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IONOSPHERIC DATA IN JAPAN

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CONTENTS

Preface

Introduction 1

A. Ionosphere

A1. Automatic Scaling

Hourly Values at Wakkanai (*foF2, fEs* and *fmin*) 4

Hourly Values at Kokubunji (*foF2, fEs* and *fmin*) 7

Hourly Values at Yamagawa (*foF2, fEs* and *fmin*) 10

Hourly Values at Okinawa (*foF2, fEs* and *fmin*) 13

Summary Plots at Wakkanai 16

Summary Plots at Kokubunji 23

Summary Plots at Yamagawa 30

Summary Plots at Okinawa 37

Monthly Medians *h'F* and *h'Es* 44

Monthly Medians Plot of *foF2* 46

A2. Manual Scaling

Hourly Values at Kokubunji 47

f-plot at Kokubunji 61

B. Solar Radio Emission

B1. Daily Data at Hiraiso 69

B2. Outstanding Occurrences at Hiraiso 70

B3. Summary Plots of $F_{10.7}$ at Hiraiso 71

《 Real time Ionograms on the Web ..... *http://wdc.nict.go.jp/index_eng.html* 》

NiCT

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TOKYO, JAPAN

INTRODUCTION

This Series contains data on ionosphere (I) and solar radio emission (S) obtained at the following stations under the National Institute of Information and Communications Technology, Independent Administrative Institution in Japan.

Station	Geographic		Geomagnetic (IGRF2000)		Technical Method	
	Latitude	Longitude	Latitude	Longitude		
Wakkanai	45°23.6'N	141°41.1'E	36.4°N	208.6°	Vertical Sounding	(I)
Kokubunji	35°42.4'N	139°29.3'E	26.6°N	207.9°	Vertical Sounding	(I)
Yamagawa	31°12.1'N	130°37.1'E	21.4°N	199.8°	Vertical Sounding	(I)
Okinawa	26°40.5'N	128°09.2'E	16.8°N	198.4°	Vertical Sounding	(I)
Hiraiso	36°22.0'N	140°37.5'E	27.4°N	209.2°	Solar Radio Emission	(S)

A. IONOSPHERE

Ionospheric observations are carried out at the above four stations in Japan by means of vertical sounding using ionosondes. The ionosonde produces ionograms, which are recorded digitally on computer storage medium. The digitally-recorded ionograms are collected from each station by the central computer and reduced to numerical values and Summary Plots by the automatic processing system. The ionograms obtained at Kokubunji are manually scaled as well by experienced specialists to supplement automatically-scaled parameters.

A1. Automatic Scaling

Digital ionograms are automatically scaled by the pattern recognition method. The following five factors of ionospheric characteristics are published for the present. The reliability of these factors has been ascertained by comparison of the automatically-scaled parameters with the manually-scaled values of large amounts of test ionograms.

The published data consist of tabulations of hourly values of three factors (*foF2, fEs*, *fmin*) and monthly medians of two factors (*h'Es* ,*h'F*), daily Summary Plots and monthly medians plot of *foF2*.

a. Characteristics of Ionosphere

foF2	Ordinary wave critical frequency for the ***F2*** layer
fEs	Highest frequency of the ***Es*** layer whether it may be ordinary or extraordinary
fmin	Lowest frequency which shows vertical ionospheric reflections
h'Es ***h'F***	Minimum virtual height on the ordinary wave for the ***Es*** and ***F*** layers, respectively

b. Descriptive Letters

The following descriptive letters are used in the tables.

A Impossible measurement because of the presence of a lower thin layer, for example *Es* (for *foF2*).

C Impossible measurement because of any failure in observation.

G Impossible automatic scaling because of too small ionization density of the layer (for *fEs*).

N Impossible automatic scaling because of complex echoes.

Blank No digital record because of trouble in the automatic data processing system, but existence of film record.

c. Definitions of the CNT, MED, UQ and LQ

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

Median (**MED**) is defined as the middle value when the numerical values 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 of 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.

If CNT is less than 10, there are blank spaces left.

d. Reliability of Automatic Scaling

The results of the comparison between automatically-scaled values and manually-scaled ones showed that hourly values of *foF2* , *fEs* and *fmin* were scaled within a difference of 1 MHz from about 90, 90 and 99%, respectively of the test ionograms.

e. Summary Plot

Daily Summary Plots which are made from quarter-hourly digital ionograms are published to present general ionosphere conditions. The upper and middle parts of a Summary Plot show the diurnal variation of the frequency range of the echoes reflected from the *F* and *E* regions, respectively. The two solid arcing lines indicate the predicted values of *fxE* and *foE* calculated by the method described in the CCIR report 340. The lower part shows the diurnal variation of the virtual height where the echo traces become horizontal.

A2. Manual Scaling

The published data consist of tabulations of hourly values of the ionospheric characteristics and figures of daily *f*-plot.

All symbols and terminology in the tables or figures of ionospheric data are used in accordance with the "URSI Hand-book of Ionogram Interpretation and Reduction (Second Edition) 1972 " and its revision of chapters I-4, published in July 1978.

a. Characteristics of Ionosphere

fxI	Top frequency of spred ***F*** trace
foF2 ***foF1*** ***foE*** ***foEs***	Ordinary wave critical frequency for the ***F2***, ***F1***, ***E*** and ***Es*** including particle ***E*** layers, respectively
fbEs	Blanketing frequency of the ***Es*** layer, e.g. the lowest ordinary wave frequency visible through ***Es***
fmin	Lowest frequency which shows vertical ionospheric reflections
M(3000)F2 ***M(3000)F1***	Maximum usable frequency factor for a path of 3000 km for transmission by ***F2*** and ***F1*** layers, respectively
h'F2 ***h'F*** ***h'E*** ***h'Es***	Minimum virtual height on the ordinary wave for the ***F2***, whole ***F***, ***E*** and ***Es*** layers, respectively
Types of ***Es***	See below b. (iii)

b. Symbols

(i) Descriptive Letters

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

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 *fmin*.

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 in use.

E Measurement influenced by, or impossible because of, the lower limit of the normal frequency range in use.

F Measurement influenced by, or impossible because of, the presence of spread echoes.

G Measurement influenced by, 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 a stratification.

K Presence of particle *E* layer.

L Measurement influenced 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 perturbations of the observed parameter; or spur type spread *F* present.

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, if necessary.

A Less than. Used only when *fbEs* is deduced from *foEs* because total blanketing of higher layer is present.

D Greater than.

E Less than.

I Missing value has been replaced by an interpolated value.

J Ordinary component characteristic deduced from the extraordinary component.

M Mode interpretation uncertain.

O Extraordinary component characteristic deduced from the ordinary component. (Used for x-characteristics only.)

T Value determined by a sequence of observations, the actual observation being inconsistent or doubtful.

U Uncertain or doubtful numerical value.

X Measurement deduced from the third magneto-electronic component.

(iii) Description of Types of *Es*

When more than one type of *Es* trace are present on the ionogram, the type for the trace used to determine *foEs* must be written first. The number of multiple trace is indicated after the type letter.

The types are:

f An *Es* trace which shows no appreciable increase of height with frequency.

l A flat *Es* trace at or below the normal *E* layer minimum virtual height or below the part *E* layer minimum virtual height.

c An *Es* trace showing a relatively symmetrical cusp at or below *foE*. (Usually a daytime type.)

h An *Es* trace showing a discontinuity in height with the normal *E* layer trace at or above *foE*. The cusp is not symmetrical, the low frequency end of the *Es* trace lying clearly above the high frequency end of the normal *E* trace. (Usually a daytime type.)

q An *Es* trace which is diffuse and non-blanketing over a wide frequency range.

r An *Es* trace showing an increase in virtual height at the high frequency end similar to group retardation.

a An *Es* trace having a well-defined flat or gradually rising lower edge with stratified and diffuse traces present above it.

s A diffuse *Es* trace which rises steadily with frequency and usually emerges from another type *Es* trace.

d A weak diffuse trace at heights below 95 km associated with high absorption and large *fmin*.

n The designation 'n' is used to denote an *Es* trace which cannot be classified into one of the standard types.

k The designation 'k' is used to show the presence of particle *E*. When *foEs* > *foE* (particle *E*) the *Es* type precedes k.

c. Definitions of the CNT, MED, UQ and LQ

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

Median (**MED**) is the middle value when the numerical values 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 of 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.

B. SOLAR RADIO EMISSION

Solar radio observations at 200, 500 and 2800 MHz are carried out at Hiraiso. The observation equipment consists of three parabolic antennas, one with 10-meter diameter for 200 MHz Measurement, one with 6-meter diameter for 500 MHz measurements and one with 2-meter diameter for 2800 MHz measurements, each being equipped with a pair of crossed doublet antennas as a primary radiator, and three appropriate receivers. Each pair of the crossed doublet antennas is used as a polarimeter. Observations are continuously carried out almost from sunrise to sunset.

B1. Daily Data at Hiraiso

The three-hourly mean and daily mean values of the solar radio emission intensities are tabulated for 500 MHz measurements. The intensities are expressed by the flux density in 10^{-22} Wm^{-2} Hz^{-1} unit.

The following symbols are used in the tables, when interference or radio bursts prevented measuring the base-level flux densities or determining the variability indices:

* Measurement impossible because of interference.

B Measurement impossible because of bursts.

Daily data within parentheses mean that the observation time does not exceed one third of the period.

B2. Outstanding Occurrences at Hiraiso

The table is a list of outstanding occurrences of solar radio emission bursts observed at 200, 500 and 2800 MHz during a month.

Listed in the table are the date, frequencies, the type of event, the start time and the time of maximum, both in U.T.

expressed in hours, minutes and tenths of a minute, the duration in minutes, the peak and mean flux densities in 10^{-22} Wm^{-2} Hz^{-1} unit, and the polarization.

The type of event is expressed by a combination of a numerical code and a letter symbol in accordance with the "Descriptive Text of Solar Geophysical Data, NOAA" as defined by H. Tanaka in the "Instruction Manual for Monthly Report of Solar Radio Emission, WDC-C2" in January 1975:

SGD Code	Letter Symbol	Morphological Classification
1	S	Simple 1
2	S/F	Simple 1F
3	S	Simple 2
4	S/F	Simple 2F
5	S	Simple
6	S	Minor
7	C	Minor+
8	S	Spike
20	GRF	Simple 3
21	GRF	Simple 3A
22	GRF	Simple 3F
23	GRF	Simple 3AF
24	R	Rise
25	R	Rise A
26	FAL	Fall
27	RF	Rise and Fall
28	PRE	Precursor
29	PBI	Post Burst Increase
30	PBI	Post Burst Increase A
31	ABS	Post Burst Decrease
32	ABS	Absorption
40	F	Fluctuations
41	F	Group of Bursts
42	SER	Series of Bursts
43	NS	Onset of Noise Storm
44	NS	Noise Storm in progress
45	C	Complex
46	C	Complex F
47	GB	Great Burst
48	C	Major
49	GB	Major+

The polarization is expressed by the polarization degree and sense as follows:

R or L	right or left-handed polarization,
W, M or S	weak, moderate or strong polarization,
0	almost zero or unable to detect polarization due to small increase of flux,
00	polarization degree of less than 1

One of the following symbols may be attached after numerical values, if necessary.

D	greater than, or later than,
E	less than or earlier than,
U	approximate, or uncertain.

B3. Summary Plots of F10.7 at Hiraiso

The 10.7 cm solar radio flux at Hiraiso is plotted over a one month period. The 10.7 cm flux ($F_{10.7}$) is determined by adjusting the 10.7 cm radio flux measured at Hiraiso to the Pentincton 10.7 cm radio flux. The figure on the right-hand side shows the $F_{10.7}$ index estimated at Hiraiso.

The following symbols are used in the $F_{10.7}$ index:

*	Measurement made not at 3h U.T..
B	Measurement affected by bursts.

HOURLY VALUES OF foF2 AT Wakkanai

FEB. 2006

LAT. 45°23.5'N LON. 141°41.2'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	34	34	34	34	32	34	26	41	57	52	68	70	66	64	61	57	52	36	A	A	A			
2			34	34	32	32	23	45	A	63	53	61	65	53	62	53	50	34	A	A				34
3	36	32	36	36	34	39	23	41	57	58	54	70	64	65	59	60	58	44	34	A		40	38	40
4	40		37	37	36	36	30	47		54	57	66	62	61	64	66	54	44	32	26	36		32	34
5	34	34	32	32	32	32		44	66	63	67	72	65	62	64	58	54	42	26	29	31	34	32	38
6	36	32	36	34	34	32	30	50			61	60	65	62	57	52	52	50	46	32	34	34	36	32
7	36	37	32	29	32	32	32	54		64	66	75	61	70	80	61	56	60	51	32	34		30	34
8	32	32	32	32	34	36	26	43	50	60	63	74	74	58	69	66	65	A	A	A	41	34	35	
9	38	40	41	41	40	35		40	53	62	64	67	60	74		66	52	43	34	A	A	A		34
10	34	34	32	34	32	32	28	47	49	66	53	64	72	62		56	60	A	31	25	A	34	32	36
11	28	34	36	32	32	29	29	53	54	62	62	70	66	64	56	62	61	42		37	40	41	42	45
12	48	48	47	41	44	45	44	54	60	58	64	76	77	72	60	72	63	48	34	31	20	28	38	38
13	39	38	36	32	32	34	32	49	60	60	63	68	66	68	56	55	55	46	53	40	44	40	36	37
14	40	40	38	41	38	36		48	52	50	56	61	68	55	57	57	61	59	38	A	32		34	34
15	26	32	30	29	23	29	28	54	58	58	61	51	62	72		60	A	54	A	36		38	39	36
16	38	30	32	40	41	41	37	54		58	71	63	64	68	60	65	61	40	46	33	54	54	55	54
17	58	51	55	60	61	52		38	62	58	61	67	77	66	64	62	72	52	32	A	40		49	38
18	41	32	40	41	41	41	40	52	54	52	61	71	75	60	60	68	54	54	A	A	37	36	38	40
19	40	32		34	34	37	35	51	66	62	62	60	59	60	67	57	58	52	40	35	30		34	37
20	38	34	40	41	44	43	34	54	54	65	71	66	66	68	70	66	59	48	42	38	A	42	42	44
21	43	36	34	37	36	29		45	54	57	81		66	80	63	60	65	53	32	A	A	38	34	30
22	36	38	37	34	37	35	38	57	60	65	74	73	74	83	66	58	63	55	41	40	36	37	40	37
23	27	32	34	35	36	37	34		58	61	61	60	67	67	60	54	65	68	45	38	35			34
24	37	32	38	37	37	40	42	52	59	61	62	65		67	62	60	52	55	46	38	38	35	34	36
25	34	34	32	26	32	36	44	60	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
26	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	66	66	54	43	38	43	36	32	36
28	37	37	39	37	36	35	36	42	63	60	71	64	61	76	65		C	54	47	37	45	38		34
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	25	24	25	26	26	26	21	25	20	24	25	24	24	25	22	25	24	24	20	17	18	17	21	24
MED	37	34	36	34	35	36	32	49	58	60	62	66	66	66	62	60	58	51	40	36	36	37	36	36
U Q	40	37	38	40	38	39	37	54	60	62	67	70	70	71	65	66	63	54	46	38	41	40	39	38
L Q	34	32	32	32	32	32	28	43	54	58	61	62	63	61	60	57	54	43	33	31	34	34	33	34

