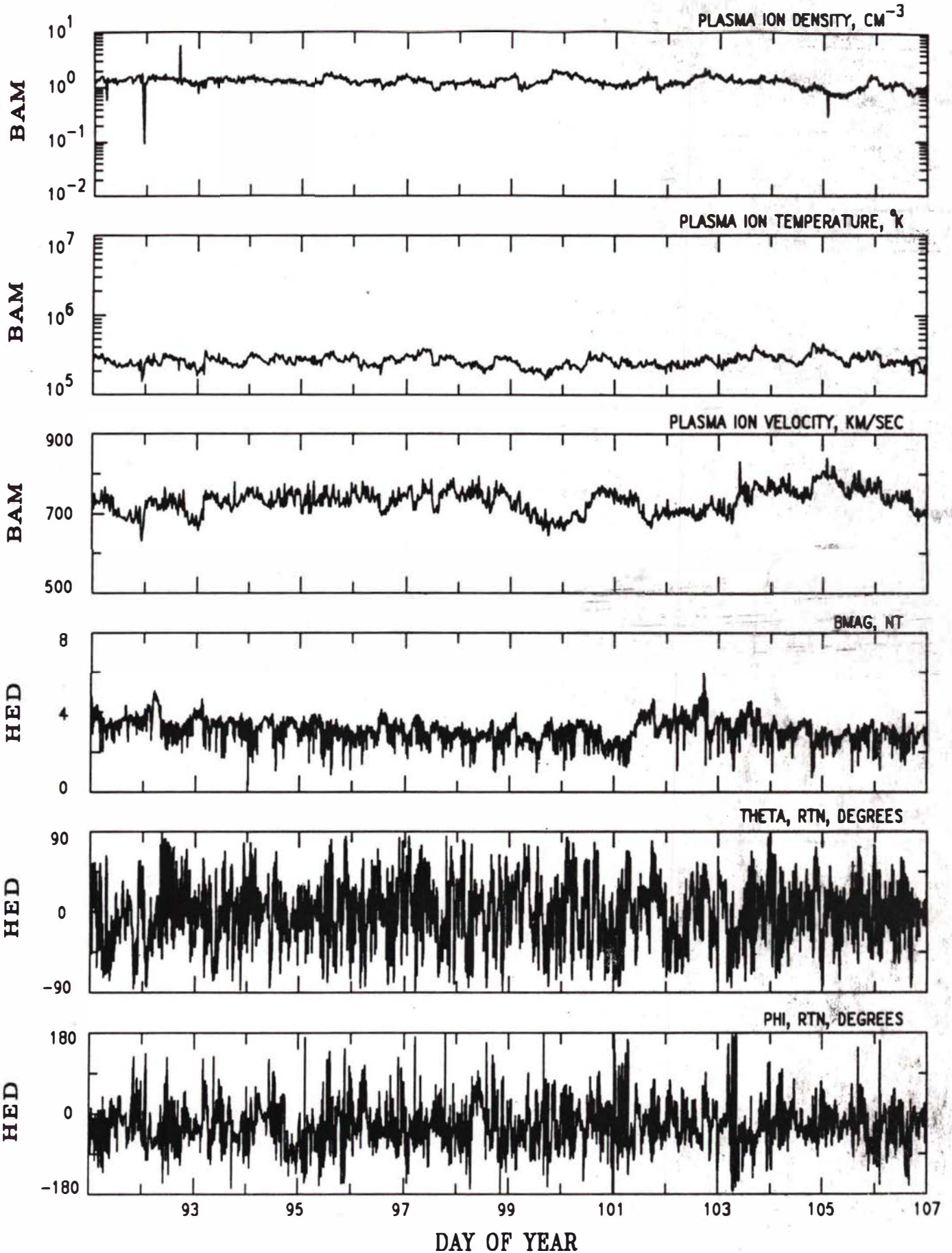


ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

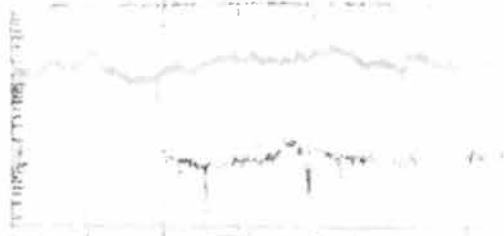
95 091 APR 1 00:00:00.000 - 95 107 APR 17 00:00:00.000



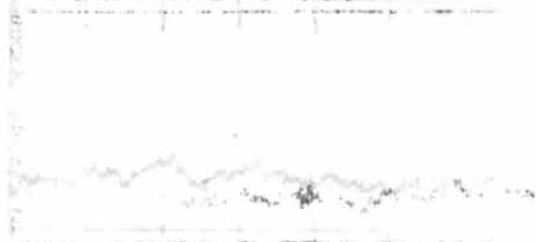
Page 2 of 2

00000000

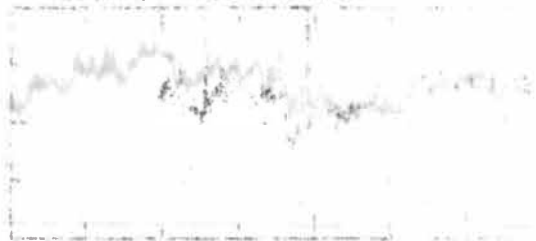
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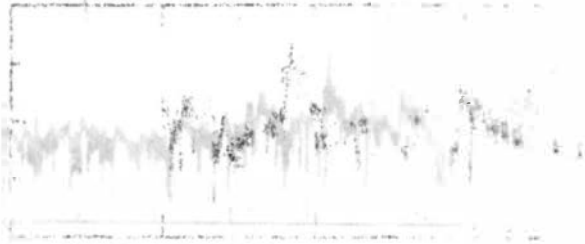
00000000 00000000



00000000 00000000



TH. GAVE



00000000 00000000

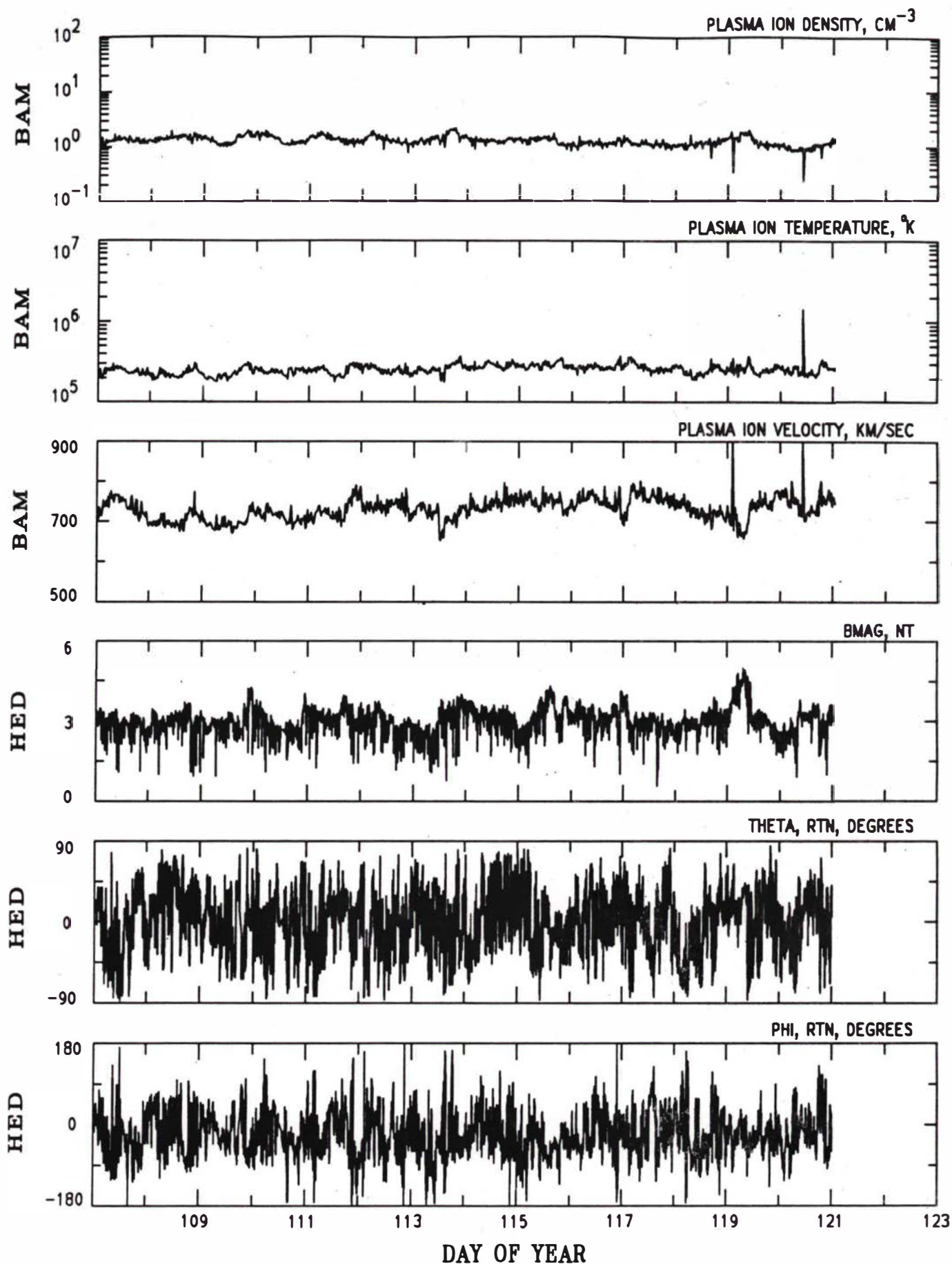


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ULYSSES CDR - SOLAR WIND PLASMA AND MAGNETIC FIELD

95 107 APR 17 00:00:00.000 - 95 123 MAY 3 00:00:00.000



1997, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

0.0220

THE PROPOSED

Year	Percentage
1950	7
1955	8
1960	9
1965	10
1970	11
1975	12
1980	13
1985	14
1990	15
1995	15.5
2000	16
2005	16.5
2010	16.5
2015	16.5
2020	16

NEW YORK, N.Y. (AP) —

2188

Figure 1 illustrates the experimental setup. A subject is seated at a table, viewing a video screen. A camera is positioned above the screen. A target is located on the screen. A horizontal line is drawn on the screen, representing the target position. The subject's hand is positioned at the starting point. The distance between the starting point and the target is labeled as 'Distance'. The distance between the starting point and the video screen is labeled as 'Distance to screen'. The distance between the video screen and the target is labeled as 'Distance to target'.

03222TH000 ASM F - B1

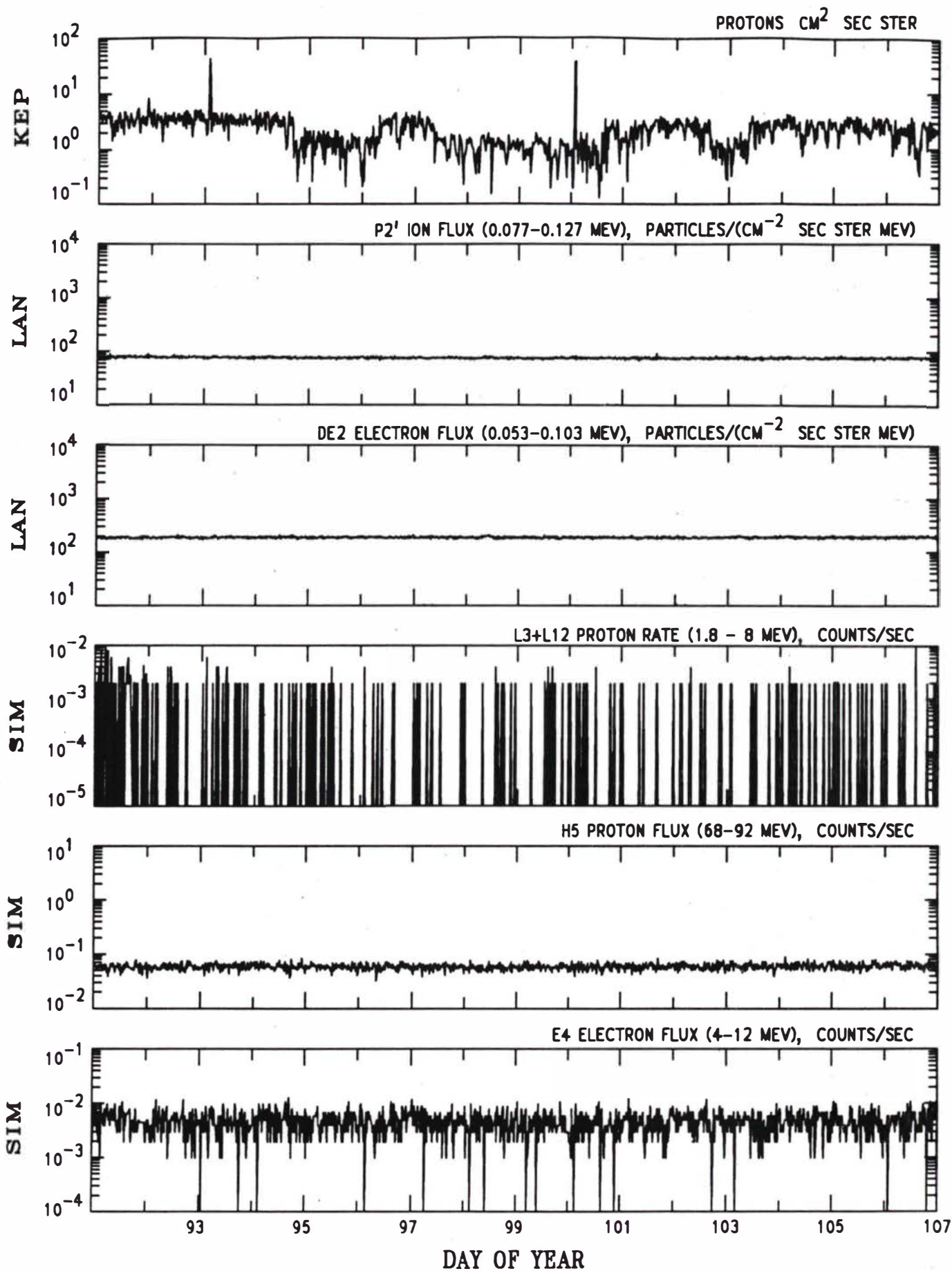
1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

032187XU-100 (10-82) 30

030' 2" N. 0.4

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

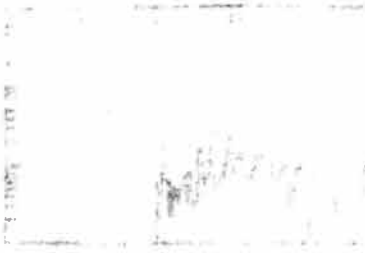
95 091 APR 1 00:00:00.000 - 95 107 APR 17 00:00:00.000



NO. 10 PCD OFA 8003

10000

10000



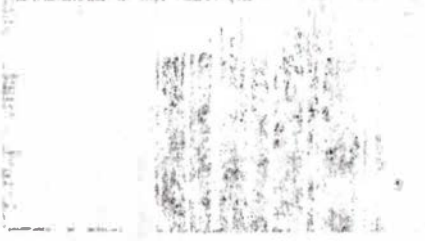
LOW STATE 10



10000



10000



10000

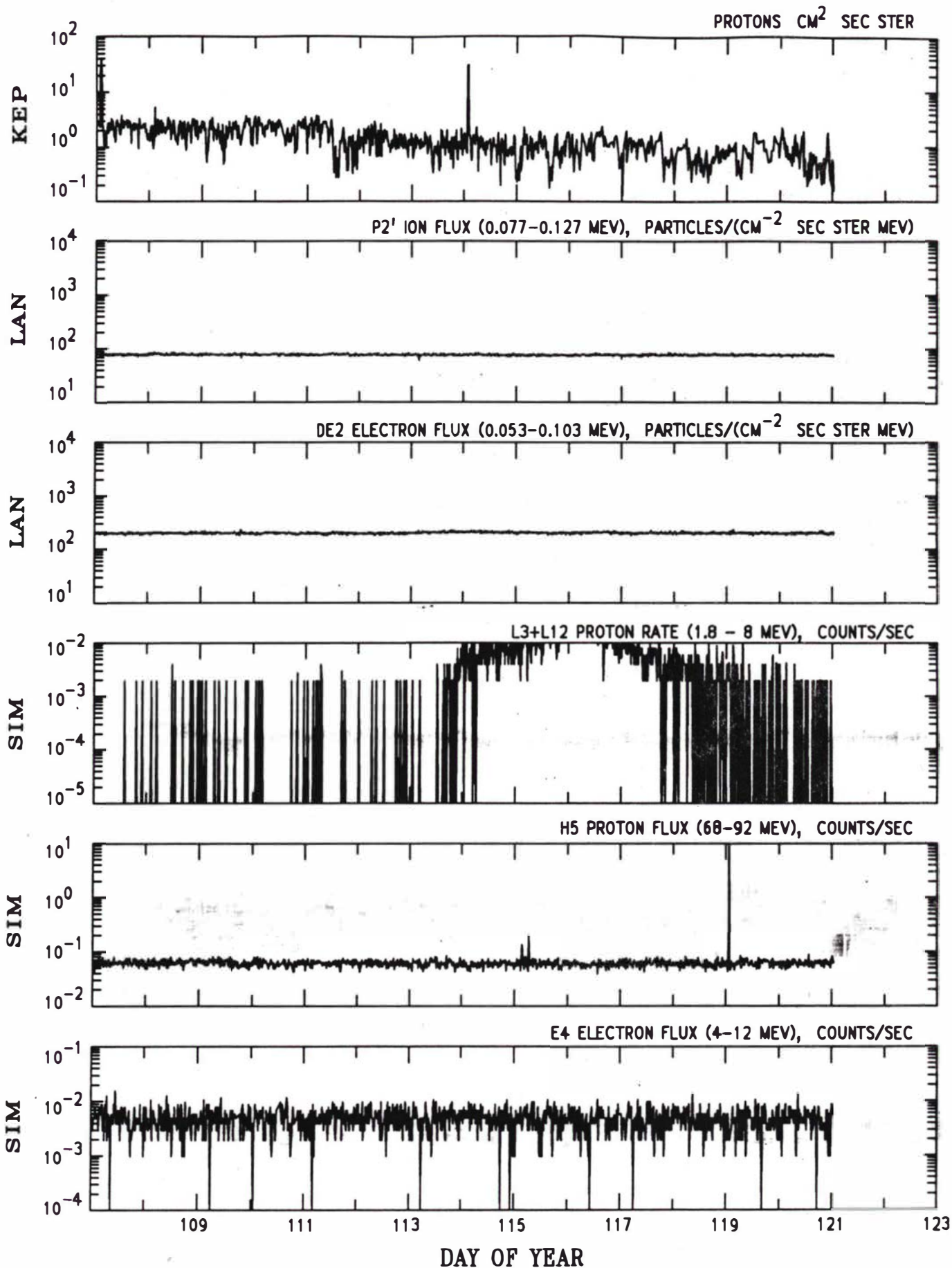


10000



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

95 107 APR 17 00:00:00.000 - 95 123 MAY 3 00:00:00.000



1. The first part of the report is a general description of the project and its objectives. It includes a brief history of the project and a statement of the problem to be solved.

2. The second part of the report is a detailed description of the methodology used in the study. It includes a description of the data collection methods and the statistical analysis techniques used.

3. The third part of the report is a description of the results of the study. It includes a summary of the findings and a discussion of the implications of the results.

4. The fourth part of the report is a conclusion and a list of references. The conclusion summarizes the main findings of the study and the references list the sources of information used in the study.

5. The fifth part of the report is a list of appendices. These appendices contain additional information that is not included in the main body of the report.

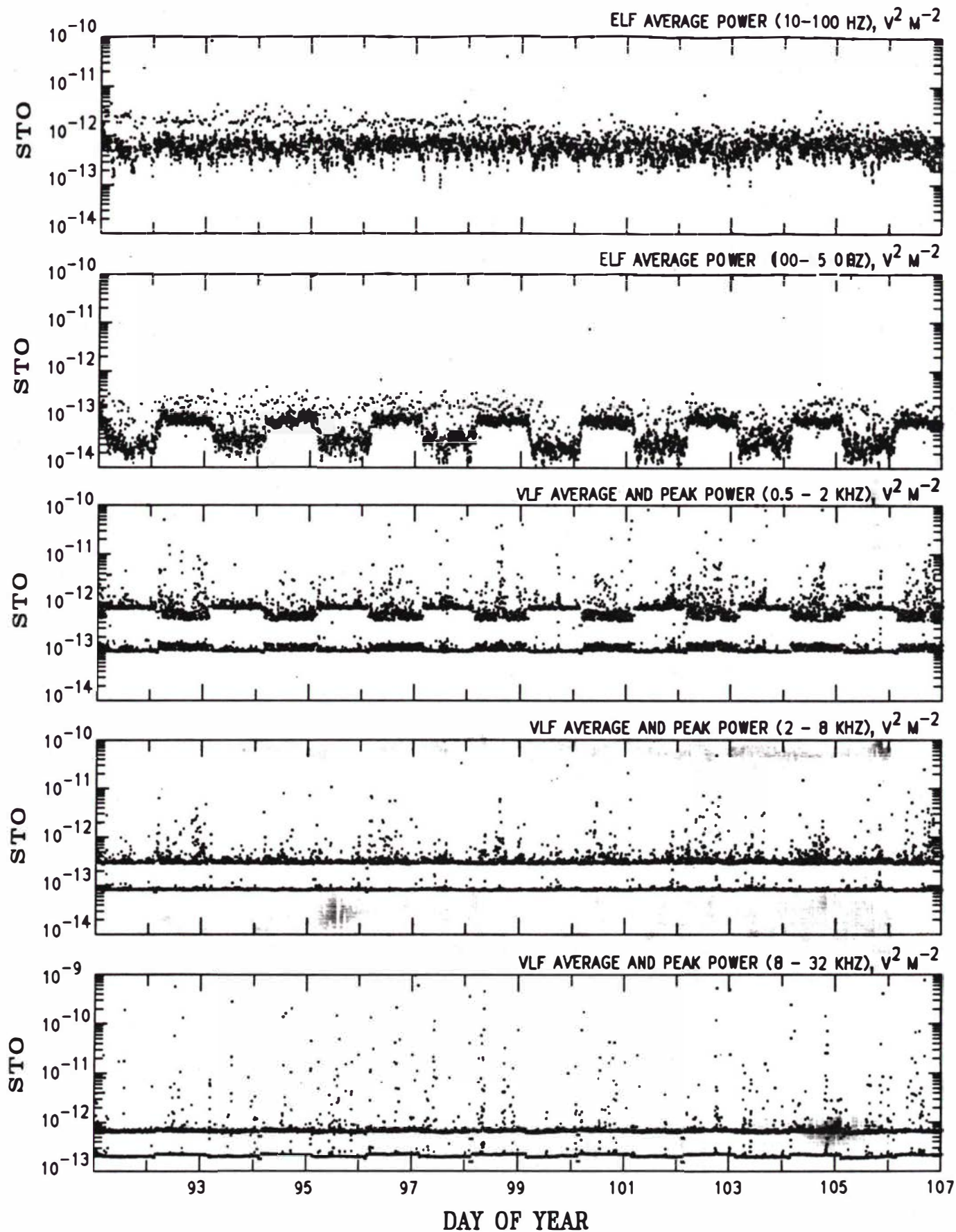
6. The sixth part of the report is a list of figures and tables. These figures and tables provide a visual representation of the data and the results of the study.

7. The seventh part of the report is a list of footnotes. These footnotes provide additional information about the sources of information used in the study.

8. The eighth part of the report is a list of keywords. These keywords are used to describe the main topics of the study.

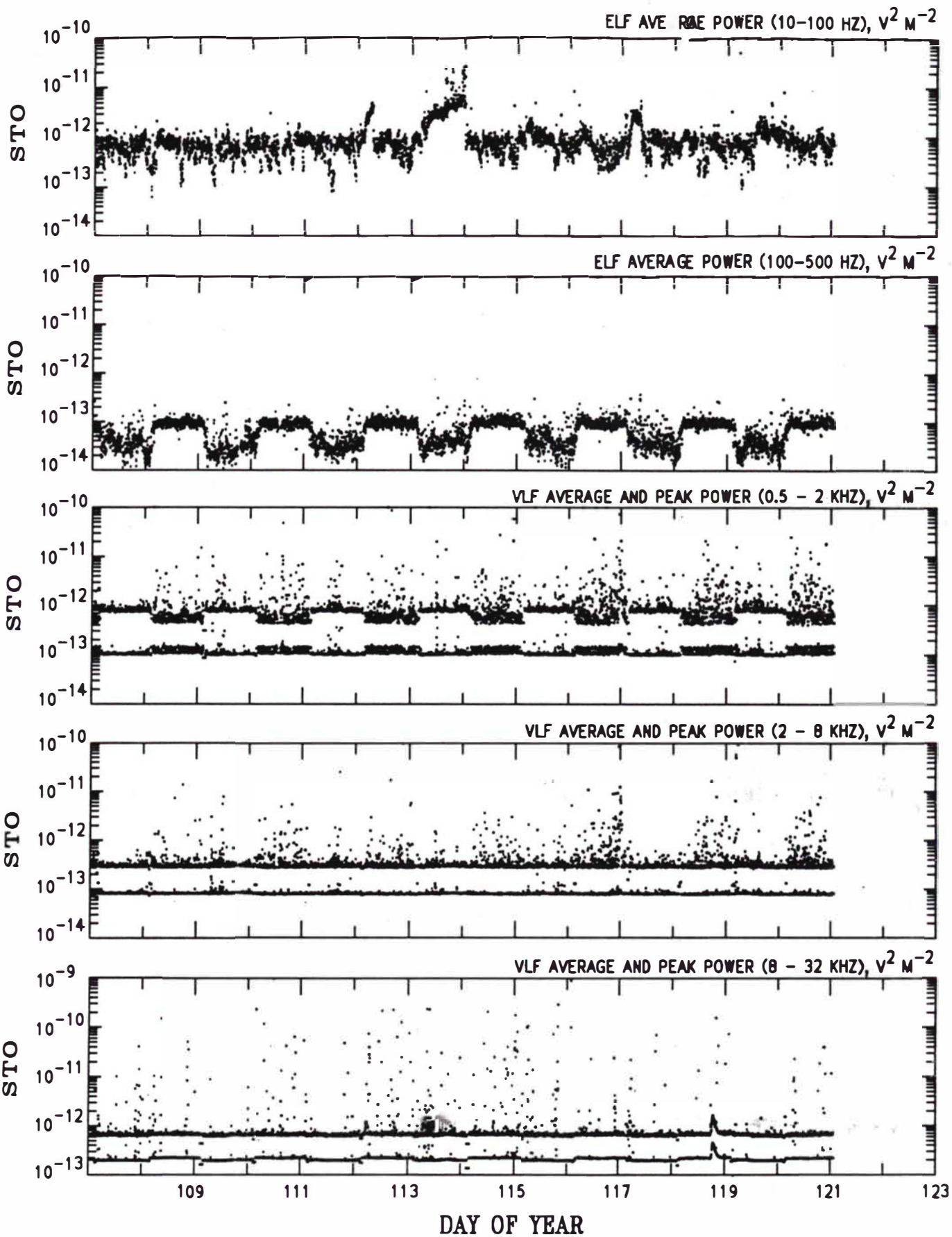
ULYSSES CDR - PLASMA WAVE

95 091 APR 1 00:00:00.000 - 95 107 APR 17 00:00:00.000



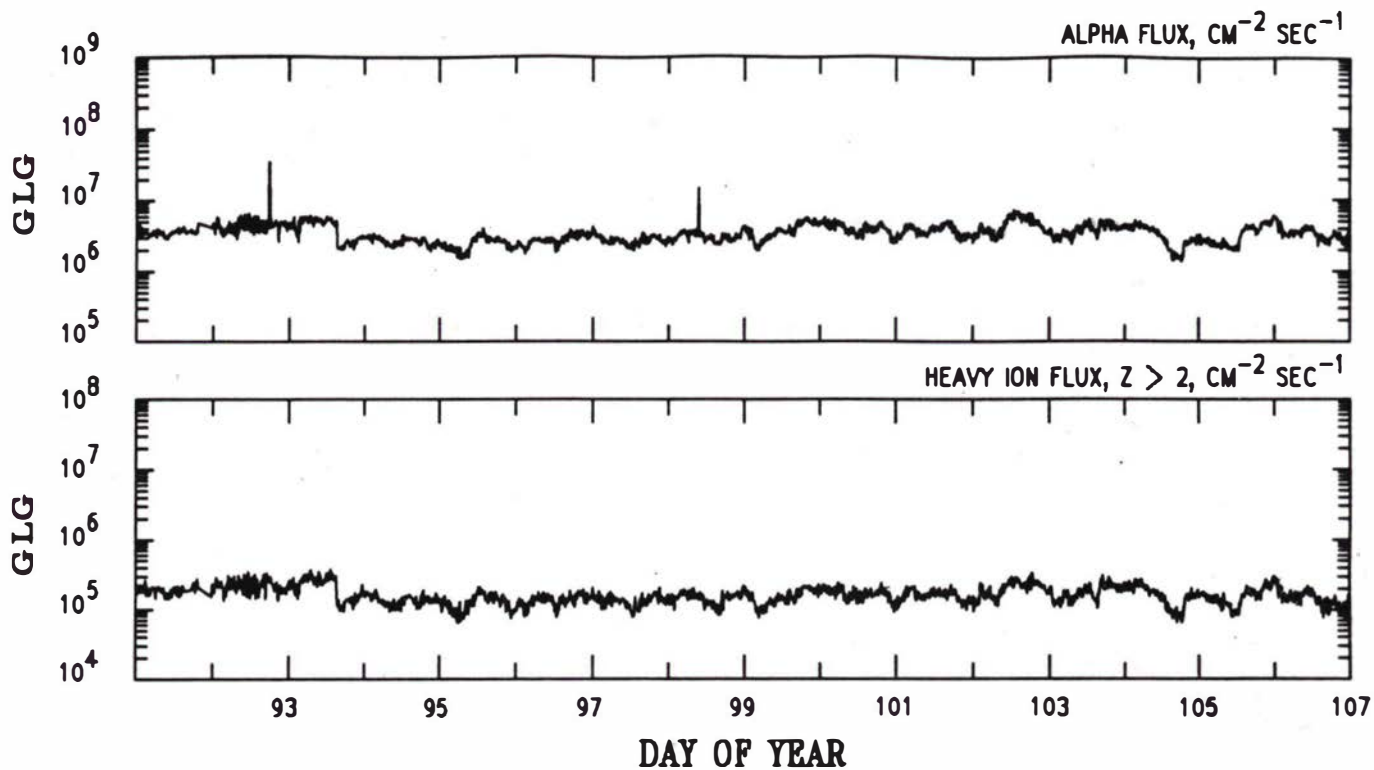
ULYSSES CDR - PLASMA WAVE

95 107 APR 17 00:00:00.000 - 95 123 MAY 3 00:00:00.000



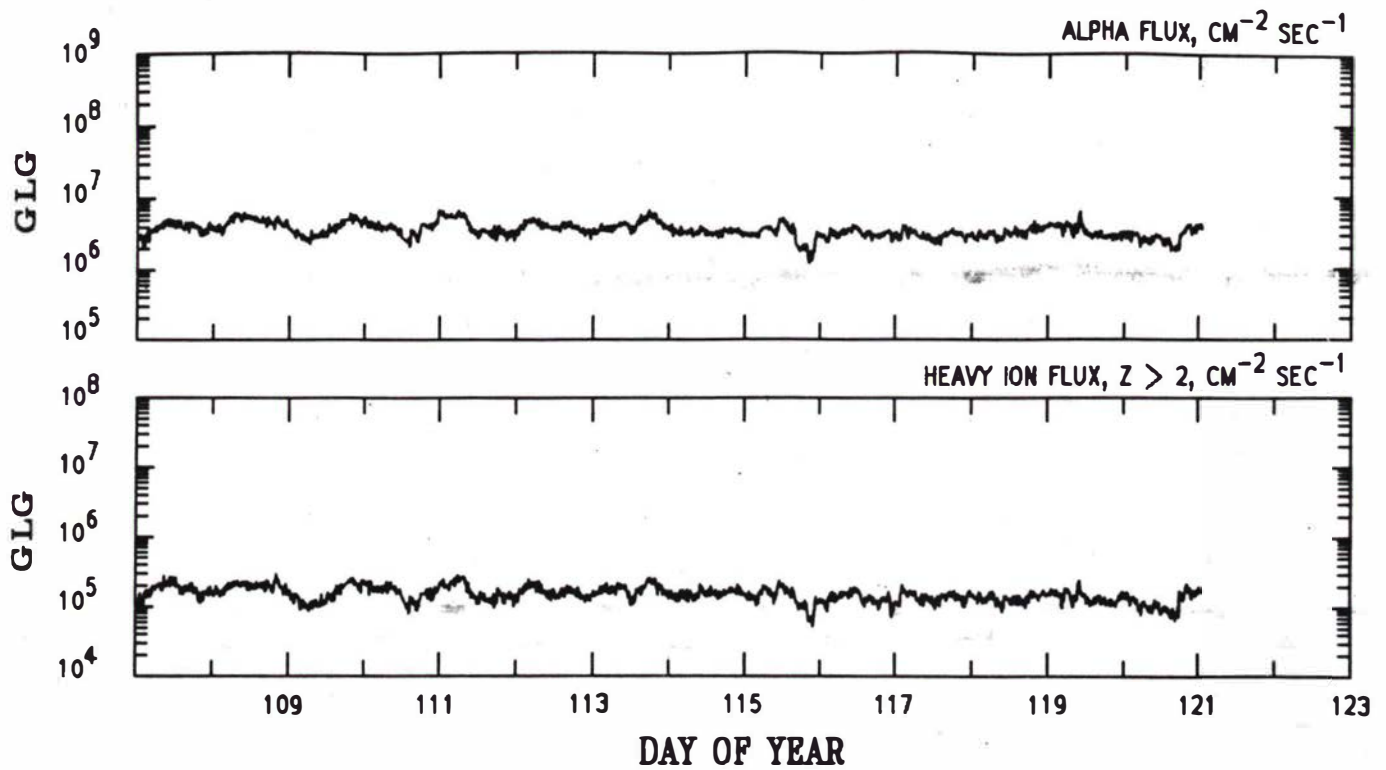
ULYSSES CDR - SOLAR WIND ION COMPOSITION

95 091 APR 1 00:00:00.000 - 95 107 APR 17 00:00:00.000



ULYSSES CDR - SOLAR WIND ION COMPOSITION

95 107 APR 17 00:00:00.000 - 95 123 MAY 3 00:00:00.000



From HAGEDON@fender.msfc.nasa.gov Mon Apr 3 09:42 PDT 1995
Date: Mon, 3 Apr 1995 11:42:38 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3488

BATSEARCH PROGRAM

BATSE BURST # 3488
EVENT OF 1995 APR 1 DAY OF YEAR= 91
EVENT CROSSING TIME AT BATSE : 42642. S. OR 11:50:42.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 198.000 57.000
BATSE PEAK COUNTING RATE: 27000 C/S

RI

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 4/ 95 IS:
RA= 350.483 DEC= 5.355 DIST= 2.261 AU
BATSE-ULYSSES DISTANCE = 338262316. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 66.26 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 454.32 SECS.
CROSSING TIME AT ULYSSES IS 43096. S. OR 11:58:16 +/- 236.21 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 4/ 95 IS:
RA= 136.891 DEC= 19.773 DIST= 0.897 AU
MARS-BATSE DISTANCE = 134244320. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=122.10 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -237.93 SECS.
CROSSING TIME AT MARS IS 42404. S. OR 11:46:44 +/- 62.25 SECONDS

BATSE BURST TRIGGER

NO.: 3488

TIME: TJD=9808 SECONDS=42642

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=108 AZIMUTH=105 ERROR= DEGREES

COMMENTS:

BURST. DOUBLE PEAK, FIRST WITH SUBSTRUCTURE. TOTAL DUR.~80 SEC.
FIRST PEAK VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3488	950401	9808	42642	27000	198	+57

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

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

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

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

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

Helio corr removed

Date: Feb 13 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

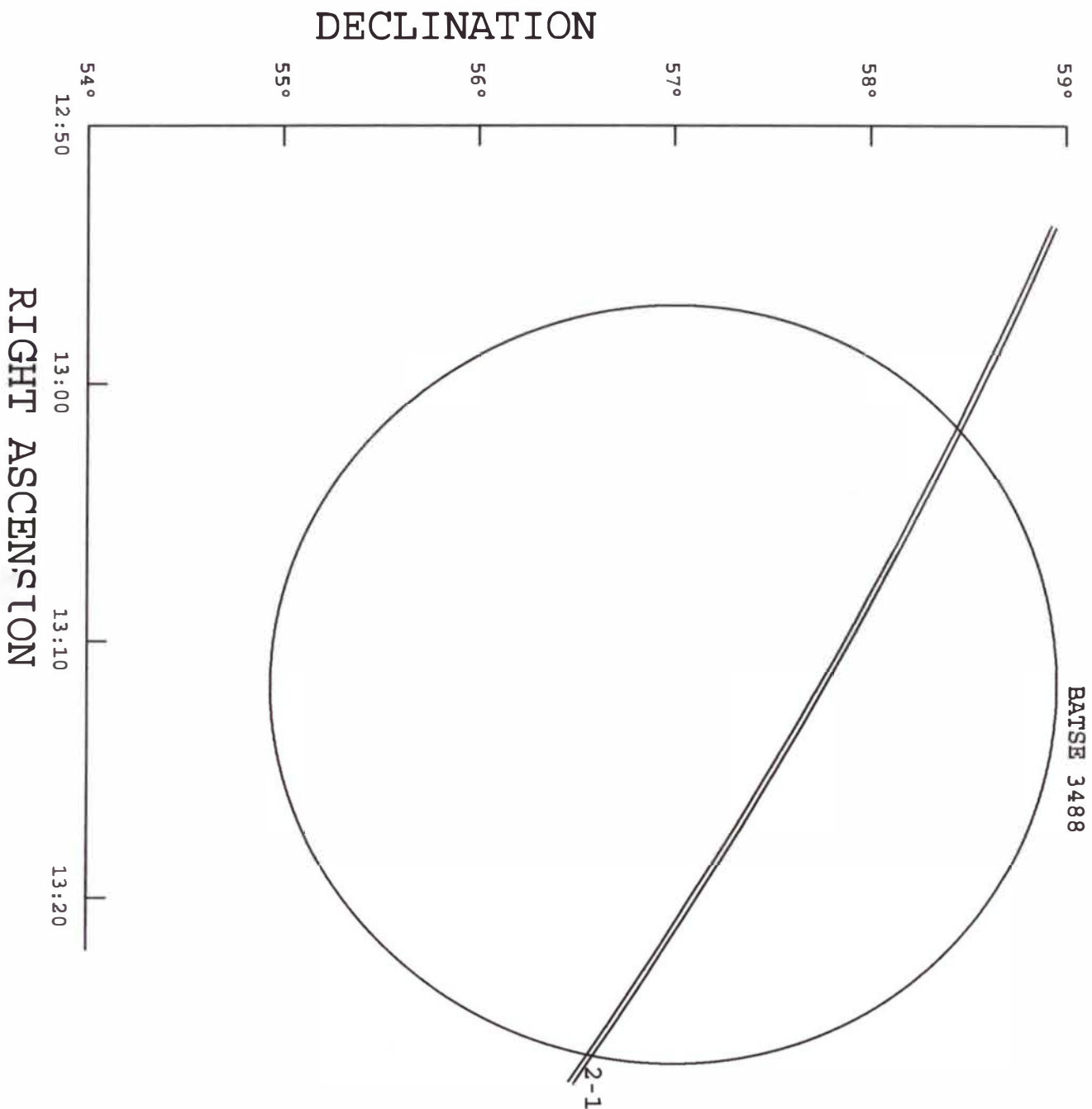
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF APR 1, 1995 11:57

13 / 2/98



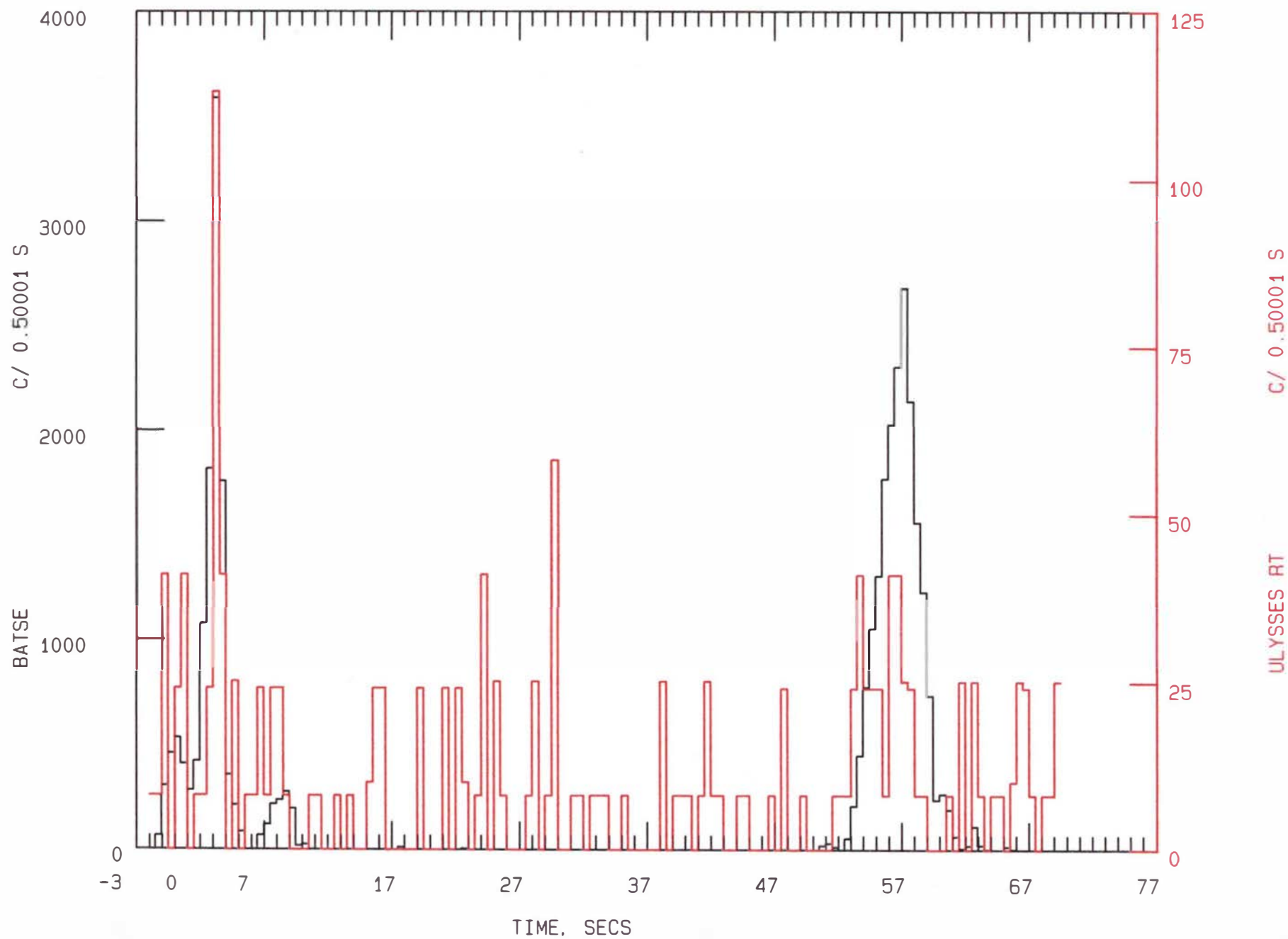
BATSE

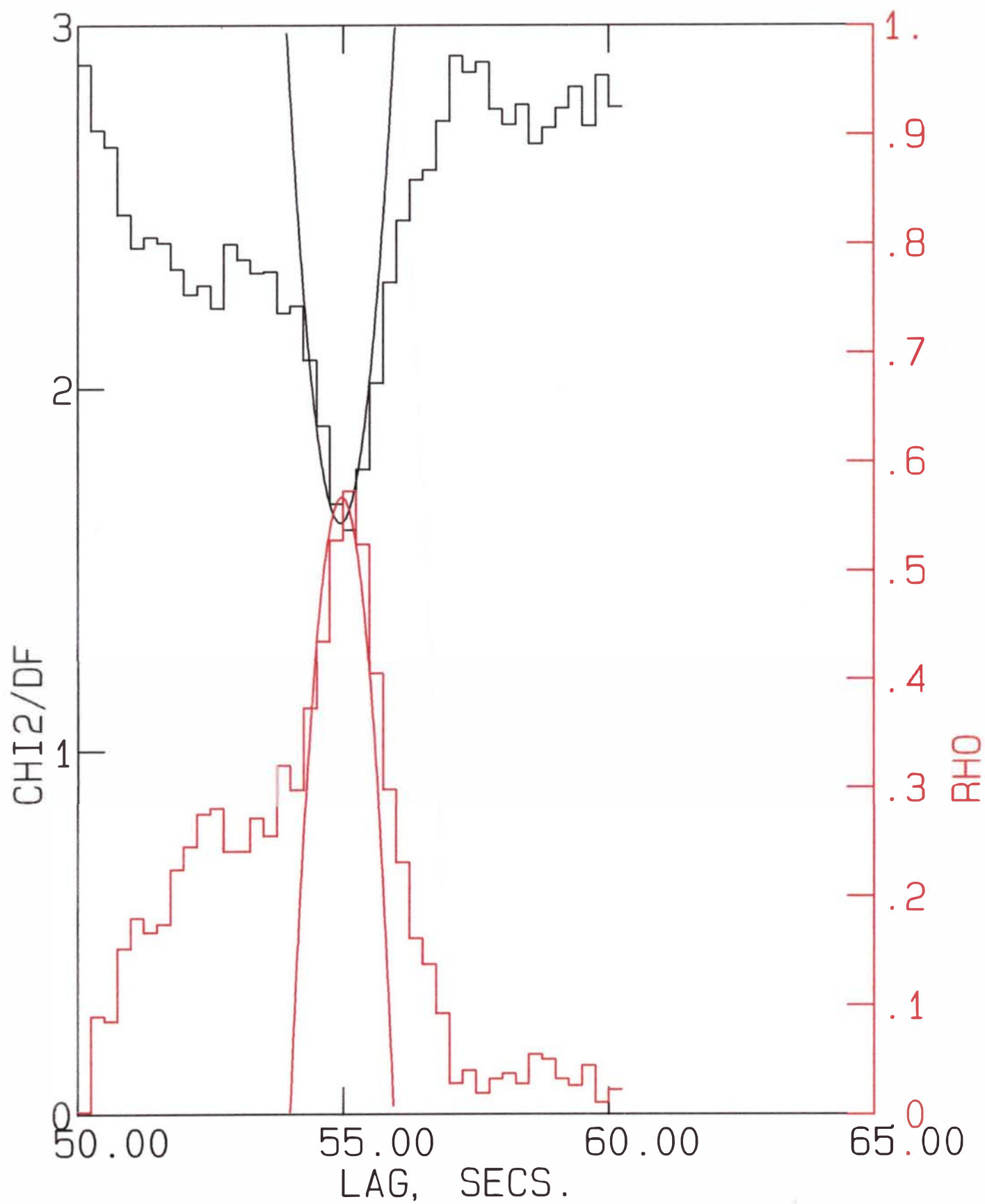
-ULYSSES RT CORRELATION

1/ 4/95

42642.354

13/ 2/98





ULYSSES RT

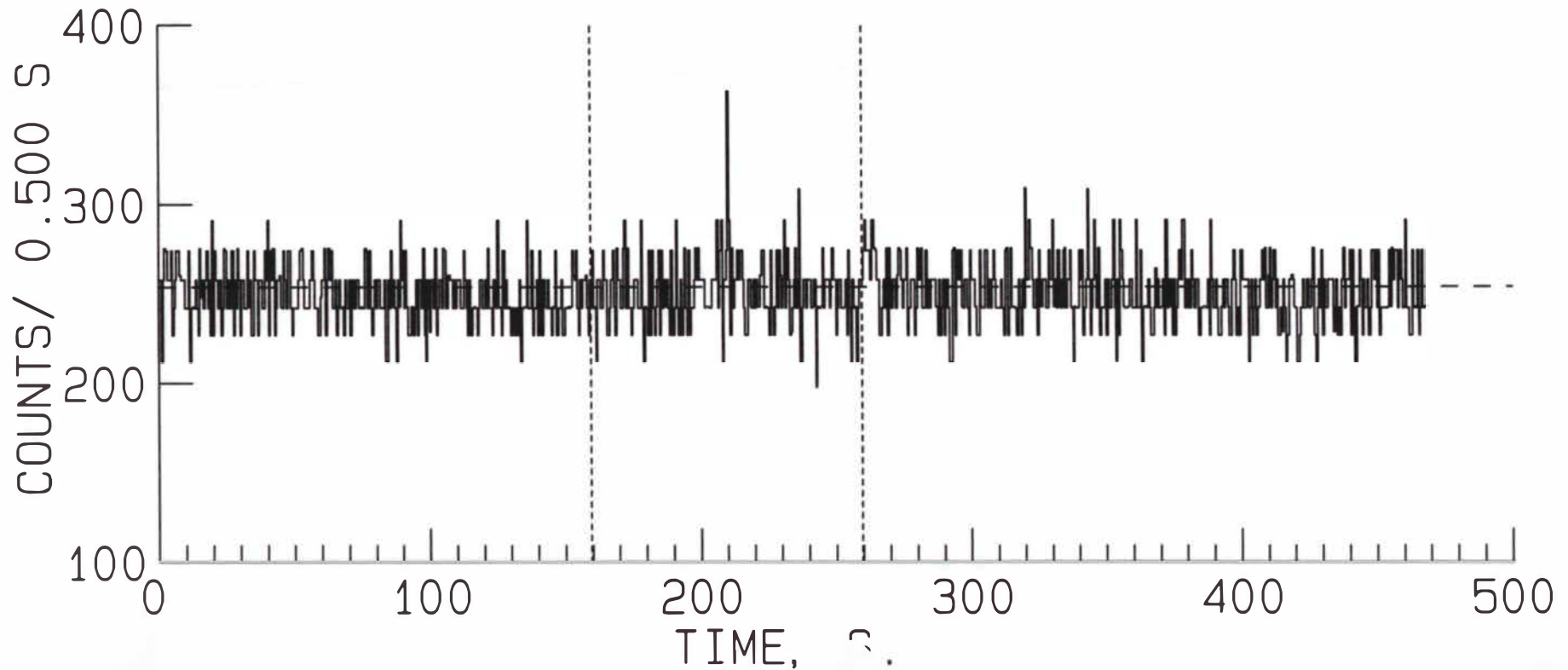
13 / 2 / 98

1 / 4 / 95 42876.196 s

0.250 S INTERVALS REGROUPED BY 2

21- 144 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



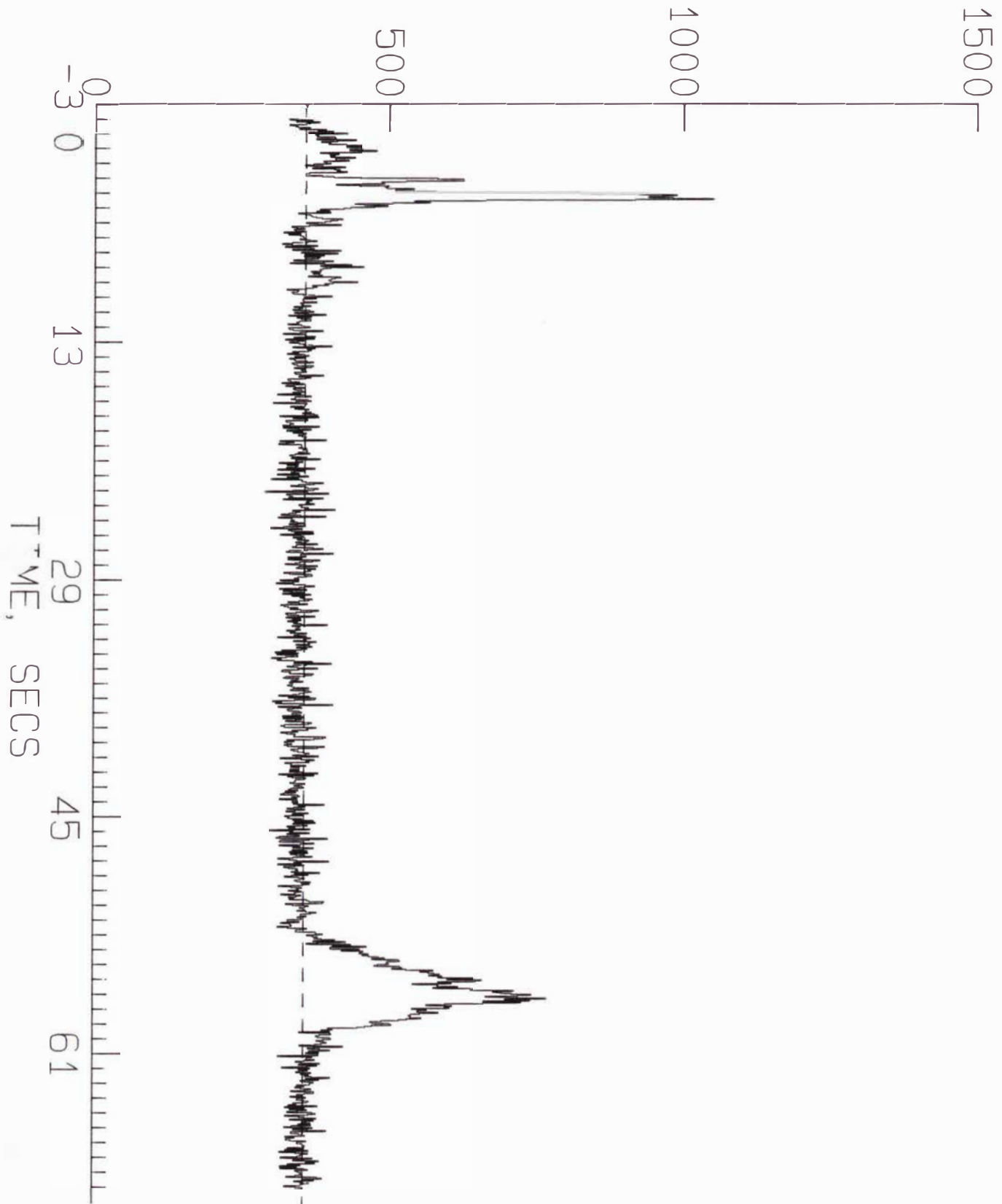
BATSE

01/04/95

42642.354

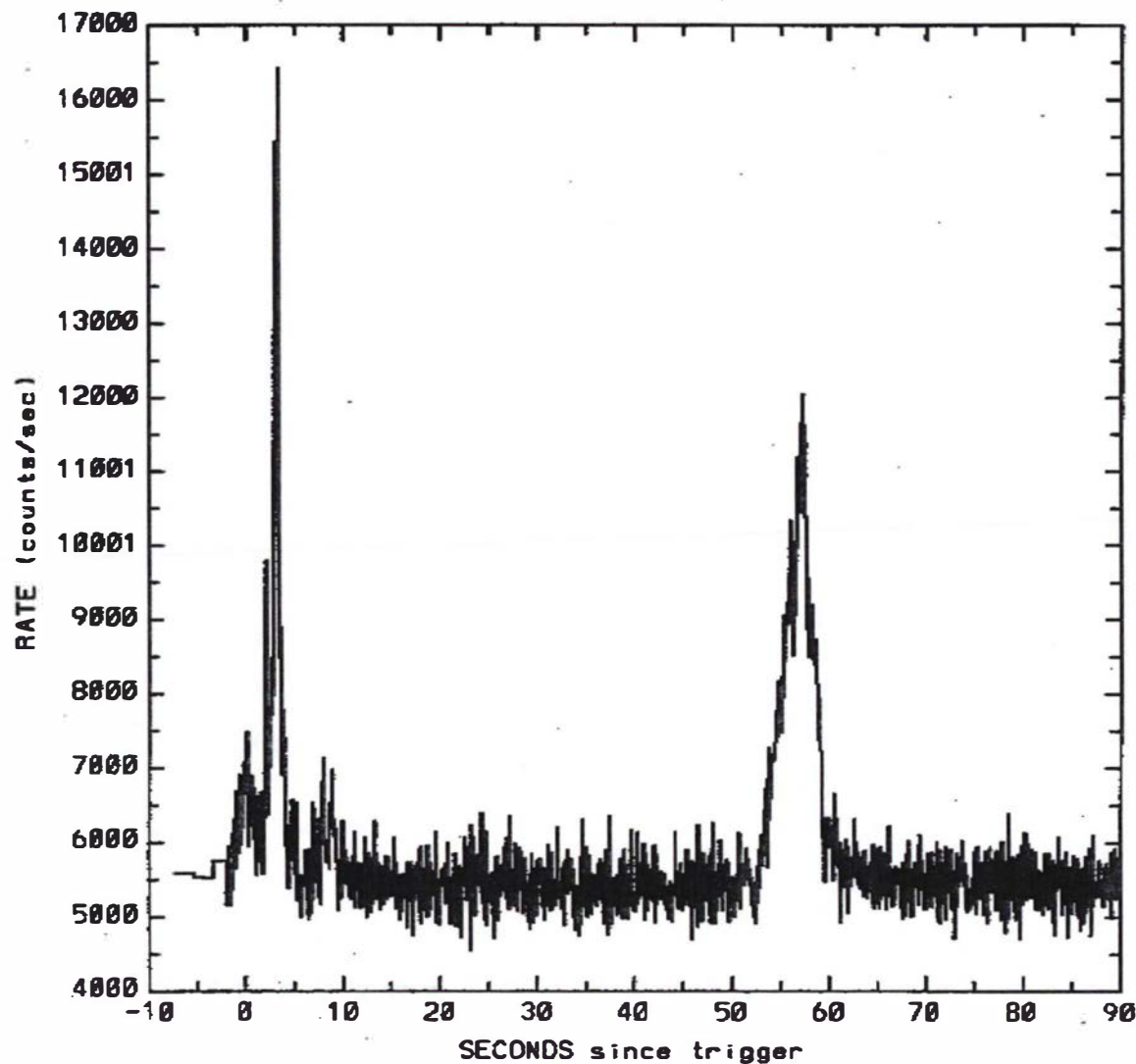
25- 100 keV

COUNTS/ .064 S



APR 1 A

DISCSC Data for K. Hurley, No. 3488



7-APR-1995 14:37:31

Created by MOPS BD
(Burst Display)
Version 12.24

Trigger = 3488

Trigger Time:
0888 / 42642.354Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.864 second(s)Detectors [7..8]:
--5--1-Discriminators:
[1. 2]Quality Mask:
BDISP1

From HAGEDON@fender.msfc.nasa.gov Mon Apr 3 09:45 PDT 1995
Date: Mon, 3 Apr 1995 11:45:42 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3489

BATSEARCH PROGRAM

BATSE BURST # 3489
EVENT OF 1995 APR 1 DAY OF YEAR= 91
EVENT CROSSING TIME AT BATSE : 74634. S. OR 20:43:54.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 86.000 44.000
BATSE PEAK COUNTING RATE: 18000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 1/ 4/ 95 IS:
RA= 350.591 DEC= 5.595 DIST= 2.260 AU
BATSE-ULYSSES DISTANCE = 338050059. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 90.01 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -0.27 SECS.
CROSSING TIME AT ULYSSES IS 74634. S. OR 20:43:53 +/- 245.77 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 1/ 4/ 95 IS:
RA= 136.891 DEC= 19.773 DIST= 0.897 AU
MARS-BATSE DISTANCE = 134244320. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=131.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -296.44 SECS.
CROSSING TIME AT MARS IS 74338. S. OR 20:38:57 +/- 53.77 SECONDS

BATSE BURST TRIGGER

NO.: 3489

TIME: TJD=9808 SECONDS=74634

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=172 AZIMUTH=127 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE WITH SUBSTRUCTURE. LOW-LEVEL EMISSION BEGINS AT
~T-35 SEC. TOTAL DUR.~70 SEC. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	sec	Max ct/s	RA	Dec
3489	950401	9808	74634	18000	086	+44

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

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

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

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

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

Helio corr removed
Date: Feb 13 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

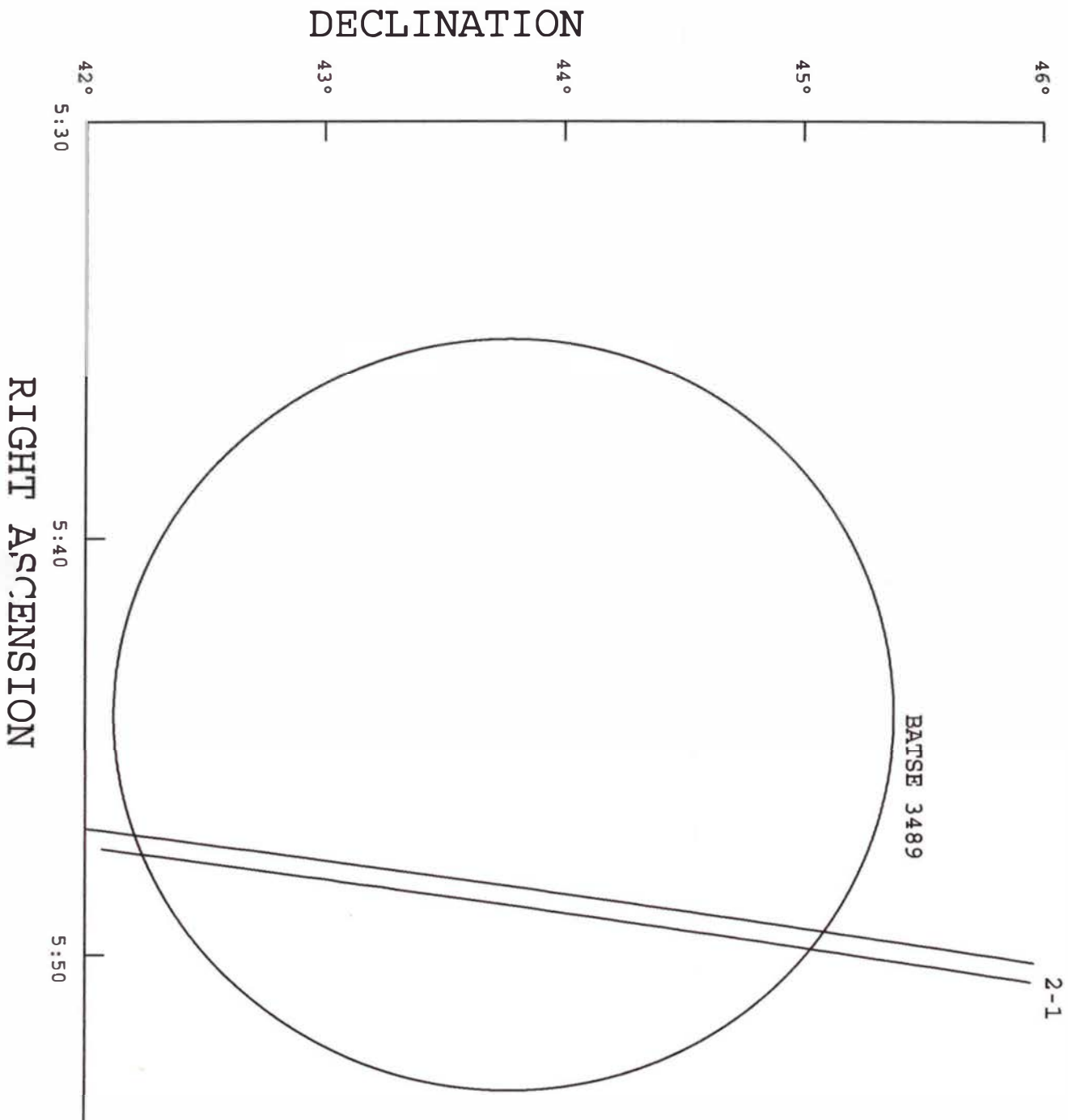
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF APR 1, 1995 20:43

13 / 2/98



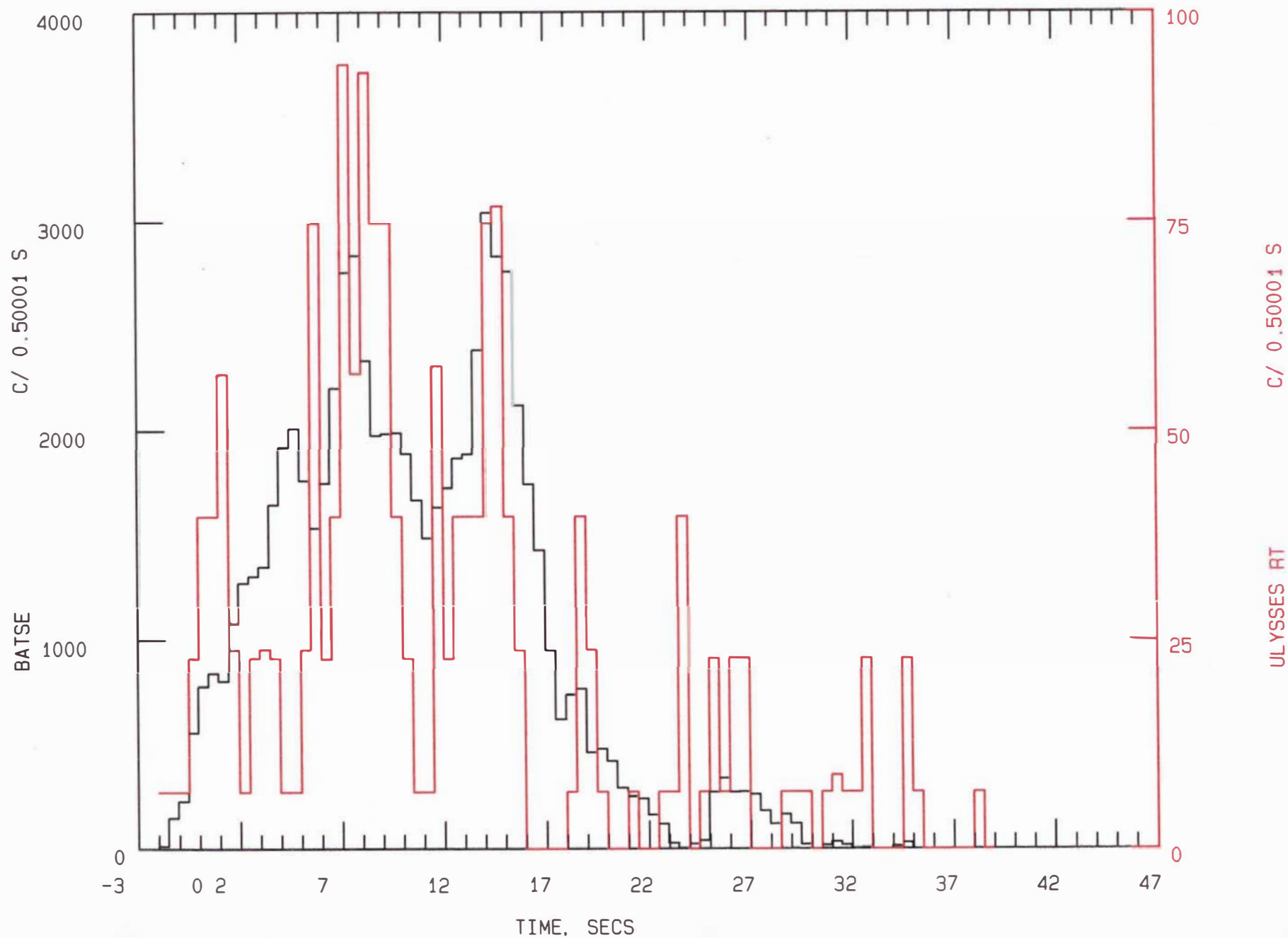
BATSE

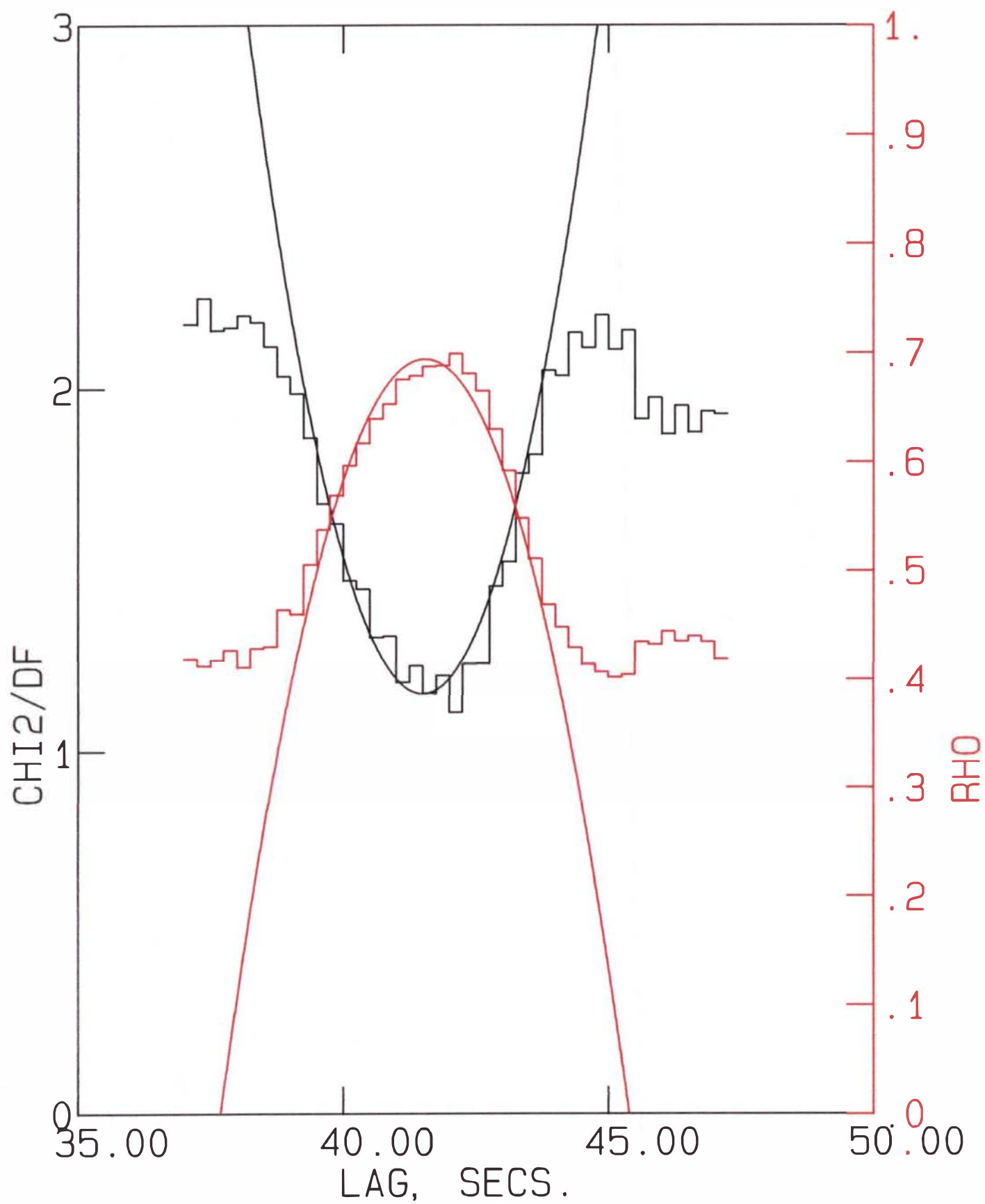
-ULYSSES RT CORRELATION

1/ 4/95

74634.418

13/ 2/98





ULYSSES RT

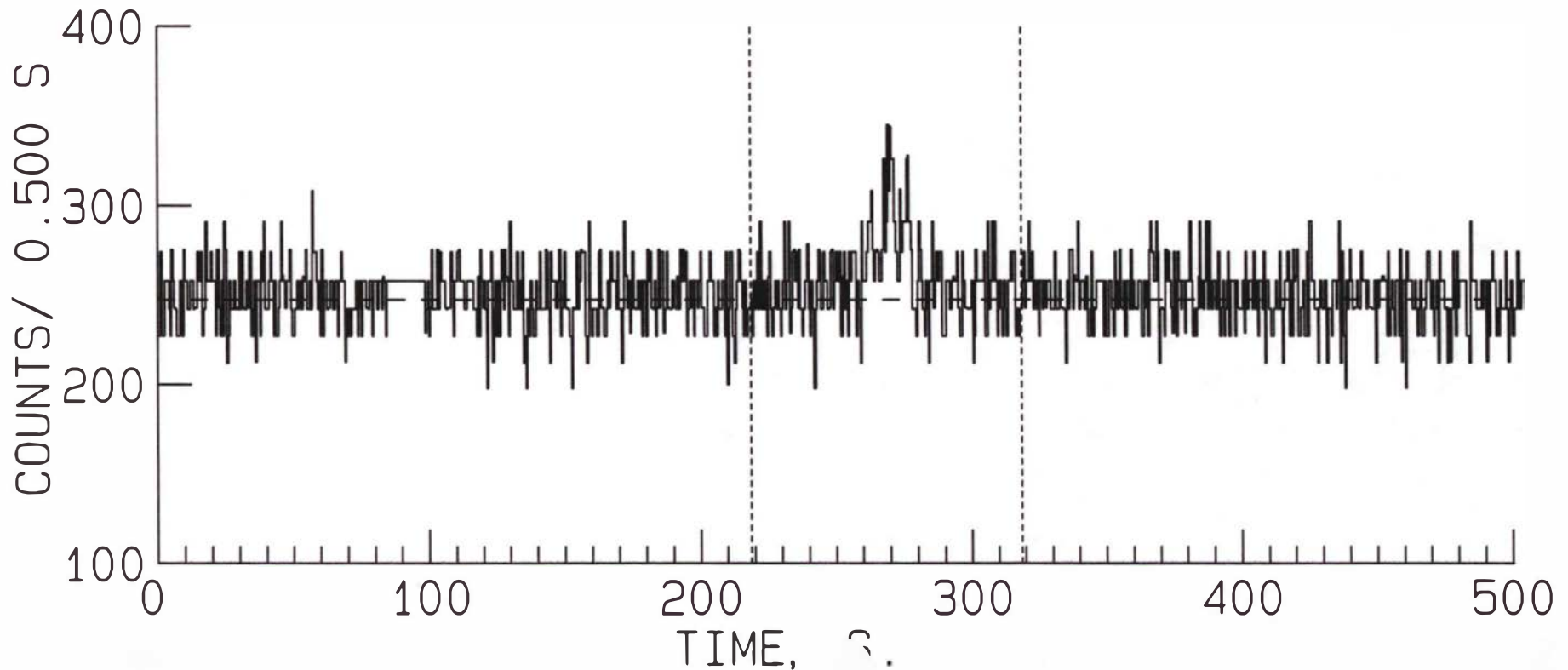
13 / 2 / 98

1 / 4 / 95 74376.060 s

0.250 S INTERVALS REGROUPED BY 2

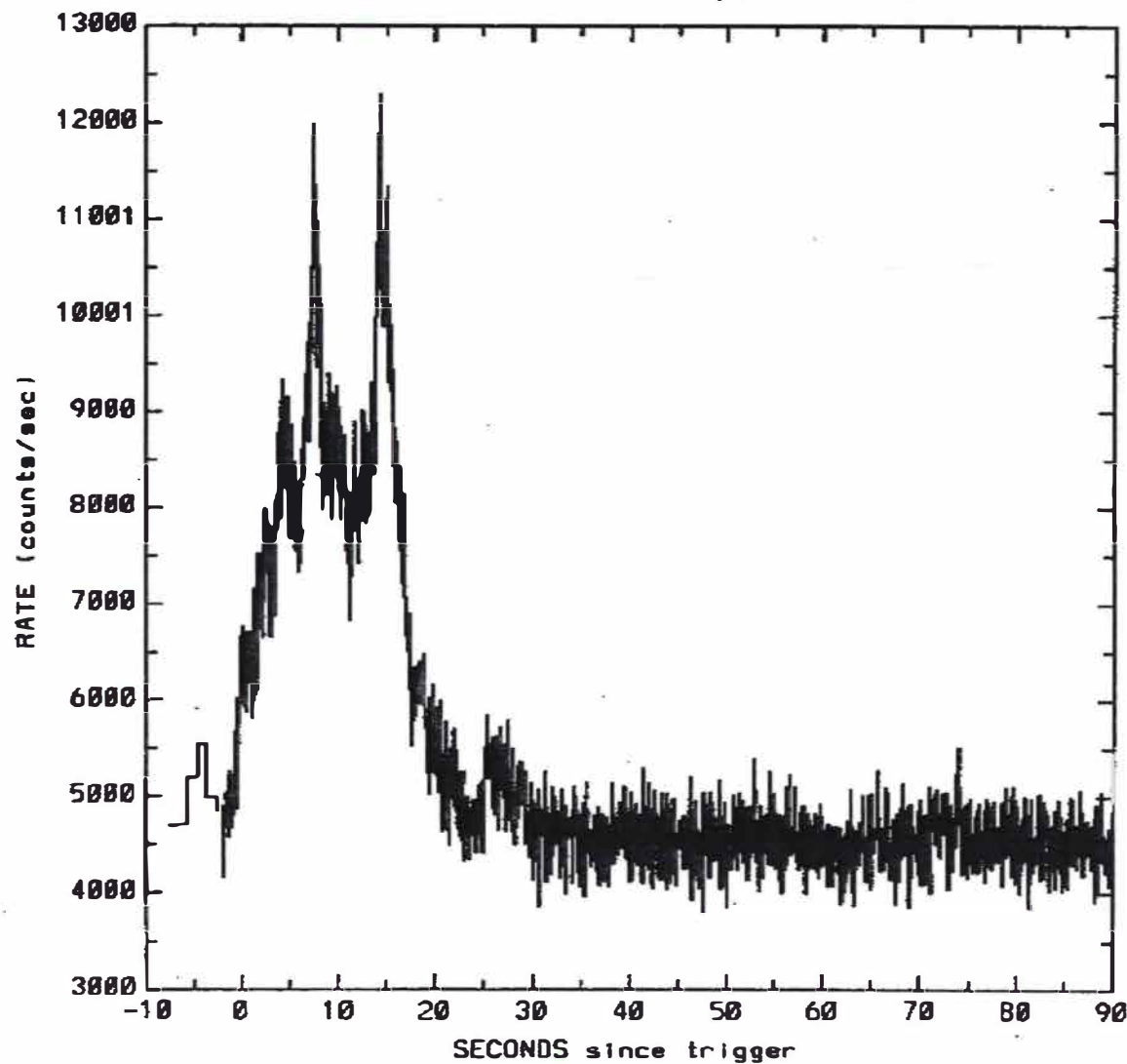
21- 144 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



APR 01 B

DISCSC Data for K. Hurley, No. 3489



7-APR-1995 14.38.47

Created by MOPS 80
(Burst Display)
Version t2.24

Trigger # . 3489

Trigger Time:
9888 / 74634.418Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 second(s)Detectors [7..8]:
--5--1-Discriminators:
(1, 2)Quality Mask:
80[SP1]

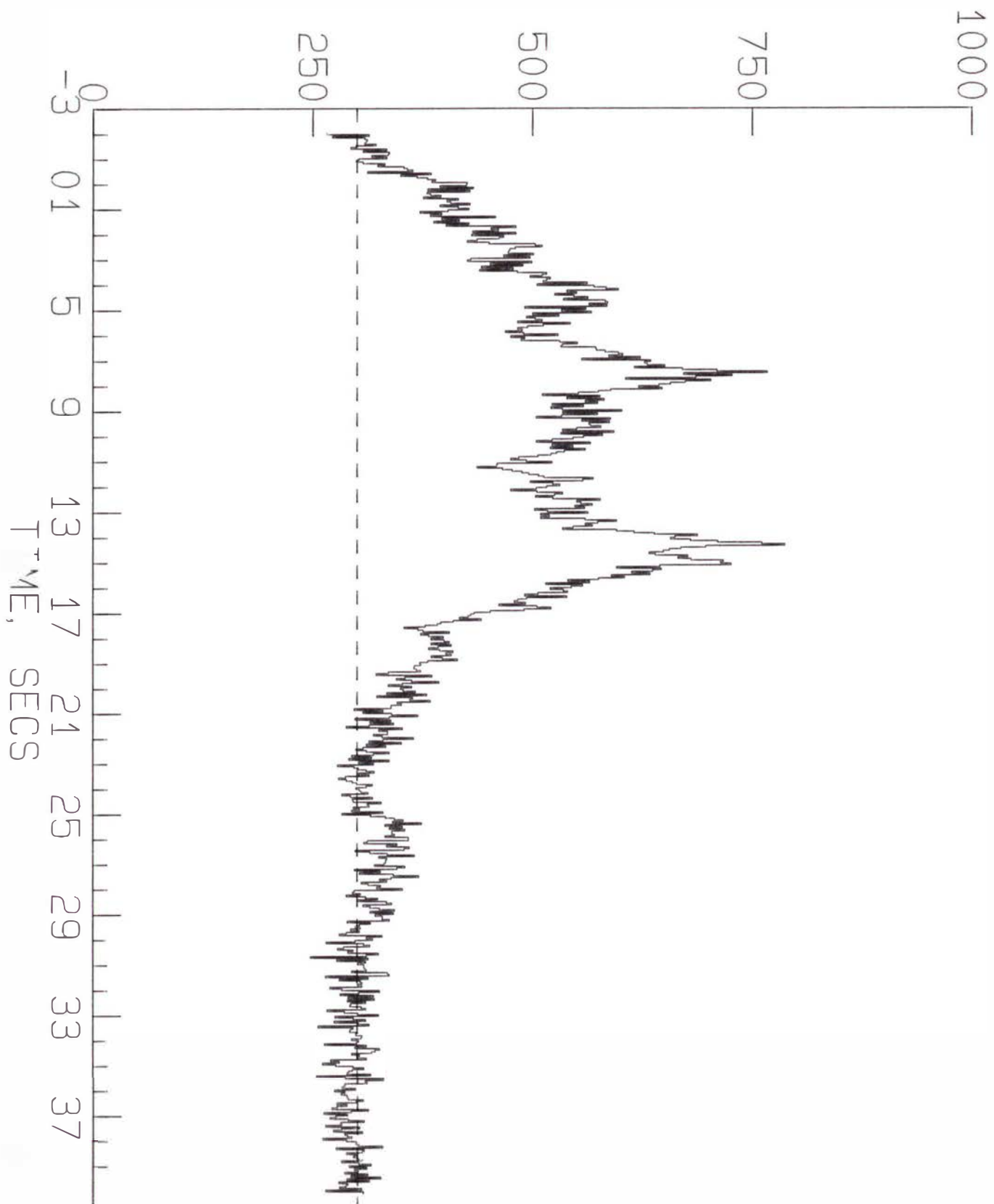
BATSE

01/04/95

74634.418

25- 100 keV

COUNTS/ .064 S



From SAHI@ssl.msfc.nasa.gov Mon Apr 3 09:32 PDT 1995
Date: Mon, 3 Apr 1995 11:32:25 -0500 (CDT)
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.: 3490

TIME: TJD=9809 SECONDS=9139

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

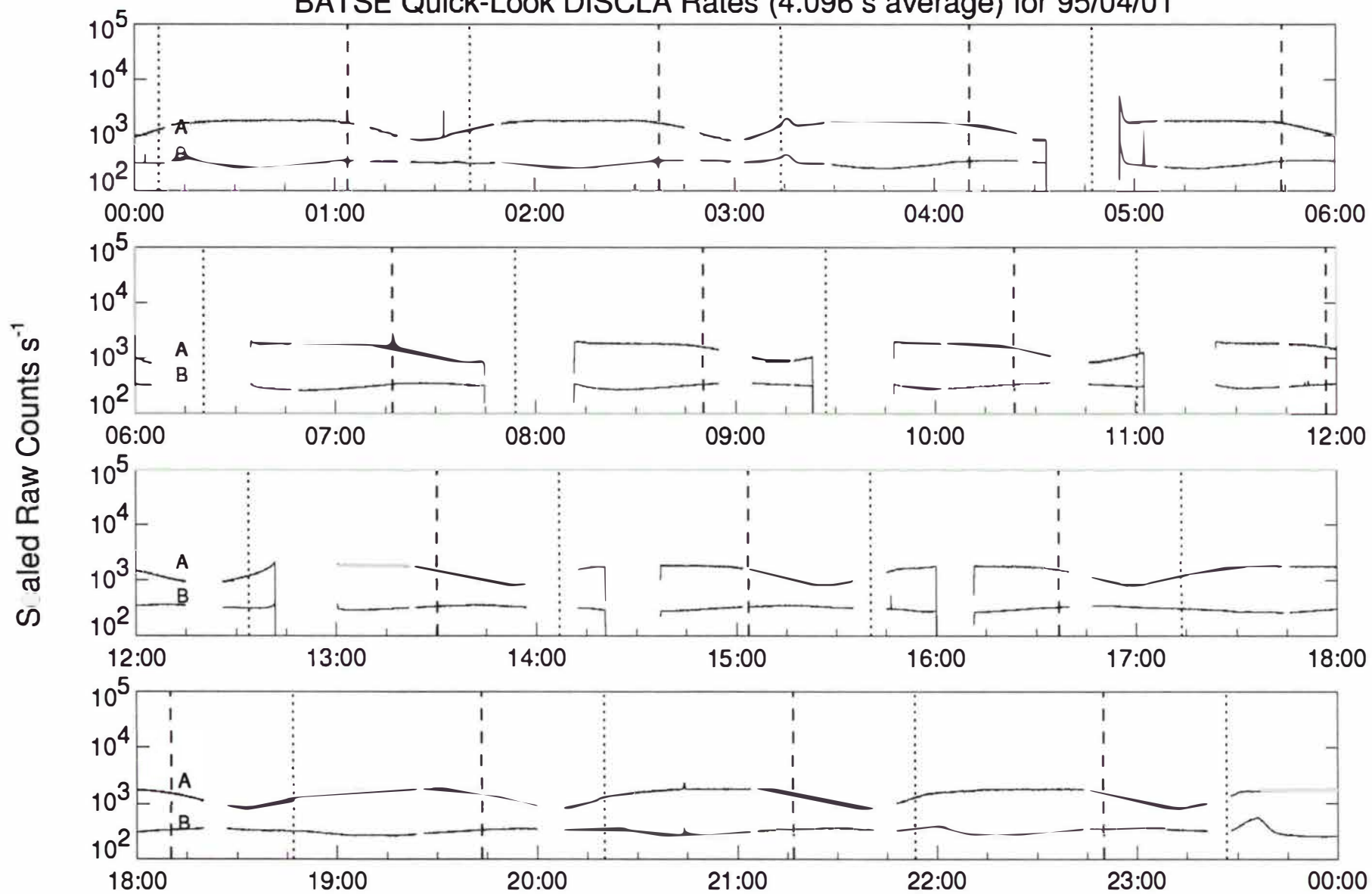
SIGNIFICANCE: SIGMA

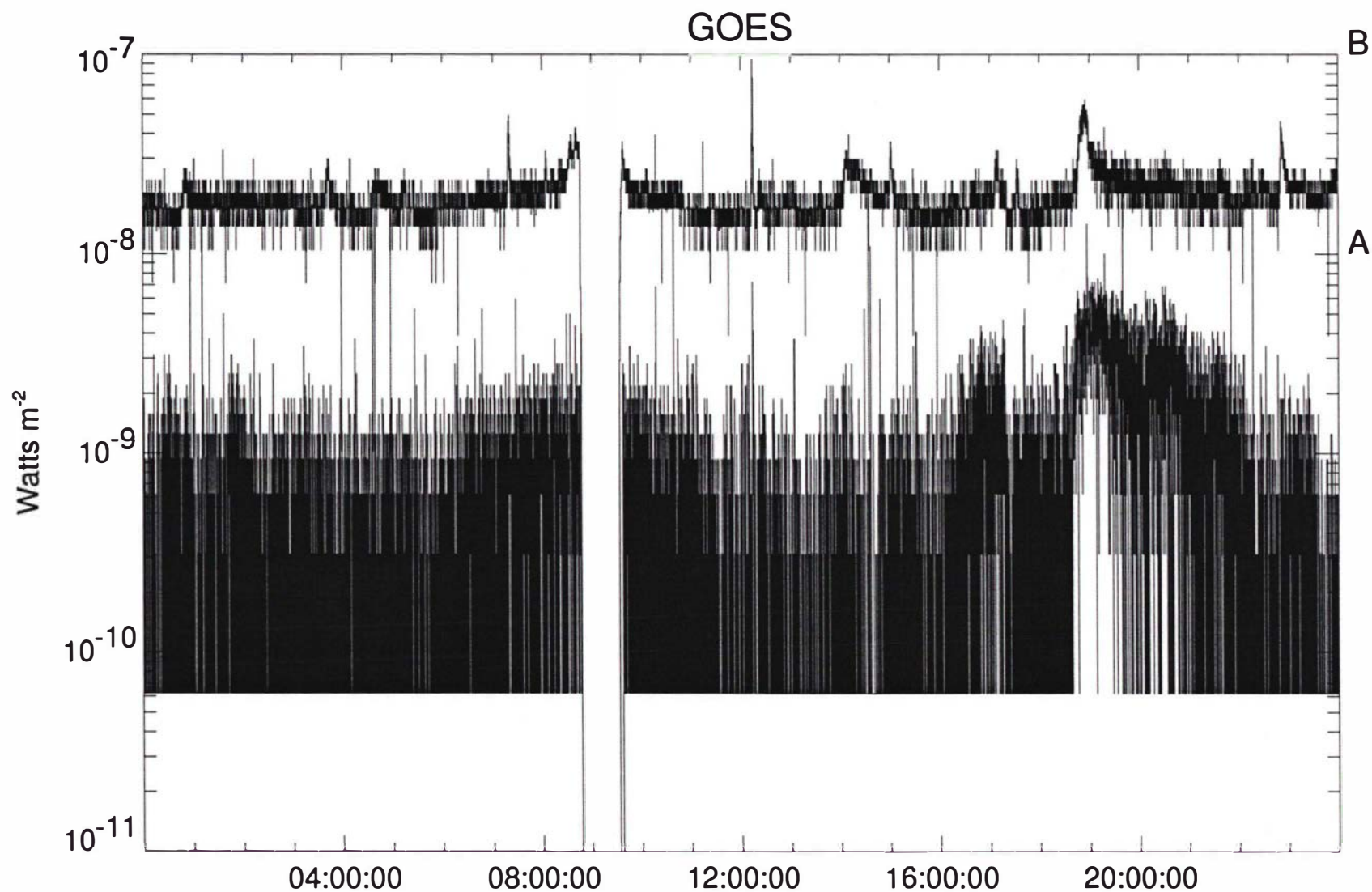
INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON PRECIPITATION

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





Data Start: 95/04/01, 0000:02

Plot created: 95/04/03, 1349

Channel 1 (1.0 - 8.0 Angstroms)

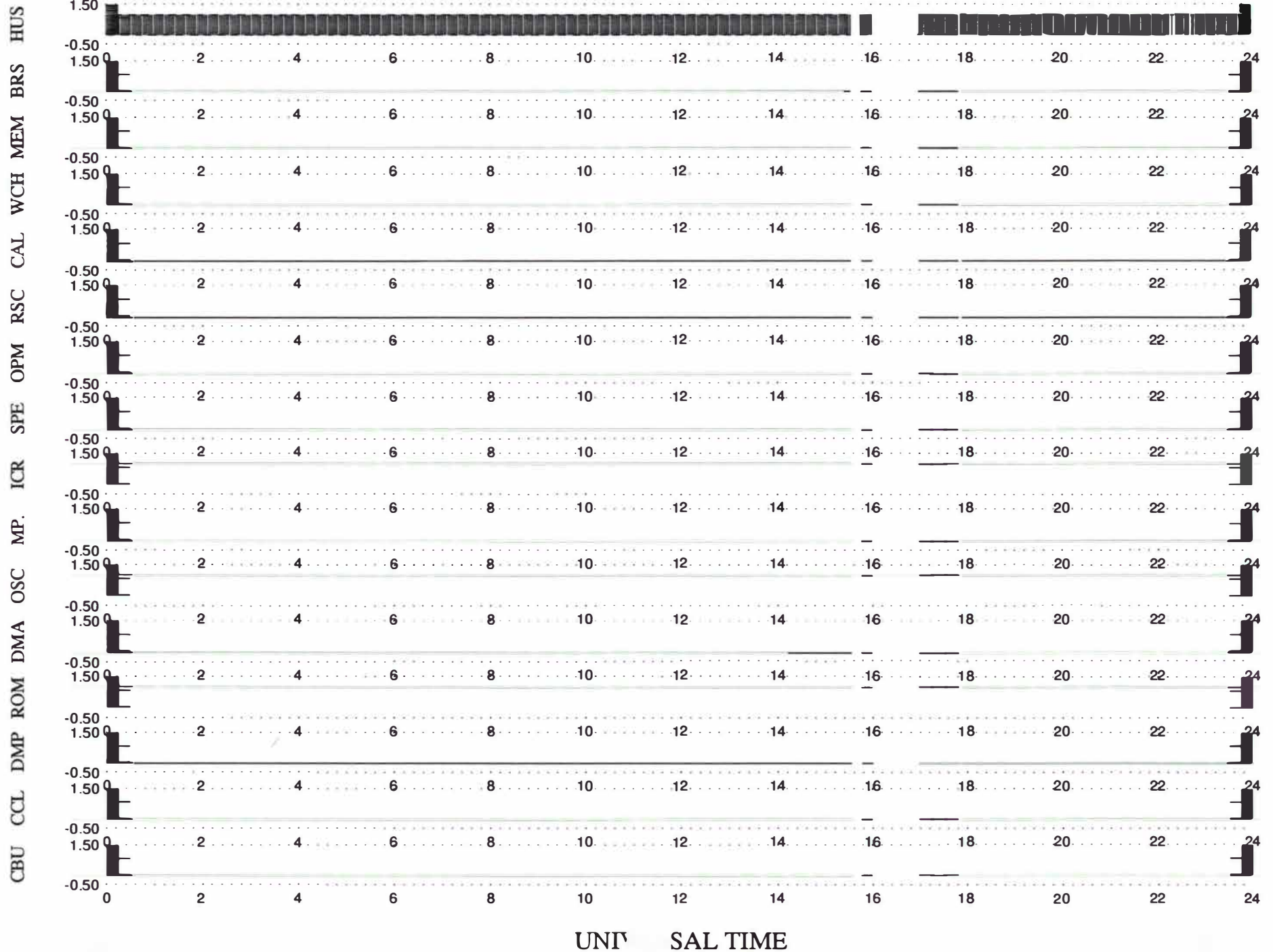
Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

Background not subtracted

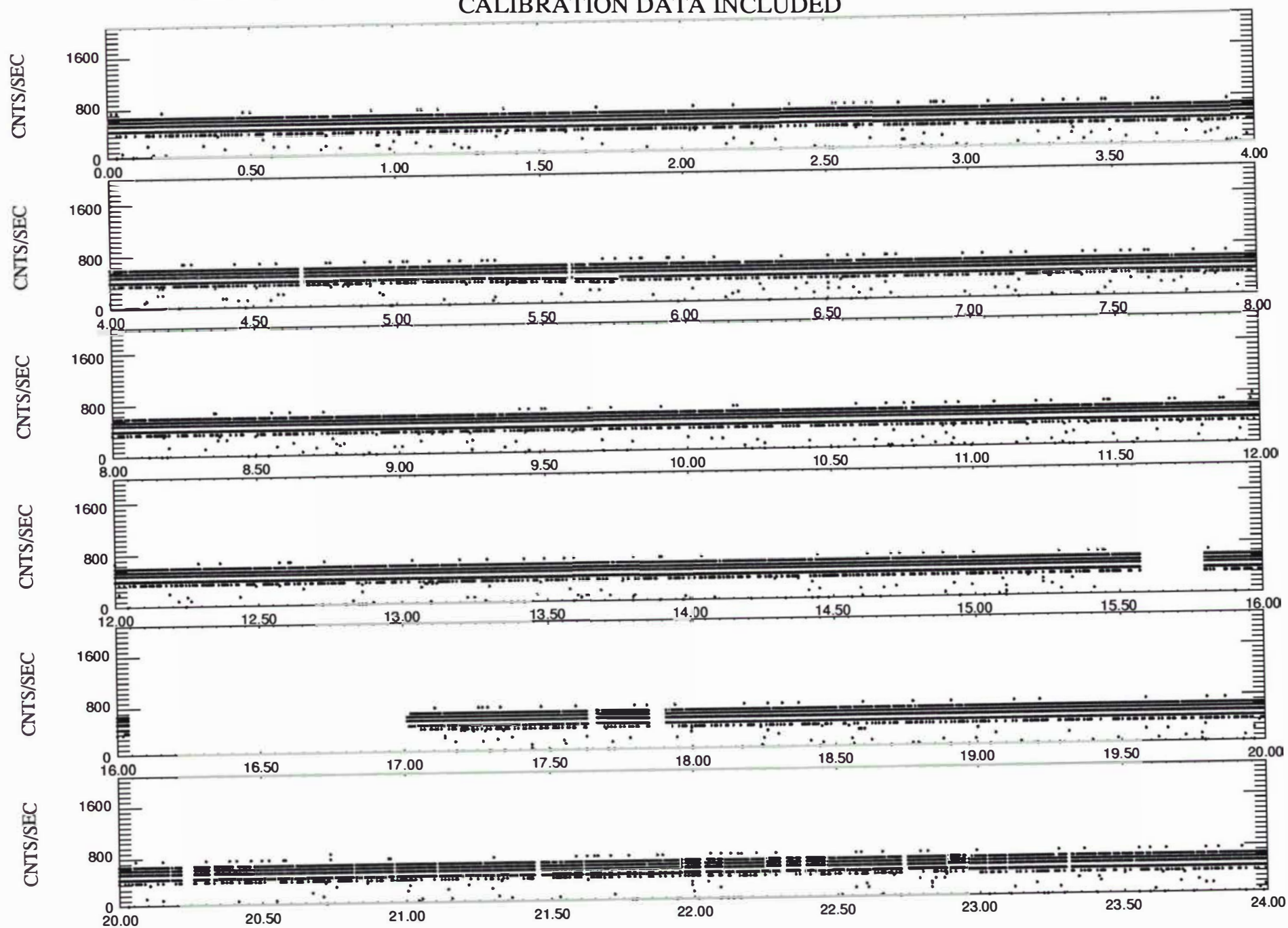
HUS MODES EDR day 91, year 1995 to day 91, year 1995
NO BURST (9)

11/16/95

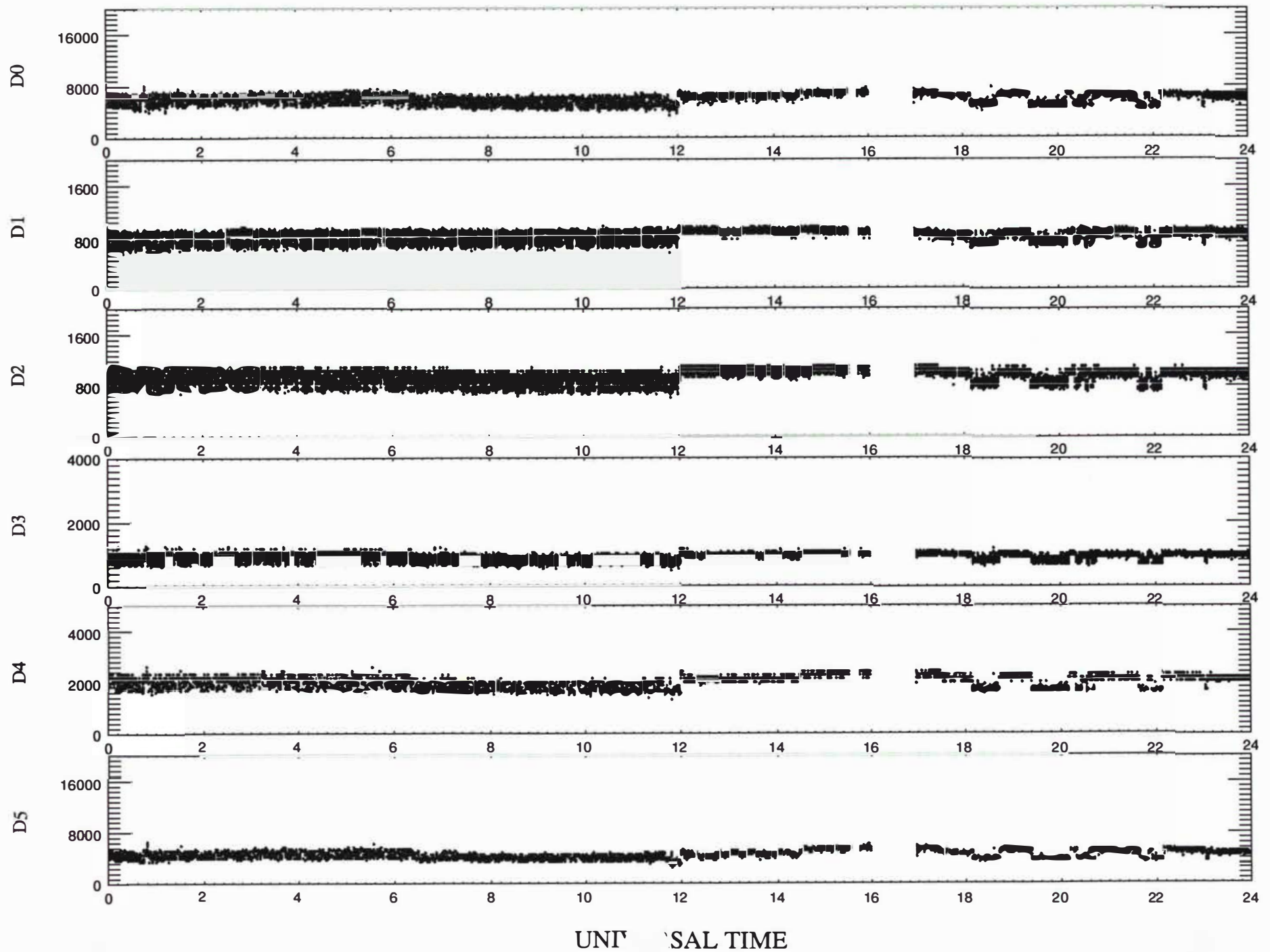


HUS 2A, MODE 1, NOT AVERAGED EDR day 91, year 1995 to day 91, year 1995
CALIBRATION DATA INCLUDED

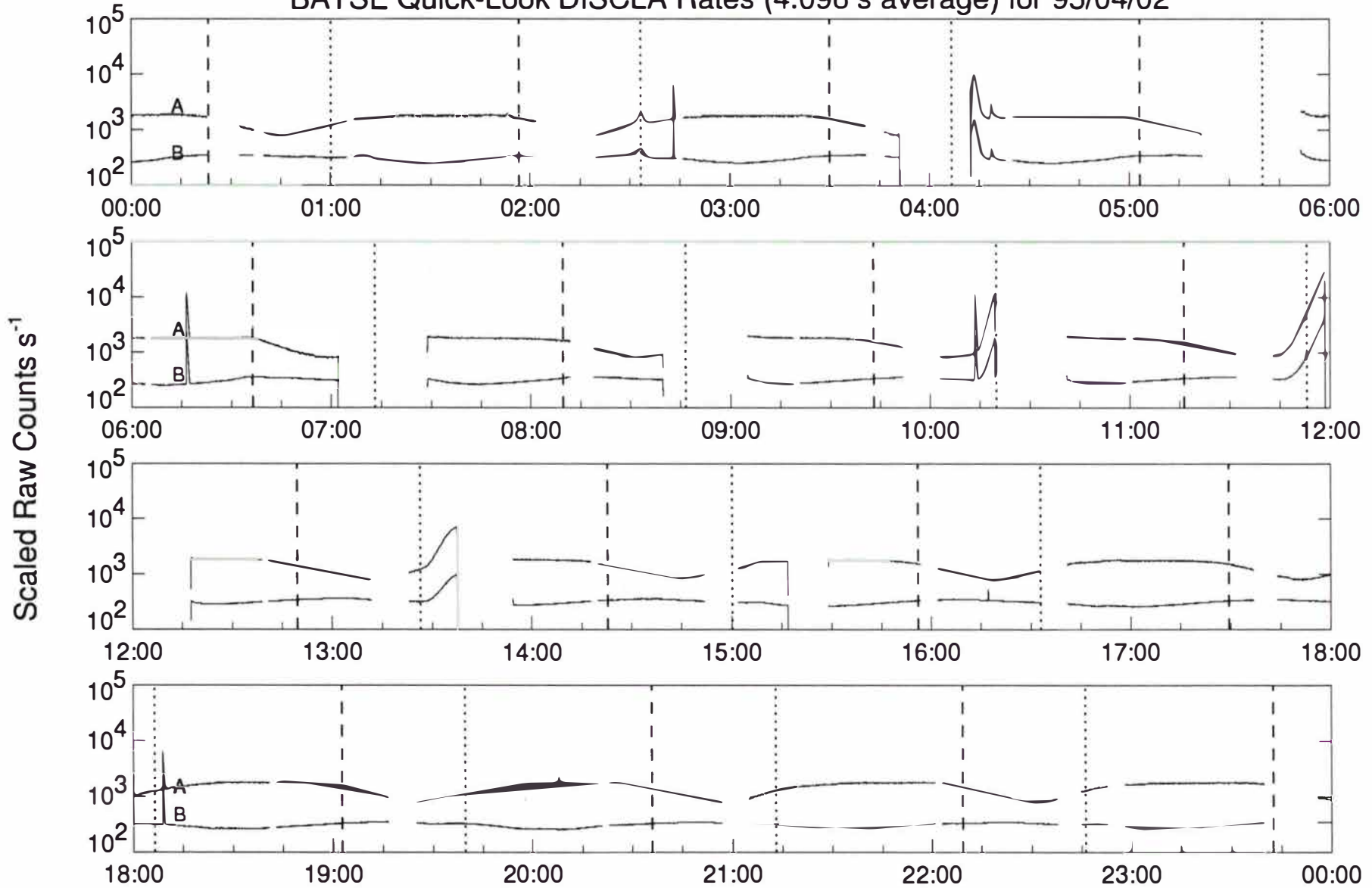
11/16/95



UNIT SAL TIME



BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/02



Current Time: 95/04/03, 1419 EDT

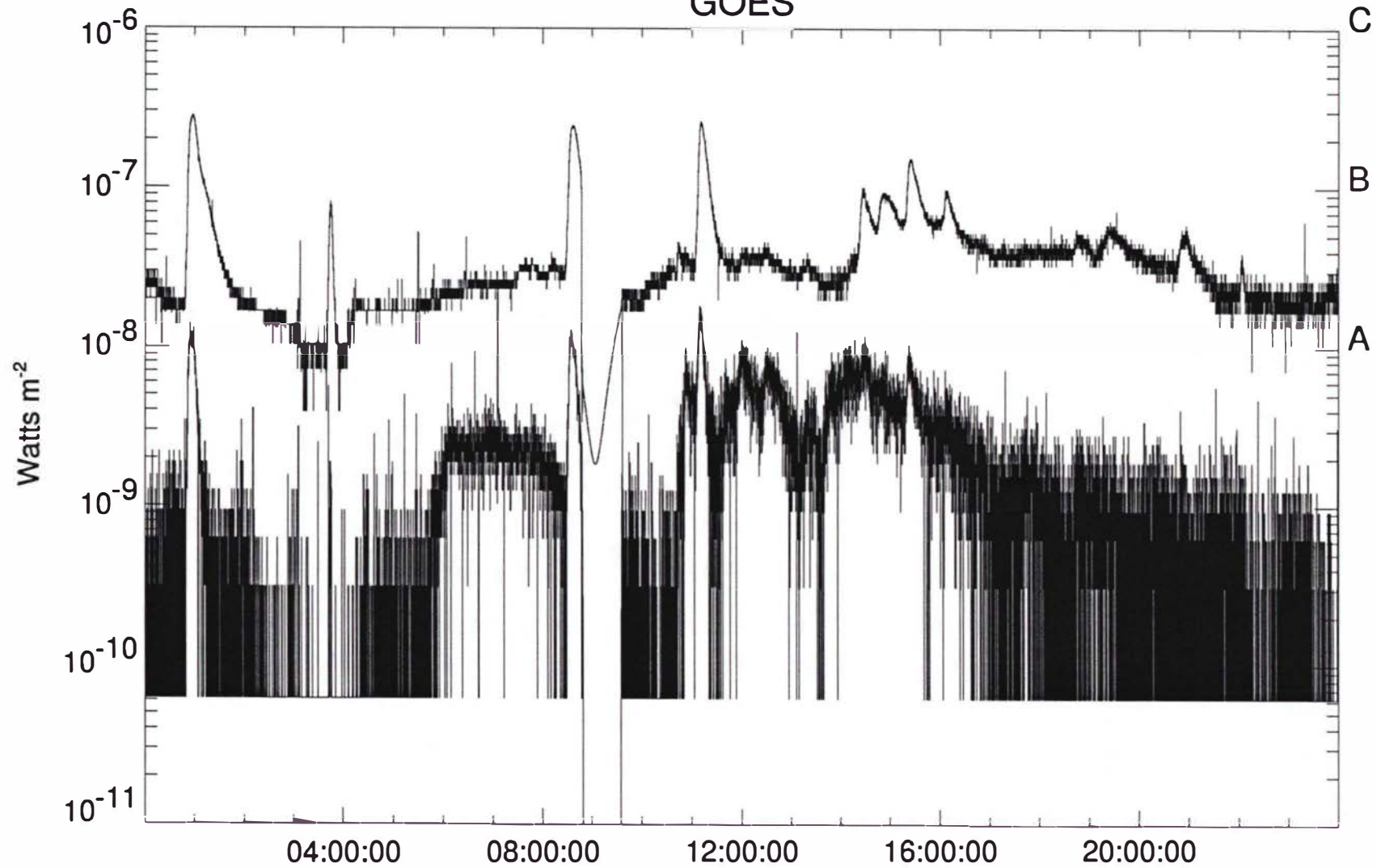
A: Channel 0 Most Sunward LAD

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

Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

GOES

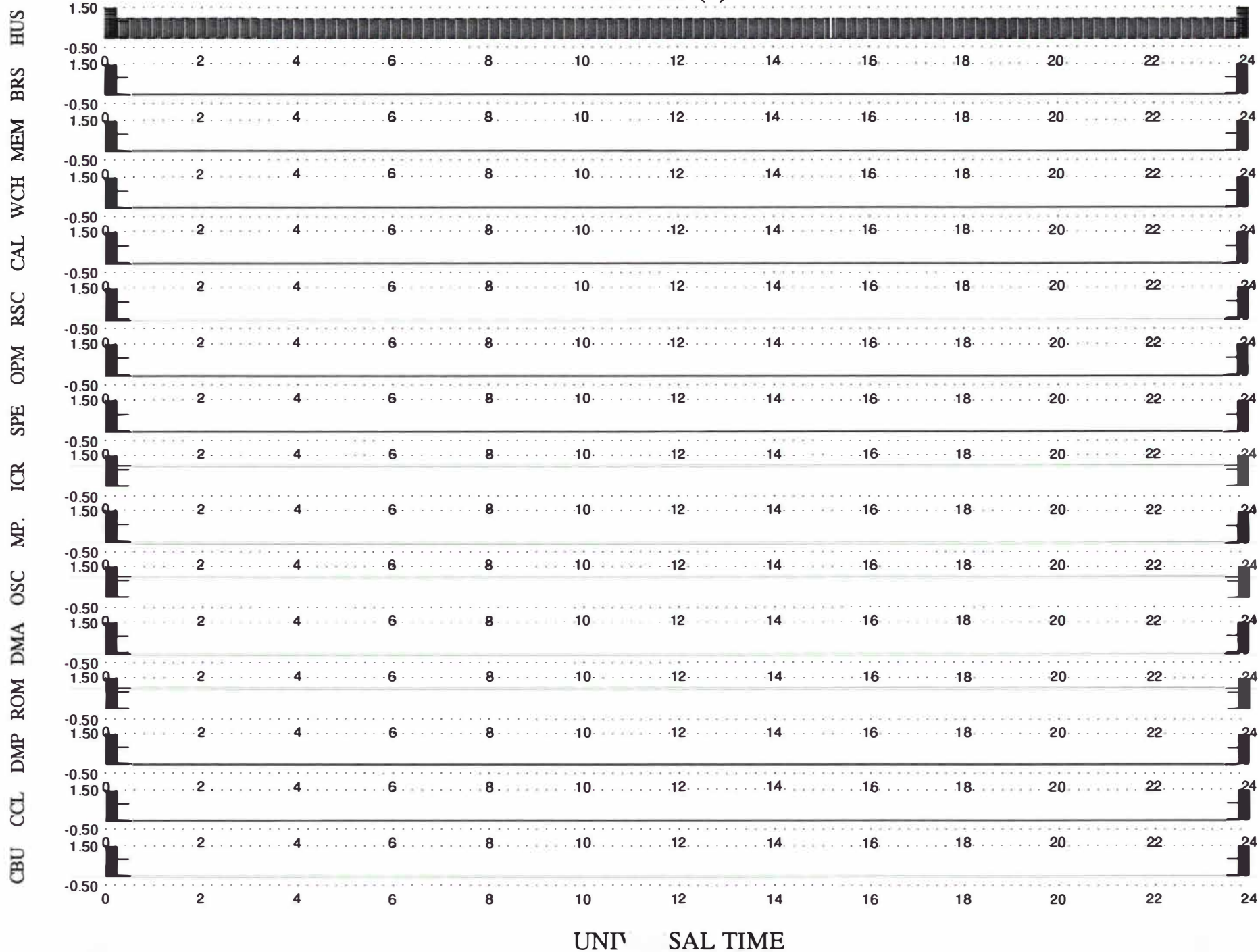


Data Start: 95/04/02, 0000:00

Plot created: 95/04/03, 1418

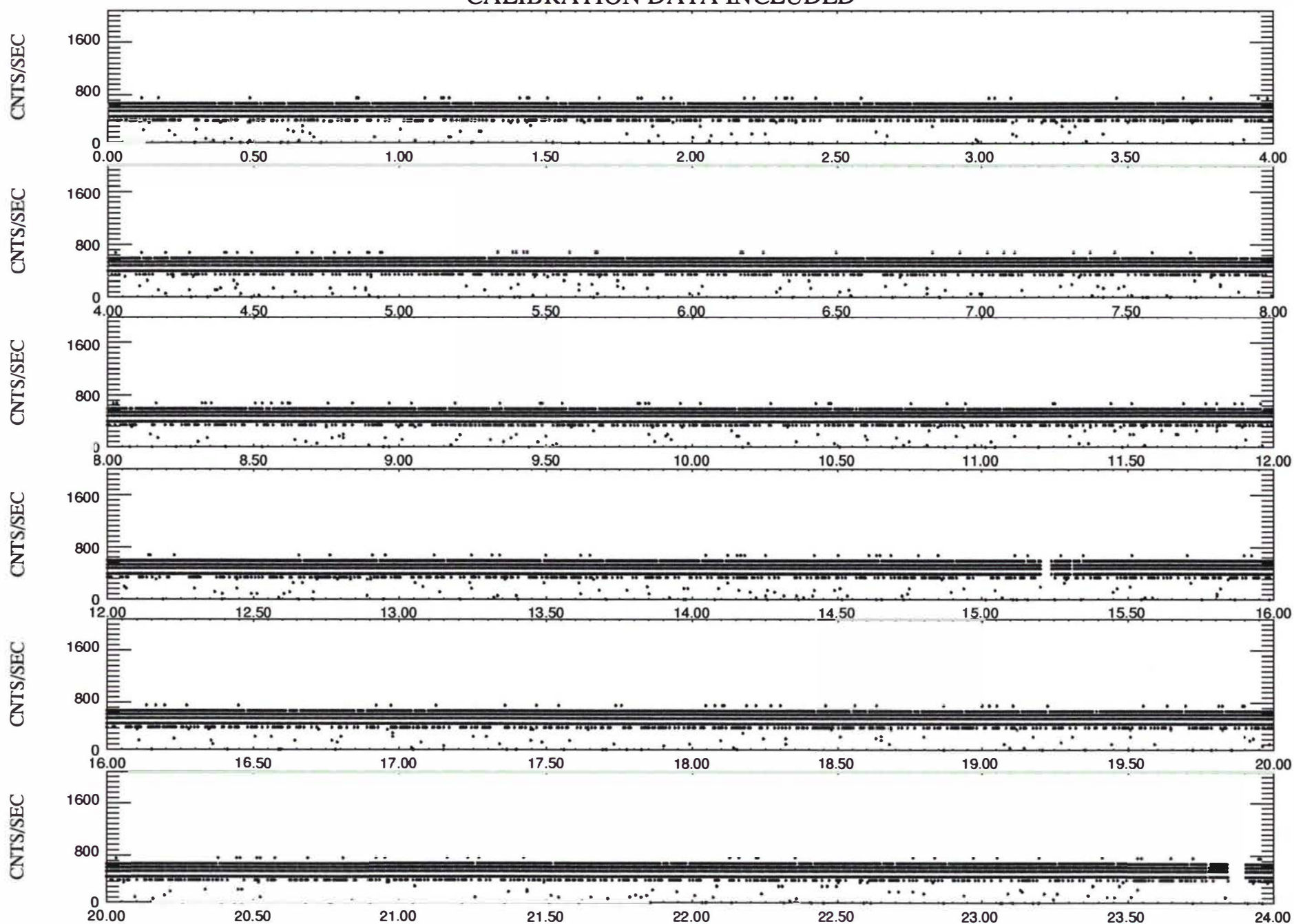
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted
 Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

11/16/95

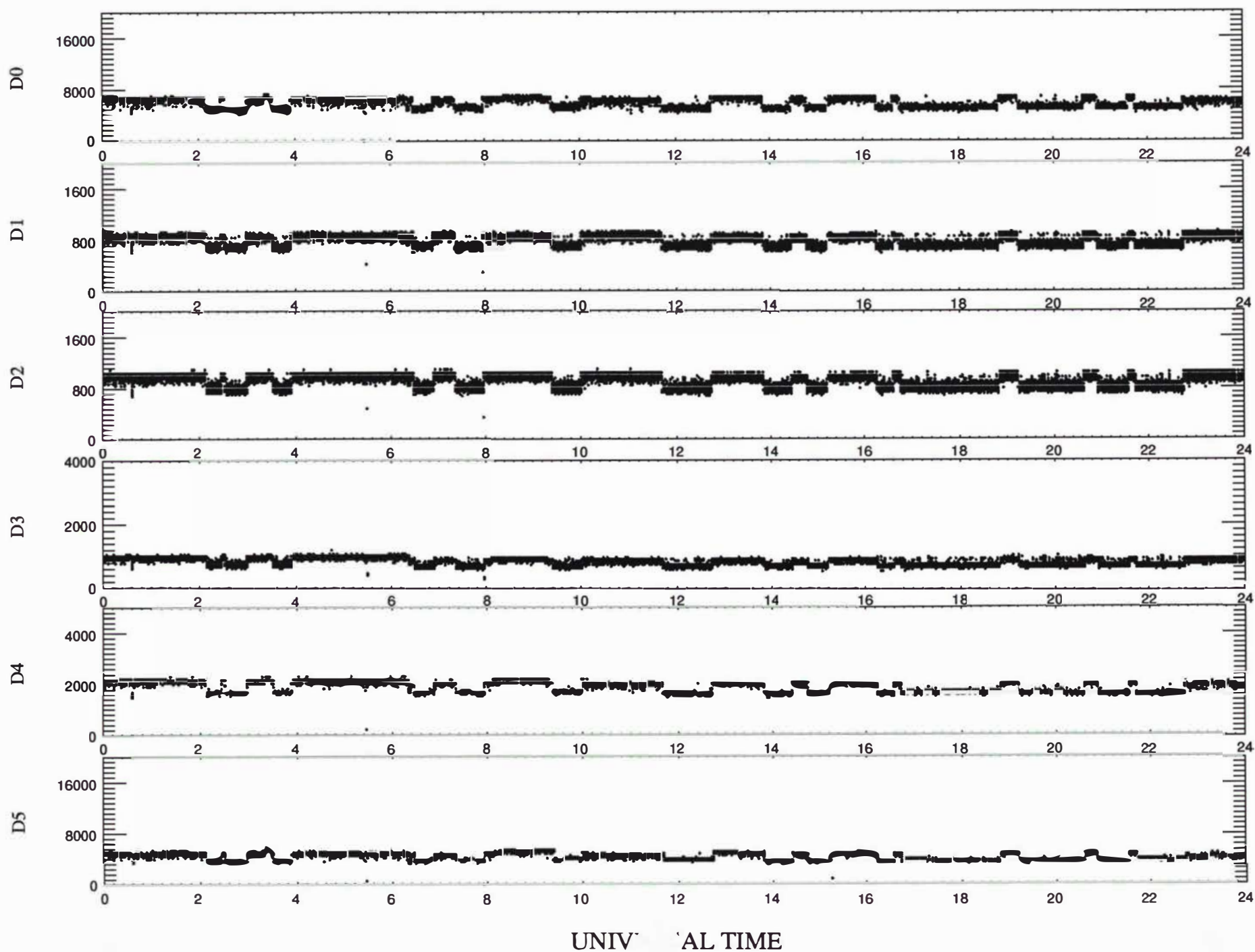


HUS 2A, MODE 1, NOT AVERAGED EDR day 92, year 1995 to day 92, year 1995
 CALIBRATION DATA INCLUDED

11/16/95



UNITS - SAL TIME



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

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

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

Mime-Version: 1.0

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

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

Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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

KONUS

12 / 2 / 96

ULYSSES RT

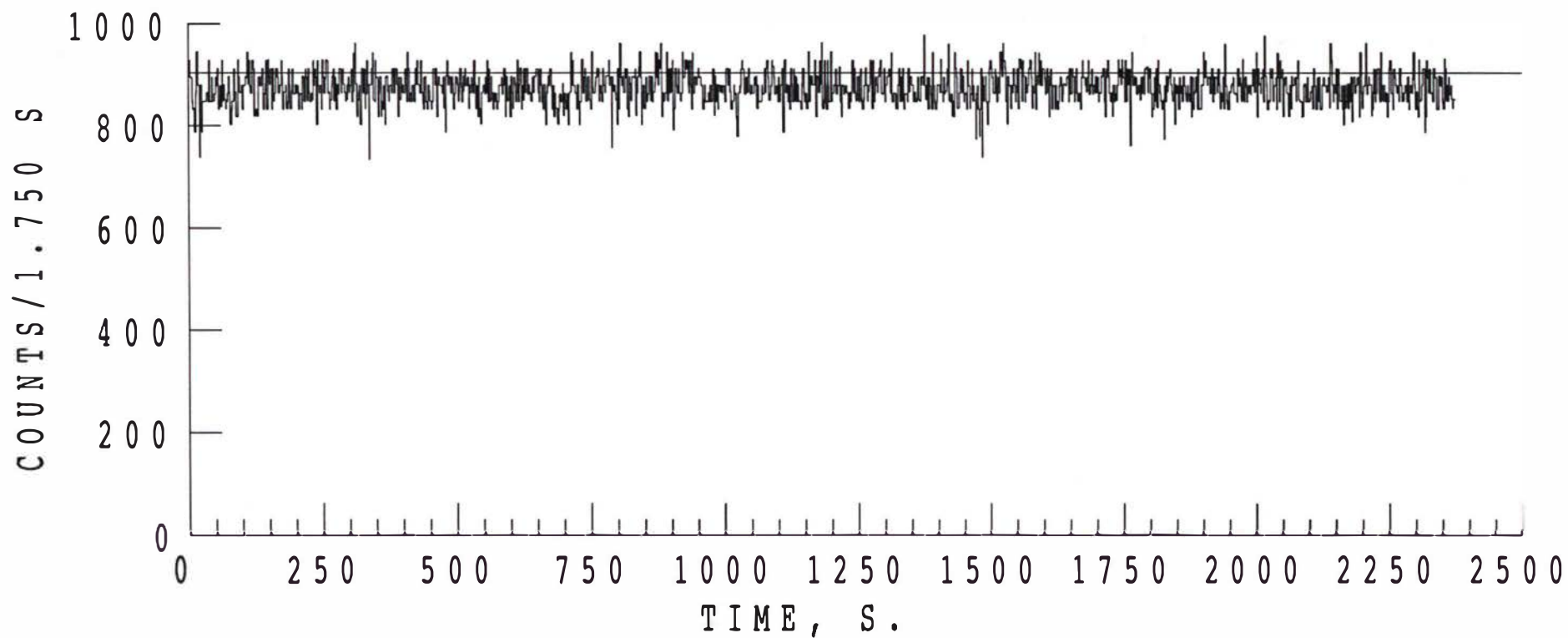
3 / 4 / 95 7632.130 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Thu Apr 6 09:49 PDT 1995
Date: Thu, 6 Apr 1995 11:49:08 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3491

BATSEARCH PROGRAM

BATSE BURST # 3491
EVENT OF 1995 APR 3 DAY OF YEAR= 93
EVENT CROSSING TIME AT BATSE : 47987. S. OR 13:19:47.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 36.000 11.000
BATSE PEAK COUNTING RATE: 92000 C/S

Trigger

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/ 4/ 95 IS:
RA= 351.085 DEC= 6.693 DIST= 2.253 AU
BATSE-ULYSSES DISTANCE = 337051371. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=135.45 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -801.21 SECS.
CROSSING TIME AT ULYSSES IS 47186. S. OR 13:06:25 +/- 174.77 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/ 4/ 95 IS:
RA= 137.063 DEC= 19.644 DIST= 0.913 AU
MARS-BATSE DISTANCE = 136583952. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 83.50 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 51.60 SECS.
CROSSING TIME AT MARS IS 48039. S. OR 13:20:38 +/- 79.37 SECONDS

BATSE BURST TRIGGER

NO.: 3491

TIME: TJD=9810 SECONDS=47987

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=134.3 AZIMUTH=318.6 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 14S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3491	950403	9810	47987	92000	036	+11	14

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

Dear Kevin,

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

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

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

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

From yosimori@rikkyo.ac.jp Tue Jan 23 03:20 PST 1996
From: "M. Yoshimori" <yosimori@rikkyo.ac.jp>
Date: Tue, 23 Jan 1996 20:20:47 +0900
To: khurley@sunspot.ssl.berkeley.edu
Subject: Confirmation of Yohkoh GBD events

Dear Dr. Hurley,

We found the following four burst-like events with YOHKOH.

Could you check whether these events were detected with Ulysses or BATSE ?

1. 1995 Mar.25 17:36:36 UT
2. 1995 Mar.29 21:56:23 UT
3. 1995 Apr.03 13:19:51 UT
4. 1995 Apr.07 15:15:32 UT

The second event (1995 Mar.29) may be not real.

Thank you.

Best regards,

sato Yoshimori

Helio corr removed

Date: Feb 13 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

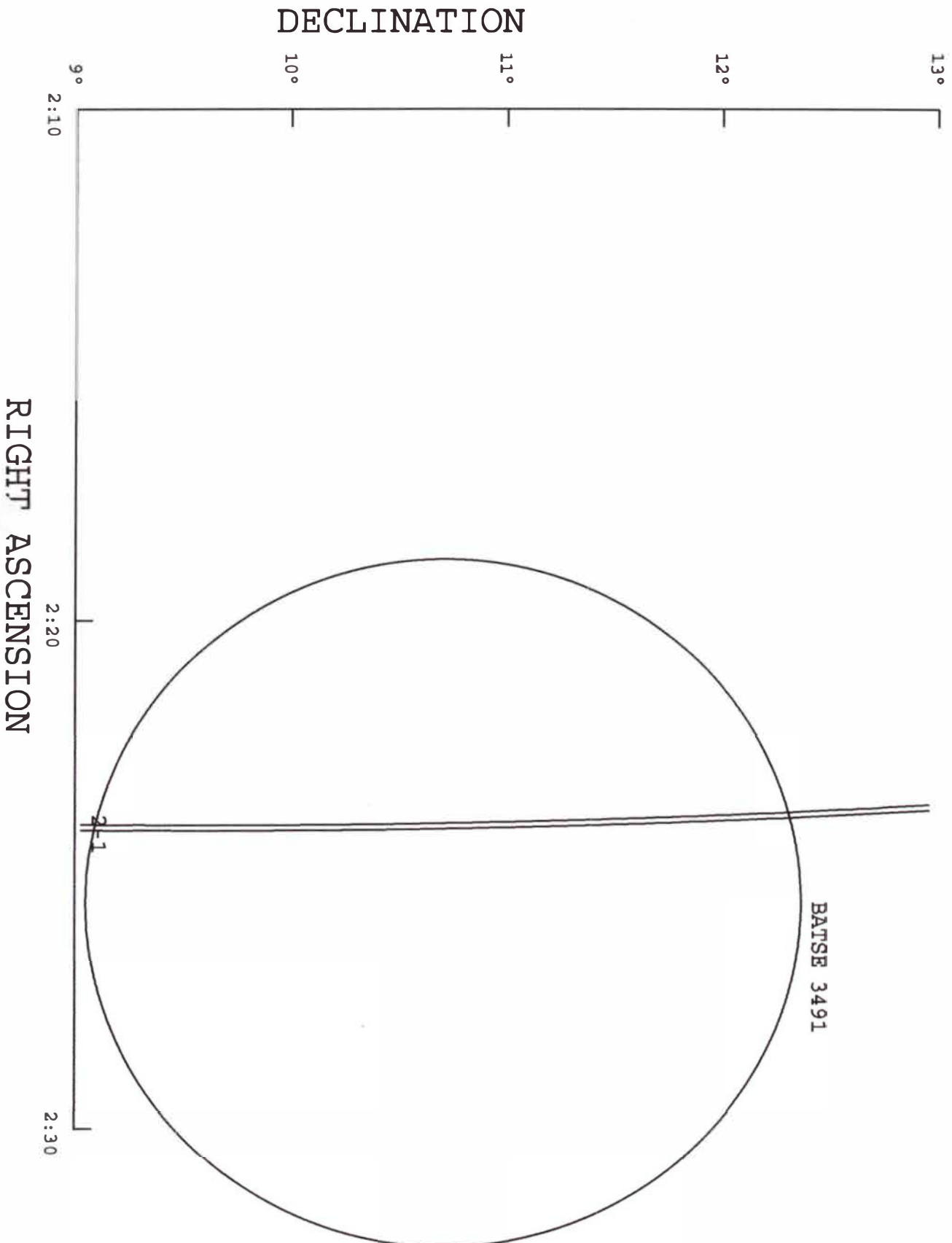
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF APR 3, 1995 13:06

13 / 2/98



ULYSSES

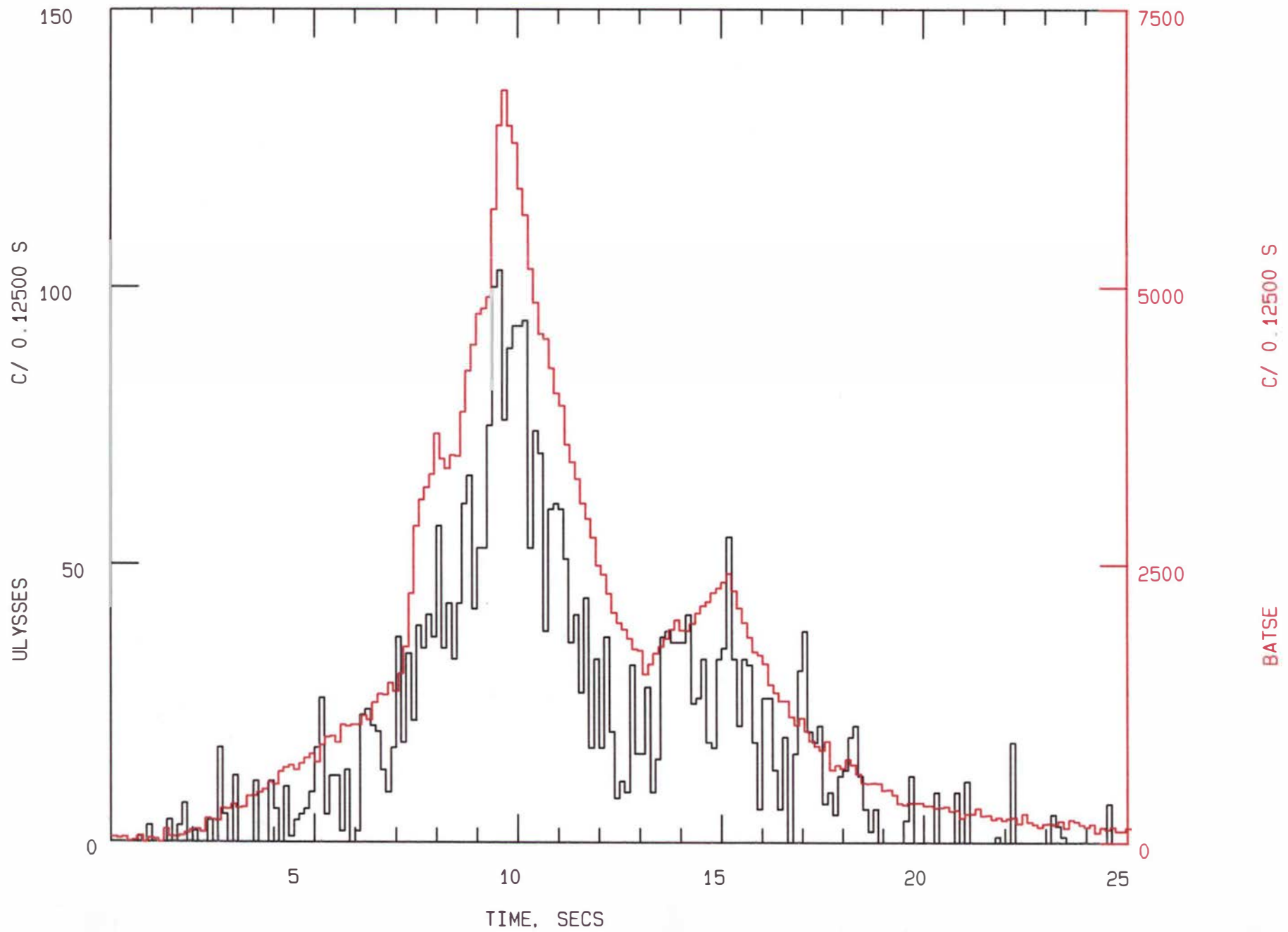
-BATSE

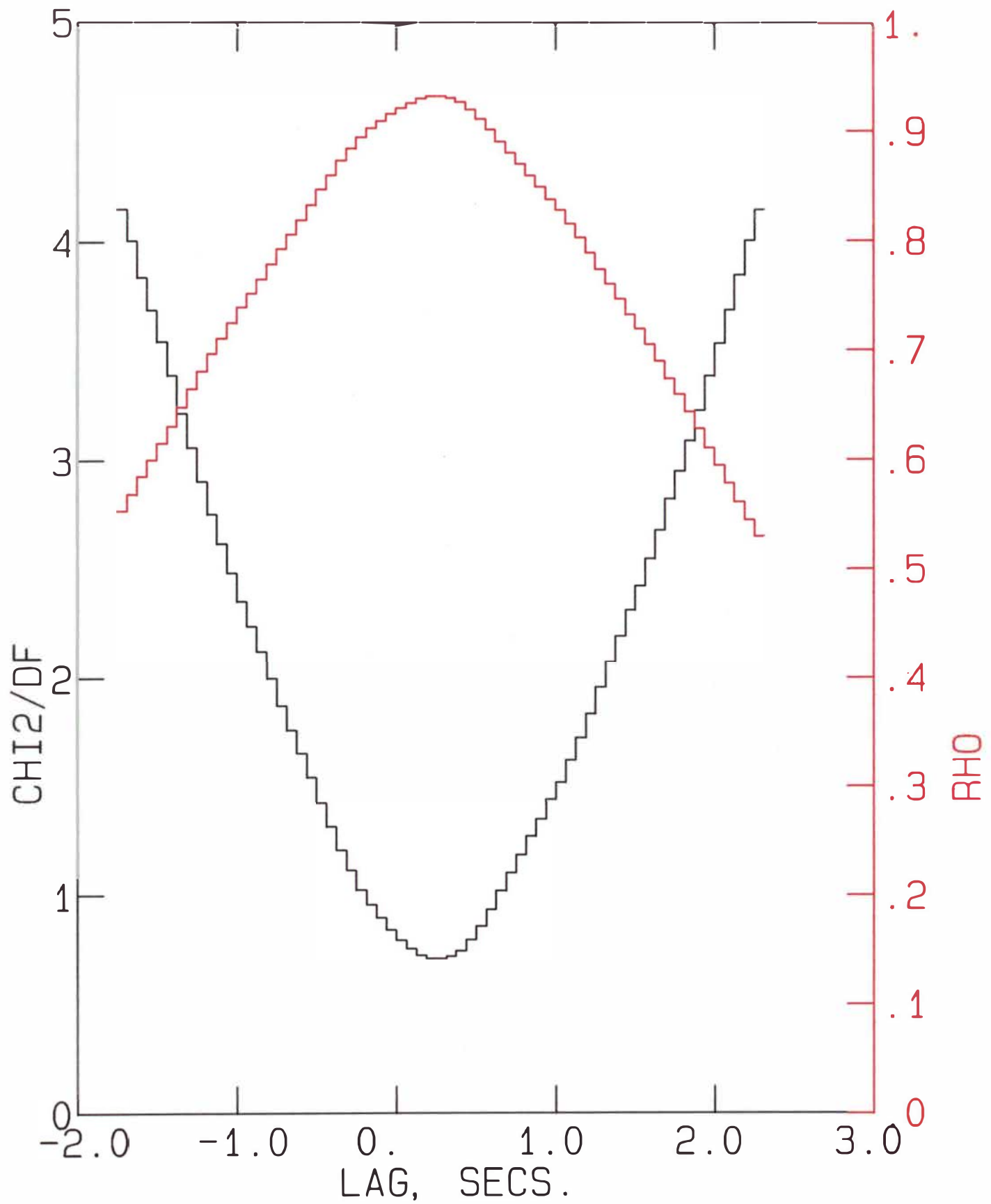
CORRELATION

03/04/95

47182.678

13/ 2/98





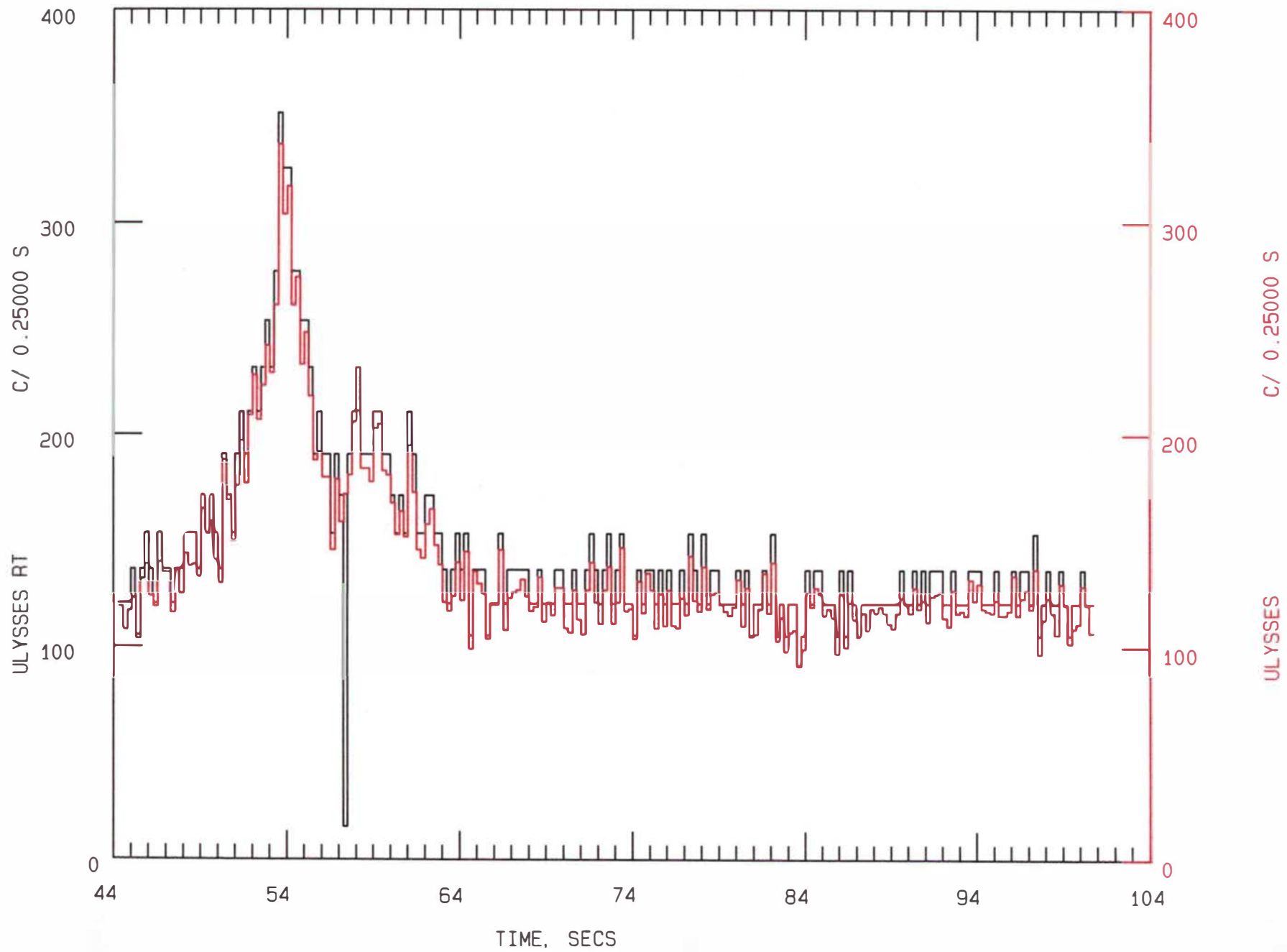
ULYSSES RT-ULYSSES

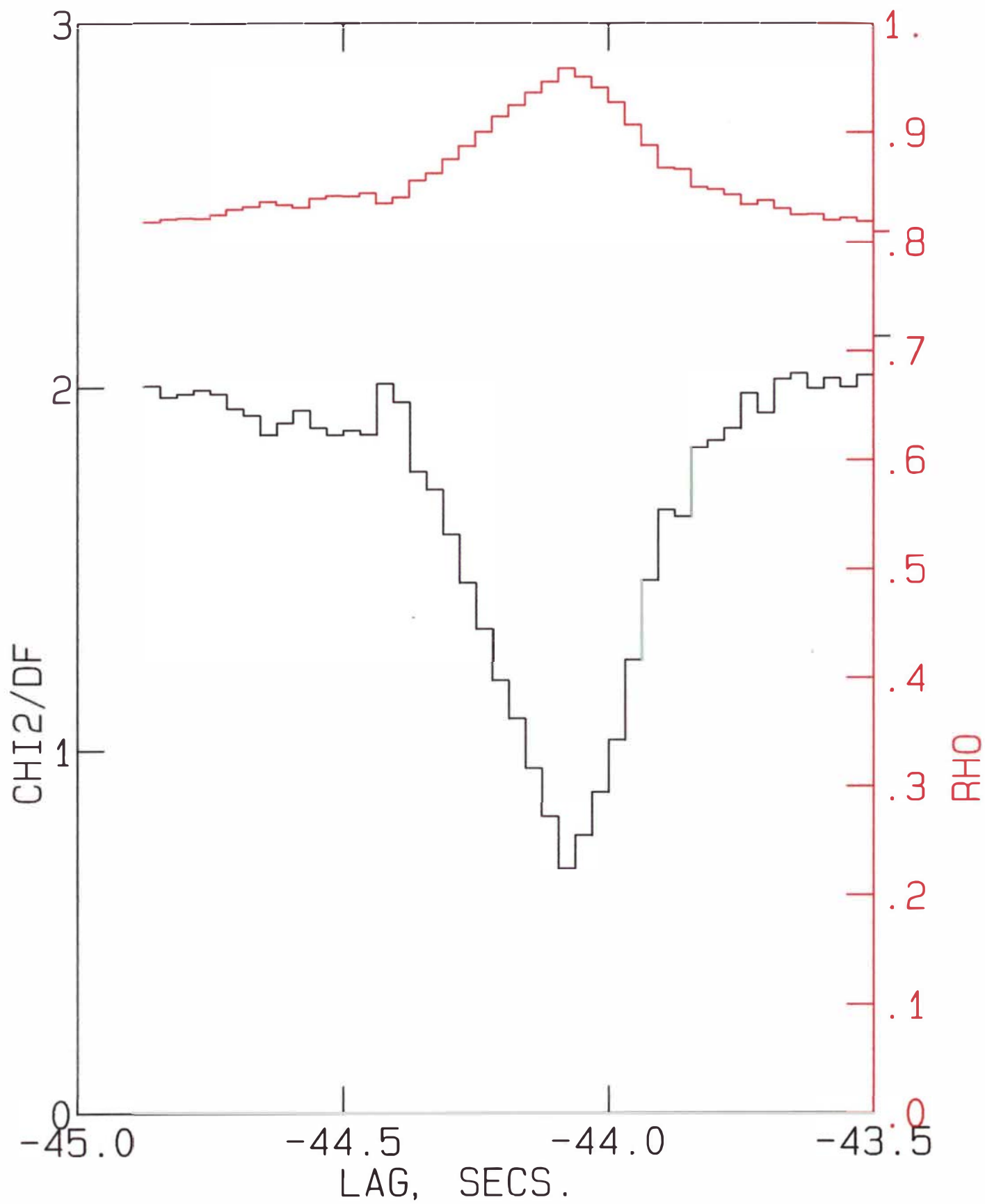
CORRELATION

3/ 4/95

47131.180

13/ 2/98

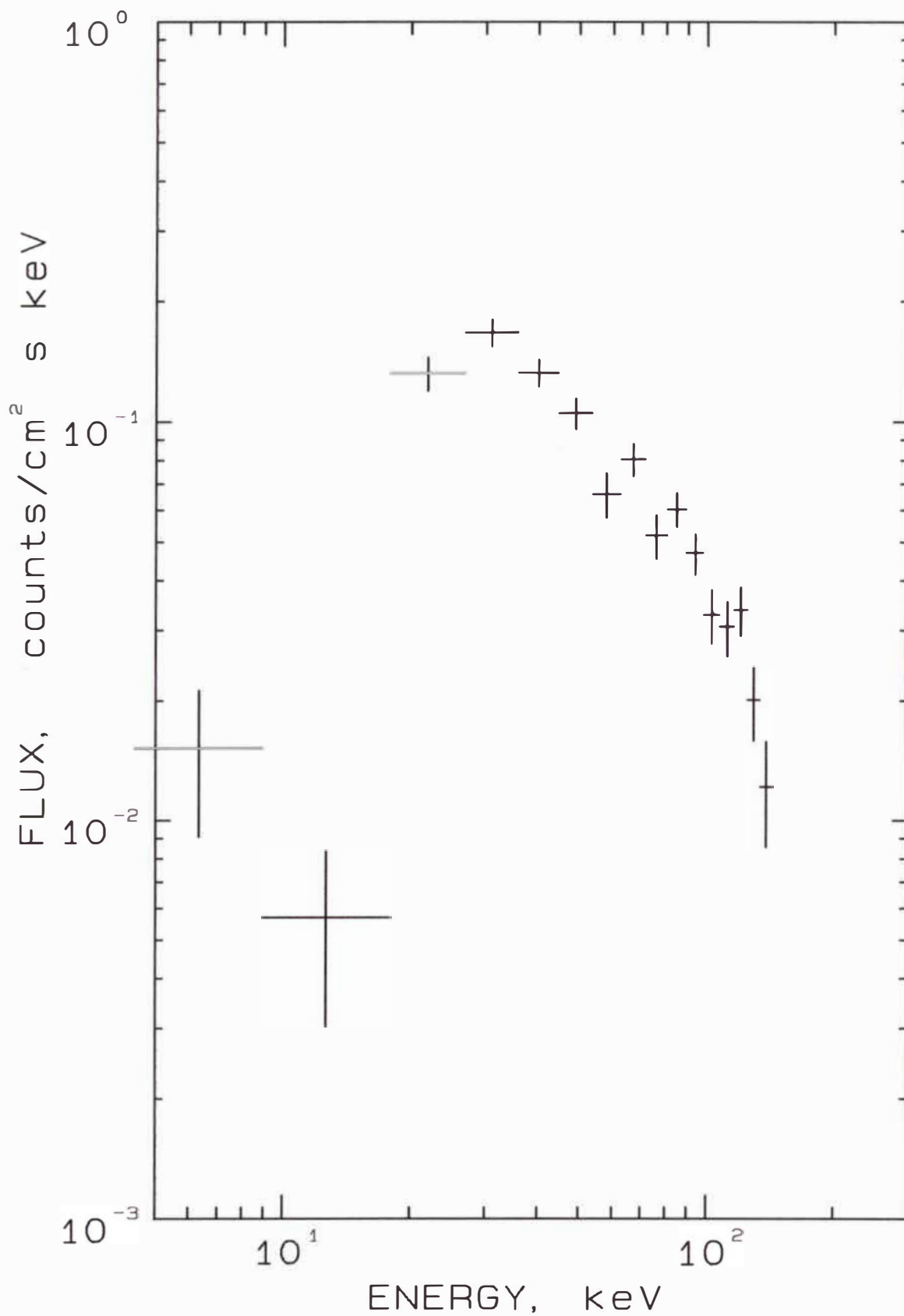




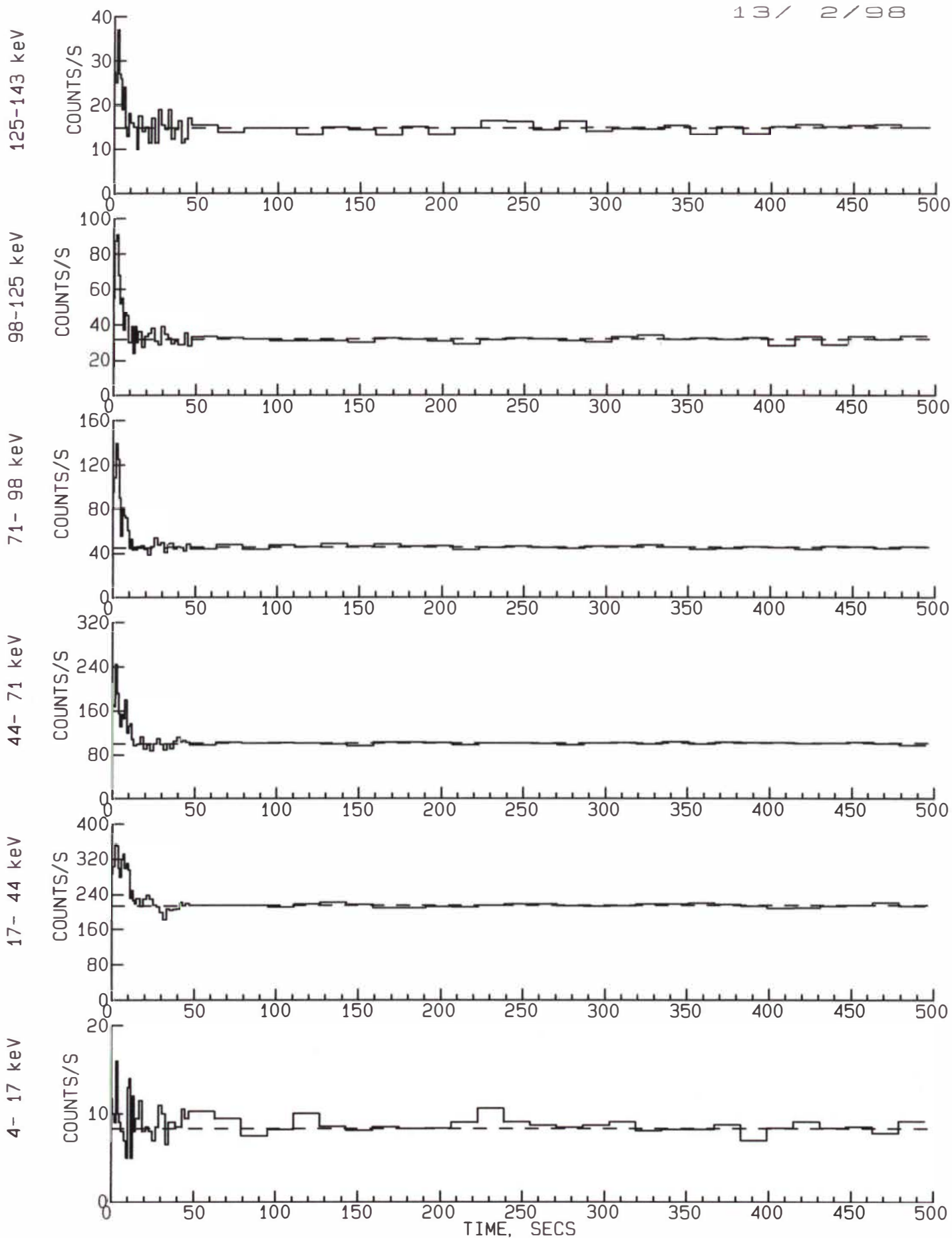
ULYSSES 03/04/95 47182.642

13/ 2/98

SPECTRUM INTEGRATED OVER 30.8 SECONDS, INTERVALS 2 TO 25



ULYSSES 03/04/95 47182.642 BURST SPECTRAL COUNT RATES



ULYSSES

03/04/95

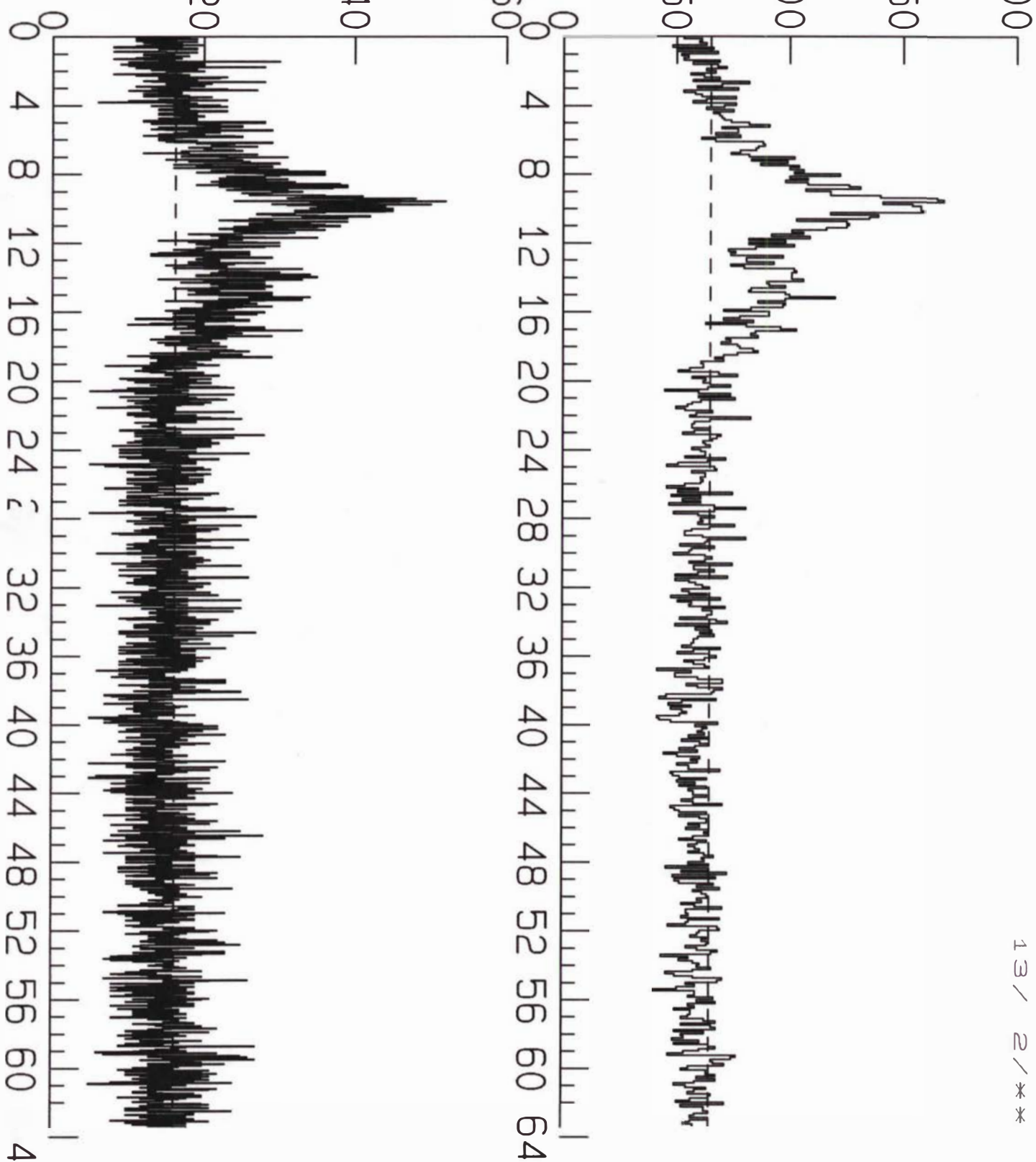
Ttrig=47182.678

21- 143 keV

13 / 2 / **

COUNTS/0.031 S

COUNTS/0.125 S



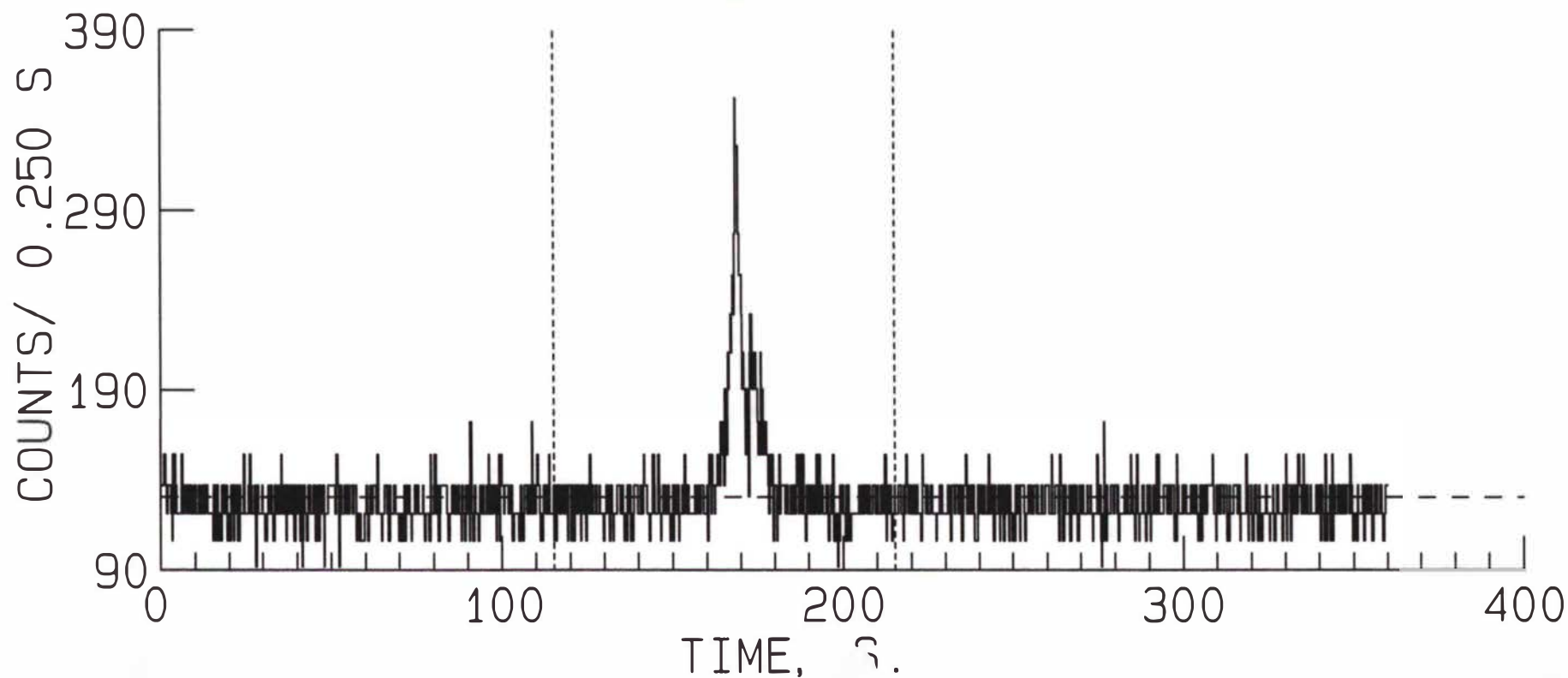
ULYSSES RT

13 / 2 / 98

3 / 4 / 95 47016.149 s

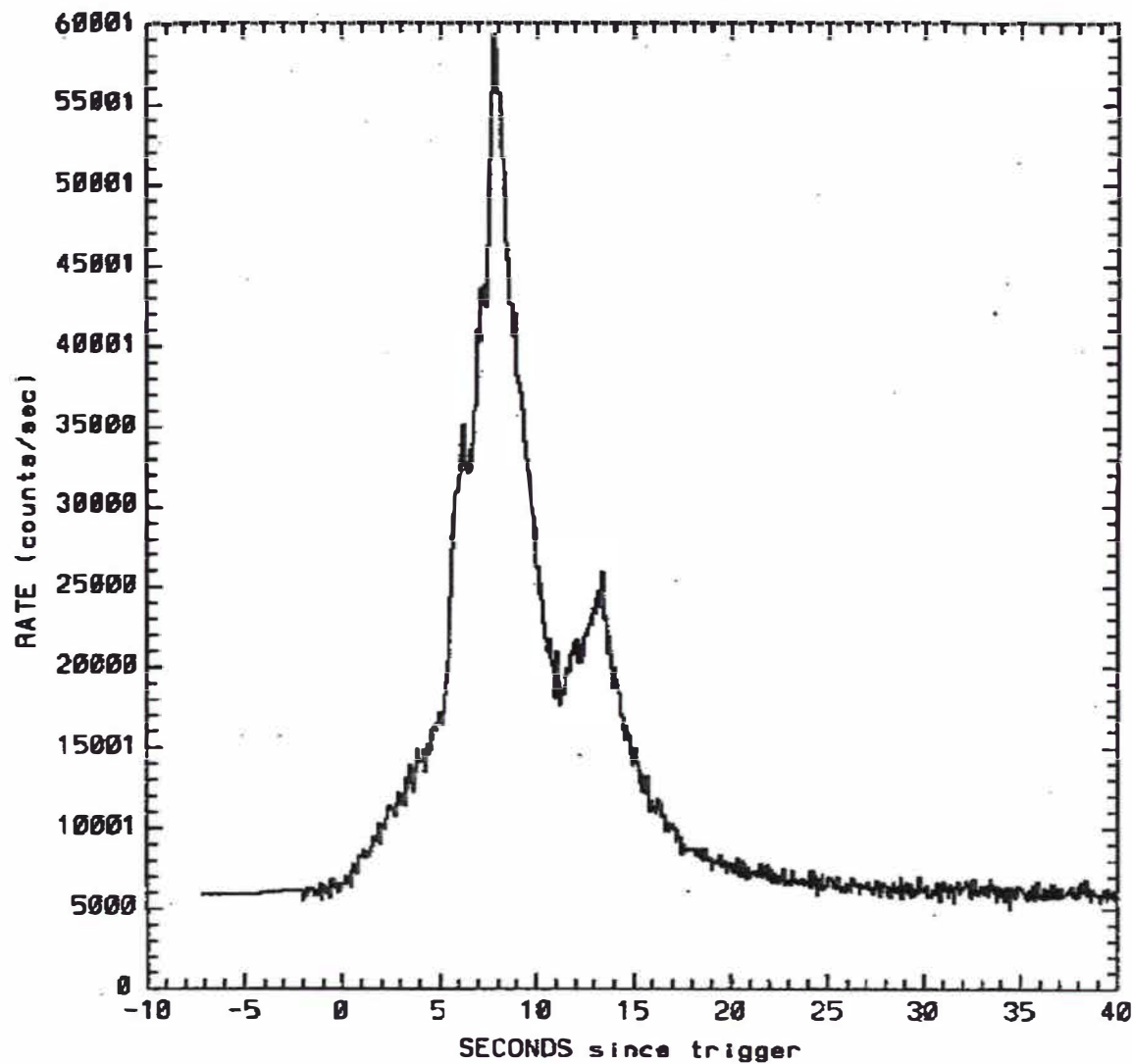
21- 143 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



APR 03A

DISCSC Data for K. Hurley, No. 3491



7-APR-1995 14:48:54

Created by NOPS 80
(Burst Display)
Version 12.24

Trigger = 3491

Trigger Time:
9818 / 47987.378Burst Data Type:
DISCSCDeadtime
Corrected: N
Background Data
Type: PREB + DISCLA
Minimum Integ. Time:
0.064 second(s)Detectors [7..8]:
----3-1-Discriminators:
[1. 2]Quality Mask:
BDISP1

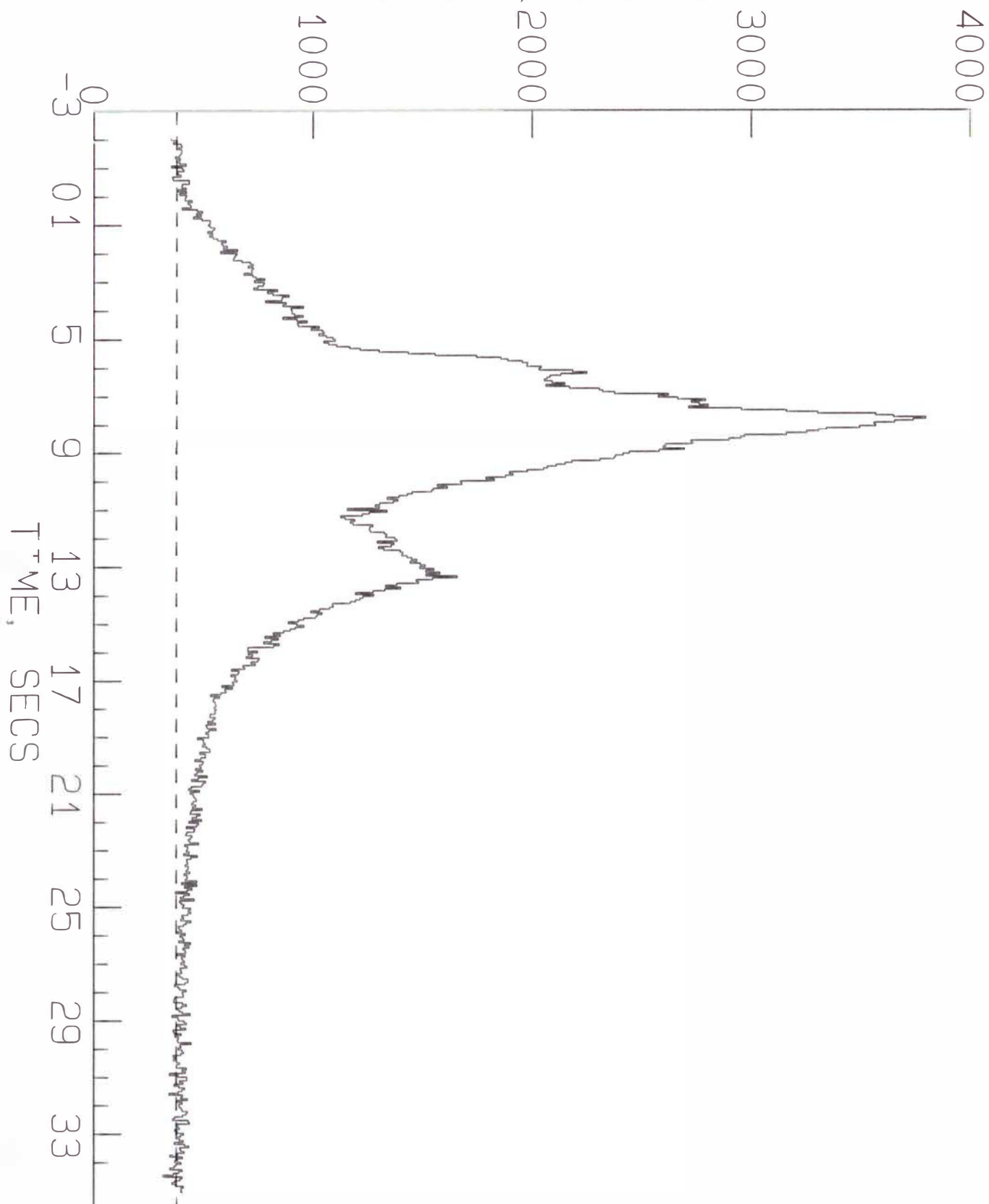
BATSE

03/04/95

47987.378

25- 100 keV

COUNTS/ .064 S



From DEAL@ssl.msfc.nasa.gov Thu Apr 6 11:28 PDT 1995
Date: Thu, 6 Apr 1995 13:28:36 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3492

DMSP 11+12

BATSEARCH PROGRAM

TRIGGER

BATSE BURST # 3492
EVENT OF 1995 APR 3 DAY OF YEAR= 93
EVENT CROSSING TIME AT BATSE : 84826. S. OR 23:33:46.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 185.000 57.000
BATSE PEAK COUNTING RATE: 200000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 3/ 4/ 95 IS:
RA= 351.210 DEC= 6.973 DIST= 2.251 AU
BATSE-ULYSSES DISTANCE = 336794031. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 64.96 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 475.45 SECS.
CROSSING TIME AT ULYSSES IS 85301. S. OR 23:41:41 +/- 233.94 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 3/ 4/ 95 IS:
RA= 137.063 DEC= 19.644 DIST= 0.913 AU
MARS-BATSE DISTANCE = 136583952. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=128.73 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -285.01 SECS.
CROSSING TIME AT MARS IS 84541. S. OR 23:29:00 +/- 57.38 SECONDS

BATSE BURST TRIGGER

NO.: 3492

TIME: TJD=9810 SECONDS=84826

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=114.9 AZIMUTH=113.9 ERROR= DEGREES

COMMENTS:

MULTI PEAKED BURST LASTING ~ 55S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3492	950403	9810	84826	200000	185	+57	55

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

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

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

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

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

Date:

Feb 13 '98

Holo corr removed

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

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

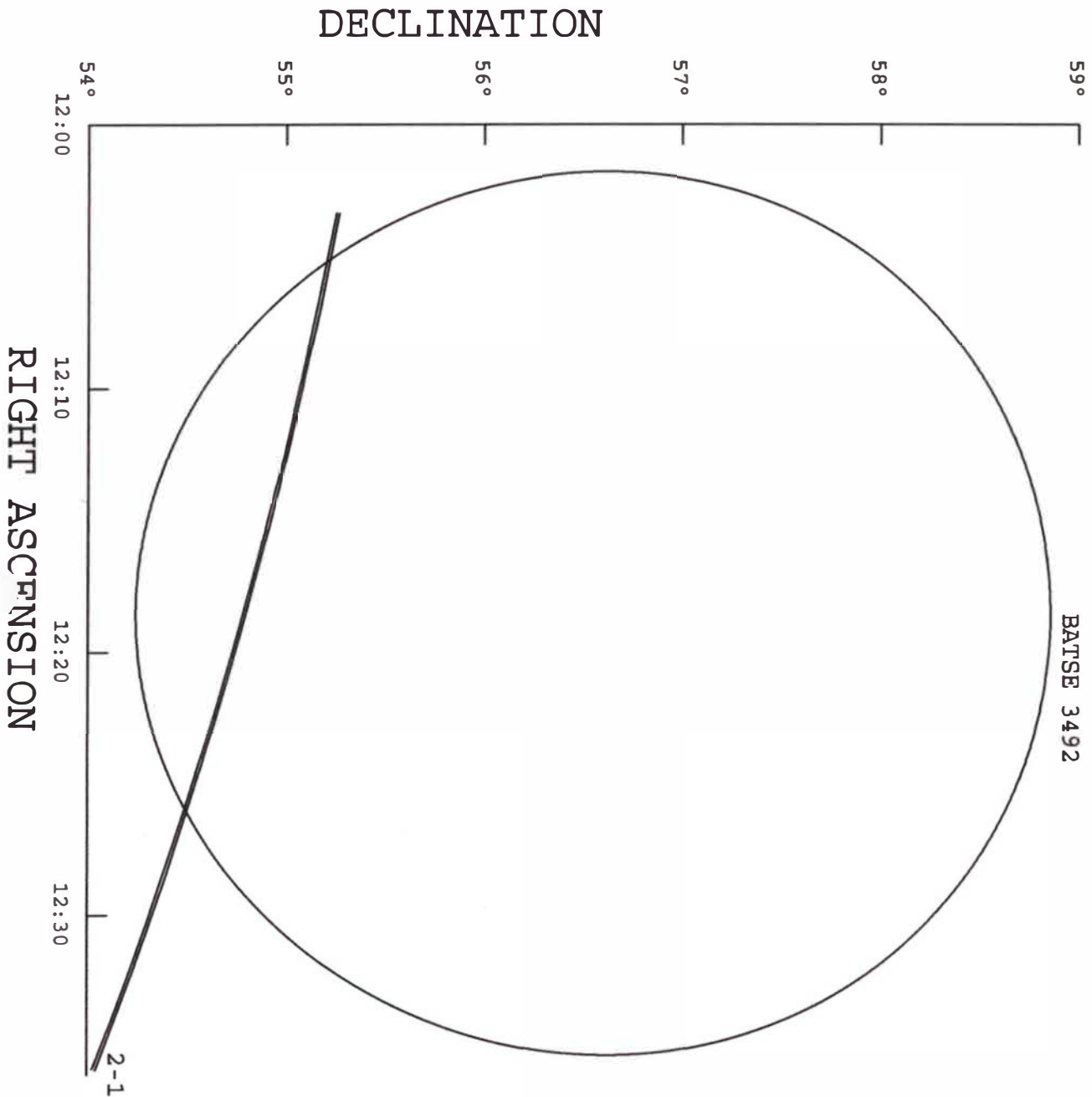
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF APR 3, 1995 23:42

13 / 2 / 98



BATSE

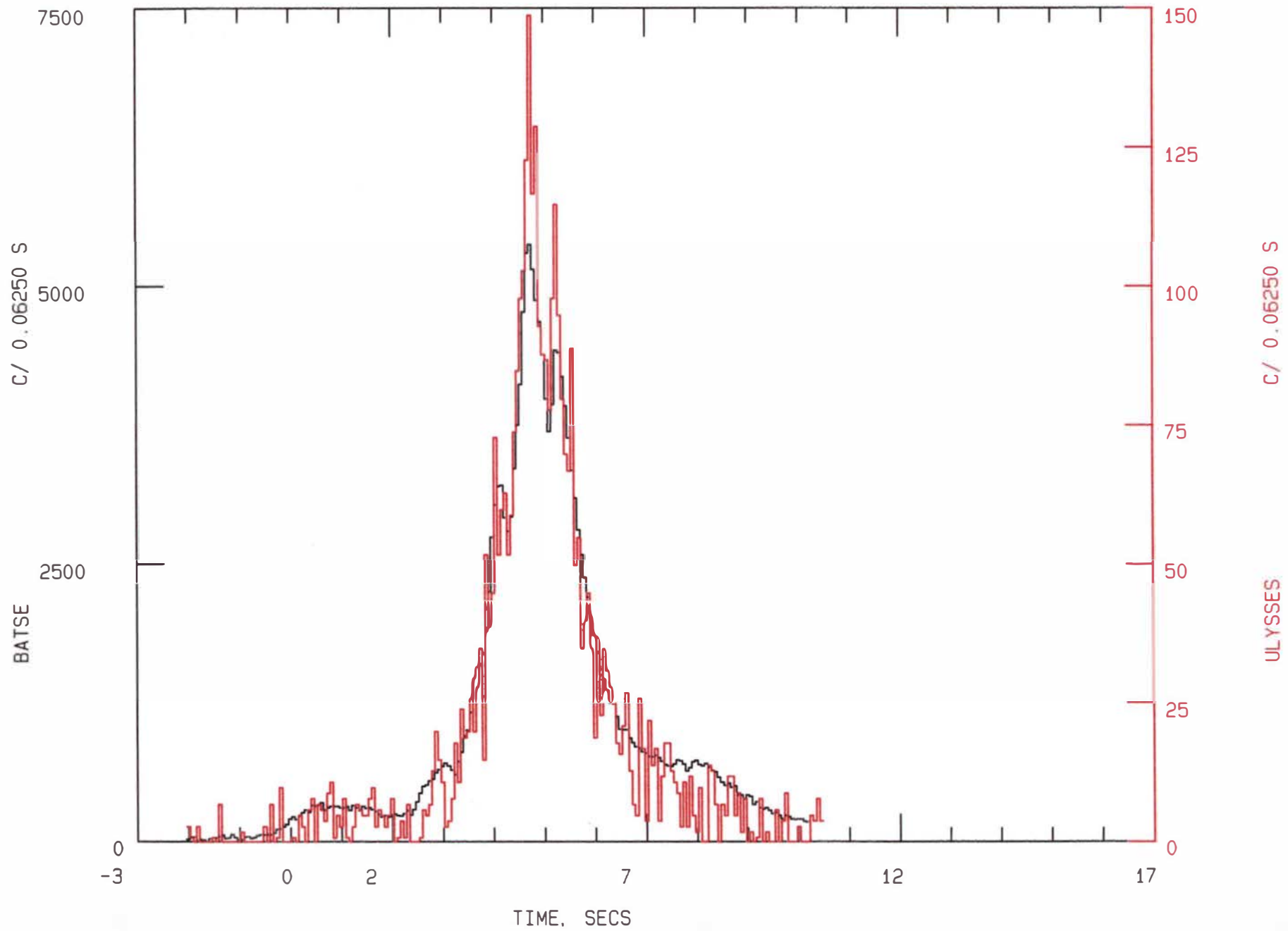
-ULYSSES

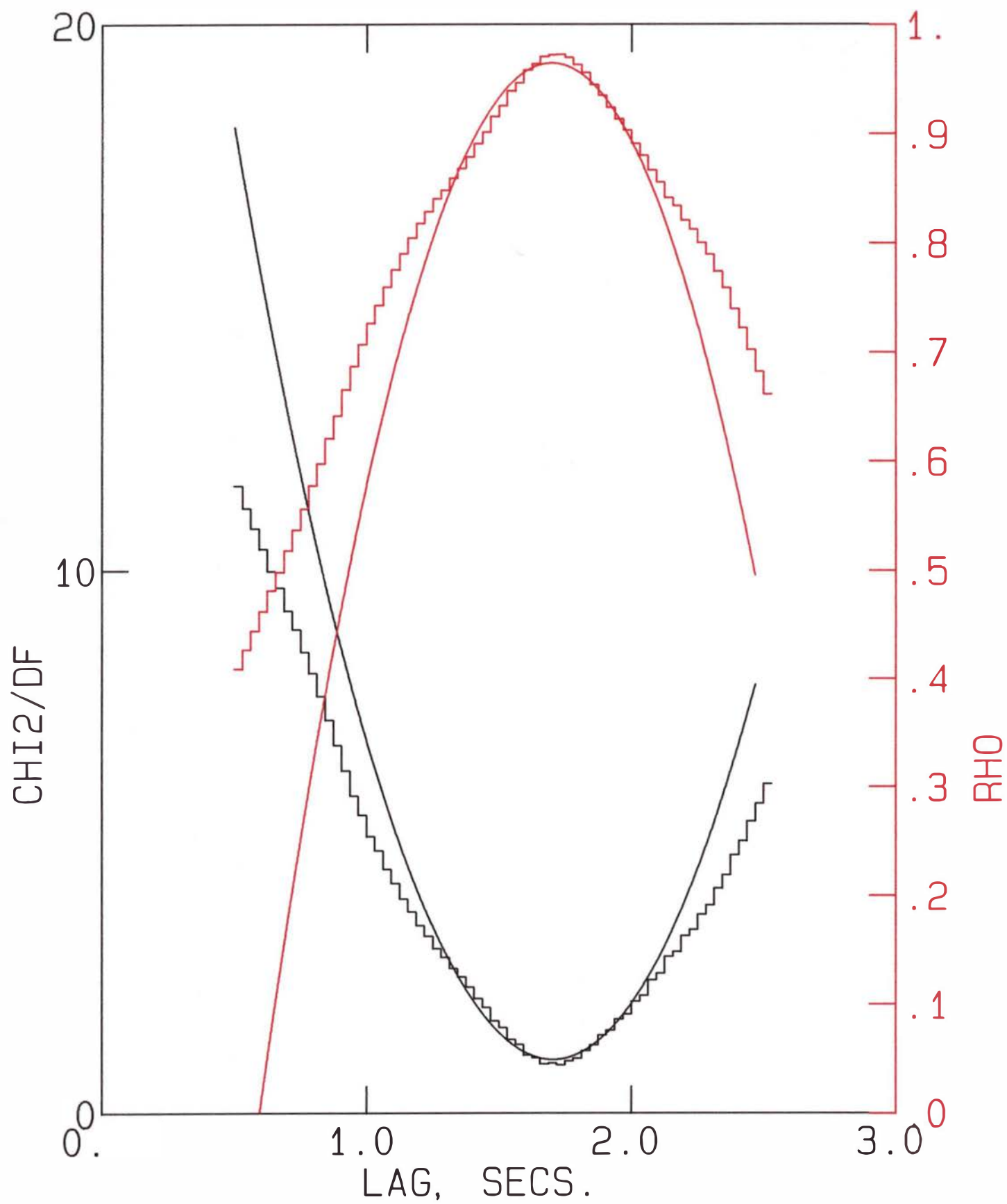
CORRELATION

3/ 4/95

84826.546

13/ 2/98





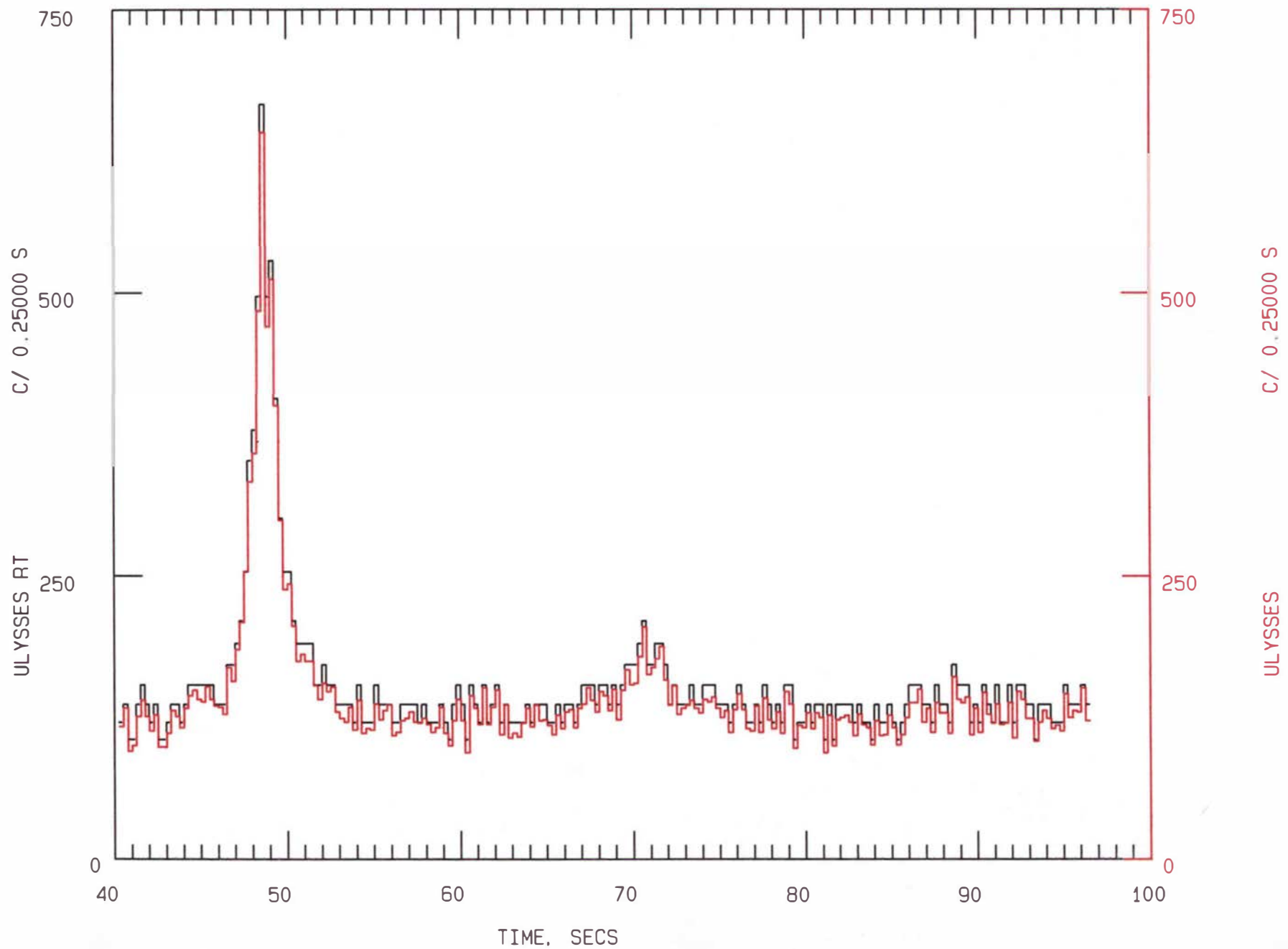
ULYSSES RT-ULYSSES

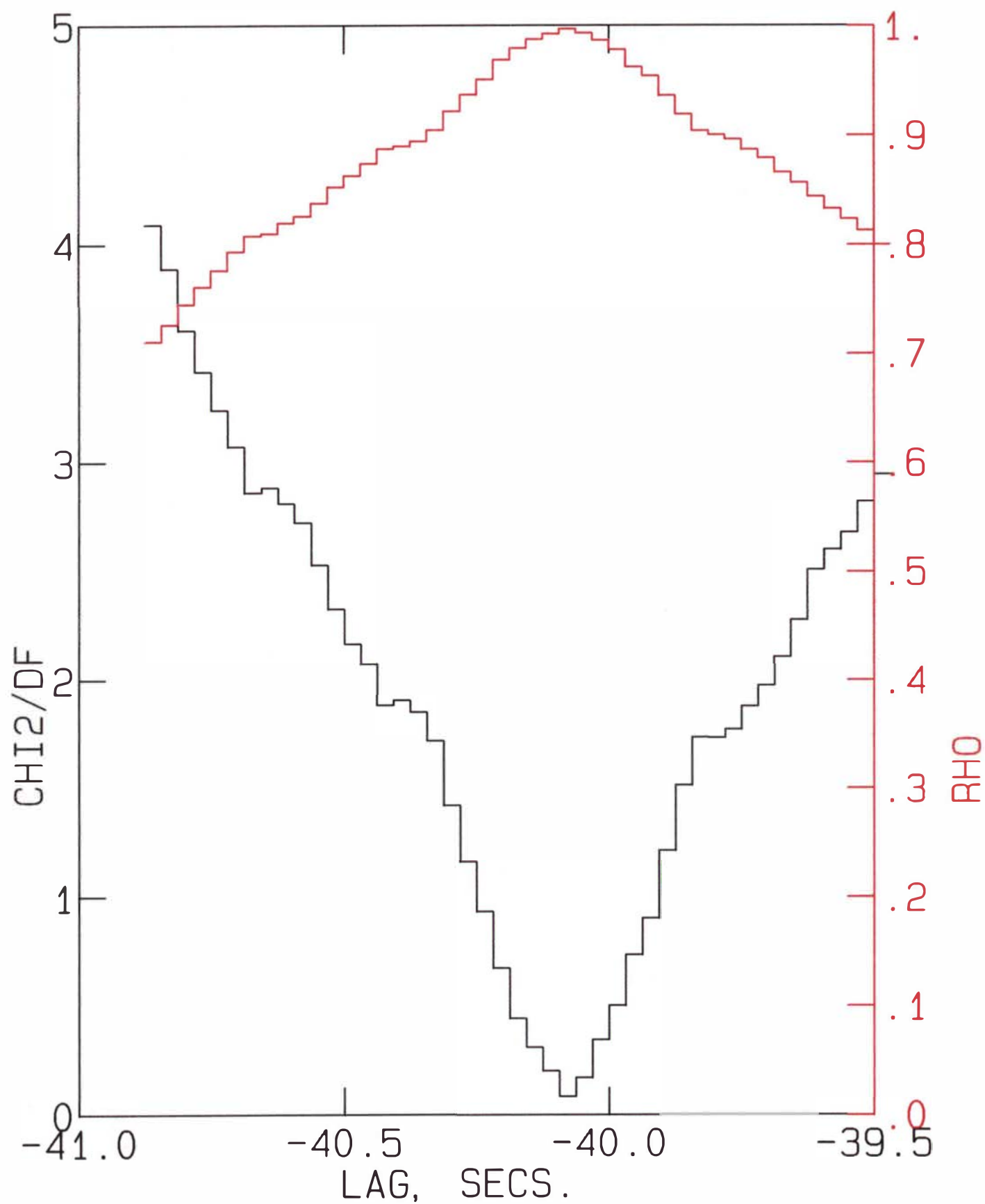
CORRELATION

3/ 4/95

85293.429

13/ 2/98

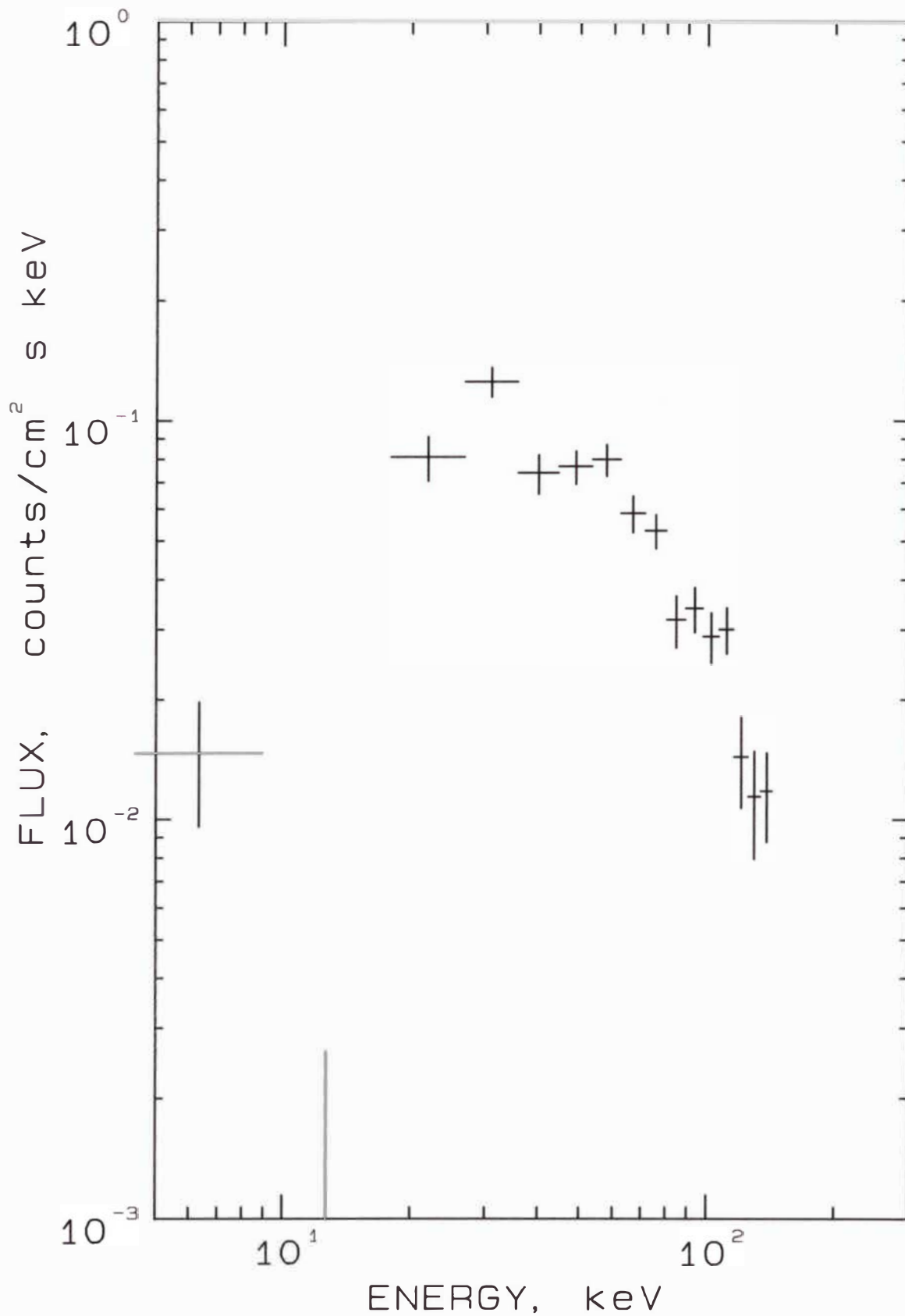




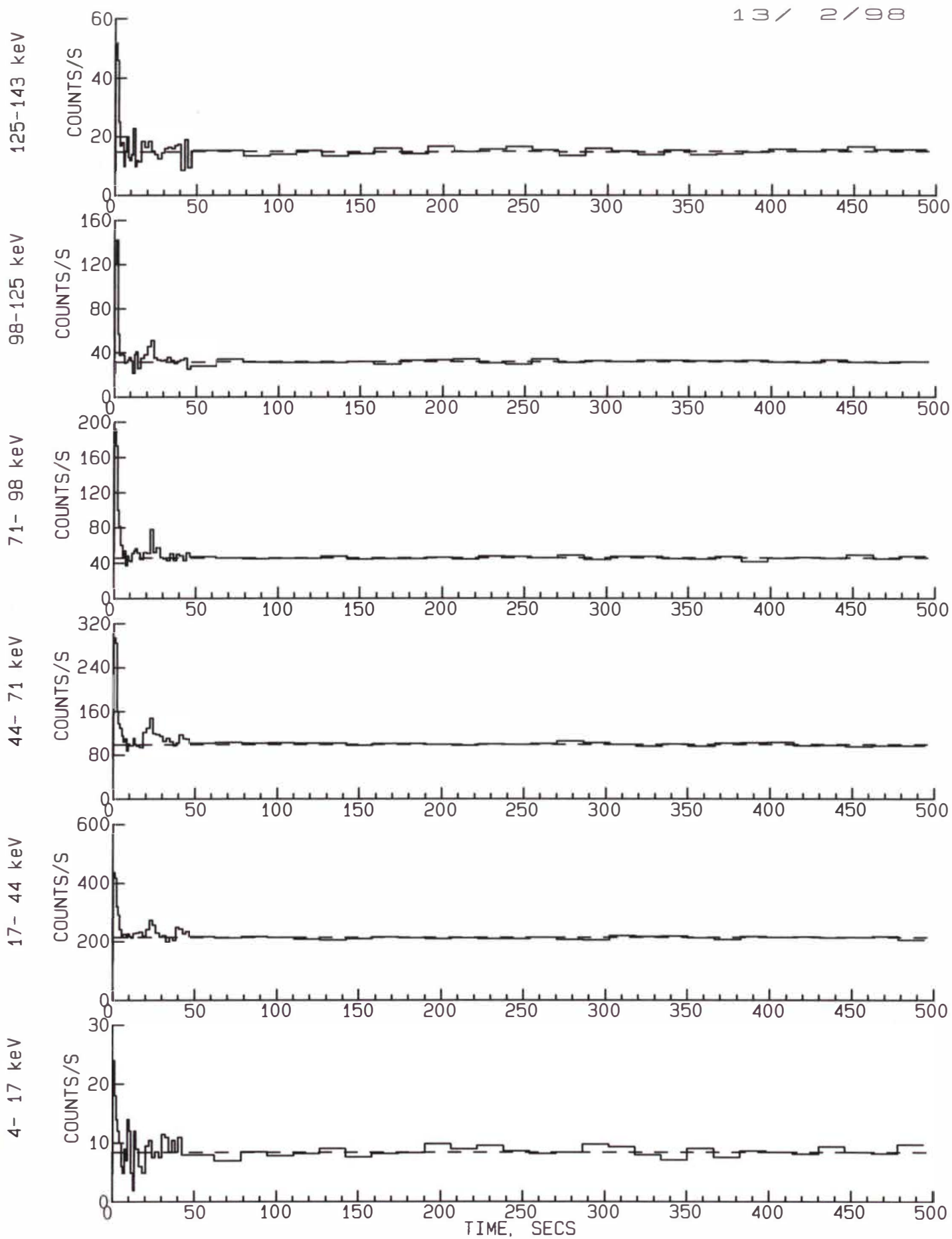
ULYSSES 03/04/95 85340.886

13/ 2/98

SPECTRUM INTEGRATED OVER 62.3 SECONDS, INTERVALS 2 TO 34



ULYSSES 03/04/95 85340.886 BURST SPECTRAL COUNT RATES



ULYSSES

03/04/95

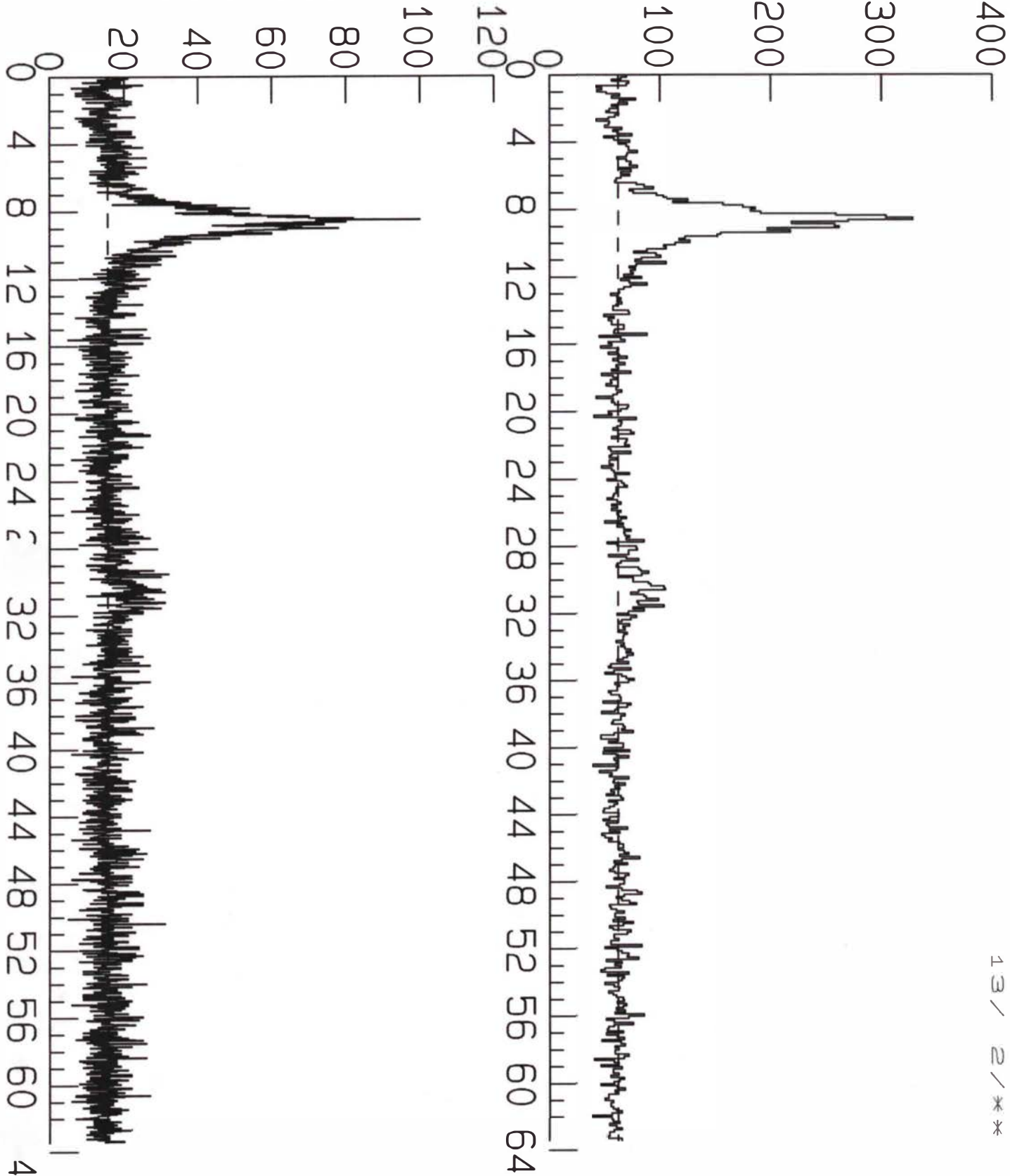
Ttrig=85340.927

21- 143 keV

13 / 2 / **

COUNTS/0.031 S

COUNTS/0.125 S



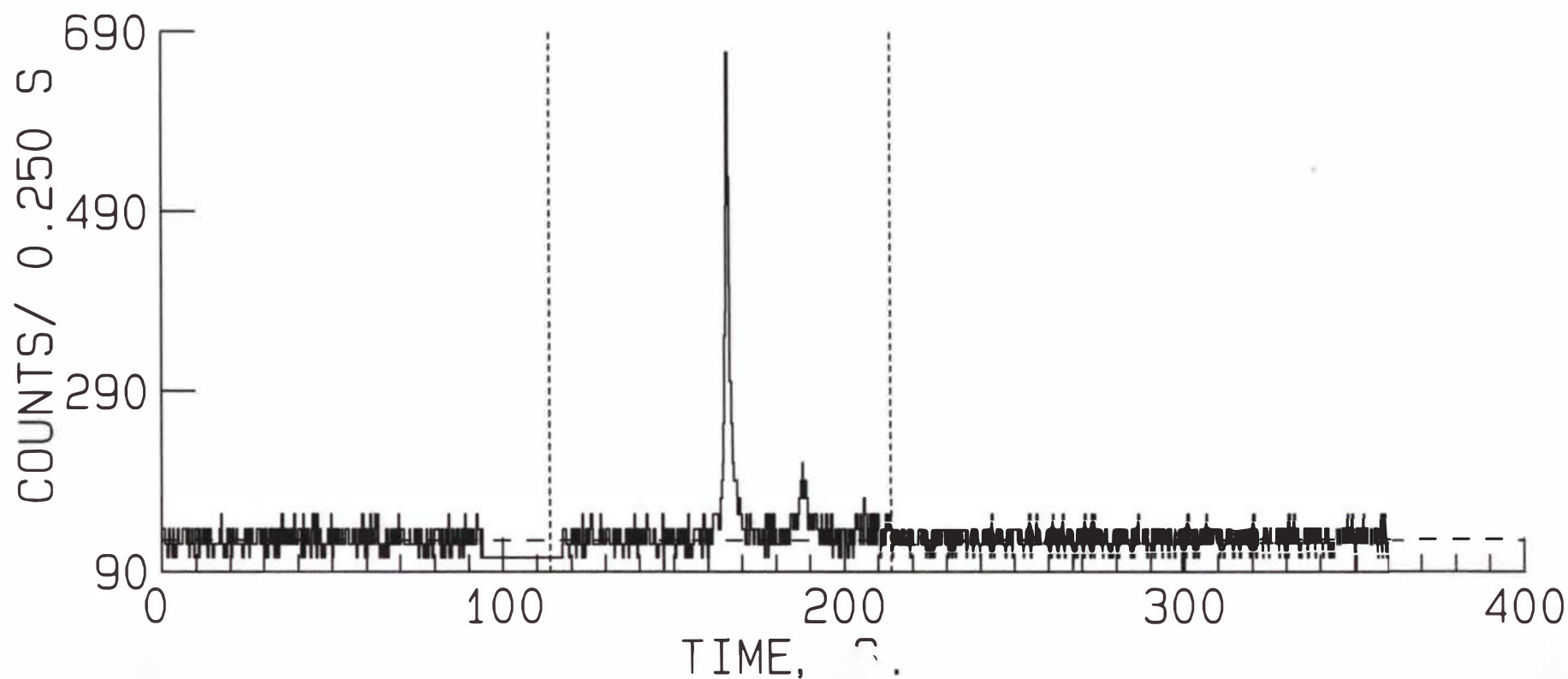
ULYSSES RT

13 / 2 / 98

3 / 4 / 95 85176.143 s

21- 143 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



APR03B

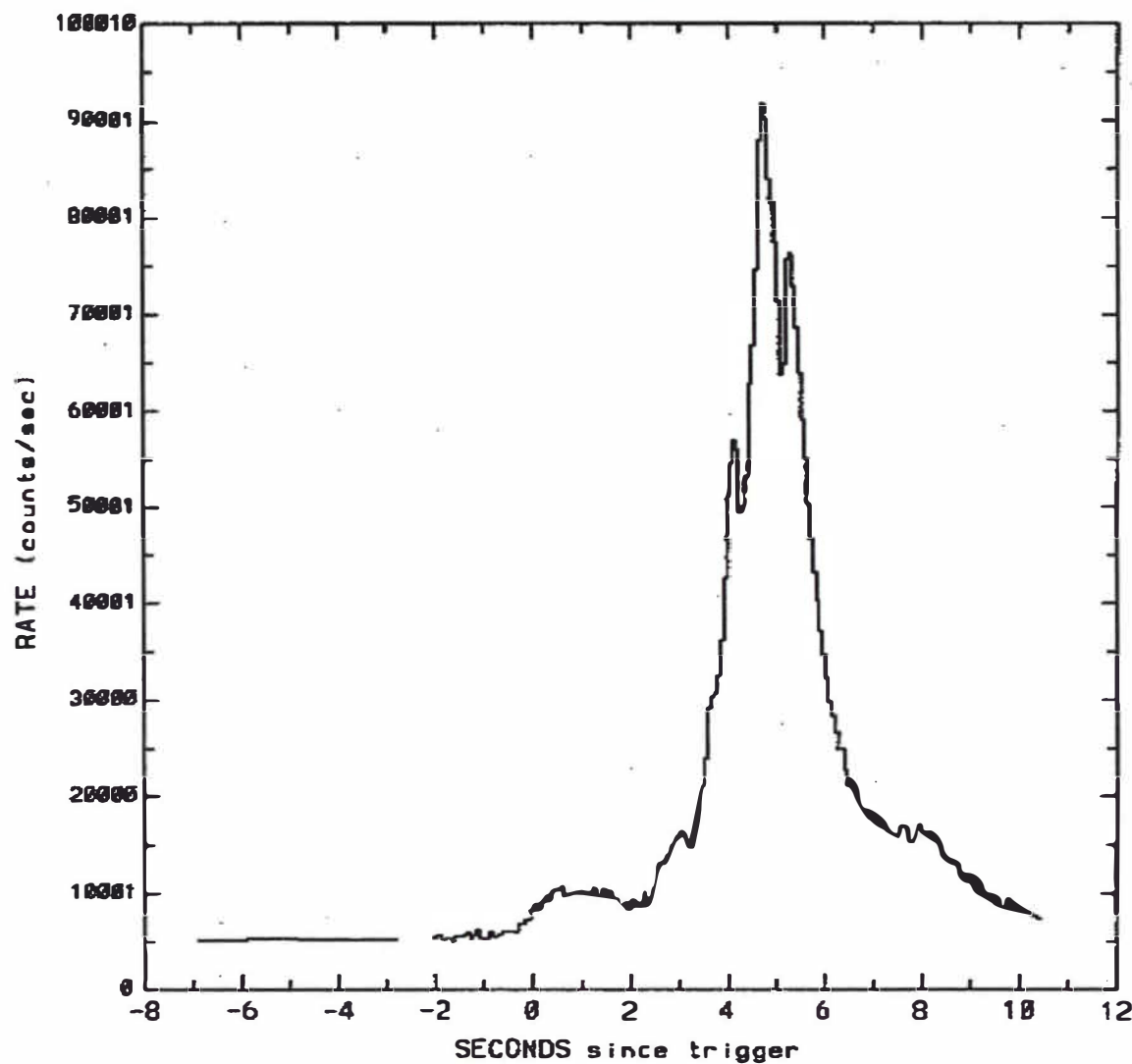
04-07-1995 14:37

205 544 5800

BATSE

P.03

DISCSC Data for K. Hurley. No. 3492



7-APR-1995 14:42:50

Created by ROPS BD
(Burst Display)
Version t2.24

Trigger # : 3492

Trigger Time:
9810 / 84826.546

Burst Data Type:
DISCSC

Deadline
Corrected: N
Background Data
Type: PREB + DISCLA

Minimum Integ. Time:
0.064 seconds

Detectors [7..8]:
--5--1-

Discriminators:
1 1. 2)

