

**Riometer Record of 30 MHz Cosmic Noise  
at Syowa Station, Antarctica in 1974**

**Ichiro YAMAZAKI and Isao SHIRO  
(Radio Research Laboratories, Koganei-shi, Tokyo)**

**1. Introduction**

Observations of 30 MHz cosmic radio noise with a standard riometer (relative ionospheric opacity meter) have been carried out at Syowa Station, Antarctica since February of 1966 by representatives from the Radio Research Laboratories.

This report has been prepared in order to make the data available to ionospheric physicists. The data records covering the period from January 1 to December 31, 1974 are deposited in the Radio Research Laboratories.

Inquiries about the contents of this report should be addressed to:

Radio Research Laboratories  
Ministry of Posts and Telecommunications  
2-1, Nukui-Kitamachi 4-chome, Koganei-shi,  
Tokyo 184, Japan

**2. Location**

Syowa Station			
Geographic		Geomagnetic	
Latitude	Longitude	Latitude	Longitude
60°00' S	39°35' E	69.6° S	77.1° E

**3. Observers**

In January, 1974

Ichizo NISHIMUTA (Radio Research Laboratories)  
Hisashi YABUUMA (Radio Research Laboratories)

From February to December, 1974

Ichiro YAMAZAKI (Radio Research Laboratories)

Isao SHIRO (Radio Research Laboratories)

#### 4. Method of measurement

The standard riometer, which is still in operation at Syowa Station, has a frequency of 30 MHz and a bandwidth of 3.5 kHz. It is connected to a vertically directed five-element Yagi antenna which is designed to match the 50 ohm coaxial transmission line (8D-2V) of 80 meters in length. The elements of the antenna are oriented in the east-west direction.

The noise power output is recorded by a pen recorder with a 1 mm/min paper speed, and noise power levels of 0, 1, 2, 3 and 4 dB (from a reference noise diode) are introduced into the receiver once a day for calibration.

#### 5. Remarks

The noise power measured by a riometer is not identical with the cosmic noise power itself because of ionospheric absorption. If the ionosphere is in a quiet state the diurnal variation of the cosmic noise power is easily extracted from the chart recordings. However, several complications can occur because of the seasonal, diurnal and abnormal short term variations in ionospheric absorption.

On account of the rotation of the earth, there is a difference between solar and sidereal time. Therefore the time (local time) when the same radio source passes the zenith gets earlier by about 4 minutes each day and returns to its initial state in a year.

Ionospheric absorption data obtained by means of the riometer method are given in the C.N.A. tables, where the cosmic noise absorption is defined by the deviation of the cosmic noise from its monthly reference level. The reference level is calculated from selected quiet diurnal variations in the month. The hourly values of the cosmic noise absorption are shown in dBm.

## References

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Table 1. 30 MHz cosmic noise absorption at the first minute of each hour.

SIOWA STATION				45° EAST MERIDIAN TIME ( U.T.+3 hours )																		January 1974			
DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	0.1	0.2	0.0	0.4	0.0	0.6	0.4	0.0	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0	1.8	0.1	0.0	0.0	1.0	
2	0.0	2.0	0.2	0.2	0.0	0.6	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	1.0	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.2	0.6	0.9	0.9	0.1	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	0.7	0.7	1.0	0.1	0.1	0.0	
4	0.0	0.0	0.0	1.8	0.5	0.6	1.2	1.0	0.5	0.1	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.5	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	
6	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
*7	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	0.0	0.0	0.0	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
*9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	
11	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.4	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12	0.0	0.0	0.3	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	0.0	0.0	0.5	0.6	1.4	1.0	1.0	0.3	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16	0.0	0.0	0.0	0.0	0.0	0.4	0.7	1.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
17	0.0	0.0	0.0	0.0	0.0	0.4	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
18	0.4	1.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.3	1.2	0.6	0.3	0.3	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19	0.9	0.2	0.0	1.5	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	
20	0.7	0.1	0.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.0	0.2	0.2	0.1	0.5	0.8	1.0	1.0	0.2	0.0	0.3	0.1	1.0	0.0	
21	0.0	0.3	0.7	0.0	0.0	0.0	0.3	1.0	0.0	0.0	0.0	1.5	0.2	0.5	0.0	3.8	2.0	2.0	0.6	0.0	0.0	0.0	0.0	0.0	
*22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	0.0	0.0	1.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	
25	0.0	0.0	0.7	0.0	0.0	0.5	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26	0.0	0.0	0.0	2.5	1.0	0.0	0.8	0.5	1.0	0.8	0.0	3.5	1.5	3.0	1.5	1.0	1.8	1.5	1.5	0.0	0.0	0.0	0.0	0.5	
27	0.8	0.2	0.0	0.5	0.8	2.0	2.5	0.8	0.0	1.0	0.7	0.4	0.7	1.9	2.2	2.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28	0.0	1.0	0.5	0.0	2.0	0.9	1.2	1.2	0.9	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.0	
29	0.0	0.0	0.3	1.4	0.0	0.0	0.0	0.0	0.7	0.1	1.2	0.5	0.0	1.8	0.5	0.7	0.5	1.0	0.7	0.2	0.0	0.0	0.0	0.0	
30	0.0	0.0	0.5	0.5	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31	0.0	0.0	0.3	1.3	0.5	0.6	0.0	0.0	0.0	0.5	1.4	0.8	1.0	0.4	0.4	0.5	0.0	1.3	0.4	3.0	0.0	0.0	0.0	0.0	
Mean	0.09	0.17	0.16	0.48	0.24	0.37	0.49	0.32	0.18	0.23	0.22	0.31	0.14	0.26	0.18	0.34	0.30	0.27	0.18	0.22	0.05	0.02	0.08	0.15	

\* : Quiet day

## SYOWA STATION

45° EAST MERIDIAN TIME ( U.T.+3 hours )

February 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.0	0.0	0.9	2.3	0.3	1.5	0.8	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.1
2	0.0	1.6	1.8	1.0	1.3	0.7	0.8	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0	0.2	0.1	0.0
3	0.0	0.2	0.5	0.8	0.3	1.2	1.1	1.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.7	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.8	0.5	0.4	0.5	1.1	1.1	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.3	0.2	0.0	0.0	0.0	0.3	0.0
5	0.0	0.0	0.2	0.5	0.8	0.5	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.0	0.2	0.0	0.0
6	0.0	0.1	0.3	0.3	0.3	0.5	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.3	1.9	0.8	1.0	0.9	0.7	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.0
8	0.0	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	0.0	0.0
9	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.2	0.3	0.3	0.5	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	0.6	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
12	0.0	0.7	1.6	0.8	0.0	0.0	0.7	0.2	0.7	1.8	1.5	1.0	0.5	0.2	0.0	0.8	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.2	0.4	0.8	1.0	0.5	1.1	0.1	0.0	0.0	0.4	0.0	0.1	0.0	1.0	1.0	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.7	0.6	2.1	1.5	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.0	0.3	0.1	0.1	0.0	0.3	0.0	0.0	0.0
*15	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
*16	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0
17	0.0	0.0	0.0	0.0	0.2	0.2	0.3	1.0	0.3	0.0	0.0	0.0	0.0	0.4	0.5	0.5	0.5	1.0	1.3	0.6	0.2	0.0	0.0	0.0
*18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.0	0.0
21	0.0	0.0	0.0	0.2	0.0	1.2	1.0	0.3	0.0	0.8	0.3	0.1	0.2	1.4	0.8	0.5	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.5	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.7	0.2	0.0	0.0	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.7	0.7	1.2	0.0	0.8	0.5	0.2	0.2	1.1	2.0	1.5	1.0	0.8	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	2.5
24	0.0	0.0	1.0	1.0	3.6	1.0	0.3	0.0	0.0	0.1	0.6	3.5	2.3	1.6	2.5	2.4	0.8	1.0	0.1	0.1	0.0	0.0	0.6	0.0
25	0.0	2.1	0.8	1.0	1.7	0.7	0.5	1.7	1.3	2.2	2.0	2.0	2.0	1.4	2.2	1.0	1.4	0.1	0.1	1.2	0.0	0.0	0.5	0.1
26	0.0	0.0	0.2	0.0	0.0	1.0	1.8	0.3	0.5	0.4	1.0	1.5	2.8	1.2	1.9	2.3	1.3	0.6	0.4	0.8	1.0	0.0	0.0	0.0
27	0.0	0.0	0.5	0.0	0.0	0.5	0.9	0.7	1.3	2.7	0.9	0.9	0.9	0.6	0.5	0.7	1.3	0.3	0.1	1.0	0.0	0.0	0.0	0.0
28	0.5	1.5	1.3	0.0	0.4	1.0	0.0	0.7	0.6	1.0	2.5	3.1	1.7	1.5	1.3	1.0	0.0	1.3	0.3	0.6	0.0	0.0	0.0	0.0
Mean	0.02	0.27	0.48	0.39	0.65	0.49	0.56	0.48	0.30	0.39	0.39	0.53	0.43	0.35	0.49	0.48	0.31	0.23	0.14	0.23	0.13	0.06	0.07	0.10

\* : Quiet day

SIOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

March 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.4	0.6	0.4	1.7	2.0	1.4	0.6	1.1	0.1	0.0	0.0	0.5	1.1	2.5	1.4	1.5	1.3	1.9	1.5	0.6	0.7	0.7	0.4	0.3
2	0.4	0.4	1.5	2.8	2.0	1.6	1.9	1.2	1.5	1.0	0.0	0.3	1.5	1.2	1.1	1.3	1.1	1.0	0.2	1.1	1.0	0.2	0.0	0.0
3	0.3	0.9	0.6	0.6	1.3	1.7	0.5	0.0	0.0	0.0	0.0	1.3	1.1	1.4	0.5	0.3	0.6	0.2	0.7	0.7	0.3	0.0	0.0	0.0
4	0.0	0.1	0.5	0.8	1.3	1.2	1.5	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.8	0.3	0.7	0.3	0.0	0.0	0.0
5	0.0	0.2	0.4	0.2	0.7	1.0	1.0	0.0	0.0	0.3	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.3	0.2	0.6	0.1	0.0	0.0	0.0
6	1.4	0.5	0.6	0.6	0.6	1.0	1.6	0.6	0.5	0.1	0.0	0.0	0.0	0.0	1.0	0.6	0.0	0.0	0.6	0.6	0.0	0.0	0.3	0.0
7	0.0	0.3	0.3	1.5	0.3	0.5	1.7	0.3	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	1.0	0.8	0.2	0.4	0.0	0.2	0.0	0.4	2.7	2.3	0.6	0.7	0.6	0.5	0.0	0.5	0.7	0.6	0.3	0.1	0.1	0.0
9	0.0	0.0	1.5	0.8	0.5	0.2	0.2	0.6	1.9	1.1	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.3	0.0
10	0.0	0.0	0.5	0.1	0.3	0.3	0.8	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.0	0.0	0.0	0.0	1.1	0.5	0.0	0.0	0.0	0.0
11	0.2	0.3	0.2	0.0	0.2	0.7	1.0	1.2	1.0	0.7	0.5	2.0	1.6	1.5	3.0	1.0	1.6	2.0	0.6	0.0	0.0	0.0	0.0	0.0
12	0.0	0.1	0.9	1.5	0.9	1.9	0.5	0.5	0.3	2.0	0.6	0.6	0.2	0.0	0.5	1.1	0.5	0.5	0.6	0.6	0.0	0.0	0.0	0.0
13	0.0	0.0	0.3	0.3	0.5	0.6	0.1	0.1	1.3	0.5	0.0	0.0	0.2	0.7	0.4	0.0	0.0	0.5	0.2	0.2	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	2.5	0.7	0.6	0.3	0.8	1.5	1.4	1.3	1.5	0.2	0.6	0.3	0.0	0.0	0.0
*15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.1	0.3	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	1.7	0.7	0.5	0.0	0.0	0.0	1.1	0.0	0.2	0.0	0.8	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.0	0.2	0.0	0.0	0.0	0.2	0.0	0.3	0.2	0.2	0.3	0.2	0.1	0.0
*18	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*20	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
21	1.0	0.5	0.1	0.3	0.0	1.7	1.0	1.5	3.0	1.5	0.6	0.0	0.5	1.5	1.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	1.5	0.0
22	2.8	5.5	0.2	0.0	0.5	0.5	0.8	0.7	1.0	1.9	0.6	2.8	2.3	1.0	4.3	0.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.4	3.9	1.2	0.0	3.5	3.0	1.4	1.1	1.0	0.0	0.0	1.5	1.8	1.0	0.6	4.3	1.7	0.4	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	2.2	0.5	0.0	1.5	1.5	4.5	2.0	1.4	c	c	c	c	c	c	c	1.5	1.3	0.6	0.2	0.5	0.0	0.0
25	0.0	0.5	4.4	0.6	3.7	2.0	1.0	2.1	1.5	1.4	2.0	2.7	2.2	2.0	2.1	2.5	2.0	0.0	0.0	0.3	0.2	0.1	0.5	0.4
26	0.0	0.3	0.5	1.9	0.3	1.5	1.8	1.8	0.6	0.1	2.3	0.9	0.0	0.5	0.0	0.0	2.5	2.0	0.4	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	1.1	0.6	1.3	0.2	0.0	0.0	1.0	3.0	0.5	0.5	1.5	3.7	1.9	1.5	1.7	2.5	1.4	0.1	0.3	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.3	0.3	1.3	3.3	1.3	1.2	0.5	0.7	1.6	1.8	2.1	2.2	0.5	0.4	0.3	0.1	0.0
29	0.0	0.3	0.4	1.3	0.8	0.0	0.0	1.5	1.3	3.0	1.0	0.9	2.0	3.7	2.0	1.5	0.5	1.5	1.5	0.0	0.0	0.1	0.5	0.0
30	1.9	0.3	0.6	0.1	3.0	0.8	1.0	2.5	1.9	0.7	2.7	1.4	0.7	1.0	0.3	0.6	0.6	0.0	0.0	1.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	1.4	0.6	0.4	0.7	0.5	0.9	2.7	1.7	0.9	1.1	2.0	1.3	1.9	2.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Mean	0.27	0.36	0.72	0.65	0.68	0.84	0.75	0.79	0.74	0.88	0.67	0.64	0.75	0.96	0.90	0.65	0.84	0.68	0.50	0.34	0.15	0.07	0.15	0.04

\* : Quiet day

c : Failure of equipment

## SYOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

April 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.3	0.5	0.3	0.9	0.9	0.0	0.0	0.0	0.0	0.0	2.5	3.0	0.5	2.3	3.0	1.5	0.5	0.1	0.0	0.0	0.1	0.1	0.0
2	0.0	0.4	0.1	0.8	1.0	0.9	0.0	0.0	0.0	0.4	0.3	0.0	2.9	1.0	1.0	0.4	0.5	0.5	0.5	0.3	0.0	0.1	0.1	0.1
3	0.0	0.4	0.4	0.1	0.0	1.5	0.4	0.0	1.0	1.0	0.9	0.0	0.0	1.1	1.5	1.0	0.6	0.3	0.2	0.0	0.0	0.0	1.5	0.9
4	0.0	0.0	0.0	0.0	0.5	4.5	3.5	0.3	0.5	0.0	4.4	4.5	3.2	2.0	1.3	2.3	1.6	1.0	0.6	0.0	0.0	0.3	0.4	0.3
5	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.1	0.0	0.1	1.5	1.0	2.0	1.2	0.3	0.0	0.1	0.1	0.2
6	0.0	1.0	0.0	0.0	0.7	0.3	0.1	0.0	2.2	1.6	2.5	1.2	0.3	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.3	0.0	0.1	2.9	2.7	1.8	0.1	0.7	0.0	1.2	1.5	4.2	1.2	1.4	2.4	1.8	2.7	1.7	0.6	0.0	0.4	0.2	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.1	0.2	0.0	0.0	0.0	0.0	1.1	0.6	1.9	1.5	0.5	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.1	0.6	0.0	0.0	1.8	2.2	1.3	0.6	0.5	0.2	0.0	0.0	0.2	0.3
10	0.5	0.4	0.3	0.0	0.4	0.4	1.6	1.2	0.9	0.3	0.5	2.1	4.0	1.2	0.6	0.0	1.3	0.6	0.7	0.1	0.0	0.1	0.1	0.0
11	0.0	0.0	1.8	0.7	1.4	1.2	3.5	2.6	1.0	1.0	1.1	0.3	0.8	1.0	1.0	0.9	0.3	0.0	0.3	0.0	0.0	0.0	0.9	0.3
*12	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.8	0.9	0.4	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.6	0.7	0.4
14	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3	0.3	0.0	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
*15	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.4	0.6	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.3	0.4	0.1
*16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*17	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.3	0.1
18	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.8	3.2	0.1	0.9	0.0	0.0	1.8	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.2	0.4	0.0
19	0.0	0.0	0.0	0.0	0.0	0.5	0.6	1.5	2.5	0.8	0.0	1.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.2	0.0	0.0	0.0	0.8	0.5	2.0	4.0	1.5	0.1	1.0	1.8	2.7	1.0	0.0	3.4	1.9	0.0	0.0	0.0	0.1	0.3	0.0
21	0.0	1.6	0.5	0.2	0.0	1.0	0.9	0.7	2.6	1.8	2.5	17.7	3.5	1.5	0.0	0.5	18.0	3.5	1.9	0.6	0.0	c	c	c
22	c	c	c	c	c	c	1.6	2.8	3.0	3.0	5.5	4.1	4.8	3.0	1.8	1.0	1.9	0.7	0.4	0.0	0.0	0.6	0.7	0.2
23	1.7	0.8	0.0	0.0	0.7	2.8	2.2	1.8	1.2	2.9	2.6	2.6	0.6	1.9	1.9	2.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3
24	0.0	0.0	0.0	0.0	0.9	0.8	0.5	1.1	2.1	0.6	0.9	0.0	0.0	0.0	0.0	0.7	0.3	0.2	0.0	0.0	0.3	0.6	0.5	0.3
25	0.0	0.0	0.9	1.0	1.0	5.4	1.2	1.5	1.9	1.0	5.0	1.0	0.0	0.8	1.2	0.0	1.0	1.5	1.3	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	1.1	1.7	1.9	1.6	1.0	1.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	15.6	0.0	0.0	0.0	2.3	1.7	0.5	0.8	1.2	1.1	0.0	1.6	0.5	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.4	0.6	0.7	1.2	1.5	1.9	3.5	3.1	1.2	1.0	1.7	0.0	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	2.0	0.6	0.7	0.7	0.7	1.3	0.7	1.0	0.9	1.7	0.3	4.1	0.7	1.0	0.5	0.0	0.0	0.4	0.4	0.2	0.0
30	0.0	0.0	0.0	0.0	0.2	0.6	1.0	2.4	2.0	2.5	1.9	1.8	2.2	0.0	0.6	0.6	0.4	0.9	0.9	0.0	0.0	0.0	0.0	0.0
Mean	0.08	0.73	0.16	0.19	0.46	1.05	0.87	0.85	1.22	0.91	1.35	1.51	1.21	0.77	0.77	0.78	1.34	0.73	0.41	0.09	0.03	0.15	0.25	0.12

\* : Quiet day

c : Failure of equipment

SIOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

May 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
*1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.5	0.0	0.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.3	1.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	1.9	2.7	0.6	1.5	2.3	0.7	2.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.5	0.0	0.5	0.1	1.0	2.3	2.2	3.7	2.2	3.2	4.0	1.6	17.5	12.4	4.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
6	0.0	1.0	1.3	0.5	0.7	0.2	0.0	0.0	0.0	1.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	0.4	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.9	0.5	1.4	1.2	0.0	0.2	0.9	0.9	1.5	2.4	3.3	2.0	2.2	2.6	1.5	0.0	0.0	0.5	0.0	0.0	0.0	0.1
*10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*12	0.0	0.0	0.0	0.3	0.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.0	0.0	0.7	2.0	1.0	2.8	1.6	1.9	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.3	0.0	0.0	0.5	4.0	1.0	0.8	0.4	0.0	1.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0
17	0.0	0.3	1.1	1.3	0.5	1.4	0.8	4.4	1.5	2.4	4.0	1.5	1.5	5.0	7.7	3.8	0.9	0.6	0.0	0.1	0.1	0.0	0.0	0.0
18	0.0	0.9	0.8	0.8	1.0	1.0	1.0	1.0	0.1	7.4	1.6	2.9	0.4	1.5	7.5	2.5	1.6	0.5	0.0	2.2	0.0	0.0	0.0	0.0
19	0.0	0.4	0.1	0.9	0.9	0.5	0.5	1.5	1.5	2.9	4.7	7.5	2.0	1.0	2.0	2.3	2.9	0.4	0.9	0.0	0.1	0.0	0.0	0.0
20	0.0	0.9	0.5	0.5	1.9	1.9	1.1	0.9	1.3	4.0	3.5	3.0	3.5	3.0	4.5	3.2	1.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	1.2	1.0	1.5	2.9	1.0	1.3	3.0	3.0	17.4	3.4	3.0	6.0	2.5	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.5	0.5	1.6	0.9	0.8	3.0	4.2	3.0	1.9	2.6	1.6	3.4	1.9	1.0	2.0	1.5	0.5	0.0	0.0	0.5	0.0	0.0
23	0.0	1.0	0.0	0.5	1.7	0.9	0.5	0.5	1.1	4.2	1.6	2.0	10.1	5.0	2.3	1.1	0.9	1.0	0.8	0.0	0.0	0.0	0.0	0.1
24	0.4	0.9	2.0	1.0	1.3	1.2	1.1	3.5	1.2	0.6	1.0	9.4	6.0	6.2	6.0	5.5	2.1	0.7	0.0	0.1	0.1	0.0	0.0	1.8
25	0.0	0.0	2.3	2.0	2.5	1.0	2.6	1.2	0.3	0.2	0.0	0.3	0.1	0.0	0.0	7.4	3.4	1.9	1.0	0.8	0.3	0.0	0.0	0.0
26	0.0	0.0	0.5	1.2	1.5	0.9	0.6	3.8	2.0	1.3	1.8	3.3	3.0	3.5	2.3	1.5	0.2	0.0	0.0	0.6	0.0	0.0	0.0	0.0
27	0.0	0.0	0.4	1.1	0.0	2.5	1.8	0.8	0.7	1.9	1.0	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.5	0.7	0.6	0.7	1.2	1.1	1.0	0.9	0.5	1.2	1.8	0.9	2.9	2.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.4	0.7	0.7	1.0	1.1	1.0	0.8	0.7	1.0	1.1	1.0	1.5	1.8	1.6	0.5	0.2	0.0	0.0	0.1	0.0	0.0	0.0
30	0.0	0.0	0.3	0.8	1.2	1.0	1.4	1.1	1.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.8	1.1	1.3	1.2	1.0	1.0	1.0	0.8	1.0	0.5	0.5	0.1	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Mean	0.03	0.19	0.44	0.50	0.71	0.75	0.67	1.00	0.79	1.32	1.25	2.15	1.96	1.85	1.79	1.40	0.72	0.31	0.10	0.15	0.02	0.02	0	0.10

\* : Quiet day



## SYOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

June 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.7	1.0	0.0	0.1	4.5	9.7	2.5	3.8	2.5	1.1	0.2	2.6	0.3	0.0	0.0	0.0
2	0.2	0.0	0.0	0.0	1.0	0.1	0.0	0.5	0.1	1.6	0.4	3.0	7.8	3.1	8.0	1.5	2.2	0.9	0.9	1.2	0.7	0.2	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.4	2.0	1.6	1.5	3.7	1.8	0.7	0.5	1.2	13.0	3.0	2.5	1.9	1.9	0.9	0.4	0.1	0.0	0.0
4	0.0	0.0	0.0	0.7	0.8	0.1	2.3	2.1	0.1	0.0	1.6	1.0	1.4	0.7	0.3	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0
5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.0	1.2	0.6	1.0	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0
6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.3	0.3	0.0	0.0
*7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.3	0.4	0.3	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.2	2.0	1.3	0.4	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
*9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.5	0.1	0.0	0.5	0.1	1.0	0.0	0.0	0.0	0.9	0.5	0.0	0.1	0.0
11	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.0	0.0	0.0	0.0	2.0	2.5	0.4	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	1.3	0.0	1.2	0.1	0.5	3.0	3.5	0.3	1.9	0.0	0.0	0.0	1.0	12.8	1.2	1.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0
13	0.0	0.4	0.1	0.7	0.4	0.0	2.7	3.1	1.2	1.3	5.6	2.5	1.0	0.5	0.0	0.0	0.4	0.1	0.0	0.0	0.9	0.1	0.0	0.0
14	0.0	0.6	0.8	2.0	2.1	0.4	2.4	1.5	1.2	1.3	0.4	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.1	0.2	0.3	0.1	0.8	0.3	0.9	7.5	0.3	0.0	3.6	9.3	2.5	1.4	0.0	1.3	1.0	0.6	0.0	0.0	0.0	0.0
16	0.0	0.0	0.7	1.6	0.5	0.1	1.5	1.5	0.0	0.0	2.5	4.7	3.9	2.5	3.0	2.0	0.9	0.4	0.0	0.3	0.0	0.0	0.0	0.8
17	0.0	0.0	2.0	1.3	0.5	0.1	0.3	1.0	0.5	1.9	7.5	2.5	3.7	1.9	0.1	0.1	1.0	0.7	1.1	1.3	0.0	0.0	0.0	0.0
18	0.0	0.6	0.6	1.1	1.9	1.0	0.2	0.0	1.1	3.0	2.0	0.9	0.1	0.1	1.0	0.2	0.0	0.7	1.6	1.4	0.5	0.0	0.0	0.0
19	0.0	0.0	0.3	2.1	1.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	0.7	1.0	0.4	0.1	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.7	0.7	0.1	5.0	5.4	2.5	1.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	1.7	0.3	1.2	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0
22	0.0	0.2	0.5	0.8	0.5	0.9	2.0	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0
*23	0.0	0.0	0.5	0.3	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.1	0.5	0.8	0.8	0.1	0.1	2.0	0.0	0.0	0.2	0.5	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.4	0.5	0.5	0.3	0.4	0.3	0.0	0.0	0.0	0.0	1.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.5	4.0	1.1	0.2	0.2	0.0	1.2	1.3	0.1	0.0	0.9	0.8	0.1	1.4	2.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.5	0.8	2.0	2.6	1.2	1.8	2.0	14.0	1.6	3.2	12.7	2.7	15.0	5.0	2.3	3.5	0.2	0.3	0.0	0.0	0.0	0.0	0.0
28	1.1	1.1	1.9	4.1	1.2	1.7	1.3	1.5	1.6	5.8	14.6	2.5	1.2	0.8	1.9	1.5	0.4	0.0	1.3	0.1	0.8	0.0	0.0	0.0
29	0.0	0.3	0.7	1.4	0.7	0.5	1.2	1.0	1.0	0.5	3.0	3.2	1.5	0.1	3.0	2.6	0.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.7	1.6	1.5	1.4	0.3	0.5	1.8	0.3	0.0	0.1	0.0	1.5	0.3	0.5	2.8	1.2	0.2	0.6	0.3	0.0	0.0	0.0
Mean	0.07	0.18	0.43	0.88	0.63	0.40	0.81	0.74	1.04	1.18	1.52	1.24	1.24	1.94	2.07	0.90	0.78	0.52	0.38	0.37	0.17	0.02	0	0.03

\* : Quiet day

SIOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

July 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.0	0.0	0.0	1.1	0.6	0.1	0.0	0.0	1.5	3.5	1.6	0.3	0.5	2.0	1.9	0.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.0	0.9	1.5	0.5	2.0	3.5	8.0	7.7	3.3	1.7	1.6	1.1	0.5	1.0	0.7	0.4	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.6	2.3	2.0	0.5	1.0	1.8	1.5	0.9	0.8	0.5	1.3	0.8
4	0.0	0.0	0.5	0.0	0.1	0.4	1.4	2.3	0.9	0.5	0.9	0.9	1.5	1.2	0.0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	1.3	0.9	0.0	0.3	0.0	1.2	1.4	3.5	1.2	1.3	1.7	1.3	1.0	0.5	1.1	2.1	1.6	0.5	0.4	0.8	0.7
6	0.0	0.9	0.0	0.0	0.4	0.3	0.5	0.1	0.0	0.0	0.4	1.0	3.0	1.5	1.5	0.9	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.1	0.5	1.0	0.6	0.0	0.2	0.5	1.9	1.1	1.0	1.1	1.5	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.8	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4
9	0.0	2.1	0.1	0.1	0.9	3.0	1.2	0.0	3.5	1.5	1.9	0.3	0.1	0.0	0.0	0.6	0.1	0.5	0.3	0.0	0.0	0.0	0.0	0.0
10	0.0	0.4	0.0	0.8	1.9	0.0	0.0	1.1	0.0	0.2	0.1	2.5	2.0	3.0	4.3	1.5	3.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	1.0	0.6	0.2	0.1	0.5	0.0	0.3	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	1.2	0.3	0.3	1.0	0.1	2.0	1.4	0.6	0.3	0.0	0.0	0.0	0.0	0.0	1.0	1.3	0.9	0.6	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	1.8	0.5	1.3	1.3	0.3	0.0	2.3	2.6	1.8	0.4	1.3	1.5	0.1	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.5	0.3	0.5	1.6	0.6	1.5	0.6	0.0	1.6	1.6	2.1	0.5	0.0	0.4	0.0	0.2	0.5	0.4	0.0	0.0	0.0	0.0
15	0.0	0.0	0.5	0.2	0.9	1.3	1.9	0.9	0.9	1.5	4.0	2.5	1.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0
16	0.0	0.0	0.3	0.5	0.3	0.0	0.9	1.5	0.3	0.6	1.6	1.6	1.9	3.1	1.6	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*17	0.0	0.0	0.0	0.3	1.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
*18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.3	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*21	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.2	1.2	1.4	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.1	0.0	0.2	0.0	0.3	0.2	1.6	0.6	0.9	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.5	1.1	0.1	0.0	1.6	12.5	1.0	1.5	1.3	2.9	3.5	1.1	2.0	17.5	7.0	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4
25	0.0	0.0	0.0	0.0	0.0	0.4	1.0	0.4	0.5	0.7	3.0	5.0	3.0	1.9	12.0	3.7	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.3	0.0	0.0	0.6	0.4	2.4	1.0	2.5	0.6	1.0	1.5	0.9	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.2	0.0	0.0	0.0	0.0	1.8	0.7	0.0	1.7	8.2	2.0	3.0	3.0	13.0	3.6	2.0	1.0	0.2	0.6	0.1	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.6	2.0	1.1	1.0	2.5	1.6	2.0	2.0	1.8	2.1	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.1	0.1	0.9	1.9	1.3	3.4	3.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	3.0	1.9	0.1	3.0	2.0	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
*31	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	0.02	0.18	0.14	0.23	0.37	0.80	0.54	0.60	0.55	0.81	1.42	1.21	1.18	1.95	2.06	0.90	0.53	0.40	0.24	0.16	0.08	0.06	0.10	0.08

\* : Quiet day

## SYOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

August 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.4	0.0	0.0	0.4	0.0	2.0	2.3	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.1	0.2	0.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	0.0	1.0	1.5	2.5	1.5	1.1	3.0	2.5	1.9	1.0	0.4	0.5	0.5	0.0	0.0	0.0
4	0.0	0.5	0.0	0.1	0.3	1.6	0.1	0.0	0.0	0.5	4.0	2.3	1.0	0.3	2.0	1.0	0.5	0.0	0.7	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.9	1.5	2.0	0.3	0.0	0.0	0.4	2.1	5.0	1.2	3.1	3.1	2.0	0.5	1.0	0.8	0.0	0.0	0.0	0.0
6	0.0	0.6	0.2	0.5	1.1	0.0	0.0	0.0	1.2	0.3	0.0	0.0	0.0	1.1	1.5	0.0	1.0	1.4	1.2	0.7	0.0	0.0	0.0	0.0
7	0.0	0.0	1.8	0.8	2.9	2.0	0.7	0.4	1.0	1.5	2.4	0.6	2.4	1.0	0.6	0.6	1.0	1.1	0.0	0.0	0.5	0.0	0.0	0.0
8	0.0	0.7	1.0	0.7	0.6	0.0	1.9	7.0	17.0	0.4	2.1	1.3	0.5	0.2	1.1	1.0	0.2	0.3	0.8	0.5	0.4	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	7.4	0.9	1.0	0.3	0.8	0.7	1.0	0.9	0.3	0.2	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	1.1	0.5	0.3	1.0	2.0	1.0	2.5	1.5	0.2	0.0	3.0	2.8	2.0	1.0	0.6	0.3	0.3	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.6	2.9	2.3	1.8	1.9	1.0	0.5	0.3	0.1	0.0	0.0	0.0
12	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.5	0.2	0.1	0.2	0.2	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.1	0.0	0.6	1.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
*14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.0	0.0	0.0
*15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.5	0.0	0.0	0.0	0.6	0.5	0.2	0.2	0.2	0.5	0.3	0.0	0.0	0.0
*17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.3	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.0	0.0	0.0	0.0	1.5	0.9	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.3	0.0	0.0	0.0	1.0	1.5	4.5	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9	4.5	0.3	5.7	2.5	1.9	1.0	1.5	0.4	2.0	0.0	0.0	0.0	0.0	0.0	0.6
21	0.0	3.0	0.7	0.8	7.0	7.1	0.5	0.5	1.1	1.0	13.7	9.7	1.9	12.0	3.0	1.5	0.0	2.7	0.2	0.0	0.0	0.0	0.0	0.5
22	0.2	0.0	0.0	0.0	1.0	0.0	0.6	0.0	0.9	12.5	3.7	4.7	0.5	1.9	2.9	1.1	0.8	0.9	1.2	0.1	0.1	0.0	0.0	0.0
23	0.0	0.0	0.3	1.6	2.1	0.0	0.4	0.3	1.5	7.5	3.7	4.9	2.0	4.2	2.5	10.1	3.5	1.6	1.8	0.4	0.5	0.3	0.0	0.0
24	0.0	0.8	0.5	0.7	1.0	1.4	0.0	1.0	0.6	0.4	0.7	1.3	1.0	1.3	4.8	2.1	1.0	2.7	0.2	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.9	0.3	0.3	1.2	0.2	0.0	0.0	4.0	2.5	2.1	2.1	2.5	1.3	0.0	0.5	0.2	0.0	0.0	0.0
*26	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.0	0.3	3.0	1.0	2.0	2.0	1.0	0.6	0.0	3.3	0.9	0.7	0.6	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.0	1.0	0.6	0.0	0.3	0.0	1.0	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	1.2	0.7	0.0	1.5	0.3	0.8	0.0	0.0	0.0	0.0	0.9	0.0	0.0	2.0	1.0	3.5	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.6	0.0	0.0	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	0.05	0.19	0.15	0.28	0.70	0.62	0.27	0.48	0.93	1.46	1.33	1.38	1.02	1.37	1.41	1.32	0.79	0.64	0.33	0.20	0.10	0.01	0	0.04

\* . Quiet day

SYOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

September 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.0	1.2	0.3	0.5	0.3	0.0	0.0	2.7	0.0	1.0	1.4	1.5	0.3	0.0	1.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	1.1	1.6	1.0	0.0	0.0	0.0	0.0	3.2	1.2	0.5	1.7	3.0	1.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	1.2	1.5	1.0	1.7	1.1	0.5	0.0	0.0	0.0	0.5	3.3	3.2	1.5	2.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.6	0.3	0.5	0.0	0.0	1.5	0.8	0.9	1.1	0.3	0.8	0.9	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	2.0	0.3	0.5	1.0	0.6	2.2	0.0	0.7	0.0	0.0	0.0	0.9	1.4	0.3	1.7	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	3.0	2.0	0.0	0.6	0.0	0.0	0.0	0.0	0.6	2.0	1.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.4	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.7	0.9	1.9	1.0	1.3	1.3	1.0	0.2	0.1	0.0	0.0	0.0	0.0
8	0.0	0.0	0.6	0.8	1.5	1.1	0.6	0.0	0.0	0.0	1.0	1.3	0.8	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.2	1.4	1.0	0.9	0.6	0.1	0.0	0.0	0.0	0.3	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.3	1.2	1.5	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.3	0.9	0.6	0.5	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.0	1.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.5	0.1	0.0	0.2	1.3	1.0	1.1	1.3	1.5	1.3	0.4	0.2	0.0	0.0	0.0
*14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*15	0.0	0.0	0.0	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.9	1.0	0.4	0.0	0.0	1.0	1.5	0.8	1.0	1.3	0.0	0.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*17	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
*18	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.2	0.5	1.2	1.1	0.5	0.0	0.0	0.0	0.0	2.5	0.5	0.0	0.8	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.2	0.0	0.0	0.9	0.0	0.3	1.0	1.5	2.1	2.5	2.8	11.5	1.8	4.0	3.0	1.0	1.1	1.2	0.6	0.0	0.0	0.0	0.5
21	0.0	0.0	0.0	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.5	0.9	2.0	1.5	1.2	0.3	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.7	0.0	0.3	0.5	0.4	0.0	0.0	0.0	0.0	2.7	2.0	0.0	0.2	0.9	0.0	0.5	0.0	0.2	0.2	0.0	0.0	0.0
24	0.0	0.2	0.9	0.3	0.1	0.0	0.0	0.9	1.0	3.0	0.5	0.0	1.5	1.5	0.5	0.1	0.0	1.0	0.1	0.3	0.3	0.1	0.0	0.0
25	0.0	0.0	0.3	0.2	0.0	0.5	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.8	2.5	0.0	5.0	4.8	2.1	1.4	2.5	0.9	2.8	2.0	0.8	0.1	0.6	0.0	0.2	0.3	0.1	0.1	0.1
*27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.3	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.3	0.0	0.0
29	0.0	0.0	0.2	0.0	0.2	0.0	0.5	0.0	0.0	0.0	0.7	0.8	0.8	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	0	0.08	0.22	0.28	0.66	0.54	0.31	0.29	0.37	0.36	0.49	0.75	1.09	0.75	0.61	0.59	0.52	0.23	0.13	0.07	0.04	0.03	0.01	0.02