HOURLY VALUES OF fEs AT Wakkanai

FEB. 2006

LAT. 45°23.5'N LON. 141°41.2'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	G	G	G	G	G	G	28			33	42	33	35	33	27	47	G	G	47	41	40	40	35	33
2	30	27	G	G	28	G	25	31	72	40	37	33	35	G		31	29	G	32	36	46	28	33	26
3	G	36	34	24	G	29	G	32	44	49	30	32	32	36		36	22	G	G	33		G	G	27
4	34	37	30	29	G	G	G	27		33	44	28	32	40	30	G	G	32	38	G	30	29	G	23
5	G	G	G	G	G	G	G	G	29	32		33	47	48	48	29	38	20	G	G	G	G	G	G
6	G	G	28	27	G	G	G	G	30		34	36	52	39	30	35	30	G	G	G	G	G	G	G
7	24	G	G	G	G	G	G	G		41	42	34	36	42	32	36	33	G	27	25	G	29	G	G
8	G	G	G	23	G	G	G	G	38	68	39	33	32	31	31	58	71	144	77	69	32	32	29	32
9	28	G	G	28	28	G	G	33		39	32	43	G	35		38	G	29	32	36	40	38	32	26
10	24	G	29	31	28	24	G	G	29	36	38	41	41	36	42	32	38	40	28	G	36	26	G	G
11	33	27	G	26	G	G	G	G	G	G	G	G	G	36	46	39	40	28	38	27	30	29	37	G
12	G	G	G	G	G	29	G	27	32	G	G		G	G	G	G	35	33	32	25	27	34	G	G
13	G	G	G	G	G	G	G	G	30	G	G	50	G	G	35	32	34	39	28	27	G	26	G	G
14	G	G	G	G	G	G		28	30			46	G	G		48	40	33	G	49	39	39	27	G
15	G	26	G	G	G	G	G		34	38	42	48	46	50	57	47	56	33	60	29	38	28	G	G
16	G	G	29	G	G	G	G	28	31	35	46	G	46	G	43	32	34	30	30	46	43	31	27	G
17	G	G	G	G	G	G	29	59	46	44	G	G	G	G	G	G	34	38	58	44	32	G	G	G
18	G	G	G	G	G	24	24	32	G	G	G	G	G	46	40	38	36	33	42	52	G	32	26	G
19	G	G	G	G	28	G	G	28	32	35	40	G	G	39	G	G	G	G	36	G	26	40	29	26
20	G	G	G	G	G	G		G	33	36	39	G		G	49		G	G	G	27	59	37	30	G
21	30	29	27	G	G	G	G	G	35	39	42		G	G	G	G	34	34	43	57	60	32	G	G
22	27	G	25	26	G	G	G		31	36	36	G	48	G	G	G	G	G	30	28	G	G	G	G
23	G	G	G	G	G	G	G		G	G	37	G	G	G	G	G	G	35	29	28	30	26	28	28
24	G	G	G	G	G	G	G	G		G	37	G	G	G	G	34	43	27	G	25	G	G	27	26
25	25	27	25	G	G	G	G		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
26	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	34	32	G	24	G	G	G	G	G
28	G	G	G	G	G	G	G	46	34	38	51	G	G	G	G		C	30	47	30	28	24		G
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	26	26	26	26	26	26	24	21	20	23	23	23	24	25	21	24	25	26	26	26	25	26	25	26
MED	G	G	G	G	G	G	G	27	32	36	37	32	16	31	30	33	34	30	31	28	30	28	G	G
U Q	25	26	25	24	G	G	G	31	34	39	42	36	38	39	42	38	38	33	42	41	39	32	29	26
L Q	G	G	G	G	G	G	G	G	29	G	30	G	G	G	G	G	G	G	24	25	G	G	G	G

HOURLY VALUES OF fmin AT Wakkanai

FEB. 2006

LAT. 45°23.5'N LON. 141°41.2'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	17	18	16	20	17	16	15	15	21	14	15	17	18	18	18	15	20	15	15	15	15	15	15	15
2	15	17	21	16	17	20	17	16	14	14	15	14	14	15	16	15	20	16	16	15	15	16	15	17
3	15	14	14	16	15	16	18	16	14	15	14	14	15	18	15	16	15	16	14	15		16	18	15
4	15	14	15	15	17	15	18	15		14	15	14	14	14	18	14	20	14	15	21	15	15	20	15
5	15	14	14	15	14	15	16	20	17	14	14	14	16	14	15	14	21	15	16	15	17	18	17	17
6	14	16	15	15	15	16	16	16	14		16	15	14	14	15	14	15	15	15	15	20	20	20	16
7	16	15	15	18	17	18	18	15		14	14	14	14	14	14	14	16	16	15	16	15	16	14	15
8	14	14	15	15	14	15	15	15	14	14	15	14	15	14	14	15	14	17	17	14	15	15	15	15
9	15	16	15	14	14	15	18	14	14	20	14	15	16	16		15	17	15	14	14	14	15	15	16
10	15	15	15	14	15	17	17	18	14	14	15	16	17	14	15	14	17	14	15	18	15	17	16	15
11	15	15	15	15	15	15	14	18	14	24	17	14	15	15	14	15	15	16	15	18	16	17	16	15
12	15	14	14	15	15	15	15	15	15	14	15	16	16	15	14	14	15	14	14	16	16	18	16	15
13	14	14	15	15	15	14	15	15	15	14	14	15	14	15	14	14	18	15	14	16	15	16	15	15
14	14	15	15	15	15	15		15	14	14	18	16	18	15	14	14	15	14	14	15	14	15	15	15
15	14	15	15	15	14	14	15	16	14	15	15	16	14	15	18	15	15	15	15	16	14	15	15	15
16	14	15	15	15	15	15	18	16	14	14	16	14	15	14	16	15	16	17	16	14	15	15	16	18
17	14	17	15	16	16	15	16	14	14	14	15	14	16	16	15	15	17	14	15	15	15	16	17	21
18	18	14	17	15	15	15	14	16	15	15	14	15	14	14	15	14	16	16	14	20	20	15	18	15
19	14	15	16	16	16	17	16	14	14	15	15	20	18	16	17	14	14	17	15	15	16	17	15	20
20	15	16	17	15	14	15	15	17	15	15	17	18	20	16	14	14	21	18	18	18	15	15	14	15
21	15	15	15	14	15	15	20	18	14	15	17		17	15	14	15	17	14	15	15	14	15	17	15
22	17	14	15	15	15	15	15	18	14	14	14	14	16	20	29	16	21	17	16	15	15	17	15	14
23	20	15	17	15	16	16	15		15	14	15	15	18	16	15	17	14	15	15	15	17	18	14	16
24	16	17	15	15	15	16	16	18	14	17	16	15	14	14	16	14	14	18	15	15	15	16	16	16
25	15	17	15	18	16	15	16	17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
26	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	14	15	15	15	16	16	17	18	17
28	14	15	15	14	14	15	17	15	14	15	18	14	17	14	16		C	14	14	17	16	20		15
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	26	26	26	26	26	26	25	25	23	24	25	24	25	25	24	25	25	26	26	26	25	26	25	26
MED	15	15	15	15	15	15	16	16	14	14	15	15	16	15	15	14	16	15	15	15	15	16	16	15
U Q	15	16	15	16	16	16	17	17	15	15	16	16	17	16	16	15	19	16	15	16	16	17	17	16
L Q	14	14	15	15	15	15	15	15	14	14	14	14	14	14	14	14	15	14	14	15	15	15	15	15

HOURLY VALUES OF foF2 AT Kokubunji

FEB. 2006

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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		32	30	28	34	27		46	58		62	62	88	95	86	61	61	A	A	27			28	30
2				28	31	27		46	58	54		A	A	59	61	A	A	48				32		28
3			32	32	36		26	52	54	58	55	56	64	73	71	67	60	59		A	A	30		
4		34	34	34	32	31	35	52		59	61	49	71	68	81	61	55	43	34		A	21		A
5	32			A	28	30	30	54	61	66	67	66	65	71	63	66	54	48		37	39	A	37	
6	30	32	30		31		27	48	54	62	66	64	59	58	59	57	57	47	39	43	31	34		34
7	34		32	31	35			48	73	77	64	68	73	68	74	81	79	55	42	48				
8	30	28		26	30			45	59	57	68	69	69	75	77	60	67	52	A	A	A	A	A	28
9	27	30	36	36	36	20	26	44	54	59	56	66	68	66	A	67	62	51		37	A			34
10	A	A		A		27	30	64	55	57	62	61	68	74	68	65	58	59				28	A	A
11	32	30		28	A	A	A	44	58	67	62	57	61	74	82	81	A	51	A	A	A	A	A	A
12		39	44	40	40	39	34	54	65	73	64		69	80	78	63	64	56	A	A	A	A	A	A
13		34		30	27	30	32	61	74	62	54	54	64	A	62	56	A	A	43	45	34	32	A	
14	31	32	34	36	36	28	28	49	66	65	59	59	62	69	81	82	61	52	45	A	A			
15	28	23	28	23	27	28	34	52	52	55	64	64	57	61	78	A		44	A	51		A	A	A
16		34				34	30	49	64	A	72	69	70	63	75	73	62	54	39	A	44		A	A
17	34	37	35		41		51	53	54	62	65	64	66	80	76	68	64	62		A	36	32	34	
18	39		37	36	36	36	36	57	60	60	65	66	67	61	65	54	63	62	A	A	A	A	34	32
19		A				28	32	59	62	62	74	66	69	62	64	60	55		A	35	36	A	28	
20	35	34	28	30	34	28	36	47	62	72	87	84	63	64	66	68	63	59	45		43	42	46	A
21	A		A		36		30	52	62	78	76	86	76	62	74	72	56	58	49		34	37	36	36
22			36				30	49	69	65	80	74	88	76	76	63	56	60	52	37		A	34	35
23		34	32	30		35		59	45	64	57	66	69	71	76	67	58	A	A	49	43	A		
24	A			30	26		36	54	58	65	63	59	71	72	64	65	61	56	47	36	36			
25	34	32	31	31	27		34	54	64	60	62	71	63	67	64	61	55	54	55	54	44	39	30	A
26	30		32	30	30	30	36	54	59	62	62	69	72	66	65	63	59	66	60	30	37		28	
27			30	32	28	28	36	55	69	59		78	77	79	75	68	68	68	49	36	A		A	30
28	30	30	28	32	34		34	52	51	67	65	67	74	69	78	80	54	81	50	42		34	32	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	14	16	18	20	22	17	22	28	27	26	26	26	27	27	27	26	24	24	14	15	12	11	11	9
MED	32	32	32	30	33	28	33	52	59	62	64	66	69	69	74	66	60	56	46	37	36	32	34	32
U Q	34	34	35	33	36	32	36	54	64	66	67	69	72	74	78	68	63	59	50	48	43	37	36	34
L Q	30	30	30	29	28	27	30	48	54	59	62	61	64	63	64	61	56	51	42	36	35	30	28	29

HOURLY VALUES OF fEs AT Kokubunji

FEB. 2006

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	50	29	G	G	G	G		G	G	G		37	G	30	44	32	26	47	53	35	G	G	G	G
2	33		33	25	29	G		26	42	59	72	74	98	70	62	94	73	34	26			G	40	28
3	G		G	G	G	G	G	G	31	G	40	40	38	31	46	40	47	G	43	33	59	G		30
4		G	G	G	G	G	37	42	34	33	G	35	G	G	34	37	41	37	G	29	34	26	30	48
5	G	32	28	32	28	G	G	G	34	36	33	31	G	35	G	G	41	30	29	33	G	31	29	26
6	G	G	G		G	G	G	G	27	G	G	G	G	35	33	G	35	G	26	G	31	G	32	30
7	31	28	23	24	G			G	29	28	46	58	69	49	39	52	75	31	32	28	31	G		
8	G	G		G	G	G		G	G	40	35	G	45	30	42	53	43	40	39	42	58	60	39	G
9	G	G	G	G	30	G	G	G	G	34	G	46	50	57	94	29	42	43	30	53	33	28	26	32
10	41	35	G	46	30	24	G	G	28			G	38	G	35	34	32	G	G	49	30		53	36
11	G	G	29	26	57	58	70	G	34	43	G	49	52	52	49	76	134	94	60	60	59	47	37	43
12	41	G	G	28	G	G	G	G	G	G	43		G	G	G	G	40	34	84	72	67	66	59	39
13	34	35	29	G	G	G	G	G	G	G	G	53	53	96	46	38	84	84	28	G	G	G	59	41
14	29	29	29	27	G	G	G	G	G	G	G	52	45	45	G	G	36	43	51	94	79	37		
15	G	24	G	G	G	25	G	G	43	46	52	47	54	55	53	88	117		46	59		59	43	32
16	31	G	G	G	G	G	G	32	58	69	61	48	78	61	45	47	G	29	G	60	40	33	60	58
17	G	G	G	G	G	G	G	29	40	60	51	49	39	50	G	G	37	41	34	60	30	29	28	29
18	29	G	G	G	G	G	G	G	G	G	G	G	50	G	G	G	49	50	83	59	48	52	33	31
19	38	52	32	26	G	G	G	36	G	G	G	G	40	43	40	G	31	G	79	27	40	46	29	32
20	31	29	G	G	G	G	G		G	G	G	G	G	G	G	G	G	G	28	G	G	30	50	32
21	29	32	28	27	G		G	G	38	50	G	G	G	G	G	G	G	G	G	29	28	26	G	40
22	40	40	G			G	G	G	G	G	G	40	G	G	G	G	32	42	26	25	41	66	70	24
23	G	G	G	G	40	G	G	28	G	40	G	40	G	G	G	G	48	67	58	G	50	37	29	29
24	43	30		G	G		G	G	G	G	G	46	G	G	G	G	34	G	G	26	G	41	G	
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	34	G	G	G	G	G	29
26	32	29	29	G	G	G	G	G	G	G	G	43	46	43	41	42	G	32	G	24	G	G	G	
27	32	28	G	28	G	G	G	G	G	G		G	G	G	G	42	45	G	G	30	37	32	49	G
28	G	G	G	G	G		G	G	G	36	G	40	G	40	44	49	55	37	34	30	34	27	48	40
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	27	26	26	26	27	24	24	27	28	27	25	27	28	28	28	28	28	27	28	27	26	27	25	24
MED	29	26	G	G	G	G	G	G	G	G	G	40	38	33	34	30	40	34	30	30	34	30	33	32
U Q	34	30	28	26	G	G	G	G	34	40	41	48	50	49	44	44	48	43	48	59	48	46	49	39
L Q	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	31	G	G	25	G	G	27	28

