

ION.ANT.—44

IONOSPHERIC DATA AT SYOWA STATION (ANTARCTICA)

January 1985—June 1985

CONTENTS

	Page
Introduction	1
Ionograms	
January	4
February	20
March	32
April	48
May	63
June	78
Tables	93

COMMUNICATIONS RESEARCH LABORATORY

MINISTRY OF POSTS AND TELECOMMUNICATIONS

TOKYO, JAPAN

INTRODUCTION

Vertical soundings of ionosphere at Syowa Station, Antarctica, have been carried out by the Radio Research Laboratories, through the sponsorship of the National Institute of Polar Research of Japan.

LOCATION OF SYOWA STATION

Geographic		Geomagnetic	
Latitude	Longitude	Latitude	Longitude
69°00.4'S	39°35.4'E	-69.8°	78.2°

SPECIFICATIONS OF THE IONOSONDE USED AT SYOWA STATION

Items	Specifications
Frequency Range	400 kHz-15 MHz
Transmitting power	10 kW (peak value)
Duration of Sweep	20 sec
Transmitted Pulse Width	80 μ sec
Recurrence Frequency of Transmitted Pulse	50 Hz (by power source frequency)
Frequency Scale	every 1 MHz
Height Range	900 km
Height Scale	every 50 km
Total Receiver Gain	120 dB
Recording Method	35 mm film and video fax for ionograms
Power Supply	100 volt AC, 2.0 kVA
Transmitting Antenna and Receiving Antenna	30 m height vertical delta terminated by 600 Ω respectively

DESCRIPTION

- a. All symbols and terminology in the tables or figures of ionospheric data are used in accordance with the "URSI Handbook of Ionogram Interpretation and Reduction (Second Edition 1972)"
- b. Ionograms data are printed in the quarter hourly of every days.
- c. Characteristics of Ionosphere

fxI	Top frequency of spread F traces or oblique traces.
fof2	Ordinary wave critical frequency for the F2 layer.
fEs(ftEs)	Top frequency of Es layer as reflected overhead.
fmin	Lowest frequency showing vertical ionospheric reflection.
h'F	Minimum virtual height of the ordinary wave F trace as a whole.

Symbols

(i) Descriptive Letters.

The following letters are entered after, or used to replace, a numerical value on the monthly tabulation sheets.

- A Measurement influenced by, or impossible because of, the presence of a lower thin layer, for example, Es.
- B Measurement influenced by, or impossible because of, absorption in the vicinity of f_{min} .
- C Measurement influenced by, or impossible because of, any non-ionospheric reason.
- D Measurement influenced by, or impossible because of, the upper limit of the normal frequency range.
- E Measurement influenced by, or impossible because of, the lower limit of the normal frequency range.
- F Measurement influenced by, or impossible because of, the presence of spread echoes.
- G Measurement influenced or impossible because the ionization density of the layer is too small to enable it to be made accurately.
- H Measurement influenced by, or impossible because of, the presence of stratification.
- K Presence of particle E layer.
- L Measurement influenced by or impossible because the trace has no sufficiently definite cusp between layers.
- M Interpretation of measurement questionable because the ordinary and extraordinary components are not distinguishable.
- N Conditions are such that the measurement cannot be interpreted.
- O Measurement refers to the ordinary component.
- P Man-made perturbation of parameters—Presence of polar spur traces.
- Q Range spread present.
- R Measurement influenced by, or impossible because of, attenuation in the vicinity of a critical frequency.
- S Measurement influenced by, or impossible because of, interference or atmospherics.
- T Value determined by a sequence of observations, the actual observation being inconsistent or doubtful.
- V Forked trace which may influence the measurement.
- W Measurement influenced or impossible because the echo lies outside the height range recorded.
- X Measurement refers to the extraordinary component.
- Y Lacuna phenomena, severe layer tilt.
- Z Third magneto-electronic component present.

(ii) Qualifying Letters

The following letters are entered in the first column before a numerical value on the monthly tabulation sheets.

- D Greater than.

E	Less than.
J	Ordinary component characteristic deduced from the extraordinary component.
M	Mode interpretation uncertain.
O	Extraordinary component characteristic deduced from the ordinary component.
T	Value determined by a sequence of observations, the actual observation being inconsistent or doubtful.
U	Uncertain or doubtful numerical value.
Z	Measurement deduced from the third magneto-electronic component.

Definitions of the CNT, MED, UQ and LQ

Median count (CNT) is the number of values from which a median has been computed. In addition to numerical values, the count may include certain descriptive letters.

Median (MED) of a set of numbers is the middle value when the numbers are arranged in order of magnitude, or the average of the two middle values if there is an even number of values.

Upper quartile (UQ) is the median value the upper half of the values when they are ranked according to magnitude; the lower quartile (LQ) is the median value of the lower half.

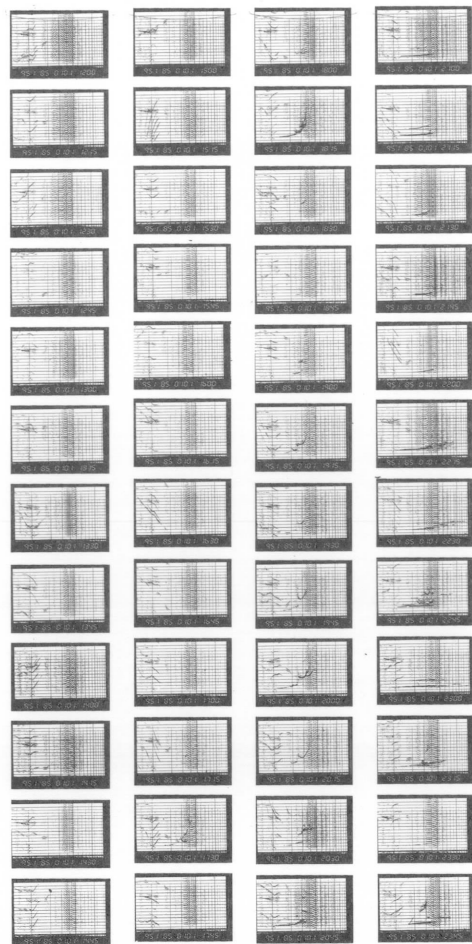
SYOWA STATION

IONOGRAM

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SYOWA STATION

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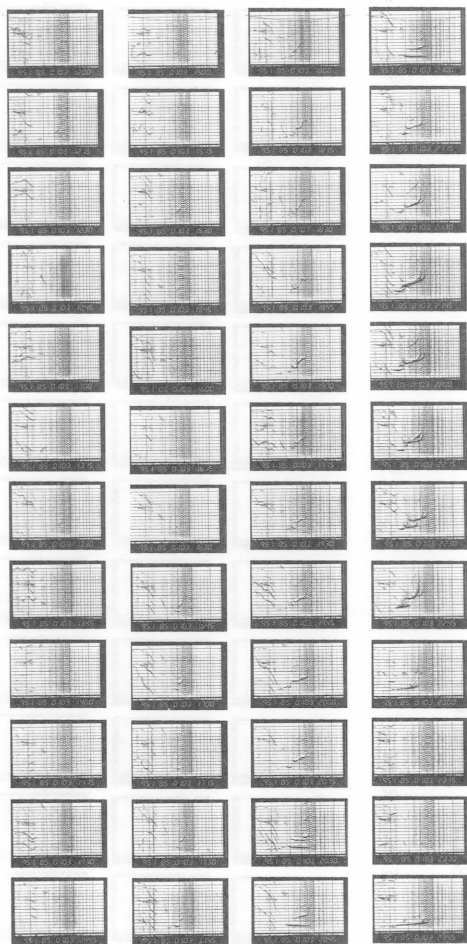
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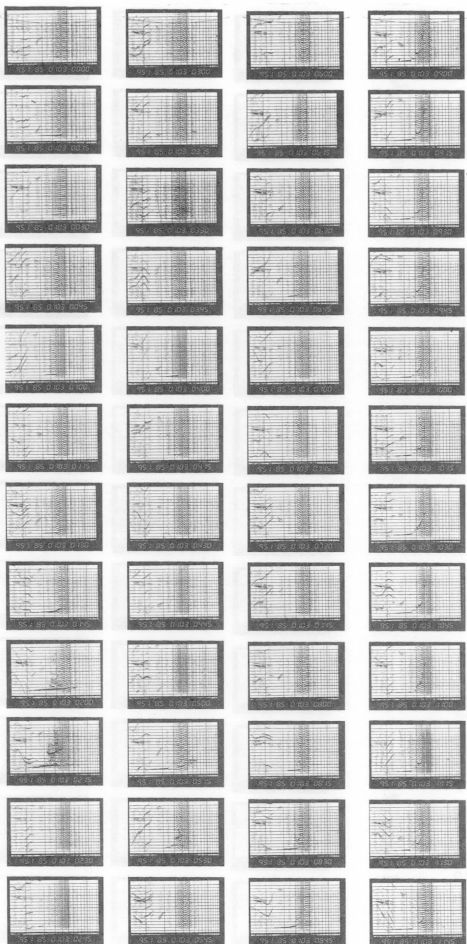
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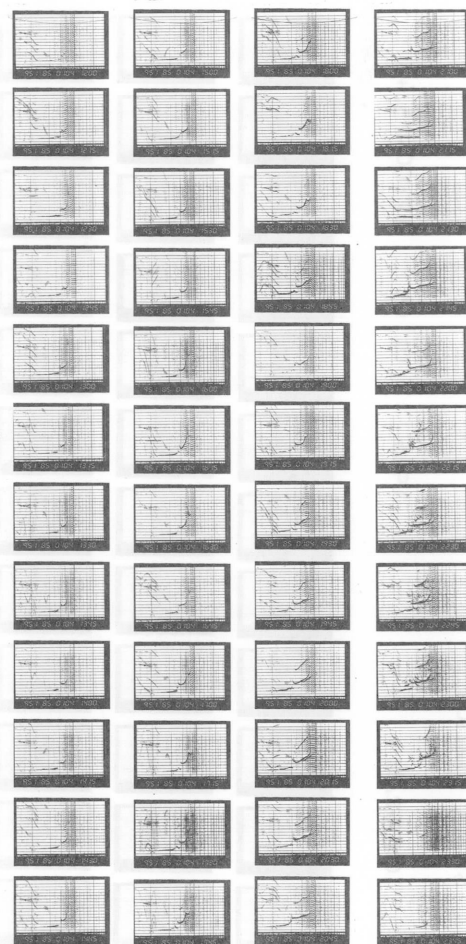
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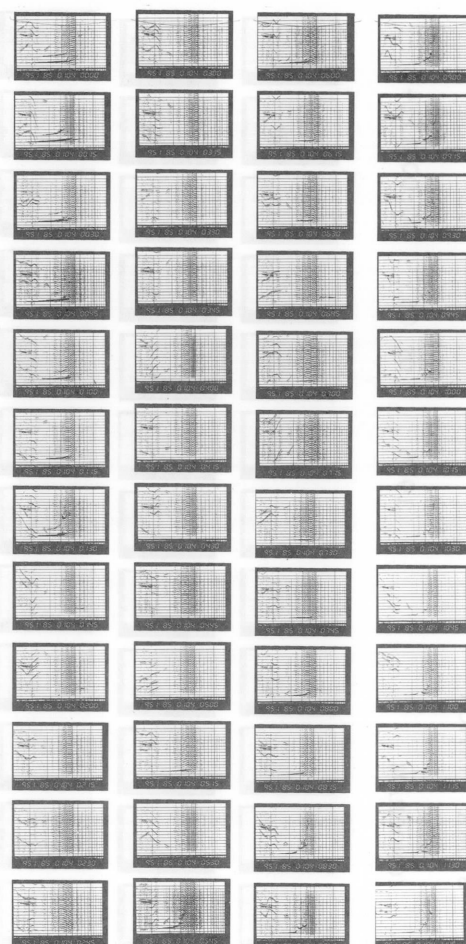
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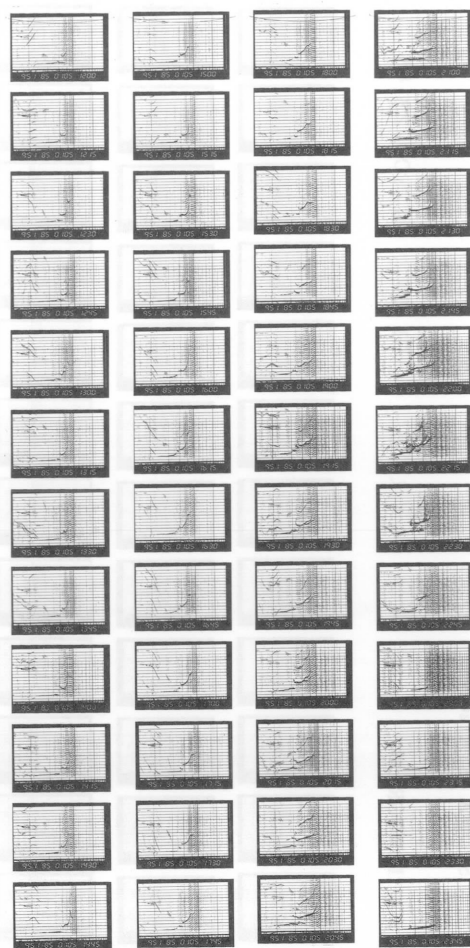
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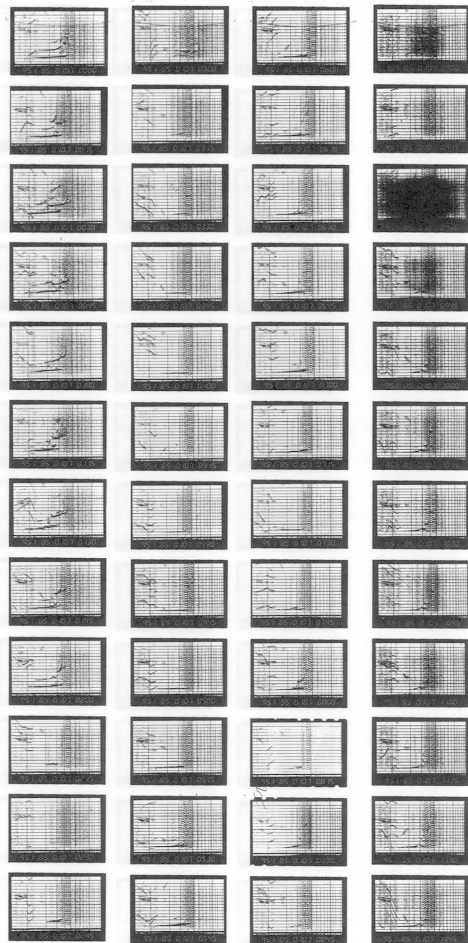
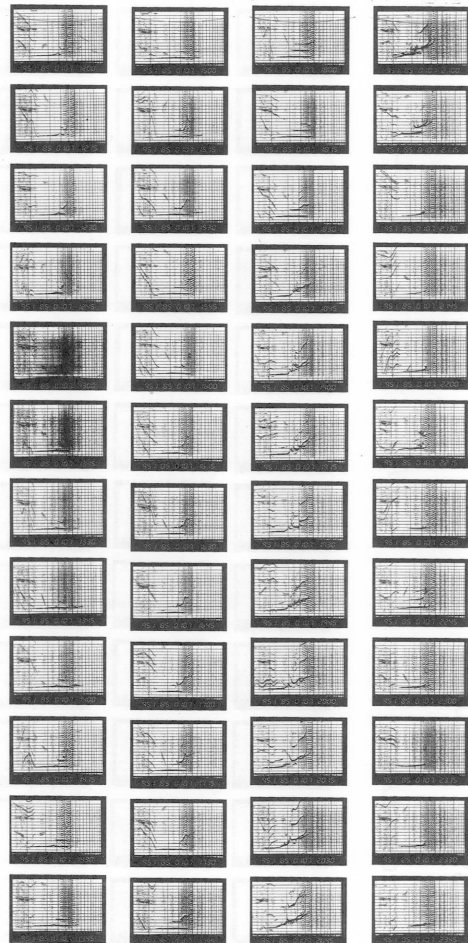
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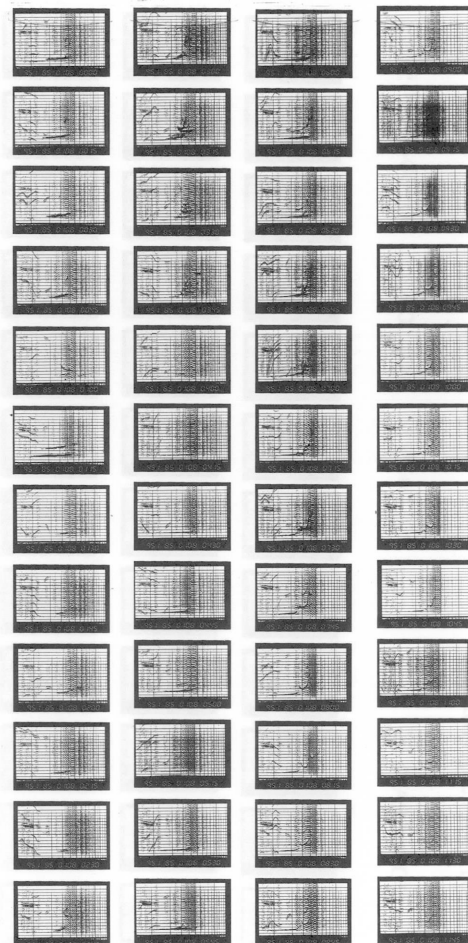
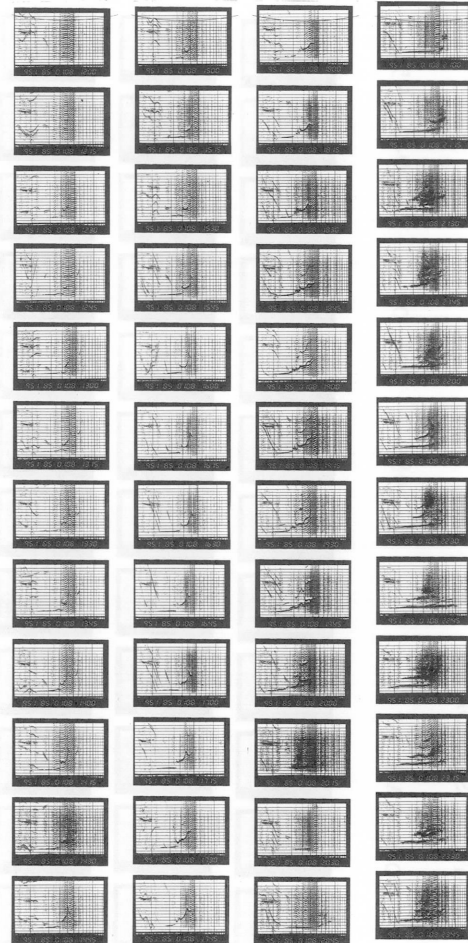
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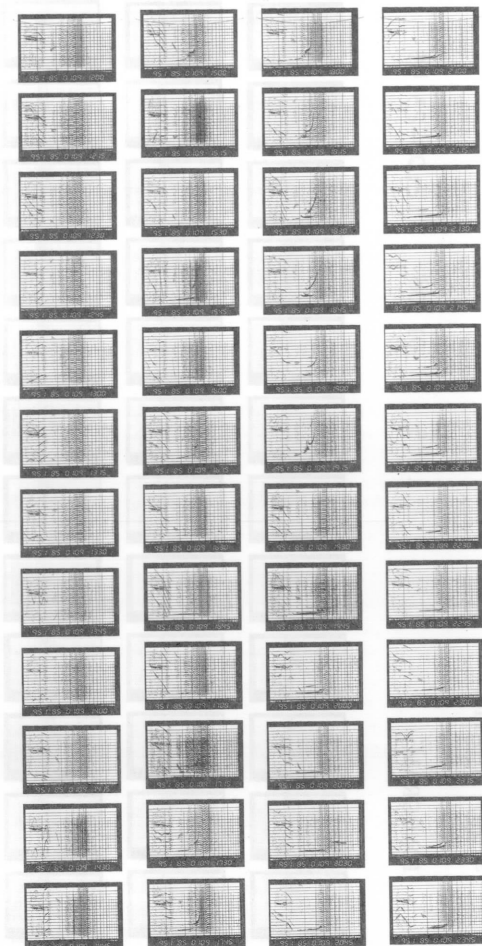
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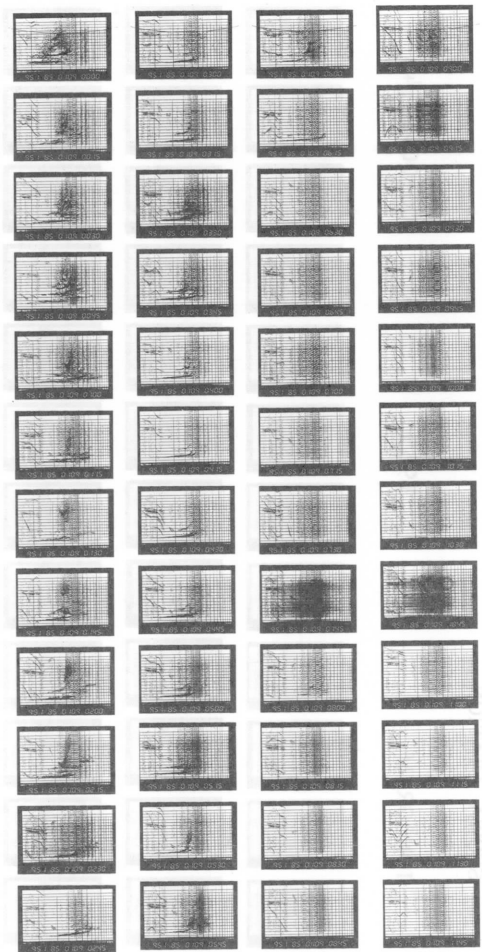
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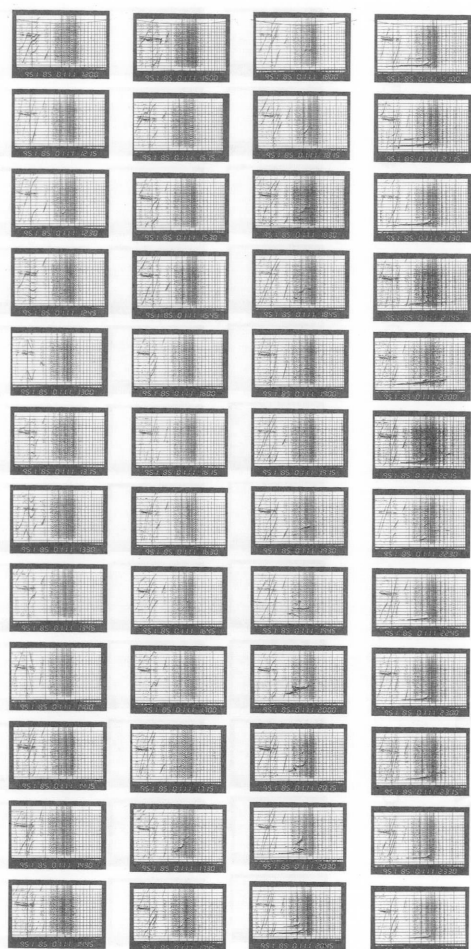
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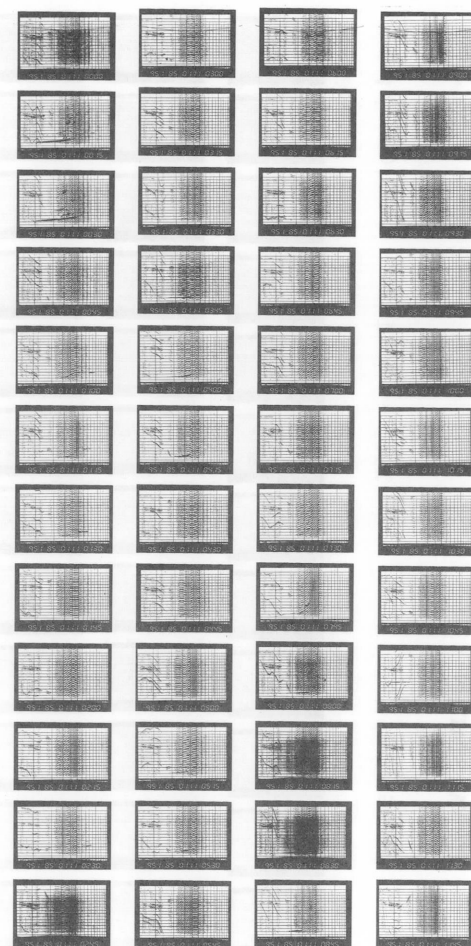
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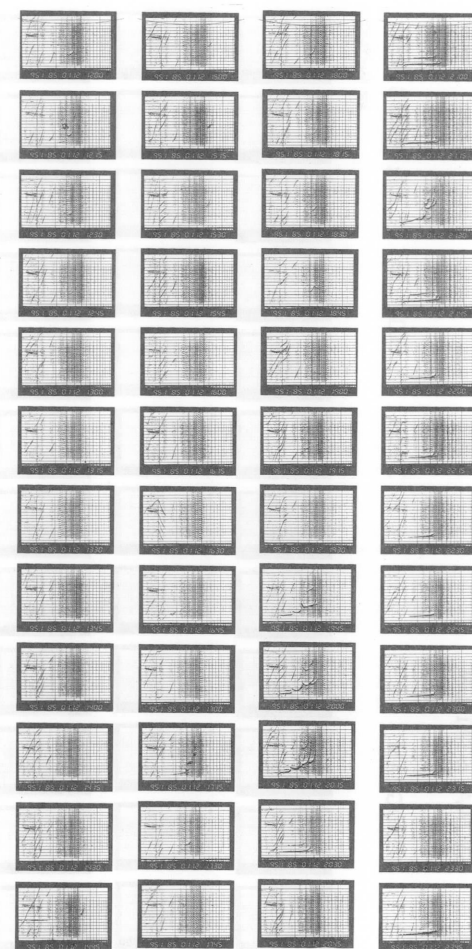
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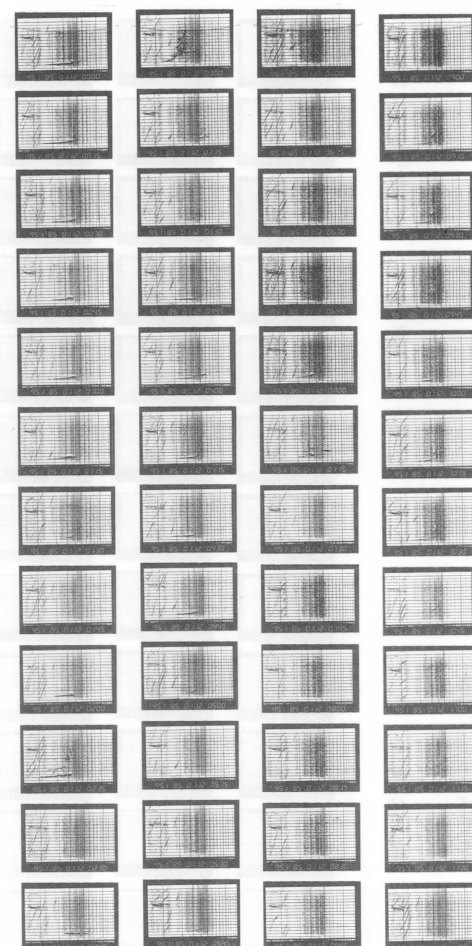
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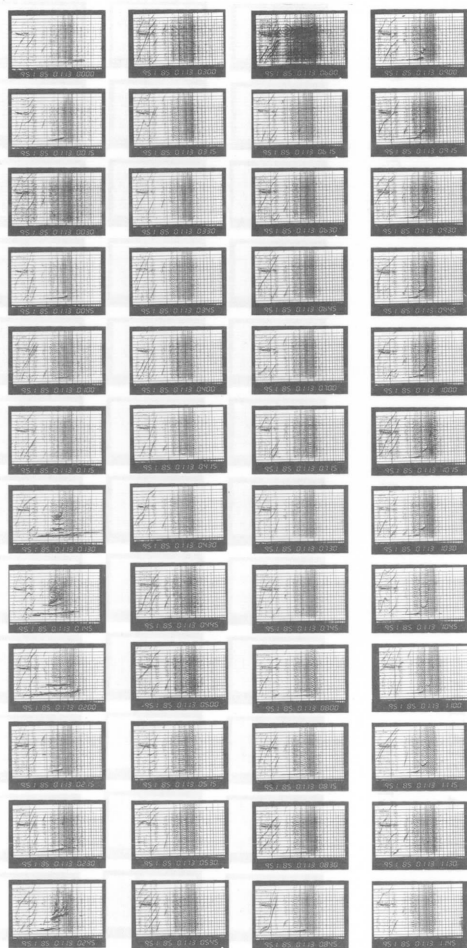
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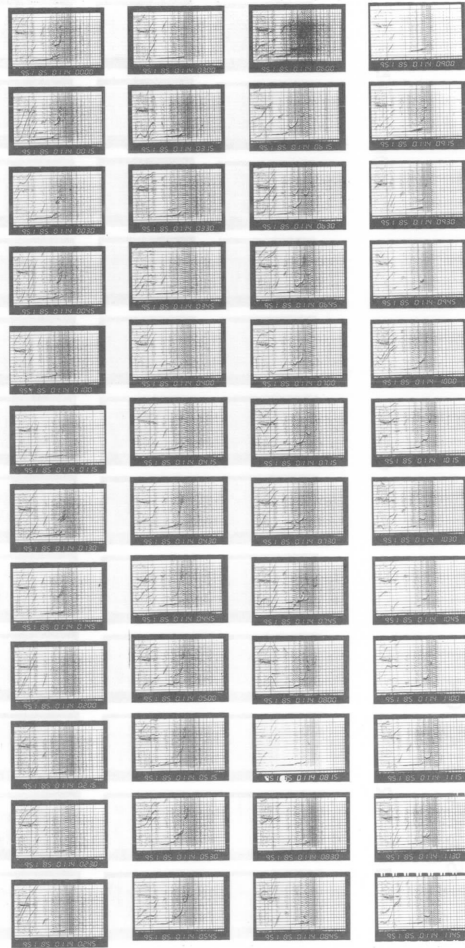
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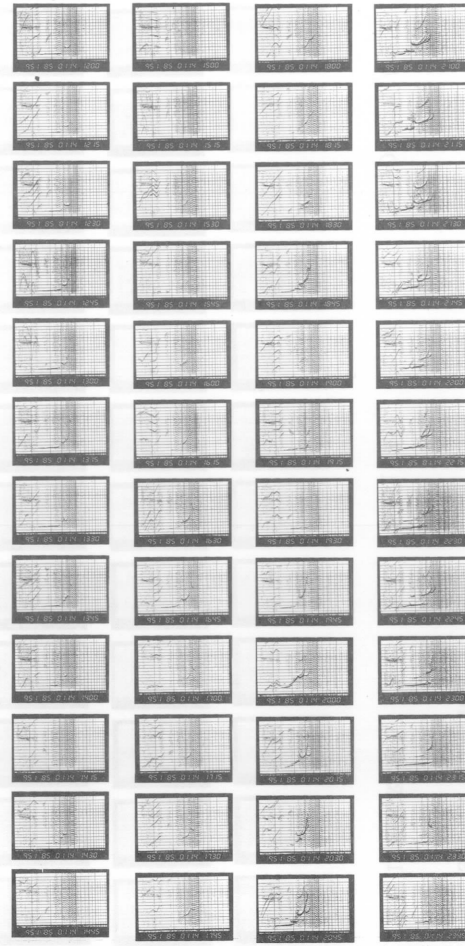
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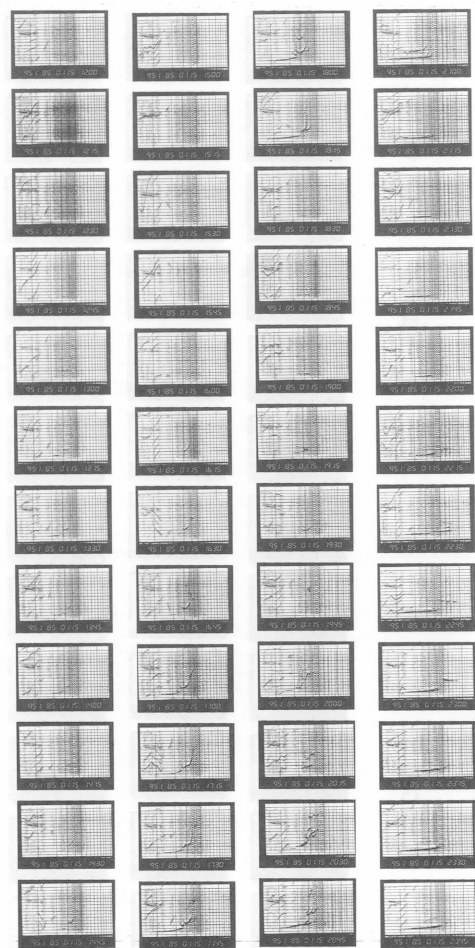
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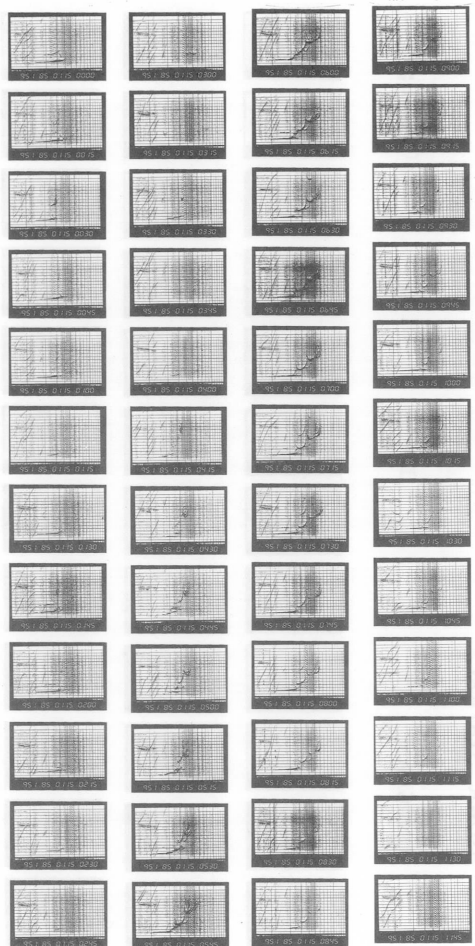
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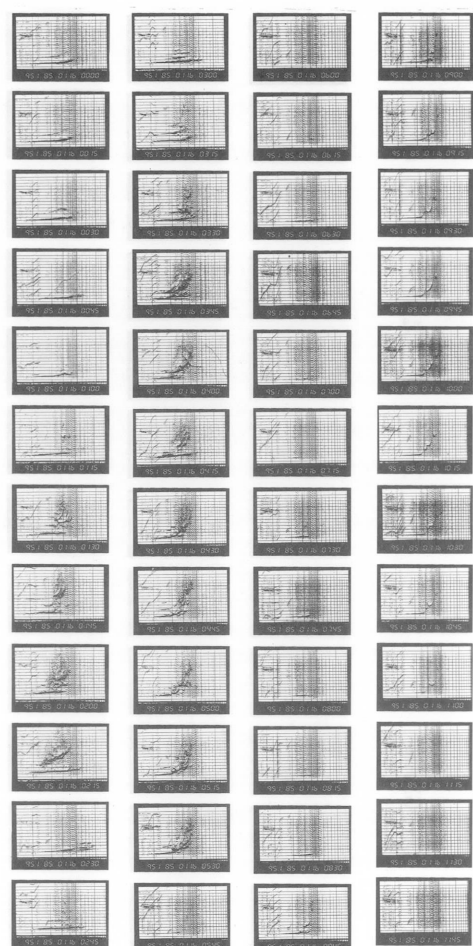
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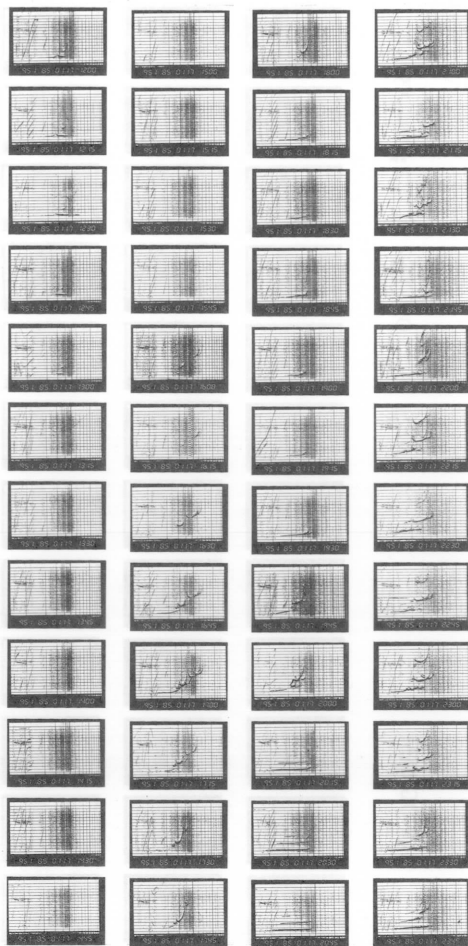
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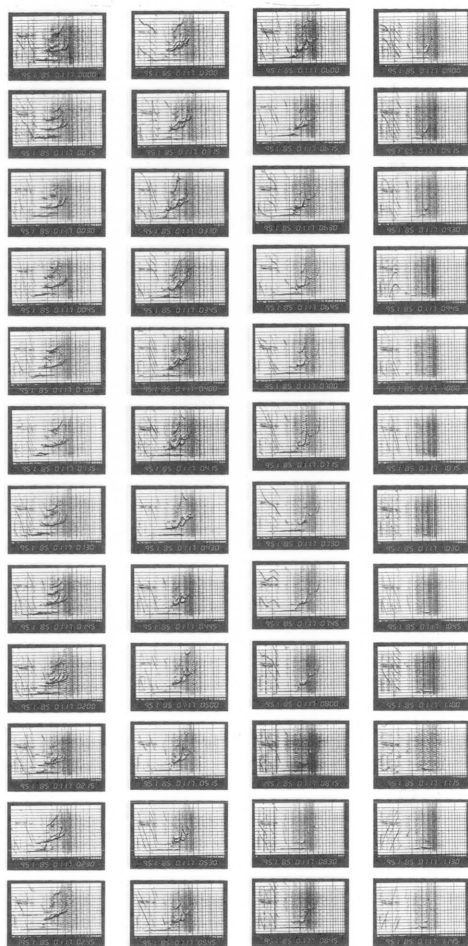
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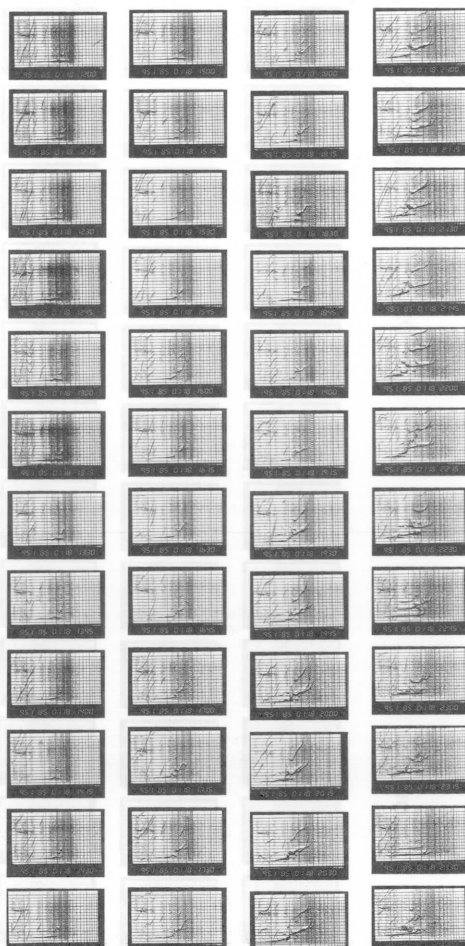
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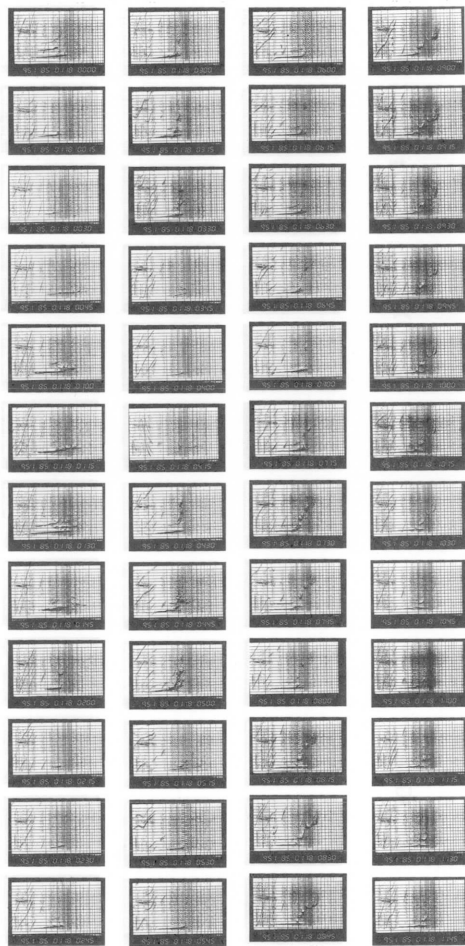
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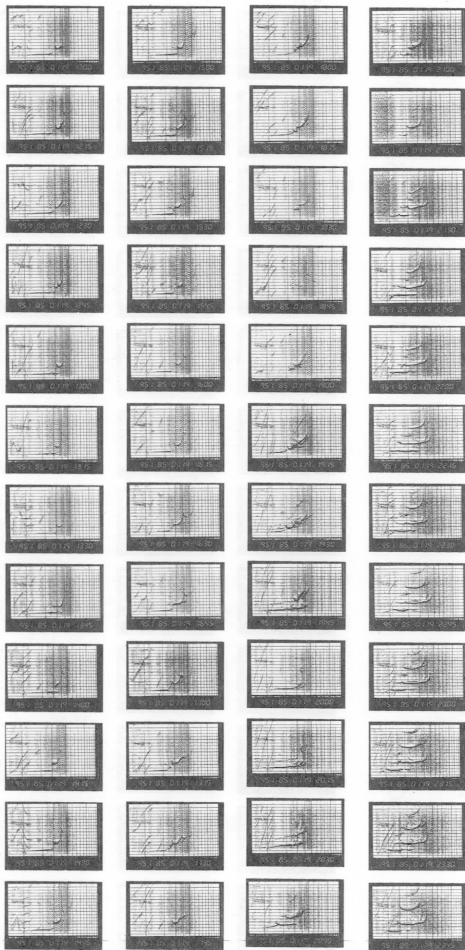
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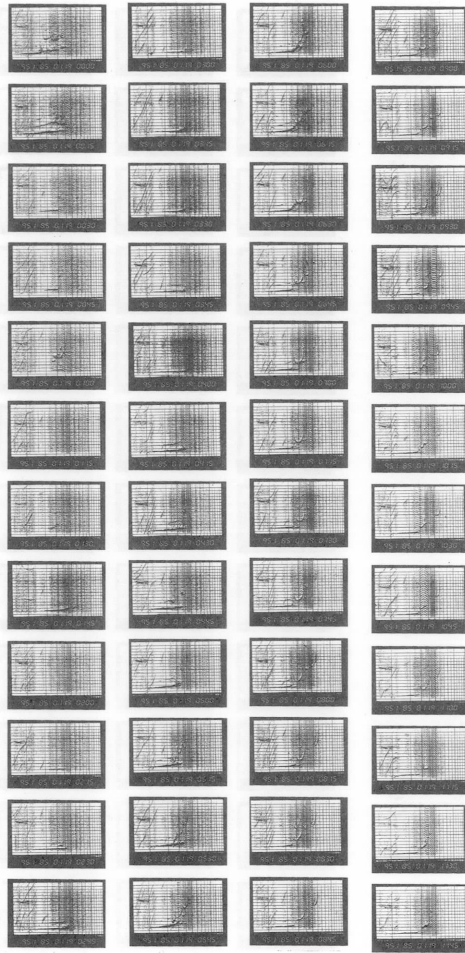
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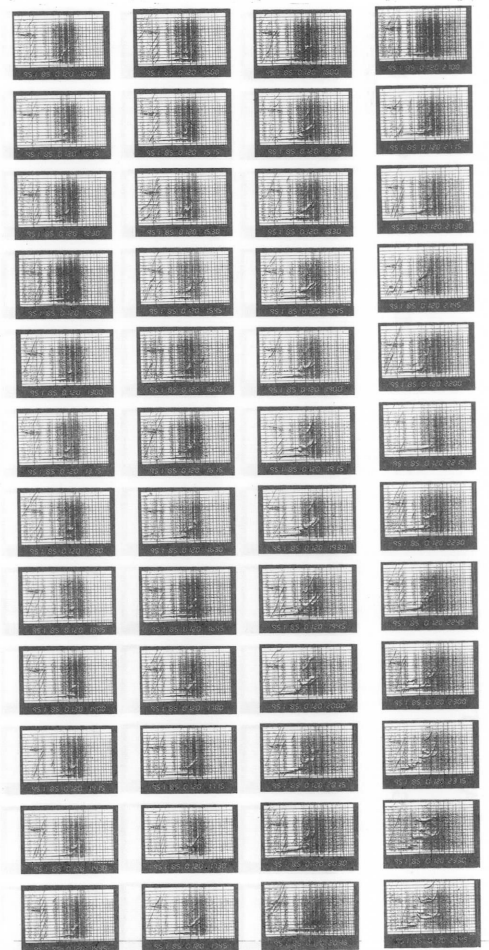
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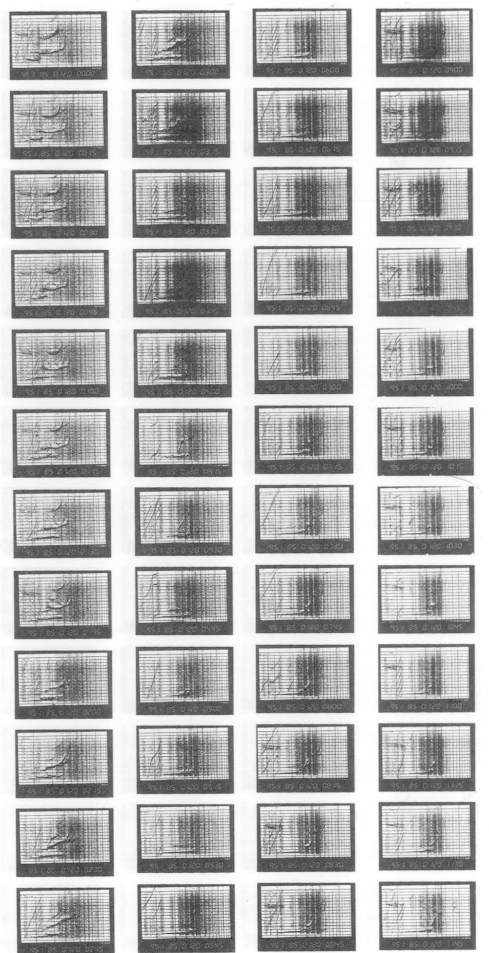
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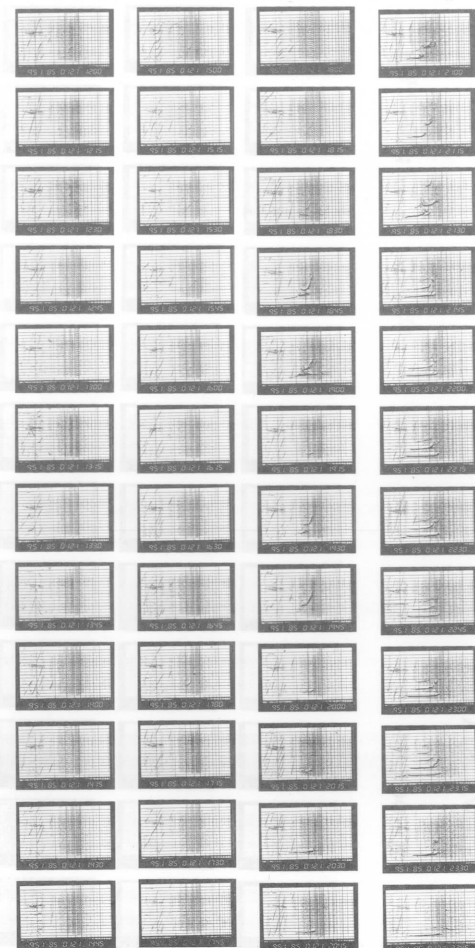
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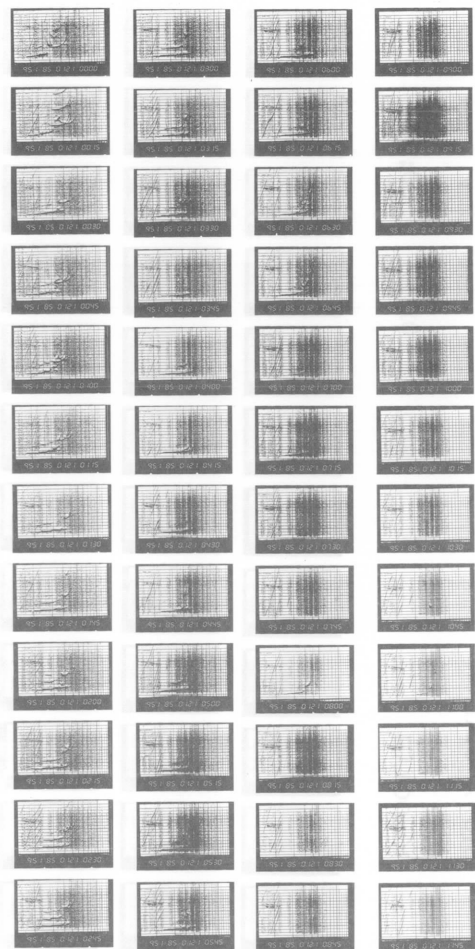
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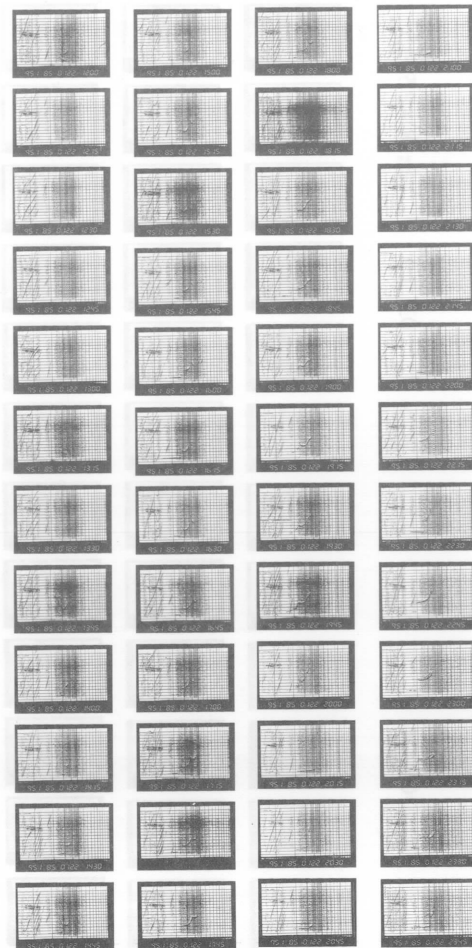
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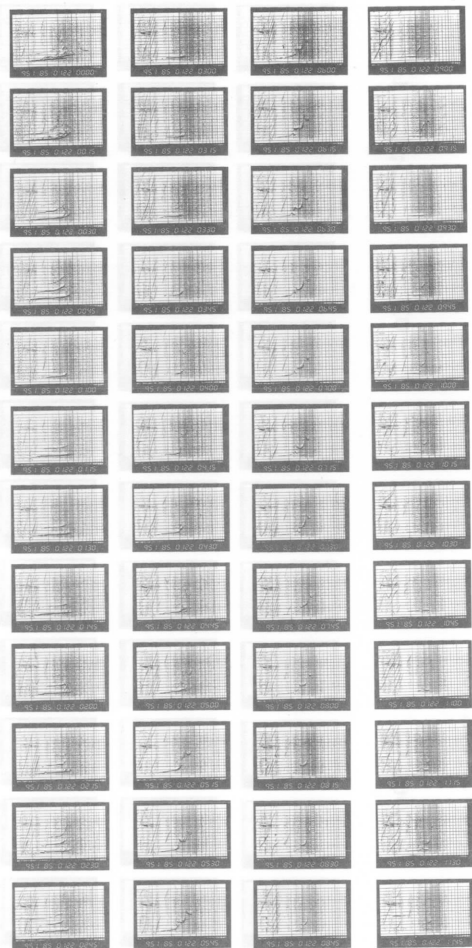
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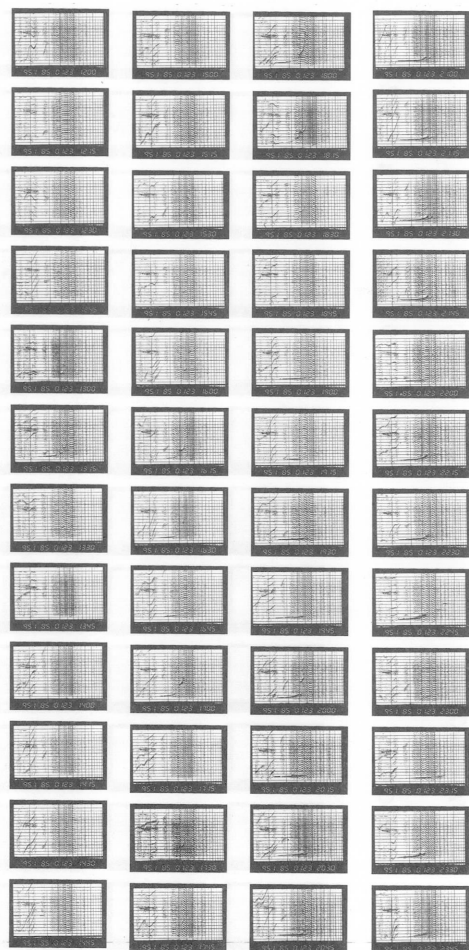
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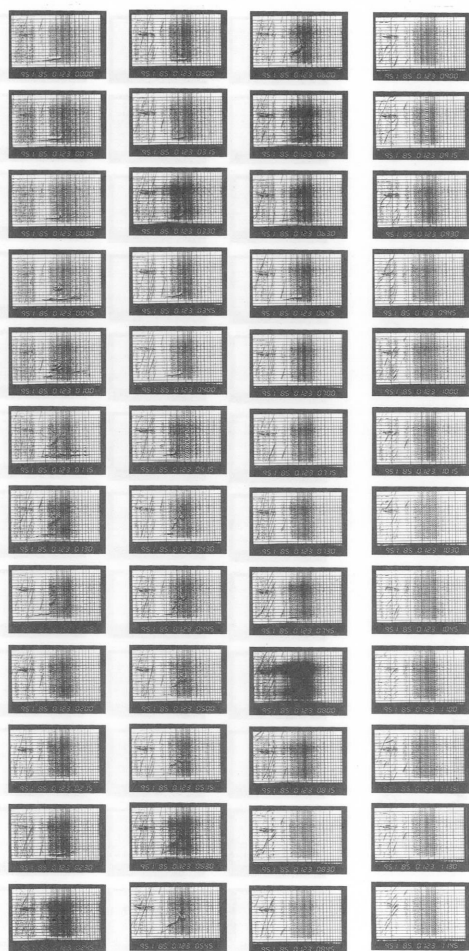
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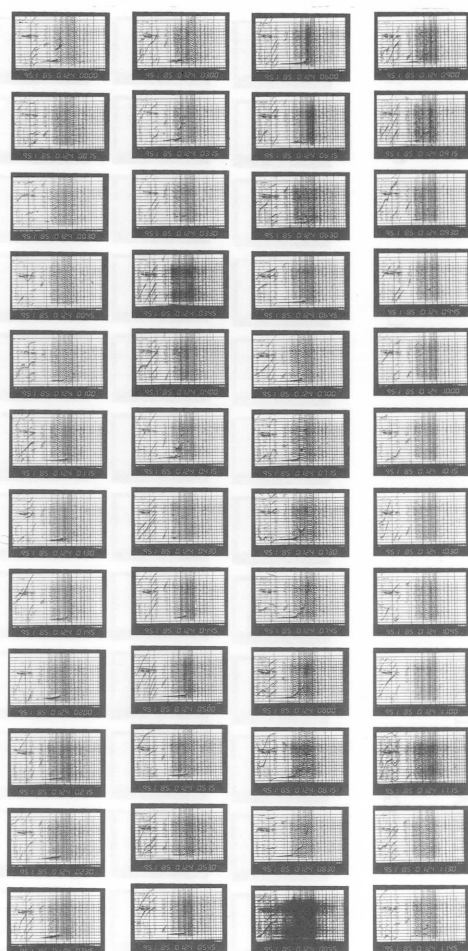
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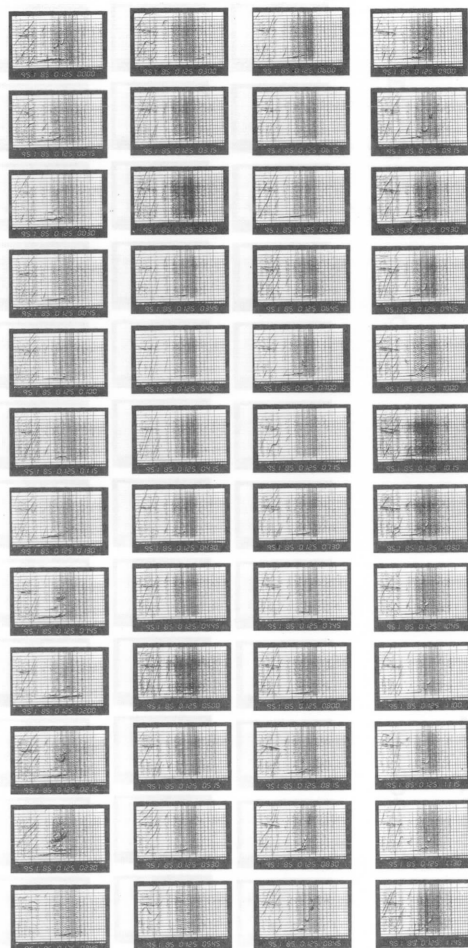
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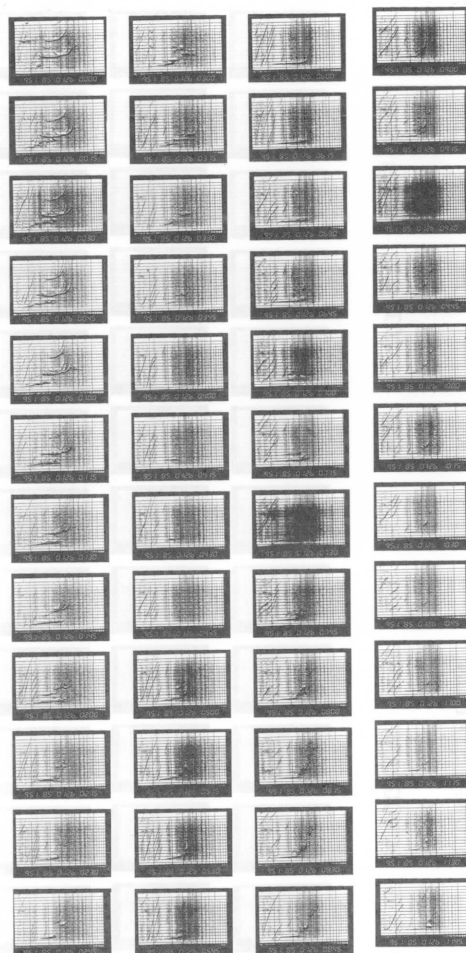
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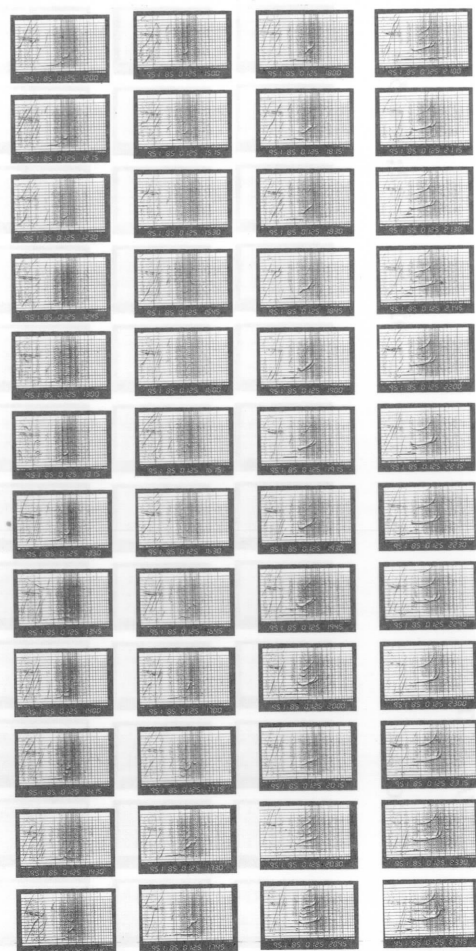
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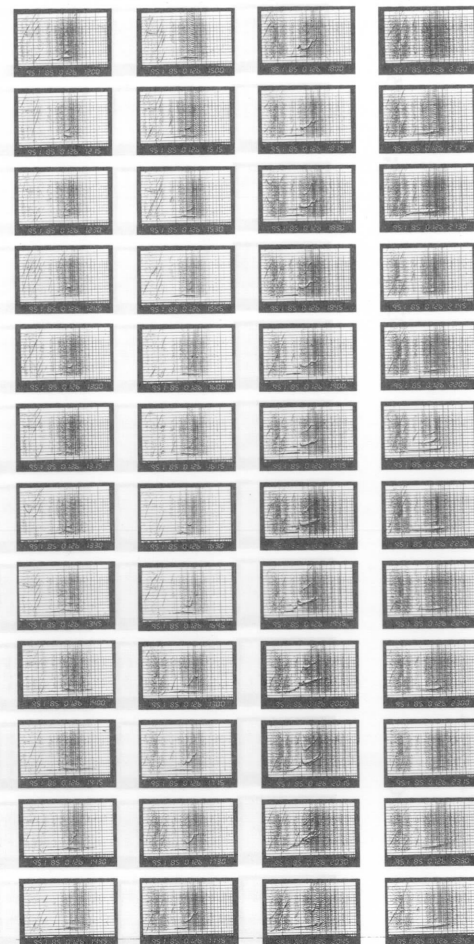
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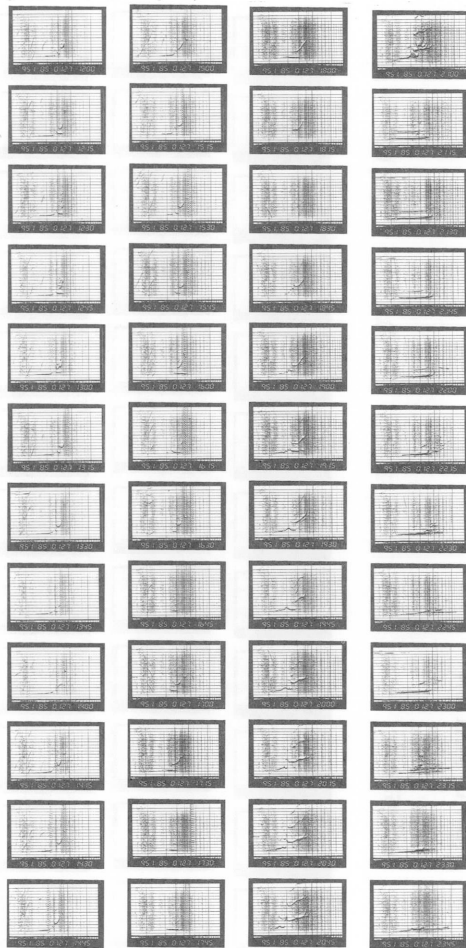
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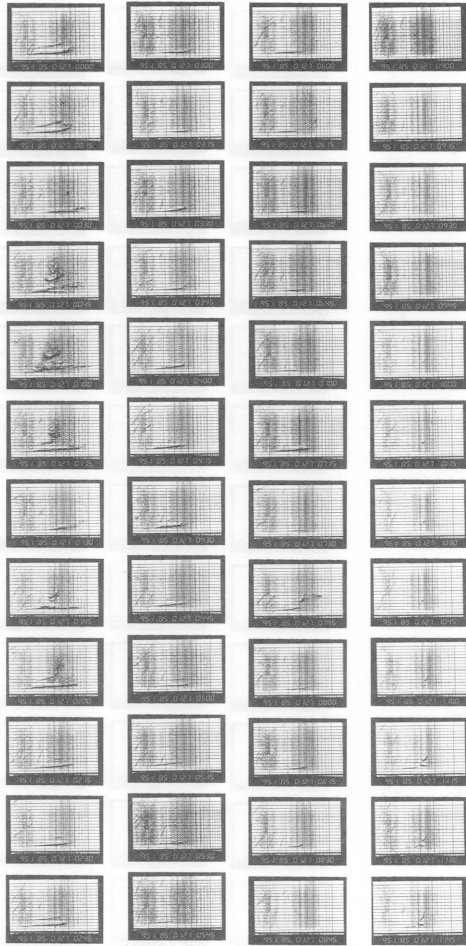
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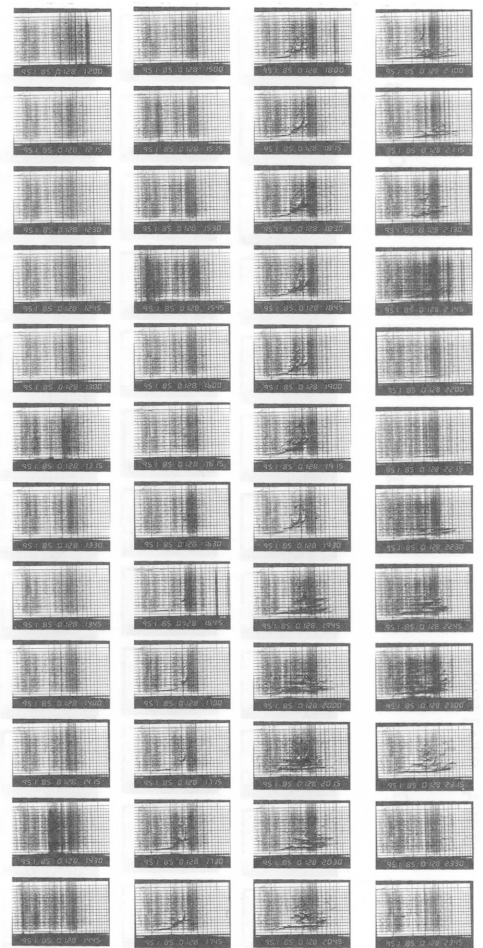
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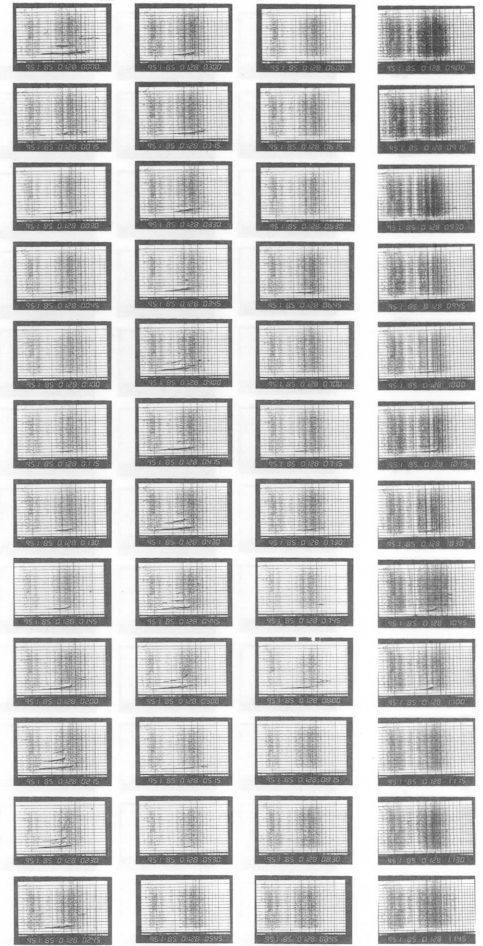
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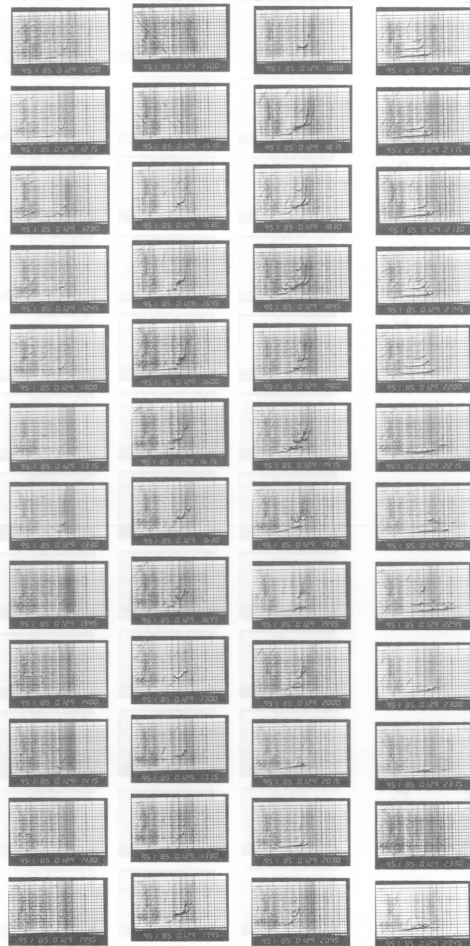
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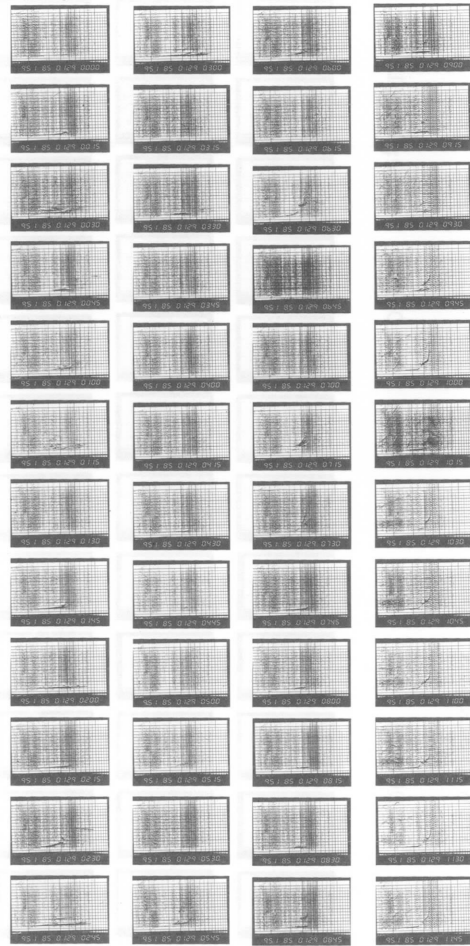
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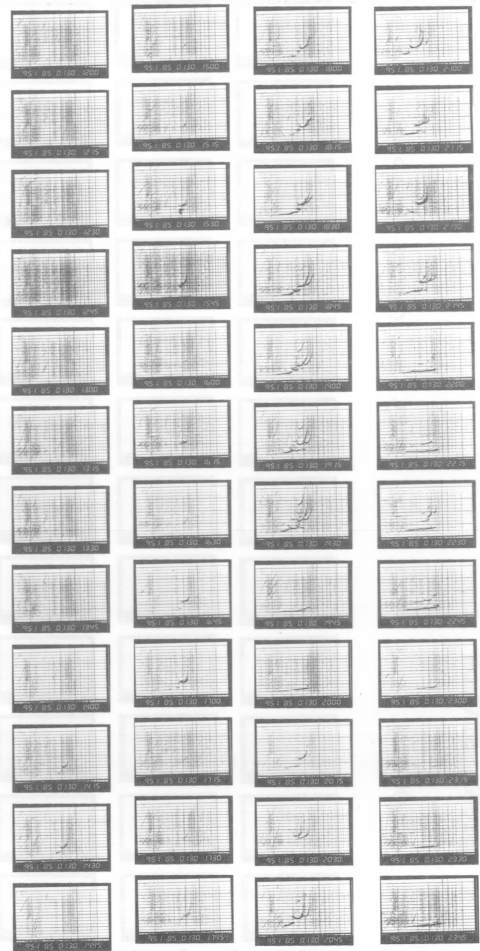
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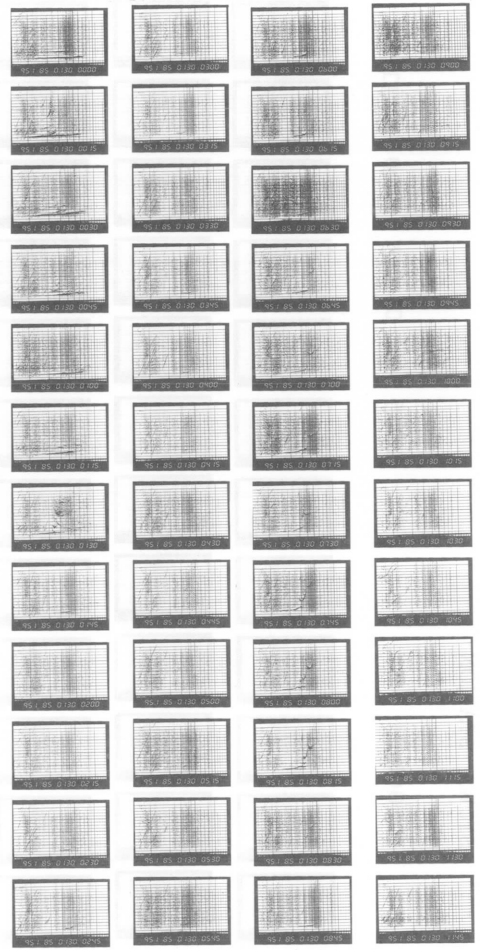
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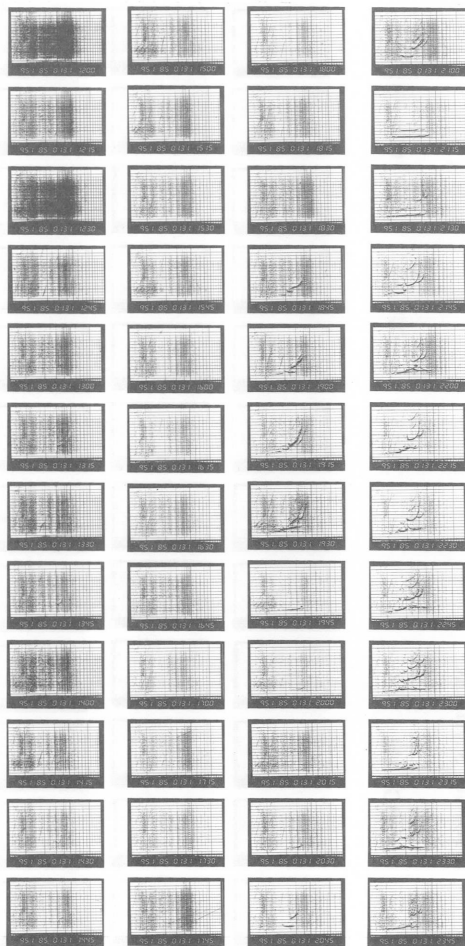
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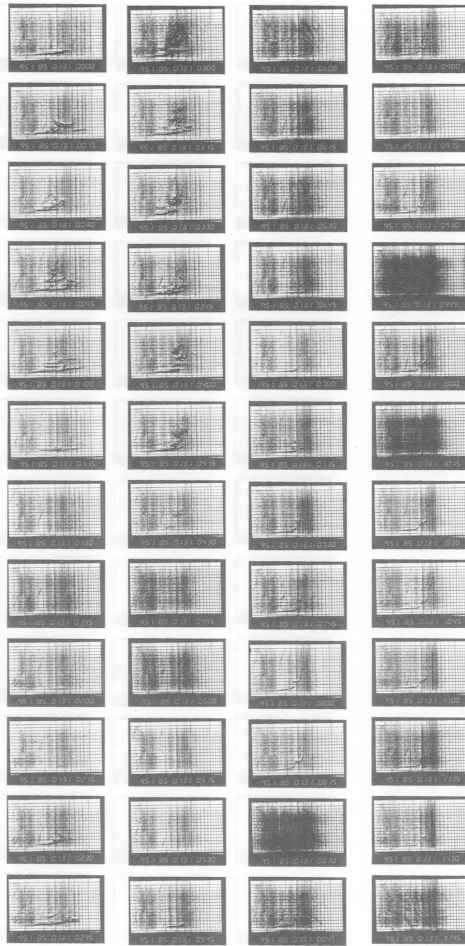
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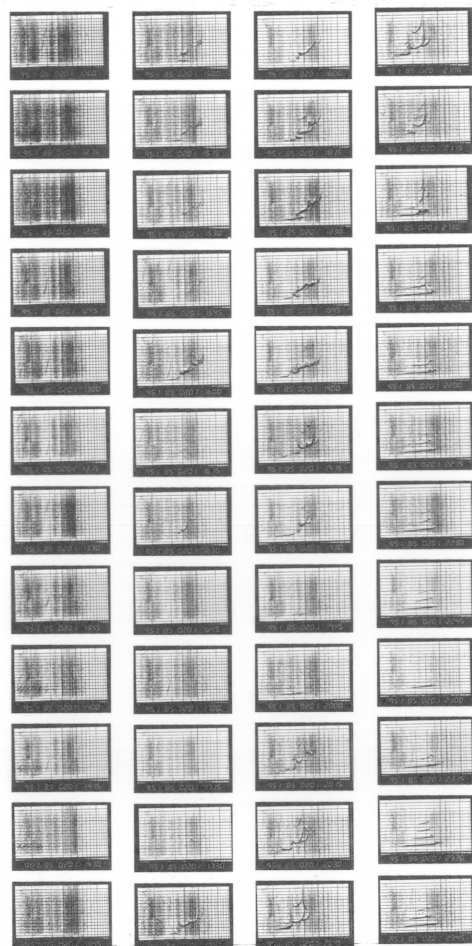
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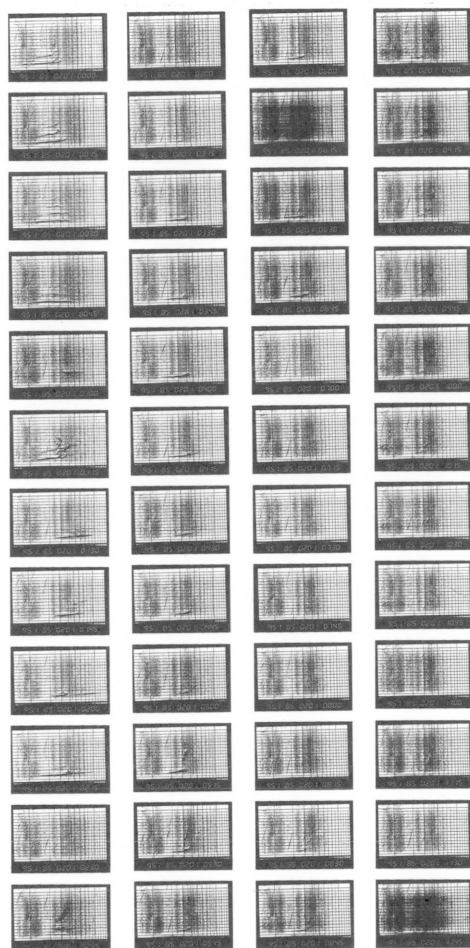
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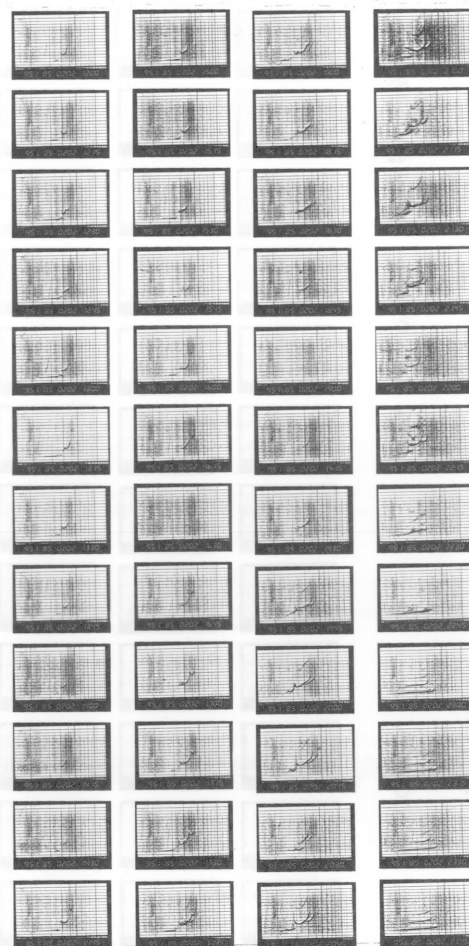
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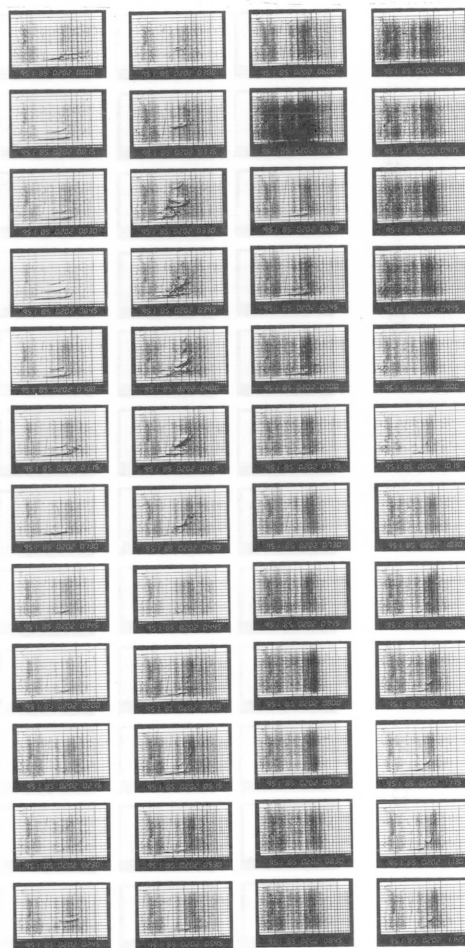
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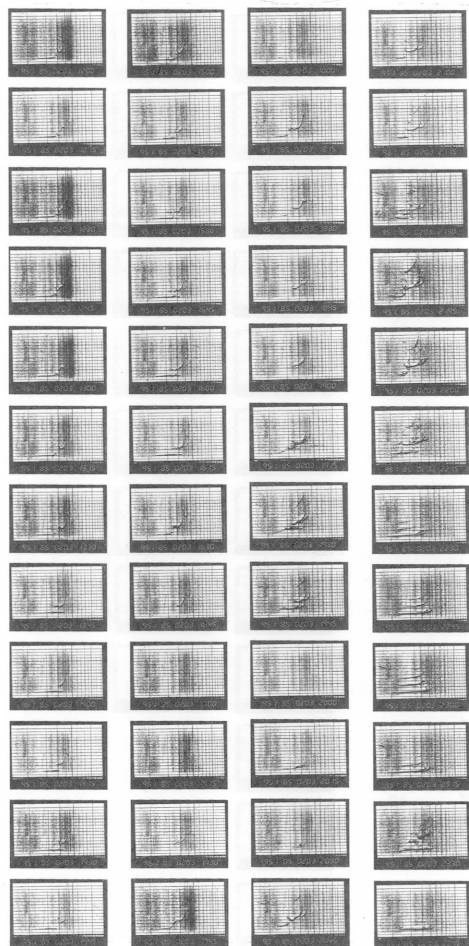
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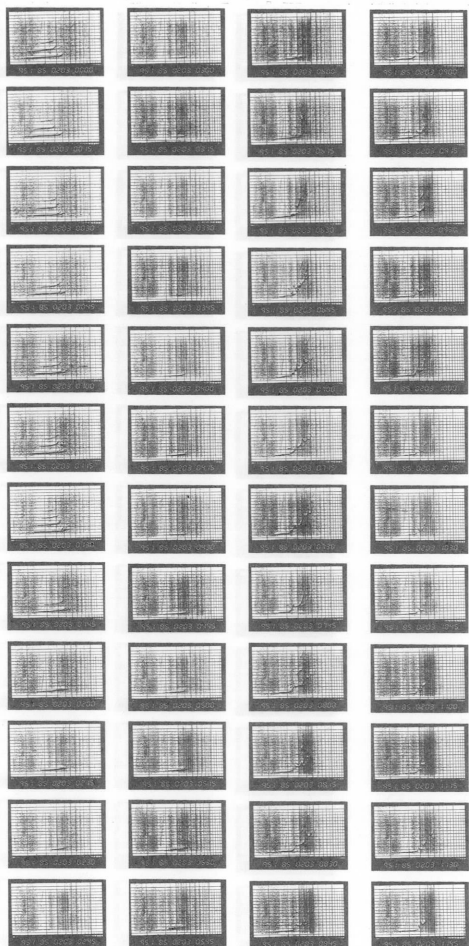
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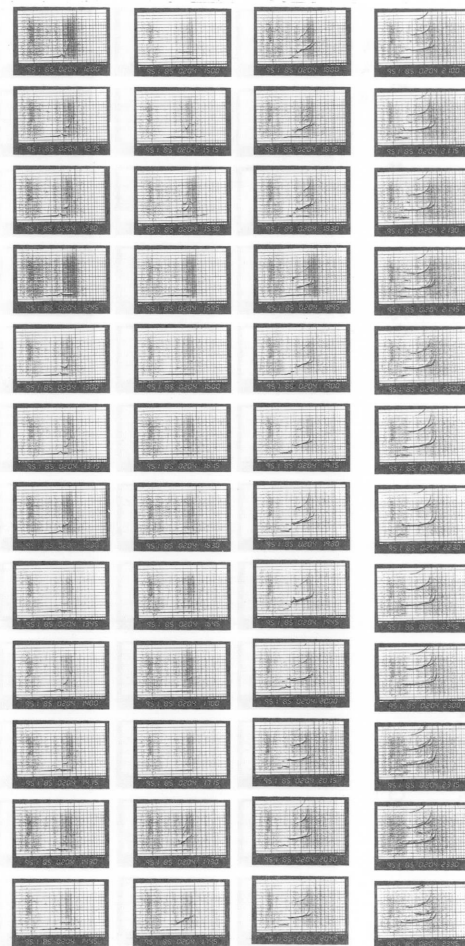
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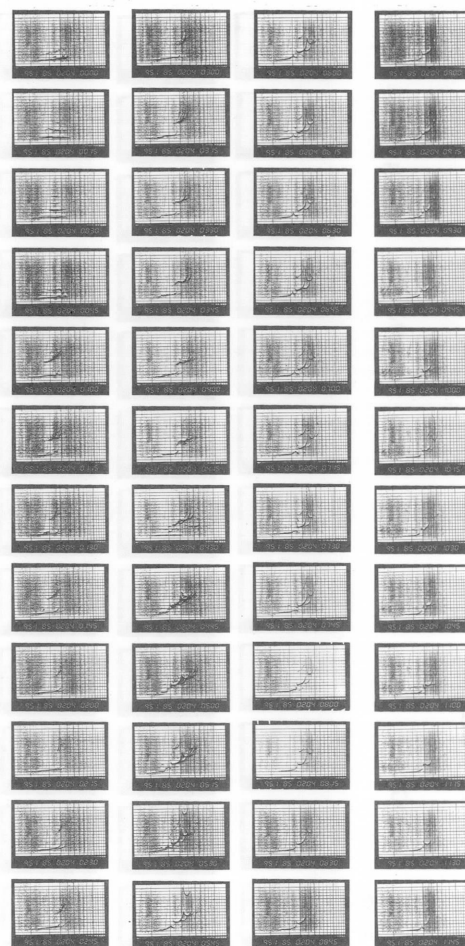
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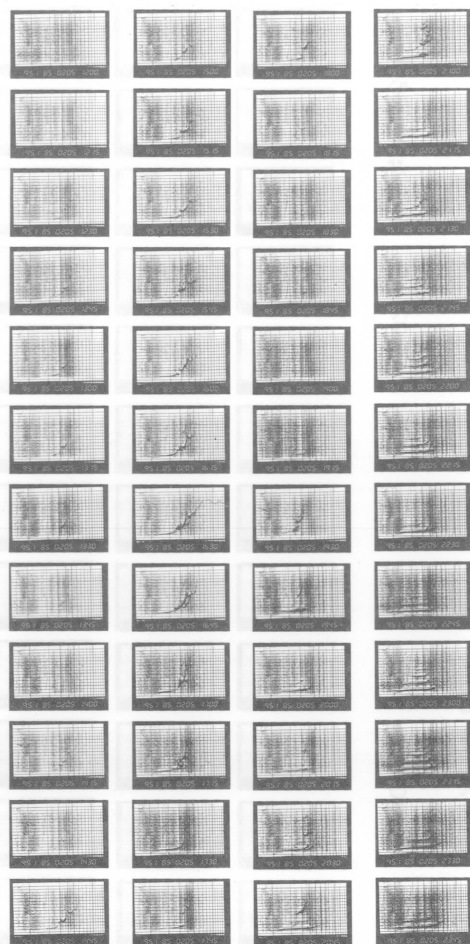
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12:00-17:00



