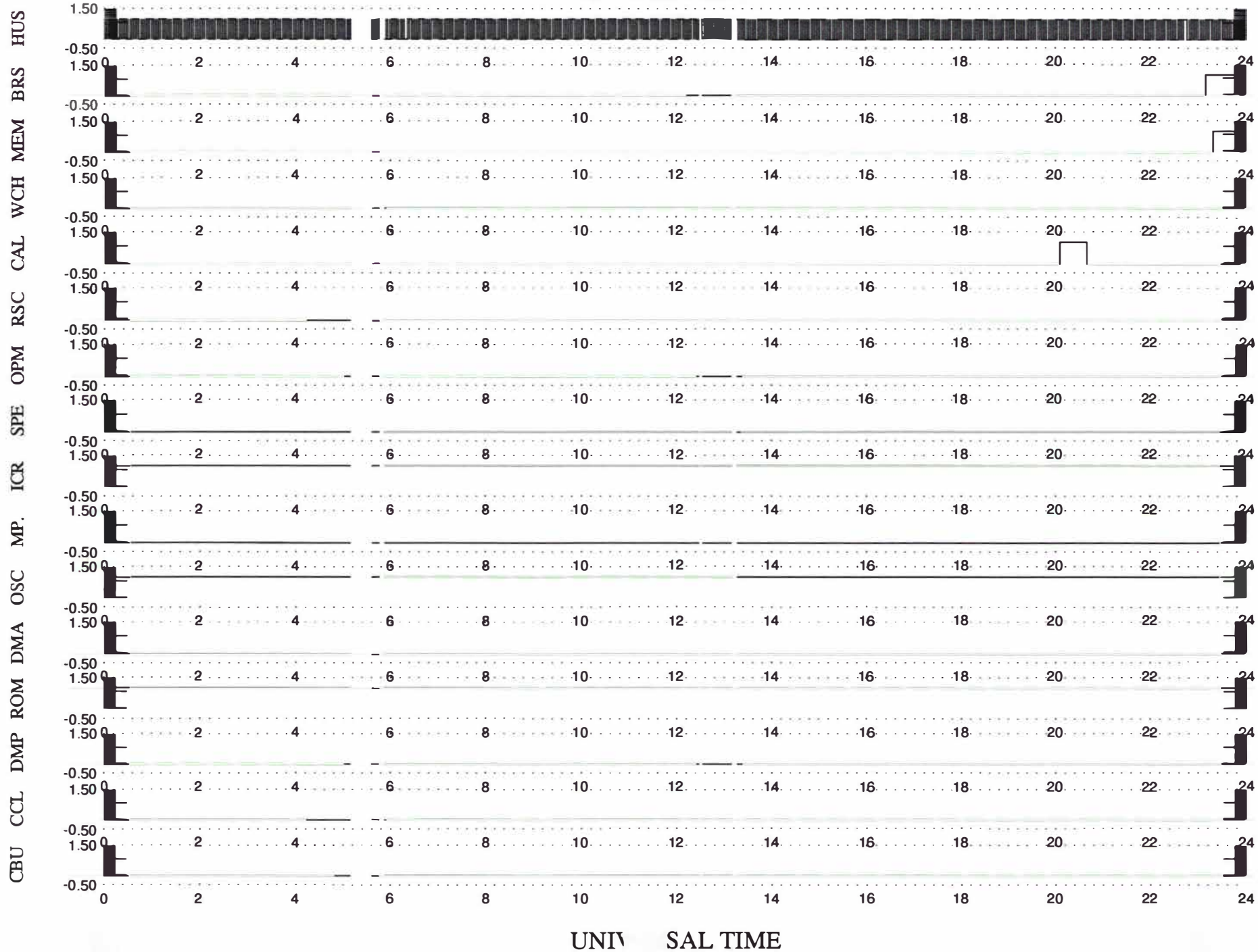
ULYSSES 29/12/94 83387.441

16/ 1/95

SPECTRUM INTEGRATED OVER 62.9 SECONDS, INTERVALS 2 TO 34



BURST NUMBER 9

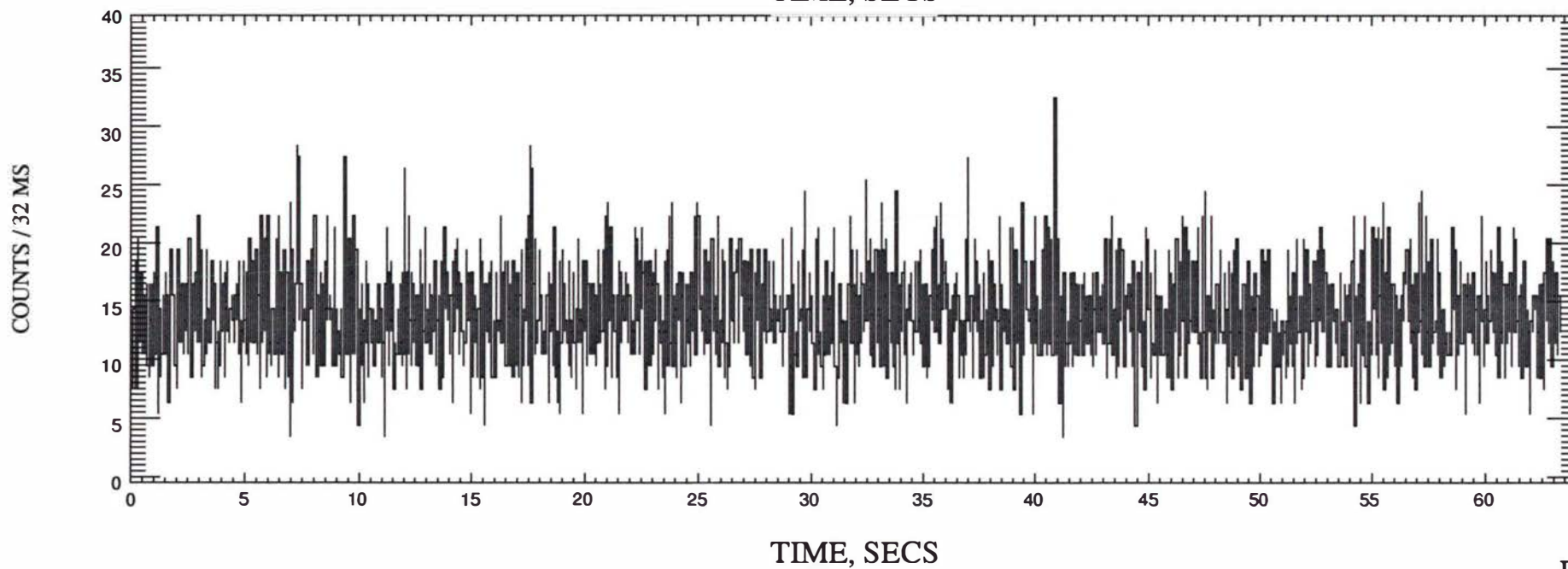
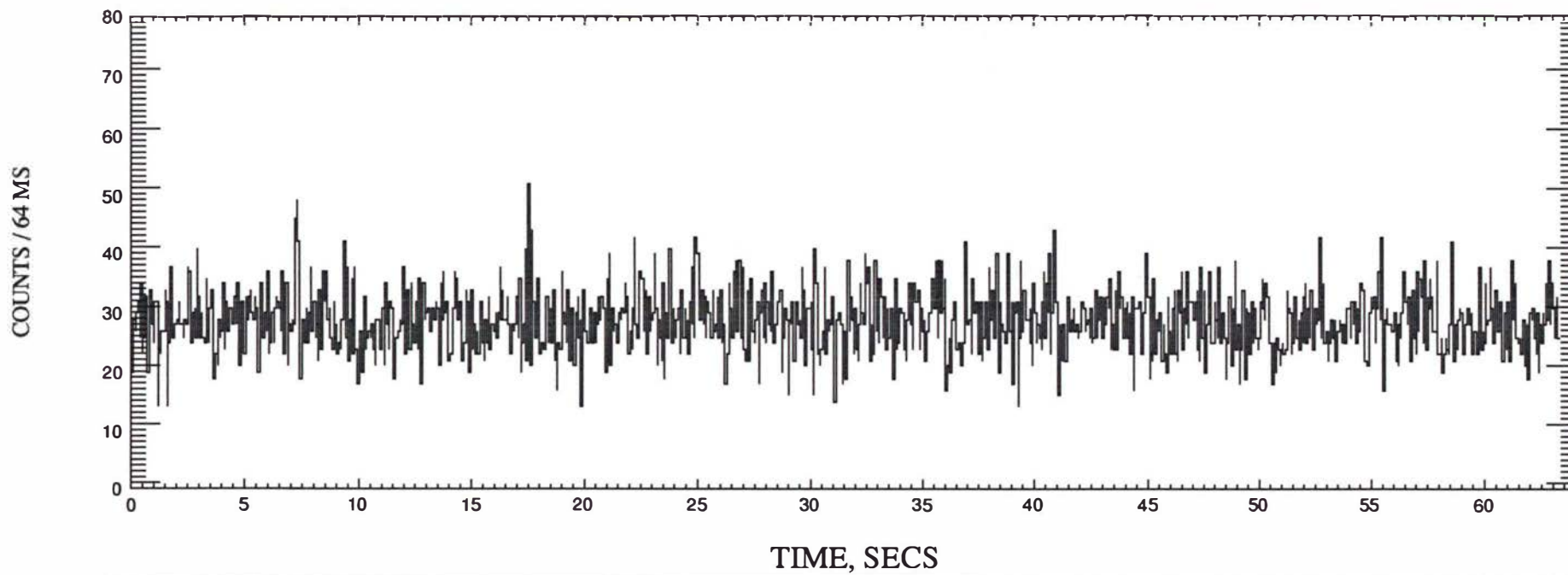