HOURLY VALUES OF fmin AT Kokubunji

FEB. 2006

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	14	13	14	13		18	21	18	39	34	38	20	21	14	14	13	14	15	21	15	14	13
2	14		14	15	13	14		15	15	14	15	17	25	18	14	14	13	15	14			14	14	15
3	17		13	14	14	14	17	17	13	17	13	28	22	17	18	14	14	14	14	14	17	18		14
4		15	14	15	14	13	13	13	13	14	18	14	22	43	20	14	14	18	14	13	13	15	13	14
5	14	13	14	13	13	13	15	15	13	15	15	21	39	13	13	28	13	13	14	14	18	14	14	18
6	13	14	15		14	15	17	18	13	13	14	15	40	15	14	13	13	23	14	14	13	18	13	14
7	14	13	13	14	13			18	13	28	14	15	14	18	15	13	17	13	15	13	15	17		
8	13	13		14	13	14		21	25	17	18	14	30	18	15	17	13	15	14	15	14	14	13	14
9	13	14	14	13	13	13	18	20	13	18	34	21	20	15	14	21	13	14	13	13	13	13	14	15
10	17	14	17	13	13	14	14	17	13	13	13	18	15	14	17	21	13	20	14	13	14	13	14	13
11	13	13	13	14	13	13	13	14	13	15	15	18	21	24	20	14	13	15	14	13	14	13	13	15
12	20	13	13	14	13	14	14	17	13	13	15		40	18	17	14	14	13	15	13	14	13	13	13
13	13	14	13	13	14	14	13	20	28	14	17	22	21	17	14	13	13	13	13	14	13	14	13	13
14	13	14	13	13	13	15	14	17	14	17	17	15	21	15	17	31	13	13	18	14	13	14		
15	14	13	13	13	13	14	13	18	14	14	17	17	23	18	14	14	13	13	14	13		14	14	15
16	14	15	13	14	13	14	17	14	13	15	22	23	21	20	24	14	13	14	26	14	13	13	13	15
17	14	14	13	13	13	13	14	13	14	13	14	17	18	20	21	14	13	14	13	15	14	13	14	13
18	14	21	13	15	20	15	15	21	13	13	13	13	20	17	18	15	13	13	15	13	13	14	13	13
19	13	13	15	17	18	14	15	13	14	15	15	21	22	22	25	22	15	14	14	14	13	13	13	13
20	13	13	14	18	14	14	17	17	14	13	14	40	23	18	21	15	14	13	13	24	14	13	14	13
21	14	13	14	13	13		14	22	14	17	13	15	41	36	18	18	14	21	14	14	15	14	13	13
22	13	13	15			18	14	20	13	13	13	17	15	18	14	13	13	13	18	14	14	14	13	14
23	14	15	13	14	14	14	15	13	13	13	39	17	41	23	15	18	14	13	21	13	13	13	14	13
24	13	13		14	14		14	21	14	13	14	20	17	17	20	17	13	22	20	13	17	14	14	
25	13	14	14	14	15	14	14	20	13	13	14	41	40	22	20	14	13	13	14	14	15	14	14	14
26	14	13	13	14	15	14	13	13	14	13	31	20	26	29	25	14	13	15	14	14	13	14	18	
27	14	14	13	13	13	13	13	13	14	13		37	41	42	28	15	14	20	15	13	14	13	13	14
28	22	22	15	14	15		14	22	13	13	15	22	17	22	21	18	17	14	14	14	17	13	13	14
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	27	26	26	26	27	24	24	28	28	28	27	27	28	28	28	28	28	28	28	27	26	28	25	24
MED	14	14	14	14	13	14	14	17	13	14	15	18	22	18	18	14	13	14	14	14	14	14	13	14
U Q	14	14	14	14	14	14	15	20	14	16	18	22	38	22	21	18	14	15	15	14	15	14	14	14
L Q	13	13	13	13	13	13	13	14	13	13	14	15	20	17	14	14	13	13	14	13	13	13	13	13

HOURLY VALUES OF foF2 AT Yamagawa

FEB. 2006

LAT. 31°12.1'N LON. 130°37.1'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	41	40	41	22		28	51	61	70	77	87	93	89	88	77	58	44	26	28	28	30	26
2	30	32	31	32	36			29	48	62	67	64	72	68	66	68	70		43	A	30	36	34	32
3		A		32	32	30	28	43	53	56	52	58		71	75	76	70	60	53	A	A	28		32
4	34	36	38	37	40	37	32	40	45	68	56	63	67	84	84	80	73	54	44	32	31	30	28	26
5	28	36	A		30	29	31	37	66	66	60	66	70	71	63	58	59	56	50	A	42	45		
6	A	30	30	30	32	29	26		54	59	67	55		66	62	67	67	57	43	44	40	36	36	32
7	37	32			29	31		32	71	66		68	71	73	71	86	93	62	55	40	34			
8	30	30	29	28	30	29	29	35	50	60		67	64	62	71	71	71	55	48	32	37	37	28	
9	39	26	31	28	30	28	25	38	54	56	60	64	72	72	80	78	71	70	50	32	31	34	26	28
10	32	32	30	32	30	A		43	61	60	68	65	75	66	70	71	61		41	37	A			
11	32	29	31		31	35		35	54	64	49	60	62	62	80	101	88	44	A	37	37	40	30	A
12	A	A	36	34	34	32	30	42	54	64	71	82	84	76	74	85	75	55	55	34	A	32	A	26
13	31	A	25	31	30	30	35	48	45	61	60	62	64	62	64	71	62	61	51	42	45	34	28	26
14		A	29	32	37		30	42	66	56	57	66	74	74	84	97	84	42	42	50	A	A	A	A
15	28	28	28	30	31	30	28	40		56	55	62	60	60	72	78	82	59	47	43	60	34	26	
16			30	28	31	32	28	37	63	70	75	77	67		82	100	80	58	51	A	34	37	37	30
17	26	28	32	30	34	34	34	46	52	60	67	69	71	89	110	97	87	64	66	37	A	A	A	A
18	A	A	32			32	28	46	68	63	70	68	60	61	65		70	72	66	52	43	34	30	30
19	A		A	A		A	28	42	54	64	75	88	82	68	70	76	70	64	54	34		A	36	29
20			A				30	42	66	76	87	84	80	67	80	72	67	70	45	51	48	48	50	41
21	28	30	31	32	47			42	70	77	78	100	98	72	90	91	65	55	58	45	36	38	42	
22	36	40	40		28	28		44	52	70	70	75	78	84	93	84	64	58	55	54	37	A	A	A
23	34	34	28	32	34	32	26	46	54	61	64	72	63	65	80	84	67	53	55	45	50	A	A	
24		28	28	29	30	28	28	43	60	60	61	67	68	58	67	76	75	72	51	38	42	37	37	A
25		36	A	A		32	28	45	68	67	65	75	65	69	70	62	64	61	59	70	53	37	37	32
26	34	34	30	A	30	30	29	44	65	62	64	71	65	72	63	66	67	67	66	52	29	29	30	30
27	34	32			34	32	34	54	64	65	67	75	85	82	90	80	80	87	65	42	32	36	A	
28	30	30	34	29	31	30	26	48		67	65	74	76	72	84	96	80	70		63	38		30	29
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	17	20	21	18	24	22	21	27	26	28	26	28	26	27	28	27	28	26	26	24	22	20	18	15
MED	32	32	31	32	31	30	28	42	54	62	66	68	71	71	74	78	70	60	51	42	37	36	30	30
U Q	34	35	33	32	34	32	30	45	66	66	70	75	78	74	84	88	80	67	55	50	43	37	37	32
L Q	29	29	29	29	30	29	28	37	52	60	60	64	65	65	68	71	67	55	45	35	32	33	28	26

HOURLY VALUES OF fEs AT Yamagawa

FEB. 2006

LAT. 31°12.1'N LON. 130°37.1'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	59	33	33	G	G	32		G		31	33		44	34	43	46	38	29	G	G	G	G	G	G
2	40	28	23	G	G	G	G	G	30	33	32	51	48	74	60	83	61	46	39	30	25	G	G	G
3		48	48	G	G	G	G	G		37	37	38	64	60	64	60	57	38	23	34	43	32	26	38
4	26	23	G	G	G	27	23	G		34	33	37	38		39	38	47	36	G	29	G	G	G	25
5	G	40	51	46	24	G	G	G		38	40	44	61	51	48	44	50	33	34	84	33	55	59	44
6	34	G	G	G	G	G	23	34	32	36	34	48		78	44	40	46	40	G	G	28	G	24	G
7	G	40	46	31	28	28	25	23	30	30		35	44	54	47	42	35	29	30	30	G	28		
8	24	G	G	G	G		25	G	27	32		46	49	52	67	51	62	29	11	G	G	G	G	G
9	G	G	G	G	27	24	25	27	30	32		49	46	32	43	54	93	45	28	36	35	G	28	24
10	G	G	G	33	25	40	40	20	27	34		36	46	38	45	46	46	44	42	37	46	28	32	27
11	G	G	G		25	28	G	23	G	51	43	43	G	46	55	55	60	58	90	40	24	25	24	50
12	50	55	26	27	G	G	23	24	G		G	41	45	46	G	37	38	35	G	34	54	33	41	24
13	G	60	26	24	G	30	34	52	51	36	40	47	52	52	56	50	41	57	39	33	G	27	23	G
14	G	40	43	G	29	G	G	35	58	56	37	42	42	47	44	42	47	48	G	35	58	41	32	33
15	G	G	G	G	G	G	G	24	31	36	G	38	47	49	46	51	36	30	G	G	G	26	G	
16	G	32	G	26	G	24	33	23	G	35	64	47	50	79	58	64	55	36	24	68	44	49	28	27
17	G	G	G	G	33	28	27	22	G		43	43	43	G	45	57	41	31	28	G	80	59	46	68
18	48	43	G		33	G	40	32	G	G	G	42	42	G	G	G	47	49	29	46	26	G	G	34
19	47	26	72	44	34	33	24	G	30	39	51	45	52	49	43	50	44	34	G	33	33	52	46	40
20	32	36	34	31	34	28	G	G	33	37	40	48	42	48	48	43	38	30	33	52	G	G	26	G
21	25	G	G	24	G		G	23	34	39	G	G	G	G	39	40	36	32	24	G	G	27	33	41
22	39	37	26	27	G	G	G	G	51	35	G	G	G	G	47	40	44	G	27	24	G	45	46	48
23	G	G	G	G	G	G	23	26	30	G		G	G	45	43	G	37	G	31	33	55	57	40	
24	G	G	G	G	G	G	G		52	G	G	45	G	G	G	39	39	35	29	29	33	27	40	59
25	28	29	36	35	32	34	G	G	30	38	42	G	G	G	44	38	38	33	26	G	G	G	G	G
26	G	23	28	33	25	24	G	G		38	41	49	44	G	47	44	35	33	27	25	24	24	G	G
27	23	G	28	31	G	G	26	G	G	G	G	G	G	45	G	39	41	46	38	27	26	25	51	32
28	G	G	G	G	G	G	G			G	39	42	G	48	47	44	47	56	41	35	28	30	32	29
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	27	28	28	26	28	26	27	26	22	26	23	27	27	27	28	28	28	28	28	28	28	28	27	25
MED	G	24	12	12	G	12	23	21	30	35	37	42	44	46	45	44	44	35	28	32	26	27	28	27
U Q	34	38	33	31	27	28	25	24	33	38	41	47	48	52	48	51	48	45	33	35	39	37	40	40
L Q	G	G	G	G	G	G	G	G	G	31	G	36	G	G	43	39	38	30	6	12	G	G	G	G

HOURLY VALUES OF fmin AT Yamagawa

FEB. 2006

LAT. 31°12.1'N LON. 130°37.1'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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	14	14	14	14	14		21	15	14	15	15	15	22	20	17	14	14	21	15	14	15	16	14
2	15	15	16	20	15	15	15	15	14	14	14	15	14	17	17	14	14	14	14	14	15	14	15	15
3		14	14	14	14	14	14	15	14	15	14	17	18	17	18	15	14	14	14	15	14	14	15	15
4	14	14	15	15	14	14	14	15	14	14	14	15	15	17	14	14	14	14	14	15	15	15	15	15
5	14	14	14	15	14	15	15	15	14	14	14	16	14	18	17	14	14	14	14	15	15	14	15	15
6	15	15	14	14	14	14	15	15	14	14	14	17		14	15	15	14	14	15	14	14	14	14	15
7	14	15	14	14	14	15	15	14	14	14		17	16	16	14	14	14	14	14	14	15	15		
8	15	14	14	15	14	14	14	14	14	14		14	16	14	15	14	14	14	15	14	15	15	15	14
9	14	17	15	16	14	14	14	14	14	14	14	18	18	17	17	14	14	14	14	14	14	15	14	15
10	14	14	15	15	14	14	14	14	14	14	14	15	16	15	17	15	14	14	15	14	14	15	14	14
11	15	14	14		14	14	16	15	14	14	15	15	17	16	14	14	14	14	16	14	14	16	15	14
12	14	14	15	14	14	15	14	15	14	14	14	14	14	17	20	16	14	14	18	15	15	15	15	14
13	14	14	14	14	14	14	14	14	14	16	16	16	17	17	16	14	14	14	14	14	15	14	14	15
14	16	14	15	16	14	16	15	15	14	14	14	14	16	14	14	14	14	14	15	15	14	14	14	14
15	21	15	15	14	14	14	14	14	14	14	16	16	18	15	15	14	14	14	17	15	15	15	17	
16	15	14	15	14	14	14	15	16	14	14	16	16	14	16	15	14	14	14	15	15	15	14	14	14
17	14	14	15	14	14	14	14	15	14	14	14	16	17	14	18	15	15	15	15	16	14	14	14	14
18	14	14	17		15	15	14	14	14	14	14	14	14	15	14	14	14	14	14	14	15	16	14	14
19	15	15	15	14	14	14	15	15	14	15	15	15	15	16	17	18	15	15	15	14	15	14	14	14
20	15	14	14	14	14	14	14	15	14	14	14	15	20	18	17	17	14	14	14	14	15	15	14	14
21	16	20	15	15	15		15	16	14	17	15	15	20	23	16	16	14	15	15	14	15	15	15	14
22	14	14	15	14	14	14	15	16	14	14	15	17	15	17	15	15	14	14	15	14	14	14	14	14
23	15	15	15	14	15	14	14	15	14	14	14	14	14	14	17	14	15	14	15	15	14	14	14	
24	15	15	15	14	14	15	15	15	14	14	14	14	16	14	15	16	14	14	14	14	14	14	14	15
25	14	14	14	14	14	14	15	16	14	14	14	15	17	17	17	16	14	14	16	14	14	14	14	16
26	14	14	15	14	14	16	15	16	14	14	14	17	15	18	16	15	15	14	14	14	15	15	16	14
27	15	15	14	14	15	14	15	16	14	14	14	15	18	17	20	17	14	14	14	14	15	16	14	14
28	15	15	15	15	15	15	15	17		14	14	16	15	17	16	15	14	14	14	14	14	14	14	14
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	27	28	28	26	28	27	27	28	27	28	26	28	27	28	28	28	28	28	28	28	28	28	27	25
MED	15	14	15	14	14	14	15	15	14	14	14	15	16	17	16	15	14	14	15	14	15	14	14	14
U Q	15	15	15	15	14	15	15	16	14	14	15	16	17	17	17	16	14	14	15	15	15	15	15	15
L Q	14	14	14	14	14	14	14	14	14	14	14	15	15	15	15	14	14	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Okinawa