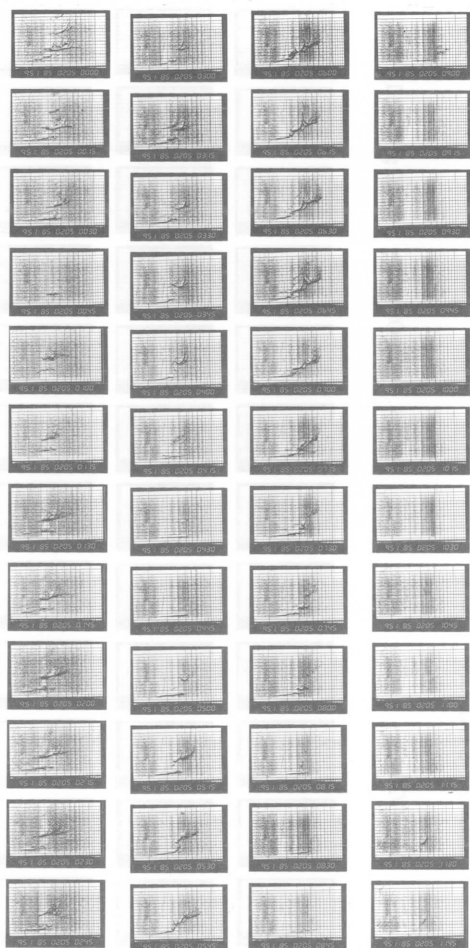
SYOWA STATION

IONOGRAM

1985

02 05

00:00-11:45



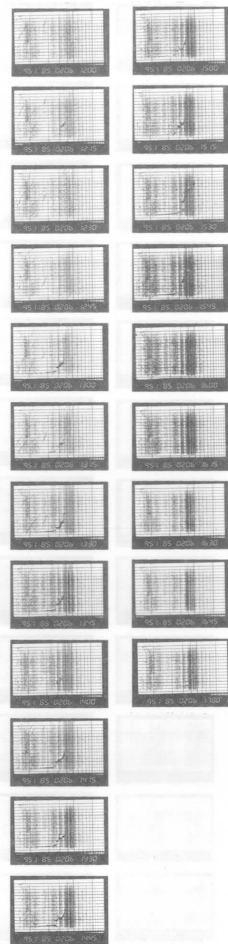
SYOWA STATION

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1985

02 06

12:00-17:00



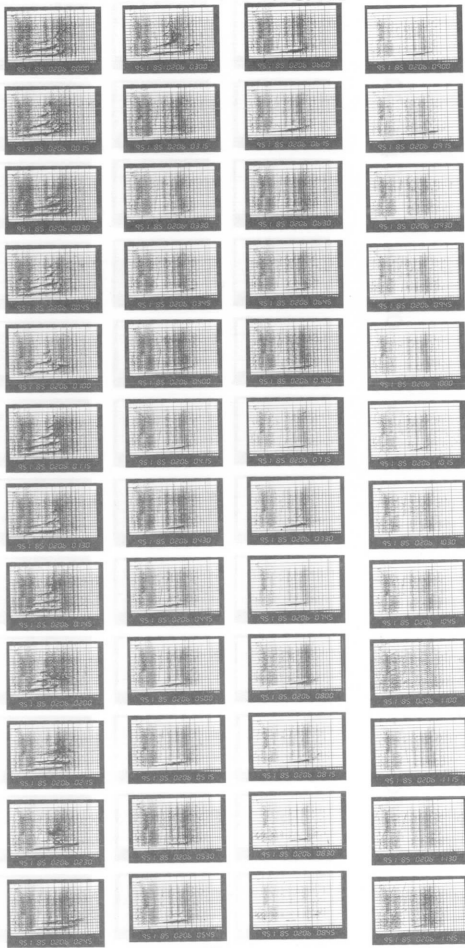
SYOWA STATION

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1985

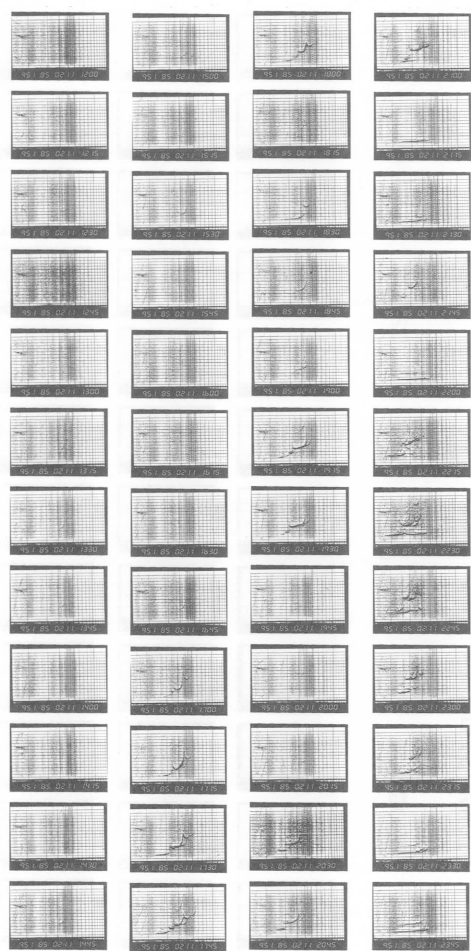
02 06

00:00-11:45



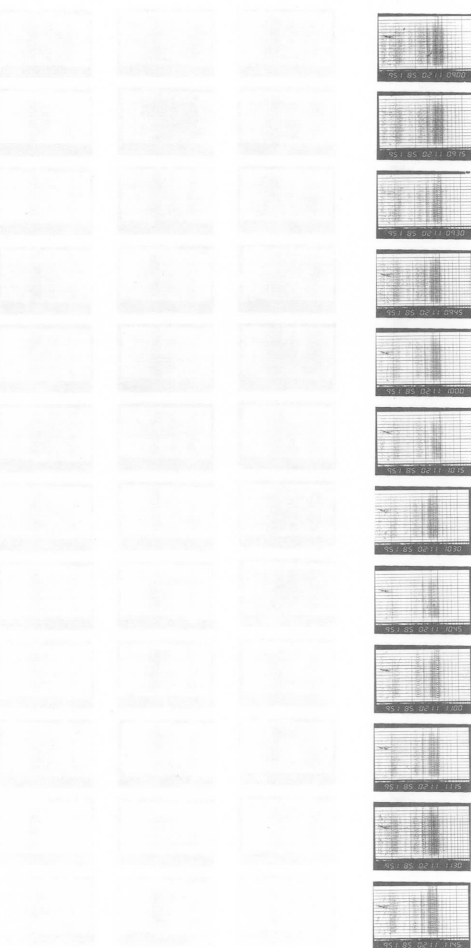
SYOWA STATION

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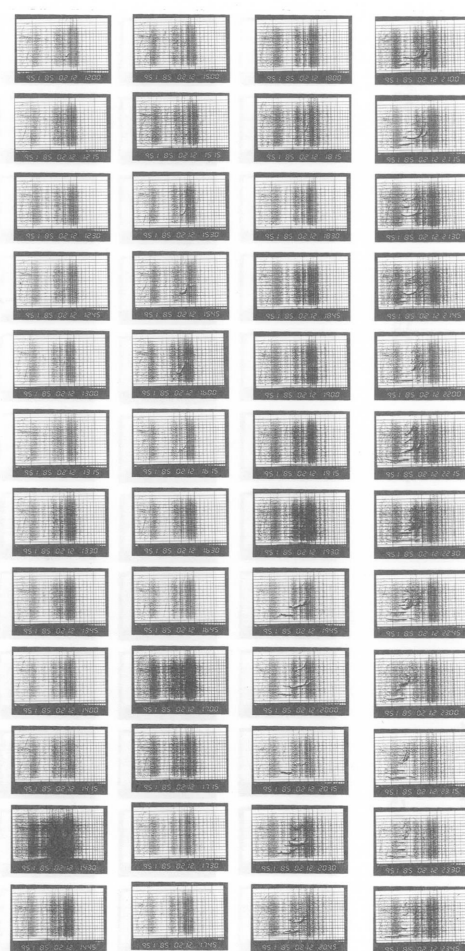
SYOWA STATION

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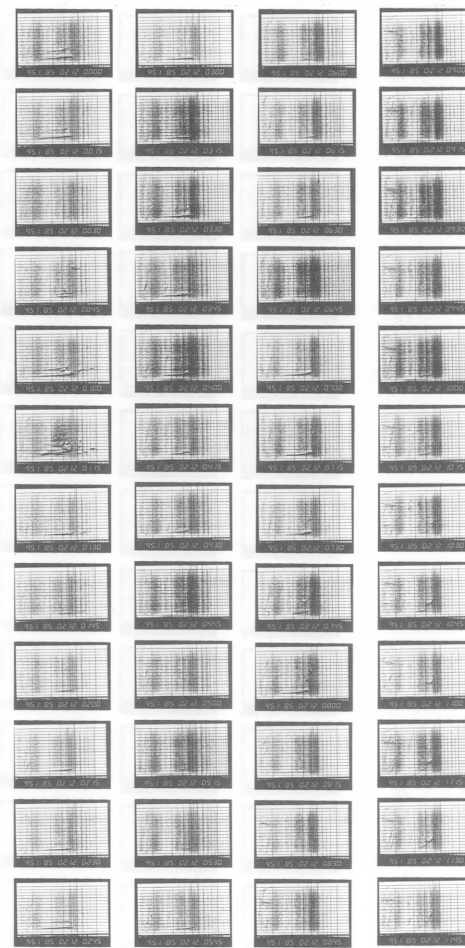
SYOWA STATION

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SYOWA STATION

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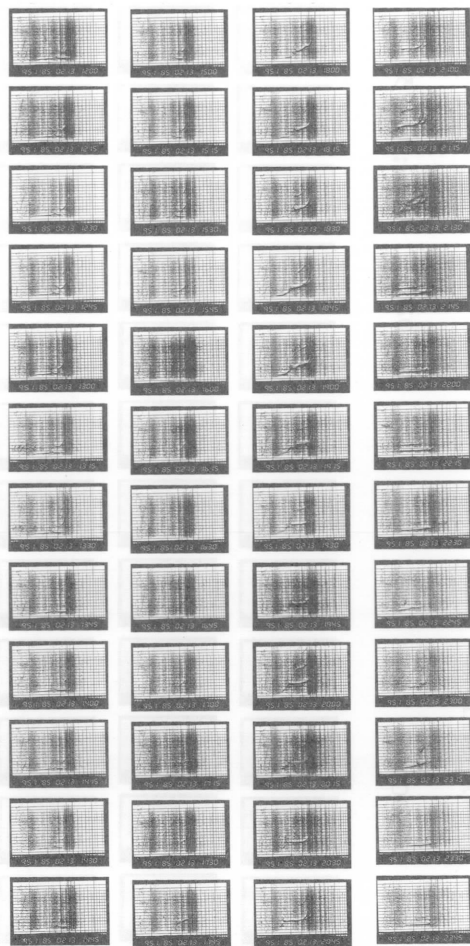
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1985

02 13

12;00-23;45



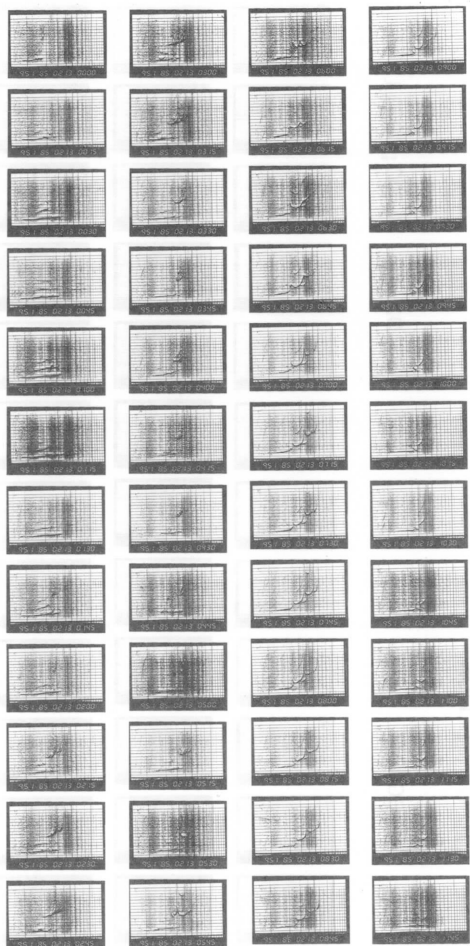
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1985

02 13

00;00-11;45



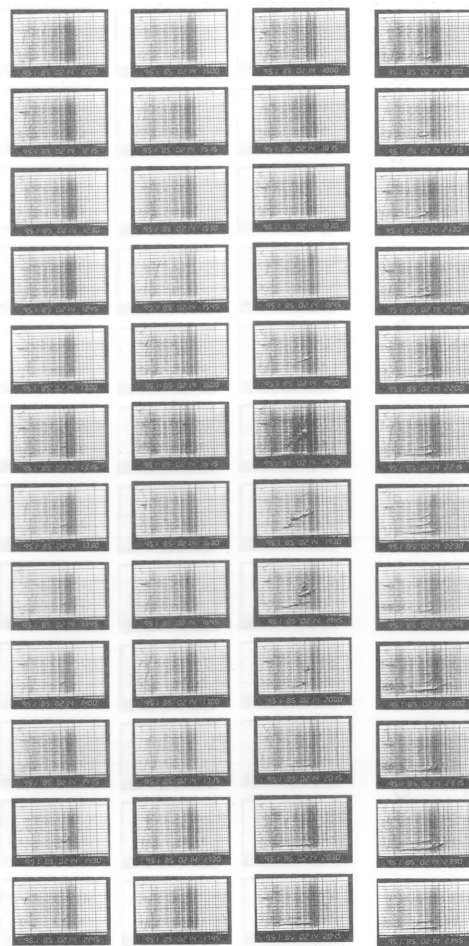
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1985

02 14

12;00-23;45



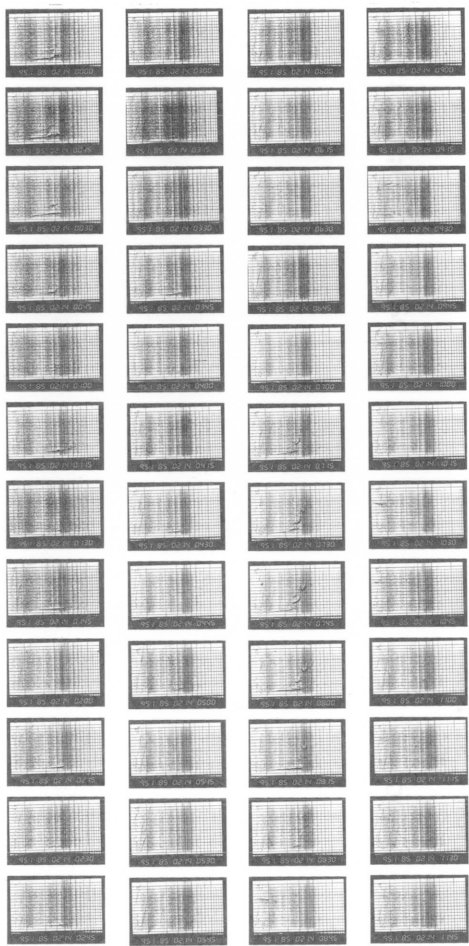
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1985

02 14

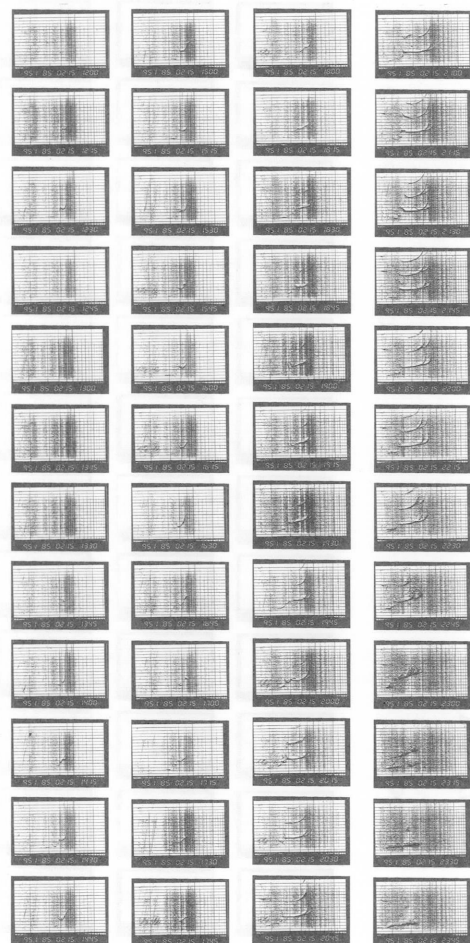
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SYOWA STATION

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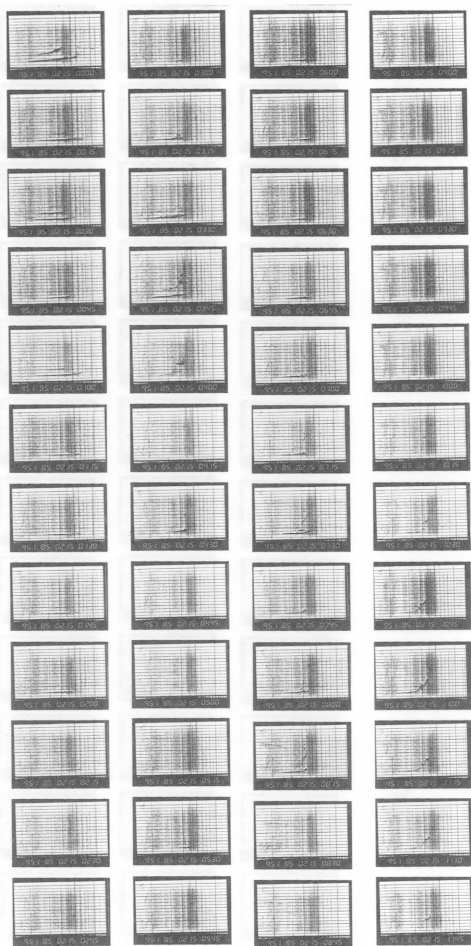
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SYOWA STATION

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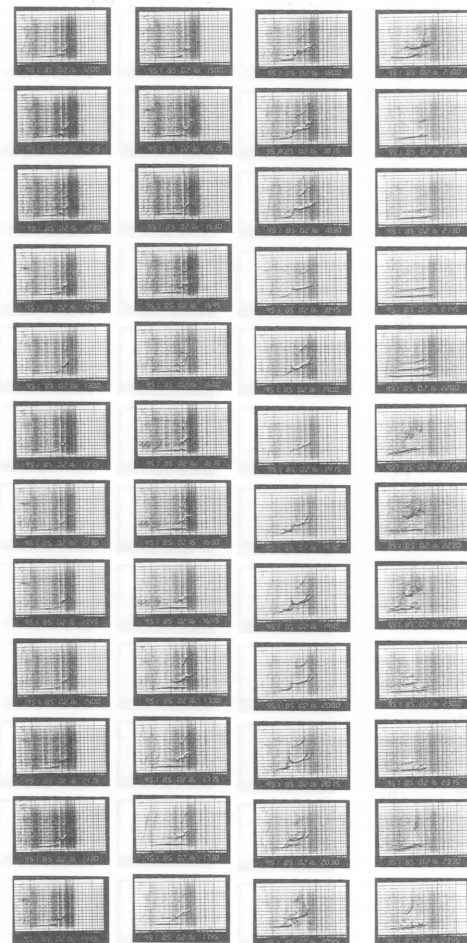
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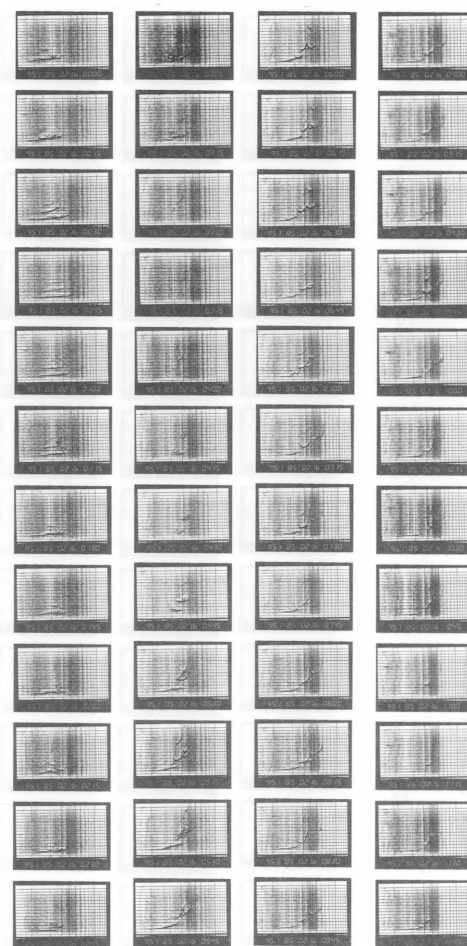
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SYOWA STATION

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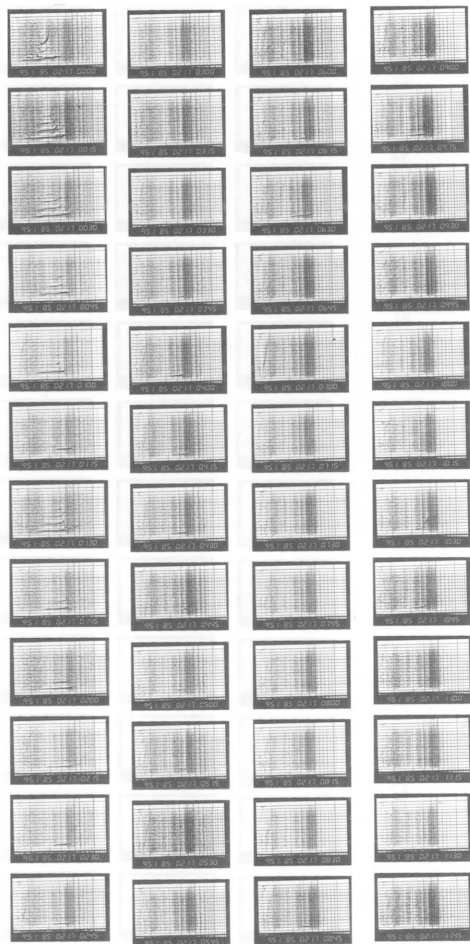
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SYOWA STATION

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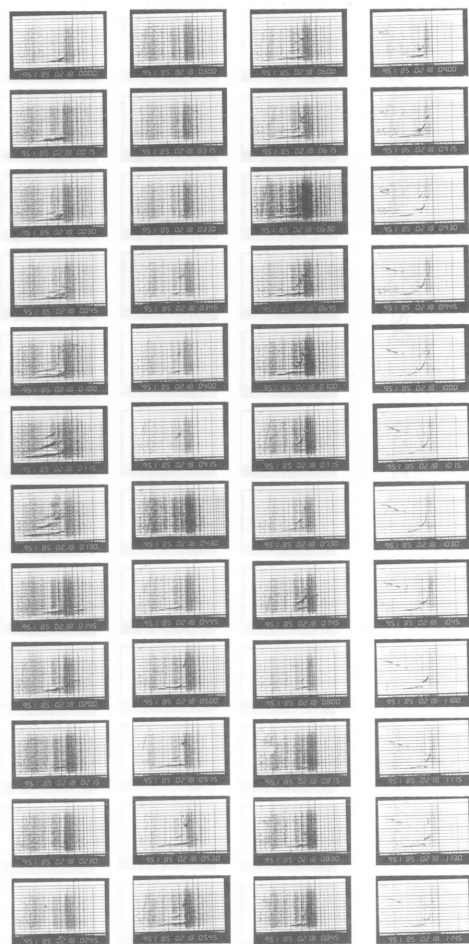
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SYOWA STATION

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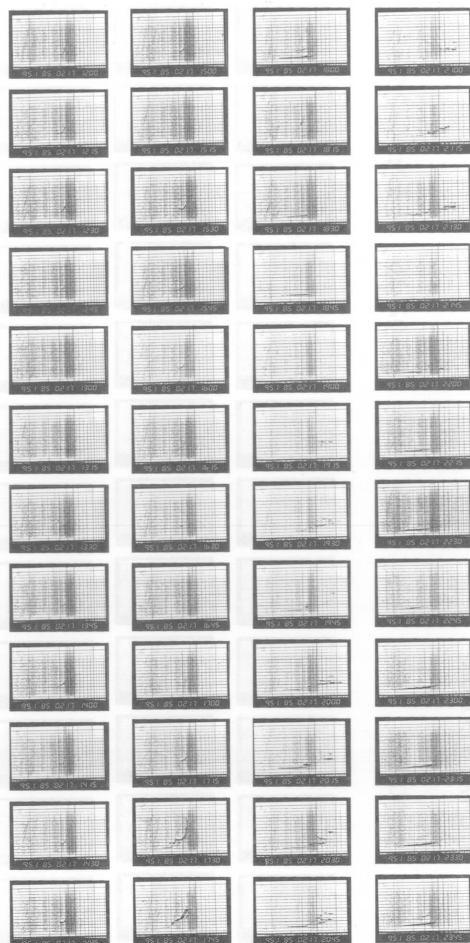
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SYOWA STATION

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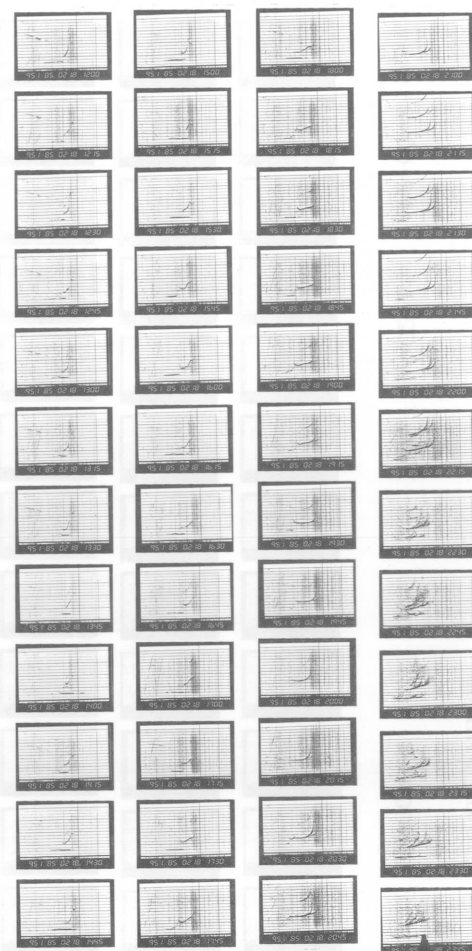
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SYOWA STATION

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1985 02 18 12:00-23:45



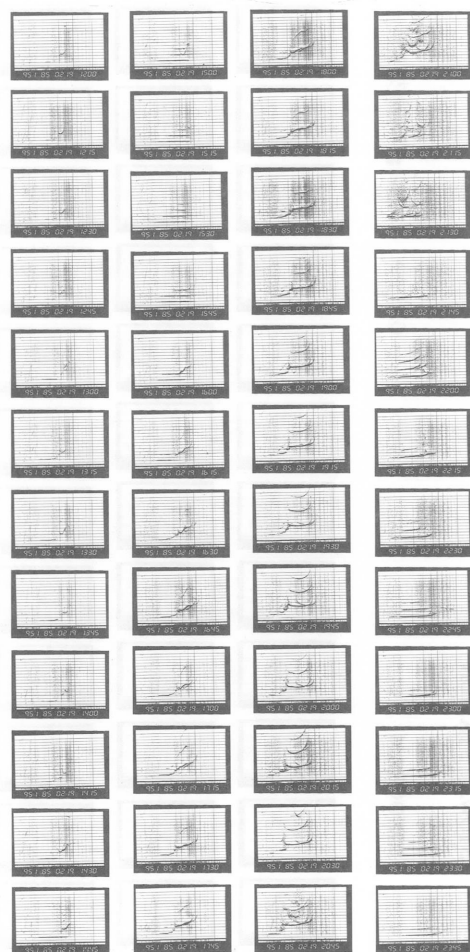
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1985

02 19

12:00-23:45



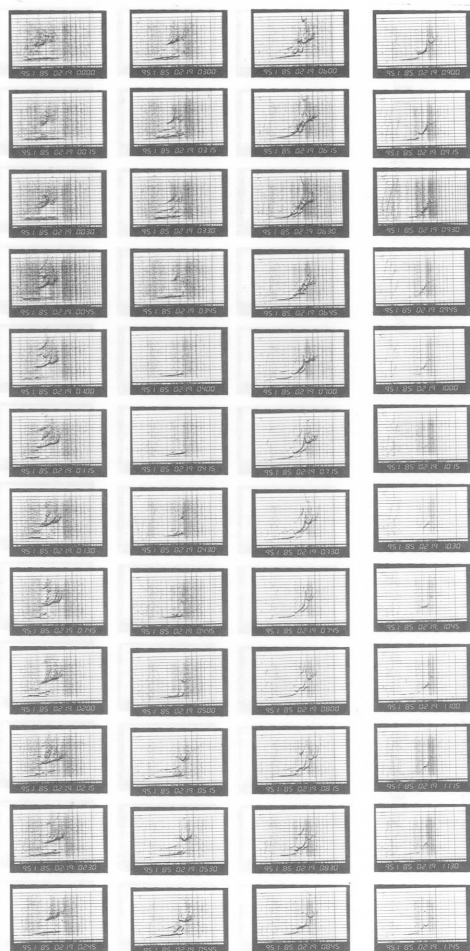
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1985

02 19

00:00-11:45



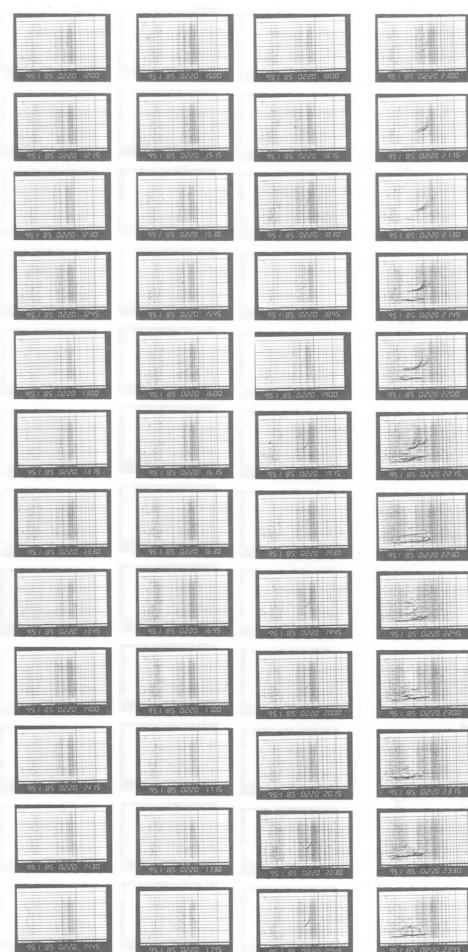
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02 20

12:00-23:45



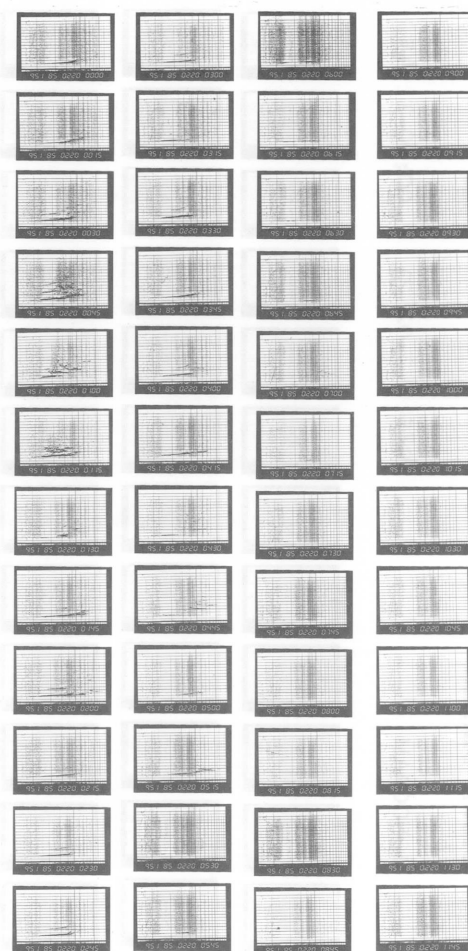
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1985

02 20

00:00-11:45



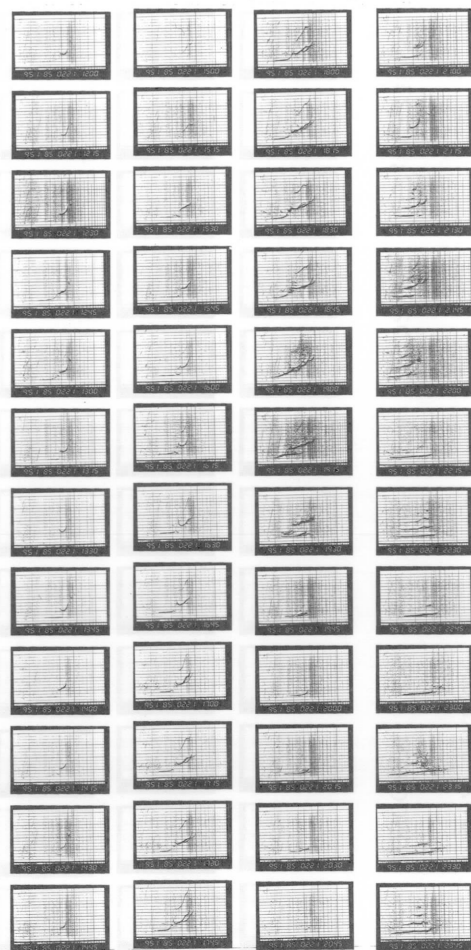
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1985

02 21

12:00-23:45



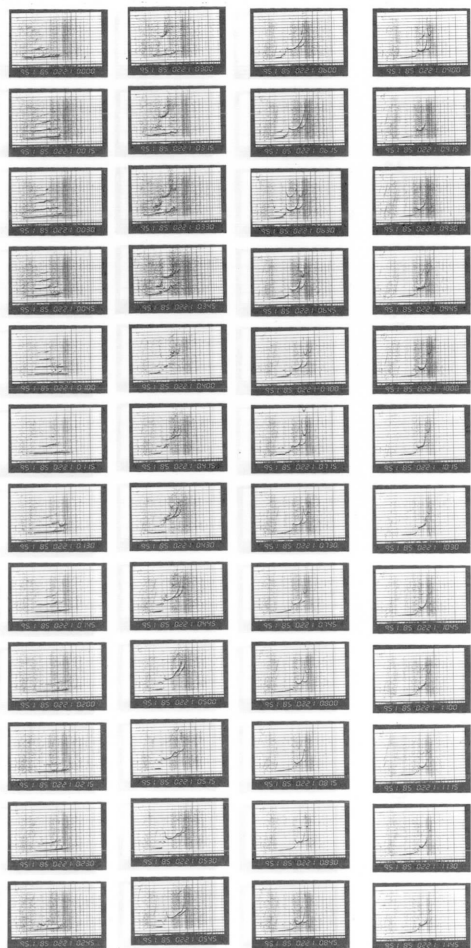
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1985

02 21

00:00-11:45



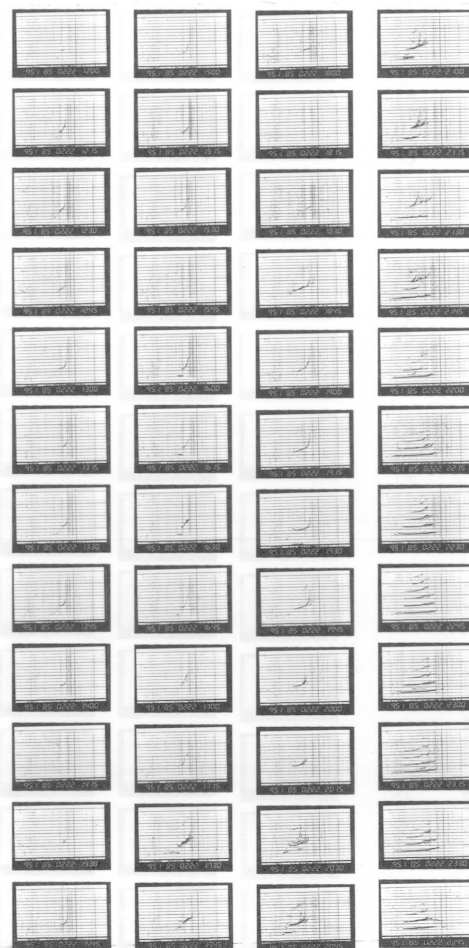
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02 22

12:00-23:45



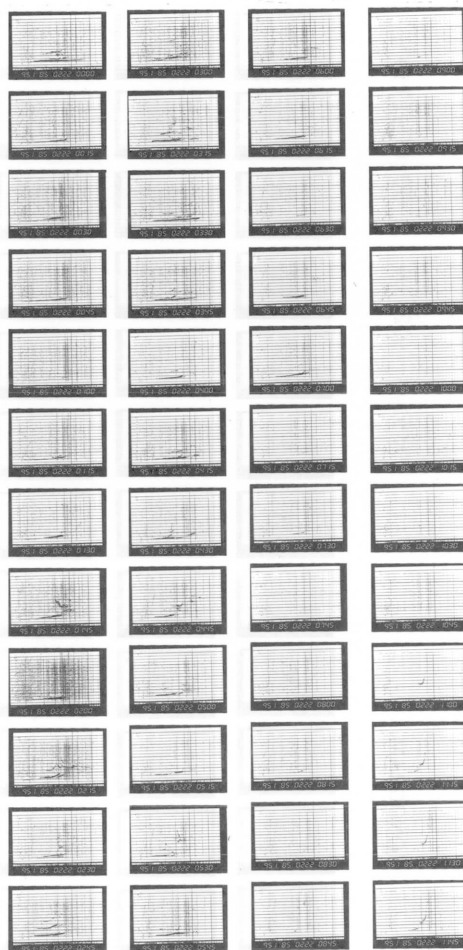
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02 22

00:00-11:45



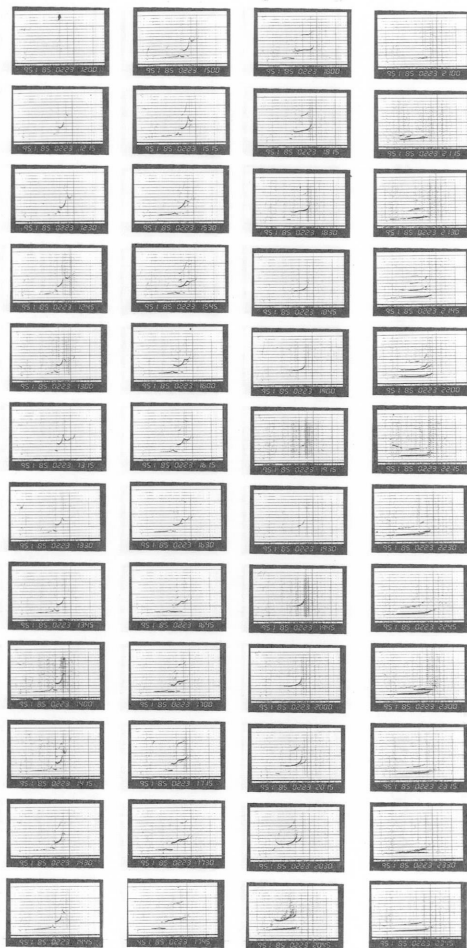
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02 23

12:00-23:45



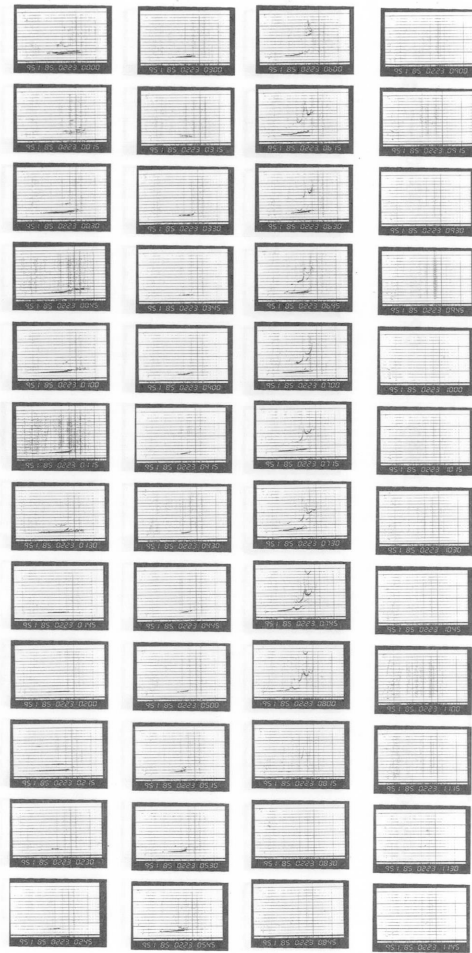
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02 23

00:00-11:45



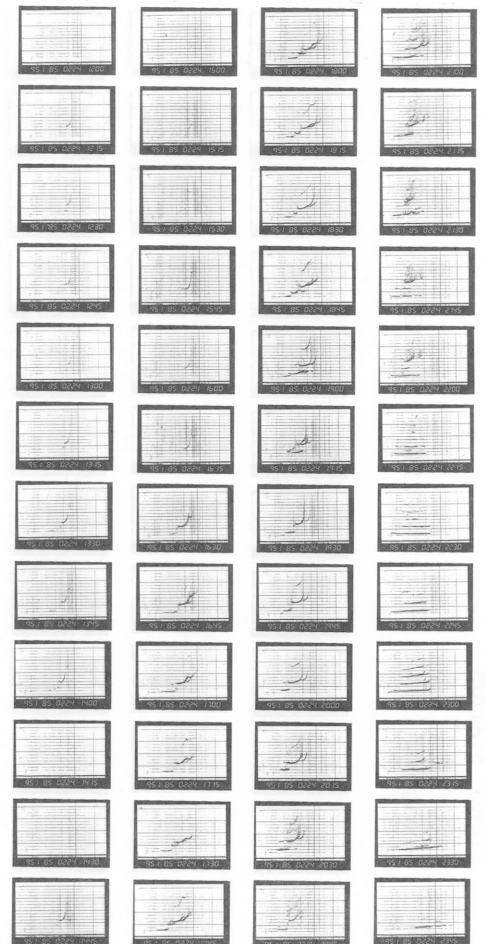
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02 24

12:00-23:45



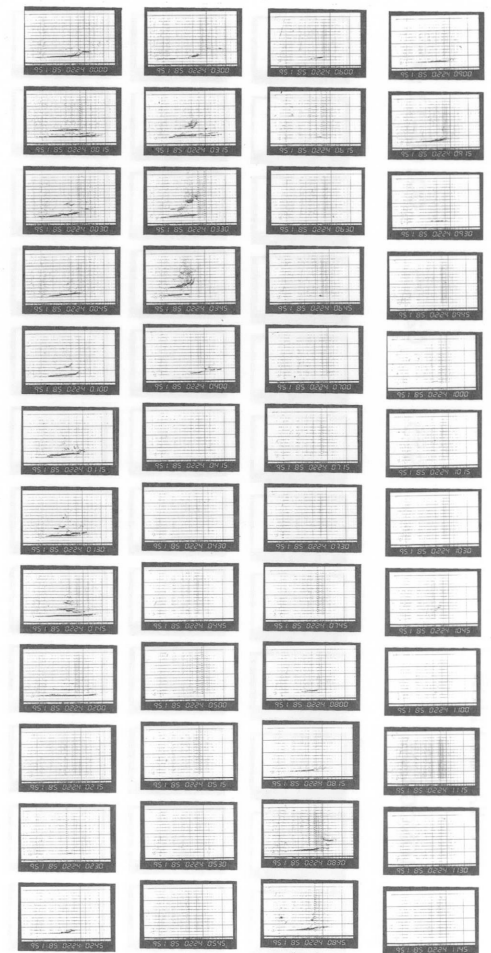
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02 24

00:00-11:45



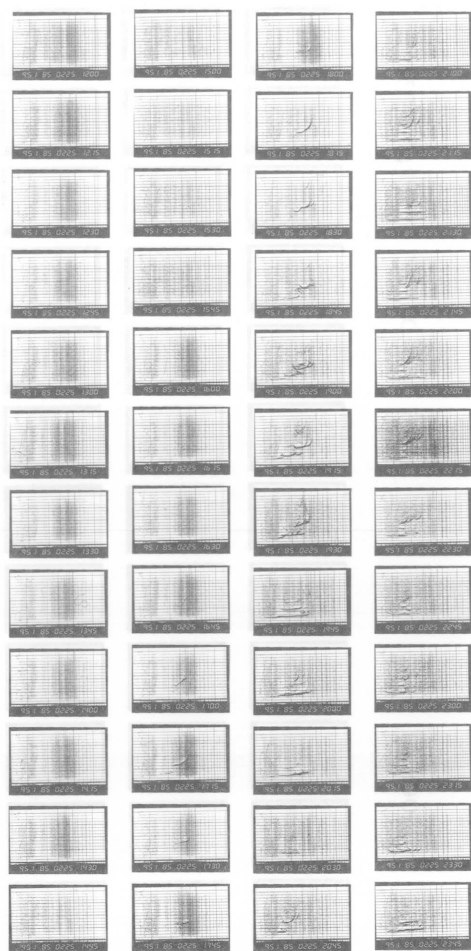
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02 25

12:00-23:45



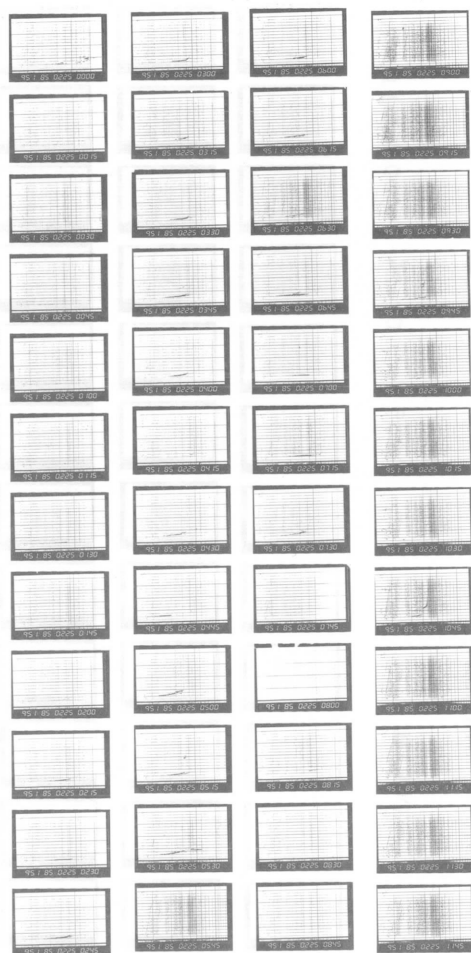
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1985

02 25

00:00-11:45



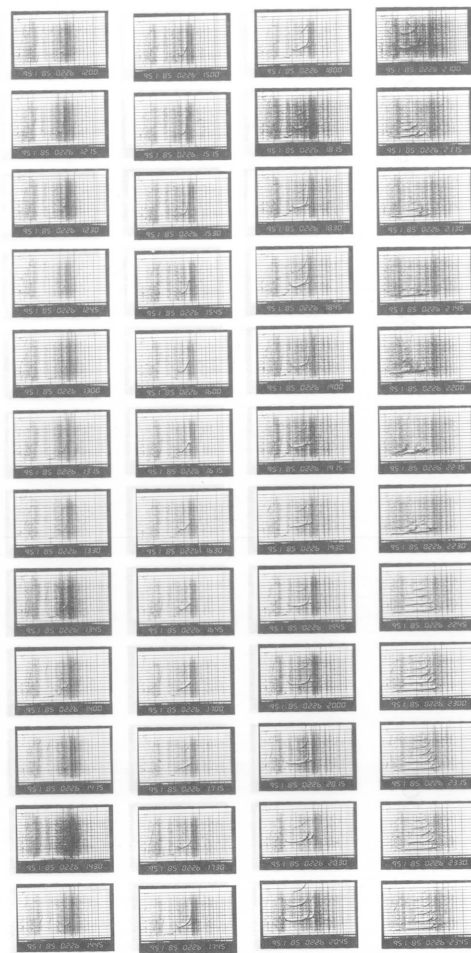
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1985

02 26

12:00-23:45



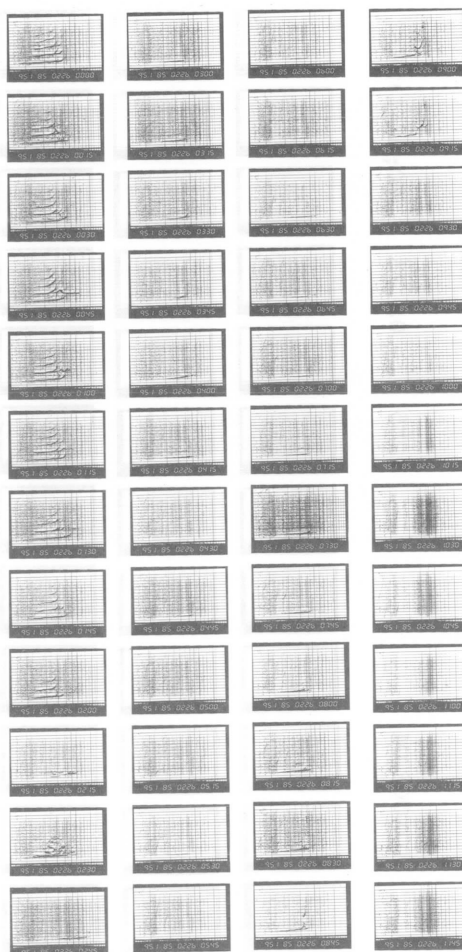
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02 26

00:00-11:45



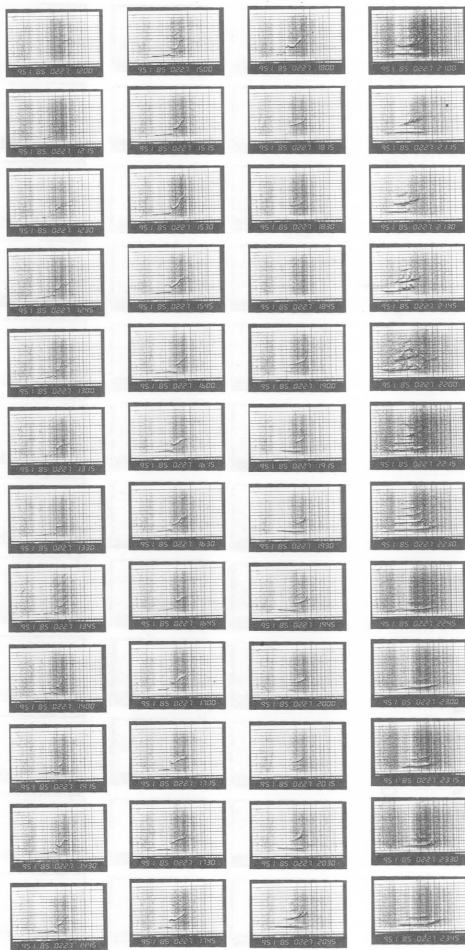
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02 27

12:00-23:45



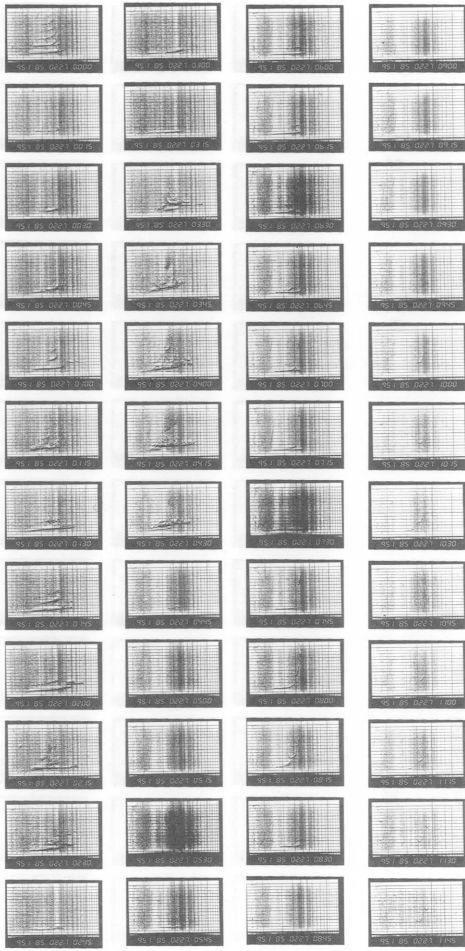
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1985

02 27

00:00-11:45



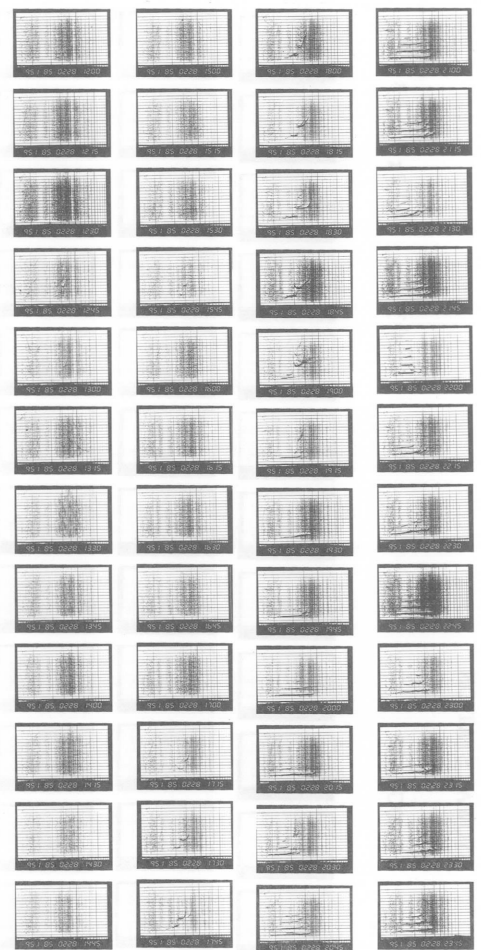
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02 28

12:00-23:45



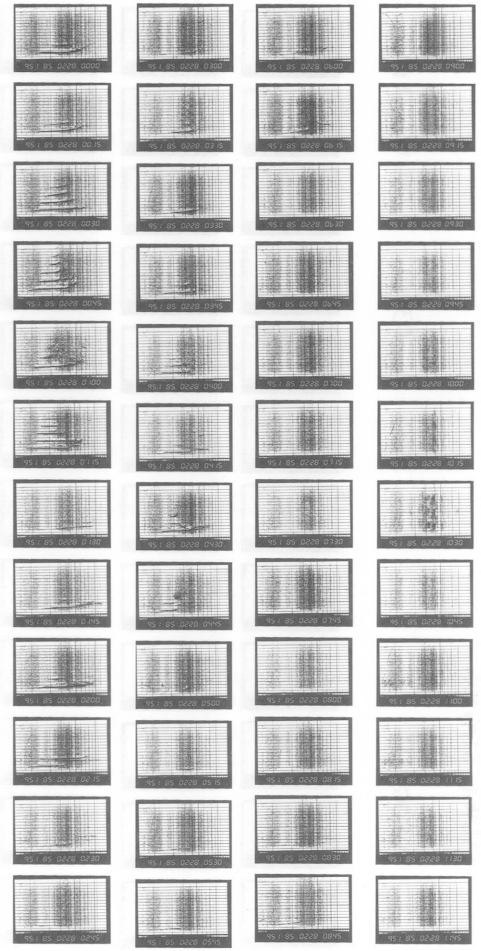
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1985

02 28

00:00-11:45



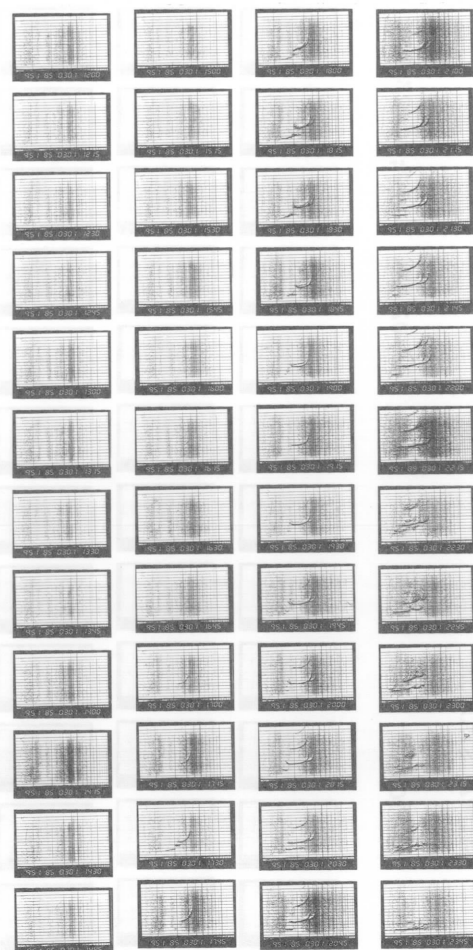
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12:00-23:45

03 01

1985



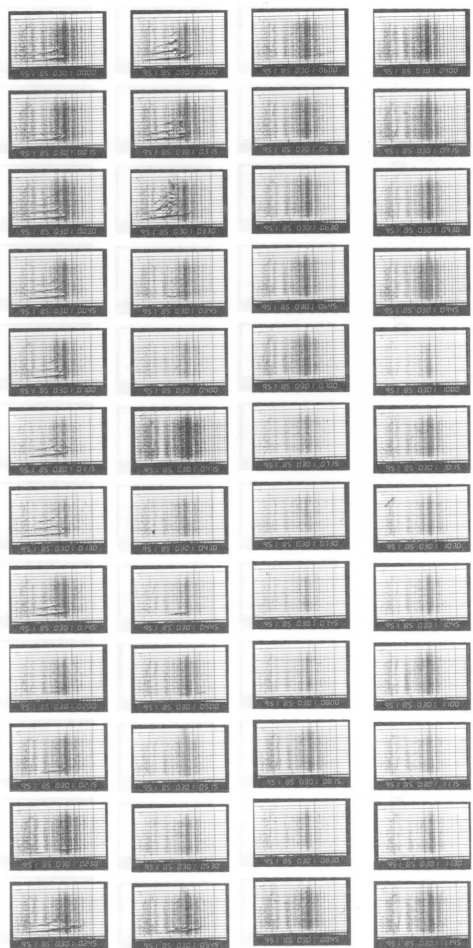
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00:00-11:45

03 01

1985



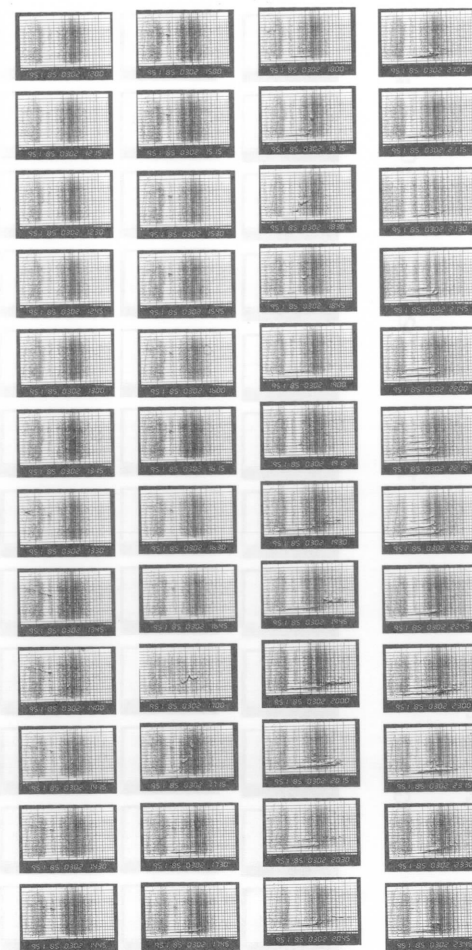
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12:00-23:45

03 02

1985



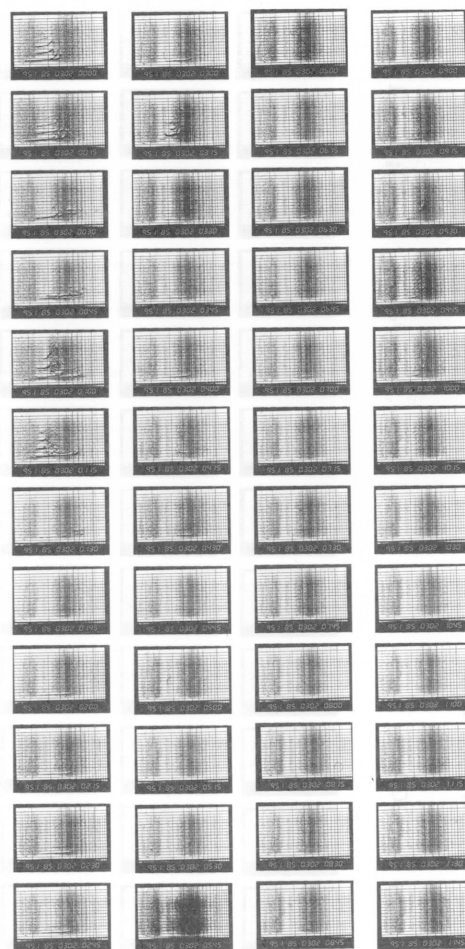
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00:00-11:45

03 02

1985



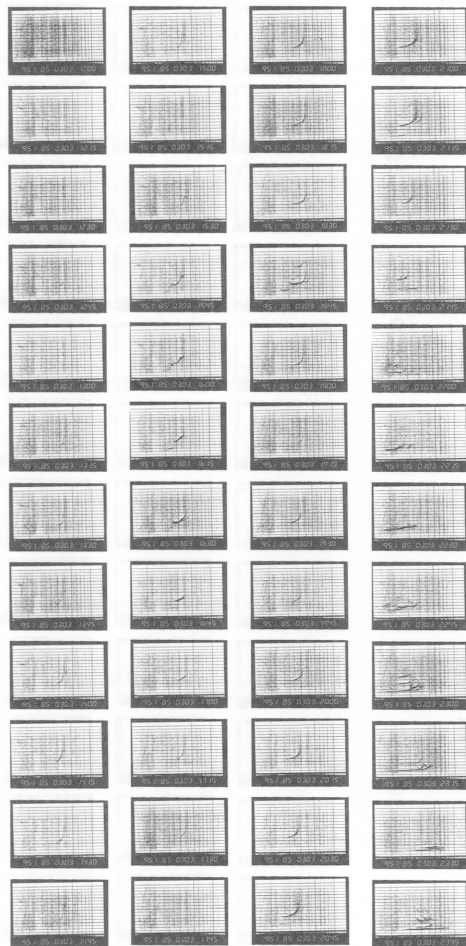
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1985

03 03

12;00-23;45



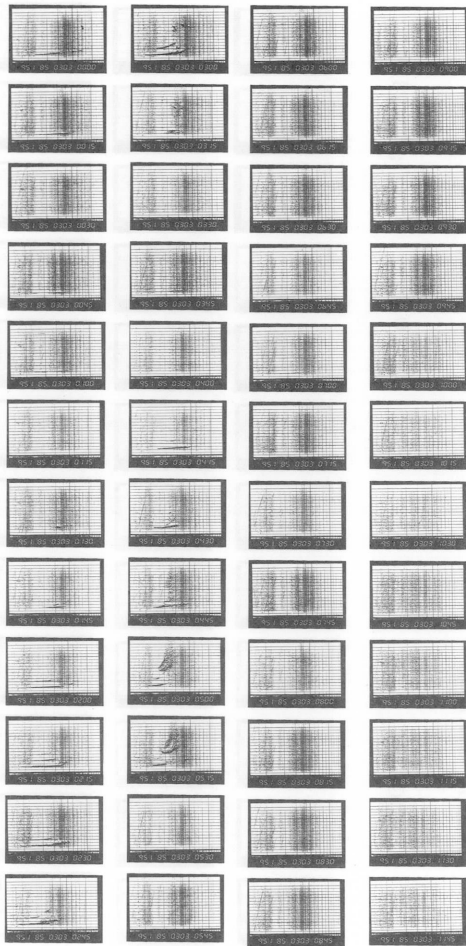
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1985

03 03

00;00-11;45



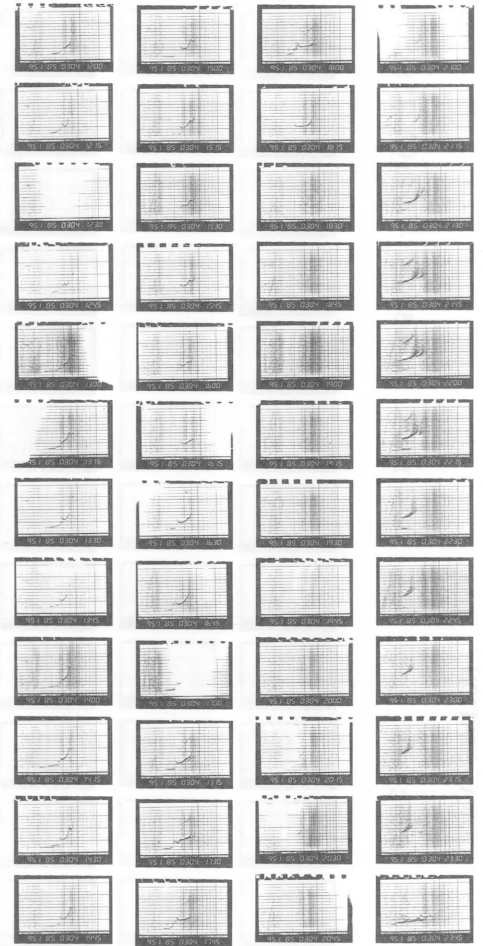
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1985

03 04

12;00-23;45



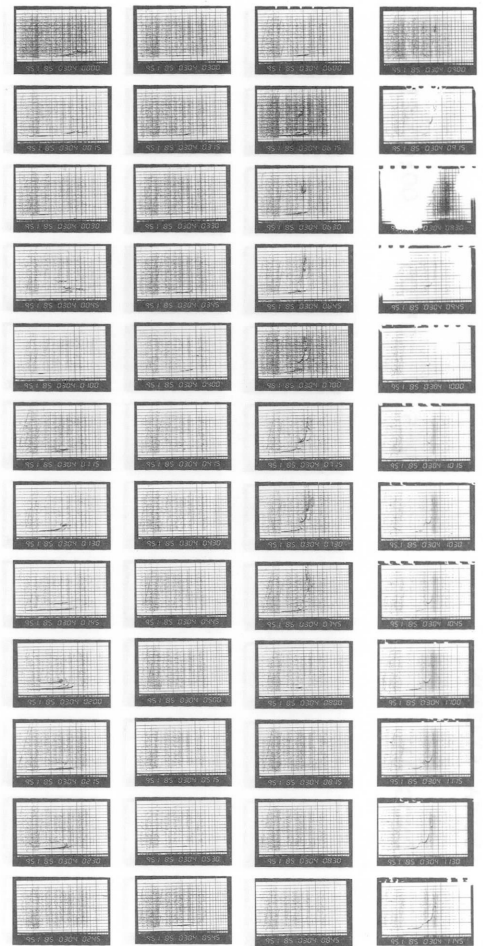
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1985

03 04

00;00-11;45



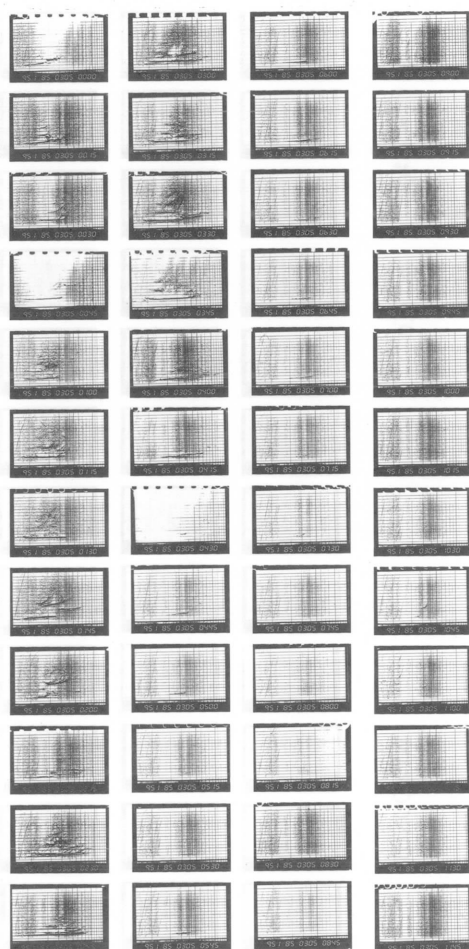
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1985