CALIBRATION DATA INCLUDED

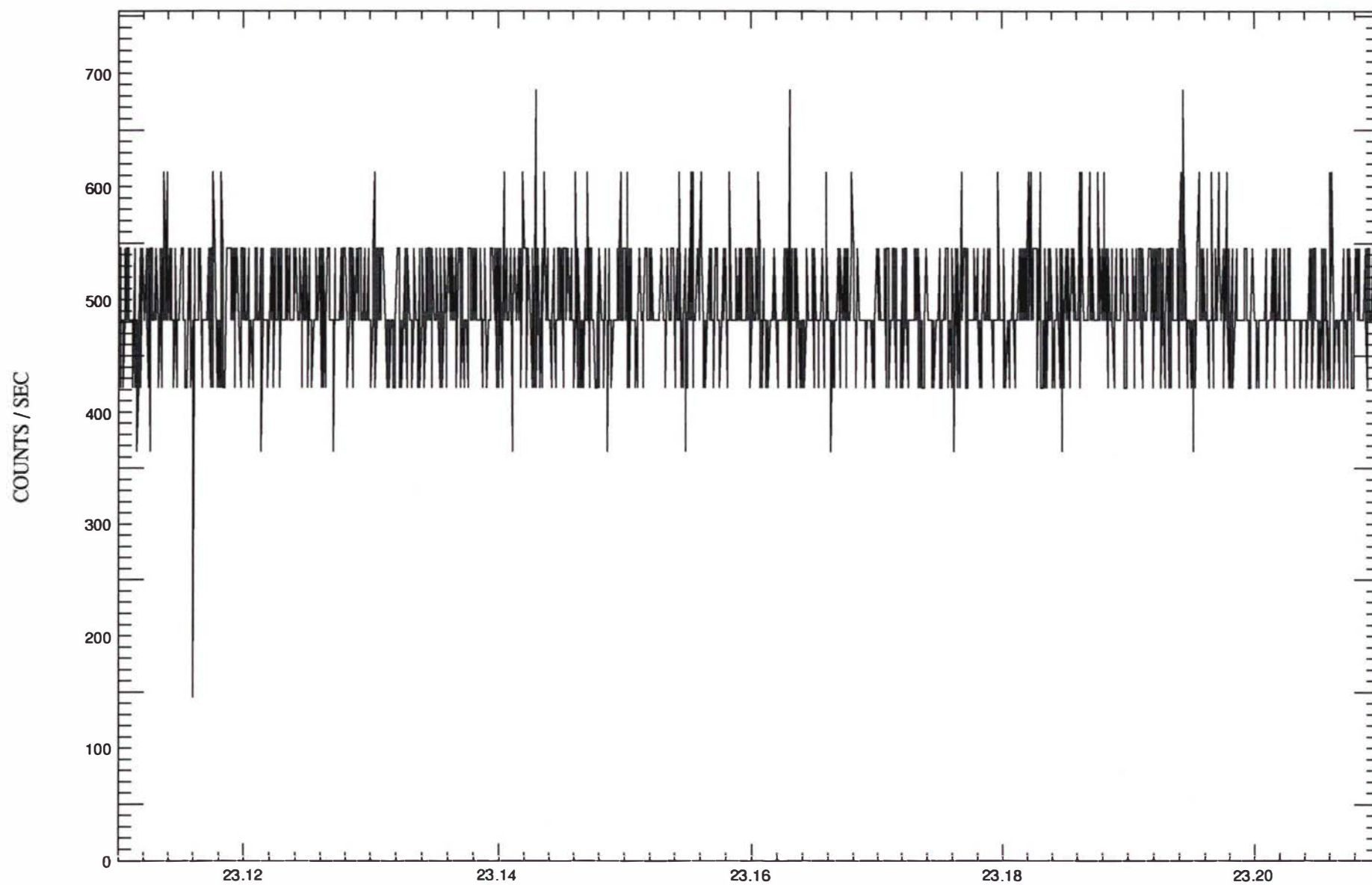


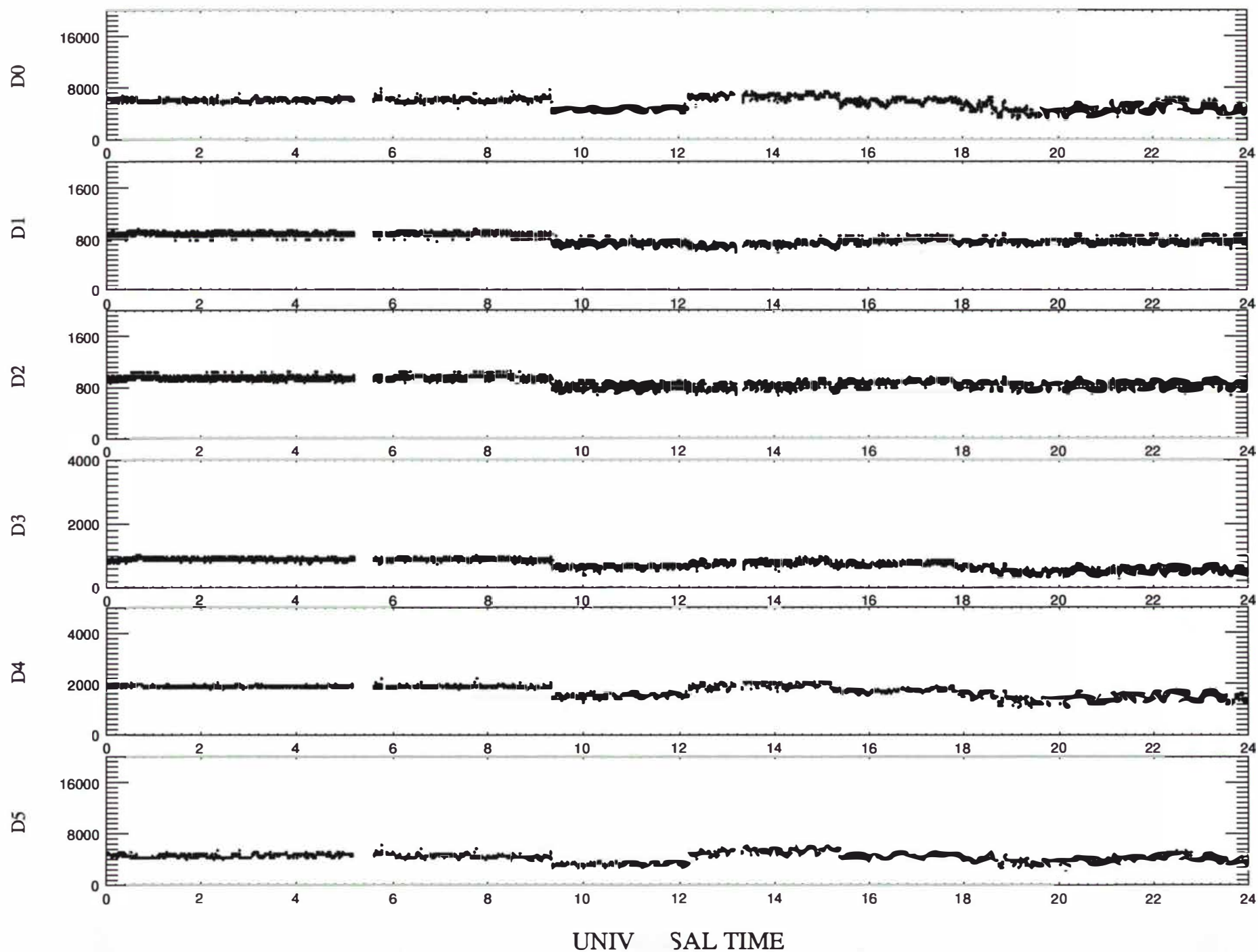
UNIV SAL TIME

Burst Counter 9 at UT=23.163177986145 h=83387.441 s 23:09:47.441



CALIBRATION DATA INCLUDED





From HAGEDON@fender.msfc.nasa.gov Tue Jan 3 11:11 PST 1995
Return-Path: <HAGEDON@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA04855; Tue, 3 Jan 1995 11:11:51 +0800
Date: Tue, 3 Jan 1995 13:11:39 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Message-Id: <950103131139.20c01105@fender.msfc.nasa.gov>
Subject: BATSE Burst 3335
Content-Type: text
Content-Length: 108
X-Lines: 2
Status: RO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3335	941230	9716	67184	4800	214	-03

No

BATSEARCH PROGRAM

BATSE BURST # 3335
EVENT OF 1994 DEC 30 DAY OF YEAR=364
EVENT CROSSING TIME AT BATSE : 67184. S. OR 18:39:44.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 214.000 -3.000
BATSE PEAK COUNTING RATE: 4800 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/12/ 94 IS:
RA= 314.523 DEC= -53.019 DIST= 2.181 AU
BATSE-ULYSSES DISTANCE = 326277349. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 86.11 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 73.90 SECS.
CROSSING TIME AT ULYSSES IS 67258. S. OR 18:40:57 +/- 239.64 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/12/ 94 IS:
RA= 155.786 DEC= 13.718 DIST= 0.860 AU
MARS-BATSE DISTANCE = 128689632. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=119.91 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -214.03 SECS.
CROSSING TIME AT MARS IS 66970. S. OR 18:36:09 +/- 61.35 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3335

TIME: TJD=9716 SECONDS=67184

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=10 AZIMUTH=1 ERROR= DEGREES