\* : Quiet day

SIOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

October 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.6	3.5	2.8	0.6	2.5	0.9	0.0	0.9	0.0	0.7	0.8	0.7	0.7	0.7	3.6	1.2	0.5	0.7	0.0	0.0	0.0	0.0	0.0
2	0.0	0.2	0.8	0.9	1.0	0.8	0.3	0.0	0.0	0.3	1.6	1.1	0.9	0.9	1.3	1.1	0.4	0.0	1.2	0.2	0.0	0.0	0.0	0.5
3	1.0	0.2	0.6	0.0	0.6	0.0	1.0	0.0	0.0	1.7	1.7	1.3	1.2	0.6	1.3	1.3	1.2	0.8	0.2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.4	0.4	0.7	0.9	1.0	0.9	0.0	0.0	0.0	0.0	0.4	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.1	0.5	0.4	0.6	0.5	0.7	0.2	0.0	0.2	0.3	0.4	0.8	0.8	0.9	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.3	0.0	2.1	1.4	0.2	0.0	0.0	0.0	0.3	0.9	0.5	0.4	0.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	1.0	0.8	0.8	0.5	0.8	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*8	0.0	0.0	0.1	0.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	1.0	0.0	0.1	0.7	0.7	0.0	3.2	2.2	2.0	0.5	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
*10	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.0	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.1	0.3	0.3	0.4	1.2	0.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	1.1	0.9	2.5	1.2	0.0	1.0	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.6	0.2	0.8	1.1	0.5	0.5	0.0	2.3	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
14	0.0	1.7	0.5	0.1	0.4	0.9	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.5	0.0	0.1	0.2	0.3	0.2	0.0	0.1	0.9	1.5	1.3	2.5	0.7	2.5	1.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.1	0.1	0.1	0.0	0.9	0.5	1.1	1.0	0.4	4.7	0.8	0.6	0.5	2.7	1.1	0.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.5	1.2	1.0	0.7	0.0	0.3	0.5	1.8	1.4	5.2	1.5	0.7	1.4	1.0	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.4	6.8	5.0	3.0	3.7	1.4	0.9	2.3	1.7	2.4	1.8	2.5	1.3	1.4	0.5	0.5	0.0	0.0	0.0	0.5	0.7	
19	0.0	0.0	0.6	0.5	0.4	0.7	1.0	1.0	1.5	0.6	0.4	0.9	0.5	1.5	0.9	1.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.7	1.3	1.0	2.0	0.9	1.0	0.8	2.1	2.6	1.0	2.6	3.7	2.9	5.3	2.0	0.9	0.8	0.2	0.0	0.0	0.0	0.0	0.6
21	0.0	0.2	1.4	0.9	0.9	0.1	0.0	0.0	0.0	1.7	2.0	1.2	0.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.1	0.7	0.2	0.8	1.4	0.4	0.0	0.0	0.0	0.1	1.8	1.9	0.6	1.2	2.6	1.9	1.1	0.2	0.0	0.0	0.0	0.0	0.0
*23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.4	0.5	1.0	1.0	0.7	0.8	1.2	1.0	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.7	1.0	0.5	0.4	0.3	0.0	1.0	2.5	1.0	0.9	0.0	0.1	0.4	2.5	1.8	0.6	0.4	0.0	0.0	0.0	0.0
26	0.0	0.4	0.7	0.5	0.0	0.0	1.2	1.5	0.7	0.9	1.1	2.9	1.2	0.0	1.2	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.1	1.2	0.3	0.0	2.1	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.4	0.4	0.0	0.0	0.0	0.0	0.5
28	1.0	1.9	1.9	1.7	0.2	8.1	1.4	5.3	1.2	0.5	1.0	1.5	0.6	0.0	1.0	0.8	1.1	0.4	1.0	0.9	0.1	0.0	0.0	0.0
29	0.0	1.5	2.8	0.1	0.9	1.0	1.0	0.6	1.6	1.5	1.0	2.5	2.8	2.1	2.4	1.9	1.6	0.5	0.5	0.7	0.5	0.4	0.1	0.0
30	0.0	0.5	0.8	1.3	0.4	0.4	0.1	1.0	0.8	0.4	0.0	0.3	0.4	0.0	0.5	0.6	1.7	0.8	0.2	0.3	0.0	0.0	0.0	0.0
31	0.0	0.3	0.4	1.0	1.5	0.8	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	0.06	0.31	0.66	0.76	0.74	0.95	0.70	0.56	0.51	0.86	0.91	1.10	0.86	0.57	0.90	0.83	0.62	0.04	0.17	0.08	0.02	0.01	0.02	0.12

\* : Quiet day

## SYOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

November 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.5	0.0	0.0	0.0	0.9	0.9	0.4	0.7	0.5	0.1	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.6	0.9	0.4	0.4	1.0	0.4	0.3	0.3	0.0	0.0	0.0	0.3	0.5	0.5	0.4	0.3	0.1	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.4	0.3	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*4	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.2	0.5	0.4	0.3	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.0	0.5	0.7	0.0	0.5	0.7	0.9	0.3	0.6	0.4	0.5	0.3	0.2	0.0	0.0	0.0
10	0.0	0.0	0.0	0.9	0.8	0.7	1.0	0.8	0.9	1.0	0.6	0.2	0.4	0.6	0.6	0.6	0.6	0.3	0.4	0.3	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.5	0.9	0.5	1.1	0.4	0.0	0.0	0.0	0.0	0.0
12	0.0	1.5	0.0	0.0	0.0	0.9	0.1	0.2	0.3	2.0	1.8	2.0	0.4	1.8	1.3	0.5	0.6	0.6	0.5	0.3	0.0	0.0	1.4	0.3
13	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.3	0.6	0.9	0.6	0.9	0.7	2.0	0.0	0.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	3.0	0.0	0.0	1.3	2.6	1.0	1.5	0.3	0.0	0.9	1.0	1.0	0.7	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.5	1.0	1.0	0.4	0.3	0.0	1.0
16	0.0	0.0	0.9	1.8	c	c	c	c	c	0.0	0.0	0.9	0.7	0.4	1.3	2.5	1.8	0.8	1.1	0.4	0.0	0.0	0.0	0.0
17	0.3	0.0	0.0	0.5	0.0	1.8	0.8	0.9	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.5	0.8	1.0	0.2	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.8	0.8	0.6	0.8	0.2	0.0	0.0	0.0
*19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.5	0.5	0.3	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	0.8	0.8	2.3	0.4	0.0	0.0	0.9
21	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.7	2.1	2.7	1.5	1.0	1.0	0.9	0.1	0.0	0.0	0.0
22	0.5	1.5	0.5	0.2	1.6	0.0	0.5	1.0	0.9	1.5	1.1	0.5	0.8	1.5	1.5	1.5	1.2	1.2	0.9	1.0	0.4	0.0	0.0	0.0
23	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.9	1.7	1.4	1.0	1.2	0.8	0.2	0.0	1.0
24	0.1	0.5	0.0	0.5	0.0	1.3	0.4	0.7	0.6	0.8	0.0	0.0	0.0	0.0	0.8	1.3	1.2	1.2	1.7	1.2	0.5	0.2	0.2	1.0
25	0.0	0.8	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.3	1.0	0.4	0.3	0.7	0.6	1.0	1.0	0.8	0.7	0.6	0.0	0.0	0.0	0.0
26	1.0	0.6	1.1	0.0	0.5	1.0	1.5	0.6	0.0	0.0	0.0	0.0	0.4	1.2	1.0	1.2	1.0	1.8	1.3	1.0	0.2	0.0	0.0	0.5
27	0.8	1.7	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8	1.5	2.0	1.8	1.6	1.0	0.7	0.1	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.2	0.0	0.0	0.0	0.3	0.8	1.2	1.5	1.4	1.0	0.9	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.8	0.7	0.5	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.4	1.0	1.1	1.0	1.3	1.0	0.7	0.0	0.0	0.0
Mean	0.12	0.27	0.08	0.29	0.20	0.31	0.26	0.42	0.32	0.36	0.24	0.16	0.27	0.42	0.51	0.76	0.81	0.72	0.62	0.54	0.19	0.03	0.05	0.16

\* : Quiet day

c : Failure of equipment

SYOWA STATION

45° EAST MERIDIAN TIME ( U.T. +3 hours )

December 1974

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.0	0.0	0.0	3.1	1.4	0.4	0.8	0.7	0.4	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.9	0.5	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.4	0.0
*3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.5	0.0	0.5	0.0	0.0	0.3	0.0	0.6	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.0	0.0	0.2	0.2	0.2	0.1	0.2	0.3	0.9	0.5
6	0.0	0.3	0.0	0.5	0.0	0.0	0.2	0.4	0.2	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.3	0.1	0.0
9	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.0	0.4	0.3	0.7	0.0	0.0	1.2	0.6	0.3	0.0	0.0	0.0	0.3	0.0
10	0.0	0.0	0.4	0.0	0.8	0.0	1.1	1.2	0.3	0.4	0.9	1.2	0.6	0.4	0.3	0.3	0.6	0.8	0.2	0.3	0.1	0.4	0.5	0.9
11	0.0	0.1	0.0	1.0	0.8	1.1	0.0	0.9	1.0	0.6	0.5	1.5	0.9	1.8	1.0	1.2	0.3	3.2	0.7	0.0	0.0	0.0	0.3	0.6
12	0.0	0.0	0.1	0.9	0.9	0.9	0.3	0.6	0.0	0.8	1.8	0.6	0.5	1.1	0.6	0.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.2	0.2	0.0	0.0	0.5	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.5
14	1.9	2.3	0.7	0.0	2.9	1.0	1.0	1.3	1.3	1.4	0.5	1.1	1.0	0.9	0.7	0.8	0.4	0.3	0.1	0.0	0.0	0.1	0.5	0.0
15	0.0	0.2	0.1	0.2	0.2	0.1	0.0	0.0	0.2	1.0	0.9	0.8	3.2	2.9	1.3	0.8	1.0	1.1	1.1	0.7	0.2	0.4	0.4	0.1
16	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.4	1.0	0.7	0.5	0.6	0.6	0.5	0.4	0.5	0.3	0.6	1.0	0.3	0.0
17	0.0	0.0	0.0	1.2	1.2	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.4
18	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	1.1	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.6	0.0
19	0.0	0.0	0.0	0.0	0.5	1.4	1.2	0.0	0.0	1.5	0.7	0.3	0.3	0.7	1.3	0.5	1.3	0.1	0.2	0.3	0.2	0.1	2.9	0.7
20	0.9	1.1	0.2	0.2	0.1	0.3	0.4	1.0	0.8	0.4	1.6	0.9	0.4	0.2	1.7	1.3	1.5	0.3	0.3	0.0	0.1	0.0	0.1	0.0
21	0.9	1.3	0.2	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.8	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.9
22	1.1	0.5	1.0	0.4	1.0	1.6	1.8	0.0	0.8	0.3	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
23	0.9	0.0	0.0	0.0	0.3	0.3	0.5	0.1	0.0	0.0	0.0	0.0	0.4	0.7	0.4	0.5	0.7	0.3	0.2	0.5	0.4	0.4	0.7	0.0
24	1.2	1.3	0.0	1.4	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.5	0.7	0.4	0.4	0.0	0.0	0.0	0.3	0.0
25	0.0	0.0	0.5	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.9	0.7	0.7	0.4	0.2	0.0	0.0	1.0	0.8	0.8	3.0
26	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.7	1.0	0.9	1.1	1.7	1.1	0.7	0.6	0.0	0.2	0.6	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.6	0.5	3.0	1.5	4.4	1.7	1.1	0.3	0.0	0.0	0.1	0.0	0.0
28	0.0	0.0	0.5	1.2	0.6	0.0	0.4	0.4	0.5	0.4	0.3	0.4	0.9	0.8	2.6	1.5	0.5	0.3	0.5	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.3	0.3	0.5	0.1	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
*30	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.3	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.1	0.3	1.0	1.5	0.0	0.0	0.0	0.0	0.3	1.0	0.6	1.4	0.9	0.5	1.1	0.3	0.3	0.4	0.4	0.0
Mean	0.25	0.30	0.15	0.34	0.44	0.26	0.34	0.37	0.26	0.29	0.38	0.36	0.44	0.64	0.51	0.61	0.54	0.39	0.22	0.10	0.13	0.15	0.40	0.25

\* : quiet day

JAN 1974

1

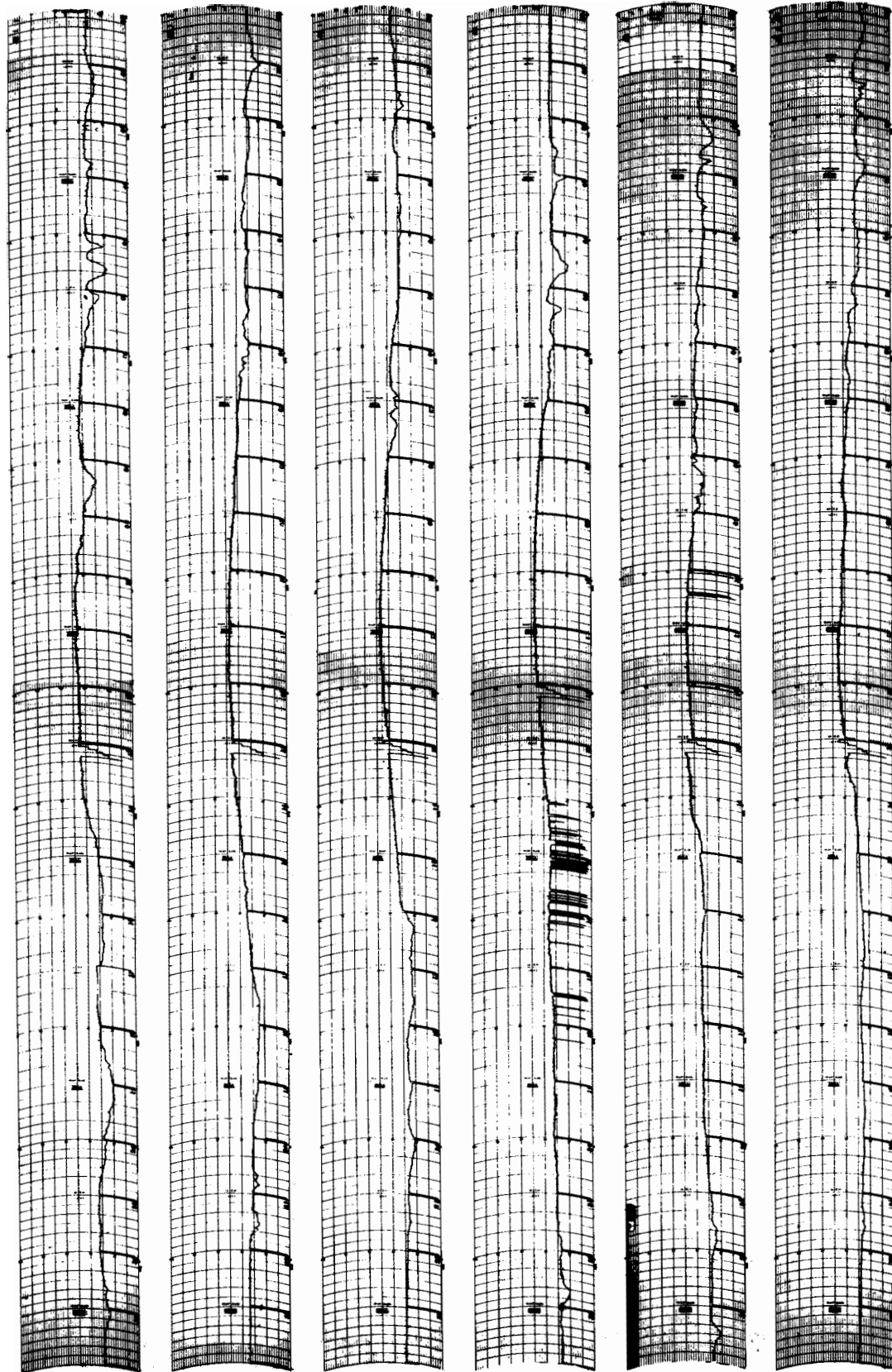
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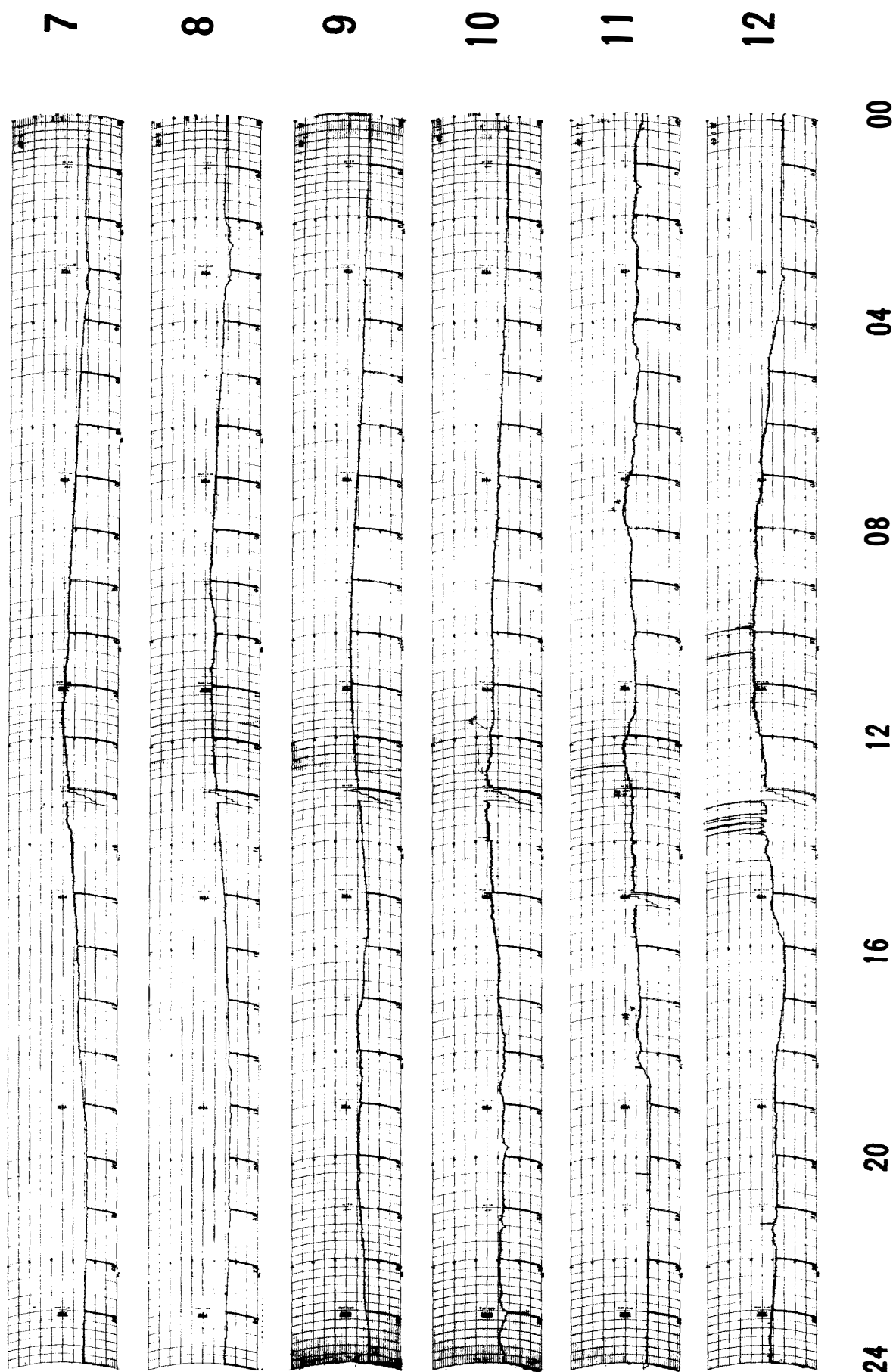


24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE



JAN 1974



30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

JAN 1974

13

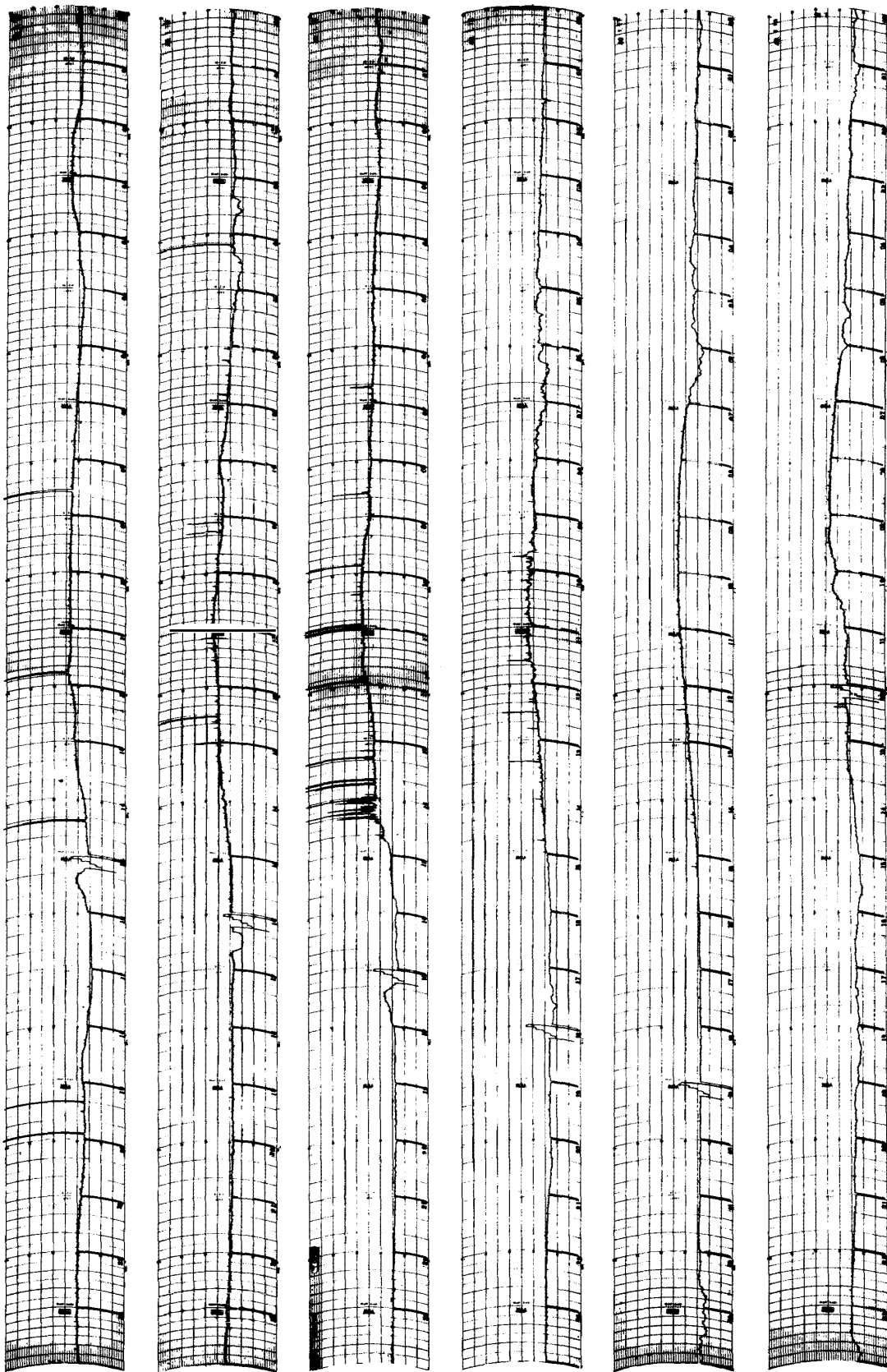
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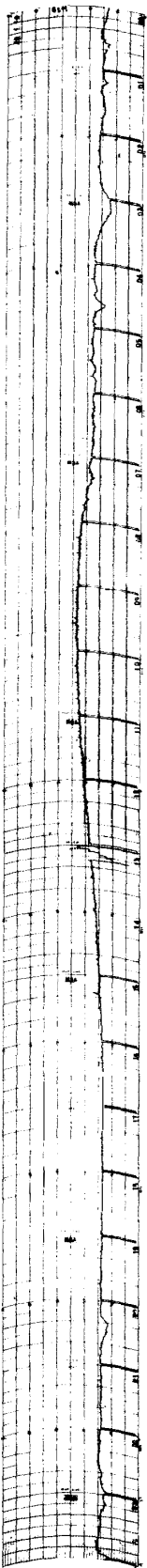


24 20 16 12 08 04 00

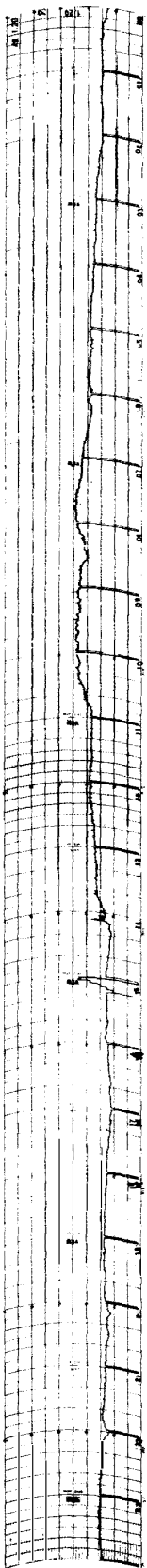
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

JAN 1974

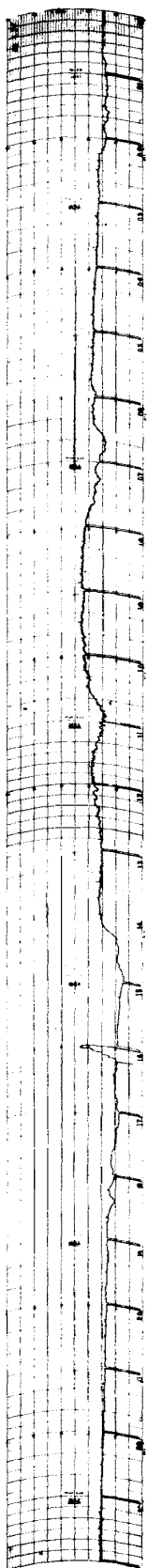
19



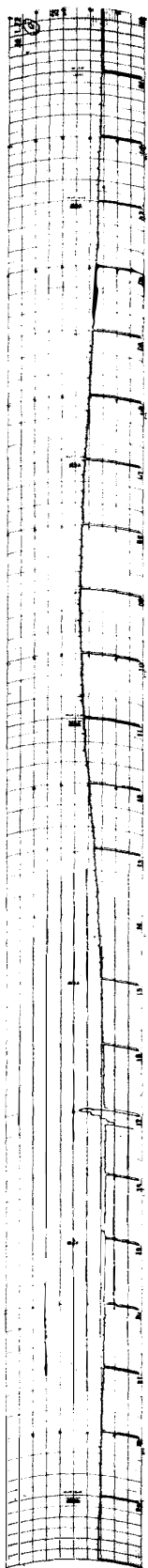
20



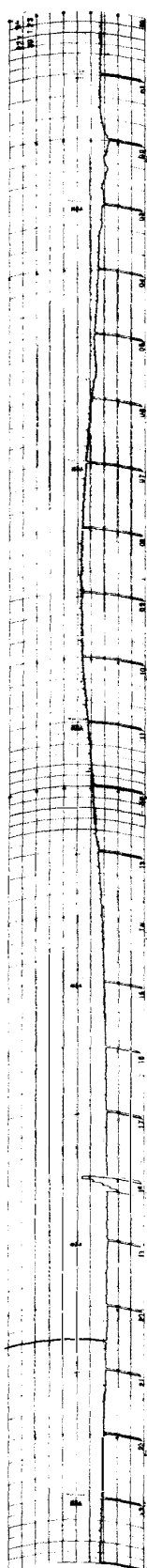
21



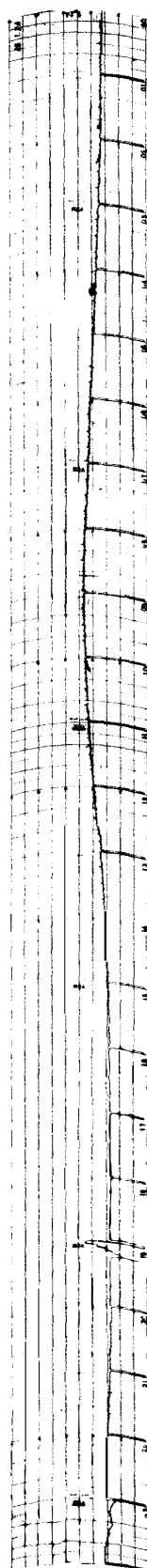
22



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24



24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

JAN 1974

25

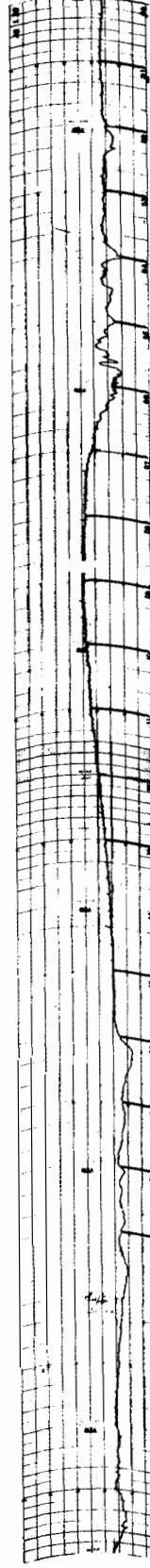
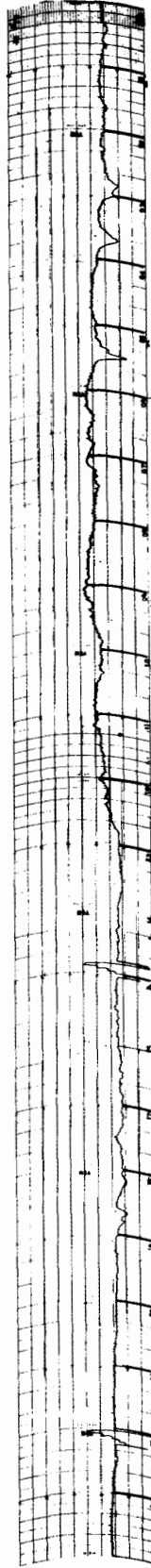
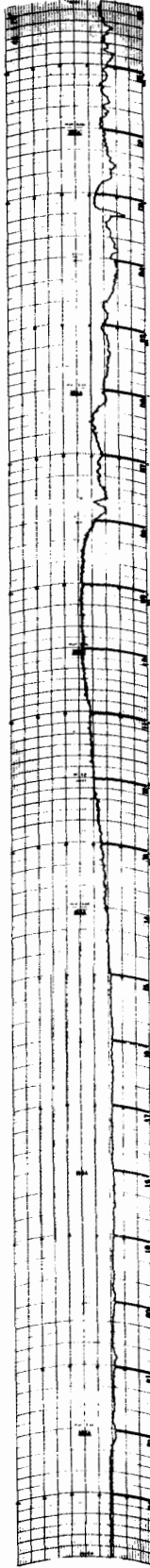
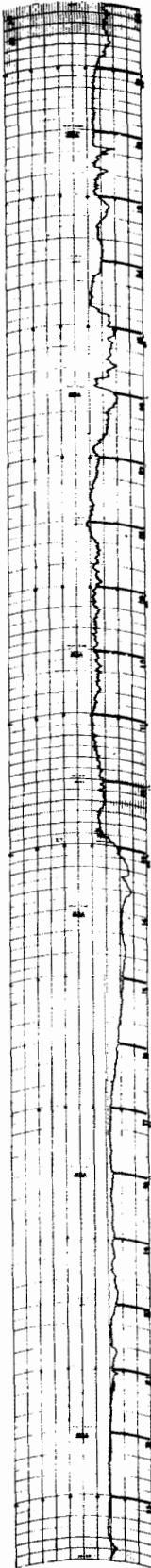
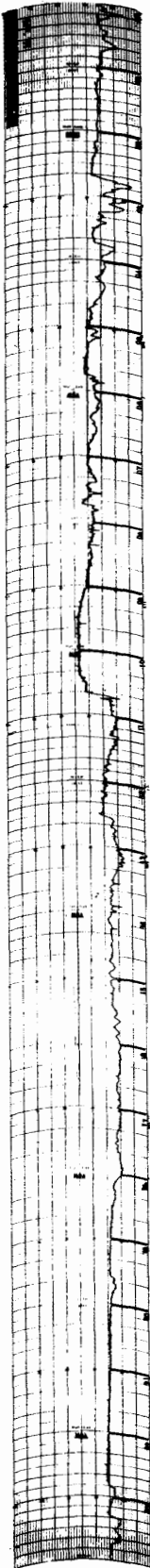
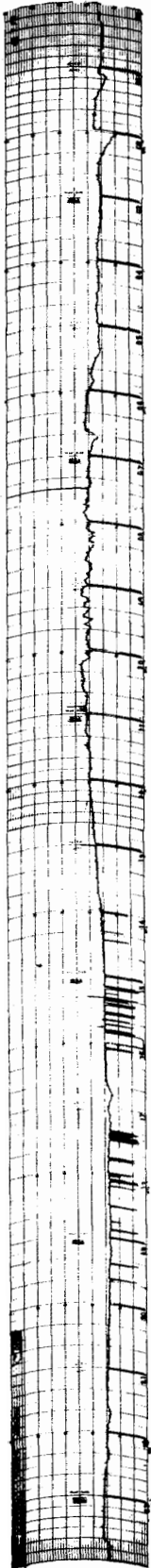
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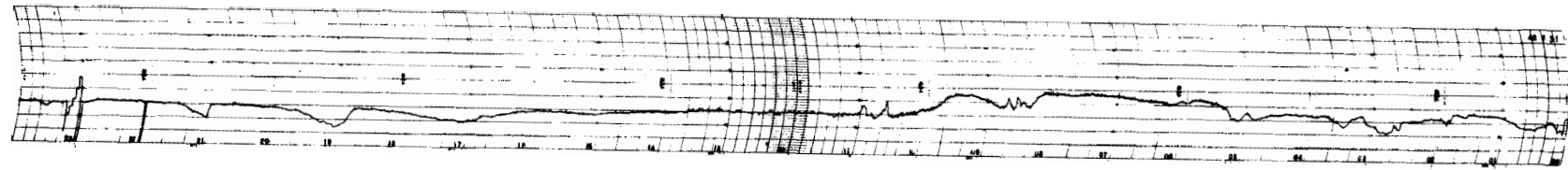


24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

JAN 1974

31



24                      20                      16                      12                      08                      04                      00

45° EAST MERIDIAN TIME IN HOURS

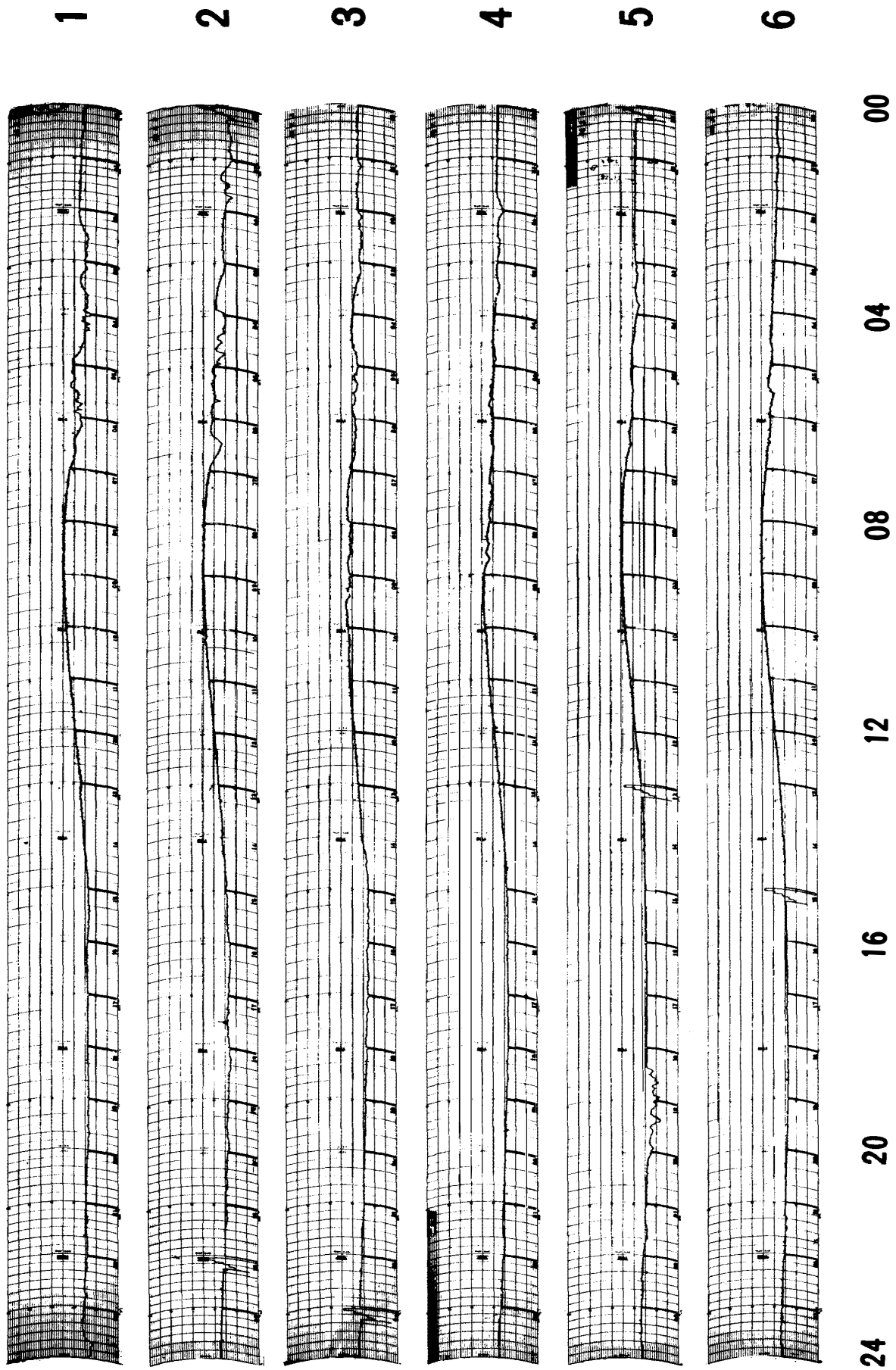
30 MHz COSMIC NOISE

Cosmic noise level obscured or equipment malfunction.

