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# SCATHA Atlas Data Base, Volume I

Editors:

E. G. MULLEN  
M. S. GUSSENHOVEN



1 September 1989



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**GEOPHYSICS LABORATORY**  
HANSCOM AFB, MA 01731-5000

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19 ABSTRACT (Continue on reverse if necessary and identify by block number) A study of the plasma environment encountered by the P78-2 Spacecraft Charging At High Altitudes (SCATHA) satellite during its operation between March 1979 and June 1980 was conducted and reported in the SCATHA Environmental Atlas (AFGL-TR-83-0002). Summary plots of much of the data used in the Atlas are presented in two volumes. The first volume contains magnetic field data and spacecraft frame potential data. The second volume contains low and medium energy range electron and ion data, medium energy range ion composition data and high energy electron data. The data are presented in 24-hour plots.					
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## 1. INTRODUCTION

The P78-2 SCATHA satellite was launched on 30 January 1979 and inserted into a  $5.3 \times 7.8$  RE (RE = 1 Earth radius), low inclination ( $7.9^\circ$ ) orbit with an easterly drift rate of about  $5^\circ$  per day. The satellite is spin stabilized at approximately 1 rpm with the spin axis of the satellite located in the orbital plane of the satellite and normal to the Earth-sun line. Because of the drift and eccentricity of the orbit, the satellite passes through each latitude at varying local times (LT) and varying magnetic latitudes.

The SCATHA Atlas was prepared in 1983<sup>1</sup> in order to specify those aspects of the space environment in the near-geosynchronous region that contribute to spacecraft charging. The key data for the Atlas were the magnetic field data, the common mode of the electric field experiment and particle data from four instruments, covering the energy range from approximately 10 eV to 2 MeV for electrons and ions from approximately 100 eV to 30 keV for singly ionized Oxygen and Hydrogen.

The Atlas data were taken mainly during 1979 and the first part of 1980. To accomplish the statistical studies in the Atlas, survey plots of much of the data were produced. The survey plots are presented here in two volumes. In the first volume we present the magnetometer data and the common mode electric field data. In the second volume we present the particle data. All data are plotted against Universal Time. Some of the data plots are annotated rather completely with ephemeris, others have only Universal Time. The magnetometer data is the most completely annotated and is presented for the greatest number of days. It can be used to provide ephemeris for most of the other data.

The volumes are organized in the following way. For each data set we give 1) a brief description of the instrument from which the data were collected; 2) calendar on which the days that data presented are marked; 3) description of the format in which the data are presented; 4) the data, presented in chronological order, one day per page.

(Received for publication 1 September 1989)

<sup>1</sup>Mullen, E.G. and Gussenhoven, M.S. (1983) *SCATHA Environmental Atlas*, AFGL-TR-83-0002, 169 pp.  
ADA131456

## 2. MAGNETIC FIELD DATA BASE, SC11

### 2.1 Instrument Description

Magnetic field measurements on the SCATHA satellite were made by the SC11 magnetometer that was built and operated under the direction of Dr. B.G. Ledley of NASA/Goddard. The SC11 magnetometer is a triaxial fluxgate magnetometer with the three sensors mounted in a mutually orthogonal configuration. The magnetometer sensors are located at the end of a 4-m boom. Each axis has a range of approximately  $\pm 500$  nT ( $1$  nT =  $10^{-5}$  Gauss). Preflight calibrations indicated that the absolute accuracy of the measurement of the ambient magnetic field along any of the three axes was less than 1 nT at a 1 sigma confidence level. A calibration pulse built into the instrument is used to check the sensitivity levels of all three axes on orbit.

The SC11 magnetic field data were received from Patrick Air Force Base as 15 sec averages of the three components of the magnetic field ( $B_x$ ,  $B_y$  and  $B_z$ ) in Earth-Centered Inertial (ECI) coordinates. Also received were the three components of the Olson-Pfitzer <sup>2</sup> model field and the L-shell values computed from the model for the same periods as the SC11 data. The model field includes dipole tilt and seasonal effects. The magnetic field data (measured and modeled) were first transformed into Solar Magnetic (SM) coordinates. In SM coordinates  $B_z$  is parallel to the north magnetic pole,  $B_y$  is perpendicular to the Earth-sun line, and  $B_x$  completes the Cartesian coordinate system and is positive in the sunward direction.

### 2.2 Description of Data Presentation: SC11 Magnetometer

In each Figure the three components of the measured magnetic field intensities are plotted in solid lines and the three components of the model magnetic field components are plotted in dashed lines. The top panel gives the  $B_x$  component, the middle panel the  $B_y$  component and the bottom panel the  $B_z$  component. The Solar Magnetic coordinate system is used and the units are nanoTeslas ( $10^{-5}$  Gauss). The model field is the Olson-Pfitzer quiet model <sup>2</sup> The magnetic field components are plotted as a function of Universal Time (UT) for each day. In addition to UT the following ephemeris data are given: Local Time (LT), Magnetic Local Time (MLT), Magnetic Latitude, the McIlwain L-Parameter calculated using the Olson-Pfitzer magnetic field model, Geographic Latitude and Geographic Longitude.

<sup>2</sup>Olsen, W.P. and Pfitzer, K.A. (1974) A quantitative model of the magnetospheric magnetic field. *J. Geophys. Res.*, 79:3739.

### 2.3 Calendar of Days for which SC11 Magnetometer Data are Presented

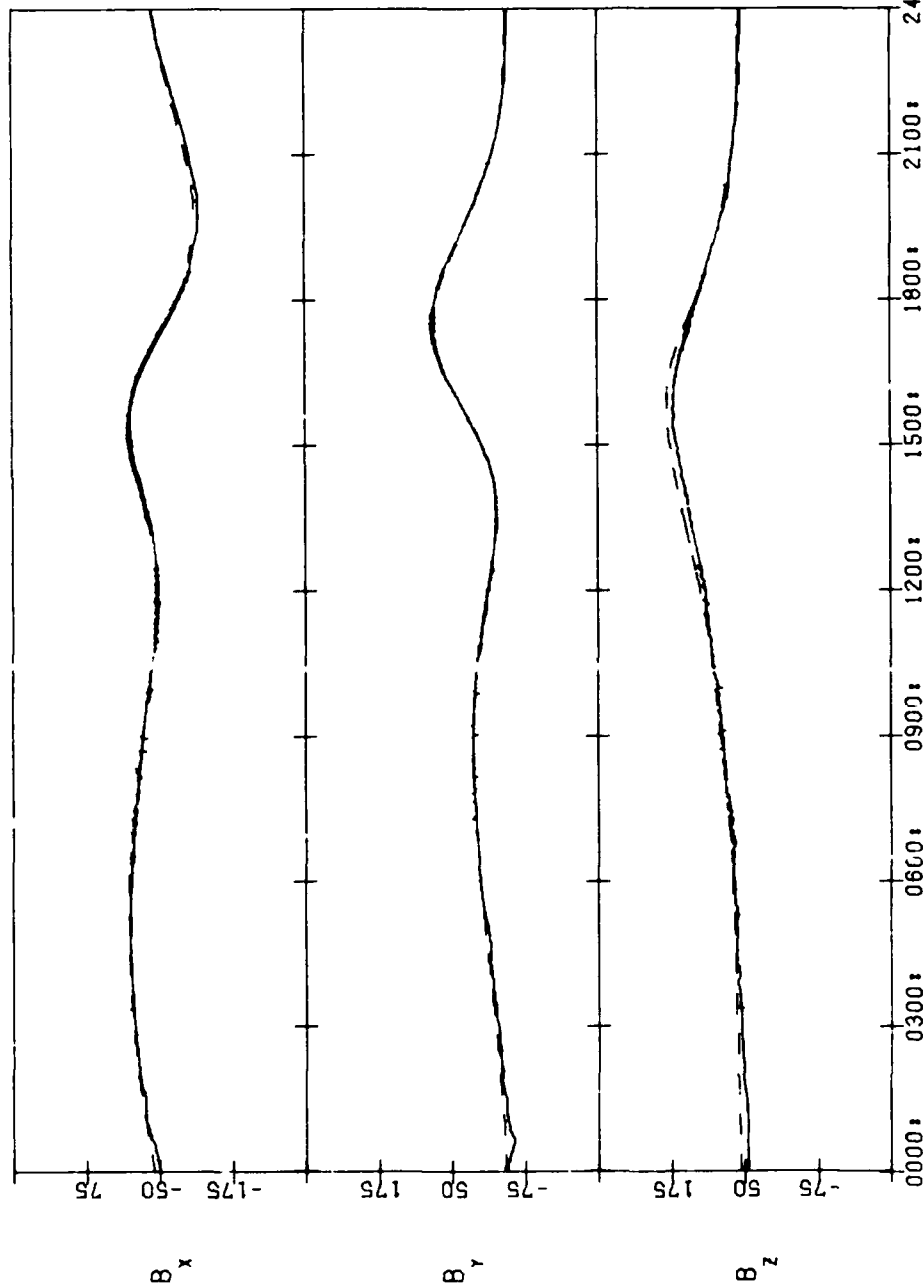
1979												1980					
DAY	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	DAY
1		091	121	152													1
2																	2
3		093	123														3
4		094	124			216					004						4
5		095	125	156			248	278	309			036					5
6			126	157		218		279				037					6
7			127	158	188			280	311	341							7
8			128					281									8
9			129	160				282								161	9
10																162	10
11							254					042				163	11
12											012					164	12
13		103		164	194	225			317							165	13
14		104				226				348						166	14
15				166		227			319			046					15
16				167								047					16
17				168						351							17
18	077	108	138			230	261				018						18
19					200		262		323								19
20		110				232		293									20
21	080	111	141	172		233	264										21
22	081	112	142			234											22
23		113								357							23
24		114	144						328								24
25		115	145		206				329	359							25
26		116	146		207												26
27		117		178	208					331	361	027					27
28	087	118					271	301				028					28
29	088	119	149	180	210	241	272				363						29
30	089	120	150				273										30
31	090				212												31



## 2.4 Data Presentation; SC11 Magnetometer

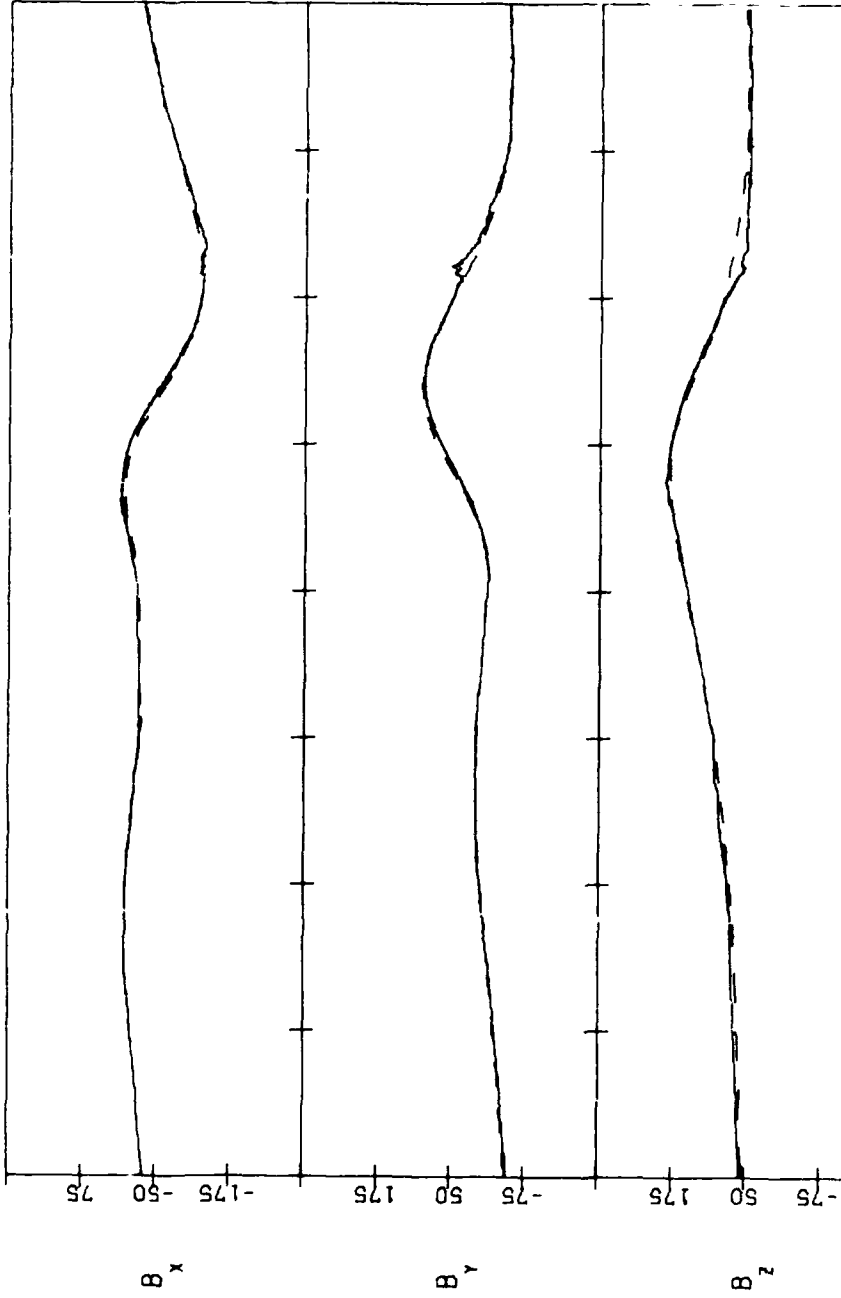
SCATHA SC11(SOLAR MAGNETIC)

9077 03/18/79



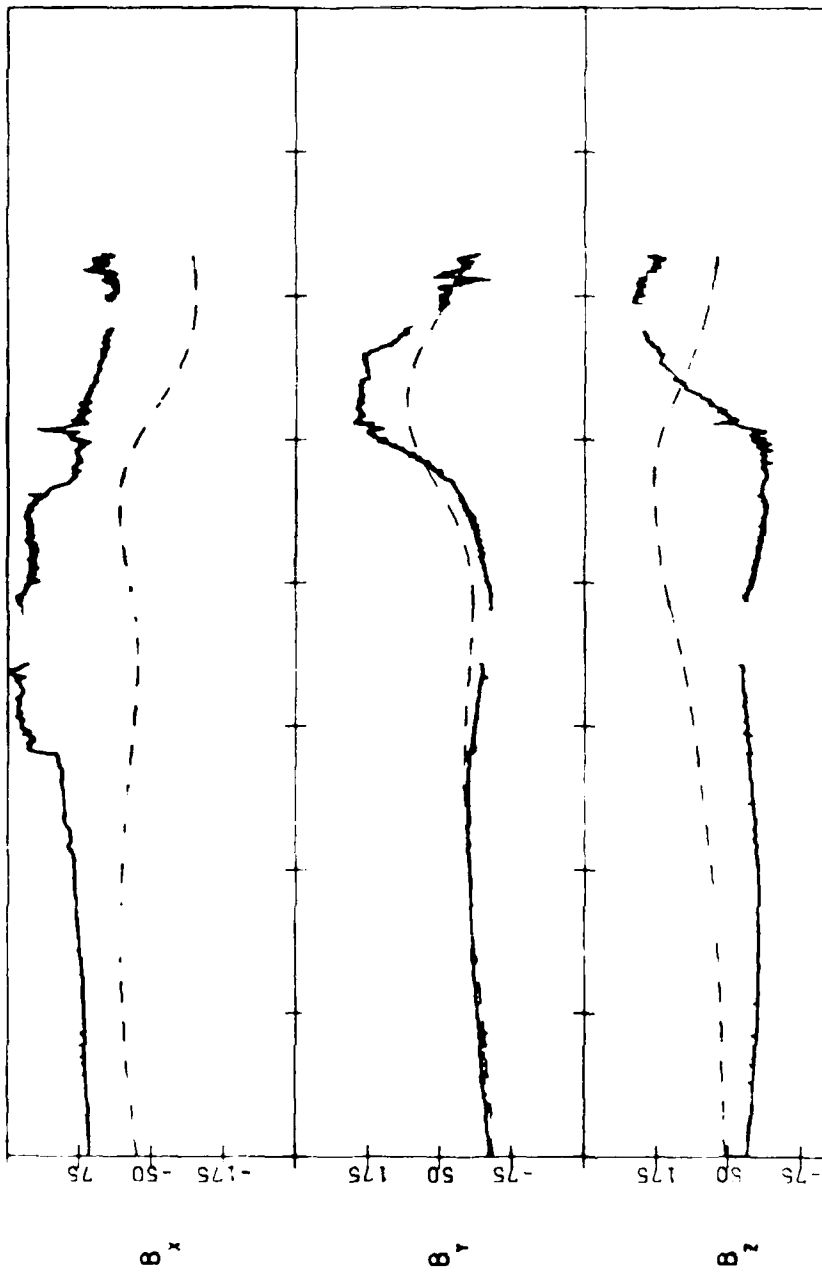
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0321:	0537:	0743:	1001:	1254:	1646:	2111:	0052:	0335:	LOCAL TIME(HHMM:)
0310:	0530:	0745:	1007:	1258:	1643:	2104:	0045:	0325:	MAG. TIME(HHMM:)
-11.4	-5.4	1.3	6.8	8.2	0.9	-11.2	-14.9	-11.5	MAG. LAT
7.9	7.8	7.6	6.9	6.2	5.6	6.0	7.2	7.9	L-SHELL
-5.3	-1.2	3.0	6.6	7.6	2.8	-5.5	-7.6	-4.8	LATITUDE
52.3	41.4	28.0	17.5	15.7	28.7	49.9	60.2	56.2	LONGITUDE

SCATHA SC11 (SOLAR MAGNETIC)  
79080 03/21/79



UT	LOCAL TIME (HHMM)	MAG. TIME (HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000	0300	0600	0900	1200	1500	1800	2100	2400
0406	0707	0825	1053	1427	1821	2236	0152	0421
0357	0704	0826	1057	1426	1814	2229	0147	0412
-11.5	-2.8	0.9	5.2	3.1	-6.8	-16.0	-16.1	-11.5
8.0	7.7	7.3	6.6	5.8	5.5	6.6	7.7	8.0
-3.8	2.2	4.6	7.4	6.2	-0.7	-7.3	-6.8	-3.2
63.5	45.7	38.2	30.3	34.9	52.2	70.9	74.9	67.1

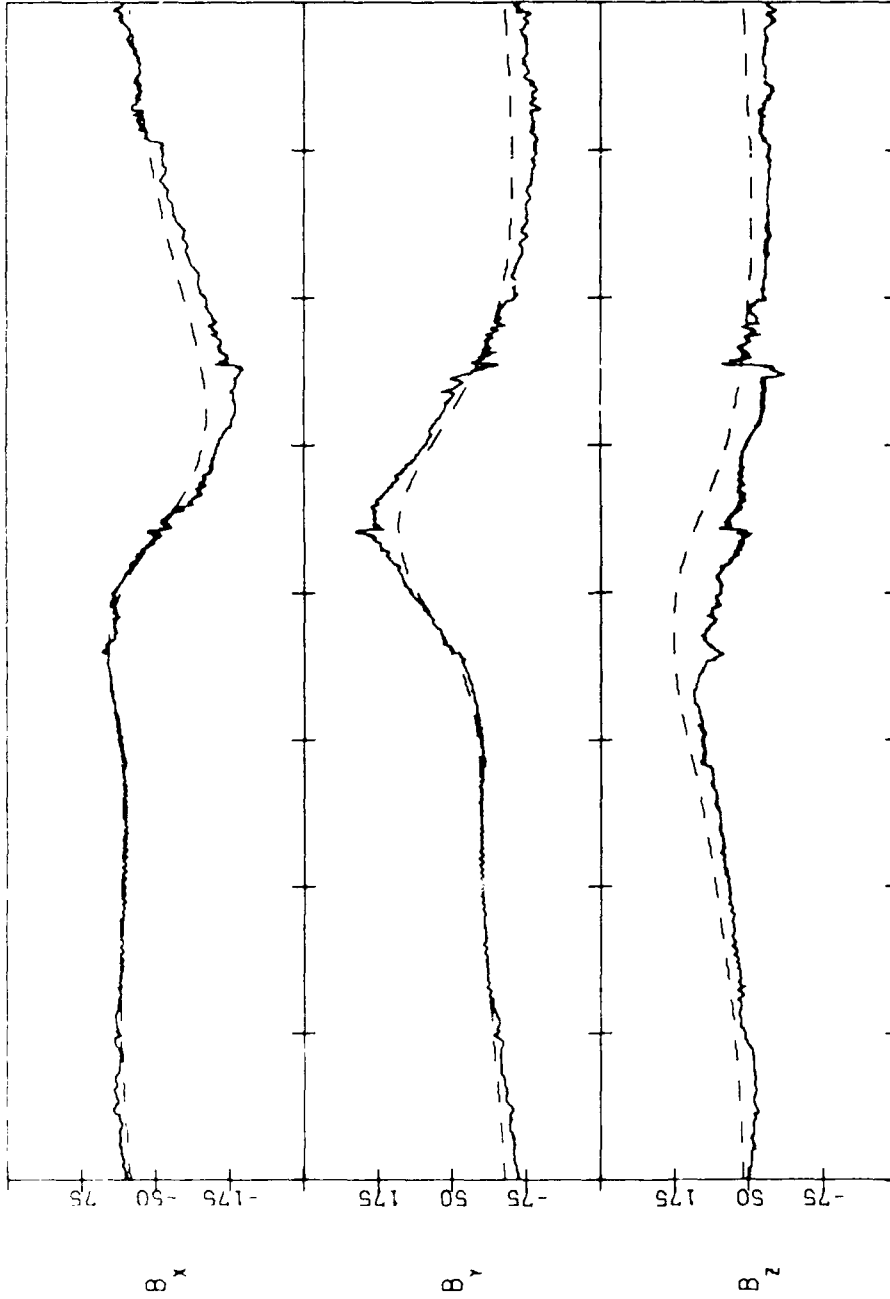
SCATNA SC11(SOLAR MAGNETIC)  
79081 09/22/79



UT	LOCAL TIME(MMM)	MAG. TIME(MMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000						
0421	0629	0839	1112	1435	1853	2302
0413	0624	0840	1116	1433	1845	2256
-11.5	-5.4	0.7	4.5	1.8	-9.3	-17.1
8.0	7.8	7.2	6.5	5.7	5.6	6.8
-3.2	1.1	5.1	7.8	6.0	-1.9	7.6
67.1	54.2	41.7	34.9	40.6	60.1	77.3

SCATHA SC11(SOLAR MAGNETIC)

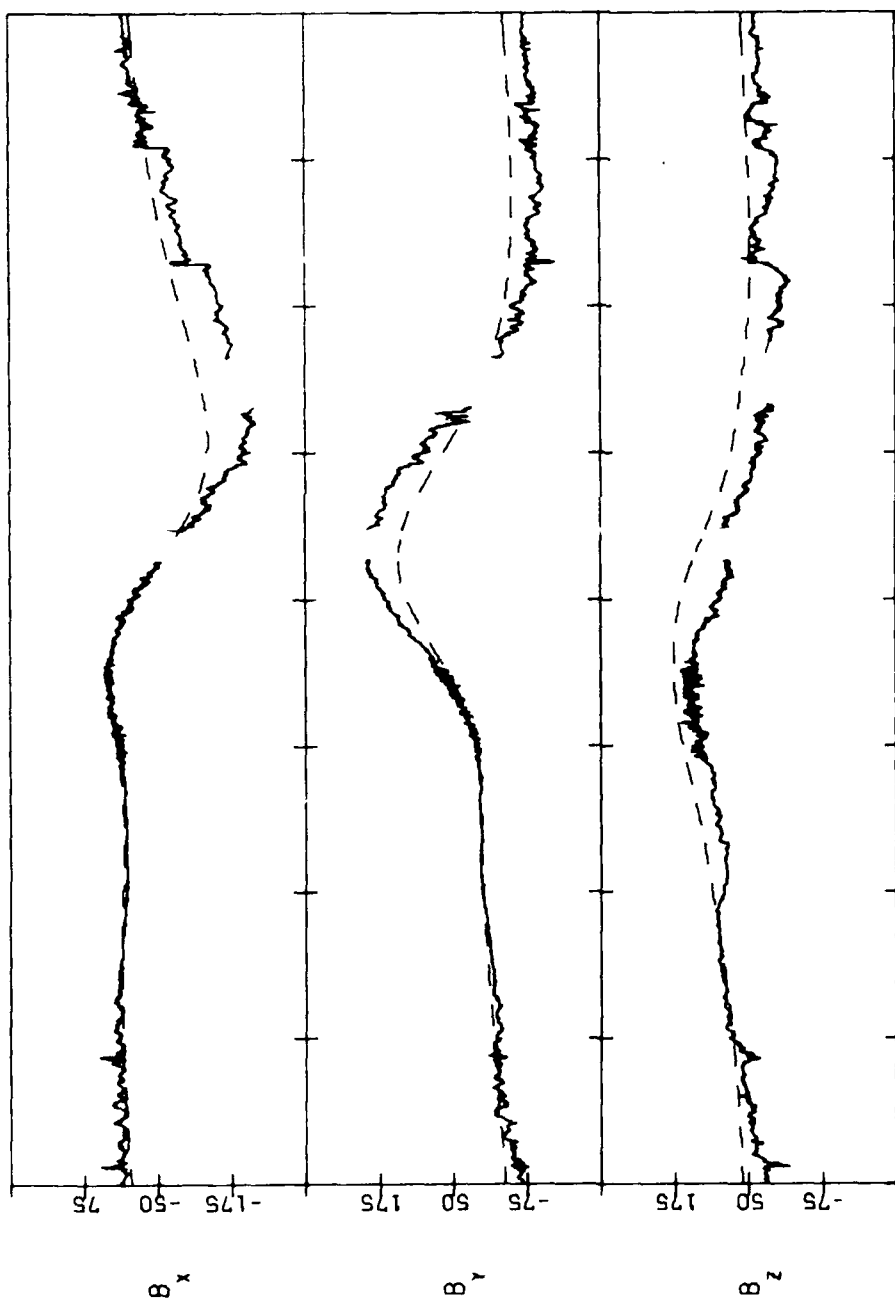
79087 03/28/79



UT	LOCAL TIME (HHMM)	MAG. TIME (HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000	0300	0600	0900	1200	1500	1800	2100	2400
0542	0750	1016	1326	1736	2153	0114	0346	0555
0538	0747	1016	1325	1729	2147	0115	0345	0551
-10.2	-4.8	-0.8	-1.6	-10.4	-18.3	-18.3	-14.7	-9.8
7.9	7.5	6.6	5.8	5.6	6.6	7.8	8.2	7.9
0.2	4.4	7.3	6.9	-0.1	-7.1	-7.0	-3.5	0.8
86.9	74.0	65.5	68.0	85.4	104.8	110.0	102.8	90.2

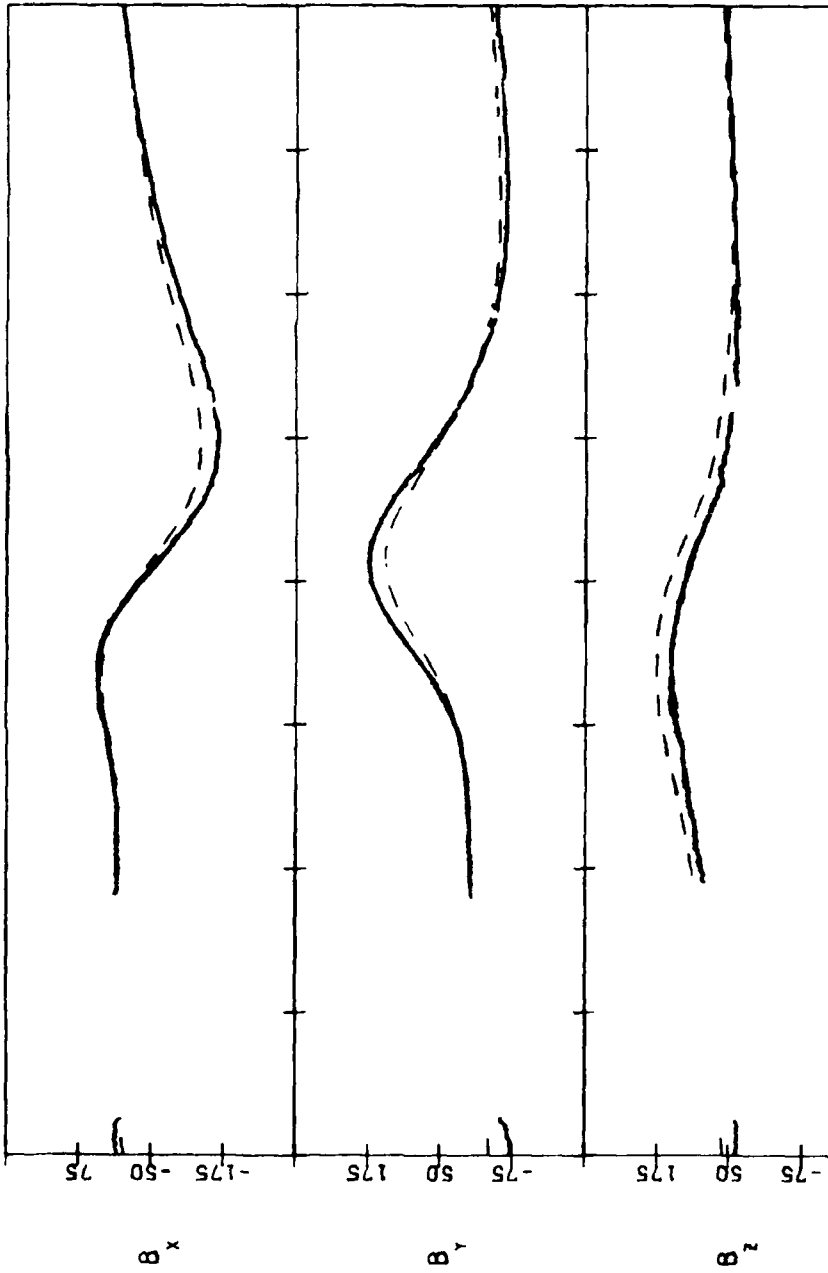
SCATHA SC11(SOLAR MAGNETIC)

79088 03/29/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0555:	0804:	1035:	1353:	1808:	2220:	0133:	0400:	0608:	LOCAL TIME(HHMM:)
0552:	0801:	1034:	1350:	1801:	2215:	0135:	0400:	0605:	MAG. TIME(HHMM:)
-9.8	-4.7	-1.2	-2.9	-12.1	-18.7	-17.9	-14.2	-9.5	MAG. LAT
7.9	7.4	6.5	5.7	5.6	6.8	7.9	8.2	7.9	L-SHELL
0.8	4.9	7.6	6.3	-1.3	-7.4	-6.7	-2.9	1.4	LATITUDE
90.1	77.5	70.0	74.5	93.3	111.4	114.6	106.3	93.4	LONGITUDE

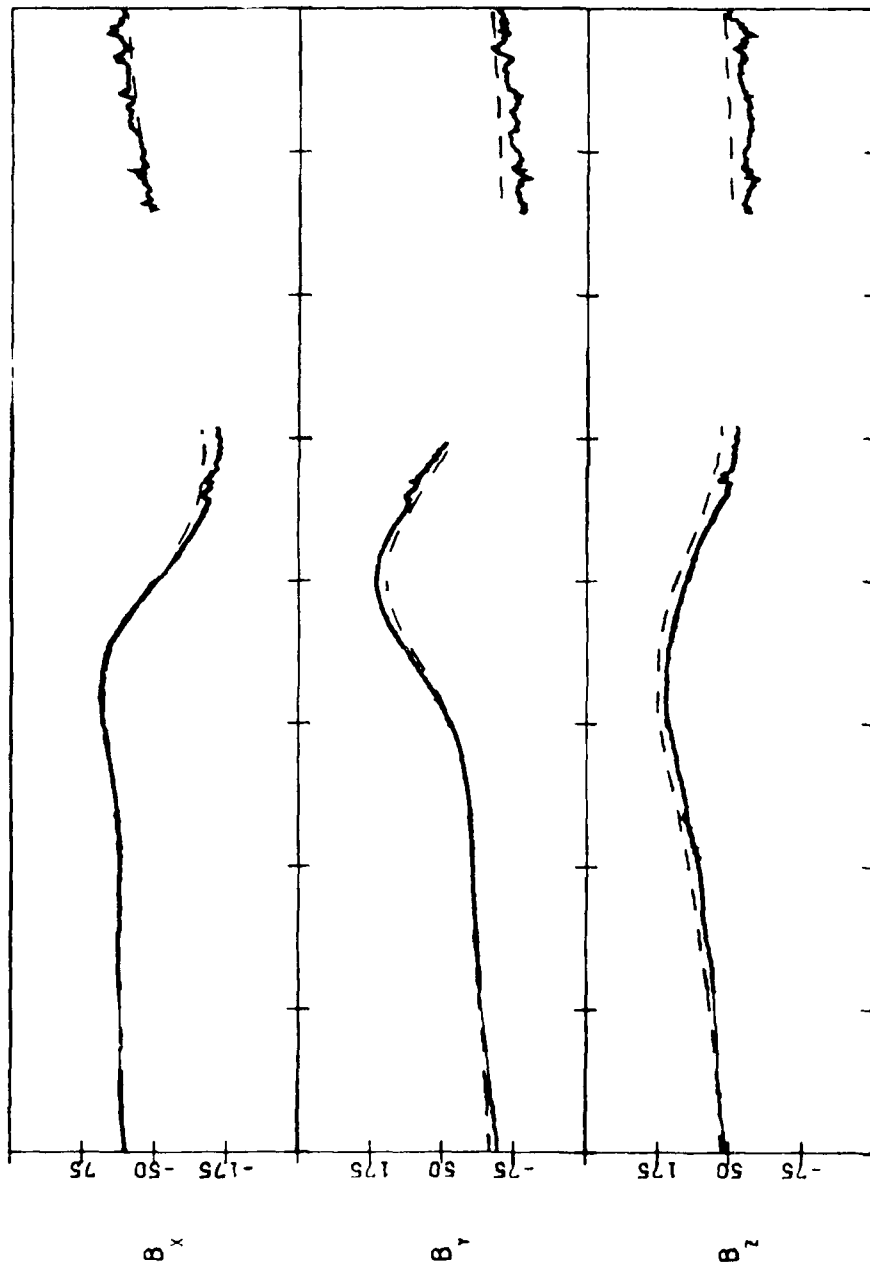
SCATNA SCL1(SOLAR MAGNETIC)  
79089 03/30/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0908:	0645:	1054:	1420:	1840:	2246:	0154:	0414:	
0606:	0642:	1053:	1417:	1833:	2241:	0157:	0415:	
-9.4	-8.0	-1.6	-4.3	-13.6	-18.8	-17.3	-13.6	
7.9	7.7	6.4	5.7	5.7	6.9	8.0	8.2	
1.4	2.6	7.7	5.7	-2.5	-7.7	-6.2	-2.4	
93.3	89.5	74.8	81.3	101.3	117.7	118.9	109.7	

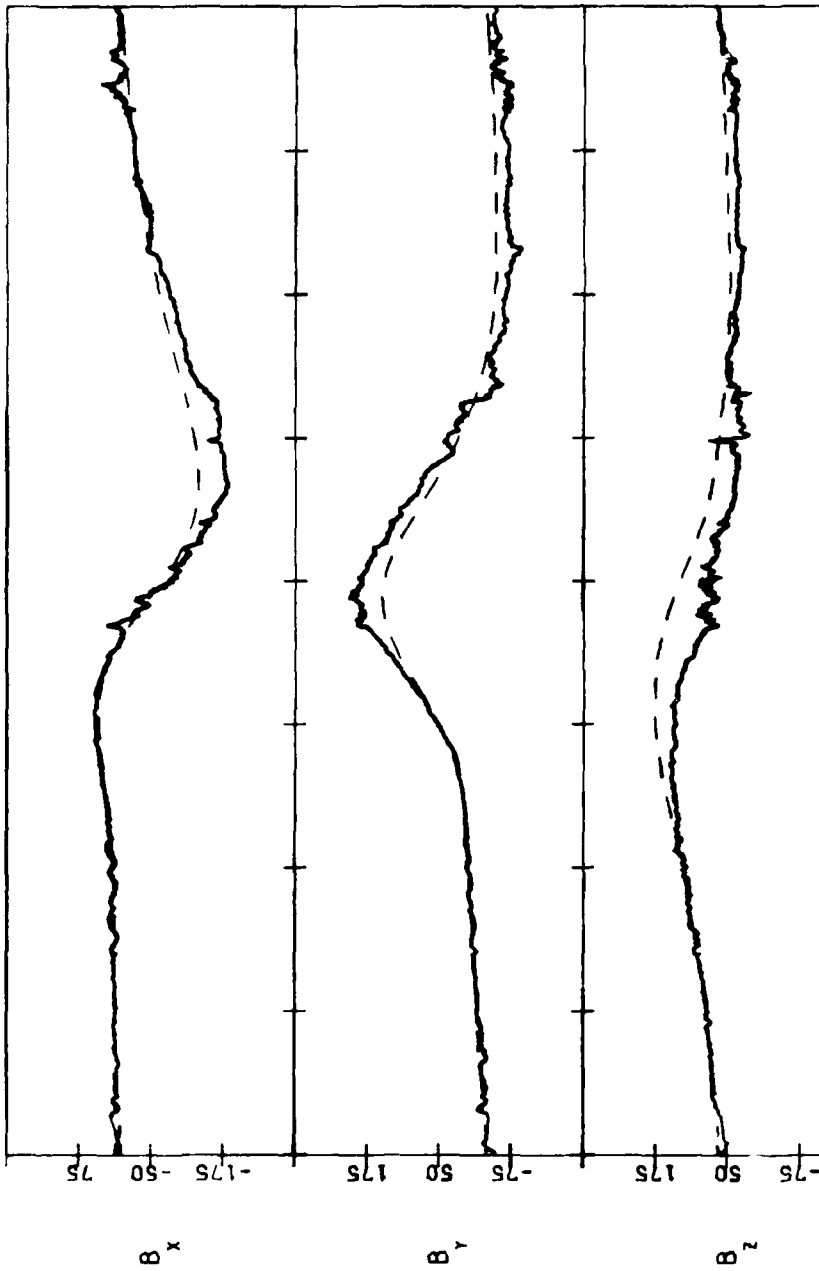
SCATHA SC11 (SOLAR MAGNETIC)

79090 03/31/79



UT	LOCAL TIME (HHMM)	MAG. LAT	L-SMELL	LATITUDE	LONGITUDE			
0000	0300	0600	0900	1200	1500	1800	2100	2400
0622	0850	1114	1449	1911	2310	0325	0428	
0620	0848	1113	1445	1906	2307	0328	0429	
-9.7	-4.1	-2.0	-5.7	-14.9	-18.7	-14.9	-13.0	
7.8	7.1	6.3	5.6	5.0	7.1	8.2	8.1	
1.9	6.1	7.8	4.9	-3.6	-7.8	-3.8	-1.8	
96.6	83.7	79.8	88.4	109.1	123.8	118.6	113.1	

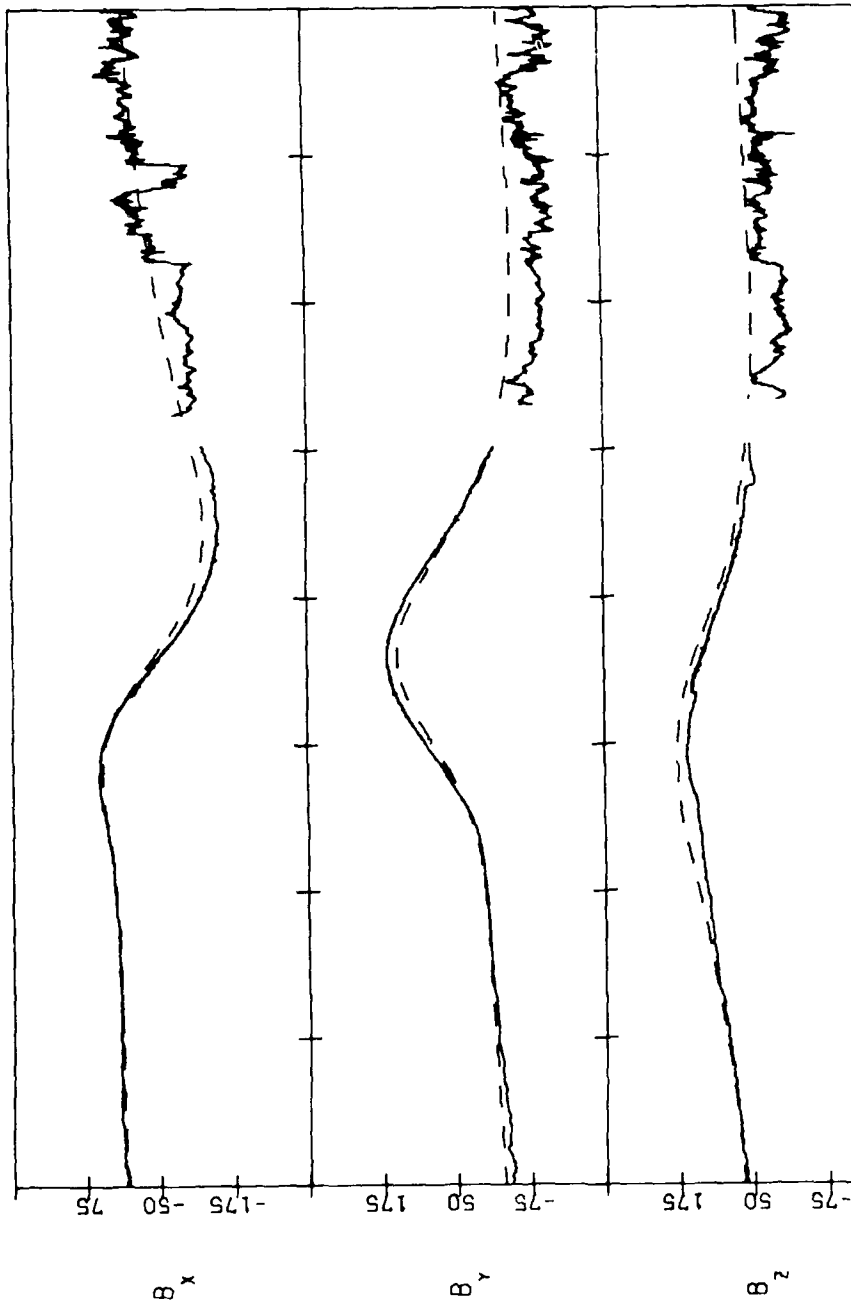
SCATHA SC11(SOLAR MAGNETIC)  
79091 04/01/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0635:	0849:	1135:	1518:	1943:	2334:	0224:	0441:	0647:	0647:	0647:	0647:	-8.2	7.7	3.0	103.1
0634:	0847:	1134:	1514:	1938:	2332:	0228:	0443:	0647:	0647:	0647:	0647:	-8.2	7.7	3.0	103.1
-8.6	-4.4	-2.5	-7.0	-15.8	-18.3	-16.1	-12.4	-8.2							
7.8	7.0	6.2	5.6	6.0	7.2	8.1	8.1	7.7							
2.5	6.2	7.8	3.9	-4.6	-7.8	-5.4	-1.2	3.0							
99.8	88.5	85.0	95.7	116.8	129.5	127.3	116.4	103.1							



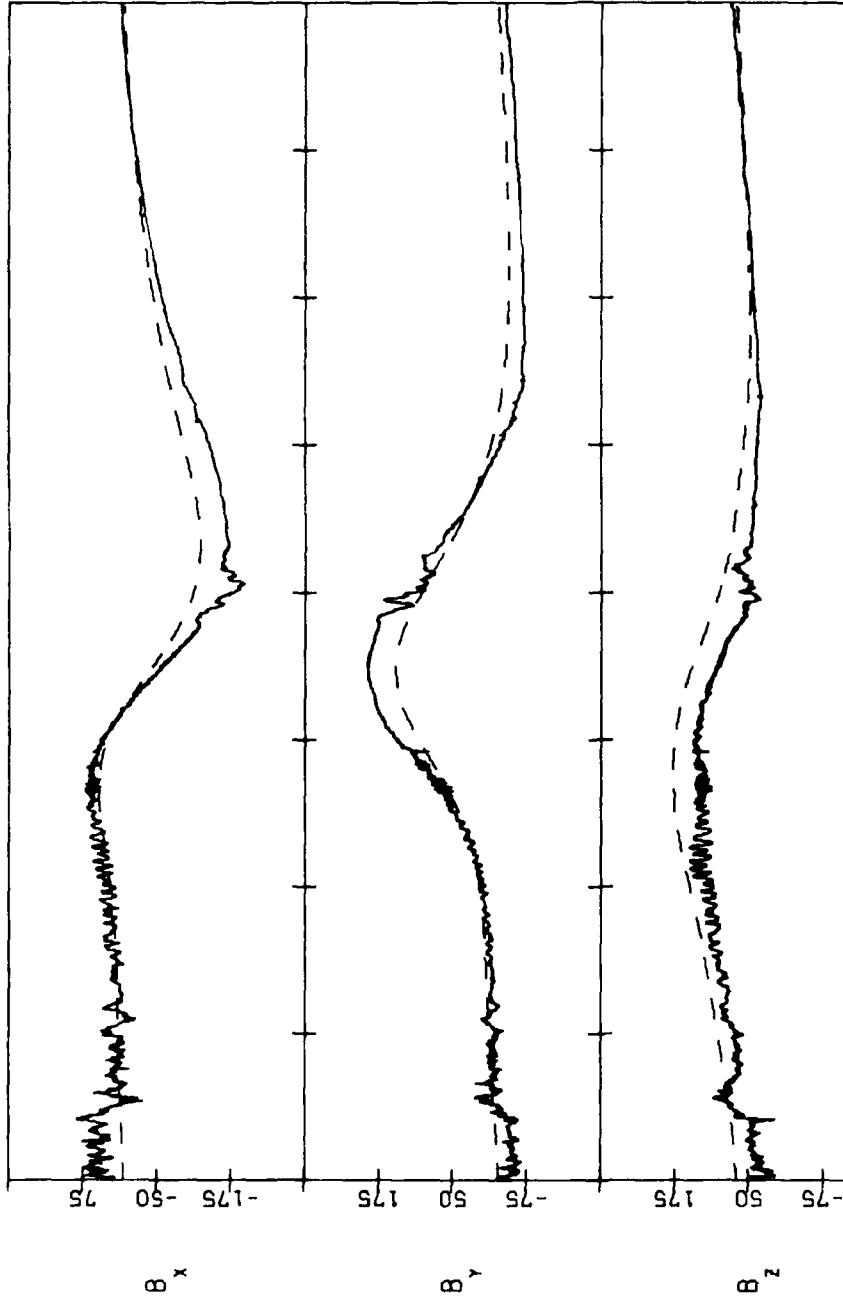
SCATHA SC11(SOLAR MAGNETIC)  
79093 04/03/79



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0702:	0922:	1221:	1619:	2043:	0017:	0256:	0508:	0715:	LOCAL TIME(HHMM:)
0702:	0920:	1219:	1616:	2040:	0017:	0301:	0511:	0716:	MAG. TIME(HHMM:)
-7.7	-4.1	-3.5	-9.5	-16.6	-17.1	-14.5	-11.0	-7.2	MAG. LAT
7.6	6.8	6.0	5.5	6.3	7.4	8.1	8.0	7.6	L-SHELL
3.6	6.9	7.4	1.8	-6.2	-7.5	-4.3	-0.1	4.1	LATITUDE
106.4	96.5	96.2	110.8	131.7	140.1	134.9	122.9	109.8	LONGITUDE

SCATHA SC111(SOLAR MAGNETIC)

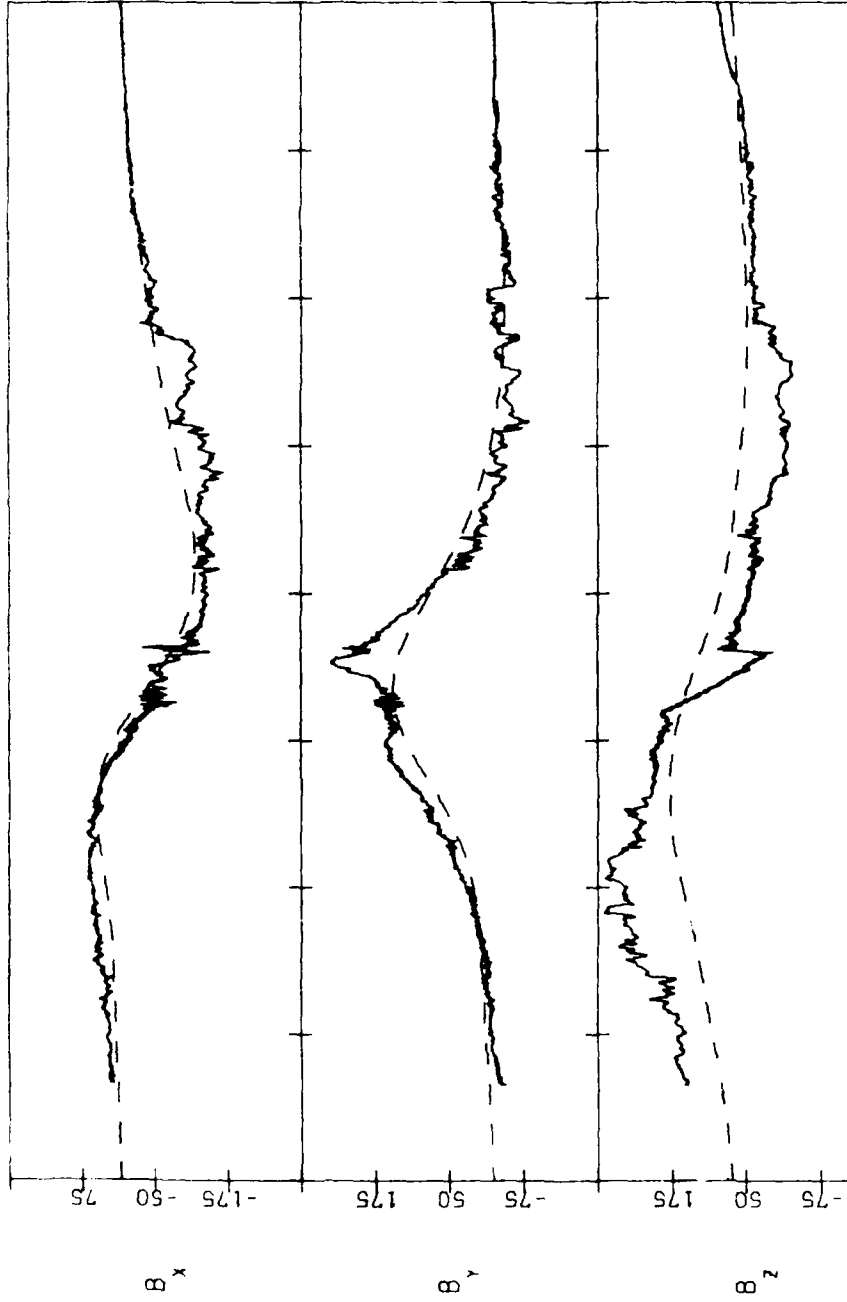
79094 04/04/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0715:	0939:	1245:	1651:	2111:	0037:	0311:	0521:	0729:							
0716:	0938:	1243:	1648:	2109:	0038:	0316:	0525:	0730:							
-7.2	-3.9	-4.1	-10.5	-16.6	-16.3	-13.6	-10.3	-6.7							
7.6	6.7	5.9	5.6	6.4	7.5	8.1	7.9	7.5							
4.1	7.2	7.1	0.6	-6.8	-7.2	-3.8	0.5	4.6							
109.7	100.7	102.2	118.7	138.7	145.1	138.6	126.1	113.2							

SCATHA SC111(SOLAR MAGNETIC)

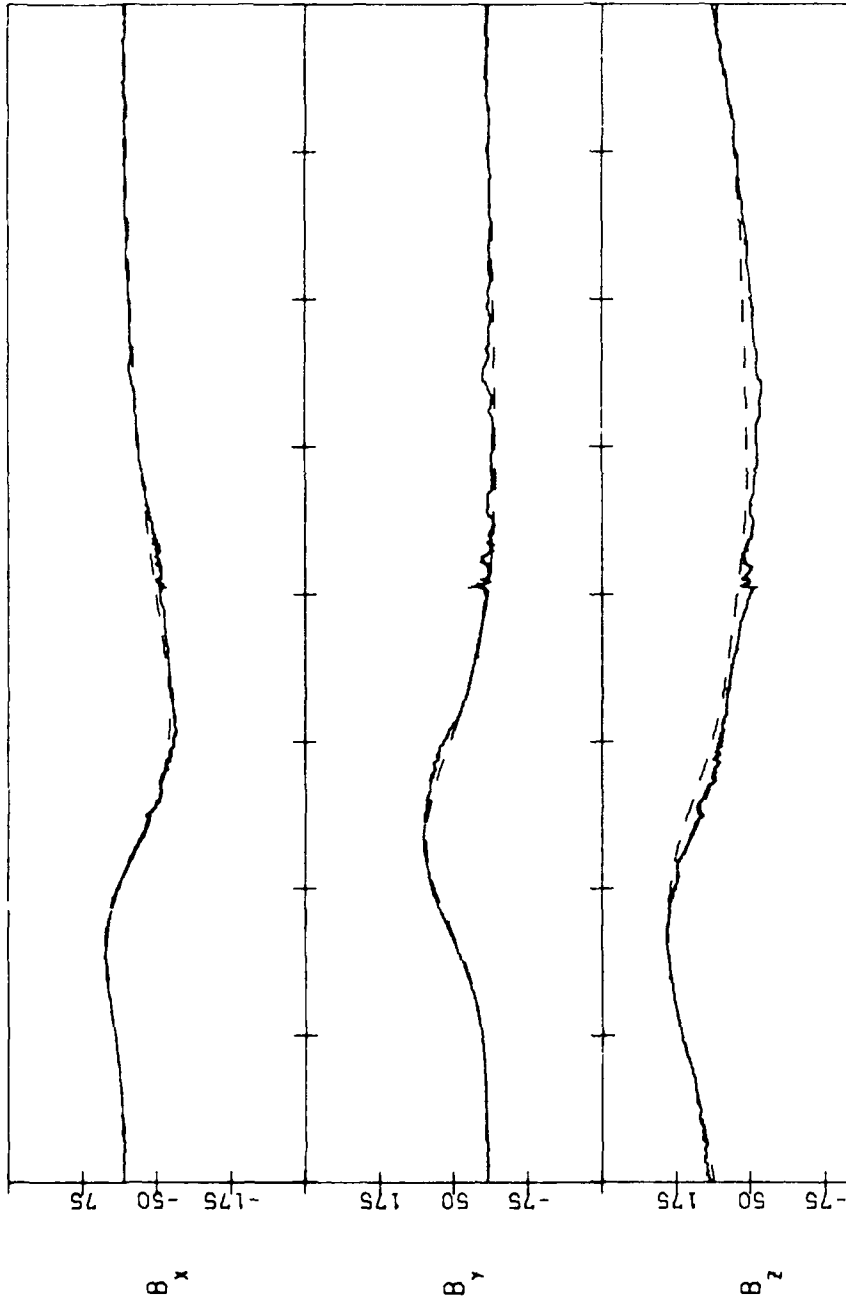
79095 04/05/79



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0731:	0956:	1309:	1721:	2137:	0058:	0330:	0539:	0745:			
-6.7	-3.8	-4.6	-11.4	-16.3	-15.4	-12.7	-9.5	-6.1			
7.5	6.6	5.8	5.6	6.6	7.6	8.1	7.9	7.4			
4.6	7.4	6.6	-0.6	-7.2	-6.9	-3.2	1.1	5.1			
113.2	105.2	108.5	126.6	145.5	149.8	142.1	129.3	116.8			

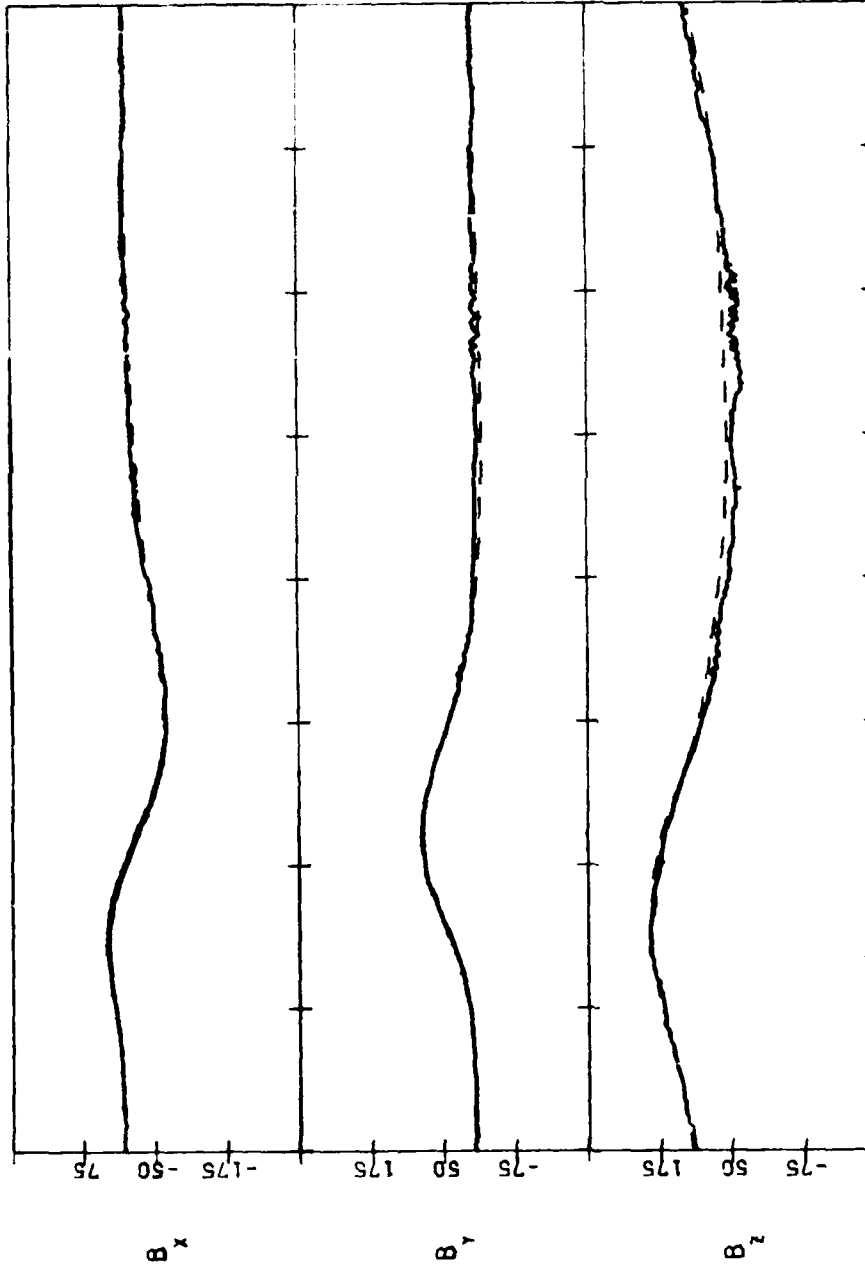
SCATHA SC11(SOLAR MAGNETIC)

79103 04/13/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE			
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0939:	1255:	1710:	2123:	0037:	0304:	0513:	0723:	0957:
0942:	1256:	1713:	2127:	0037:	0305:	0518:	0731:	1001:
-1.6	-2.3	-7.0	-9.8	-8.5	-6.4	-4.4	-2.5	-0.9
6.5	5.7	5.5	6.3	7.3	8.0	7.8	7.3	6.4
7.5	6.4	-1.2	-7.4	-6.7	-3.0	1.4	5.3	7.5
144.9	149.2	167.8	186.1	189.5	191.3	192.0	192.0	192.0

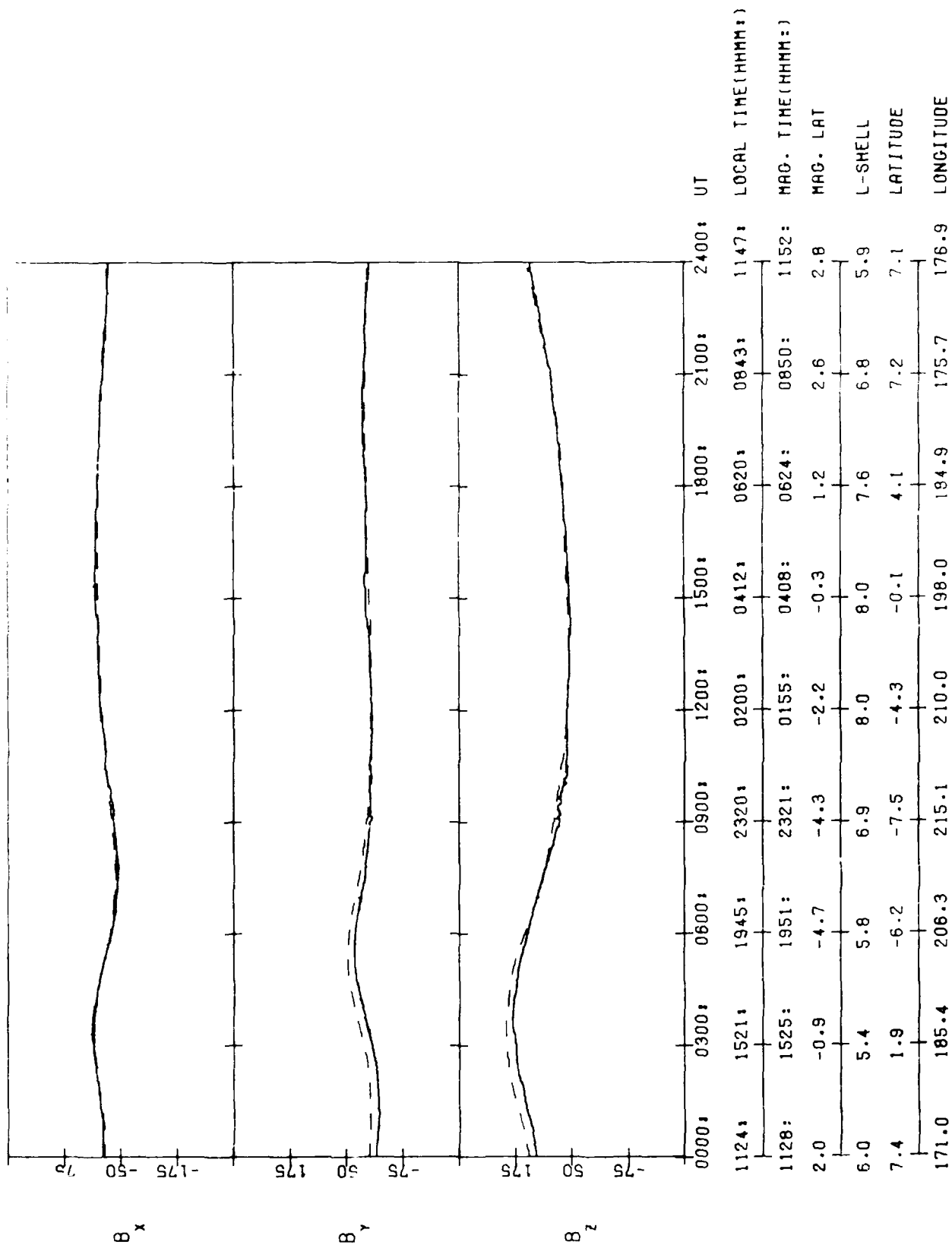
SCATHA SC11(SOLAR MAGNETIC)  
79104 04/14/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0958:	1323:	1742:	2149:	0055:	0318:	0526:	0738:	1017:	LOCAL TIME(HHMM:)
1002:	1323:	1746:	2153:	0054:	0318:	0531:	0746:	1021:	MAG. TIME(HHMM:)
-0.9	-2.0	-6.8	-8.8	-7.2	-5.2	-3.3	-1.5	-0.2	MAG. LAT
6.4	5.6	5.5	6.5	7.5	8.1	7.7	7.2	6.3	L-SMELL
7.7	5.7	-2.4	-7.7	-6.3	-2.4	1.9	5.7	7.8	LATITUDE
149.6	155.9	175.7	192.4	193.9	184.8	171.7	159.7	154.6	LONGITUDE

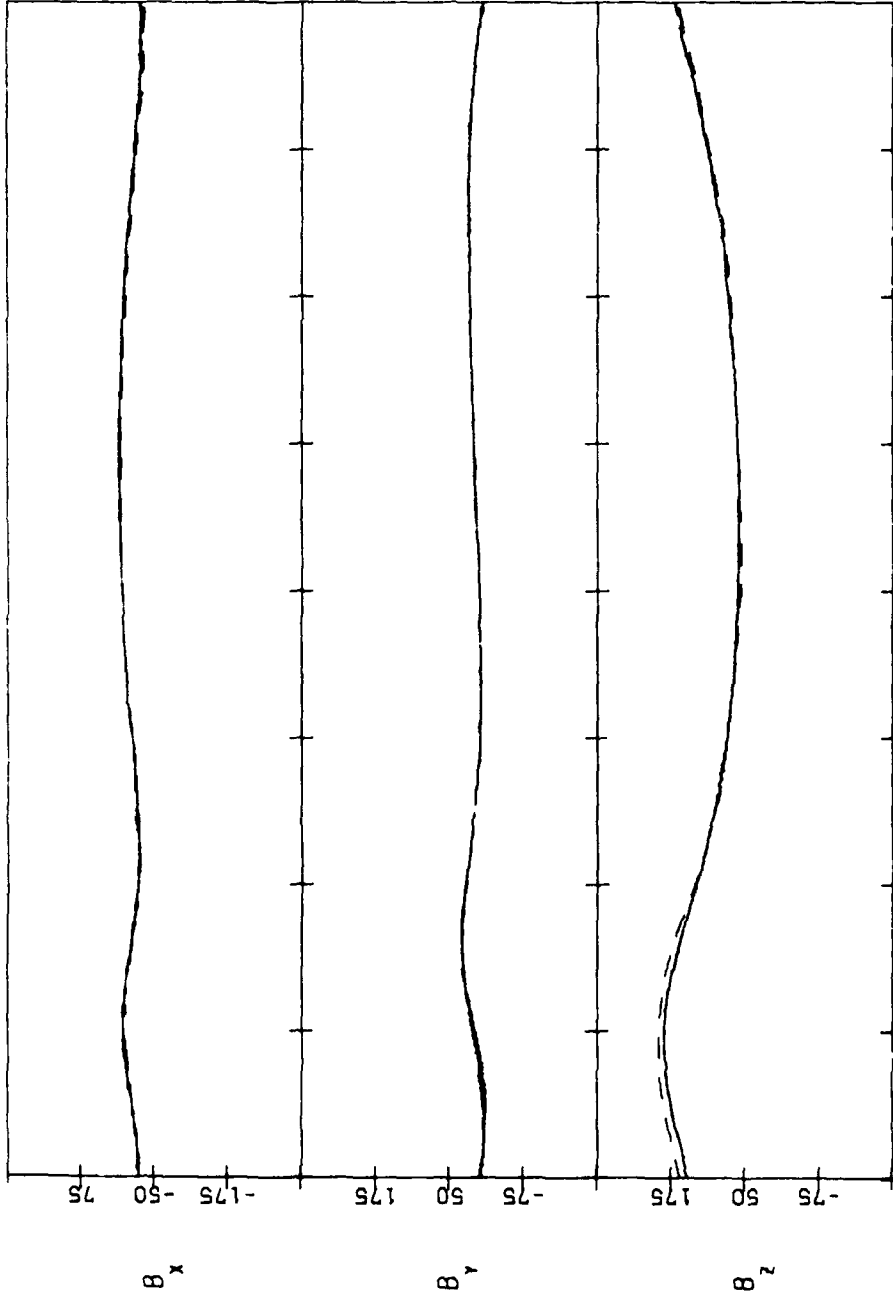
SCATHA SC11(SOLAR MAGNETIC)

79108 04/18/79



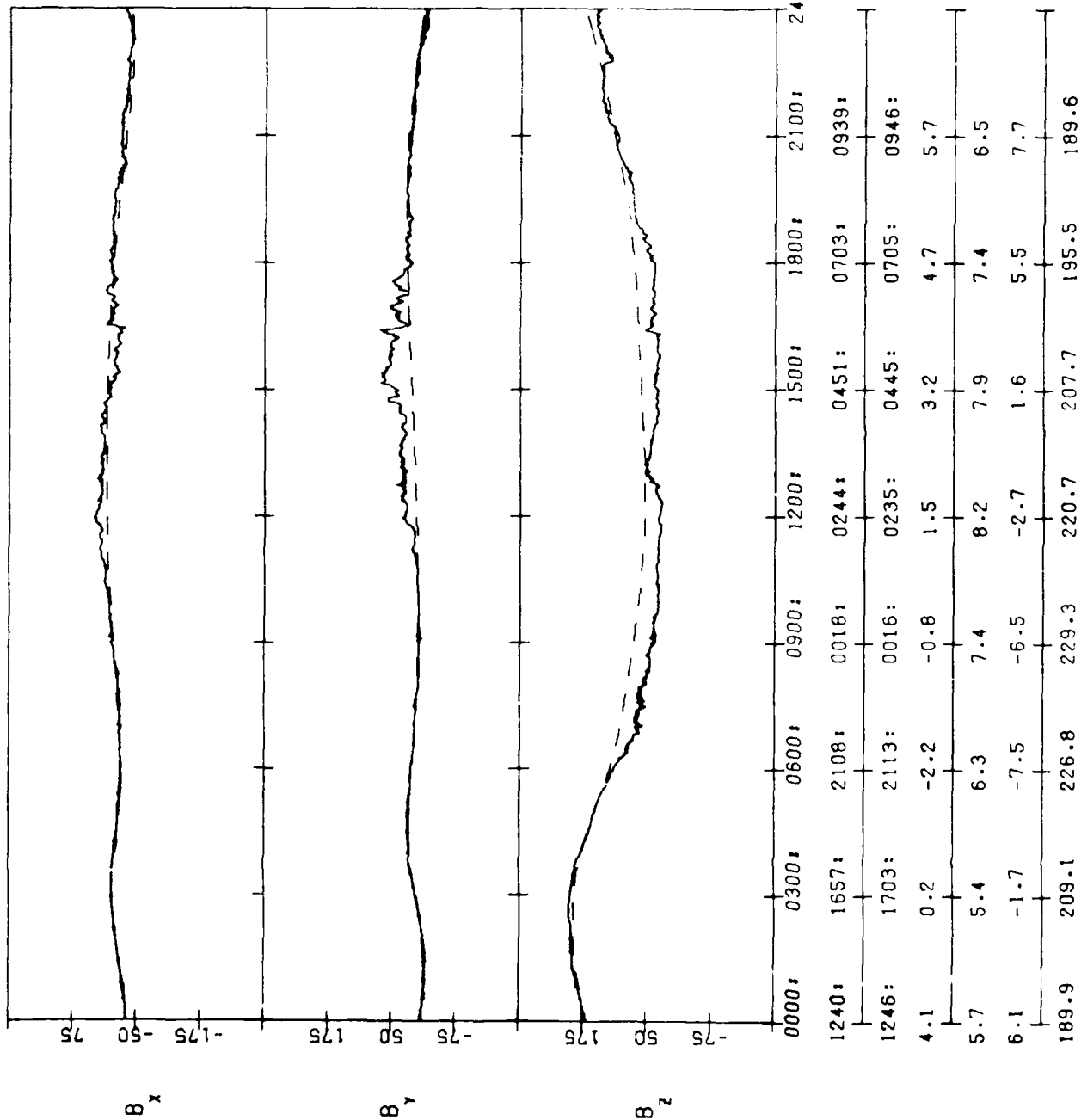
SCATHA SC11(SOLAR MAGNETIC)

79110 04/20/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1214:	1625:	2042:	0000:	0229:	0438:	0648:	0920:	1239:	LOCAL TIME(HHMM:)
1219:	1630:	2047:	2359:	0223:	0433:	0651:	0927:	1245:	MAG. TIME(HHMM:)
3.5	-0.2	-3.1	-1.9	0.3	2.1	3.5	4.7	4.1	MAG. LAT
5.8	5.4	6.1	7.2	8.1	7.9	7.4	6.6	5.7	L-SHELL
6.7	-0.5	-7.2	-6.9	-3.2	1.1	5.0	7.6	6.1	LATITUDE
183.3	201.2	220.2	224.8	217.3	204.5	191.9	184.8	189.8	LONGITUDE

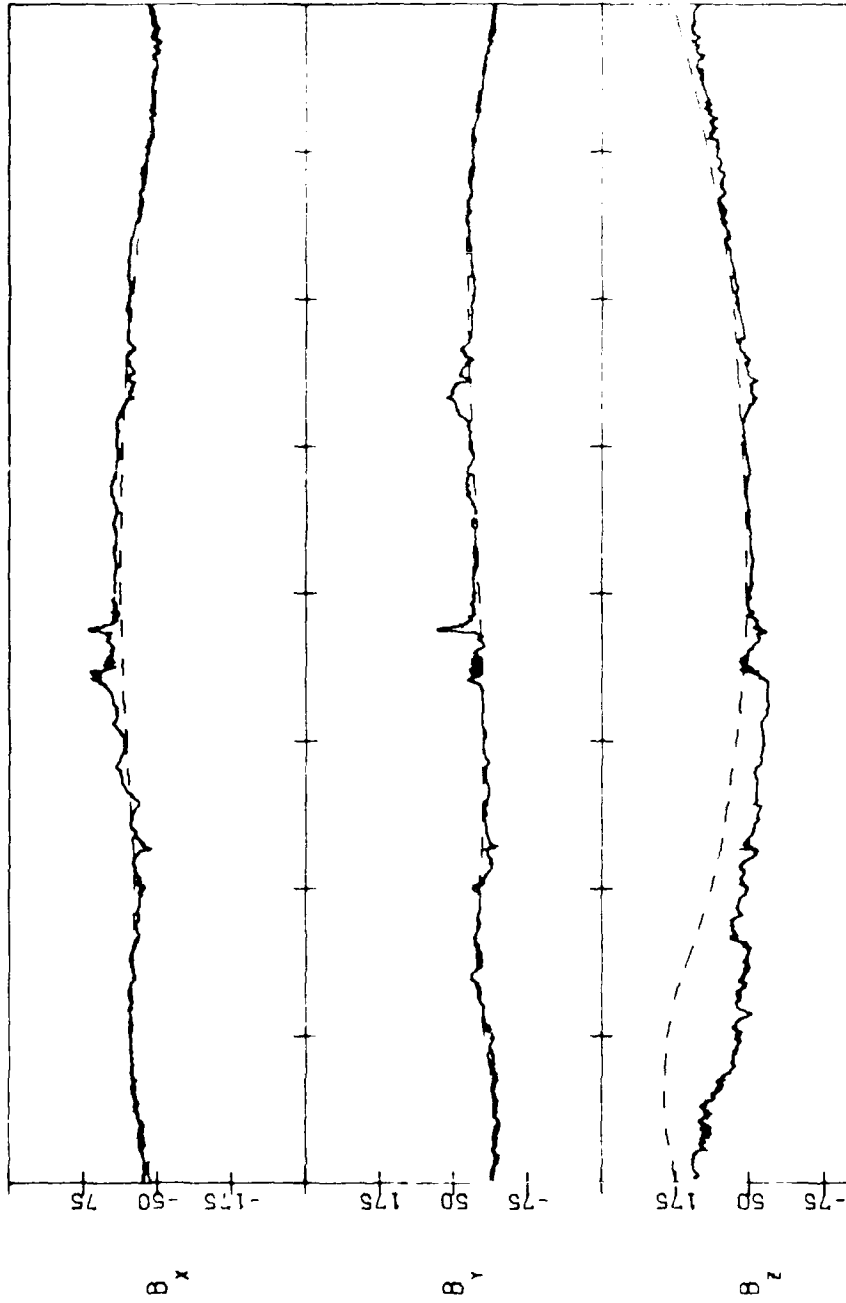
SCATHA SC11(SOLAR MAGNETIC)  
79111 04/21/79





SCATHA SCI1(SOLAR MAGNETIC)

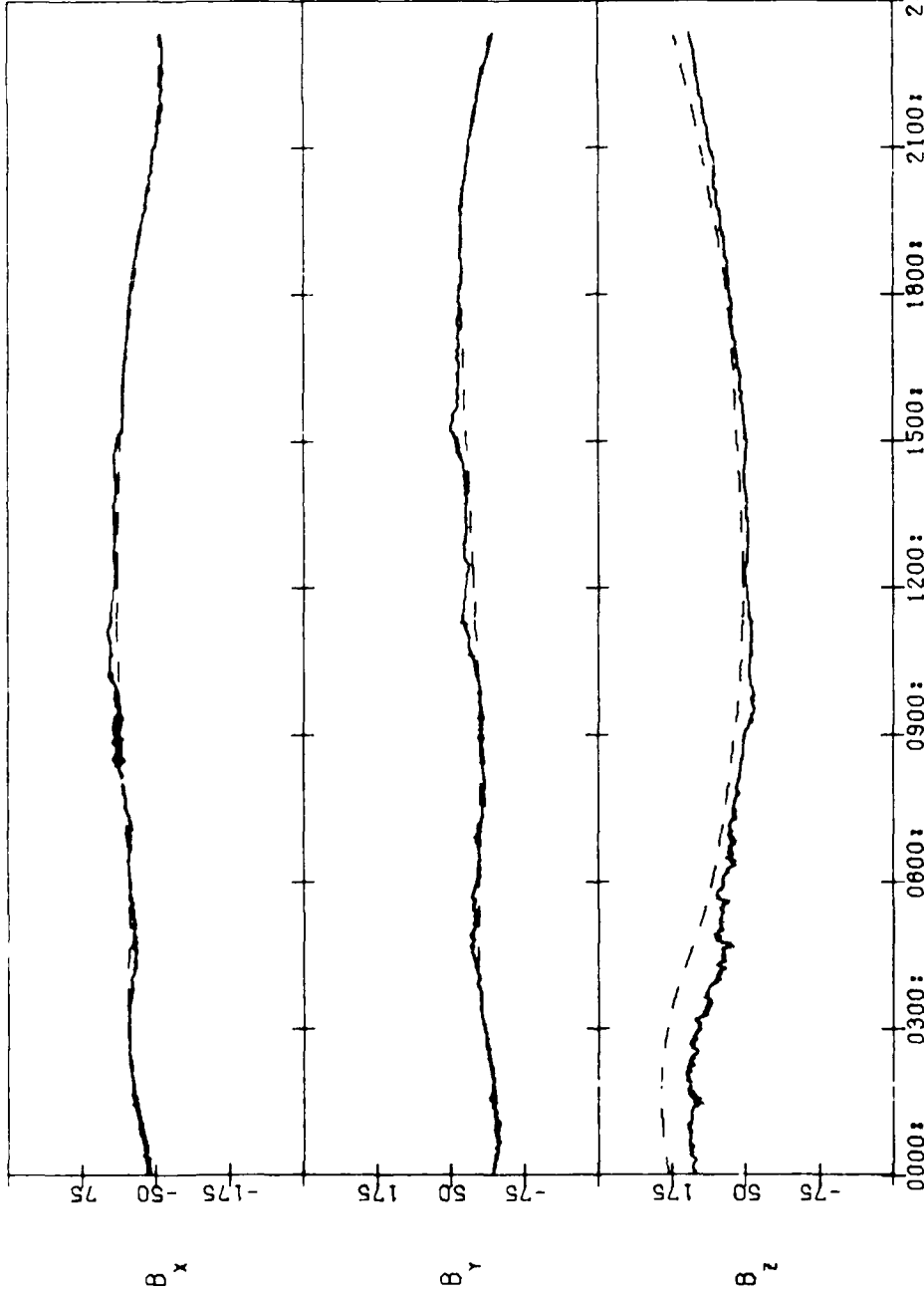
79112 04/22/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1308:	1729:	2133:	0036:	0258:	0505:	0718:	1000:	1336:
1314:	1735:	2137:	0033:	0248:	0457:	0720:	1007:	1342:
4.8	0.6	-1.4	0.4	2.7	4.4	5.8	6.7	5.3
5.6	5.5	6.4	7.5	8.2	7.8	7.3	6.4	5.5
5.3	-2.9	-7.7	-6.1	-2.1	2.2	5.9	7.8	4.5
196.8	217.1	233.0	233.7	224.1	210.3	199.2	194.7	203.3

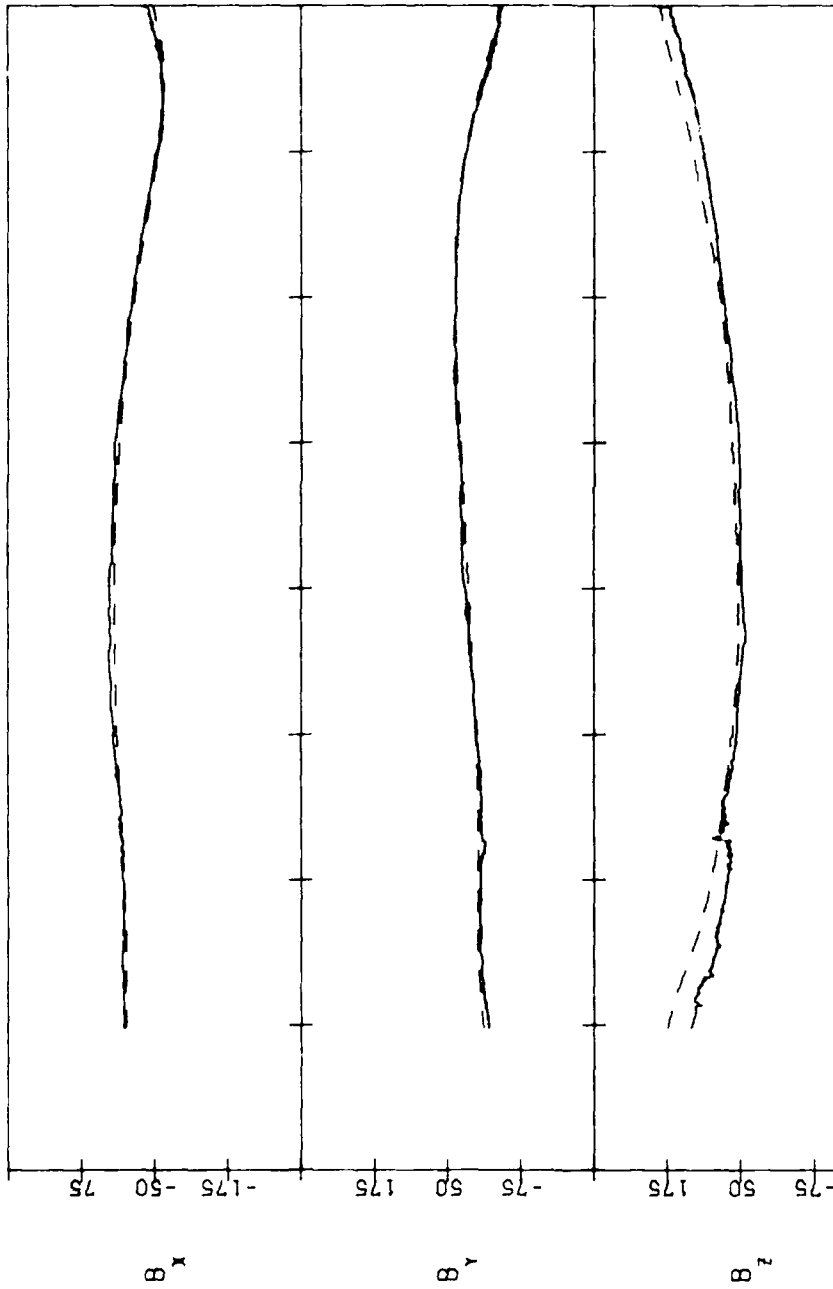
SCATHA SC11(SOLAR MAGNETIC)

79113 04/23/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1337:	1801:	2157:	0052:	0318:	0518:	0734:	1021:	
1343:	1807:	2201:	0049:	0307:	0510:	0735:	1028:	
5.3	0.9	-0.5	1.5	3.9	5.6	7.0	7.7	
5.5	5.5	6.6	7.6	8.2	7.8	7.3	6.3	
4.5	-4.0	-7.8	-5.6	-1.3	2.7	6.3	7.7	
204.0	224.9	239.0	237.9	226.8	214.2	203.1	200.1	

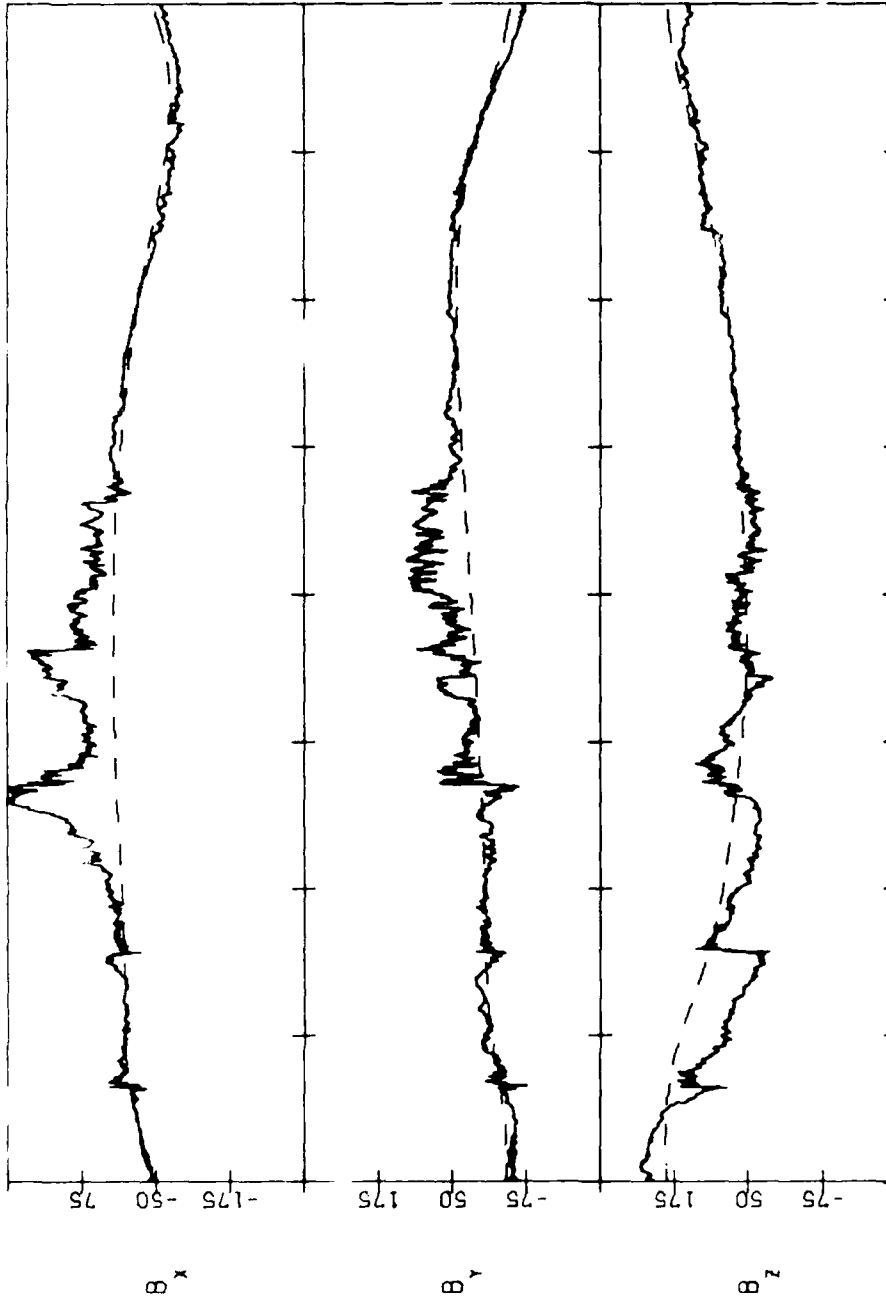
SCATHA SC11(SOLAR MAGNETIC)  
79114 04/24/79



UT	LOCAL TIME(MMM:)	MAG. TIME(MMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000:						
0300:						
0600:						
0900:						
1200:						
1500:						
1800:						
2100:						
2400:						
1832:	2220:	0109:	0325:	0531:	0700:	1044:
1436:						
1839:	2223:	0104:	0313:	0522:	0751:	1051:
1444:						
1.3	0.4	2.6	4.9	6.7	8.1	8.6
6.2						
5.6	6.8	7.8	8.2	7.8	7.2	6.2
5.5						
-5.0	-7.7	-5.1	-0.9	3.3	6.7	7.5
2.5						
232.6	244.7	241.9	230.8	217.5	207.1	205.7
218.0						

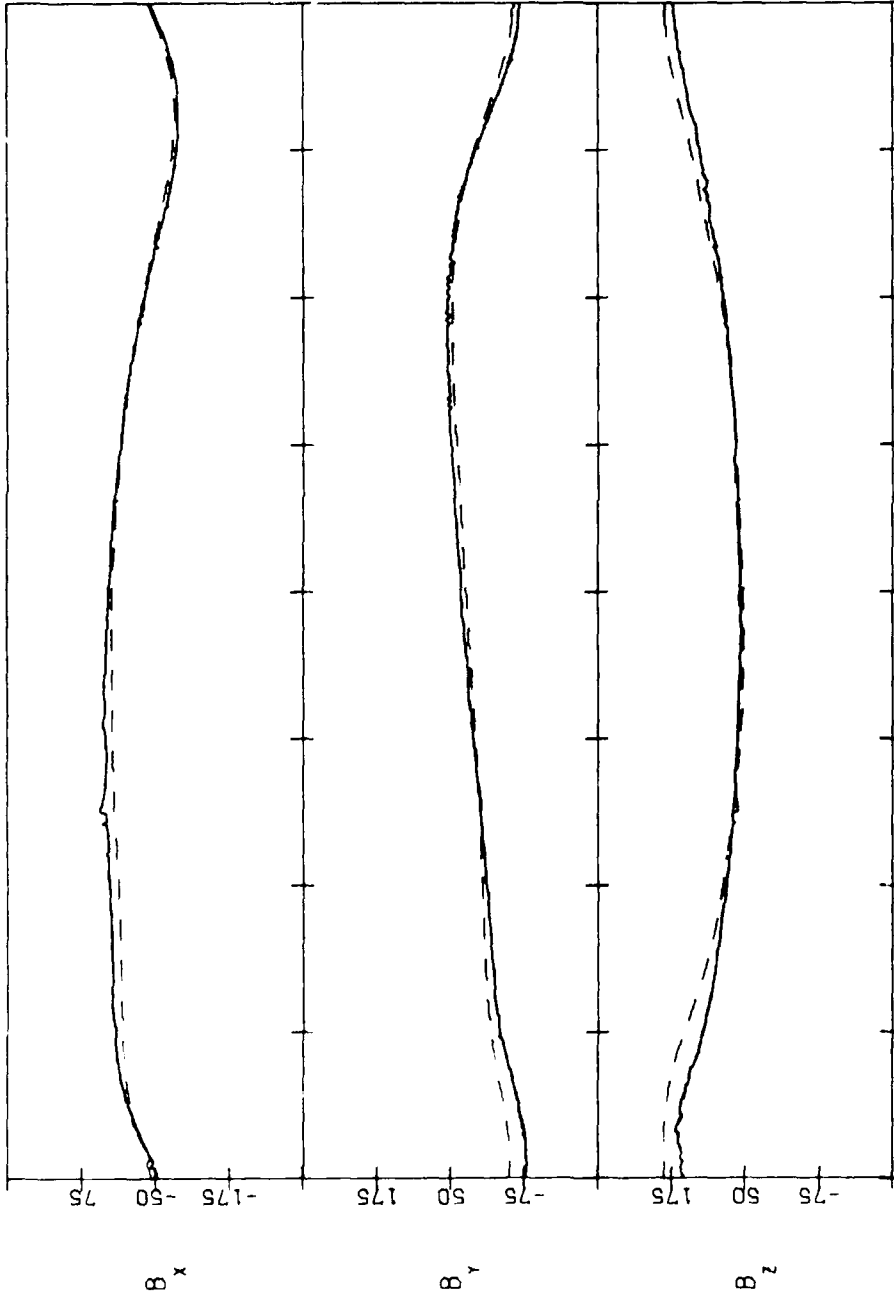
SCATHA SC11(SOLAR MAGNETIC)

03:15 04/25/79



	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1438:	1902:	2242:	0125:	0338:	0545:	0807:	1108:	1508:	LOCAL TIME(HHMM:)
1446:	1909:	2244:	0119:	0325:	0535:	0807:	1115:	1517:	MAG. TIME(HHMM:)
6.2	1.6	1.2	3.6	6.0	7.9	9.2	9.5	6.5	MAG. LAT
5.5	5.7	6.9	7.9	8.2	7.8	7.1	6.1	5.5	L-SHELL
2.4	-5.8	-7.6	-4.6	-0.4	3.8	7.0	7.3	1.3	LATITUDE
219.1	240.2	250.1	245.8	234.1	220.8	211.2	211.5	226.8	LONGITUDE

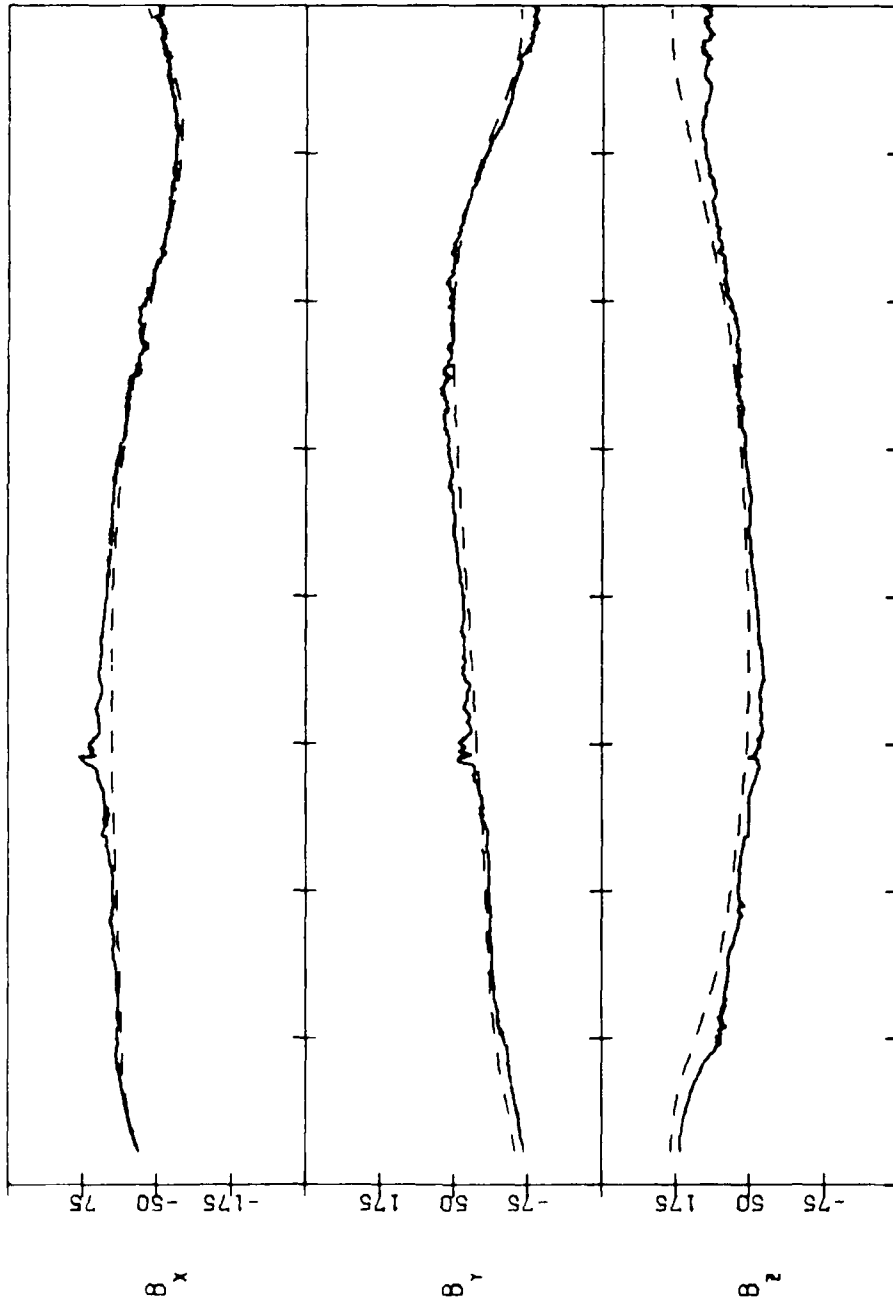
SCATHA SC11(SOLAR MAGNETIC)  
79116 04/26/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1509:	1931:	2302:	0140:	0351:	0559:	0824:	1133:	1540:	LOCAL TIME(HHMM:)
1518:	1938:	2304:	0133:	0337:	0548:	0824:	1140:	1549:	MAG. TIME(HHMM:)
6.4	2.0	2.0	4.6	7.1	9.0	10.3	10.3	6.6	MAG. LAT
5.5	5.8	7.1	8.1	8.2	7.8	7.0	6.0	5.5	L-SHELL
1.3	-6.5	-7.3	-4.0	0.2	4.3	7.3	6.9	0.1	LATITUDE
226.9	247.4	255.2	249.5	237.3	224.3	215.6	217.7	234.7	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