03 05

00:00-11:45



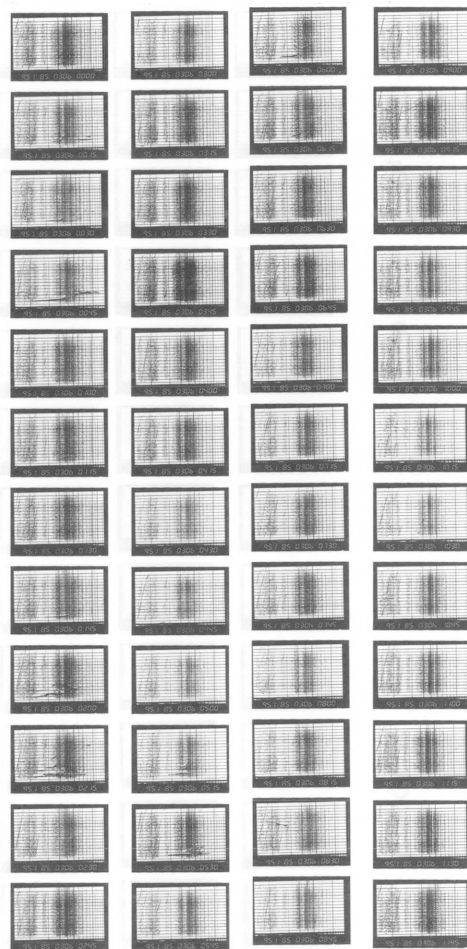
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1985

03 06

00:00-11:45



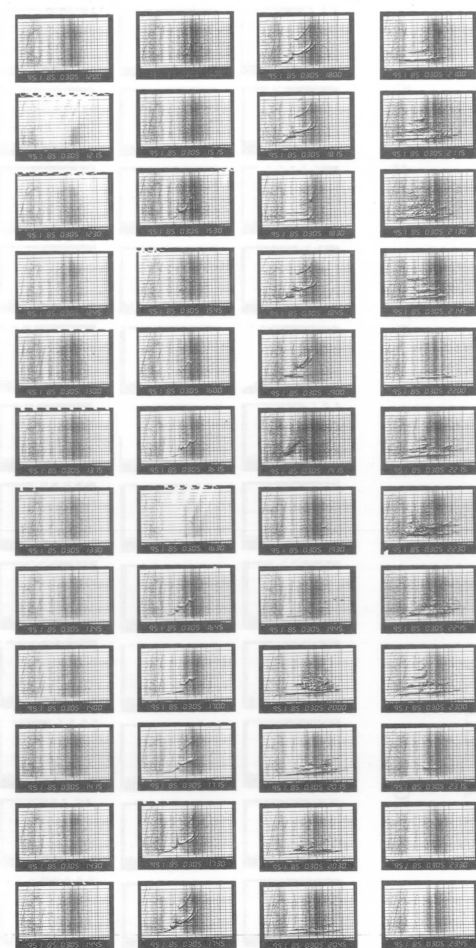
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1985

03 05

12:00-23:45



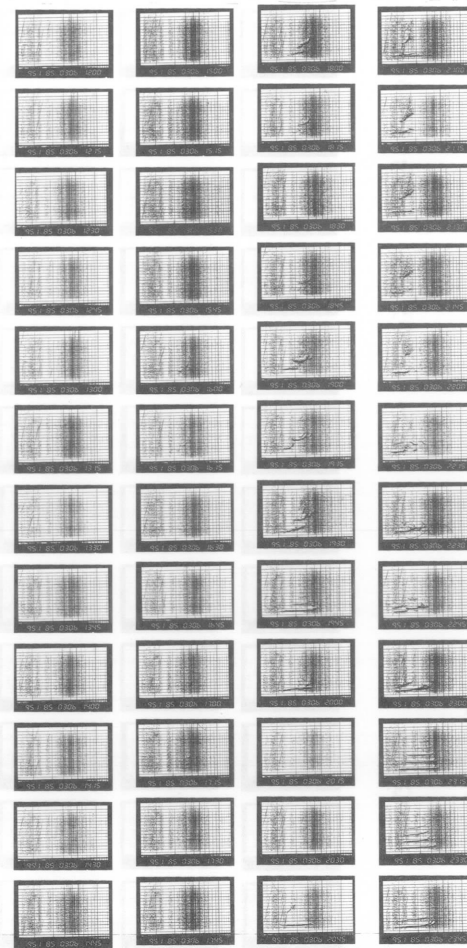
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1985

03 06

12:00-23:45



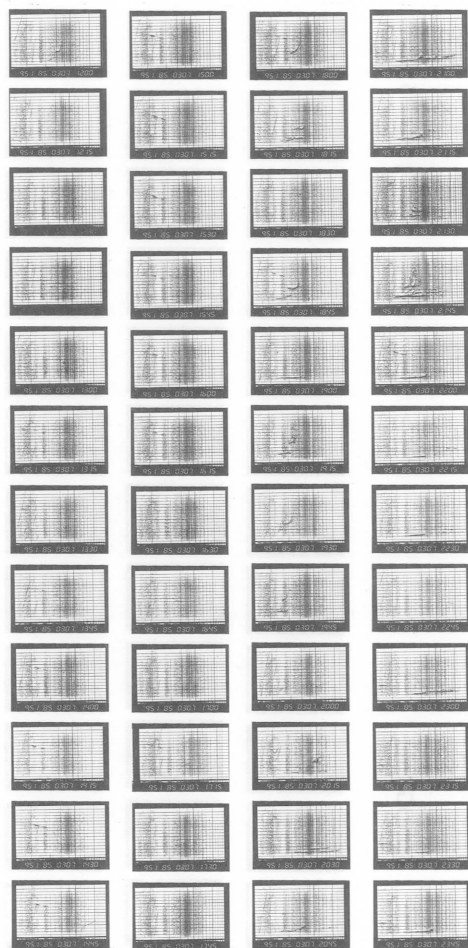
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1985

03 07

12:00-23:45



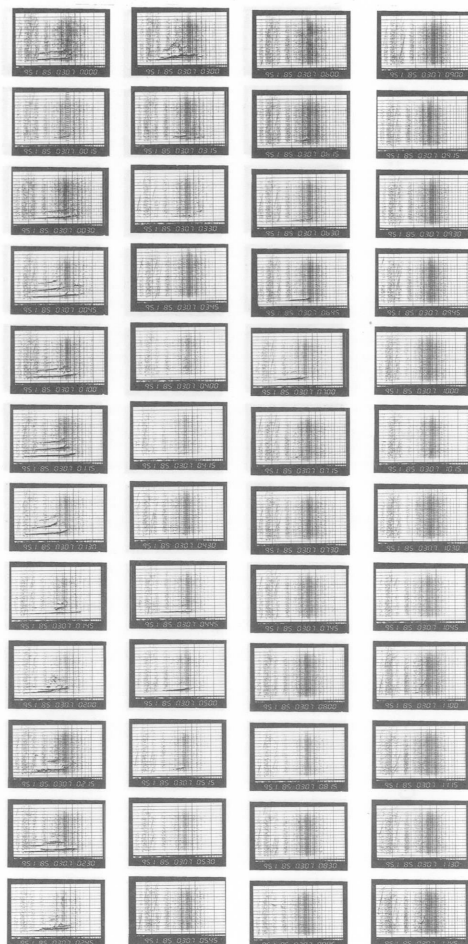
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1985

03 07

00:00-11:45



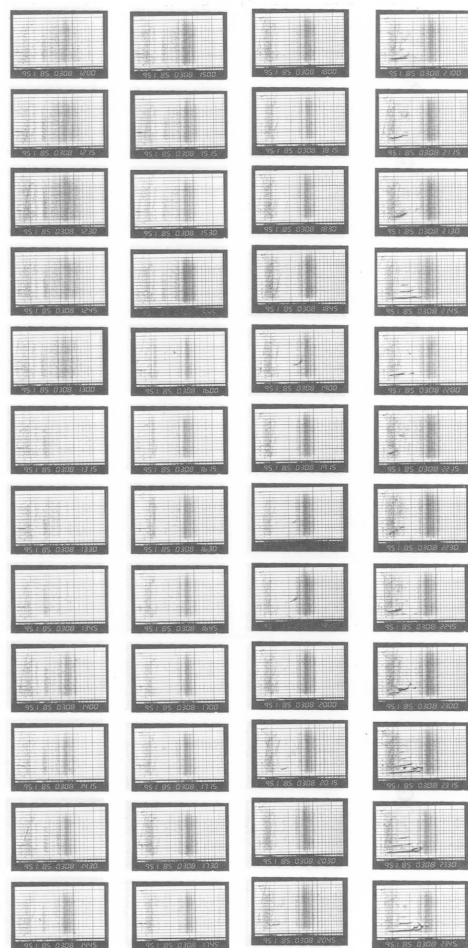
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1985

03 08

12:00-23:45



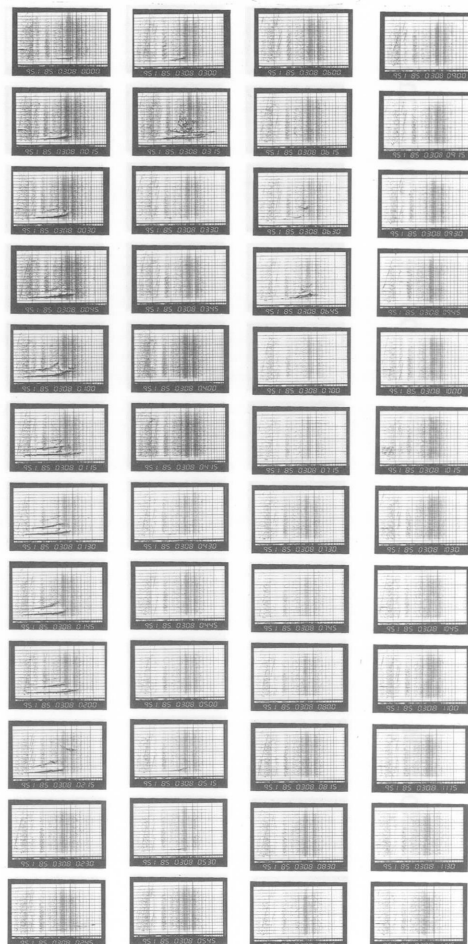
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1985

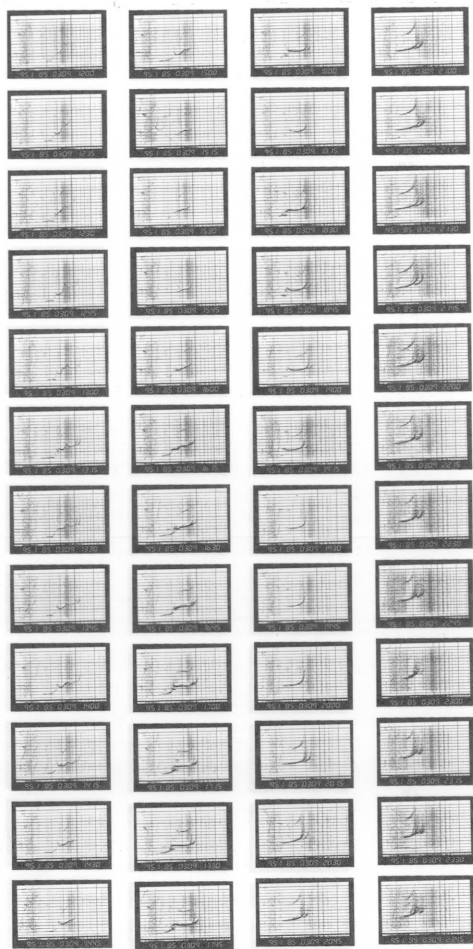
03 08

00:00-11:45



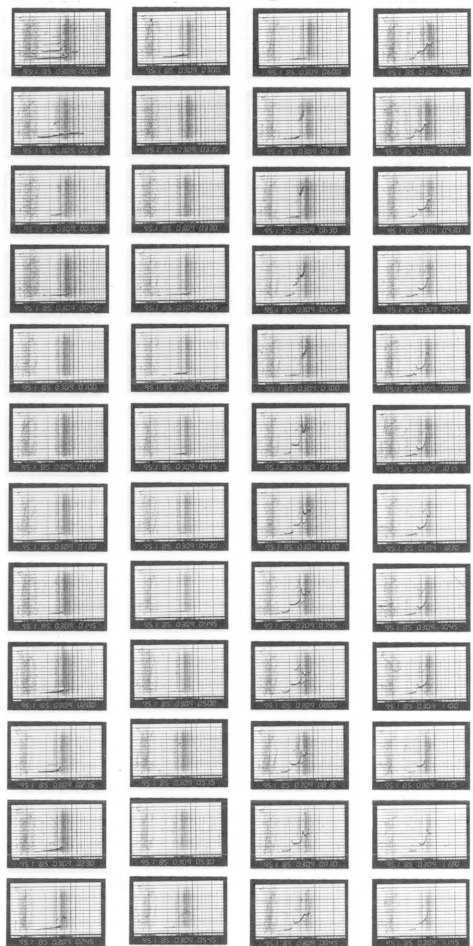
SYOWA STATION

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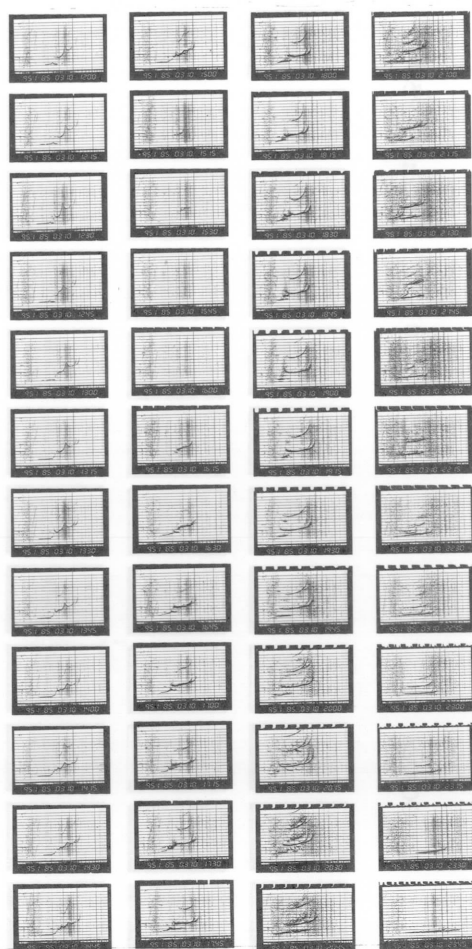
SYOWA STATION

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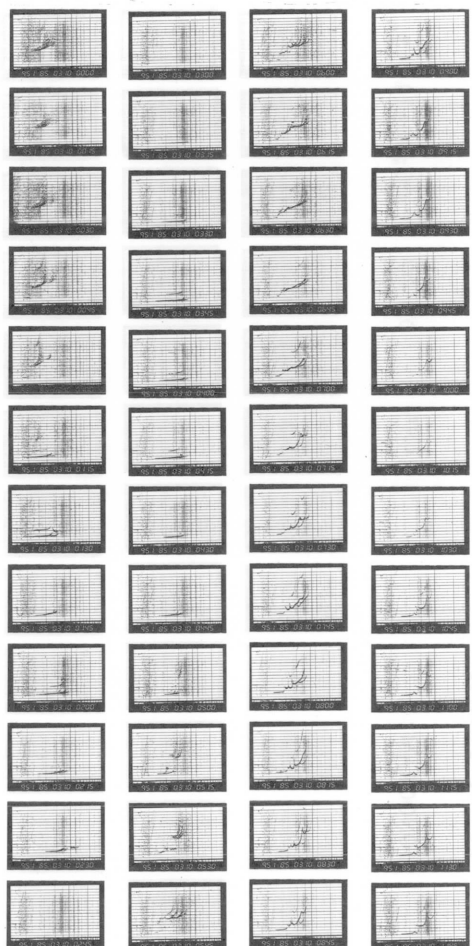
SYOWA STATION

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SYOWA STATION

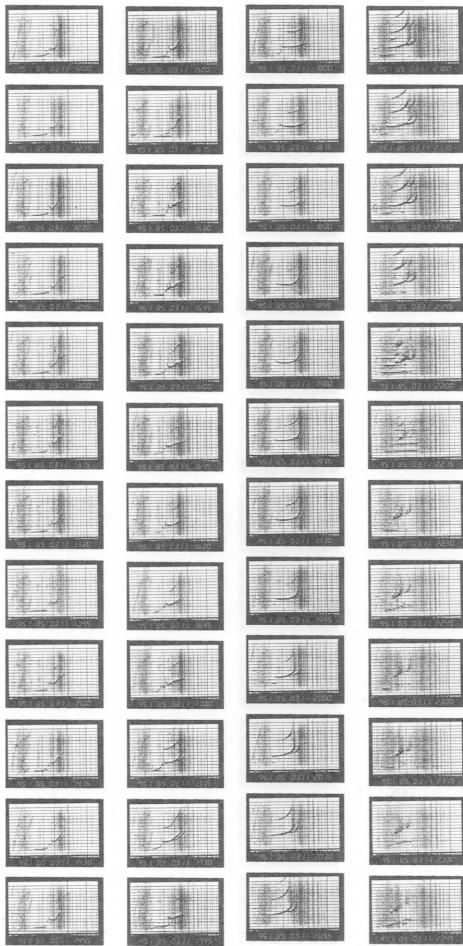
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SYOWA STATION

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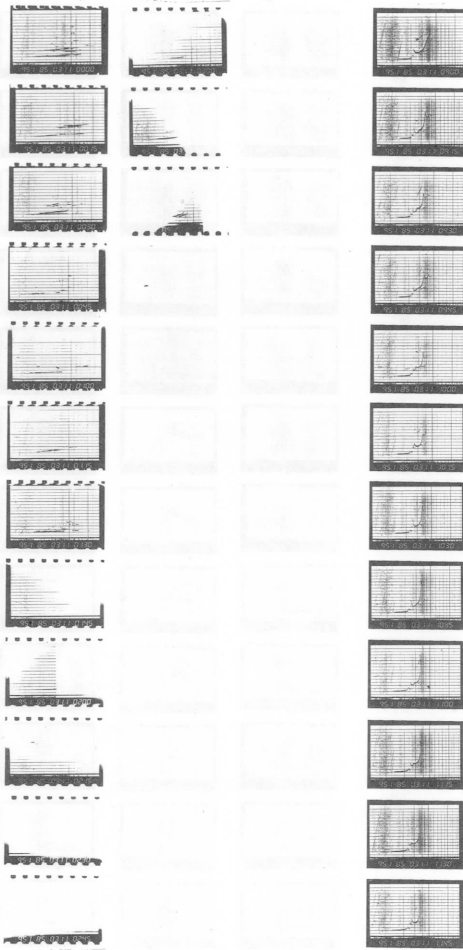
1985 03 11 12:00-23:45



SYOWA STATION

IONOGRAM

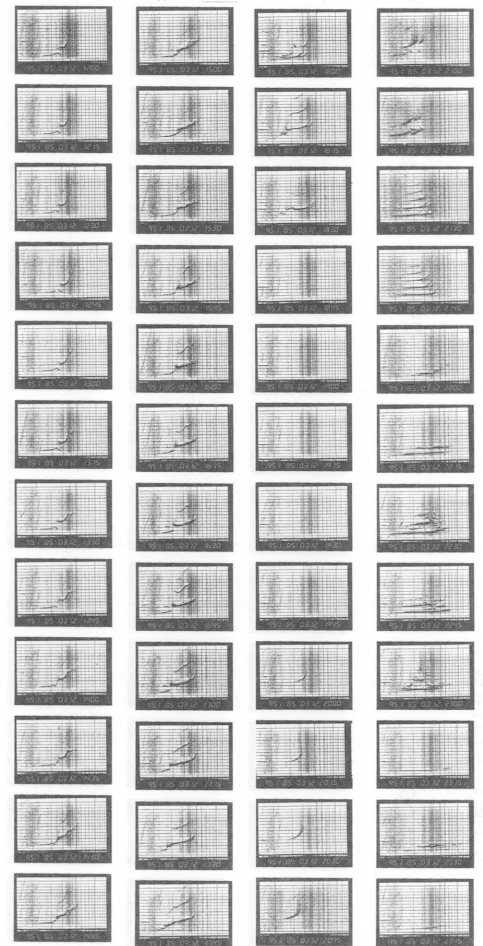
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09:00-11:45



SYOWA STATION

IONOGRAM

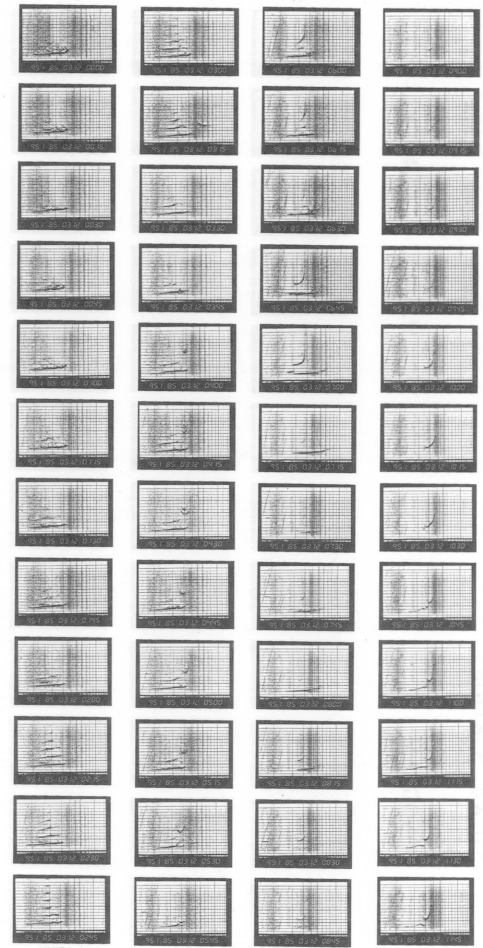
1985 03 12 12:00-23:45



SYOWA STATION

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1985 03 12 00:00-11:45



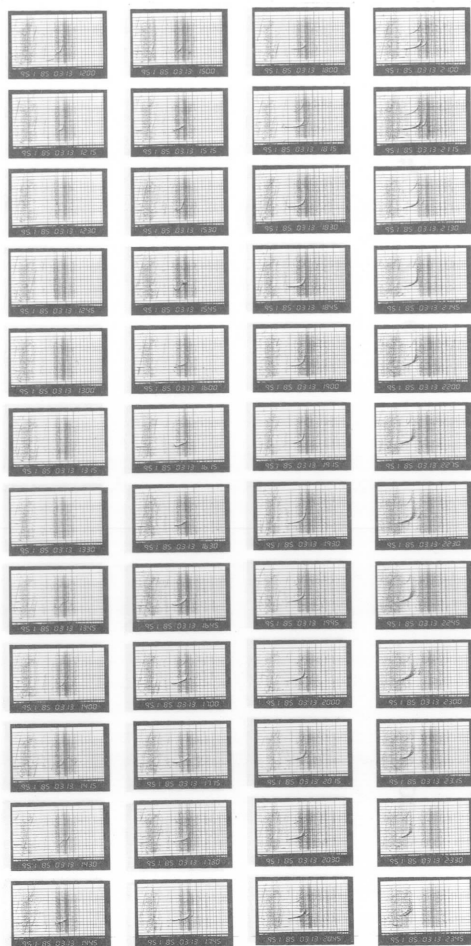
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1985

03 13

12:00-23:45



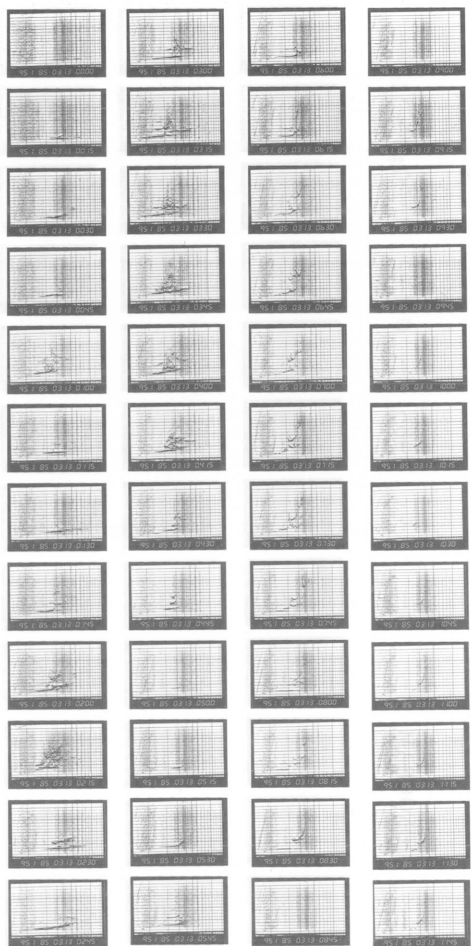
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1985

03 13

00:00-11:45



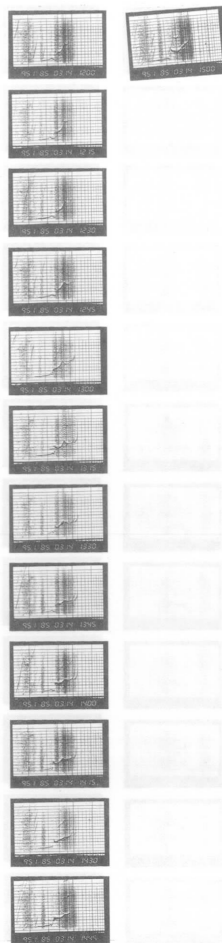
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1985

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12:00-15:00



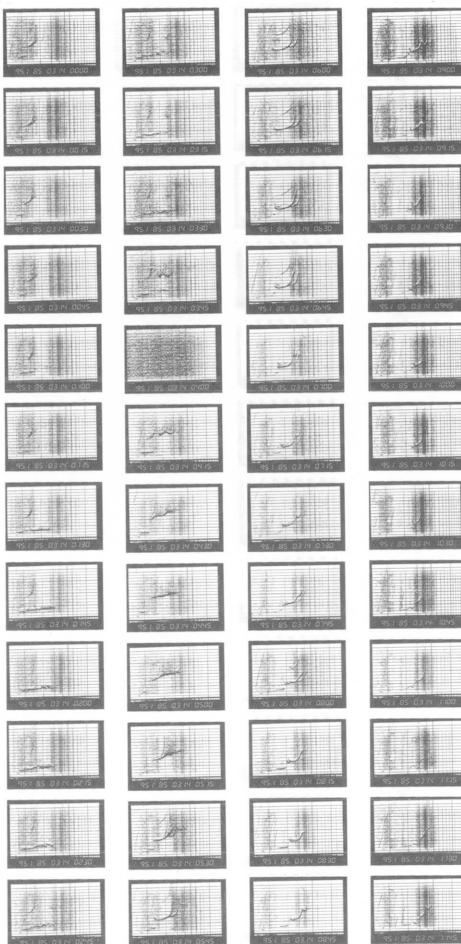
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1985

03 14

00:00-11:45



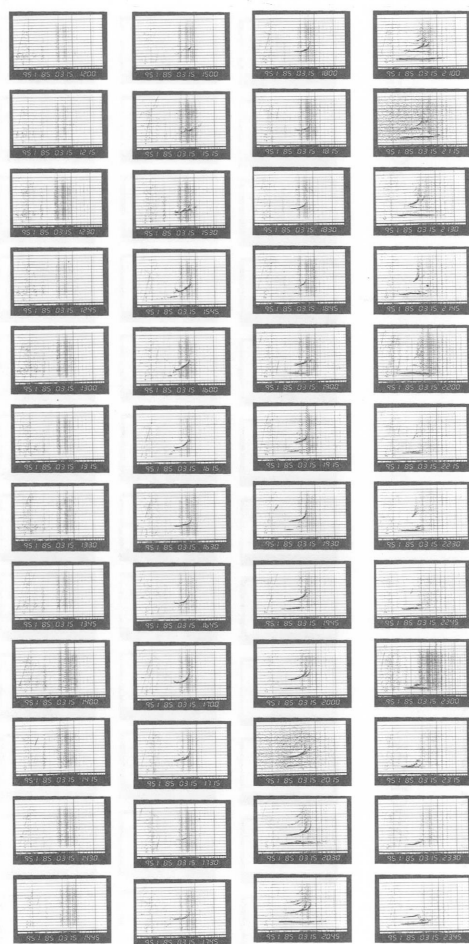
SYOWA STATION

IONOGRAM

1985

03 15

12:00-23:45



SYOWA STATION

IONOGRAM

1985

03 15

09:00-11:45



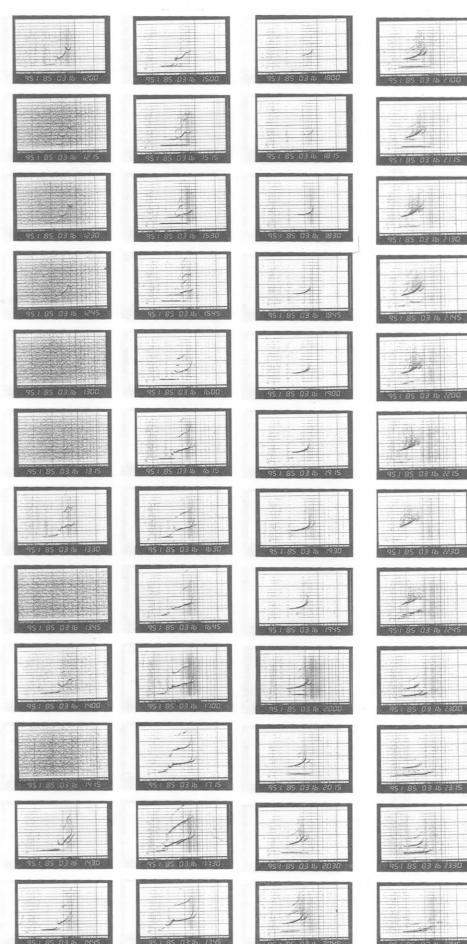
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1985

03 16

12:00-23:45



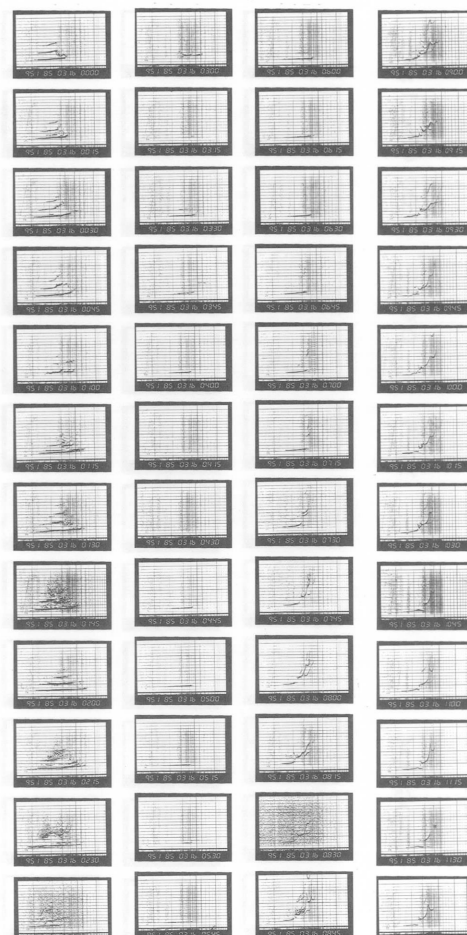
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1985

03 16

00:00-11:45



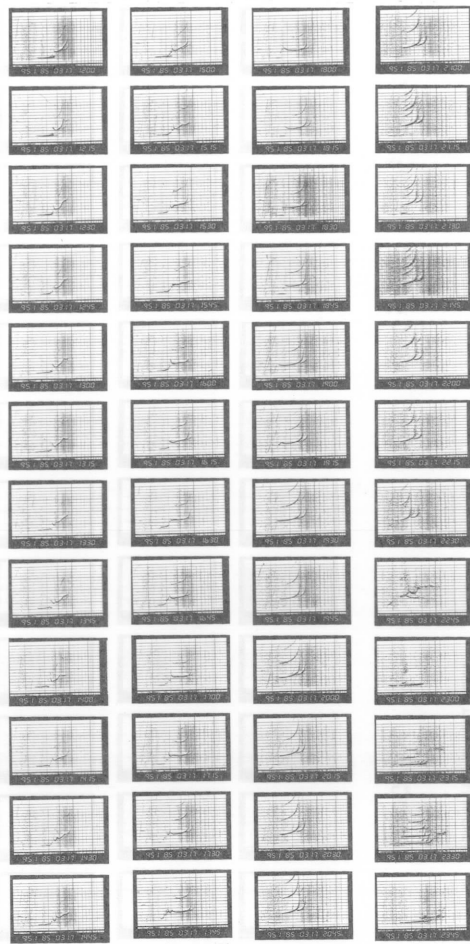
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1985

03 17

12:00-23:45



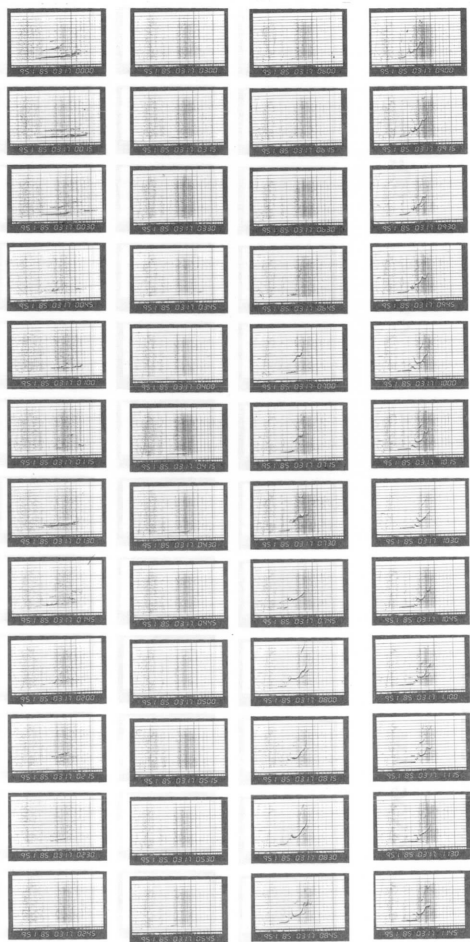
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1985

03 17

00:00-11:45



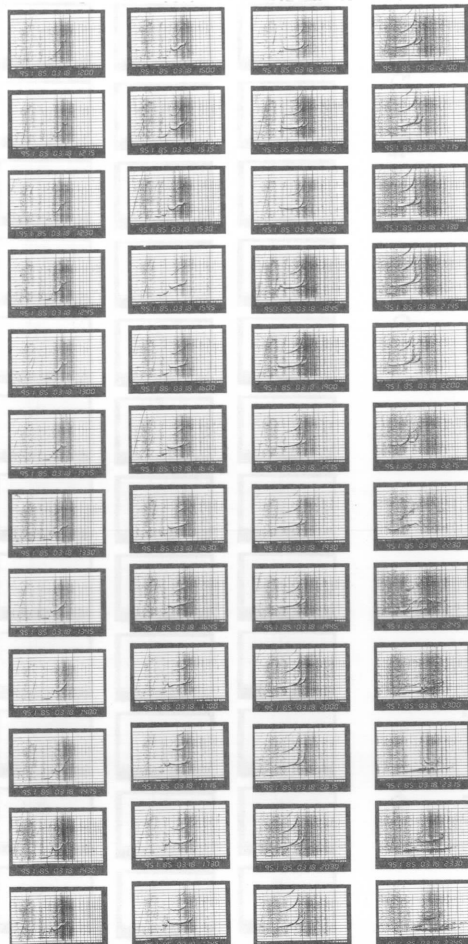
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1985

03 18

12:00-23:45



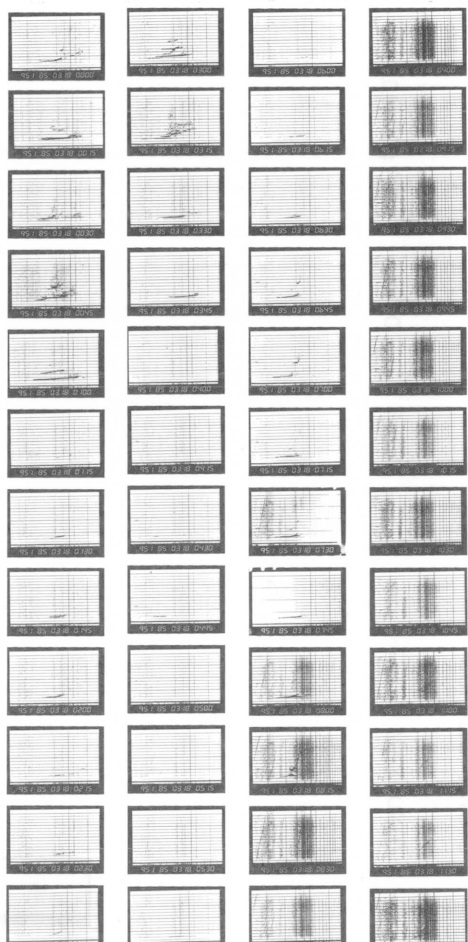
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00:00-11:45



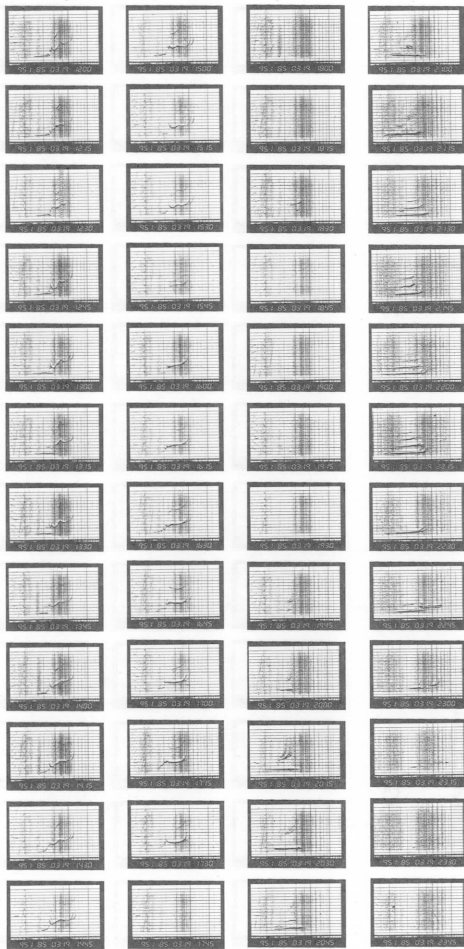
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1985

03 19

12:00-23:45



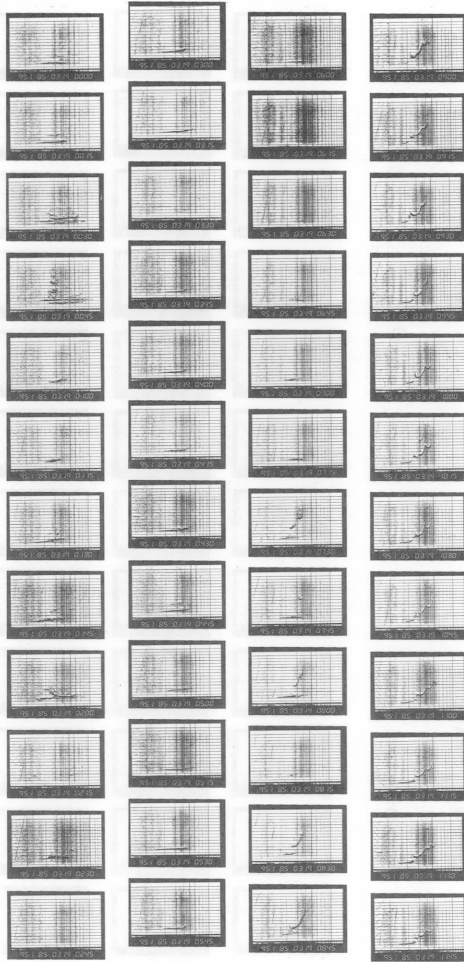
SYOWA STATION

IONOGRAM

1985

03 19

00:00-11:45



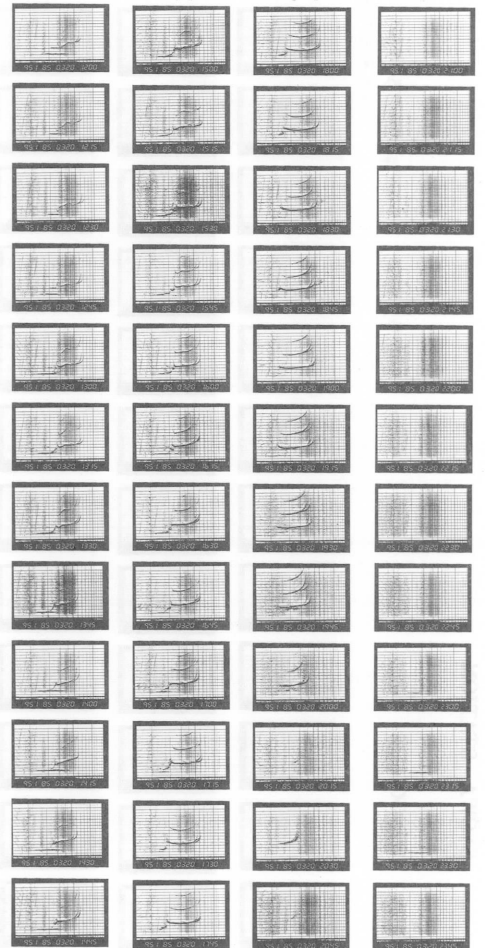
SYOWA STATION

IONOGRAM

1985

03 20

12:00-23:45



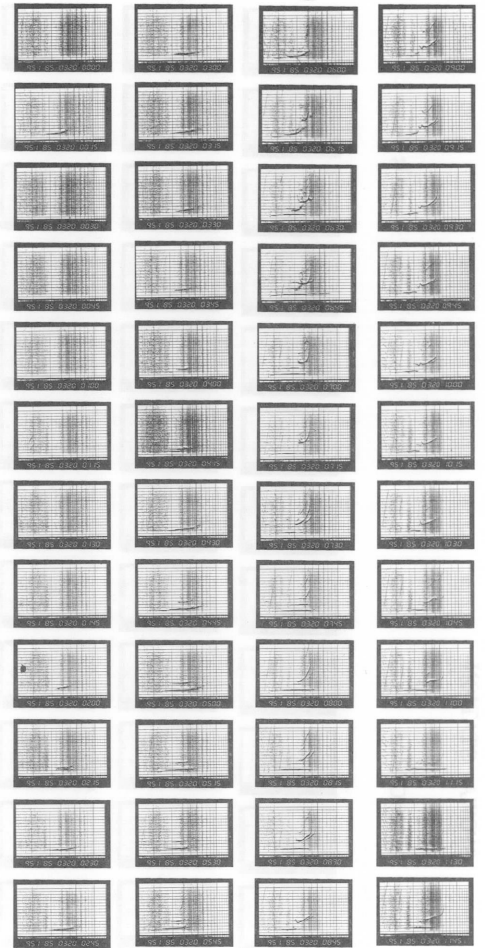
SYOWA STATION

IONOGRAM

1985

03 20

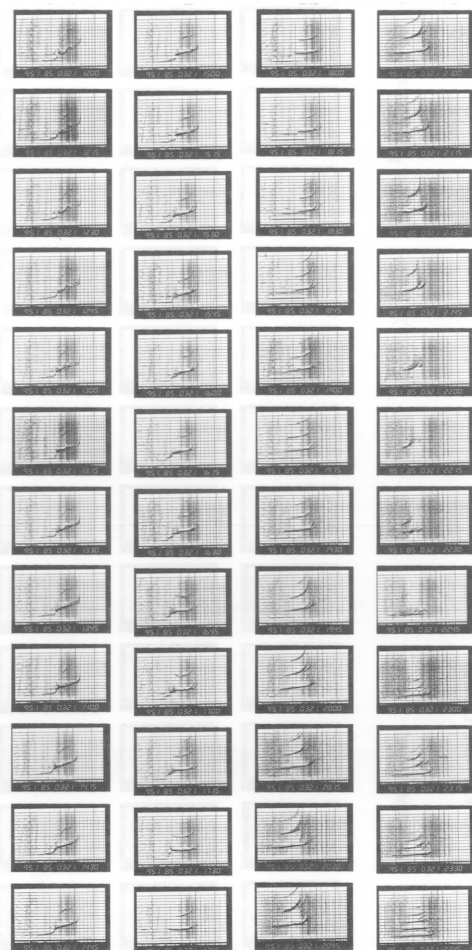
00:00-11:45



SYOWA STATION

IONOGRAM

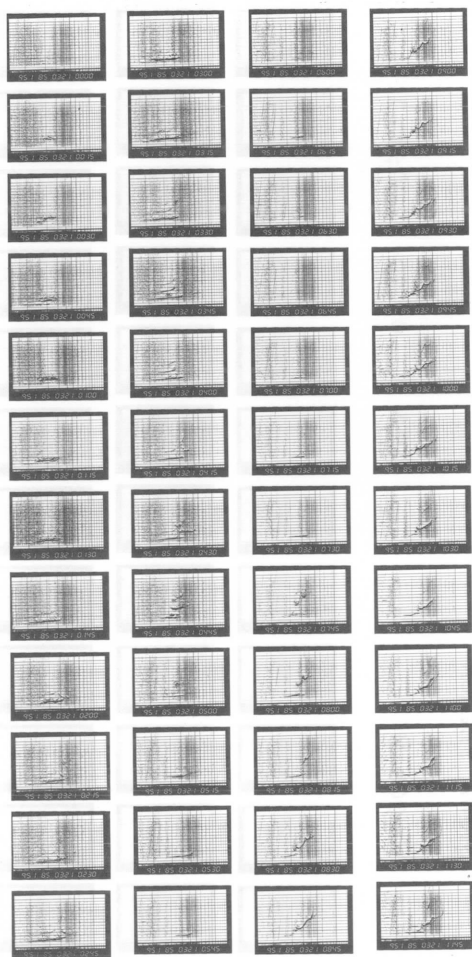
1985 03 21 12:00-23:45



SYOWA STATION

IONOGRAM

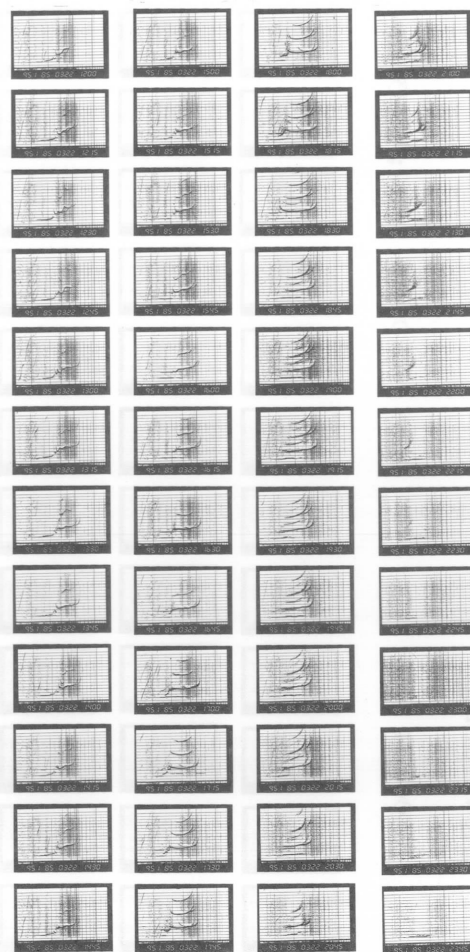
1985 03 21 00:00-11:45



SYOWA STATION

IONOGRAM

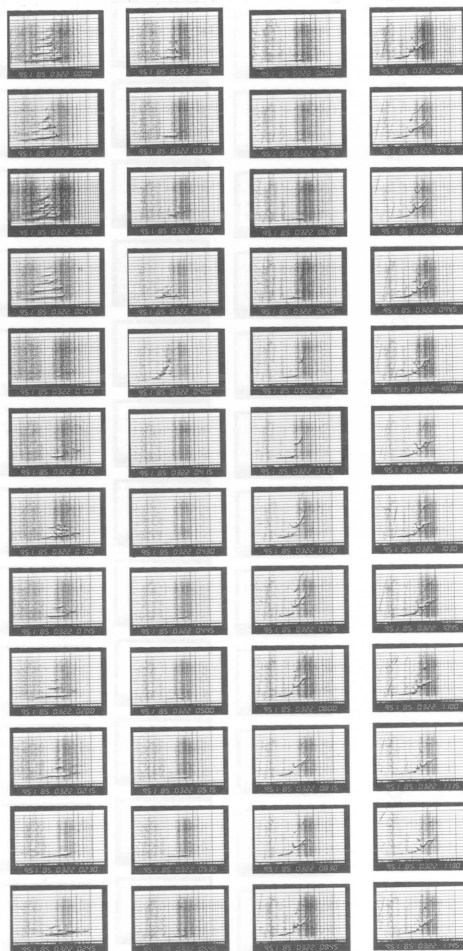
1985 03 22 12:00-23:45



SYOWA STATION

IONOGRAM

1985 03 22 00:00-11:45



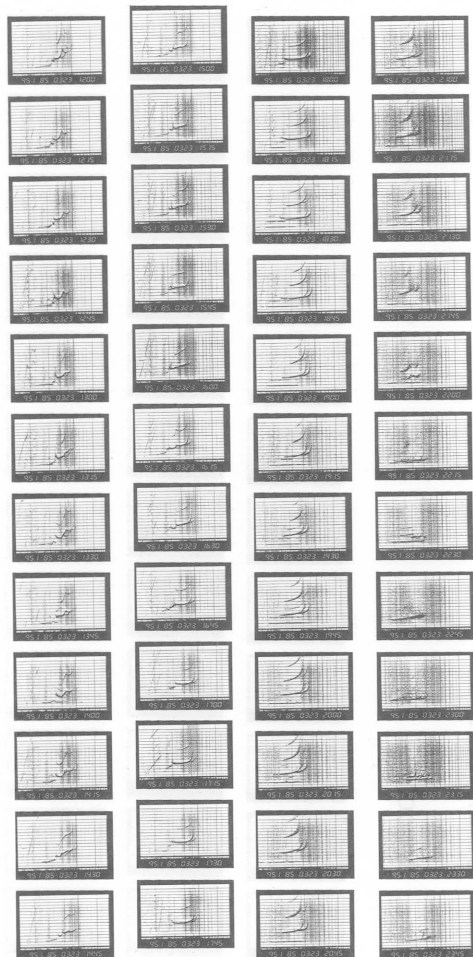
SYOWA STATION

IONOGRAM

1985

03 23

12:00-23:45



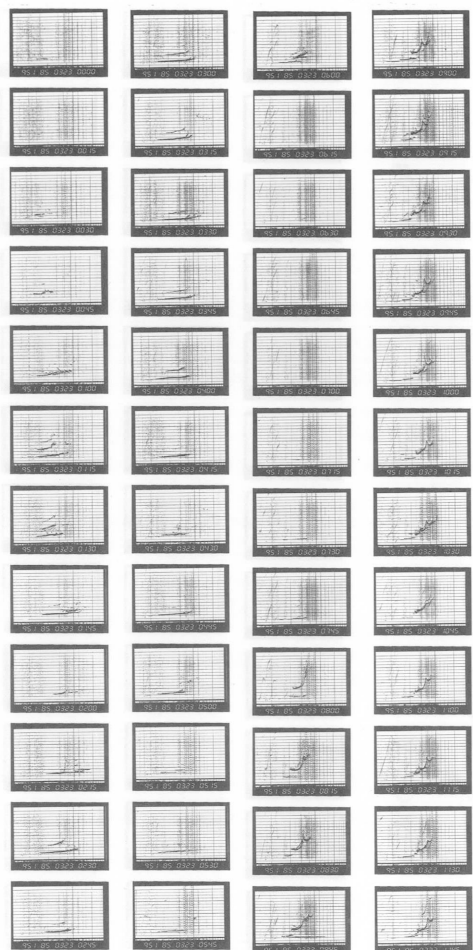
SYOWA STATION

IONOGRAM

1985

03 23

00:00-11:45



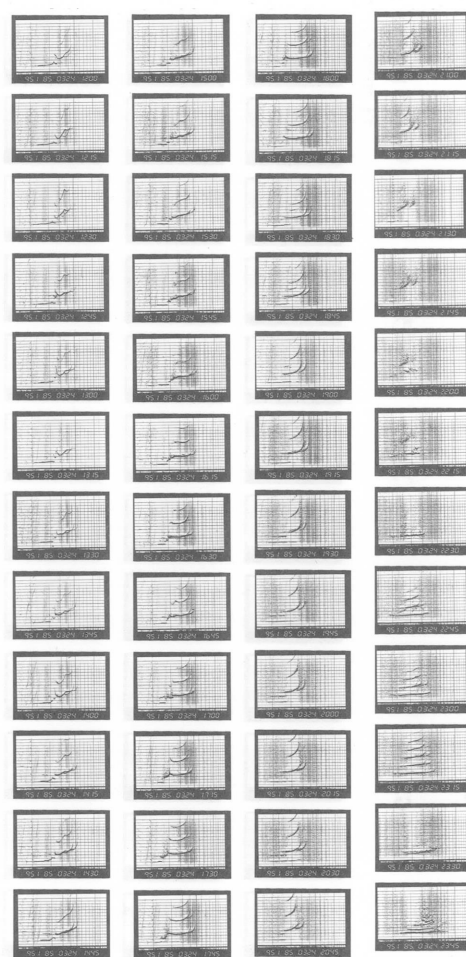
SYOWA STATION

IONOGRAM

1985

03 24

12:00-23:45



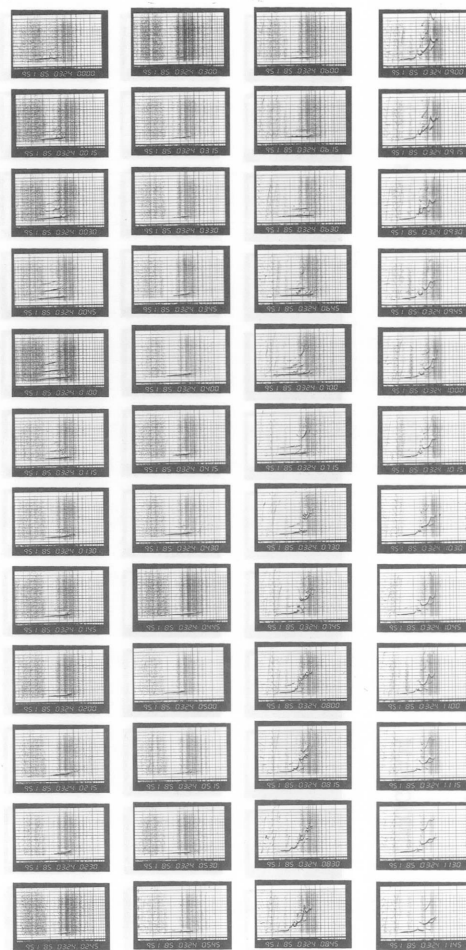
SYOWA STATION

IONOGRAM

1985

03 24

00:00-11:45



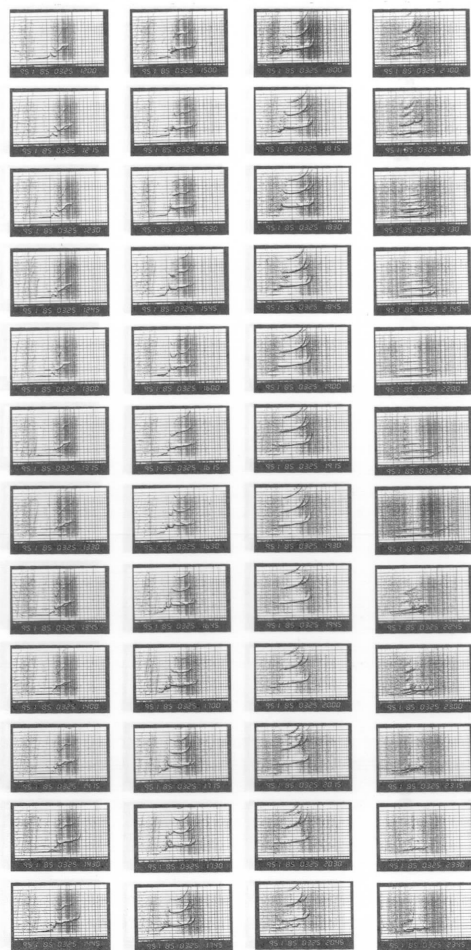
SYOWA STATION

IONOGRAM

1985

03 25

12:00-23:45



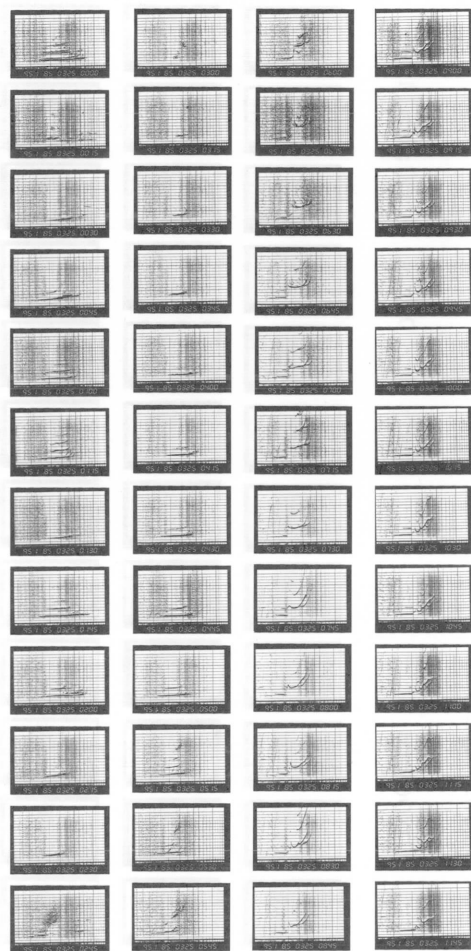
SYOWA STATION

IONOGRAM

1985

03 25

00:00-11:45



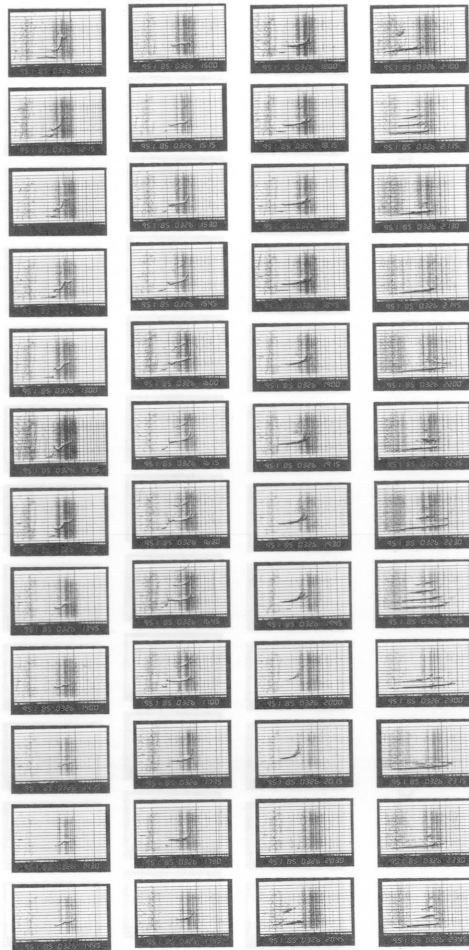
SYOWA STATION

IONOGRAM

1985

03 26

12:00-23:45



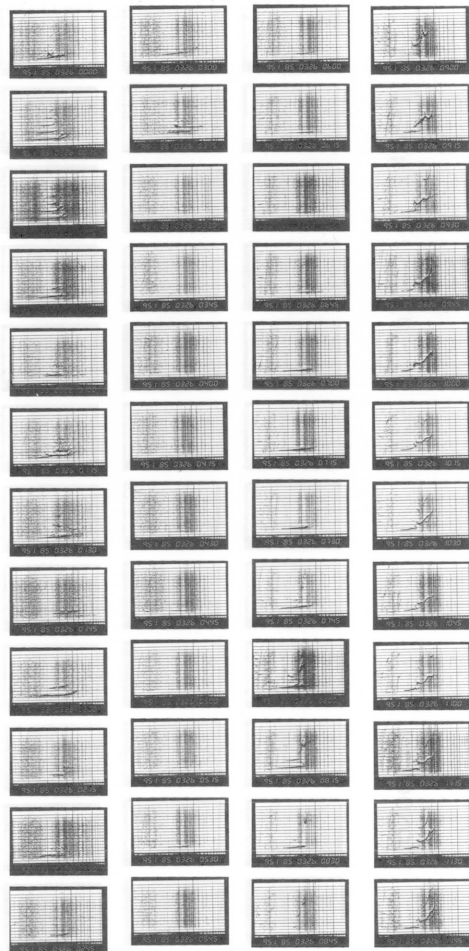
SYOWA STATION

IONOGRAM

1985

03 26

00:00-11:45



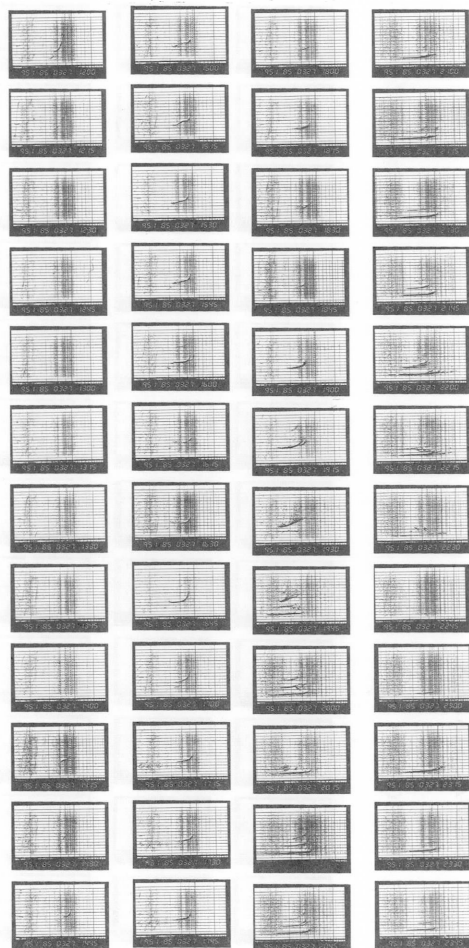
SYOWA STATION

IONOGRAM

1985

03 27

12:00-23:45



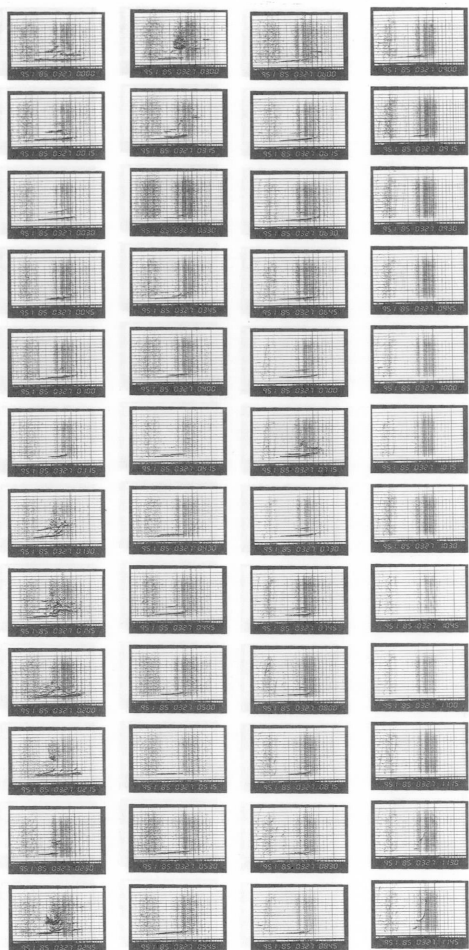
SYOWA STATION

IONOGRAM

1985

03 27

00:00-11:45

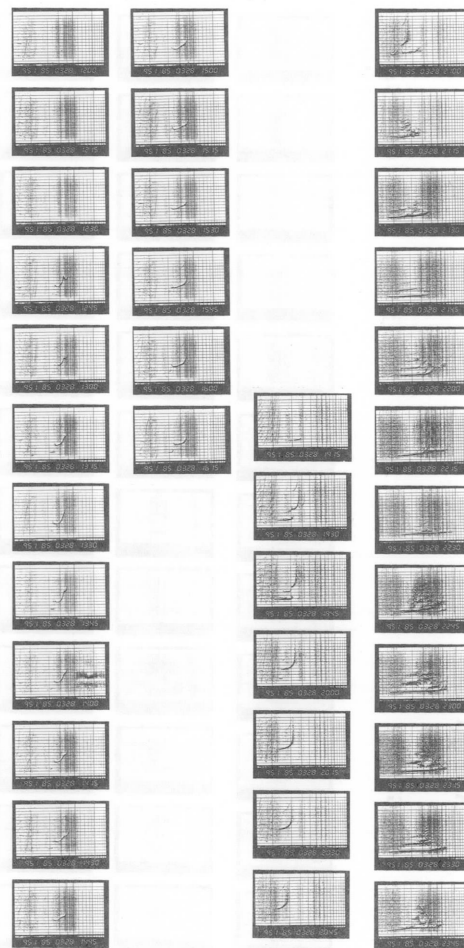


SYOWA STATION

IONOGRAM

1985

03 28

12:00-16:15
19:15-23:45

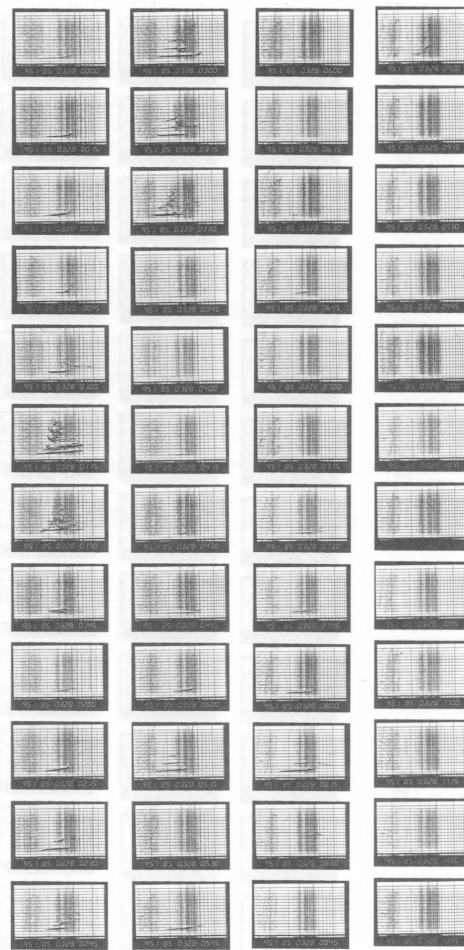
SYOWA STATION

IONOGRAM

1985

03 28

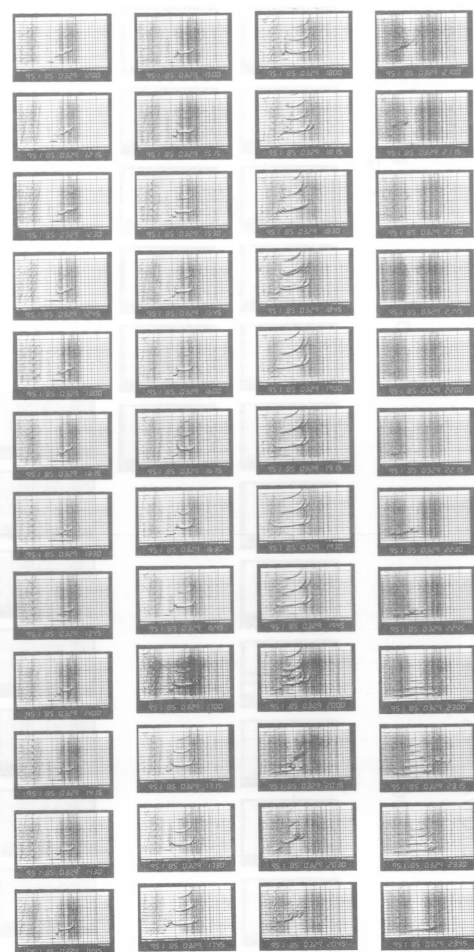
00:00-11:45



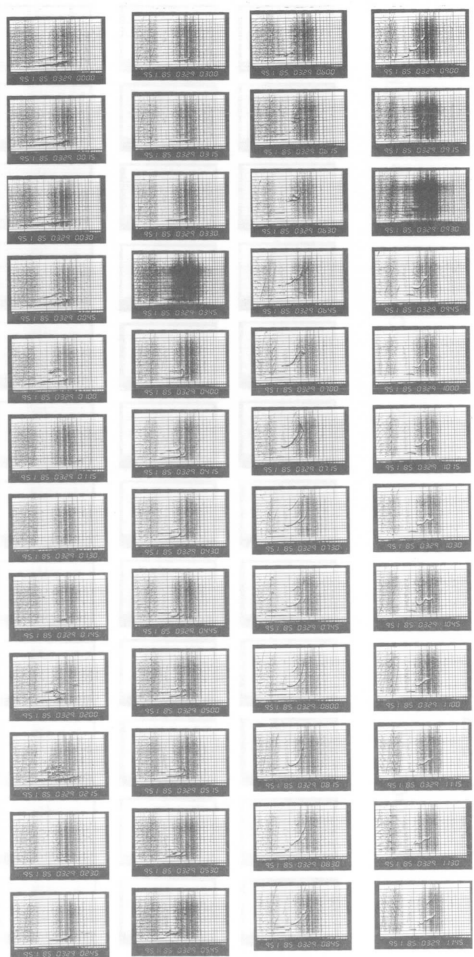
SYOWA STATION

IONOGRAM

1985 03 29 12:00-23:45



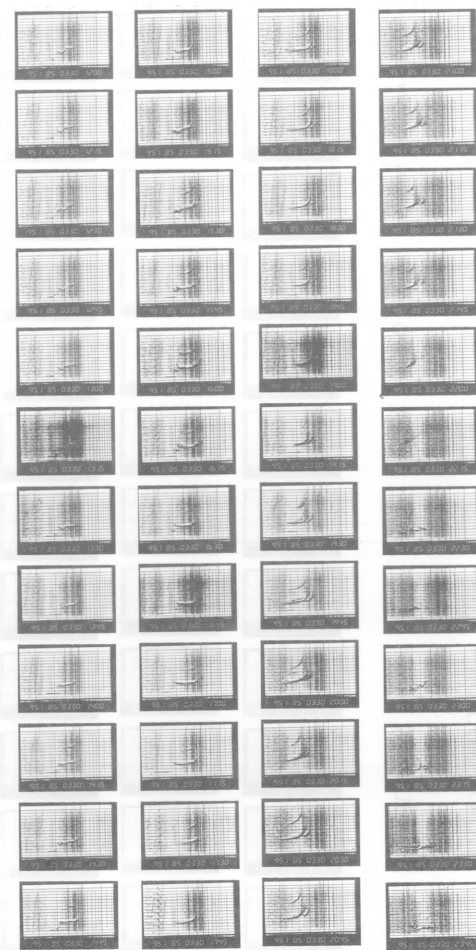
1985 03 29 00:00-11:45



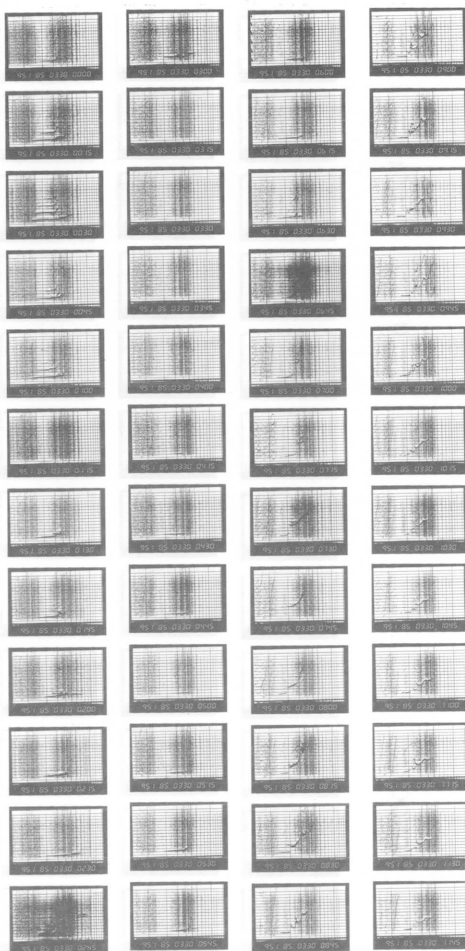
SYOWA STATION

IONOGRAM

1985 03 30 12:00-23:45



1985 03 30 00:00-11:45



SYOWA STATION

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SYOWA STATION

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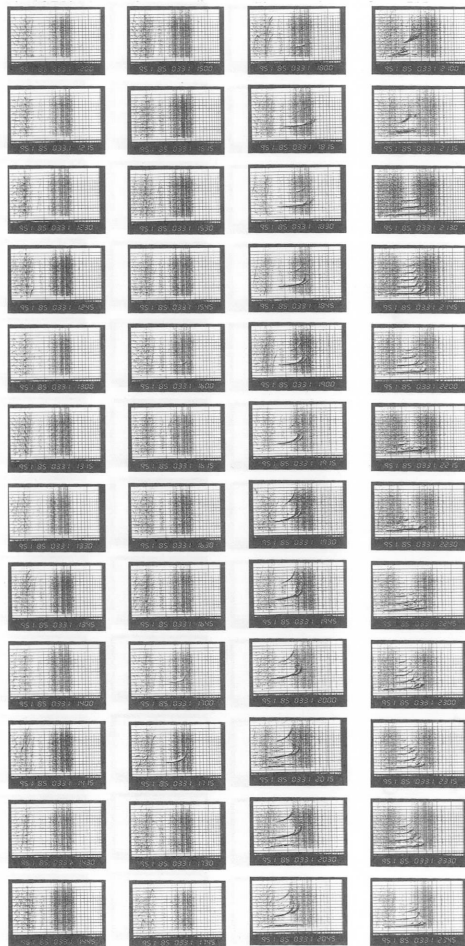
SYOWA STATION