FEB. 2006

LAT. 26°40.5'N LON. 128°09.2'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	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			47	40	43				48	65	74	88	118	117	111	106	94	72	50	29		26		28
2	29		30	37	A	A		26	52	58	72	75	87	118	112	105	108	91		A	A	44	42	28
3				29	34	26	26	36	54	47	59	66	78	98	86	105	90	85	59	50		A	A	
4	30	32	34	30	36	29	26	36	58	59	57	66	81	105	110	106	108	78	54	37			30	
5		31		A	22	A	N	34	54	64	62	72	68	81	75	62	66	63	55	46	41		22	
6		A		30	30	28			53	62	64	66	55	67	73	67	76	62	52	44	44	43	41	38
7	34	36			26			29	65	65	76	62	71	74	74	103	104	76	66		A	37		
8		29	A					32	50	61	65	66	74	72	72	67	87	68	53	44	38	42	31	
9		29	30					34	56	55	62	68	72	77	76	88	88	87	72	64	52	63	40	30
10		28	26	29	30	30		42	51	59	74	93	74	67	66	77	76	66	55	A	A		36	29
11	31	29	29		30	30		32	55	61	72	66	61	58	81	97	106	85	51	34	A		29	31
12	29	34	37	32	30	26	26	38	60	66	76	85	100	107	102	111	116	87	61	42	32	36	32	30
13	30	30	30	26	28	25	29	A		59	62	71	74	80	73	75	84	74	55	42	44	41	34	
14	28			28	30			38	53	58	65	82	97	122	131	131	141	98	72	51			38	34
15	32	30	32	34	31	35	30	42	59	58	57	60	68	66	67	83	102	79	51	A	54	53	32	
16				22	30	36	A		51	68	81	70	78	86	104	121	109	88	64	60	25	32	30	28
17	28	28	30	30	29	30	26	40	52	56	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
20	C	C	C	C	C	C	C	C	C	C	80	97	101	88	111	117	97	87		77	53	44	47	34
21	32	29		30	36			40	66	86	80	114	123	107	120	127	116	80	77	66	53	54	52	
22	40	A	40	29				37	52	58	77	92	95	97	108	121	107	83	58	54	44	38	36	34
23	A	34	34		32	34		37	54	62	65	74	67	72	92	100	88	65	54	66	66	45	A	A
24	A			30	34	26		41	58	60	69	71	72	72	76	88	83	76	61		48	36	37	A
25		28	23	A	30	30	A	40	66	66	67	71	78	67		65	61	72	75	66	66	44	32	26
26	29	34	32	28	A	28	A	41	66	72	66	71	71	75	75	72	82	75	88	62	34	A	28	25
27		34	34	30	26	26	32	43	66	66	72	87	101	88	102	114	101	90	84	49	32	34	32	
28		30	30		29			42	51	60	65	77	78	76	90	108	117	88	71	66	73			32
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	12	17	16	17	20	15	7	21	24	25	25	25	25	25	24	25	25	25	23	20	17	17	20	14
MED	30	30	31	30	30	29	26	38	54	61	67	71	78	80	88	103	97	79	59	50	44	42	33	30
U Q	32	34	34	31	33	30	30	41	59	65	75	86	96	101	109	112	108	87	72	65	53	44	39	34
L Q	29	29	30	28	29	26	26	34	52	58	63	66	71	72	74	76	83	72	54	43	36	36	30	28

HOURLY VALUES OF fEs AT Okinawa

FEB. 2006

LAT. 26°40.5'N LON. 128°09.2'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

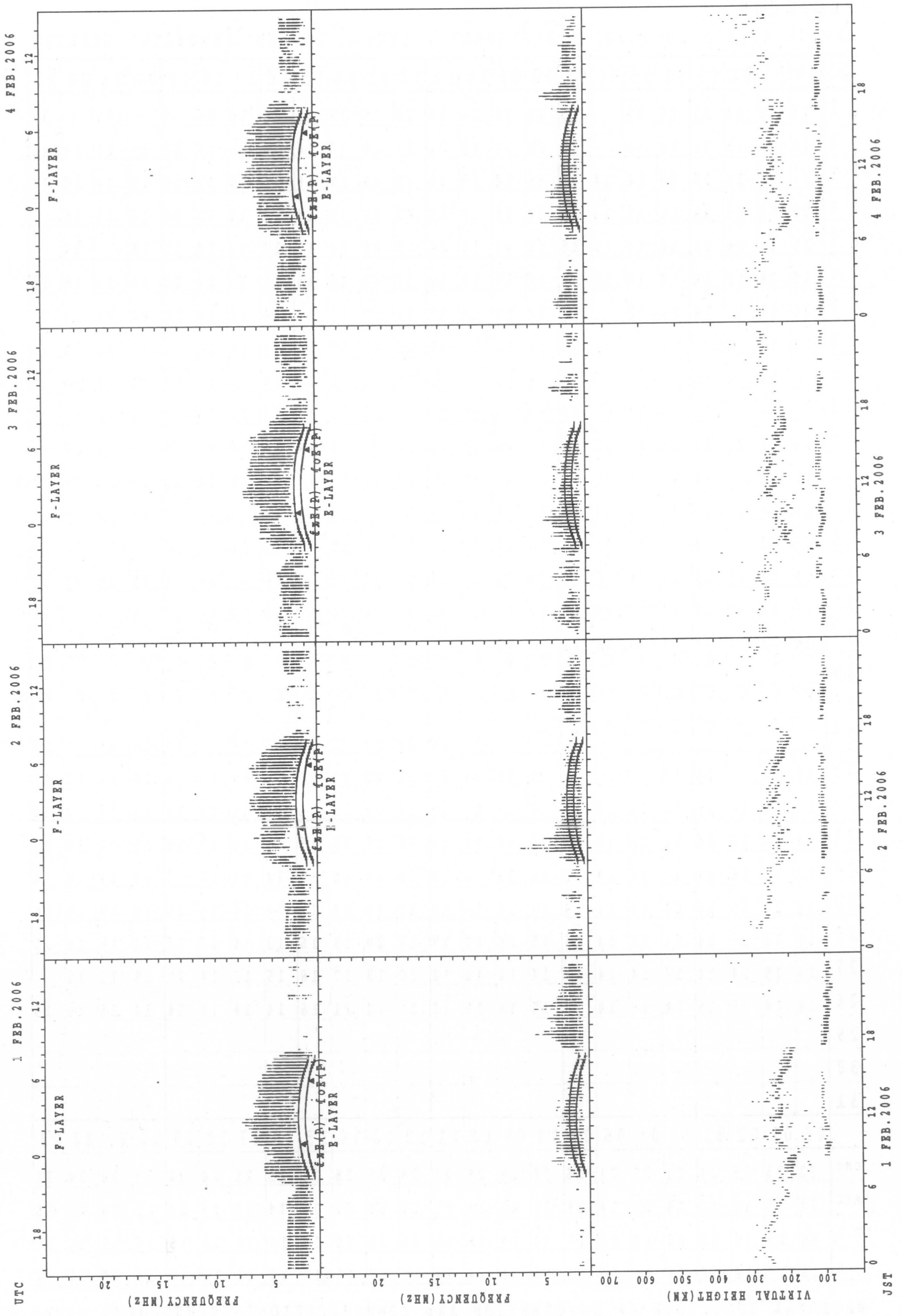
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	29	46	34	24	28	G		G		28	31		38	34	35	34	36	30	G	35		G		G
2	G		24	G	28	27		G	29	34	36	32	47	39	53	56	51	70	37	58	59	32	24	G
3			G	28	G	G	G	G	G	30	36	46	56	53	66	61	51	38	28	26	22	44	36	27
4	26	G	G	G	G	G	G	G	32		N	31	38	38	36	39	45	37	30	25	28	26	G	
5	G	G	35	33	29	36	G	G		36	45	43	48	50	37	41	38	46	26	G	G		28	
6	G	72	33	G	G	G	G	34	57	54	32	49	57	46	36	52	43	56	31	40	34	G	G	G
7	G	G		G	G	G		25	28	28	G	44	48	52	61	54	40	35	34	38	57	G	G	G
8	G	G	38		27	G	28	25		33	41	46	48	48	52	84	50	46	25	G	G	G	G	G
9		G	G	G			26	26	31	28		37	39	40	G	34	42	40	27	54	29	28	G	G
10		G	G	G	G	34	31	28	G	38		38	N	33	32	36	41	39	40	72	47	26	24	G
11	G	G	G	G	G	G	G	G	36	37	43	G	48	G	47	90	58	59	46	26	57	28	G	G
12	G	G	35	48	25	G	28	30	29	G	G	G	G	46	G	G	44	G	26	25	G	G	G	G
13	G	G	G	G	G	30	34	49	48	46	50	50	50	46	52	51	60	39	34	28	29	G	G	
14	G	G	G	G	G	G	G	G	32	38	42	44	G	40	G	N	G	G	32			37	G	G
15	G	G	G	29	G	G	G	G		35	44	39	G	46	49	60	50	42	43	57	G	G	G	G
16	28	G	G	G	G	30	28	28	36	G	43	43	G	G	G	44	G	33	G	11	26	G	G	33
17	G	26	G	G	25	23	33	21		41	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
20	C	C	C	C	C	C	C	C	C	C	G	N	G	41	48	45	39	58		41	27	G	G	G
21	G	G		G	G			G	G	42	G	48	46	G	44	G	40	35	G	23	24	24	24	29
22	35	35	30	27	G	G	G	23	G	44	78	63	45	44	G	G	36	36	26	G	G	G	G	44
23	58	26	G	34	27	G	G	G	32	38	G	47	49	49	40	48	50	41	26	G	11	44	49	28
24	29	29	G	G	G	G	G	G		G	G	G	G	49	49	46	48	37	29		26	24	29	68
25	34	37	G	34	24	24	36	28	36	41	42	G	G	G	G	44	43	39	35	G	G	11	G	G
26	G	G	G	G	29	25	25	25	G	G	43	46	47	46	44	43	42	38	41	35	24	23	G	G
27	34	G	G	G	G	26	G	G	32	42	G	G	48	G	54	58	57	56	46	30	27	G	G	
28	34	G	G	G	G	G	G	G	G	G	G	47	47	54	56	56	45	40	32	28	32	24	24	25
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	22	23	23	24	24	23	21	25	19	24	22	23	24	25	25	24	25	25	24	23	23	24	24	21
MED	G	G	G	G	G	G	G	G	31	36	36	43	46	44	44	46	43	39	30	28	26	17	G	G
U Q	29	26	30	27	26	26	28	27	36	41	43	47	48	48	52	56	50	46	36	40	32	27	24	27
L Q	G	G	G	G	G	G	G	G	G	28	G	31	G	33	16	37	39	35	26	11	G	G	G	G

HOURLY VALUES OF fmin AT Okinawa

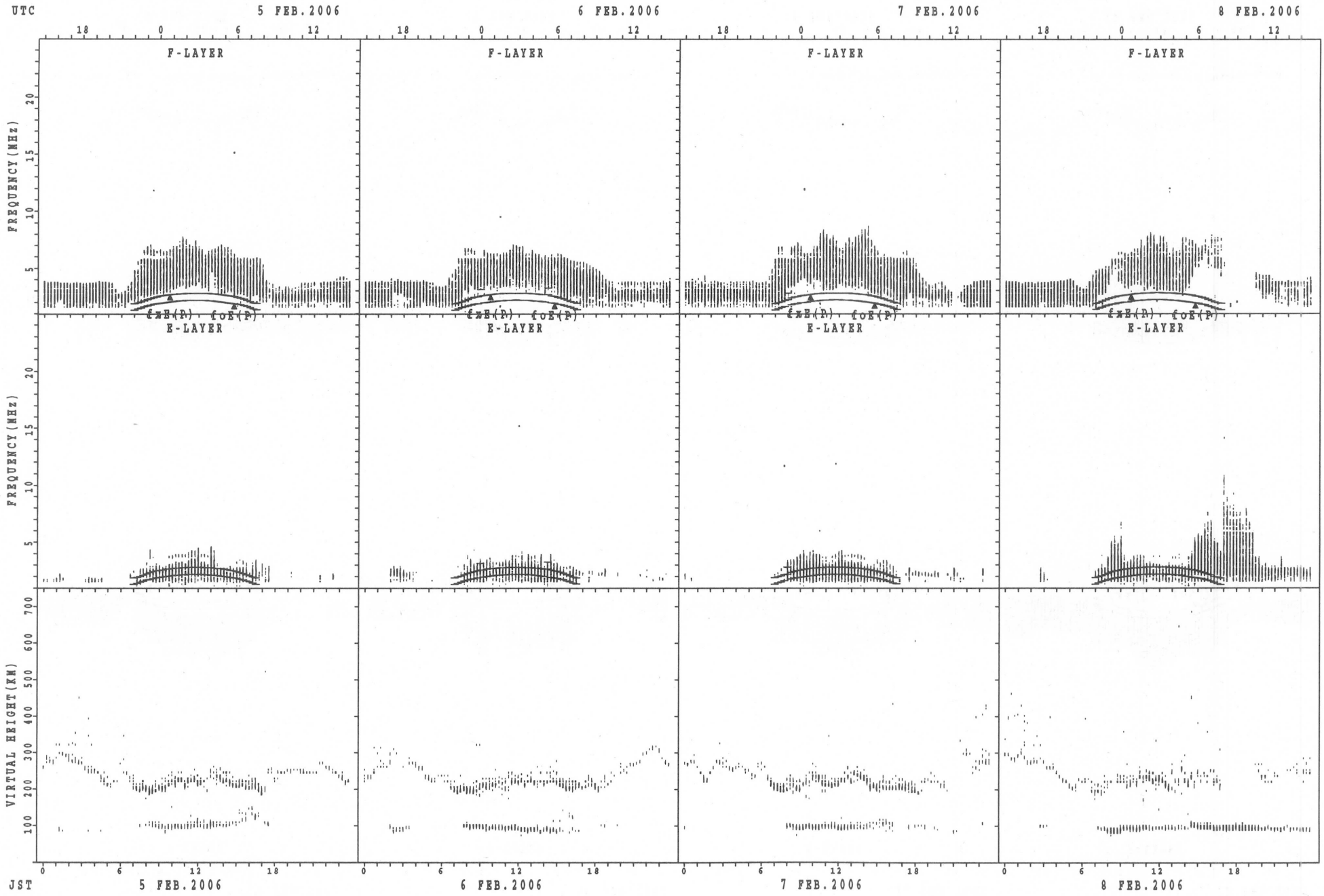
FEB. 2006

LAT. 26°40.5'N LON. 128°09.2'E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