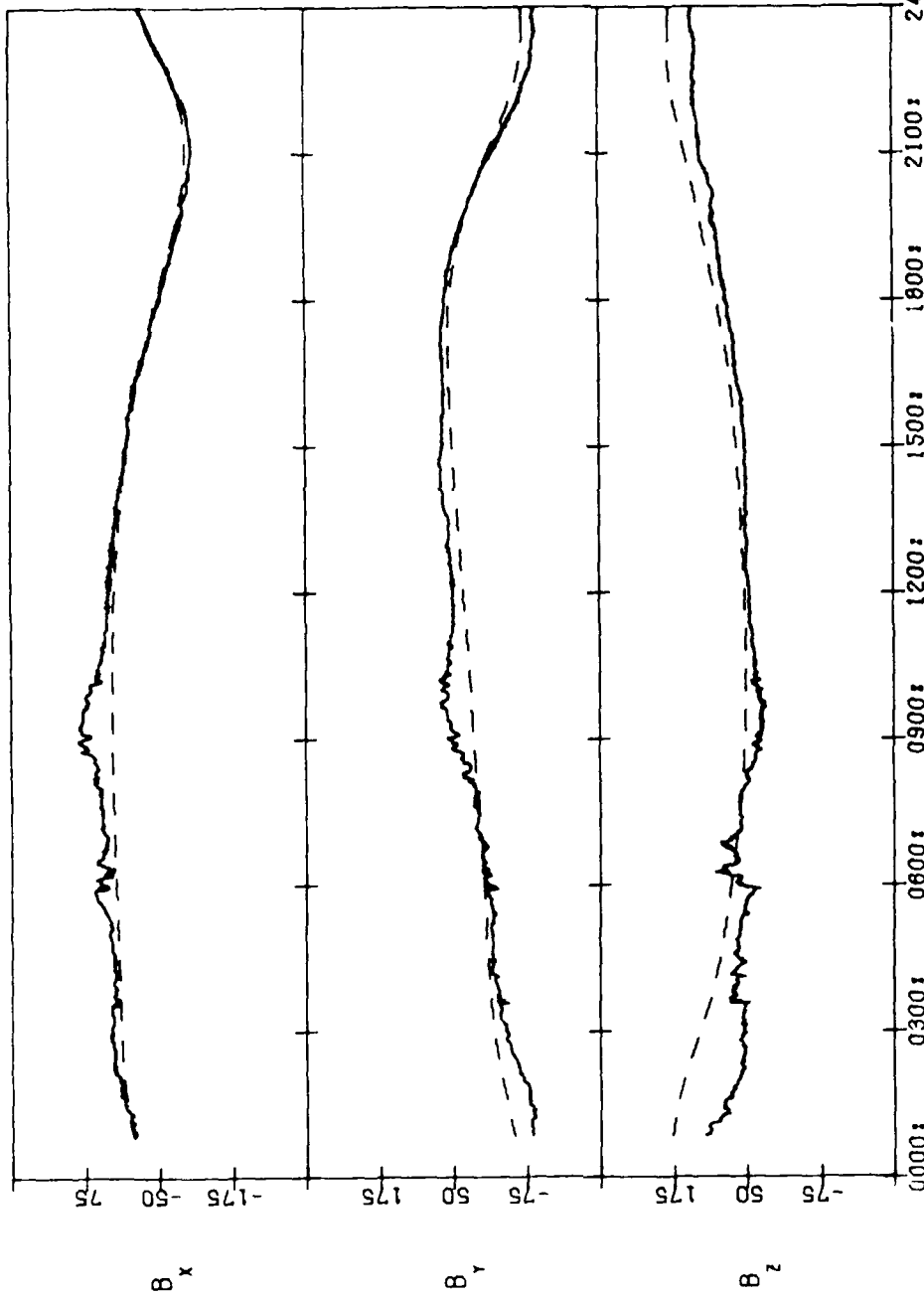
79117 04/27/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1959:	2322:	0154:	0154:	0404:	0613:	0842:	1158:	
2006:	2323:	0147:	0147:	0349:	0601:	0842:	1206:	
2.3	2.8	5.6	8.2	10.1	11.4	11.4	11.0	
6.0	7.2	8.2	8.2	7.7	6.9	6.9	6.0	
-7.0	-7.0	-3.5	0.8	4.8	7.5	7.5	6.4	
254.5	260.1	253.2	240.5	227.7	220.1	220.1	224.2	

SCATHA SC11(SOLAR MAGNETIC)

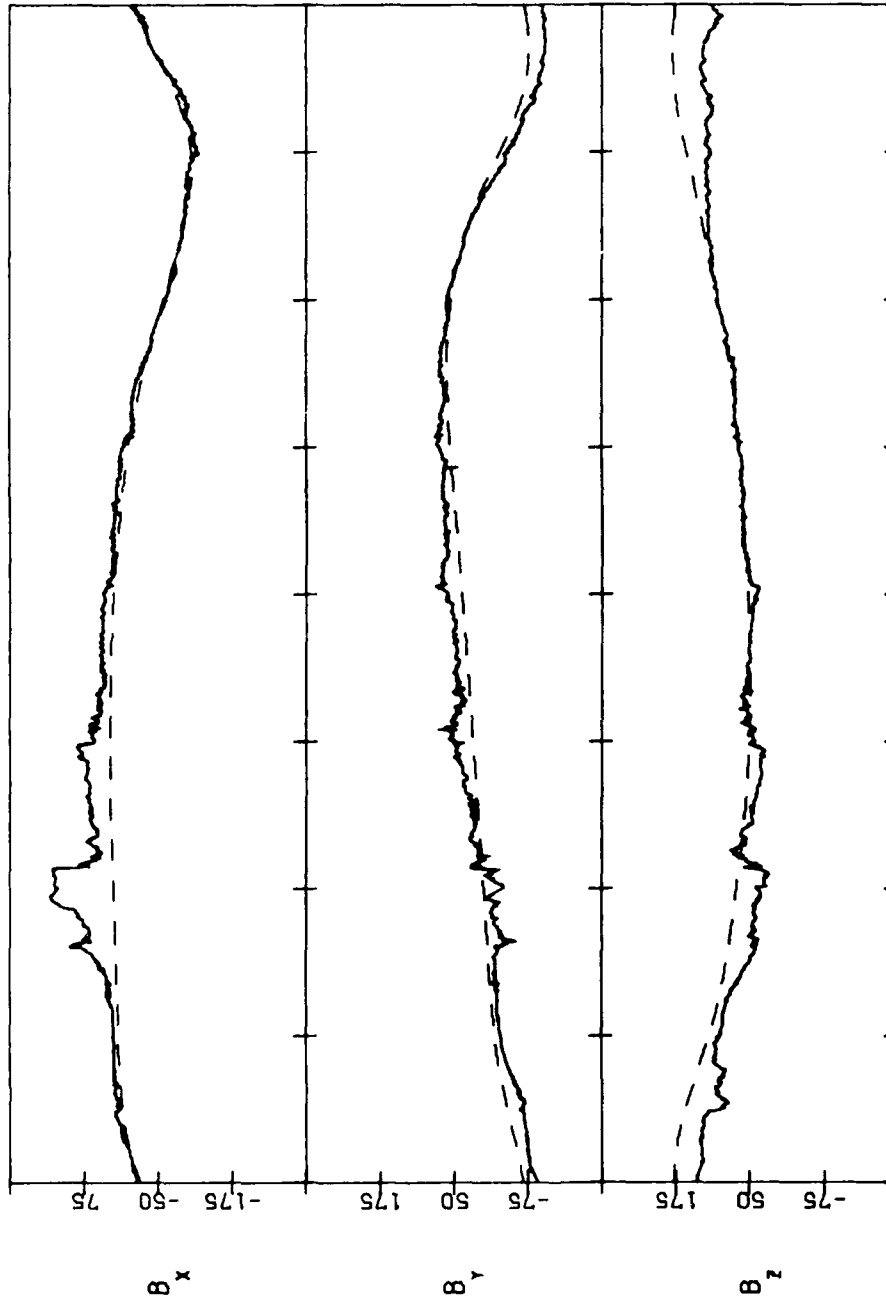
79118 04/28/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000:						
0300:						
0600:						
0900:						
1200:						
1500:						
1800:						
2100:						
2400:						
2027:	2341:	0209:	0417:	0627:	0901:	1226:
2033:	2341:	0200:	0401:	0615:	0901:	1234:
2.6	3.6	6.5	9.2	11.1	12.4	11.5
6.2	7.3	8.3	8.2	7.7	6.9	5.9
-7.4	-6.7	-2.9	1.4	5.3	7.7	5.7
261.2	264.7	256.7	243.7	231.3	224.8	230.9

SCATHA SC11(SOLAR MAGNETIC)

79119 04/29/79

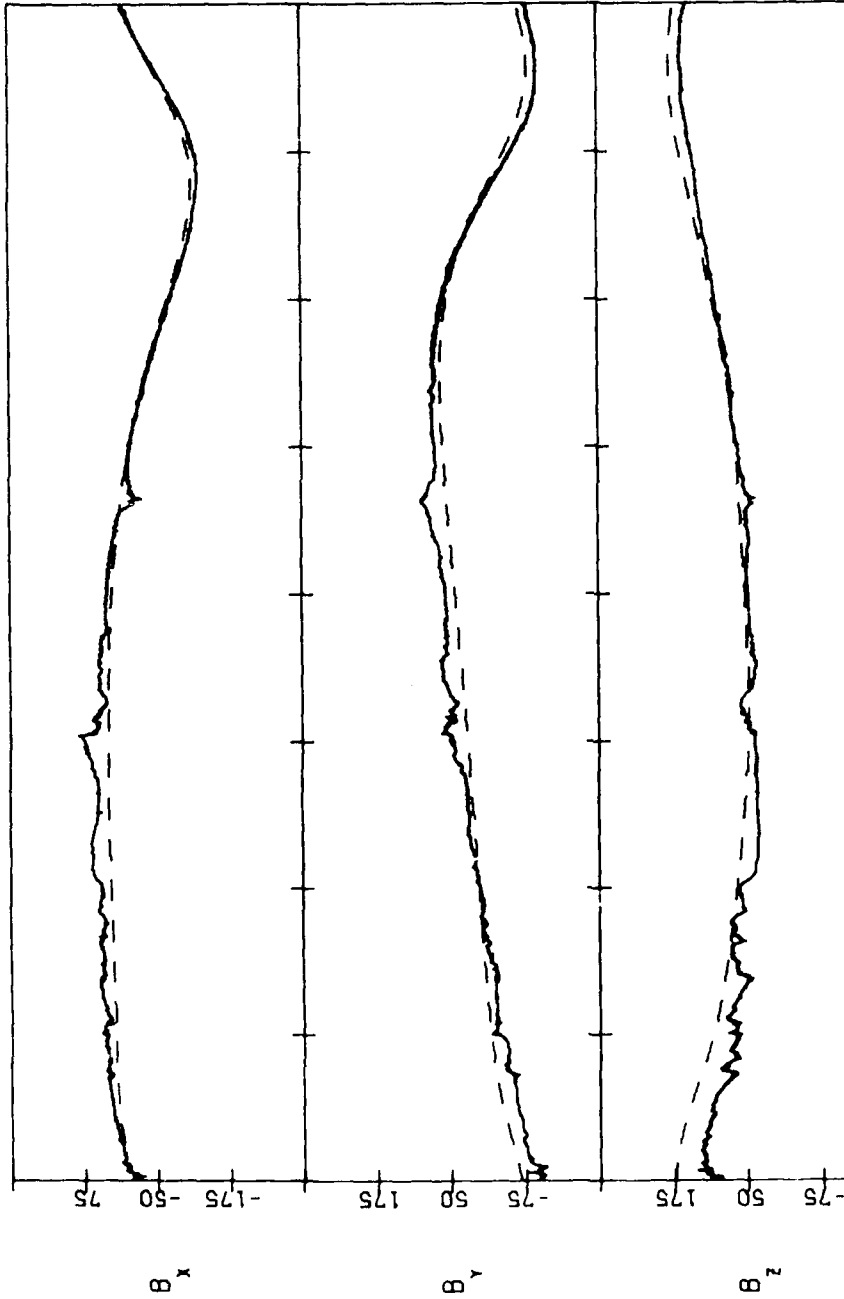


	0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1645:	2052:	0001:	0001:	0223:	0430:	0642:	0921:	1254:	1716:	LOCAL TIME(HHMM:)
1656:	2058:	0000:	0000:	0214:	0413:	0629:	0921:	1303:	1728:	MAG. TIME(HHMM:)
6.5	2.9	4.4	7.5	7.5	10.2	12.2	13.3	11.9	6.2	MAG. LAT
5.5	6.4	7.5	8.3	8.2	7.7	6.8	6.8	5.8	5.6	L-SHELL
-2.4	-7.6	-6.2	-2.4	1.9	5.7	7.7	7.7	4.9	-3.4	LATITUDE
250.7	267.6	269.2	260.2	247.0	235.0	229.8	229.8	237.9	258.6	LONGITUDE



SCATHA SC11(SOLAR MAGNETIC)

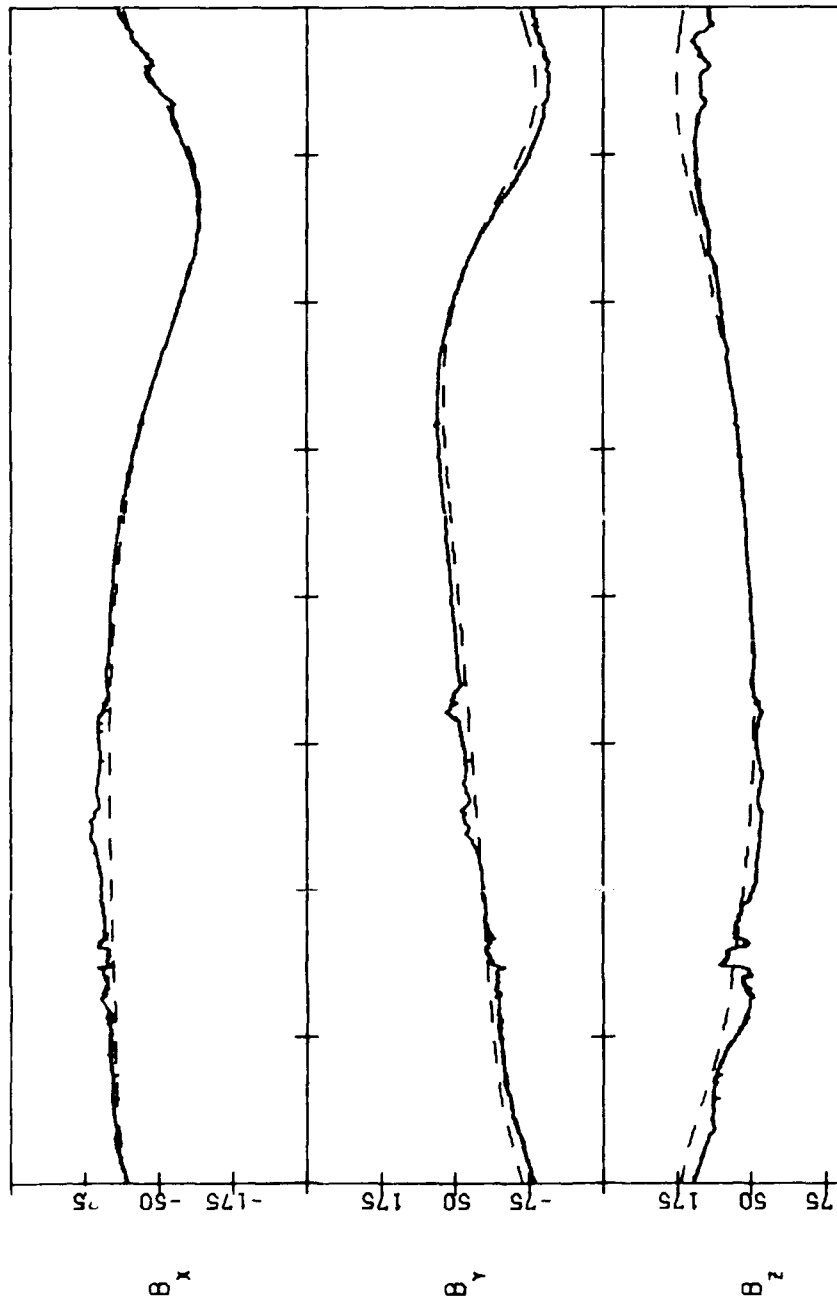
79120 04/30/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1717:	2117:	0016:	0236:	0443:	0658:	0942:	1323:	1747:
1729:	2123:	0016:	0227:	0426:	0644:	0942:	1334:	1759:
6.2	3.1	5.0	8.3	11.2	13.2	14.2	12.1	5.9
5.6	6.6	7.6	8.4	8.2	7.7	6.7	5.8	5.6
-3.5	-7.7	-5.8	-1.8	2.5	6.1	7.7	4.0	-4.4
258.7	273.7	273.5	263.5	250.3	238.8	235.0	245.2	266.4

SCATHA SC11(SOLAR MAGNETIC)

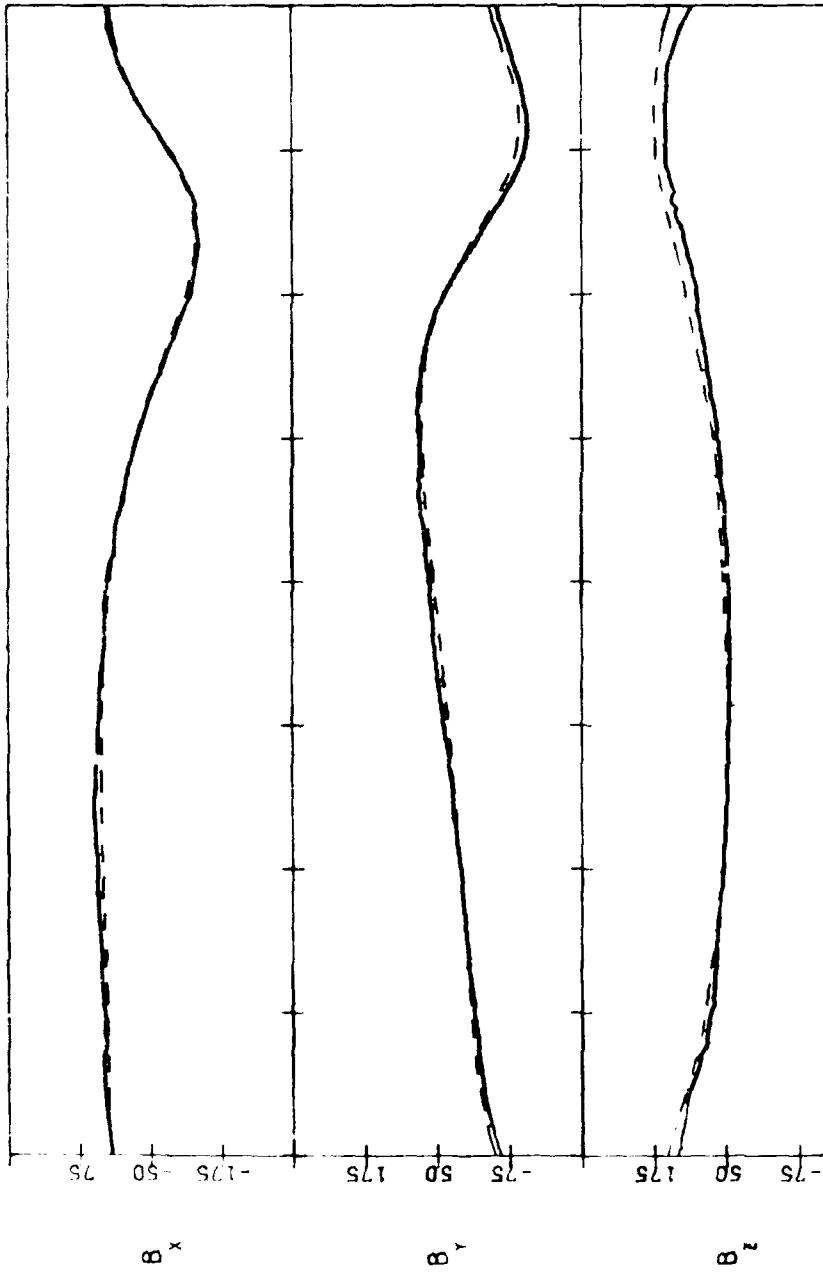
79121 05/01/79



UT	LOCAL TIME(HHMM)	MAG. TIME(HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1748:	2140:	0033:	0250:	0457:	0713:	1004:	1354:	1818:
1800:	2146:	0032:	0239:	0438:	0659:	1005:	1405:	1830:
5.9	3.4	5.7	9.2	12.1	14.2	14.9	12.0	5.5
5.6	6.7	7.8	8.5	8.2	7.7	6.6	5.7	5.7
-4.5	-7.7	-5.3	-1.2	3.0	6.5	7.6	3.0	-5.3
266.5	279.6	277.6	268.9	253.5	242.7	240.4	252.8	274.0

SCATHA SC11(SOLAR MAGNETIC)

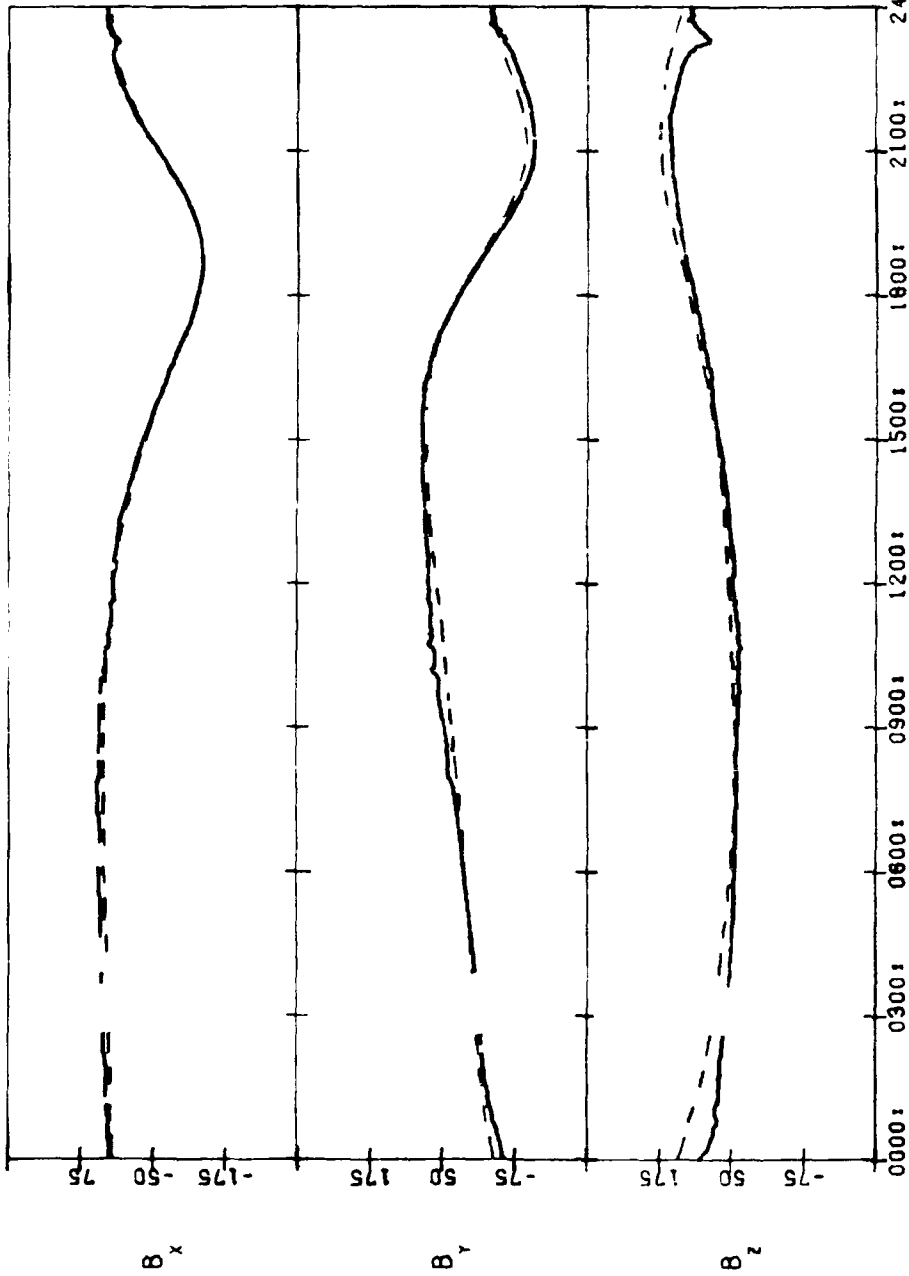
79123 05/03/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(MHMM:)	MAG. TIME(MHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
1849:	2224:	0104:	0316:	0524:	0747:	1052:	1456:	1917:							
1902:	2229:	0103:	0305:	0505:	0733:	1054:	1511:	1929:							
5.0	3.8	6.9	10.8	13.9	15.9	16.0	11.2	4.5							
5.8	7.1	8.1	8.6	8.2	7.6	6.5	5.7	6.0							
-6.1	-7.4	-4.3	-0.1	4.1	7.2	7.1	0.7	-6.7							
281.6	290.4	285.4	273.4	260.3	251.1	252.2	266.4	288.6							

SCATHA SC11(SOLAR MAGNETIC)

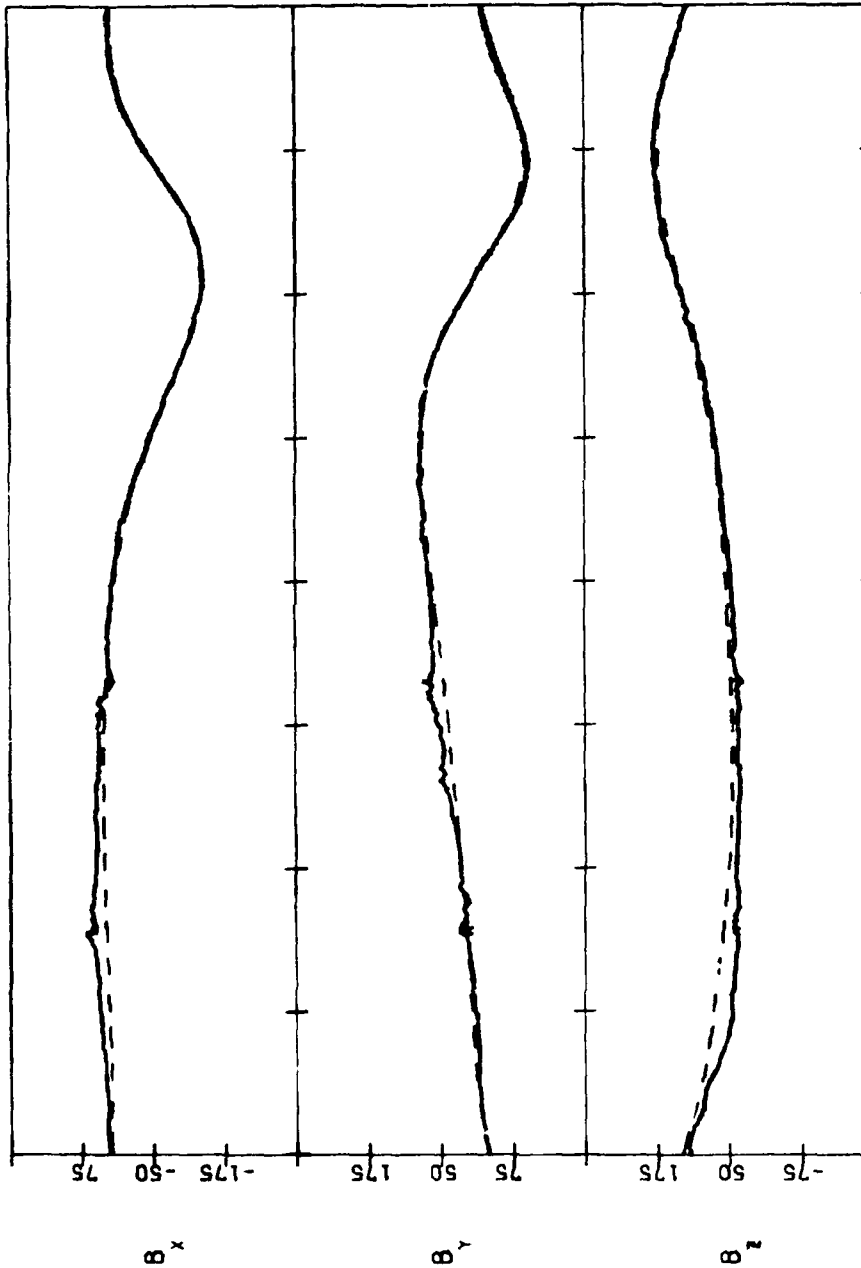
79124 05/04/79



LOCAL TIME(MMM:)	MAG. TIME(MMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000: 0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400: UT
1918:	2244:	0119:	0336:	0538:	0805:	1117:	1528:
1930:	2249:	0117:	0323:	0518:	0751:	1120:	1544:
4.5	4.0	7.5	11.7	14.7	16.7	16.3	10.4
6.0	7.2	8.2	9.6	9.2	7.5	6.4	5.6
-6.7	-7.2	-3.7	0.7	4.6	7.4	6.6	-0.5
288.7	295.4	289.1	278.0	263.7	255.5	258.8	276.4

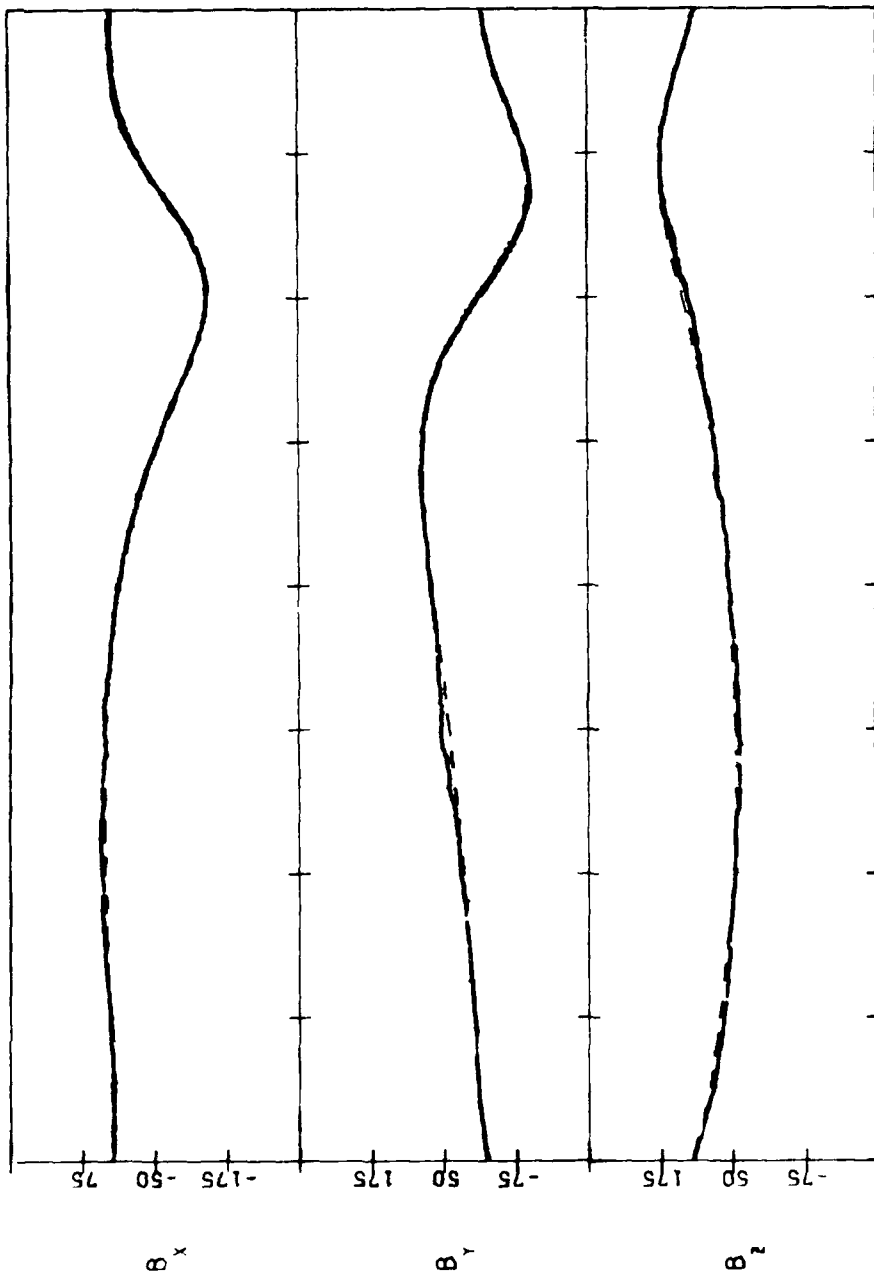
6CATNA SC11(SOLAR MAGNETIC)

79125 05/05/79



UT	0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	LOCAL TIME(HHMM):
1945:	2304:	0134:	0342:	0823:	1143:	1600:	2010:			
1957:	2309:	0132:	0330:	0811:	1148:	1616:	2022:			
4.0	4.2	8.1	12.2	15.5	17.4	16.3	9.5	3.5	MAG. LAT	
6.1	7.3	8.3	8.6	8.1	7.4	6.3	5.6	6.3	L-SHELL	
-7.2	-6.8	-3.2	1.1	5.0	7.6	6.0	-1.8	-7.5	LATITUDE	
295.6	300.2	292.7	279.9	267.9	260.2	265.2	284.4	302.1	LONGITUDE	

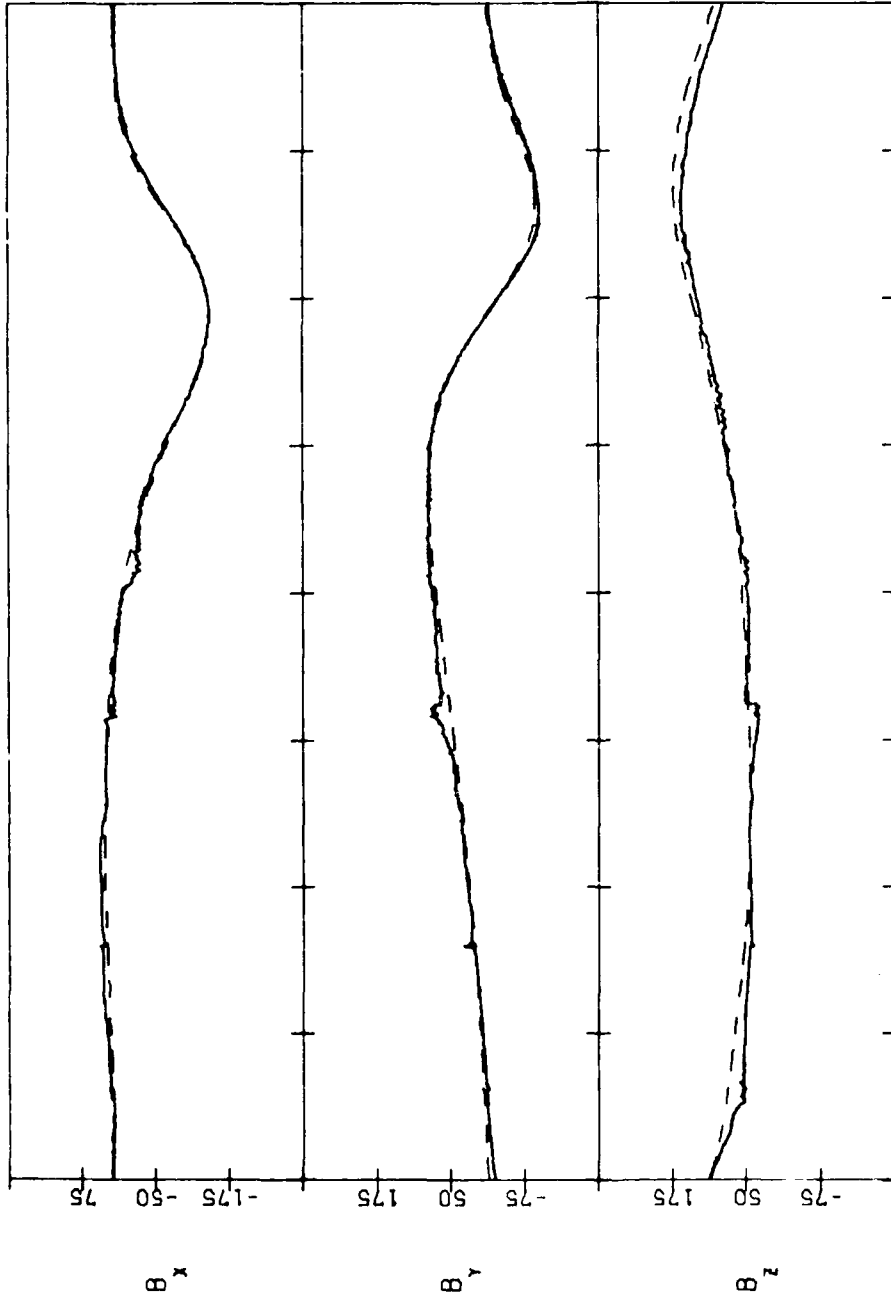
SCATHA SCII(SOLAR MAGNETIC)  
79126 05/06/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2012:	2322:	0148:	0356:	0606:	0843:	1211:	1632:	2036:	LOCAL TIME(HHMM:)
2024:	2327:	0146:	0342:	0547:	0831:	1217:	1649:	2047:	MAG. TIME(HHMM:)
3.5	4.4	8.6	12.9	16.2	17.9	16.1	8.3	3.0	MAG. LAT
6.3	7.5	8.4	8.6	8.1	7.3	6.2	5.6	6.5	L-SMELL
-7.5	-6.4	-2.6	1.7	5.5	7.7	5.3	-2.9	-7.1	LATITUDE
302.1	304.8	298.2	293.1	270.9	265.0	272.0	292.3	308.4	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

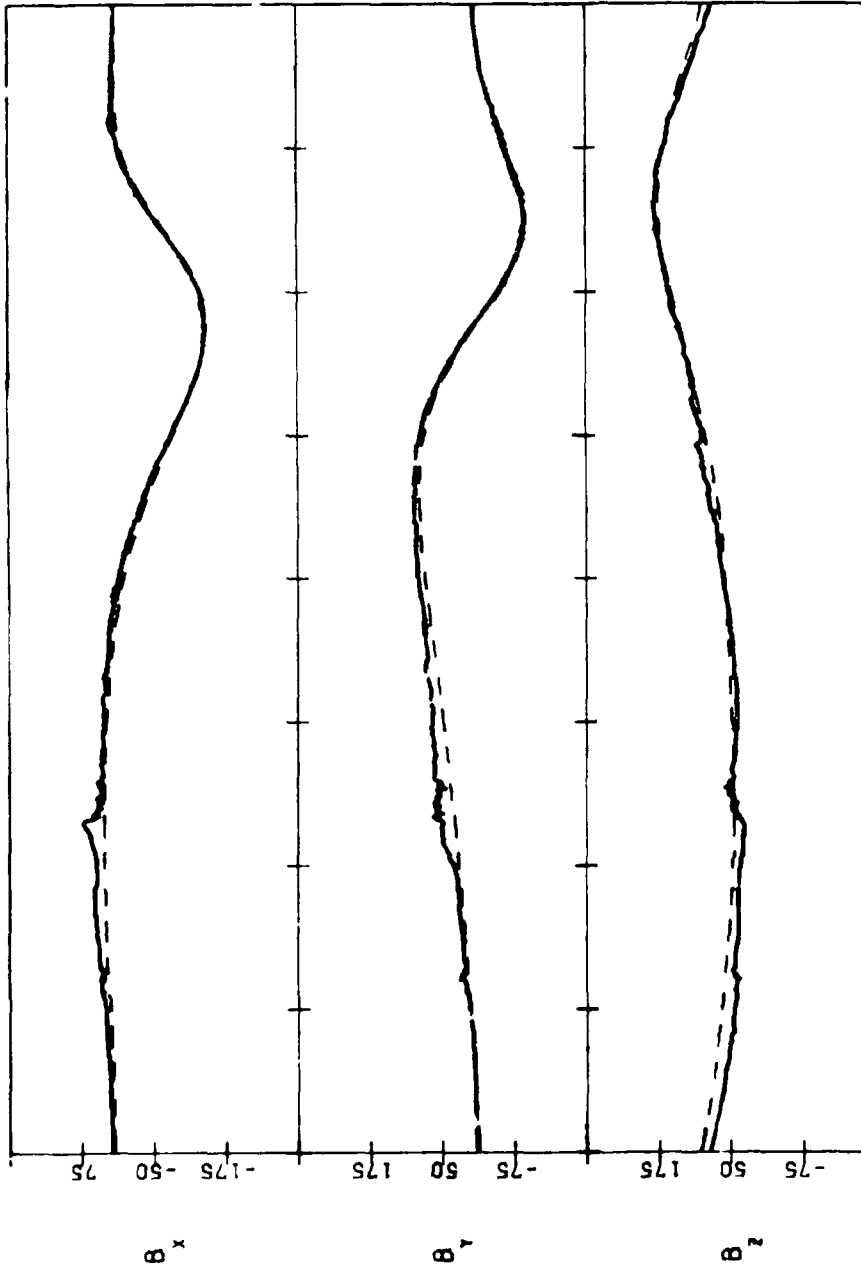
79127 05/07/79



UT	LOCAL TIME(MHMM:)	MAG. TIME(MHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
2037:	2339:	0201:	0409:	0621:	0903:	1240:	1704:	2100:
2048:	2344:	0159:	0355:	0602:	0852:	1247:	1721:	2111:
3.0	4.6	9.0	13.5	16.8	18.3	15.8	7.1	2.5
6.5	7.6	8.5	8.5	8.1	7.2	6.0	5.7	6.6
-7.7	-6.0	-2.1	2.2	5.9	7.7	4.5	-4.0	-7.7
308.4	309.1	299.6	286.4	274.6	270.1	279.2	300.2	314.3

SCATHA SC11(SOLAR MAGNETIC)

79120 05/08/79

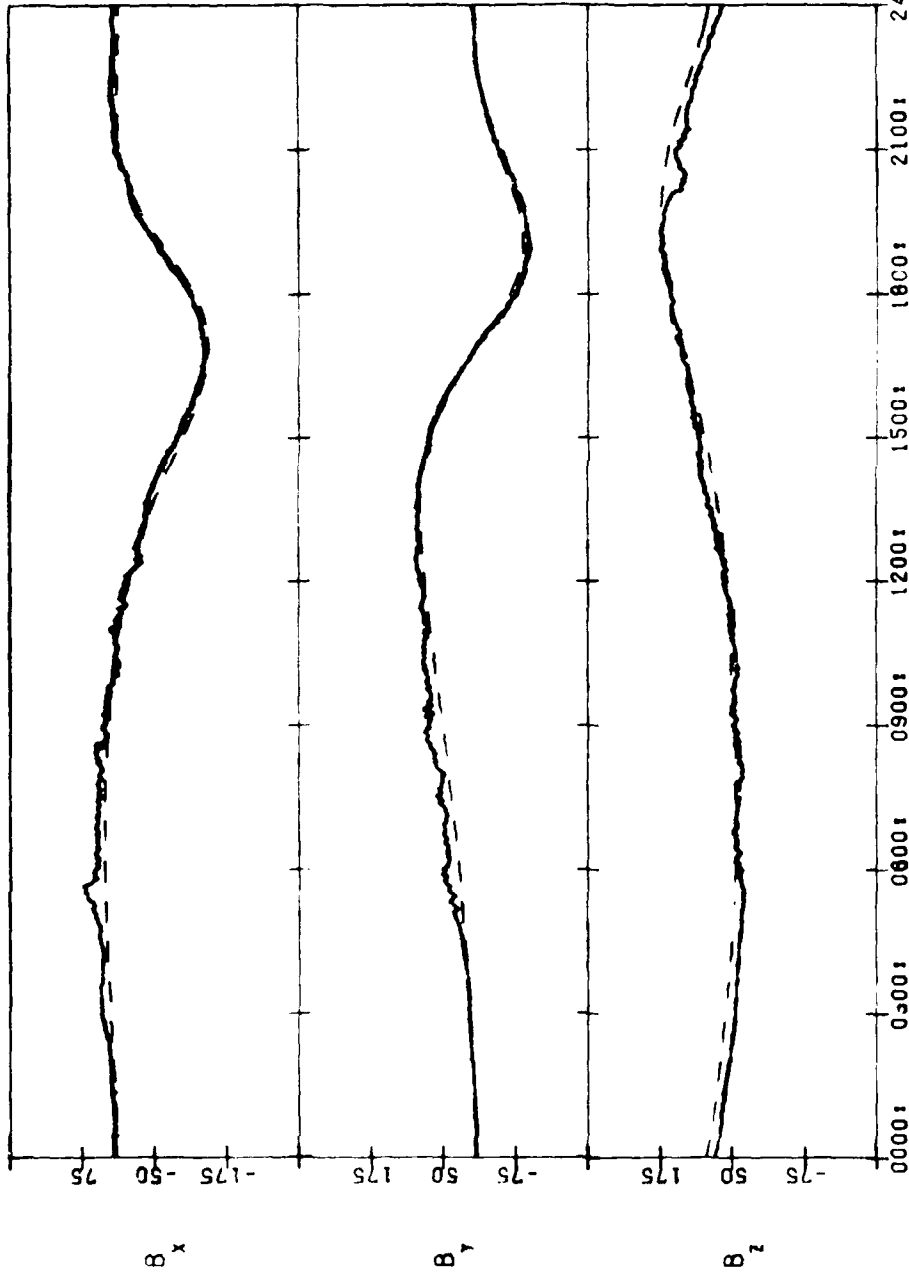


UT	0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
LOCAL TIME(MMM:)	2101:	2356:	0215:	0421:	0637:	0925:	1309:	1735:	2122:
MAG. TIME(MMM:)	2112:	0001:	0212:	0400:	0610:	0915:	1318:	1751:	2133:
MAG. LAT	2.5	4.7	9.5	14.0	17.4	19.6	14.0	5.7	2.0
L-SHELL	6.6	7.7	8.5	8.5	8.0	7.0	5.9	5.7	6.8
LATITUDE	-7.7	-5.5	-1.5	2.8	6.3	7.7	3.5	-4.9	-7.7
LONGITUDE	314.4	313.3	303.0	289.7	278.5	275.4	286.8	307.9	320.0



SCATHA 6C11 (SOLAR MAGNETIC)

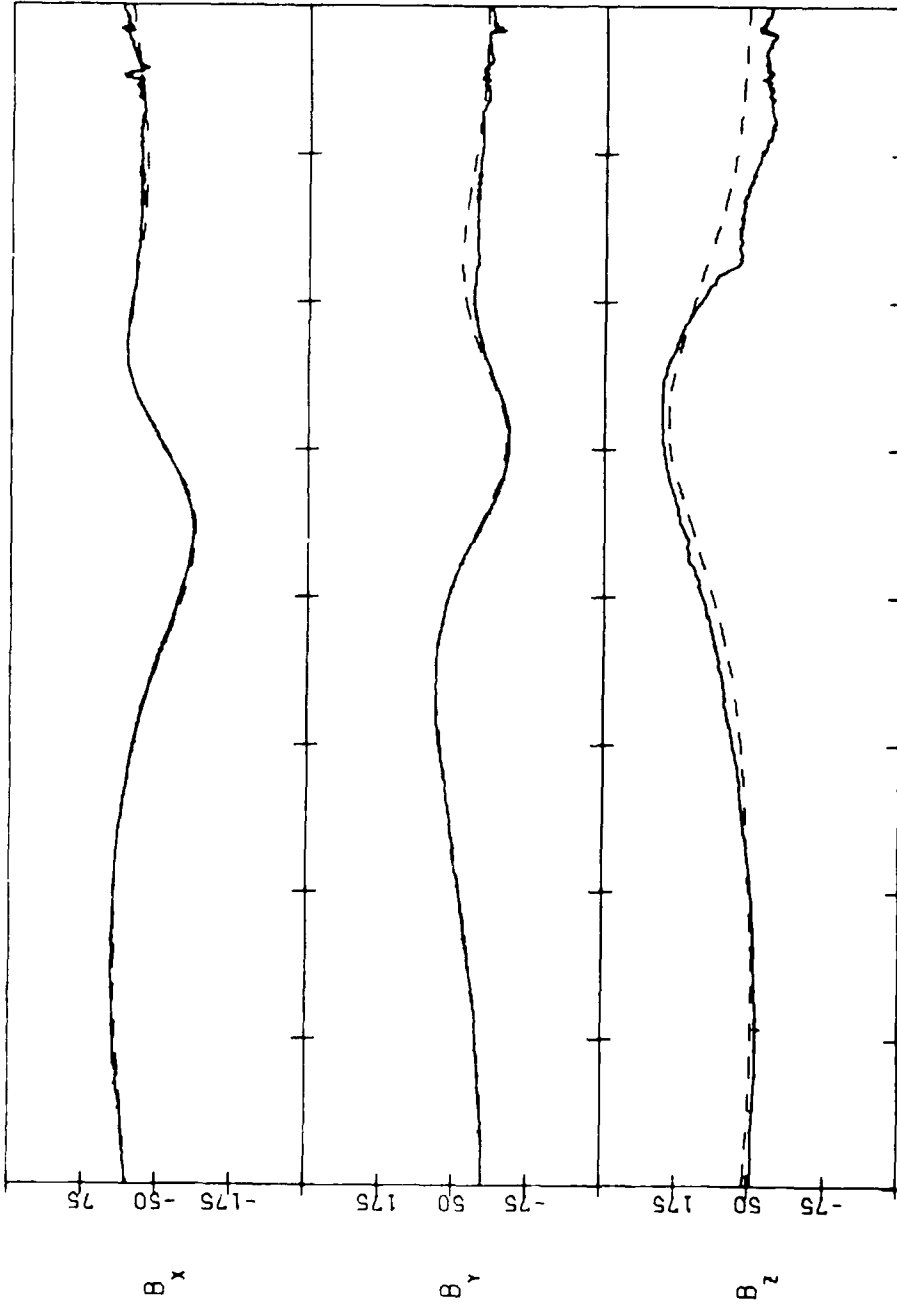
79129 05/09/79



0000:	0500:	0800:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2123:	0012:	0228:	0435:	0653:	0947:	1340:	1805:		LOCAL TIME (HHMM:)
2134:	0017:	0225:	0422:	0635:	0939:	1350:	1821:		MAG. TIME (HHMM:)
2.0	4.9	9.9	14.5	17.9	18.7	13.6	4.3		MAG. LAT
6.8	7.8	8.6	8.5	8.0	6.9	5.8	5.8		L-SMELL
-7.7	-5.1	-0.9	3.3 ✓	6.7	7.5	2.4	5.8		LATITUDE
320.1	317.3	306.3	292.9	282.5	280.9	294.2	315.4		LONGITUDE

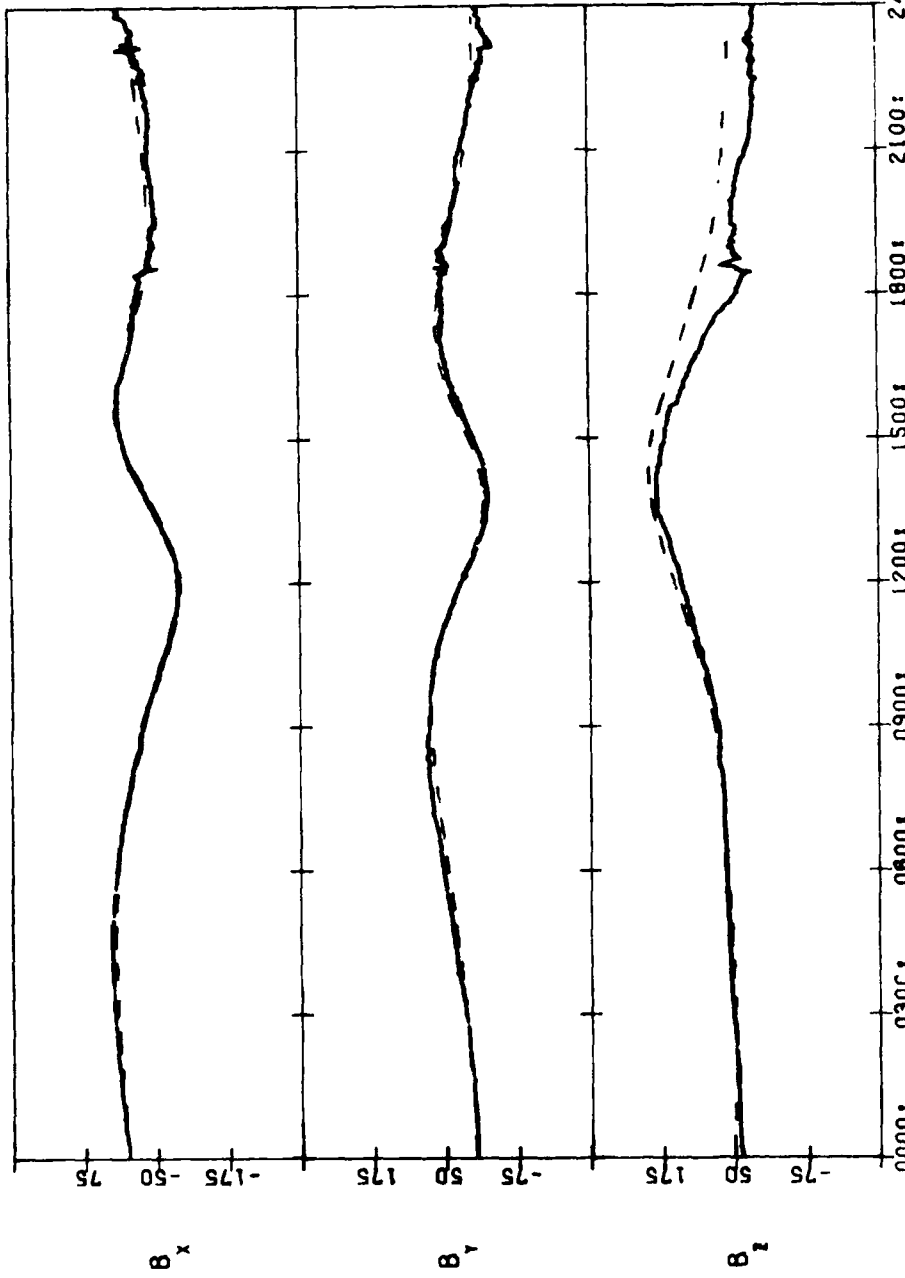
SCATHA SC11(SOLAR MAGNETIC)

79138 05/18/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0006:	0218:	0425:	0648:	0952:	1356:	1818:	2146:	0020:	LOCAL TIME(HHMM:)
0016:	0224:	0424:	0640:	0942:	1349:	1819:	2155:	0031:	MAG. TIME(HHMM:)
-0.8	5.7	11.8	16.0	15.9	7.3	-3.6	-5.3	-0.8	MAG. LAT
8.0	8.5	8.2	7.6	6.5	5.5	5.9	7.2	8.1	L-SHELL
-4.3	-0.0	4.1	7.1	7.1	0.7	-6.7	-7.1	-3.7	LATITUDE
0.7	348.8	335.6	326.2	327.2	343.2	3.8	10.6	4.4	LONGITUDE

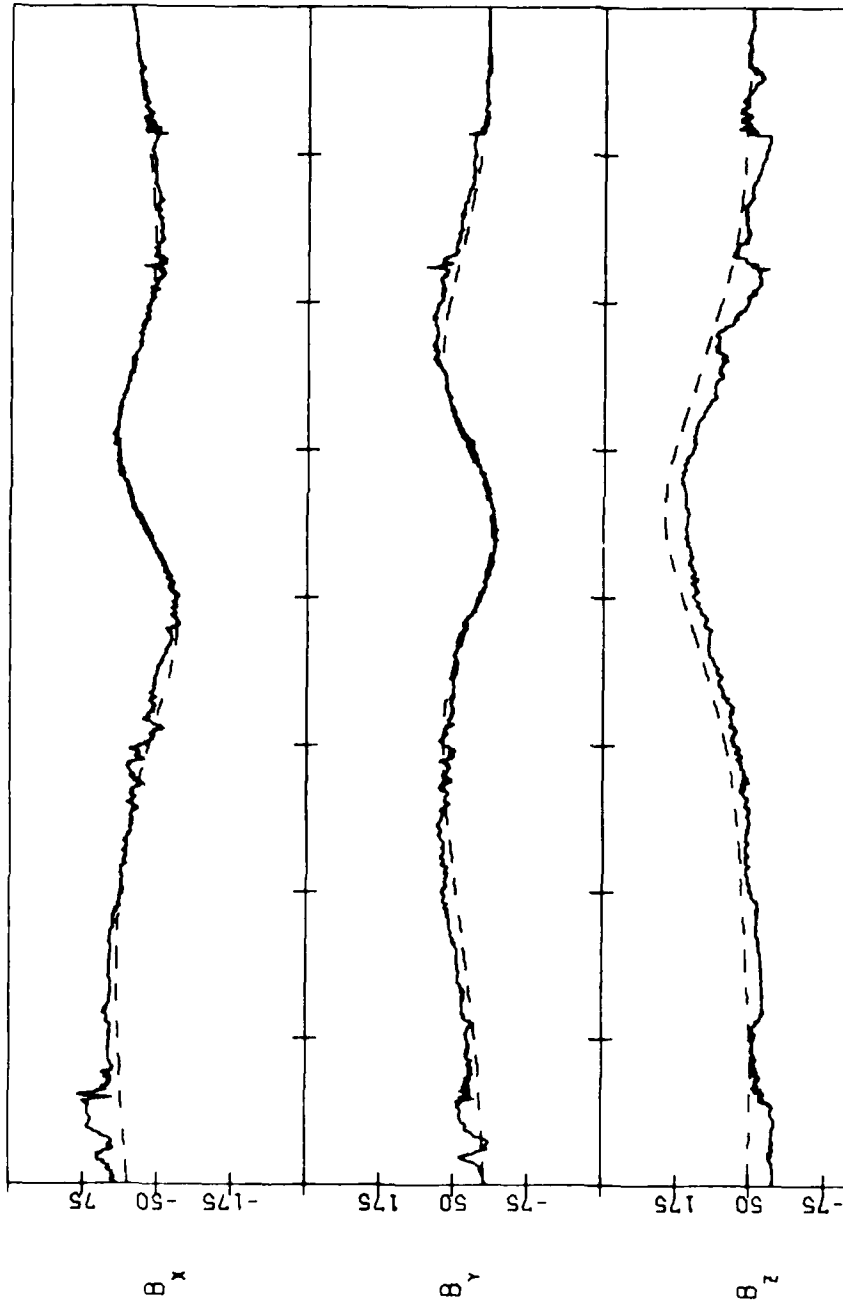
SCATHA SC11(SOLAR MAGNETIC)  
79141 05/21 '79



UT	LOCAL TIME(MMM:)	MAG. TIME(MMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0049:	0257:	0507:	0743:	1110:	1531:	1936:	2240:	
0059:	0302:	0507:	0736:	1058:	1518:	1935:	2250:	
-1.0	5.6	11.5	14.7	11.3	-0.4	-8.3	-6.9	
0.3	8.5	7.8	7.1	5.9	5.4	6.4	7.6	
-2.6	1.7	5.5	7.7	5.3	-2.8	-7.6	-6.0	
11.4	358.4	346.1	340.0	346.8	7.0	23.4	24.3	

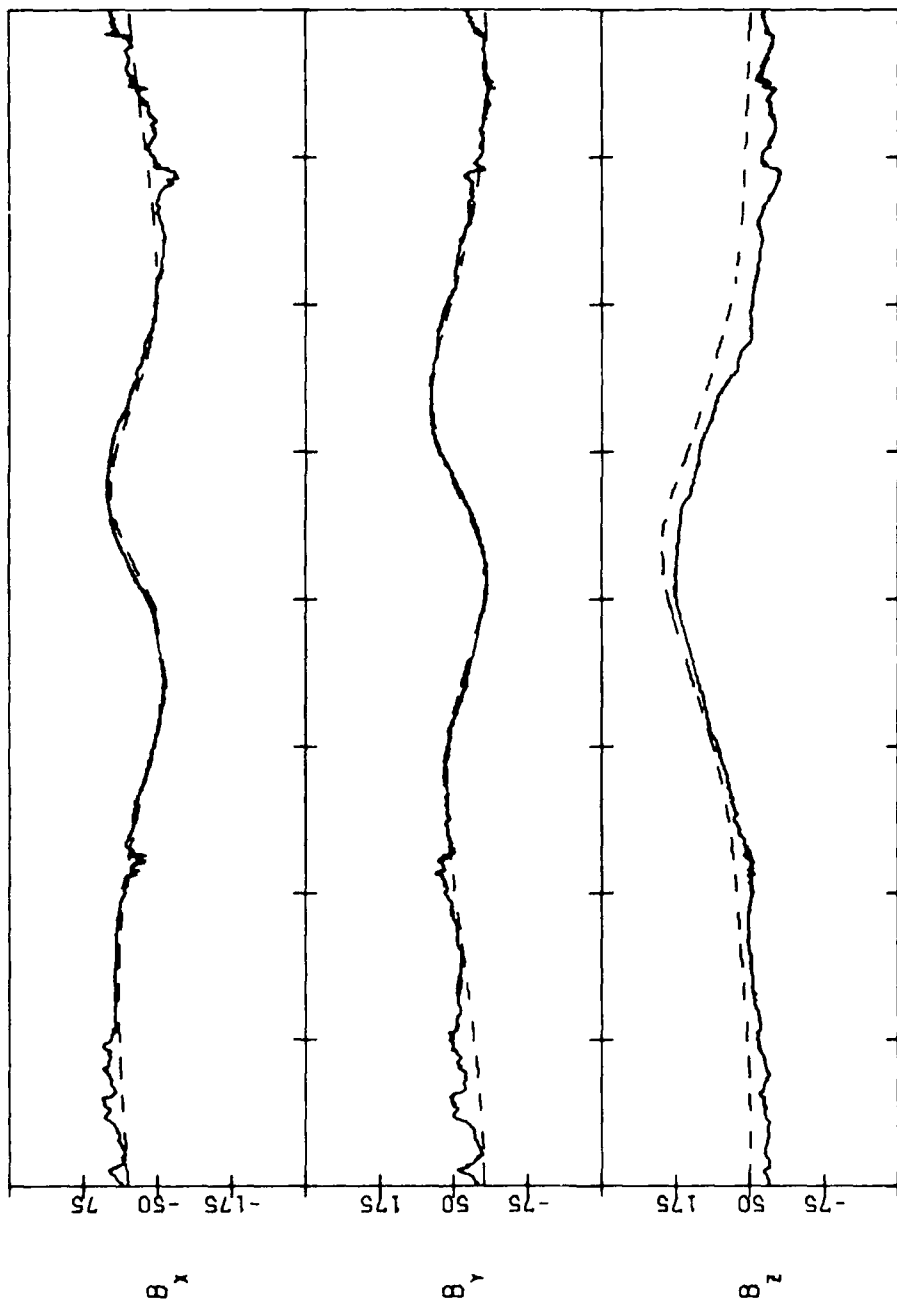
SCATHA SC11(SOLAR MAGNETIC)

79142 05/22/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0102:	0309:	0522:	0803:	1139:	1602:	2000:	2257:	0115:
0113:	0315:	0522:	0756:	1125:	1548:	1959:	2307:	0126:
-1.1	5.6	11.3	13.9	9.2	-3.0	-9.5	-7.2	-1.2
8.4	8.4	7.7	6.9	5.7	5.5	6.6	7.7	8.4
-2.0	2.2	5.9	7.7	4.5	-3.9	-7.7	-5.5	-1.5
14.8	1.8	349.8	345.0	353.9	14.9	29.4	28.5	18.2

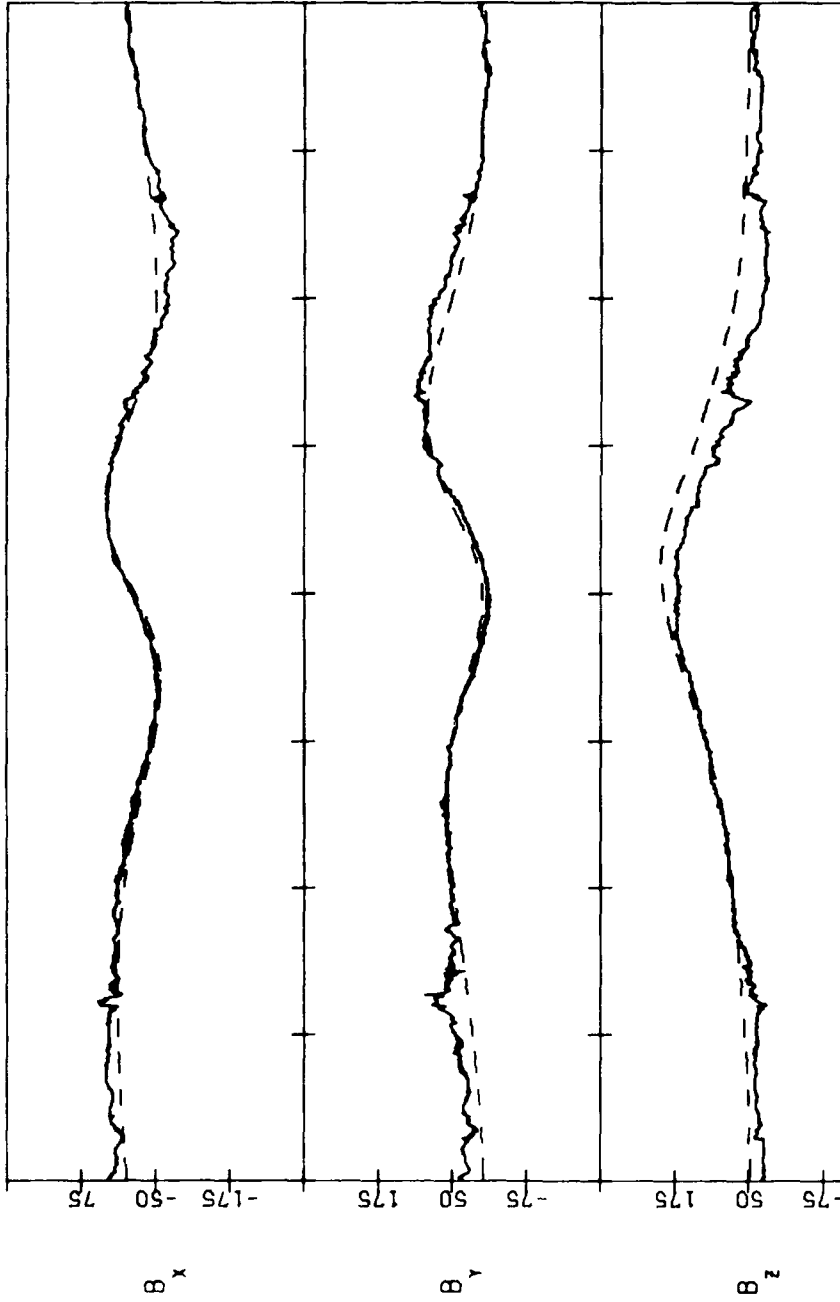
SCATHA SC11(SOLAR MAGNETIC)  
79144 05/24/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0129:	0335:	0553:	0846:	1236:	1704:	2045:	2328:	0141:		0141:	0153:	-1.4	8.5	-0.4	24.8
0140:	0342:	0553:	0838:	1221:	1647:	2043:	2339:	0153:		0153:	0153:	-1.4	8.5	-0.4	24.8
-1.3	5.4	10.7	11.8	4.5	-7.7	-11.4	-7.7	-1.4							
8.5	8.2	7.4	6.5	5.5	5.8	7.0	7.9	8.5							
-0.9	3.3	6.6	7.5	2.5	-5.7	-7.5	-4.5	-0.4							
21.5	8.1	357.5	355.8	8.8	30.2	40.5	36.4	24.8							

SCATHA SCI1(SOLAR MAGNETIC)

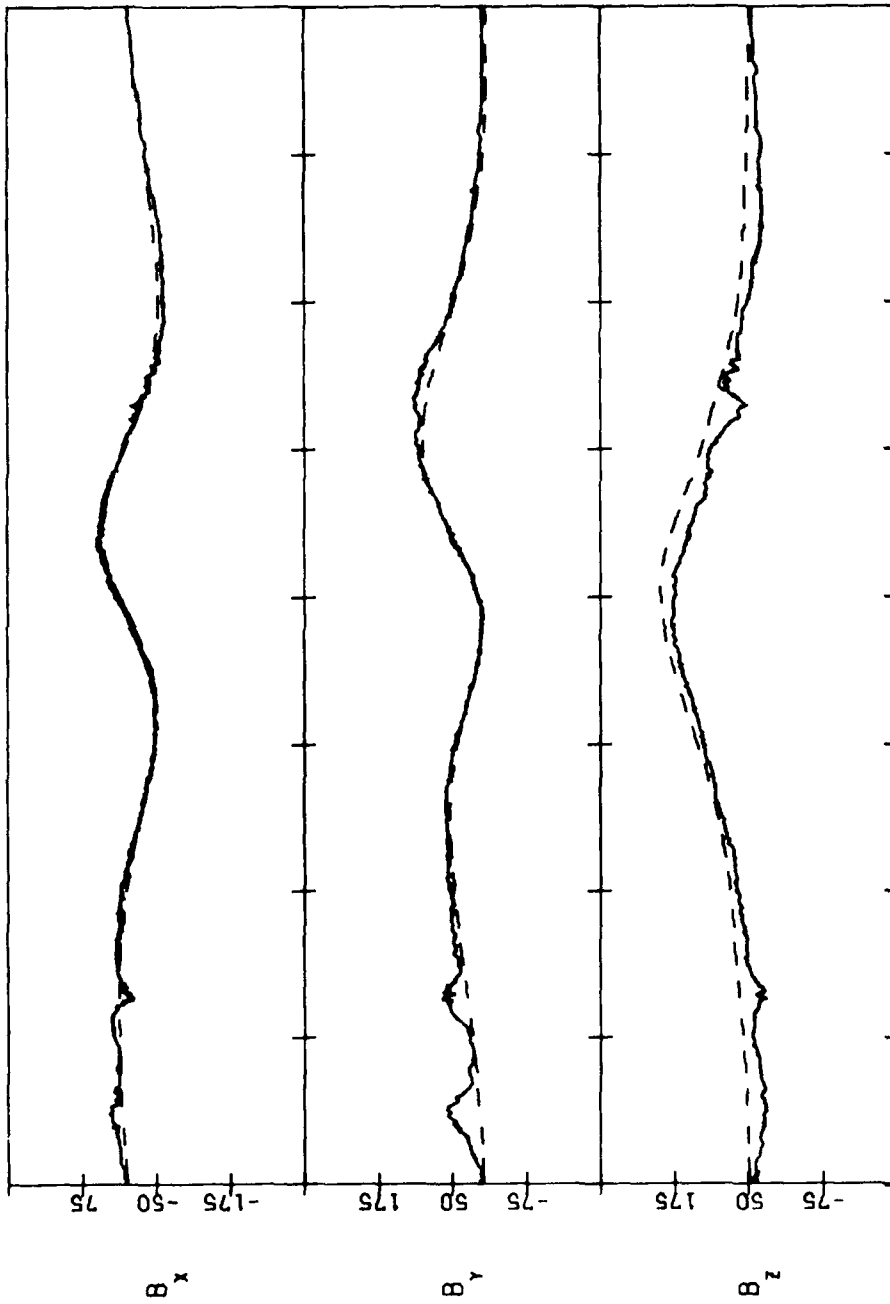
79145 05/25/79



UT	LOCAL TIME(HHMM)	MAG. TIME(HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0142:	0348:	0609:	0909:	1309:	1732:	2105:	2343:	0154:
0153:	0355:	0609:	0900:	1250:	1715:	2102:	2354:	0206:
-1.4	5.2	10.2	10.5	1.9	-9.7	-12.1	-7.9	-1.5
8.5	8.1	7.3	6.3	5.4	5.9	7.2	8.0	8.5
-0.3	3.8	6.9	7.2	1.4	-6.4	-7.3	-4.0	0.2
24.7	11.4	1.6	1.5	16.5	37.4	45.6	40.1	27.9

SCATHA SC11(SOLAR MAGNETIC)

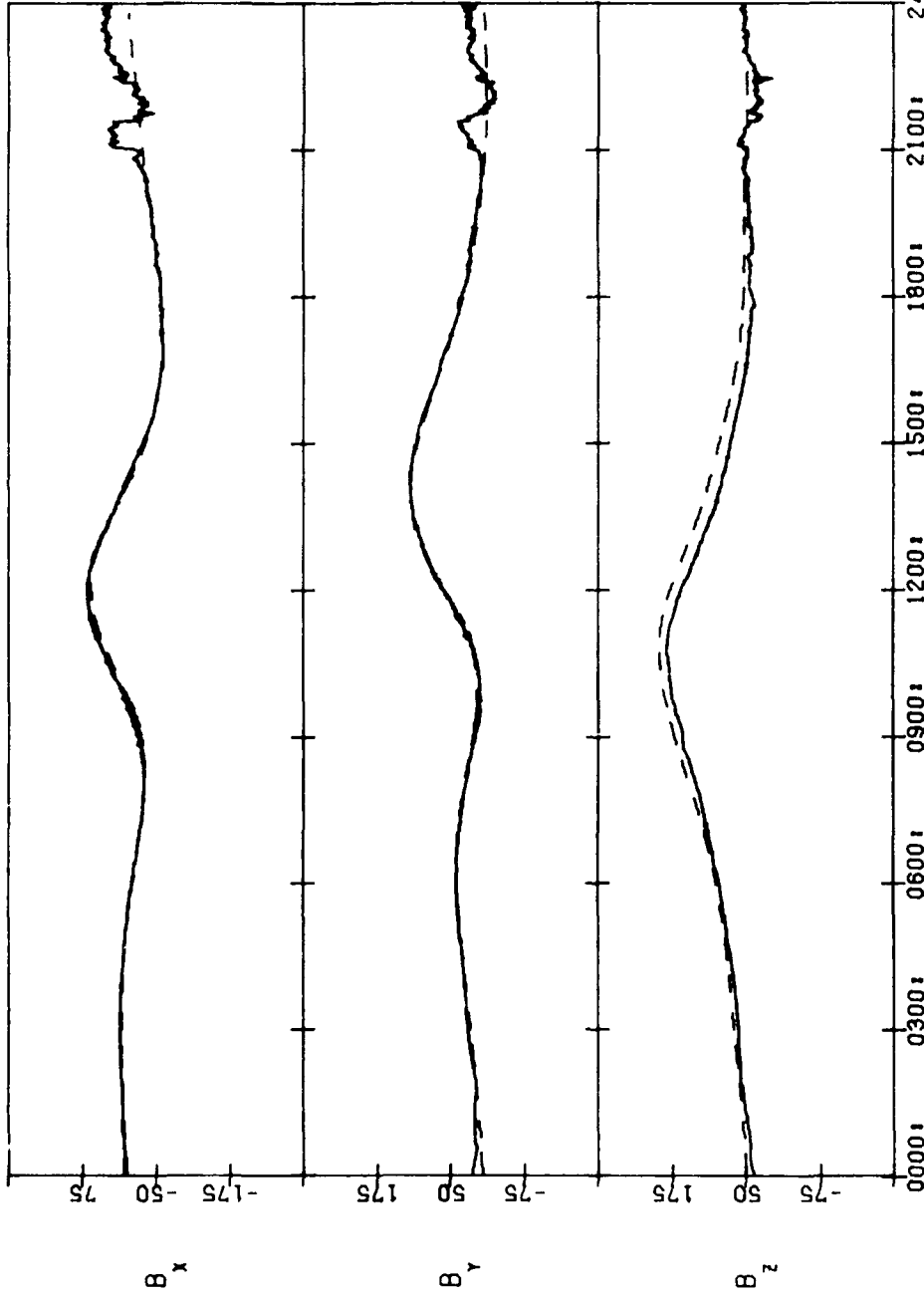
79146 05/26/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0154:	0402:	0626:	0933:	1340:	1801:	2125:	2357:	0207:	LOCAL TIME(HHMM:)
0206:	0408:	0626:	0924:	1319:	1742:	2122:	0010:	0219:	MAG. TIME(HHMM:)
-1.5	5.1	9.7	9.0	-0.8	-11.5	-12.7	-8.0	-1.5	MAG. LAT
8.5	8.0	7.2	6.1	5.4	6.1	7.3	8.1	8.5	L-SHELL
0.2	4.3	7.2	6.9	0.2	-6.9	-7.0	-3.5	0.8	LATITUDE
27.9	14.8	5.8	7.6	24.4	44.5	50.5	43.7	31.1	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

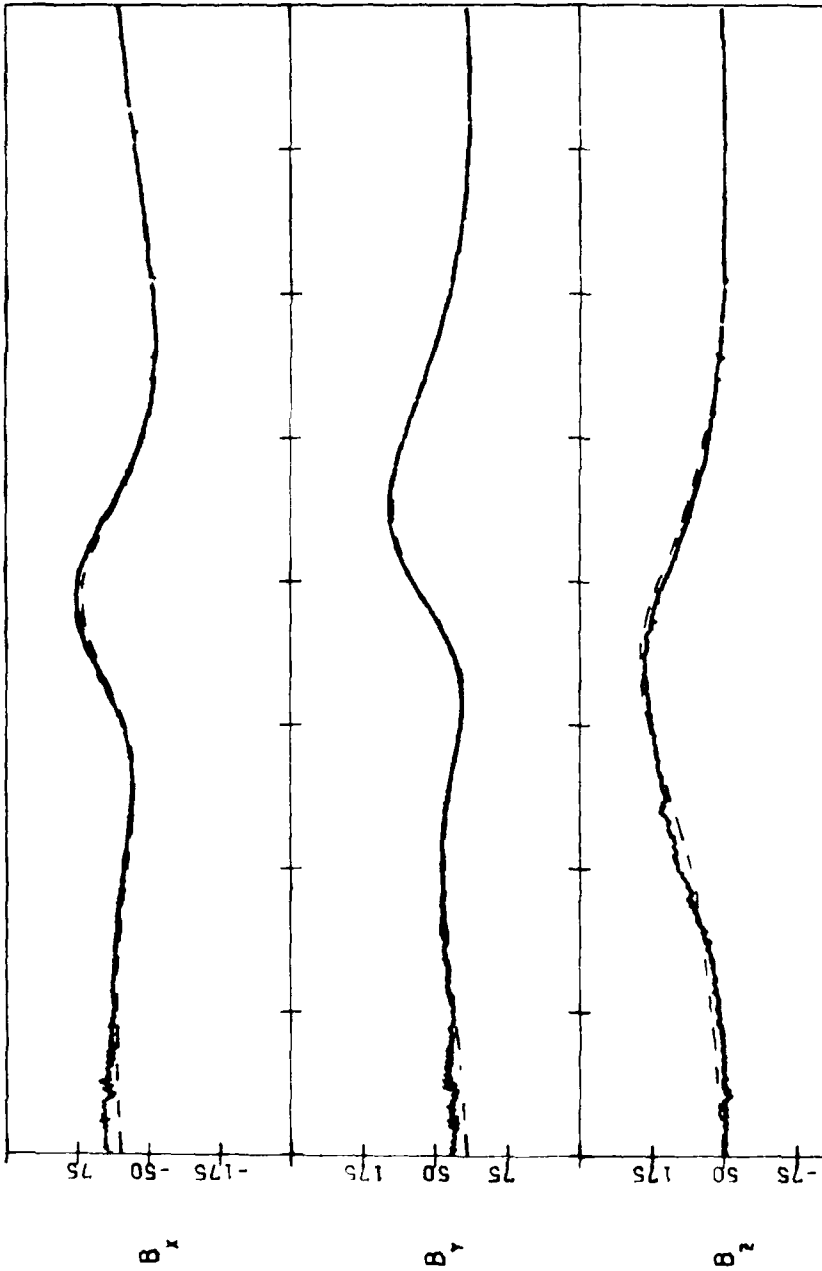
79149 05/29/79



UT	LOCAL TIME(HHMM)	MAG. TIME(HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000	0300	0600	0900	1200	1500	1800	2100	2400
0232	0444	0722	1052	1515	1917	2218	0038	
0245	0451	0720	1039	1450	1859	2216	0052	
-1.6	4.3	7.4	3.3	-8.7	-15.4	-13.8	-8.2	
8.4	7.6	6.7	5.6	5.5	6.6	7.8	8.3	
1.9	5.6	7.6	5.0	-3.3	-7.6	-5.8	-1.8	
37.5	25.4	19.8	27.5	48.2	63.8	63.5	54.1	



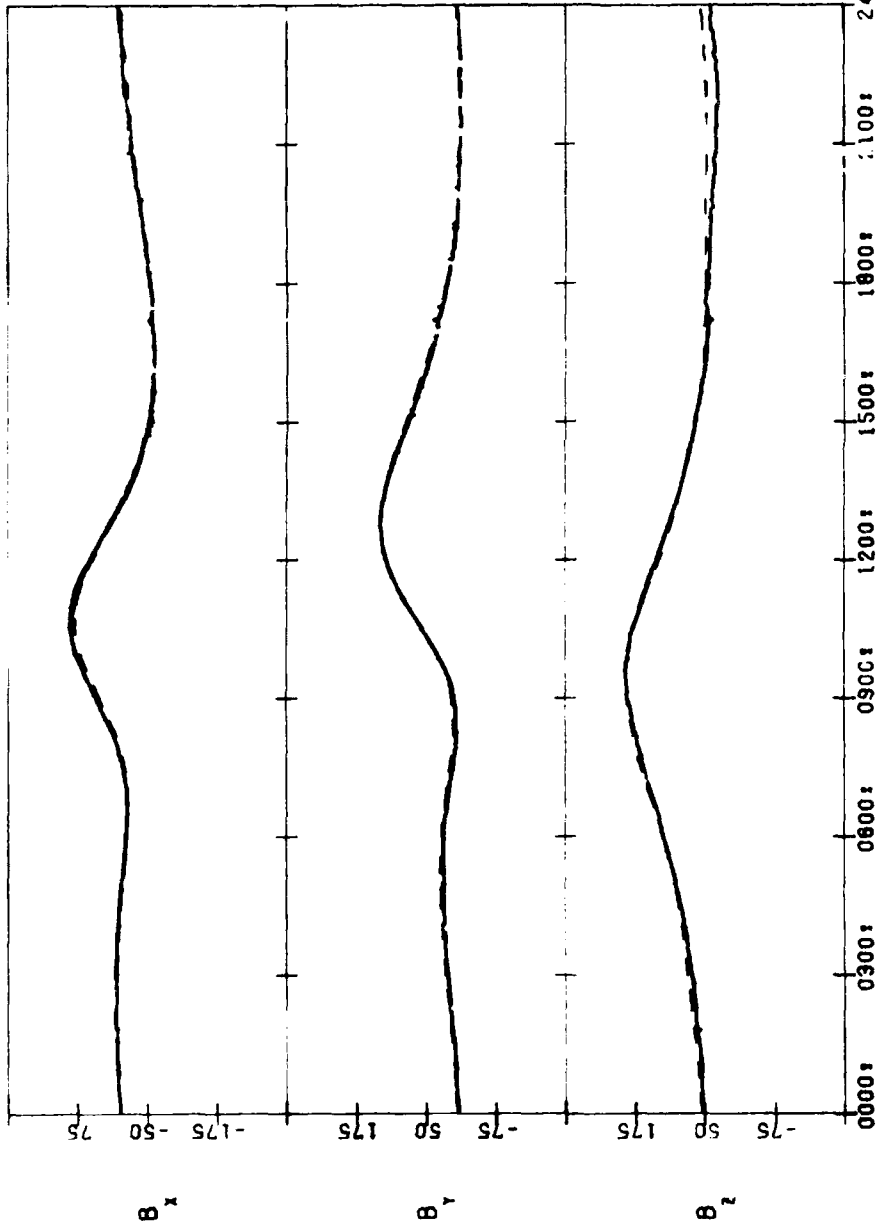
SCATHA SC11(SOLAR MAGNETIC)  
79150 05/30/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	U
0245:	0459:	0742:	1121:	1546:	1941:	2234:	0051:	0257:	LOCAL TIME(HHMM:)
0258:	0505:	0740:	1106:	1520:	1923:	2233:	0106:	0311:	MAG. TIME(HHMM:)
-1.7	4.0	6.4	1.0	-11.0	-16.2	-13.7	-9.1	-1.8	MAG. LA°
8.4	7.4	6.6	5.5	5.6	6.8	7.9	8.4	8.3	L-SHELL
2.4	6.0	7.6	4.1	4.3	7.6	5.3	-1.2	3.0	ATTITUDE
40.7	29.1	24.9	34.7	56.0	69.8	68.0	57.4	44.1	LONGITUDE

SCATHA SCI1(SOLAR MAGNETIC)

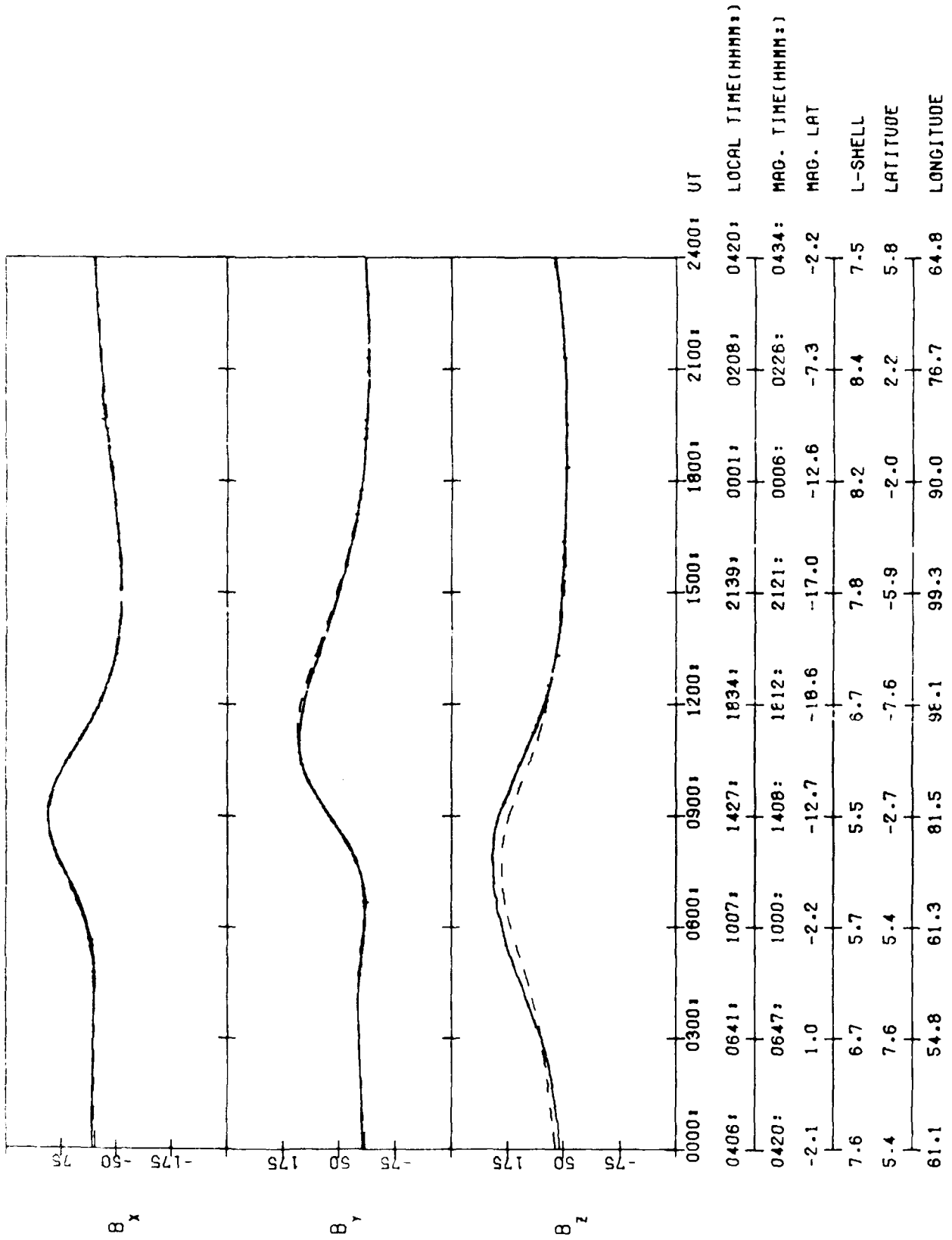
79152 06/01/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	LOCAL TIME(MMM:)
0311:	0530:	0826:	1221:	1646:	2024:	2305:	0117:		
0325:	0537:	0822:	1203:	1621:	2006:	2306:	0133:		
-1.8	3.2	4.0	-3.7	-14.6	-17.2	-13.6	-7.9		MAG. TIME(MMM:)
0.2	7.2	6.2	5.4	6.0	7.2	0.0	0.4		MAG. LAT
3.5	6.7	7.3	2.0	-6.0	-7.3	-4.2	-0.0		L-SHELL
47.3	37.0	35.9	49.8	71.1	80.5	75.8	63.9		LFTITUDE
									LONGITUDE

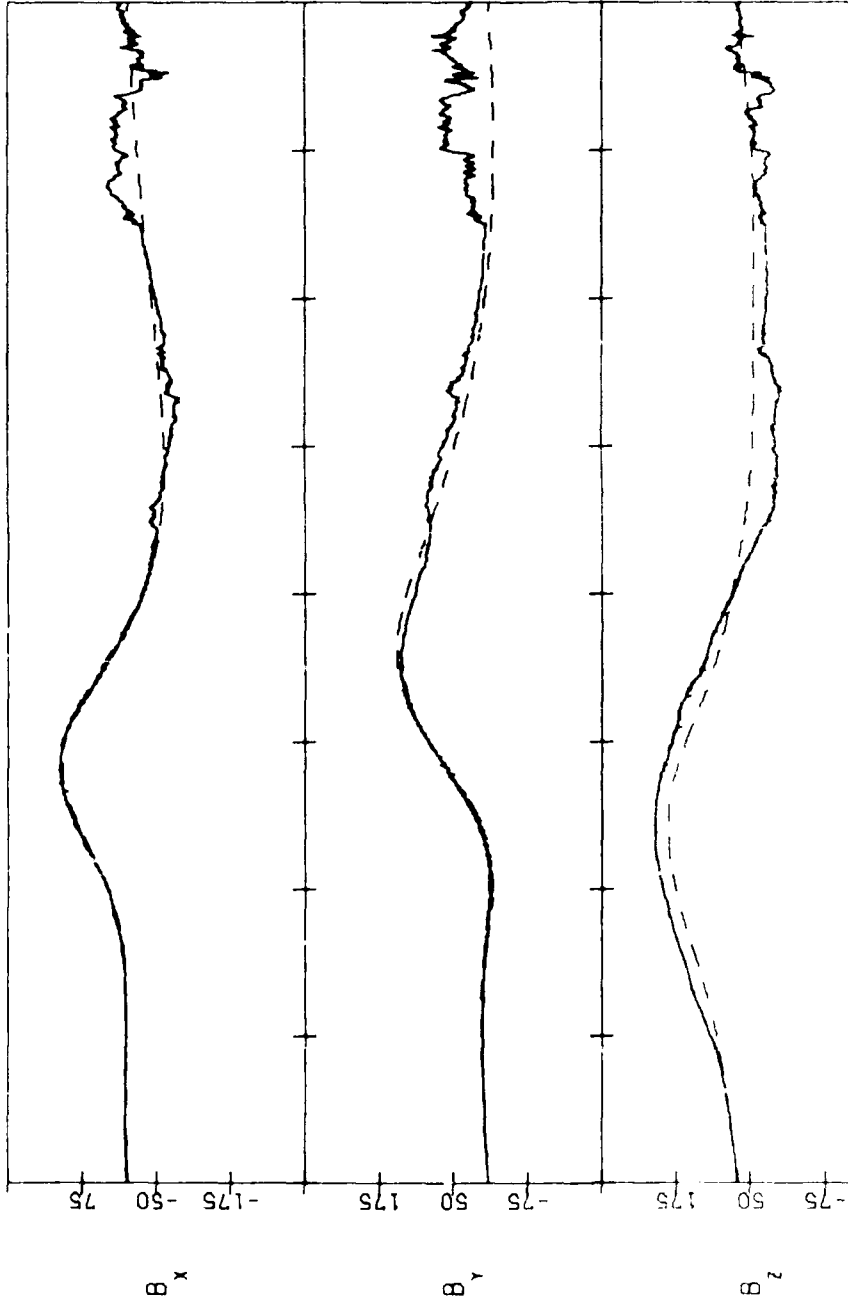
SCATHA SC11(S) (AF: MAGNETIC)

79156 06/05/79



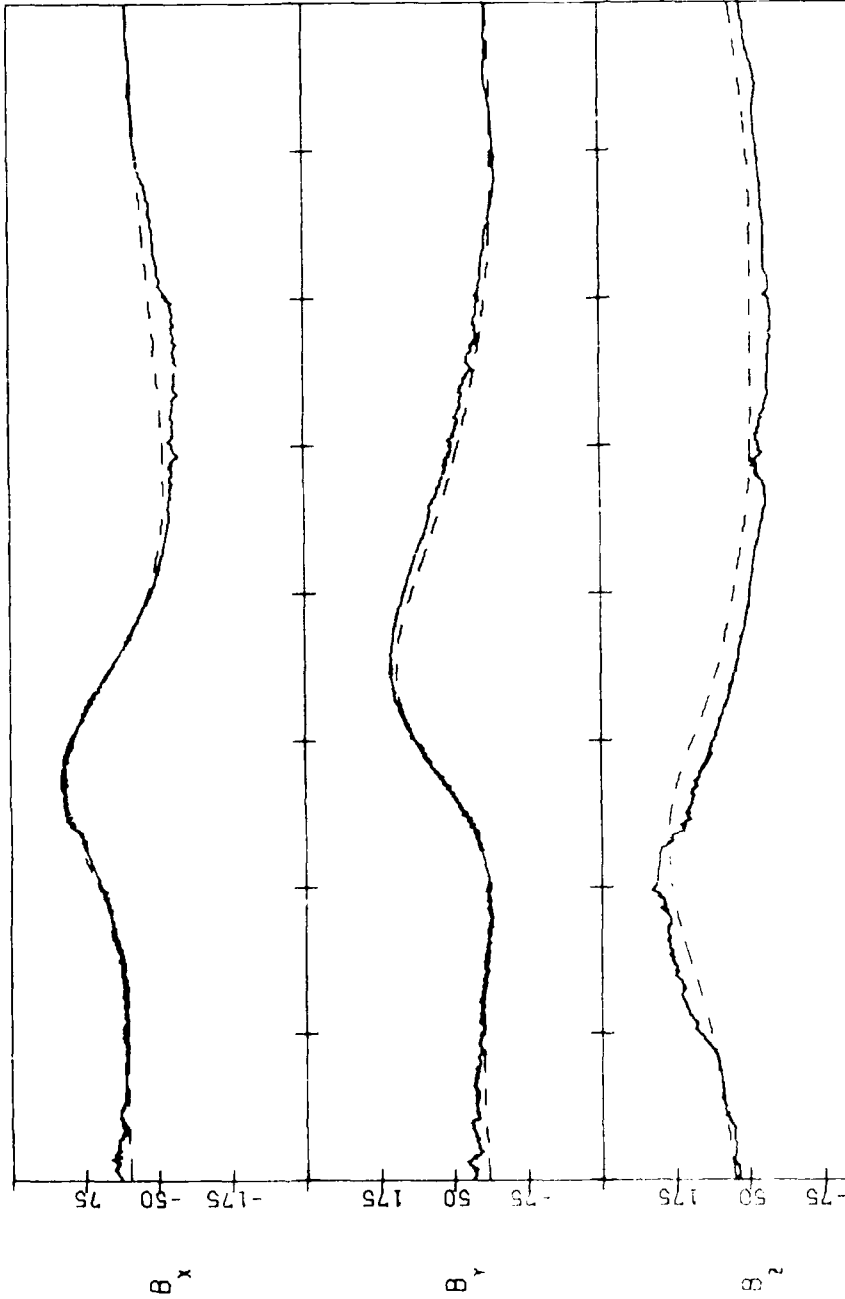
SCATHA SC11(SOLAR MAGNETIC)