Quality Mask:
BDISP1

BATSE

03/04/95

84826.546

25- 100 keV

COUNTS/ .064 S

0
2000
4000
6000

-3

0

1

5

9

13

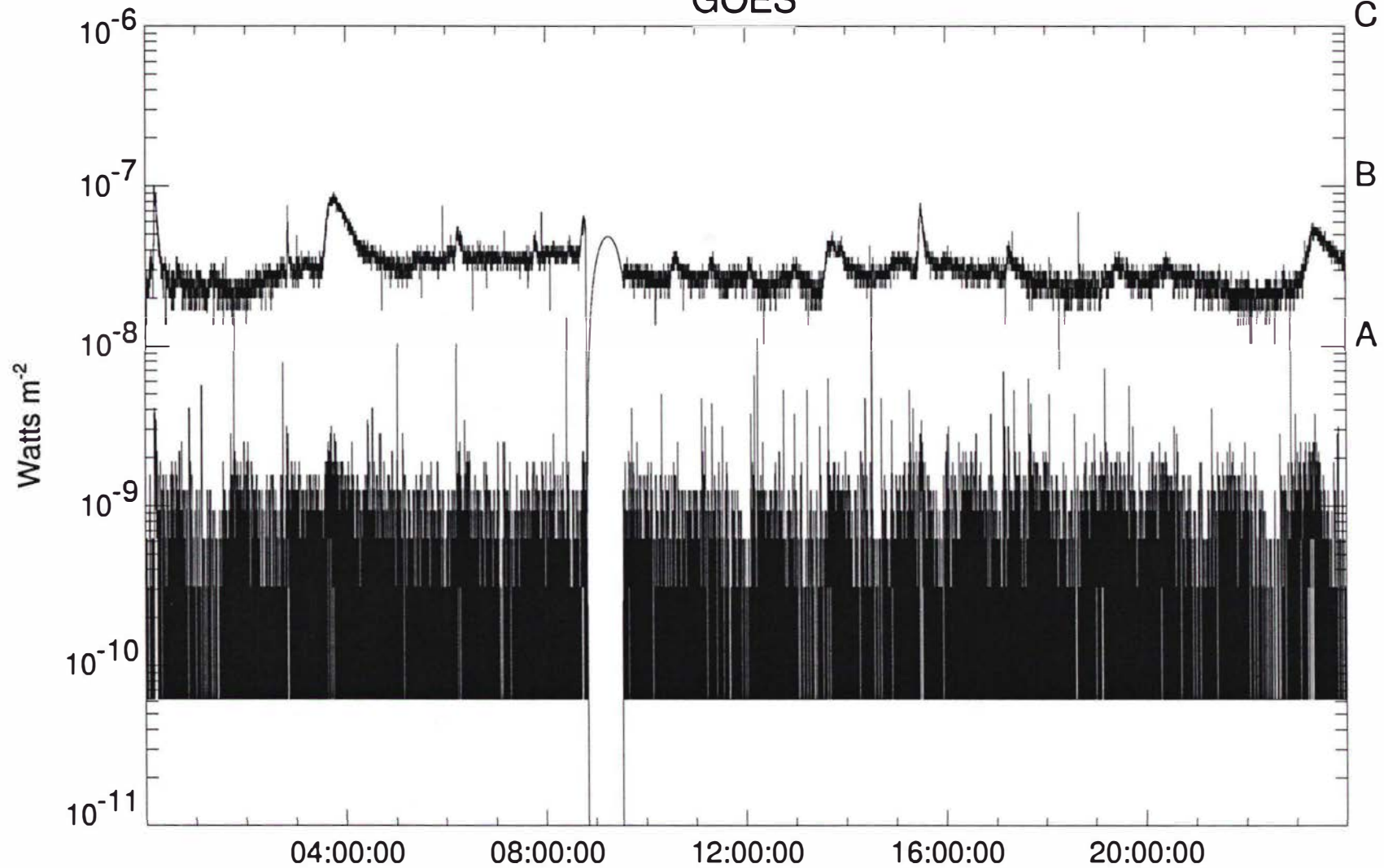
17

TIME, SECS

DHSP May 5 '95

21	SEP	94	18493	YES	(18502)
17	OCT	94	37173	YES	(37186, 37192, ...)
1	NOV	94	23519U	YES	(23460)
3	APR	95	?	YES	(84832, 84854, 84878)
7	APR	95	?	YES	(54932, 54936, 54944)

GOES

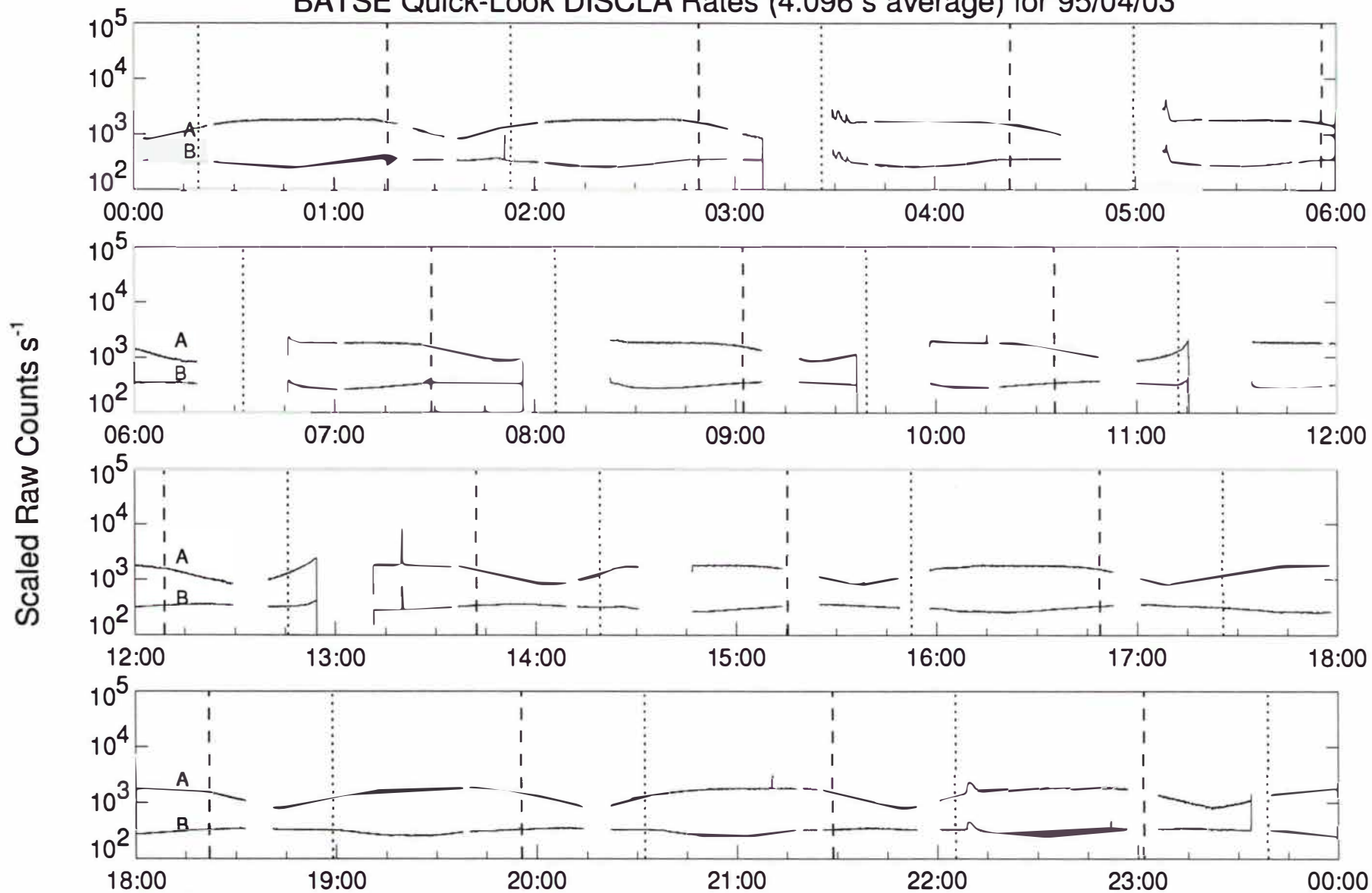


Data Start: 95/04/03, 0000:01

Plot created: 95/04/05, 1716

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

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/03



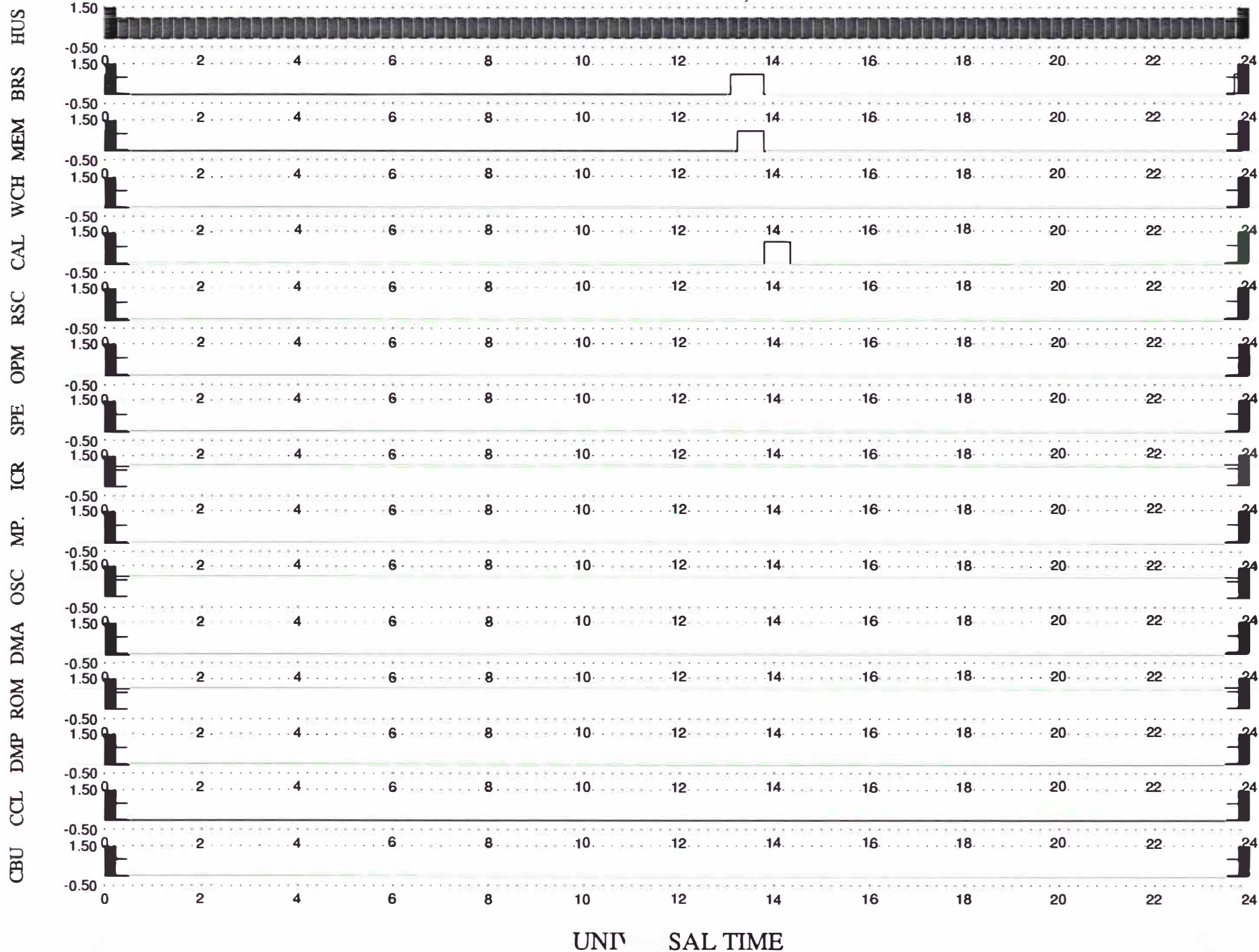
Current Time: 95/04/05, 1716 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

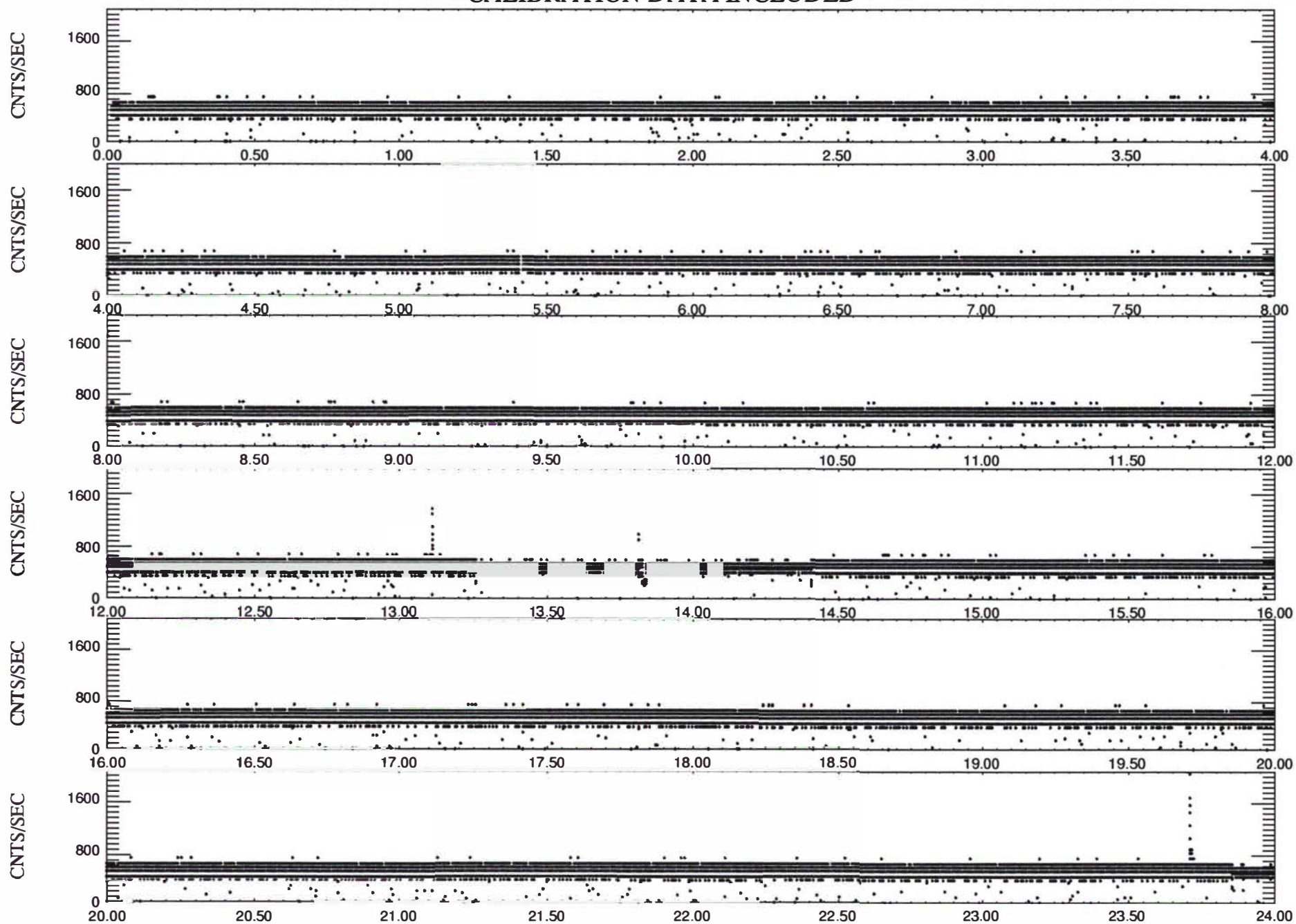
HUS MODES EDR day 93, year 1995 to day 93, year 1995
BURST NUMBER 10, 11

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 93, year 1995 to day 93, year 1995
CALIBRATION DATA INCLUDED

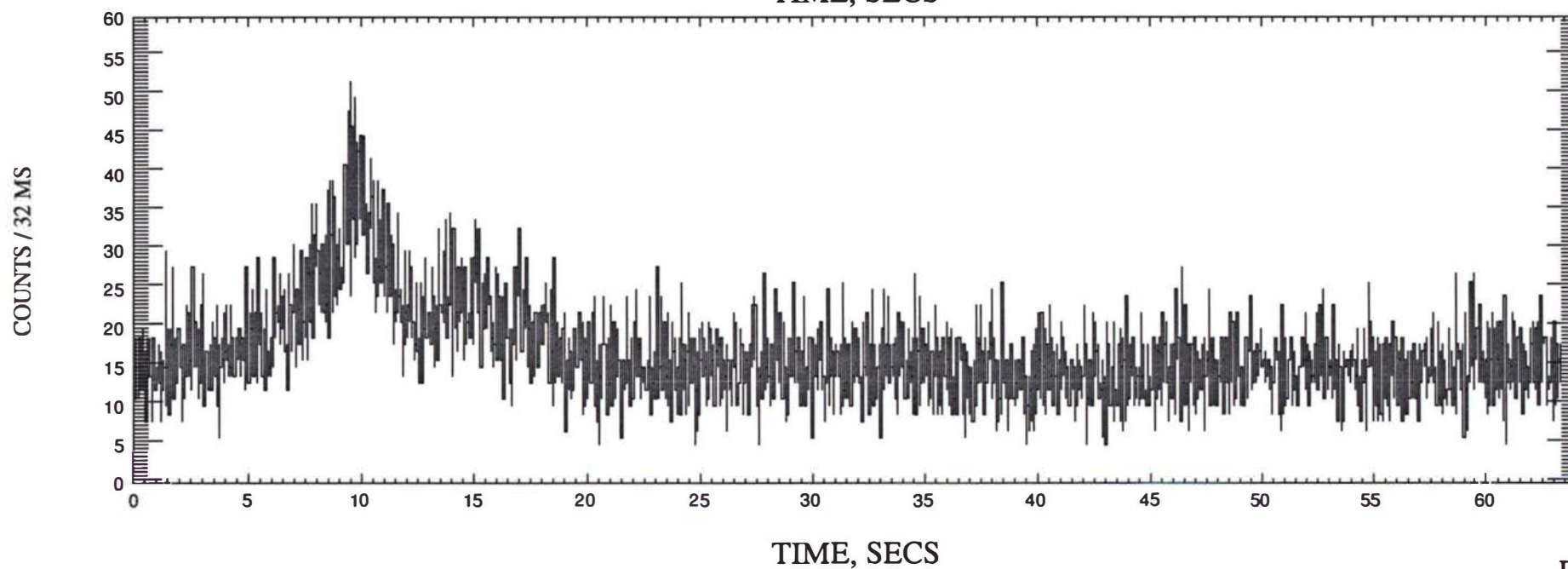
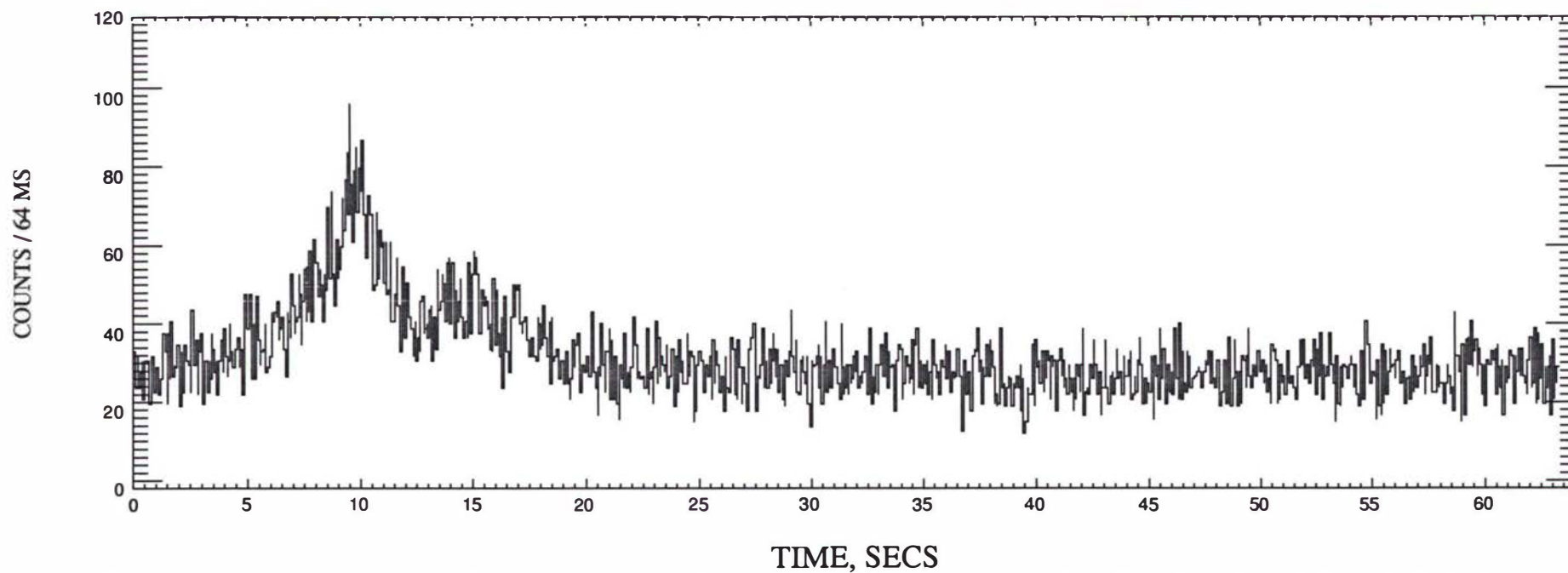
11/16/95



UNIV `SAL TIME

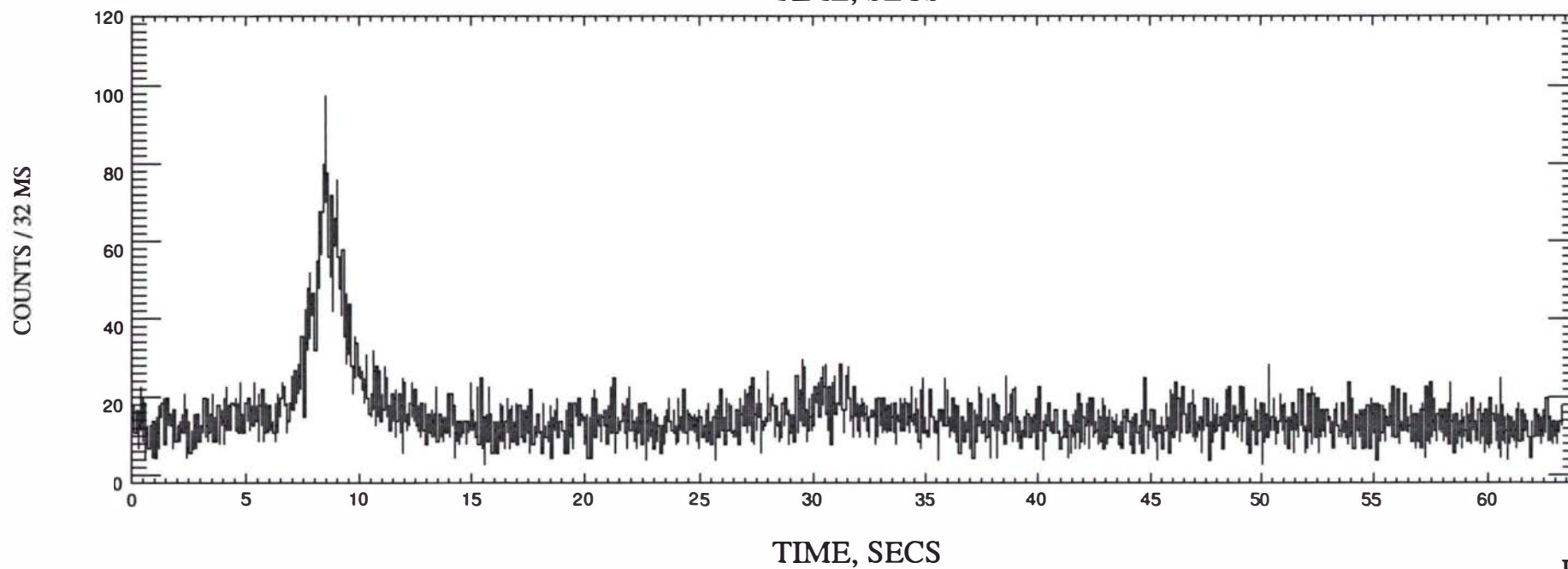
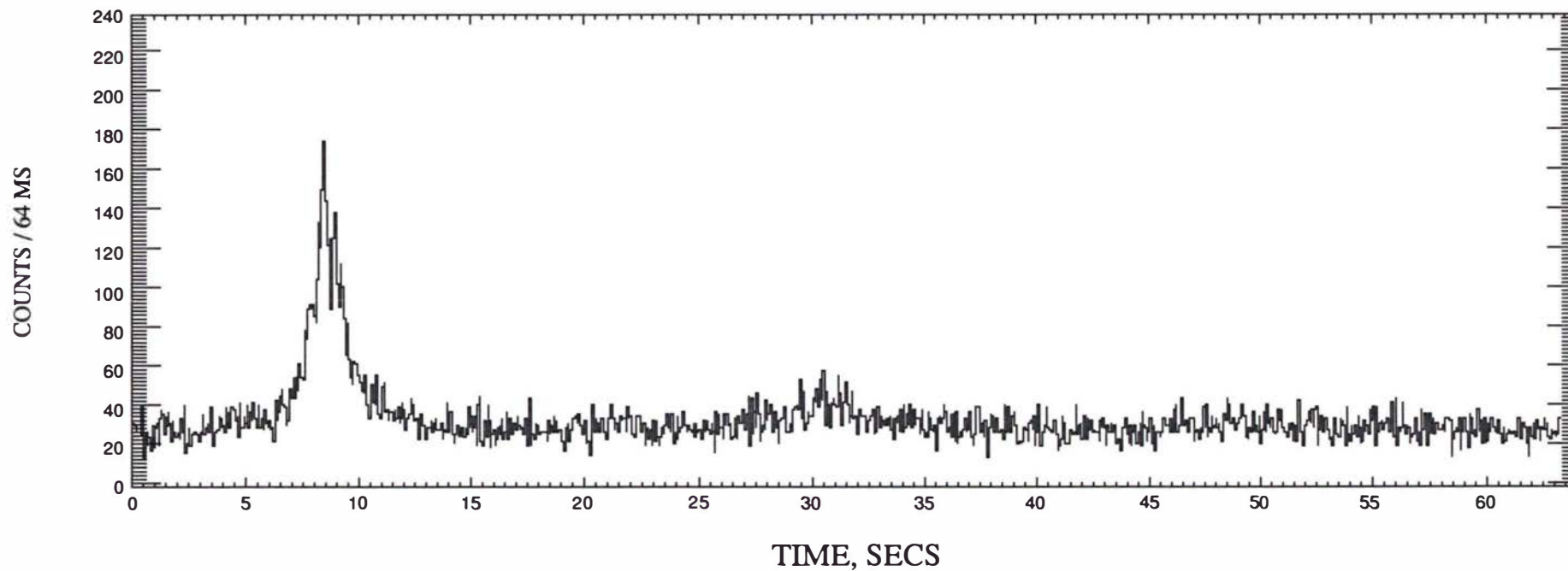
HUS 2A TRIGGERED DATA EDR day 93, year 1995
Burst Counter 10 at UT=13.106289384630 h=47182.642 s 13:06:22.642

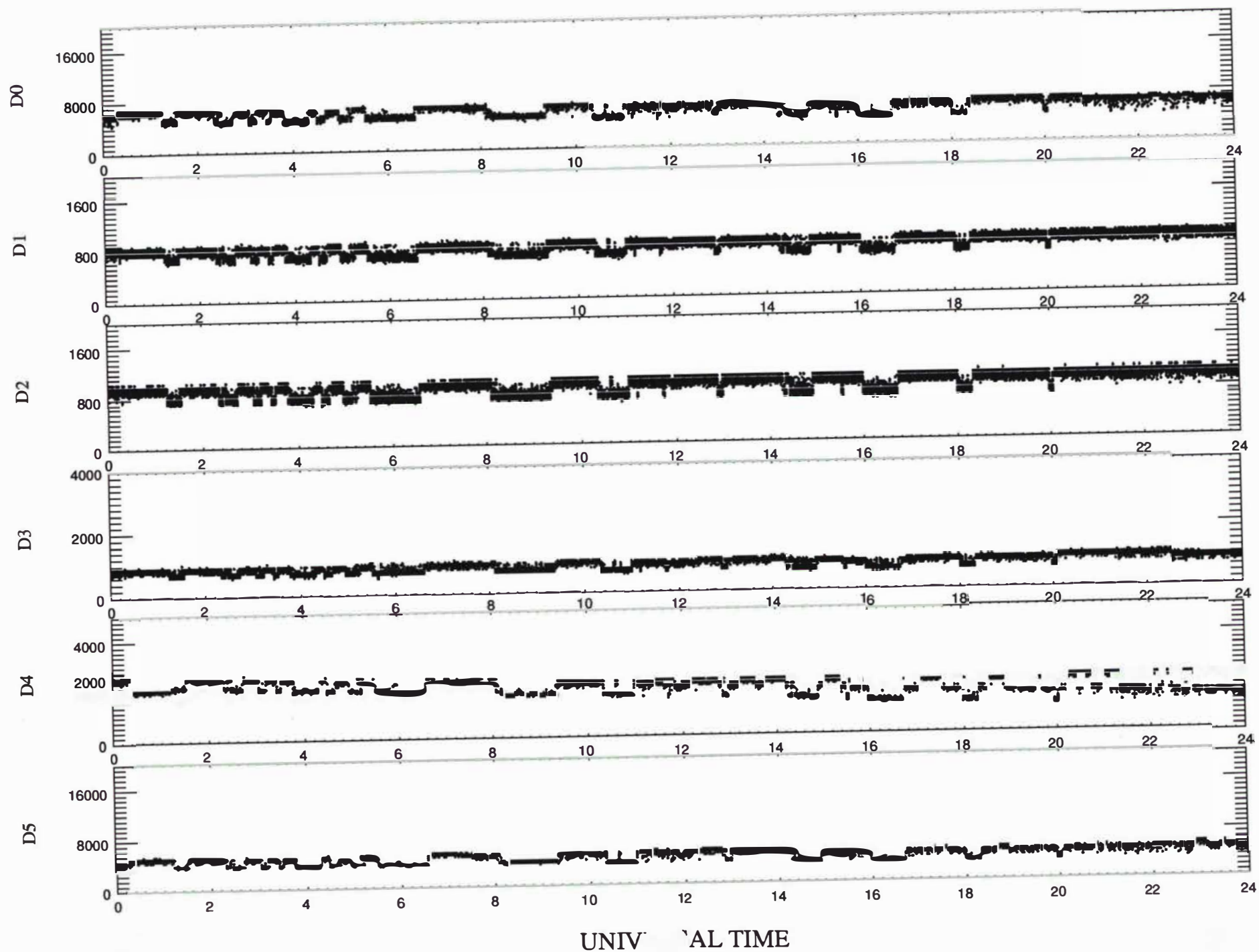
11/16/95

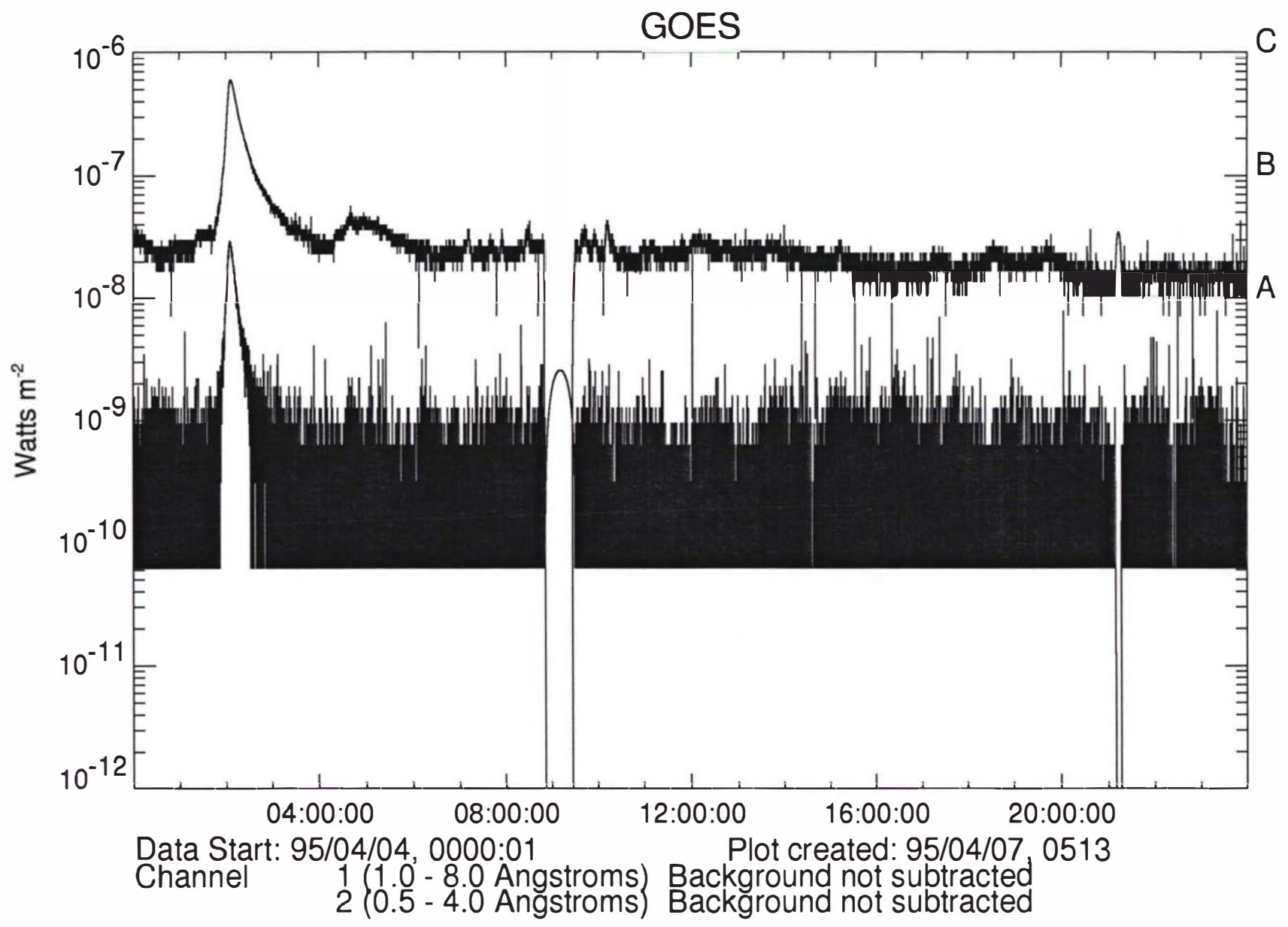


HUS 2A TRIGGERED DATA EDR day 93, year 1995
Burst Counter 11 at UT=23.705801709493 h=85340.886 s 23:42:20.886

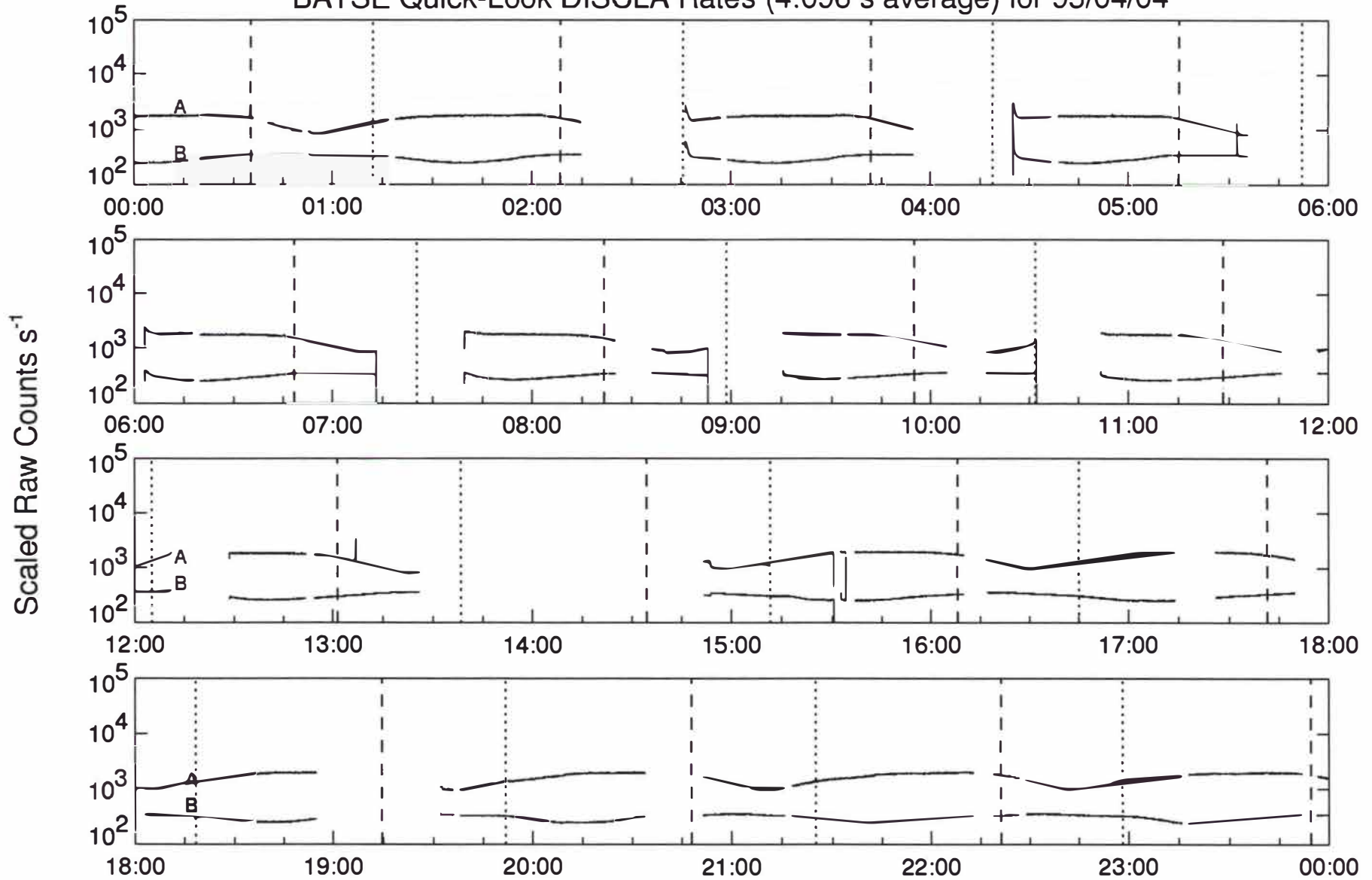
11/16/95







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

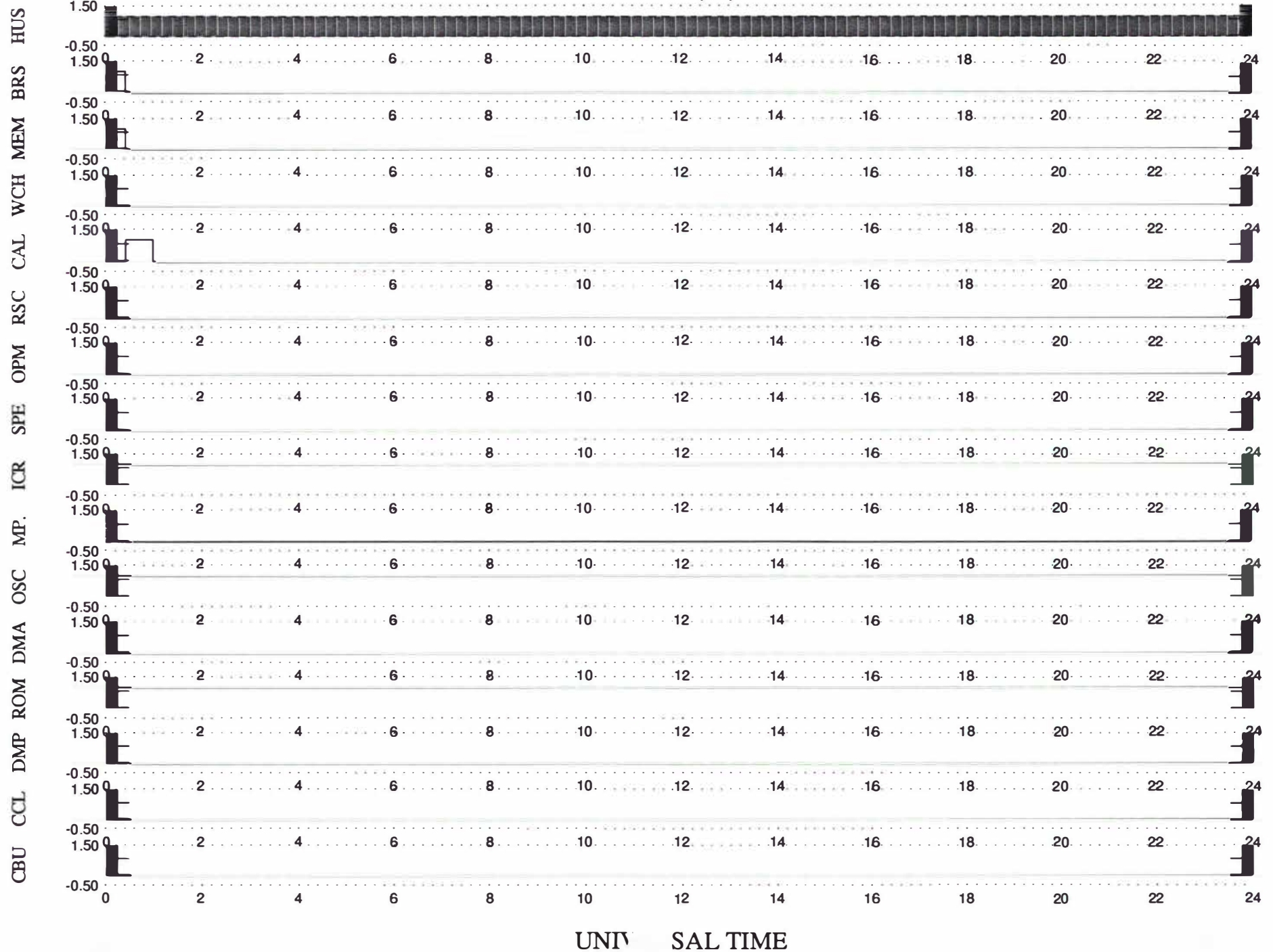


Current Time: 95/04/07, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

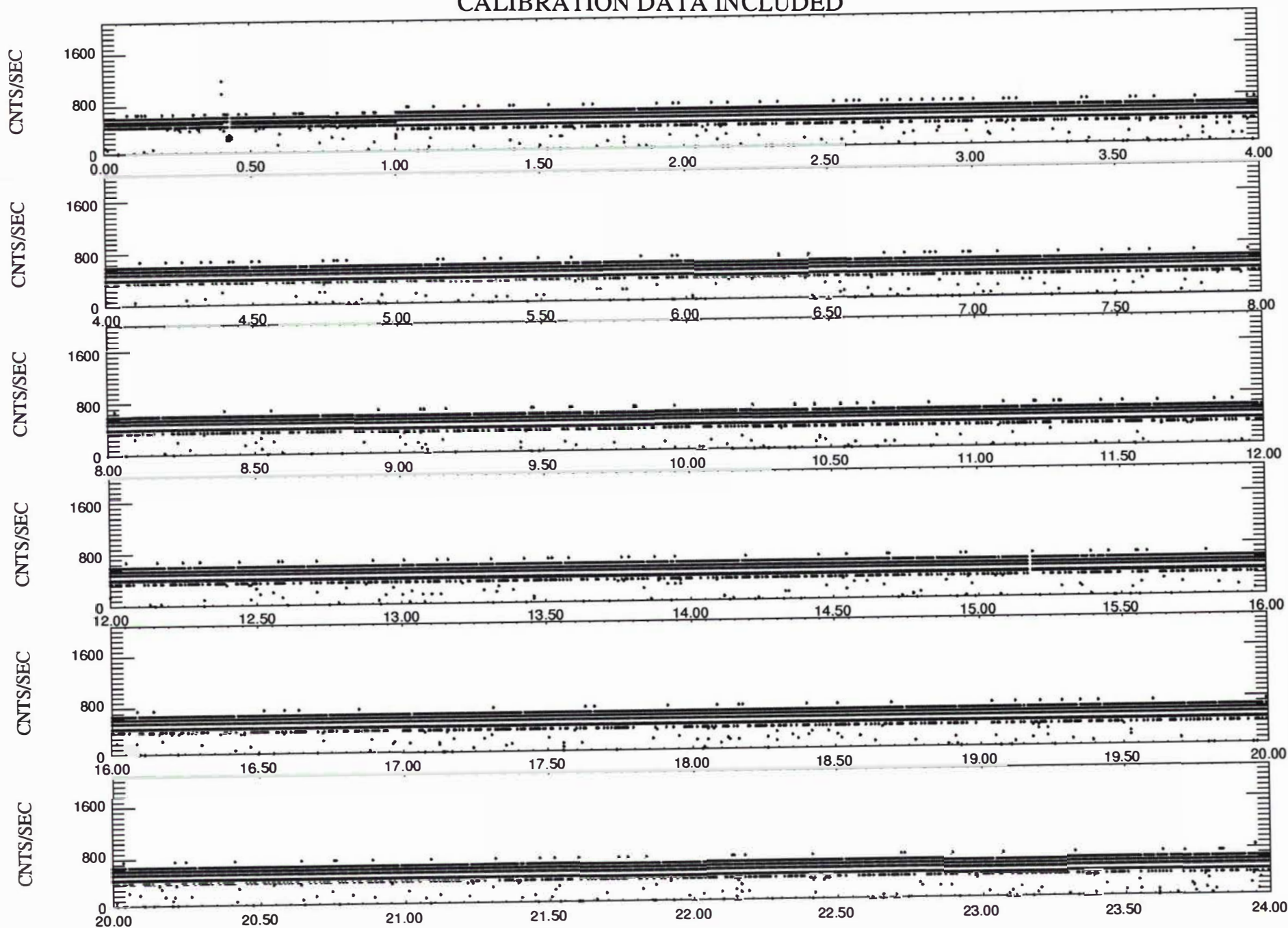
* Solar Burst Trigger
 + Solar Flare

11/16/95

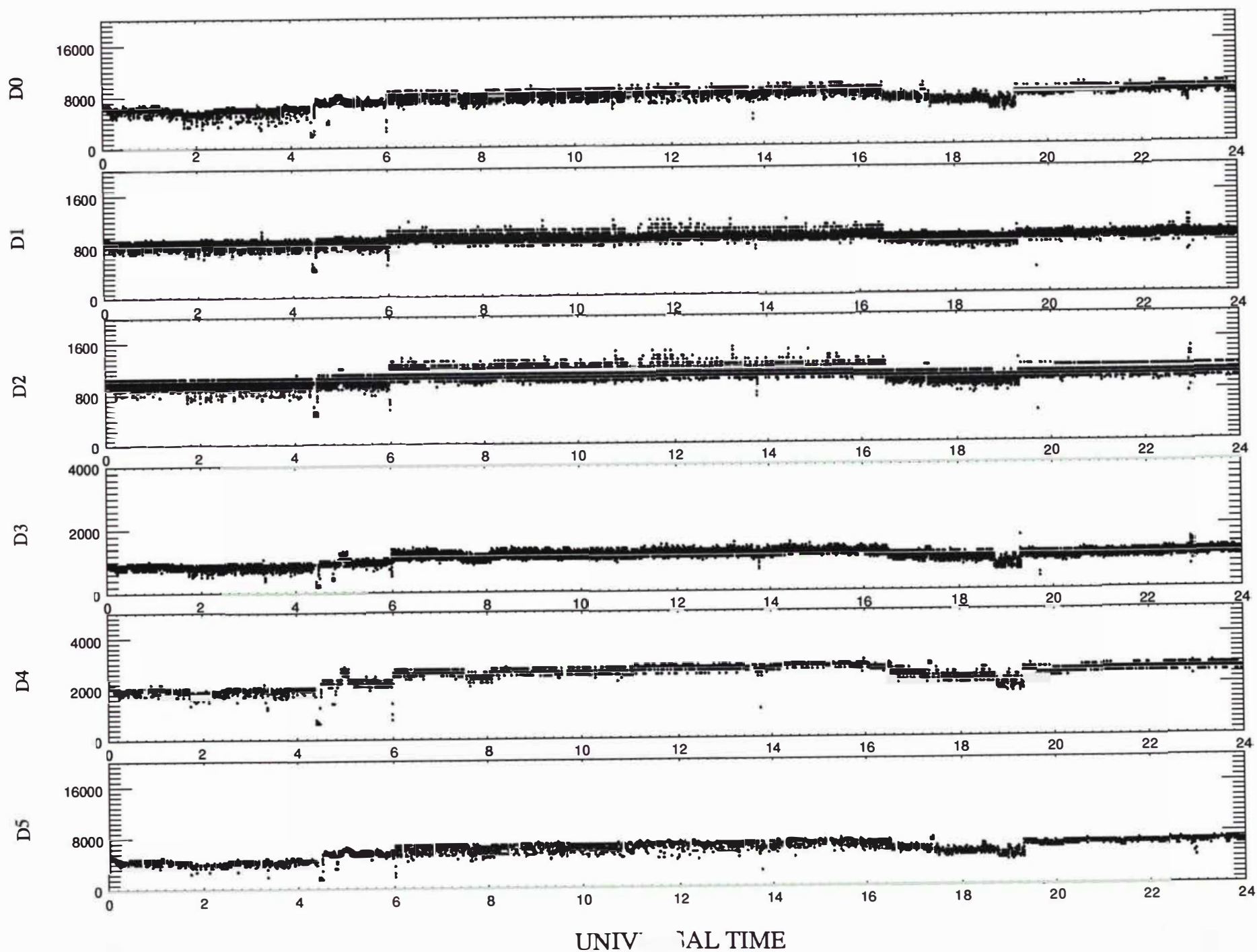


HUS 2A, MODE 1, NOT AVERAGED EDR day 94, year 1995 to day 94, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIT SAL TIME



From SAHI@ssl.msfc.nasa.gov Fri Apr 7 12:46 PDT 1995
Date: Fri, 7 Apr 1995 14:46:15 -0500 (CDT)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3493

BATSEARCH PROGRAM

NO

BATSE BURST # 3493
EVENT OF 1995 APR 5 DAY OF YEAR= 95
EVENT CROSSING TIME AT BATSE : 15257. S. OR 04:14:17.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 8.000 63.000
BATSE PEAK COUNTING RATE: 3500 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 5/ 4/ 95 IS:
RA= 351.559 DEC= 7.755 DIST= 2.246 AU
BATSE-ULYSSES DISTANCE = 336061172. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=123.48 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -618.41 SECS.
CROSSING TIME AT ULYSSES IS 14639. S. OR 04:03:58 +/- 202.93 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 5/ 4/ 95 IS:
RA= 137.278 DEC= 19.504 DIST= 0.929 AU
MARS-BATSE DISTANCE = 138961744. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 91.52 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -12.31 SECS.
CROSSING TIME AT MARS IS 15245. S. OR 04:14:04 +/- 80.26 SECONDS

BATSE BURST TRIGGER

NO.: 3493

TIME: TJD=9812 SECONDS=15257

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=87.1 AZIMUTH=286.6 ERROR= DEGREES

COMMENTS:

BURST, DOUBLE PEAK, DUR.~20 SECS. FIRST PEAK VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3493	950405	9812	15257	3500	008	+63	20

3 / 1 / 96

ULYSSES RT

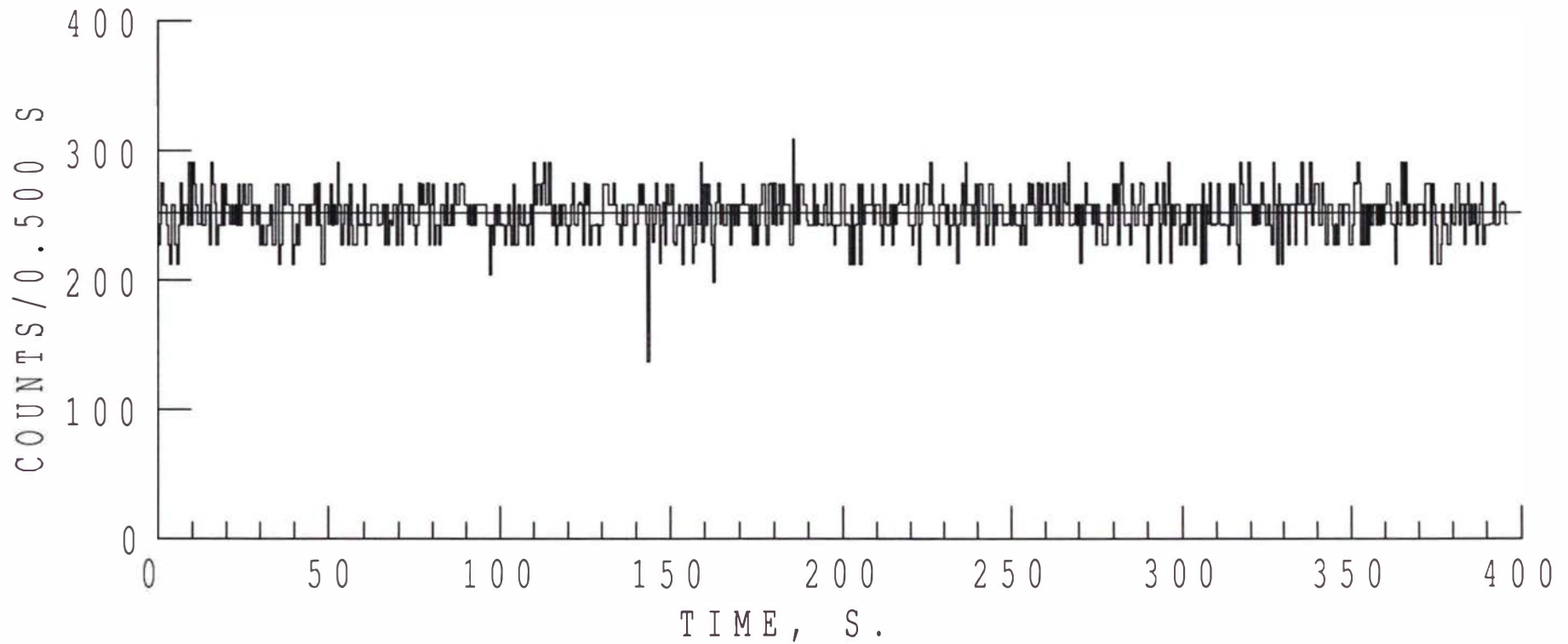
5 / 4 / 95 14436.137 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From SAHI@ssl.msfc.nasa.gov Fri Apr 7 12:48 PDT 1995
Date: Fri, 7 Apr 1995 14:48:45 -0500 (CDT)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3494

BATSEARCH PROGRAM

NO

BATSE BURST # 3494
EVENT OF 1995 APR 5 DAY OF YEAR= 95
EVENT CROSSING TIME AT BATSE : 37219. S. OR 10:20:19.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 329.000 57.000
BATSE PEAK COUNTING RATE: 6000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 5/ 4/ 95 IS:
RA= 351.633 DEC= 7.921 DIST= 2.245 AU
BATSE-ULYSSES DISTANCE = 335903451. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=127.84 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -687.37 SECS.
CROSSING TIME AT ULYSSES IS 36532. S. OR 10:08:51 +/- 193.18 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 5/ 4/ 95 IS:
RA= 137.278 DEC= 19.504 DIST= 0.929 AU
MARS-BATSE DISTANCE = 138961744. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 77.13 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 103.22 SECS.
CROSSING TIME AT MARS IS 37322. S. OR 10:22:02 +/- 80.02 SECONDS

BATSE BURST TRIGGER

NO.: 3494

TIME: TJD=9812 SECONDS=37219

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=106.6 AZIMUTH=292.2 ERROR= DEGREES

COMMENTS:

WEAK BURST, SINGLE SPIKE, DUR.~0.12 SECS. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3494	950405	9812	37219	6000	329	+57	.12

3 / 1 / 96

ULYSSES RT

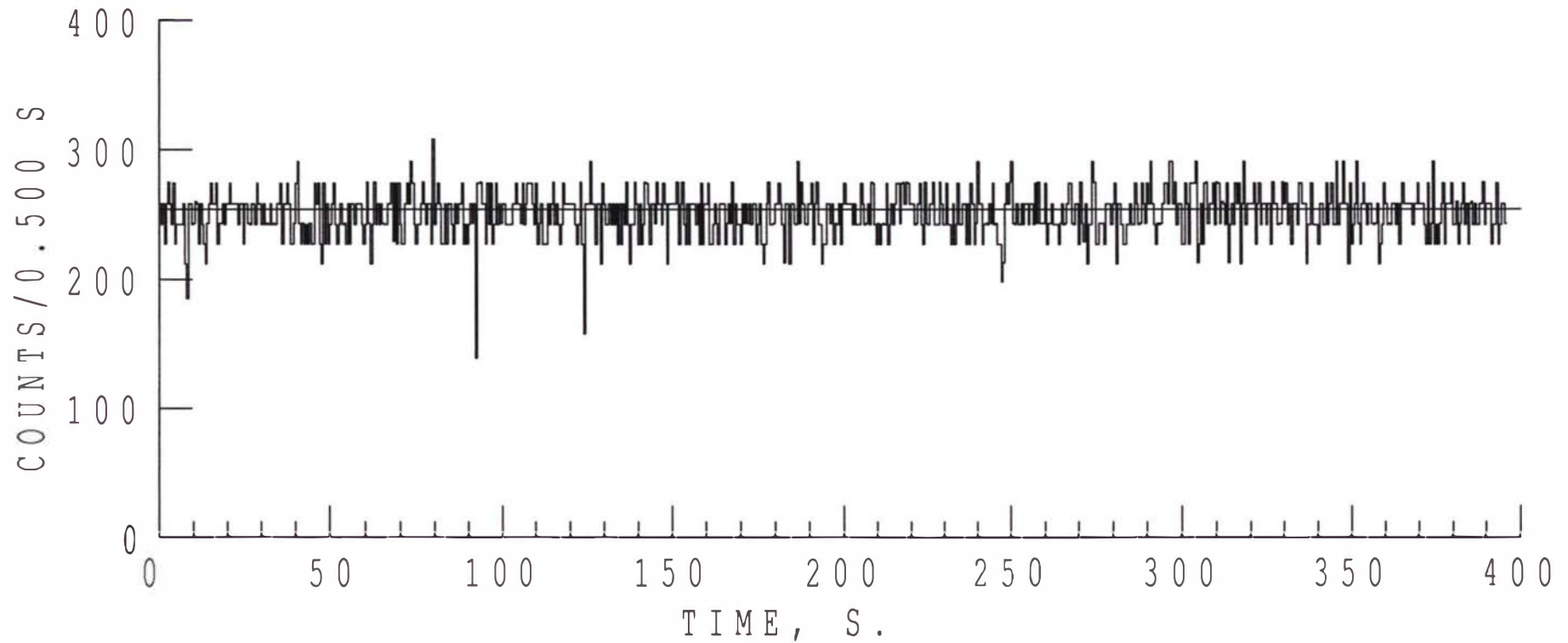
5 / 4 / 95 36324.059 s

0.250 S INTERVALS REGROUPED BY 2

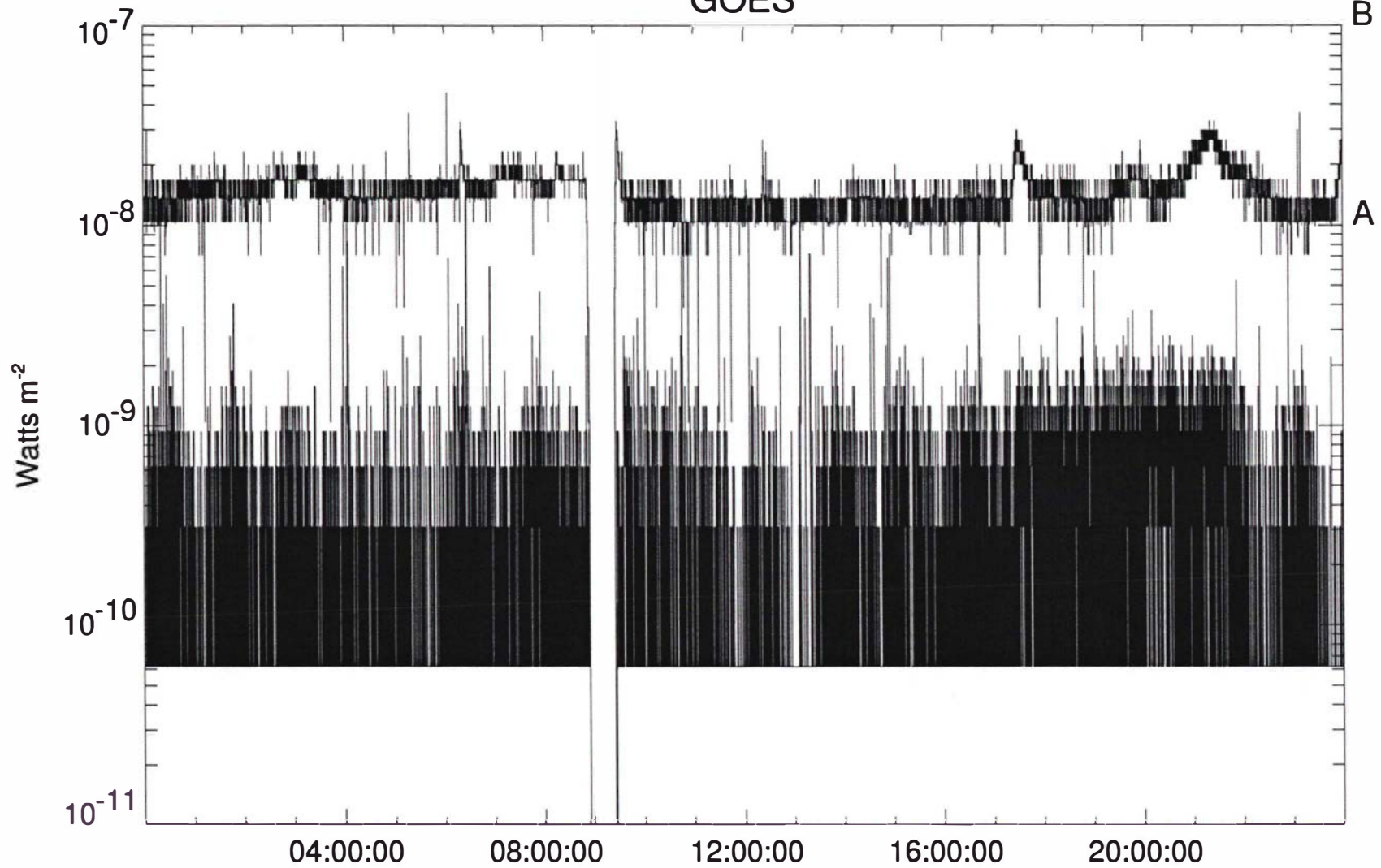
0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



GOES

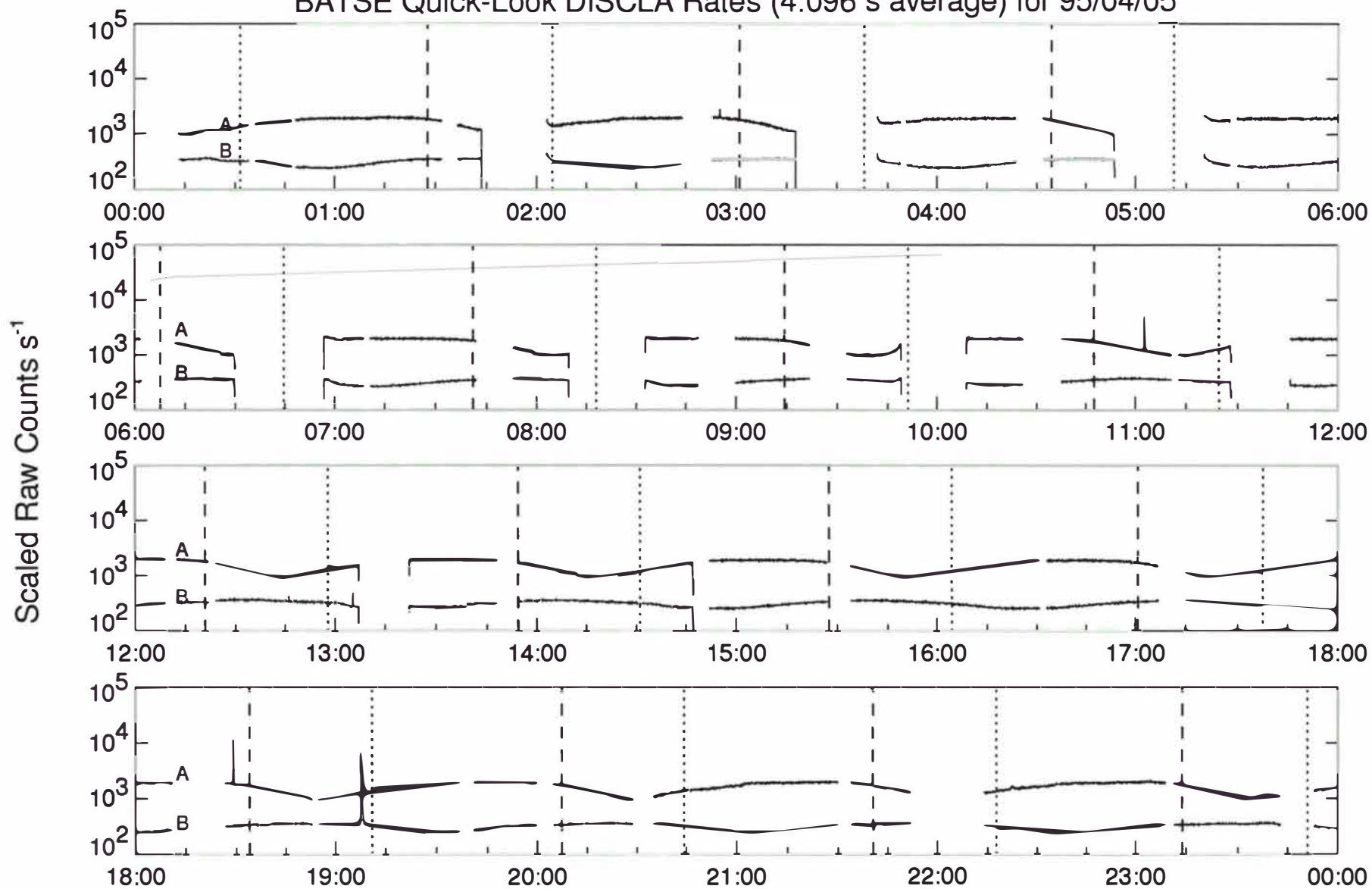


Data Start: 95/04/05, 0000:02

Plot created: 95/04/11, 1443

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

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/05



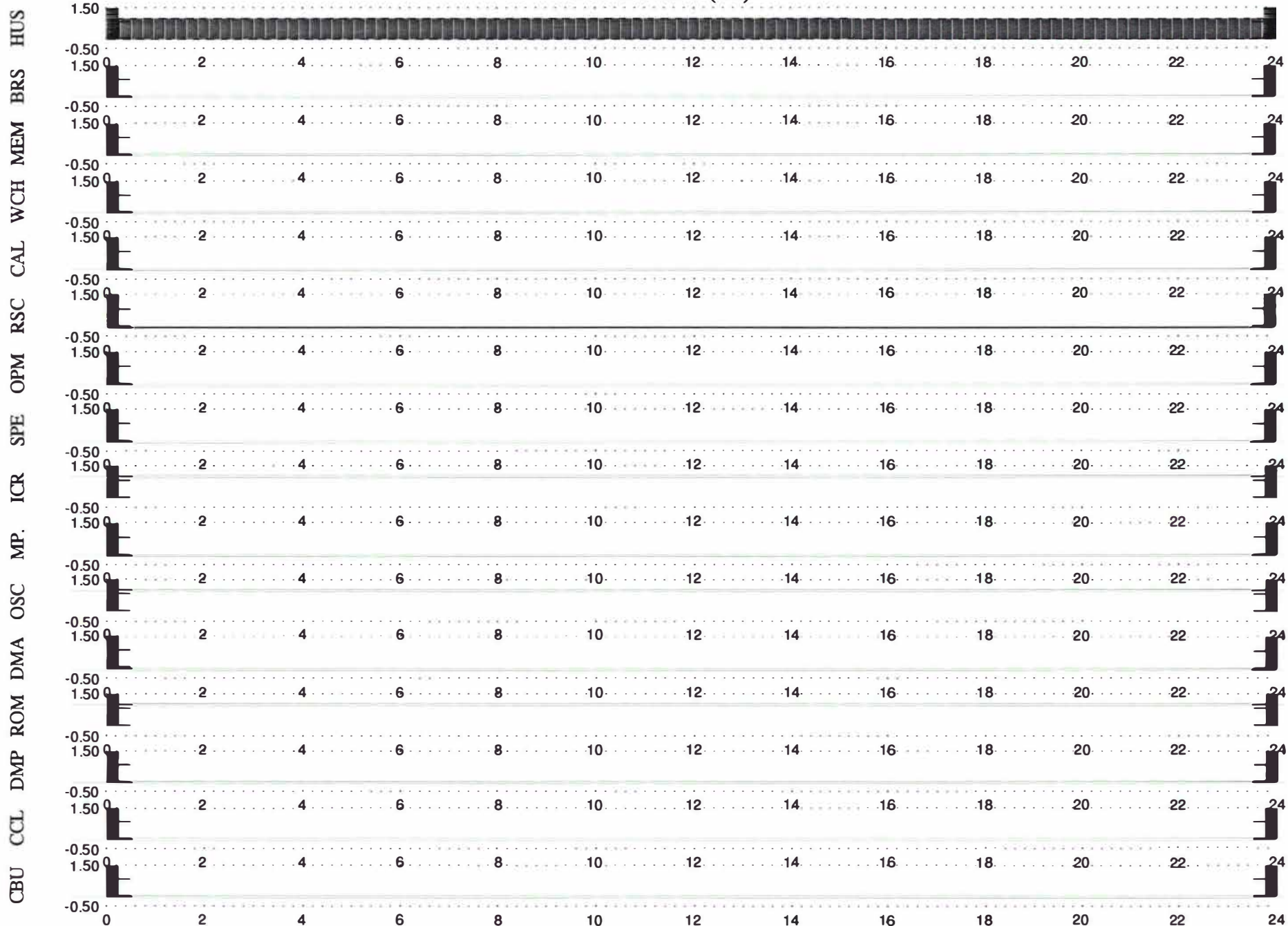
Current Time: 95/04/08, 0513 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

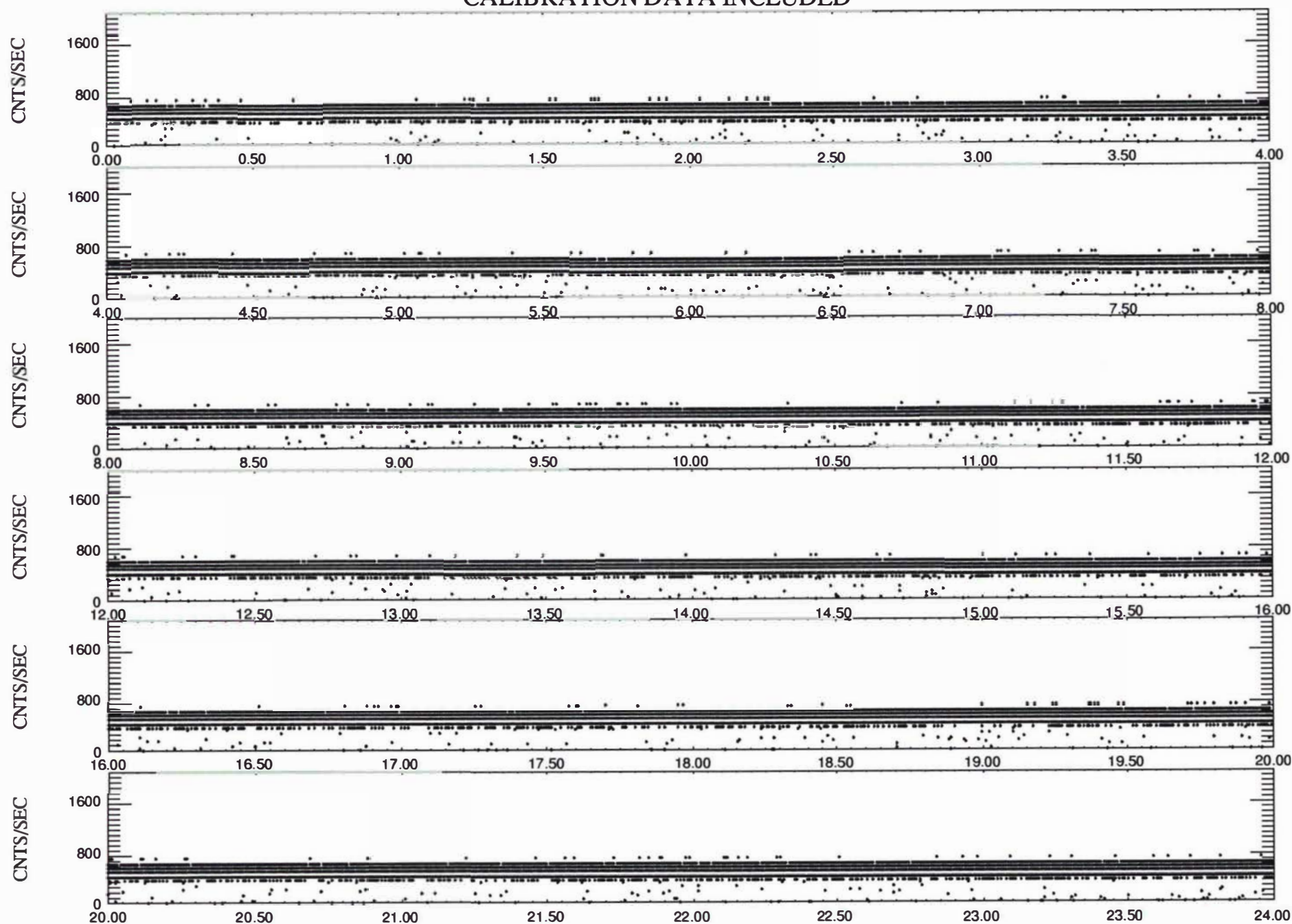
NO BURST (11)

UNIVERSAL TIME

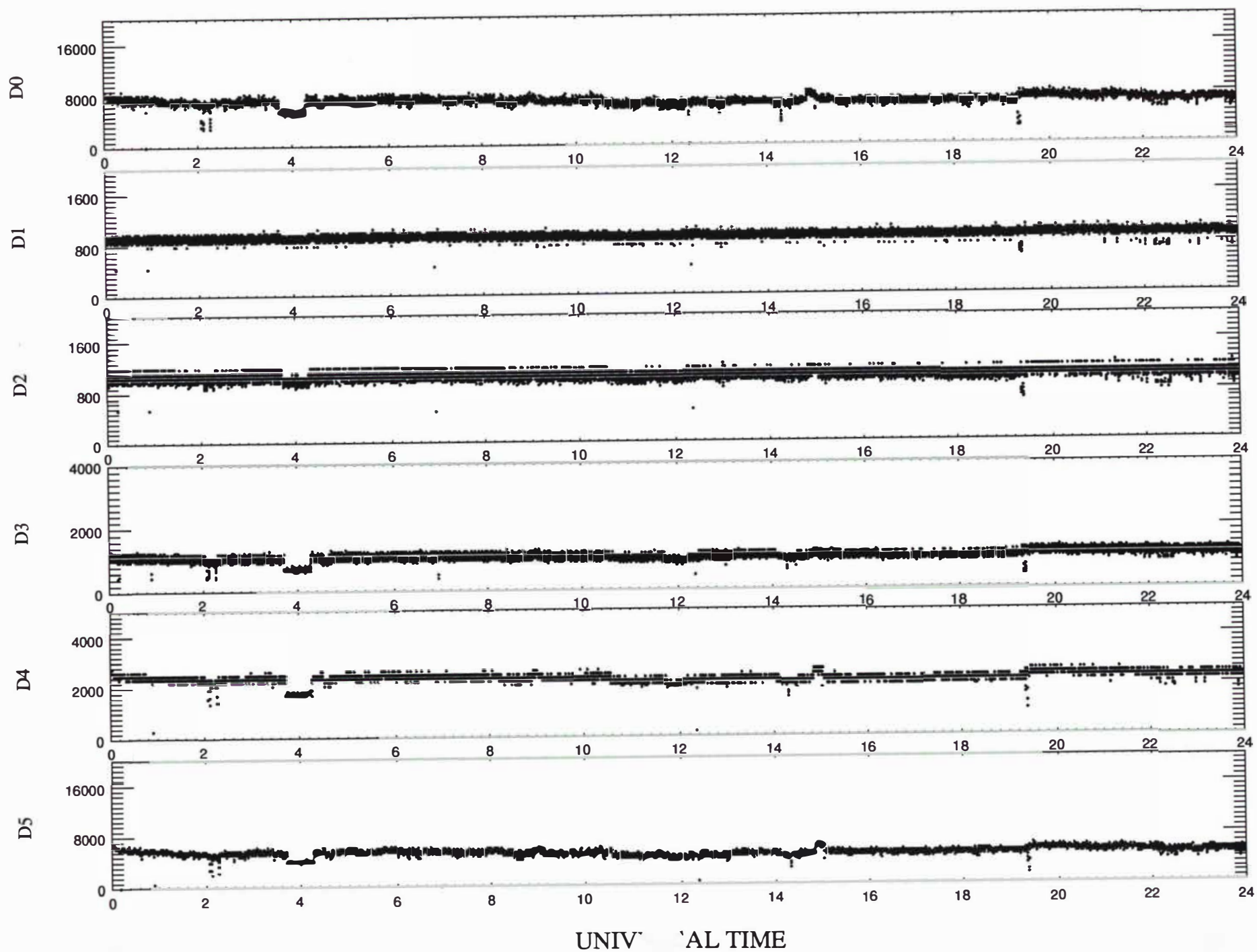


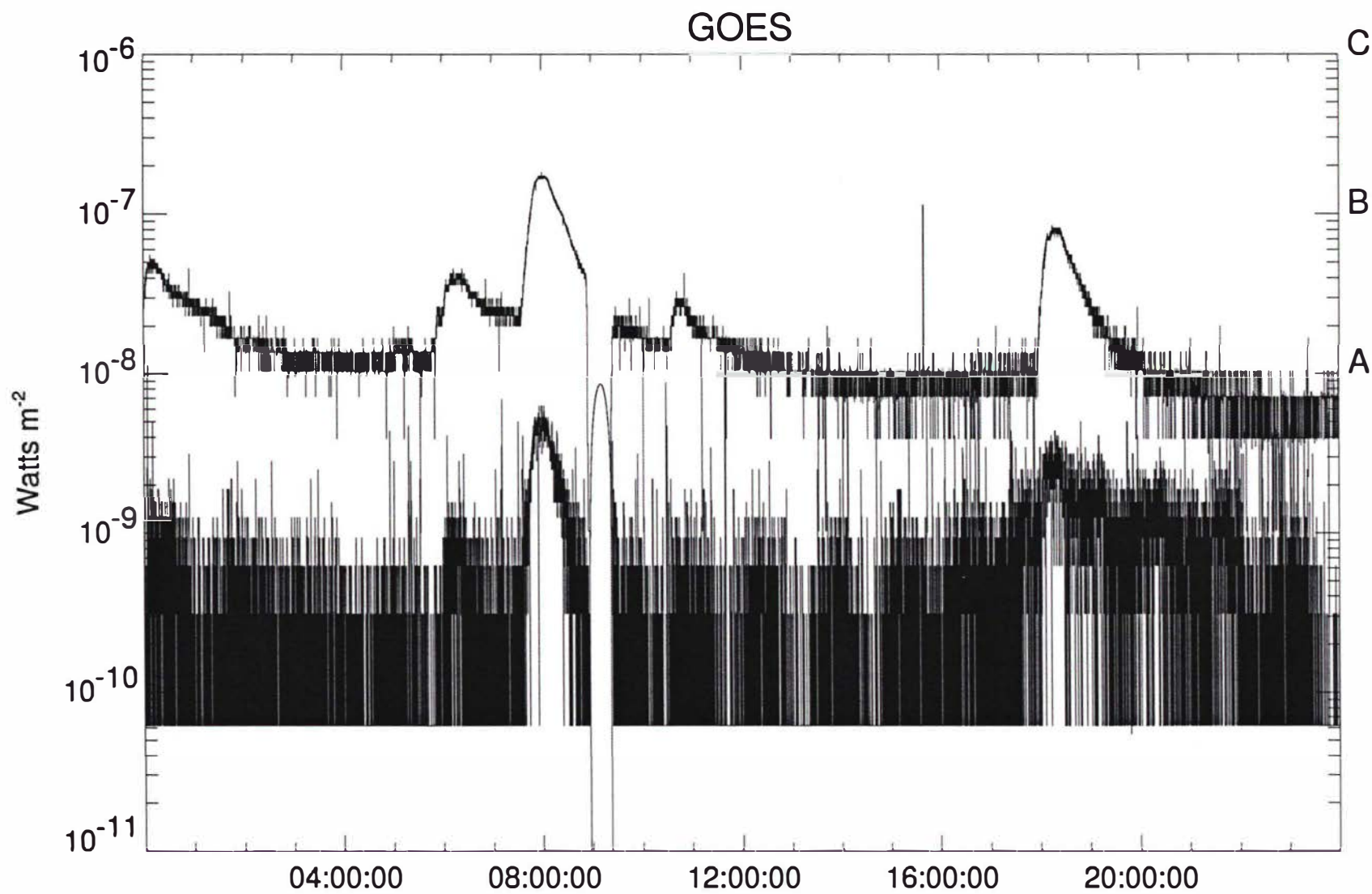
HUS 2A, MODE 1, NOT AVERAGED EDR day 95, year 1995 to day 95, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIFORM SAL TIME





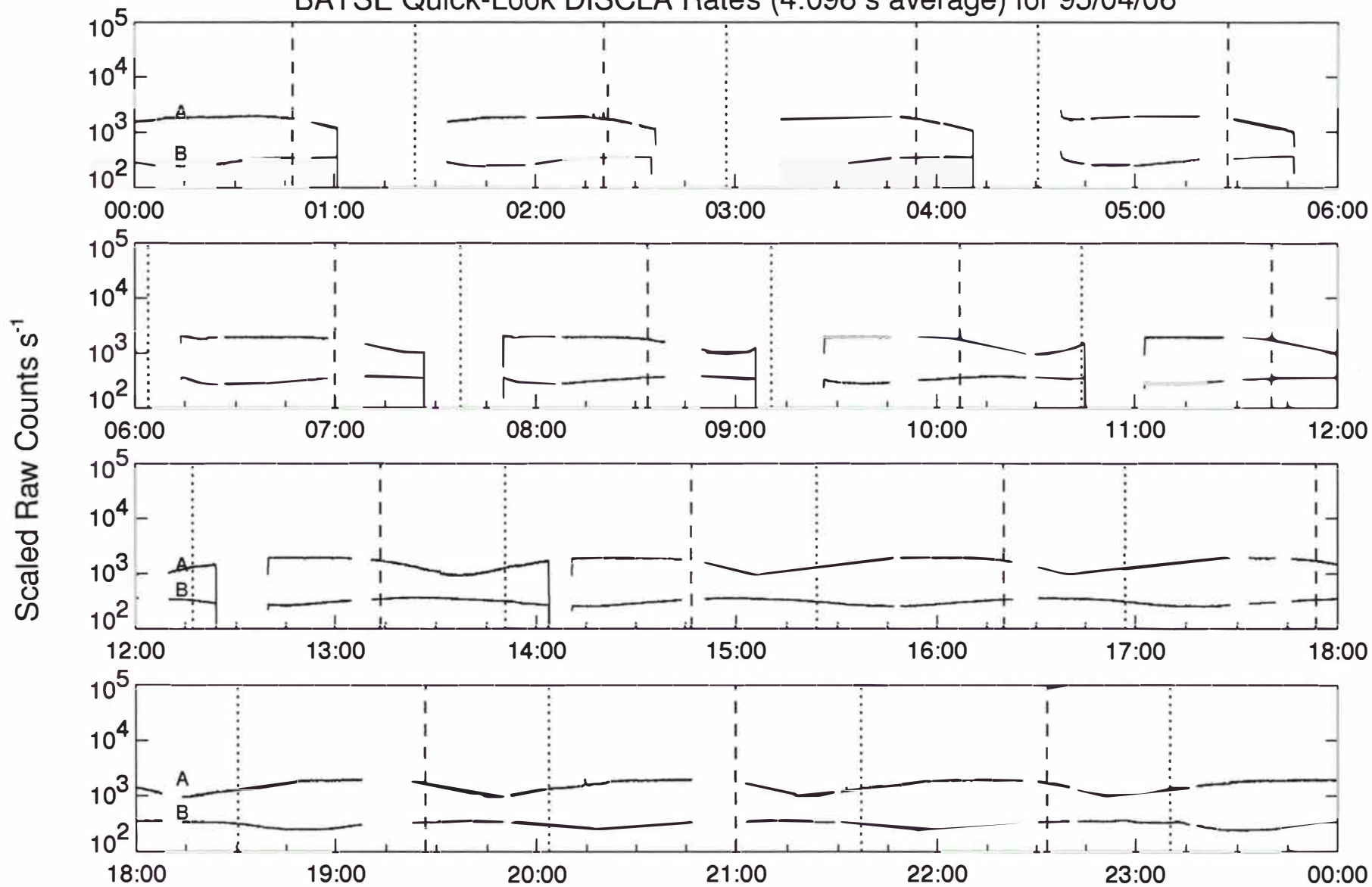
Data Start: 95/04/06, 0000:00

Plot created: 95/04/11, 1612

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/06



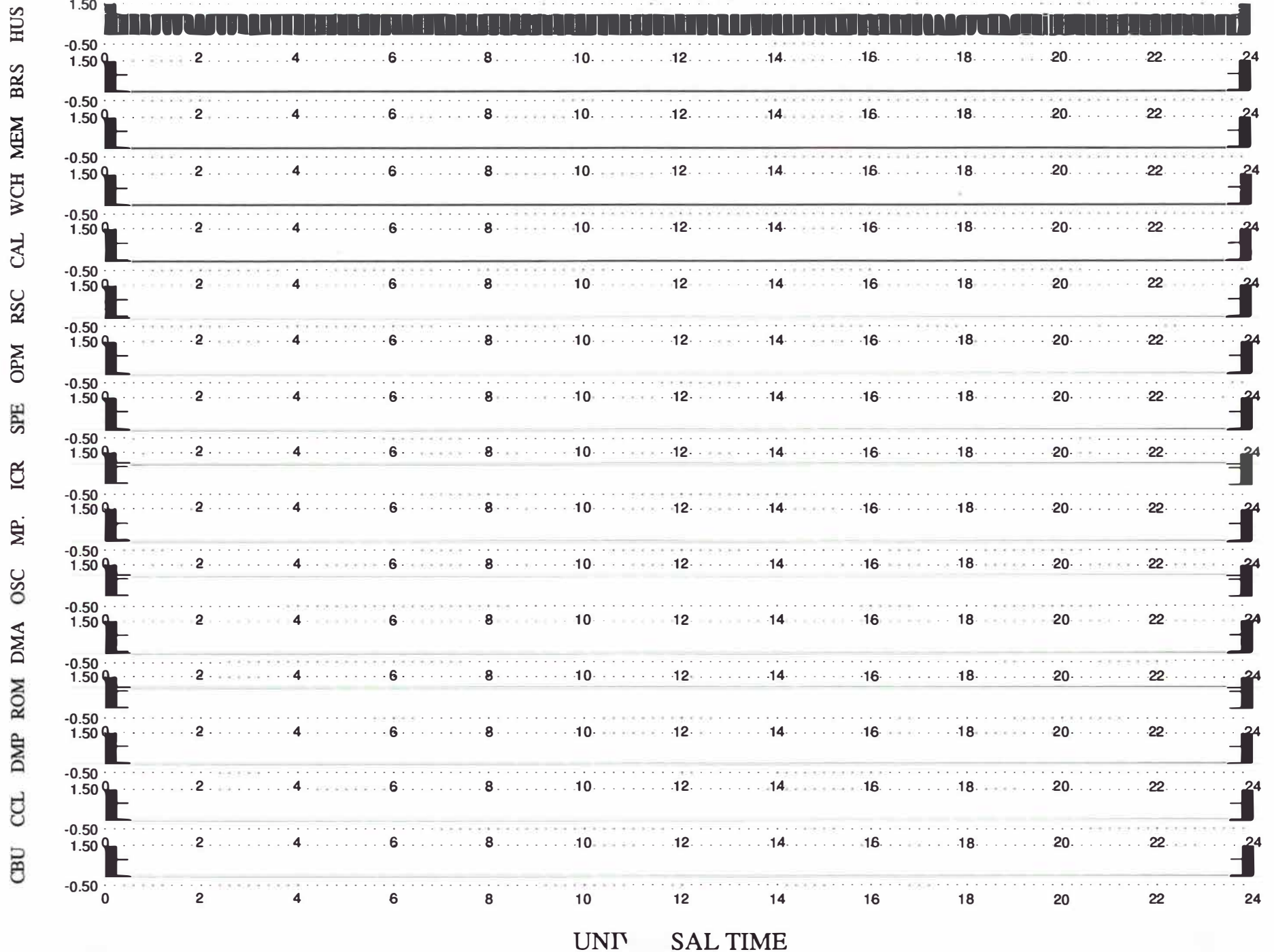
Current Time: 95/04/09, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

HUS MODES EDR day 96, year 1995 to day 96, year 1995 NO BURST (11)

11/16/95

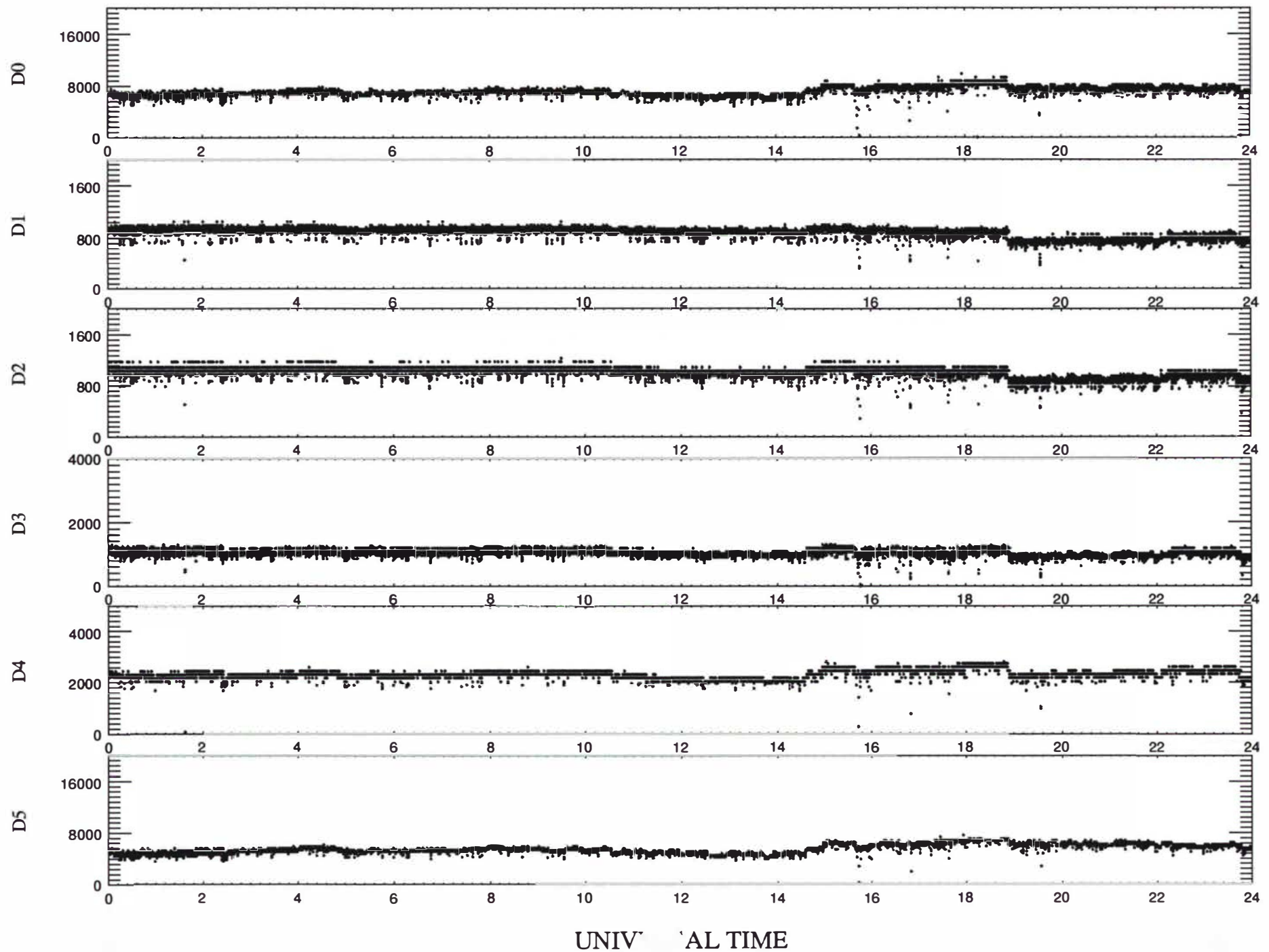


HUS 2A, MODE 1, NOT AVERAGED EDR day 96, year 1995 to day 96, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIVERSAL TIME



From teegarden@tgrs.gsfc.nasa.gov Wed Apr 12 13:27 PDT 1995
Mime-Version: 1.0
Date: Wed, 12 Apr 1995 16:28:10 -0500
To: khurley@sunspot.ssl.berkeley.edu (Kevin Hurley)
From: teegarden@tgrs.gsfc.nasa.gov (Bonnard J. Teegarden)
Subject: Re: Study Concept Proposal

From teegarden@tgrs.gsfc.nasa.gov Wed Apr 12 13:27 PDT 1995
Mime-Version: 1.0
Date: Wed, 12 Apr 1995 16:28:10 -0500
To: khurley@sunspot.ssl.berkeley.edu (Kevin Hurley)
From: teegarden@tgrs.gsfc.nasa.gov (Bonnard J. Teegarden)
Subject: Re: Study Concept Proposal

Hi Kevin,

TGRS did not detect any burst on Apr. 7. Probably it was on the wrong side of the spacecraft. Tom will have to tell you about KONUS.

Sure, we can contribute something on BASIS. Probably just text. We are putting together a several sets of BASIS viewgraphs for team members that will be giving talks at various places. We will provide you with one. Probably, we'll send them out at the end of the week. I wanted to make sure you had them before the ESTEC meeting.

Cheers,

Bonnard

Date: Aug 22 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?

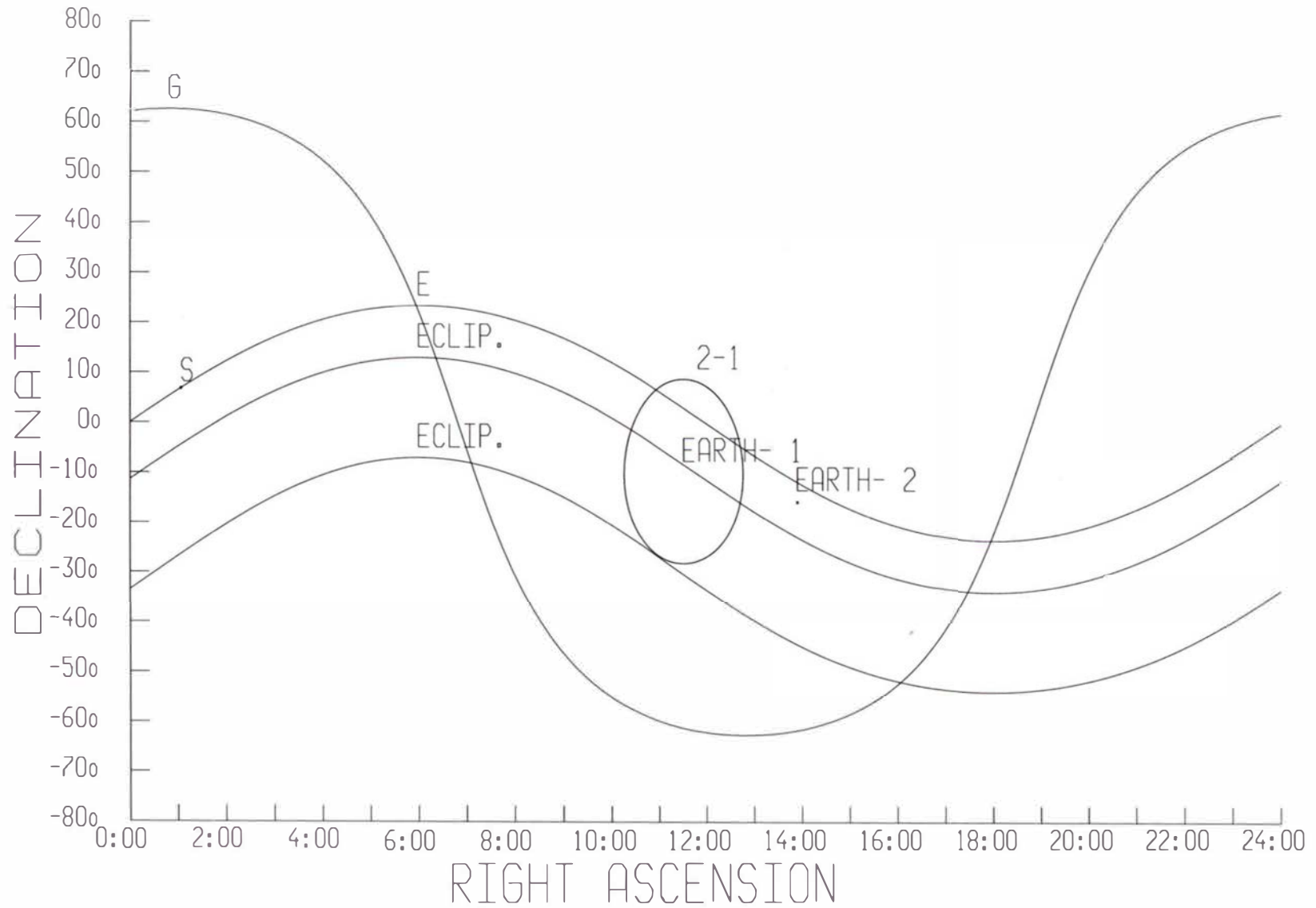
3. PVO Data

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

EVENT OF APR 7, 1995 15:32

22/08/2011

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 19950407 55989

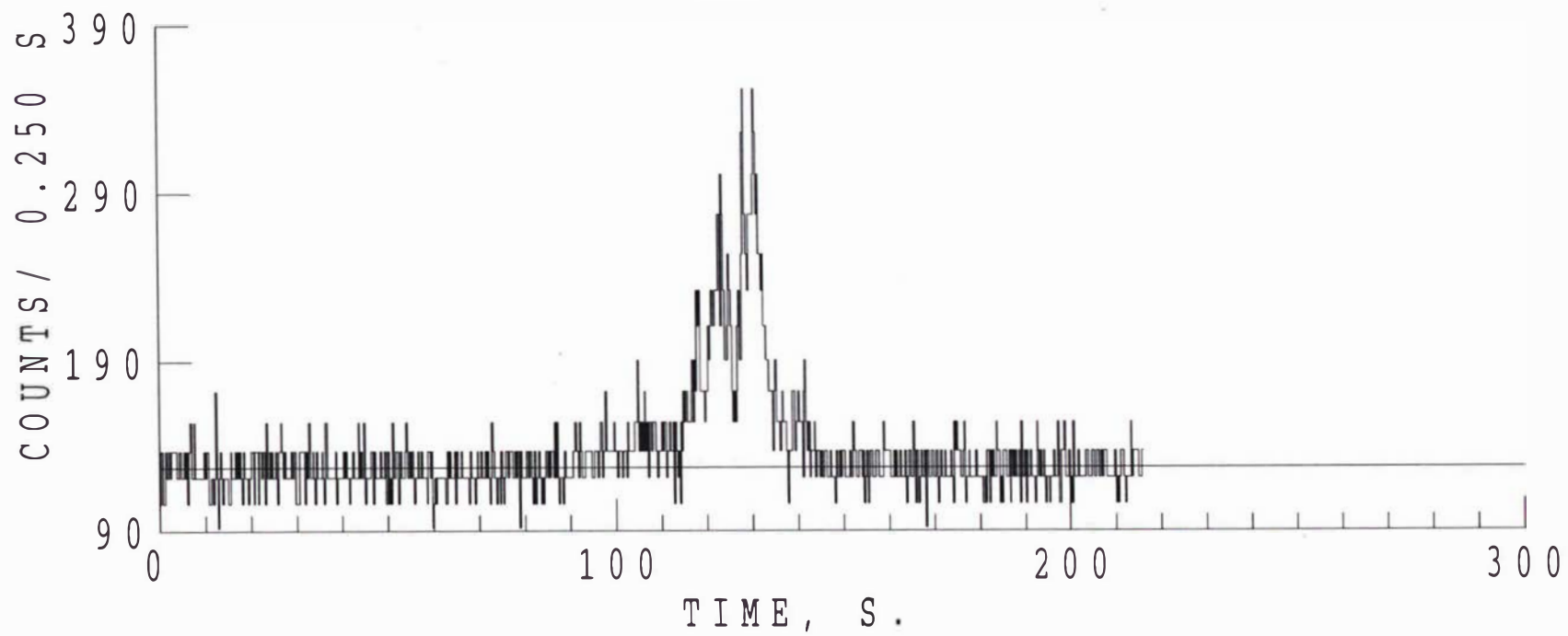
ULYSSES RT

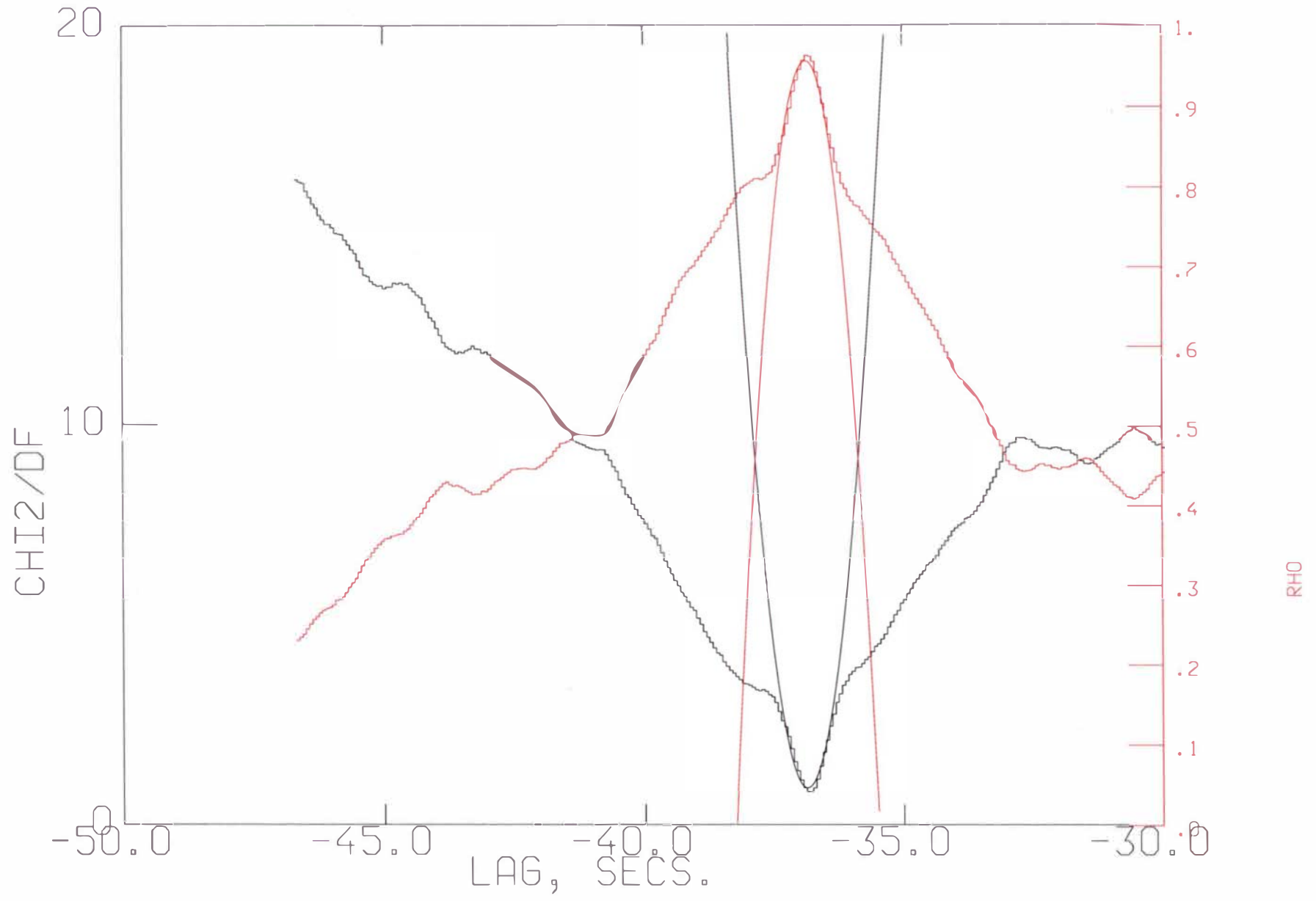
17/08/11

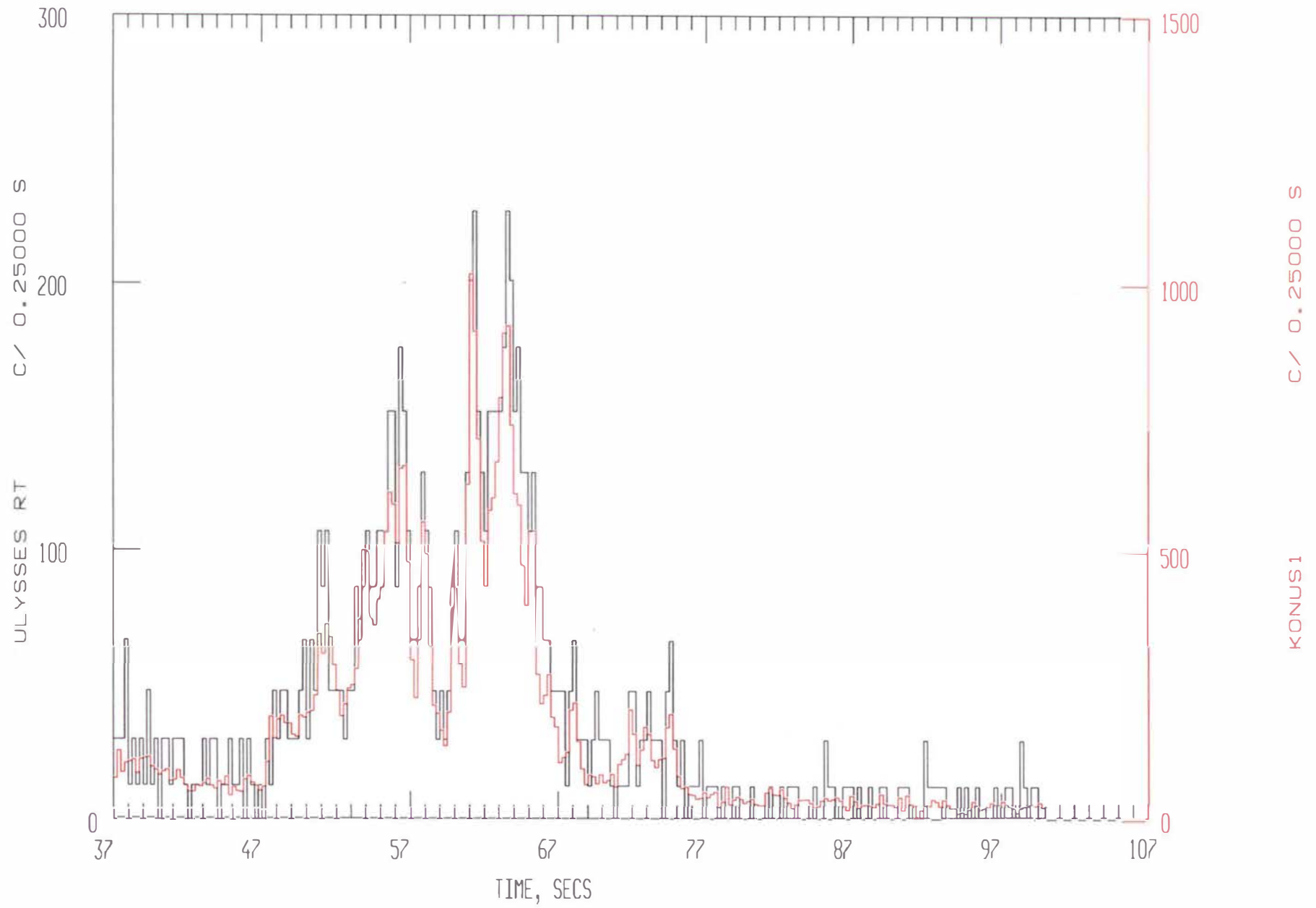
07/04/95 55872.066 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





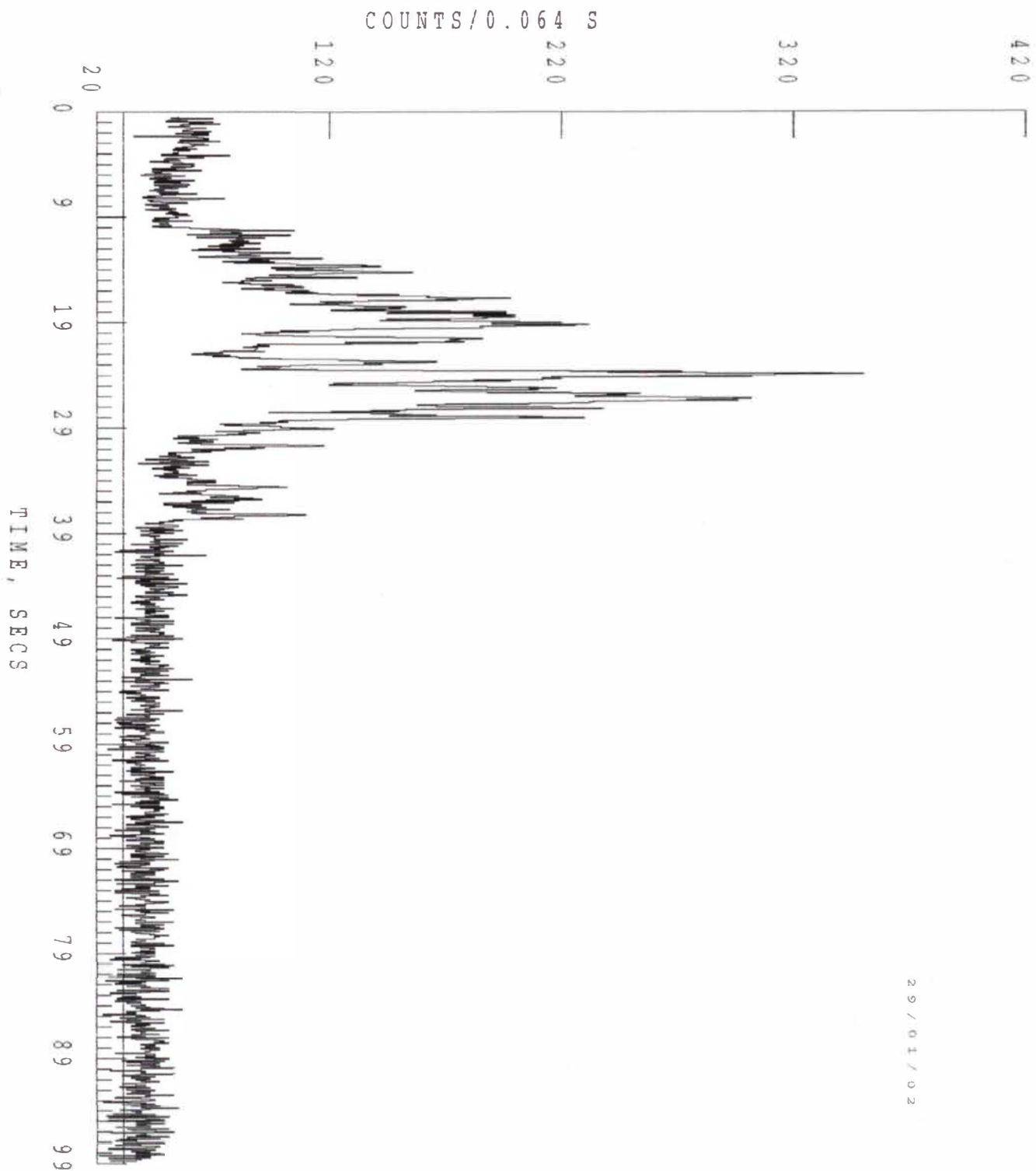


KONUS1

07/04/95

54922.052

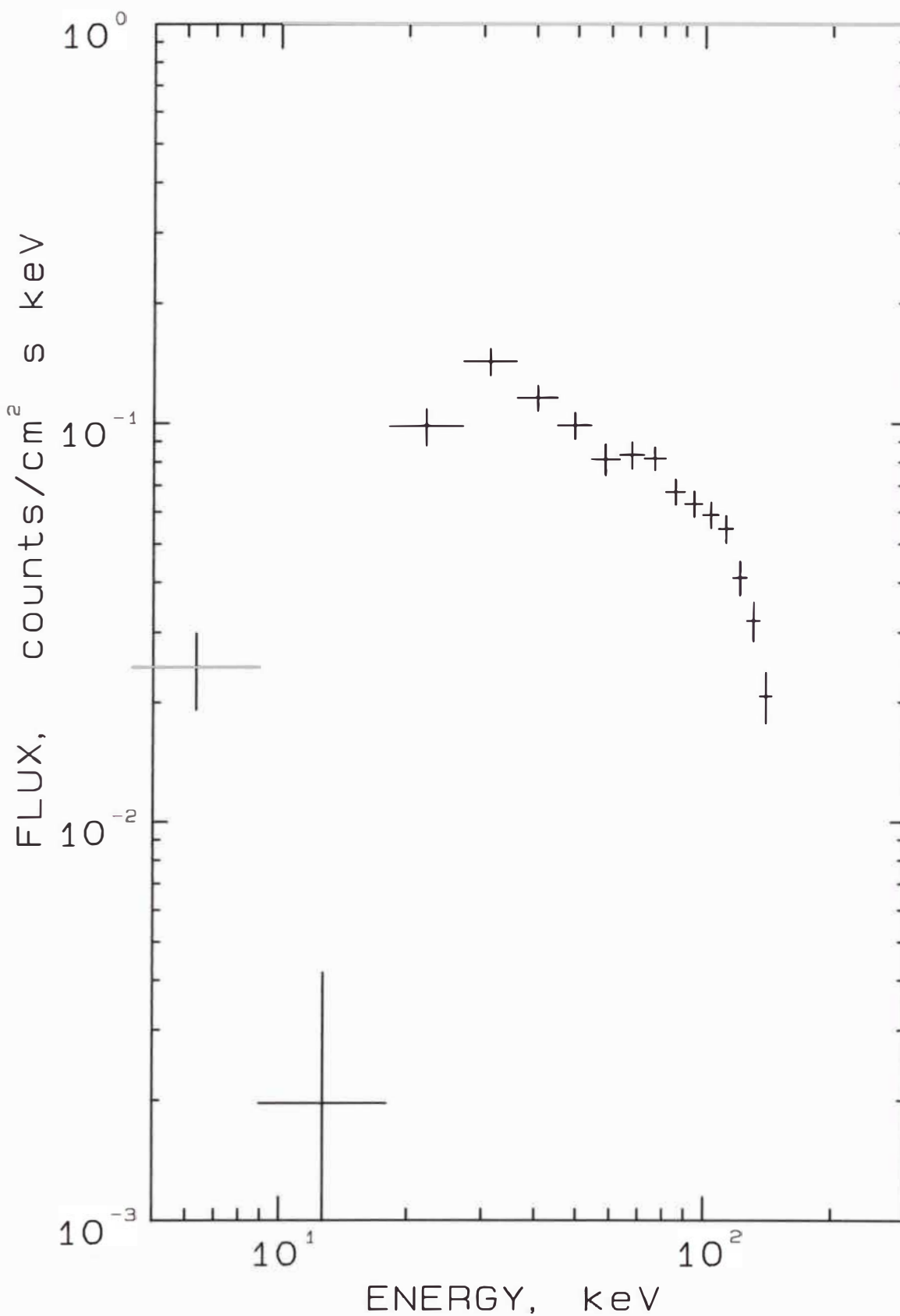
50 - 200 keV



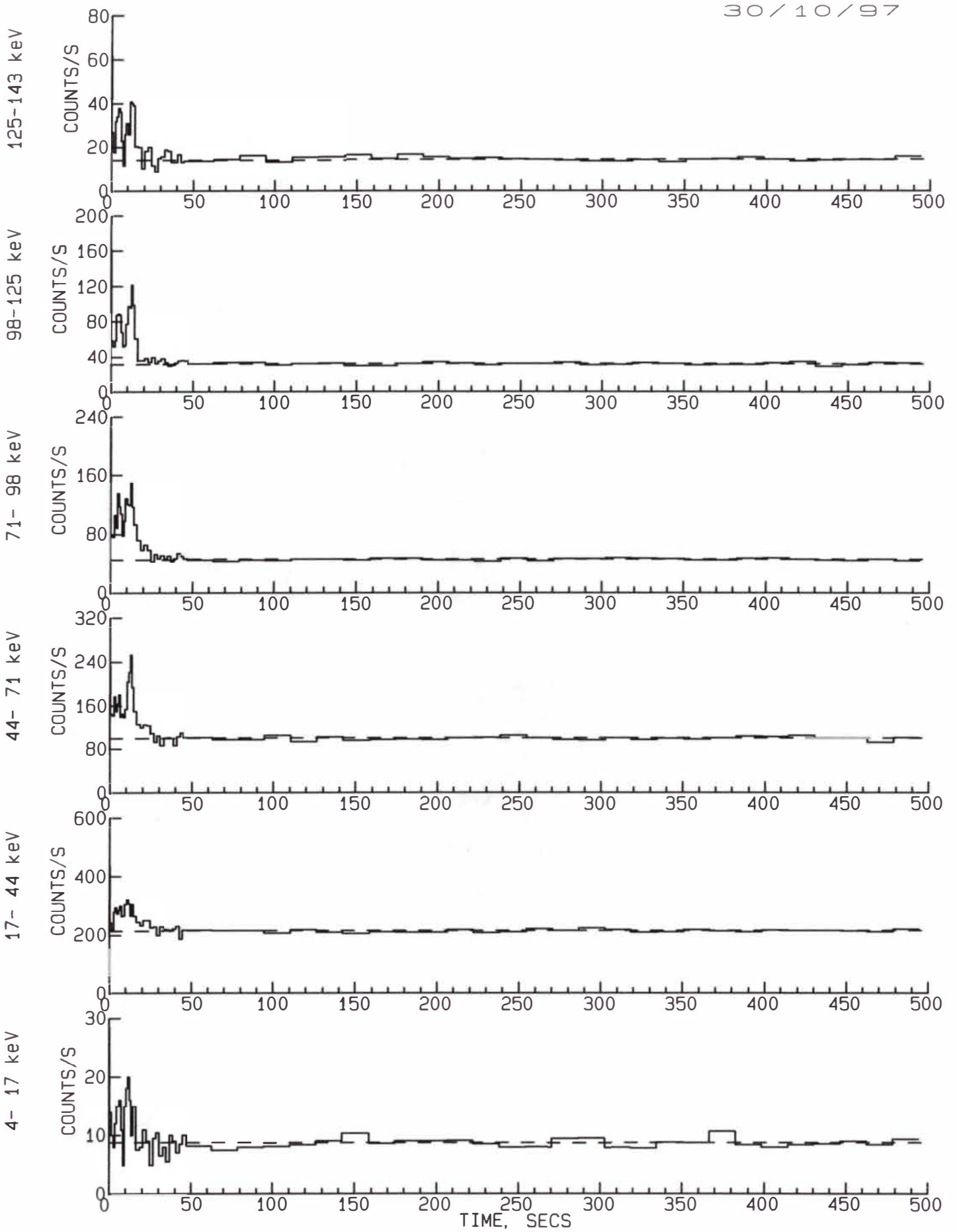
ULYSSES 07/04/95 55989.944

30/10/97

SPECTRUM INTEGRATED OVER 62.4 SECONDS, INTERVALS 2 TO 34



ULYSSES 07/04/95 55989.944 BURST SPECTRAL COUNT RATES



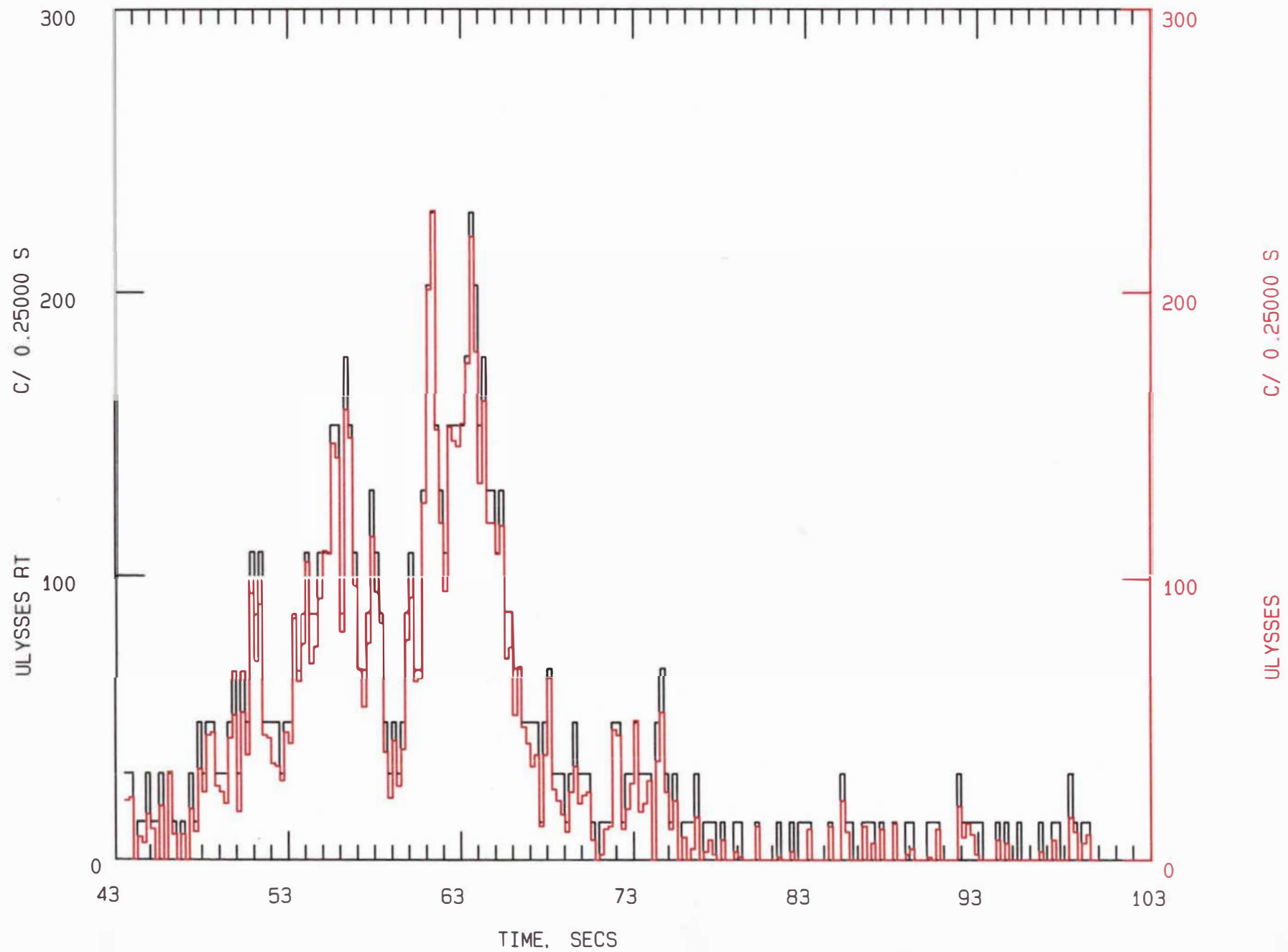
ULYSSES RT-ULYSSES

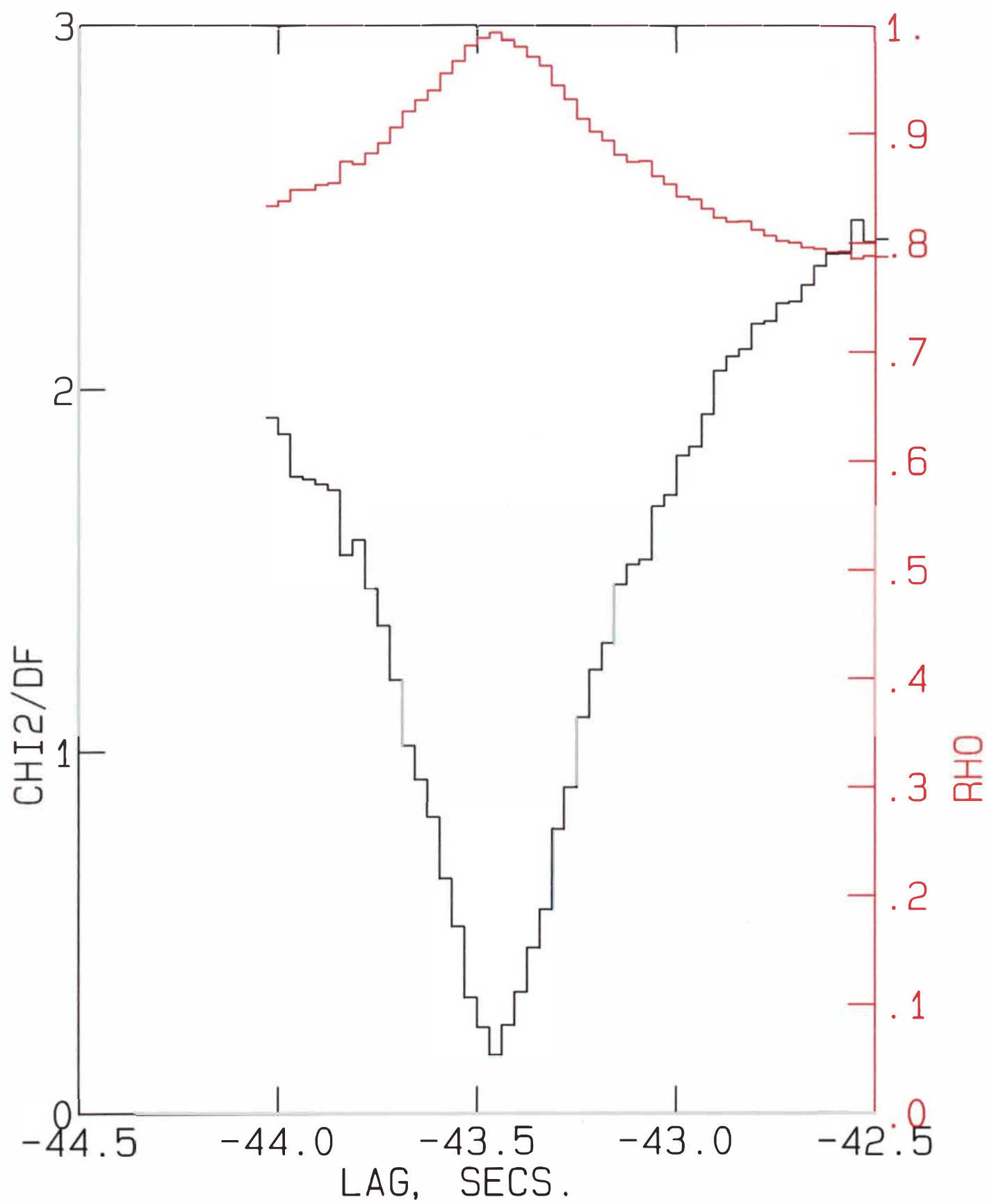
CORRELATION

7/ 4/95

55939.093

30/10/97





ULYSSES

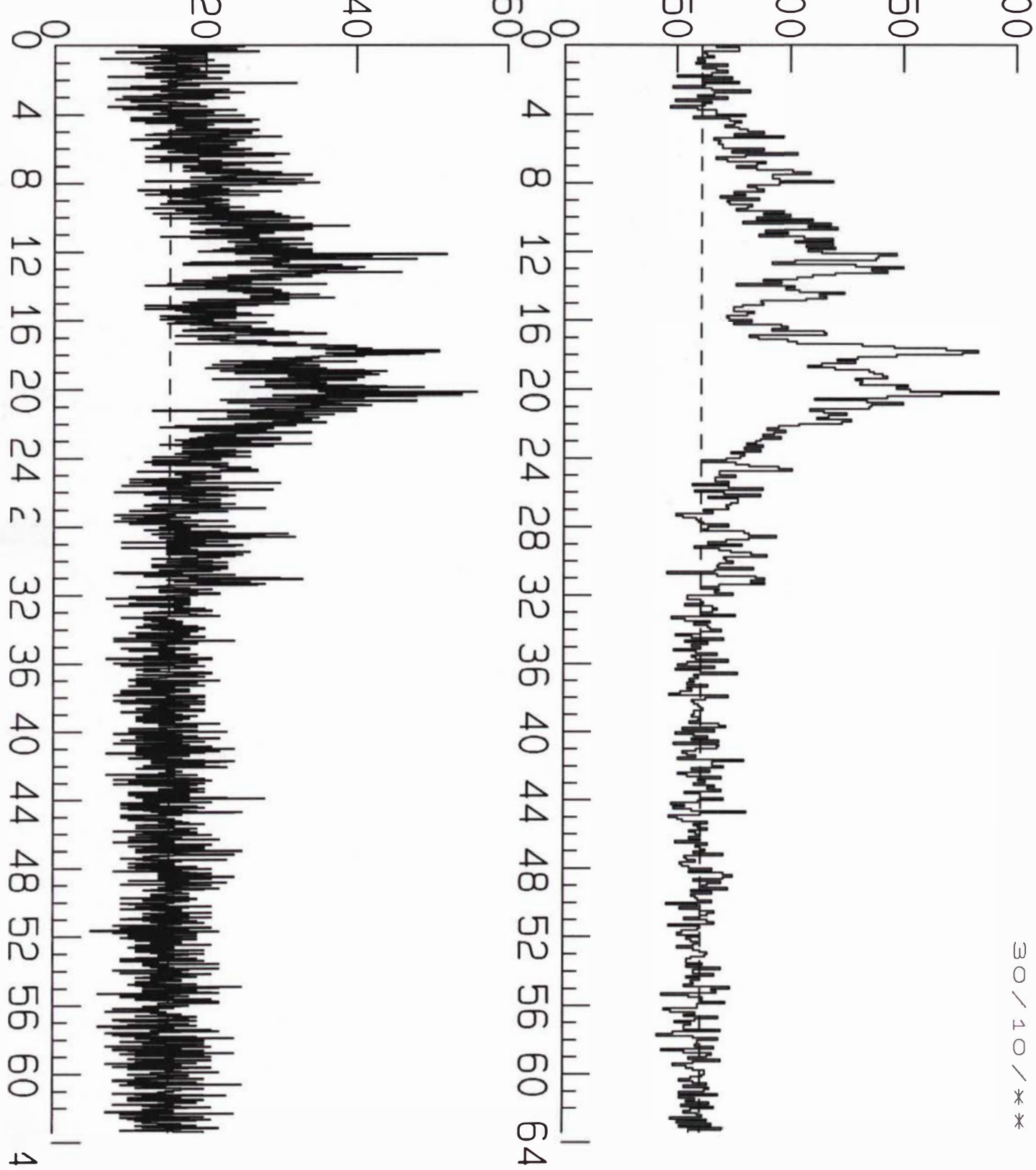
07/04/95

Ttrig=55989.970

21- 142 keV

COUNTS/0.031 S

COUNTS/0.125 S

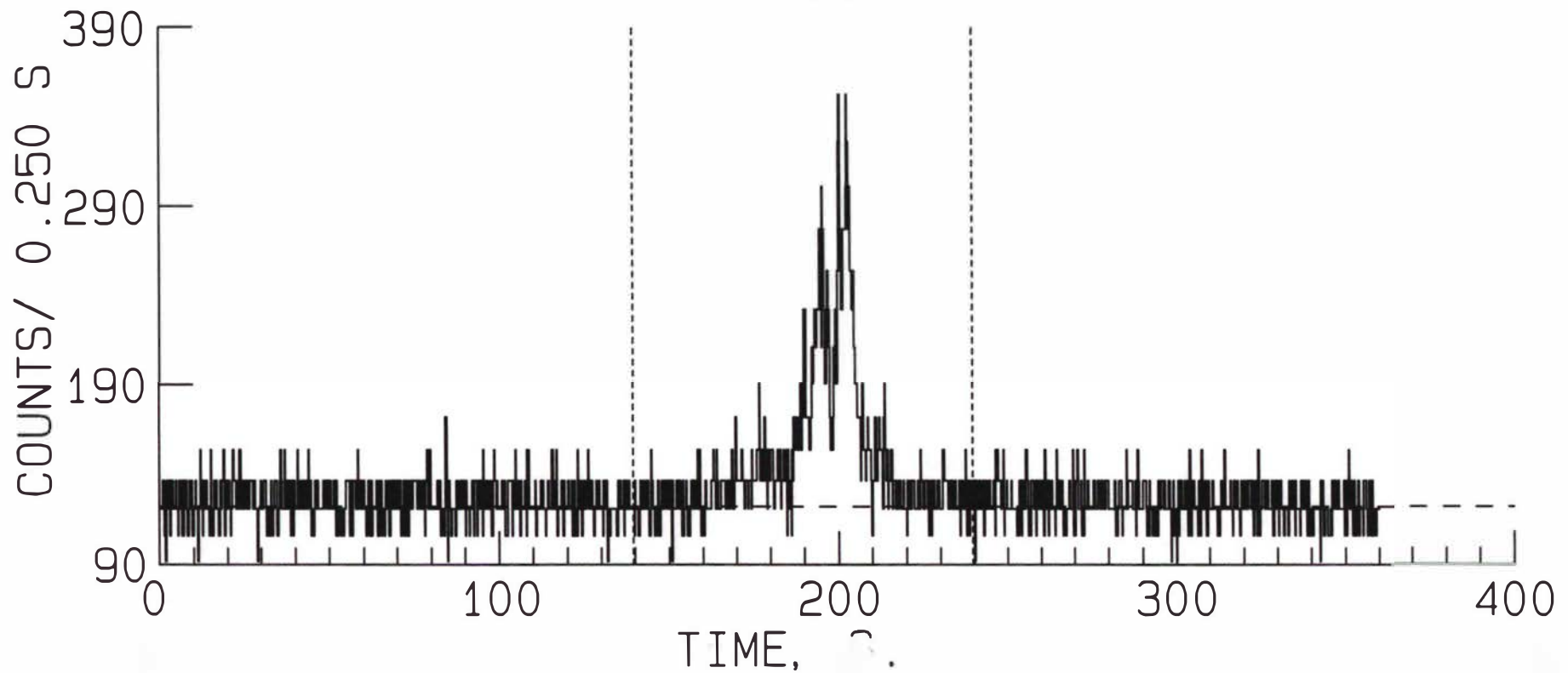


30/10/11

ULYSSES RT
7/ 4/95 55800.063 s
21- 142 keV

30/10/97

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From yosimori@rikkyo.ac.jp Tue Jan 23 03:20 PST 1996
From: "M. Yoshimori" <yosimori@rikkyo.ac.jp>
Date: Tue, 23 Jan 1996 20:20:47 +0900
To: khurley@sunspot.ssl.berkeley.edu
Subject: Confirmation of Yohkoh GBD events

Dear Dr. Hurley,

We found the following four burst-like events with YOHKOH.

Could you check whether these events were detected with Ulysses or BATSE ?

1. 1995 Mar.25 17:36:36 UT
2. 1995 Mar.29 21:56:23 UT
3. 1995 Apr.03 13:19:51 UT
4. 1995 Apr.07 15:15:32 UT

The second event (1995 Mar.29) may be not real.

Thank you.

Best regards,

sato Yoshimori

LOS ALAMOS

DMSP 13 peaks 54936.4
44.4 s

NATIONAL LABORATORY

Nonproliferation & International Security Division
Astrophysics and Radiation Measurement, NIS-2, MS D436
Los Alamos, New Mexico 87545

Telephone: (505) 667-5127

Fax: (505) 665-4414

UNCLASSIFIED FAX TRANSMITTAL

DATE: 5-16-95

TO: KEVIN HURLEY, UCB

TELEPHONE: 510-643-9173

FAX: 510-643-8302

MESSAGE: HERE ARE 100-SEC TIME HISTORIES OF GRB

95092 (~54932 UT) AS SEEN BY DMSP. HOW DO THE

OTHER S/C SEE IT? Jim Terrell

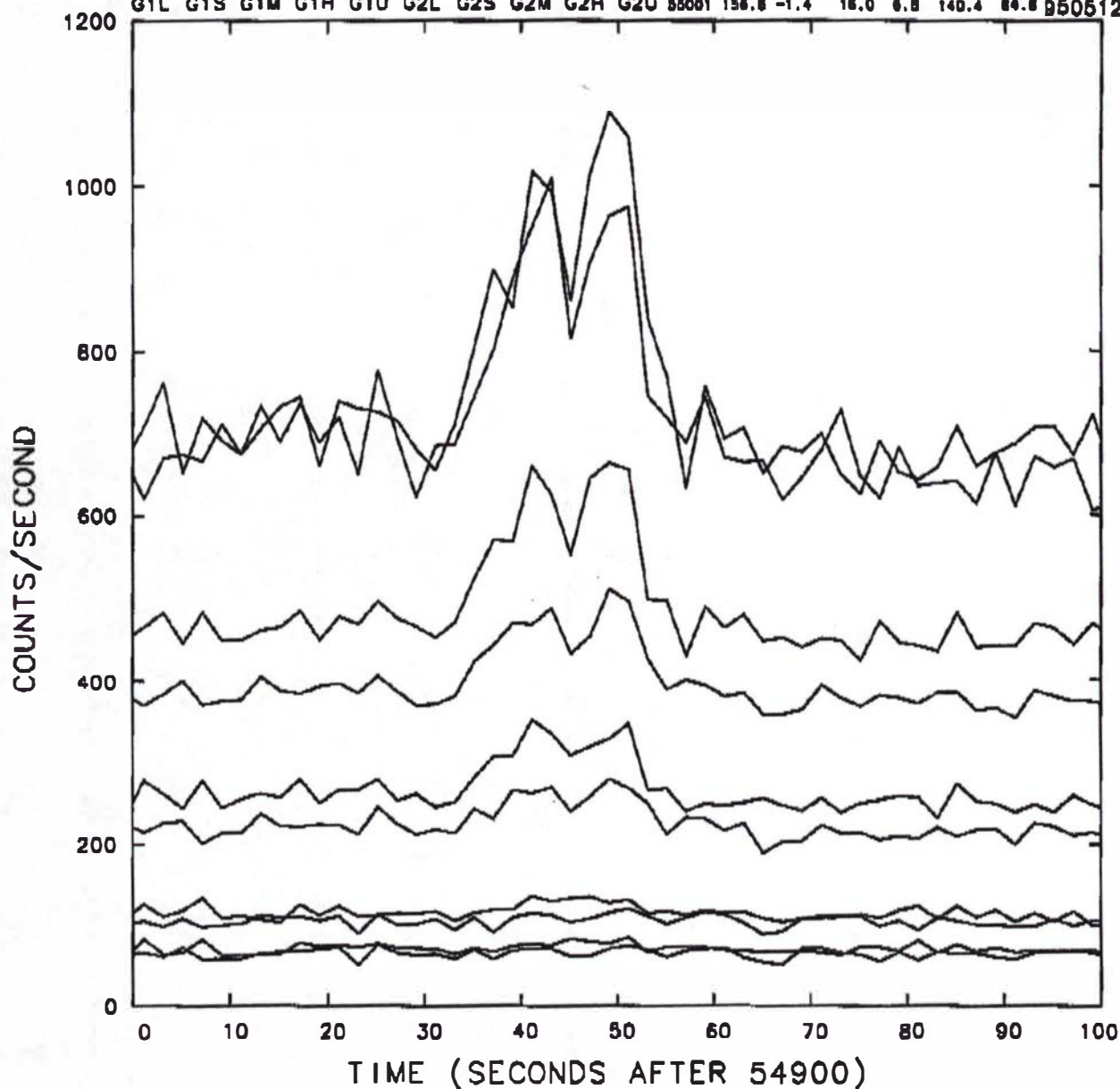
FROM: JAMES TERRELL

TELEPHONE 505-667-2044

NUMBER OF PAGES ATTACHED: 2

DMSP12 1995 APR 7 95097

UT	SCRA	DEC	SUNRA	DEC	ANGSUN	CHAA
94901	157.5	-7.3	16.0	6.8	141.8	64.2
85001	158.5	-1.4	16.0	6.8	140.4	64.6

8504078
850512

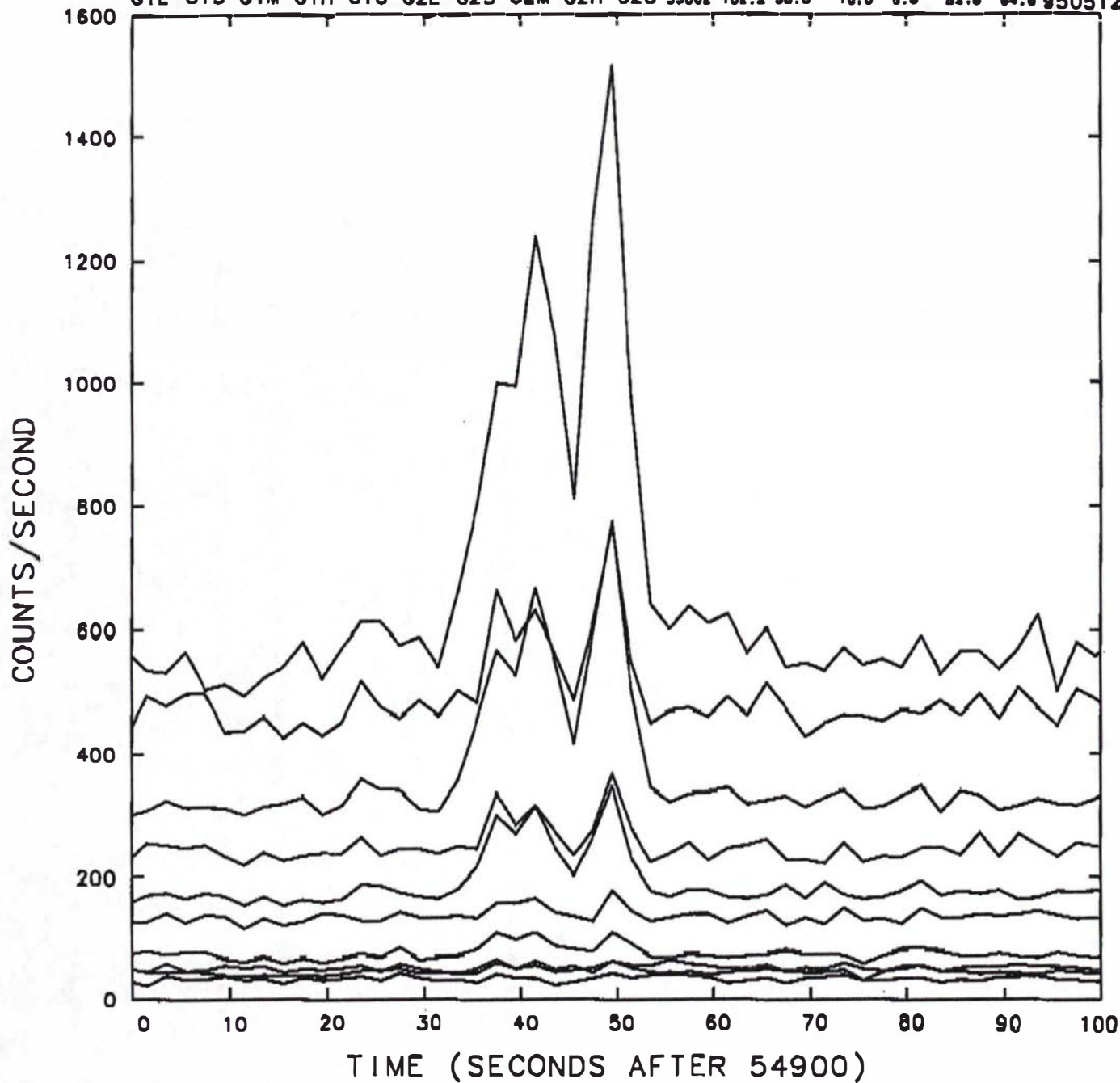
54931.7
54935.7
54943.7
(PEAKS)

J. Terrell

DMSP11 1995 APR 7 95097

UT	SCRA	DEC	SUNRA	DEC	ANGSUN	CHAA
54902	103.6	32.2	18.0	8.8	84.3	84.2 8504078
95002	102.2	38.0	16.0	8.8	82.8	84.8 950512

G1L G1S G1M G1H G1U G2L G2S G2M G2H G2U



54932.0

54936.0

54944.0

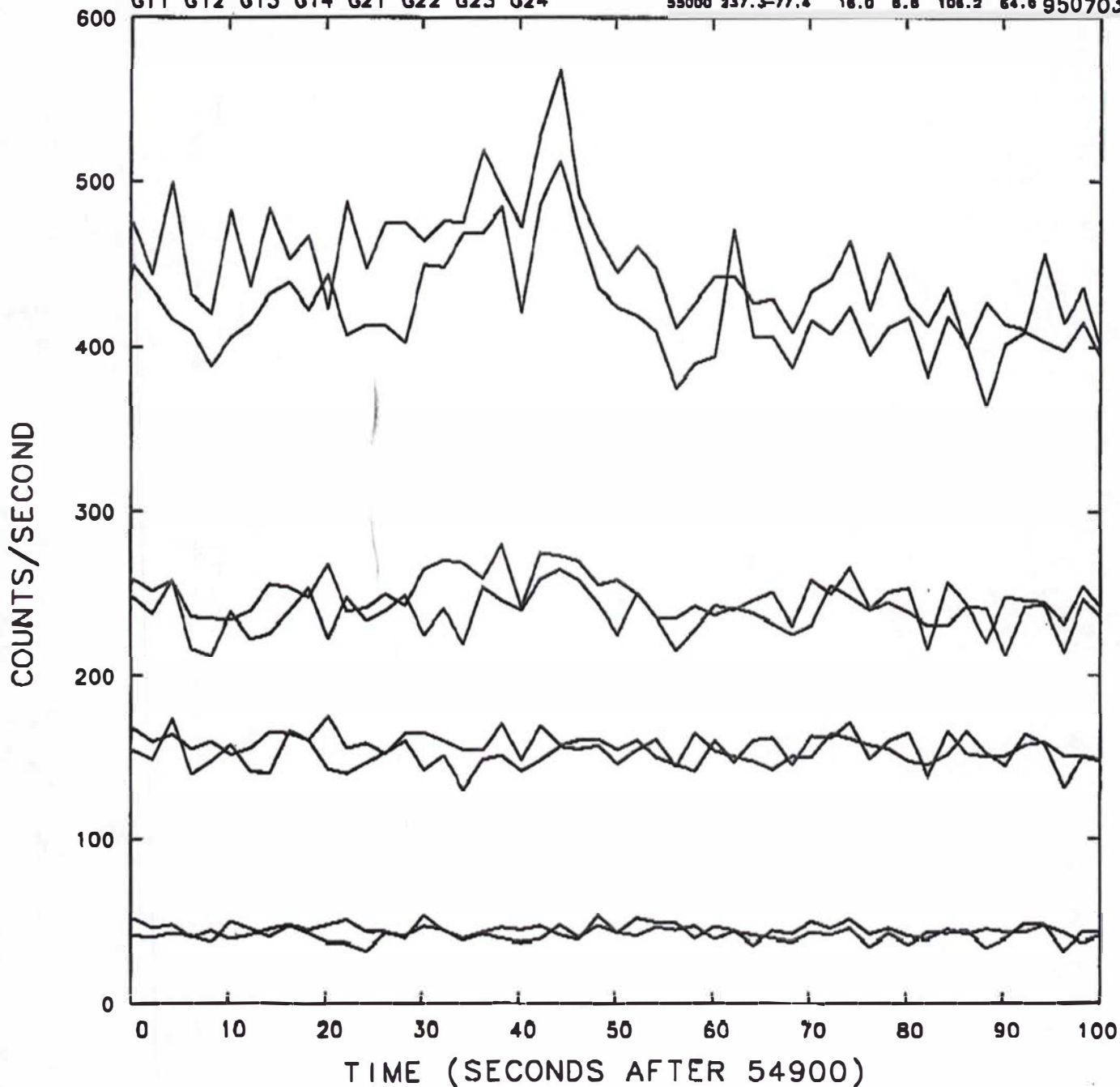
J. Tennell

DMSP13 1995 APR 7 95097

G11 G12 G13 G14 G21 G22 G23 G24

UT	SCRA	DEC	SUNRA	DEC	ANGSUN	QHAA
34900	281.1	-72.7	16.0	8.8	106.4	64.2
35000	237.3	-77.4	16.0	8.8	106.2	64.6

C50408
950703



54936.4

54944.4

From: Krishnan Marar, ISRO

To Prof. Kevin Hurley,
Univ. of California

Dear Kevin,

Hope you received my fax dated April 28. At that time we had not received data of SROSS-C2 orbits greater than 5000. Now we have two more events on April 7 at 15:55:31 UT and on May 3 at 18:36:11 UT. The profiles are given below. Kindly confirm these events and also please send us confirmation (if any) of our event on 17 March 1995.

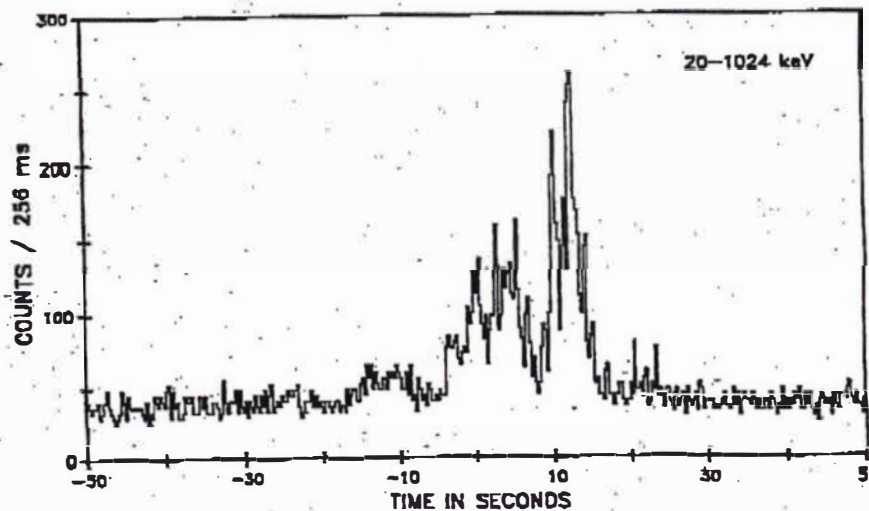
Many thanks,

Dt:12/5/1995

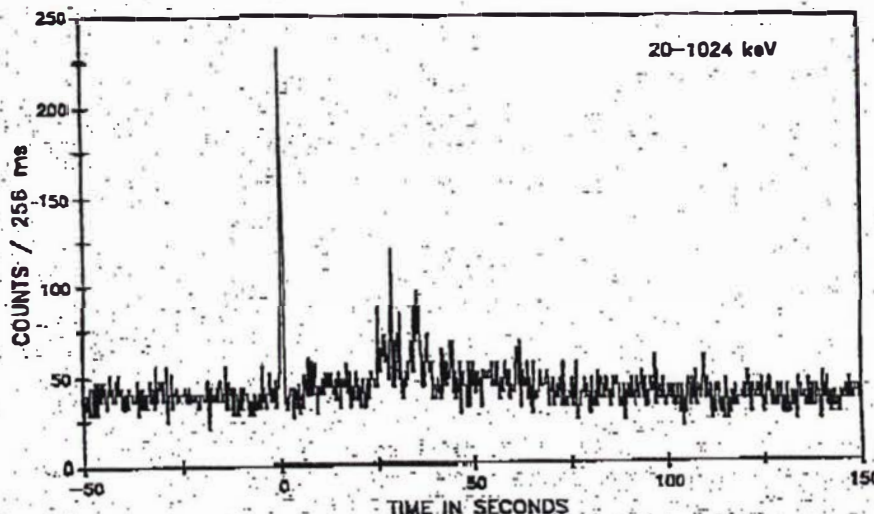
sincerely yours,

Krishnan
(Krishnan)

07 APRIL 95 15:15:31.312 UT ORBIT 5101



03 MAY 95 18:36:10.626 UT ORBIT 5497



From palmer@pizza.gsfc.nasa.gov Mon Apr 17 08:24 PDT 1995
Mime-Version: 1.0
Date: Mon, 17 Apr 1995 09:24:12 -0500
To: khurley@sunspot.ssl.berkeley.edu
From: palmer@pizza.gsfc.nasa.gov (David Palmer)
Subject: 950407

DMSP 11 + 12
Seen up to 400 keV

GRB 950407

TGRS trigger at 54925.24, just after the peak of the initial hump.

Background: 180 counts/s 50-200 keV

Peaks at -2, 15, 21, 23 seconds relative to the trigger
with 220,820,860,870 counts (including background).

Do you want a light curve, and if so for what energy range? (Fast data is available in 50-100 and 100-200 keV. ~1 second data is available at all energy ranges up to 200 keV) Do you want the data or a fax?

David

From teegarden@tgrs.gsfc.nasa.gov Fri Apr 14 12:06 PDT 1995
Mime-Version: 1.0
Date: Fri, 14 Apr 1995 15:07:22 -0500
To: KHURLEY@SUNSPOT.ssl.berkeley.edu
From: teegarden@tgrs.gsfc.nasa.gov (Bonnard J. Teegarden)
Subject: Apr. 7 GRB

Hi Kevin,

We did, in fact, detect a burst on Apr. 7. There was a gap in the data that fooled me. By Mon. we should have some preliminary results. KONUS also saw it. Do you still want the TGRS trigger time?

Cheers,

Bonnard

From RICHARDSON@ssl.msfc.nasa.gov Tue Apr 11 06:19 PDT 1995
Date: Tue, 11 Apr 1995 8:19:40 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3495

TIME: TJD=9814 SECONDS=63582

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

From RICHARDSON@ssl.msfc.nasa.gov Tue Apr 11 06:21 PDT 1995

Date: Tue, 11 Apr 1995 8:21:54 -0500 (CDT)

From: RICHARDSON@ssl.msfc.nasa.gov

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

Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3496

TIME: TJD=9814 SECONDS=69024

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

ELECTRON EVENT

From RICHARDSON@ssl.msfc.nasa.gov Tue Apr 11 06:24 PDT 1995
Date: Tue, 11 Apr 1995 8:24:22 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3497

TIME: TJD=9814 SECONDS=77603

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

From RICHARDSON@ssl.msfc.nasa.gov Tue Apr 11 06:27 PDT 1995
Date: Tue, 11 Apr 1995 8:26:58 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3498

TIME: TJD=9814 SECONDS=80171

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:Y

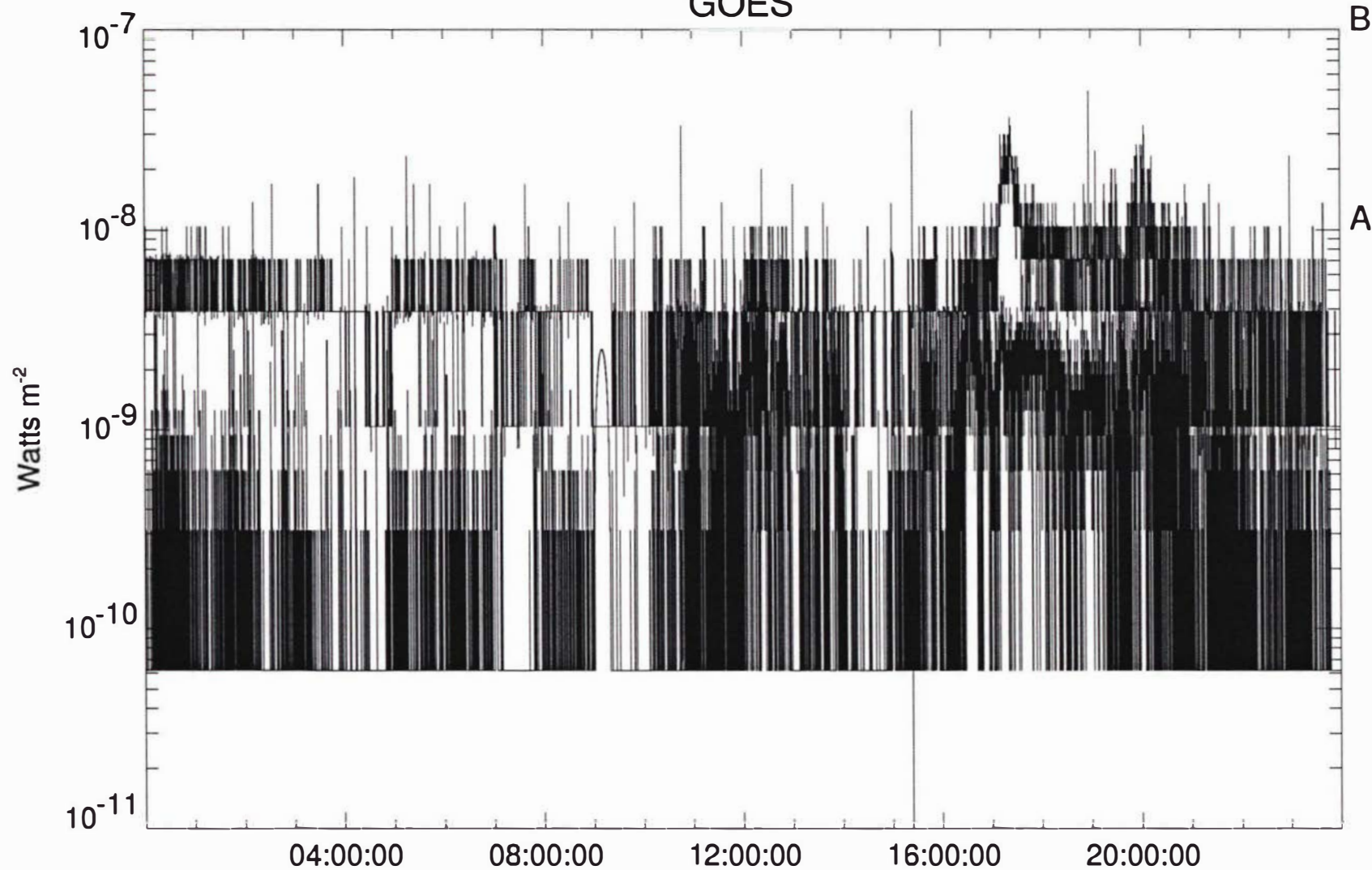
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

GOES



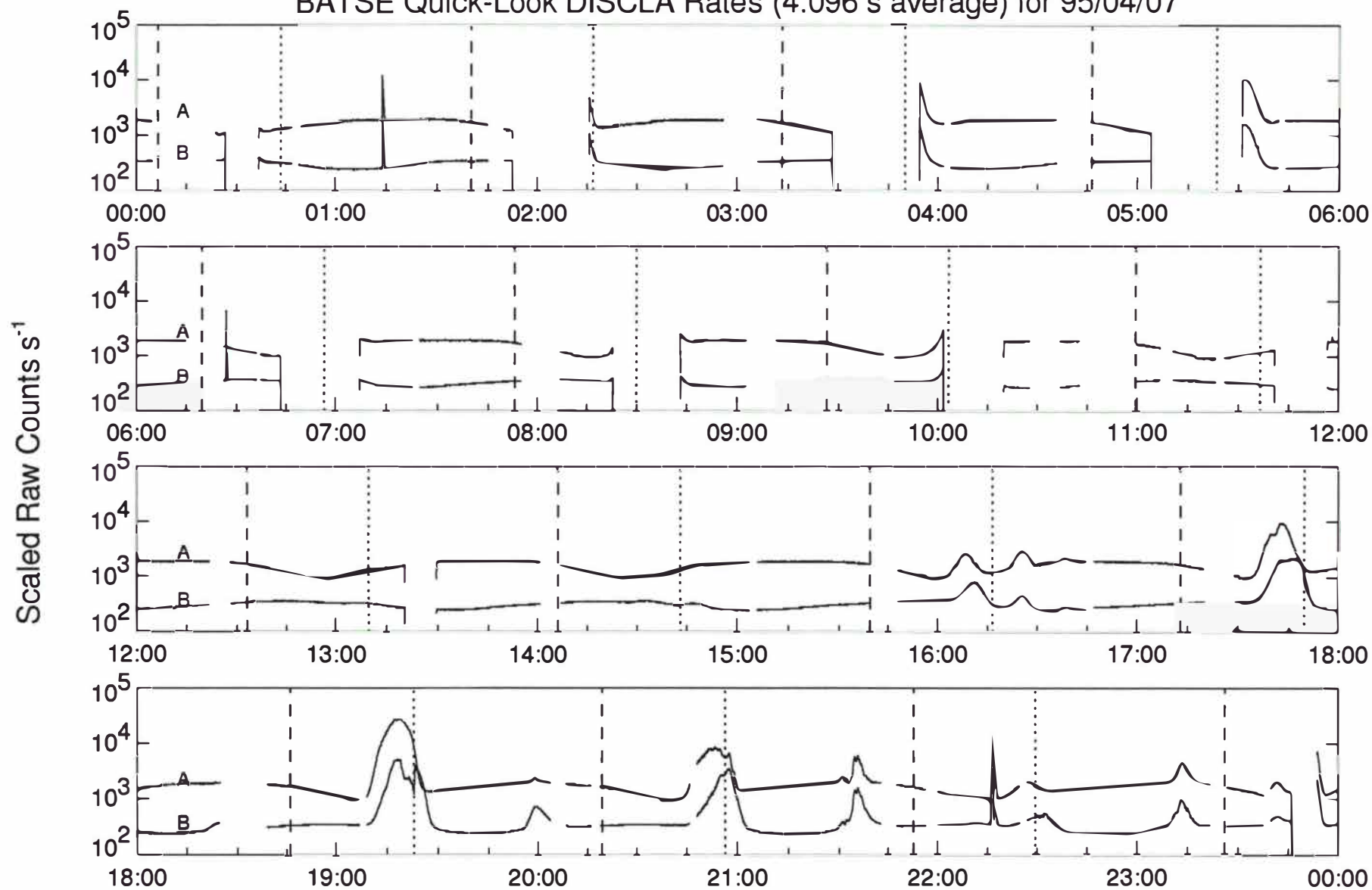
Data Start: 95/04/07, 0000:01

Plot created: 95/04/11, 1616

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/07



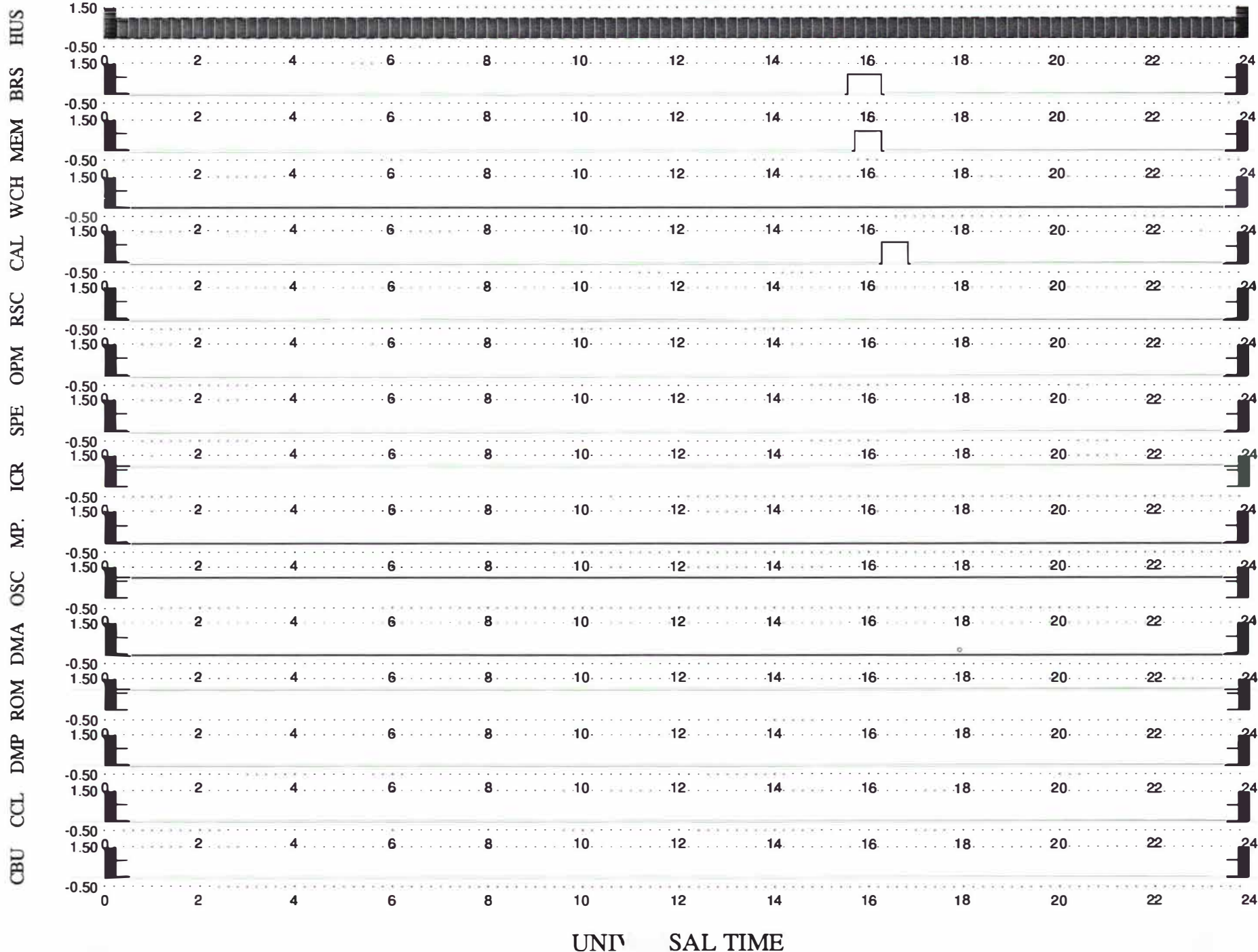
Current Time: 95/04/10, 0513 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

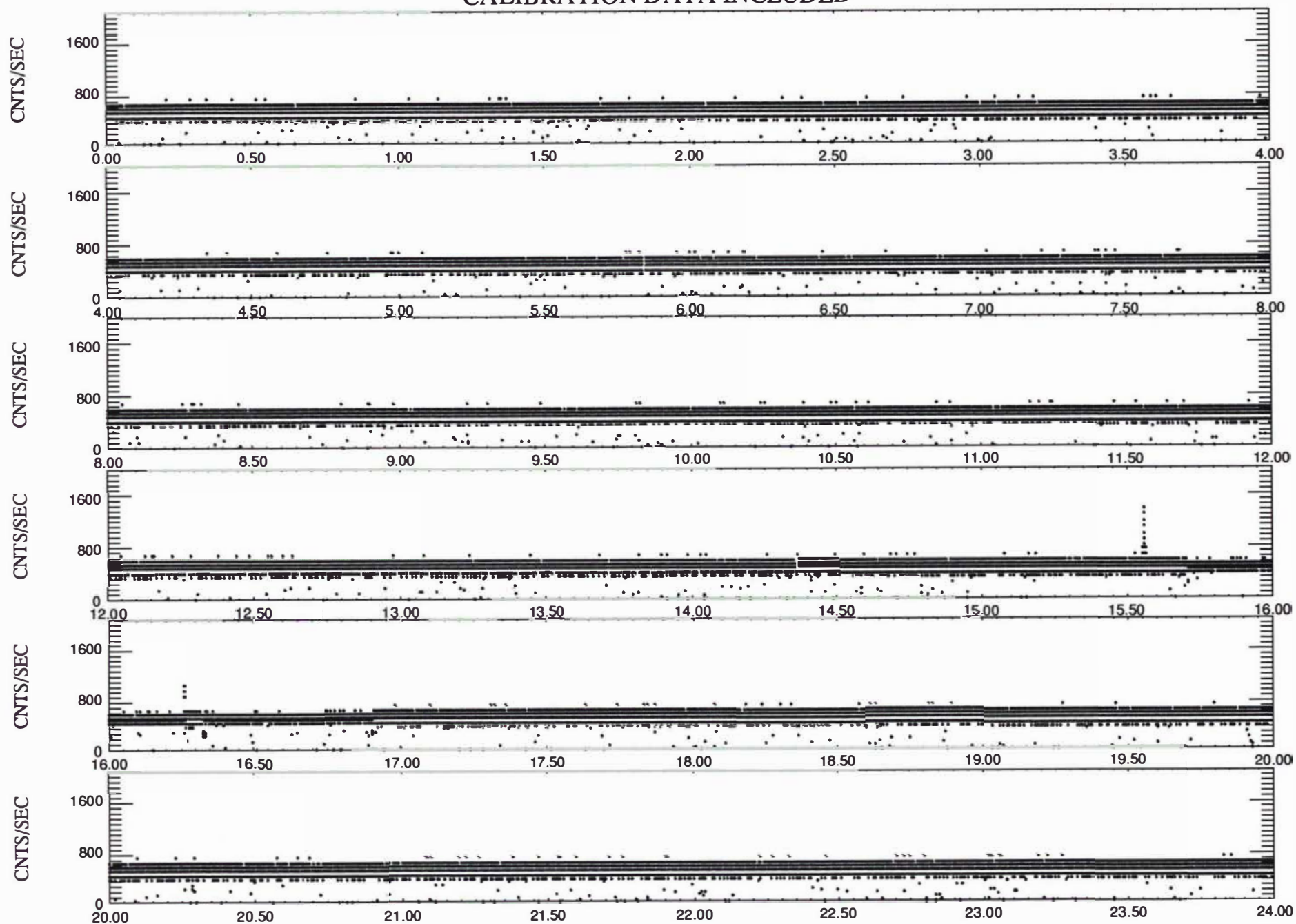
HUS MODES EDR day 97, year 1995 to day 97, year 1995 BURST NUMBER 12

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 97, year 1995 to day 97, year 1995
CALIBRATION DATA INCLUDED

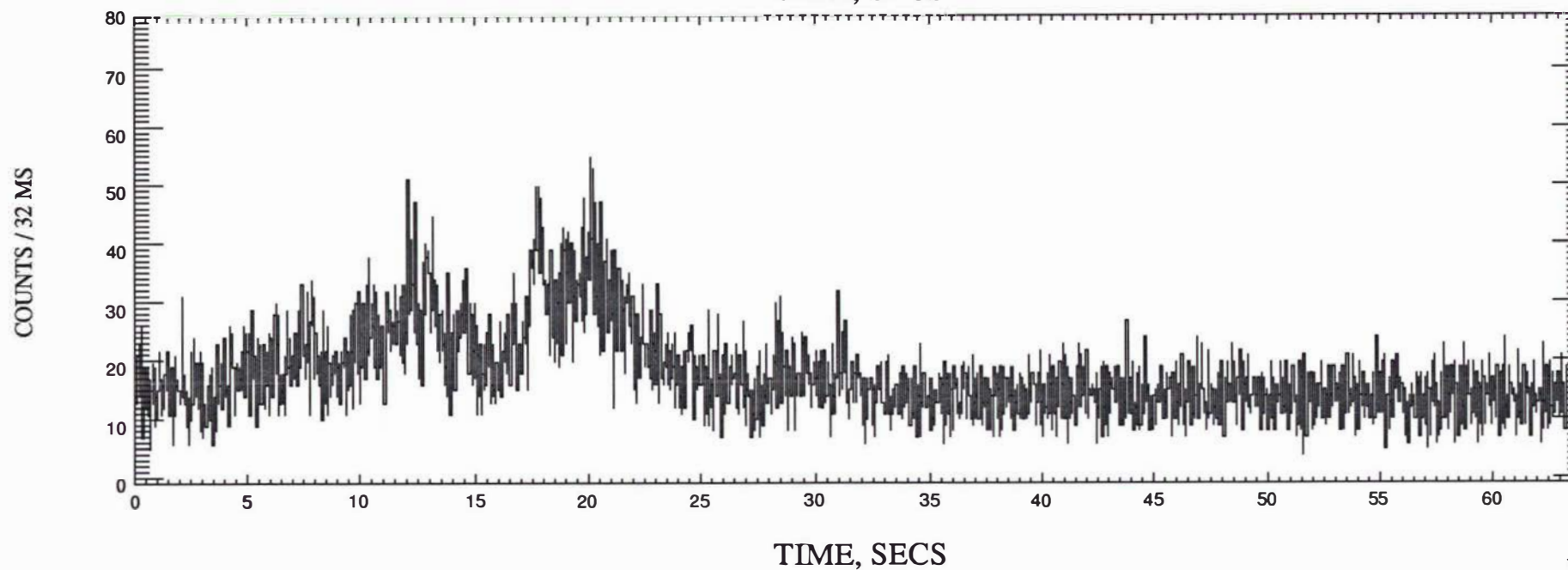
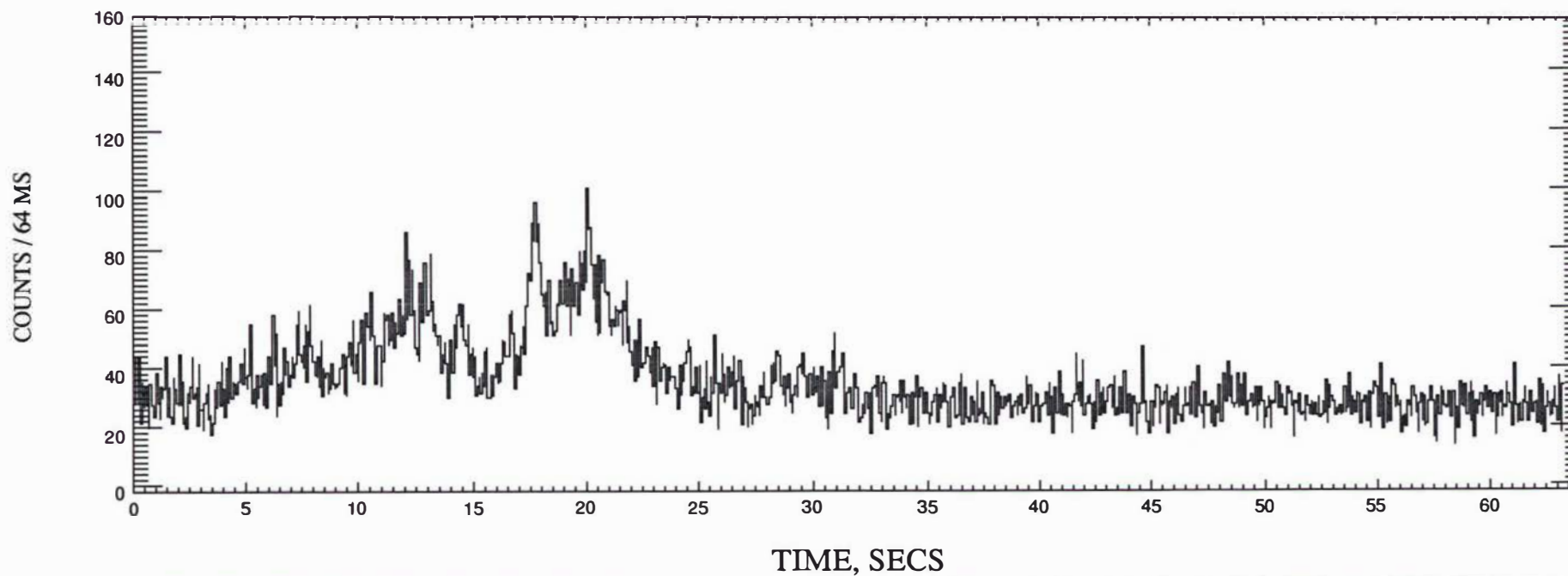
11/16/95

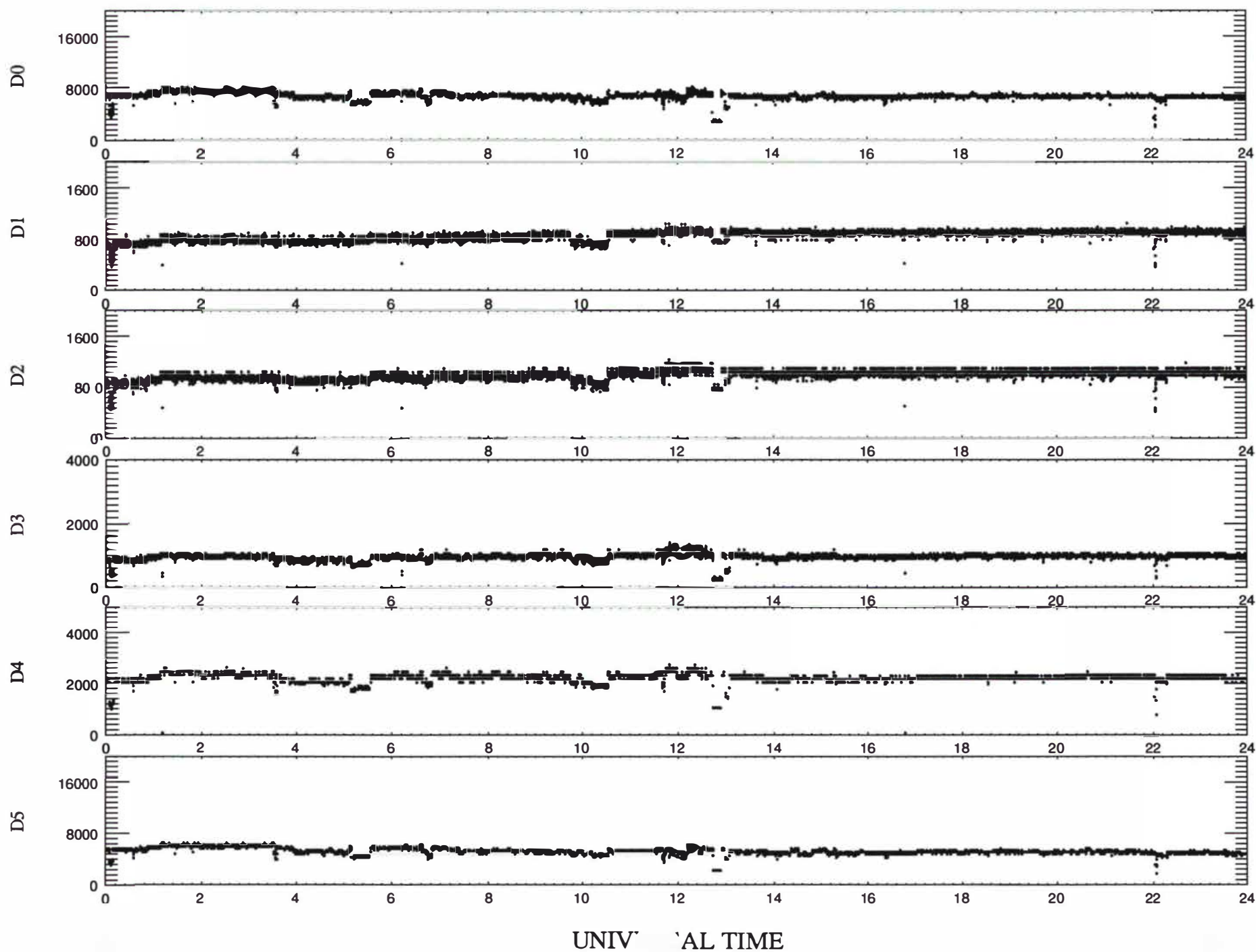


UNIVERSAL TIME

HUS 2A TRIGGERED DATA EDR day 97, year 1995
Burst Counter 12 at UT=15.552762175666 h=55989.944 s 15:33:09.944

11/16/95





Date: Aug 23 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?