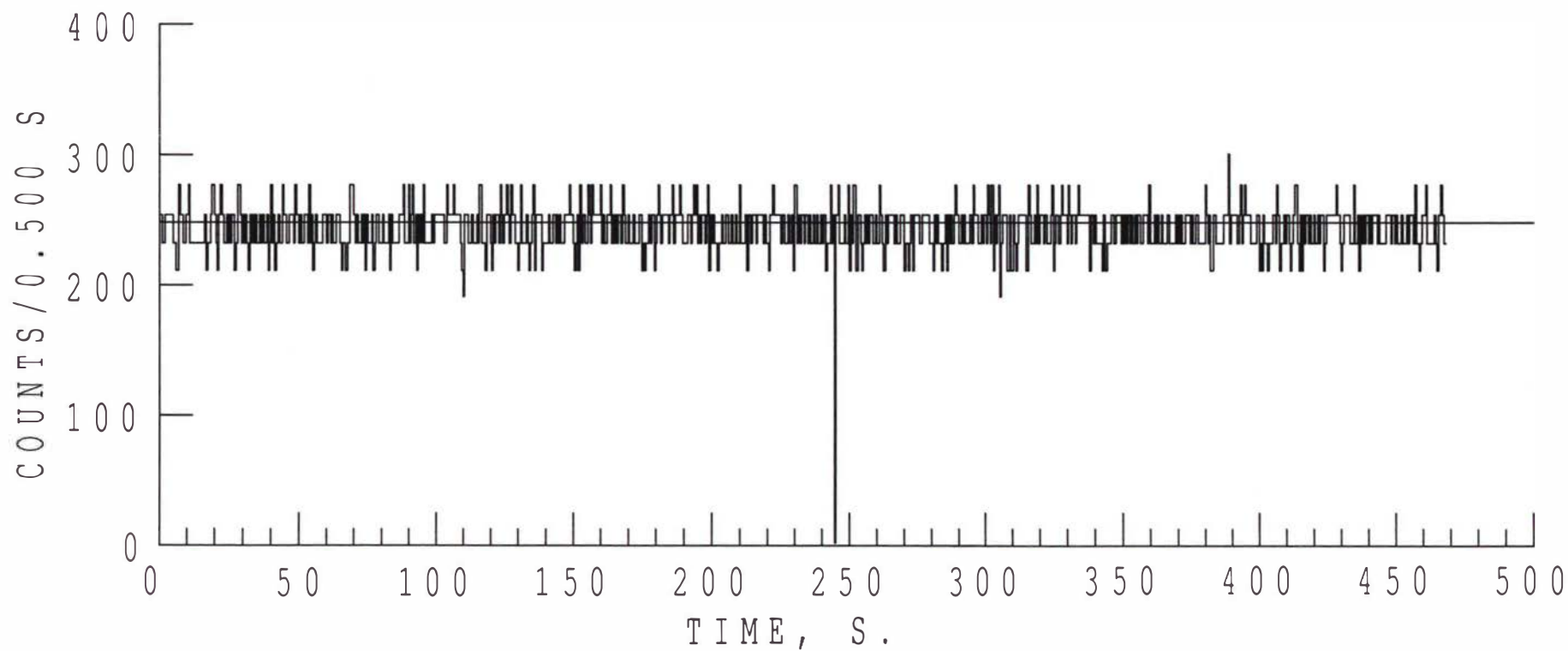
COMMENTS:

BURST. WEAK SINGLE SPIKE WITH SUBSTRUCTURE. DUR.~2 SEC.
VISIBLE ABOVE 300 KEV.

3 / 1 / 95

ULYSSES RT
30/12/94 67032.141 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Tue Jan 3 11:13 PST 1995
Return-Path: <HAGEDON@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA04904; Tue, 3 Jan 1995 11:13:43 +0800
Date: Tue, 3 Jan 1995 13:13:41 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Message-Id: <950103131341.20c01105@fender.msfc.nasa.gov>
Subject: BATSE Burst 3336
Content-Type: text
Content-Length: 108
X-Lines: 2
Status: RO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3336	941230	9716	75194	5000	175	-35

BATSEARCH PROGRAM

BATSE BURST # 3336
EVENT OF 1994 DEC 30 DAY OF YEAR=364
EVENT CROSSING TIME AT BATSE : 75194. S. OR 20:53:14.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 175.000 -35.000
BATSE PEAK COUNTING RATE: 5000 C/S

*~ 200 s long, observed by
Konus. Initial BATSE location
was way off. But Ulysses
still didn't see it*

NO

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/12/ 94 IS:
RA= 314.591 DEC= -52.955 DIST= 2.181 AU
BATSE-ULYSSES DISTANCE = 326315621. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 94.71 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -89.31 SECS.
CROSSING TIME AT ULYSSES IS 75105. S. OR 20:51:44 +/- 236.98 SECONDS

38.20 - 55.51

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/12/ 94 IS:
RA= 155.786 DEC= 13.718 DIST= 0.860 AU
MARS-BATSE DISTANCE = 128689632. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=127.98 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -264.19 SECS.
CROSSING TIME AT MARS IS 74930. S. OR 20:48:49 +/- 54.73 SECONDS

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3336

TIME: TJD=9716 SECONDS=75194

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

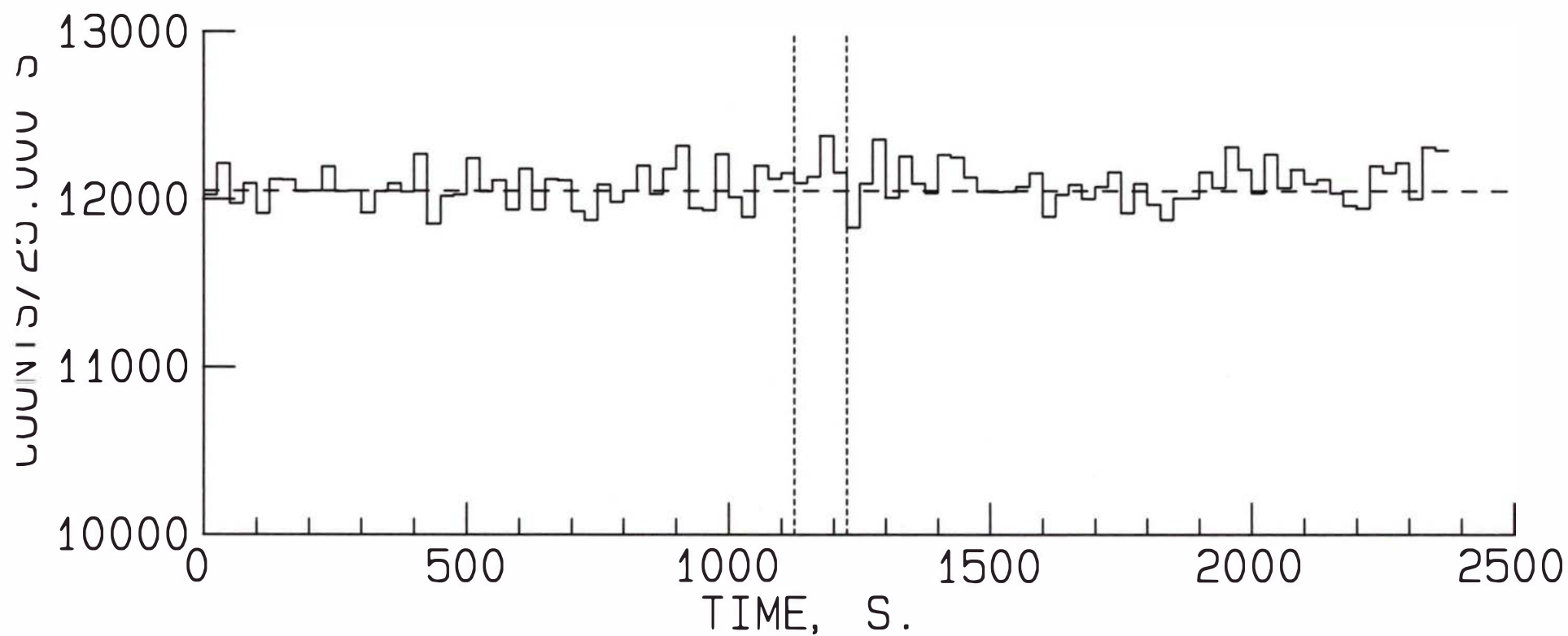
LOCATION: ZENITH=49 AZIMUTH=281 ERROR= DEGREES

COMMENTS:

BURST. COMPLEX EVENT. DUR.~200 SEC. MAX AT ~T+20 SEC.
WEAKLY VISIBLE ABOVE 300 KEV.