79157 06/06/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0420:	0700:	1035:	1459:	1858:	2155:	0014:	0221:	0435:
0435:	0706:	1027:	1440:	1837:	2138:	0020:	0239:	0449:
-2.2	0.2	-4.0	-14.4	-18.8	-16.7	-12.3	-7.1	-2.4
7.5	6.6	5.6	5.7	6.8	7.9	8.3	8.4	7.4
5.8	7.6	4.5	-3.8	-7.6	-5.5	-1.5	2.7	6.2
64.8	59.8	68.4	89.4	104.2	103.5	93.3	79.9	68.6

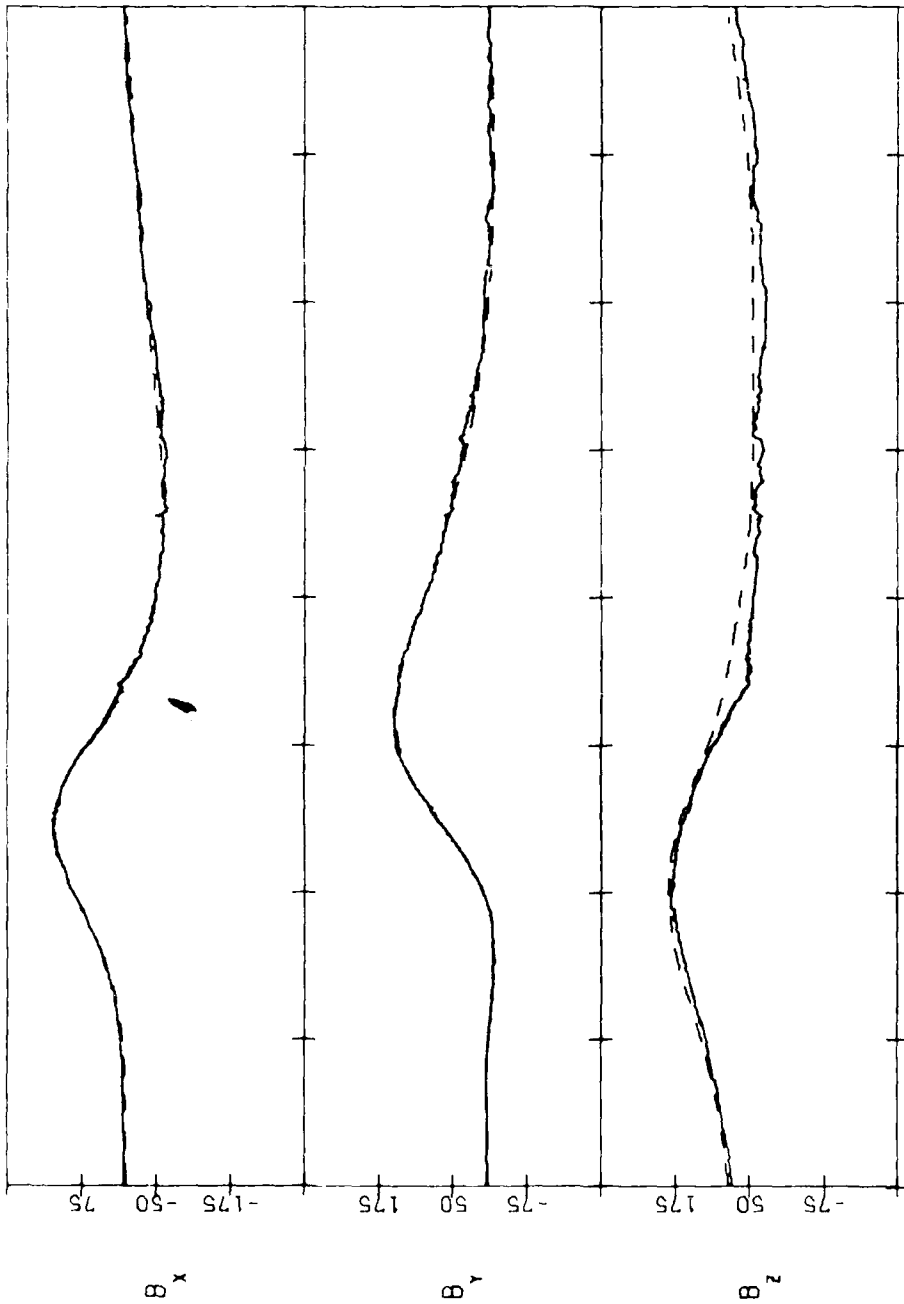
SCATHA SC11(SOLAR MAGNETIC)  
79158 06/07/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0435:	0721:	1104:	1530:	1921:	2211:	0027:	0234:	0450:
0450:	0726:	1056:	1512:	1901:	2155:	0034:	0252:	0505:
-2.3	-0.5	-5.8	-15.8	-18.8	-16.3	-11.3	-6.9	-2.5
7.4	6.4	5.5	5.8	7.0	8.0	8.3	8.3	7.2
6.2	7.6	3.6	-4.8	-7.6	-5.0	-0.9	3.2	6.6
68.5	65.0	75.7	97.2	109.9	107.6	96.6	83.2	72.5

SCATHA SC11(SOLAR MAGNETIC)

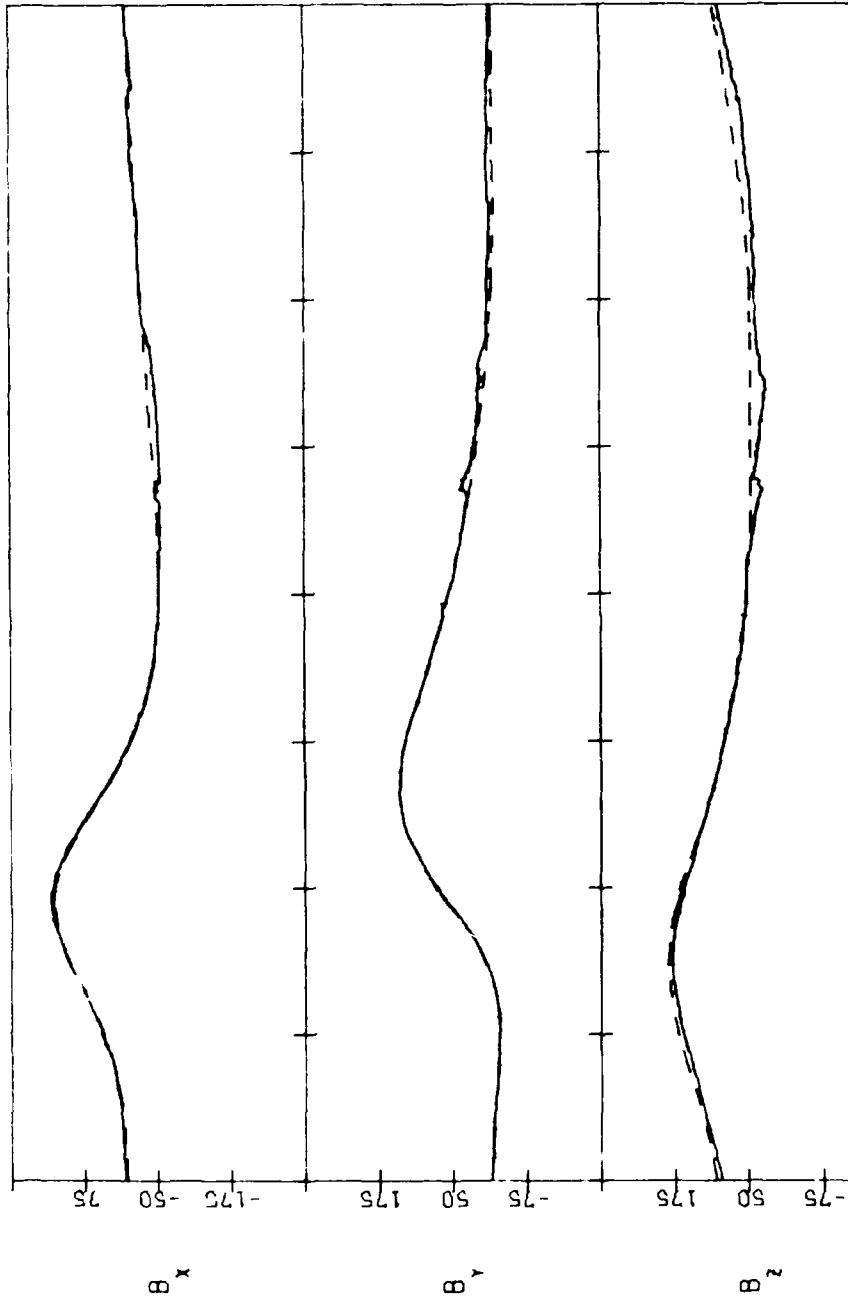
79160 06/09/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0507:	0806:	1205:	1629:	2003:	2241:	0053:	0300:	0523:
0522:	0810:	1157:	1614:	1944:	2227:	0101:	0318:	0538:
-2.6	-2.2	-9.3	-17.6	-18.3	-15.2	-11.0	-6.4	-2.8
7.1	6.1	5.4	6.1	7.3	8.1	8.4	7.1	7.0
6.9	7.2	1.4	-6.3	-7.2	-4.0	0.2	4.3	7.2
76.6	76.3	91.0	112.1	120.6	115.2	103.1	89.9	80.8

SCATHA SC11(SOLAR MAGNETIC)

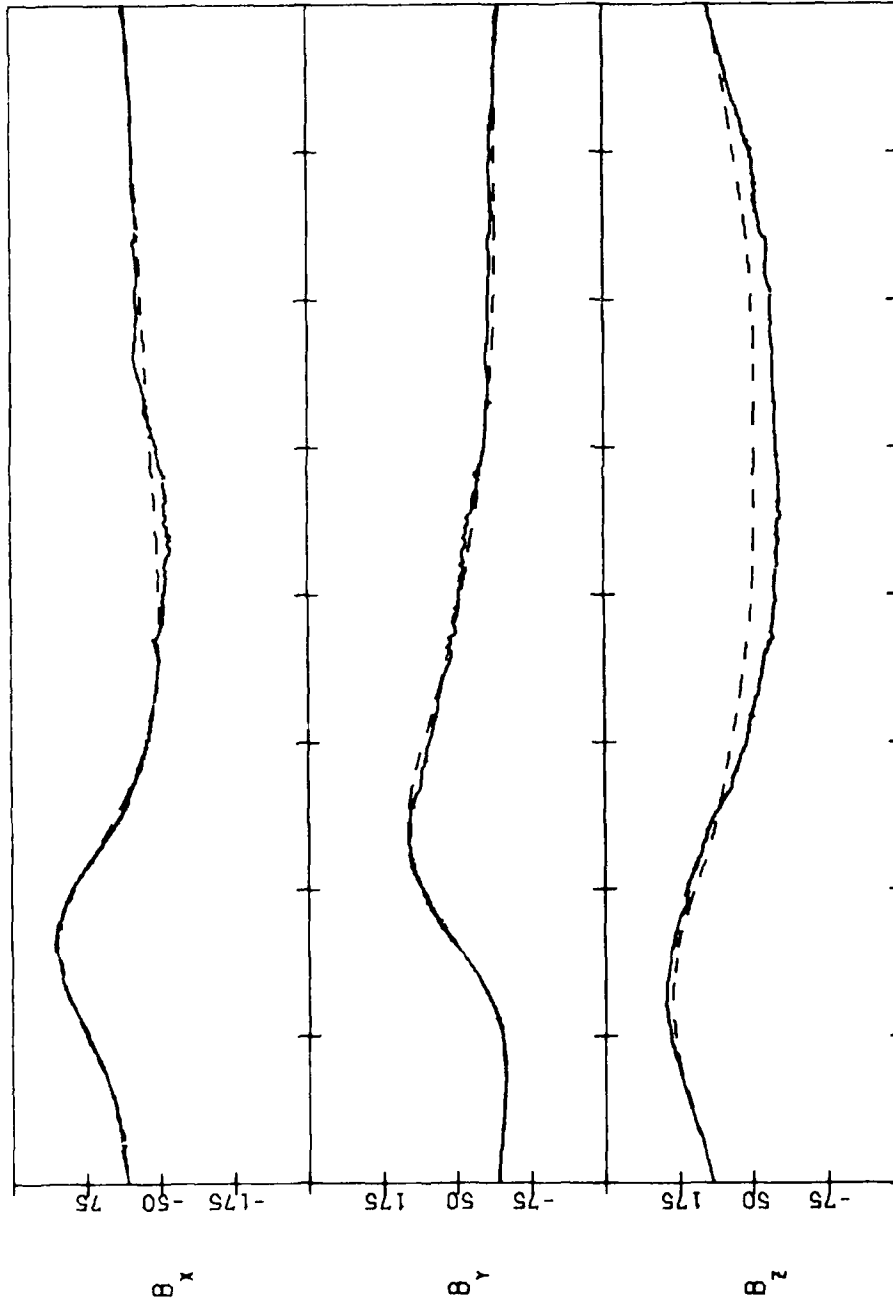
79164 06/13/79



UT	LOCAL TIME(HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE			
0000	0300	0600	0900	1200	1500	1800	2100	2400
0619	0948	1411	1814	2116	2337	0147	0357	0638
0634	0952	1406	1805	2058	2328	0157	0415	0653
-3.3	-6.2	-14.2	-17.4	-15.5	-12.3	-8.6	-5.2	-3.5
6.6	5.6	5.6	6.7	7.8	8.3	8.4	7.5	6.5
7.6	5.0	-3.2	-7.6	-5.7	-1.7	2.6	6.0	7.6
94.7	102.1	122.8	138.7	139.1	129.3	115.6	104.2	99.8

SCATHA SC11(SOLAR MAGNETIC)

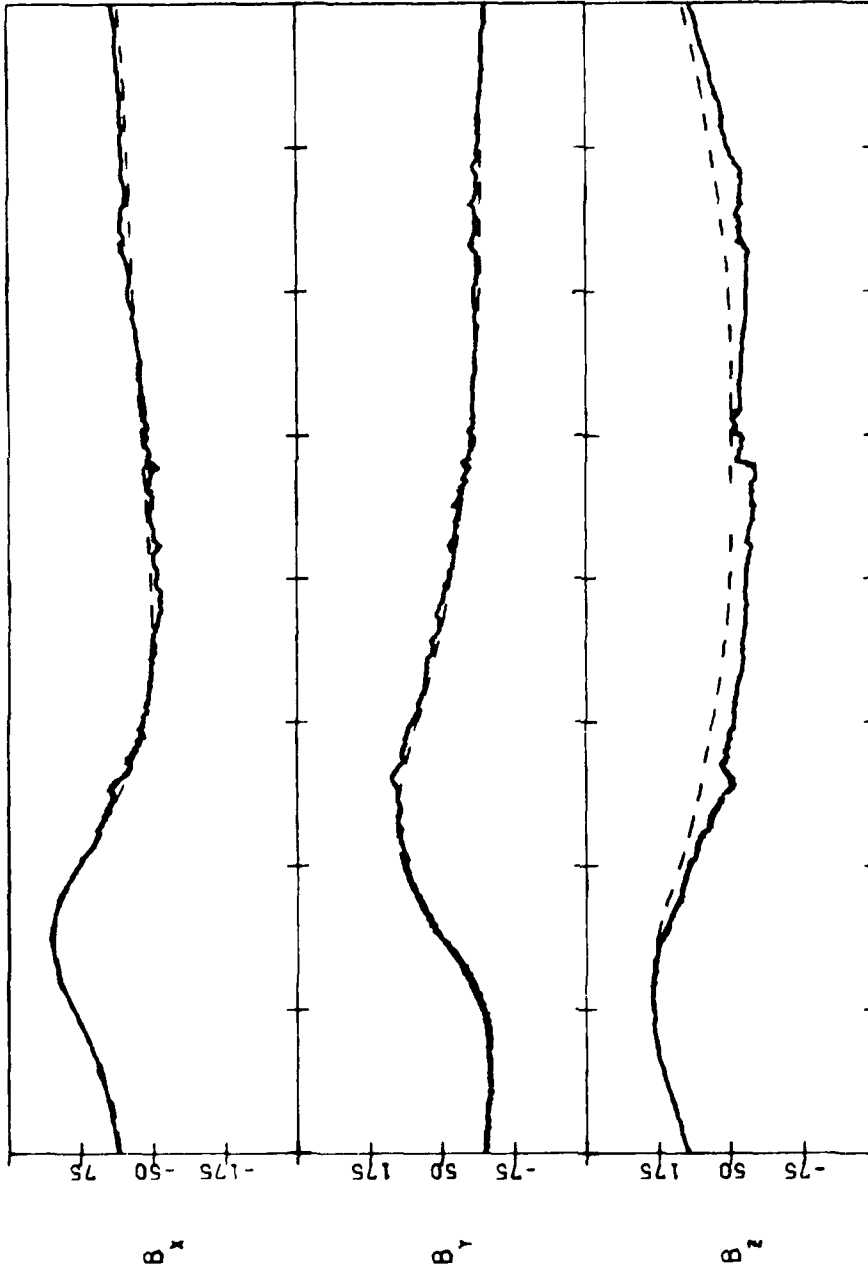
79166 06/15/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0700:	1046:	1513:	1900:	2148:	0003:	0209:	0428:	0722:	LOCAL TIME(HHMM:)
0715:	1051:	1511:	1852:	2130:	2353:	0219:	0446:	0736:	MAG. TIME(HHMM:)
-3.7	-8.0	-15.0	-15.9	-13.8	-10.7	-7.5	-4.5	-3.9	MAG. LAT
6.4	5.5	5.8	6.9	7.9	8.3	8.3	7.2	6.2	L-SHELL
7.5	3.1	-5.2	-7.5	-4.7	-0.6	3.5	6.7	7.3	LATITUDE
105.2	116.8	138.3	150.2	147.2	135.9	122.5	112.1	110.8	LONGITUDE



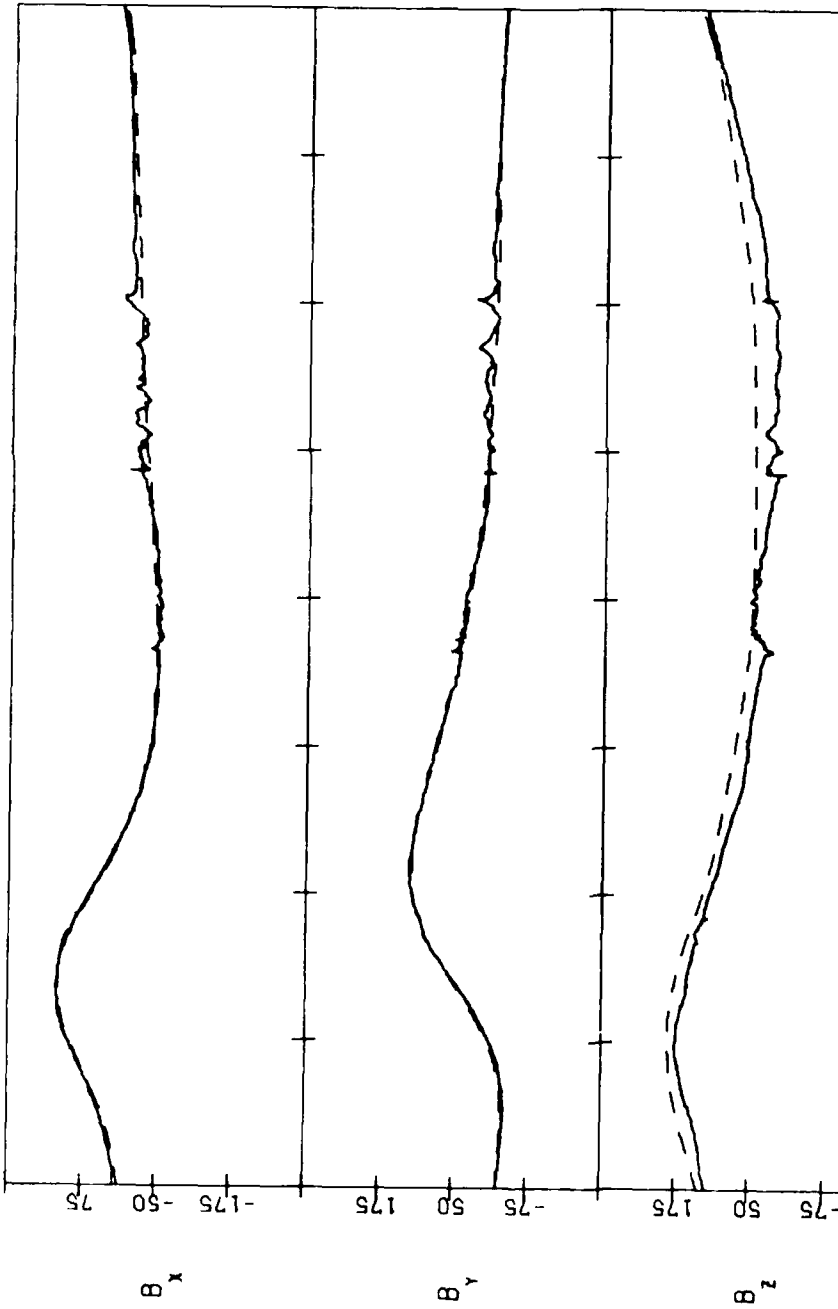
SCATHA SC11(SOLAR MAGNETIC)  
79167 06/16/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0723:	1117:	1542:	1921:	2203:	0016:	0223:	0444:	0745:	LOCAL TIME(MMM:)
0737:	1122:	1543:	1913:	2145:	0006:	0232:	0503:	0800:	MAG. TIME(MMM:)
-3.9	-6.8	-14.9	-15.0	-12.6	-9.8	-6.8	-4.2	-4.1	MAG. LAT
6.2	5.4	5.9	7.0	8.0	8.3	8.2	7.1	6.1	L-SMELL
7.3	2.0	-5.9	-7.3	-4.2	-0.0	4.0	7.0	7.0	LATITUDE
110.8	124.4	145.8	155.5	151.0	139.1	125.9	116.3	116.7	LONGITUDE

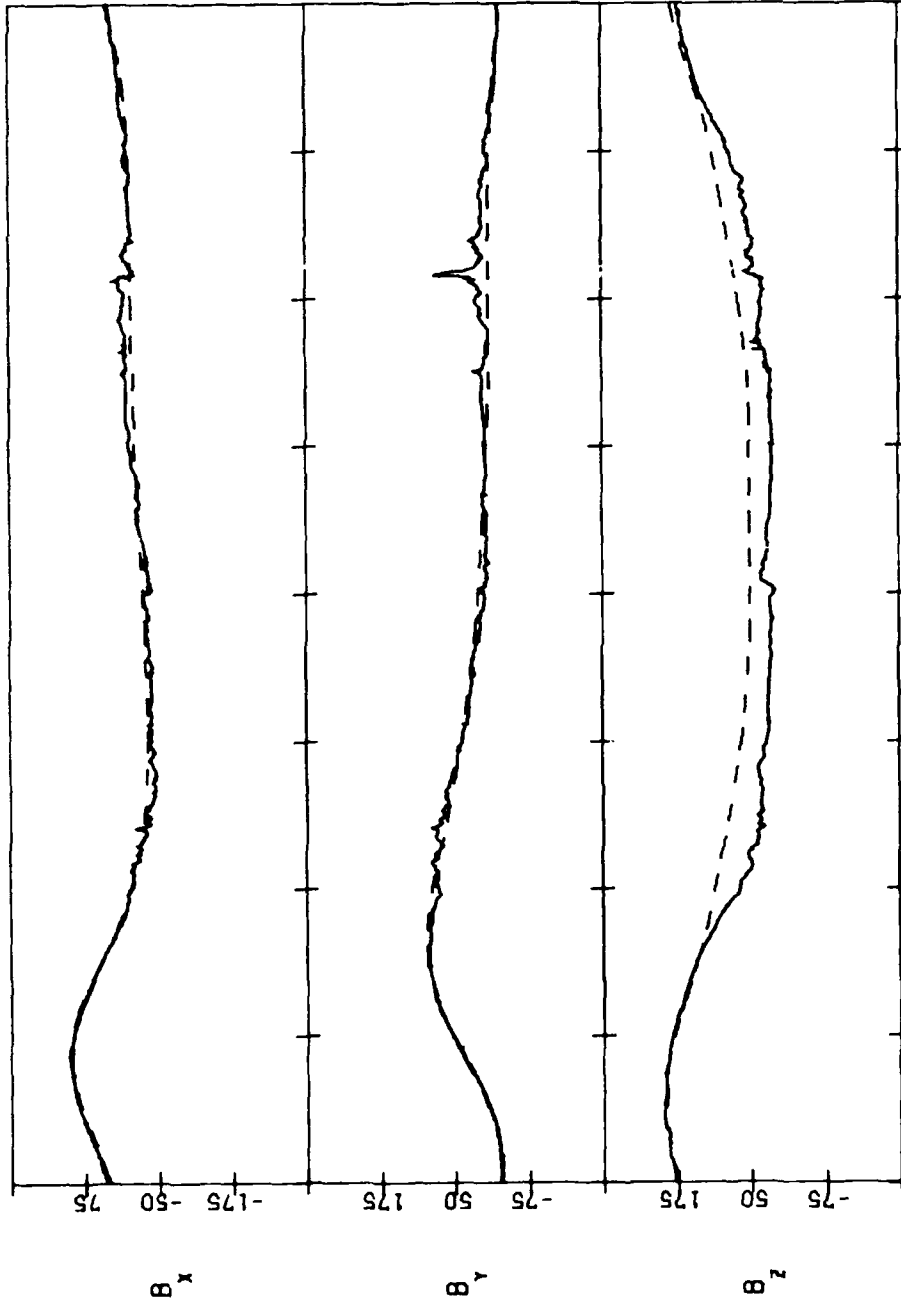
SCATHA SC11(SOLAR MAGNETIC)

79168 06/17/79



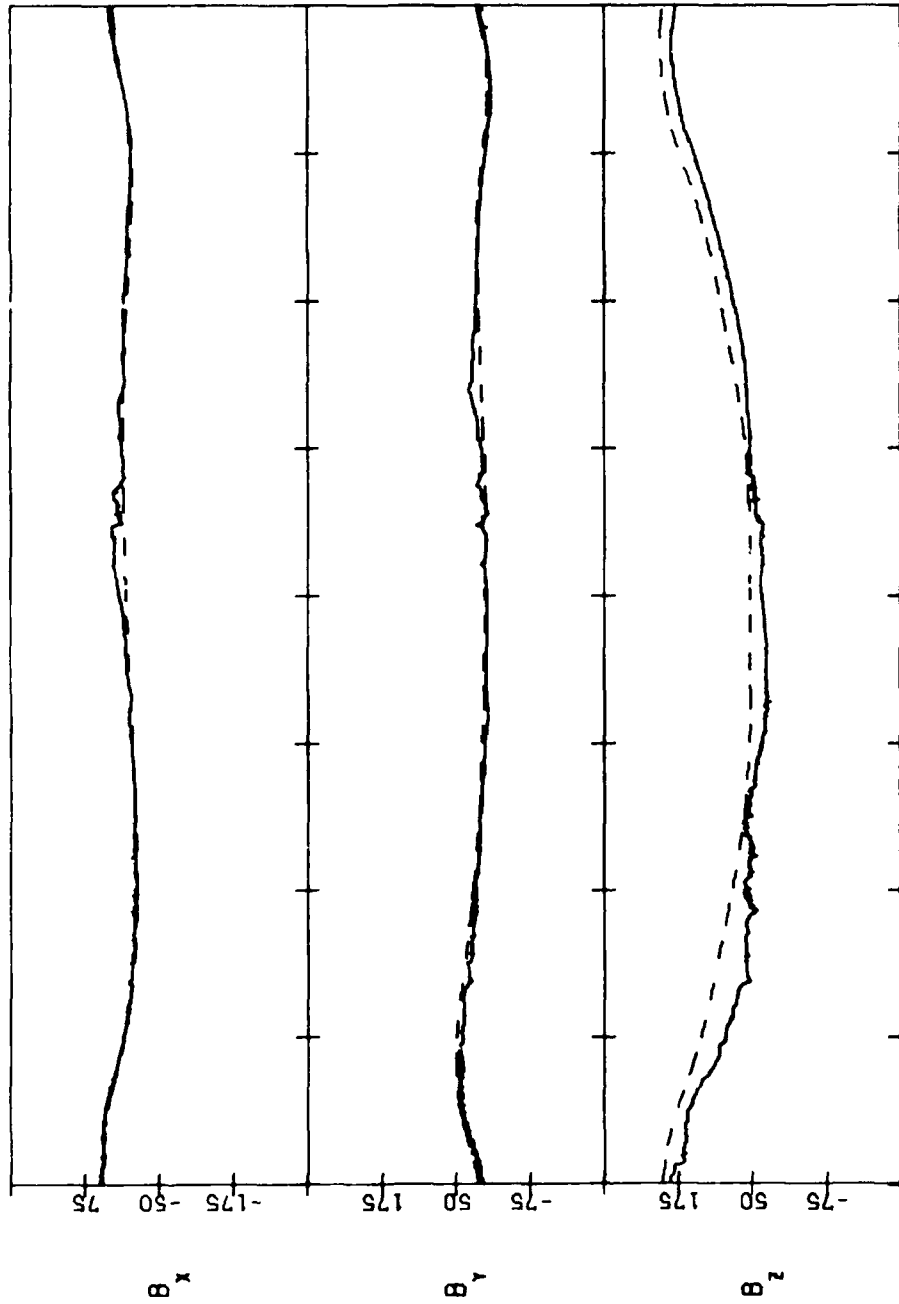
UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0746:	1148:	1611:	1941:	2218:	0028:	0236:	0501:	0810:
0801:	1154:	1613:	1934:	2200:	0019:	0245:	0520:	0825:
-4.1	-9.5	-14.6	-14.0	-11.5	-8.9	-6.1	-3.8	-4.3
6.1	5.4	6.0	7.1	8.1	8.3	8.1	6.9	5.9
7.0	0.9	-6.6	-7.1	-3.7	0.5	4.5	7.3	6.6
116.7	132.2	153.0	160.6	154.7	142.4	129.3	120.6	122.9

SCATHA SC11(SOLAR MAGNETIC)  
79172 06/21/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0931:	1354:	1754:	2053:	2312:	0119:	0333:	0618:	0959:
0947:	1406:	1759:	2044:	2255:	0109:	0341:	0636:	1016:
-4.8	-10.2	-11.4	-9.3	-7.2	-5.1	-3.1	-2.1	-4.8
5.5	5.5	6.4	7.6	8.2	8.3	7.5	6.4	5.5
4.6	-3.7	-7.6	-5.5	-1.5	2.7	6.2	7.6	3.7
143.1	164.0	179.1	178.7	168.5	155.2	143.7	140.0	150.3

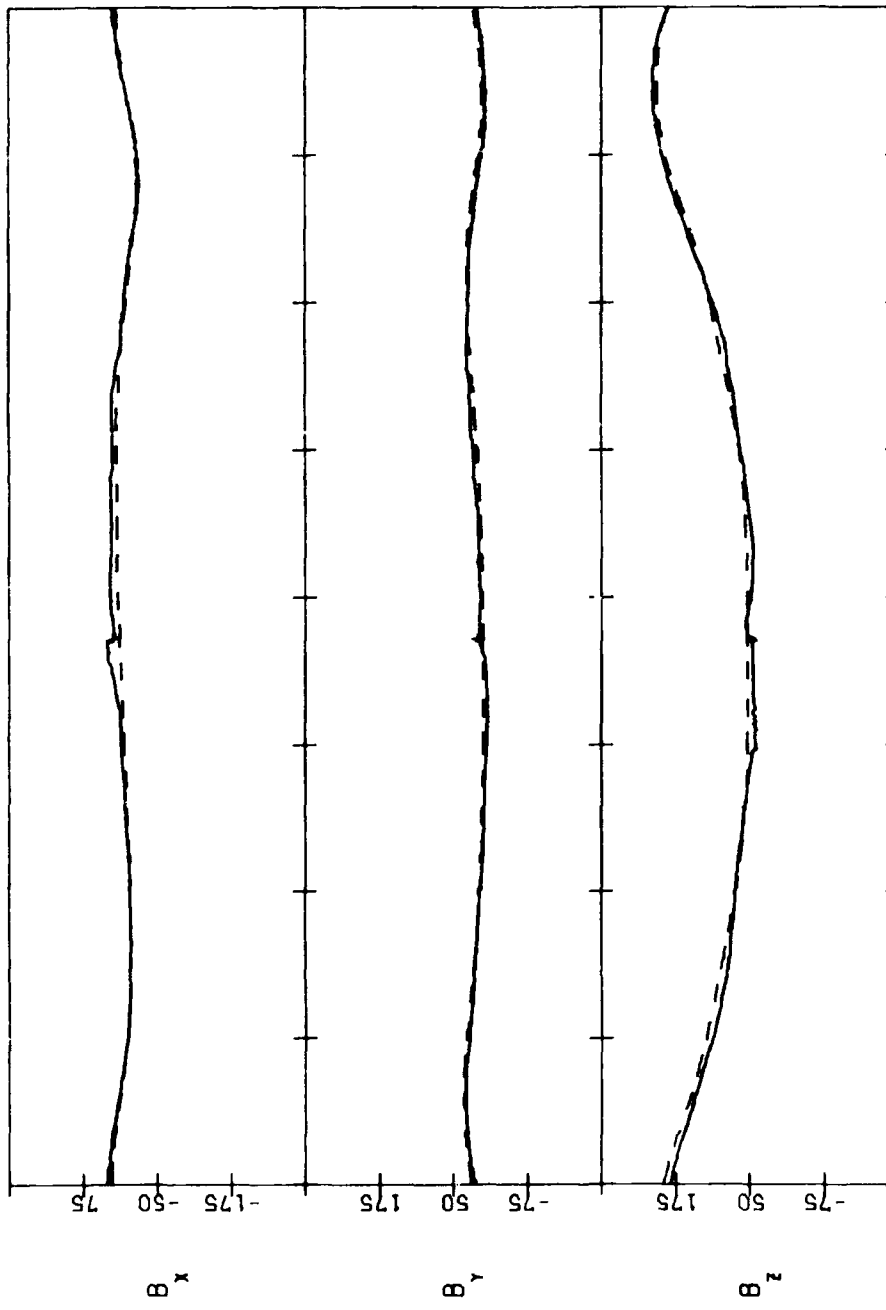
SCATHA SC11(SOLAR MAGNETIC)  
79178 06/27/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
1235:	1646:	1956:	2221:	0029:	0240:	0516:	0844:	1306:							
1256:	1701:	1958:	2210:	0009:	0226:	0522:	0904:	1327:							
-3.9	-5.7	-4.0	-1.9	-0.3	1.0	2.0	0.7	-3.4							
5.3	6.1	7.1	8.2	8.3	7.9	6.6	5.6	5.3							
-2.0	-7.4	-6.1	-2.3	1.9	5.6	7.6	5.0	-3.1							
189.5	207.3	209.9	201.2	188.0	175.8	169.8	177.0	197.4							

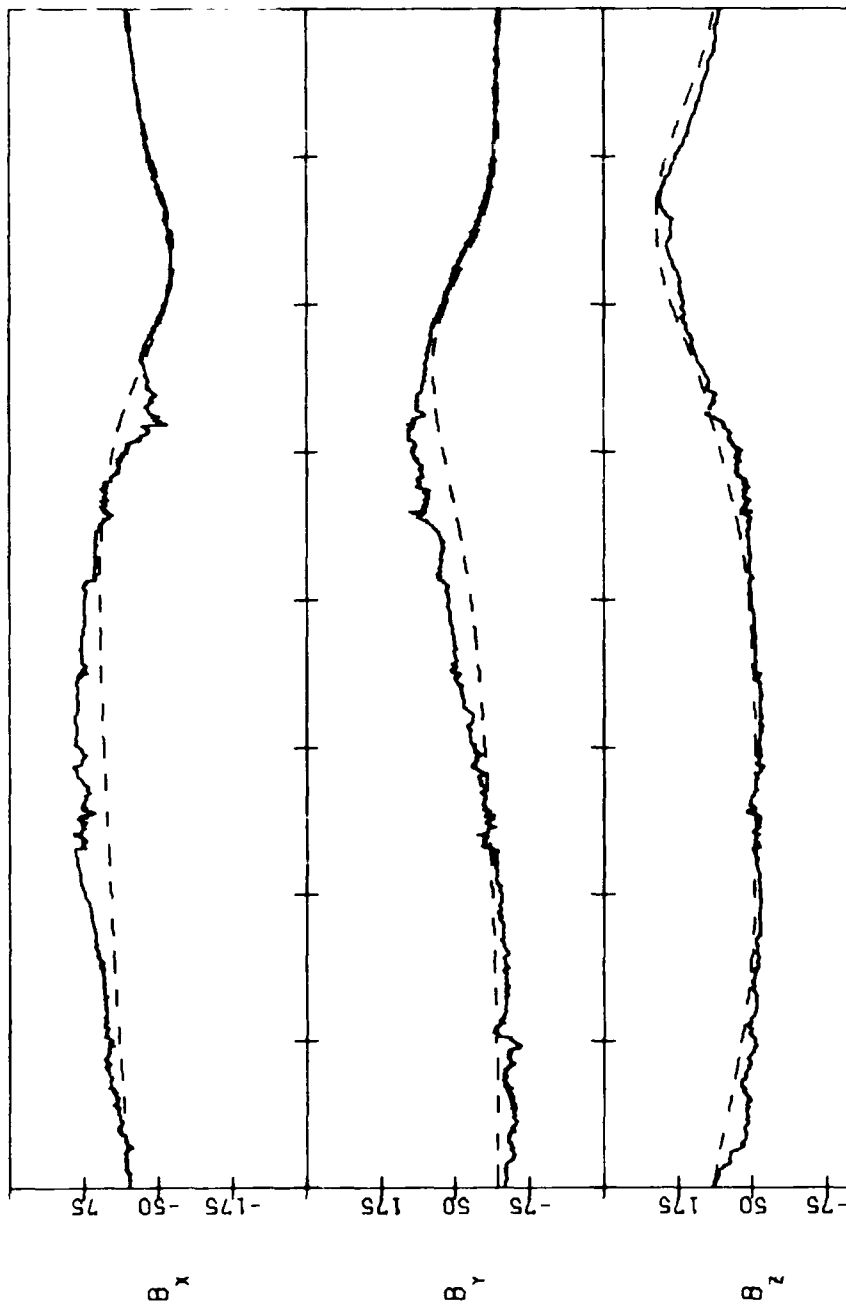
SCATHA SC11(SOLAR MAGNETIC)

79180 06/29/79



UT	LOCAL TIME(HHMM)	MAG. TIME(HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1338:	1735:	2030:	2248:	0054:	0310:	0557:	0943:	1408:
1400:	1748:	2030:	2236:	0033:	0255:	0602:	1003:	1430:
-2.9	-3.6	-1.5	0.6	2.0	3.2	3.7	1.6	-2.3
5.4	6.3	7.5	8.3	8.3	7.6	6.4	5.4	5.4
-4.2	-7.6	-5.2	-1.1	3.0	6.4	7.5	3.2	-5.1
205.4	219.6	218.4	207.9	194.5	183.4	180.2	191.6	213.0

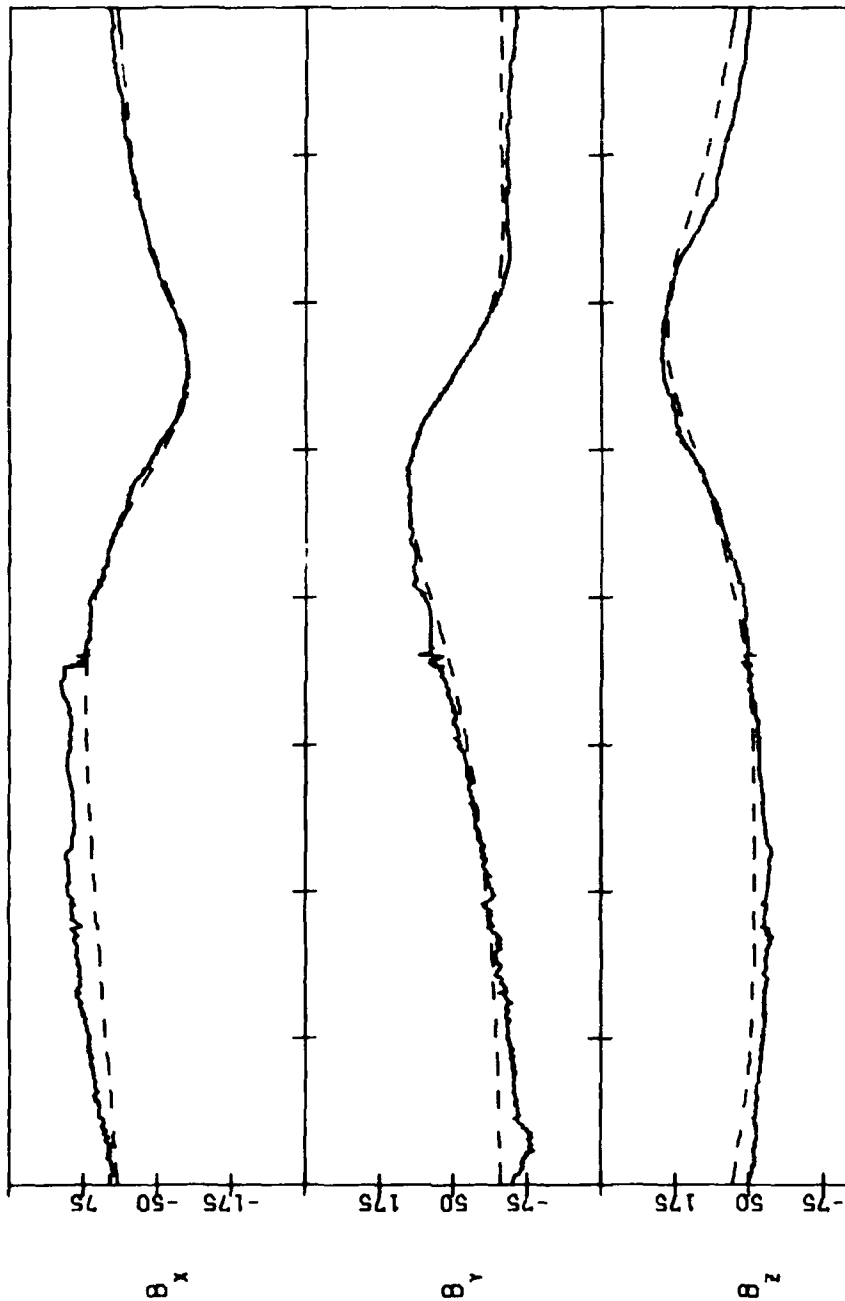
SCATHA SC11(SOLAR MAGNETIC)  
79188 07/07/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE			
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1720:	2009:	2221:	0022:	0233:	0518:	0907:	1344:	1733:	LOCAL TIME(HHMM:)
1740:	2018:	2218:	0005:	0205:	0500:	0913:	1406:	1752:	MAG. TIME(HHMM:)
2.5	4.8	7.3	9.0	10.0	10.5	8.6	3.7	2.8	MAG. LAT
6.4	7.7	8.6	8.6	8.0	6.6	5.5	5.4	6.5	L-SHELL
-7.5	-4.8	-1.0	3.0	6.3	7.5	3.2	-5.3	-7.4	LATITUDE
261.3	258.5	246.5	231.8	219.5	215.7	228.1	252.2	264.7	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

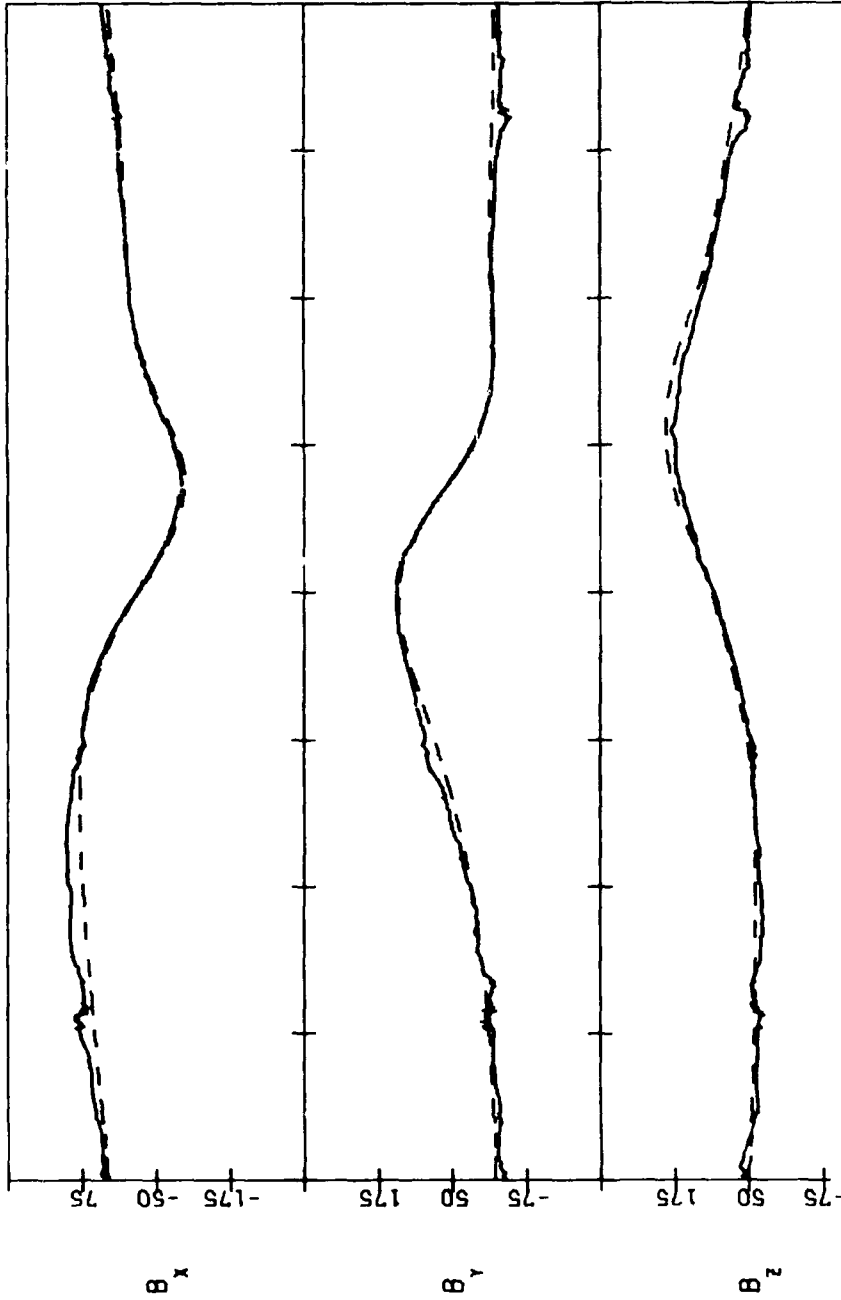
79194 07/13/79



	0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
	1913:	2135:	2341:	0154:	0436:	0812:	1237:	1634:	1929:	LOCAL TIME(HHMM:)
	1931:	2144:	2337:	0132:	0408:	0758:	1246:	1654:	1947:	MAG. TIME(HHMM:)
	5.6	9.5	12.9	15.3	16.2	13.8	7.0	3.7	6.1	MAG. LAT
	7.3	8.5	8.8	8.5	7.2	6.0	5.5	6.3	7.5	L-SHELL
	-5.6	-1.6	2.5	6.0	7.5	4.1	-4.2	-7.5	-5.2	LATITUDE
	289.7	280.1	268.9	255.1	250.4	259.5	280.8	295.0	293.9	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

79200 07/19/79

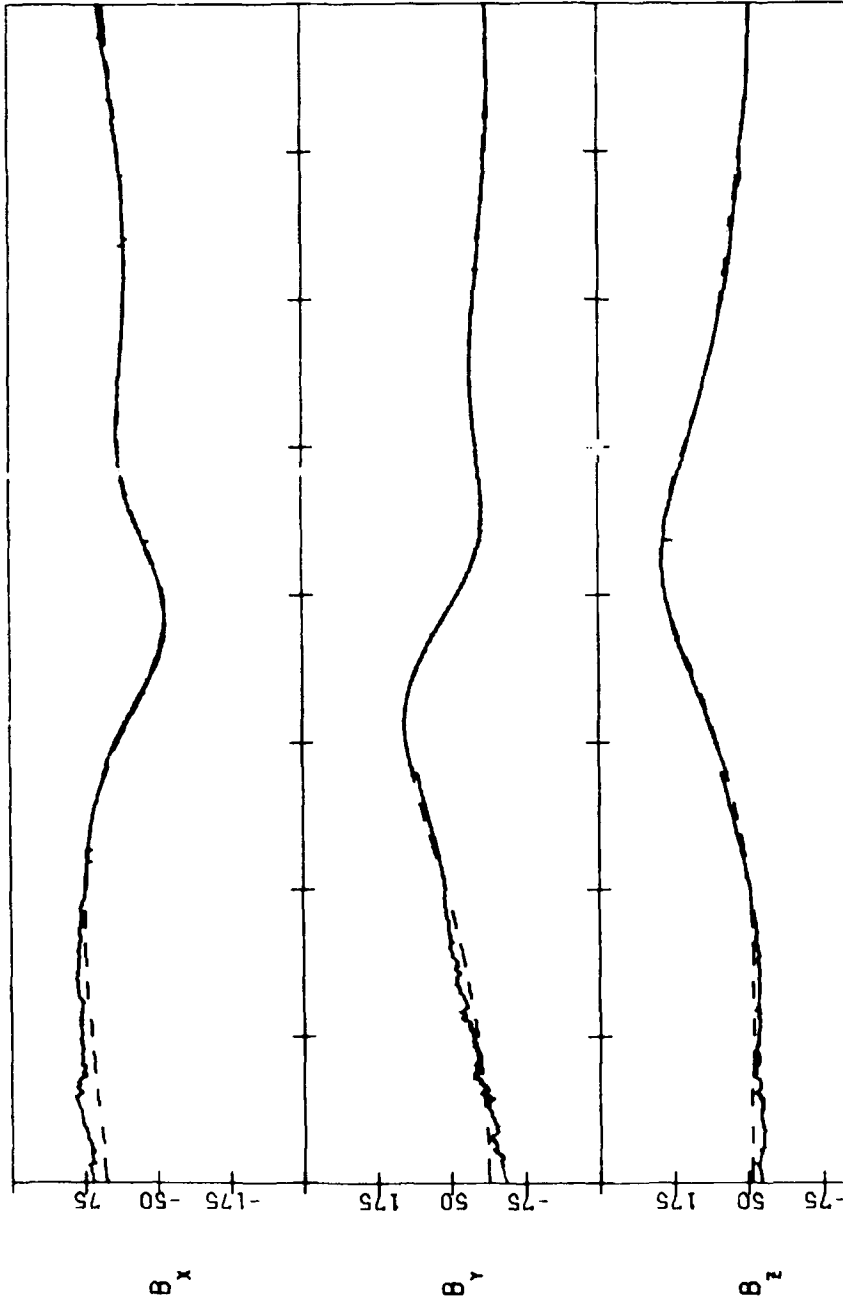


0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2045:	2253:	0103:	0336:	0700:	1119:	1528:	1835:	2058:	LOCAL TIME(MMMK.)
2104:	2303:	0058:	0318:	0642:	1111:	1534:	1853:	2117:	MAG. TIME(MMMK.)
7.9	12.8	16.7	18.6	16.6	8.1	1.9	3.3	8.1	MAG. LAT
8.2	8.8	8.9	7.9	6.4	5.5	6.1	7.1	8.4	L-SHELL
-2.5	1.7	5.4	7.5	5.3	-2.6	-7.5	-5.8	-1.8	LATITUDE
312.8	299.8	287.3	280.7	286.6	306.5	323.7	325.3	316.3	LONGITUDE



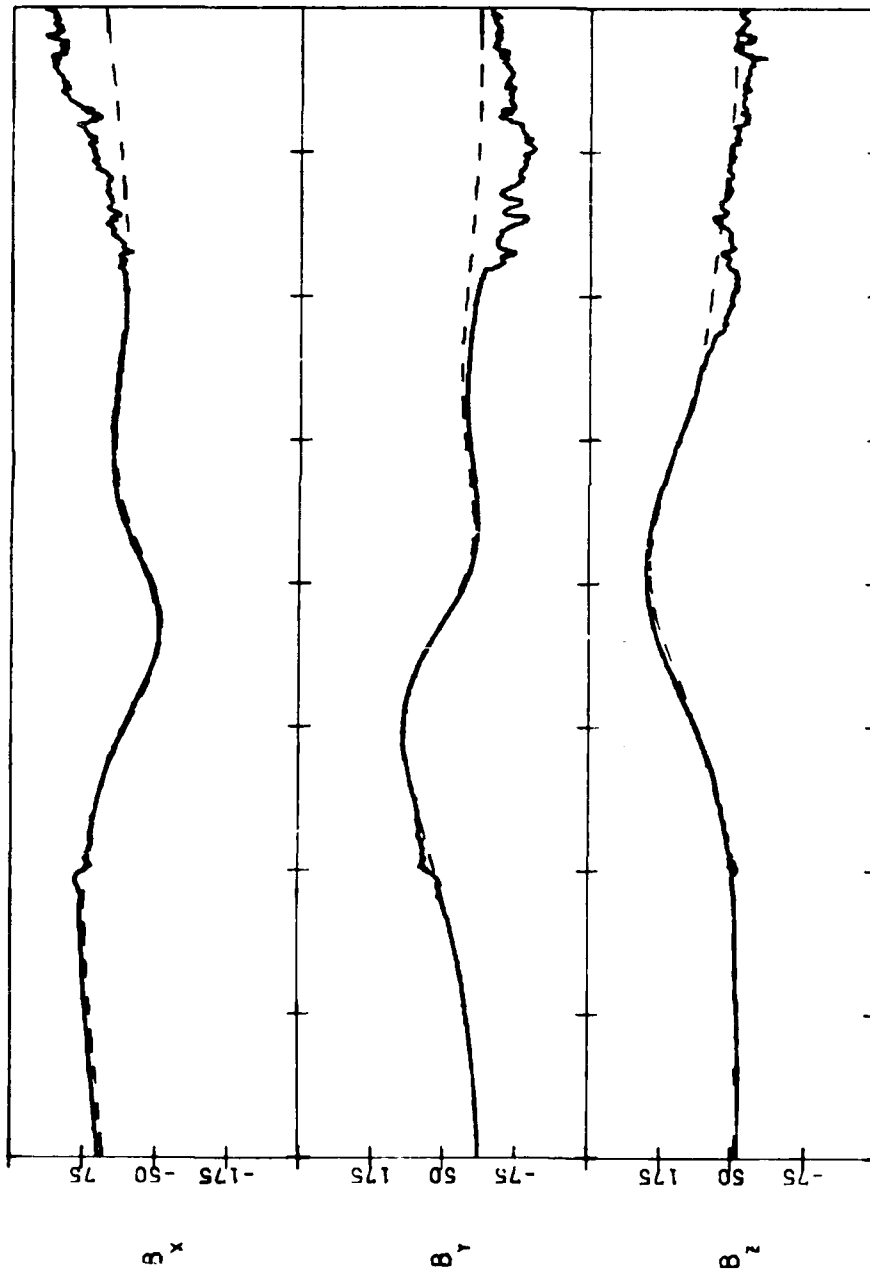
SCATHA SC11(SOLAR MAGNETIC)

79206 07/25/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0012:	0239:	0550:	1001:	1419:	1738:	2008:	2217:	LOCAL TIME(HHMM:)	
0022:	0237:	0541:	0946:	1405:	1741:	2025:	2236:	MAG. TIME(HHMM:)	
14.4	17.7	16.4	7.4	-1.8	-1.9	3.0	9.1	MAG. LAT	
8.7	8.1	6.6	5.5	5.8	6.9	8.0	8.6	L-SHELL	
4.7	7.3	6.2	-0.9	-7.1	-6.4	-2.7	1.4	LATITUDE	
319.7	311.4	314.2	332.0	351.5	356.3	348.8	336.0	LONGITUDE	

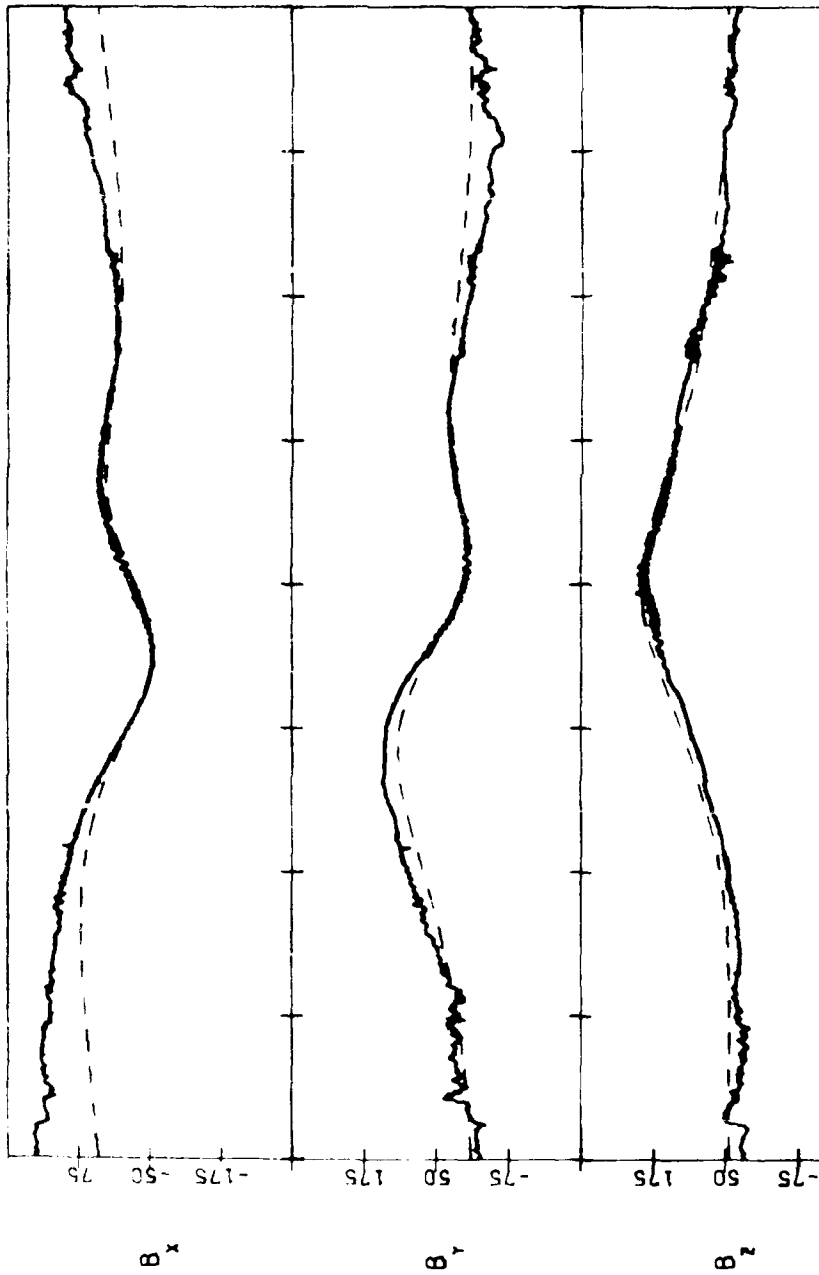
SCATHA SC11(SOLAR MAGNETIC)  
79207 07/26/79



UT	LOCAL TIME (HHMM)	MAG. TIME (HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000	0300	0600	0900	1200	1500	1800
2217	0026	0257	0616	1033	1445	1756
2236	0036	0256	0609	1017	1430	1759
9.1	14.5	17.4	15.2	5.1	-3.2	-2.4
8.6	8.6	7.9	6.4	5.4	5.9	7.0
1.5	5.2	7.4	5.8	-2.0	-7.4	-6.0
336.0	323.3	316.0	320.8	340.0	358.1	0.8
					352.3	339.2

SCATHA SC1.1 (SOLAR MAGNETIC)

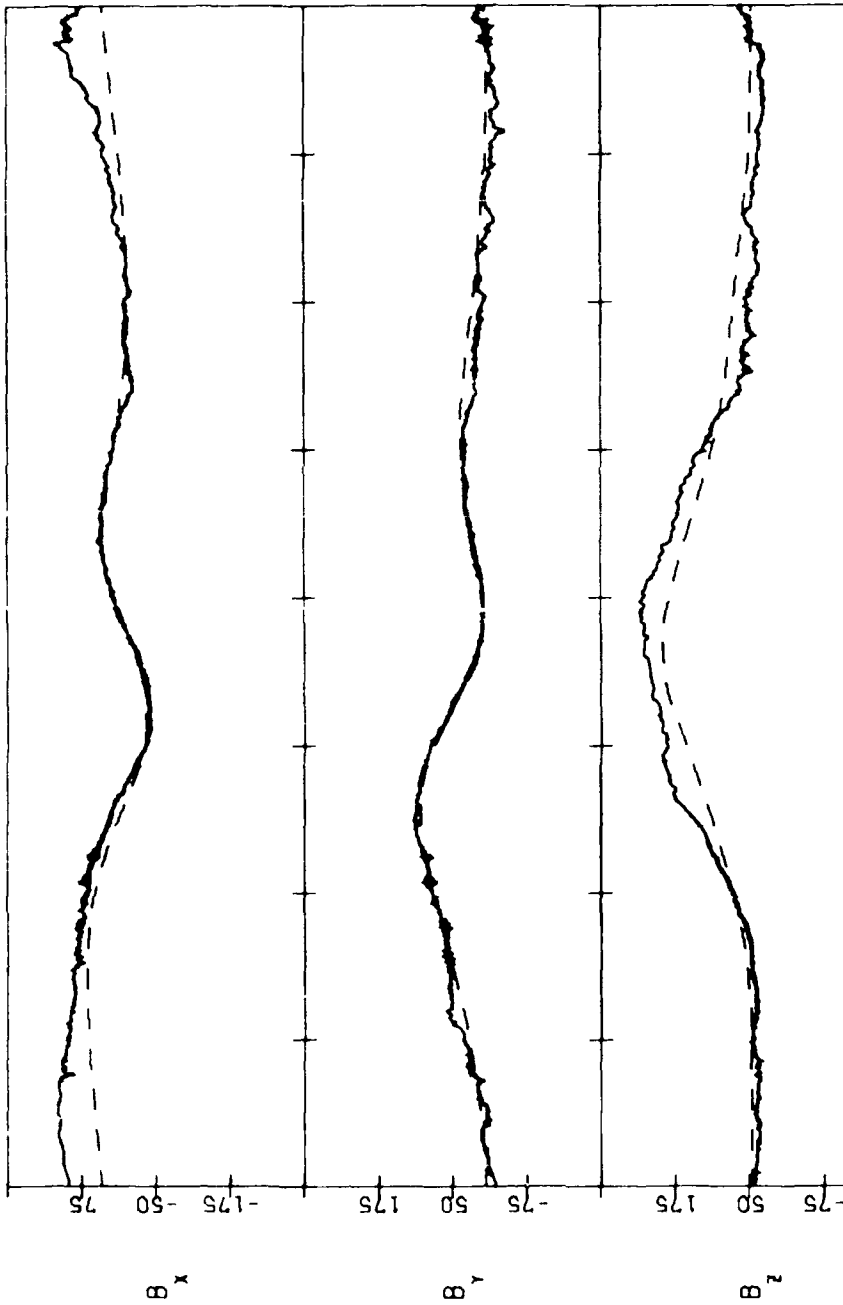
79208 07/27/79



UT	LOCAL TIME (HHMM)	MAG. TIME (HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000						
0300						
0600	0316	0637	17.0	7.6	7.5	320.8
0900	0644	1048	13.7	6.2	4.9	327.7
1200	1105	1455	2.7	5.4	-3.2	348.0
1500	1511	1816	-4.5	6.1	-7.5	4.4
1800	1814	2053	-2.7	7.1	-5.6	5.2
2100	2036	2301	2.9	8.2	-1.6	355.7
2400						
2230	0041	0317	14.5	8.5	5.6	326.9
2249	0050	0317	14.5	8.5	5.6	326.9
9.2	14.5	13.7	13.7	6.2	4.9	327.7
8.6	8.5	7.6	7.6	6.2	4.9	327.7
2.0	5.6	7.5	7.5	6.2	4.9	327.7
339.2	326.9	320.8	327.7	348.0	4.4	5.2

SCATHA SCII(SOLAR MAGNETIC)

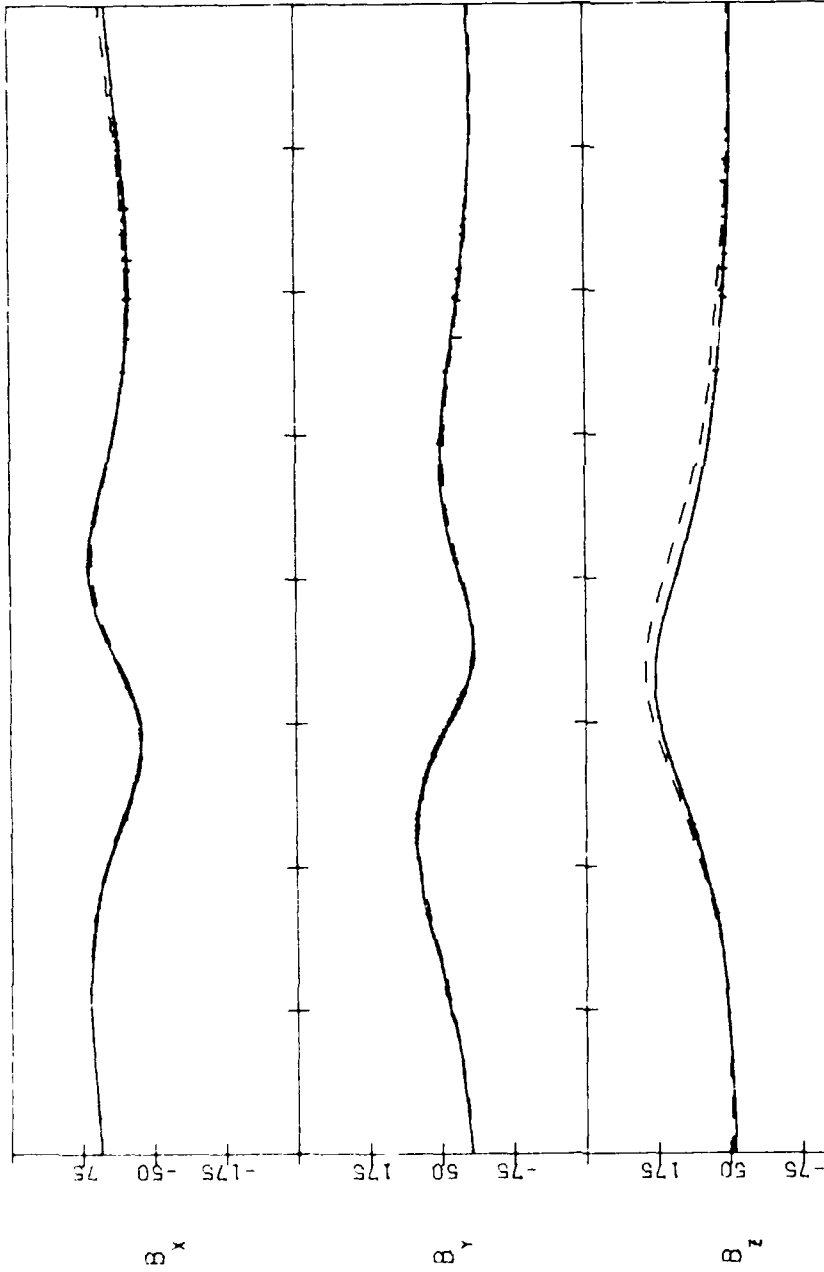
79210 07/29/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2256:	0111:	0358:	0742:	1208:	1557:	1847:	2102:	2309:	LOCAL TIME(HHMM:)
2314:	0121:	0359:	0734:	1147:	1541:	1848:	2119:	2327:	MAG. TIME(HHMM:)
9.2	14.2	15.7	9.6	-2.0	-6.1	-3.4	2.9	9.2	MAG. LAT
8.5	8.3	7.1	5.8	5.5	6.4	7.3	8.4	8.5	L-SHELL
3.1	6.4	7.4	3.1	-5.1	-7.4	-4.6	-0.5	3.6	LATITUDE
345.7	334.4	331.2	342.2	3.7	16.0	13.4	2.3	349.0	LONGITUDE

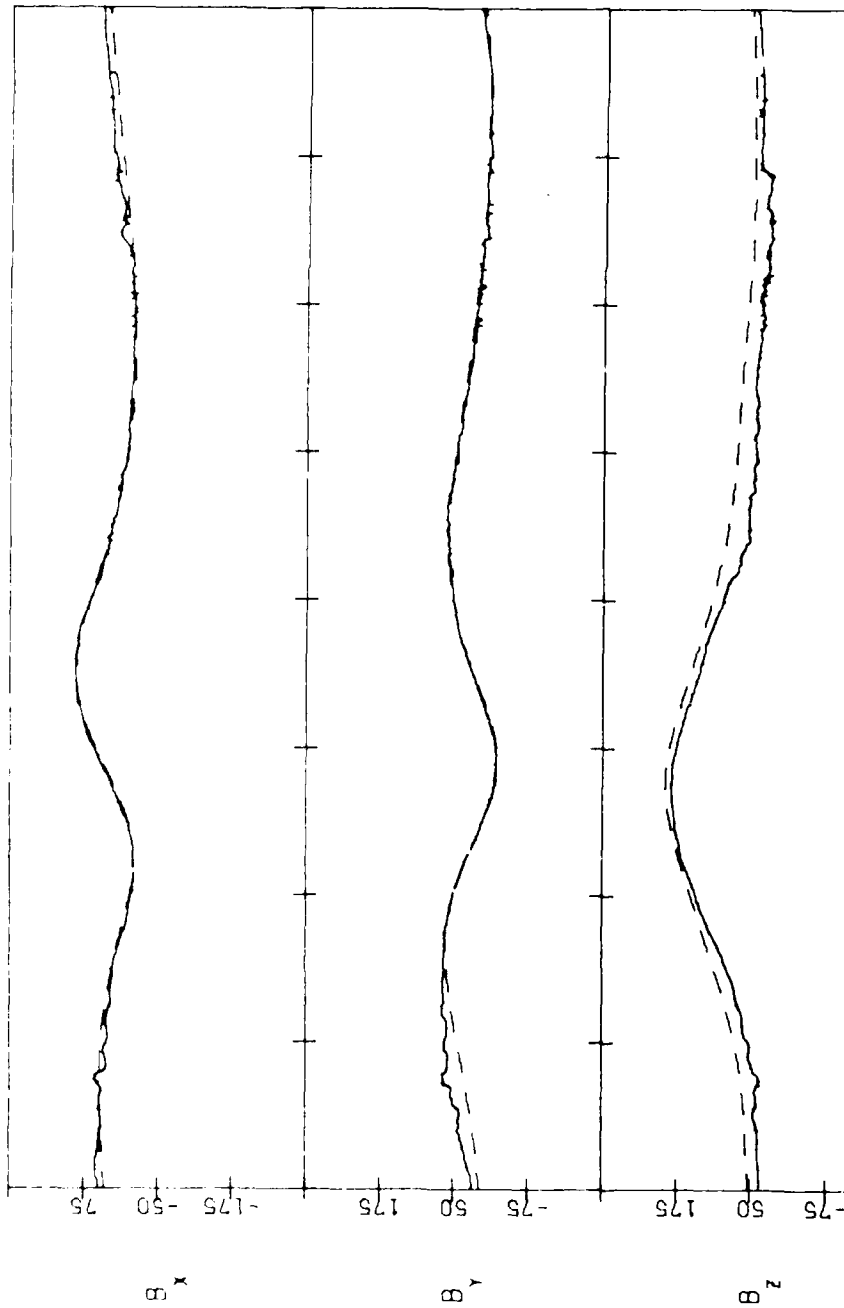
SCATHA SC11(SOLAR MAGNETIC)

79212 07/31/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2322:	0143:	0443:	0844:	1307:	1640:	1917:	2129:	2336:	LOCAL TIME(HHMM:)
2340:	0153:	0445:	0833:	1245:	1623:	1919:	2145:	2353:	MAG. TIME(HHMM:)
9.1	13.6	13.5	5.0	-6.2	-8.2	-3.8	2.7	8.9	MAG. LAT
8.4	8.0	6.6	5.5	5.7	6.7	7.6	8.5	8.3	L-SHELL
4.1	7.0	6.9	0.9	-6.5	-6.9	-3.5	0.7	4.5	LATITUDE
352.3	342.6	342.6	357.6	18.6	26.6	21.0	8.8	355.7	LONGITUDE

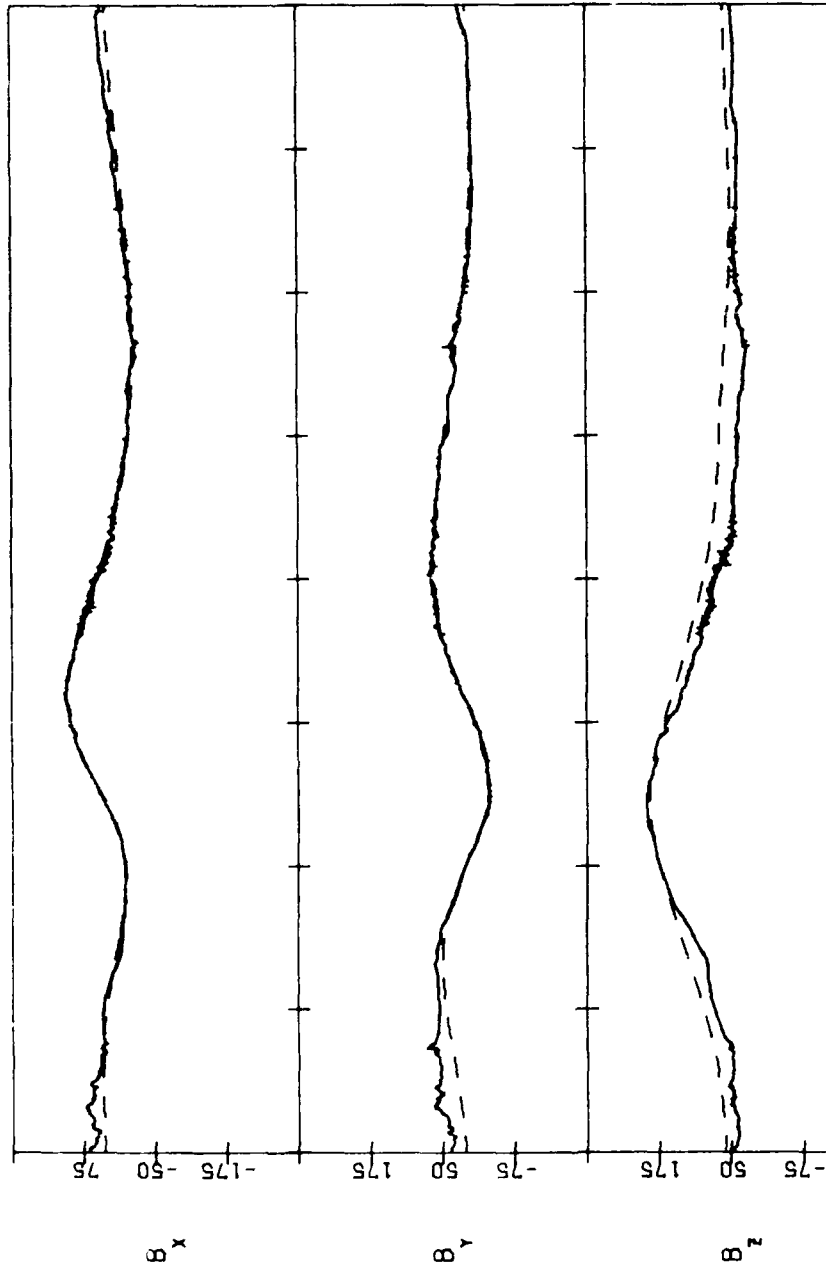
SCATHA SC11(SOLAR MAGNETIC)  
79216 08/04/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0019:	0257:	0628:	1051:	1453:	1753:	2014:	2220:	0034:		0034:	0049:	7.8	8.0	6.2	10.1
0034:	0306:	0627:	1035:	1430:	1738:	2015:	2236:								
8.2	10.9	6.5	-5.6	-12.2	-10.1	-4.3	2.3								
8.1	7.2	5.8	5.4	6.3	7.3	8.1	8.5								
5.8	7.5	4.5	-3.7	-7.5	-5.3	-1.3	2.8								
6.4	0.9	8.7	29.5	45.0	44.9	35.0	21.7								

SCATHA SC11(SOLAR MAGNETIC)

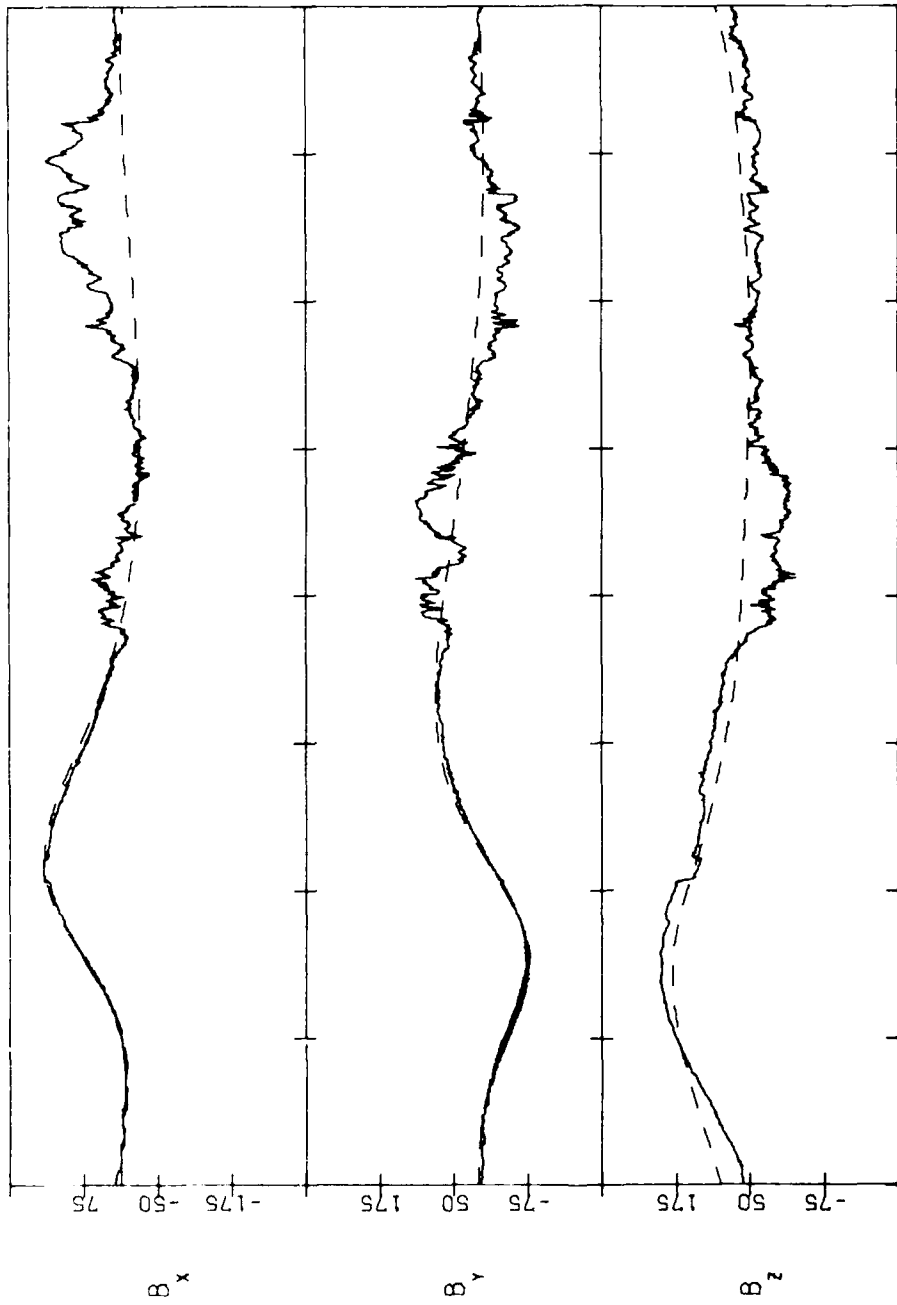
79218 08/06/79



UT	LOCAL TIME(HHMM)	MAG. TIME(HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000						
0050	0339	0727	1153	1826	2040	2247
0104	0347	0723	1135	1811	2042	2302
7.4	8.7	1.7	-10.2	-10.5	-4.4	2.0
7.9	6.7	5.6	5.6	7.5	8.3	8.3
6.5	7.3	2.6	-5.4	-4.3	-0.2	3.8
14.0	11.4	23.4	44.9	53.0	41.6	28.3
						18.1

SCATHA SCI11(SOLAR MAGNETIC)

79225 08/13/79

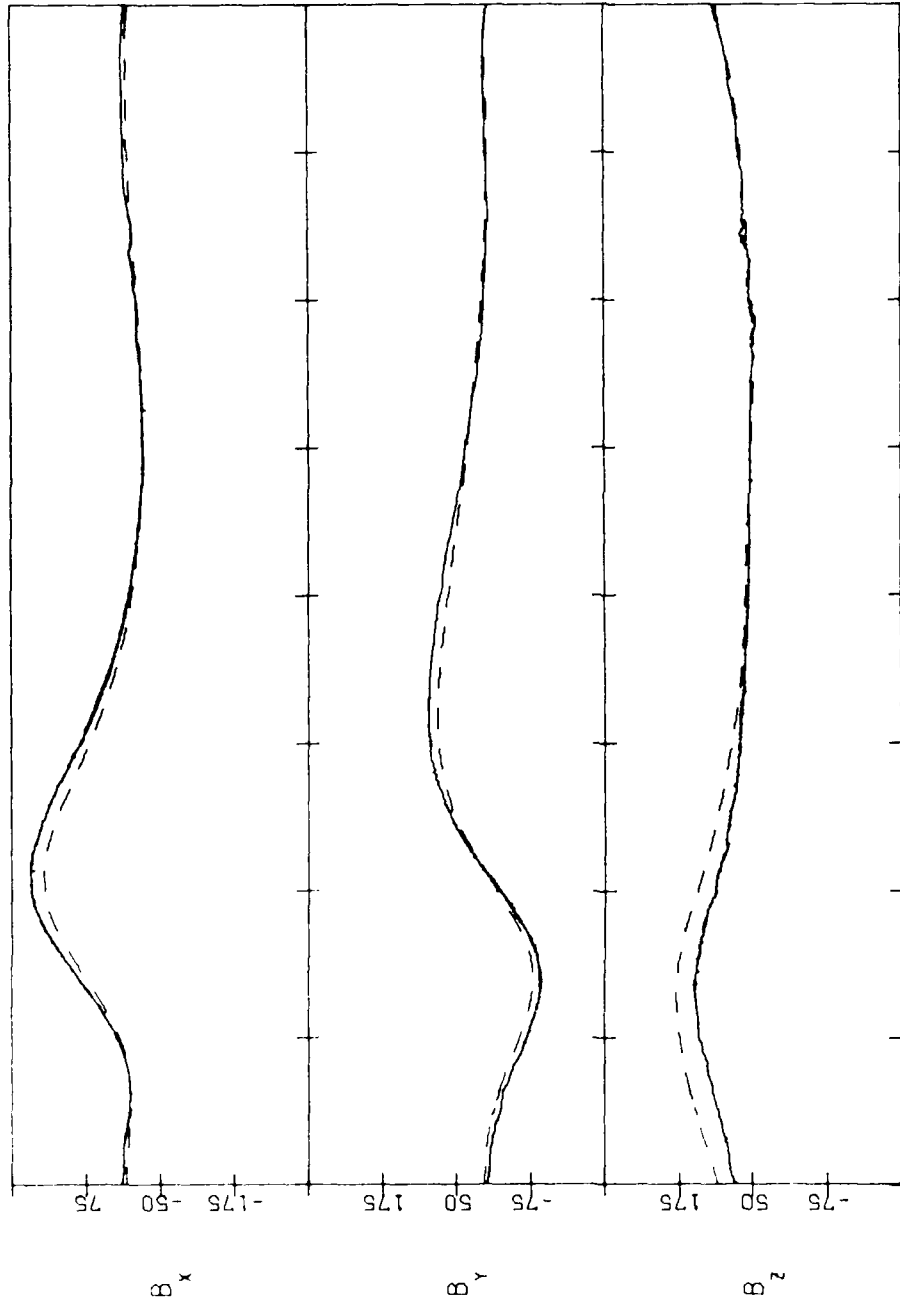


UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0300:	0643:	1109:	1459:	1749:	2005:	2212:	0030:	0322:
0310:	0643:	1100:	1447:	1735:	1954:	2215:	0042:	0332:
2.0	-3.9	-14.6	-17.9	-15.0	-10.0	-4.4	0.1	0.9
6.7	5.6	5.7	6.7	7.6	8.1	8.4	7.7	6.5
7.2	3.0	-5.0	-7.2	-4.4	-0.4	3.6	6.6	7.0
46.2	57.0	78.5	91.1	88.7	77.7	64.4	53.8	52.0



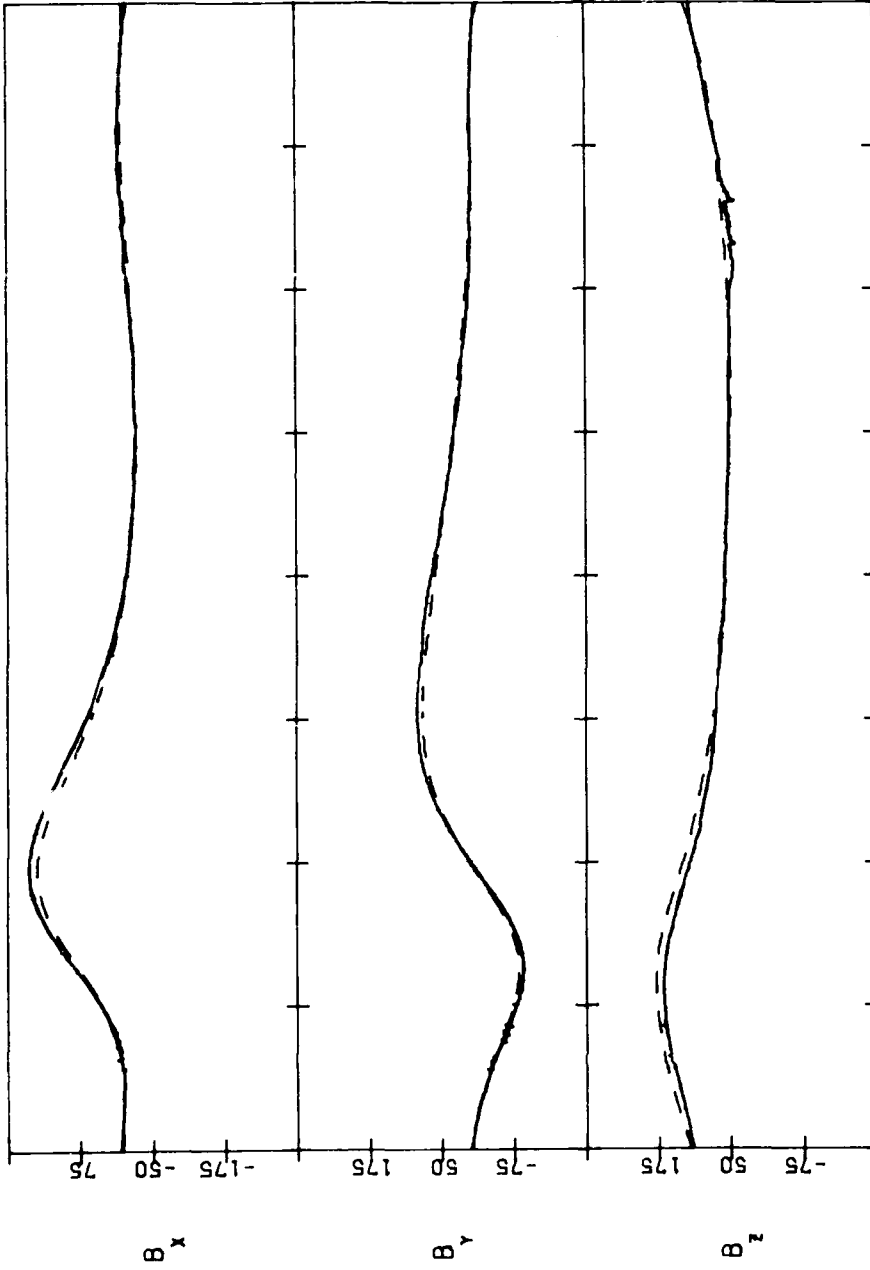
SCATHA SC11(SOLAR MAGNETIC)

79226 08/14/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0322:	0713:	1139:	1521:	1805:	2018:	2225:	0046:	0345:
0332:	0713:	1131:	1510:	1751:	2007:	2228:	0058:	0353:
1.0	-6.0	-16.1	-18.1	-14.8	-9.8	-4.4	-0.2	-0.2
6.5	5.6	5.9	6.9	7.7	8.2	8.3	7.6	6.4
7.1	2.0	-5.8	-7.1	-4.0	0.1	4.0	6.9	6.8
51.8	64.6	66.0	66.5	92.5	80.8	67.6	57.7	57.5

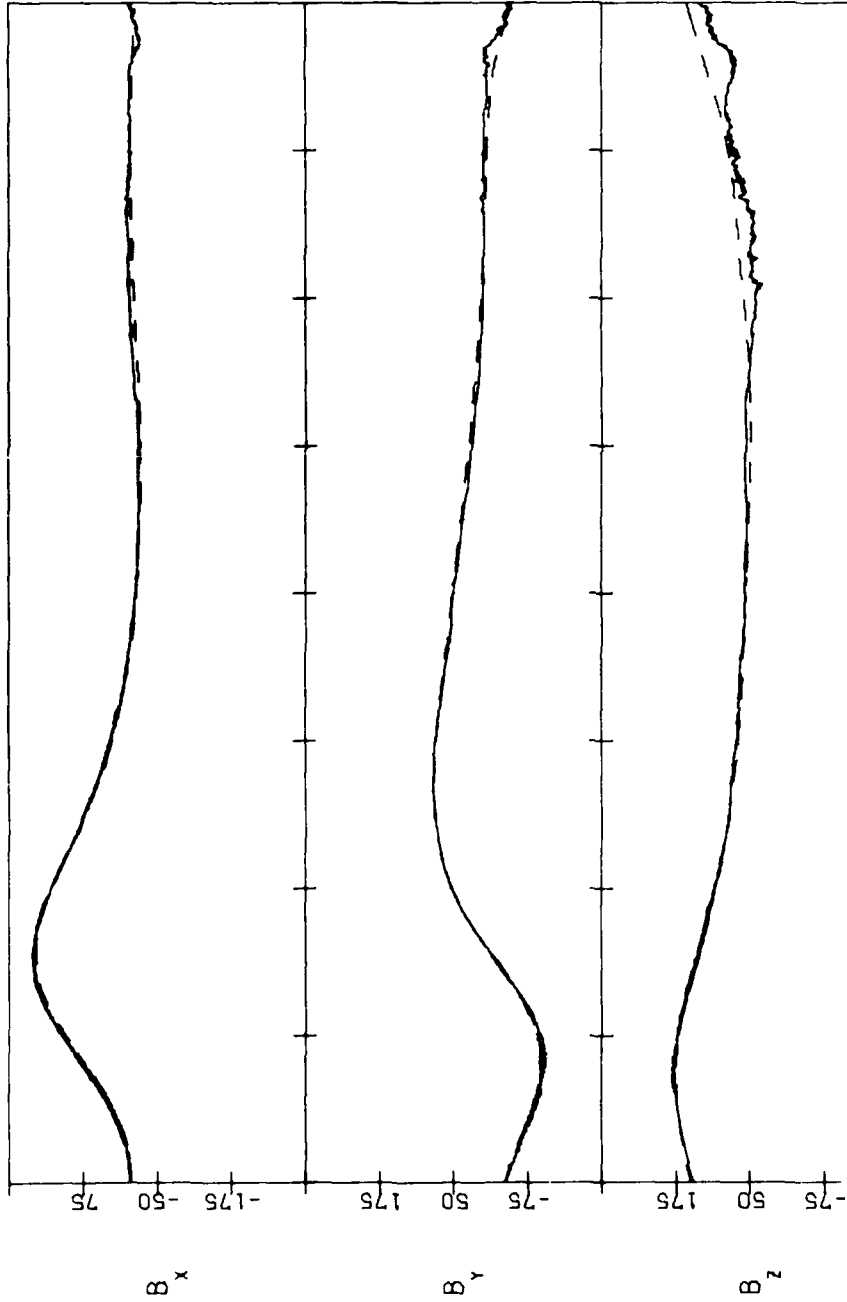
SCATHA SC11(SOLAR MAGNETIC)  
79227 08/15/79



	0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0345:	0744:	1209:	1542:	1820:	2031:	2239:	0103:	0409:		LOCAL TIME(HHMM)
0354:	0743:	1201:	1533:	1807:	2020:	2242:	0115:	0417:		MAG. TIME(HHMM)
-0.2	-8.1	-17.2	-18.0	-14.4	-9.5	-4.3	-0.6	-1.5		MAG. LAT
6.3	5.5	6.0	7.0	7.7	8.2	8.2	7.5	6.2		L-SHELL
6.8	0.9	-6.4	-6.9	-3.5	0.7	4.5	7.1	6.4		LATITUDE
57.5	72.4	93.4	101.7	96.2	84.1	71.0	62.0	63.6		LONGITUDE