IONOGRAM

1985

03 31

12:00-23:45



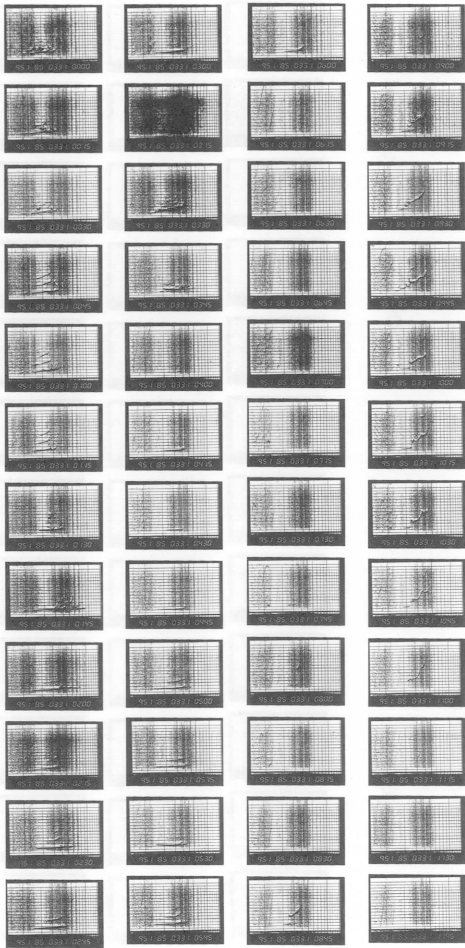
SYOWA STATION

IONOGRAM

1985

03 31

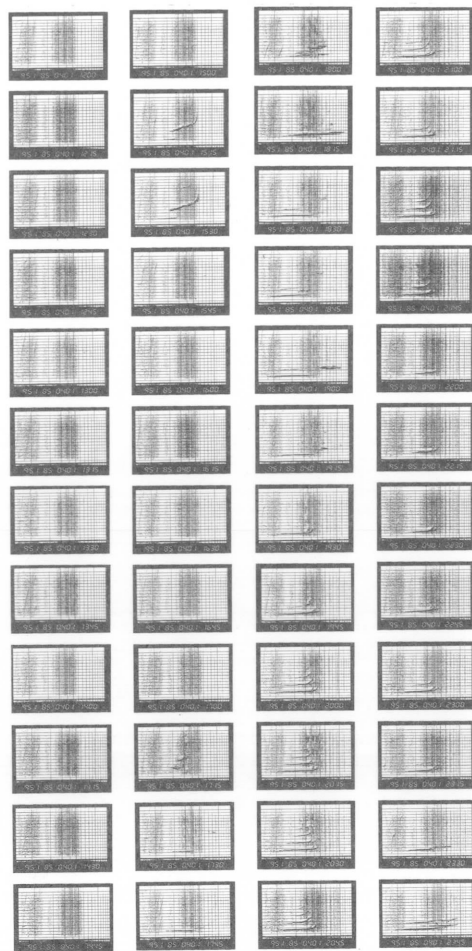
00:00-11:45



SYOWA STATION

IONOGRAM

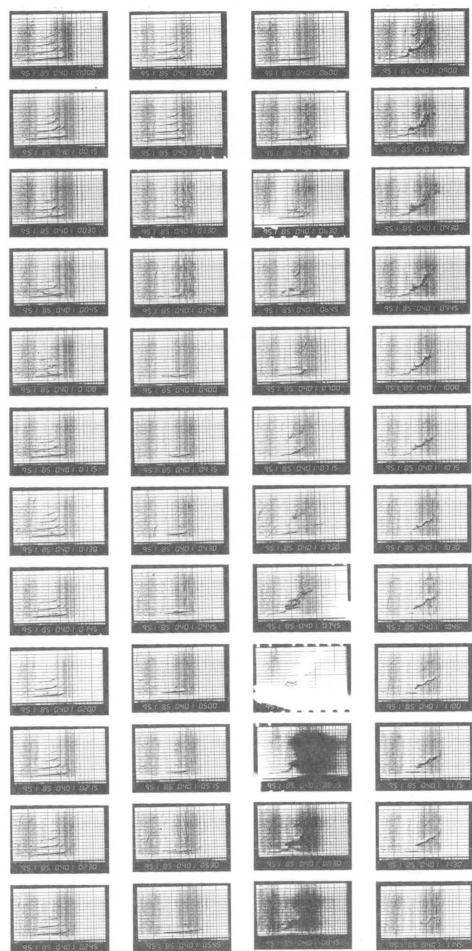
1985 04 01 12:00-23:45



SYOWA STATION

IONOGRAM

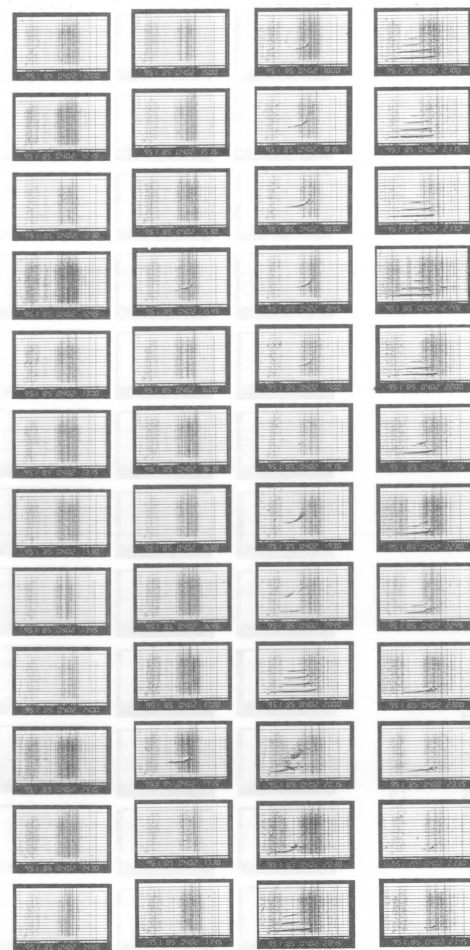
1985 04 01 00:00-11:45



SYOWA STATION

IONOGRAM

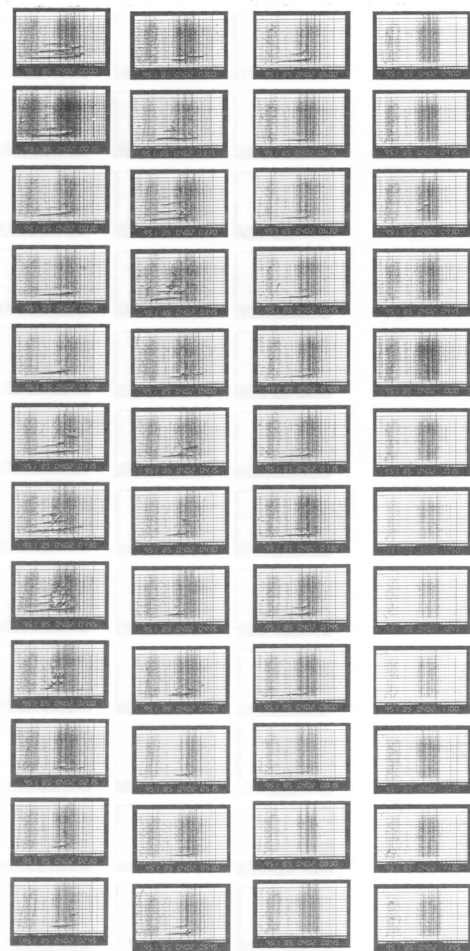
1985 04 02 12:00-23:45



SYOWA STATION

IONOGRAM

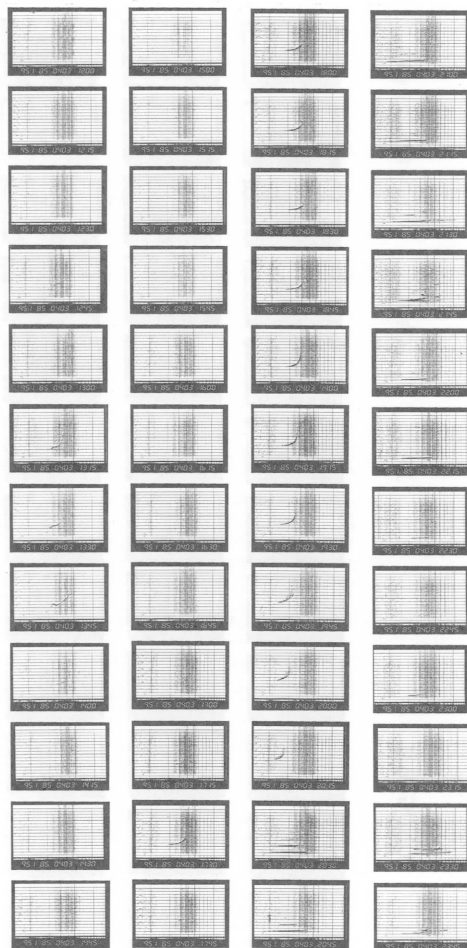
1985 04 02 00:00-11:45



SYOWA STATION

IONOGRAM

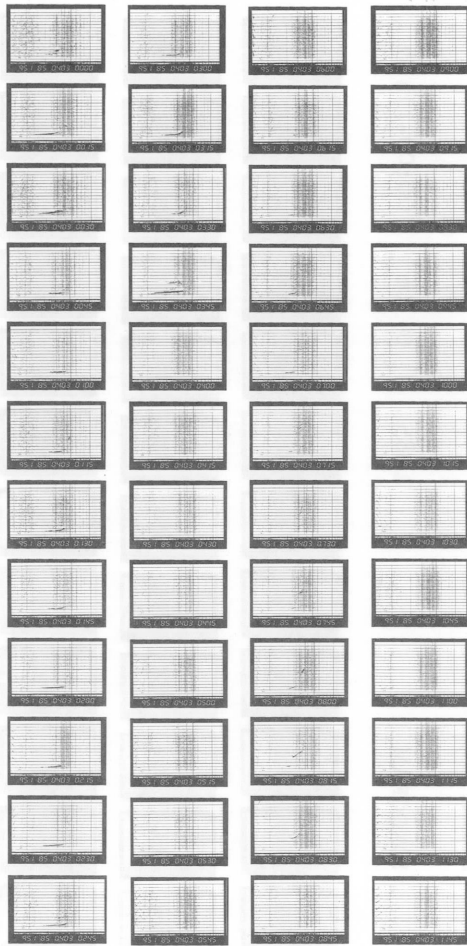
1985 04 03 12:00-23:45



SYOWA STATION

IONOGRAM

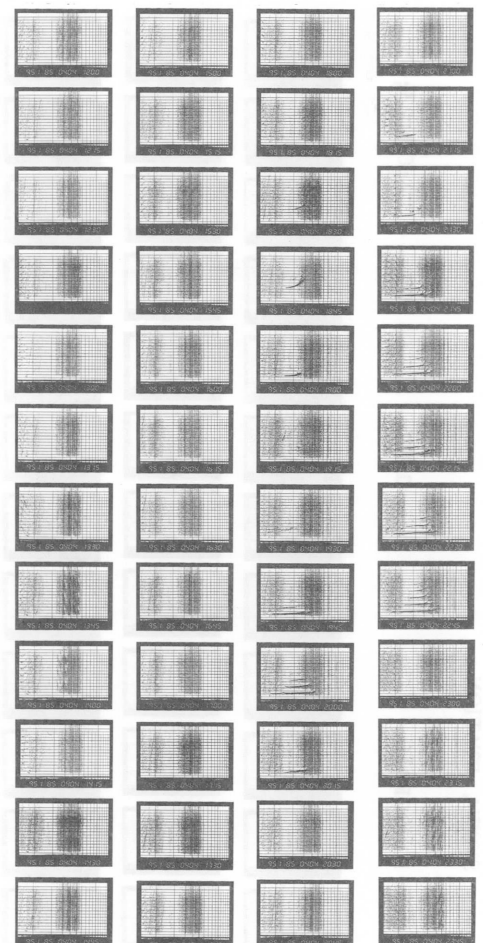
1985 04 03 00:00-11:45



SYOWA STATION

IONOGRAM

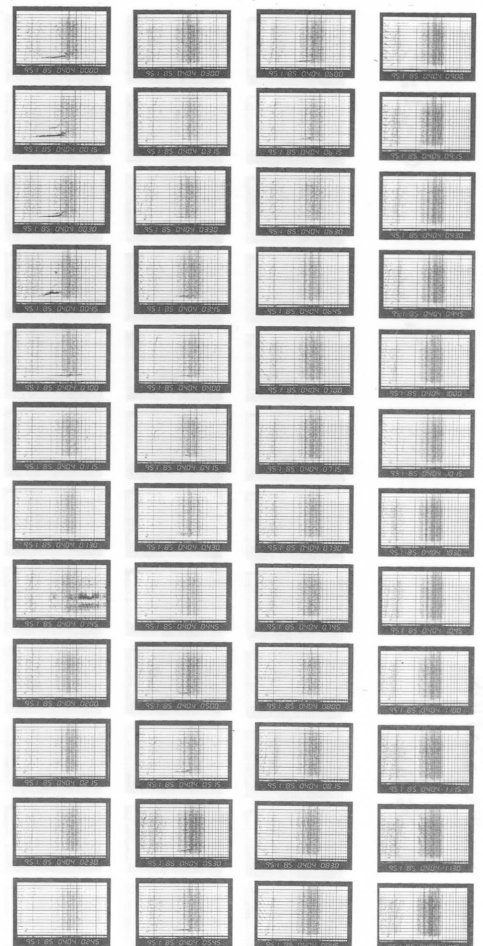
1985 04 04 12:00-23:45



SYOWA STATION

IONOGRAM

1985 04 04 00:00-11:45



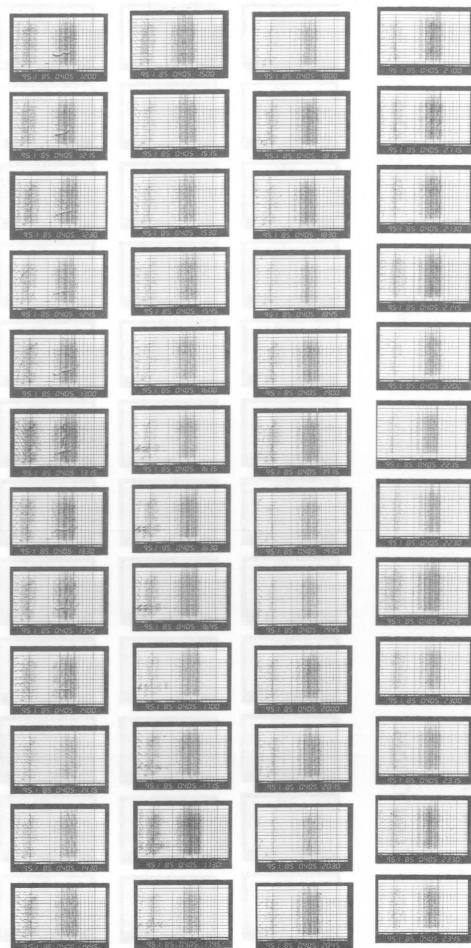
SYOWA STATION

IONOGRAM

1985

04 05

12:00-23:45



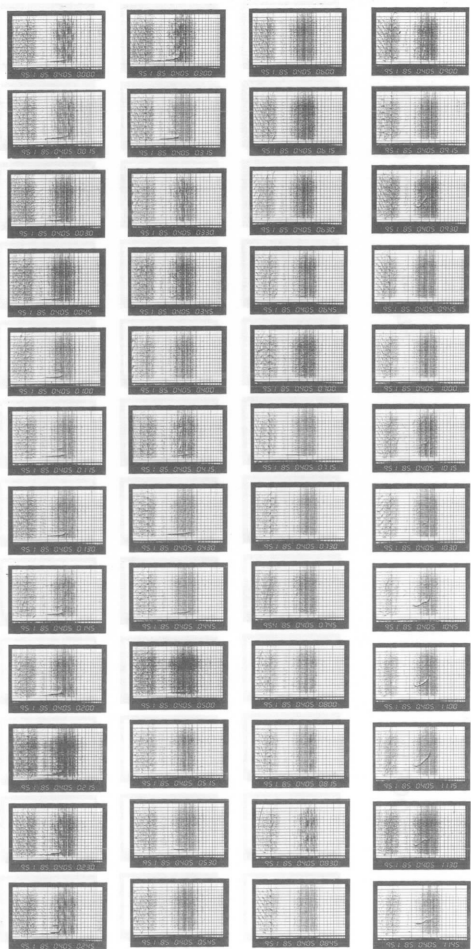
SYOWA STATION

IONOGRAM

1985

04 05

00:00-11:45



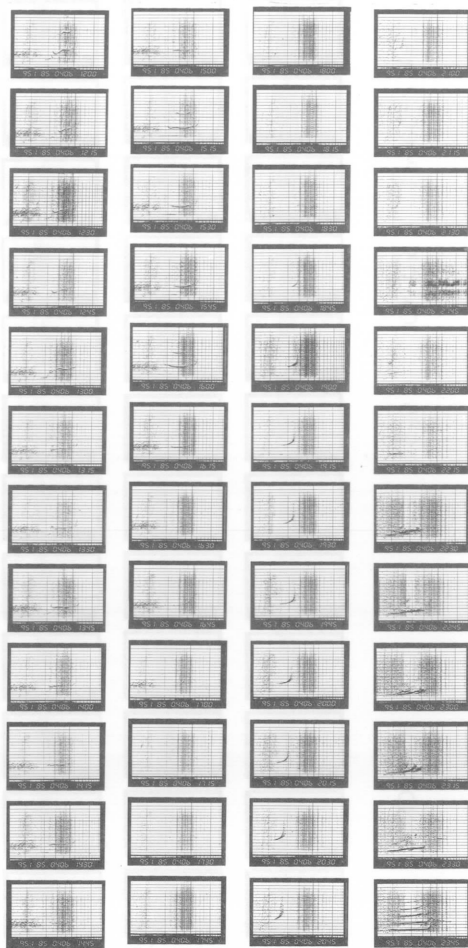
SYOWA STATION

IONOGRAM

1985

04 06

12:00-23:45



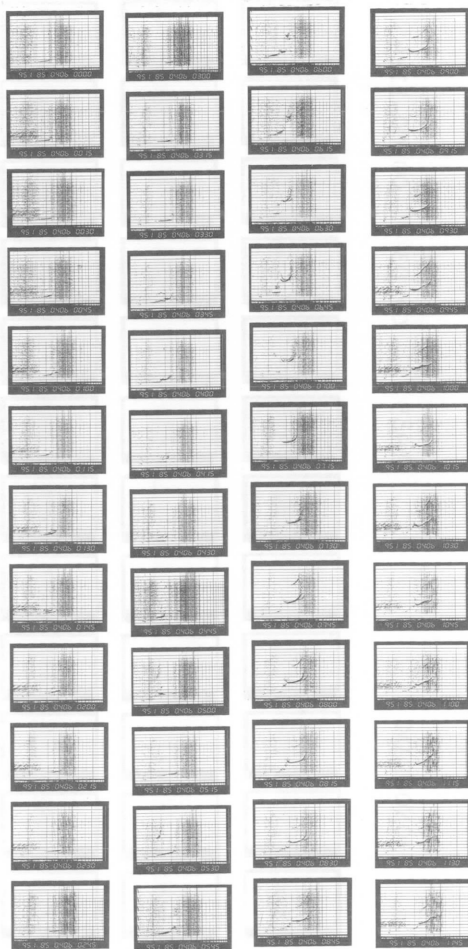
SYOWA STATION

IONOGRAM

1985

04 06

00:00-11:45



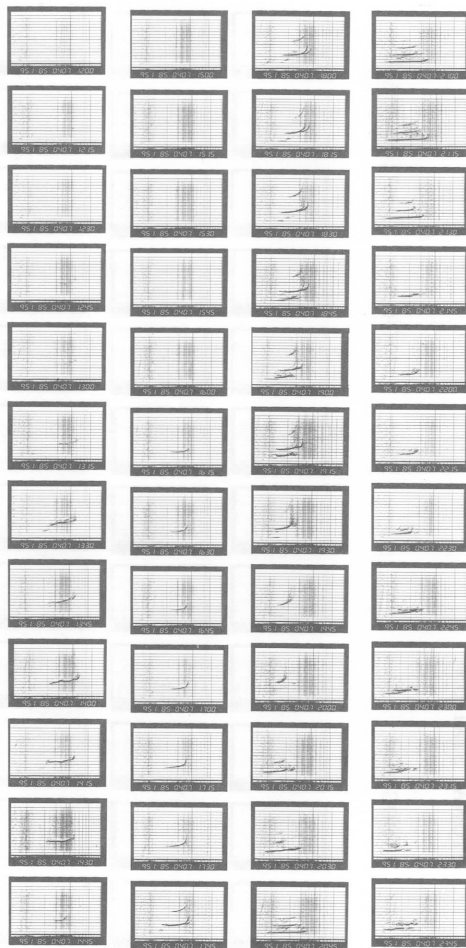
SYOWA STATION

IONOGRAM

1985

04 07

12:00-23:45



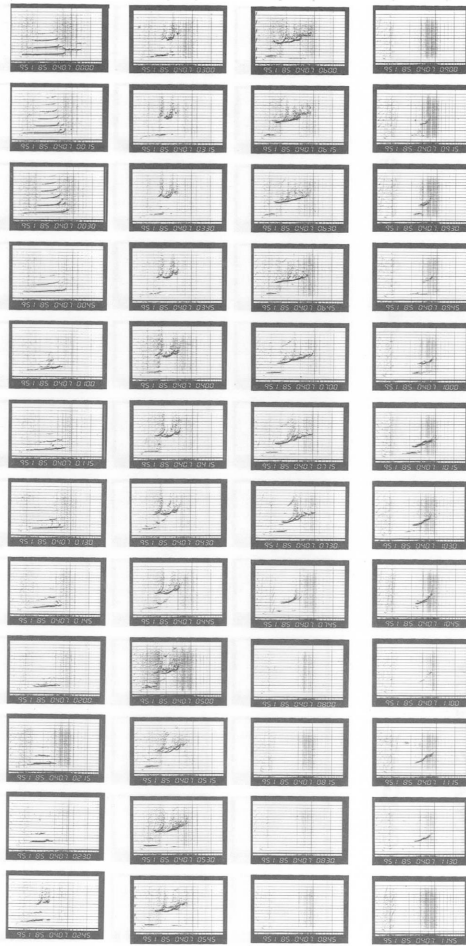
SYOWA STATION

IONOGRAM

1985

04 07

00:00-11:45



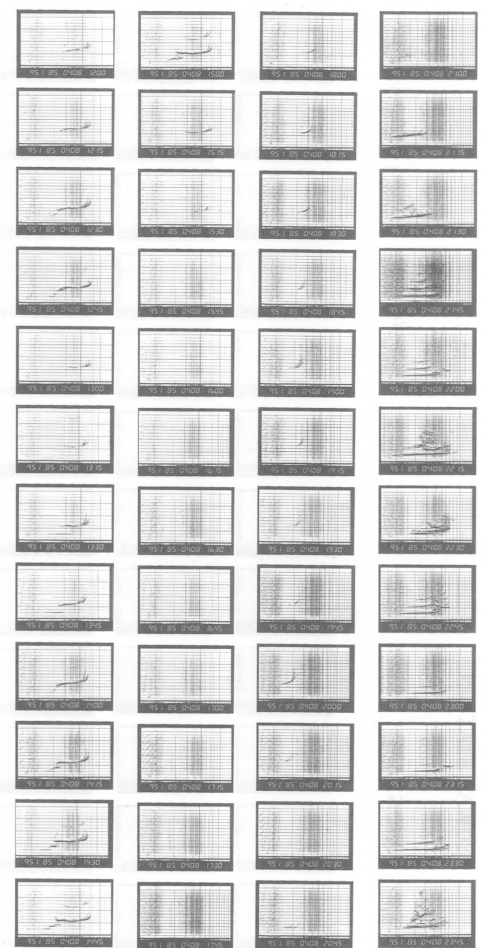
SYOWA STATION

IONOGRAM

1985

04 08

12:00-23:45



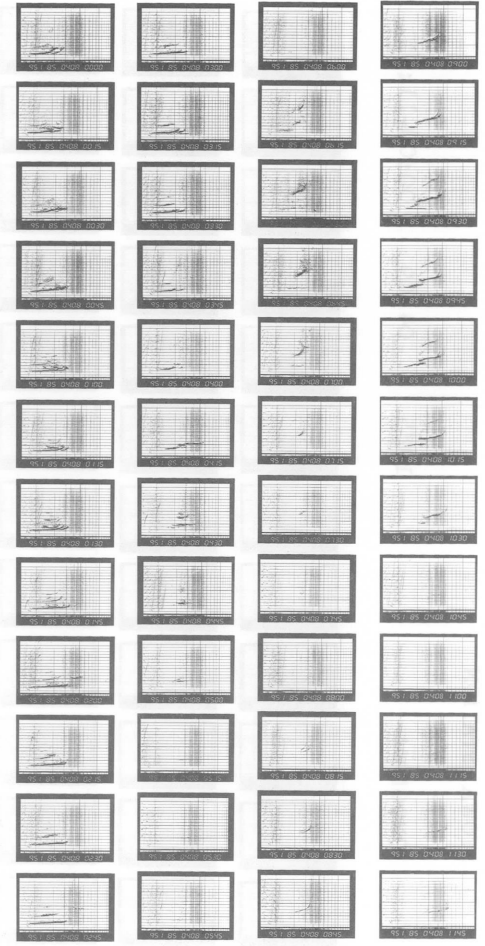
SYOWA STATION

IONOGRAM

1985

04 08

00:00-11:45



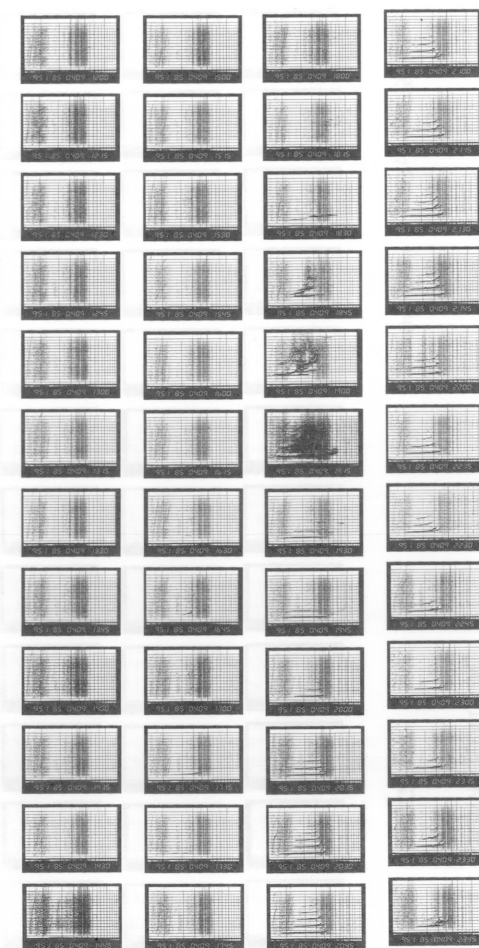
SYOWA STATION

IONOGRAM

12:00-23:45

04 09

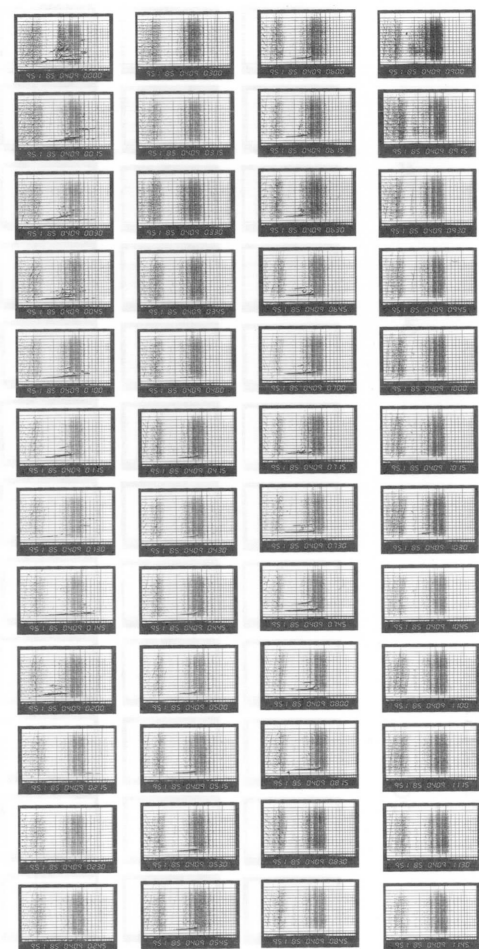
1985



00:00-11:45

04 09

1985



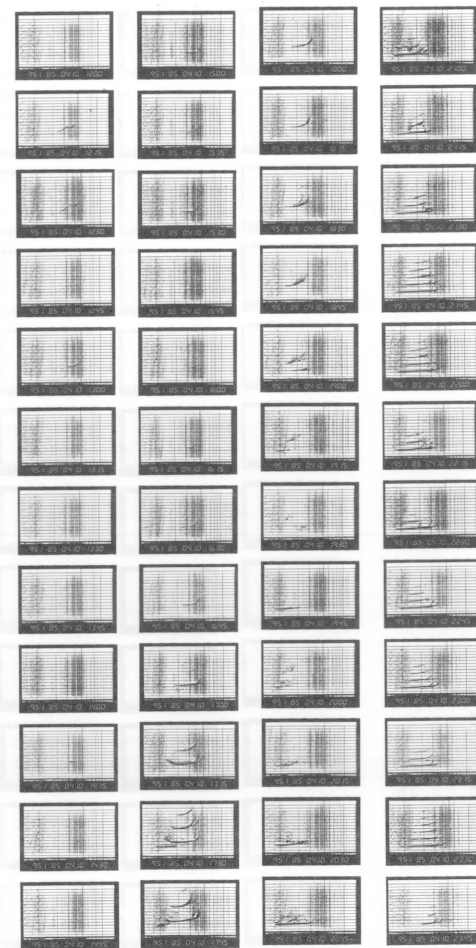
SYOWA STATION

IONOGRAM

12:00-23:45

04 10

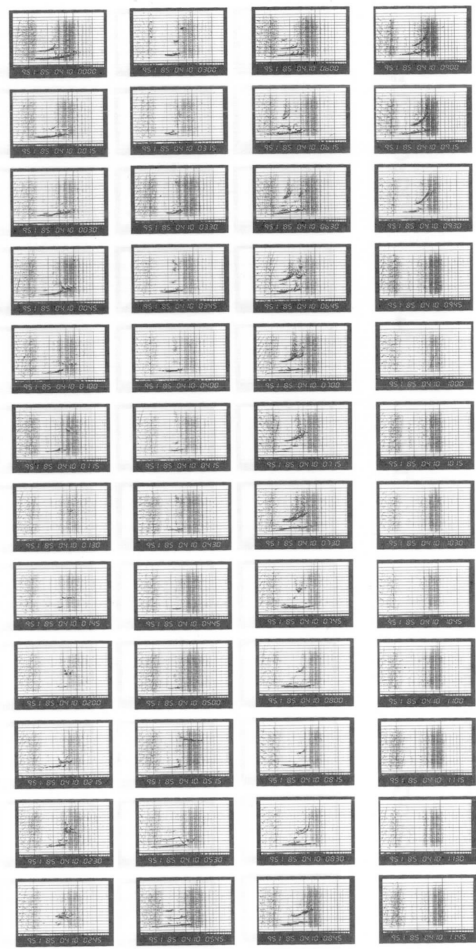
1985



00:00-11:45

04 10

1985



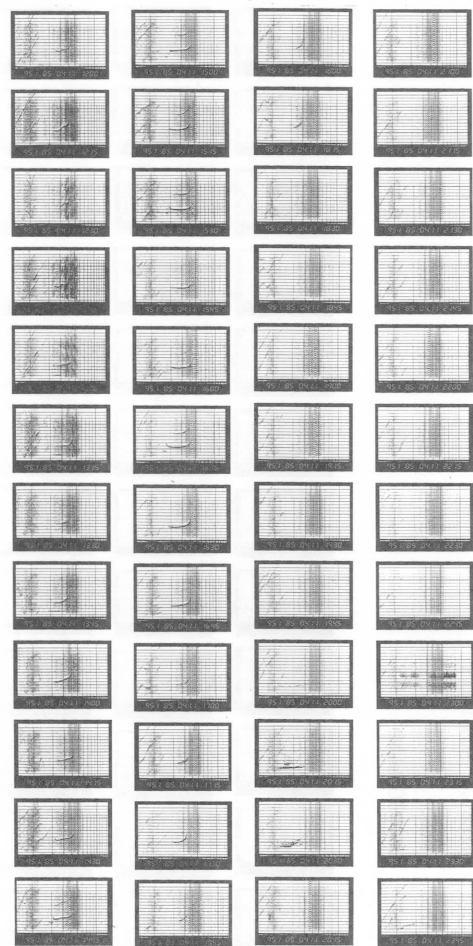
SYOWA STATION

IONOGRAM

1985

04 11

12:00-23:45



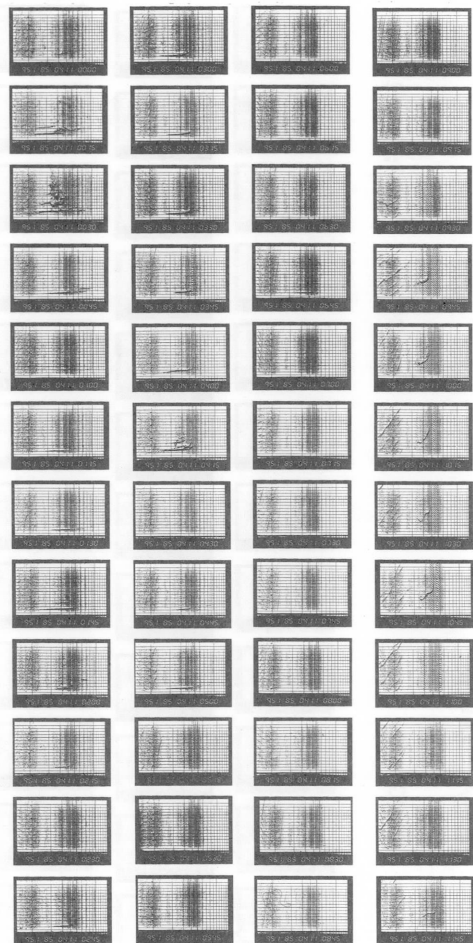
SYOWA STATION

IONOGRAM

1985

04 11

00:00-11:45



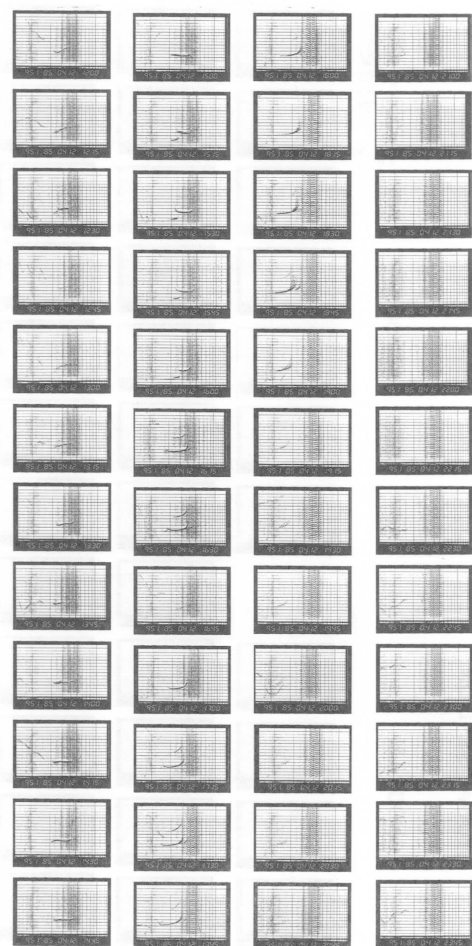
SYOWA STATION

IONOGRAM

1985

04 12

12:00-23:45



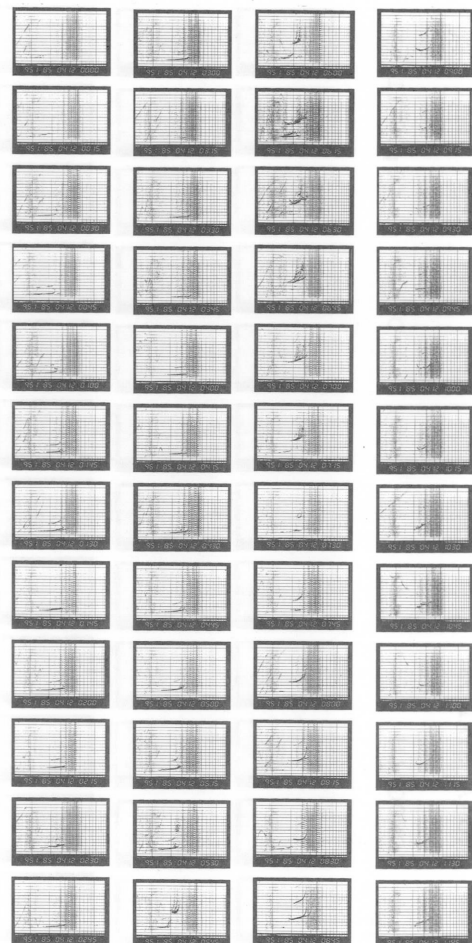
SYOWA STATION

IONOGRAM

1985

04 12

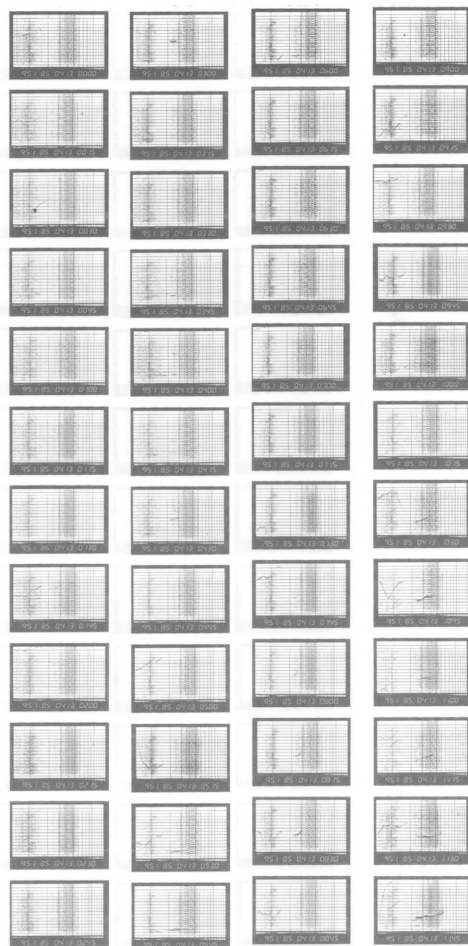
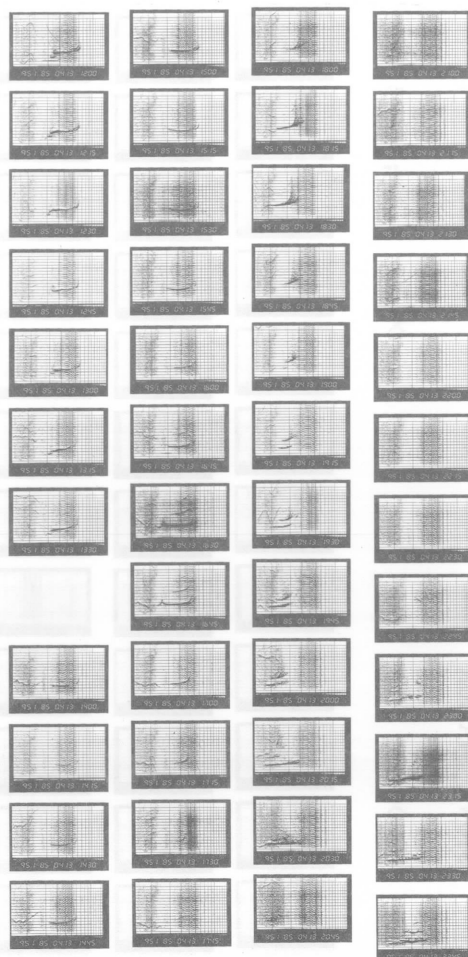
00:00-11:45



SYOWA STATION

IONOGRAM

1985 04 13 00:00-11:45

1985 04 13 12:00-23:45
Jack 23:45

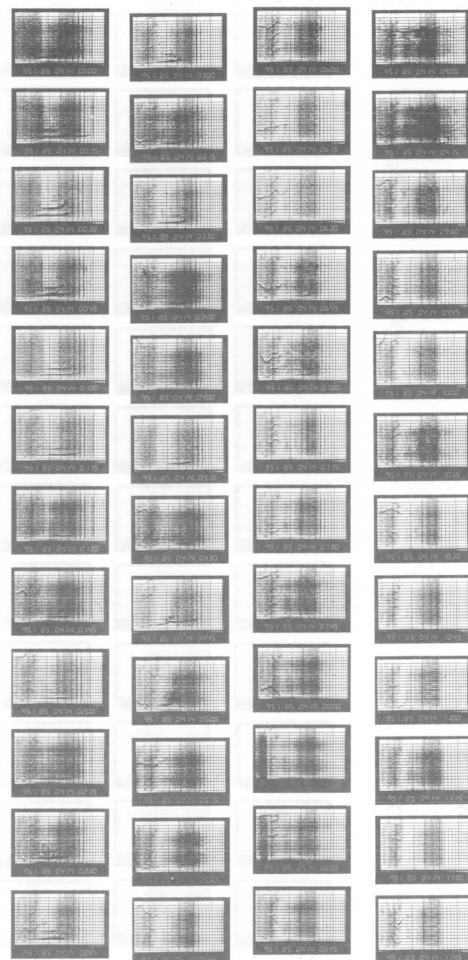
SYOWA STATION

IONOGRAM

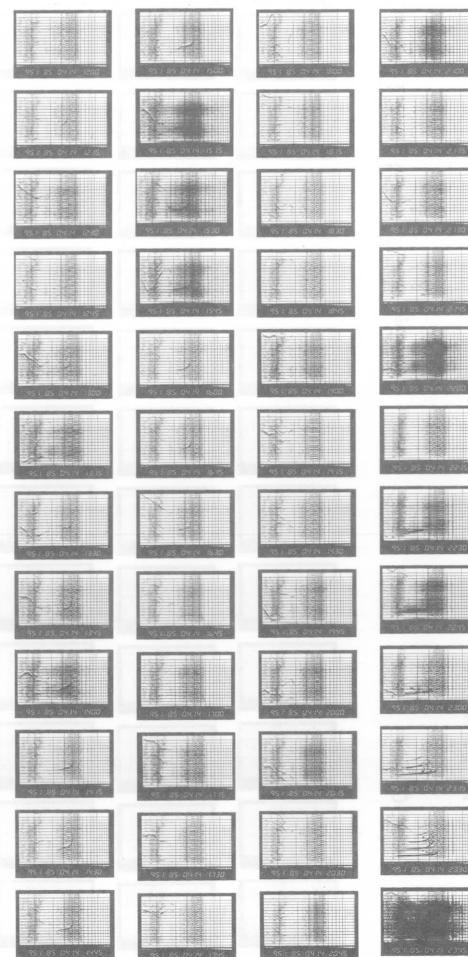
SYOWA STATION

IONOGRAM

1985 04 14 00:00-11:45



1985 04 14 12:00-23:45



SYOWA STATION

IONOGRAM

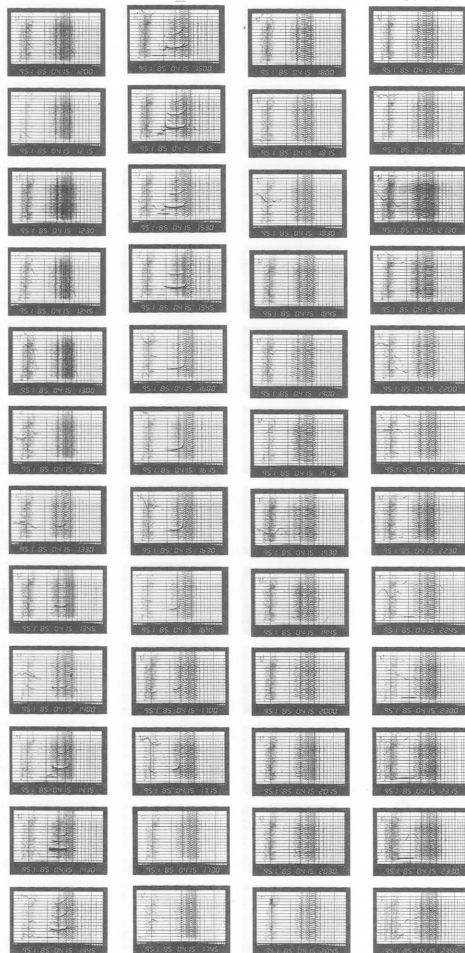
SYOWA STATION

IONOGRAM

1985

04 15

12:00-23:45

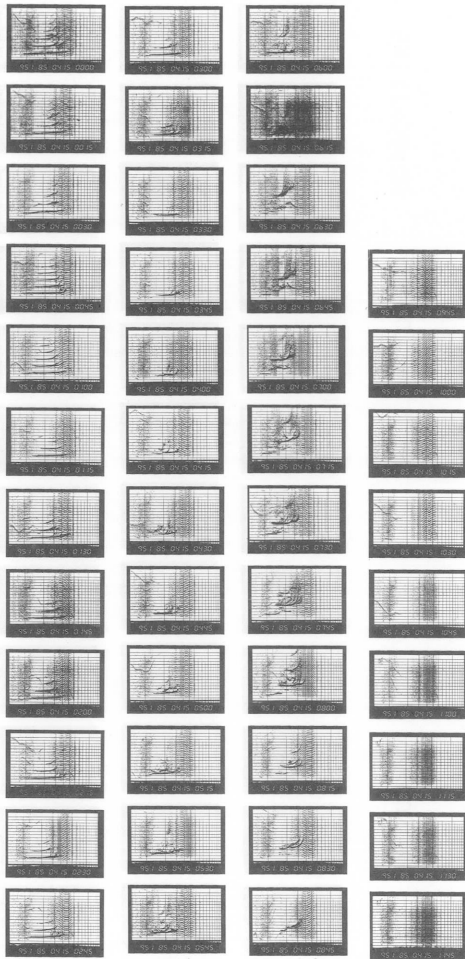


SYOWA STATION

IONOGRAM

1985

04 15

00:00-11:45
(lack 09:00-09:30)