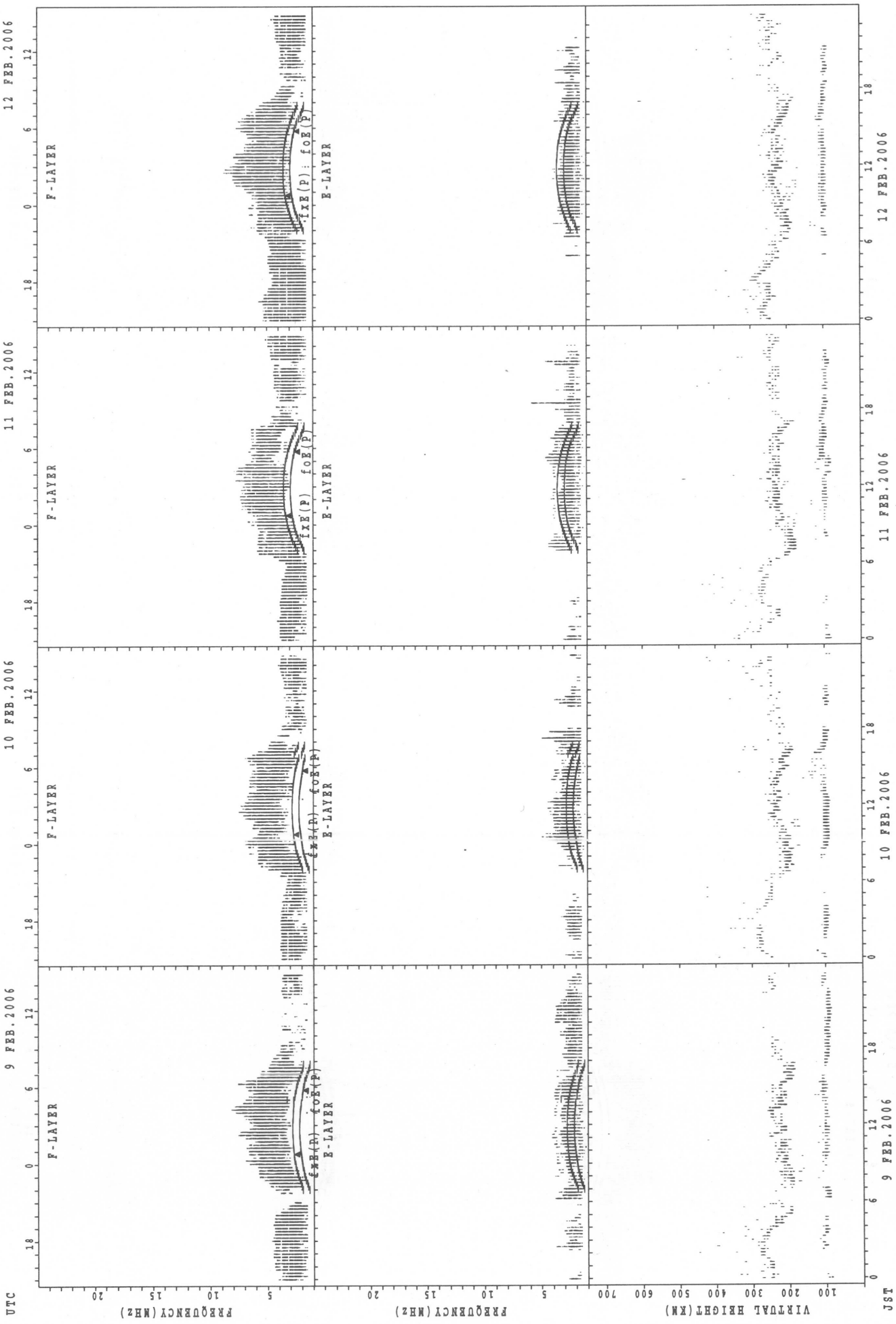
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	14	14	17	14	15		15	14	14	14	14	18	15	15	14	14	14	16	15		15		15
2	15		15	15	14	15		15	14	15	16	21	21	20	17	16	14	14	14	14	15	14	14	15
3			15	14	14	14	14	15	14	14	14	15	18	20	17	16	14	14	14	15	15	14	15	15
4	14	15	14	14	15	14	14	14	14	14	18	15	20	20	14	14	14	14	14	14	14	14	15	
5	15	14	14	14	14	14	15	15	14	14	14	14	17	20	20	17	14	14	14	15	15		14	
6	14	14	15	14	14	14	15	14	14	14	17	18	17	15	16	15	14	14	14	14	14	15	16	15
7	14	14		14	15	22		14	14	14	14	15	17	17	15	14	14	14	14	14	14	22	18	15
8	17	15	14		15	15	14	14	14	14	14	17	20	16	17	14	14	14	14	14	15	15	15	14
9		14	14	16			15	14	14	14	16	18	20	20	18	14	14	14	14	14	14	14	14	14
10		15	15	18	15	14	14	14	14	14	16	20	22	21	20	17	14	14	14	14	14	15	15	16
11	16	16	15	14	14	15	15	14	14	14	17	17	18	17	14	14	14	14	14	15	14	15	20	18
12	16	15	14	14	14	15	15	14	14	14	15	14	18	15	17	14	14	14	14	14	15	14	14	15
13	14	15	15	14	14	14	14	14	14	15	16	14	17	18	15	14	14	14	14	14	15	14	14	
14	15	22	15	14	14	14	15	15	14	14	14	16	22	16	15	15	14	14	14	15		14	14	15
15	15	15	15	14	15	14	15	15	14	14	17	20	21	23	20	15	14	14	14	14	15	15	14	15
16	15	18	20	14	14	14	14	14	14	17	18	22	22	21	20	15	14	14	16	14	16	14	14	14
17	14	15	14	15	14	15	14	15	14	14	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
20	C	C	C	C	C	C	C	C	C	C	14	14	20	20	22	18	16	14		14	14	15	14	14
21	15	15		15	14			15	14	15	14	17	22	22	21	20	16	14	14	15	16	14	14	15
22	14	14	14	14	14	14	14	15	14	14	14	17	20	21	22	21	15	14	14	15	15	15	14	14
23	14	15	15	14	14	15	15	15	14	14	14	14	16	17	22	15	15	14	17	15	15	14	14	14
24	14	14	15	14	16	15	14	15	14	14	14	16	20	20	18	17	14	14	14		14	14	14	14
25	14	14	15	14	14	15	14	14	14	14	15	18	17	18	14	17	14	14	14	15	15	14	15	15
26	15	15	14	14	14	15	14	16	15	14	15	17	17	20	18	16	15	14	14	14	14	15	15	15
27	14	15	14	14	14	14	14	14	14	14	16	18	20	18	17	18	15	15	14	14	15	15	15	
28	14	14	14	15	14	15	14	15	15	14	15	18	20	18	21	16	14	14	14	14	14	15	15	15
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	22	23	23	24	24	23	21	25	25	25	25	25	25	25	25	25	25	25	24	24	23	24	24	21
MED	14	15	15	14	14	15	14	15	14	14	15	17	20	20	17	15	14	14	14	14	15	14	14	15
U Q	15	15	15	15	14	15	15	15	14	14	16	18	20	20	20	17	14	14	14	15	15	15	15	15
L Q	14	14	14	14	14	14	14	14	14	14	14	14	17	17	15	14	14	14	14	14	14	14	14	14


SUMMARY PLOTS AT Wakkanai
UTC
JST
1 FEB.2006
2 FEB.2006
3 FEB.2006
4 FEB.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

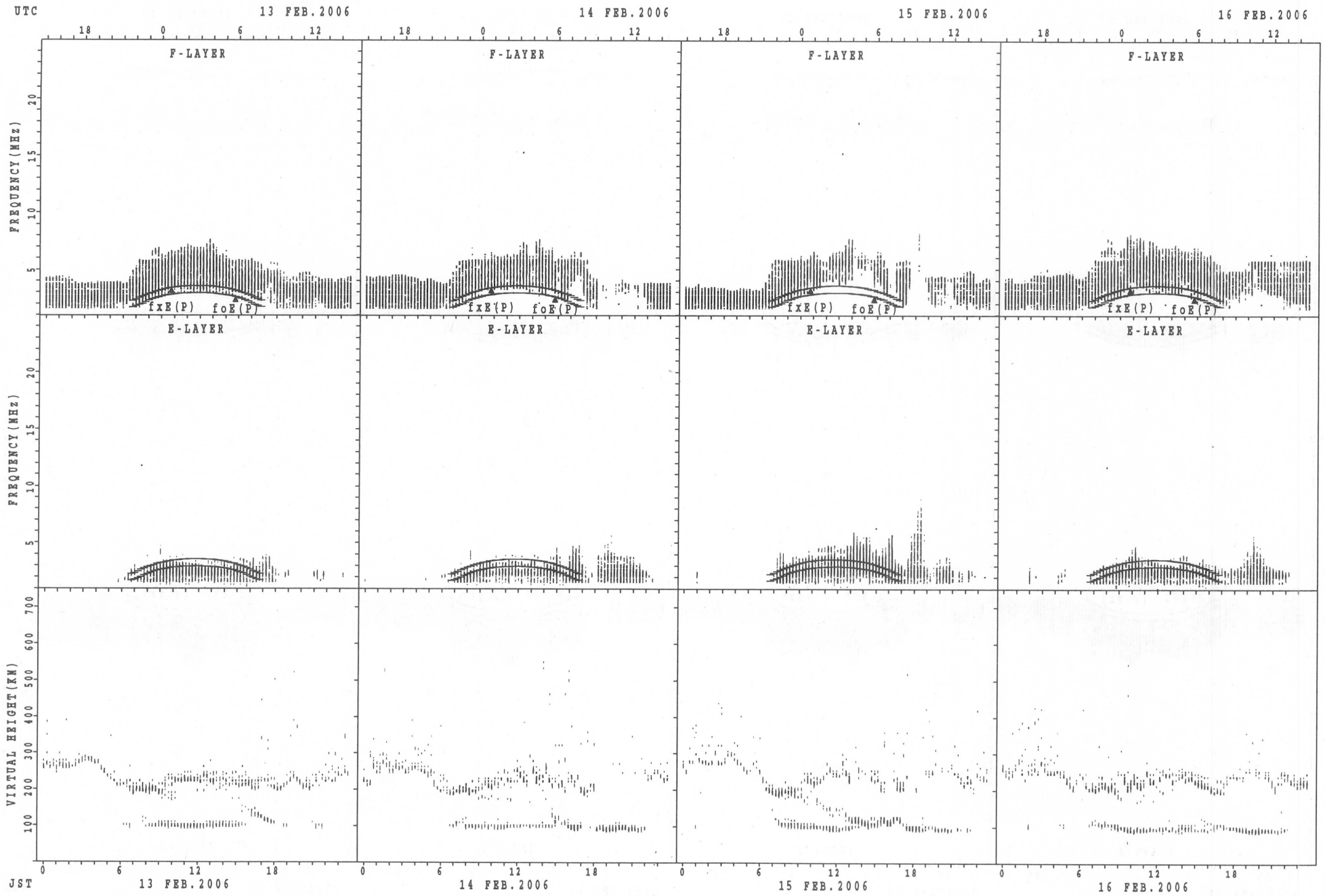
SUMMARY PLOTS AT Wakkanai



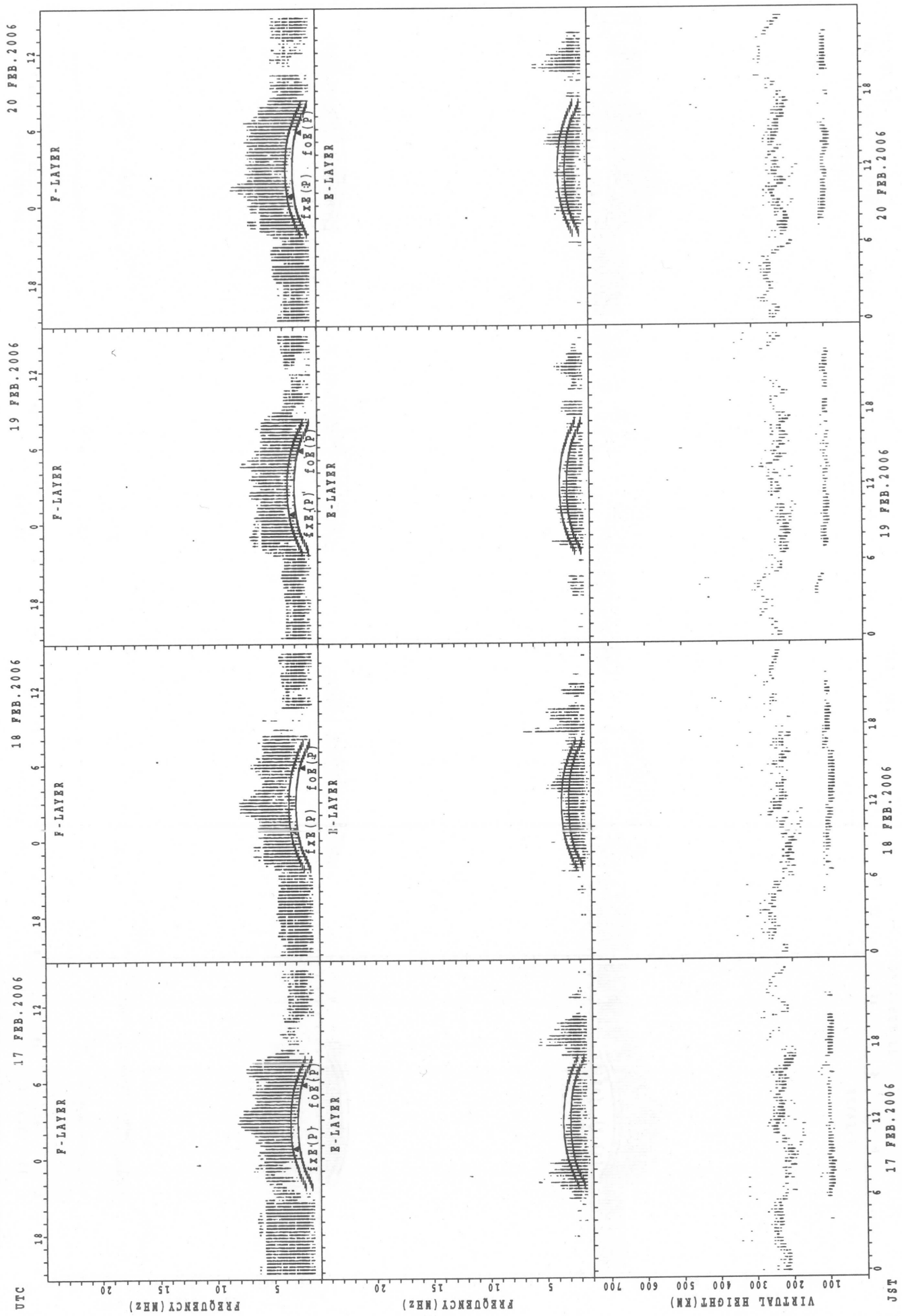
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Wakkanai
UTC
JST
9 FEB.2006
10 FEB.2006
11 FEB.2006
12 FEB.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