30th 20.00

31th - 21.00 no time mark

FEB 1974

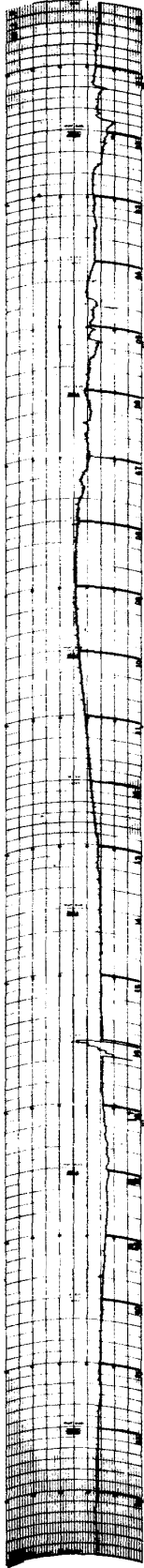


30 MHz COSMIC NOISE

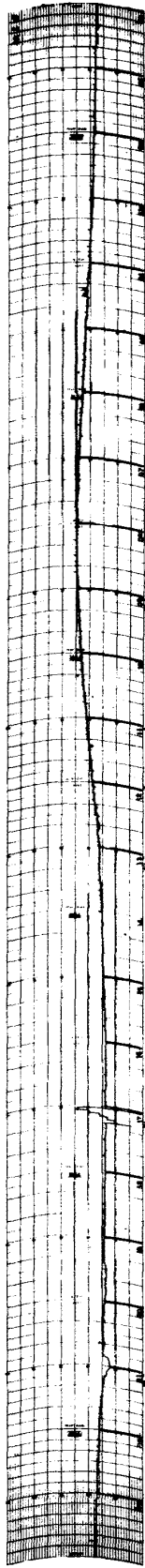
45° EAST MERIDIAN TIME IN HOURS

FEB 1974

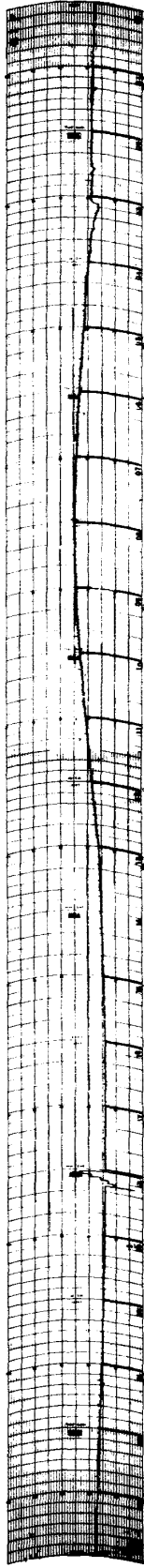
7



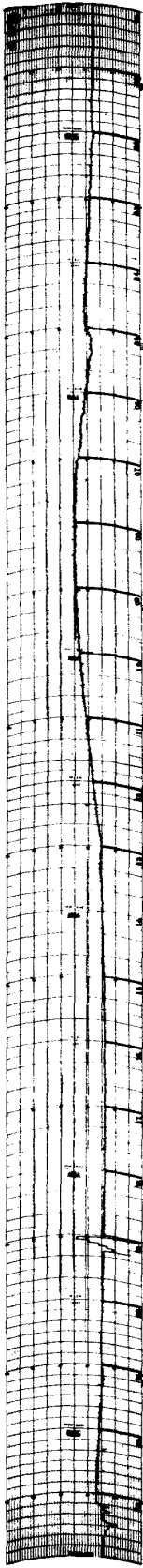
8



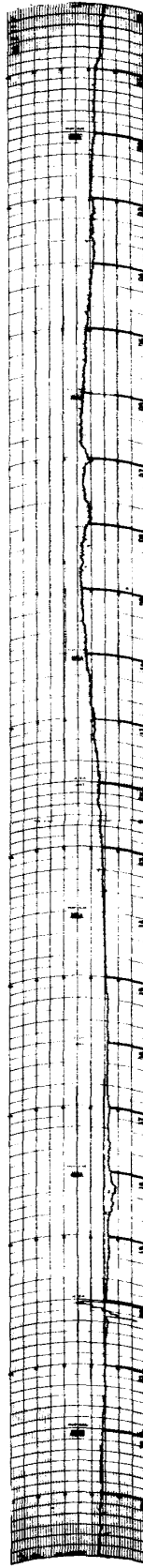
9



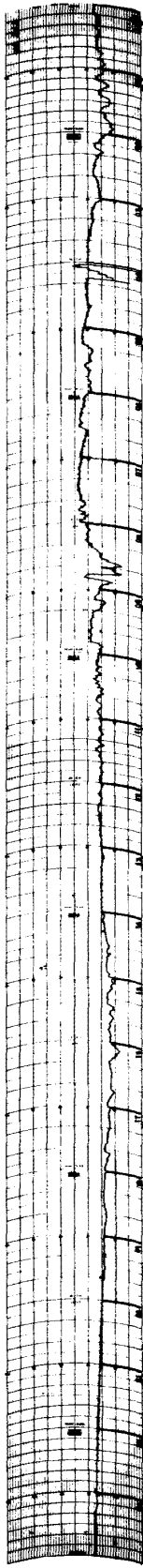
10



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12



24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

FEB 1974

13

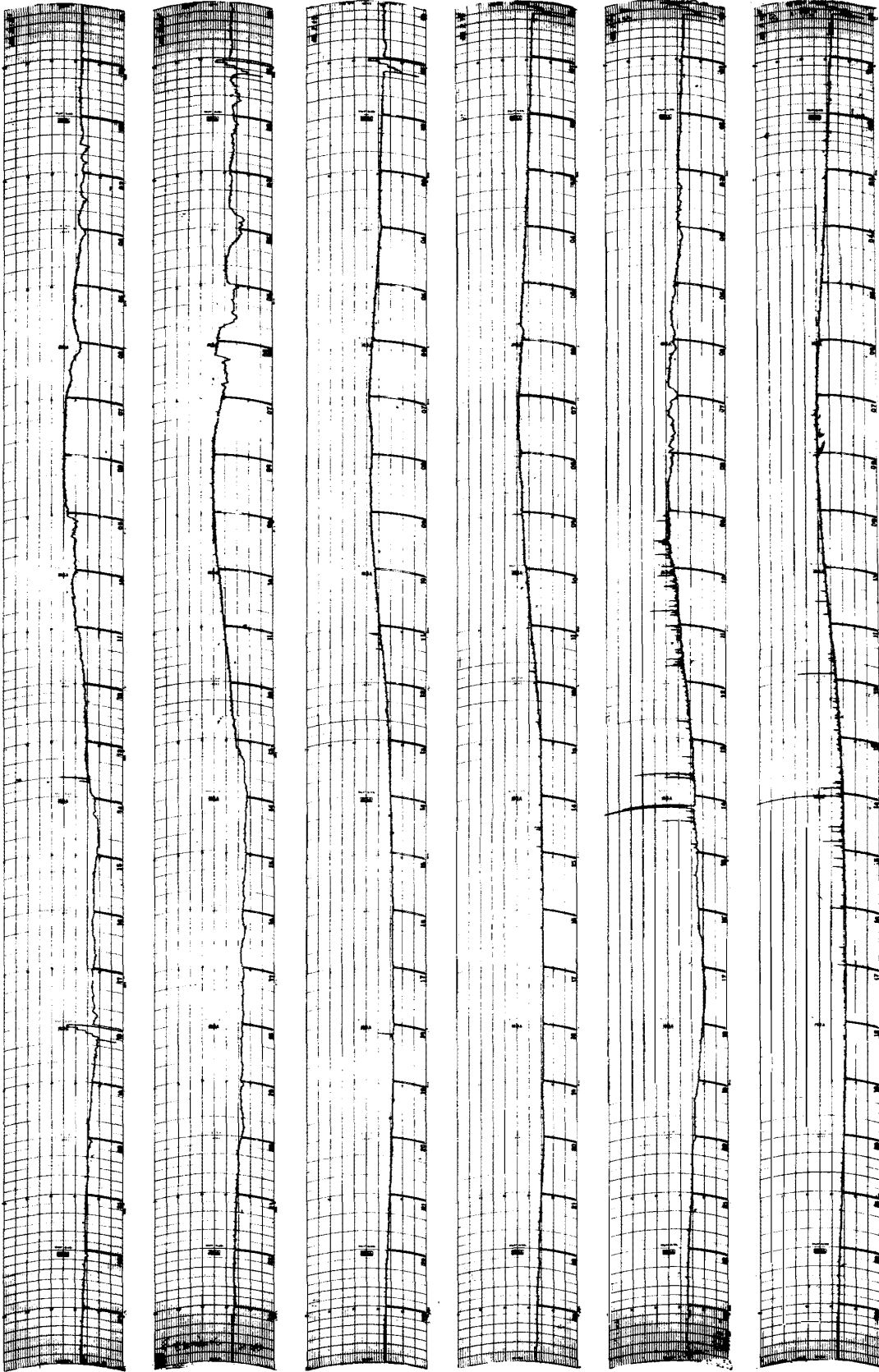
14

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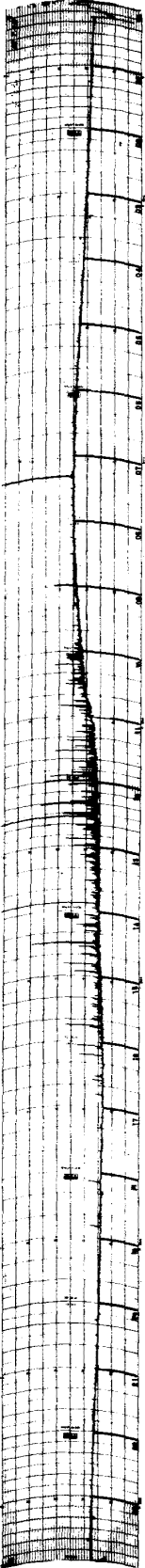
24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

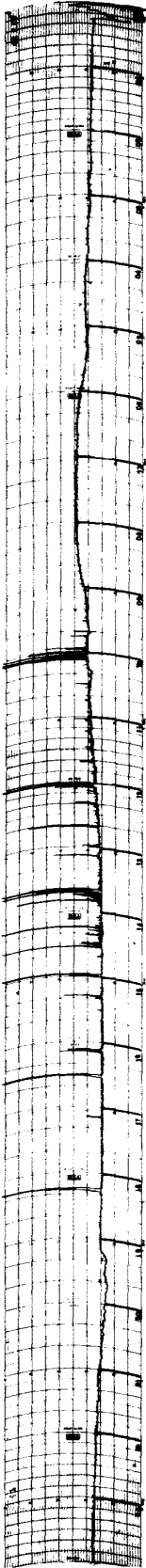


FEB 1974

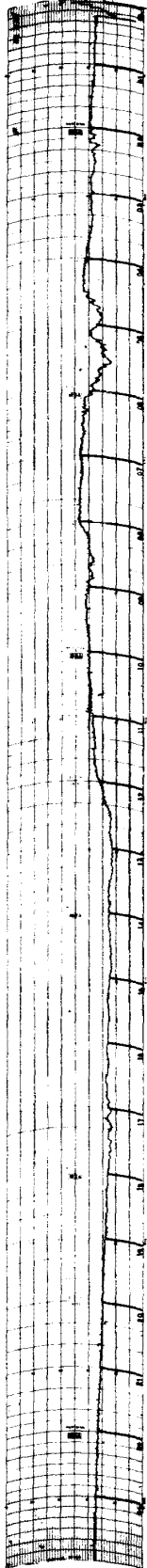
19



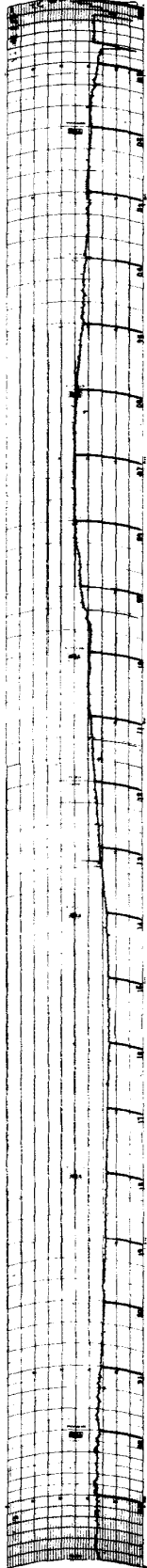
20



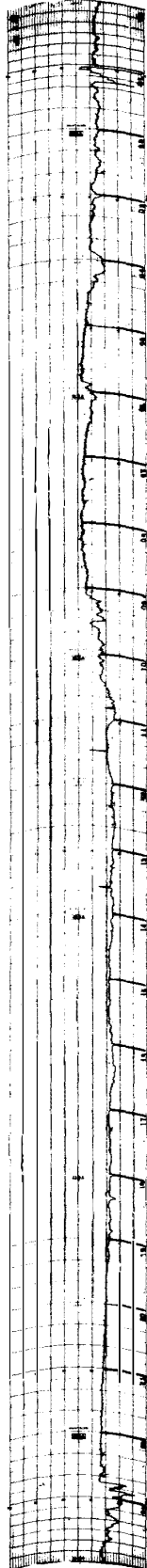
21



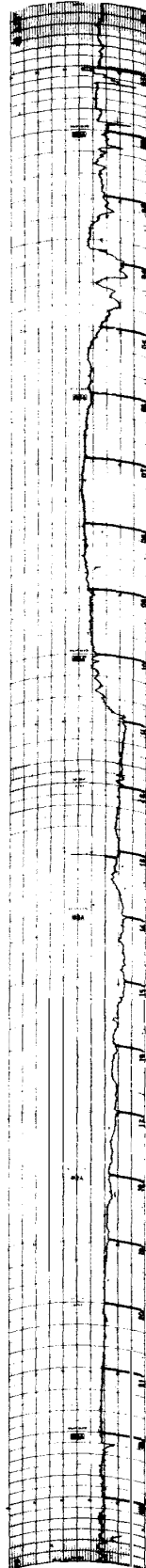
22



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24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

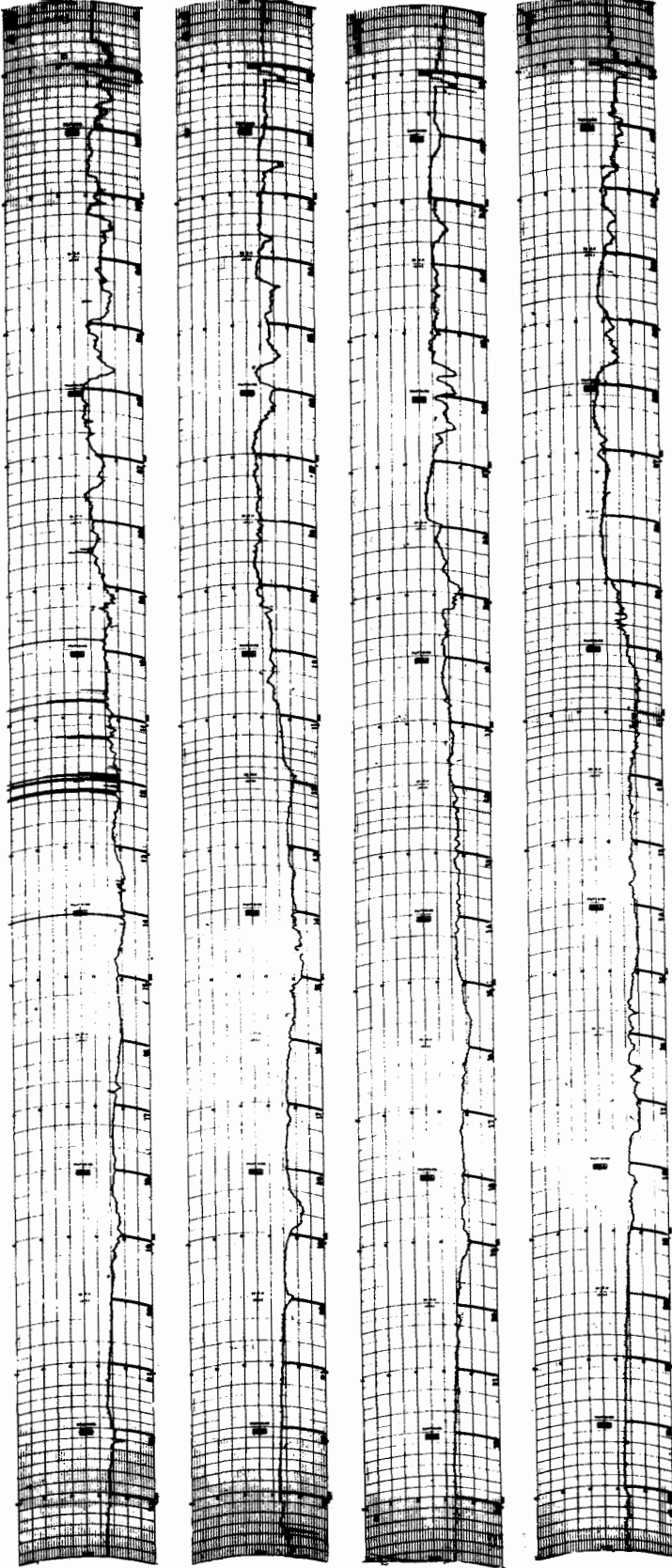
FEB 1974

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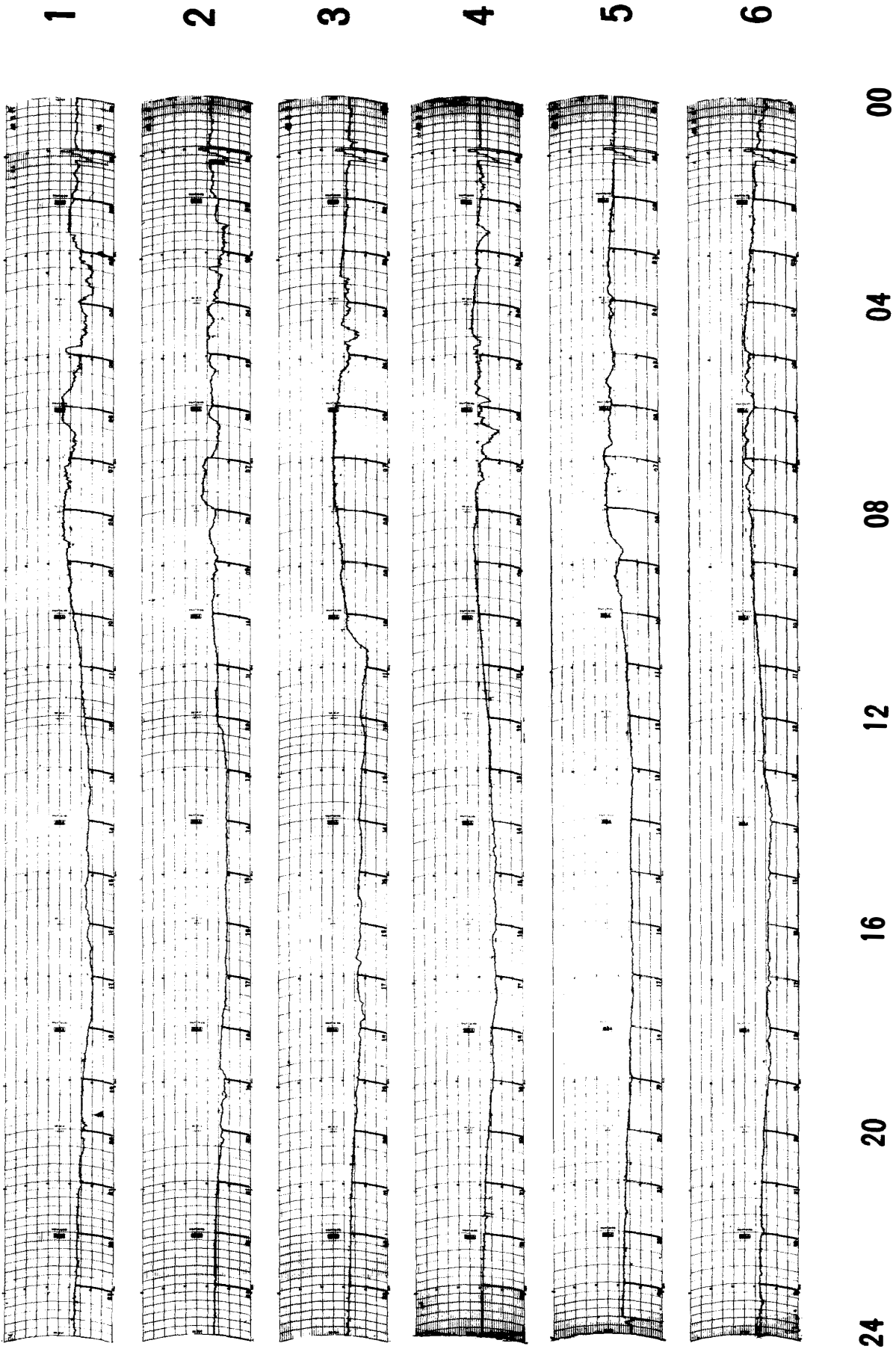
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30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

MAR 1974



30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

MAR 1974

7

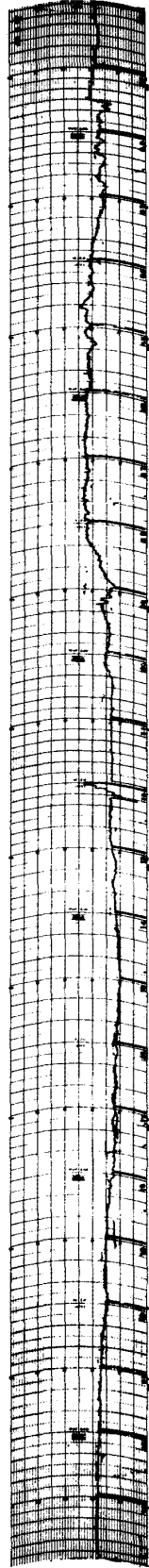
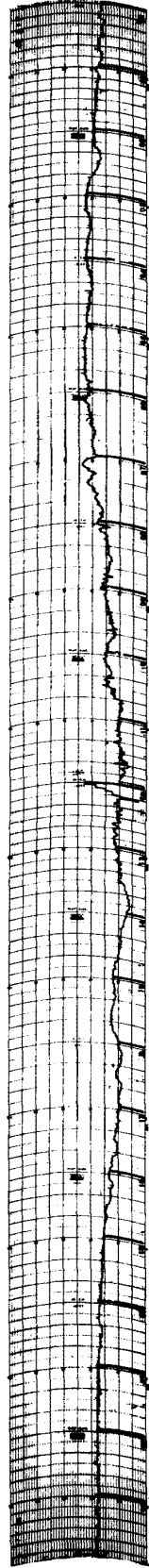
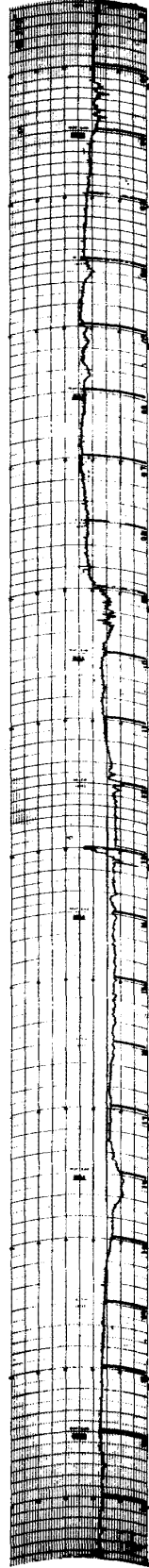
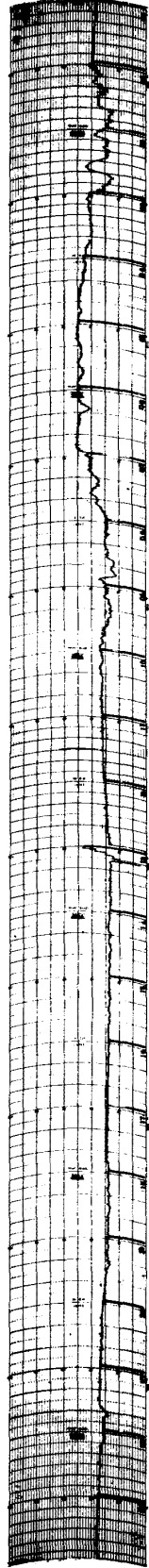
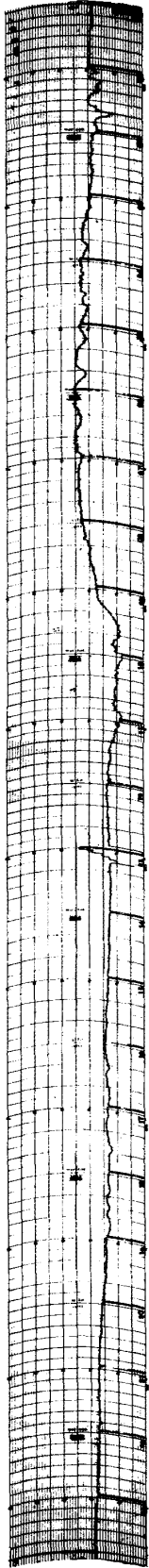
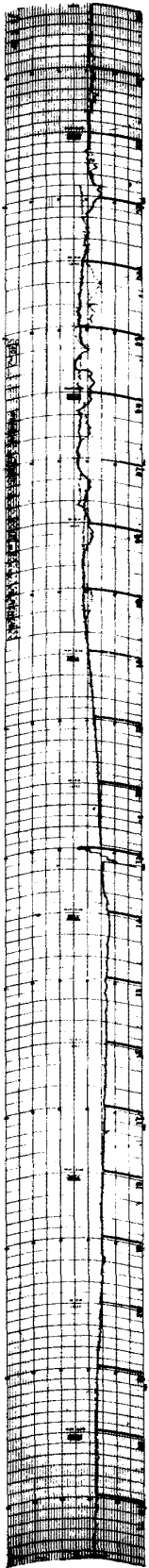
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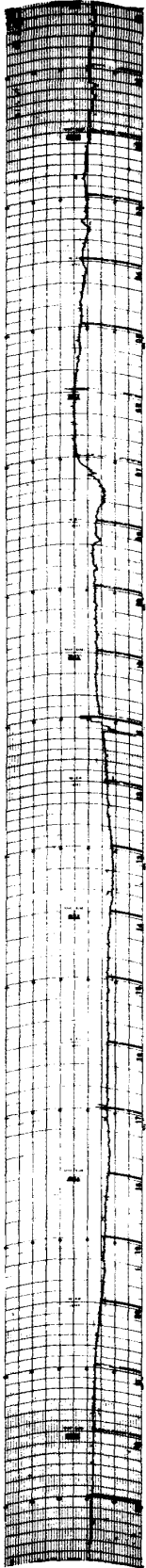


24 20 16 12 08 04 00

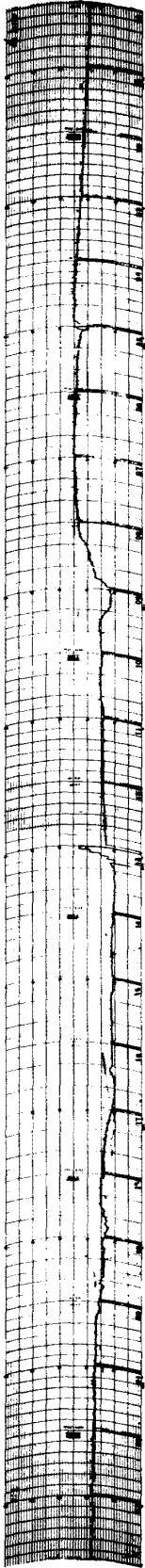
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

MAR 1974

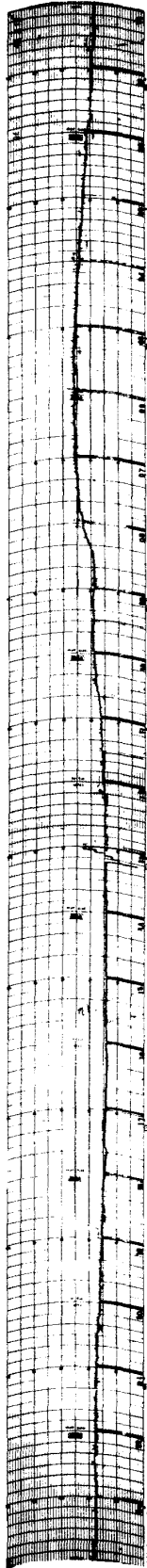
13



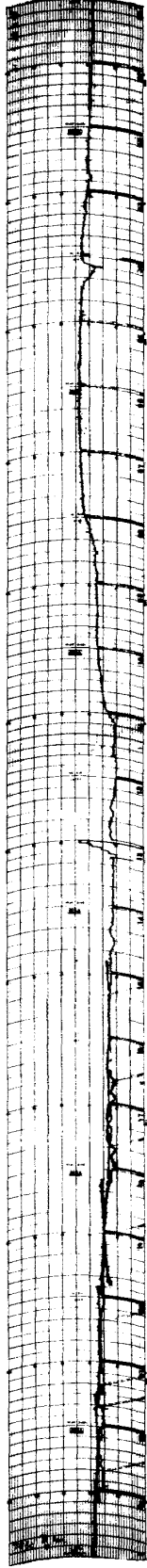
14



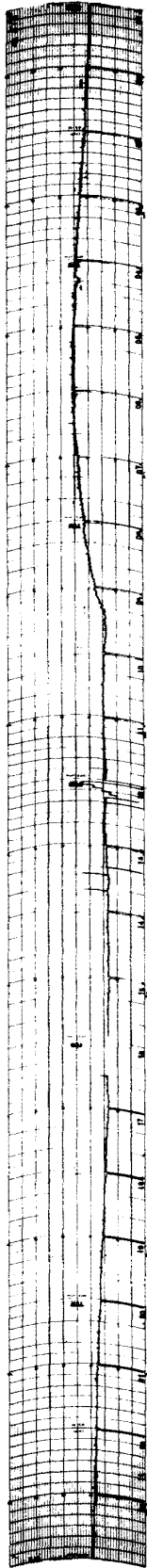
15



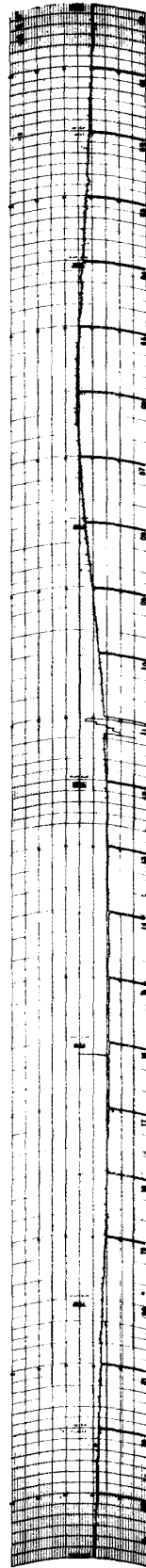
16



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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

MAR 1974

19

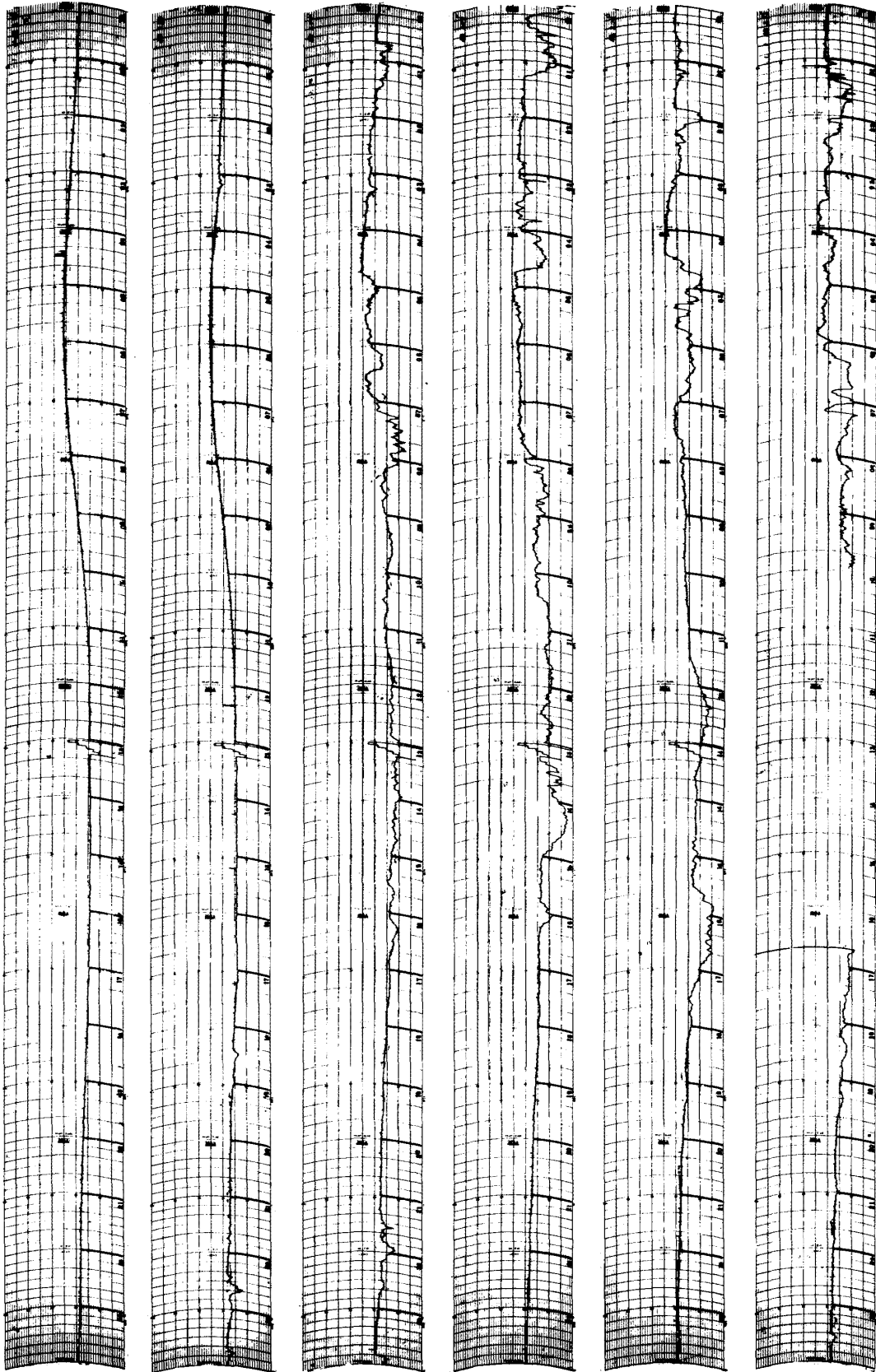
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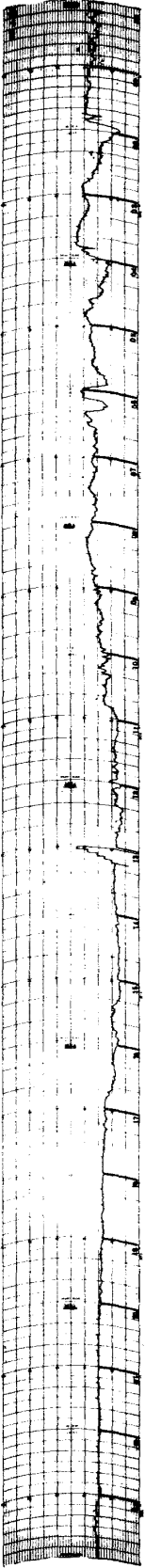


24 20 16 12 08 04 00

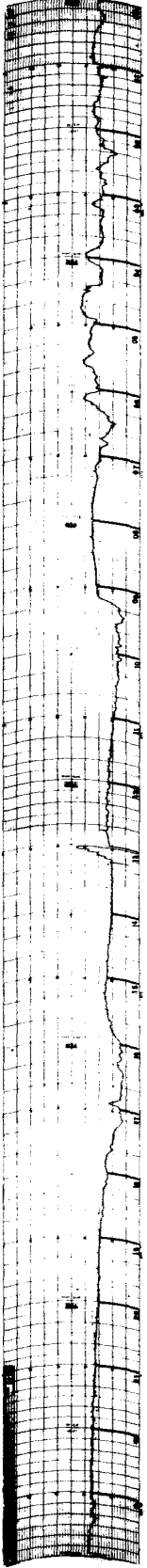
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

MAR 1974

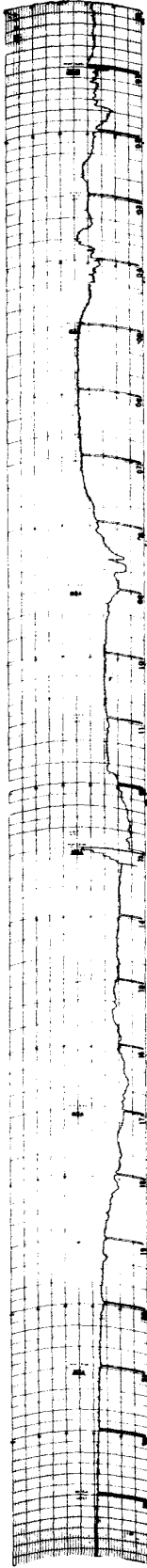
25



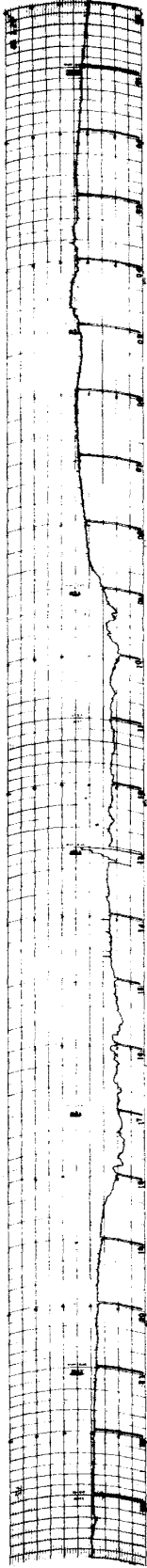
26



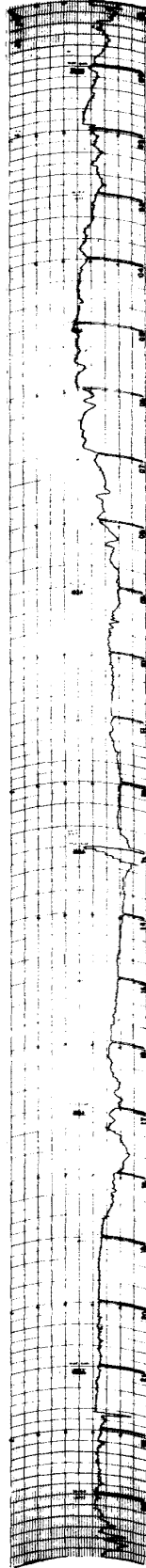
27



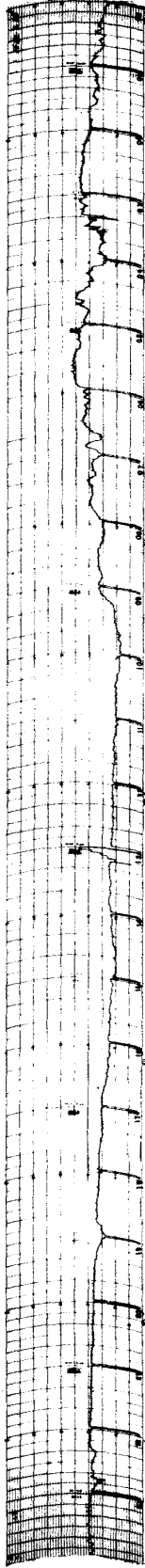
28



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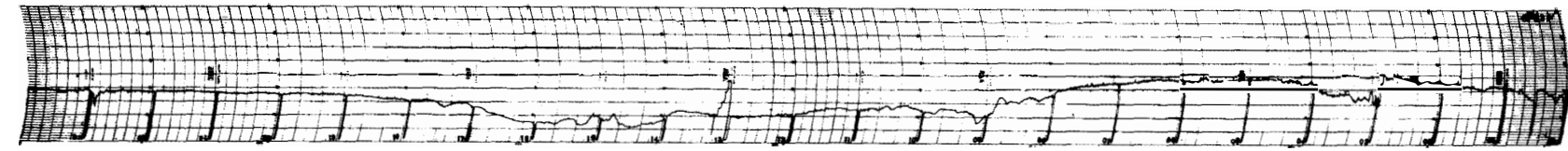
24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

MAR 1974

31



24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

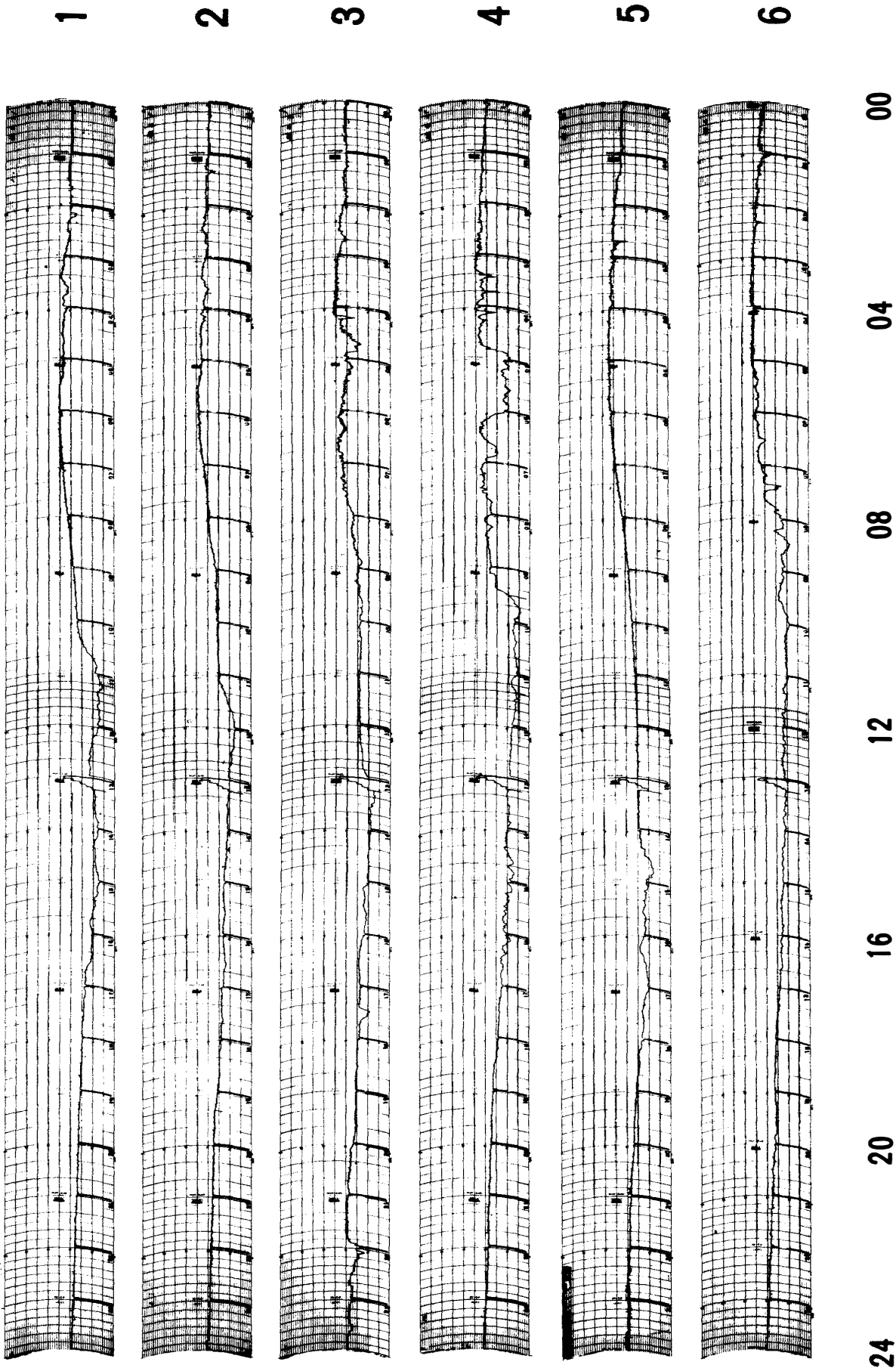
Cosmic noise level obscured or equipment malfunction.