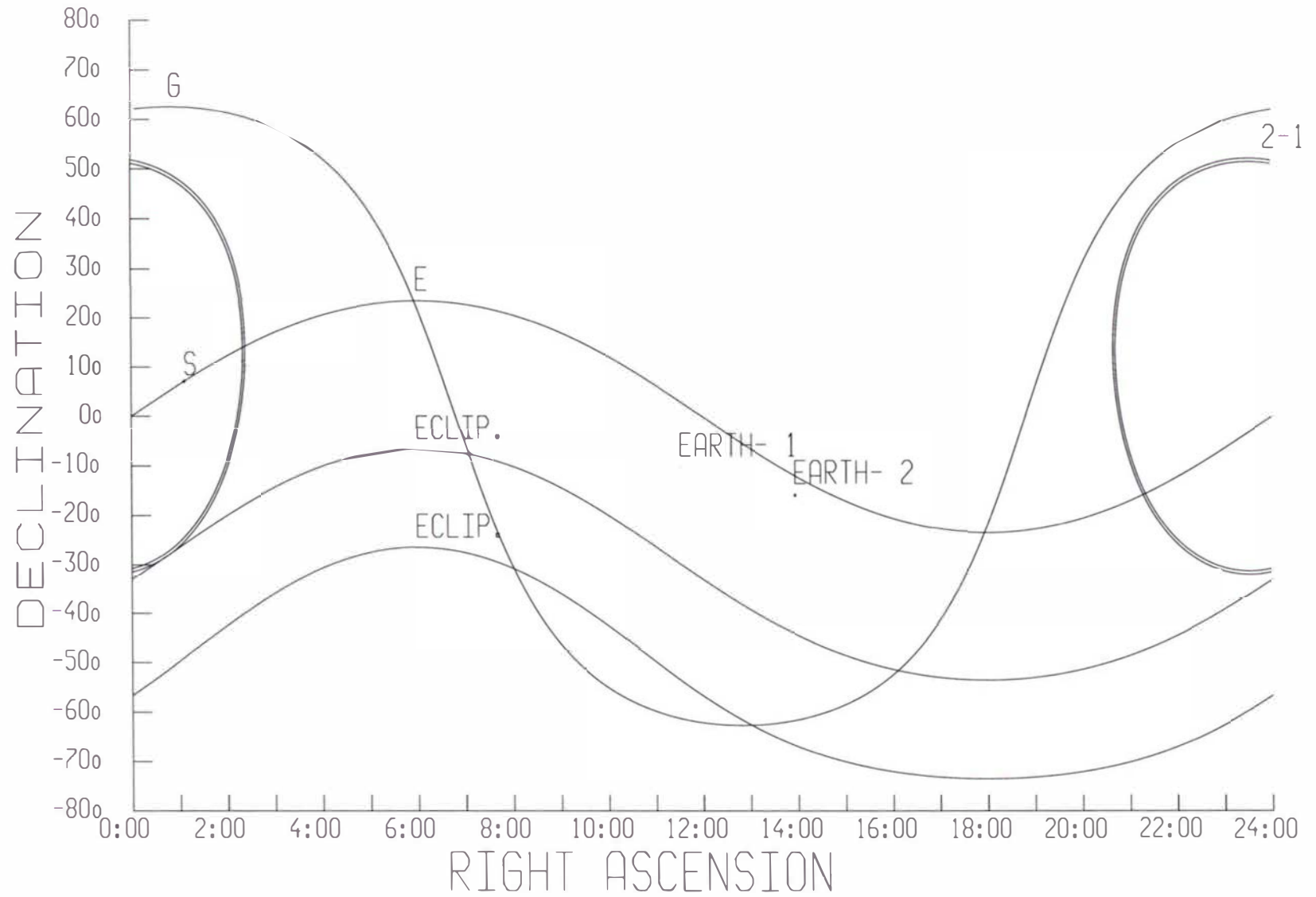
3. PVO Data

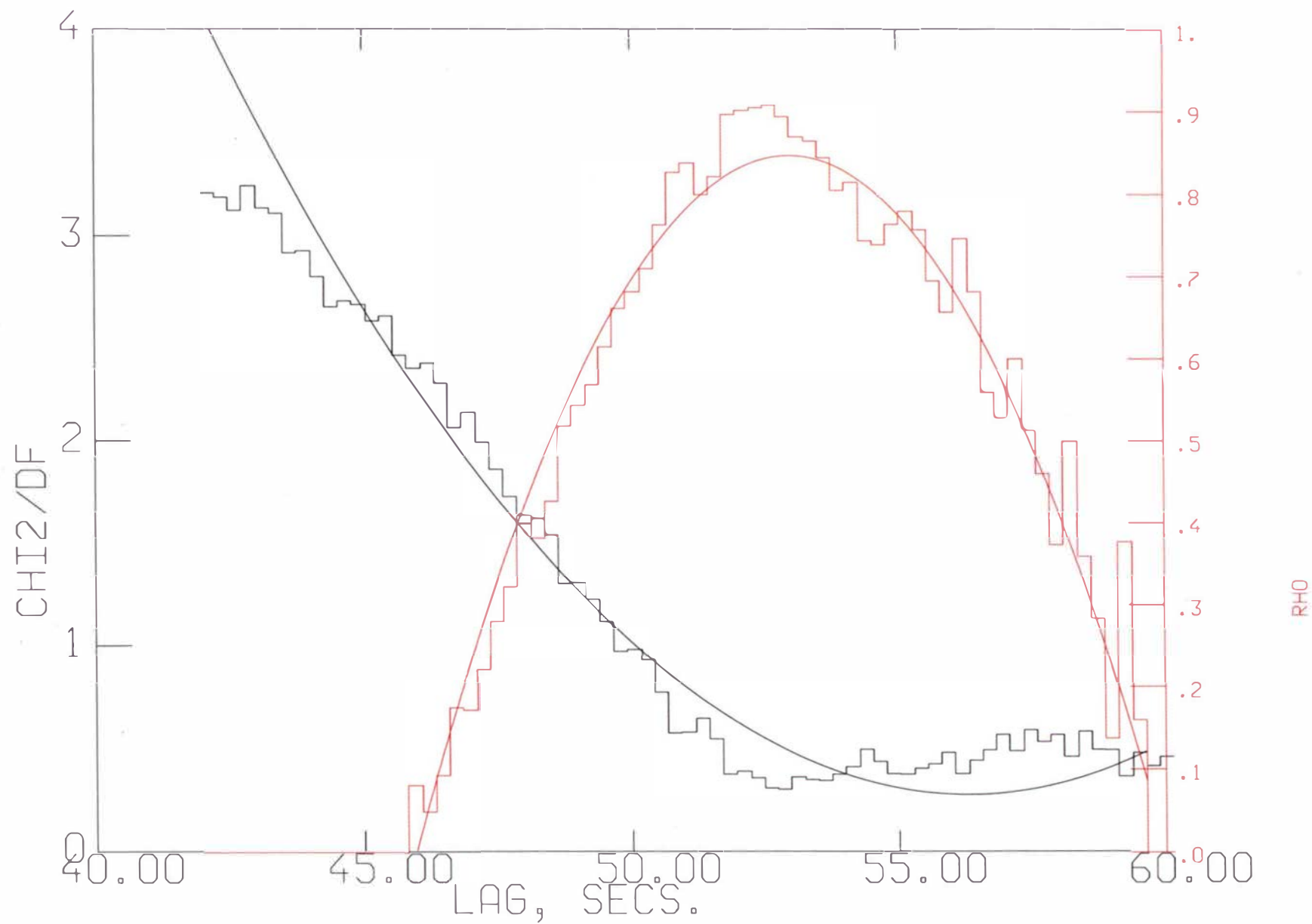
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

EVENT OF APR 8, 1995 9:18

23/08/2011

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





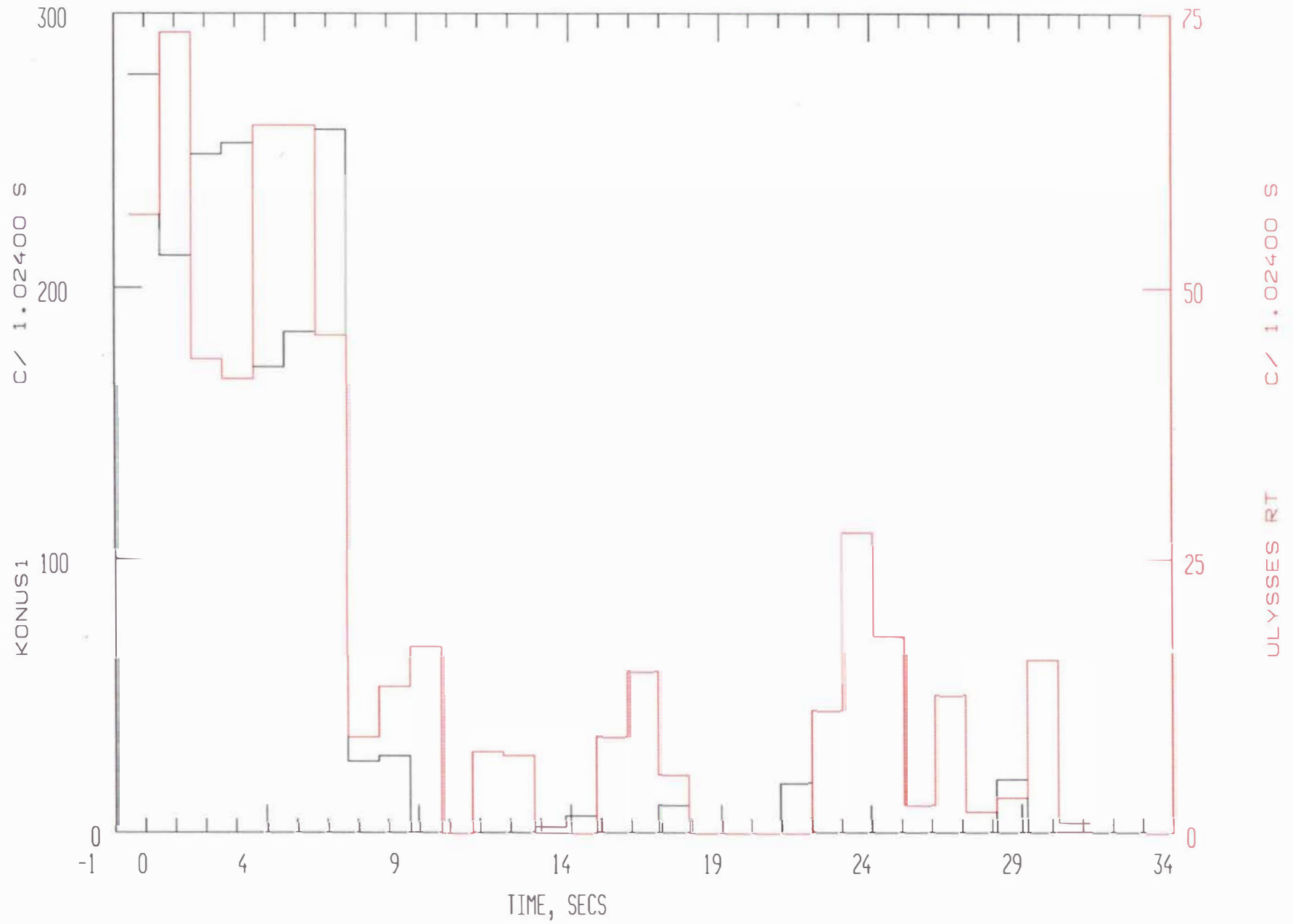
KONUS1

-ULYSSES RT CORRELATION

08/04/95

34375.553

22/ 8/11



KONUS 19950408 33528

ULYSSES RT

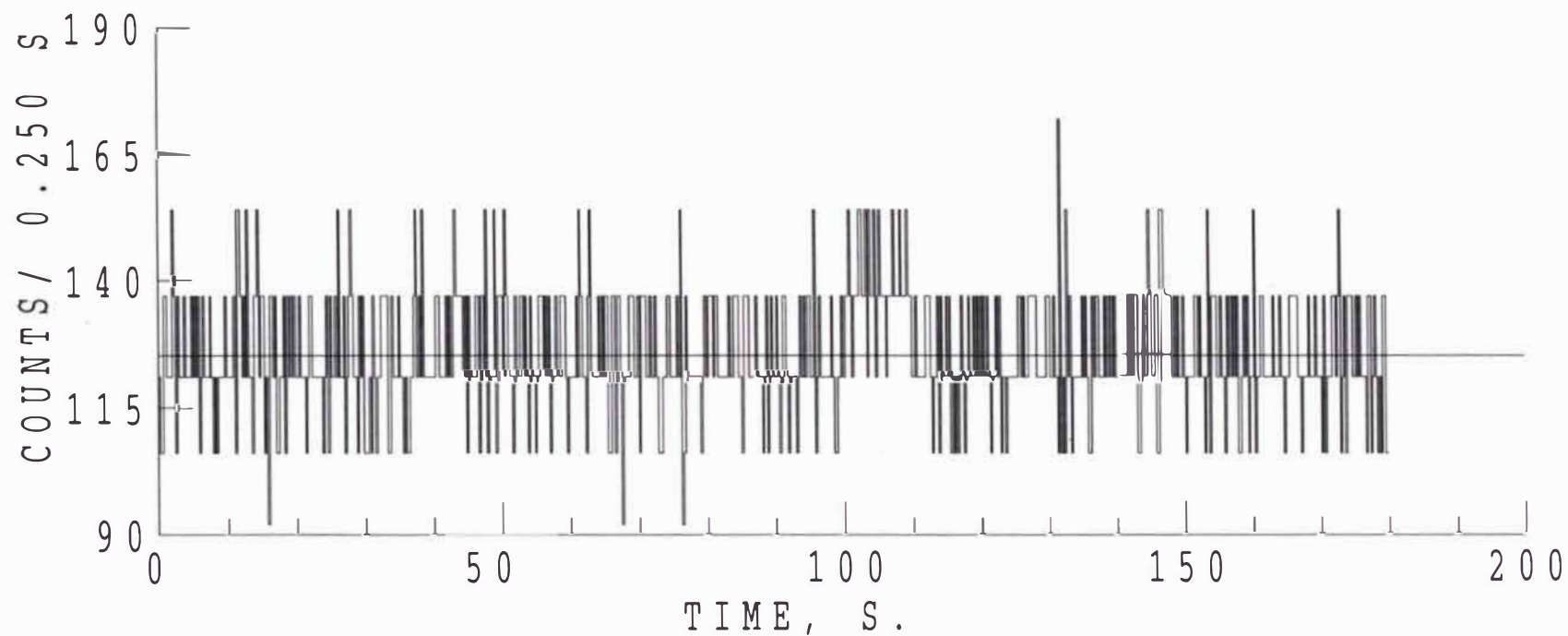
17 / 08 / 11

08 / 04 / 95 33444.062 s

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS

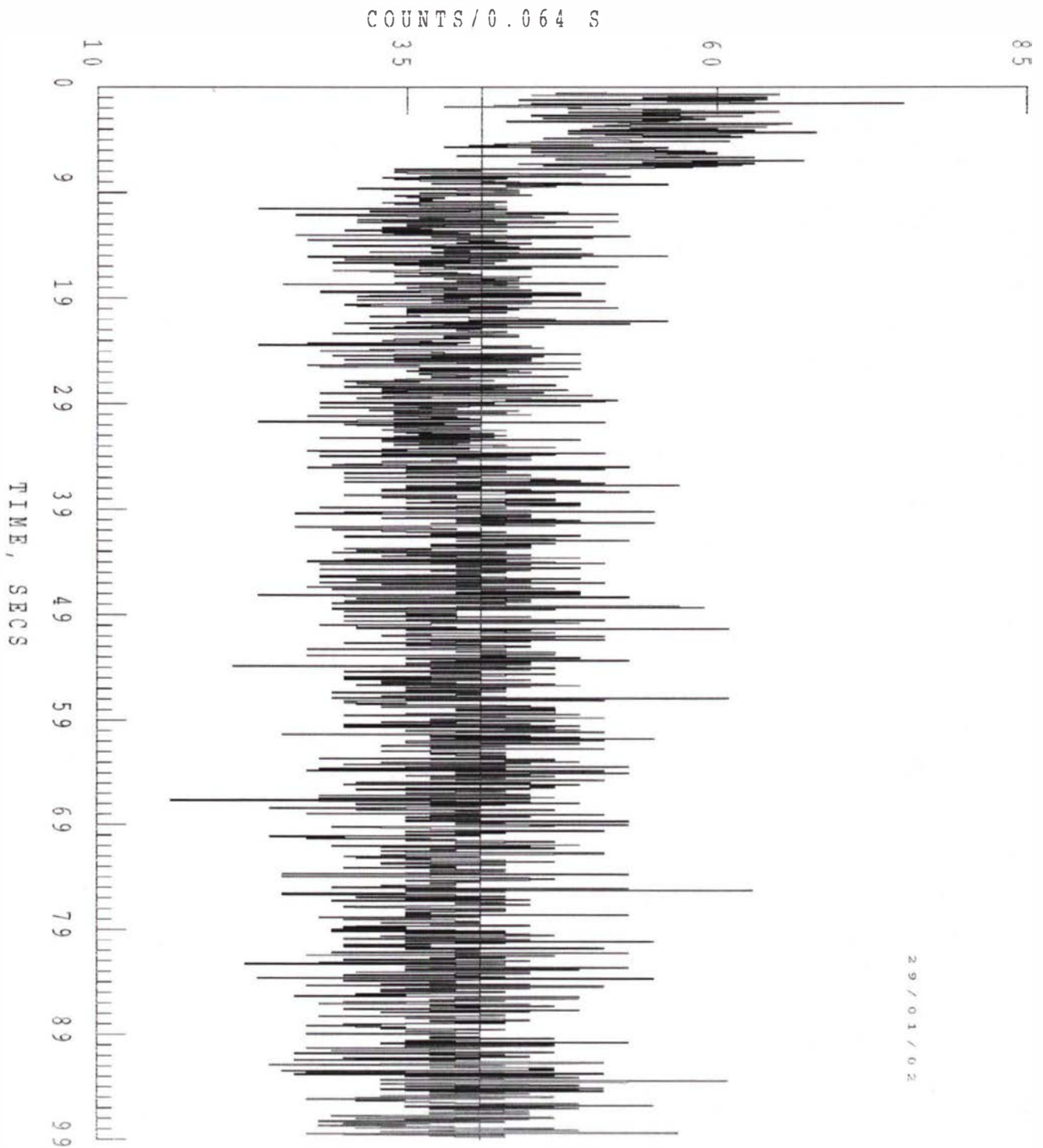


KONUS1

08/04/95

34375.553

50 - 200 keV



KONUS1 19950408 34375

ULYSSES RT

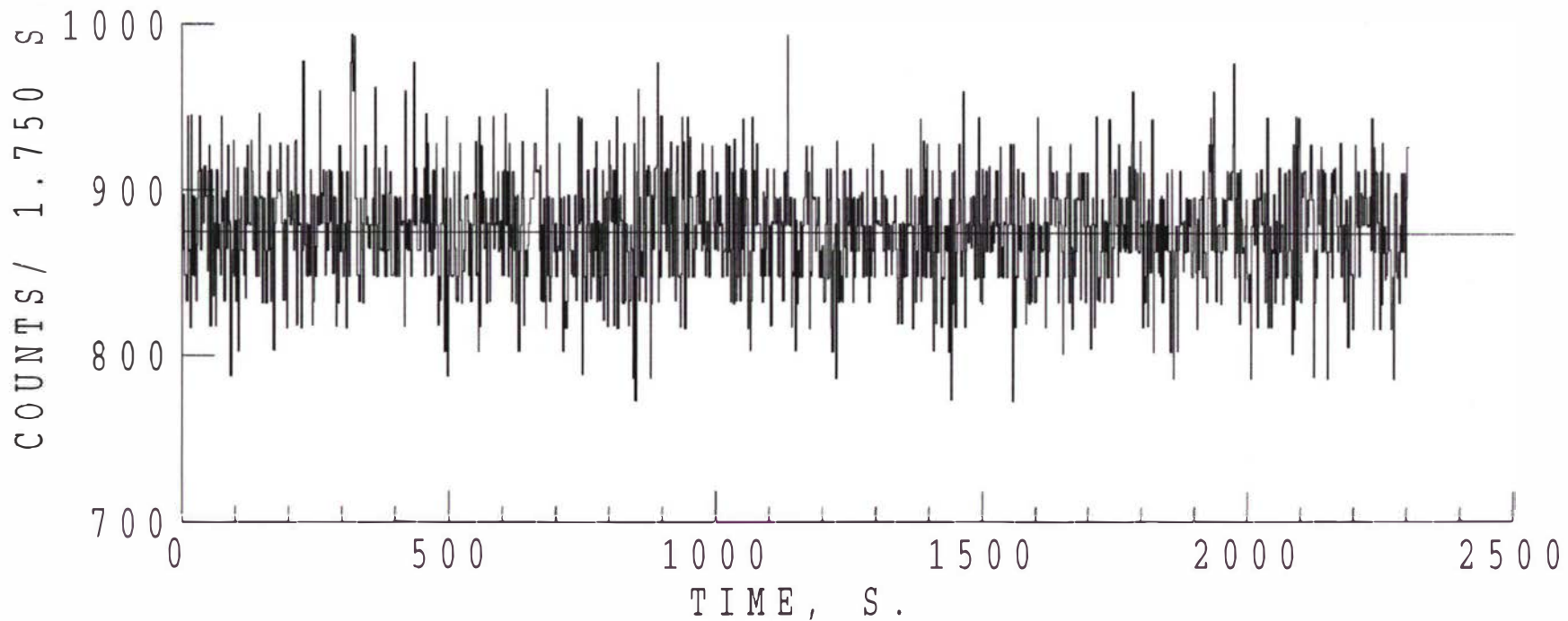
29 / 01 / 02

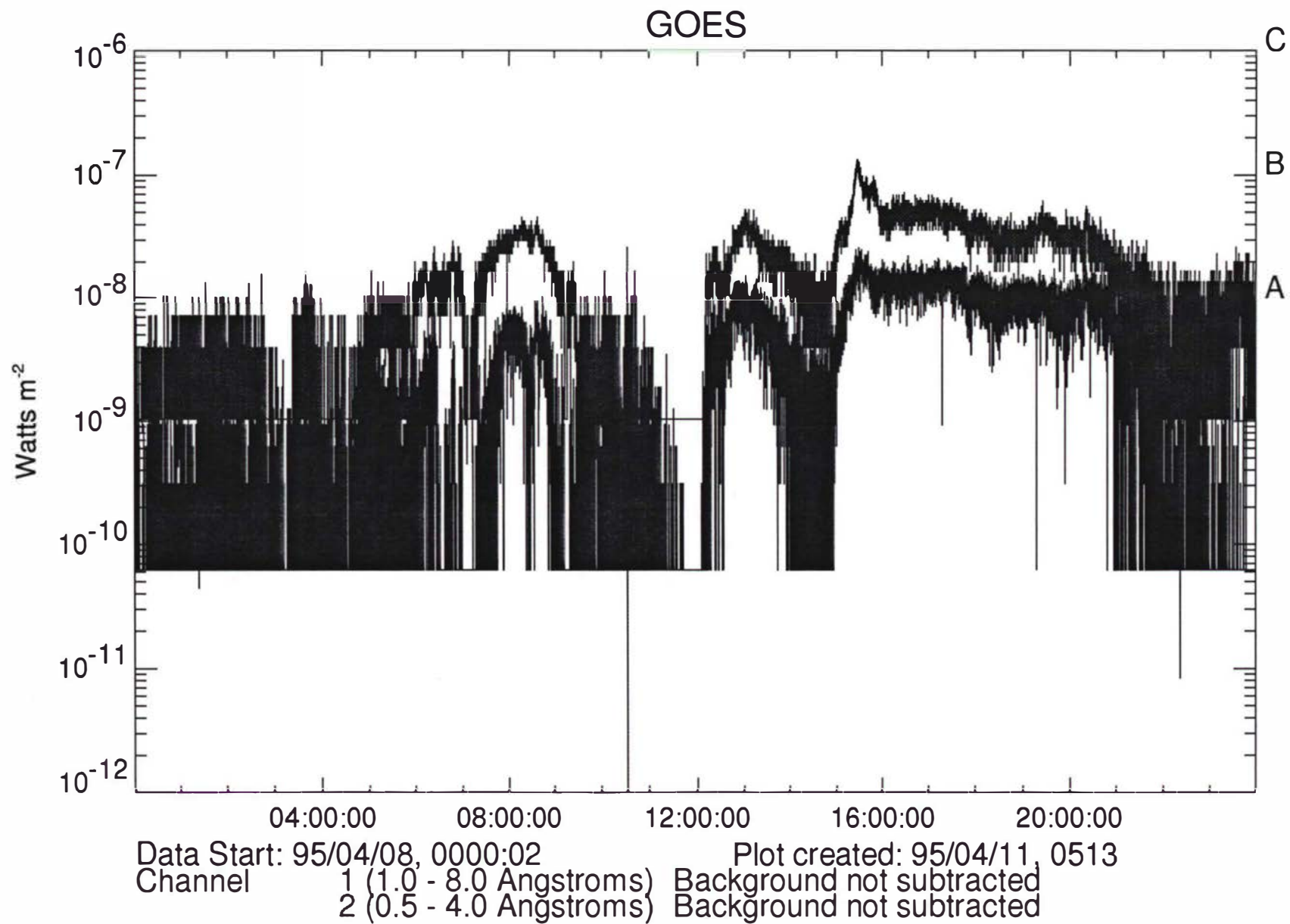
08 / 04 / 95 33228.062 s

0.250 S INTERVALS REGROUPED BY 7

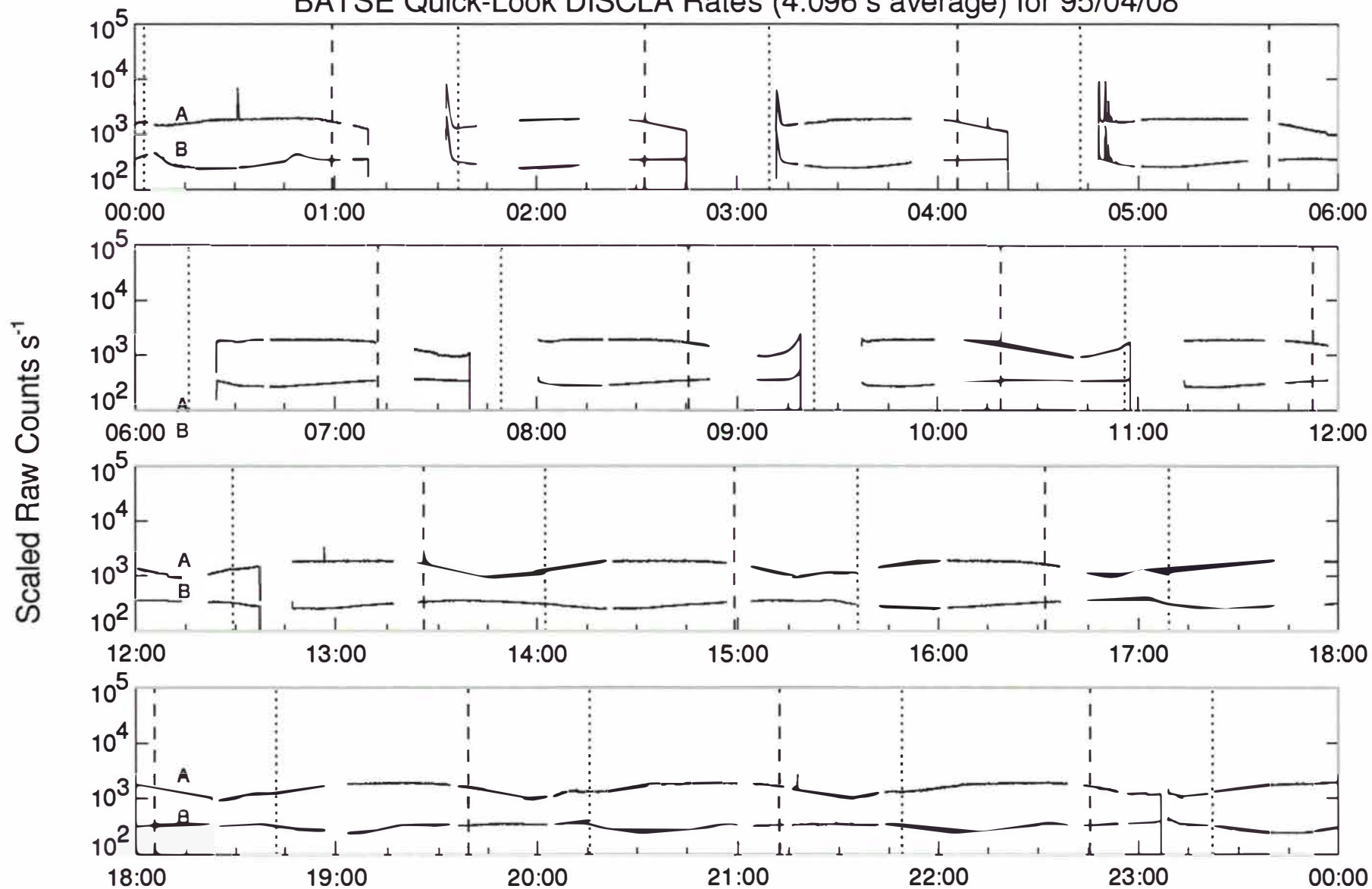
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/08



Current Time: 95/04/11, 0514 EDT

A: Channel 0 Most Sunward LAD

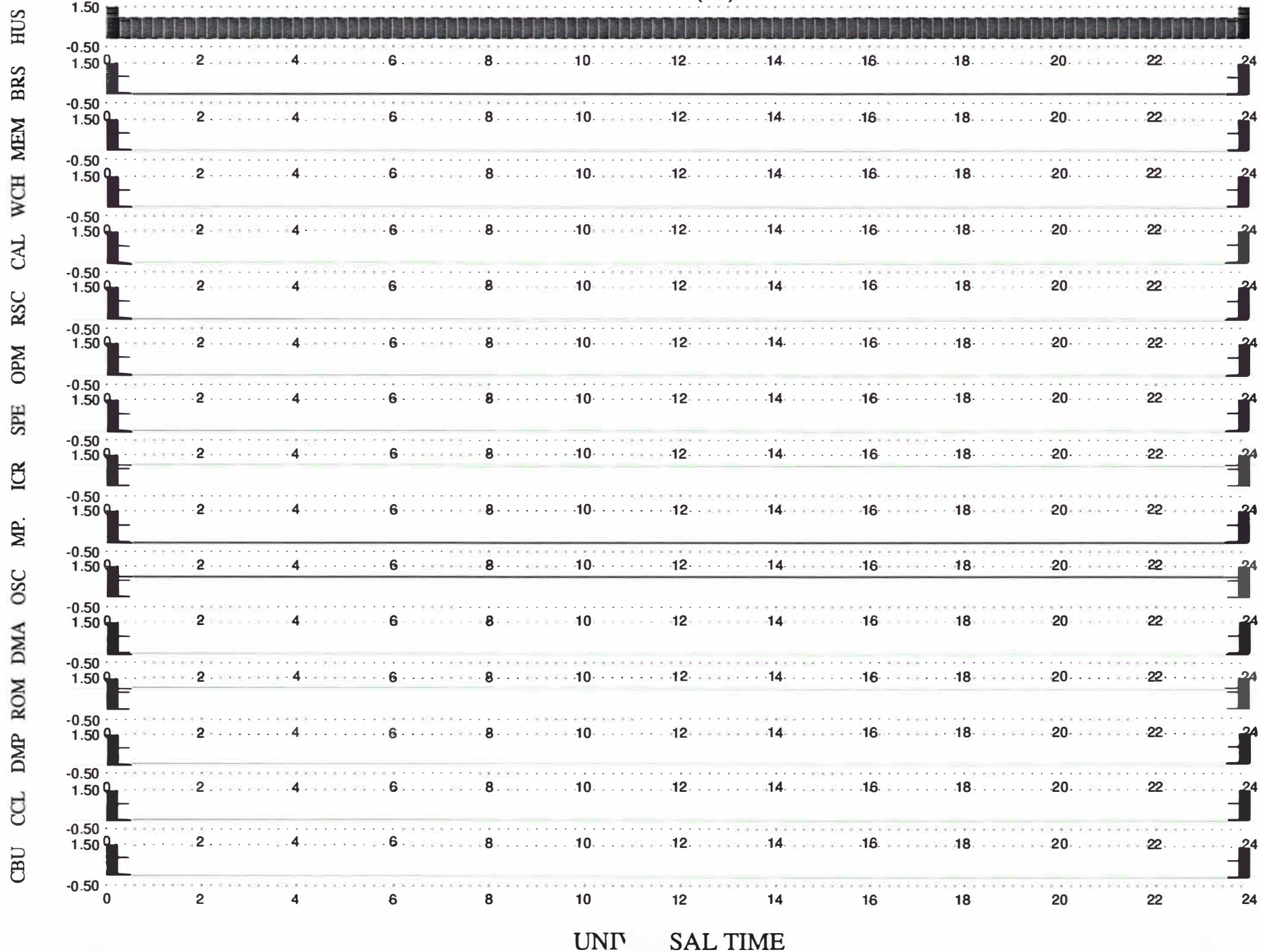
B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
Dashed line: Night entry

* Solar Burst Trigger
+ Solar Flare

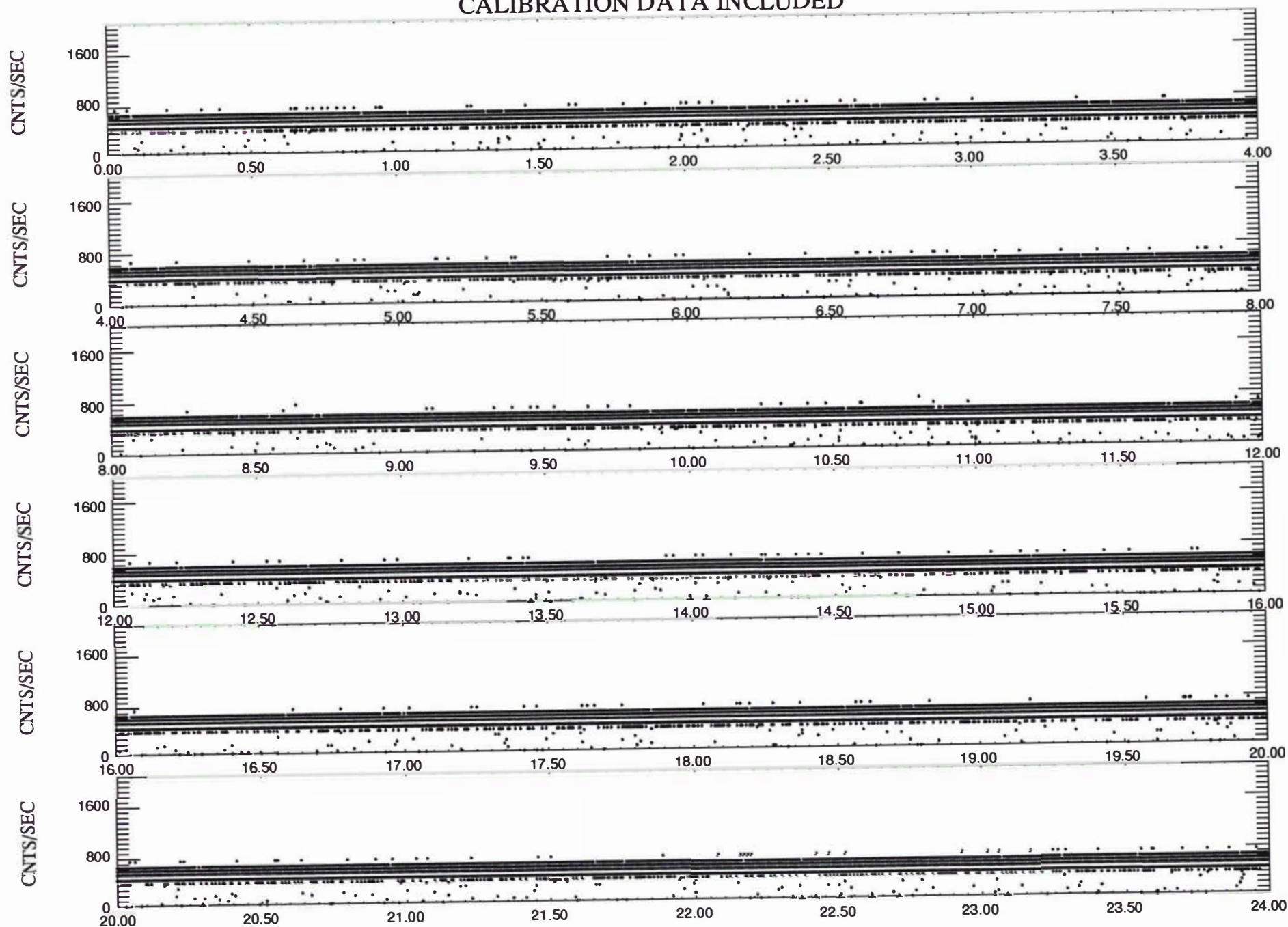
HUS MODES EDR day 98, year 1995 to day 98, year 1995
NO BURST (12)

11/16/95

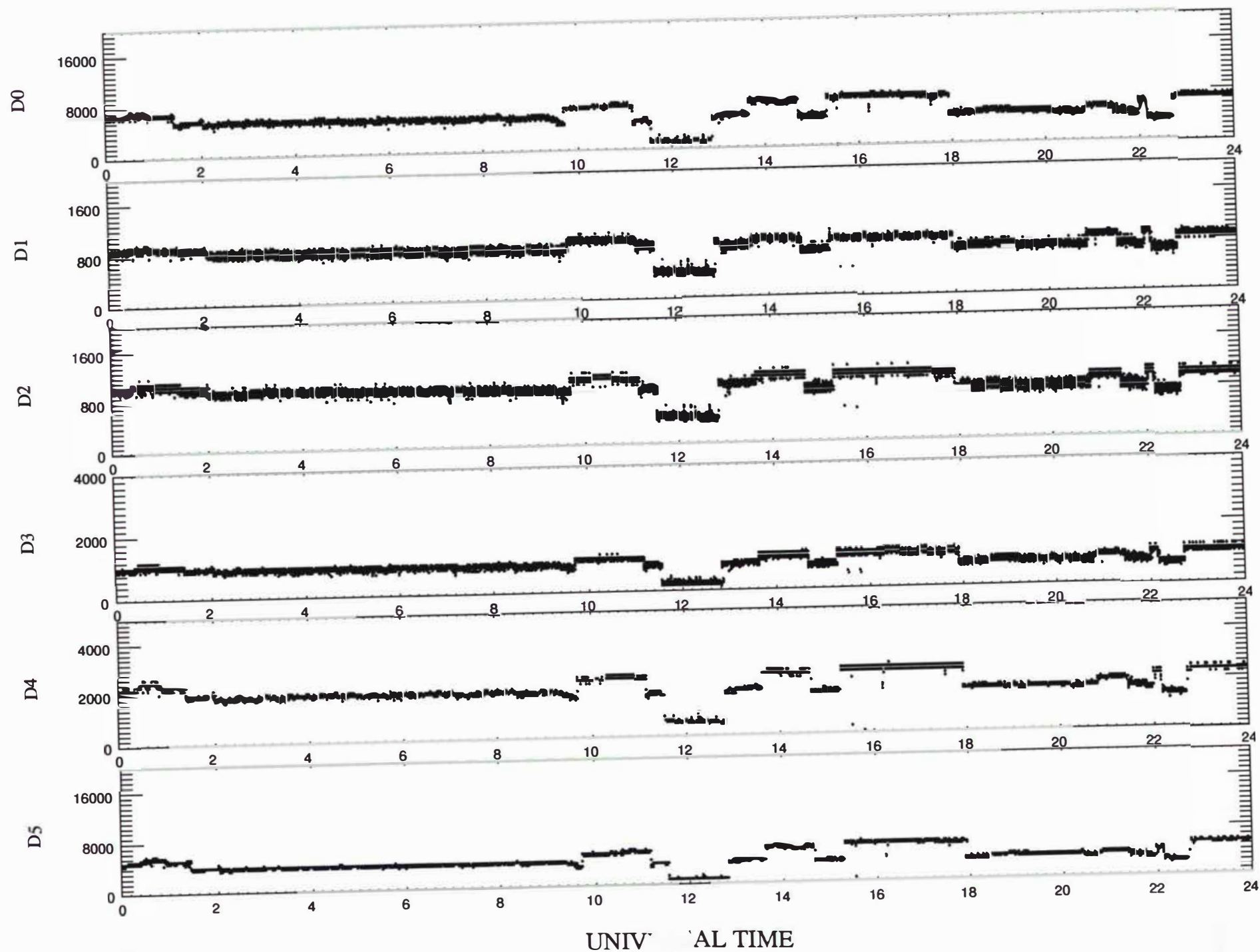


HUS 2A, MODE 1, NOT AVERAGED EDR day 98, year 1995 to day 98, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIV `SAL TIME



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

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

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

Mime-Version: 1.0

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

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

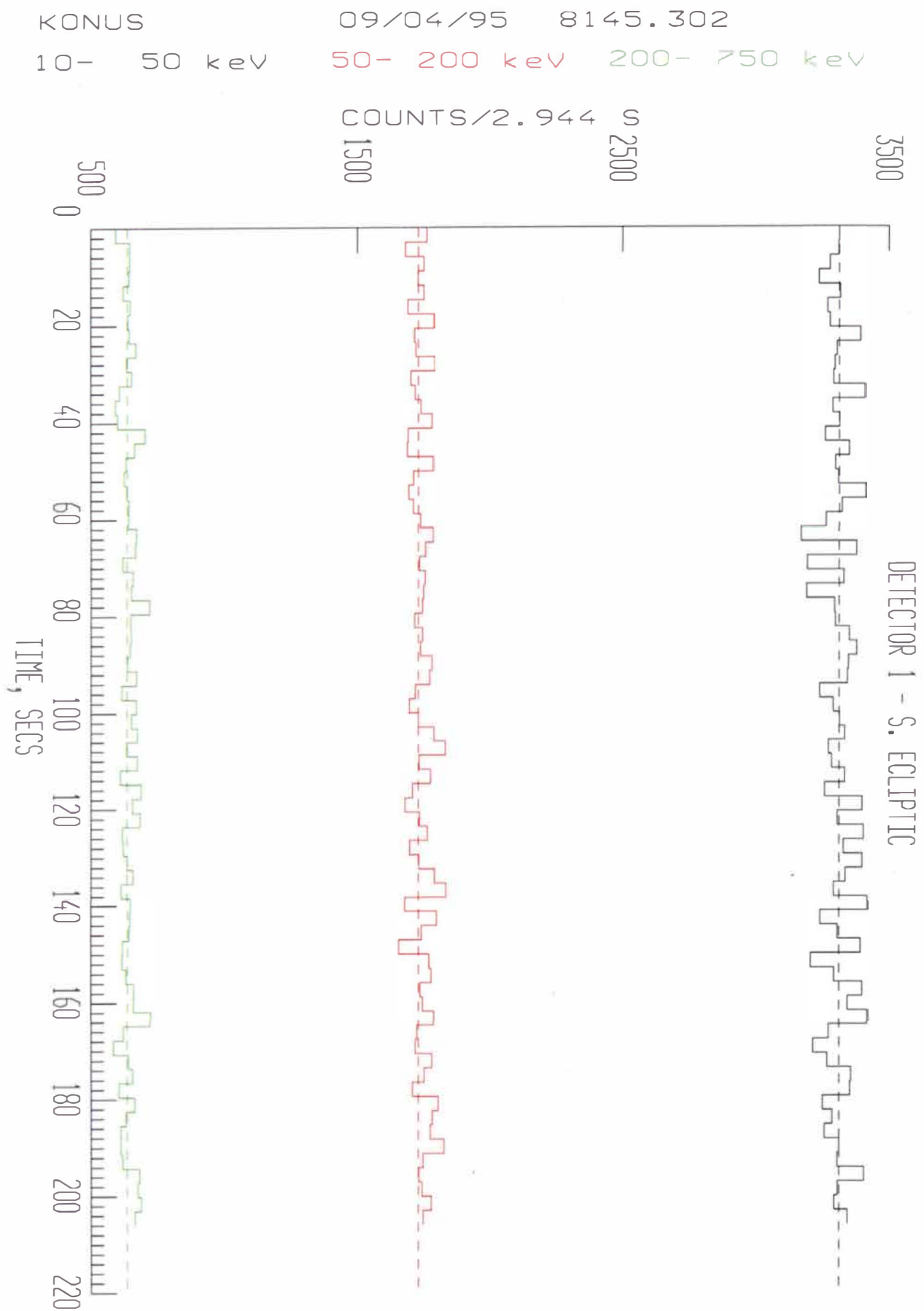
Subject: For Your INFO

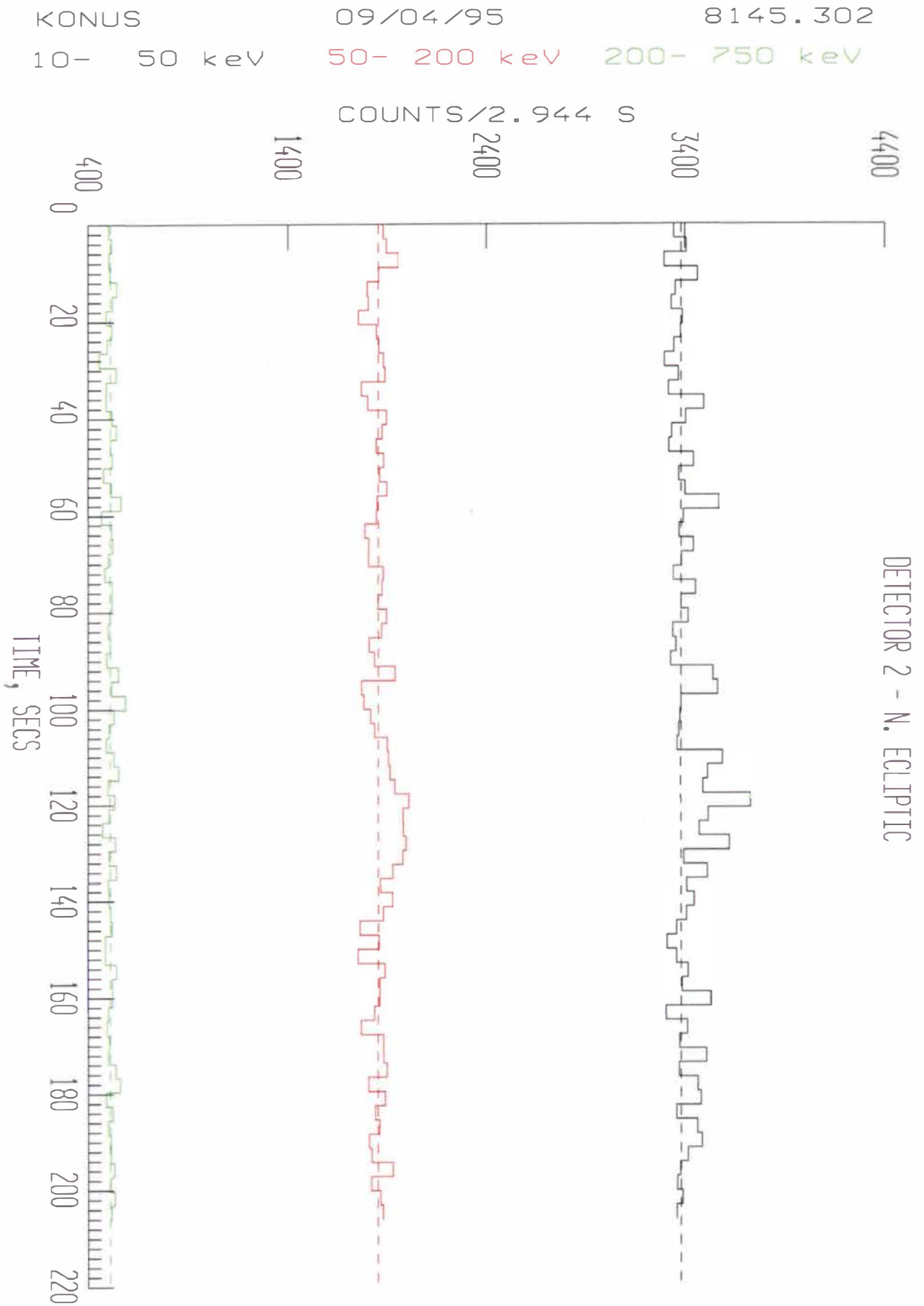
Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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





KONUS

12 / 2 / 96

ULYSSES RT

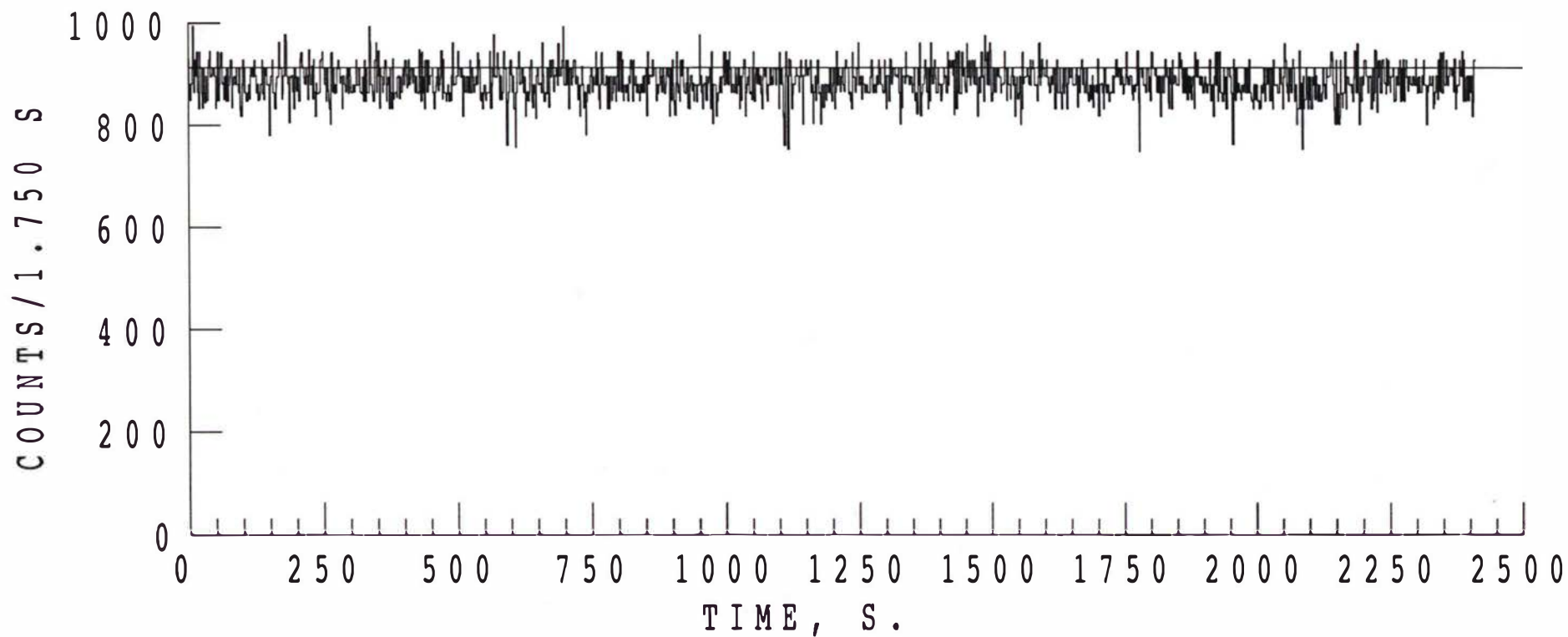
9 / 4 / 95 7056.236 s

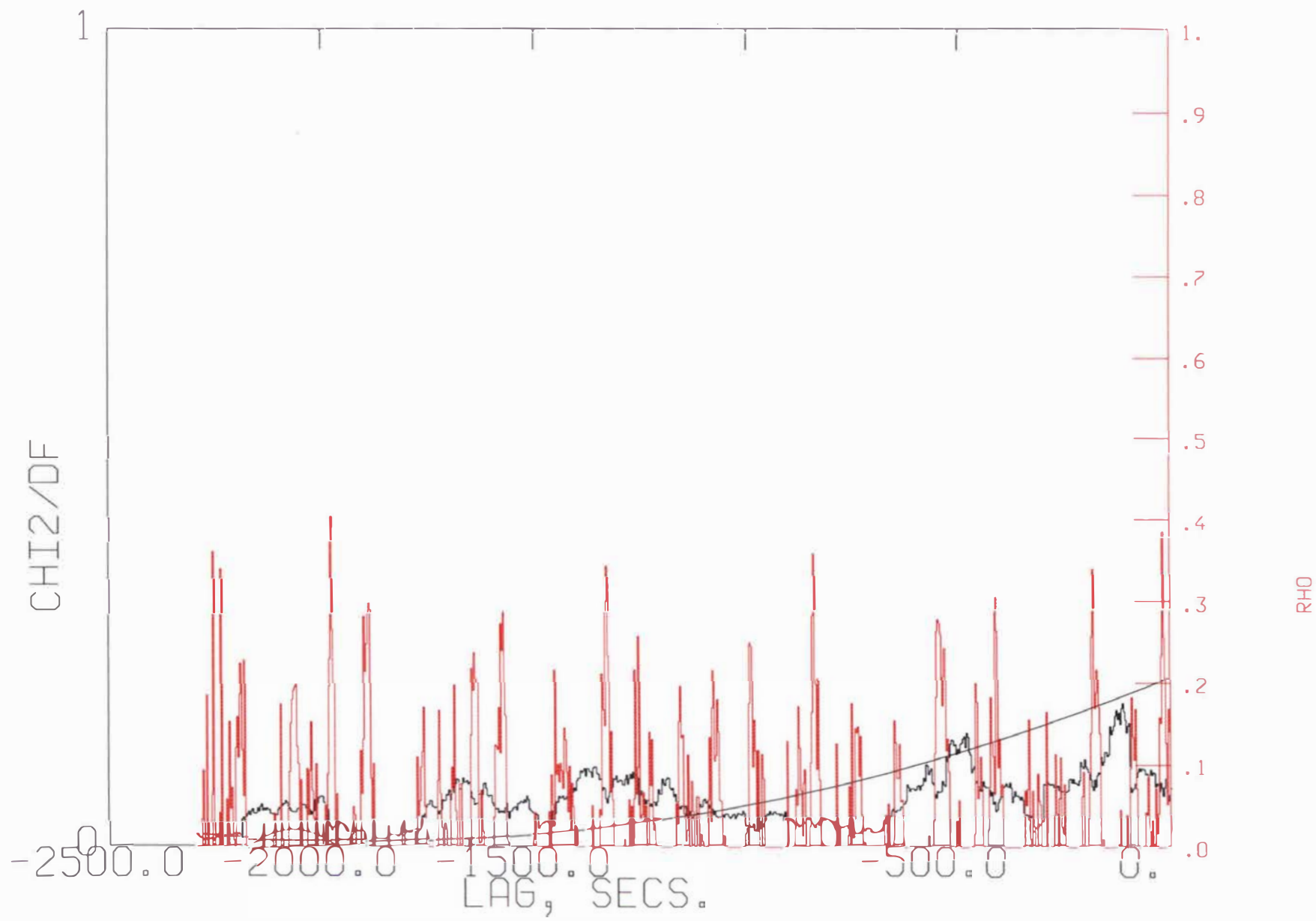
0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





A

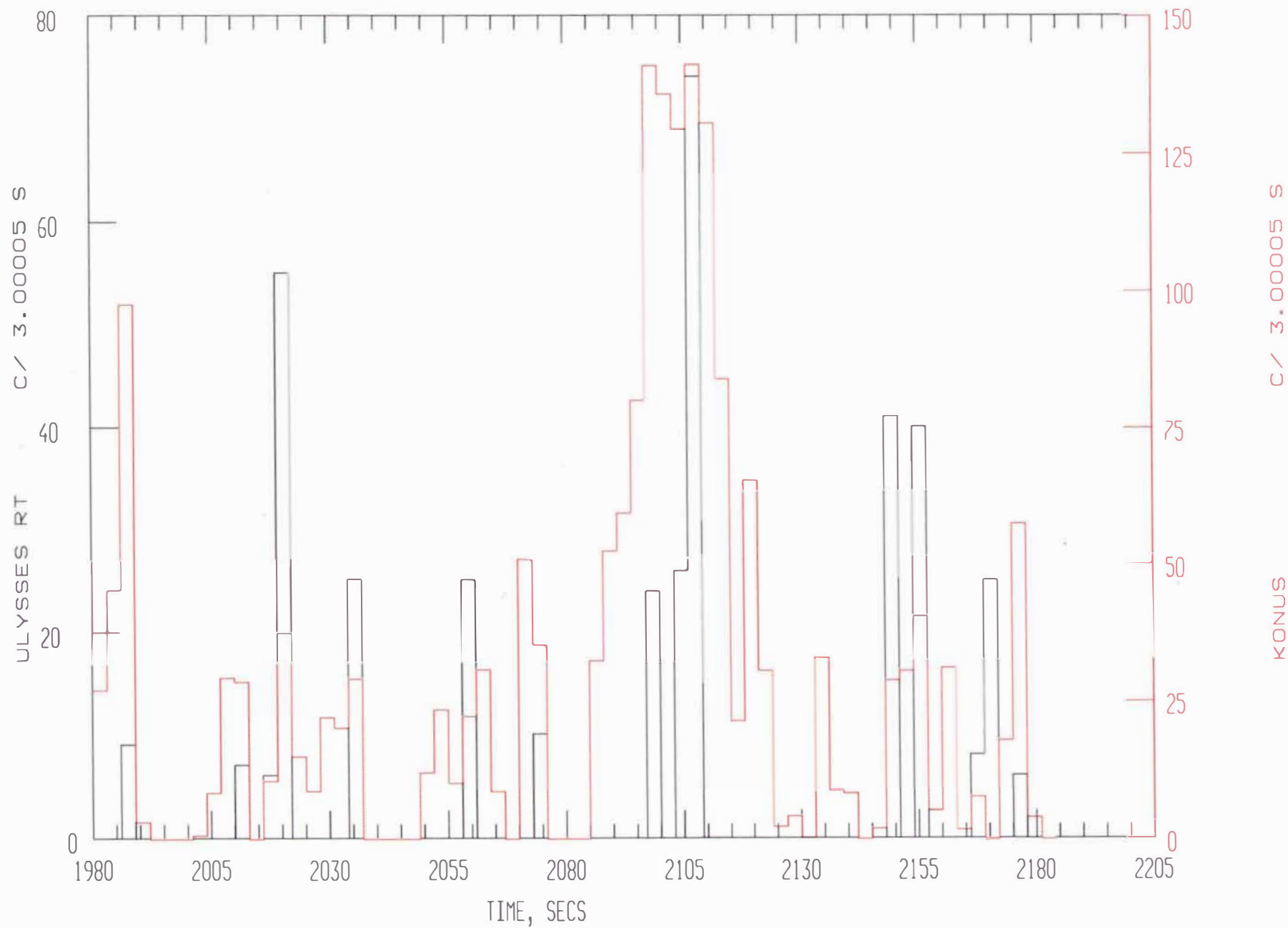
ULYSSES RT-KONUS

CORRELATION

9/ 4/95

7092.468

17/ 8/11



From HAGEDON@fender.msfc.nasa.gov Tue Apr 11 09:21 PDT 1995
Date: Tue, 11 Apr 1995 11:21:30 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3499

B

BATSEARCH PROGRAM

BATSE BURST # 3499
EVENT OF 1995 APR 9 DAY OF YEAR= 99
EVENT CROSSING TIME AT BATSE : 23559. S. OR 06:32:39.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 47.000 -62.000
BATSE PEAK COUNTING RATE: 6000 C/S

RI No - too weak

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 9/ 4/ 95 IS:
RA= 352.758 DEC= 10.457 DIST= 2.229 AU
BATSE-ULYSSES DISTANCE = 333436015. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 96.29 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -121.82 SECS.
CROSSING TIME AT ULYSSES IS 23437. S. OR 06:30:37 +/- 240.09 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 9/ 4/ 95 IS:
RA= 137.833 DEC= 19.190 DIST= 0.961 AU
MARS-BATSE DISTANCE = 143816352. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 72.74 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 142.32 SECS.
CROSSING TIME AT MARS IS 23701. S. OR 06:35:01 +/- 81.70 SECONDS

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3499	950409	9816	23559	6000	047	-62	10

BATSE BURST TRIGGER

NO.: 3499

TIME: TJD=9816 SECONDS=23559

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=64 AZIMUTH=63 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE WITH SOFT SHOULDER. DUR.~10 SEC. NOT VISIBLE
ABOVE 300 KEV.

B

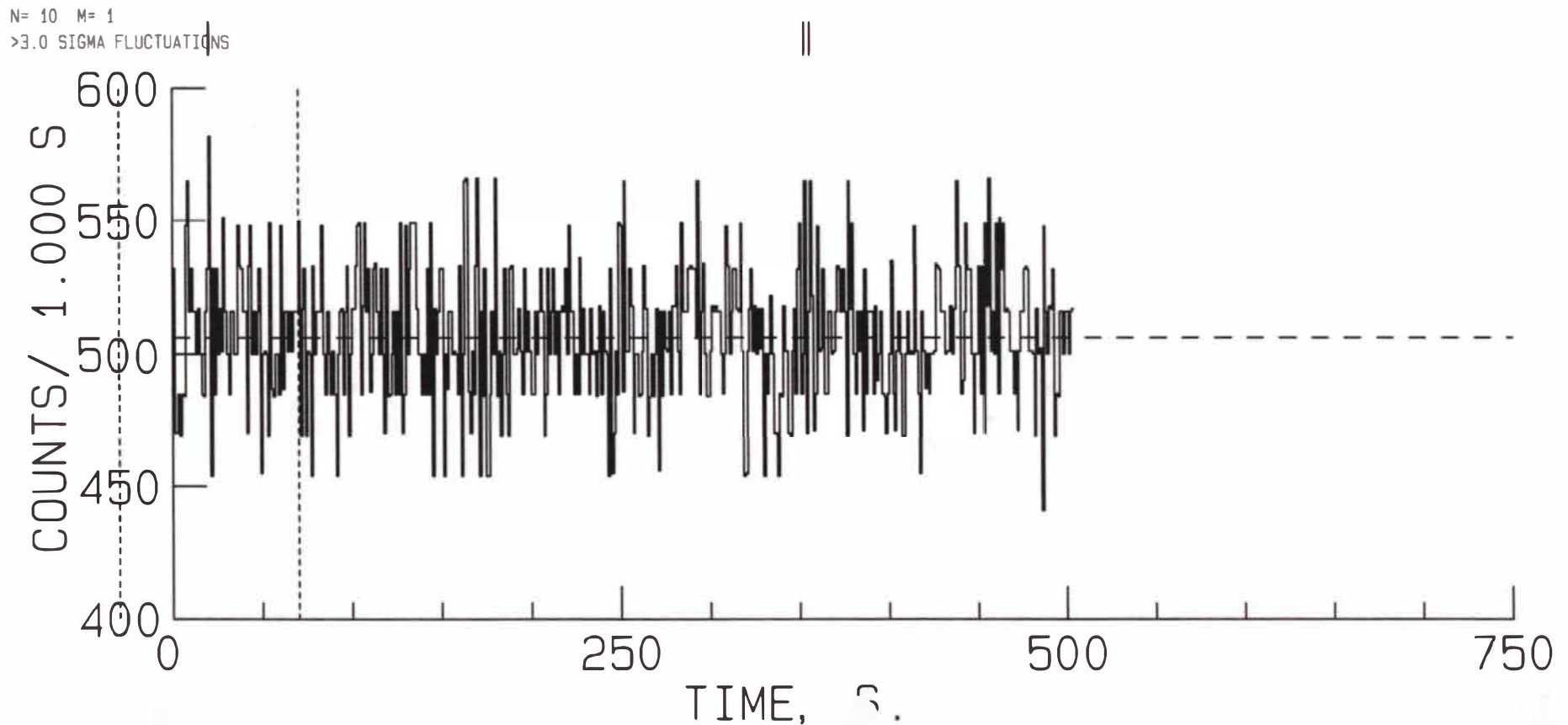
ULYSSES RT

19 / 11 / 97

9 / 4 / 95 23184.051 s

0.250 S INTERVALS REGROUPED BY 4

21- 143 keV



N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

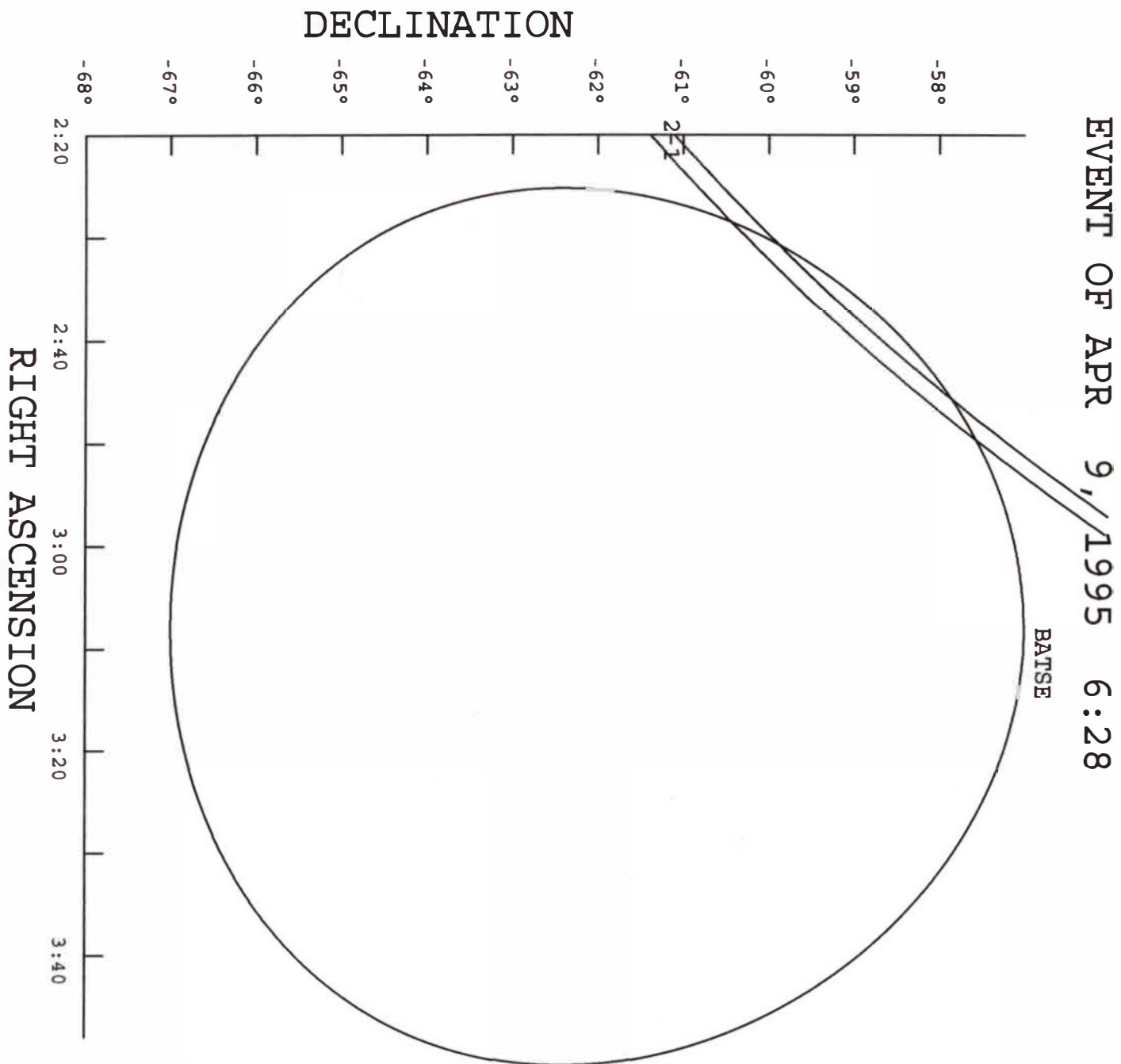
S=SUN

E=ECLIPTIC

G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE



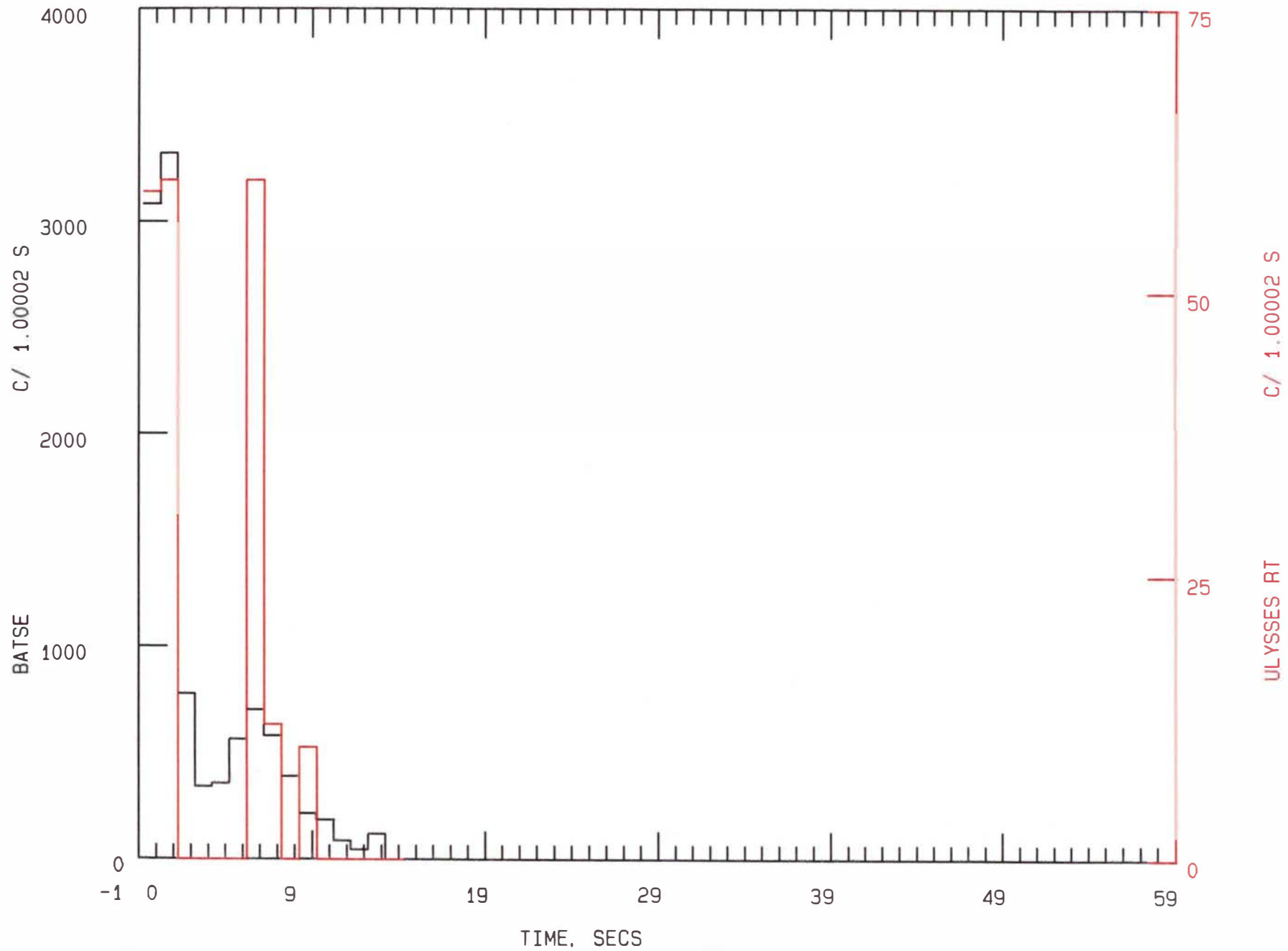
9 / 2 / 96

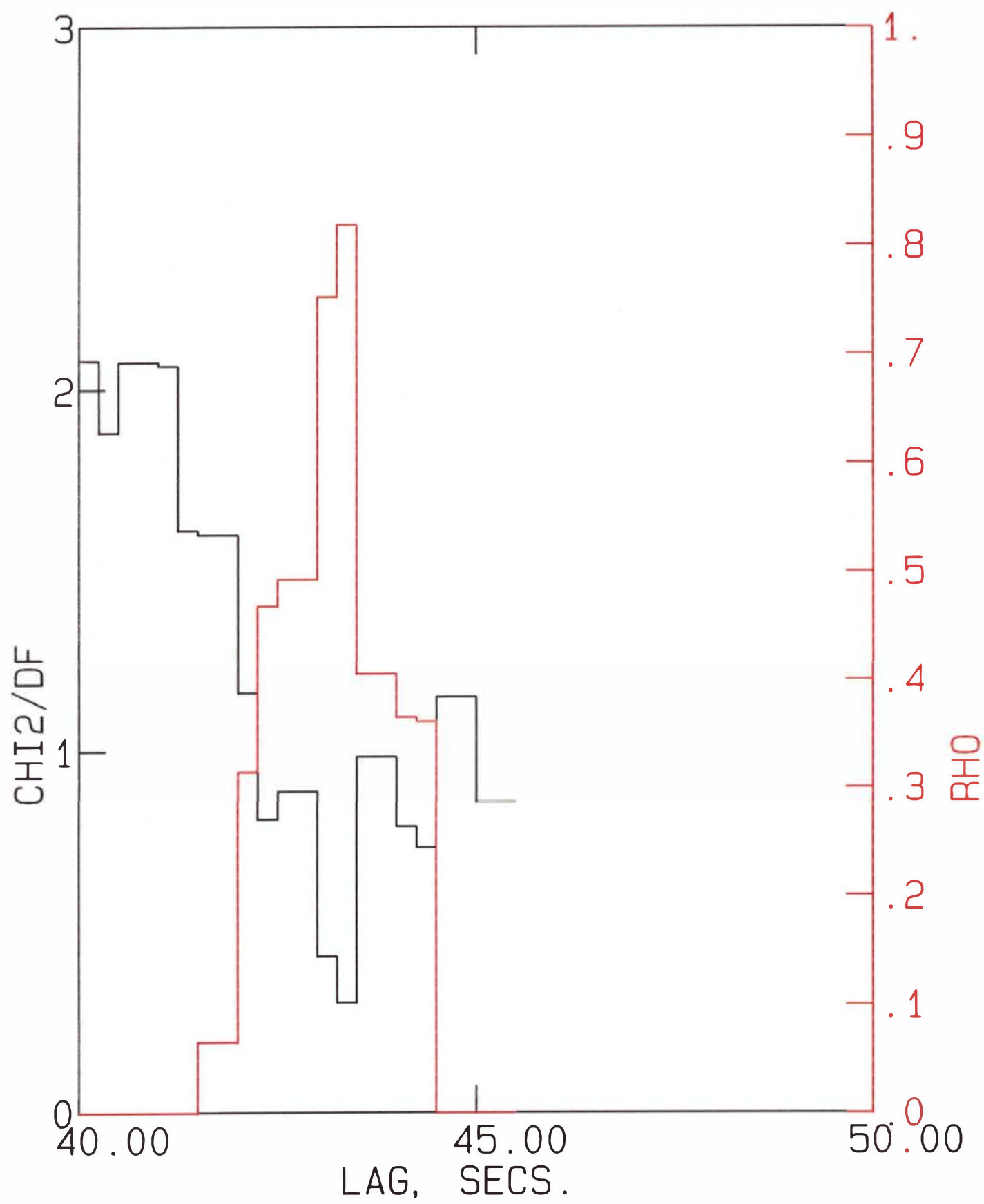
BATSE

-ULYSSES RT CORRELATION

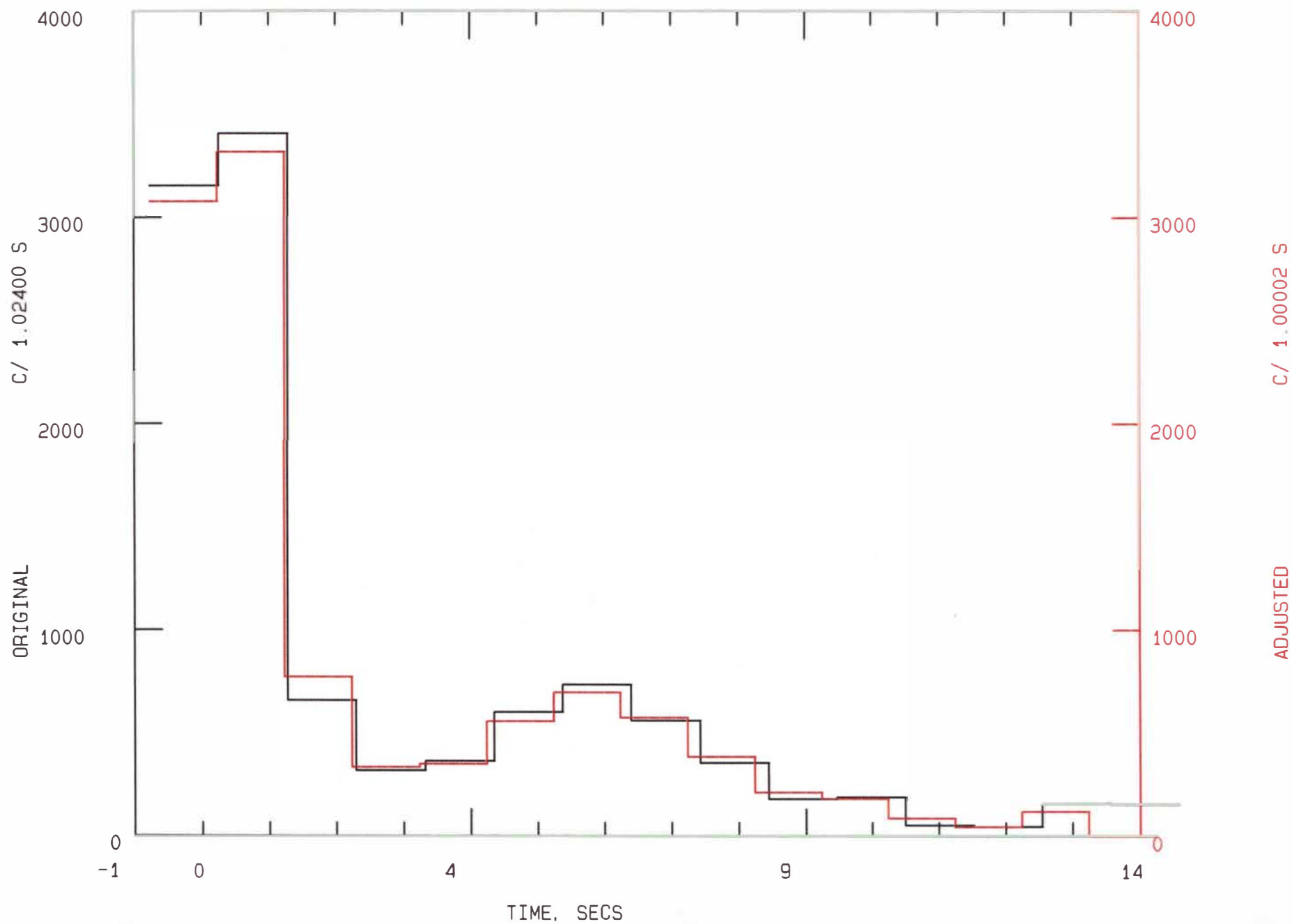
9/ 4/95 23559.602

9/ 2/96





9/ 2/96



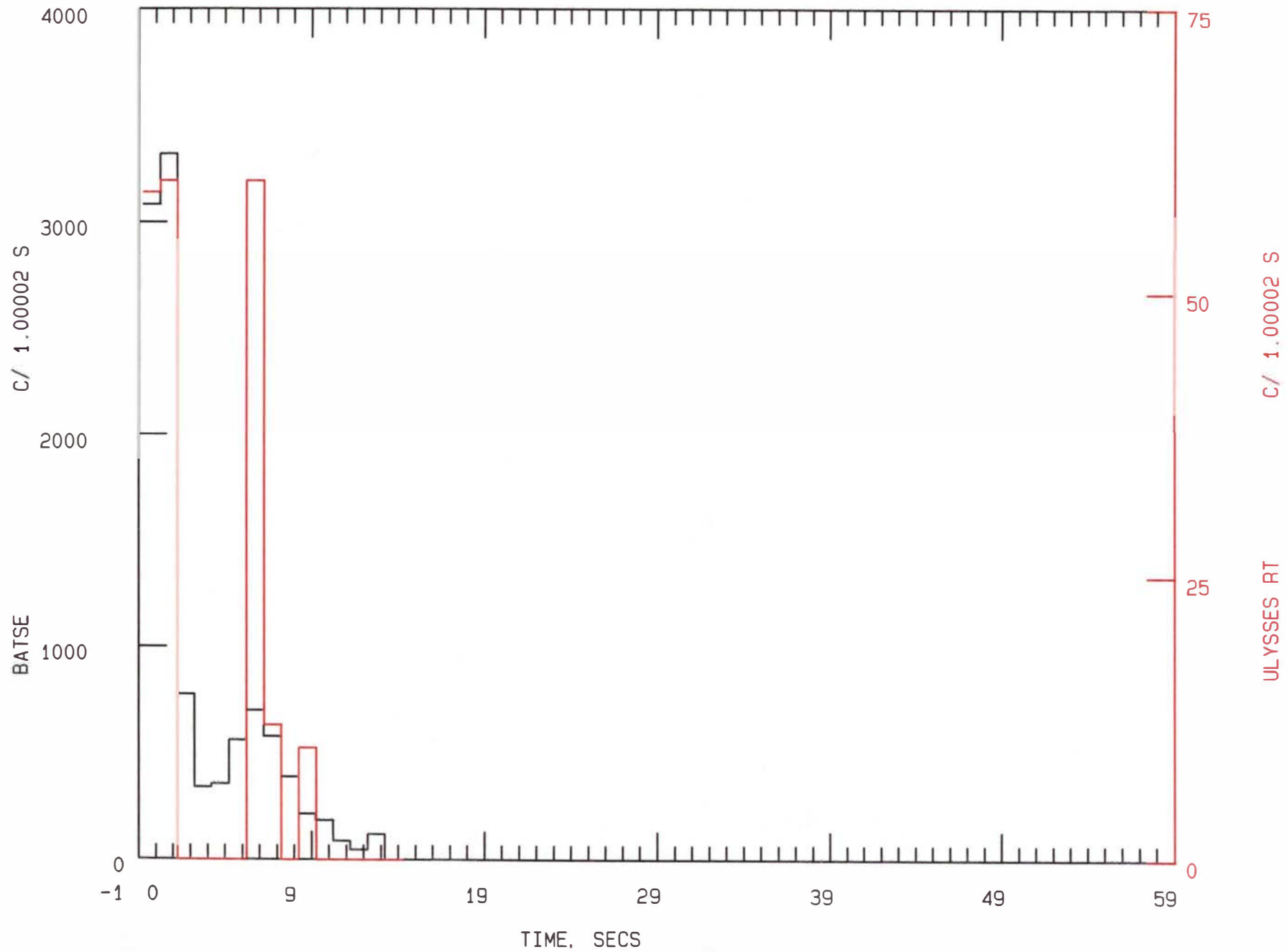
BATSE

-ULYSSES RT CORRELATION

9/ 4/95

23559.602

9/ 2/96



ULYSSES RT

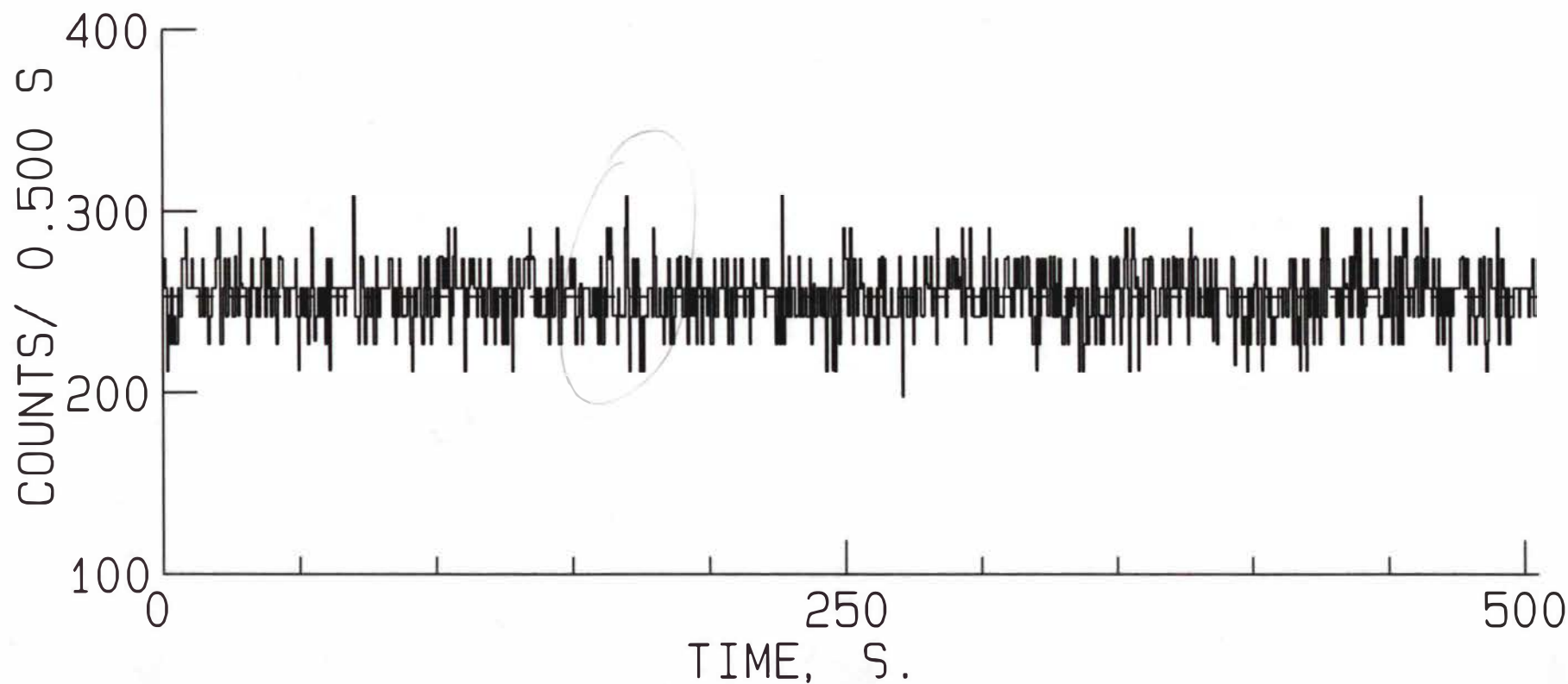
9 / 2 / 96

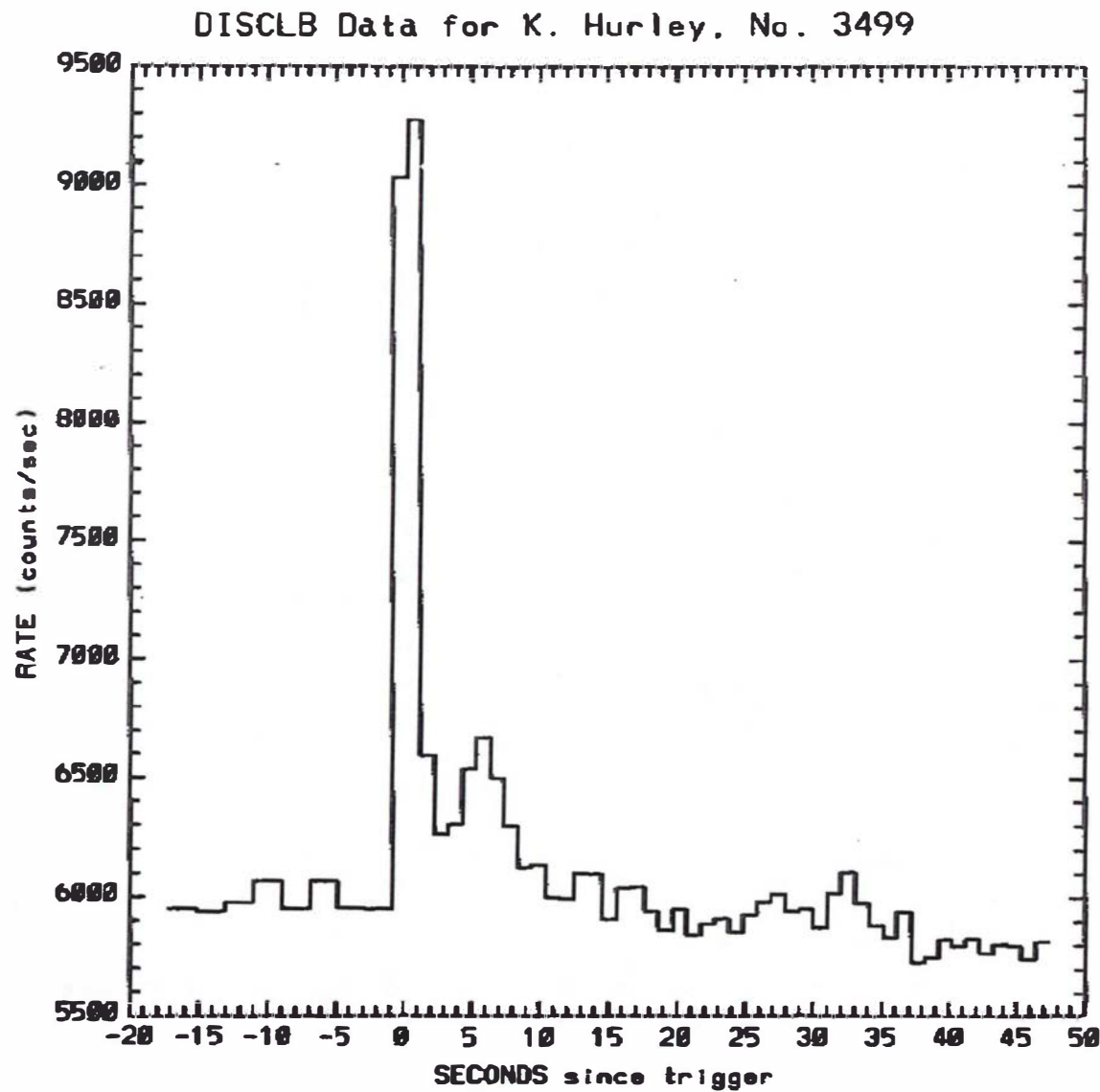
9 / 4 / 95 23184.051 s

0.250 S INTERVALS REGROUPED BY 2

21- 143 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





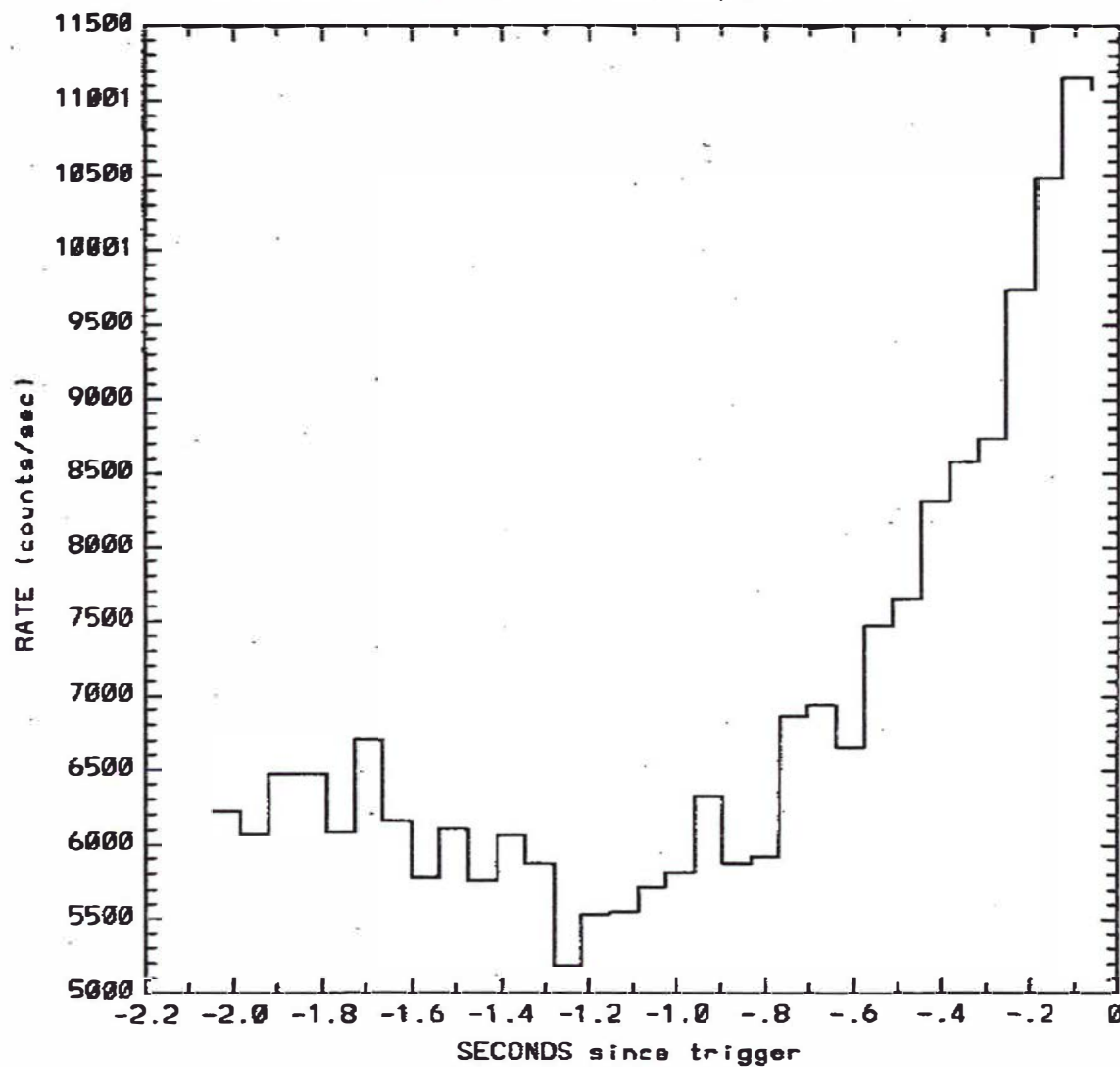
8-FEB-1996 18:42:04

Created by MOPS BD
(Burst Display)
Version 12.25

Trigger # . 3499

Trigger Time:
9816 / 23559.602Burst Data Type:
DISCLBDeadtime
Corrected: NBackground Data
Type: NoneMinimum Integ. Time:
1.024 second(s)Detectors (7..8):
--4--8Discriminators:
(1 . 2)Quality Mask:
80ISP1

DISCSC Data for K. Hurley, No. 3499



1-MAY-1995 14:32:18

Created by ROPS 80
(Burst Display)
Version t2.25

Trigger # . 3499

Trigger Time:
9816 / 23559.602Burst Data Type:
DISCSCDeadtime
Corrected. NBackground Data
Type. PREB + DISCLAMinimum Integ. Time.
0.064 secondsDetectors [7..8].
---4---8Discriminators.
(1 . 2)Quality Mask.
BDISP1

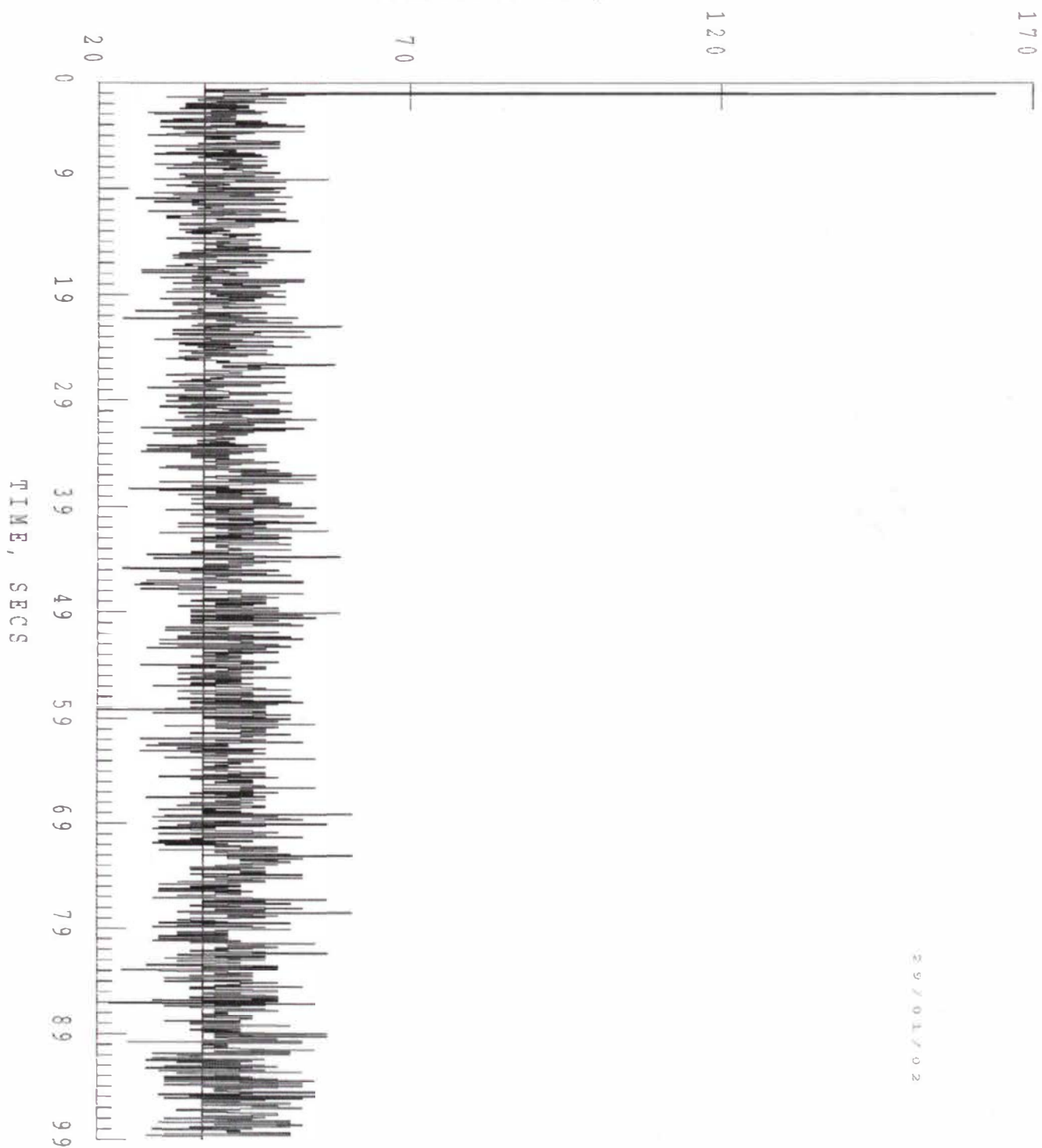
KONUS2

09/04/95

56590.676

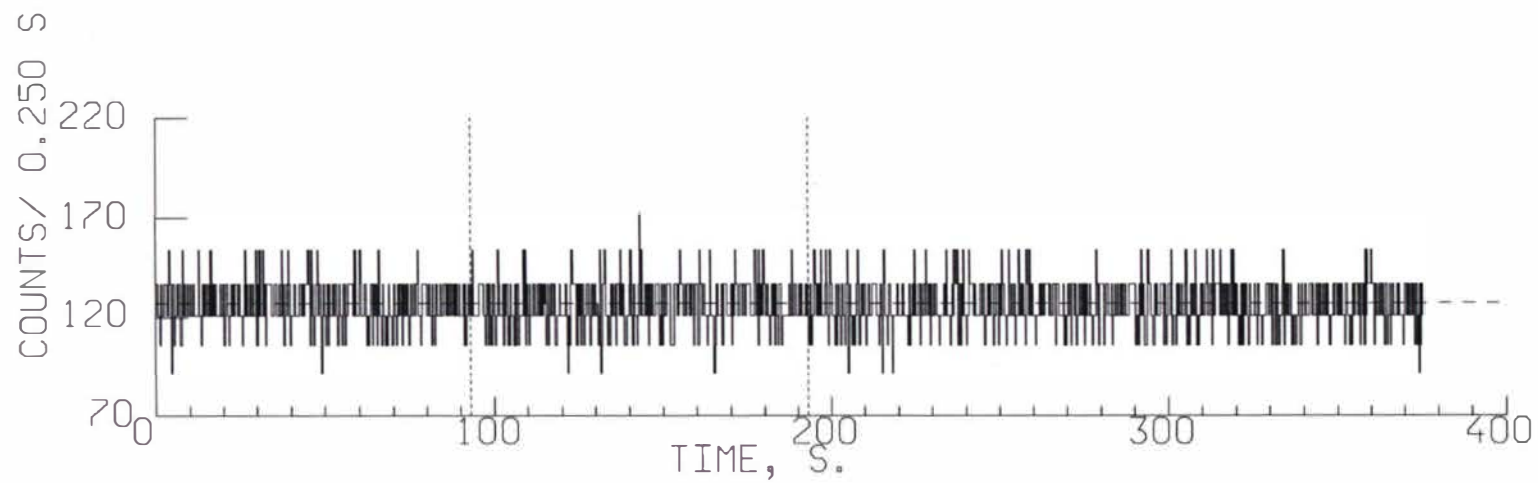
C

COUNTS/0.064 S



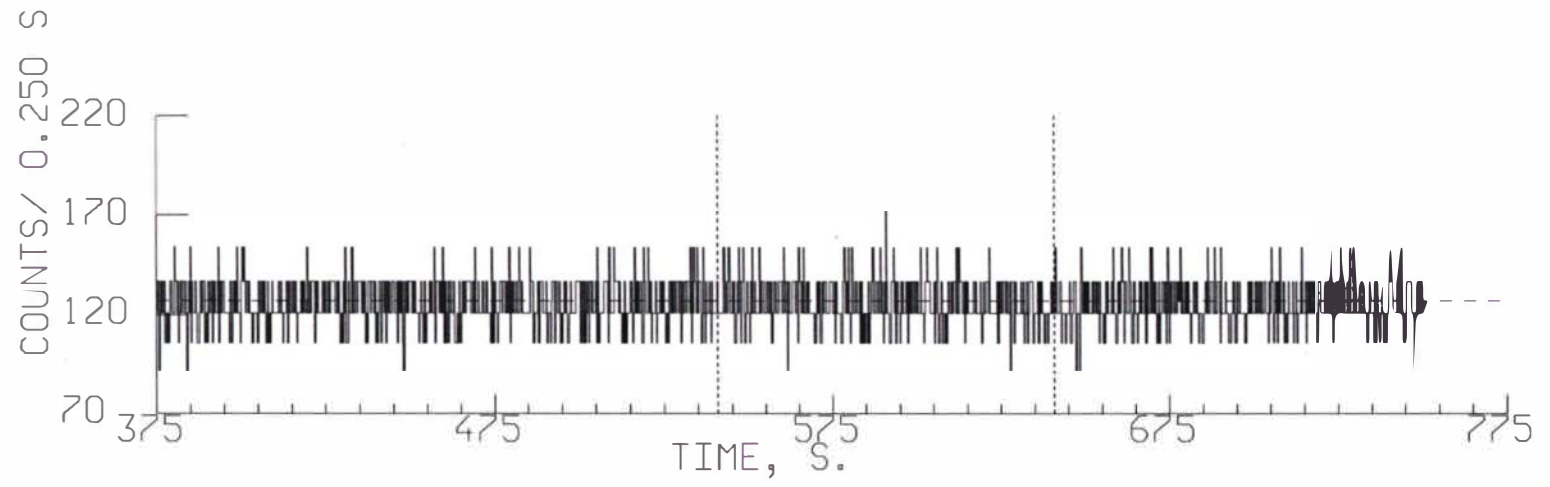
ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



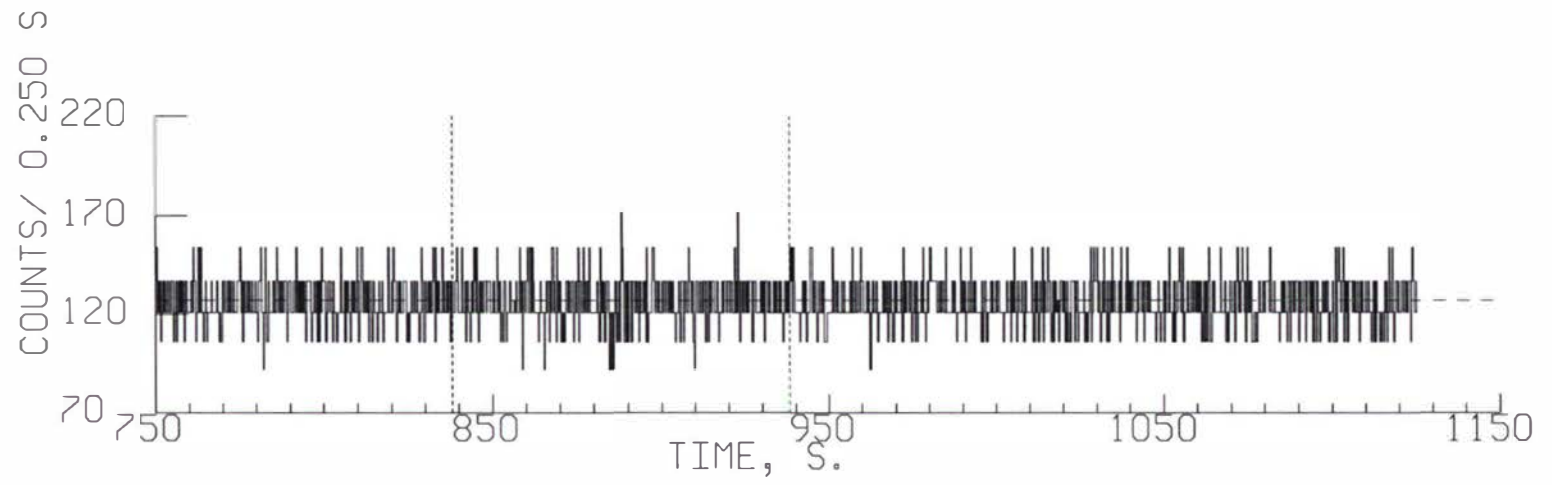
ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



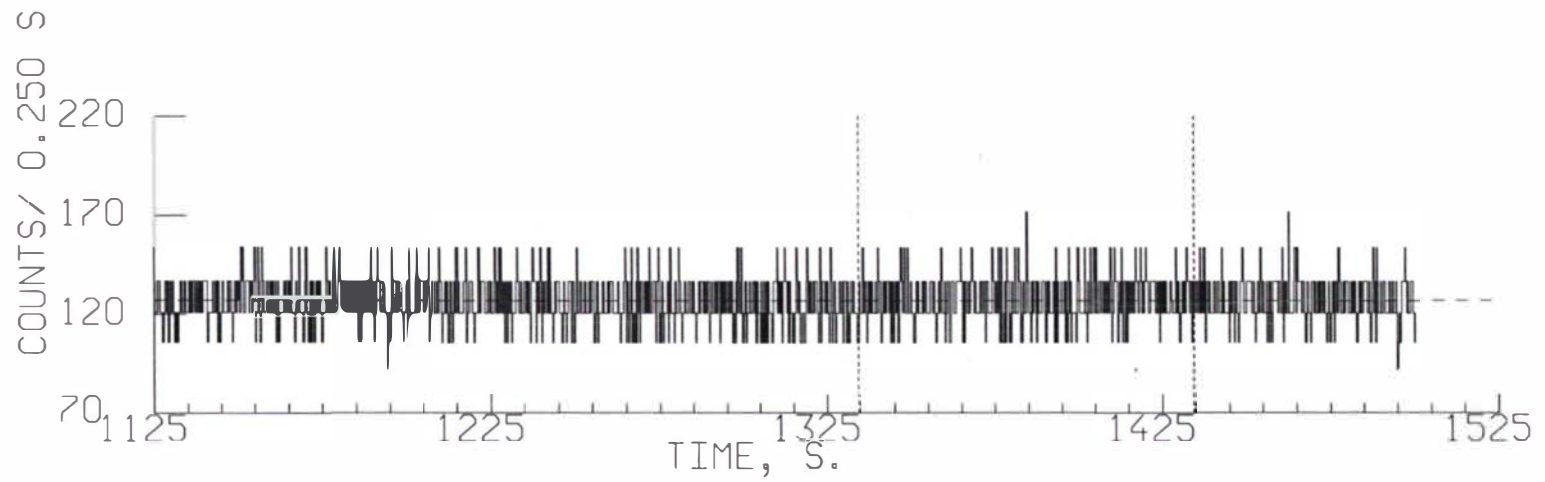
ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



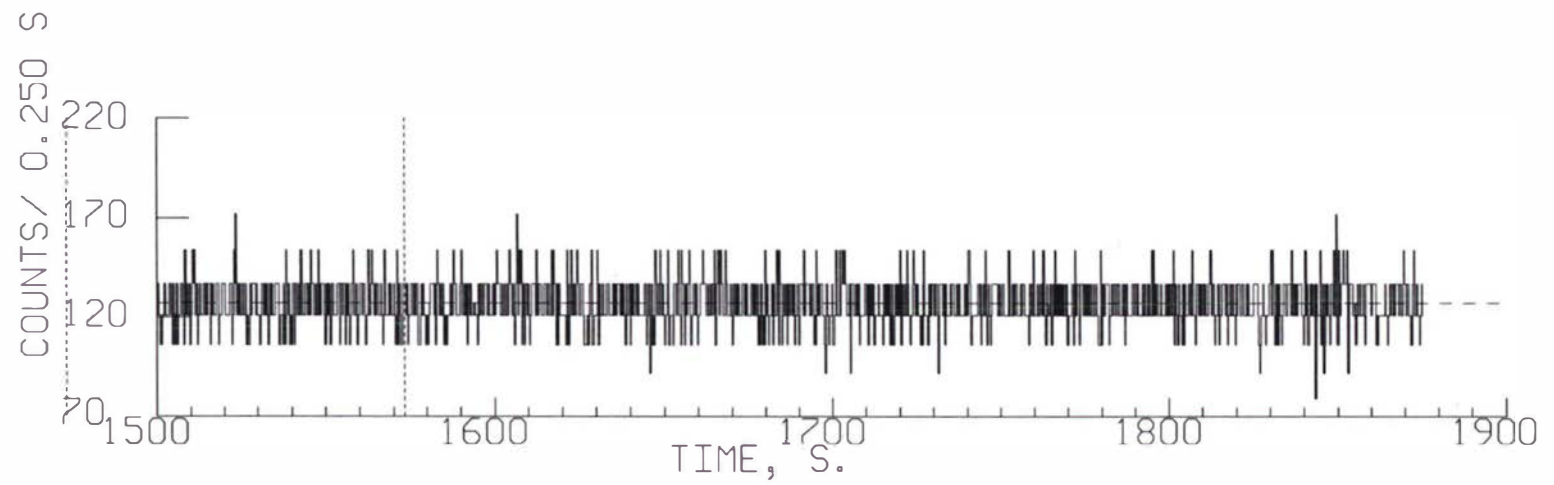
ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



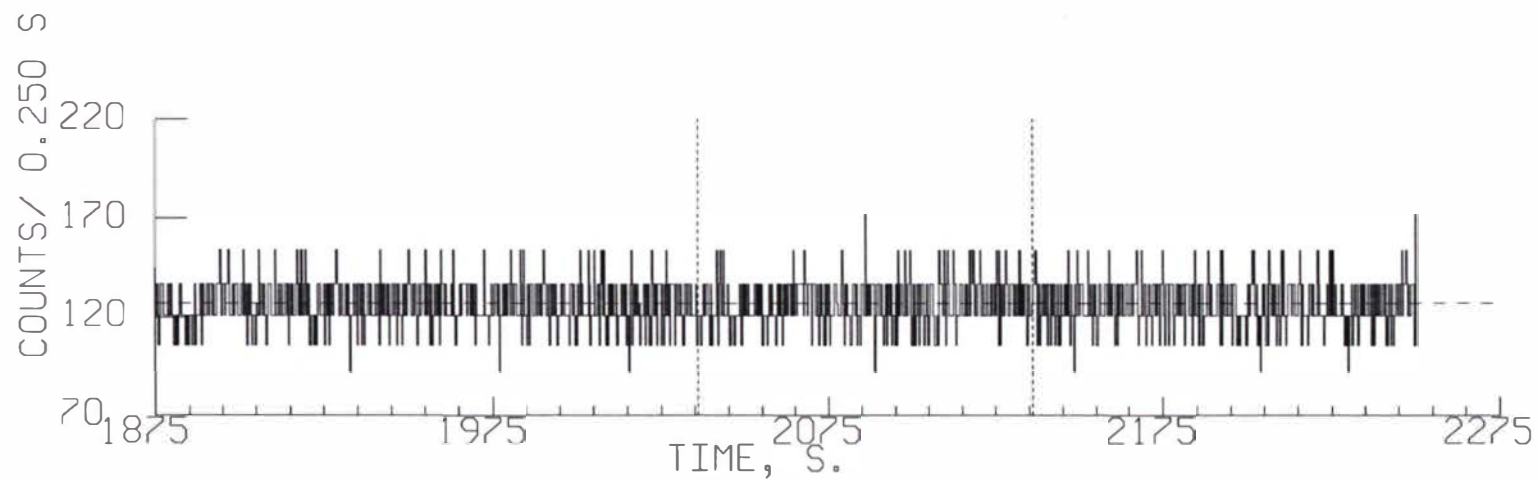
ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



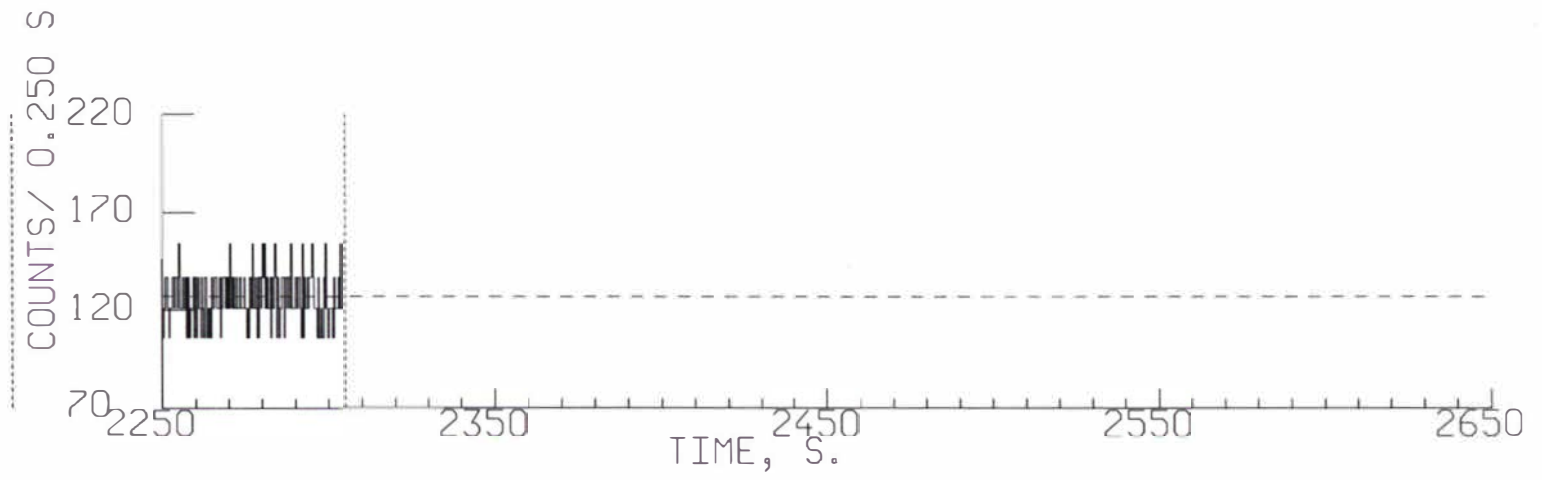
ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



ULYSSES RT
9/ 4/95 55440.180 s
21- 143 keV

17/ 8/11



KONUS2 19950409 56590

ULYSSES RT

29 / 01 / 02

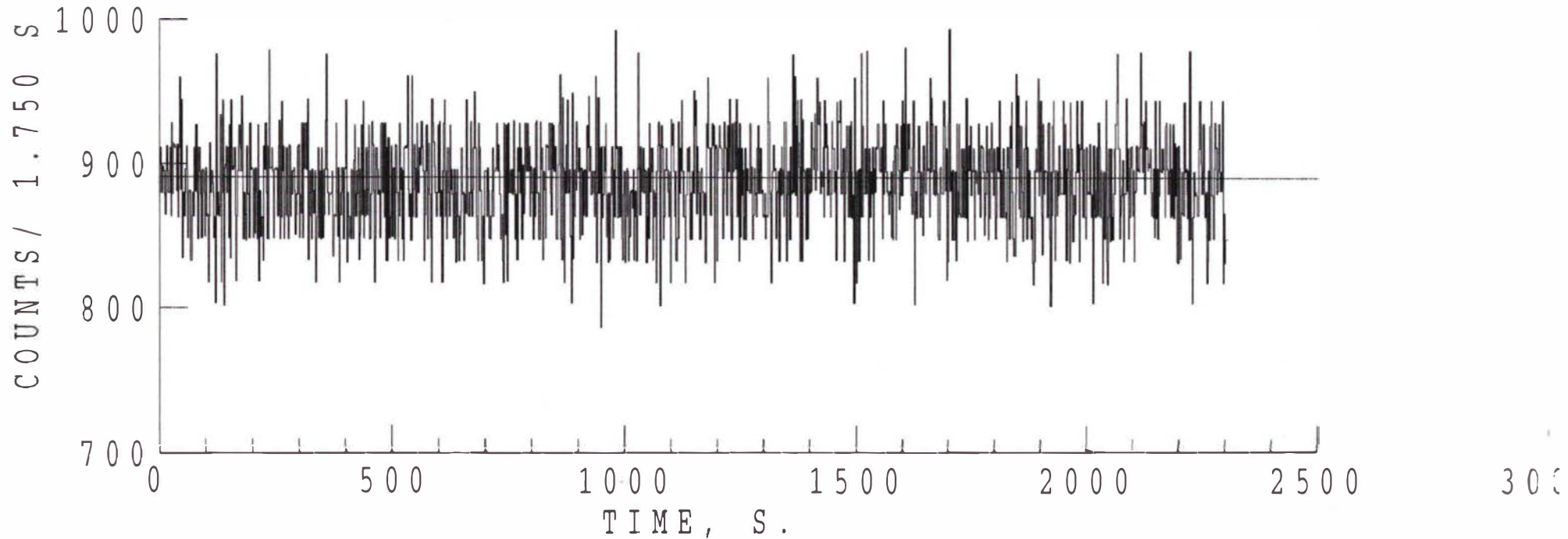
09 / 04 / 95 55440.180 s

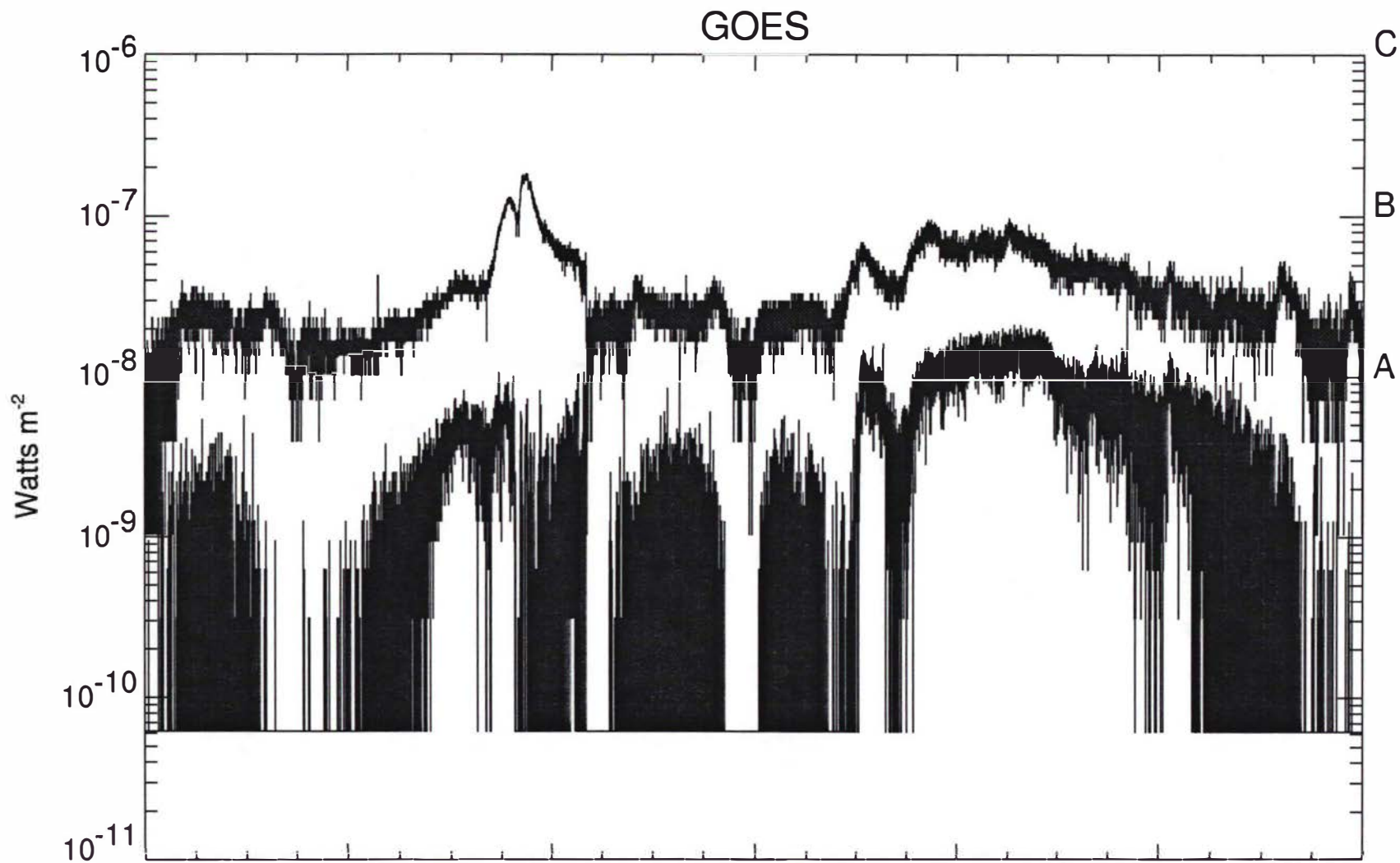
0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





Data Start: 95/04/09, 0000:00

Plot created: 95/04/12, 0513

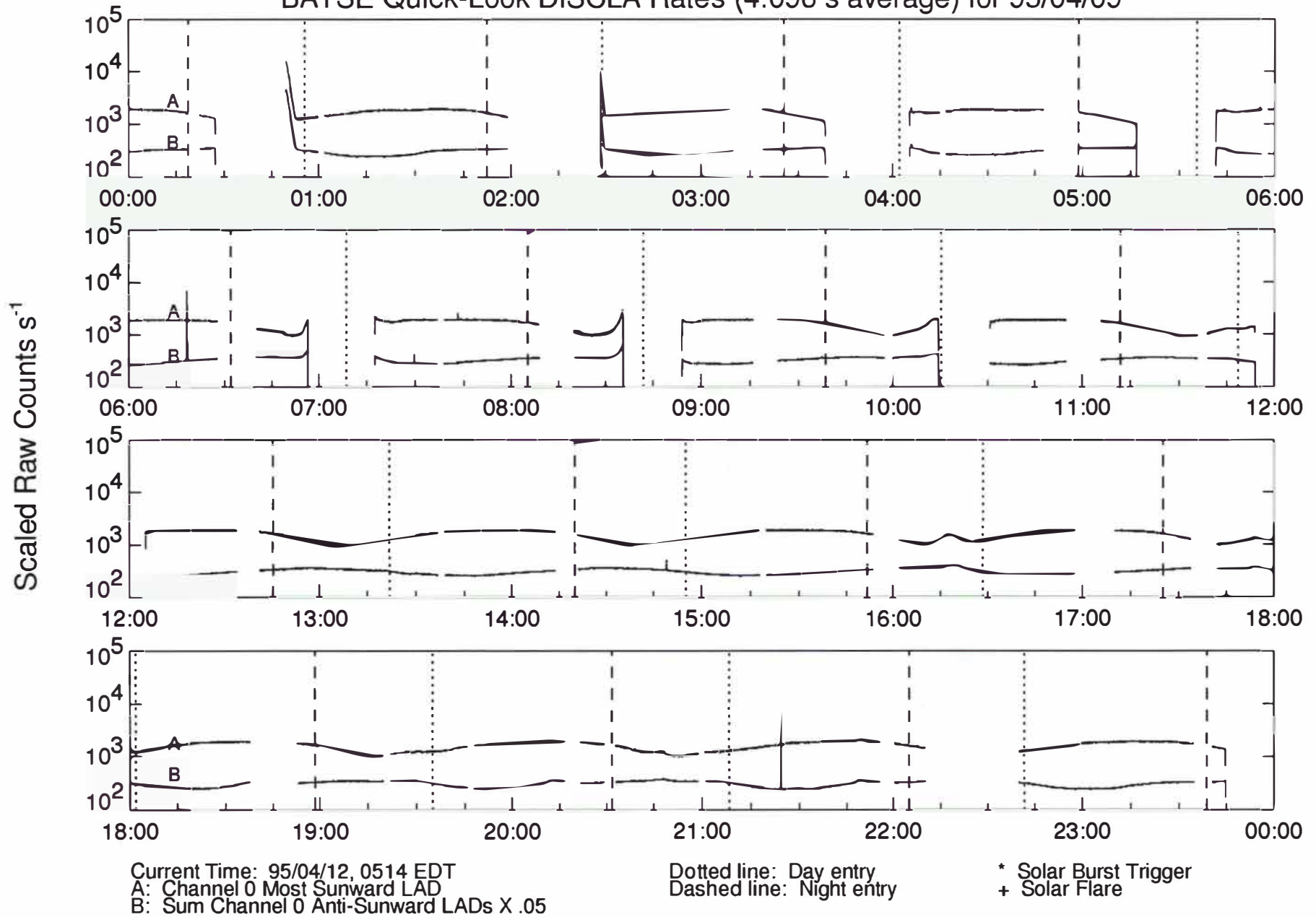
Channel 1 (1.0 - 8.0 Angstroms)

Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms)

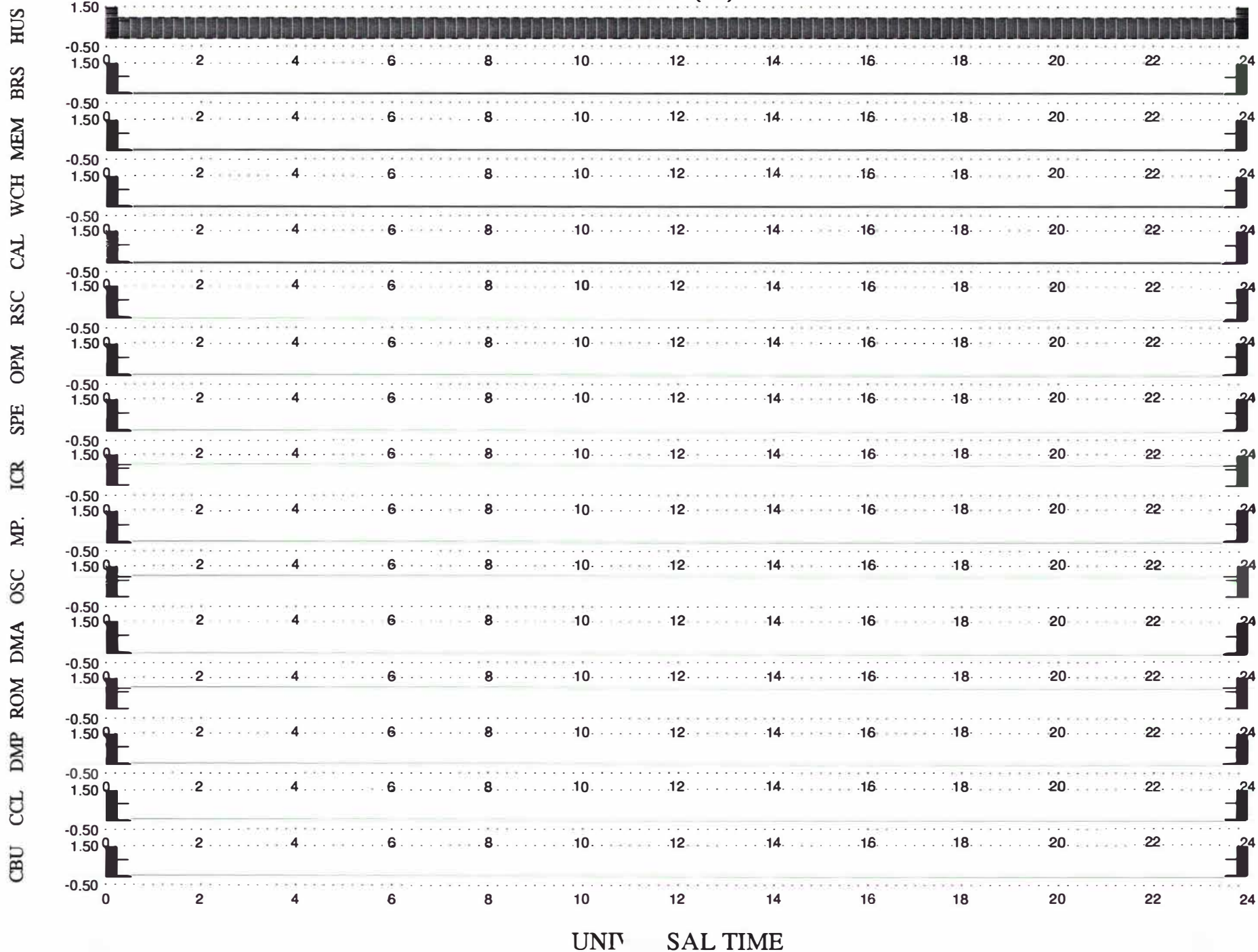
Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/09



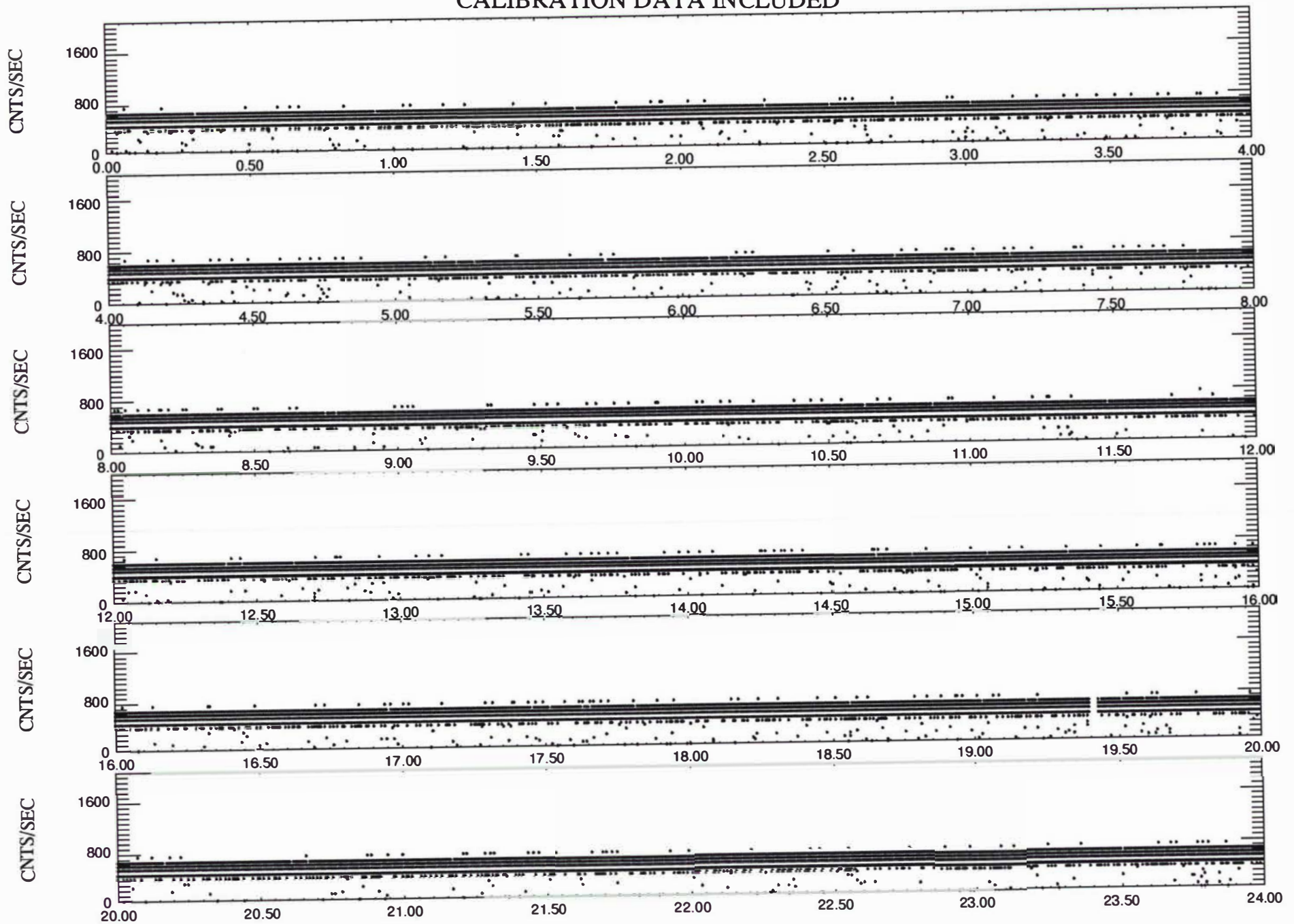
HUS MODES EDR day 99, year 1995 to day 99, year 1995 NO BURST (12)

11/16/95

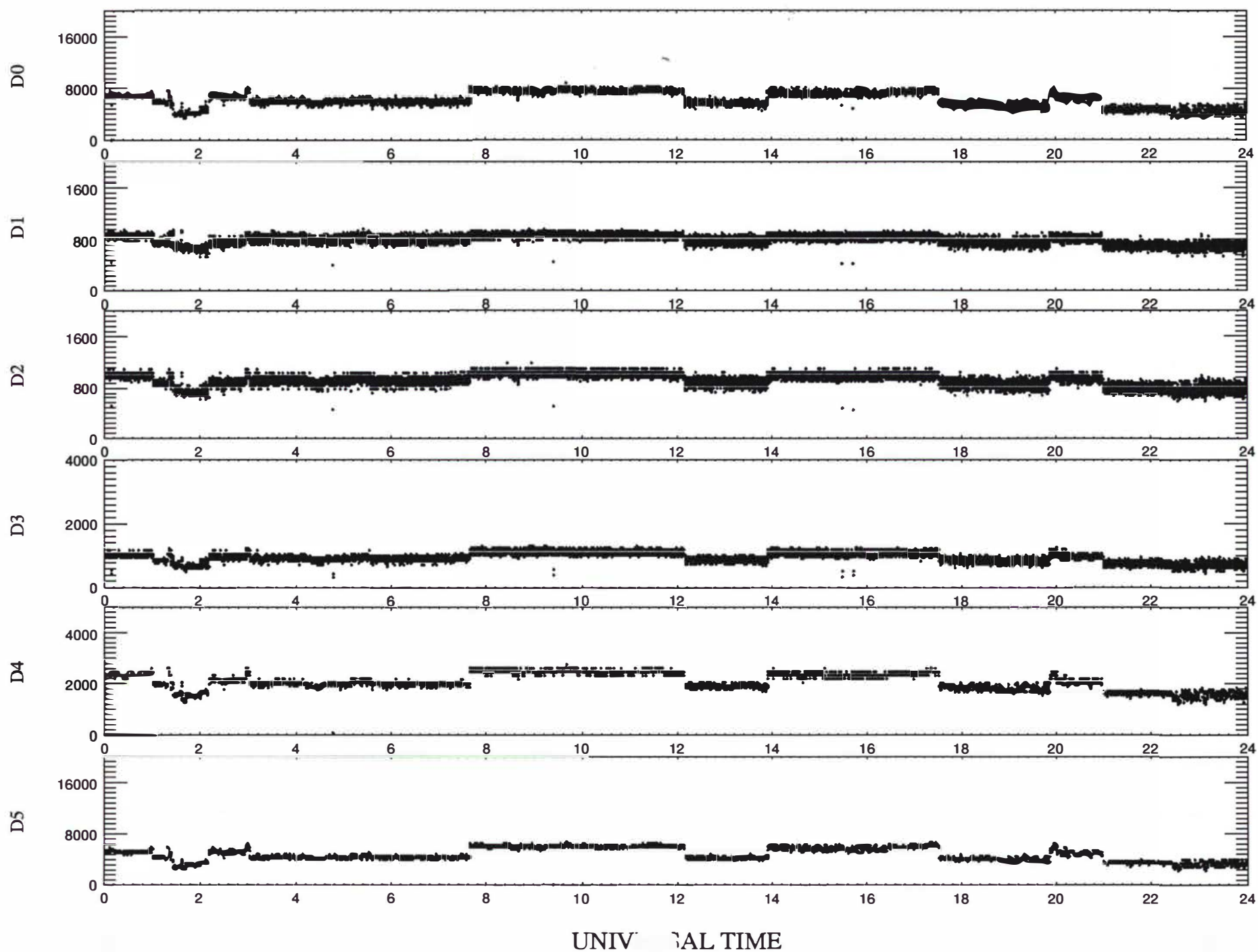


HUS 2A, MODE 1, NOT AVERAGED EDR day 99, year 1995 to day 99, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIV `SAL TIME



From SAHI@ssl.msfc.nasa.gov Fri Apr 14 12:28 PDT 1995
Date: Fri, 14 Apr 1995 14:28:37 -0500 (CDT)
From: SAHI@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3502

BATSEARCH PROGRAM

ND

BATSE BURST # 3502
EVENT OF 1995 APR 10 DAY OF YEAR=100
EVENT CROSSING TIME AT BATSE : 68416. S. OR 19:00:16.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 326.000 -22.000
BATSE PEAK COUNTING RATE: 8000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 10/ 4/ 95 IS:
RA= 353.206 DEC= 11.472 DIST= 2.222 AU
BATSE-ULYSSES DISTANCE = 332419885. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=137.19 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -813.47 SECS.
CROSSING TIME AT ULYSSES IS 67603. S. OR 18:46:42 +/- 168.47 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 10/ 4/ 95 IS:
RA= 137.996 DEC= 19.104 DIST= 0.970 AU
MARS-BATSE DISTANCE = 145048032. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 8.03 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 479.08 SECS.
CROSSING TIME AT MARS IS 68895. S. OR 19:08:15 +/- 19.01 SECONDS

BATSE BURST TRIGGER

NO.: 3502

TIME: TJD=9817 SECONDS=68416

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=113.9 AZIMUTH=16.4 ERROR= DEGREES

COMMENTS:

BURST. SINGLE SPIKE, DUR.~ 0.5 SECS. VISIBLE ABOVE 300 KEV.

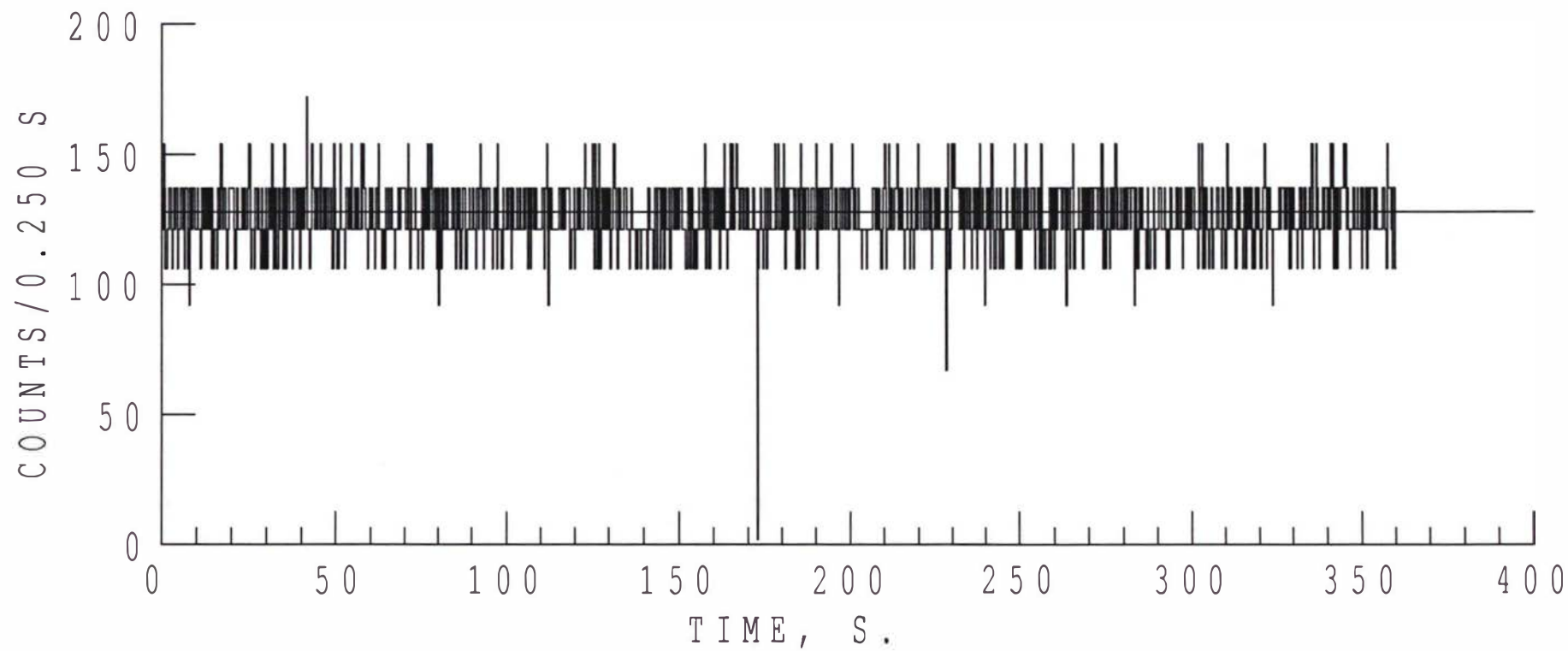
BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3502	950410	9817	68416	8000	326	-22	.5

14 / 4 / 95

ULYSSES RT
10 / 4 / 95 67428.070 s
0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From SAHI@ssl.msfc.nasa.gov Fri Apr 14 12:07 PDT 1995
Date: Fri, 14 Apr 1995 14:07:06 -0500 (CDT)
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.: 3500

TIME: TJD=9817 SECONDS=35519

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=74.1 AZIMUTH=154.0 ERROR= DEGREES

COMMENTS:

TGF. SINGLE SPIKE, DUR.~ 3 MS. SPARSE DATA, HAS ONLY STTE.

From SAHI@ssl.msfc.nasa.gov Fri Apr 14 12:34 PDT 1995
Date: Fri, 14 Apr 1995 14:34:22 -0500 (CDT)
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.: 3501

TIME: TJD=9817 SECONDS=49250

TYPE: TGF SOLAR FLARE TRIGGER SIGNAL:N

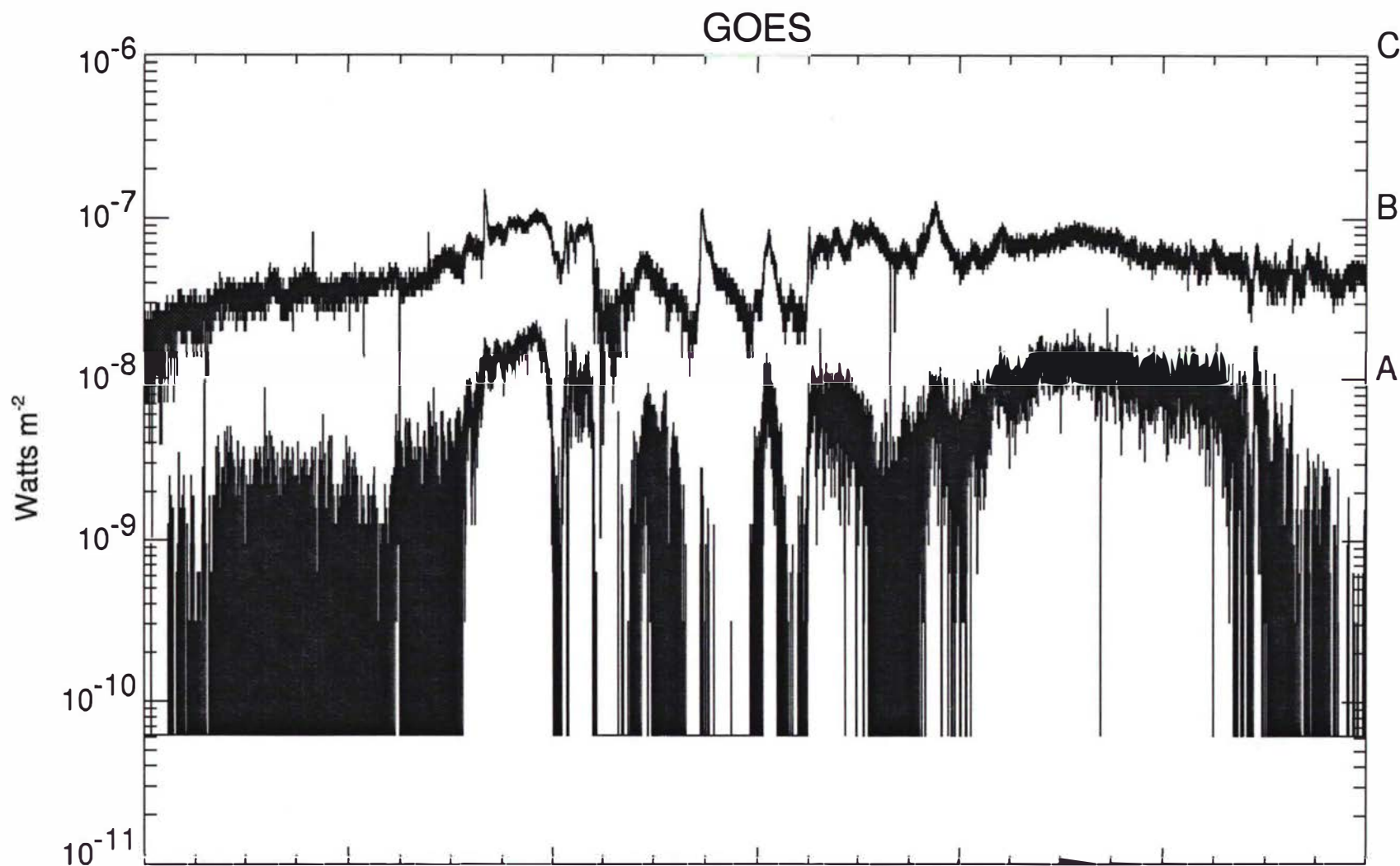
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=155.8 AZIMUTH=297.6 ERROR= DEGREES

COMMENTS:

TGF. DUR.~ 15 MS. VISIBLE ABOVE 300 KEV.



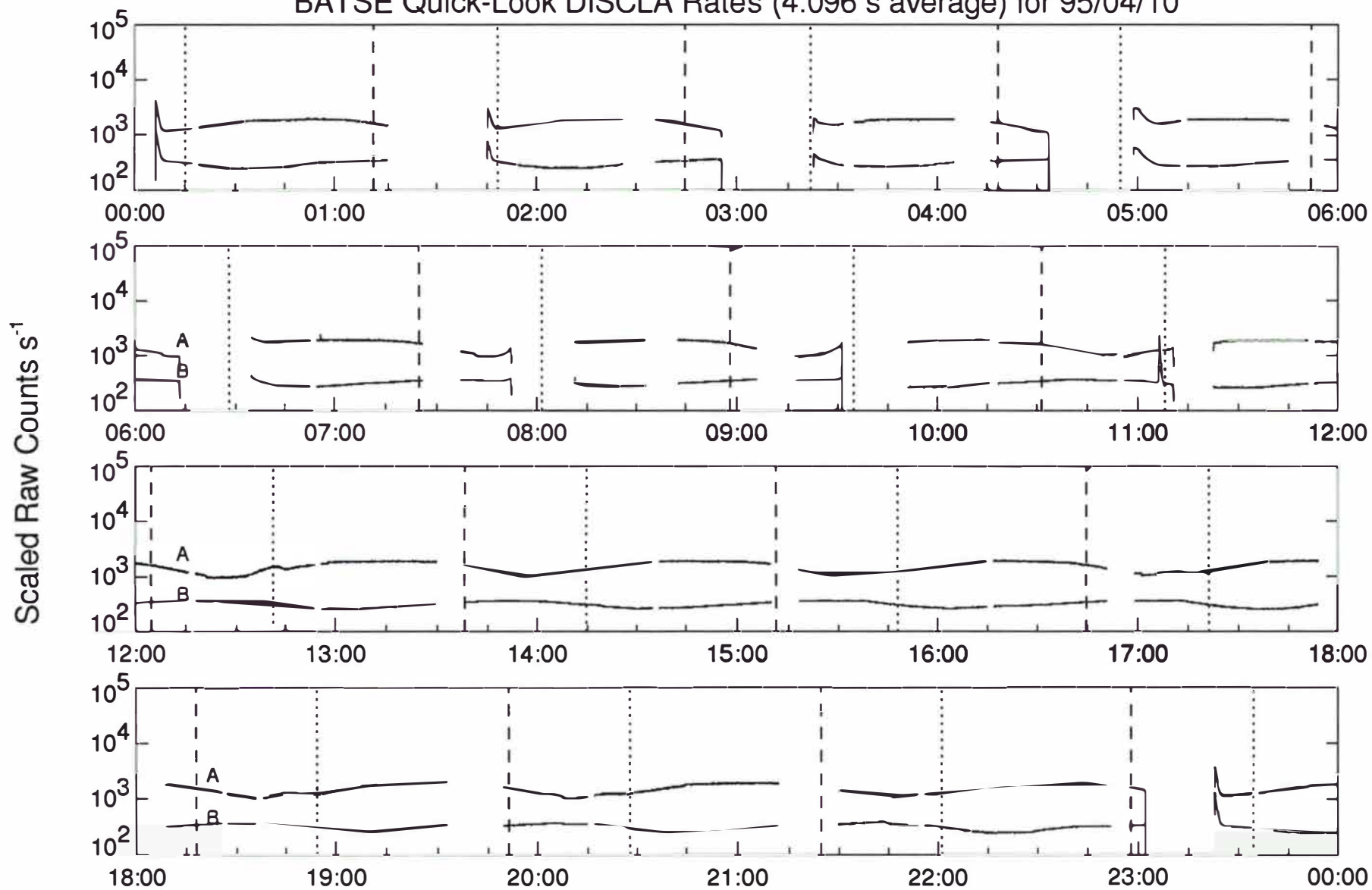
Data Start: 95/04/10, 0000:01

Plot created: 95/04/13, 0514

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/10

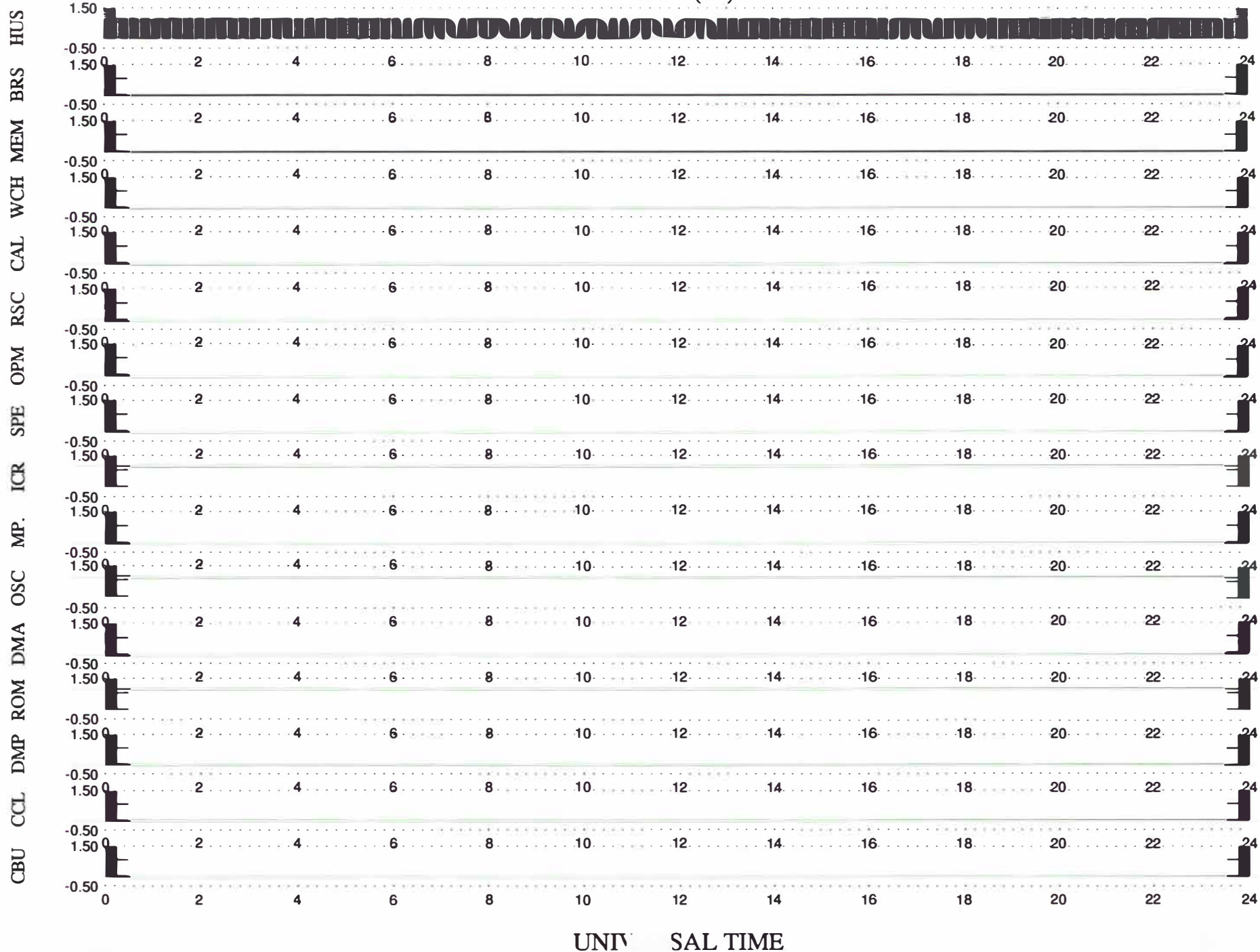


Current Time: 95/04/13, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

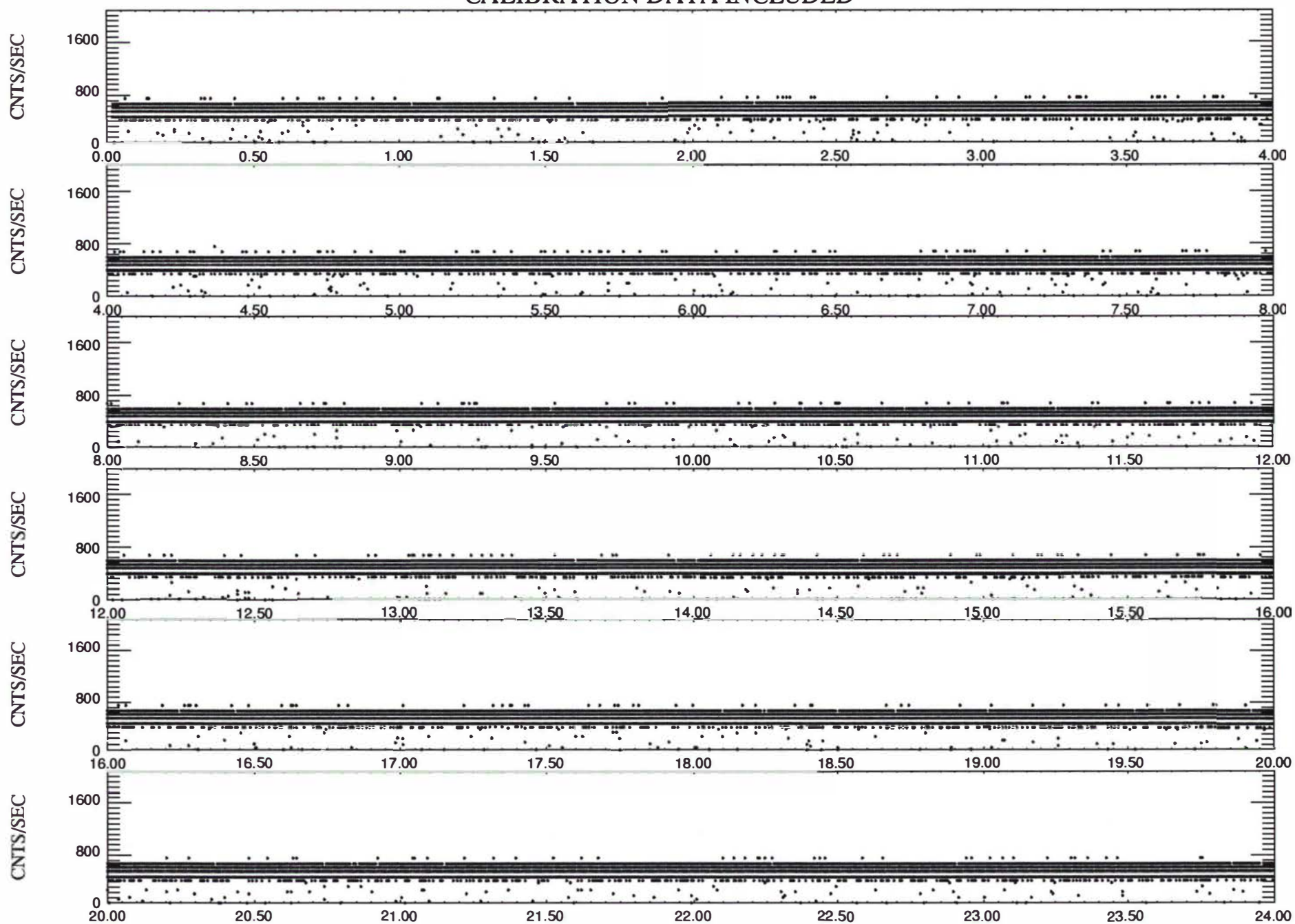
* Solar Burst Trigger
 + Solar Flare

11/16/95

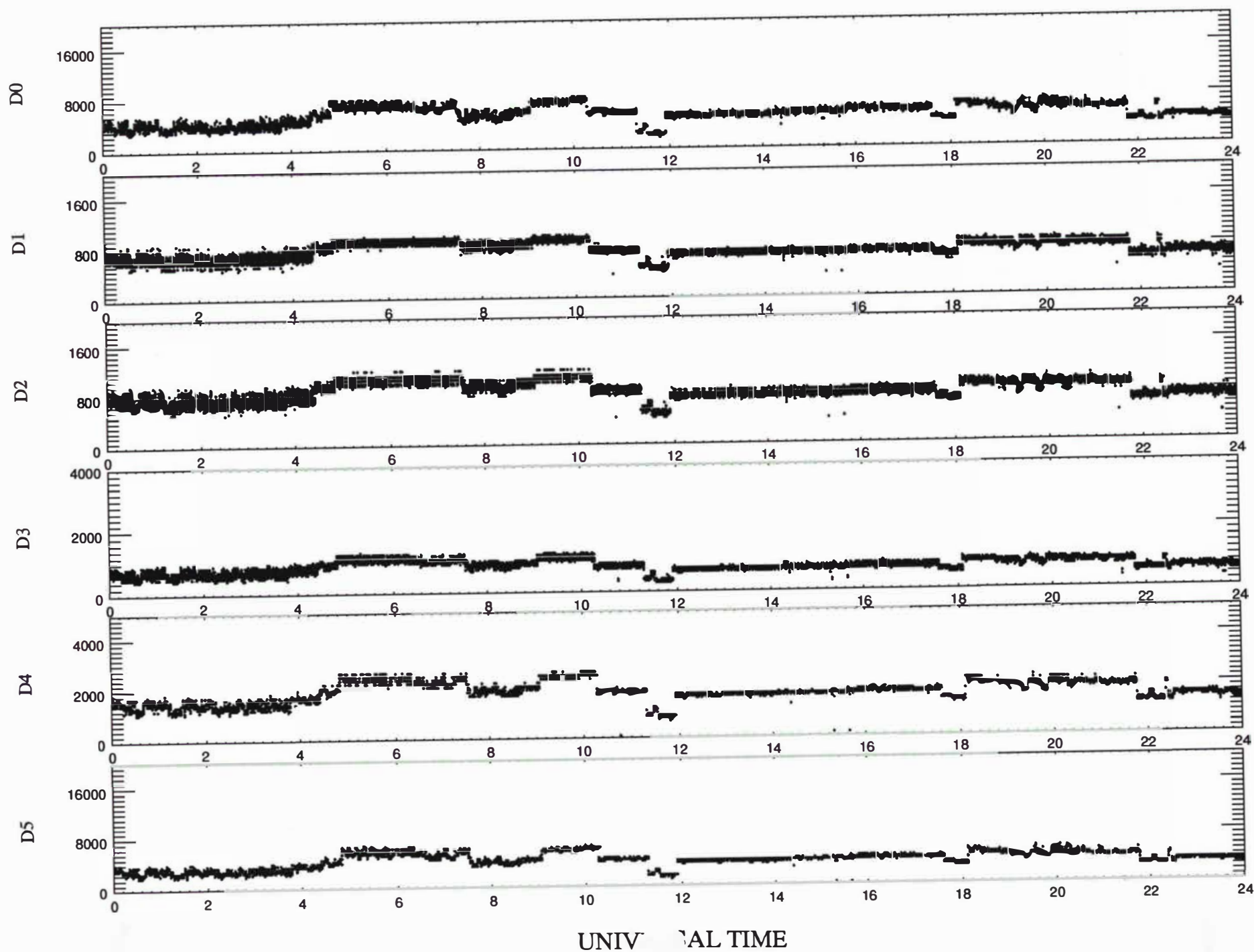


HUS 2A, MODE 1, NOT AVERAGED EDR day 100, year 1995 to day 100, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIVERSAL TIME



Date: Aug 22 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?

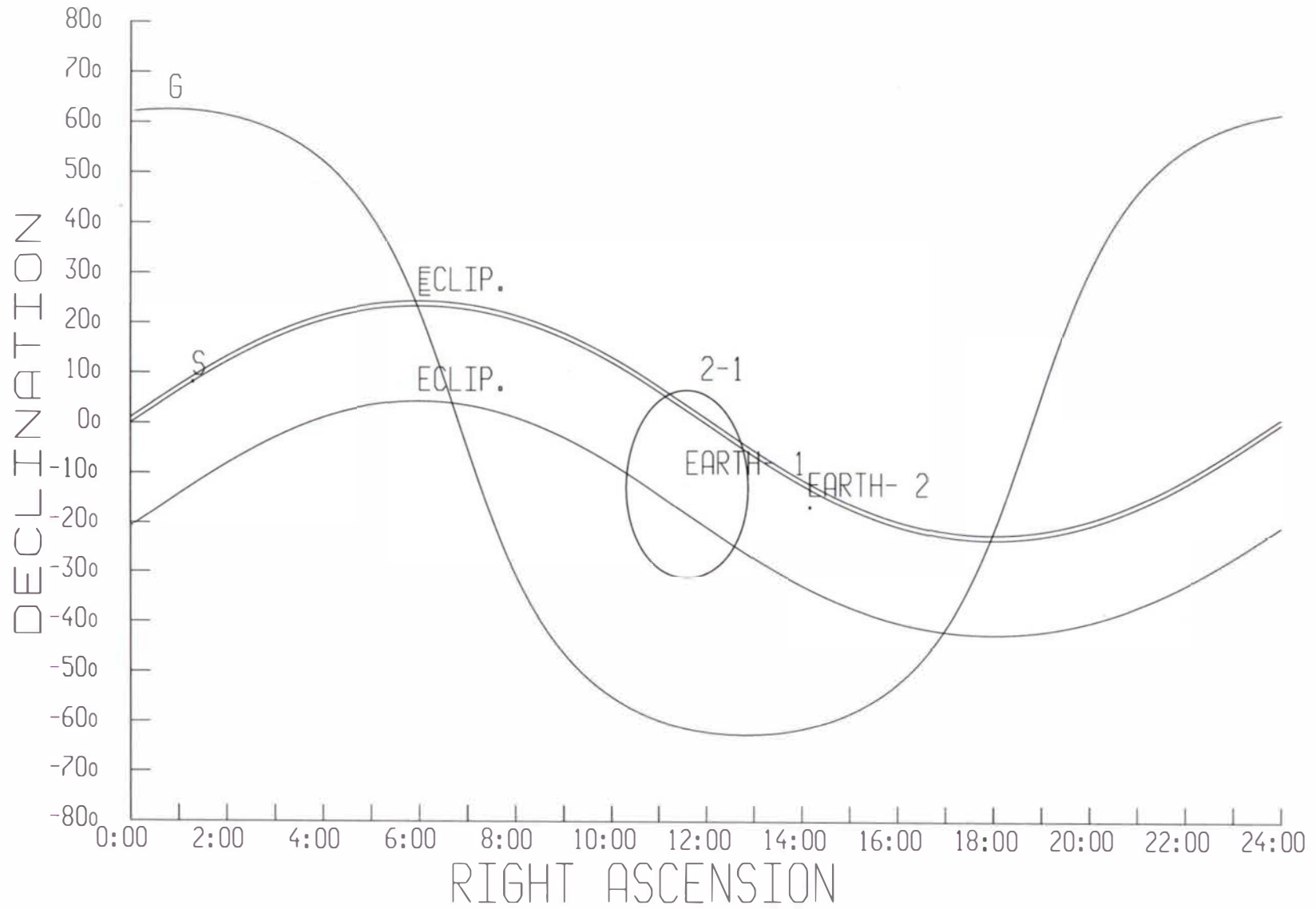
3. PVO Data

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

EVENT OF APR 11, 1995 8:07

22/08/2011

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 19950411 29307

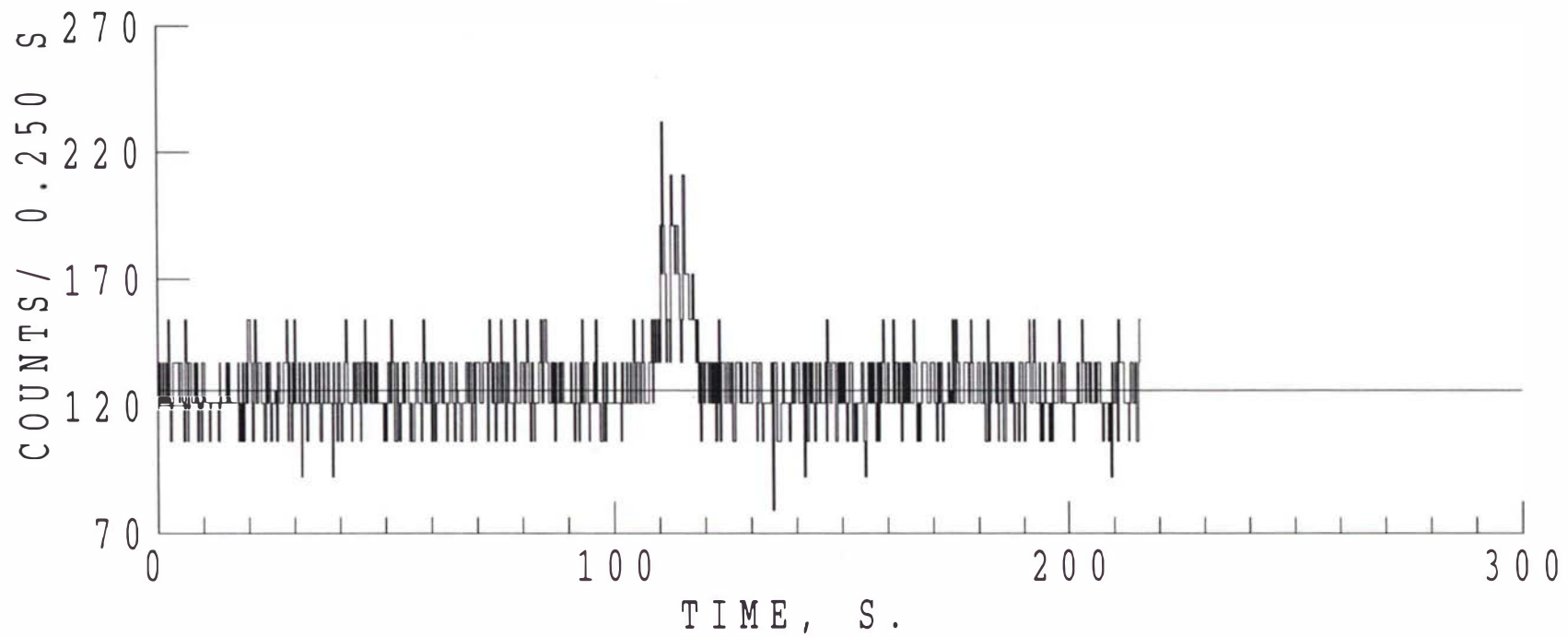
ULYSSES RT

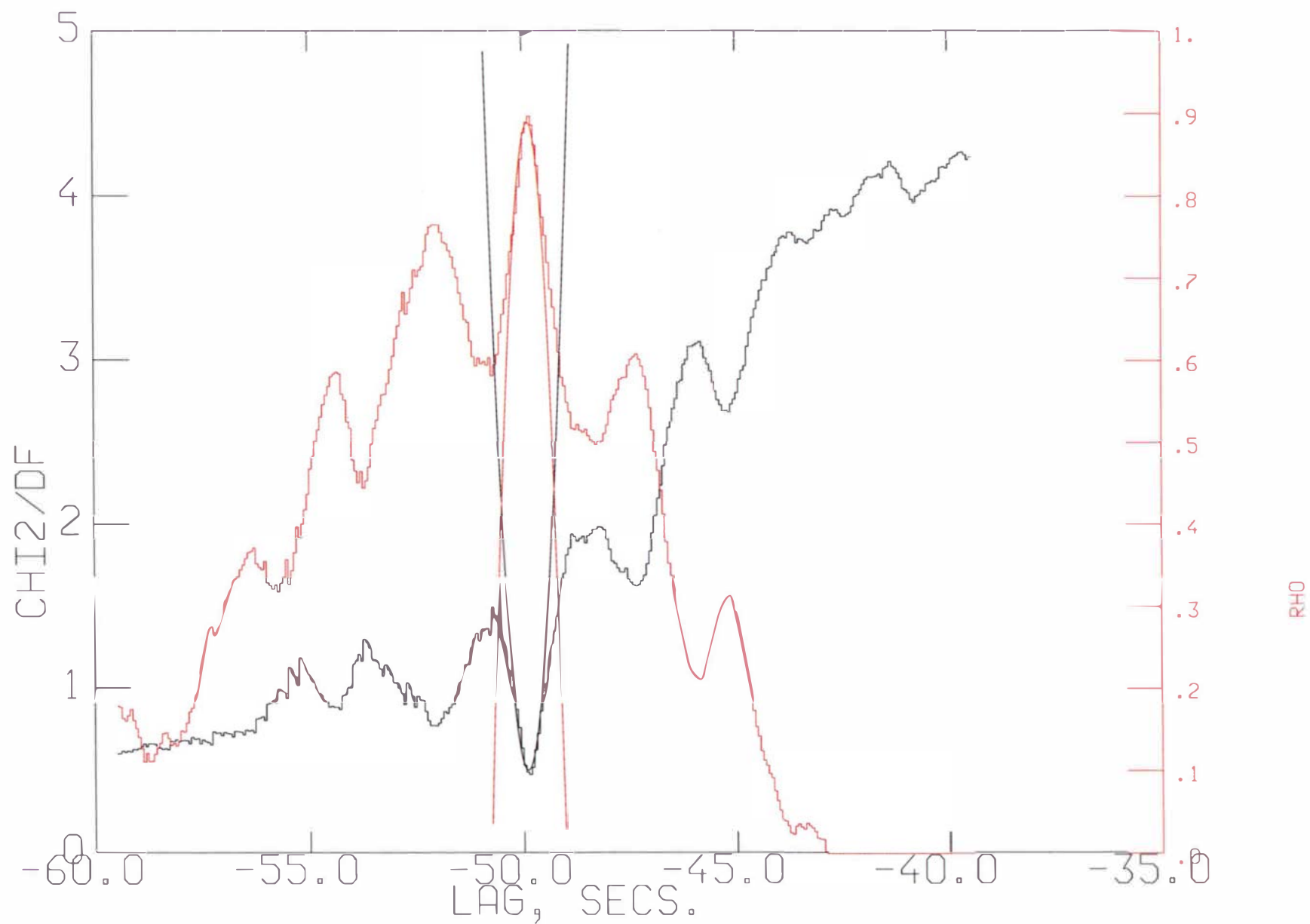
17 / 08 / 11

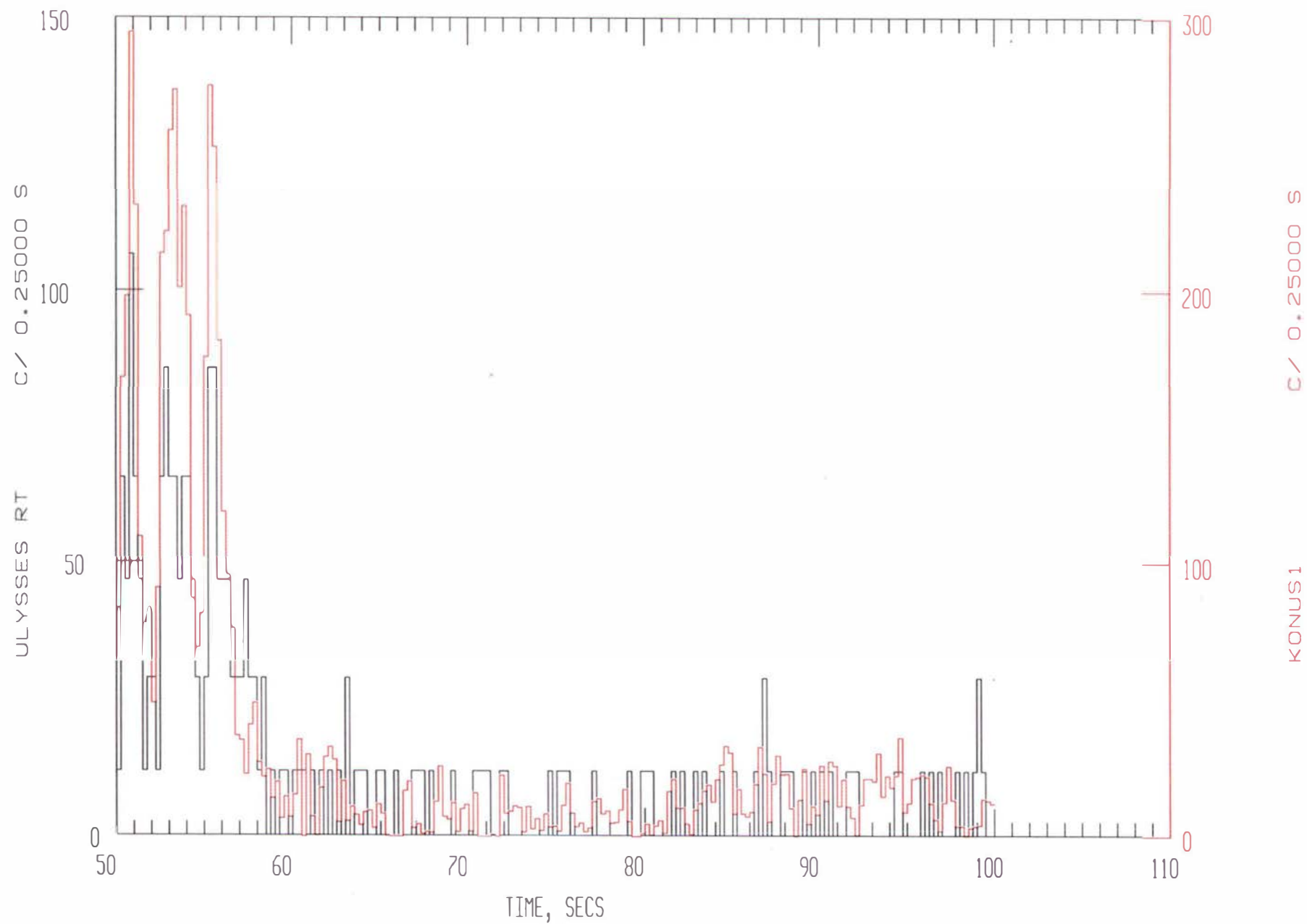
11 / 04 / 95 29196.010 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS







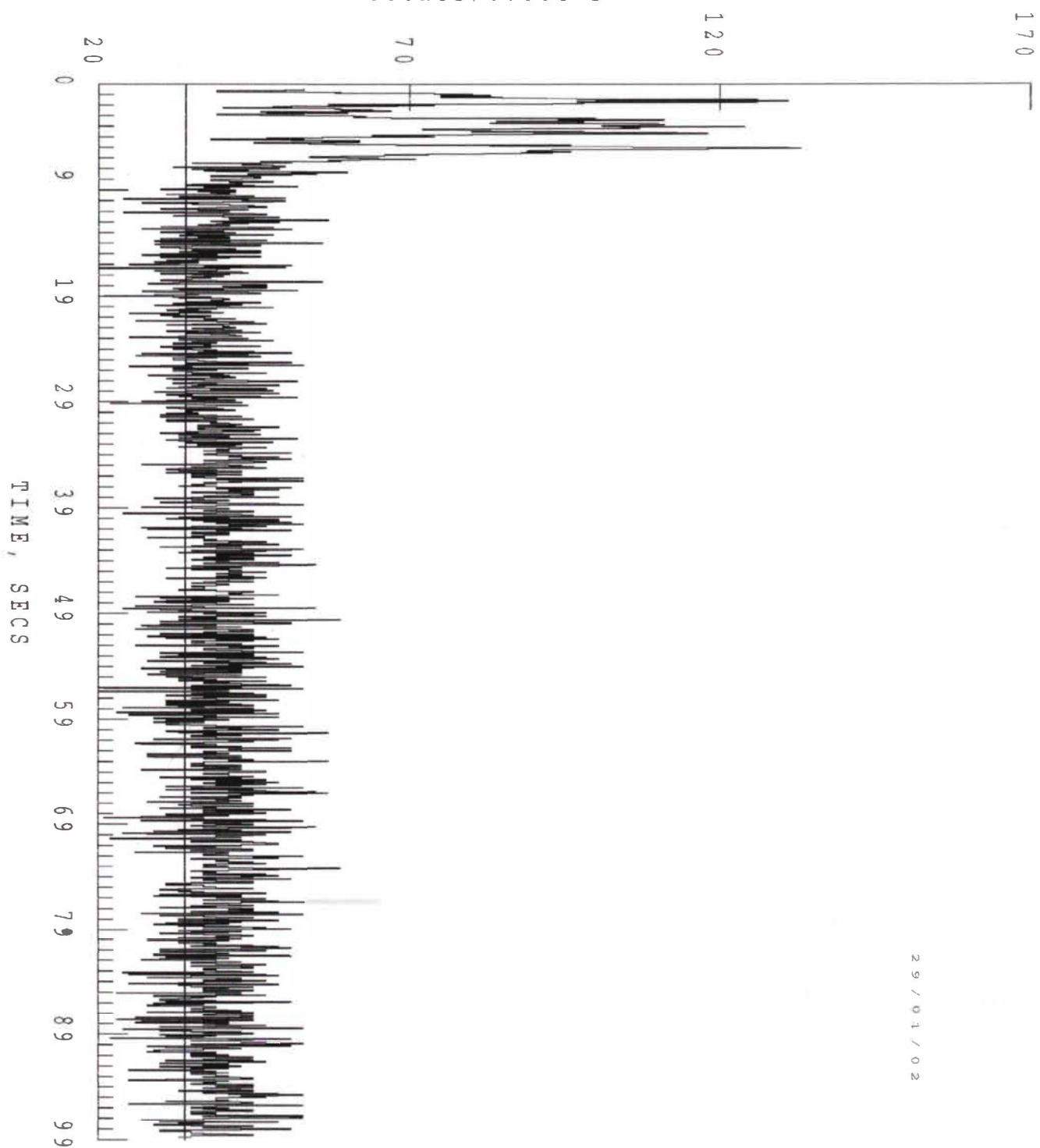
KONUS1

11/04/95

28261.753

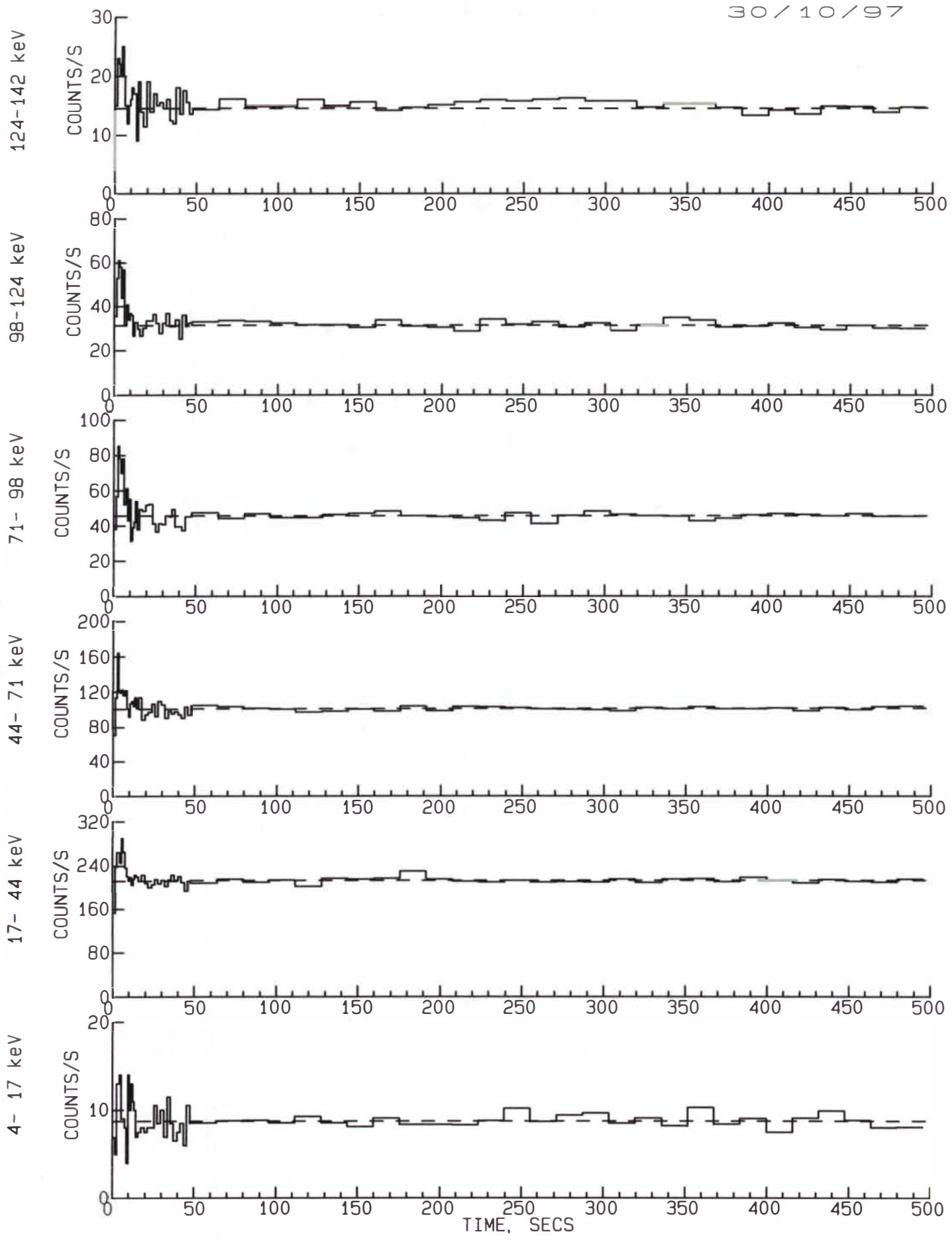
50 - 200 keV

COUNTS/0.064 S



29 / 0.1 / 0.2

ULYSSES 11/04/95 29307.003 BURST SPECTRAL COUNT, RATES



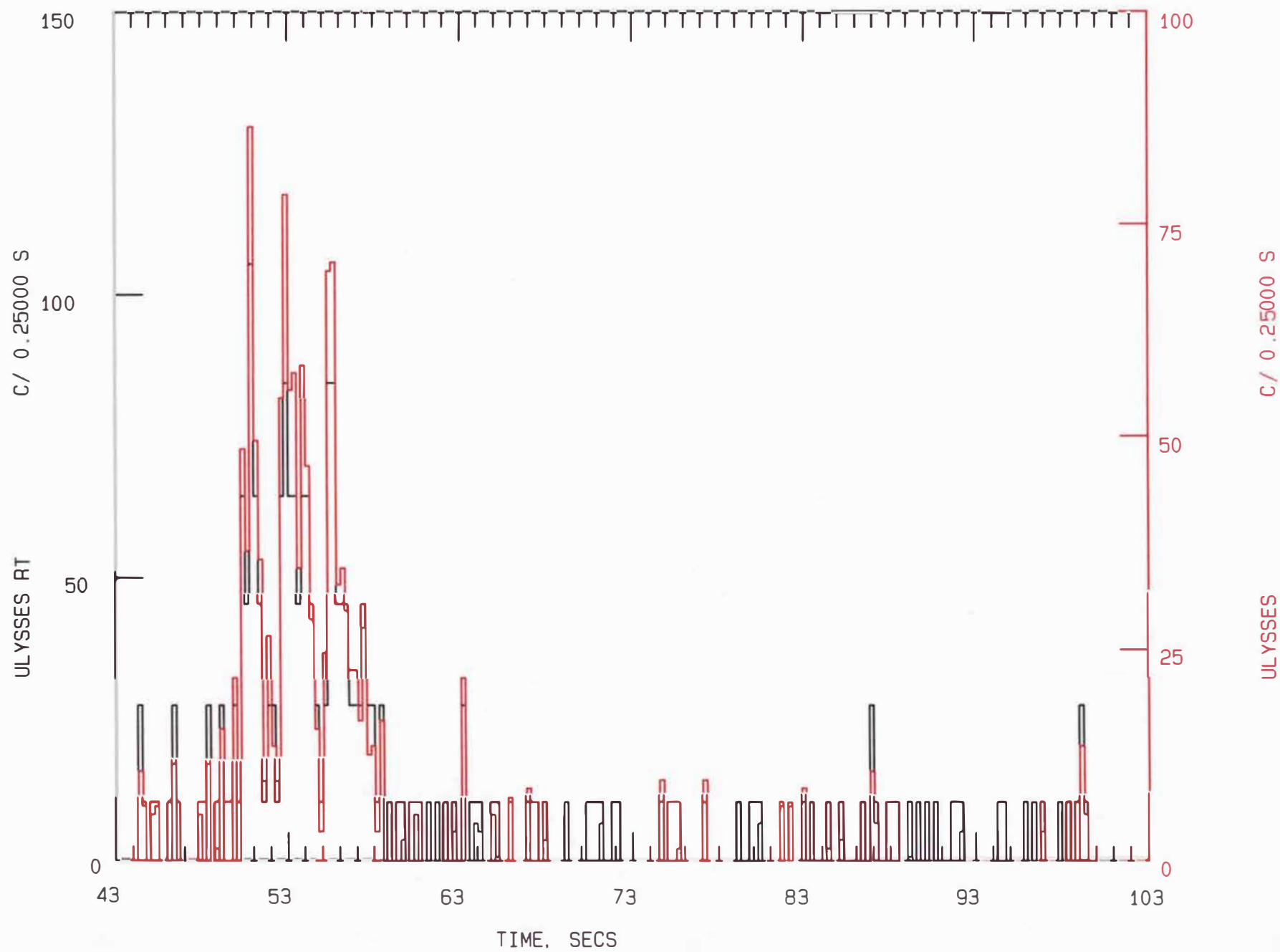
ULYSSES RT-ULYSSES

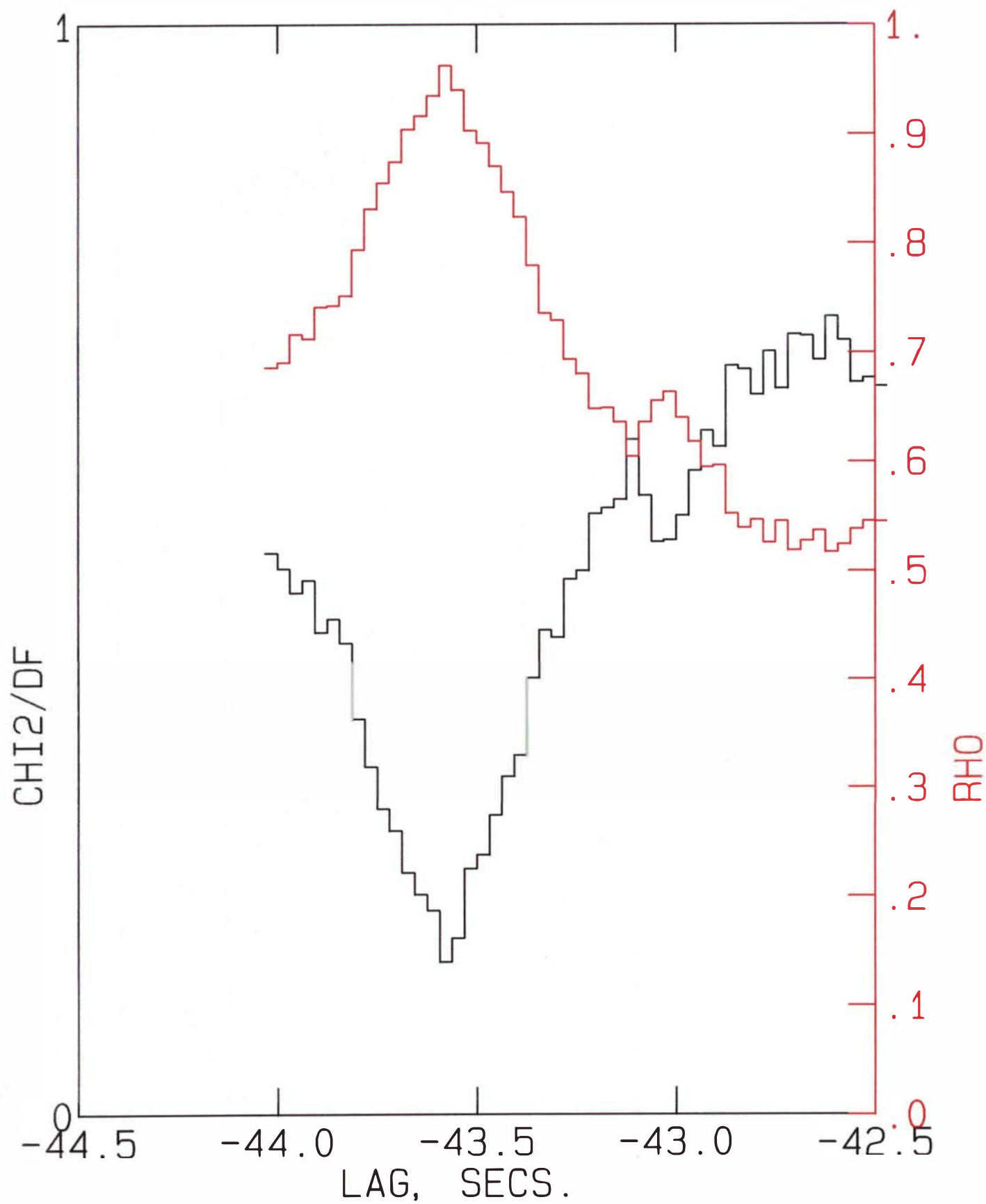
CORRELATION

11/ 4/95

29256.048

30/10/97





ULYSSES

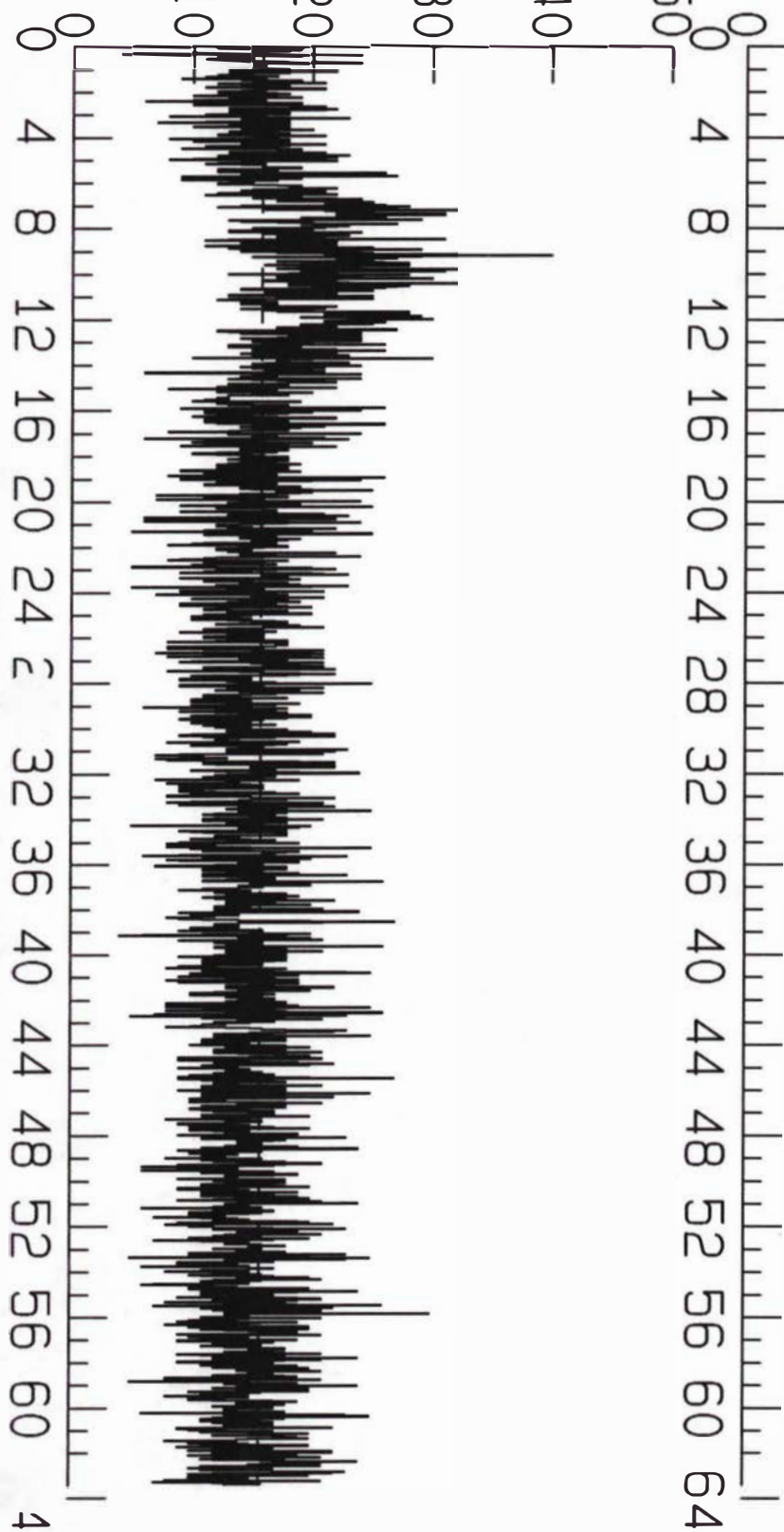
11/04/95

Ttrig=29307.046

21- 143 keV

COUNTS/0.031 S

COUNTS/0.125 S



30 / 10 / **

ULYSSES RT

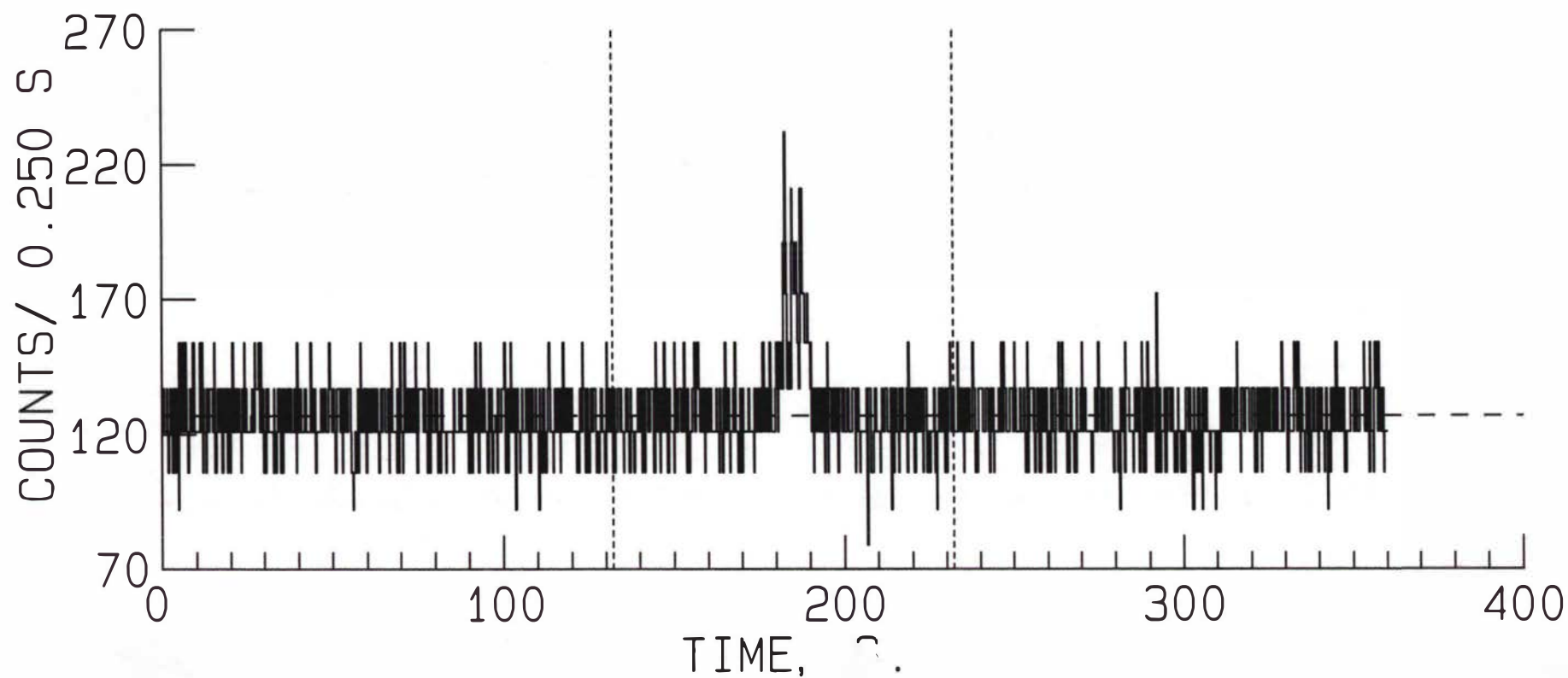
30/10/97

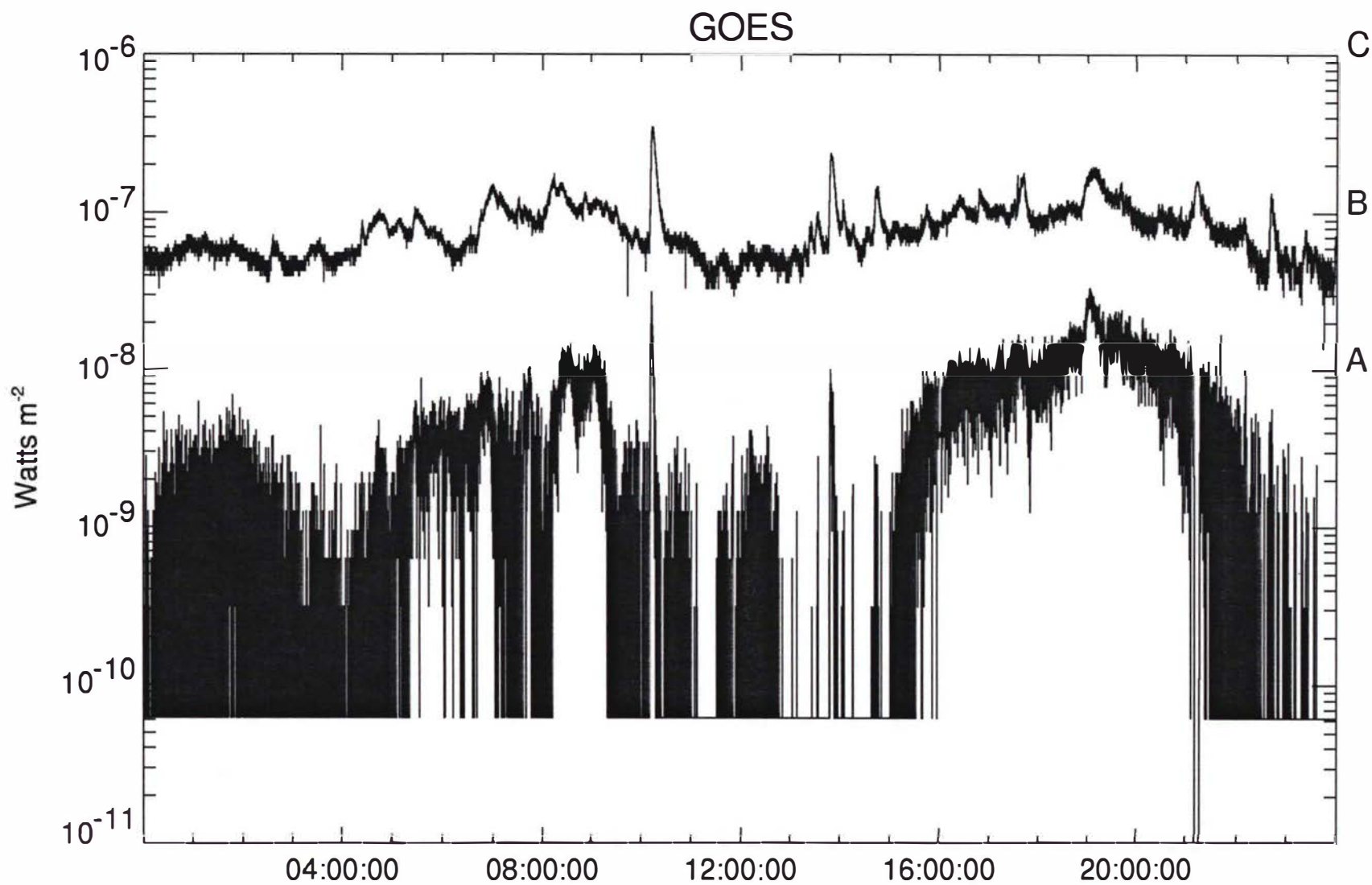
11/ 4/95 29124.005 s

21- 143 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





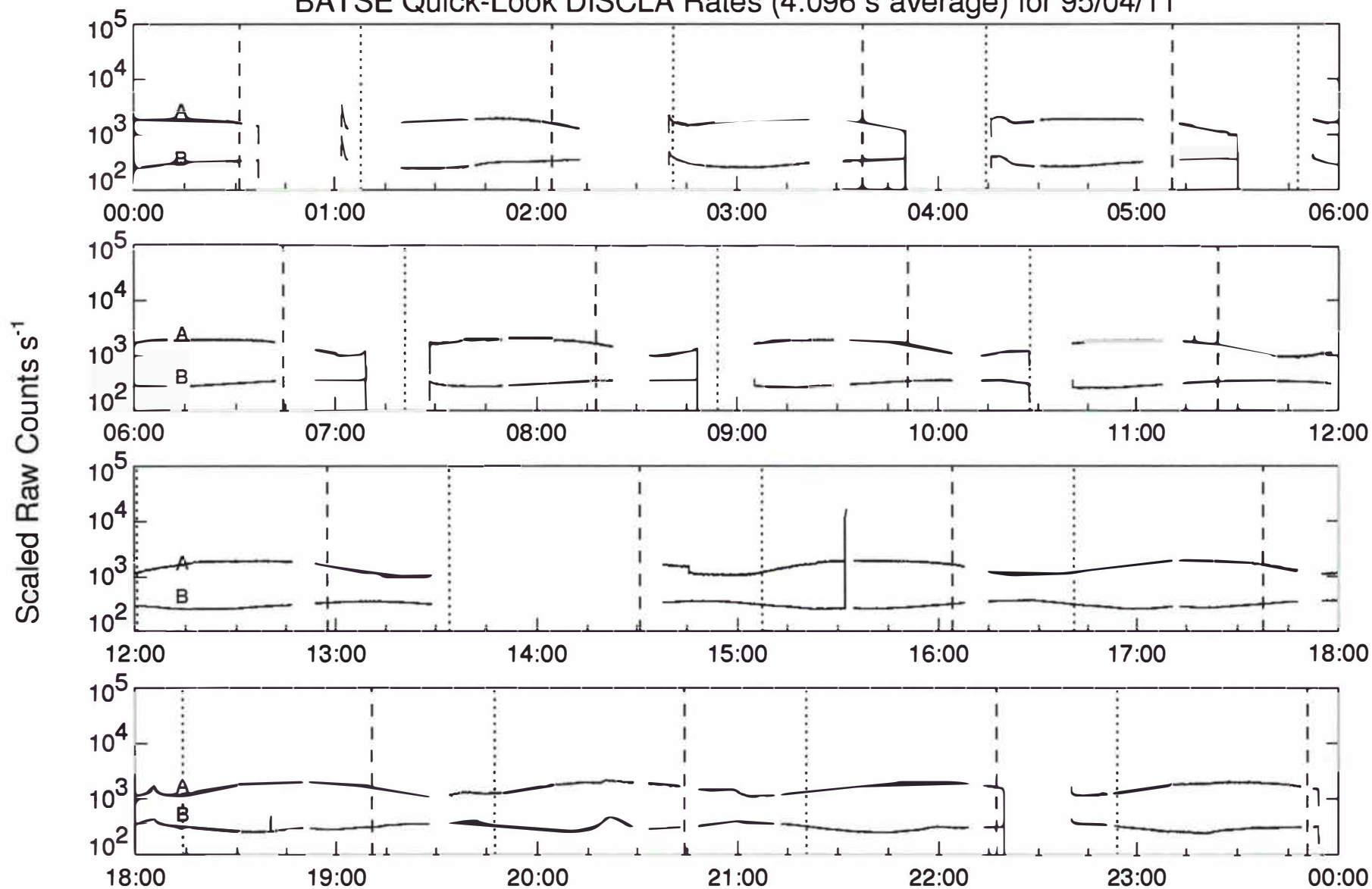
Data Start: 95/04/11, 0000:02

Plot created: 95/04/14, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/11



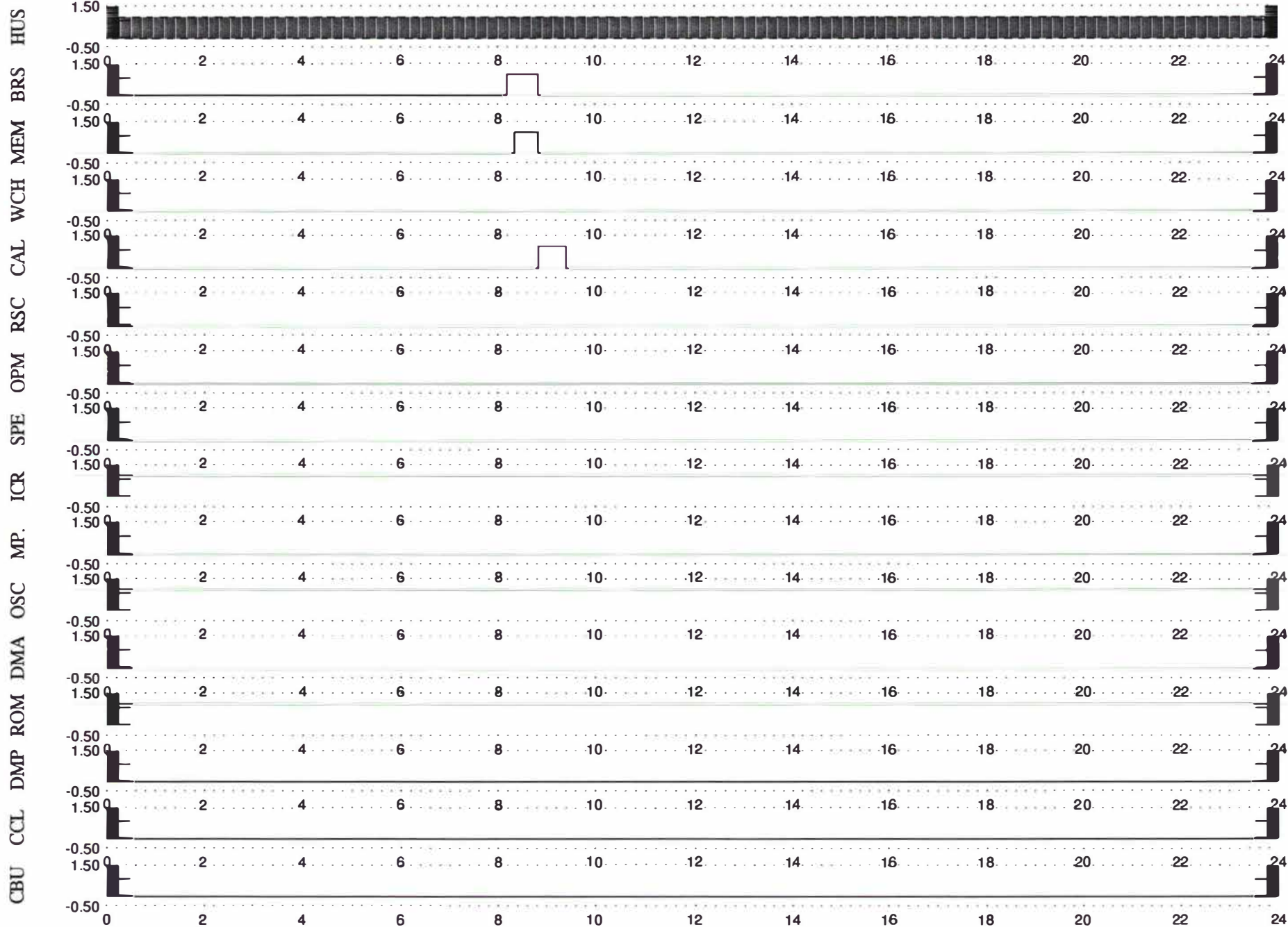
Current Time: 95/04/14, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

HUS MODES EDR day 101, year 1995 to day 101, year 1995
BURST NUMBER 13

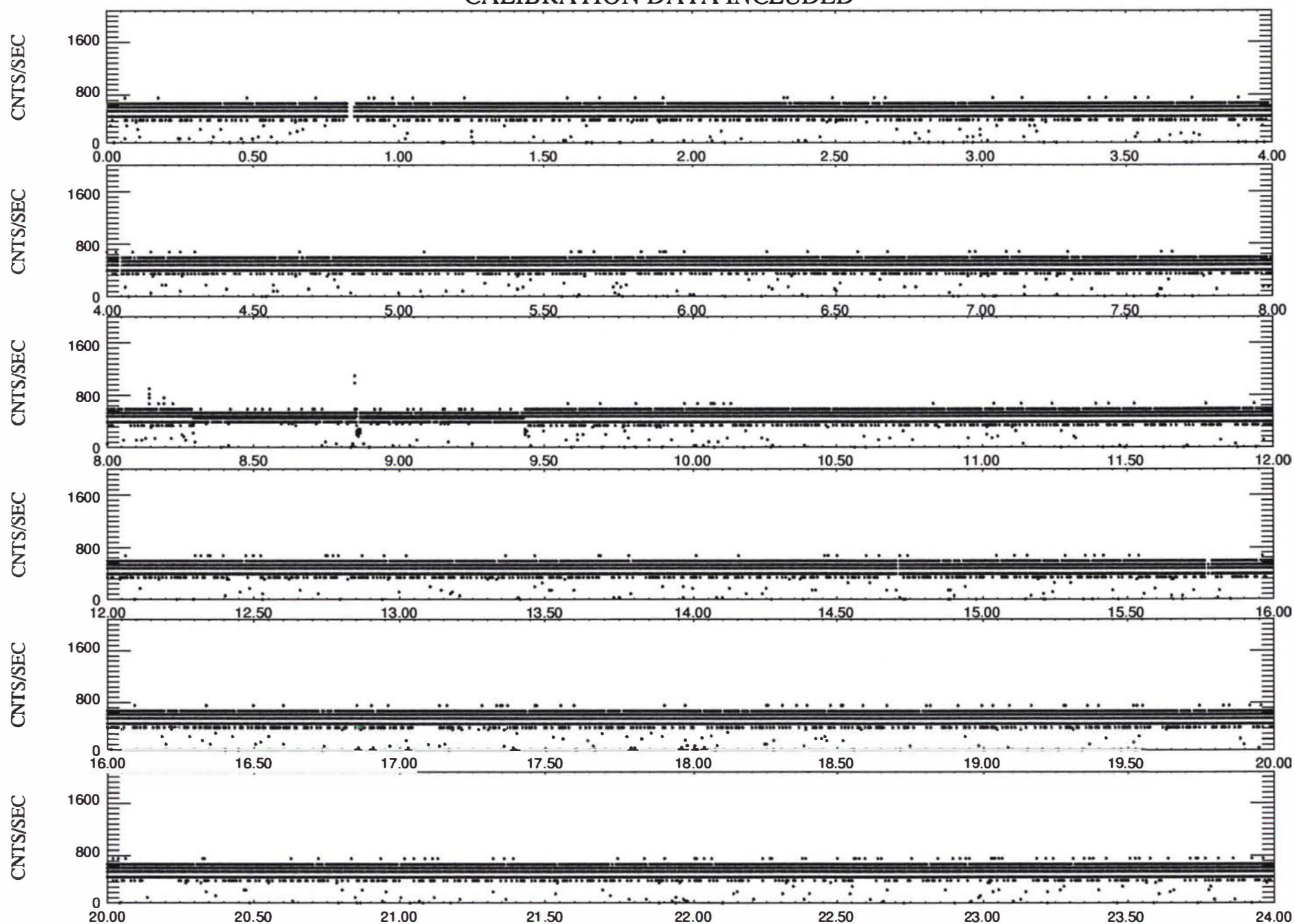
11/16/95



UNIV SAL TIME

HUS 2A, MODE 1, NOT AVERAGED EDR day 101, year 1995 to day 101, year 1995
CALIBRATION DATA INCLUDED

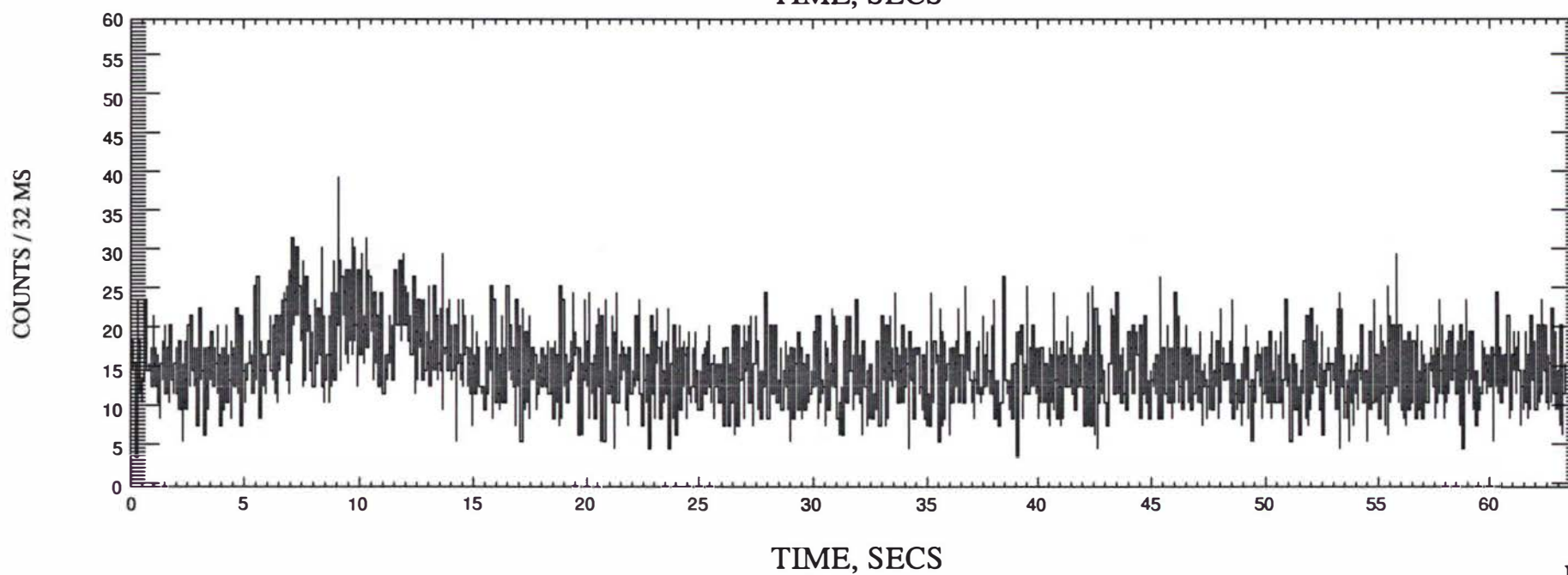
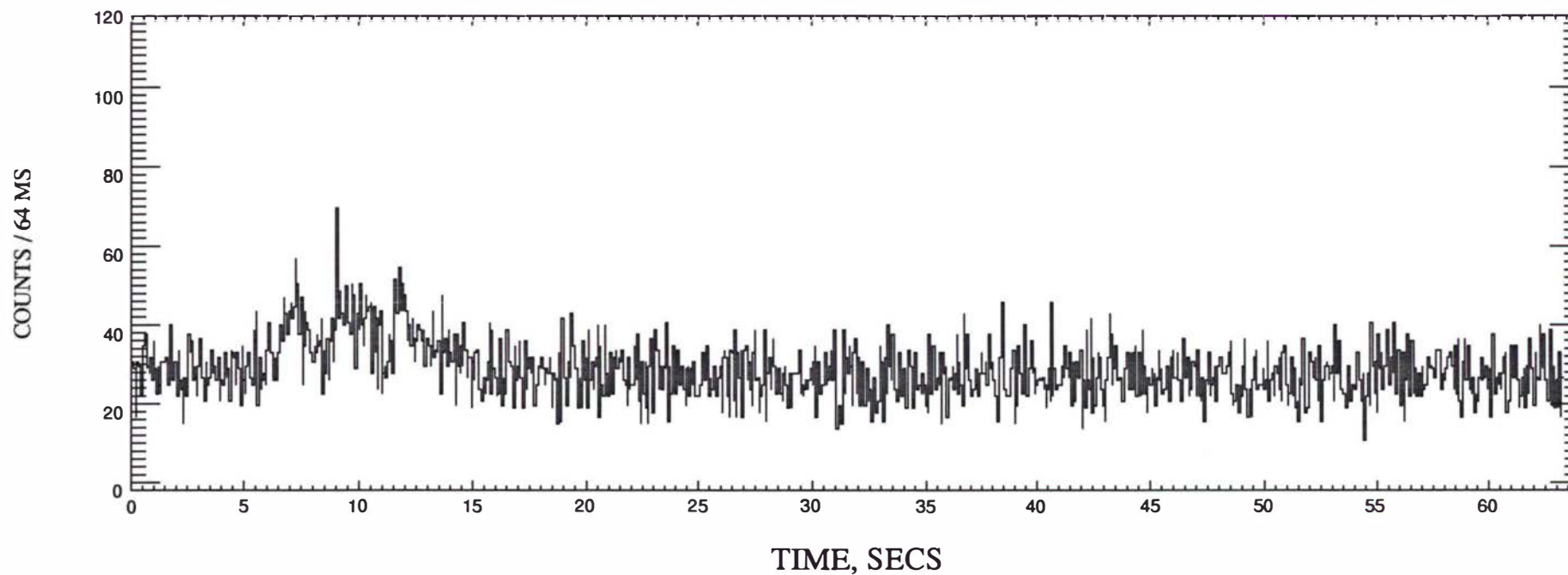
11/16/95

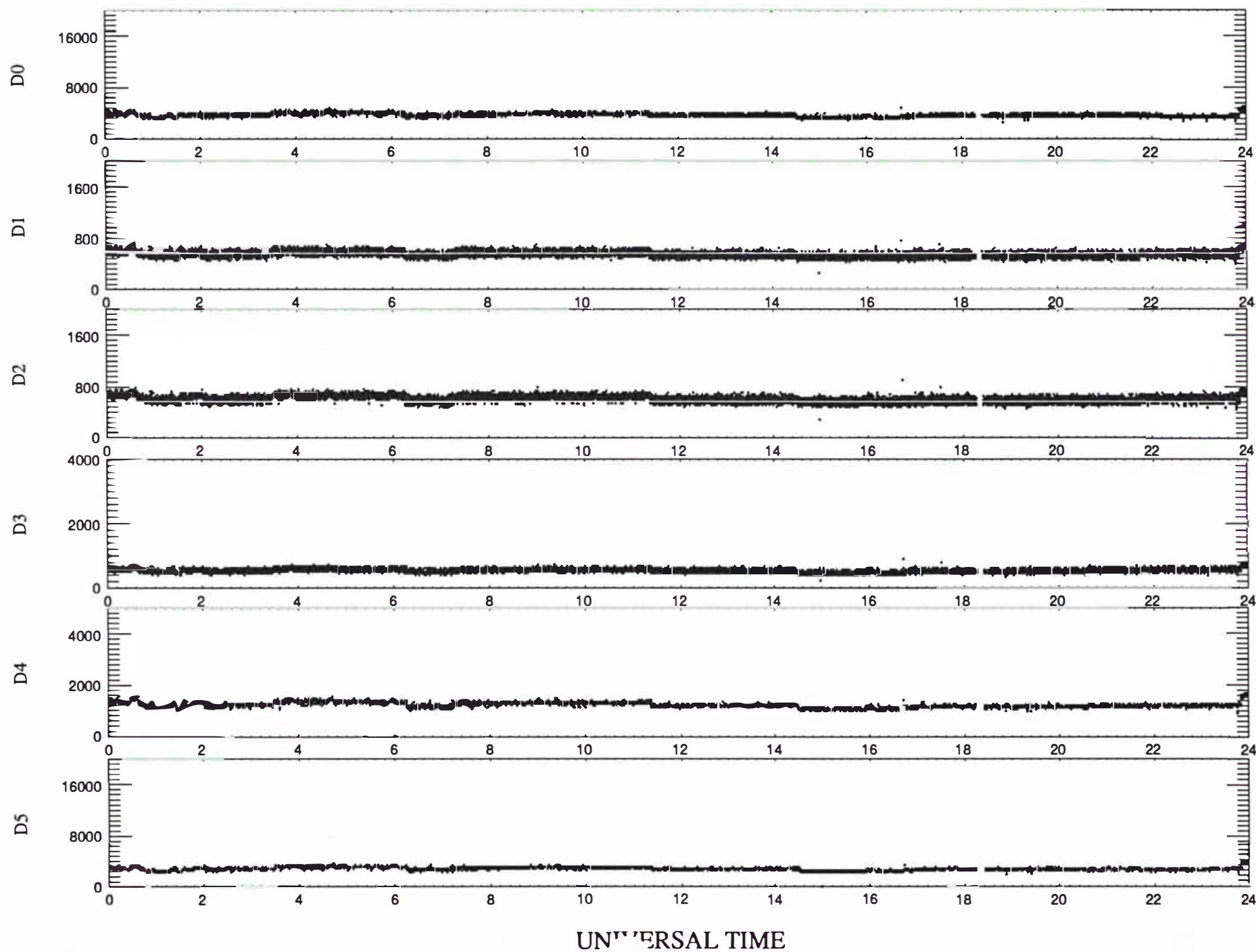


UNIVERSAL TIME

HUS 2A TRIGGERED DATA EDR day 101, year 1995
Burst Counter 13 at UT= 8.140834053887 h=29307.003 s 08:08:27.003

11/16/95





From HAGEDON@fender.msfc.nasa.gov Fri Apr 14 09:36 PDT 1995
Date: Fri, 14 Apr 1995 11:35:57 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3503

BATSEARCH PROGRAM

BATSE BURST # 3503 ND
EVENT OF 1995 APR 12 DAY OF YEAR=102
EVENT CROSSING TIME AT BATSE : 2884. S. OR 00:48:04.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 317.000 3.000
BATSE PEAK COUNTING RATE: 4300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 12/ 4/ 95 IS:
RA= 353.572 DEC= 12.306 DIST= 2.216 AU
BATSE-ULYSSES DISTANCE = 331575852. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=142.63 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -878.99 SECS.
CROSSING TIME AT ULYSSES IS 2005. S. OR 00:33:25 +/- 153.20 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 12/ 4/ 95 IS:
RA= 138.350 DEC= 18.926 DIST= 0.986 AU
MARS-BATSE DISTANCE = 147530256. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 21.97 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 456.38 SECS.
CROSSING TIME AT MARS IS 3340. S. OR 00:55:40 +/- 38.89 SECONDS

BATSE BURST TRIGGER

NO.: 3503

TIME: TJD=9819 SECONDS=02884

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=113 AZIMUTH=51 ERROR= DEGREES

COMMENTS:

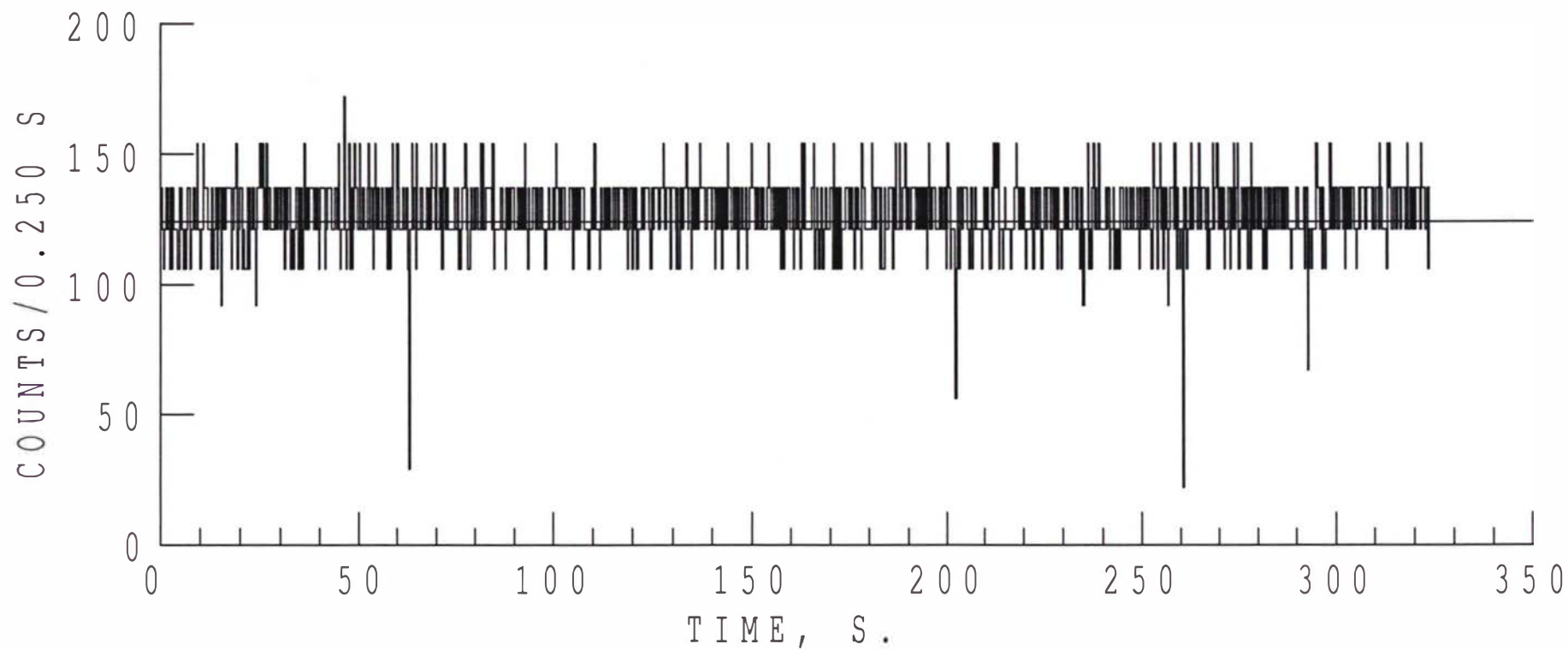
BURST. SINGLE PULSE. FASTER RISE THAN DECAY. DUR.~15 SEC.
NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3503	950412	9819	02884	4300	317	+03	15

14 / 4 / 95

ULYSSES RT
12 / 4 / 95 1836.157 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



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

From cline@lheavx.gsfc.nasa.gov Fri Feb 2 05:41 PST 1996
 Date: Fri, 2 Feb 1996 05:41:51 -0800
 Mime-Version: 1.0
 To: Bonnard.Teegarden@cesr.cnes.fr, KHURLEY@sunspot.ssl.berkeley.edu,
 palmer@lheamail.gsfc.nasa.gov, seifert@lheamail.gsfc.nasa.gov
 From: cline@lheavx.gsfc.nasa.gov (T L Cline)
 Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

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

Date: Aug 23 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?