ULYSSES RT
30/12/94 73980.269 s
0.500 S INTERVALS REGROUPED BY 50
22- 147 keV

29/10/ 1



BATSE 333 19941230 74436

ULYSSES RT

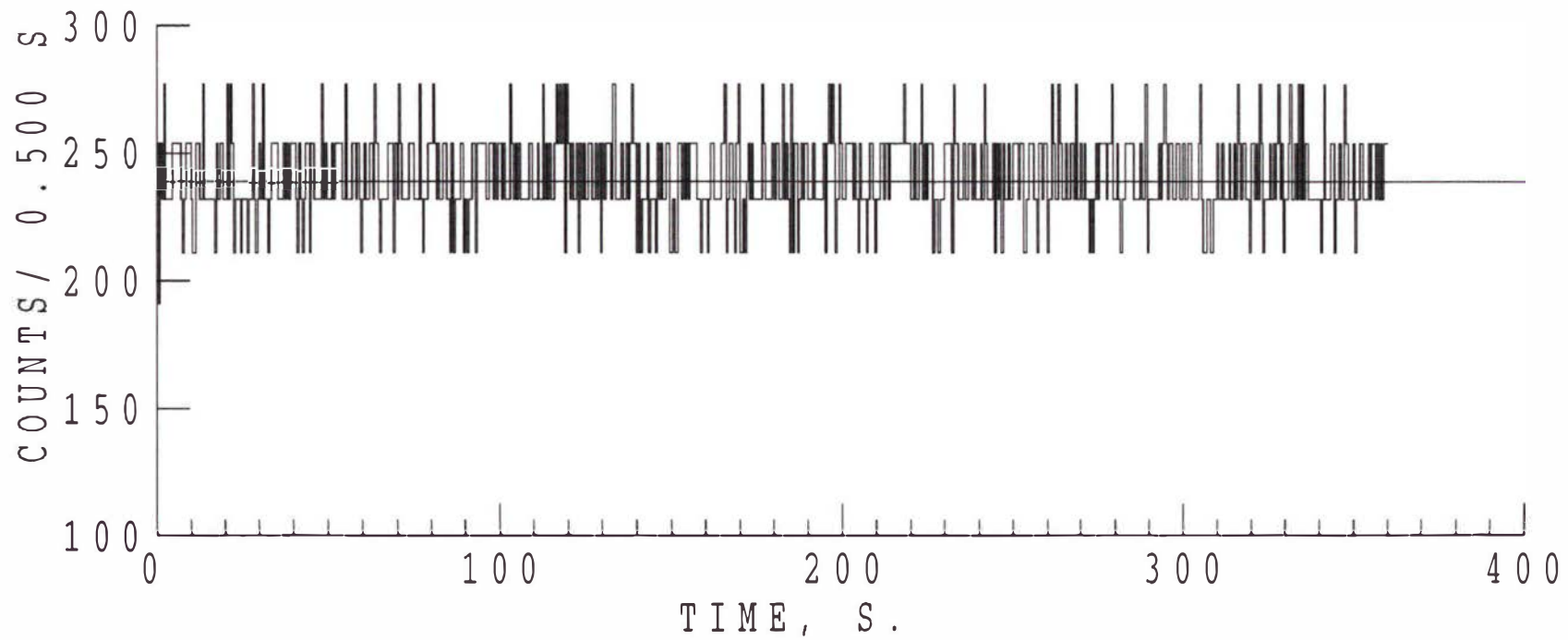
29 / 10 / 01

30 / 12 / 94 74268.281 s

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

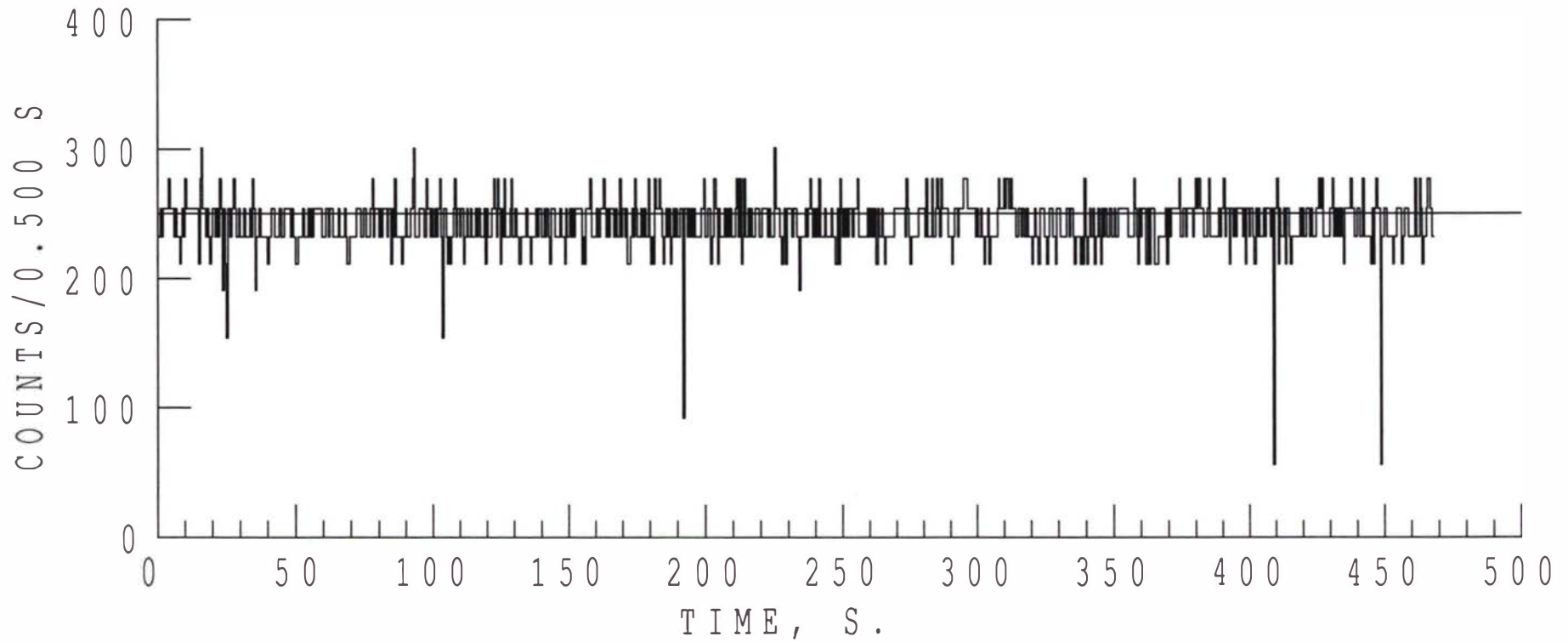
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



3 / 1 / 95

ULYSSES RT
30/12/94 74880.289 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



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

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

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

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

950114 01 00 38	S1	46	110	1.6	6	BG	
950114 04 03 01	S2	23	76	0.5	70	BG	U
950114 07 30 30.766	S2	205	406	60 <0.05	1 100	36	
950114 13 10 34.865	S1	1320	2828	516 3.1	1 10	37	U* #258
950115 02 49 32	S2	40	47	34 <0.15	24	BG	9G
950117 01 36 00	S2	56	82	42 0.22	108	BG 3360*	U* 298 05
950118 17 05 --						3366 (U)	061 -63

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

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

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

1 3 / 2 / 9 5

U L Y S S E S R T

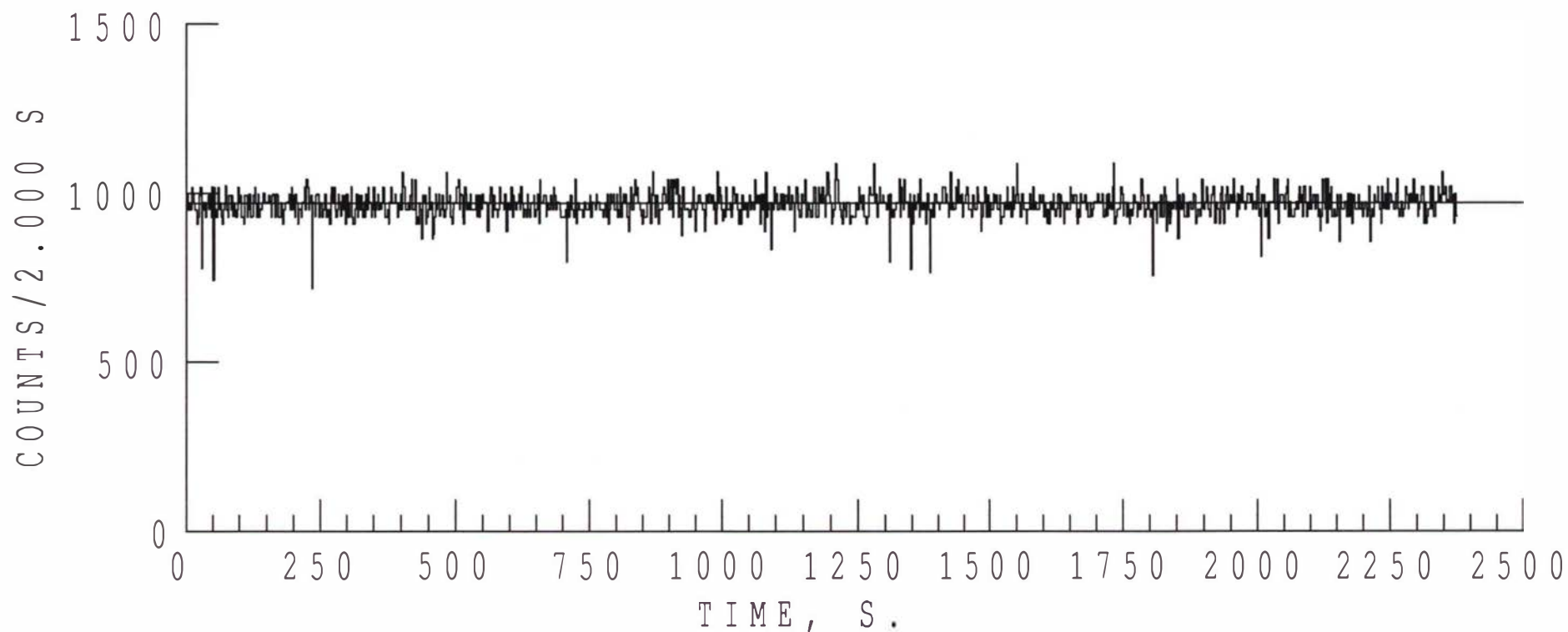
3 0 / 1 2 / 9 4 7 3 9 8 0 . 2 7 3 s

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

0 - 0 k e V

N = 10 M = 2

> 4.0 SIGMA FLUCTUATIONS



From HAGEDON@fender.msfc.nasa.gov Tue Jan 3 11:15 PST 1995
Return-Path: <HAGEDON@fender.msfc.nasa.gov>
Received: from FENDER.MSFC.NASA.GOV by sunspot.ssl.berkeley.edu (5.0/SMI-SVR4)
id AA04927; Tue, 3 Jan 1995 11:15:26 +0800
Date: Tue, 3 Jan 1995 13:15:25 -0600 (CST)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Cc: HAGEDON@fender.msfc.nasa.gov
Message-Id: <950103131525.20c01105@fender.msfc.nasa.gov>
Subject: BATSE Burst 3337
Content-Type: text
Content-Length: 108
X-Lines: 2
Status: RO

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3337	941230	9716	85428	3500	173	+39

NO

BATSEARCH PROGRAM

BATSE BURST # 3337
EVENT OF 1994 DEC 30 DAY OF YEAR=364
EVENT CROSSING TIME AT BATSE : 85428. S. OR 23:43:48.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 173.000 39.000
BATSE PEAK COUNTING RATE: 3500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/12/ 94 IS:
RA= 314.675 DEC= -52.877 DIST= 2.182 AU
BATSE-ULYSSES DISTANCE = 326362880. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 29.57 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 946.83 SECS.
CROSSING TIME AT ULYSSES IS 86375. S. OR 23:59:34 +/- 157.65 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/12/ 94 IS:
RA= 155.786 DEC= 13.718 DIST= 0.860 AU
MARS-BATSE DISTANCE = 128689632. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=150.50 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -373.63 SECS.
CROSSING TIME AT MARS IS 85054. S. OR 23:37:34 +/- 31.02 SECONDS

khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3337

TIME: TJD=9716 SECONDS=85428

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=47 AZIMUTH=171 ERROR= DEGREES