17th    15.50 - 16.30    failure of equipment

24th    09.50 - 16.42    "



APR 1974



30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

APR 1974

7

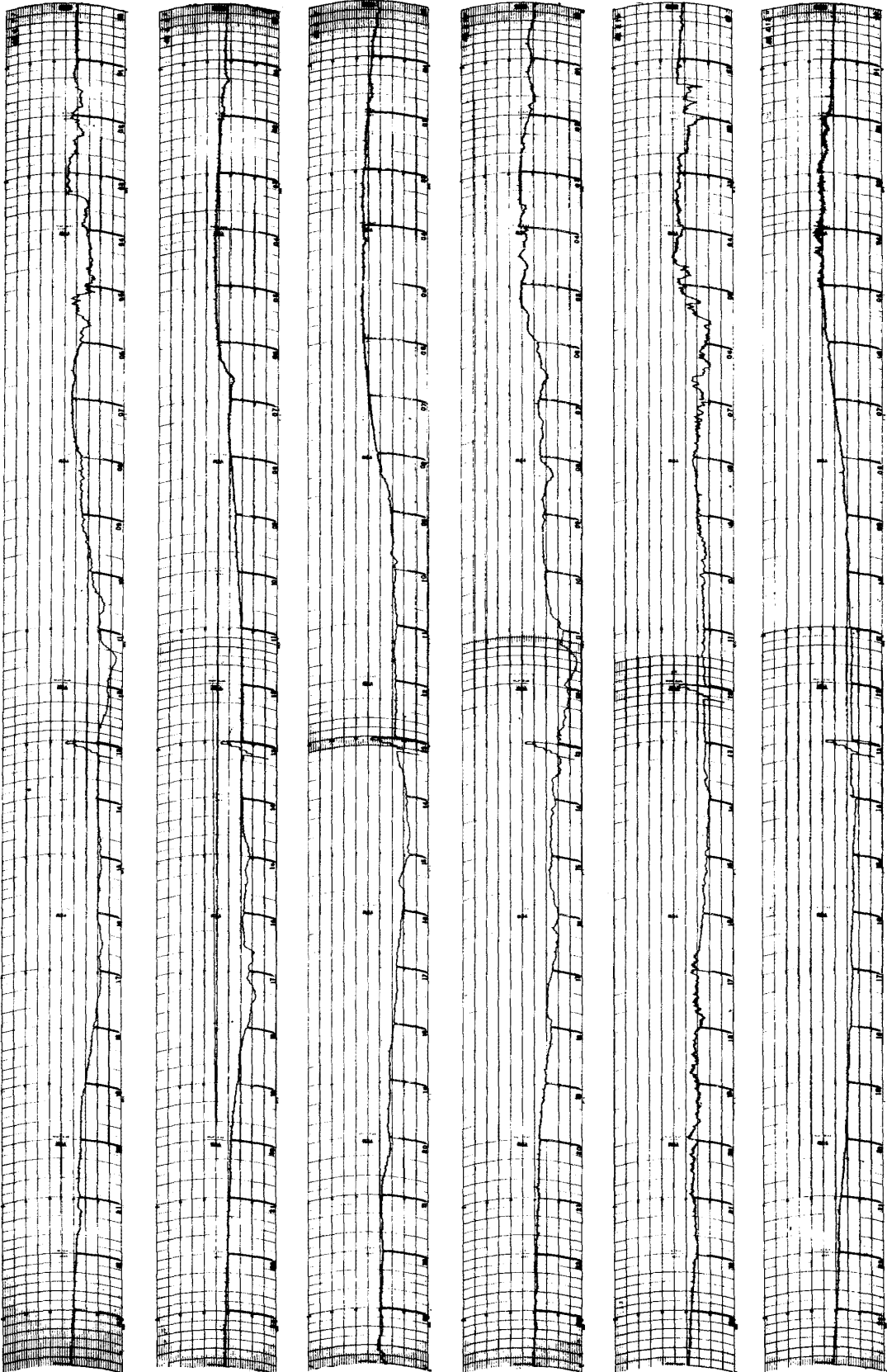
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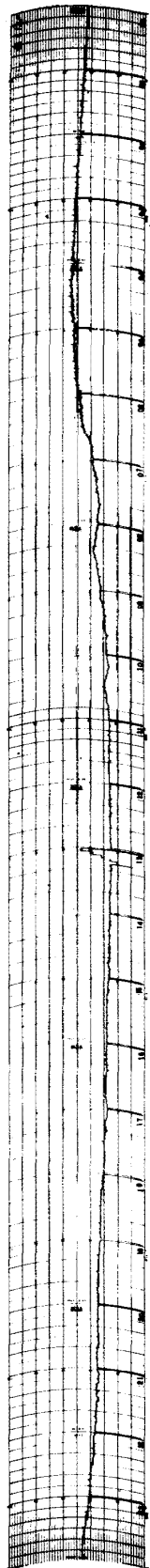


24 20 16 12 08 04 00

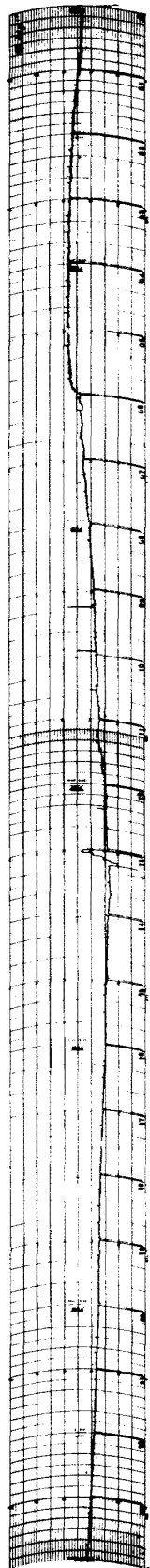
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

APR 1974

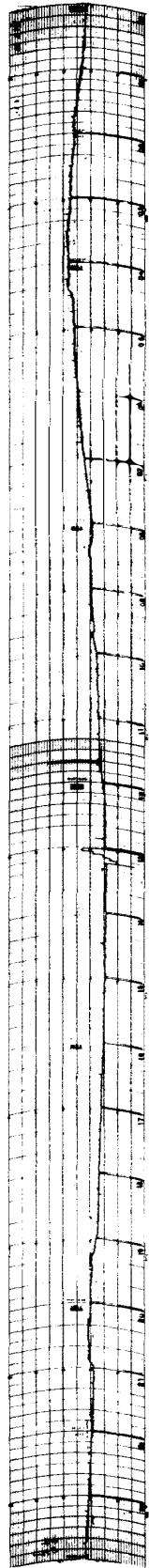
13



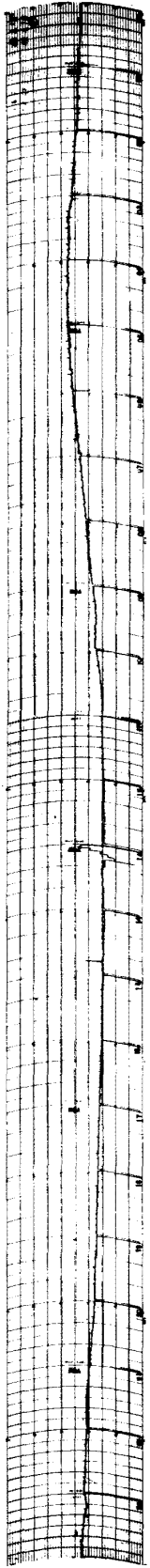
14



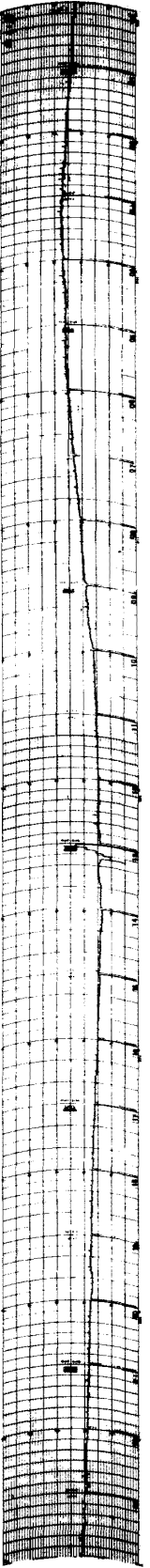
15



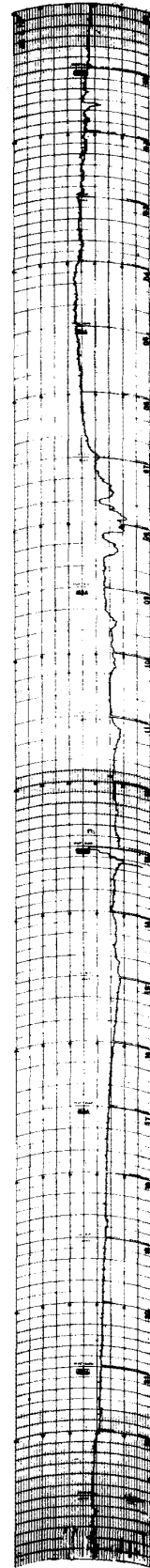
16



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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

APR 1974

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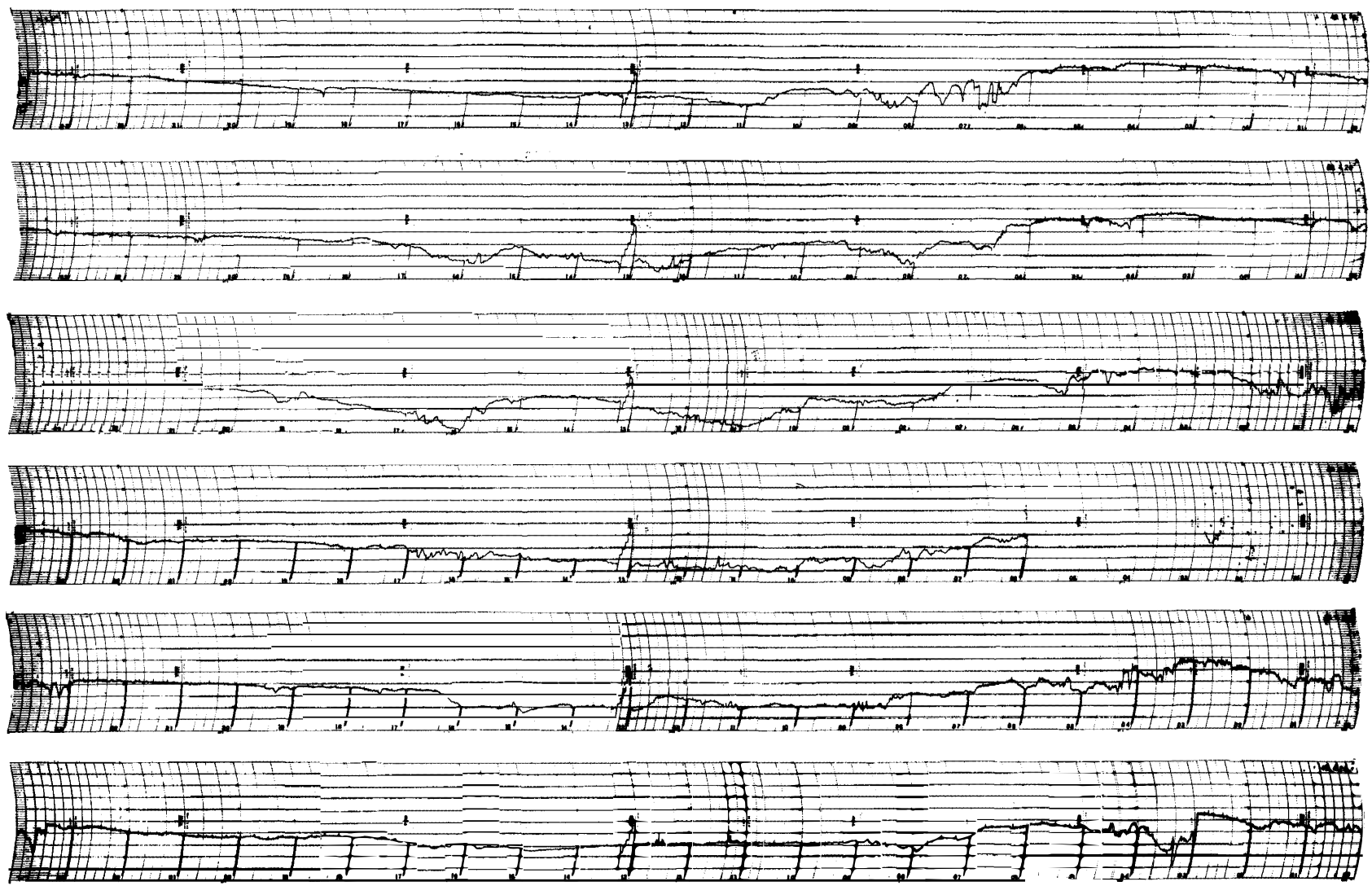
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— 36 —

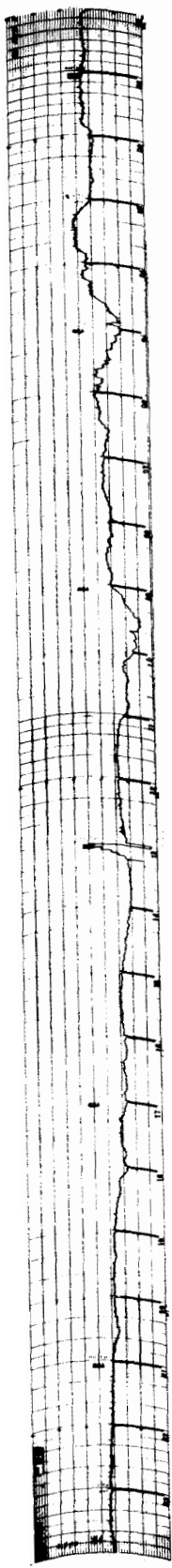
24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

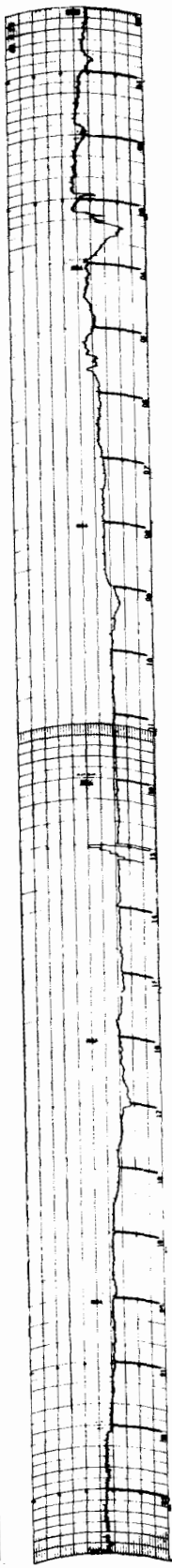
30 MHz COSMIC NOISE

APR 1974

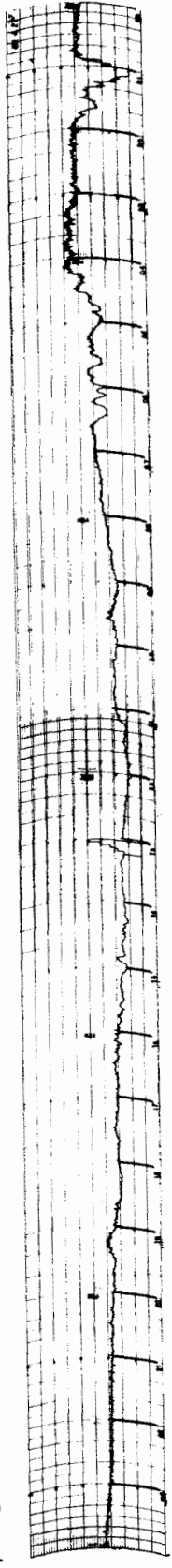
25



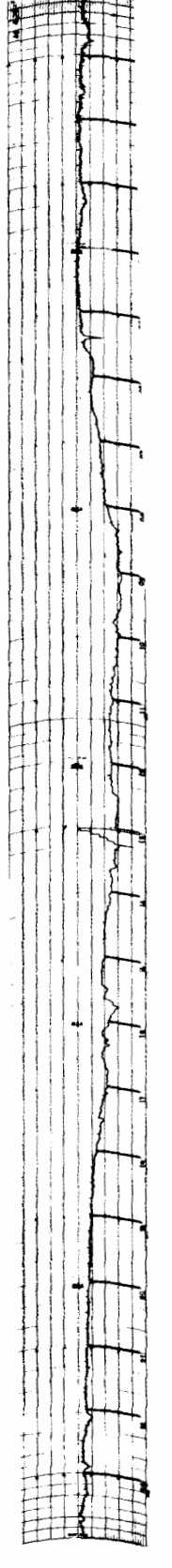
26



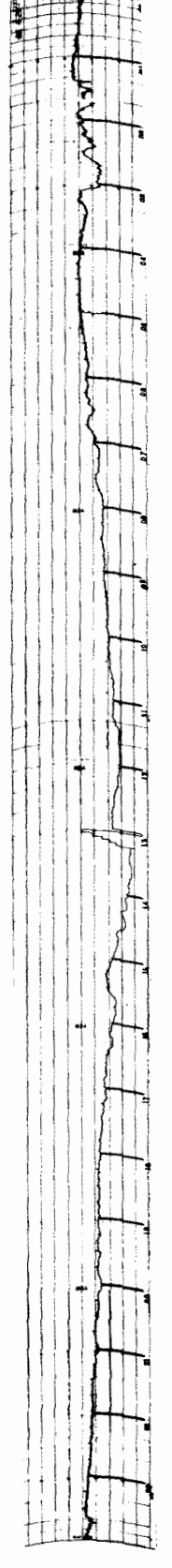
27



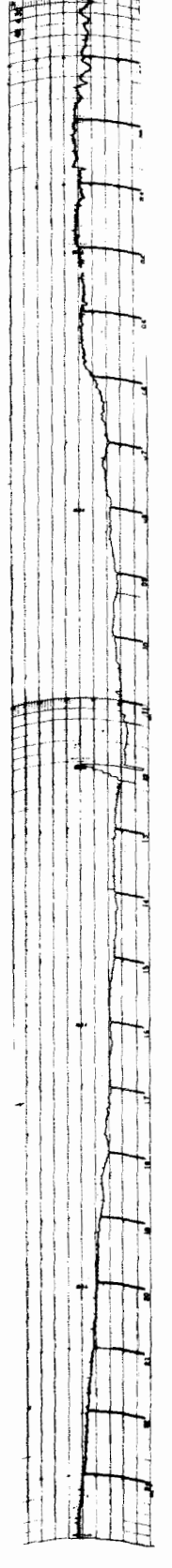
28



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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

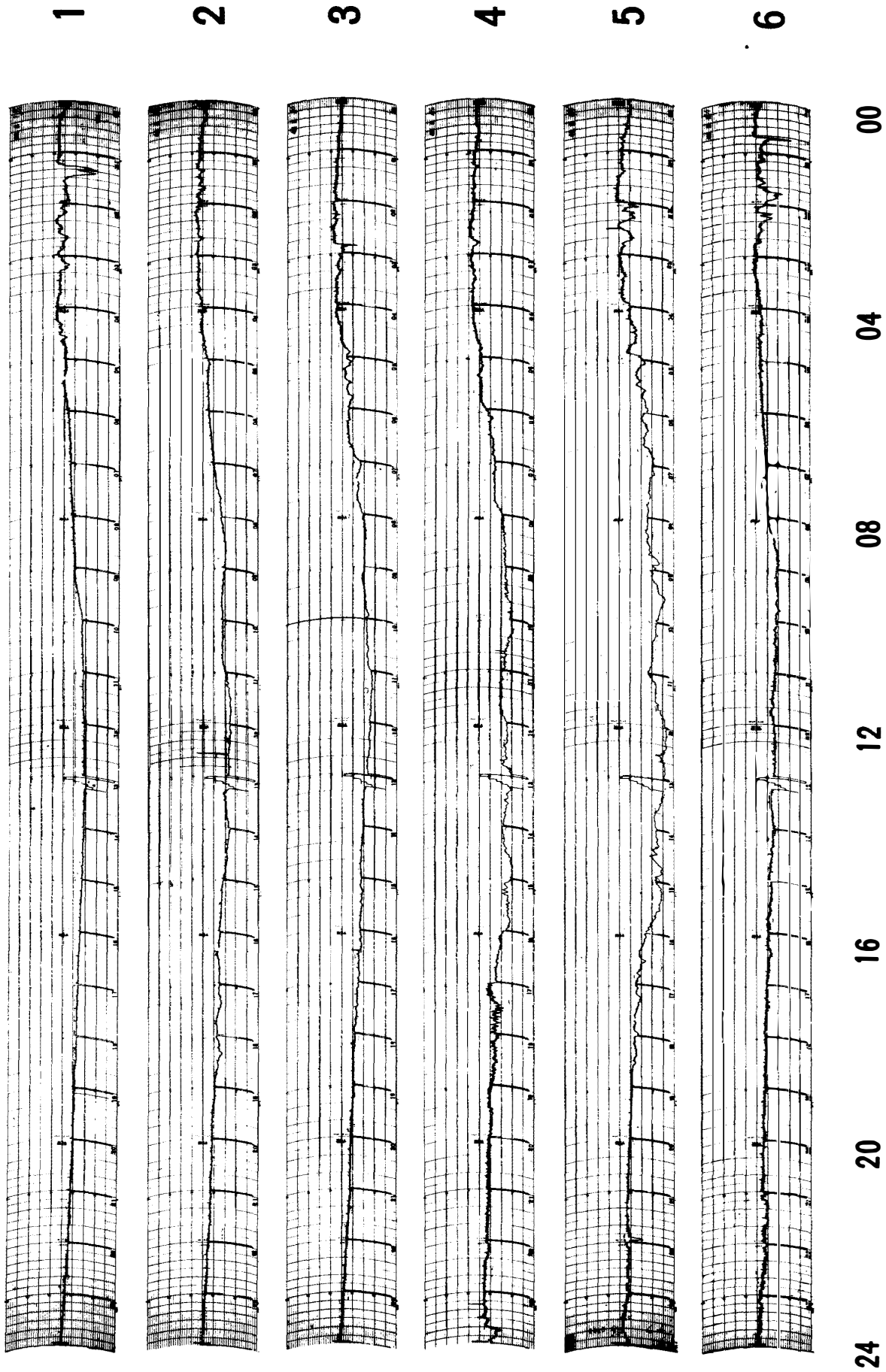
45° EAST MERIDIAN TIME IN HOURS

Cosmic noise level obscured or equipment malfunction.

21th 20.00

22th - 06.00 failure of equipment

MAY 1974

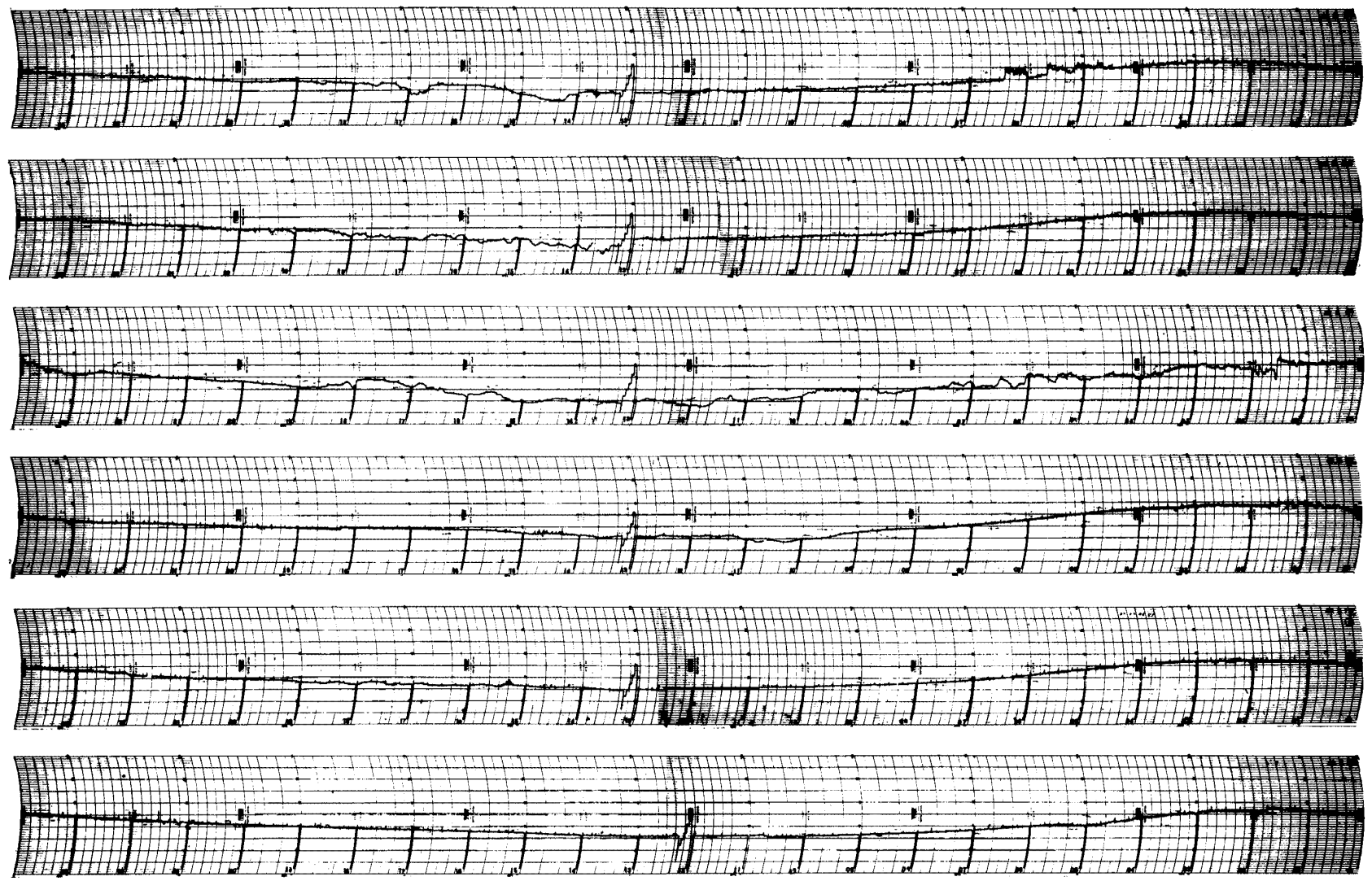


30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

MAY 1974

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— 40 —

24                    20                    16                    12                    08                    04                    00

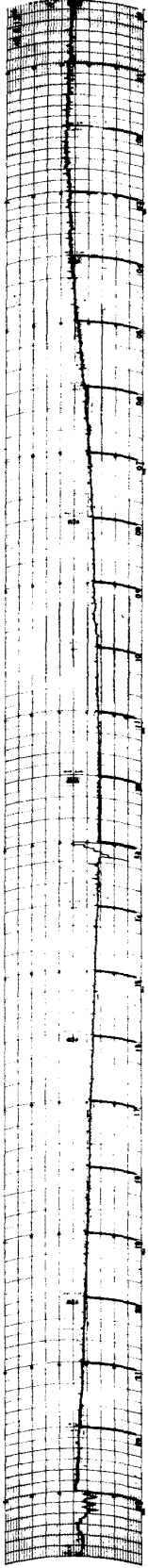
45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

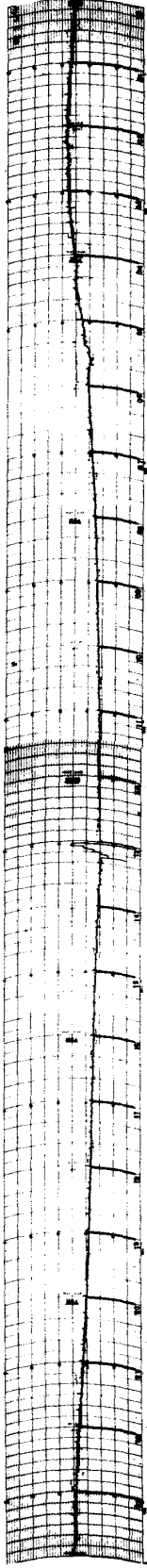


MAY 1974

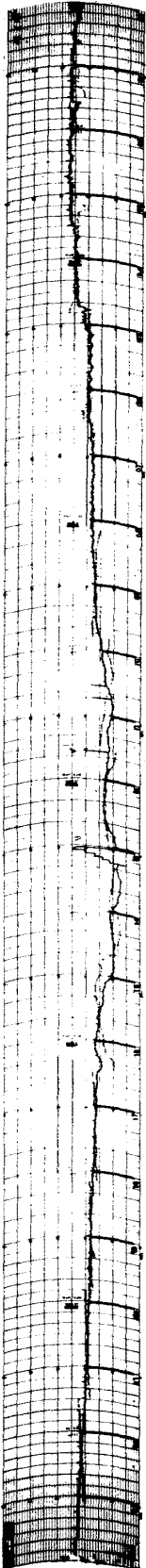
13



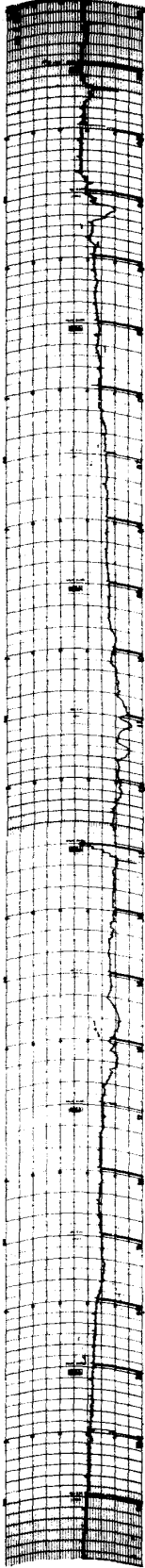
14



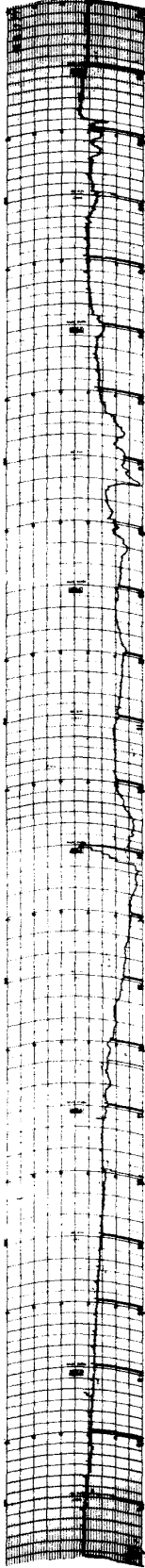
15



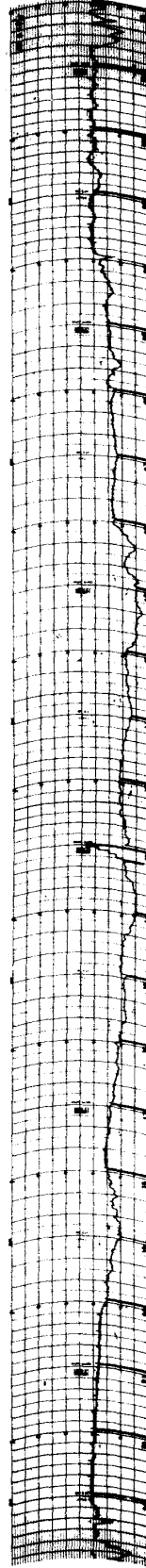
16



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24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

MAY 1974

19

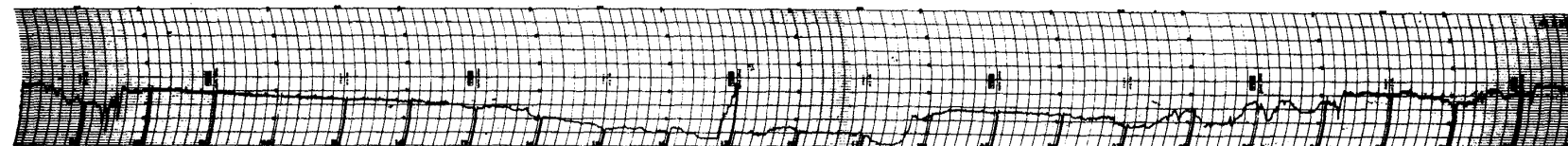
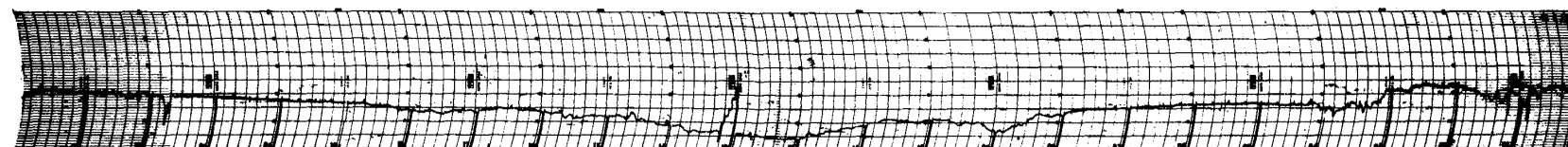
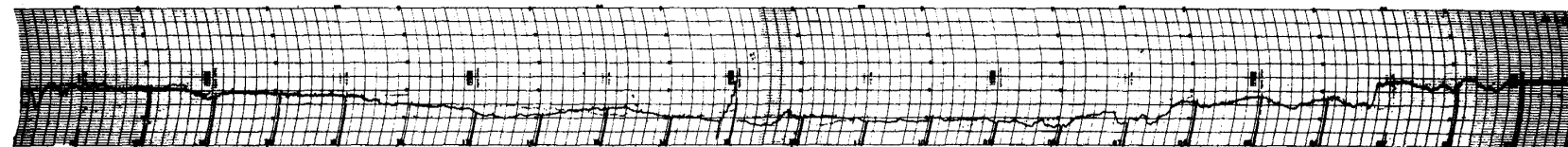
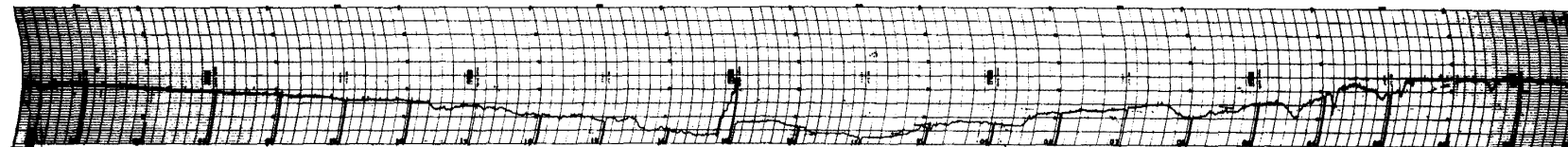
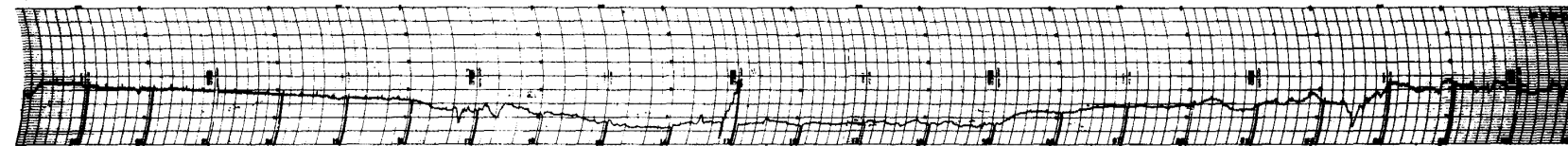
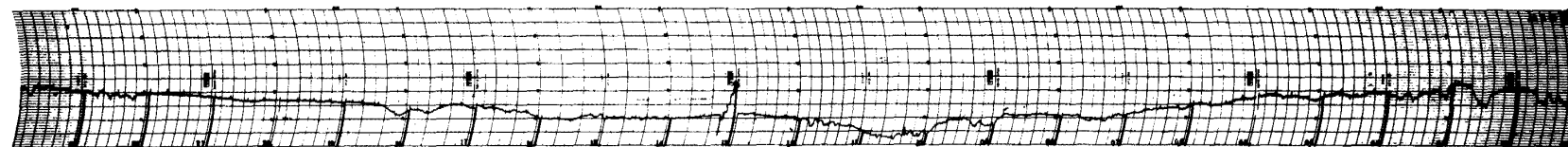
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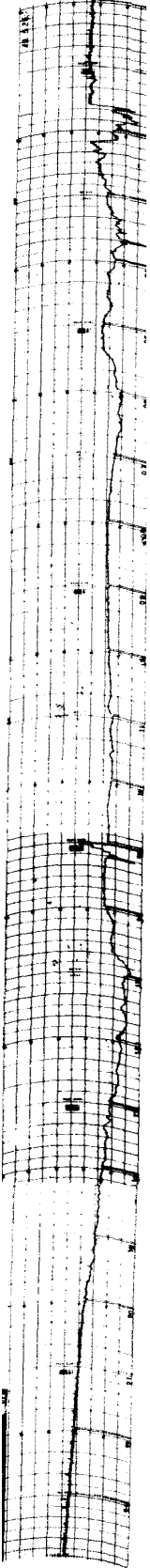
00