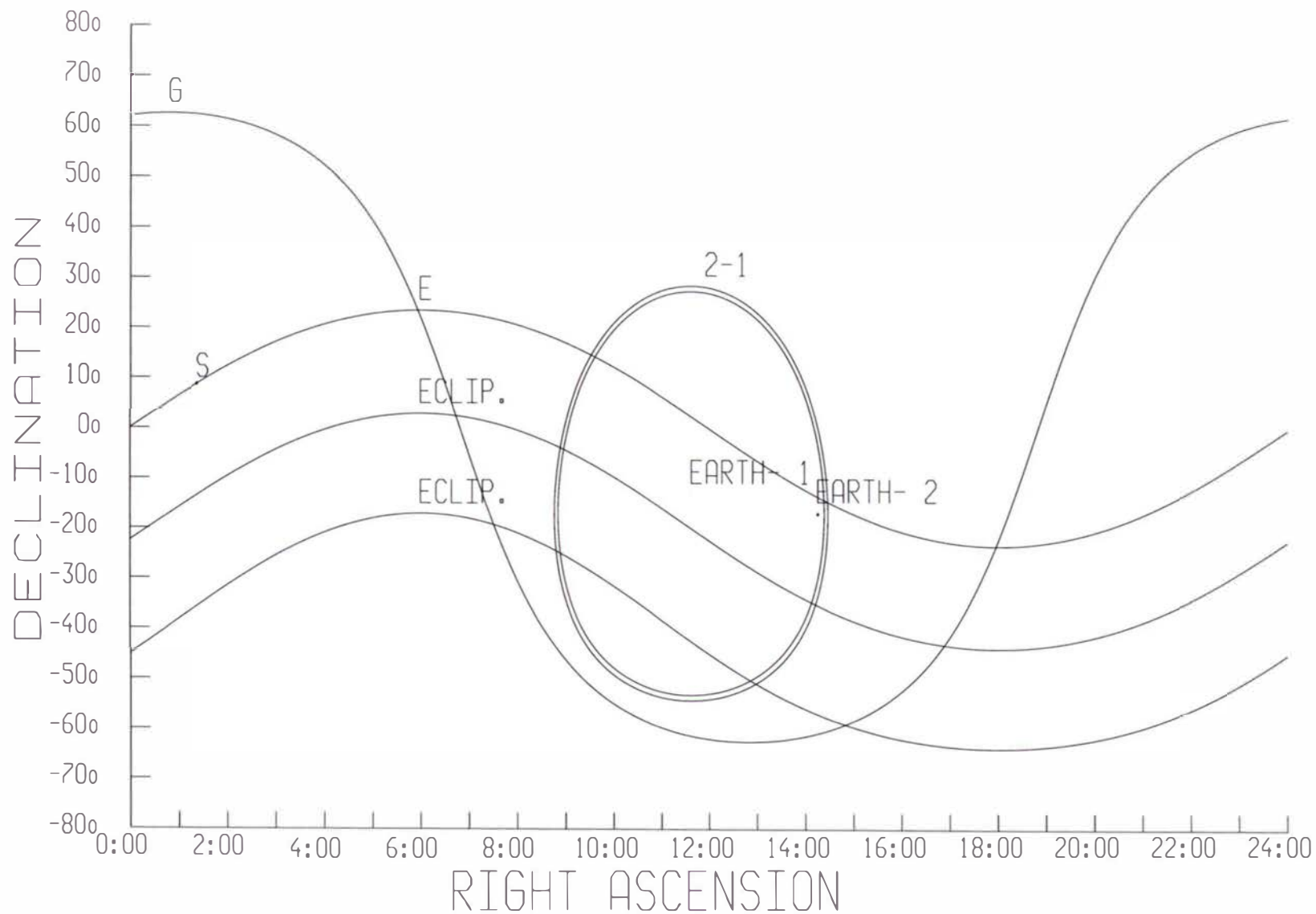
3. PVO Data

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

EVENT OF APR 12, 1995 15:03

23/08/2011

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 19950412 54286

ULYSSES RT

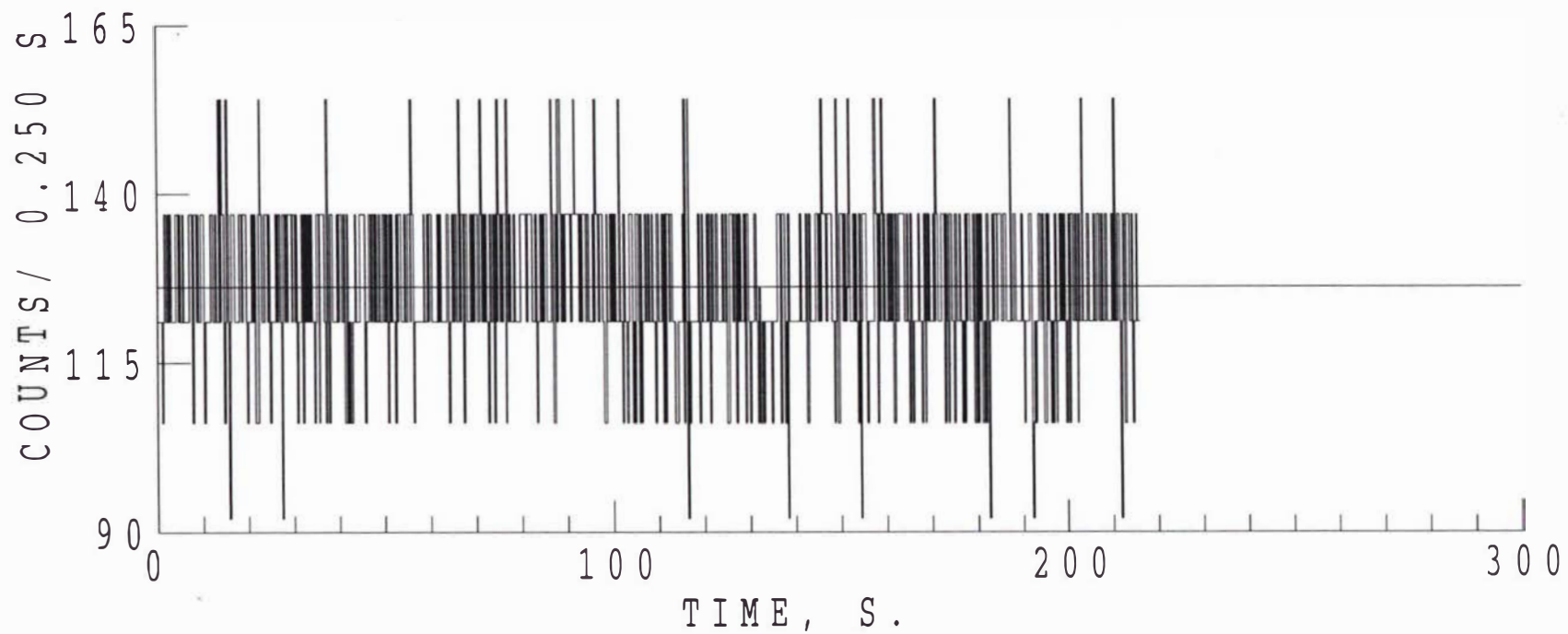
17 / 08 / 11

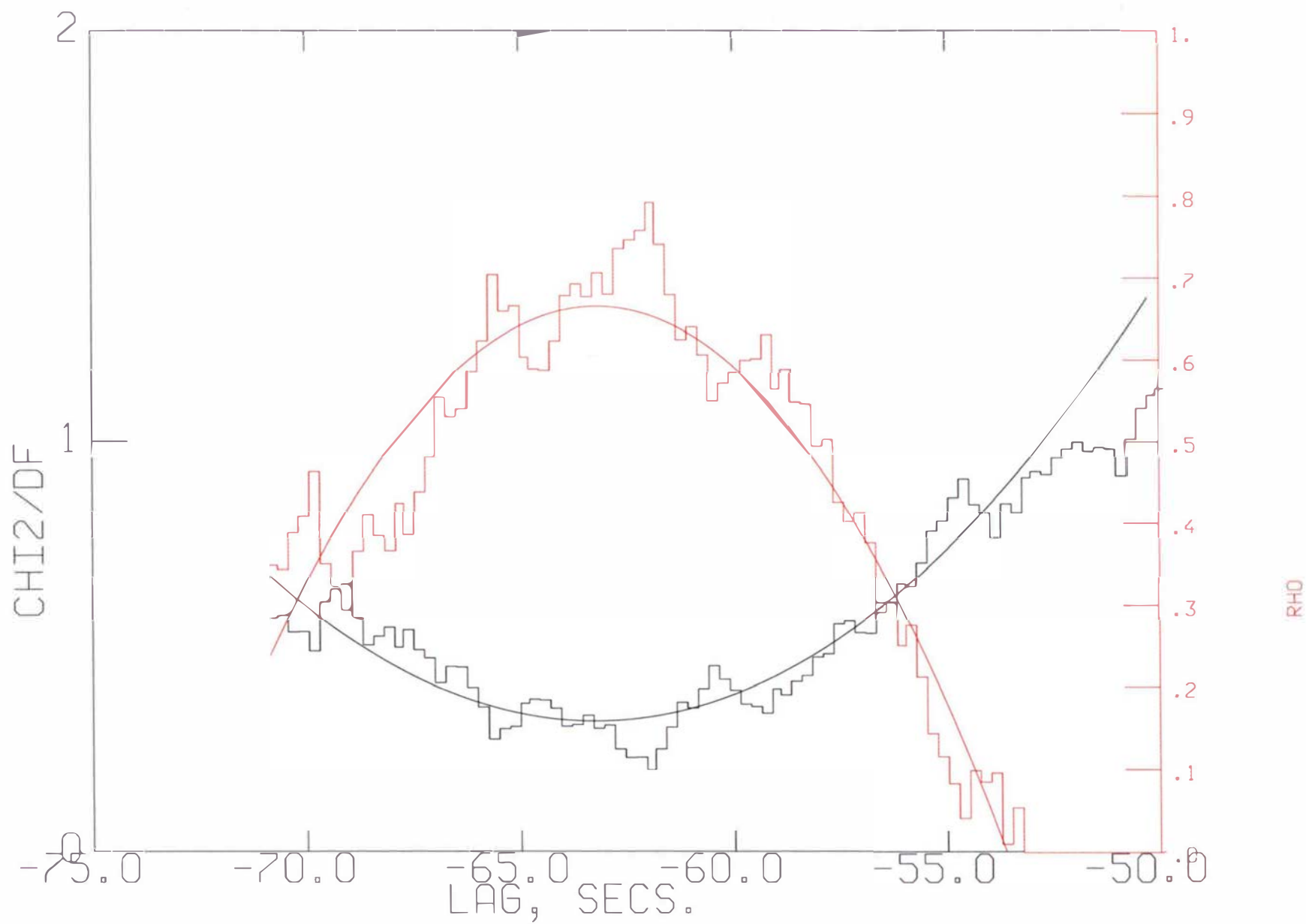
12 / 04 / 95 54180.176 s

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





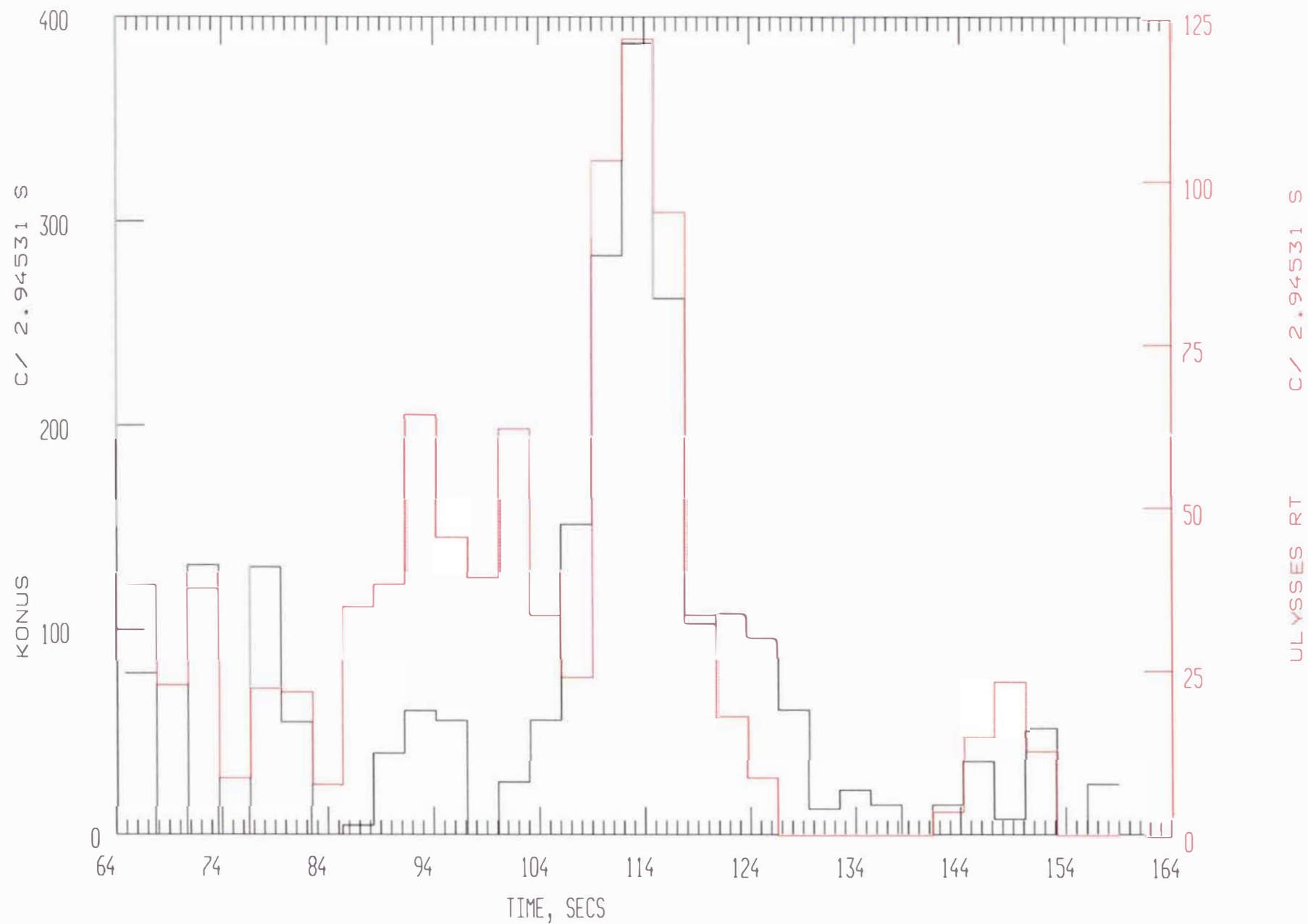
KONUS

-ULYSSES RT CORRELATION

12/04/95

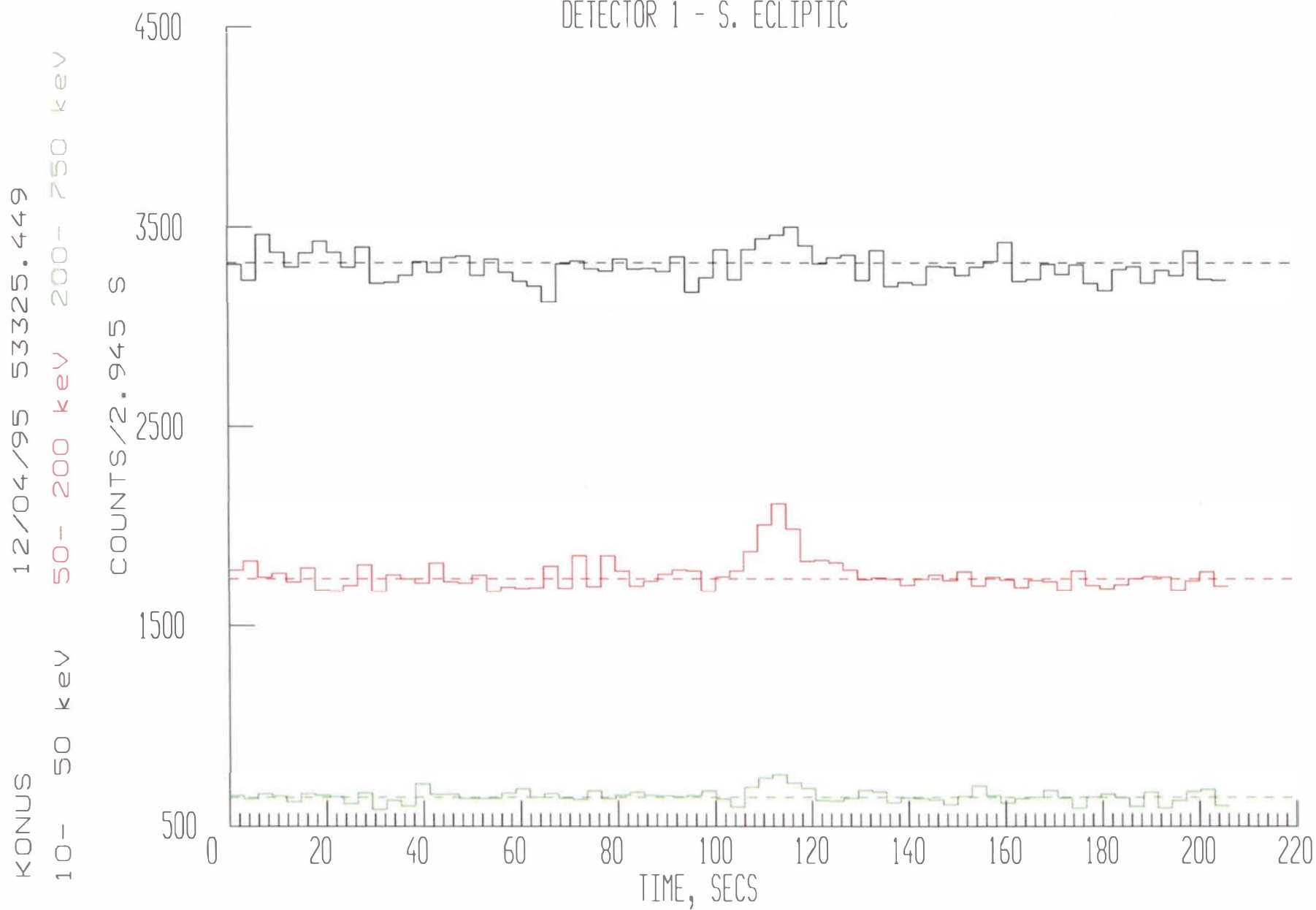
53325.449

23/ 8/11



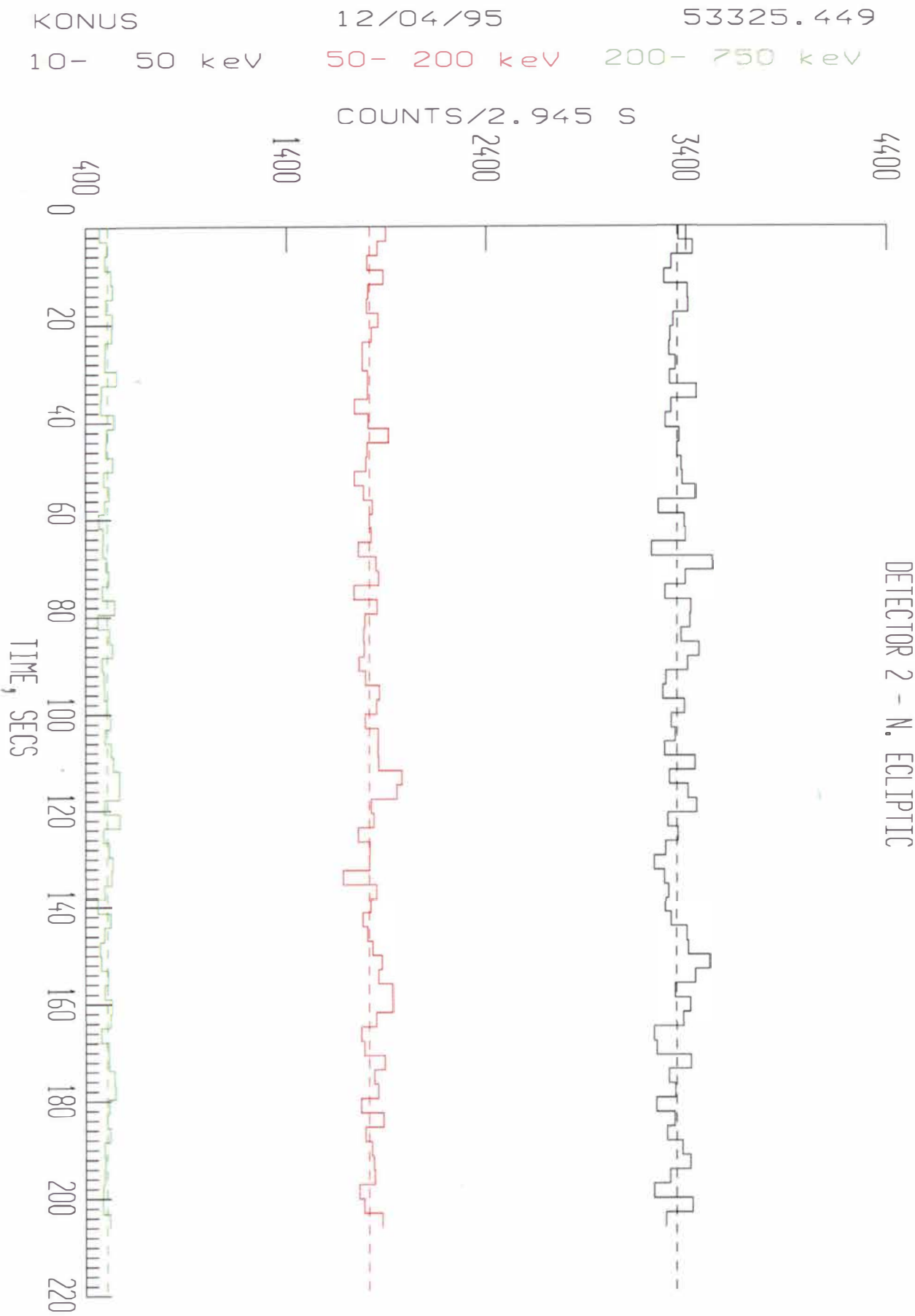
17/08/2011

DETECTOR 1 - S. ECLIPTIC



17/08/2011

DETECTOR 2 - N. ECLIPSE



KONUS

12 / 2 / 96

ULYSSES RT

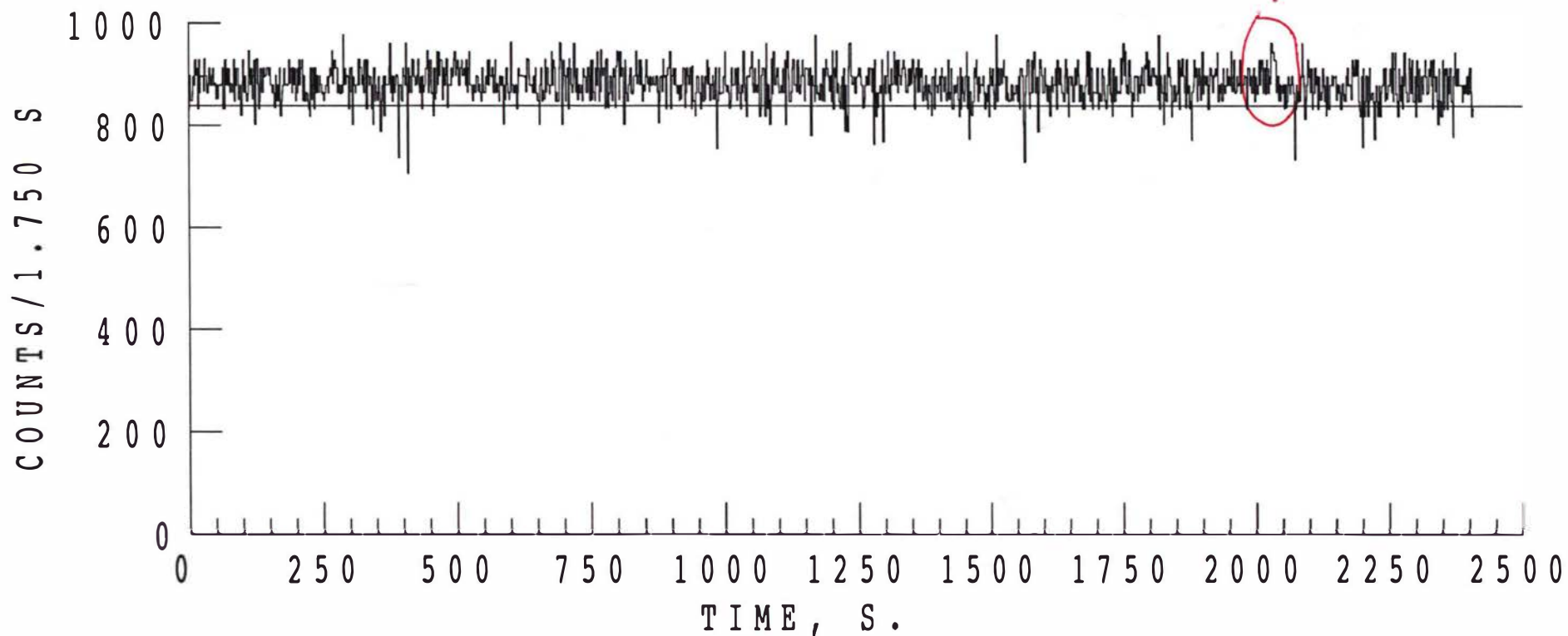
12 / 4 / 95 52236.137 s

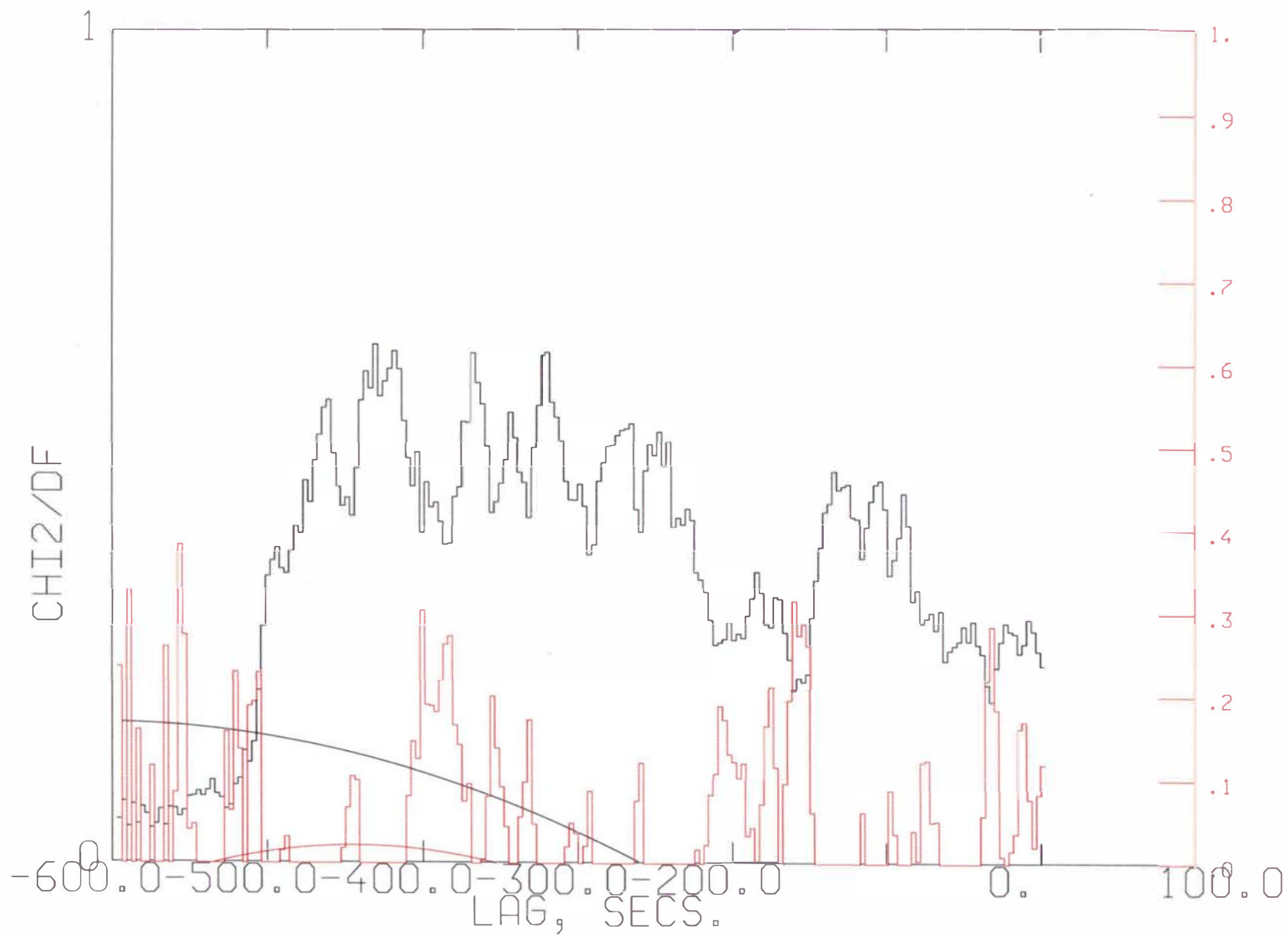
0.250 S INTERVALS REGROUPED BY 7

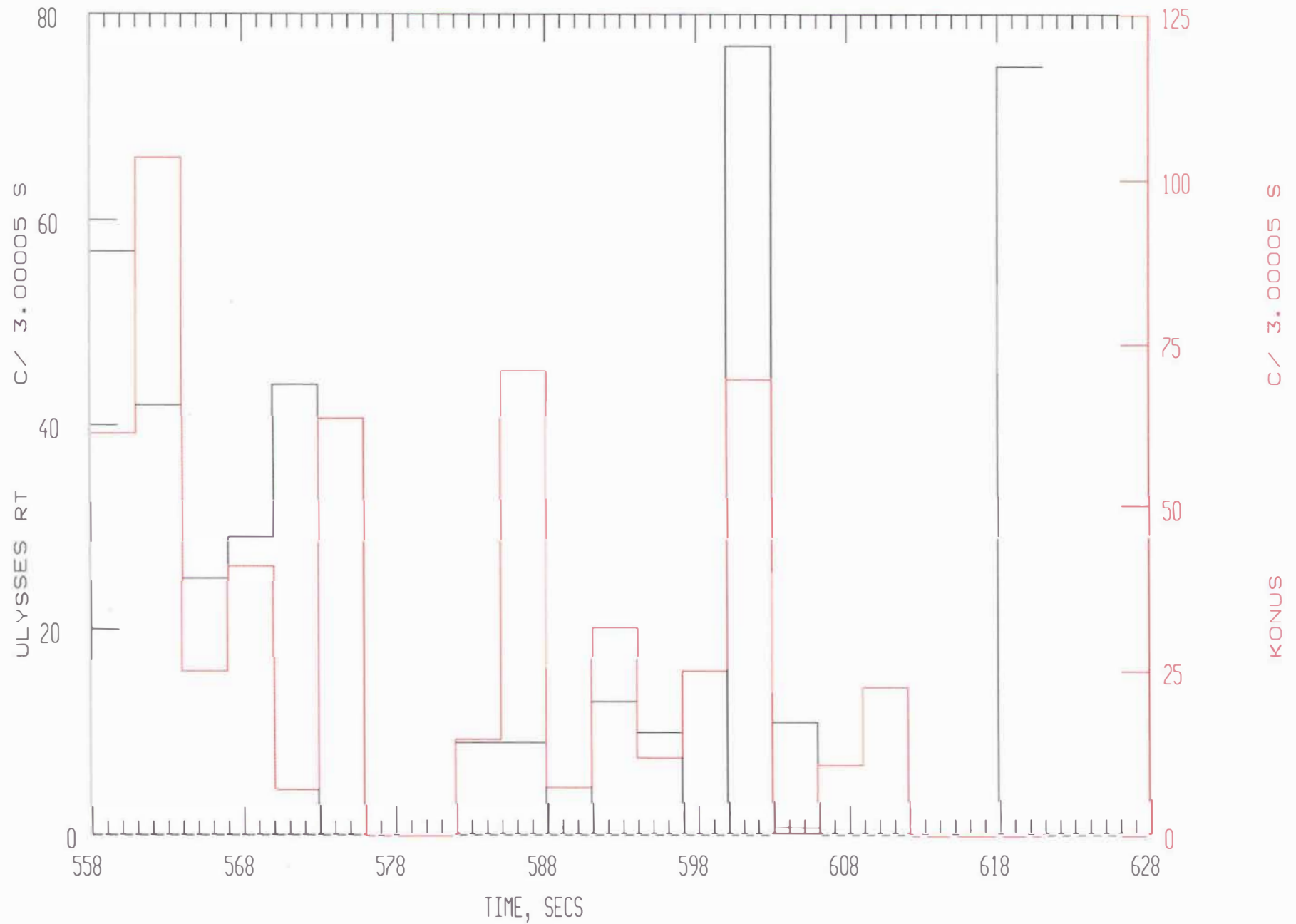
0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS







From HAGEDON@ssl.msfc.nasa.gov Fri Apr 14 09:33 PDT 1995
Date: Fri, 14 Apr 1995 11:33:14 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3504

TIME: TJD=9819 SECONDS=56744

TYPE: OTHER SOLAR FLARE TRIGGER SIGNAL:Y

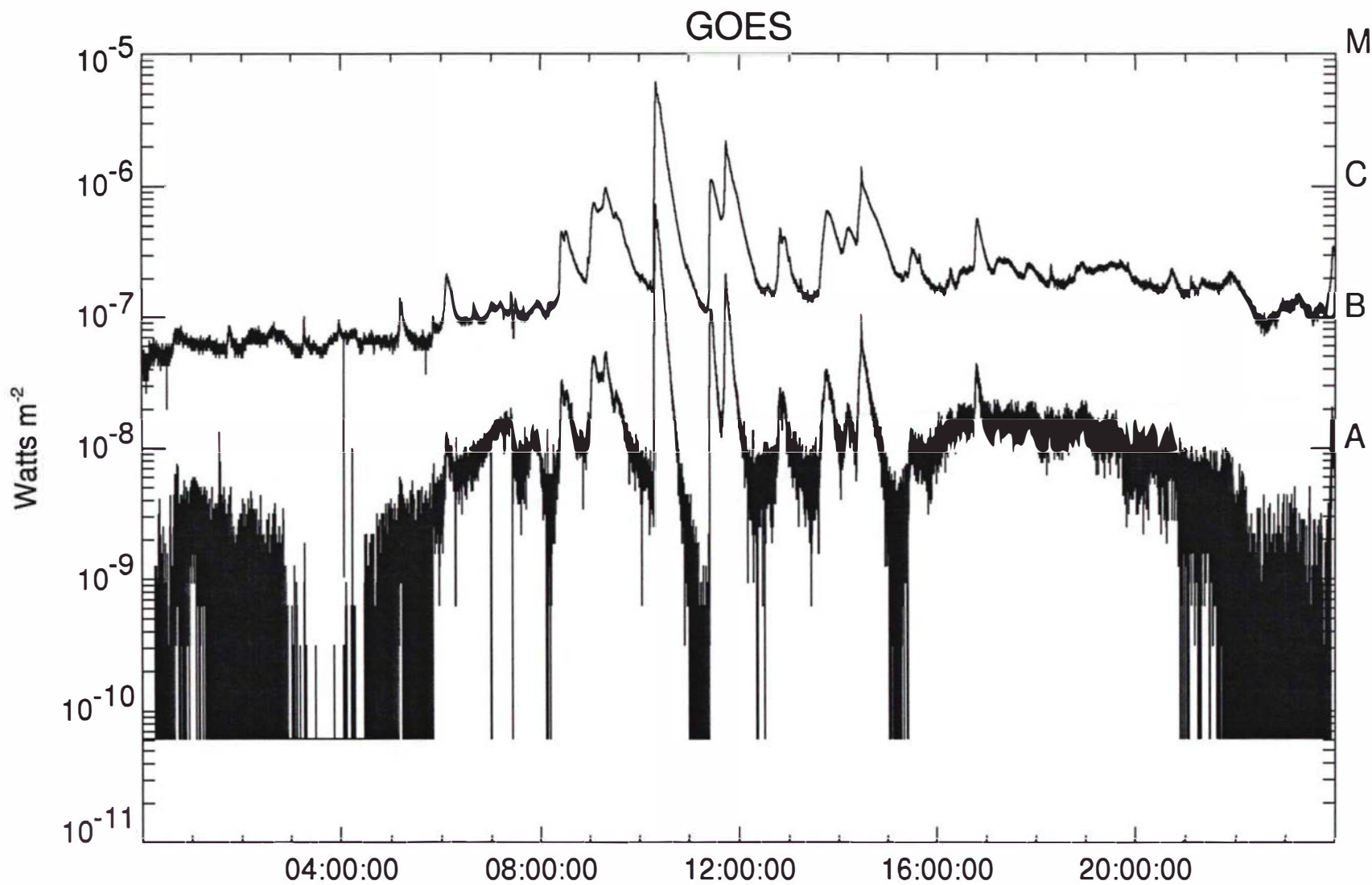
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

ACCIDENTAL TRIGGER WHEN BURST TRIGGER CHANNELS WERE CHANGED.



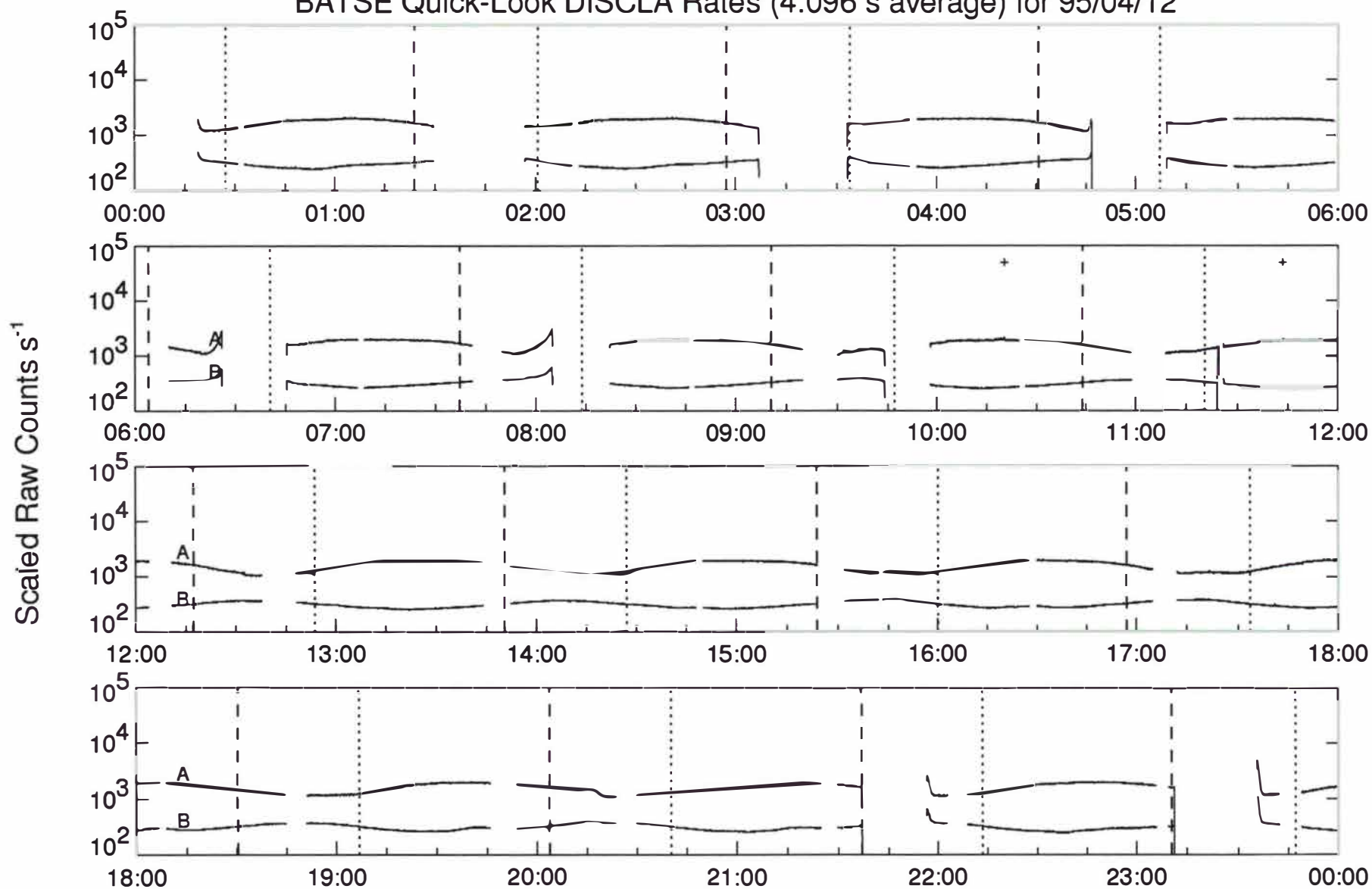
Data Start: 95/04/12, 0000:00

Plot created: 95/04/15, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/12



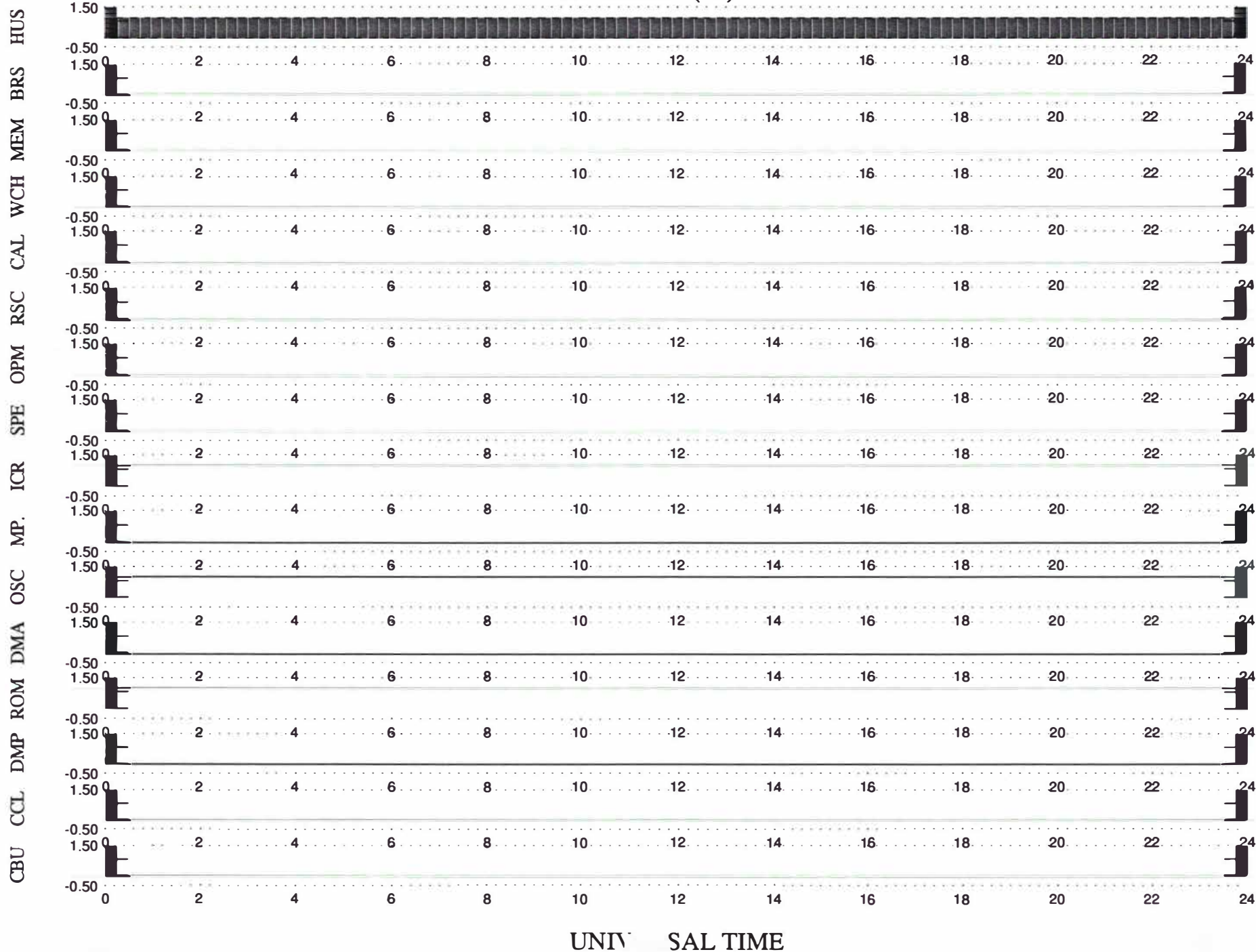
Current Time: 95/04/15, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

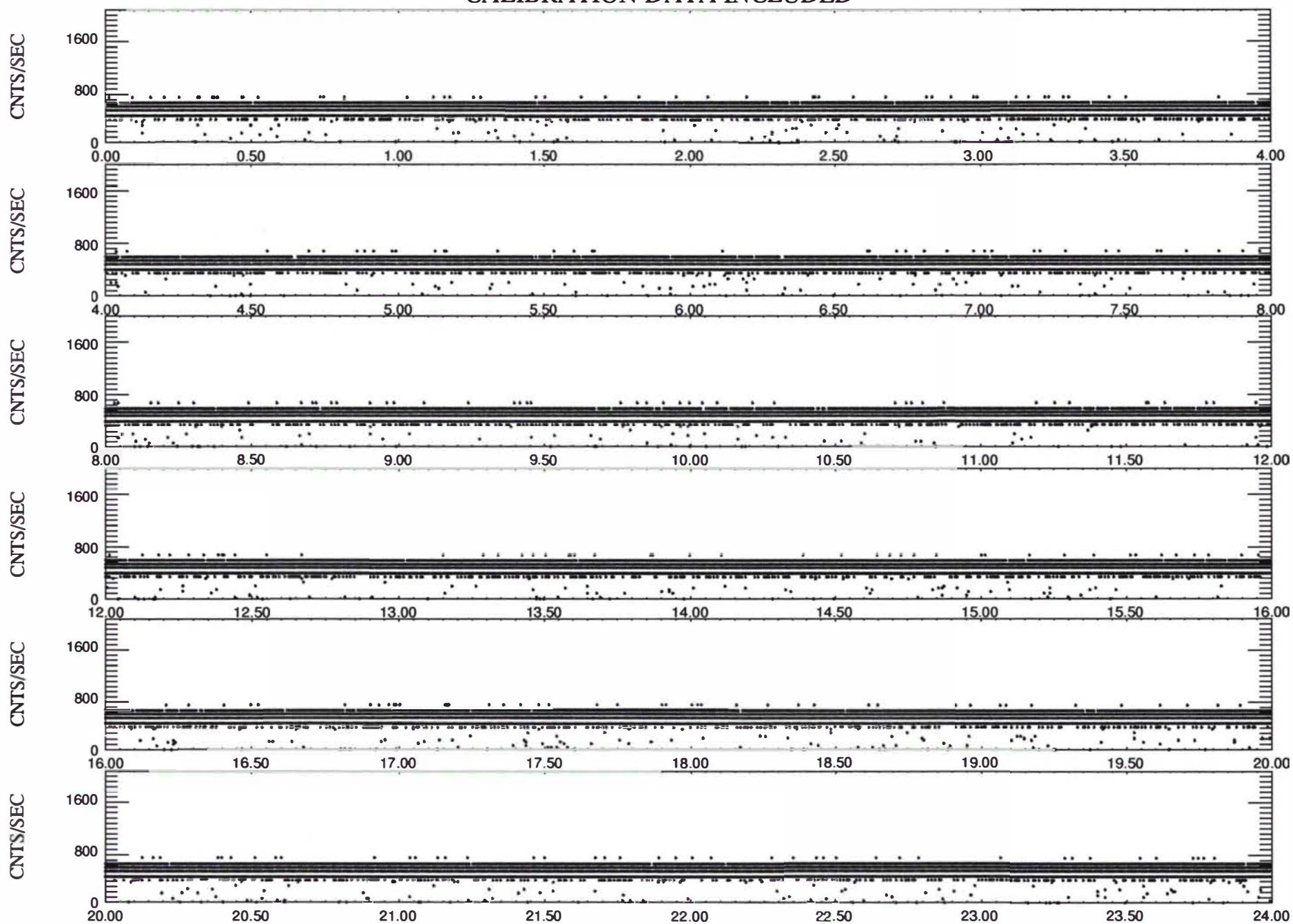
HUS MODES EDR day 102, year 1995 to day 102, year 1995
NO BURST (13)

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 102, year 1995 to day 102, year 1995
 CALIBRATION DATA INCLUDED

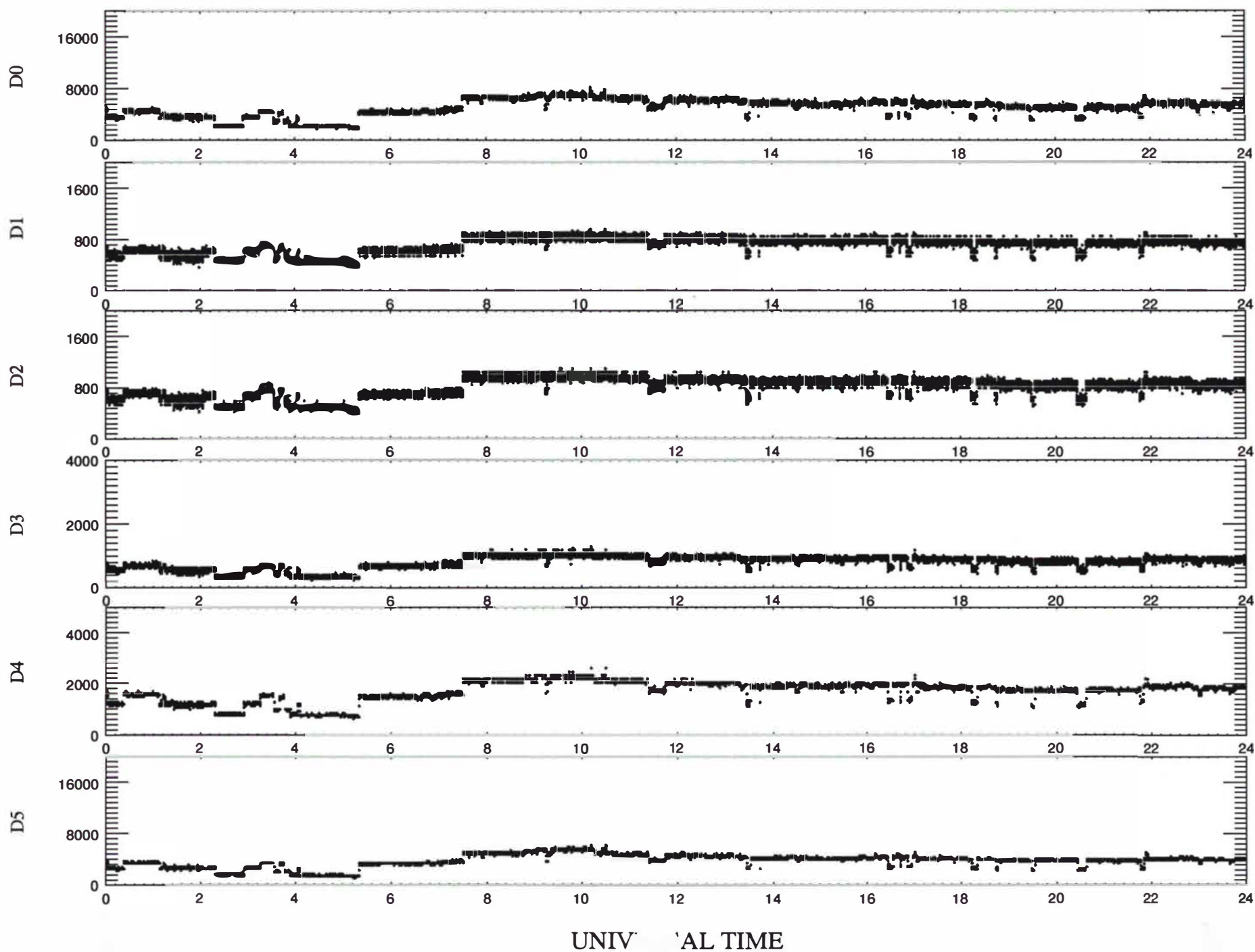
11/16/95



UNIV. SAL TIME

HUS 2B COUNTS / SEC QEDR day 102, year 1995 to day 102, year 1995

4/13/95



From HAGEDON@fender.msfc.nasa.gov Mon Apr 17 09:38 PDT 1995
Date: Mon, 17 Apr 1995 11:38:46 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3505

BATSEARCH PROGRAM

BATSE BURST # 3505 NO
EVENT OF 1995 APR 13 DAY OF YEAR=103
EVENT CROSSING TIME AT BATSE : 54198. S. OR 15:03:18.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 261.000 64.000
BATSE PEAK COUNTING RATE: 2100 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 13/ 4/ 95 IS:
RA= 354.044 DEC= 13.381 DIST= 2.209 AU
BATSE-ULYSSES DISTANCE = 330475654. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=100.68 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -204.33 SECS.
CROSSING TIME AT ULYSSES IS 53994. S. OR 14:59:53 +/- 234.97 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 13/ 4/ 95 IS:
RA= 138.541 DEC= 18.833 DIST= 0.995 AU
MARS-BATSE DISTANCE = 148780096. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 93.87 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -33.48 SECS.
CROSSING TIME AT MARS IS 54165. S. OR 15:02:44 +/- 85.46 SECONDS

BATSE BURST TRIGGER

NO.: 3505

TIME: TJD=9820 SECONDS=54198

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=170 AZIMUTH=182 ERROR= DEGREES

COMMENTS:

BURST. WEAK SINGLE PULSE. DUR.~2 SEC. WEAK PRECURSOR EMISSION BEGINS
AT ~T-15 SEC. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3505	950413	9820	54198	2100	261	+64	2

17 / 4 / 95

ULYSSES RT

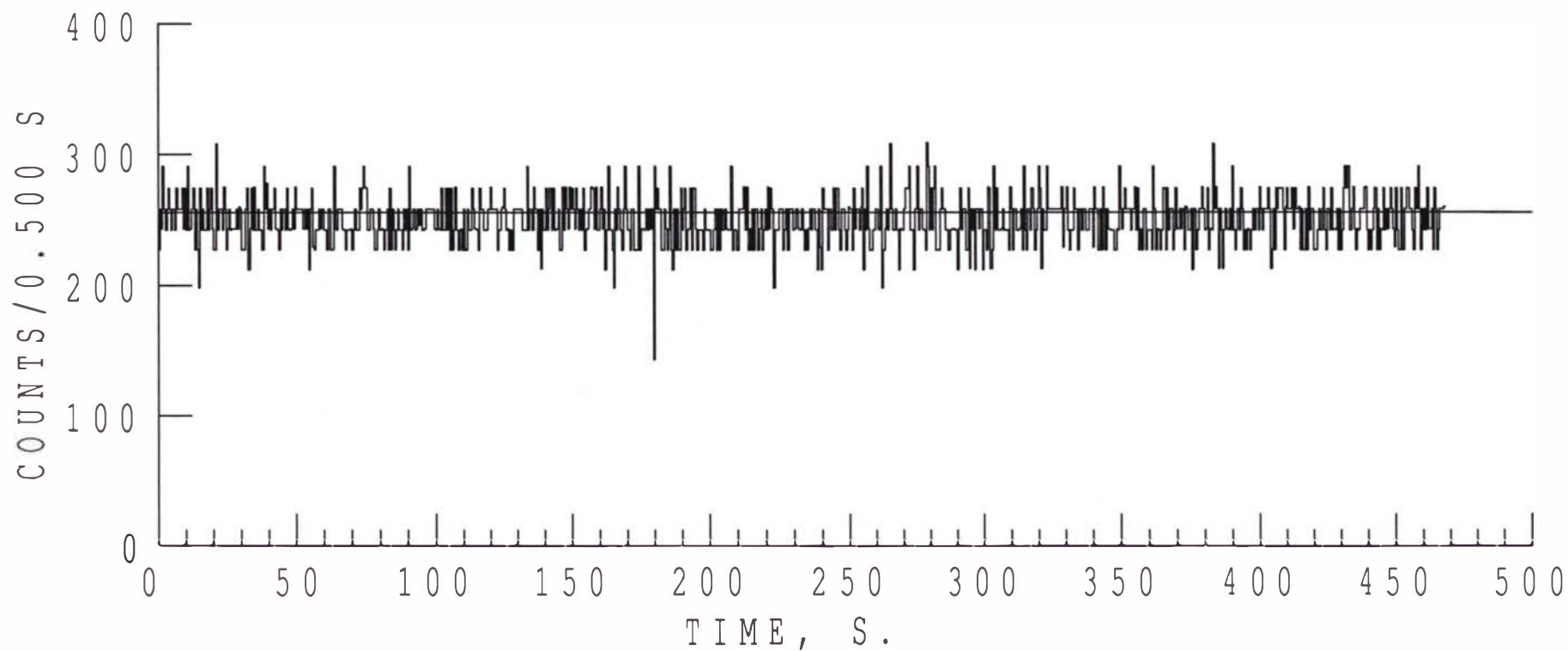
13 / 4 / 95 53748.098 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Mon Apr 17 09:33 PDT 1995
Date: Mon, 17 Apr 1995 11:33:05 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3506

TIME: TJD=9820 SECONDS=82425

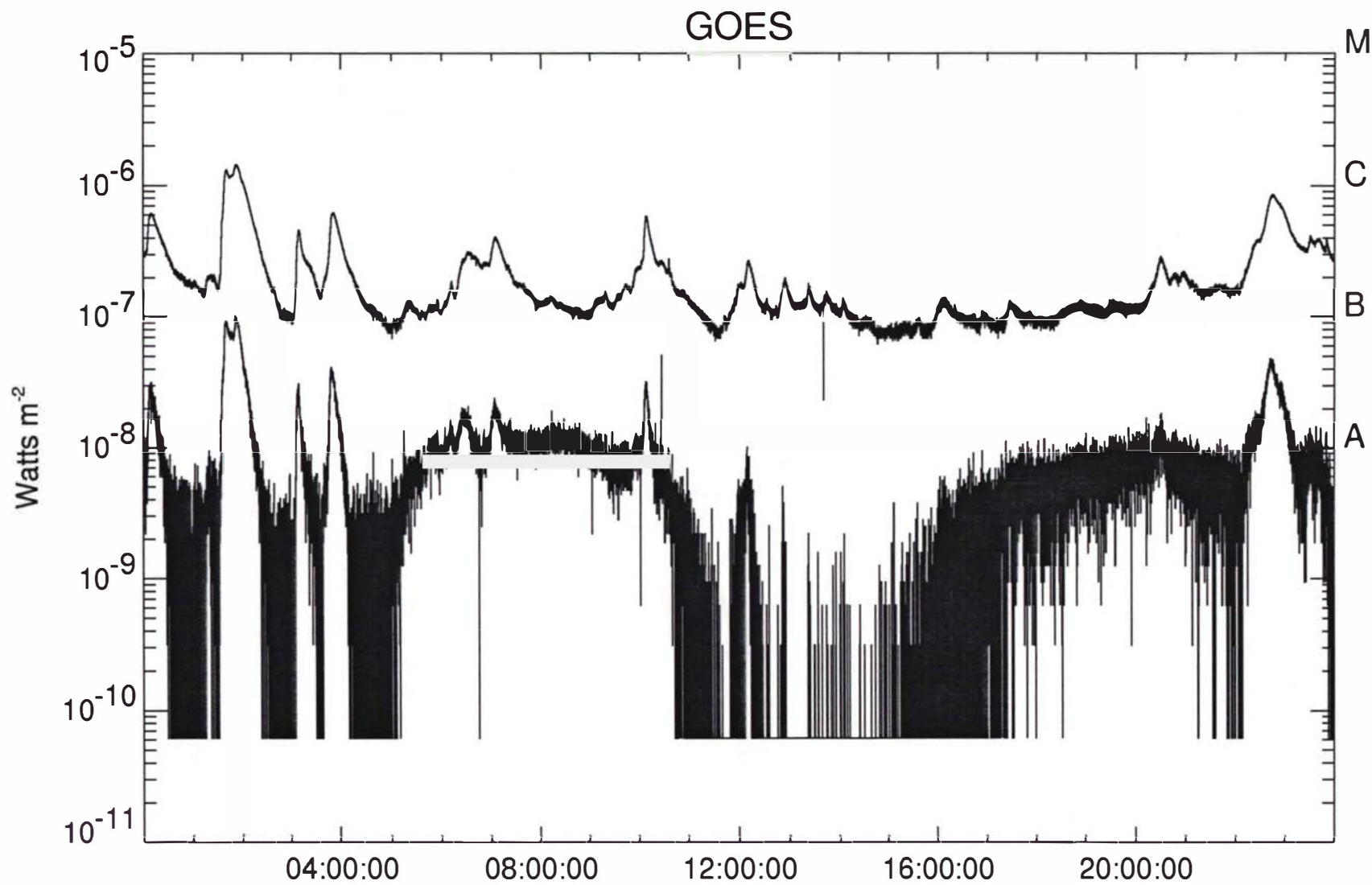
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

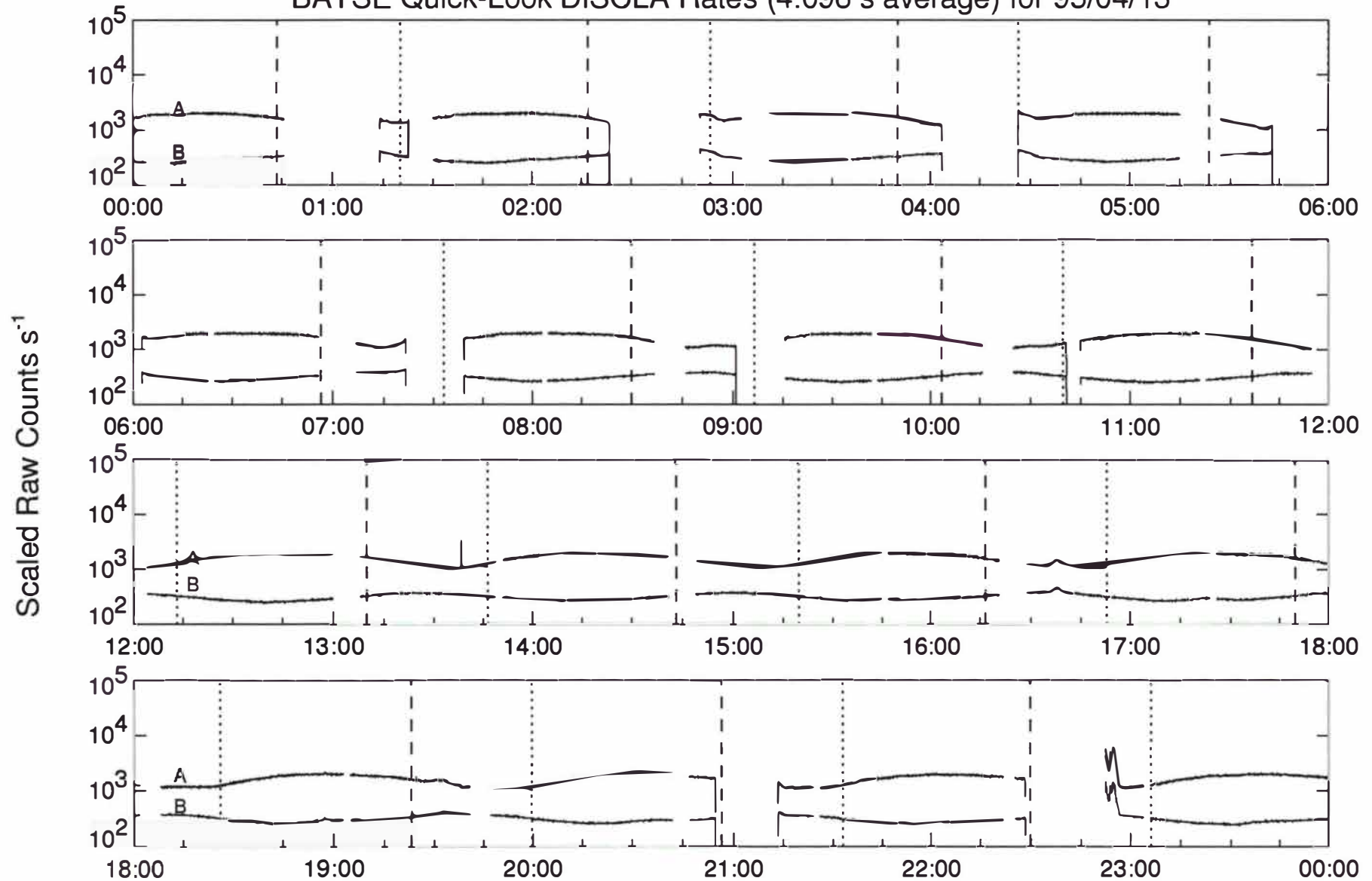
LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA EXIT.



Data Start: 95/04/13, 0000:01 Plot created: 95/04/16, 0513
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted
 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/13



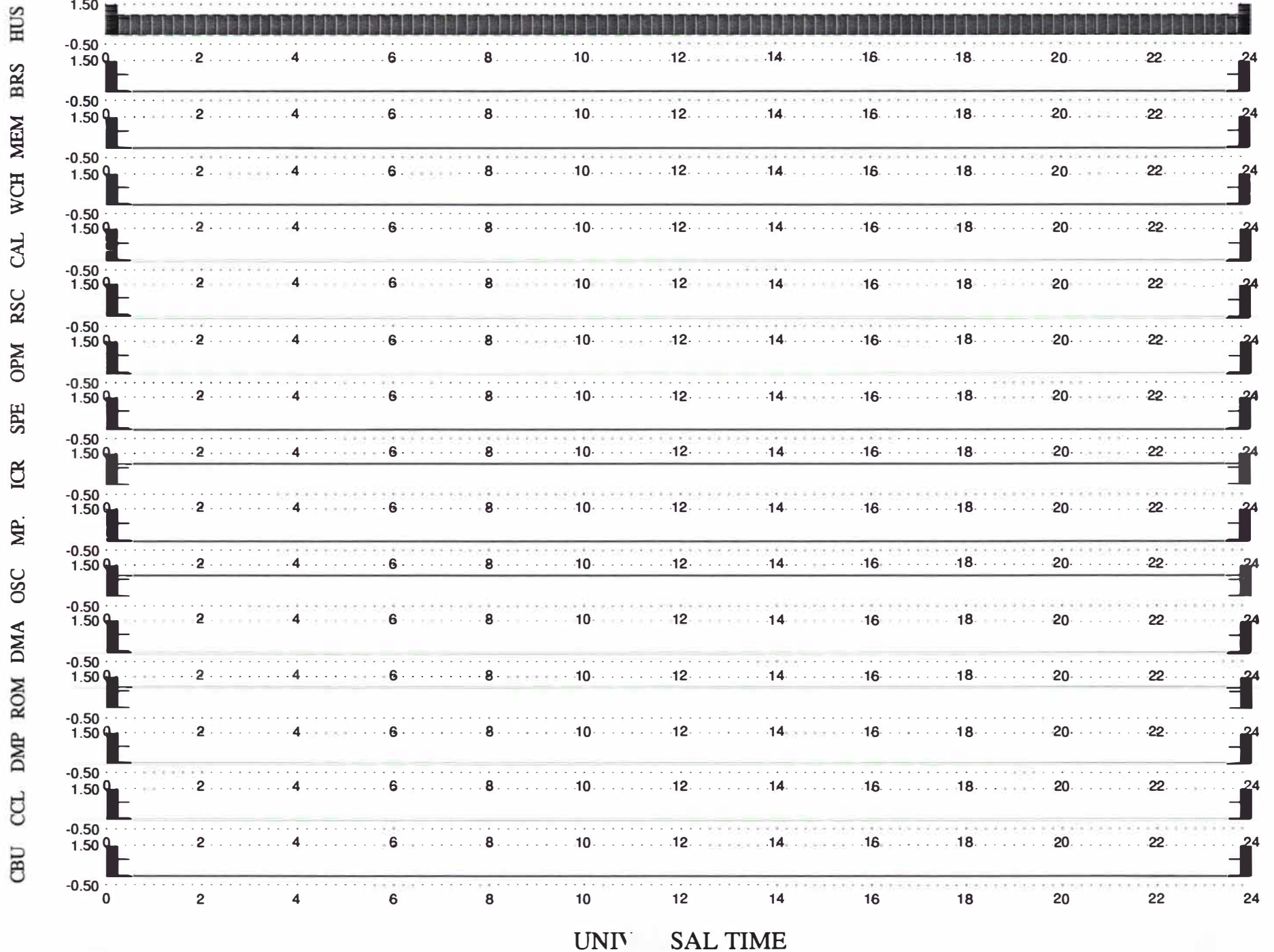
Current Time: 95/04/19, 1332 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

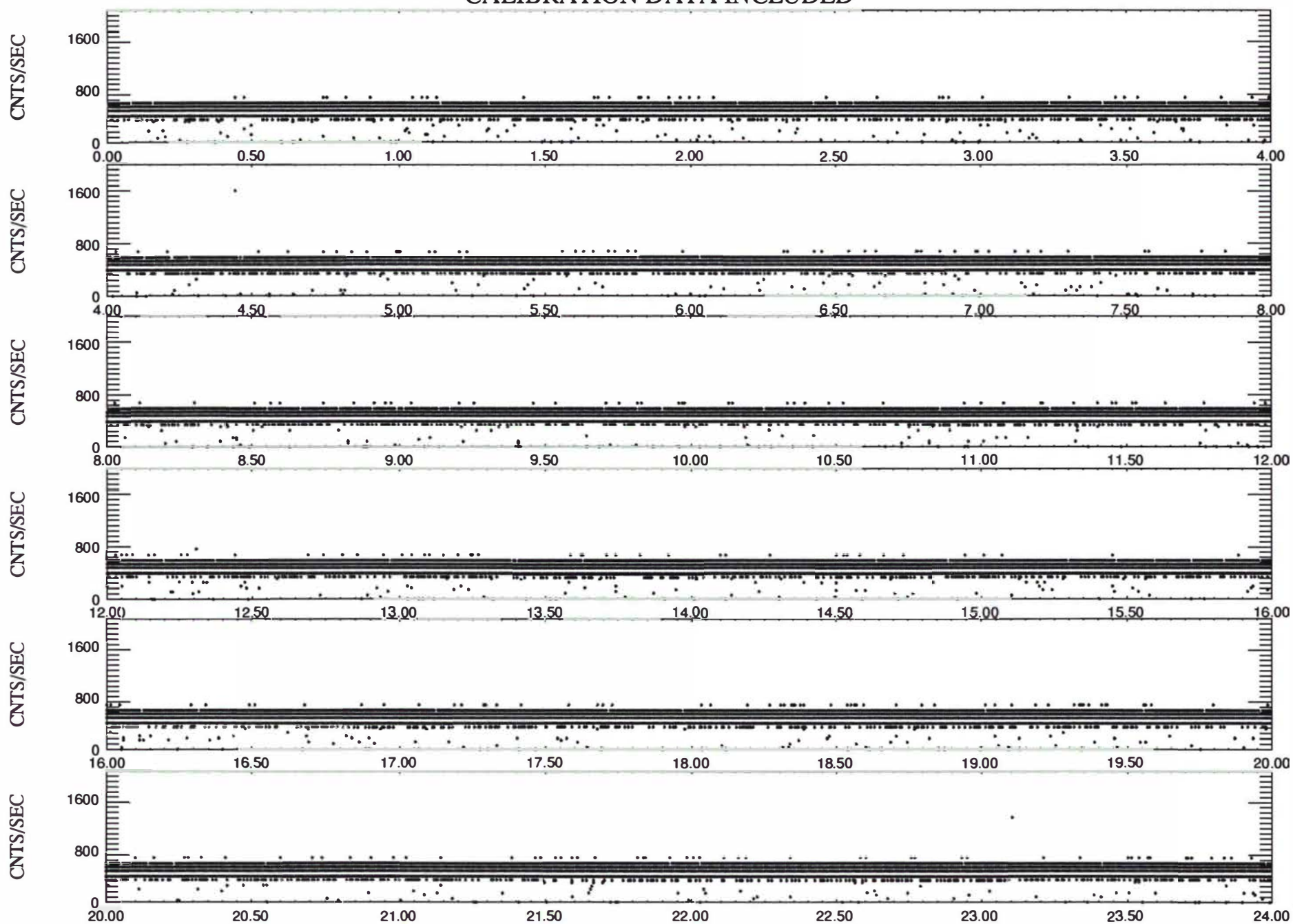
HUS MODES EDR day 103, year 1995 to day 103, year 1995 NO BURST (13)

11/16/95

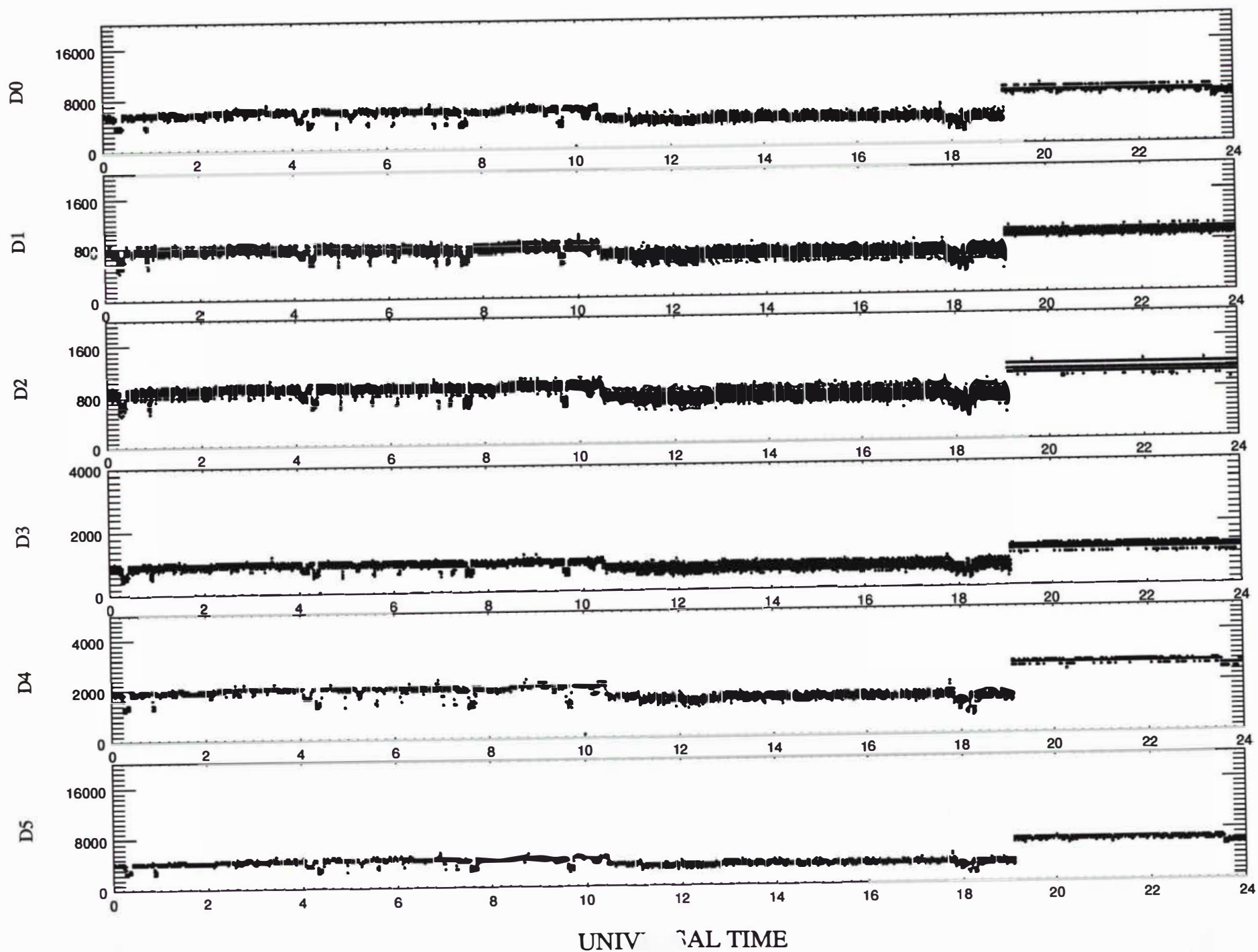


HUS 2A, MODE 1, NOT AVERAGED EDR day 103, year 1995 to day 103, year 1995
CALIBRATION DATA INCLUDED

11/16/95



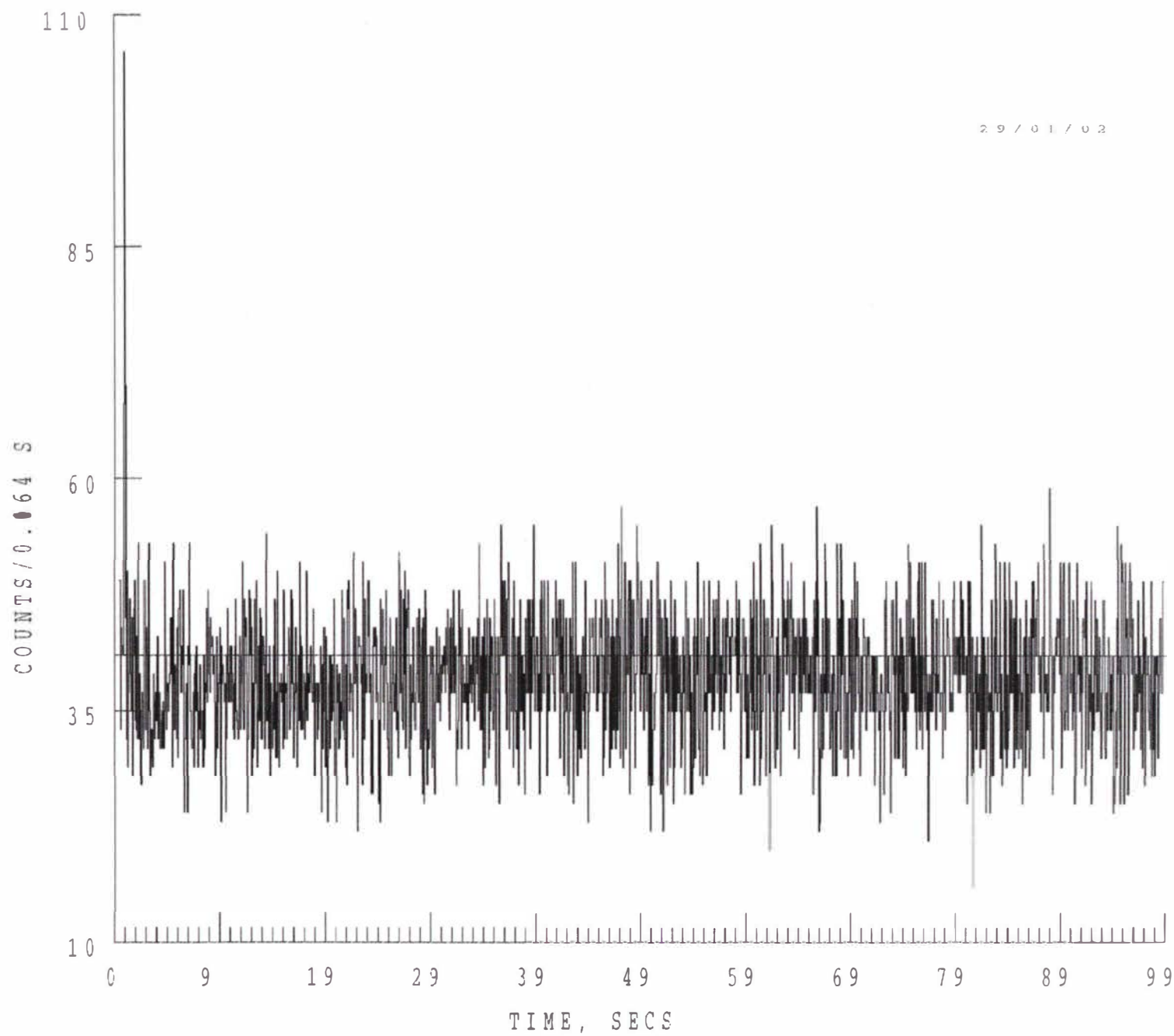
UNIVERSAL TIME



KONUS1

14/04/95 40882.798

50- 200 KeV



KONUS1 19950414 40882

ULYSSES RT

29 / 01 / 02

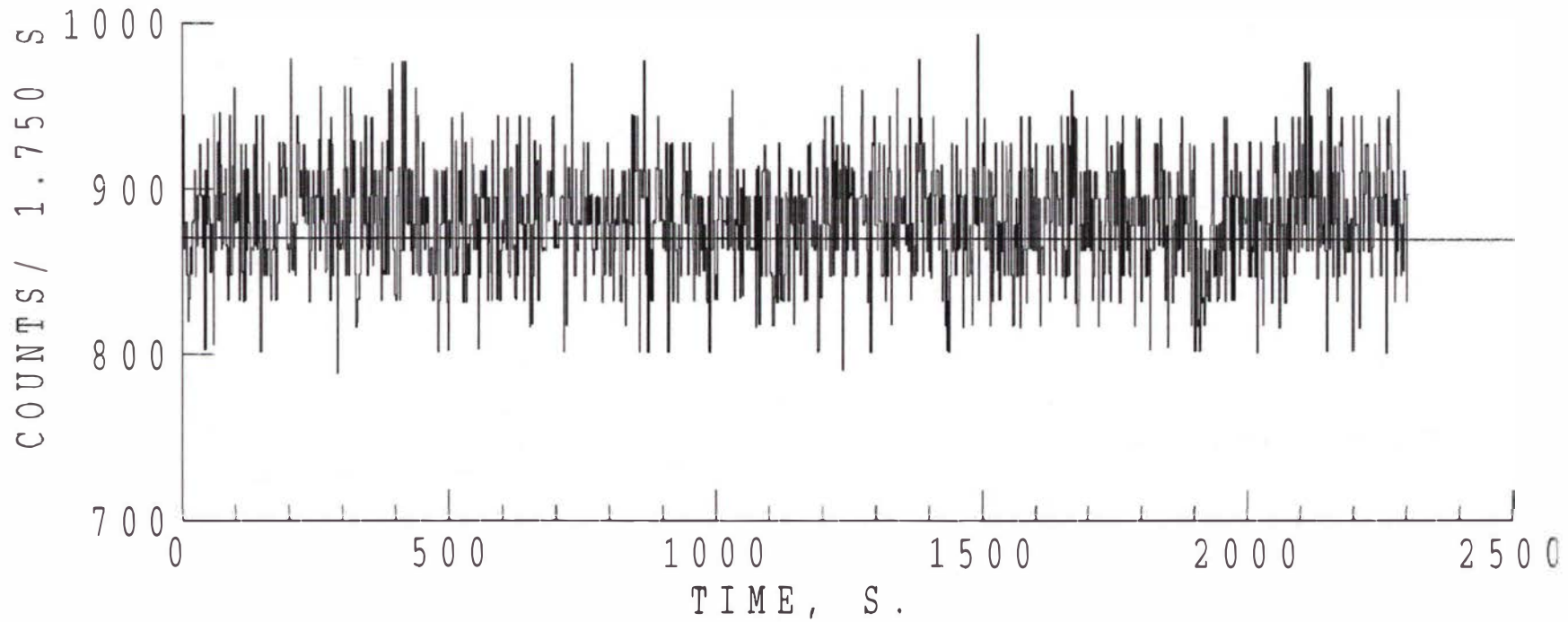
14 / 04 / 95 39744.004 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

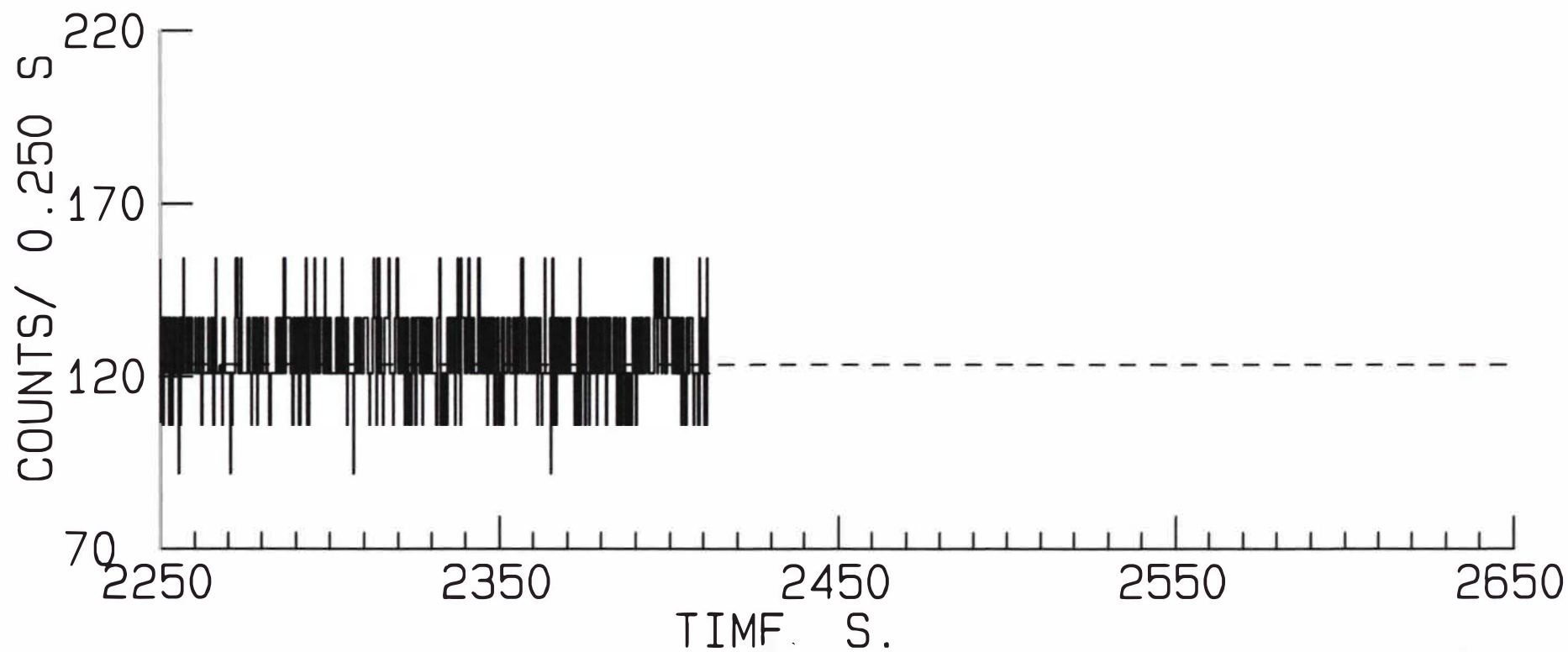
N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



300

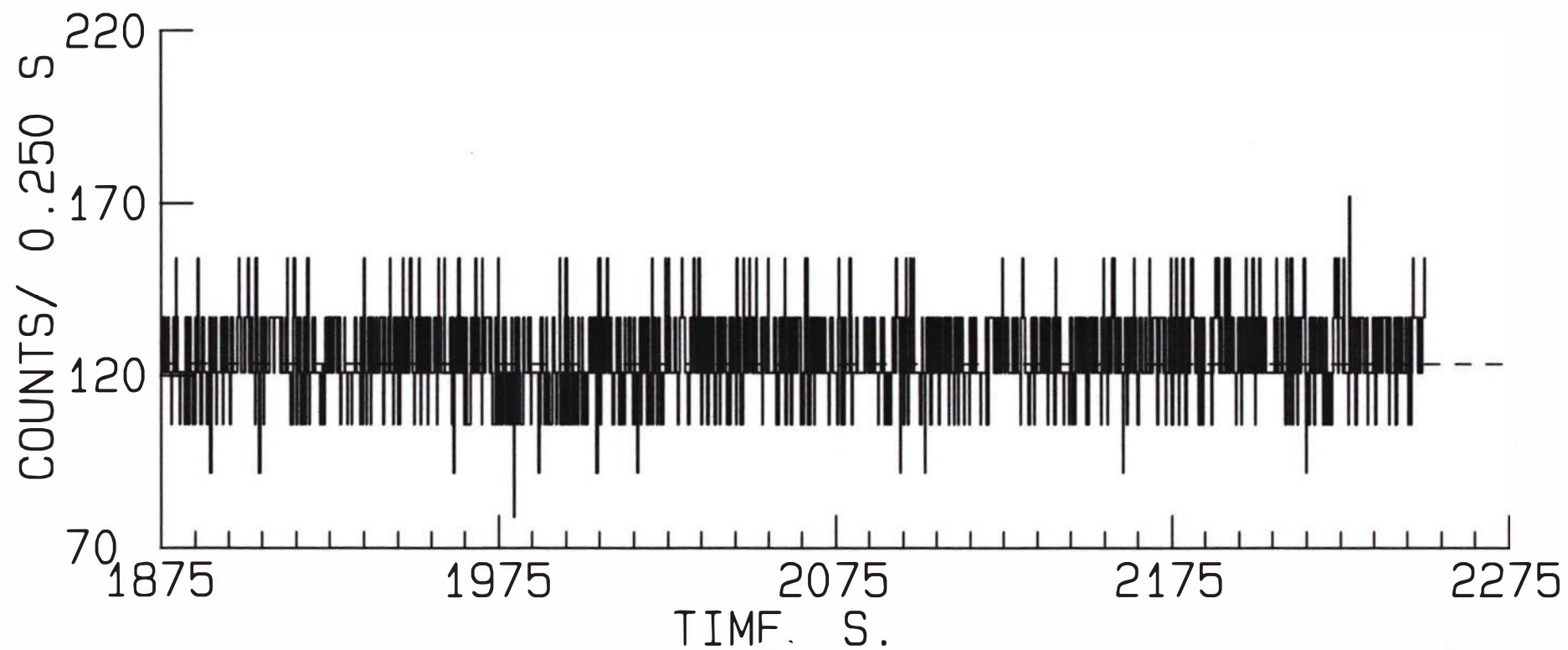
ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6 / 8 / 8



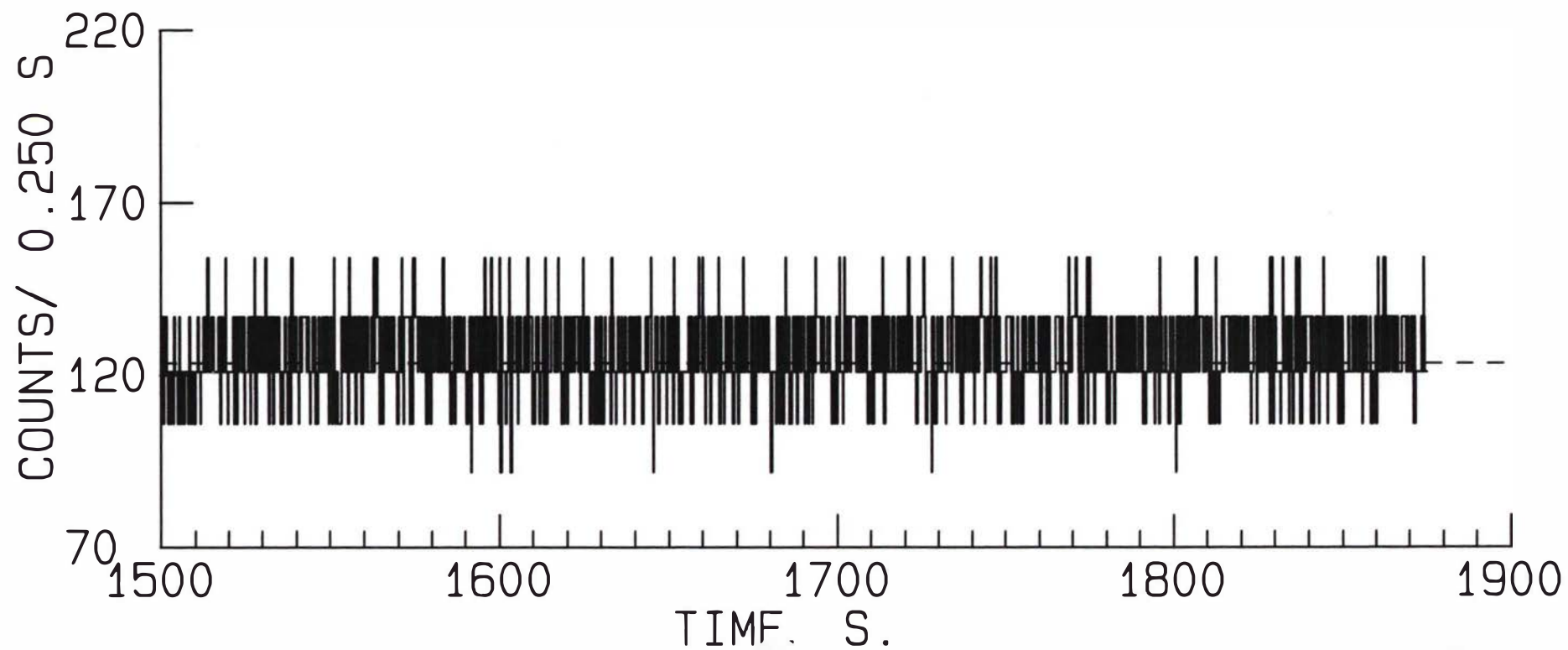
ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6 / 8 / 8



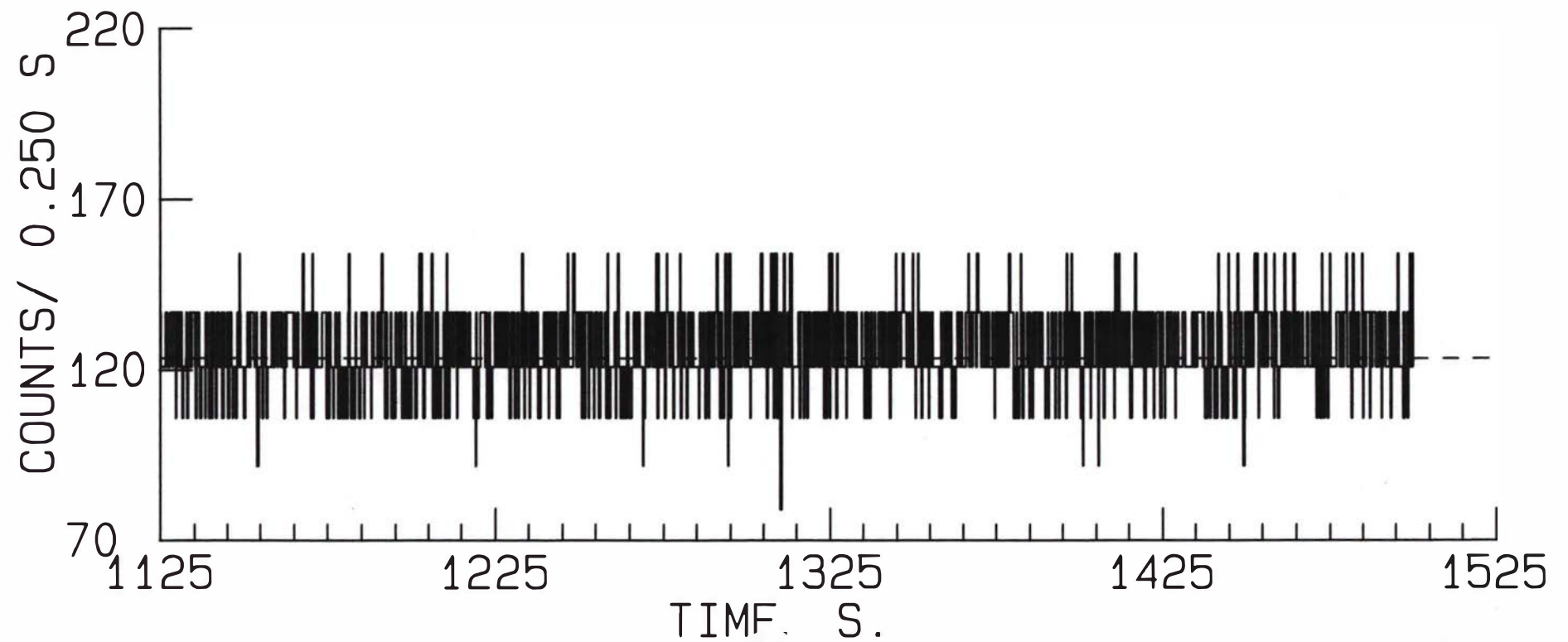
ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6/ 8/ 8



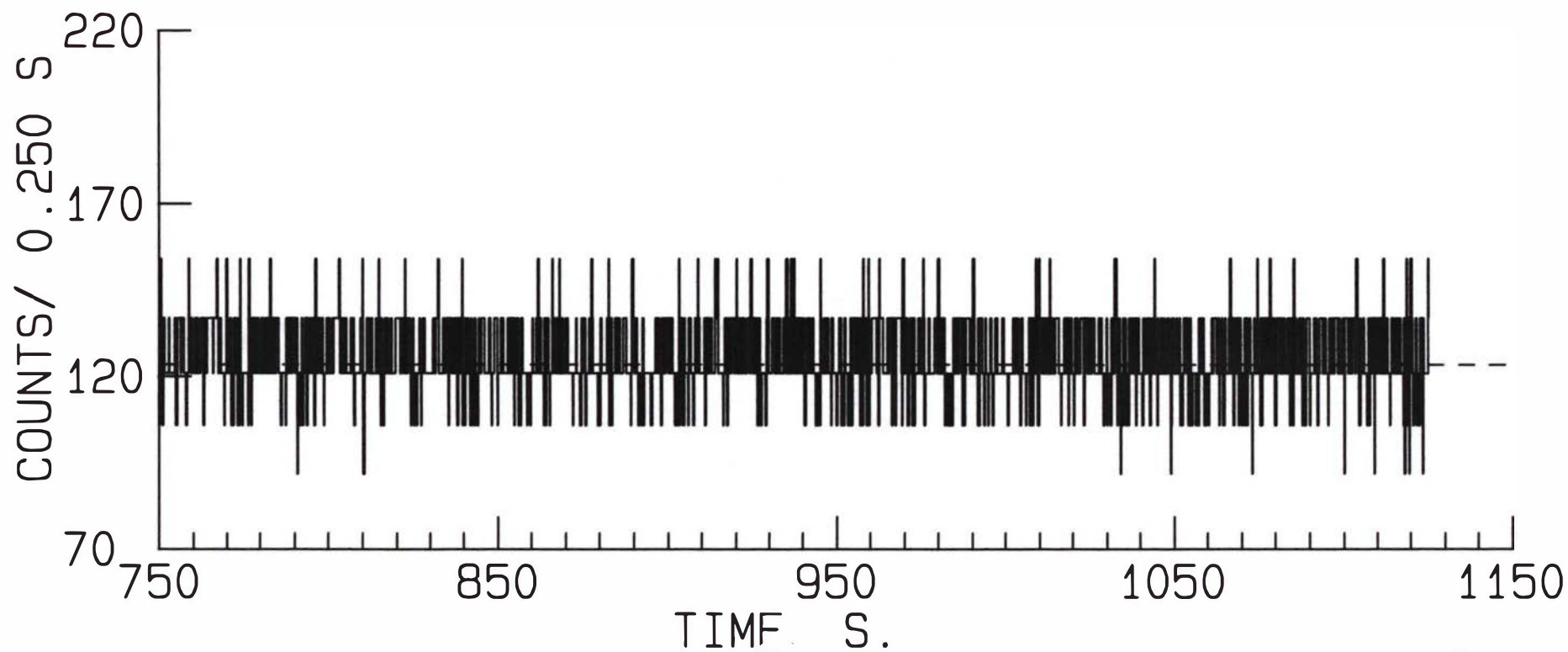
ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6/ 8/ 8



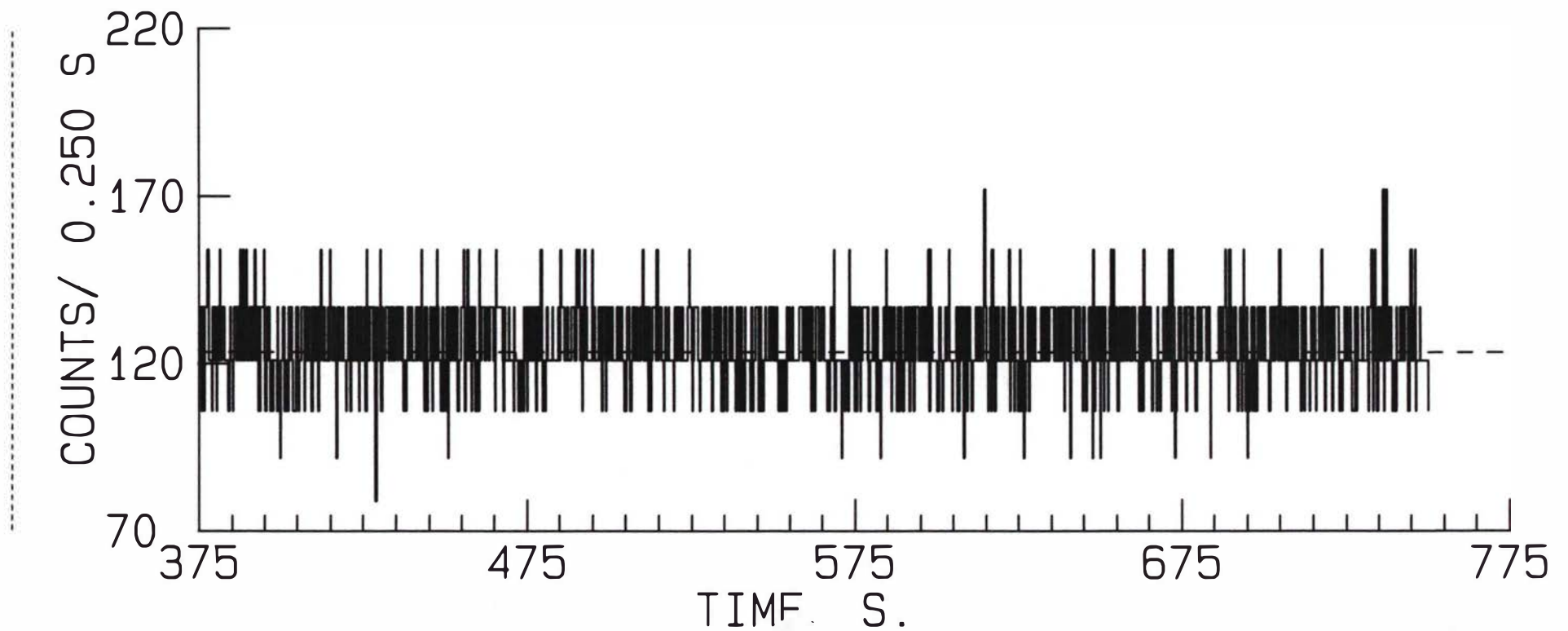
ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6/ 8/ 8



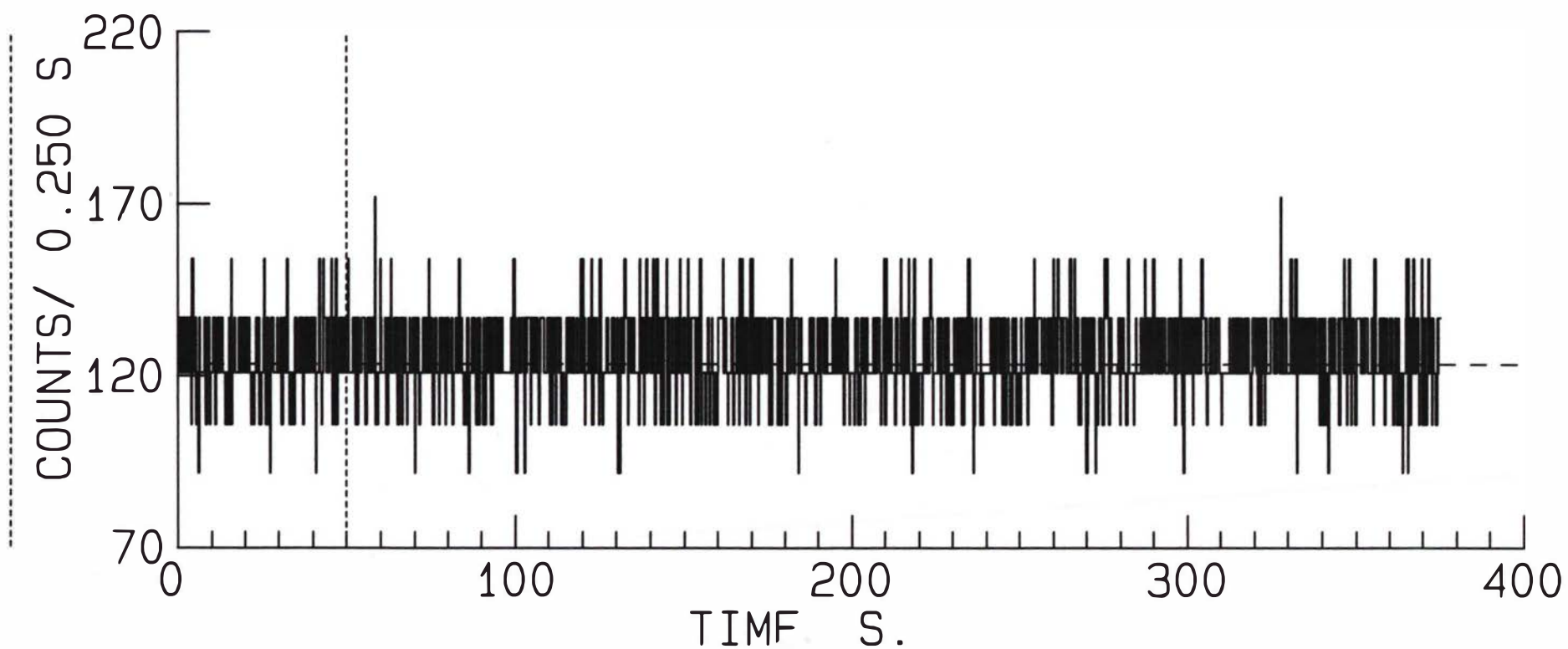
ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6 / 8 / 8



ULYSSES RT
14/ 4/95 39672.246 s
21- 142 keV

6 / 8 / 8



From HAGEDON@ssl.msfc.nasa.gov Mon Apr 17 09:35 PDT 1995
Date: Mon, 17 Apr 1995 11:35:40 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3507

TIME: TJD=9821 SECONDS=73963

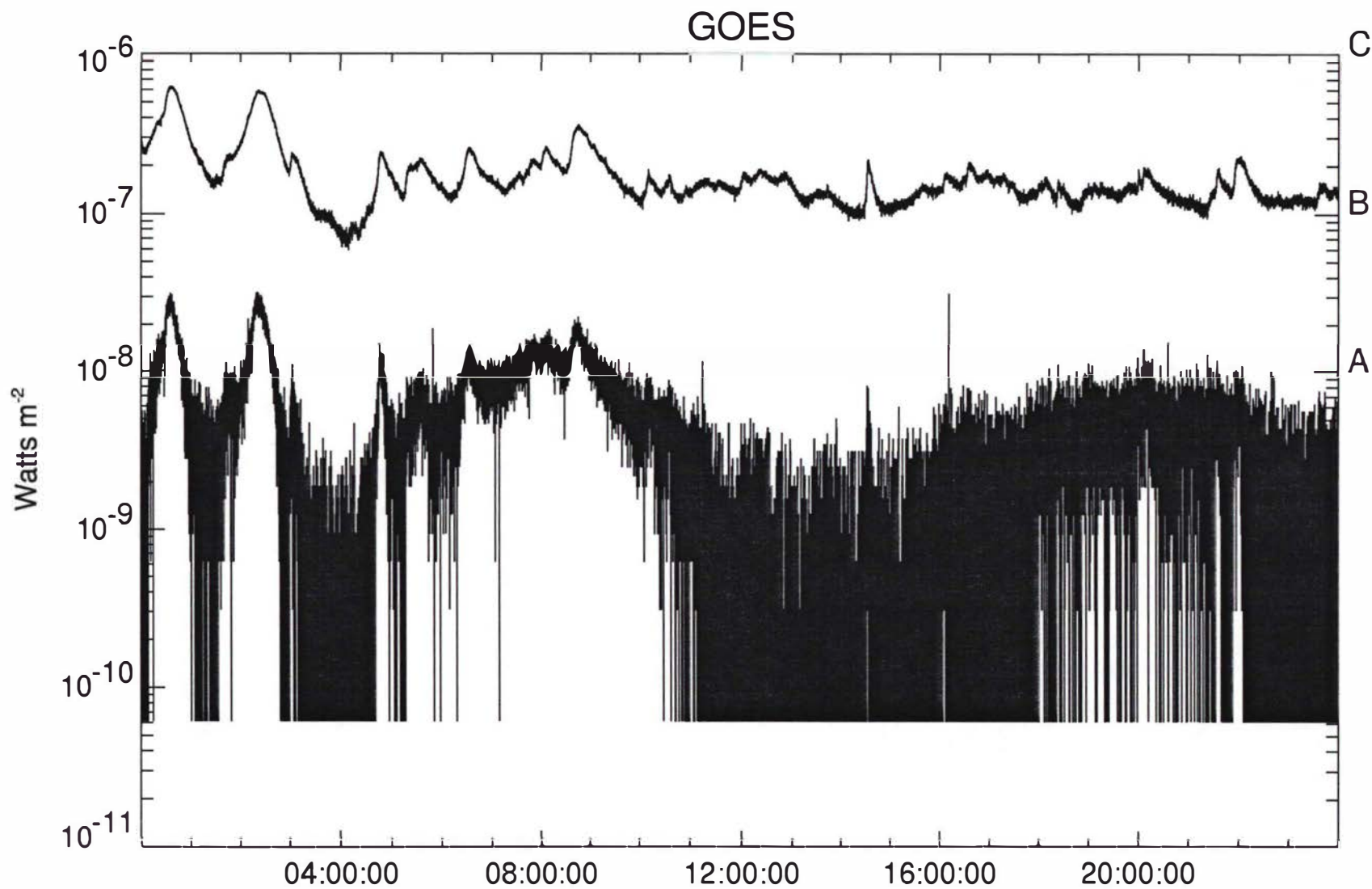
TYPE: SAA SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA EXIT.



Data Start: 95/04/14, 0000:02

Plot created: 95/04/17, 0513

Channel

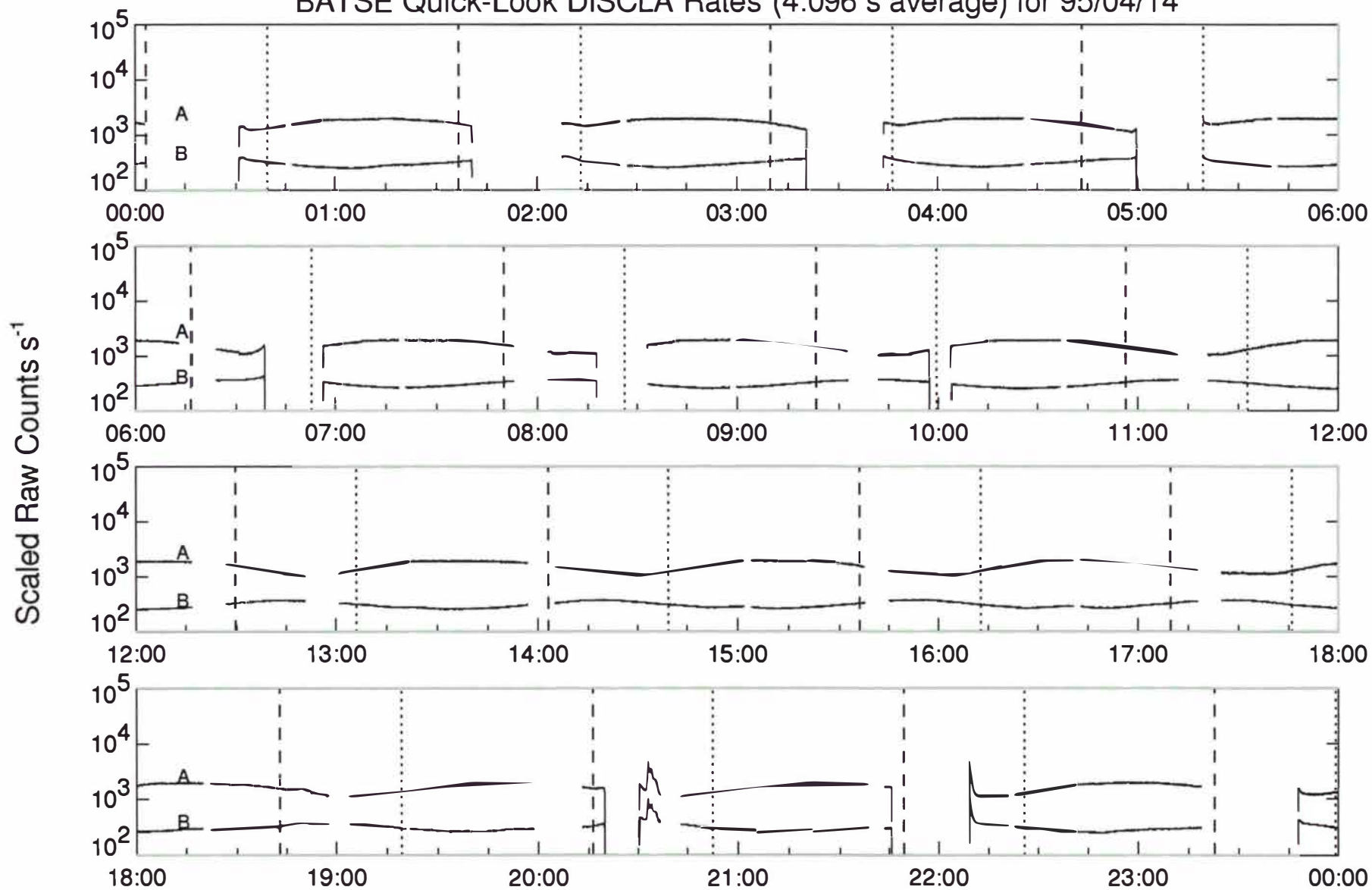
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/14



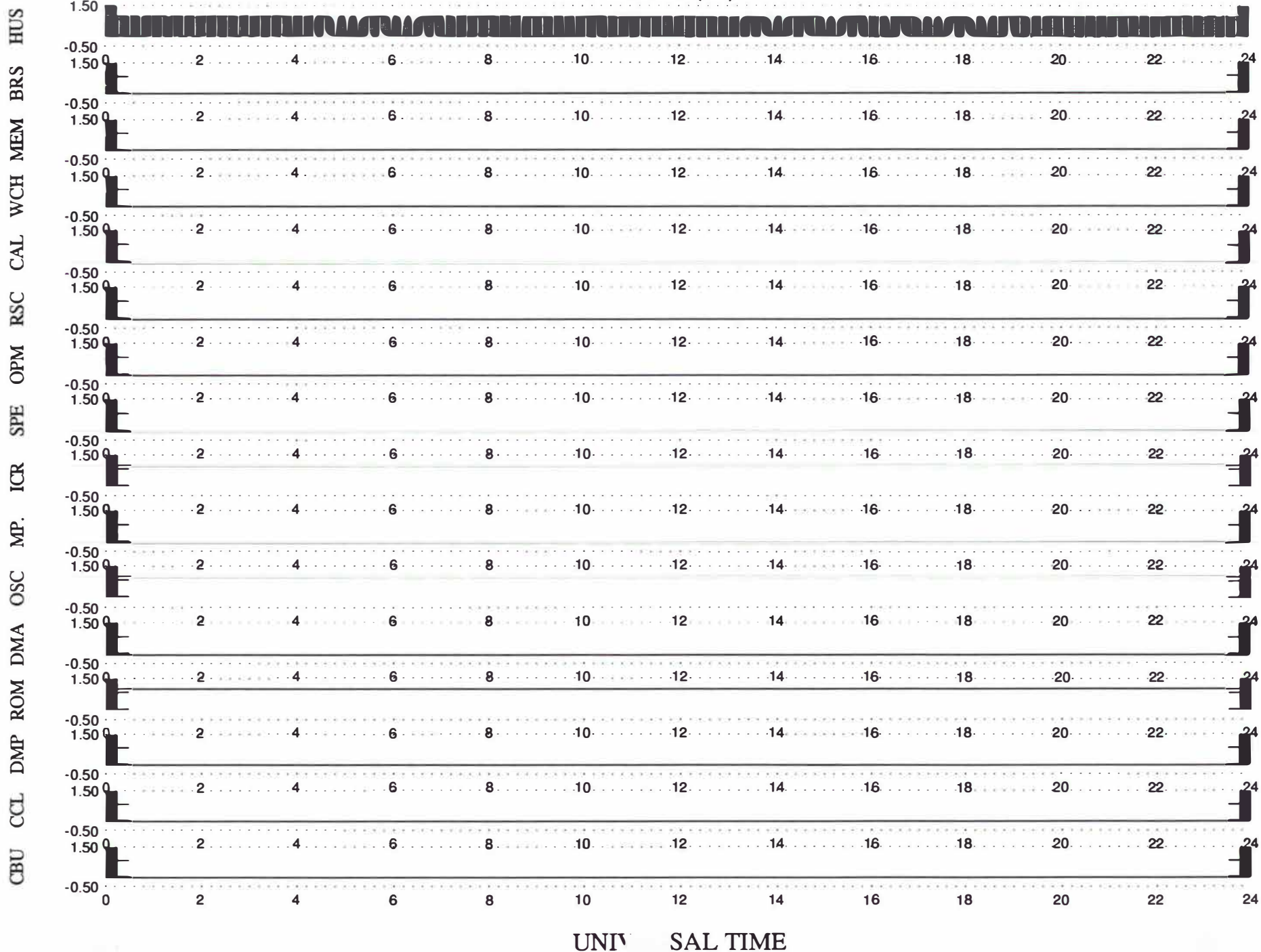
Current Time: 95/04/17, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

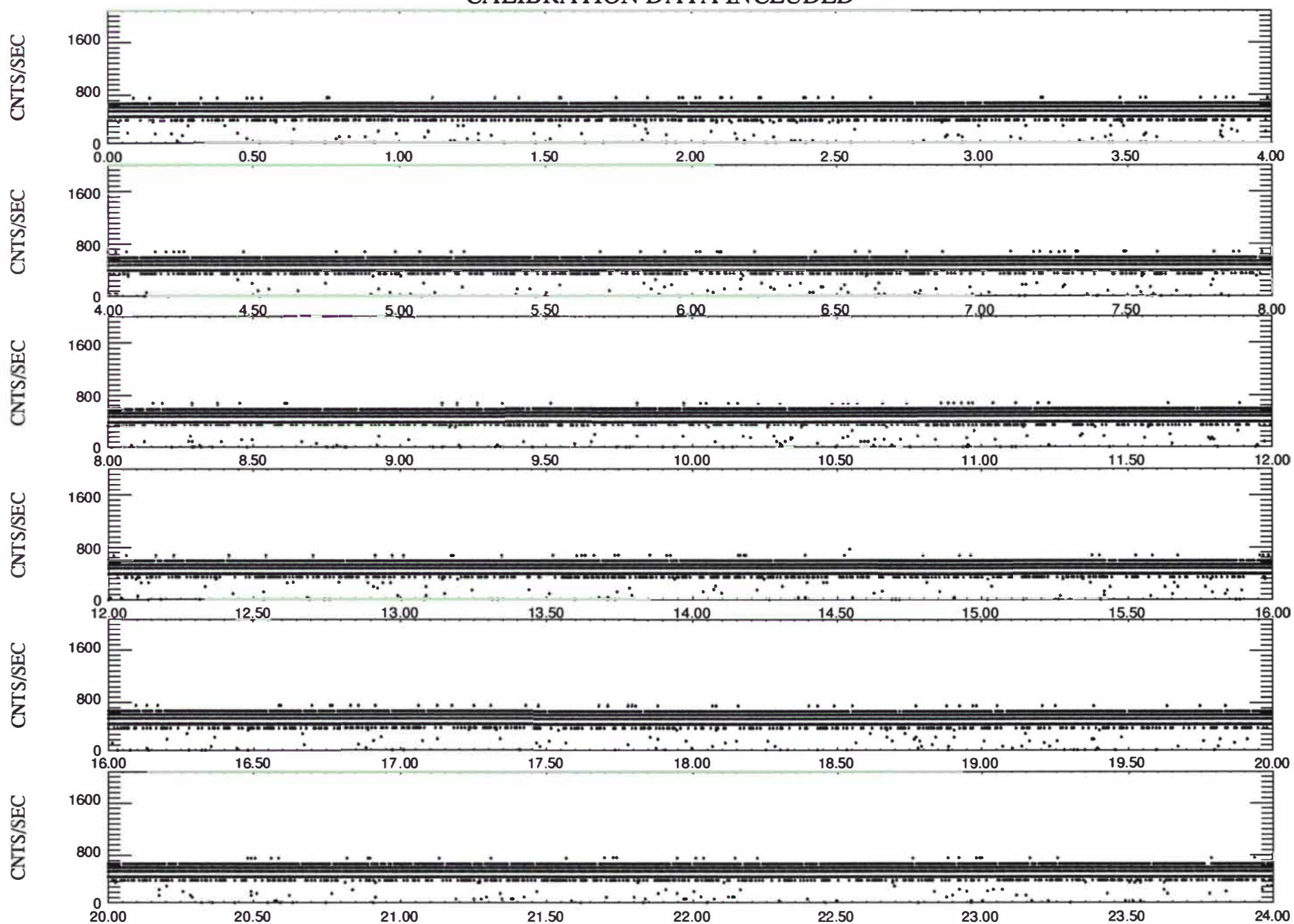
HUS MODES EDR day 104, year 1995 to day 104, year 1995
NO BURST (13)

11/16/95

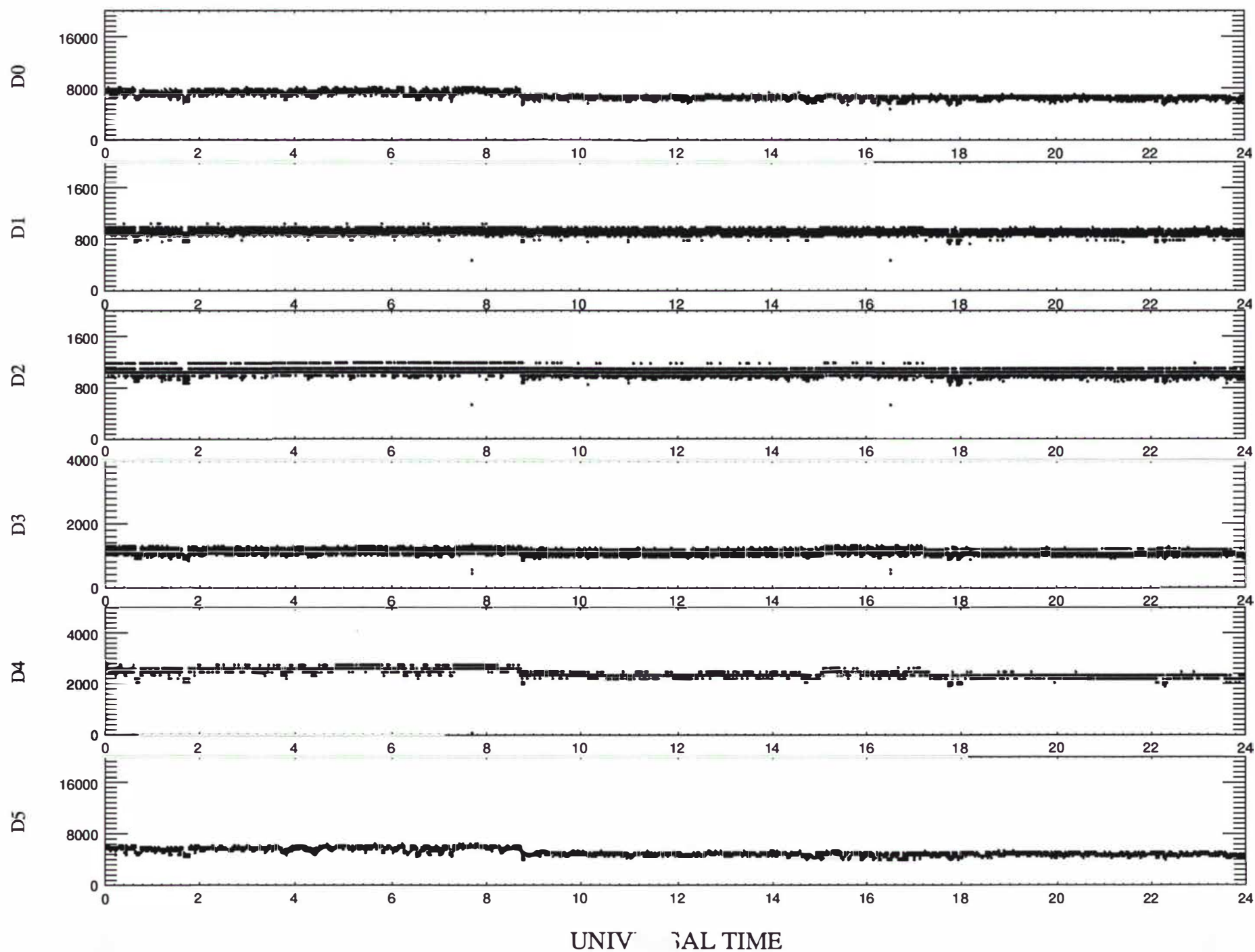


HUS 2A, MODE 1, NOT AVERAGED EDR day 104, year 1995 to day 104, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIV. SOLAR TIME



From RICHARDSON@ssl.msfc.nasa.gov Tue Apr 18 08:32 PDT 1995
Date: Tue, 18 Apr 1995 10:32:06 -0500 (CDT)
From: RICHARDSON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3508

TIME: TJD=9822 SECONDS=54621

TYPE: ELECTRO SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

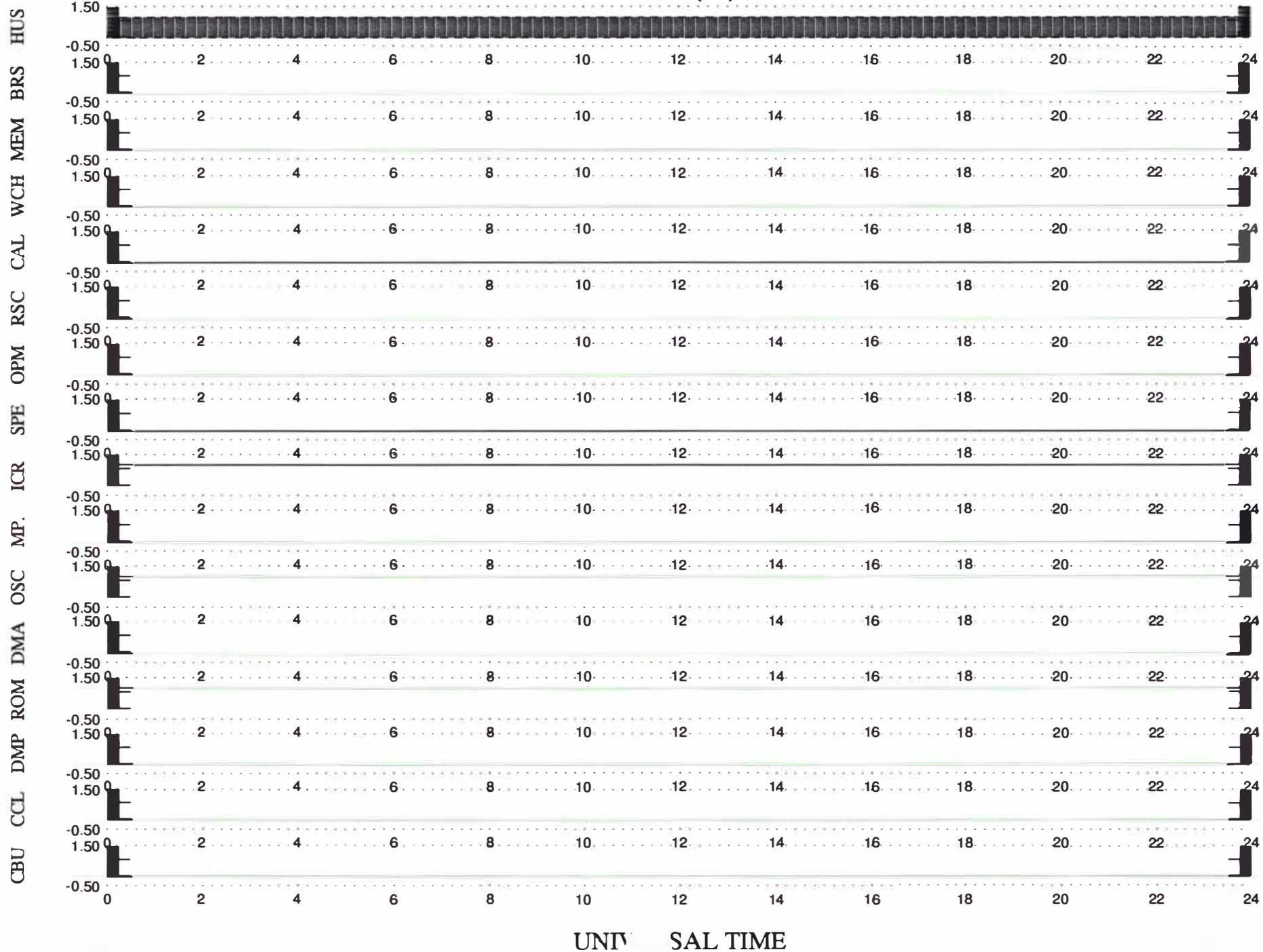
INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT

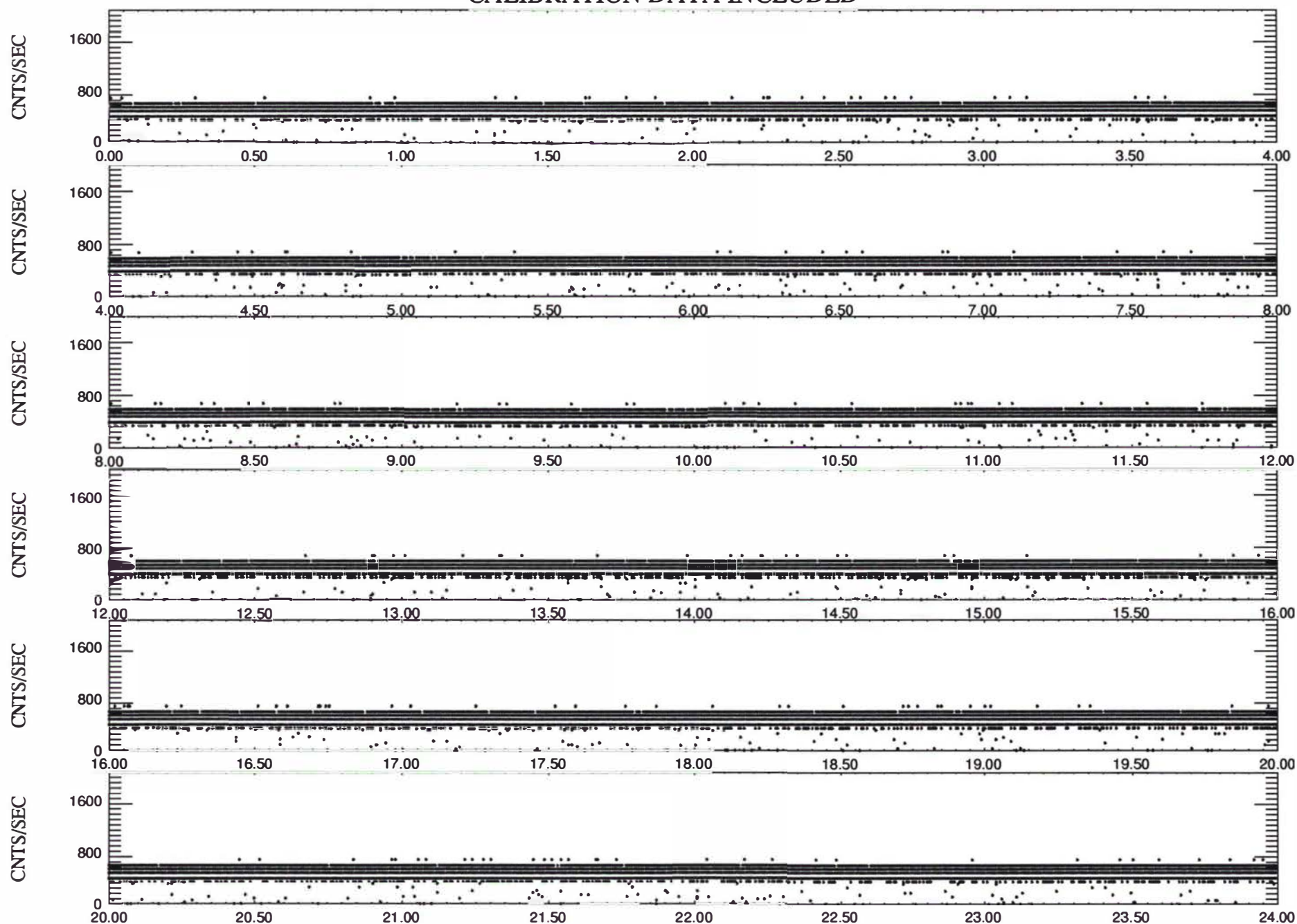
HUS MODES EDR day 105, year 1995 to day 105, year 1995
NO BURST (13)

11/16/95

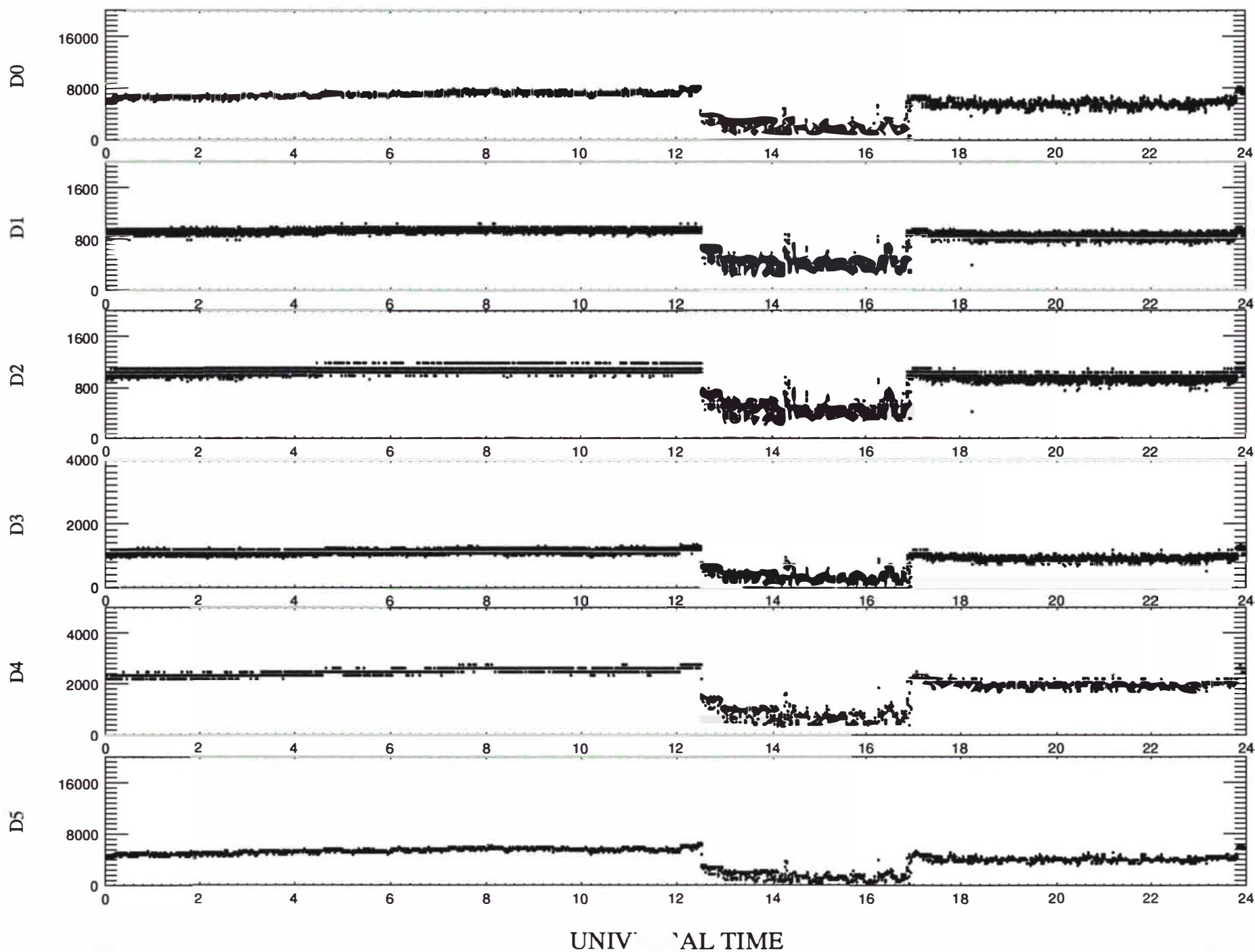


HUS 2A, MODE 1, NOT AVERAGED EDR day 105, year 1995 to day 105, year 1995
 CALIBRATION DATA INCLUDED

11/16/95



UNIVERSAL TIME



Date: Aug 23 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

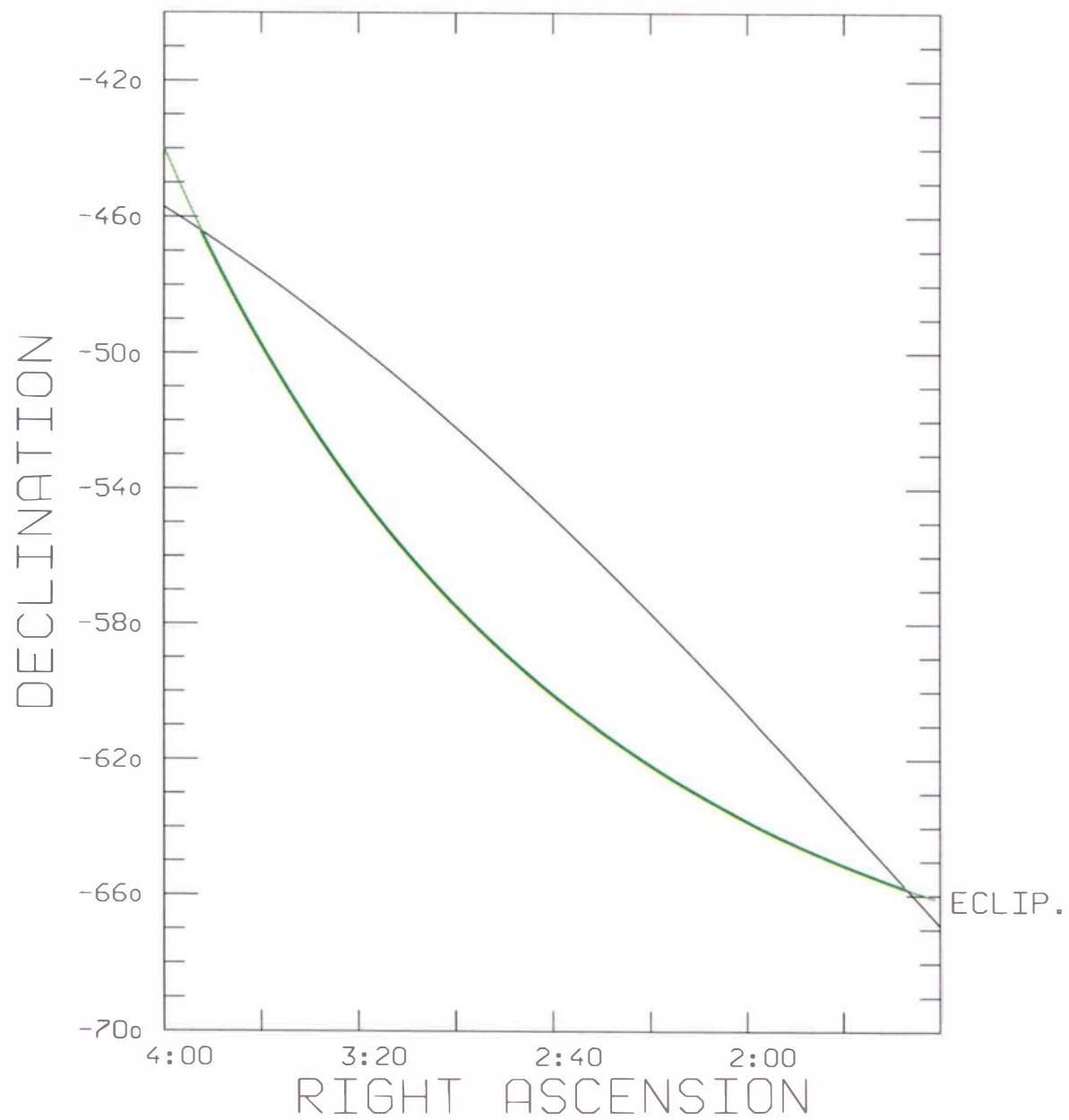
- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is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

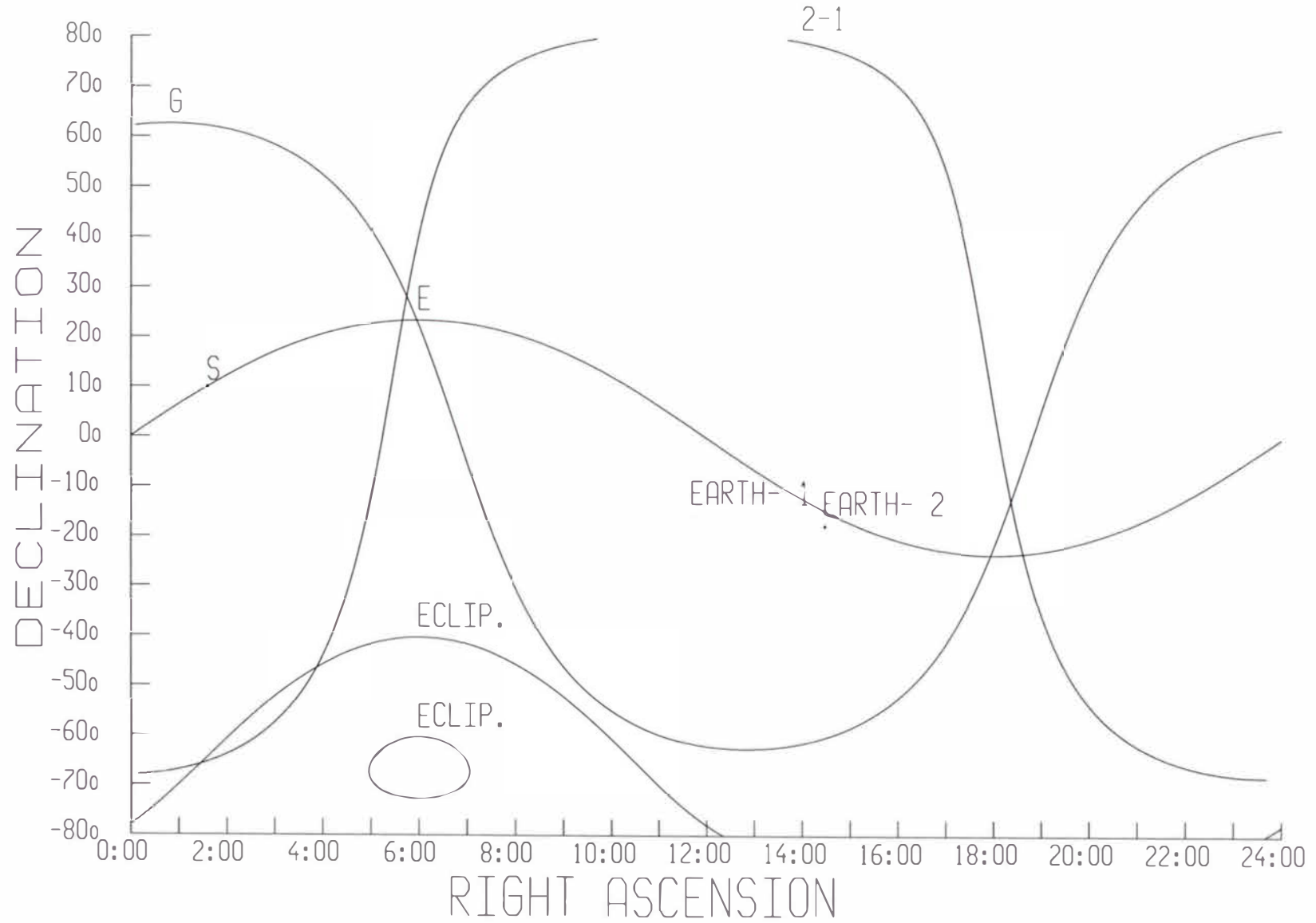
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

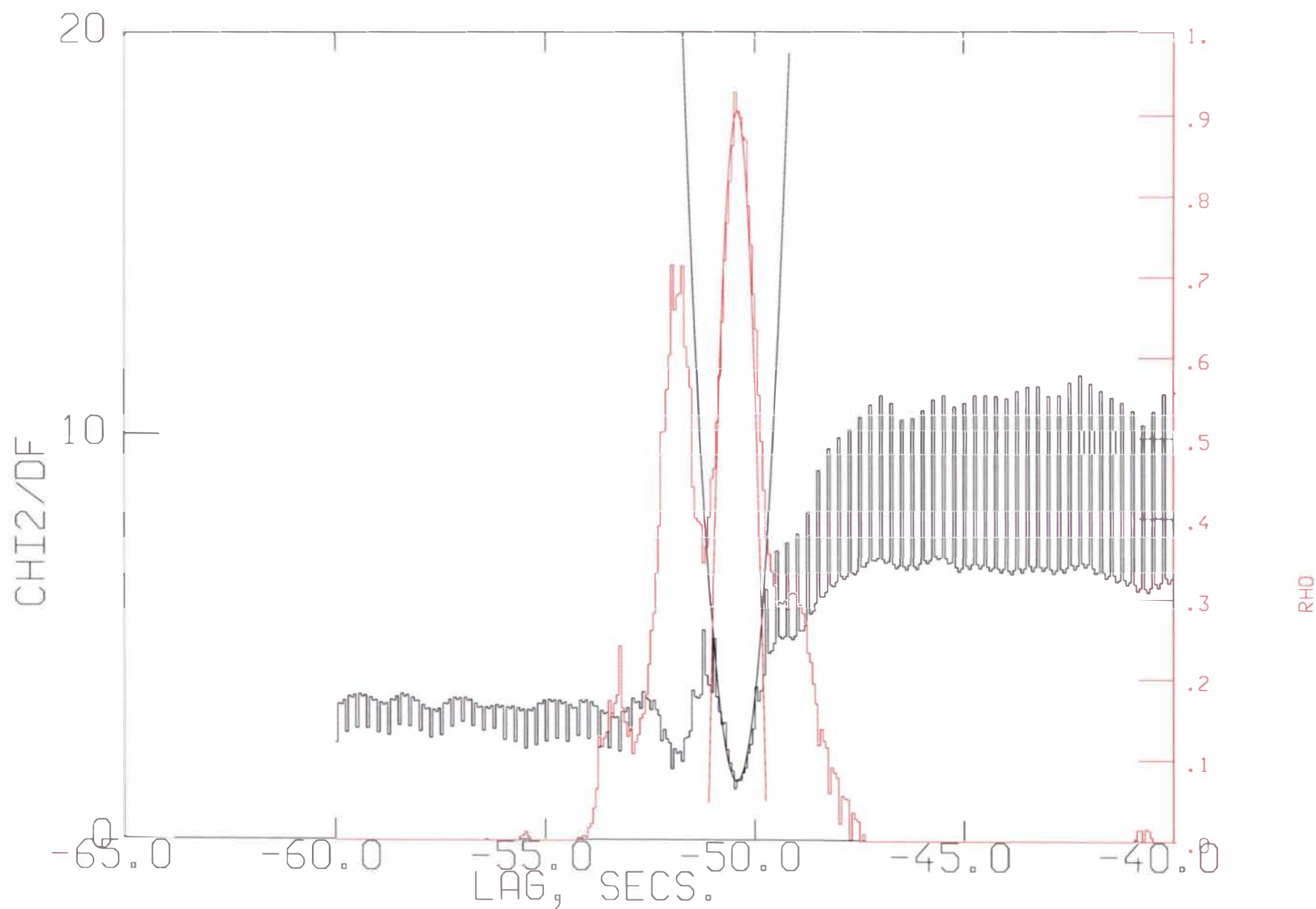


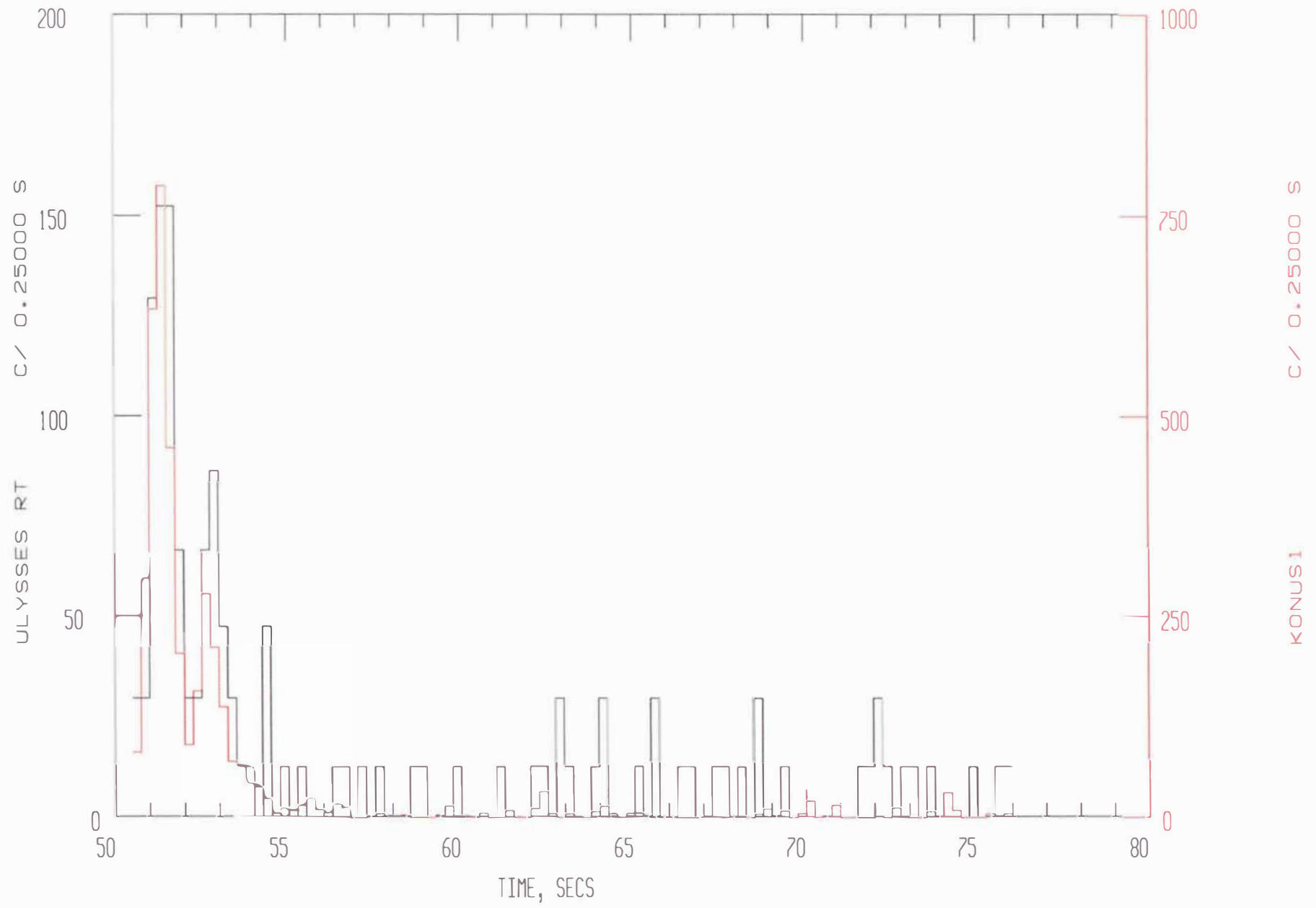
EVENT OF APR 16, 1995 3:38

23/08/2011

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 19950416 13184

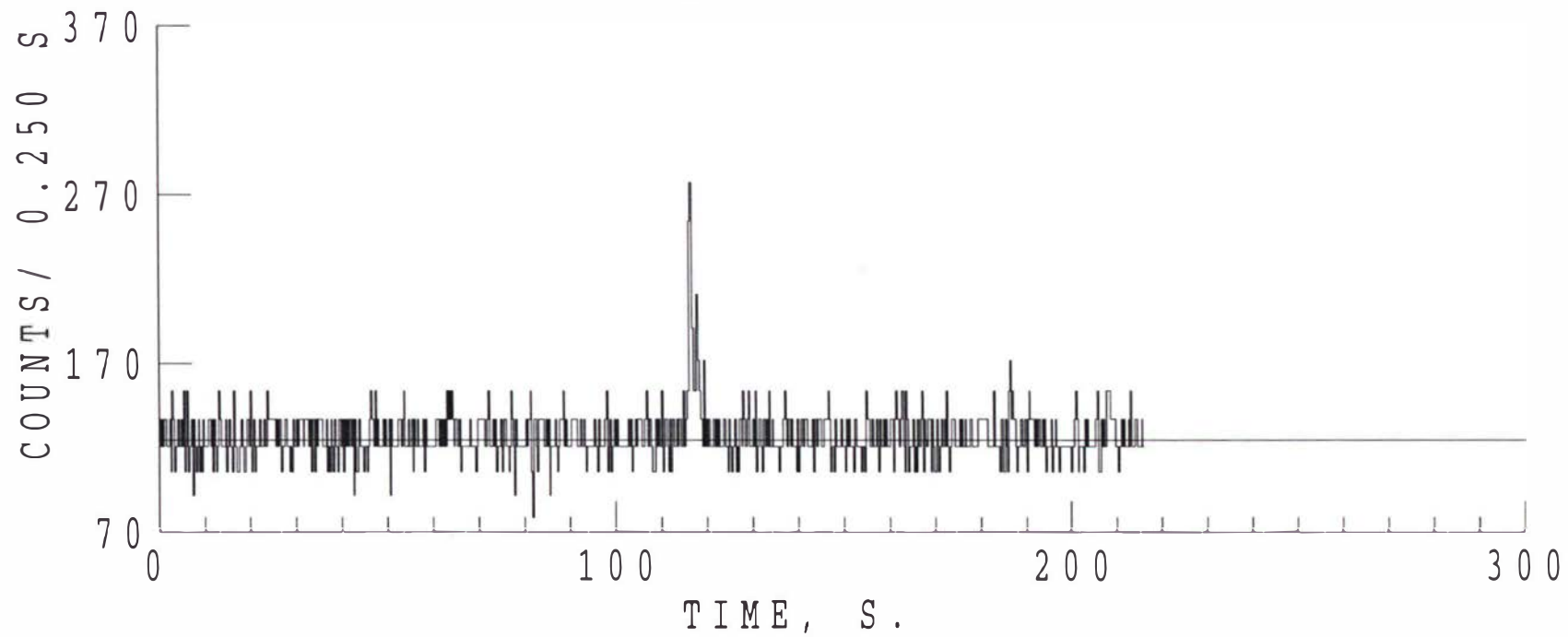
ULYSSES RT

17 / 08 / 11

16 / 04 / 95 13068.057 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



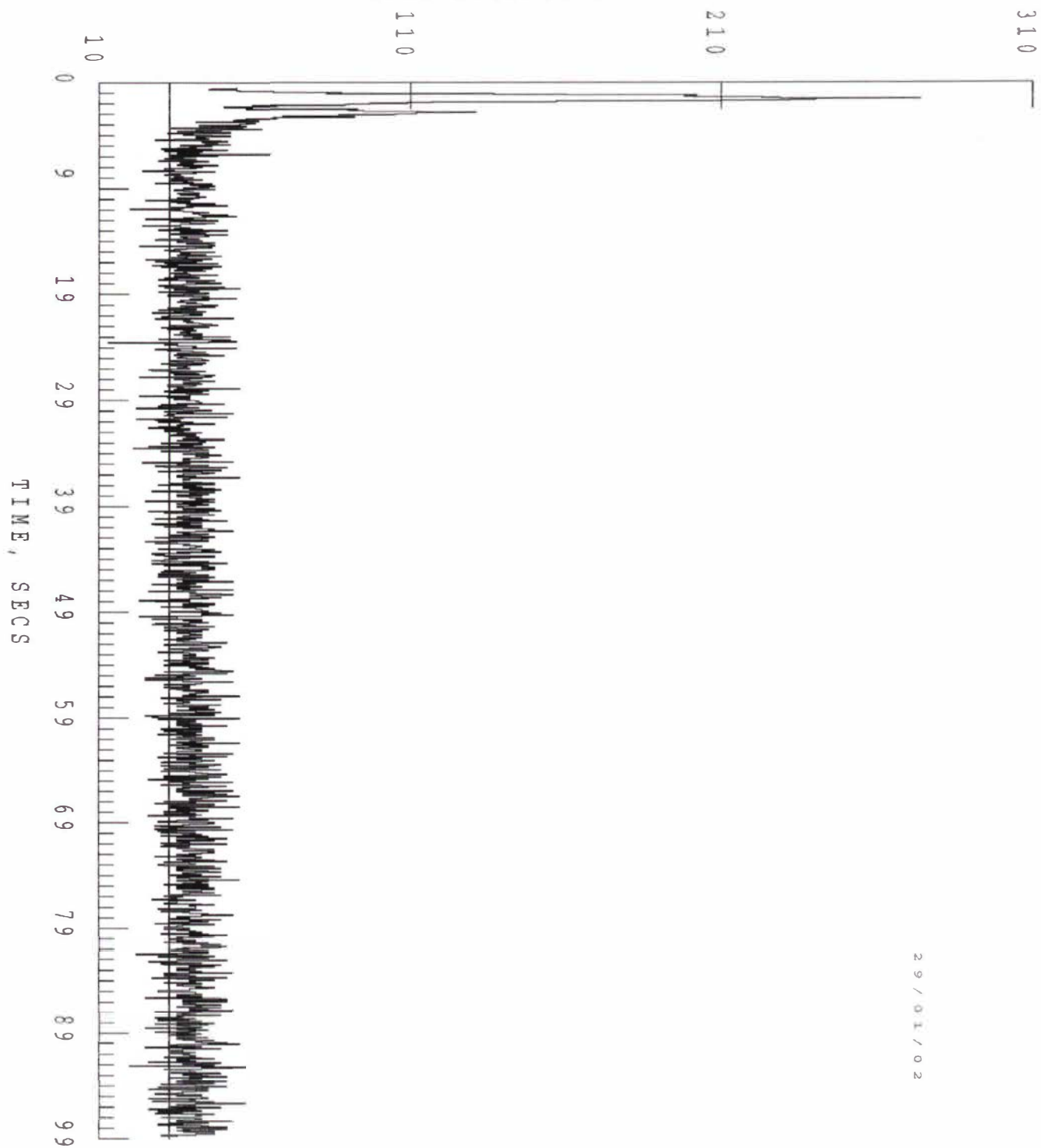
KONUS1

16/04/95

13306.766

50 - 200 keV

COUNTS/0.064 S



ULYSSES 16/04/95 13186.592 BURST SPECTRAL COUNT RATES

4- 17 keV

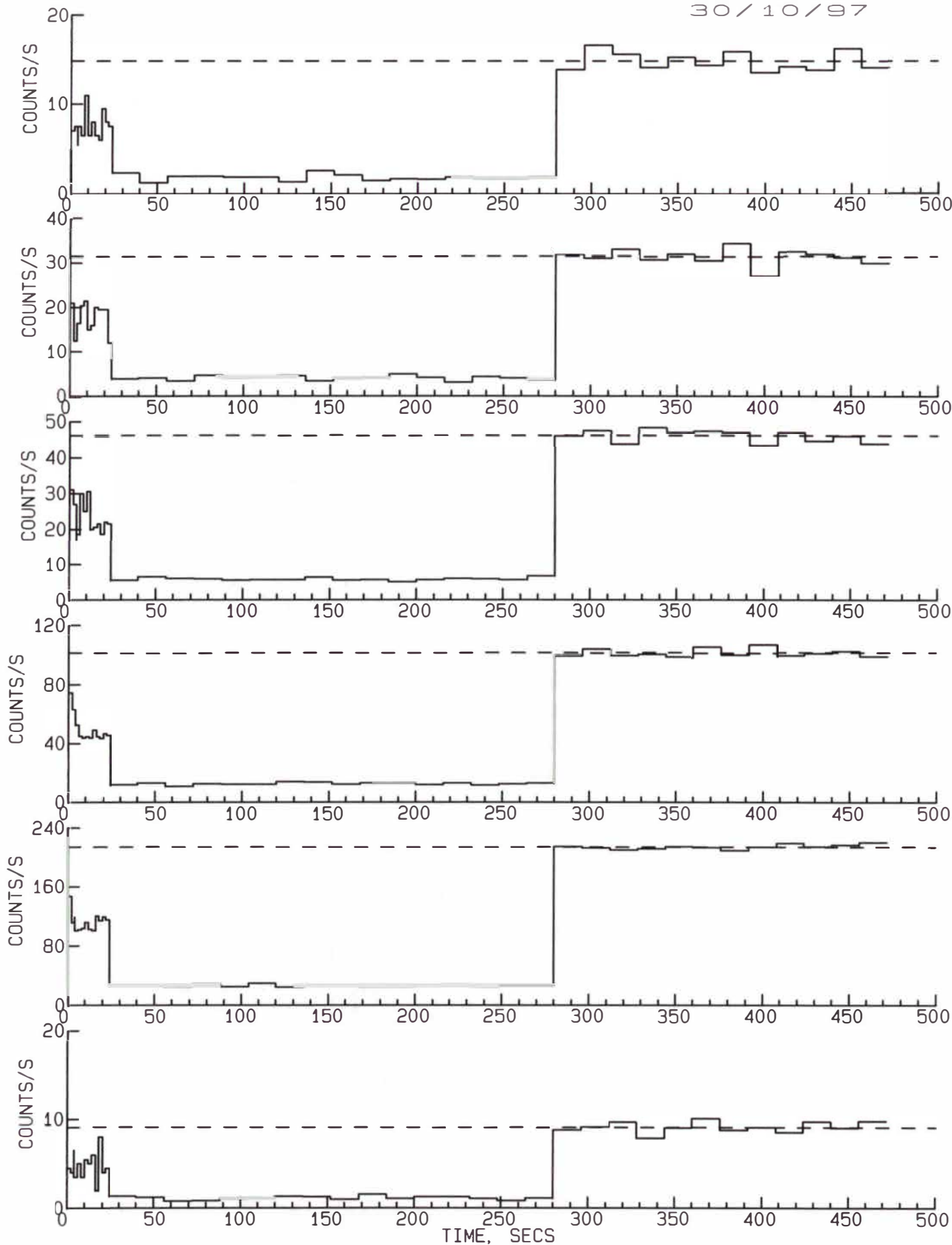
17- 44 keV

44- 71 keV

71- 97 keV

97-124 keV

124-142 keV



ULYSSES

16/04/95

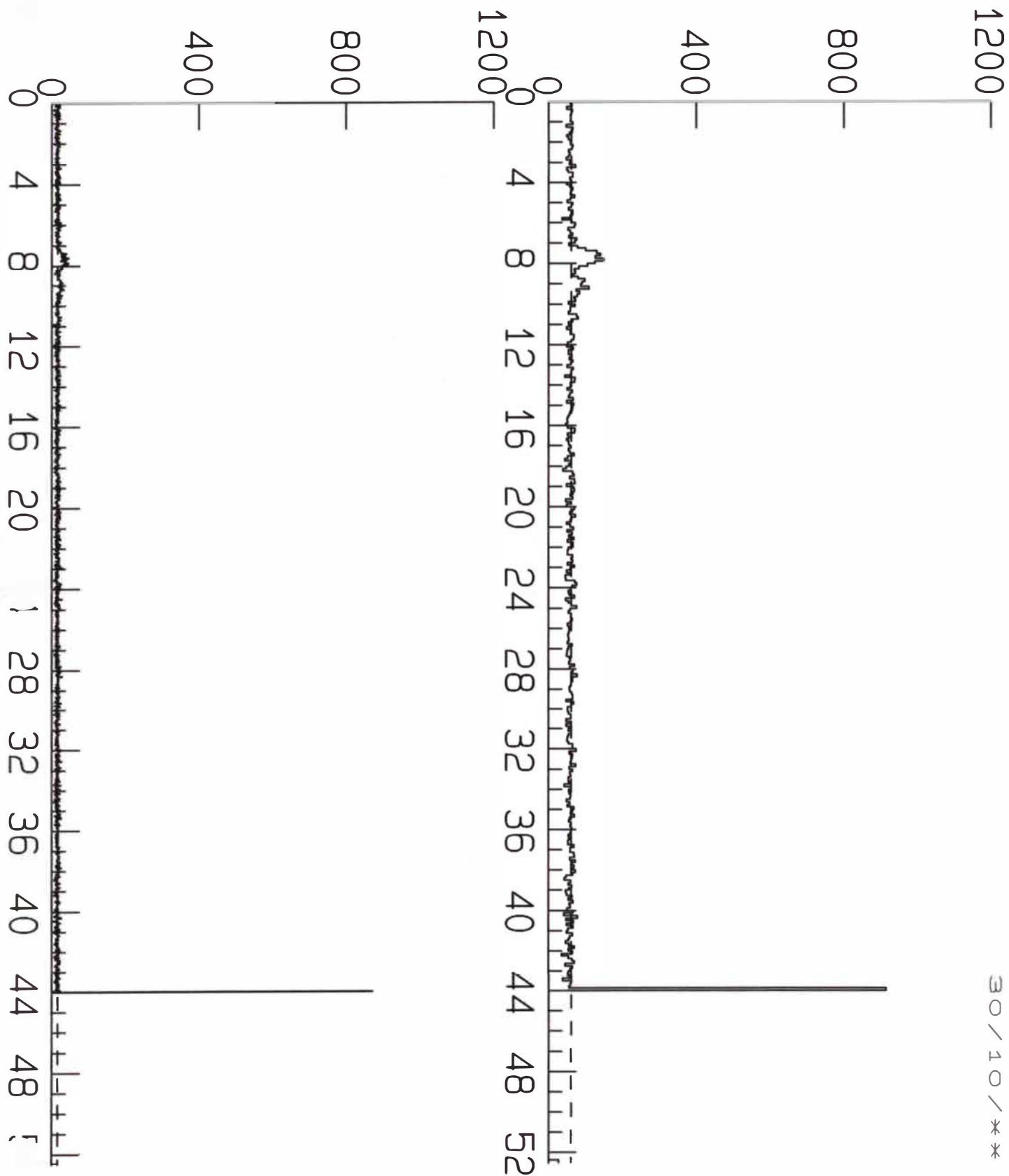
Ttrig=13184.221

21- 142 keV

COUNTS/0.031 S

COUNTS/0.125 S

30/10/11



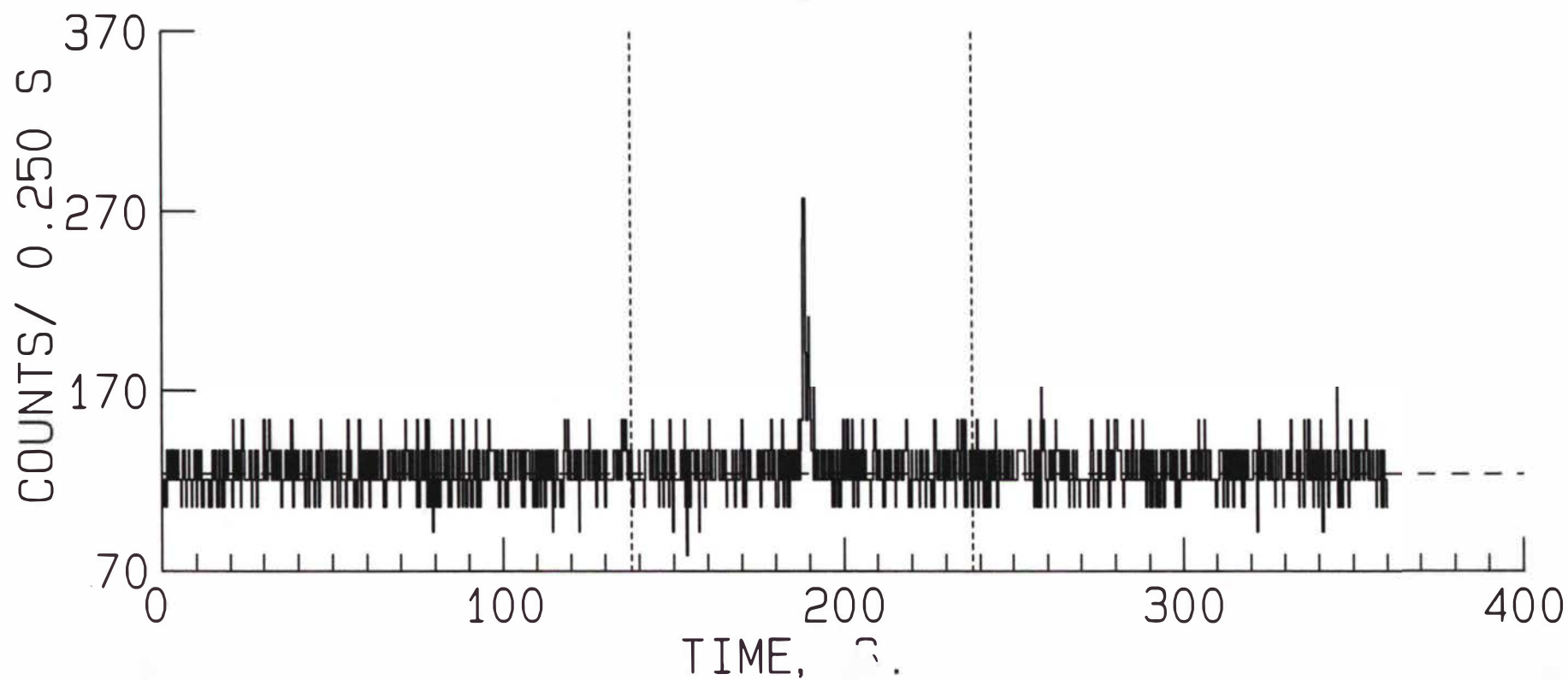
ULYSSES RT

30/10/97

16/ 4/95 12996.057 s

21- 142 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From palmer@pizza.gsfc.nasa.gov Thu Apr 20 11:36 PDT 1995
Mime-Version: 1.0
Date: Thu, 20 Apr 1995 14:36:19 -0500
To: khurley@sunspot.ssl.berkeley.edu (Kevin Hurley)
From: palmer@pizza.gsfc.nasa.gov (David Palmer)
Subject: Re: GRB950416
Cc: teegarden@tgrs.gsfc.nasa.gov (Bonnard J. Teegarden),
cline@lheavx.gsfc.nasa.gov

>>Ulysses triggered on a relatively intense burst around 03:39 April 16.
>>Did TGRS or KONUS observe it? It was apparently not seen by GRO.

Paul Butterworth just called. Konus sees it.

It is is double pulse with about 2 seconds separation, second peak dimmer than first.

Konus triggered at 3:41:46.766, with the peak of the first pulse about half a second after the trigger.