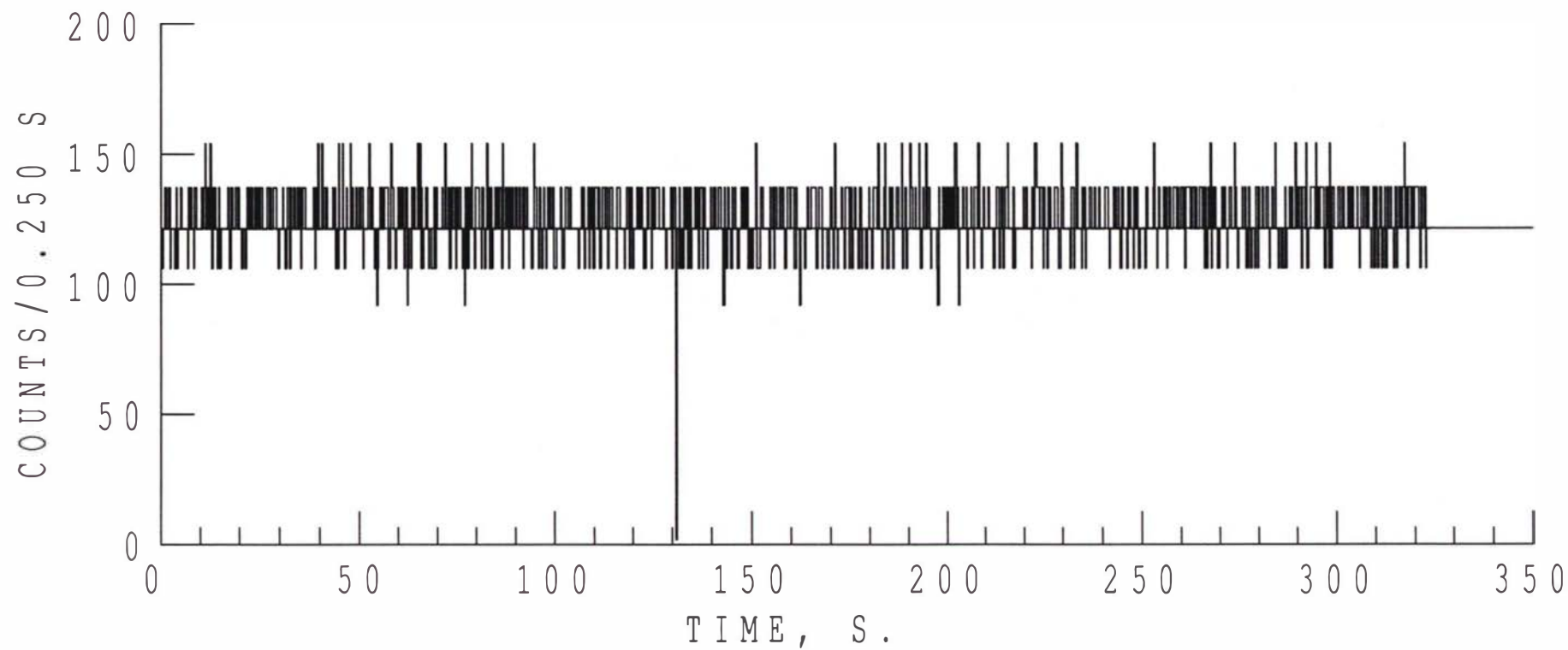
COMMENTS:

BURST. DOUBLE PEAK. DUR.~35 SEC. NOT VISIBLE ABOVE 300 KEV.

3 / 1 / 95

ULYSSES RT
30/12/94 86220.008 s
0 - 0 keV

M= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



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

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

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

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

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

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

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

1 3 / 2 / 9 5

U L Y S S E S R T

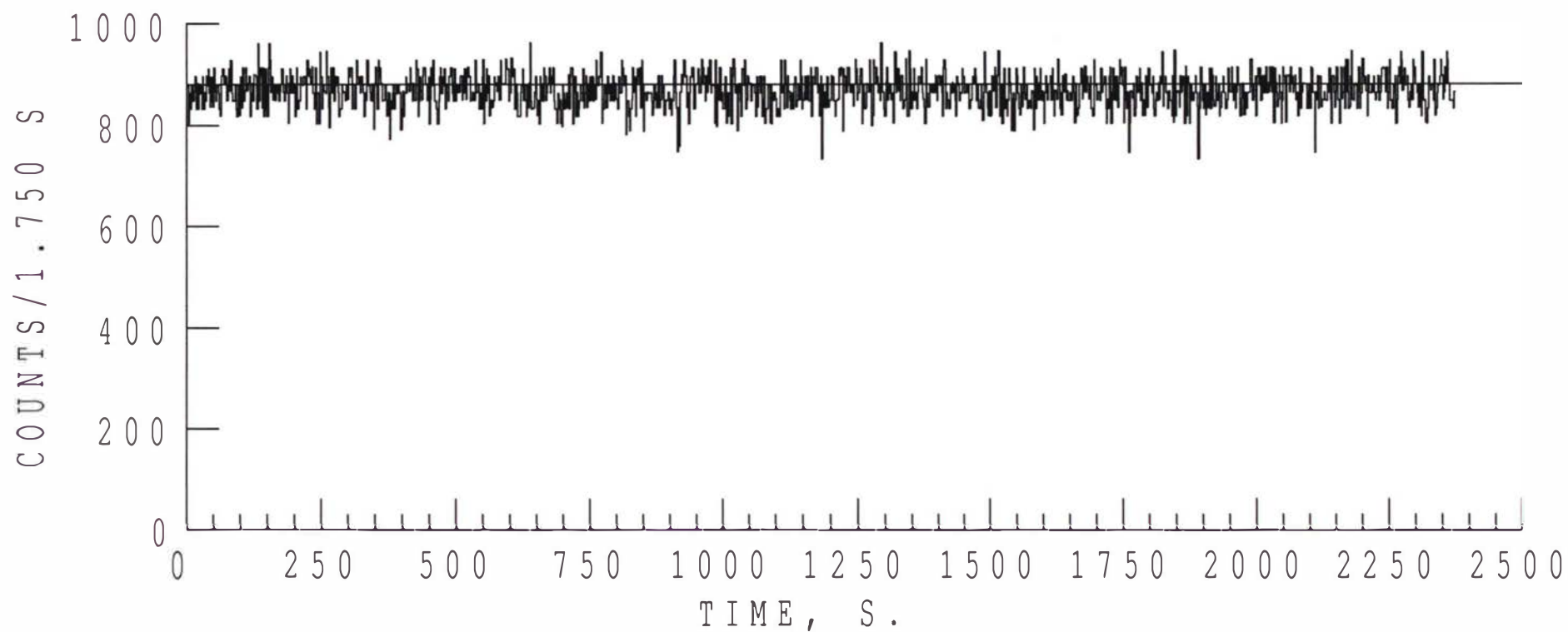
3 0 / 1 2 / 9 4 8 4 2 4 0 . 2 1 9 s

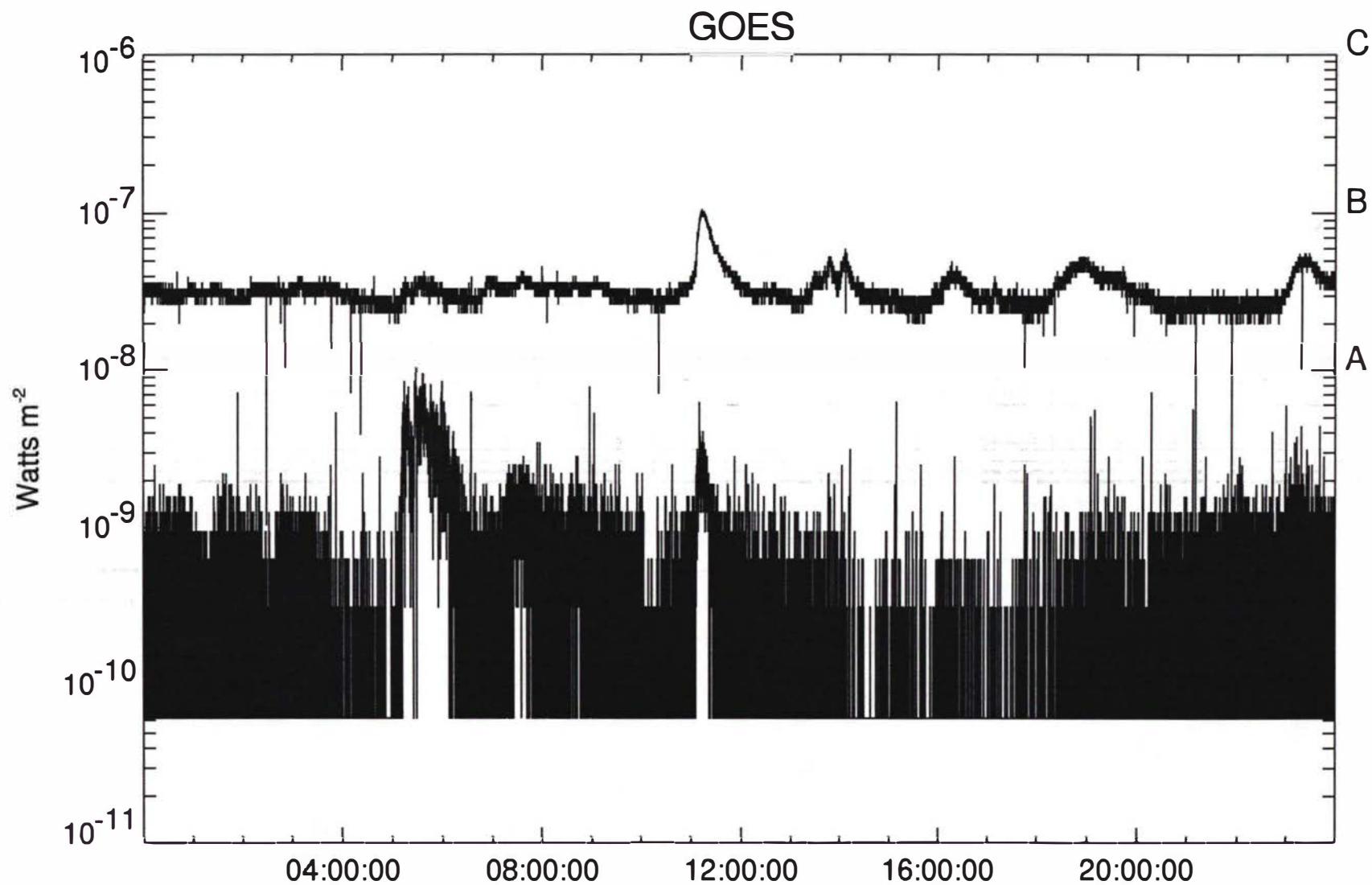
0 . 2 5 0 s I N T E R V A L S R E G R O U P E D B Y 7