45° EAST MERIDIAN TIME IN HOURS

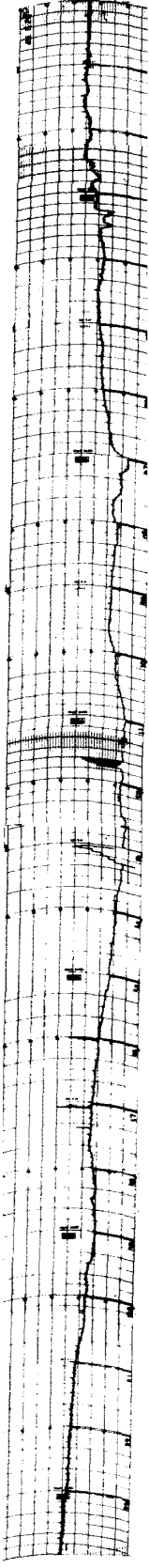
30 MHz COSMIC NOISE

MAY 1974

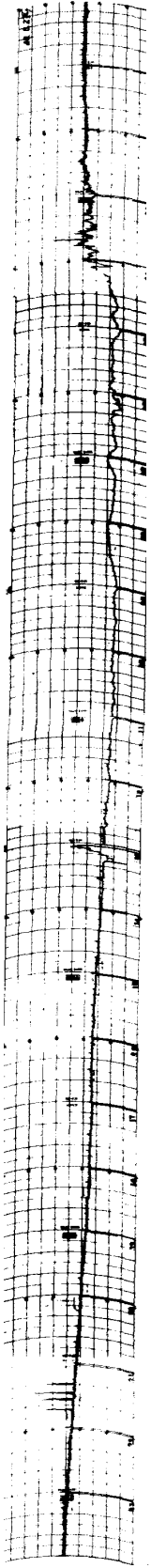
25



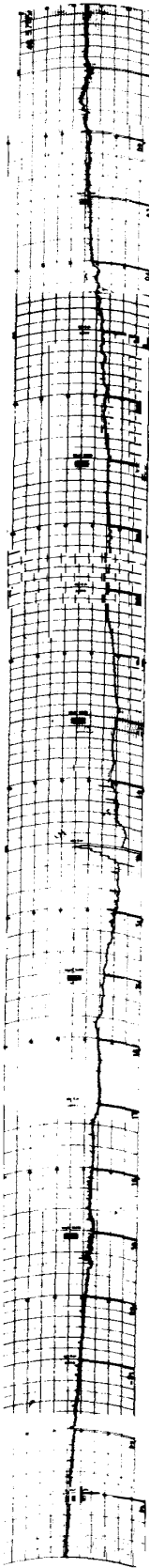
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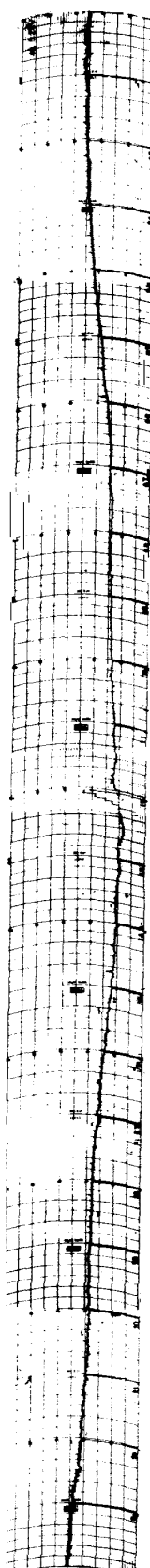
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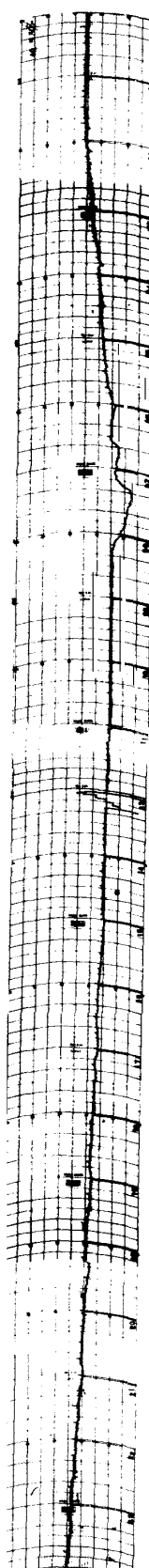
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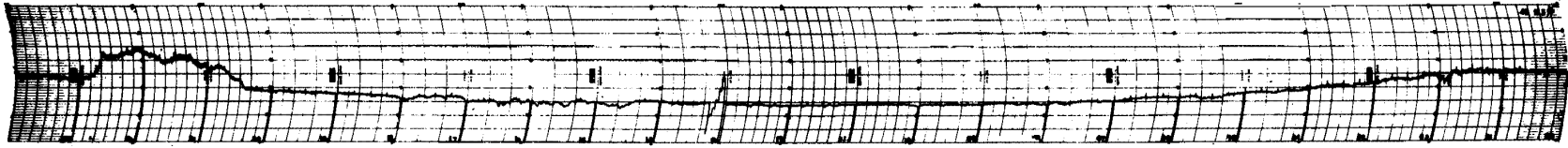


24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz CO SM C NOISE

MAY 1974

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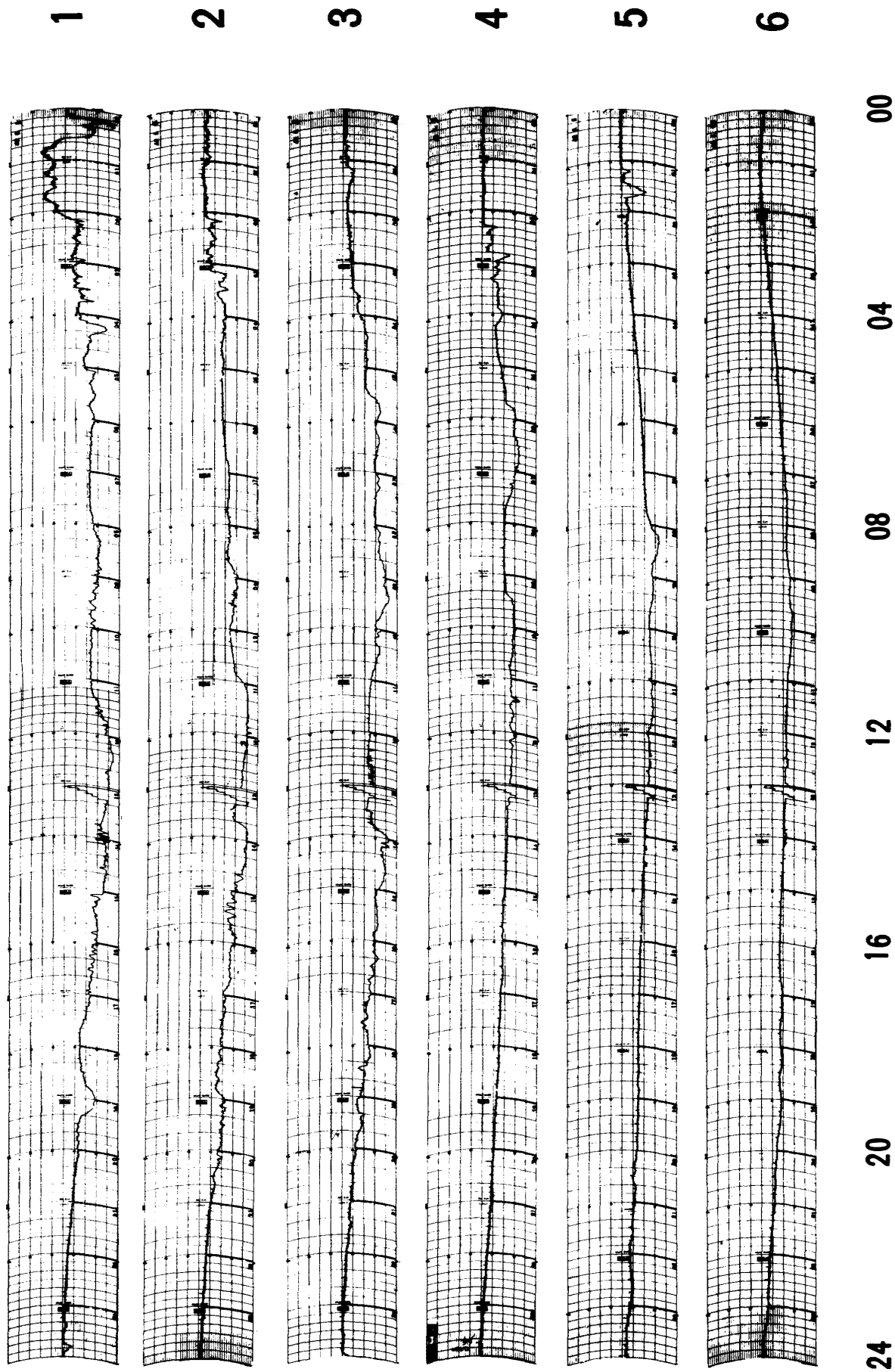
04

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45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

JUNE 1974



30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

JUNE 1974

7

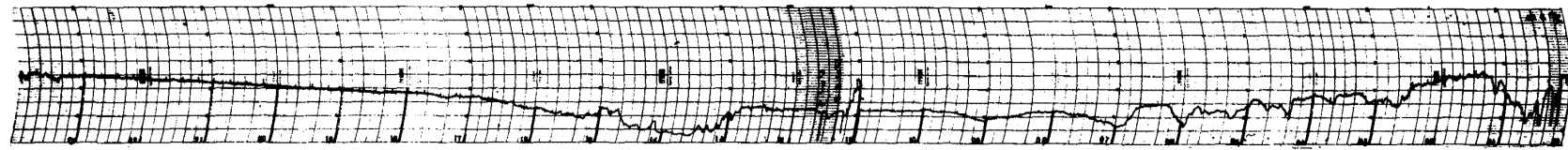
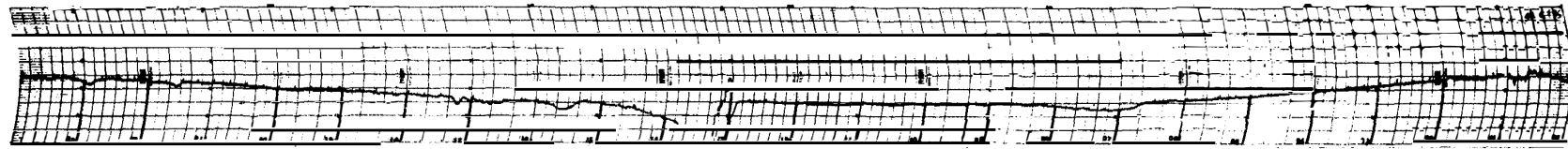
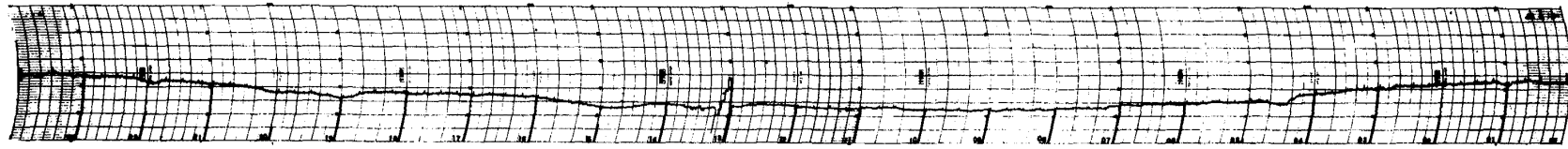
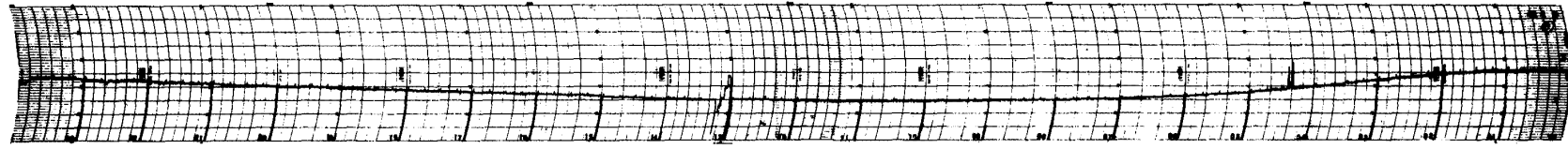
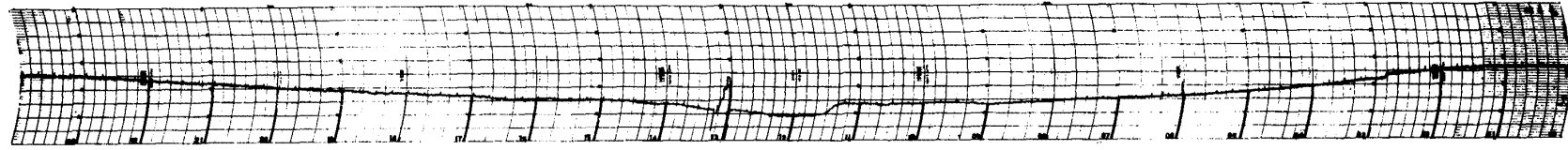
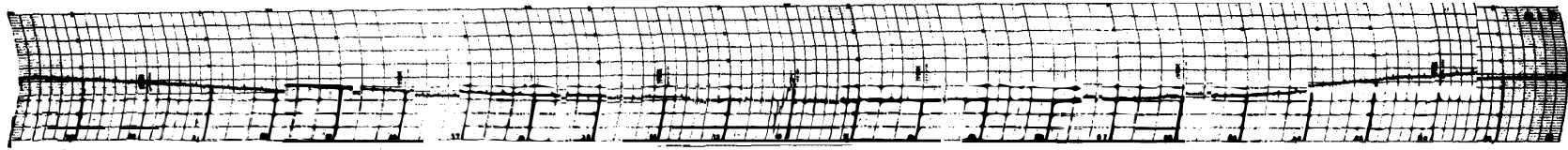
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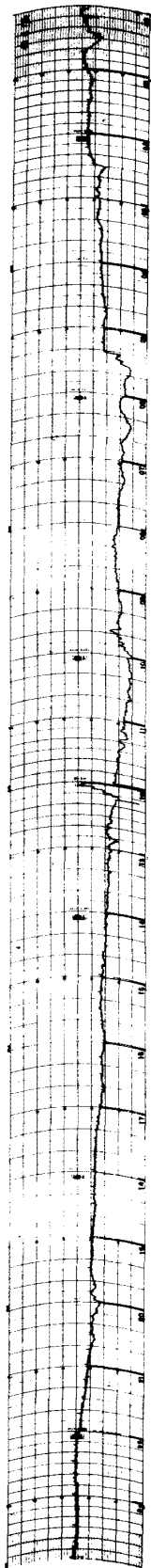
24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

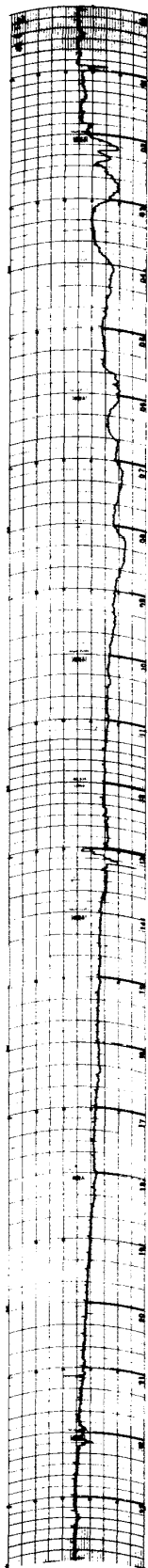
30 MHz COSMIC NOISE

JUNE 1974

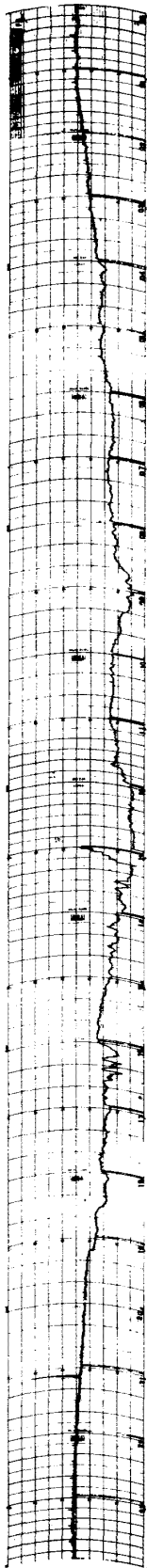
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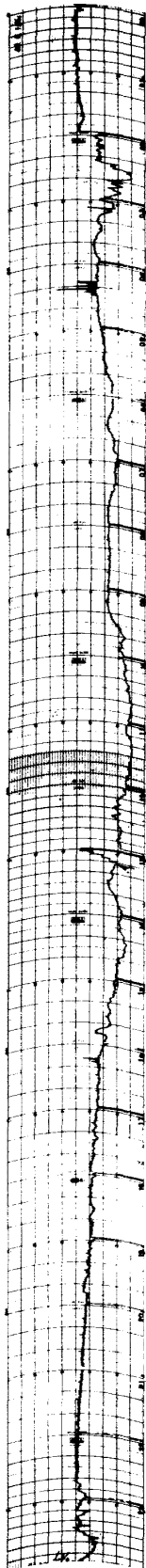
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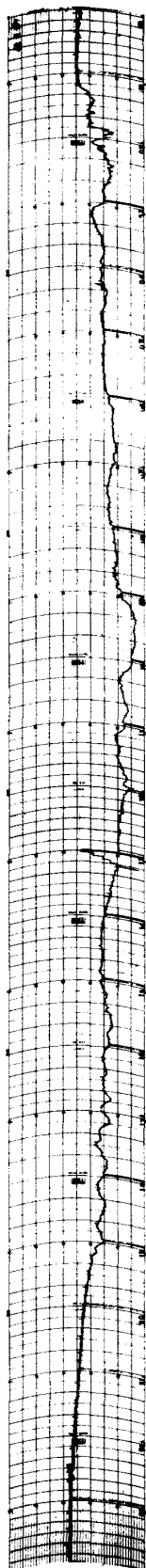
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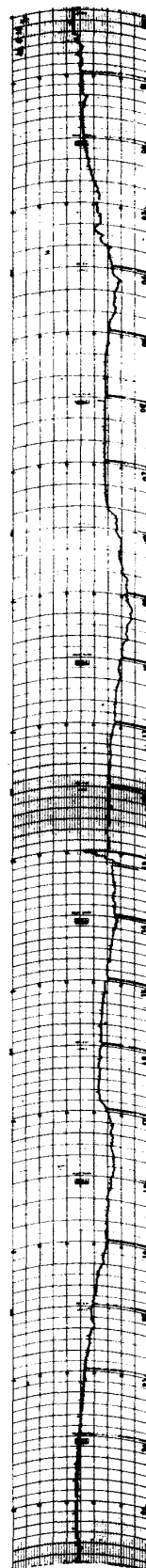
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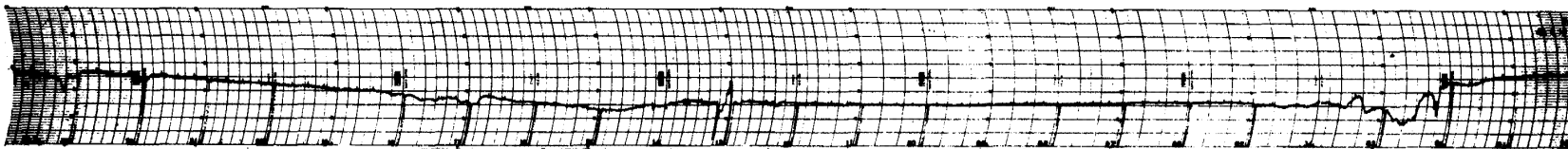
24 20 16 12 08 04 00

30 MHz COSMIC NOISE

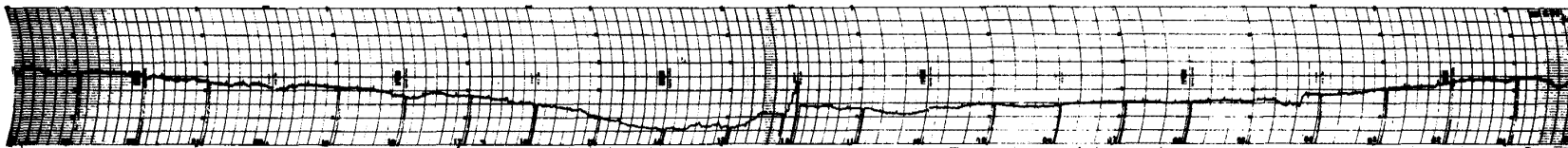
45° EAST MERIDIAN TIME IN HOURS

JUNE 1974

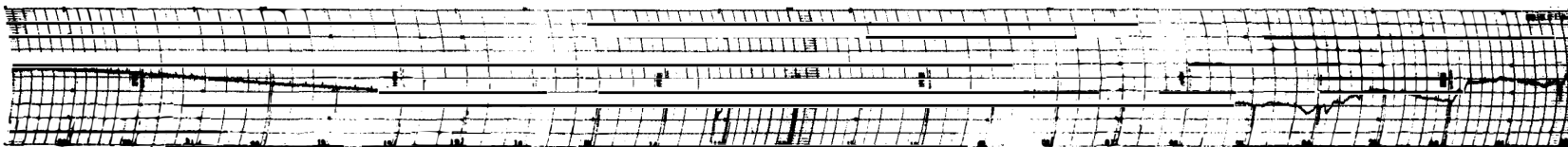
19



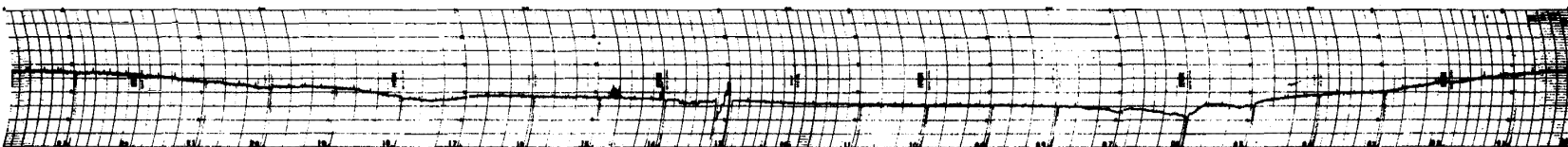
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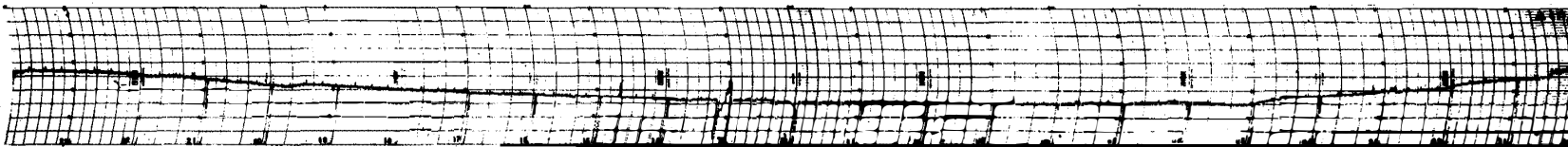
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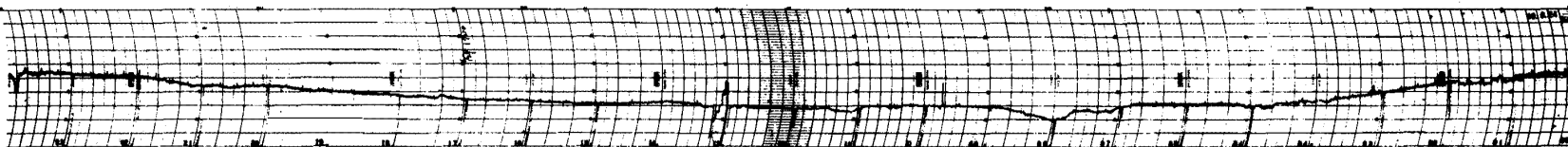
22



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24                      20                      16                      12                      08                      04                      00

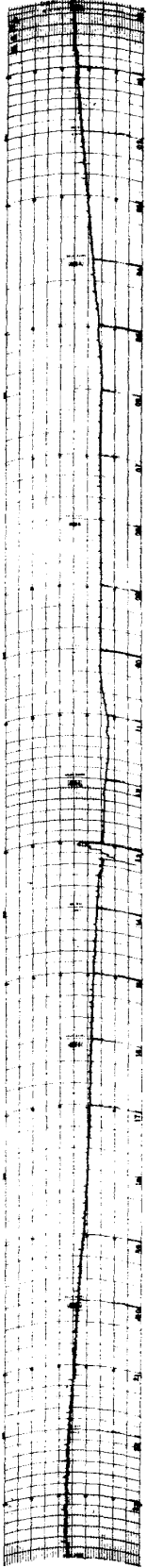
48 —  
45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

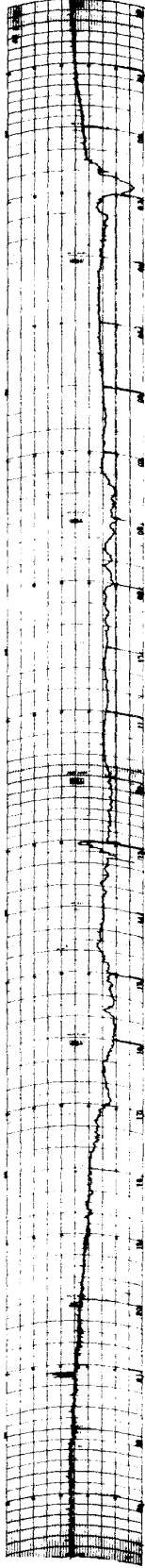


JUNE 1974

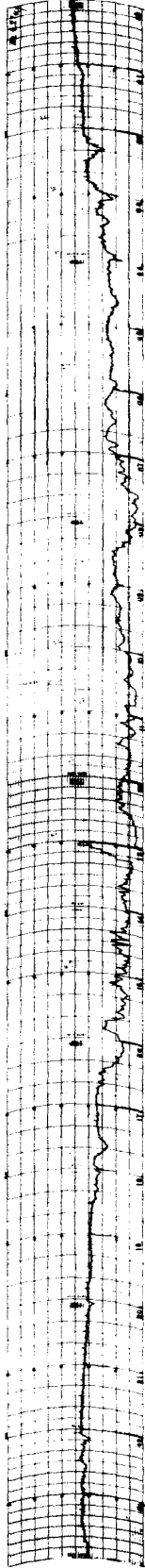
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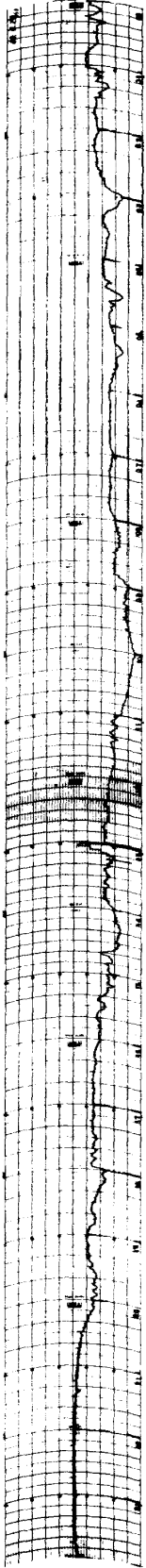
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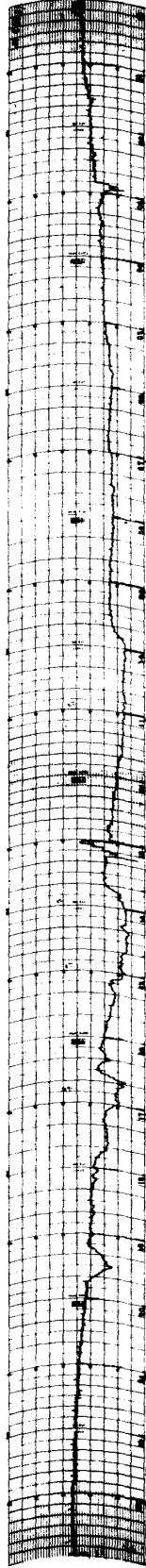
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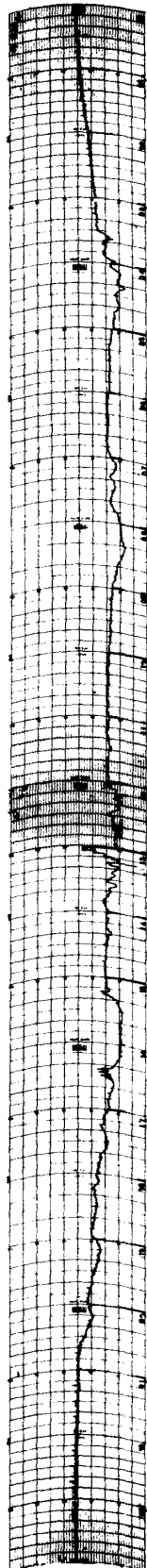
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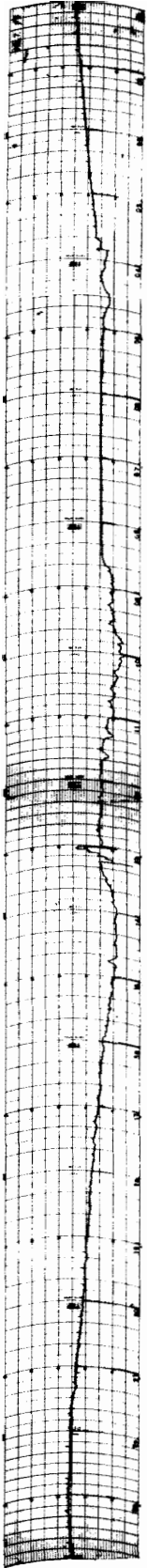
24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS

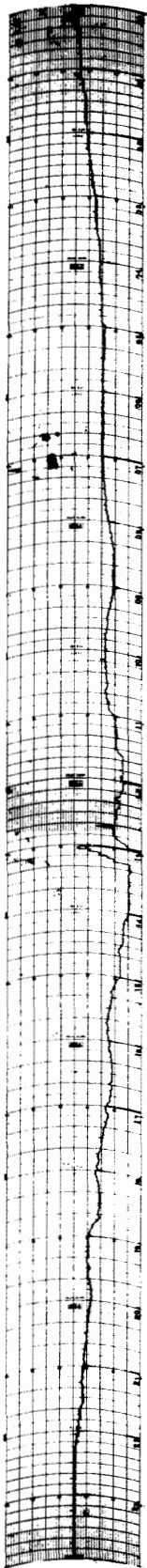
30 MHz COSMIC NOISE

JULY 1974

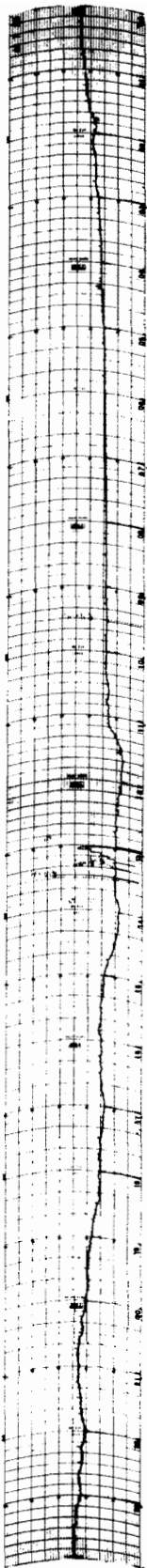
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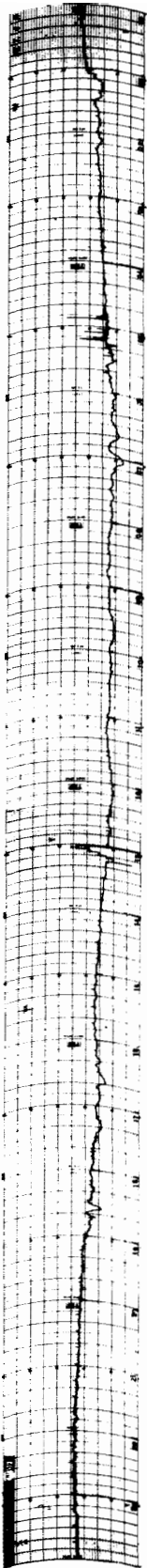
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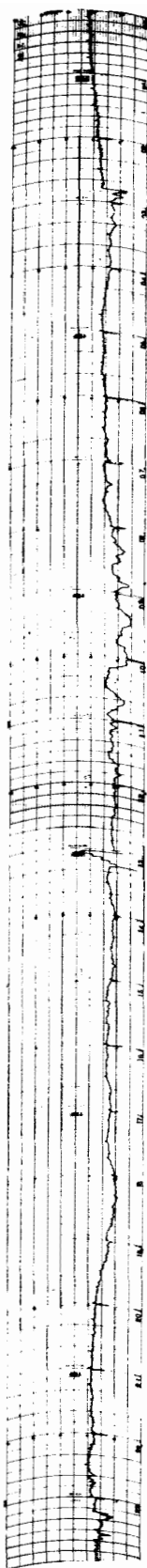
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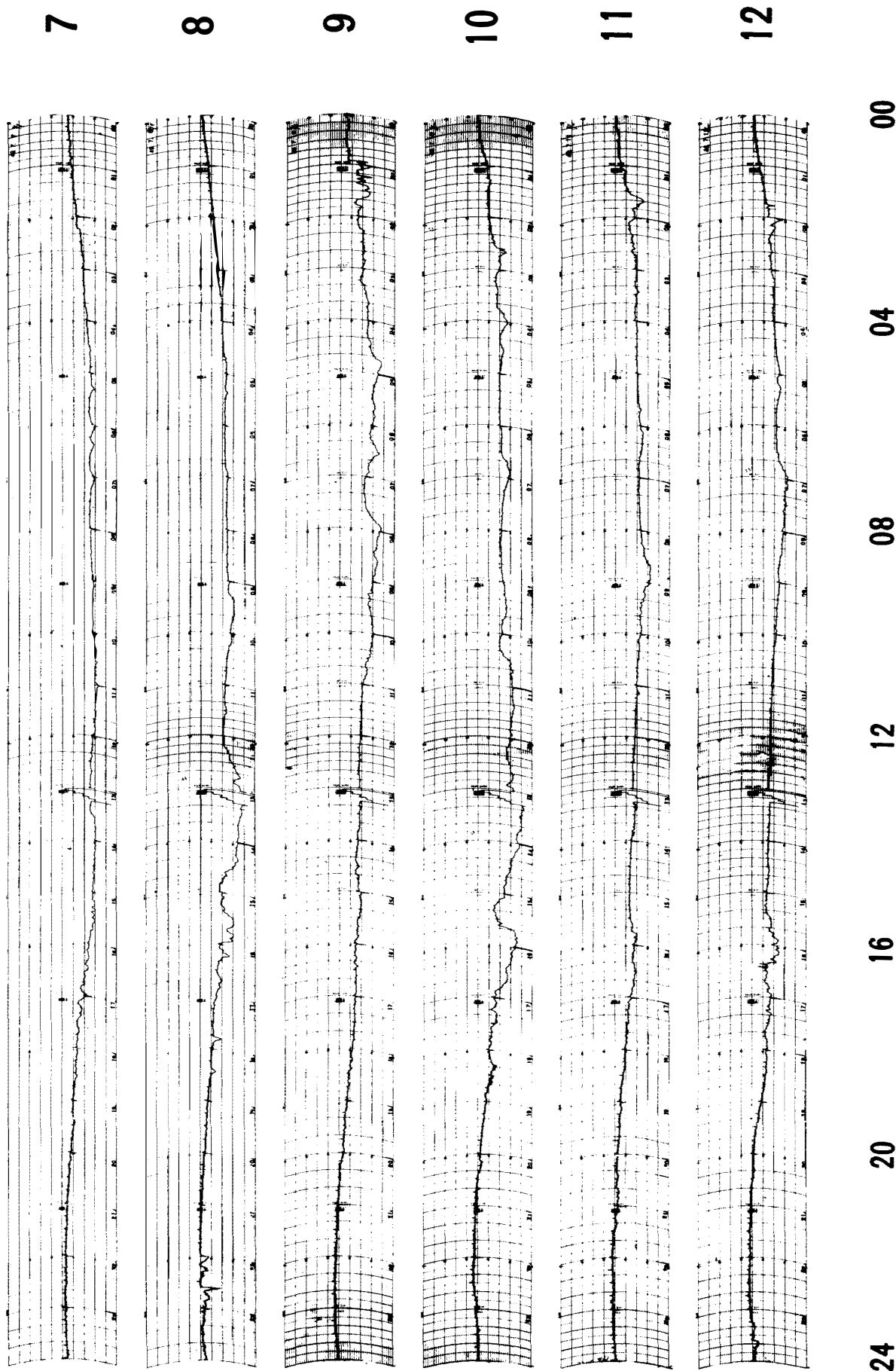
6



24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

JULY 1974



30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

JULY 1974

13

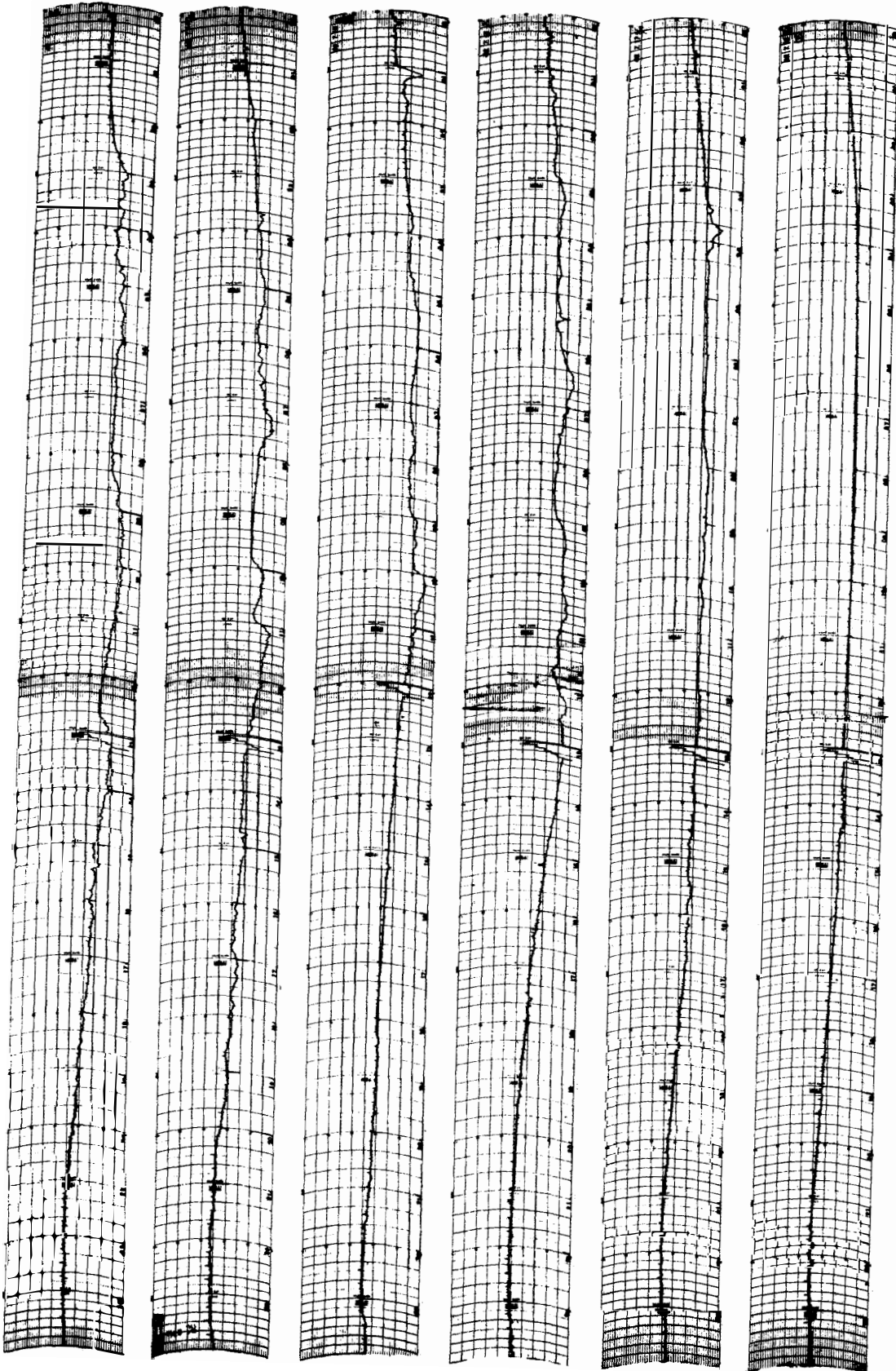
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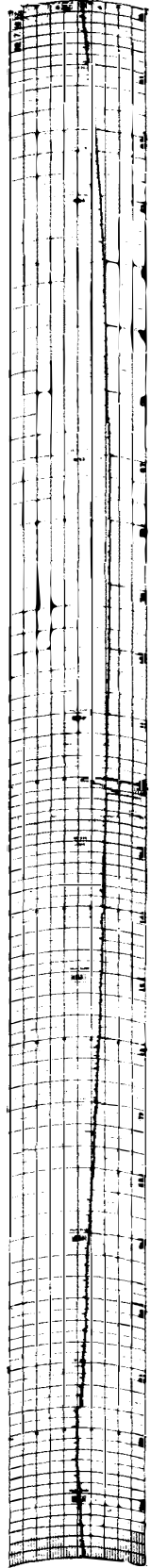
24