David

From DEAL@ssl.msfc.nasa.gov Tue Apr 18 10:26 PDT 1995
Date: Tue, 18 Apr 1995 12:23:29 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3509

BATSEARCH PROGRAM

BATSE BURST # 3509
EVENT OF 1995 APR 16 DAY OF YEAR=106
EVENT CROSSING TIME AT BATSE : 48419. S. OR 13:26:59.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 186.000 30.000
BATSE PEAK COUNTING RATE: 3600 C/S

B
RT
*Too weak to triangulate
reliably*

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 16/ 4/ 95 IS:
RA= 354.917 DEC= 15.380 DIST= 2.195 AU
BATSE-ULYSSES DISTANCE = 328410511. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 46.62 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 752.39 SECS.
CROSSING TIME AT ULYSSES IS 49171. S. OR 13:39:31 +/- 199.66 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 16/ 4/ 95 IS:
RA= 139.164 DEC= 18.540 DIST= 1.020 AU
MARS-BATSE DISTANCE = 152560656. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=136.11 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -366.74 SECS.
CROSSING TIME AT MARS IS 48052. S. OR 13:20:52 +/- 55.68 SECONDS

BATSE BURST TRIGGER

NO.: 3509

TIME: TJD=9823 SECONDS=48419

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=114.2 AZIMUTH=197.7 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 12S. NOT VISIBLE ABOVE 300 KEV. SMOOTH AND SYMETRIC.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3509	950416	9823	48419	3600	186	+30	12

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

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

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

Mime-Version: 1.0

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

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

Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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

KONUS

12 / 2 / 96

ULYSSES RT

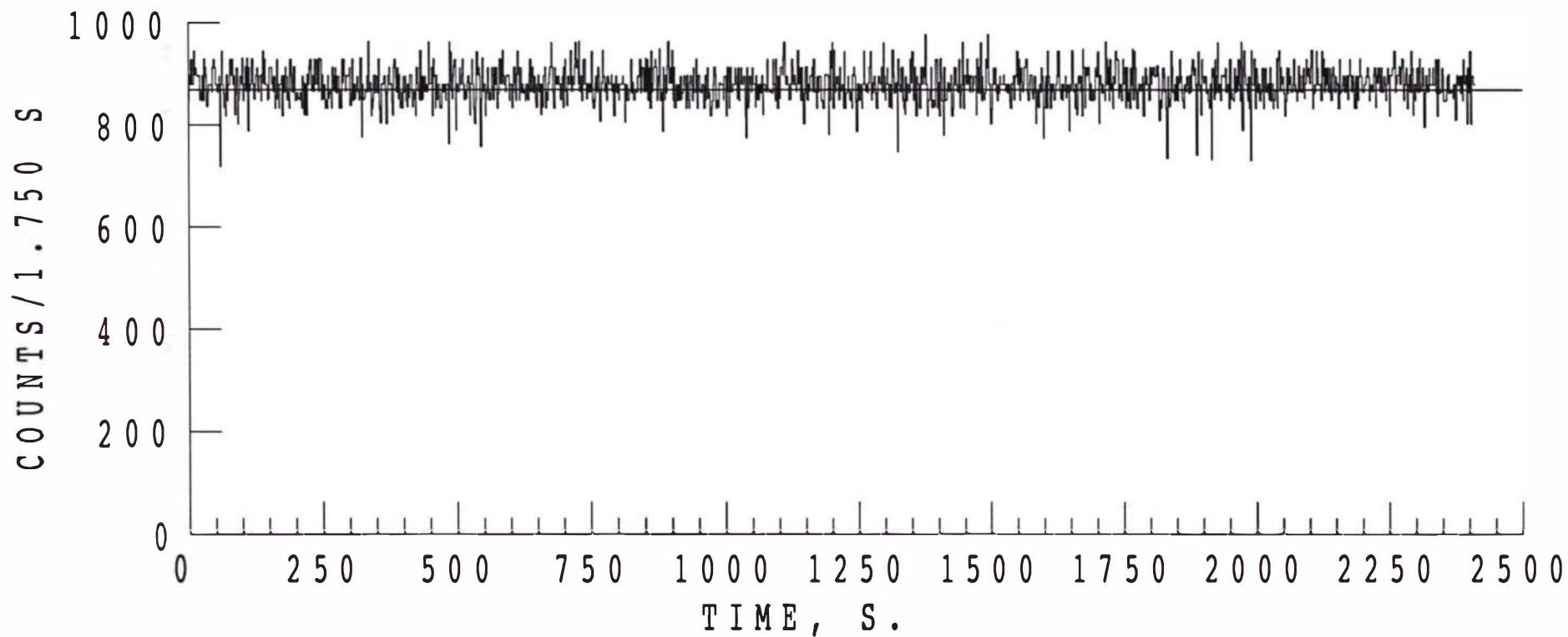
16 / 4 / 95 37332.023 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



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

Dear Kevin,

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

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

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

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

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

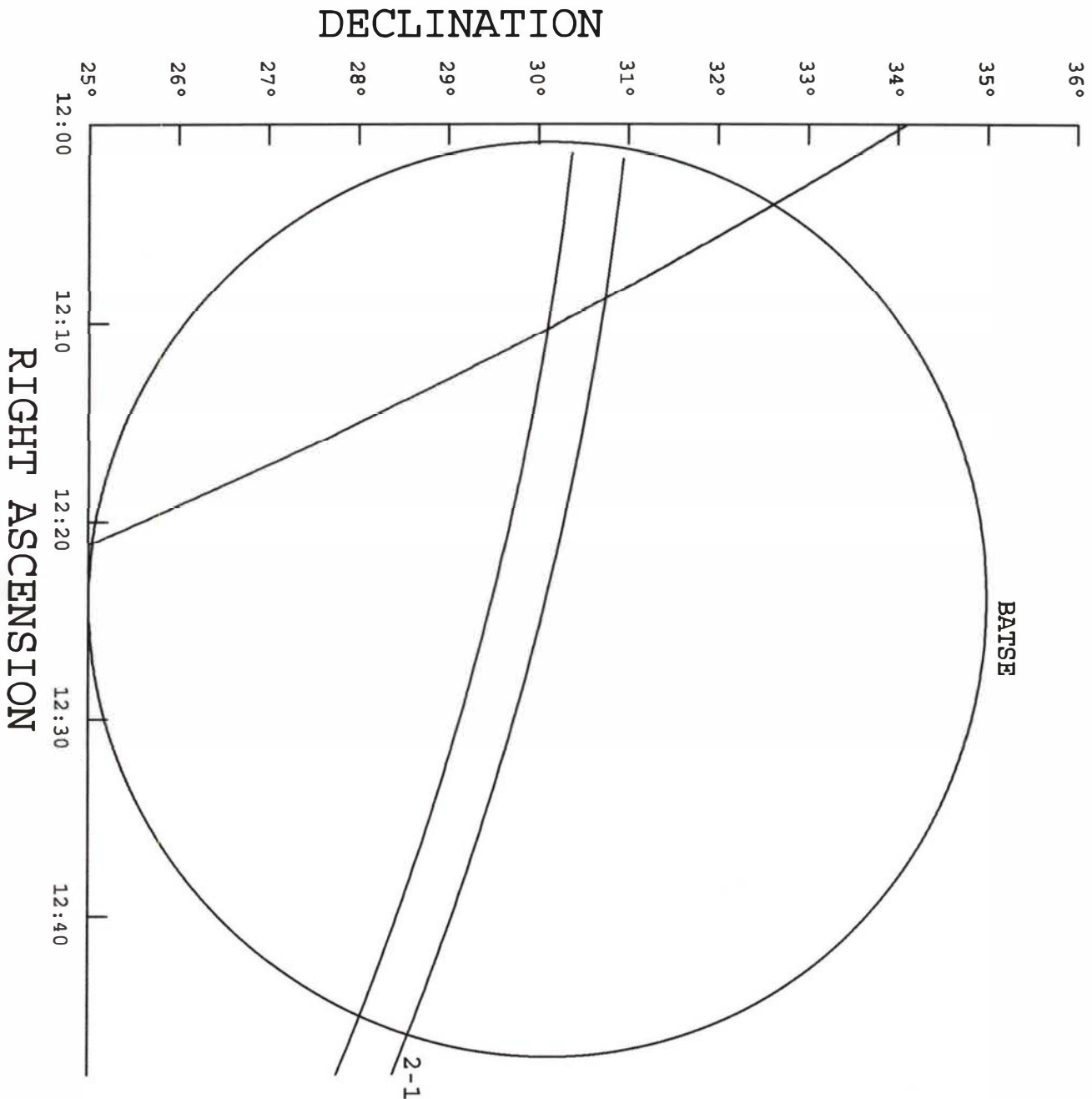
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF APR 16, 1995 13:38

31 / 1/96



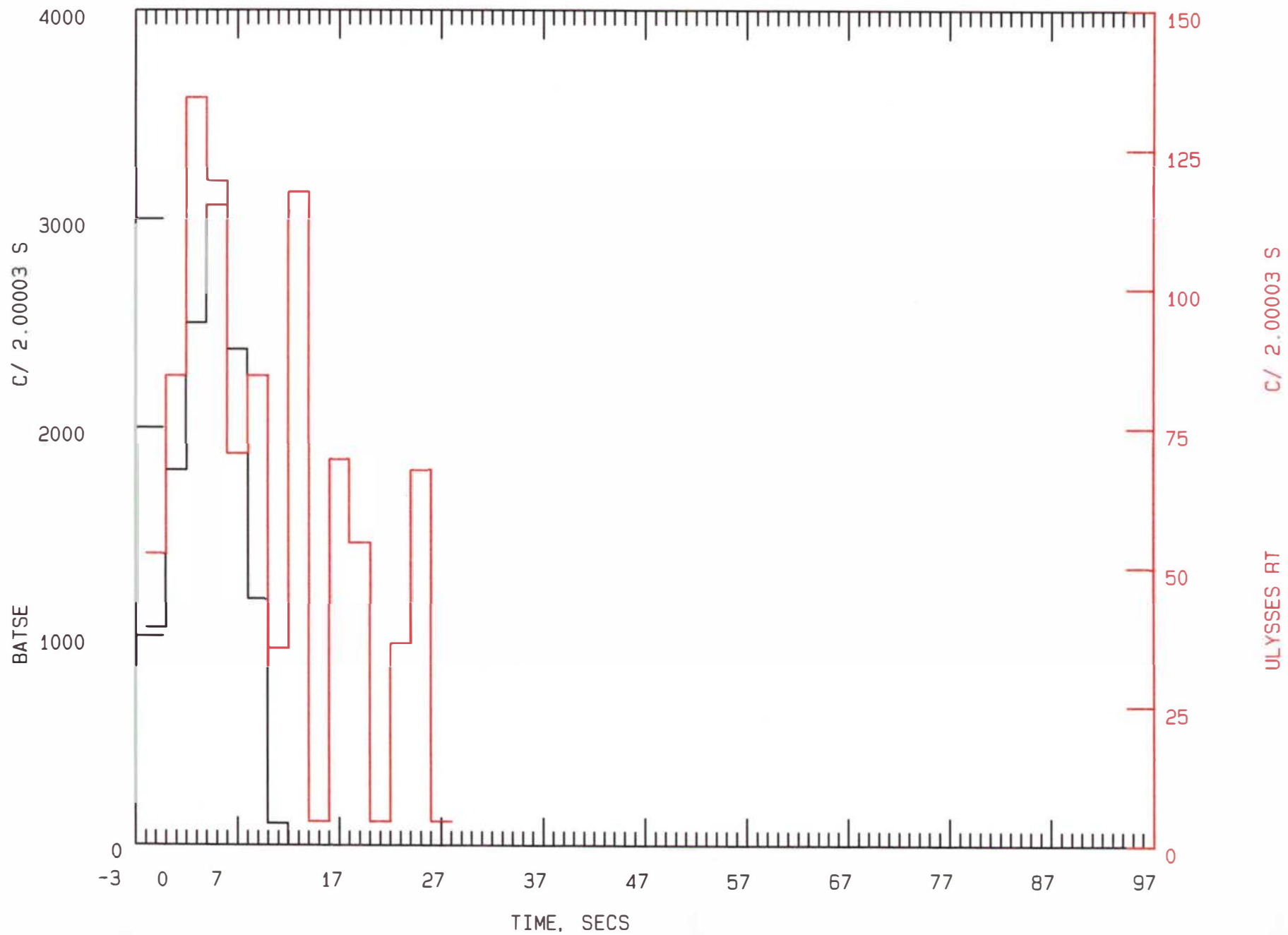
BATSE

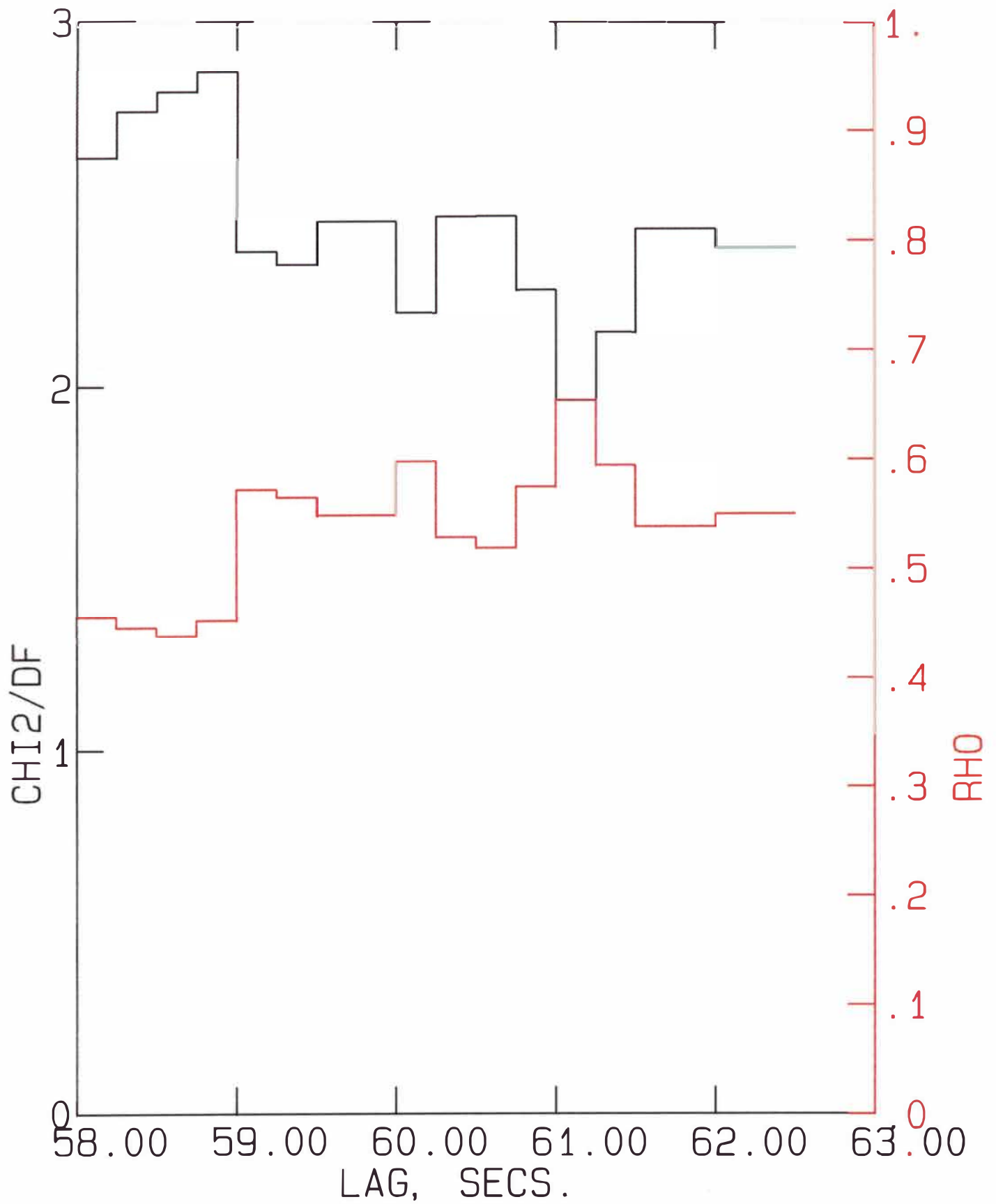
-ULYSSES RT CORRELATION

16/ 4/95

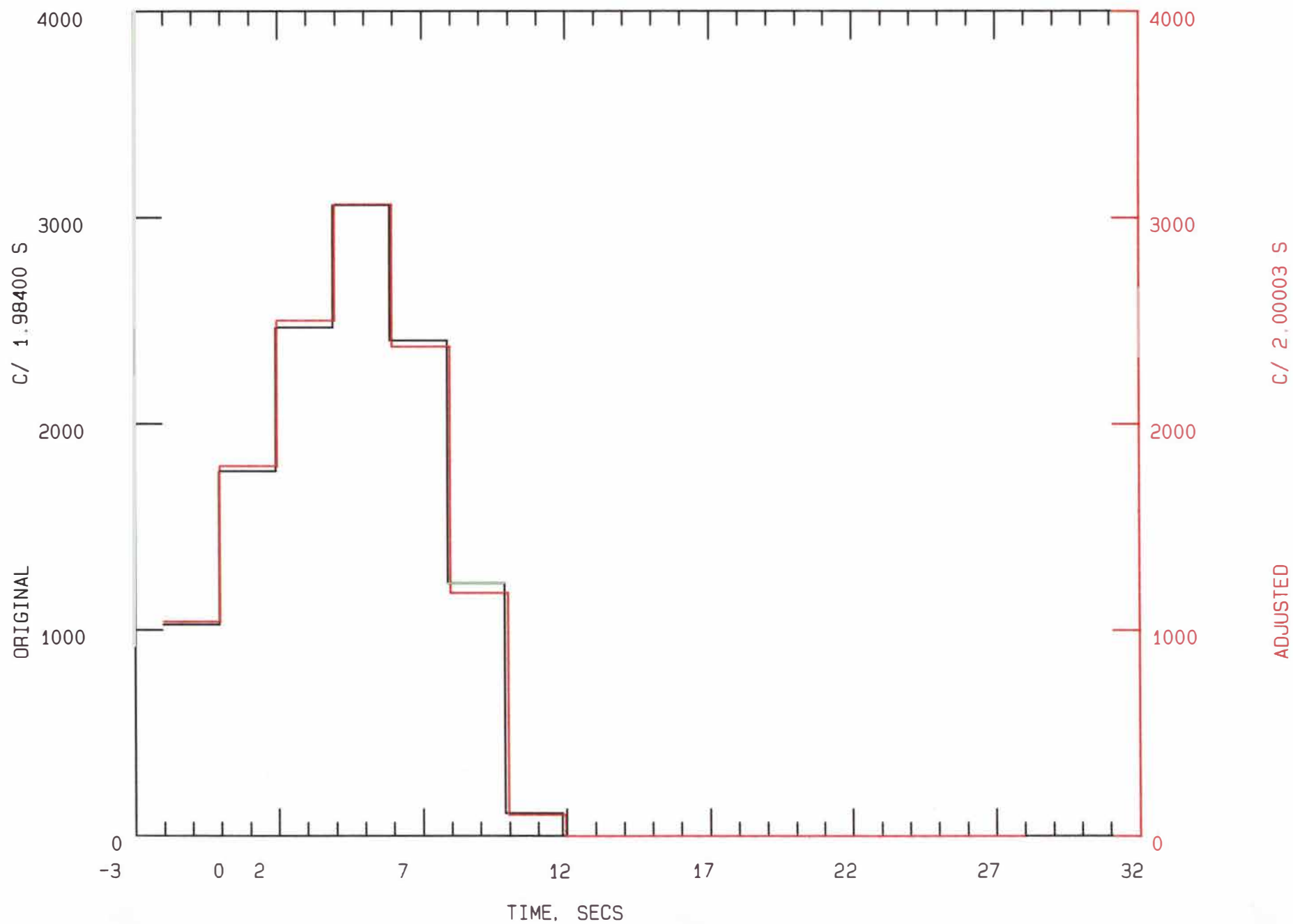
48419.762

31/ 1/96





31/ 1/96



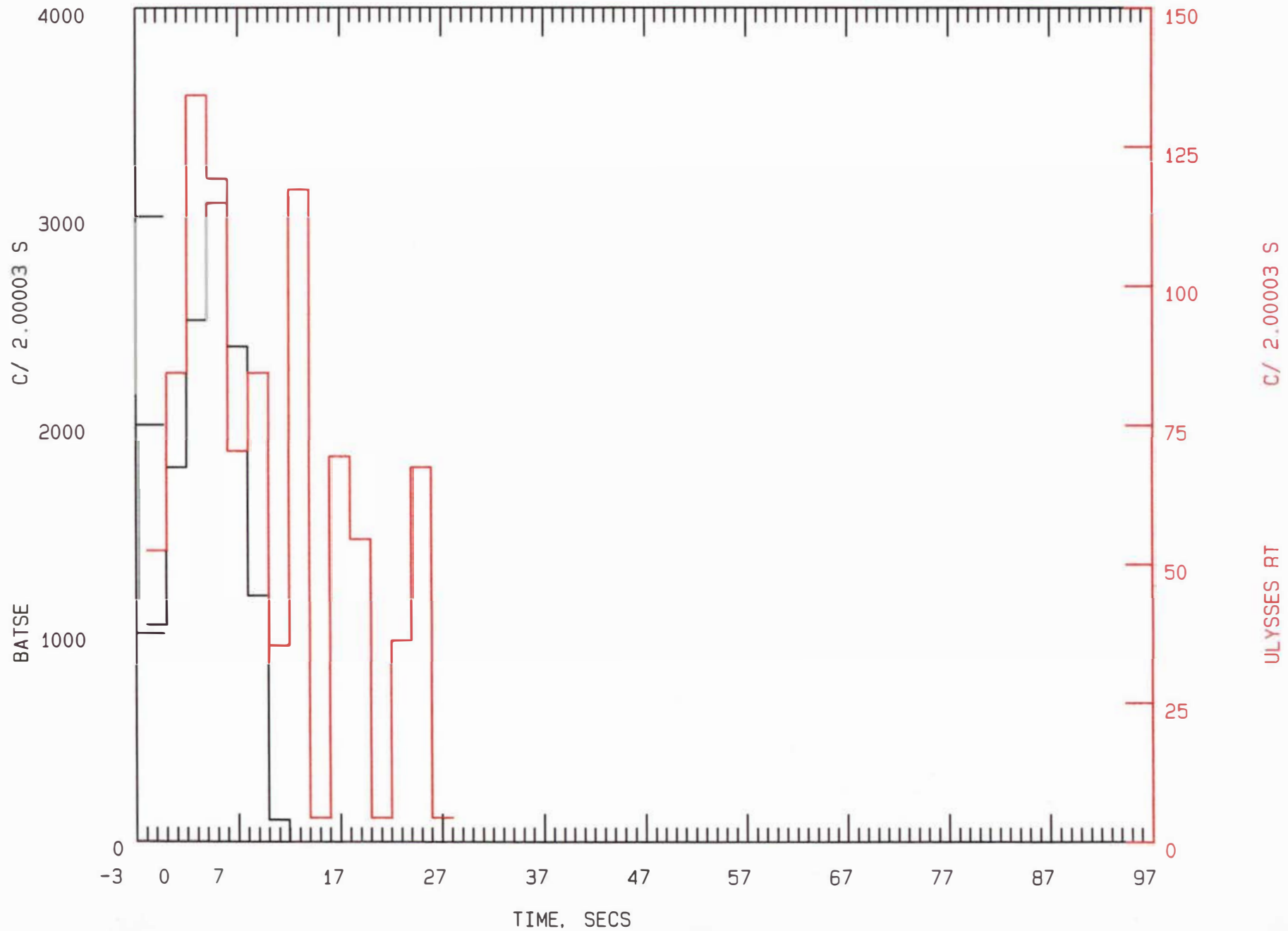
BATSE

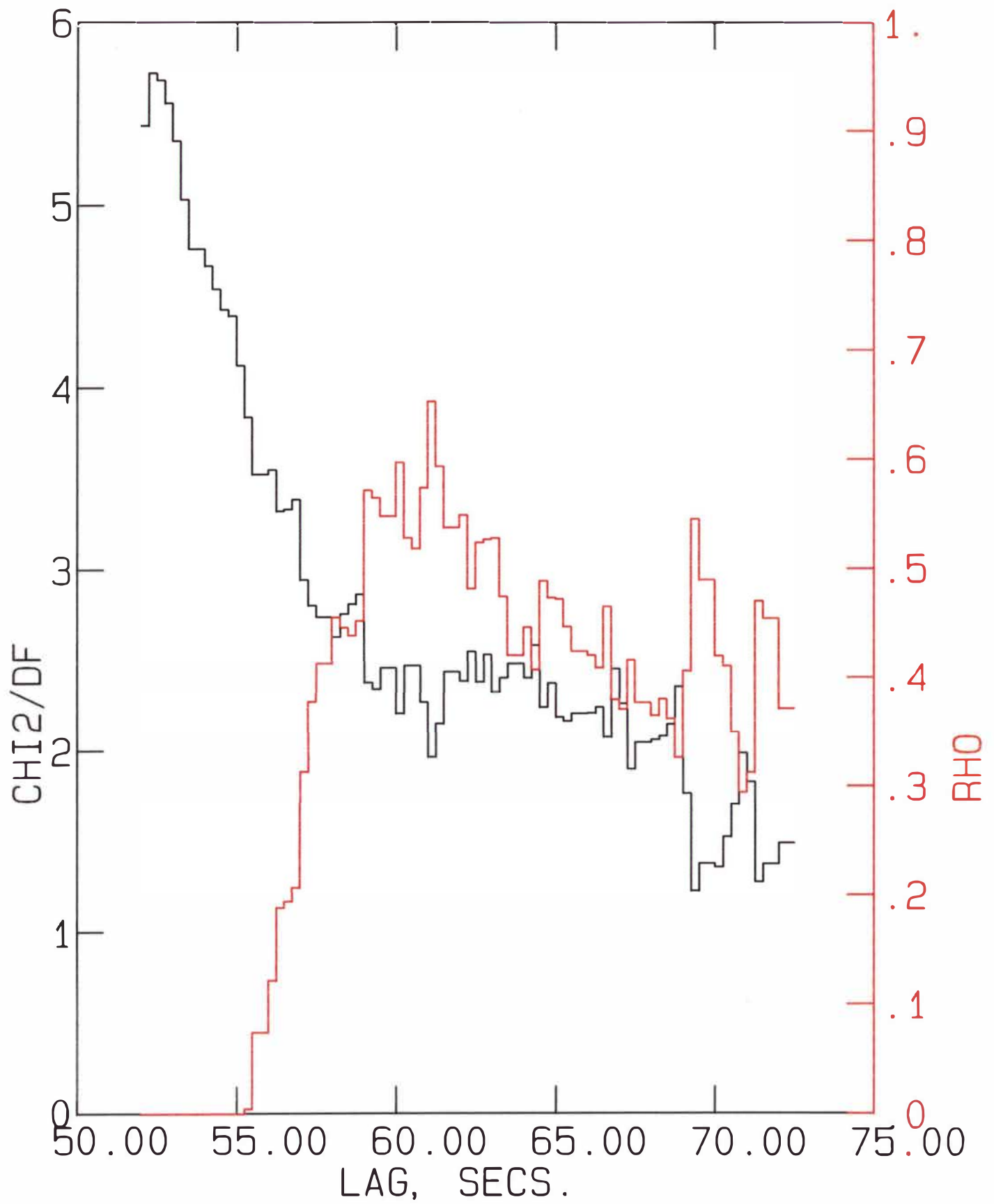
-ULYSSES RT CORRELATION

16/ 4/95

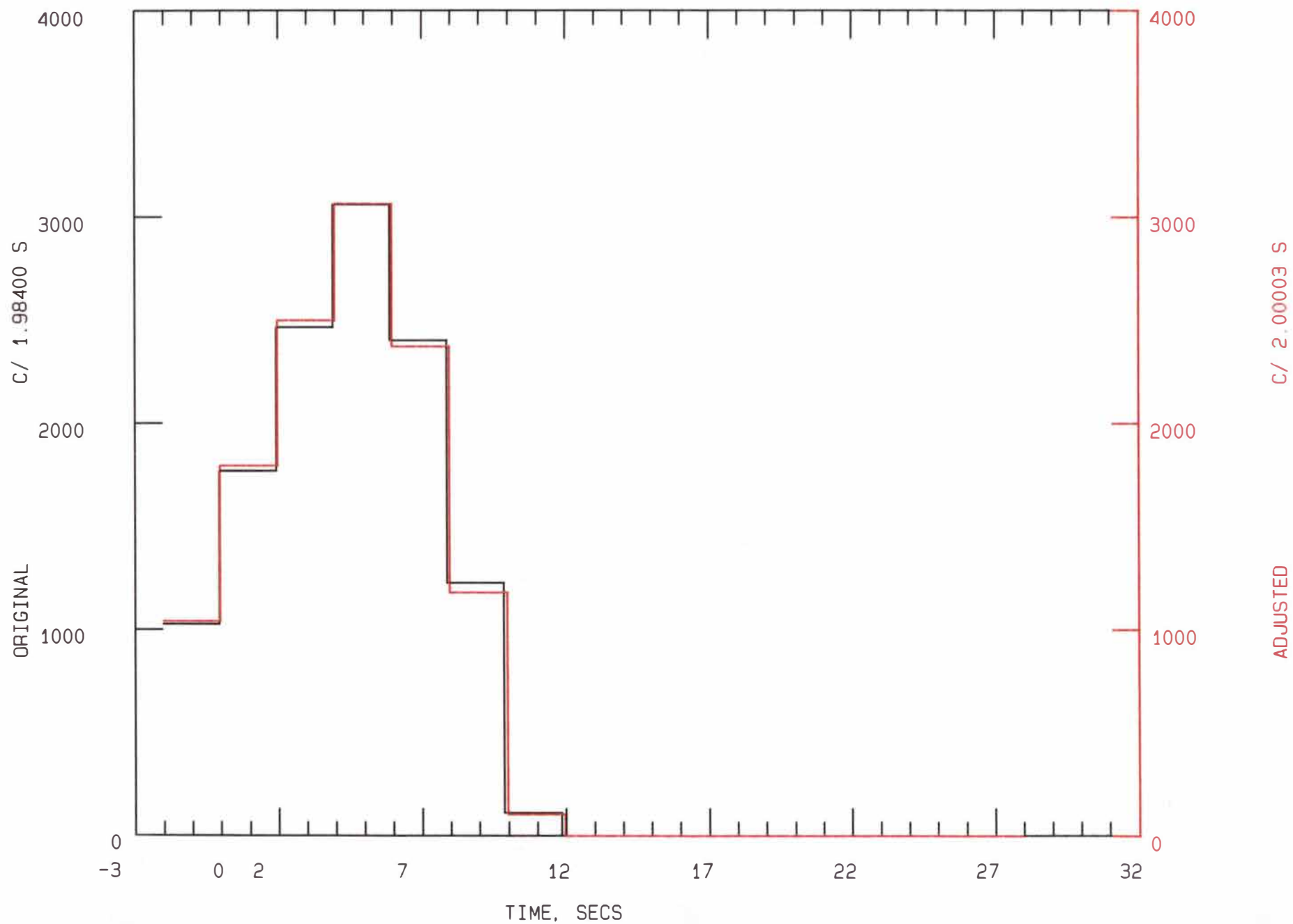
48419.762

31/ 1/96





31/ 1/96



ULYSSES RT

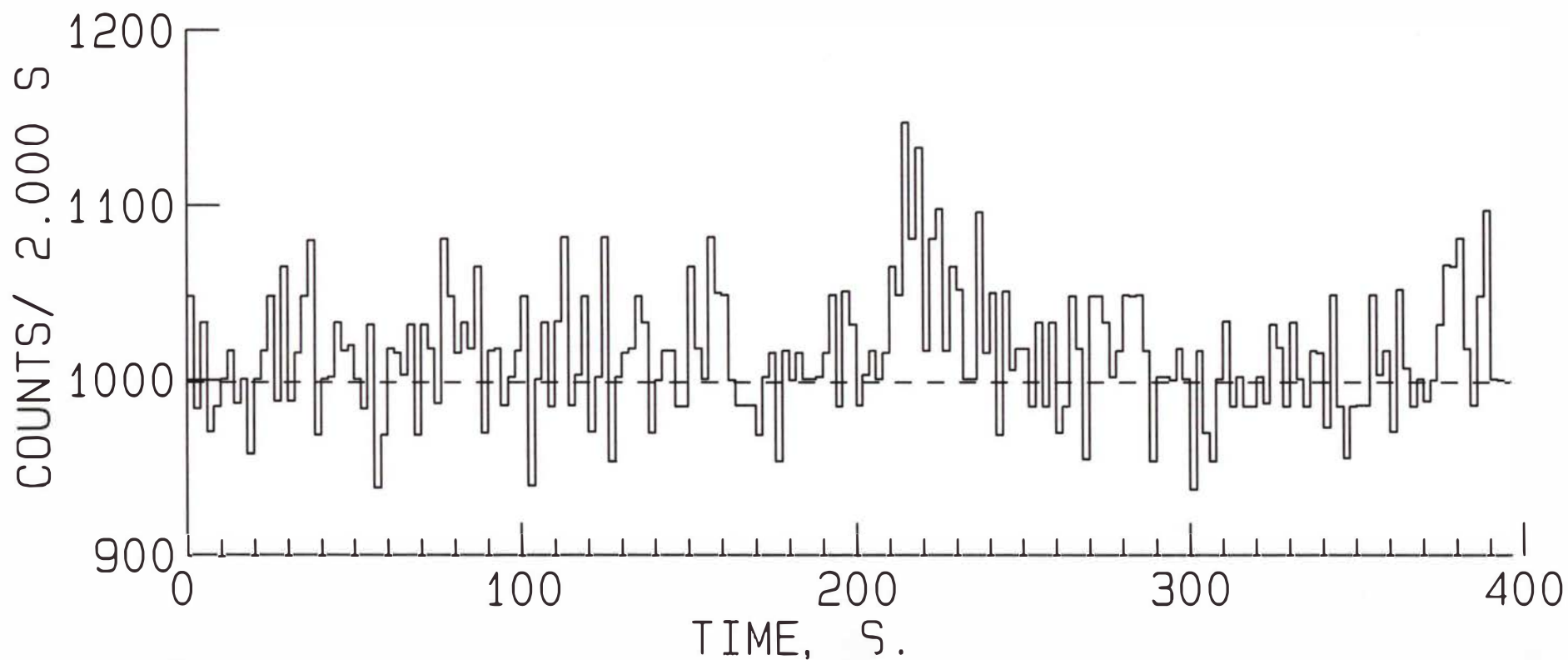
31 / 1 / 96

16 / 4 / 95 48960.246 s

0.250 S INTERVALS REGROUPED BY 8

21- 142 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



ULYSSES RT

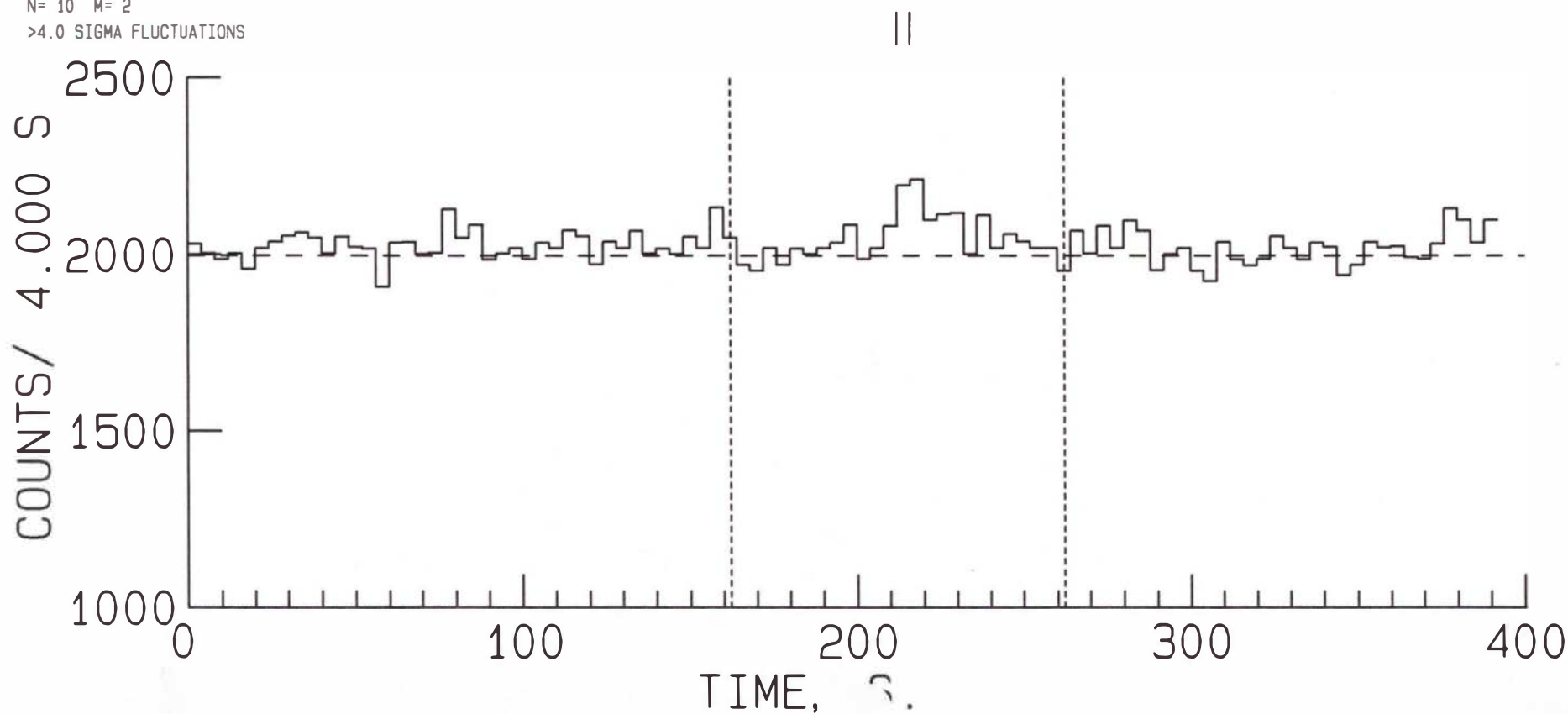
13 / 2 / 98

16 / 4 / 95 48960.246 s

0.250 S INTERVALS REGROUPED BY 16

21- 142 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



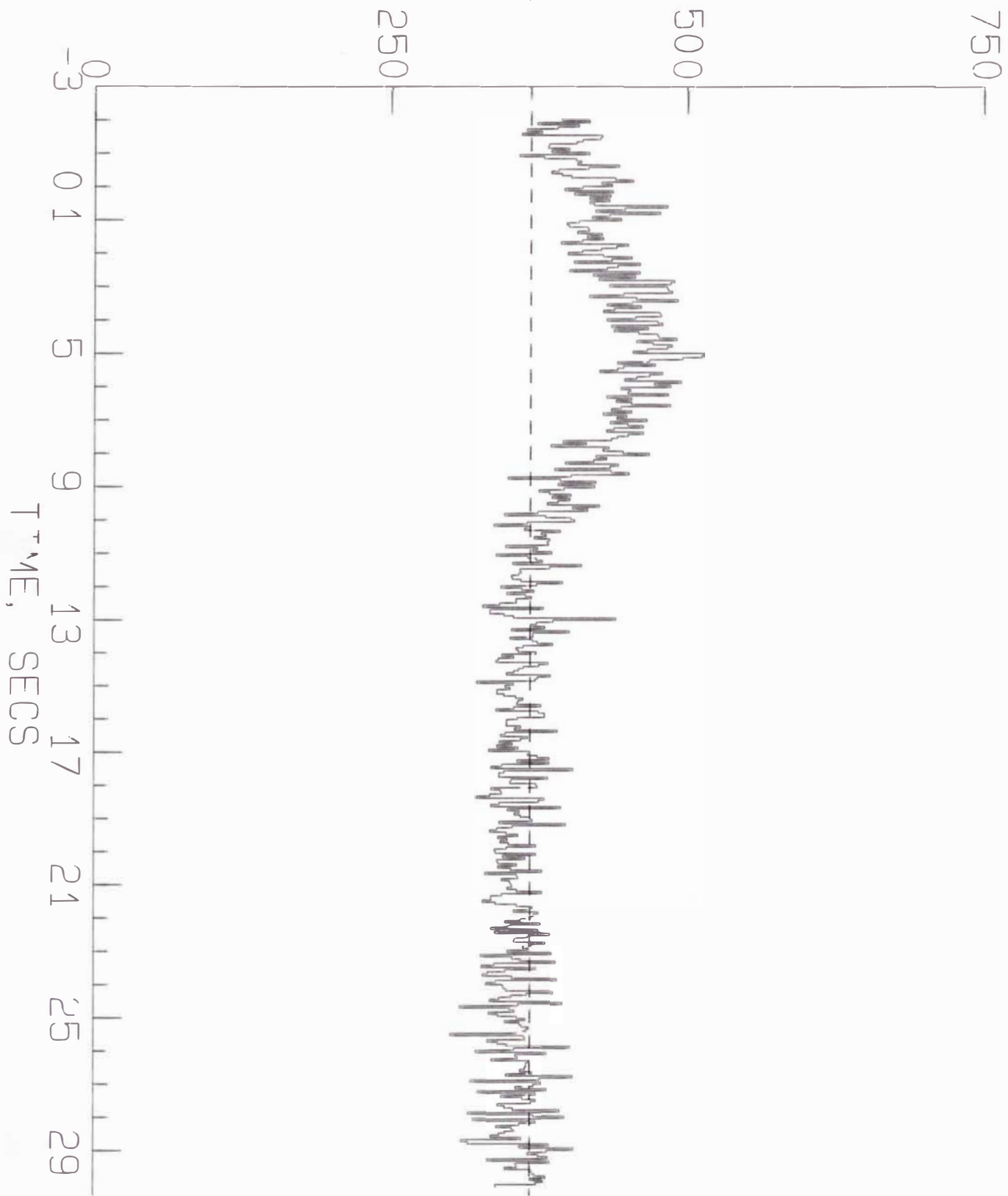
BATSE

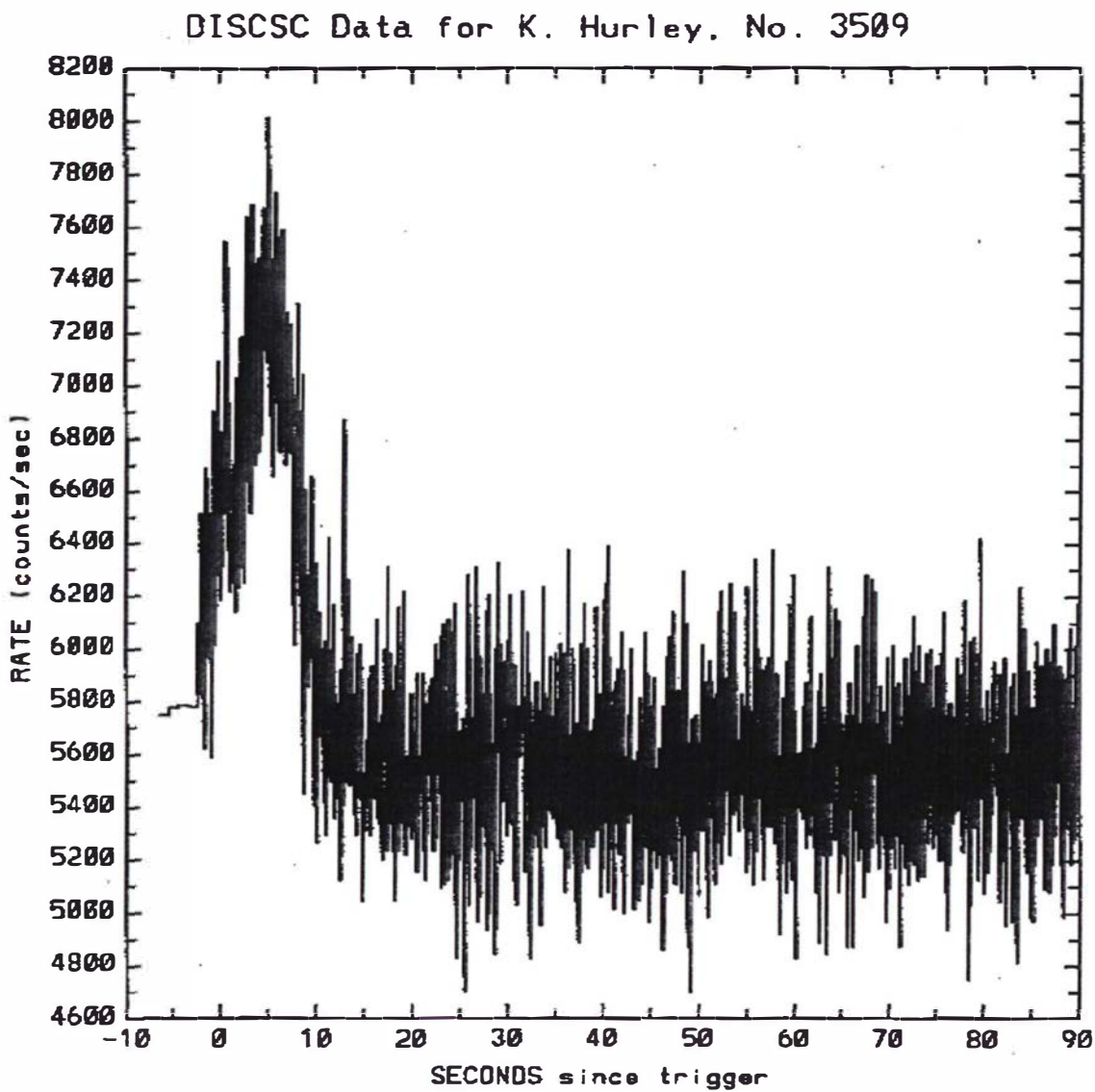
16/04/95

48419.762

25- 100 keV

COUNTS/ .064 S





1-MAT-1995 14:39:24

Created by MOPS BD
(Burst Display)
Version 12.25

Trigger # : 3509

Trigger Time:
9823 / 48419.762

Burst Data Type:
DISCSC

Deadtime
Corrected: N

Background Data
Type: PREB + DISCLA

Minimum Integ. Time:
0.064 seconds

Detectors [7..8].
7-5-----

Discriminators:
1 1 . 2 1

Quality Mask:
BD[SP1

From DEAL@ssl.msfc.nasa.gov Tue Apr 18 10:22 PDT 1995
Date: Tue, 18 Apr 1995 12:21:50 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3510

BATSEARCH PROGRAM

BATSE BURST # 3510
EVENT OF 1995 APR 16 DAY OF YEAR=106
EVENT CROSSING TIME AT BATSE : 82358. S. OR 22:52:38.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 241.000 -11.000
BATSE PEAK COUNTING RATE: 5800 C/S

No

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 16/ 4/ 95 IS:
RA= 355.035 DEC= 15.649 DIST= 2.193 AU
BATSE-ULYSSES DISTANCE = 328131413. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 64.12 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 477.72 SECS.
CROSSING TIME AT ULYSSES IS 82836. S. OR 23:00:35 +/- 228.23 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 16/ 4/ 95 IS:
RA= 139.164 DEC= 18.540 DIST= 1.020 AU
MARS-BATSE DISTANCE = 152560656. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 75.43 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 128.02 SECS.
CROSSING TIME AT MARS IS 82486. S. OR 22:54:46 +/- 87.45 SECONDS

BATSE BURST TRIGGER

NO.: 3510

TIME: TJD=9823 SECONDS=82358

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=97.3 AZIMUTH=130.2 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 0.5 S. NOT VISIBLE ABOVE 300 KEV.

18 / 4 / 95

ULYSSES RT

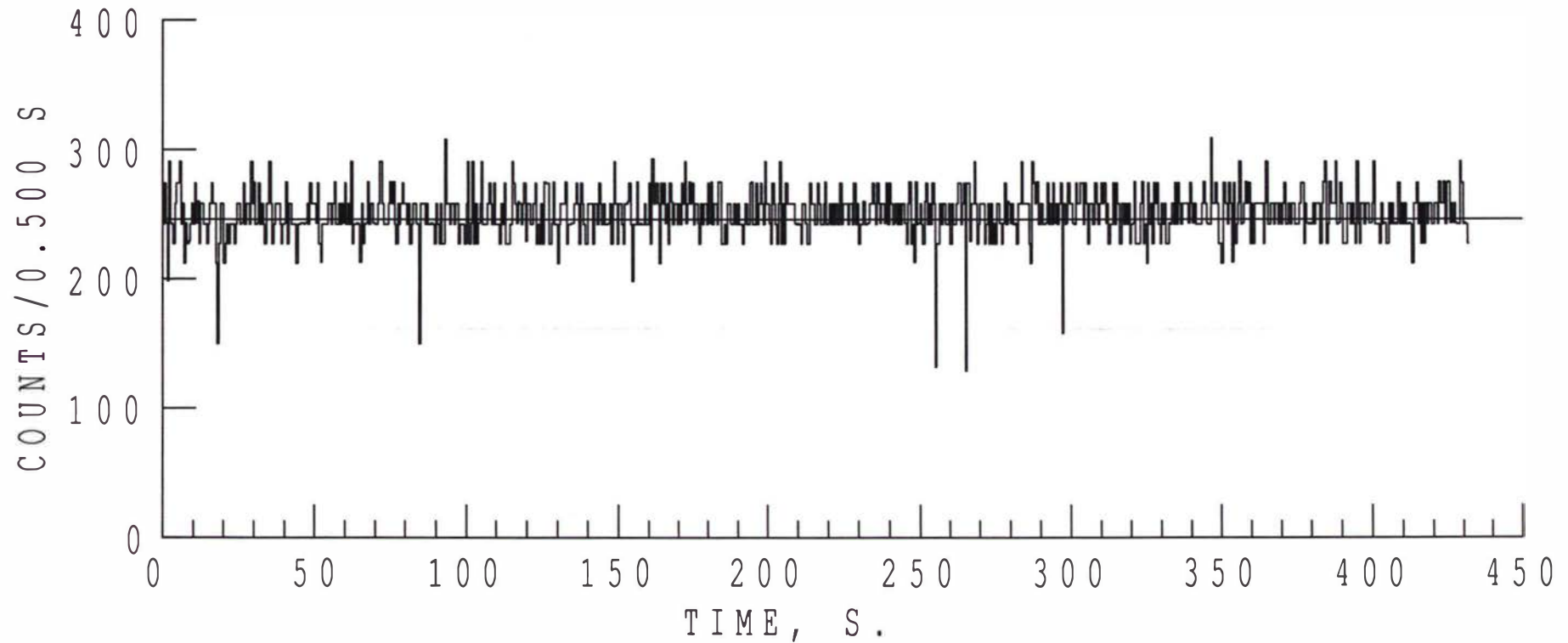
16 / 4 / 95 82620.203 s

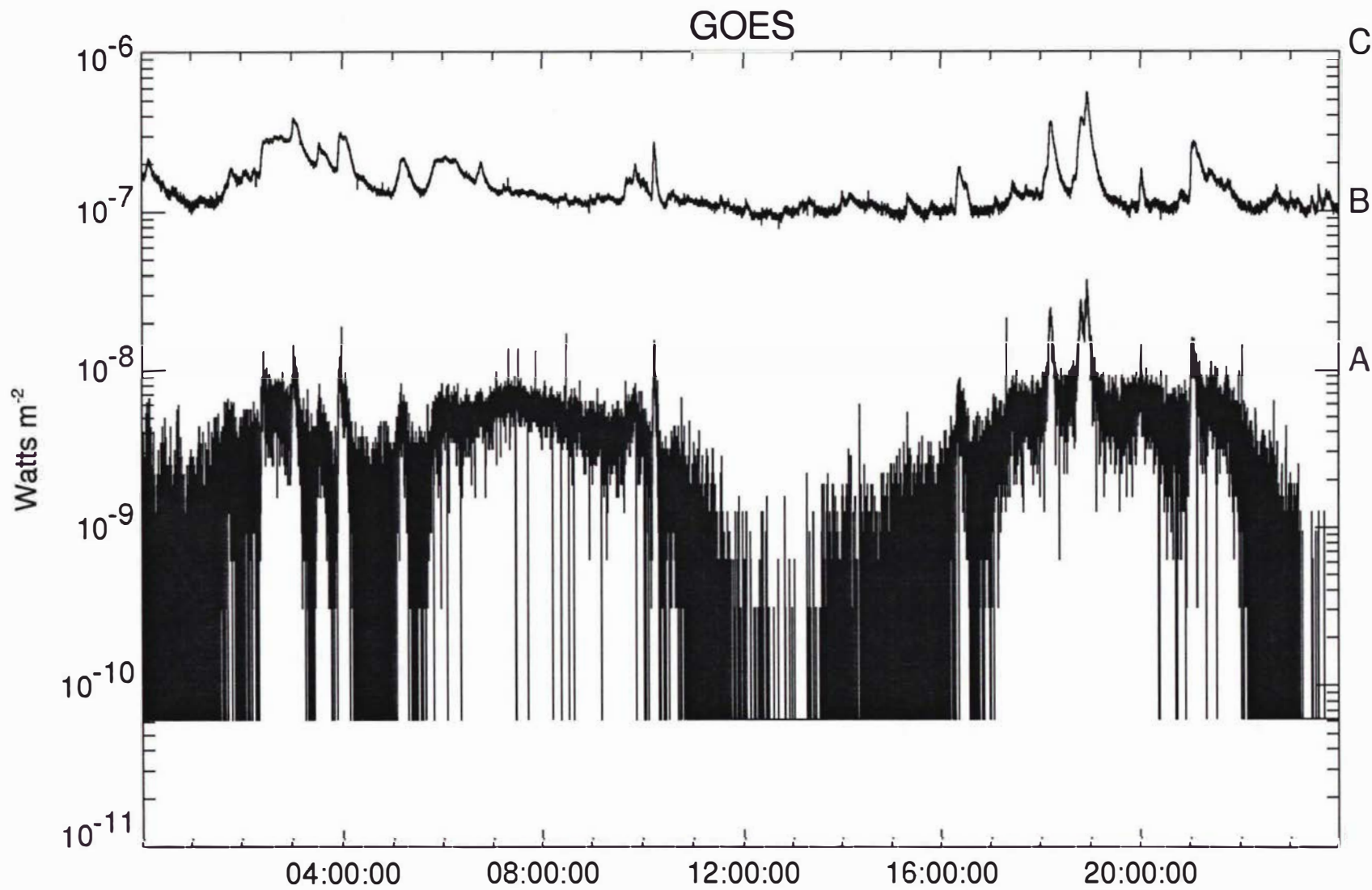
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 95/04/16, 0000:00

Plot created: 95/04/19, 0513

Channel

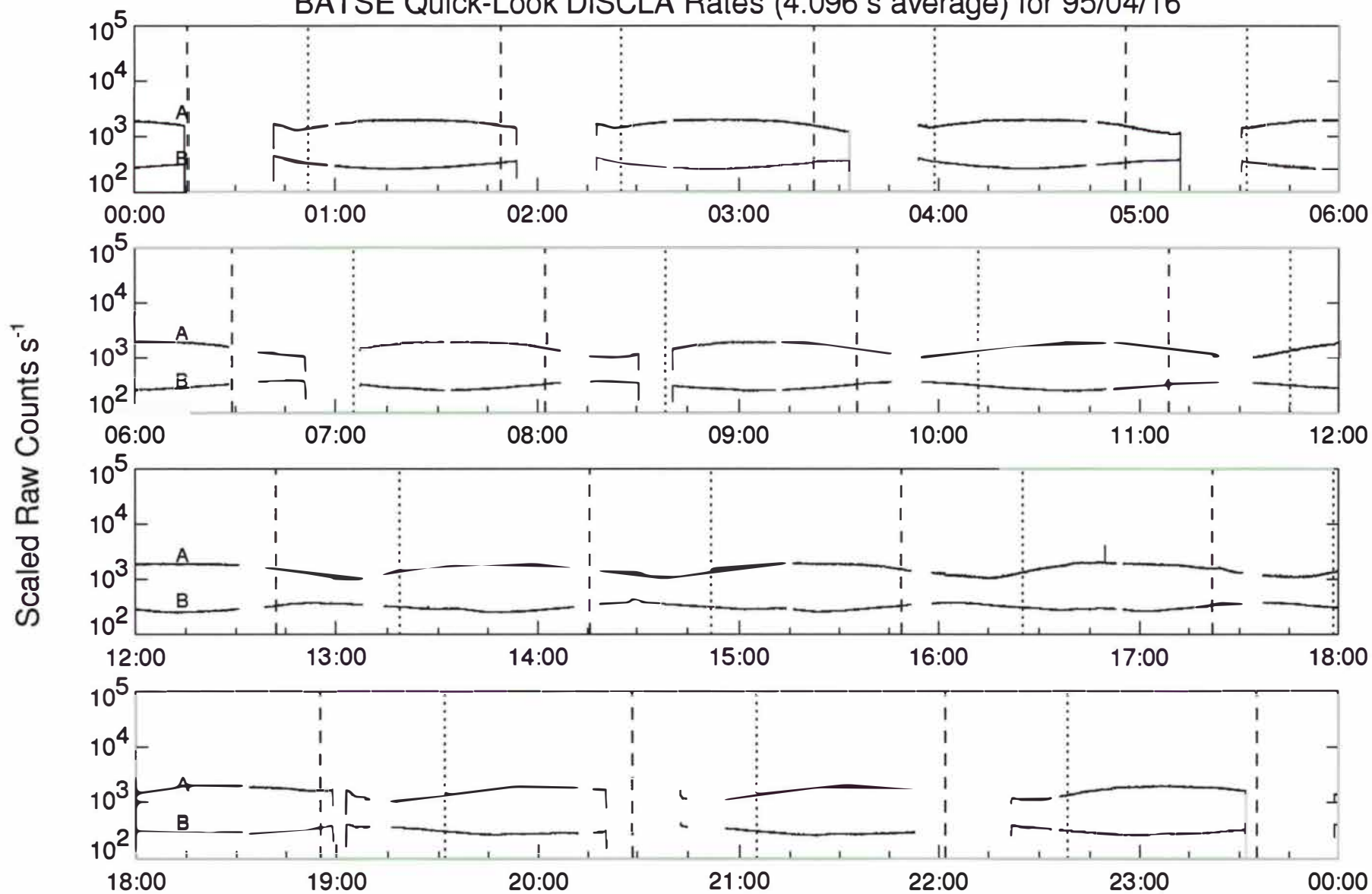
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/16



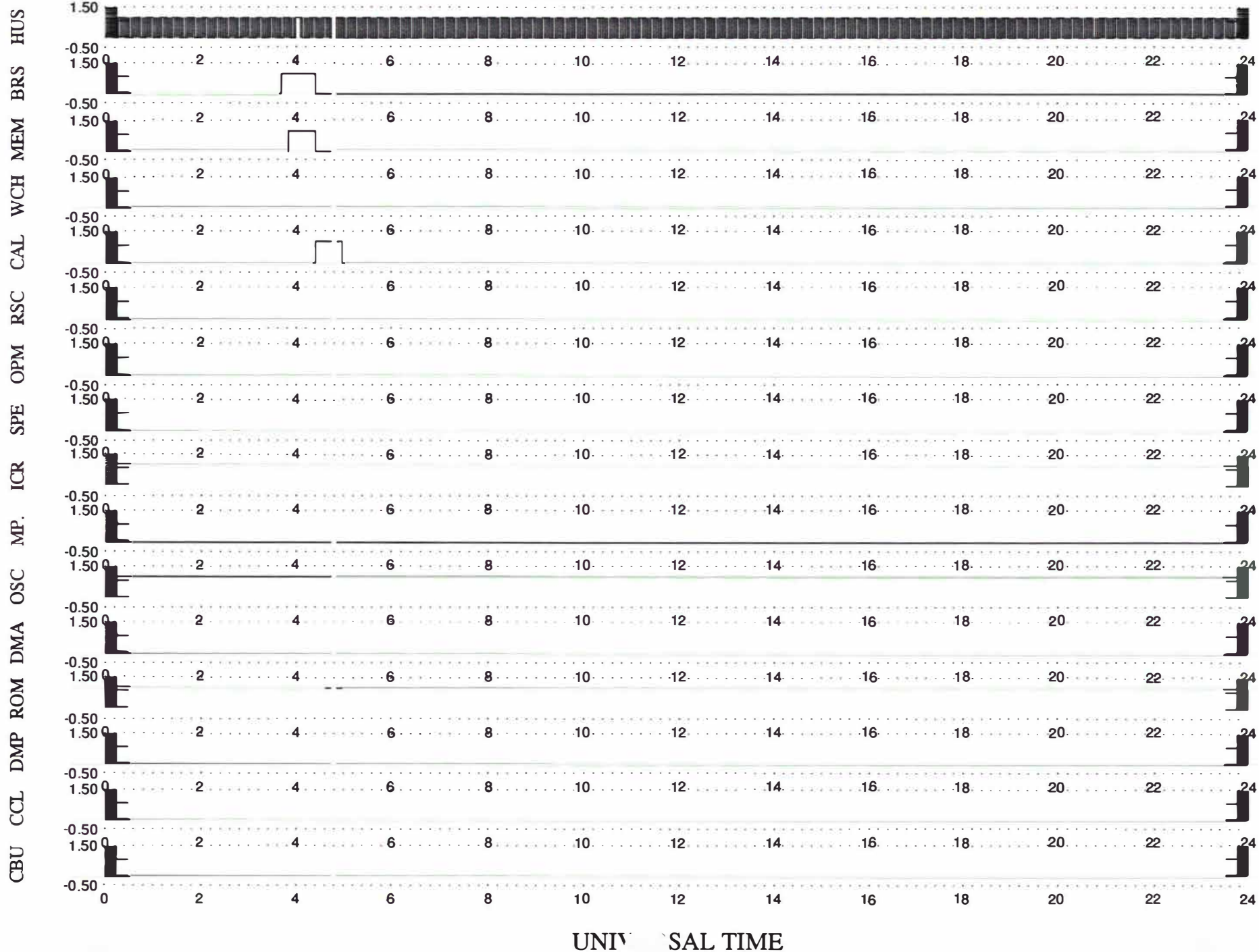
Current Time: 95/04/19, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

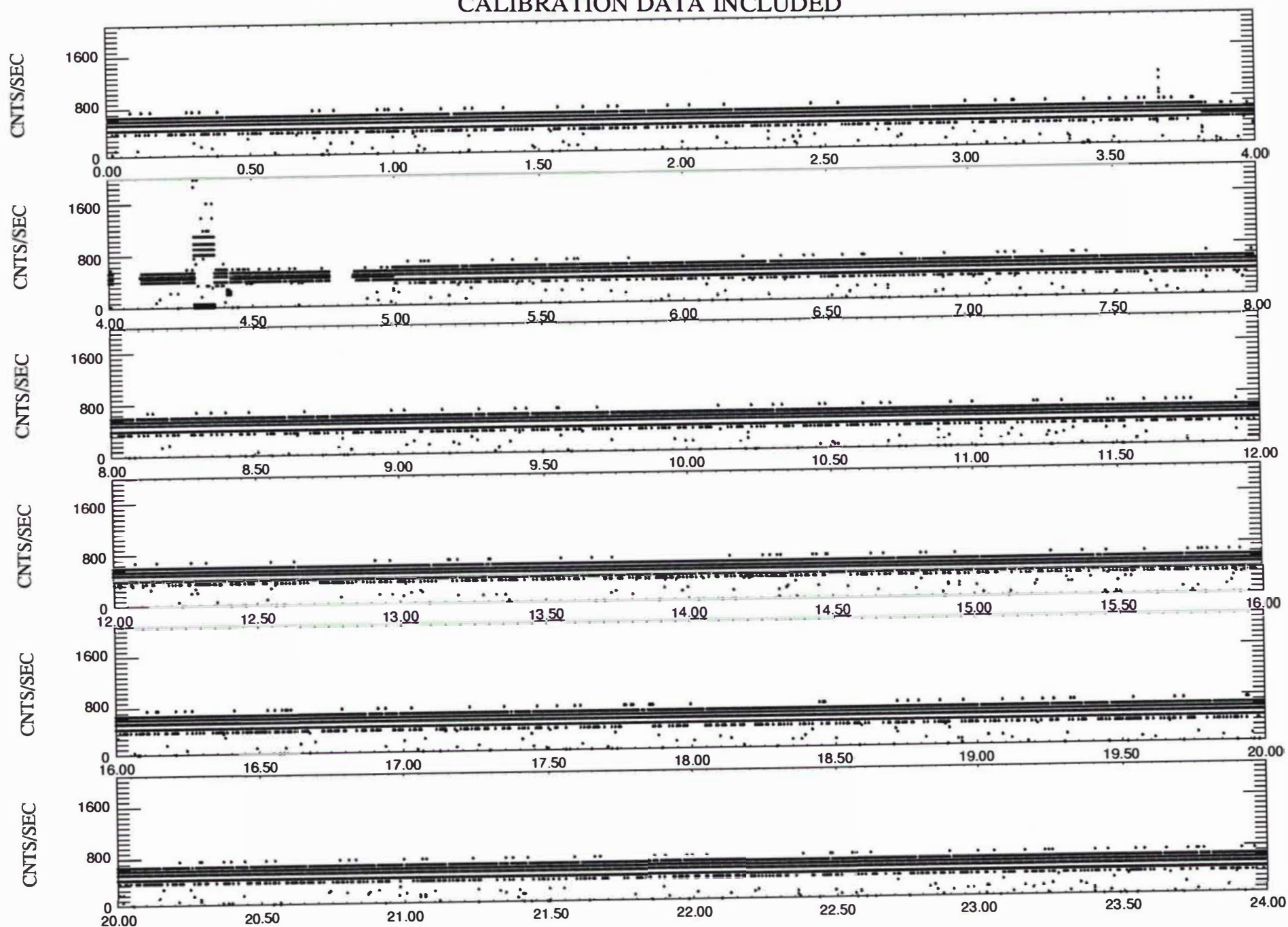
HUS MODES EDR day 106, year 1995 to day 106, year 1995
BURST NUMBER 14

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 106, year 1995 to day 106, year 1995
CALIBRATION DATA INCLUDED

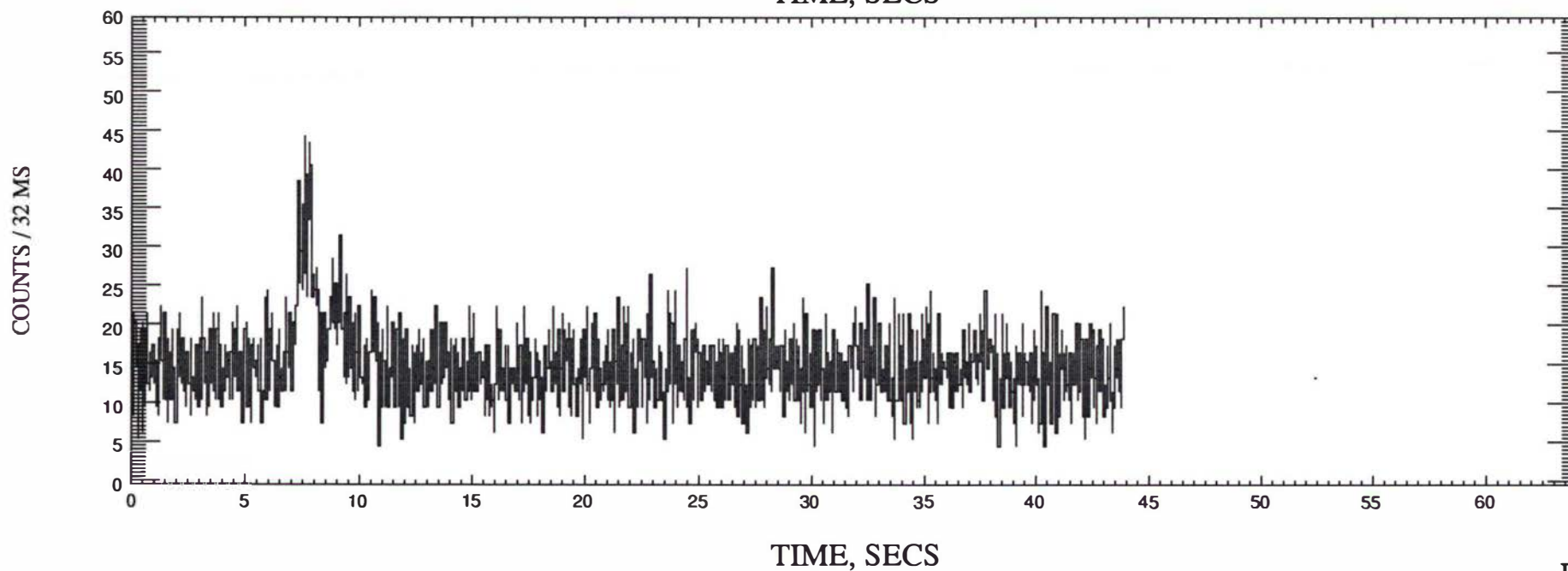
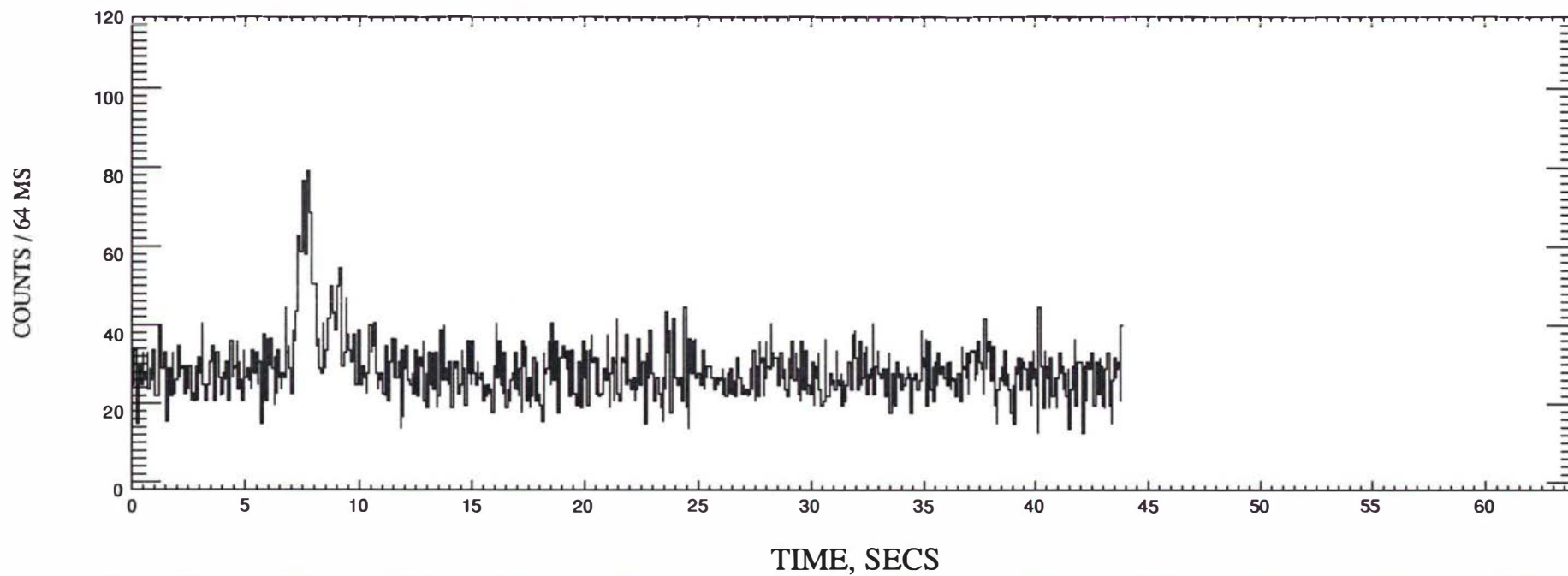
11/16/95



UNIVERSAL TIME

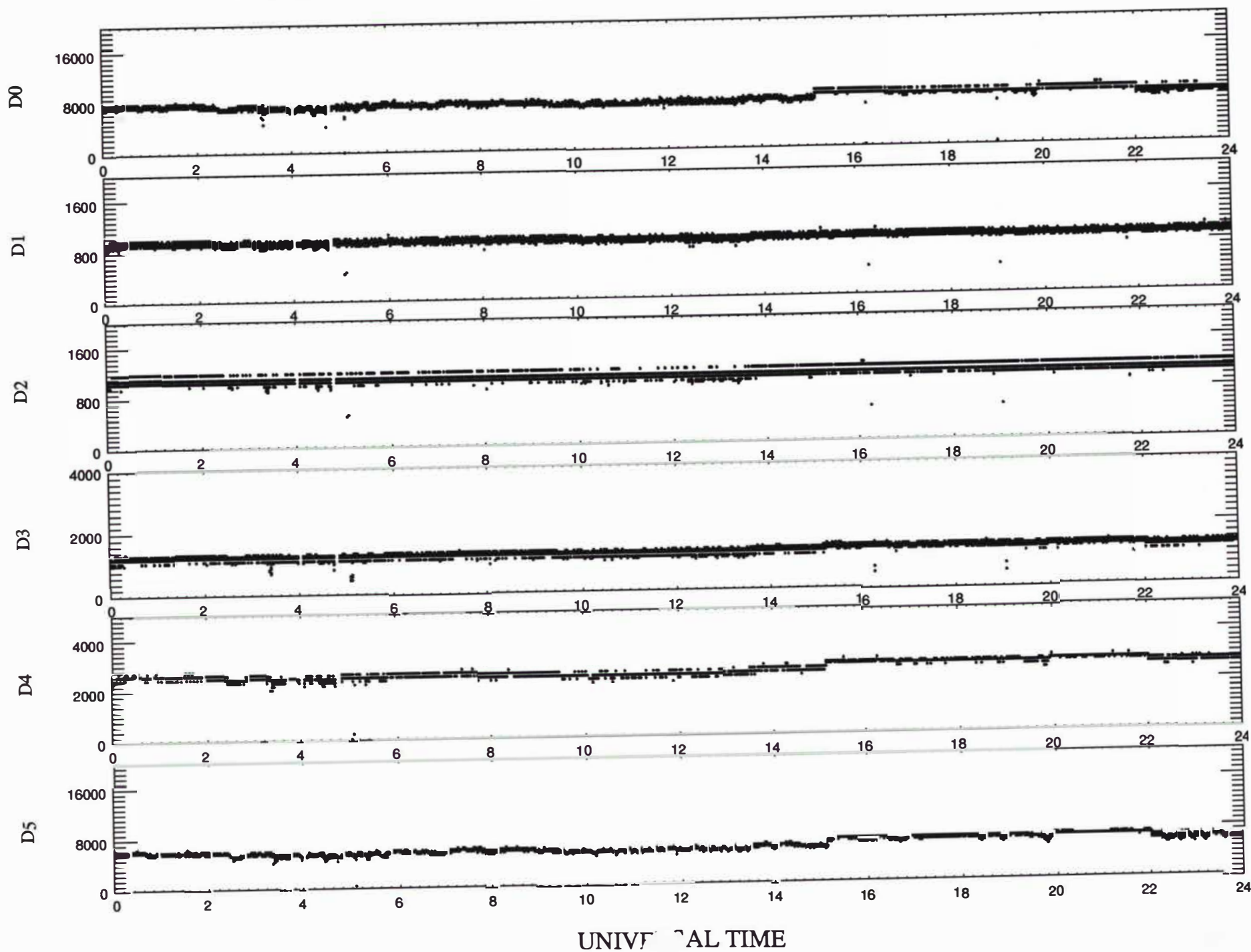
HUS 2A TRIGGERED DATA EDR day 106, year 1995
Burst Counter 14 at UT= 3.662270732456 h=13184.175 s 03:39:44.175

12/12/95



HUS 2B COUNTS / SEC QEDR day 106, year 1995 to day 106, year 1995

4/18/95



From HAGEDON@fender.msfc.nasa.gov Wed Apr 19 09:36 PDT 1995
Date: Wed, 19 Apr 1995 11:36:03 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3511

BATSEARCH PROGRAM

ND

BATSE BURST # 3511
EVENT OF 1995 APR 17 DAY OF YEAR=107
EVENT CROSSING TIME AT BATSE : 43601. S. OR 12:06:41.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 136.000 -73.000
BATSE PEAK COUNTING RATE: 6000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 17/ 4/ 95 IS:
RA= 355.200 DEC= 16.029 DIST= 2.191 AU
BATSE-ULYSSES DISTANCE = 327737217. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 61.20 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 526.74 SECS.
CROSSING TIME AT ULYSSES IS 44128. S. OR 12:15:27 +/- 224.31 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 17/ 4/ 95 IS:
RA= 139.388 DEC= 18.437 DIST= 1.028 AU
MARS-BATSE DISTANCE = 153830224. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 88.54 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 13.12 SECS.
CROSSING TIME AT MARS IS 43614. S. OR 12:06:54 +/- 89.26 SECONDS

BATSE BURST TRIGGER

NO.: 3511

TIME: TJD=9824 SECONDS=43601

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=14 AZIMUTH=128 ERROR= DEGREES

COMMENTS:

BURST. COMPLEX EVENT, DUR.~30 SEC. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3511	950417	9824	43601	6000	136	-73	30

19 / 4 / 95

ULYSSES RT

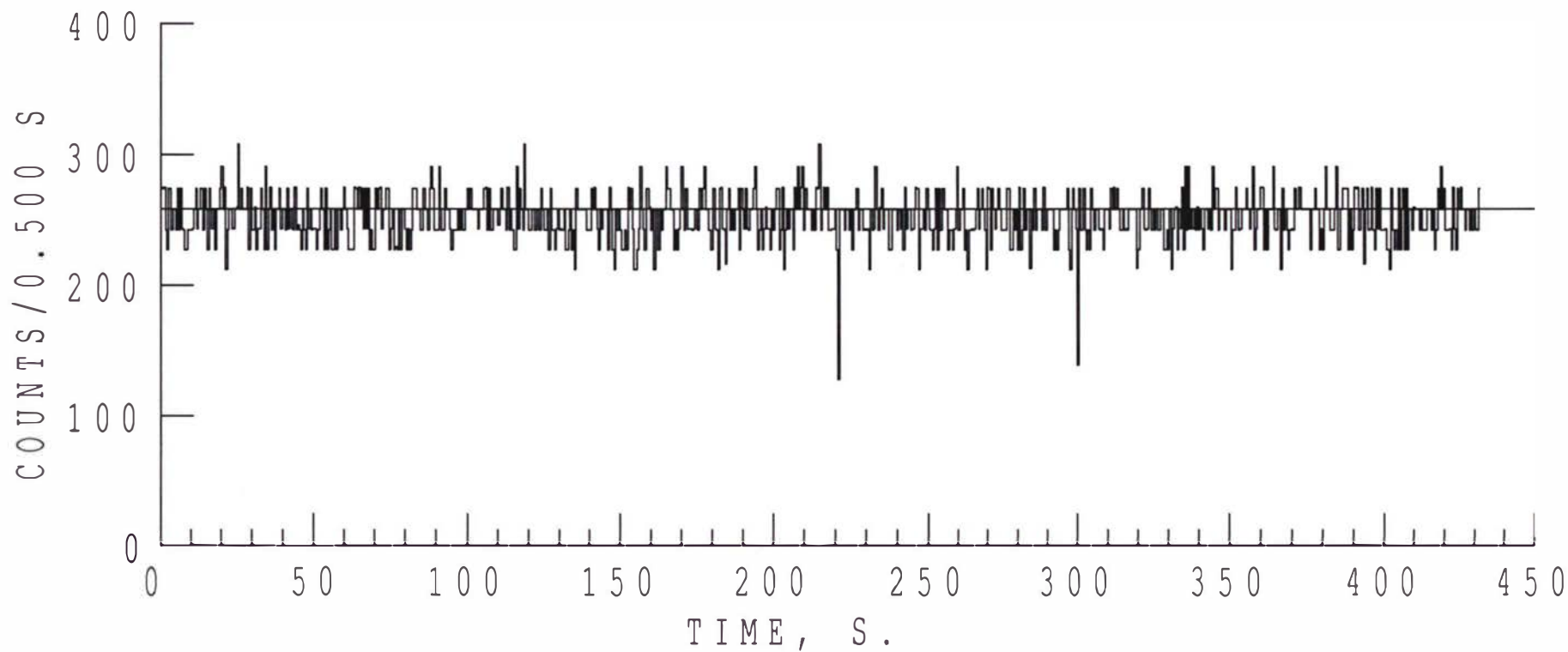
17 / 4 / 95 43920.121 s

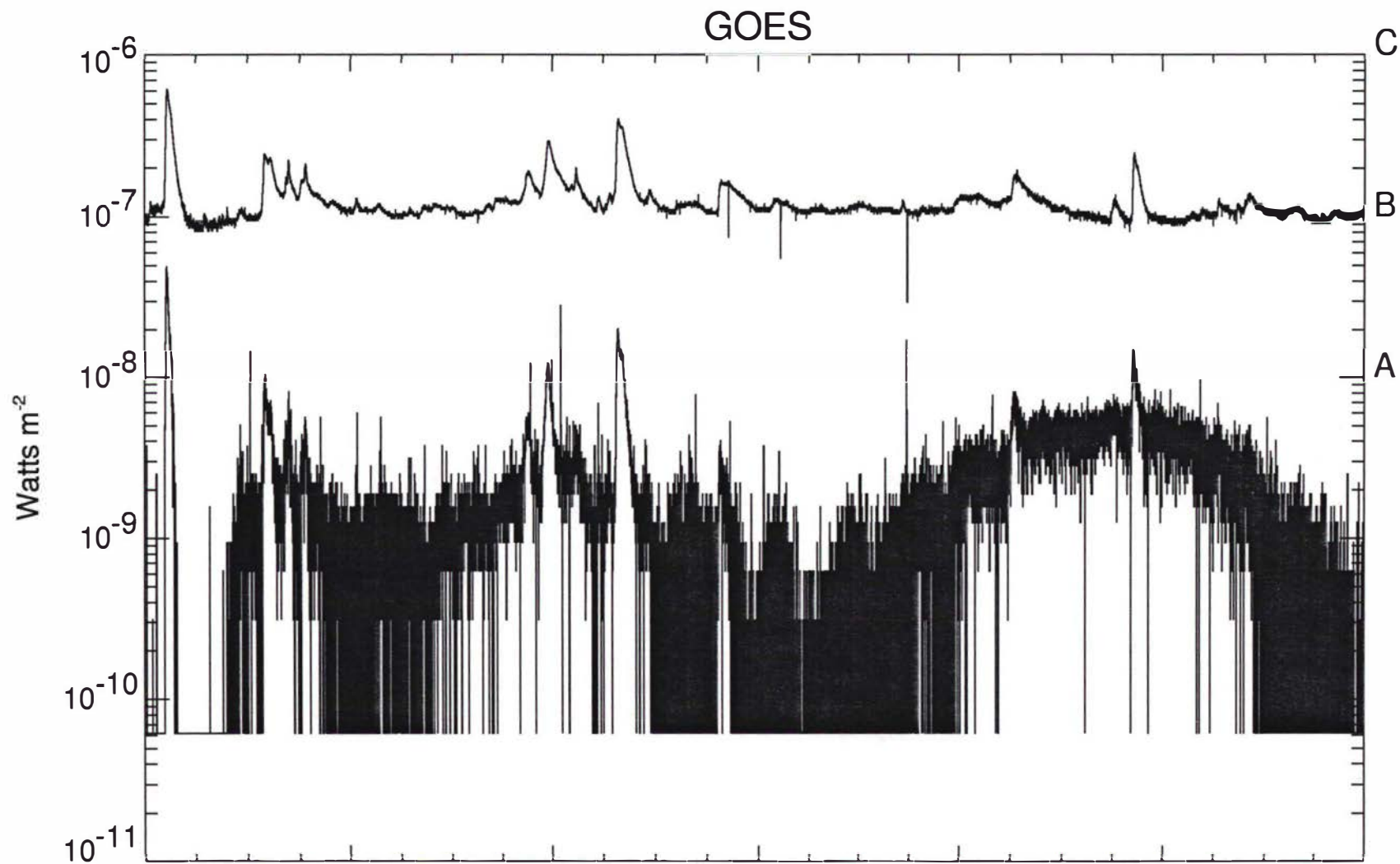
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





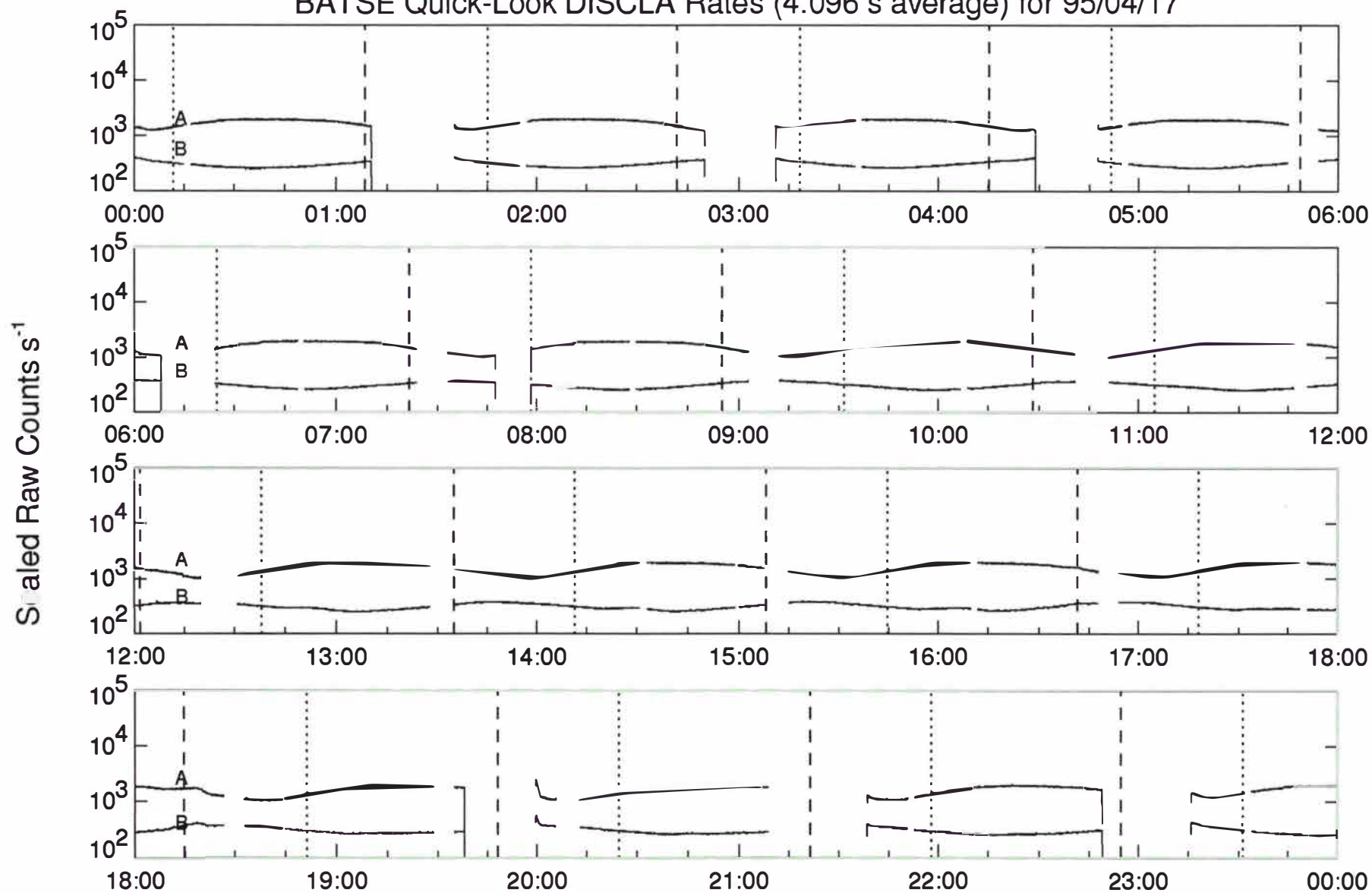
Data Start: 95/04/17, 0000:01

Plot created: 95/04/20, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/17



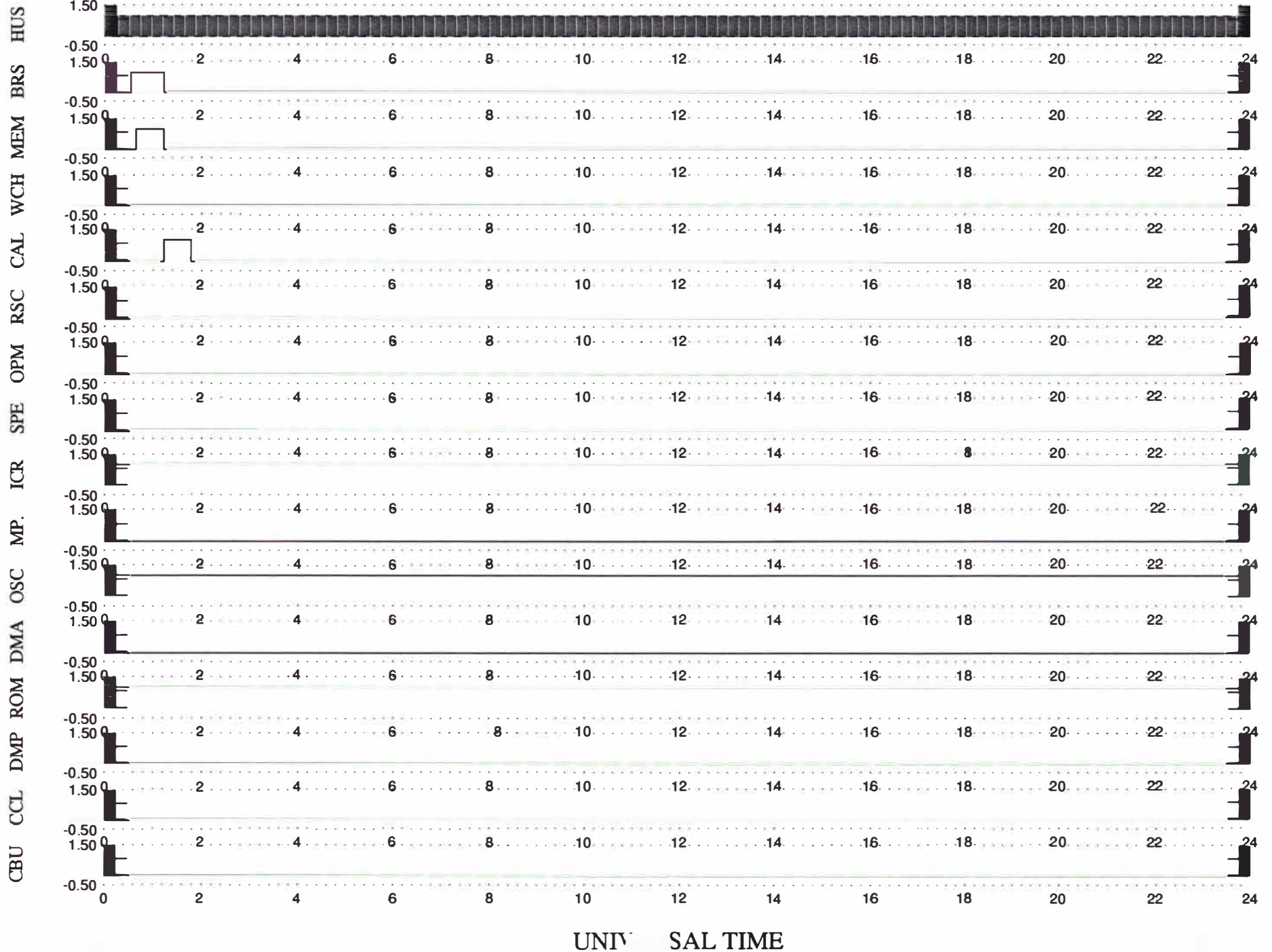
Current Time: 95/04/20, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

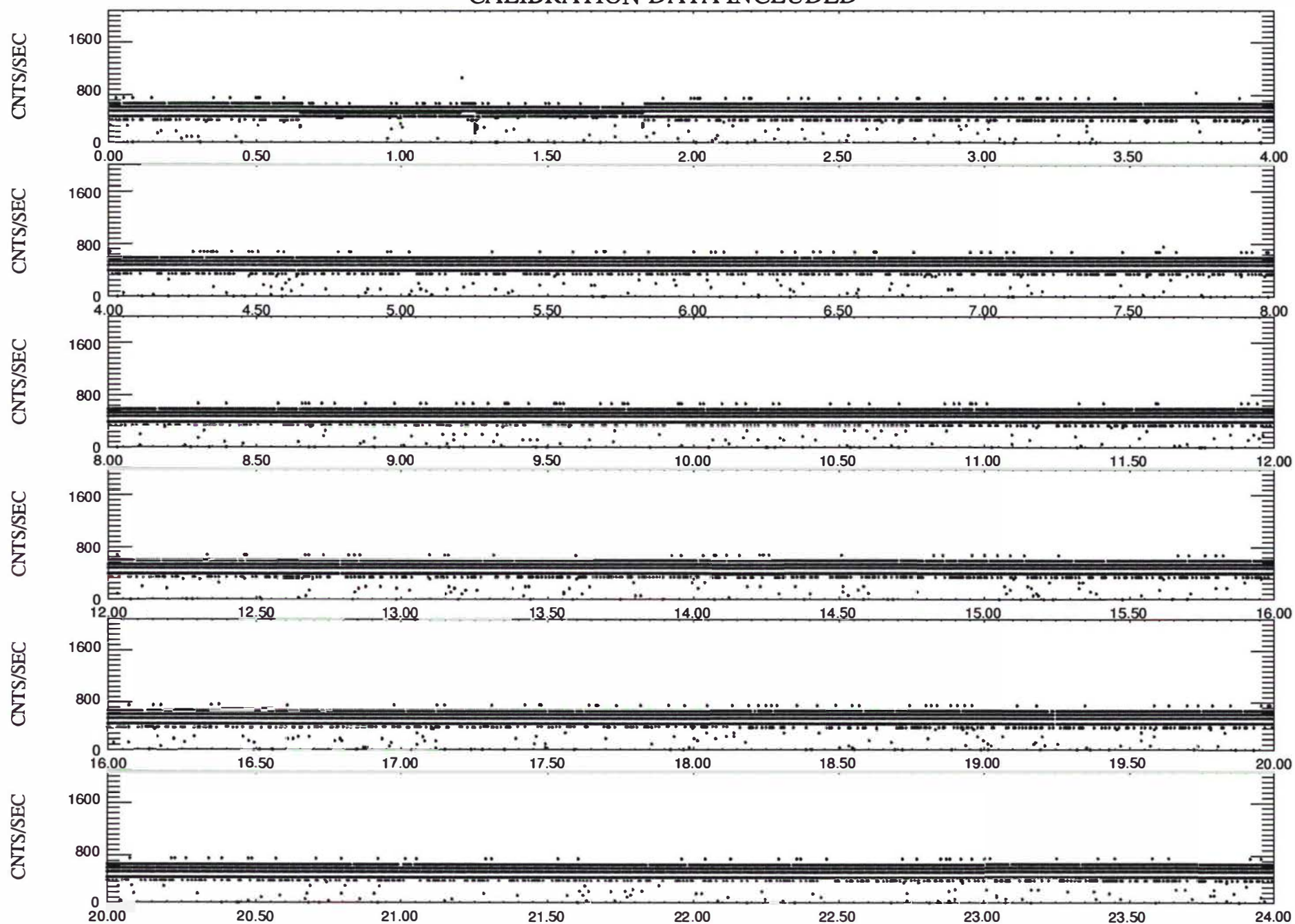
HUS MODES EDR day 107, year 1995 to day 107, year 1995
BURST NUMBER 15

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 107, year 1995 to day 107, year 1995
CALIBRATION DATA INCLUDED

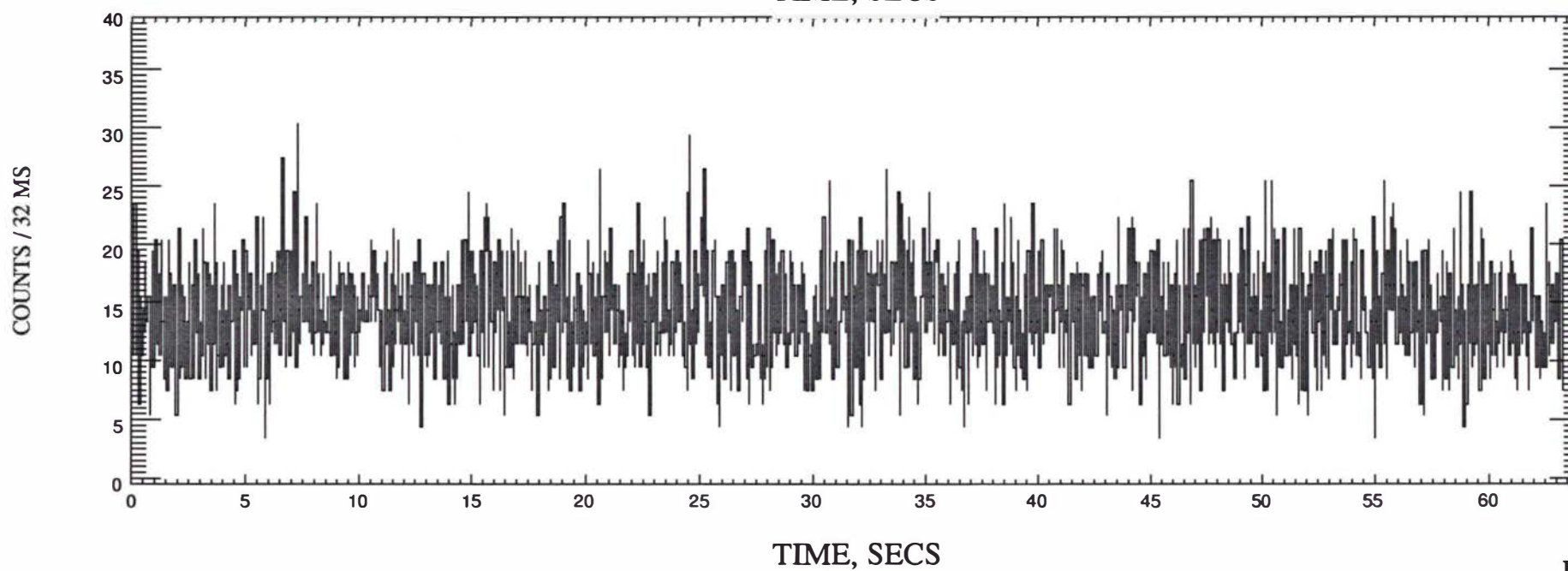
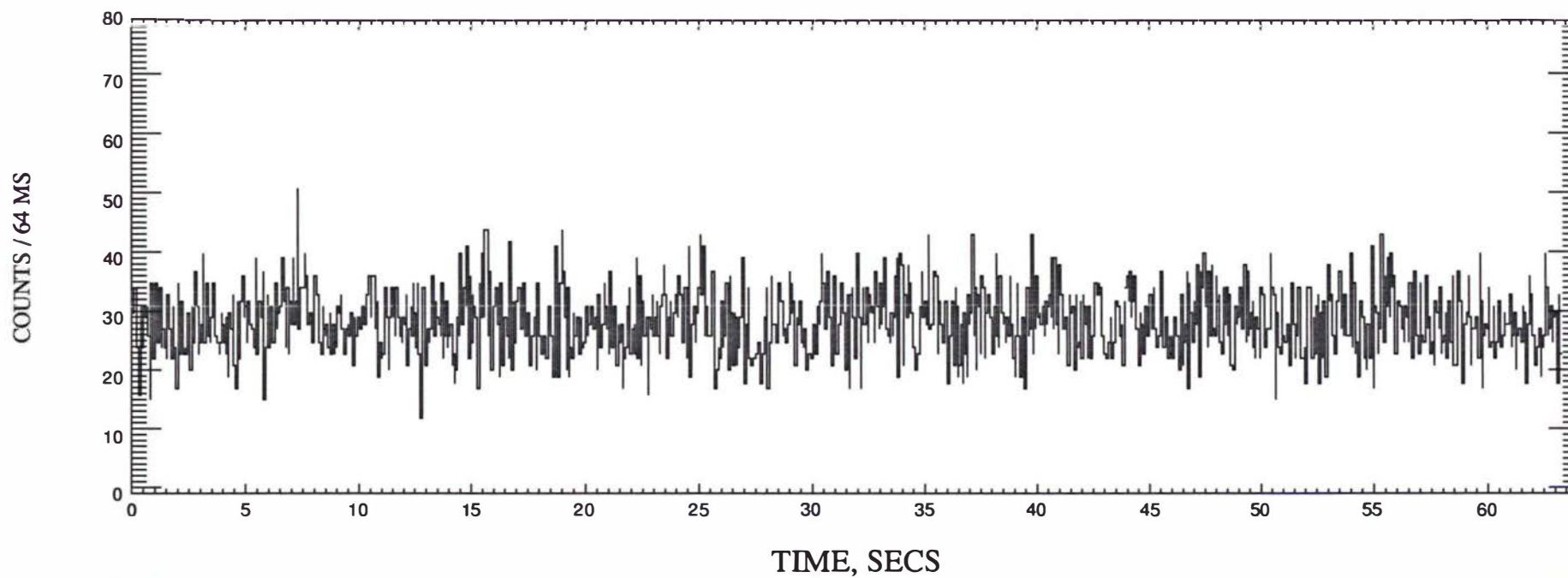
11/16/95



UNIV SAL TIME

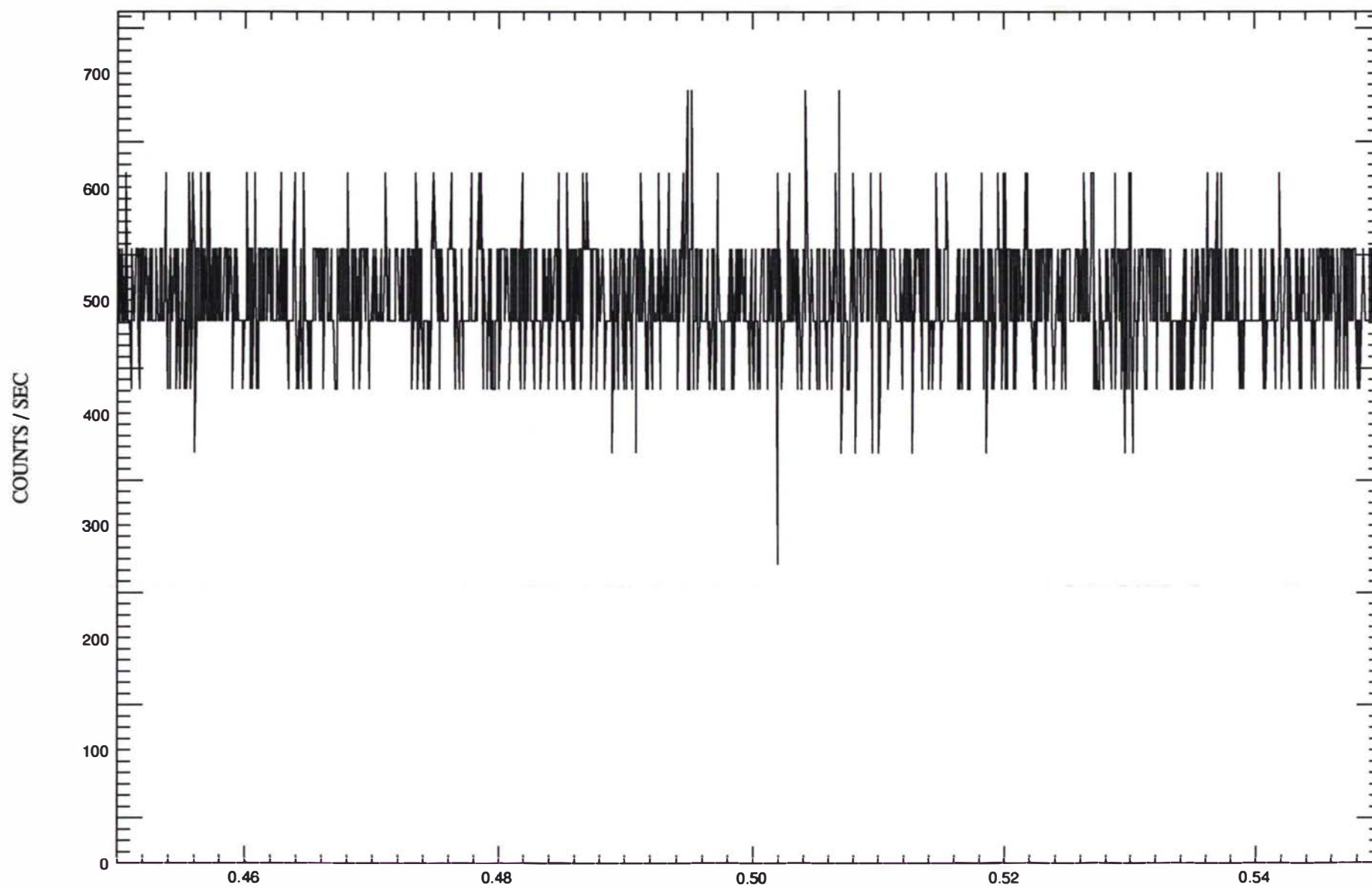
HUS 2A TRIGGERED DATA EDR day 107, year 1995
Burst Counter 15 at UT= 0.502047275967 h= 1807.370 s 00:30:07.370

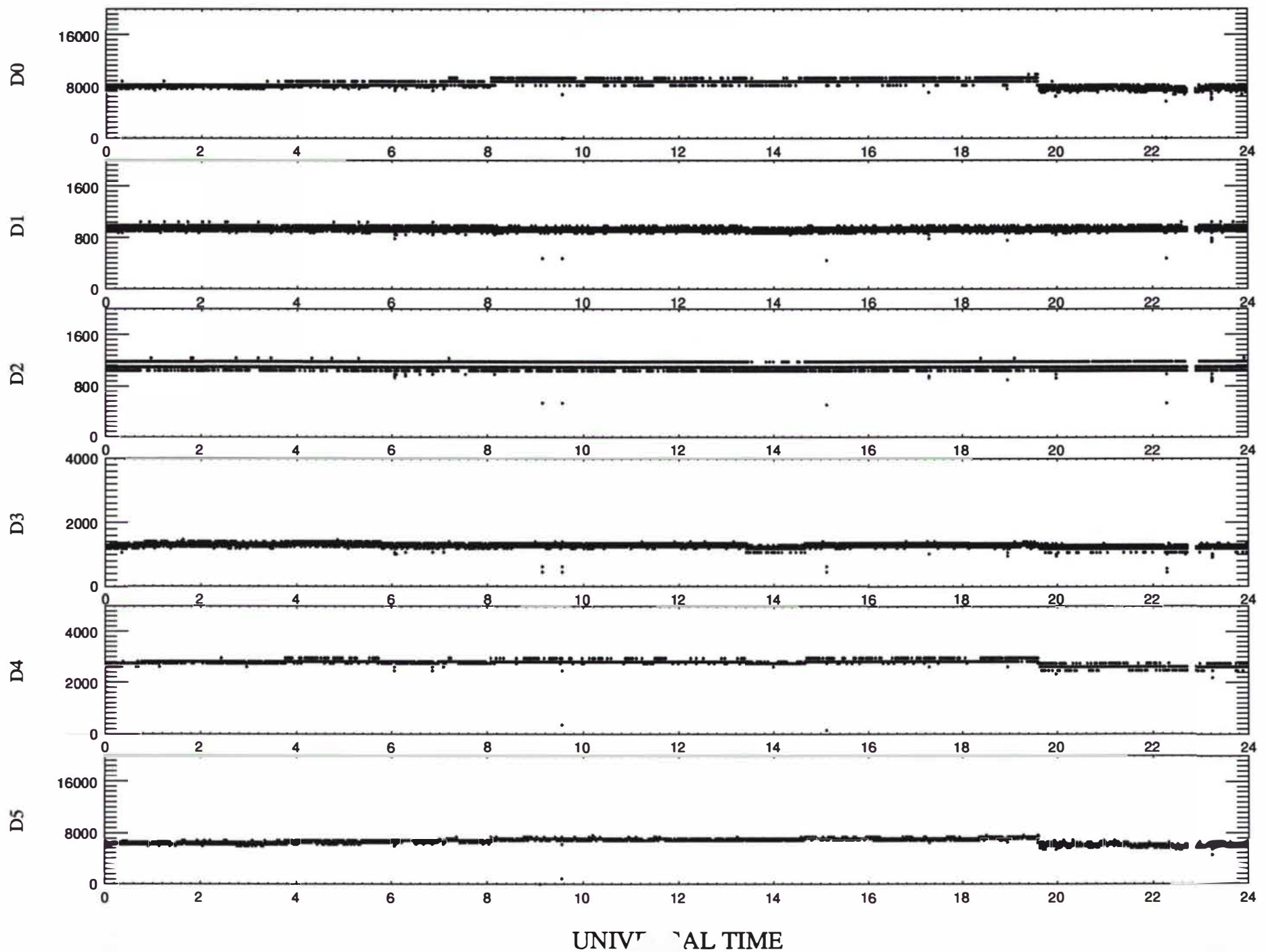
11/16/95



HUS 2A, MODE 1, NOT AVERAGED QEDR day 107, year 1995 to day 107, year 1995
CALIBRATION DATA INCLUDED

4/18/95





From HENZE@fender.msfc.nasa.gov Thu Apr 20 11:23 PDT 1995
Date: Thu, 20 Apr 1995 13:23:44 -0500 (CDT)
From: HENZE@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3512

BATSEARCH PROGRAM

RI

BATSE BURST # 3512
EVENT OF 1995 APR 18 DAY OF YEAR=108
EVENT CROSSING TIME AT BATSE : 83795. S. OR 23:16:35.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 92.000 3.000
BATSE PEAK COUNTING RATE: 13000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 18/ 4/ 95 IS:
RA= 355.639 DEC= 17.038 DIST= 2.184 AU
BATSE-ULYSSES DISTANCE = 326688488. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 84.81 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 98.57 SECS.
CROSSING TIME AT ULYSSES IS 83894. S. OR 23:18:13 +/- 239.91 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 18/ 4/ 95 IS:
RA= 139.620 DEC= 18.332 DIST= 1.037 AU
MARS-BATSE DISTANCE = 155104048. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=130.95 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -339.10 SECS.
CROSSING TIME AT MARS IS 83456. S. OR 23:10:55 +/- 62.69 SECONDS

BATSE BURST TRIGGER

NO.: 03512

TIME: TJD=9825 SECONDS=83795

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=069.1 AZIMUTH=280.0 ERROR= DEGREES

COMMENTS:

SINGLE PULSE, DUR. ~45 S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3512	950418	9825	83795	13000	092	+03	45

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

Dear Kevin,

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

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

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

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

Helio corr removed

Date: *Oct 28 '97*

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

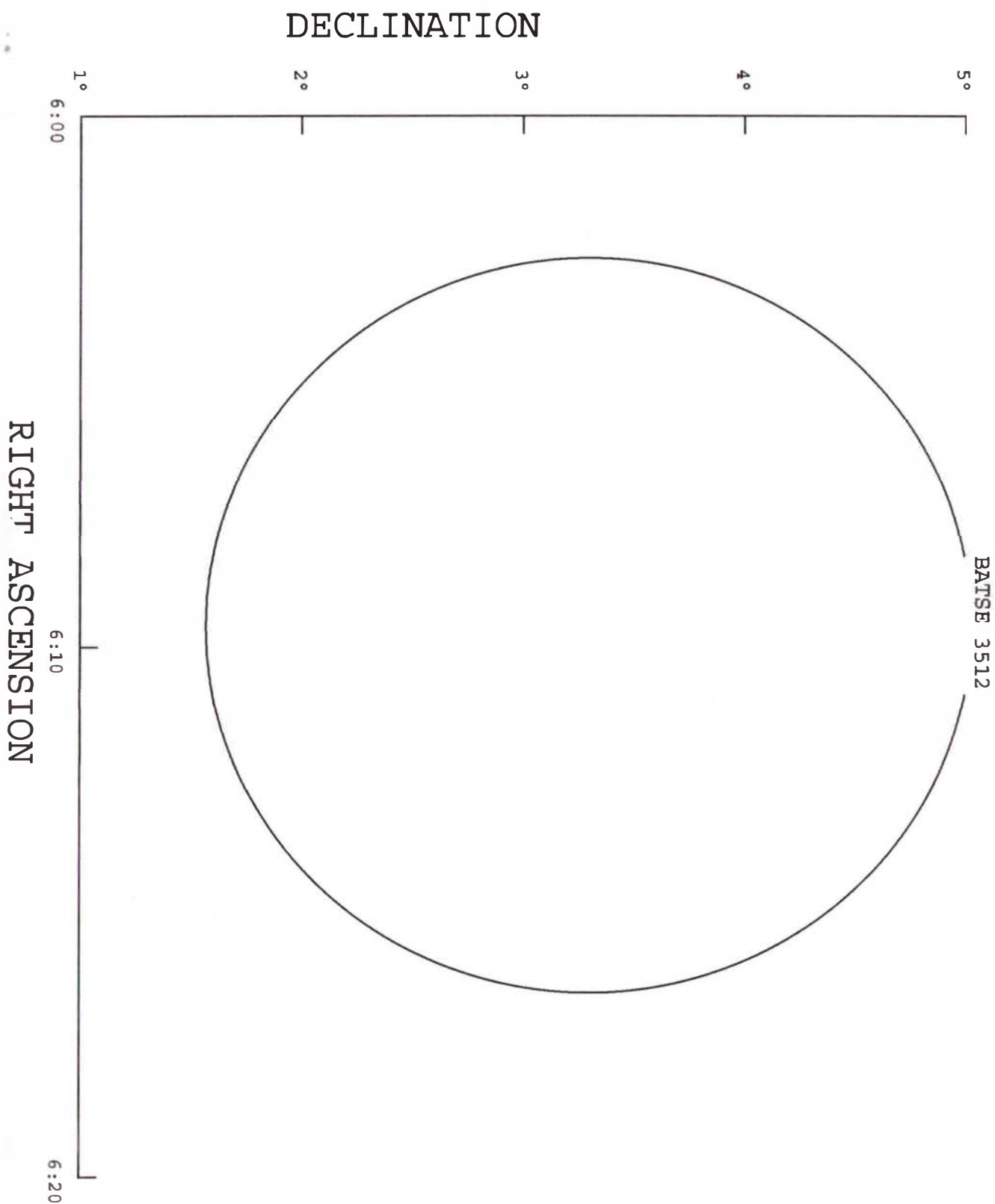
G=GALACTIC EQUATOR

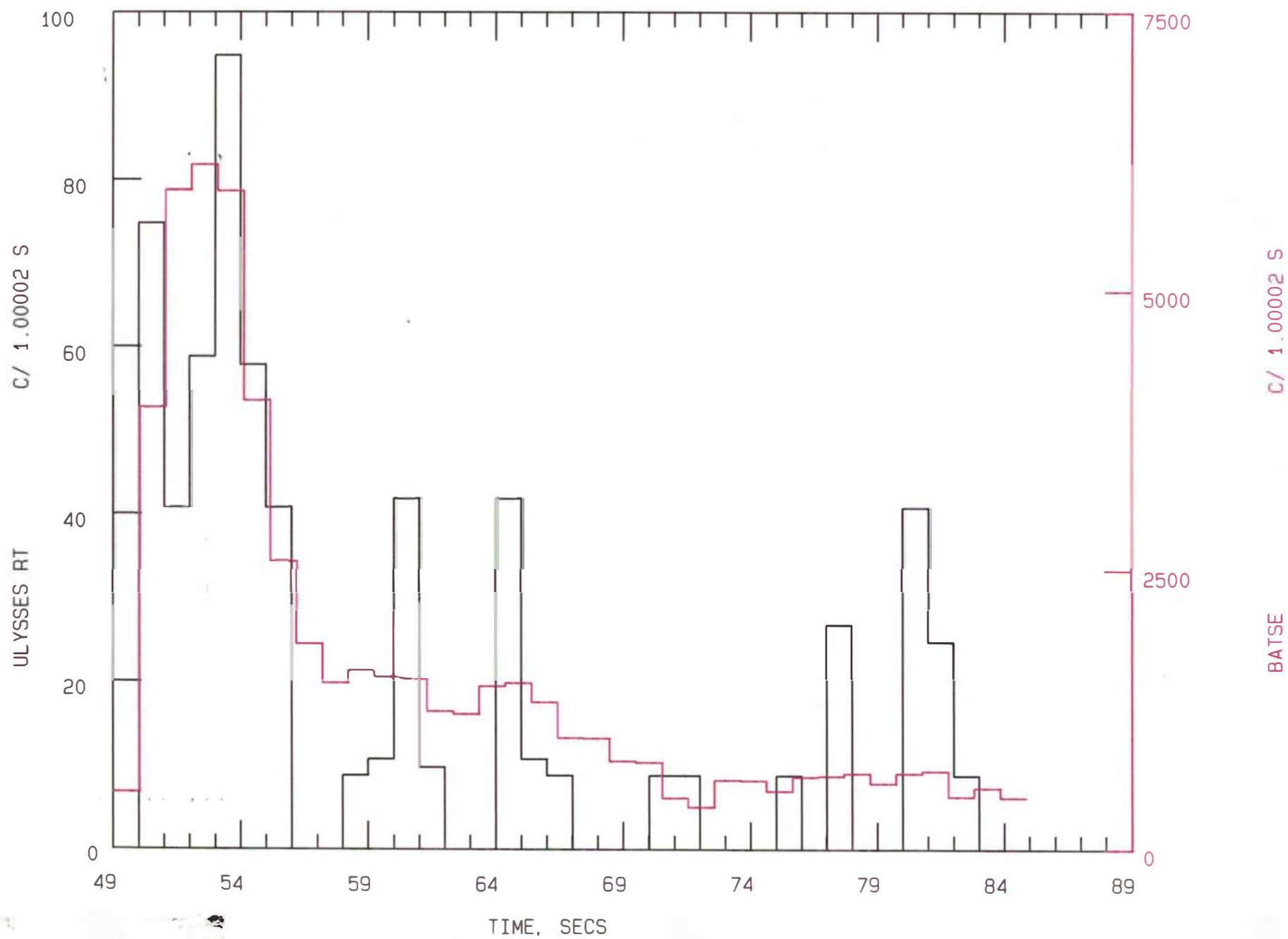
1 ULYSSES

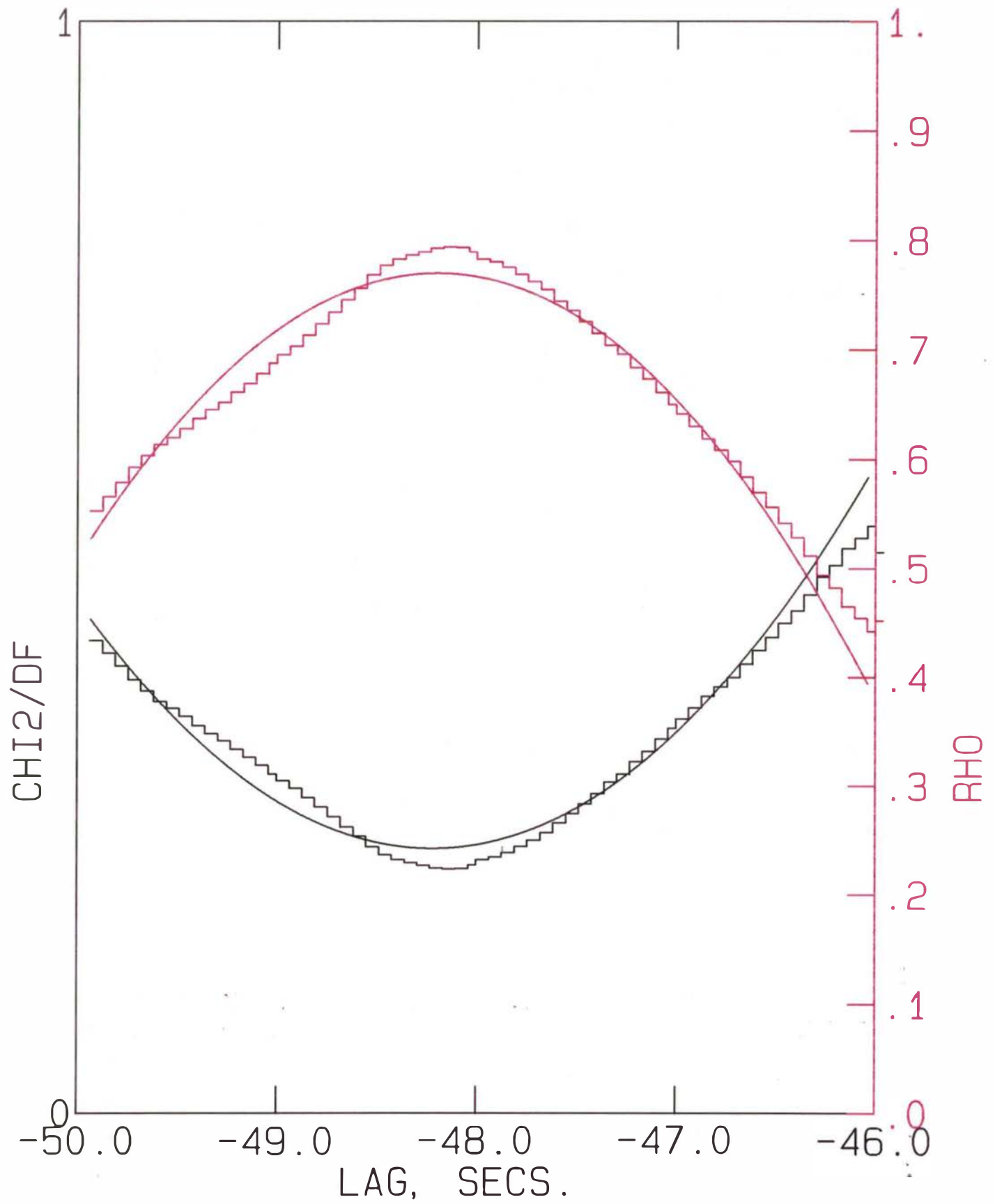
2 BATSE

EVENT OF APR 18, 1995 23:18

28/10/97







ULYSSES RT

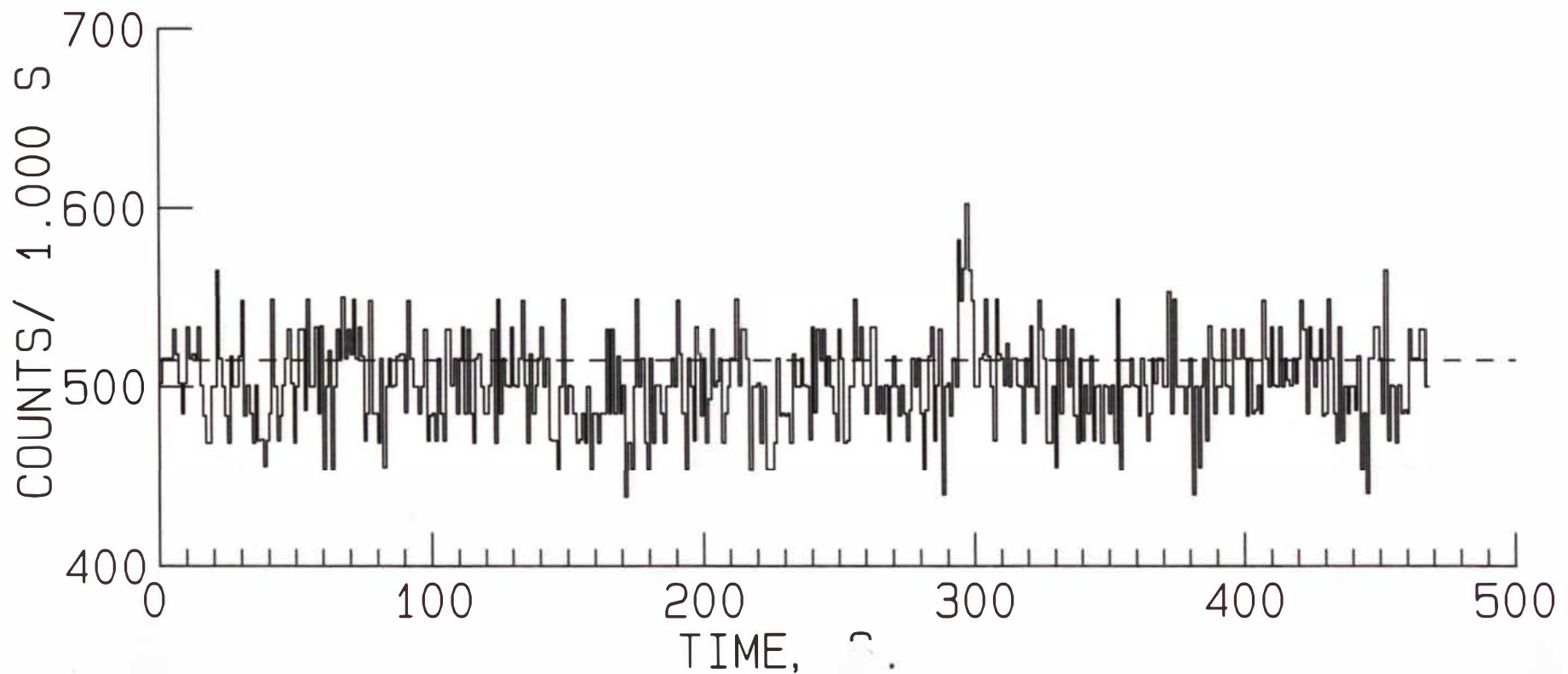
28/10/97

18/ 4/95 83664.003 s

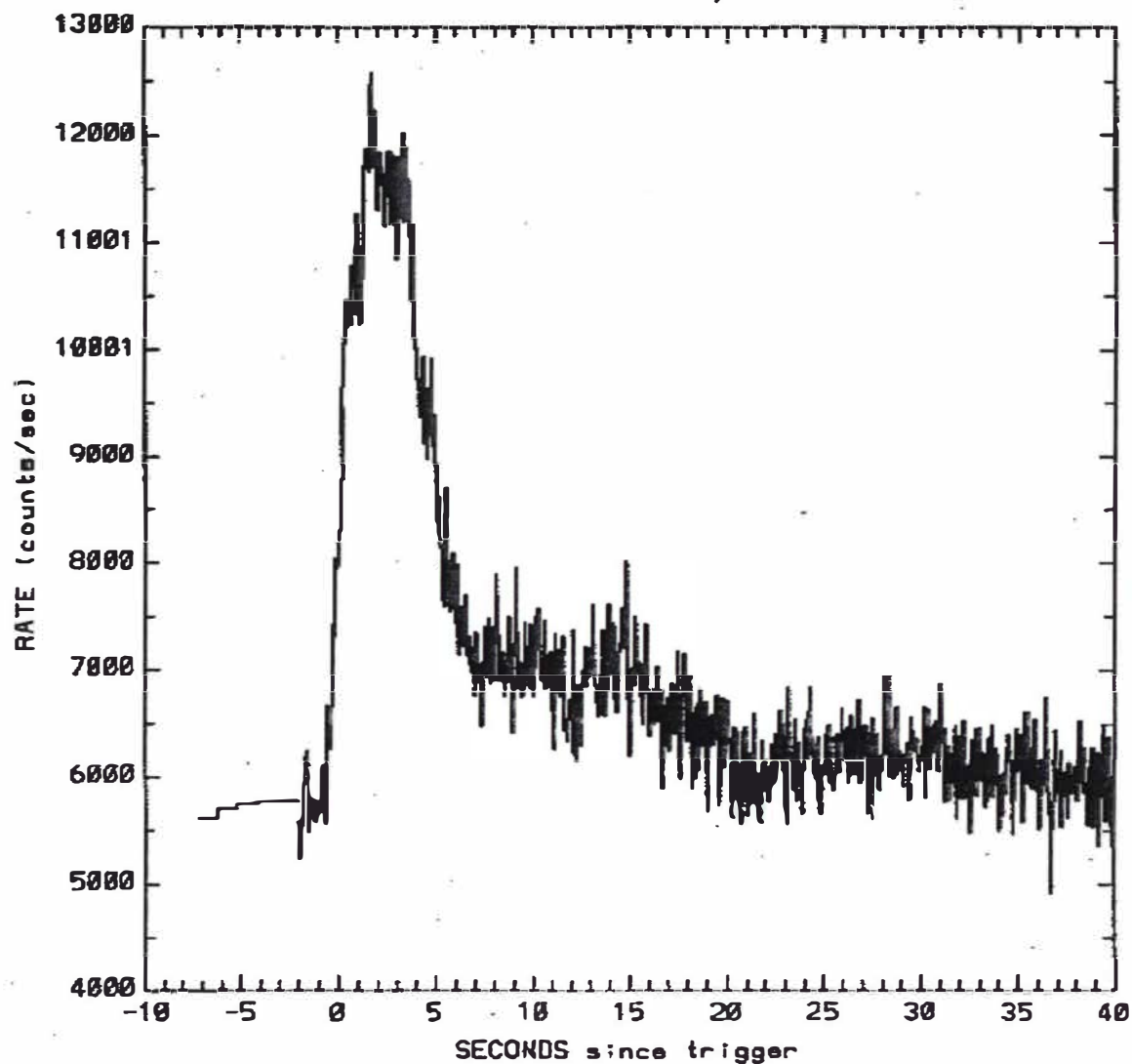
0.250 S INTERVALS REGROUPED BY 4

21- 142 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



DISCSC Data for K. Hurley, No. 3512



1-MAY-1995 13:47:09

Created by MOPS 80
(Burst Display)
Version 12.25

Trigger * . 3512

Trigger Time:
9825 / 83795.634Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 secondsDetectors [7..0].
-6---2--Discriminators:
(1 . 2)Quality Mask:
80ISP1

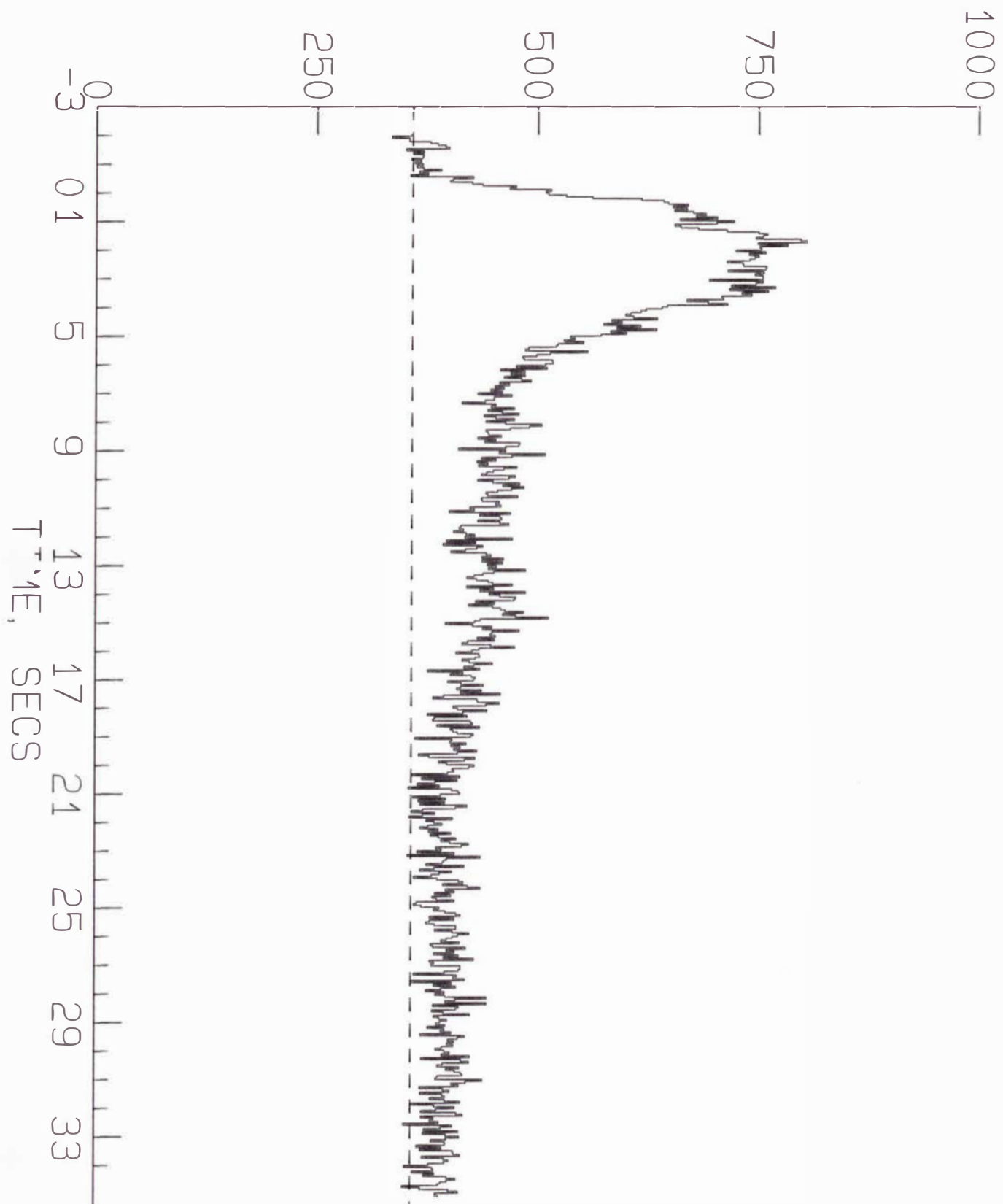
BATSE

18/04/95

83795.634

25- 100 keV

COUNTS/ .064 S



From DEAL@ssl.msfc.nasa.gov Fri Apr 21 09:28 PDT 1995
Date: Fri, 21 Apr 1995 11:28:05 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3513

TIME: TJD=9826 SECONDS=13263

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

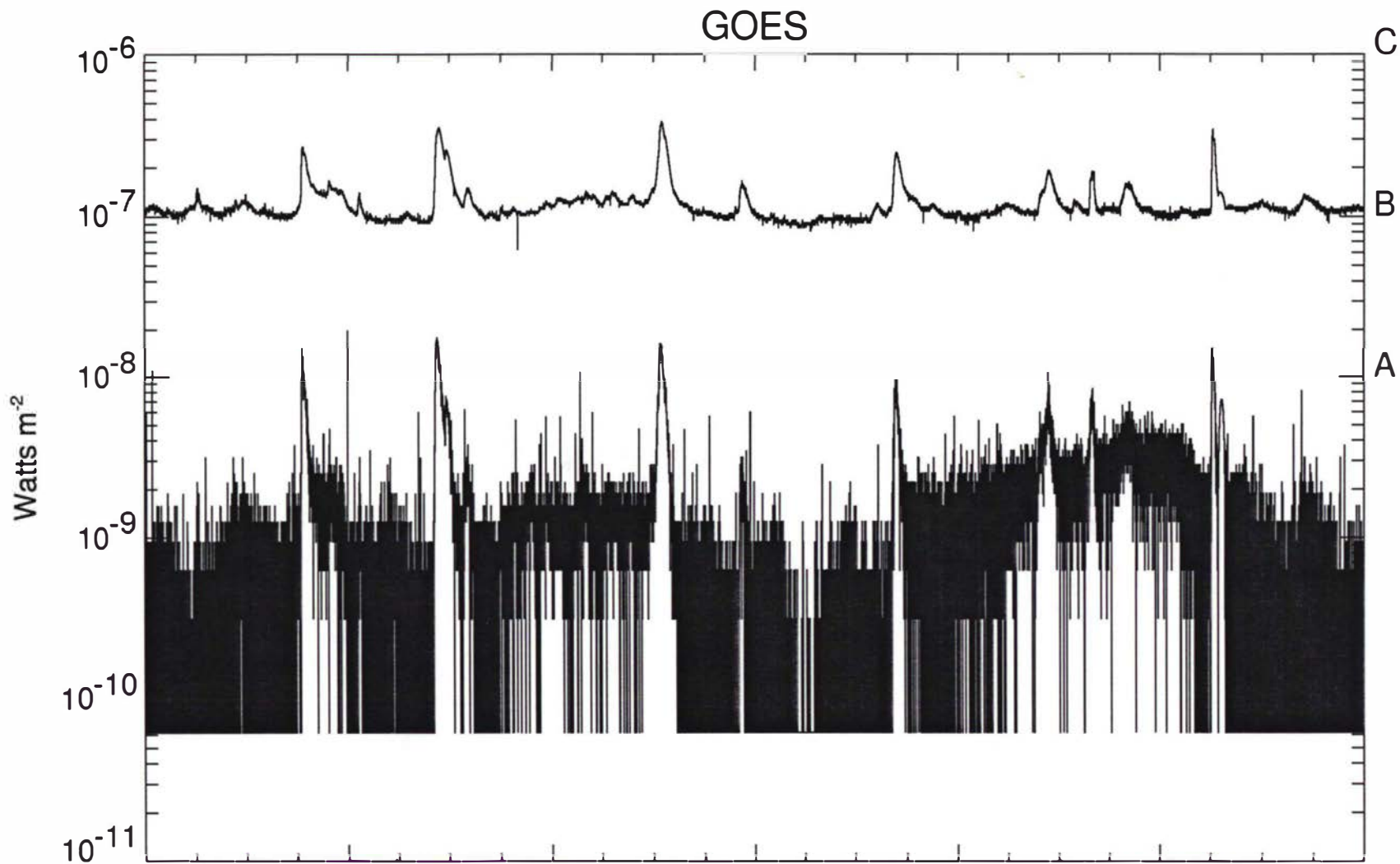
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=103.2 AZIMUTH=327.7 ERROR= DEGREES

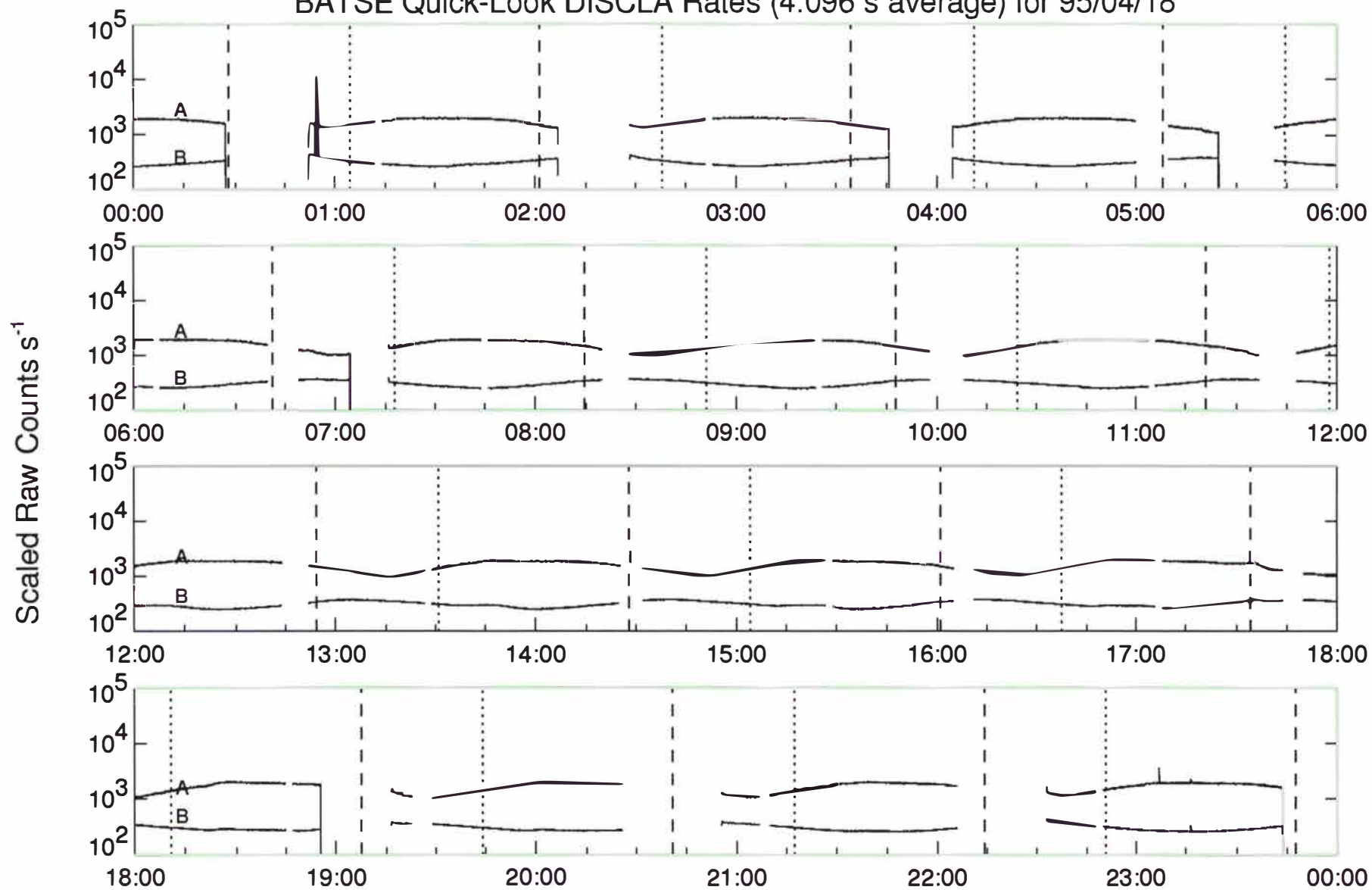
COMMENTS:

SOLAR FLARE LASTING ~ 50S. NOT VISIBLE ABOVE 50 KEV.



Data Start: 95/04/18, 0000:02 Plot created: 95/04/21, 0513
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted
 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/18



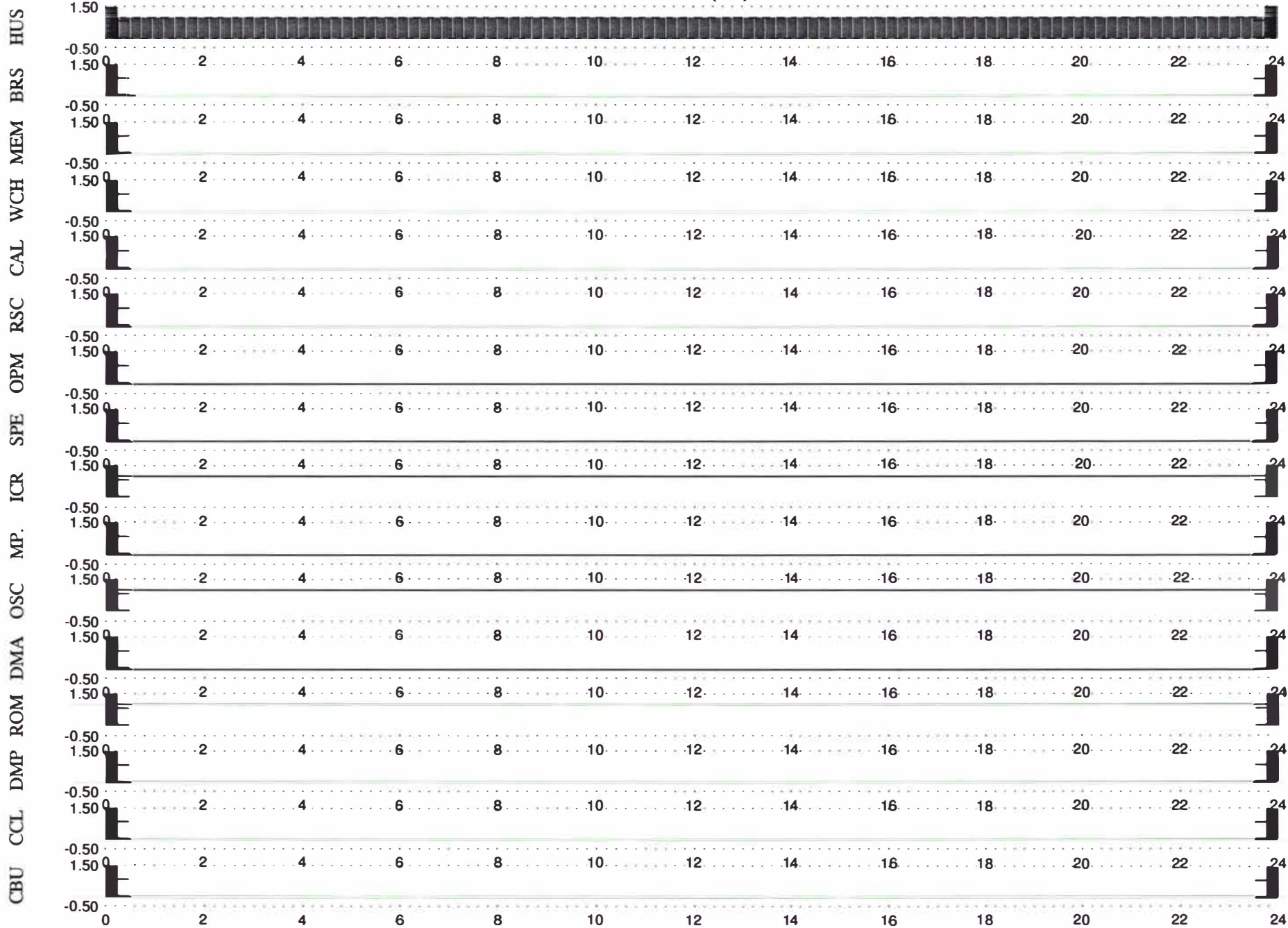
Current Time: 95/04/21, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

HUS MODES EDR day 108, year 1995 to day 108, year 1995 NO BURST (15)

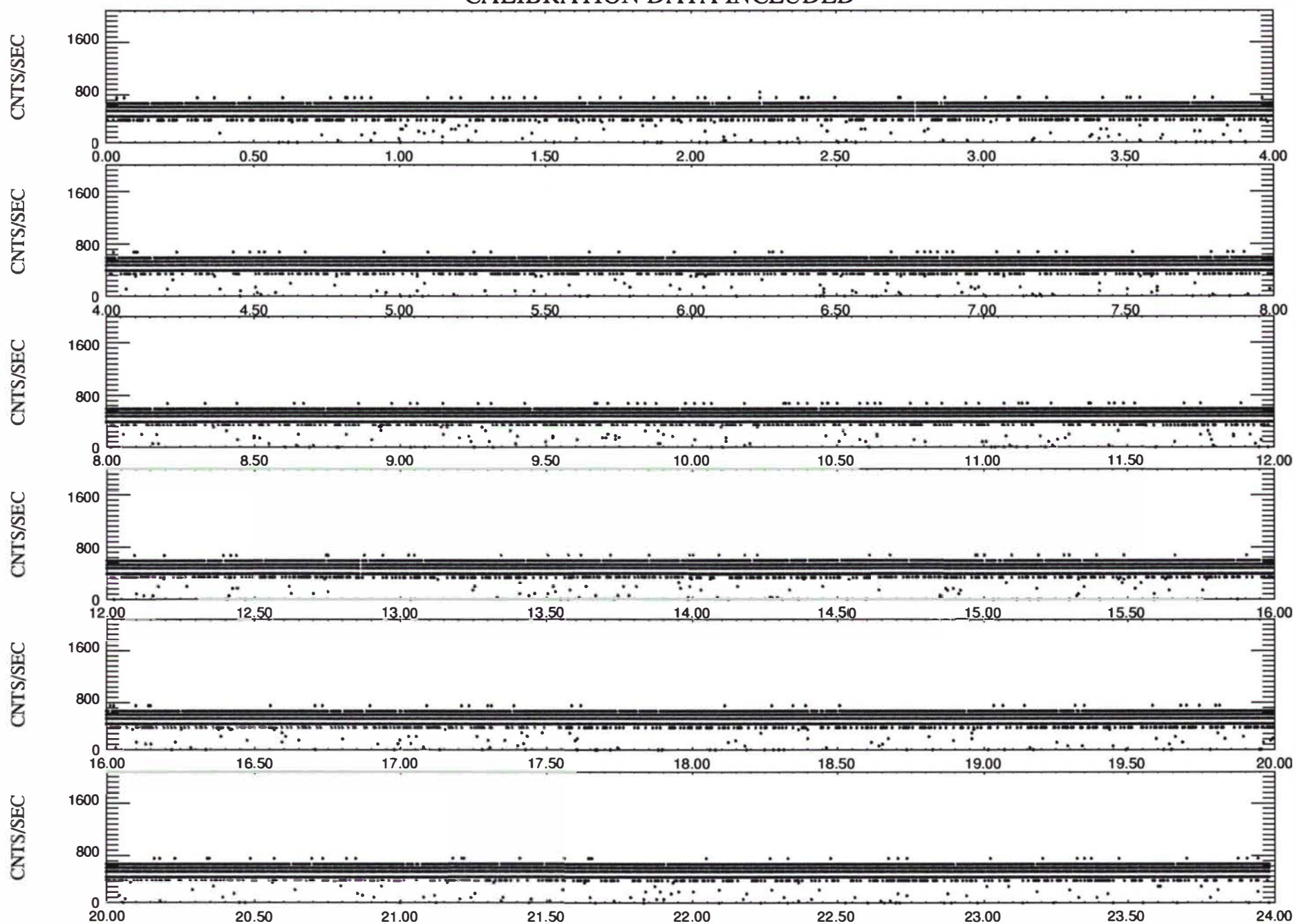
11/16/95



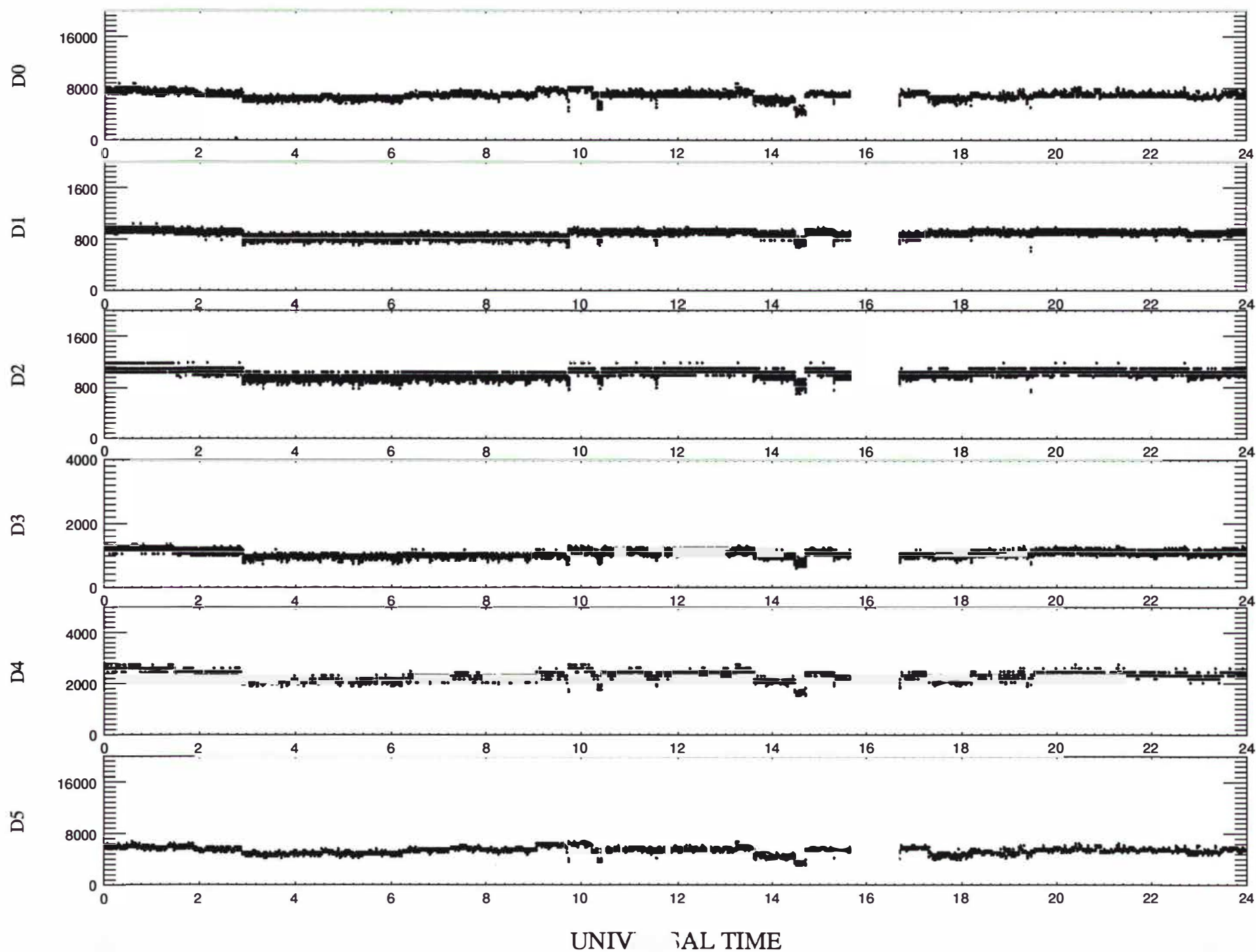
UNIT SAL TIME

HUS 2A, MODE 1, NOT AVERAGED EDR day 108, year 1995 to day 108, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIVERSAL TIME



Date: Aug 6 '08

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. For Konus events

- ☒ Konus ecliptic latitude used with latest calibration?

2. For Odyssey events

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

2. For 3 or More Spacecraft events

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

3. For INTEGRAL events

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

-
- ☒ ACCESS and MBL4 databases updated?

KONUS1

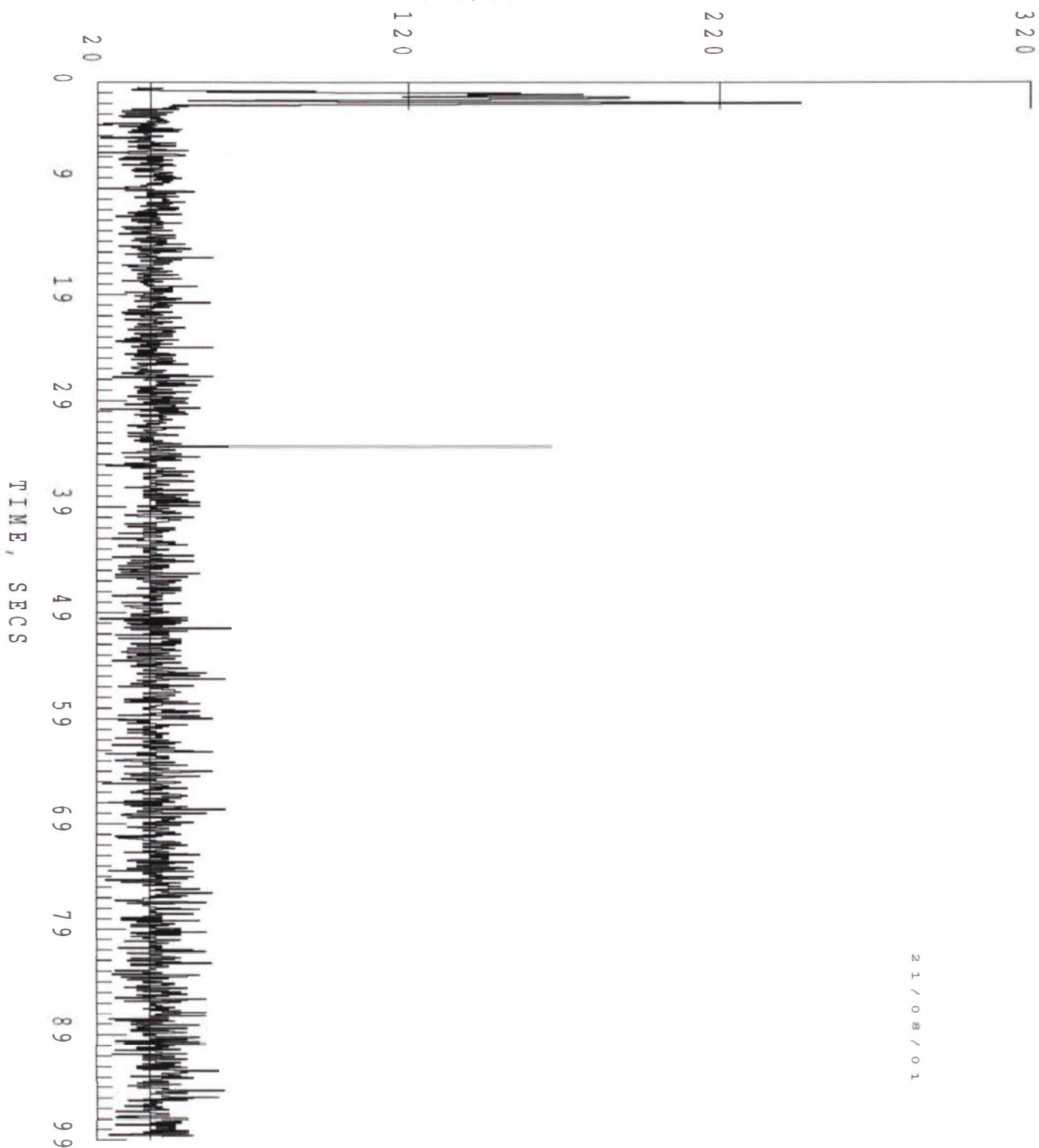
19/04/95

8628.860

50 - 200 keV

02:23:48

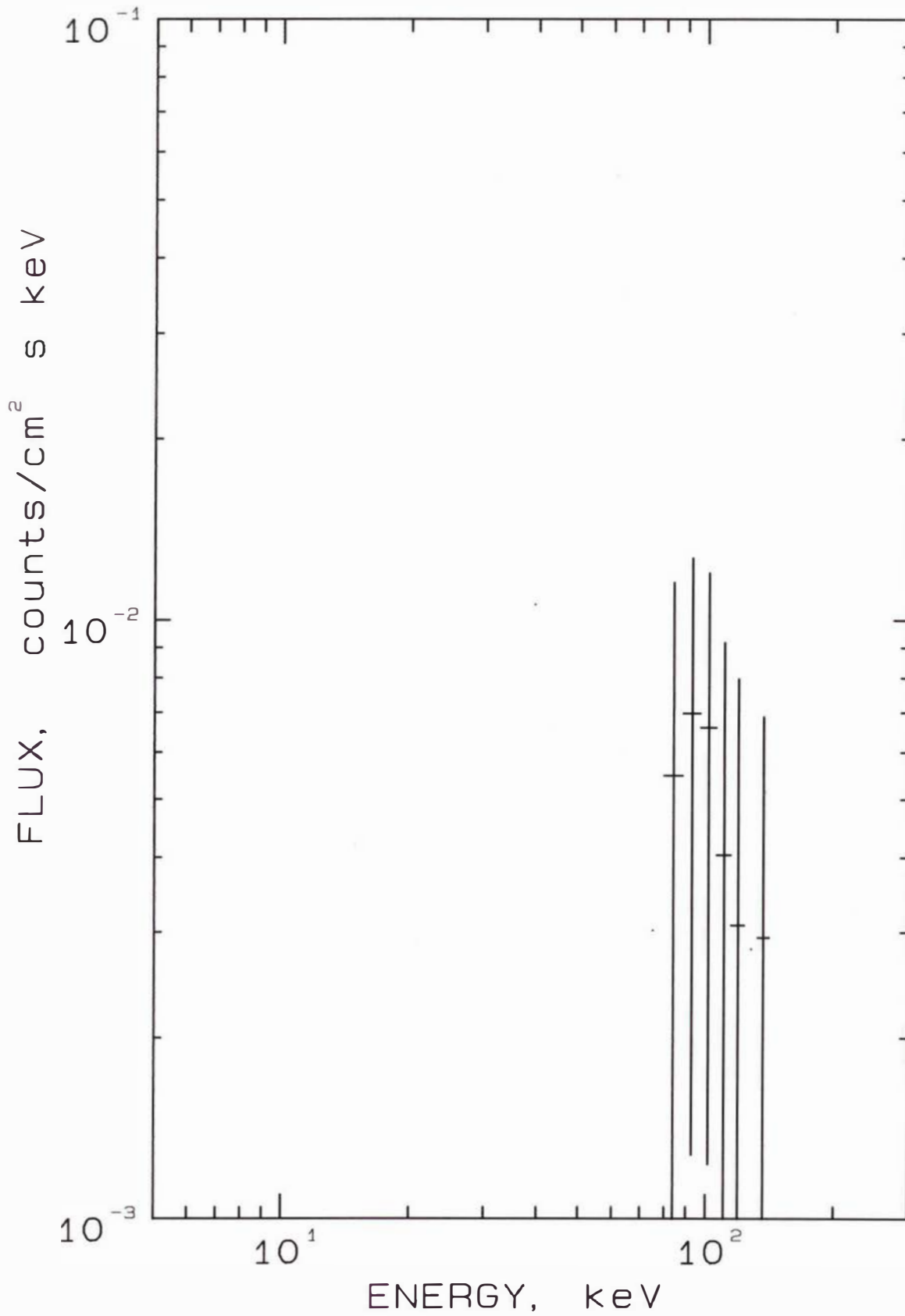
COUNTS/0.064 S



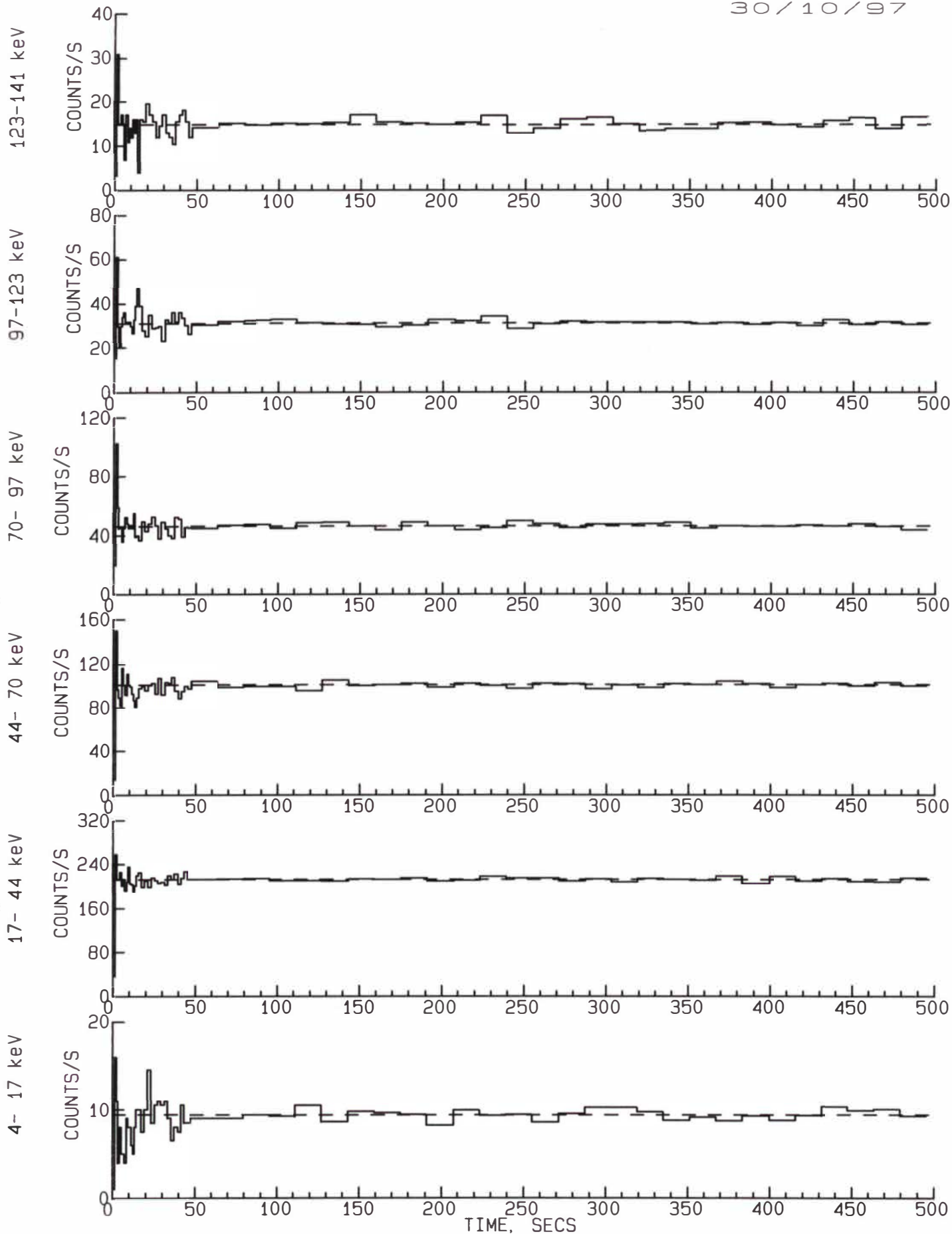
ULYSSES 19/04/95 8584.333

30/10/97

SPECTRUM INTEGRATED OVER 21.2 SECONDS, INTERVALS 2 TO 20



ULYS500S 19/04/95 8584.333 BURST SPECTRAL COUN, RATES



N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

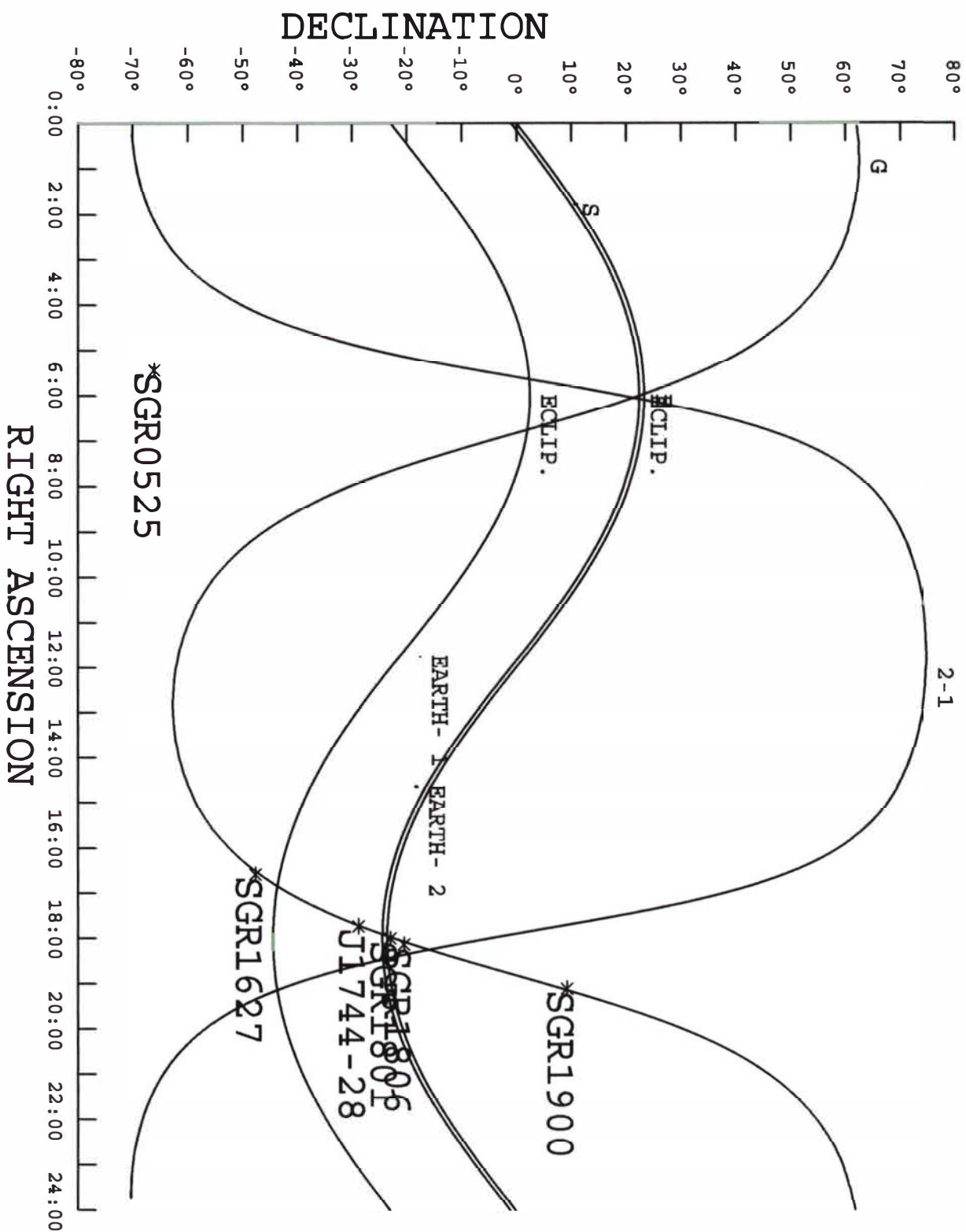
G=GALACTIC EQUATOR

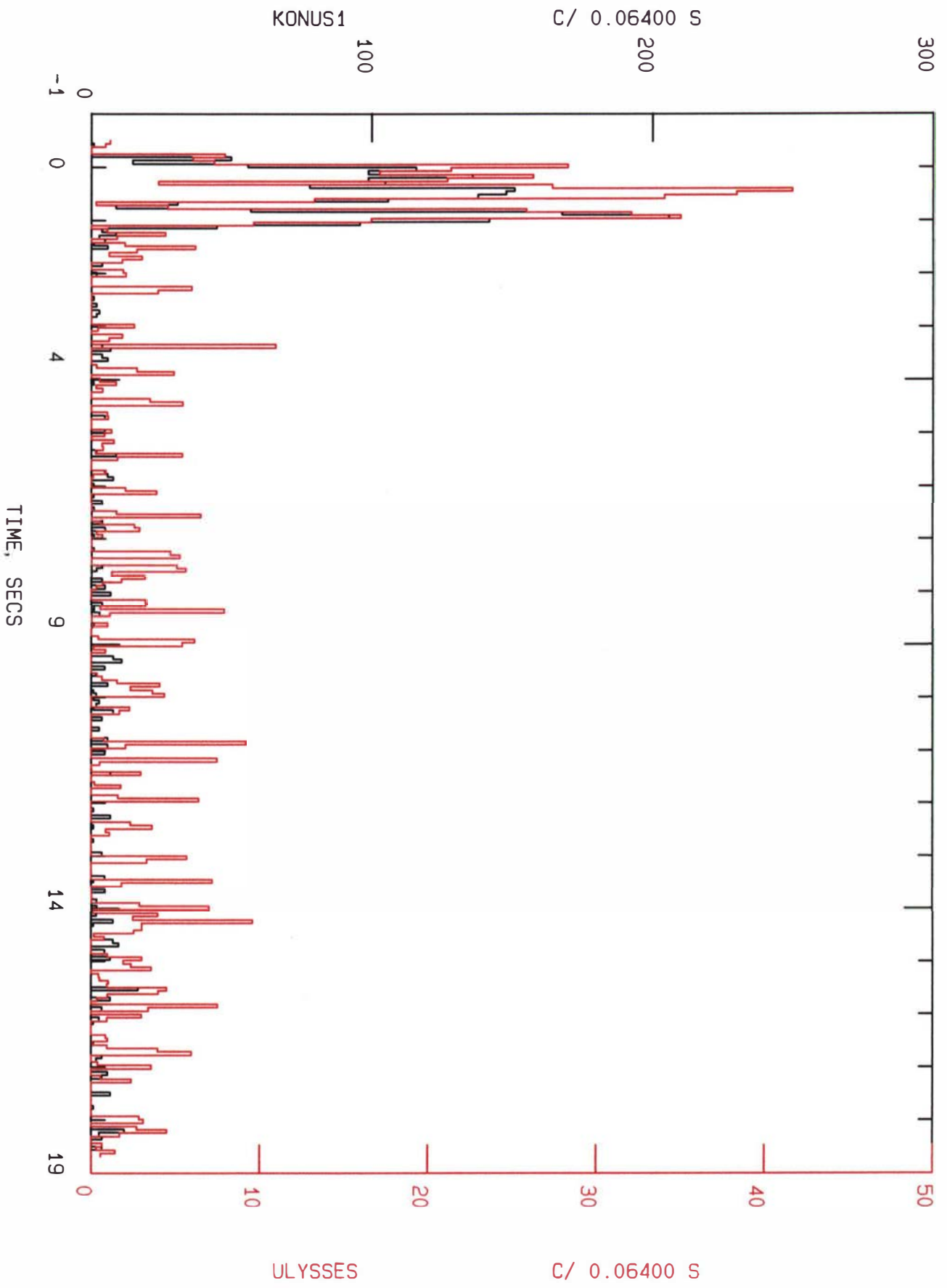
1 ULYSSES

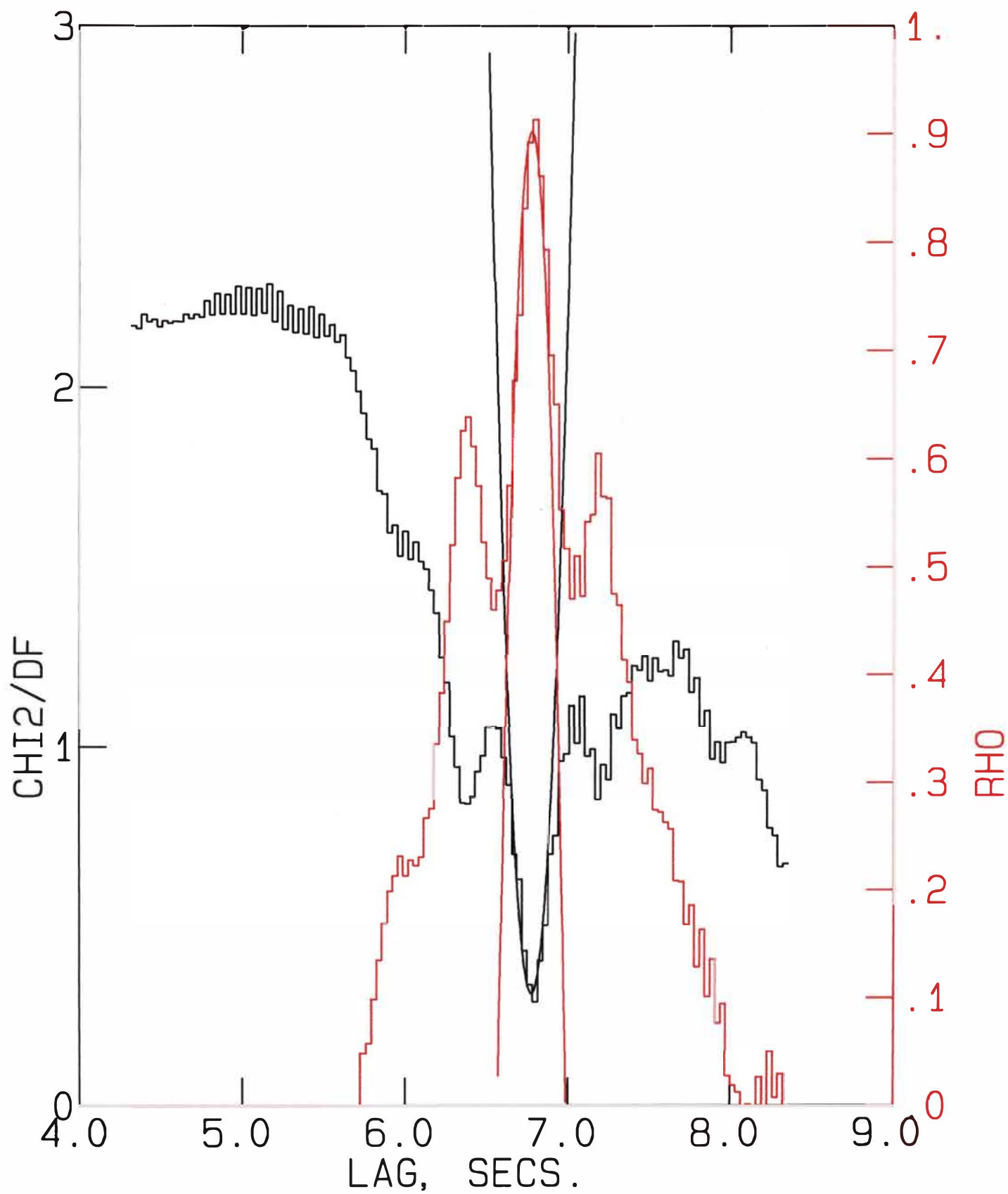
2 KONUS1

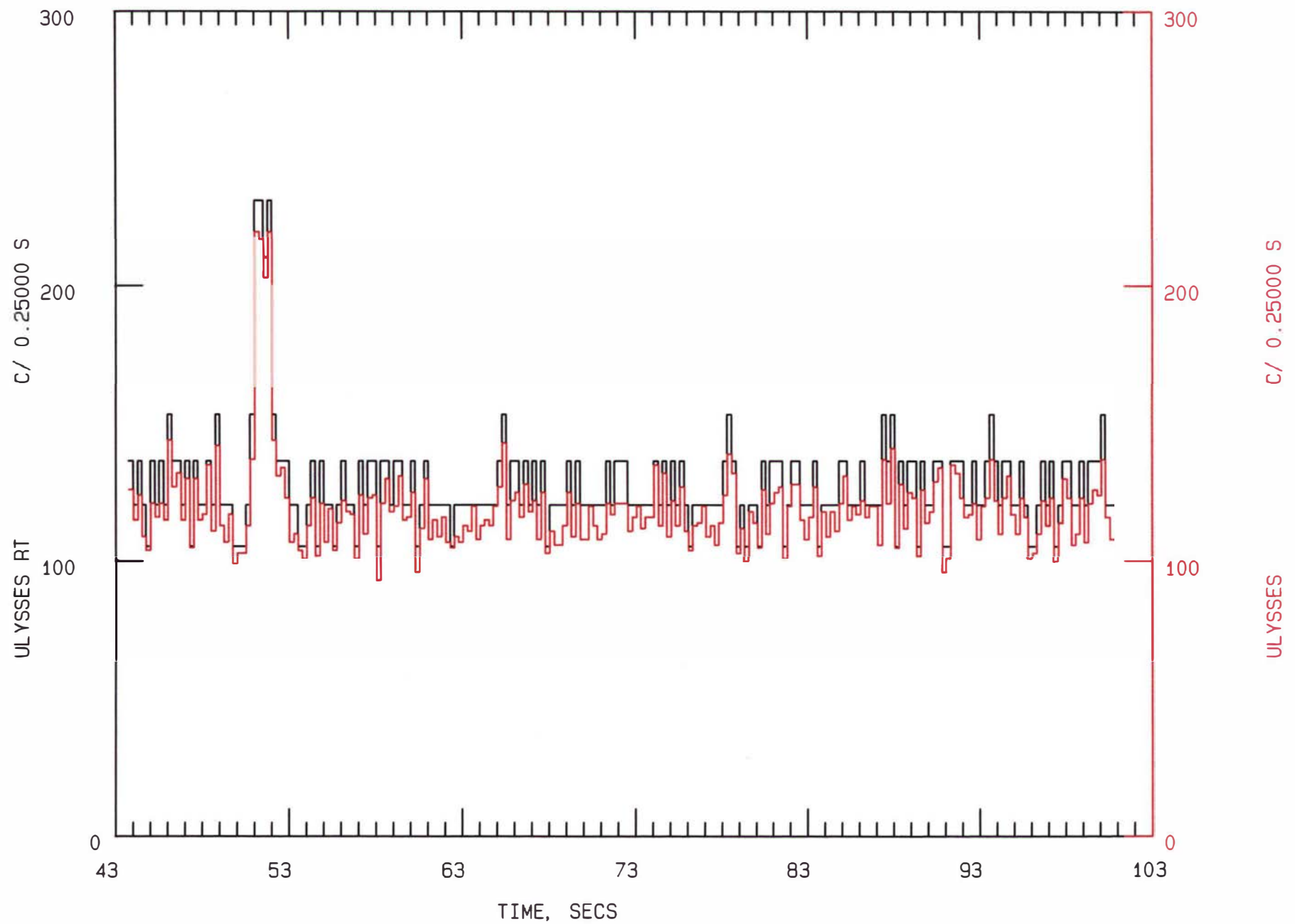
EVENT OF APR 19, 1995 2:23

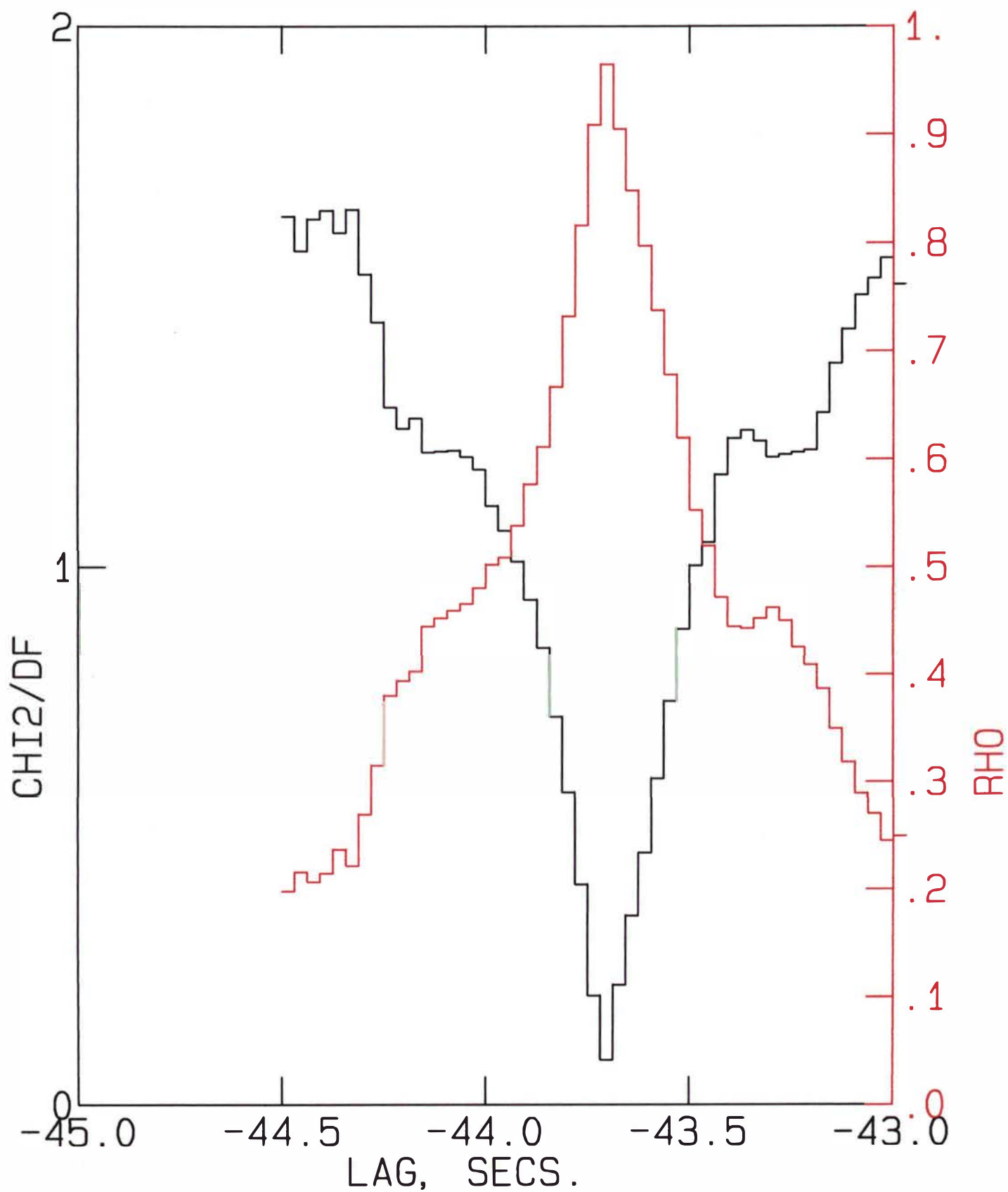
6 / 8 / 8









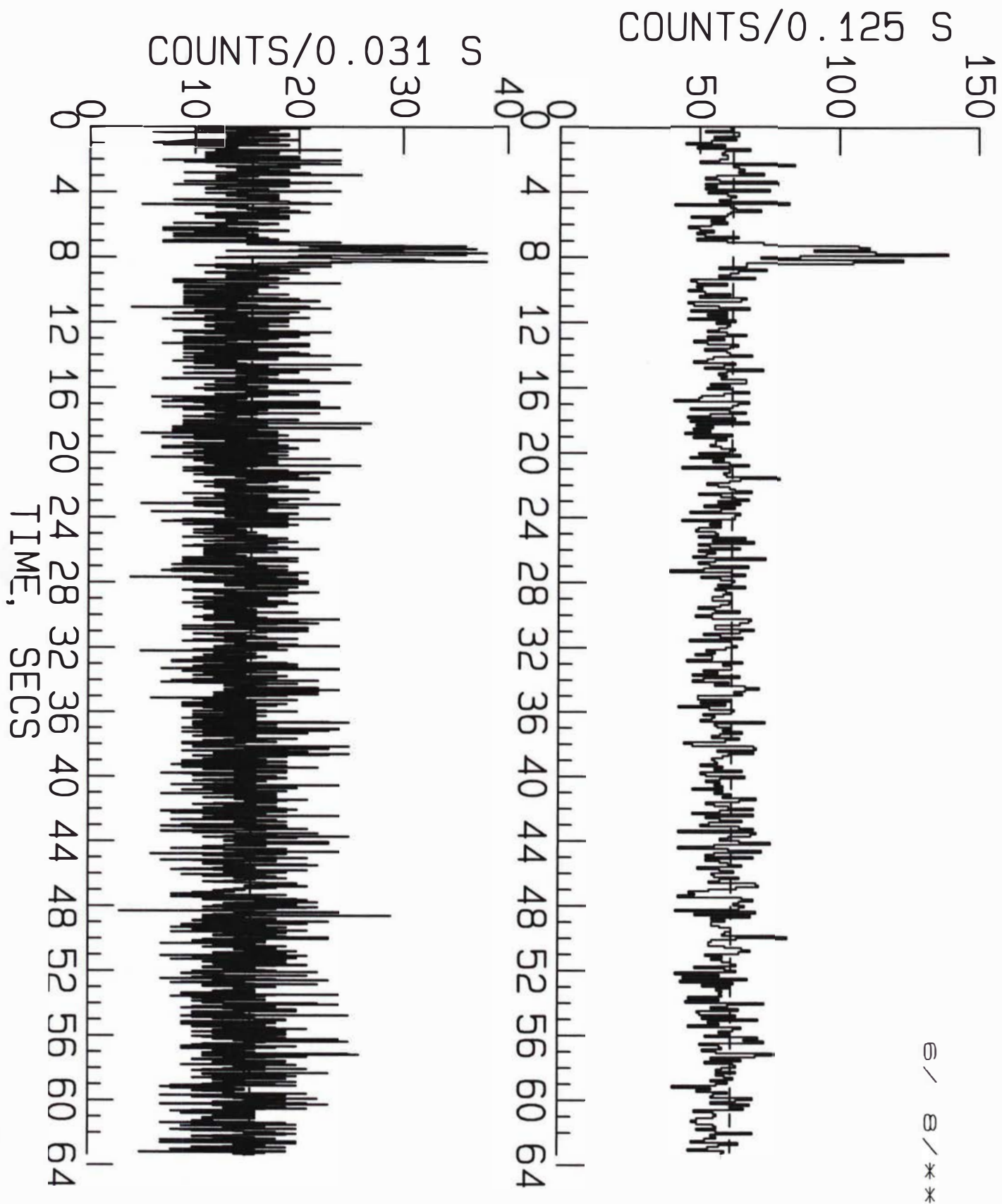


ULYSSES

19/04/95

Ttrig= 8584.333

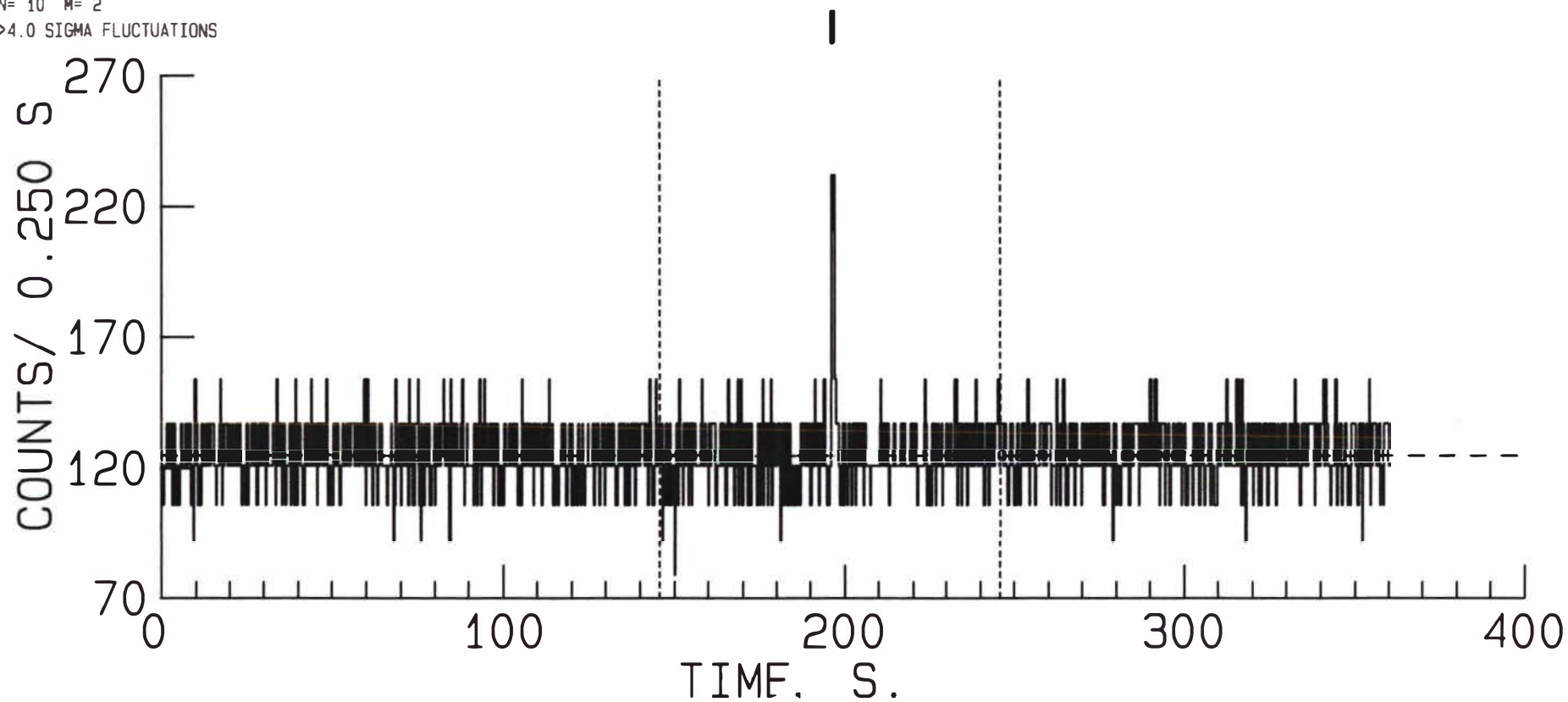
21- 141 keV



ULYSSES RT
19/ 4/95 8388.218 s
21- 141 keV

6 / 8 / 8

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Fri Apr 21 09:33 PDT 1995
Date: Fri, 21 Apr 1995 11:33:35 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3514

BATSEARCH PROGRAM

BATSE BURST # 3514
EVENT OF 1995 APR 19 DAY OF YEAR=109
EVENT CROSSING TIME AT BATSE : 41027. S. OR 11:23:47.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 50.000 55.000
BATSE PEAK COUNTING RATE: 3300 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 19/ 4/ 95 IS:
RA= 355.791 DEC= 17.388 DIST= 2.181 AU
BATSE-ULYSSES DISTANCE = 326325108. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=124.40 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -614.90 SECS.
CROSSING TIME AT ULYSSES IS 40412. S. OR 11:13:32 +/- 196.60 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 19/ 4/ 95 IS:
RA= 139.859 DEC= 18.225 DIST= 1.045 AU
MARS-BATSE DISTANCE = 156381856. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=104.92 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -134.33 SECS.
CROSSING TIME AT MARS IS 40893. S. OR 11:21:32 +/- 85.47 SECONDS

BATSE BURST TRIGGER

NO.: 3514

TIME: TJD=9826 SECONDS=41027

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=126.5 AZIMUTH=303.3 ERROR= DEGREES

COMMENTS:

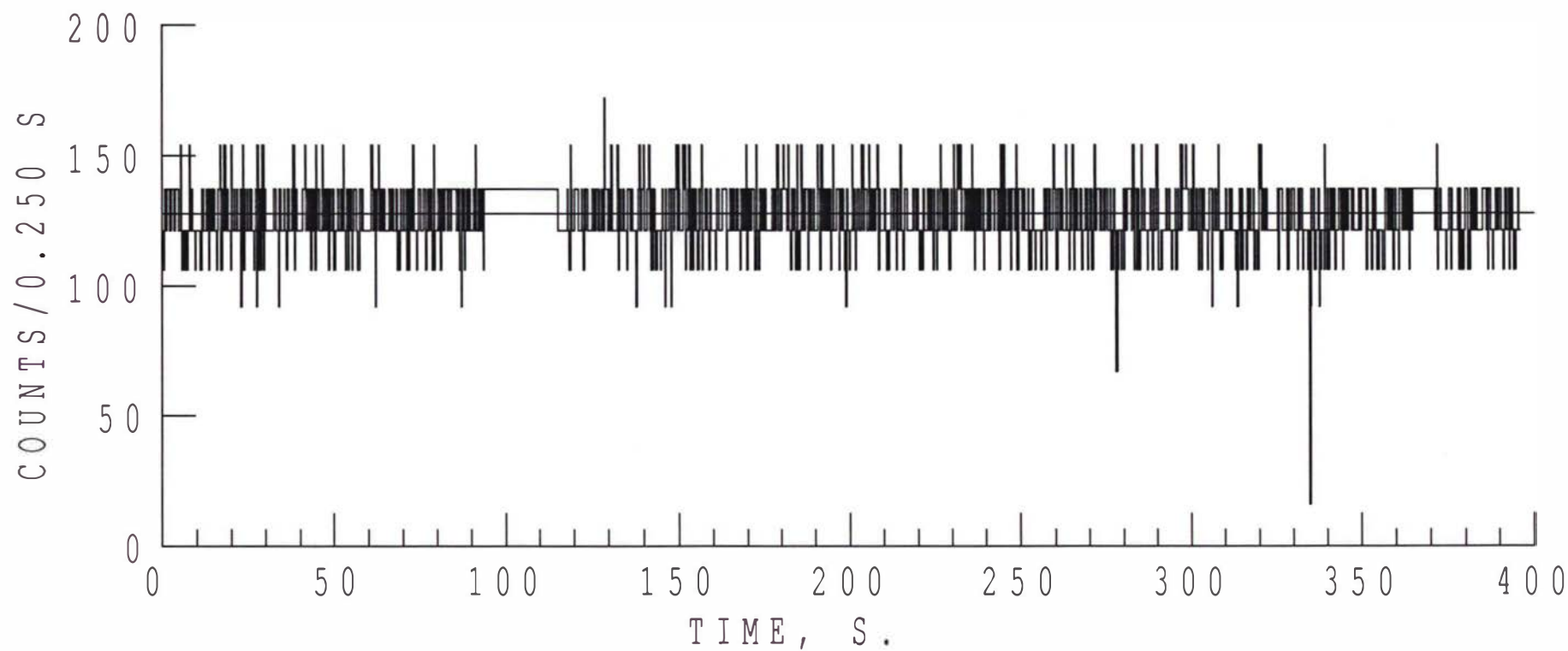
BURST INCLUDING 3 PEAKS LASTING 90S. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3514	950419	9826	41027	3300	050	+55	90

21 / 4 / 95

ULYSSES RT
19 / 4 / 95 40212.086 s
0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



950416	13	27	00	S2	80	130	10	<0.2	20		BGR	✓
950418	23	16	33.572	S1	180	530	220	2.7	0.5	15	81	✓
950419	02	23	48.860	S1	600	3260	2440	1.5	0.2	1.1	82	✓
950419	11	23	32	S2	70	50	10	<0.15	90		BGR	✓
950419	13	11	40	S1	100	110	30	>15	130		BGR	
950419	23	21	17.472	S2	200	400	200	0.35	1	1.5	83	
950422	04	05	44.359	S1	1440	400		0.9	15	40	84	Sol ✓
950422	11	45	22.690	S2	12200	1680	60	0.9	30	300	85	Sol ✓
950425	00	15	23.718	S1	1200	2780	1820	2.4	0.5	65	86	✓
950425	18	12	59.017	S2	230	330		0.97	3	4	87	
950427	14	39	12	S1	20	60	40	>8	20		BGR	
950430	15	03	44	S2	30	100	20	0.5	6		BGR	✓
950430	18	30	00	S2	120	140	20	0.1	9		BGR	
950501	03	25	04	S2	120	130	25	<0.1	9		BGR	✓
950503	06	54	25	S2	60	80	15	0.3	60		BGR	
950503	18	36	11.838	S1	1140	4200	3140	1.9	0.2	115	88	✓
950505	14	52	57	S2	260	150	30	<0.1	9		BGR	
950505	14	58	59.053	S1	540	420	45	12	12	30	89	
950506	23	25	10	S2	280	65		<0.15	15		BGR	
950507	01	59	22	S2	25	90	30	<0.1	12		BGR	
950509	12	49	42	S2	75	150	30	0.1	18		BGR	✓
950510	07	48	03.509	S1	640	630	160	>15	2	15	90	✓
950510	21	34	45	S2	30	60	30	<0.1	25		BGR	
950512	00	16	43.891	S1	2770	6300	1830	2.8	0.1	56	91	✓
950513	07	24	52.760	S2	1800	550		0.85	9	26	92	Sol
950513	22	41	46.917	S1	720	1360	520	10	1	30	93	✓
950514	20	46	14	S1	30	60	15	2	30		BGR	
950515	00	54	48.326	S1	360	630	70	2.3	1	8	94	
950515	06	24	37.820	S1	350	400		2.3	2	50	95	
950520	23	07	51.404	S1	600	1560	1310	5	0.08	0.25	96	
950521	06	59	21.588	S1	200	280	50	3.7	8	50	97	✓
950522	06	38	18.964	S1	290	410	320	18	2.5	7	98	✓
950522	10	58	44.307	S2	190	440	180	1.3	2	90	99	✓
950522	23	41	20.844	S1	100	420	280	1.1	1	150	100	✓
950523	05	39	19	S2	70	110	15	0.4	60		BGR	✓
950523	08	41	42.284	S1	1290	2770	710	18	0.2	3	101	✓
950524	04	08	22.670	S2	110	300	140	0.95	2	1	102	✓
950526	04	36	53.640	S2	390	530	360	0.05	1	62	103	
950601	09	29	42	S2	270	60	20	<0.15	62		BGR	
950602	07	06	32.777	S1	140	310	180	>10	1	180	104	✓
950603	05	54	17.810	S1	180	300	170	10	2	12	105	
950606	19	59	24	S2	80	40		<0.15	26		BGR	
950608	22	36	37.603	S1	350	450	150	>25	140	12	106	✓
950609	04	54	19	S1	50	100	40	2	6		BGR	
950610	01	54	09.095	S1	240	520	160	5	6	17	107	✓
950610	05	18	16.034	S2	1060	3250	1300		0.03	0.07	108	
950611	05	52	12	S1	100	110	40	7	200		BGR	✓
950614	00	12	47	S1	110	50		5	18		BGR	
950615	14	37	32	S2	50	40		<0.1	25		BGR	
950616	12	49	37	S2	90	100	25	<0.06	180		BGR	
950622	19	51	10	S2	70	100	50	0.3	8		BGR	
950624	03	29	58	S2	40	40		<0.1	90		BGR	✓
950624	23	22	04.417	S2	150	540	130	<0.5	41	100	111	✓
950625	02	41	29.448	S2	200	240	30	<0.1	25	4	112	
950625	04	03	46.011	S2	120	360	120	0.9	3	5	113	✓
950625	05	19	36.832	S1	290	630	140	1.6	1	6	114	
950626	13	37	42	S2	160	120	20	<0.1	60		BGR	
950627	15	46	00	S1	100	50		>5	180		BGR	✓
950628	09	32	08	S2	20	90	10	0.7	100		BGR	
950629	10	17	13.034	S1	70	250	80	2	1	6	115	✓
950701	03	32	42.114	S1	340	1400	580	1.3	1	30	116	✓
950701	06	35	37.604	S2	570	1600	700	0.05	1	11	117	✓
950701	23	58	49.800	S2	1600	770	70	0.9	48	250	118	Sol
950702	12	09	32	S1	110	70		4.5	15		BGR	
950703	05	33	38.718	S1	260	870	560	2.5	15	120	119	✓
950704	03	10	31.823	S1	2600	5600	2600	4	0.6	4	120	✓

From cline@lheavx.gsfc.nasa.gov Fri Feb 2 05:41 PST 1996
 Date: Fri, 2 Feb 1996 05:41:51 -0800
 Mime-Version: 1.0
 To: Bonnard.Teegarden@cesr.cnes.fr, KHURLEY@sunspot.ssl.berkeley.edu,
 palmer@lheamail.gsfc.nasa.gov, seifert@lheamail.gsfc.nasa.gov
 From: cline@lheavx.gsfc.nasa.gov (T L Cline)
 Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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