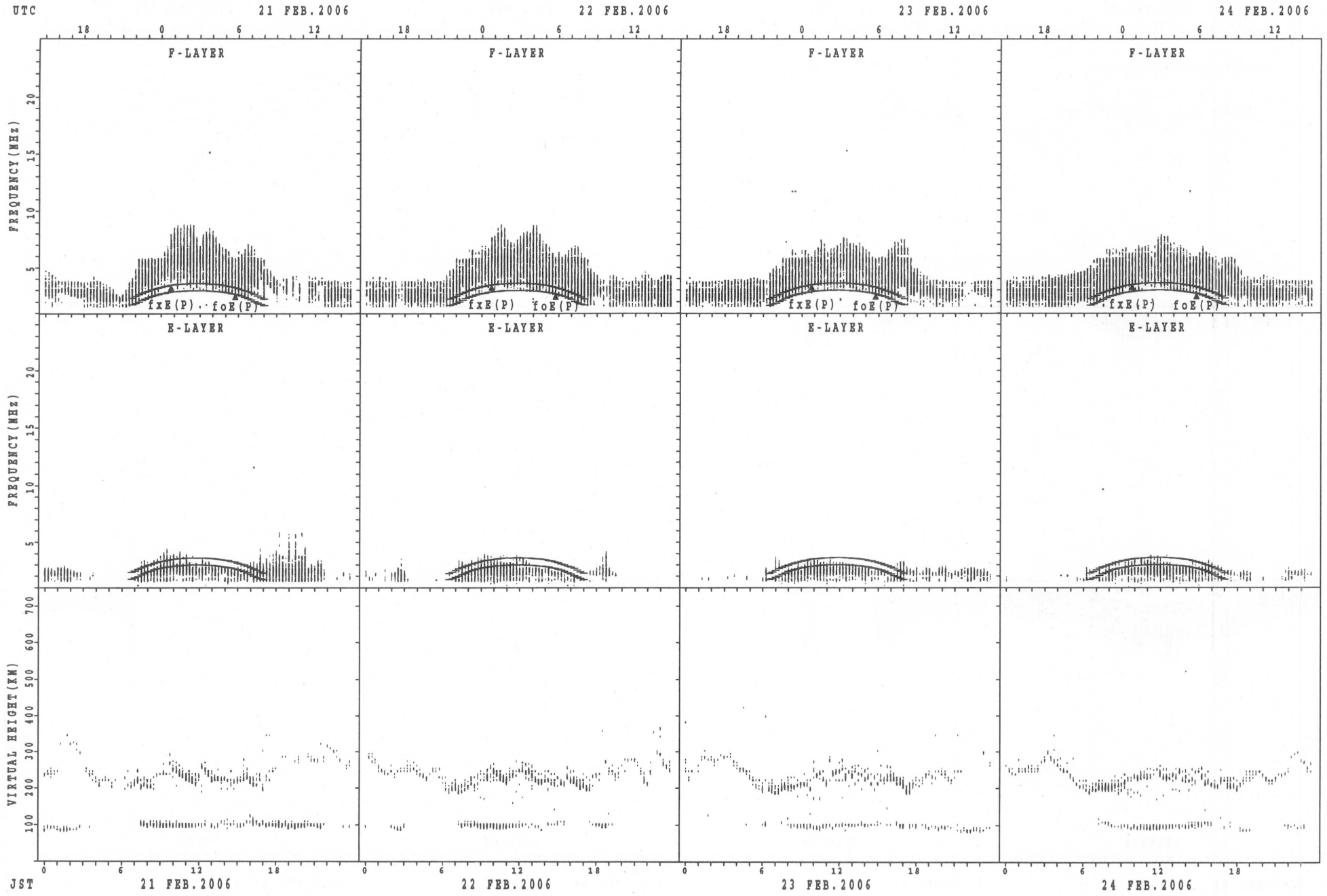
SUMMARY PLOTS AT Wakkanai



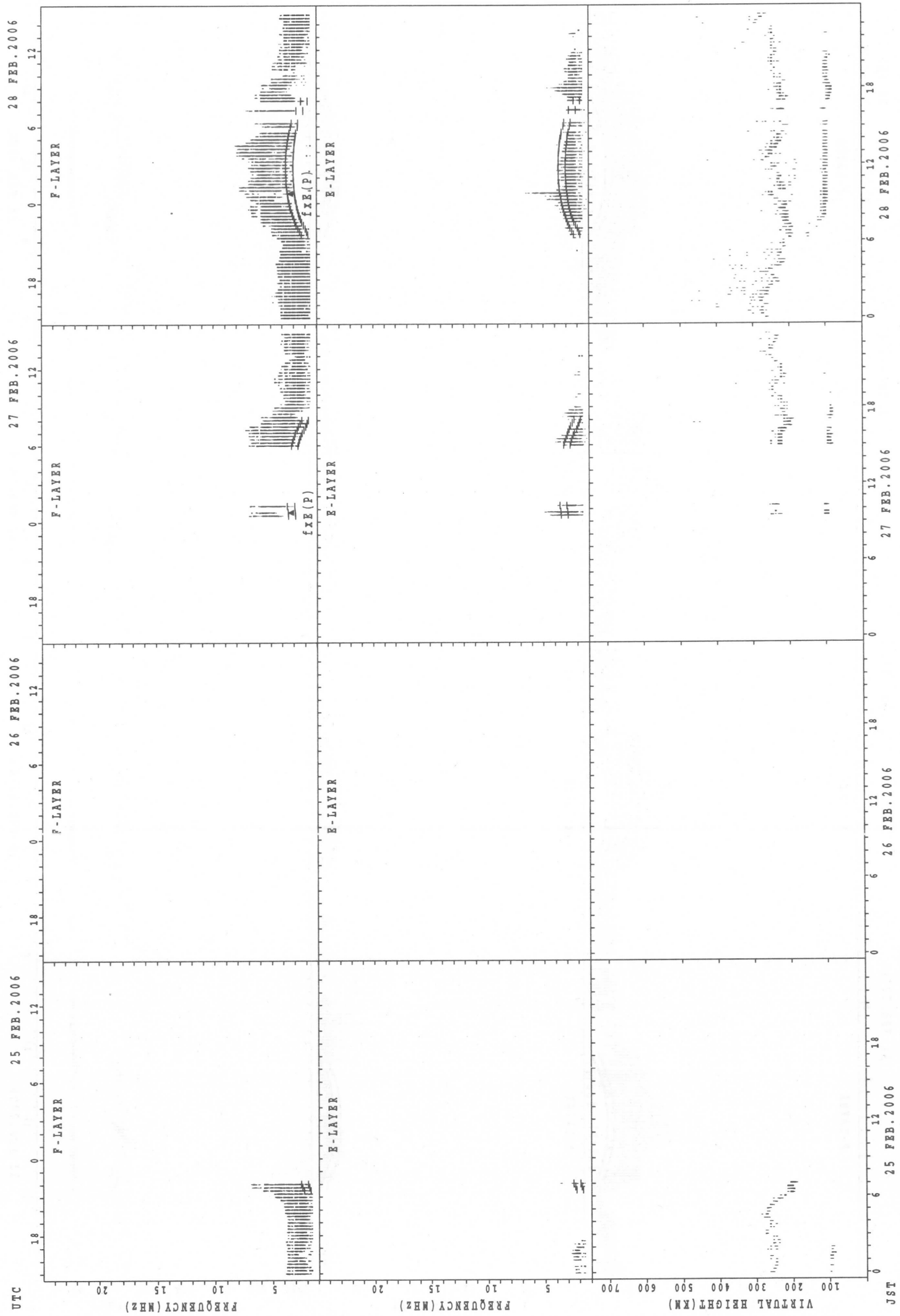
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Wakkanai
17 FEB.2006
18 FEB.2006
19 FEB.2006
20 FEB.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
UTC
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

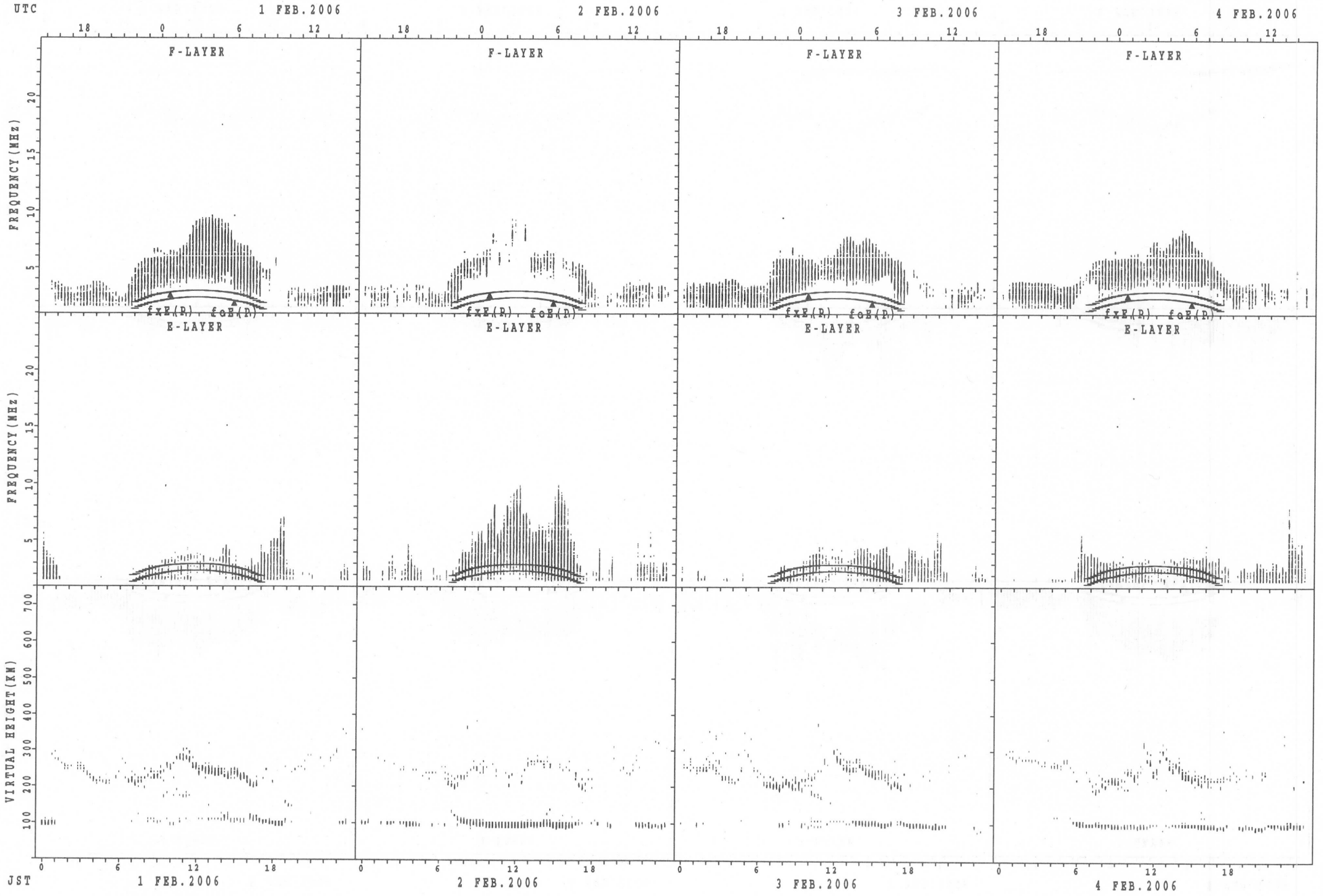
SUMMARY PLOTS AT Wakkanai



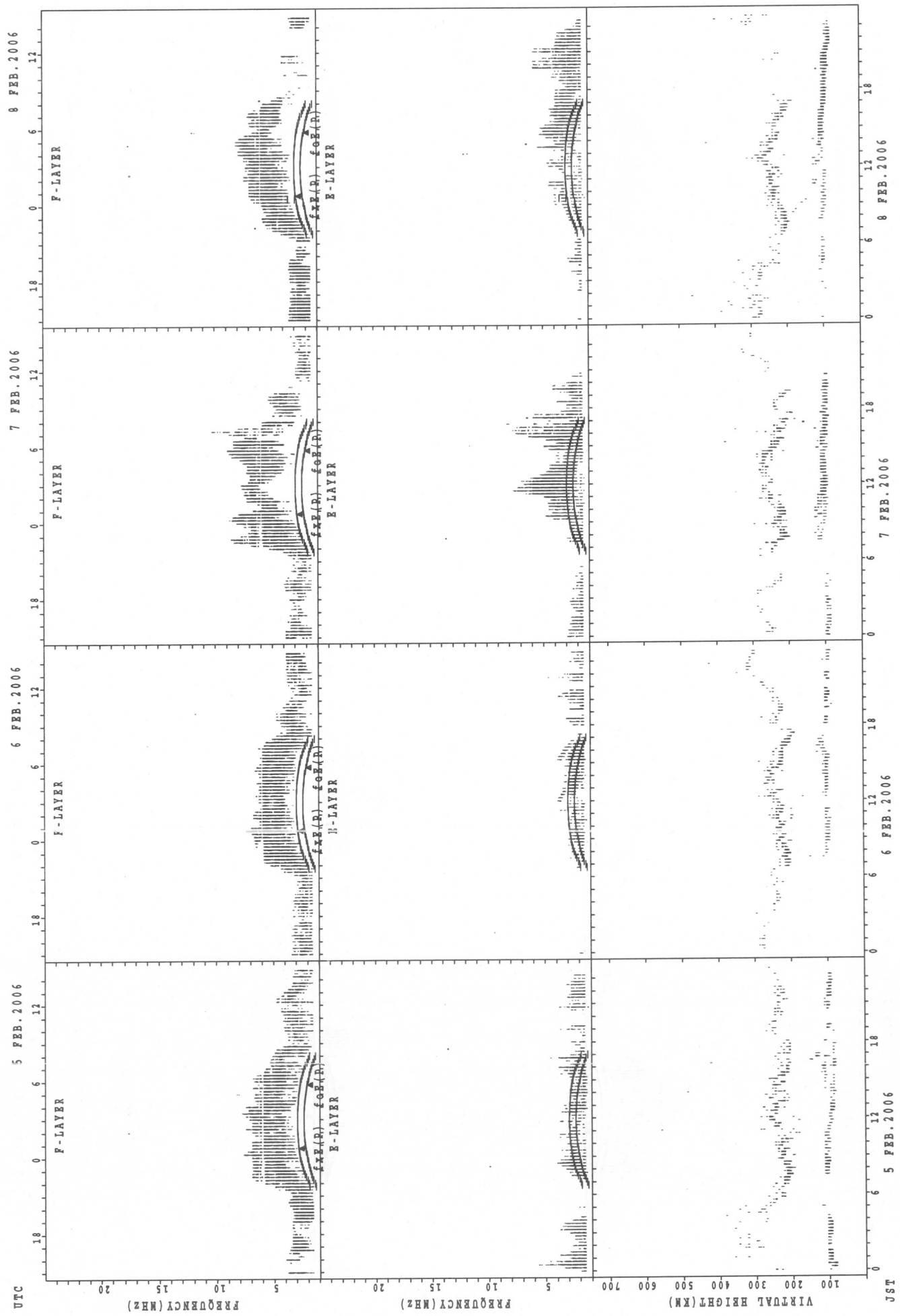
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Wakkanai
UTC
JST
25 FEB.2006
26 FEB.2006
27 FEB.2006
28 FEB.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