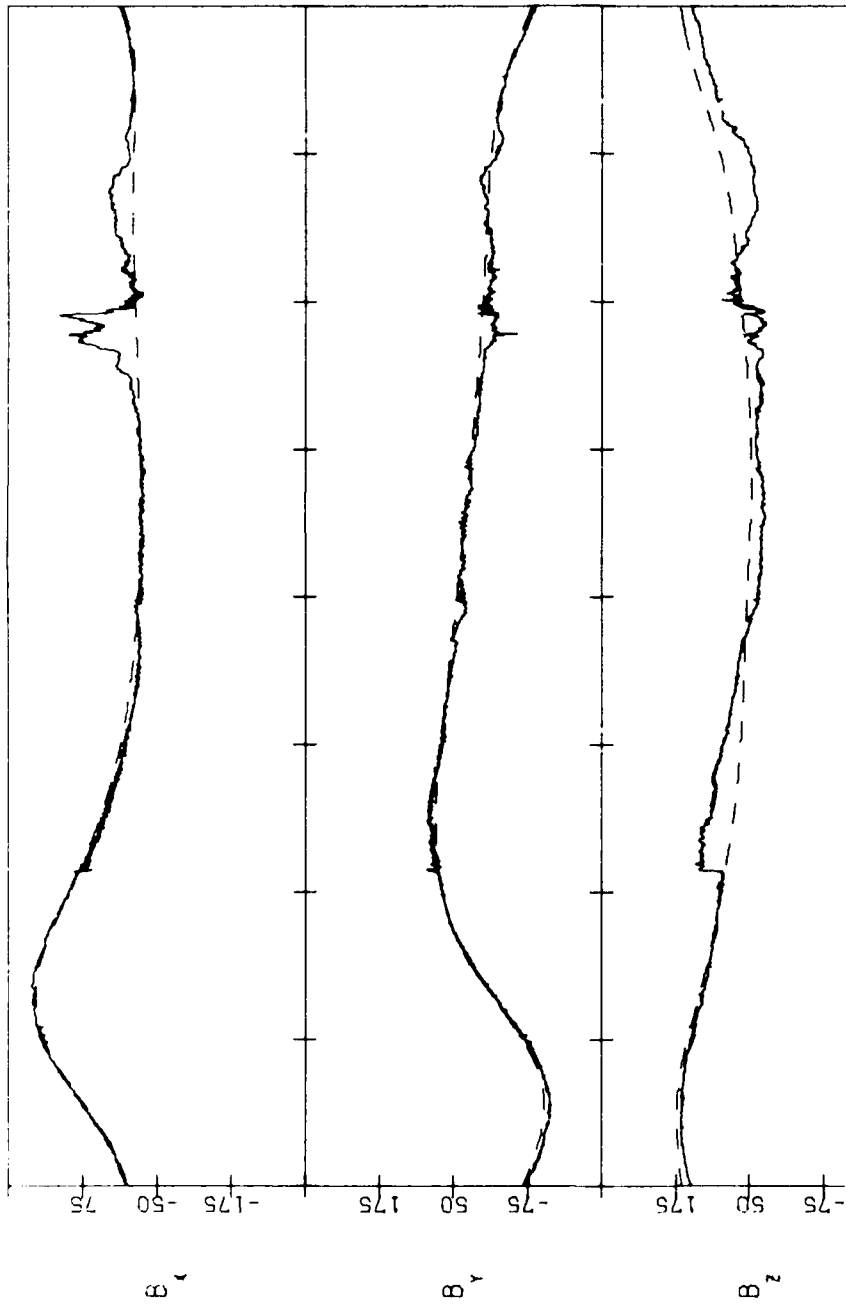
SCATHA SC11(SOLAR MAGNETIC)

79230 08/18/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0502:	0920:	1330:	1639:	1903:	2111:	2322:	0200:	0530:	LOCAL TIME(HHMM:)
0509:	0919:	1328:	1634:	1852:	2101:	2325:	0210:	0535:	MAG. TIME(HHMM:)
-4.3	-13.5	-18.6	-16.9	-13.1	-8.5	-4.2	-2.0	-5.7	MAG. LAT
5.9	5.6	6.4	7.4	7.9	8.4	7.9	7.0	5.8	L-SHELL
5.2	-2.6	-7.4	-5.7	-1.8	2.3	5.8	7.4	4.5	LATITUDE
76.6	96.2	113.7	115.8	106.9	93.7	81.6	76.0	83.5	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)  
79232 08/20/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE	
0000:	0300:	0900:	1200:	1500:	1800:	2100:	2400:
0559:	1024:	1419:	1713:	1931:	2137:	2353:	0242:
0604:	1024:	1420:	1709:	1920:	2128:	2356:	0252:
-7.1	-15.8	-18.2	-15.6	-11.9	-7.8	-4.1	-3.2
5.7	5.7	6.6	7.6	8.0	8.3	7.7	6.7
3.6	-4.6	-7.4	-4.8	-0.7	3.3	6.5	7.2
90.8	112.0	125.7	124.2	113.6	100.3	89.3	86.5
							98.1

SCATHA SC11(SOLAR MAGNETIC)

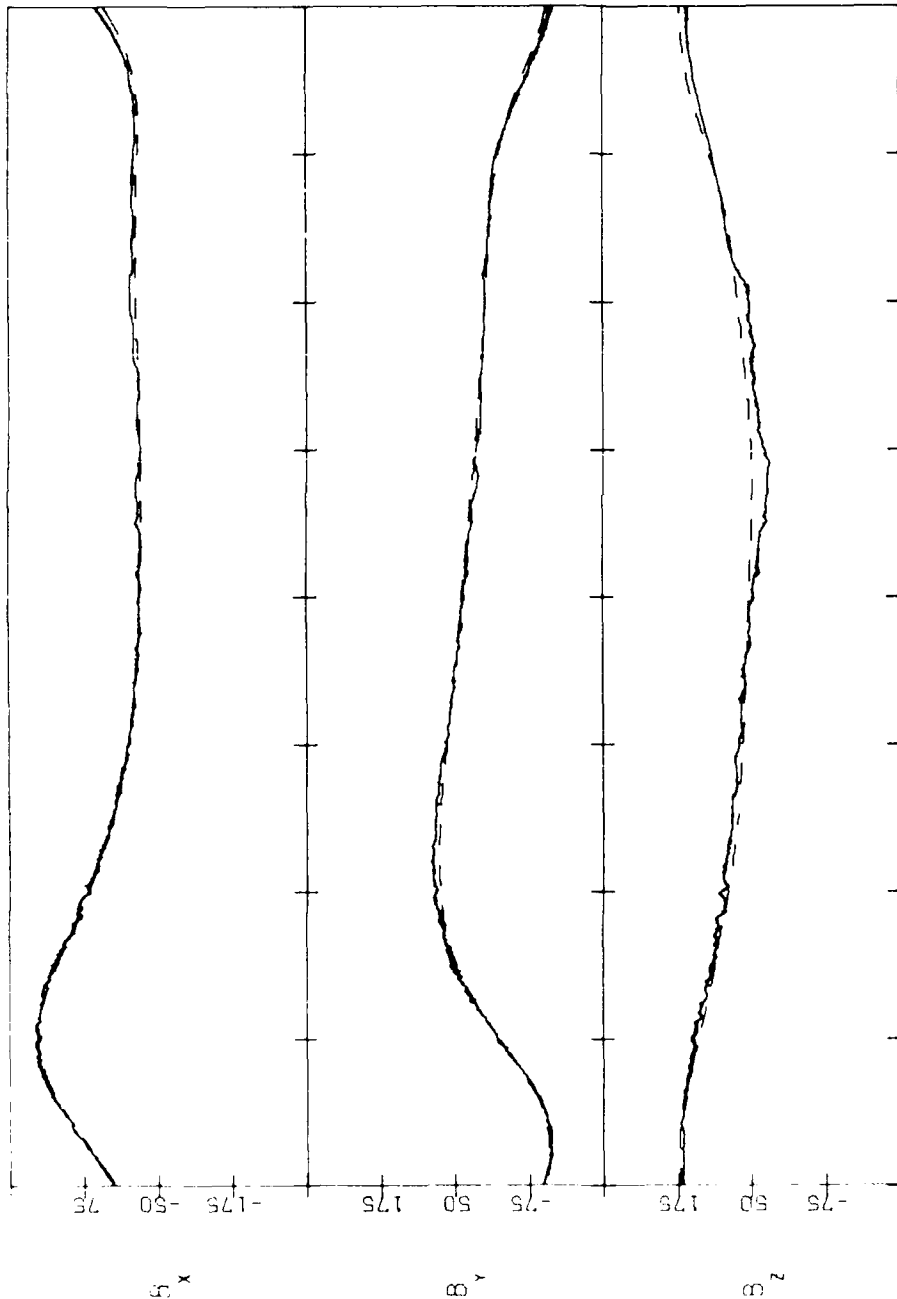
79233 08/21/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0629:	1025:	1442:	1729:	1944:	2151:	0010:	0305:	0659:							
0634:	1027:	1443:	1726:	1933:	2142:	0013:	0314:	0704:							
-8.5	-15.8	-17.6	-14.9	-11.3	-7.4	-4.1	-3.8	-9.7							
5.6	5.7	6.8	7.6	8.1	8.3	7.6	6.5	5.6							
2.6	-4.7	-7.2	-4.2	-0.1	3.8	6.8	7.0	1.5							
98.2	117.3	131.3	128.1	116.9	103.6	93.3	92.1	105.8							

SCATHA SCI1(SOLAR MAGNETIC)

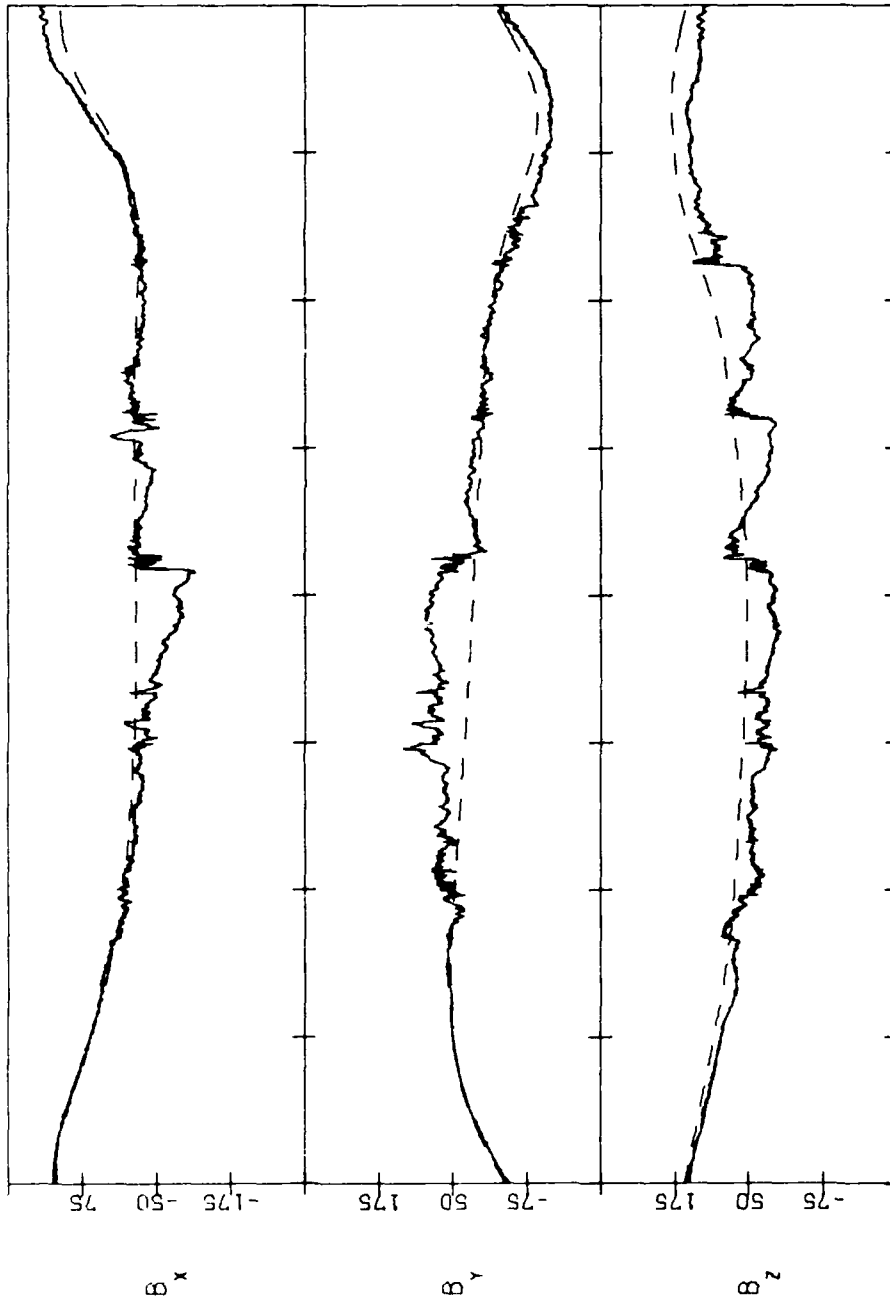
79234 06/22/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0700:	1125:	1503:	1744:	1957:	2204:	0027:	0329:	0731:	LOCAL TIME(HHMM:)
0705:	1128:	1506:	1742:	1947:	2156:	0030:	0337:	0736:	MAG. TIME(HHMM:)
-9.8	-16.8	-16.9	-14.1	-10.6	-7.0	-4.0	-4.4	-10.9	MAG. LAT
5.6	5.9	6.9	7.7	8.1	8.3	7.4	6.3	5.6	L-SHELL
1.5	-6.1	-7.0	-3.7	0.4	4.3	7.0	6.6	0.4	LATITUDE
105.9	127.1	136.6	132.0	120.1	106.9	97.5	98.0	113.6	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

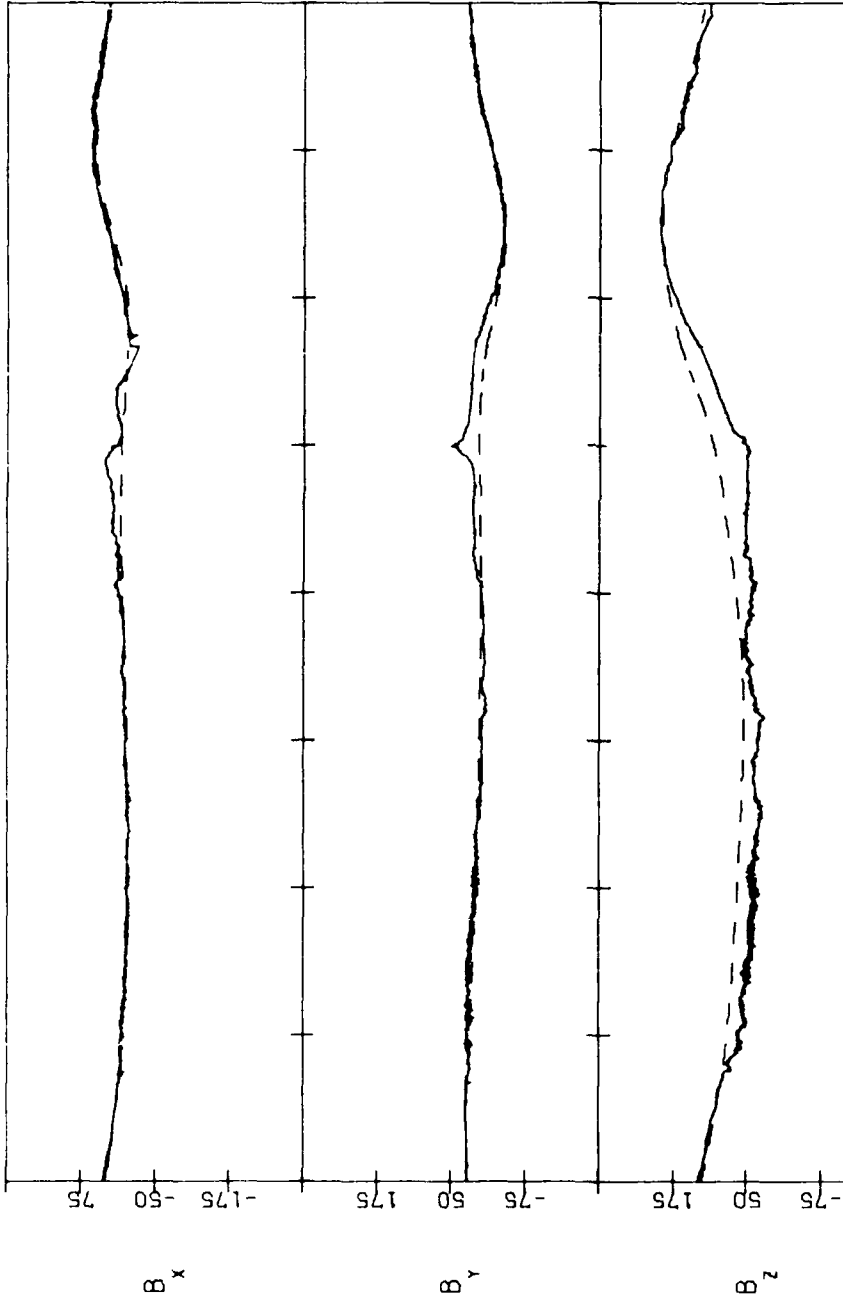
79241 08/29/79



UT	LOCAL TIME(HHMM:)	MAG-TIME(HHMM:)	MAG-LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1041:	1424:	1709:	1923:	2130:	2350:	0248:	0647:	1110:
1053:	1434:	1714:	1921:	2121:	2344:	0251:	0656:	1123:
-12.7	-12.3	-9.8	-7.5	-5.3	-5.4	-3.5	-7.9	-12.1
5.7	6.5	7.4	7.9	8.2	7.5	6.4	5.5	5.8
-5.7	-7.1	-4.0	0.2	4.1	6.9	6.8	1.0	-6.4
160.7	171.4	167.5	156.0	142.8	132.9	132.5	147.0	168.0

SCATHA SC11(SOLAR MAGNETIC)

79248 09/05/79

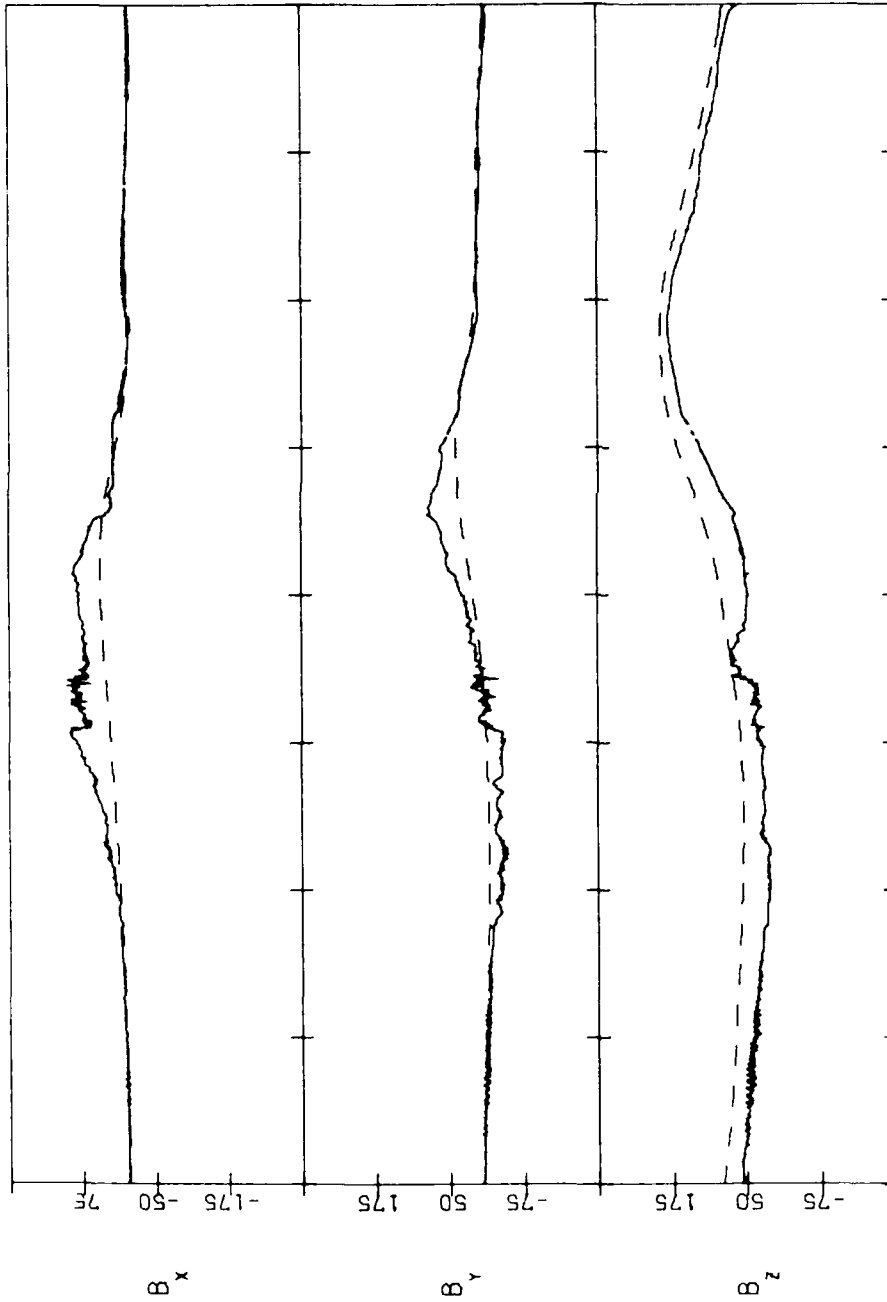


0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
1345:	1633:	1848:	2055:	2314:	0208:	0602:	1027:	1406:							
1356:	1639:	1850:	2052:	2306:	0202:	0607:	1040:	1417:							
-5.8	-3.4	-1.6	-0.2	0.9	0.9	-2.1	-5.5	-4.5							
6.2	7.2	7.8	8.2	7.6	6.6	5.5	5.5	6.3							
-7.2	-4.3	-0.1	3.8	6.7	7.0	1.6	-6.0	-7.0							
206.0	203.0	191.9	178.6	168.3	166.9	180.2	201.4	211.3							



SCATHA SC11(SOLAR MAGNETIC)

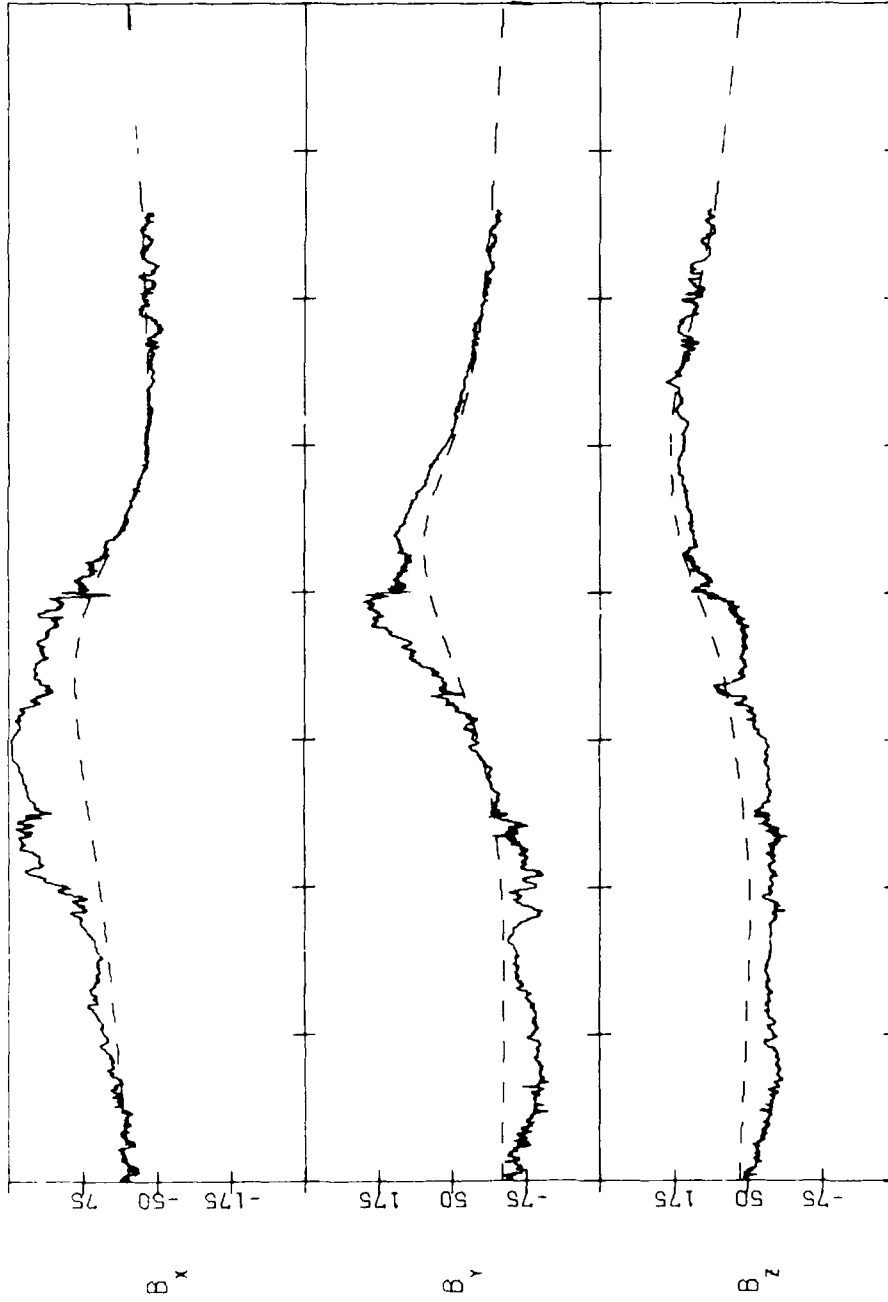
79254 09/11/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1540:	1800:	2007:	2222:	0107:	0447:	0912:	1305:	1557:	LOCAL TIME(HHMM:)
1546:	1801:	2006:	2217:	0058:	0443:	0920:	1315:	1601:	MAG. TIME(HHMM:)
1.5	3.8	5.3	6.3	6.5	4.5	0.5	0.2	2.6	MAG. LAT
7.0	7.7	8.1	7.9	6.8	5.7	5.4	6.1	7.1	L-SHELL
-5.0	-1.0	3.1	6.3	7.3	3.2	-4.9	-7.3	-4.5	LATITUDE
234.4	224.4	211.2	199.8	196.0	206.1	227.3	240.5	238.5	LONGITUDE

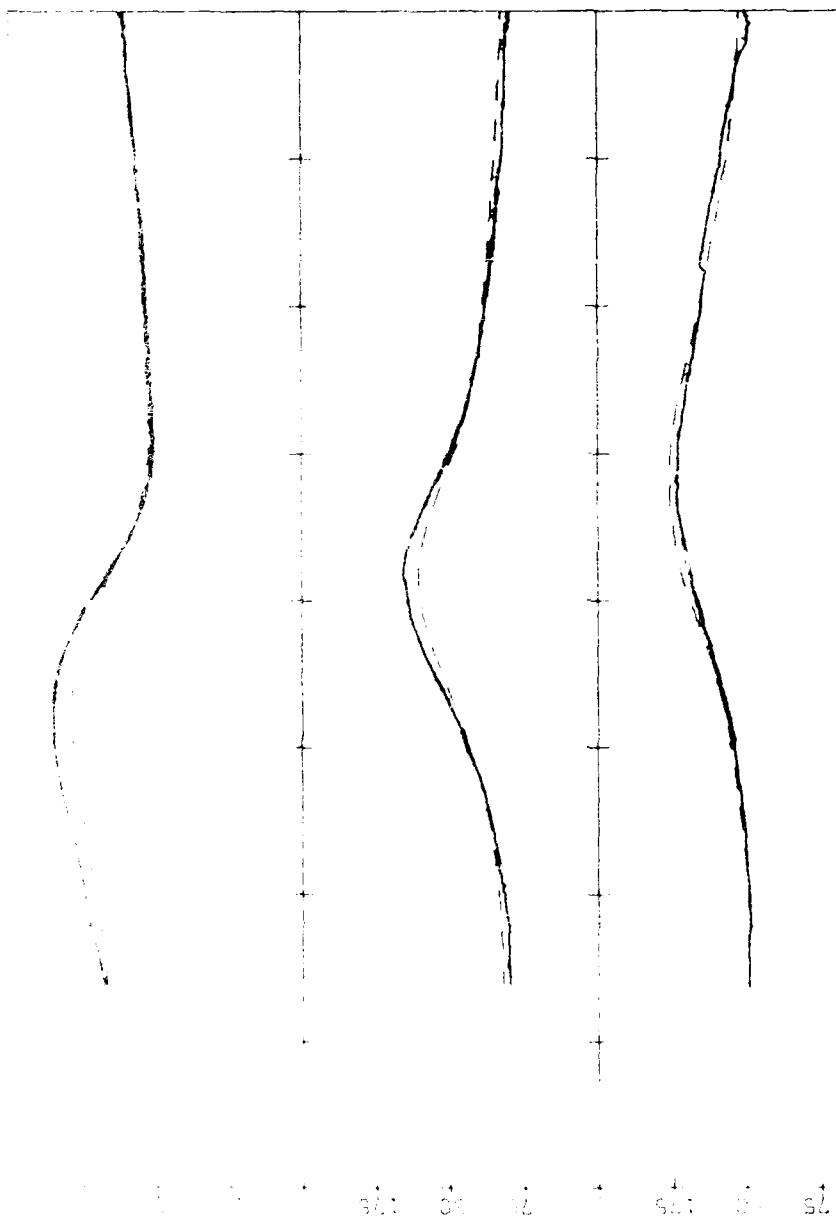
SCATHA SC11(SOLAR MAGNETIC)

79261 09/18/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1726:	1934:	2147:	0028:	0404:	0828:	1225:	1416:	1740:
1728:	1932:	2143:	0023:	0359:	0828:	1230:	1421:	1741:
8.6	11.1	12.6	13.1	10.9	5.5	3.6	4.8	9.4
7.8	8.2	8.1	7.2	6.0	5.5	6.1	6.7	7.8
-1.2	2.8	6.1	7.3	3.7	-4.4	-7.3	-6.2	-0.7
260.3	247.1	235.4	230.8	239.8	260.7	275.0	275.9	263.6

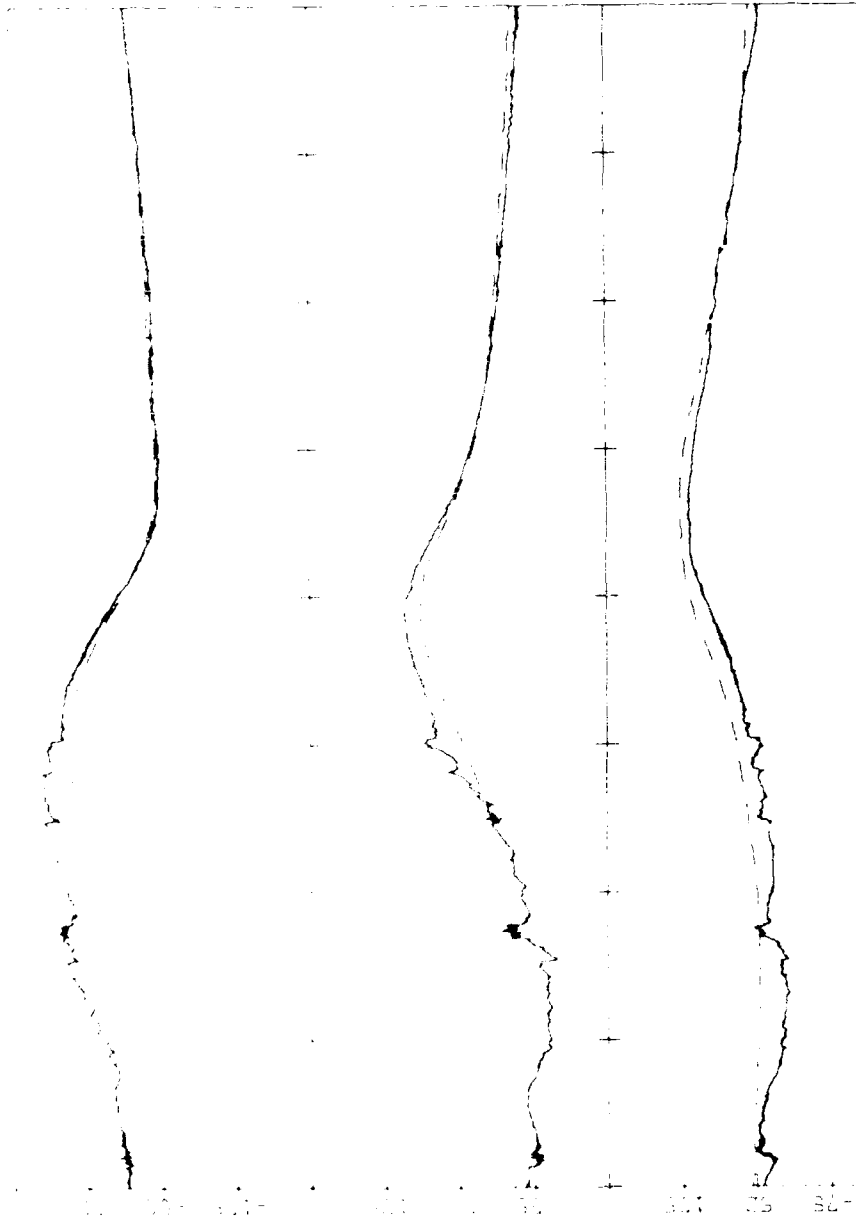
Station 101 10/15/50



0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2203:	0250:	0434:	0859:	1248:	1538:	1753:	LOCAL TIME(HHMM):	
2159:	0045:	0429:	0910:	1252:	1542:	1755:	MAG. TIME(HHMM):	
13.6	13.8	11.0	5.3	3.9	6.8	10.3	MAG. LAT	
8.1	7.1	5.9	5.6	6.2	7.2	7.9	L-SHELL	
6.4	7.2	2.7	-5.2	-7.2	-4.3	-0.1	ALTITUDE	
239.3	236.1	247.1	268.4	280.7	278.0	266.9	LONGITUDE	

09/21/79

09/21/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1807:	2014:	2236:	0136:	0536:	0959:	1331:	1609:	1820:	LOCAL TIME (MM:SS)
1806:	2012:	2232:	0133:	0534:	1000:	1334:	1613:	1821:	MAG. TIME (MM:SS)
11.1	13.7	16.3	15.0	10.6	4.7	4.6	6.0	11.8	MAG. (LAT)
6.0	6.4	6.0	6.9	5.7	5.7	6.6	7.6	9.1	L-SHELL
4.4	4.9	7.0	6.6	0.8	-6.0	-6.0	3.2	1.0	LATITUDE
299.9	299.0	249.4	247.5	262.6	283.2	291.2	285.5	273.4	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

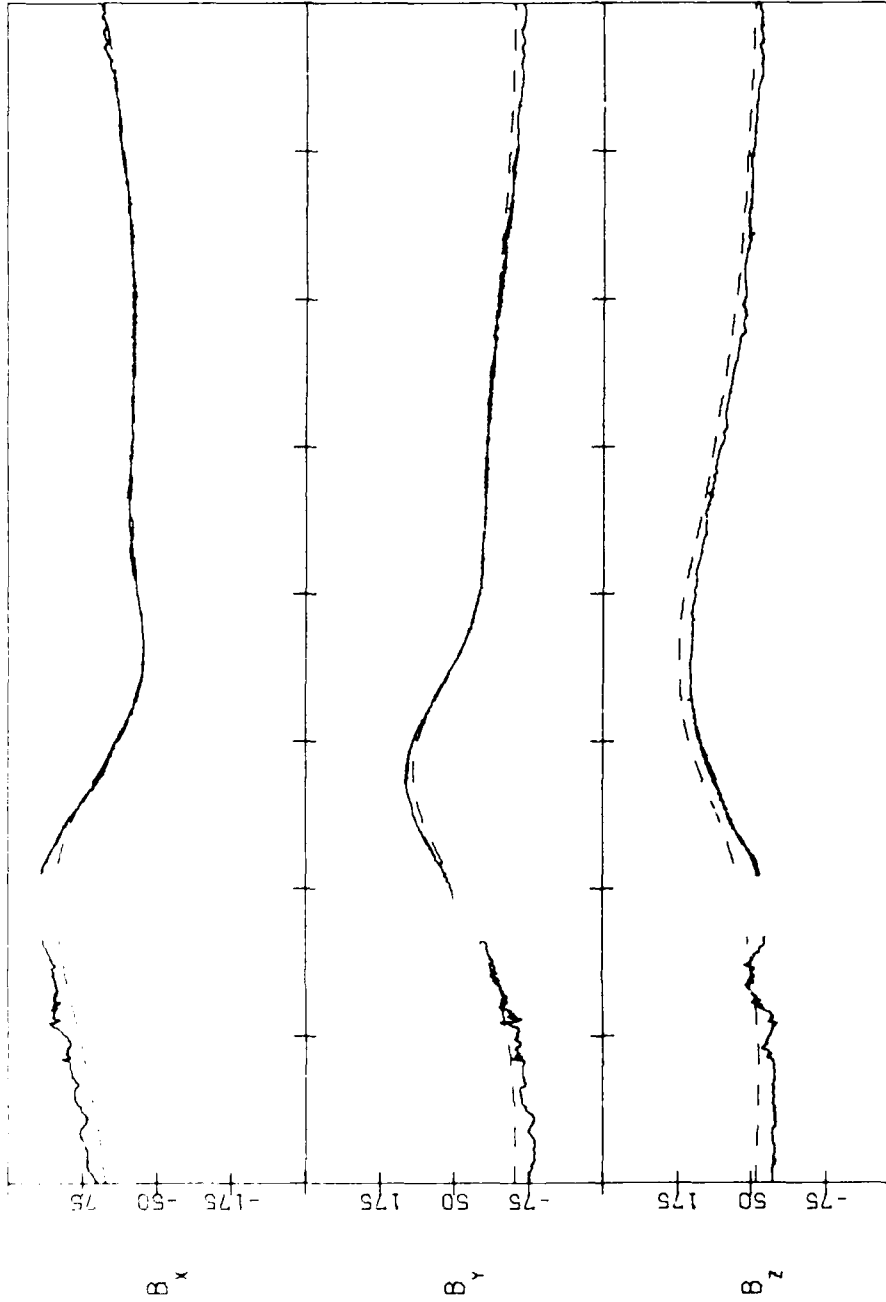
79271 09/28/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
0000:						
0300:						
0600:						
0900:						
1200:						
1500:						
1800:						
2100:						
2400:						
1941:	1954:	1747:	1954:	8.5	4.5	296.3
1943:	1957:	1751:	1957:	8.5	4.5	296.3
15:3	15:7	11:3	15:7	8.5	4.5	296.3
8.5	8.5	8.0	8.5	8.5	4.5	296.3
4.0	4.5	0.7	4.5	8.5	4.5	296.3
292.9	296.3	309.4	296.3	8.5	4.5	296.3

SCATHA SC11(SOLAR MAGNETIC)

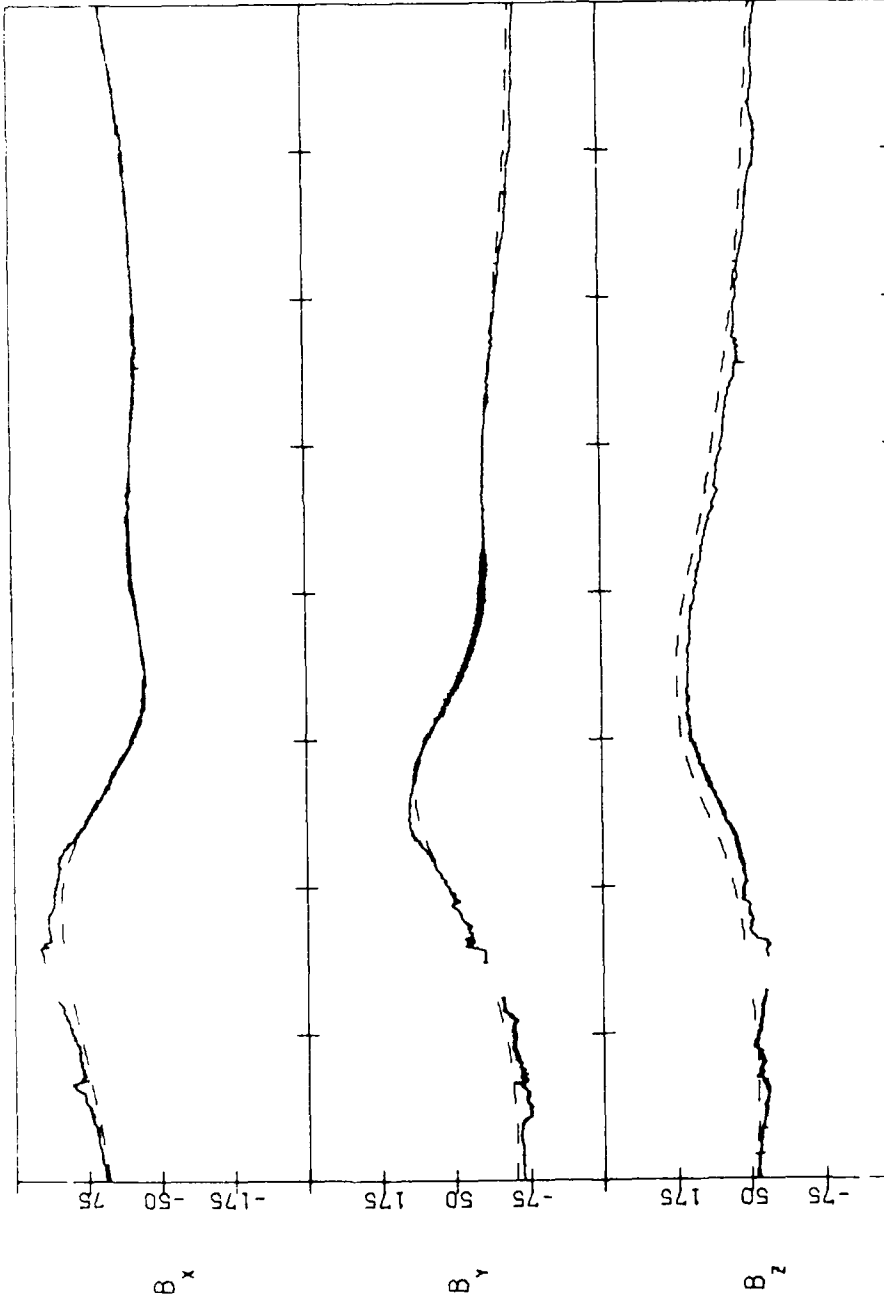
79272 09/29/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1954:	2217:	J121:	0525:	0946:	1314:	1549:	1800:	2008:	LOCAL TIME(HHMM:)
1957:	2216:	0126:	0531:	0946:	1312:	1552:	1805:	2011:	MAG. TIME(HHMM:)
15.7	18.3	17.7	10.8	2.5	1.9	6.2	11.6	16.0	MAG. LAT
8.5	8.3	7.0	5.7	5.7	6.5	7.4	8.1	8.5	L-SHELL
4.5	7.1	6.4	-0.0	-6.7	-6.5	-2.9	1.2	4.9	LATITUDE
296.3	287.1	288.0	303.9	324.3	331.3	325.0	312.7	299.8	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

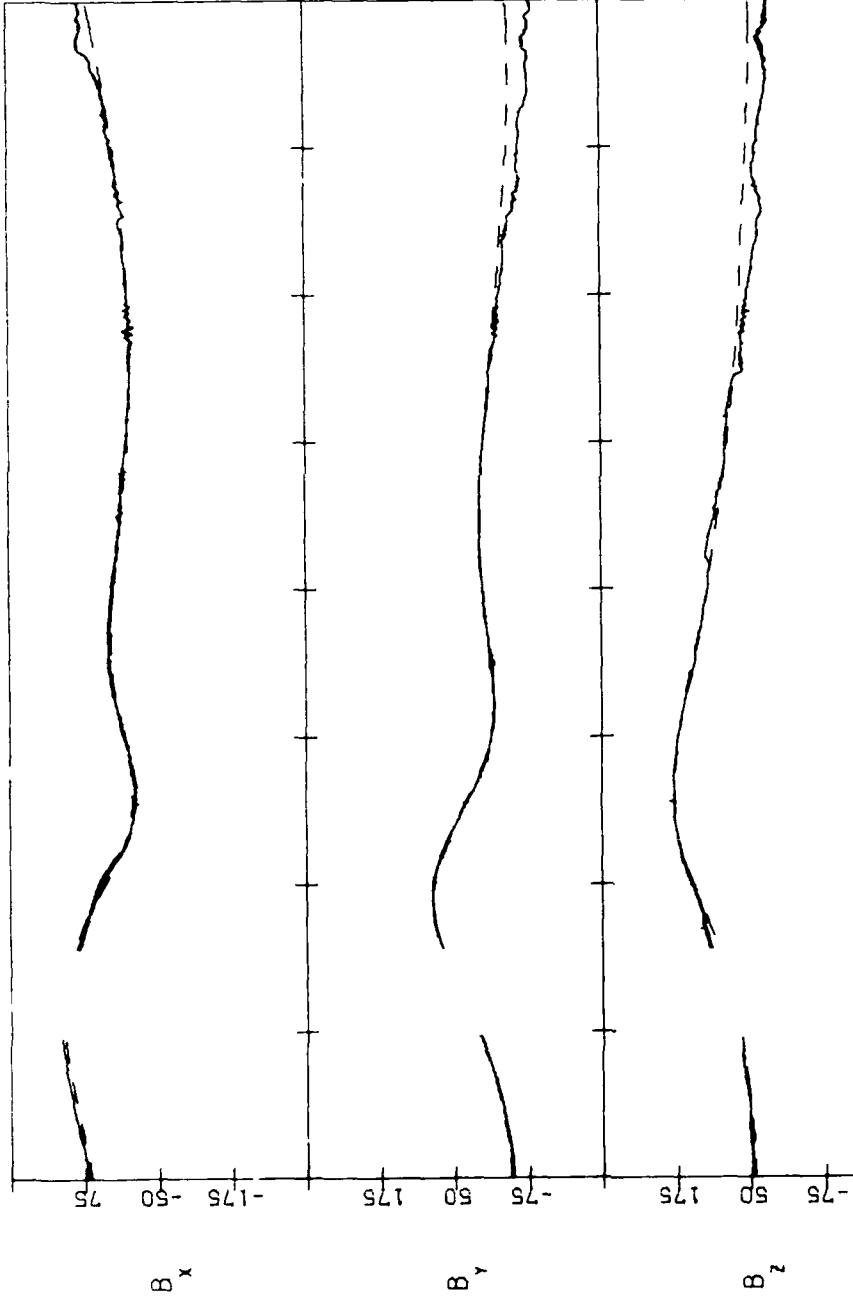
79273 09/30/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2008:	2235:	0146:	0557:	1014:	1334:	1604:	1813:	2023:	LOCAL TIME(HHMM:)
2012:	2235:	0152:	0603:	1013:	1331:	1606:	1818:	2026:	MAG. TIME(HHMM:)
16.0	18.5	17.1	9.2	1.3	1.6	6.4	11.8	16.3	MAG. LAT
8.5	8.1	6.9	5.7	5.8	6.6	7.5	8.1	8.5	L-SHELL
4.9	7.2	5.9	-1.2	-7.1	-6.1	-2.4	1.8	5.3	LATITUDE
299.8	291.5	294.3	311.8	331.2	336.0	328.6	315.9	303.3	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

79278 10/05/79

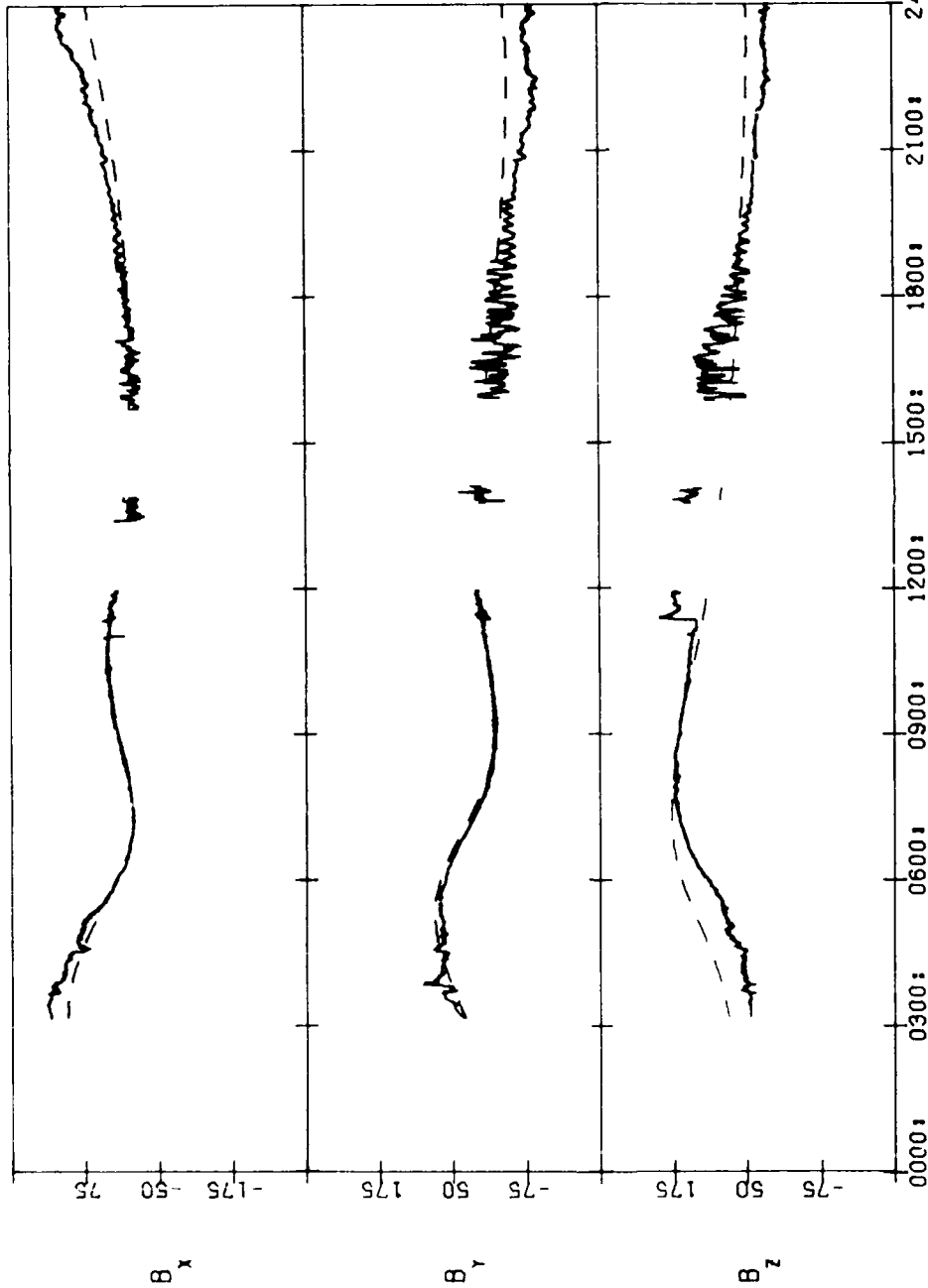


UT	LOCAL TIME (HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE			
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
2125:	0018:	0410:	0835:	1216:	1459:	1713:	1920:	2142:
2127:	0022:	0416:	0836:	1212:	1457:	1716:	1926:	2144:
16.5	16.9	10.2	-0.5	-3.4	0.6	6.7	12.4	16.3
8.3	7.1	5.8	5.7	6.3	7.1	7.8	8.2	8.1
6.7	7.0	1.6	-5.9	-7.0	-3.7	0.4	4.3	6.9
318.5	316.8	329.7	351.0	1.2	357.1	345.5	332.3	322.7



SCATHA SC11(SOLAR MAGNETIC)

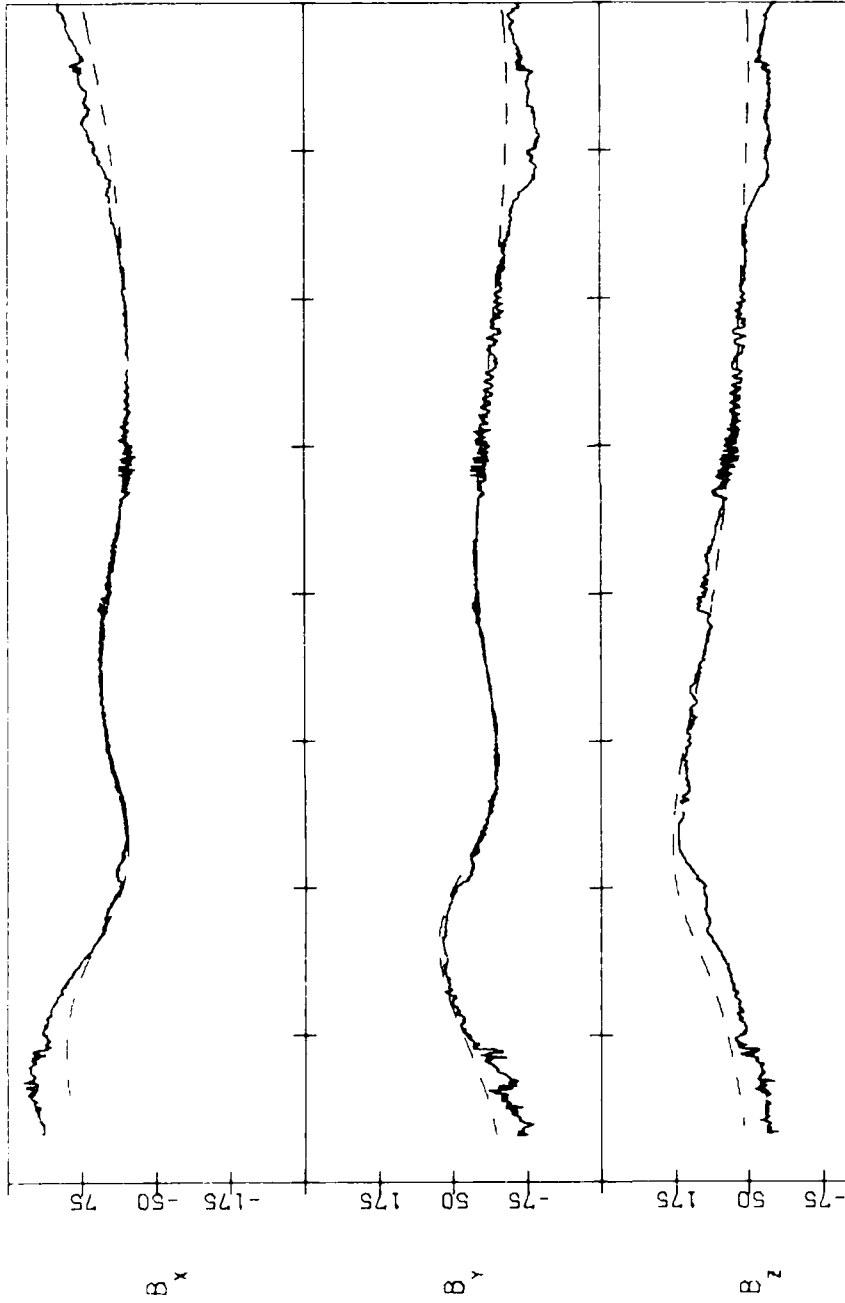
79279 10/06/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE	
0000							
0300							
0600							
0900							
1200							
1500							
1800							
2100							
2400							
0441	0441	1237	1515	1726	1934	2159	
0447	0447	1233	1512	1729	1940	2201	
8.0	8.0	-2.4	-4.1	0.4	6.7	12.4	16.0
5.7	5.7	5.7	6.4	7.2	7.8	8.2	8.0
0.5	0.5	-6.5	-6.7	-3.2	1.0	4.7	7.1
337.5	337.5	358.3	348.7	348.7	335.7	327.0	327.0

SCATHA SC11(SOLAR MAGNETIC)

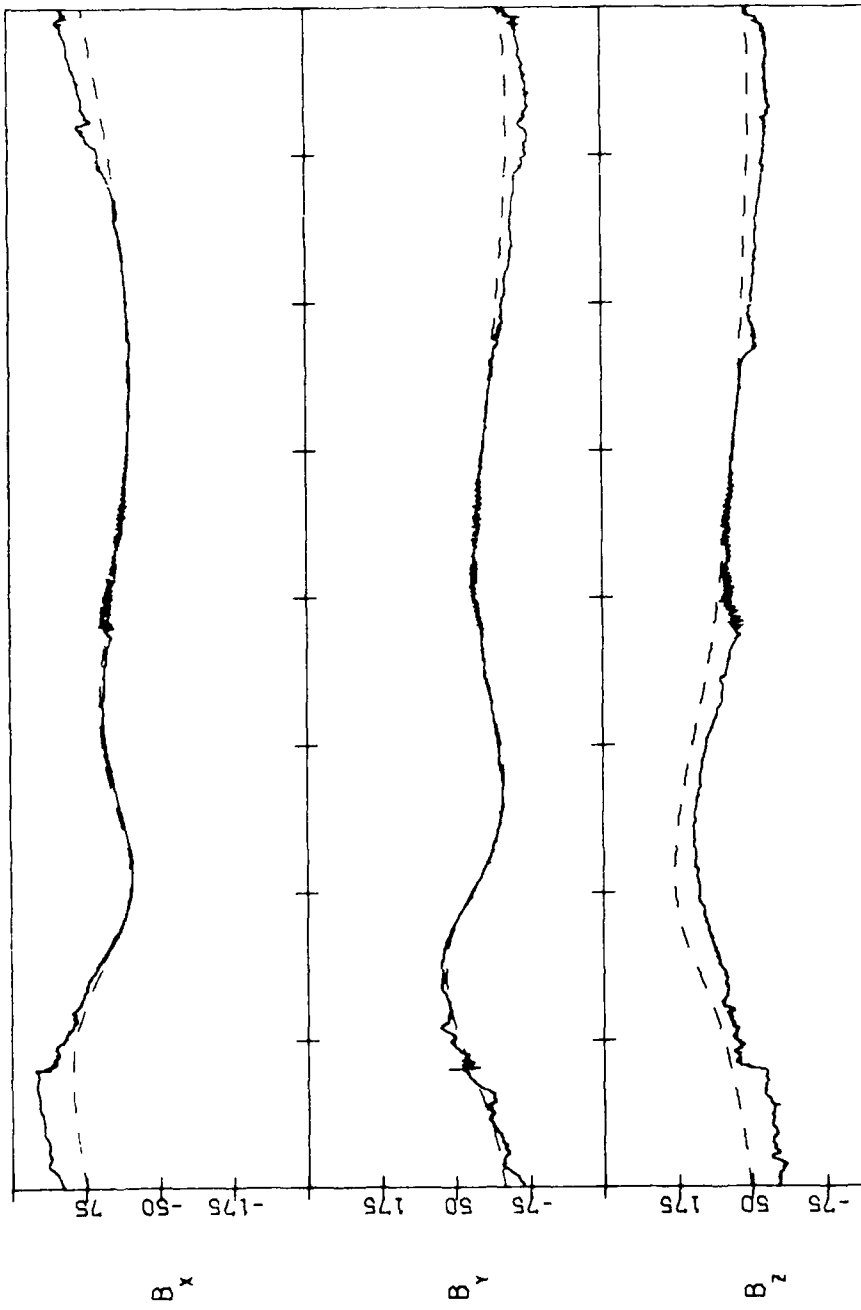
79280 10/07/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0107:	0513:	0517:	0933:	1257:	1530:	1740:	1949:	2217:	LOCAL TIME(HHMM:)
0110:	0517:	0517:	0933:	1253:	1527:	1742:	1954:	2219:	MAG. TIME(HHMM:)
14.8	5.6	5.6	-4.1	-4.6	0.3	6.6	12.3	15.5	MAG. LAT
6.7	5.6	5.6	5.8	6.5	7.3	7.8	8.1	7.8	L-SHELL
6.2	-0.6	-0.6	-6.9	-6.3	-2.6	1.5	5.1	7.3	LATITUDE
328.8	345.4	345.4	5.4	11.3	4.5	352.0	339.2	331.5	LONGITUDE

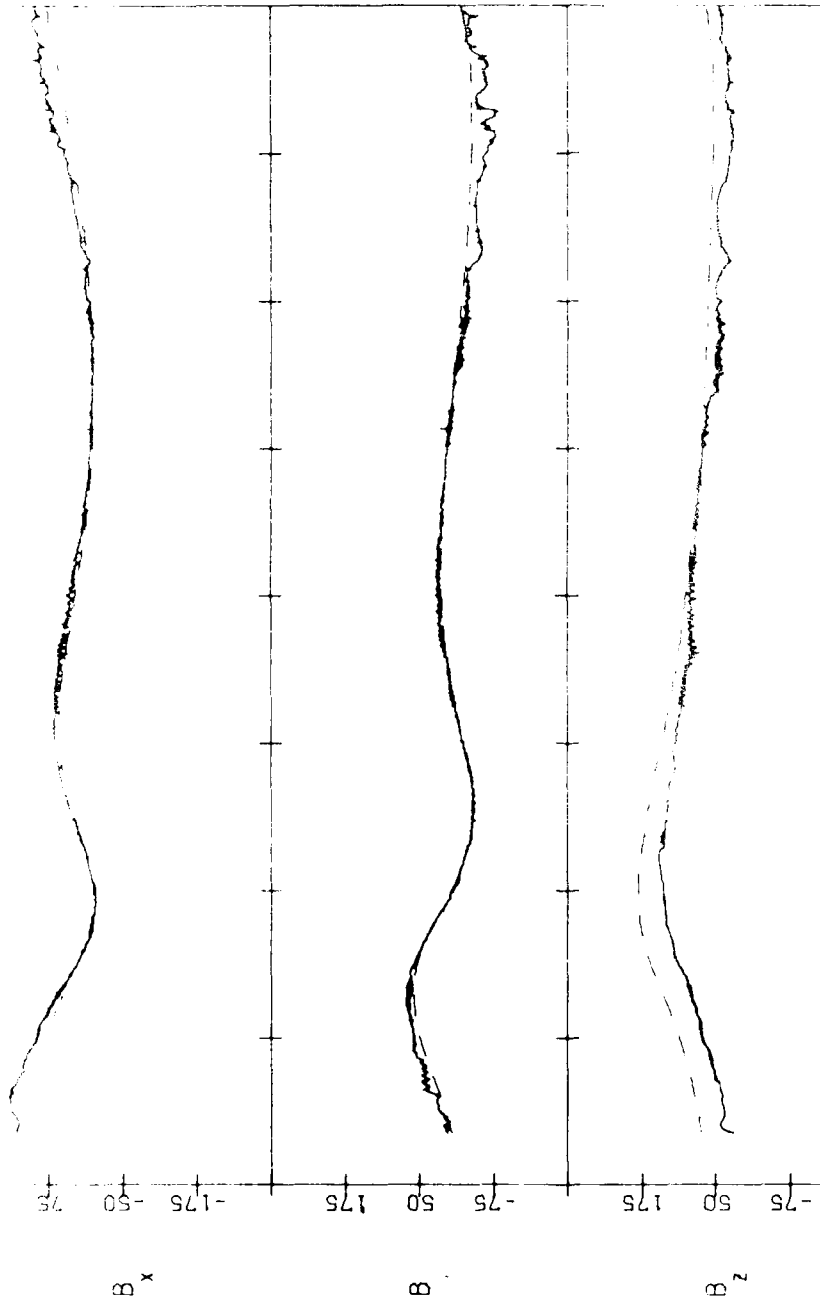
SCATHA SC11(SOLAR MAGNETIC)

79281 10/08/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2218:	0132:	0546:	1001:	1316:	1544:	1753:	2003:	2236:	LOCAL TIME(HHMM:)
2219:	0136:	0548:	0959:	1312:	1542:	1755:	2008:	2237:	MAG- TIME(HHMM:)
15.5	13.4	3.1	-5.7	-5.2	0.2	6.6	12.1	14.9	MAG- LAT
7.8	6.5	5.5	5.9	6.6	7.4	7.9	8.1	7.6	L-SHELL
7.3	5.6	-1.8	-7.2	-5.9	-2.1	2.1	5.5	7.3	LATITUDE
331.5	335.2	353.4	12.2	16.0	8.0	355.2	342.8	336.2	LONGITUDE

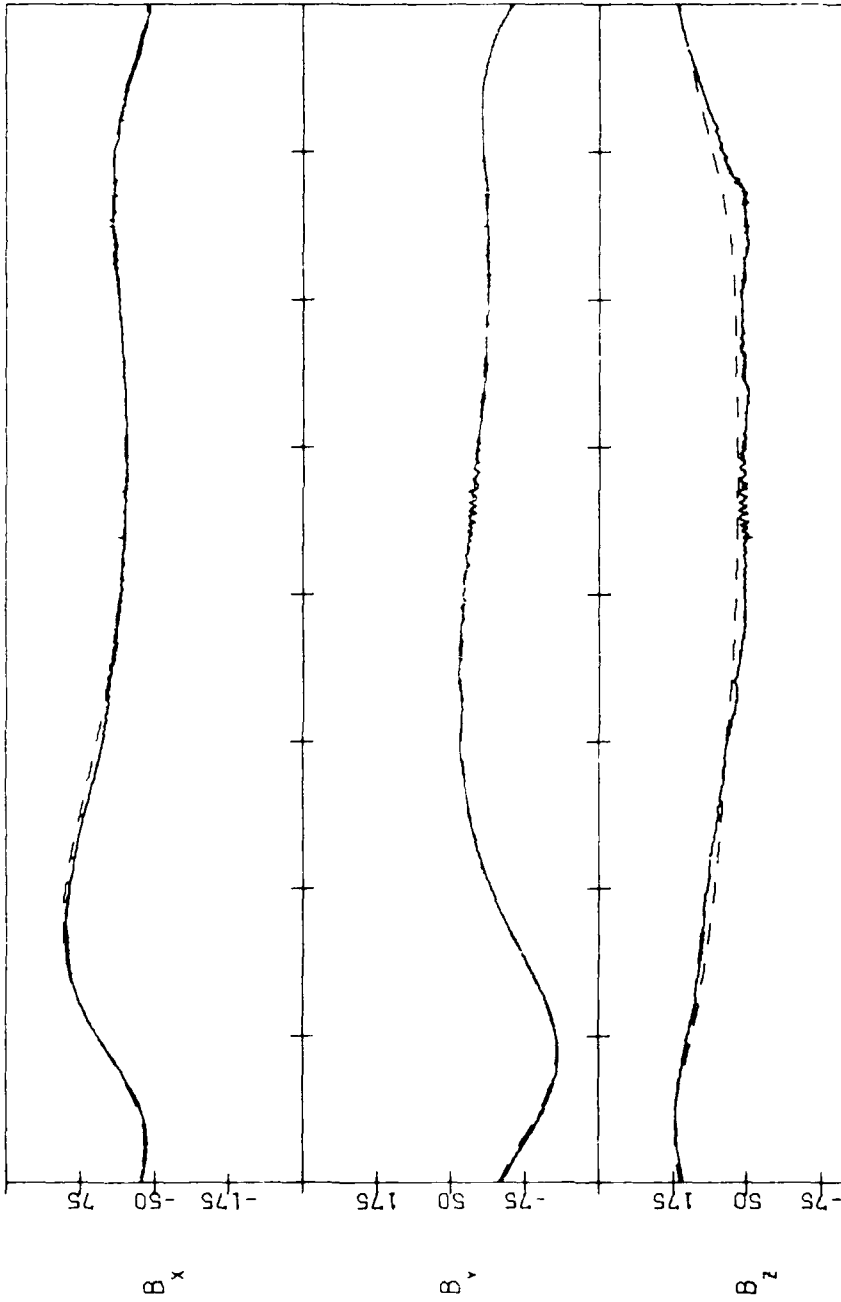
STATION 5011 SOLAR MAGNETIC



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0159:	0618:	1027:	1334:	1558:	1806:	2018:	2256:		LOCAL TIME(HHMM:)
0202:	0619:	1025:	1331:	1556:	1809:	2022:	2257:		MAG. TIME(HHMM:)
11.7	0.6	-7.1	-5.6	0.0	6.5	11.9	14.2		MAG. LAT
6.3	5.5	6.1	6.8	7.4	7.9	8.1	7.4		L-SHELL
4.9	-2.9	-7.3	-5.5	-1.5	2.6	5.9	7.3		LATITUDE
341.8	1.4	18.6	20.5	11.5	358.4	346.5	341.1		LONGITUDE

SCATHA SCI1(SOLAR MAGNETIC)

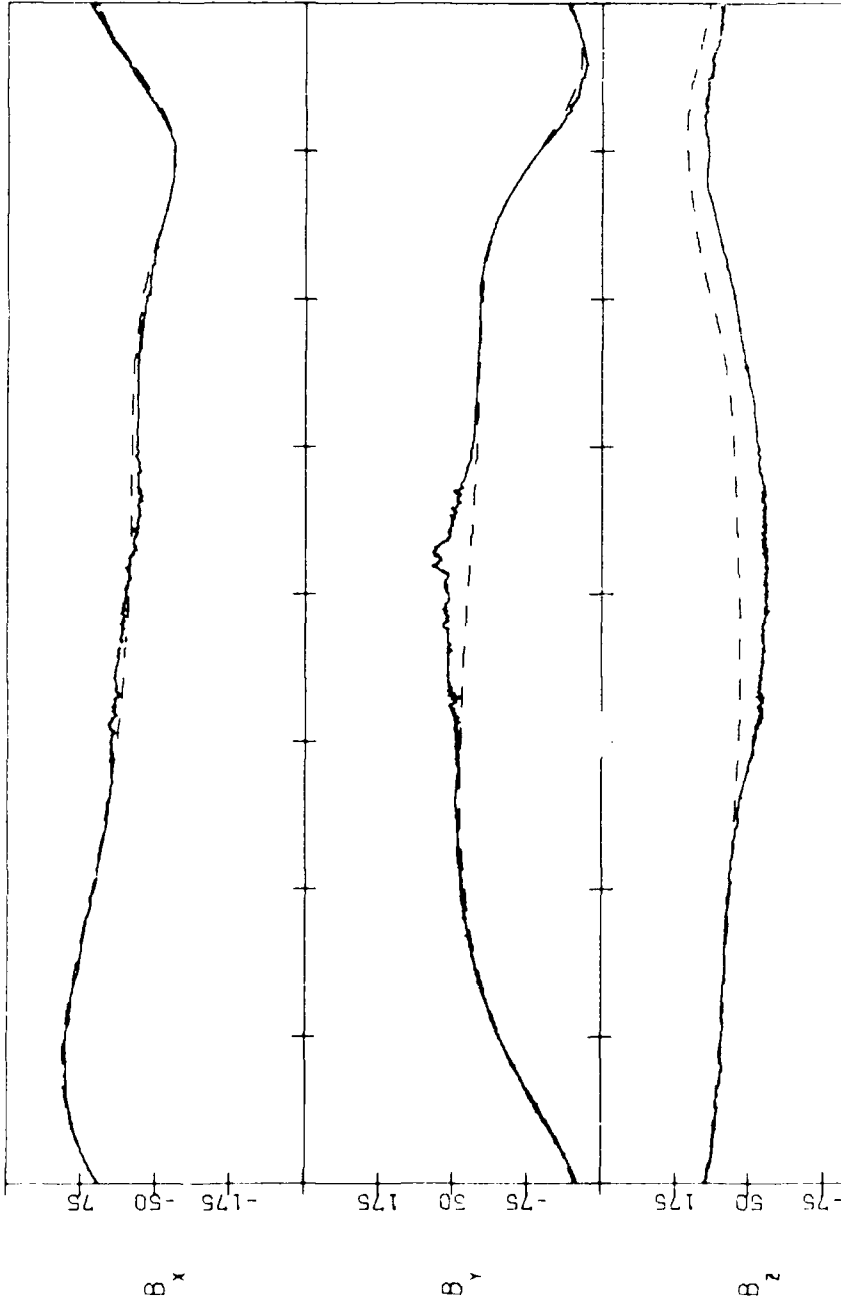
79293 10/20/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0316:	0741:	1122:	1405:	1619:	1826:	2047:	2347:	0347:
0303:	0728:	1120:	1409:	1621:	1827:	2047:	2342:	0333:
-3.4	-14.1	-16.3	-12.6	-7.0	-1.1	3.2	2.8	-5.8
5.7	6.0	6.8	7.3	7.7	7.7	7.5	6.5	5.7
1.6	-5.9	-6.9	-3.6	0.5	4.3	6.9	6.6	0.5
45.3	66.6	76.8	72.6	61.0	47.8	38.2	38.2	53.1

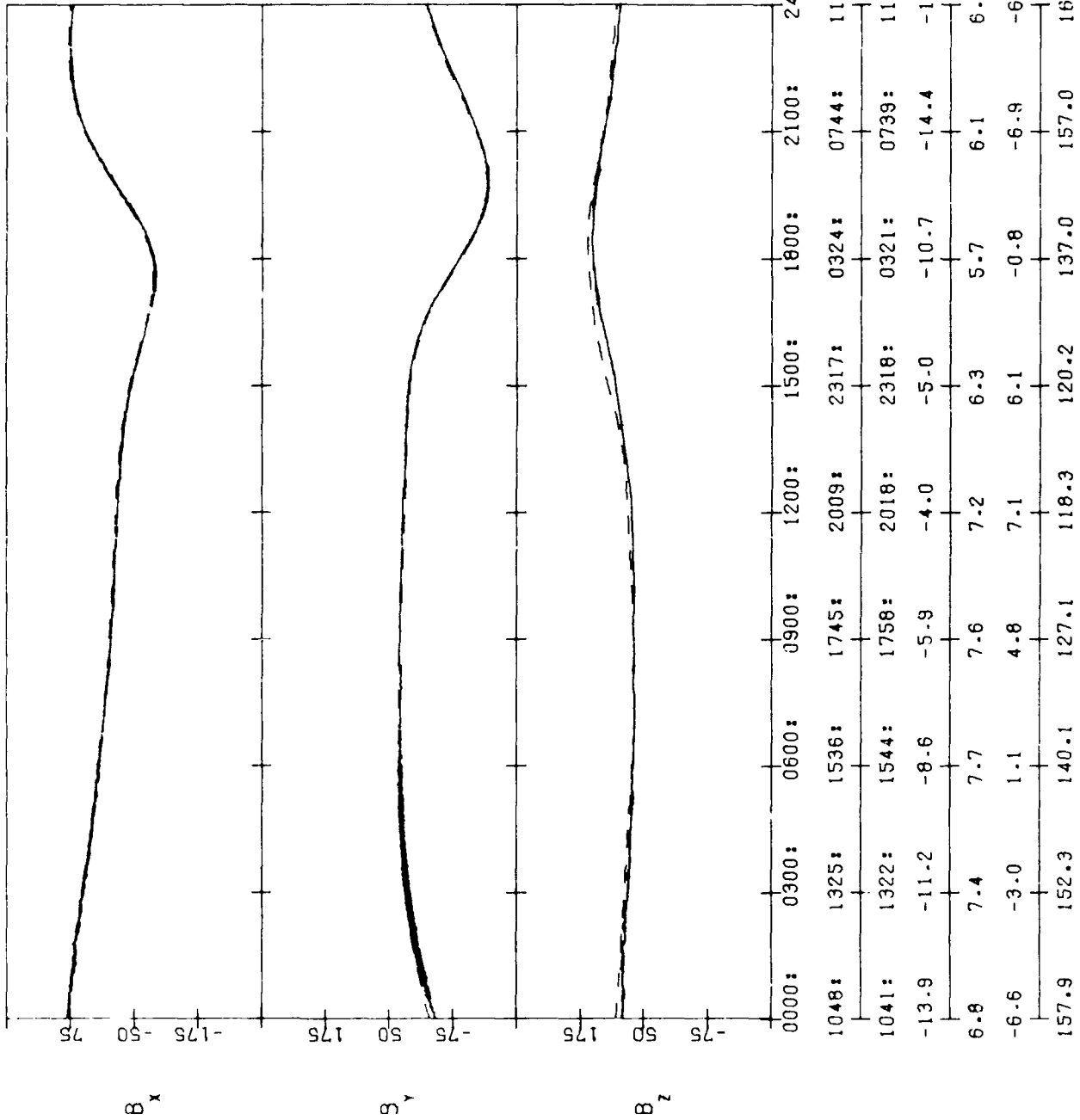
SCATHA SC11 (SOLAR MAGNETIC)

79301 10/28/79

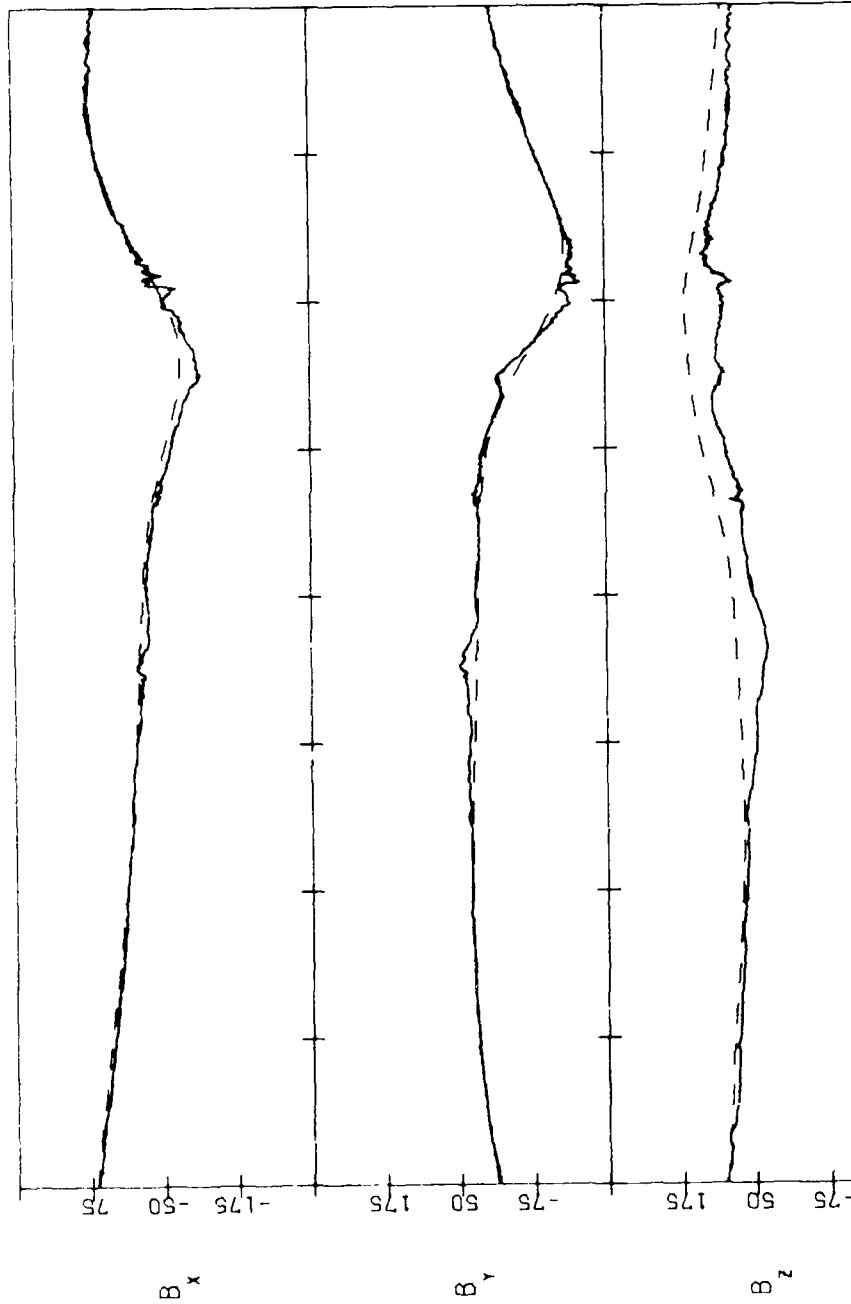


	0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
	0730:	1106:	1346:	1559:	1806:	2029:	2333:	0337:	0758:	LOCAL TIME (HHMM:)
	0715:	1100:	1351:	1608:	1812:	2030:	2329:	0325:	0744:	MAG. TIME (HHMM:)
	-17.5	-17.9	-14.6	-10.3	-5.9	-2.6	-3.5	-11.1	-17.9	MAG. LAT
	6.1	6.9	7.5	7.8	7.7	7.3	6.4	5.7	6.3	L-SHELL
	-6.3	-6.7	-3.3	0.8	4.6	7.0	6.3	-0.2	-6.7	LATITUDE
	108.6	117.6	112.6	100.7	87.6	78.4	79.3	95.2	115.7	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)  
79309 11/05/79



SCATHA SCI1(SOLAR MAGNETIC)  
79311 11/07/79

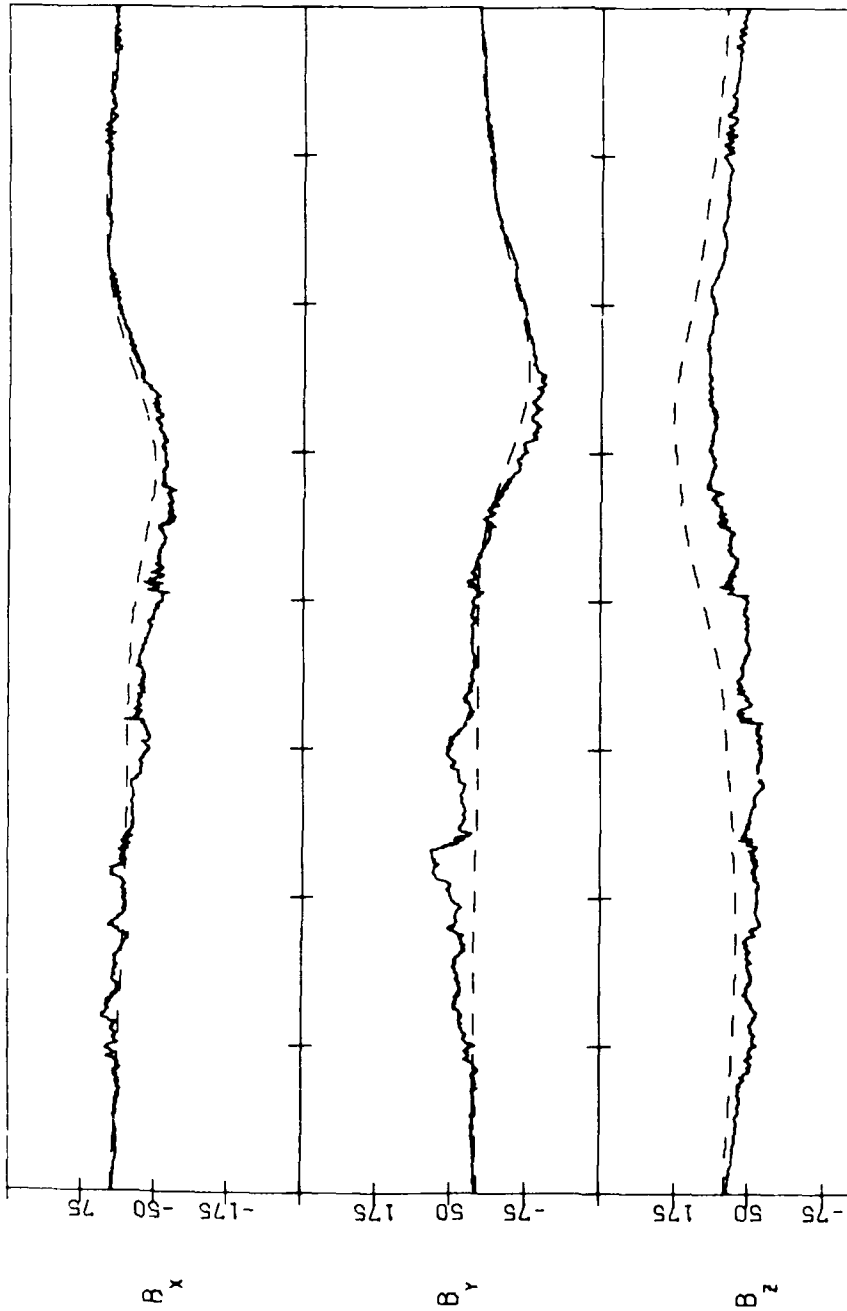


UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1126:	1354:	1602:	1813:	2046:	0009:	0428:	0837:	1144:
1119:	1350:	1610:	1826:	2055:	0012:	0428:	0834:	1136:
-11.6	-9.1	-6.8	-4.6	-3.4	-5.5	-11.1	-12.6	-10.4
6.9	7.4	7.7	7.5	7.0	6.0	5.6	6.3	6.9
-5.8	-1.9	2.2	5.6	7.3	4.8	-3.0	-7.3	-5.3
167.5	159.5	146.6	134.2	127.6	133.4	153.1	170.3	172.0



SCATHA SC11(SOLAR MAGNETIC)

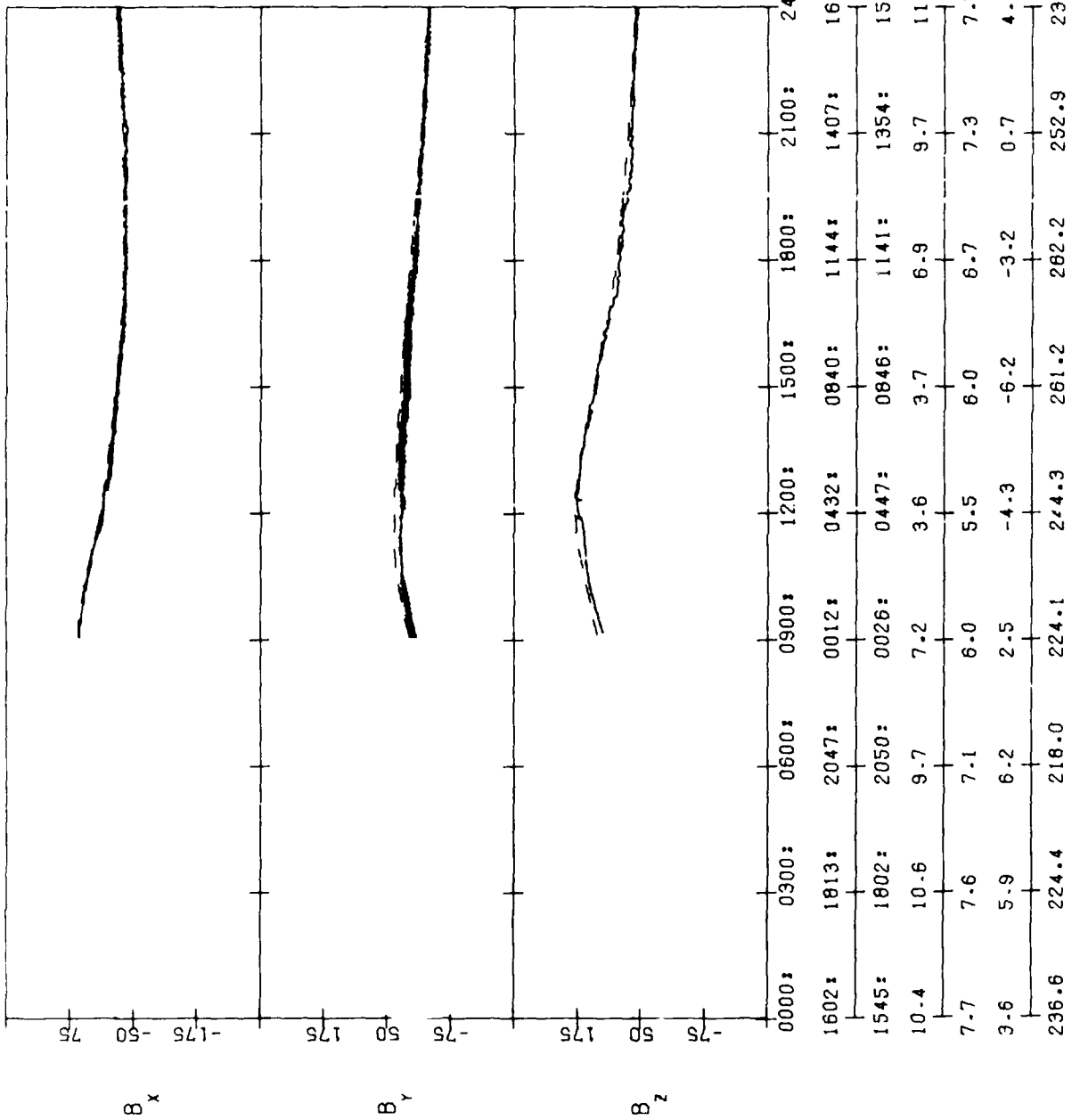
79317 11/13/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1303:	1513:	1722:	1949:	2300:	0310:	0728:	1047:	1317:	LOCAL TIME(HHMM:)
1252:	1507:	1729:	2002:	2310:	0318:	0732:	1042:	1305:	MAG. TIME(HHMM:)
-4.1	-2.4	-1.1	-0.3	-1.2	-5.3	-7.1	-5.1	-2.9	MAG. LAT
7.1	7.5	7.5	7.1	6.2	5.6	5.9	6.6	7.2	L-SHELL
-2.7	1.4	5.0	7.2	5.8	-1.3	-7.0	-6.0	-2.2	LATITUDE
191.9	179.5	166.6	158.3	161.0	178.7	198.1	202.9	195.5	LONGITUDE

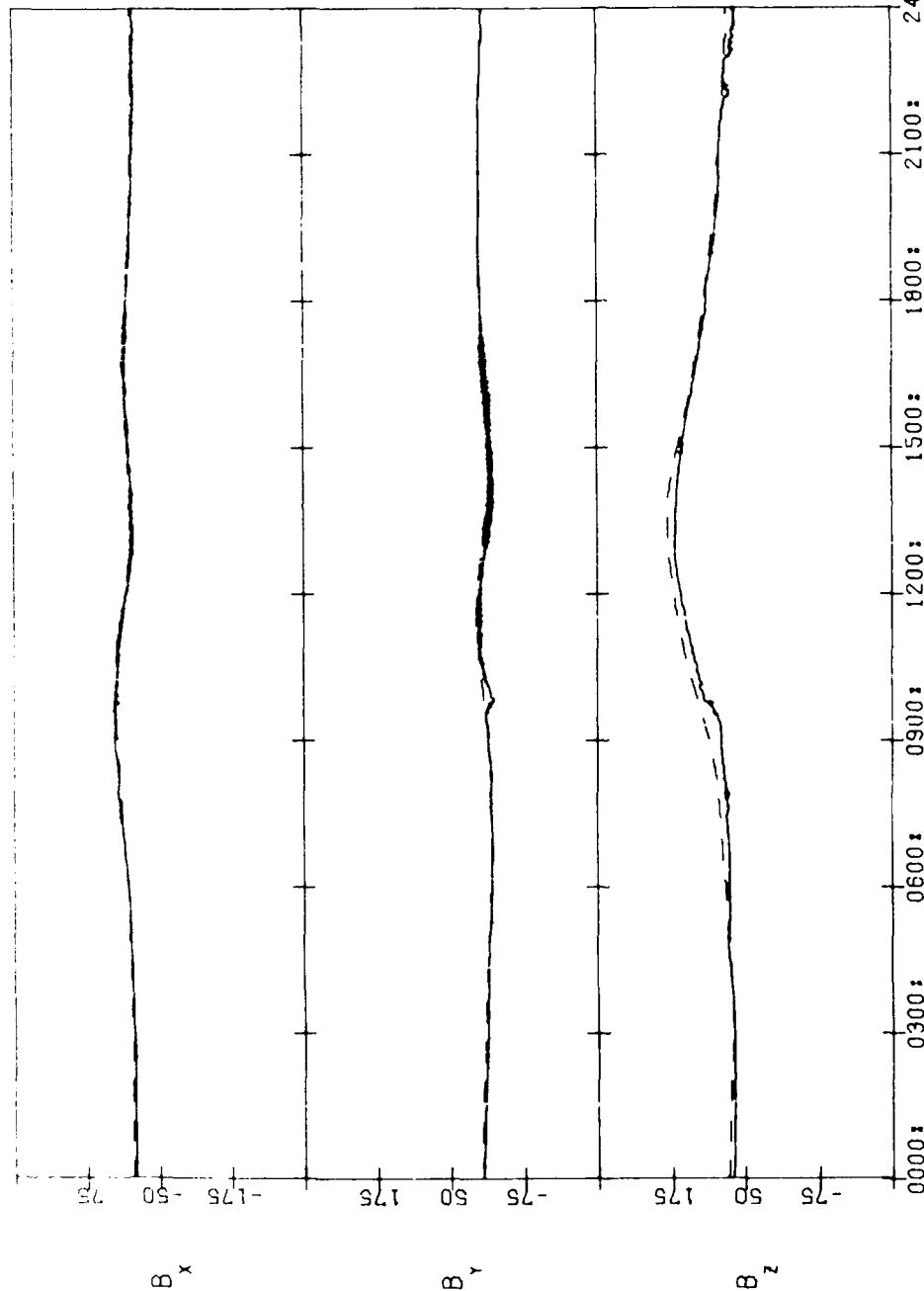
SCATHA SC11(SOLAR MAGNETIC)

79319 11/15/79



SCATHA SCI11 (SOLAR MAGNETIC)

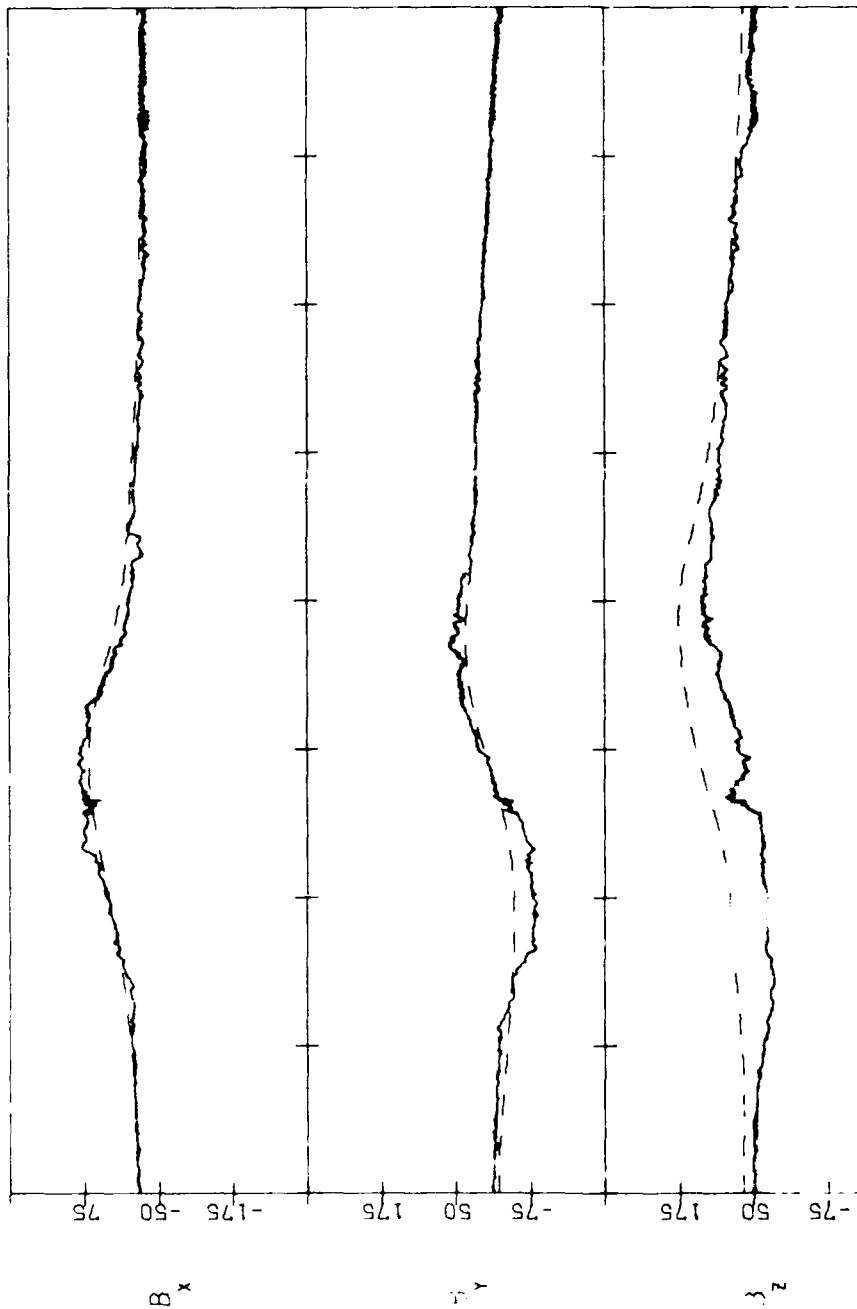
79323 11/19/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1424:	1631:	1852:	2152:	0151:	0615:	0947:	1225:	1436:	LOCAL TIME (HHMM:)
1408:	1621:	1857:	2206:	0206:	0625:	0948:	1215:	1419:	MAG. TIME (HHMM:)
3-1	4-2	4-9	4-4	1-3	-1-5	-0-2	2-4	4-2	MAG. LAT
7-3	7-5	7-1	6-5	5-6	5-7	6-4	7-0	7-3	L-SHELL
0-6	4-3	6-9	6-5	0-4	-6-5	-6-5	-3-0	1-1	LATITUDE
212.3	199.1	189.4	189.3	204.3	225.2	233.3	227.7	215.6	LONGITUDE