K O N U S

1 5 / 2 / 9 6

U L Y S S E S R T

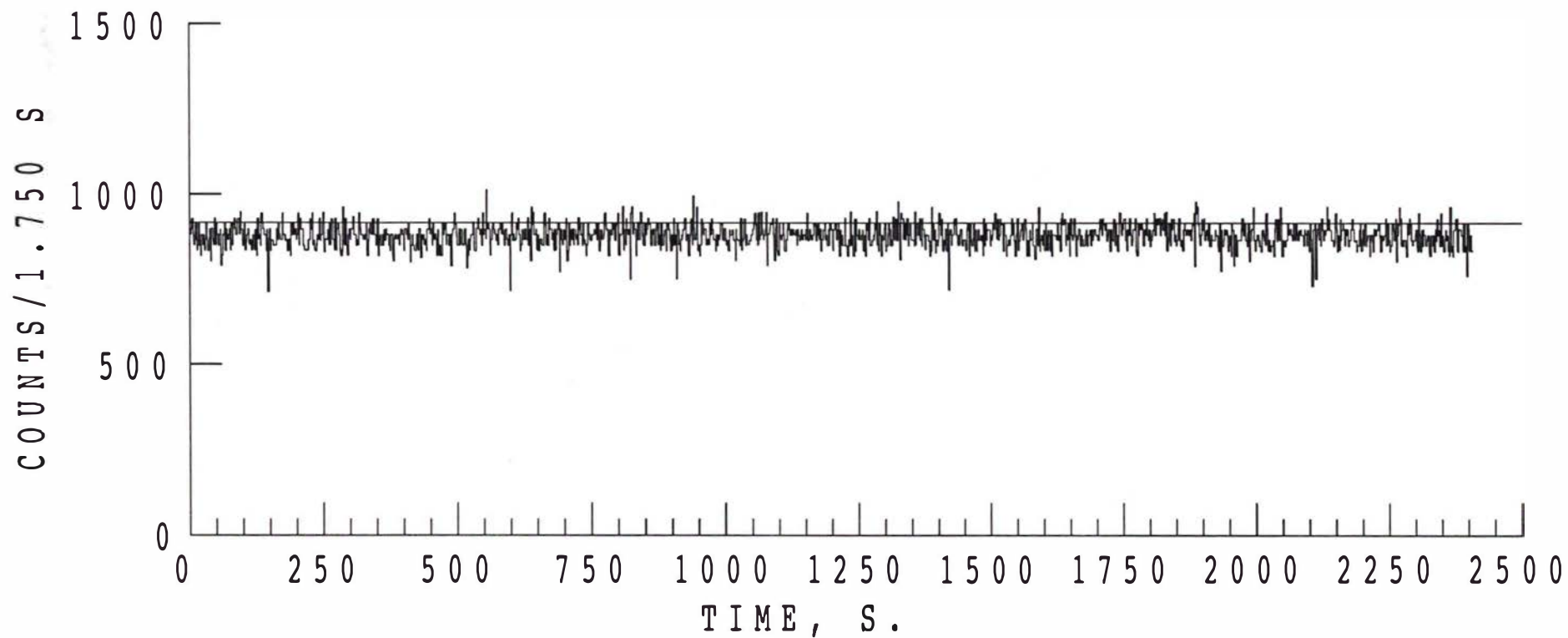
1 9 / 4 / 9 5 4 6 2 9 6 . 1 9 9 s

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



KONUS 19950419 84824

ULYSSES RT

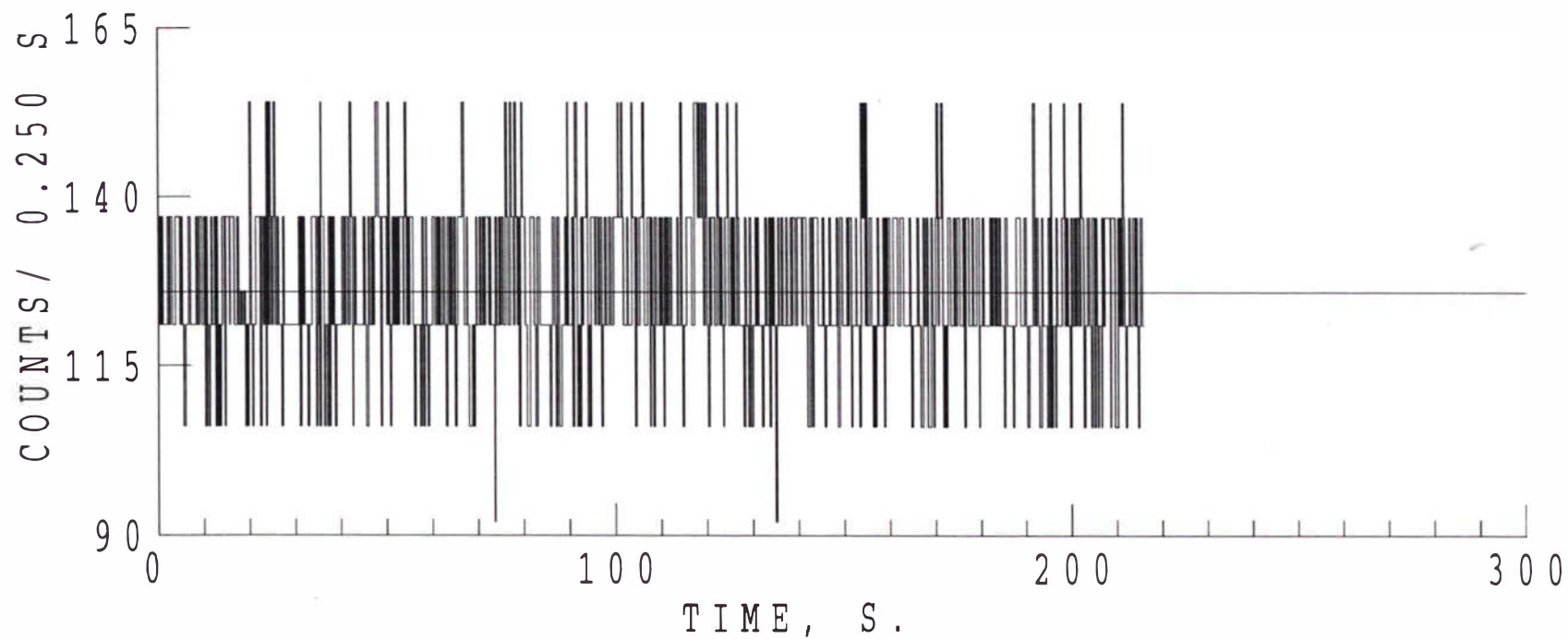
17 / 08 / 11

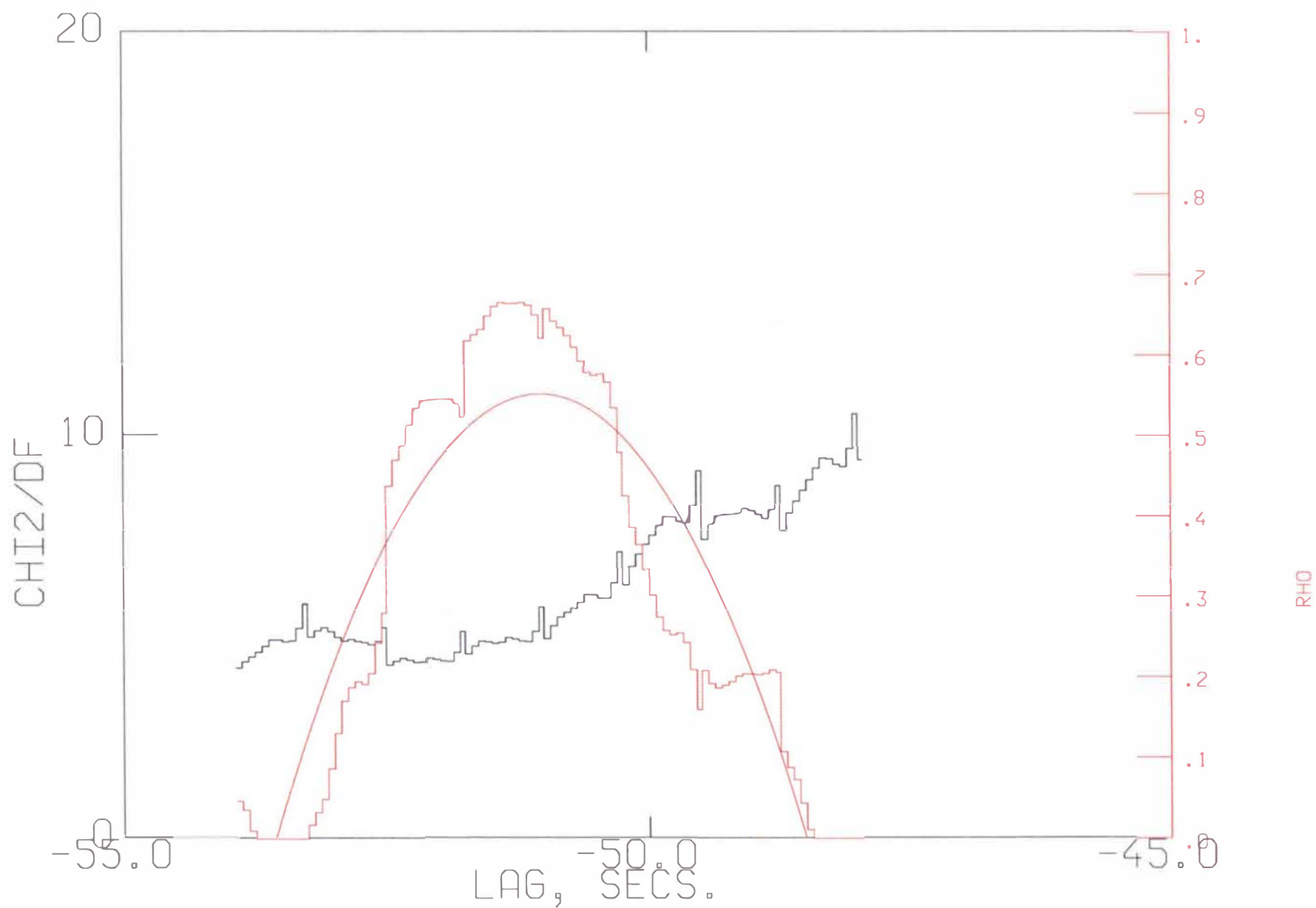
19 / 04 / 95 84708.195 s

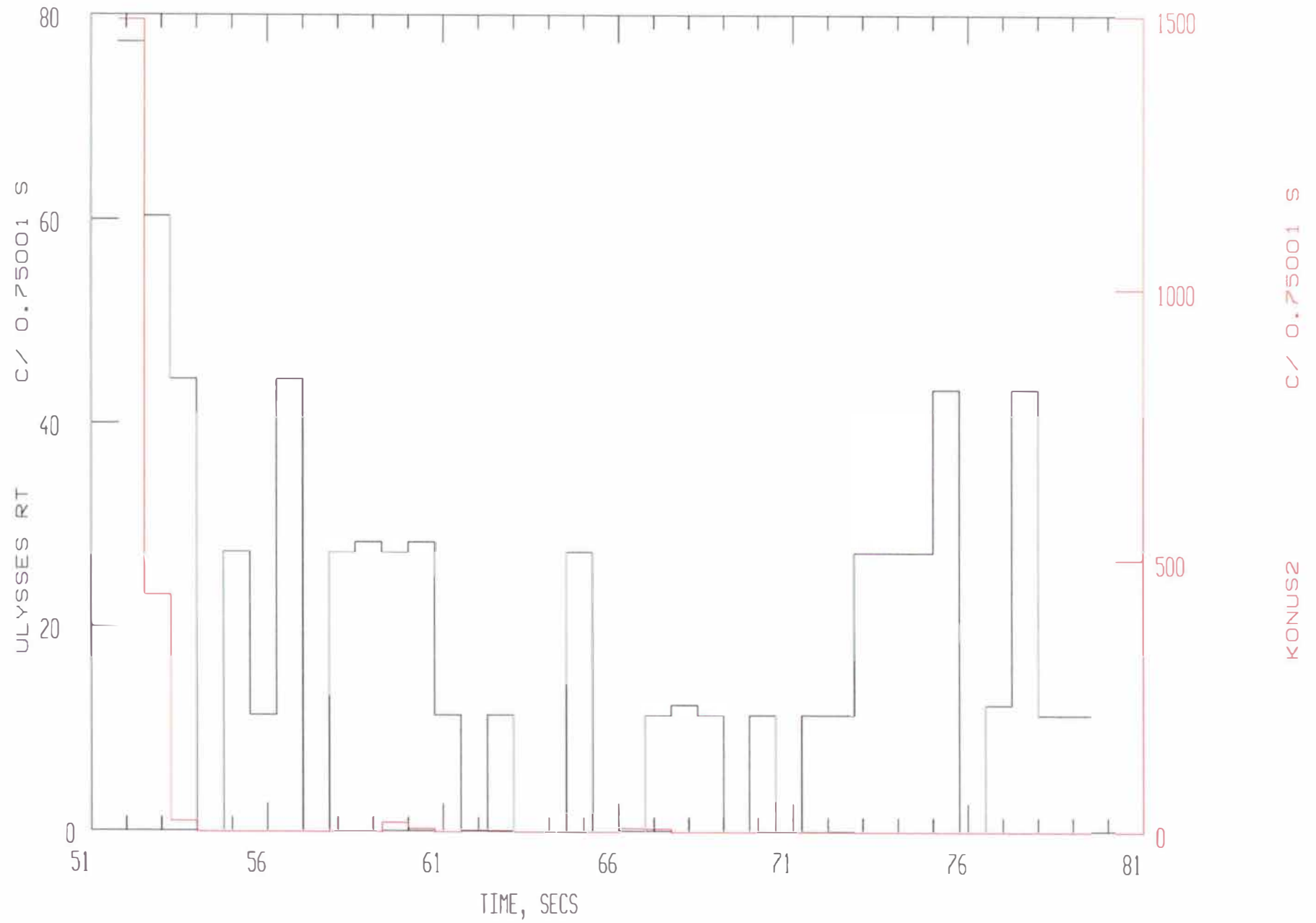
0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





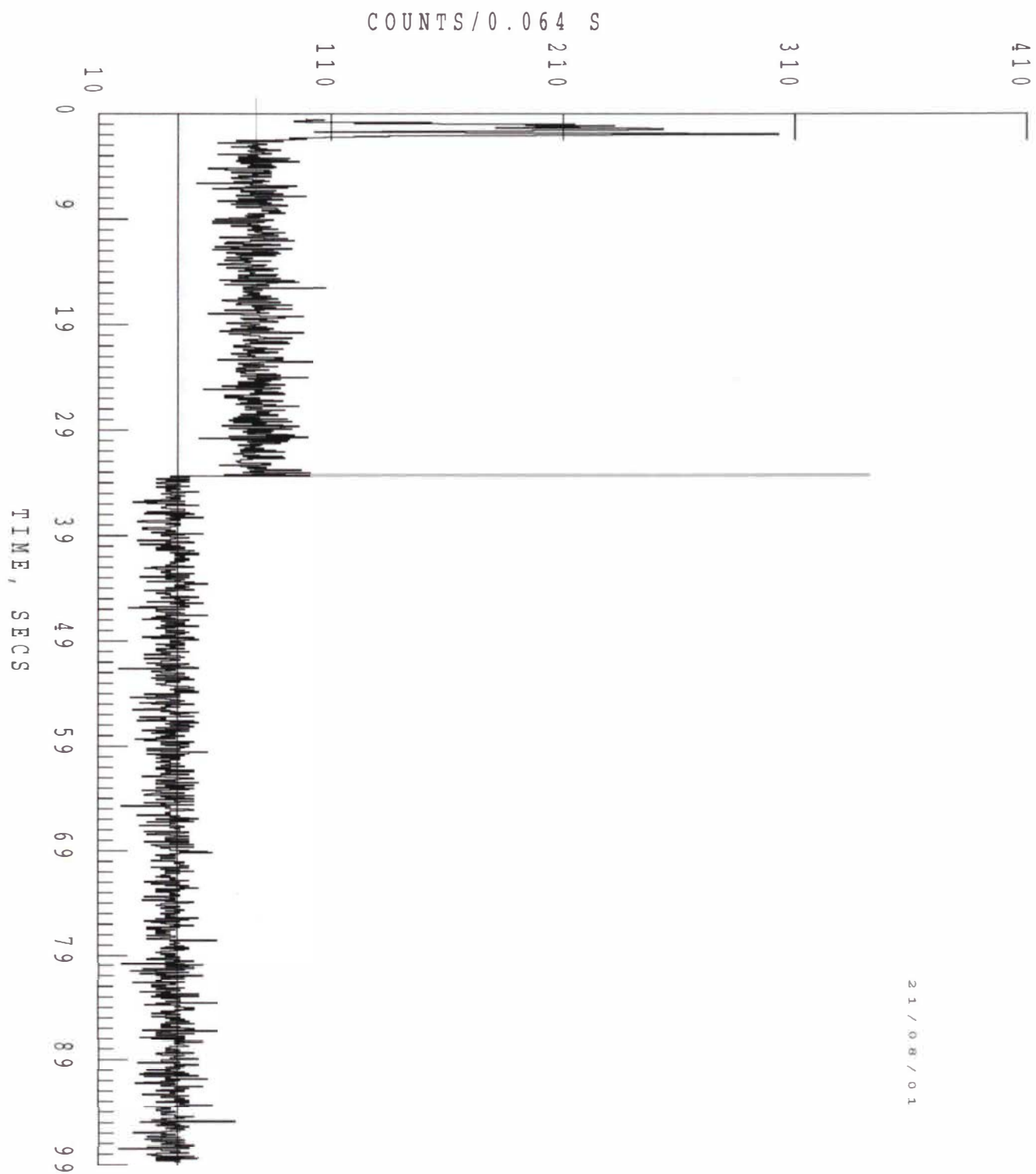


KONUS2

19/04/95

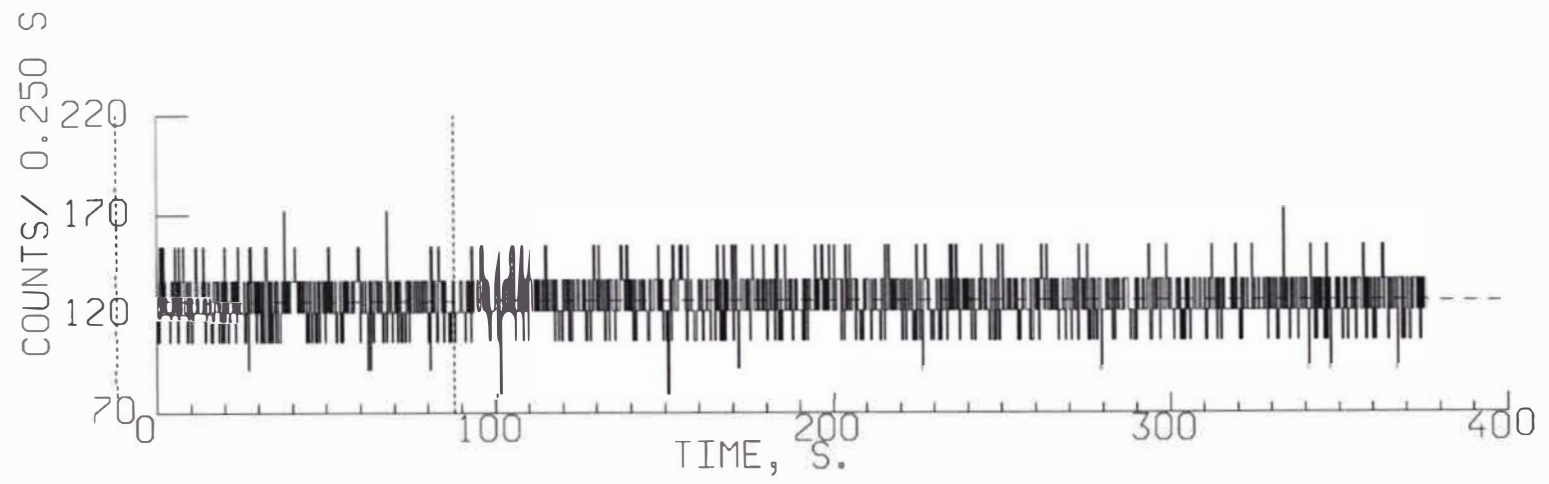
84077.472

50 - 200 keV



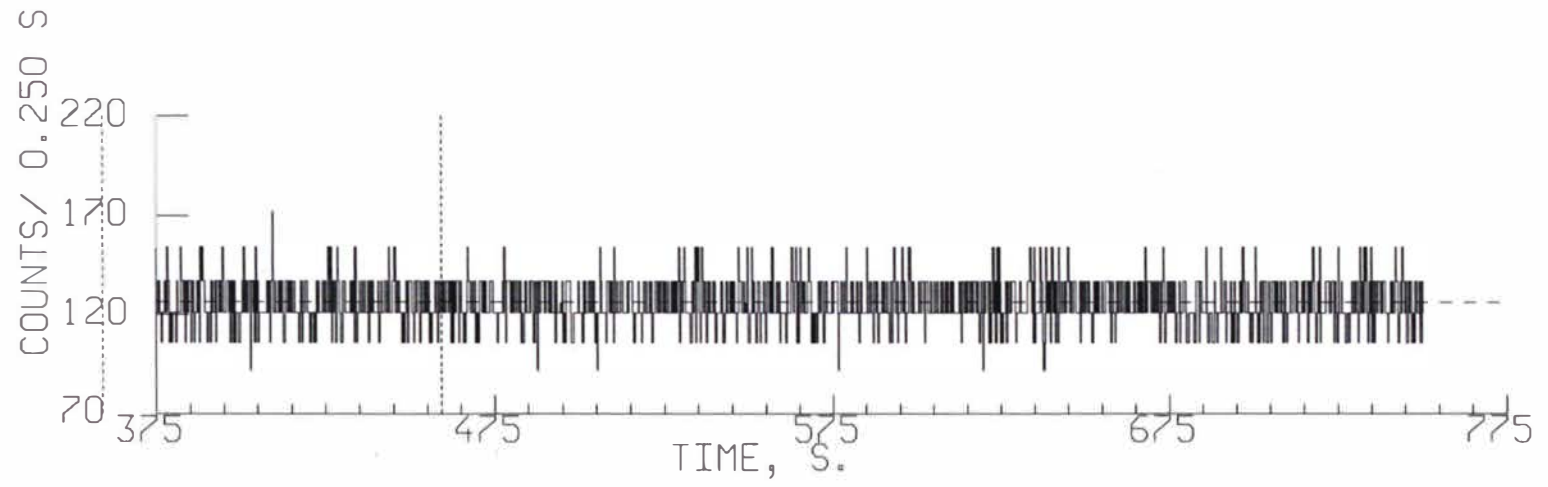
ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



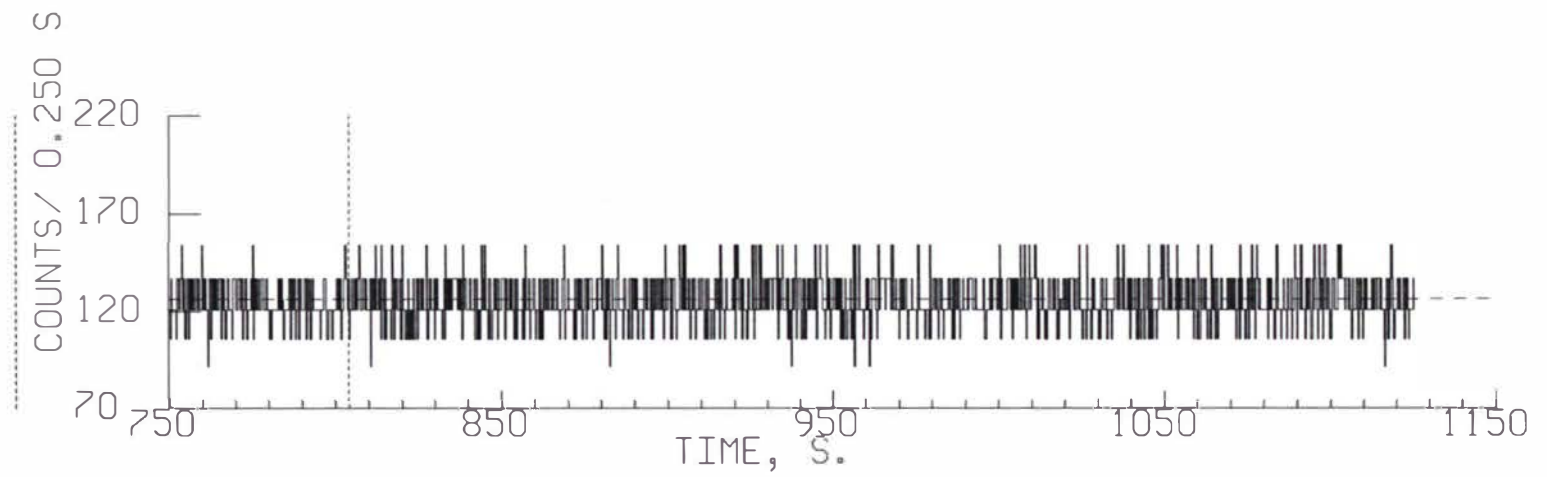
ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



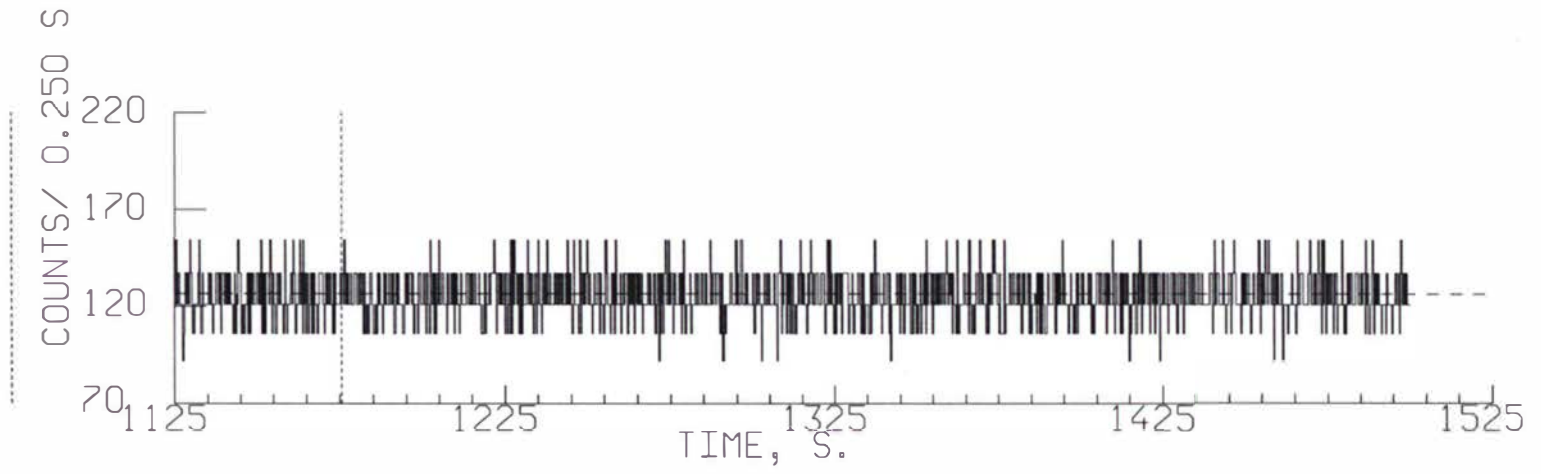
ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



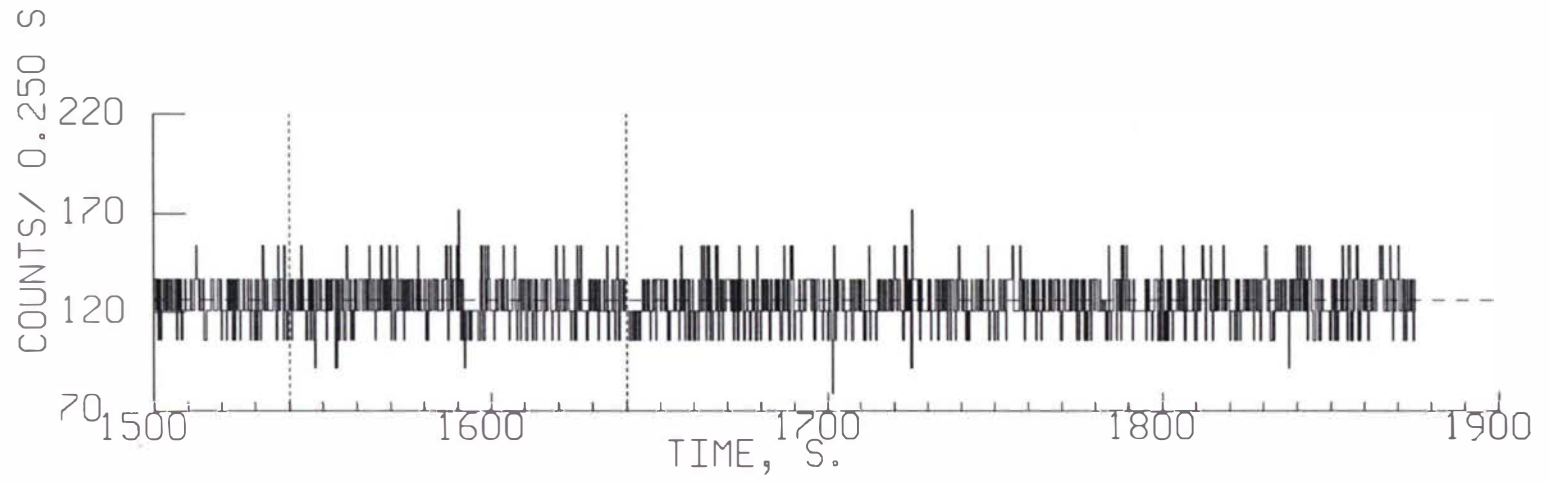
ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



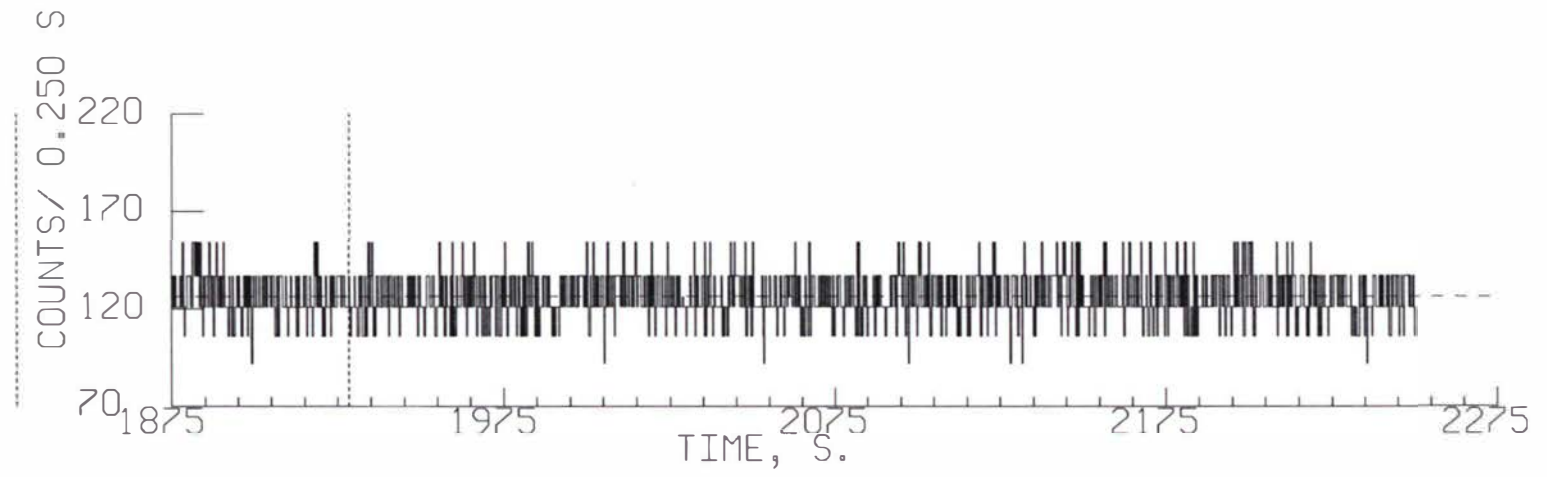
ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



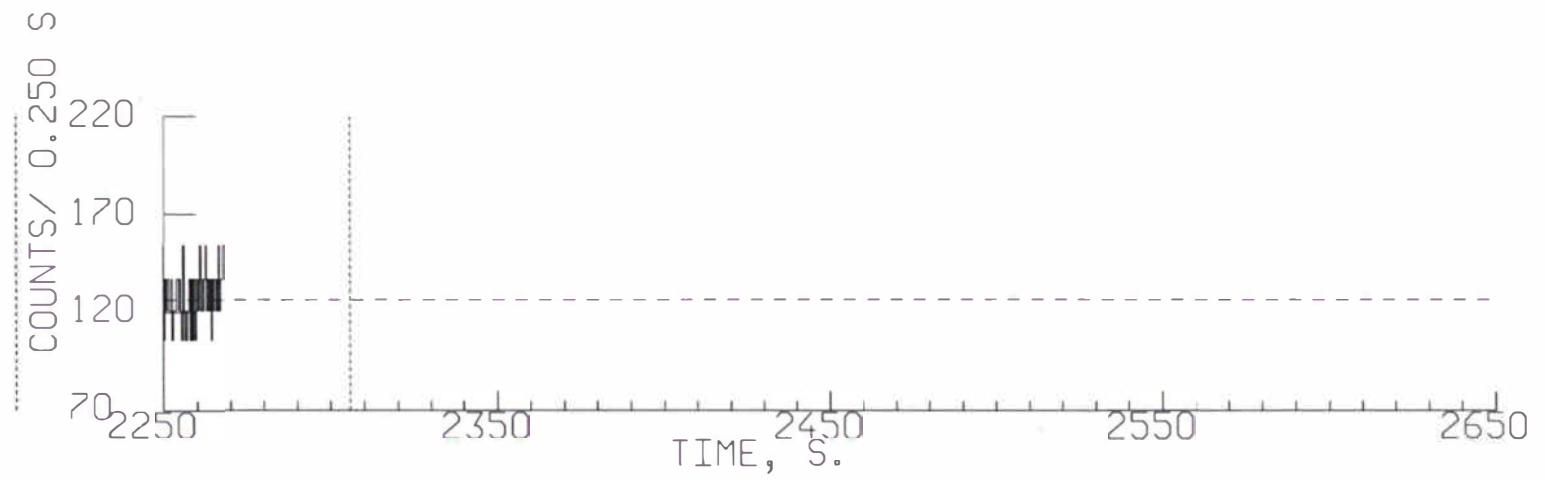
ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



ULYSSES RT
19/ 4/95 82944.156 s
21- 141 keV

17/ 8/11



KONUS

ULYSSES RT

24 / 01 / 00

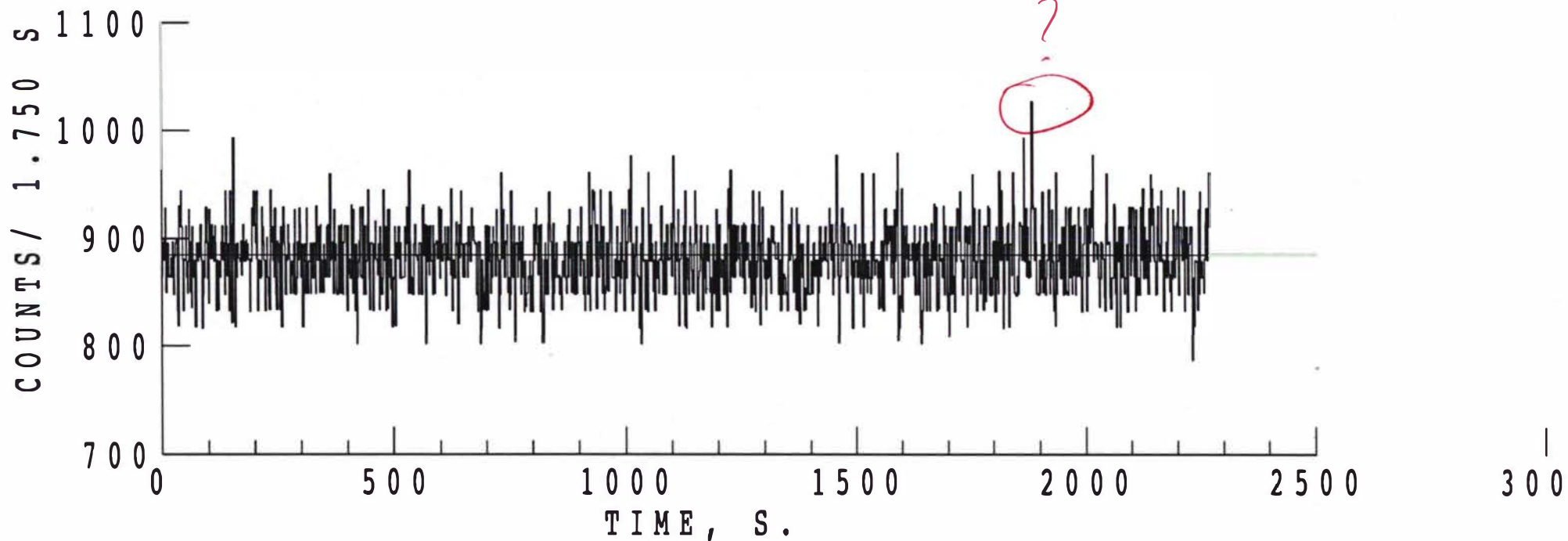
19 / 04 / 95 82944.156 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 10
>4.0 SIGMA FLUCTUATIONS

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



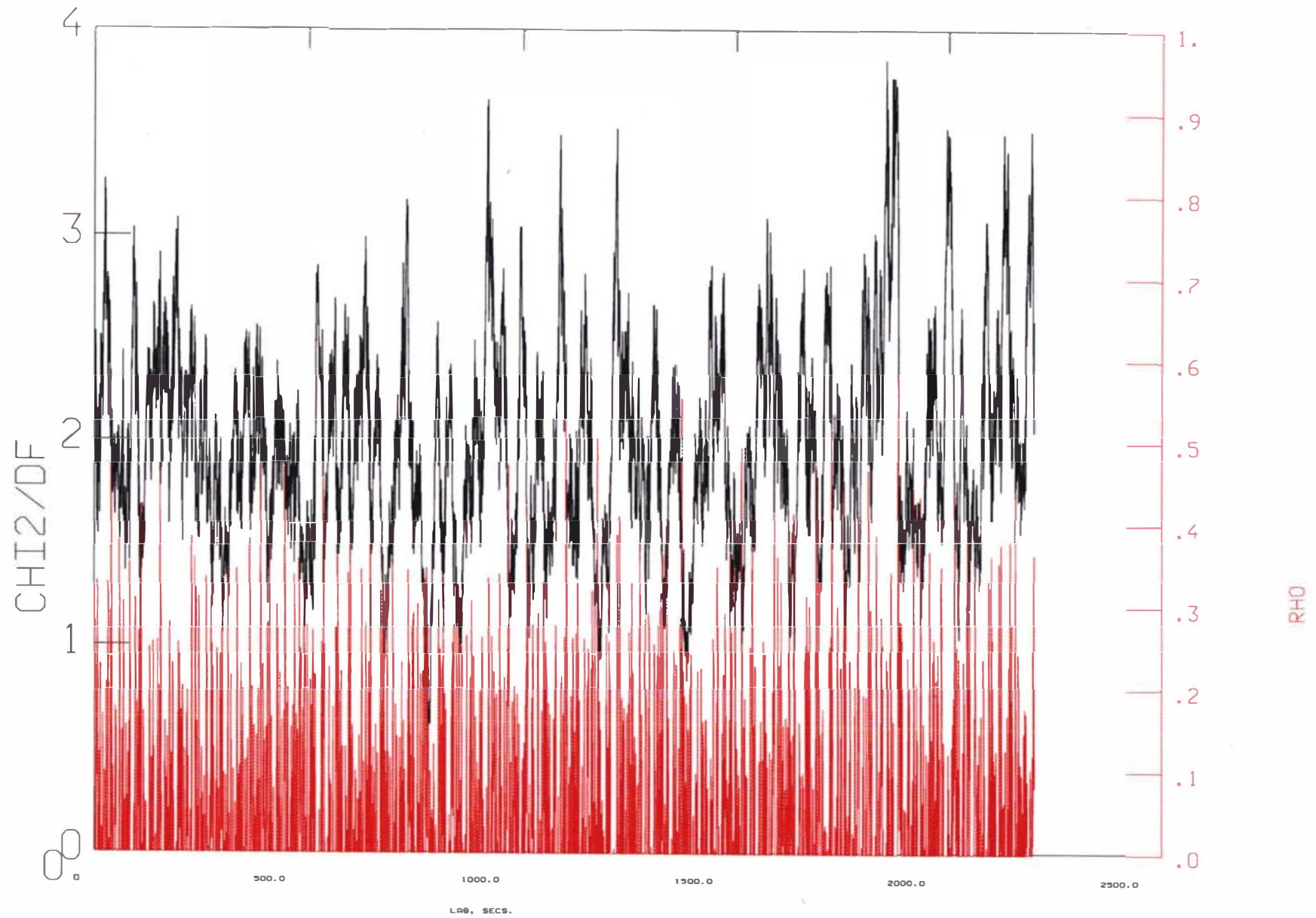
KONUS2

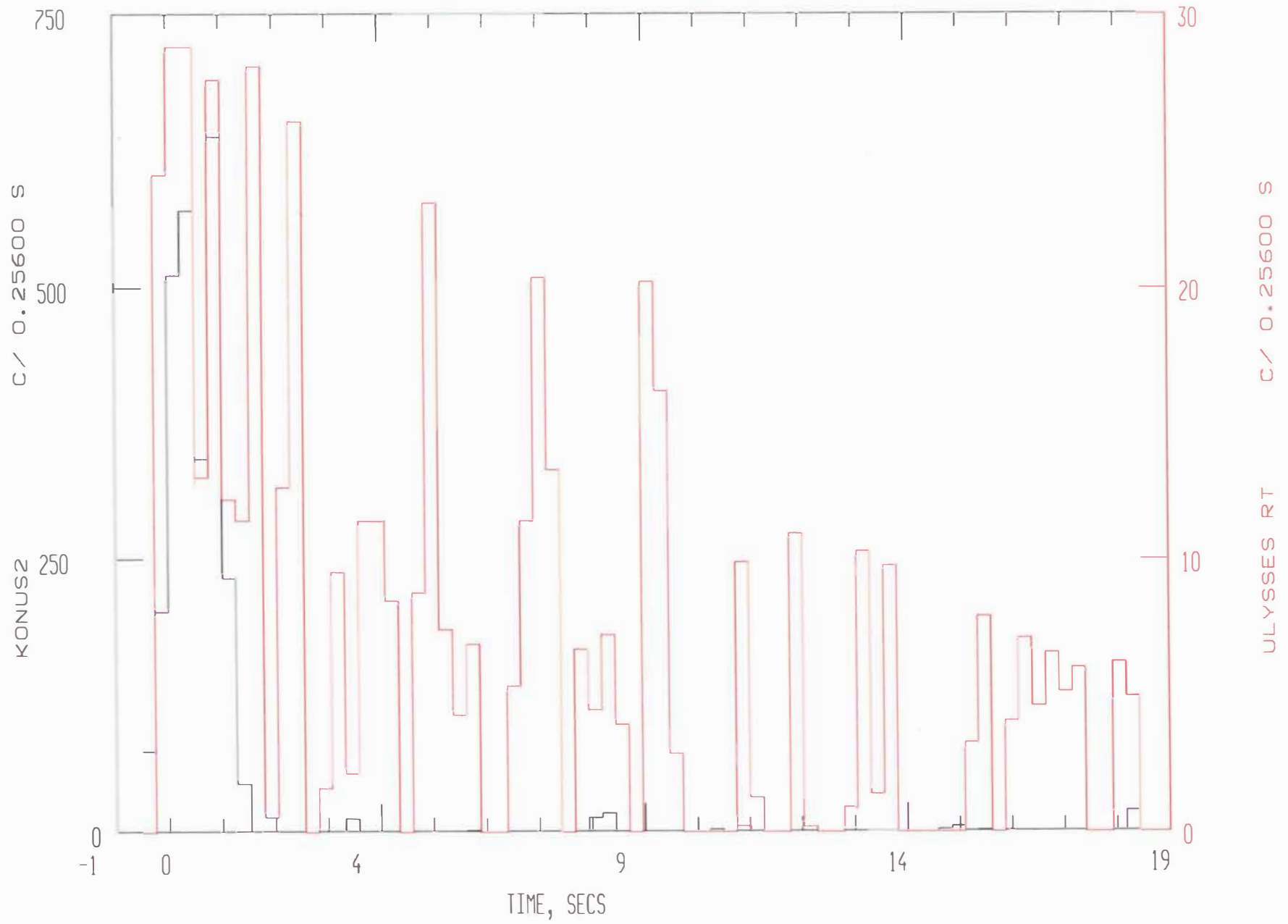
-ULYSSES RT CORRELATION

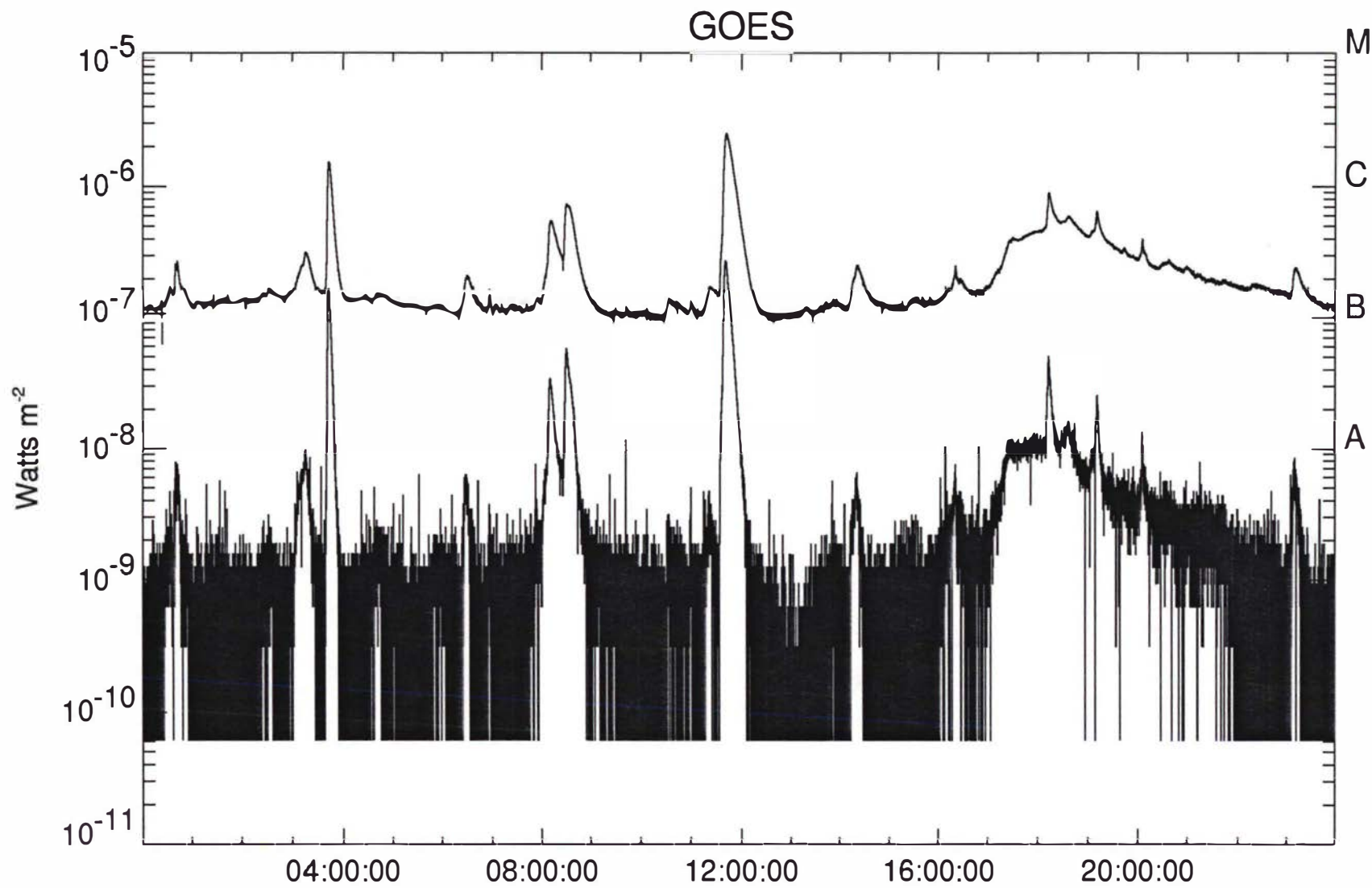
19/04/95

84077.472

17/ 8/11







Data Start: 95/04/19, 0000:00

Plot created: 95/04/22, 0513

Channel

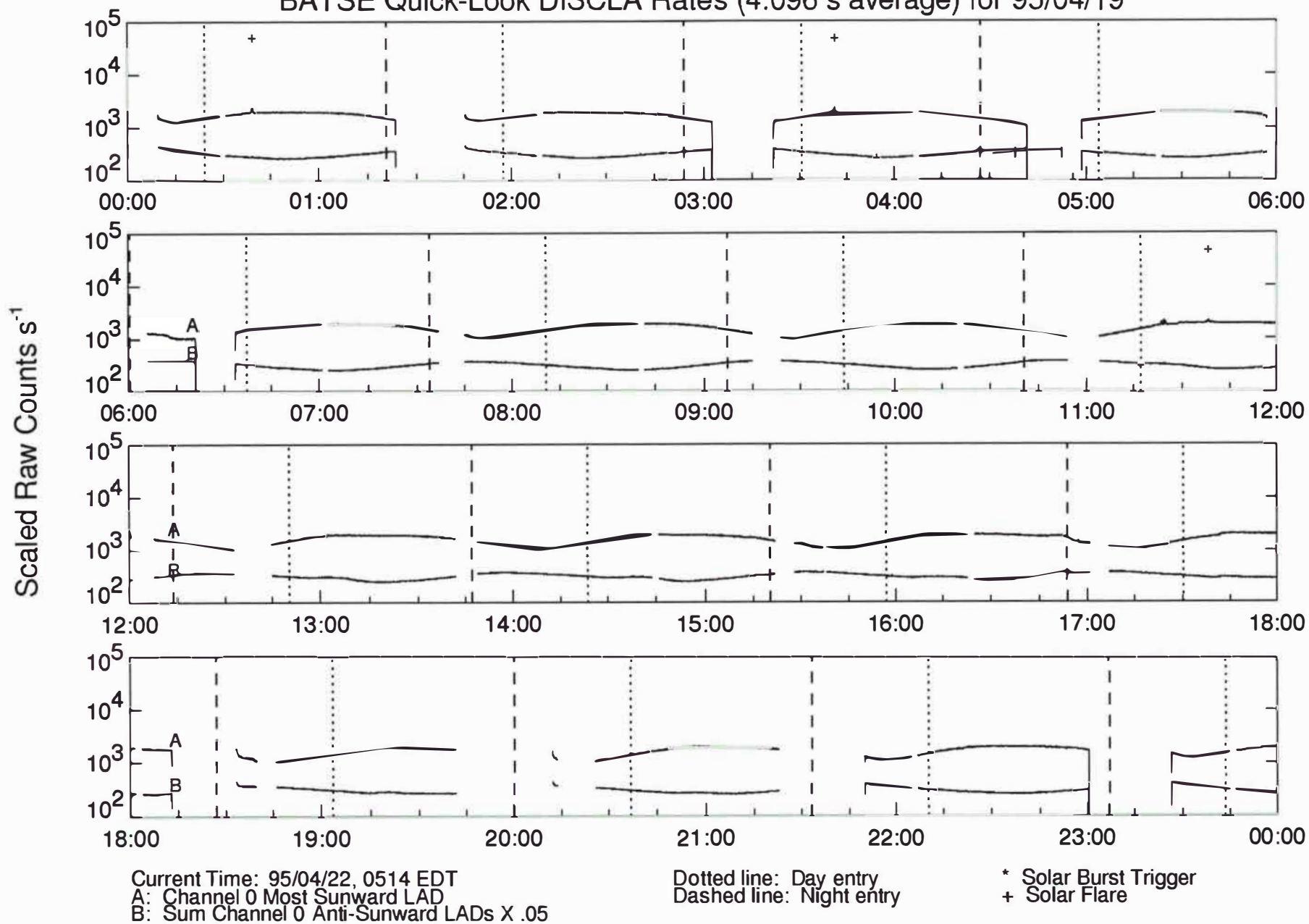
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

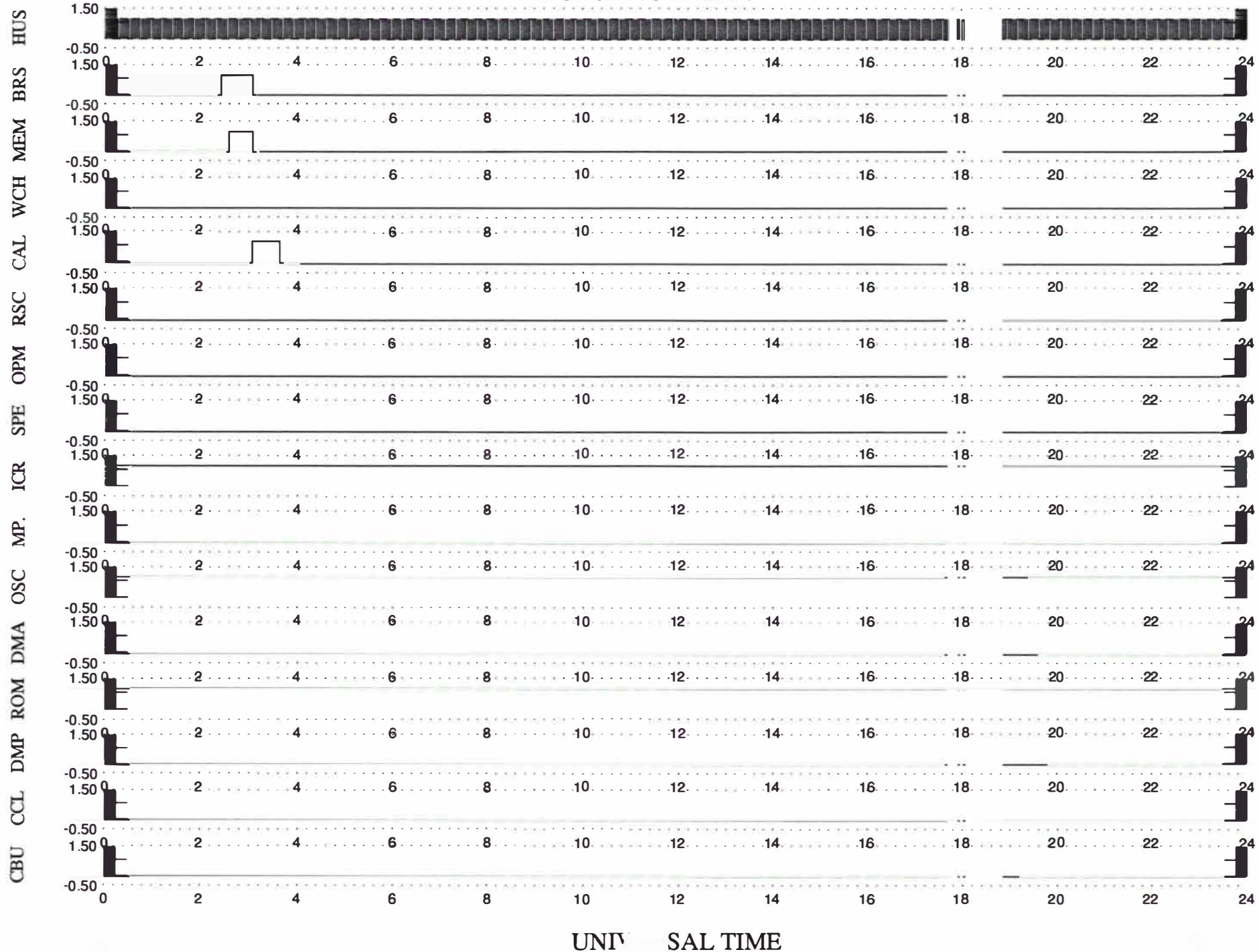
Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/19



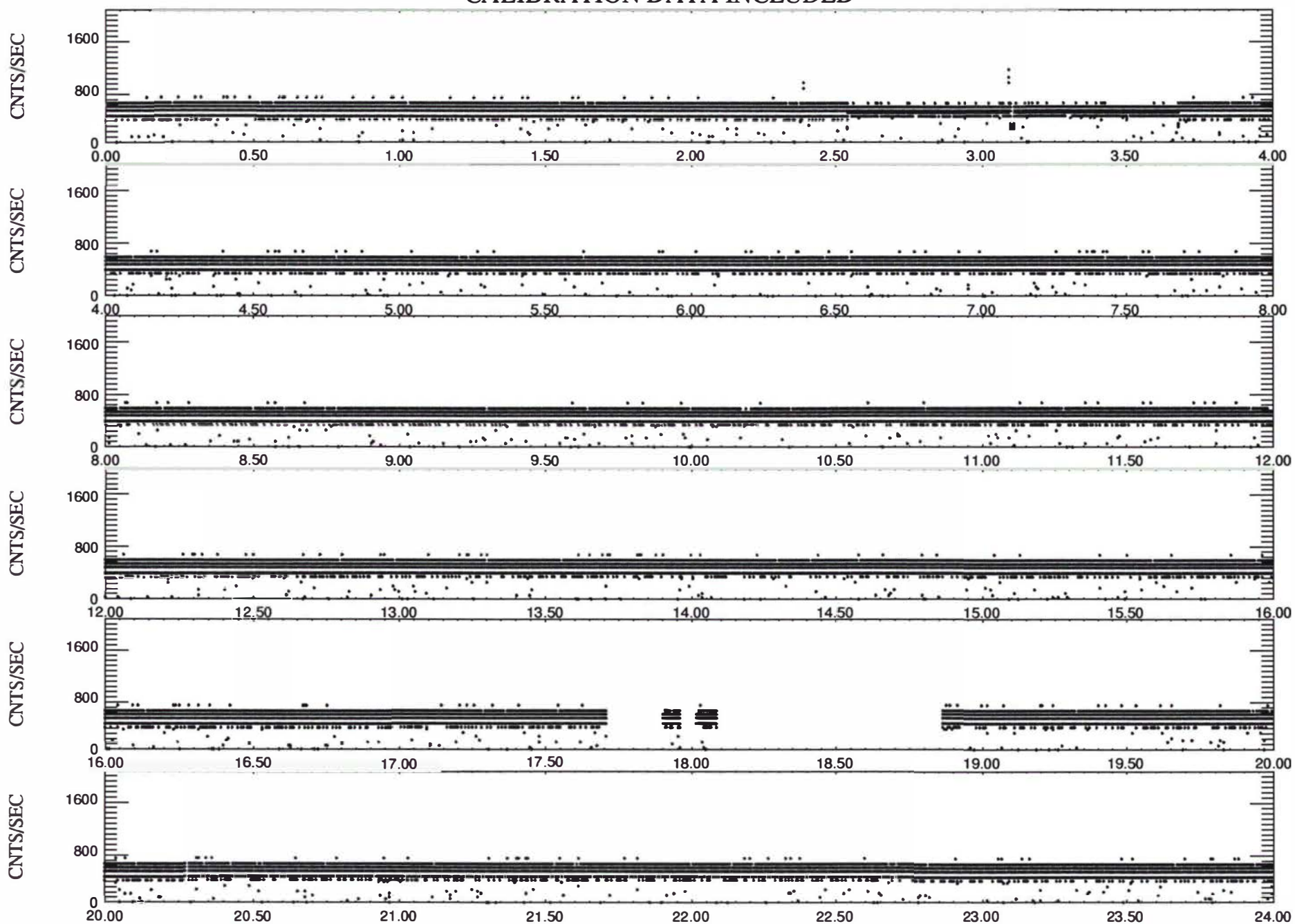
HUS MODES EDR day 109, year 1995 to day 109, year 1995
BURST NUMBER 0

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 109, year 1995 to day 109, year 1995
 CALIBRATION DATA INCLUDED

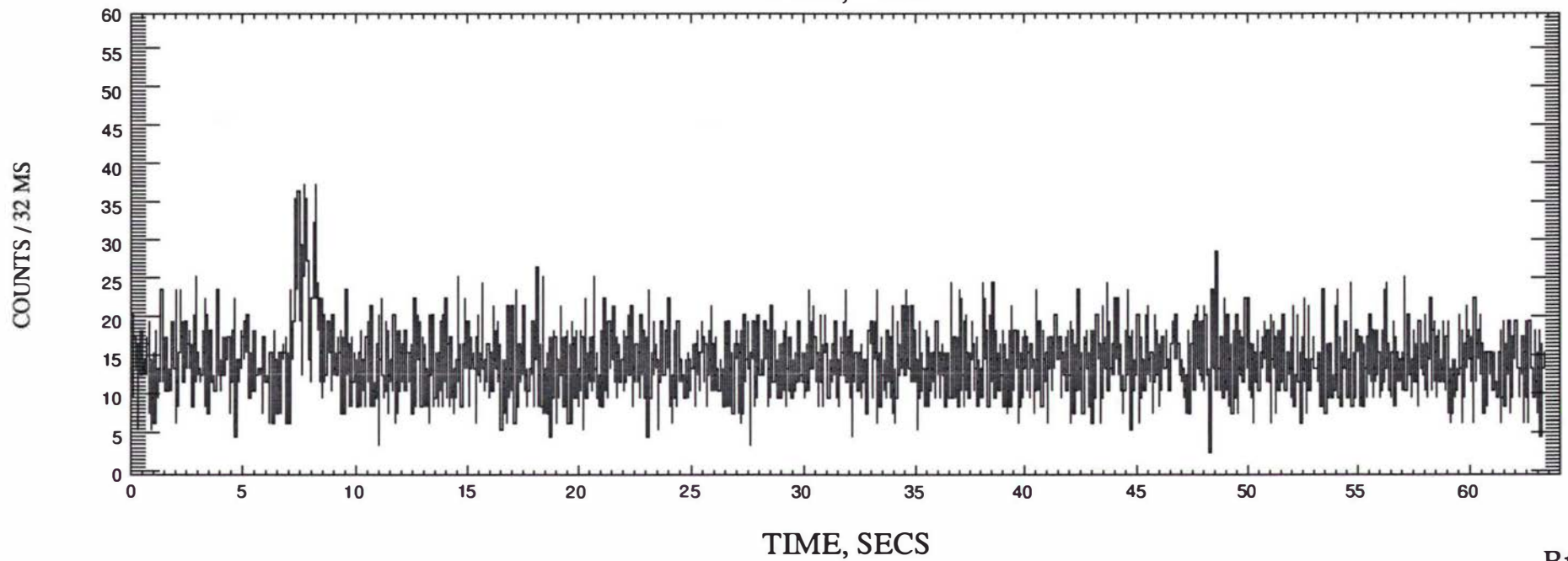
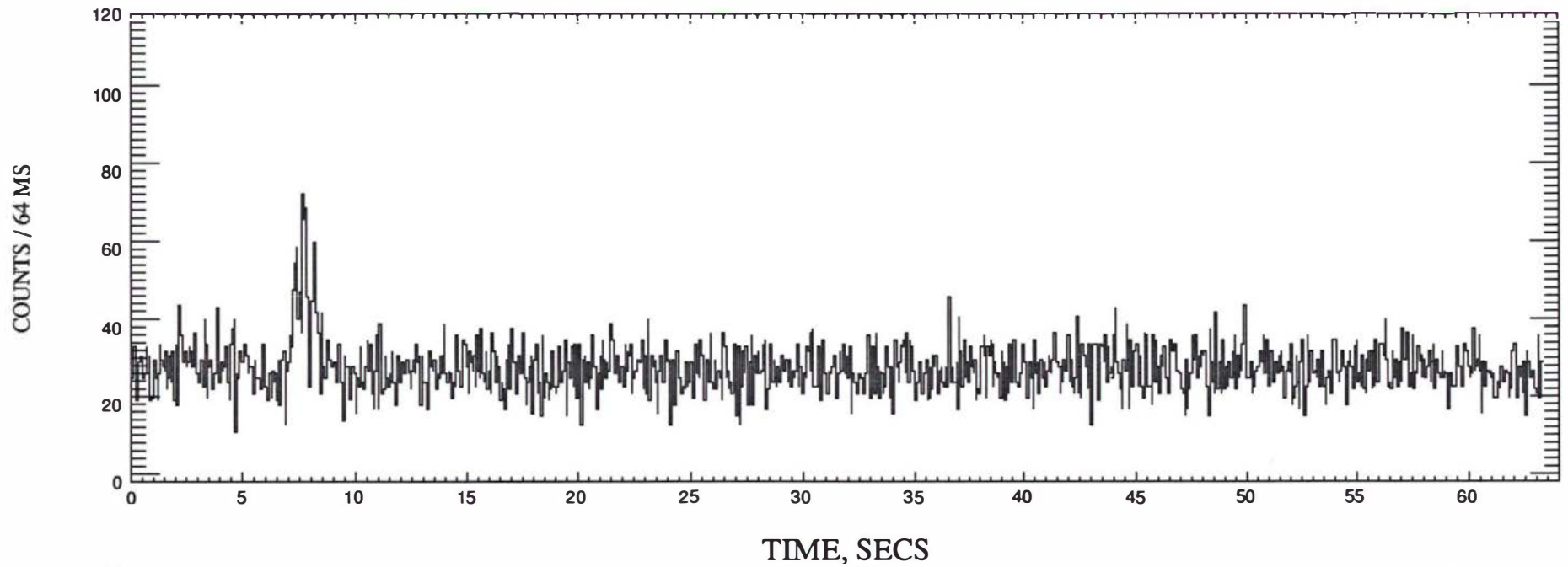
11/16/95



UNIVERSAL TIME

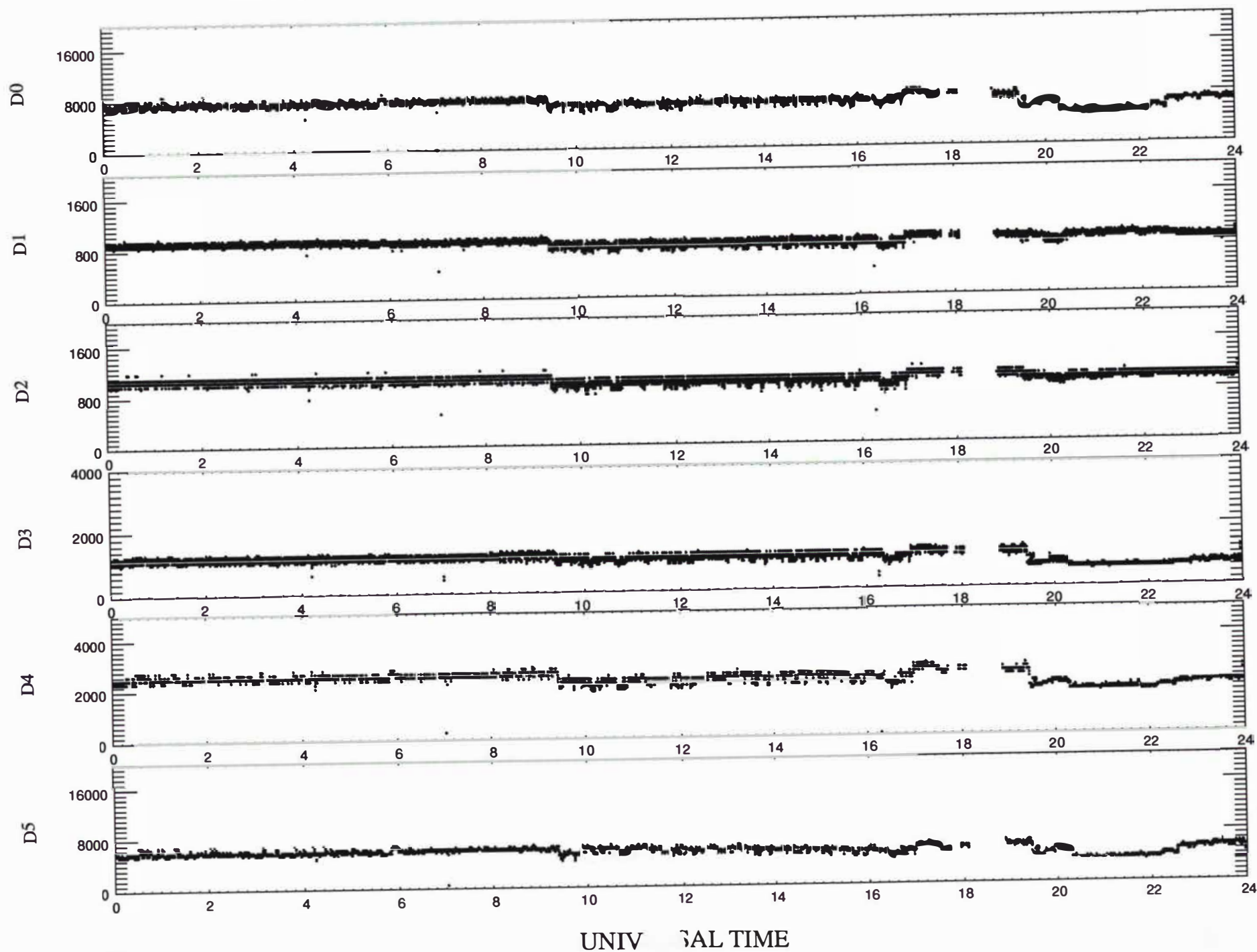
HUS 2A TRIGGERED DATA EDR day 109, year 1995
Burst Counter 0 at UT= 2.384536933899 h= 8584.333 s 02:23:04.333

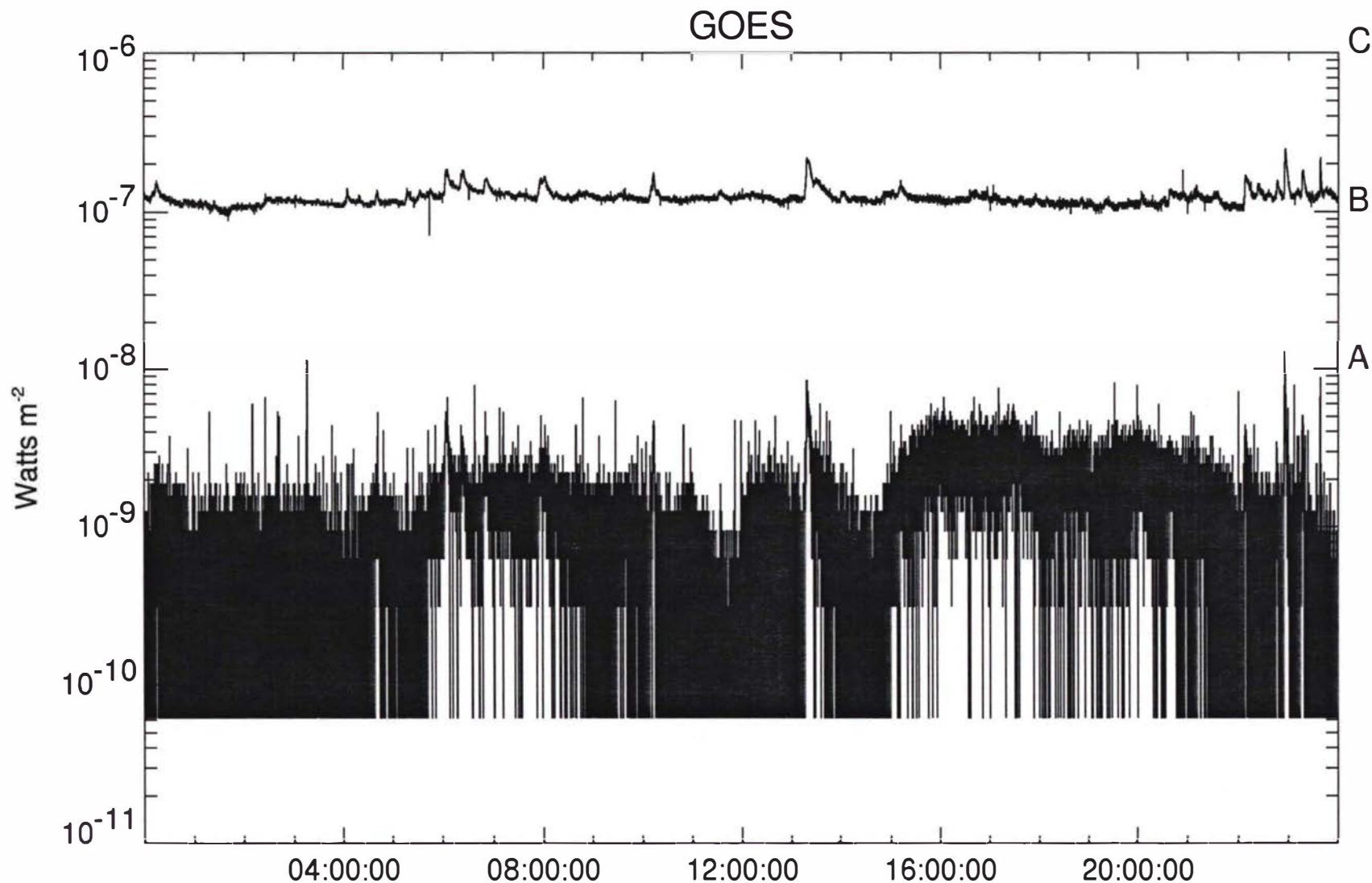
11/16/95



HUS 2B COUNTS / SEC QEDR day 109, year 1995 to day 109, year 1995

4/20/95





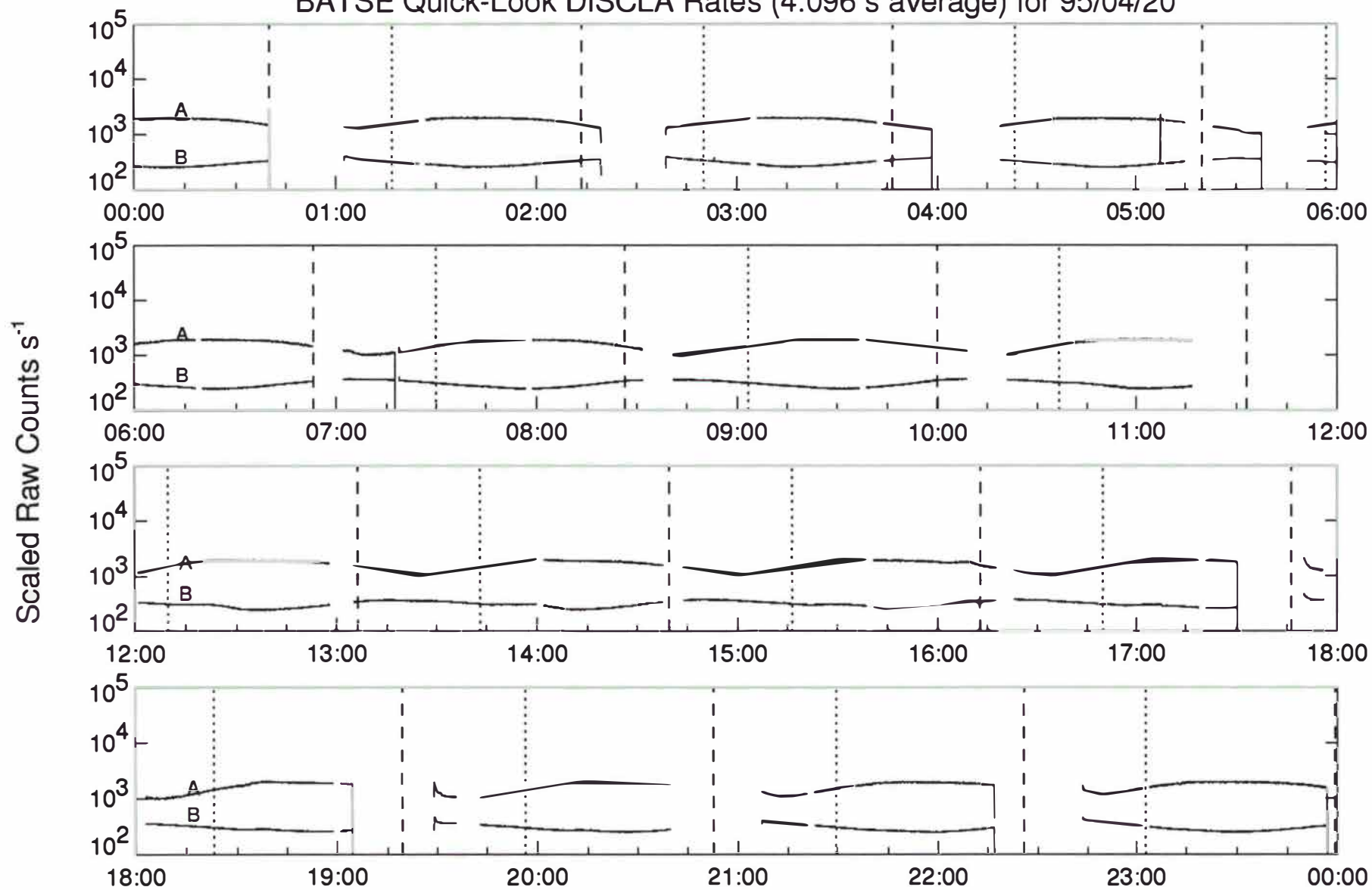
Data Start: 95/04/20, 0000:01

Plot created: 95/04/23, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/20



Current Time: 95/04/23, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

From HAGEDON@fender.msfc.nasa.gov Fri Apr 21 07:38 PDT 1995
Date: Fri, 21 Apr 1995 9:38:20 -0500 (CDT)
From: HAGEDON@fender.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3515

BATSEARCH PROGRAM

BATSE BURST # 3515
EVENT OF 1995 APR 20 DAY OF YEAR=110
EVENT CROSSING TIME AT BATSE : 54838. S. OR 15:13:58.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 281.000 -47.000
BATSE PEAK COUNTING RATE: 2800 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 20/ 4/ 95 IS:
RA= 356.142 DEC= 18.196 DIST= 2.176 AU
BATSE-ULYSSES DISTANCE = 325486603. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 86.43 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 67.58 SECS.
CROSSING TIME AT ULYSSES IS 54906. S. OR 15:15:05 +/- 239.16 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 20/ 4/ 95 IS:
RA= 140.106 DEC= 18.115 DIST= 1.054 AU
MARS-BATSE DISTANCE = 157663376. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 43.08 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 384.12 SECS.
CROSSING TIME AT MARS IS 55222. S. OR 15:20:22 +/- 68.20 SECONDS

BATSE BURST TRIGGER

NO.: 3515

TIME: TJD=9827 SECONDS=54838

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=68 AZIMUTH=90 ERROR= DEGREES

COMMENTS:

BURST. SINGLE PULSE. FASTER RISE THAN DECAY. DUR.~50 SEC.
MARGINALLY VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3515	950420	9827	54838	2800	281	-47	50

21 / 4 / 95

ULYSSES RT

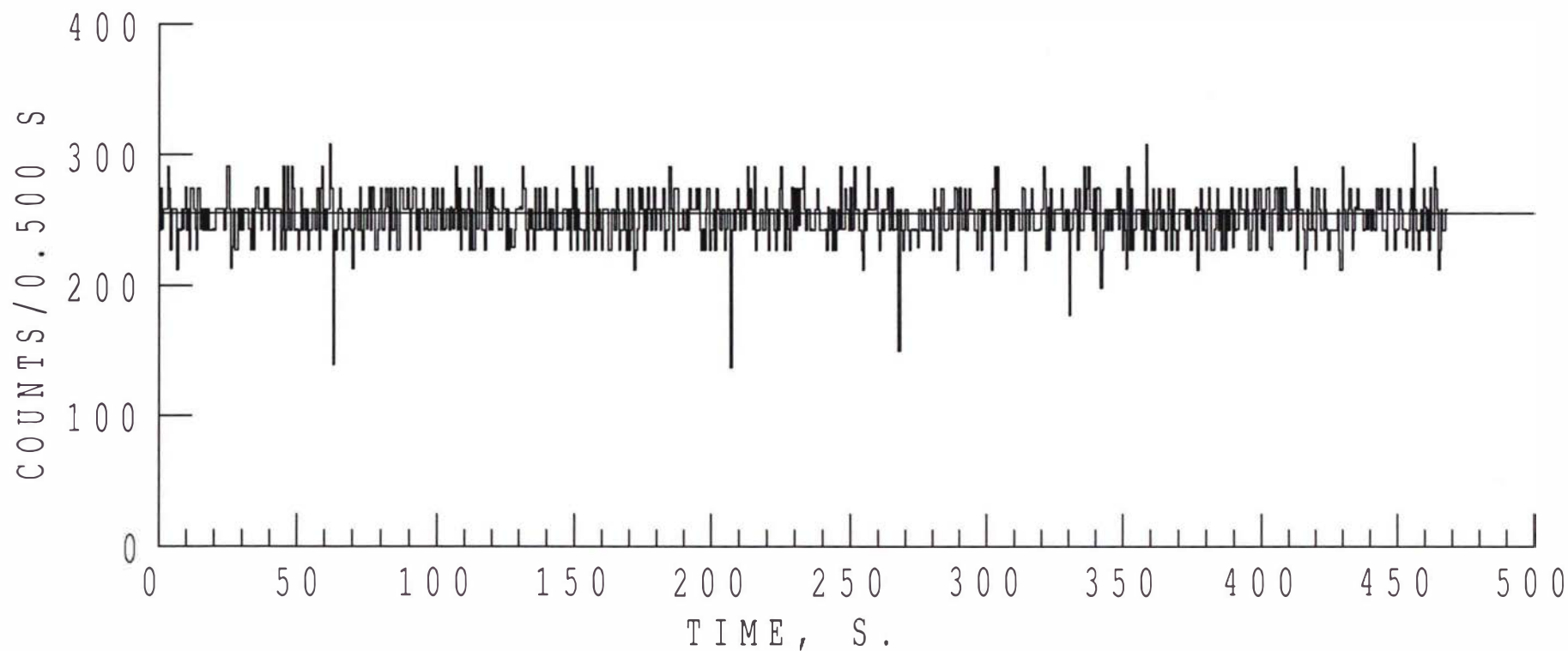
20 / 4 / 95 54684.031 s

0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

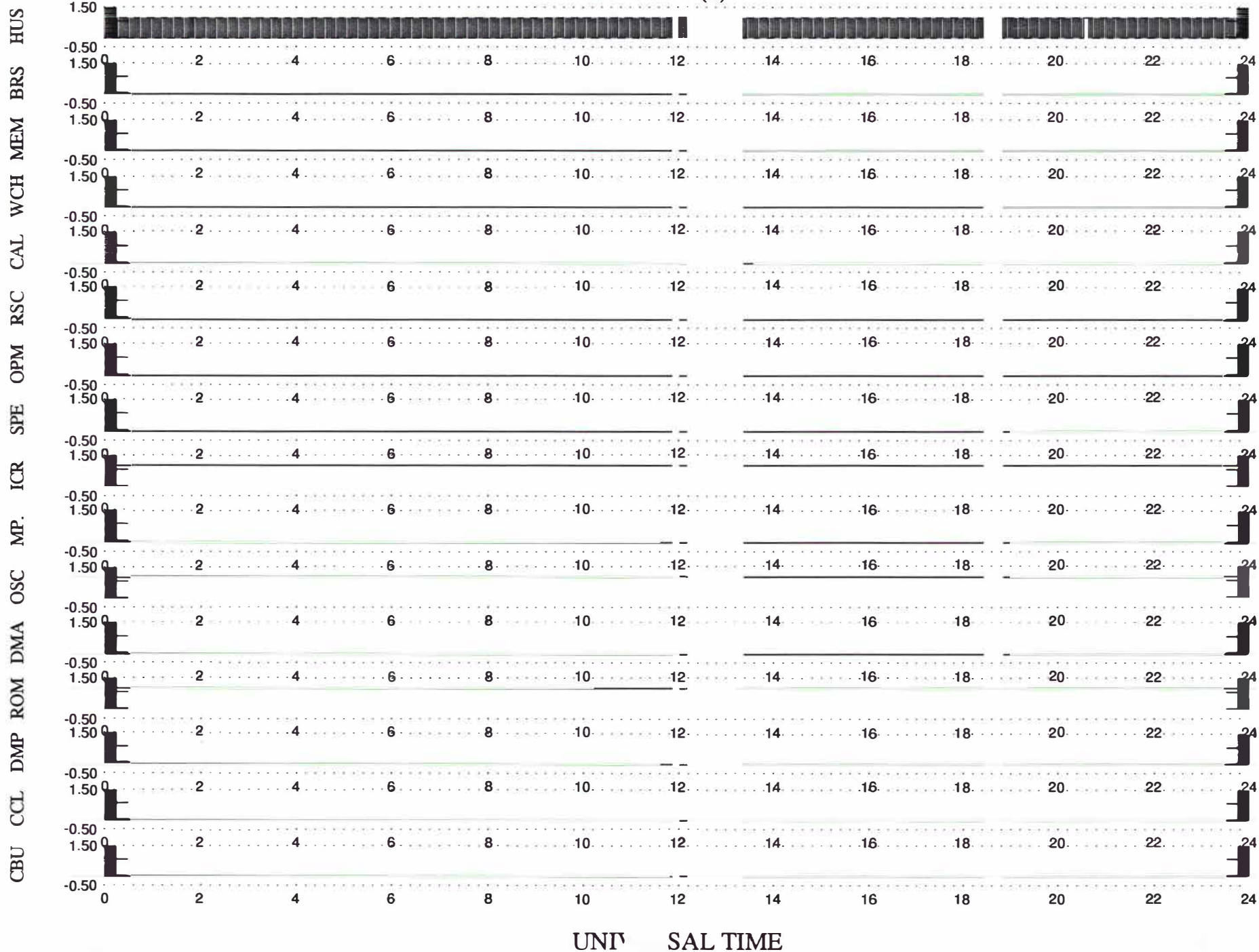
N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



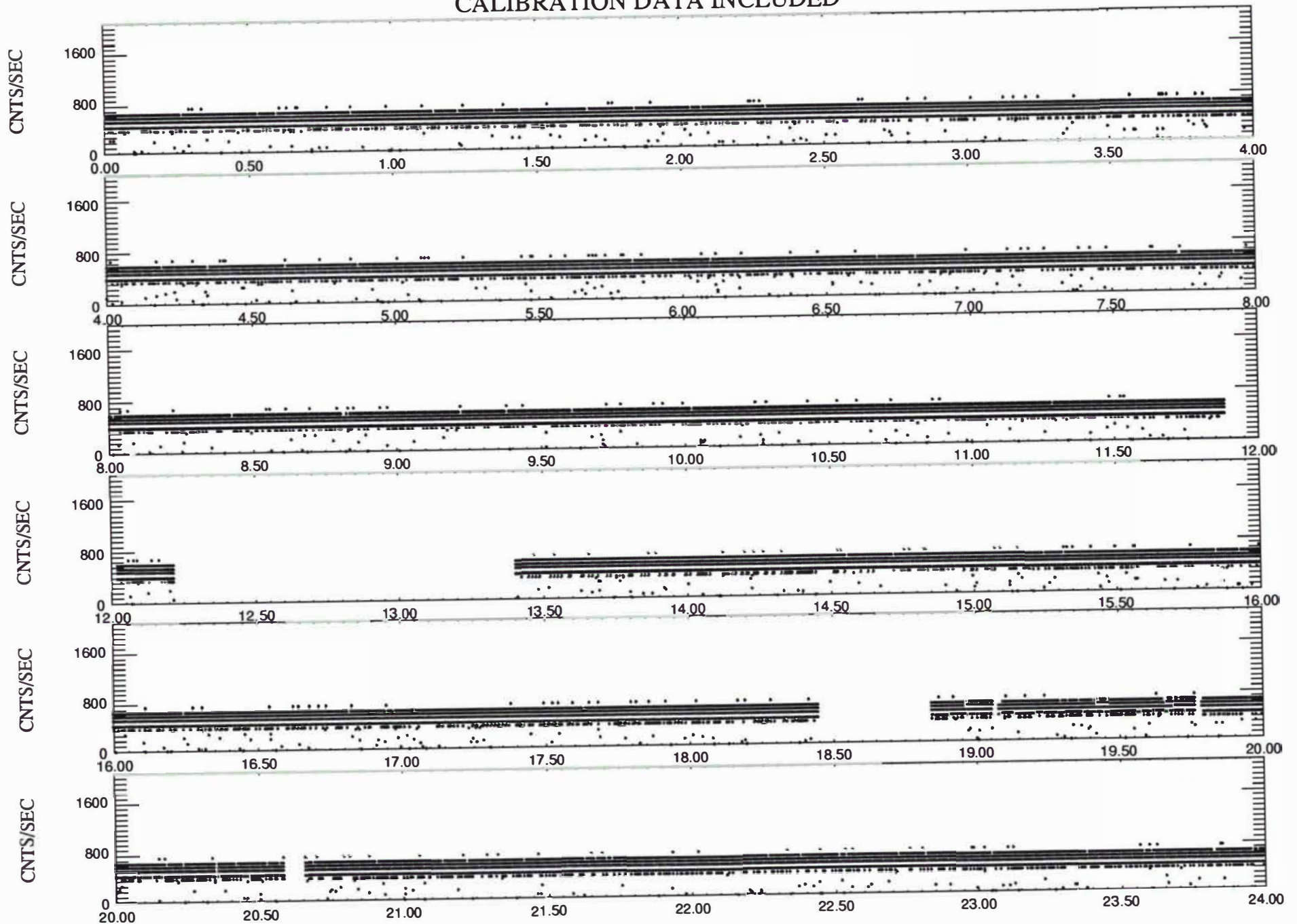
HUS MODES EDR day 110, year 1995 to day 110, year 1995
NO BURST (0)

11/16/95

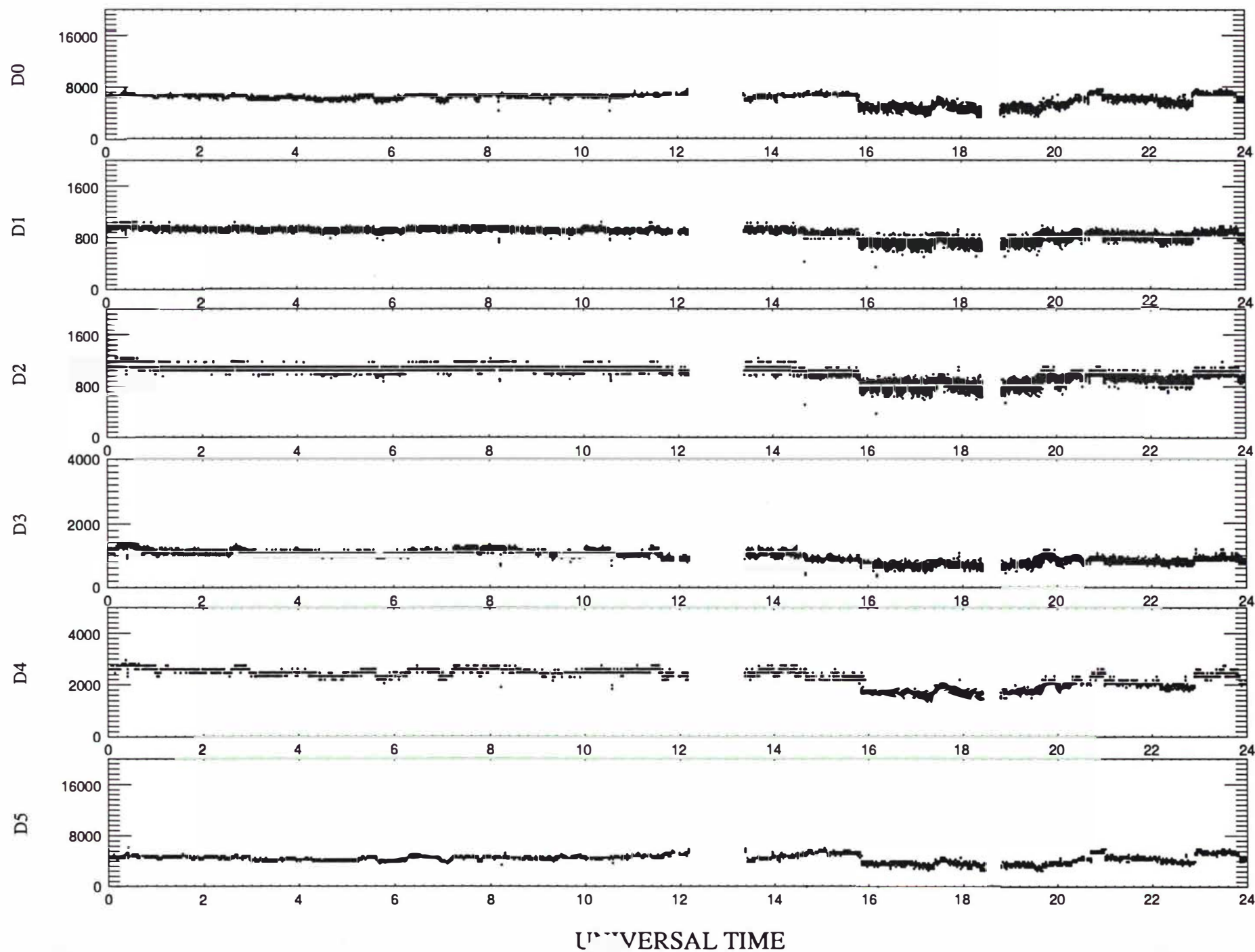


HUS 2A, MODE 1, NOT AVERAGED EDR day 110, year 1995 to day 110, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIFORM SAL TIME



From DEAL@ssl.msfc.nasa.gov Mon Apr 24 10:53 PDT 1995
Date: Mon, 24 Apr 1995 12:53:42 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3516

BATSEARCH PROGRAM

BATSE BURST # 3516
EVENT OF 1995 APR 21 DAY OF YEAR=111
EVENT CROSSING TIME AT BATSE : 44989. S. OR 12:29:49.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 72.000 -63.000
BATSE PEAK COUNTING RATE: 23000 C/S

RT

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 21/ 4/ 95 IS:
RA= 356.411 DEC= 18.815 DIST= 2.171 AU
BATSE-ULYSSES DISTANCE = 324844982. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 79.61 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 195.48 SECS.
CROSSING TIME AT ULYSSES IS 45184. S. OR 12:33:04 +/- 238.01 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 21/ 4/ 95 IS:
RA= 140.361 DEC= 18.004 DIST= 1.062 AU
MARS-BATSE DISTANCE = 158948400. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 83.33 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 61.60 SECS.
CROSSING TIME AT MARS IS 45051. S. OR 12:30:50 +/- 92.36 SECONDS

BATSE BURST TRIGGER

NO.: 3516

TIME: TJD=9828 SECONDS=44989

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=14.0 AZIMUTH=3.1 ERROR= DEGREES

COMMENTS:

BURST WITH ALOT OF STRUCTURE. DURATION ~ 14S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3516	950421	9828	44989	23000	072	-63	14

Help corr removed
Date: Feb 13 '98

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

3. PVO Data

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

- ☒ ACCESS database updated?

N-M = CORRELATION BETWEEN SATELLITES N AND M

EARTH-N = EARTH AS SEEN FROM SATELLITE N

S=SUN

E=ECLIPTIC

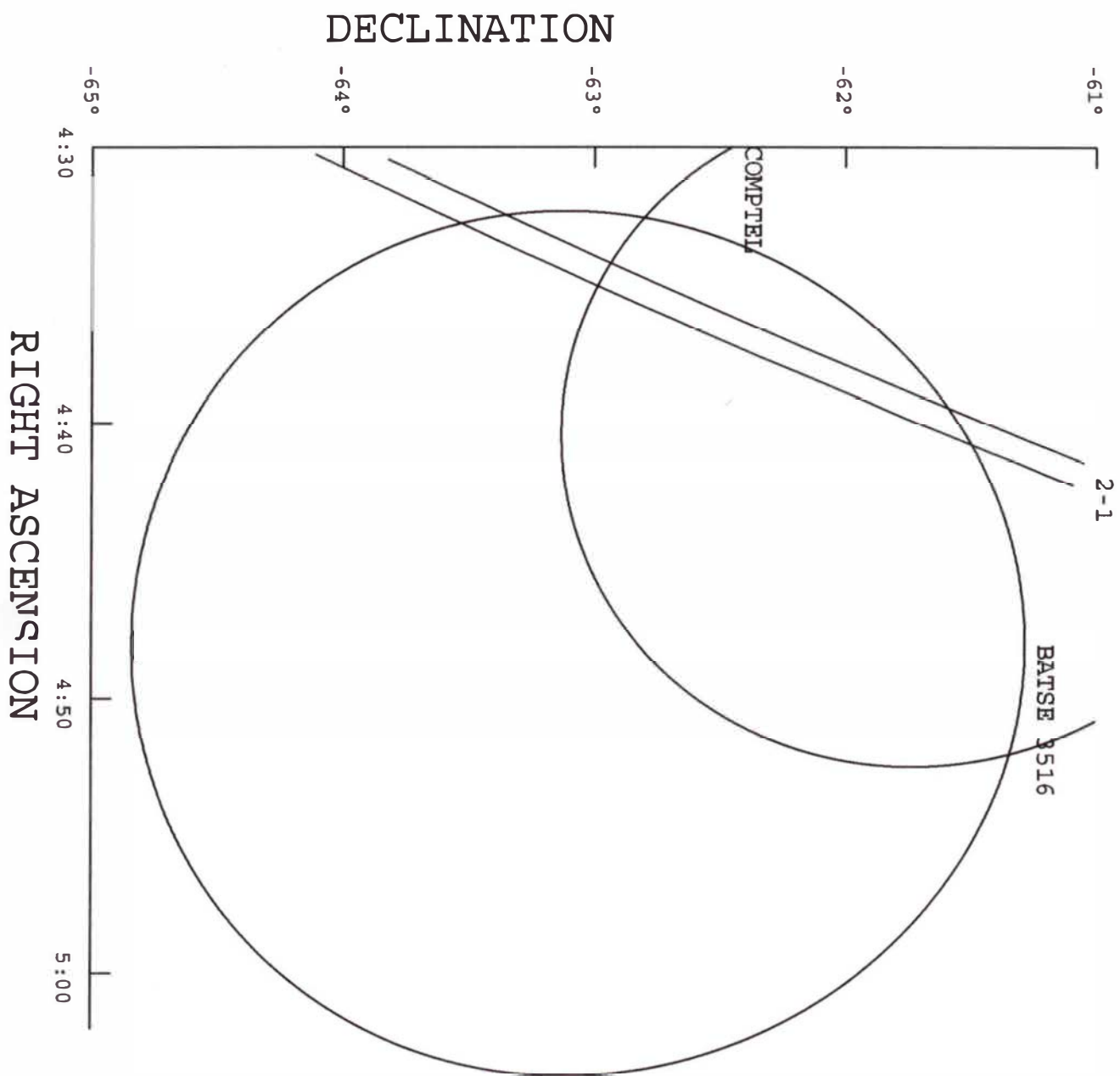
G=GALACTIC EQUATOR

1 ULYSSES

2 BATSE

EVENT OF APR 21, 1995 12:31

13 / 2/98



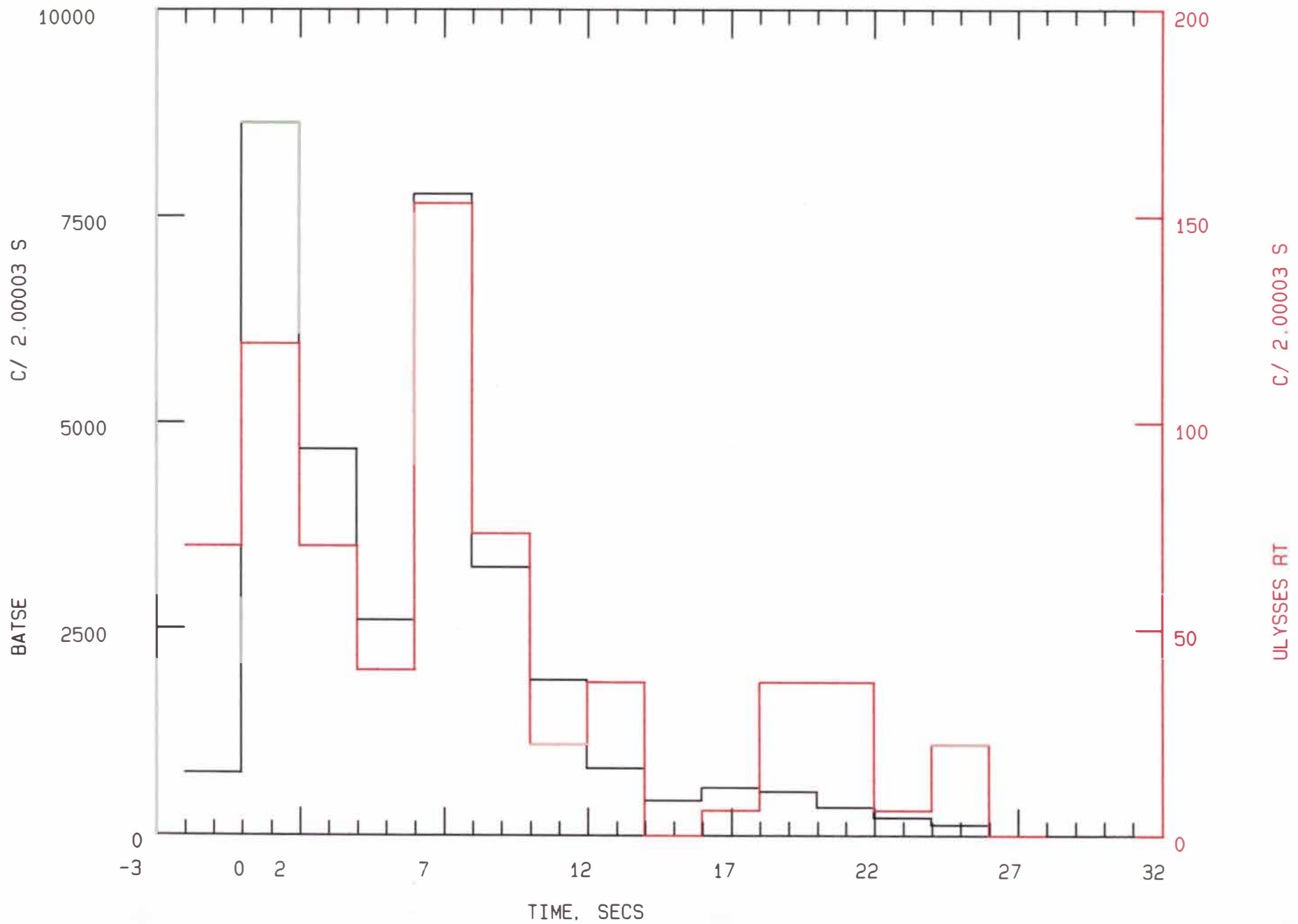
BATSE

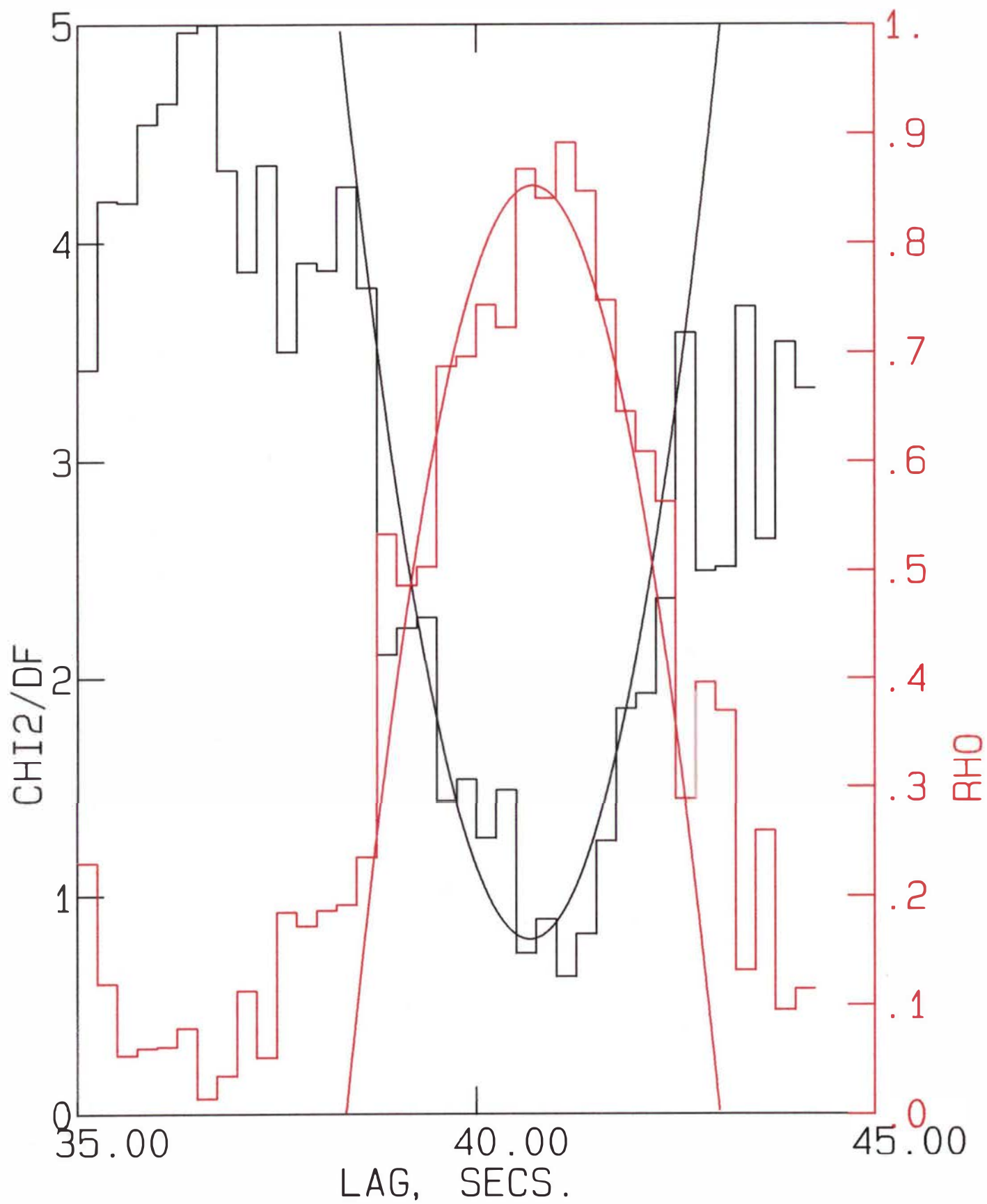
-ULYSSES RT CORRELATION

21/ 4/95

44989.554

13/ 2/98





ULYSSES RT

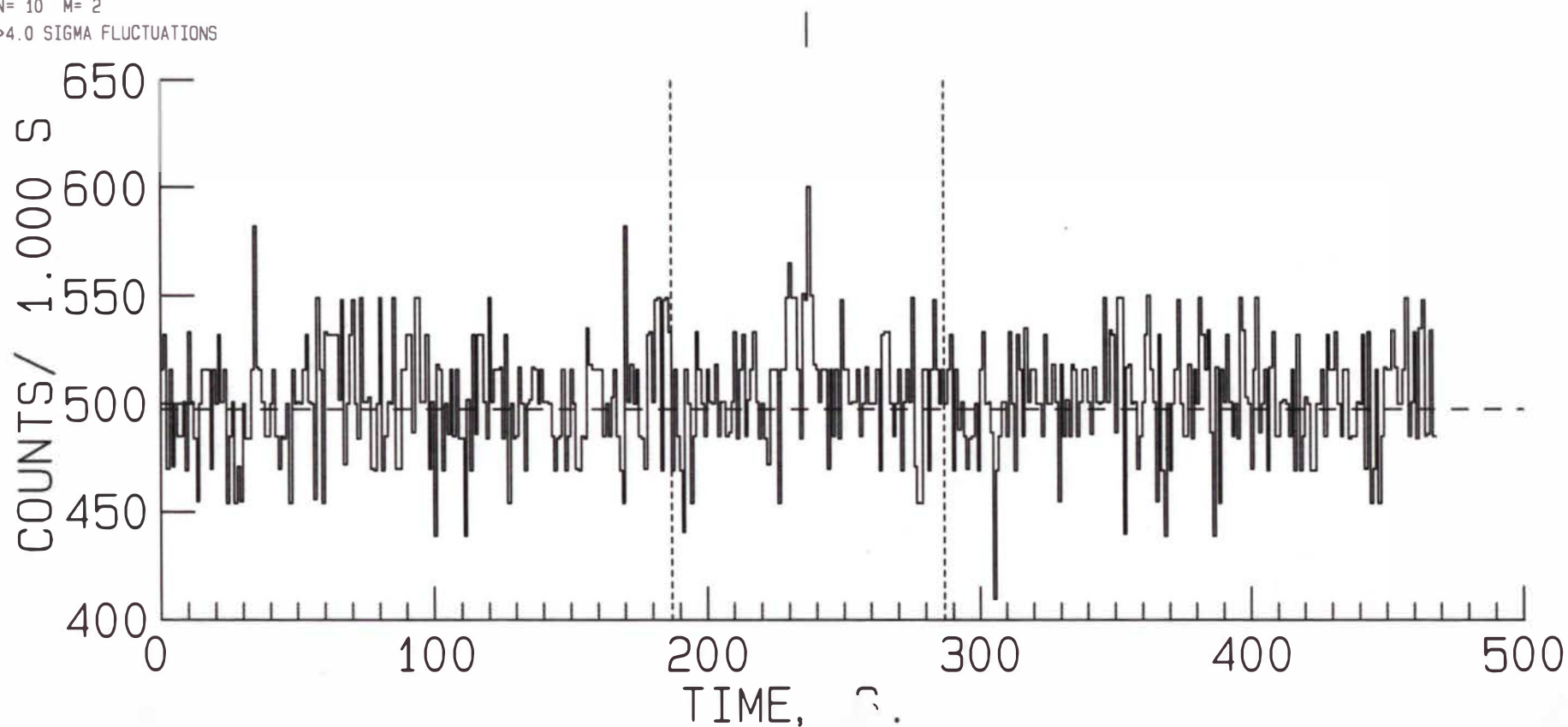
13 / 2 / 98

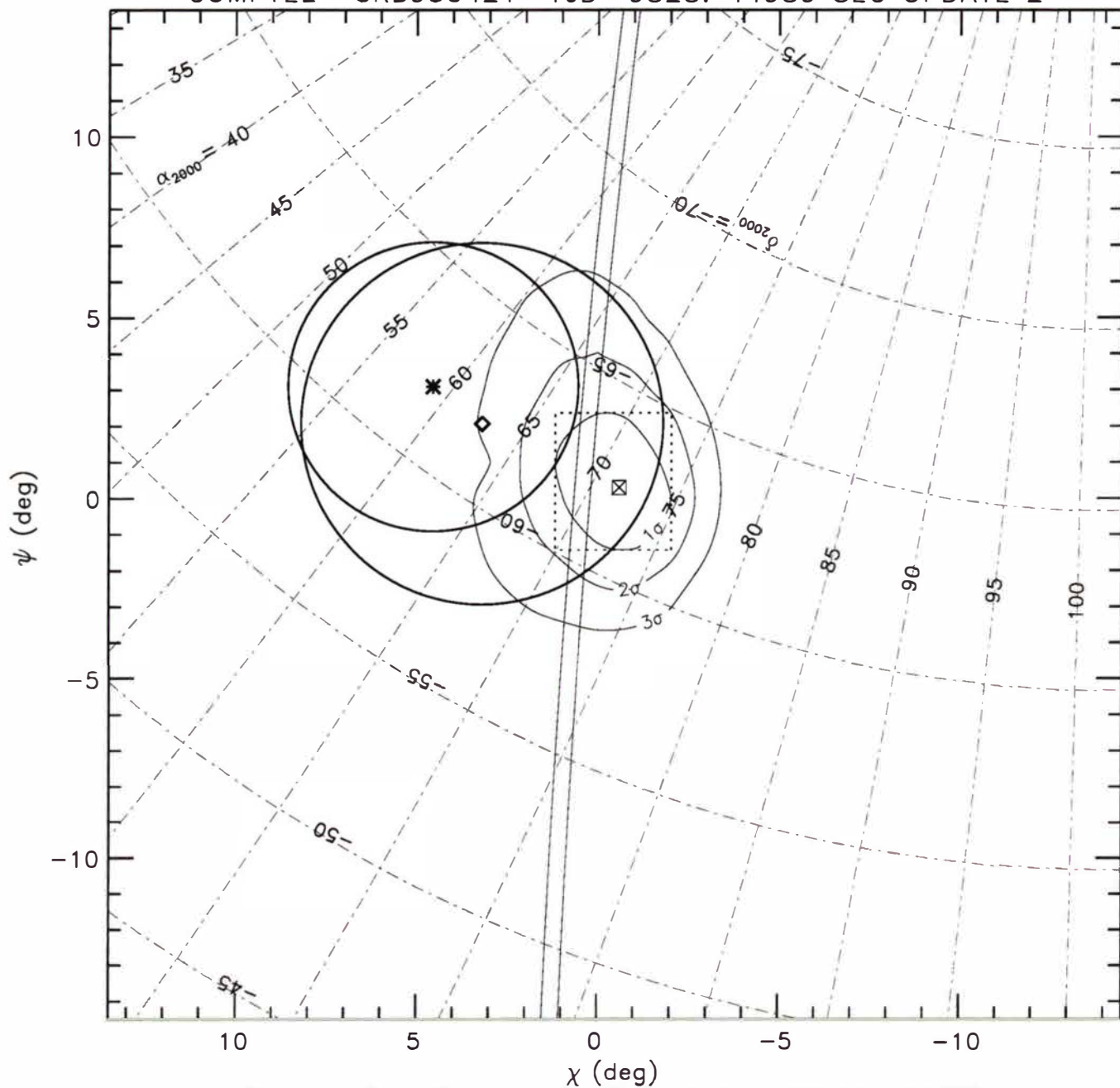
21 / 4 / 95 44928.220 s

0.250 S INTERVALS REGROUPED BY 4

21- 142 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS





	[CHI, PSI]	[α_{2000} , δ_{2000}]	
◇	[3.19, 2.07]	[62.61, -61.98]	BACODINE 1-SIGMA
✱	[4.55, 3.09]	[59.00, -62.00]	EGRET 1-SIGMA

	[CHI, PSI]	[α_{2000} , δ_{2000}]	
⊠	[-0.60, 0.30]	[71.54, -62.41]	Max Lik Position

1	[-2.03, -1.43]	[75.85, -61.45]	1 σ Error Box Coords
2	[-2.03, 2.36]	[72.33, -64.90]	
3	[1.17, 2.36]	[65.92, -63.34]	
4	[1.17, -1.43]	[69.95, -60.06]	

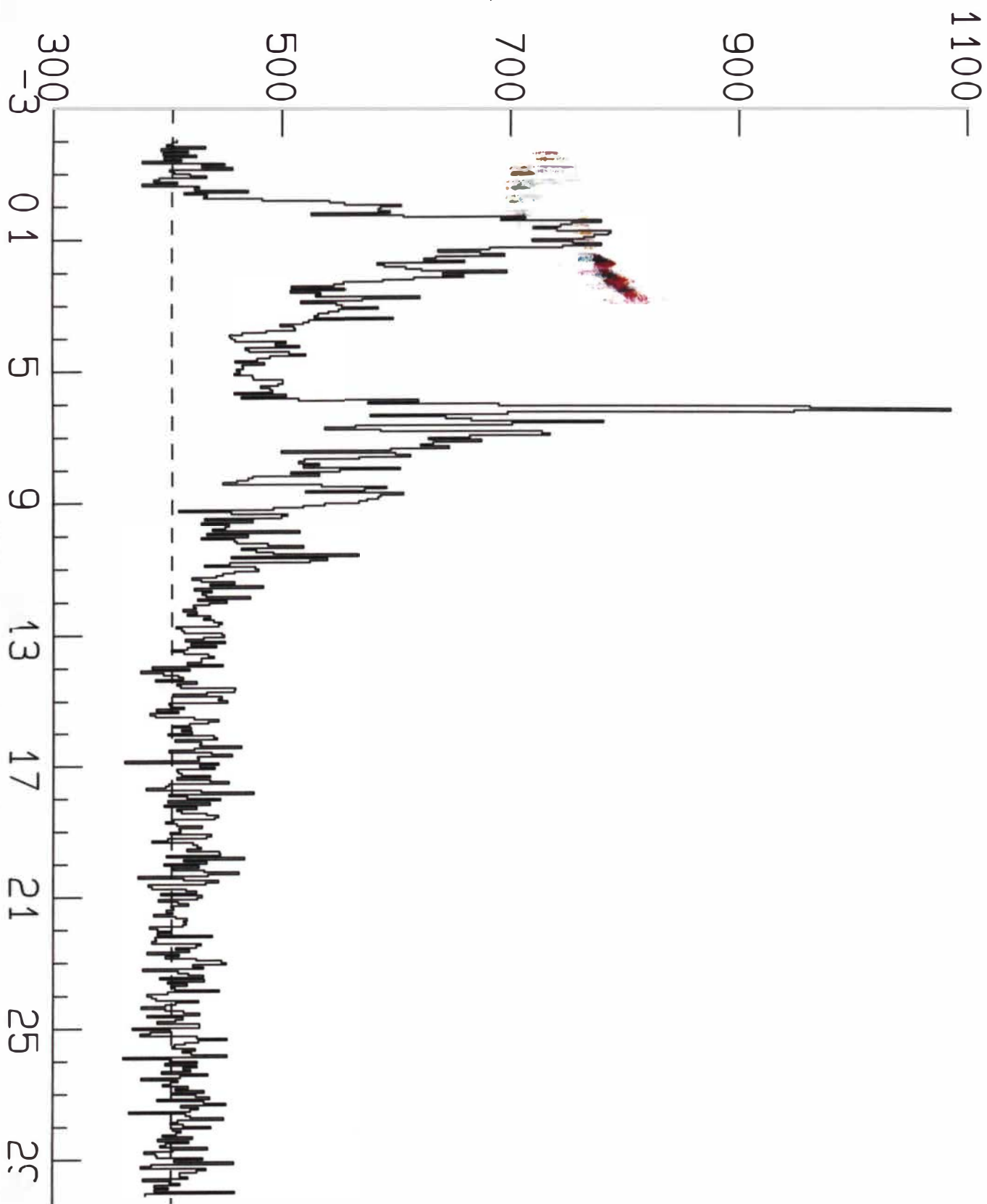
BATSE

21/04/95

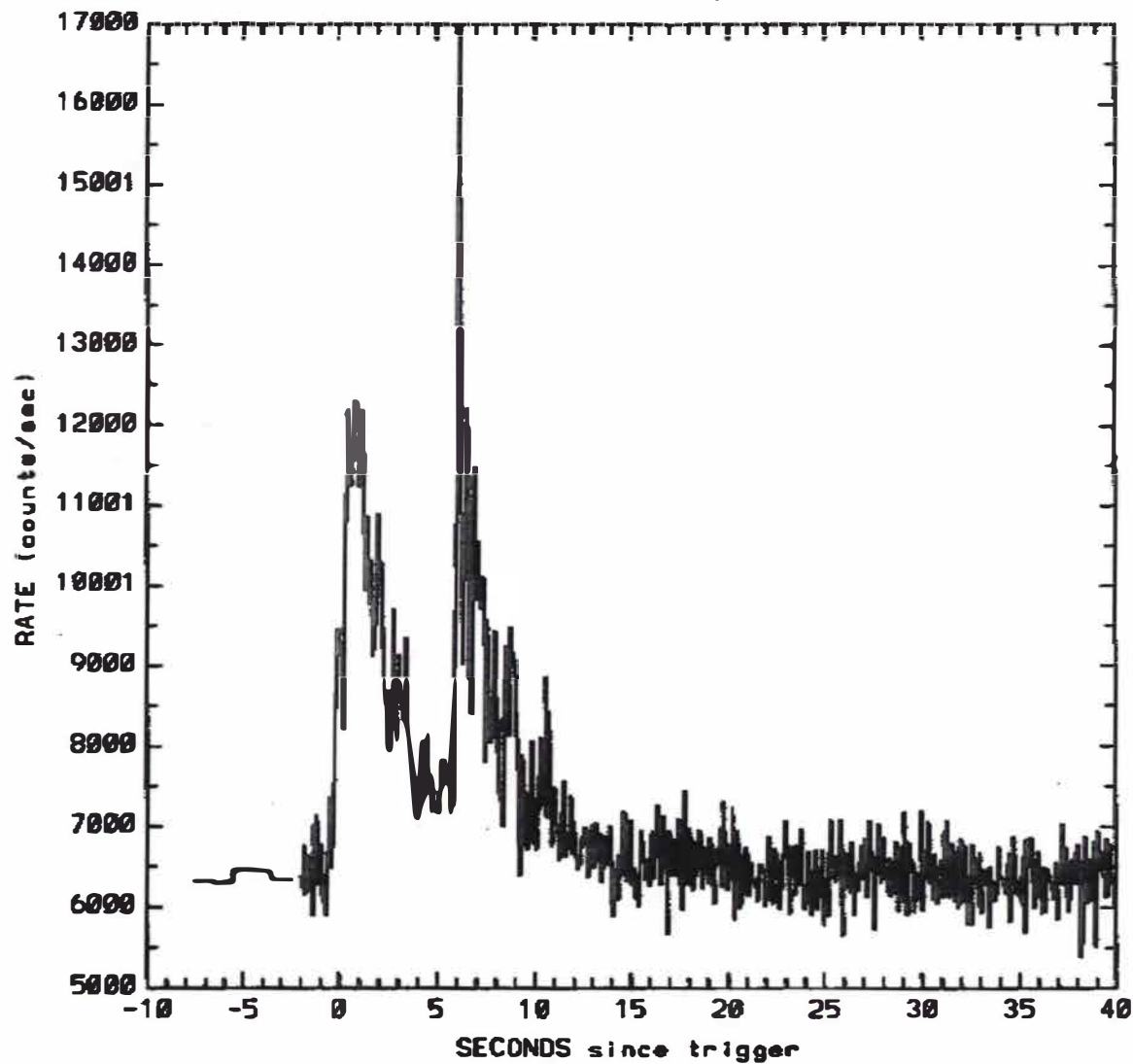
44989.554

25- 100 keV

COUNTS/0.064 S



DISCSC Data for K. Hurley, No. 3516

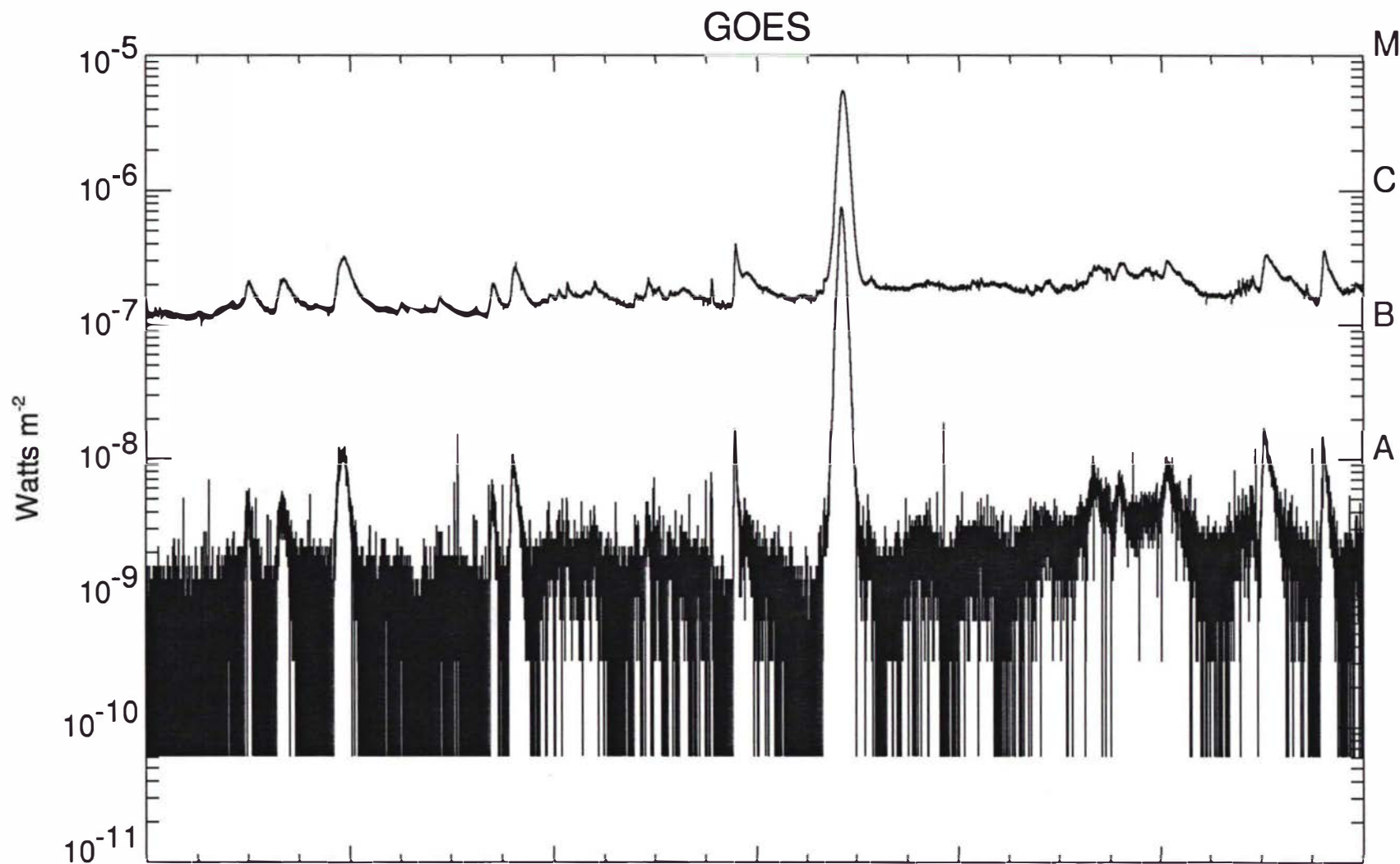


12-FEB-1996 11:05.56

Created by MDPS BD
(Burst Display)
Version 12.25

Trigger # . 3516

Trigger Time:
9828 / 44989.554Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.064 secondsDetectors [7..8]:
-----2-0Discriminators:
[1 , 2]Quality Mask:
801SP1



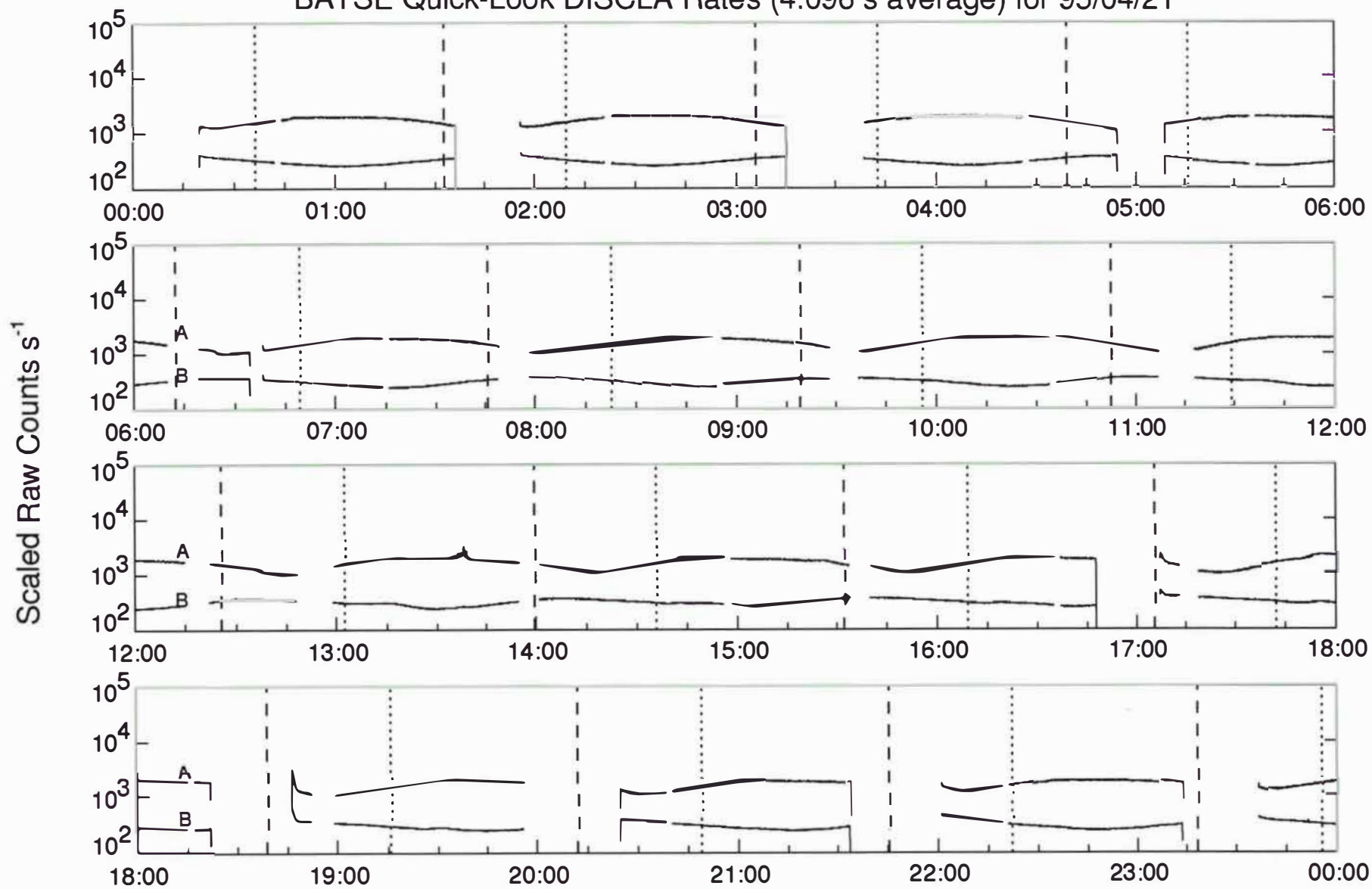
Data Start: 95/04/21, 0000:02

Plot created: 95/04/24, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/21



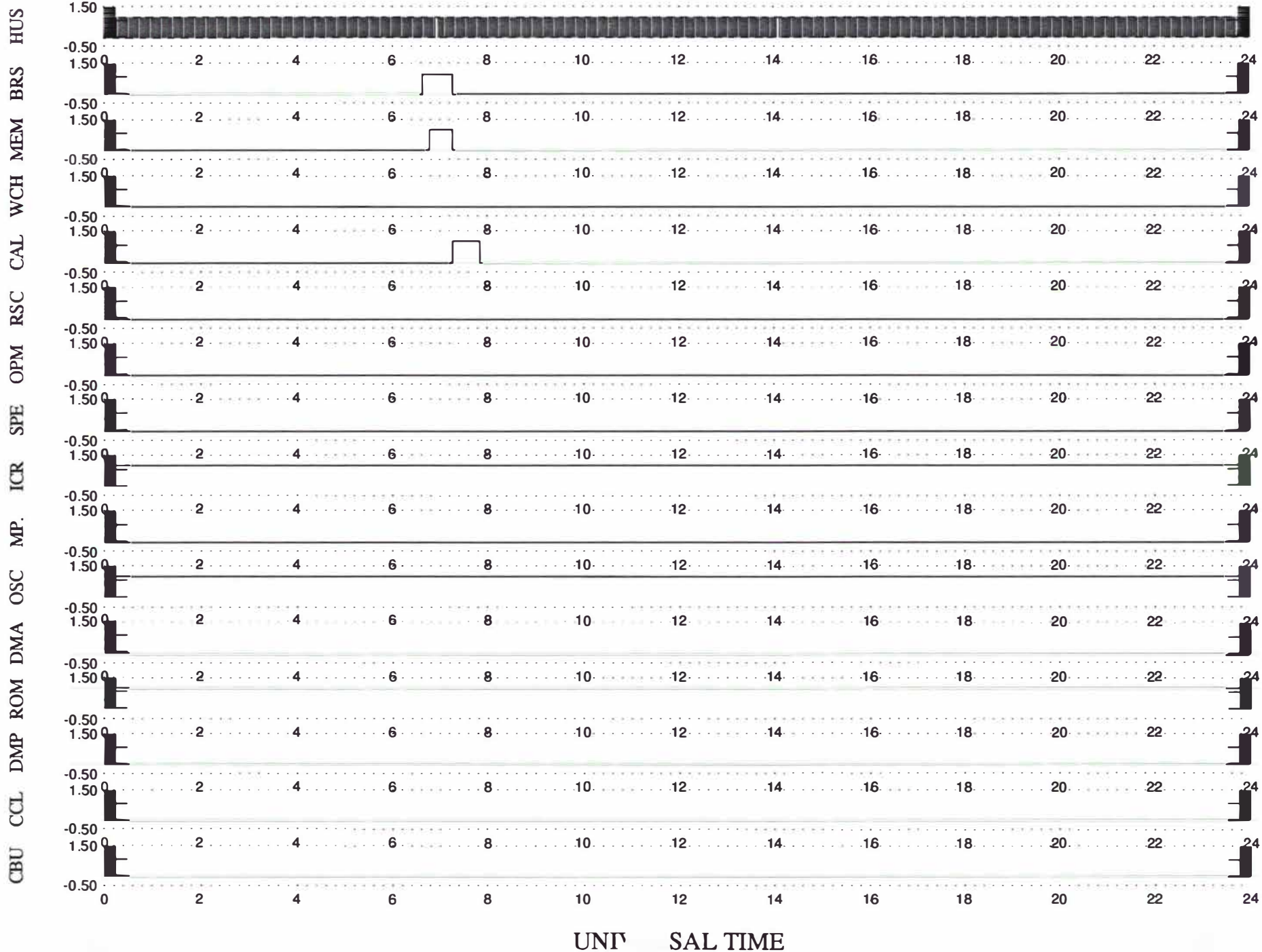
Current Time: 95/04/24, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

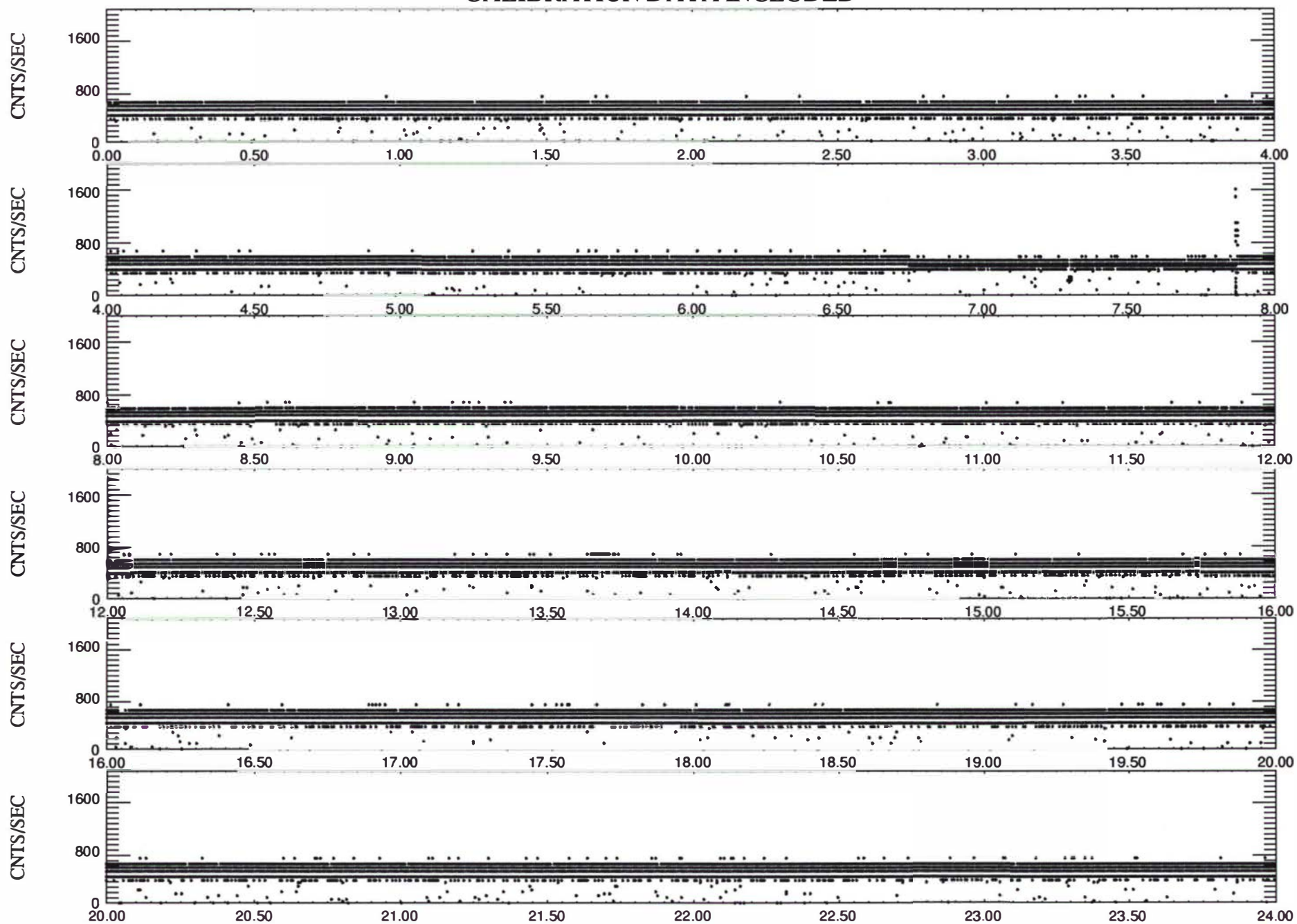
HUS MODES EDR day 111, year 1995 to day 111, year 1995
BURST NUMBER 1

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 111, year 1995 to day 111, year 1995
CALIBRATION DATA INCLUDED

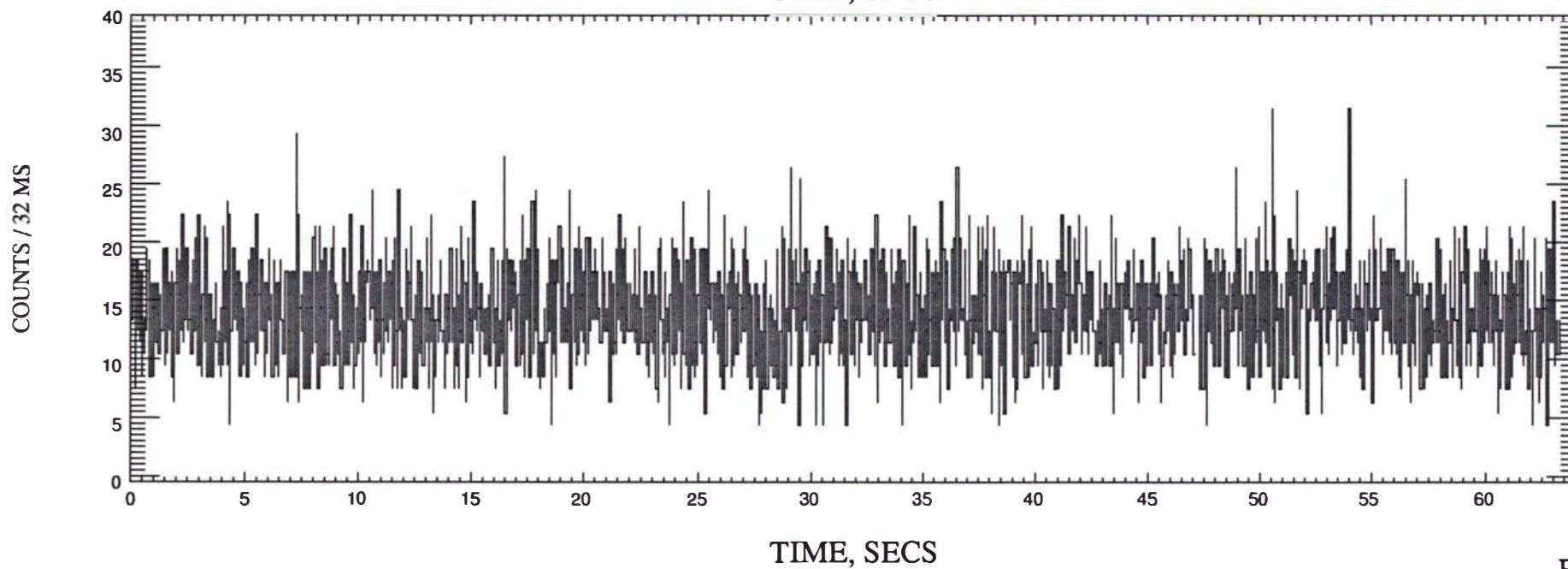
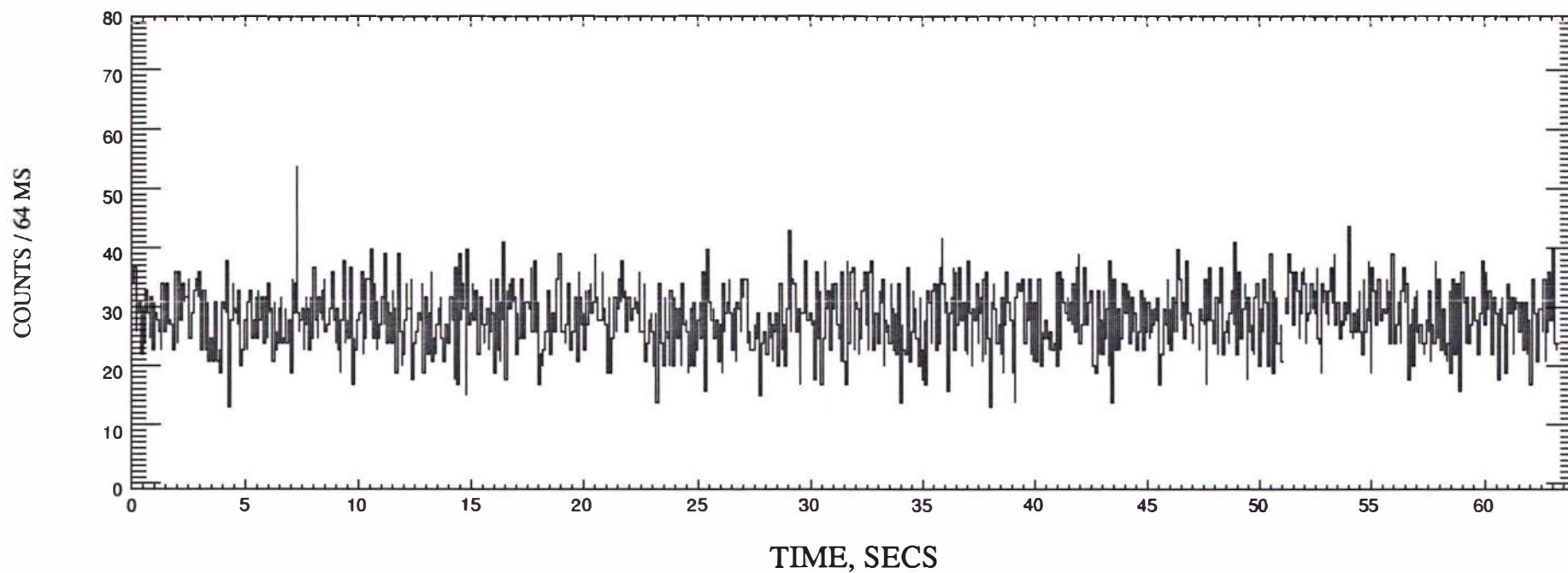
11/16/95



UNITS SAL TIME

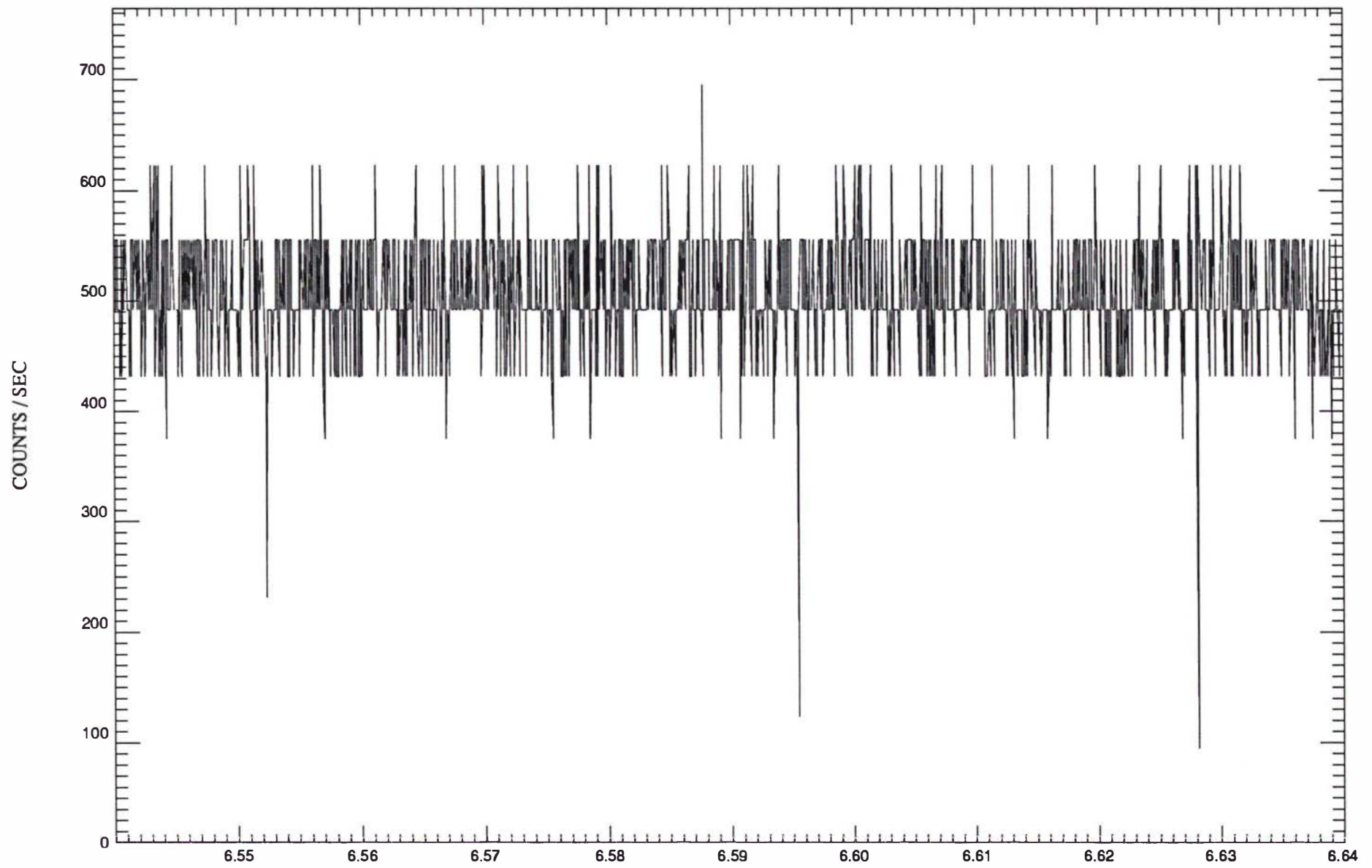
HUS 2A TRIGGERED DATA EDR day 111, year 1995
Burst Counter 1 at UT= 6.587865435282 h=23716.316 s 06:35:16.316

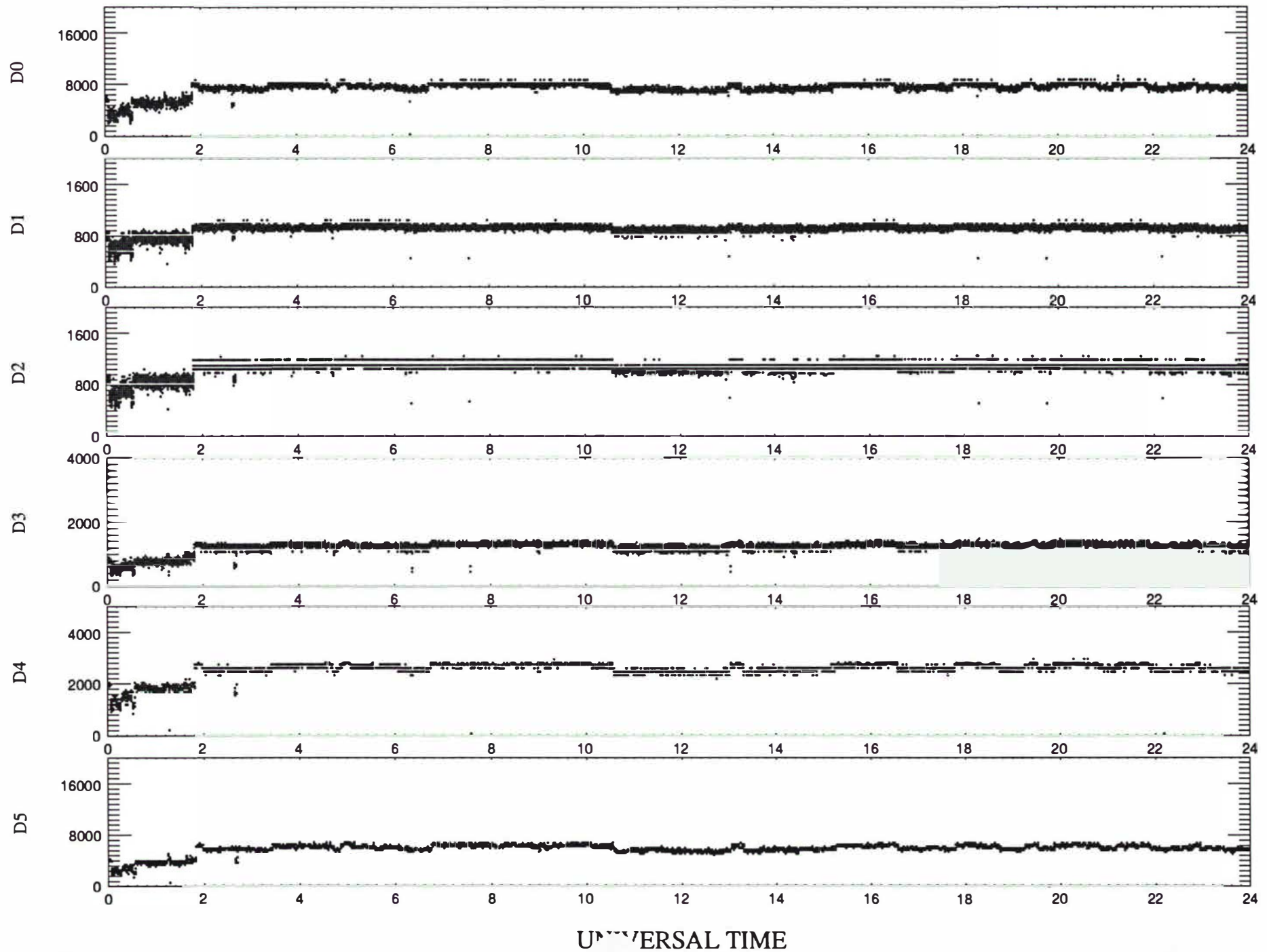
11/16/95



HUS 2A, MODE 1, NOT AVERAGED QEDR day 111, year 1995 to day 111, year 1995
CALIBRATION DATA INCLUDED

4/25/95





From DEAL@ssl.msfc.nasa.gov Mon Apr 24 09:41 PDT 1995
Date: Mon, 24 Apr 1995 11:41:19 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3517

TIME: TJD=9829 SECONDS=2740

NO

TYPE: FLARE

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=94.7 AZIMUTH=336.4 ERROR= DEGREES

COMMENTS:

SOLAR FLARE. GOES ~ B.6. DURATION ~ 30S. MARGINALLY VISIBLE ABOVE 300 KEV.

From DEAL@ssl.msfc.nasa.gov Mon Apr 24 10:42 PDT 1995
Date: Mon, 24 Apr 1995 12:42:28 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 03518

ND

TIME: TJD=9829 SECONDS=33560 9:19

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=96.2 AZIMUTH=333.5 ERROR= DEGREES

COMMENTS:

SOLAR FLARE LASTING ~ 46S. NOT VISIBLE ABOVE 100 KEV.

From DEAL@ssl.msfc.nasa.gov Mon Apr 24 10:45 PDT 1995
Date: Mon, 24 Apr 1995 12:45:47 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3519

NO

TIME: TJD=9829 SECONDS=39000

10:49

TYPE: FLARE

SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=105 AZIMUTH=317.0 ERROR= DEGREES

COMMENTS:

SOLAR FLARE LASTING ~ 7S. TRIGGERED AT SUNRISE. NOT VISIBLE ABOVE 50 KEV.

From HAGEDON@ssl.msfc.nasa.gov Mon Apr 24 09:42 PDT 1995
Date: Mon, 24 Apr 1995 11:42:44 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3520

TRIGGER

TIME: TJD=9829 SECONDS=42287 11:44:47

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

SOLAR FLARE. UNCLASSIFIED IN GOES DATA. SINGLE PULSE WITH FAST DECAY (SUNSET).
NOT VISIBLE ABOVE 50 KEV.

From HAGEDON@ssl.msfc.nasa.gov Mon Apr 24 09:49 PDT 1995
Date: Mon, 24 Apr 1995 11:49:20 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3521

TRIGGER

TIME: TJD=9829 SECONDS=61815 17:10:15

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:

GOES ~C1 SOLAR FLARE. COMPLEX STRUCTURE. DUR.~130 SEC. NOT VISIBLE
ABOVE 100 KEV.

From DEAL@ssl.msfc.nasa.gov Mon Apr 24 10:48 PDT 1995
Date: Mon, 24 Apr 1995 12:48:08 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
LHEAVXCLINE@ssl.msfc.nasa.gov, LHEAVXBARTHELMY@ssl.msfc.nasa.gov,
15733SCHAEFER@ssl.msfc.nasa.gov, CASS09BAND@ssl.msfc.nasa.gov,
CASS09GRUBER@ssl.msfc.nasa.gov, CASS09MATTESON@ssl.msfc.nasa.gov,
PACIESAS@ssl.msfc.nasa.gov, HORACK@ssl.msfc.nasa.gov,
khurley@sunspot.ssl.berkeley.edu
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3522

NO

TIME: TJD=9829 SECONDS=83942 23:19

TYPE: FLARE SOLAR FLARE TRIGGER SIGNAL:N

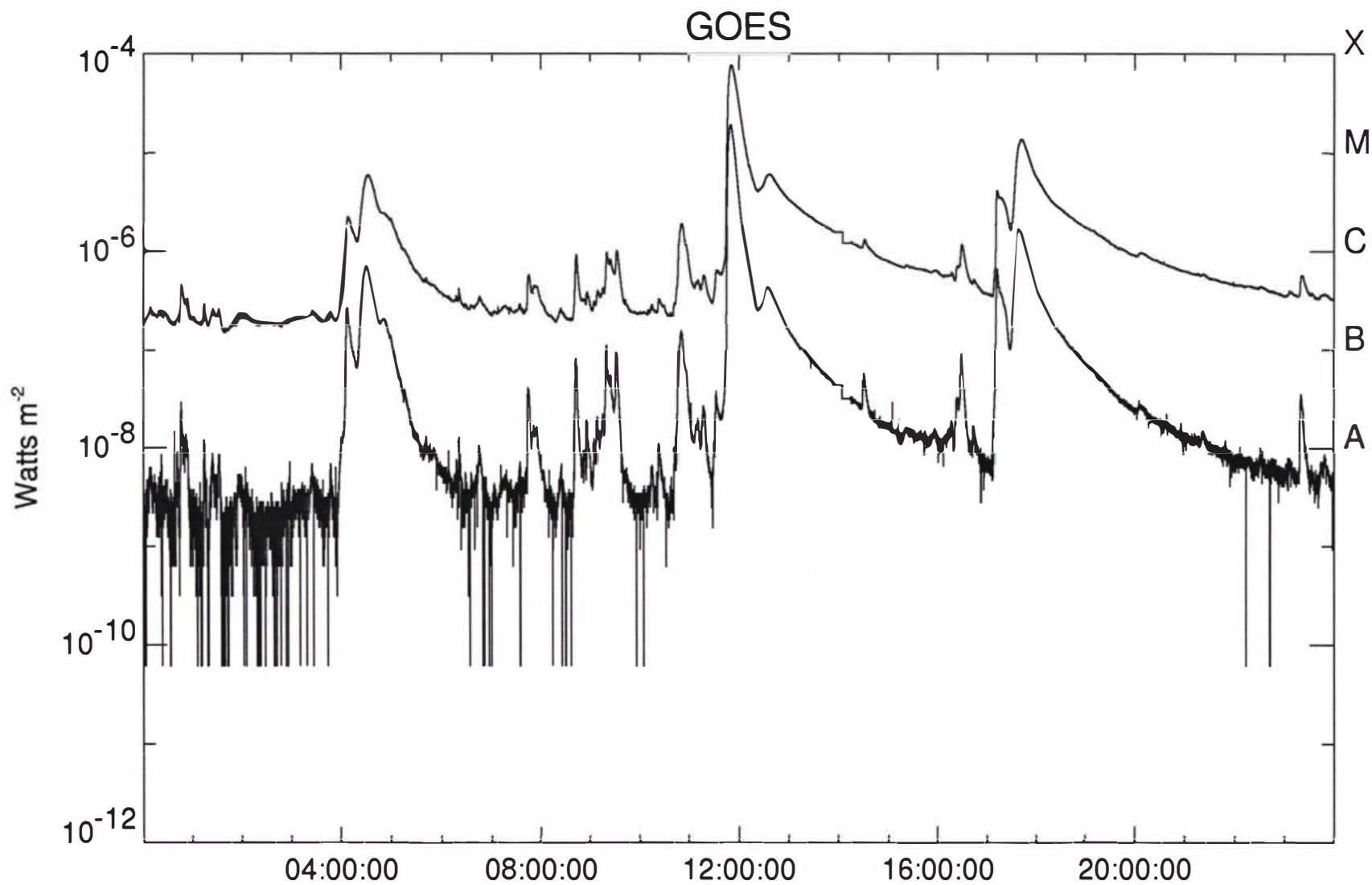
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=96.2 AZIMUTH=333.5 ERROR= DEGREES

COMMENTS:

SOLAR FLARE DURATION ~ 50S. NOT VISIBLE ABOVE 100 KEV.



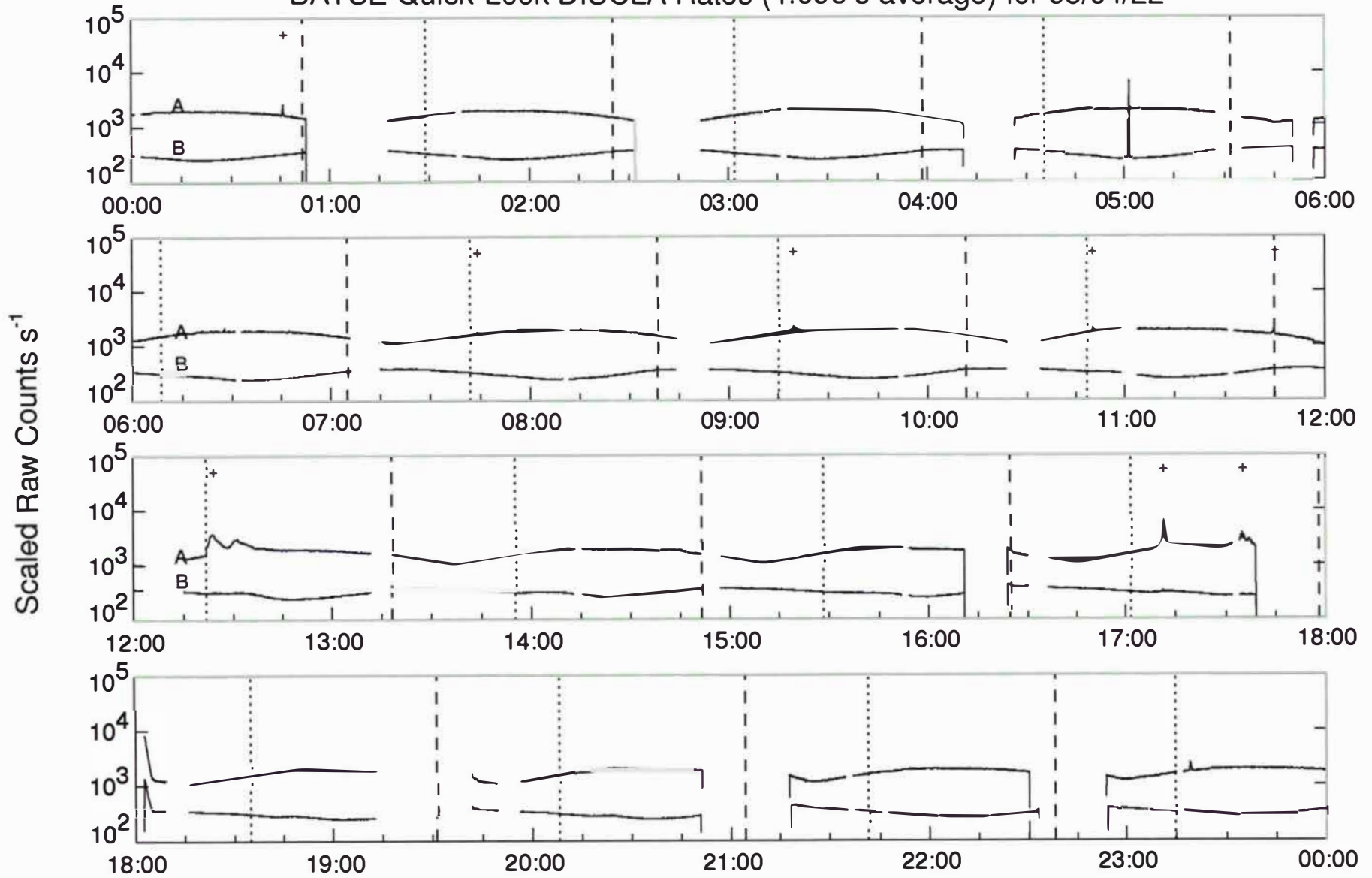
Data Start: 95/04/22, 0000:00

Plot created: 95/04/25, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/22



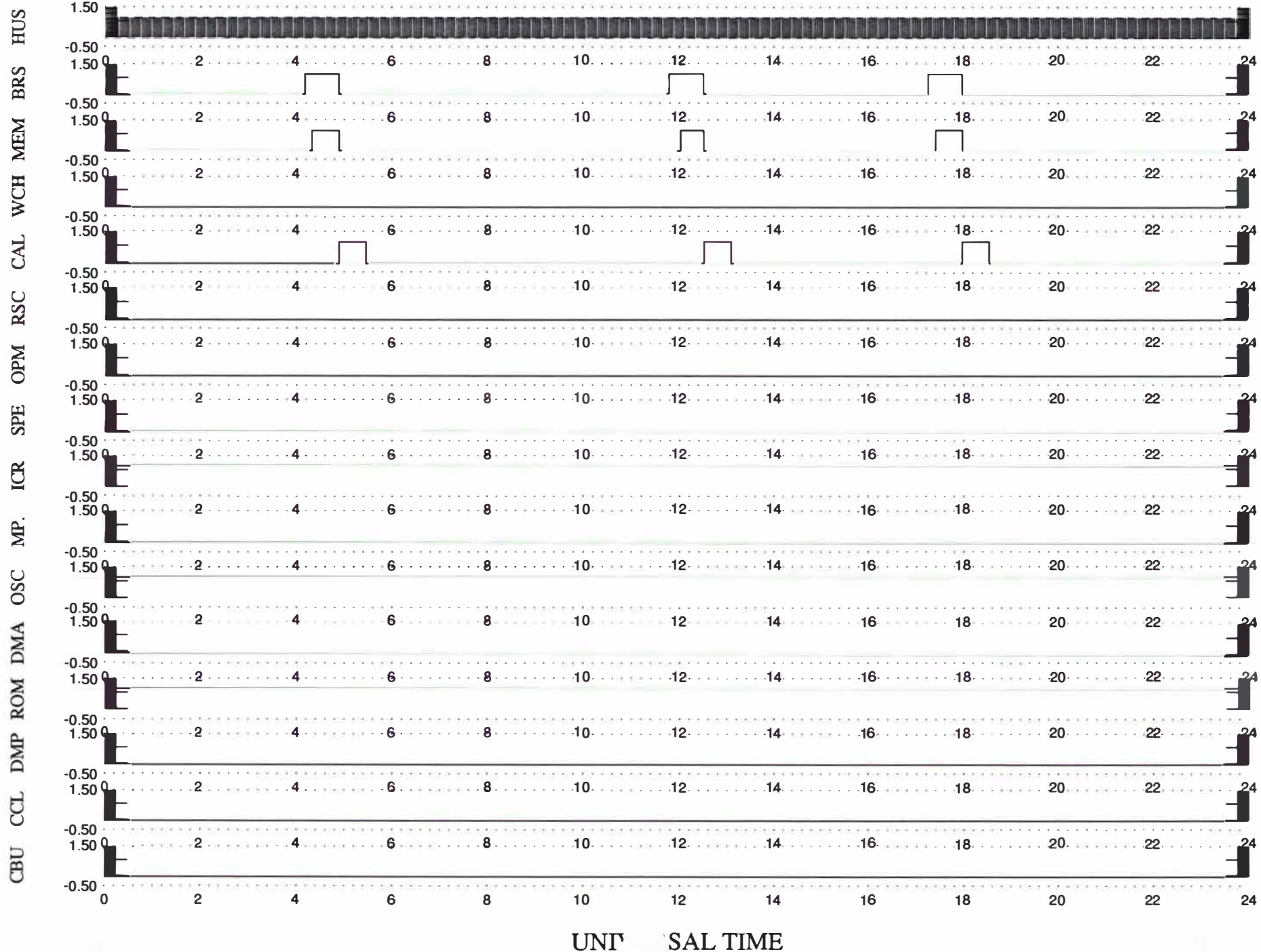
Current Time: 95/04/25, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

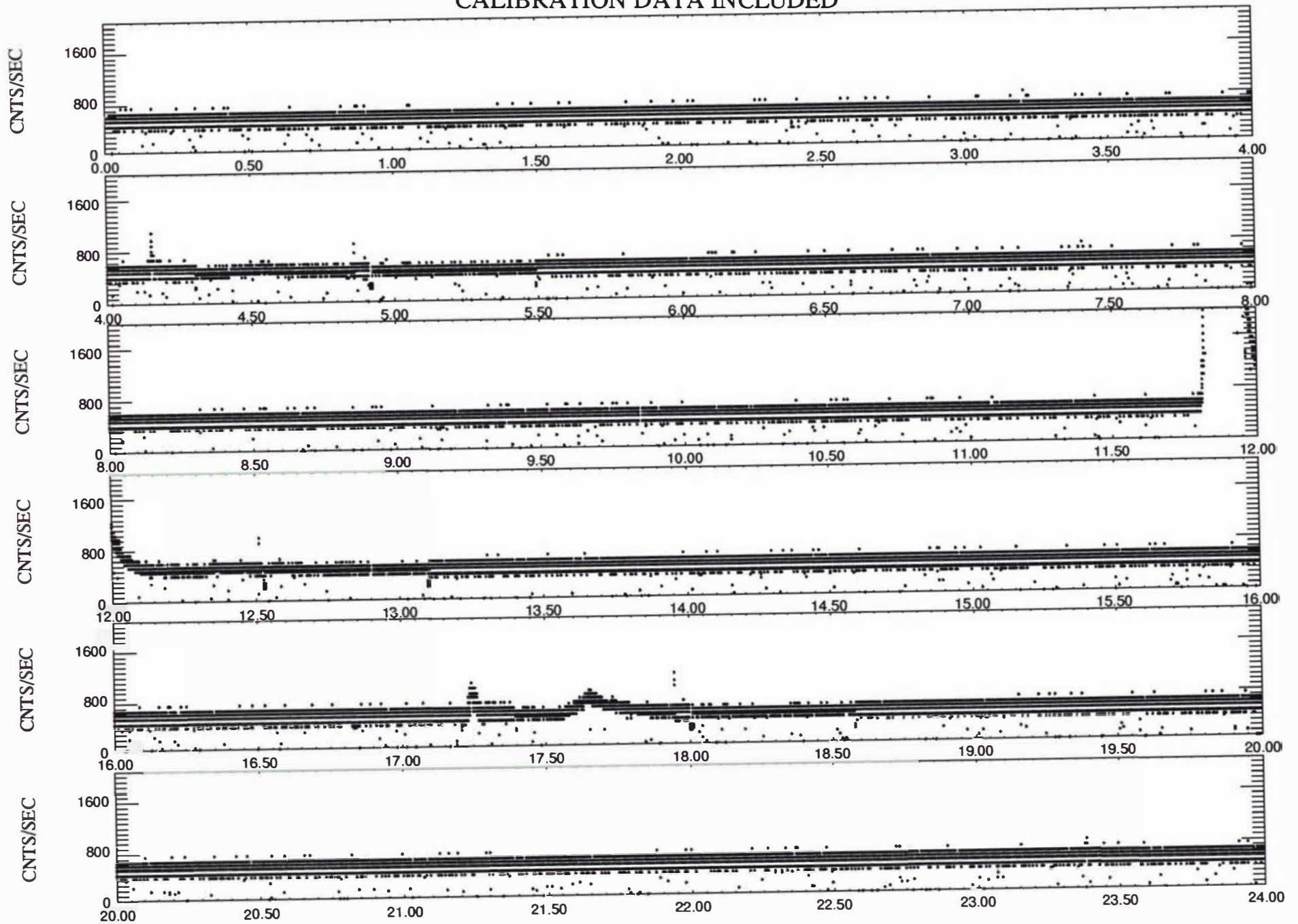
HUS MODES EDR day 112, year 1995 to day 112, year 1995
BURST NUMBER 2 - 4

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 112, year 1995 to day 112, year 1995
CALIBRATION DATA INCLUDED

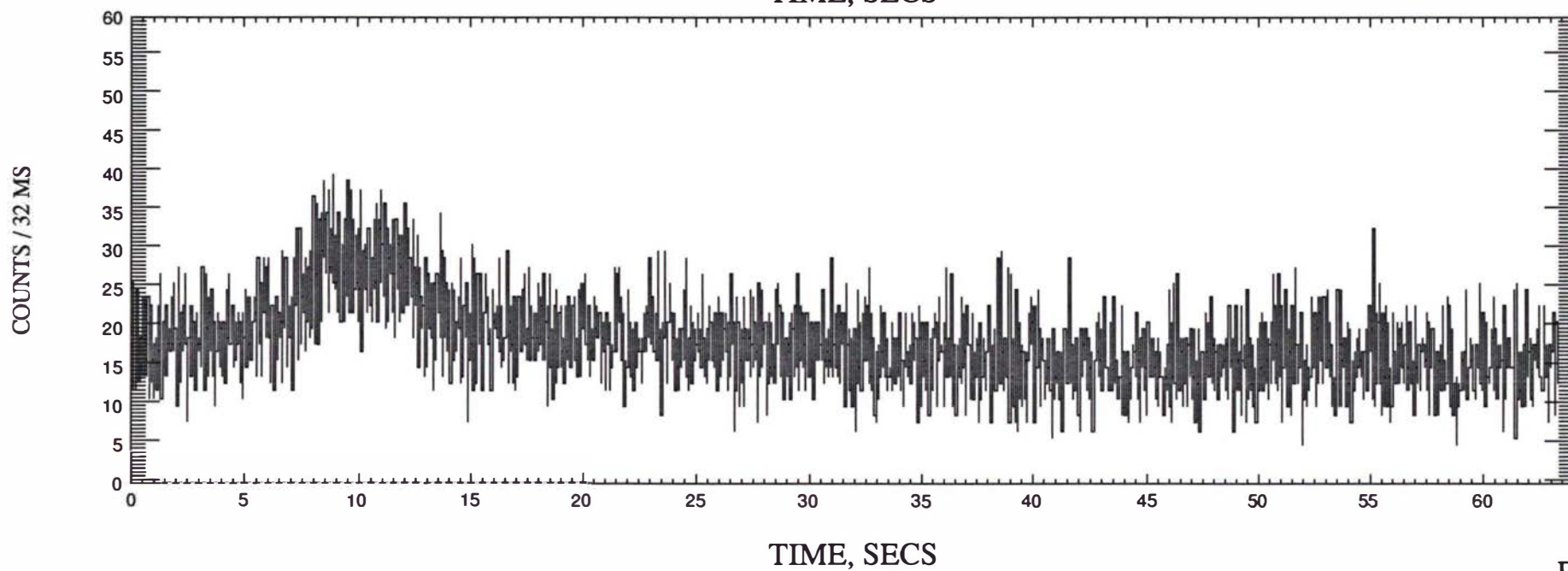
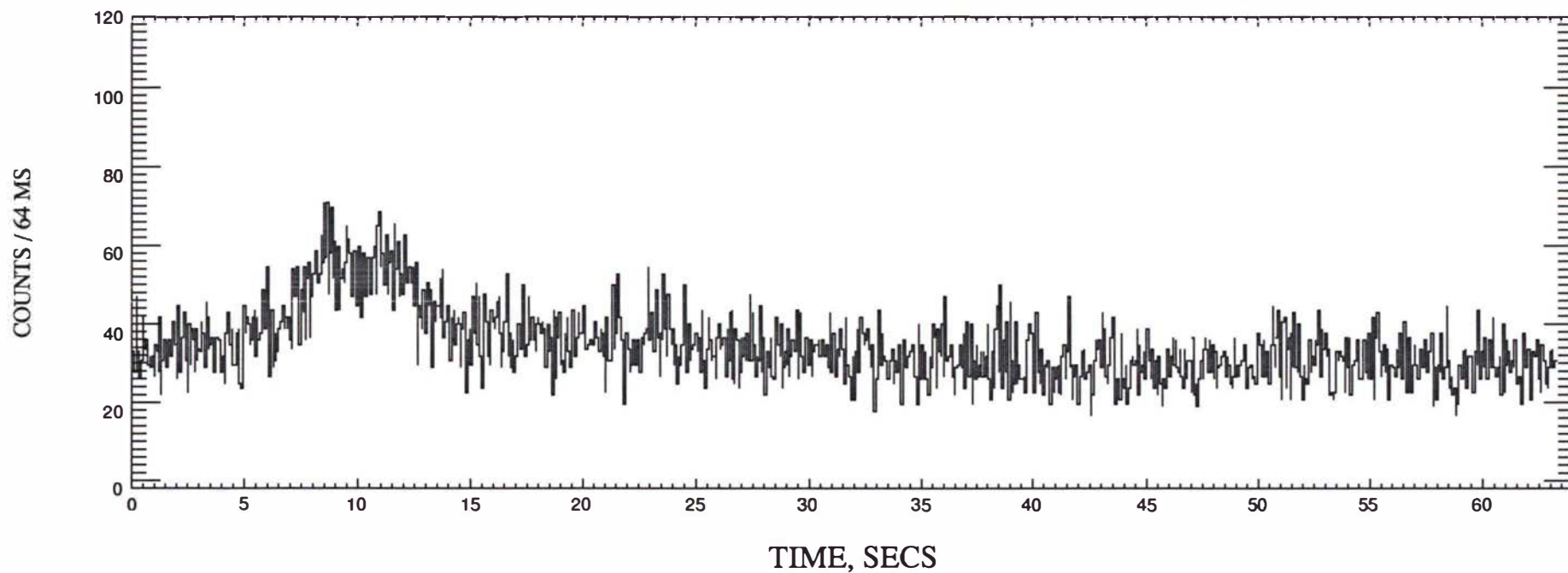
11/16/95



UNIV. SAL TIME

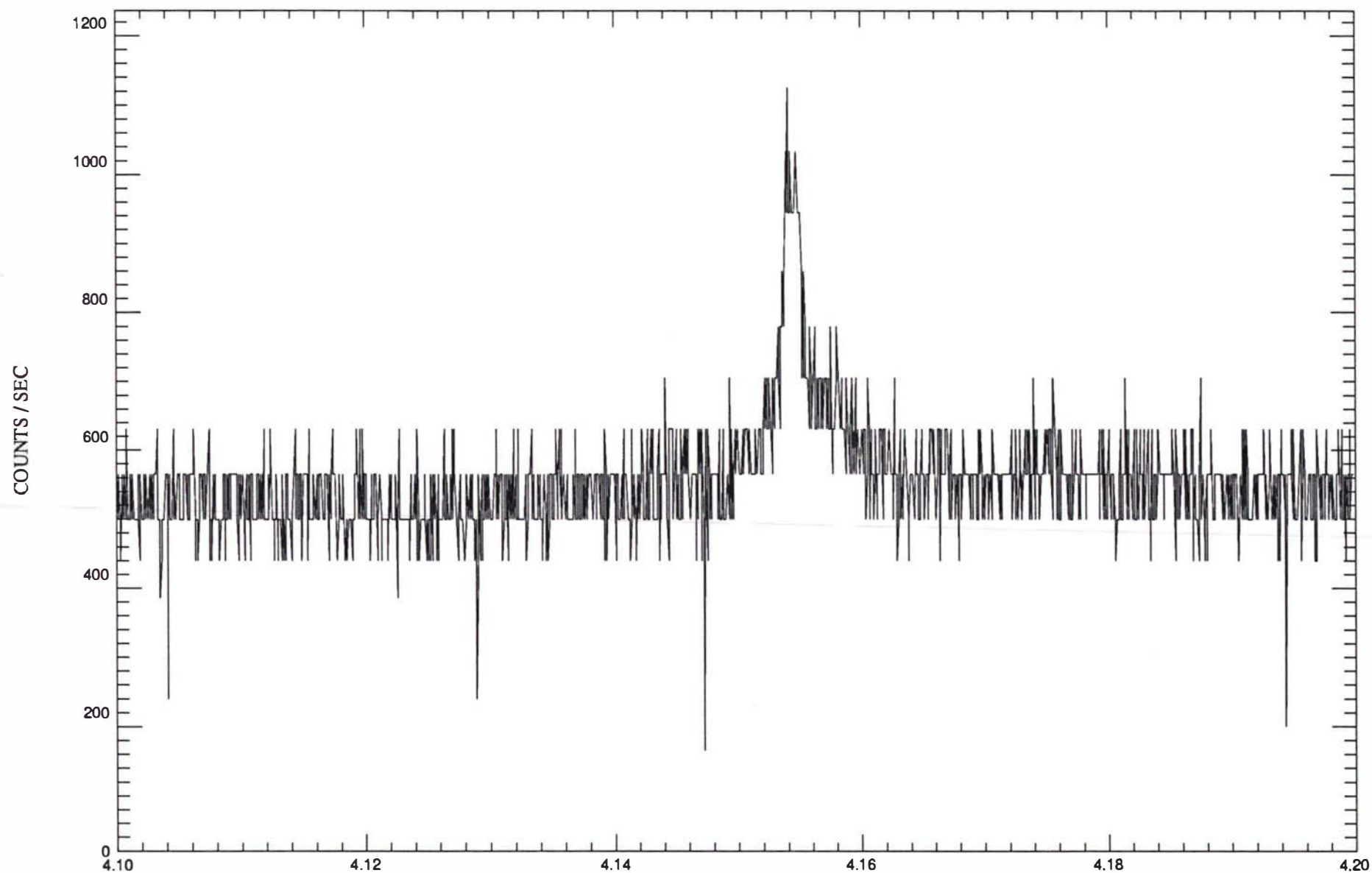
HUS 2A TRIGGERED DATA EDR day 112, year 1995
Burst Counter 2 at UT= 4.153725115458 h=14953.410 s 04:09:13.410

11/16/95



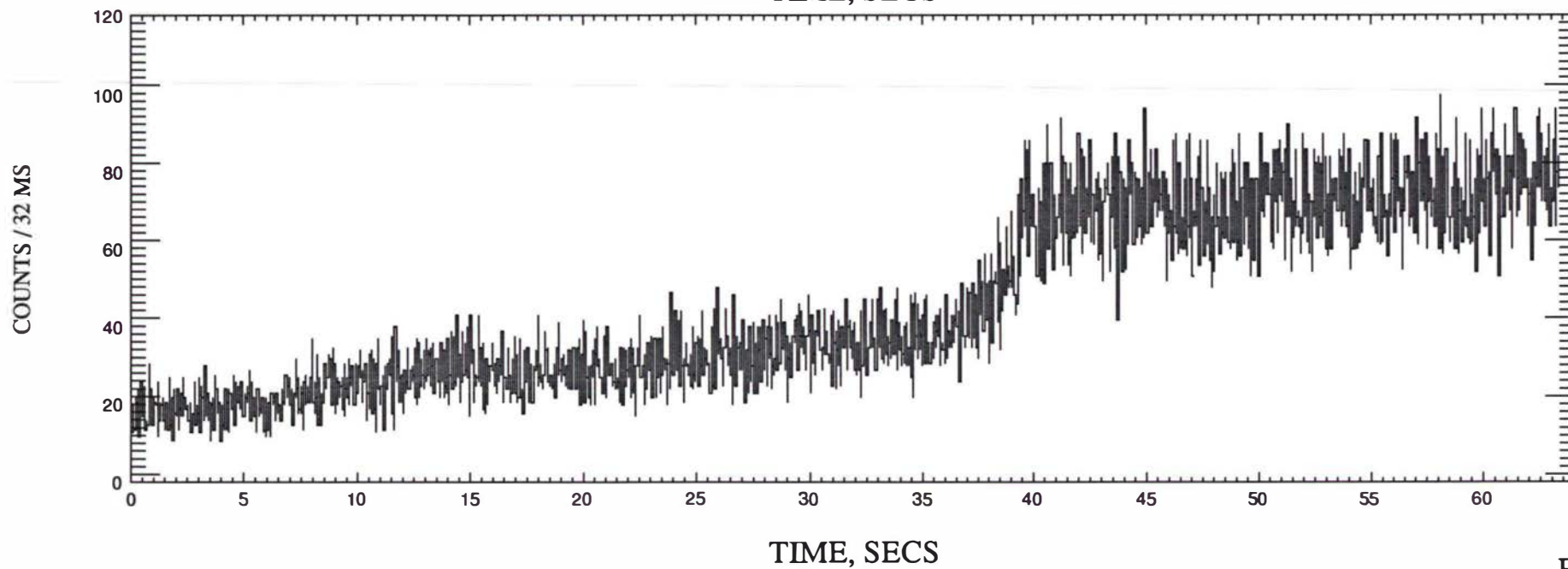
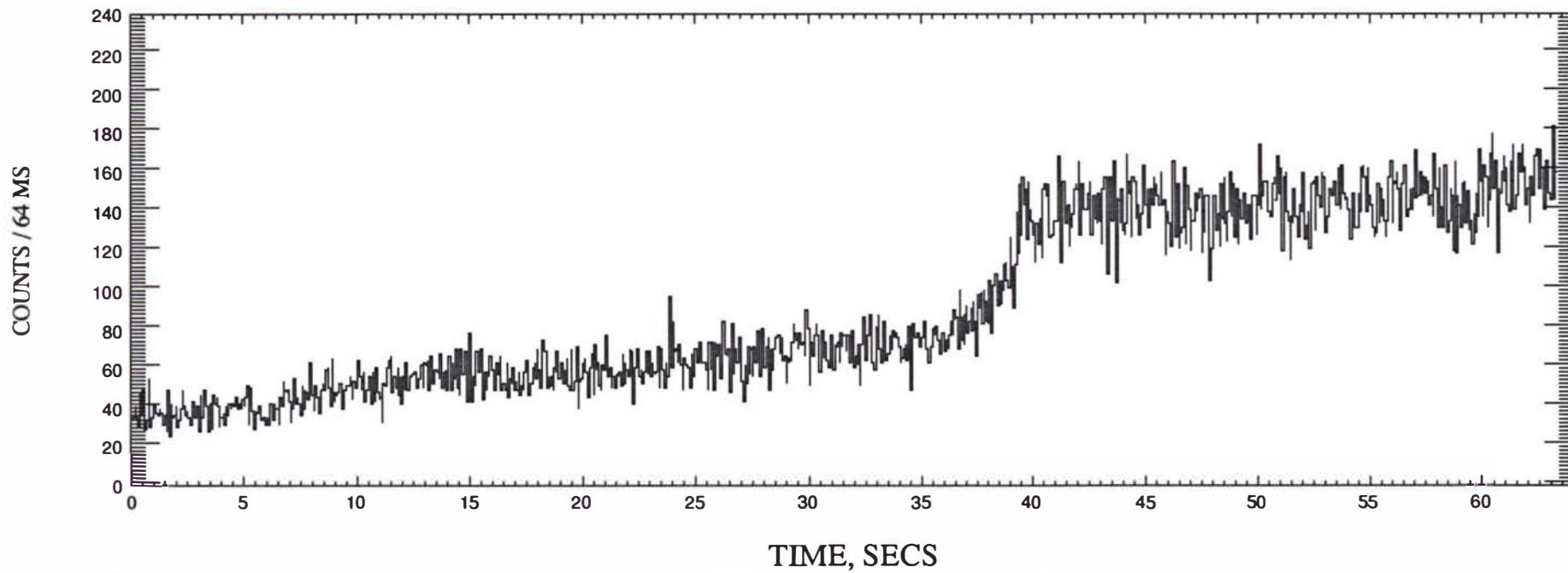
HUS 2A, MODE 1, NOT AVERAGED QEDR day 112, year 1995 to day 112, year 1995
CALIBRATION DATA INCLUDED

4/25/95



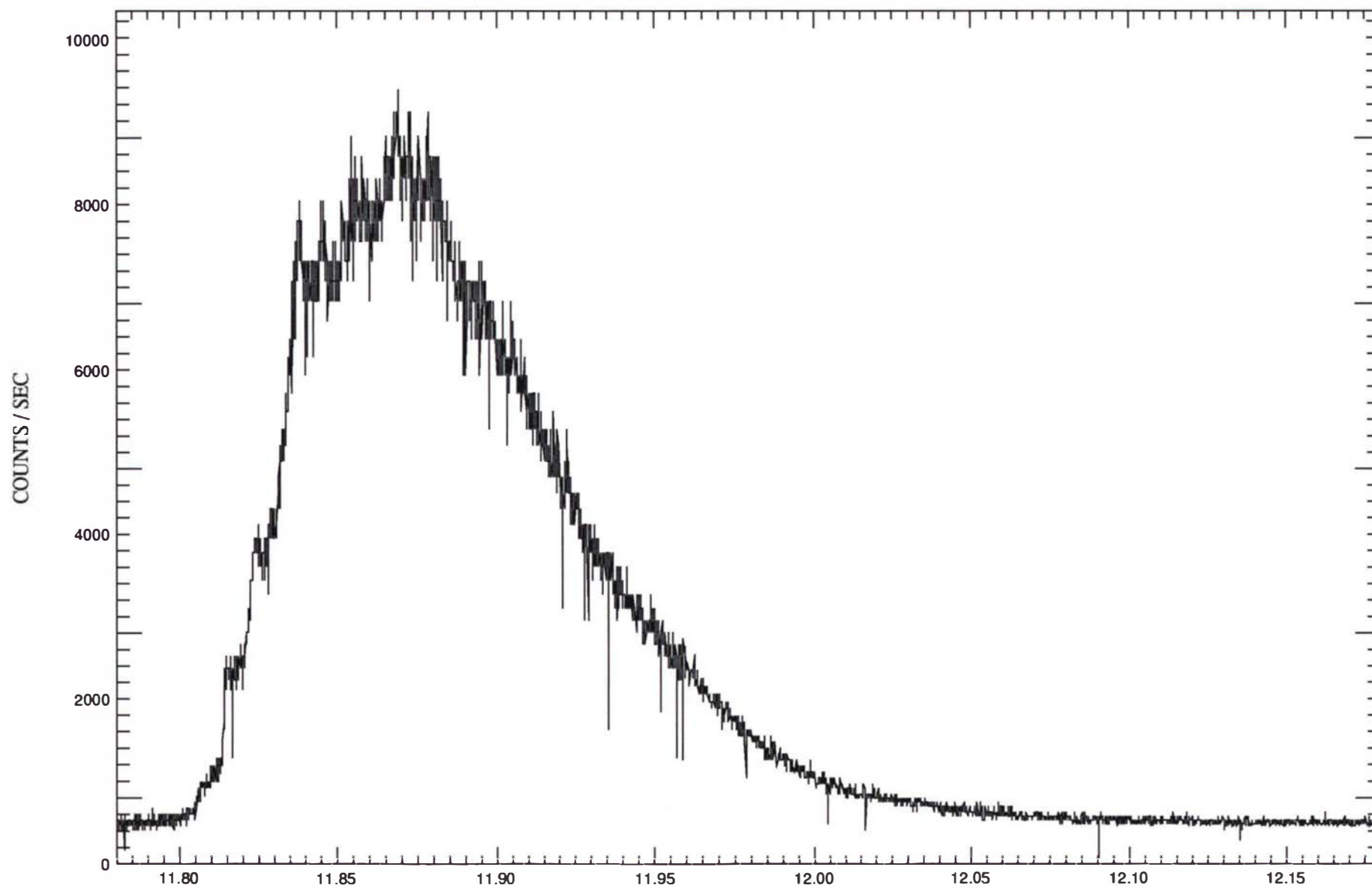
HUS 2A TRIGGERED DATA EDR day 112, year 1995
Burst Counter 3 at UT=11.805608346727 h=42500.190 s 11:48:20.190

11/16/95



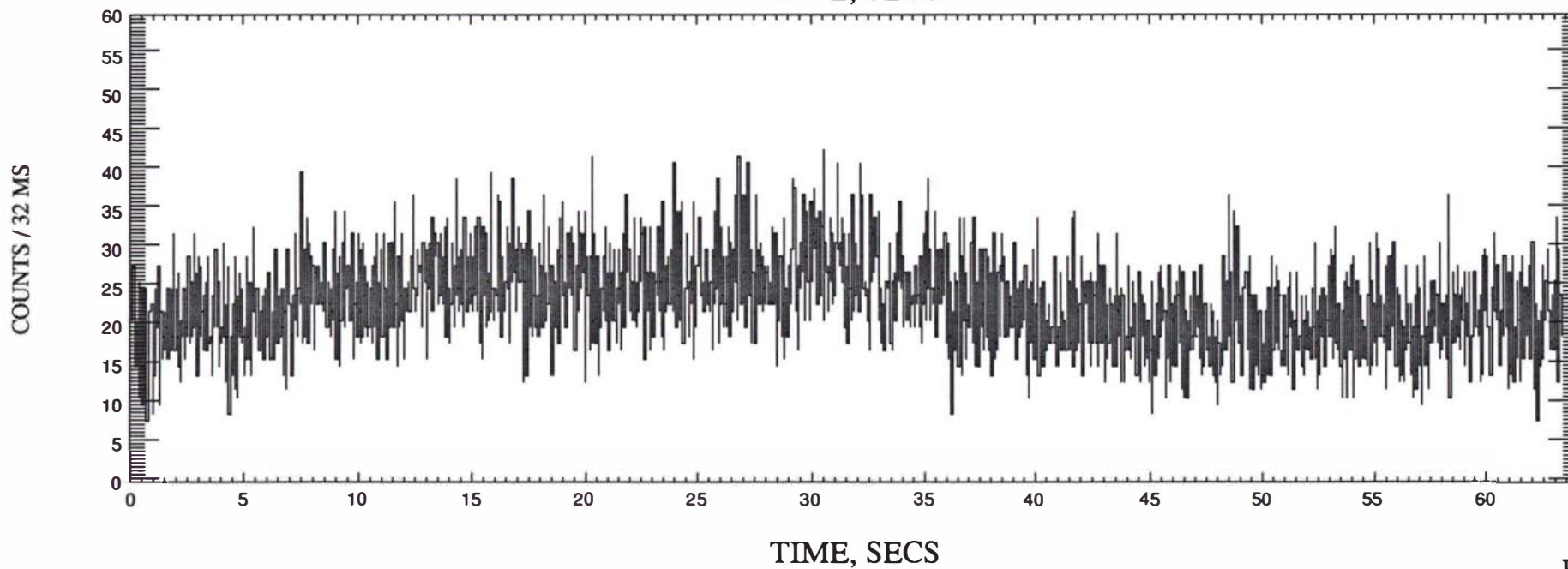
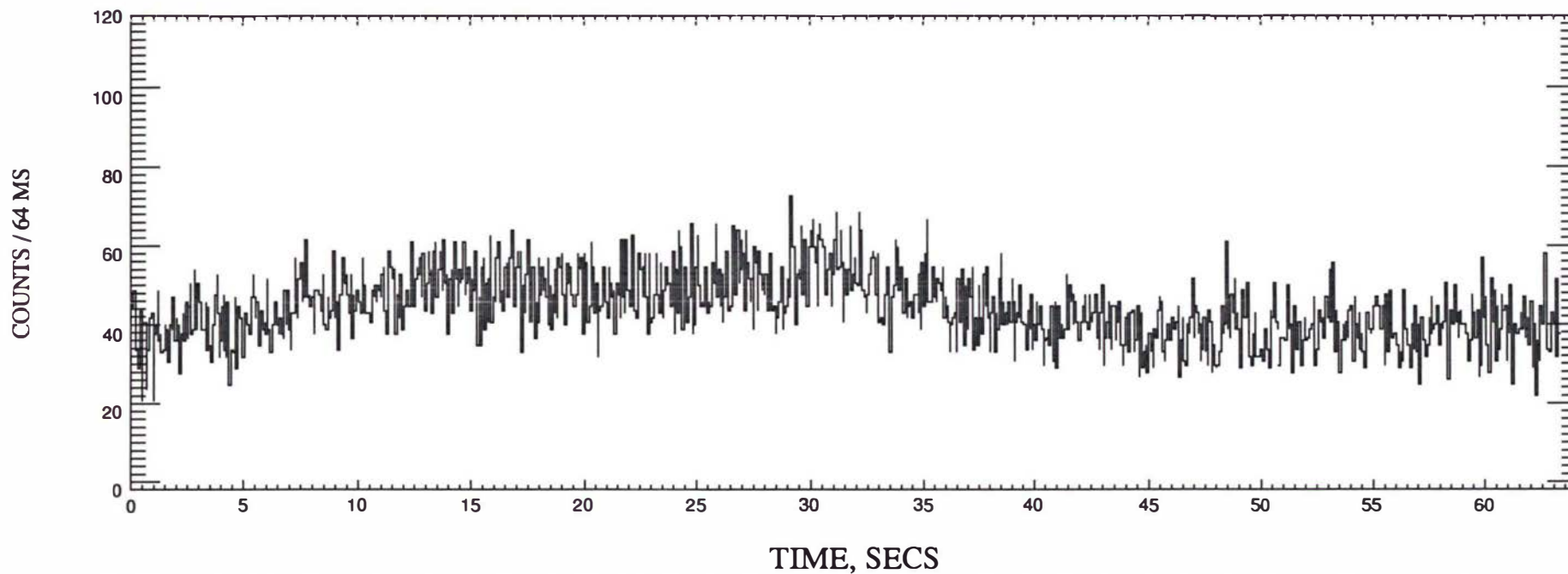
HUS 2A, MODE 1, NOT AVERAGED QEDR day 112, year 1995 to day 112, year 1995
CALIBRATION DATA INCLUDED

4/27/95



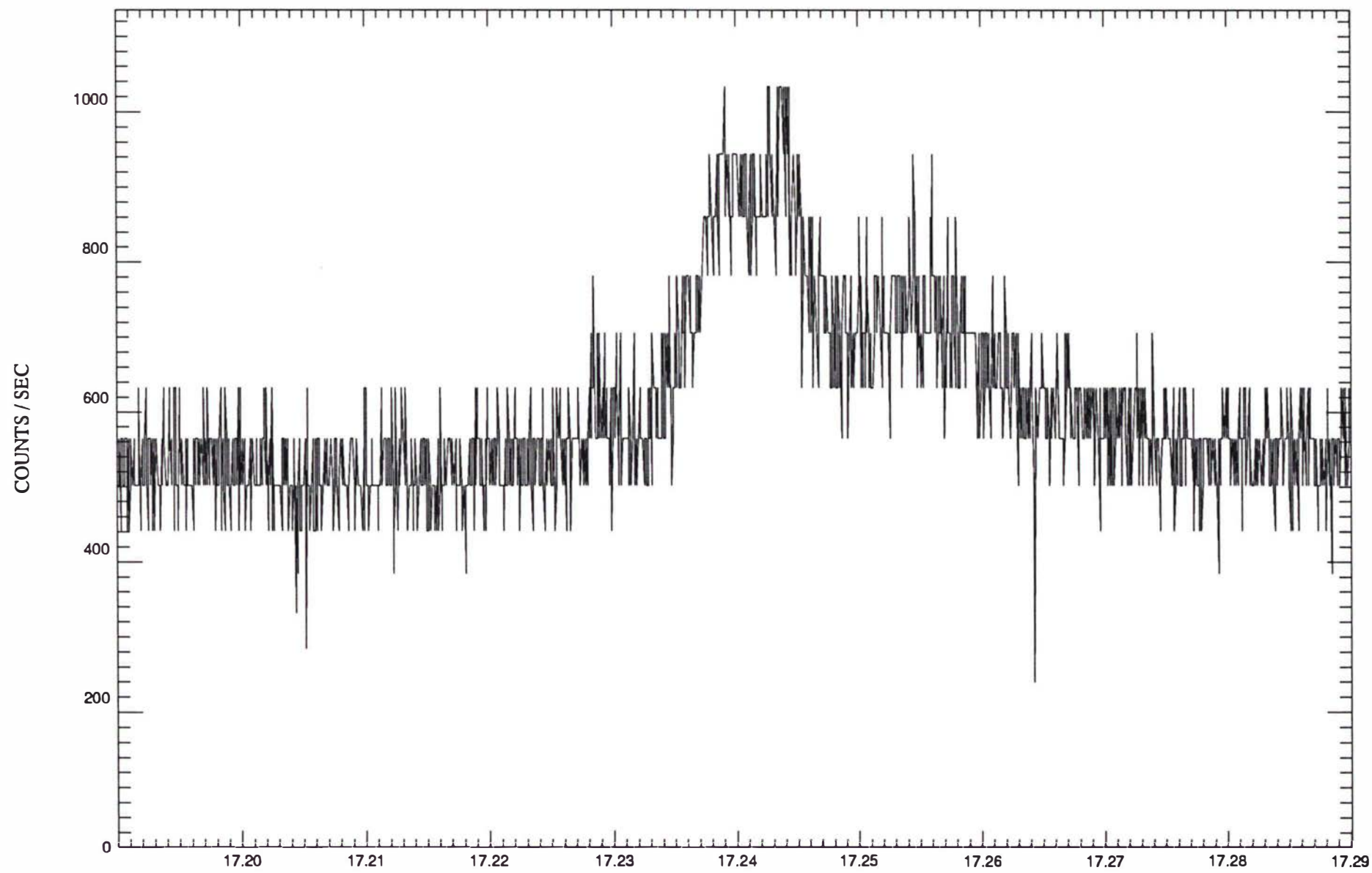
HUS 2A TRIGGERED DATA EDR day 112, year 1995
Burst Counter 4 at UT=17.237411876255 h=62054.683 s 17:14:14.683

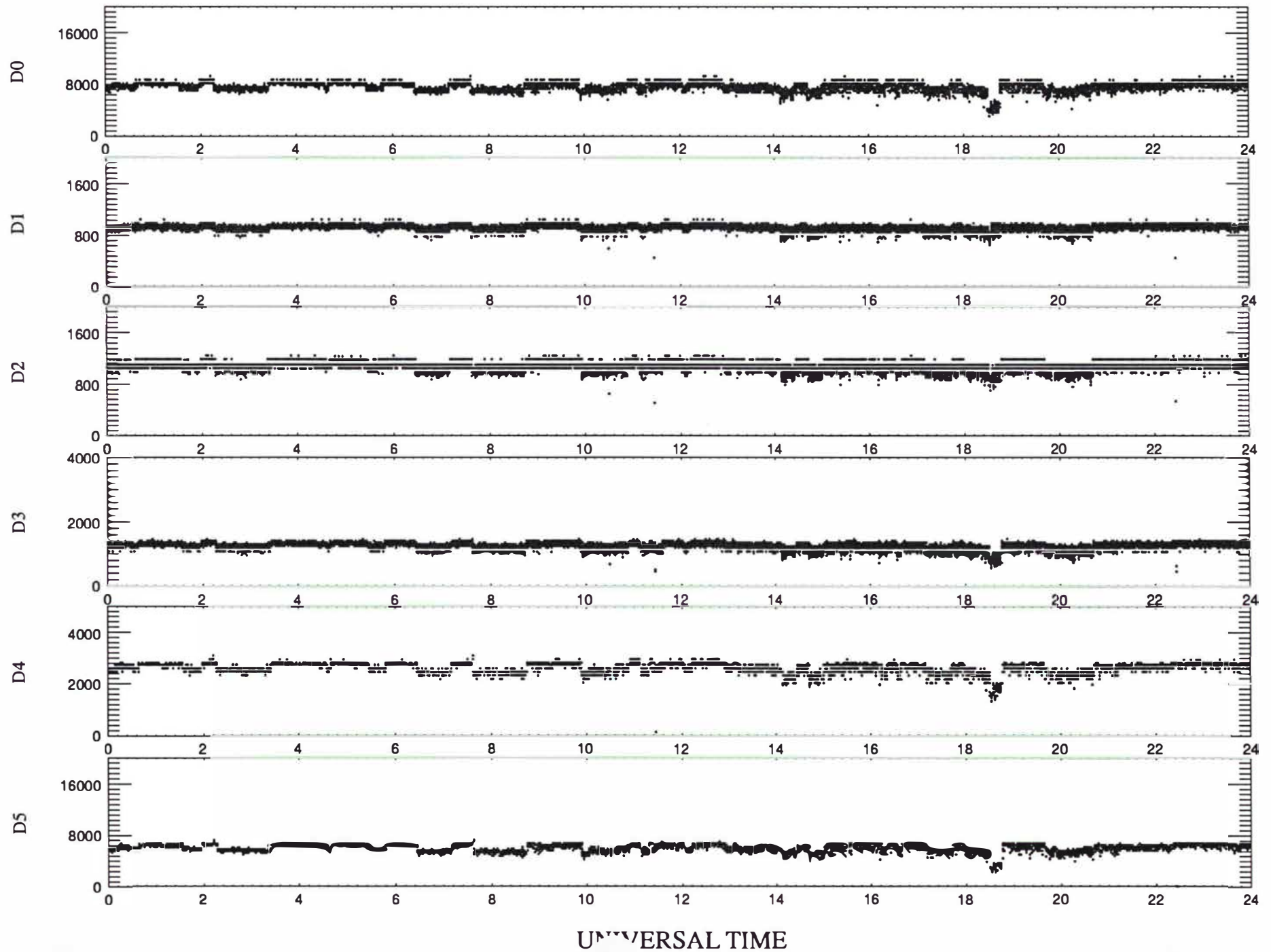
11/16/95

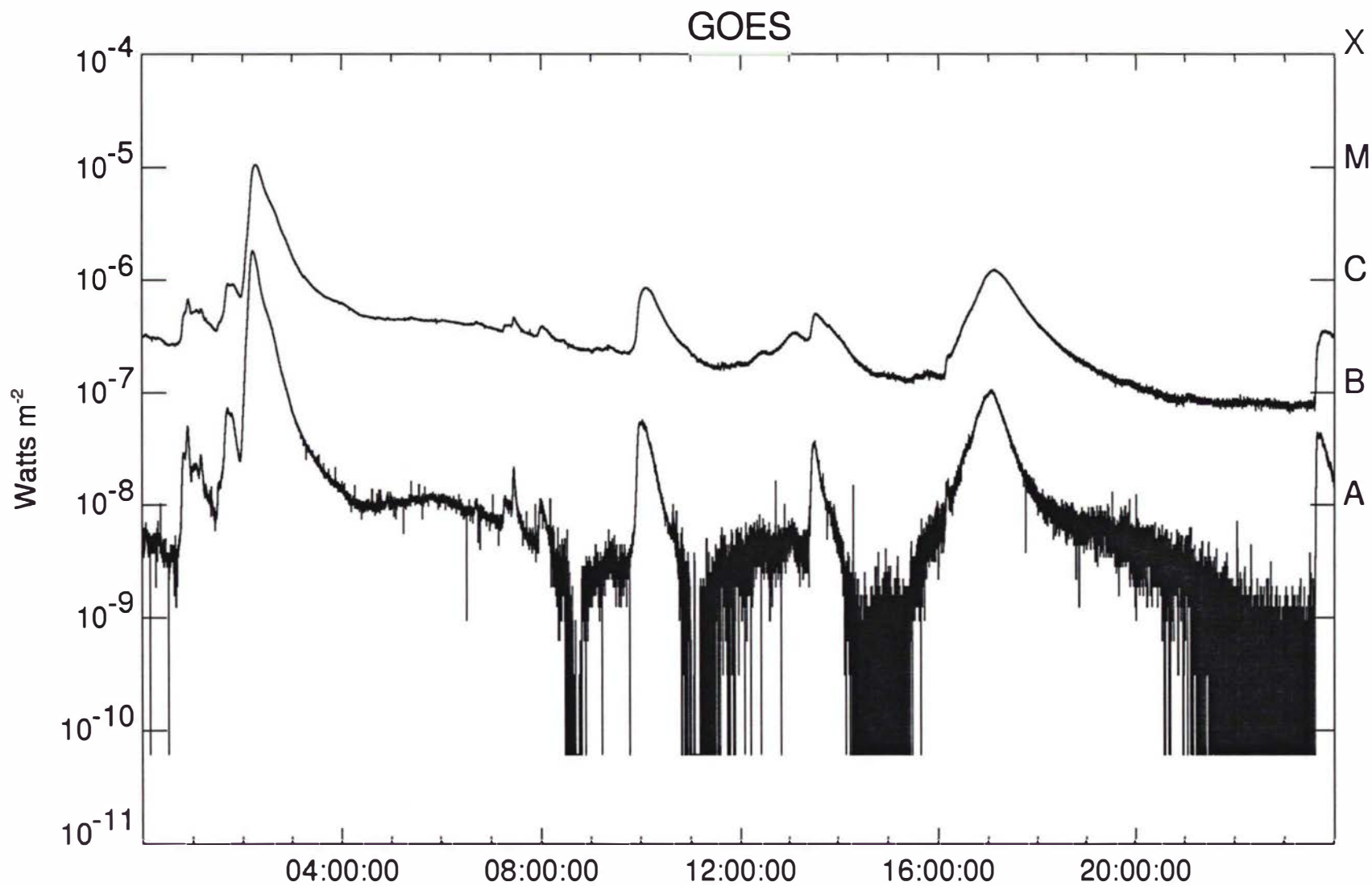


HUS 2A, MODE 1, NOT AVERAGED QEDR day 112, year 1995 to day 112, year 1995
CALIBRATION DATA INCLUDED

4/25/95

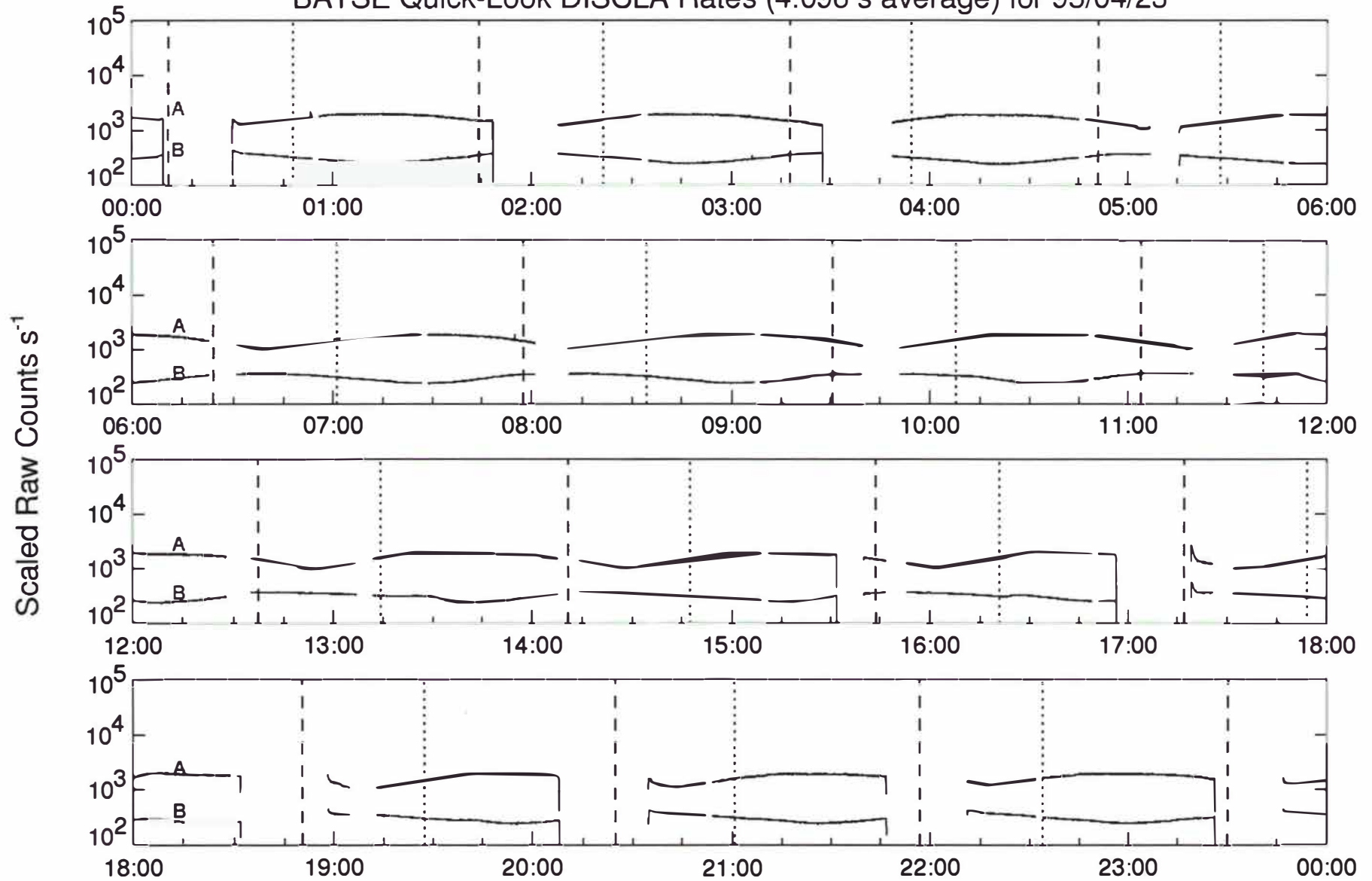






Data Start: 95/04/23, 0000:01 Plot created: 95/04/26, 0513
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted
Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/23



Current Time: 95/04/26, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

From ULSNA@jplsp2.jpl.nasa.gov Mon Apr 24 13:58 PDT 1995
Date: Mon, 24 Apr 1995 13:59:08 -0700 (PDT)
From: Nigel Angold <ULSNA@jplsp2.jpl.nasa.gov>
To: KHURLEY@SUNSPOT.ssl.berkeley.edu, "MPE::HUS"@jplsp2.jpl.nasa.gov
Cc: ULSNA@jplsp2.jpl.nasa.gov
Subject: Ulysses anomaly

At around 95/133.06:20, both the URAP instrument and BAM-I experienced reconfiguration without being commanded. This type of change in status has happened once or twice before during the mission and may have been caused by electrostatic discharge or single event upset.