0 - 0 k e V

N = 10 M = 2

> 4.0 SIGMA FLUCTUATIONS





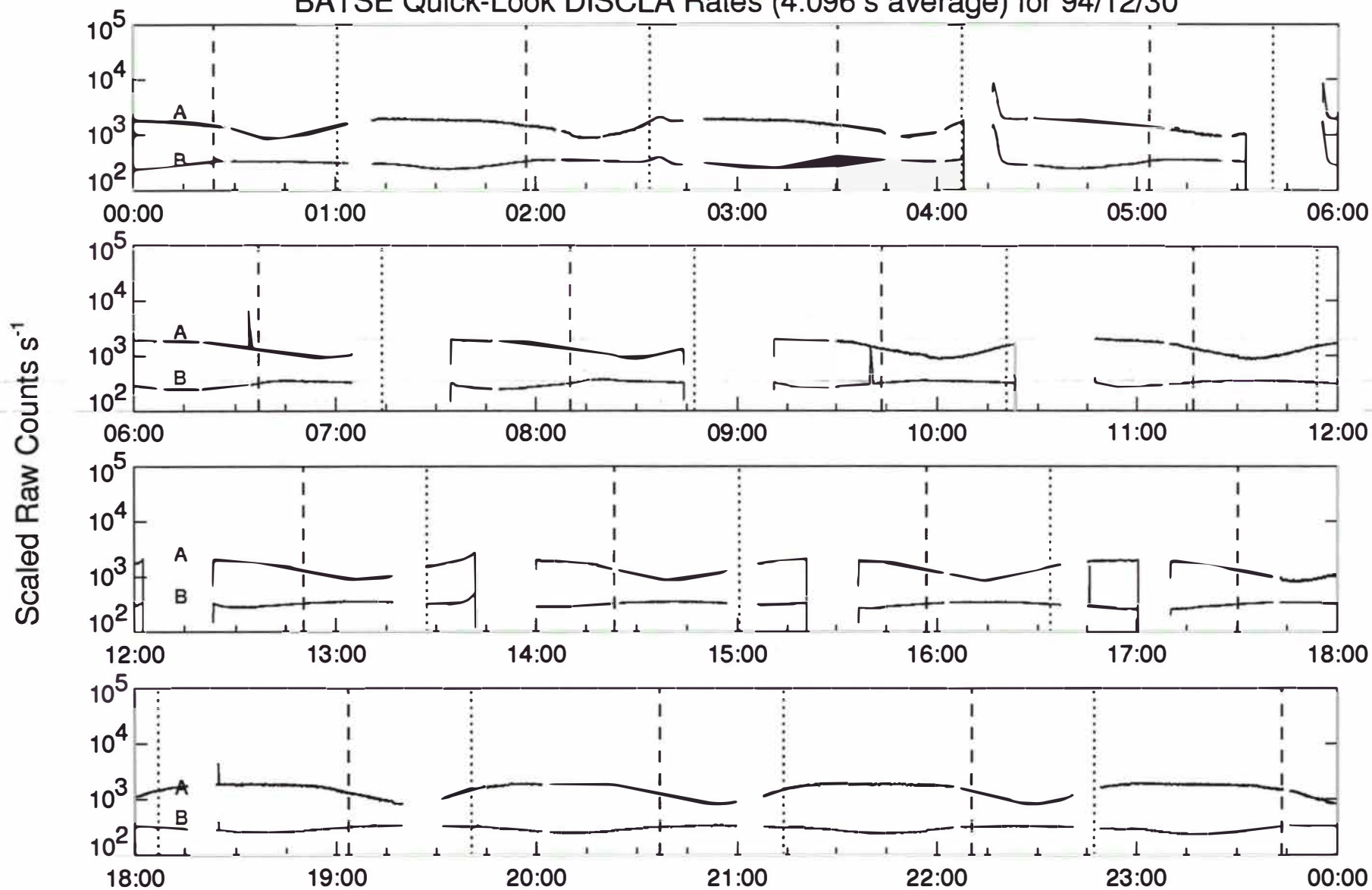
Data Start: 94/12/30, 0000:00

Plot created: 95/01/05, 1737

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 94/12/30

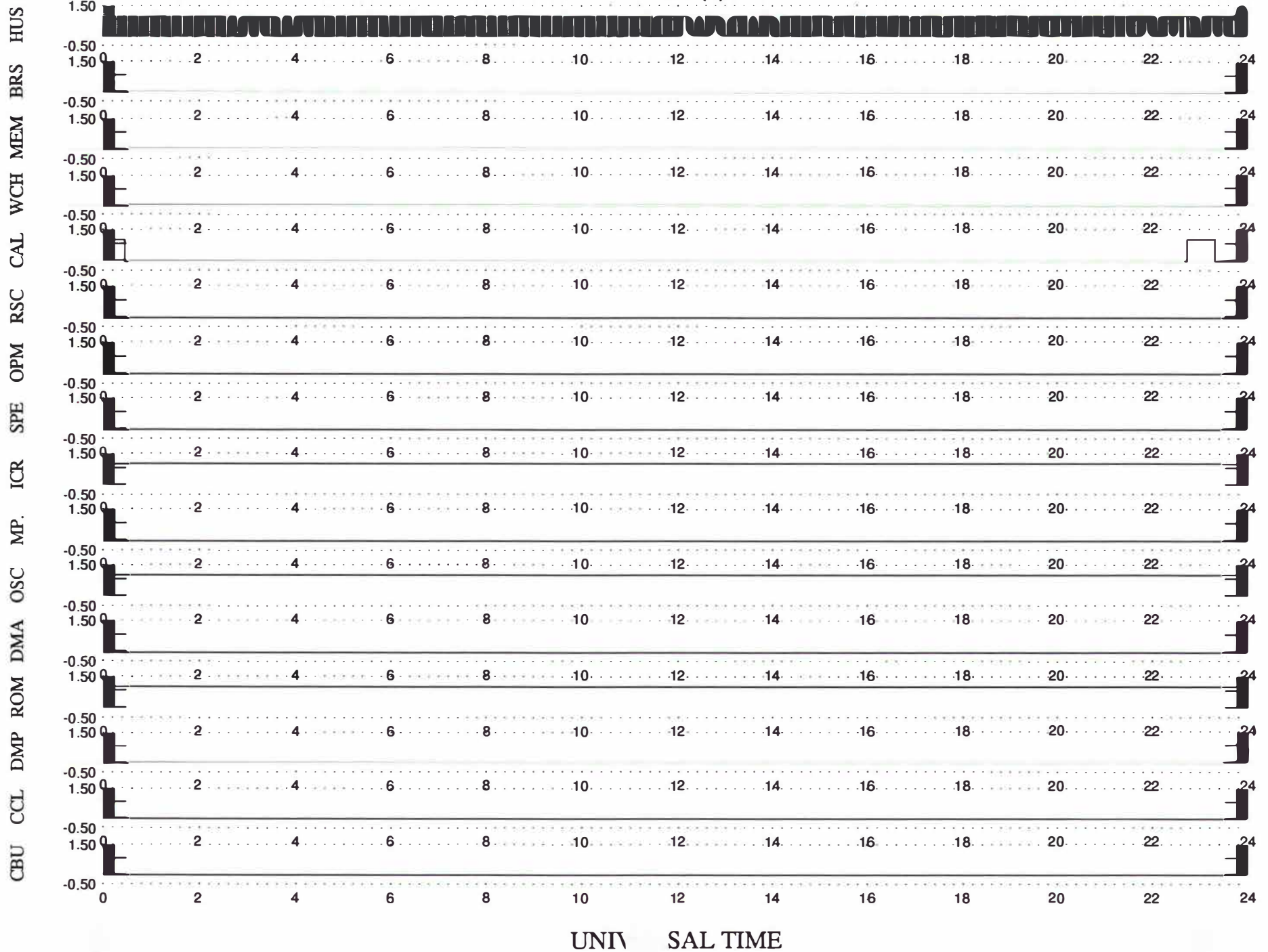


Current Time: 95/01/05, 1738 EDT
A: Channel 0 Most Sunward LAD
B: Sum Channel 0 Anti-Sunward LADs X .05

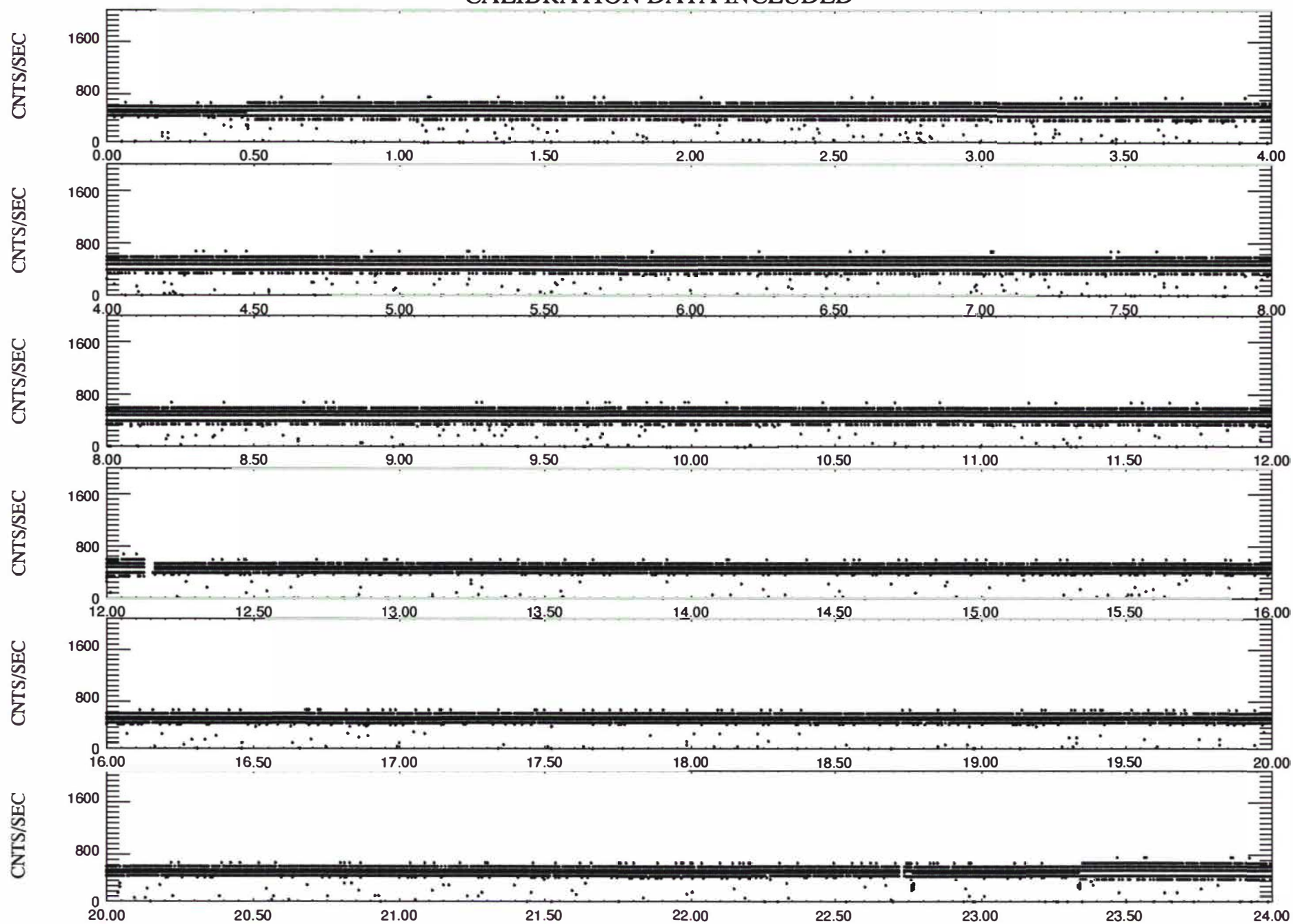
Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