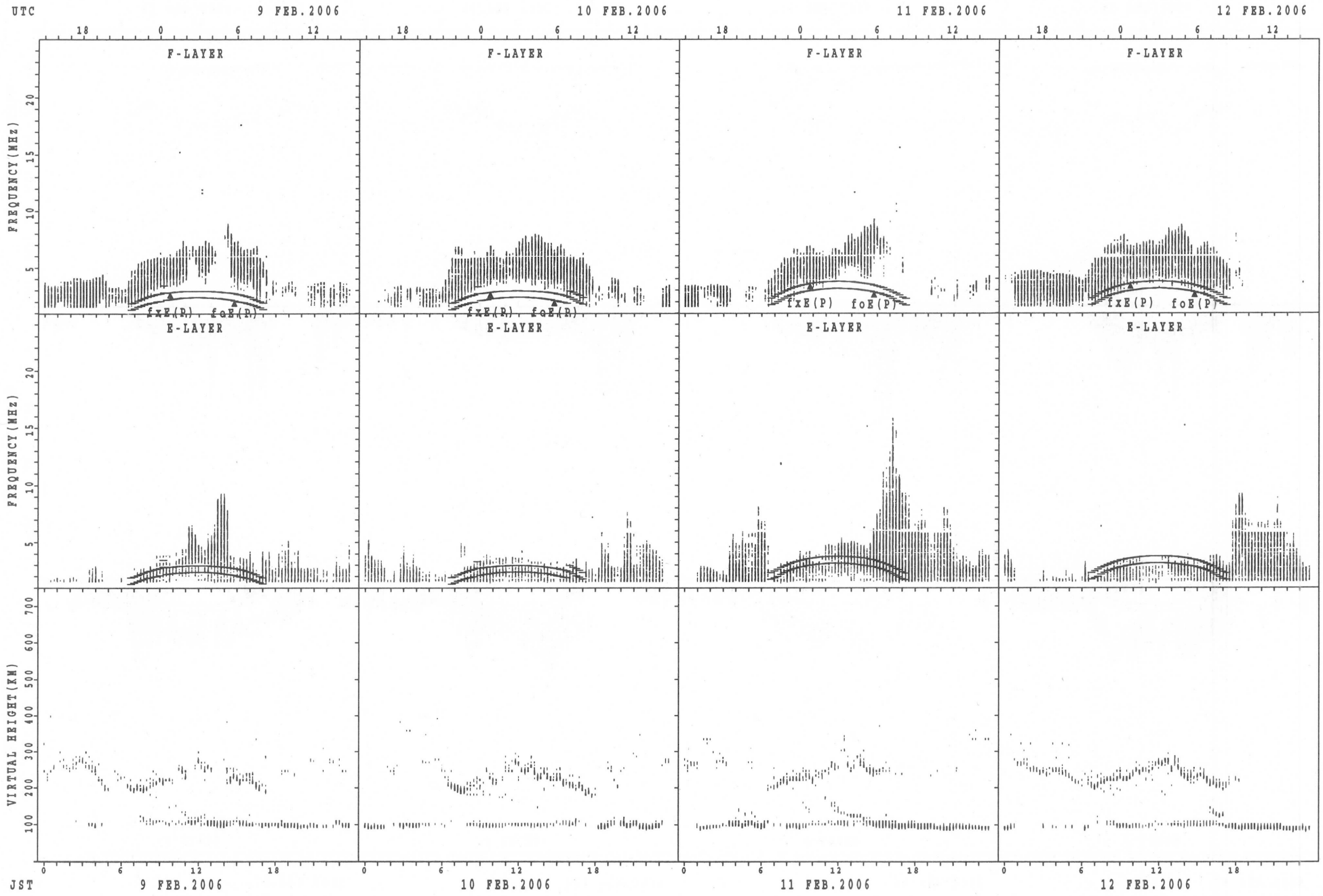
SUMMARY PLOTS AT Kokubunji



fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

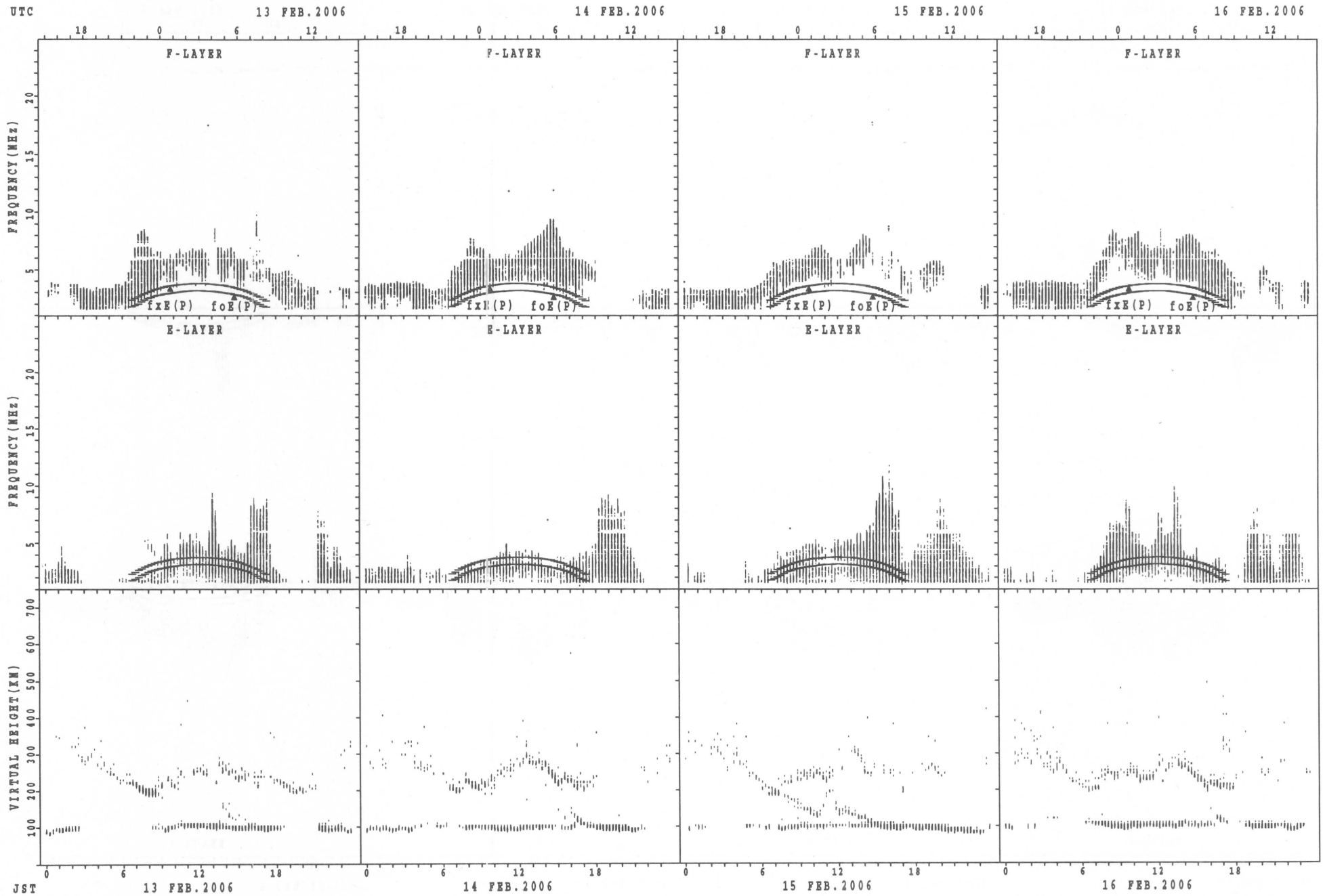

SUMMARY PLOTS AT Kokubunji
UTC
JST
5 FEB.2006
6 FEB.2006
7 FEB.2006
8 FEB.2006
F-LAYER
E-LAYER
FREQUENCY (MHz)
VIRTUAL HEIGHT (KM)
fxE(P), foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



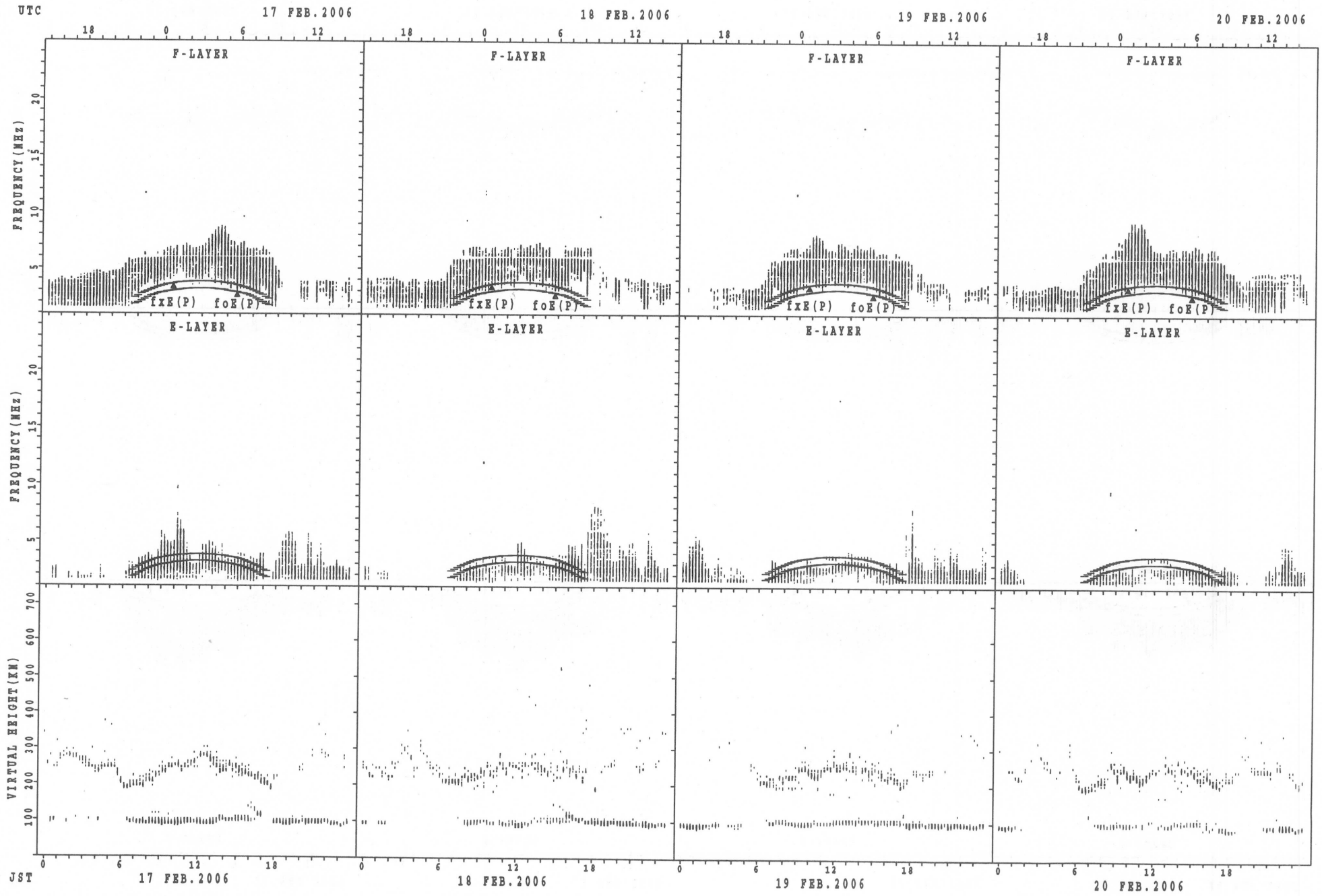
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



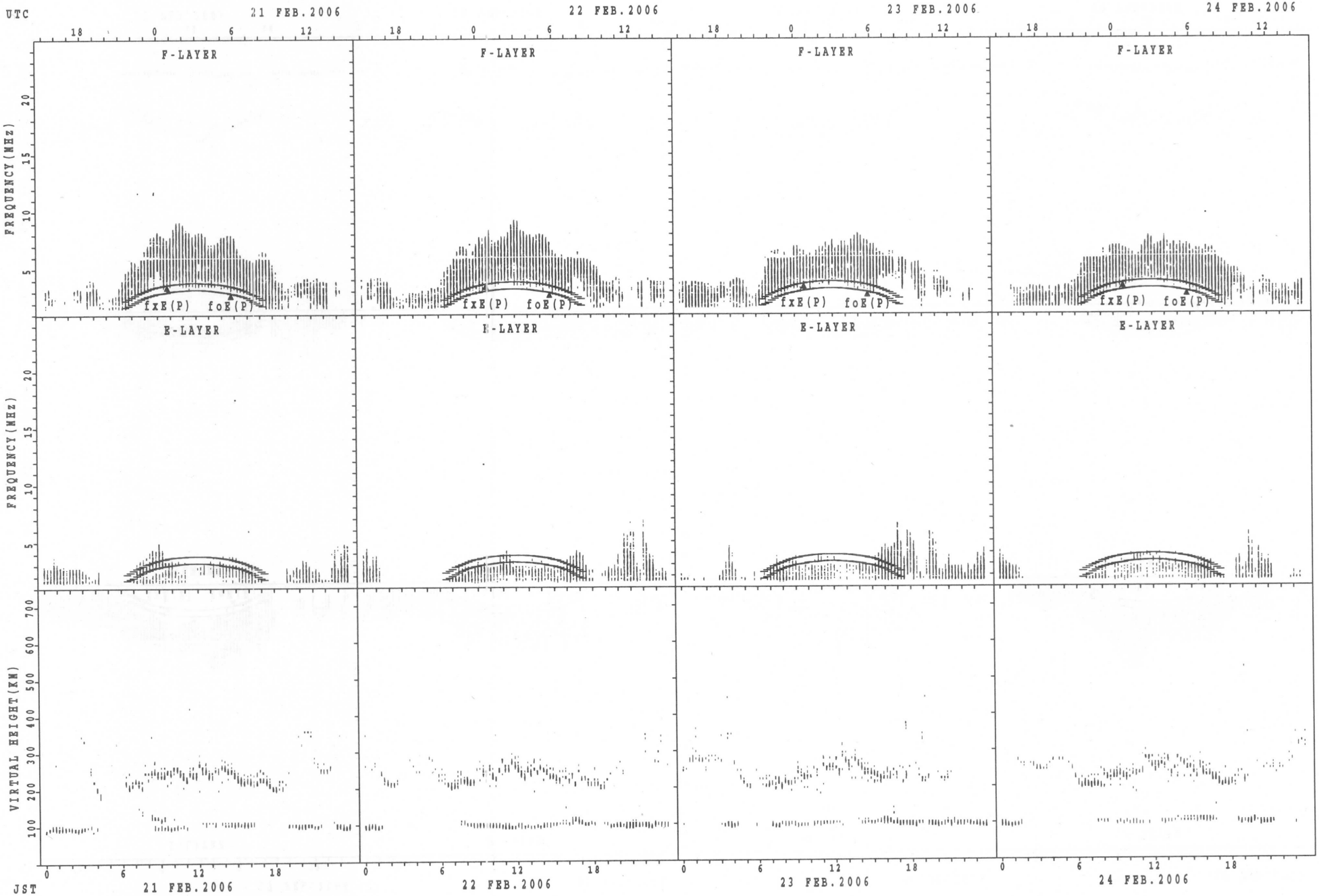
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