45° EAST MERIDIAN TIME IN HOURS

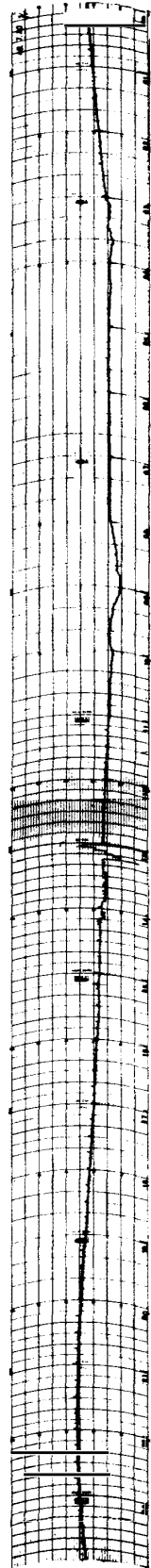
30 MHz COSMIC NOISE

JULY 1974

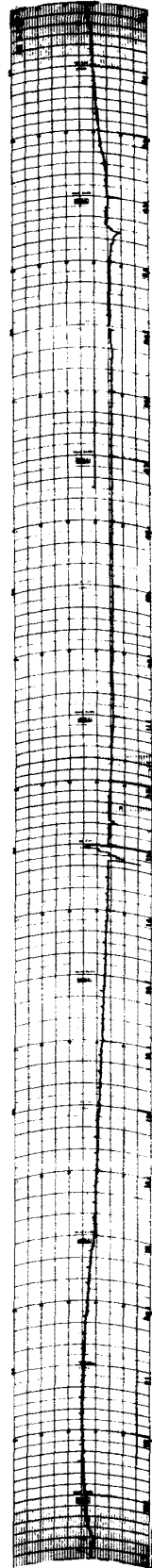
19



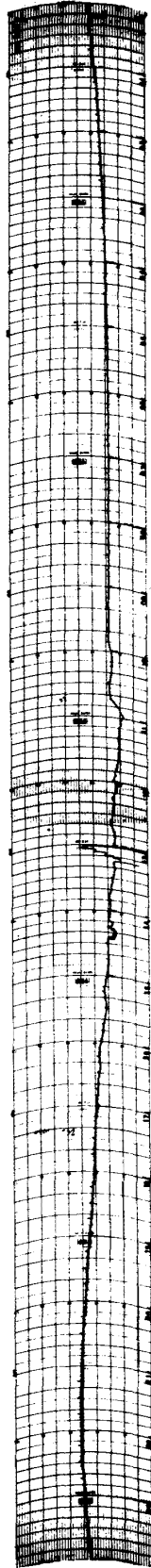
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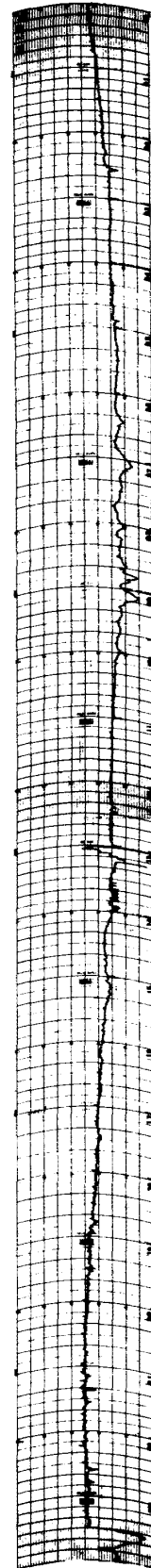
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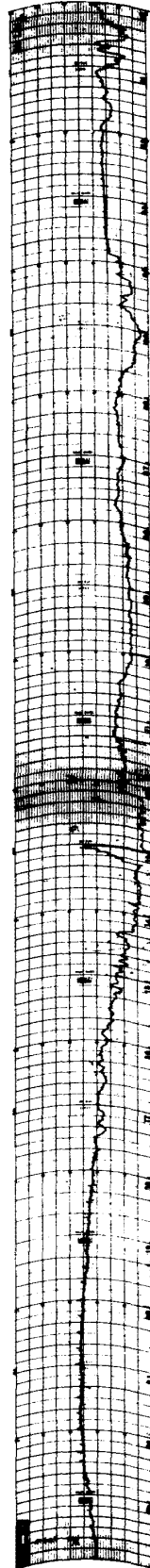
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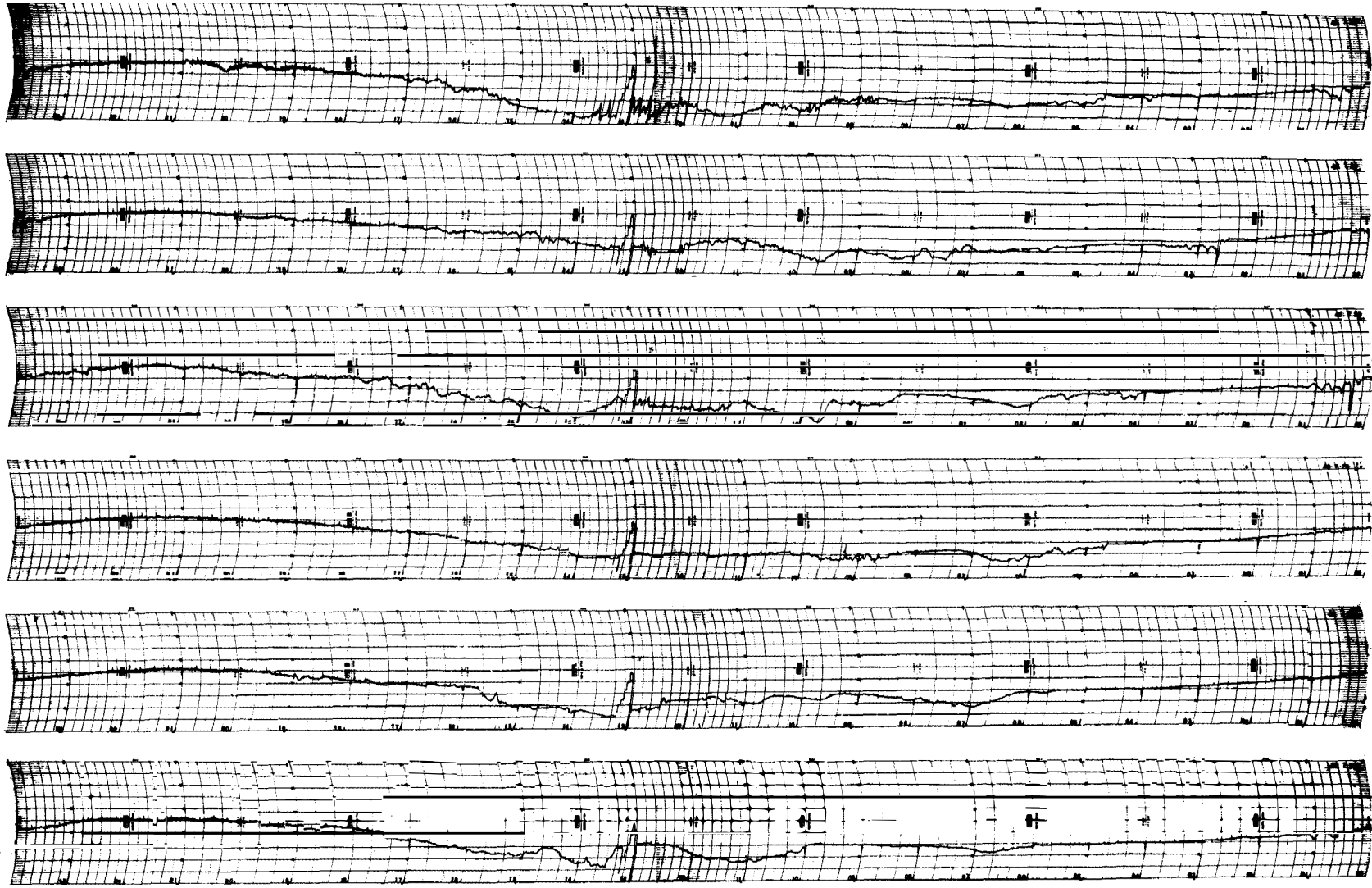


24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

JULY 1974

25  
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30



— 54 —

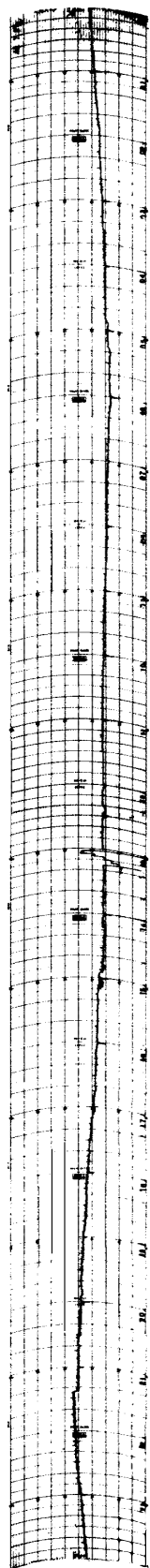
24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

JULY 1974

31

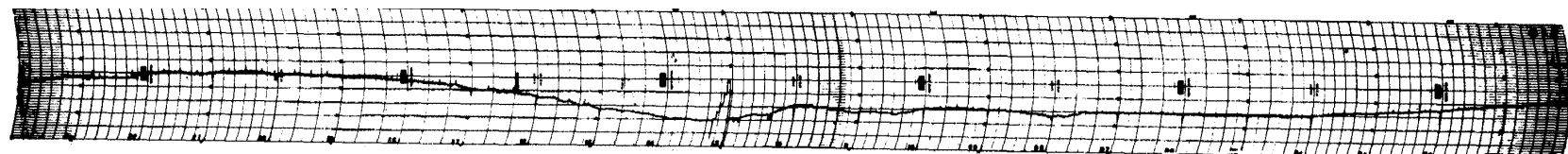


24 20 16 12 08 04 00

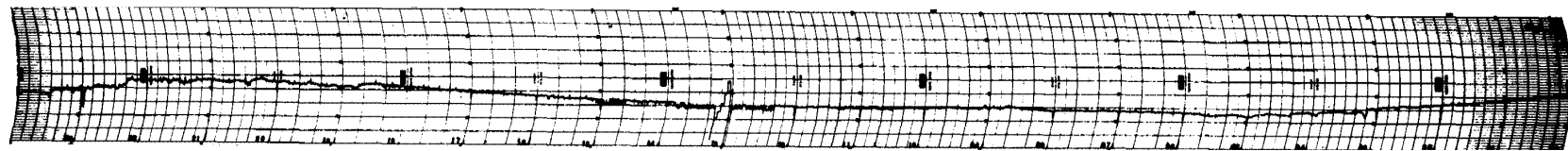
30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

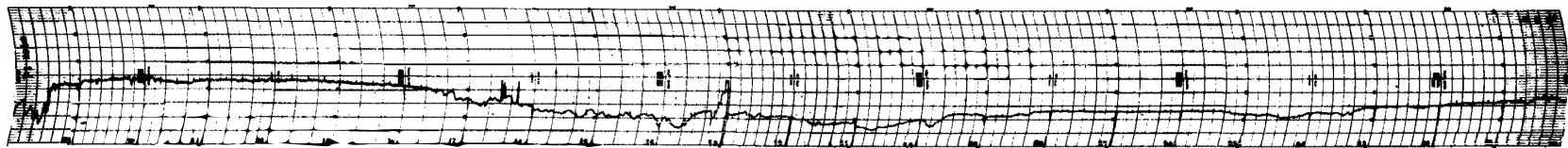
AUG 1974



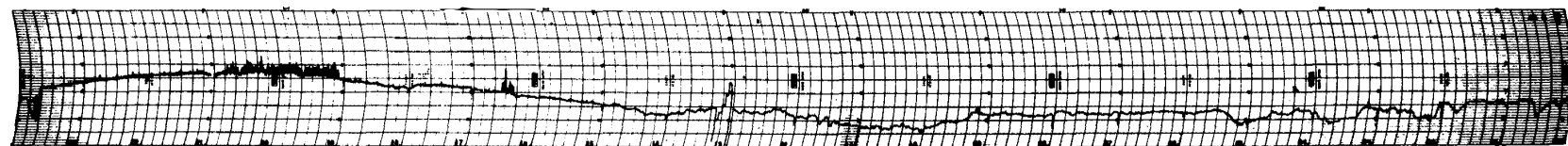
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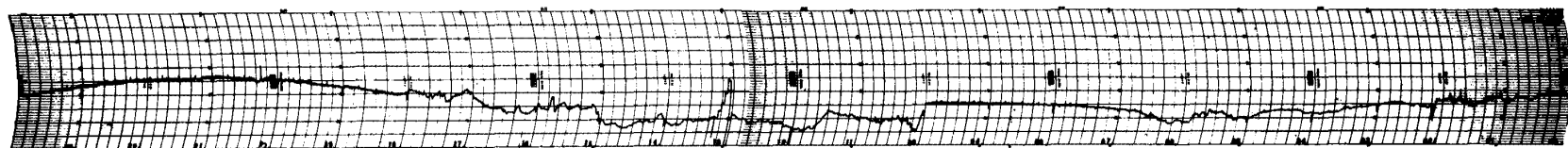
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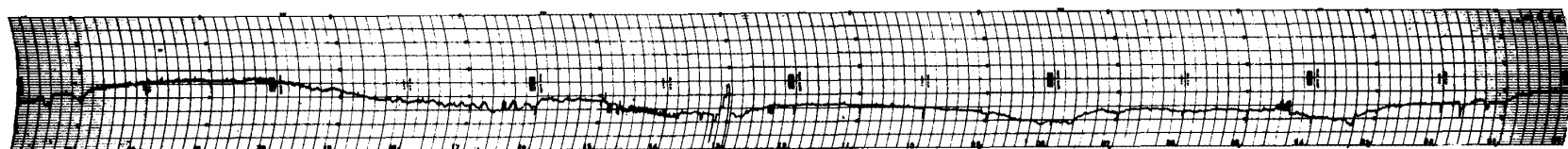
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24                      20                      16                      12                      08                      04                      00

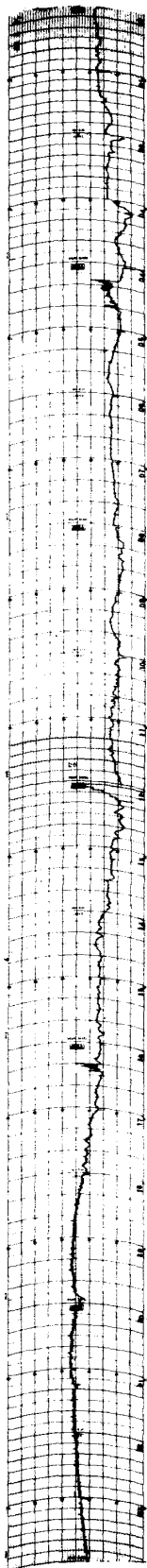
45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

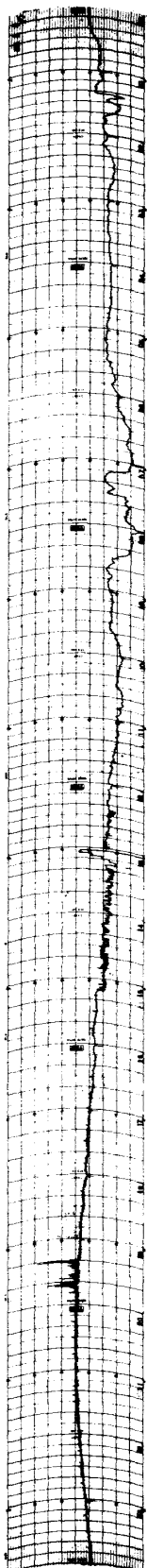


AUG 1974

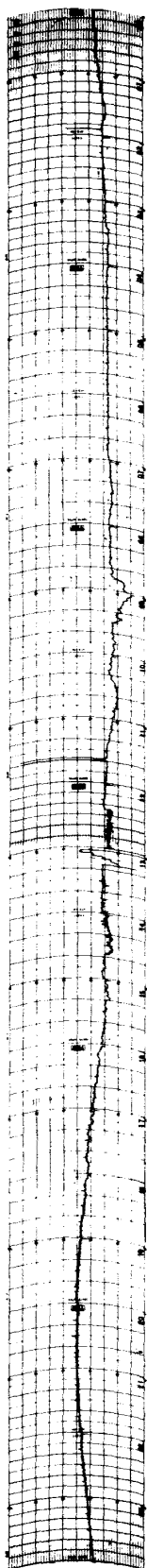
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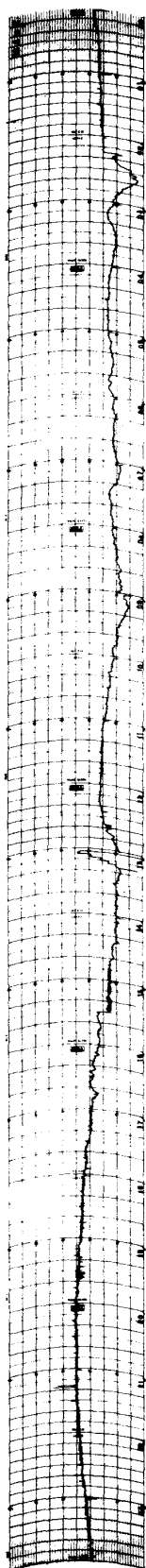
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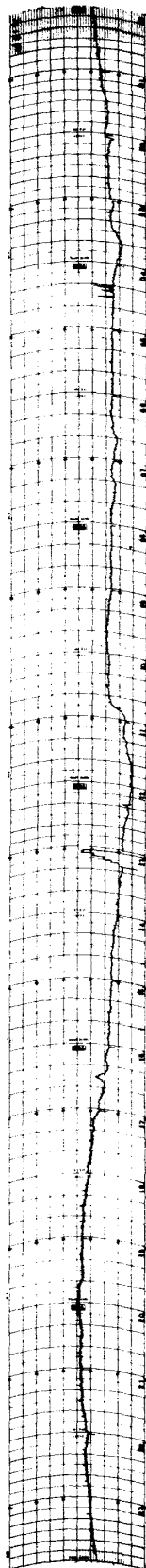
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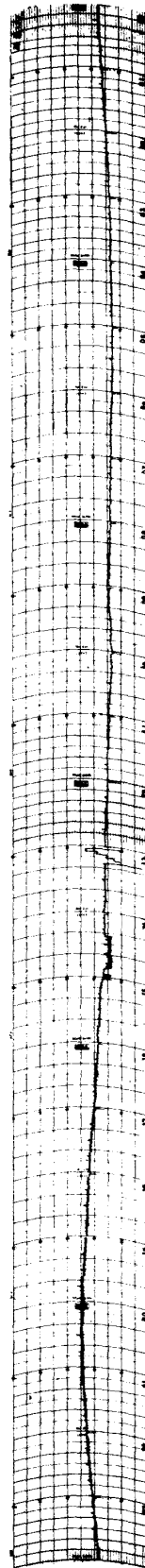
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24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

AUG 1974

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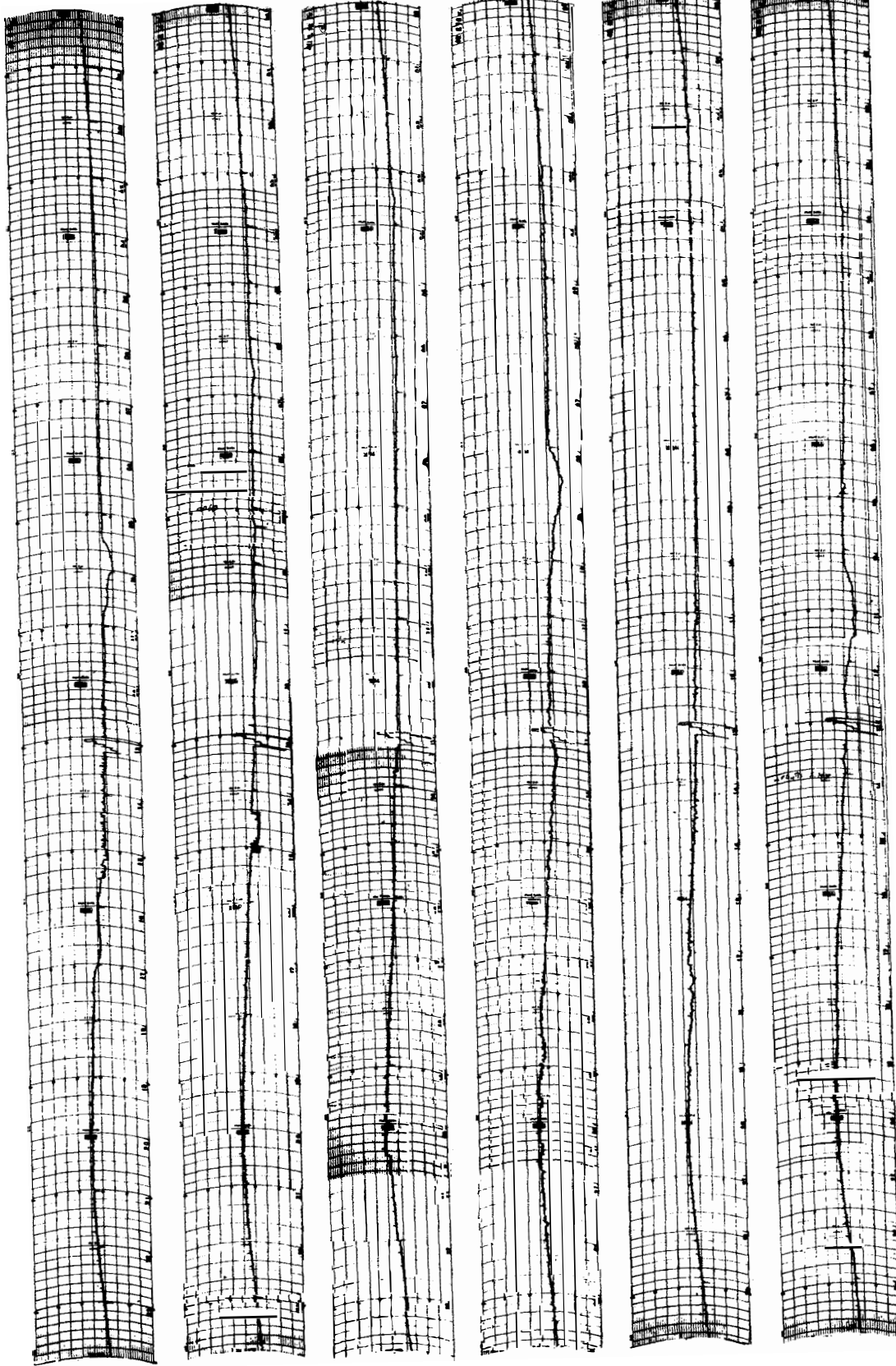
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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

AUG 1974

19

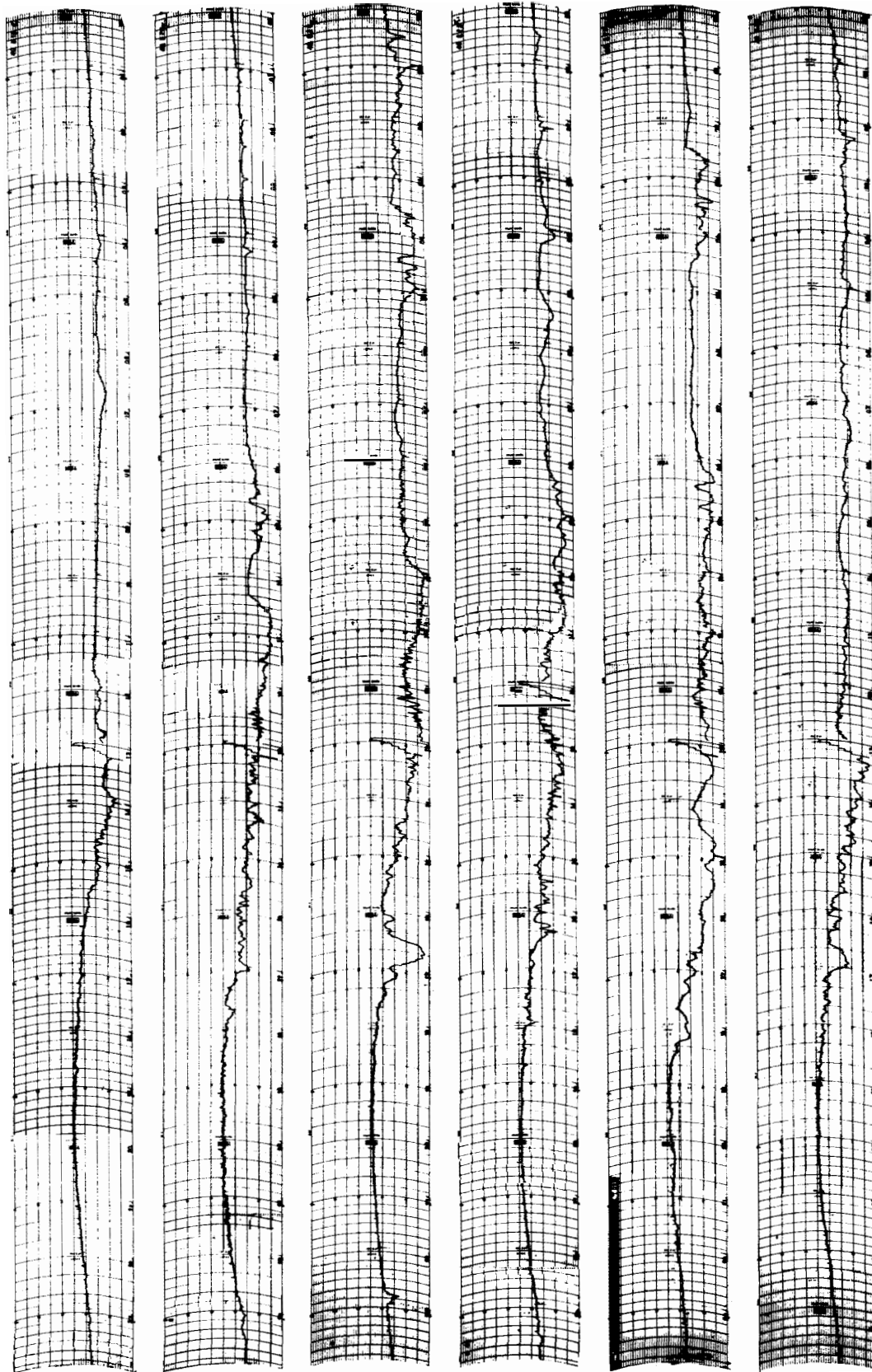
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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

AUG 1974

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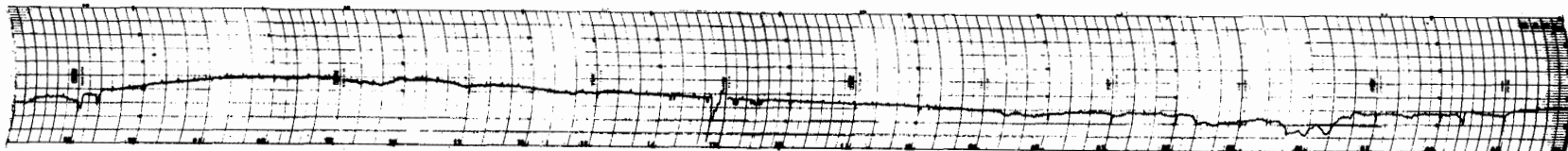
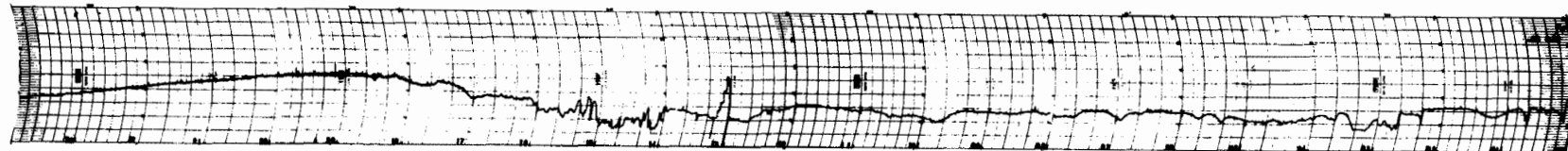
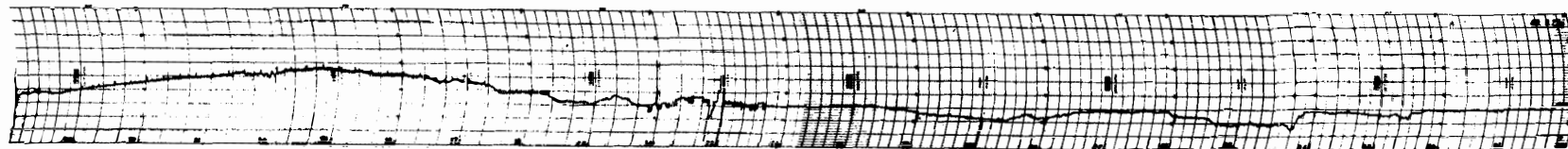
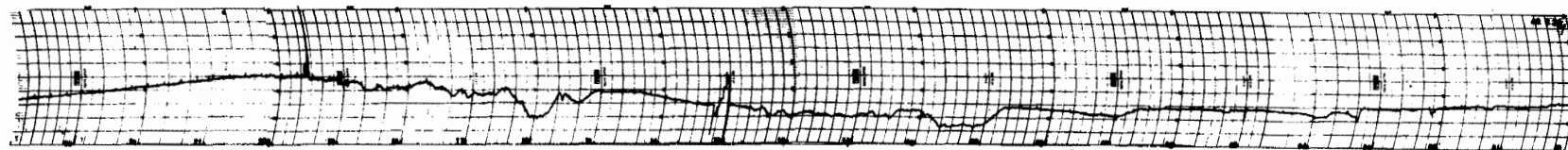
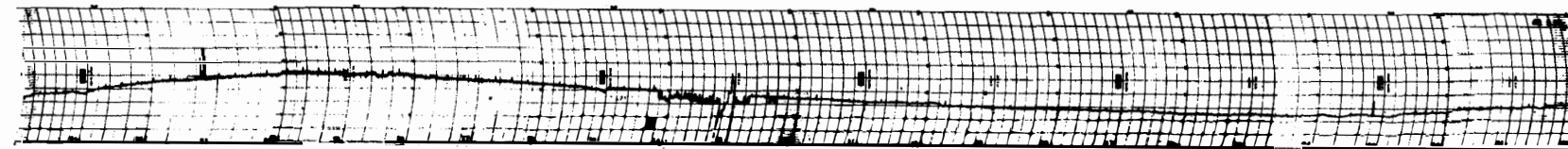
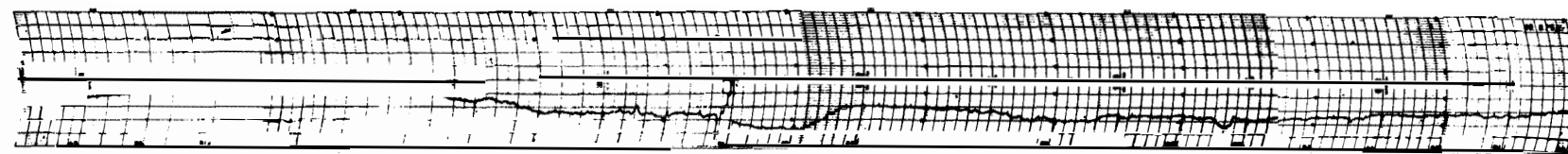
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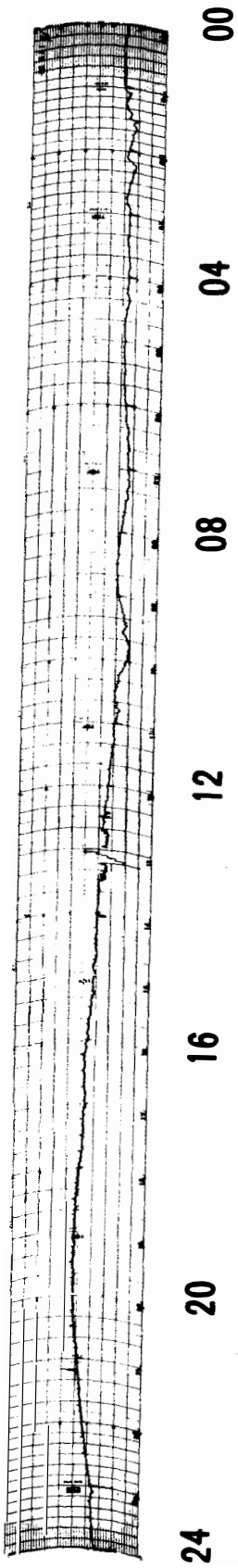
45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

— 60 —

AUG 1974

31



45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

SEP 1974

1

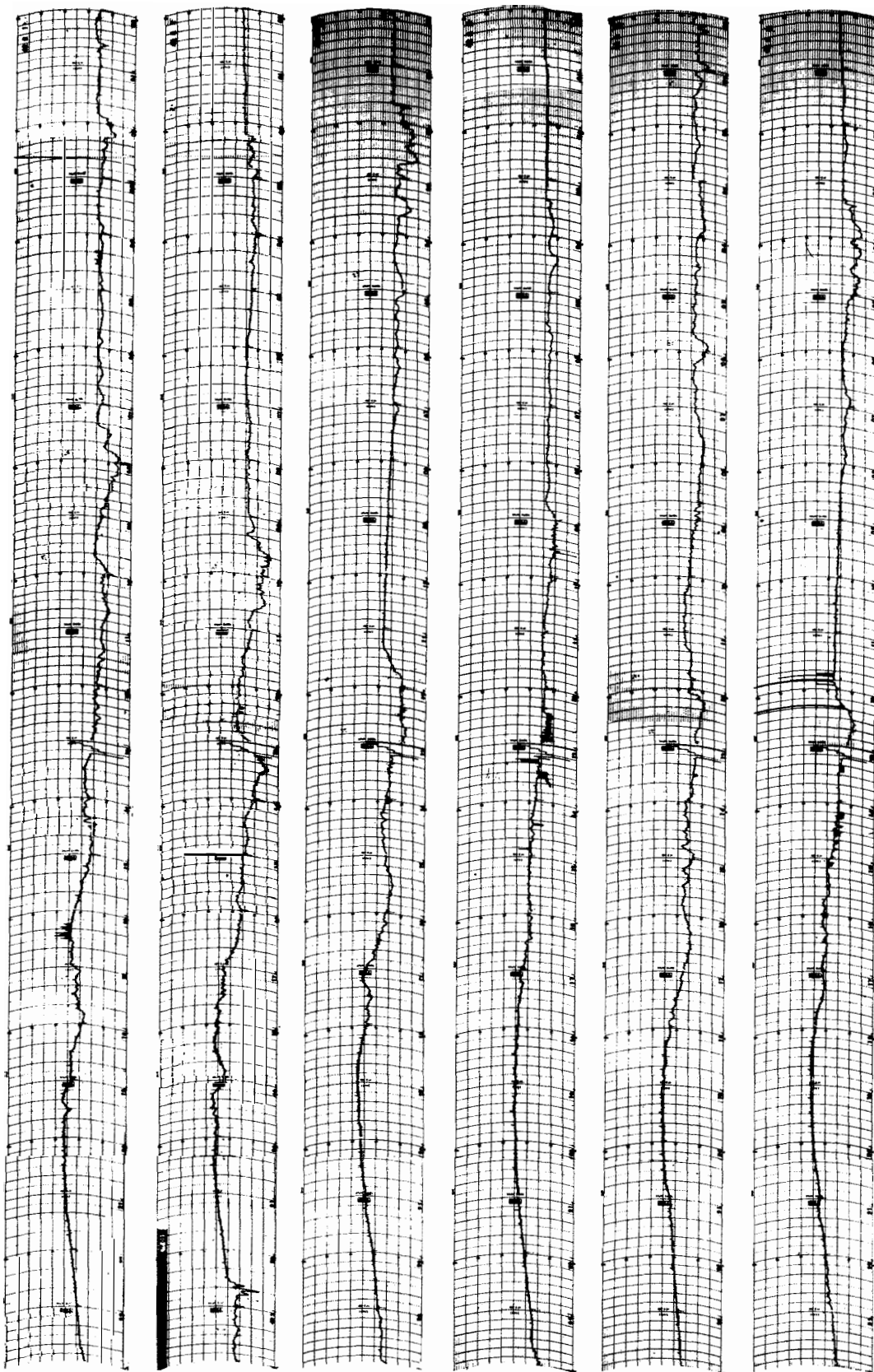
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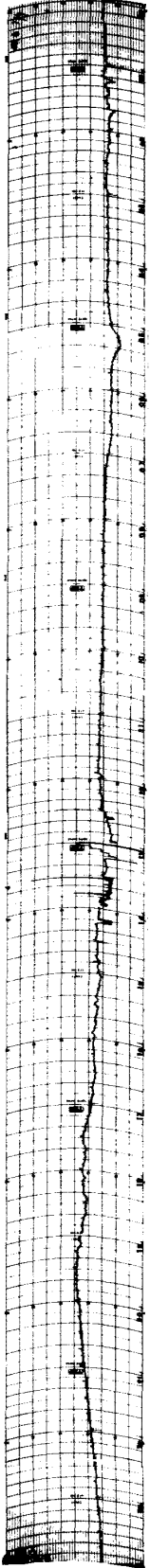


24 20 16 12 08 04 00

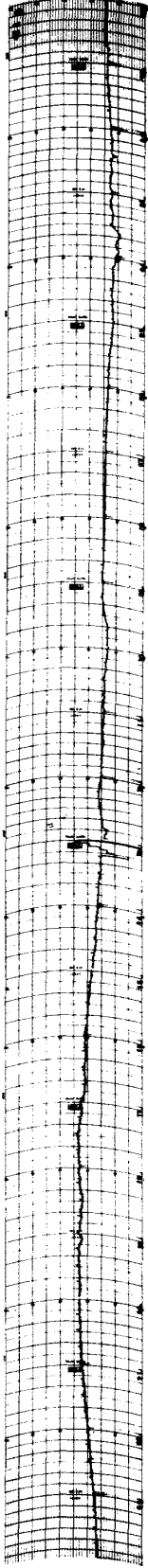
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