These events can cause instrument switching which is not observed by the spacecraft team. For example, if the new incorrect instrument mode does not have an alarm associated with it, the change will go unnoticed.

So please examine your data from around the time of the anomaly as soon as you can to ensure that your instrument is in the correct configuration.

Best regards,

Nigel Angold

From ULSNA@jplsp2.jpl.nasa.gov Tue Apr 25 10:11 PDT 1995
Date: Tue, 25 Apr 1995 10:12:01 -0700 (PDT)
From: Nigel Angold <ULSNA@jplsp2.jpl.nasa.gov>
To: KHURLEY@SUNSPOT.ssl.berkeley.edu, "MPE::HUS"@jplsp2.jpl.nasa.gov
Cc: ULSNA@jplsp2.jpl.nasa.gov
Subject: Correction

The time of the anomaly should have been 95/113.06:20.

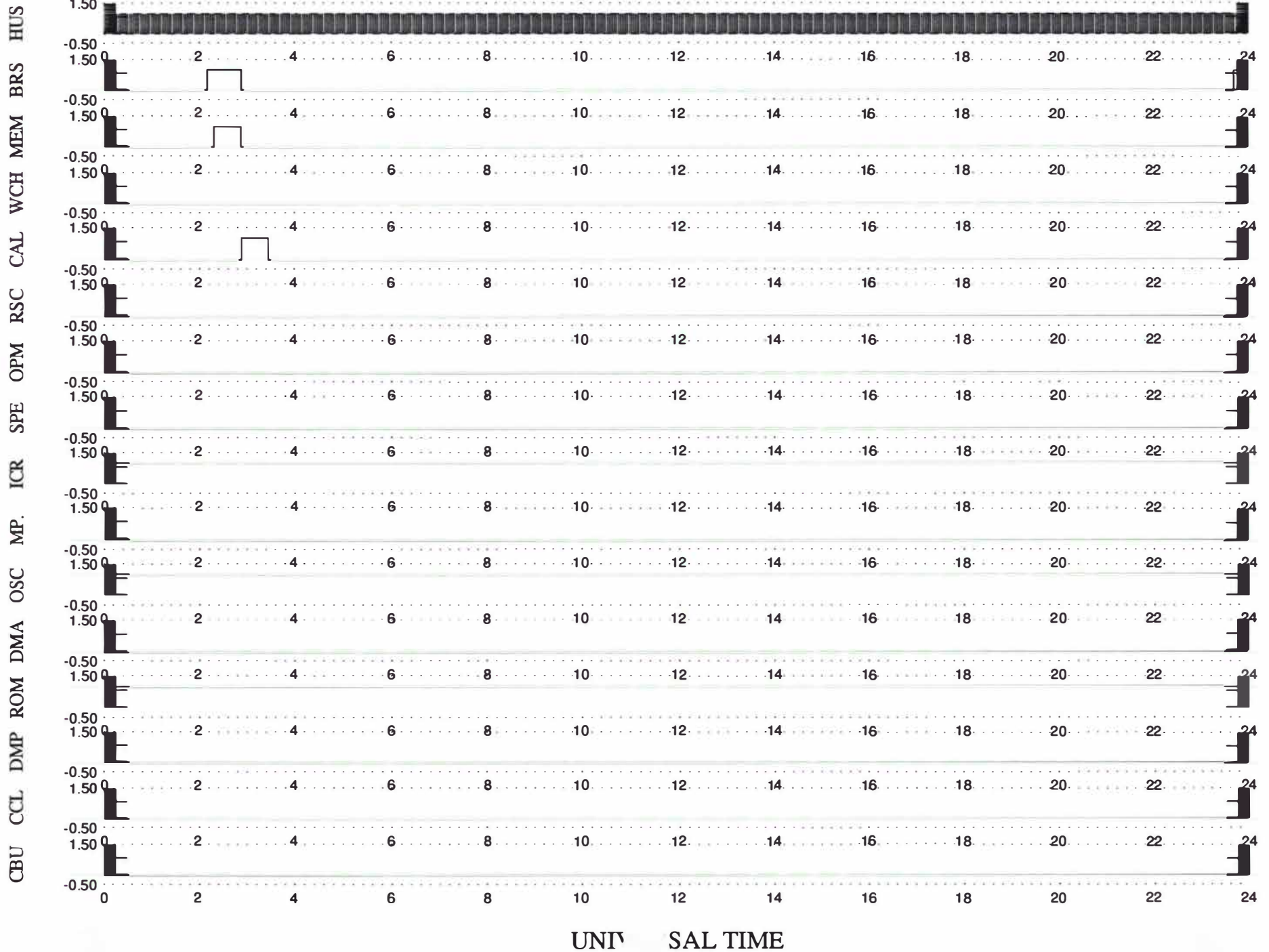
Sorry for the confusion.

Best regards,

Nigel Angold

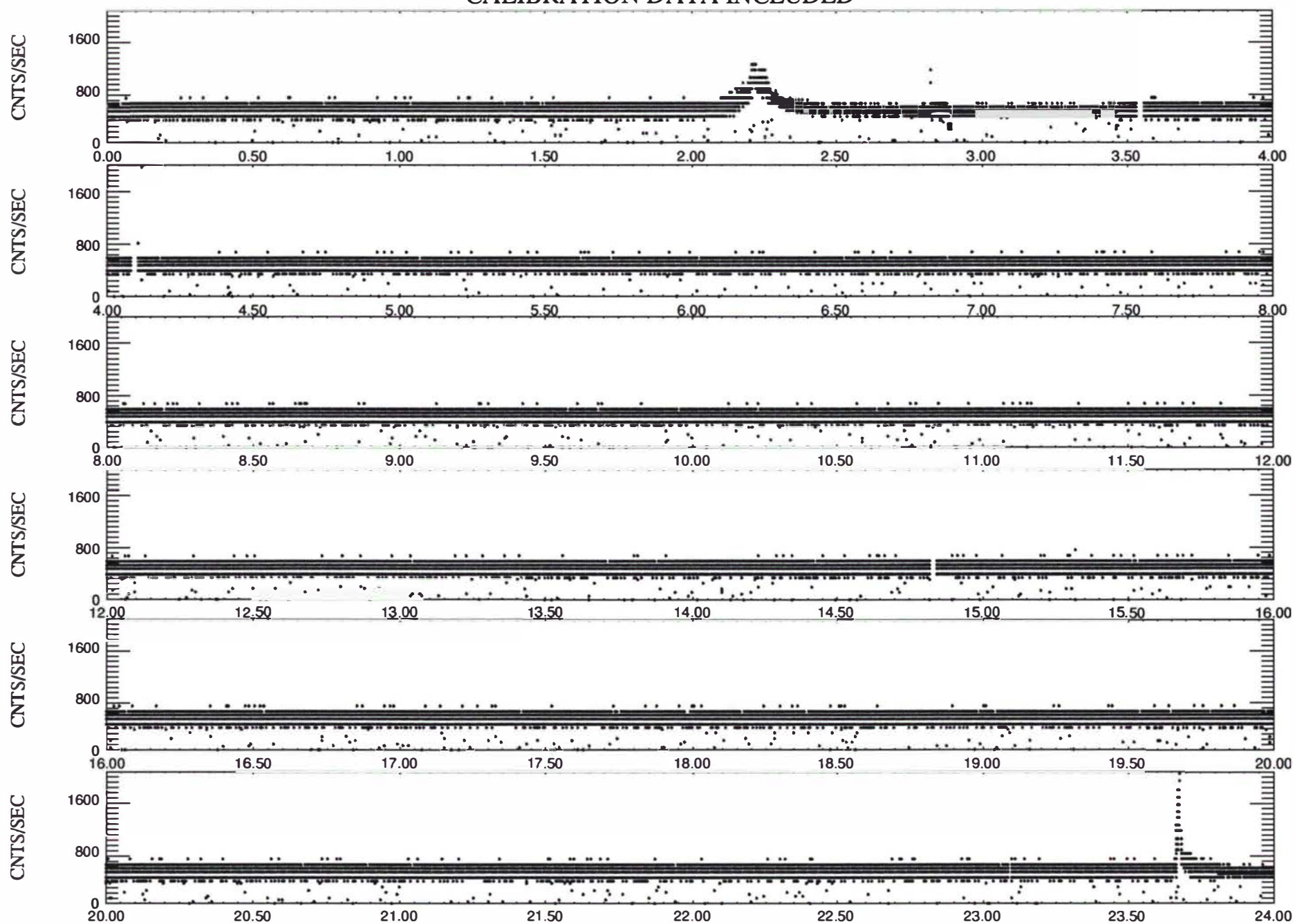
HUS MODES EDR day 113, year 1995 to day 113, year 1995
BURST NUMBER 5, 6

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 113, year 1995 to day 113, year 1995
CALIBRATION DATA INCLUDED

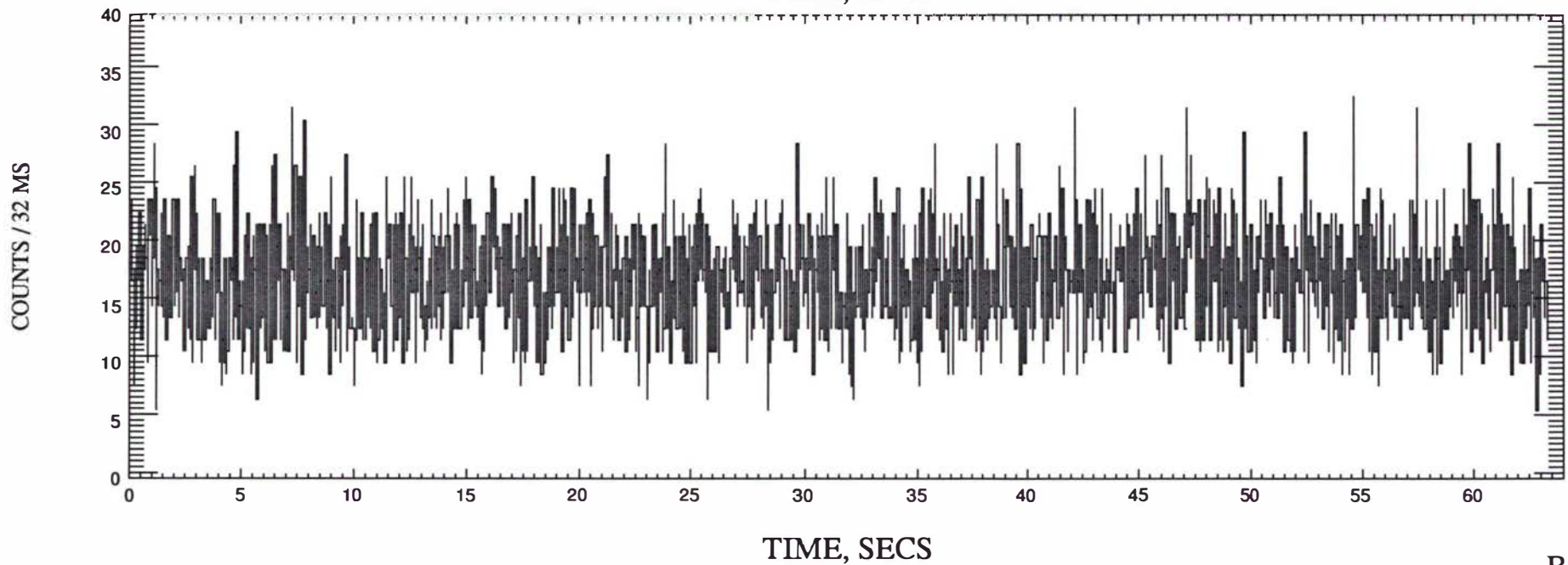
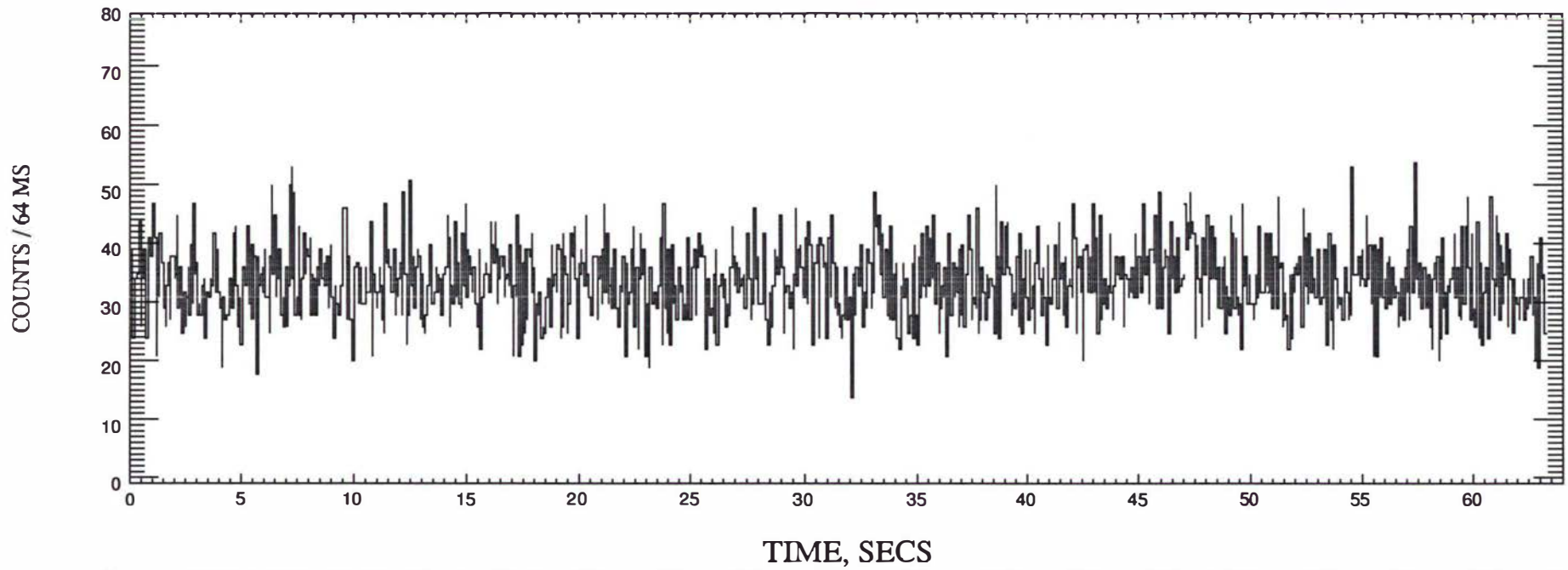
11/16/95



UNITS/SAL TIME

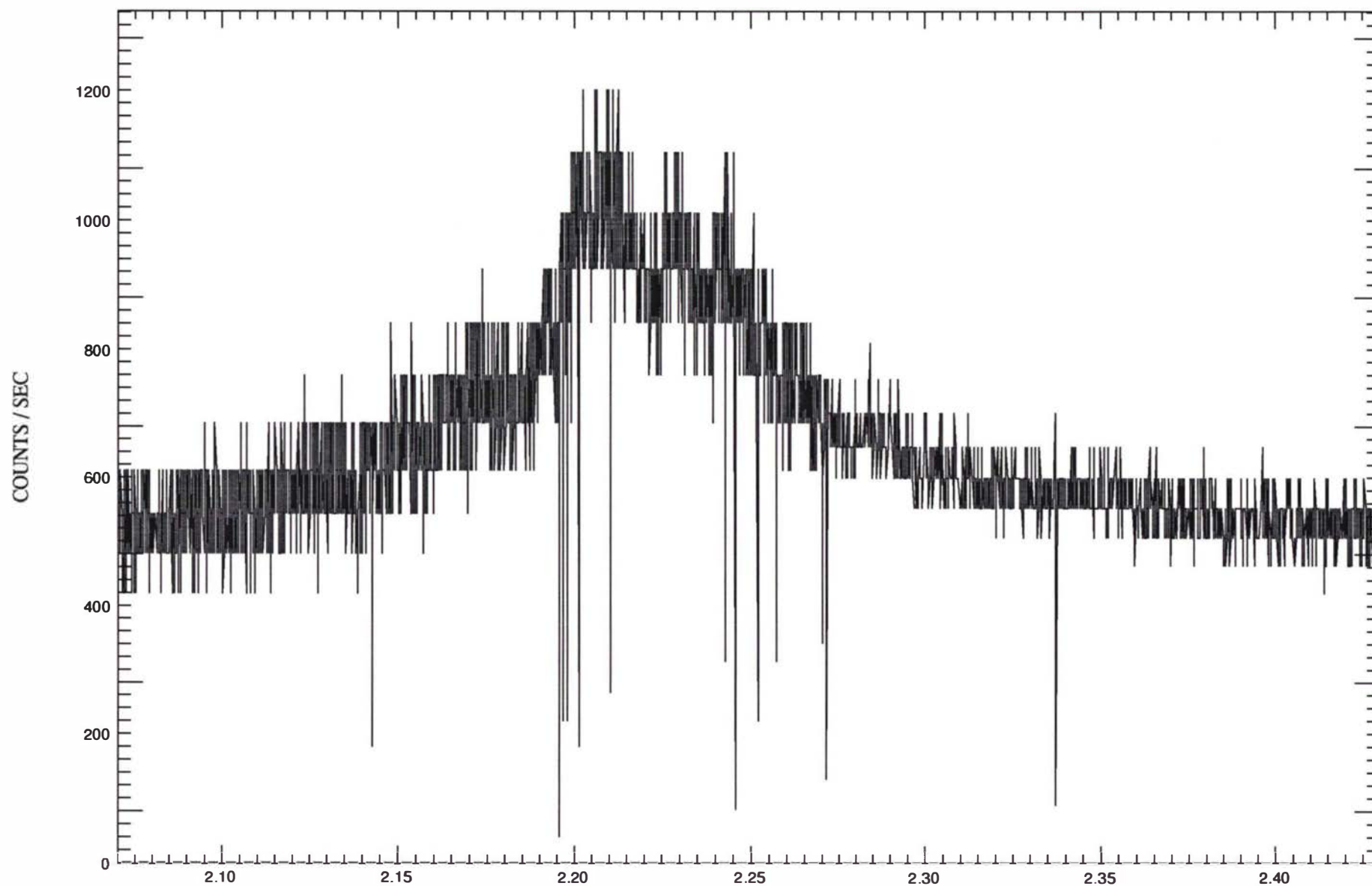
HUS 2A TRIGGERED DATA EDR day 113, year 1995
Burst Counter 5 at UT= 2.123588150872 h= 7644.917 s 02:07:24.917

11/16/95



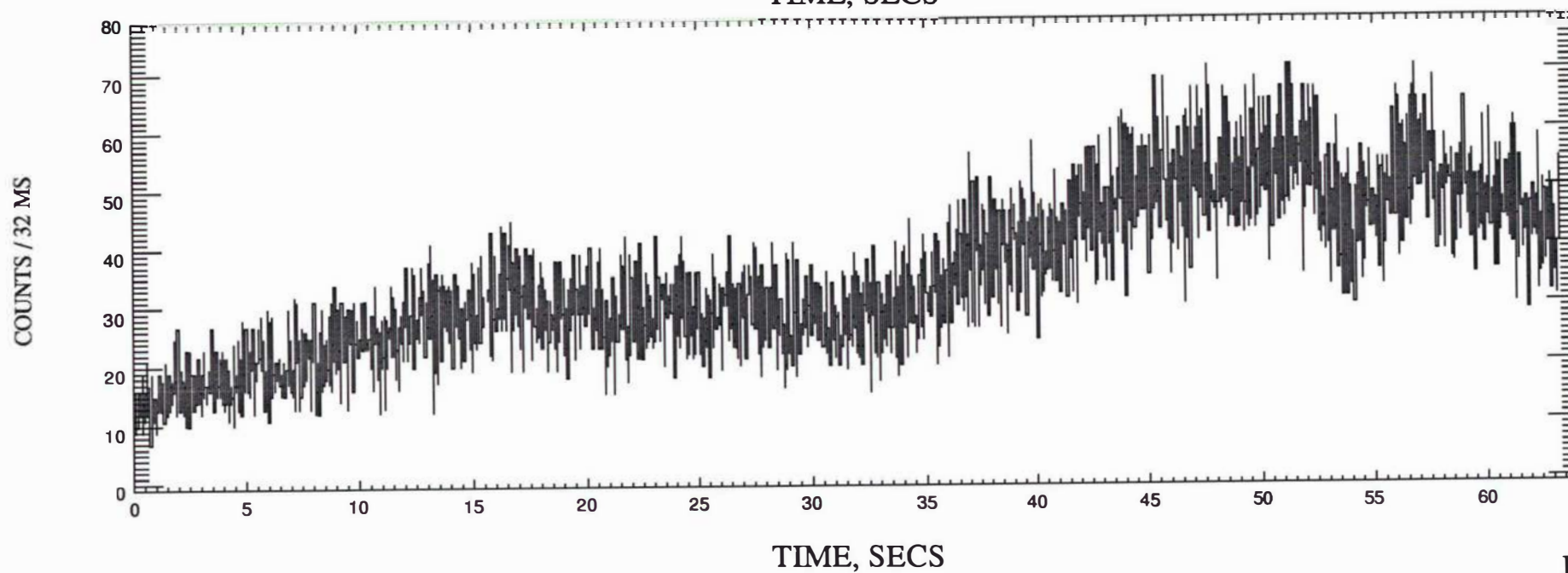
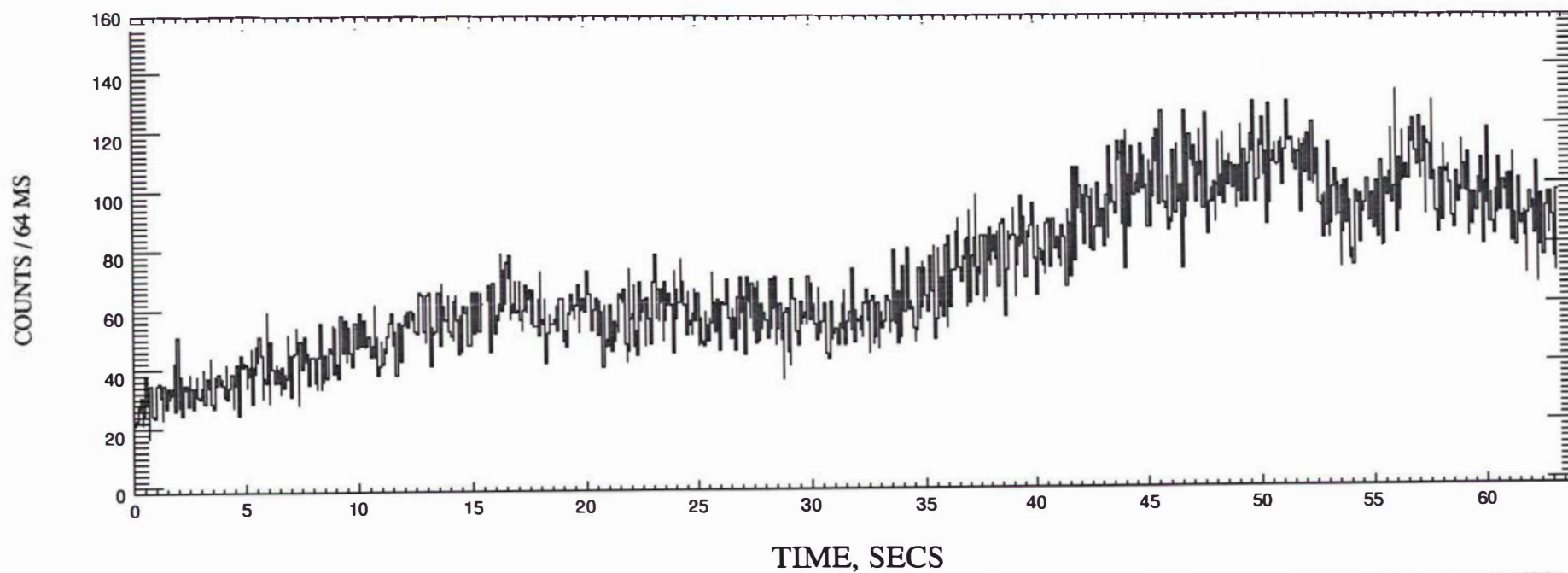
HUS 2A, MODE 1, NOT AVERAGED QEDR day 113, year 1995 to day 113, year 1995
CALIBRATION DATA INCLUDED

4/27/95



HUS 2A TRIGGERED DATA EDR day 113, year 1995
Burst Counter 6 at UT=23.661185777452 h=85180.269 s 23:39:40.269

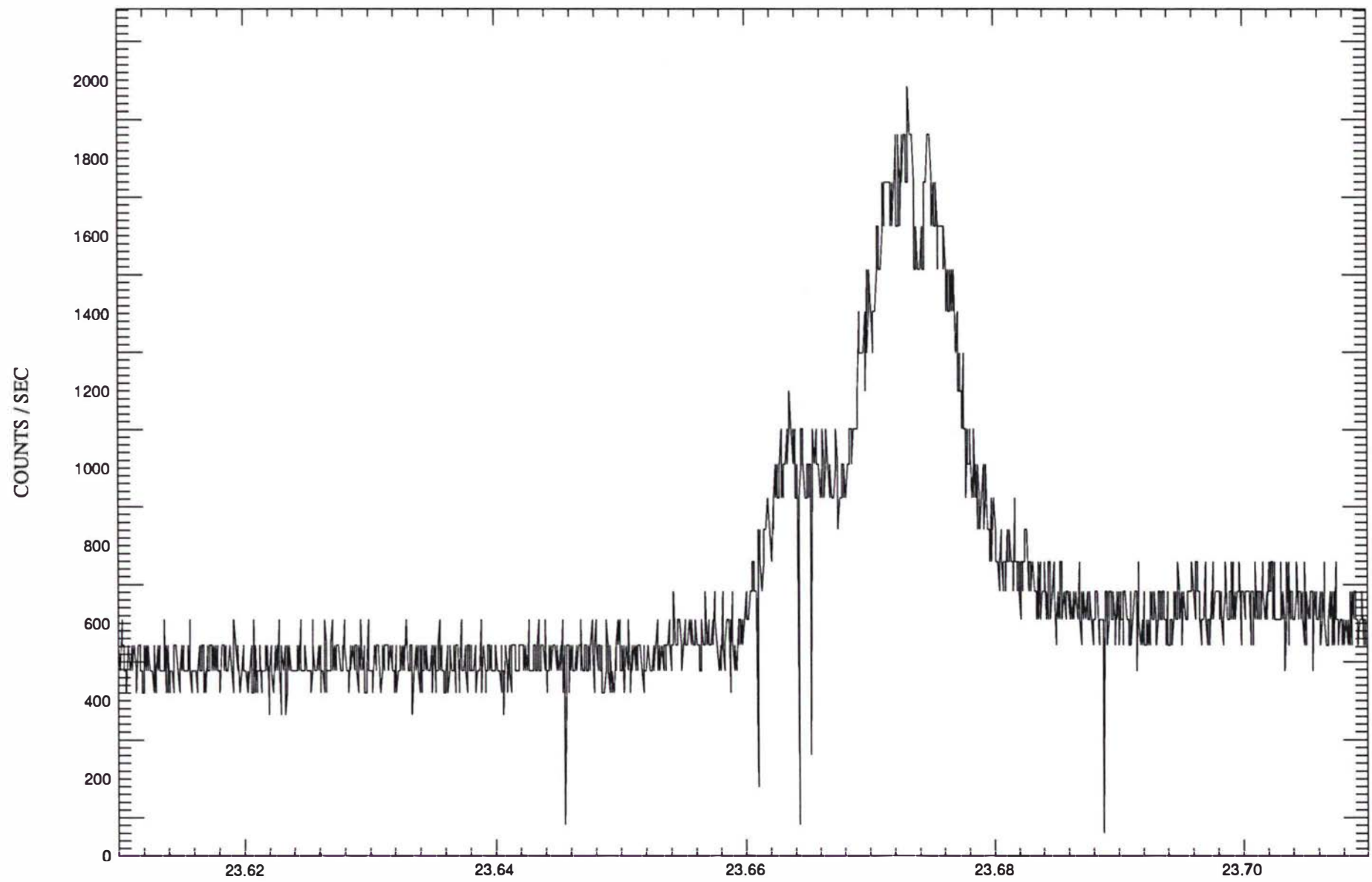
11/16/95

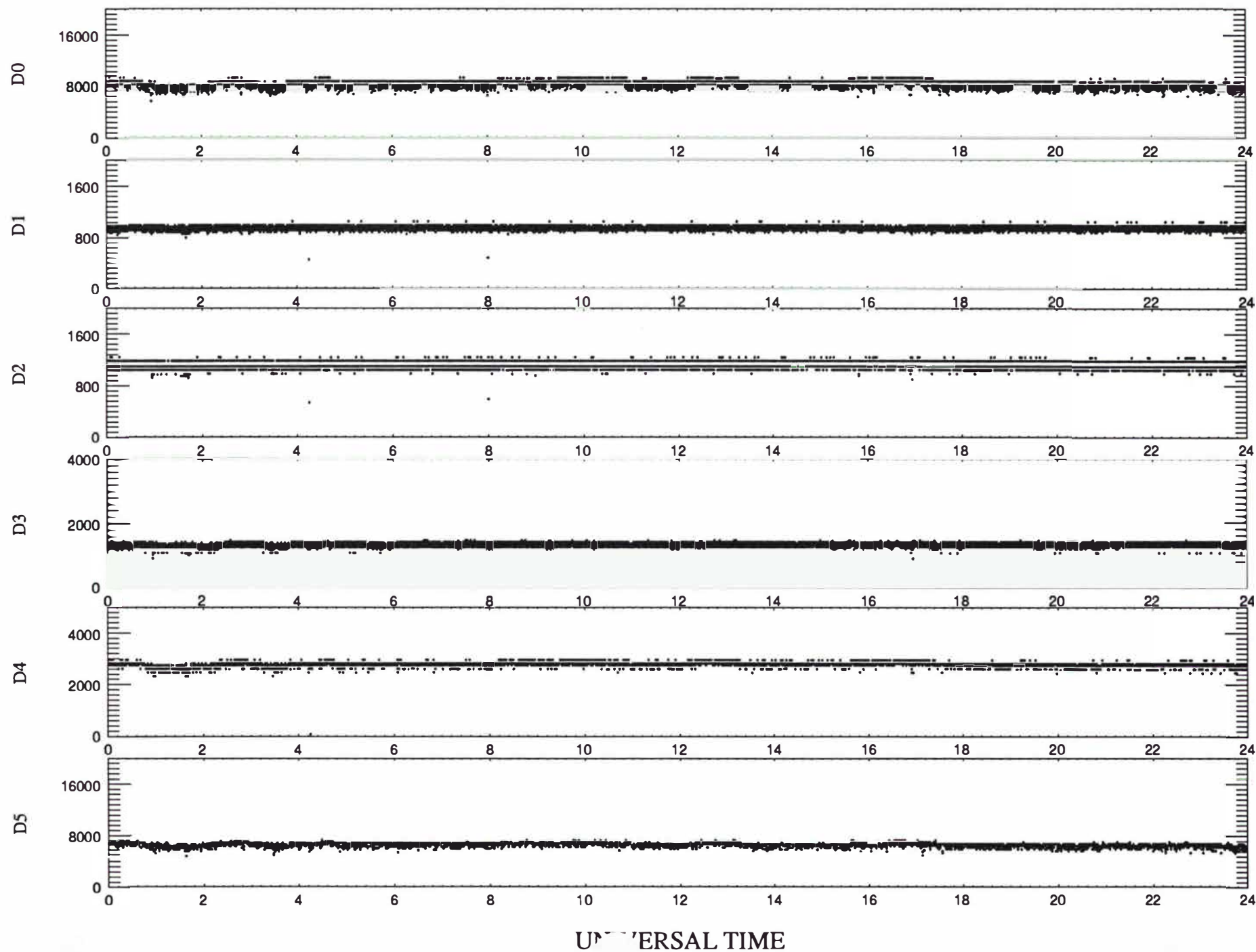


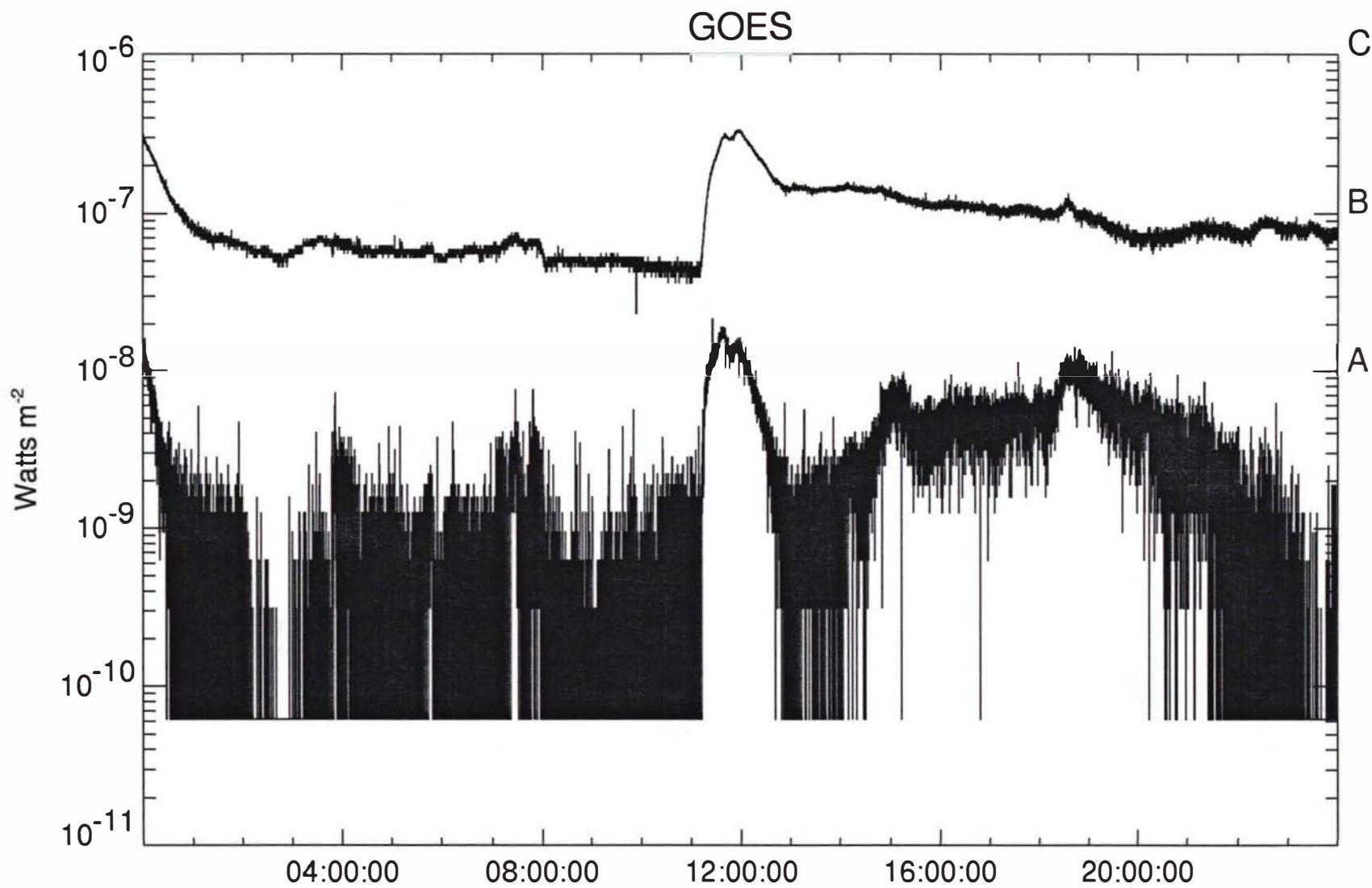
B# 2

HUS 2A, MODE 1, NOT AVERAGED QEDR day 113, year 1995 to day 113, year 1995
CALIBRATION DATA INCLUDED

4/25/95







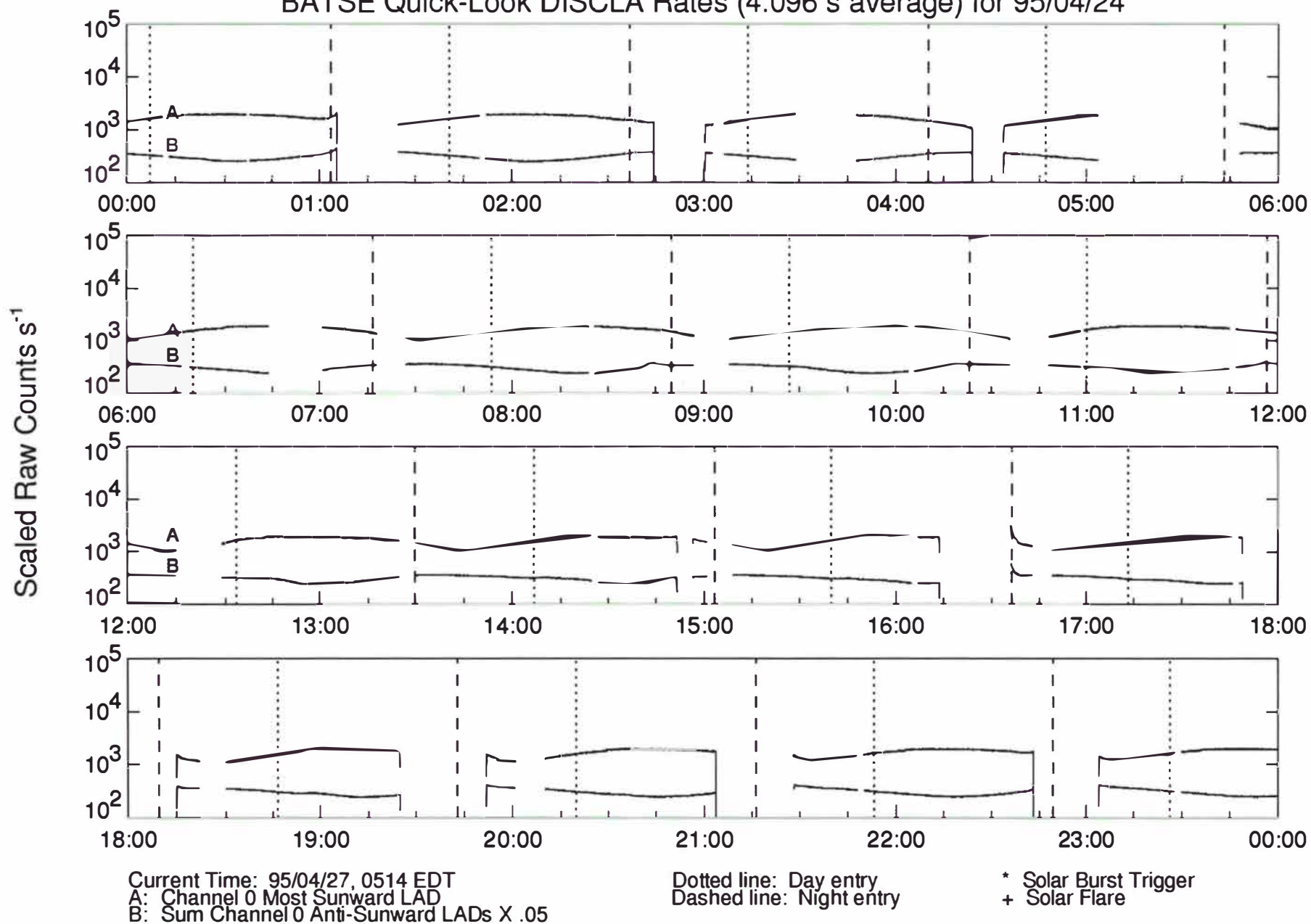
Data Start: 95/04/24, 0000:02

Plot created: 95/04/27, 0513

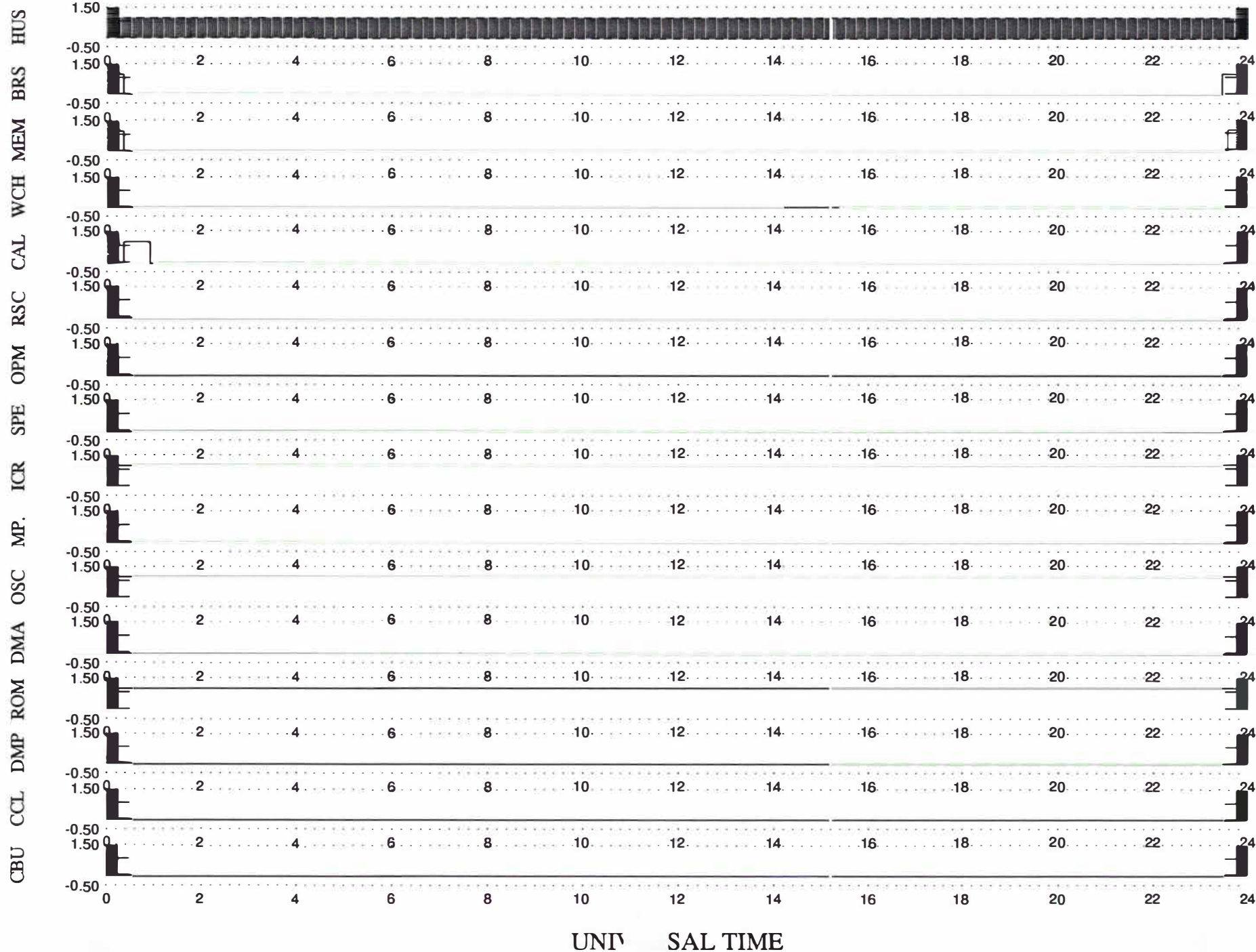
Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/24

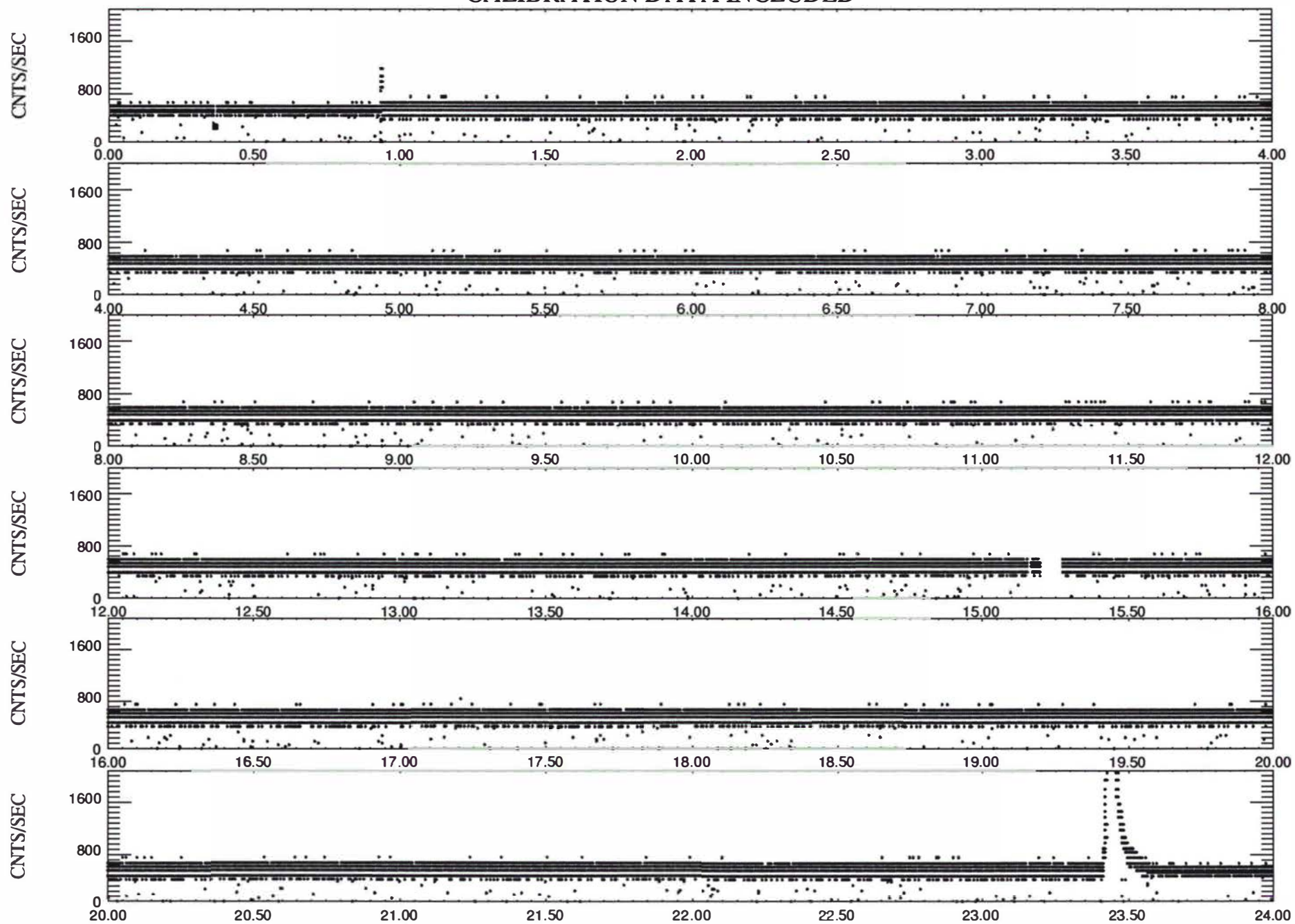


11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 114, year 1995 to day 114, year 1995
CALIBRATION DATA INCLUDED

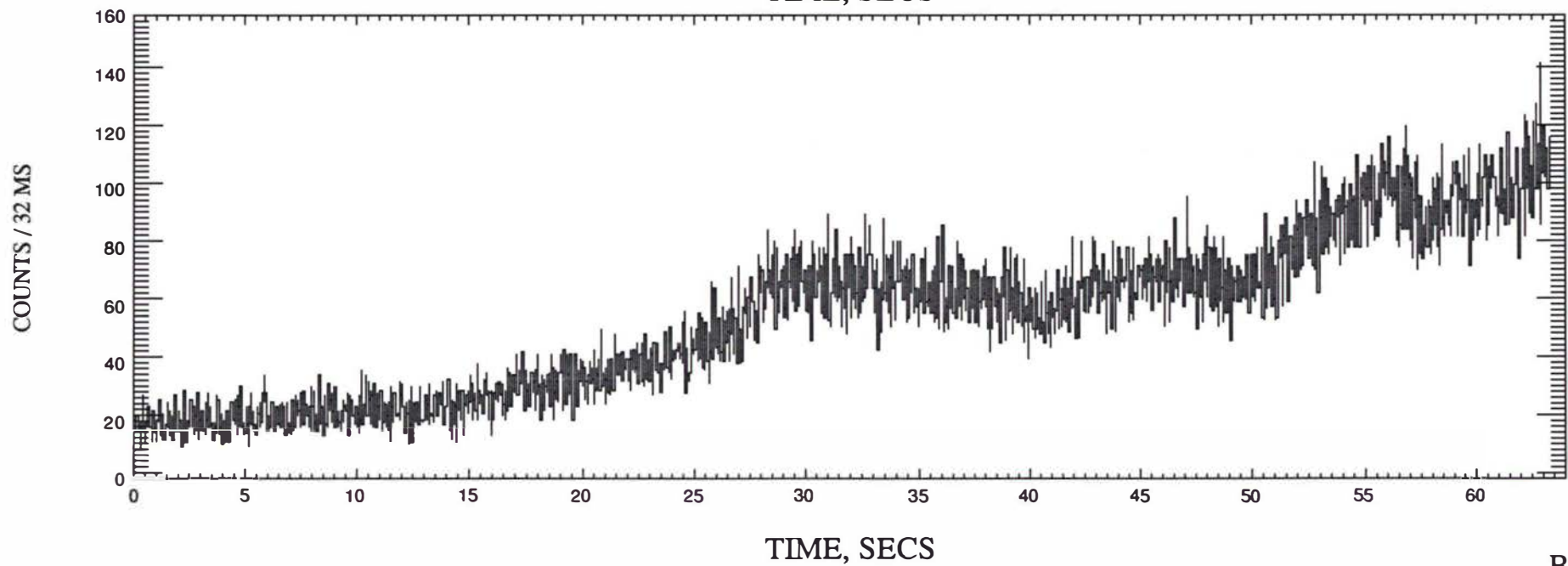
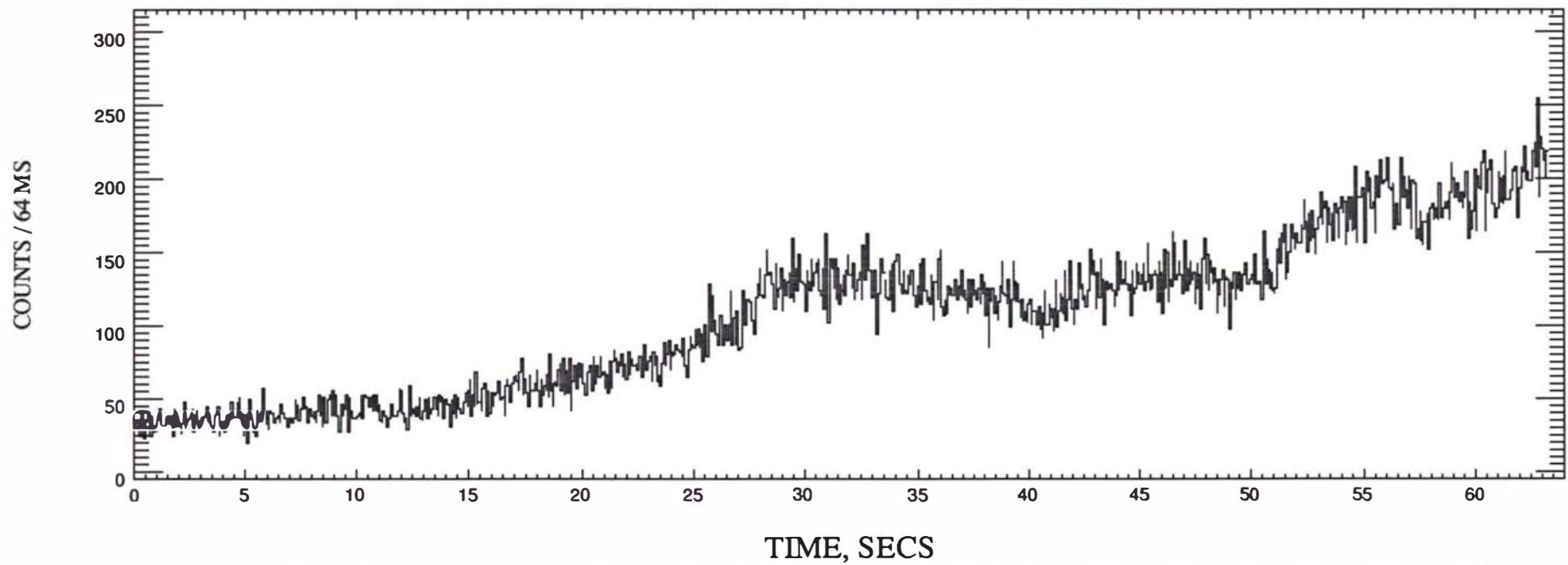
11/16/95



UNIFORM SAL TIME

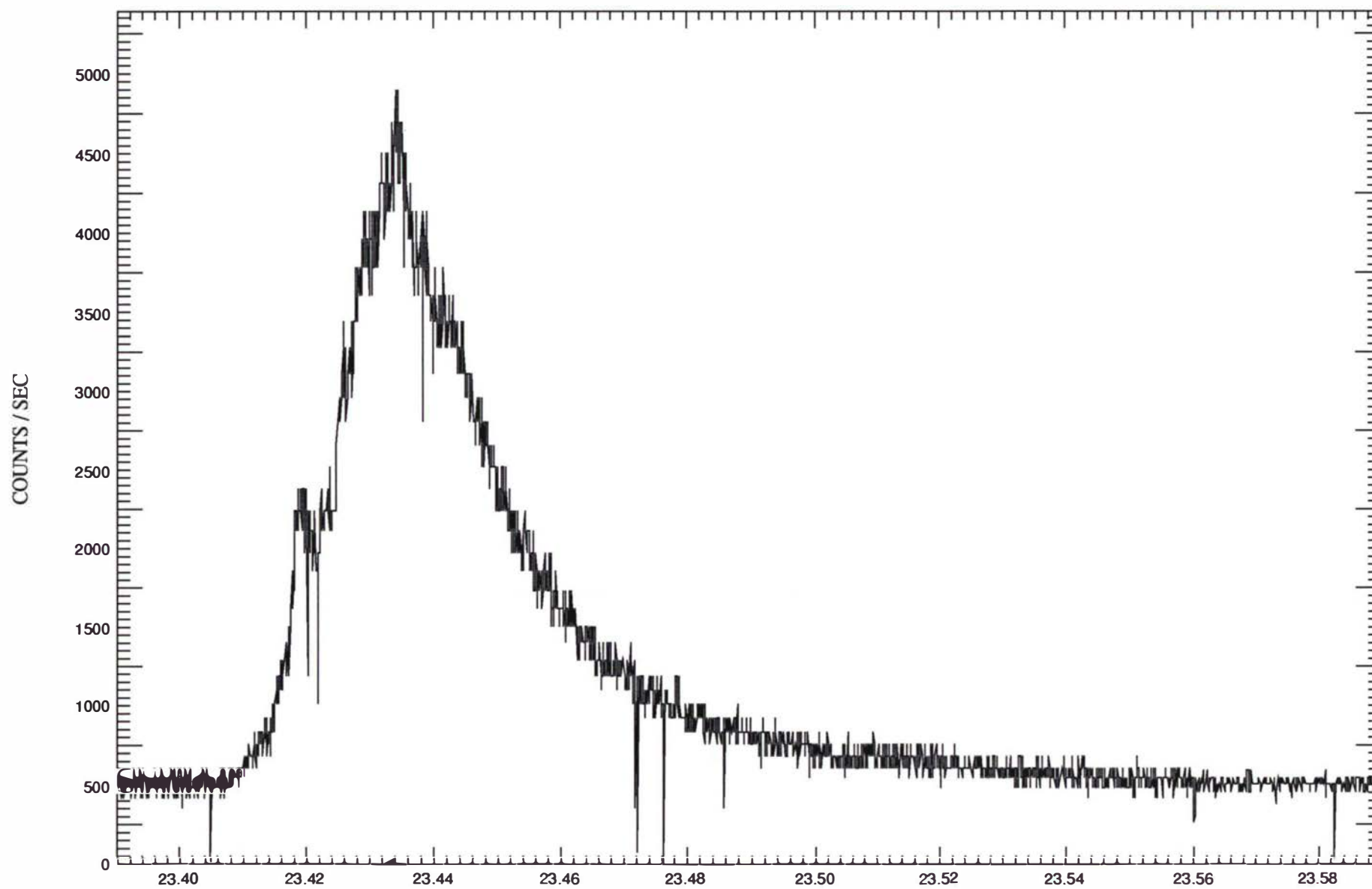
HUS 2A TRIGGERED DATA EDR day 114, year 1995
Burst Counter 7 at UT=23.412680579291 h=84285.650 s 23:24:45.650

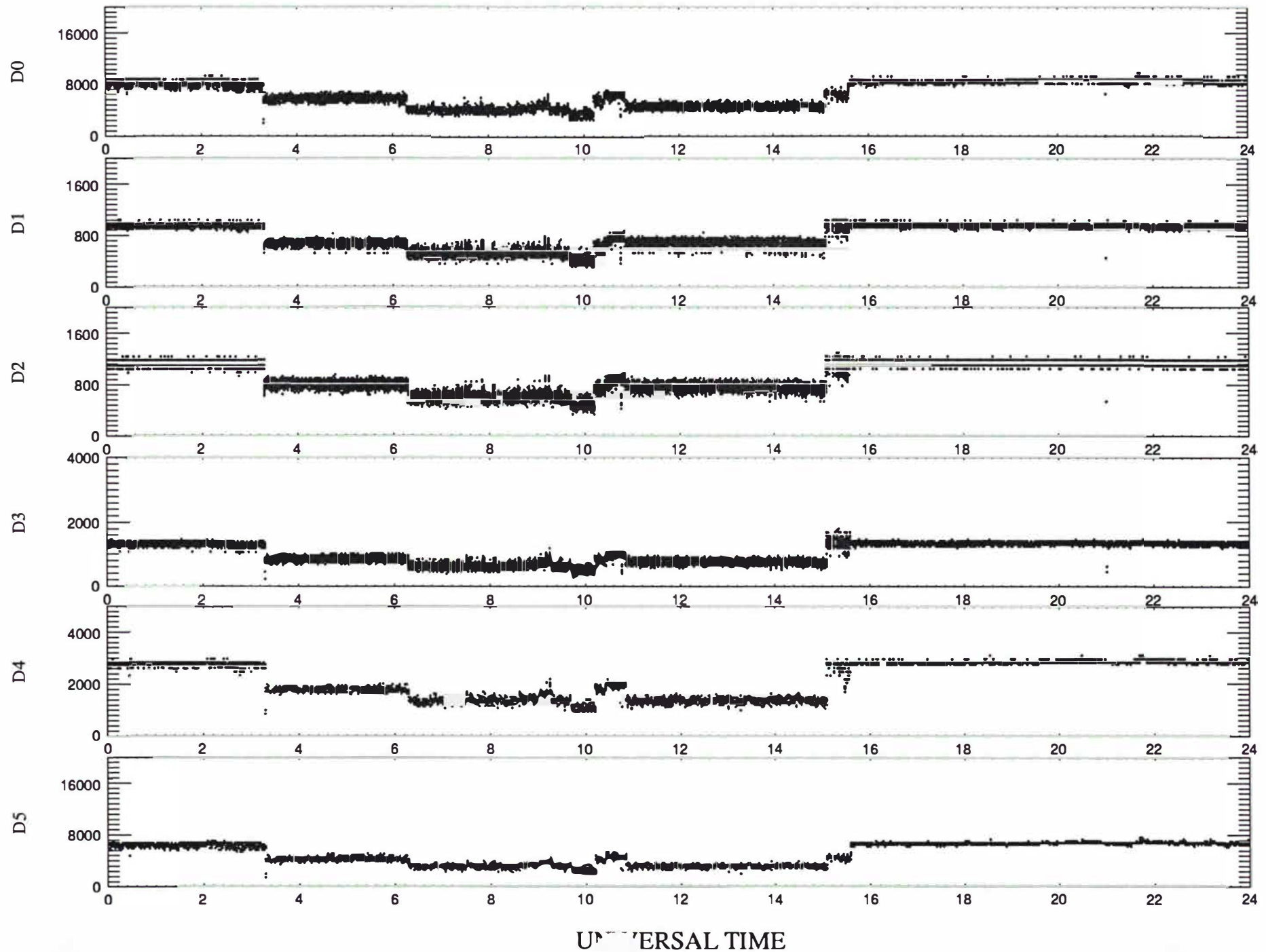
11/16/95



HUS 2A, MODE 1, NOT AVERAGED QEDR day 114, year 1995 to day 114, year 1995
CALIBRATION DATA INCLUDED

4/27/95





From DEAL@ssl.msfc.nasa.gov Thu Apr 27 09:58 PDT 1995
Date: Thu, 27 Apr 1995 11:58:04 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3523

BATSEARCH PROGRAM

TRIGGER

BATSE BURST # 3523
EVENT OF 1995 APR 25 DAY OF YEAR=115
EVENT CROSSING TIME AT BATSE : 919. S. OR 00:15:19.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 163.000 -35.000
BATSE PEAK COUNTING RATE: 87000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 25/ 4/ 95 IS:
RA= 357.480 DEC= 21.276 DIST= 2.154 AU
BATSE-ULYSSES DISTANCE = 322311097. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 18.70 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= 1018.35 SECS.
CROSSING TIME AT ULYSSES IS 1937. S. OR 00:32:17 +/- 125.31 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 25/ 4/ 95 IS:
RA= 141.449 DEC= 17.534 DIST= 1.097 AU
MARS-BATSE DISTANCE = 164118160. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=123.62 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -303.11 SECS.
CROSSING TIME AT MARS IS 616. S. OR 00:10:15 +/- 74.54 SECONDS

BATSE BURST TRIGGER

NO.: 3523

TIME: TJD=9832 SECONDS=919

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=45.7 AZIMUTH=188.8 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 75S. VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3523	950425	9832	00919	87000	163	-35	75

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

Dear Kevin,

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

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

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

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

Helio corr removed

Date: *Feb 13 '98*

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

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

2. BATSE Data

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

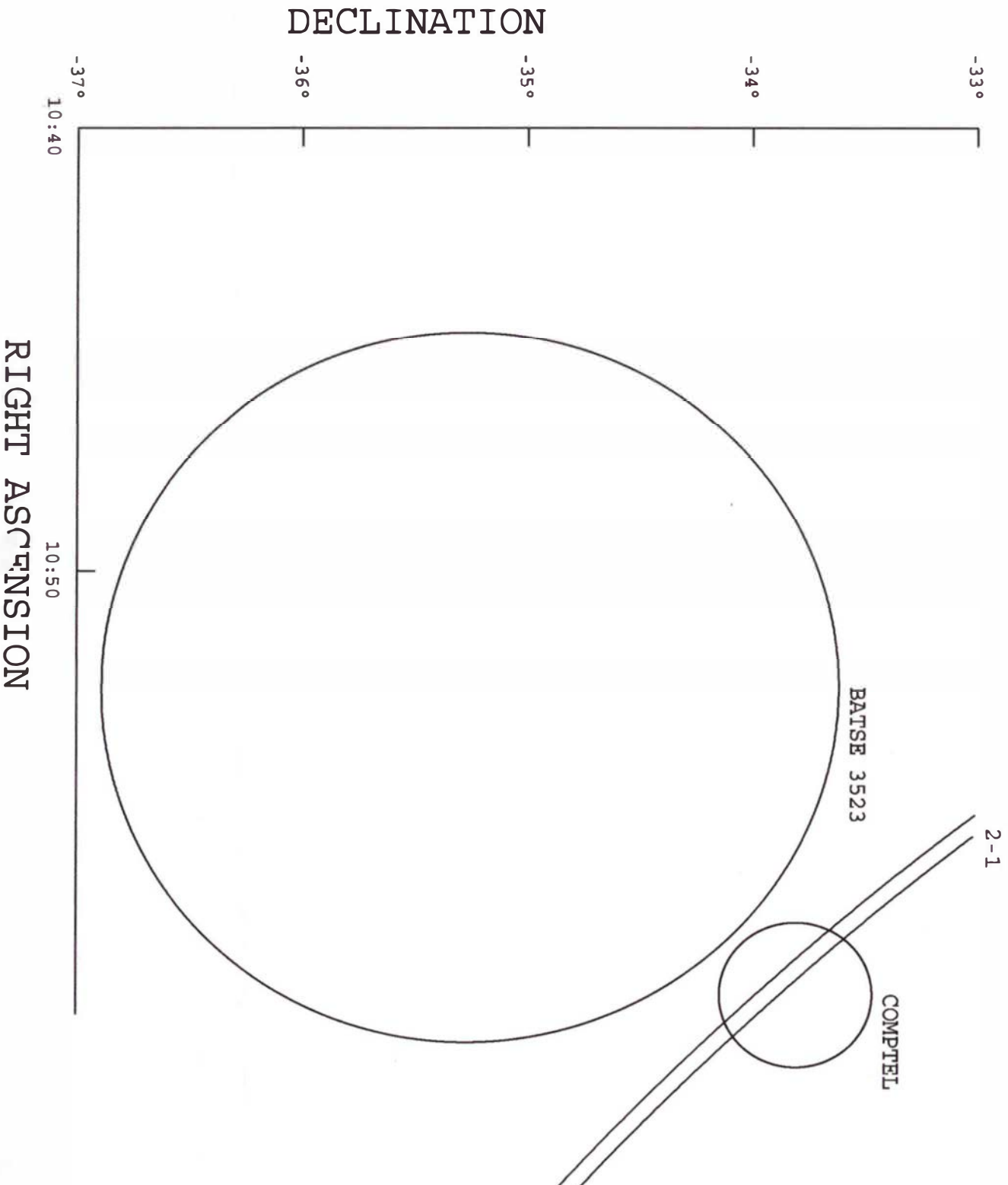
3. PVO Data

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

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

EVENT OF APR 25, 1995 0:32

13 / 2 / 98



ULYSSES

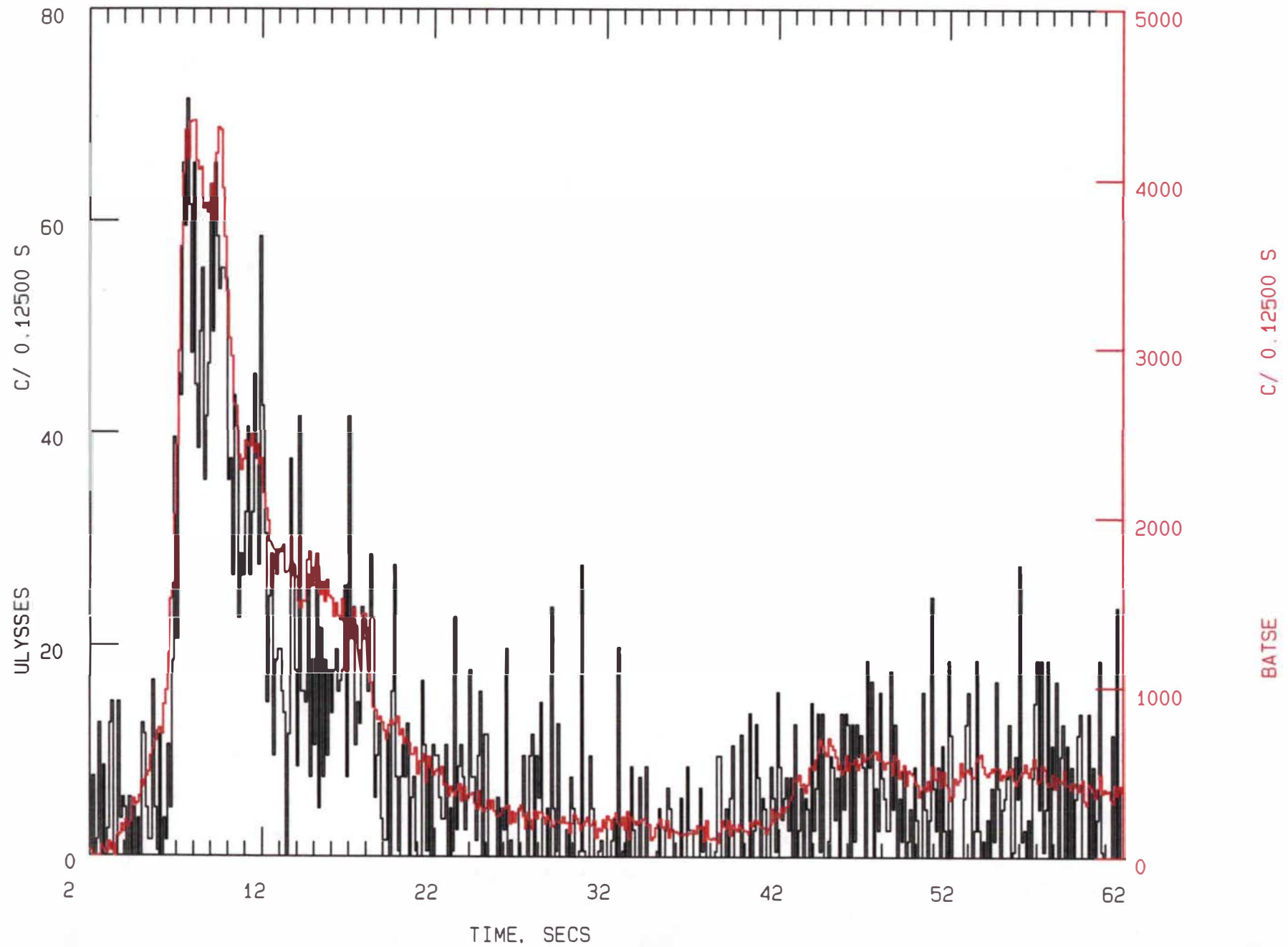
-BATSE

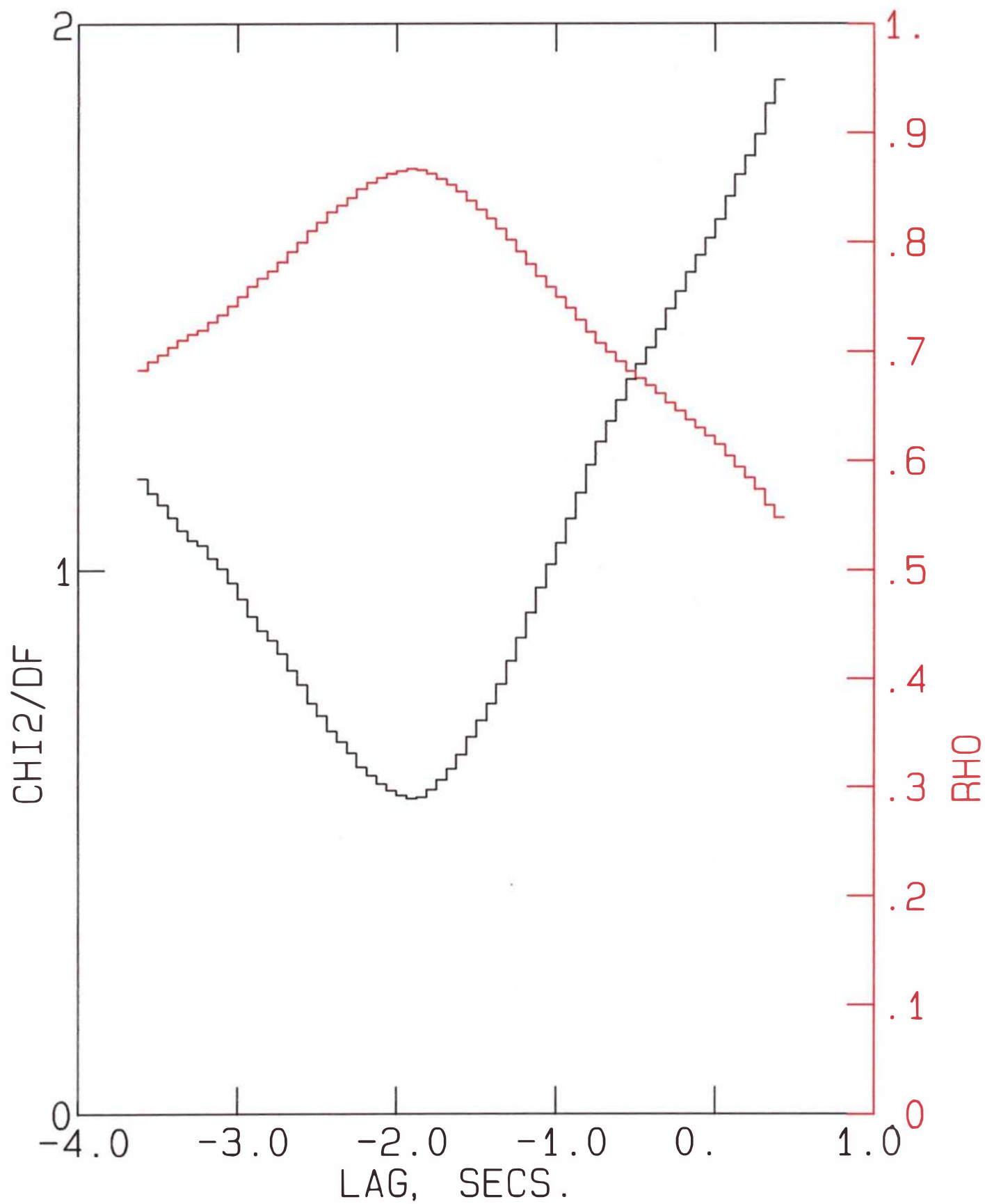
CORRELATION

25/04/95

1950.794

13/ 2/98





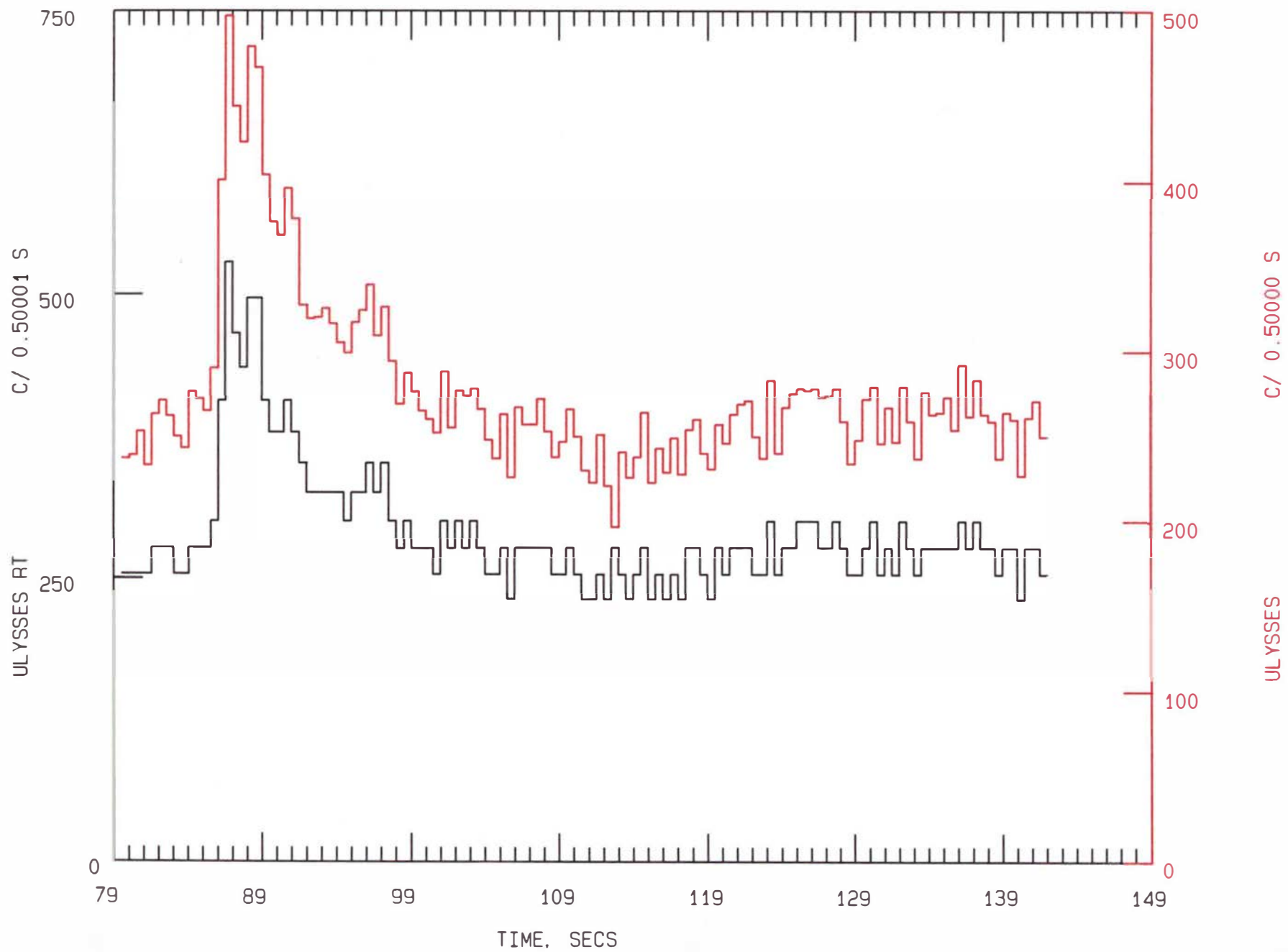
ULYSSES RT-ULYSSES

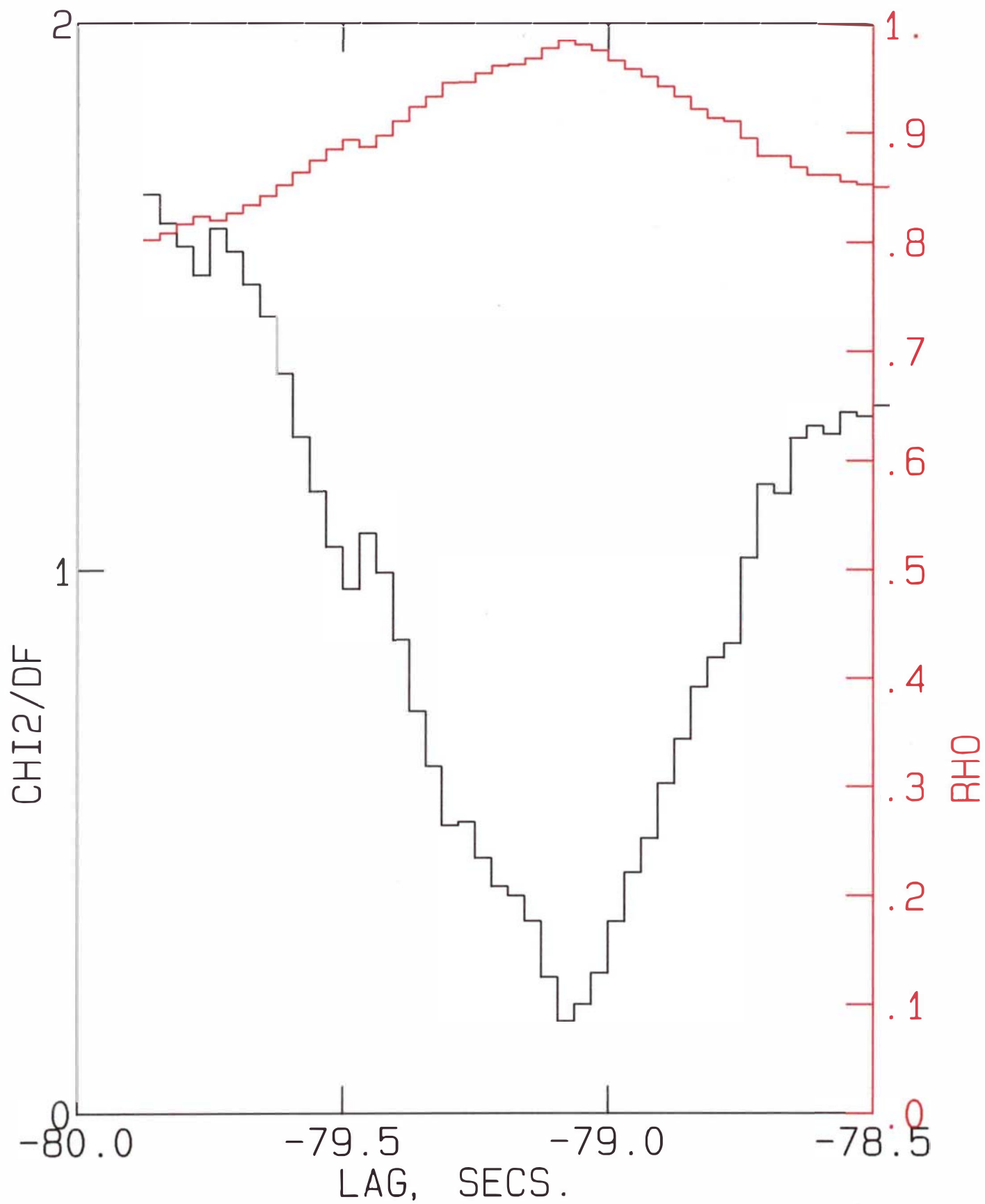
CORRELATION

25/ 4/95

1864.301

13/ 2/98

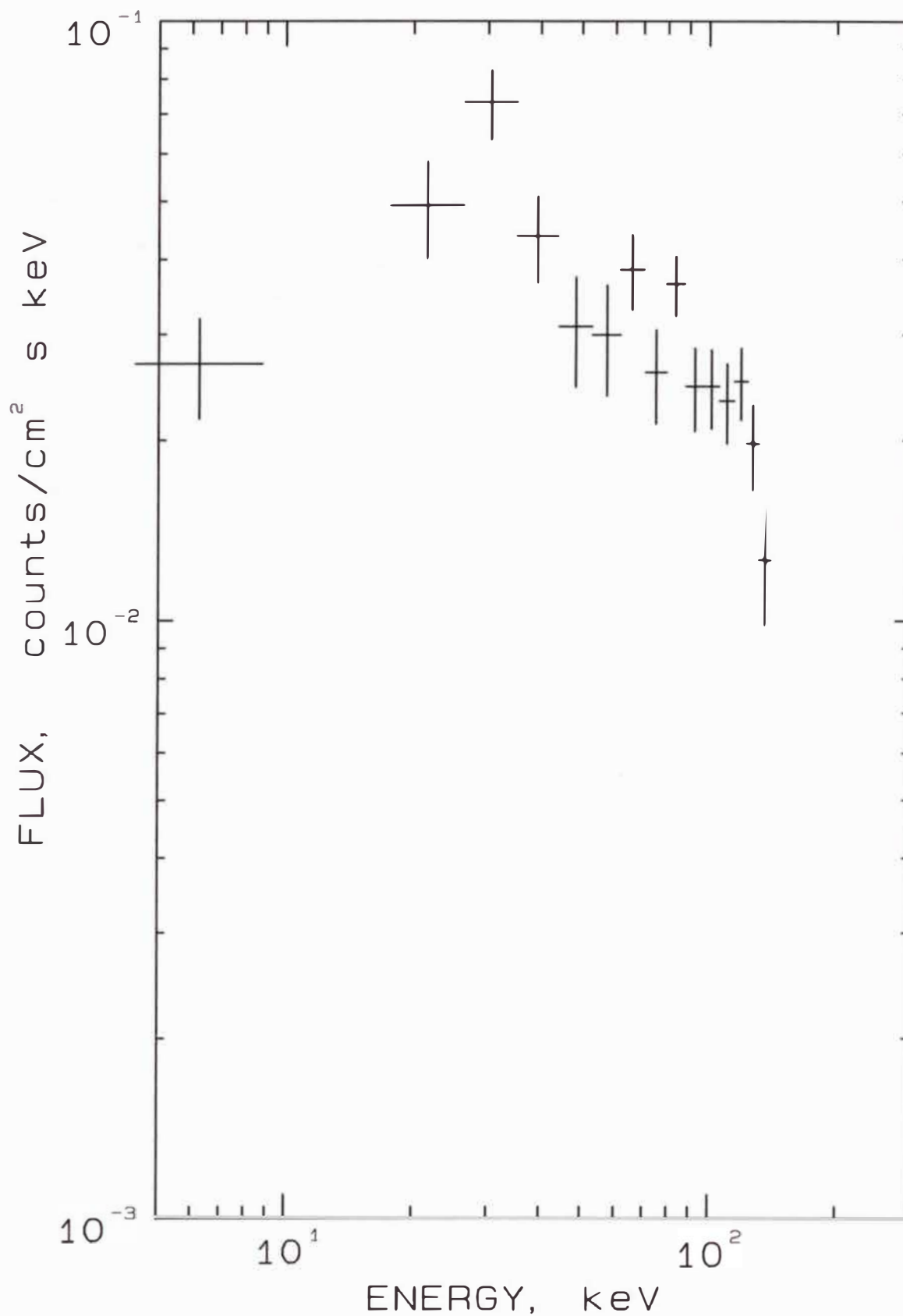




ULYSSES 25/04/95 1950.720

13/ 2/98

SPECTRUM INTEGRATED OVER 78.6 SECONDS, INTERVALS 2 TO 35



ULYSSES 25/04/95 1950.720 BURST SPECTRAL COUNT RATES

4- 17 keV

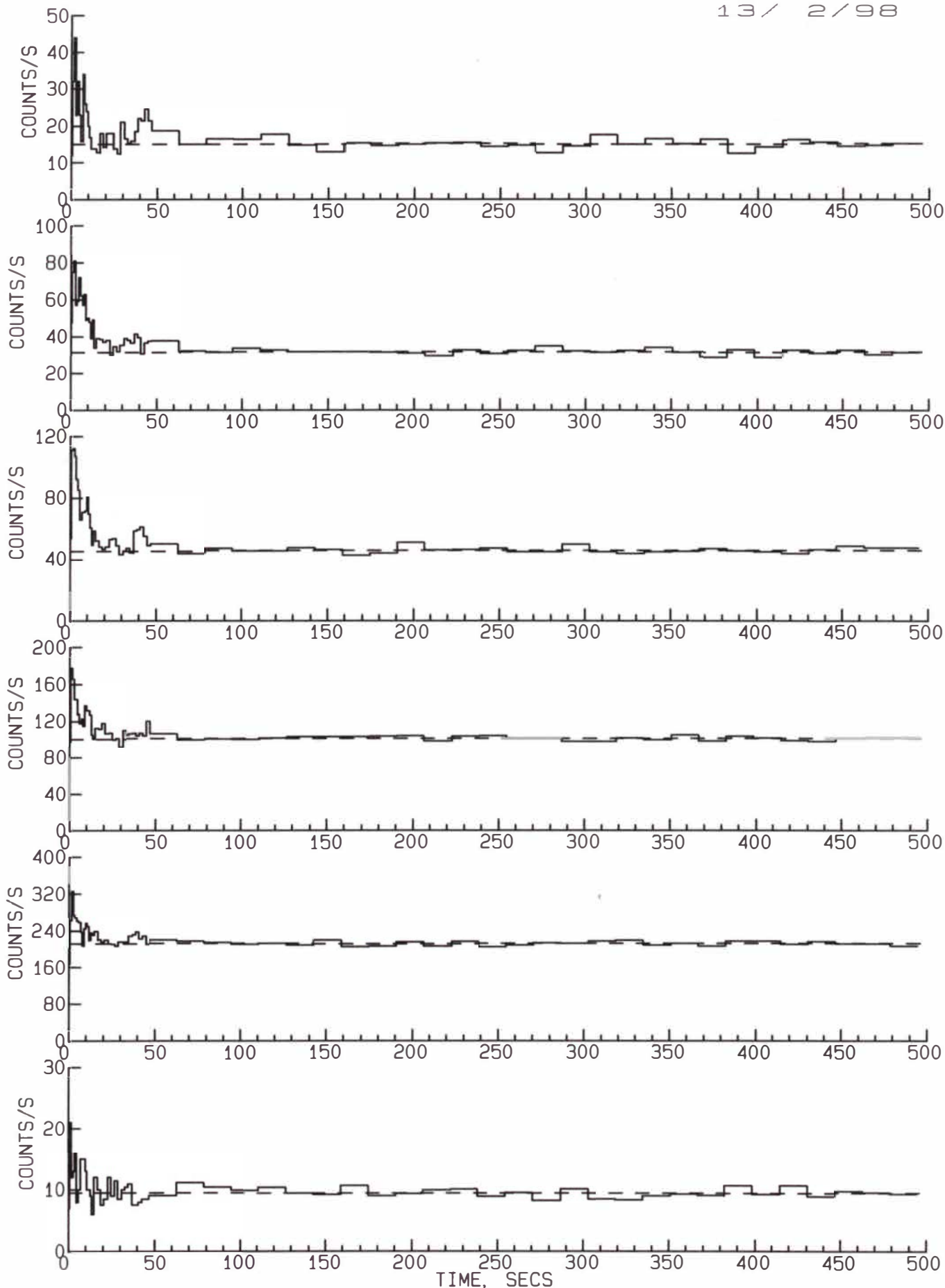
17- 44 keV

44- 70 keV

70- 97 keV

97-123 keV

123-141 keV



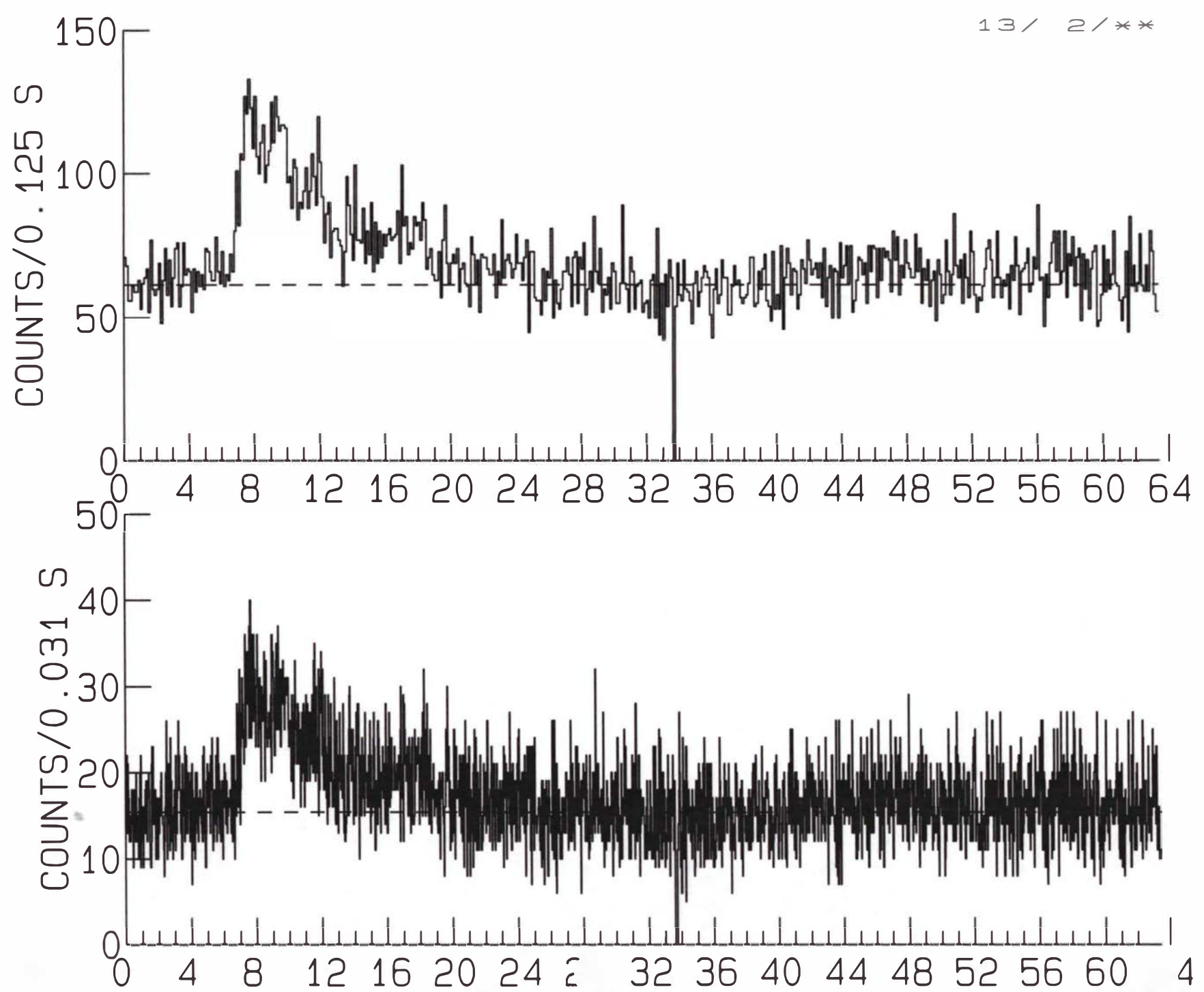
13 / 2 / 98

ULYSSES

25/04/95

Ttrig= 1950.794

21- 141 keV



13 / 2 / **

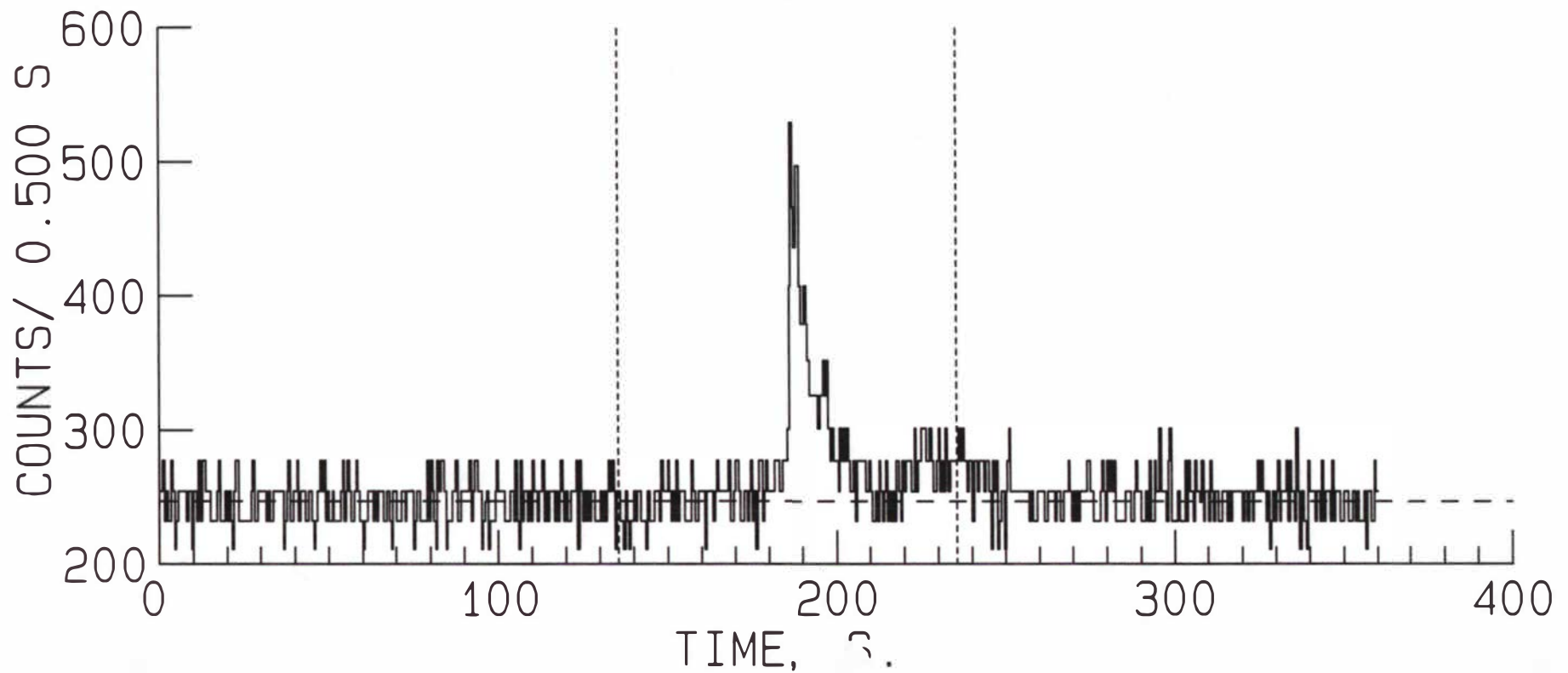
ULYSSES RT

13 / 2 / 98

25 / 4 / 95 1764.231 s

21- 141 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



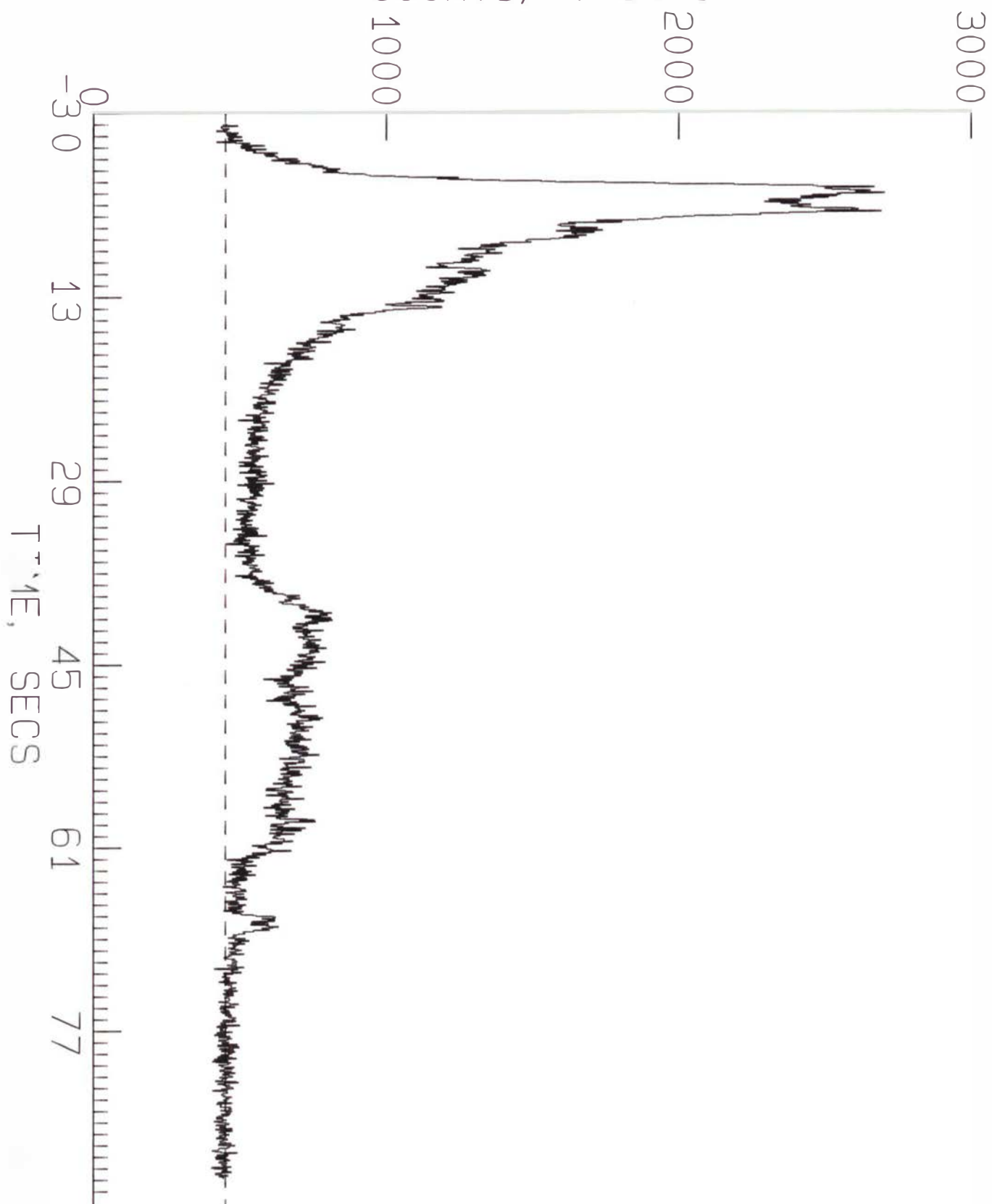
BATSE

25/04/95

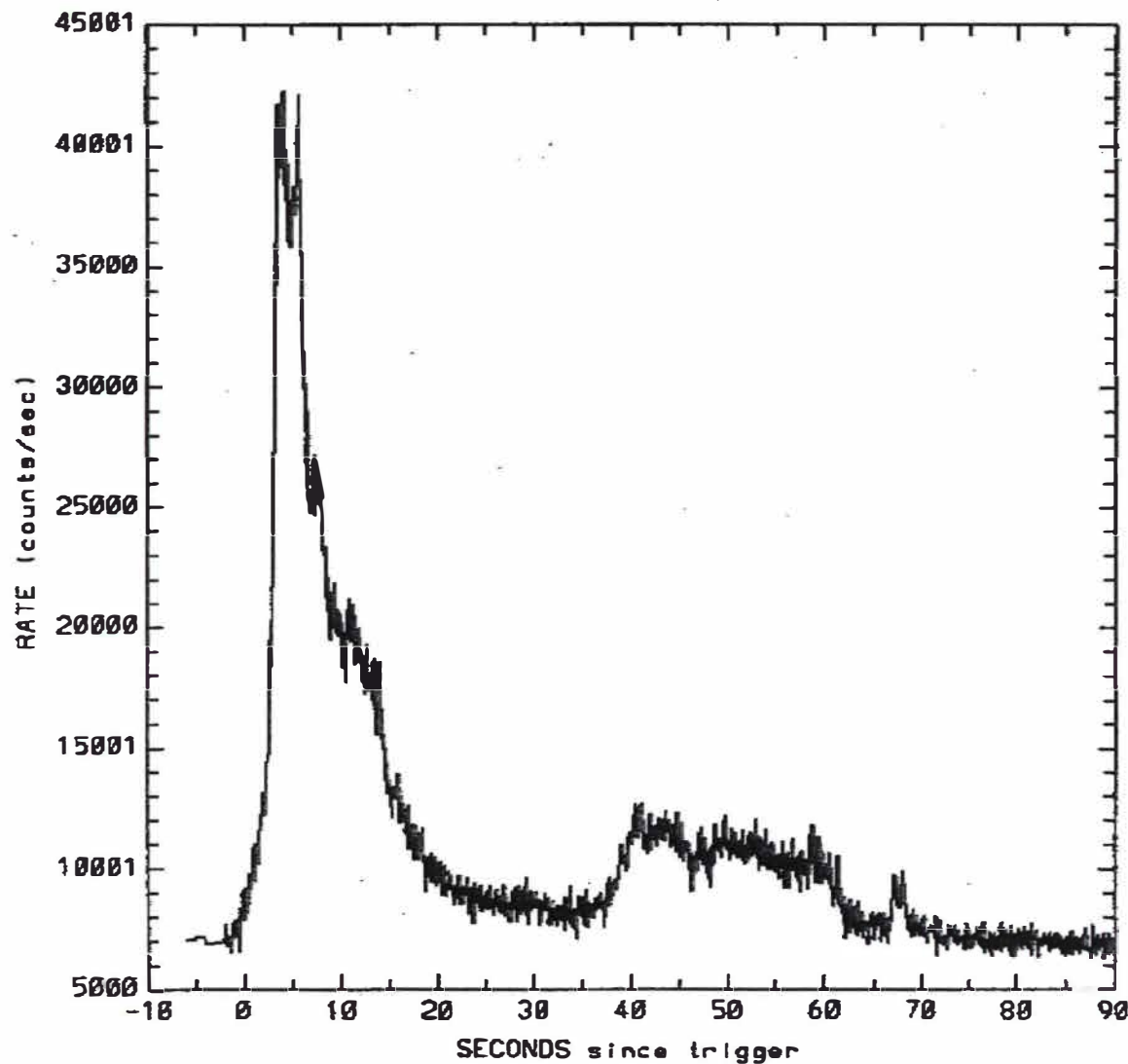
919.218

25- 100 keV

COUNTS/ .064 S



DISCSC Data for K. Hurley, No. 3523



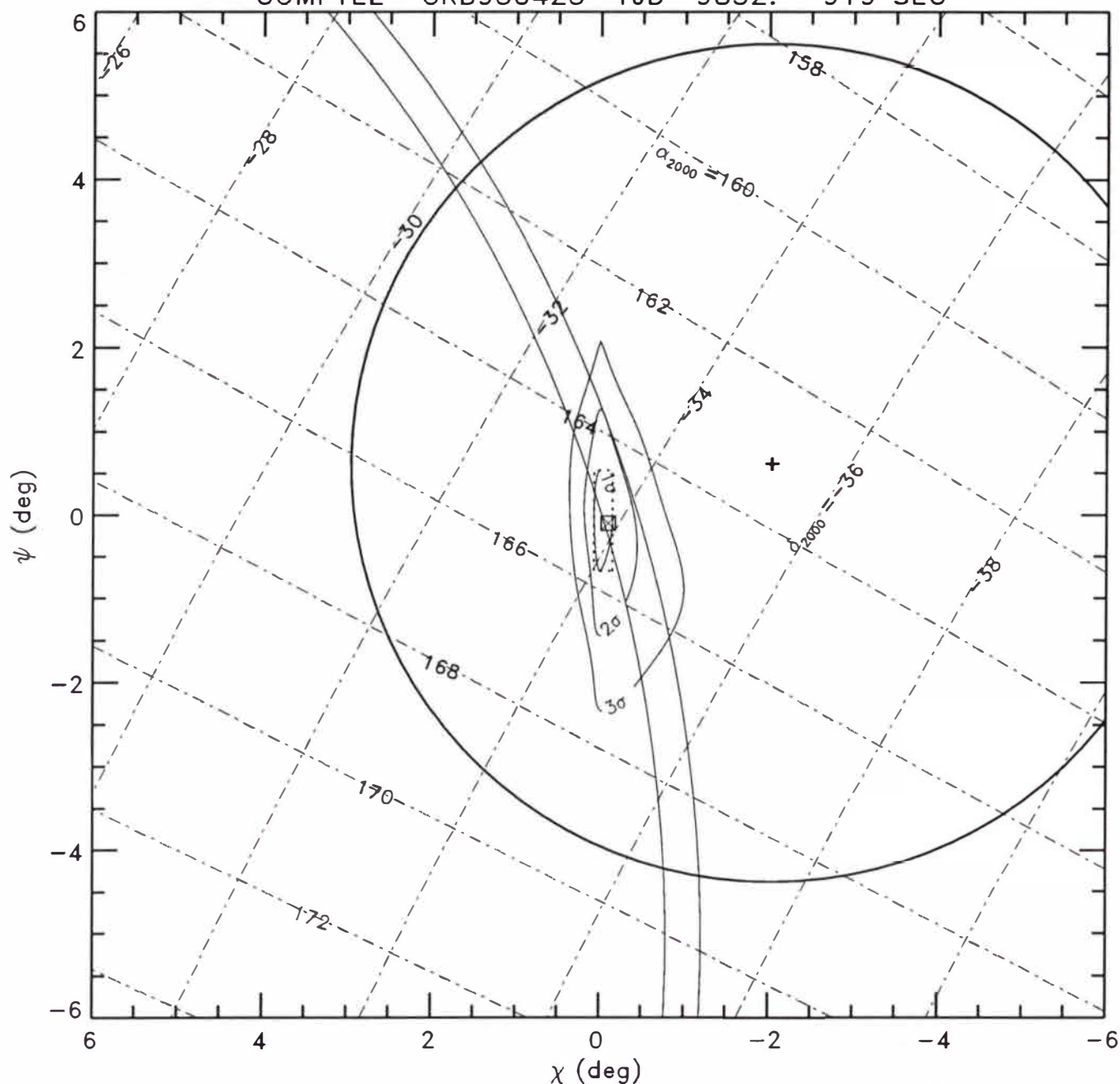
1-MAY-1995 13:38.11

Created by MOPS BD
(Burst Display)
Version t2.25

Trigger # : 3523

Trigger Time:
9832 / 919.218Burst Data Type:
DISCSCDeadtime
Corrected: NBackground Data
Type: PREB + DISCLAMinimum Integ. Time:
0.864 secondsDetectors [7..8].
-6-4----Discriminators:
{ 1 . 2 }Quality Mask:
BDISP1

COMPTTEL- GRB950425 TJD 9832: 919 SEC



Strong burst; ~148 events; Zenith ~48. Deg; UNH-MLM-12349

[CHI, PSI] [α_{2000} , δ_{2000}]

◇ [15.82, -10.26] [183.37, -23.90] BATSE (BACODINE)
 + [-2.04, 0.61] [163.16, -35.21] BATSE (HUNTSVILLE)

[CHI, PSI] [α_{2000} , δ_{2000}]

☒ [-0.10, -0.10] [165.10, -33.89] Max Lik Position
 1 [-0.15, -0.68] [165.67, -34.21] 1 σ Error Box Coords
 2 [-0.15, 0.53] [164.40, -33.62]
 3 [0.07, 0.53] [164.54, -33.42]
 4 [0.07, -0.68] [165.80, -34.02]

950416	13	27	00	S2	80	130	10	<0.2	20			BGR ✓
950418	23	16	33.572	S1	180	530	220	2.7	0.5	15		81 ✓
950419	02	23	48.860	S1	600	3260	2440	1.5	0.2	1.1		82 ✓
950419	11	23	32	S2	70	50	10	<0.15	90			BGR ✓
950419	13	11	40	S1	100	110	30	>15	130			BGR
950419	23	21	17.472	S2	200	400	200	0.35	1	1.5		83
950422	04	05	44.359	S1	1440	400		0.9	15	40		84 Sol ✓
950422	11	45	22.690	S2	12200	1680	60	0.9	30	300		85 Sol ✓
950425	00	15	23.718	S1	1200	2780	1820	2.4	0.5	65		86 ✓
950425	18	12	59.017	S2	230	330		0.97	3	4		87
950427	14	39	12	S1	20	60	40	>8	20			BGR
950430	15	03	44	S2	30	100	20	0.5	6			BGR ✓
950430	18	30	00	S2	120	140	20	0.1	9			BGR
950501	03	25	04	S2	120	130	25	<0.1	9			BGR ✓
950503	06	54	25	S2	60	80	15	0.3	60			BGR ✓
950503	18	36	11.838	S1	1140	4200	3140	1.9	0.2	115		88 ✓
950505	14	52	57	S2	260	150	30	<0.1	9			BGR
950505	14	58	59.053	S1	540	420	45	12	12	30		89
950506	23	25	10	S2	280	65		<0.15	15			BGR
950507	01	59	22	S2	25	90	30	<0.1	12			BGR
950509	12	49	42	S2	75	150	30	0.1	18			BGR ✓
950510	07	48	03.509	S1	640	630	160	>15	2	15		90 ✓
950510	21	34	45	S2	30	60	30	<0.1	25			BGR
950512	00	16	43.891	S1	2770	6300	1830	2.8	0.1	56		91 ✓
950513	07	24	52.760	S2	1800	550		0.85	9	26		92 Sol
950513	22	41	46.917	S1	720	1360	520	10	1	30		93 ✓
950514	20	46	14	S1	30	60	15	2	30			BGR
950515	00	54	48.326	S1	360	630	70	2.3	1	8		94
950515	06	24	37.820	S1	350	400		2.3	2	50		95
950520	23	07	51.404	S1	600	1560	1310	5	0.08	0.25		96
950521	06	59	21.588	S1	200	280	50	3.7	8	50		97 ✓
950522	06	38	18.964	S1	290	410	320	18	2.5	7		98 ✓
950522	10	58	44.307	S2	190	440	180	1.3	2	90		99 ✓
950522	23	41	20.844	S1	100	420	280	1.1	1	150		100 ✓
950523	05	39	19	S2	70	110	15	0.4	60			BGR ✓
950523	08	41	42.284	S1	1290	2770	710	18	0.2	3		101 ✓
950524	04	08	22.670	S2	110	300	140	0.95	2	1		102 ✓
950526	04	36	53.640	S2	390	530	360	0.05	1	62		103
950601	09	29	42	S2	270	60	20	<0.15	62			BGR
950602	07	06	32.777	S1	140	310	180	>10	1	180		104 ✓
950603	05	54	17.810	S1	180	300	170	10	2	12		105
950606	19	59	24	S2	80	40		<0.15	26			BGR
950608	22	36	37.603	S1	350	450	150	>25	140	12		106 ✓
950609	04	54	19	S1	50	100	40	2	6			BGR
950610	01	54	09.095	S1	240	520	160	5	6	17		107 ✓
950610	05	18	16.034	S2	1060	3250	1300		0.03	0.07		108
950611	05	52	12	S1	100	110	40	7	200			BGR ✓
950614	00	12	47	S1	110	50		5	18			BGR
950615	14	37	32	S2	50	40		<0.1	25			BGR
950616	12	49	37	S2	90	100	25	<0.06	180			BGR
950622	19	51	10	S2	70	100	50	0.3	8			BGR
950624	03	29	58	S2	40	40		<0.1	90			BGR ✓
950624	23	22	04.417	S2	150	540	130	<0.5	41	100		111 ✓
950625	02	41	29.448	S2	200	240	30	<0.1	25	4		112
950625	04	03	46.011	S2	120	360	120	0.9	3	5		113 ✓
950625	05	19	36.832	S1	290	630	140	1.6	1	6		114
950626	13	37	42	S2	160	120	20	<0.1	60			BGR
950627	15	46	00	S1	100	50		>5	180			BGR ✓
950628	09	32	08	S2	20	90	10	0.7	100			BGR
950629	10	17	13.034	S1	70	250	80	2	1	6		115 ✓
950701	03	32	42.114	S1	340	1400	580	1.3	1	30		116 ✓
950701	06	35	37.604	S2	570	1600	700	0.05	1	11		117 ✓
950701	23	58	49.800	S2	1600	770	70	0.9	48	250		118 Sol
950702	12	09	32	S1	110	70		4.5	15			BGR
950703	05	33	38.718	S1	260	870	560	2.5	15	120		119 ✓
950704	03	10	31.823	S1	2600	5600	2600	4	0.6	4		120 ✓

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

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

Mime-Version: 1.0

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

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

Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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

Date: Aug 23 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

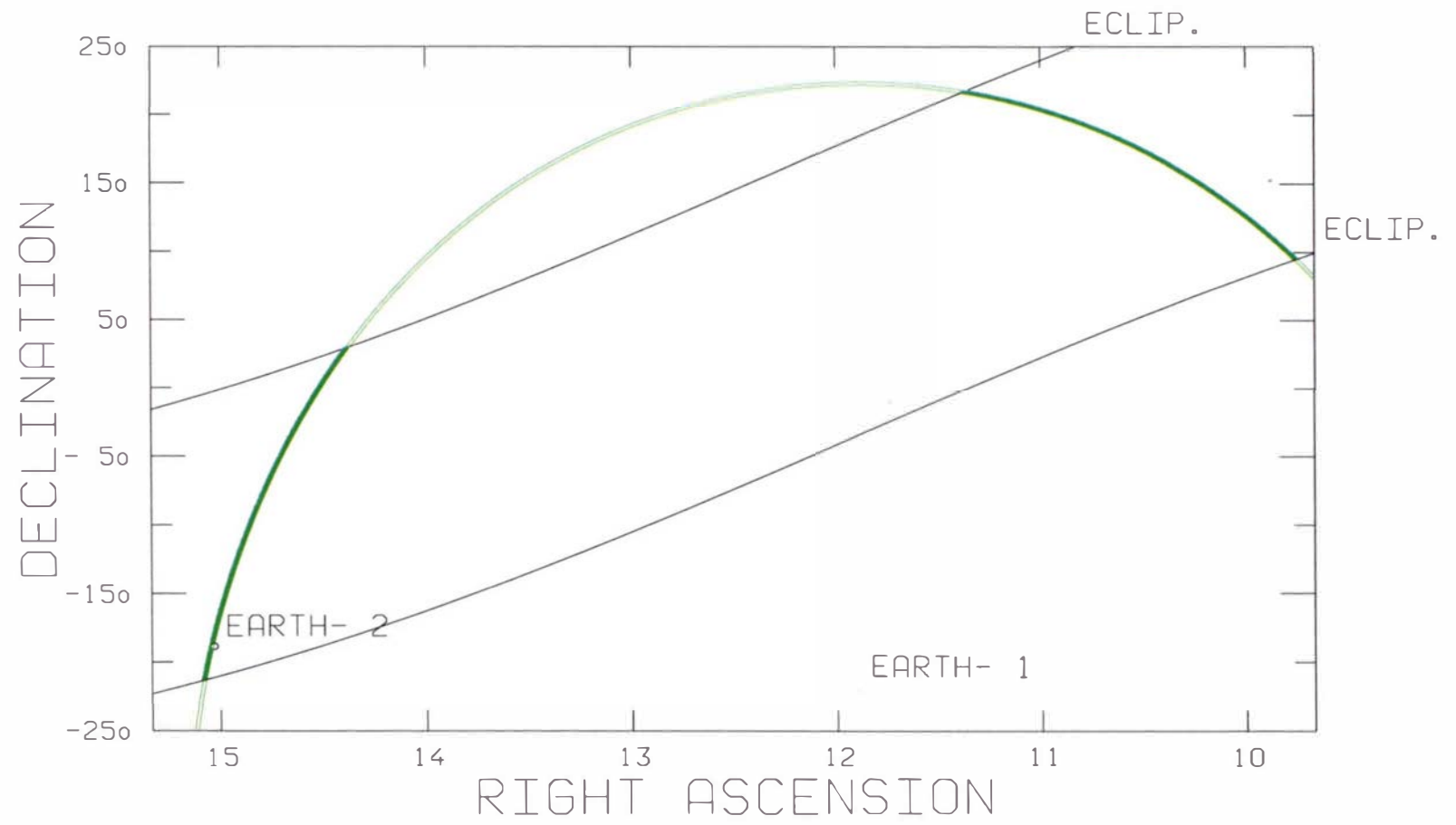
- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is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

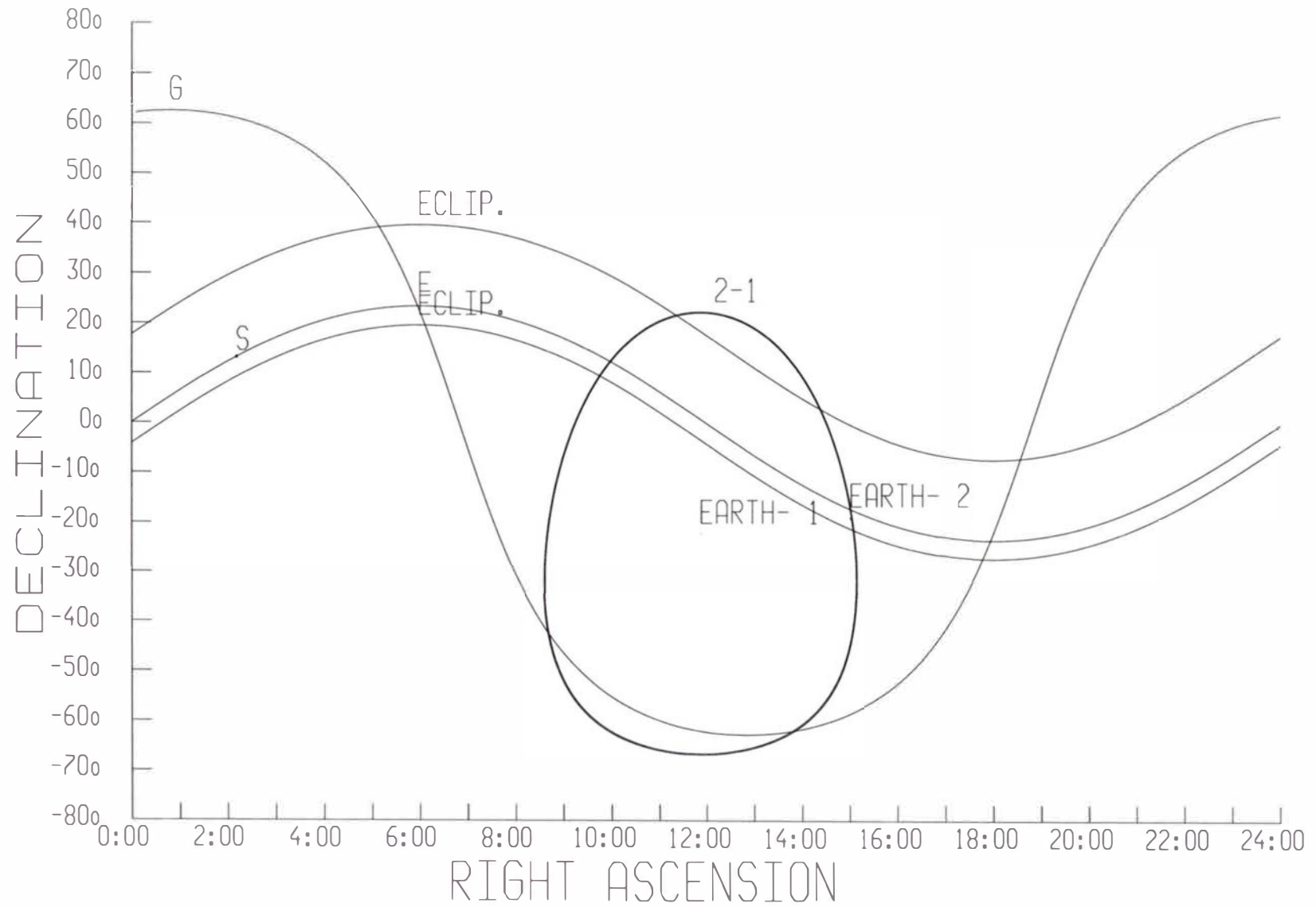
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

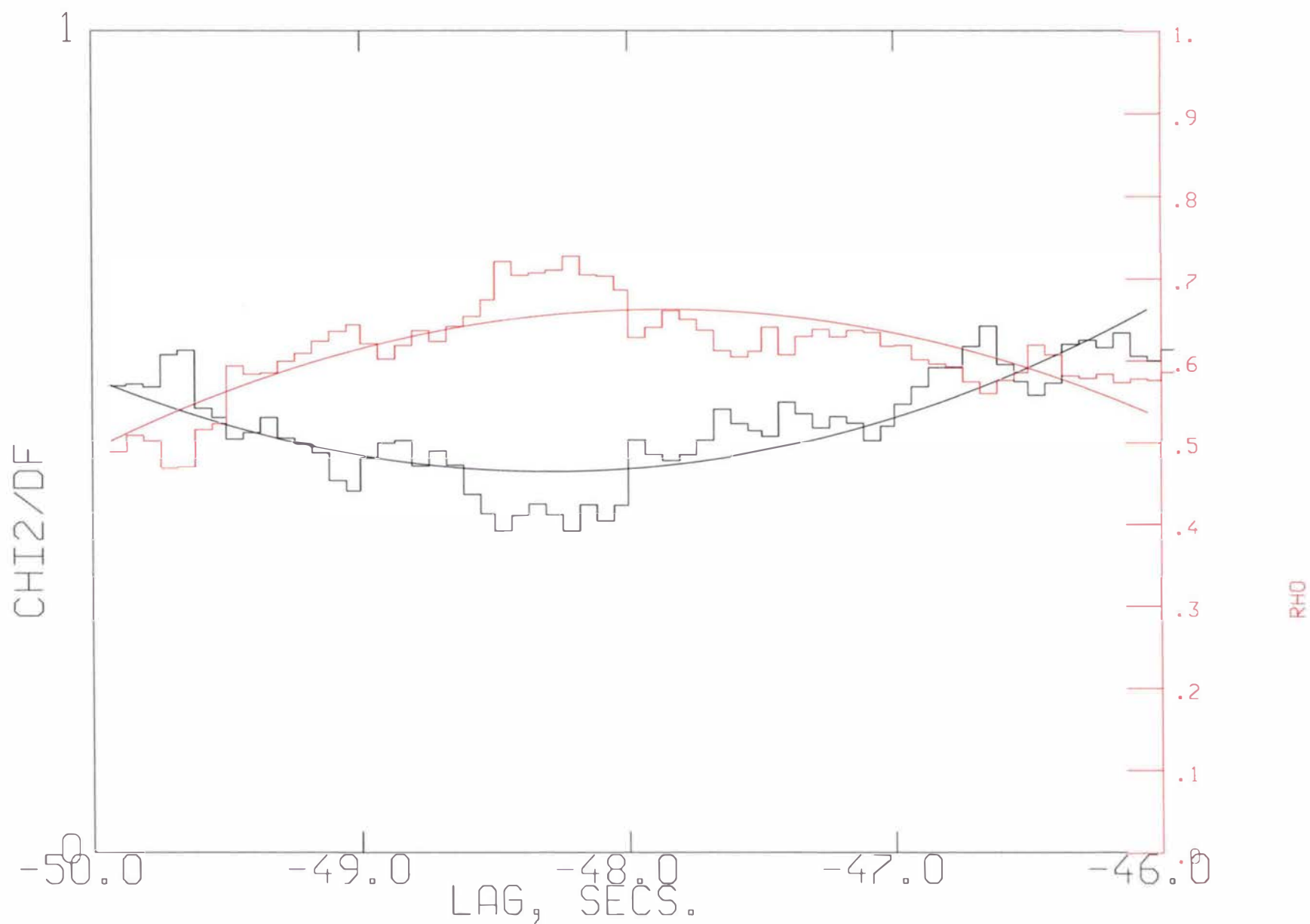


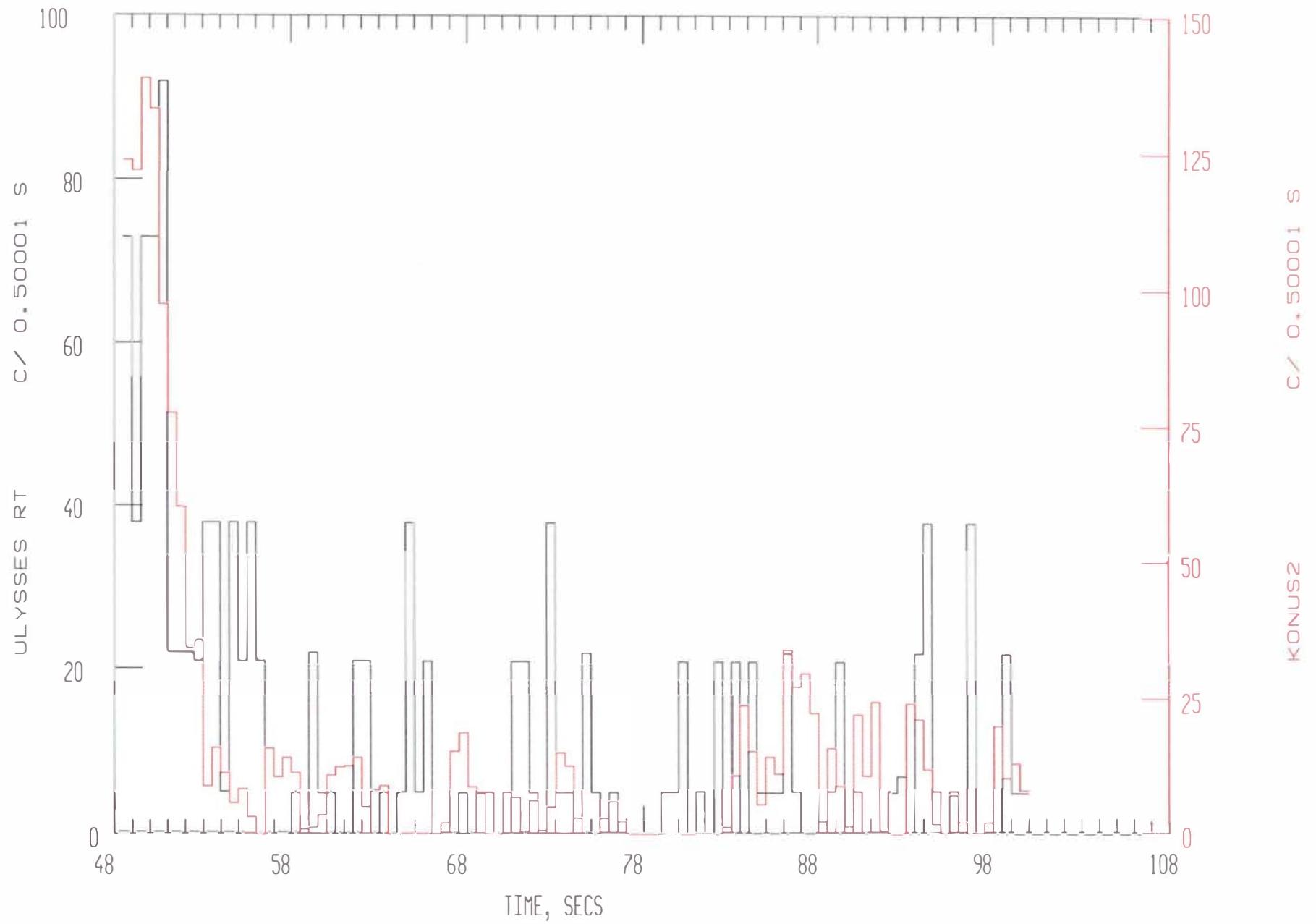
EVENT OF APR 25, 1995 18:24

23/08/2011

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 19950425 66376

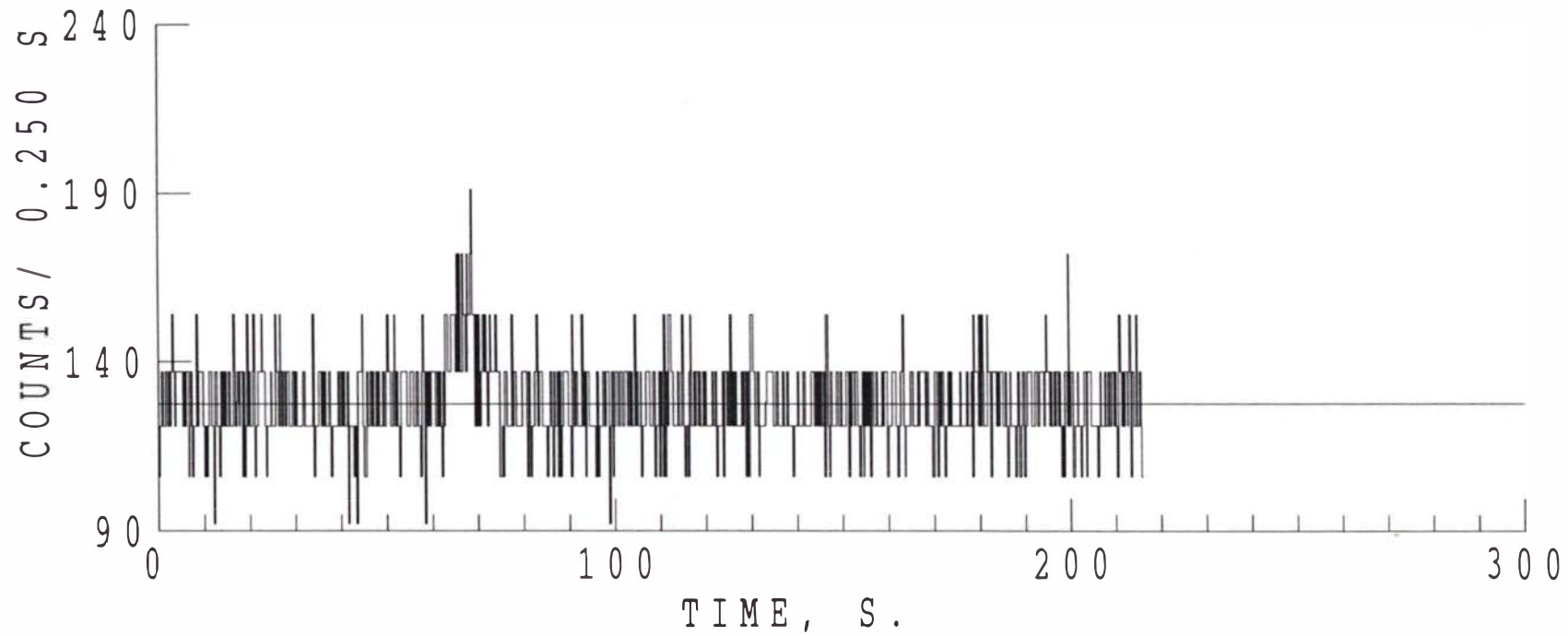
ULYSSES RT

17/08/11

25/04/95 66276.211 s

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS

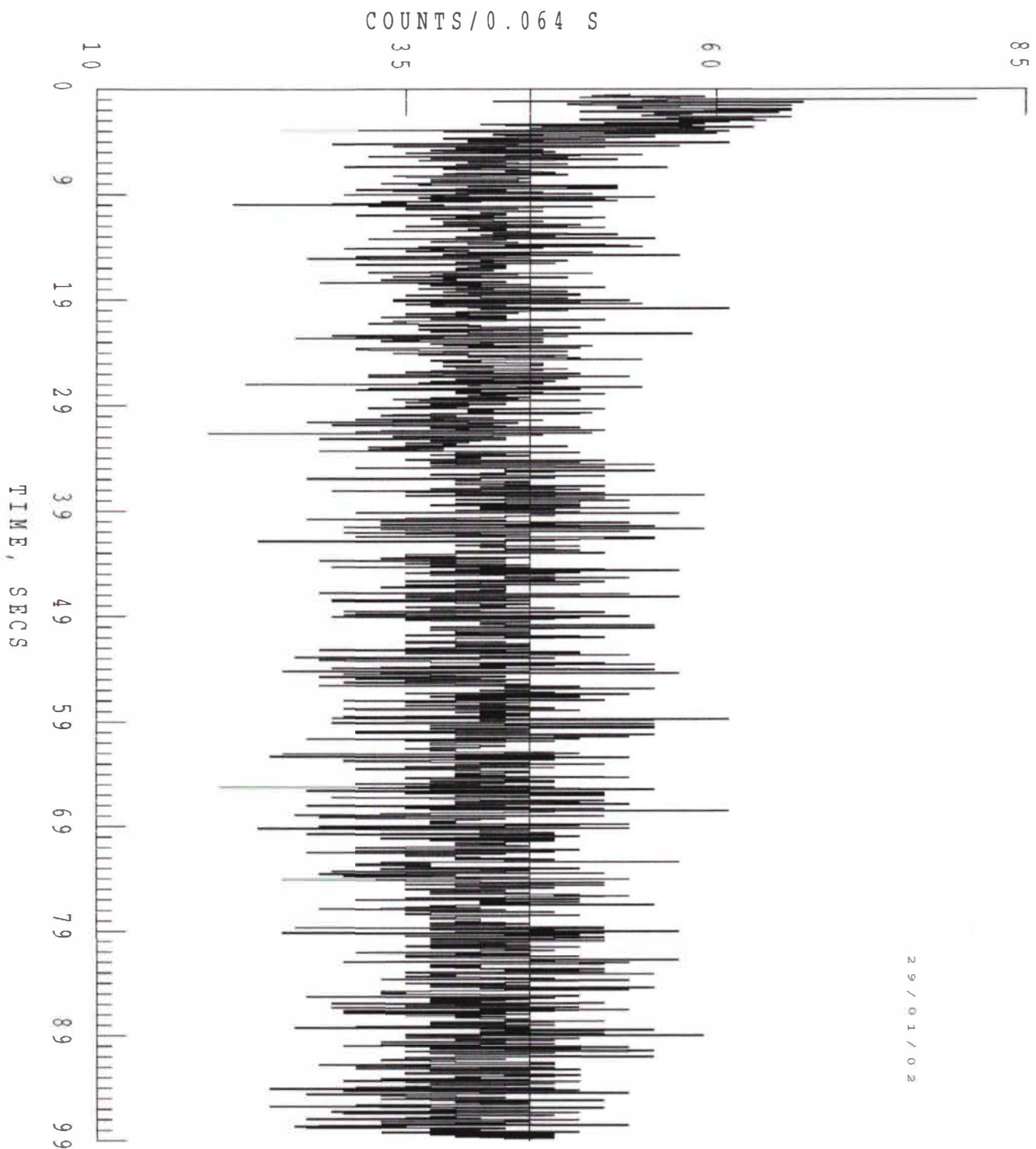


KONUS2

25/04/95

65579.017

50 200 keV



KONUS2 19950425 65579

ULYSSES RT

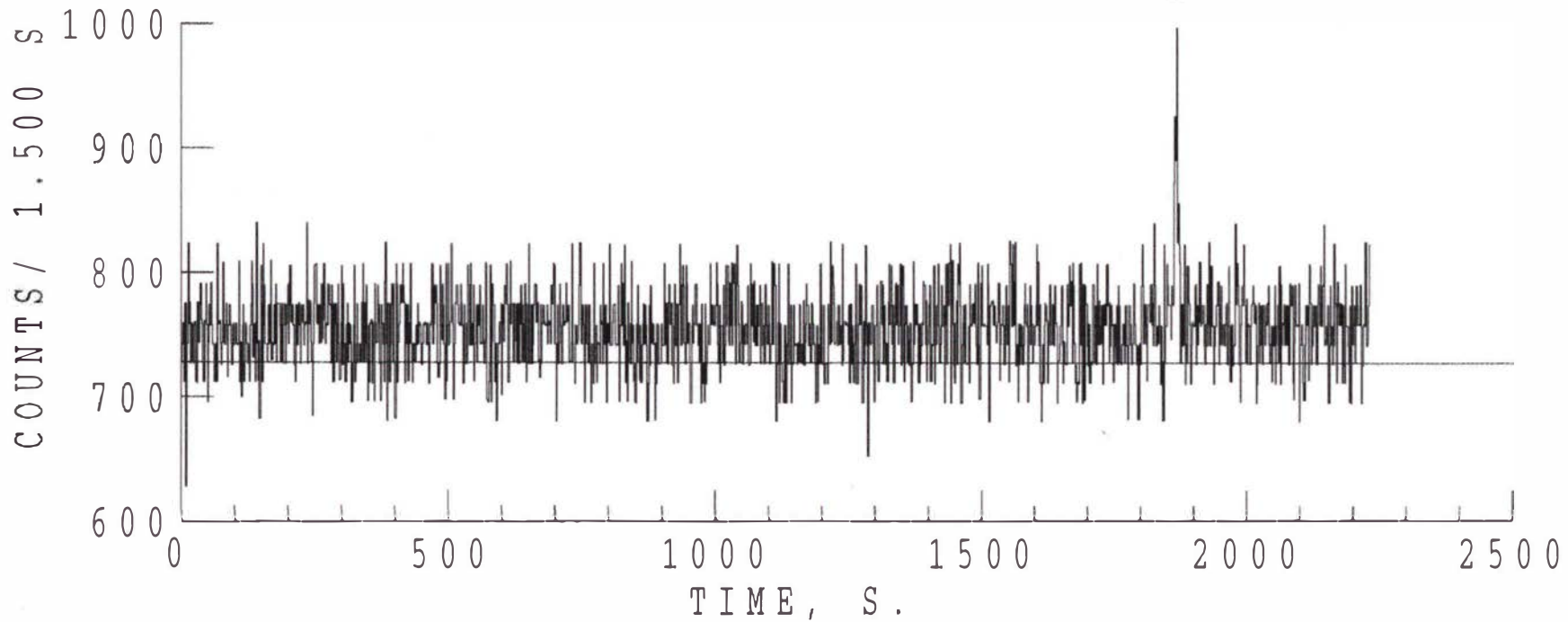
29 / 01 / 02

25 / 04 / 95 64476.176 s

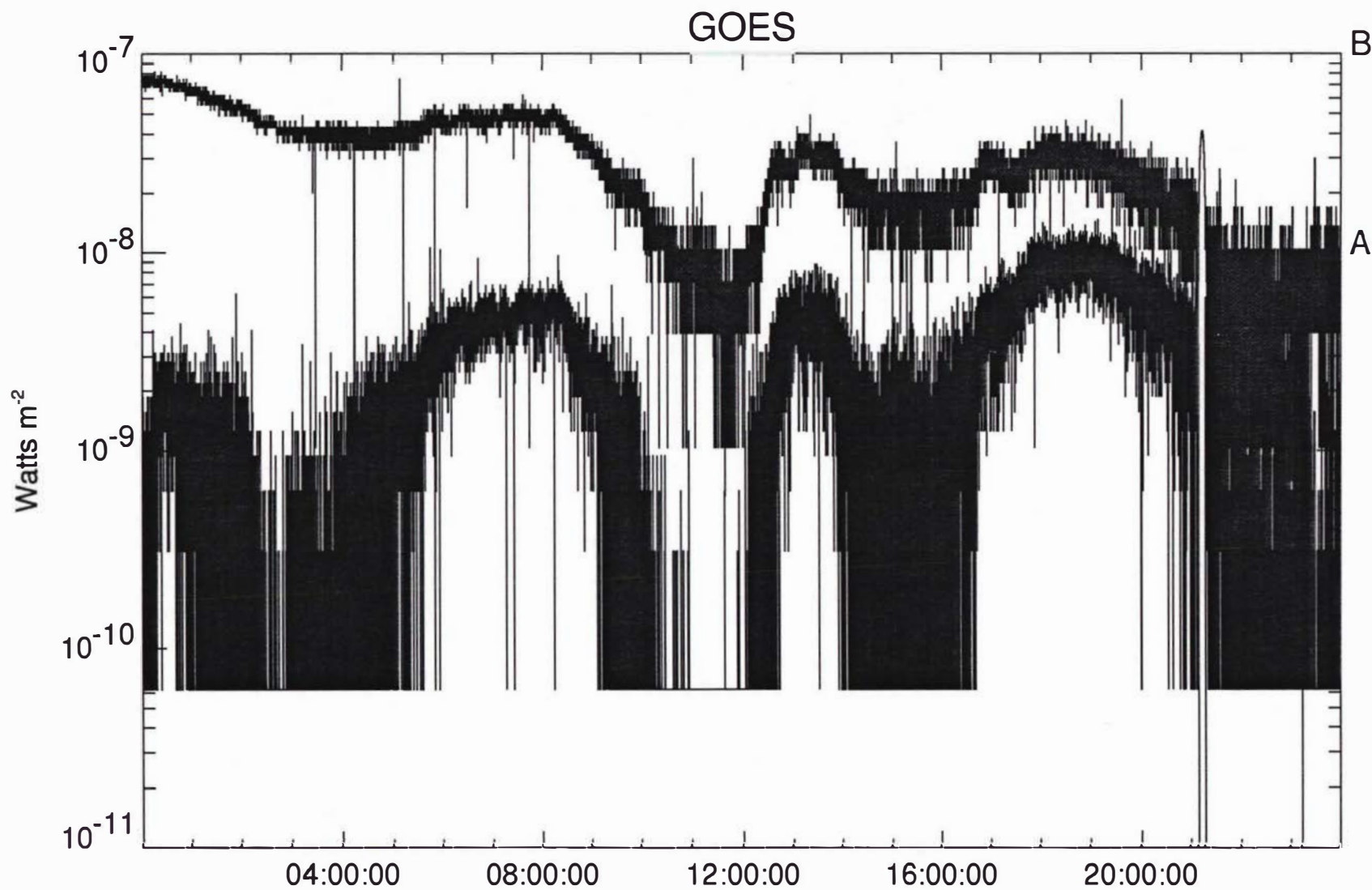
0.250 S INTERVALS REGROUPED BY 6

0 - 0 keV

N= 10 M= 2
>4.0 SIGMA FLUCTUATIONS



301



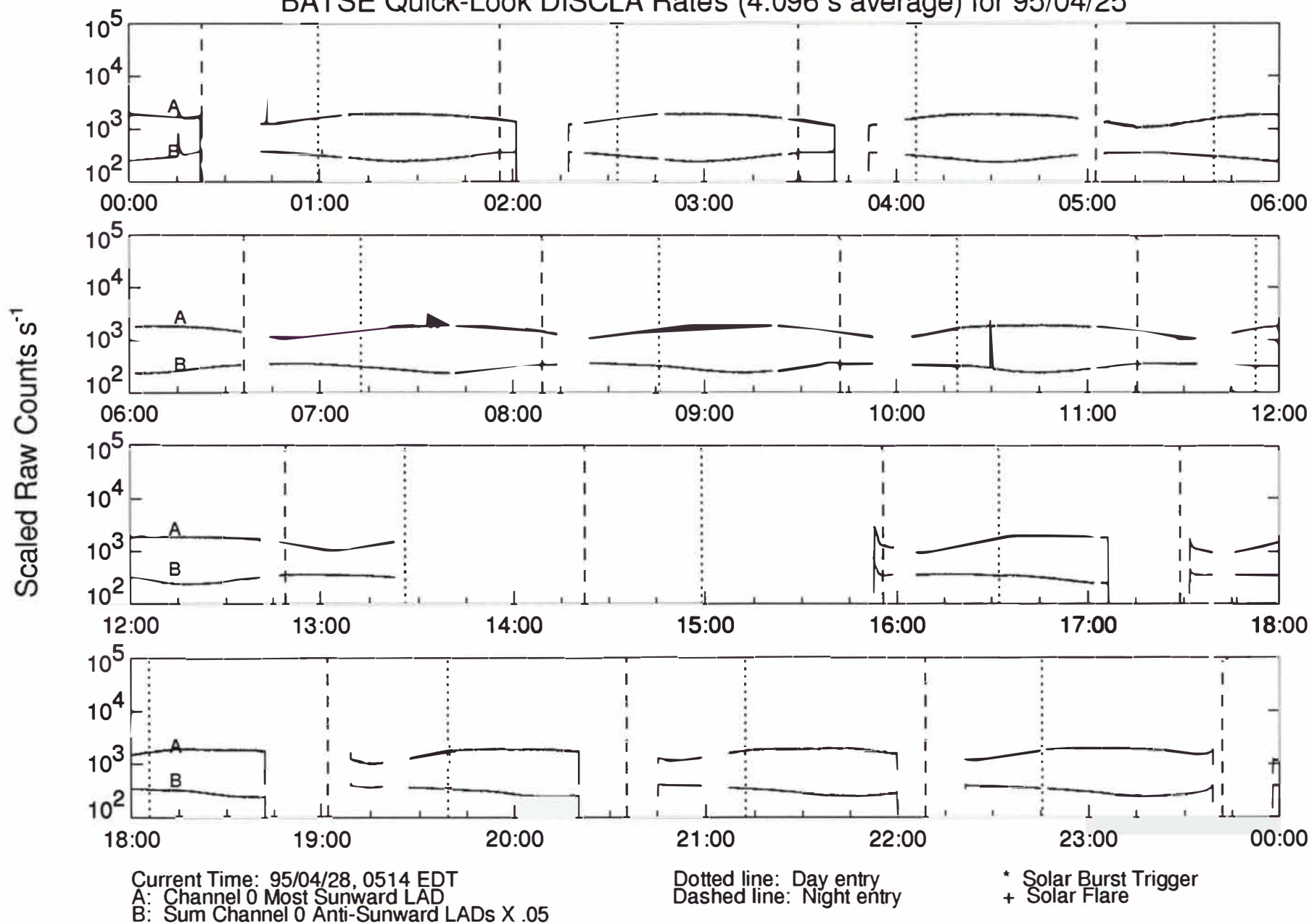
Data Start: 95/04/25, 0000:00

Plot created: 95/04/28, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

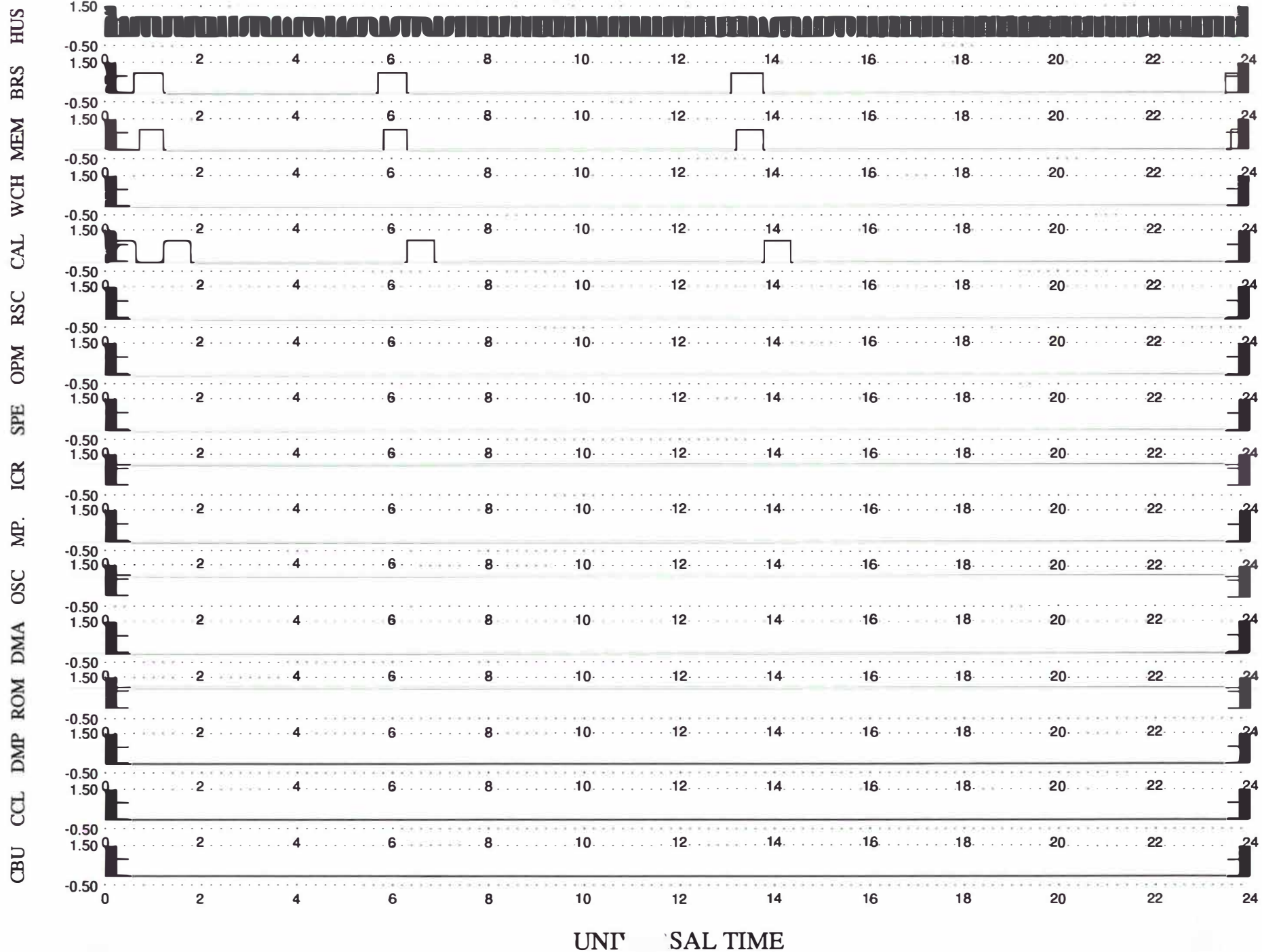
Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/25



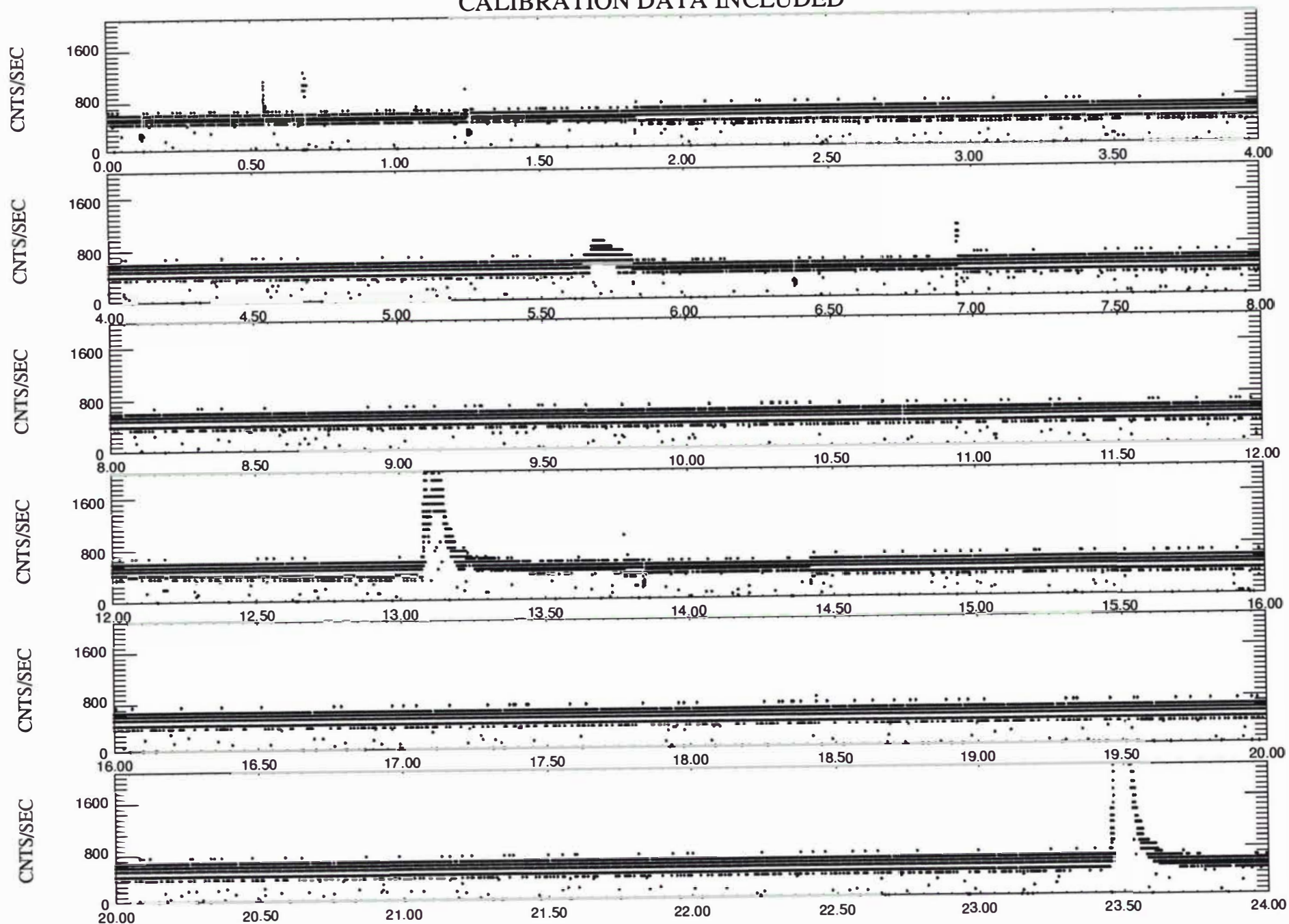
HUS MODES EDR day 115, year 1995 to day 115, year 1995
BURST NUMBER 8 - 11

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 115, year 1995 to day 115, year 1995
CALIBRATION DATA INCLUDED

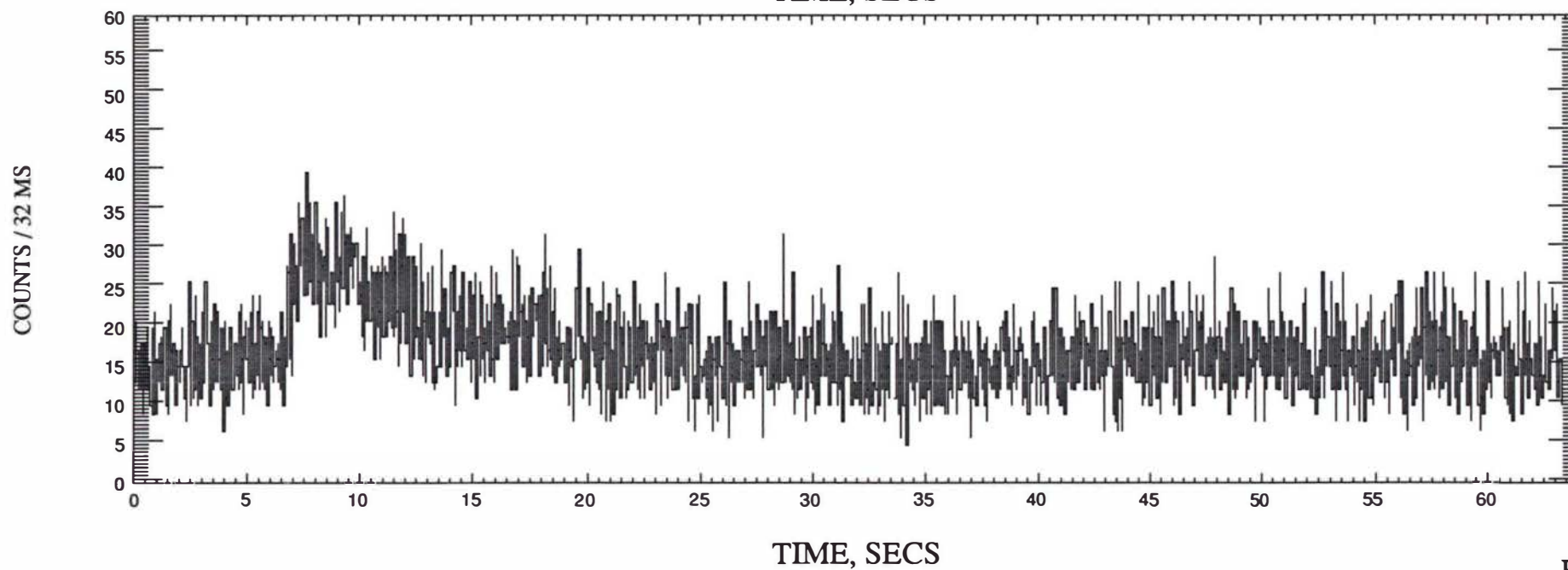
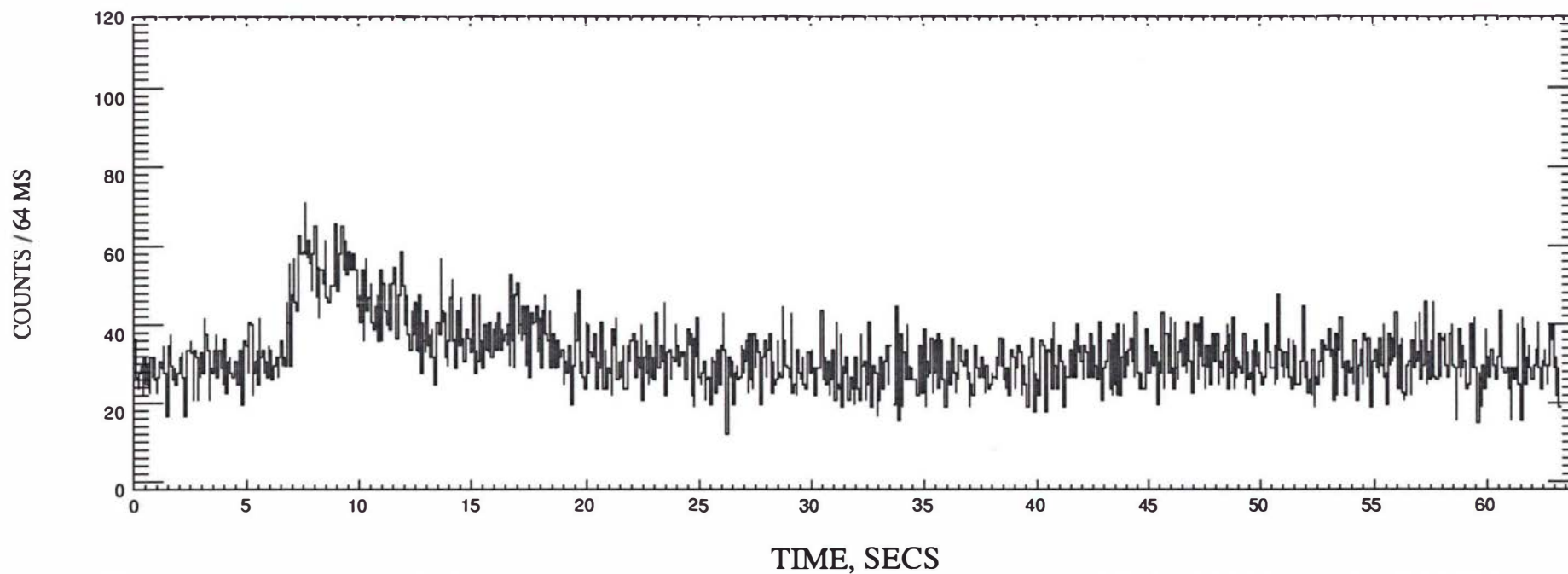
11/16/95



UNIT: MIN: SEC

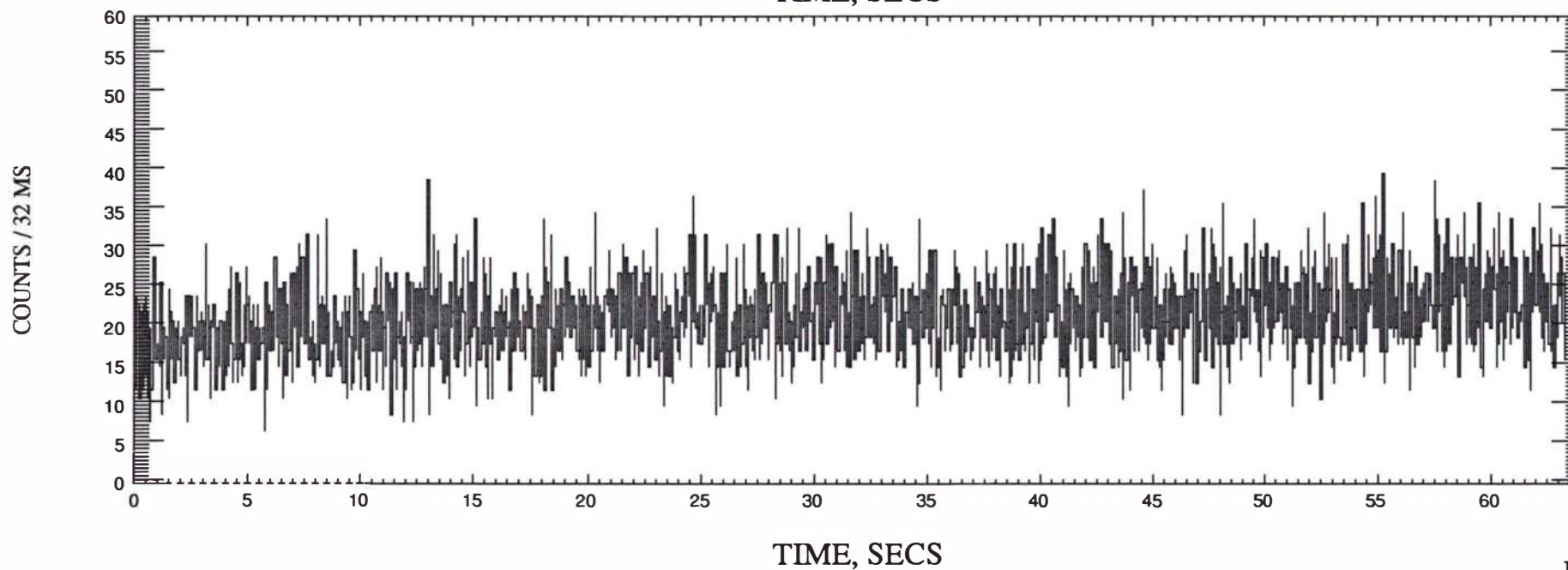
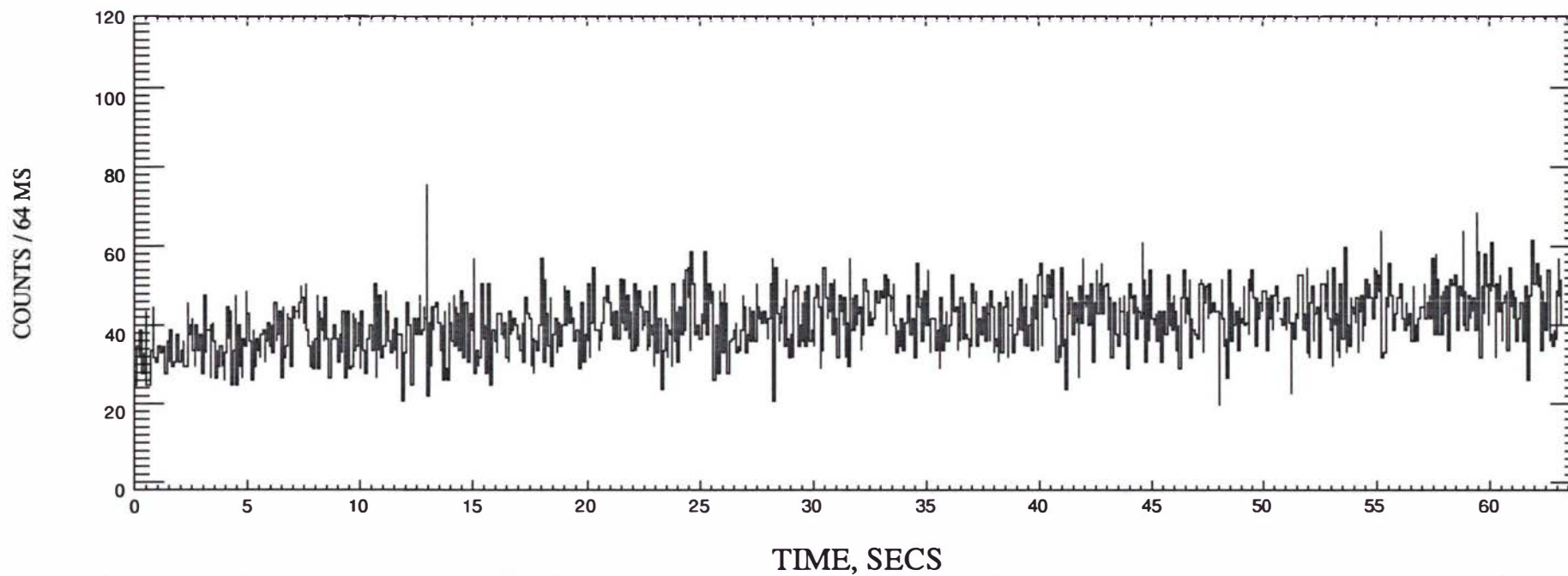
HUS 2A TRIGGERED DATA EDR day 115, year 1995
Burst Counter 8 at UT= 0.541866751777 h= 1950.720 s 00:32:30.720

11/16/95



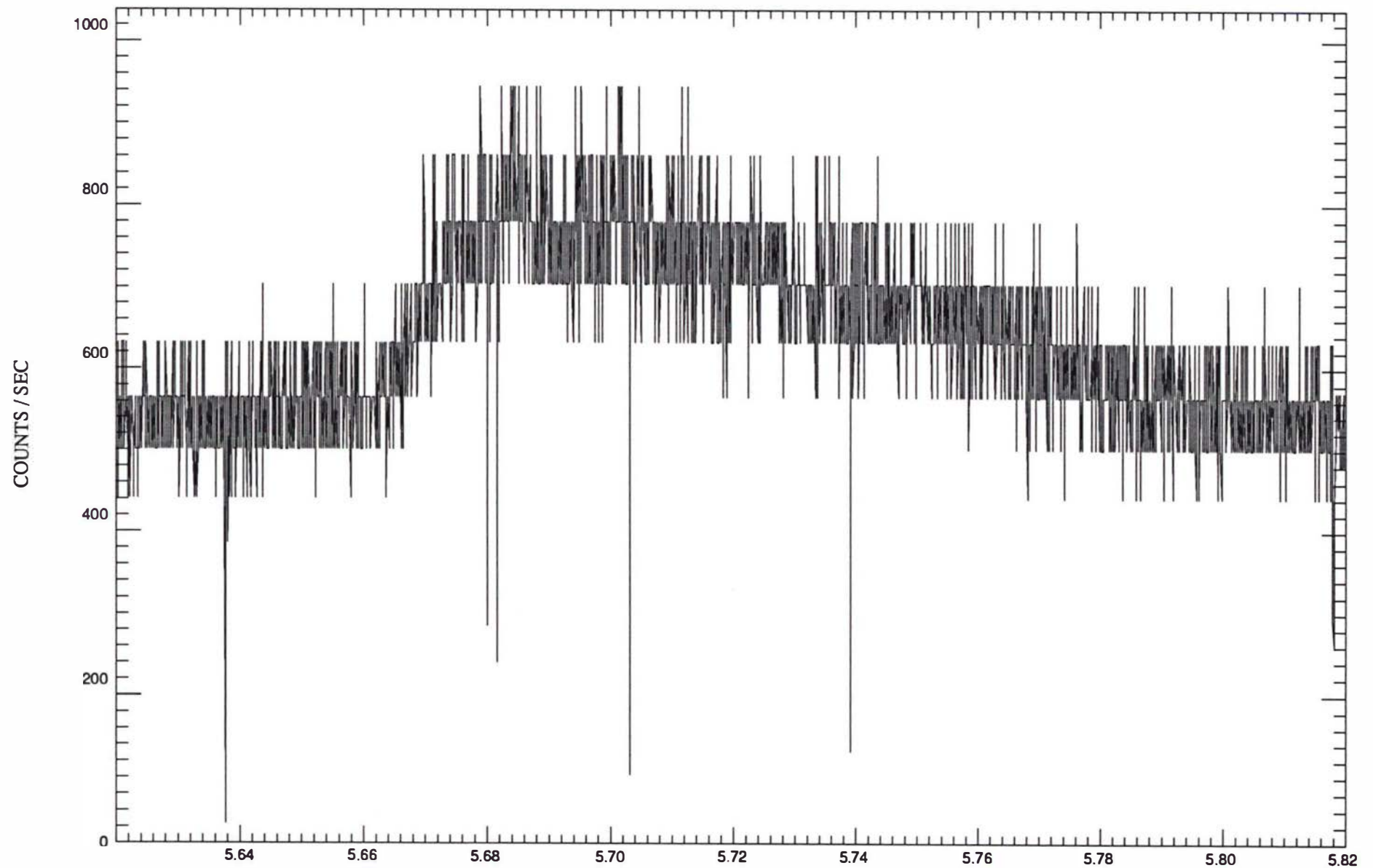
HUS 2A TRIGGERED DATA EDR day 115, year 1995
Burst Counter 9 at UT= 5.669920018514 h=20411.712 s 05:40:11.712

11/16/95



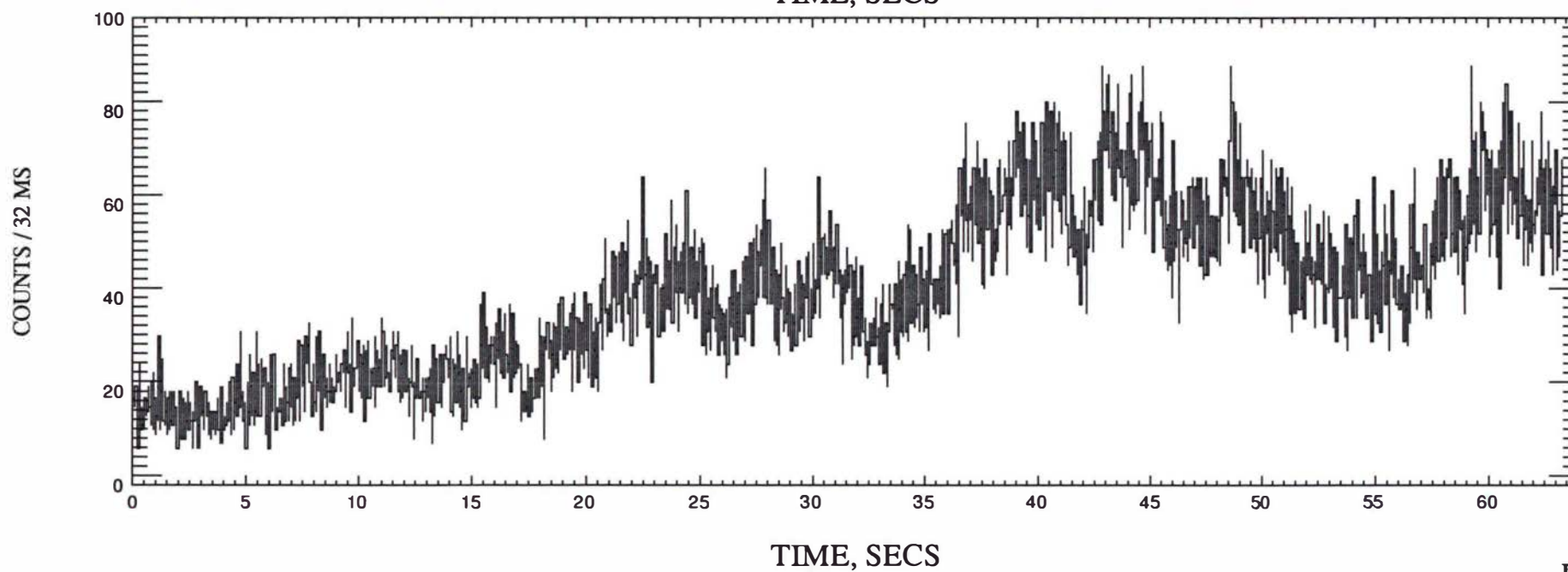
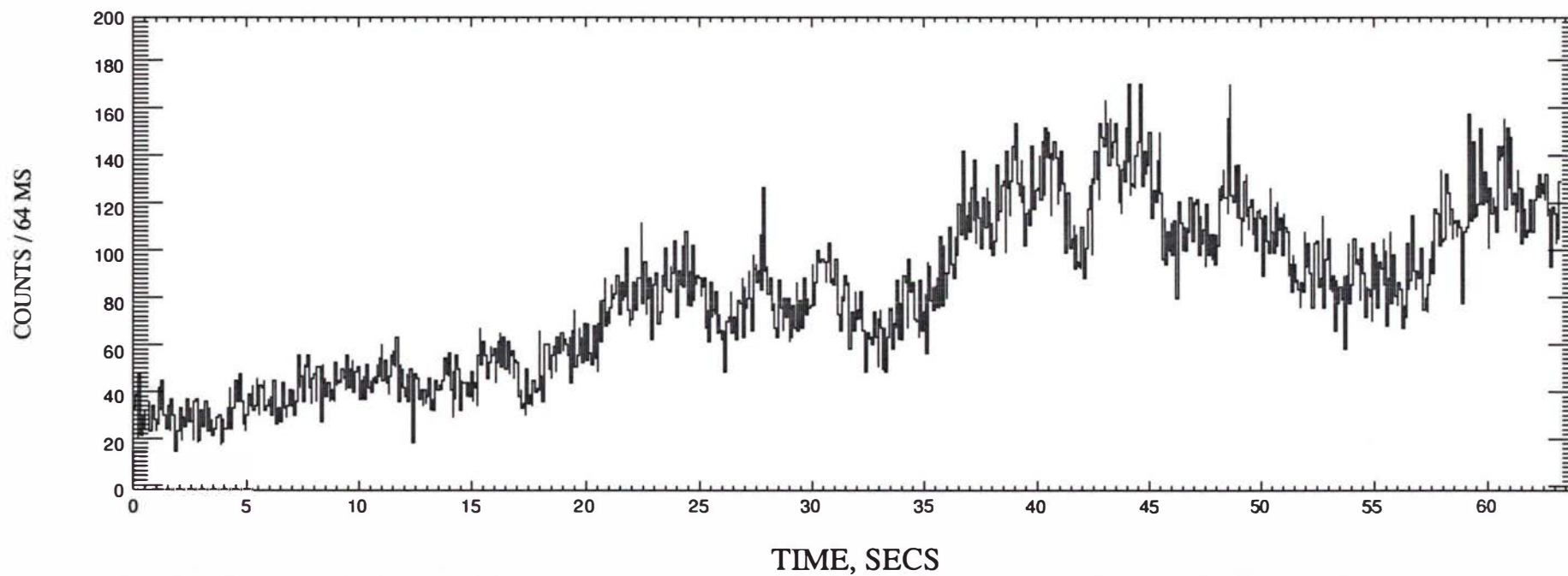
HUS 2A, MODE 1, NOT AVERAGED QEDR day 115, year 1995 to day 115, year 1995
CALIBRATION DATA INCLUDED

4/27/95



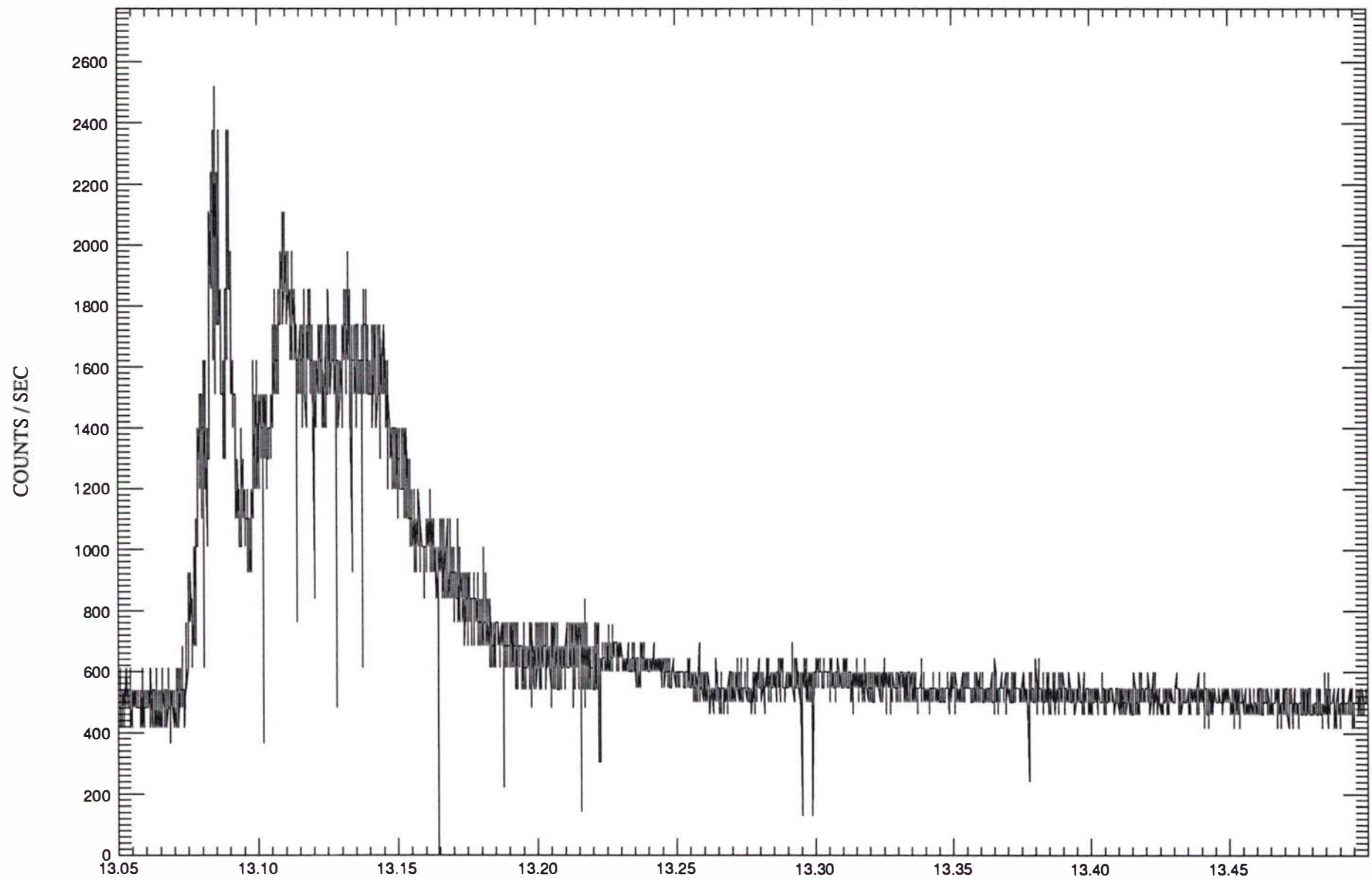
HUS 2A TRIGGERED DATA EDR day 115, year 1995
Burst Counter 10 at UT=13.075093455844 h=47070.336 s 13:04:30.336

11/16/95



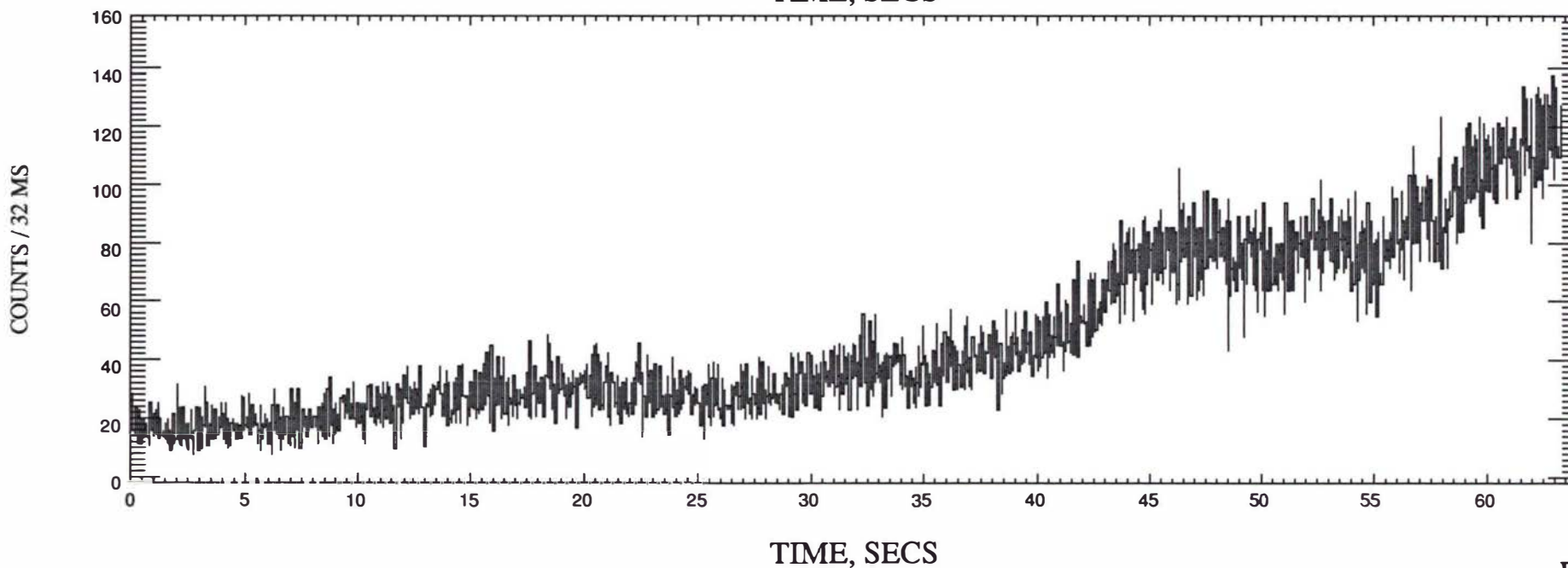
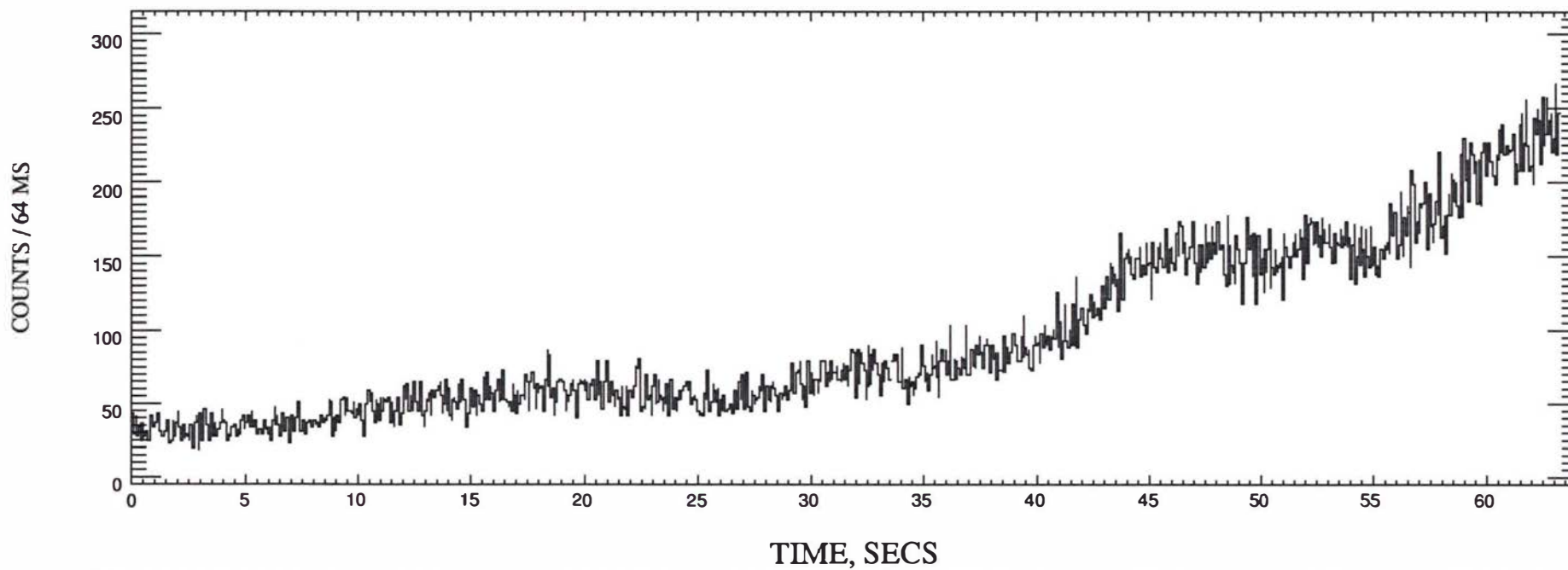
HUS 2A, MODE 1, NOT AVERAGED QEDR day 115, year 1995 to day 115, year 1995
CALIBRATION DATA INCLUDED

4/27/95



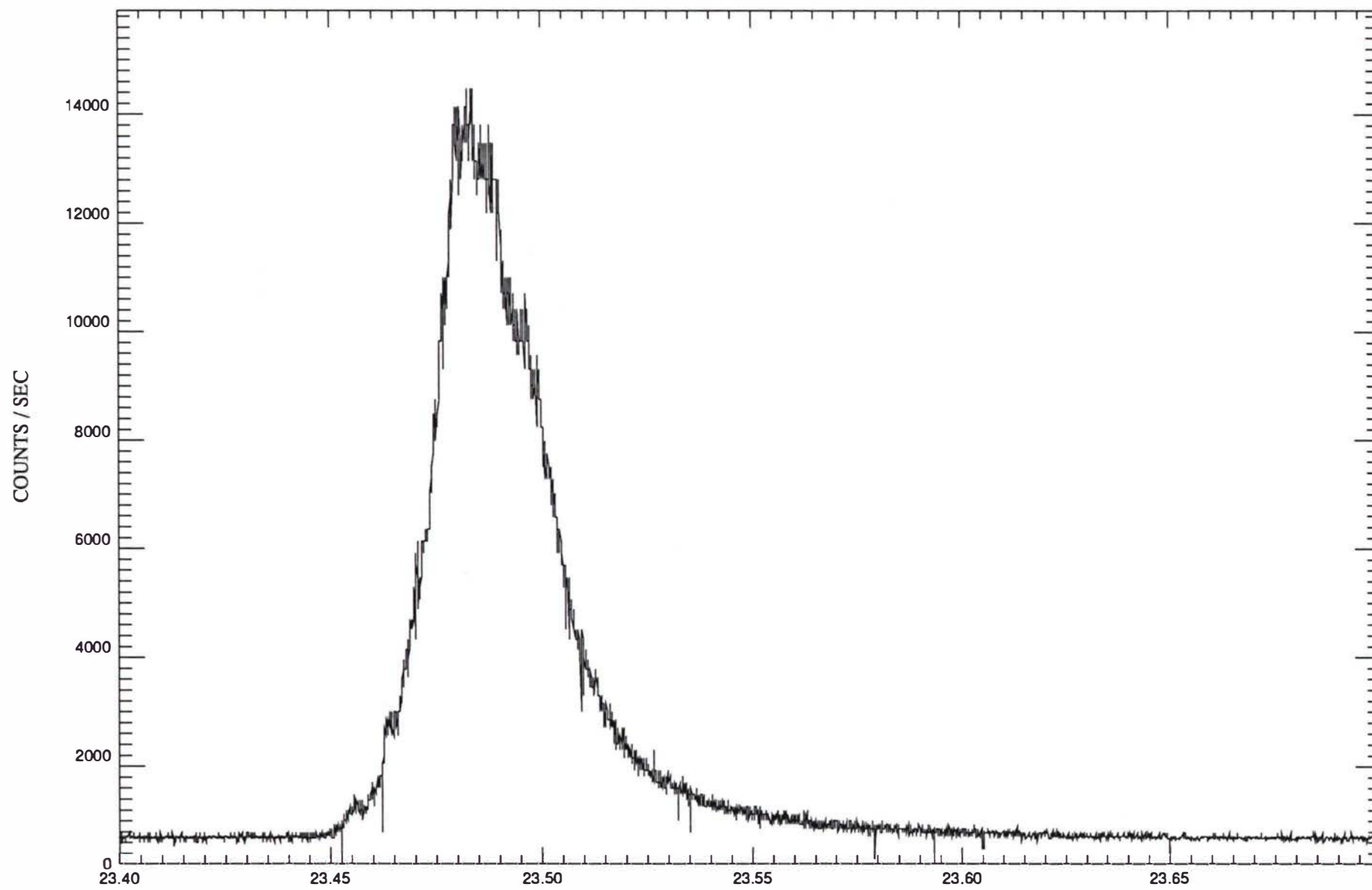
HUS 2A TRIGGERED DATA EDR day 115, year 1995
Burst Counter 11 at UT=23.452860679626 h=84430.298 s 23:27:10.298

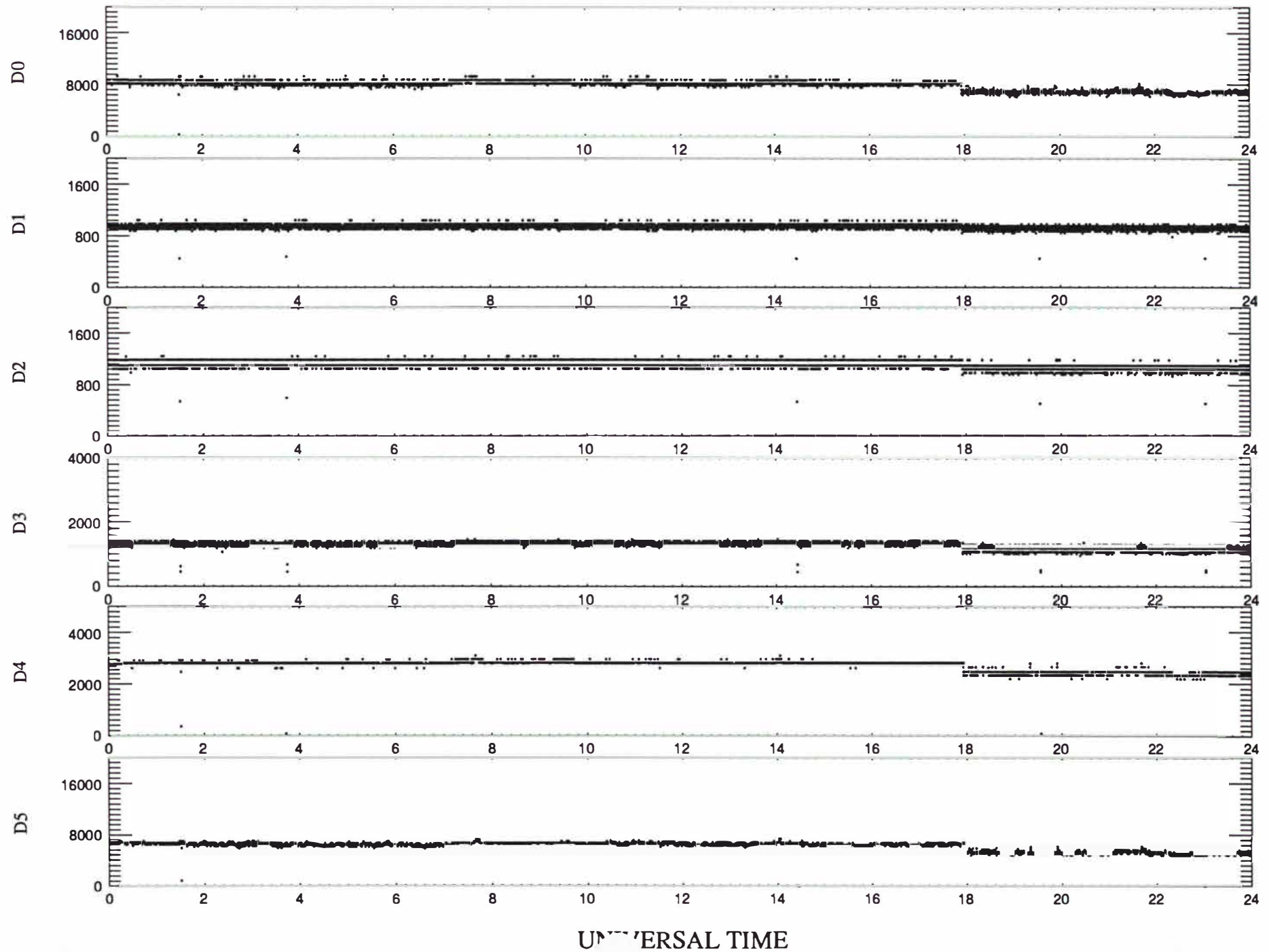
11/16/95



HUS 2A, MODE 1, NOT AVERAGED QEDR day 115, year 1995 to day 115, year 1995
CALIBRATION DATA INCLUDED

4/28/95





From HAGEDON@ssl.msfc.nasa.gov Fri Apr 28 10:05 PDT 1995
Date: Fri, 28 Apr 1995 12:04:41 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
"LHEAVX::CLINE"@ssl.msfc.nasa.gov,
"LHEAVX::BARTHELMY"@ssl.msfc.nasa.gov,
"15733::SCHAEFER"@ssl.msfc.nasa.gov, "CASS09::BAND"@ssl.msfc.nasa.gov,
"CASS09::GRUBER"@ssl.msfc.nasa.gov
X-Vmsmail-To: @mops\$send_msg:BURST_SPAN.DIS
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3524

TIME: TJD=9833 SECONDS=15291

TYPE: TRANSIE SOLAR FLARE TRIGGER SIGNAL:N

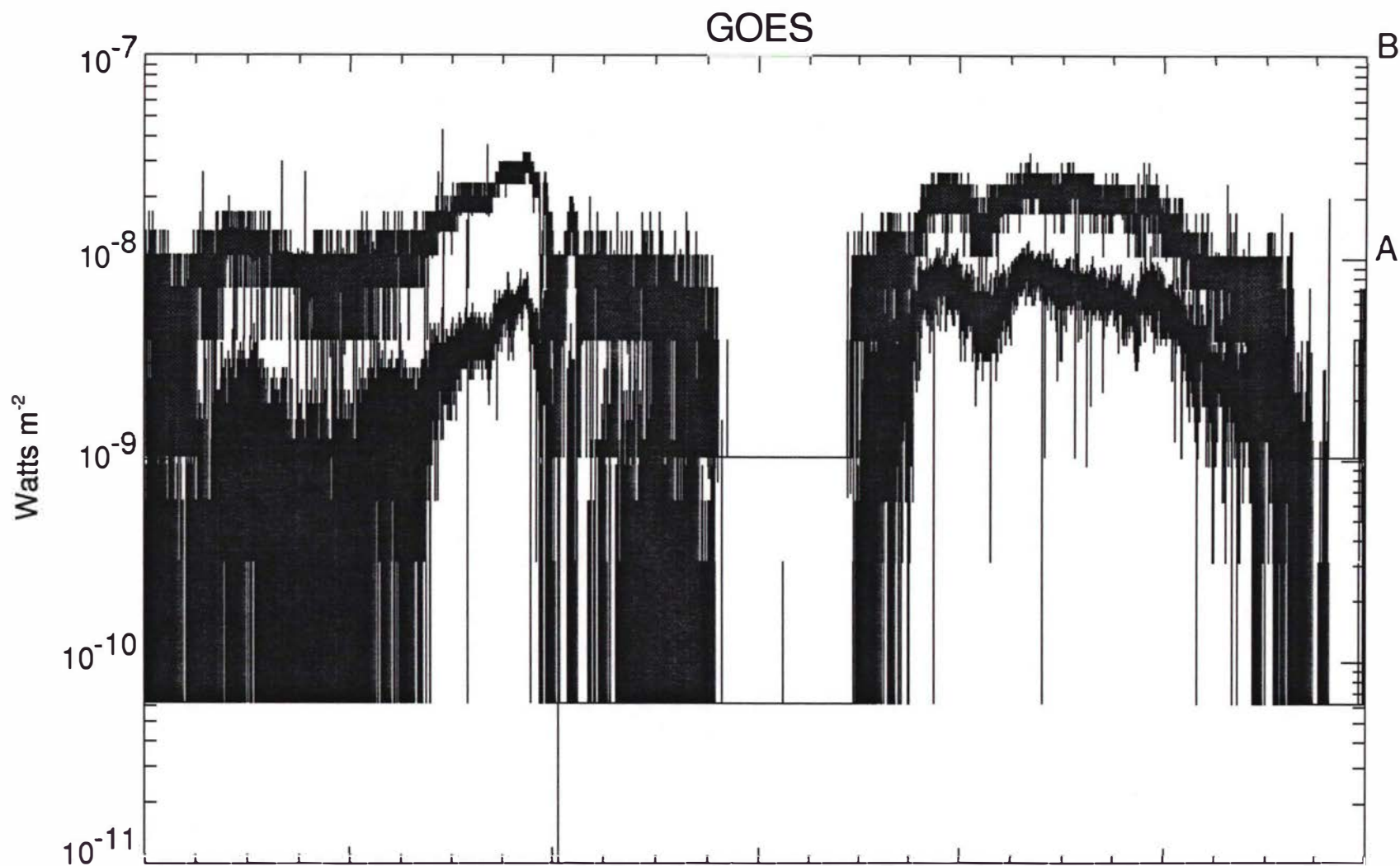
SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=115 AZIMUTH=186 ERROR= DEGREES

COMMENTS:

FLUCTUATION JUST AFTER RISE OF 4U1700-377. NOT VISIBLE ABOVE 300 KEV.