SCATHA SC11 (SOLAR MAGNETIC)

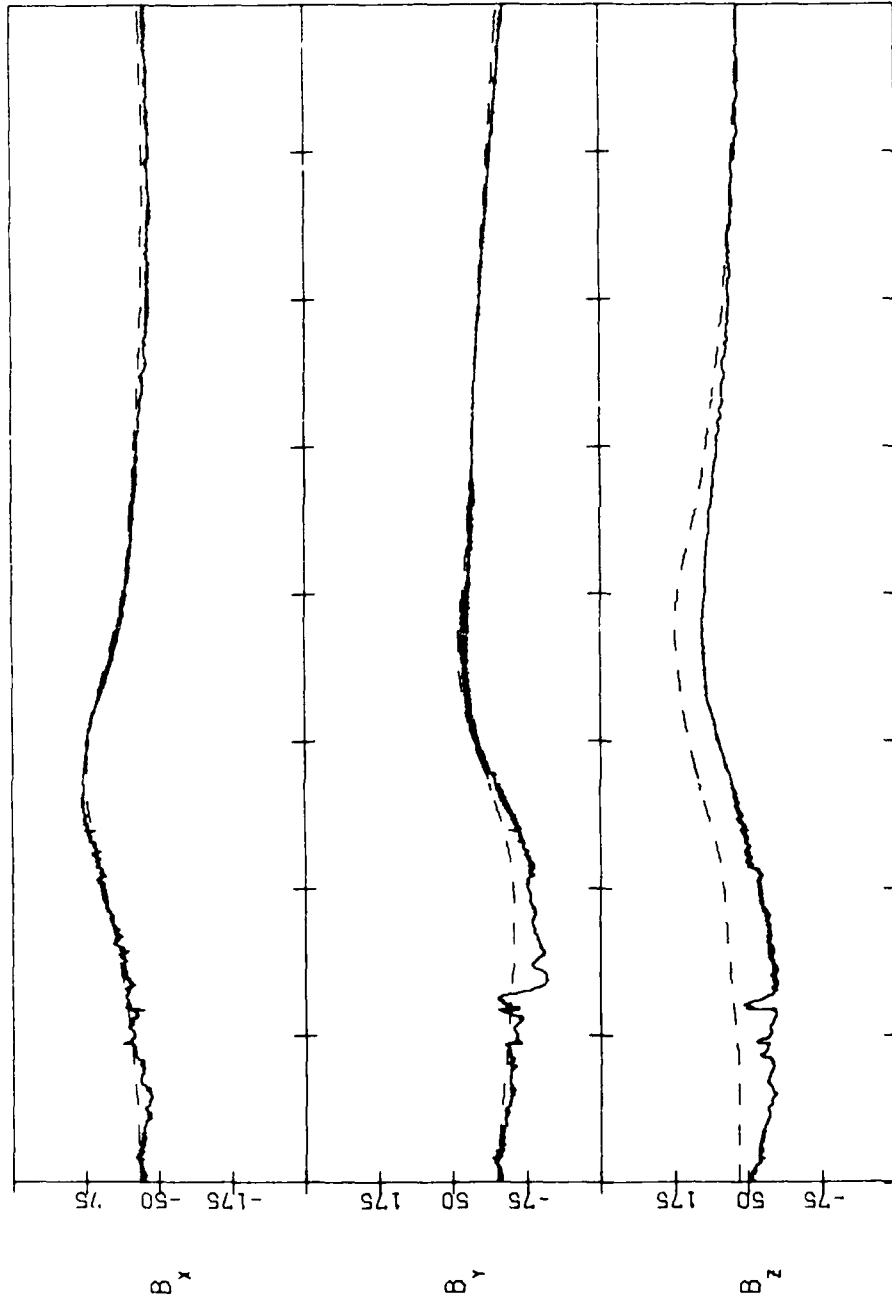
79328 11/24/79



UT	LOCAL TIME (HHMM)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE			
0000	0300	0600	0900	1200	1500	1800	2100	2400
1527	1741	2024	0004	0429	0823	1116	1333	1540
1508	1729	2028	0020	0446	0831	1113	1320	1520
3.6	9.5	9.6	7.4	3.1	2.5	5.1	7.8	9.6
7.5	7.4	6.8	5.9	5.6	6.2	5.8	7.3	7.5
3.2	6.2	7.1	3.0	-4.8	-7.1	-4.3	-0.2	3.6
228.5	217.0	212.8	222.6	244.0	257.5	255.8	245.1	231.8

SCATHA SC11(SOLAR MAGNETIC)

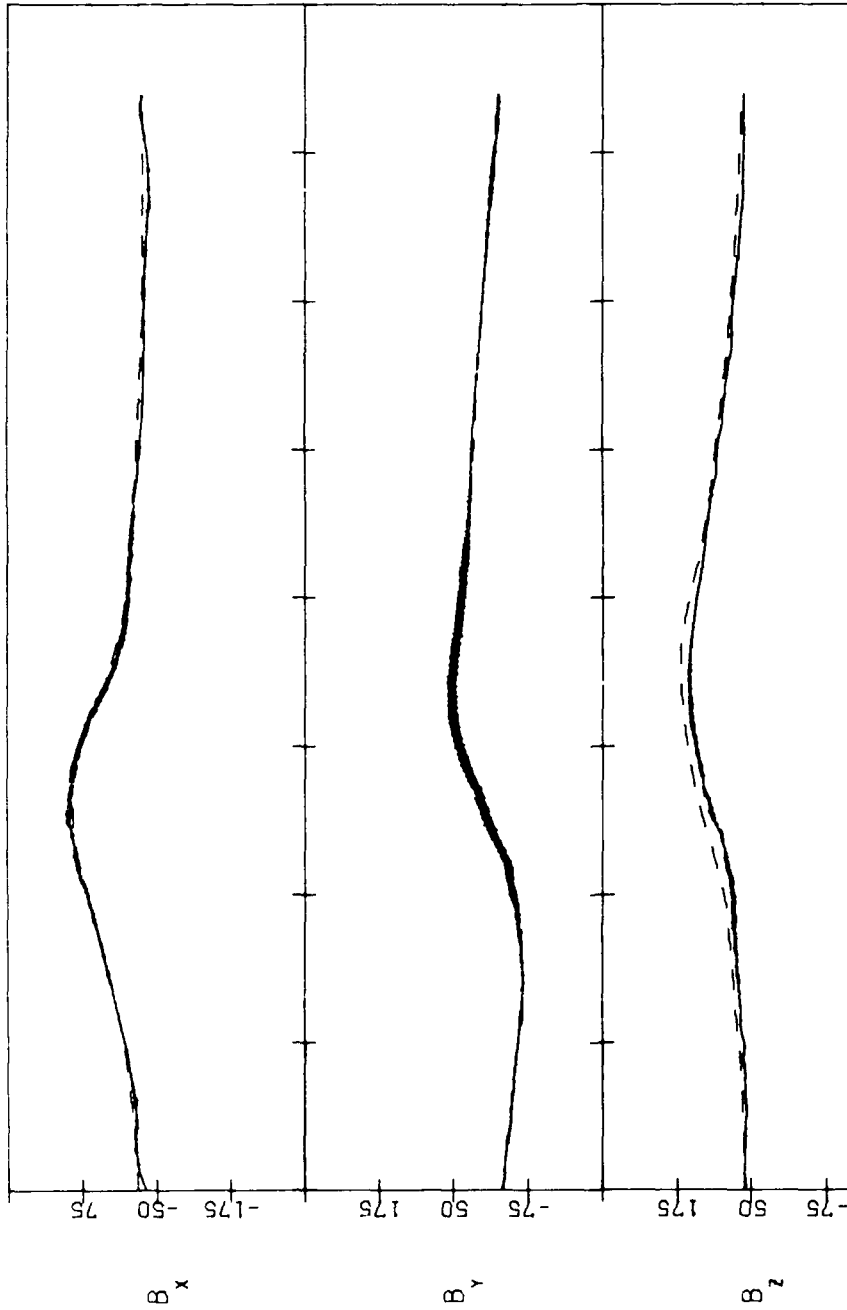
79329 11/25/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1540:	1756:	2046:	0033:	0459:	0845:	1132:	1346:	1553:	LOCAL TIME(HHMM:)
1521:	1744:	2049:	0050:	0516:	0853:	1128:	1332:	1533:	MAG. TIME(HHMM:)
9.6	10.5	10.5	7.7	3.3	3.2	6.0	8.8	10.6	MAG. LAT
7.5	7.4	6.7	5.8	5.6	6.3	6.9	7.3	7.6	L-SHELL
3.6	6.5	6.9	2.0	-5.6	-6.9	-3.8	0.3	4.1	LATITUDE
231.8	220.9	218.2	230.1	251.6	263.1	259.7	248.4	235.1	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

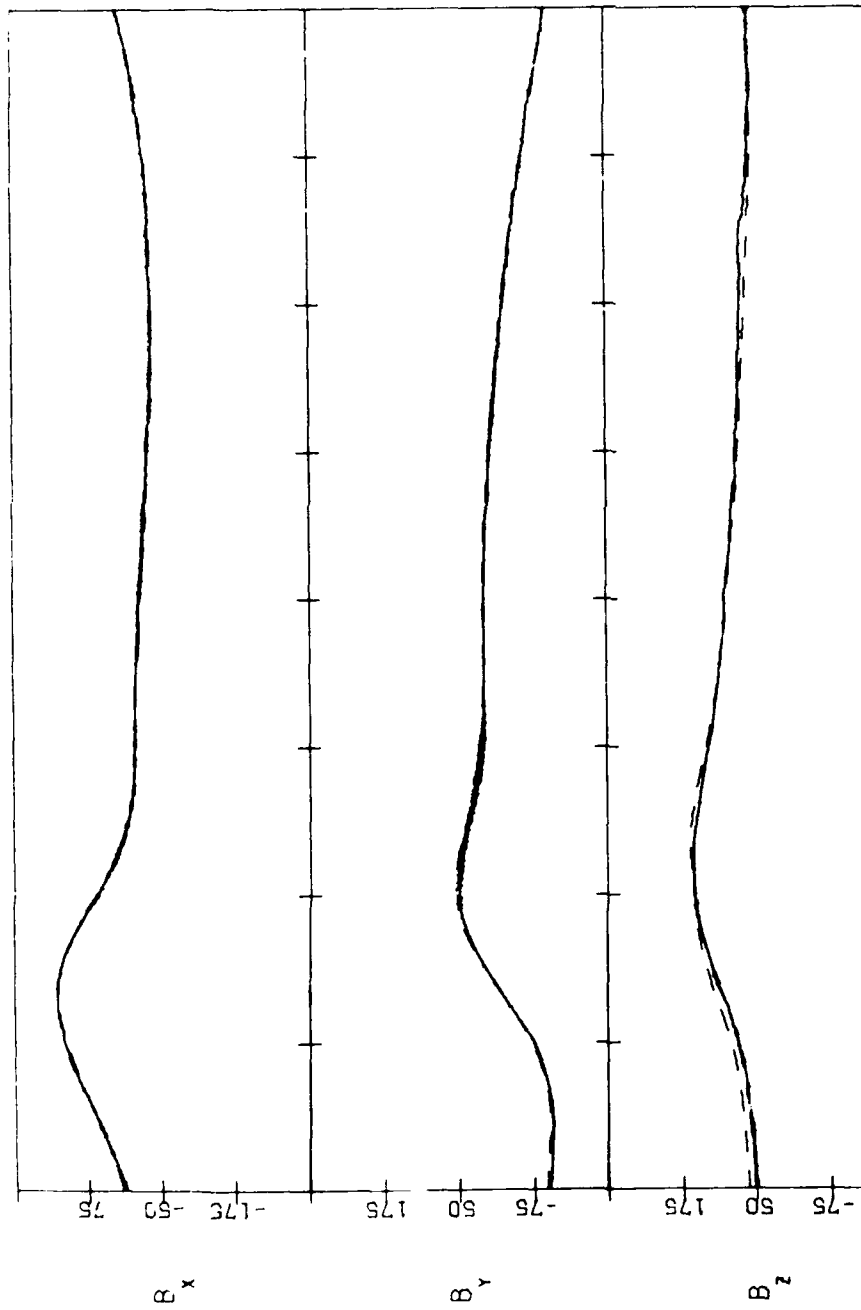
79331 11/27/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1606:	1829:	2132:	0135:	0557:	0926:	1201:	1411:	1619:	LOCAL TIME(HHMM:)
1546:	1816:	2135:	0154:	0614:	0933:	1157:	1357:	1559:	MAG. TIME(HHMM:)
11.6	12.5	11.9	8.0	3.7	4.5	7.8	10.7	12.5	MAG. LAT
7.6	7.3	6.6	5.7	5.8	6.5	7.1	7.4	7.7	L-SHELL
4.6	7.0	6.2	-0.2	-6.7	-6.3	-2.7	1.4	5.0	LATITUDE
238.5	229.1	229.9	245.6	266.3	273.4	267.2	254.9	241.9	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

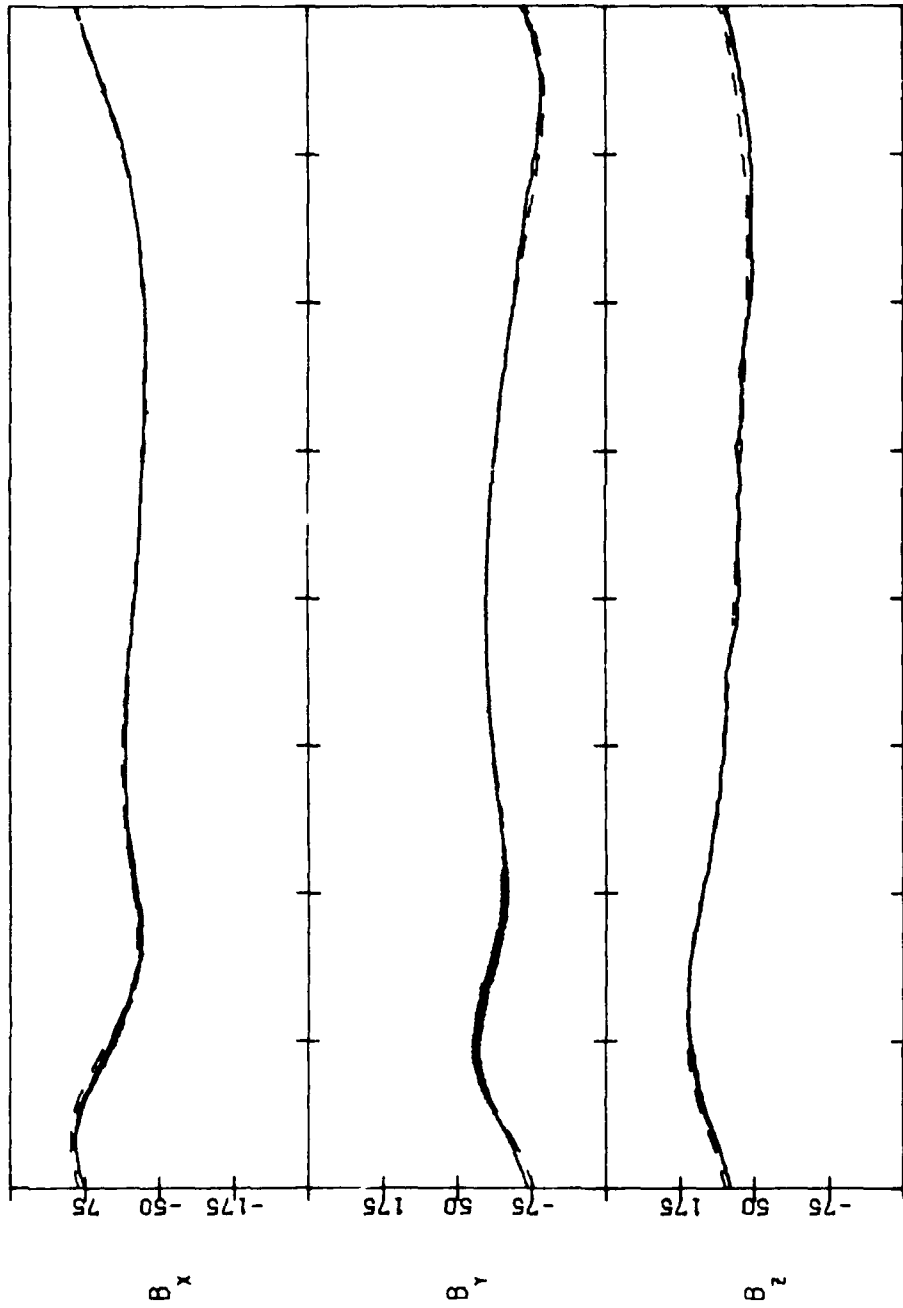
79341 12/07/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1841:	2203:	3222:	0632:	0940:	1204:	1411:	1623:	1900:	LOCAL TIME(HHMM:)
1824:	2153:	0234:	0650:	0955:	1211:	1410:	1612:	1844:	MAG. TIME(HHMM:)
18.3	15.9	8.0	2.4	4.2	9.0	13.7	17.2	18.4	MAG. LAT
7.5	6.5	5.7	6.1	6.7	7.2	7.6	7.9	7.4	L-SHELL
7.2	4.7	-2.9	-7.2	-5.2	-1.3	2.7	5.9	7.2	LATITUDE
278.1	283.6	303.3	320.8	322.8	313.8	300.7	288.6	283.0	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

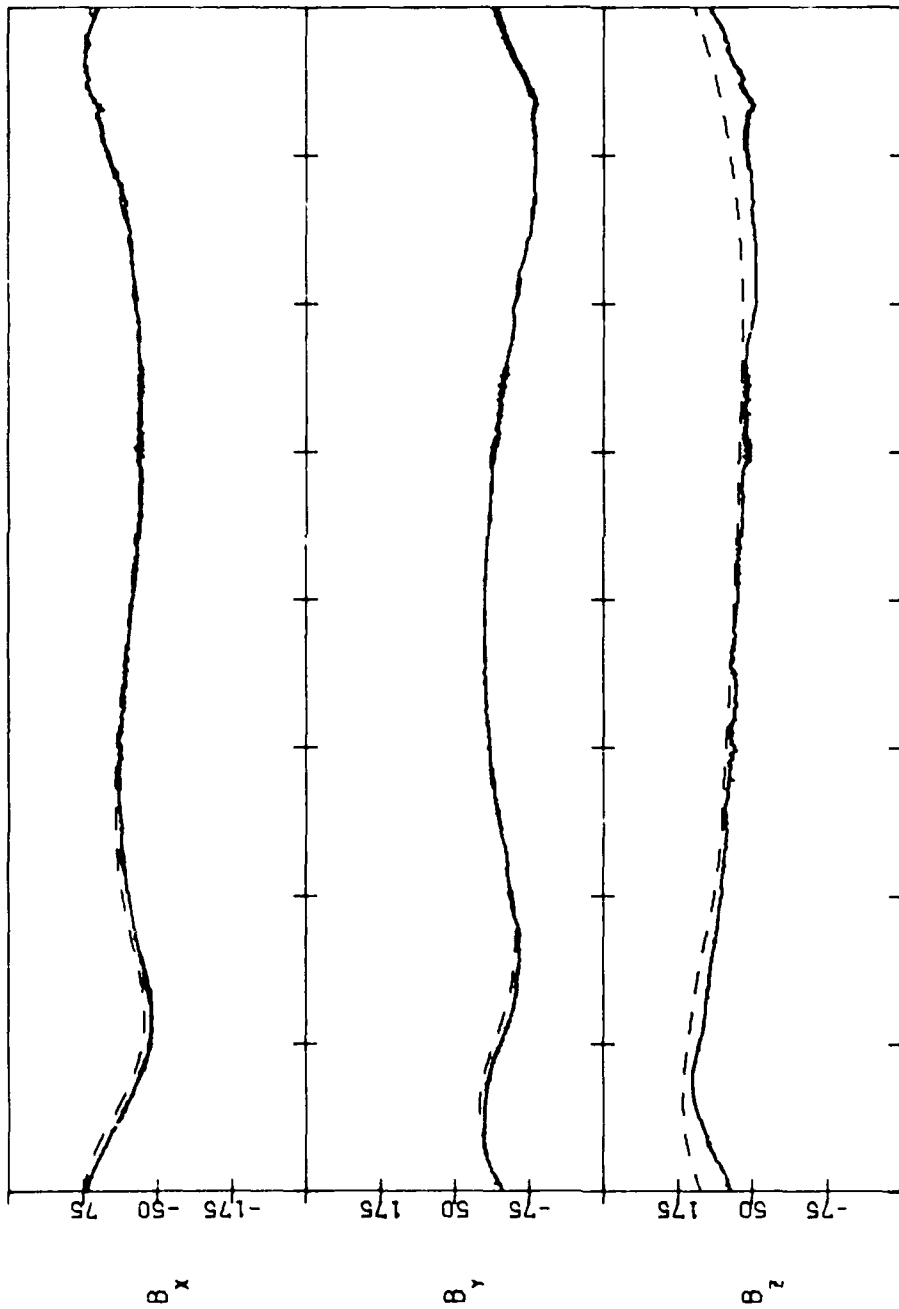
79348 12/14/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
2117:	0133:	0546:	0858:	1125:	1332:	1543:	1818:	2143:	LOCAL TIME(HHMM:)
2102:	0123:	0550:	0914:	1140:	1342:	1546:	1812:	2128:	MAG. TIME(HHMM:)
14.9	5.2	-2.5	-1.3	4.0	10.0	14.9	17.0	13.5	MAG. LAT
6.5	5.7	6.1	6.8	7.2	7.4	7.7	7.3	6.3	L-SHELL
5.1	-2.4	-7.2	-5.4	-1.5	2.5	5.7	7.2	4.3	LATITUDE
317.9	336.9	355.3	358.3	349.8	336.8	324.5	318.3	324.7	LONGITUDE



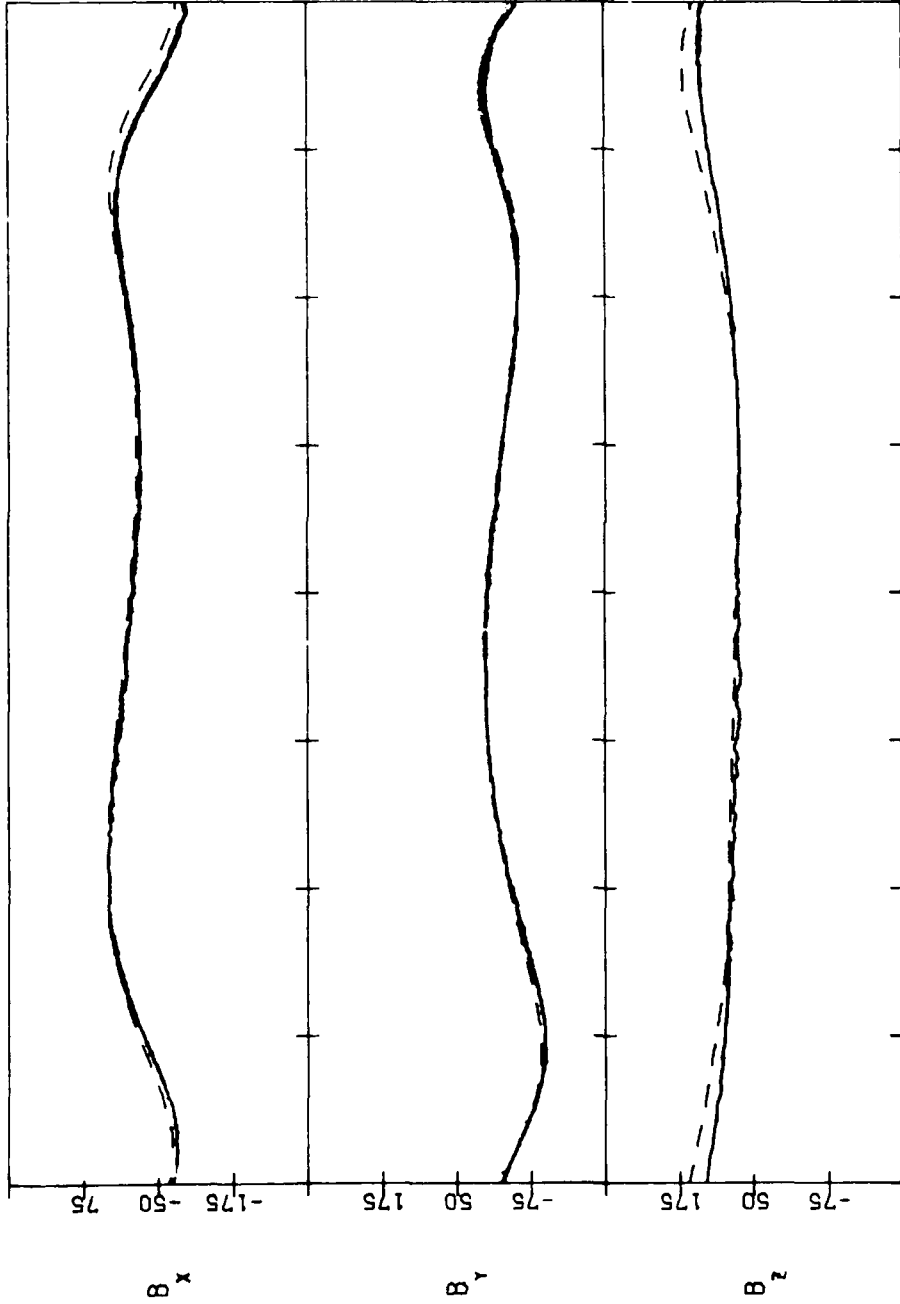
SCATHA SC11(SOLAR MAGNETIC)  
79351 12/17/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE
2241:	0307:	0658:	0948:	1204:	1410:	1628:	1920:	2310:							
2224:	0251:	0659:	1004:	1220:	1421:	1631:	1912:	2252:							
9.7	-1.6	-5.7	-2.3	3.8	9.9	14.3	14.7	7.5							
6.0	5.8	6.5	7.0	7.3	7.4	7.5	6.8	5.8							
2.5	-5.2	-7.0	-4.0	0.1	3.9	6.6	6.7	1.5							
339.2	0.7	13.5	11.0	360.0	346.6	336.0	334.0	346.7							

SCATHA SC11(SOLAR MAGNETIC)

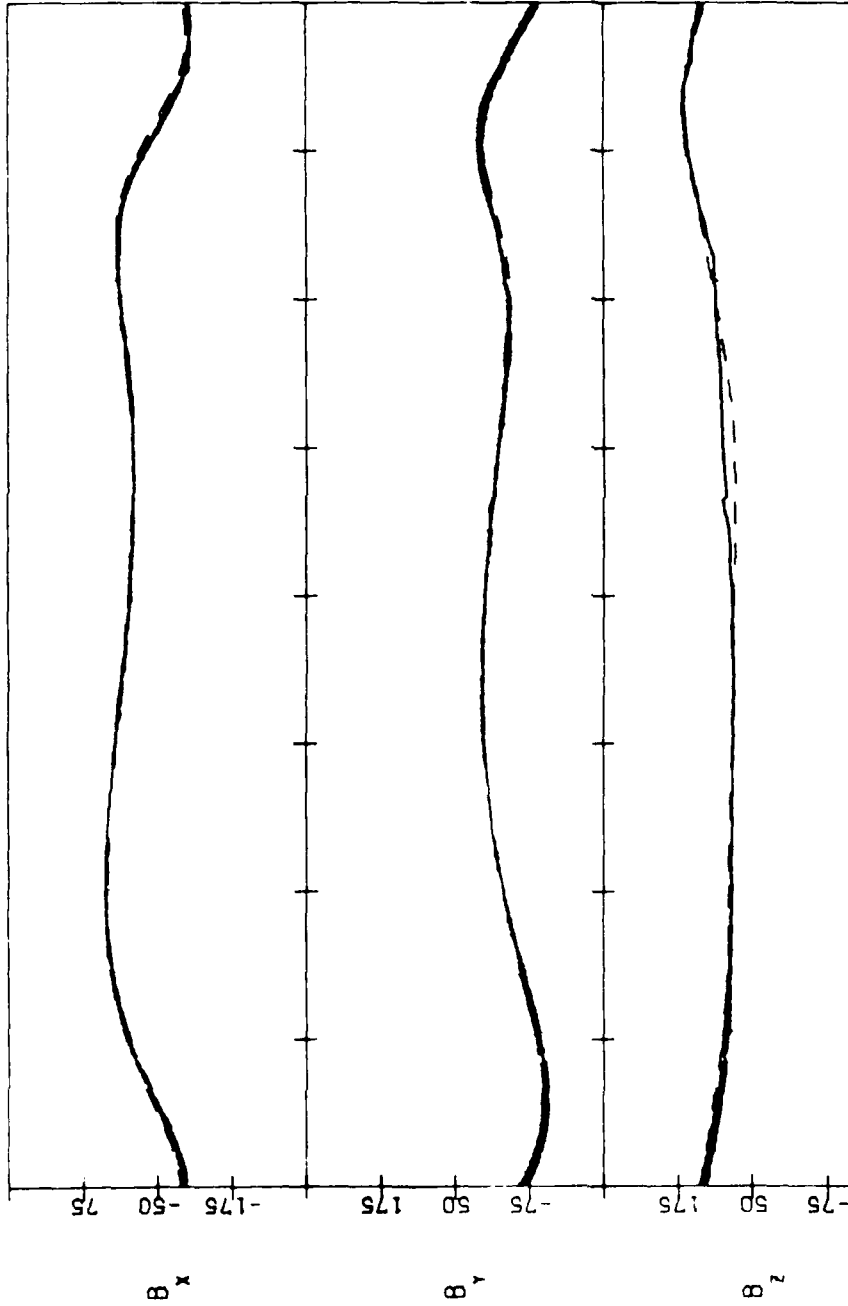
79357 12/23/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0148:	0551:	0851:	1112:	1319:	1532:	1815:	2153:	0218:
0121:	0529:	0853:	1129:	1336:	1543:	1816:	2138:	0150:
-5.3	-11.4	-9.0	-3.3	3.1	8.3	9.9	4.1	-7.6
5.7	6.5	7.1	7.4	7.3	7.3	6.7	5.9	5.8
-3.9	-7.1	-4.7	-0.7	3.2	6.2	7.0	3.0	-4.8
26.6	42.5	42.7	32.8	19.5	7.9	3.6	13.1	34.5

SCATHA SC11(SOLAR MAGNETIC)

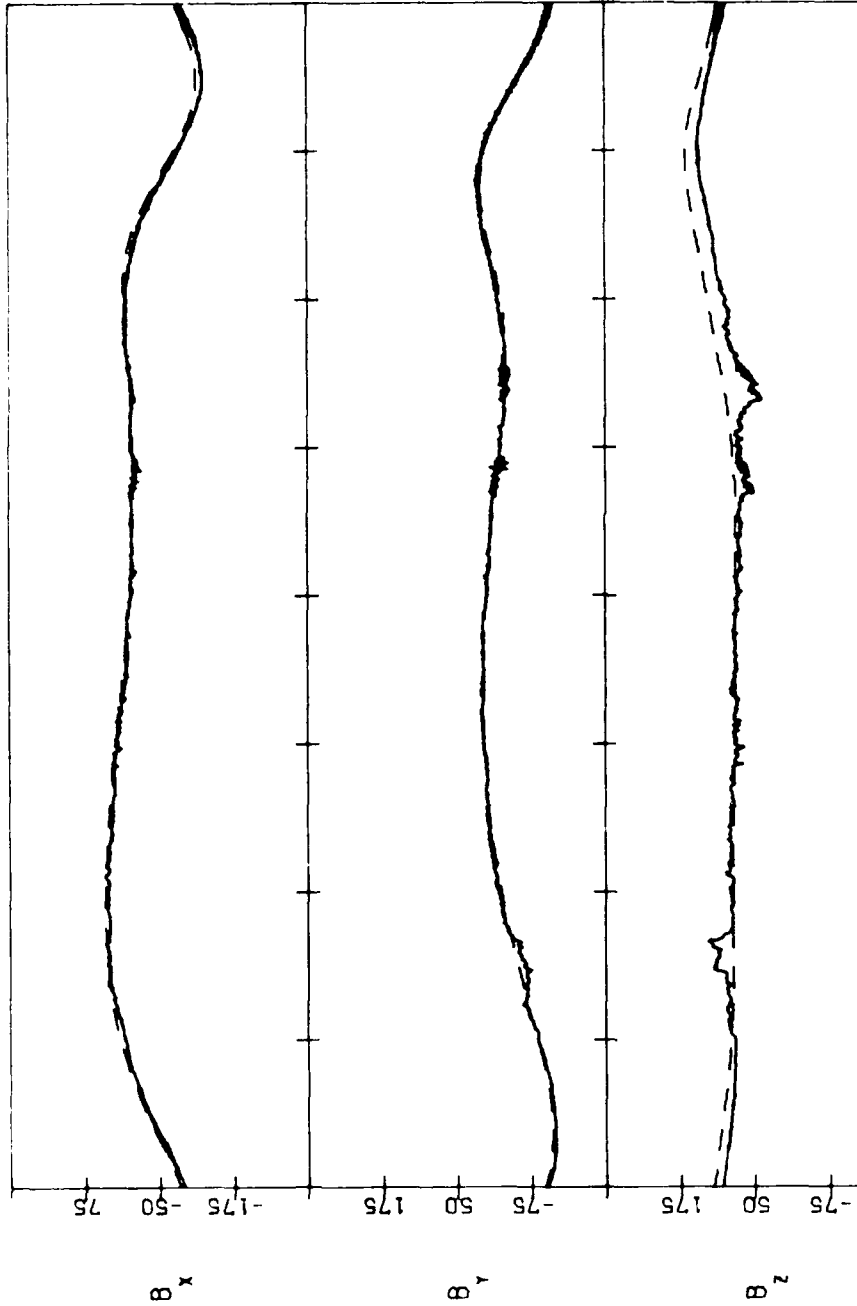
79359 12/25/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0250:	0636:	0923:	1138:	1344:	1603:	1858:	2253:	0319:
0220:	0614:	0925:	1155:	1401:	1614:	1857:	2235:	0249:
-9.9	-13.1	-9.4	-3.5	2.7	7.2	7.3	-0.9	-11.8
6.0	6.8	7.3	7.4	7.3	7.2	6.4	5.7	6.1
-5.6	-6.8	-3.6	0.4	4.1	6.7	6.5	0.9	-6.2
42.3	54.0	50.8	39.5	26.2	15.9	14.7	28.4	49.8

SCATHA SC11(SOLAR MAGNETIC)

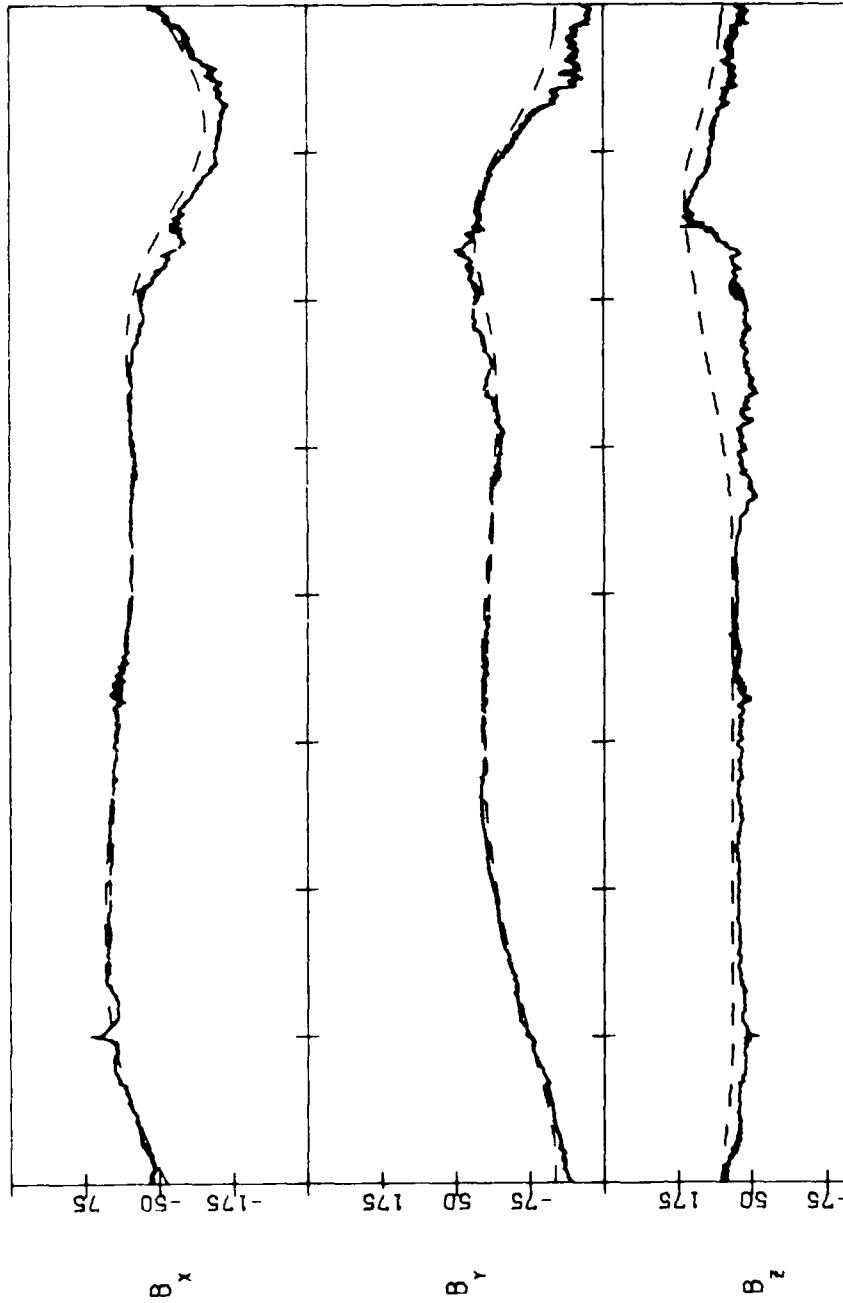
79361 12/27/79



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
0348:	0717:	0952:	1203:	1411:	1637:	1946:	2356:	0415:	LOCAL TIME(HHMM:)
0318:	0656:	0955:	1220:	1428:	1646:	1943:	2336:	0344:	MAG. TIME(HHMM:)
-13.4	-14.1	-9.6	-3.6	2.2	5.9	4.0	-6.1	-14.8	MAG. LAT
6.2	7.1	7.4	7.5	7.2	7.0	6.2	5.7	6.4	L-SHELL
-6.6	-6.2	-2.6	1.5	5.0	7.1	5.6	-1.3	-6.9	LATITUDE
57.2	64.5	58.4	46.0	33.0	24.5	26.9	44.4	64.2	LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

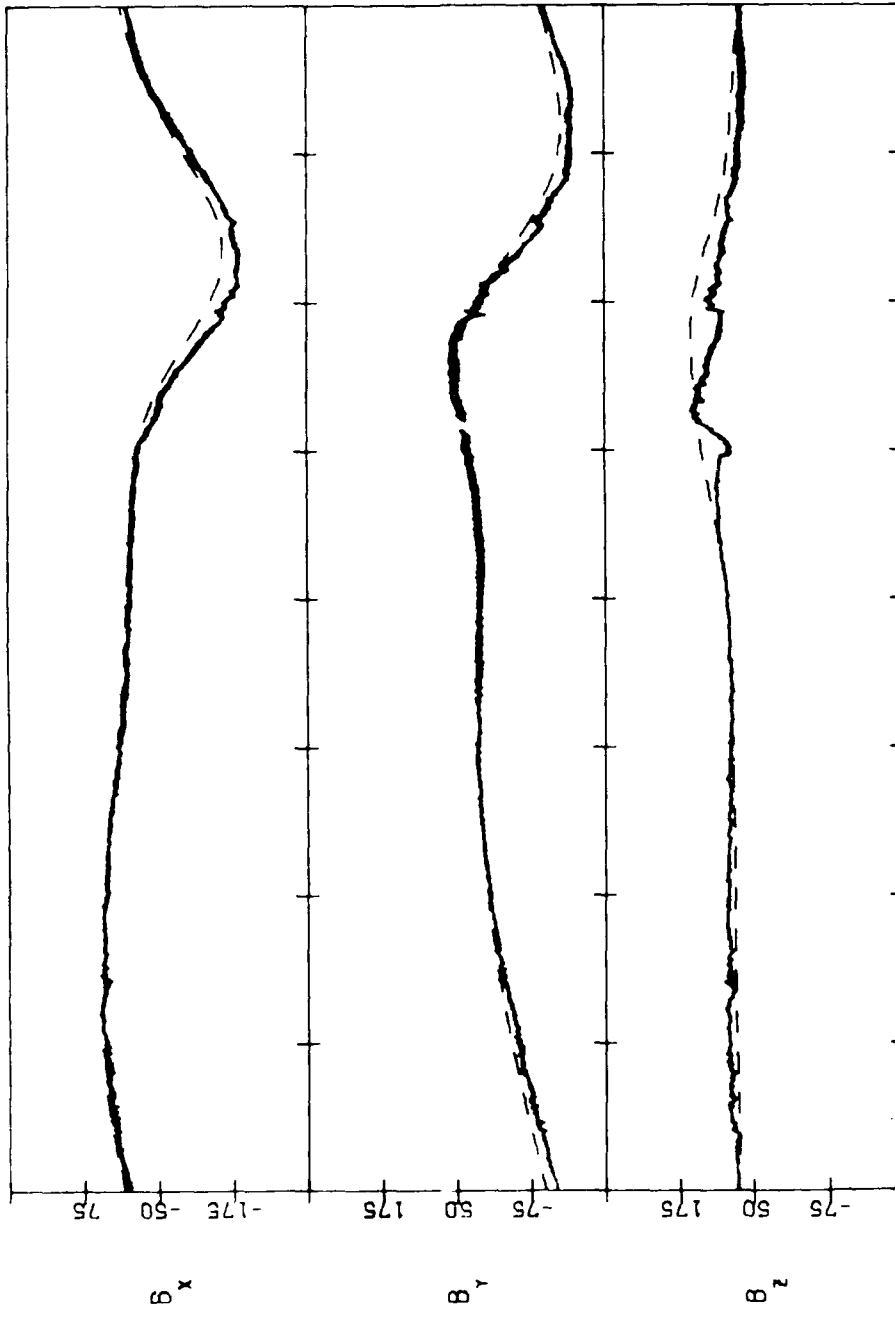
79363 12/29/79



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0442:	0754:	1020:	1228:	1438:	1713:	2039:	0100:	0507:
0411:	0734:	1024:	1245:	1455:	1721:	2033:	0038:	0436:
-15.8	-14.5	-9.5	-3.7	1.6	4.2	0.2	-10.8	-16.6
6.5	7.3	7.5	7.4	7.2	6.8	6.0	5.8	6.6
-7.1	-5.3	-1.4	2.5	5.7	7.1	4.2	-3.5	-7.1
70.9	74.0	65.5	52.5	40.1	33.8	40.2	60.5	77.3

SCATHA SC11(SOLAR MAGNETIC)

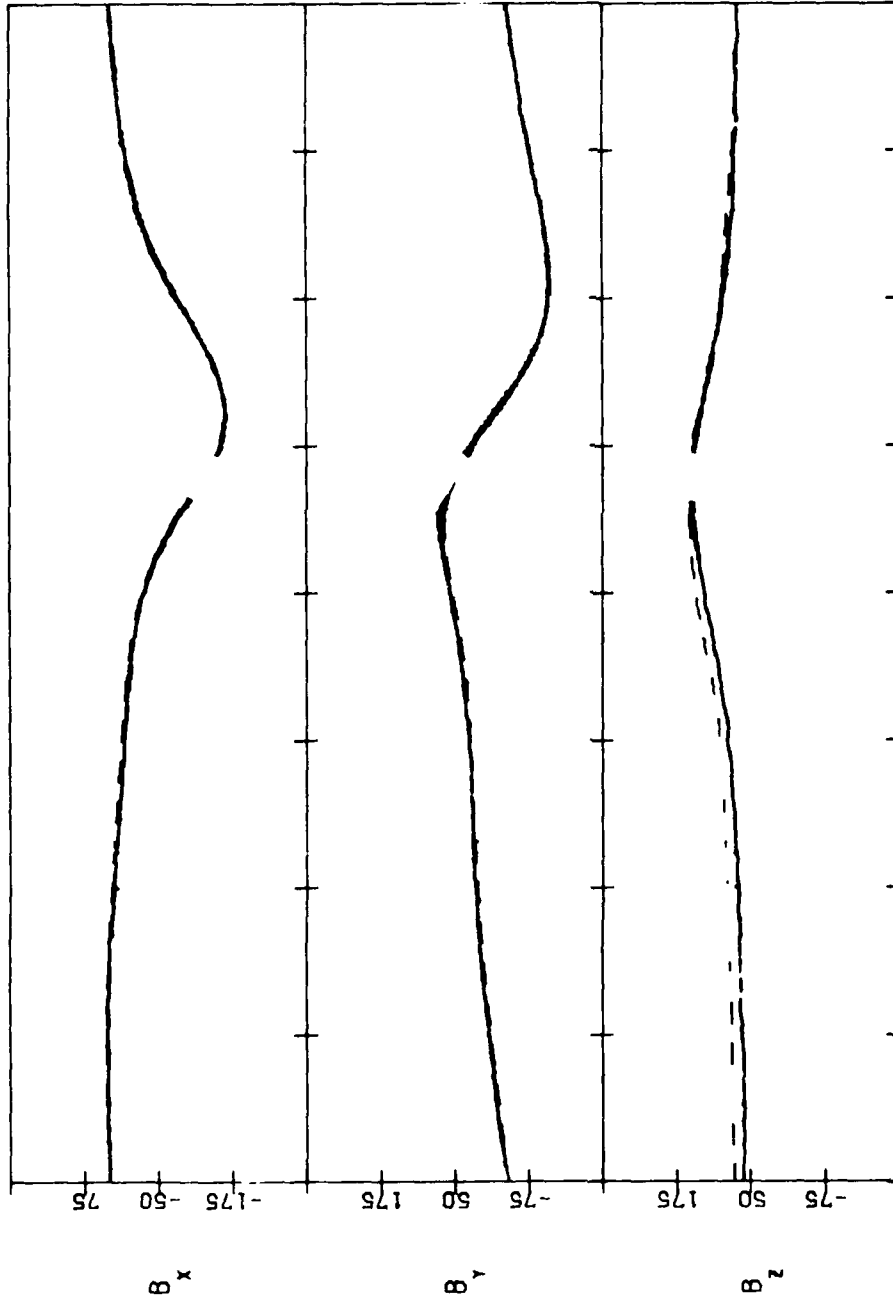
80004 01/04/80



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0655:	0928:	1137:	1346:	1614:	1927:	2340:	0357:	0713:
0629:	0913:	1143:	1403:	1629:	1931:	2331:	0336:	0648:
-17.2	-13.3	-8.5	-3.9	-1.0	-3.2	-12.3	-18.2	-16.8
7.3	7.6	7.6	7.3	6.8	6.0	5.8	6.6	7.4
-5.9	-2.2	1.8	5.2	7.1	5.3	-1.9	-7.0	-5.5
104.9	98.2	85.6	72.7	64.6	68.0	86.3	105.6	109.7

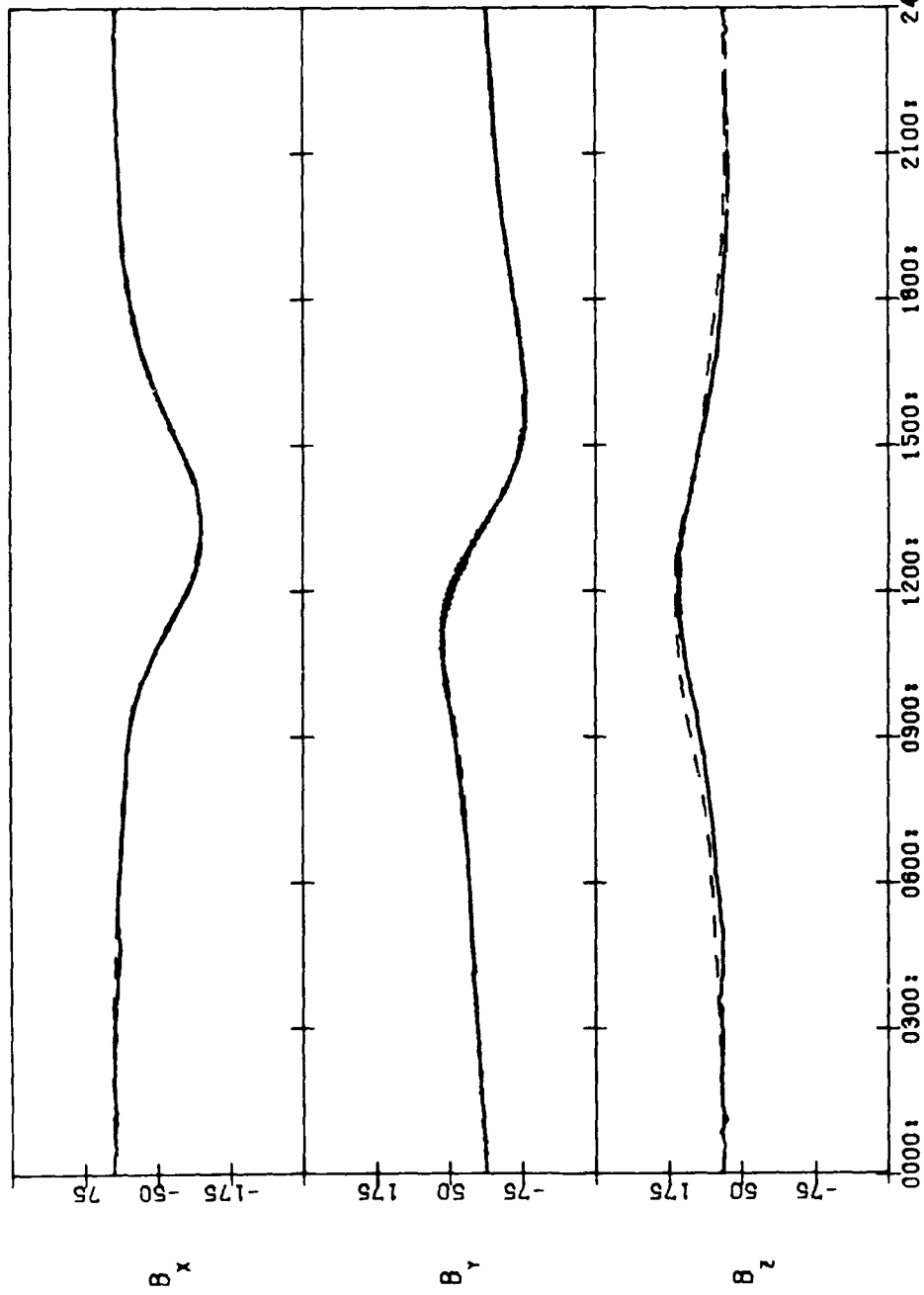
SCATHA SC11(SOLAR MAGNETIC)

80012 01/12/80



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
0904:	1113:	1322:	1552:	1910:	2326:	0340:	0652:	0917:
0647:	1101:	1327:	1609:	1924:	2333:	0339:	0641:	0901:
-11.7	-8.7	-5.8	-4.1	-6.4	-13.2	-15.9	-13.7	-10.8
7.6	7.6	7.2	6.7	6.0	5.8	6.5	7.3	7.6
-1.9	2.1	5.4	7.1	4.9	-2.6	-7.1	-5.2	-1.3
138.0	125.3	112.5	105.1	109.6	128.7	147.1	150.1	141.6

SCATHA SC11(SOLAR MAGNETIC)  
80018 01/18/80

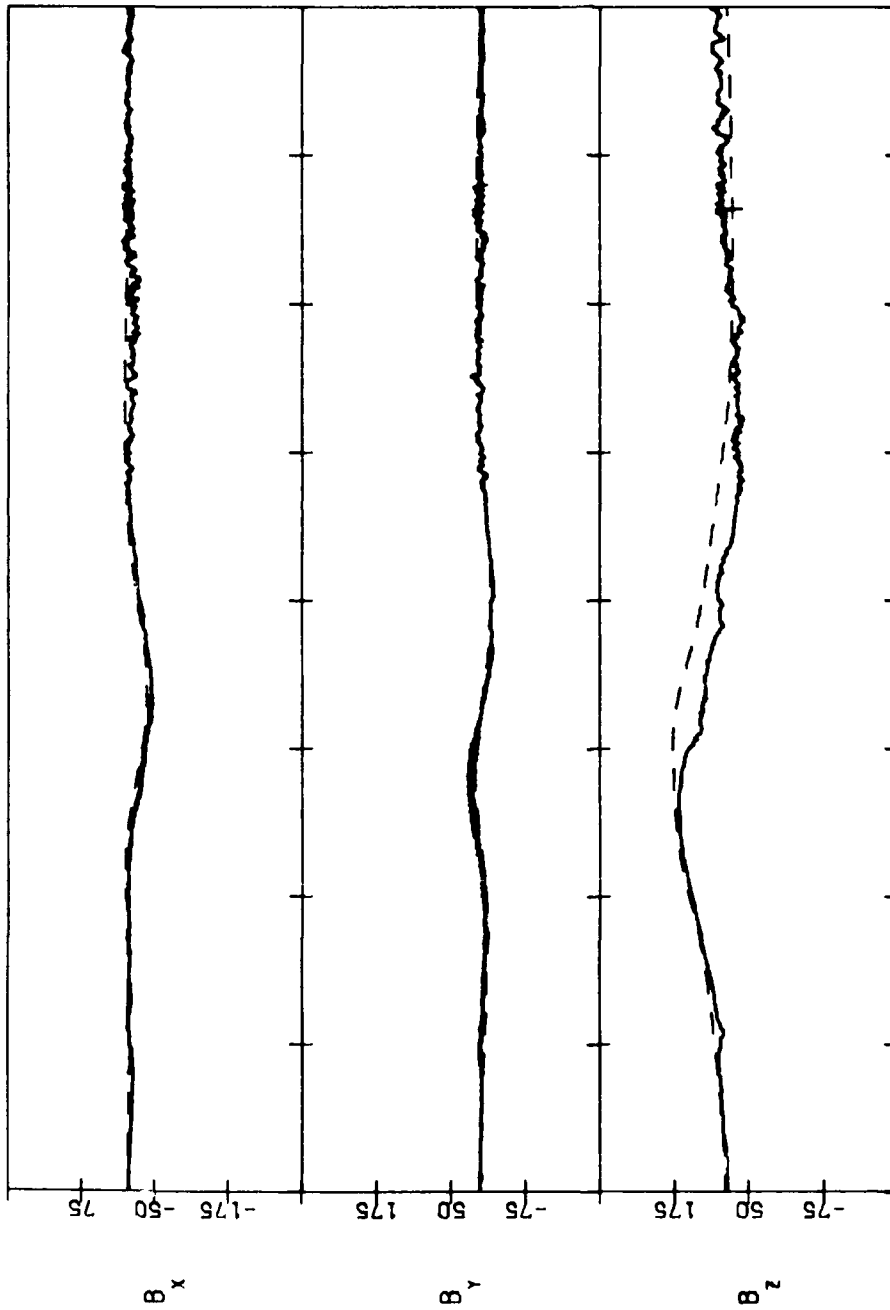


UT	LOCAL TIME(MMM:)	MAG. TIME(MMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1023:	1230:	1454:	1800:	2207:	0229:	0553:	0826:	1035:
1007:	1219:	1459:	1817:	2224:	0241:	0556:	0817:	1019:
-6.0	-4.3	-3.1	-4.1	-8.9	-11.3	-9.3	-6.8	-5.0
7.5	7.3	6.8	6.1	5.7	6.2	6.9	7.4	7.4
1.4	4.9	7.0	5.8	-0.9	-6.8	-5.9	-2.1	1.9
158.3	145.2	136.2	137.7	154.4	174.8	181.0	174.2	161.6



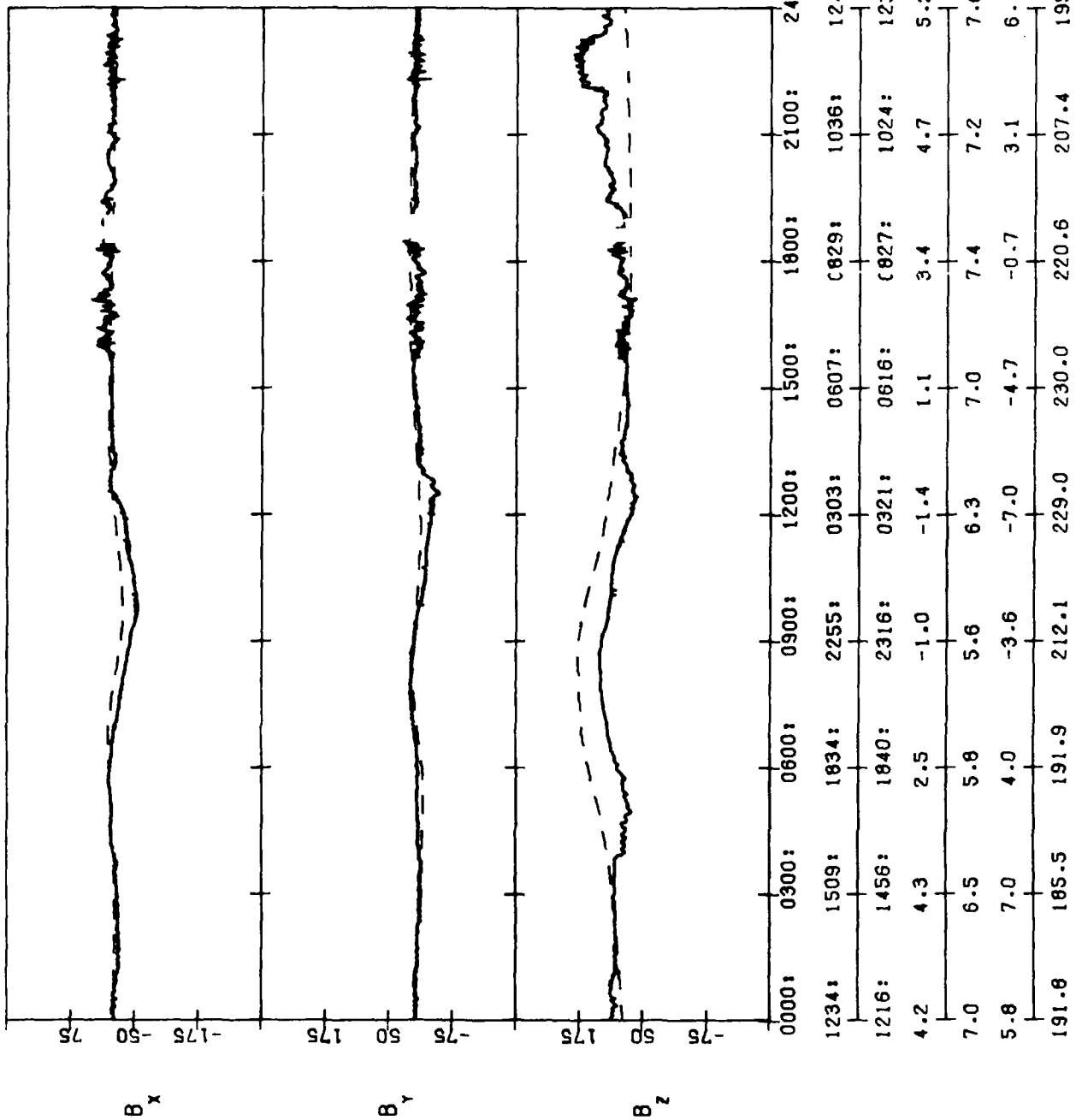
SCATHA SC11(SOLAR MAGNETIC)

80027 01/27/80

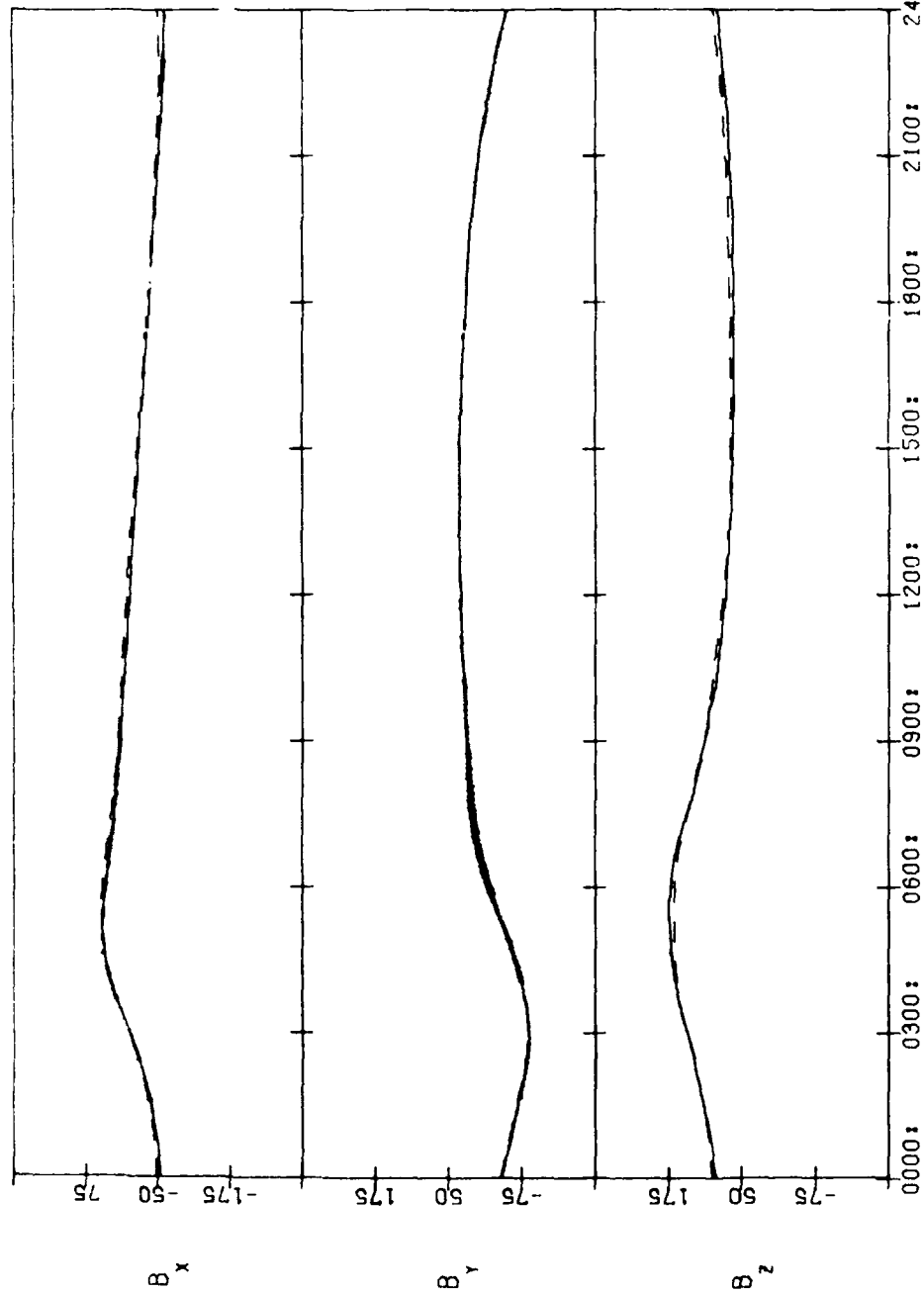


0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1220:	1450:	1807:	2223:	0237:	0549:	0816:	1023:	1234:	LOCAL TIME(MHMM:)
1202:	1438:	1812:	2244:	0257:	0559:	0814:	1012:	1216:	MAG. TIME(MHMM:)
3.2	3.4	2.0	-1.6	-2.5	-0.1	2.2	3.6	4.2	MAG. LAT
7.1	6.6	5.9	5.6	6.2	6.9	7.3	7.3	7.0	L-SHELL
5.4	7.0	4.8	-2.6	-7.0	-5.1	-1.2	2.7	5.8	LATITUDE
188.2	180.7	185.1	204.1	222.6	225.6	217.2	204.1	191.8	LONGITUDE

SCATHA SC11 (SOLAR MAGNETIC)  
 80028 01/28/80



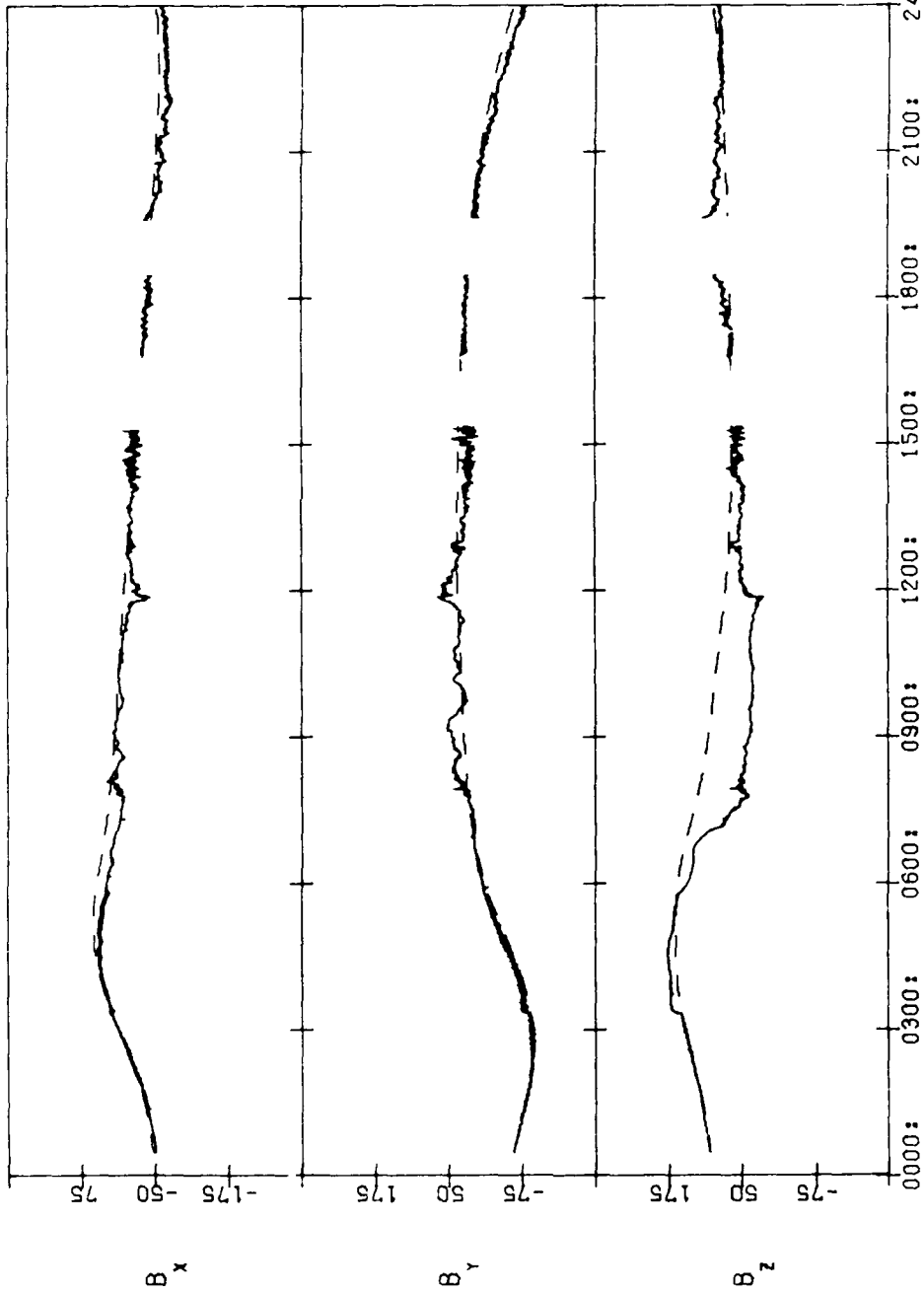
SCATHA SC11(SOLAR MAGNETIC)  
80036 02/05/80



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1449:	1618:	2241:	0244:	0545:	0606:	1013:	1227:	1509:	LOCAL TIME(HHMM:)
1431:	1807:	2248:	0301:	0558:	0809:	1008:	1213:	1451:	MAG. TIME(HHMM:)
11.9	9.8	5.1	3.6	6.2	9.4	11.6	12.7	12.6	MAG. LAT
6.6	5.9	5.7	6.5	7.2	7.6	7.5	7.1	6.6	L-SHELL
7.0	3.6	-4.1	-7.0	-4.4	-0.4	3.4	6.2	6.8	LATITUDE
225.8	233.1	253.8	269.7	269.9	260.1	246.8	235.2	230.9	LONGITUDE

SCATHA SCI1 (SOLAR MAGNETIC)

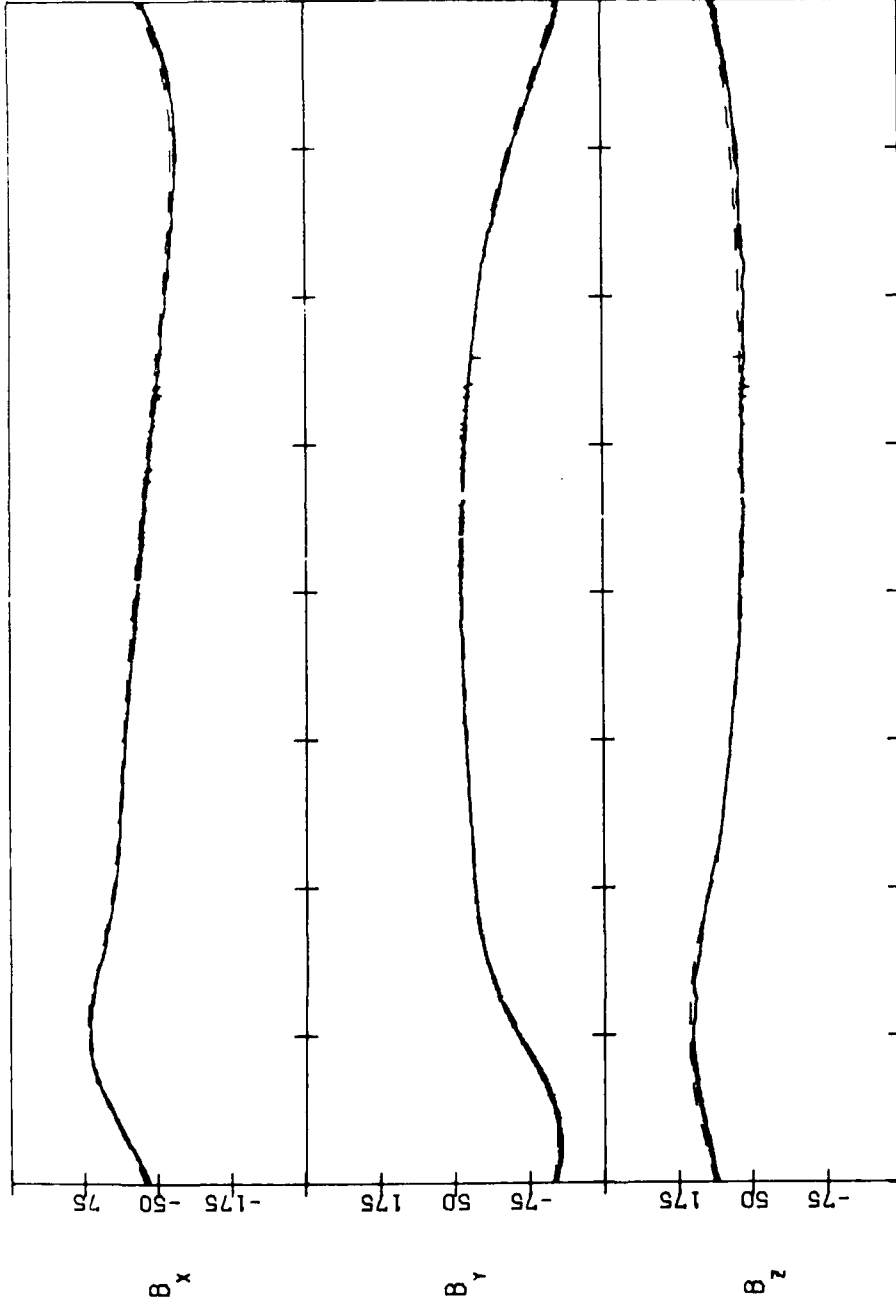
80037 02/06/80



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1847:	2312:	0308:	0602:	0819:	1026:	1242:	1530:		LOCAL TIME(HHMM:)
1837:	2320:	0324:	0613:	0822:	1021:	1229:	1514:		MAG. TIME(HHMM:)
10.0	5.1	4.1	7.0	10.3	12.5	13.6	13.3		MAG. LAT
5.8	5.7	6.6	7.3	7.6	7.5	7.1	6.6		L-SHELL
2.7	-4.9	-6.8	-3.9	0.1	3.8	6.5	6.6		LATITUDE
240.3	261.7	275.6	274.0	263.4	250.1	239.1	236.3		LONGITUDE

SCATHA SC11(SOLAR MAGNETIC)

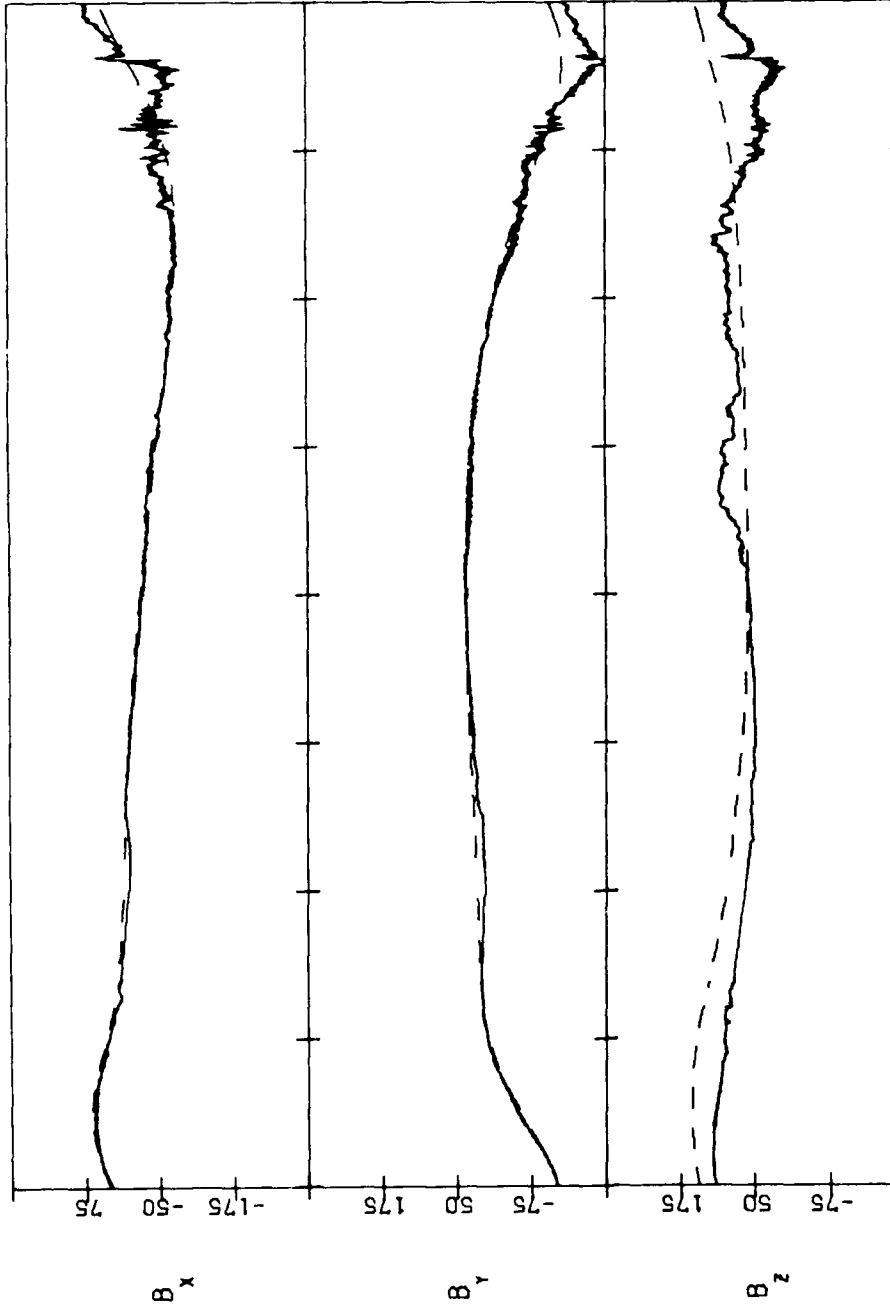
80042 02/11/80



0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1708:	2123:	0137:	0450:	0716:	0924:	1135:	1409:	1734:	LOCAL TIME(HHMM:)
1655:	2117:	0143:	0503:	0726:	0927:	1131:	1400:	1723:	MAG. TIME(HHMM:)
14.6	8.5	4.1	5.9	10.1	13.8	16.2	16.9	14.4	MAG. LAT
6.3	5.7	6.3	7.1	7.7	7.7	7.5	7.0	6.2	L-SHELL
4.7	-2.6	-7.0	-5.1	-1.2	2.7	5.8	7.0	4.0	LATITUDE
260.5	279.4	298.0	301.1	292.7	279.7	267.4	261.0	267.3	LONGITUDE

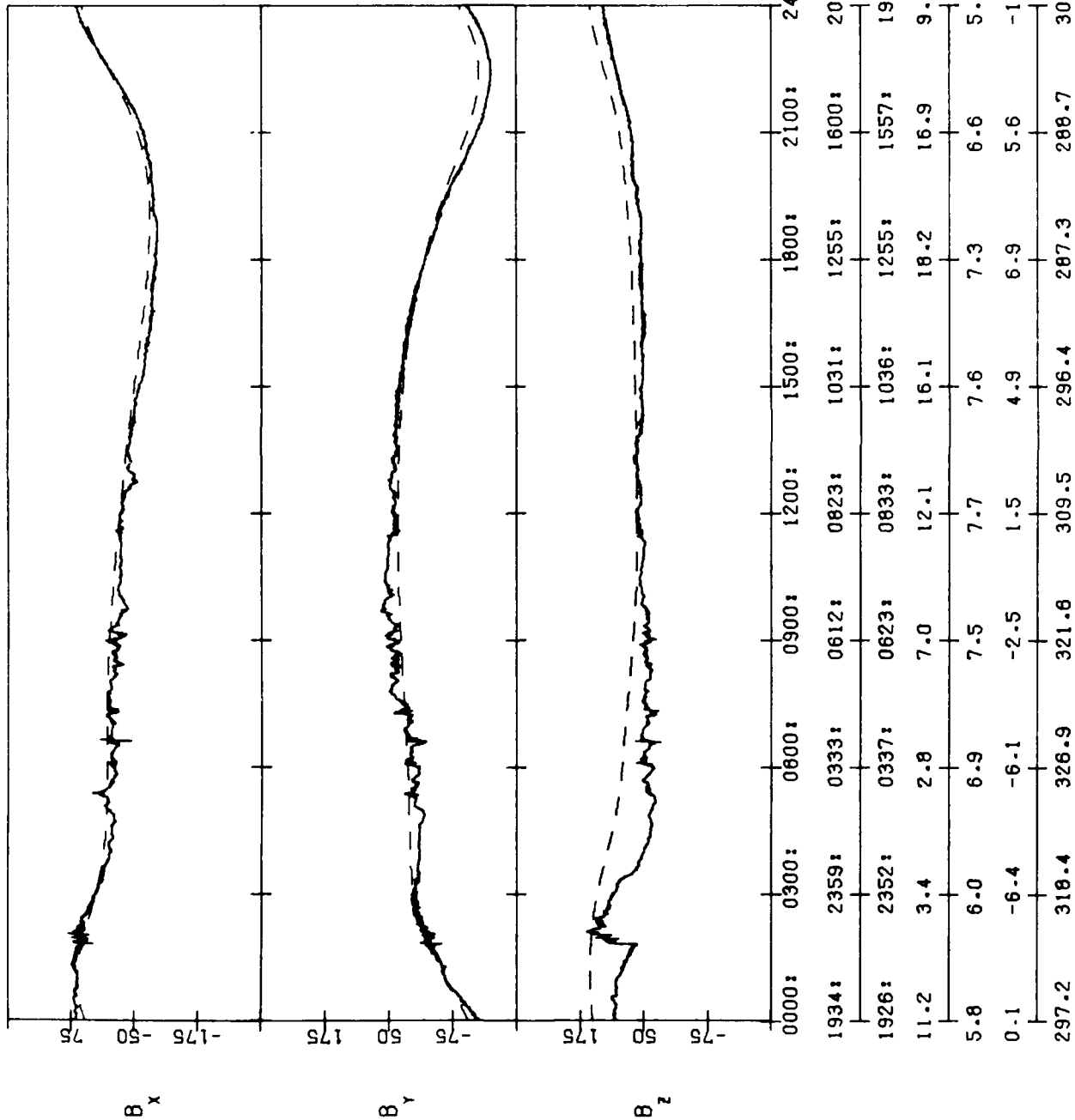
SCATHA SC11(SOLAR MAGNETIC)

60046 02/15/80

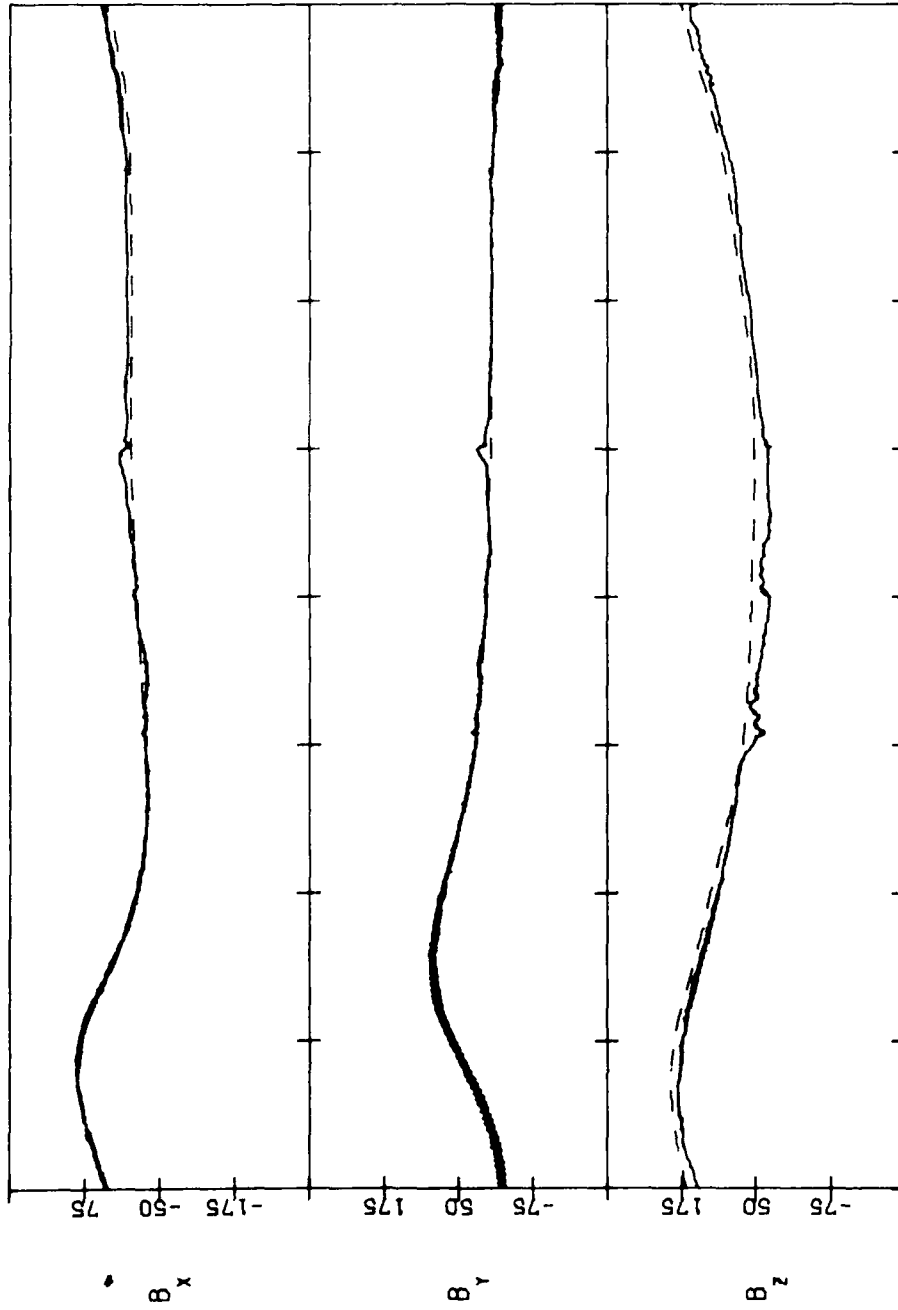


UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1903:	2329:	0326:	0556:	0810:	1017:	1238:	1536:	1934:
1854:	2323:	0330:	0609:	0820:	1021:	1237:	1532:	1926:
12.4	4.6	3.2	6.9	11.7	15.7	18.0	17.3	11.2
5.9	5.9	6.9	7.4	7.7	7.7	7.4	6.7	5.8
1.1	-5.9	-6.3	-3.0	1.0	4.5	6.8	6.1	0.1
289.4	311.0	321.9	317.8	306.2	292.9	283.1	282.6	297.1

SCATHA SC11(SOLAR MAGNETIC)  
80047 02/16/80



SCATHA SCI11(SOLAR MAGNETIC)  
 80161 06/09/80

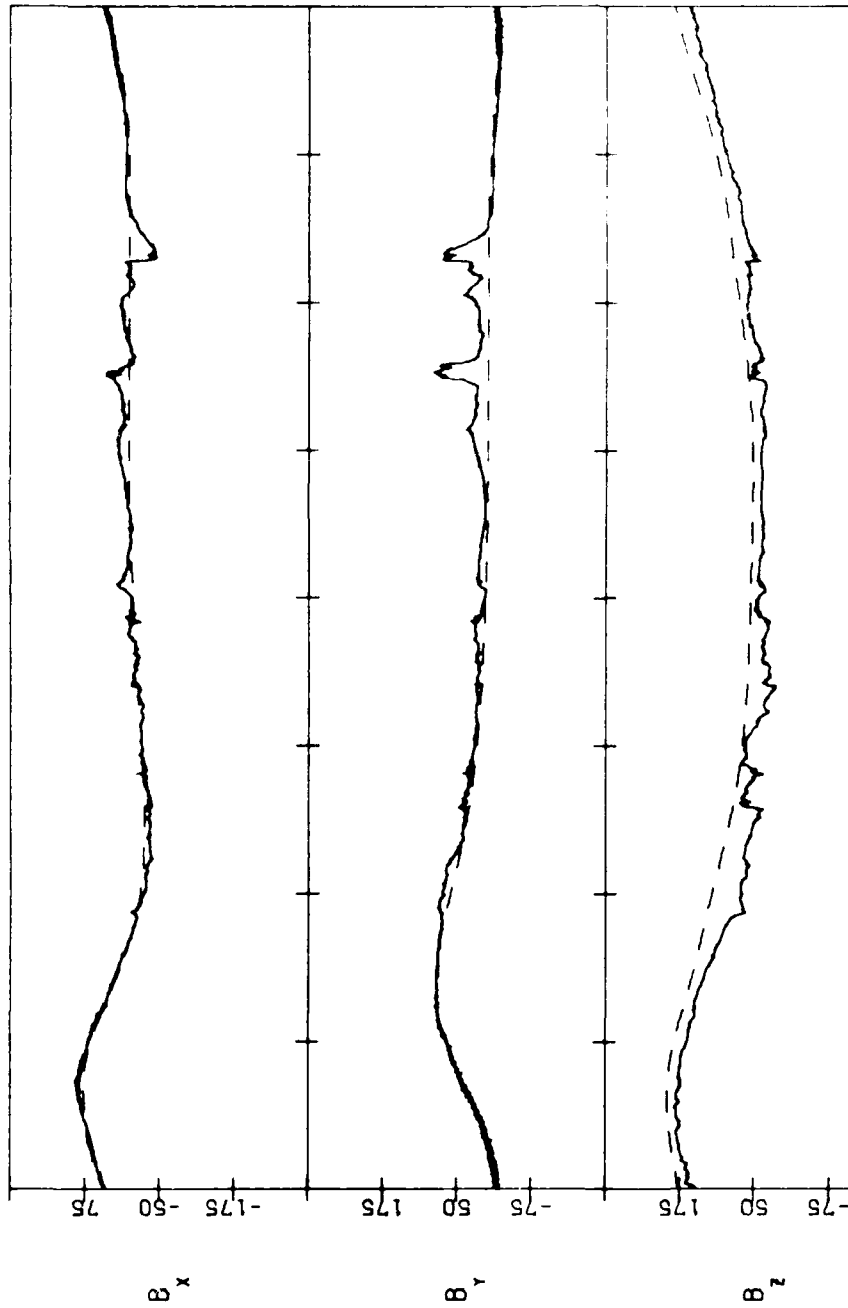


0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:	UT
1002:	1422:	1831:	2138:	0001:	0209:	0421:	0659:	1029:	LOCAL TIME(HHMM:)
1019:	1433:	1835:	2128:	2344:	0158:	0428:	0717:	1046:	MAG. TIME(HHMM:)
-4.9	-9.0	-8.9	-6.0	-3.9	-2.6	-1.8	-2.0	-4.7	MAG. LAT
5.6	5.4	6.2	7.4	8.1	8.3	7.5	6.6	5.6	L-SHELL
3.6	-3.7	-6.8	-4.2	-0.2	3.4	6.1	6.6	2.8	LATITUDE
150.4	170.3	187.7	189.4	180.2	167.1	155.1	149.6	157.3	LONGITUDE



SCATHA SC11(SOLAR MAGNETIC)

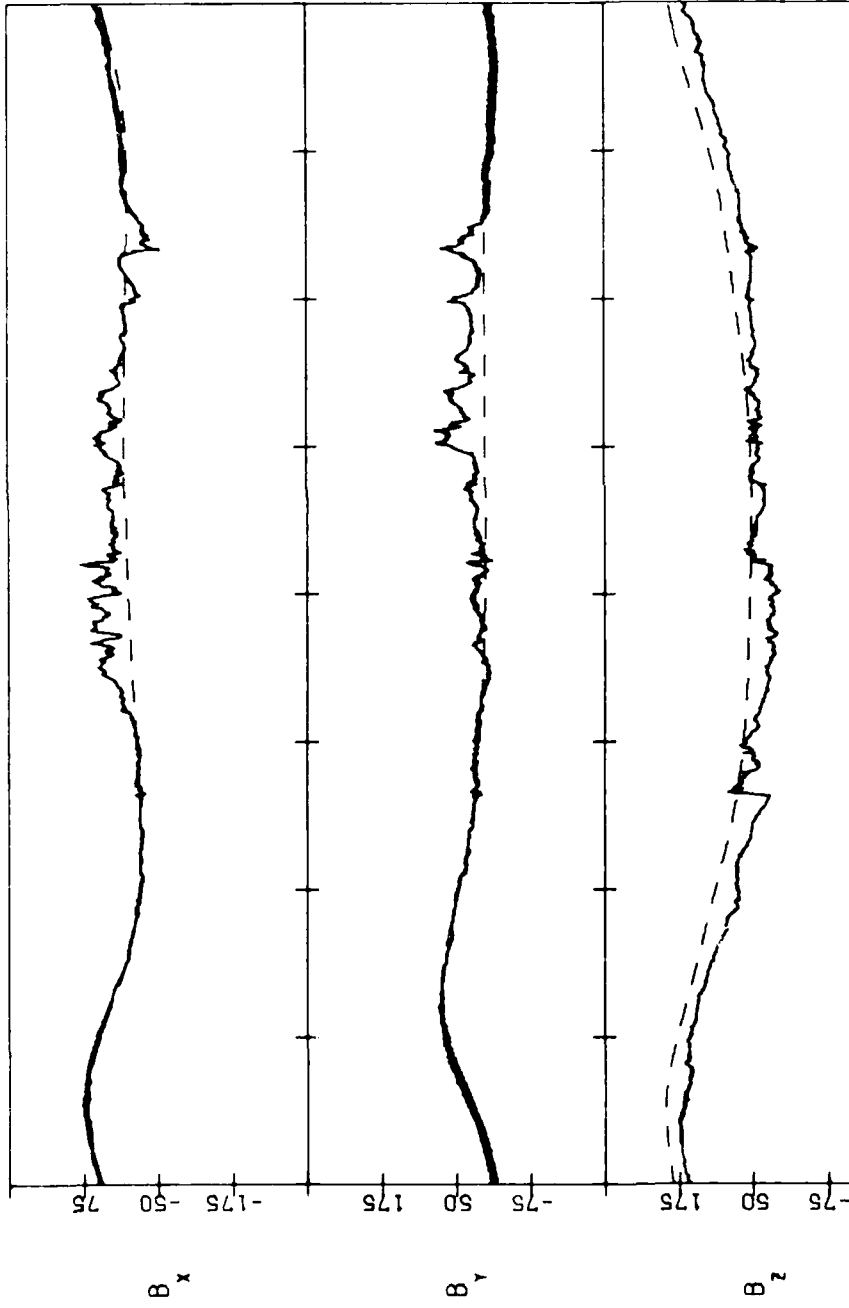
80162 06/10/80



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1030:	1453:	1856:	2155:	0015:	0221:	0435:	0719:	1058:
1047:	1506:	1859:	2145:	2357:	0210:	0443:	0738:	1116:
-4.7	-8.5	-7.5	-4.7	-2.7	-1.6	-1.0	-1.5	-4.5
5.6	5.5	6.3	7.6	8.2	8.3	7.4	6.4	5.5
2.8	-4.5	-6.6	-3.7	0.3	3.8	6.3	6.4	1.9
157.3	178.3	193.9	193.6	183.6	170.3	158.8	154.7	164.5

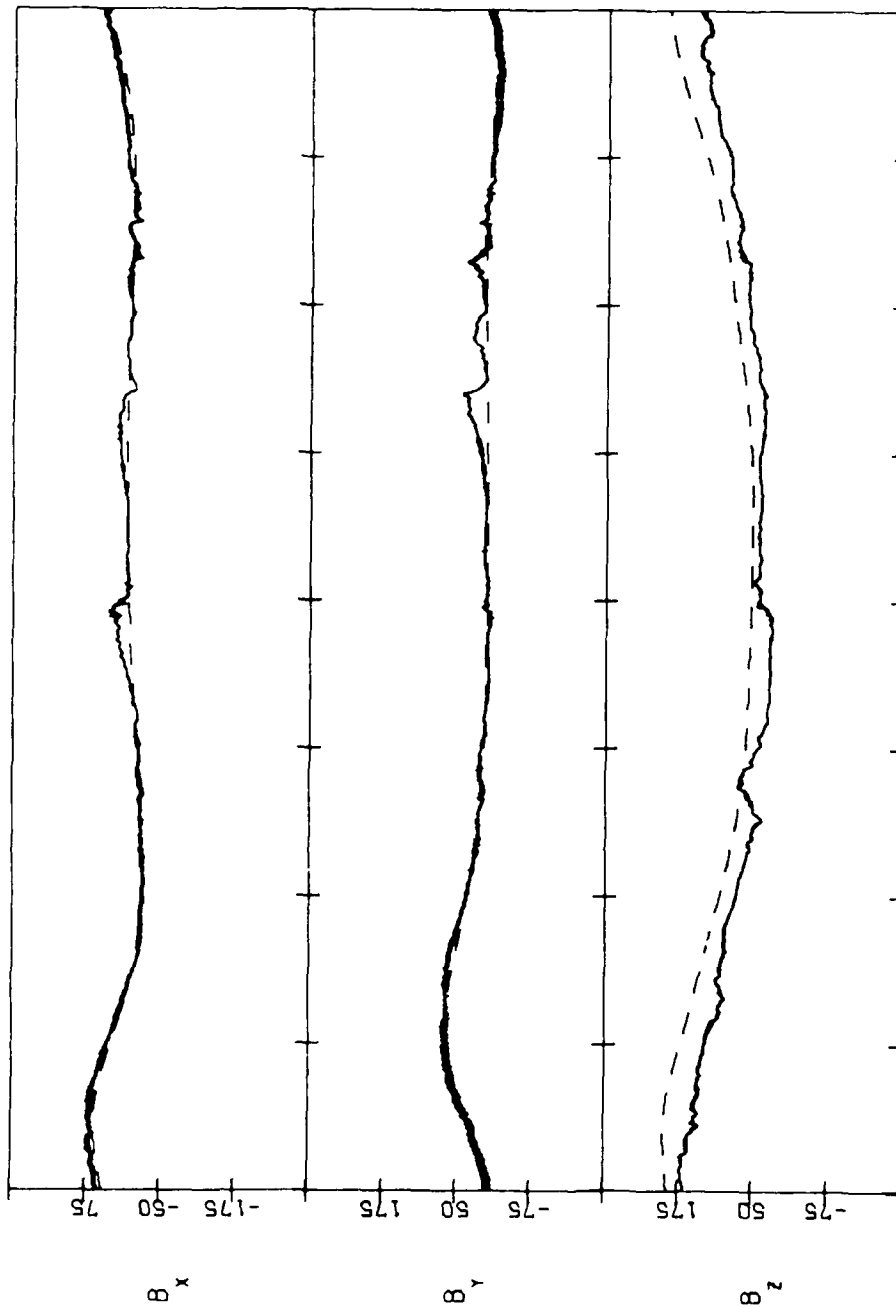
SCATHA SC11(SOLAR MAGNETIC)

80163 06/11/80



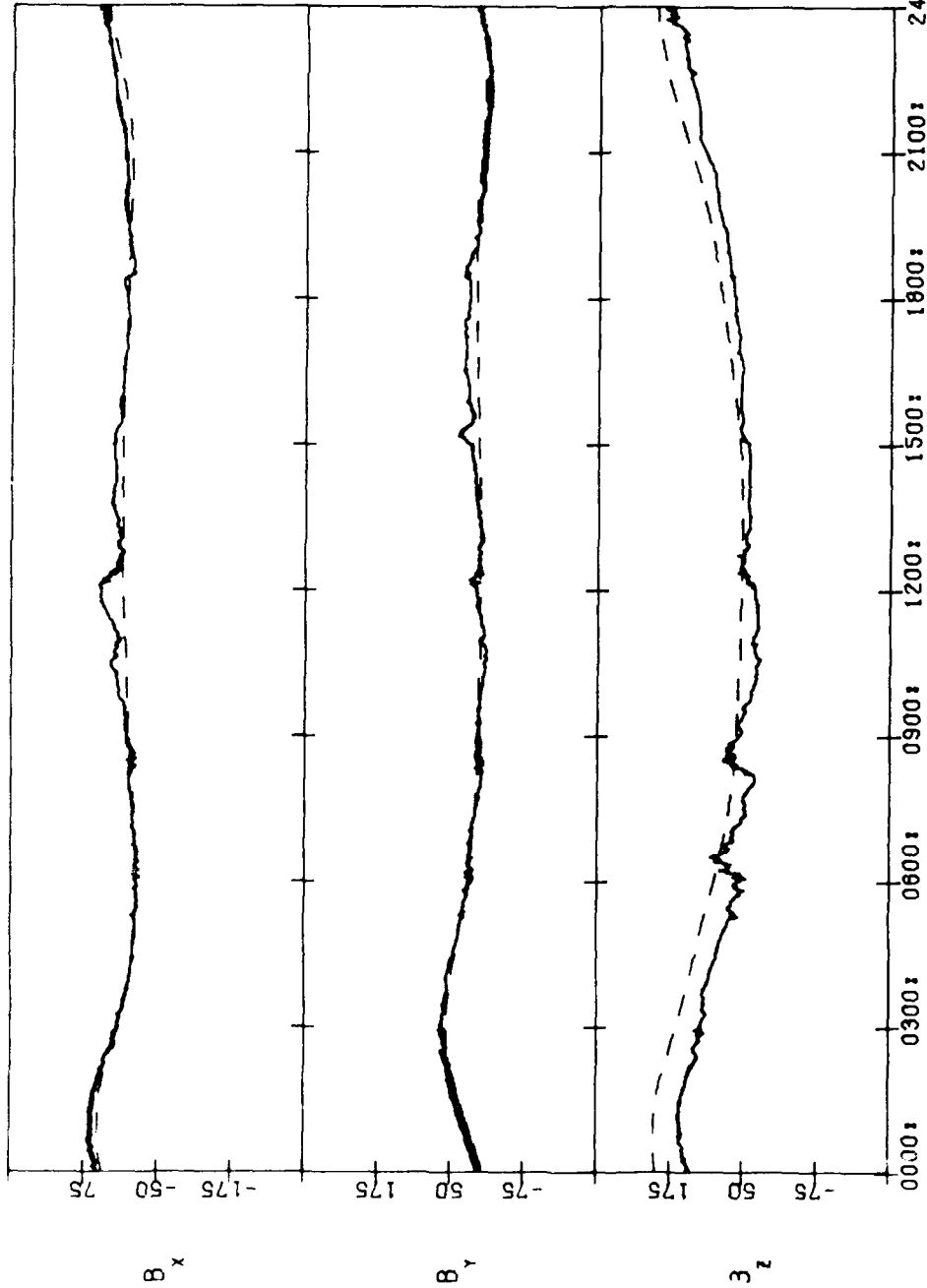
UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1058:	1524:	1919:	2211:	0028:	0234:	0451:	0740:	1127:
1116:	1538:	1921:	2200:	0009:	0223:	0458:	0759:	1146:
-4.5	-7.7	-6.2	-3.4	-1.6	-0.7	-0.3	-1.0	-4.2
5.5	5.5	6.4	7.7	8.2	8.3	7.2	6.3	5.4
1.9	-5.2	-6.4	-3.1	0.8	4.2	6.5	6.1	0.9
164.5	186.1	199.7	197.7	186.9	173.6	162.7	160.0	171.9

SCATHA SC11(SOLAR MAGNETIC)  
80184 08/12/80



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
0000:	0300:	0600:	0900:	1200:	1500:	1800:	2100:	2400:
1128:	1555:	1941:	2226:	0040:	0247:	0507:	0802:	1158:
1147:	1609:	1943:	2215:	0022:	0235:	0513:	0821:	1217:
-4.2	-6.8	-4.8	-2.1	-0.5	0.3	0.5	-0.5	-3.9
5.4	5.6	6.6	7.8	8.3	8.2	7.1	6.1	5.3
0.9	-5.8	-6.1	-2.6	1.3	4.6	6.6	5.8	-0.1
171.9	193.7	205.2	201.6	190.2	176.9	186.7	165.6	179.5

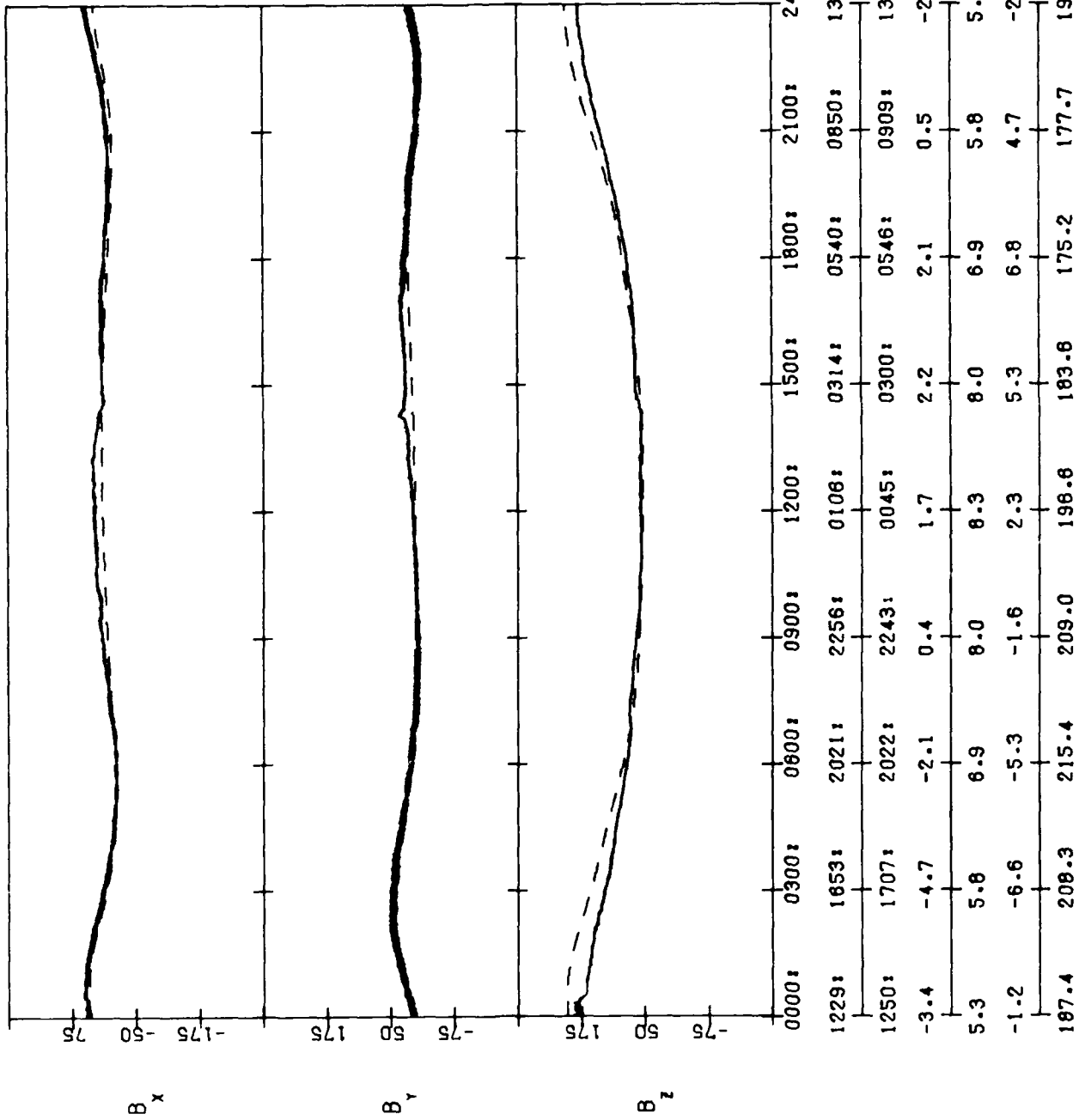
SCATHA SC11(SOLAR MAGNETIC)  
80165 08/13/80



UT	LOCAL TIME(HHMM:)	MAG. TIME(HHMM:)	MAG. LAT	L-SHELL	LATITUDE	LONGITUDE		
00:00	0300	0600	0900	1200	1500	1800	2100	2400
1624:	2001:	2241:	0053:	0300:	0523:	0828:	1229:	
1636:	2003:	2229:	0033:	0247:	0530:	0845:	1249:	
-5.8	-3.5	-0.9	0.6	1.2	1.3	0.0	-3.4	
5.7	6.7	7.9	8.3	8.1	7.0	6.0	5.3	
-6.3	-5.7	-2.1	1.8	5.0	6.7	5.3	-1.1	
201.2	210.4	205.4	193.4	180.2	170.9	171.5	187.4	

SCATHA SC11(SOLAR MAGNETIC)

80166 06/14/80



### 3. SPACECRAFT POTENTIAL DATA BASE, SC10

#### 3.1 Instrument Description

The NASA/Goddard SC10 instrument on the SCATHA satellite, built and operated under the direction of T.L. Aggson, consists of a 100 m tip-to-tip dipole antenna configuration with the inner 30-m sections of the 50-m antennas coated with Kapton insulation. See Stevens and Vampola<sup>3</sup> for further information. One of the measurements made by SC10 is a common mode voltage between one of the 50-m antennas and spacecraft ground. When the conducting tip floats at plasma potential, this mode of operation provides high-time resolution (twice per second) measurement of the satellite frame potential. The materials and length of the booms should guarantee this to be the case in sunlight for satellite potentials less than approximately 1 kV to within an accuracy of several volts. Comparison of satellite potential measurements of SC10 with the particle ion-peak method show excellent agreement<sup>4</sup>. It is believed that the SC10 experiment works so well as a measurement of spacecraft potential in sunlight because copper beryllium, which constitutes the active outer 20-m element of the boom, has such a high work function that the current from high-energy particles impinging upon it can easily be compensated by photoemission. Also, by insulating the first 30 m of the boom from the spacecraft, the spacecraft sheath during sunlight charging does not significantly, if at all, impact the outer element of the boom. This is not the case for charging during eclipse.