SEP 1974

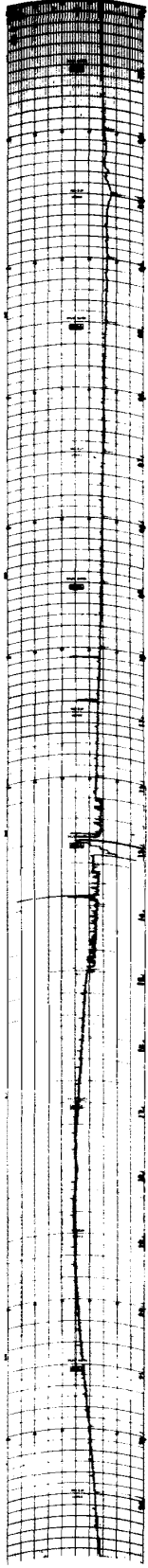
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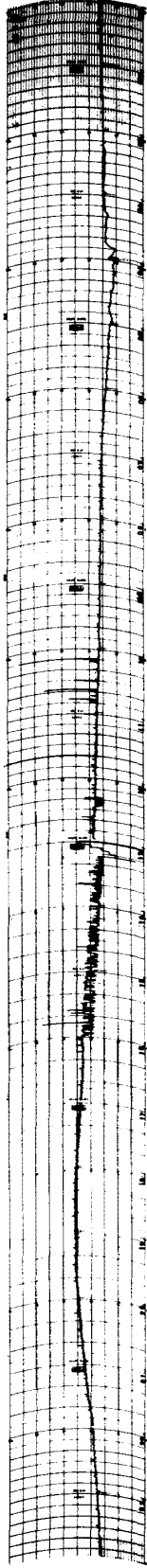
8



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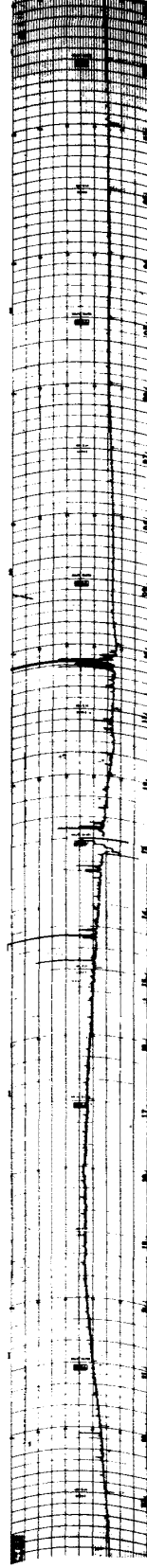
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24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

SEP 1974

13

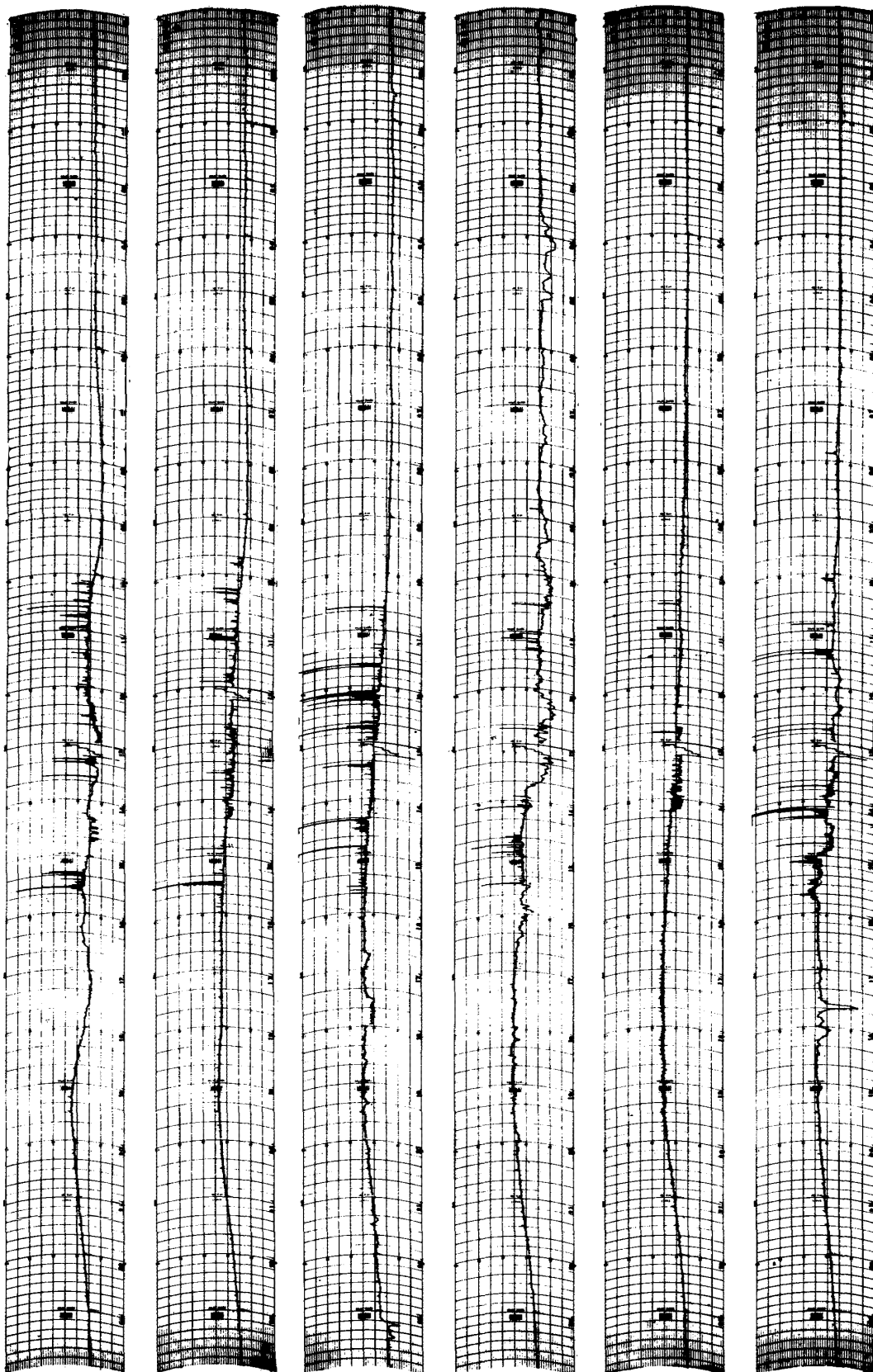
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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS



SEP 1974

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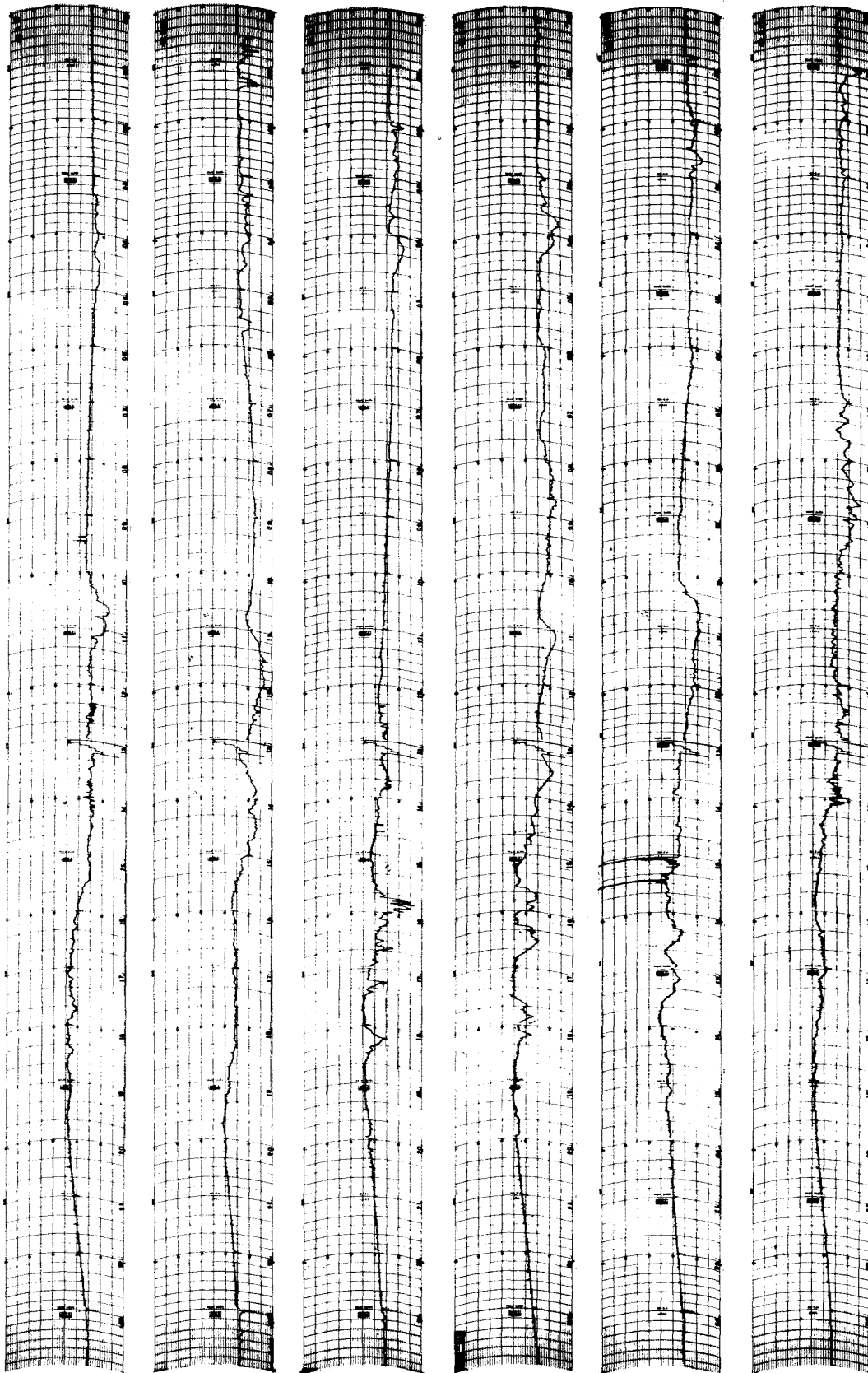
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24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

SEP 1974

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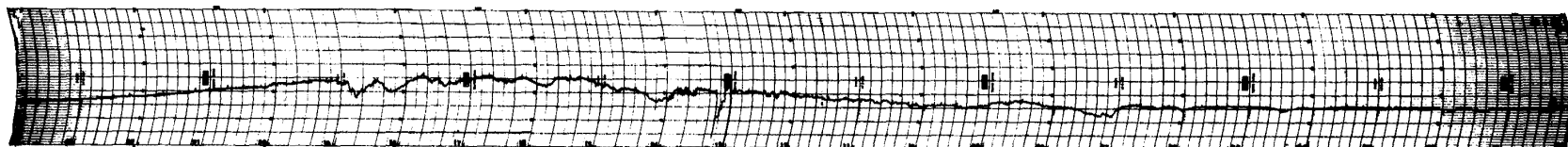
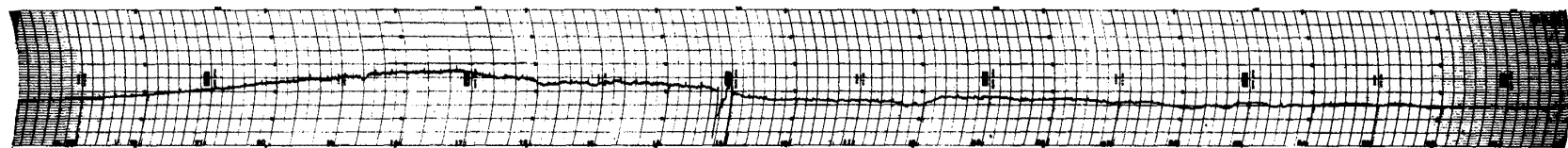
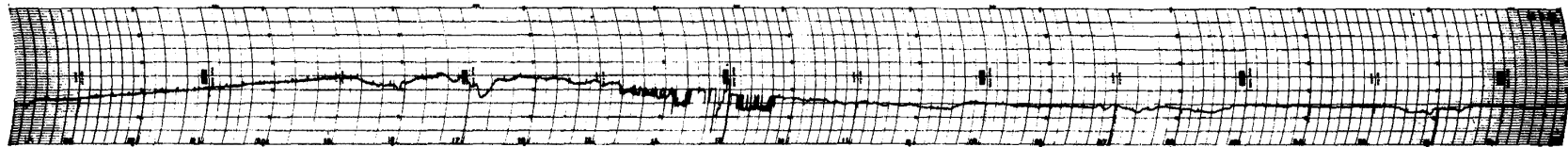
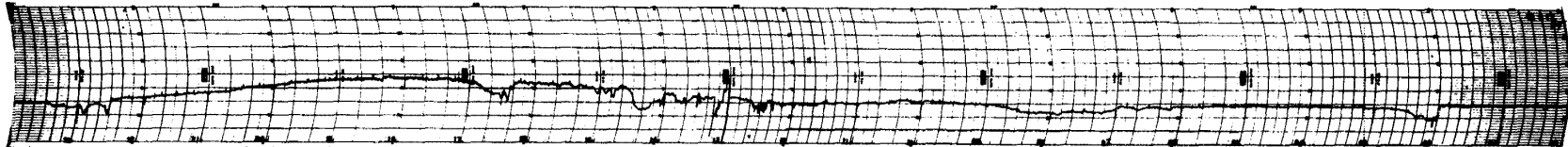
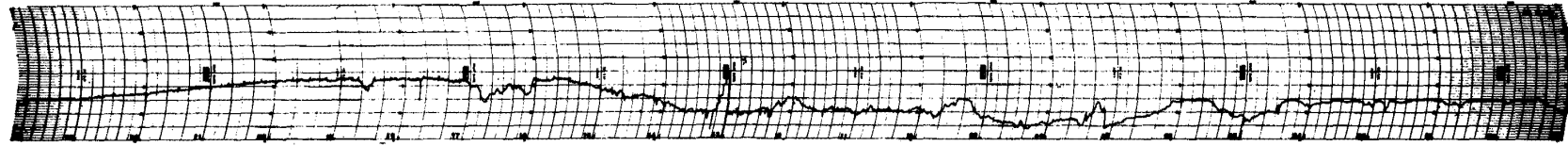
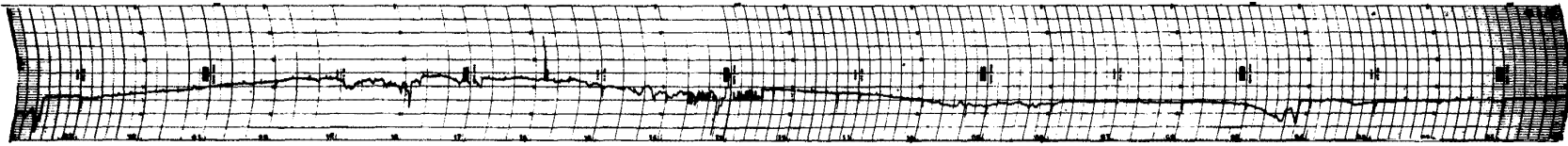
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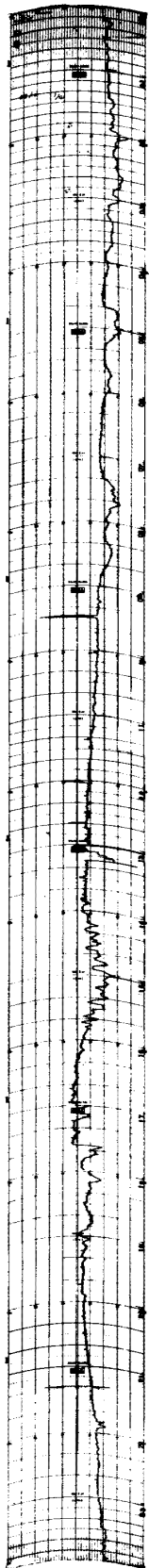
00

45° EAST MERIDIAN TIME IN HOURS

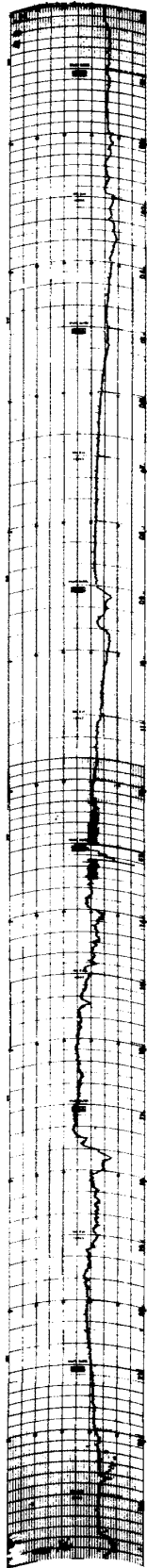
30 MHz COSMIC NOISE

OCT 1974

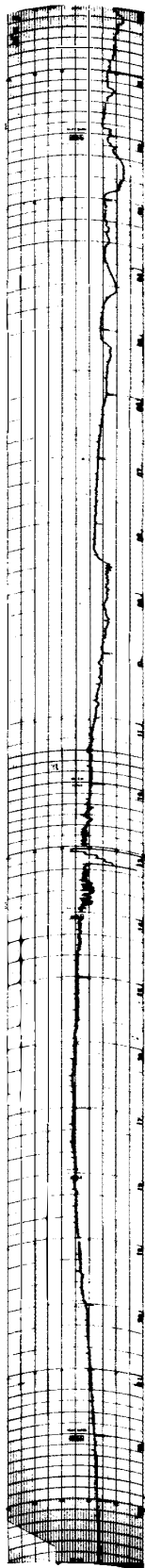
1



2



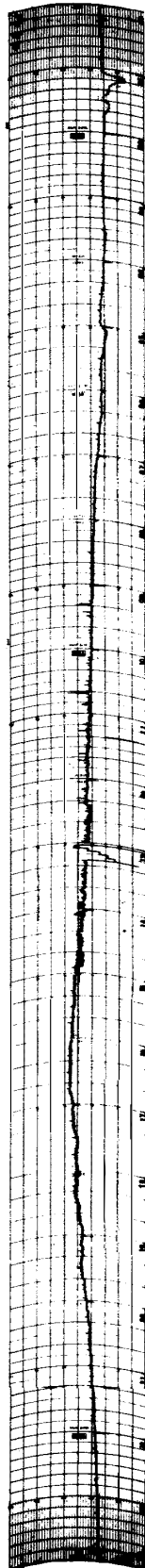
3



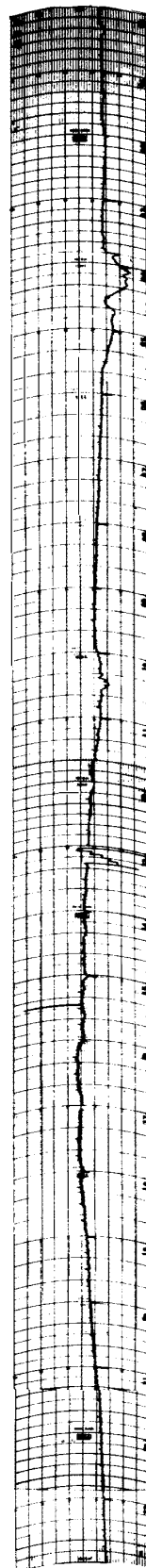
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5



6

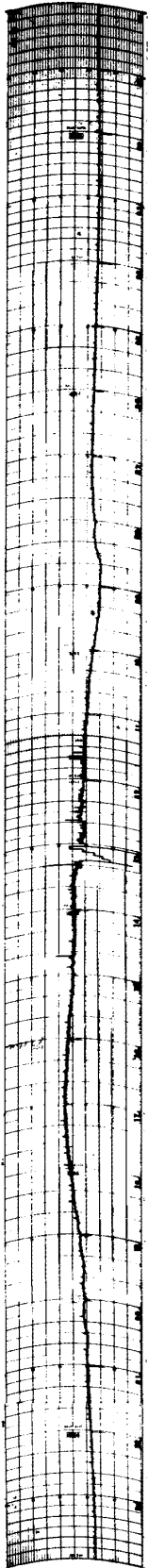


24 20 16 12 08 04 00

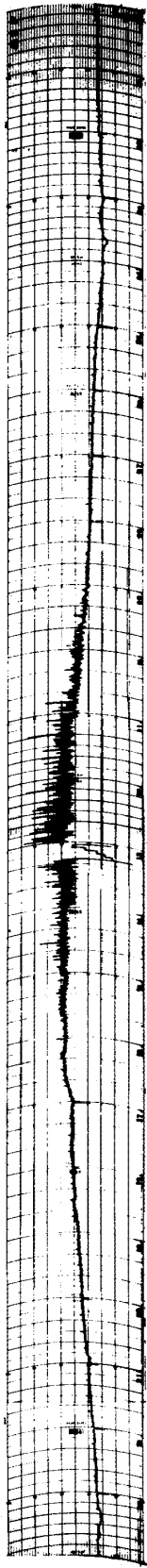
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

OCT 1974

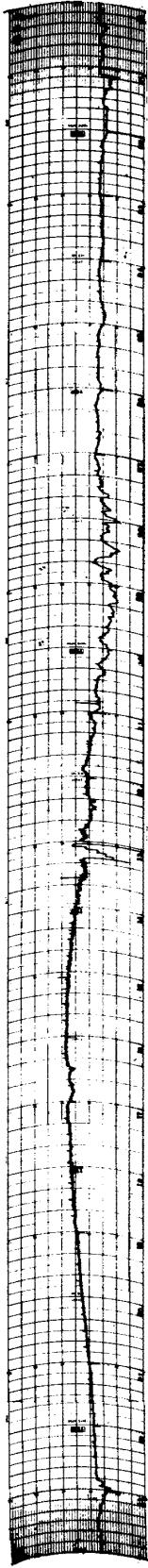
7



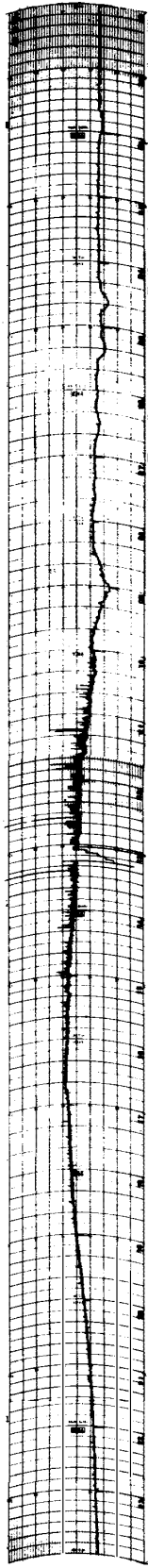
8



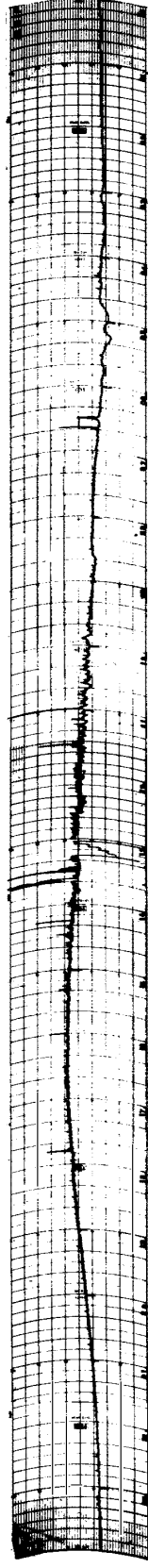
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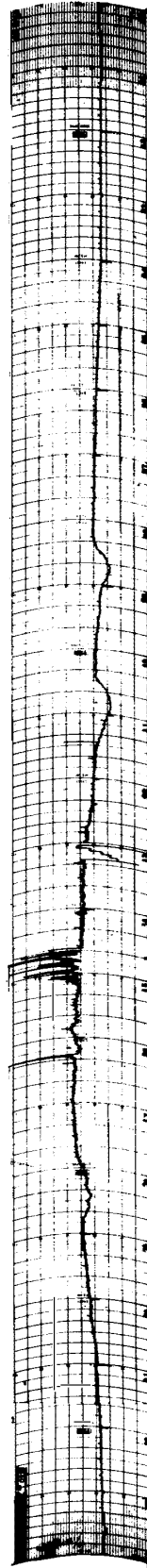
10



11



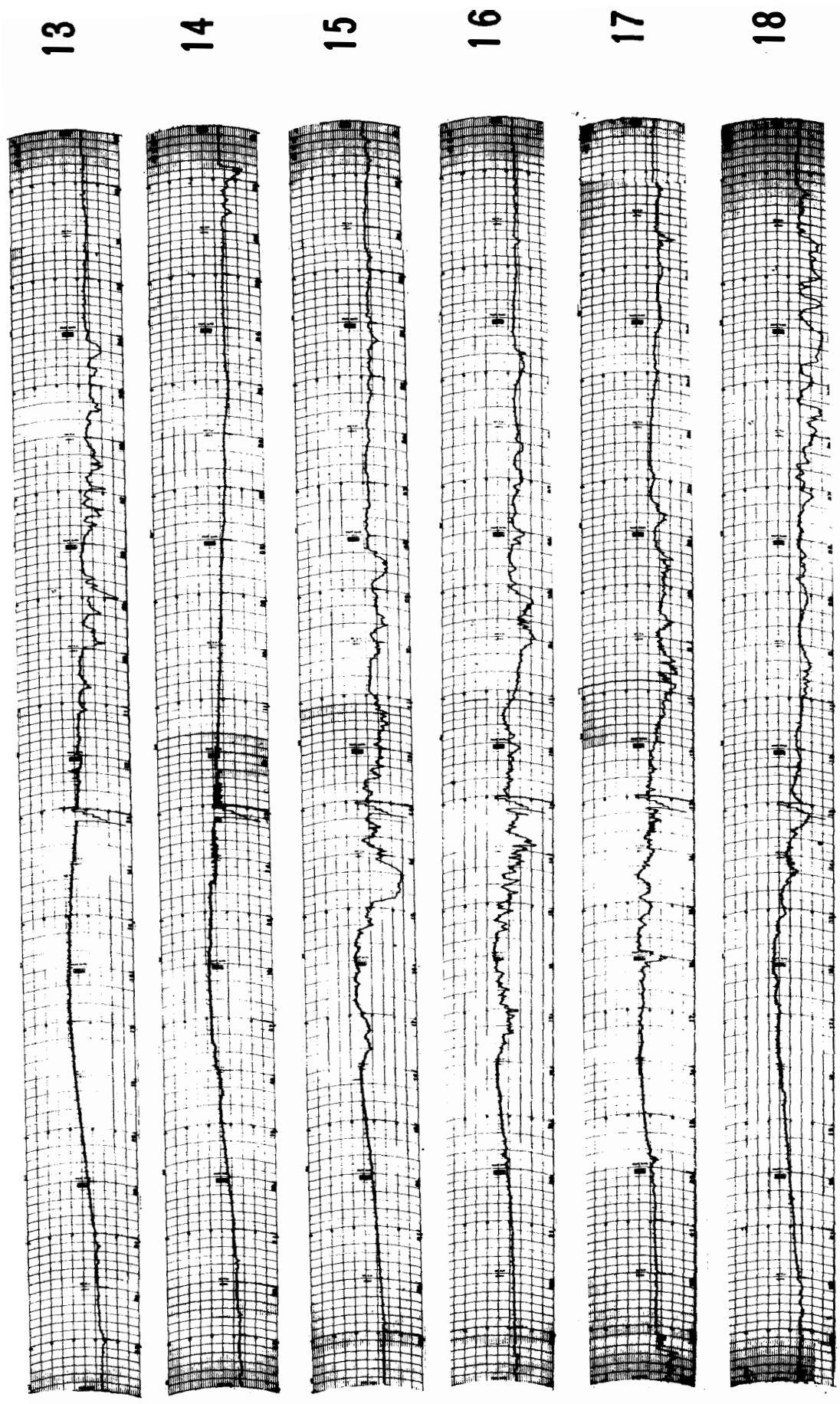
12



24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

OCT 1974



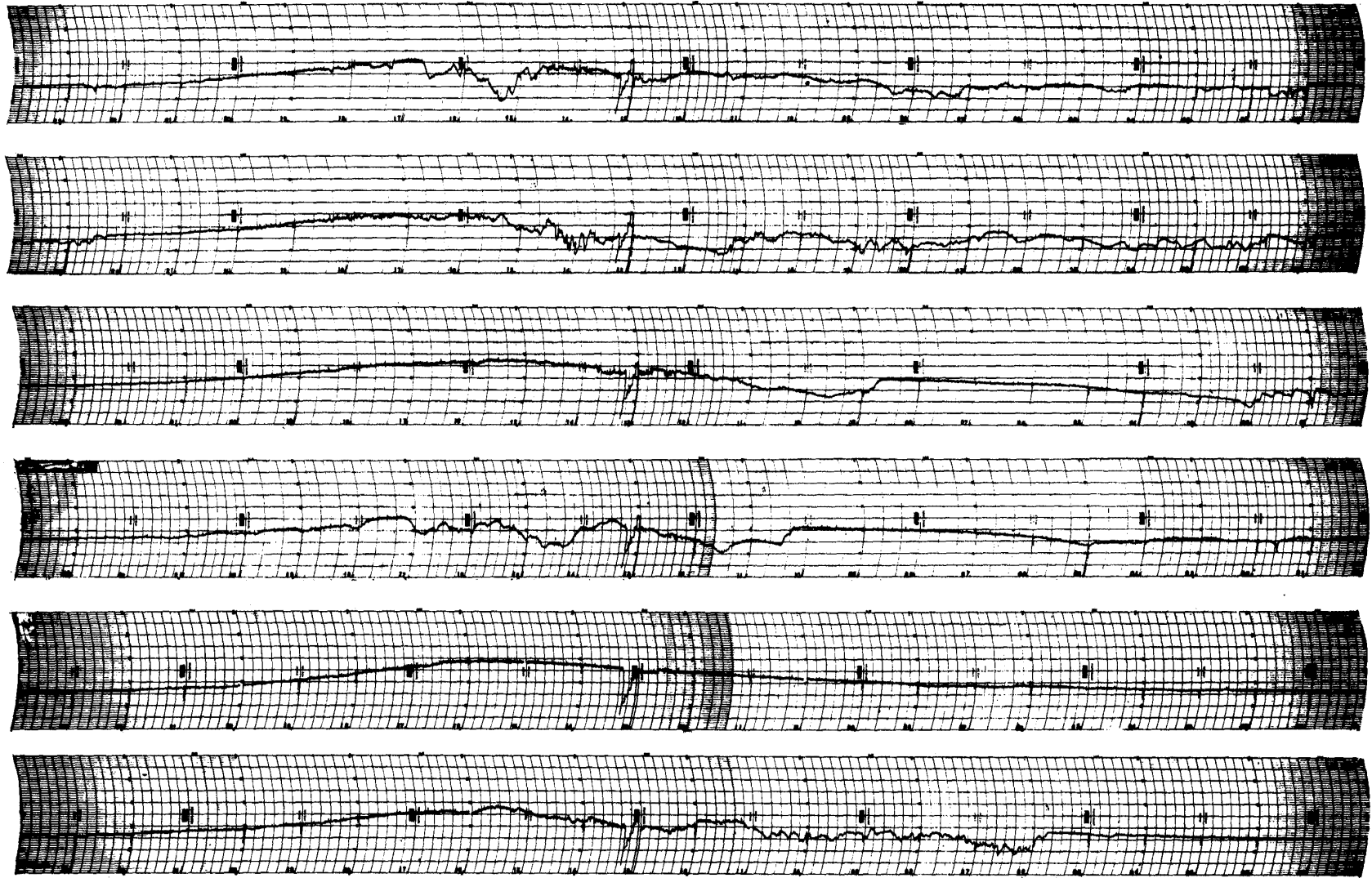
24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

OCT 1974

19  
20  
21  
22  
23  
24



— 70 —

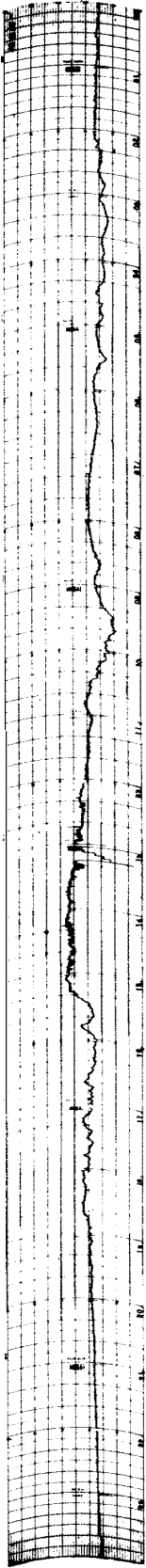
24            20            16            12            08            04            00

45° EAST MERIDIAN TIME IN HOURS

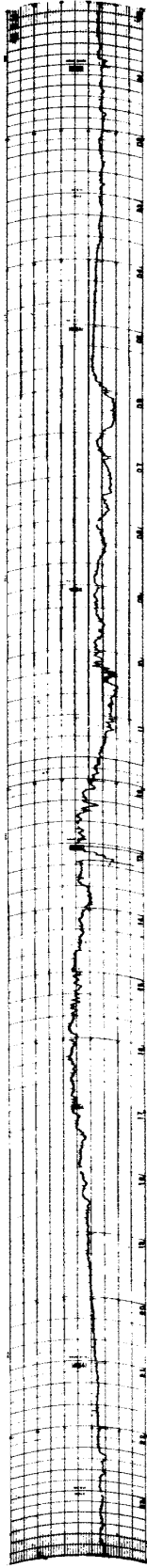
30 MHz COSMIC NOISE

OCT 1974

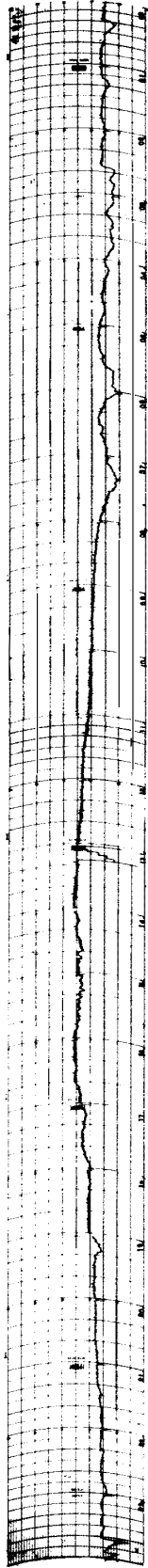
25



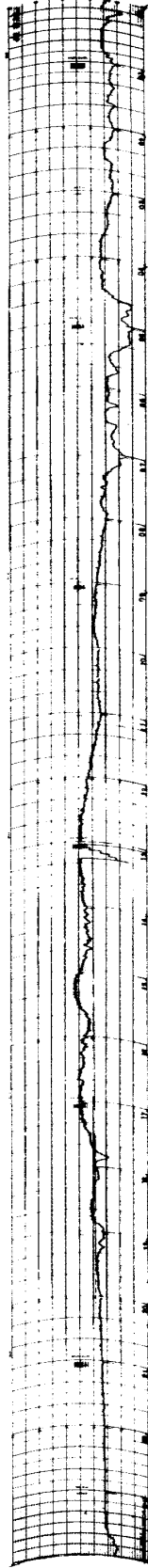
26



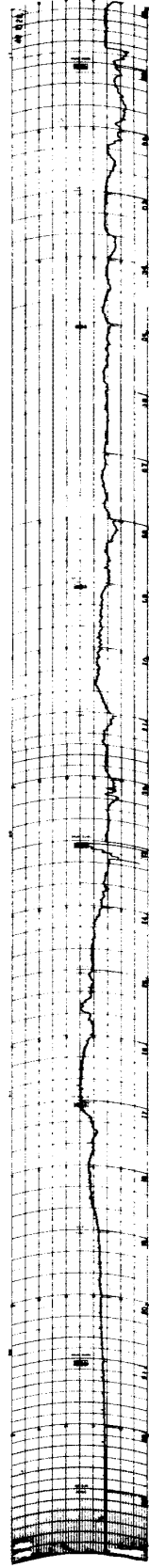
27



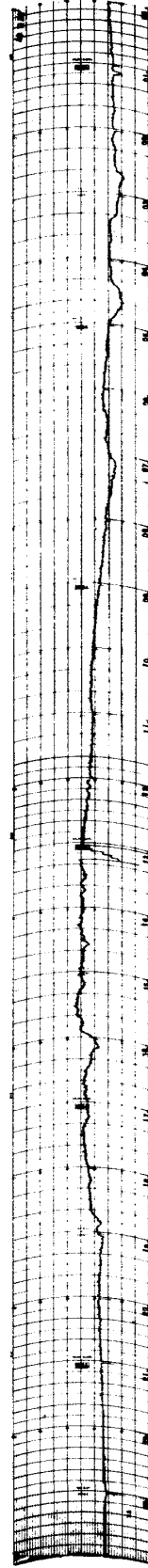
28



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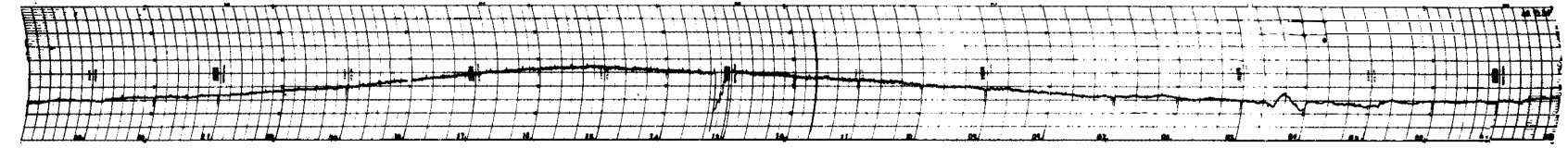
24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

OCT 1974

31



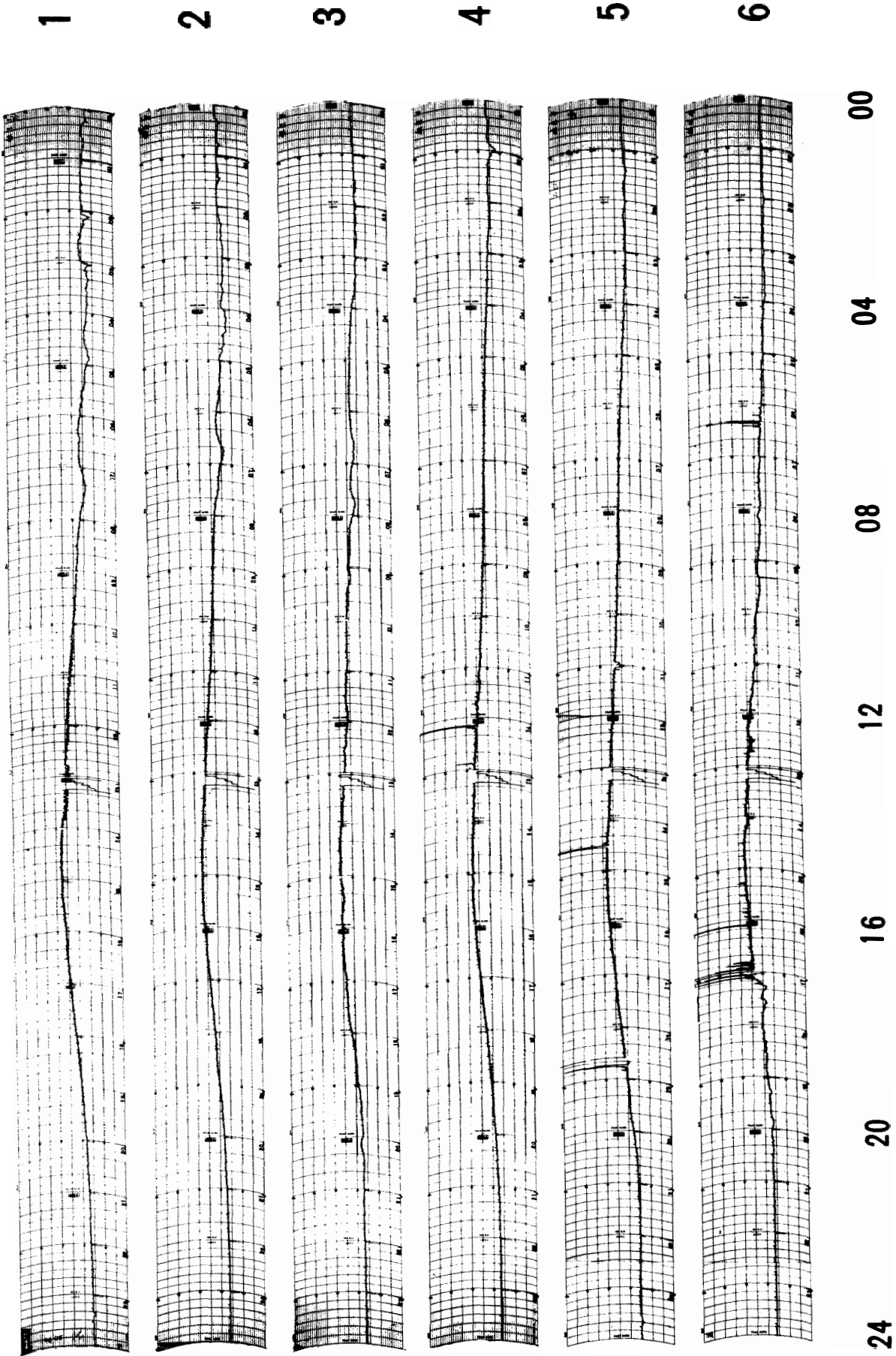
24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE