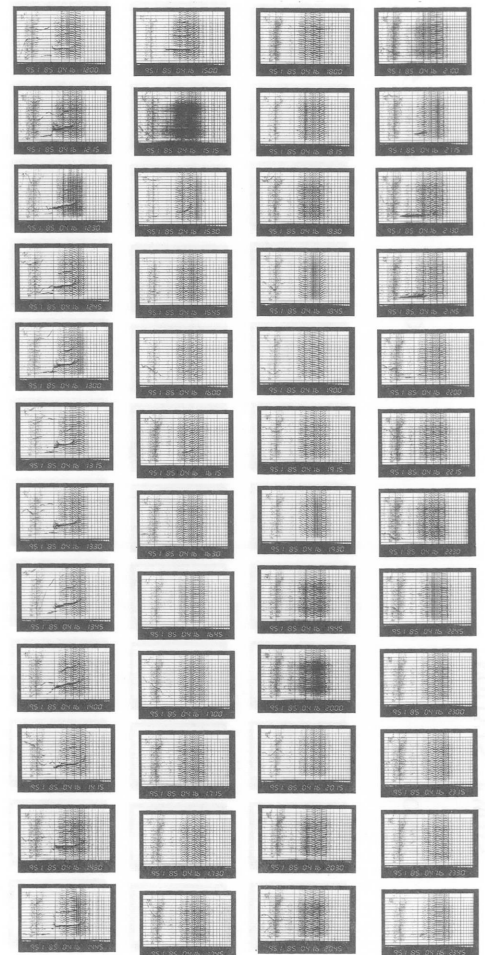
SYOWA STATION

IONOGRAM

1985

04 16

12:00-23:45



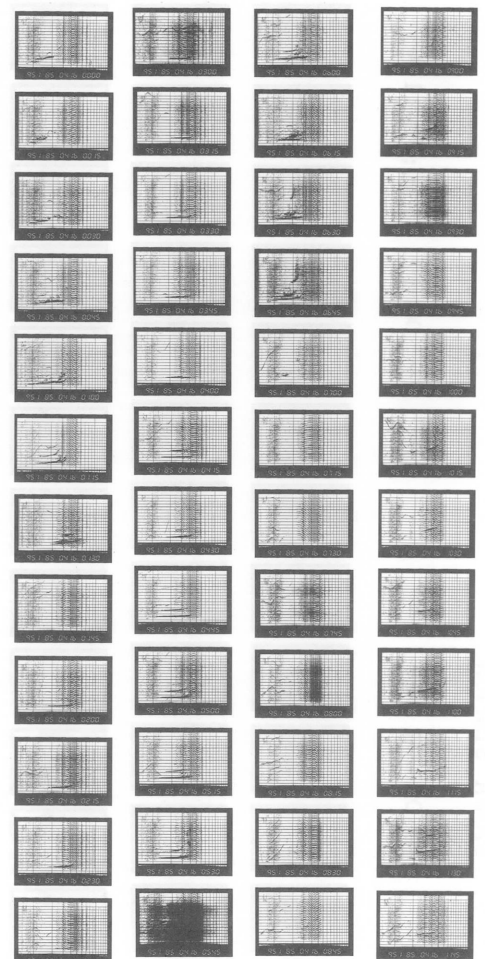
SYOWA STATION

IONOGRAM

1985

04 16

00:00-11:45



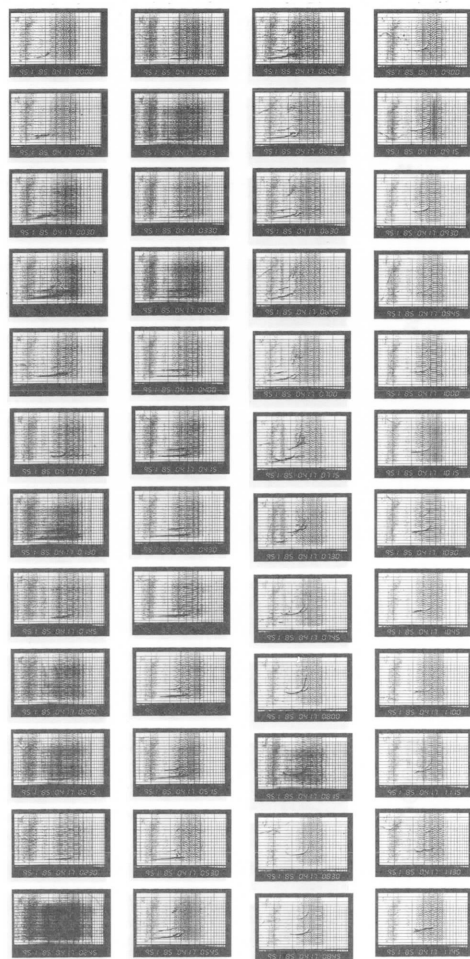
SYOWA STATION

IONOGRAM

1985

04 17

00:00-11:45



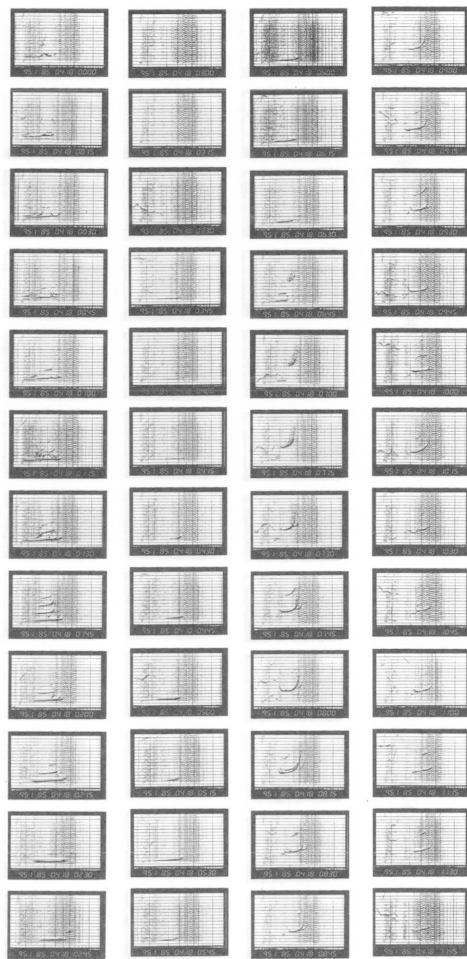
SYOWA STATION

IONOGRAM

1985

04 18

00:00-11:45



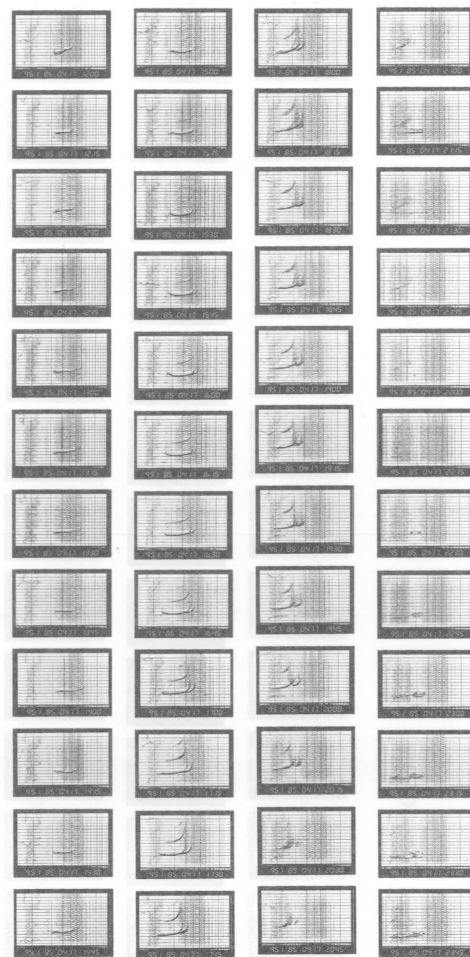
SYOWA STATION

IONOGRAM

1985

04 17

12:00-23:45



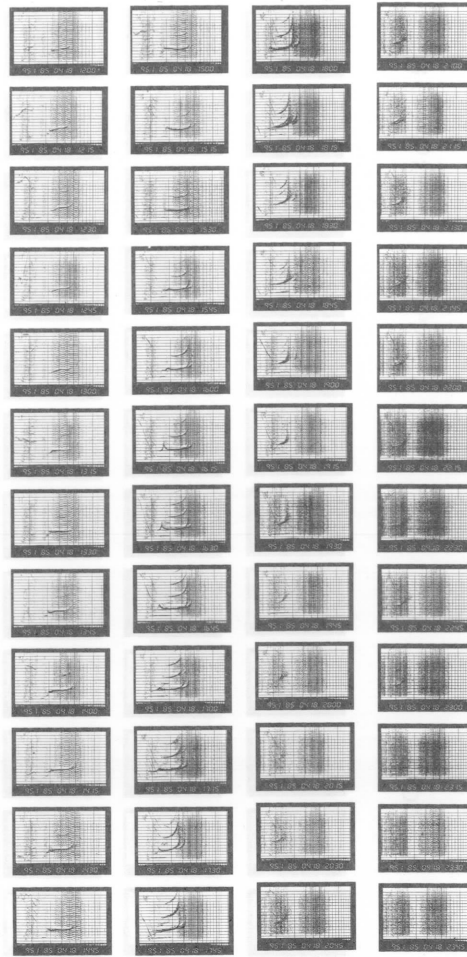
SYOWA STATION

IONOGRAM

1985

04 18

12:00-23:45



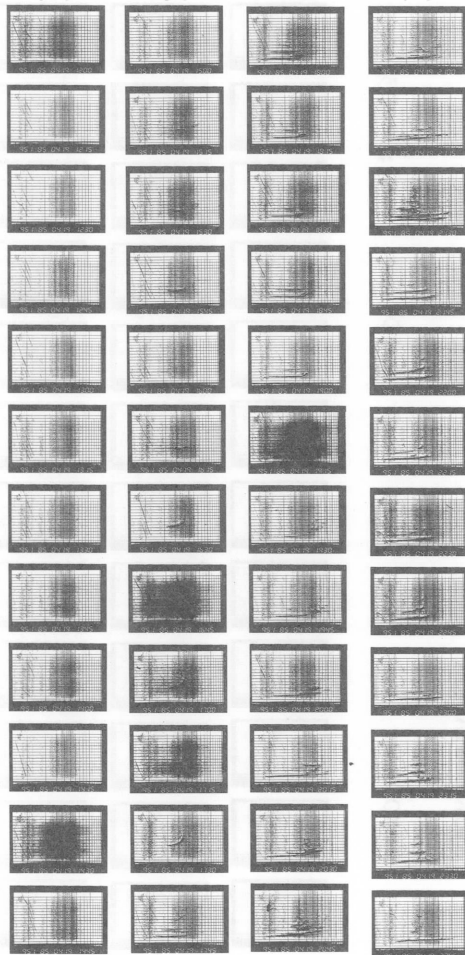
SYOWA STATION

IONOGRAM

1985

04 19

12:00-23:45



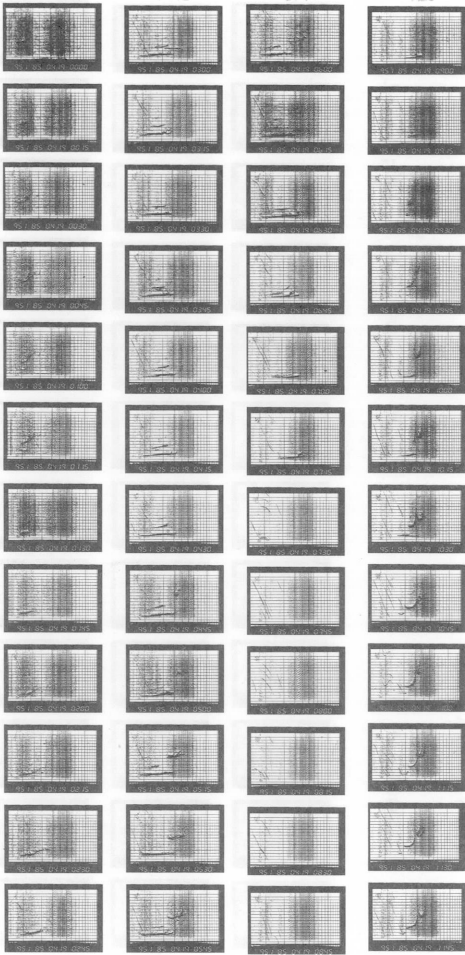
SYOWA STATION

IONOGRAM

1985

04 19

00:00-11:45



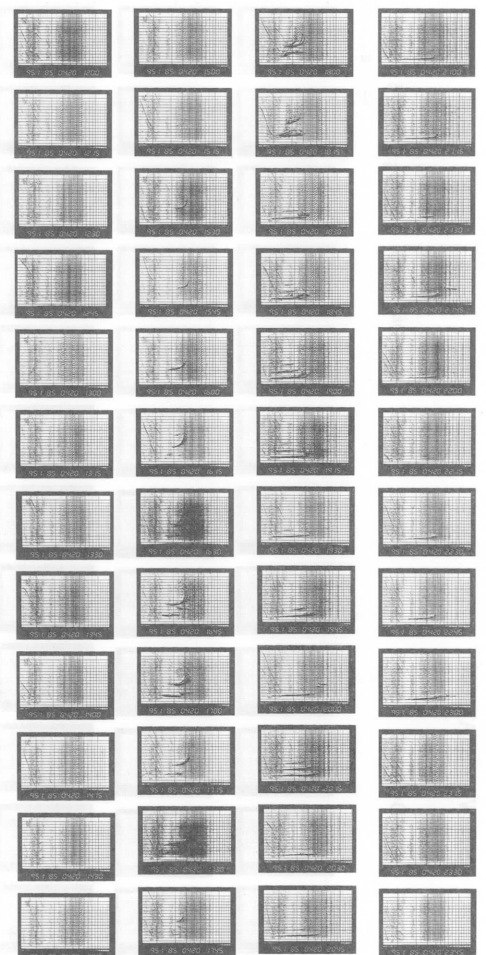
SYOWA STATION

IONOGRAM

1985

04 20

12:00-23:45



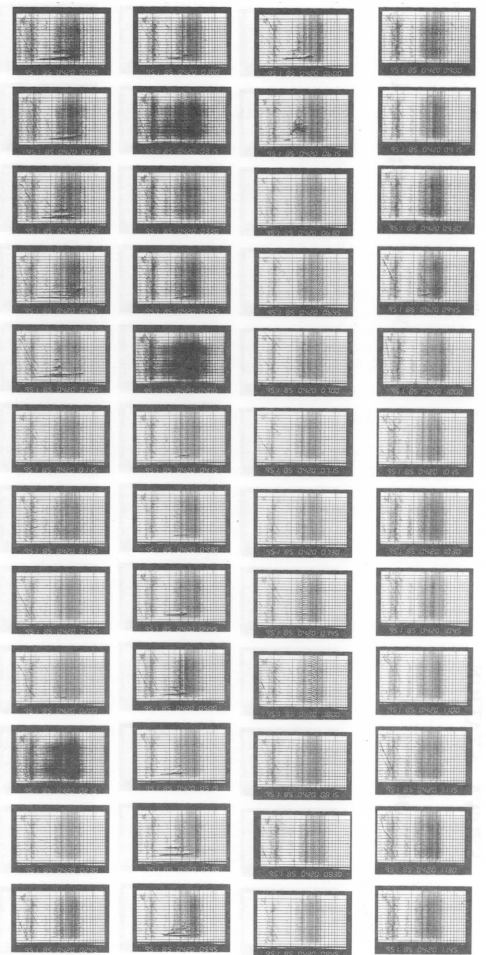
SYOWA STATION

IONOGRAM

1985

04 20

00:00-11:45



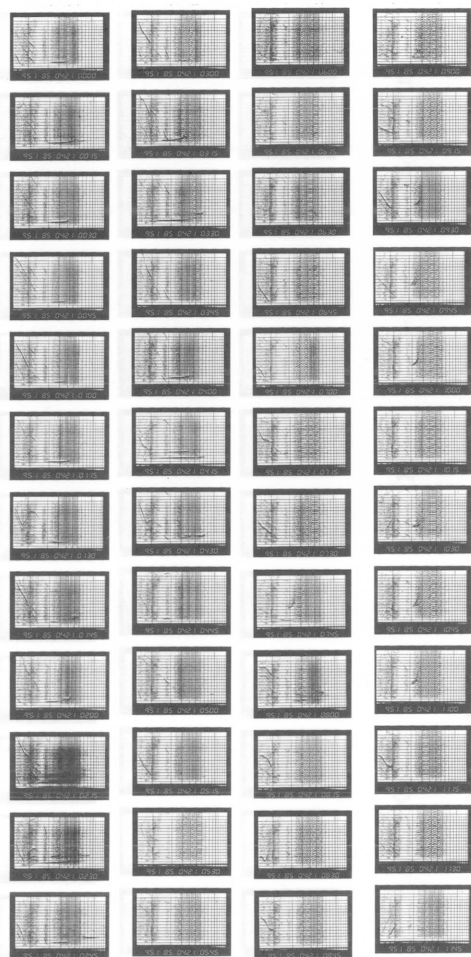
SYOWA STATION

IONOGRAM

1985

04 21

00:00-11:45



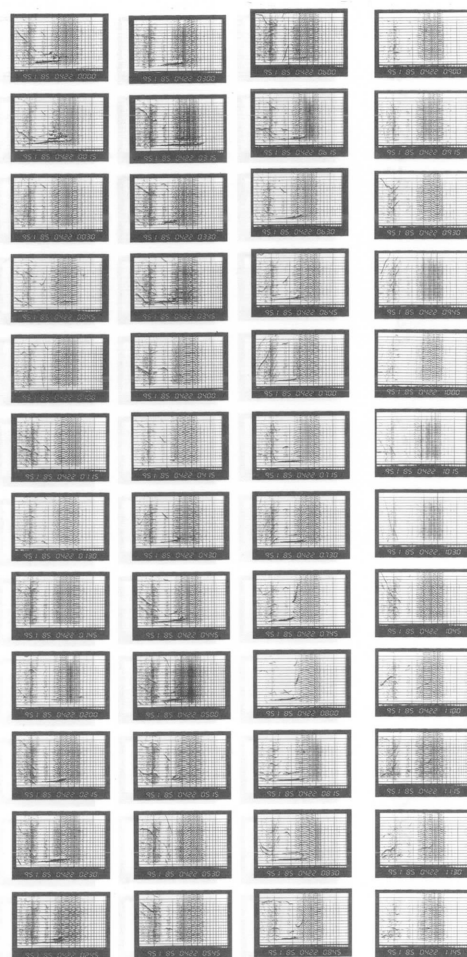
SYOWA STATION

IONOGRAM

1985

04 22

00:00-11:45



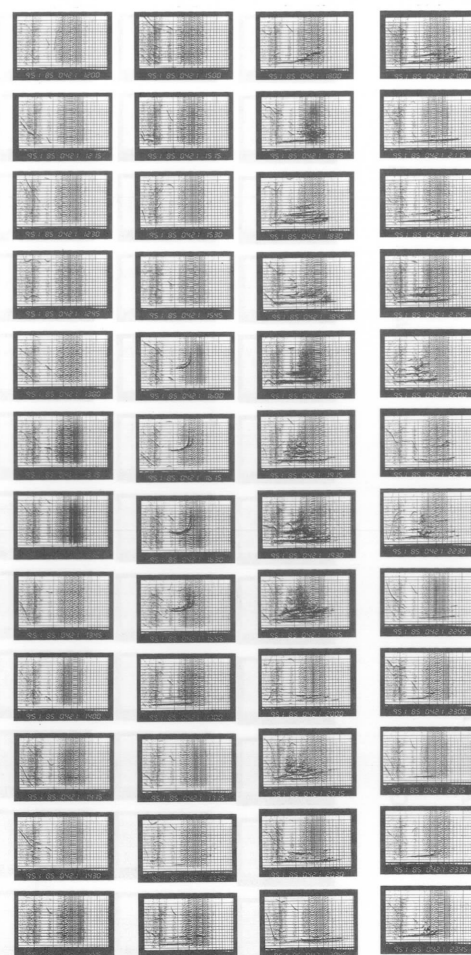
SYOWA STATION

IONOGRAM

1985

04 21

12:00-23:45



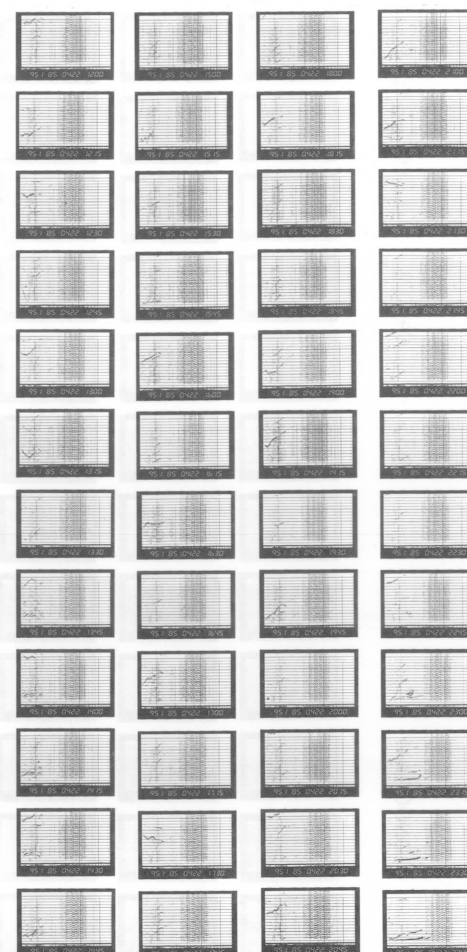
SYOWA STATION

IONOGRAM

1985

04 22

12:00-23:45



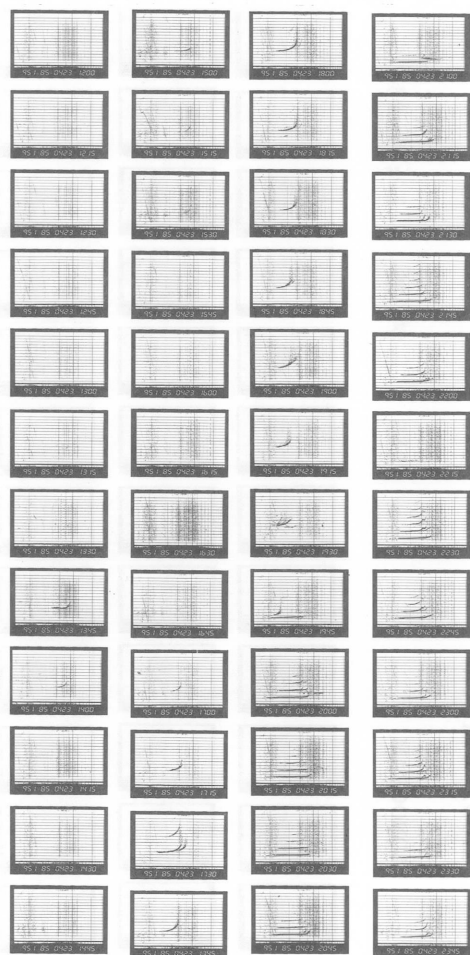
SYOWA STATION

IONOGRAM

1985

04 23

12:00-23:45



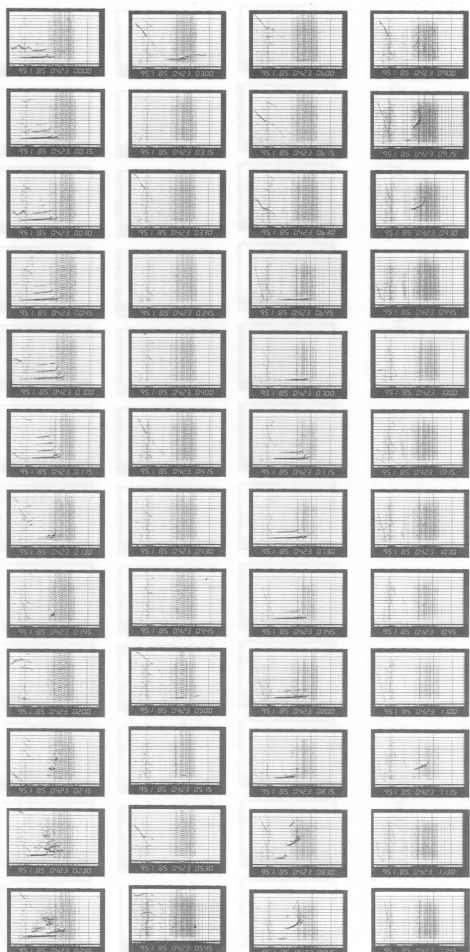
SYOWA STATION

IONOGRAM

1985

04 23

00:00-11:45



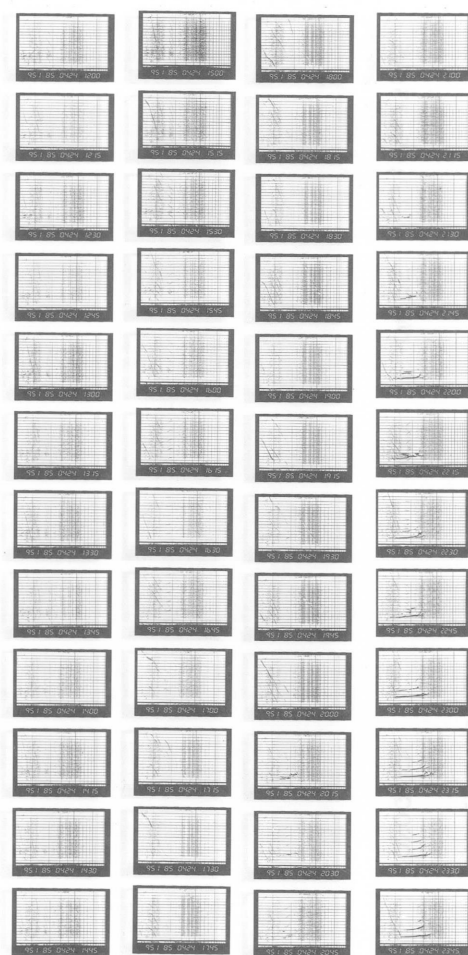
SYOWA STATION

IONOGRAM

1985

04 24

12:00-23:45



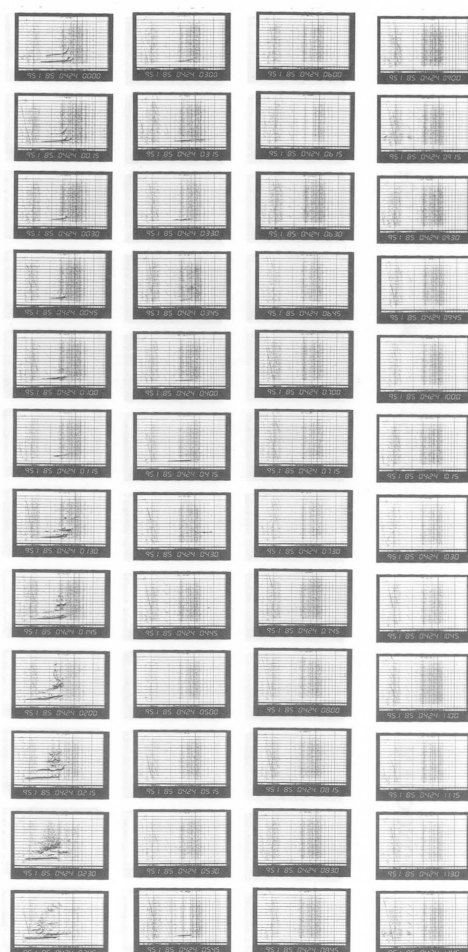
SYOWA STATION

IONOGRAM

1985

04 24

00:00-11:45



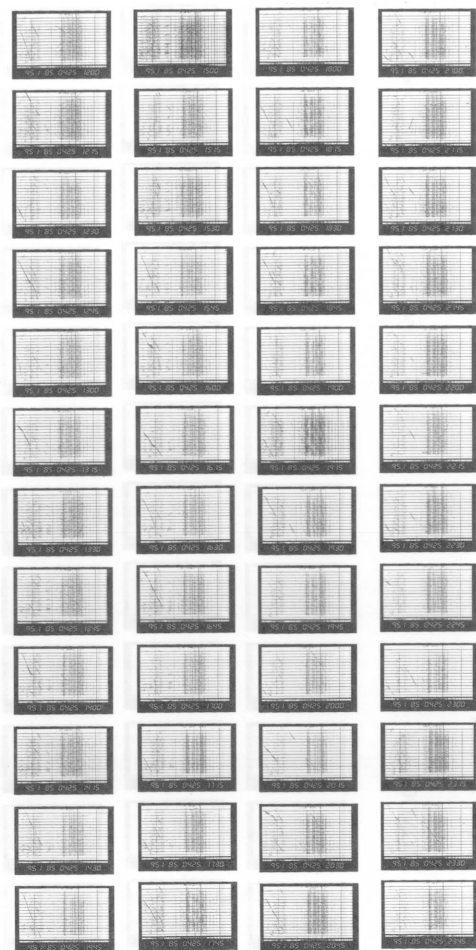
SYOWA STATION

IONOGRAM

1985

04 25

12:00-23:45



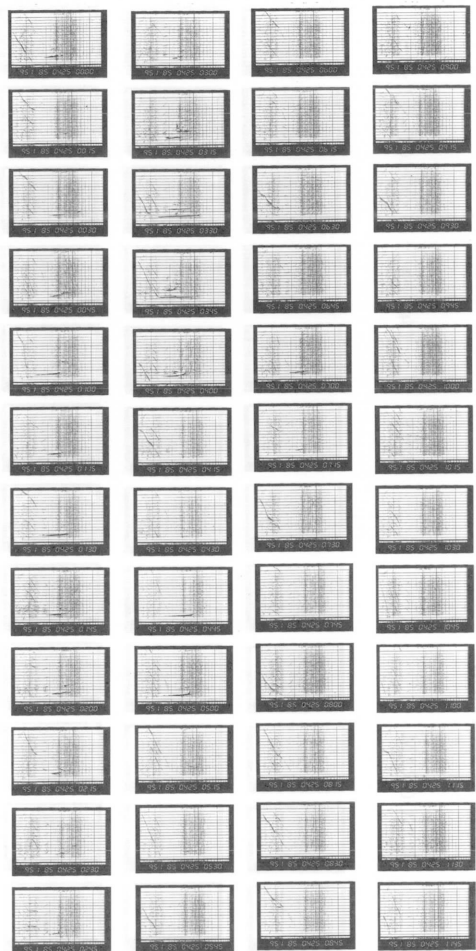
SYOWA STATION

IONOGRAM

1985

04 25

00:00-11:45



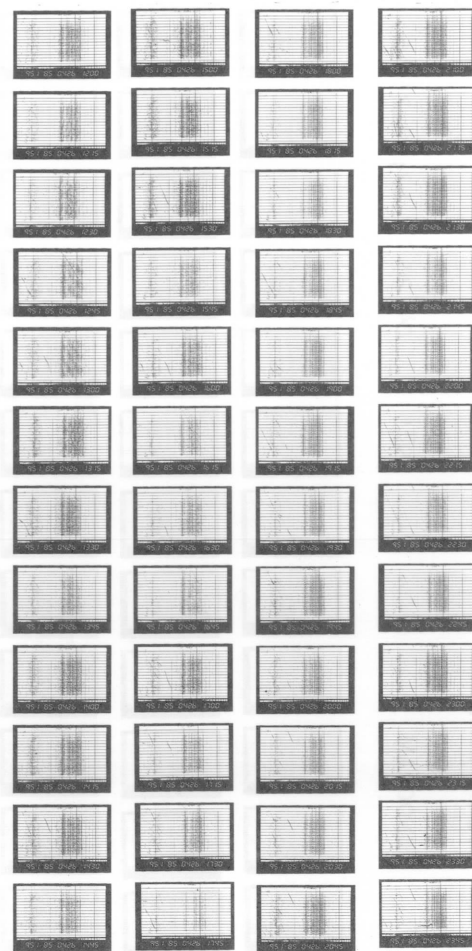
SYOWA STATION

IONOGRAM

1985

04 26

12:00-23:45



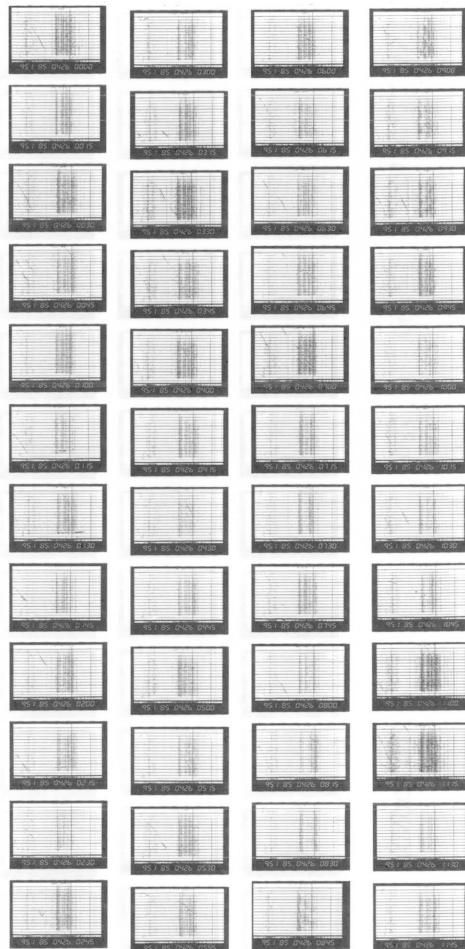
SYOWA STATION

IONOGRAM

1985

04 26

00:00-11:45



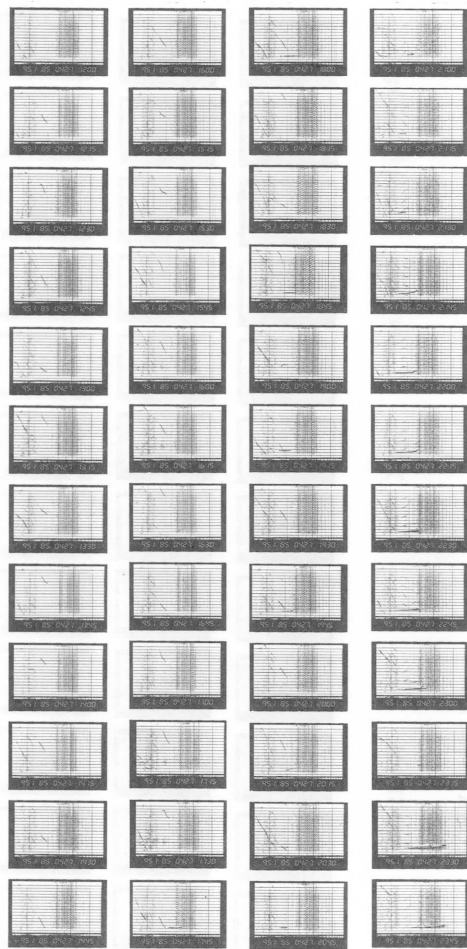
SYOWA STATION

IONOGRAM

1985

04 27

12:00-23:45



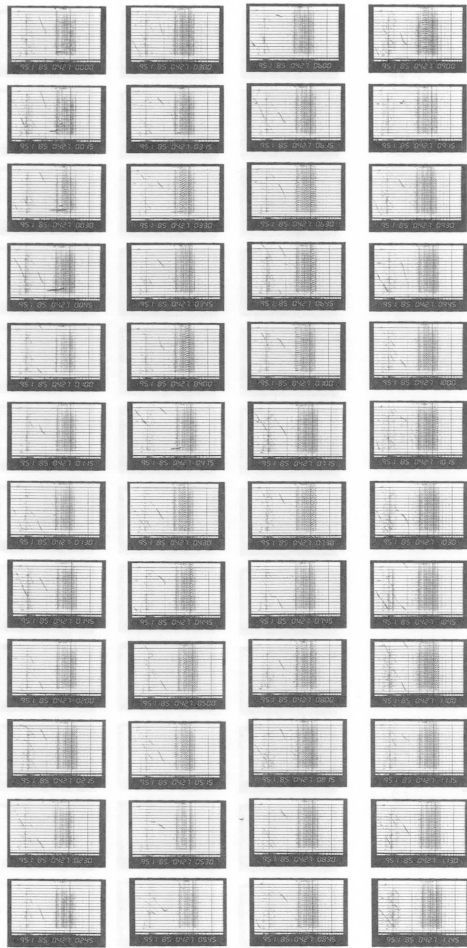
SYOWA STATION

IONOGRAM

1985

04 27

00:00-11:45



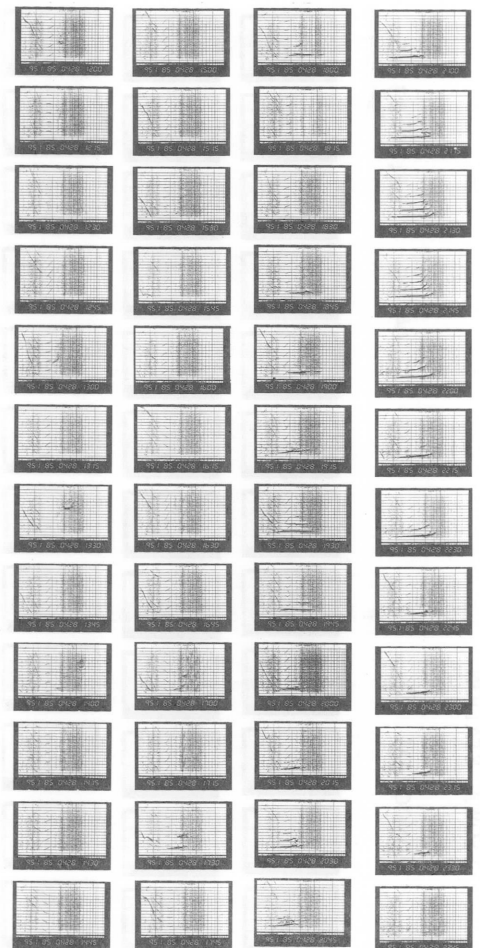
SYOWA STATION

IONOGRAM

1985

04 28

12:00-23:45



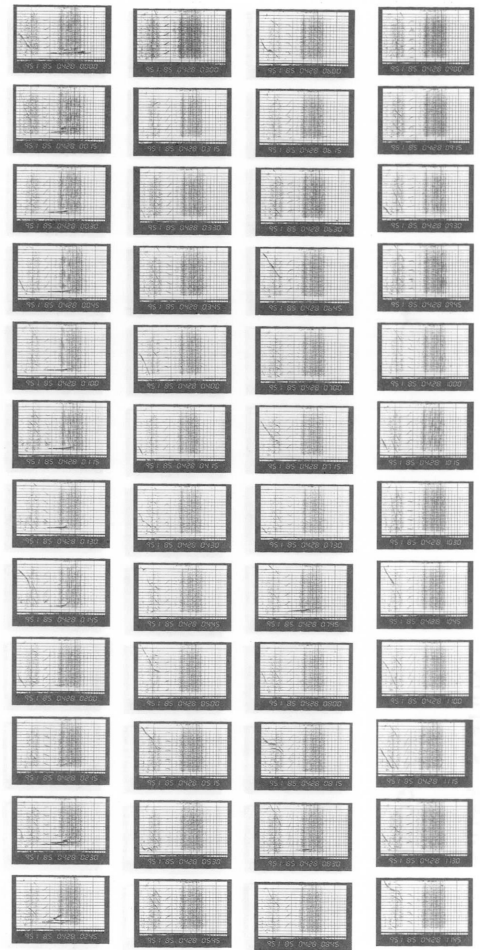
SYOWA STATION

IONOGRAM

1985

04 28

00:00-11:45



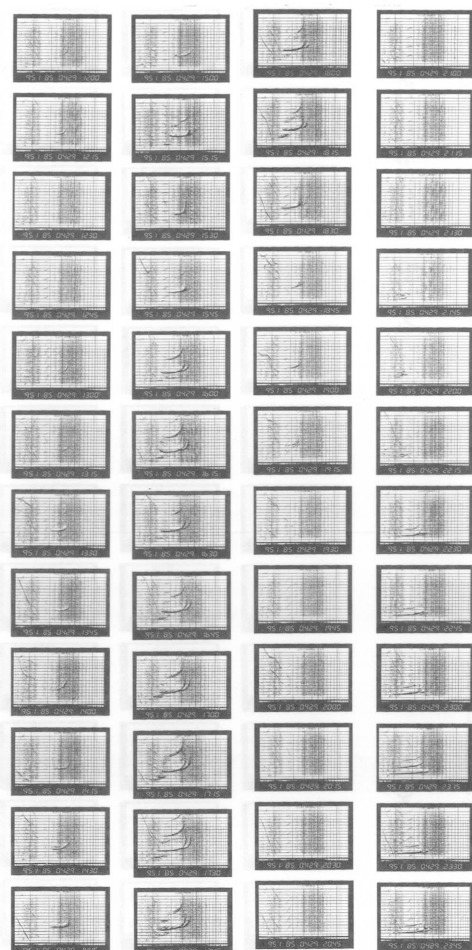
SYOWA STATION

IONOGRAM

1985

04 29

12:00-23:45



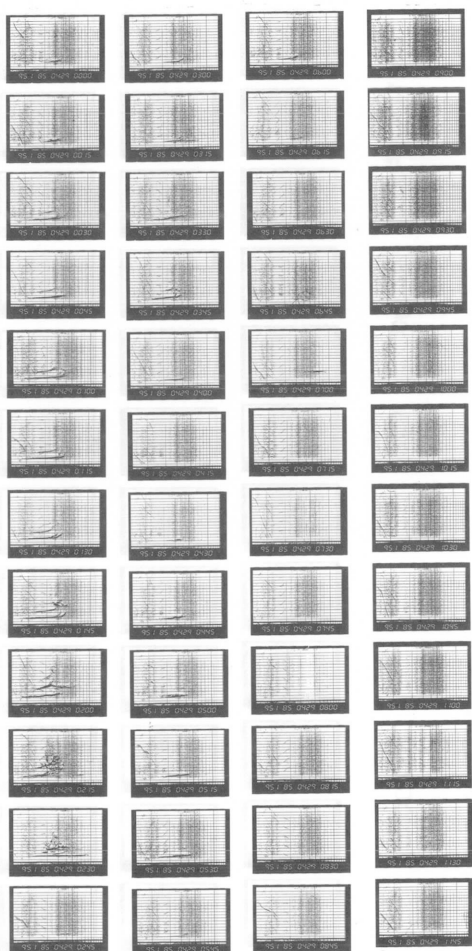
SYOWA STATION

IONOGRAM

1985

04 29

00:00-11:45



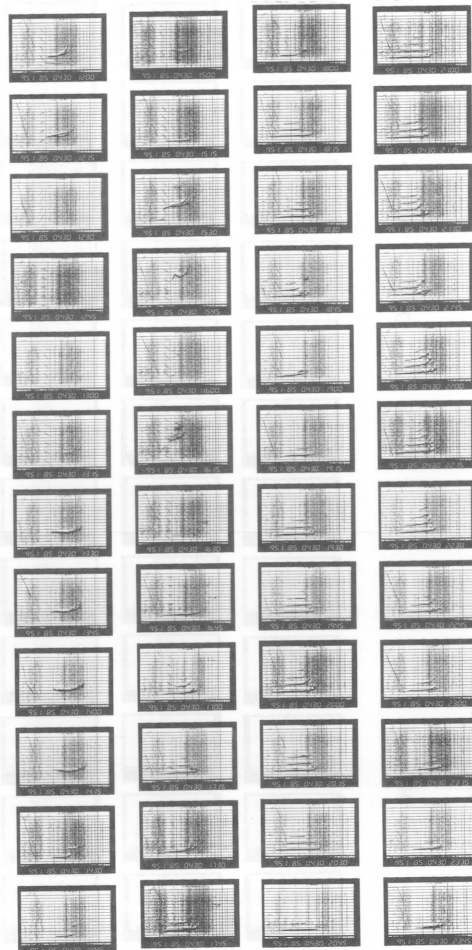
SYOWA STATION

IONOGRAM

1985

04 30

12:00-23:45



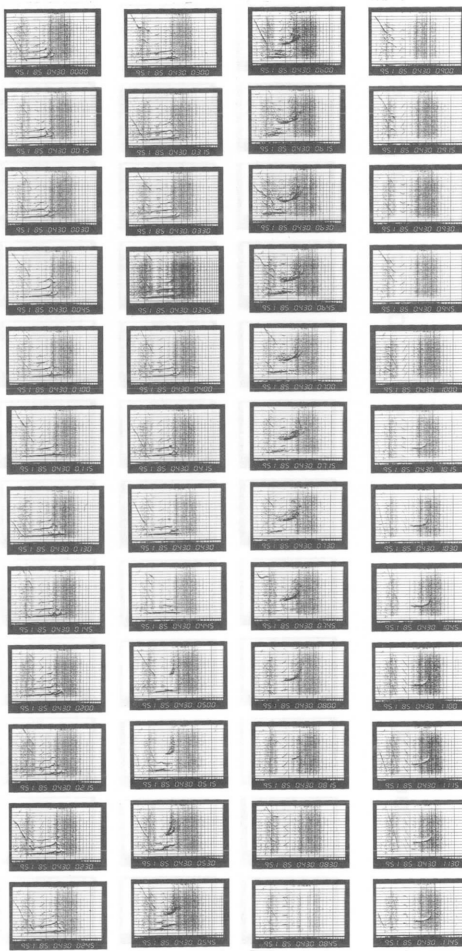
SYOWA STATION

IONOGRAM

1985

04 30

00:00-11:45

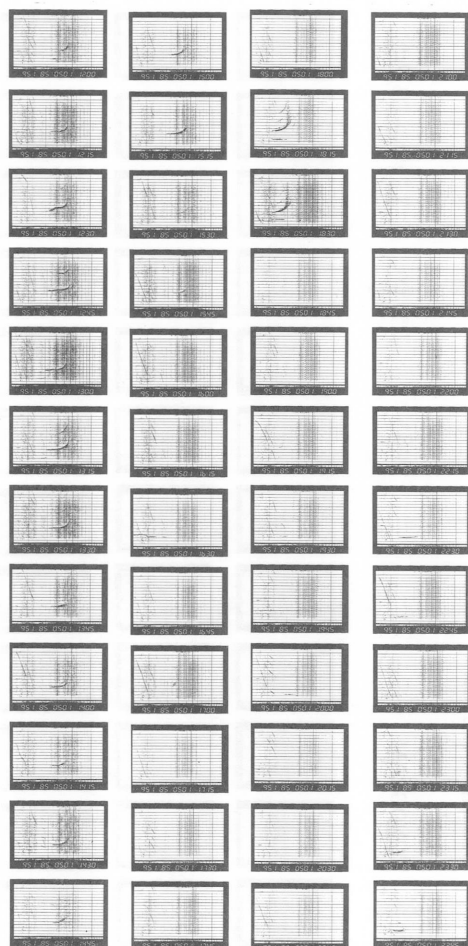


SYOWA STATION

IONOGRAM

1985 05 01

12:00-23:45



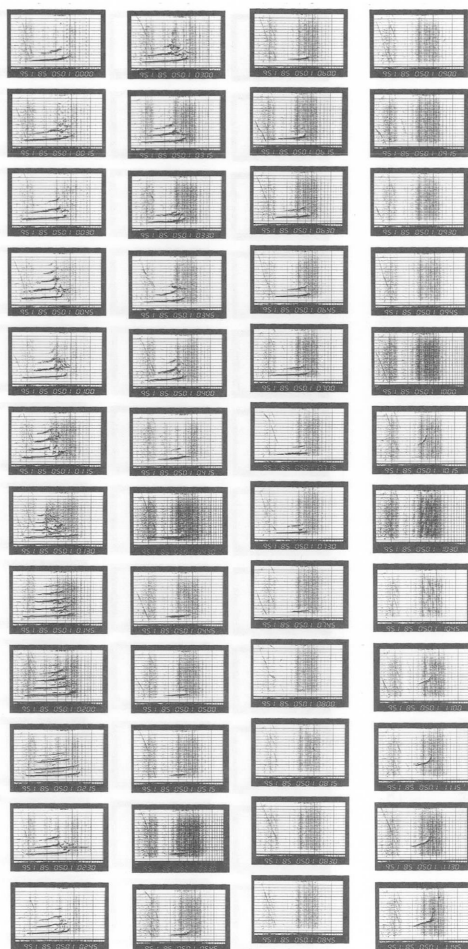
SYOWA STATION

IONOGRAM

1985

05 01

00:00-11:45

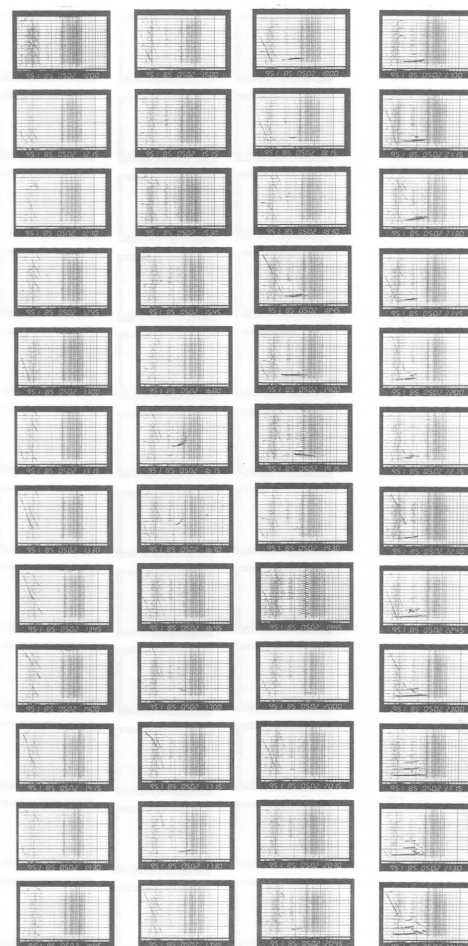


SYOWA STATION

IONOGRAM

1985 05 02

12:00-23:45



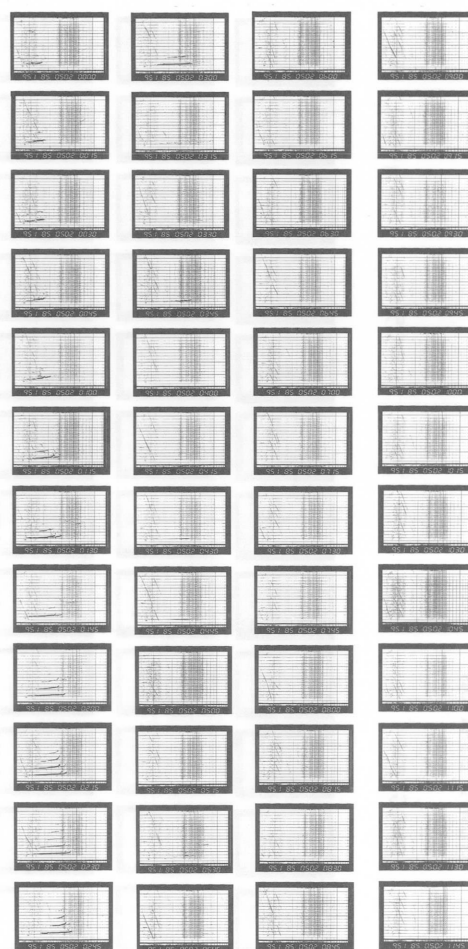
SYOWA STATION

IONOGRAM

1985

05 02

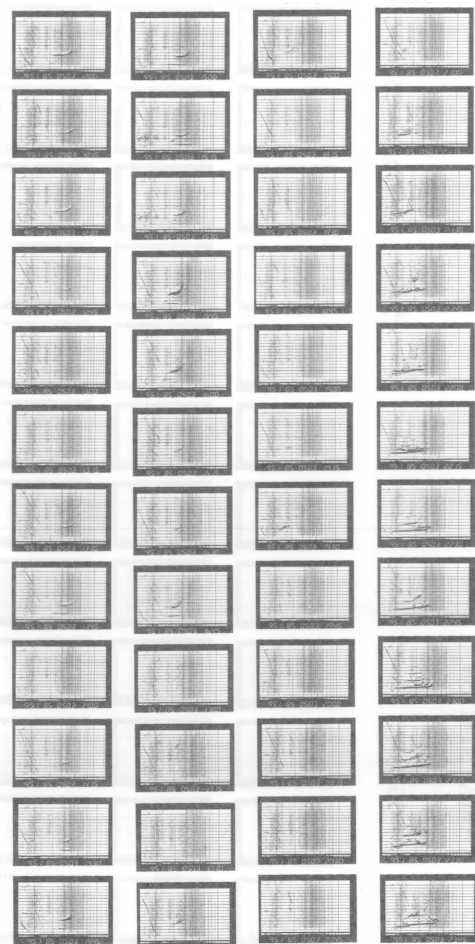
00:00-11:45



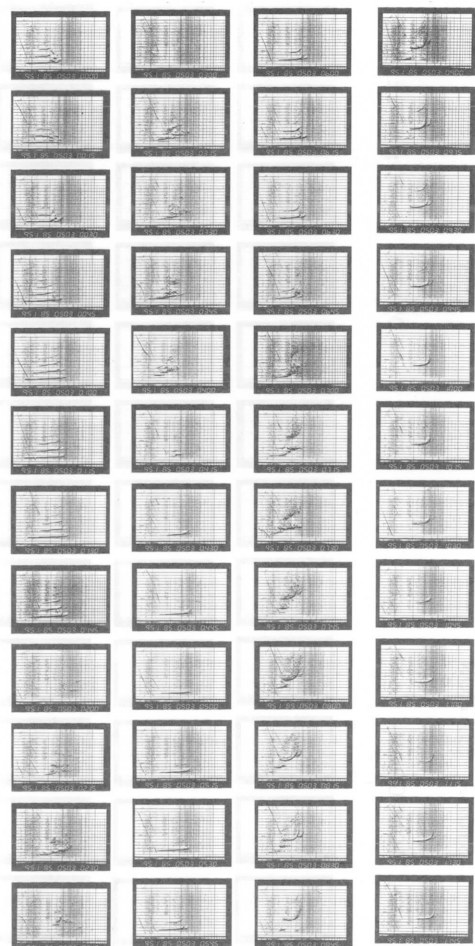
SYOWA STATION

IONOGRAM

1985 05 03 12:00-23:45



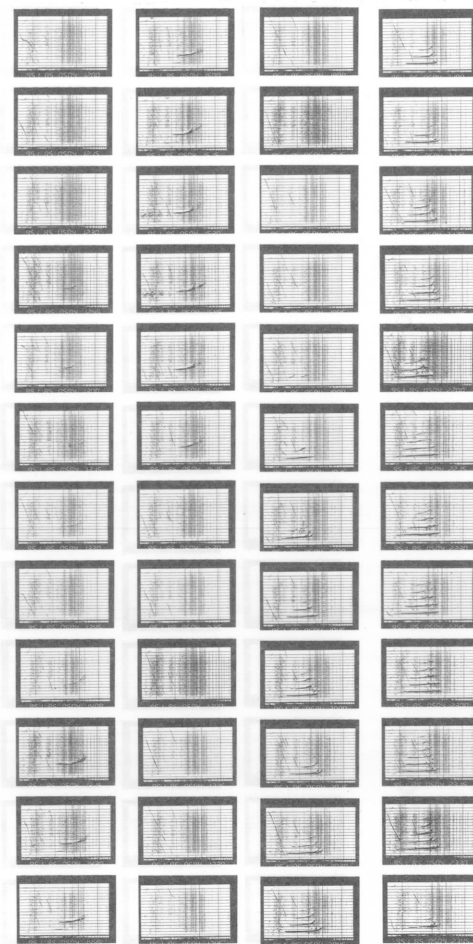
1985 05 03 00:00-11:45



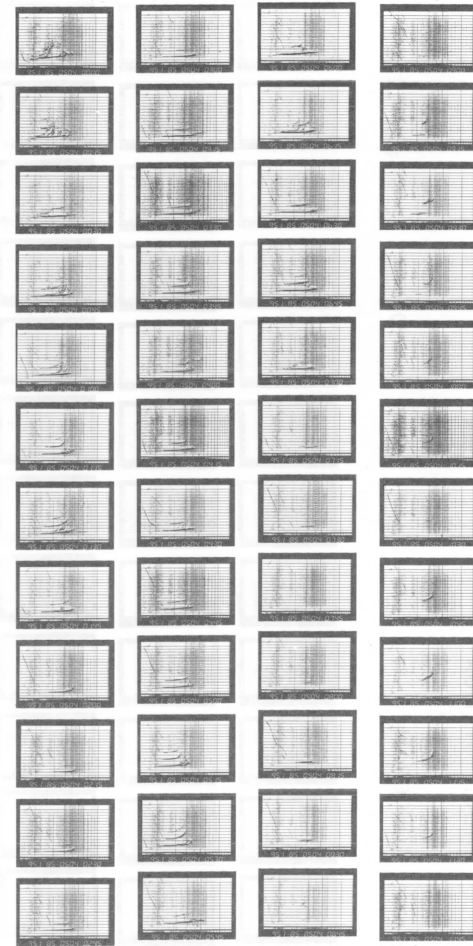
SYOWA STATION

IONOGRAM

1985 05 04 12:00-23:45



1985 05 04 00:00-11:45



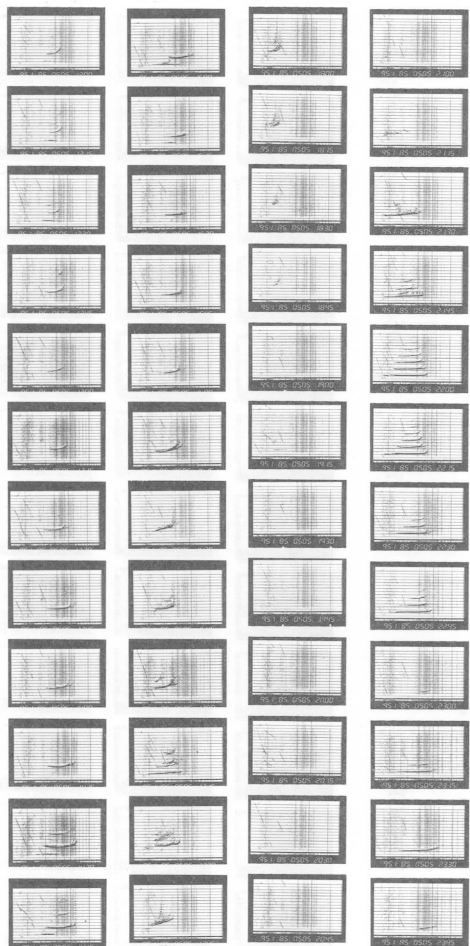
SYOWA STATION

IONOGRAM

1985

05 05

12:00-23:45



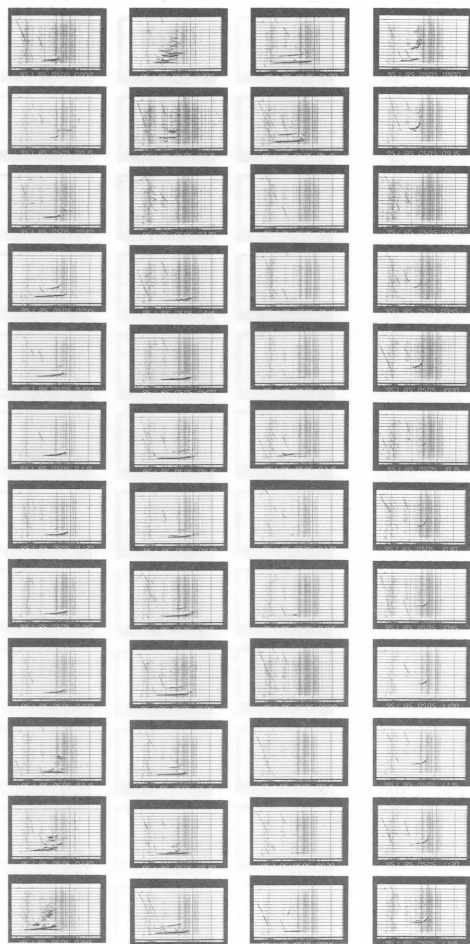
SYOWA STATION

IONOGRAM

1985

05 05

00:00-11:45



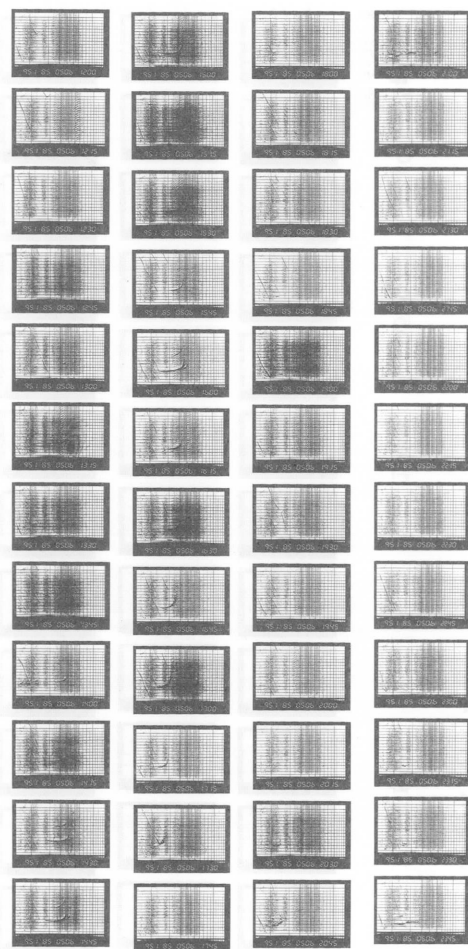
SYOWA STATION

IONOGRAM

1985

05 06

12:00-23:45

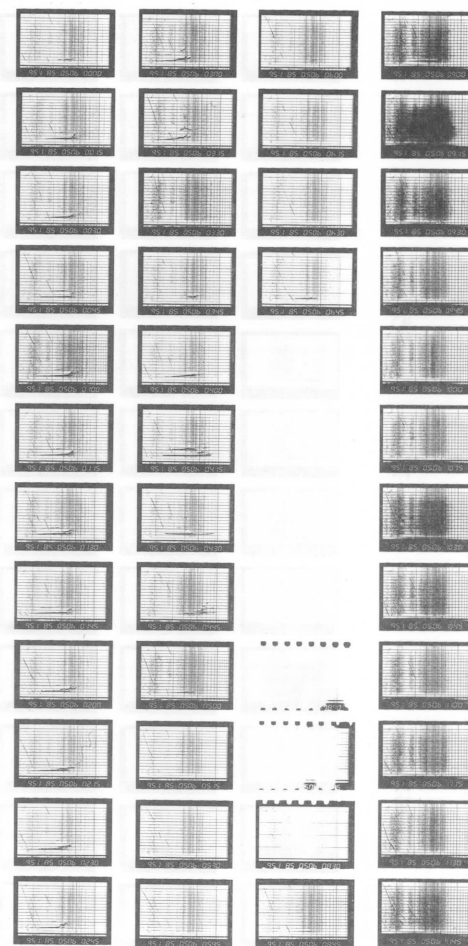


SYOWA STATION

IONOGRAM

1985

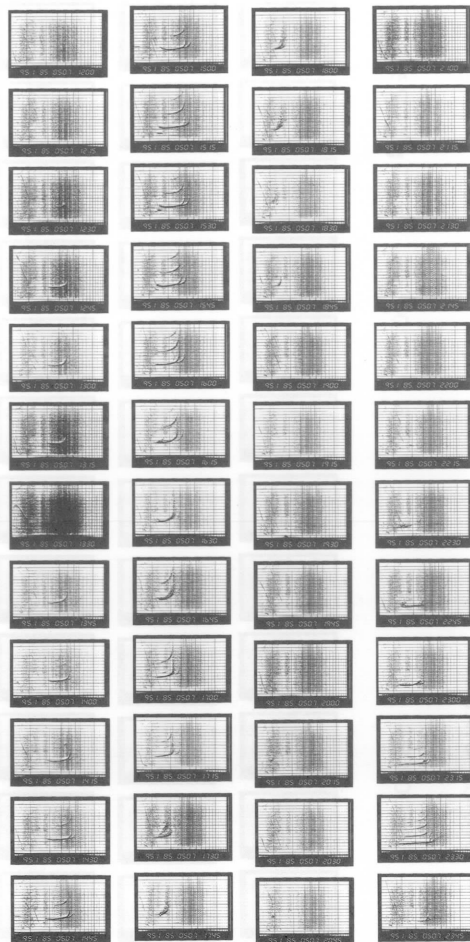
05 06

00:00-11:45
(lack 07:00-07:45)

SYOWA STATION

IONOGRAM

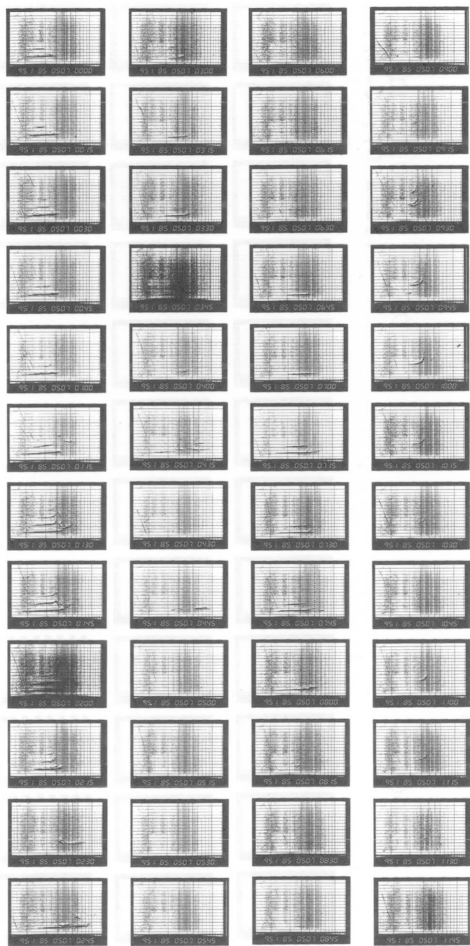
1985 05 07 12:00-23:45



SYOWA STATION

IONOGRAM

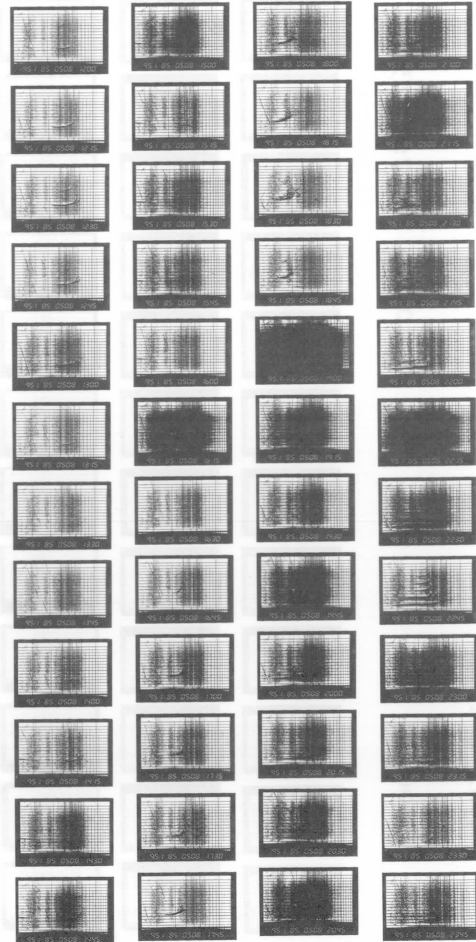
1985 05 07 00:00-11:45



SYOWA STATION

IONOGRAM

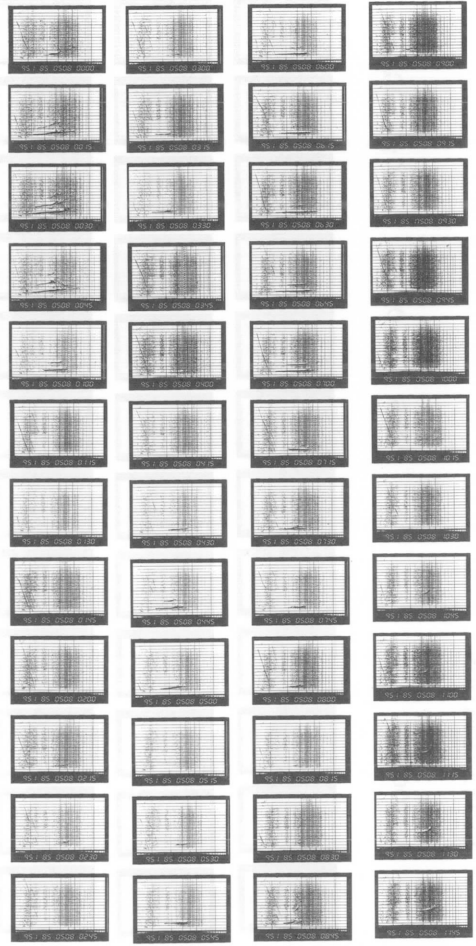
1985 05 08 12:00-23:45



SYOWA STATION

IONOGRAM

1985 05 08 00:00-11:45



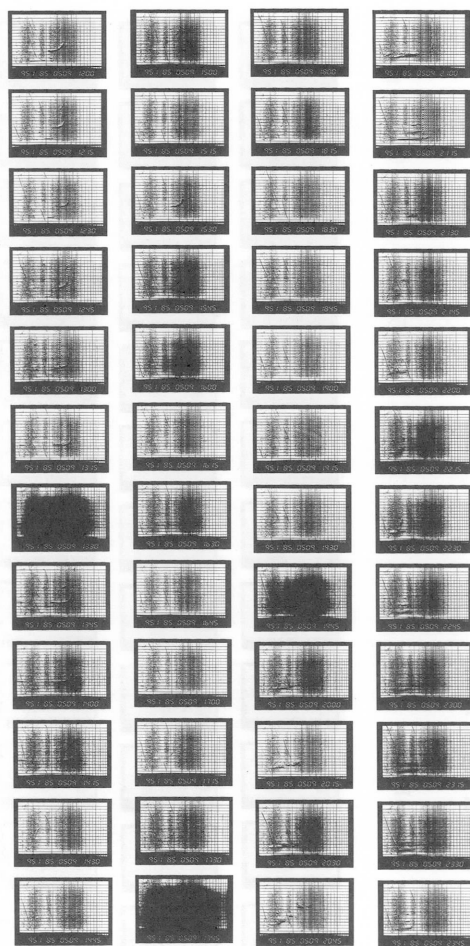
SYOWA STATION

IONOGRAM

1985

05 09

12:00-23:45



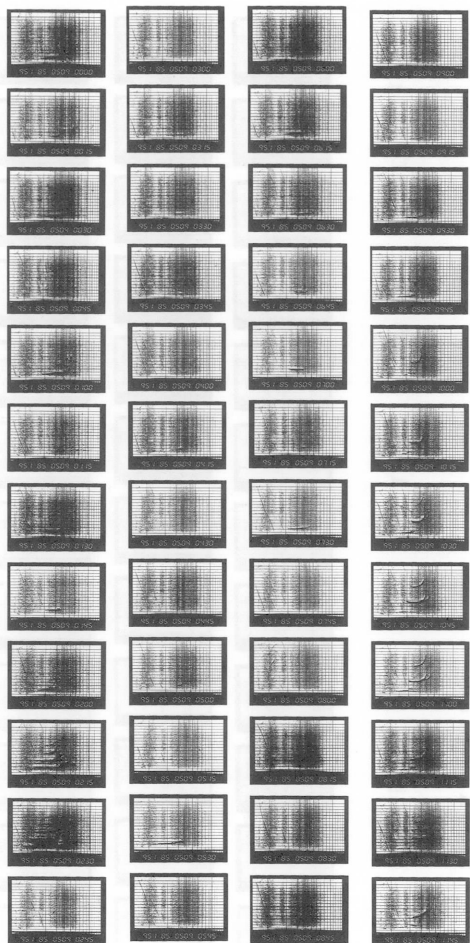
SYOWA STATION

IONOGRAM

1985

05 09

00:00-11:45

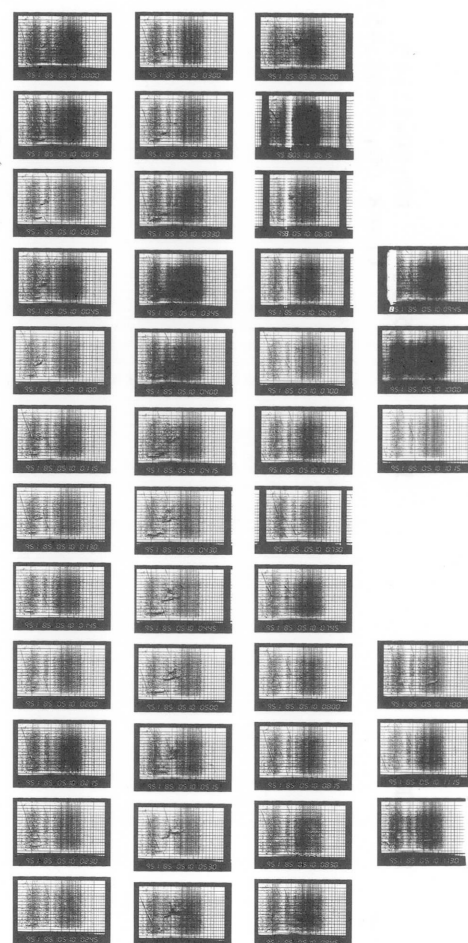


SYOWA STATION

IONOGRAM

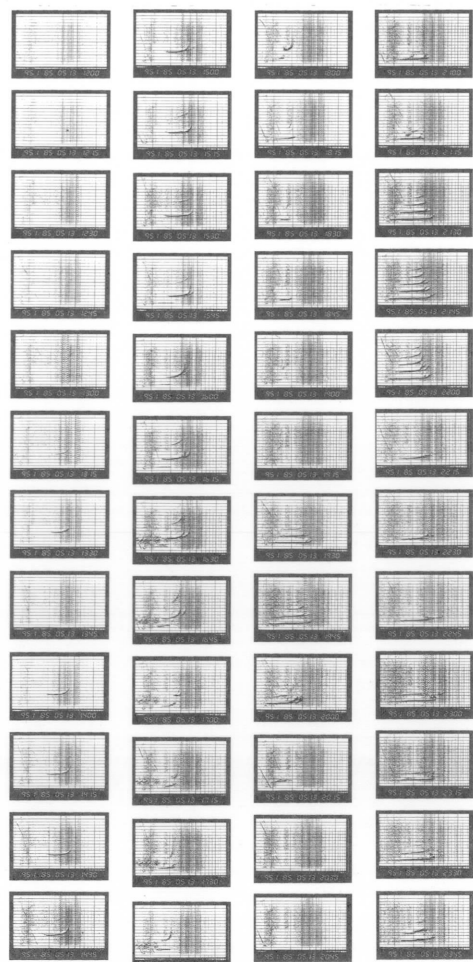
1985

05 10

 00:00-11:45
 lack
 (09:00-09:30
 10:30-10:45
 11:45)


SYOWA STATION

IONOGRAM



1985 05 13 12:00-23:45

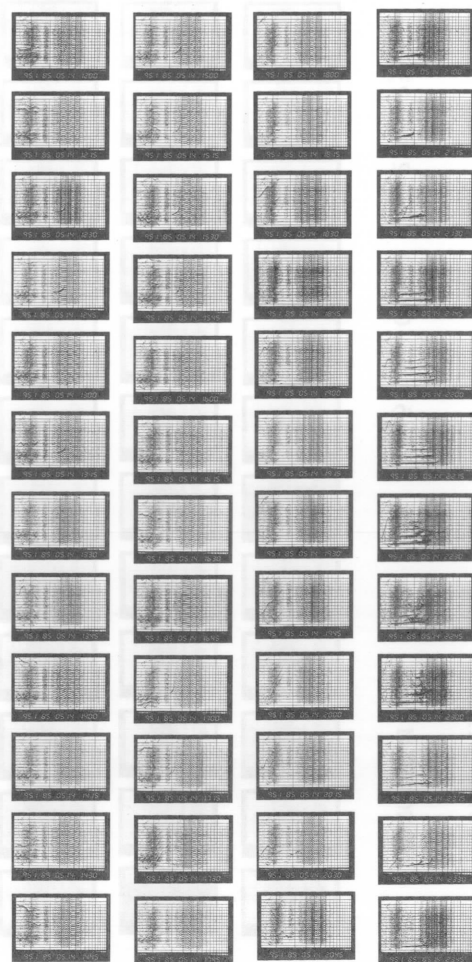
SYOWA STATION

IONOGRAM

1985 05 13 00:00-11:45
(lack 00:00-08:45)

SYOWA STATION

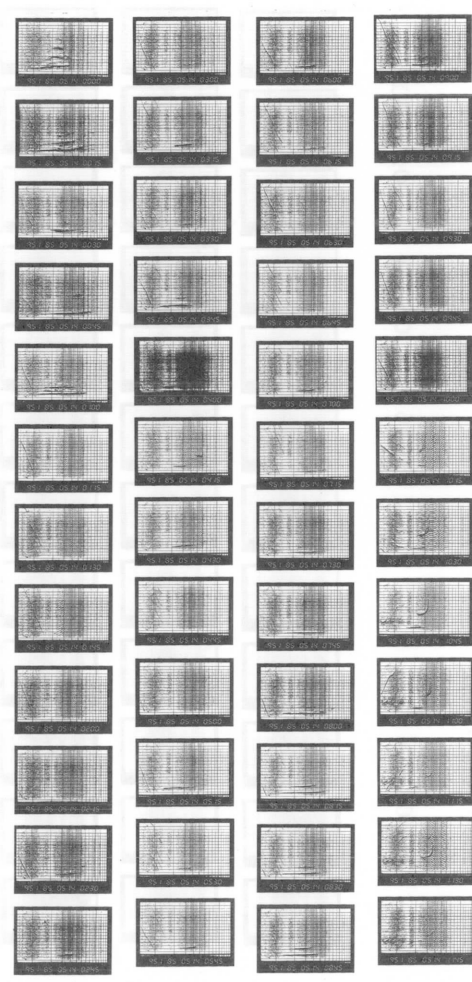
IONOGRAM



1985 05 14 12:00-23:45

SYOWA STATION

IONOGRAM



1985 05 14 00:00-11:45

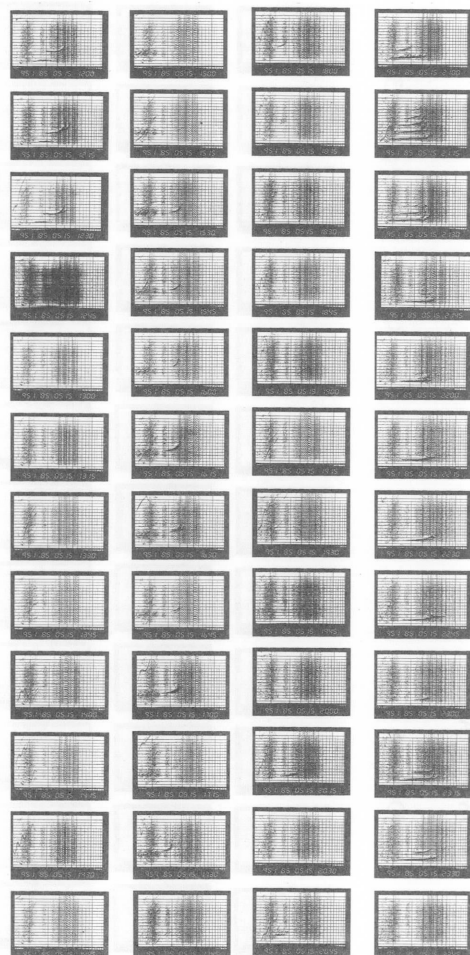
SYOWA STATION

IONOGRAM

1985

05 15

12:00-23:45



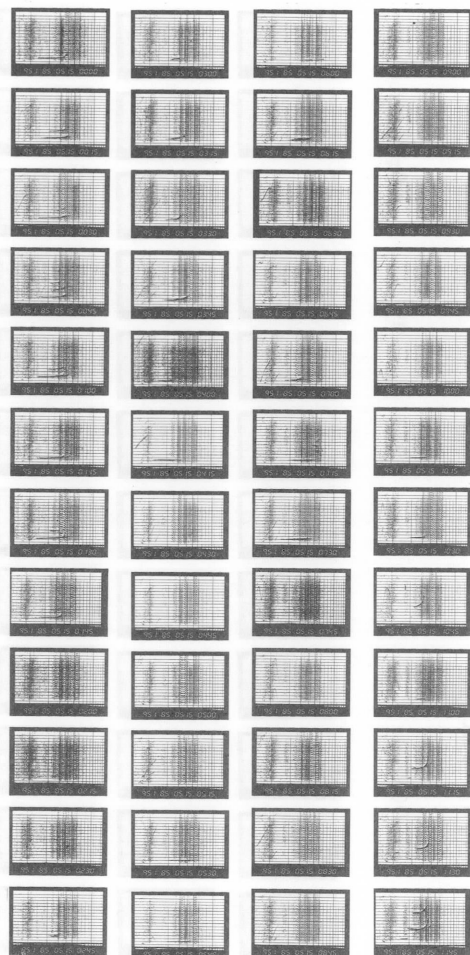
SYOWA STATION

IONOGRAM

1985

05 15

00:00-11:45



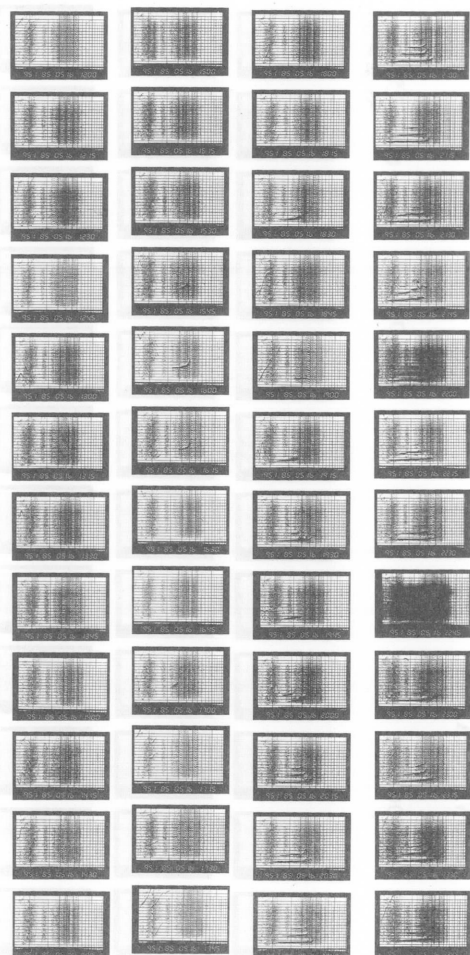
SYOWA STATION

IONOGRAM

1985

05 16

12:00-23:45



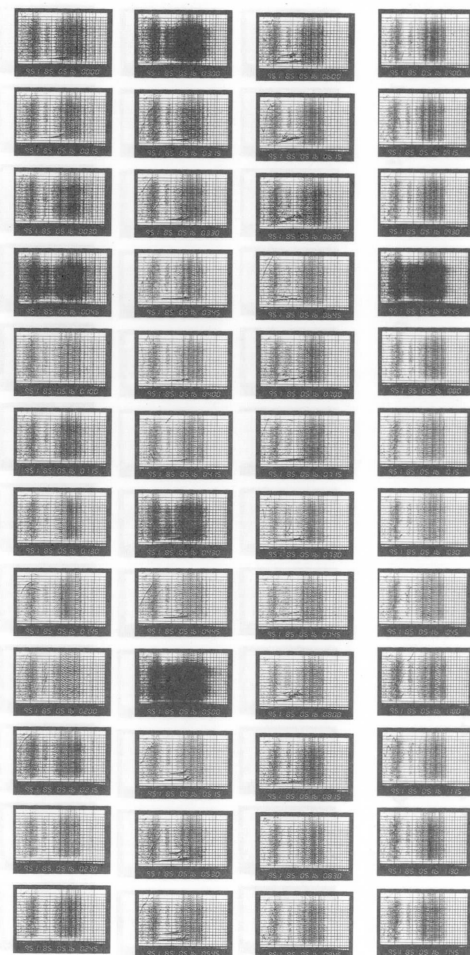
SYOWA STATION

IONOGRAM

1985

05 16

00:00-11:45



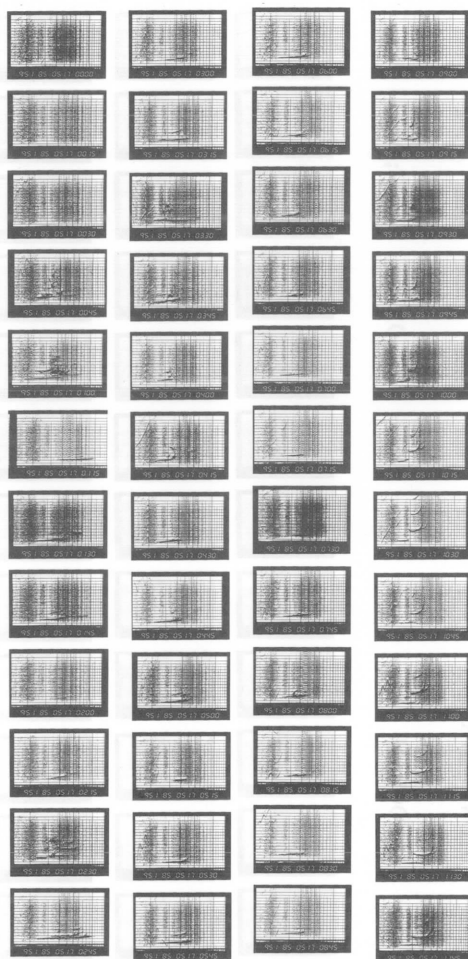
SYOWA STATION

IONOGRAM

1985

05 17

00:00-11:45



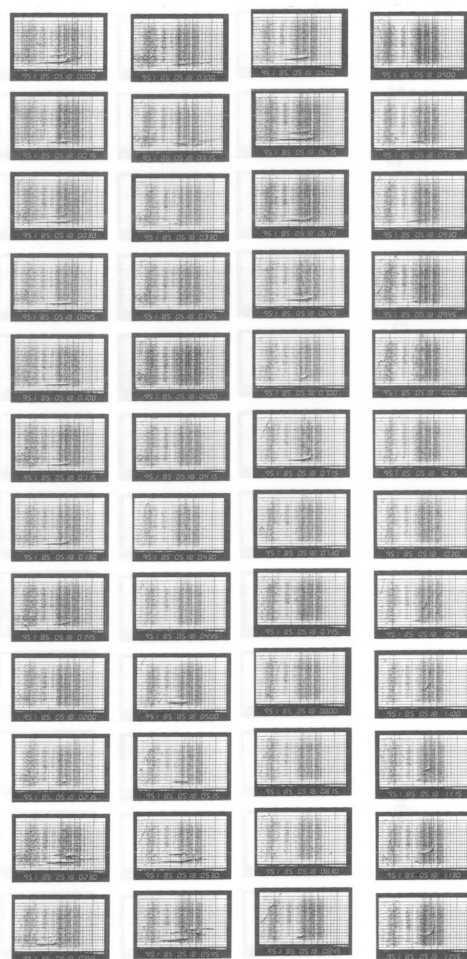
SYOWA STATION

IONOGRAM

1985

05 18

00:00-11:45



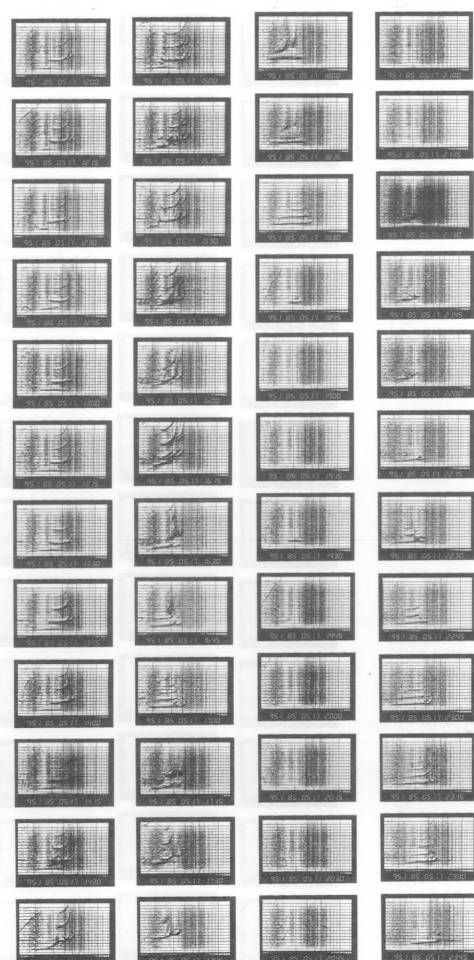
SYOWA STATION

IONOGRAM

1985

05 17

12:00-23:45



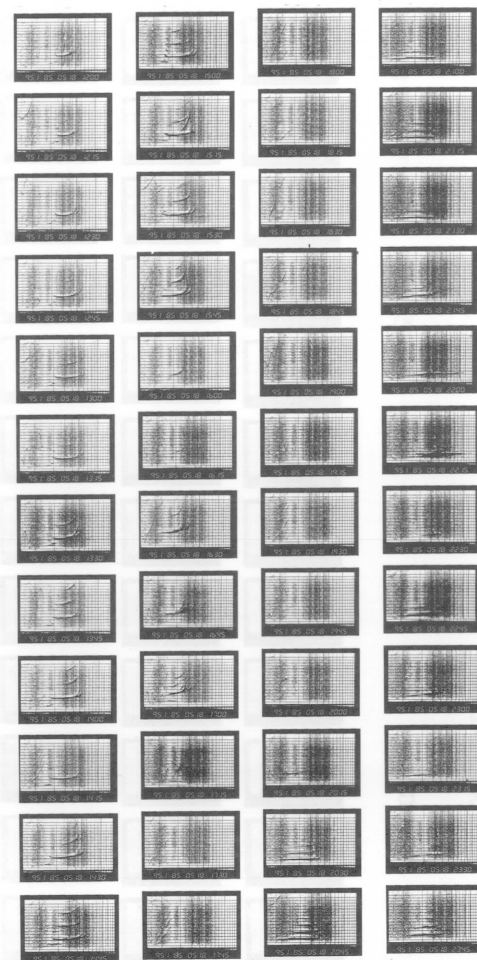
SYOWA STATION

IONOGRAM

1985

05 18

12:00-23:45



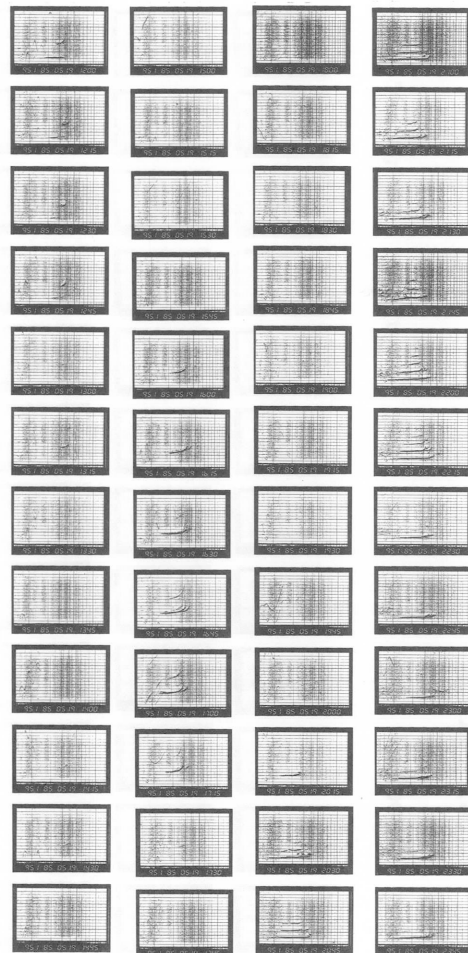
SYOWA STATION

IONOGRAM

1985

05 19

12:00-23:45



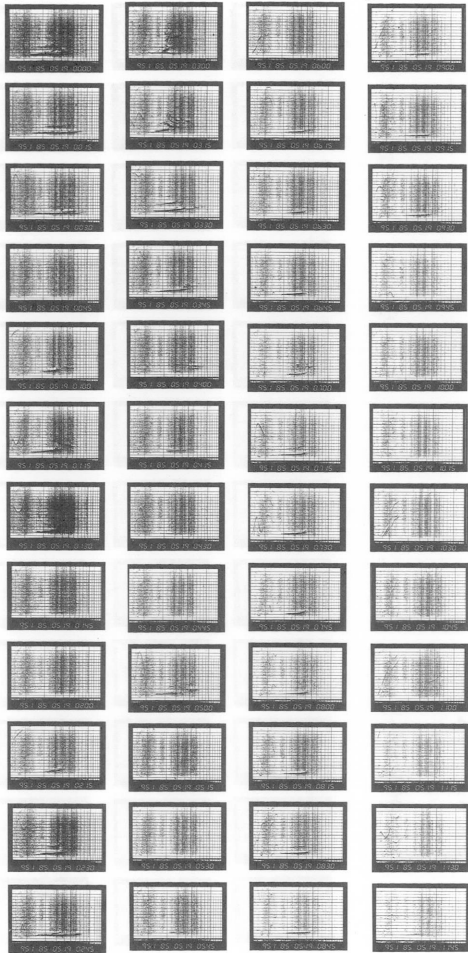
SYOWA STATION

IONOGRAM

1985

05 19

00:00-11:45



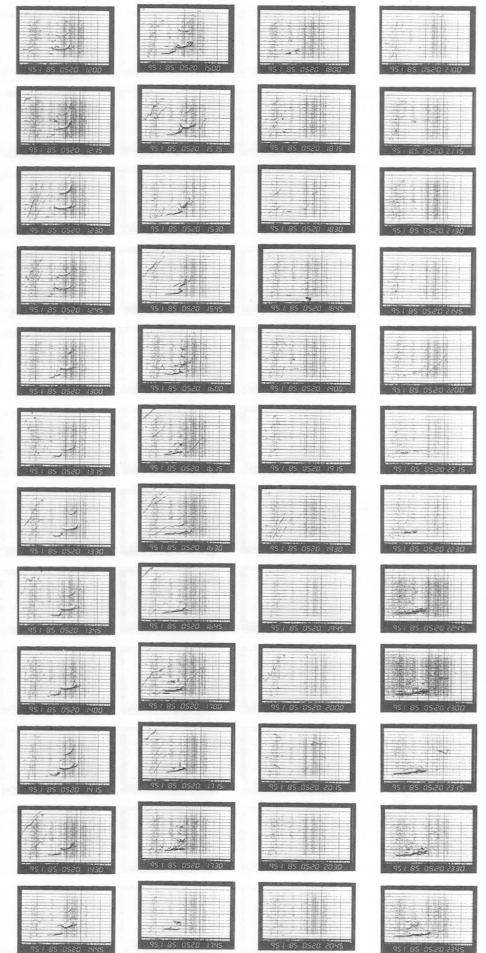
SYOWA STATION

IONOGRAM

1985

05 20

12:00-23:45

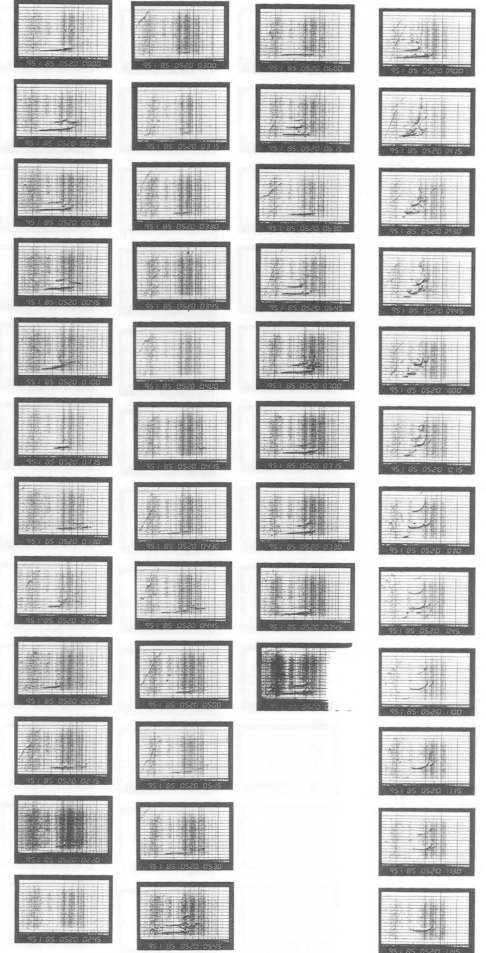


SYOWA STATION

IONOGRAM

1985

05 20

00:00-11:45
(lack 08:15-0845)

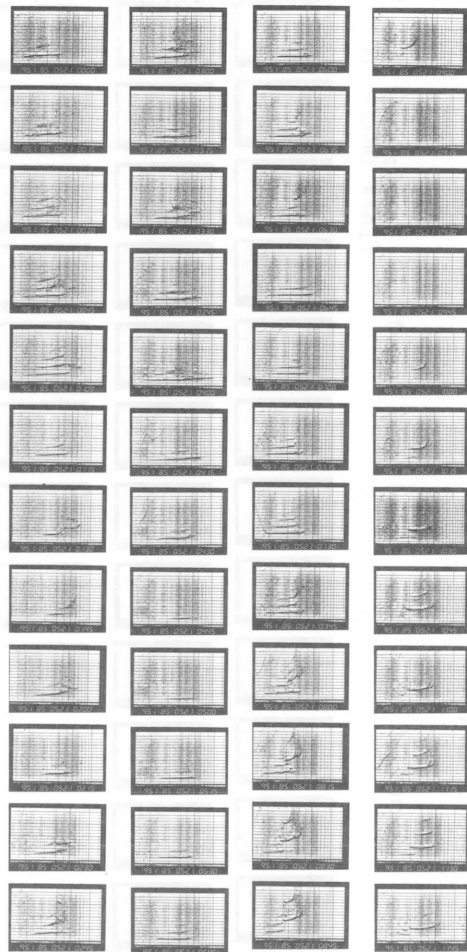
SYOWA STATION

IONOGRAM

1985

05 21

00:00-11:45



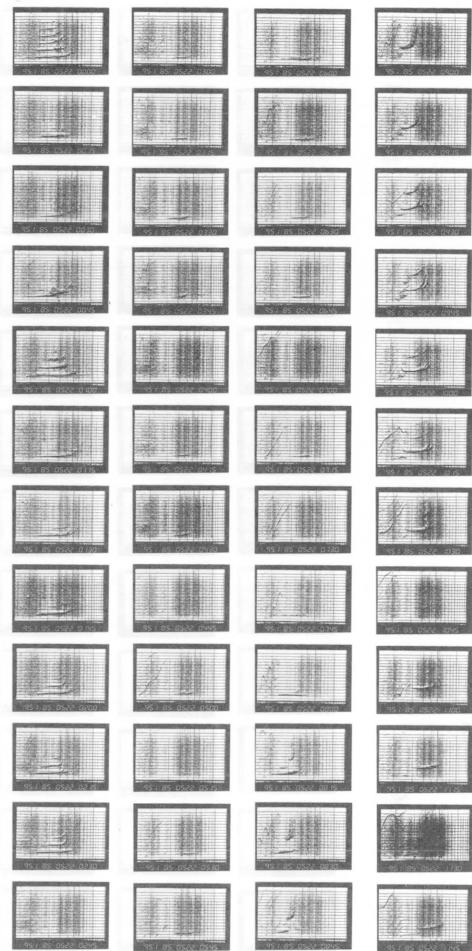
SYOWA STATION

IONOGRAM

1985

05 22

00:00-11:45



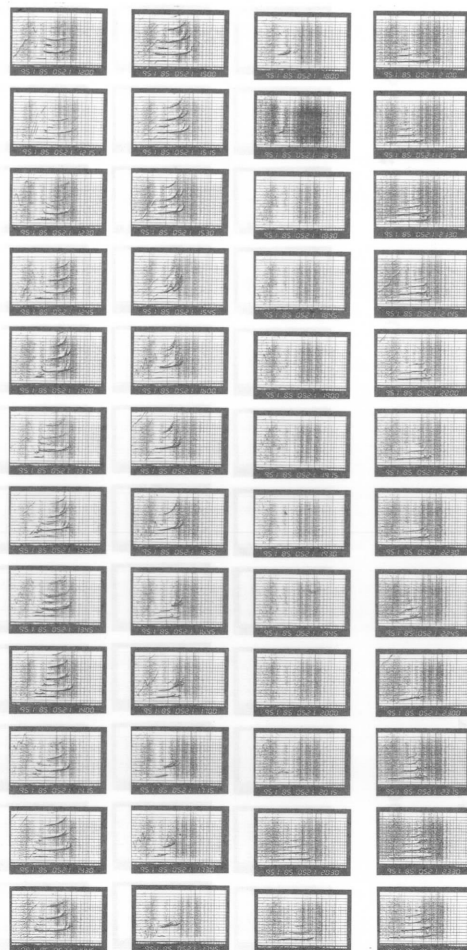
SYOWA STATION

IONOGRAM

1985

05 21

12:00-23:45



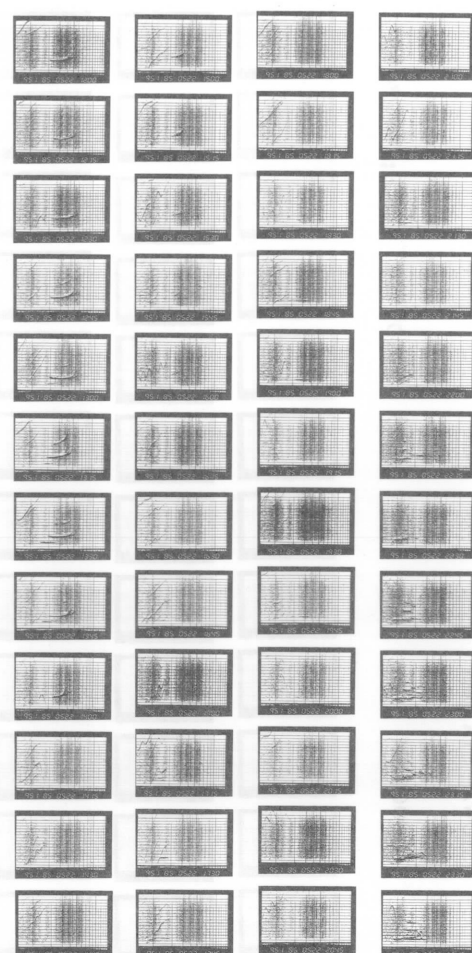
SYOWA STATION

IONOGRAM

1985

05 22

12:00-23:45



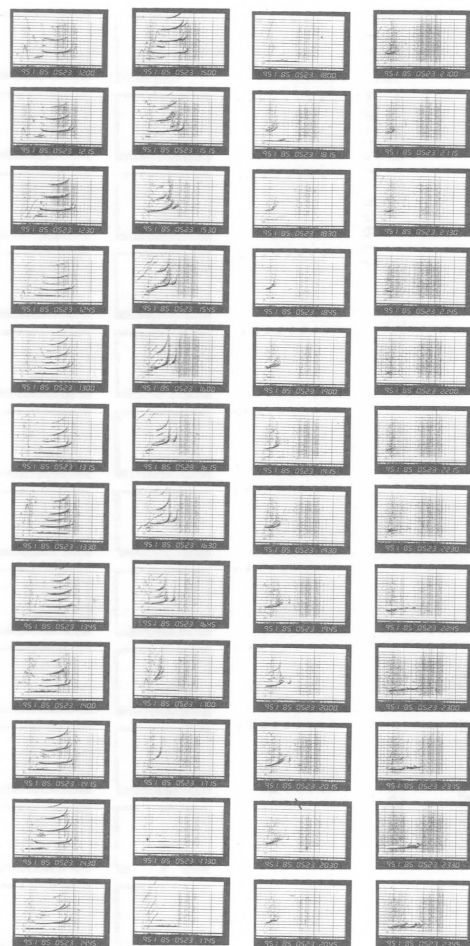
SYOWA STATION

IONOGRAM

1985

05 23

12:00-23:45



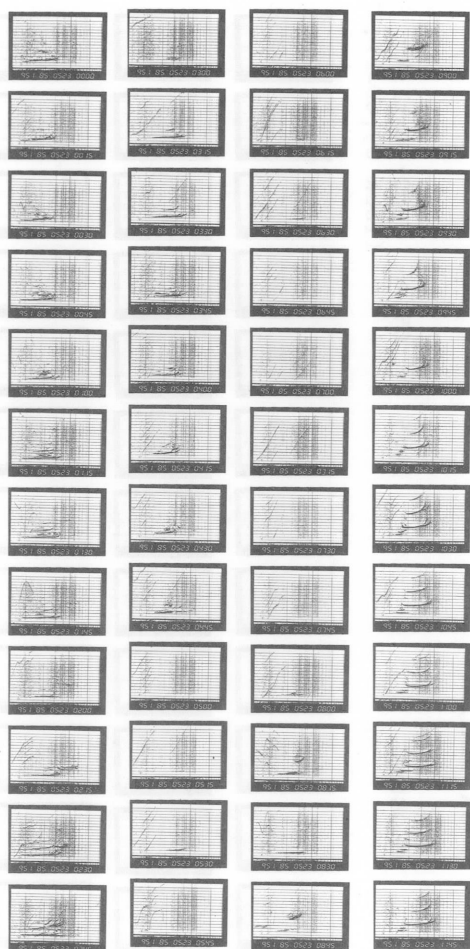
SYOWA STATION

IONOGRAM

1985

05 23

00:00-11:45



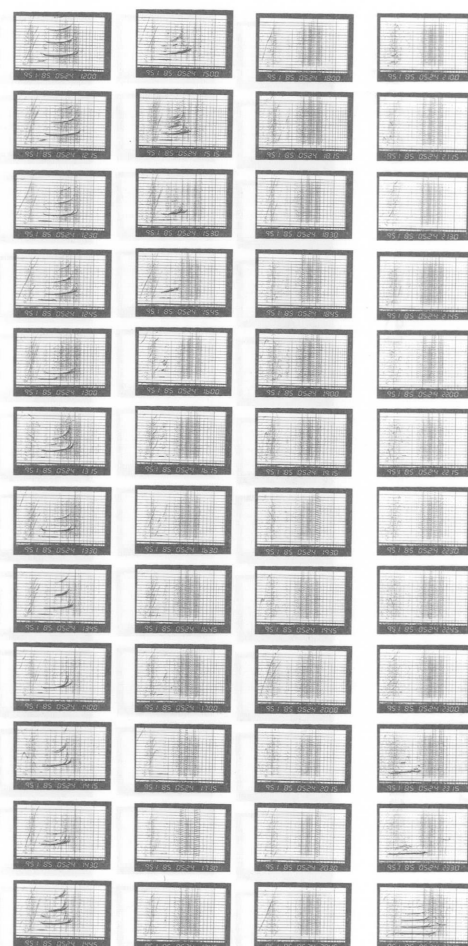
SYOWA STATION

IONOGRAM

1985

05 24

12:00-23:45



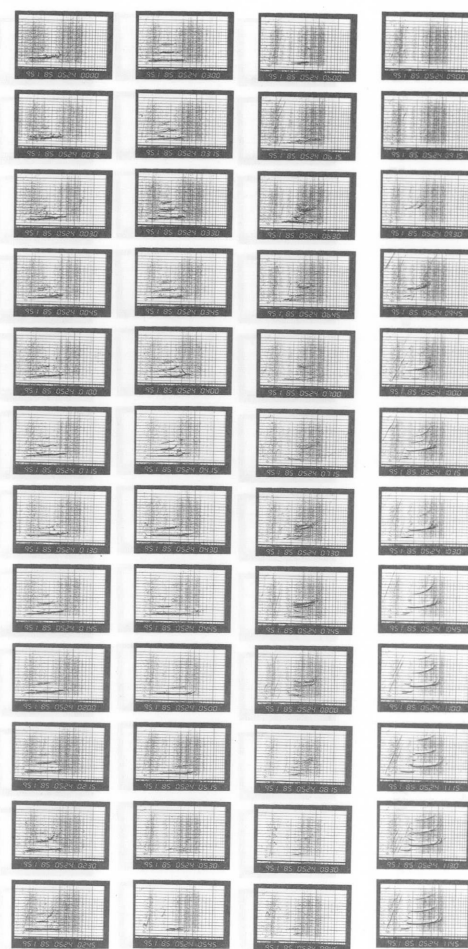
SYOWA STATION

IONOGRAM

1985

05 24

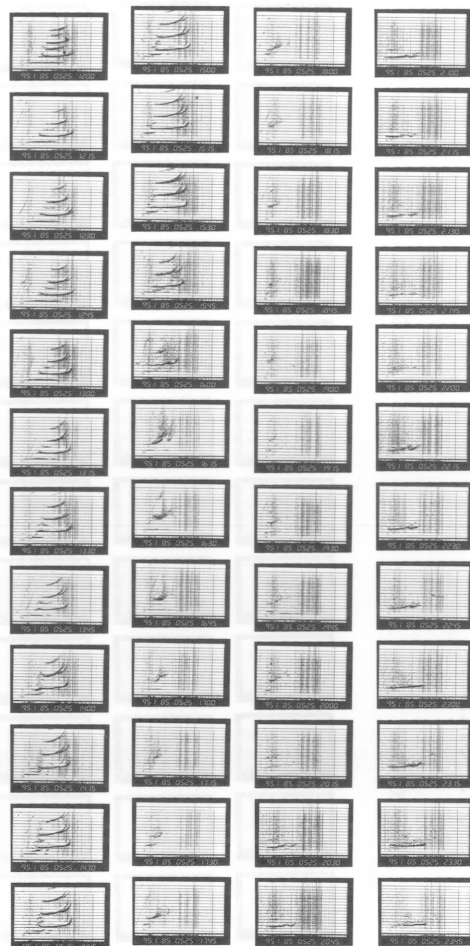
00:00-11:45



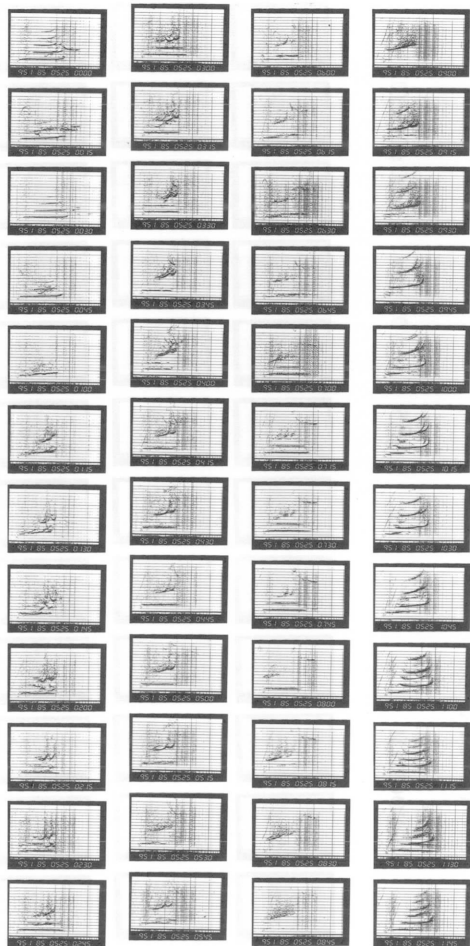
SYOWA STATION

IONOGRAM

1985 05 25 12:00-23:45

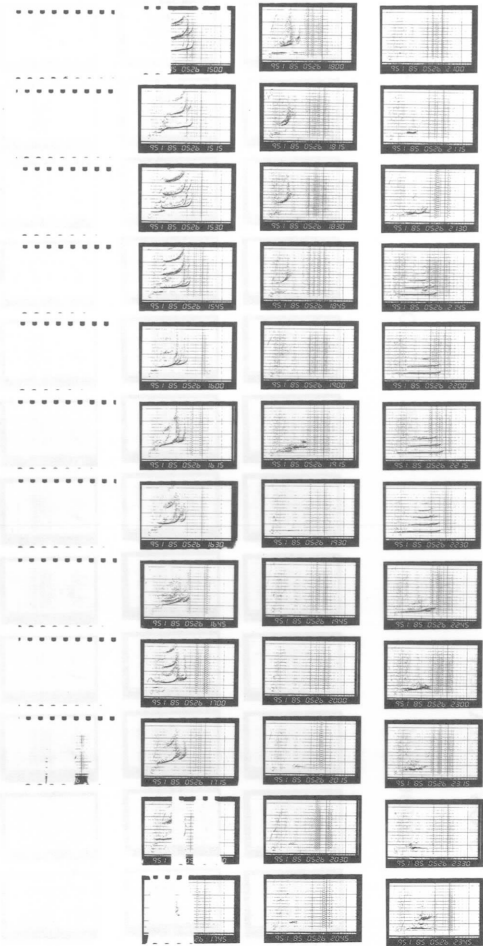
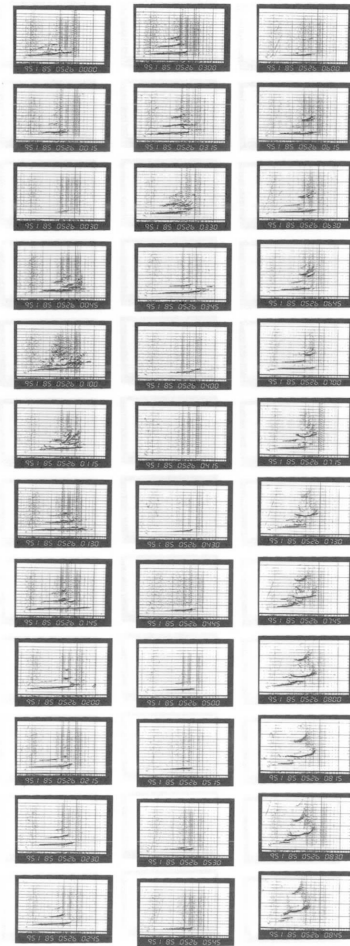


1985 05 25 00:00-11:45



SYOWA STATION

IONOGRAM

1985 05 26 12:00-23:45
(lack 12:00-12:15)1985 05 26 00:00-11:45
(lack 09:00-11:45)