The high time resolution of the SC10 measurement shows that vehicle potential changes very rapidly with both sun angle and environment<sup>4</sup>. The spin variation results from different surface materials and booms facing the sun at different times within a spin. In the data that follows, the spin angle variation is removed by giving only one point per spin. The point chosen is the peak value determined when the environment is relatively constant. The data were also edited to eliminate beam operations, satellite eclipse periods, and noise spikes.

#### 3.2 Description of Data Presentation: SC10 Spacecraft Potential

In each Figure the value of the negative of the frame potential measured using the common mode of the SC10 electric field experiment is plotted as a function of Universal Time for a 24-hour period. Only one point per spin is plotted. The scale is logarithmic above 10 V, and linear below. The data are edited as described above.

<sup>3</sup>Stevens, J.R., and Vampola, A.L., Eds. (1978) *Description of the Space Test Program P78-2 Spacecraft and Payloads*, SAMSO-TR-78-24, 50 pp.

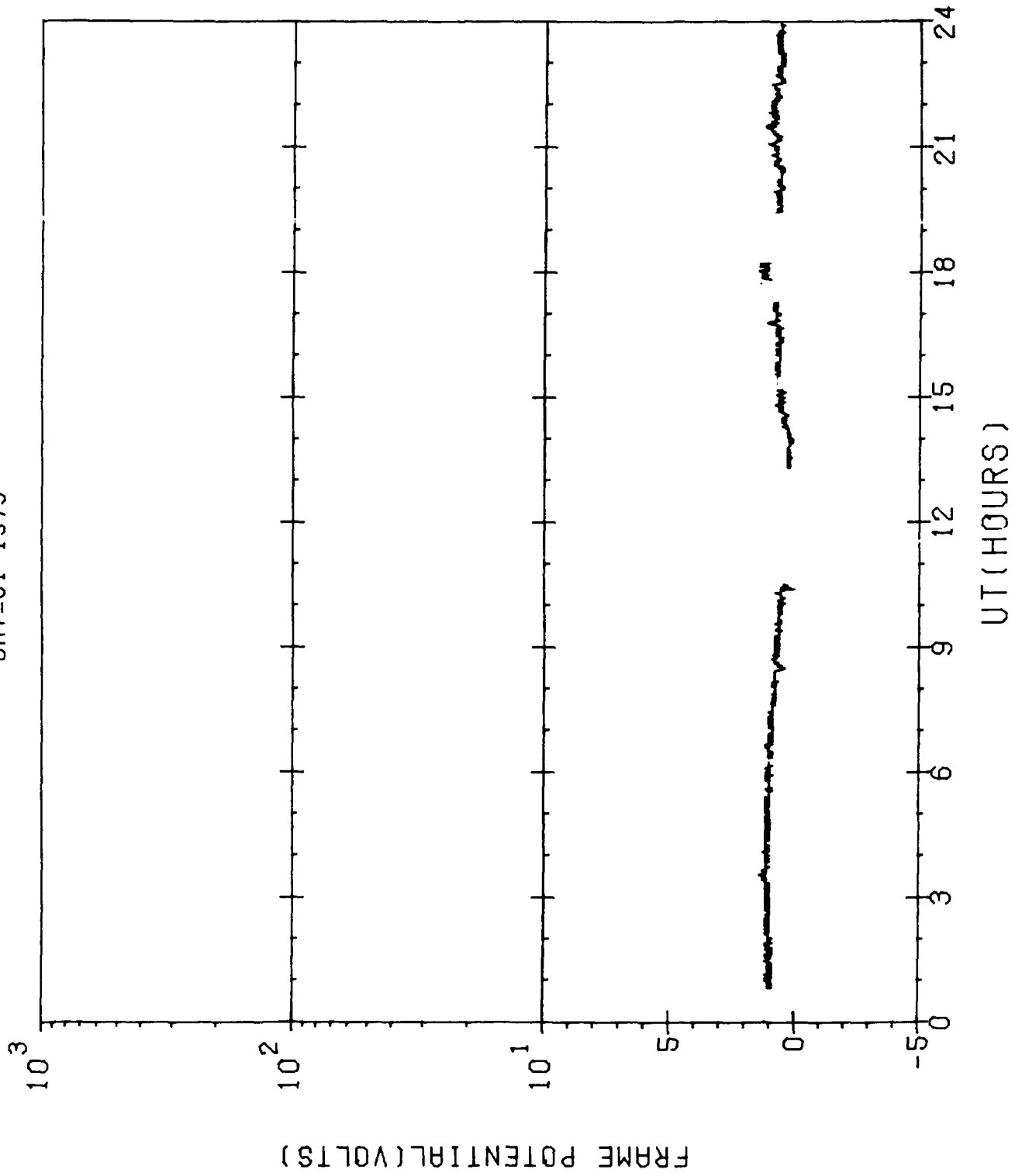
<sup>4</sup>Mullen E.G., Gussenhoven, M.S., Hardy, D.A., Aggson, T.A., Ledley, B.G., and Whipple, E. (1986), SCATHA survey of high-level spacecraft charging in sunlight, *J. Geophys. Res.*, 91:1474.

### 3.3 Calendar of Days for which SC10 Spacecraft Potential are Presented

1979											1980						
DAY	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	DAY
1		091	121														1
2			122														2
3		093															3
4		094				216					004						4
5		095		156				278				036					5
6								279				037					6
7			127	158	188			280	311	341							7
8								281									8
9				160				282									9
10																	10
11							254					042					11
12																	12
13		103		164		225			317								13
14																	14
15				166								046					15
16																	16
17										351							17
18			138				261				018						18
19					200		262										19
20		110				232											20
21		111		172			264										21
22	081	112	142														22
23										357							23
24		114	144						328								24
25		115	145		206				329	359							25
26																	26
27		117		178					331	361	027						27
28	087	118					271	301			028						28
29	088	119	149	180		241	272				363						29
30		120					273										30
31	090																31

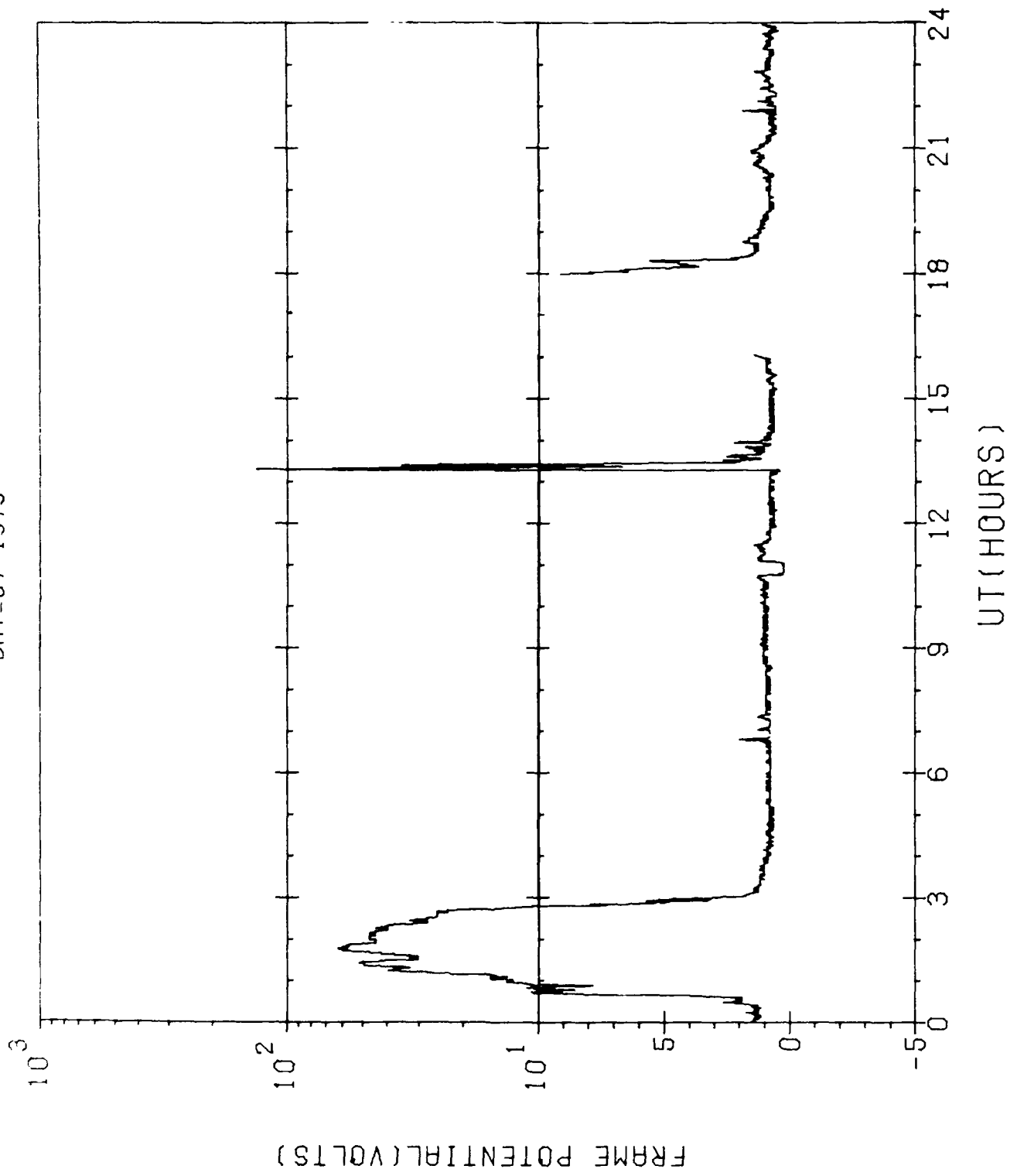
### 3.4 Data Presentation; SC10 Spacecraft Potential

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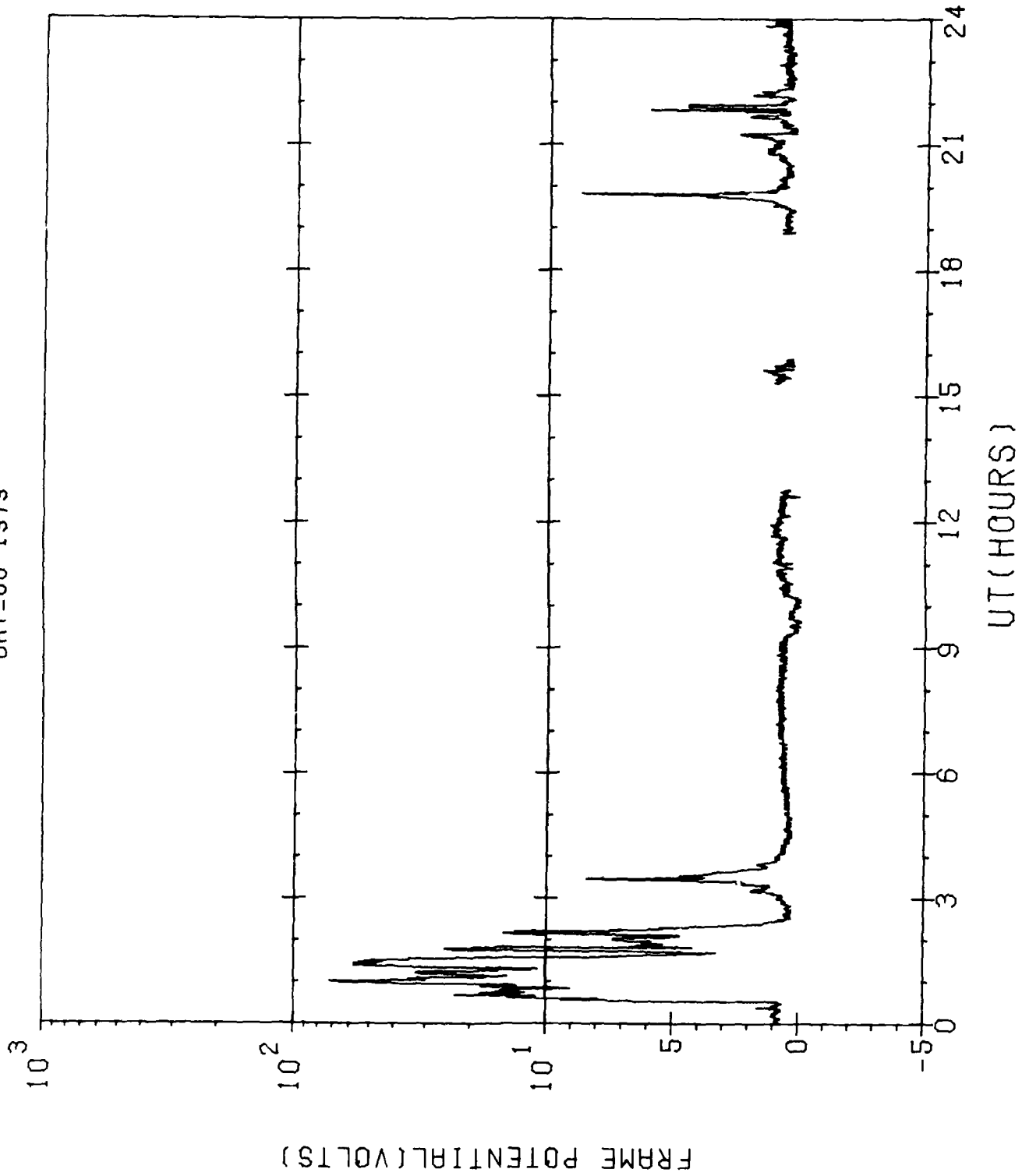




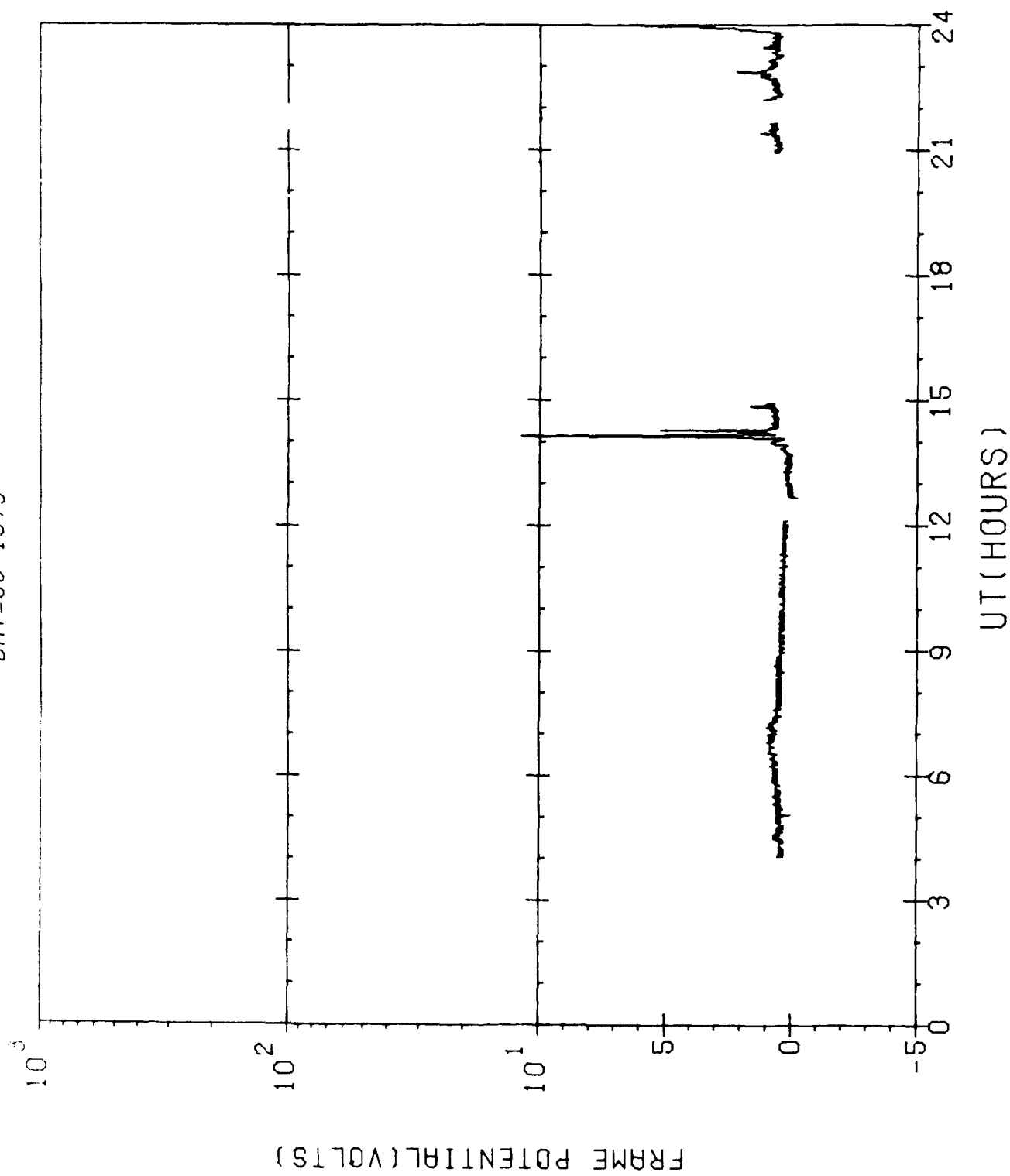
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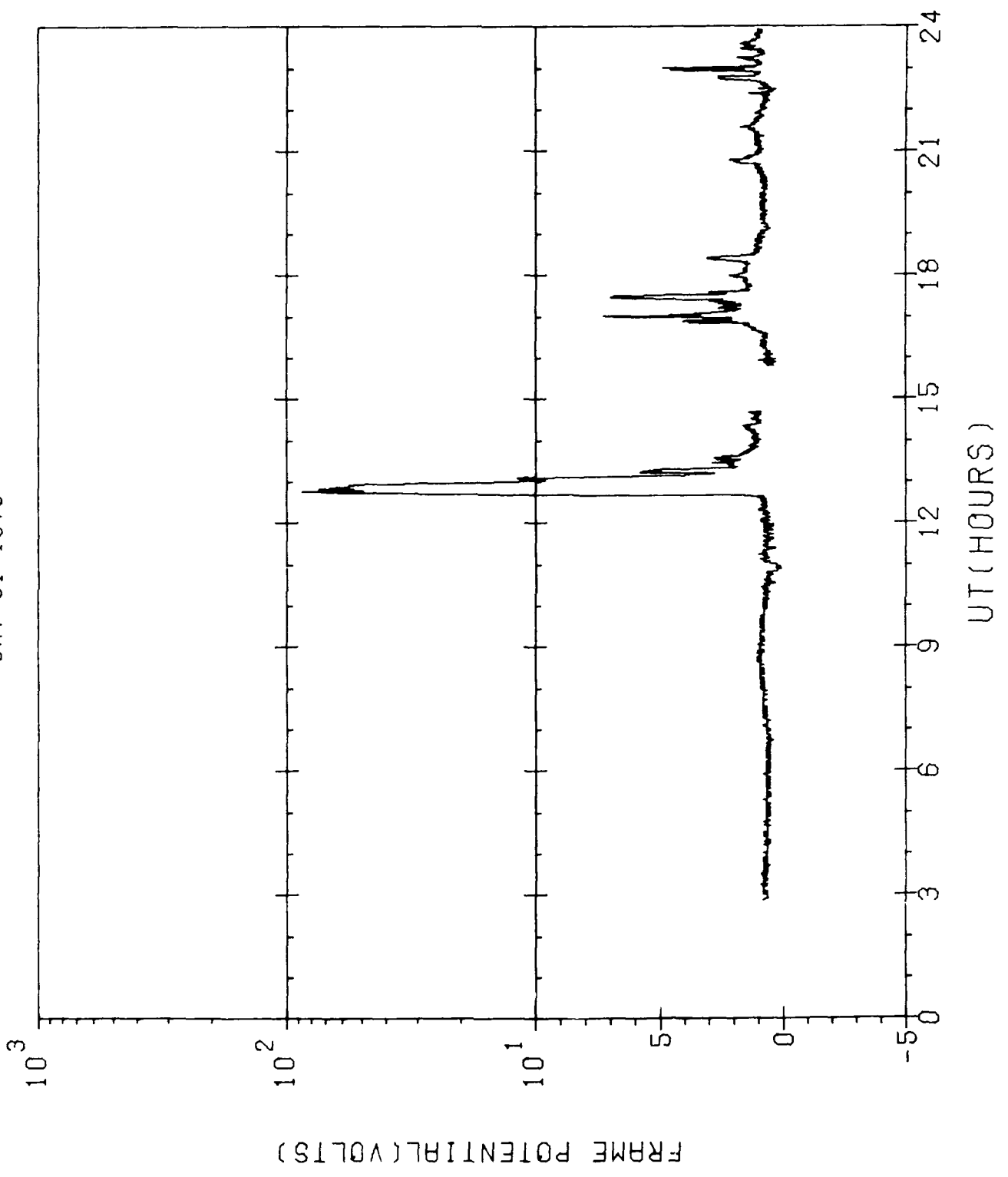
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DAY=88 1979



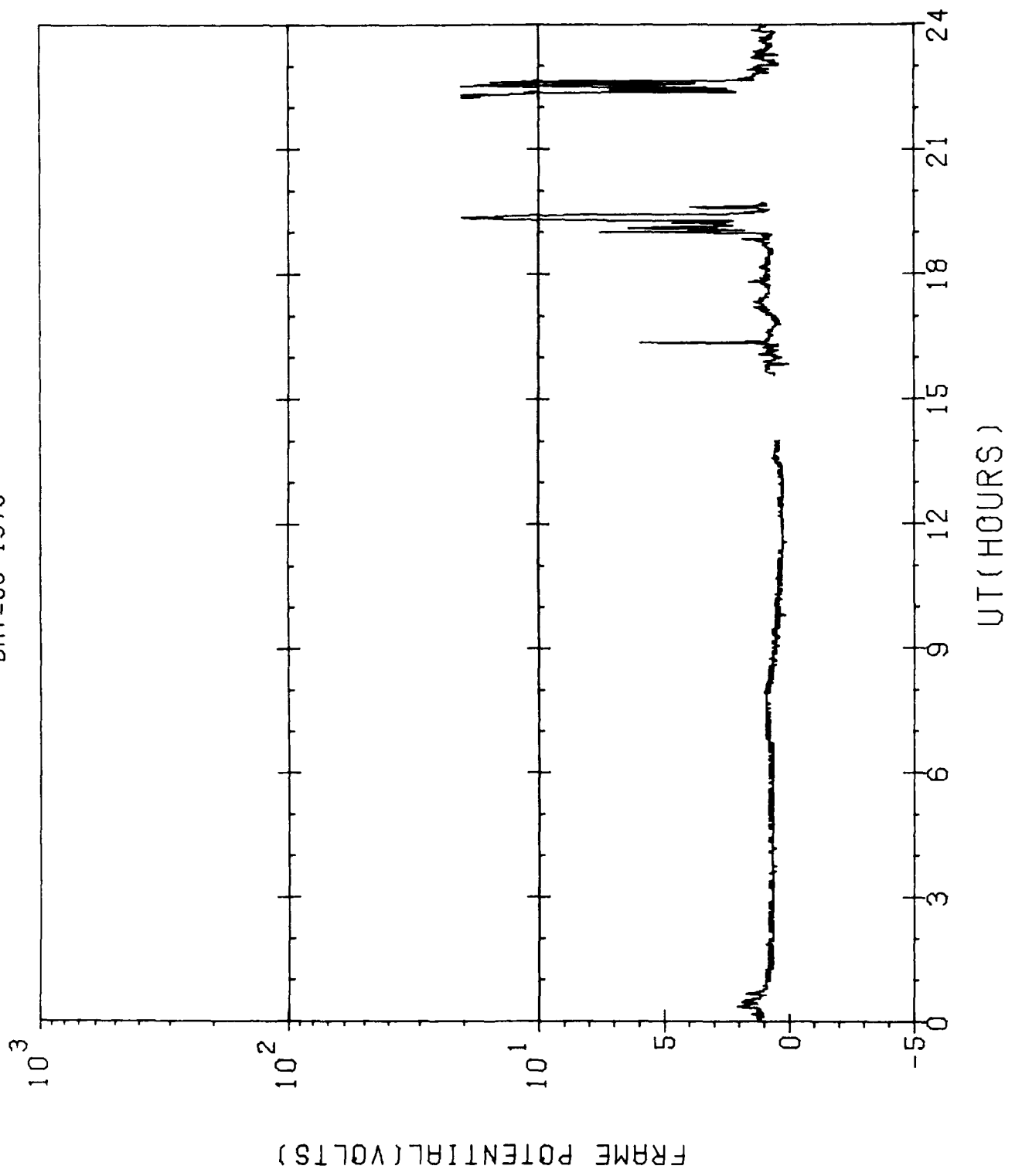
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DAY=90 1979



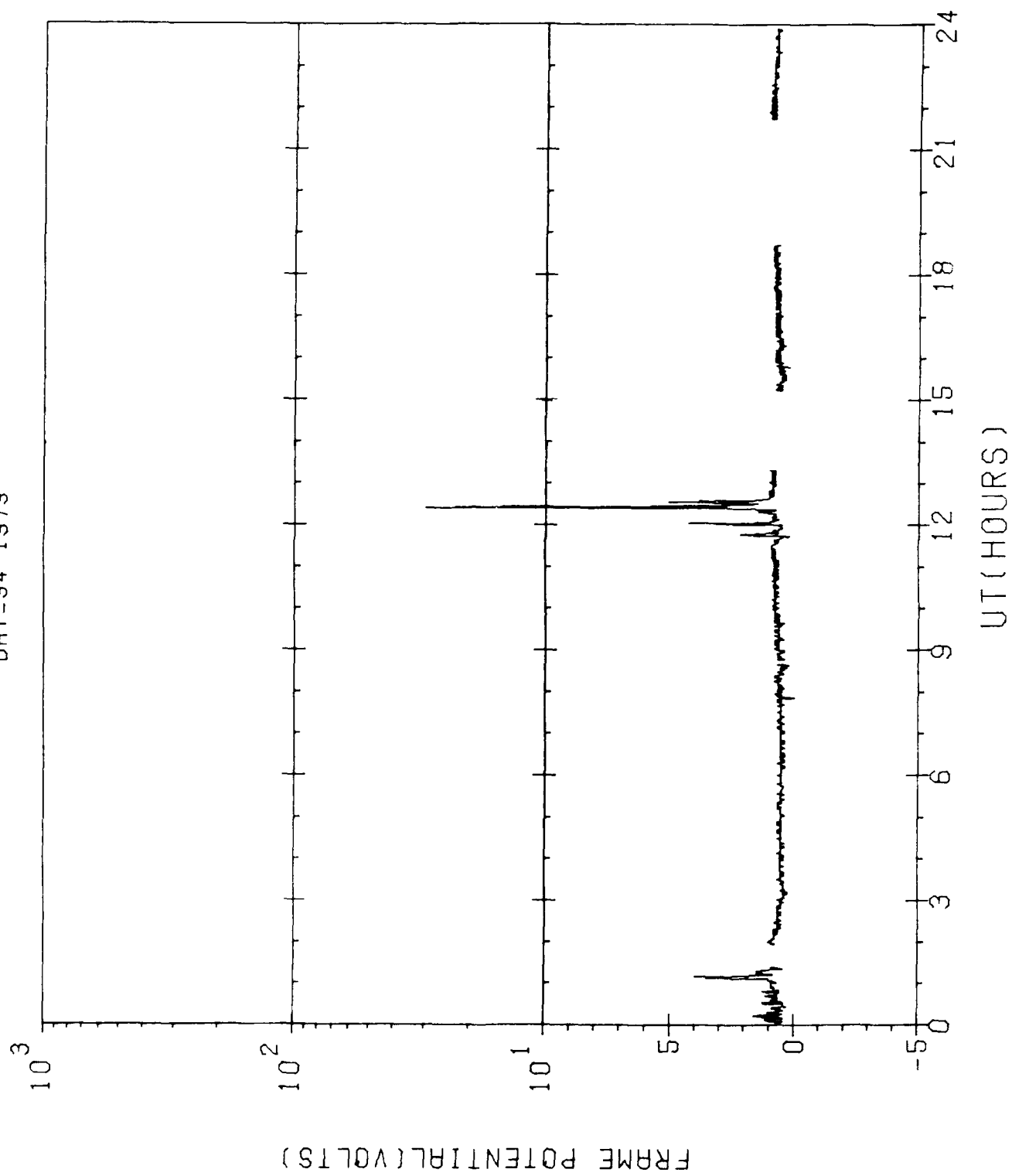
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DAY=91 1979



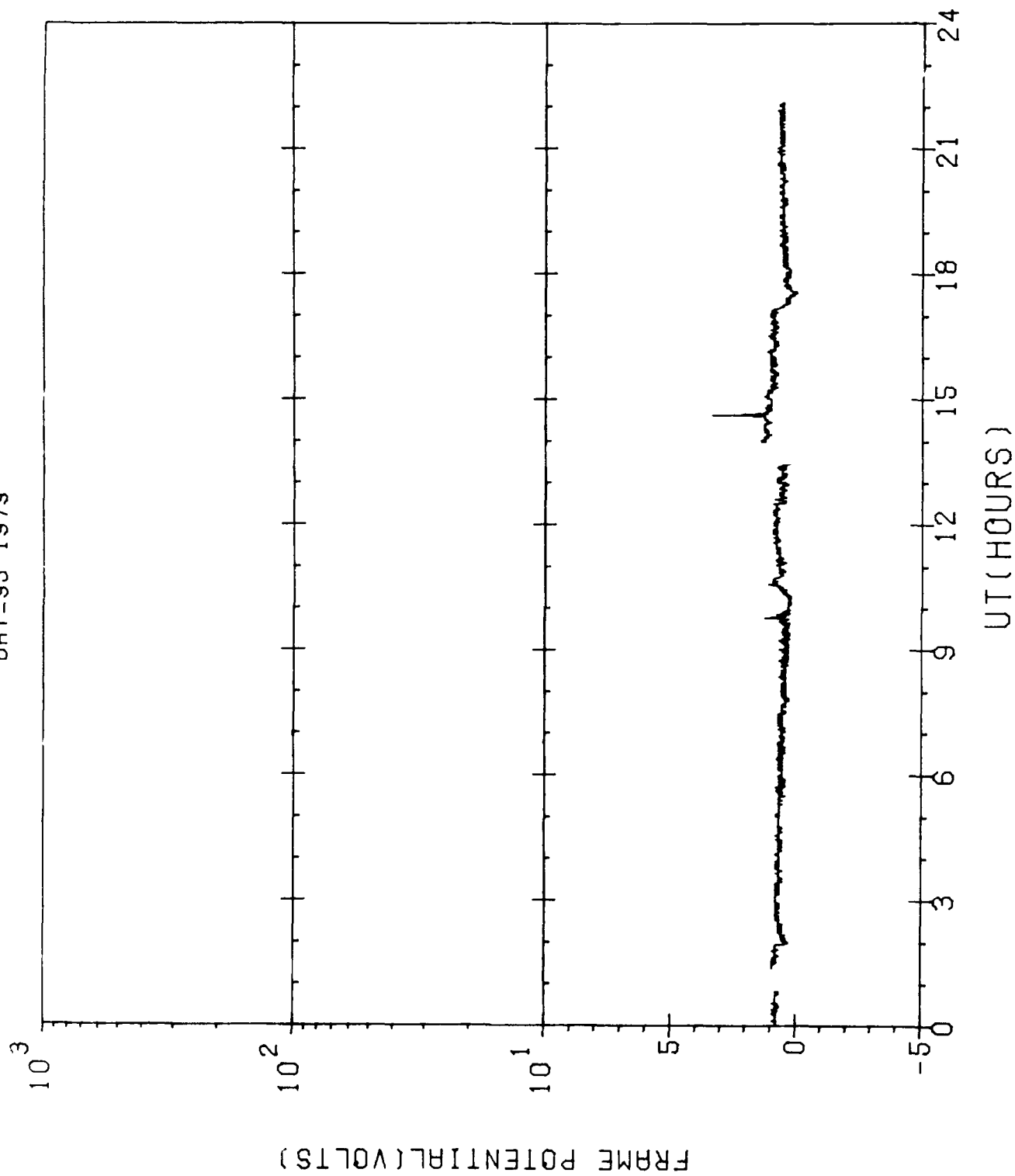
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DAY=93 1979



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DAY=94 1979

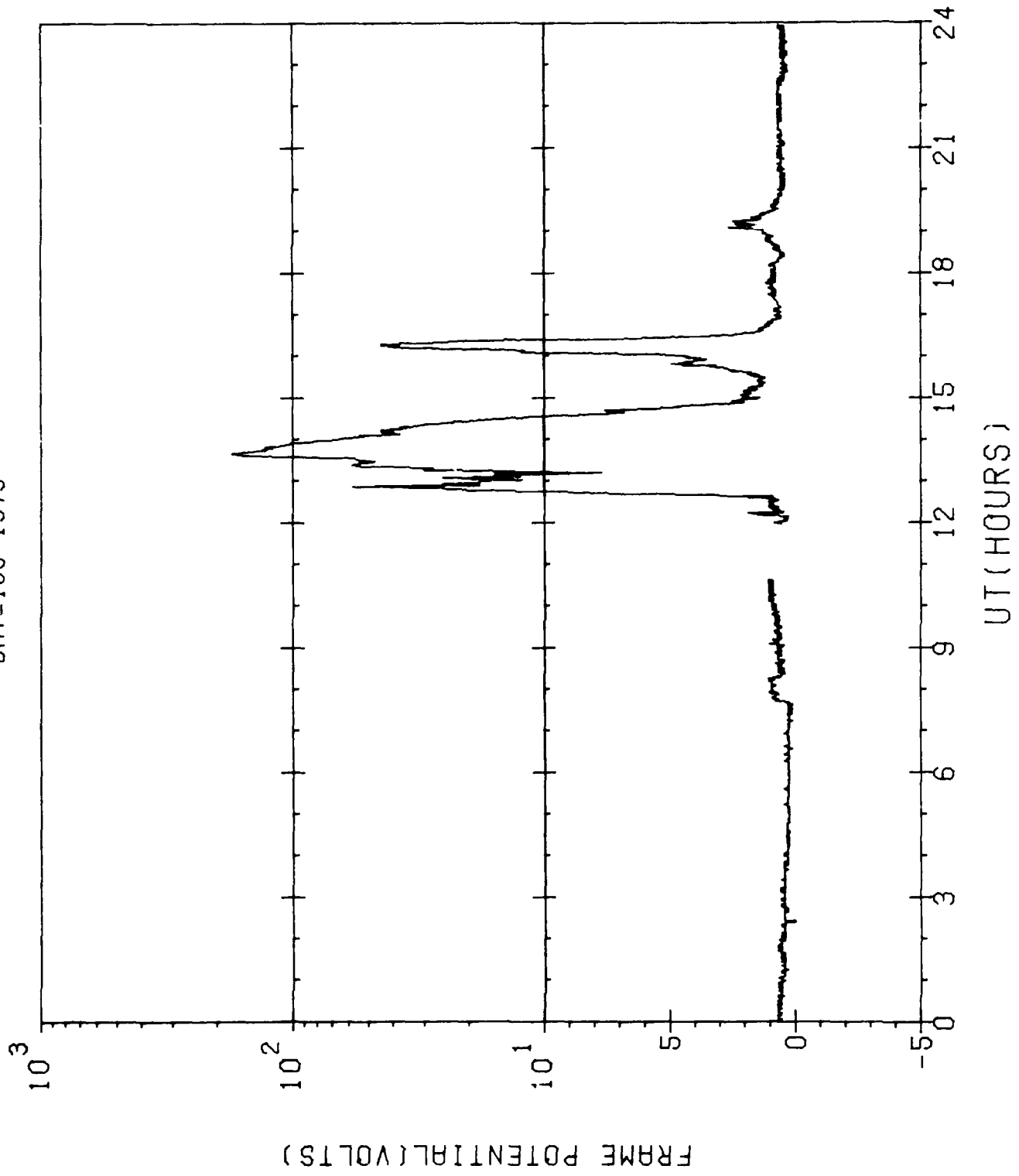


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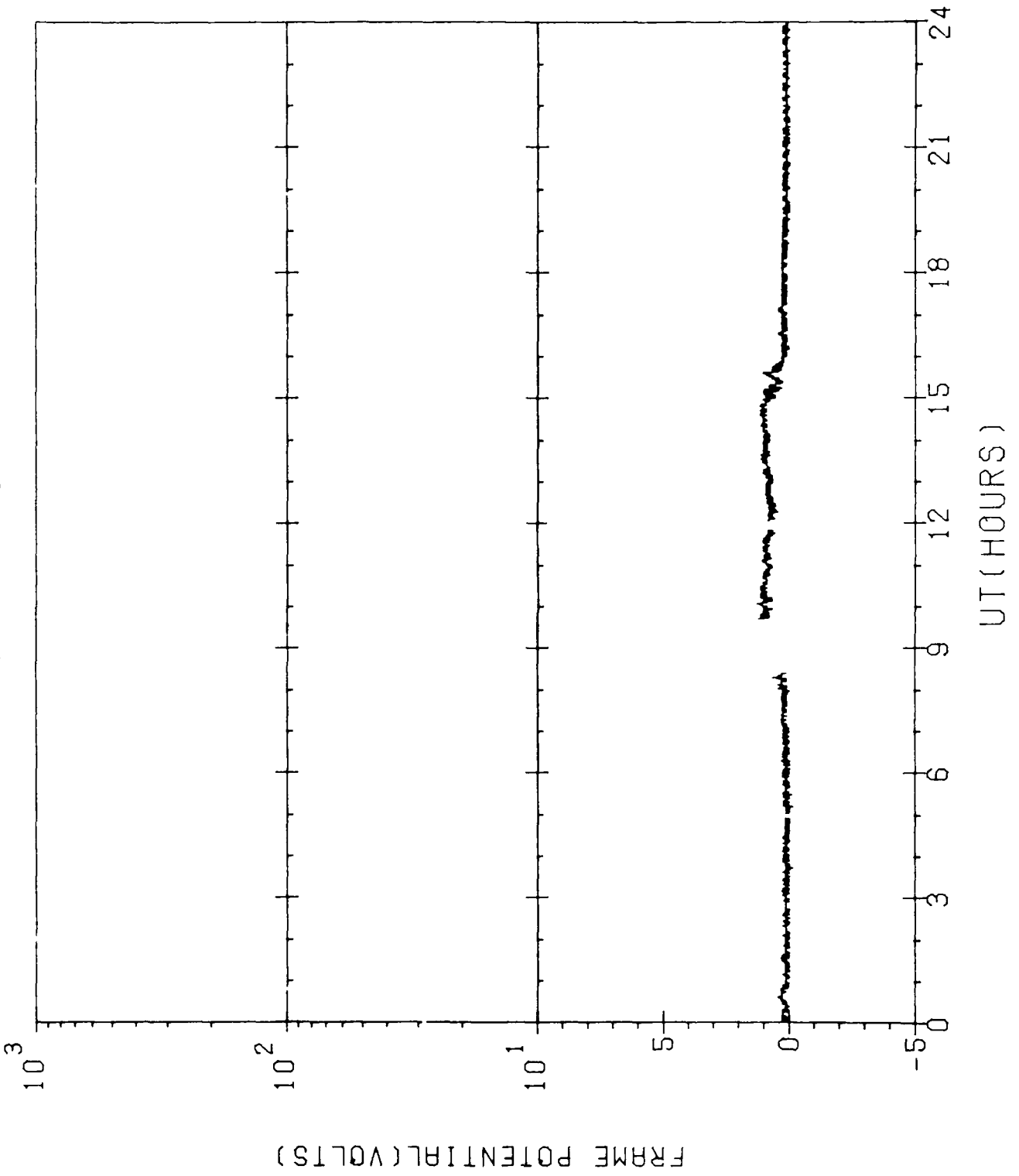
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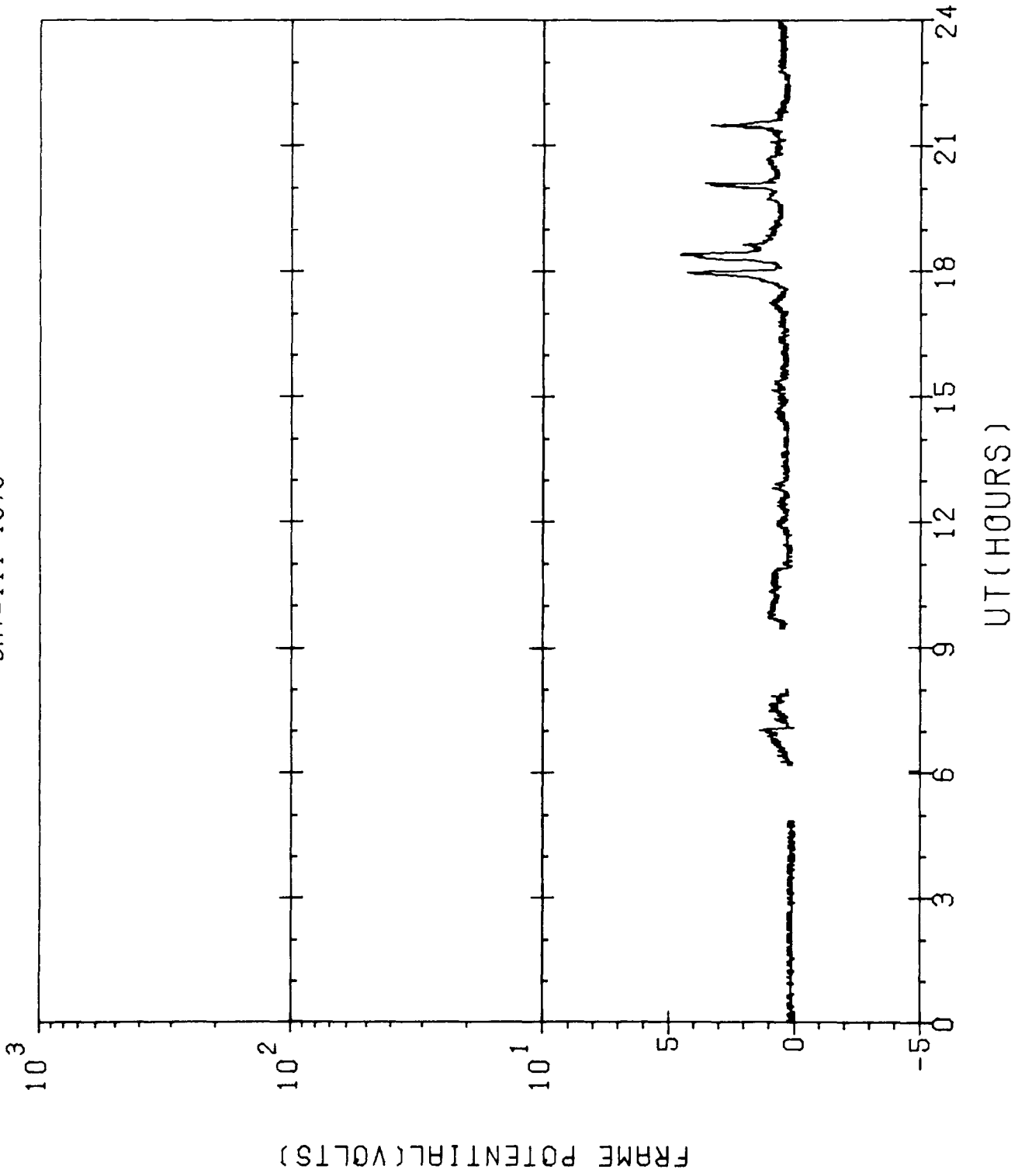




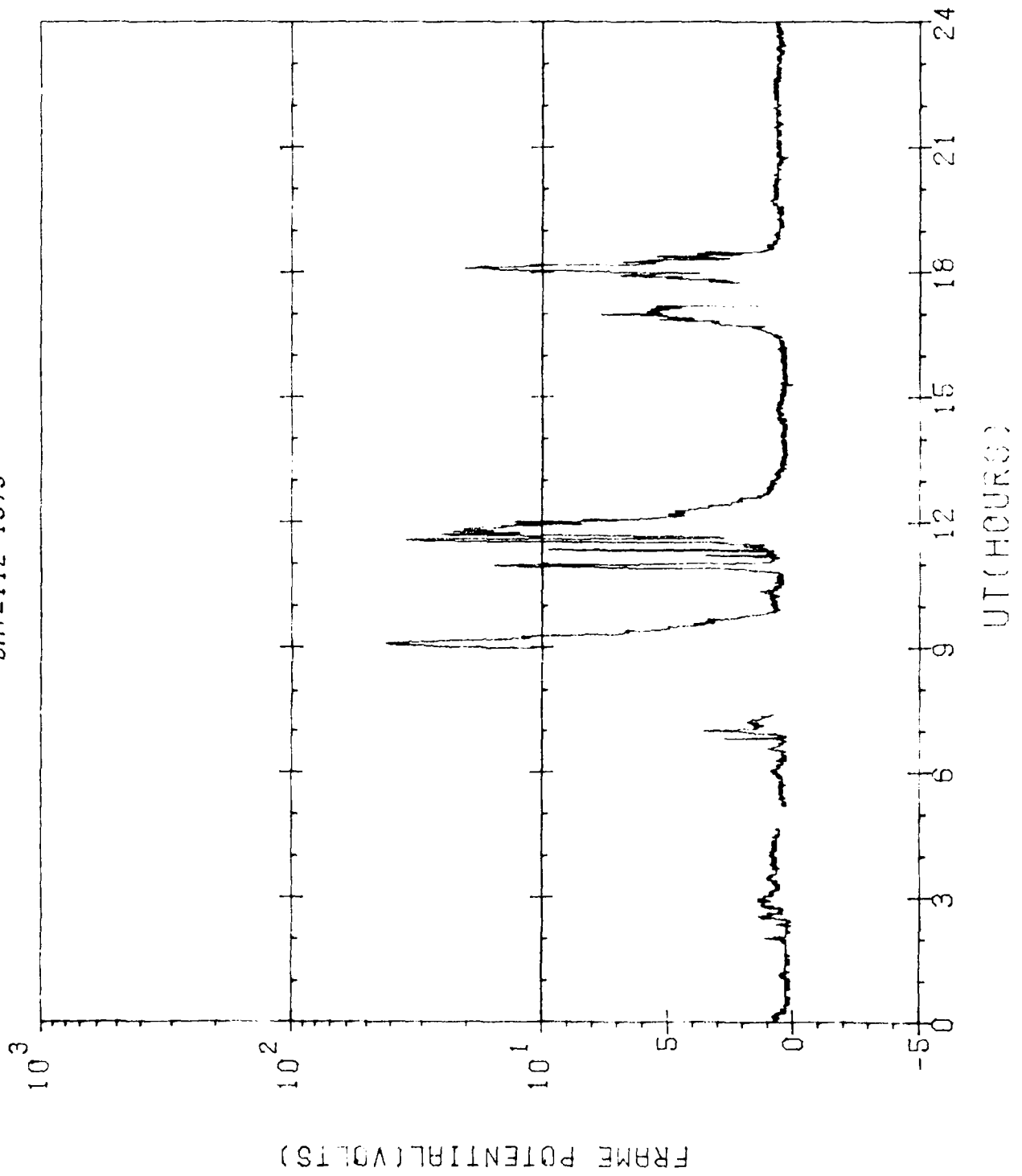
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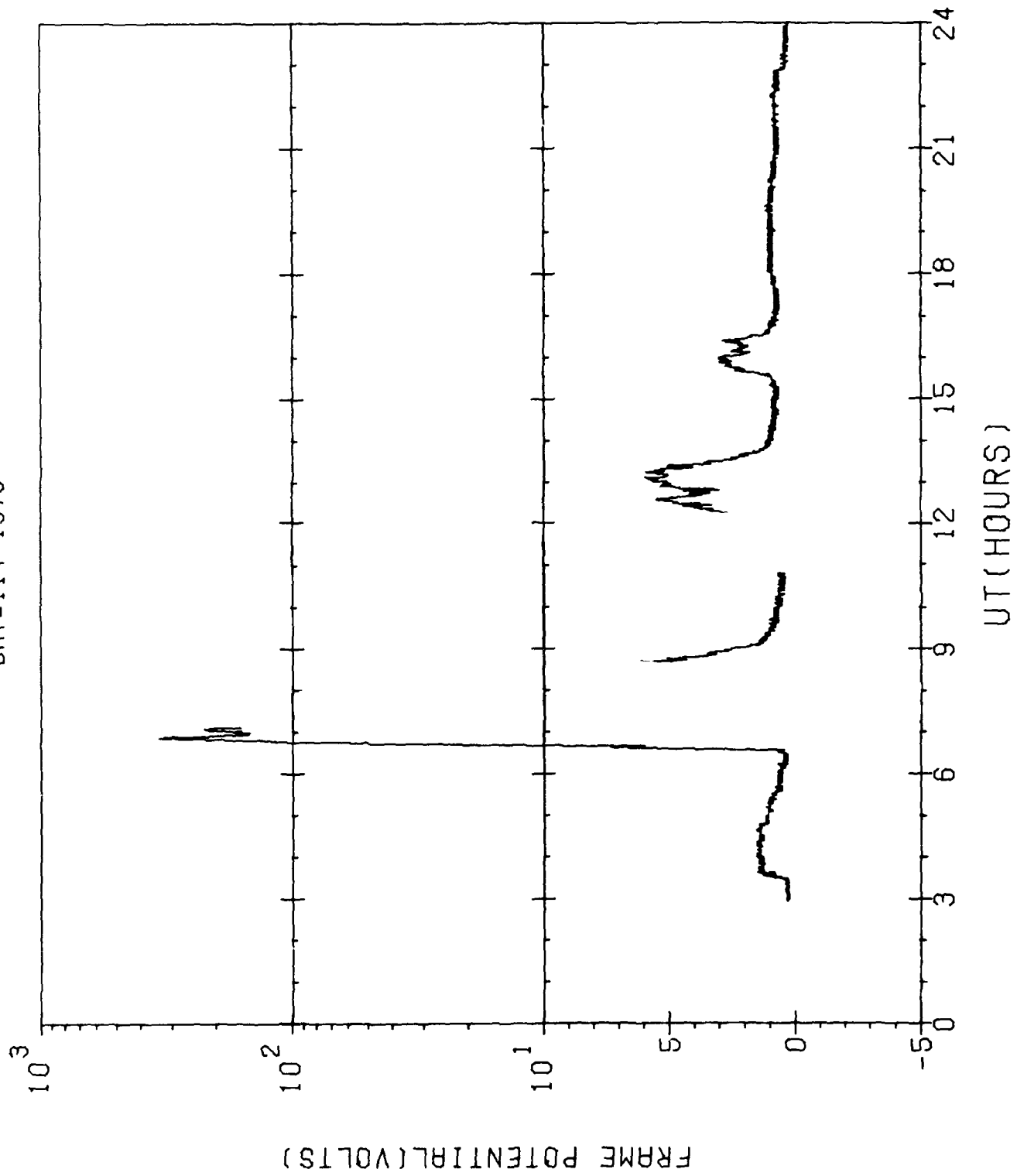
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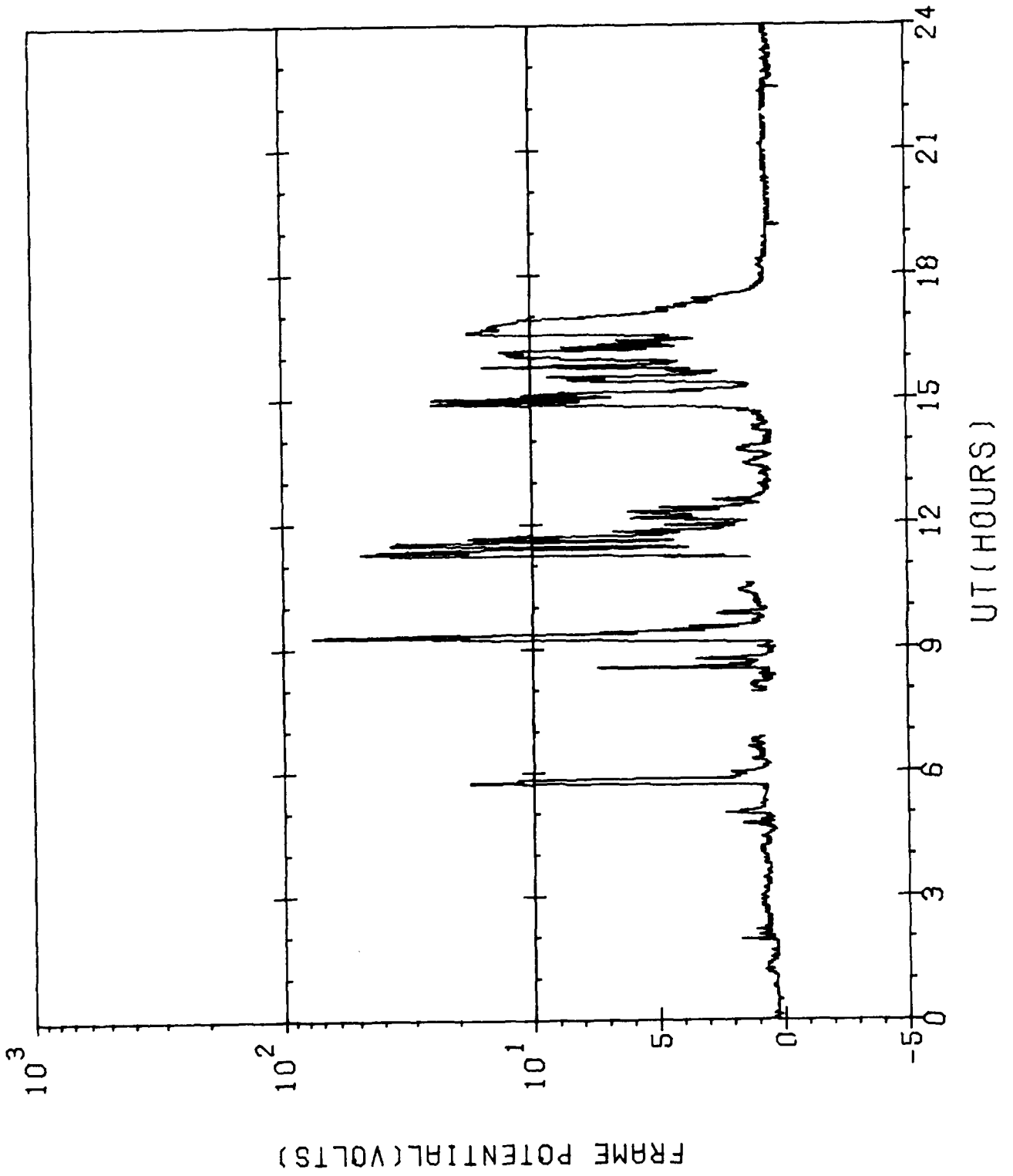
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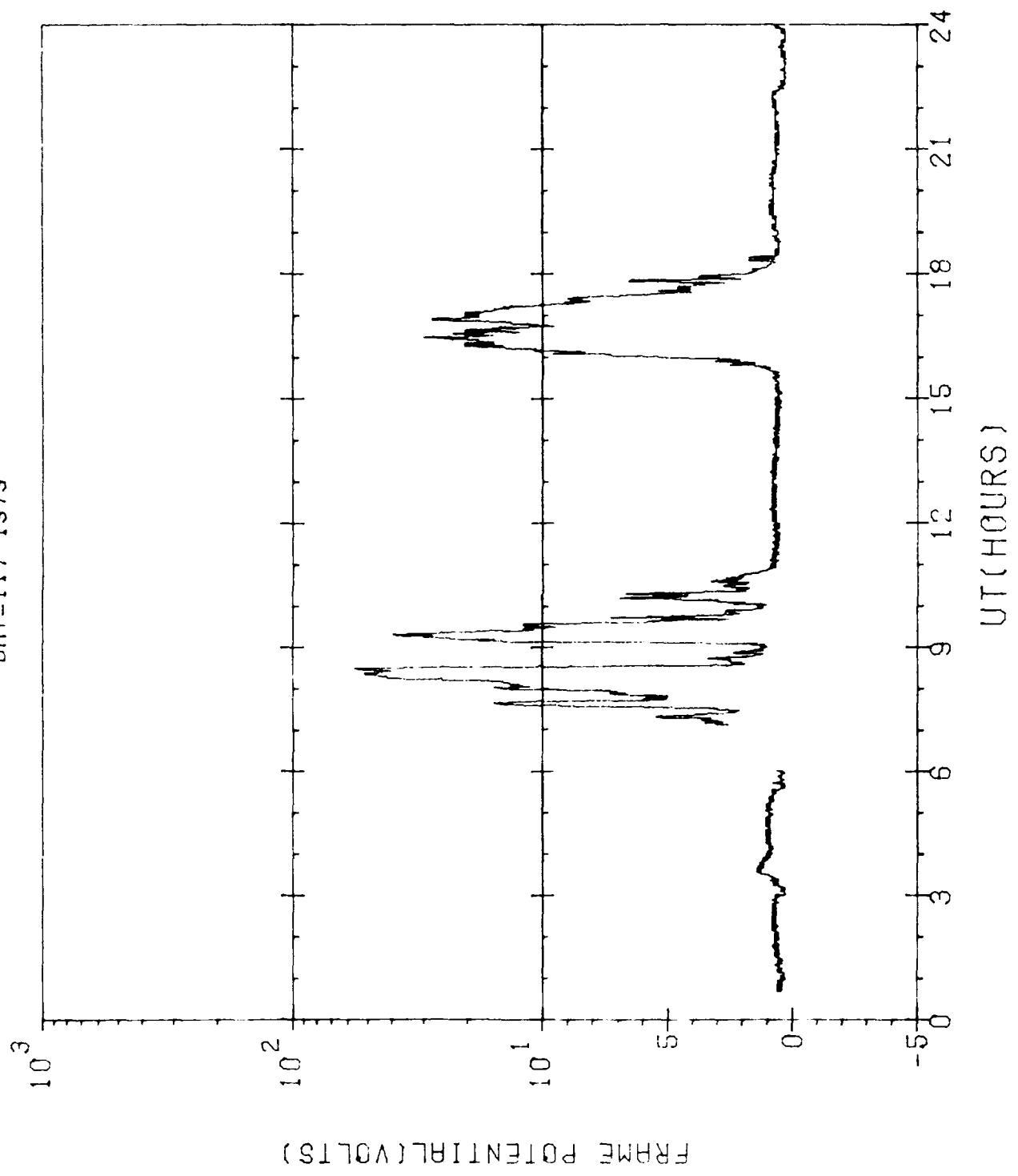
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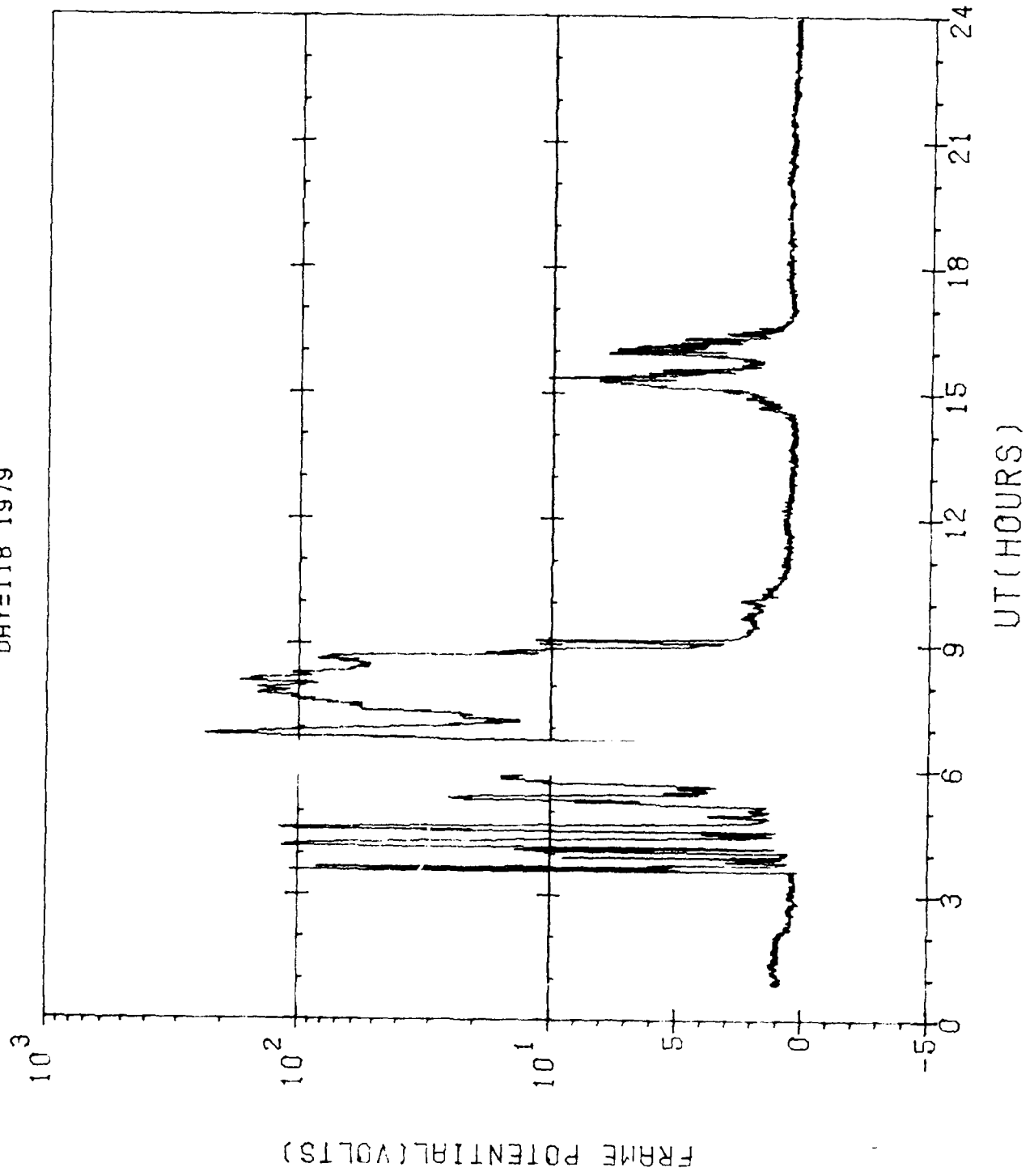
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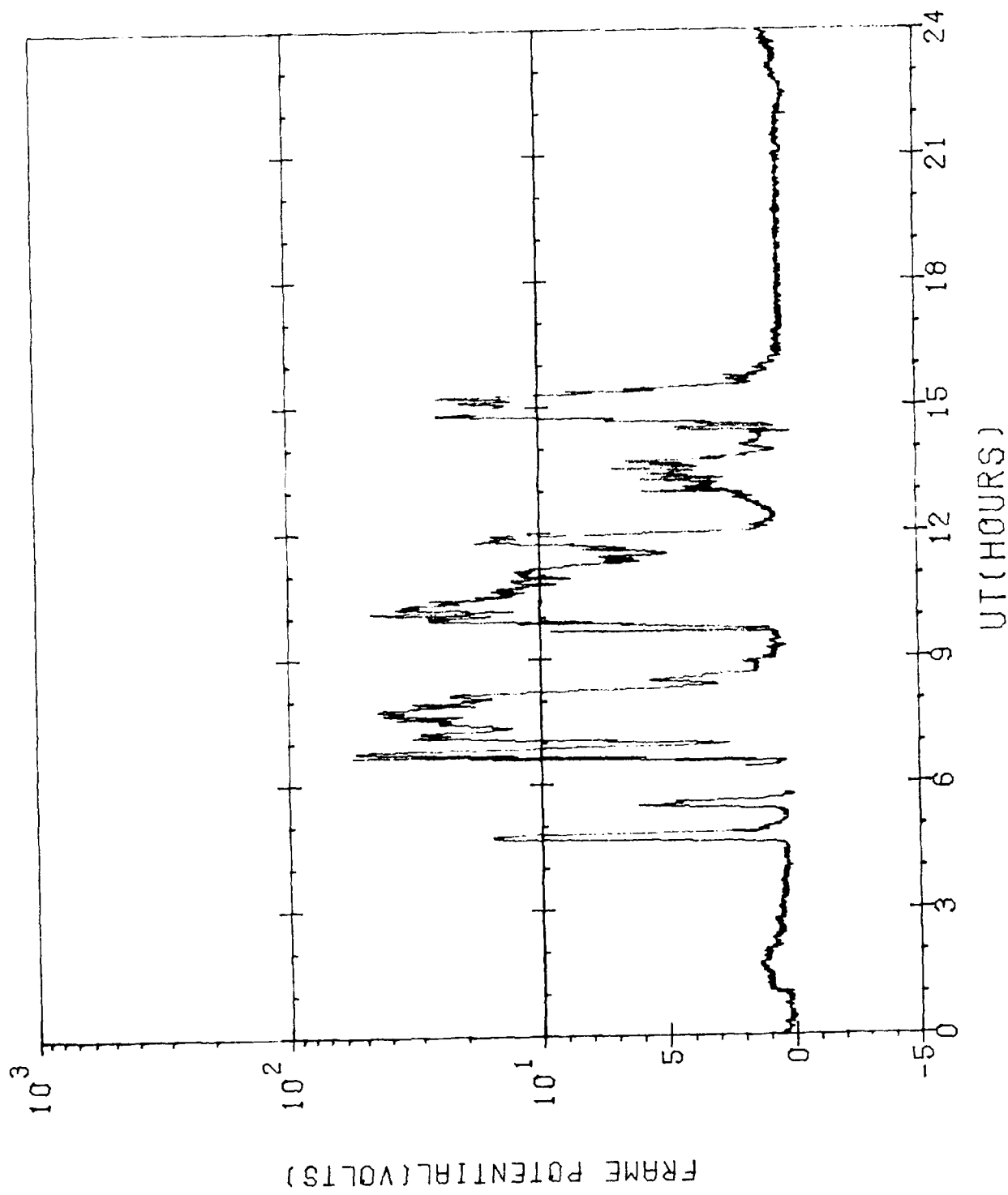
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DAY=117 1979



SCATHA-SC10(ATLAS)  
DAY=118 1979

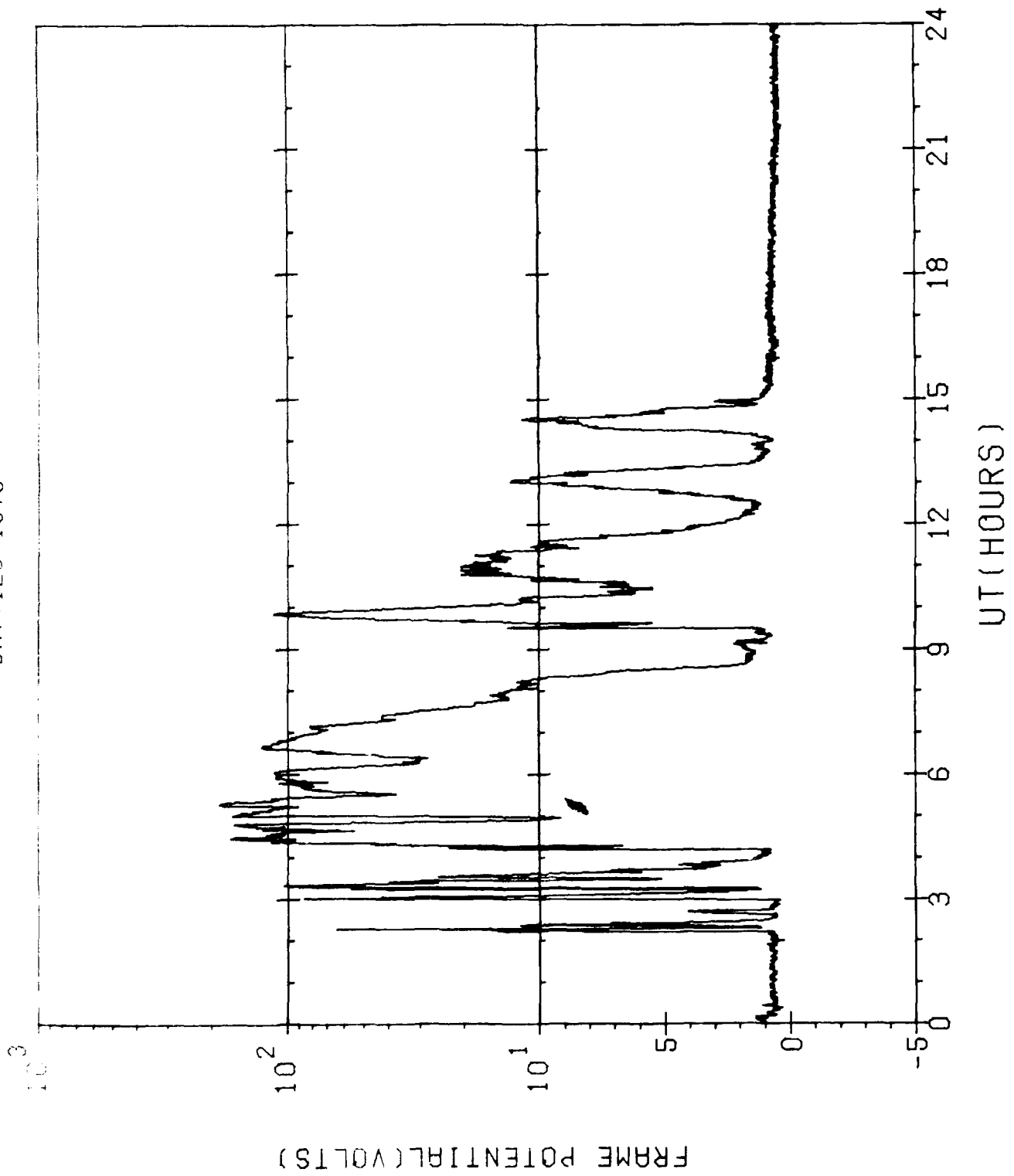


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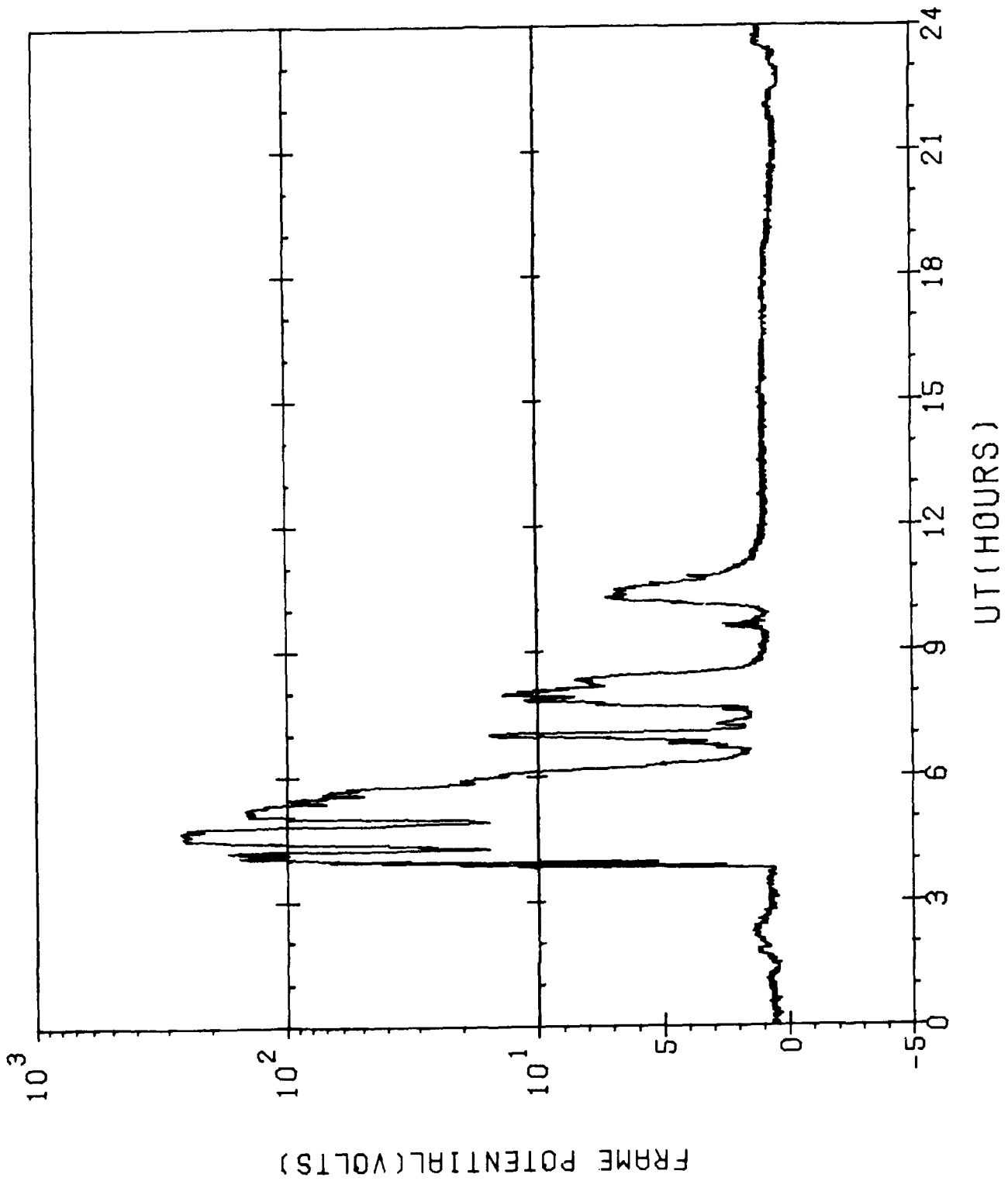