NOV 1974



30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

NOV 1974

7

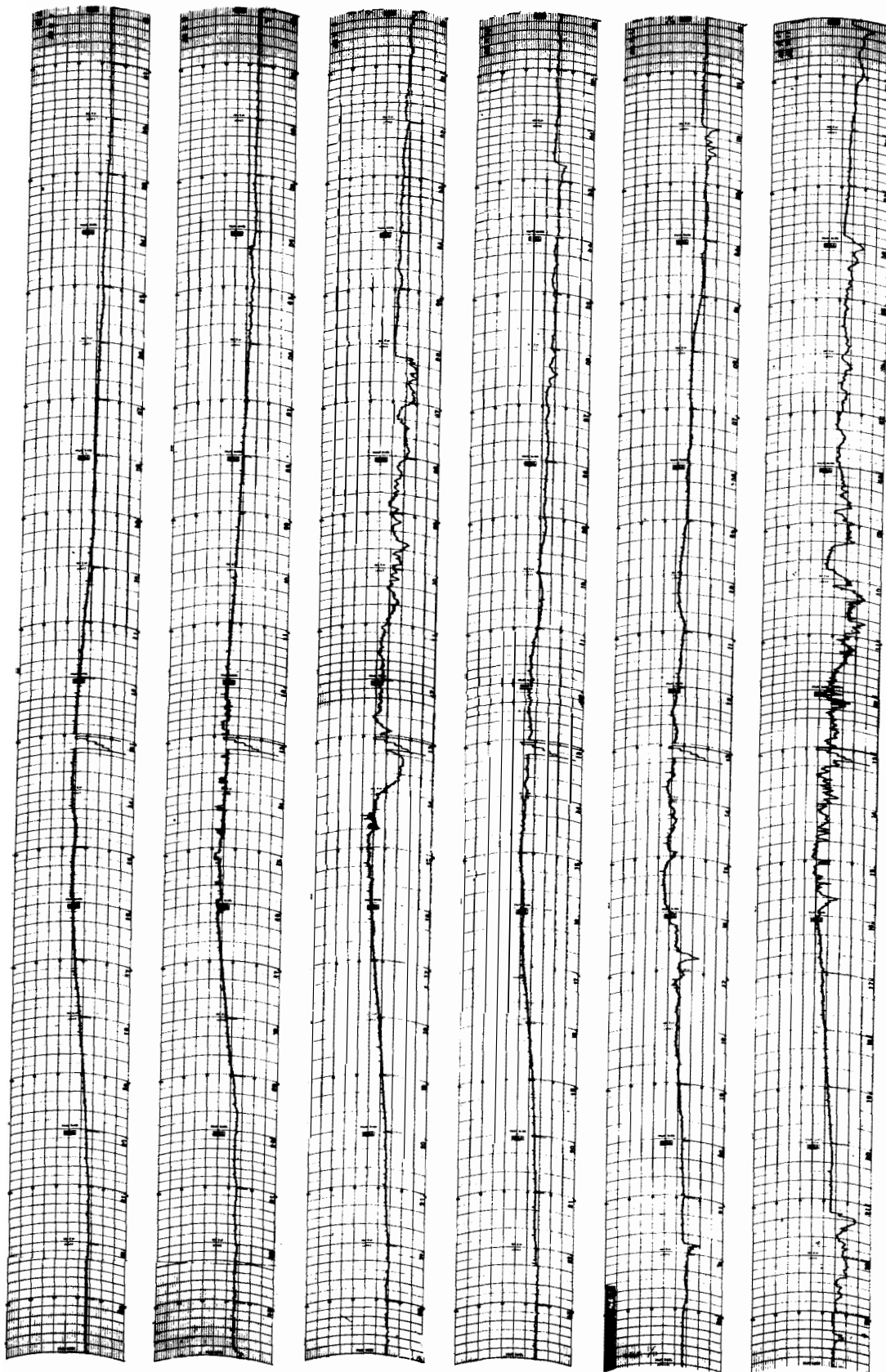
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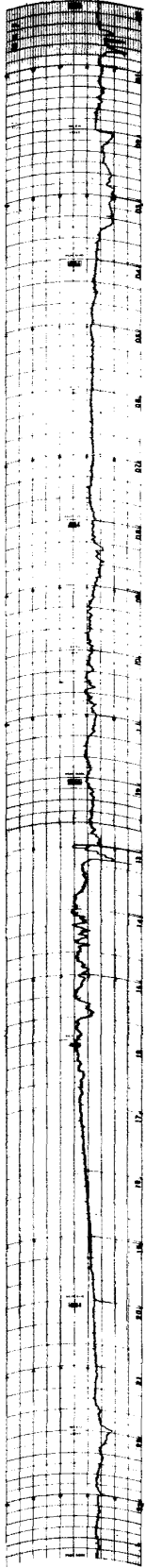


24 20 16 12 08 04 00

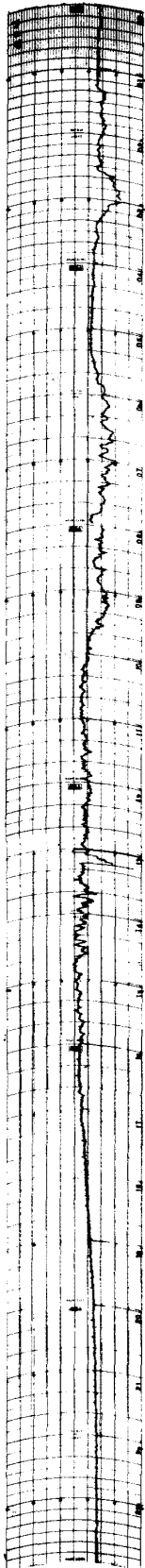
45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

NOV 1974

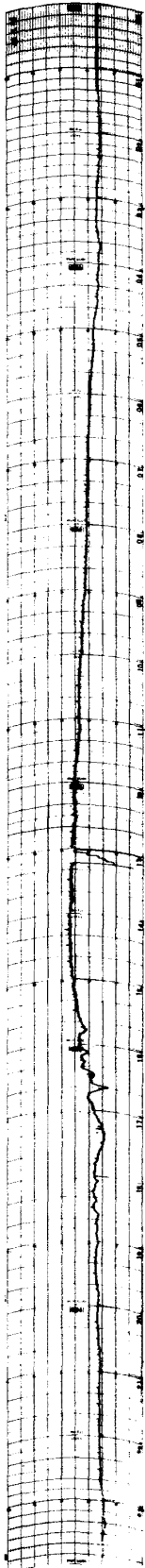
13



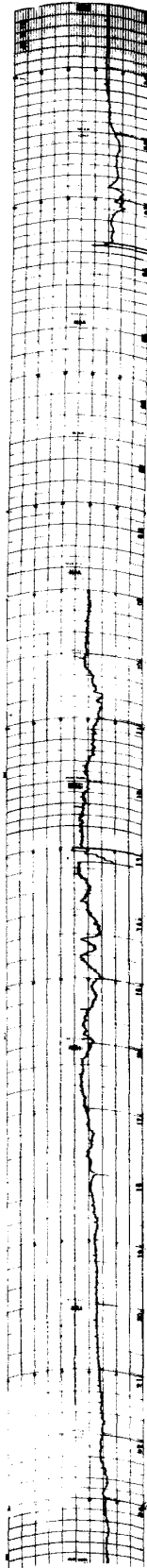
14



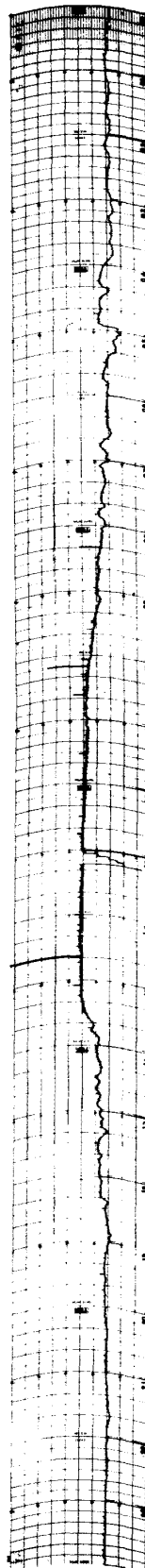
15



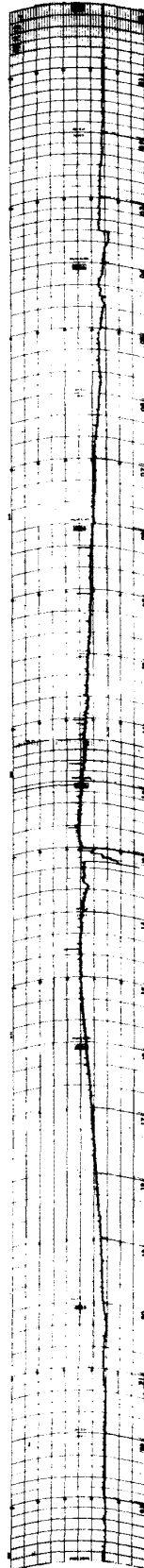
16



17



18



24 20 16 12 08 04 00

30 MHz COSMIC NOISE

45° EAST MERIDIAN TIME IN HOURS

NOV 1974

19

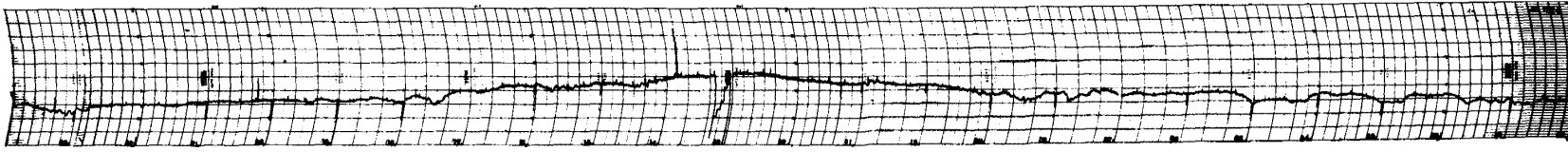
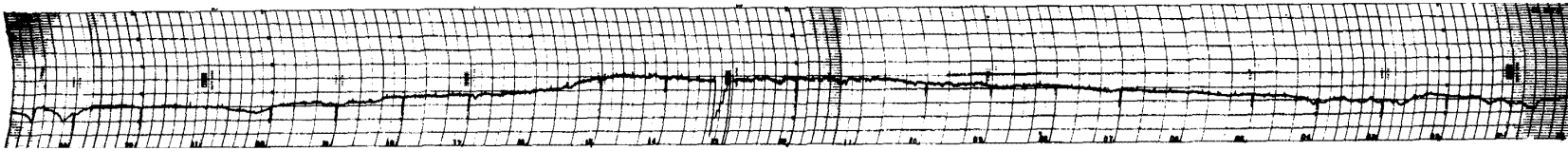
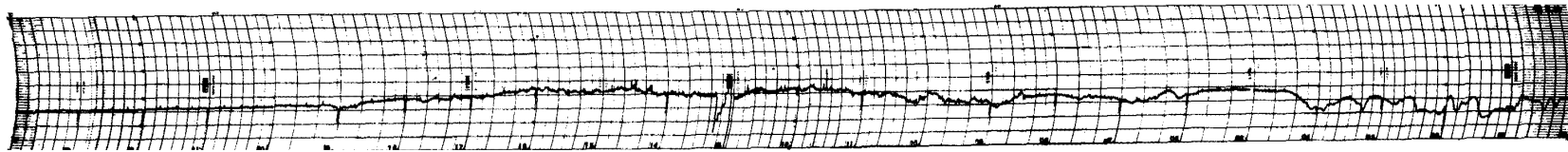
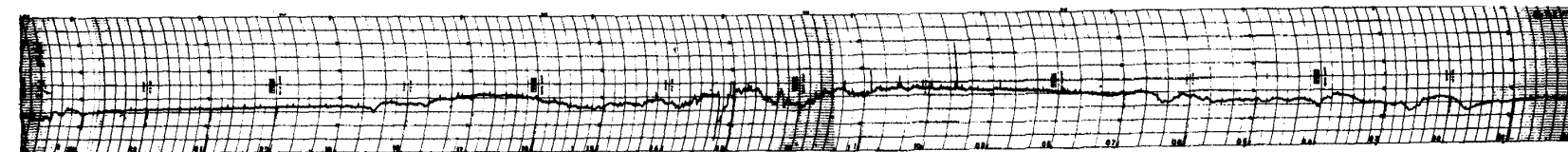
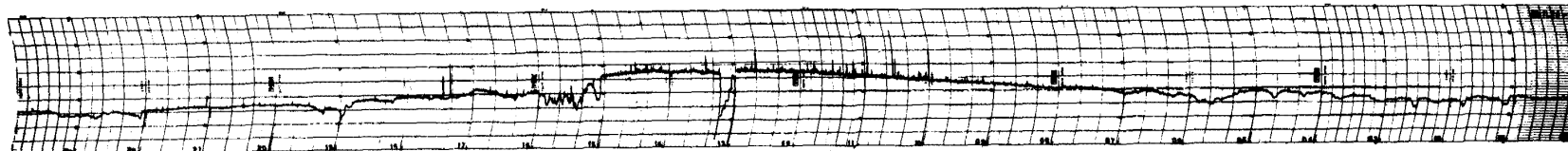
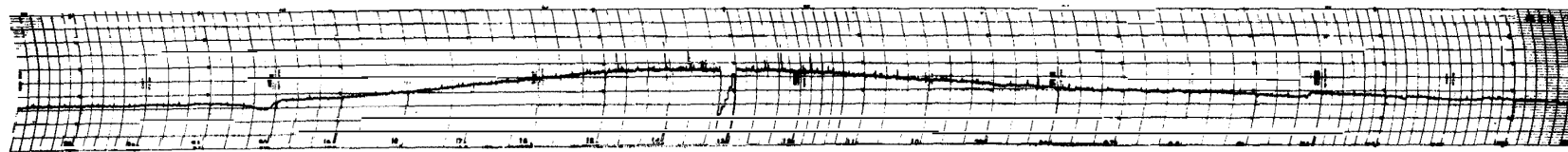
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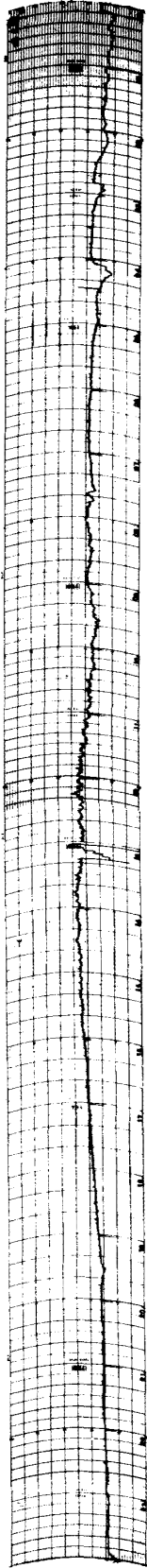
24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

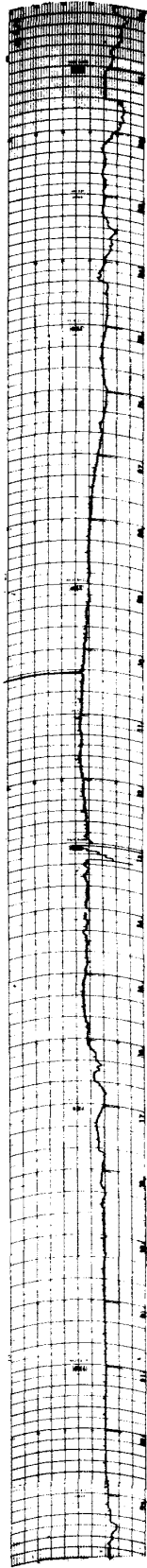
30 MHz COSMIC NOISE

NOV 1974

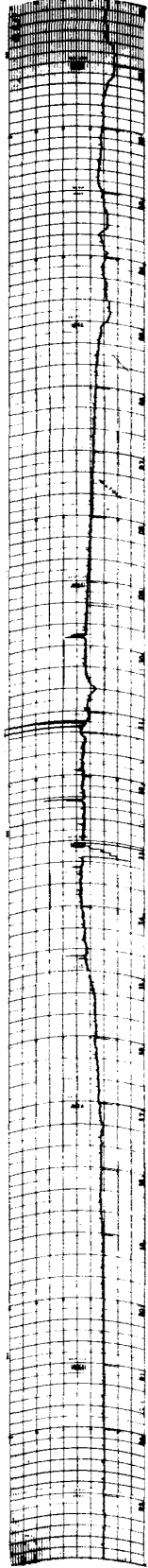
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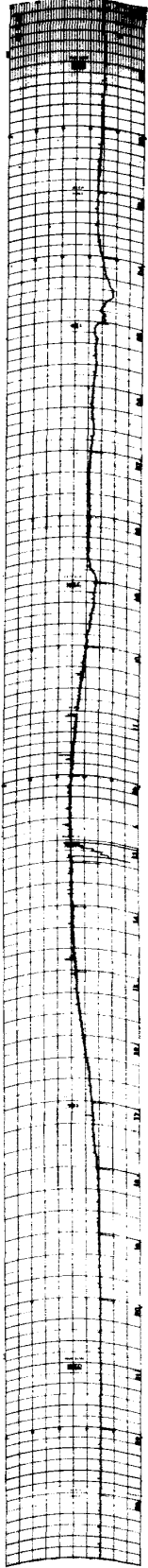
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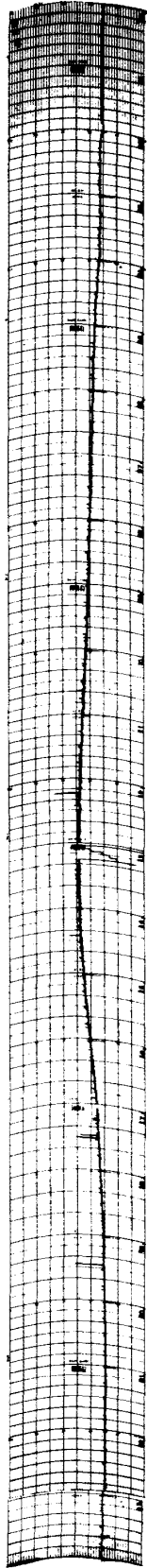
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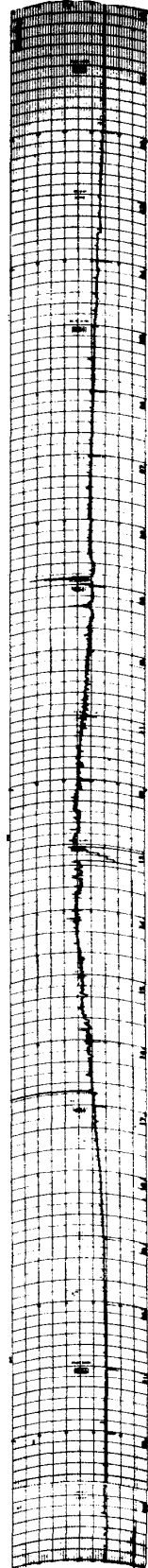
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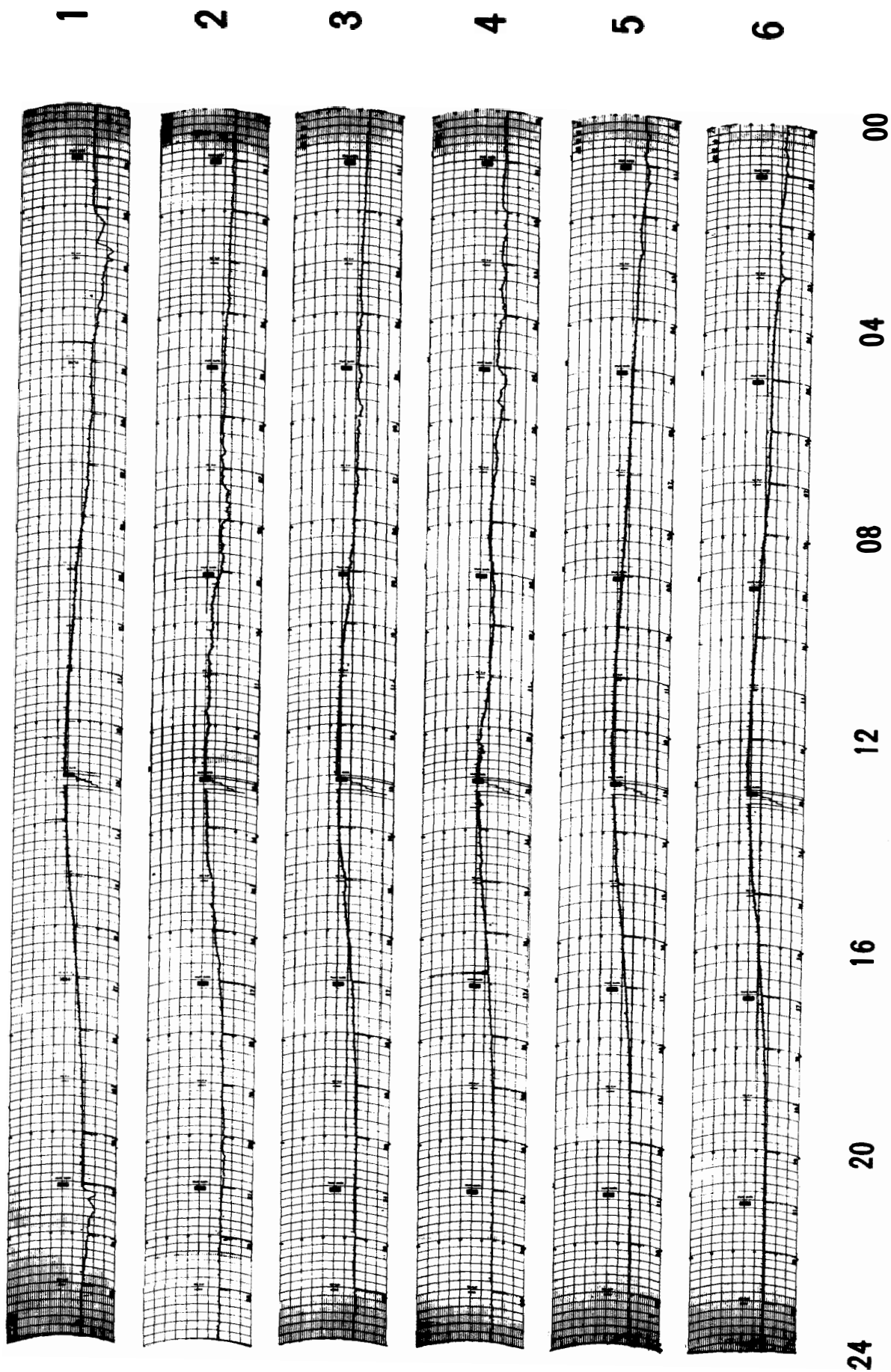
24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

Cosmic noise level obscured or equipment malfunction.

16th 03.40 - 09.30 failure of equipment

DEC 1974



45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

DEC 1974

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24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS  
30 MHz COSMIC NOISE



DEC 1974

13

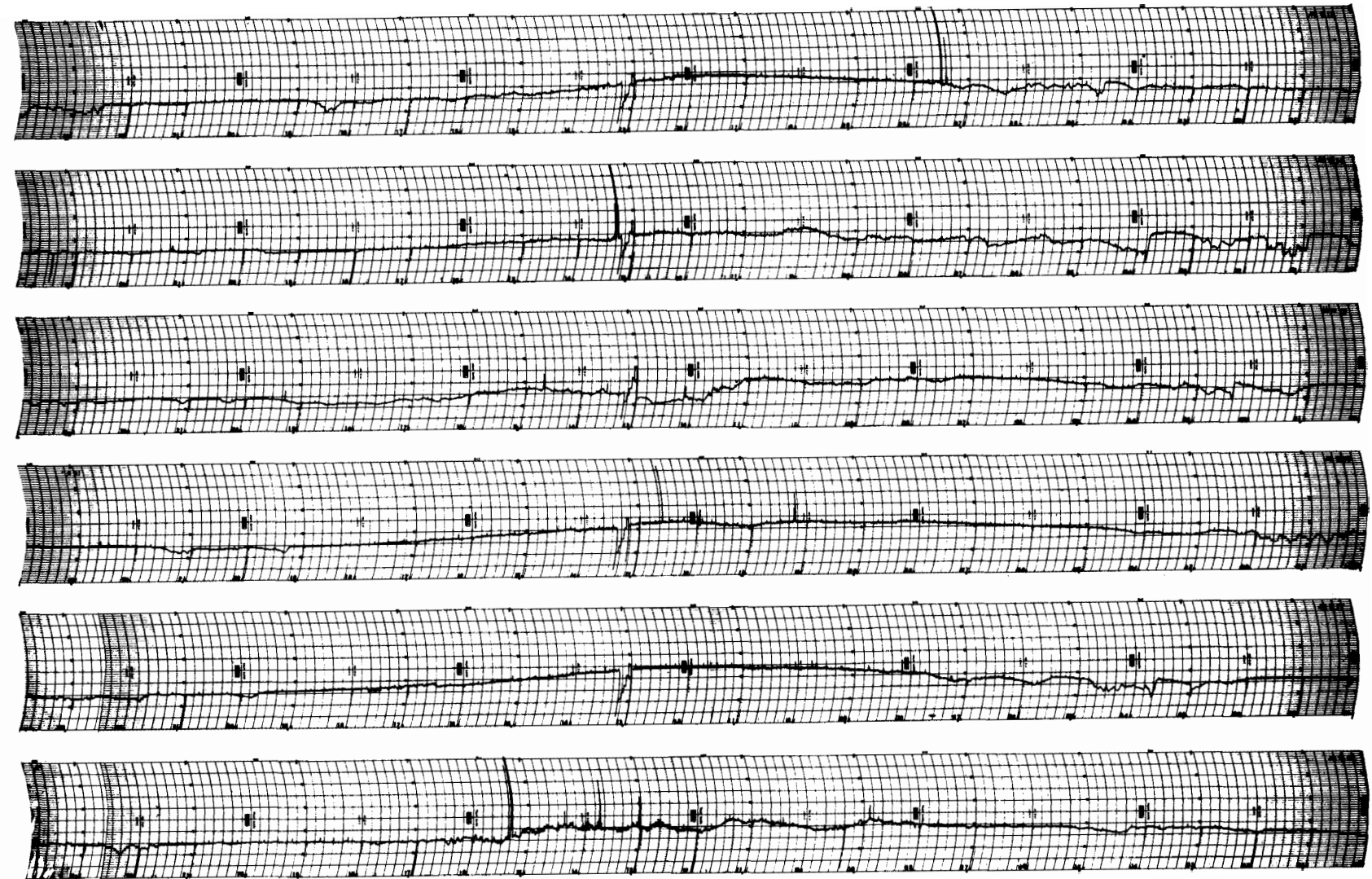
14

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- 81 -

24                    20                    16                    12                    08                    04                    00

45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE

DEC 1974

19

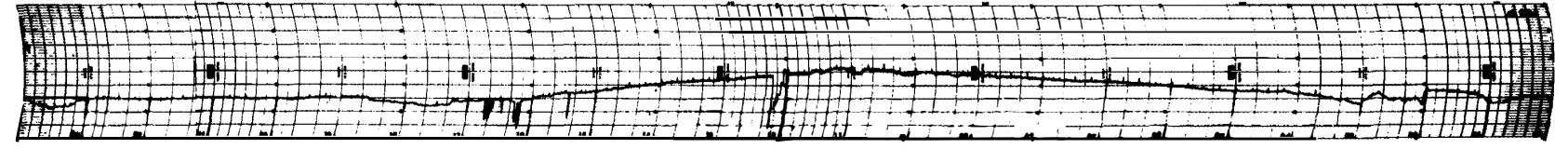
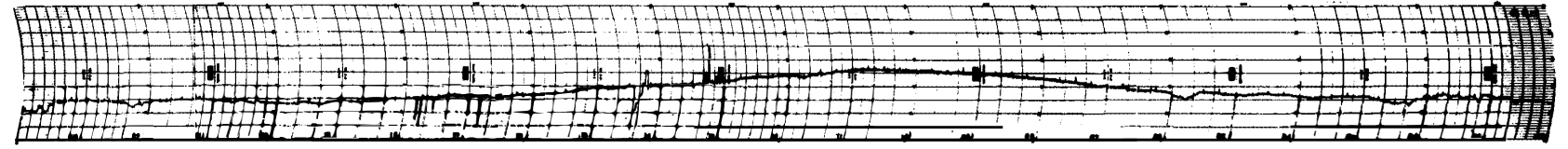
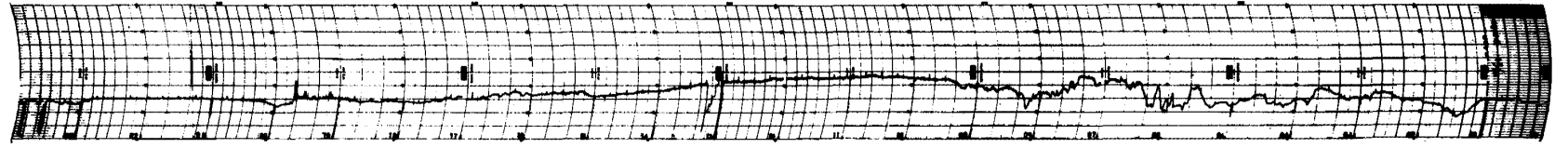
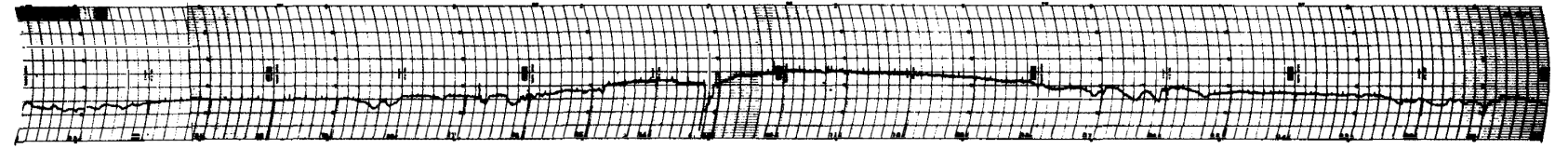
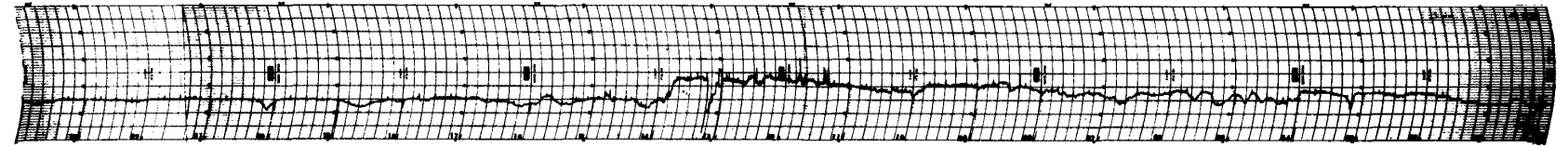
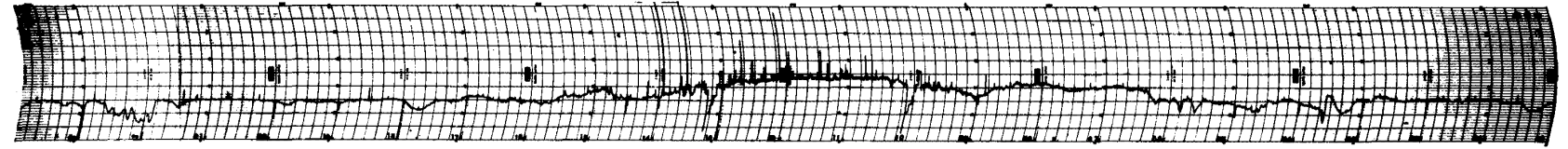
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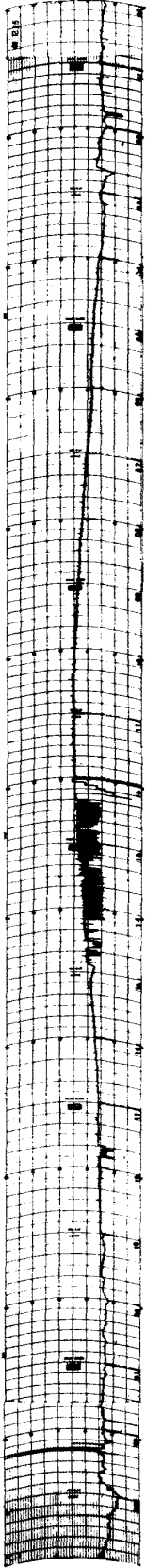
24                      20                      16                      12                      08                      04                      00

45° EAST MERIDIAN TIME IN HOURS

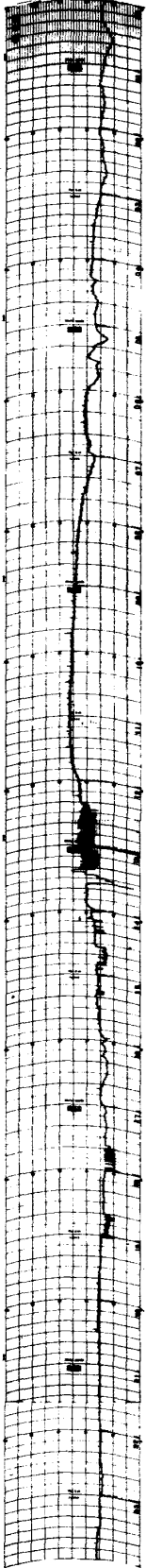
30 MHz COSMIC NOISE

DEC 1974

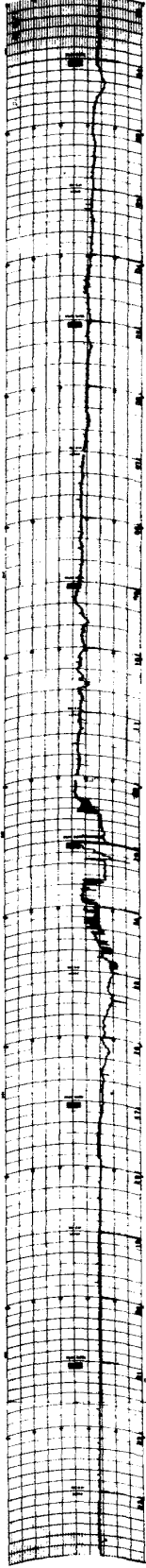
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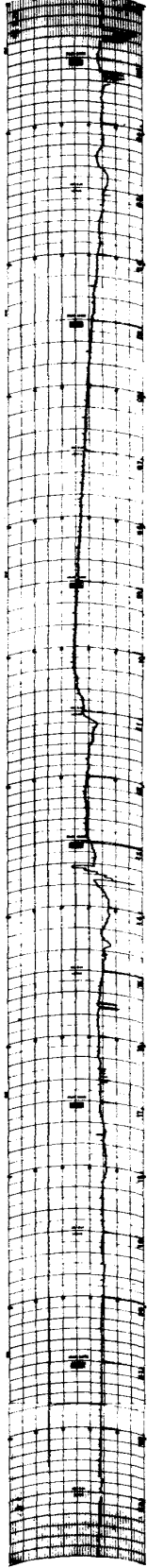
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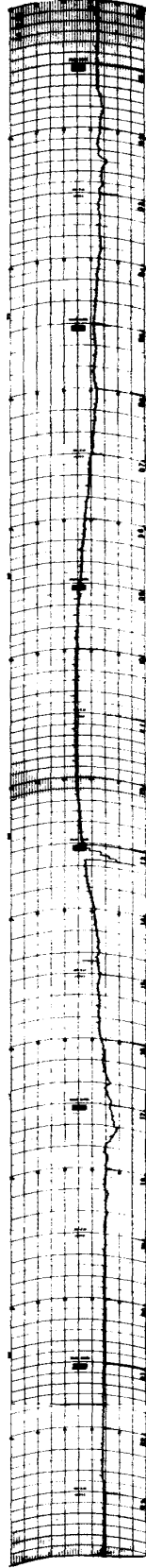
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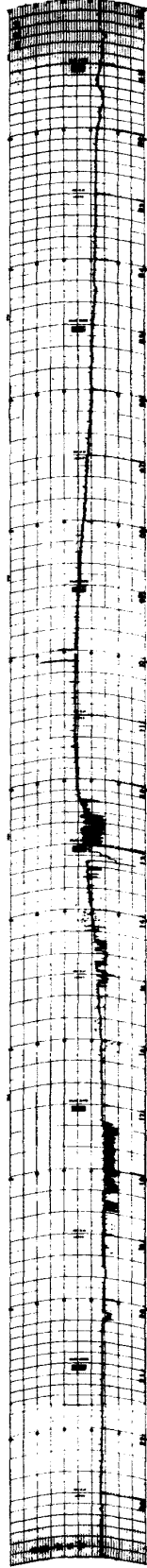
28



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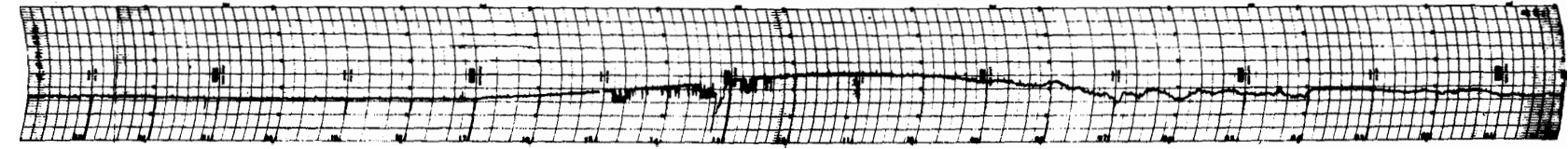


24 20 16 12 08 04 00

45° EAST MERIDIAN TIME IN HOURS 30 MHz COSMIC NOISE

DEC 1974

31



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04

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45° EAST MERIDIAN TIME IN HOURS

30 MHz COSMIC NOISE