SYOWA STATION

IONOGRAM

SYOWA STATION

IONOGRAM

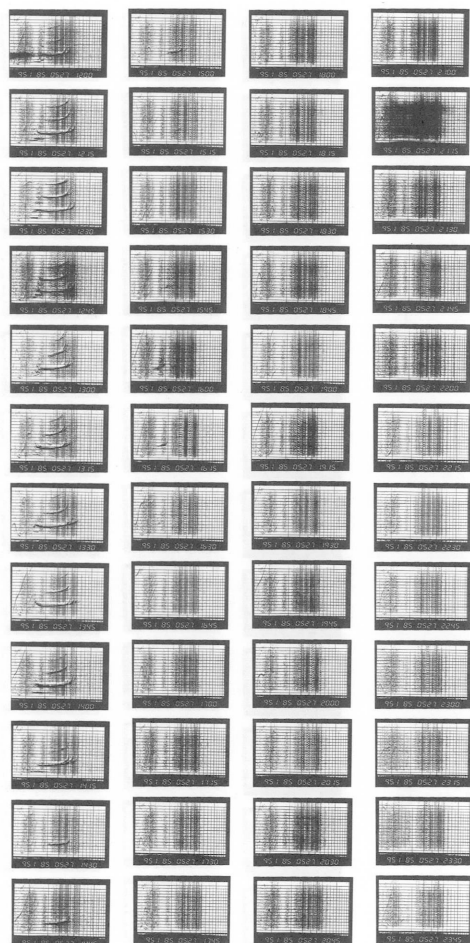
SYOWA STATION

IONOGRAM

1985

05 27

12:00-23:45



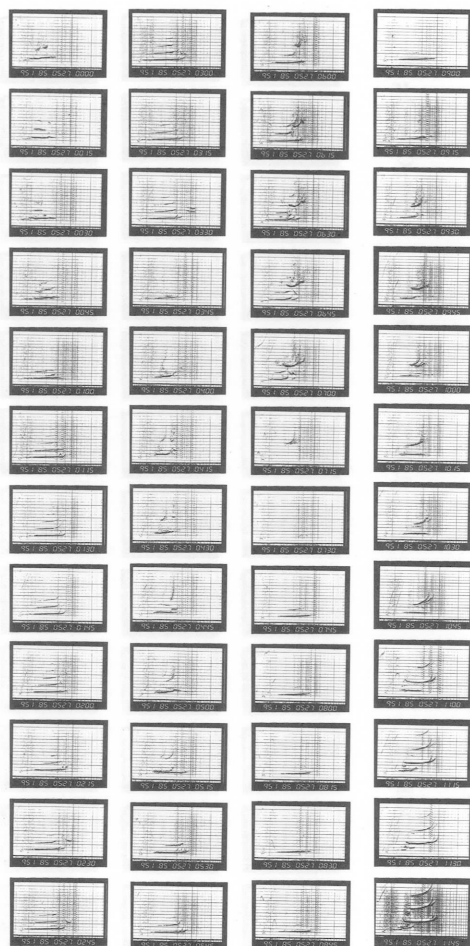
SYOWA STATION

IONOGRAM

1985

05 27

00:00-11:45



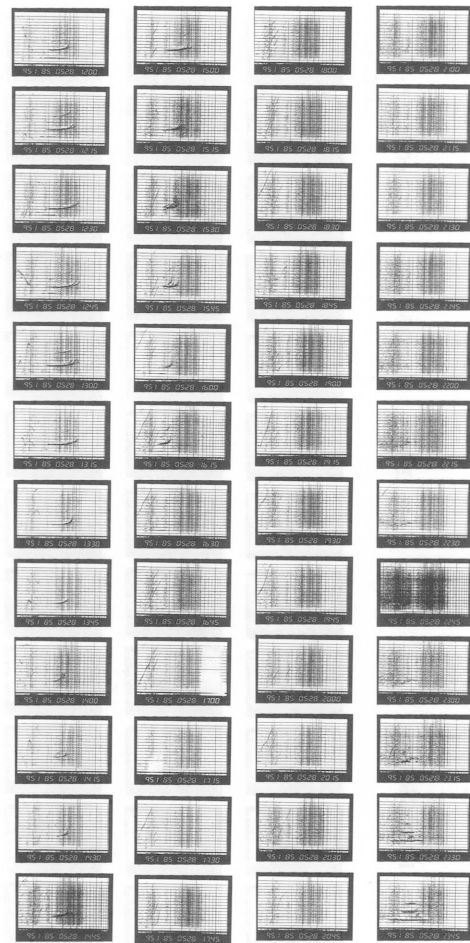
SYOWA STATION

IONOGRAM

1985

05 28

12:00-23:45



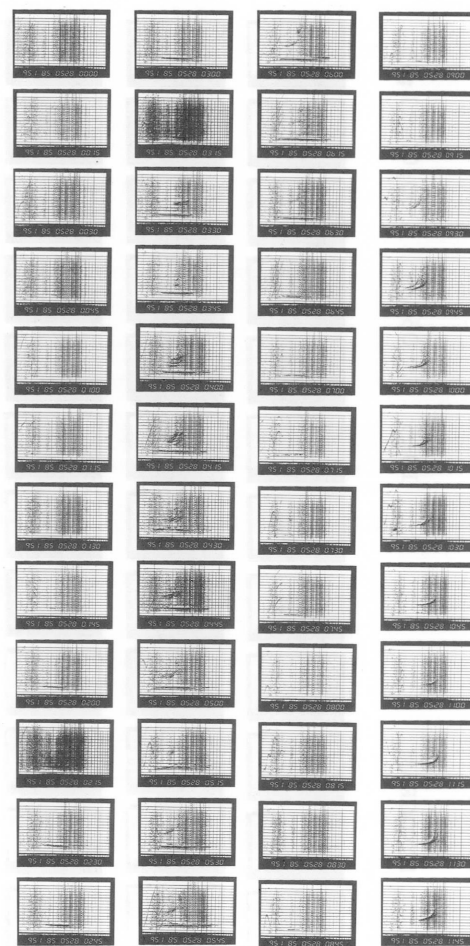
SYOWA STATION

IONOGRAM

1985

05 28

00:00-11:45



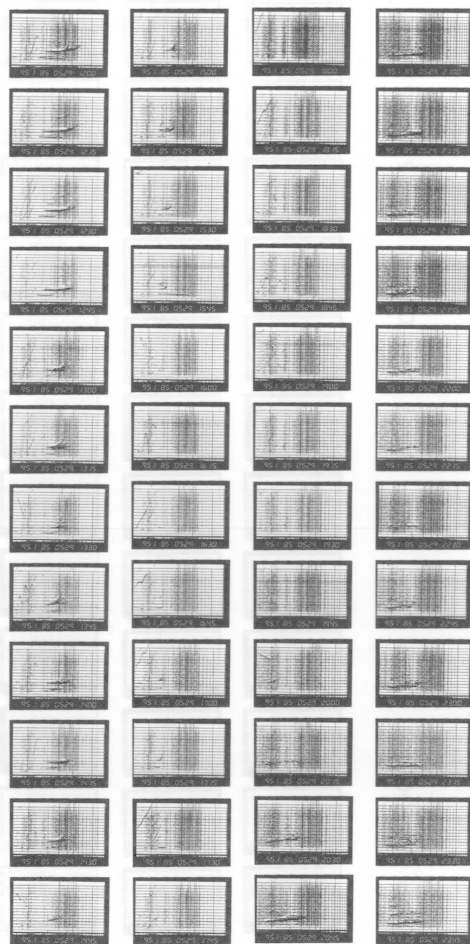
SYOWA STATION

IONOGRAM

1985

05 29

12:00-23:45



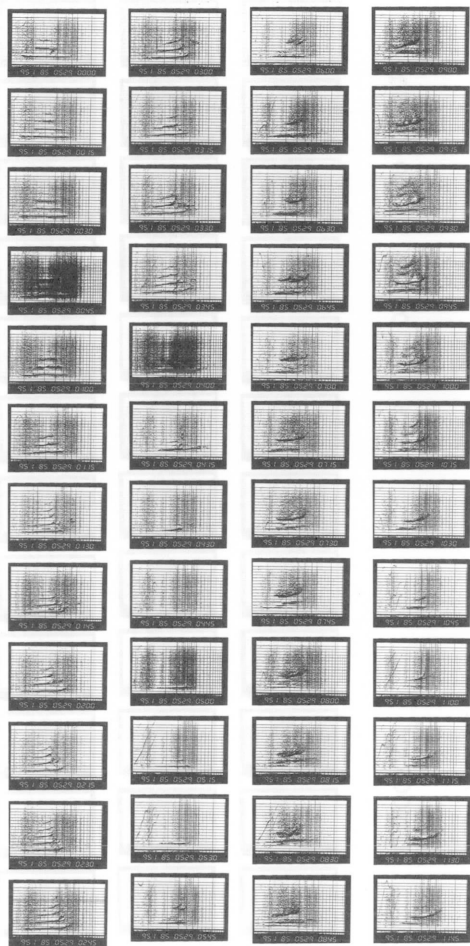
SYOWA STATION

IONOGRAM

1985

05 29

00:00-11:45



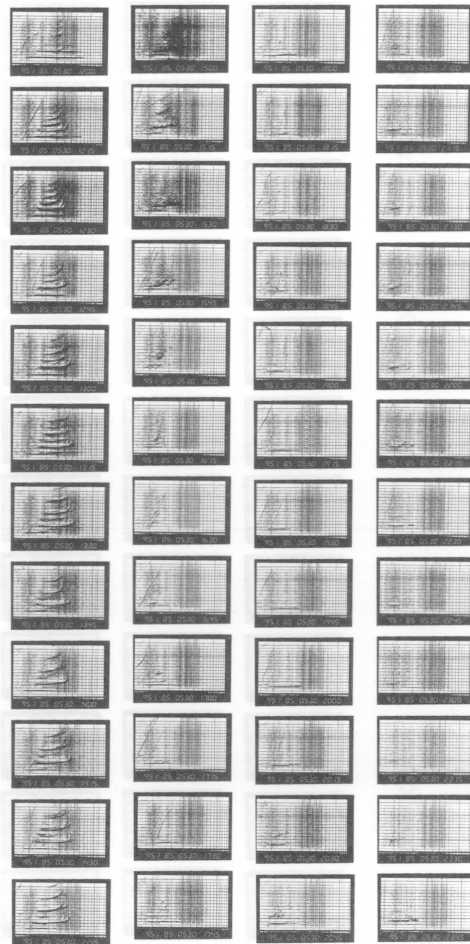
SYOWA STATION

IONOGRAM

1985

05 30

12:00-23:45



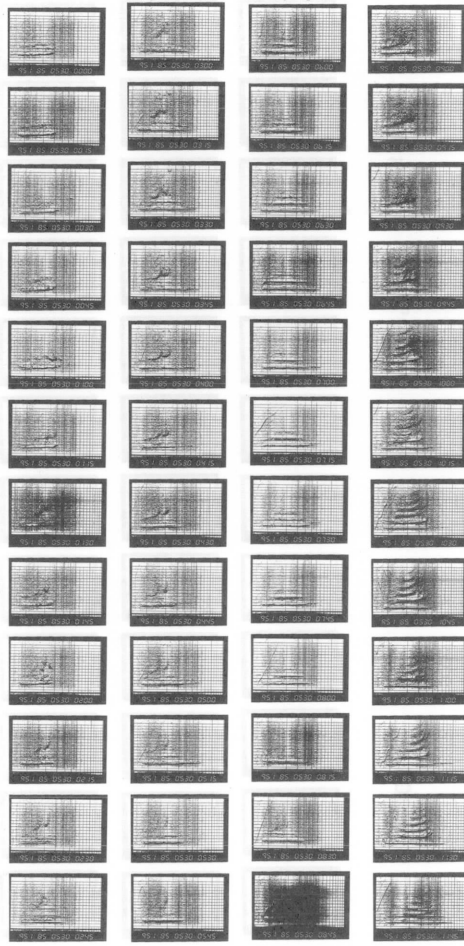
SYOWA STATION

IONOGRAM

1985

05 30

00:00-11:45



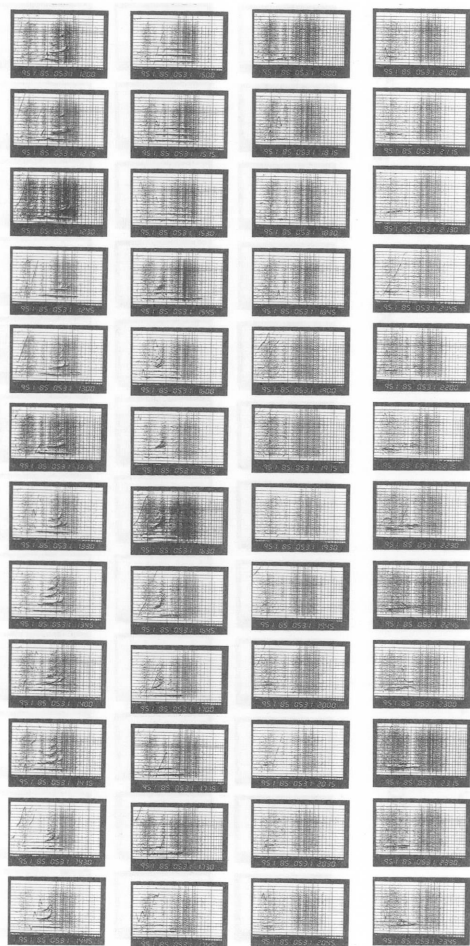
SYOWA STATION

IONOGRAM

1985

05 31

12:00-23:45



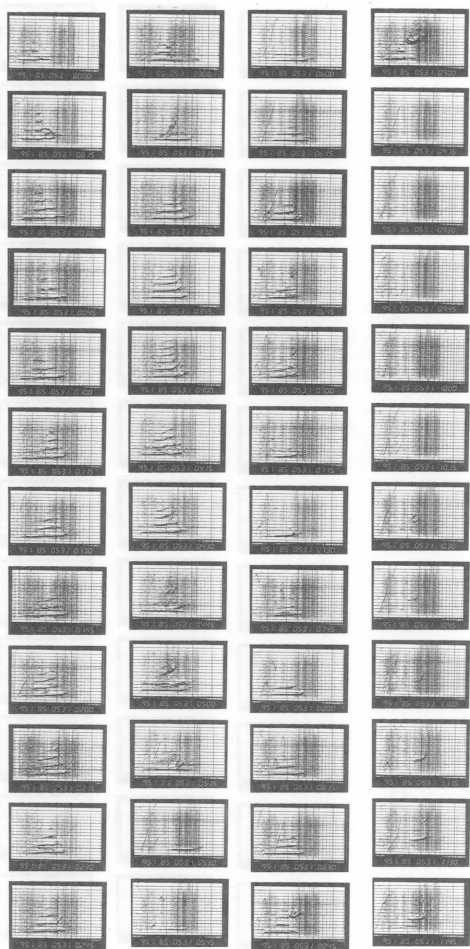
SYOWA STATION

IONOGRAM

1985

05 31

00:00-11:45



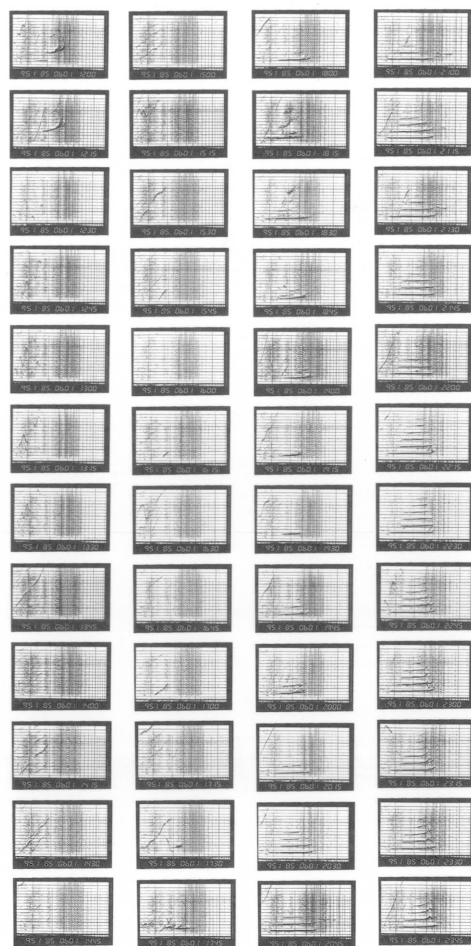
SYOWA STATION

IONOGRAM

1985

06 01

12:00-23:45



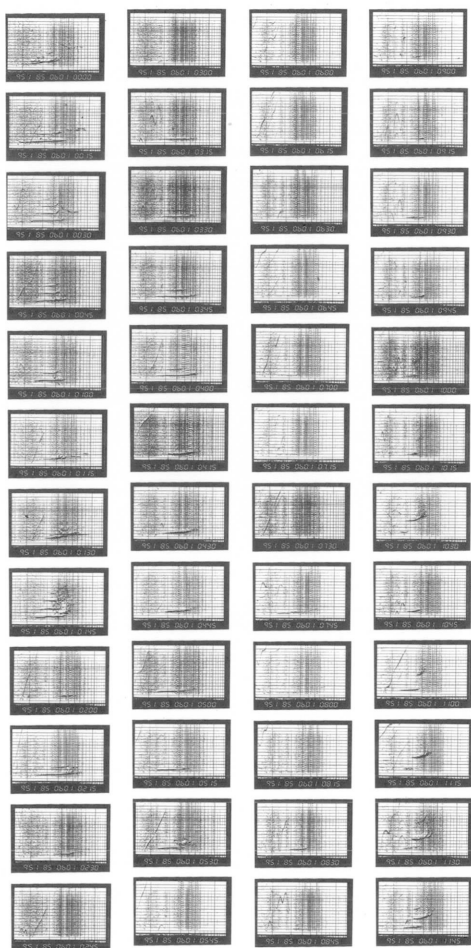
SYOWA STATION

IONOGRAM

1985

06 01

00:00-11:45



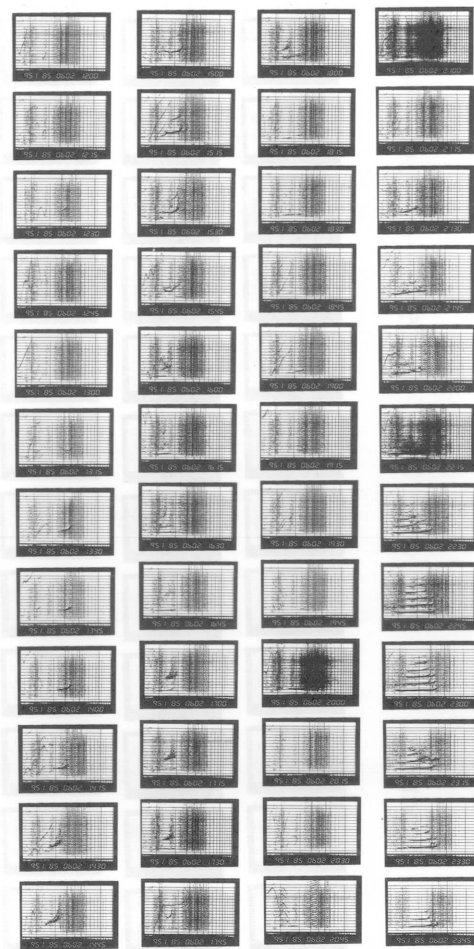
SYOWA STATION

IONOGRAM

1985

06 02

12:00-23:45



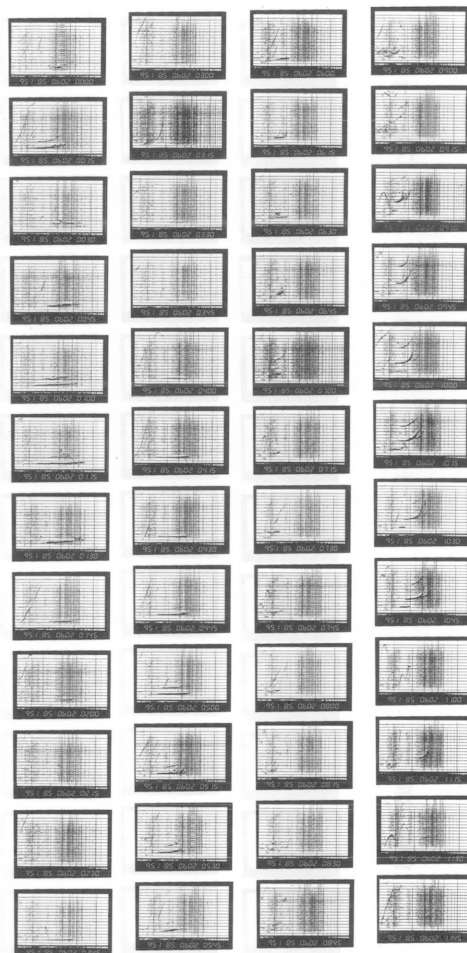
SYOWA STATION

IONOGRAM

1985

06 02

00:00-11:45



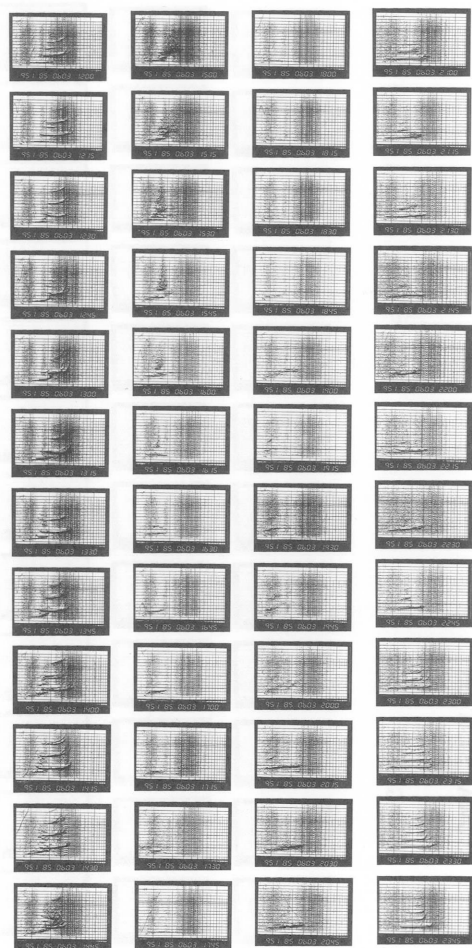
SYOWA STATION

IONOGRAM

1985

06 03

12:00-23:45



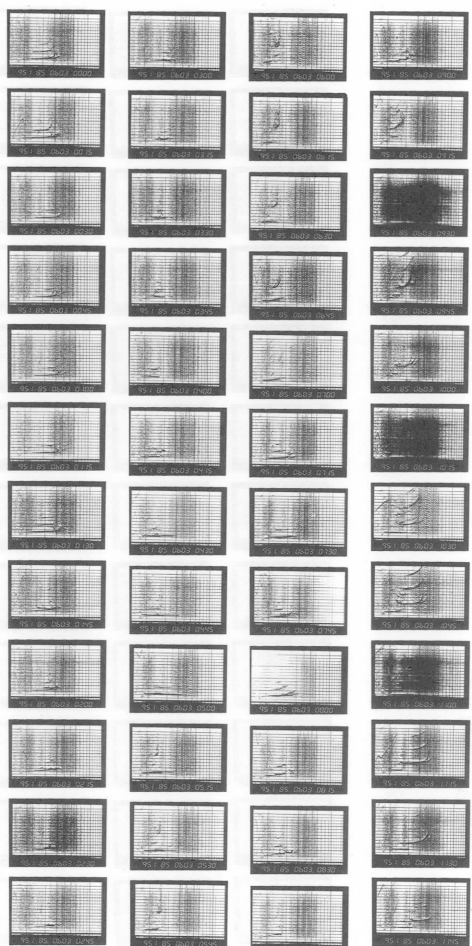
SYOWA STATION

IONOGRAM

1985

06 03

00:00-11:45



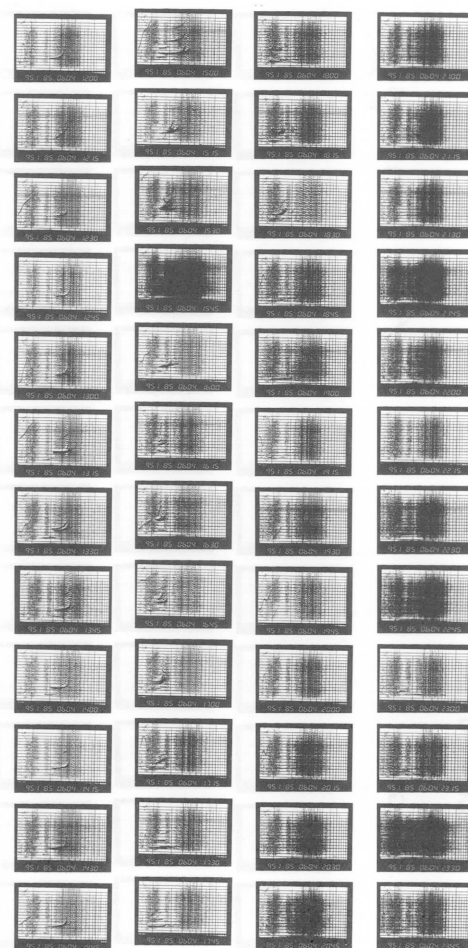
SYOWA STATION

IONOGRAM

1985

06 04

12:00-23:45



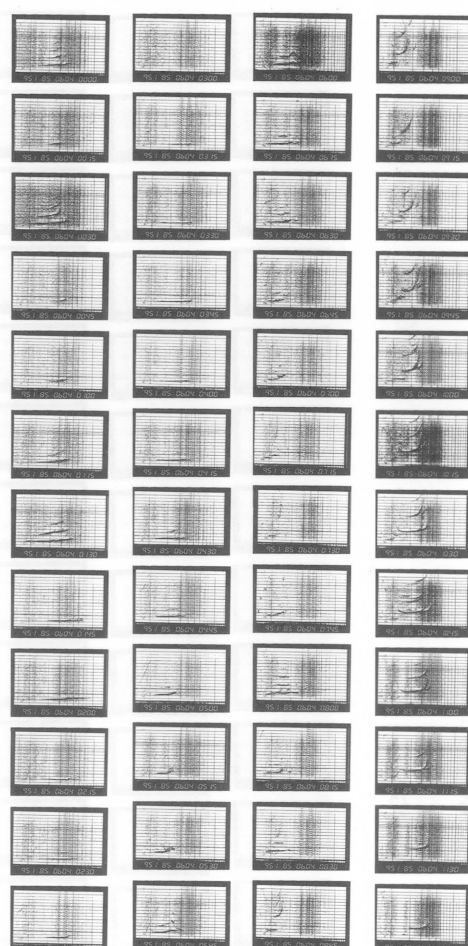
SYOWA STATION

IONOGRAM

1985

06 04

00:00-11:45



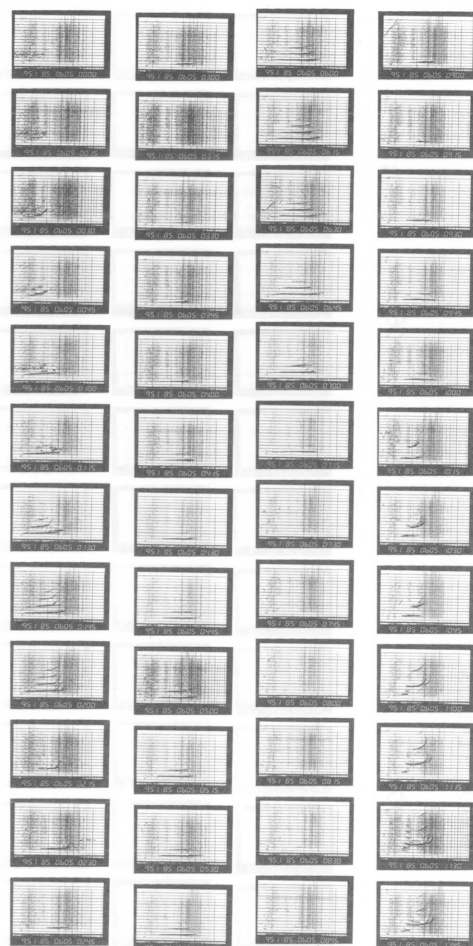
SYOWA STATION

IONOGRAM

1985

06 05

00:00-11:45



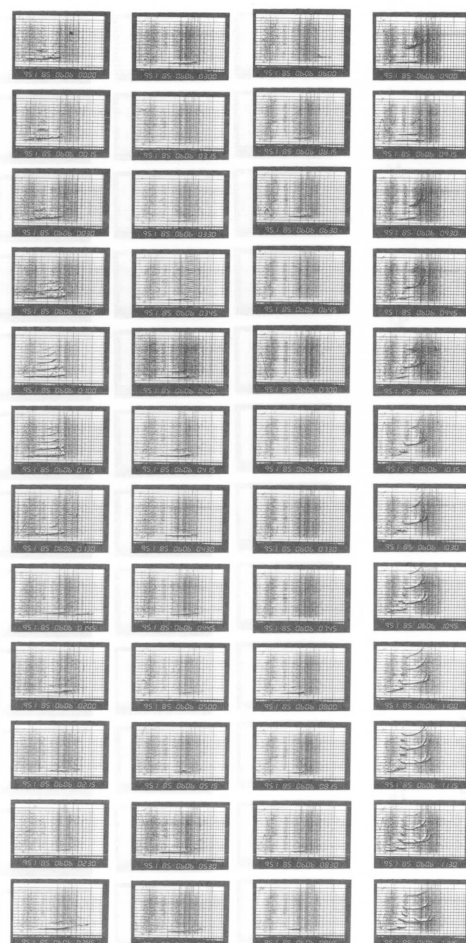
SYOWA STATION

IONOGRAM

1985

06 06

00:00-11:45



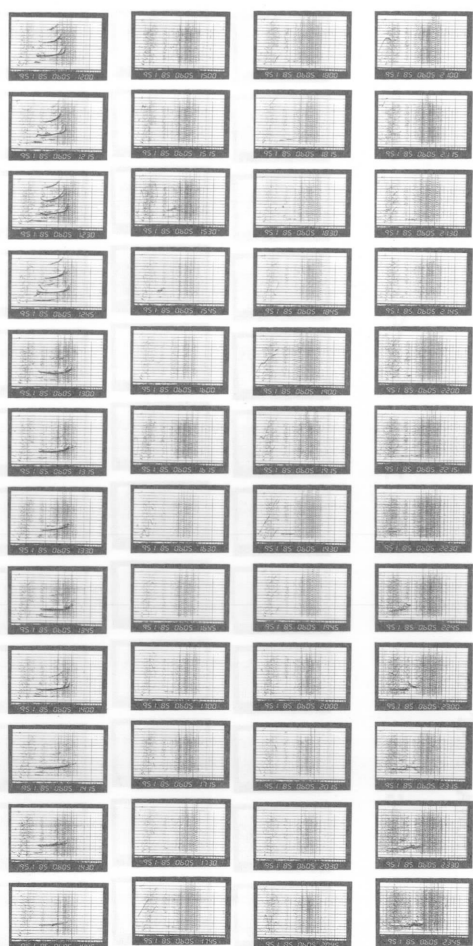
SYOWA STATION

IONOGRAM

1985

06 05

12:00-23:45



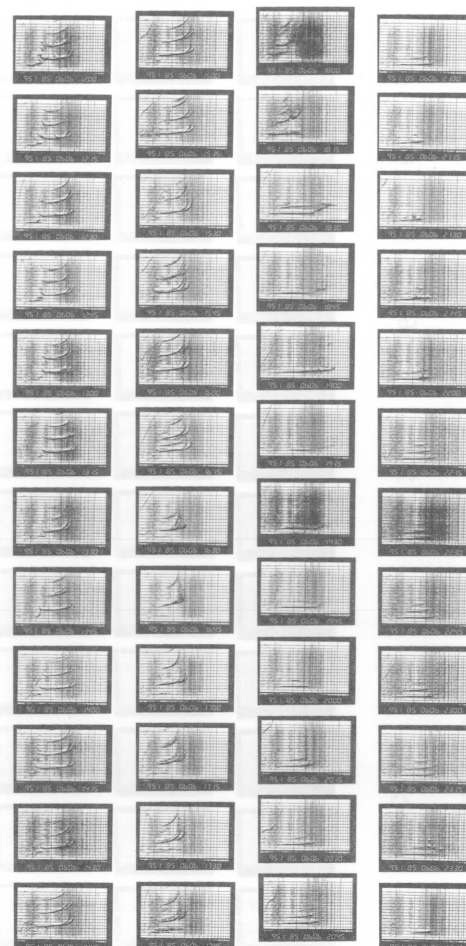
SYOWA STATION

IONOGRAM

1985

06 06

12:00-23:45



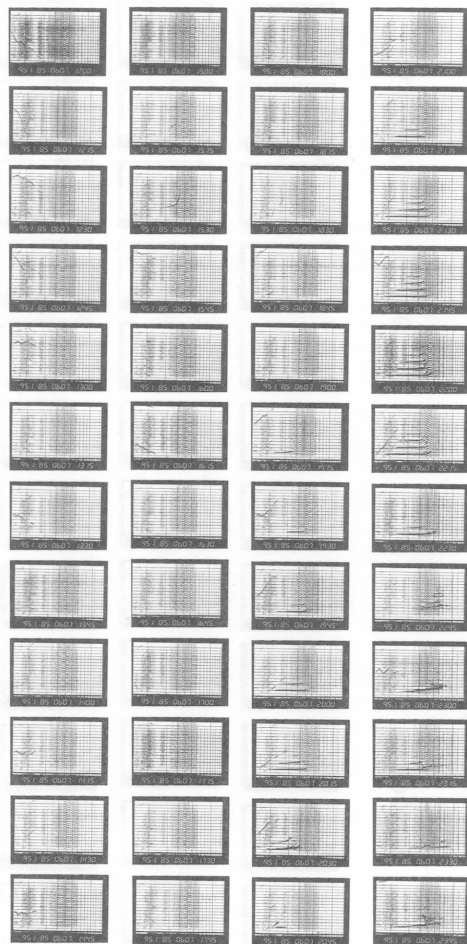
SYOWA STATION

IONOGRAM

1985

06 07

12:00-23:45



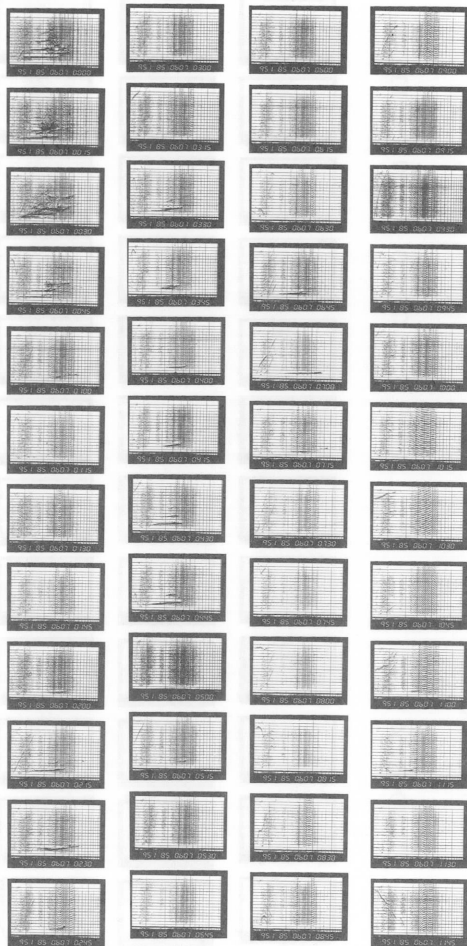
SYOWA STATION

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1985

06 07

00:00-11:45



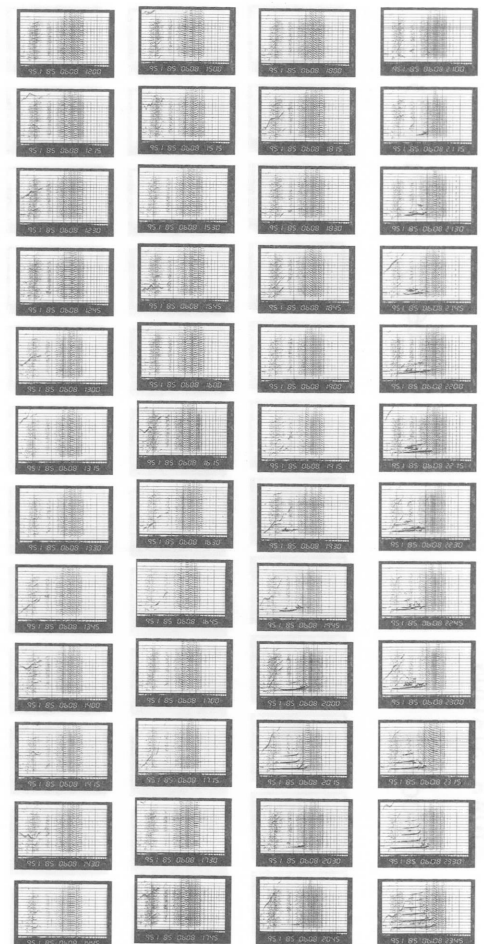
SYOWA STATION

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1985

06 08

12:00-23:45



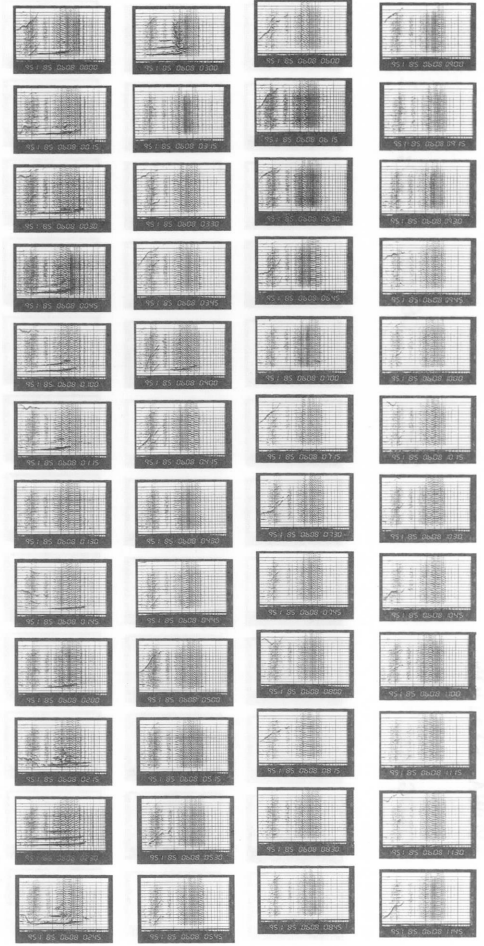
SYOWA STATION

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1985

06 08

00:00-11:45



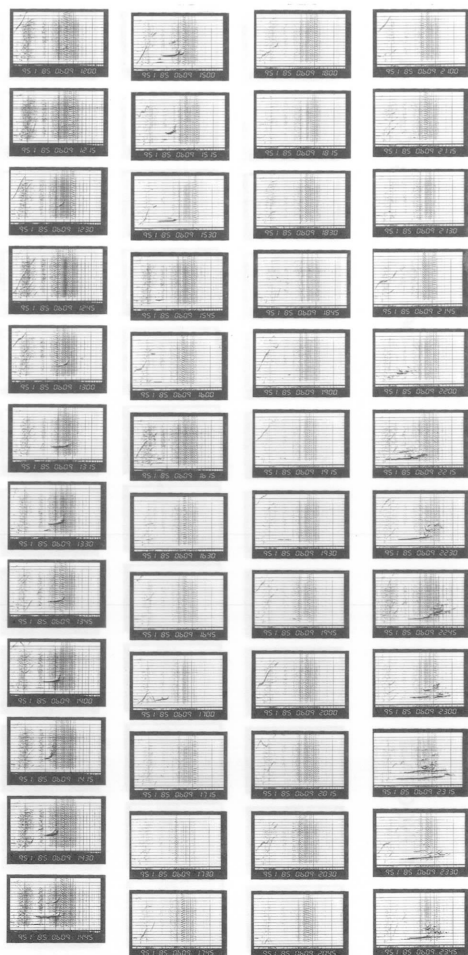
SYOWA STATION

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1985

06 09

12:00-23:45



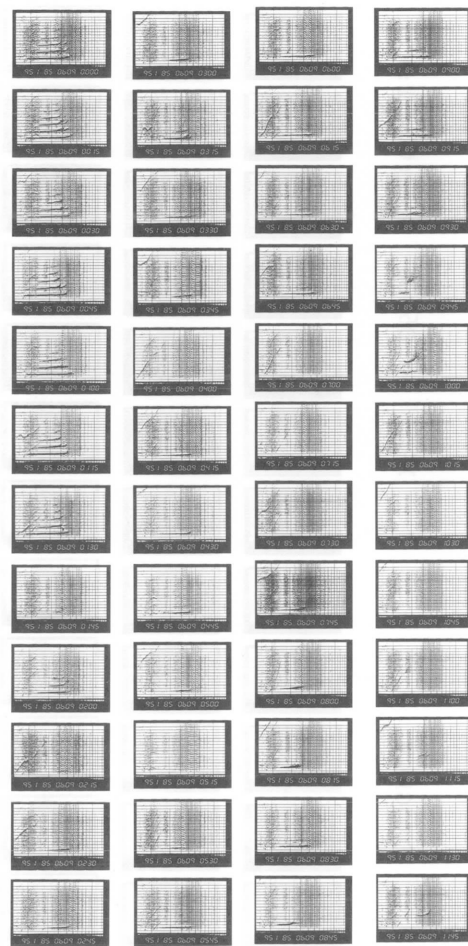
SYOWA STATION

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1985

06 09

00:00-11:45



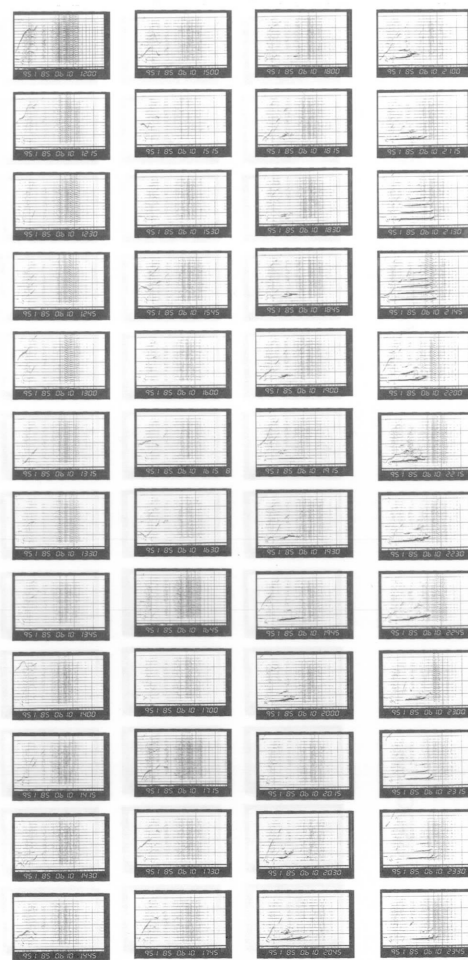
SYOWA STATION

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1985

06 10

12:00-23:45



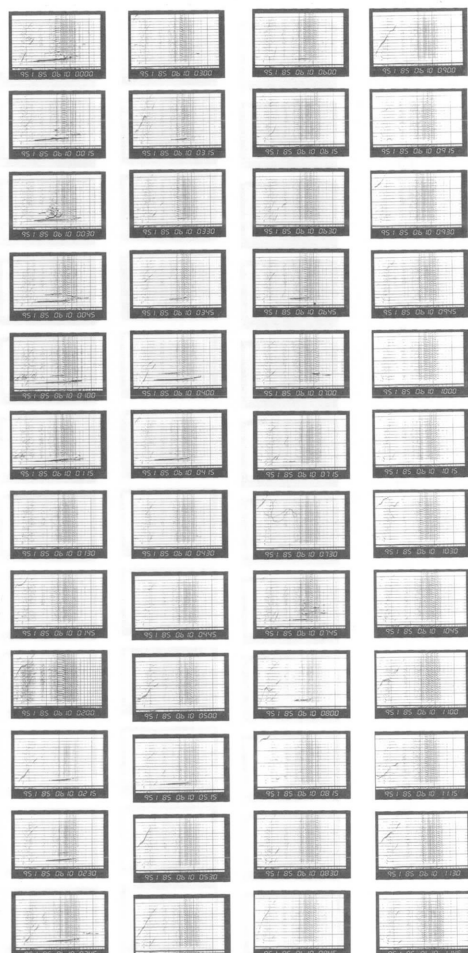
SYOWA STATION

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1985

06 10

00:00-11:45



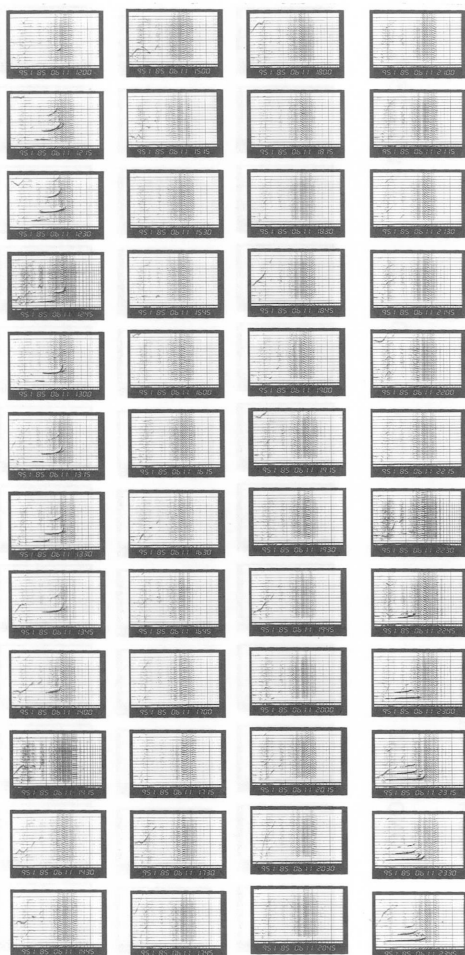
SYOWA STATION

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1985

06 11

12:00-23:45



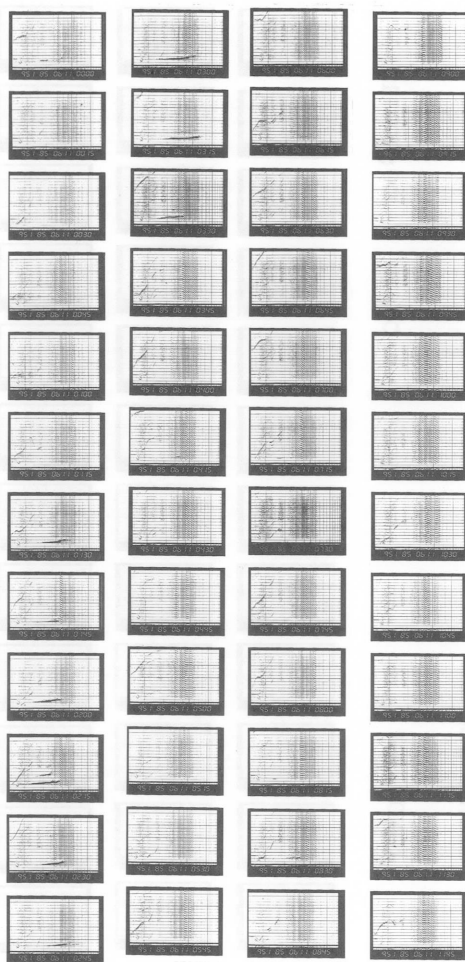
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1985

06 11

00:00-11:45



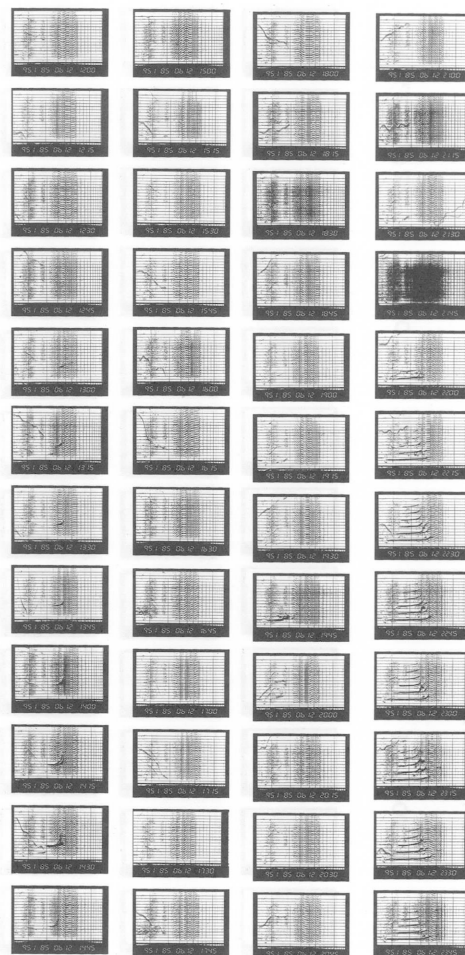
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1985

06 12

12:00-23:45



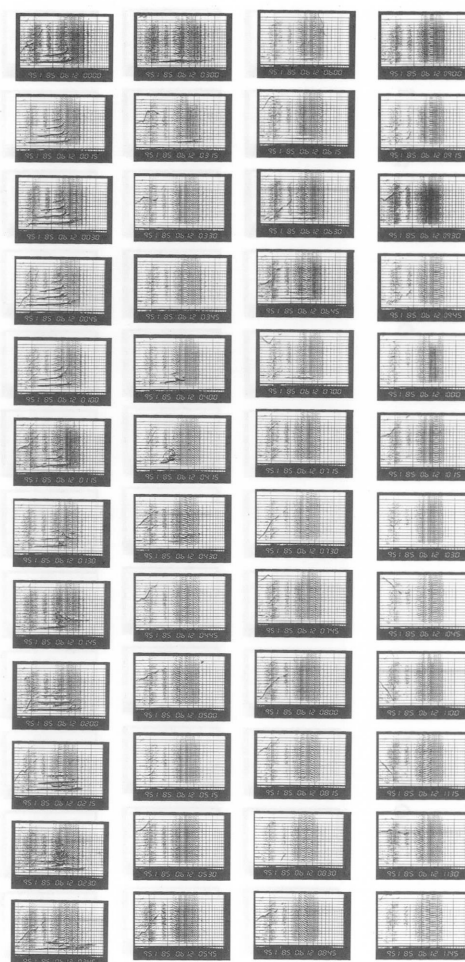
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1985

06 12

00:00-11:45



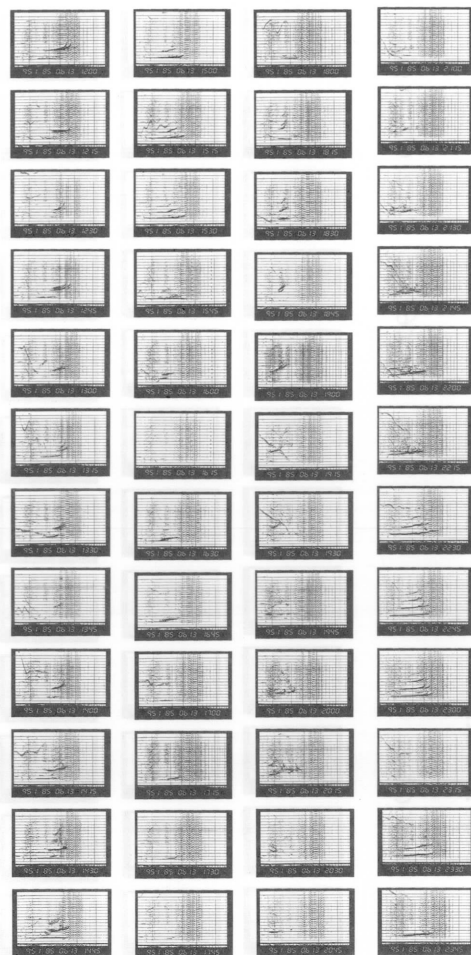
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1985

06 13

12:00-23:45



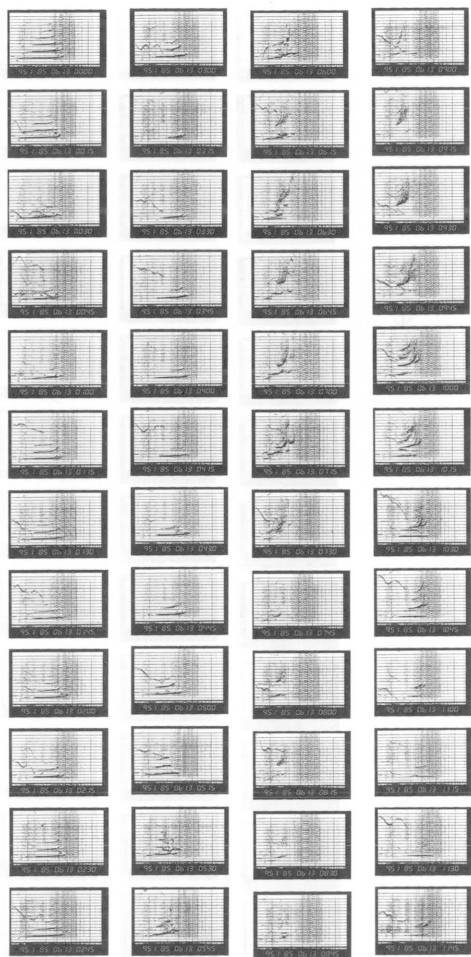
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1985

06 13

00:00-11:45



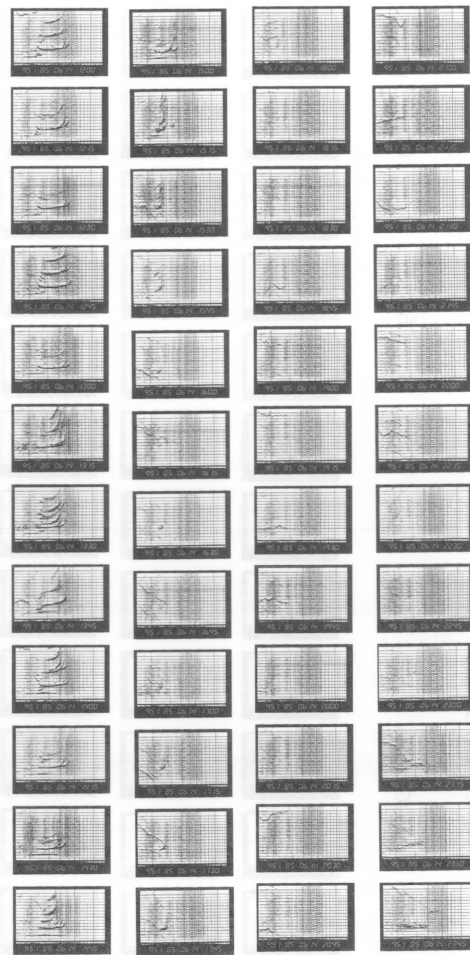
SYOWA STATION

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1985

06 14

12:00-23:45



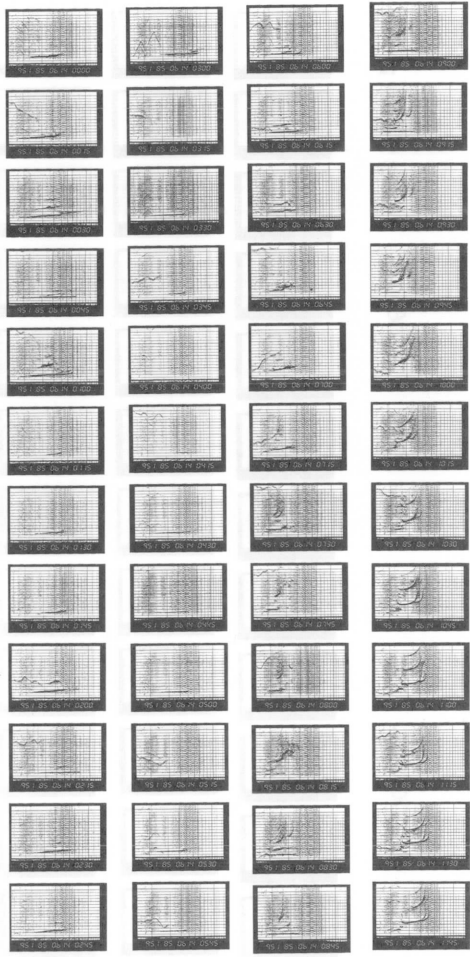
SYOWA STATION

IONOGRAM

1985

06 14

00:00-11:45



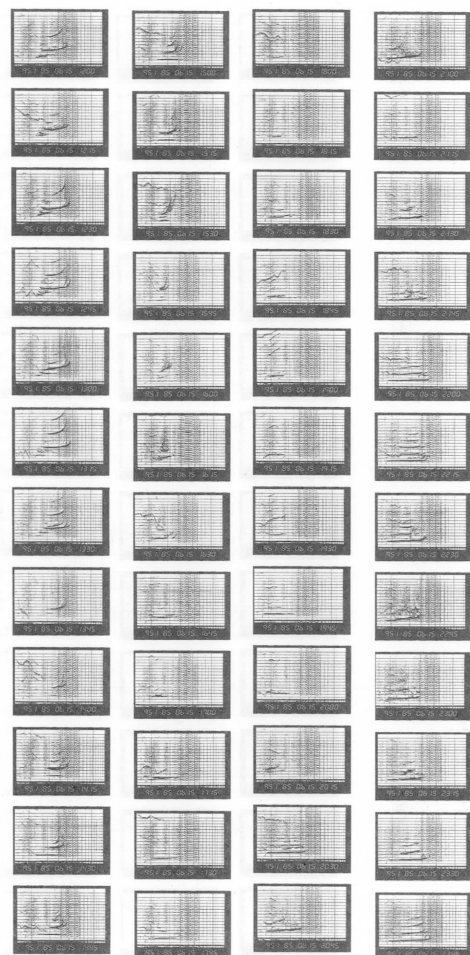
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1985

06 15

12:00-23:45



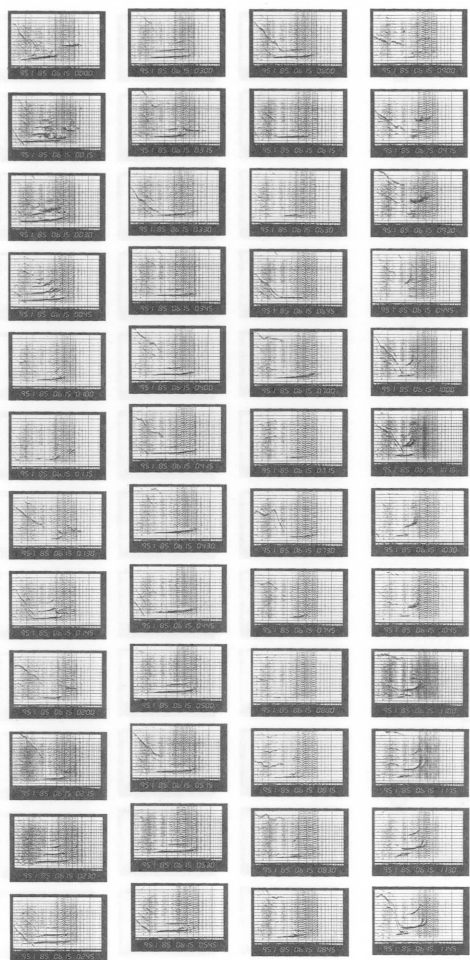
SYOWA STATION

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1985

06 15

00:00-11:45



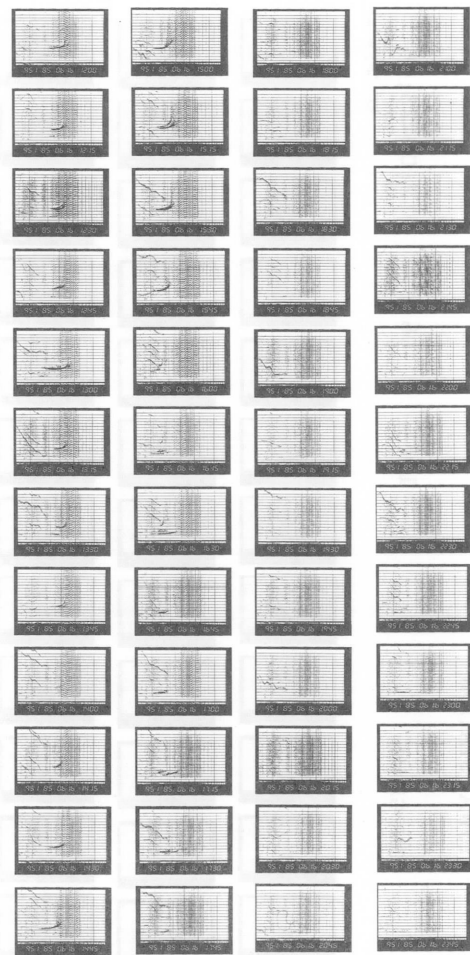
SYOWA STATION

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1985

06 16

12:00-23:45



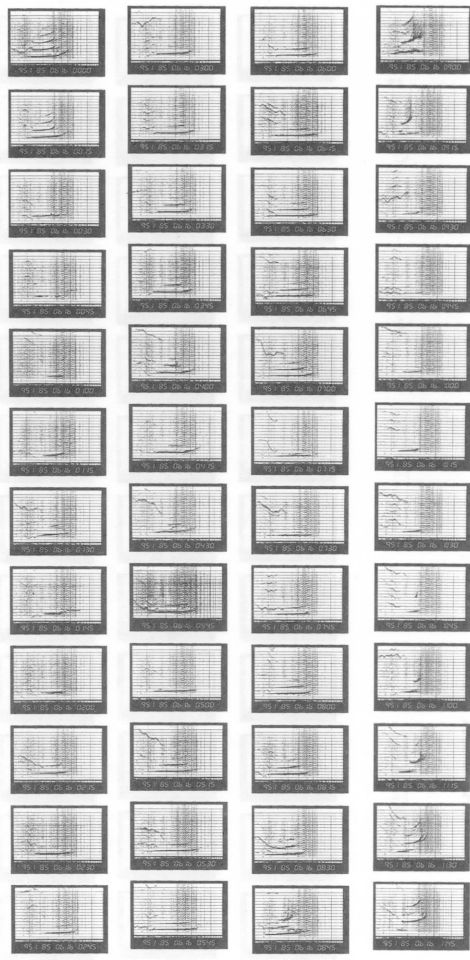
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IONOGRAM

1985

06 16

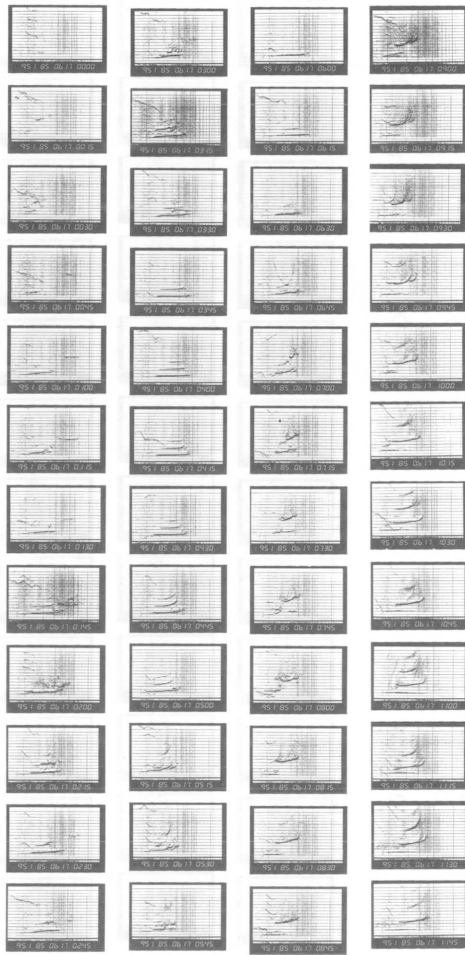
00:00-11:45



SYOWA STATION

IONOGRAM

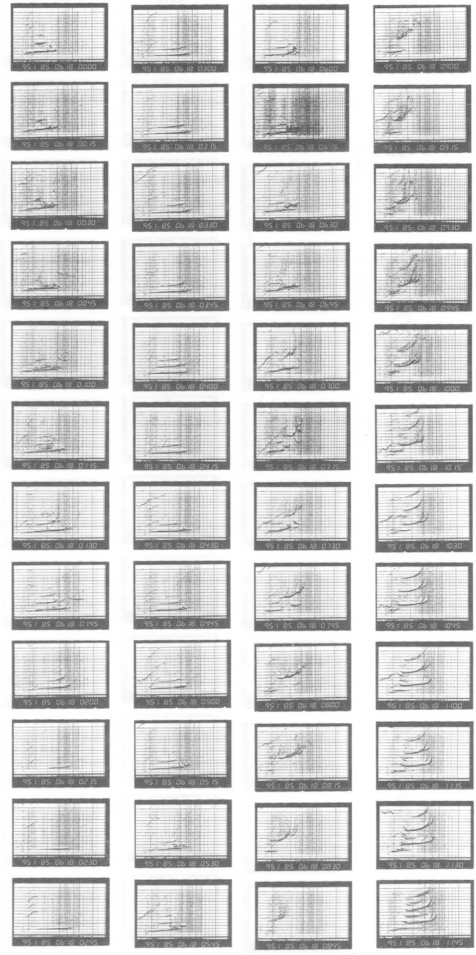
1985 06 17 00:00-11:45



SYOWA STATION

IONOGRAM

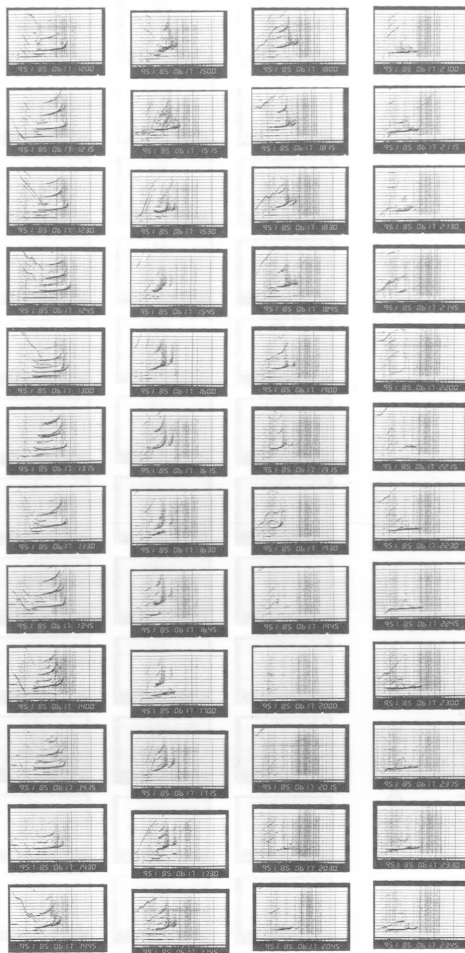
1985 06 18 00:00-11:45



SYOWA STATION

IONOGRAM

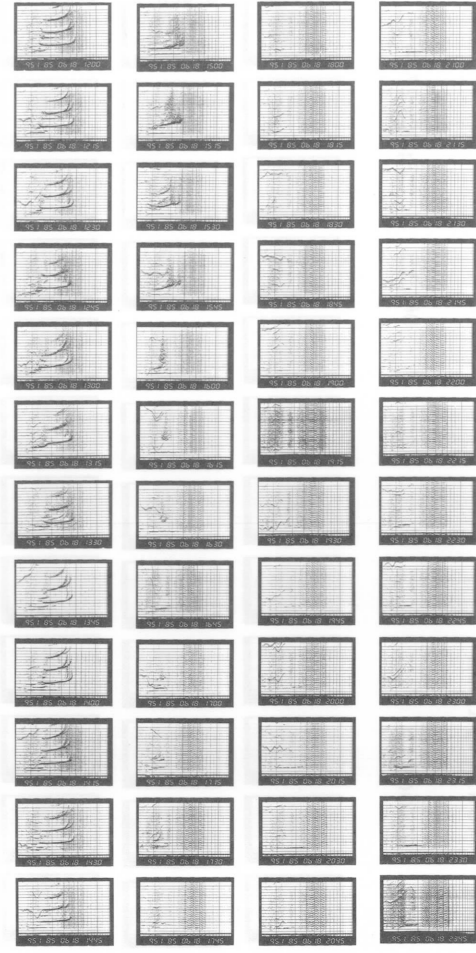
1985 06 17 12:00-23:45



SYOWA STATION

IONOGRAM

1985 06 18 12:00-23:45



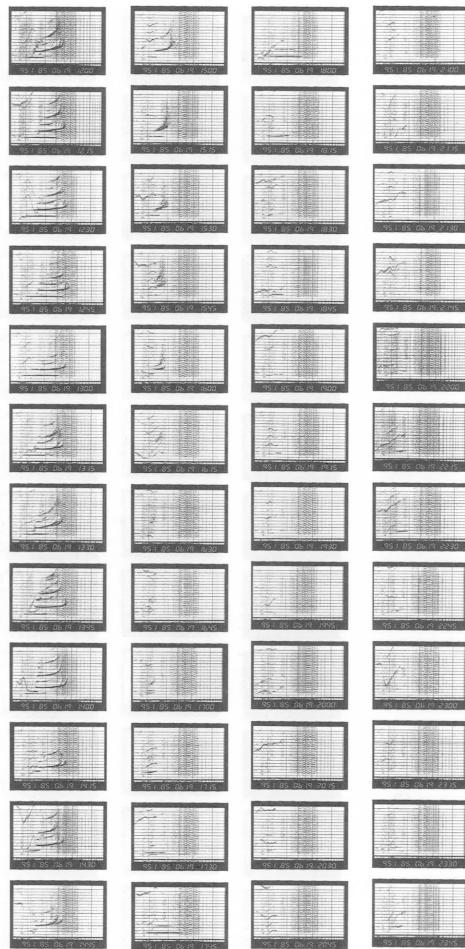
SYOWA STATION

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1985

06 19

12:00-23:45



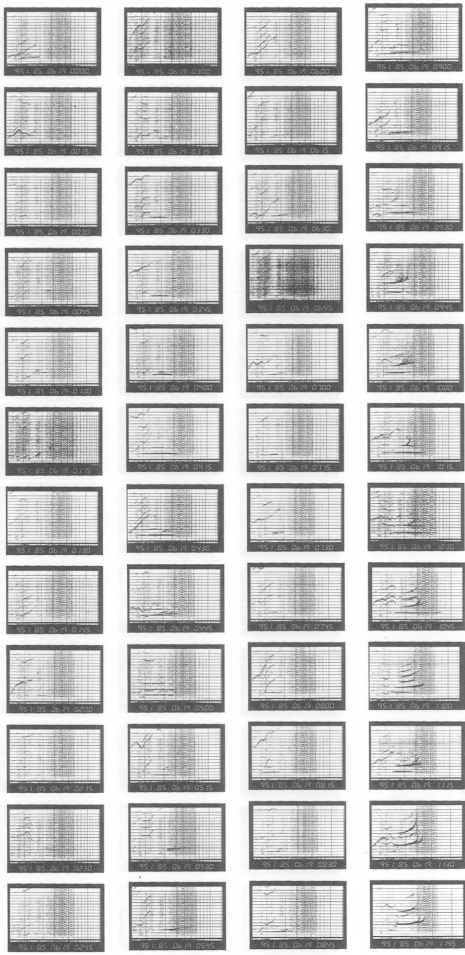
SYOWA STATION

IONOGRAM

1985

06 19

00:00-11:45



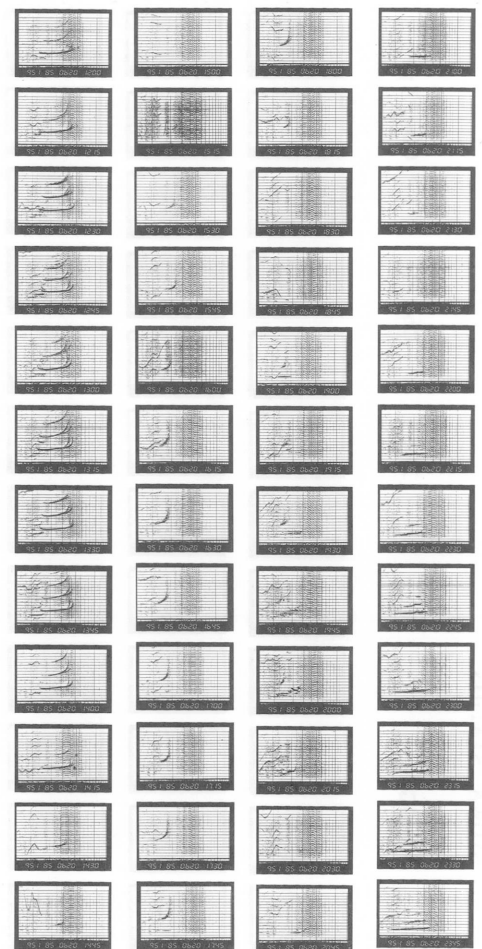
SYOWA STATION

IONOGRAM

1985

06 20

12:00-23:45



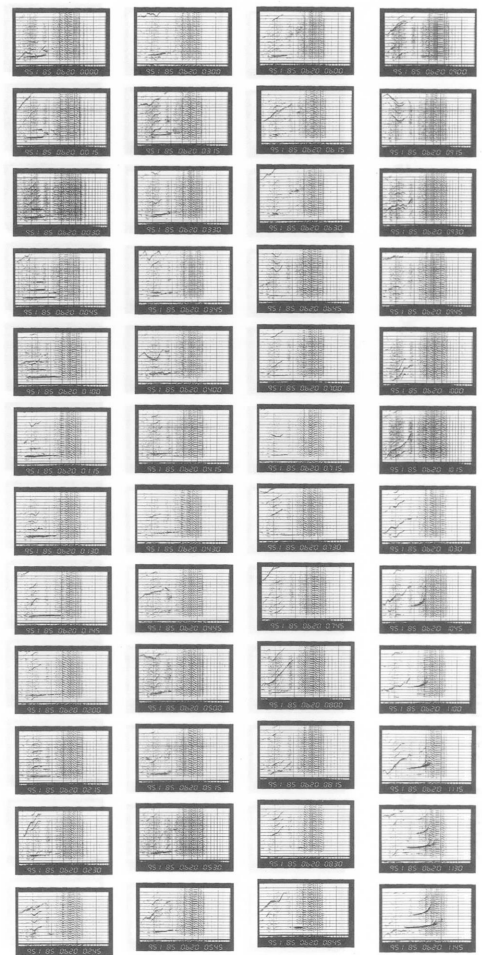
SYOWA STATION

IONOGRAM

1985

06 20

00:00-11:45



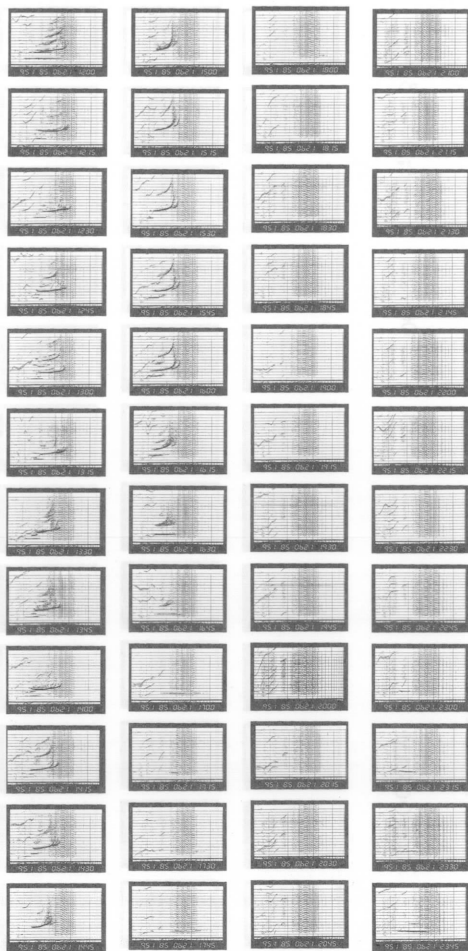
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IONOGRAM

1985

06 21

12:00-23:45



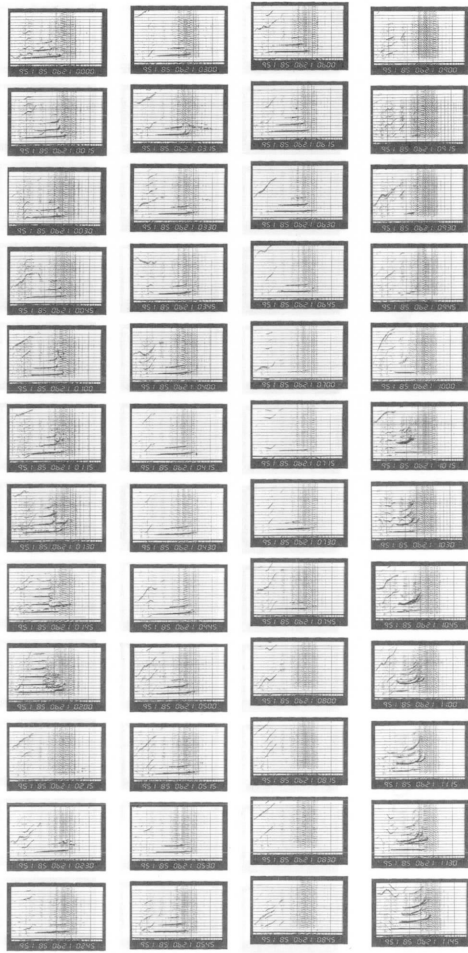
SYOWA STATION

IONOGRAM

1985

06 21

00:00-11:45



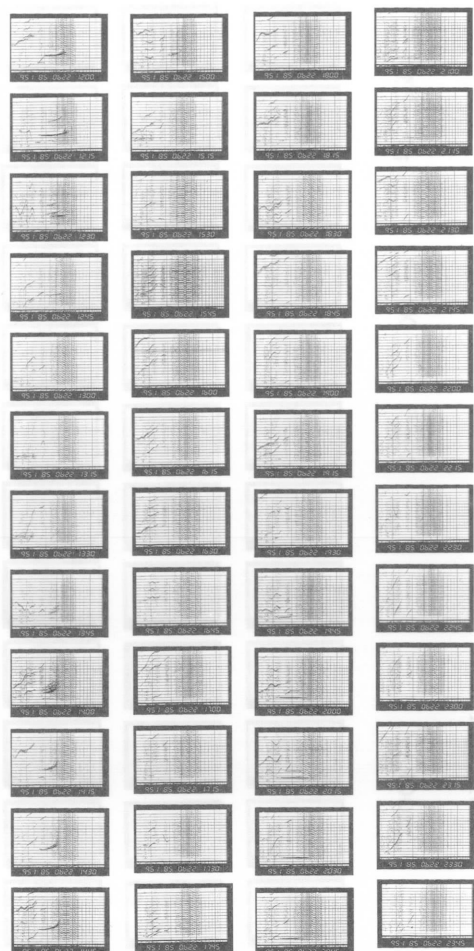
SYOWA STATION

IONOGRAM

1985

06 22

12:00-23:45



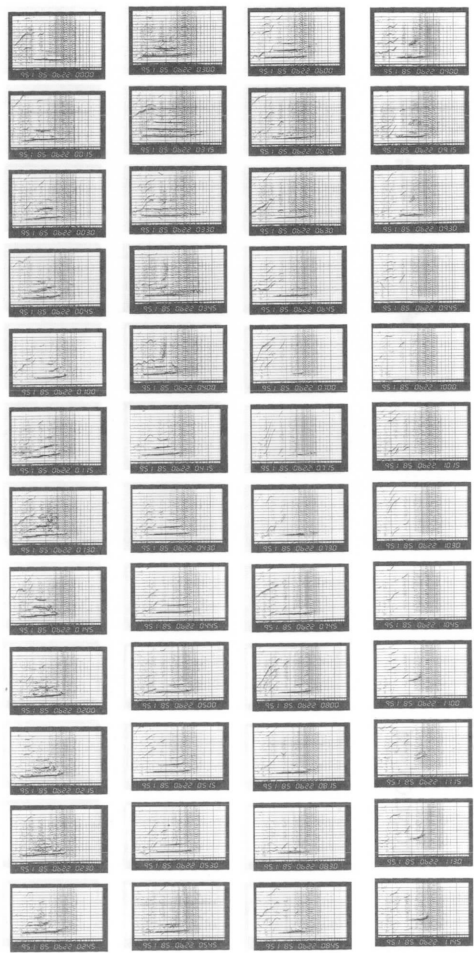
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IONOGRAM