Data Start: 95/04/26, 0000:01

Plot created: 95/04/29, 0513

Channel

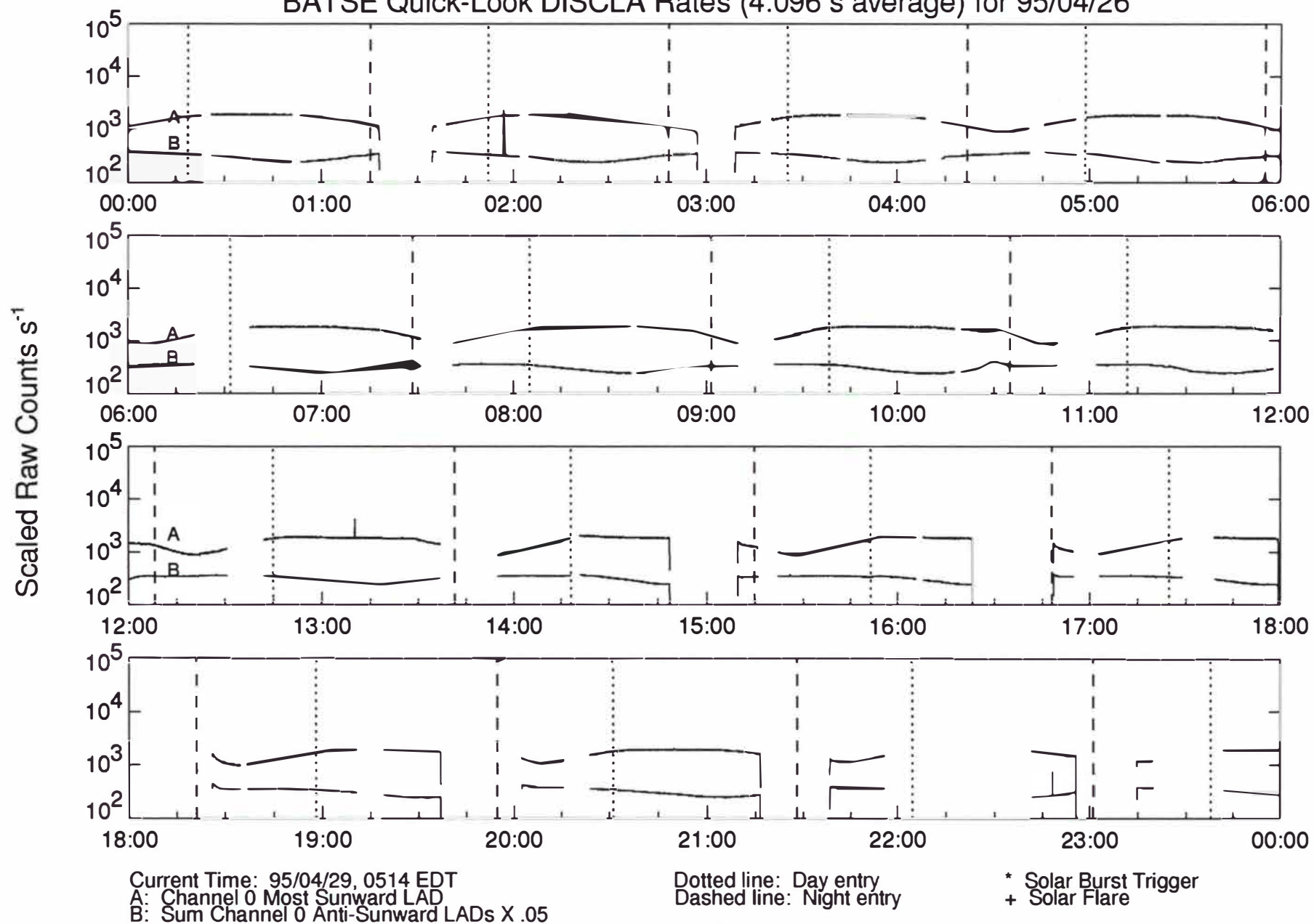
1 (1.0 - 8.0 Angstroms)

Background not subtracted

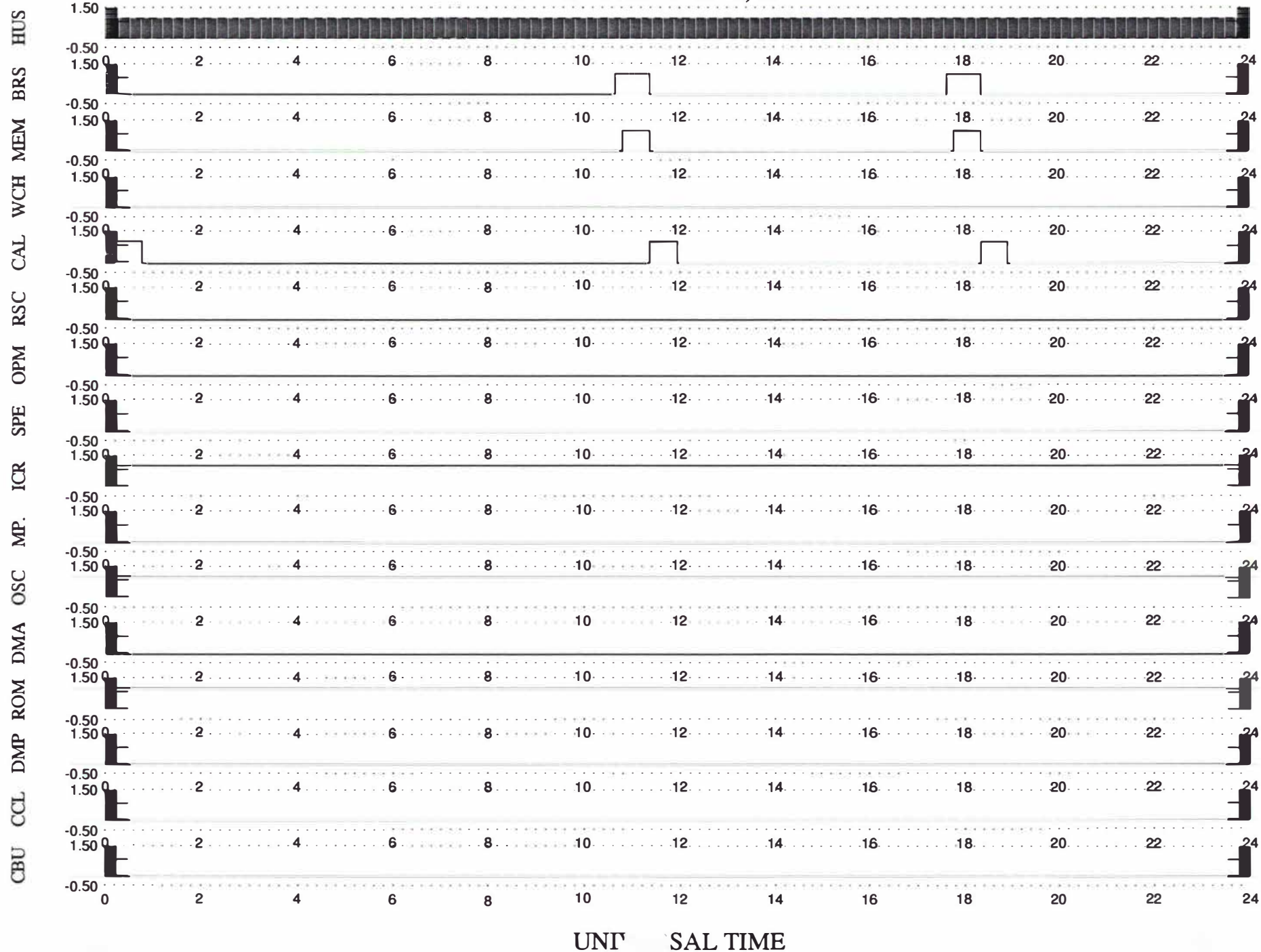
2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/26

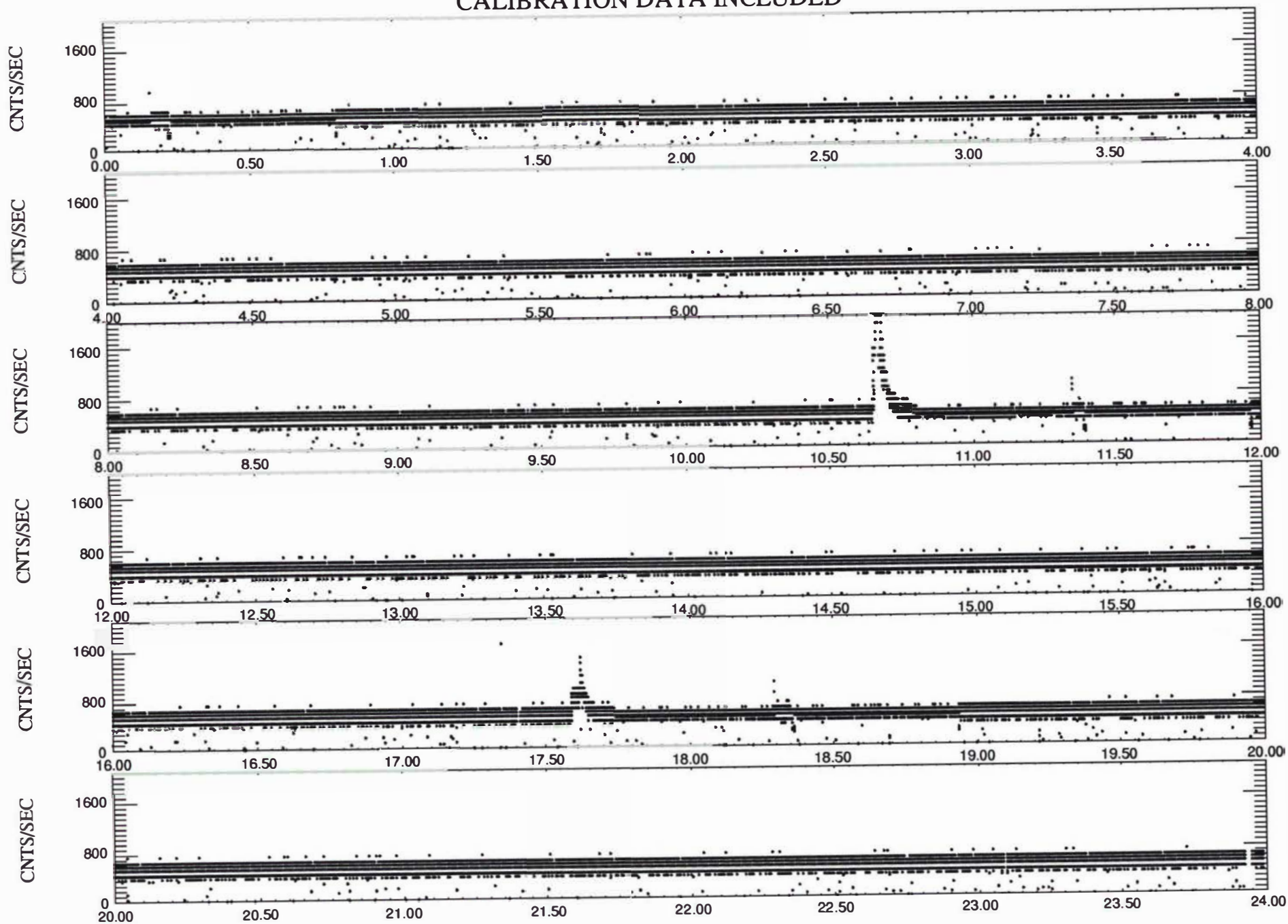


11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 116, year 1995 to day 116, year 1995 CALIBRATION DATA INCLUDED

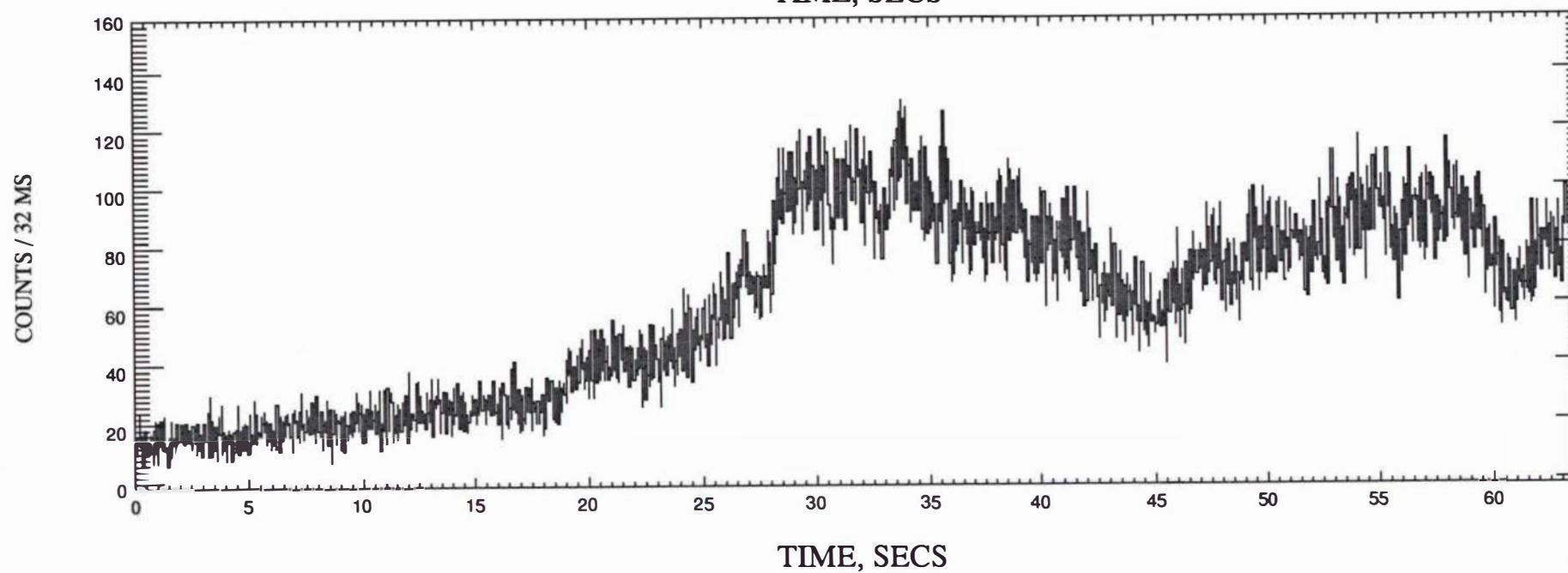
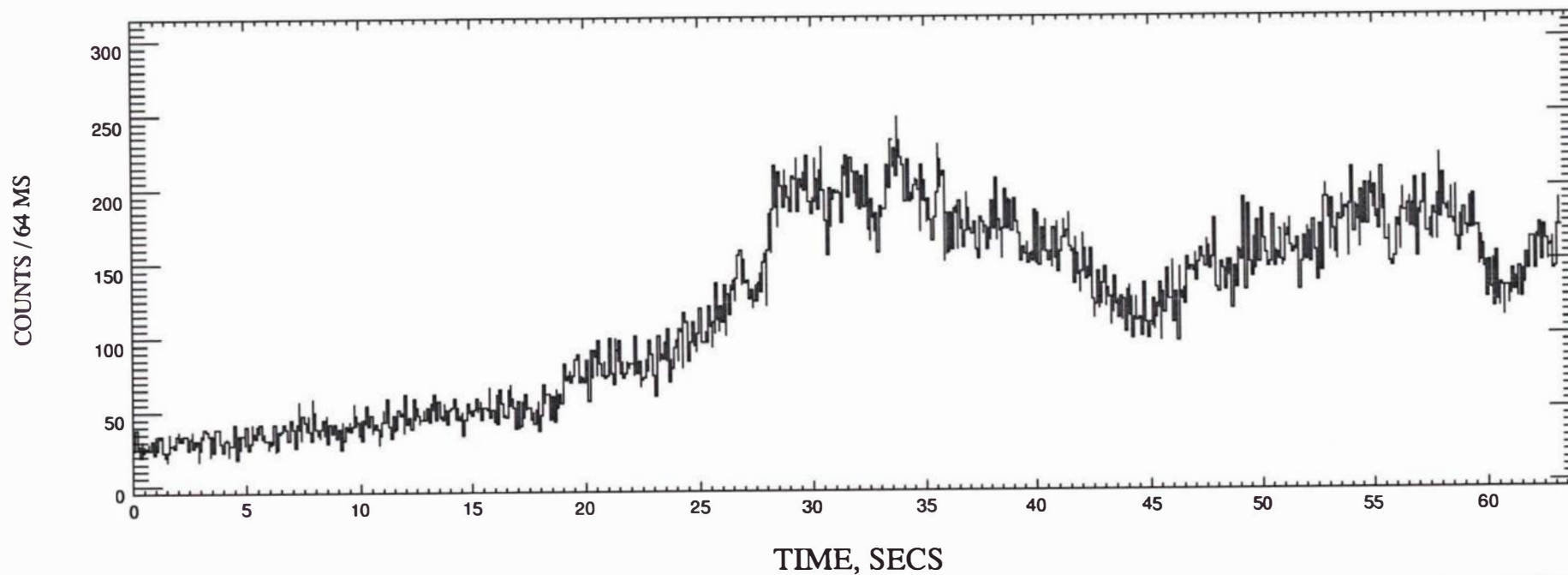
11/16/95



UNIFORM TIME

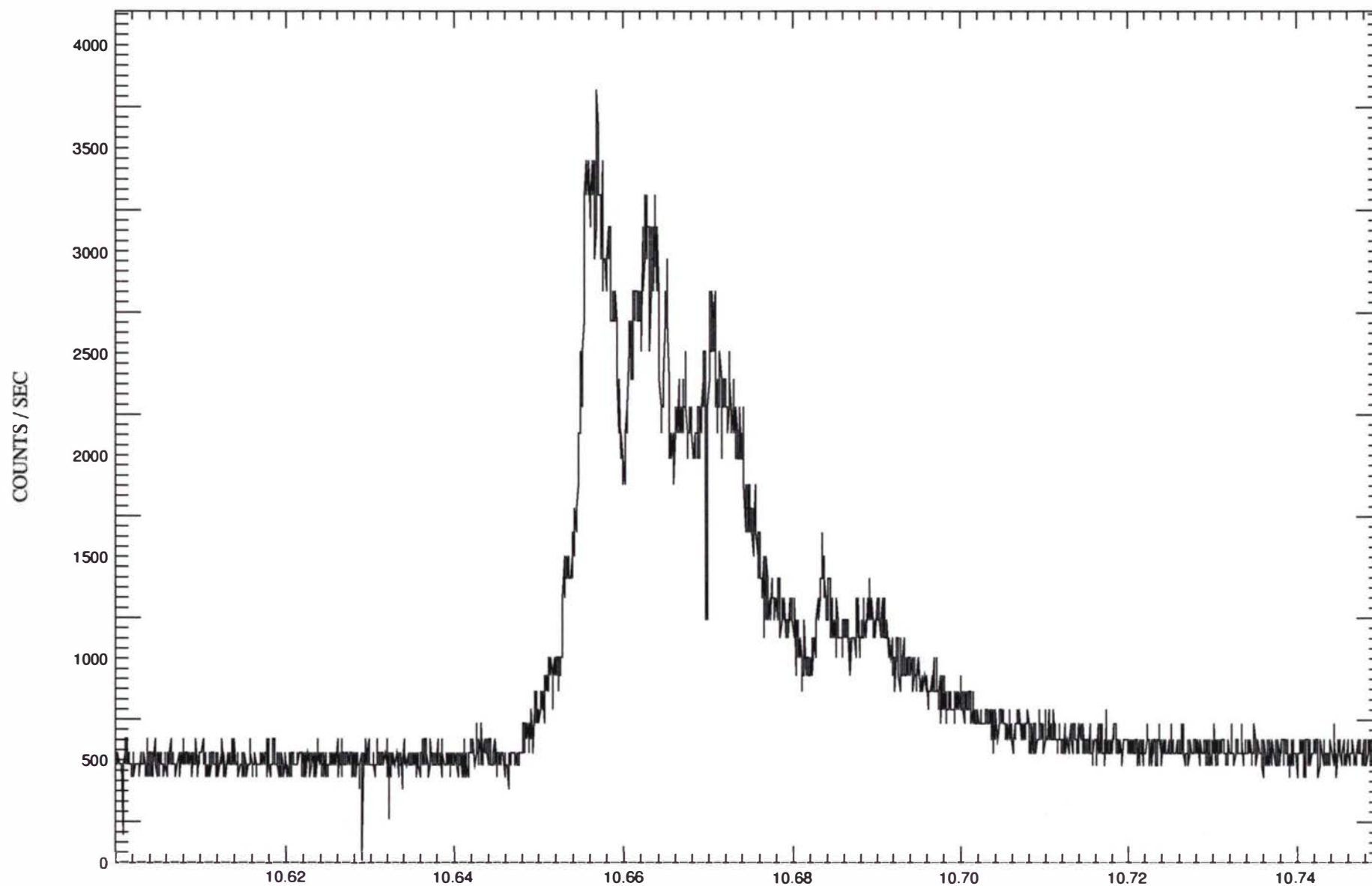
HUS 2A TRIGGERED DATA EDR day 116, year 1995
Burst Counter 12 at UT=10.649774750604 h=38339.189 s 10:38:59.189

11/16/95



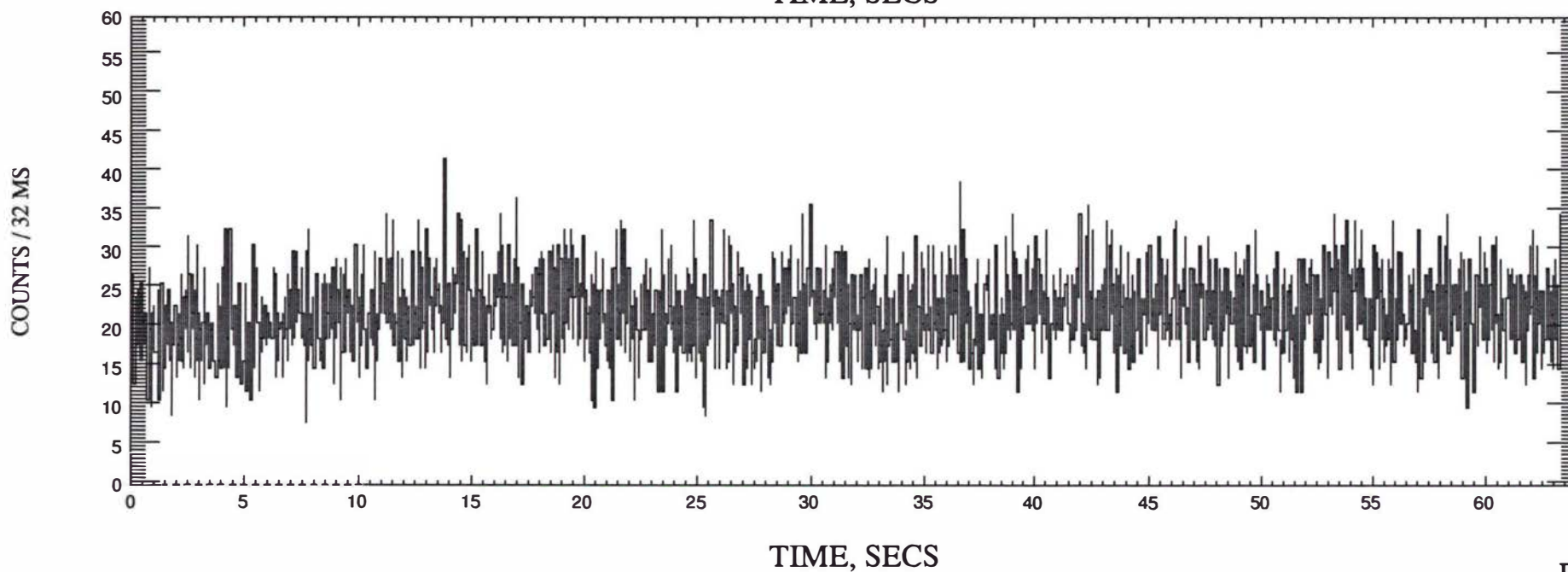
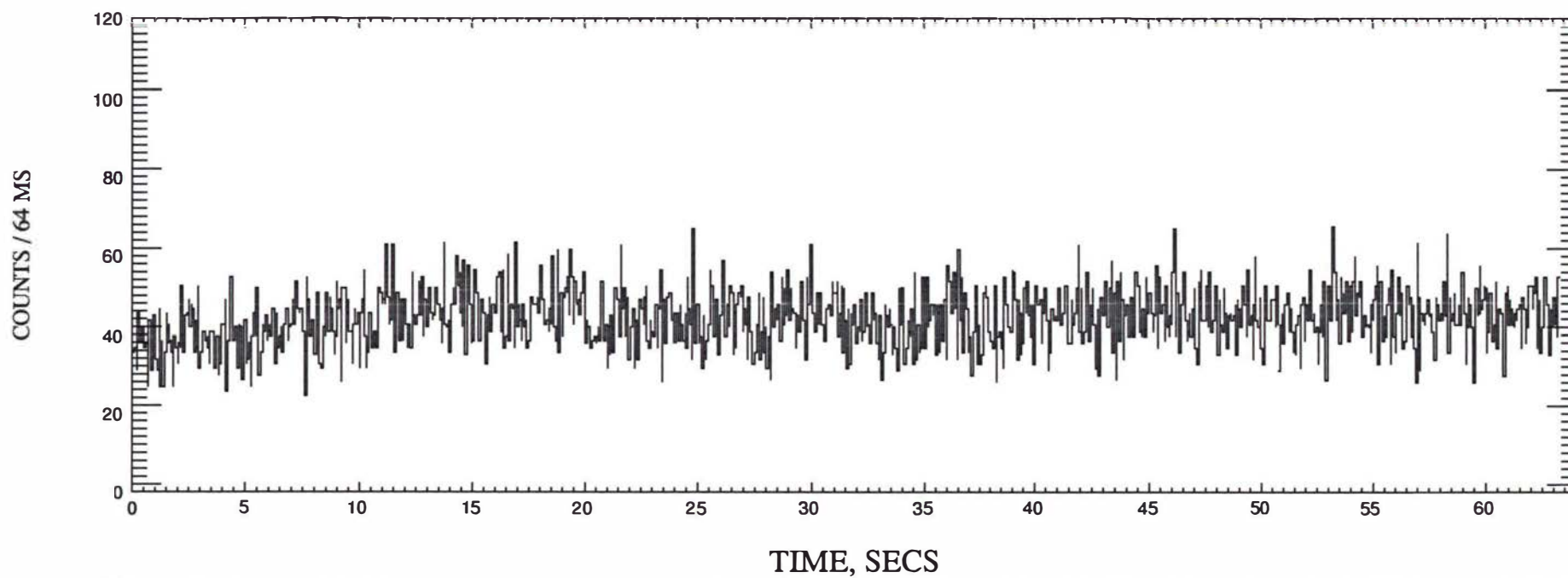
HUS 2A, MODE 1, NOT AVERAGED QEDR day 116, year 1995 to day 116, year 1995
CALIBRATION DATA INCLUDED

5/2/95



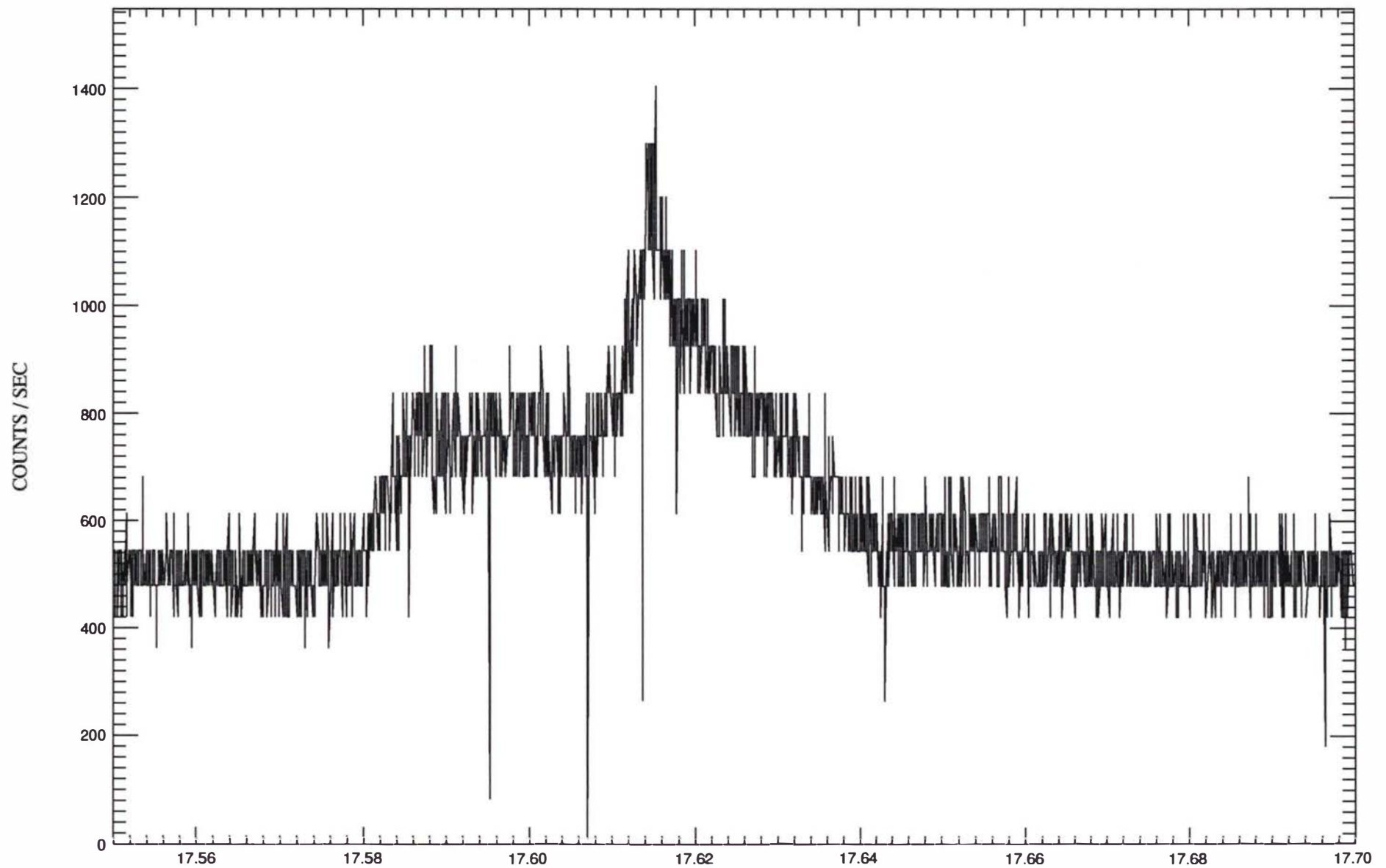
HUS 2A TRIGGERED DATA EDR day 116, year 1995
Burst Counter 13 at UT=17.585081121657 h=63306.292 s 17:35:06.292

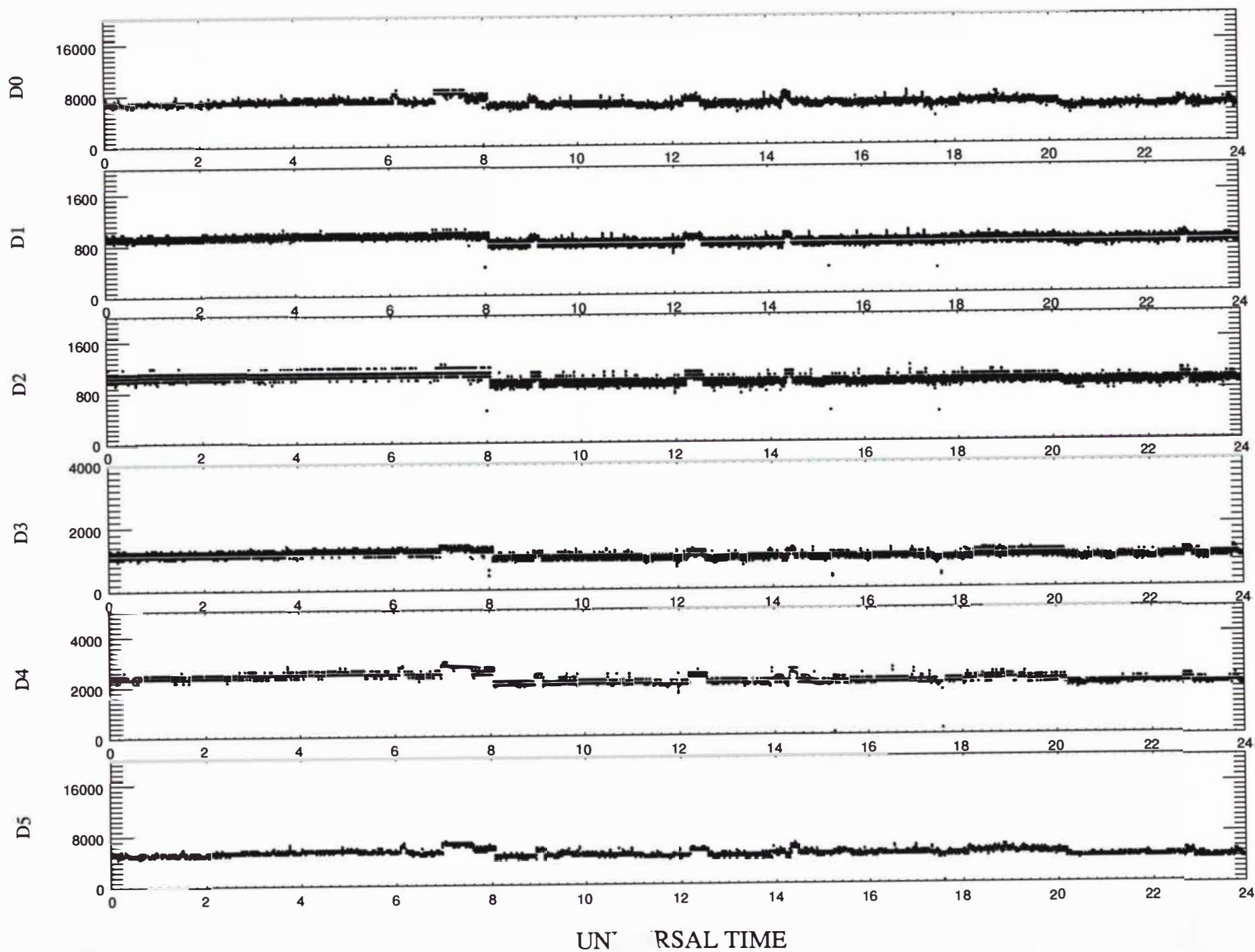
11/16/95



HUS 2A, MODE 1, NOT AVERAGED QEDR day 116, year 1995 to day 116, year 1995
CALIBRATION DATA INCLUDED

5/2/95





950416	13	27	00	S2	80	130	10	<0.2	20			BGR ✓
950418	23	16	33.572	S1	180	530	220	2.7	0.5	15		81 ✓
950419	02	23	48.860	S1	600	3260	2440	1.5	0.2	1.1		82 ✓
950419	11	23	32	S2	70	50	10	<0.15	90			BGR ✓
950419	13	11	40	S1	100	110	30	>15	130			BGR
950419	23	21	17.472	S2	200	400	200	0.35	1	1.5		83
950422	04	05	44.359	S1	1440	400		0.9	15	40		84 Sol ✓
950422	11	45	22.690	S2	12200	1680	60	0.9	30	300		85 Sol ✓
950425	00	15	23.718	S1	1200	2780	1820	2.4	0.5	65		86 ✓
950425	18	12	59.017	S2	230	330		0.97	3	4		87
950427	14	39	12	S1	20	60	40	>8	20			BGR
950430	15	03	44	S2	30	100	20	0.5	6			BGR ✓
950430	18	30	00	S2	120	140	20	0.1	9			BGR
950501	03	25	04	S2	120	130	25	<0.1	9			BGR ✓
950503	06	54	25	S2	60	80	15	0.3	60			BGR
950503	18	36	11.838	S1	1140	4200	3140	1.9	0.2	115		88 ✓
950505	14	52	57	S2	260	150	30	<0.1	9			BGR
950505	14	58	59.053	S1	540	420	45	12	12	30		89
950506	23	25	10	S2	280	65		<0.15	15			BGR
950507	01	59	22	S2	25	90	30	<0.1	12			BGR
950509	12	49	42	S2	75	150	30	0.1	18			BGR ✓
950510	07	48	03.509	S1	640	630	160	>15	2	15		90 ✓
950510	21	34	45	S2	30	60	30	<0.1	25			BGR
950512	00	16	43.891	S1	2770	6300	1830	2.8	0.1	56		91 ✓
950513	07	24	52.760	S2	1800	550		0.85	9	26		92 Sol
950513	22	41	46.917	S1	720	1360	520	10	1	30		93 ✓
950514	20	46	14	S1	30	60	15	2	30			BGR
950515	00	54	48.326	S1	360	630	70	2.3	1	8		94
950515	06	24	37.820	S1	350	400		2.3	2	50		95
950520	23	07	51.404	S1	600	1560	1310	5	0.08	0.25		96
950521	06	59	21.588	S1	200	280	50	3.7	8	50		97 ✓
950522	06	38	18.964	S1	290	410	320	18	2.5	7		98 ✓
950522	10	58	44.307	S2	190	440	180	1.3	2	90		99 ✓
950522	23	41	20.844	S1	100	420	280	1.1	1	150		100 ✓
950523	05	39	19	S2	70	110	15	0.4	60			BGR ✓
950523	08	41	42.284	S1	1290	2770	710	18	0.2	3		101 ✓
950524	04	08	22.670	S2	110	300	140	0.95	2	1		102 ✓
950526	04	36	53.640	S2	390	530	360	0.05	1	62		103
950601	09	29	42	S2	270	60	20	<0.15	62			BGR
950602	07	06	32.777	S1	140	310	180	>10	1	180		104 ✓
950603	05	54	17.810	S1	180	300	170	10	2	12		105
950606	19	59	24	S2	80	40		<0.15	26			BGR
950608	22	36	37.603	S1	350	450	150	>25	140	12		106 ✓
950609	04	54	19	S1	50	100	40	2	6			BGR
950610	01	54	09.095	S1	240	520	160	5	6	17		107 ✓
950610	05	18	16.034	S2	1060	3250	1300		0.03	0.07		108
950611	05	52	12	S1	100	110	40	7	200			BGR ✓
950614	00	12	47	S1	110	50		5	18			BGR
950615	14	37	32	S2	50	40		<0.1	25			BGR
950616	12	49	37	S2	90	100	25	<0.06	180			BGR
950622	19	51	10	S2	70	100	50	0.3	8			BGR
950624	03	29	58	S2	40	40		<0.1	90			BGR ✓
950624	23	22	04.417	S2	150	540	130	<0.5	41	100		111 ✓
950625	02	41	29.448	S2	200	240	30	<0.1	25	4		112
950625	04	03	46.011	S2	120	360	120	0.9	3	5		113 ✓
950625	05	19	36.832	S1	290	630	140	1.6	1	6		114
950626	13	37	42	S2	160	120	20	<0.1	60			BGR
950627	15	46	00	S1	100	50		>5	180			BGR ✓
950628	09	32	08	S2	20	90	10	0.7	100			BGR
950629	10	17	13.034	S1	70	250	80	2	1	6		115 ✓
950701	03	32	42.114	S1	340	1400	580	1.3	1	30		116 ✓
950701	06	35	37.604	S2	570	1600	700	0.05	1	11		117 ✓
950701	23	58	49.800	S2	1600	770	70	0.9	48	250		118 Sol
950702	12	09	32	S1	110	70		4.5	15			BGR
950703	05	33	38.718	S1	260	870	560	2.5	15	120		119 ✓
950704	03	10	31.823	S1	2600	5600	2600	4	0.6	4		120 ✓

From cline@lheavx.gsfc.nasa.gov Fri Feb 2 05:41 PST 1996
 Date: Fri, 2 Feb 1996 05:41:51 -0800
 Mime-Version: 1.0
 To: Bonnard.Teegarden@cesr.cnes.fr, KHURLEY@sunspot.ssl.berkeley.edu,
 palmer@lheamail.gsfc.nasa.gov, seifert@lheamail.gsfc.nasa.gov
 From: cline@lheavx.gsfc.nasa.gov (T L Cline)
 Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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

K O N U S

1 5 / 2 / 9 6

U L Y S S E S R T

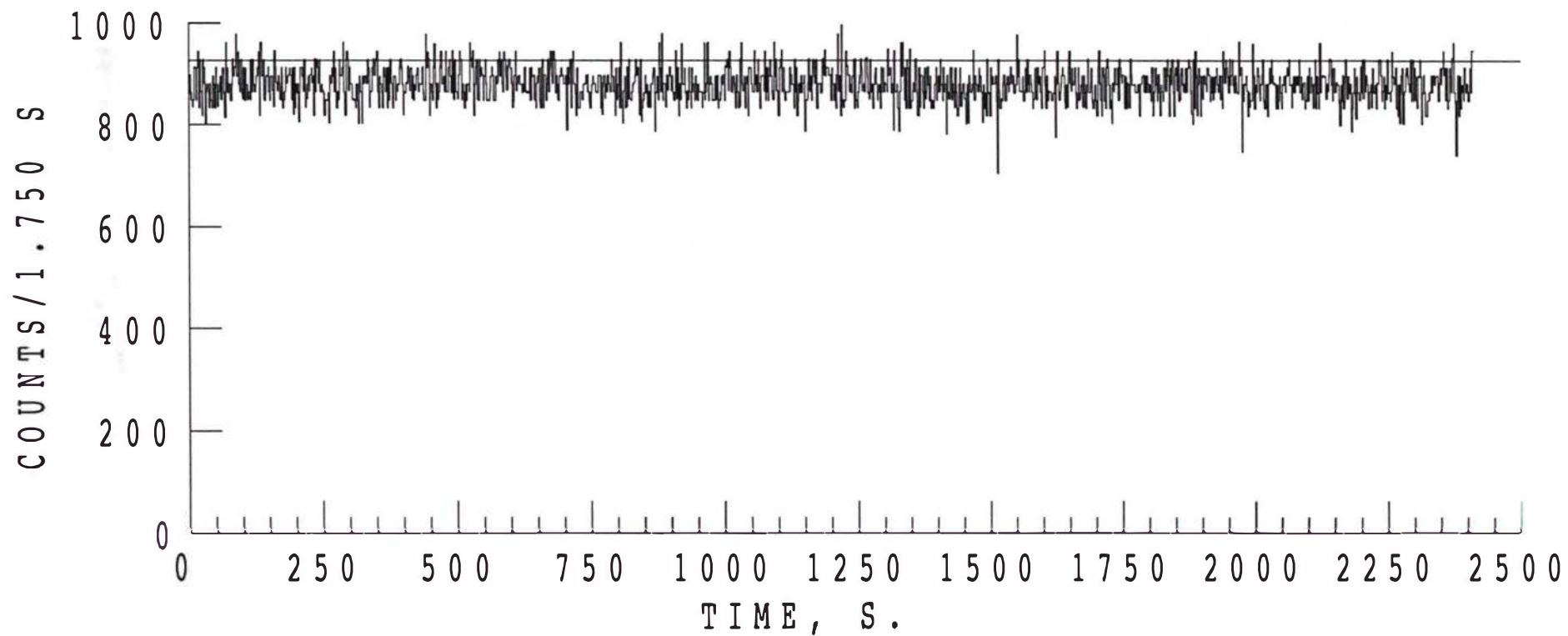
2 7 / 4 / 9 5 5 1 5 5 2 . 2 2 3 s

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

W = 10 M = 2

> 4.0 SIGMA FLUCTUATIONS



From HAGEDON@ssl.msfc.nasa.gov Fri Apr 28 10:07 PDT 1995
Date: Fri, 28 Apr 1995 12:06:40 -0500 (CDT)
From: HAGEDON@ssl.msfc.nasa.gov
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
"LHEAVX::CLINE"@ssl.msfc.nasa.gov,
"LHEAVX::BARTHELMY"@ssl.msfc.nasa.gov,
"15733::SCHAEFER"@ssl.msfc.nasa.gov, "CASS09::BAND"@ssl.msfc.nasa.gov,
"CASS09::GRUBER"@ssl.msfc.nasa.gov
X-Vmsmail-To: @mops\$send_msg:BURST_SPAN.DIS
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3525

TIME: TJD=9834 SECONDS=79928

TYPE: SAA

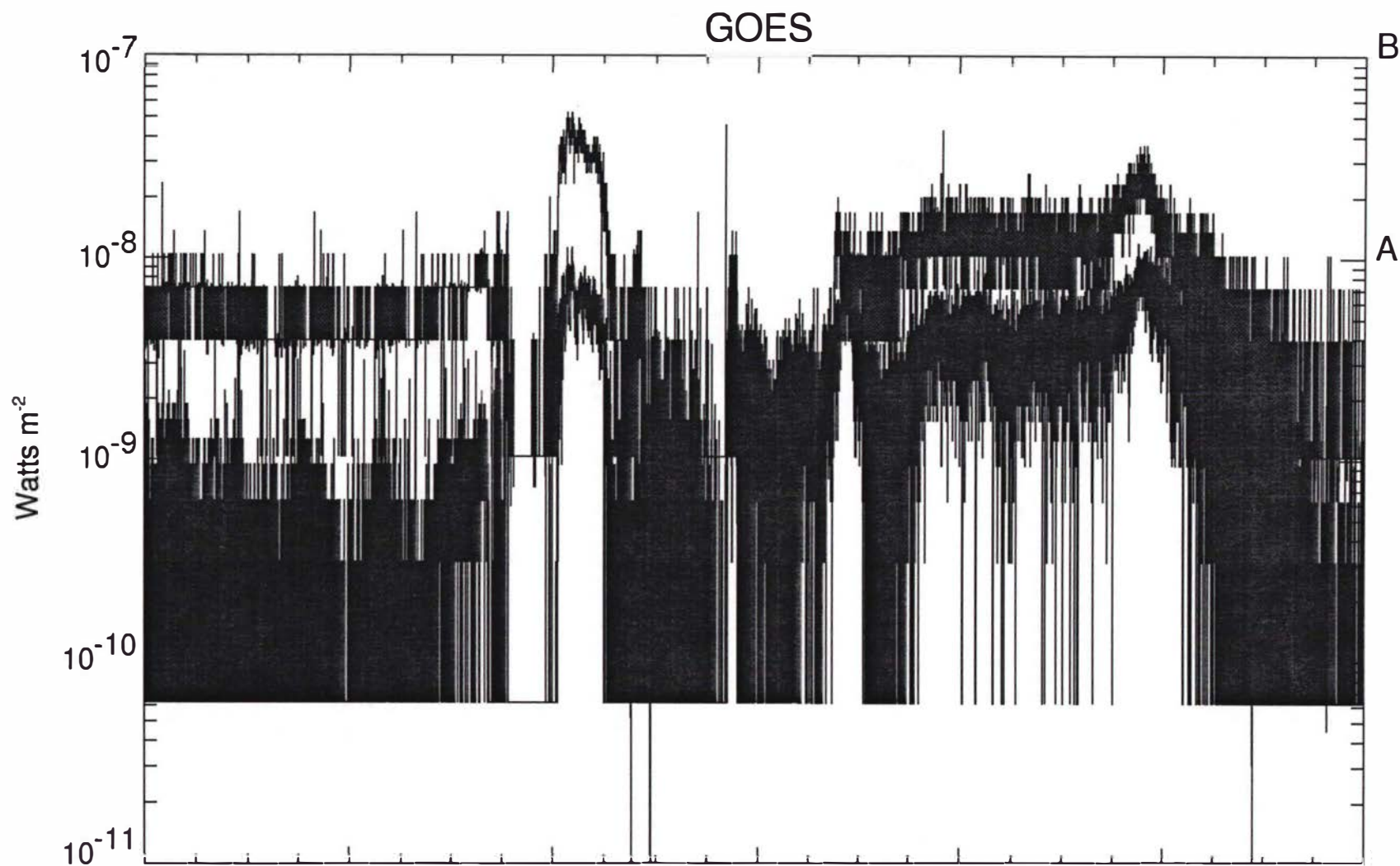
SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
SAA ENTRY.



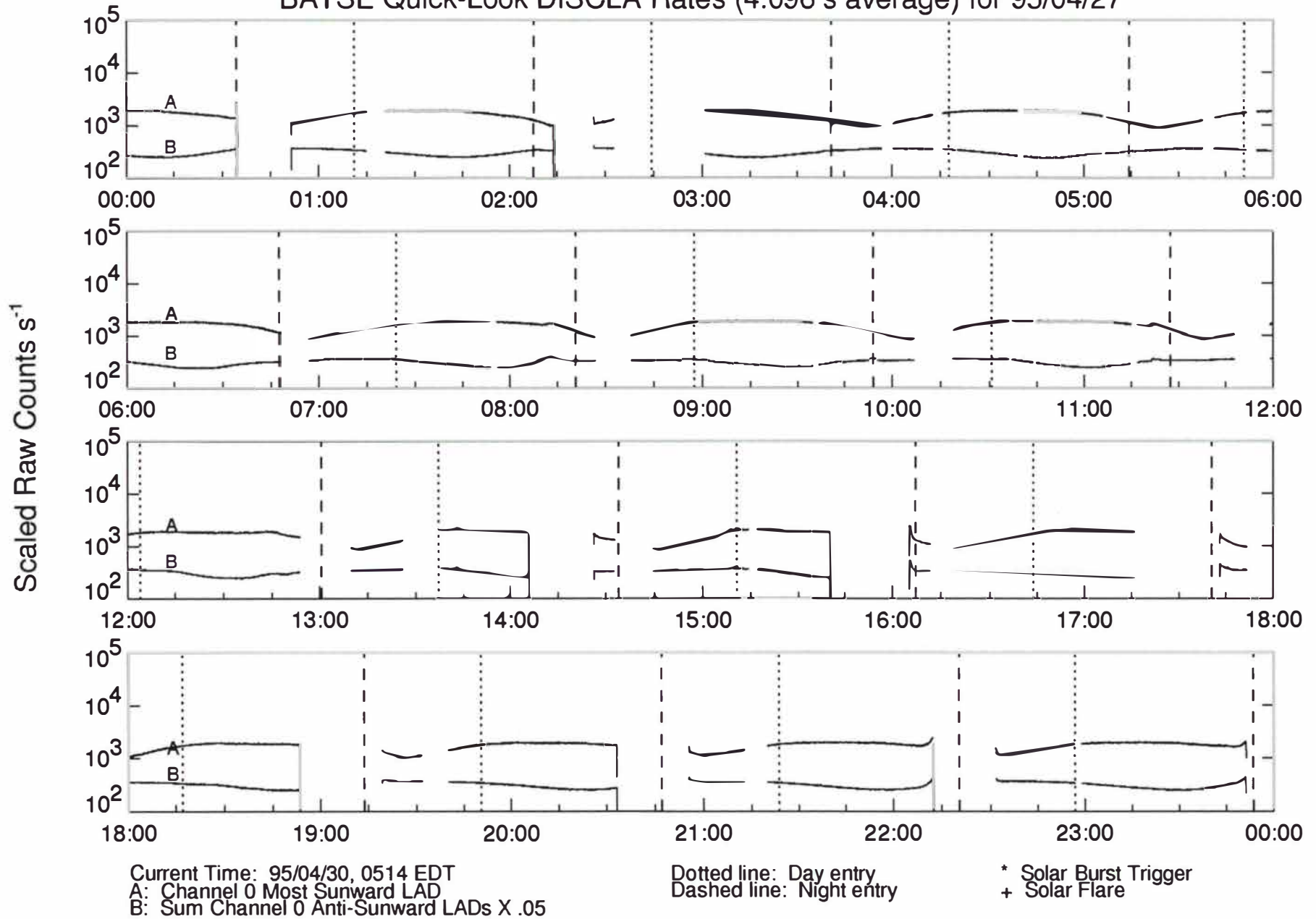
Data Start: 95/04/27, 0000:02

Plot created: 95/04/30, 0513

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

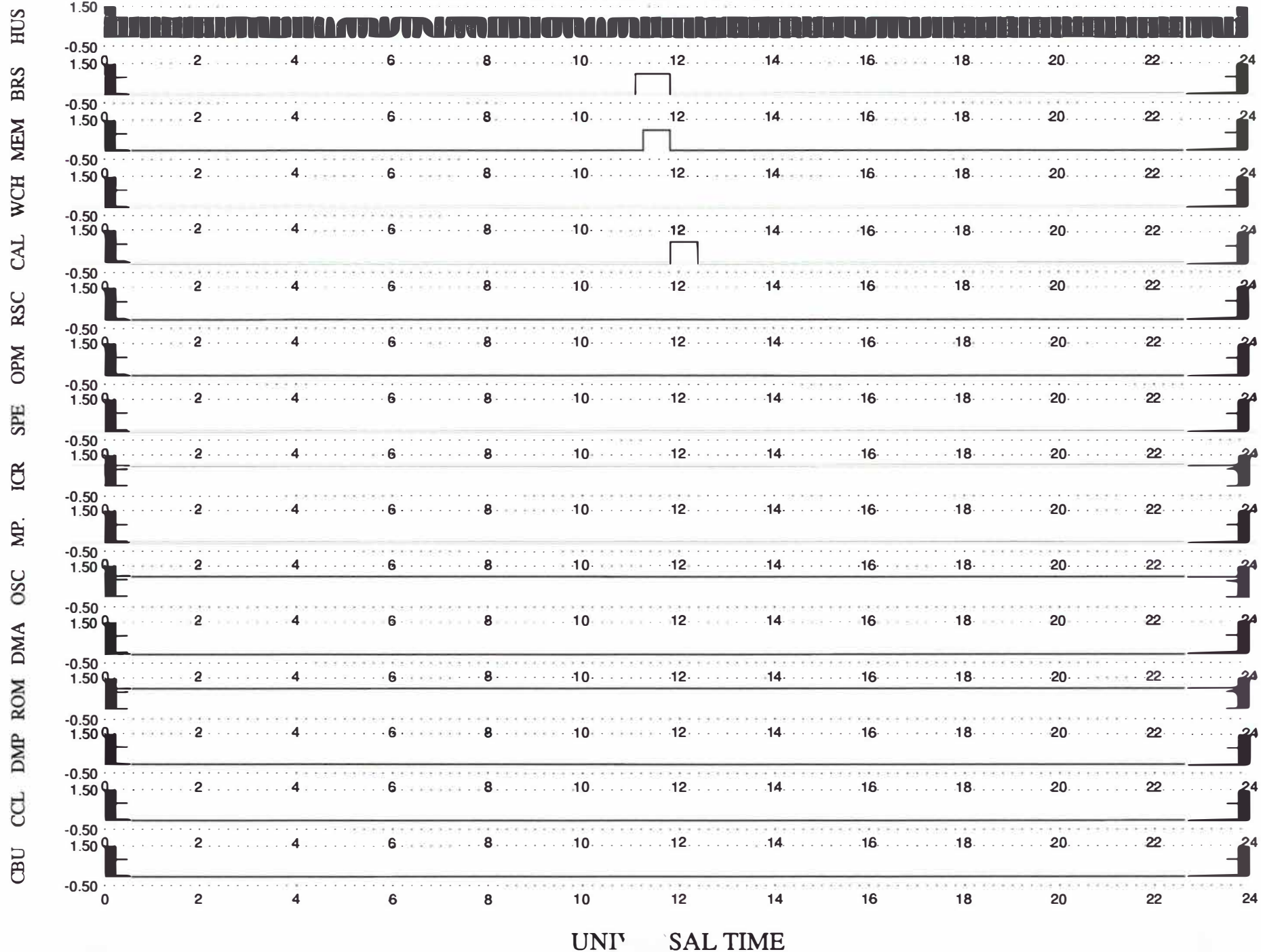
Channel 2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/27



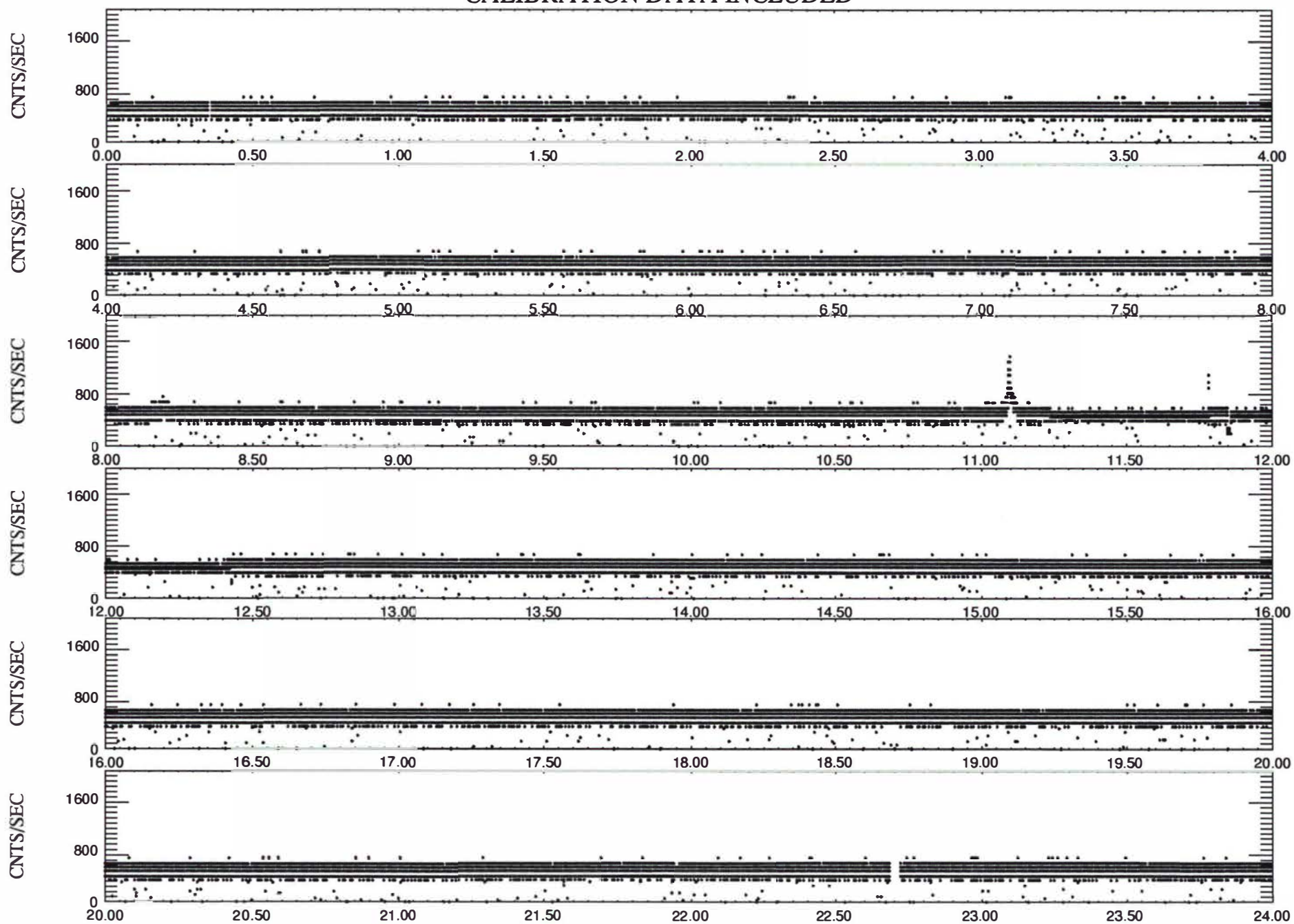
HUS MODES EDR day 117, year 1995 to day 117, year 1995
BURST NUMBER 14

11/16/95



HUS 2A, MODE 1, NOT AVERAGED EDR day 117, year 1995 to day 117, year 1995
CALIBRATION DATA INCLUDED

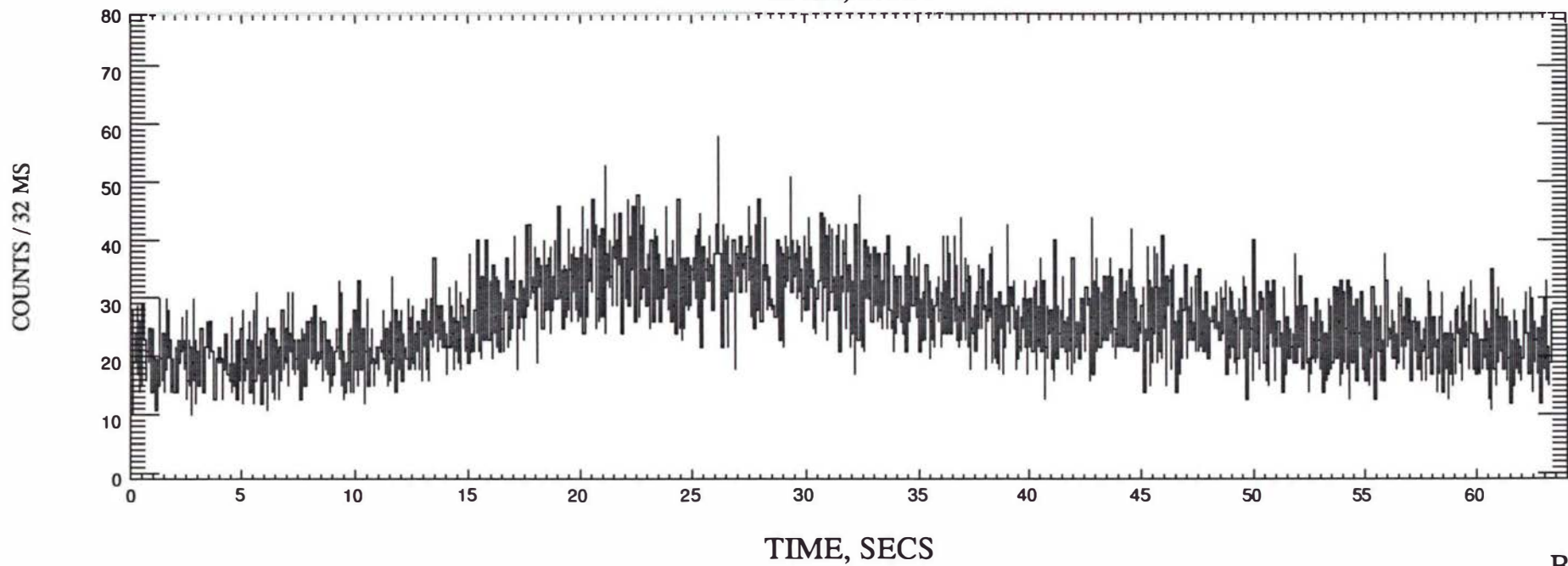
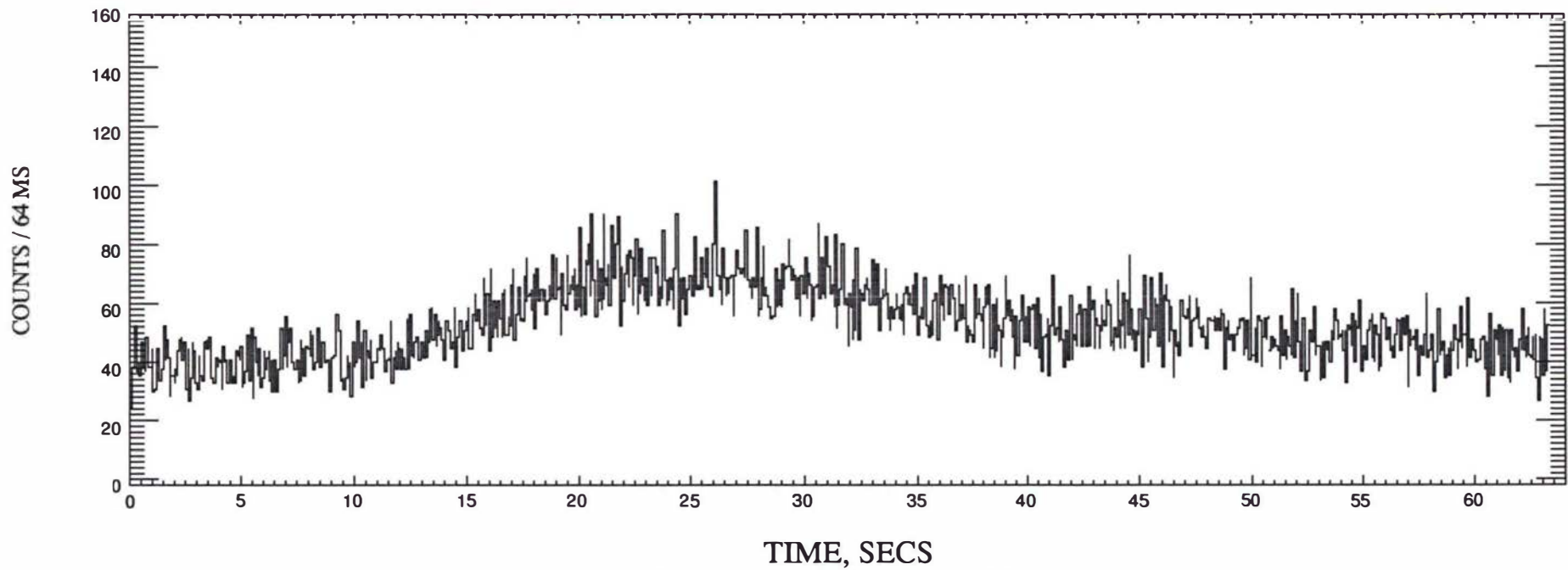
11/16/95



UNIFORM SAL TIME

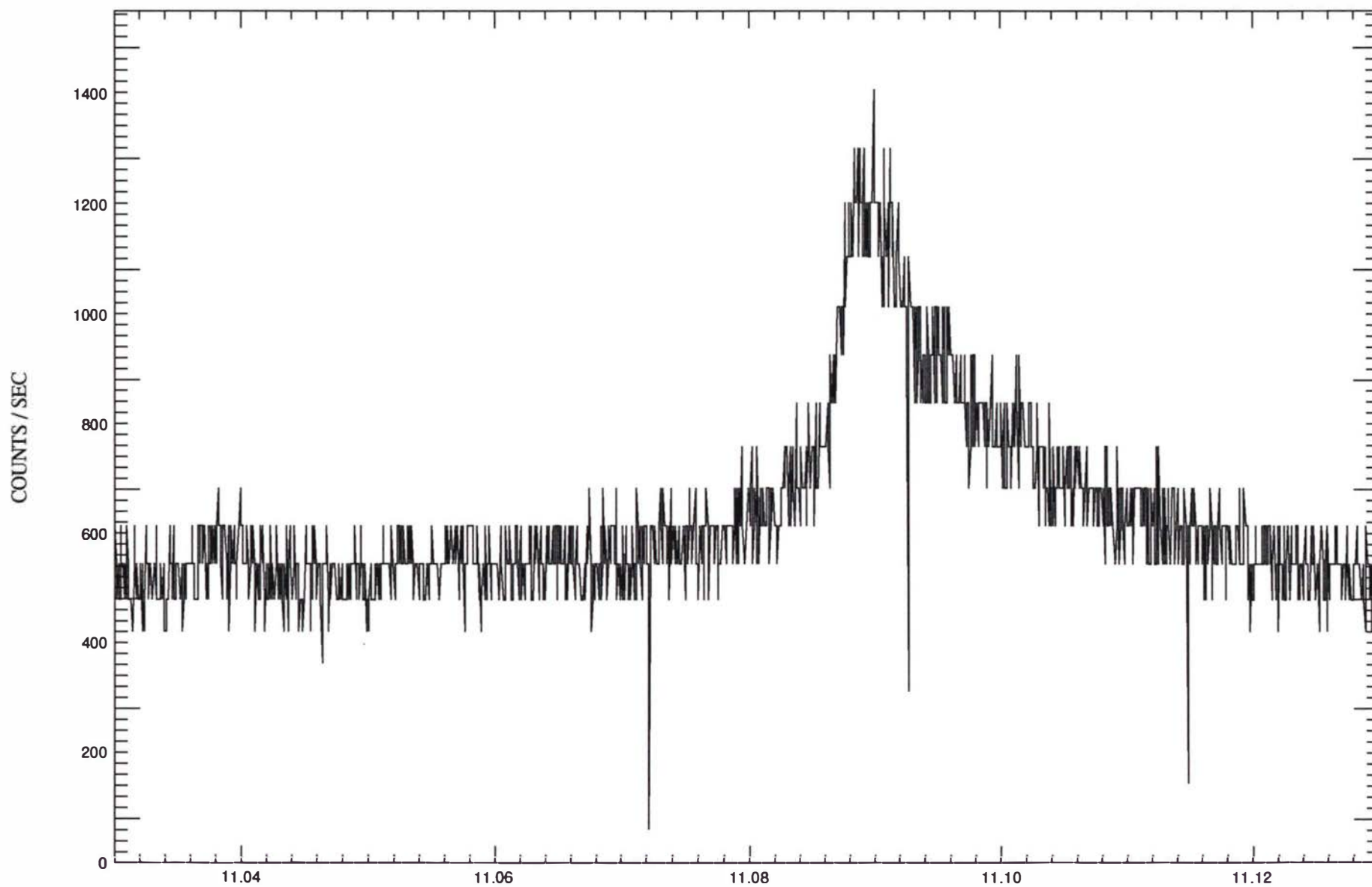
HUS 2A TRIGGERED DATA EDR day 117, year 1995
Burst Counter 14 at UT=11.084858474731 h=39905.491 s 11:05:05.491

11/16/95



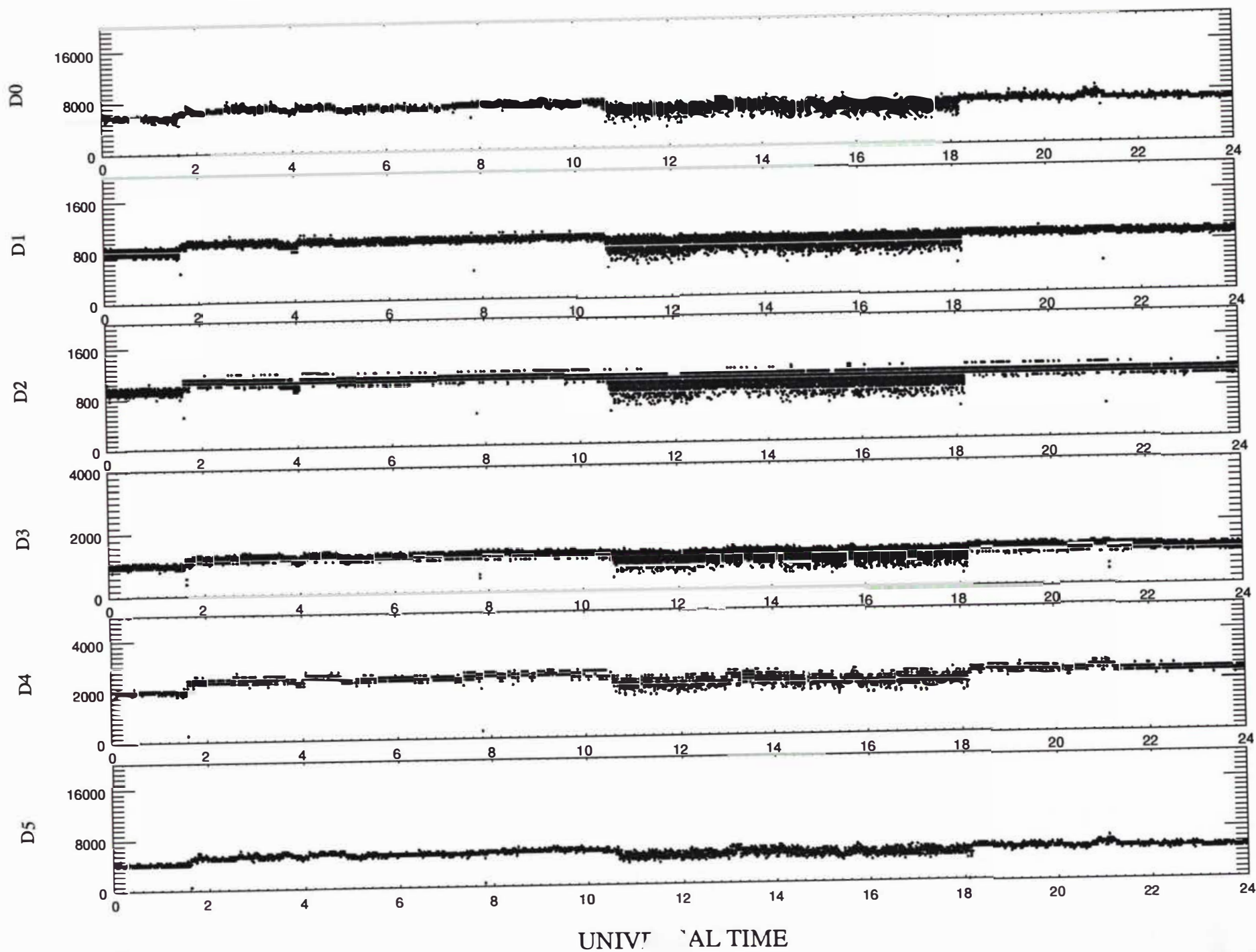
HUS 2A, MODE 1, NOT AVERAGED QEDR day 117, year 1995 to day 117, year 1995
CALIBRATION DATA INCLUDED

5/1/95



HUS 2B COUNTS / SEC QEDR day 117, year 1995 to day 117, year 1995

5/1/95



From RICHARDSON@ssl.msfc.nasa.gov Mon May 1 04:55 PDT 1995
Date: Mon, 1 May 1995 6:55:26 -0500 (CDT)
From: RICHARDSON@SSLLES.MSFC.NASA.GOV
To: burst@comptel.unh.edu, grobad@vmprofs.estec.esa.nl,
"LHEAVX::CLINE"@SSLLES.MSFC.NASA.GOV,
"LHEAVX::BARTHELMY"@SSLLES.MSFC.NASA.GOV,
"15733::SCHAEFER"@SSLLES.MSFC.NASA.GOV,
"CASS09::BAND"@SSLLES.MSFC.NASA.GOV
X-Vmsmail-To: @mops\$send_msg:BURST_SPAN.DIS
Subject: Burst Trigger Message

BATSE BURST TRIGGER

NO.: 3526

TIME: TJD=9835 SECONDS=47005

TYPE: ELECTRO

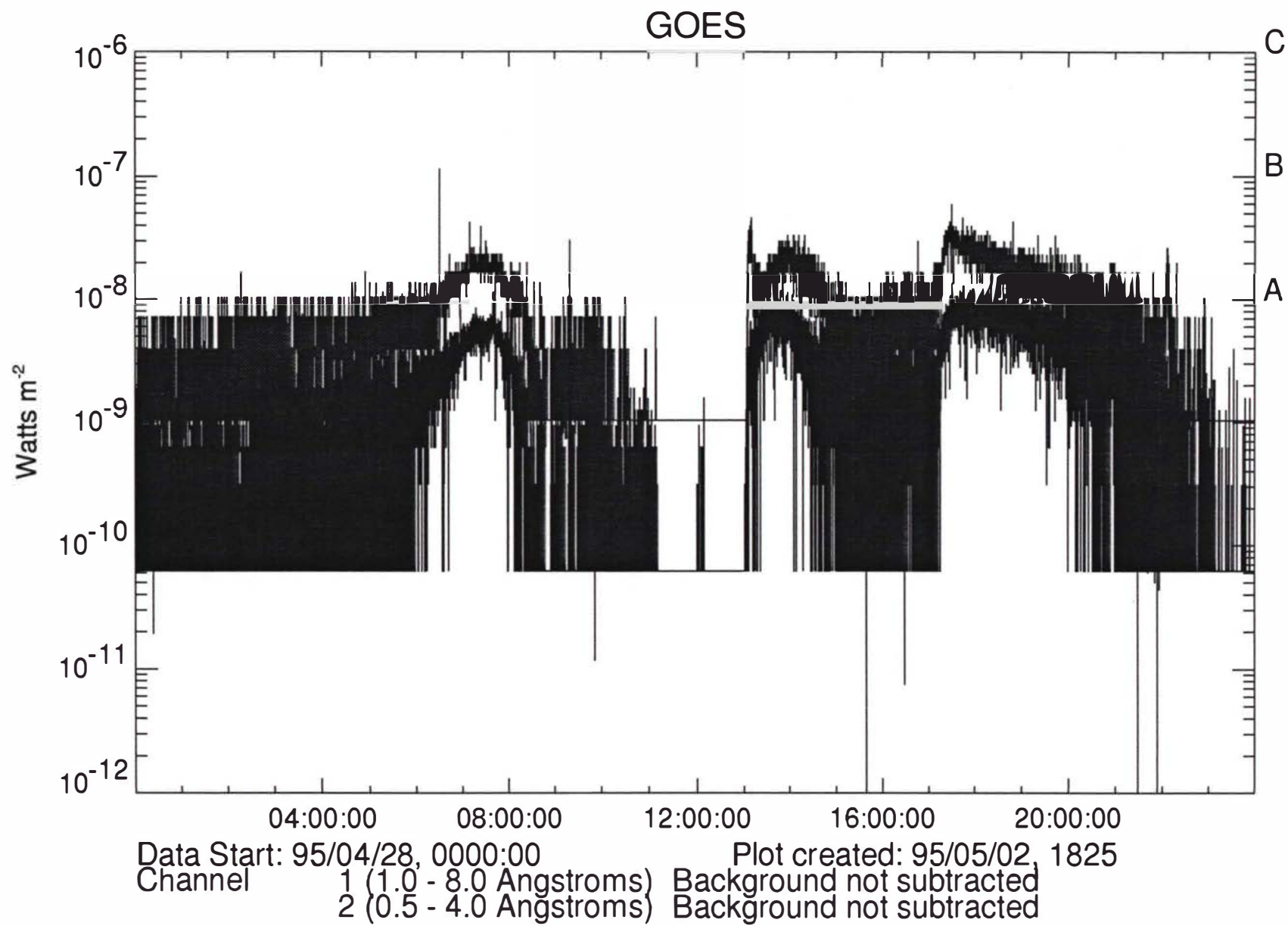
SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

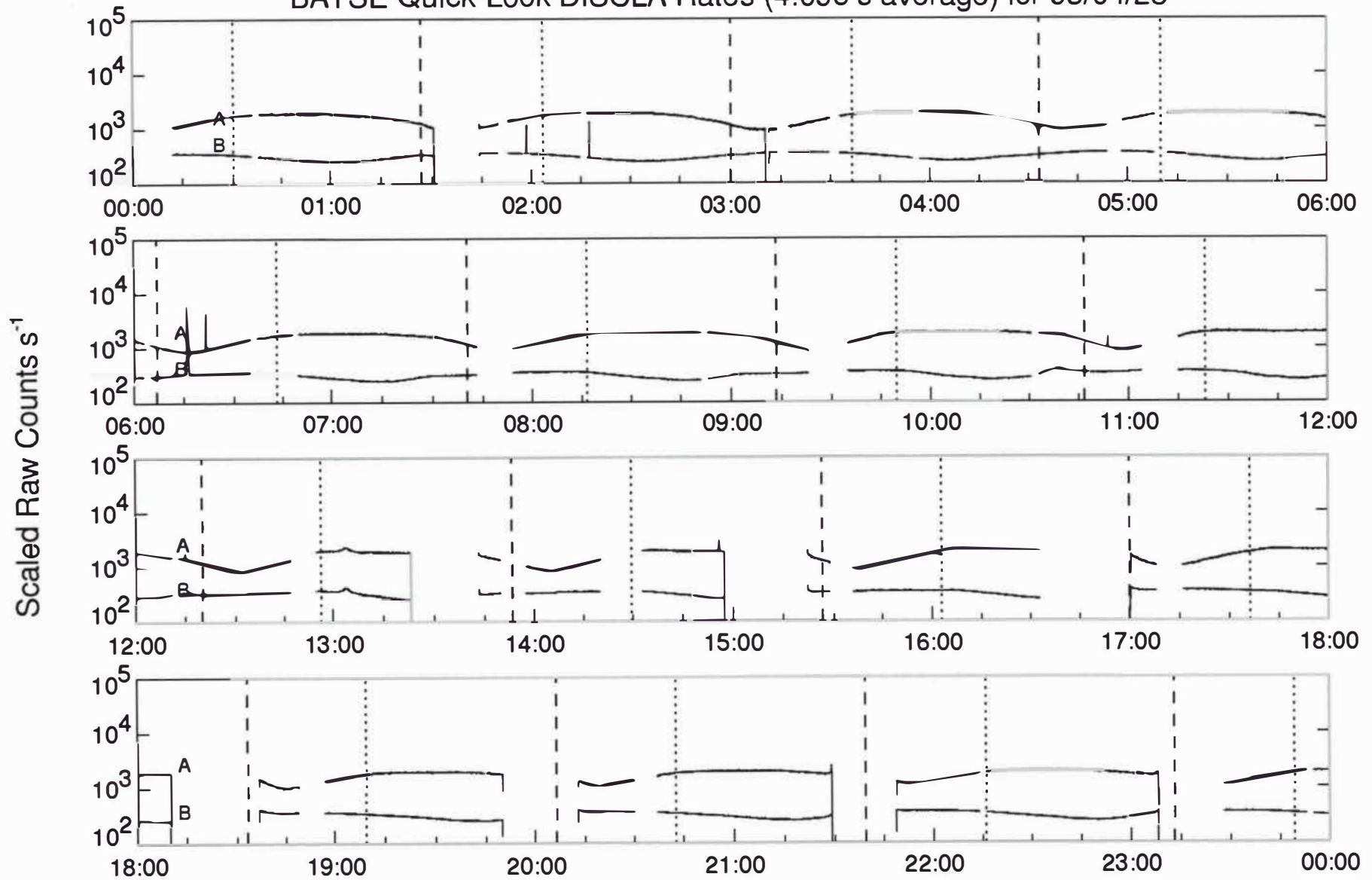
INTENSITY: COUNTS/CM2

LOCATION: ZENITH= AZIMUTH= ERROR= DEGREES

COMMENTS:
ELECTRON EVENT



BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/28



Current Time: 95/05/02, 1826 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

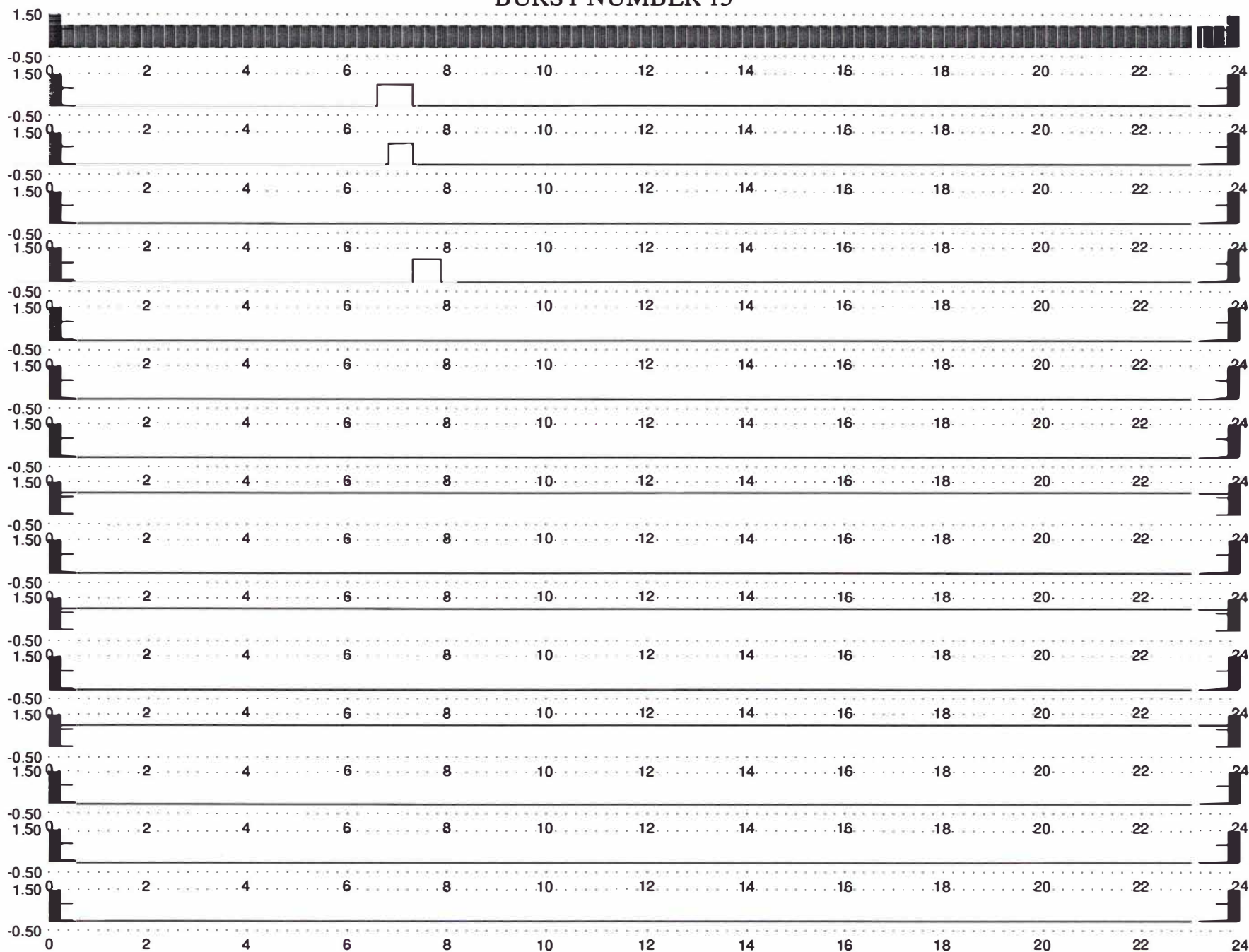
Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

HUS MODES EDR day 118, year 1995 to day 118, year 1995 BURST NUMBER 15

11/16/95

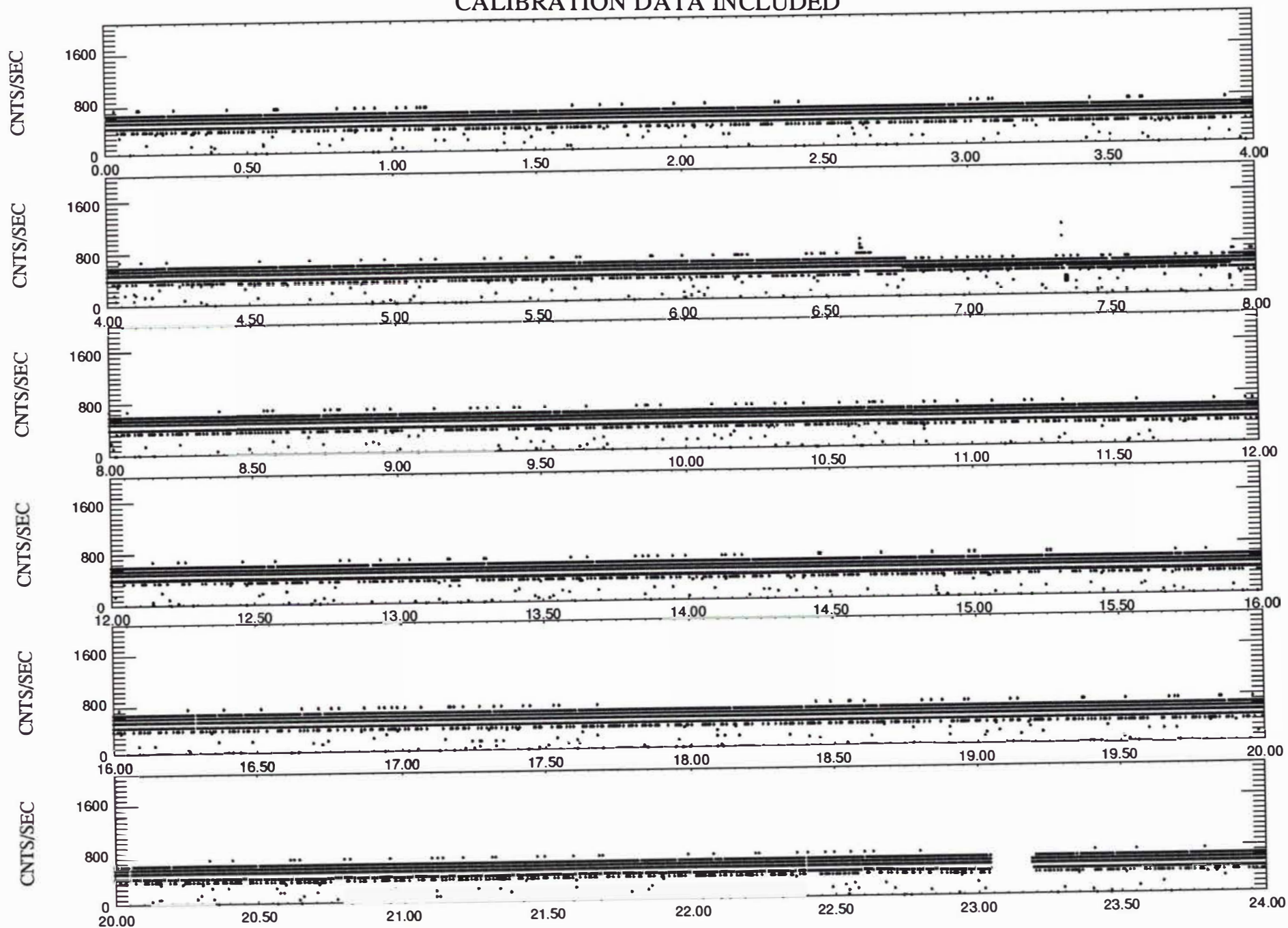
CPU CCL DMP ROM DMA OSC MP. ICR SPE OPM RSC CAL WCH MEM BRS HUS



UNIT SAL TIME

HUS 2A, MODE 1, NOT AVERAGED EDR day 118, year 1995 to day 118, year 1995
CALIBRATION DATA INCLUDED

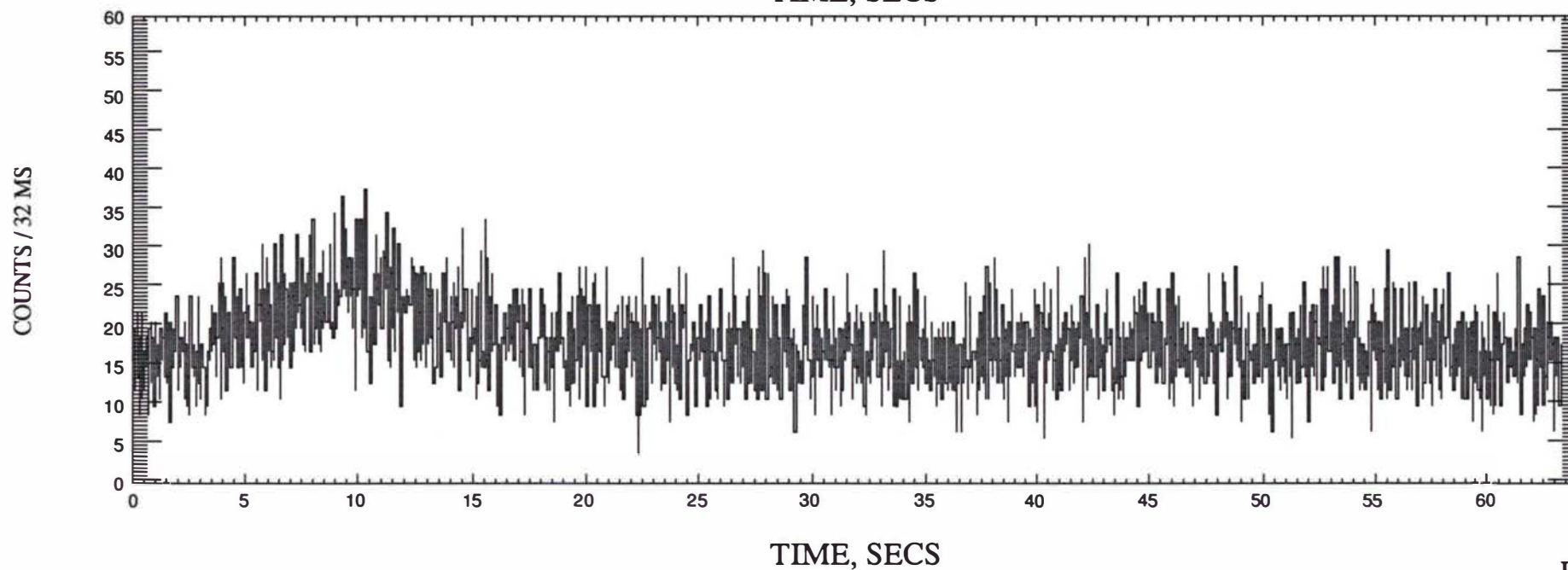
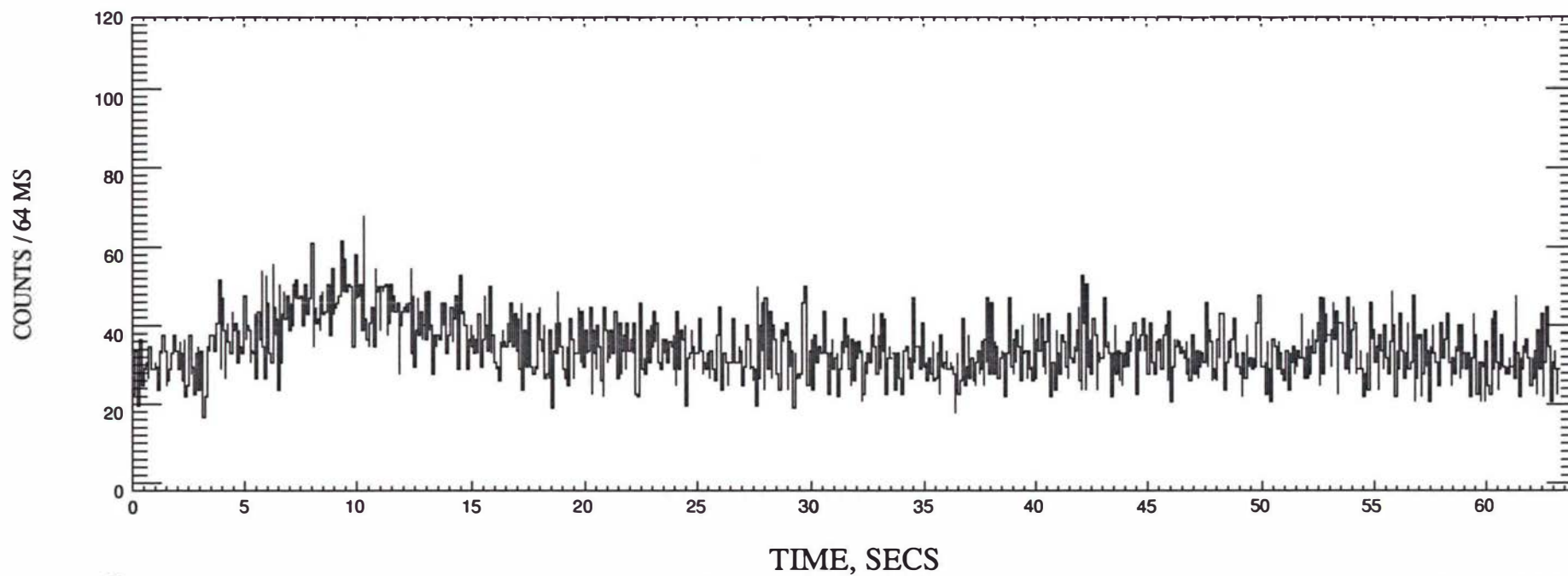
11/16/95



UNIFORM SAL TIME

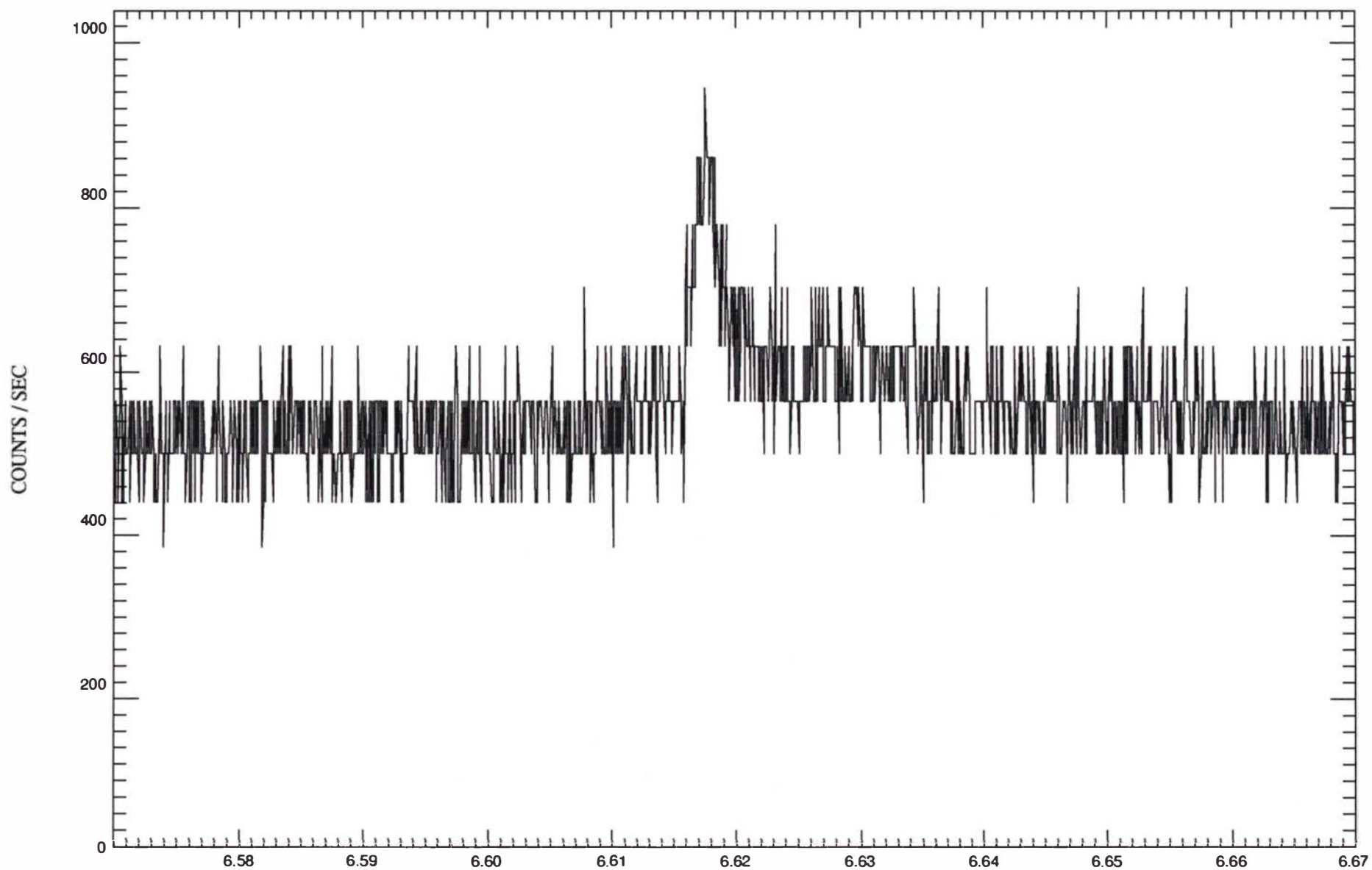
HUS 2A TRIGGERED DATA EDR day 118, year 1995
Burst Counter 15 at UT= 6.617105331421 h=23821.579 s 06:37:01.579

11/16/95



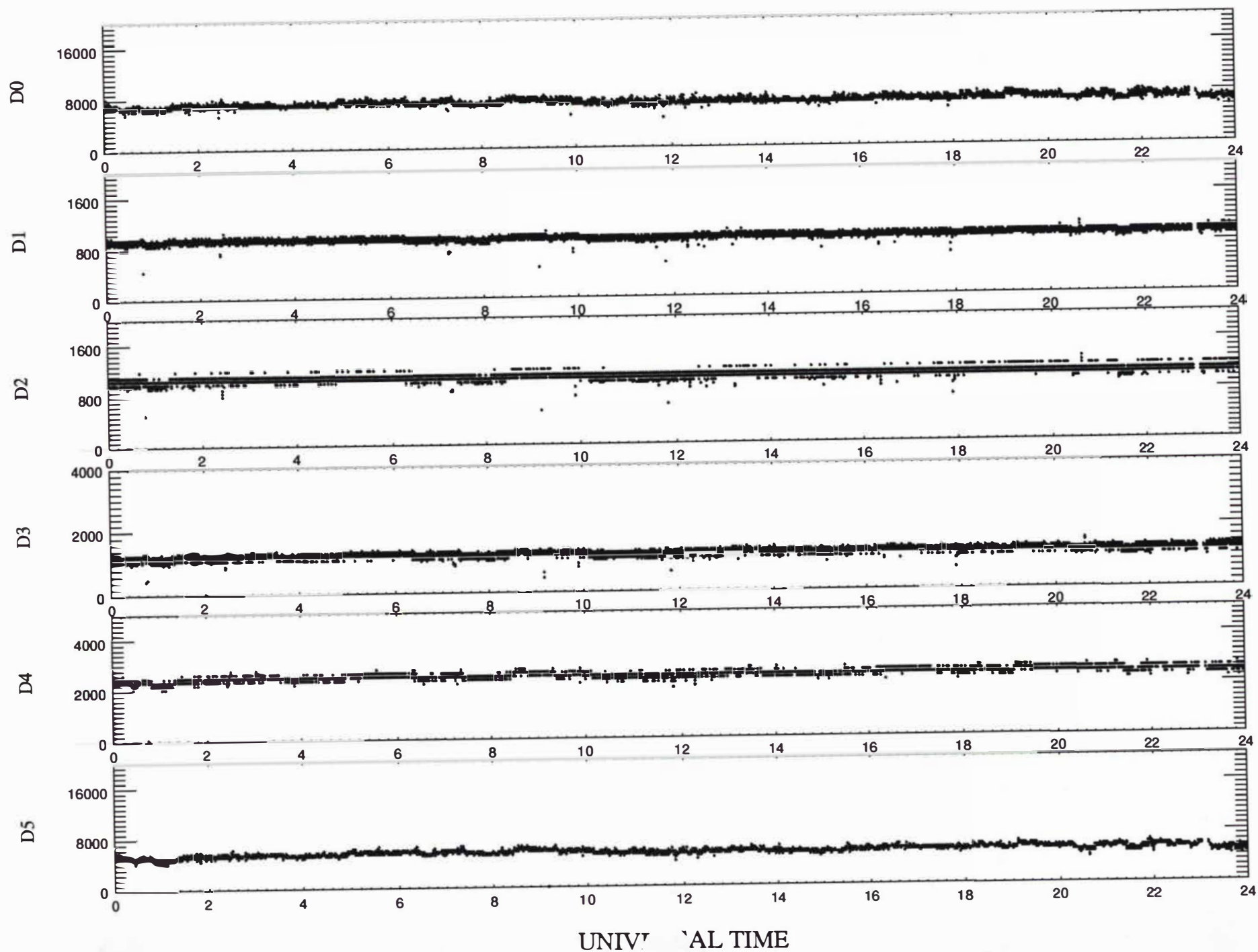
HUS 2A, MODE 1, NOT AVERAGED QEDR day 118, year 1995 to day 118, year 1995
CALIBRATION DATA INCLUDED

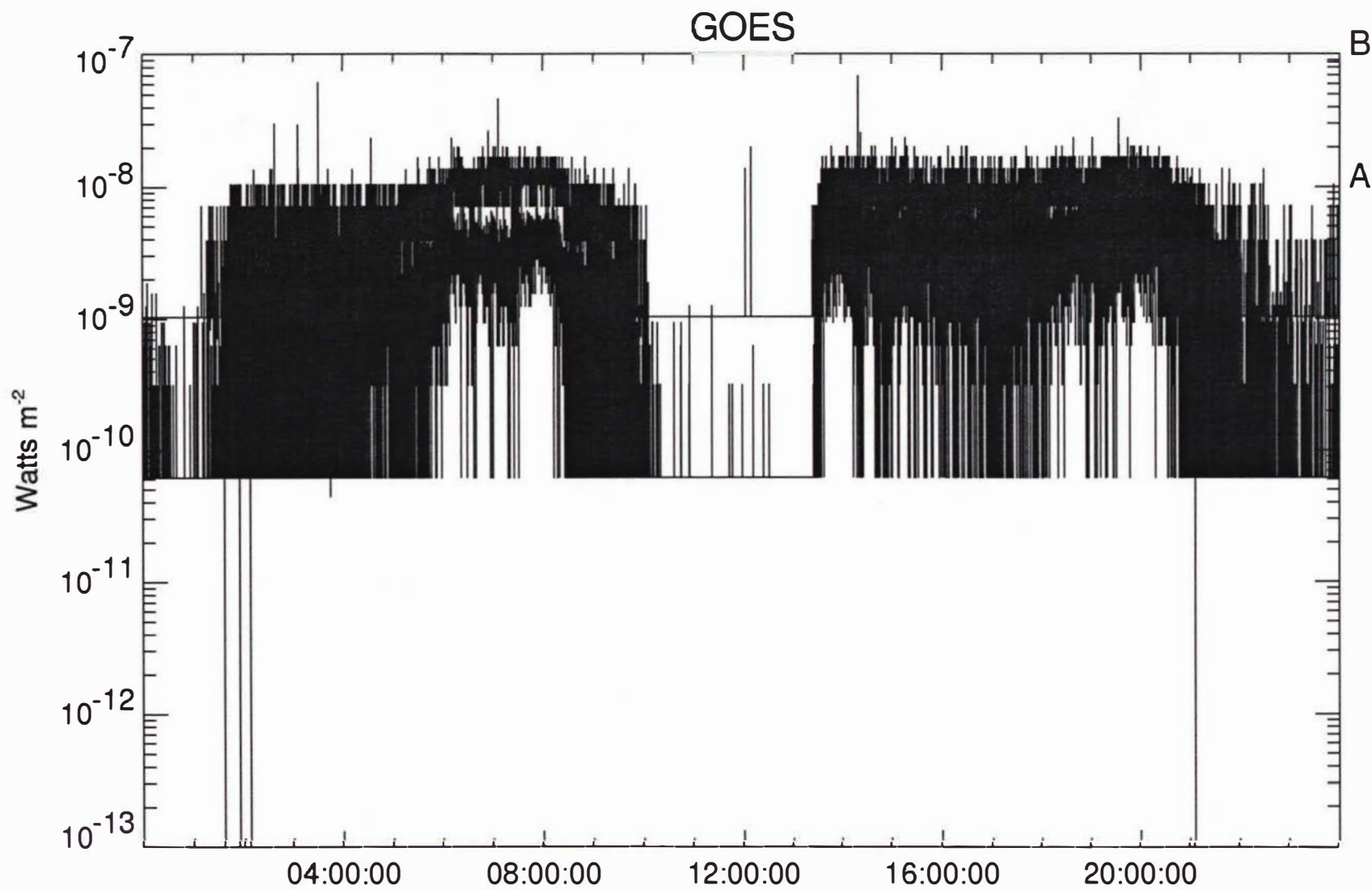
5/1/95



HUS 2B COUNTS / SEC QEDR day 118, year 1995 to day 118, year 1995

5/1/95





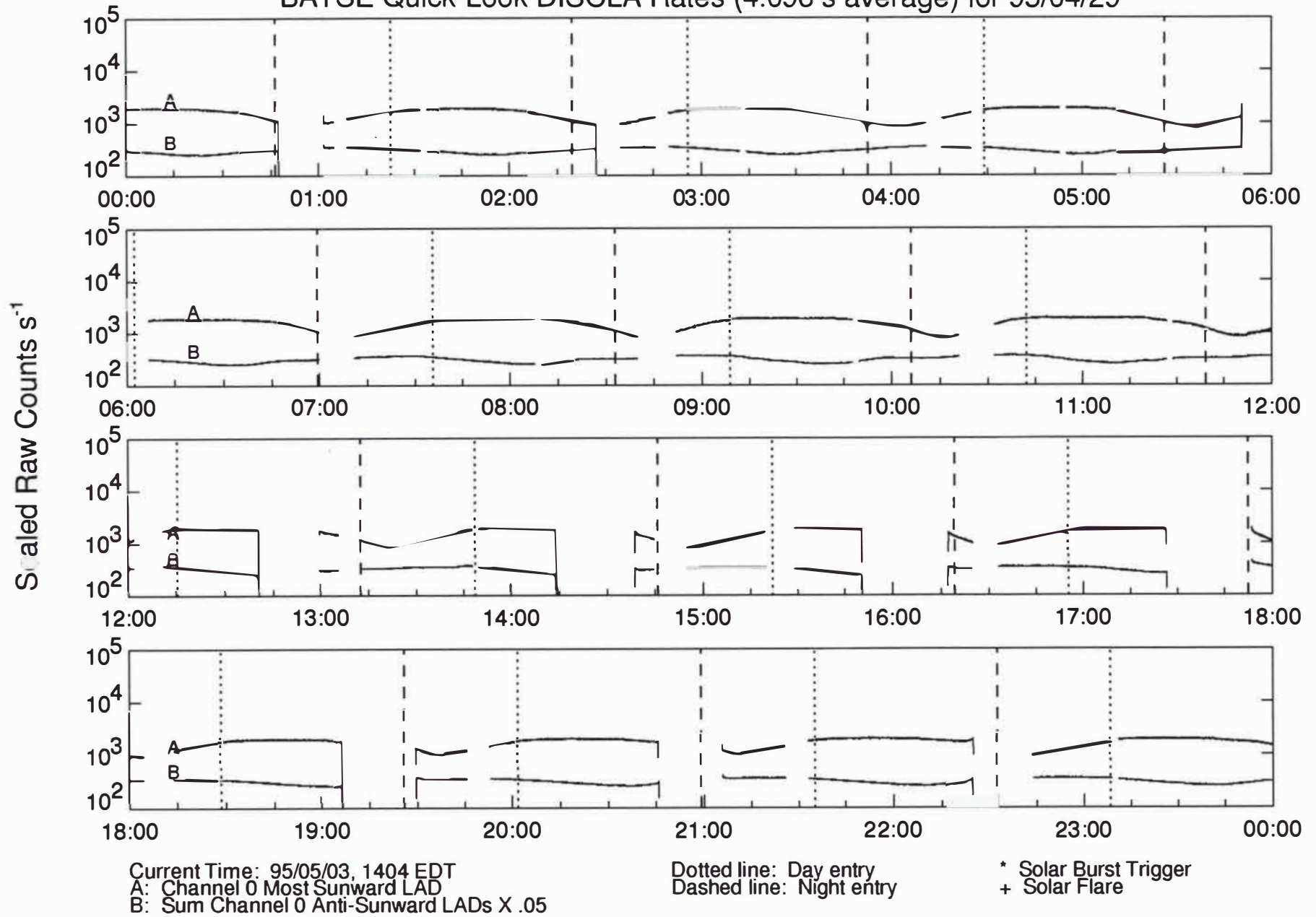
Data Start: 95/04/29, 0000:01

Plot created: 95/05/03, 1403

Channel 1 (1.0 - 8.0 Angstroms) Background not subtracted

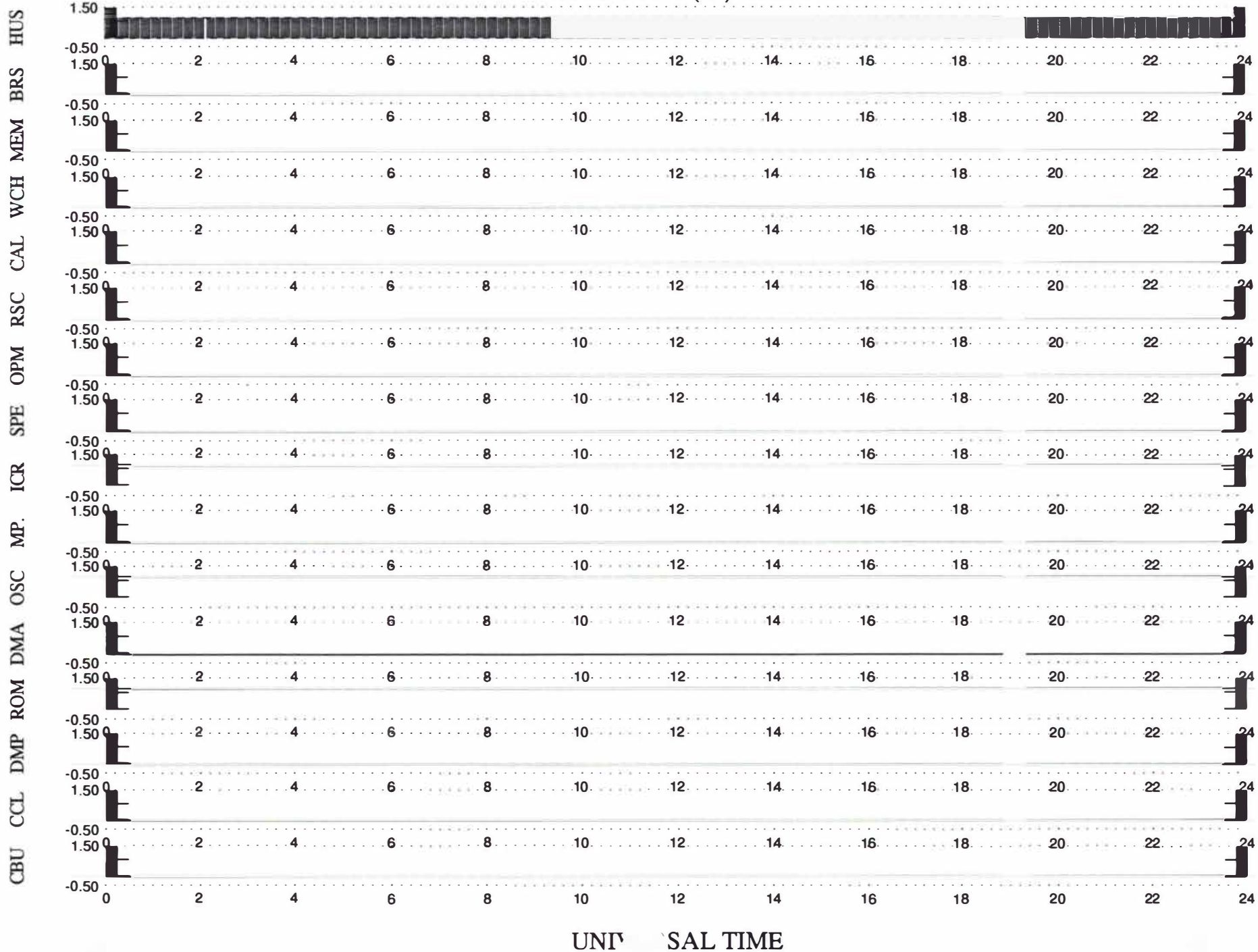
2 (0.5 - 4.0 Angstroms) Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/29



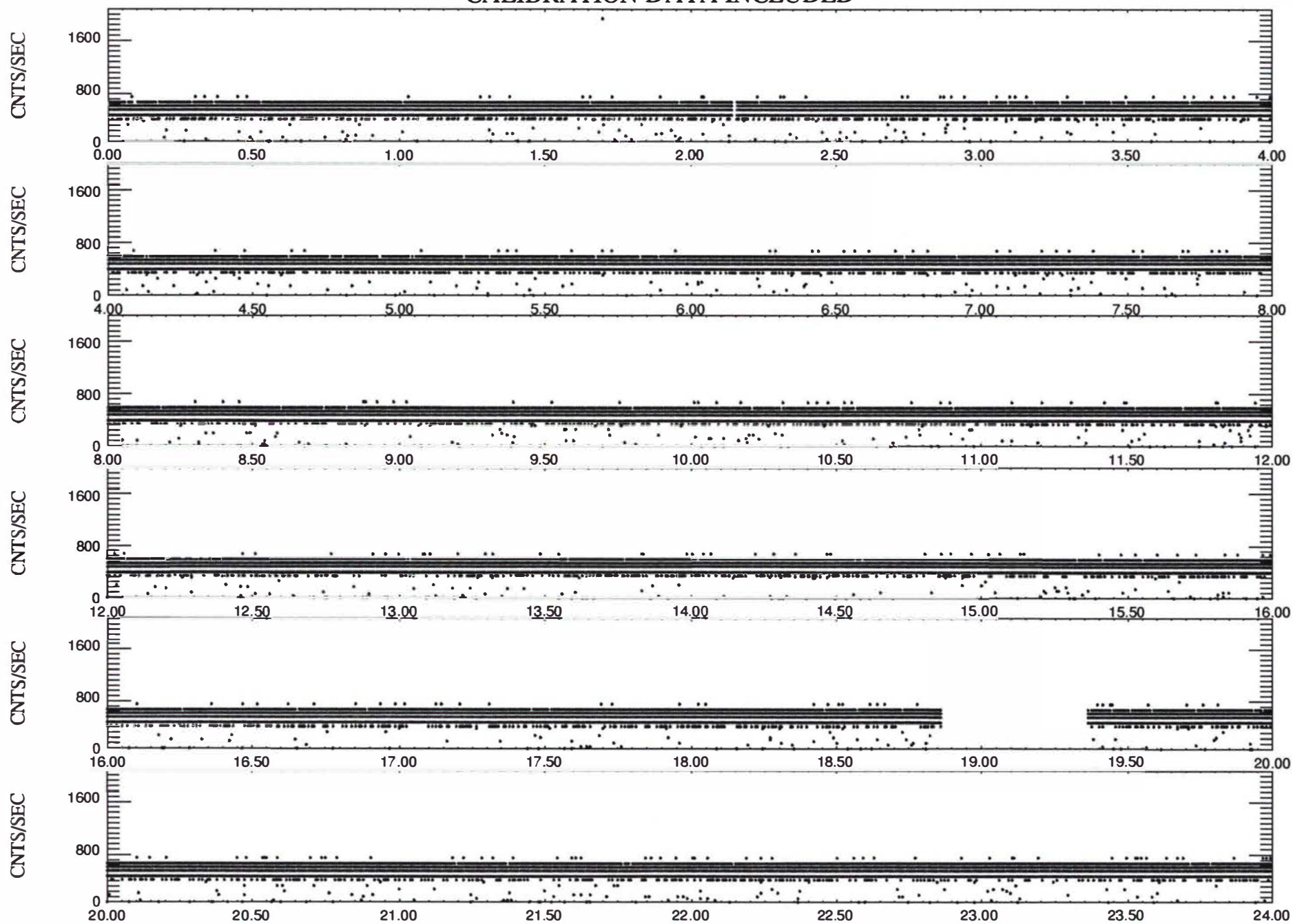
HUS MODES EDR day 119, year 1995 to day 119, year 1995
NO BURST (15)

11/16/95

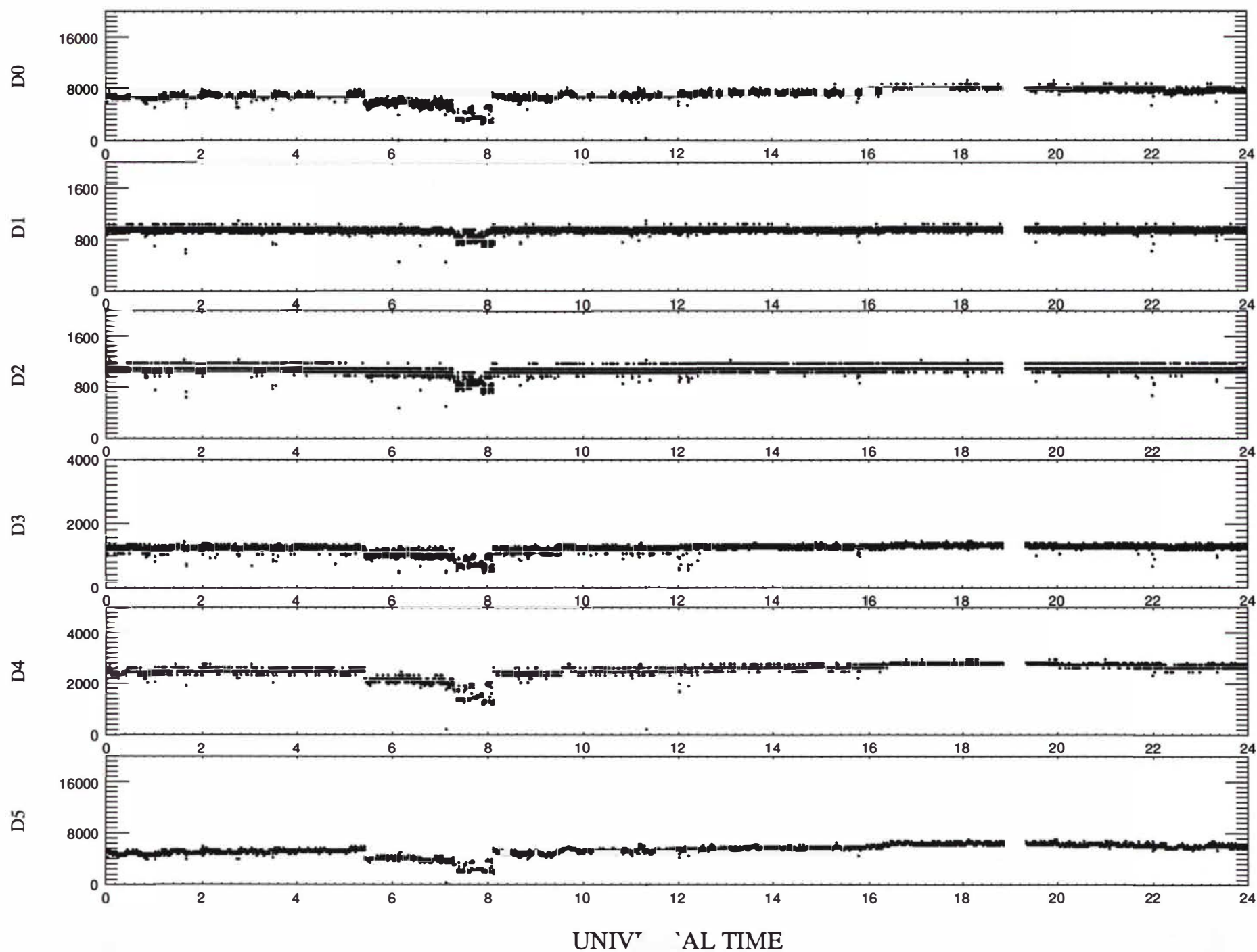


HUS 2A, MODE 1, NOT AVERAGED EDR day 119, year 1995 to day 119, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIVERSAL TIME



From DEAL@ssl.msfc.nasa.gov Wed May 3 10:24 PDT 1995
Date: Wed, 3 May 1995 12:24:51 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3527

BATSEARCH PROGRAM

BATSE BURST # 3527
EVENT OF 1995 APR 30 DAY OF YEAR=120
EVENT CROSSING TIME AT BATSE : 54229. S. OR 15:03:49.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 57.000 29.000
BATSE PEAK COUNTING RATE: 4500 C/S

No

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/ 4/ 95 IS:
RA= 359.180 DEC= 25.183 DIST= 2.128 AU
BATSE-ULYSSES DISTANCE = 318405728. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION=128.89 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -666.80 SECS.
CROSSING TIME AT ULYSSES IS 53562. S. OR 14:52:42 +/- 183.40 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/ 4/ 95 IS:
RA= 142.956 DEC= 16.898 DIST= 1.141 AU
MARS-BATSE DISTANCE = 170627440. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=101.53 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -113.80 SECS.
CROSSING TIME AT MARS IS 54115. S. OR 15:01:55 +/- 95.09 SECONDS

BATSE BURST TRIGGER

NO.: 3527

TIME: TJD=9837 SECONDS=54229

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:Y

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=85.4 AZIMUTH=0.3 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 8S. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3527	950430	9837	54229	4500	057	+29	8

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

Dear Kevin,

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

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

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

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

3 / 5 / 95

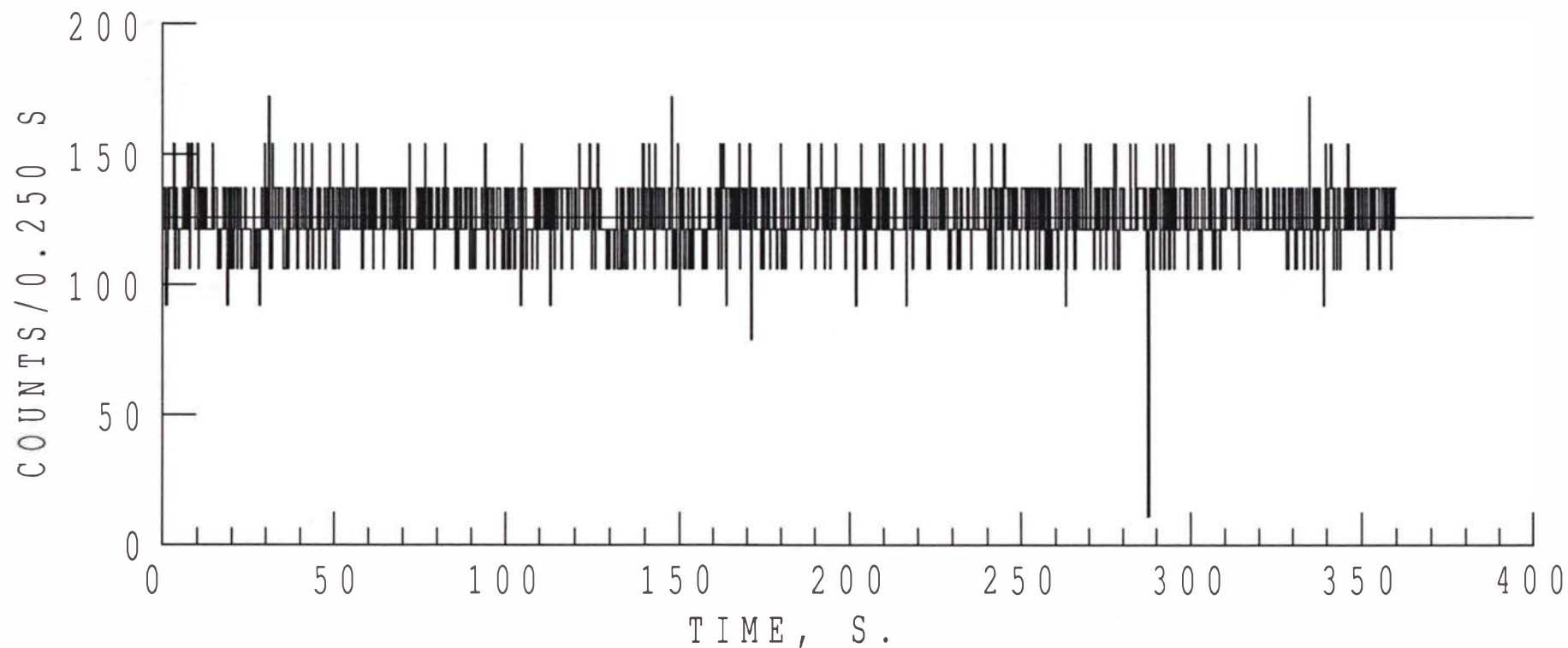
ULYSSES RT

30 / 4 / 95 53388.191 s

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



950416	13	27	00	S2	80	130	10	<0.2	20			BGR	✓
950418	23	16	33.572	S1	180	530	220	2.7	0.5	15		81	✓
950419	02	23	48.860	S1	600	3260	2440	1.5	0.2	1.1		82	✓
950419	11	23	32	S2	70	50	10	<0.15	90			BGR	✓
950419	13	11	40	S1	100	110	30	>15	130			BGR	
950419	23	21	17.472	S2	200	400	200	0.35	1	1.5		83	
950422	04	05	44.359	S1	1440	400		0.9	15	40		84	Sol ✓
950422	11	45	22.690	S2	12200	1680	60	0.9	30	300		85	Sol ✓
950425	00	15	23.718	S1	1200	2780	1820	2.4	0.5	65		86	✓
950425	18	12	59.017	S2	230	330		0.97	3	4		87	
950427	14	39	12	S1	20	60	40	>8	20			BGR	
950430	15	03	44	S2	30	100	20	0.5	6			BGR	✓
950430	18	30	00	S2	120	140	20	0.1	9			BGR	
950501	03	25	04	S2	120	130	25	<0.1	9			BGR	✓
950503	06	54	25	S2	60	80	15	0.3	60			BGR	✓
950503	18	36	11.838	S1	1140	4200	3140	1.9	0.2	115		88	✓
950505	14	52	57	S2	260	150	30	<0.1	9			BGR	
950505	14	58	59.053	S1	540	420	45	12	12	30		89	
950506	23	25	10	S2	280	65		<0.15	15			BGR	
950507	01	59	22	S2	25	90	30	<0.1	12			BGR	
950509	12	49	42	S2	75	150	30	0.1	18			BGR	✓
950510	07	48	03.509	S1	640	630	160	>15	2	15		90	✓
950510	21	34	45	S2	30	60	30	<0.1	25			BGR	
950512	00	16	43.891	S1	2770	6300	1830	2.8	0.1	56		91	✓
950513	07	24	52.760	S2	1800	550		0.85	9	26		92	Sol
950513	22	41	46.917	S1	720	1360	520	10	1	30		93	✓
950514	20	46	14	S1	30	60	15	2	30			BGR	
950515	00	54	48.326	S1	360	630	70	2.3	1	8		94	
950515	06	24	37.820	S1	350	400		2.3	2	50		95	
950520	23	07	51.404	S1	600	1560	1310	5	0.08	0.25		96	
950521	06	59	21.588	S1	200	280	50	3.7	8	50		97	✓
950522	06	38	18.964	S1	290	410	320	18	2.5	7		98	✓
950522	10	58	44.307	S2	190	440	180	1.3	2	90		99	✓
950522	23	41	20.844	S1	100	420	280	1.1	1	150		100	✓
950523	05	39	19	S2	70	110	15	0.4	60			BGR	✓
950523	08	41	42.284	S1	1290	2770	710	18	0.2	3		101	✓
950524	04	08	22.670	S2	110	300	140	0.95	2	1		102	✓
950526	04	36	53.640	S2	390	530	360	0.05	1	62		103	
950601	09	29	42	S2	270	60	20	<0.15	62			BGR	
950602	07	06	32.777	S1	140	310	180	>10	1	180		104	✓
950603	05	54	17.810	S1	180	300	170	10	2	12		105	
950606	19	59	24	S2	80	40		<0.15	26			BGR	
950608	22	36	37.603	S1	350	450	150	>25	140	12		106	✓
950609	04	54	19	S1	50	100	40	2	6			BGR	
950610	01	54	09.095	S1	240	520	160	5	6	17		107	✓
950610	05	18	16.034	S2	1060	3250	1300		0.03	0.07		108	
950611	05	52	12	S1	100	110	40	7	200			BGR	✓
950614	00	12	47	S1	110	50		5	18			BGR	
950615	14	37	32	S2	50	40		<0.1	25			BGR	
950616	12	49	37	S2	90	100	25	<0.06	180			BGR	
950622	19	51	10	S2	70	100	50	0.3	8			BGR	
950624	03	29	58	S2	40	40		<0.1	90			BGR	✓
950624	23	22	04.417	S2	150	540	130	<0.5	41	100		111	✓
950625	02	41	29.448	S2	200	240	30	<0.1	25	4		112	
950625	04	03	46.011	S2	120	360	120	0.9	3	5		113	✓
950625	05	19	36.832	S1	290	630	140	1.6	1	6		114	
950626	13	37	42	S2	160	120	20	<0.1	60			BGR	
950627	15	46	00	S1	100	50		>5	180			BGR	✓
950628	09	32	08	S2	20	90	10	0.7	100			BGR	
950629	10	17	13.034	S1	70	250	80	2	1	6		115	✓
950701	03	32	42.114	S1	340	1400	580	1.3	1	30		116	✓
950701	06	35	37.604	S2	570	1600	700	0.05	1	11		117	✓
950701	23	58	49.800	S2	1600	770	70	0.9	48	250		118	Sol
950702	12	09	32	S1	110	70		4.5	15			BGR	
950703	05	33	38.718	S1	260	870	560	2.5	15	120		119	✓
950704	03	10	31.823	S1	2600	5600	2600	4	0.6	4		120	✓

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

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

Mime-Version: 1.0

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

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

Subject: For Your INFO

Dear Bonnard, Kevin, David, Helmut:

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

- TLC

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

Date: Aug 23 2011

BURST TRIANGULATION CHECKLIST

1. Ulysses Data

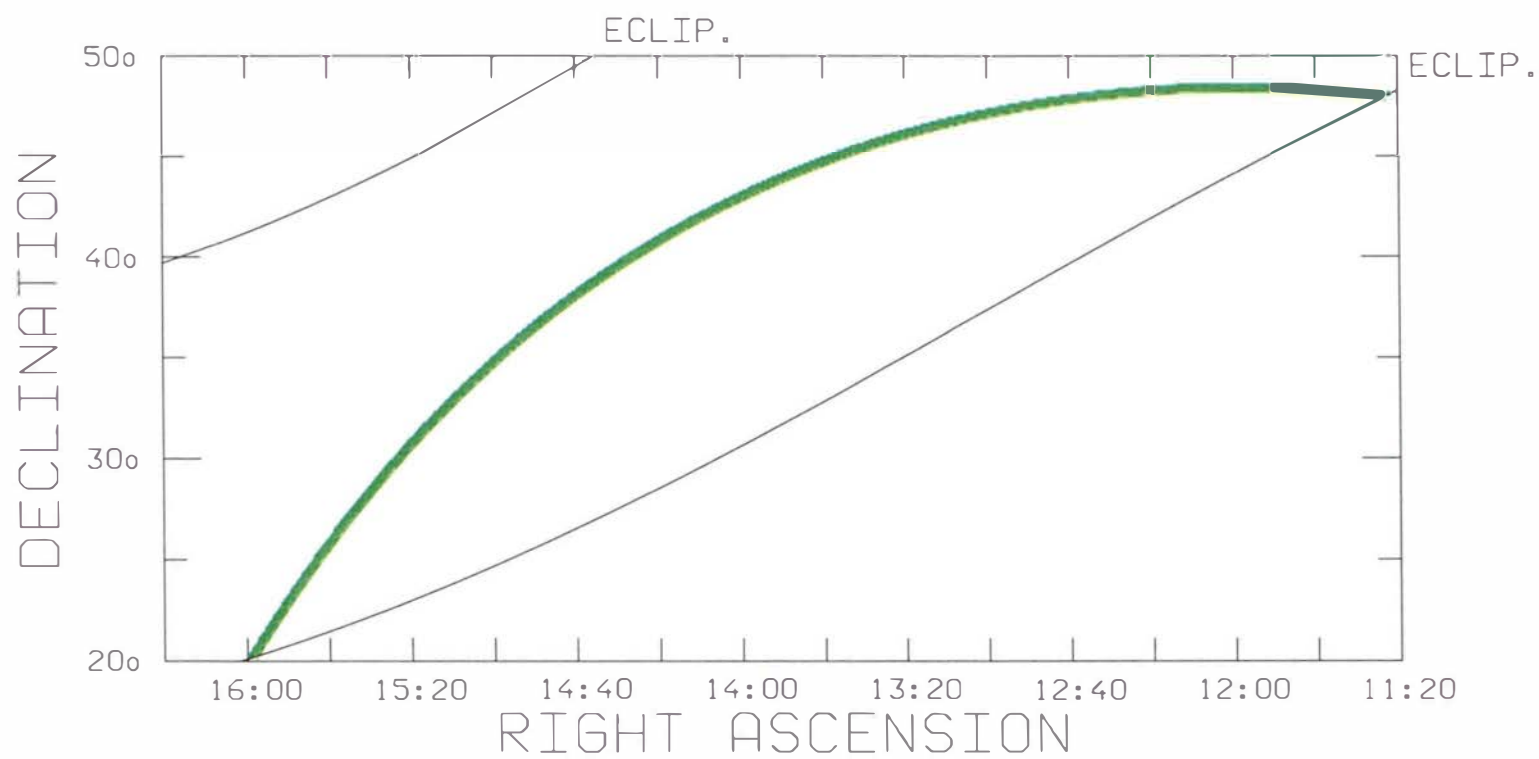
- ☒ Jim Schmidling's stat file correction applied?
- ☒ Final ephemeris used?
- ☒ Final, CDROM data used?
- ☒ Were data checked by Joe Springer for 0.5 s errors?
- ☒ If a 2 spacecraft triangulation, was Ulysses time corrected for aberration?
- ☒ Is the order of the data in CORREL such that a vernier is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

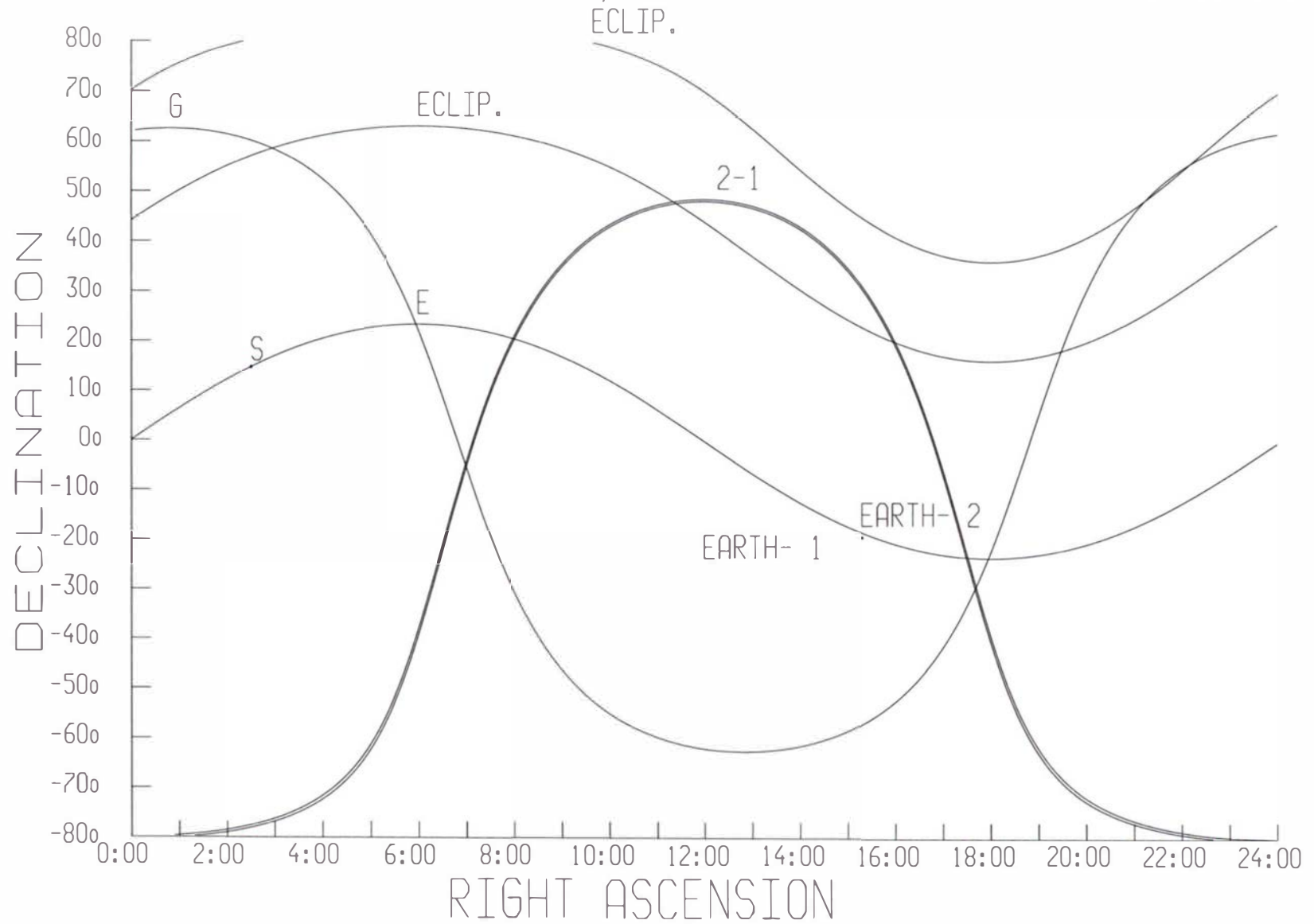
- ☐ Ephemeris of PVO used (not Venus)?
- ☐ 2000 coordinates used?
- ☐ Geocentric time used?
- ☒ ACCESS and MBL databases updated with identical times?

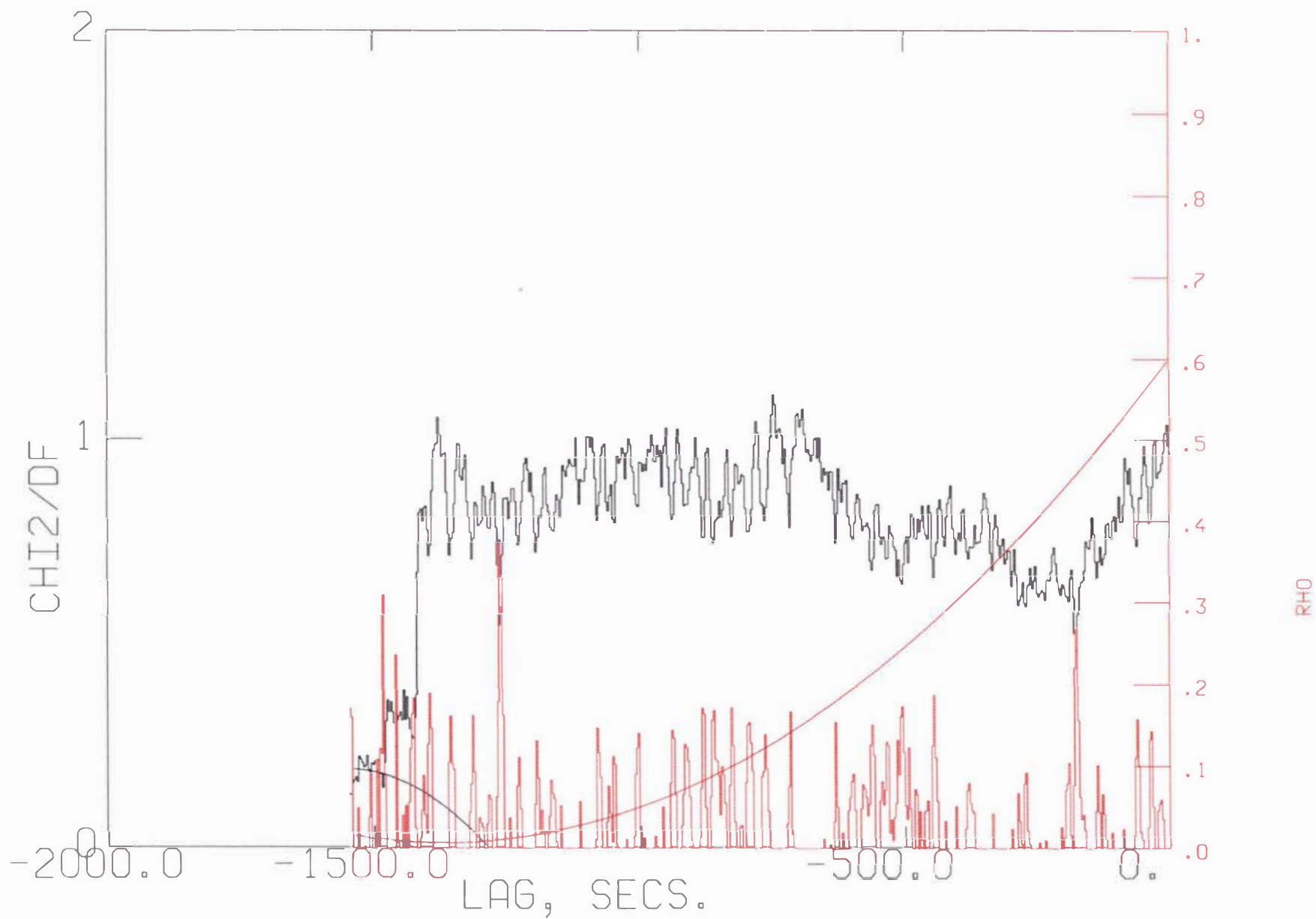


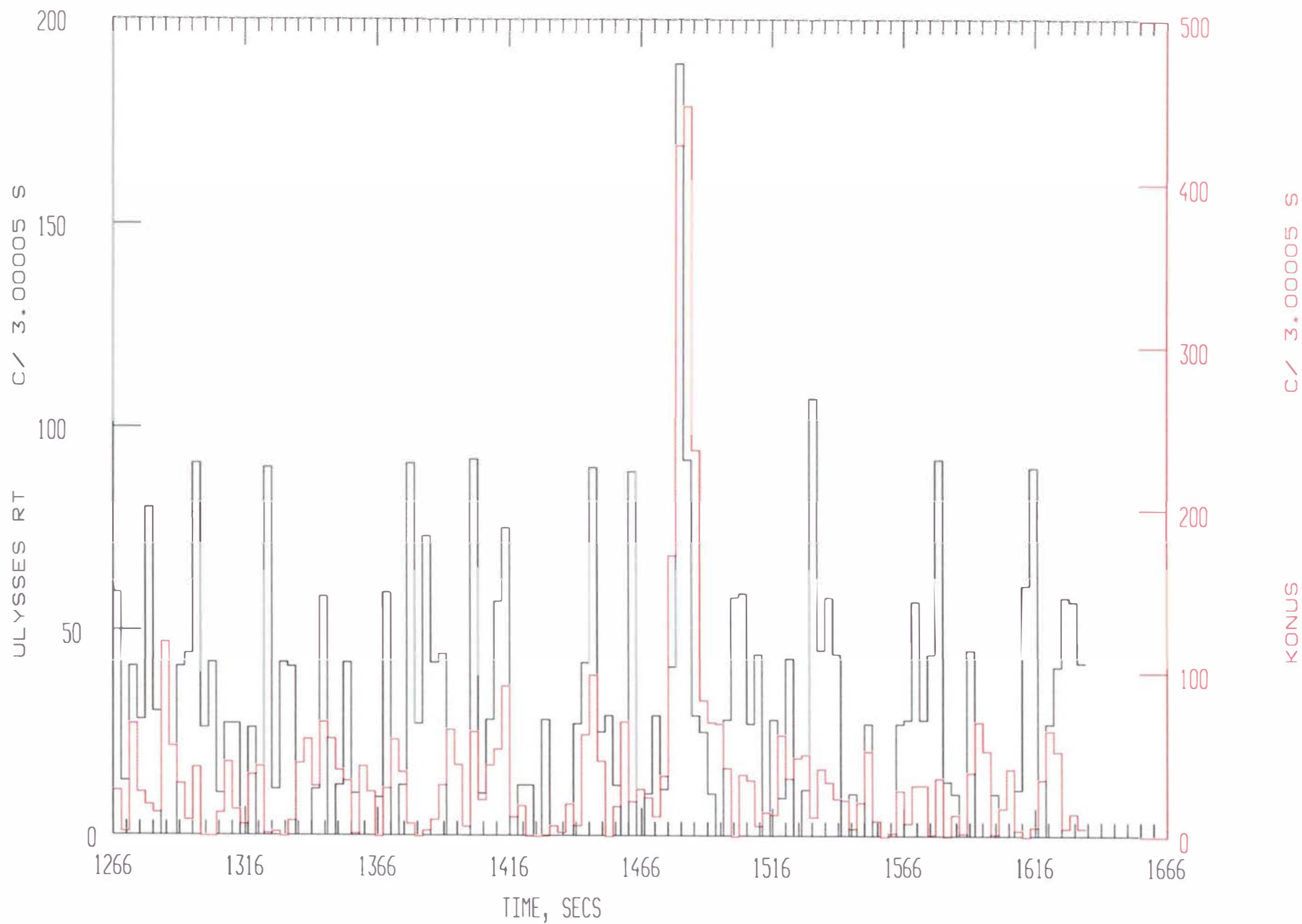
EVENT OF APR 30, 1995 18:34

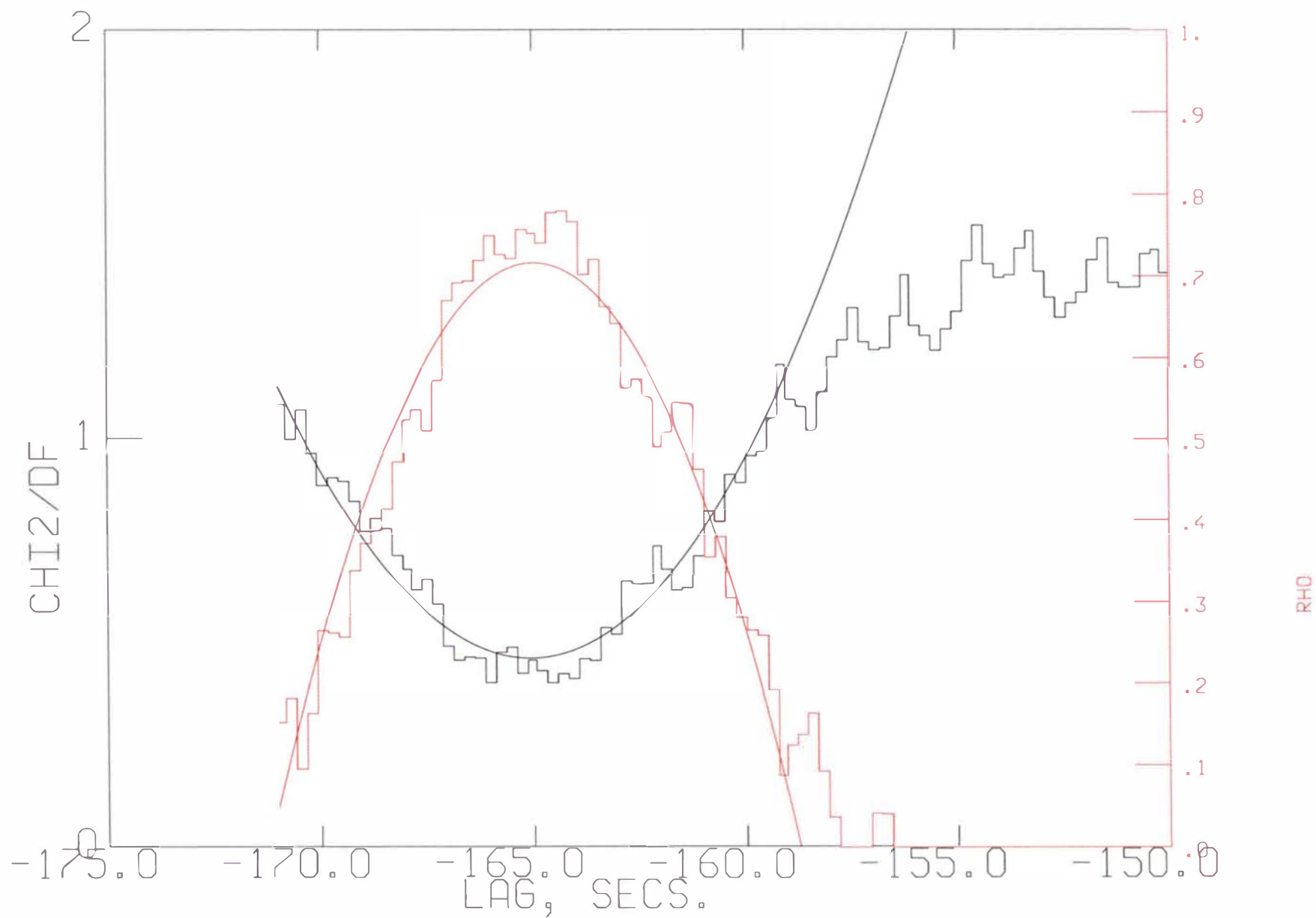
23/08/2011

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









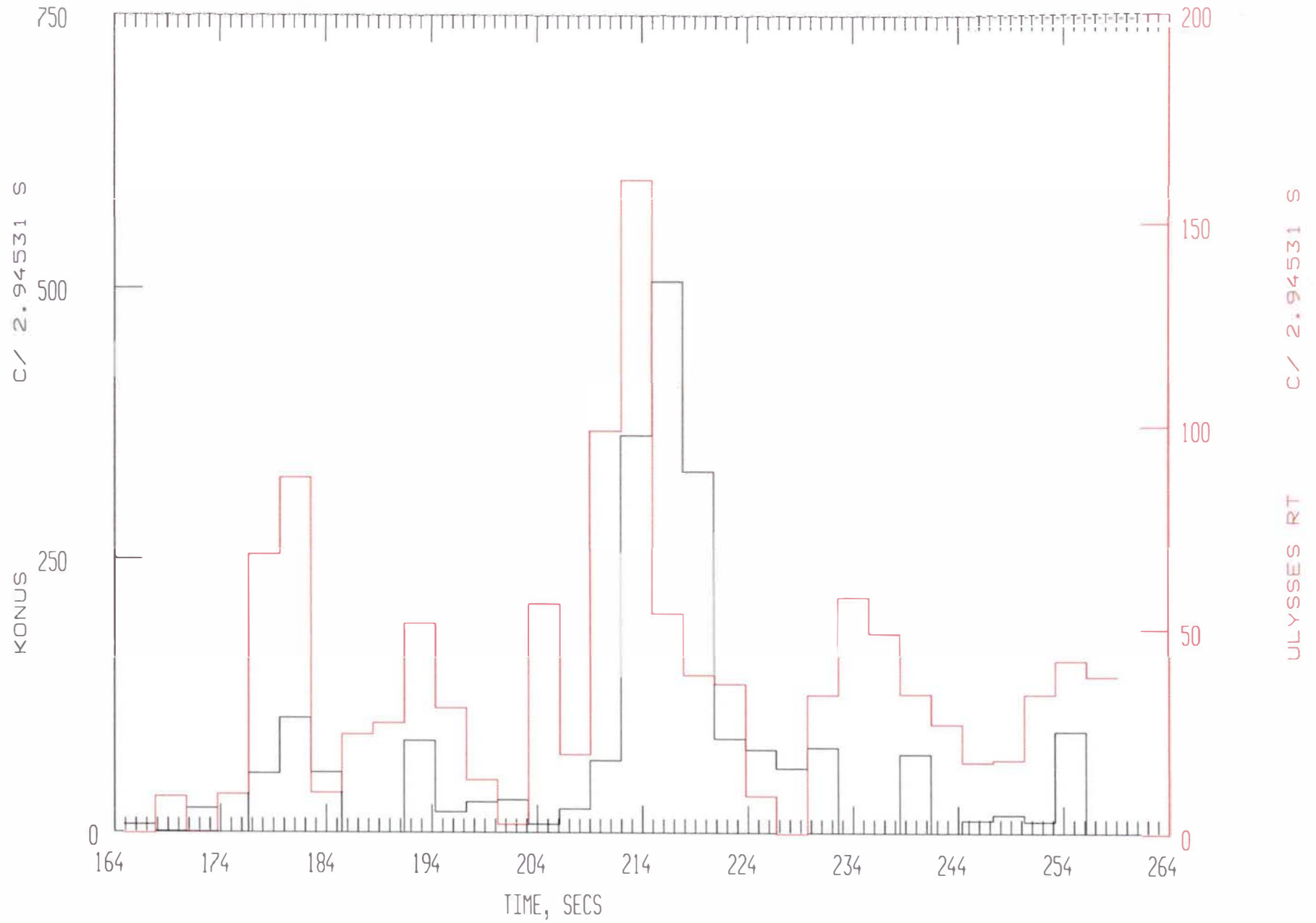
KONUS

-ULYSSES RT CORRELATION

30/04/95

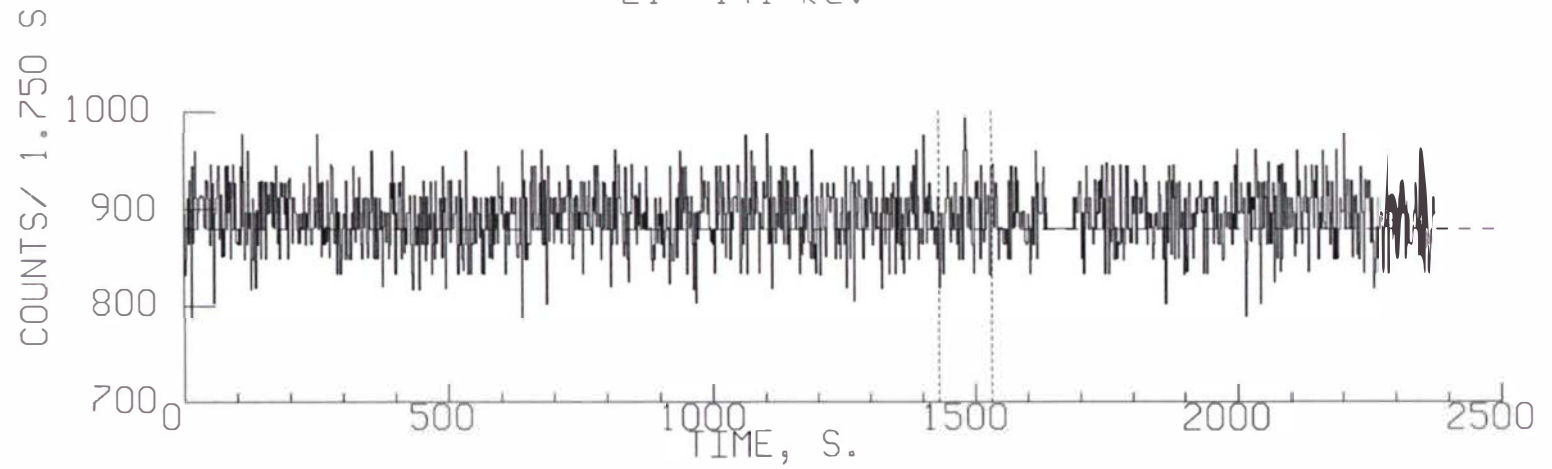
66388.320

23/ 8/11

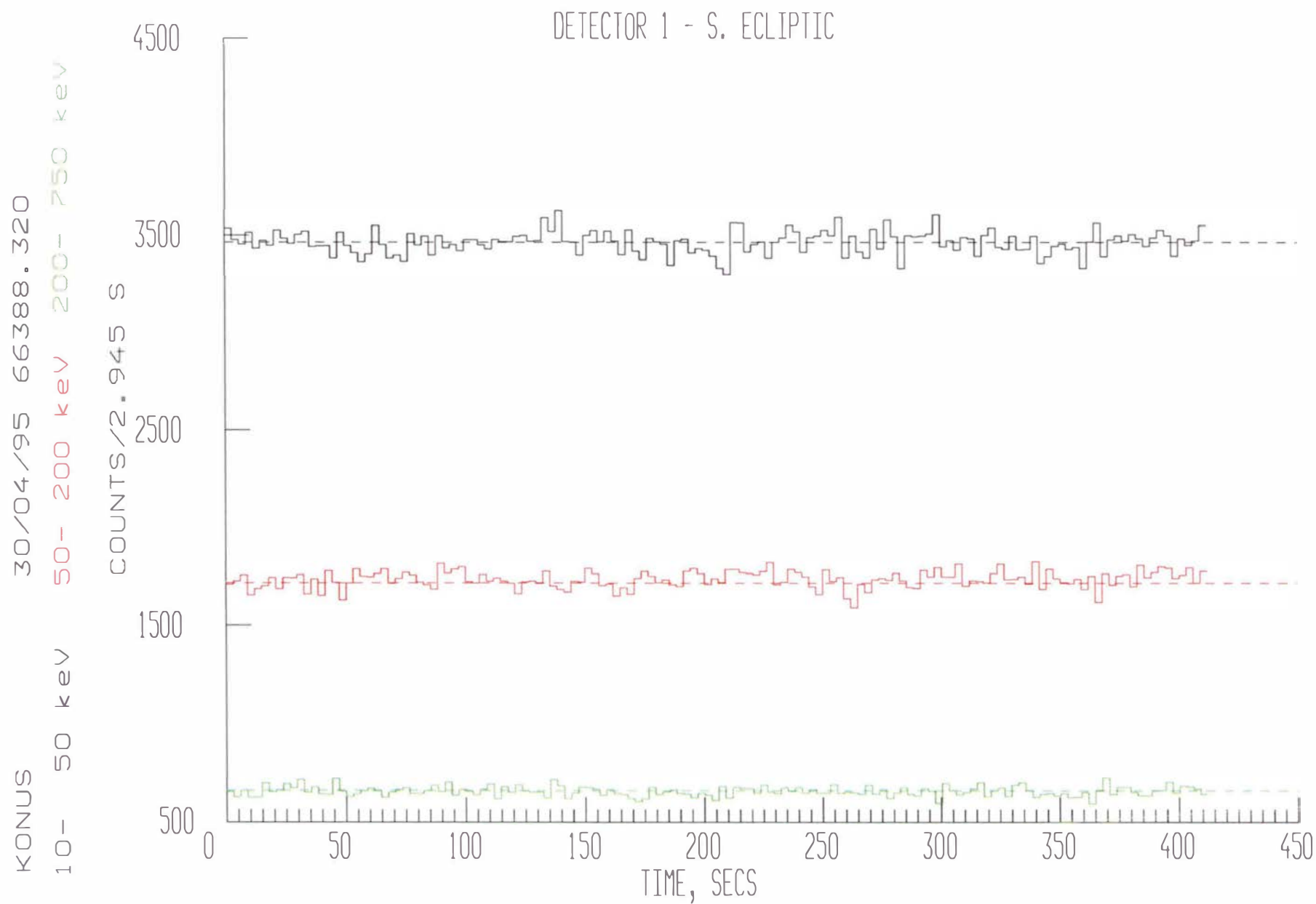


ULYSSES RT
30/ 4/95 65412.172 s
0.250 S INTERVALS REGROUPED BY 7
21- 141 keV

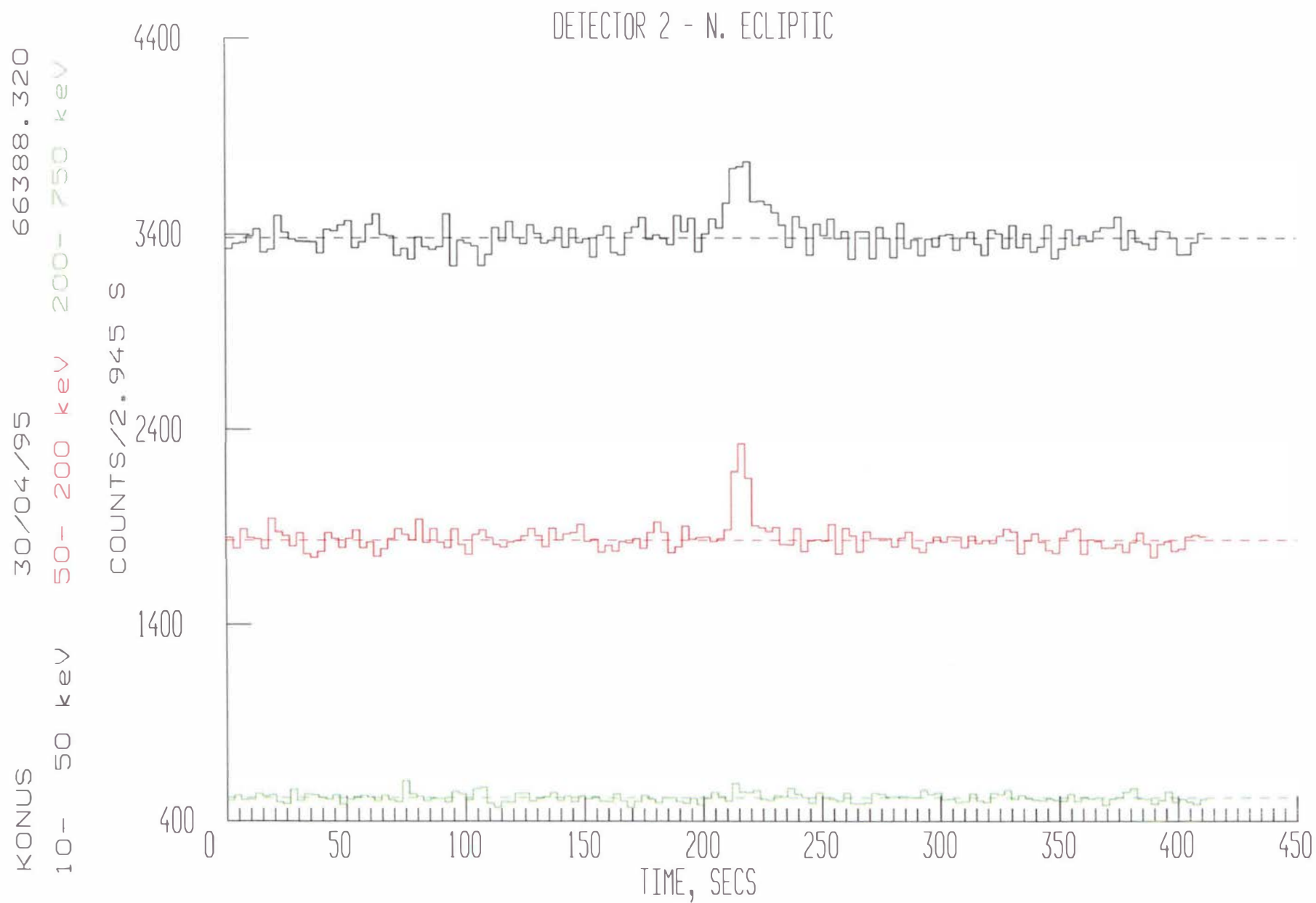
23/ 8/11



23/08/2011



23/08/2011



KONUS

15 / 2 / 96

ULYSSES RT

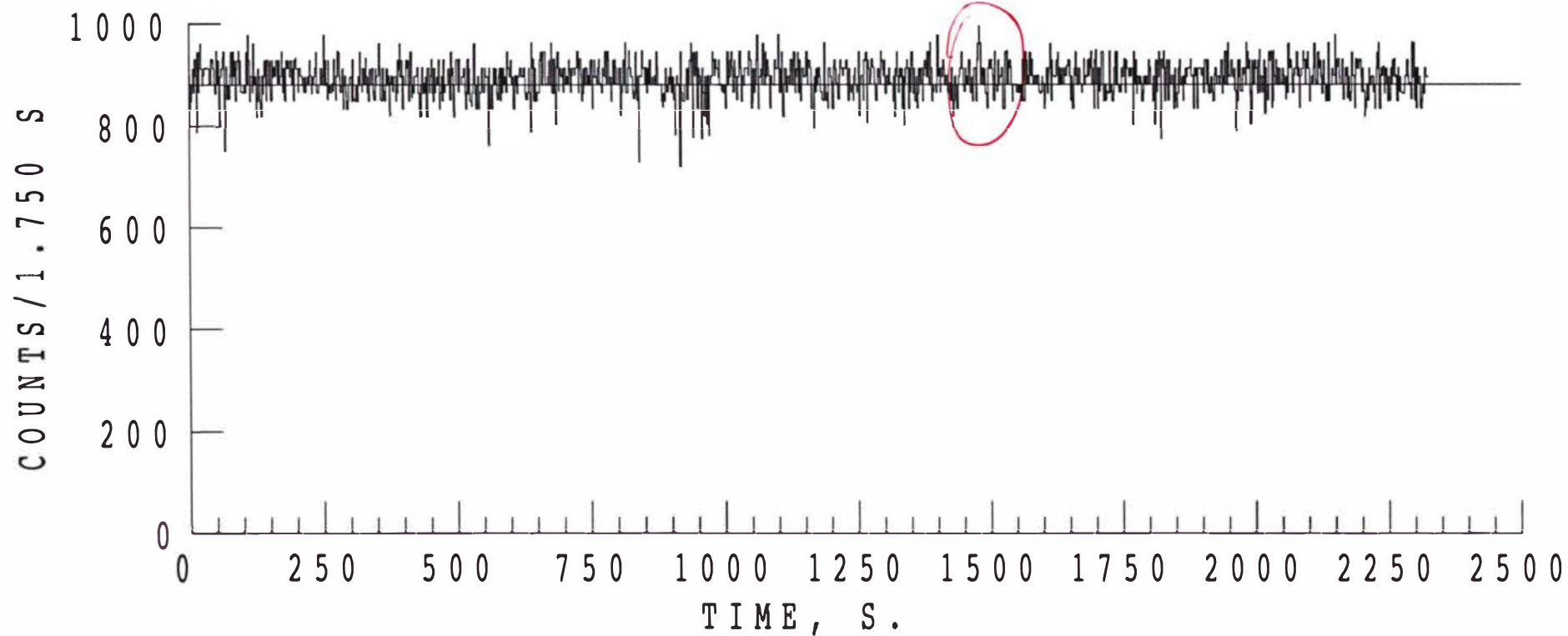
30 / 4 / 95 65412.172 s

0.250 S INTERVALS REGROUPED BY 7

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS



From DEAL@ssl.msfc.nasa.gov Wed May 3 10:28 PDT 1995
Date: Wed, 3 May 1995 12:28:41 -0500 (CDT)
From: DEAL@ssl.msfc.nasa.gov
To: khurley@sunspot.ssl.berkeley.edu
Subject: Crossing Windows for BATSE Burst 3528

BATSEARCH PROGRAM

BATSE BURST # 3528
EVENT OF 1995 APR 30 DAY OF YEAR=120
EVENT CROSSING TIME AT BATSE : 59616. S. OR 16:33:36.0
COORDINATES ARE 0.000 0.000 6800. (RA, DEC, DIST.)
BURST ARRIVAL DIRECTION: 125.000 61.000
BATSE PEAK COUNTING RATE: 3000 C/S

EVENT CROSSING TIME AT ULYSSES WILL BE FOUND
INTERPOLATED POSITION OF ULYSSES ON 30/ 4/ 95 IS:
RA= 359.194 DEC= 25.214 DIST= 2.128 AU
BATSE-ULYSSES DISTANCE = 318375019. KM.
ANGLE WHICH BATSE-ULYSSES VECTOR MAKES WITH GRB ARRIVAL DIRECTION= 96.66 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -123.17 SECS.
CROSSING TIME AT ULYSSES IS 59493. S. OR 16:31:32 +/- 231.26 SECONDS

EVENT CROSSING TIME AT MARS WILL BE FOUND
POSITION OF MARS ON 30/ 4/ 95 IS:
RA= 142.956 DEC= 16.898 DIST= 1.141 AU
MARS-BATSE DISTANCE = 170627440. KM.
ANGLE WHICH BATSE-MARS VECTOR MAKES WITH GRB ARRIVAL DIRECTION=134.07 DEG.
LIGHT TRAVEL TIME ALONG PROJECTED PATH= -395.85 SECS.
CROSSING TIME AT MARS IS 59220. S. OR 16:27:00 +/- 64.99 SECONDS

BATSE BURST TRIGGER

NO.: 3528

TIME: TJD=9837 SECONDS=59616

TYPE: BURST SOLAR FLARE TRIGGER SIGNAL:N

SIGNIFICANCE: SIGMA

INTENSITY: COUNTS/CM2

LOCATION: ZENITH=31.6 AZIMUTH=350.9 ERROR= DEGREES

COMMENTS:

BURST LASTING ~ 160S. NOT VISIBLE ABOVE 300 KEV.

BATSE #	Date	TJD	SoD	Max ct/s	RA	Dec	Dur (s)
3528	950430	9837	59616	3000	125	+61	160

3 / 5 / 95

ULYSSES RT

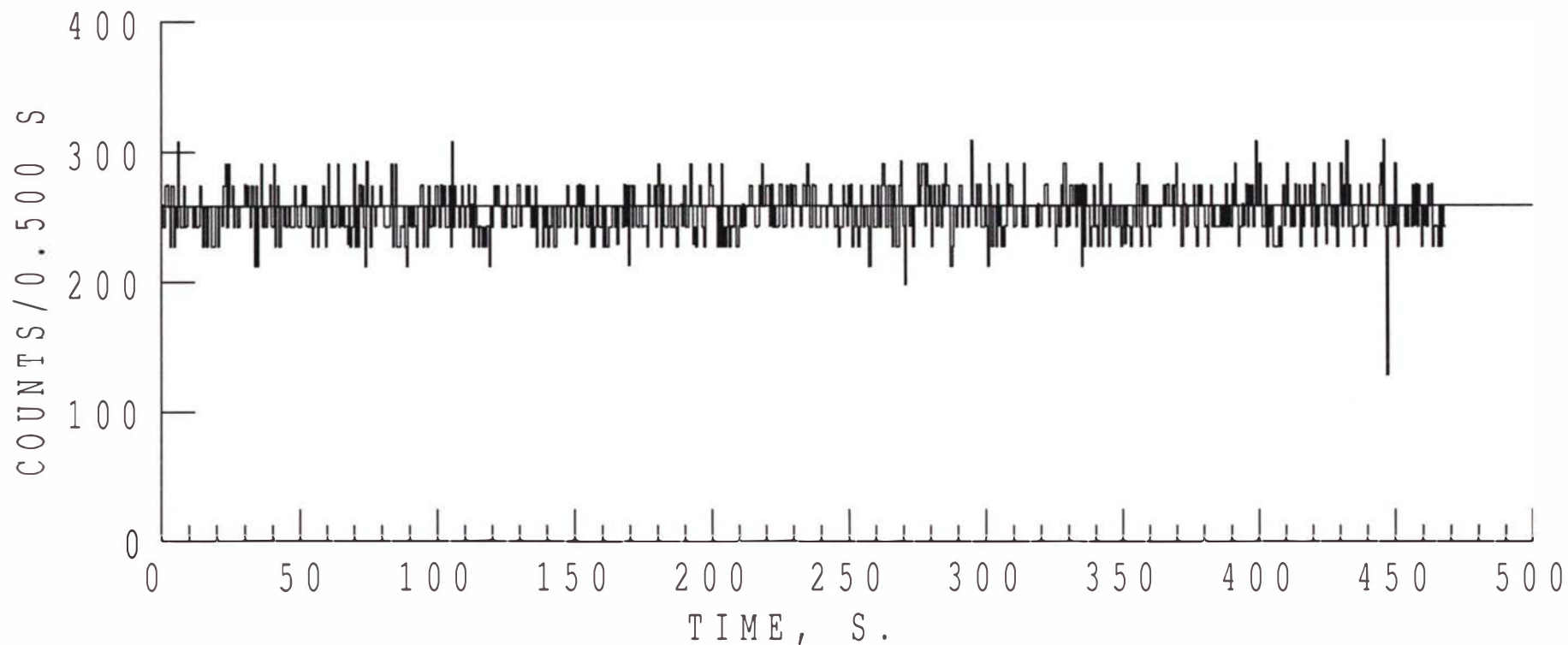
30 / 4 / 95 59256.055 s

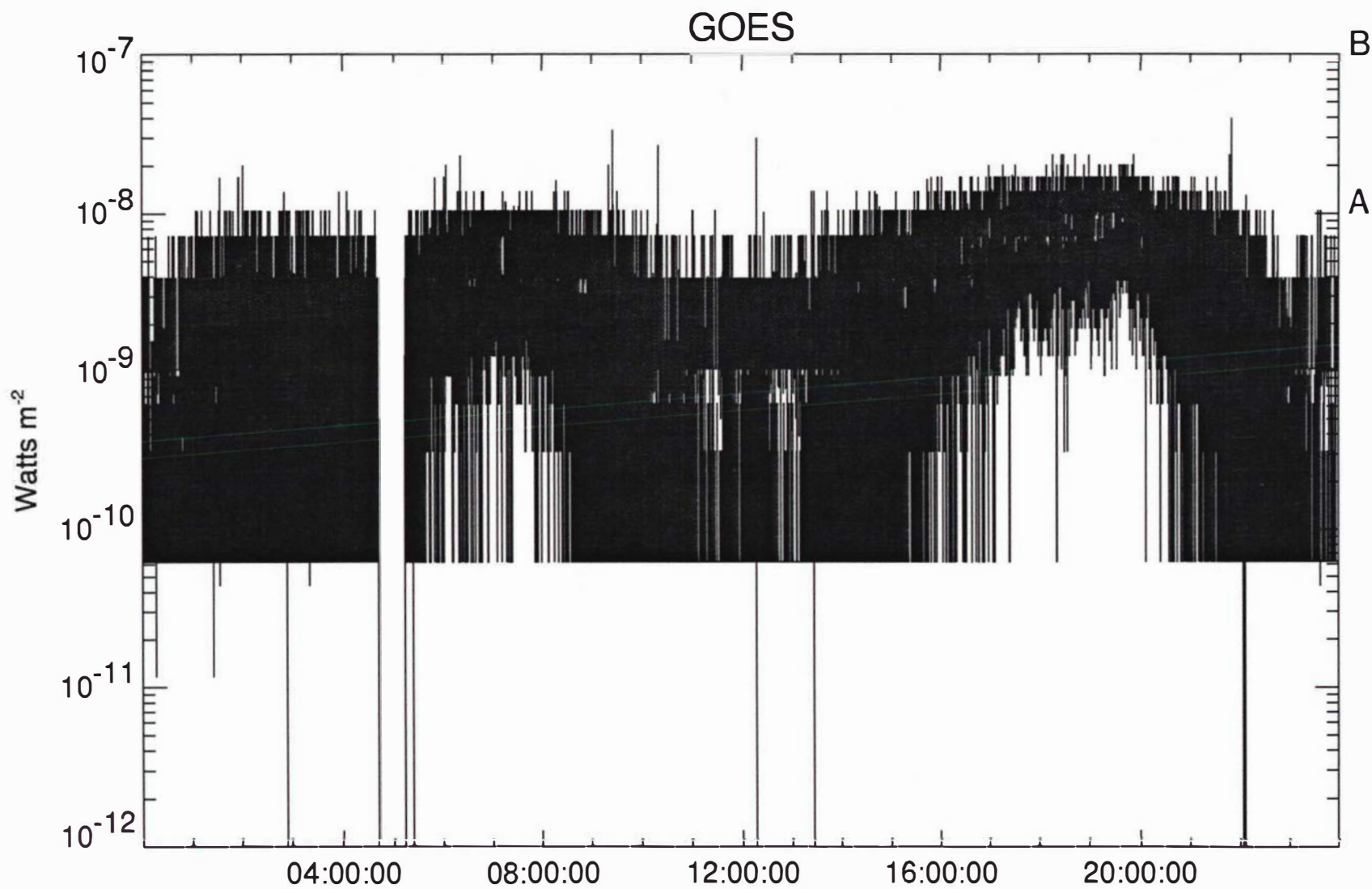
0.250 S INTERVALS REGROUPED BY 2

0 - 0 keV

N= 10 M= 2

>4.0 SIGMA FLUCTUATIONS





Data Start: 95/04/30, 0000:02

Plot created: 95/05/03, 0514

Channel

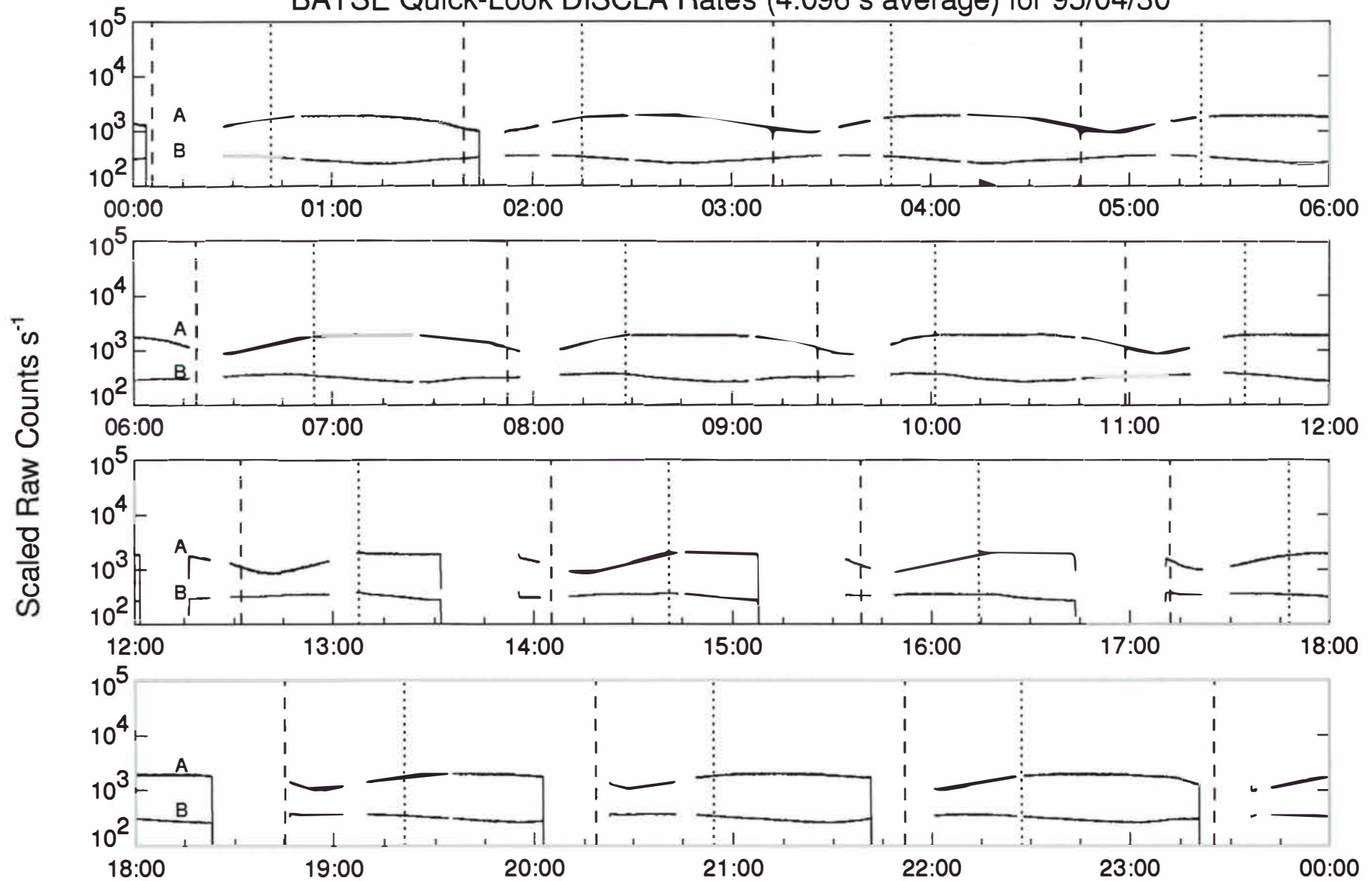
1 (1.0 - 8.0 Angstroms)

Background not subtracted

2 (0.5 - 4.0 Angstroms)

Background not subtracted

BATSE Quick-Look DISCLA Rates (4.096 s average) for 95/04/30



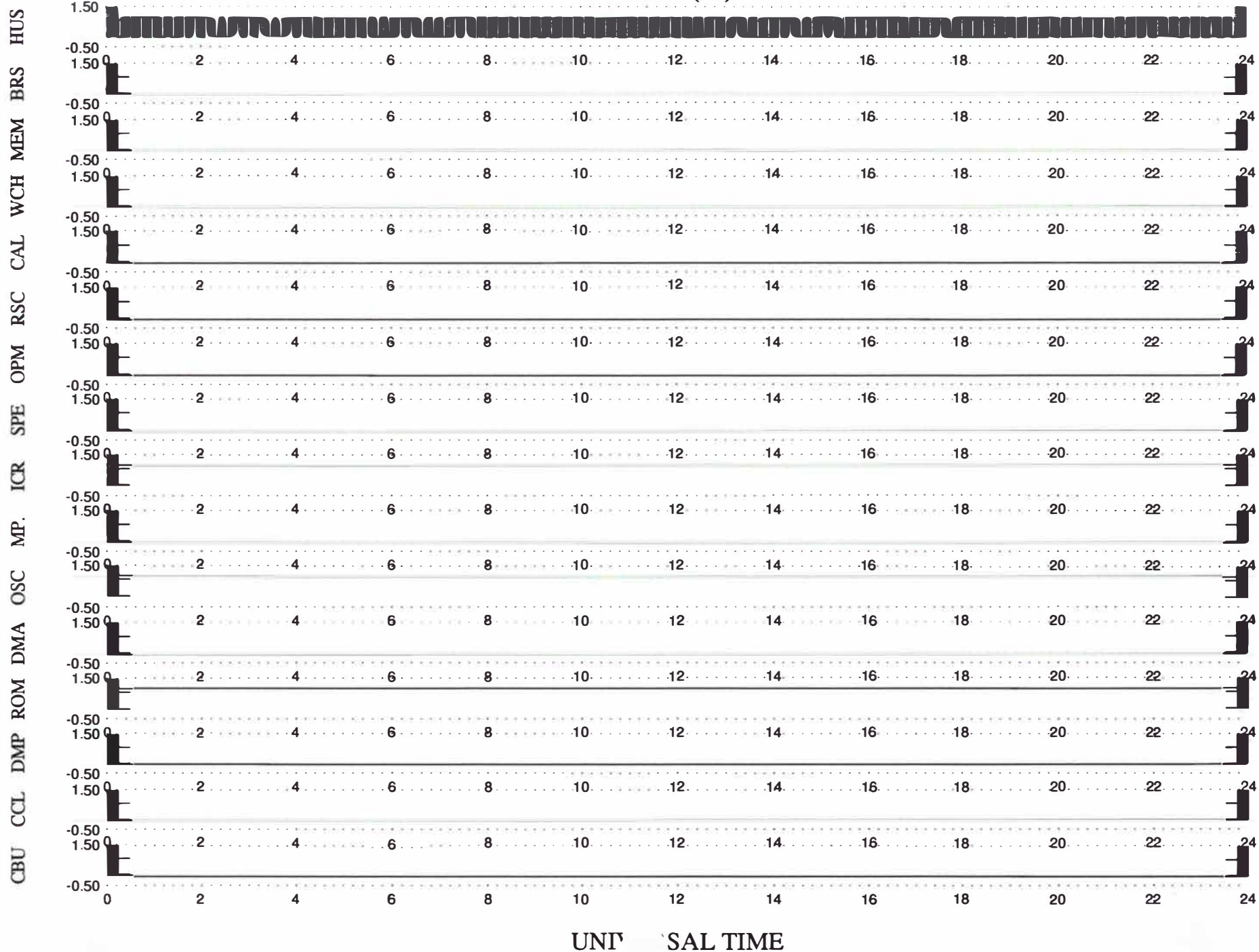
Current Time: 95/05/03, 0514 EDT
 A: Channel 0 Most Sunward LAD
 B: Sum Channel 0 Anti-Sunward LADs X .05

Dotted line: Day entry
 Dashed line: Night entry

* Solar Burst Trigger
 + Solar Flare

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100

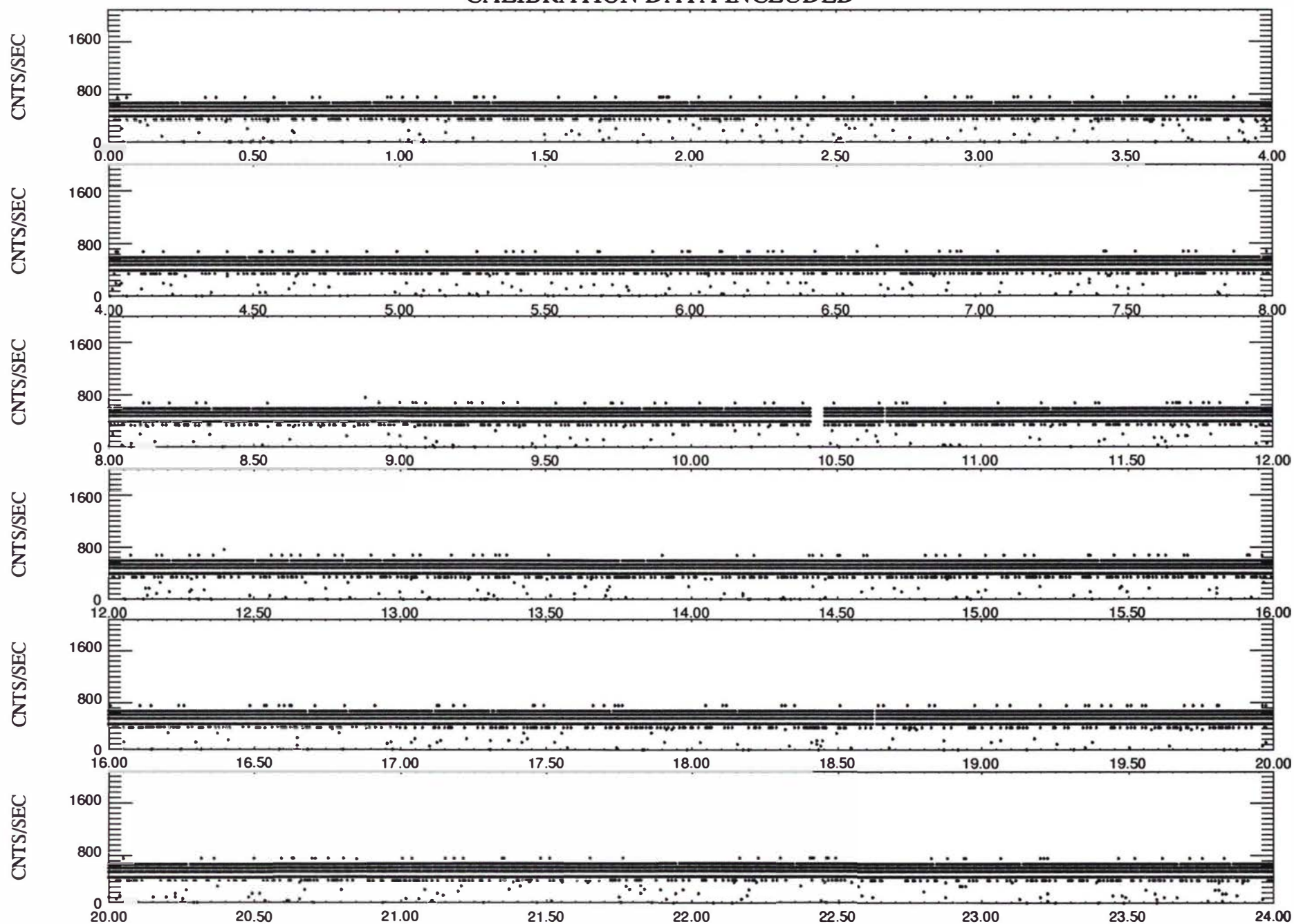
11/16/95



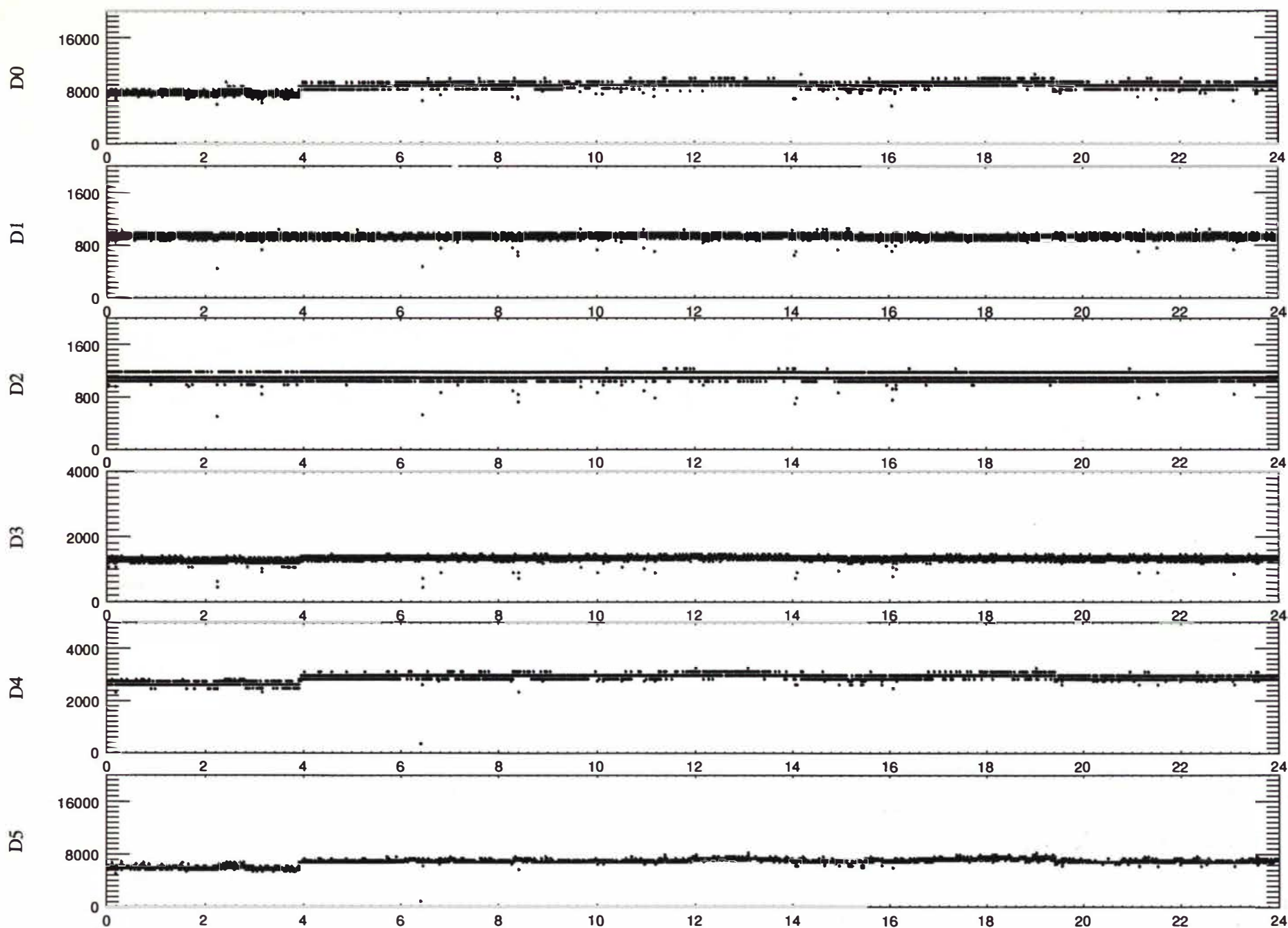


HUS 2A, MODE 1, NOT AVERAGED EDR day 120, year 1995 to day 120, year 1995
CALIBRATION DATA INCLUDED

11/16/95



UNIFORM SAL TIME



UNIV' AL TIME