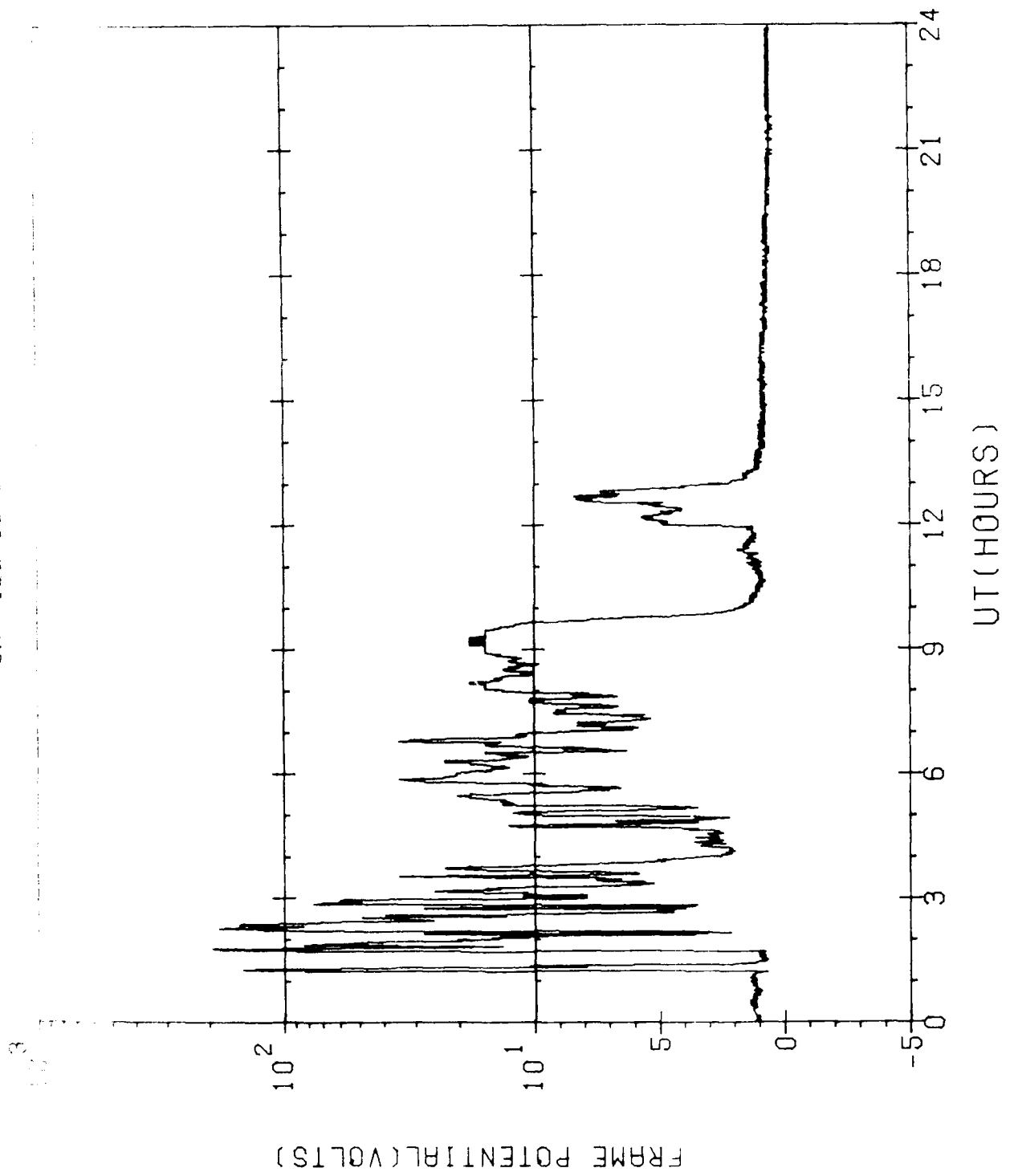
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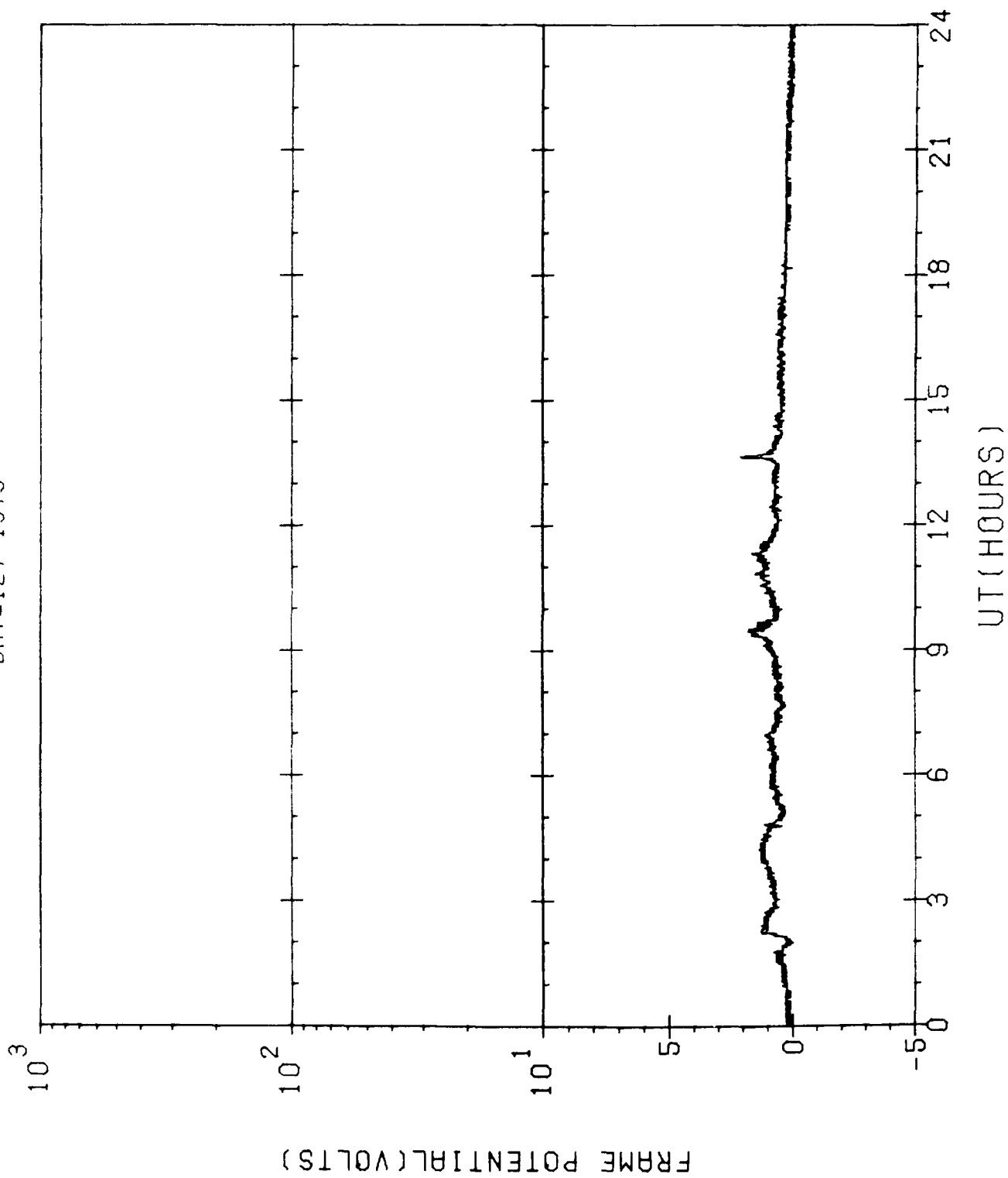
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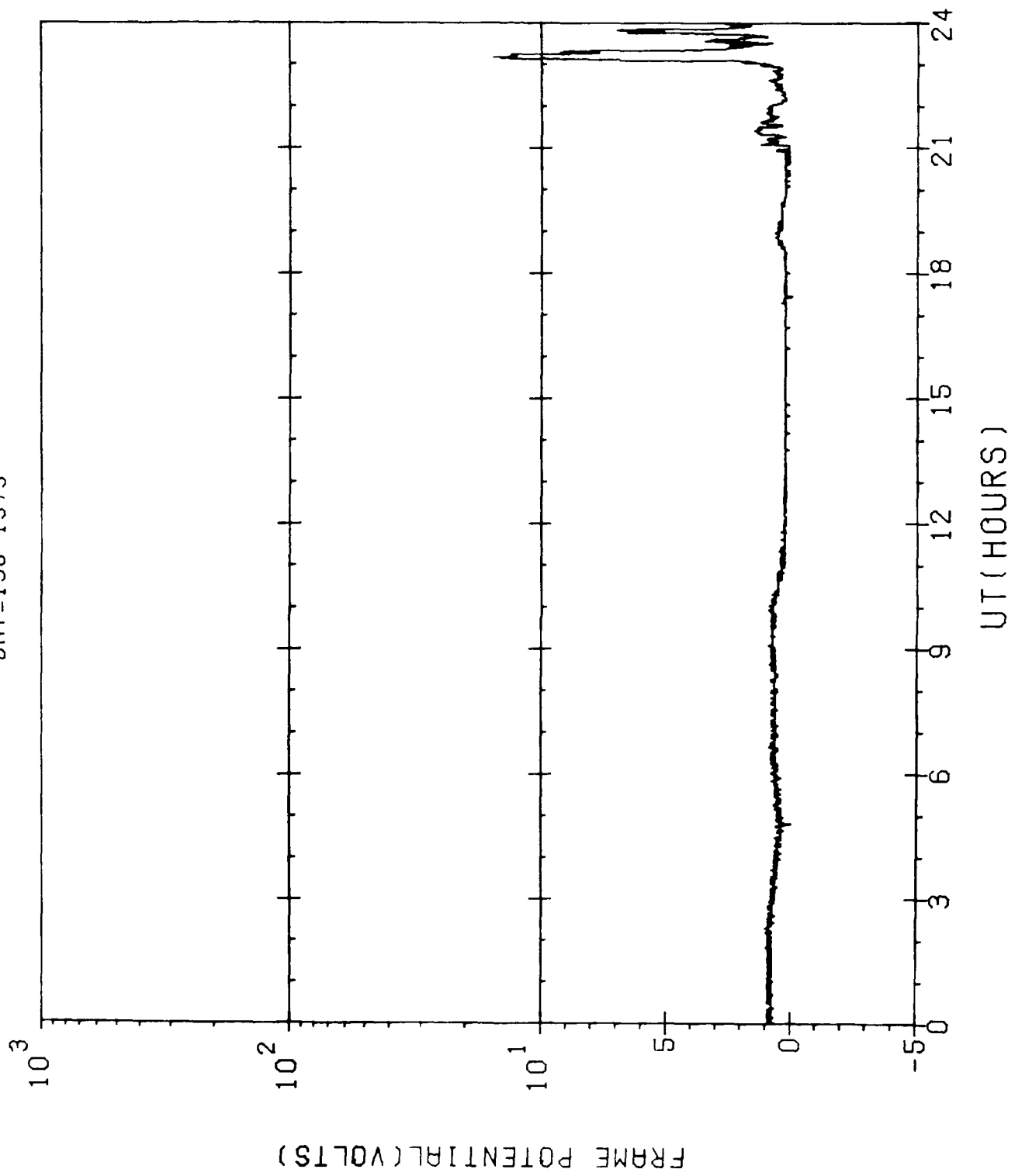
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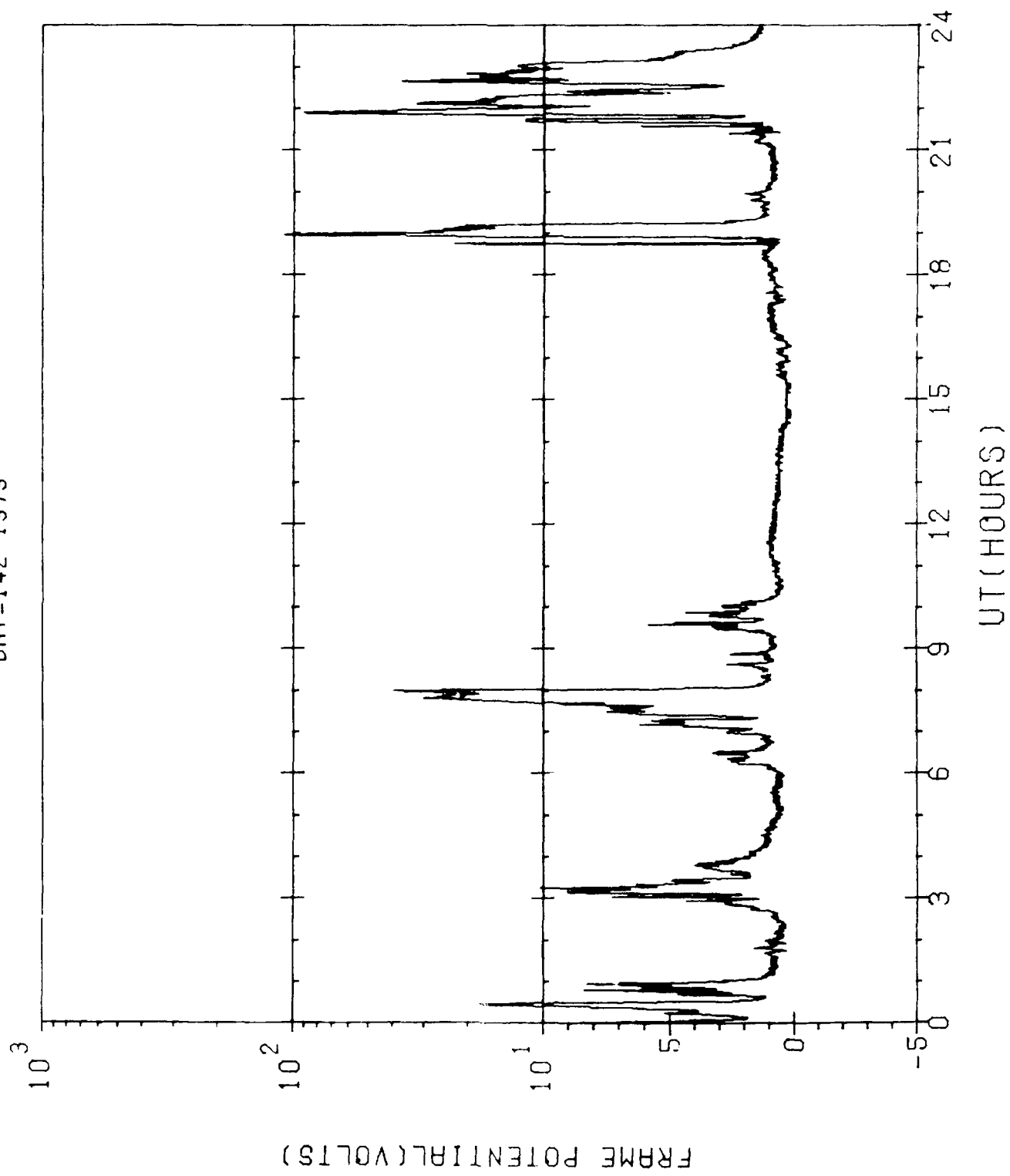
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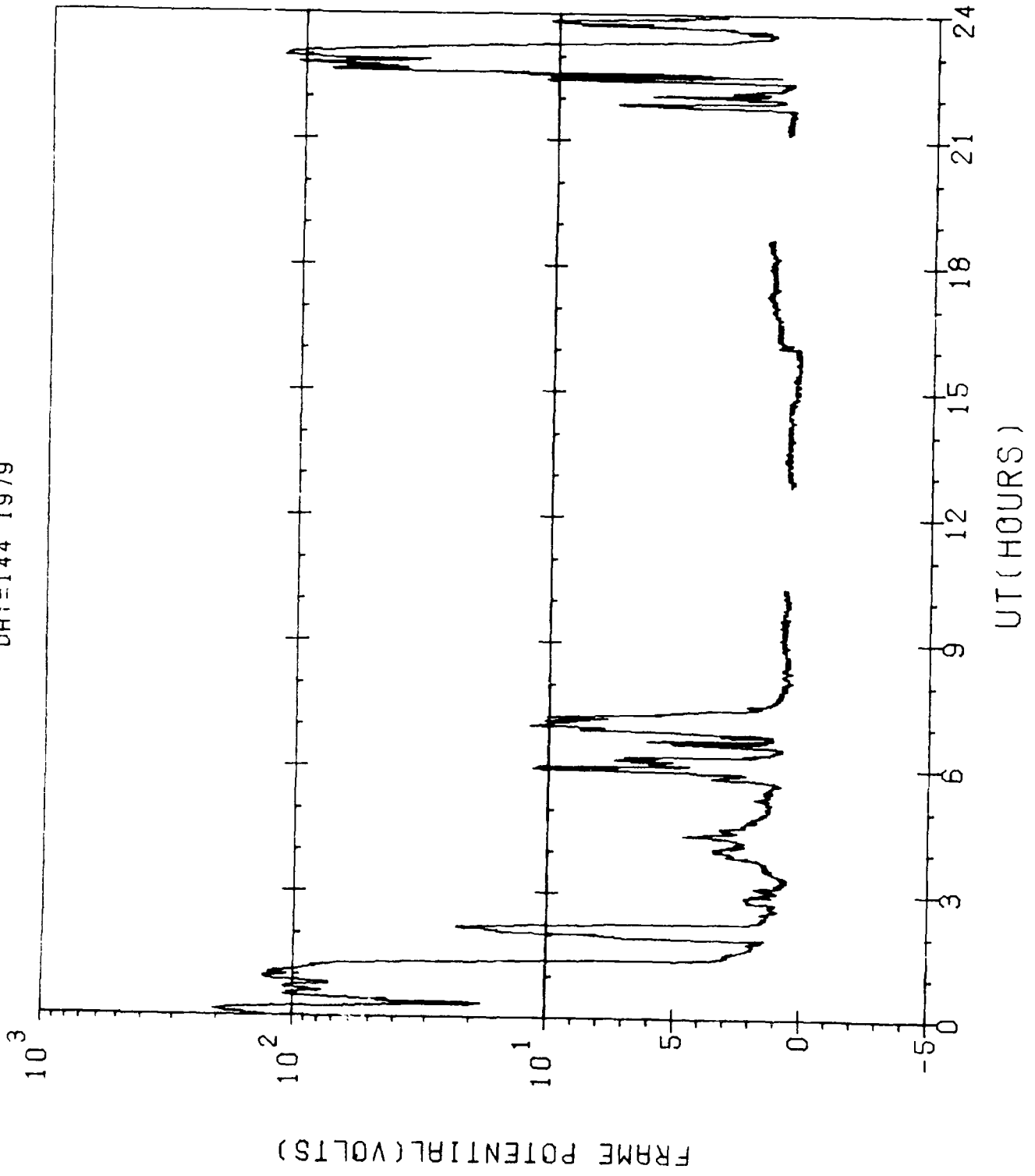
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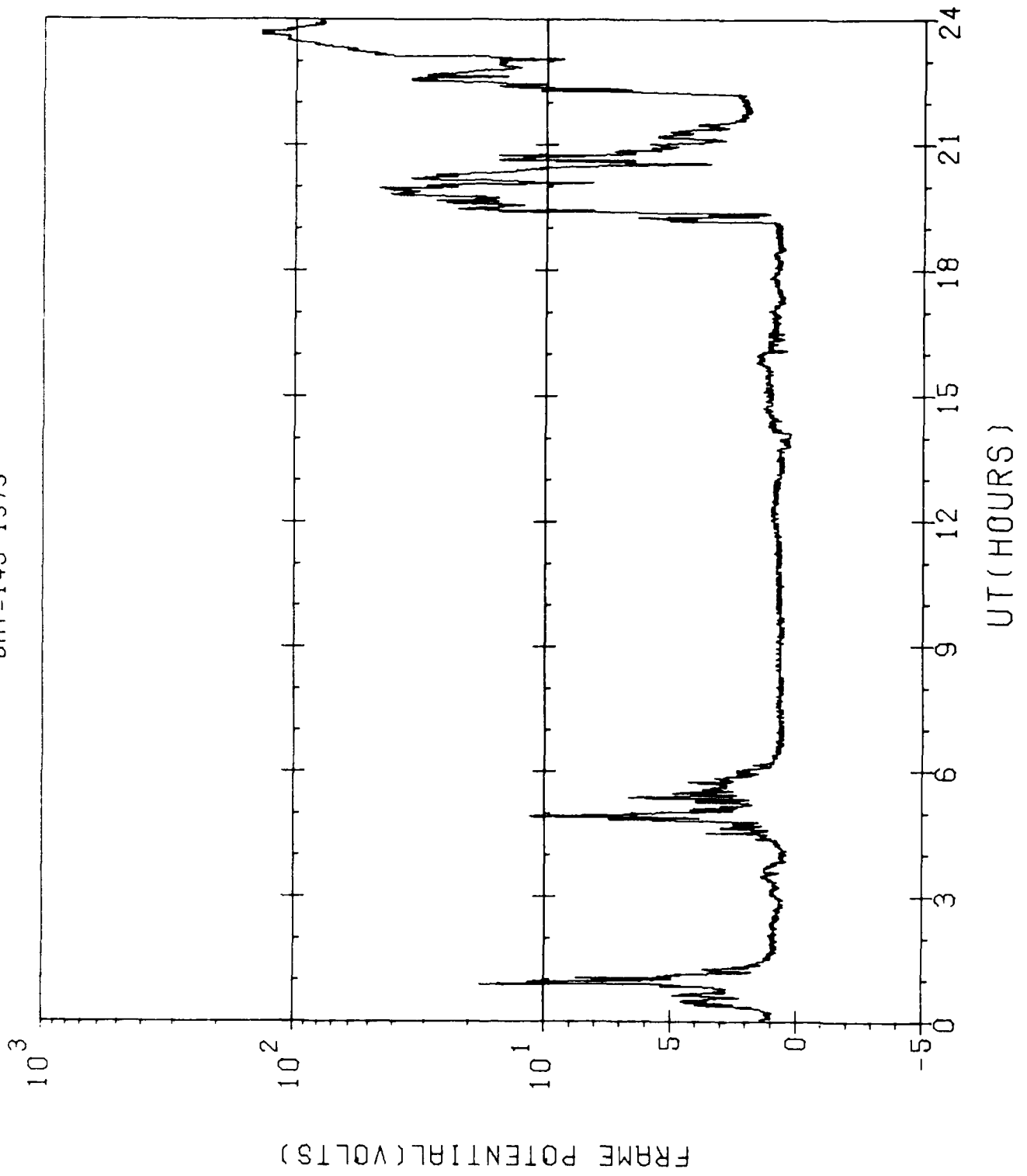
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SCA(HA-SC10(ATLAS))  
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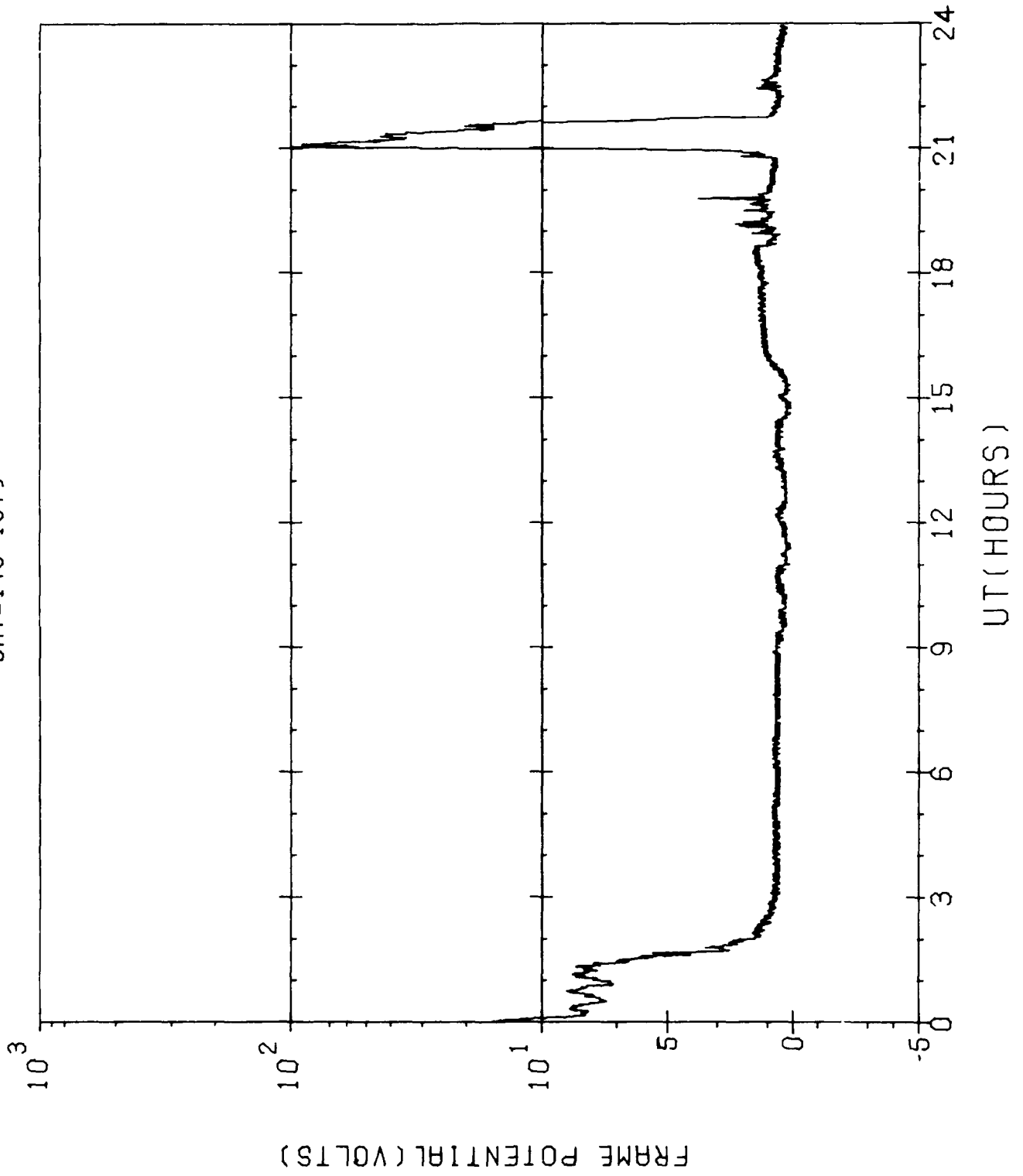


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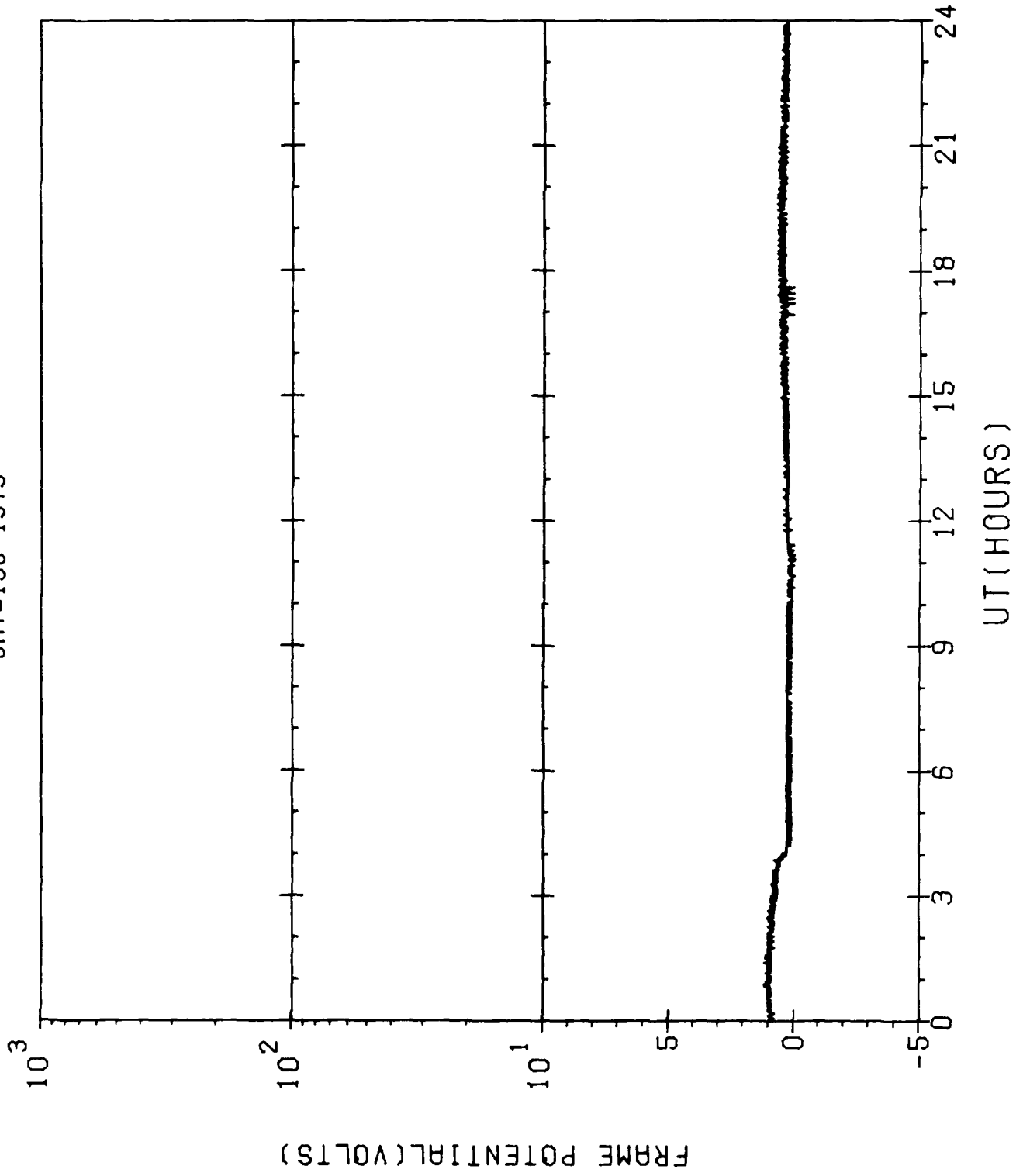




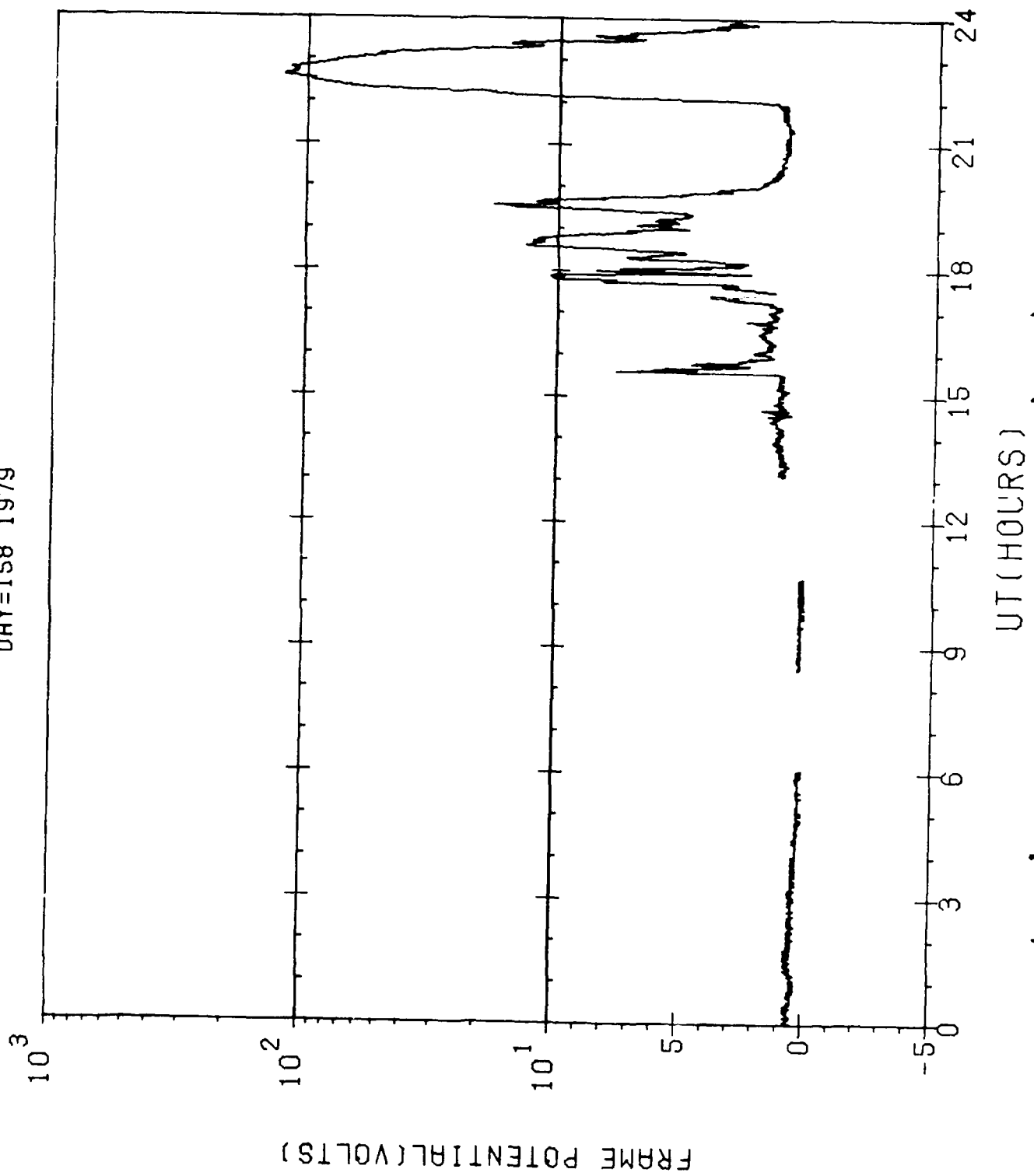
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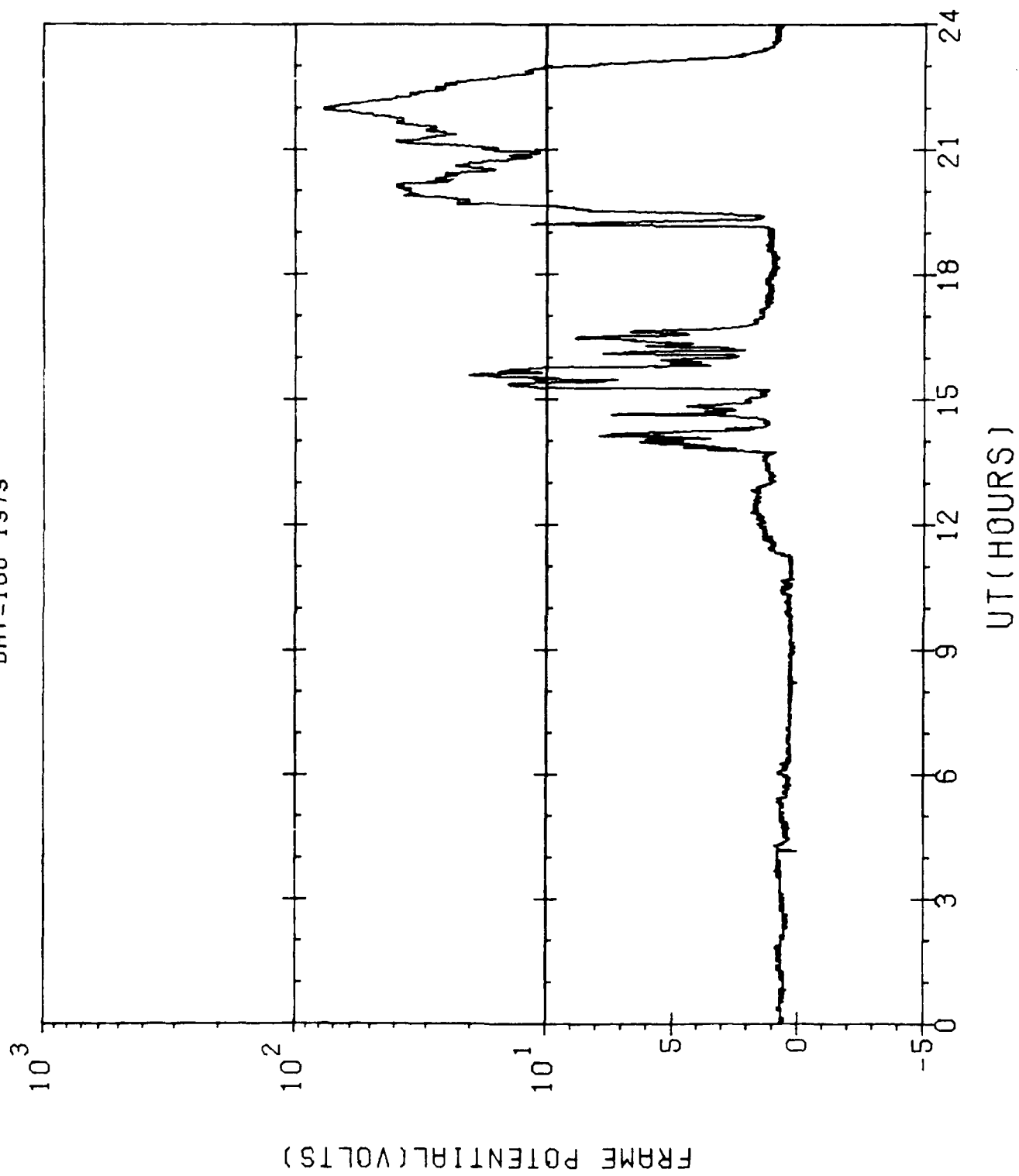
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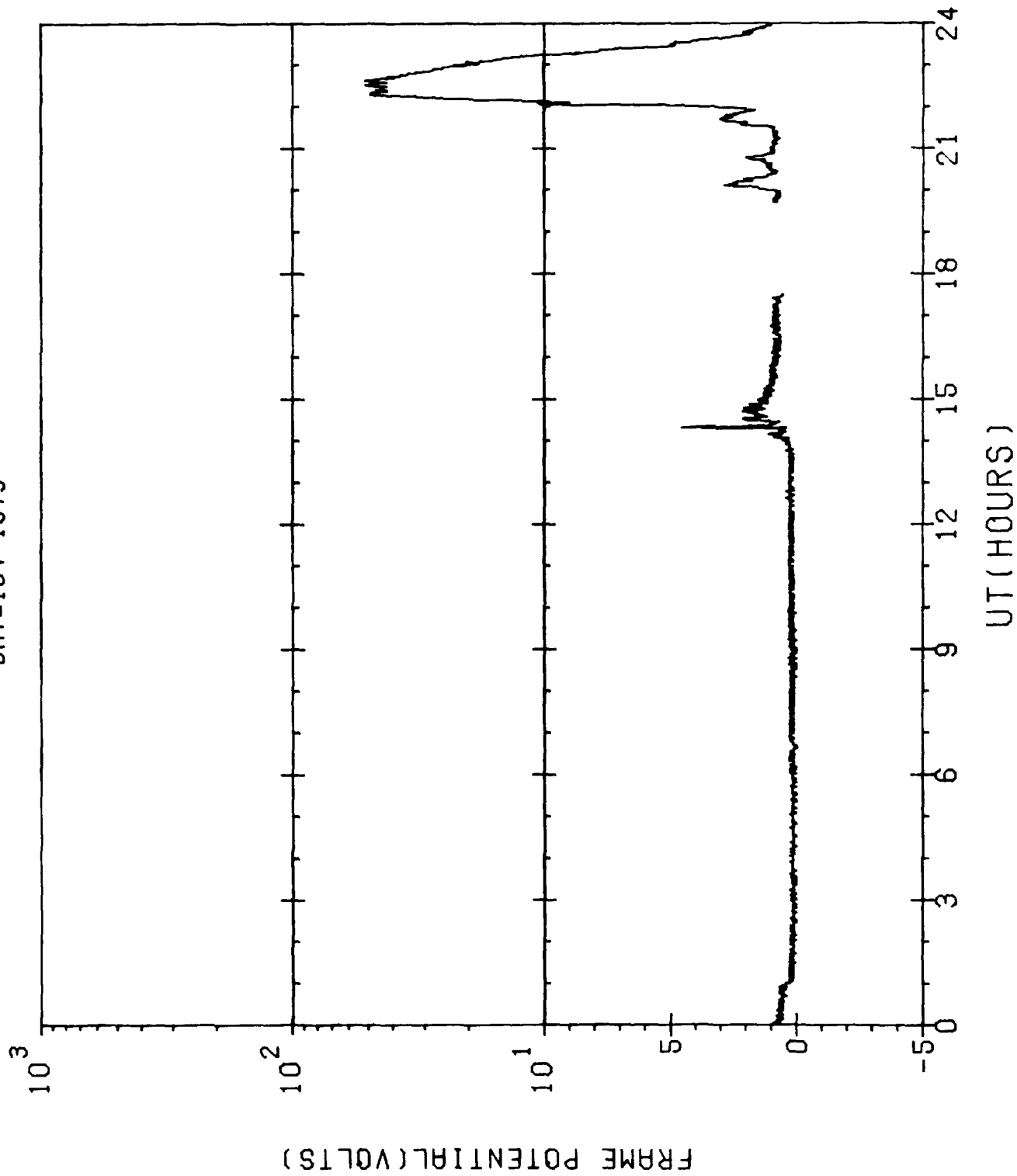
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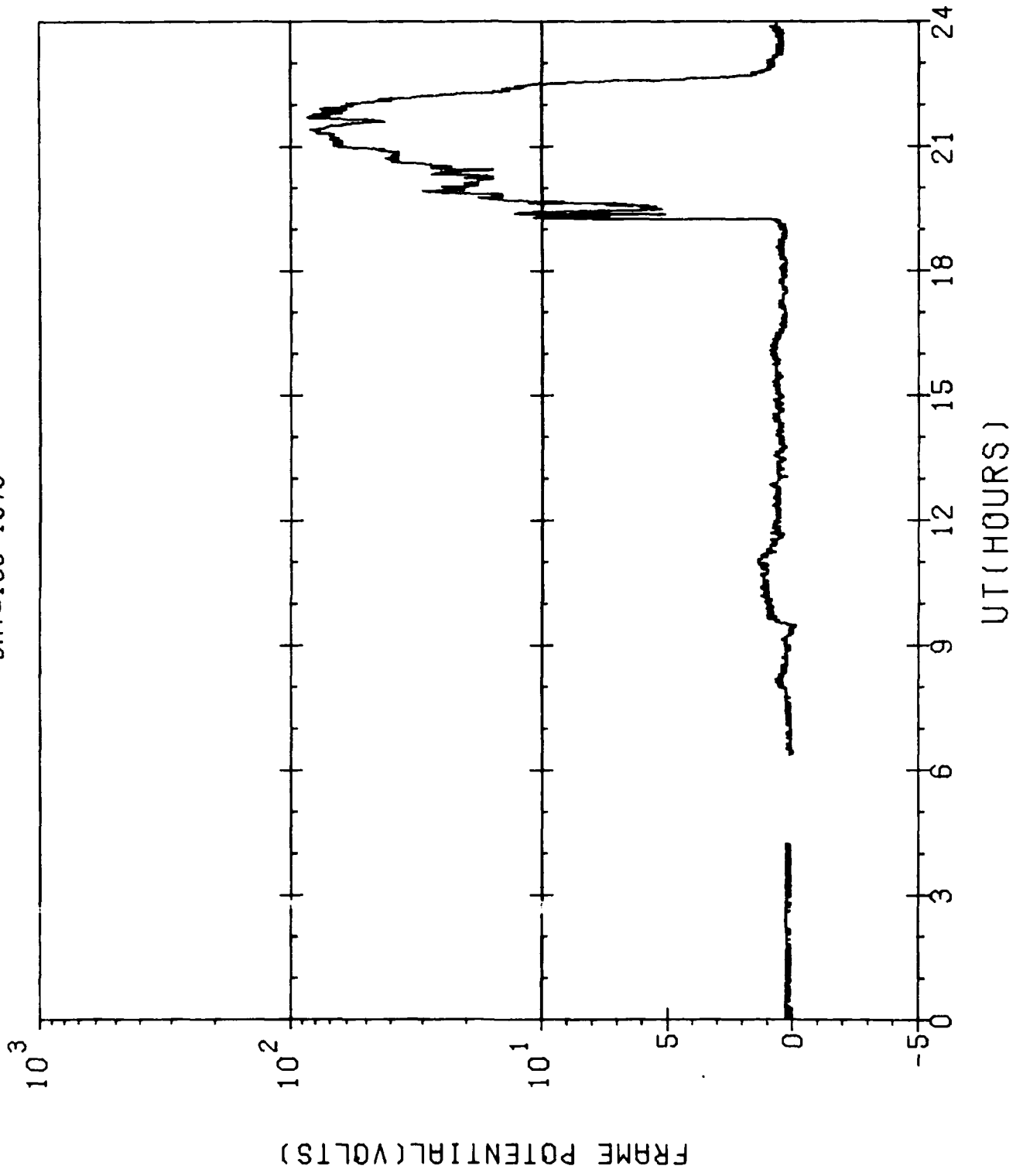
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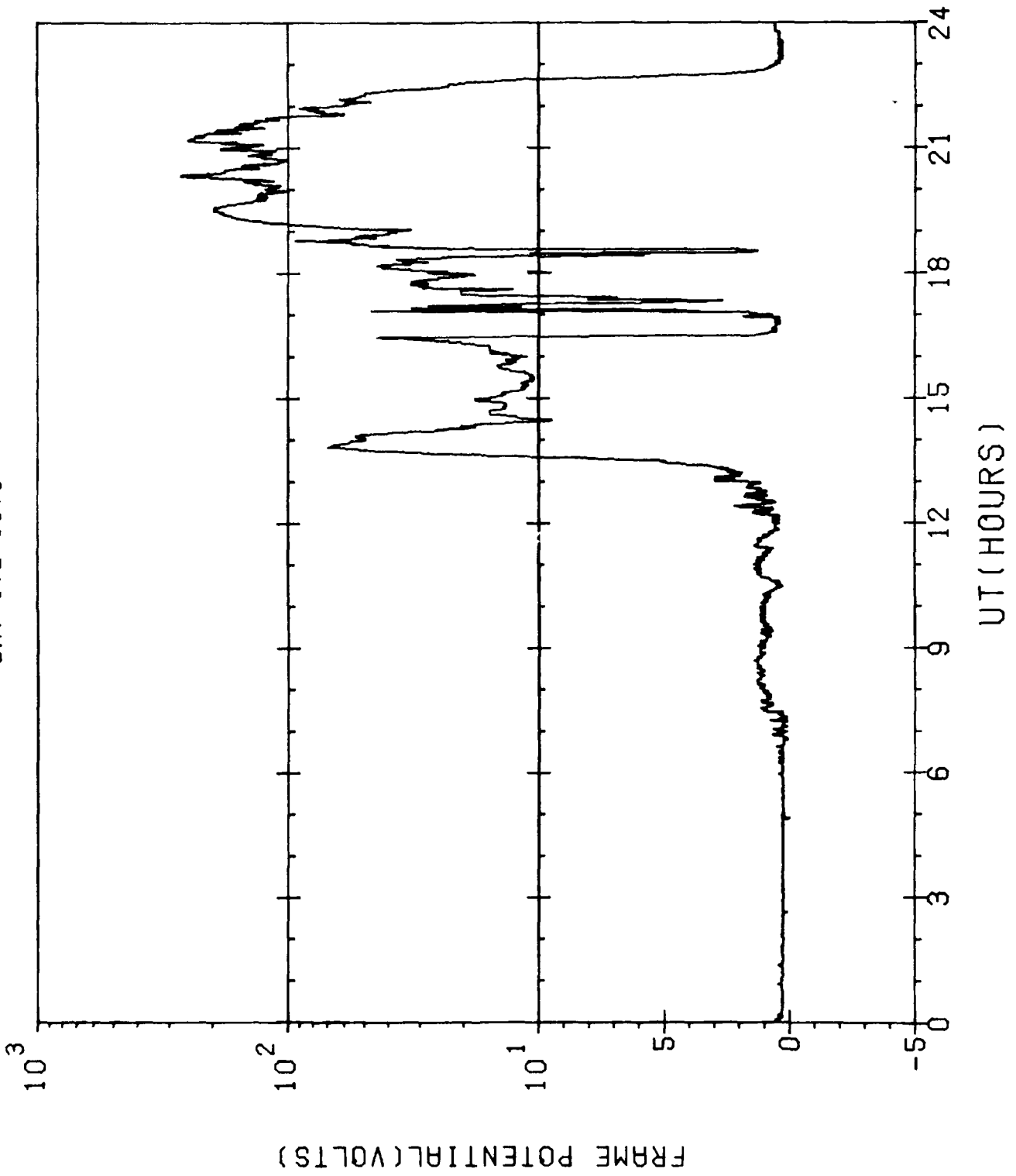
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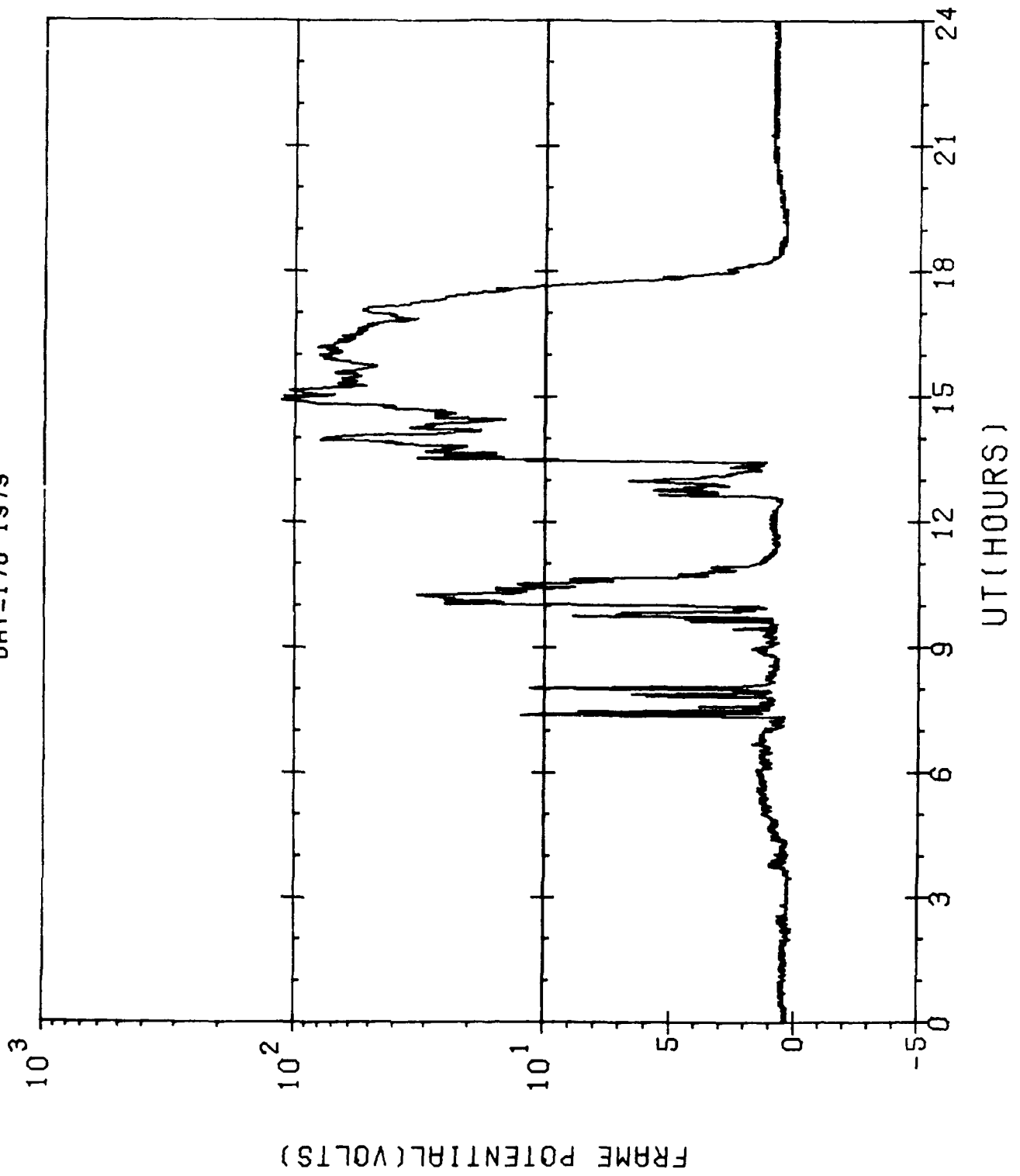
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DAY=172 1979

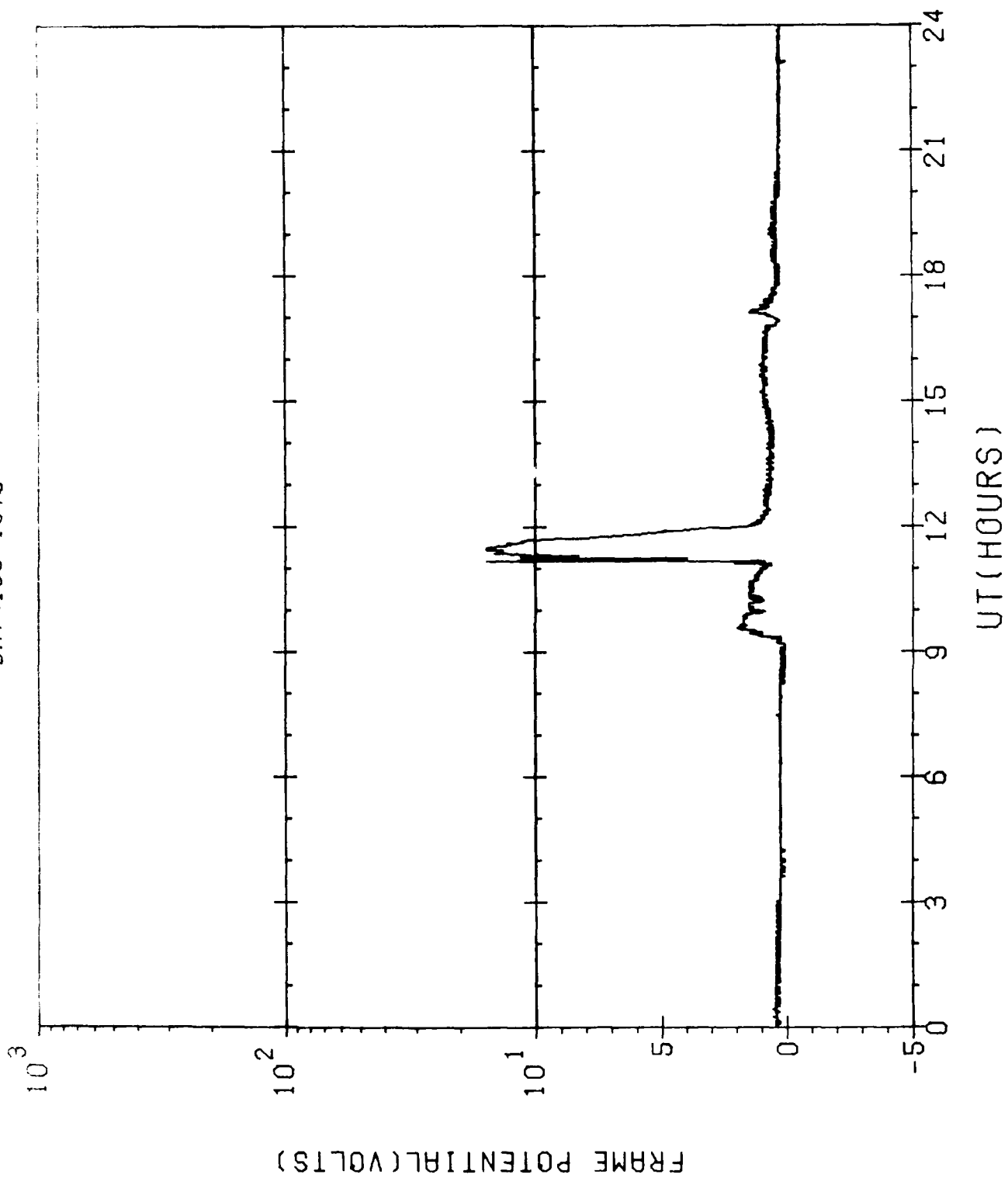


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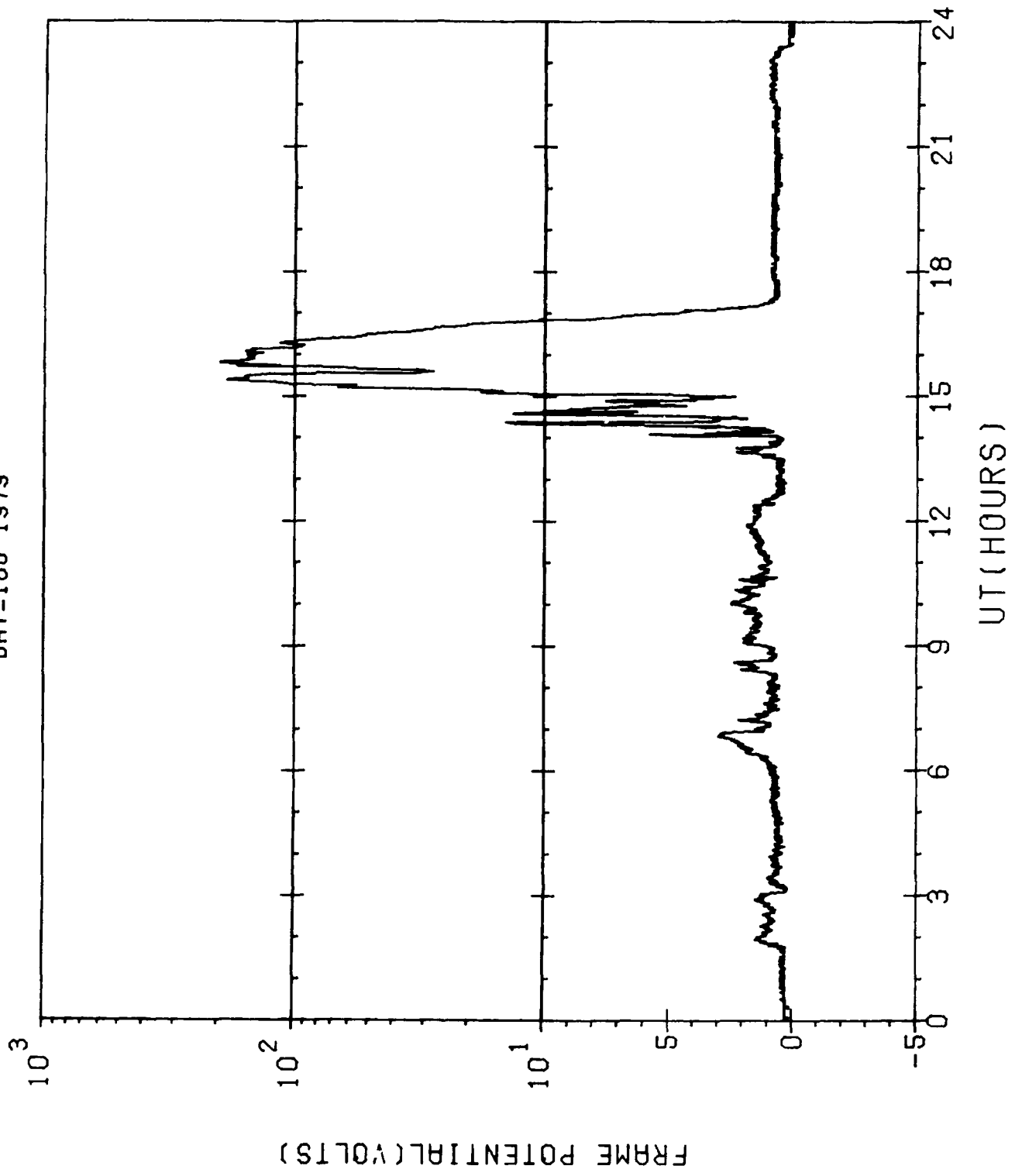




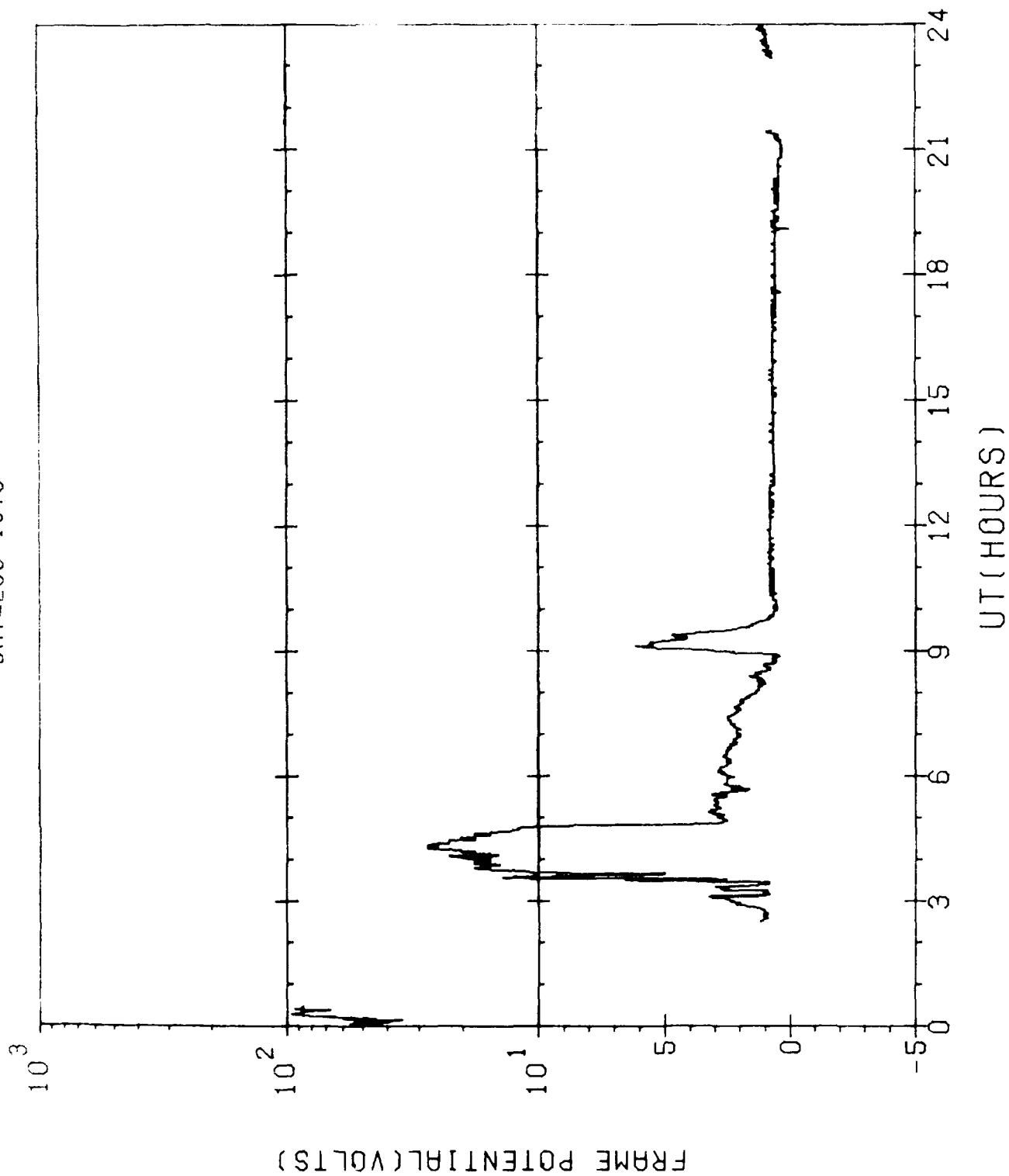
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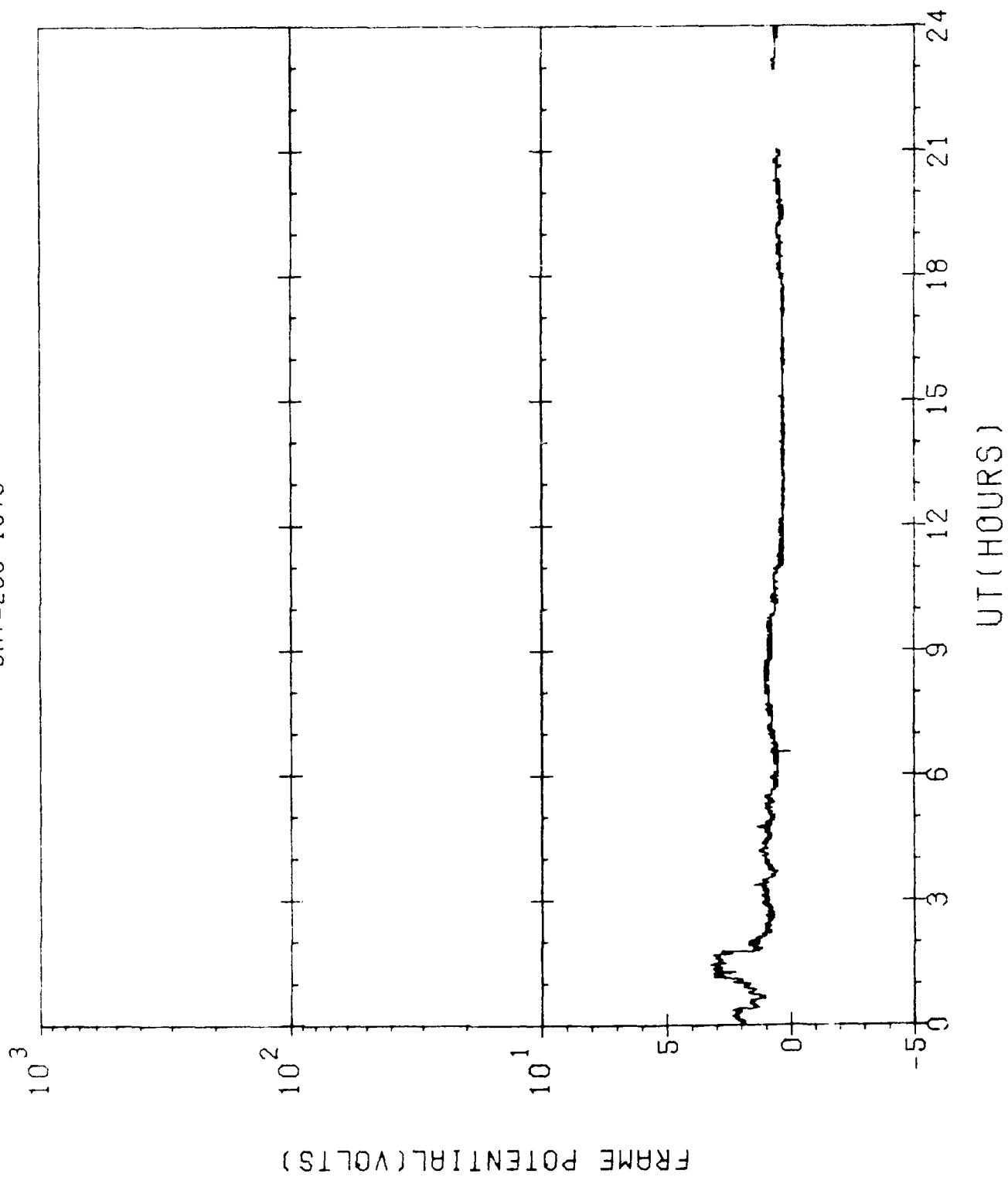
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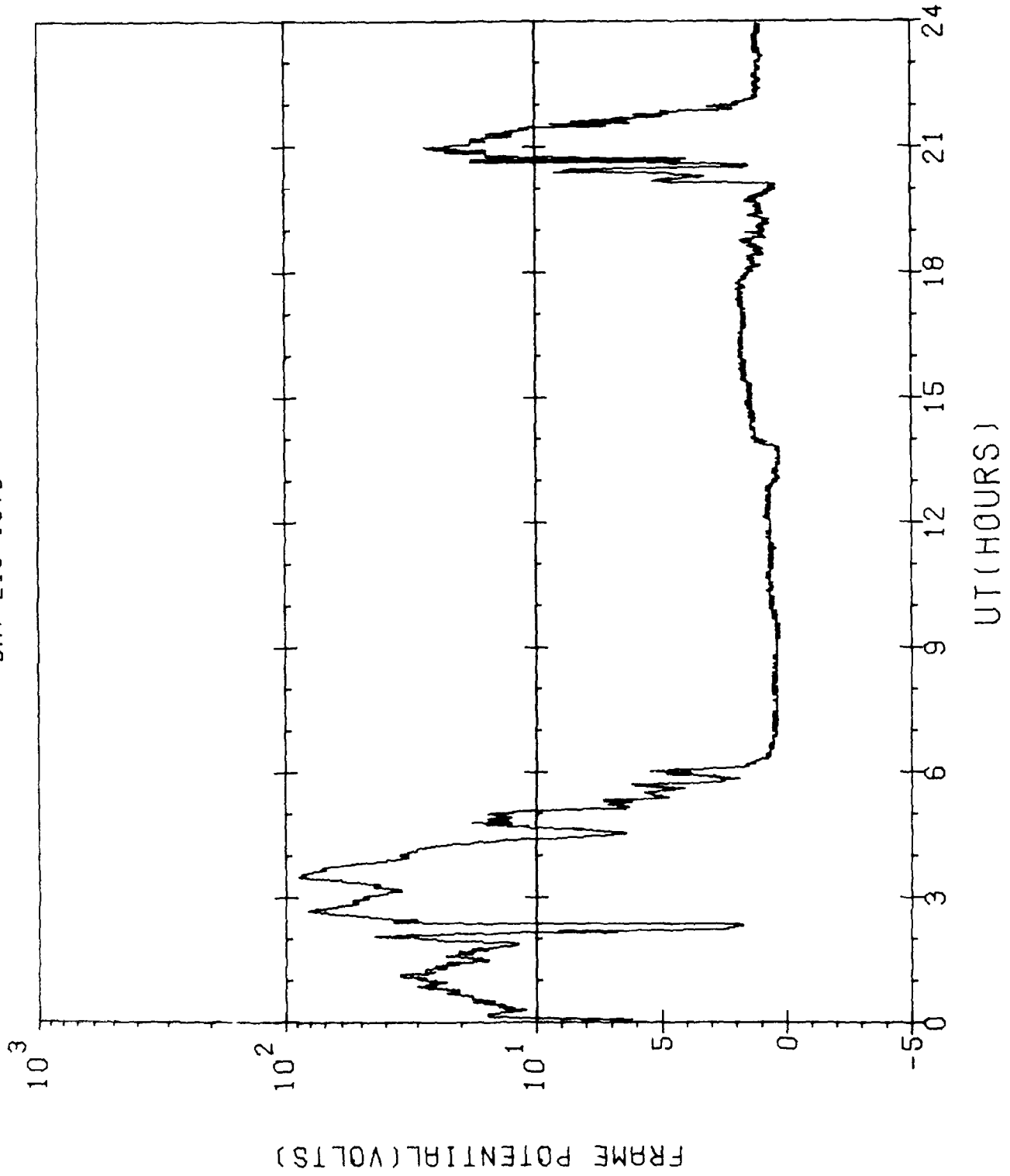
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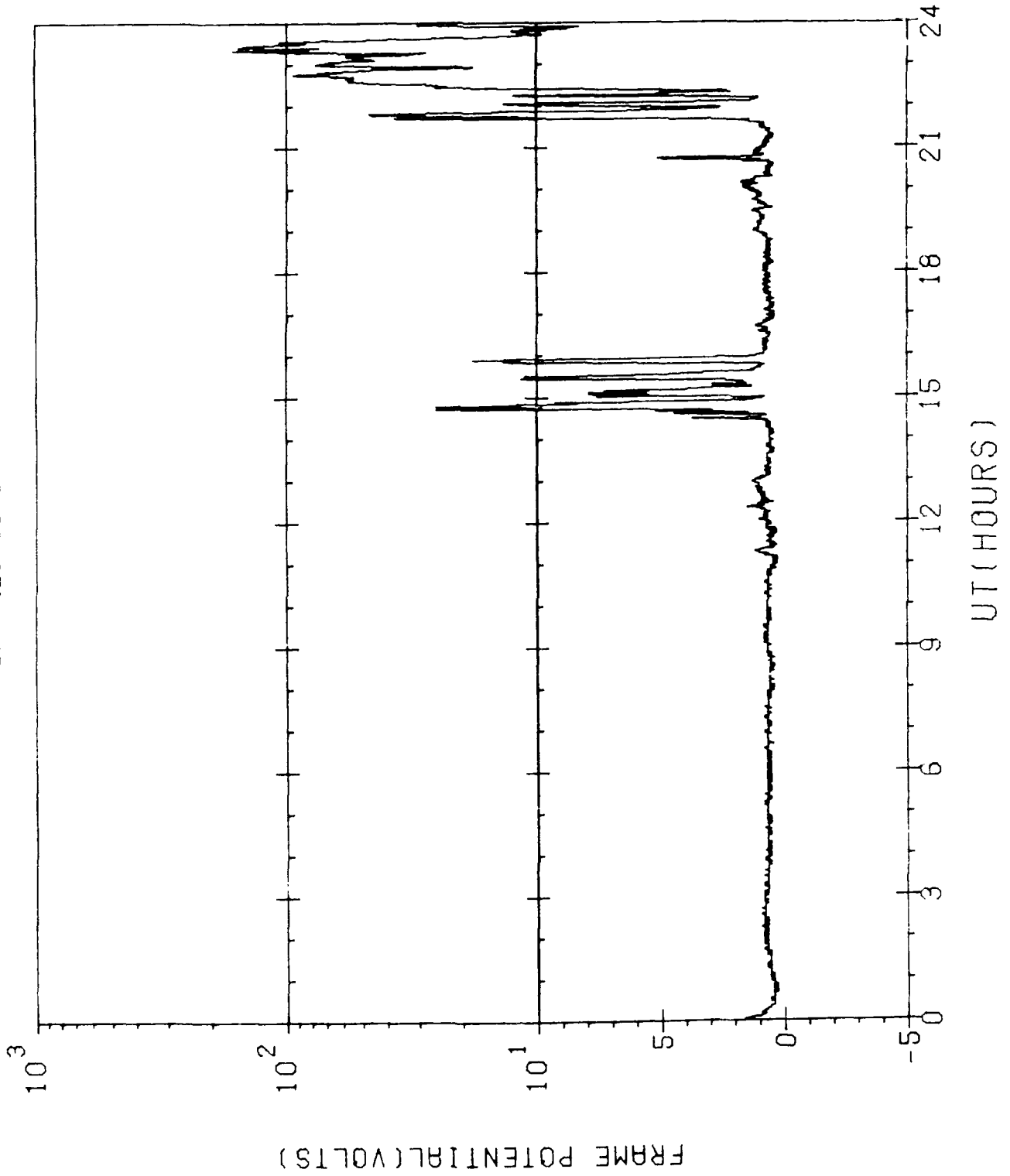
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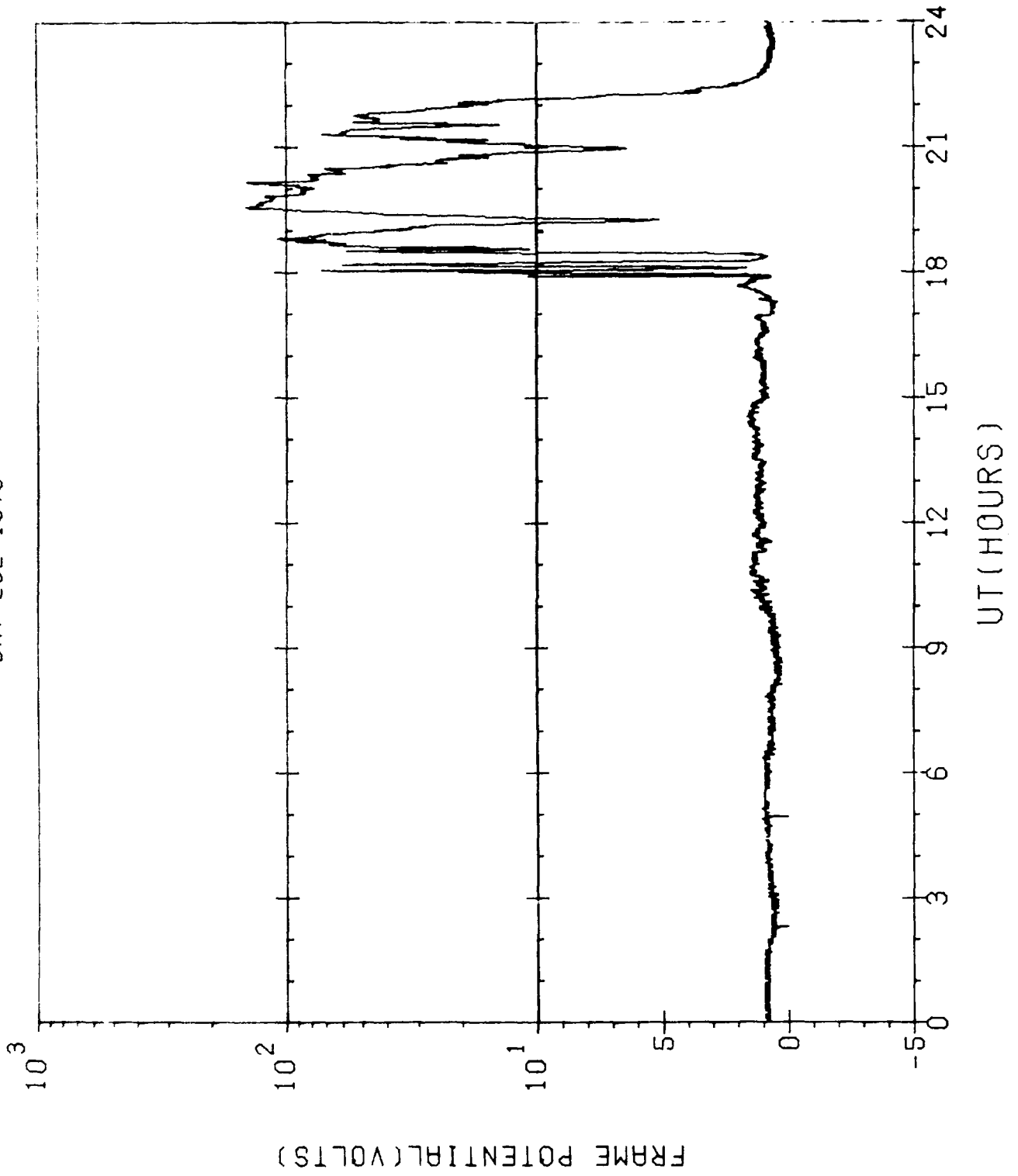
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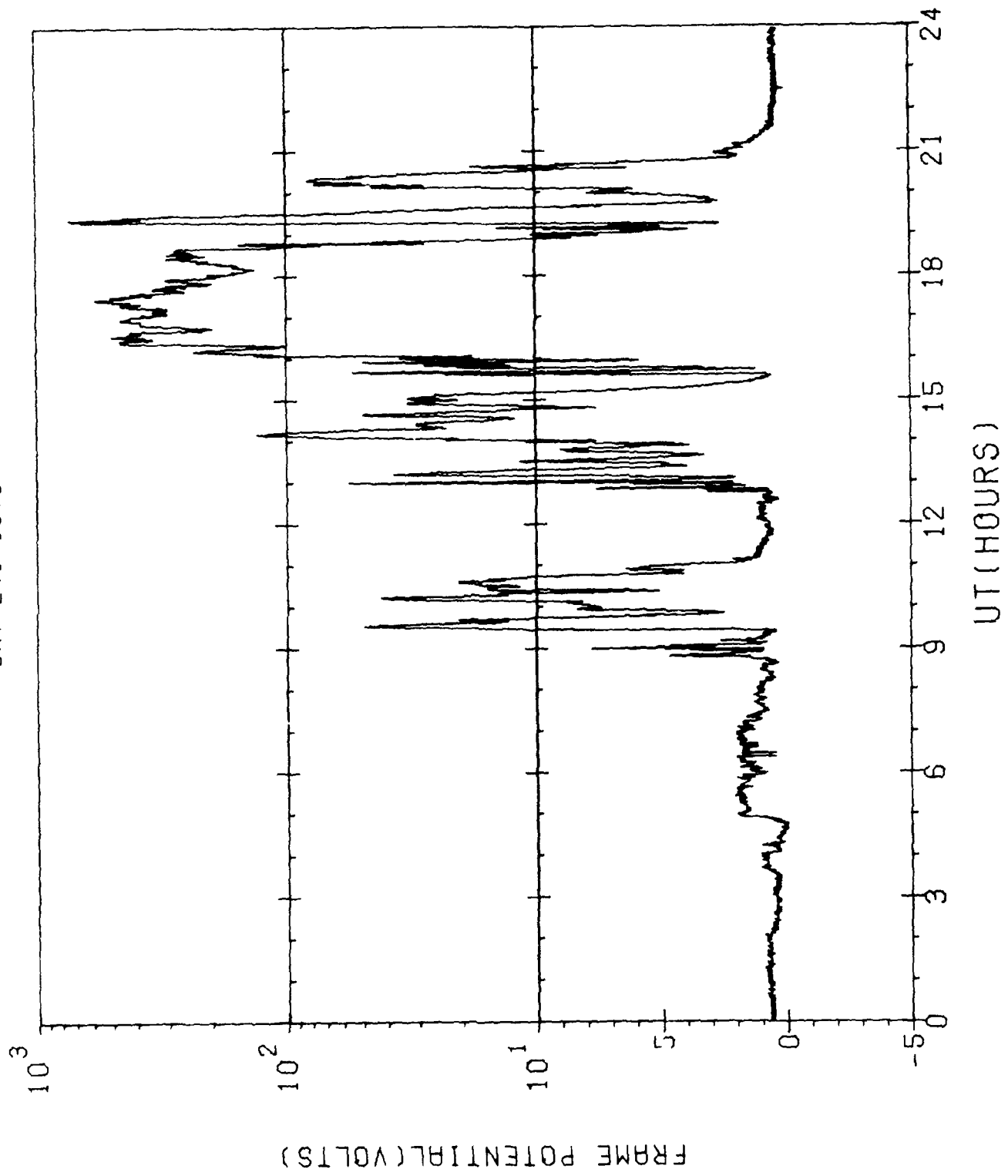
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DAY=225 1979



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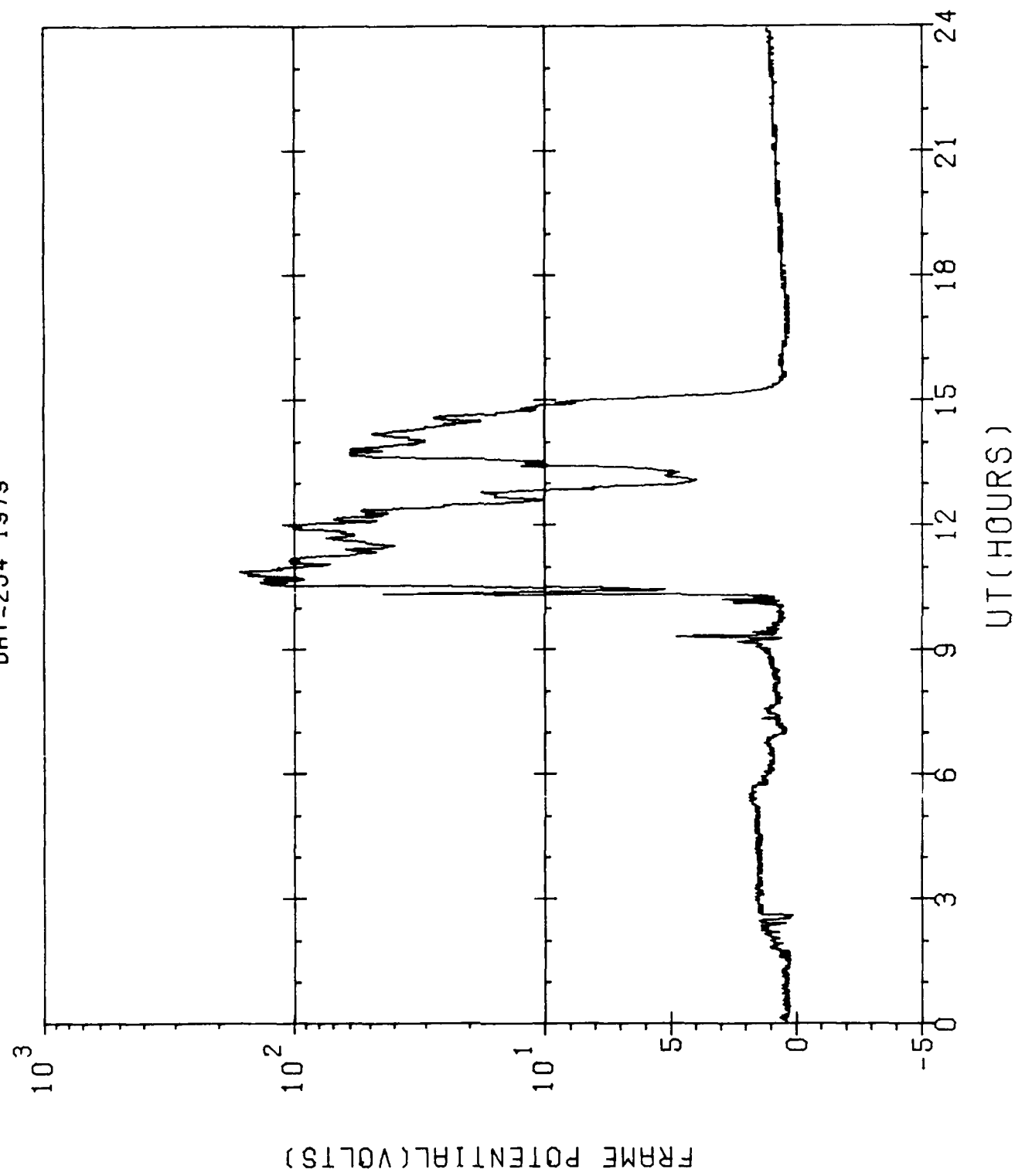


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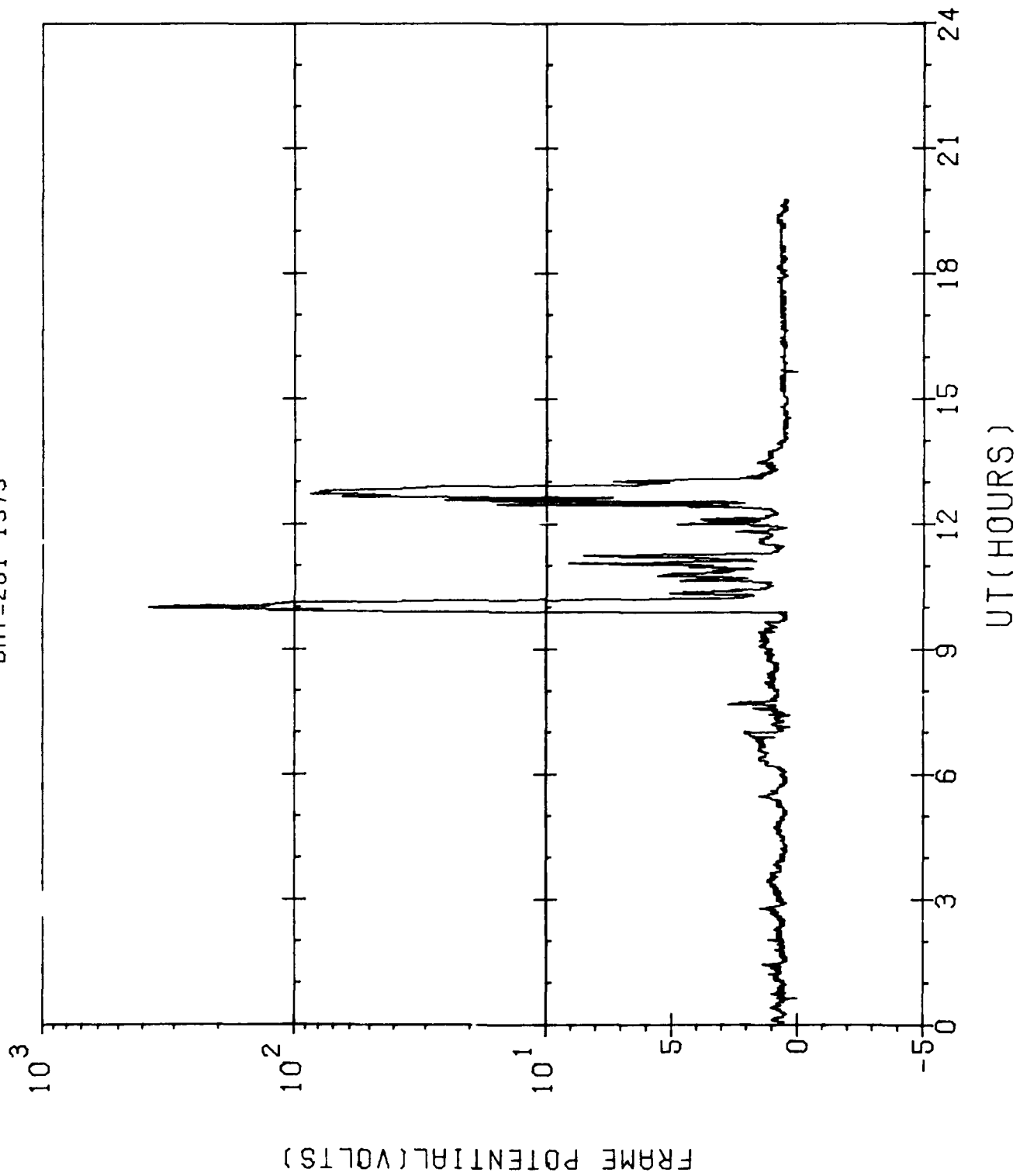




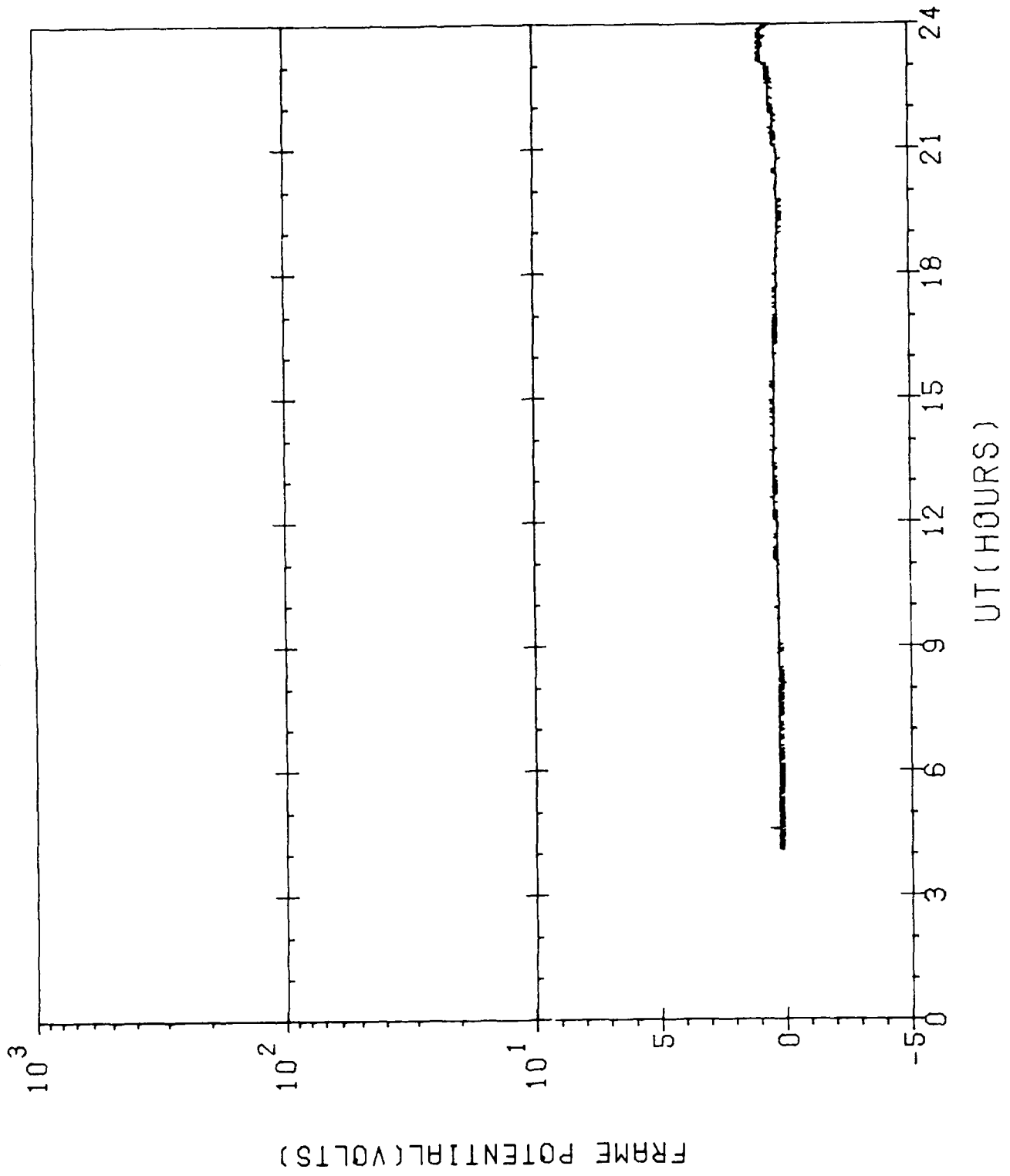
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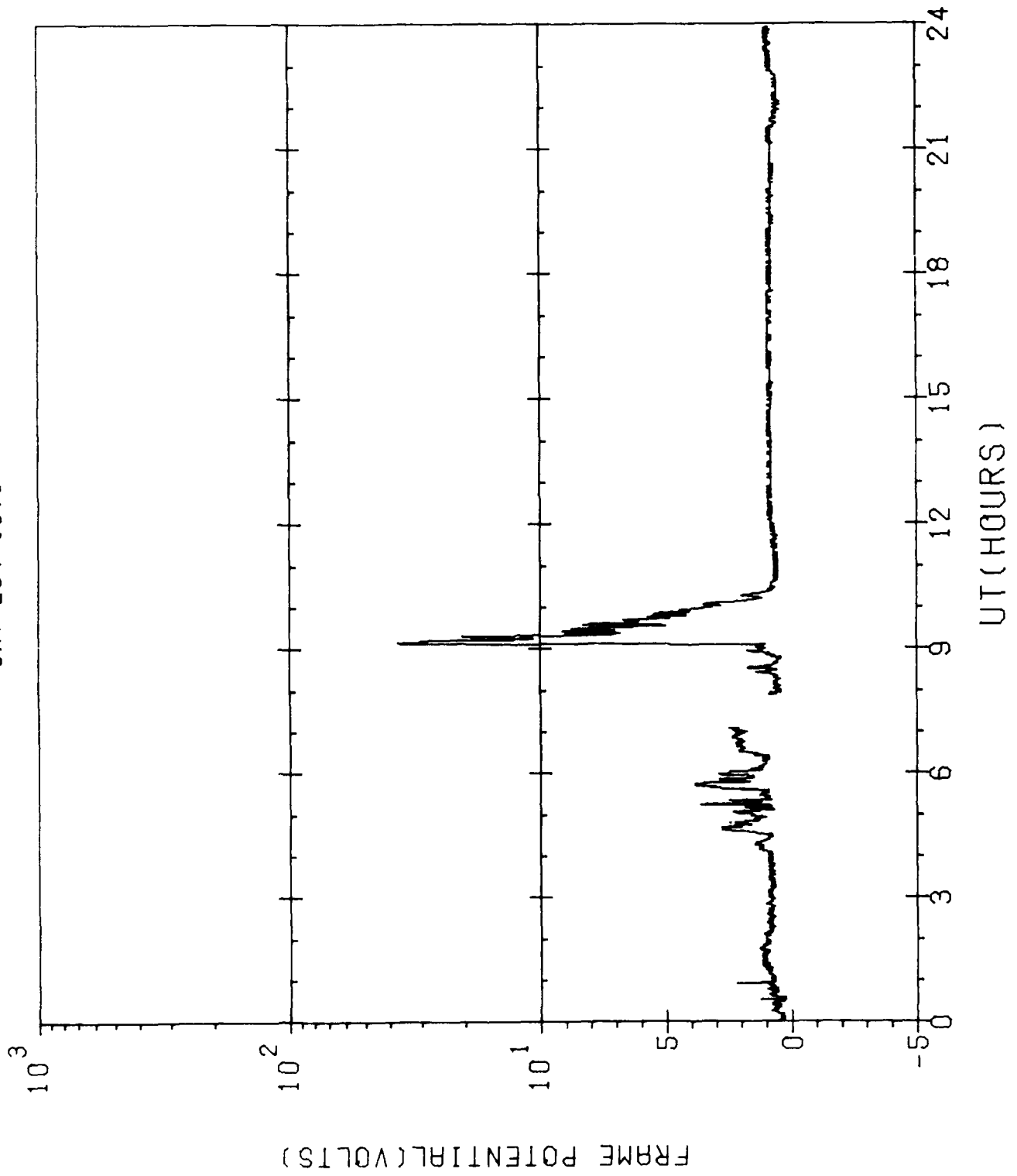
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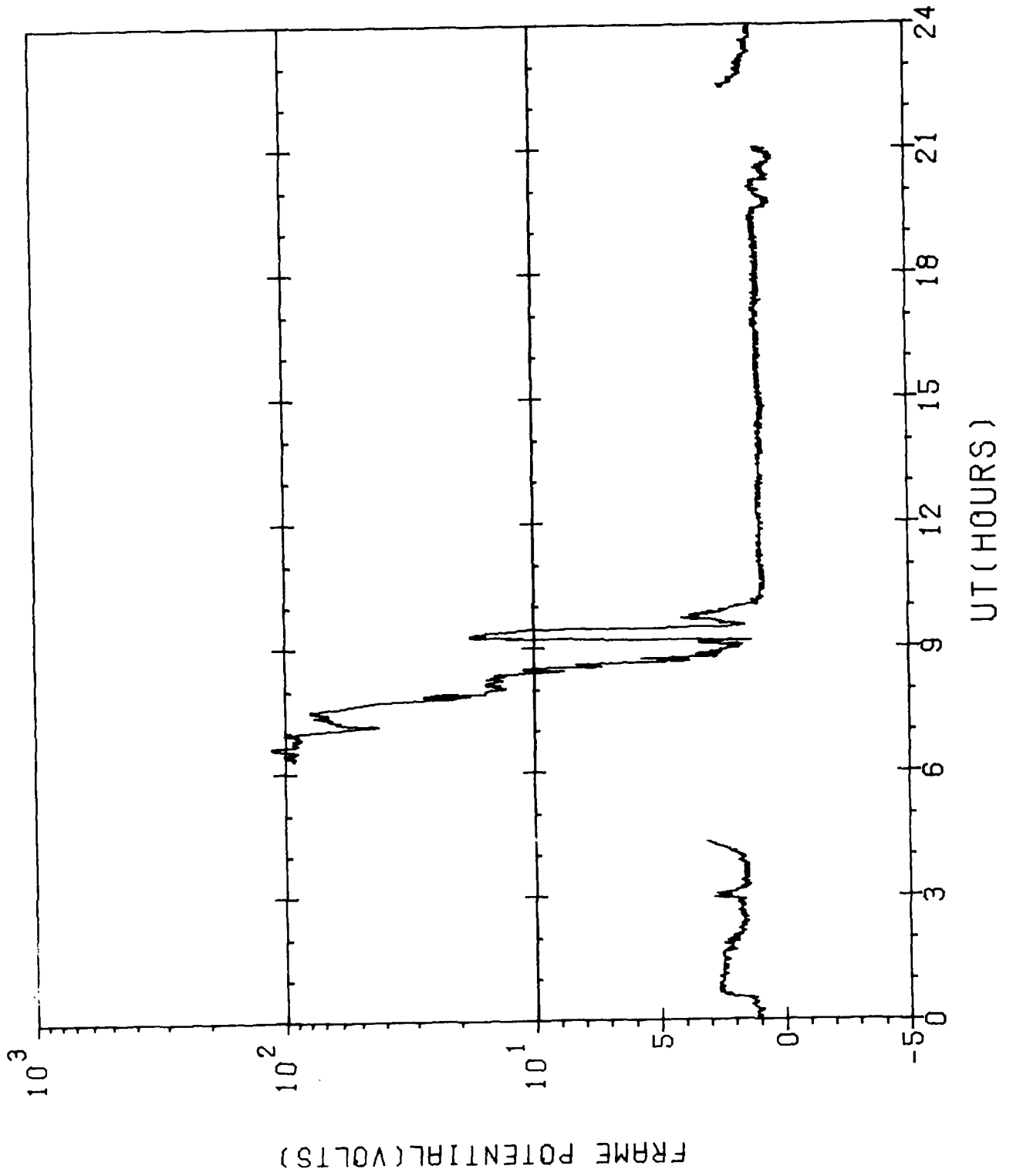
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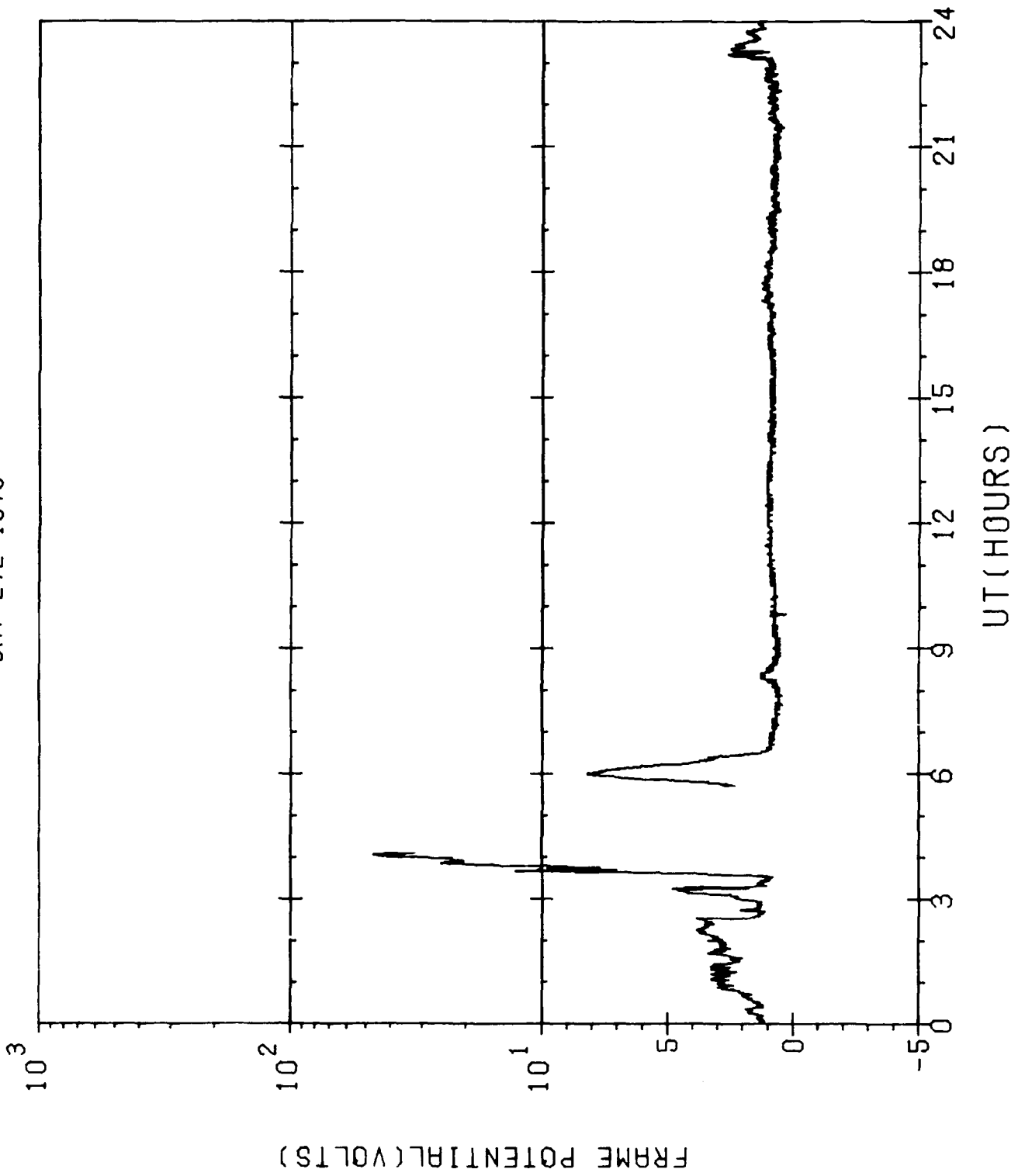
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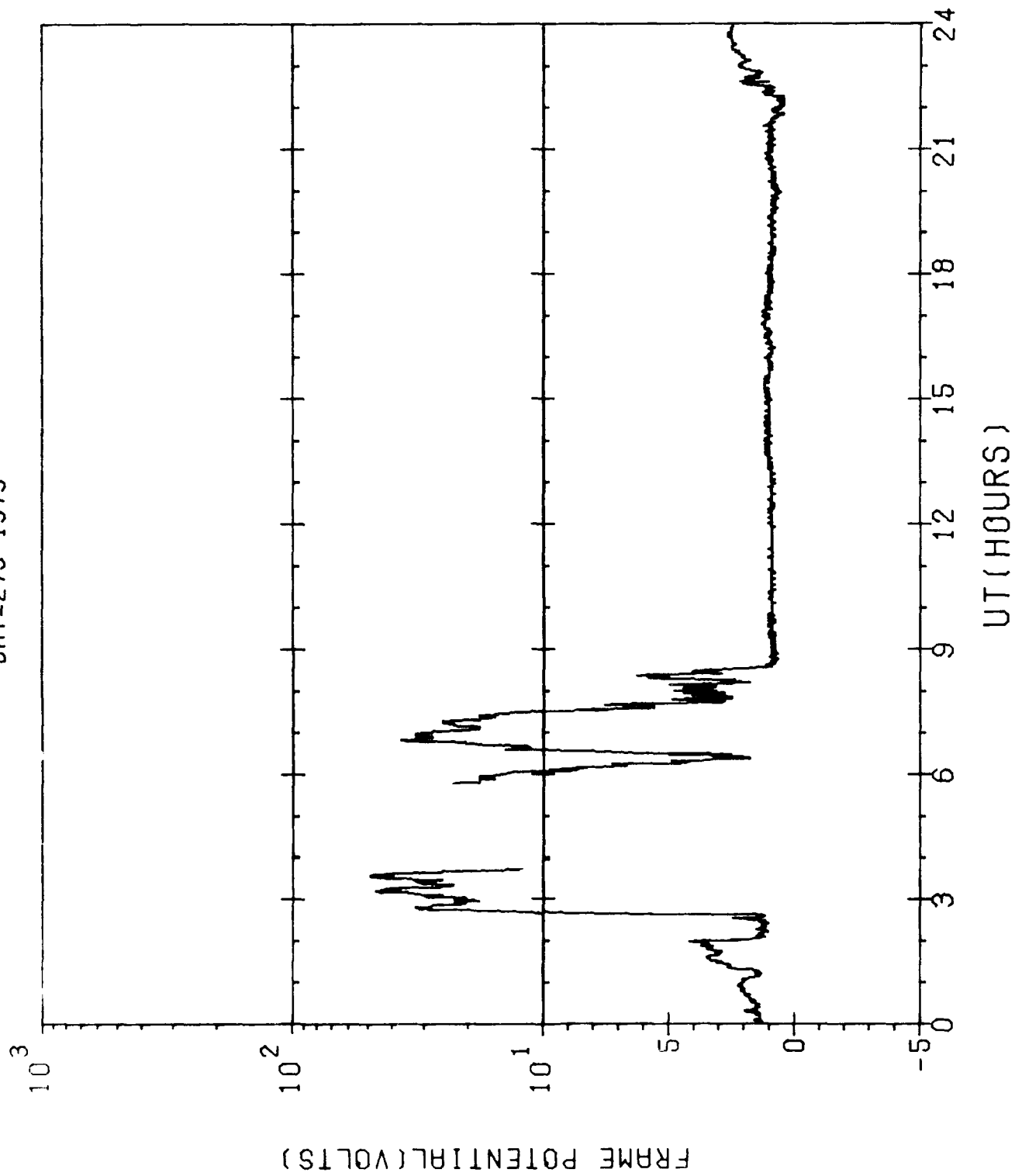
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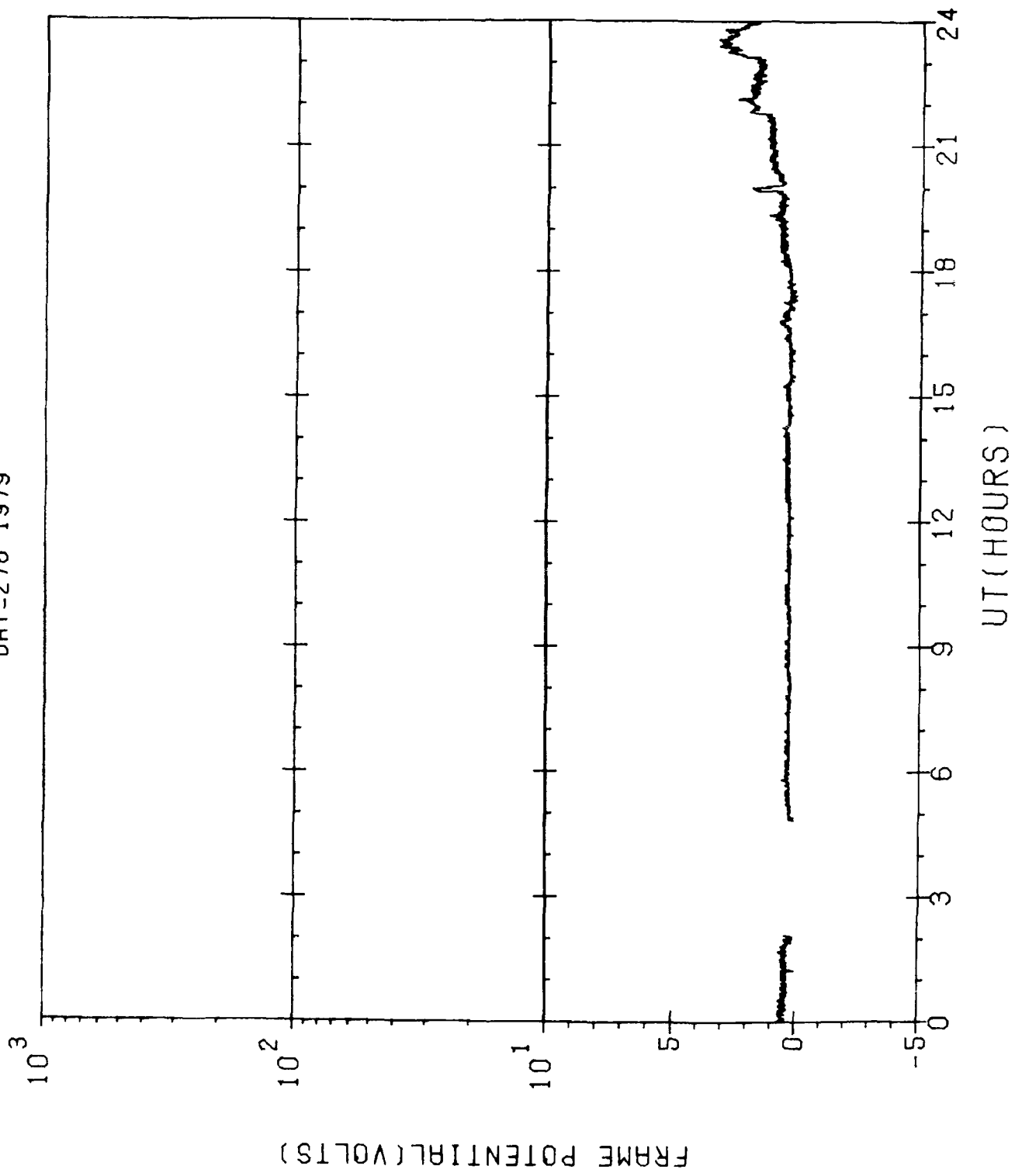
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DAY=273 1979