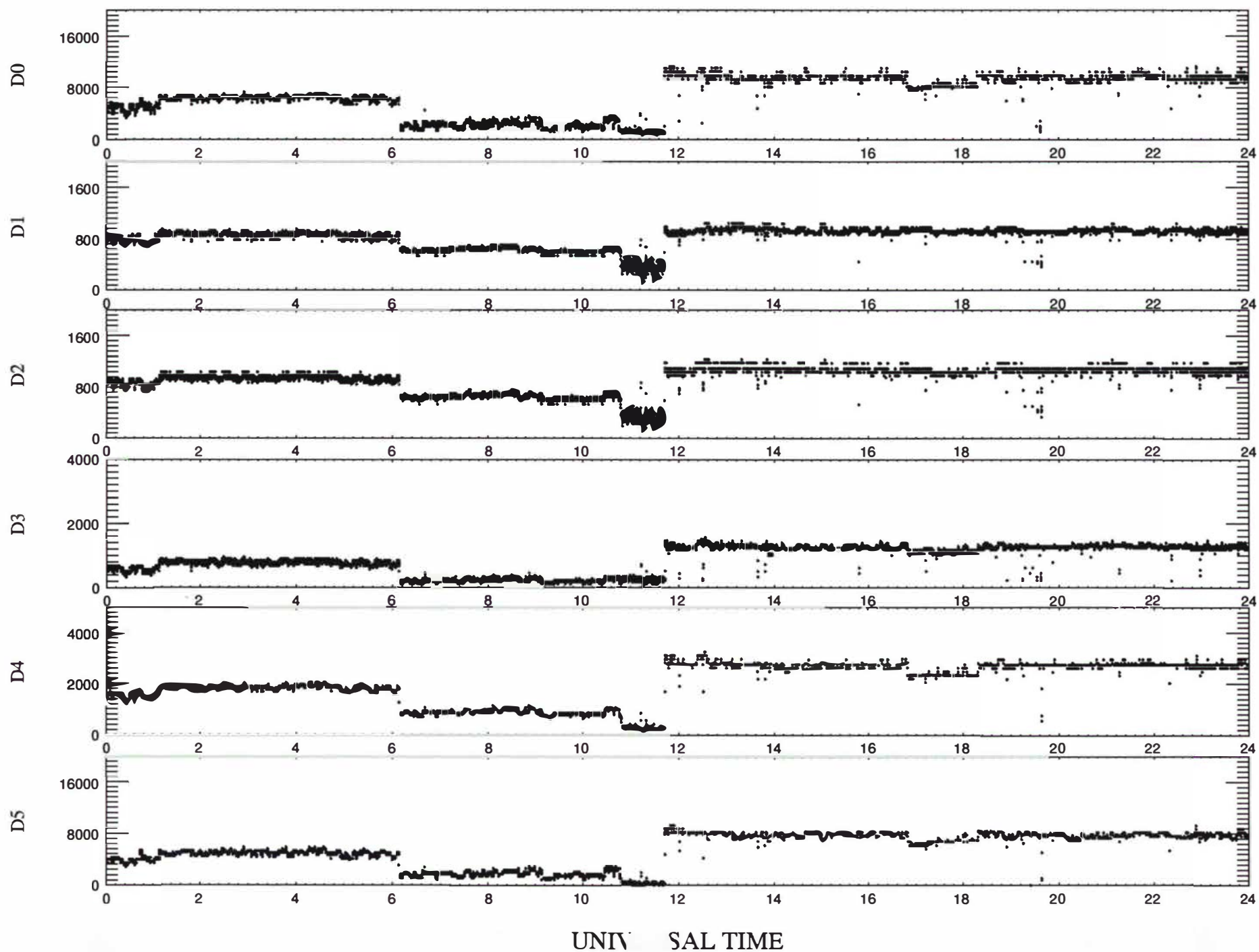
NO BURST (9)