1985

06 22

00:00-11:45



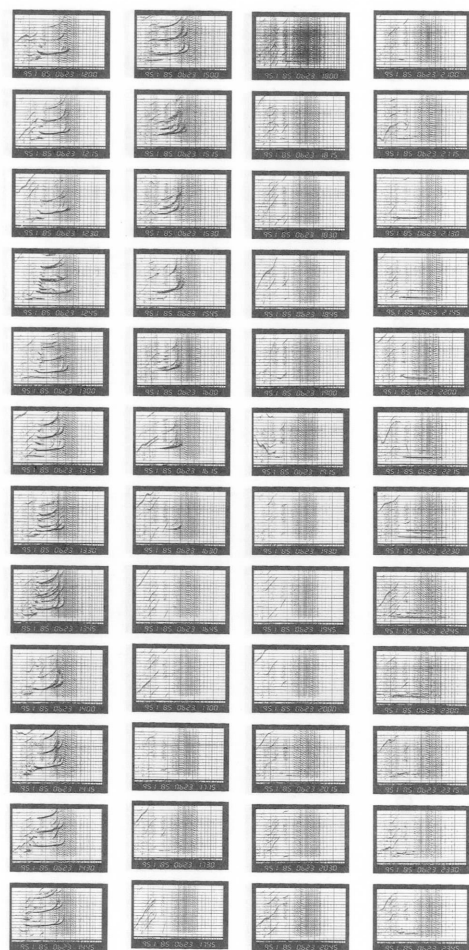
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IONOGRAM

1985

06 23

12:00-23:45



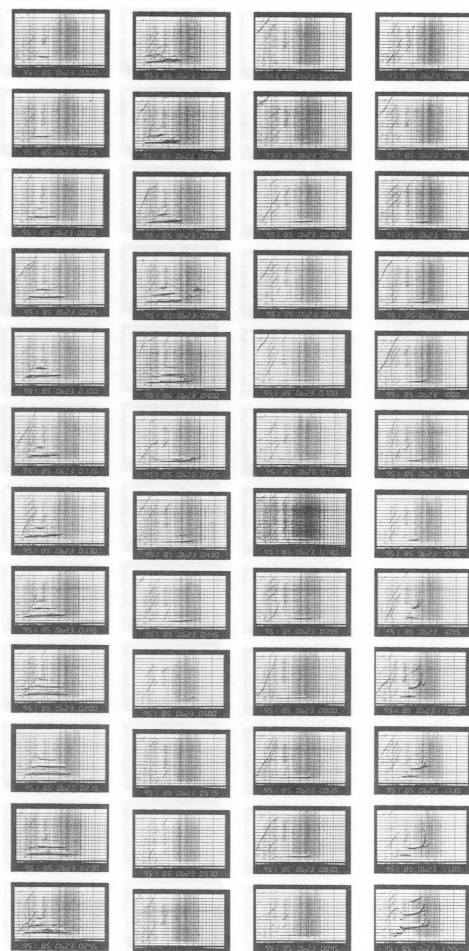
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IONOGRAM

1985

06 23

00:00-11:45



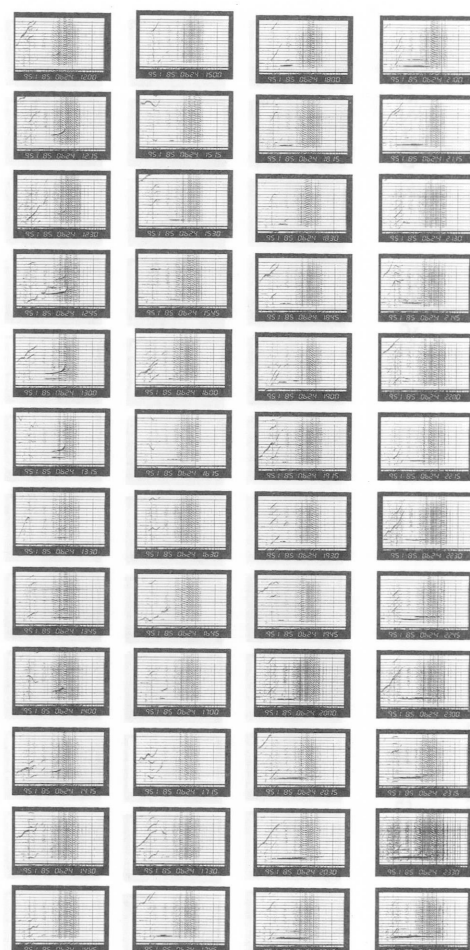
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IONOGRAM

1985

06 24

12:00-23:45



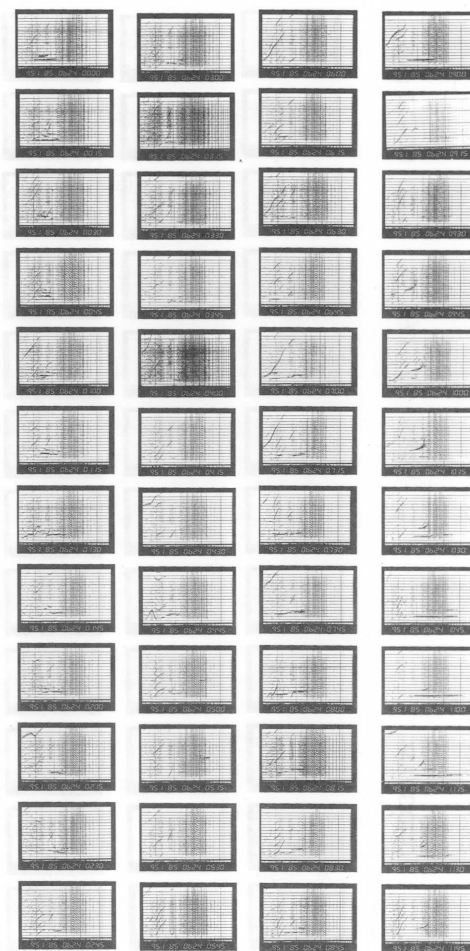
SYOWA STATION

IONOGRAM

1985

06 24

00:00-11:45



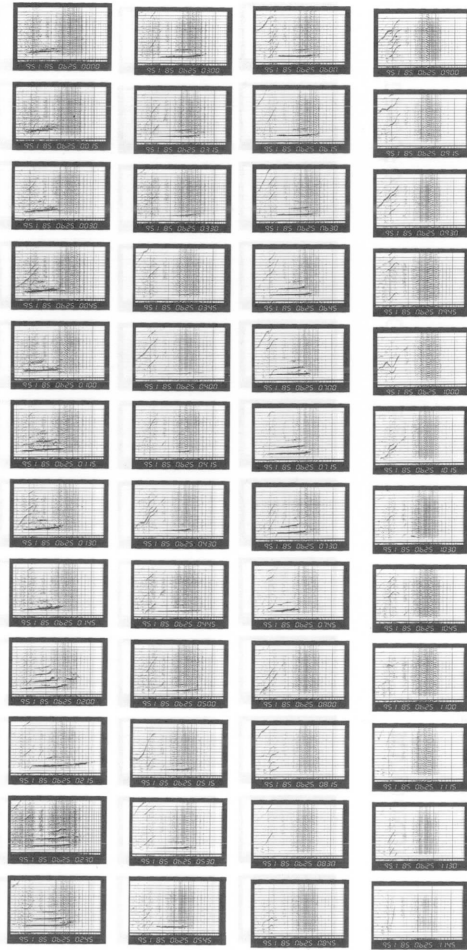
SYOWA STATION

IONOGRAM

1985

06 25

00:00-11:45



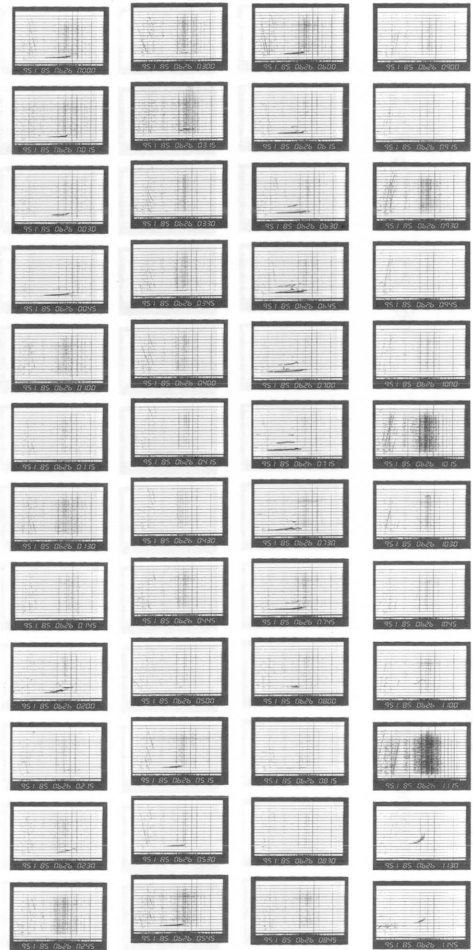
SYOWA STATION

IONOGRAM

1985

06 26

00:00-11:45



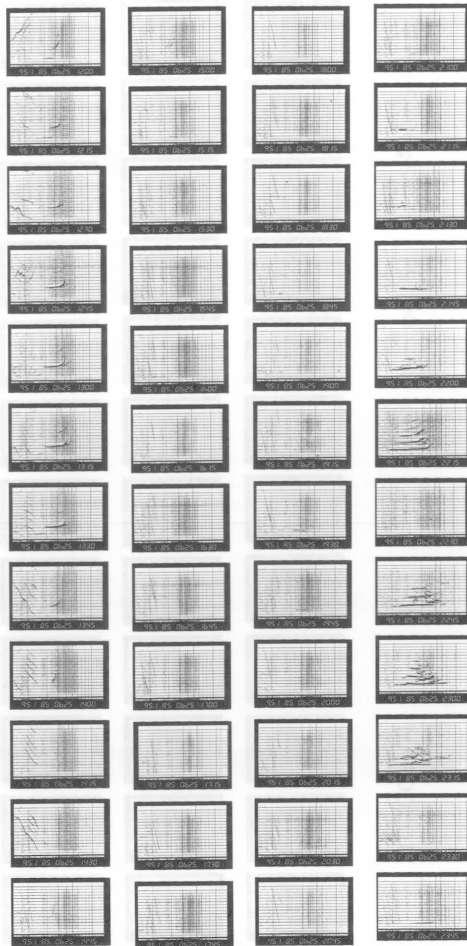
SYOWA STATION

IONOGRAM

1985

06 25

12:00-23:45



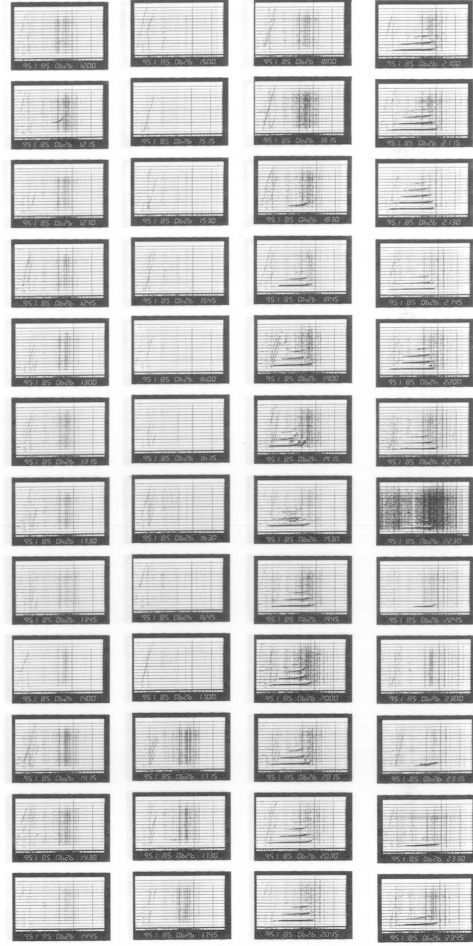
SYOWA STATION

IONOGRAM

1985

06 26

12:00-23:45



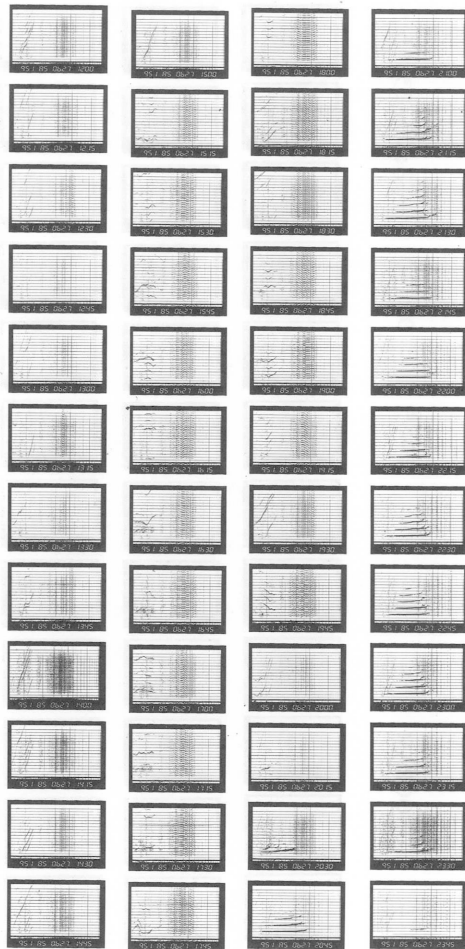
SYOWA STATION

IONOGRAM

1985

06 27

12:00-23:45



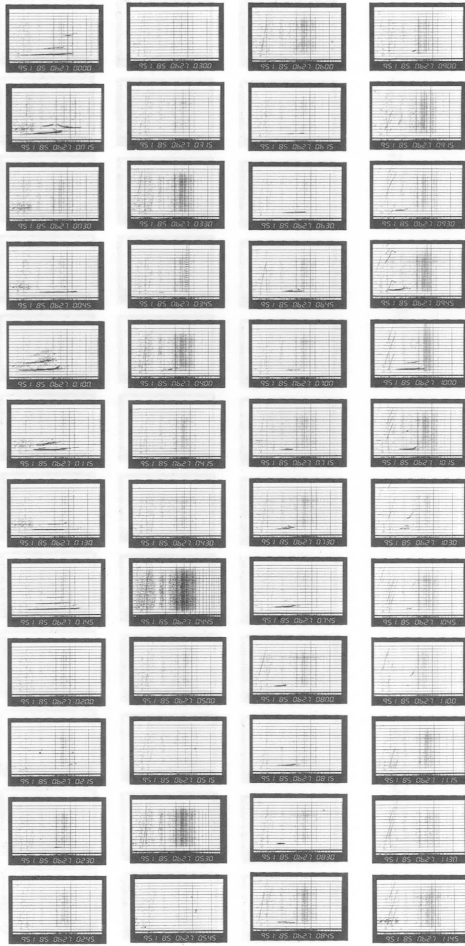
SYOWA STATION

IONOGRAM

1985

06 27

00:00-11:45



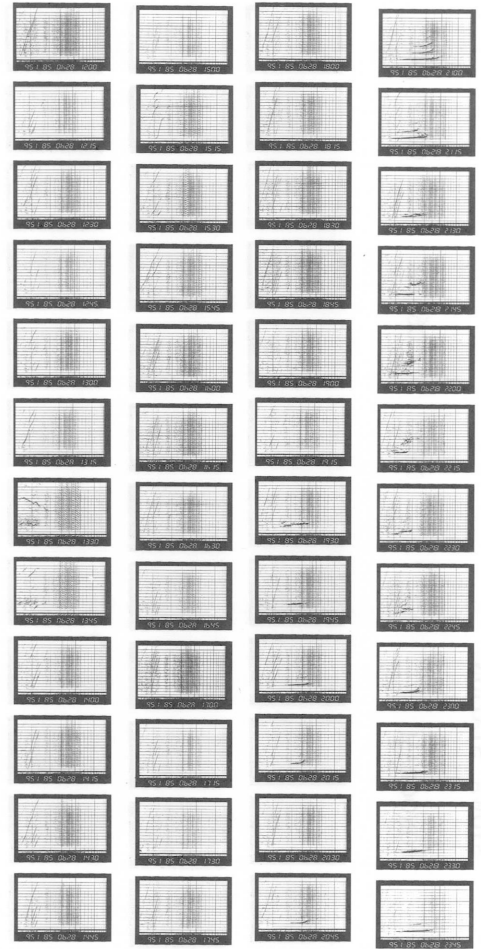
SYOWA STATION

IONOGRAM

1985

06 28

12:00-23:45



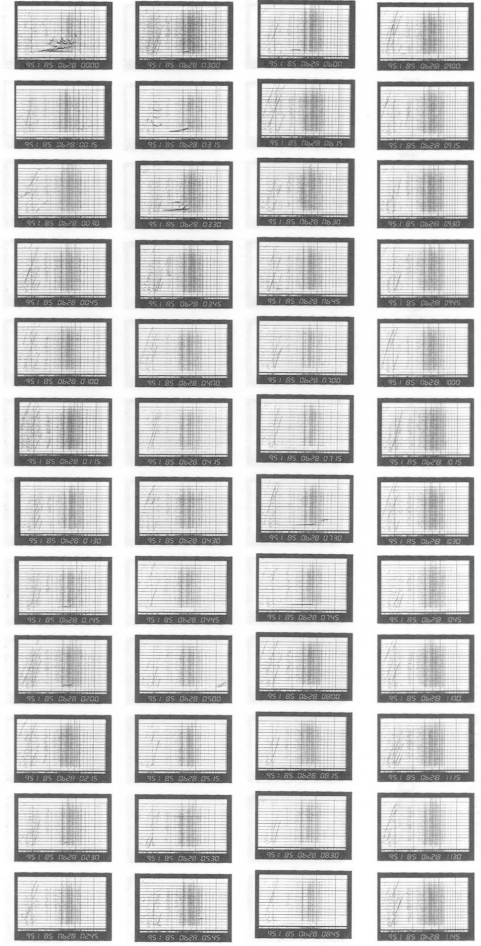
SYOWA STATION

IONOGRAM

1985

06 28

00:00-11:45



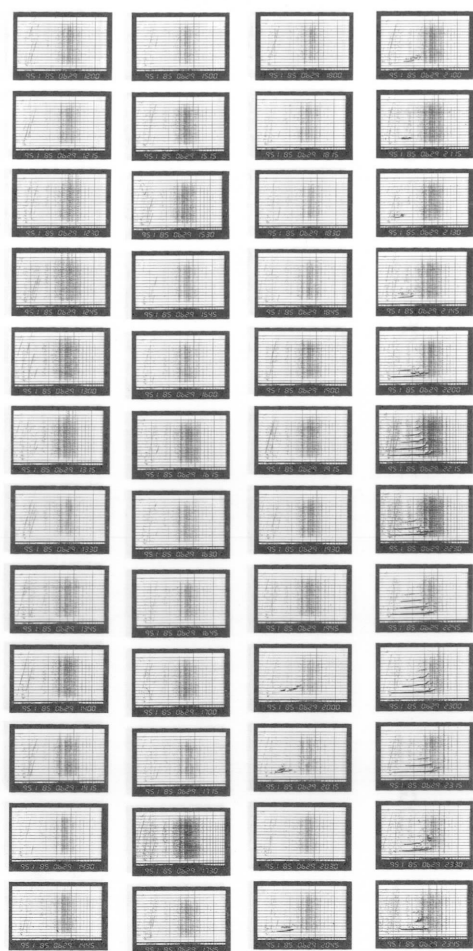
SYOWA STATION

IONOGRAM

1985

06 29

12:00-23:45



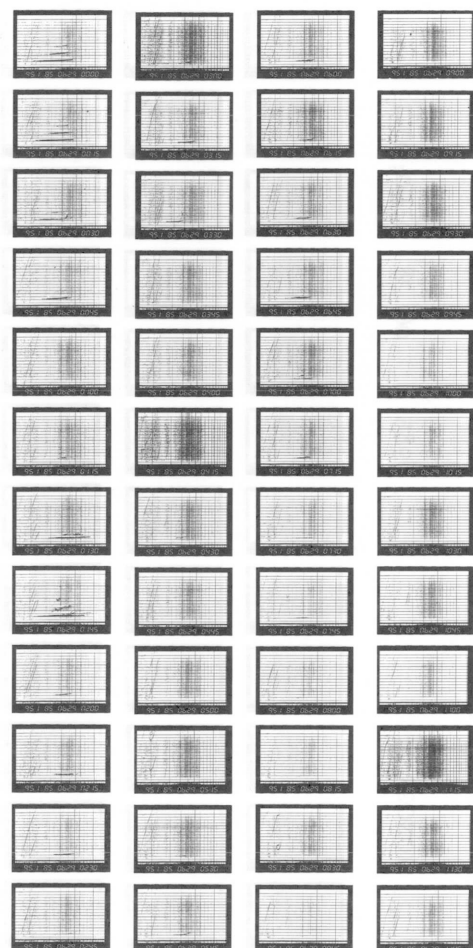
SYOWA STATION

IONOGRAM

1985

06 29

00:00-11:45



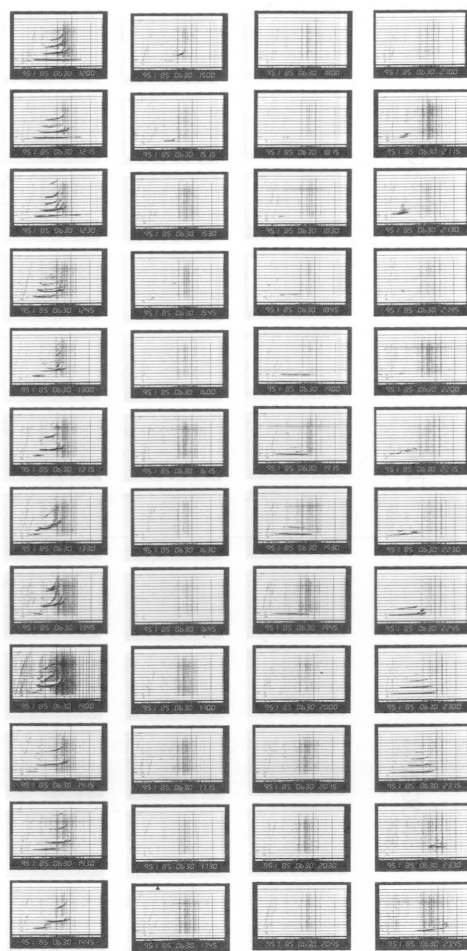
SYOWA STATION

IONOGRAM

1985

06 30

12:00-23:45



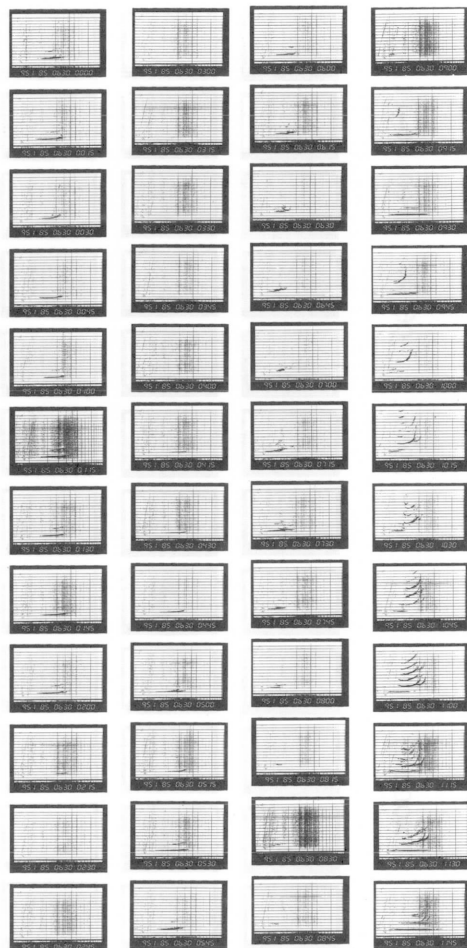
SYOWA STATION

IONOGRAM

1985

06 30

00:00-11:45



IONOSPHERIC DATA

JAN. 1985

FXI (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION		Lat. 69° 00.4' S, Long. 39° 35.4' E											Sweep 4 MHz to 15 MHz in 20 sec in automatic operation												
Hour 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	B	43	A	A	B	O R 41	A	B	B	A	B	B	B	B	B	B	B	B	B	A	44	A	A	A	
2	B	A	A	36	B	A	B	B	A	A	Y	B	B	O X 51	A	B	B	B	O X 51	A	43	X 43	X 37	O R 41	
3	B	A	A	B	A	B	B	B	B	S	O X 43	O X 48	B	B	B	B	B	O X 46	O X 49	O X 48	O X 49	O X 48	42	A	
4	A	A	B	B	B	B	A	A	A	A	A	A	A	O X 46	O X 45	O X 49	O X 49	O X 49	O X 49	O X 49	O X 48	49	49	45	
5	A	A	A	A	B	A	A	A	43	B	B	O X 50	O X 46	O X 44	O X 48	O X 51	O X 49	O X 49	O X 51	O X 49	49	49	45	A	
6	A	A	A	B	A	B	A	A	A	A	O X 44	O X 44	O X 46	O X 51	O X 51	O X 51	O X 49	O X 49	O X 49	O X 49	49	49	43	43	
7	A	O X 47	O X 43	A	A	A	A	A	O X 49	B	O X 49	O X 51	O X 51	O X 51	A	A	O X 49	O X 49	A	X 49	X 49	X 46	A	A	
8	A	B	B	A	B	A	A	O X 49	O X 49	O X 49	O X 44	O X 46	B	A	O X 46	E G 47	O X 50	O X 51	O X 49	X 49	O X 49	A	A	A	
9	A	A	A	A	A	A	43	A	A	B	B	B	B	B	B	O X 49	A	A	O X 40	O X 42	A	A	A	A	
10	A	43	43	45	B	B	B	B	B	A	S	B	B	B	B	B	B	B	B	O X 49	49	O X 46	O X 44	O X 36	
11	B	B	B	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A	
12	A	A	A	33	A	A	B	A	B	B	A	B	O X 45	B	B	B	B	B	O X 41	B	X 43	A	A	A	
13	A	A	A	B	B	A	B	B	A	O X 48	O X 49	O X 49	B	B	B	B	B	O X 51	B	X 45	O X 41	X 40	O X 43	O X 40	
14	O R 42	A	B	A	A	O R 43	O X 49	O X 49	O X 51	A	O X 46	O X 46	O X 51	O X 46	A	B	B	B	B	B	38	42	40	O X 43	
15	A	A	A	B	A	O X 49	X 59	X 60	64	64	O X 44	A	B	A	A	B	B	O X 49	X 43	A	O X 43	A	A	A	
16	A	A	A	A	A	45	B	A	A	O X 49	O X 52	O X 51	B	B	B	B	B	B	B	B	O X 48	A	O X 49	47	X 45
17	X 44	X 43	X 43	44	O X 49	X 53	58	58	58	O X 49	B	A	A	A	B	B	B	X 65	O X 50	A	O X 42	O X 50	40	X 43	
18	A	A	A	A	A	A	A	A	O X 51	69	60	57	O X 46	O X 46	O X 46	O X 46	O X 49	O X 49	A	O X 49	X 48	X 49	X 50	A	
19	40	A	B	A	A	A	O X 52	O X 51	X 59	61	65	59	X 55	O X 55	O X 49	O X 49	O X 49	O X 49	O X 49	O X 50	S	42	44	X 44	
20	41	40	42	O X 48	A	A	A	A	A	A	X 60	A	59	A	O X 48	O X 50	59	O X 49	O X 49	O X 47	47	A	O R 40	42	
21	O X 43	43	O X 43	A	A	A	A	A	O X 43	B	B	A	B	B	B	B	B	O X 49	B	44	A	A	A	A	
22	A	A	A	A	A	45	O X 50	O X 50	O X 49	O X 42	O X 49	A	B	B	B	B	60	O X 51	O X 49	O X 46	O R 42	A	A	O X 41	
23	A	A	B	B	A	O X 50	O X 48	B	B	B	B	B	B	B	S	B	B	O R 41	O R 43	A	A	A	A	B	
24	O R 36	A	A	A	B	A	A	A	O X 49	O X 51	B	B	B	B	O X 49	O X 49	O X 49	O X 50	O X 49	O X 49	O X 47	42	47	O X 47	
25	37	A	A	B	A	A	A	A	A	O X 51	E G 43	E G 43	O X 46	A	A	O X 44	B	O X 49	O X 49	47	46	48	X 46	X 45	
26	47	48	43	A	B	O X 36	A	A	O X 49	O X 52	O X 51	O X 51	A	O X 44	A	A	O X 50	O X 51	O X 50	O X 51	46	A	A	A	
27	A	40	A	A	A	A	A	A	A	B	B	S	S	O X 50	A	O X 53	O X 43	O X 49	O X 46	45	O X 49	X 45	A	A	
28	A	B	A	A	A	37	B	B	A	B	A	A	B	B	B	B	B	O X 42	O X 39	X 37	A	O R 36	A	A	
29	A	A	A	A	A	B	A	B	A	O X 42	O X 43	O X 43	O X 42	O X 43	B	B	O X 47	O X 50	O X 43	43	O R 40	A	A	A	
30	A	A	B	B	Y	B	B	O X 55	O X 53	B	B	B	B	B	B	B	B	O R 43	O X 47	X 43	A	O X 36	A	A	
31	A	A	A	A	43	B	B	A	O X 46	O X 44	O X 46	O X 49	B	B	B	B	B	B	B	O R 46	A	38	39	X 37	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	8	8	6	5	2	9	7	7	14	13	16	14	10	11	3	11	13	22	21	23	22	19	16	14	
MED	42	43	43	44	46	O 45	O X 50	O X 51	O X 49	O X 49	O X 48	O X 49	O X 46	O X 46	O X 48	O X 49	O X 49	O X 49	O X 49	O X 48	X 46	X 46	X 44	X 43	
UQ	44	45	O X 43	45		X 49	X 55	X 56	O X 53	O X 52	O X 52	O X 51	O X 51	O X 51	O X 49	O X 50	O X 50	O X 50	O X 49	O X 49	X 49	X 49	X 46	X 45	
LQ	38	42	43	36		O 41	O X 48	O X 50	O X 49	O X 48	O X 44	O X 46	O X 46	O X 45	O X 46	O X 48	O X 49	O X 49	O X 43	X 45	43	X 42	40	O X 41	

JAN. 1985

FXI (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JAN. 1985

F0F2 (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station	SYOWA STATION				Lat.	69° 00' 4" S				Long.	39° 35' 4" E				Sweep	4 MHz to 15 MHz				in 20 sec				in automatic operation			
Hour 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	B	F	A	A	B	F	A	B	B	A	B	B	B	B	B	B	B	B	B	A	F	37	A	A	A		
2	B	A	A	F	B	A	B	B	A	A	Y	B	B	45	A	B	B	B	45	A	37	35	31	F	33		
3	B	A	A	B	A	B	B	B	B	S	37	42	B	B	B	B	B	40	43	42	43	42	35	A			
4	A	A	B	B	B	B	A	A	A	A	A	A	A	40	E	G	43	43	43	43	43	42	43	43	38		
5	A	A	A	A	B	A	A	A	37	B	B	44	40	S	38	42	45	43	E	G	E	G	E	G	43		
6	A	A	A	B	A	B	A	A	A	A	38	38	E	G	40	45	45	45	43	43	43	43	42	43	35		
7	A	41	37	A	A	A	A	A	43	B	43	45	45	45	A	A	E	G	43	43	A	43	40	A	A		
8	A	B	B	A	B	A	A	43	43	E	G	E	G	E	G	40	B	A	40	E	G	E	G	43	42		
9	A	A	A	A	A	A	F	A	A	B	B	B	B	B	B	B	E	G	43	A	A	34	36	A	A		
10	A	F	A	A	B	B	B	B	B	A	D	S	B	B	B	B	B	B	B	B	S	43	40	38	F		
11	B	B	B	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A	A		
12	A	A	A	F	A	A	B	A	B	B	A	B	39	B	B	B	B	B	35	B	37	A	A	A	A		
13	A	A	A	B	B	A	B	B	A	42	43	43	B	B	B	B	B	45	B	39	35	34	37	F	34		
14	F	A	B	A	A	F	37	43	43	45	A	E	G	E	G	40	45	40	A	B	B	B	B	32	36		
15	A	A	A	B	A	43	49	49	54	53	E	G	38	A	B	A	A	B	B	43	37	A	37	A	A		
16	A	A	A	A	A	F	B	A	A	43	46	45	B	B	B	B	B	B	B	B	42	A	43	41	37		
17	37	37	37	37	43	46	50	49	49	E	G	43	B	A	A	B	B	B	59	44	A	36	44	35	36		
18	A	A	A	A	A	A	A	A	45	57	53	51	E	G	E	G	E	G	43	43	A	43	42	43	44		
19	F	A	B	A	A	A	46	45	50	50	58	53	R	49	49	E	G	E	G	43	43	44	S	35	37		
20	R	35	44	35	42	A	A	A	A	A	53	A	R	53	A	E	G	42	44	53	43	43	41	40	A		
21	37	36	42	A	A	A	A	A	37	B	B	A	B	B	B	B	B	E	G	43	B	F	A	A	A		
22	A	A	A	A	A	F	44	44	E	G	E	G	E	G	A	B	B	B	54	45	43	S	E	34	35		
23	A	A	B	B	A	E	G	44	E	G	42	B	B	B	B	B	B	B	35	F	36	A	A	A	B		
24	F	A	A	A	B	A	A	A	43	45	B	B	B	B	43	43	43	44	43	43	41	36	31	31			
25	31	A	A	B	A	A	A	A	45	E	G	E	G	S	A	A	E	G	38	B	E	G	E	41	40		
26	40	40	F	A	B	E	G	30	A	A	43	45	45	45	A	39	A	A	44	S	44	45	41	A	A		
27	A	A	A	A	A	A	A	A	A	B	B	D	S	D	S	44	47	E	G	38	43	E	G	37	A		
28	A	B	A	A	A	F	B	B	A	B	A	A	B	B	B	B	B	B	36	33	30	A	F	30	A		
29	A	A	A	A	A	B	A	B	A	S	36	37	E	G	E	G	E	G	37	41	44	37	F	30	A		
30	A	A	B	B	Y	B	B	49	47	B	B	B	B	B	B	B	B	B	F	35	41	37	A	30	A		
31	A	A	A	A	F	B	B	A	40	38	40	43	B	B	B	B	B	B	B	B	F	38	A	32	33		
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
CNT	7	7	4	2	1	6	7	7	14	13	17	15	11	11	8	11	13	22	21	23	22	19	16	14			
MED	35	37	37	40	43	38	44	45	43	43	40	43	40	40	41	43	43	43	43	42	40	40	36	36			
UQ	37	40	40			44	48	49	47	45	45	45	45	45	43	44	44	44	43	43	42	43	39	37			
LQ	32	37	36			F	33	42	44	43	U	39	38	38	40	40	E	G	E	G	E	G	43	33			

JAN. 1985

F0F2 (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JAN. 1985

FES (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION					Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4		MHz to 15		MHz in 20		sec in		automatic operation			
Hour 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	B	32	35	30	B	26	35	B	B	33	B	B	B	B	9	B	B	B	35	30	25	43	44	70
2	B	33	35	30	B	30	B	B	37	37	30	B	B	27	30	B	B	9	35	43	E 24	E 22	21	35
3	B	37	65	B	37	3	B	B	B	29	26	25	B	B	B	B	B	32	E 27	24	22	43	20	30
4	43	43	B	B	9	B	37	43	37	E 30	26	26	26	30	28	28	27	28	28	25	23	21	20	21
5	35	43	43	42	B	43	43	45	33	B	B	32	37	35	30	28	27	27	28	27	23	33	20	34
6	44	70	43	B	36	B	44	43	44	30	28	34	28	32	28	30	26	30	30	28	27	19	30	33
7	40	35	37	37	43	43	43	40	40	B	37	36	33	35	72	65	43	34	45	28	23	28	36	36
8	40	40	36	38	34	40	37	37	25	28	28	32	B	33	33	32	30	27	22	23	33	43	45	37
9	34	100	45	45	40	40	28	40	29	B	B	B	B	B	3	27	37	30	27	30	40	43	43	41
10	41	43	E 32	45	3	35	B	B	B	33	28	B	B	B	B	6	B	3	B	29	24	33	23	28
11	B	B	B	B	37	B	B	B	37	35	B	B	B	B	9	B	B	B	B	B	27	43	80	43
12	43	44	37	E 23	42	37	3	35	B	B	33	B	E 32	B	3	3	B	3	E 30	B	17	42	43	37
13	80	43	65	B	B	35	B	B	44	35	35	30	B	B	B	B	B	27	B	27	28	19	38	28
14	33	33	B	37	33	30	25	25	33	40	30	30	28	29	27	B	B	B	B	B	E 22	23	28	35
15	40	36	36	B	30	28	28	30	27	30	35	32	B	31	23	3	B	27	27	37	27	42	37	43
16	45	43	36	68	33	E 28	B	43	43	37	28	28	B	B	B	B	B	B	B	43	45	43	45	43
17	30	28	34	33	33	36	30	35	26	38	B	43	37	37	3	B	B	30	28	37	19	23	34	30
18	40	60	33	35	36	37	40	44	43	33	37	33	43	37	31	40	30	28	26	26	27	27	28	35
19	32	37	40	45	43	35	35	30	30	27	27	27	27	33	37	35	27	25	27	35	42	24	28	26
20	15	25	30	30	35	37	44	37	28	37	37	33	33	33	37	43	42	35	28	33	23	35	30	30
21	19	27	32	43	43	43	44	40	29	B	B	32	B	B	9	9	B	E 28	B	70	37	28	41	43
22	55	43	43	42	33	43	28	28	26	30	30	36	B	B	9	B	28	25	25	E 23	E 24	37	33	24
23	35	36	B	43	35	24	E 25	B	B	B	B	B	B	35	9	B	B	27	22	37	28	43	38	B
24	30	35	37	32	B	40	36	35	30	25	B	B	B	B	36	30	28	28	25	E 25	22	25	30	21
25	43	37	70	B	41	43	37	35	43	35	28	33	33	30	37	30	B	34	38	24	29	70	26	27
26	21	22	35	41	B	28	43	43	E 33	33	25	30	40	36	73	45	45	43	36	22	19	36	40	44
27	52	120	71	49	45	48	36	27	43	B	B	34	32	36	27	28	43	30	31	25	30	27	53	47
28	90	42	43	43	45	37	B	B	43	B	43	38	B	B	3	B	B	23	21	23	90	108	43	70
29	40	60	80	74	40	B	37	B	37	37	26	28	30	E 29	B	B	28	27	E 25	35	30	37	45	51
30	75	70	B	37	43	B	40	35	35	B	B	B	B	B	B	B	B	28	27	27	40	29	42	38
31	47	73	43	43	40	B	B	32	28	28	28	28	B	B	3	B	B	B	B	30	37	22	43	36
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	27	30	26	24	23	24	22	22	26	22	21	22	14	17	15	13	14	23	24	28	31	31	31	30
MED	40	41	37	42	37	37	37	36	34	33	28	32	32	33	31	30	29	28	28	28	27	33	37	36
UQ	44	44	43	44	42	42	43	43	43	37	35	34	37	35	37	40	42	30	30	35	32	43	43	43
LQ	34	35	35	34	34	30	30	32	28	30	28	28	28	30	28	28	27	27	26	25	22	24	28	30

JAN. 1985

FES (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JAN. 1985

F-MIN (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station	SYOWA STATION	Lat. 69° 00' 4" S	Long. 39° 35' 4" E	Sweep 4	MHz to 15	MHz in 20	sec in	automatic operation																	
Hour 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	B	13	9	15	B	18	15	B	B	19	B	B	B	B	B	B	B	B	25	22	10	14	17	8	
2	B	15	8	8	B	14	B	B	16	23	26	B	B	17	17	B	B	B	14	14	12	7	10	10	
3	B	13	11	B	18	B	B	B	B	13	16	14	B	B	B	B	B	26	27	14	14	16	14	11	
4	8	16	B	B	B	B	8	21	18	11	12	14	14	13	14	14	14	13	13	16	8	7	7	10	
5	20	25	21	23	B	14	21	13	7	B	B	16	13	8	13	12	13	14	14	14	12	8	8	16	
6	8	14	13	B	22	B	16	20	13	20	14	11	10	10	10	14	13	15	18	14	8	13	10	8	
7	11	11	10	24	16	14	13	10	13	B	18	18	11	10	10	8	8	10	13	10	8	10	14	14	
8	7	30	24	8	24	15	13	8	8	11	11	10	B	14	14	14	16	14	14	10	8	13	13	7	
9	8	9	7	8	7	8	9	16	20	B	B	B	B	B	B	17	21	17	10	21	10	8	7	14	
10	16	14	8	8	B	28	B	B	B	24	14	B	B	B	B	B	B	B	B	15	13	7	13	9	
11	B	B	B	B	15	B	B	B	16	25	B	B	B	B	B	B	B	B	B	B	18	7	11	15	
12	16	15	18	14	20	30	B	18	B	B	22	B	32	B	B	B	B	B	30	B	10	11	14	13	
13	15	27	7	B	B	19	B	B	15	10	16	15	B	B	B	B	B	18	B	13	14	14	11	8	
14	10	16	B	14	15	14	13	9	10	22	13	13	14	11	15	B	B	B	B	B	11	11	12	9	
15	14	14	13	B	22	15	9	8	10	15	10	15	B	22	15	B	B	14	9	22	15	8	20	13	
16	8	10	7	7	9	9	B	15	18	10	10	19	B	B	B	B	B	B	B	13	14	15	14	11	
17	13	12	7	9	7	7	8	7	13	11	B	18	14	29	B	B	B	11	24	17	10	10	7	8	
18	10	14	18	13	15	8	13	13	12	13	9	9	9	13	14	13	11	11	13	15	7	7	8	10	
19	8	25	31	18	14	11	10	10	10	9	11	13	10	10	13	11	14	14	14	23	14	16	11	10	
20	9	7	8	8	12	16	13	11	8	10	13	14	10	13	11	12	14	14	10	9	9	15	10	8	
21	8	8	9	8	11	12	11	14	14	B	B	20	B	B	B	B	B	28	B	15	15	15	13	13	
22	9	14	13	15	16	13	14	13	14	14	16	24	B	B	B	B	16	19	21	23	24	20	20	14	
23	14	18	B	24	19	15	25	B	B	B	B	B	B	31	B	B	B	15	13	14	14	14	17	B	
24	15	22	15	18	B	16	15	15	11	14	B	B	B	B	16	17	16	16	15	25	14	13	13	13	
25	9	17	10	B	14	15	15	16	19	13	13	15	14	13	13	17	B	17	14	13	9	8	10	8	
26	7	8	8	14	B	14	14	11	11	10	17	15	13	15	15	16	15	14	15	14	8	23	19	16	
27	10	9	9	14	14	14	14	14	18	B	B	30	14	14	14	16	27	23	16	16	14	10	15	14	
28	14	25	15	18	13	9	B	B	14	B	15	14	B	B	B	B	B	14	8	9	8	9	16	8	
29	10	23	14	14	24	B	16	B	18	16	16	16	14	29	B	B	14	16	25	14	15	11	8	16	
30	11	11	B	25	34	B	25	24	14	B	B	B	B	B	B	B	B	16	14	11	14	15	13	16	
31	8	14	21	9	8	B	B	14	10	10	14	15	B	B	B	B	B	B	B	16	20	14	10	7	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	
MED	10	14	13	15	18	15	15	15	14	16	16	16	B	29	B	B	B	16	15	15	12	11	13	11	
UQ	15	20	21	24	B	29	B	B	18	9	B	B	B	B	B	B	B	B	28	28	22	14	14	14	14
LQ	8	12	8	9	14	14	13	12	11	11	13	14	14	13	14	15	14	14	14	14	9	8	10	8	

JAN. 1985

F-MIN (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JAN. 1985

H^oF (KM)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION		Lat. 69° 00.4 ' S , Long. 39° 35.4 ' E										Sweep 4 MHz to 15 MHz in 20 sec in automatic operation												
Hour 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	B	E A 345	A	A	B	240	A	B	B	A	B	B	B	B	B	B	B	B	A	270	A	A	A	
2	B	A	A	A	B	A	B	B	A	A	Y	B	B	H 190	A	B	B	B	230	A	240	270	250	A
3	B	A	A	B	A	B	B	B	B	S	E A 200	230	B	B	B	B	B	235	200	H 195	240	250	240	A
4	A	A	B	B	B	B	A	A	A	A	A	A	A	200	210	200	200	230	200	220	220	230	230	250
5	A	A	A	A	B	A	A	A	200	B	B	210	220	H 190	210	H 190	200	200	210	230	230	230	220	A
6	A	A	A	B	A	B	A	A	A	A	220	200	210	200	H 190	210	200	220	235	230	220	220	H 190	240
7	A	270	E A 350	A	A	A	A	A	220	B	210	200	200	H 195	A	A	210	210	A	230	H 190	240	A	A
8	A	B	B	A	B	A	A	E A 230	H 195	200	H 190	H 190	B	A	200	210	200	H 190	220	H 185	260	A	A	A
9	A	A	A	A	A	A	230	A	A	B	B	B	B	B	B	230	A	A	E A 230	260	A	A	A	A
10	A	E A 300	A	A	B	B	B	B	B	A	H 195	B	B	B	B	B	B	B	B	E A 230	250	E A 230	A	A
11	B	B	B	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A
12	A	A	A	A	A	A	B	A	B	B	A	B	230	B	B	B	B	B	240	B	H 150	A	A	A
13	A	A	A	B	B	A	B	B	A	200	E A 210	220	B	B	B	B	B	210	B	230	E A 290	240	E A 230	270
14	E A 330	A	B	A	A	E A 270	220	200	E A 240	A	H 195	210	200	180	A	B	B	B	B	B	H 150	250	E A 270	E A 290
15	A	A	A	B	A	H 190	230	210	200	200	200	A	B	A	A	B	B	200	220	A	300	A	A	A
16	A	A	A	A	A	A	B	A	A	250	H 190	230	B	B	B	B	B	B	B	A	A	E A 280	250	250
17	270	260	270	250	210	240	200	200	200	190	B	A	A	A	B	B	B	210	230	A	E A 200	280	A	270
18	A	A	A	A	A	A	A	A	260	200	210	195	200	200	210	205	210	200	A	230	210	220	250	A
19	A	A	B	A	A	A	240	210	200	200	190	195	190	210	E A 200	200	210	200	E A 200	E A 200	S	240	245	230
20	230	250	290	E A 250	A	A	A	A	A	A	H 190	A	H 190	A	E A 220	200	200	200	220	H 195	240	A	A	240
21	250	240	220	A	A	A	A	A	230	B	B	A	B	B	B	B	B	220	B	E A 230	A	A	A	A
22	A	A	A	A	A	A	240	230	230	E A 195	220	A	B	B	B	B	220	205	220	210	230	A	A	280
23	A	A	B	B	A	E A 250	E A 230	B	B	B	B	B	B	B	B	B	B	E A 270	230	A	A	A	A	B
24	300	A	A	A	B	A	A	A	245	240	B	B	B	B	A	205	210	220	230	230	235	250	240	300
25	A	A	A	B	A	A	A	A	230	190	240	230	A	A	230	B	240	E A 230	210	245	240	245	245	
26	255	270	A	A	B	E A 290	A	A	A	E A 230	220	200	H	A	205	A	A	A	E A 200	220	210	200	A	A
27	A	A	A	A	A	A	A	A	A	B	B	230	E A 240	H 195	A	E A 200	205	205	E A 200	240	240	220	A	A
28	A	B	A	A	A	A	B	B	A	B	A	A	B	B	B	B	B	230	H 190	240	A	A	A	A
29	A	A	A	A	A	B	A	B	A	E A 250	H 190	H 190	140	205	B	B	245	230	230	290	290	A	A	A
30	A	A	B	B	Y	B	B	A	230	B	B	B	B	B	B	B	B	200	240	230	A	250	A	A
31	A	A	A	A	A	B	B	A	230	200	H 190	H 200	B	B	B	B	B	B	B	E A 210	A	250	E A 250	E A 230
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	6	7	4	2	1	6	7	6	13	13	17	15	11	11	7	11	12	22	21	22	22	18	13	12
MED	257	260	U 262	250	210	U 218	230	298	225	200	192	200	200	200	205	205	208	209	220	230	235	240	242	249
UQ	U 285	278	305			E A 270	235	230	230	U 215	210	225	220	202	210	210	210	225	230	230	248	250	248	272
LQ	250	255	245			240	218	200	200	200	H 190	198	195	H 192	200	200	200	200	210	202	210	230	230	240

JAN. 1985

H^oF (KM)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

FEB. 1985

FXI (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00.4 ' S				Long. 39° 35.4 ' E				Sweep 4 MHz to 15 MHz in 20 sec in				automatic operation								
Hour 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	A	A	A	A	A	A	A	B	B	0 X 50	0 X 51	B	B	B	B	62	0 X 66	B	57	56	A	X 38	A	A
2	A	A	A	0 X 49	0 R 46	0 R 46	B	A	B	B	B	0 X 46	0 X 46	0 X 48	0 X 43	0 X 49	0 X 49	0 X 50	0 X 48	0 X 43	X 44	X 38	34	A
3	A	A	A	A	A	A	0 R 48	X 54	55	X 54	0 X 56	0 X 52	0 X 46	0 X 46	0 X 52	0 X 50	0 X 52	B	0 X 43	0 X 46	B	X 38	37	A
4	A	34	0 R 36	40	50	55	X 51	55	X 55	0 X 54	0 X 54	0 X 54	0 X 55	0 X 55	0 X 52	A	0 X 53	0 X 51	50	X 46	47	45	X 45	X 46
5	X 46	40	43	0 X 43	0 X 46	0 X 51	65	70	0 X 53	A	B	B	B	B	B	0 X 50	0 X 52	49	0 X 50	B	A	42	A	A
6	A	A	50	43	A	A	A	A	A	A	B	B	B	0 X 44	B	0 X 42	B	B	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	0 X 43	B	B	B	B	B	B	B	0 X 52	0 X 52	0 X 42	B	36	A	34
12	A	A	A	A	A	B	B	A	0 X 49	B	B	0 X 43	B	B	B	B	0 X 51	B	0 X 49	B	X 45	38	30	0 X 27
13	A	A	A	42	40	0 X 46	49	55	X 59	X 58	0 X 52	0 X 43	A	0 X 46	0 X 46	0 X 51	B	B	0 X 49	50	47	0 X 43	A	A
14	A	B	B	B	B	B	B	B	0 X 50	B	B	B	B	B	0 X 49	0 X 46	B	B	B	0 X 49	A	B	A	A
15	A	A	A	B	A	B	A	A	A	B	B	0 X 49	B	B	0 X 49	0 X 49	0 X 43	A	0 X 47	0 X 47	X 45	X 45	40	A
16	A	A	A	A	0 X 39	0 X 42	51	0 X 49	58	63	62	0 X 46	0 X 53	57	0 X 50	0 X 43	0 X 49	0 X 49	0 X 50	49	44	37	A	A
17	0 R 29	A	A	B	A	B	A	B	B	A	B	B	B	B	0 X 43	0 X 43	0 X 43	B	A	A	A	B	A	A
18	A	A	A	B	0 R 39	0 R 43	A	0 X 47	A	0 X 49	0 X 49	0 X 43	0 X 49	0 X 53	0 X 49	0 X 49	0 X 49	0 X 49	0 X 49	0 X 46	0 X 43	40	40	33
19	30	33	37	36	A	A	55	58	0 X 53	0 X 60	0 X 43	0 X 49	0 X 44	0 X 49	0 X 49	A	0 X 52	54	54	54	X 49	X 44	A	A
20	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	0 X 43	0 X 41	36	A
21	A	A	A	0 R 28	35	41	42	44	46	48	49	0 X 49	0 X 43	0 X 49	0 X 49	0 X 49	0 X 46	0 X 49	49	49	A	33	A	A
22	A	A	A	A	A	A	A	A	B	B	B	0 X 42	R	0 X 43	0 X 43	0 X 47	0 X 47	0 X 43	0 X 44	0 X 42	0 X 39	36	A	A
23	A	A	A	A	A	A	38	0 X 49	52	B	B	B	B	59	0 X 49	54	44	51	51	46	0 X 43	A	A	A
24	A	A	A	A	A	B	A	B	A	A	B	B	B	0 X 43	0 X 47	B	0 X 42	0 X 50	X 49	X 43	X 36	33	28	A
25	A	B	B	B	A	A	A	A	B	B	A	B	B	B	B	B	B	0 X 43	0 X 43	44	0 X 33	0 X 30	28	A
26	A	A	A	A	A	B	A	A	A	42	B	B	S	S	0 X 42	0 X 42	0 X 44	0 X 44	X 44	X 43	40	X 34	A	A
27	A	A	A	A	A	B	A	A	0 X 43	B	0 X 41	A	B	0 X 56	0 X 51	0 X 50	50	50	47	0 X 49	0 X 49	42	A	A
28	A	A	A	A	A	A	A	B	B	B	B	B	A	B	B	B	B	B	0 R 40	40	A	A	A	A
29																								
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	3	3	4	7	7	7	8	9	11	10	9	11	7	13	16	16	17	14	20	19	15	19	9	4
MED	30	34	40	42	0 X 40	0 X 46	50	X 54	X 53	0 X 52	0 X 51	0 X 46	0 X 46	0 X 49	0 X 49	0 X 49	0 X 49	0 X 50	0 X 49	X 46	X 44	X 38	36	34
UQ	38	37	46	43	46	48	53	55	X 55	X 58	0 X 54	0 X 49	0 X 51	0 X 55	0 X 50	0 X 50	0 X 52	0 X 51	0 X 50	X 49	X 46	X 42	40	40
LQ	30	34	36	38	39	0 X 42	45	0 X 49	0 X 50	0 X 48	0 X 49	0 X 43	0 X 45	0 X 46	0 X 44	0 X 44	0 X 44	0 X 49	X 46	X 43	0 X 42	36	30	30

FEB. 1985

FXI (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

FEB. 1985

FOF2 (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION					Lat. 69° 00.4 ' S , Long. 39° 35.4 ' E								Sweep 4				MHz to 15				MHz in 20				sec in automatic operation			
Hour 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	A	A	A	A	A	A	A	B	B	44	45	B	B	B	B	J R 56	60	B	47	F	A	32	A	A				
2	A	A	A	43	F 40	F 42	B	A	B	B	B	40	E G 40	42	37	43	43	44	42	E G 37	37	32	28	A				
3	A	A	A	A	A	A	F 42	46	47	46	50	46	E G 40	40	46	44	46	B	37	40	B	32	29	A				
4	A	24	29	35	F 40	F 49	45	47	47	48	48	48	49	49	46	A	E G 47	D S 45	43	40	41	40	37	40				
5	40	F	F	37	F 40	E G 45	F 52	F 54	47	A	B	B	B	B	B	E G 44	46	43	44	B	A	36	A	A				
6	A	A	A	F 32	A	A	A	A	A	A	B	B	B	B	B	38	B	B	C	C	C	C	C	C				
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
11	C	C	C	C	C	C	C	C	C	37	B	B	B	B	B	B	B	46	46	36	B	F 27	A	F 26				
12	A	A	A	A	A	B	B	A	43	B	B	E G 37	B	B	B	B	45	B	43	B	38	F 32	F 24	21				
13	A	A	A	F 27	F 34	F 40	F 43	42	49	50	46	37	A	40	E G 40	45	B	B	E G 43	43	41	37	A	A				
14	A	B	B	B	B	B	B	B	44	B	B	B	B	B	43	S 40	B	B	B	43	A	B	A	A				
15	A	A	A	B	A	B	A	A	A	B	B	43	B	B	43	43	E G 37	A	E G 41	41	39	37	33	A				
16	A	A	A	A	F 33	36	45	43	J R 52	56	J R 56	40	47	J R 51	44	37	43	43	44	43	37	29	A	A				
17	F 22	A	A	B	A	B	A	B	B	A	B	B	B	B	S 37	S 37	37	B	A	A	A	B	A	A				
18	A	A	A	B	F 35	F 37	A	41	A	43	43	E G 37	E G 43	E G 47	E G 43	43	43	43	43	42	37	34	34	F 24				
19	F	27	23	28	A	A	F	45	47	54	37	S 45	E G 38	E G 43	E G 43	A	E G 46	47	47	46	43	37	A	A				
20	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	S 37	35	30	A				
21	A	A	A	F 22	F 35	36	37	41	42	43	43	E G 37	43	43	E G 43	40	43	43	43	A	Z 27	A	A					
22	A	A	A	A	A	A	A	A	B	B	B	36	R	37	S 37	37	41	37	S 38	36	31	F 24	A	A				
23	A	A	A	A	A	A	F	43	43	B	B	B	B	49	E G 43	46	47	45	E G 45	40	37	A	A	A				
24	A	A	A	A	A	B	A	B	A	A	B	B	B	37	41	B	36	44	43	35	30	F 26	F	A				
25	A	B	B	B	A	A	A	A	B	B	A	B	B	B	B	B	B	37	37	37	26	22	F 20	A				
26	A	A	A	A	A	B	A	A	A	36	B	B	D S 36	D S 36	36	36	38	38	37	36	34	28	A	A				
27	A	A	A	A	A	B	A	A	37	B	35	A	B	50	E G 45	44	44	44	41	43	43	Z 35	A	A				
28	A	A	A	A	A	A	A	B	B	B	B	B	A	B	B	B	B	B	F 32	F 30	A	A	A	A				
29																												
30																												
31																												
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
CNT	2	2	2	7	6	7	6	9	11	10	9	11	8	14	16	16	17	14	20	18	15	19	8	4				
MED	31	F 26	F 26	F 32	F 37	F 38	44	43	47	45	45	40	E G 40	42	U 40	42	43	44	42	40	37	32	30	25				
UQ				36	F 40	F 42	45	46	47	50	48	43	45	49	44	44	46	45	44	43	40	36	34	33				
LQ				28	F 33	F 36	42	42	43	42	43	37	E G 38	39	37	37	40	43	38	36	36	28	26	22				

FEB. 1985

FOF2 (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

FEB. 1985

FES (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S, Long. 39° 35' 4" E								Sweep 4				MHz to 15				MHz in 20				sec in				automatic operation			
Hour 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	35	35	12	40	45	40	36	B	B	33	30	B	B	B	B	37	27	B	26	28	35	19	45	45							
2	95	45	37	E ₂₇	50	36	B	45	B	B	B	33	28	30	E ₂₉	29	24	E ₂₅	22	E ₃₀	E ₂₀	20	18	38							
3	38	45	40	43	43	42	40	17	26	27	28	33	31	30	37	30	35	B	18	E ₂₅	B	20	19	43							
4	45	31	35	33	30	20	24	27	27	27	27	30	32	38	33	59	47	50	28	22	21	18	18	E ₁₄							
5	21	28	28	28	27	40	26	30	32	42	B	B	B	B	B	30	28	25	30	B	42	35	45	45							
6	45	37	35	70	57	43	50	58	62	62	B	B	B	B	B	19	B	36	C	C	C	C	C	C							
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C							
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C							
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C							
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C							
11	C	C	C	C	C	C	C	C	C	E ₂₈	B	B	B	B	B	B	B	26	25	E ₂₅	B	25	41	20							
12	42	60	44	44	37	B	37	37	39	B	35	E ₃₁	B	B	B	B	E ₂₈	B	E ₂₅	B	28	19	27	25							
13	17	35	35	31	33	37	31	23	25	28	31	32	43	30	43	35	B	B	21	21	20	E ₁₅	40	33							
14	37	33	B	37	B	36	B	B	37	B	B	B	B	B	E ₃₁	E ₂₉	B	B	B	E ₂₅	33	37	44	50							
15	70	70	43	37	33	B	37	36	36	B	B	30	B	B	30	27	24	E ₃₀	E ₂₅	19	17	15	14	12							
16	30	37	33	30	E ₂₃	32	27	30	25	26	27	30	34	27	28	30	27	37	20	20	20	30	40	35							
17	34	37	50	B	38	B	37	B	B	37	36	B	B	B	E ₂₇	E ₃₀	E ₂₈	B	43	33	40	B	28	43							
18	43	38	35	B	33	37	43	35	37	35	30	30	30	37	64	35	26	29	33	20	E ₁₆	E ₁₇	20	27							
19	37	27	23	33	37	37	33	23	25	27	30	28	22	26	26	43	37	26	23	20	11	10	37	45							
20	45	30	70	44	45	60	43	B	B	B	B	B	B	B	B	B	B	B	B	B	E ₃₁	E ₂₇	35	33							
21	35	44	44	33	17	17	28	22	23	24	26	28	26	28	30	E ₃₀	28	23	20	20	F	35	27	24	44						
22	80	20	43	37	43	35	44	43	B	33	B	E ₃₀	28	E ₃₀	E ₂₉	E ₃₀	31	E ₃₀	E ₂₇	E ₂₃	E ₂₀	20	40	40							
23	60	80	43	44	44	37	34	45	31	B	B	B	B	33	32	32	35	35	22	E ₂₄	E ₁₈	35	43	43							
24	65	40	85	37	92	37	40	B	37	63	36	B	B	E ₃₂	30	B	E ₂₈	28	20	38	19	28	26	40							
25	90	B	44	45	40	33	43	43	B	B	27	B	B	B	B	B	B	E ₂₅	E ₂₂	30	43	27	32	23							
26	44	40	36	43	60	B	43	45	43	35	B	B	E ₃₀	23	27	E ₂₈	24	21	20	17	15	12	33	42							
27	45	43	65	44	40	B	43	37	30	B	27	26	B	30	30	35	37	22	21	26	27	40	35	60							
28	70	52	95	45	37	36	35	B	B	B	B	B	32	B	B	B	B	B	B	26	23	45	38	27	35						
29																															
30																															
31																															
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23							
CNT	23	22	22	21	22	18	21	17	16	15	13	12	11	14	16	18	17	16	21	20	21	22	23	23							
MED	44	38	42	37	39	37	37	36	32	33	30	30	30	30	30	30	28	26	22	22	20	21	33	40							
UQ	62	45	44	44	45	40	43	43	37	36	31	32	32	32	32	35	35	32	26	26	35	30	40	44							
LQ	36	33	35	33	33	35	33	27	26	27	27	28	28	28	27	E ₂₉	26	25	20	20	17	18	25	30							

FEB. 1985

FES (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

FEB. 1985

F-MIN (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S , Long. 39° 35' 4" E										Sweep 4 MHz to 15 MHz in 20 sec in automatic operation											
Hour 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	8	29	19	18	15	15	19	B	B	17	23	B	B	B	B	26	15	B	17	14	14	10	10	15	
2	15	15	16	27	8	15	B	15	B	B	B	20	14	14	29	15	16	25	14	30	16	8	15	8	
3	8	13	15	25	18	19	14	15	9	9	15	15	15	14	14	14	14	B	16	25	B	14	13	11	
4	14	8	11	8	8	8	9	8	14	11	10	10	14	15	14	14	14	15	14	13	9	8	7	14	
5	8	15	7	15	10	14	13	11	14	20	B	B	B	B	B	23	13	13	13	B	15	9	9	10	
6	8	8	8	8	14	15	13	16	20	20	B	B	B	14	B	15	B	23	C	C	C	C	C	C	
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
11	C	C	C	C	C	C	C	C	C	28	B	B	B	B	B	B	B	18	14	25	B	13	7	13	
12	14	7	26	17	14	B	22	14	14	B	24	31	B	B	B	B	28	B	25	B	13	14	10	8	
13	8	8	8	13	13	14	9	14	13	13	14	13	13	13	13	24	B	B	17	13	13	15	14	17	
14	14	25	B	25	B	28	B	B	B	B	B	B	B	B	B	31	29	B	B	B	25	13	27	15	14
15	9	14	14	26	16	B	16	15	16	B	B	13	B	B	27	14	16	26	25	16	13	7	8	7	
16	8	8	11	13	23	11	7	8	7	13	13	14	14	14	14	14	14	8	13	14	14	8	7	8	
17	8	14	15	B	20	B	13	B	B	15	28	B	B	B	27	30	28	B	14	23	15	B	15	8	
18	15	7	17	B	20	13	16	14	20	13	14	15	16	20	18	16	14	14	14	13	16	17	8	7	
19	8	8	8	8	16	16	9	8	8	14	23	14	17	15	15	12	14	8	14	14	8	8	8	14	
20	14	14	9	14	15	28	13	B	B	B	B	B	B	B	B	B	B	B	B	B	31	27	13	8	
21	8	10	14	13	10	11	13	12	11	14	13	13	14	14	11	30	13	14	11	9	16	13	8	23	
22	13	12	14	14	15	13	18	13	B	29	B	30	25	30	29	30	25	30	27	23	20	21	8	7	
23	17	13	14	15	24	24	14	12	14	B	B	B	B	15	13	13	14	13	14	24	18	20	13	8	
24	8	14	8	7	25	30	23	B	20	15	30	B	B	32	16	B	28	13	13	13	13	7	8	7	
25	20	B	22	22	17	13	15	18	B	B	18	B	B	B	B	B	B	25	22	14	9	8	8	8	
26	7	8	13	19	20	B	20	14	14	14	B	B	30	18	15	28	18	14	15	13	14	8	7	8	
27	13	14	8	14	9	B	13	15	14	B	21	19	B	15	14	11	14	14	14	18	20	8	7	14	
28	14	11	9	13	13	24	19	B	B	B	B	B	22	B	B	B	B	B	15	13	11	7	11	8	
29																									
30																									
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	23	23	23	23	23	23	23	23	23	24	24	24	24	24	24	24	24	24	23	23	23	23	23	23	
MED	9	13	14	15	15	16	15	15	14	20	29	B	B	25	27	25	17	25	14	16	15	10	8	8	
UQ	14	14	16	24	20	29	19	B	B	B	B	B	B	B	B	B	B	B	20	25	18	16	13	14	
LQ	8	8	8	13	13	14	13	12	14	14	16	14	16	14	14	14	14	14	14	13	13	8	8	8	

FEB. 1985

F-MIN (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

FEB. 1985

H'F (KM)

45° E Mean Time (G.M.T. + 3 h)

Station	SYOWA STATION				Lat.	69° 00' 4" S				Long.	39° 35' 4" E				Sweep	4 MHz to 15 MHz				in 20 sec in				automatic operation			
Hour 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	A	A	A	A	A	A	A	B	B	240	200	B	B	B	B	220	190	B	210	220	A	250	A	A			
2	A	A	A	220	245	A	B	A	B	B	B	220	200	200	210	210	200	205	200	250	200	240	200	A			
3	A	A	A	A	A	A	A	H	200	200	200	185	230	200	200	200	190	B	220	230	B	240	270	A			
4	A	240	A	A	280	230	230	200	200	200	195	H	E A	200	195	A	A	E A	E A	300	190	220	240	240	230	240	
5	250	A	A	A	350	345	200	210	190	A	B	B	B	B	B	210	190	190	280	B	A	330	A	A			
6	A	A	A	240	A	A	A	A	A	A	B	B	B	190	B	205	B	B	C	C	C	C	C	C			
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
11	C	C	C	C	C	C	C	C	C	220	B	B	B	B	3	B	B	220	250	240	B	300	A	350			
12	A	A	A	A	A	B	B	A	A	B	B	230	B	B	B	B	210	B	280	B	250	240	260	A			
13	A	A	A	350	320	A	250	210	200	200	195	H	E A	210	A	195	260	E A	230	B	B	210	200	230	240	A	A
14	A	B	B	B	B	B	B	B	240	B	B	B	B	B	210	205	B	B	B	250	A	B	A	A			
15	A	A	A	B	A	B	A	A	A	B	B	200	B	B	230	235	220	A	220	195	210	225	240	A			
16	A	A	A	A	B	E A	270	280	210	200	200	200	190	H	195	195	200	230	195	210	185	H	230	250	275	A	A
17	A	A	A	B	A	B	A	B	B	A	B	B	B	B	E B	200	230	230	B	A	A	A	B	A	A		
18	A	A	A	B	A	A	A	240	A	220	190	H	E A	200	E A	E A	250	210	200	230	230	230	240	245	240	280	
19	A	295	E A	300	A	A	A	A	190	180	H	195	220	E A	200	E A	180	E A	A	E A	200	200	200	230	230	A	A
20	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	E B	300	E B	295	A	
21	A	A	A	A	E A	290	270	240	240	230	200	200	200	220	200	210	210	230	230	200	E A	250	A	E A	270	A	A
22	A	A	A	A	A	A	A	A	B	B	B	E B	230	R	250	240	E B	210	E B	E B	250	270	270	A	A		
23	A	A	A	A	A	A	A	250	E A	250	B	B	B	B	240	230	220	220	200	230	240	240	A	A	A		
24	A	A	A	A	A	B	A	B	A	A	B	B	B	E B	250	240	B	230	220	240	270	260	270	A	A		
25	A	B	B	B	A	A	A	A	B	B	A	B	B	B	B	B	B	230	E B	250	260	A	A	320	A		
26	A	A	A	A	A	B	A	A	A	240	B	B	240	260	200	220	215	220	230	245	245	240	A	A			
27	A	A	A	A	A	B	A	A	E A	300	B	250	A	B	240	200	230	E A	220	210	230	250	245	250	A	A	
28	A	A	A	A	A	A	A	B	B	B	B	B	A	B	B	B	B	B	B	280	300	A	A	A	A		
29																											
30																											
31																											
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
CNT	1	2	1	3	5	4	5	9	10	10	9	11	8	13	15	16	17	14	20	19	14	18	8	3			
MED	250	268	E A	300	240	290	270	240	210	200	200	200	195	200	200	210	215	205	215	225	240	241	244	250	280		
UQ				295	320	308	250	240	U	220	220	200	218	210	240	235	230	220	225	242	250	250	270	282	315		
LQ				230	U	262	240	230	200	200	200	195	H	200	196	195	H	200	209	200	205	205	225	230	240	235	260

FEB. 1985

H'F (KM)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAR. 1985

FXI (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION Lat. 69° 00.4' S, Long. 39° 35.4' E Sweep 4 MHz to 15 MHz in 20 sec in automatic operation

Hour 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	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	O R 42	O R 42	O X 41	X 41	33	37	28
2	A	A	A	A	A	B	B	B	B	R O X 41	B	B	B	B	O X 49	B	B	O X 55	A	A	A	A	A	A
3	A	A	A	A	B	30	B	A	B	B	B	B	B	B	O X 47	O X 46	O X 47	O X 43	O X 43	O X 42	O R 40	O R 33	A	A
4	A	Y	A	A	B	B	A	O X 41	A	O X 45	S O X 46	O X 49	O X 49	O X 49	O X 49	O X 49	O X 49	43	46	B	B	B	30	O R 26
5	A	A	43	A	A	A	A	A	B	B	B	B	B	B	B	O X 43	O X 48	50	X 45	37	A	A	A	A
6	Y	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	O X 42	40	A	O R 24	18	A
7	A	A	A	A	B	A	B	A	B	B	B	E G 41	O X 42	B	B	B	B	B	O R 36	A	B	A	A	A
8	A	A	A	B	B	B	B	B	B	B	B	B	B	B	3	3	B	B	B	O R 38	B	A	A	A
9	A	B	A	A	A	A	A	O R 43	X 45	O X 49	O X 46	O X 47	O X 53	62	60	54	O X 50	X 54	46	42	O X 37	35	33	30
10	29	25	A	B	A	O R 41	41	44	X 46	O X 43	O X 50	O X 50	X 53	61	60	X 55	B	X 54	X 45	X 44	X 43	43	A	A
11	A	A	A	B	C	C	C	C	C	46	O X 47	O X 42	O X 48	O X 50	O X 50	O X 46	47	46	X 48	X 42	38	33	31	28
12	A	A	A	A	A	O X 41	O R 34	O R 34	A	S	O X 44	O X 46	O X 47	O X 50	O X 51	X 52	X 50	47	O X 42	B	O X 38	30	A	A
13	A	A	A	A	A	B	A	O X 42	O X 42	B	B	O X 44	O X 46	B	O X 49	E G 42	O X 48	O X 44	O X 44	O X 42	O X 40	X 38	O R 30	O R 28
14	O R 25	O R 24	A	O R 21	B	38	35	X 40	X 46	X 50	O X 48	O X 46	O X 50	X 60	X 60	O X 56	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	O X 46	A	B	B	B	B	B	O X 48	O X 47	O X 49	45	41	41	A	A
16	A	A	A	B	A	A	A	O R 41	43	O X 48	O X 49	O X 49	O X 50	B	O X 50	O X 49	O X 50	O X 49	O X 49	O R 43	O R 40	34	33	A
17	A	A	A	B	B	B	Y	O X 41	45	O X 48	O X 49	O X 49	O X 49	O X 50	O X 49	O X 51	O X 49	O X 49	46	X 40	X 34	X 31	X 30	A
18	A	A	A	A	B	B	B	O X 41	A	B	B	B	O X 50	O X 50	O X 49	O X 49	O X 49	X 50	X 44	X 40	X 37	X 33	X 28	A
19	A	A	A	A	A	A	A	A	O X 43	50	O X 49	56	X 59	X 60	X 60	X 63	O X 56	X 54	B	B	A	A	A	A
20	B	B	A	A	A	A	O R 36	42	O X 43	O X 49	O X 49	61	X 66	71	X 61	X 66	X 61	X 62	X 60	X 50	41	B	B	A
21	A	A	A	A	A	A	B	A	O X 46	O X 51	O X 60	O X 53	O X 60	X 61	O X 60	X 54	51	53	X 54	X 50	O X 49	O X 43	30	A
22	A	Y	A	A	A	A	A	O X 43	O X 46	O X 50	O X 52	59	56	X 60	X 57	55	56	57	51	X 45	X 40	35	O R 26	B
23	A	A	A	A	A	A	A	B	O R 43	O X 48	51	O X 51	53	O X 51	O X 51	51	49	50	X 46	X 42	38	35	28	A
24	A	A	A	Y	A	A	A	O R 41	O X 46	O X 48	O X 49	O X 50	O X 51	52	55	X 53	X 55	X 50	X 46	X 37	X 34	33	25	A
25	A	A	A	A	A	A	O X 38	X 42	X 43	X 46	49	O X 51	O X 54	O X 51	O X 50	X 53	X 51	X 54	X 45	X 42	O X 43	O R 41	A	A
26	A	A	A	A	A	B	A	A	A	O X 47	O X 49	O X 51	O X 50	O X 55	O X 59	O X 49	O X 49	X 50	O X 49	43	O R 36	18	A	A
27	A	A	37	36	A	A	A	A	A	A	B	B	O X 42	B	B	O X 51	X 53	O X 49	S	O R 43	A	A	A	A
28	A	A	A	A	B	A	A	A	A	A	B	B	B	O X 46	O X 46	O X 46	O X 43	C	C	C	O R 31	O R 25	A	A
29	A	A	A	A	A	A	A	O X 46	O X 41	O X 43	O X 50	O X 50	O X 49	O X 50	O X 51	O X 51	O X 49	X 50	X 46	X 38	X 36	25	B	A
30	A	A	A	A	B	A	A	O R 41	O R 41	O X 46	O X 50	O X 56	O X 55	O X 50	O X 51	O X 50	X 55	54	44	O X 44	O R 36	30	O R 27	A
31	A	A	A	A	B	A	A	B	O X 43	O R 48	O X 50	O X 49	B	B	3	B	B	O X 49	B	X 44	35	32	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	2	2	2	2		4	5	15	16	19	19	21	22	19	23	24	23	26	24	24	22	22	14	5
MED	27	24	40	28		40	O X 36	O X 41	O X 43	O X 48	O X 49	O X 50	O X 50	O X 51	O X 51	O X 51	O X 49	X 50	X 46	X 42	X 38	33	30	28
UQ						O X 41	O X 38	O X 42	X 46	O X 49	O X 50	O X 51	X 55	X 60	X 60	X 54	X 52	X 54	X 48	X 44	X 41	35	31	28
LQ						34	O R 35	O X 41	O X 45	O X 46	O X 48	O X 46	O X 49	O X 50	O X 49	O X 49	O X 48	O X 47	X 44	X 40	X 36	30	27	O R 28

MAR. 1985

FXI (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAR. 1985

F0F2 (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4				MHz to 15				MHz in 20				sec in				automatic operation			
Hour 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	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	F	F	36	36	35	35	30	28	17					
2	A	A	A	A	A	B	B	B	B	R	35	B	B	B	43	B	B	49	A	A	A	A	A	A	A						
3	A	A	A	A	B	F	B	A	B	B	B	B	B	B	41	40	41	37	36	36	31	25	A	A	A						
4	A	Y	A	A	B	B	A	35	A	39	S	40	43	43	43	43	E G	37	40	B	B	B	20	18							
5	A	A	F	A	A	A	A	A	B	B	B	B	B	B	B	42	42	43	38	31	A	A	A	A							
6	Y	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	36	34	A	17	F	A							
7	A	A	A	A	B	A	B	A	B	B	B	E G	E G	B	B	B	B	B	F	30	A	B	A	A	A						
8	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	32	B	A	A	A							
9	A	B	A	A	A	A	A	35	39	43	40	41	47	J R	52	47	44	47	40	36	32	27	22	22							
10	F	F	A	B	A	F	33	34	38	40	42	44	44	51	55	54	49	B	44	38	37	R	36	A	A						
11	A	A	A	B	C	C	C	C	C	40	41	E G	36	42	44	44	40	41	40	43	36	32	26	23	17						
12	A	A	A	A	A	35	25	F	A	D S	33	38	40	41	44	45	45	44	41	36	B	32	18	A	A						
13	A	A	A	A	A	B	A	36	E G	36	B	B	38	40	B	43	E G	42	38	38	36	34	31	23	19						
14	F	F	A	F	B	F	28	34	40	44	42	40	44	J R	54	53	50	C	C	C	C	C	C	C							
15	C	C	C	C	C	C	C	C	C	40	A	B	B	B	B	B	42	40	43	36	34	34	A	A	A						
16	A	A	A	B	A	A	A	F	36	37	42	43	43	44	B	44	43	44	43	43	36	32	28	27	A						
17	A	A	A	B	B	B	Y	35	39	42	43	43	43	44	S	45	43	43	43	40	34	27	25	23	A						
18	A	A	A	A	B	B	B	35	A	B	B	B	44	44	43	43	43	44	37	34	30	26	22	A	A						
19	A	A	A	A	A	A	A	A	37	42	43	50	50	54	54	57	50	45	B	B	A	A	A	A	A						
20	B	B	A	A	A	A	F	29	36	37	43	43	54	60	65	55	60	55	56	J R	54	43	35	B	B	A					
21	A	A	A	A	A	A	B	A	40	45	54	47	J R	54	55	53	J R	44	46	46	44	43	37	24	A						
22	A	Y	A	A	A	A	A	37	40	44	46	53	50	J R	54	51	47	50	51	45	39	34	28	18	B						
23	A	A	A	A	A	A	A	B	25	42	45	45	45	45	S	45	45	42	44	40	35	32	28	F	A						
24	A	A	A	Y	A	A	A	F	34	41	42	43	44	45	46	47	46	47	43	39	32	28	26	F	A						
25	A	A	A	A	A	A	32	36	37	40	43	45	48	45	S	44	50	45	47	39	36	37	34	A	A						
26	A	A	A	A	A	B	A	A	A	41	43	45	44	49	50	S	43	44	43	F	27	F	A	A	A						
27	A	A	F	F	A	A	A	A	A	A	B	B	36	B	B	45	45	43	D S	40	37	A	A	A	A						
28	A	A	A	A	B	A	A	A	A	A	B	B	B	40	40	40	37	C	C	C	23	17	A	A	A						
29	A	A	A	A	A	A	A	40	35	37	44	E G	E G	E G	44	45	45	43	44	39	32	30	15	B	A						
30	A	A	A	A	B	A	A	F	34	34	40	44	50	49	44	45	44	R	R	38	35	28	25	F	A						
31	A	A	A	A	B	A	A	B	37	F	44	43	B	B	B	B	B	43	B	38	28	24	A	A	A						
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23							
CNT	2	2	1	1		3	5	15	16	20	19	21	22	19	23	24	23	26	25	24	22	21	11	5							
MED	F	F	F	F		F	29	35	37	42	43	44	44	45	45	45	43	44	39	36	32	26	F	F	18						
UQ						34	32	36	40	42	44	45	49	54	52	48	45	46	43	37	34	30	24	F	19						
LQ						F	F	34	36	40	42	40	43	44	43	43	42	41	38	34	28	25	21	F	17						