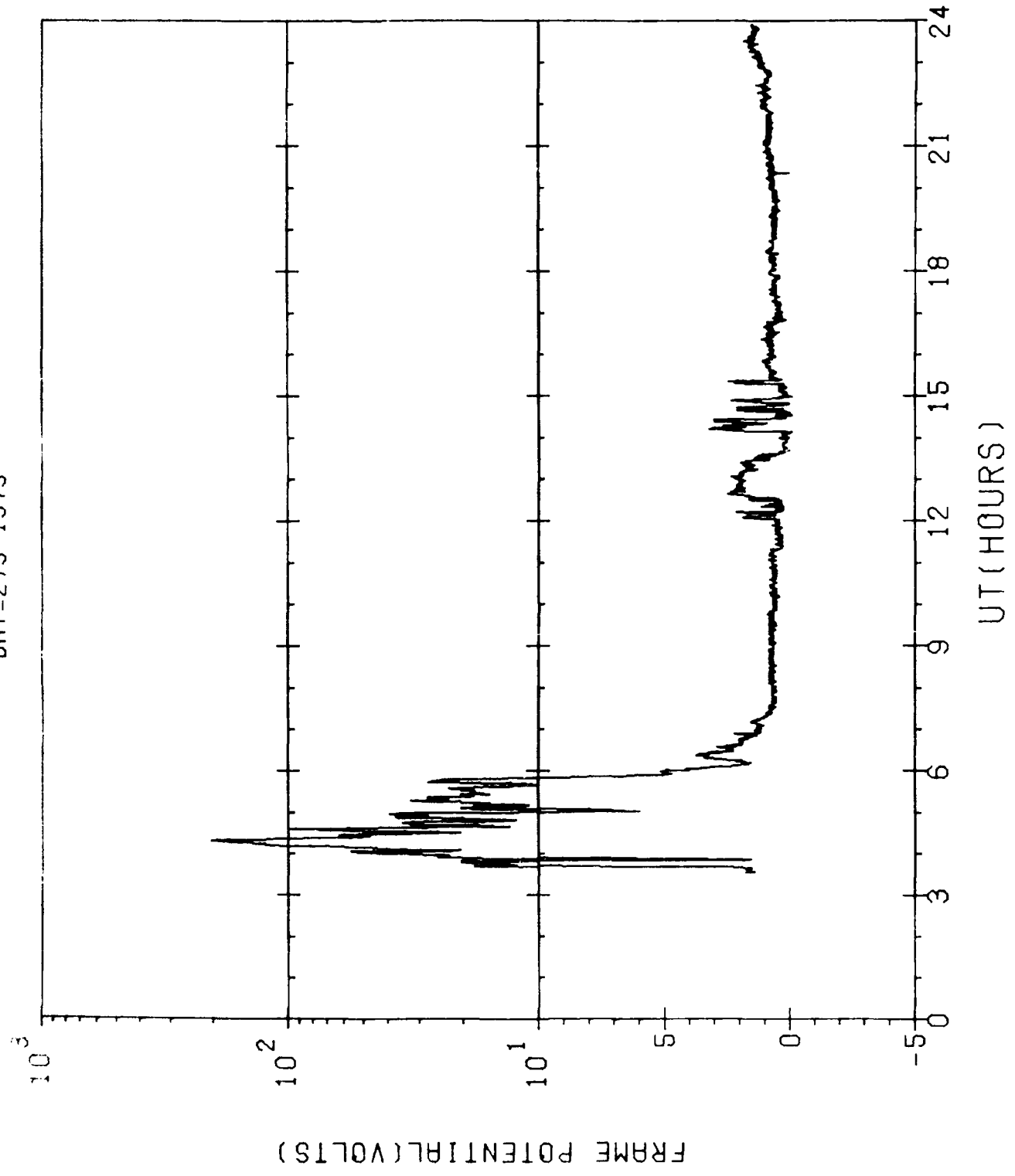


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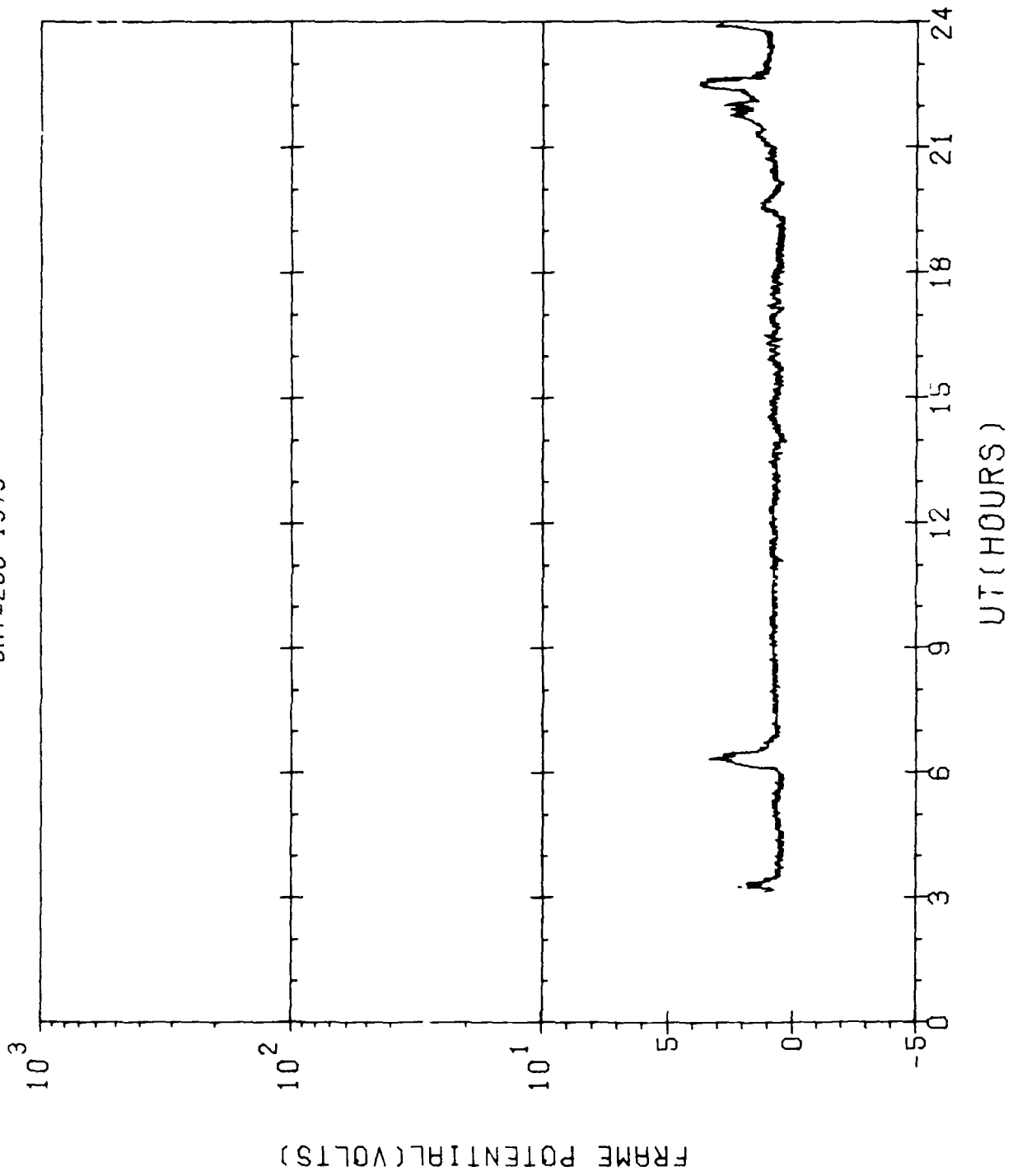




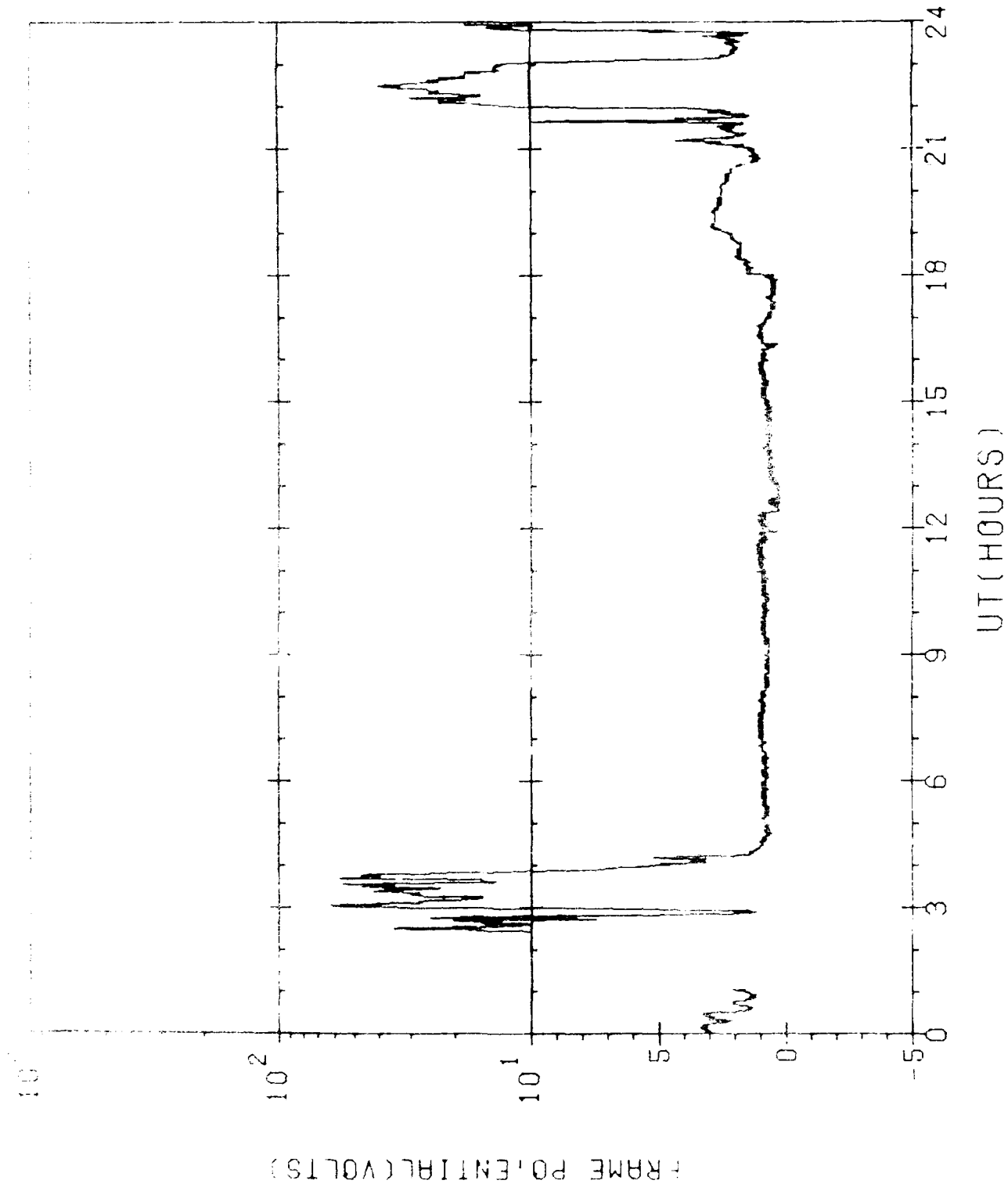
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DAY=280 1979

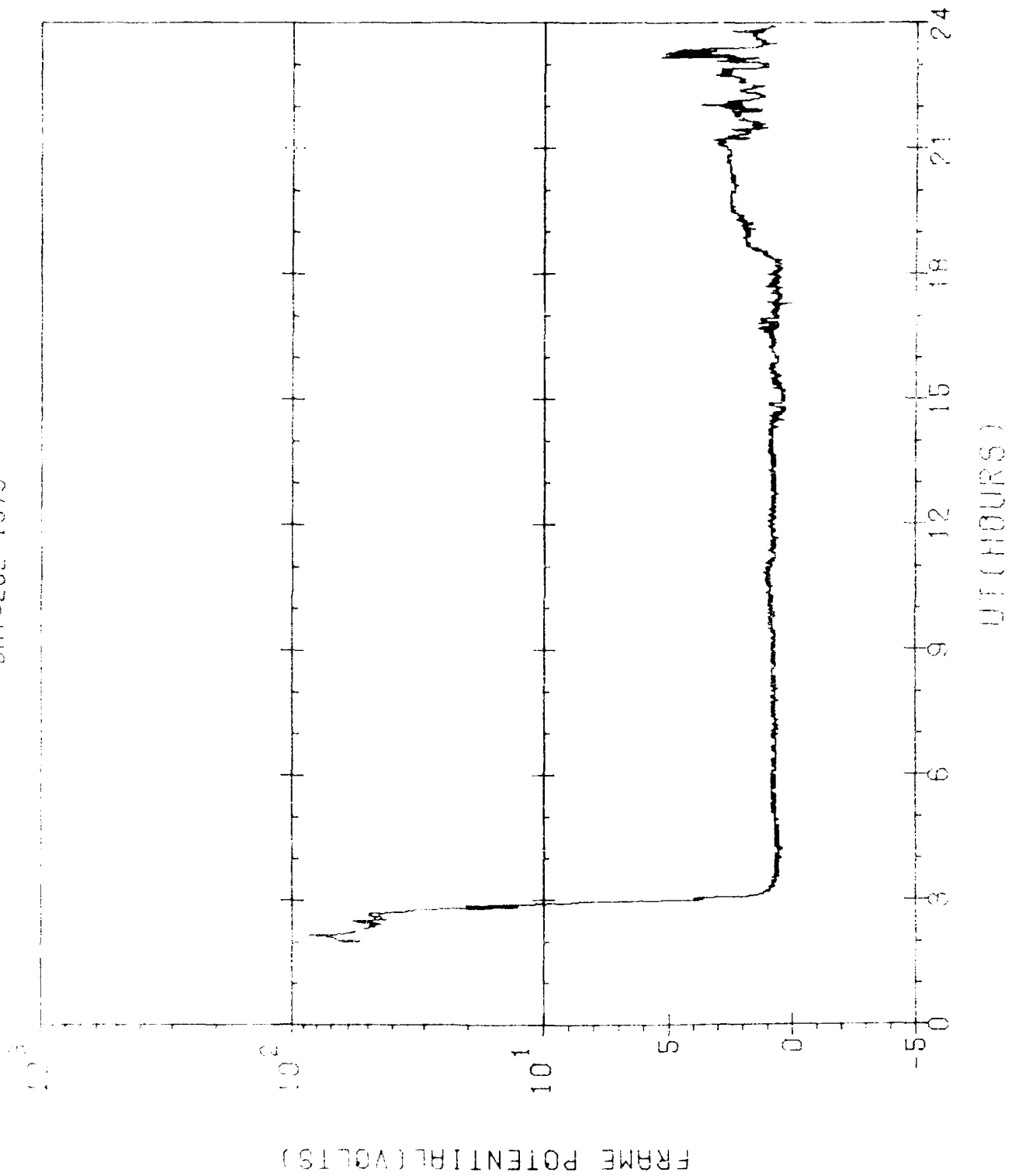


DATE: 01/01/80  
TIME: 12:00

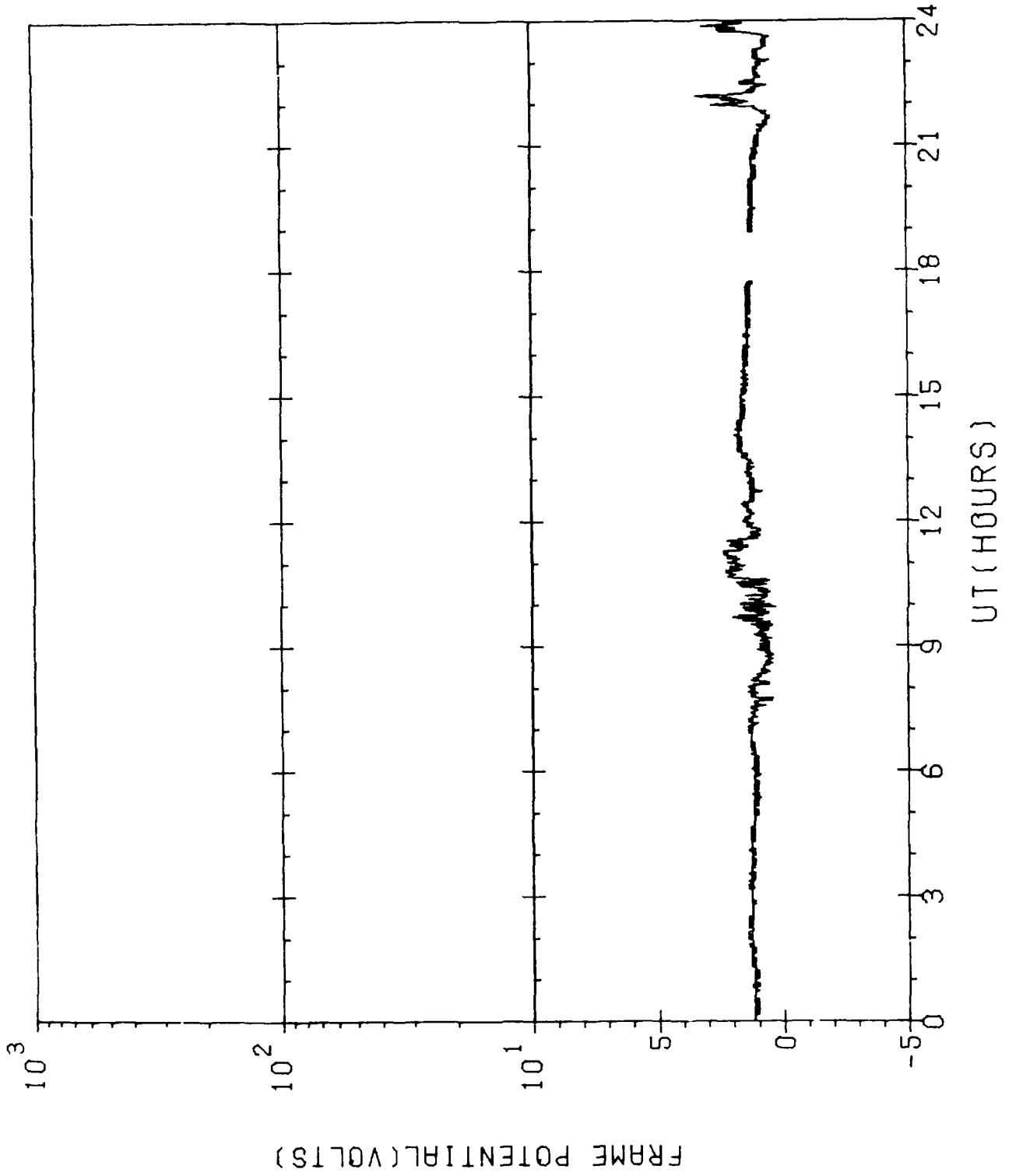


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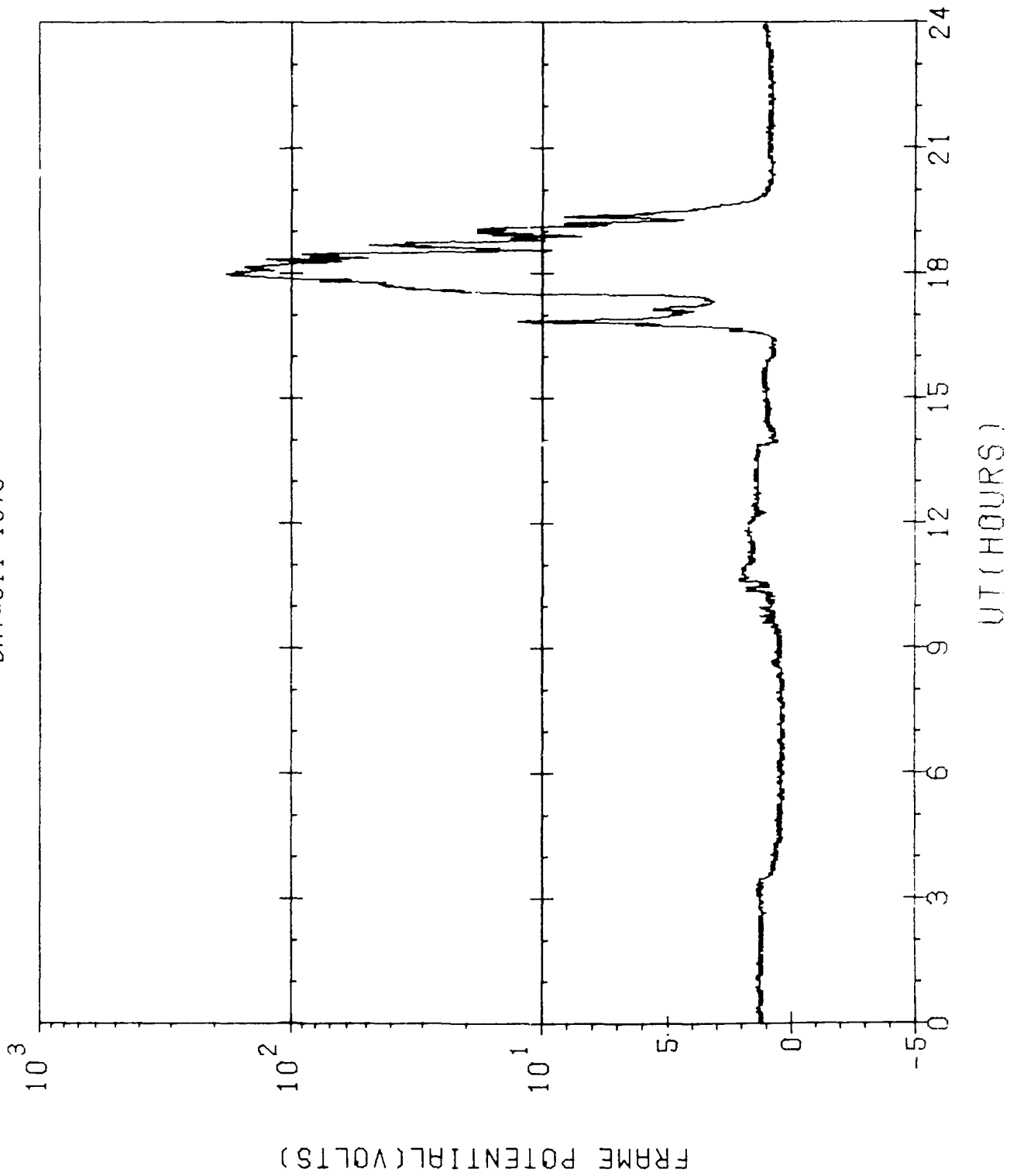
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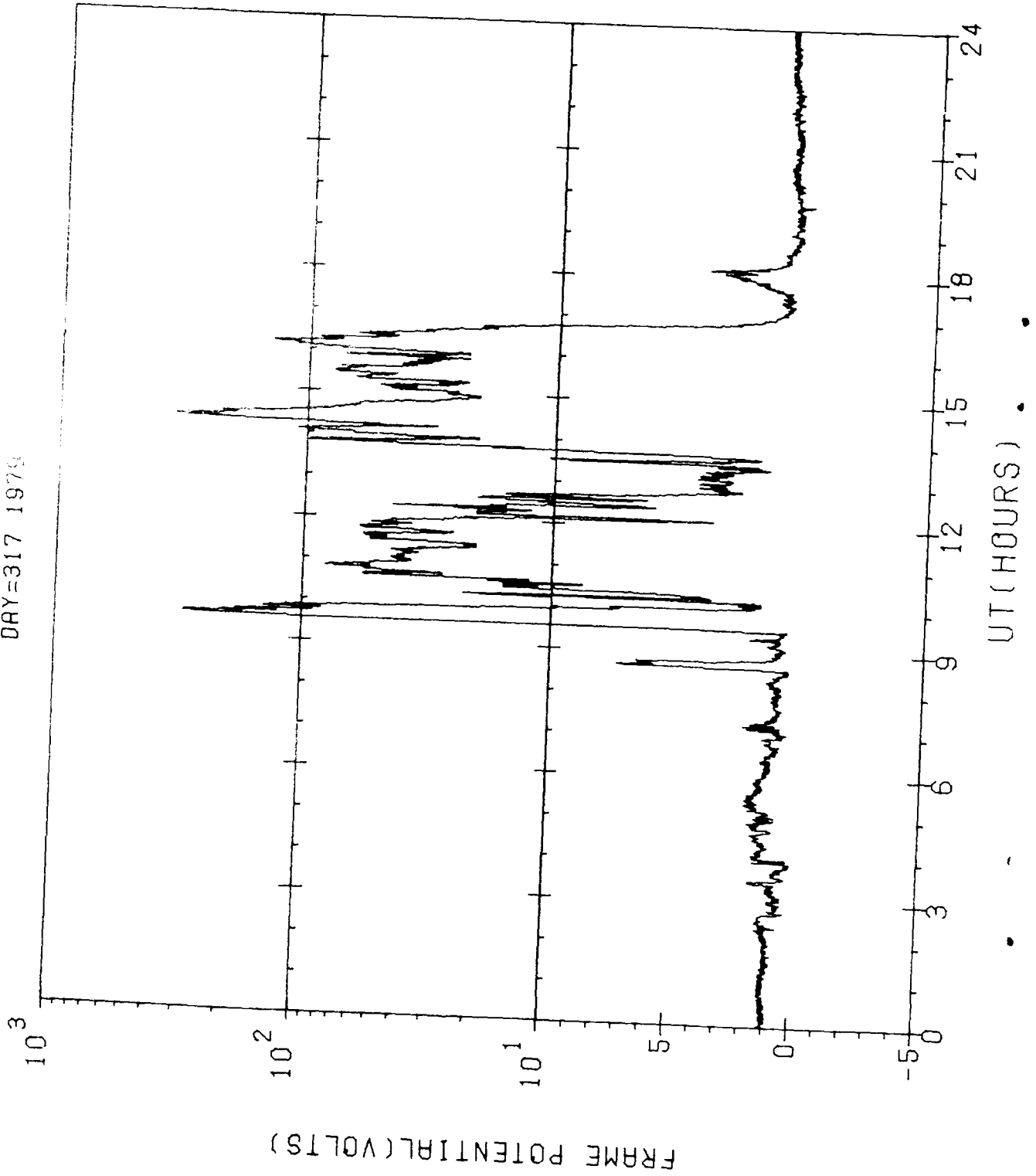
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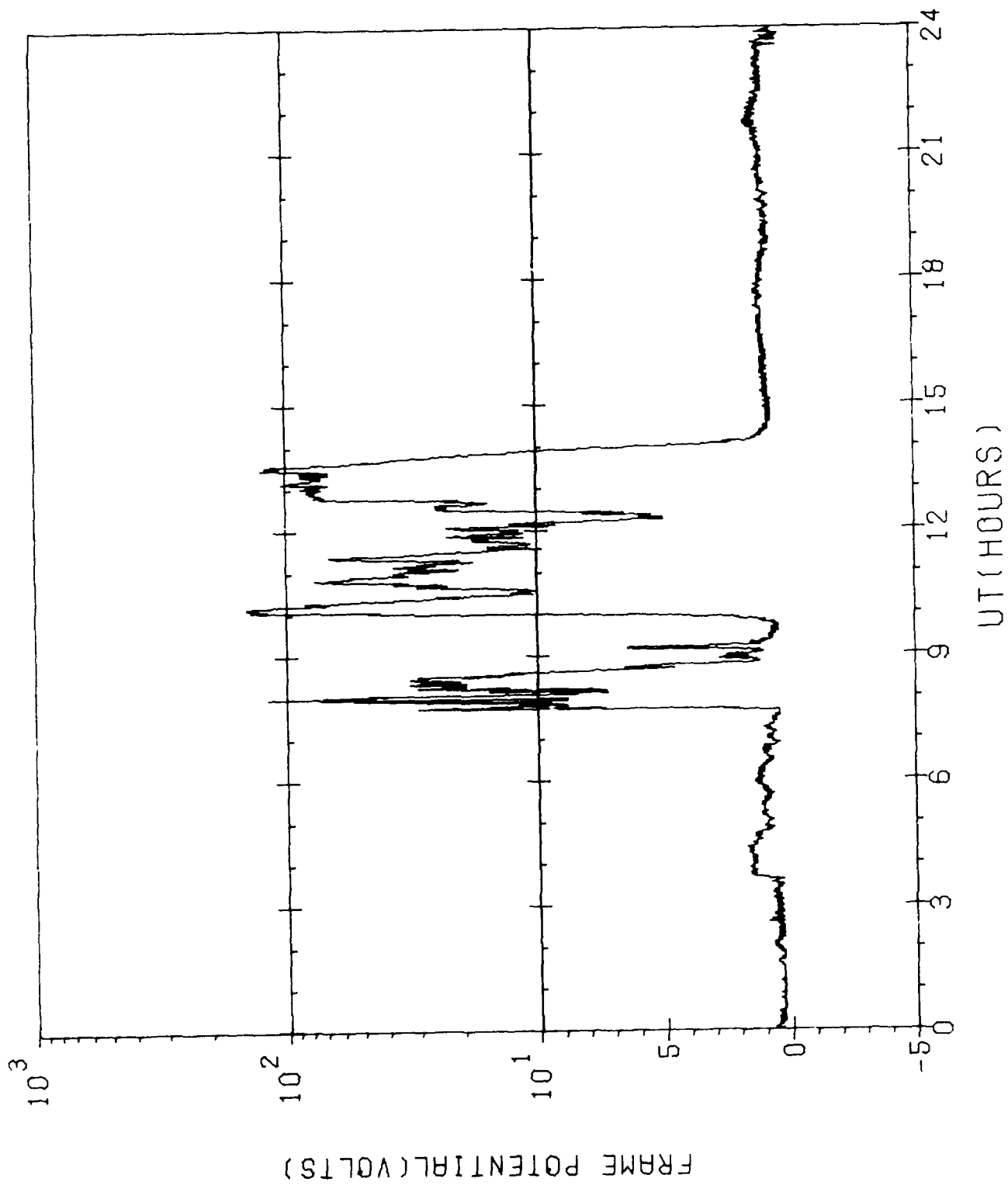
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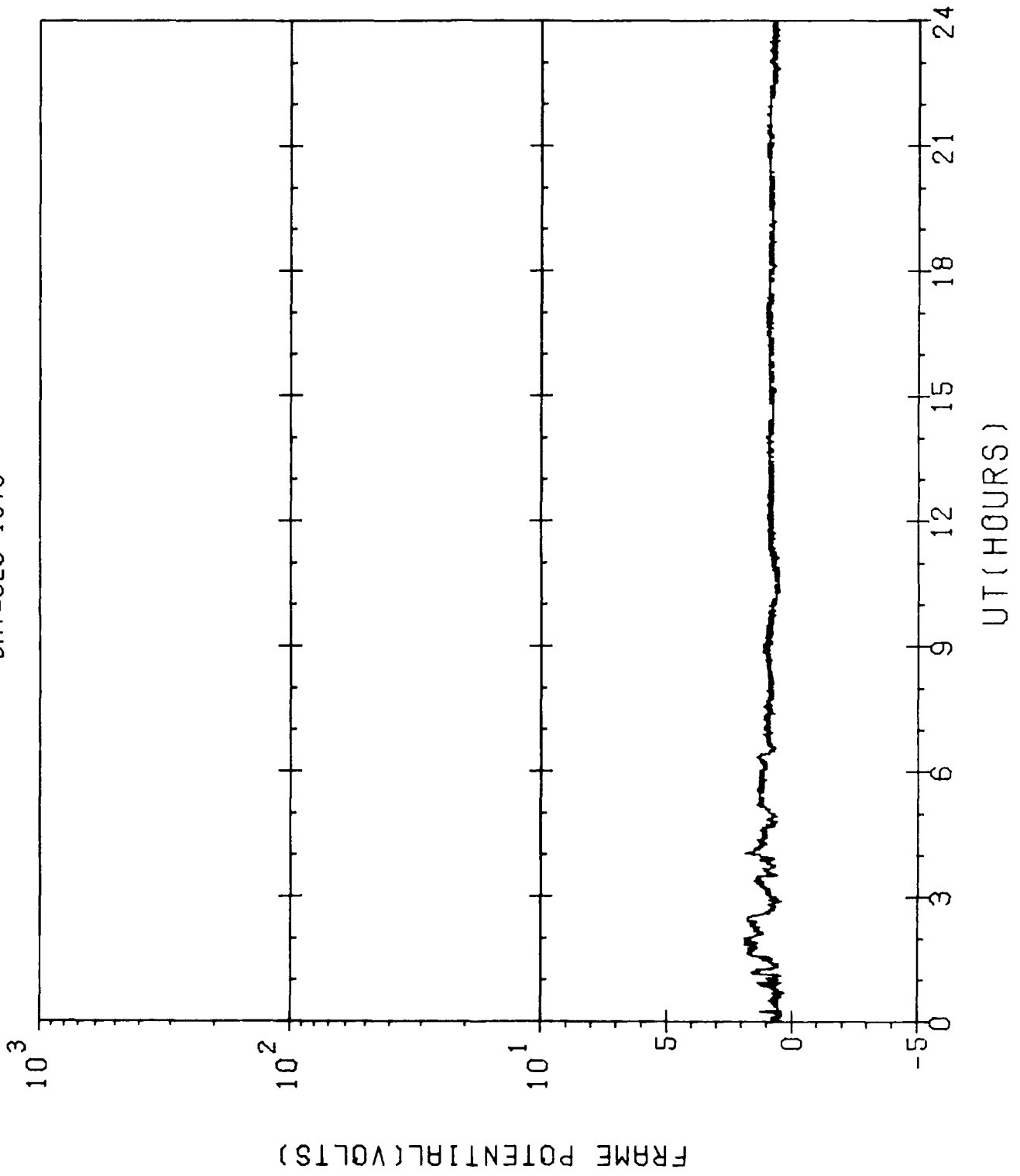


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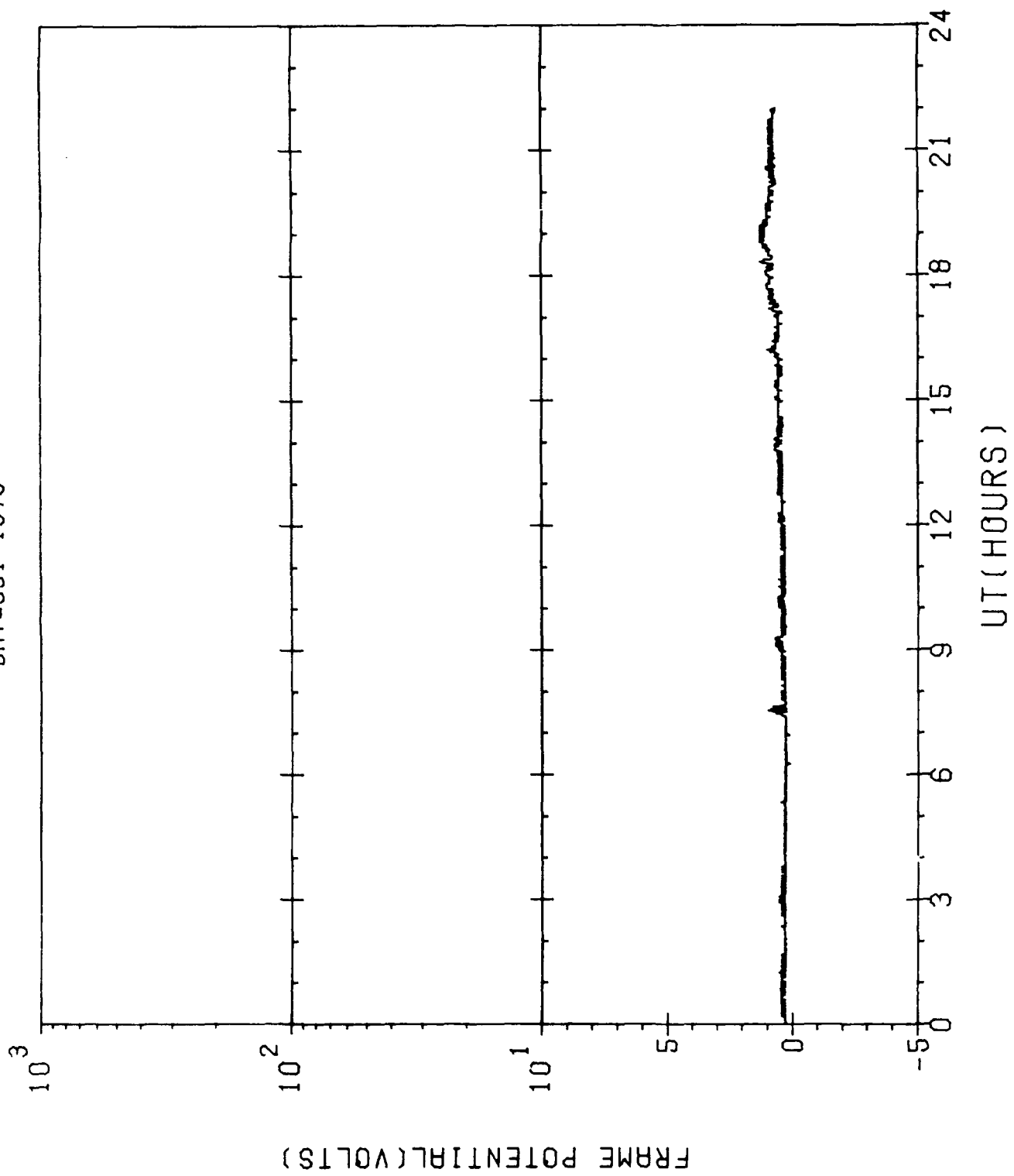




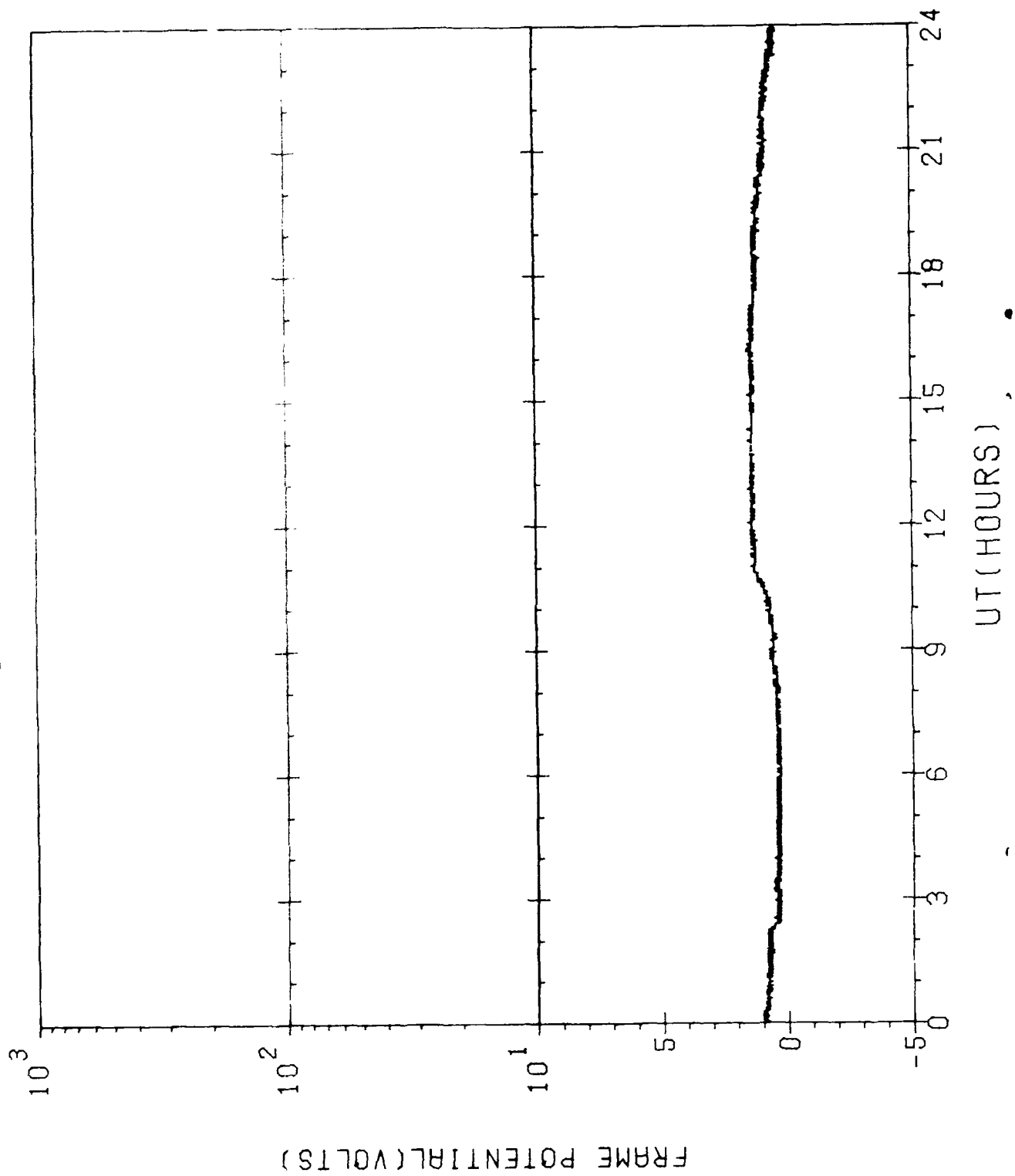
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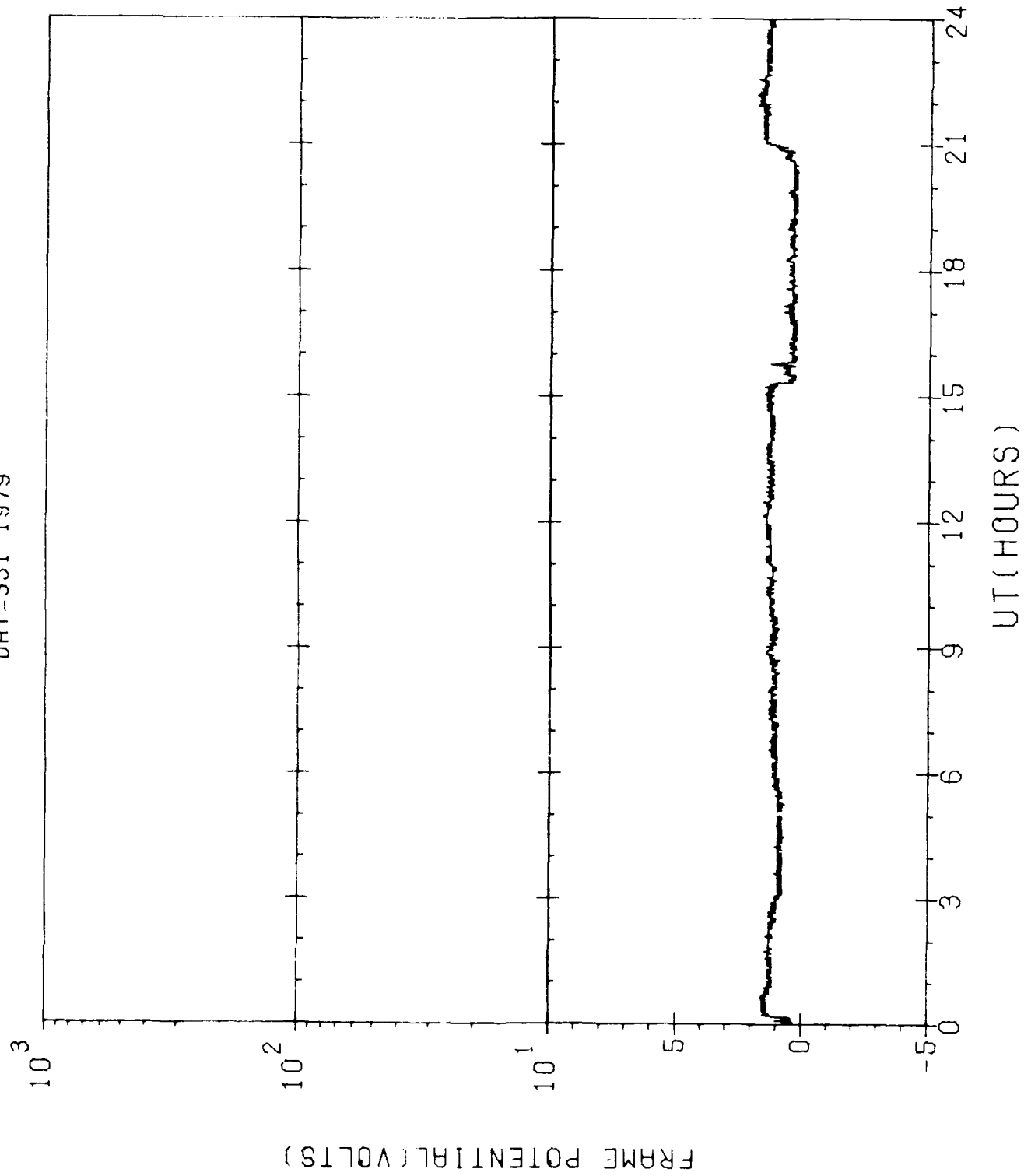
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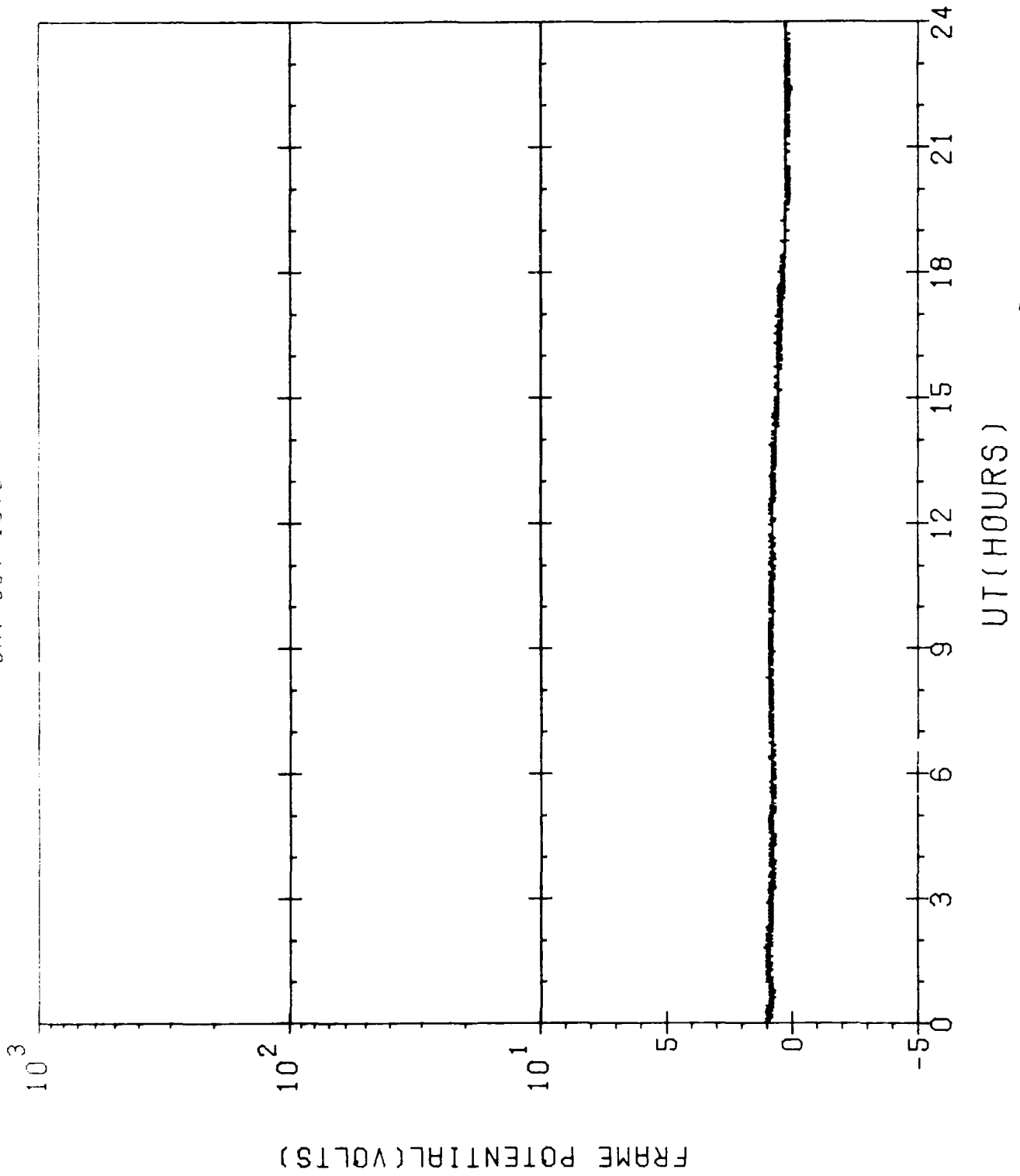
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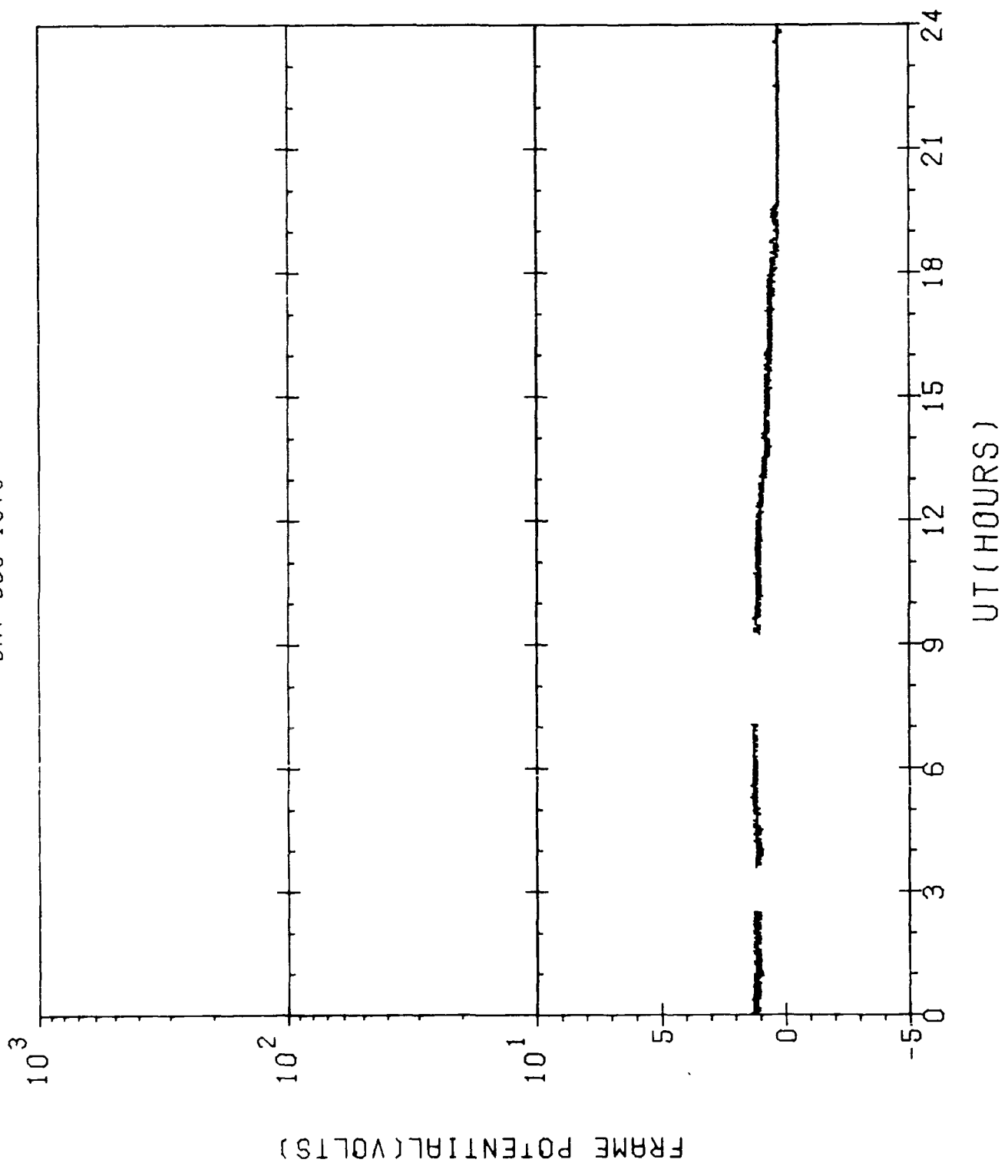
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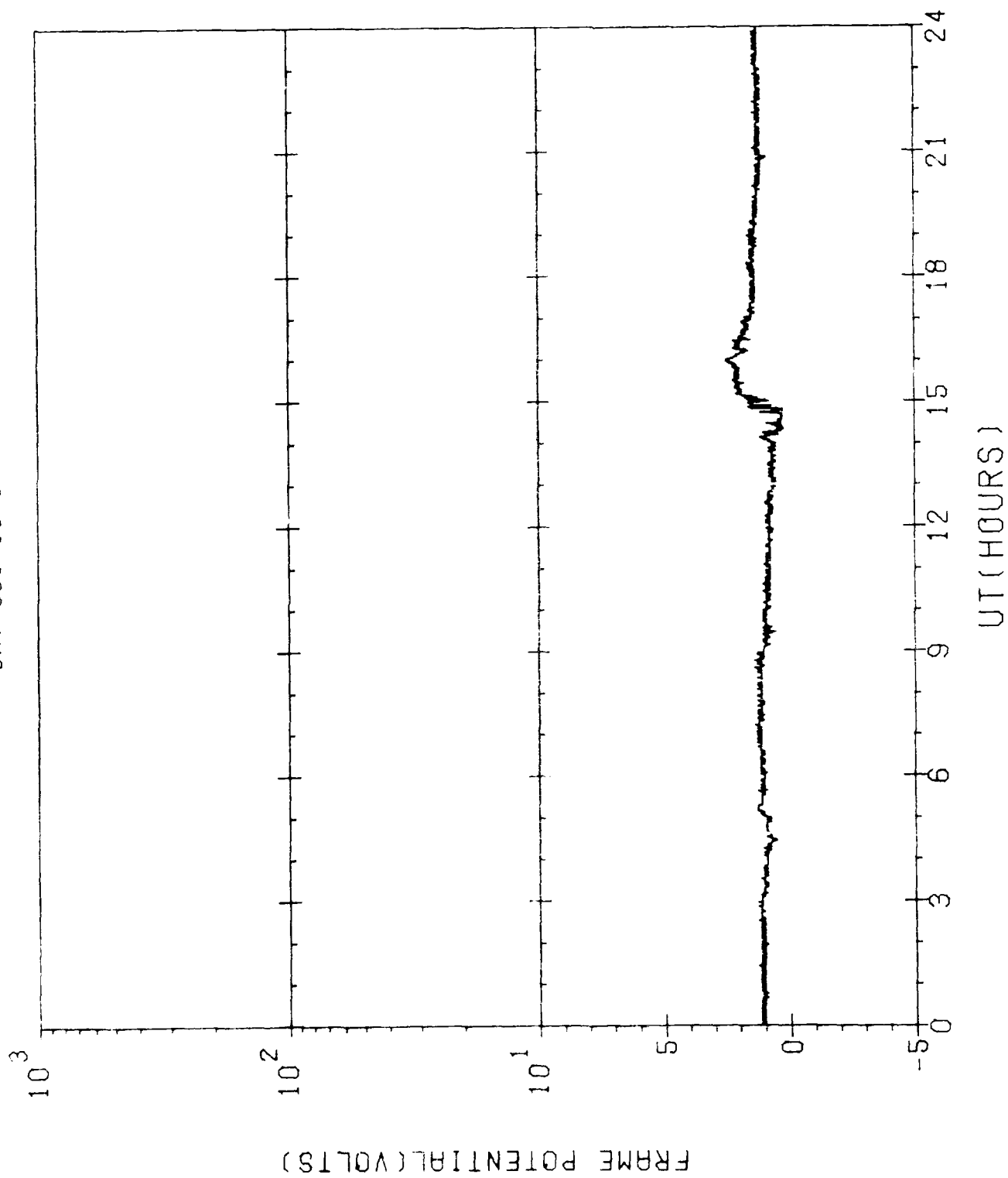
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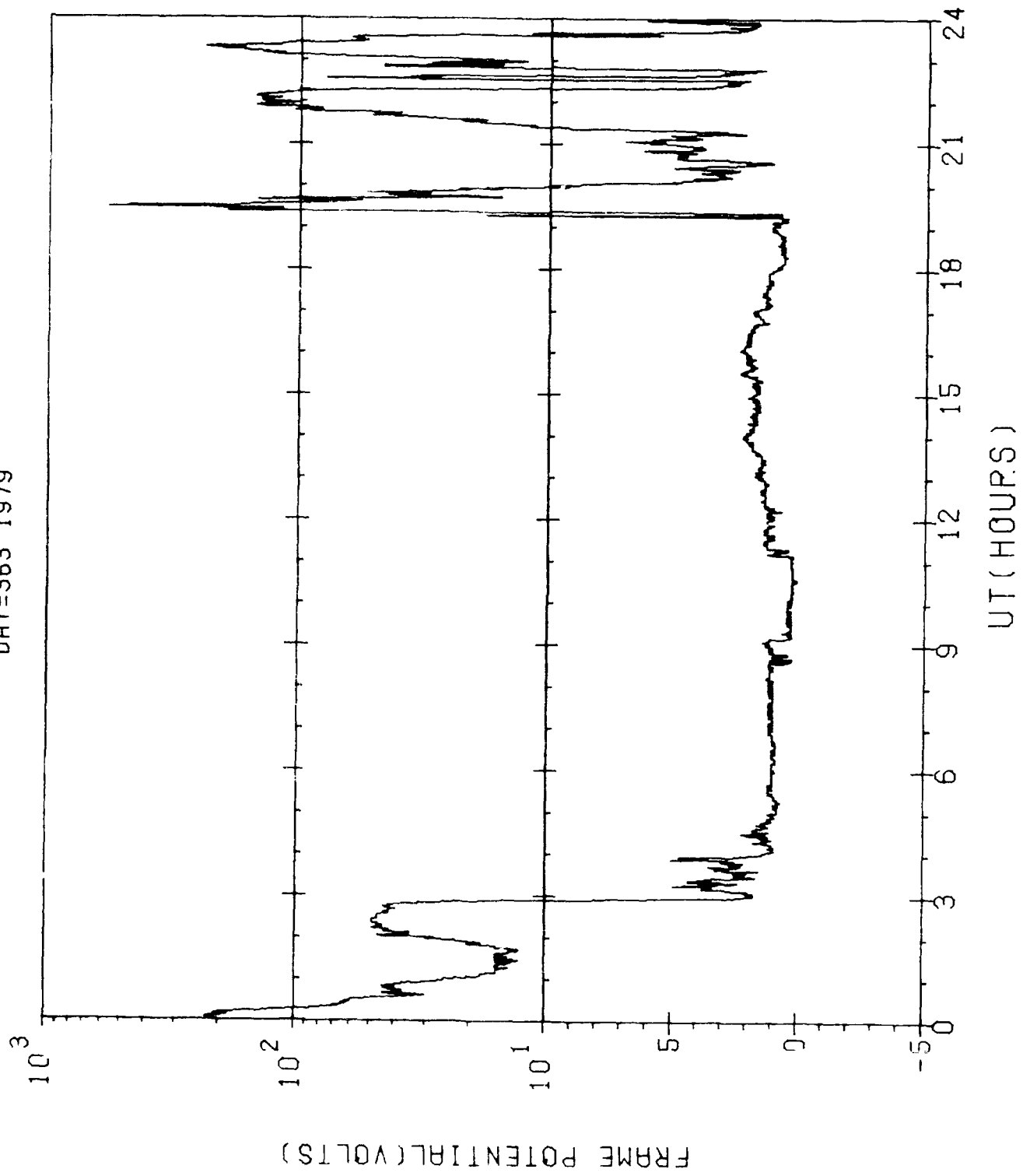
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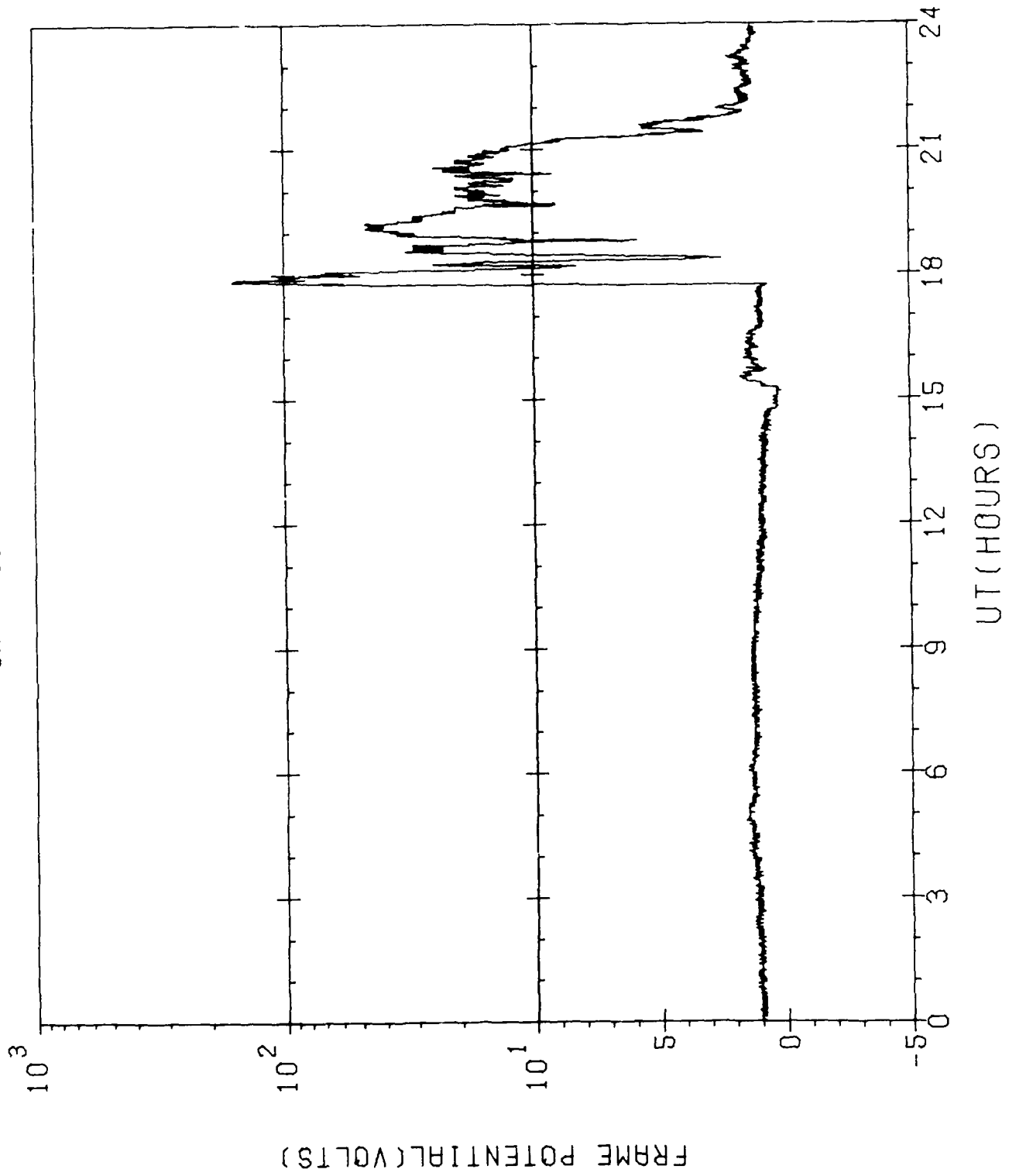


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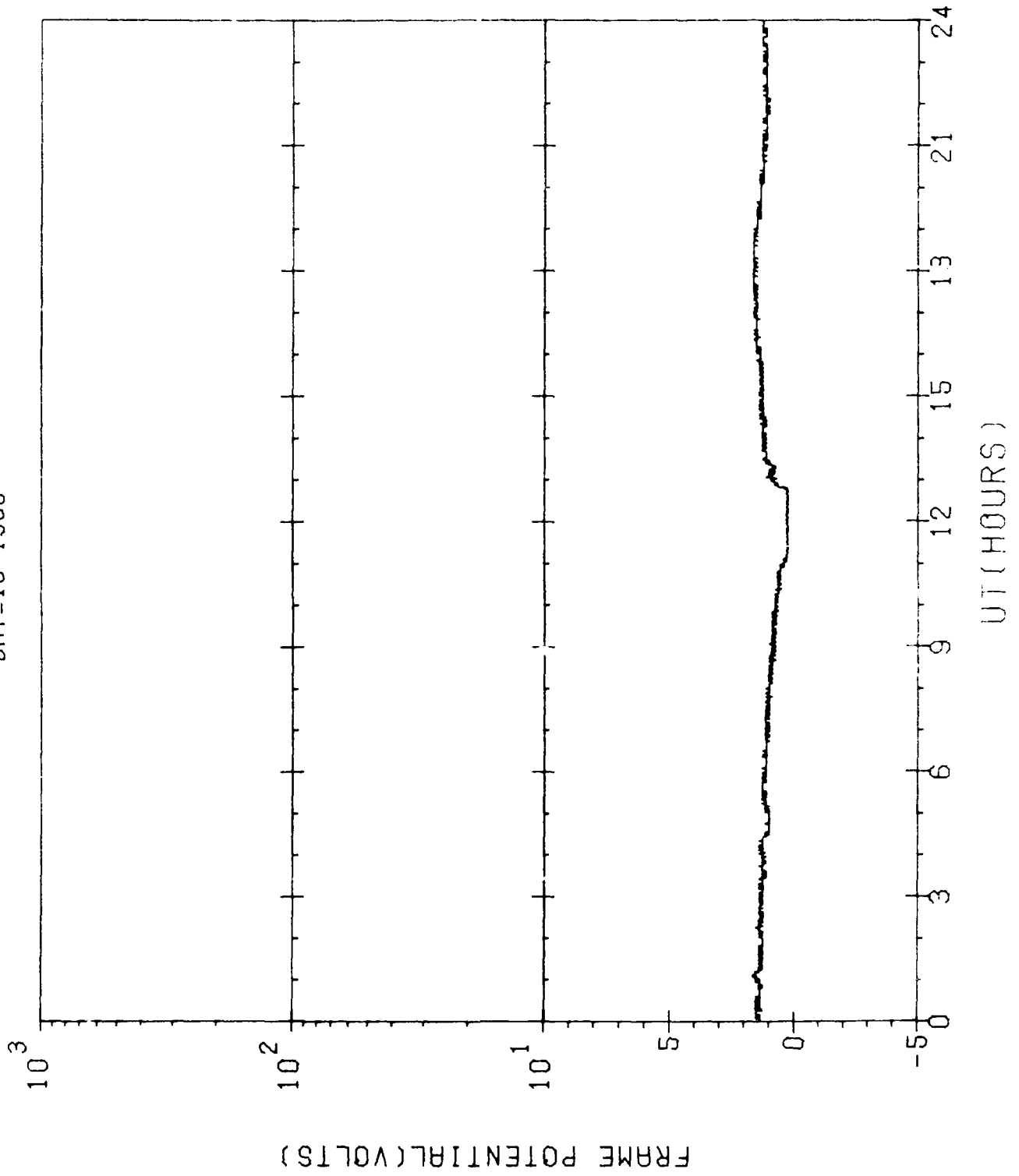




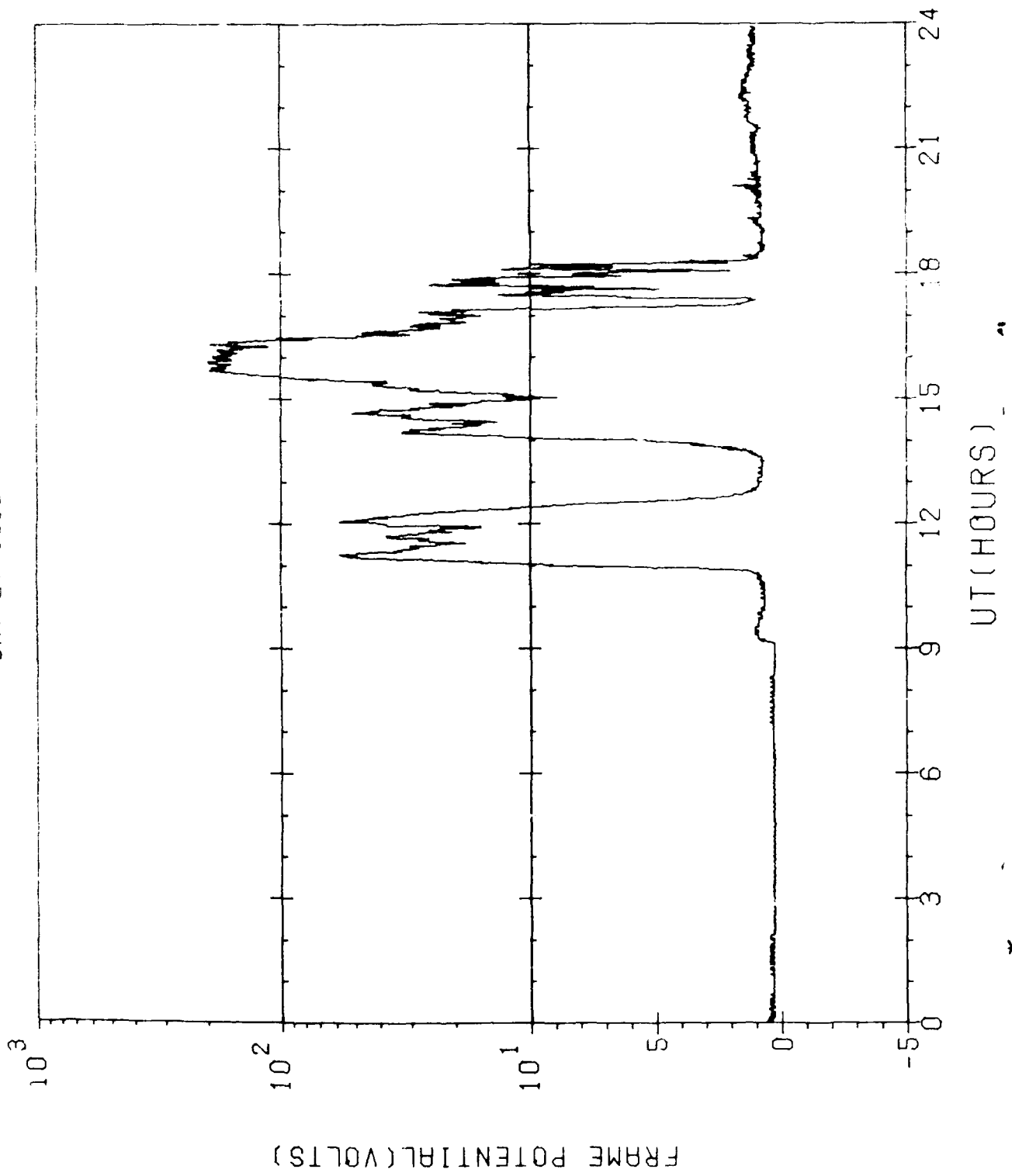
SCATHA-SC10(ATLAS)  
DAY=4 1980



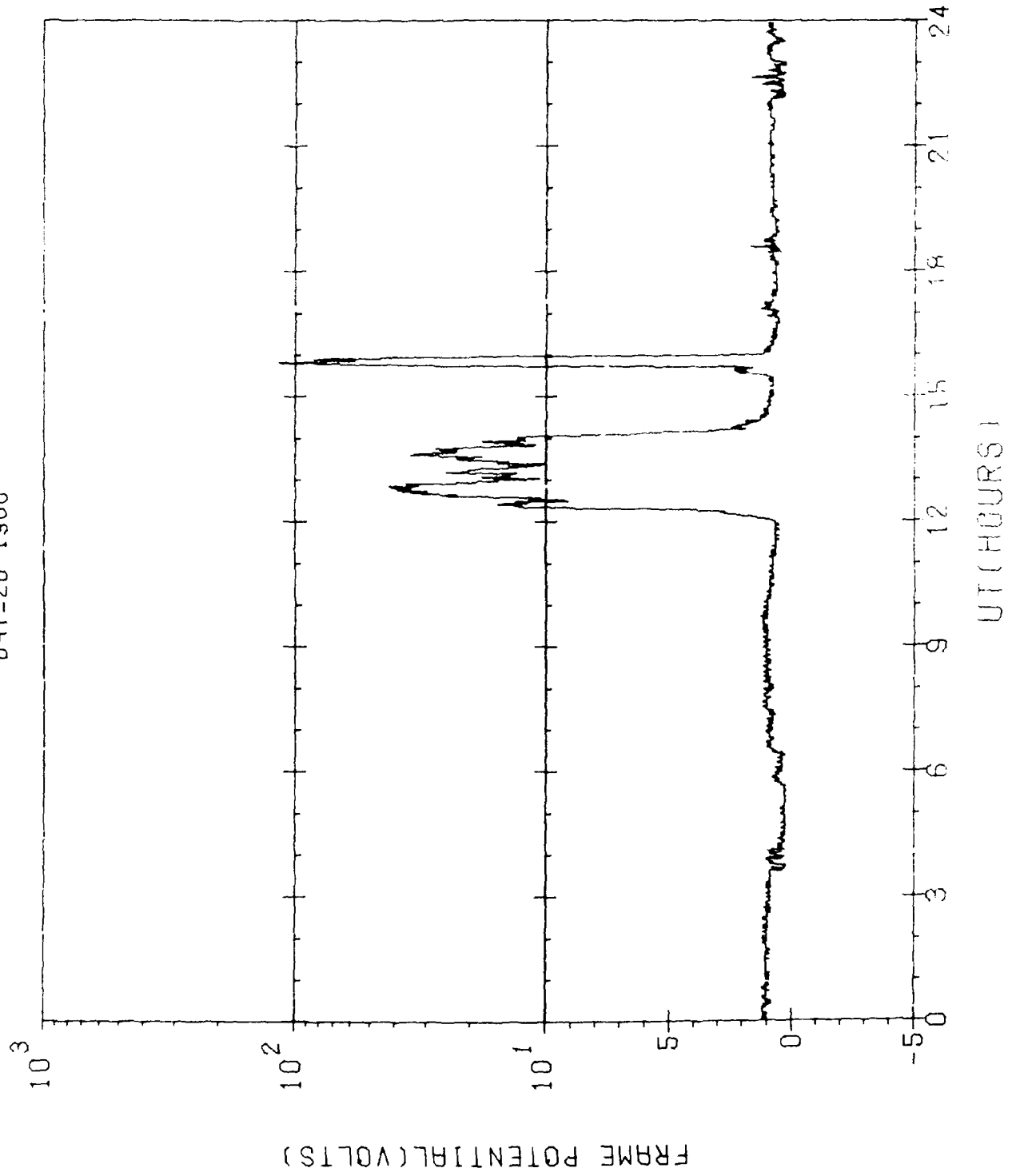
SCATHA-SC10(ATLAS)  
DAY=18 1980



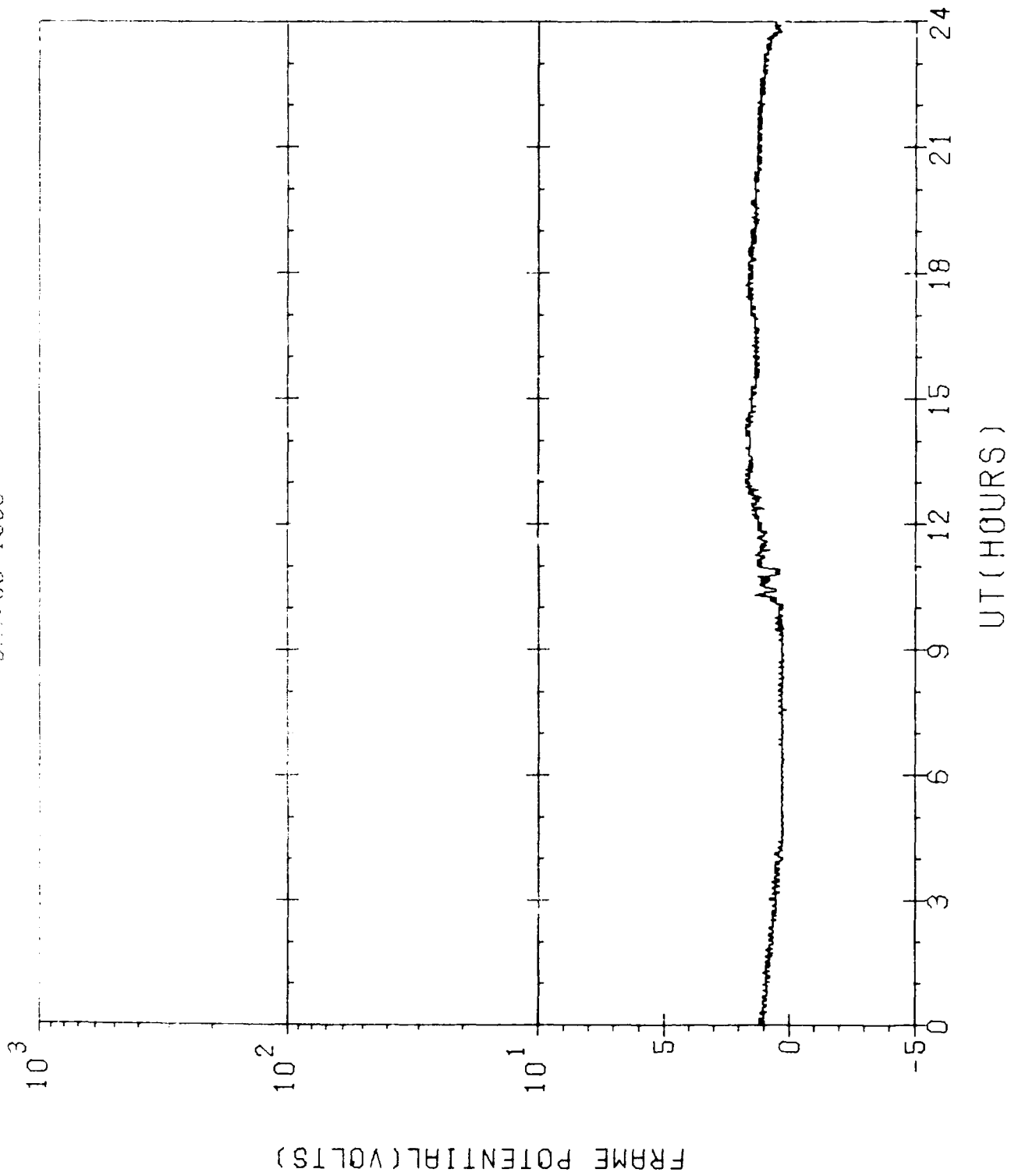
SCATHA-SC10(ATLAS)  
DAY=27 1980



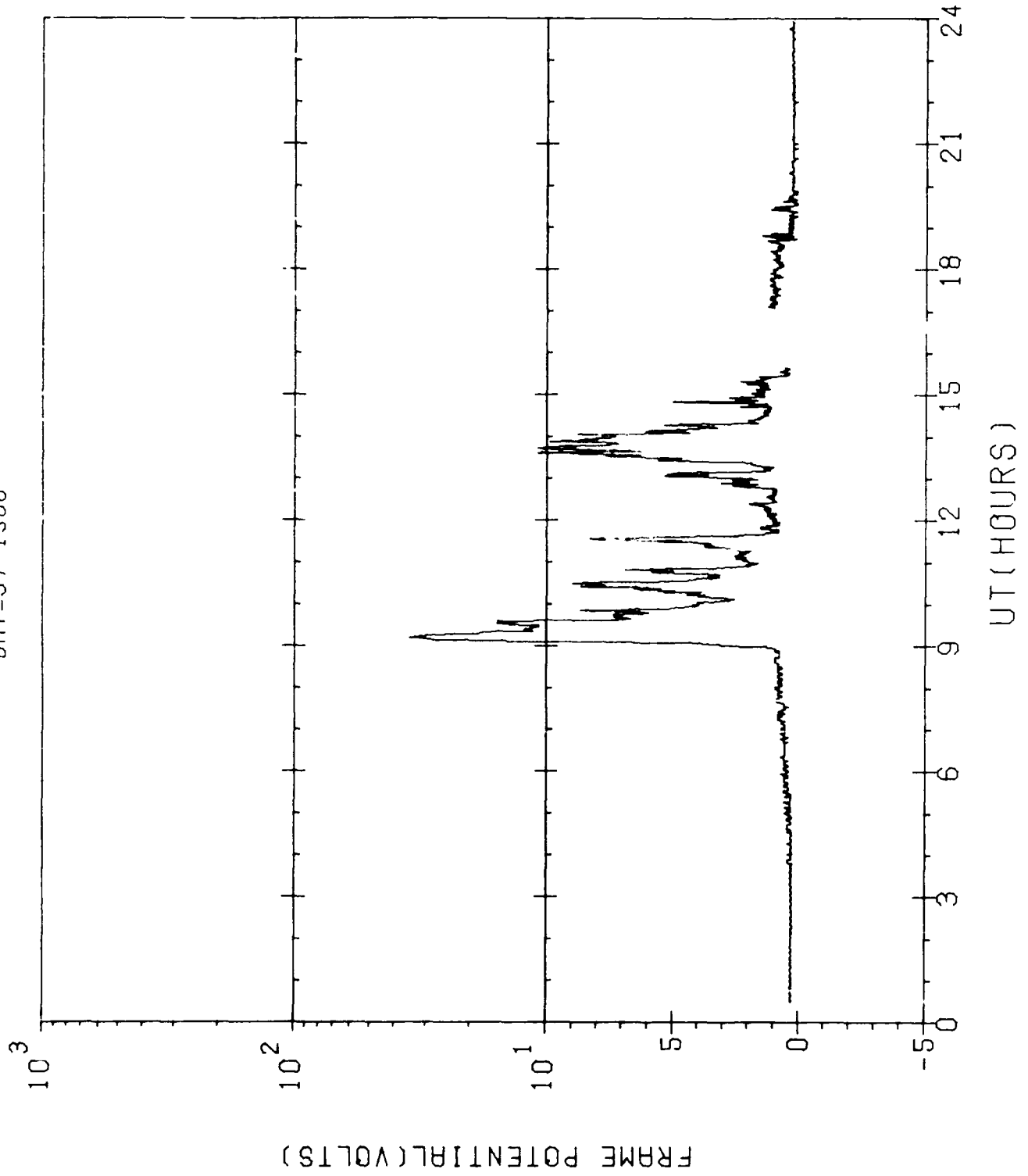
SCATHA-SC10(ATLAS)  
DAY=28 1980



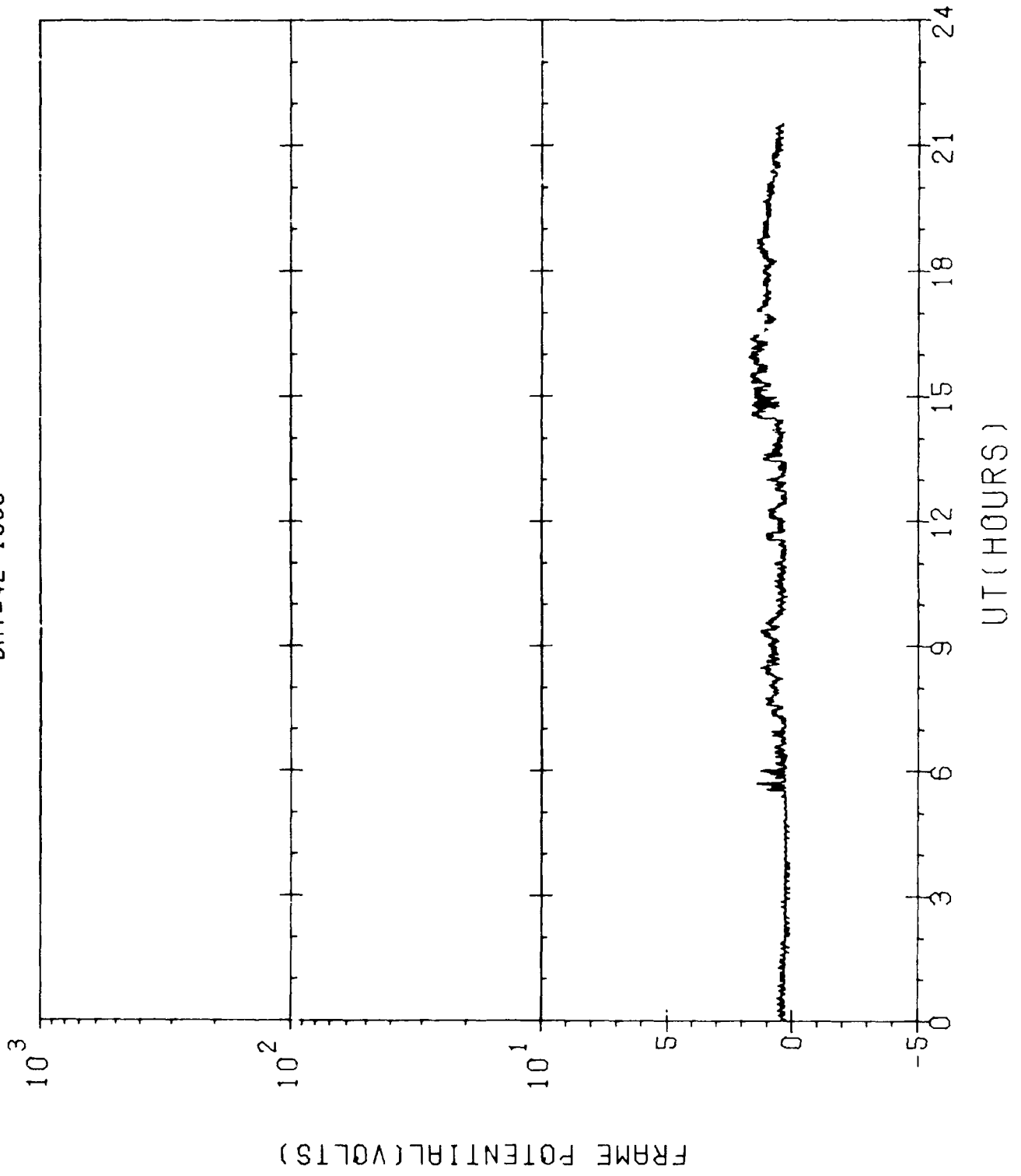
SCATHH SC10(ATHL900)  
DAY-06 1980



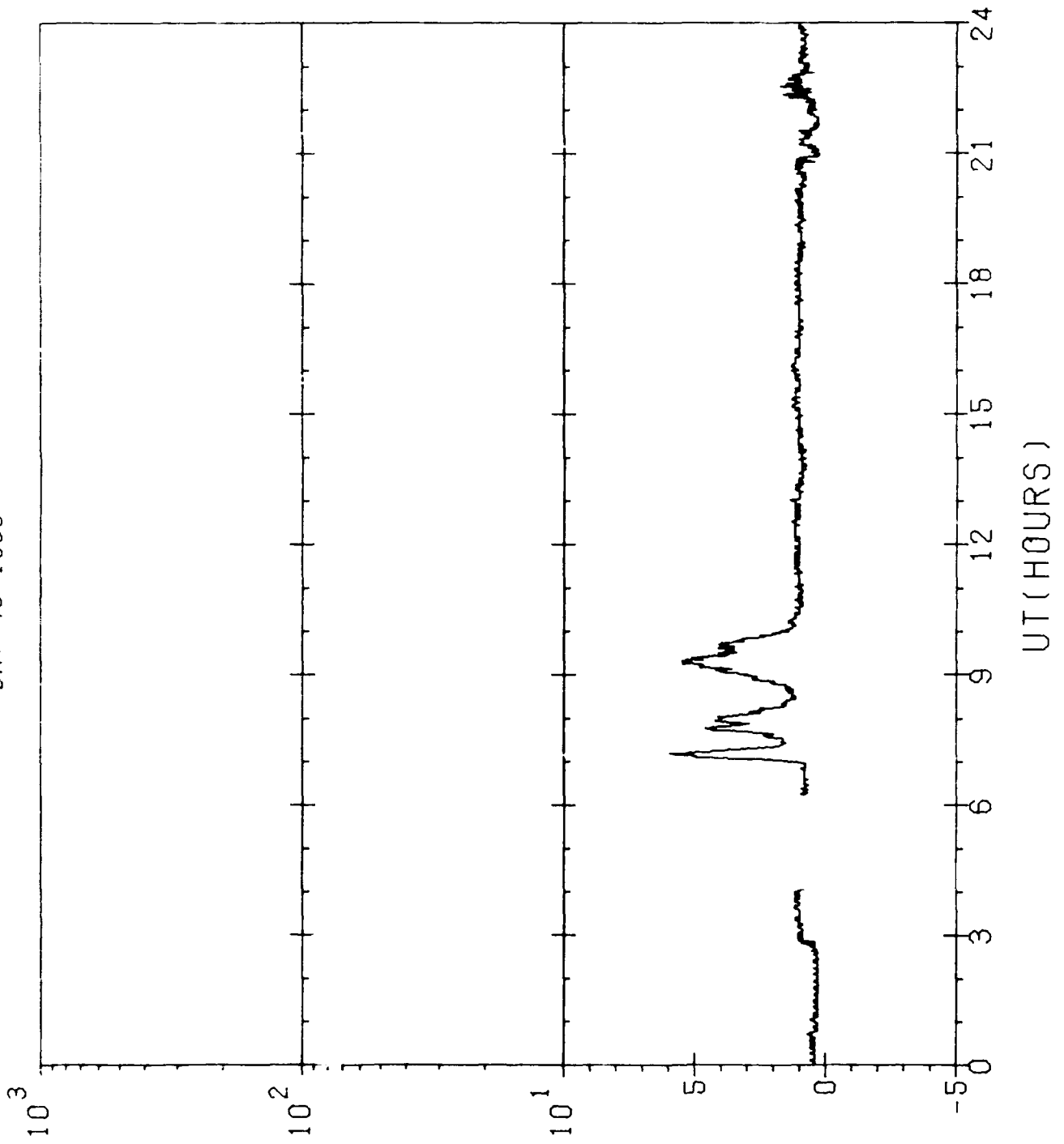
SCATHA-SC10(ATLAS)  
DAY=37 1980



SCATHA-SC10(ATLAS)  
DAY=42 1980



SCATHA-SC10(ATLAS)  
DAY=46 1980



FRAME POTENTIAL (VOLTS)

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