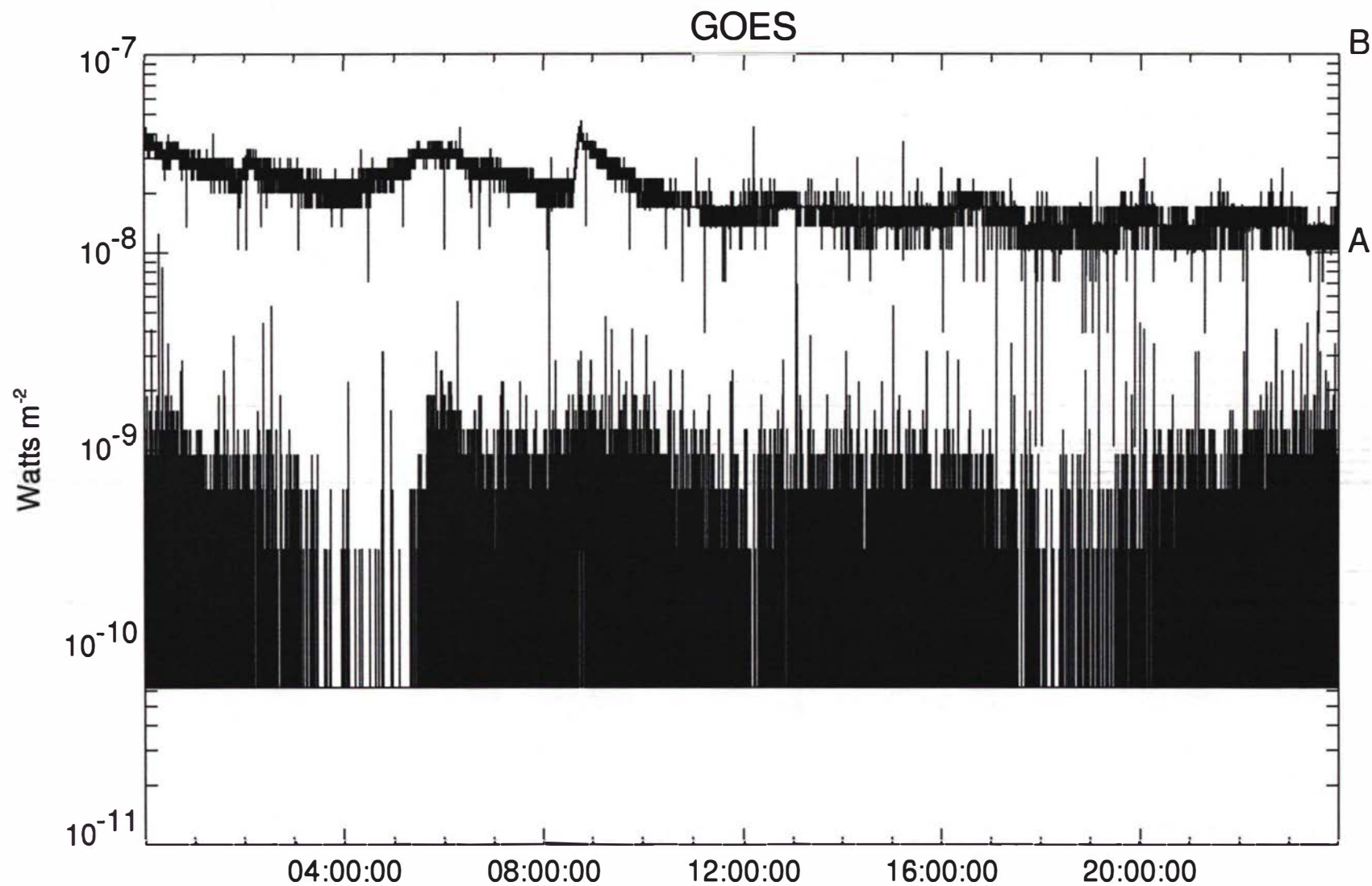


CALIBRATION DATA INCLUDED



UNIV SAL TIME





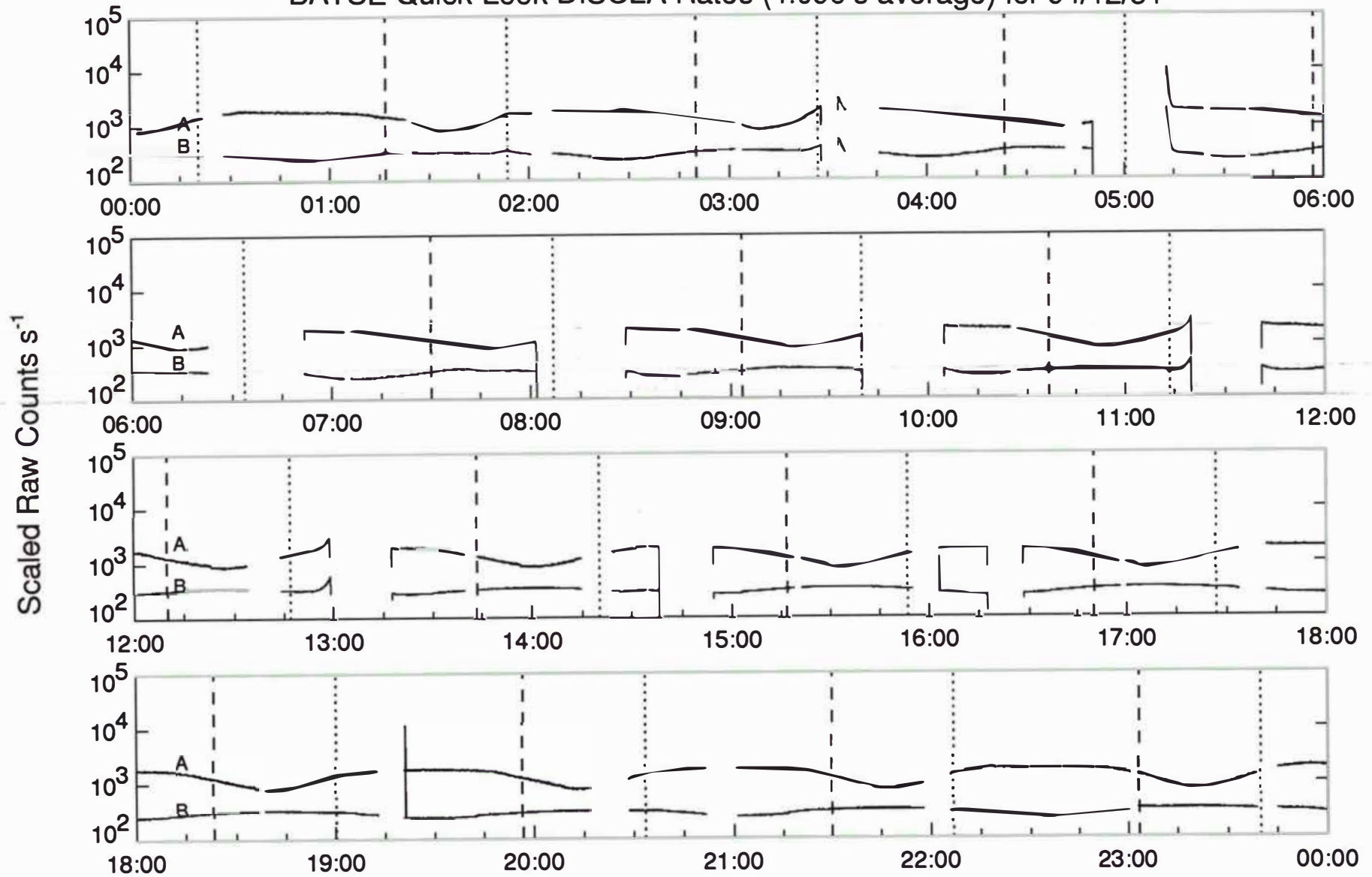
Data Start: 94/12/31, 0000:01

Plot created: 95/01/05, 1741

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 94/12/31

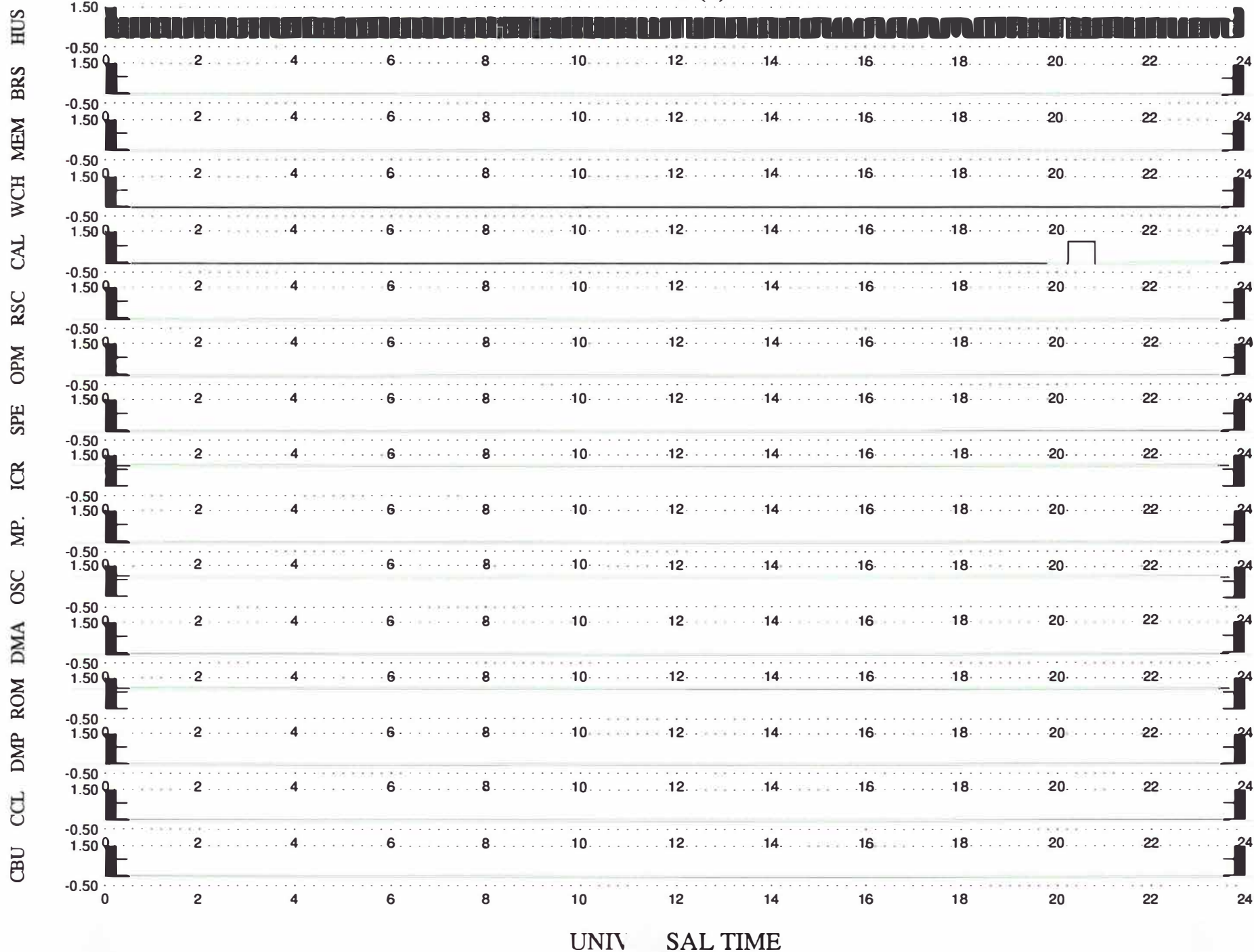


Current Time: 95/01/05, 1741 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

NO BURST (9)



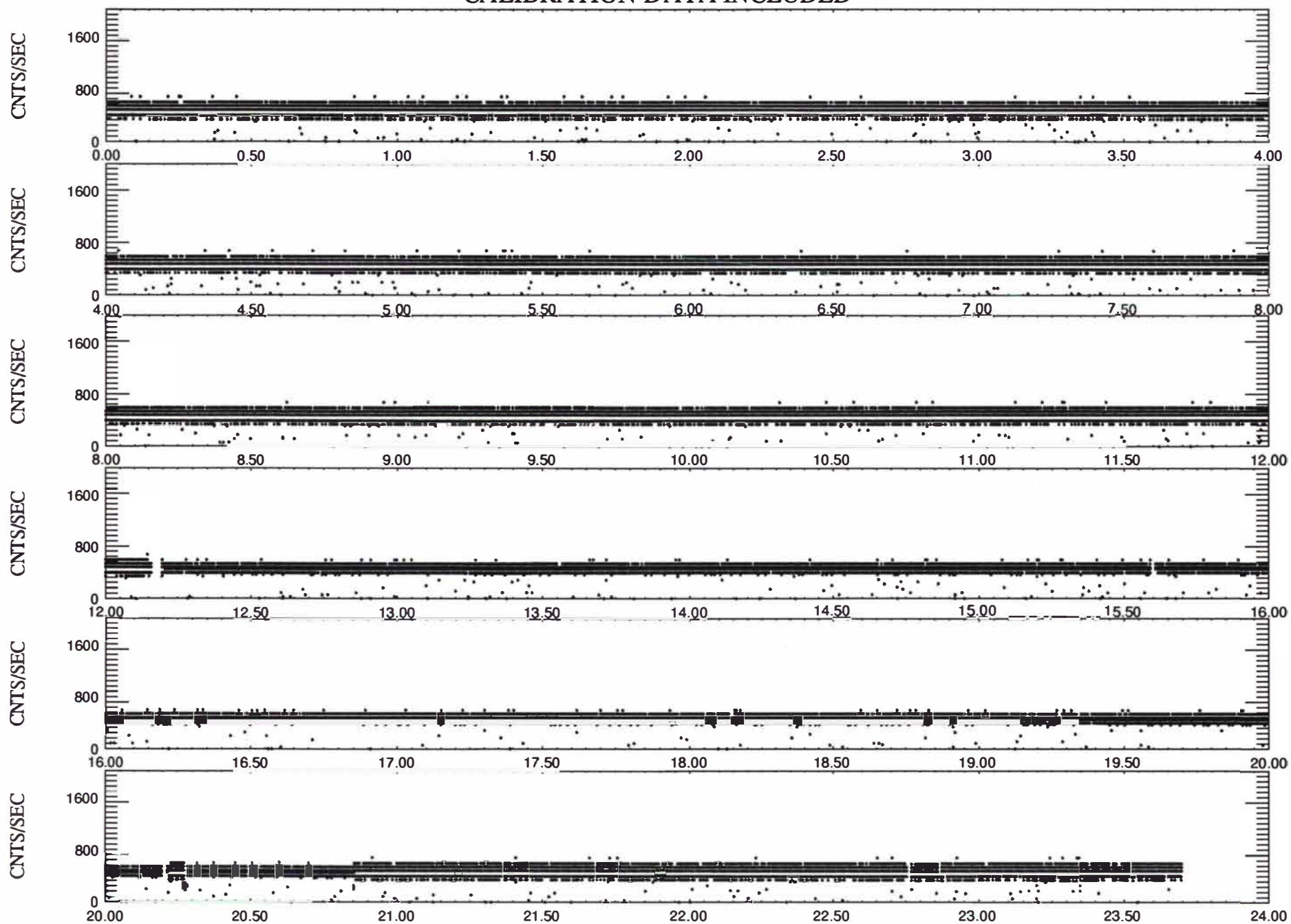
1000

1000

1000

1000

CALIBRATION DATA INCLUDED



UNIV SAL TIME

1000000

1000000

1000000

1000000

1000000

1000000

1000000

1000000

1000000