MAR. 1985

F0F2 (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAR. 1985

FES (0.1 MHz)

45° E Mean Time (G.M.T. + 3h)

Station SYOWA STATION				Lat. 69° 00' 4" S, Long. 39° 35' 4" E										Sweep 4 MHz to 15 MHz in 20 sec in automatic operation												
Hour 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	42	37	33	50	B	70	73	B	B	3	B	B	B	B	B	B	B	E B	22	23	E B	16	15	13	E G	
2	32	90	43	45	42	B	36	45	B	35	27	B	B	B	27	B	B	E B	24	37	35	45	45	45	85	
3	32	40	37	36	B	22	B	43	B	B	B	B	B	B	E B	29	28	24	E B	25	E B	17	14	26	28	
4	90	17	42	42	45	B	36	33	28	E B	E B	28	28	26	27	27	20	E B	26	22	18	B	B	B	18	E B
5	25	30	28	70	43	37	38	45	B	B	B	B	B	B	B	E B	27	E B	14	29	19	27	90	58	80	90
6	41	B	36	B	B	B	30	B	B	B	B	B	B	B	B	B	B	B	B	33	23	37	37	15	32	
7	42	55	42	65	B	46	B	40	B	B	B	27	27	B	B	B	B	B	E B	20	35	B	120	44	120	
8	43	55	60	37	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	E B	25	B	18	22	18	
9	40	B	37	37	37	35	33	28	21	23	25	25	25	25	26	24	22	24	20	17	E B	14	14	E B	E B	
10	E B	11	10	45	B	43	30	16	17	19	24	28	27	28	25	25	24	B	26	22	27	20	32	32	44	
11	75	37	45	37	C	C	C	C	C	21	24	26	25	26	23	28	21	21	18	15	17	15	35	12		
12	32	32	35	33	32	32	35	50	60	E B	E B	30	29	28	25	27	22	19	35	B	E B	15	47	55		
13	75	32	45	42	37	35	36	27	31	B	B	27	26	B	E B	E B	E B	E B	E B	E B	E B	16	17	E B	E B	
14	11	15	35	20	B	12	E B	17	19	21	25	26	27	27	26	23	C	C	C	C	C	C	C	C		
15	C	C	C	C	C	C	C	C	C	17	37	B	B	B	B	B	B	E B	E B	E B	35	36	74	50	45	
16	35	50	75	65	43	45	43	35	25	24	26	26	27	B	29	32	27	18	29	E B	E B	35	35	20	32	
17	70	75	68	B	B	B	30	30	19	20	27	27	28	26	24	27	23	18	16	E B	E B	12	E B	32		
18	37	120	43	60	B	B	43	34	50	B	B	B	28	28	24	22	22	19	17	10	14	43	E B	44		
19	70	43	65	44	44	45	43	43	43	22	24	27	26	28	25	23	22	20	B	B	30	45	42	60		
20	B	B	40	55	35	60	32	32	43	23	23	37	40	28	35	25	22	22	18	18	20	B	B	28		
21	28	30	33	37	35	35	B	35	35	24	26	27	30	27	26	25	20	20	26	30	30	30	26	37		
22	40	35	47	38	28	43	37	30	23	22	27	26	27	24	26	22	30	43	17	33	30	28	26	B		
23	30	50	58	53	45	37	29	B	35	28	22	23	25	25	35	22	19	22	17	27	30	30	30	30		
24	35	45	45	43	44	37	58	47	26	26	27	35	27	23	24	23	19	18	17	22	22	21	14	40		
25	80	57	78	33	55	45	20	18	18	20	20	22	28	30	30	23	19	E G	20	13	14	20	30	44	43	
26	36	85	60	35	17	B	43	43	42	E B	E G	25	25	35	25	E B	E B	18	18	18	E B	E B	20	70	95	
27	83	60	70	33	42	37	50	60	45	43	B	B	E B	B	B	E B	13	28	E B	E B	37	55	100	45		
28	43	43	43	65	B	45	35	35	43	37	B	B	B	E B	24	24	E B	E B	C	C	C	33	E G	41	73	
29	50	42	30	43	42	35	27	30	26	20	24	24	22	35	28	22	20	20	18	20	20	E B	B	44		
30	36	46	70	65	B	44	43	30	19	21	24	21	21	20	25	27	22	20	16	30	E B	E B	E B	19		
31	35	37	73	50	B	54	37	B	33	30	25	E B	23	B	B	B	B	E B	22	B	E B	12	27	37	37	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
CNT	29	27	30	27	18	22	25	24	22	23	21	21	22	19	23	24	23	26	26	26	27	28	28	29		
MED	40	43	44	43	42	37	36	34	30	22	25	26	27	26	26	24	22	21	19	20	20	28	28	37		
UQ	50	55	60	54	44	45	43	43	43	26	27	27	28	28	28	26	22	23	22	27	32	40	44	45		
LQ	32	34	37	37	35	35	30	30	21	21	24	25	26	25	24	22	20	20	17	E B	14	15	14	28		

MAR. 1985

FES (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAR. 1985

F-MIN (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4 MHz to 15 MHz				in 20 sec in automatic operation										
Hour 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	13	13	15	7	B	25	29	B	B	3	B	B	B	B	B	B	B	22	13	18	13	12	8	7		
2	8	8	13	13	16	B	30	22	B	25	18	B	B	B	17	B	B	24	18	13	13	13	9	8		
3	13	14	8	8	B	11	B	16	B	B	B	B	B	B	29	28	19	28	25	23	17	14	8	8		
4	14	14	7	18	25	B	15	15	14	33	28	16	15	15	12	14	26	14	14	B	B	B	8	13		
5	8	8	8	8	14	20	16	19	B	B	B	B	B	B	B	27	14	14	13	13	13	11	13	8		
6	34	B	3	B	B	B	16	B	B	B	B	B	B	B	B	B	B	B	16	14	13	7	7	8		
7	13	11	7	8	B	16	B	14	B	B	B	21	18	B	B	B	B	B	20	13	B	14	15	20		
8	20	7	8	21	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	25	B	7	7	8		
9	11	B	16	15	16	15	16	16	10	14	14	14	20	15	15	14	17	15	15	14	14	11	10	13		
10	11	8	14	B	16	17	14	11	13	13	19	14	17	15	13	13	B	15	13	11	8	7	11	14		
11	10	11	14	22	C	C	C	C	C	14	14	13	14	14	14	14	14	14	14	13	14	8	7	8		
12	8	7	8	8	7	8	8	15	15	25	24	15	15	14	14	13	13	13	13	B	20	8	17	12		
13	15	14	14	14	12	25	14	14	13	B	B	22	18	B	28	28	24	21	21	20	16	14	14	11		
14	8	8	8	7	B	8	14	12	14	14	18	18	17	14	17	13	C	C	C	C	C	C	C	C		
15	C	C	C	C	C	C	C	C	C	13	14	B	B	B	B	B	18	22	23	18	13	11	12	15		
16	9	17	11	30	18	14	14	16	14	12	13	13	13	B	13	14	13	11	29	18	15	12	12	9		
17	14	23	17	B	B	B	22	16	14	14	14	13	14	14	14	14	14	13	12	14	13	8	10	8		
18	17	14	19	8	B	B	27	13	14	B	B	B	22	17	17	16	15	14	14	7	7	8	9	9		
19	16	22	15	17	15	20	18	19	15	14	18	16	15	14	15	15	17	16	B	B	17	13	8	14		
20	B	B	23	20	16	14	14	8	13	13	14	14	15	14	14	13	13	13	13	7	13	B	B	18		
21	15	8	8	8	8	15	B	21	14	15	14	14	14	14	8	10	11	8	8	8	8	8	8	13		
22	8	30	14	15	13	14	17	14	13	13	11	13	13	13	12	13	13	12	8	8	8	8	14	B		
23	14	14	23	14	9	8	13	B	13	8	8	15	14	14	14	13	13	15	14	8	8	8	7	7		
24	10	14	19	30	18	17	15	11	11	11	11	11	13	11	10	13	13	13	8	8	8	9	9	9		
25	14	14	14	22	18	14	11	9	8	8	8	10	11	11	13	11	10	8	8	8	8	8	10	8		
26	14	17	17	18	10	B	10	14	14	23	15	16	15	16	24	23	15	16	15	15	15	8	8	8		
27	8	8	14	13	14	15	17	15	13	13	B	B	26	B	B	21	19	23	30	16	8	15	9	14		
28	13	18	16	14	B	23	16	22	16	19	B	B	B	24	18	23	22	C	C	C	13	8	9	8		
29	8	8	10	24	15	10	8	8	8	8	16	17	17	16	17	18	16	15	9	8	8	8	B	8		
30	16	14	18	20	B	22	22	16	14	14	15	14	16	16	15	14	13	13	14	14	11	13	10	9		
31	10	14	11	16	B	14	18	B	23	22	15	23	B	B	B	B	B	22	B	16	8	8	9	8		
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
CNT	30	30	30	30	29	29	29	29	29	31	31	31	31	31	31	31	30	29	29	29	30	30	30	30		
MED	13	14	14	16	18	17	16	16	14	14	18	16	17	16	17	15	16	15	14	14	13	8	9	9		
UQ	15	17	16	22	B	25	22	21	23	D	B	B	B	B	D	B	29	28	26	22	21	18	15	13	12	13
LQ	9	8	8	8	14	14	14	14	13	13	14	14	14	14	14	13	13	13	13	8	8	8	8	8		

MAR. 1985

F-MIN (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAR. 1985

H⁺F (KM)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00.4' S, Long. 39° 35.4' E				Sweep 4				MHz to 15				MHz in 20				Sec in automatic operation					
Hour 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	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	240	230	250	250	240	250	250	
2	A	A	A	A	A	B	B	B	B	R	230	B	B	B	E A 200	B	B	250	A	A	A	A	A	A	
3	A	A	A	A	B	A	B	A	B	B	B	B	B	B	E B 240	240	210	250	240	250	250	250	A	A	
4	A	Y	A	A	B	B	A	270	A	E B 300	S	230	200	220	230	210	230	210	190	H	B	B	B	270	E B 300
5	A	A	310	A	A	A	A	A	B	B	B	B	B	B	B	B	220	220	250	240	300	A	A	A	A
6	Y	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	250	250	A	340	A	A	
7	A	A	A	A	B	A	B	A	B	B	B	A	230	240	B	B	B	B	E B 250	A	B	A	A	A	
8	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	275	B	A	A	A	
9	A	B	A	A	A	A	A	A	240	210	220	200	240	200	205	200	210	230	230	220	230	240	250	280	
10	260	290	A	B	A	A	210	200	H 180	H 190	230	230	230	220	200	190	H	B	215	210	240	250	280	A	A
11	A	A	A	B	C	C	C	C	C	200	190	200	220	200	210	230	210	220	240	240	240	250	270	E A 300	
12	A	A	A	A	A	E A 380	E A 330	250	A	230	210	240	220	210	220	200	210	210	300	B	250	E A 270	A	A	
13	A	A	A	A	A	B	A	300	270	B	B	230	200	B	E B 240	E B 220	E B 230	240	245	245	245	240	250	250	
14	E A 300	E A 350	A	A	B	E A 300	240	220	200	200	220	240	200	E A 200	220	220	C	C	C	C	C	C	C	C	
15	C	C	C	C	C	C	C	C	C	260	A	B	B	B	B	B	B	230	250	250	250	270	290	A	A
16	A	A	A	B	A	A	A	A	210	200	H 190	H 180	210	B	210	E A 200	220	190	H E B 220	230	240	250	270	A	
17	A	A	A	B	B	B	Y	E A 300	210	H 190	230	220	200	200	195	210	230	230	220	210	240	240	250	A	
18	A	A	A	A	B	B	B	330	A	B	B	B	E A 200	210	240	230	230	220	220	230	230	240	230	A	
19	A	A	A	A	A	A	A	A	290	200	210	210	190	H	200	210	230	200	230	B	B	A	A	A	
20	B	B	A	A	A	A	A	280	E A 240	210	200	E A 240	E A 230	220	200	220	220	210	220	210	230	B	B	A	
21	A	A	A	A	A	A	B	A	290	210	210	200	H	210	200	190	200	200	H	220	210	210	230	250	A
22	A	Y	A	A	A	A	A	340	250	200	240	E A 230	220	190	210	210	195	200	220	220	220	230	250	B	
23	A	A	A	A	A	A	A	B	250	220	200	190	H	190	220	200	185	200	230	220	220	230	230	A	A
24	A	A	A	Y	A	A	A	E A 340	E A 300	220	245	240	220	180	205	H 190	210	220	220	230	250	240	A	A	
25	A	A	A	A	A	A	320	250	220	200	170	200	230	200	190	200	200	220	210	230	240	250	A	A	
26	A	A	A	A	A	B	A	A	A	260	230	220	210	240	240	230	200	240	230	230	E B 260	A	A	A	
27	A	A	A	A	A	A	A	A	A	A	B	B	240	B	B	240	240	250	250	250	A	A	A	A	
28	A	A	A	A	B	A	A	A	A	A	B	B	B	250	240	240	250	C	C	C	280	320	A	A	
29	A	A	A	A	A	A	A	280	220	230	240	200	195	H	210	200	H 190	230	230	210	240	230	E B 260	B	
30	A	A	A	A	B	A	A	E A 350	230	240	240	230	220	210	210	210	240	230	220	220	220	240	250	A	
31	A	A	A	A	B	A	A	B	A	A	210	210	B	B	B	B	B	240	B	220	350	320	A	A	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	2	2	1			2	4	13	15	19	19	21	22	19	23	24	23	26	25	24	22	21	11	5	
MED	270	305	310			E A 340	U 252	U 265	230	210	220	215	212	210	208	210	215	230	220	230	240	245	250	U 265	
UQ							322	U 305	255	228	230	230	230	220	220	230	230	240	240	250	250	270	260	E 300	
LQ							225	250	212	200	205	200	200	200	200	200	205	215	220	220	230	240	250	250	

MAR. 1985

H⁺F (KM)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

APR. 1985

FXI (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station	SYOWA STATION				Lat. 69° 00' 4" S	Long. 39° 35' 4" E	Sweep 4	MHz to 15	MHz in 20	sec in	automatic operation													
Hour 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	A	A	A	A	A	A	A	A	44	45	51	54	B	B	B	B	B	B	A	A	A	A	A	A
2	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	0 X 43	0 X 46	A	A	A	A
3	A	A	A	A	B	B	B	A	A	B	B	B	B	B	B	B	B	B	0 X 39	0 R 37	0 R 27	A	A	A
4	A	A	B	B	Y	Y	A	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	A	B
5	A	A	A	A	B	A	B	B	B	B	B	0 X 48	0 X 55	0 X 51	B	B	B	B	B	B	B	B	B	B
6	A	A	A	A	A	A	30	34	40	45	49	49	63	63	B	3	60	B	B	0 R 35	0 R 31	0 R 18	B	A
7	A	A	A	31	35	34	45	50	B	B	0 X 51	B	B	B	66	B	B	0 X 49	X 46	X 38	0 R 26	A	A	A
8	A	A	A	A	A	A	B	35	B	0 X 46	59	B	70	74	63	X 74	B	B	0 X 44	0 R 44	0 X 29	B	A	A
9	37	A	A	B	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	38	A	A	A	A
10	A	A	A	A	A	A	A	33	0 X 36	0 R 43	B	B	B	0 X 51	B	B	B	0 X 56	0 R 41	0 R 36	A	A	A	A
11	Y	A	A	A	A	A	B	B	B	B	0 R 43	B	0 X 49	0 X 51	0 X 47	0 X 50	0 X 50	B	0 R 36	B	A	B	B	B
12	A	A	A	A	A	A	0 R 33	34	0 R 41	0 X 41	0 X 41	0 S 41	0 X 48	U 46	0 X 49	0 X 56	0 X 47	0 X 41	0 R 35	0 R 29	B	B	B	B
13	B	B	B	A	A	B	A	B	B	B	B	B	62	61	62	62	0 S 51	0 X 49	35	0 X 32	20	0 R 18	B	A
14	A	A	A	A	B	A	B	A	A	B	B	B	B	0 X 46	0 R 48	0 X 48	0 X 44	B	B	B	B	B	B	A
15	A	A	A	A	A	A	0 R 31	32	40	C	B	B	B	B	B	X 50	0 X 46	B	B	B	B	B	B	A
16	A	A	A	A	A	A	A	A	B	B	B	0 X 59	0 X 59	52	58	62	B	B	B	B	B	B	A	B
17	A	A	B	A	A	A	A	A	0 R 41	0 X 44	0 X 48	0 X 48	0 X 54	0 X 59	62	0 X 51	X 52	X 40	33	30	26	22	Y	A
18	A	A	A	B	A	A	A	0 R 35	46	0 X 42	0 X 45	0 X 49	0 X 55	0 X 59	0 X 56	0 X 51	X 46	X 41	X 30	0 R 26	18	0 R 22	0 R 23	0 R 21
19	0 X 20	0 R 20	A	A	A	A	A	A	B	A	0 R 42	0 X 42	B	B	B	B	B	0 R 46	A	A	A	A	A	A
20	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	0 R 41	40	38	A	A	A	A	A
21	A	A	A	A	A	B	B	B	Y	A	0 R 32	B	B	B	B	B	0 R 43	A	A	A	A	A	A	A
22	A	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A
23	A	A	B	A	B	A	A	A	A	0 R 36	B	B	B	B	0 X 50	0 X 51	B	0 R 40	0 R 36	31	A	A	A	A
24	A	A	35	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A
25	A	A	A	A	A	A	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	B	A	A	A
28	A	A	A	B	B	B	B	B	B	B	B	B	B	0 R 33	B	B	B	A	0 X 38	A	A	A	A	A
29	A	A	A	A	A	A	A	B	B	B	B	B	0 R 43	0 X 43	0 R 46	0 X 49	40	X 41	39	0 X 34	B	B	A	A
30	A	A	A	A	A	0 R 34	35	36	0 X 36	B	B	0 X 48	X 52	B	65	S	Y	A	A	A	A	A	A	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	2	1	1	1	1	2	5	8	8	8	10	9	11	13	12	11	11	10	14	13	7	3	2	1
MED	28	0 R 20	35	31	35	34	33	34	40	0 X 44	0 X 46	0 X 48	0 X 55	0 X 51	57	0 X 51	0 X 46	0 X 41	0 X 38	0 X 35	0 R 26	0 R 22	0 R 20	0 R 21
UQ						35	36	42	0 X 45	0 X 51	0 X 49	0 X 60	59	64	59	0 X 50	0 X 49	0 X 41	0 R 38	0 R 28	22			
LQ						0 R 31	34	38	0 X 42	0 R 42	0 X 48	0 X 50	0 X 46	0 X 48	0 X 50	0 X 44	40	0 X 35	0 X 31	23	0 R 20			

APR. 1985

FXI (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

APR. 1985

F0F2 (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION Lat. 69° 00.4' S, Long. 39° 35.4' E Sweep 4 MHz to 15 MHz in 20 sec in automatic operation

Hour 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	A	A	A	A	A	A	A	A	F 32	F 38	F 43	F 48	B	B	B	B	B	B	A	A	A	A	A	A
2	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	37	38	A	A	A	A
3	A	A	A	A	B	B	B	A	A	B	B	B	B	B	B	B	B	B	33	30	F 19	A	A	A
4	A	A	B	B	Y	Y	A	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	A	B
5	A	A	A	A	B	A	B	B	B	B	B	42	S 49	S 45	B	B	B	B	B	B	B	B	B	B
6	A	A	A	A	A	A	F 26	F 26	34	39	43	43	57	56	F 56	B	53	B	B	F 27	F 23	B	F 11	A
7	A	A	A	F 26	F 26	F 24	F 24	F 27	B	B	45	B	B	B	F 56	B	B	43	40	32	F 17	A	A	A
8	A	A	A	A	A	A	B	F 27	B	40	53	B	F 61	F 61	60	66	B	B	38	25	21	B	A	A
9	F	A	A	B	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	F	A	A	A	A
10	A	A	A	A	A	A	A	F 23	30	35	B	B	B	E 45	B	B	B	44	33	F 27	A	A	A	A
11	Y	A	A	A	A	A	B	B	B	B	F 37	B	43	45	41	44	44	B	F 30	B	A	B	B	B
12	A	A	A	A	A	A	F 25	F 28	F 33	35	35	S 35	42	U 40	S 43	50	41	35	F 29	F 19	B	B	B	B
13	B	B	B	A	A	B	A	B	B	B	B	B	R 56	R 55	R 56	56	S 45	43	28	26	F 16	F 12	B	A
14	A	A	A	A	B	A	B	A	A	B	B	B	B	40	F 42	42	38	B	B	B	B	B	B	A
15	A	A	A	A	A	A	F 23	F 27	F 34	C	B	B	B	B	B	3	44	40	B	B	B	B	B	A
16	A	A	A	A	A	A	A	A	B	B	B	50	S 50	45	50	56	B	B	B	B	B	B	A	B
17	A	A	B	A	A	A	A	A	F 35	38	42	42	48	53	55	S 45	45	34	F 25	F 24	F 20	F 15	Y	A
18	A	A	A	B	A	A	A	F 27	40	36	40	43	49	R 53	50	45	40	35	23	18	F 15	F 15	F 15	F 14
19	F 14	F 14	A	A	A	A	A	A	B	A	F 36	36	B	B	3	B	B	F 38	A	A	A	A	A	A
20	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	F 31	F 32	F 31	A	A	A	A	A
21	A	A	A	A	A	B	B	B	Y	A	F 25	B	B	B	B	B	F 35	A	A	A	A	A	A	A
22	A	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A
23	A	A	B	A	B	A	A	A	F 30	B	B	B	B	B	44	45	B	F 34	F 28	F 25	A	A	A	A
24	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A
25	A	A	A	A	A	A	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	B	A	A	A
28	A	A	A	B	B	B	B	B	B	B	B	B	B	F 25	B	B	B	A	32	A	A	A	A	A
29	A	A	A	A	A	A	A	B	B	B	B	B	F 37	F 37	F 40	43	34	33	33	28	B	B	A	A
30	A	A	A	A	A	F 25	F 28	F 32	32	B	B	42	45	B	F 55	D 45	Y	A	A	A	A	A	A	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	1	1		1	1	1	4	8	8	8	10	9	11	13	12	12	11	10	14	12	7	3	2	1
MED	F 14	F 14		F 26	F 26	F 25	F 24	F 27	F 34	37	41	42	49	45	50	45	40	35	32	F 26	F 19	F 15	F 13	F 14
UQ							F 26	F 28	F 34	38	43	43	53	53	56	54	44	43	33	29	F 20	F 15		
LQ							F 24	F 25	32	35	F 36	42	44	40	42	44	36	34	F 28	F 24	F 16	F 14		

APR. 1985

F0F2 (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

APR. 1985

FES (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S, Long. 39° 35' 4" E									Sweep 4 MHz to 15 MHz in 20 sec in automatic operation												
Hour 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	39	35	37	40	43	43	45	43	20	28	30	25	B	B	B	B	B	B	75	45	46	44	44	45	
2	70	43	25	35	70	45	45	43	37	B	B	B	B	B	B	B	B	B	E 22	E 22	45	47	47	43	
3	33	43	37	35	B	B	B	28	26	B	B	B	B	B	B	B	B	B	E 17	E 17	E 14	35	35	23	
4	35	65	B	B	44	40	40	B	B	B	B	B	B	B	B	B	B	B	B	27	45	B	40	B	
5	43	39	35	35	B	64	B	B	B	B	B	E 23	20	23	B	B	B	B	B	B	B	B	B	B	
6	25	32	33	30	25	27	22	17	17	18	21	24	24	24	B	B	E 20	B	B	E 19	E 13	B	12	36	
7	70	35	35	27	18	15	37	16	B	B	36	B	B	B	E 21	B	B	E 22	20	30	E 13	40	29	30	
8	30	34	34	32	27	31	B	28	B	E 20	30	B	E 26	E 30	20	27	B	B	E 25	E 17	E 14	B	47	60	
9	58	58	33	B	43	40	37	43	44	B	B	B	B	B	B	B	B	B	B	27	45	40	43	43	
10	58	34	35	32	33	29	36	32	37	40	B	B	B	E 25	B	B	B	E 16	E 16	33	17	30	37	37	
11	35	43	44	43	44	60	B	B	B	B	E 26	B	E 25	30	E 22	E 21	E 20	B	E 23	B	30	B	B	B	
12	17	30	36	36	36	33	20	E 15	16	17	E 22	E 24	E 23	E 27	E 21	E 20	28	E 16	E 14	E 12	B	B	B	B	
13	B	B	B	10	19	B	30	B	B	B	B	B	28	25	E 23	E 22	E 23	E 21	E 18	20	19	10	B	20	
14	57	60	45	43	B	22	B	40	43	B	B	B	B	E 30	14	14	E 23	B	B	B	B	B	B	36	
15	50	43	43	42	35	35	33	13	17	B	B	B	B	B	B	29	E 20	B	B	B	B	B	B	27	
16	22	35	43	42	43	40	35	17	B	B	B	E 22	21	23	19	16	B	B	B	B	B	B	24	B	
17	23	43	B	58	50	44	30	28	E 16	E 18	E 22	E 21	E 21	E 21	E 22	E 19	18	E 13	E 11	10	20	E 9	22	27	
18	27	34	38	B	30	33	30	18	15	E 20	21	25	E 23	E 20	20	18	18	19	14	19	16	10	11	E 8	
19	E 10	12	15	31	35	31	27	40	B	37	30	22	B	B	B	B	B	E 21	43	48	80	70	50	70	
20	65	68	37	43	45	43	43	B	B	B	B	B	B	B	B	B	E 18	40	17	35	45	40	43	90	
21	43	40	42	43	44	B	B	B	35	33	E 21	B	B	B	B	B	E 21	40	40	73	100	100	75	34	
22	34	B	B	36	28	33	39	27	30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	22	
23	30	37	B	9	B	74	75	52	45	E 25	B	B	B	B	E 30	E 25	B	E 11	E 14	E 14	42	67	48	42	
24	44	40	34	50	50	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	30	37	
25	38	33	43	33	37	40	B	35	B	B	B	B	B	B	B	B	B	B	B	B	B	B	33	B	
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
27	50	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	35	B	B	26	28	37	
28	90	44	40	B	B	B	B	B	B	B	B	B	B	E 21	B	B	B	35	70	70	35	33	43	37	
29	36	43	40	44	43	43	35	90	B	B	B	B	E 27	E 27	E 24	E 24	30	20	E 24	E 20	B	B	17	29	
30	34	43	38	40	37	30	26	30	E 17	B	B	E 24	36	B	E 20	E 26	23	46	35	30	40	45	44	43	
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	28	26	23	24	23	23	19	20	15	10	10	9	11	13	12	12	12	13	19	20	19	16	22	23	
MED	37	40	37	36	37	40	35	29	26	20	22	E 24	E 24	E 25	E 21	E 22	E 20	E 21	E 22	24	35	40	38	37	
UQ	54	43	41	43	44	43	40	42	37	33	30	24	25	E 27	E 22	E 26	23	35	35	34	45	46	44	43	
LQ	30	34	34	32	32	31	30	18	17	E 18	E 21	E 22	21	E 23	18	16	E 19	E 16	E 16	E 18	16	28	28	28	

APR. 1985

FES (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

APR. 1985

F-MIN (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00.4 ' S , Long. 39° 35.4 ' E									Sweep 4				MHz to 15				MHz in 20				sec in automatic operation			
Hour 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	8	11	12	12	15	16	14	13	8	8	8	16	B	B	3	B	B	B	14	8	8	9	19	13				
2	8	14	16	21	20	27	14	14	8	B	B	B	B	B	B	B	B	B	22	22	8	8	8	13				
3	20	22	16	17	B	B	B	15	19	B	B	B	B	B	B	B	B	B	17	17	14	8	15	19				
4	15	17	B	B	23	24	20	B	B	B	B	B	B	B	B	B	B	B	B	15	8	B	9	B				
5	20	20	14	14	B	21	B	B	B	B	B	23	17	16	B	B	B	B	B	B	B	B	B	B				
6	17	17	18	22	8	8	8	9	7	10	14	15	15	16	B	B	20	B	B	19	13	B	8	9				
7	8	10	14	8	10	8	8	8	B	B	20	B	B	B	21	B	B	22	15	9	13	8	14	8				
8	8	8	8	8	9	17	B	17	B	20	13	B	26	30	15	14	B	B	25	17	14	B	12	13				
9	13	13	8	B	22	18	17	14	15	B	B	B	B	B	3	B	B	B	B	7	15	9	11	14				
10	11	15	13	18	14	17	8	8	13	14	B	B	B	25	B	B	B	16	16	14	8	8	8	8				
11	30	23	23	16	16	17	B	B	B	B	26	B	25	25	22	21	20	B	23	B	10	B	B	B				
12	10	12	13	14	16	13	12	15	13	14	22	24	23	27	21	20	15	16	14	12	B	B	B	B				
13	B	B	B	8	14	B	20	B	B	B	B	B	17	20	23	22	23	21	18	16	8	7	B	8				
14	13	14	15	14	B	13	B	24	24	B	B	B	B	30	12	10	23	B	B	B	B	B	B	14				
15	8	8	12	10	16	14	10	8	9	C	B	B	B	B	B	13	20	B	B	B	B	B	B	15				
16	9	8	17	21	17	14	11	13	B	B	B	22	14	14	15	13	B	B	B	B	9	B	14	B				
17	15	15	B	22	13	14	9	8	16	18	22	21	21	21	22	19	15	13	11	7	7	9	19	7				
18	7	7	11	B	15	14	14	13	13	20	16	20	23	20	15	15	14	9	8	9	8	8	9	8				
19	10	7	8	8	10	8	8	14	B	20	19	19	B	B	B	B	B	21	8	9	14	8	7	8				
20	13	12	24	18	25	15	14	B	B	B	B	B	B	B	B	B	18	13	12	8	8	13	16	14				
21	21	25	16	22	18	B	B	B	24	21	21	B	B	B	B	B	21	8	9	10	15	10	7	13				
22	13	B	B	14	22	14	20	13	9	B	B	B	B	B	3	B	B	B	B	B	B	B	B	8				
23	8	8	B	19	B	17	30	13	13	25	B	B	B	B	30	25	B	11	14	14	7	11	11	9				
24	13	15	7	25	25	B	B	B	B	B	B	B	B	B	B	B	3	3	B	B	B	B	9	11				
25	18	14	22	21	15	16	B	19	B	B	B	B	B	B	B	B	B	B	B	B	B	B	25	B				
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B				
27	27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	16	B	B	17	12	12				
28	17	15	24	B	B	B	B	B	B	B	B	B	B	21	B	B	B	21	17	18	14	8	12	14				
29	19	8	7	20	16	15	16	40	B	B	B	B	27	27	24	24	10	8	24	20	B	B	11	8				
30	7	7	7	7	7	12	9	9	17	B	B	24	19	B	20	26	20	14	14	10	7	7	9	14				
31																												
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
CNT	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30				
MED	13	14	16	18	16	16	18	15	D 24	B	B	B	B	B	B	B	B	B	20	17	14	15	13	13				
UQ	19	20	24	22	25	27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	19				
LQ	8	8	12	14	14	14	11	13	13	20	22	24	23	25	22	21	20	16	14	10	8	8	9	8				

APR. 1985

F-MIN (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

APR. 1985

H⁺F (KM)

45° E Mean Time (G.M.T. + 3 h)

Station		SYOWA STATION				Lat. 69° 00.4' S		Long. 39° 35.4' E		Sweep 4		MHz to 15		MHz in 20		sec in		automatic operation							
Hour	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		A	A	A	A	A	A	A	A	200	210	240	180	B	B	B	B	B	B	A	A	A	A	A	A
2		A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	250	250	A	A	A	A
3		A	A	A	A	B	B	B	A	A	B	B	B	B	B	B	B	B	B	250	250	300	A	A	A
4		A	A	B	B	Y	Y	A	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	A	B
5		A	A	A	A	B	A	B	B	B	B	B	230	230	200	B	B	B	B	B	B	B	B	B	B
6		A	A	A	A	A	A	A	300	250	220	200	210	220	200	B	B	210	B	B	240	230	B	320	A
7		A	A	A	E A 370	E A 350	E A 340	340	270	B	B	270	B	B	B	210	B	B	210	230	240	E B 290	A	A	A
8		A	A	A	A	A	A	B	E B 300	B	230	200	B	E B 230	240	200	220	B	B	250	260	250	B	A	A
9		A	A	A	B	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	A	A	A	A	A
10		A	A	A	A	A	A	A	280	E A 350	250	B	B	B	250	B	B	B	220	210	270	A	A	A	A
11		Y	A	A	A	A	A	B	B	B	B	E B 230	B	250	250	240	230	230	B	250	B	A	B	B	B
12		A	A	A	A	A	E A 350	280	250	240	240	230	230	230	250	220	220	230	210	220	240	B	B	B	B
13		B	B	B	A	A	B	A	B	B	B	B	B	220	210	230	230	210	200	230	250	250	230	B	A
14		A	A	A	A	B	A	B	A	A	B	B	B	B	E B 300	240	250	250	B	B	B	B	B	B	A
15		A	A	A	A	A	A	A	320	250	C	B	B	B	B	B	190	210	B	B	B	B	B	B	A
16		A	A	A	A	A	A	A	A	B	B	B	240	230	190	200	230	B	B	B	B	B	B	A	B
17		A	A	B	A	A	A	A	A	220	240	240	230	200	220	220	210	200	200	200	240	240	E B 250	Y	A
18		A	A	A	B	A	A	A	350	250	240	230	230	230	200	200	220	200	200	205	250	A	250	250	250
19		E B 300	270	A	A	A	A	A	A	B	A	A	240	B	B	B	B	B	260	A	A	A	A	A	A
20		A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	260	300	300	A	A	A	A	A
21		A	A	A	A	A	B	B	B	Y	A	E B 300	B	B	B	B	B	340	A	A	A	A	A	A	A
22		A	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A
23		A	A	B	A	B	A	A	A	A	E B 300	B	B	B	B	250	240	B	230	250	270	A	A	A	A
24		A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A
25		A	A	A	A	A	A	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B
26		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
27		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	B	A	A	A
28		A	A	A	B	B	B	B	B	B	B	B	B	B	230	B	B	B	A	270	A	A	A	A	A
29		A	A	A	A	A	A	A	B	B	B	B	B	250	250	250	250	230	240	250	250	B	B	A	A
30		A	A	A	A	A	A	320	320	300	B	B	230	230	B	240	270	Y	A	A	A	A	A	A	A
31																									
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT		1	1		1	1	1	3	8	8	8	9	9	11	13	12	12	11	10	14	12	6	3	2	1
MED		E B 300	270		E A 370	E A 350	E A 340	330	300	250	238	235	230	230	225	225	230	230	215	250	250	248	250	285	250
UQ								342	320	262	242	240	230	230	250	240	245	240	240	250	255	290	265		
LQ								330	278	235	225	230	230	222	200	205	220	210	200	220	240	240	250		

APR. 1985

H⁺F (KM)

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IONOSPHERIC DATA

MAY. 1985

FXI (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION Lat. 69° 00' 4" S, Long. 39° 35' 4" E Sweep 4 MHz to 15 MHz in 20 sec in automatic operation

Hour 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	A	A	A	A	A	A	A	A	A	B	B	B	O R 45	O X 51	O X 50	O X 50	O R 46	B	B	B	B	A	B	B	B
2	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	A	A	A
3	A	A	B	B	A	A	A		28	30	35	O R 43	O X 48	O X 51	B	B	O R 49	O R 39	B	B	B	B	B	A	A
4	A	A	A	A	A	A	A	A	B	B	B	O X 41	O R 43	B	O X 51	O X 66	O R 66	54	B	B	A	A	A	A	A
5	A	A	A	A	A	A	A	A	B	O R 35	O X 39	O X 44	O X 44	O X 49	64	O X 60	O X 41	33	O R 22	B	B	B	A	Y	
6	A	A	A	A	A	A	Y	C	C	A	B	B	B	B	O X 44	O R 43	40	O R 30	B	A	B	A	B	B	
7	A	A	A	A	B	B	B	A	A	A	O R 42	O X 43	B	O R 46	O X 49	45	X 36	30	20	B	B	B	B	A	
8	A	A	B	A	A	A	A	A	A	R	B	O X 49	O X 56	62	B	O X 49	B	O R 36	30	O R 35	A	A	A	A	
9	A	A	A	B	B	Y	A	A	B	B	O R 41	45	O X 46	O X 50	51	B	B	B	B	B	A	A	A	A	
10	A	O X 22	A	A	O R 32	30	33	B	B	C	O X 48	O X 54	C	C	C	C	C	C	C	C	C	C	C	C	
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
13	C	C	C	C	C	C	C	C	C	B	B	B	B	B	O X 49	O X 46	43	O X 37	O R 28	B	A	A	A	A	
14	A	A	B	B	A	B	A	A	A	A	B	O R 42	B	B	B	O X 36	B	O X 29	B	A	B	A	A	A	
15	A	A	B	A	A	B	B	A	B	B	B	B	O X 46	B	B	B	O R 36	32	O X 25	B	B	A	A	A	
16	A	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	O X 51	B	B	A	A	A	A	A	
17	A	A	A	A	A	A	A	A	A	A	35	40	X 48	X 46	X 46	X 45	X 32	A	25	B	B	B	A	A	
18	A	A	B	A	B	A	A	A	B	B	B	O X 44	O X 50	X 63	X 56	50	O X 36	34	B	B	B	A	A	A	
19	A	A	B	A	B	A	B	A	A	A	B	B	O X 43	B	B	B	O X 44	X 38	B	B	B	A	A	A	
20	A	A	A	A	B	A	A	A	A	A	X 34	X 40	X 44	O X 46	O X 51	43	A	A	A	B	B	B	B	A	
21	A	A	A	A	A	A	A	A	36	O X 36	O X 43	50	X 57	54	54	50	O X 40	35	O R 26	B	B	A	A	A	
22	A	A	A	A	B	A	A	B	A	O R 31	46	O X 53	O X 56	56	43	40	B	B	B	A	A	B	B	A	
23	A	A	A	A	A	B	B	B	A	40	43	53	59	X 53	X 47	X 42	O R 28	O R 23	A	O R 21	22	O R 21	A	A	
24	A	A	A	A	A	A	A	A	A	B	O R 44	57	X 60	O X 60	X 49	O X 46	18	A	B	B	B	O B 18	B	B	
25	A	A	A		32	36	30	22	20	17	30	X 37	A	A	X 50	O X 49	X 46	O X 36	20	20	12	15	A	B	A
26	A	A	A	A	A	A	A	A	50	C	C	C	C	X 60	A	X 38	30	28	O R 30	B	B	B	A	A	
27	22	A	A	A	A	O X 33	40	37	A	A	35	47	51	O X 53	X 54	O X 42	B	B	B	B	B	B	B	B	
28	B	B	A	A	A	A	A	A	B	A	32	O X 44	O X 51	O X 60	O R 41	45	O X 31	B	B	B	B	B	B	B	
29	A	A	A	A	A	A	40	45	37	30	41	O X 41	67	44	A	33	B	A	B	B	B	A	A	A	
30	A	A	A	A	O X 31	A	A	A	A	28	A	A	A	A	A	A	19	A	A	A	A	A	Y	A	
31	A	A	A	A	A	30	A	A	A	32	B	O X 40	X 46	X 46	X 40	A	O R 25	O R 26	A	R	B	B	A	A	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	1	1		1	3	4	4	4	5	9	16	20	18	19	18	21	19	14	9	3	2	2			
MED	22	O X 22		32	O 32	30	36	32	36	32	41	O X 44	O X 51	X 51	X 49	X 45	O X 36	31	O 25	O R 21	18	O 20			
UQ					34	32	40	41	37	35	O 43	X 50	X 56	X 58	X 54	O X 49	O X 40	35	O R 28	O R 28					
LQ				O 32	30	28	24	30	30	36	O X 42	O X 46	O X 48	X 46	X 42	O 30	O 28	22	16						

MAY. 1985

FXI (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAY. 1985

F0F2 (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station				SYOWA STATION				Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4				MHz to 15				MHz in 20				sec in				automatic operation			
Hour	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		A	A	A	A	A	A	A	A	B	B	B	B	F 38	F 44	F 44	F 44	F 38	B	B	B	B	A	B	B	B									
2		A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	A	A	A									
3		A	A	B	B	A	A	A	F	F 24	F 28	F 35	F 40	45	B	B	F 43	F 30	B	B	B	B	B	B	A	A									
4		A	A	A	A	A	A	A	A	B	B	35	F 36	B	S 45	60	F 60	F 44	B	B	B	A	A	A	A	A									
5		A	A	A	A	A	A	A	A	B	F 27	F 33	F 38	F 38	43	50	52	37	F 27	F 16	B	B	B	A	Y										
6		A	A	A	A	A	A	Y	C	C	A	B	B	B	B	38	F 35	F 34	F 22	B	A	B	A	B	B	B									
7		A	A	A	A	B	B	B	A	A	A	35	F 37	B	F 38	43	F 38	F 30	F 22	F 17	B	B	B	B	A										
8		A	A	B	A	A	A	A	A	R	B	43	50	56	3	S 43	B	F 28	F 24	F 18	F	A	A	A	A										
9		A	A	A	B	B	Y	A	A	B	B	F 34	F 38	40	43	45	B	B	B	B	B	A	A	A	A										
10		A	16	A	A	F 24	F 25	F	B	B	C	42	48	C	C	C	C	C	C	C	C	C	C	C	C										
11		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C										
12		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C										
13		C	C	C	C	C	C	C	C	C	B	B	B	B	B	43	40	34	31	F 21	B	A	A	A	A										
14		A	A	B	B	A	B	A	A	A	A	B	F 34	B	B	B	30	B	23	B	A	B	A	A	A										
15		A	A	B	A	A	B	B	A	B	B	B	B	40	B	B	B	F 30	F 26	19	B	B	A	A	A										
16		A	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	45	B	B	A	A	A	A	A										
17		A	A	A	A	A	A	A	A	A	A	F 28	F 34	40	40	40	37	24	A	F 18	B	B	B	A	A										
18		A	A	B	A	B	A	A	A	B	B	B	38	44	54	50	44	29	F 27	B	B	B	A	A	A										
19		A	A	B	A	B	A	B	A	A	A	B	B	37	B	B	B	38	32	B	B	B	A	A	A										
20		A	A	A	A	B	A	A	A	A	A	28	34	38	40	46	F 37	A	A	A	B	B	B	B	A										
21		A	A	A	A	A	A	A	A	F 30	29	37	44	50	49	48	R 46	34	F	F 20	B	B	A	A	A										
22		A	A	A	A	B	A	A	B	A	F 20	Z 40	47	50	50	36	F 34	B	B	B	A	A	B	B	A										
23		A	A	A	A	A	B	B	B	A	F 35	F 37	47	50	45	R 41	R 38	F 20	F 17	A	F 14	F 16	F 13	A	A										
24		A	A	A	A	A	A	A	A	B	F 37	Z 50	54	53	40	40	F	A	B	B	B	F 11	B	B											
25		A	A	A	A	F 27	F 23	F	F	F	F 23	J R 31	A	A	43	43	40	30	F 17	F 14	F	F	A	B	A										
26		A	A	A	A	A	A	A	A	F 42	C	C	C	C	52	A	32	Z 23	F 22	F 23	B	B	B	A	A										
27		F	A	A	A	A	26	F	31	A	A	F 25	42	45	47	J R 48	36	B	B	B	B	B	B	B	B										
28		B	B	A	A	A	A	A	A	B	A	F 26	F 38	E 43	G 54	F 33	F 38	24	B	B	B	B	B	B	B										
29		A	A	A	A	A	A	F	F	F	F	35	35	F 43	F 37	A	F 27	B	A	B	B	B	A	A	A										
30		A	A	A	A	25	A	A	A	A	F 20	A	A	A	A	A	A	F	A	A	A	A	A	Y	A										
31		A	A	A	A	A	F 24	A	A	A	F	B	34	40	40	34	A	F 17	F 18	A	R	B	B	A	A										
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23										
CNT			1		3	4		1	3	7	16	20	18	19	18	21	17	13	9	2	1	2													
MED		16			F 25	F 24		31	30	F 27	35	38	44	45	43	38	30	F 23	F 19	F 16	F 16	F 12													
UQ					26	26			F 36	F 28	37	44	50	51	48	43	34	F 27	F 21																
LQ					24	F 24			F 27	F 22	30	36	40	42	40	36	24	F 22	F 17																

MAY. 1985

F0F2 (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAY. 1985

FES (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station		SYOWA STATION				Lat. 69° 00.4' S, Long. 39° 35.4' E								Sweep 4 MHz to 15 MHz in 20 sec in automatic operation														
Hour 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	45	43	60	46	42	43	45	45	B	B	B	E 24	28	21	E 23	E 22	B	B	B	B	30	B	B	B				
2	17	21	33	50	B	B	B	B	B	B	B	B	B	B	B	B	B	30	35	35	37	27	21	30				
3	30	37	53	B	19	45	36	30	16	33	E 19	E 20	23	B	B	35	25	B	B	B	B	B	30	36				
4	45	45	43	50	45	40	50	44	35	B	E 24	E 20	B	E 30	E 30	30	22	B	B	30	43	45	37	50				
5	36	44	44	30	50	50	45	37	B	27	E 21	E 27	30	E 22	E 21	35	E 16	E 13	10	B	B	B	45	44				
6	43	43	50	37	53	43	43	C	C	44	B	B	B	B	E 24	E 15	E 14	E 14	B	17	B	13	B	B				
7	30	33	37	40	42	B	B	60	53	30	E 20	E 24	B	E 20	E 19	E 15	E 13	E 12	10	B	B	B	B	33				
8	33	43	B	40	43	36	44	52	35	24	B	E 30	E 28	E 25	B	E 28	B	E 16	E 13	20	40	43	37	45				
9	45	50	35	B	50	36	52	37	B	B	21	30	19	16	E 21	B	B	B	B	B	21	28	17	17				
10	17	12	11	13	17	19	17	B	B	C	E 30	E 27	C	C	C	C	C	C	C	C	C	C	C	C				
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
13	C	C	C	C	C	C	C	C	C	B	B	B	B	B	E 19	E 15	21	26	16	B	33	36	40	44				
14	36	70	B	B	30	B	45	43	65	37	B	27	B	B	B	E 22	B	E 18	B	14	B	29	40	30				
15	38	42	B	30	25	B	65	36	B	B	B	33	25	B	B	B	E 22	E 15	E 14	B	B	35	44	40				
16	37	B	B	41	36	37	33	30	E 23	B	B	B	B	B	B	B	E 23	B	B	35	34	45	40	45				
17	37	74	53	43	34	40	43	38	42	30	22	30	22	34	30	30	21	34	37	B	B	B	20	37				
18	70	43	B	93	B	37	43	41	B	B	B	27	25	25	18	17	E 19	20	B	B	B	45	110	43				
19	55	65	B	37	36	72	B	46	45	45	B	B	35	B	B	B	E 21	E 13	B	B	B	40	40	43				
20	42	35	30	45	B	43	43	43	43	37	21	17	20	25	26	23	27	27	19	B	B	B	B	30				
21	33	45	50	50	110	60	45	43	30	E 17	E 22	17	20	30	33	27	30	33	E 13	B	B	44	43	33				
22	45	107	53	45	B	47	60	B	40	E 14	17	E 20	E 21	27	E 23	E 20	B	B	B	30	25	B	B	27				
23	32	35	35	36	40	B	B	B	35	21	19	20	18	30	30	18	13	35	30	15	E 8	E 8	10	30				
24	30	35	37	35	43	53	45	40	31	B	27	20	18	28	17	22	17	17	B	B	13	B	B					
25	42	34	30	41	26	30	30	45	36	10	23	28	36	32	18	22	22	17	12	E 8	10	30	B	32				
26	50	70	65	40	58	48	47	45	30	C	C	C	C	30	32	C	12	10	33	B	B	B	43	30				
27	30	35	43	40	30	60	37	27	45	47	43	28	20	18	30	E 22	B	B	B	B	B	B	B	B				
28	B	B	35	44	63	100	75	37	B	25	E 14	E 25	36	21	E 21	20	20	B	B	B	B	B	B	B				
29	50	50	40	50	70	55	43	35	30	30	30	34	37	22	47	E 18	B	17	B	B	B	34	30	26				
30	30	35	29	50	60	60	54	70	53	35	60	52	80	45	29	20	16	28	28	21	27	16	12	13				
31	26	40	43	75	43	45	51	33	37	27	B	E 24	30	71	60	65	35	36	30	11	B	B	13	25				
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
CNT	27	26	22	25	24	23	24	23	19	18	17	23	20	20	21	22	20	20	14	11	11	17	19	23				
MED	37	43	42	41	42	45	45	41	36	30	20	22	24	26	21	20	18	18	18	20	30	34	37	33				
UQ	45	50	50	50	52	54	50	45	44	37	25	28	32	30	30	28	22	29	30	30	36	43	42	43				
LQ	30	35	35	37	32	38	43	36	30	24	E 20	E 20	20	21	E 21	E 18	14	E 14	12	14	23	27	20	30				

MAY. 1985

FES (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAY. 1985

F-MIN (0.1 MHZ)

45° E Mean Time (G.M.T. + 3 h)

Station	SYOWA STATION				Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4				MHz to 15				MHz in 20				sec in				automatic operation			
Hour 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	12	7	8	8	8	16	20	11	B	B	B	24	25	16	23	22	B	B	B	B	18	B	B	B								
2	7	7	7	13	B	B	B	B	B	B	B	9	B	9	9	9	B	26	14	14	30	13	11	7								
3	7	7	40	B	12	15	13	9	11	8	19	20	19	B	B	15	15	B	B	B	B	B	8	8								
4	8	10	16	13	14	13	8	13	26	B	24	20	B	30	30	20	15	B	B	16	13	14	7	11								
5	17	14	18	13	15	14	11	14	B	13	21	27	14	22	21	13	16	13	8	B	B	B	8	32								
6	24	12	13	13	14	15	35	C	C	15	B	B	B	B	24	15	14	14	B	13	B	8	B	B								
7	11	9	8	22	30	B	B	20	11	20	20	24	B	20	19	15	13	12	7	B	B	B	B	11								
8	17	17	B	23	23	15	14	14	20	20	B	30	28	25	B	28	B	16	13	9	13	12	8	8								
9	17	18	16	B	33	32	25	22	B	B	18	13	11	13	21	B	B	B	B	B	8	8	8	8								
10	11	8	8	8	9	8	10	B	B	C	30	27	C	C	C	C	C	C	C	C	C	C	C	C								
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C								
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C								
13	C	C	C	C	C	C	C	C	C	3	B	B	B	B	19	15	14	15	13	B	7	12	8	7								
14	8	13	B	B	14	B	21	23	13	22	B	17	B	B	B	22	B	18	B	11	B	12	8	8								
15	14	15	B	22	14	B	28	16	B	B	B	25	13	B	B	B	22	15	14	B	B	8	14	24								
16	18	B	B	22	15	13	11	11	8	B	B	B	B	B	B	B	23	B	B	22	16	10	8	13								
17	23	9	30	20	16	14	14	16	15	14	14	13	13	14	8	8	8	8	8	B	B	B	11	8								
18	16	16	B	24	B	15	18	29	B	B	B	22	19	15	14	14	19	14	B	B	B	8	13	11								
19	13	18	B	9	30	14	B	23	18	17	B	B	14	B	B	B	21	13	B	B	B	8	8	15								
20	13	14	14	35	B	22	13	13	13	9	13	13	17	16	15	13	13	8	15	B	B	B	B	8								
21	8	13	14	14	8	18	13	9	8	17	22	14	14	13	13	8	8	9	13	B	B	8	12	13								
22	13	3	13	26	B	23	15	B	13	14	11	20	21	16	23	20	B	B	B	15	15	B	B	8								
23	8	9	15	20	14	B	B	B	18	14	13	13	13	13	8	8	8	7	7	7	8	8	7	8								
24	8	8	8	8	8	8	15	14	18	B	13	13	14	13	13	10	13	13	B	B	B	8	B	B								
25	8	8	7	7	8	7	7	7	8	8	7	7	11	8	3	8	8	7	7	8	7	7	7	7								
26	7	11	8	8	19	12	13	7	7	C	C	C	C	9	8	C	7	7	7	B	B	B	7	10								
27	8	8	13	8	11	13	12	7	14	11	13	13	14	14	12	22	B	B	B	B	B	B	B	B								
28	B	B	15	15	14	11	13	10	B	15	14	25	15	15	21	15	14	B	B	B	B	B	B	B								
29	8	9	8	9	14	14	11	9	8	8	9	18	15	17	16	18	B	13	B	B	B	7	7	7								
30	7	7	7	8	7	7	8	7	8	7	7	8	10	9	8	7	7	7	7	8	8	12	8	7								
31	8	8	8	7	8	8	8	8	8	8	B	24	16	16	13	11	8	8	8	8	B	B	7	8								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23								
CNT	28	28	28	28	28	28	28	27	27	27	28	28	27	28	23	27	28	28	28	28	28	28	28	28								
MED	11	10	14	14	14	14	14	14	15	17	22	21	16	16	20	15	15	14	D B 15	B	B	12	10	9								
UQ	16	14	35	22	26	22	23	22	B	B	B	27	D B 28	B	D B 30	22	B	B	B	B	B	B	8	20								
LQ	8	8	8	8	10	12	11	9	10	12	13	13	14	14	13	12	10	8	8	14	14	8	8	8								

MAY. 1985

F-MIN (0.1 MHZ)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

MAY. 1985

H^oF (KM)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S, Long. 39° 35' 4" E								Sweep 4				MHz to 15				MHz in 20				sec in automatic operation			
Hour 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	A	A	A	A	A	A	A	A	B	B	B	E A 290	E A 270	240	230	250	B	B	B	B	A	B	B	B			
2	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	A	A	A			
3	A	A	B	B	A	A	A	A		300	280	260	250	240		B	230	250		B	B	B	B	A	A		
4	A	A	A	A	A	A	A	A	B	B	E B 270	E B 260		B	260	250	230	240		B	B	A	A	A	A		
5	A	A	A	A	A	A	A	A	B	300	270	250	230	220	210	210	210	210	250		B	B	B	A	Y		
6	A	A	A	A	A	A	Y	C	C	A	B	B		B		250	230	230	240		B	A	B	A	B	B	
7	A	A	A	A	B	B	B	A	A	A	250	250		B	230	235	210	200	230	250		B	B	B	B	A	
8	A	A	B	A	A	A	A	A	A	R	B		250	230	230		210		240	230	250		A	A	A	A	
9	A	A	A	B	B	Y	A	A	B	B		300	250	250	240	245	B	B	B	B	B	A	A	A	A		
10	A	270	A	A	350	330	A	B	B	C	E B 220	230		C	C	C	C	C	C	C	C	C	C	C	C		
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
13	C	C	C	C	C	C	C	C	C	B	B	B	B		240	220	210	285	250		B	A	A	A	A		
14	A	A	B	B	A	B	A	A	A	A	B	300		B	B	B	E B 250	B	E B 280	B	A	B	A	A	A		
15	A	A	B	A	A	B	B	A	B	B	B	B	250		B	B	B	E B 300	250	280		B	B	A	A	A	
16	A	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	250		B	B	A	A	A	A	A		
17	A	A	A	A	A	A	A	A	A	A	280	250	240	230	210	220	200		A	260		B	B	A	A		
18	A	A	B	A	B	A	A	A	B	B	B	E A 280	250	230	230	200	230	230		B	B	B	A	A	A		
19	A	A	B	A	B	A	B	A	A	A	B	B	320		B	B	B	250	230		B	B	A	A	A		
20	A	A	A	A	B	A	A	A	A	A	300	250	210	250	240	220		A	A	A	B	B	B	B	A		
21	A	A	A	A	A	A	A	A	E A 300	270	250	205	200	200	200	200	270		A	230	B	B	A	A	A		
22	A	A	A	A	B	A	A	B	A	260	240	240	200	200	200	240		B	B	B	A	A	B	B	A		
23	A	A	A	A	A	B	B	B	A		300	240	210	200	200	195	195	200	E A 200		A	250	230	210	A	A	
24	A	A	A	A	A	A	A	A	A	B	250	220	210	200	190	200		A	A	B	B	B	240	B	B		
25	A	A	A	A	330	310		A	A	A	260	230	A	A	200	200	200	200	230	230	E B 320	280	A	B	A		
26	A	A	A	A	A	A	A	A	250	C	C	C	C	220	A	200	200	230	220		B	B	B	A	A		
27	A	A	A	A	A	300		320	A	A	260	240	220	200	200	210		B	B	B	B	B	B	B	B		
28	B	B	A	A	A	A	A	A	B	A	250	220	240	200	200	200	210		B	B	B	B	B	B	B		
29	A	A	A	A	A	A	A	A	A	A	240	250	230	200		A	230		B	A	B	B	B	A	A	A	
30	A	A	A	A	280				A	220		A	A	A	A	A	A	A	A	A	A	A	A	Y	A		
31	A	A	A	A	E A 350	A	A	A	A	A	B	250	240	210	220		A	E A 250	230		A	R	B	B	A	A	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
CNT		1			3	4		1	3	7	16	20	18	19	18	21	17	13	9	3	2	2					
MED		270			330	312		320	300	270	250	250	232	220	215	210	220	230	250	250	255	225					
UQ					340	335			300	290	270	250	245	230	240	230	245	240	250	U 268							
LQ					305	305			262	260	240	235	210	200	200	200	200	230	230	250							

MAY. 1985

H^oF (KM)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JUN. 1985

FXI (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station		SYOWA STATION				Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4		MHz to 15		MHz in 20		sec in		automatic operation			
Hour 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		A	A	A	B	A	A	B	A	A	A	O X 38	O R 41	37	B	B	B	B	B	A	A	A	A	A	A
2		A	A	A	A	A	A	A	A	A	A	O X 30	B	B	B	O X 41	O X 33	A	A	O R 24	A	A	A	A	A
3		A	A	A	A	A	A	A	A	A	A	33	X 43	X 51	X 44	A	31	A	A	A	A	A	A	A	A
4		A	A	A	B	A	A	A	A	A	O R 23	31	41	O X 41	44	O X 45	X 42	29	20	16	A	B	B	B	A
5		B	A	A	A	A	A	A	A	B	A	A	X 37	X 53	X 50	A	B	B	A	B	B	B	B	A	A
6		A	A	A	A	A	B	B	B	A	37	39	43	48	50	49	45	X 37	35	30	A	A	A	A	A
7		A	A	A	B	A	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A	A
8		A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A	A
9		A	A	A	A	B	A	A	B	A	A	O R 30	B	B	O X 51	O X 43	A	A	A	B	B	B	B	A	A
10		A	A	B	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	Y	A	A	A	A	A
11		A	B	A	A	B	B	B	B	B	B	B	B	O X 45	46	O X 42	B	B	B	B	B	B	B	B	A
12		A	A	A	A	A	B	A	A	B	B	B	B	B	S	O R 56	B	B	B	B	B	B	B	A	A
13		A	A	A	A	A	A	A	O R 25	A	A	X 30	A	X 45	O R 42	O X 41	A	A	A	A	O R 19	A	Y	A	A
14		A	A	A	A	B	A	A	A	O R 23	O R 22	O R 31	X 38	X 45	X 45	X 42	34	B	B	B	B	B	B	B	B
15		A	A	A	A	A	A	A	A	A	A	R 33	39	42	45	42	35	O R 28	A	A	A	A	A	A	A
16		A	A	A	A	A	A	A	A	A	30	A	O R 38	45	45	B	O R 36	B	A	B	B	B	B	B	A
17		Y	A	A	A	A	A	A	33	34	31	33	X 37	X 45	X 46	40	31	27	O R 26	30	A	B	A	A	A
18		A	A	A	A	A	A	A	O R 33	36	30	30	A	A	X 44	X 44	30	A	A	B	B	A	A	B	B
19		A	B	B	B	A	A	B	A	A	A	30	A	40	A	X 44	O R 32	O R 24	A	A	A	B	B	B	Y
20		A	A	A	A	A	A	A	A	A	B	B	O R 41	55	X 44	X 46	B	O R 26	O R 25	O R 25	O R 24	O R 23	A	A	A
21		A	A	A	A	A	A	A	A	B	B	O X 28	39	A	43	X 39	30	X 33	A	B	B	B	B	B	A
22		A	A	A	A	A	A	A	A	A	A	B	O X 36	O X 46	B	B	B	B	B	B	B	A	A	B	B
23		A	A	A	A	A	B	B	A	A	A	A	36	43	43	38	40	36	B	A	Y	B	Y	A	A
24		A	A	A	A	A	B	B	A	A	A	O R 30	A	O X 40	O X 42	O X 42	B	A	O R 24	A	A	A	A	A	A
25		A	A	A	A	A	A	A	A	B	B	B	B	O R 41	X 46	B	B	B	B	B	B	B	B	A	A
26		A	B	A	B	B	B	A	A	A	B	B	B	B	B	B	B	B	B	B	A	A	A	A	B
27		A	A	B	B	A	B	B	A	A	Y	A	O X 33	B	B	B	B	B	B	B	B	B	A	A	A
28		A	B	B	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	25	A
29		A	B	A	A	B	B	A	A	B	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A
30		A	A	A	B	B	A	A	A	A	B	O R 31	X 37	X 45	45	X 43	O X 46	B	B	B	A	B	B	Y	A
31																									
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT									3	3	6	15	15	18	18	17	13	8	5	5	2	1		1	
MED									O R 33	34	30	31	X 38	X 45	X 45	X 42	34	28	O R 25	25	O R 22	O R 23		25	
UQ									33	35	31	33	41	X 46	X 46	X 44	40	34	O R 26	30					
LQ									O R 29	28	O R 23	O R 30	X 37	41	44	X 41	31	O R 26	O R 24	O R 24					

JUN. 1985

FXI (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JUN. 1985

FOF2 (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00.4' S, Long. 39° 35.4' E								Sweep 4		MHz to 15		MHz in 20		sec in		automatic operation					
Hour 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	A	A	A	B	A	A	B	A	A	A	32	F 33	F 30	B	B	B	B	B	A	A	A	A	A	A	
2	A	A	A	A	A	A	A	A	A	A	24	B	B	B	35	27	A	A	F 17	A	A	A	A	A	
3	A	A	A	A	A	A	A	A	A	A	27	37	45	37		F	A	A	A	A	A	A	A	A	
4	A	A	A	B	A	A	A	A	A	F 17	25	35	35	38	39	35	23	15	F	A	B	B	B	A	
5	B	A	A	A	A	A	A	A	B	A	A	31	45	44	A	B	B	A	B	B	B	B	A	A	
6	A	A	A	A	A	B	B	B	A	F 28	F 33	37	42	44	43	39	31	F 29	F 24	A	A	A	A	A	
7	A	A	A	B	A	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A	A	
8	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A	A	
9	A	A	A	A	B	A	A	B	A	A	F 24	B	B		45	36	A	A	A	B	B	B	A	A	
10	A	A	B	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	Y	A	A	A	A	A	
11	A	B	A	A	B	B	B	B	B	B	B	B	39	39	36	B	B	B	B	B	B	B	B	A	
12	A	A	A	A	A	B	A	A	B	B	B	B	B	D S 37	F 37	B	B	B	B	B	B	B	A	A	
13	A	A	A	A	A	A	A	F 19	A	A	26	A	38	35	34	A	A	A	A	F 13	A	Y	A	A	
14	A	A	A	A	B	A	A	A	F 17	F 16	F 23	32	39	39	J R 36	F 28	B	B	B	B	B	B	B	B	
15	A	A	A	A	A	A	A	A	A	A	O R 33	39	36	38	36	29	18	A	A	A	A	A	A	A	
16	A	A	A	A	A	A	A	A	A	F 23	A	F 30	37	39		F 27	B	A	B	B	B	B	B	A	
17	Y	A	A	A	A	A	A	F	F	F 25	F 26	31	J R 39	40	44	25	18	17	25	A	B	A	A	A	
18	A	A	A	A	A	A	A	F 25	F 25	F	F 26	A	A	36	36	F	A	A	B	B	A	A	B	B	
19	A	B	B	B	A	A	B	A	A	A	F 25	A	34	A	35	22	16	F	A	A	A	B	B	Y	
20	A	A	A	A	A	A	A	A	A	B	B	O R 41	F 43	36	40	B	19	F 17	F 17	F 16	F 15	A	A	A	
21	A	A	A	A	A	A	A	A	B	B	22	33	A	37	33	23	26	A	B	B	B	B	B	A	
22	A	A	A	A	A	A	A	A	A	A	B	30	40	B	B	B	B	B	B	B	A	A	B	B	
23	A	A	A	A	A	B	B	A	A	A	A	F 29	R 36	36	F 32	34	26	B	A	Y	B	Y	A	A	
24	A	A	A	A	A	B	B	A	A	A	F 24	A	34	36	36	B	A	F 18	A	A	A	A	A	A	
25	A	A	A	A	A	A	A	A	B	B	B	B	F 35	40	B	B	B	B	B	B	B	B	A	A	
26	A	B	A	B	B	B	A	A	A	B	B	B	B	B	B	B	B	B	B	A	A	A	A	B	
27	A	A	B	B	A	B	B	A	A	Y	A	27	B	B	B	B	B	B	B	B	B	A	A	A	
28	A	B	B	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	F 20	A	
29	A	B	A	A	B	B	A	A	B	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A	
30	A	A	A	B	B	A	A	A	A	B	F 23	30	38	38	37	40		B	B	B	A	B	B	Y	B
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT								2	2	5	15	15	18	19	17	11	8	5	4	2	1		1		
MED								F 22	F 21	F 23	F 25	32	38	38	36	28	21	F 17	F 20	F 14	F 15		F 20		
UQ										F 25	26	36	40	40	37	34	26	F 18	F 24						
LQ										F 17	F 24	30	35	36	35	26	F 18	F 17	F 17						

JUN. 1985

FOF2 (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JUN. 1985

FES (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00' 4" S				Long. 39° 35' 4" E				Sweep 4 MHz to 15 MHz in 20 sec in				automatic operation								
Hour 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	40	43	46	B	65	45	B	30	30	33	32	28	20	B	B	B	B	B	43	45	33	45	45	42
2	42	60	45	43	42	40	22	17	14	15	27	B	B	B	E B	E B	16	20	25	28	28	21	27	38
3	37	42	35	31	17	34	14	20	33	27	15	17	27	24	18	17	20	17	17	16	13	42	30	37
4	40	41	90	B	43	27	30	16	27	12	17	E B	E B	E B	23	24	17	15	19	26	27	B	B	B
5	B	30	35	45	38	50	58	54	B	40	45	17	17	30	30	B	B	26	B	B	3	B	20	18
6	32	40	55	60	60	55	10	B	37	27	20	16	17	17	15	36	10	20	17	90	40	43	43	43
7	47	73	50	B	43	B	B	75	B	B	B	B	B	B	B	B	B	B	B	B	48	B	45	95
8	45	50	65	37	55	B	B	B	B	3	B	B	B	B	B	B	B	B	B	B	37	B	37	30
9	40	45	44	43	B	43	44	B	33	43	25	B	B	E B	E B	18	17	22	B	B	B	B	19	100
10	66	71	B	B	74	B	43	97	43	B	B	B	B	B	B	B	B	3	27	25	27	27	35	30
11	36	B	37	55	B	3	B	B	B	B	B	B	E B	21	E B	B	B	B	B	B	B	B	B	35
12	43	45	64	90	37	B	43	42	B	B	B	B	B	E B	E B	B	B	3	B	B	B	B	33	40
13	42	36	43	43	45	35	28	15	19	27	26	43	38	30	35	35	27	21	27	10	16	19	33	40
14	43	60	70	75	B	43	43	30	18	30	E B	13	17	17	17	27	27	B	B	B	B	B	B	B
15	32	40	35	50	63	53	55	56	28	26	28	27	27	30	32	35	30	24	22	17	21	28	37	30
16	39	40	45	50	55	64	60	50	45	30	30	30	E B	21	20	B	E B	13	B	18	B	B	B	18
17	18	28	40	37	50	36	42	30	17	30	16	36	22	35	35	30	13	30	20	17	B	28	16	33
18	29	35	43	46	45	37	30	30	14	17	15	19	17	15	26	27	26	26	B	B	26	27	B	B
19	20	B	B	B	27	30	B	25	19	36	28	28	20	35	26	14	14	14	35	17	B	B	B	16
20	18	29	26	20	30	20	17	17	17	B	B	30	17	17	15	B	E B	E B	E B	E B	21	27	34	30
21	36	40	43	45	53	50	46	36	B	B	30	20	35	20	25	E B	12	19	100	B	B	B	B	22
22	42	43	40	45	30	47	47	47	45	40	B	E B	19	20	B	B	B	B	B	B	35	27	B	B
23	21	34	43	35	44	B	B	45	43	30	35	27	17	29	13	16	E B	13	B	36	17	B	18	43
24	26	20	30	28	30	B	B	27	30	36	19	108	E B	22	30	40	B	25	17	21	26	27	35	22
25	28	33	44	70	70	63	62	45	B	B	B	B	28	18	B	B	B	B	B	B	B	B	37	80
26	47	B	53	B	B	B	37	44	32	3	B	B	B	B	B	B	B	B	B	45	45	47	45	B
27	64	53	B	B	34	B	B	35	21	28	36	25	B	B	B	B	B	B	B	B	B	50	50	45
28	45	B	43	37	B	B	26	B	B	3	B	B	B	B	B	B	B	B	B	B	43	46	27	27
29	45	B	43	40	B	B	43	40	B	B	B	B	B	B	B	B	B	B	B	B	26	24	35	44
30	43	39	43	B	B	40	28	18	20	B	18	21	73	24	17	26	B	B	B	51	B	B	17	47
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	29	25	27	22	23	19	22	25	21	18	19	19	20	20	19	15	14	15	13	15	16	17	22	26
MED	40	40	43	44	44	43	42	35	28	30	26	25	19	22	25	18	16	20	25	25	28	28	34	37
UQ	43	45	48	50	55	50	46	45	33	36	30	29	28	30	28	28	25	25	27	36	38	43	43	44
LQ	32	35	40	37	36	36	28	25	19	27	18	18	17	18	16	15	14	13	20	17	26	27	27	30

JUN. 1985

FES (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JUN. 1985

F-MIN (0.1 MHz)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00.4' S, Long. 39° 35.4' E				Sweep 4 MHz to 15 MHz in 20 sec in automatic operation																
Hour 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	14	15	30	B	15	14	B	14	13	11	14	14	14	B	B	B	B	B	14	15	13	8	8	8
2	25	12	25	15	15	13	14	13	8	8	12	B	B	B	23	14	9	8	8	15	14	13	7	8
3	12	14	14	14	9	8	7	8	8	10	9	8	11	8	8	8	8	7	8	7	7	7	10	7
4	14	19	16	B	15	13	12	8	8	7	7	15	20	23	16	13	13	8	8	8	B	B	B	11
5	B	8	8	20	12	12	11	8	B	15	15	13	14	14	13	B	B	18	B	B	B	B	16	9
6	8	8	13	15	13	34	55	B	14	13	13	8	8	11	11	8	8	8	7	8	13	11	10	9
7	8	27	18	B	21	B	B	18	B	B	B	B	B	B	B	B	B	B	B	B	12	8	8	15
8	14	8	14	7	15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	13	B	8	8
9	8	7	13	20	B	21	13	B	13	11	13	B	B	26	19	14	13	14	B	B	B	B	9	16
10	13	13	8	B	13	B	24	50	20	B	B	B	B	B	8	B	B	B	22	14	7	7	7	13
11	15	B	14	14	B	B	B	B	B	B	B	B	30	14	20	B	B	B	B	B	B	B	B	8
12	8	8	9	13	15	B	14	15	B	B	B	B	B	30	25	B	8	B	B	B	B	B	7	8
13	7	8	13	13	13	8	8	8	8	8	8	17	14	22	17	8	9	13	15	8	8	14	8	8
14	13	8	8	18	B	14	9	9	8	8	13	9	8	8	8	8	B	B	B	B	B	B	B	B
15	8	15	16	13	8	9	13	14	13	18	15	14	13	13	20	14	9	10	9	8	9	8	8	8
16	8	21	16	16	11	13	9	8	9	8	15	15	21	13	9	13	B	10	8	B	B	B	B	8
17	14	8	8	8	8	8	8	9	8	8	8	7	8	8	8	8	8	7	8	8	B	9	11	8
18	8	8	10	13	9	10	7	7	7	7	9	8	8	8	8	8	8	7	B	B	14	11	B	B
19	13	B	B	B	15	8	B	13	9	8	11	13	11	8	9	10	10	9	9	9	B	B	B	13
20	8	8	8	8	8	9	9	8	8	B	B	23	13	9	9	B	14	12	13	12	8	16	16	8
21	9	10	7	13	14	11	9	16	B	B	14	10	9	11	9	12	8	15	B	B	B	B	8	15
22	13	13	8	8	8	13	8	25	13	14	B	19	16	B	B	B	B	B	B	B	10	11	B	B
23	14	8	8	8	8	B	B	14	14	16	17	15	7	8	8	7	13	B	15	13	B	14	14	9
24	9	13	14	16	19	B	B	8	9	14	15	14	22	15	22	B	20	13	14	13	12	10	14	13
25	8	8	8	14	14	14	14	10	B	B	B	B	18	14	3	B	B	B	B	B	3	B	10	10
26	16	B	18	B	B	B	15	9	16	B	B	B	B	B	B	B	B	B	B	10	10	10	8	B
27	8	8	B	B	17	B	B	21	12	24	13	20	B	B	B	B	B	B	B	B	B	9	9	8
28	9	B	27	24	B	B	16	9	B	B	B	B	B	B	B	B	B	B	B	6	15	11	8	13
29	10	B	24	8	B	B	22	18	B	B	B	B	B	B	B	B	B	B	B	B	13	14	9	7
30	16	18	14	B	B	14	14	13	11	B	10	9	13	13	12	18	B	B	B	14	B	B	13	9
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
MED	11	12	14	15	15	14	14	14	13	16	15	16	17	14	20	D B 18	B	D B 18	B	D B 15	14	14	10	9
UQ	14	19	18	B	21	B	B	21	B	B	8	B	B	B	B	B	B	B	B	B	B	B	8	13
LQ	8	8	8	13	11	11	9	8	8	8	12	13	11	11	9	10	9	10	13	10	12	10	8	8

JUN. 1985

F-MIN (0.1 MHz)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA

JUN. 1985

H'F (KM)

45° E Mean Time (G.M.T. + 3 h)

Station SYOWA STATION				Lat. 69° 00.4 ' S , Long. 39° 35.4 ' E				Sweep 4				MHz to 15				MHz in 20				sec in automatic operation				
Hour 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	A	A	A	B	A	A	B	A	A	A	A	E A 350	240	B	B	B	B	B	A	A	A	A	A	A
2	A	A	A	A	A	A	A	A	A	A	250	B	B	B	200	240	A	A	E A 260	A	A	A	A	A
3	A	A	A	A	A	A	A	A	A	A	250	215	210	220	A	A	A	A	A	A	A	A	A	A
4	A	A	A	B	A	A	A	A	A	270	260	220	200	230	230	200	200	200	A	A	B	B	B	A
5	B	A	A	A	A	A	A	A	B	A	A	240	210	210	A	B	B	A	B	B	B	B	A	A
6	A	A	A	A	A	B	B	B	A	340	280	240	205	220	220	210	240	250	195	A	A	A	A	A
7	A	A	A	B	A	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A	A
8	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A	A
9	A	A	A	A	B	A	A	B	A	A	280	B	B	230	200	A	A	A	B	B	B	B	A	A
10	A	A	B	B	A	B	B	B	A	B	B	B	B	B	B	B	B	B	Y	A	A	A	A	A
11	A	B	A	A	B	B	B	B	B	B	B	B	250	240	210	B	B	B	B	B	B	B	B	A
12	A	A	A	A	A	B	A	A	B	B	B	B	B	250	250	B	B	B	B	B	B	B	A	A
13	A	A	A	A	A	A	A	300	A	A	250	A	240	220	240	A	A	A	A	250	A	Y	A	A
14	A	A	A	A	B	A	A	A	E A 300	A	E B 230	240	210	E G 190	220	200	B	B	B	B	B	B	B	B
15	A	A	A	A	A	A	A	A	A	A	E A 260	230	230	200	240	210	E A 240	A	A	A	A	A	A	A
16	A	A	A	A	A	A	A	A	A	230	A	280	245	220	B	230	B	A	B	B	B	B	B	A
17	Y	A	A	A	A	A	A	A	E A 320	270	250	210	200	190	190	210	245	280	250	A	B	A	A	A
18	A	A	A	A	A	A	A	E A 300	340	A	250	A	A	190	205	A	A	A	B	B	A	A	B	B
19	A	B	B	B	A	A	B	A	A	A	250	A	200	A	200	205	250	A	A	A	B	B	B	Y
20	A	A	A	A	A	A	A	A	A	B	B	250	200	205	205	B	210	300	300	260	E A 300	A	A	A
21	A	A	A	A	A	A	A	A	B	B	260	230	A	200	200	250	230	A	B	B	B	B	B	A
22	A	A	A	A	A	A	A	A	A	A	B	250	240	B	B	B	B	B	B	B	A	A	B	B
23	A	A	A	A	A	B	B	A	A	A	A	260	200	200	200	210	250	B	A	Y	B	Y	A	A
24	A	A	A	A	A	B	B	A	A	A	250	A	230	200	210	B	A	230	A	A	A	A	A	A
25	A	A	A	A	A	A	A	A	B	B	B	B	A	230	B	B	B	B	B	B	B	B	A	A
26	A	B	A	B	B	B	A	A	A	B	B	B	B	B	B	B	B	B	B	A	A	A	A	B
27	A	A	B	B	A	B	B	A	A	Y	A	A	B	B	B	B	B	B	B	B	B	A	A	A
28	A	B	B	B	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	E A 280	A
29	A	B	A	A	B	B	A	A	B	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A
30	A	A	A	B	B	A	A	A	A	B	275	200	210	200	220	210	B	B	B	A	B	B	Y	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								2	3	4	14	14	17	19	17	11	8	5	4	2	1			1
MED								300	E A 320	275	250	238	210	210	210	210	240	250	U 238	255	E A 300		E A 280	
UQ									330	310	260	250	240	225	220	220	248	280	230					
LQ									E A 310	270	250	220	200	200	200	208	212	230	222					

JUN. 1985

H'F (KM)

The Radio Research Laboratory, Japan

IONOSPHERIC DATA AT SYOWA STATION (ANTARCTICA)
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