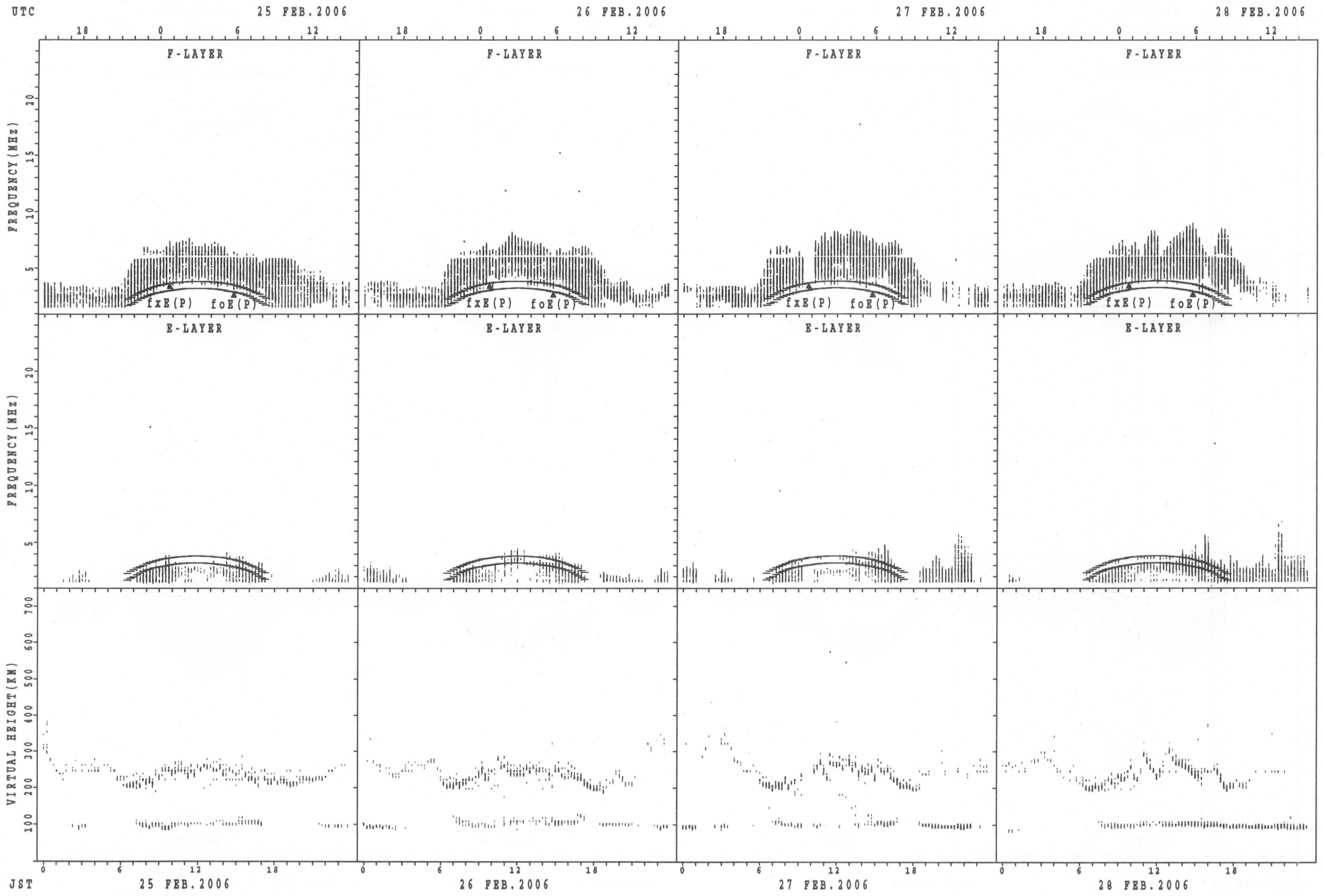
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



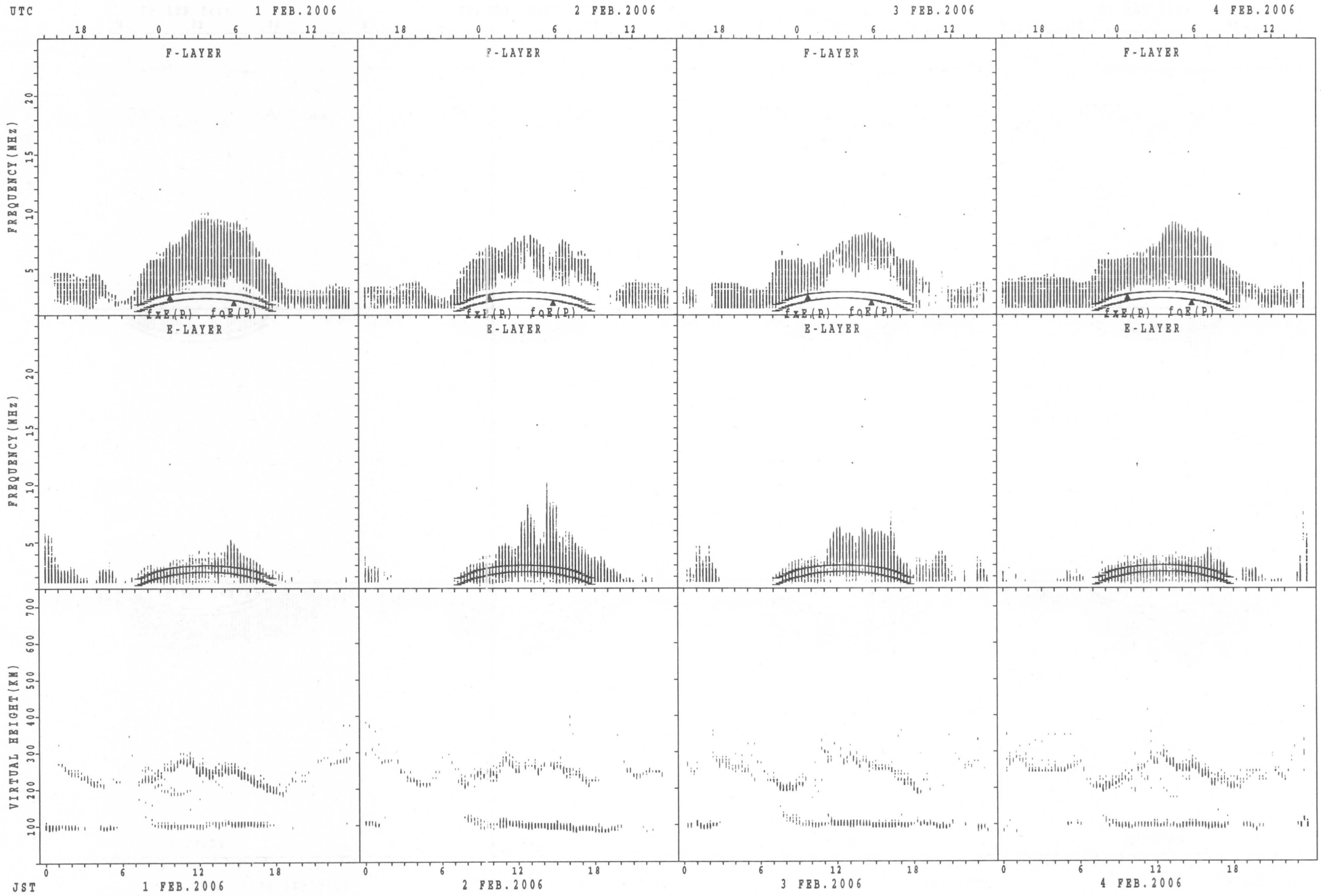
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



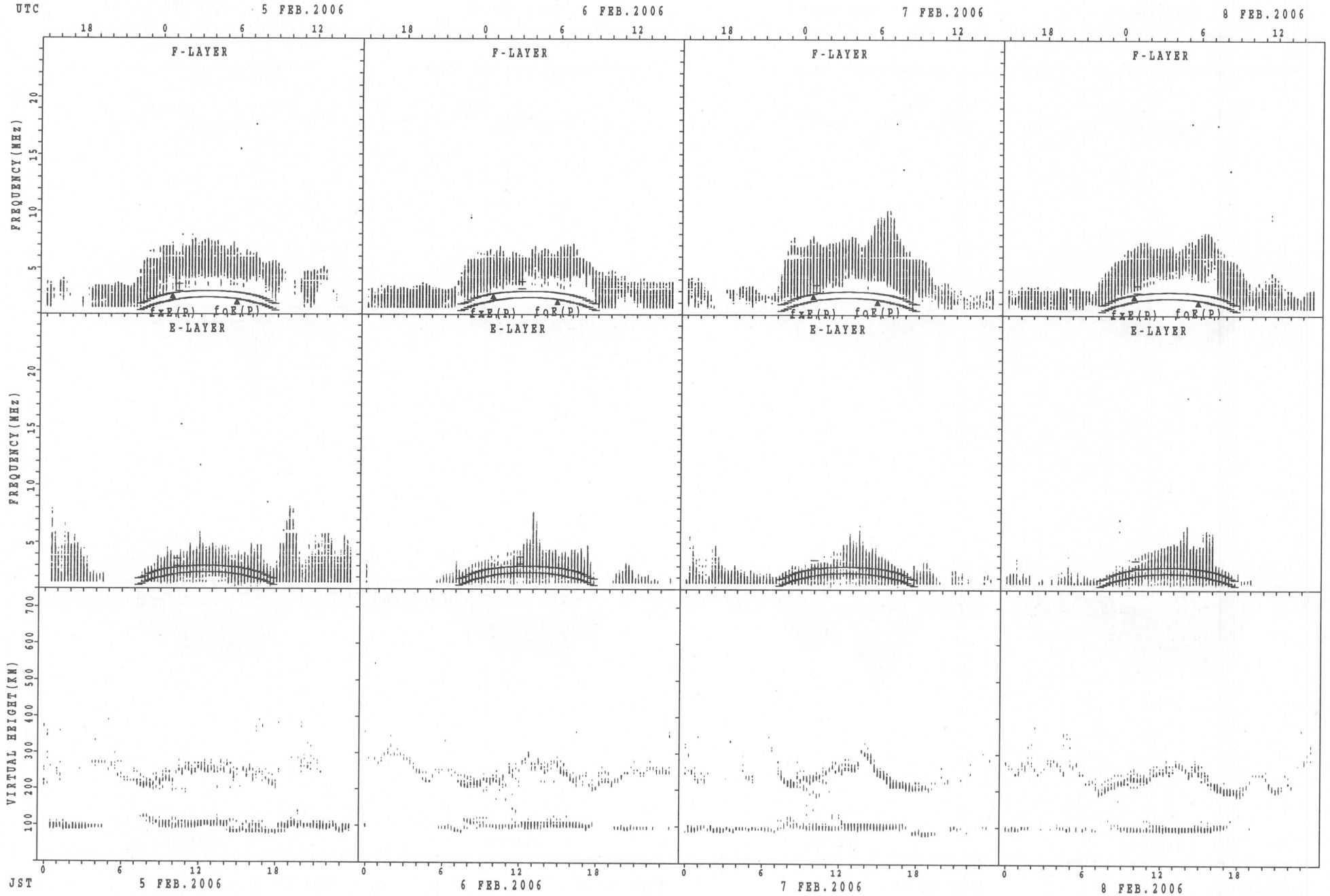
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



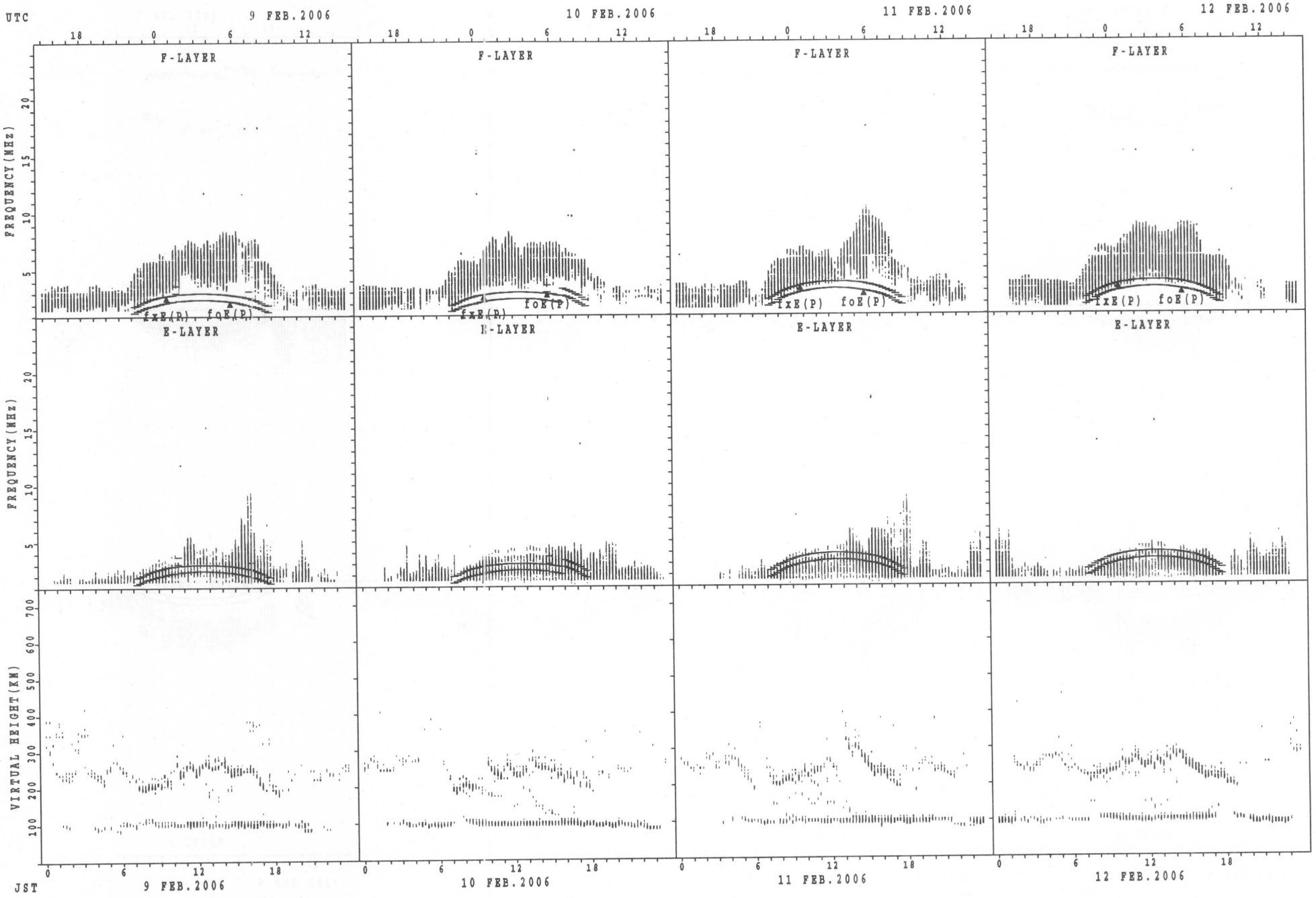
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



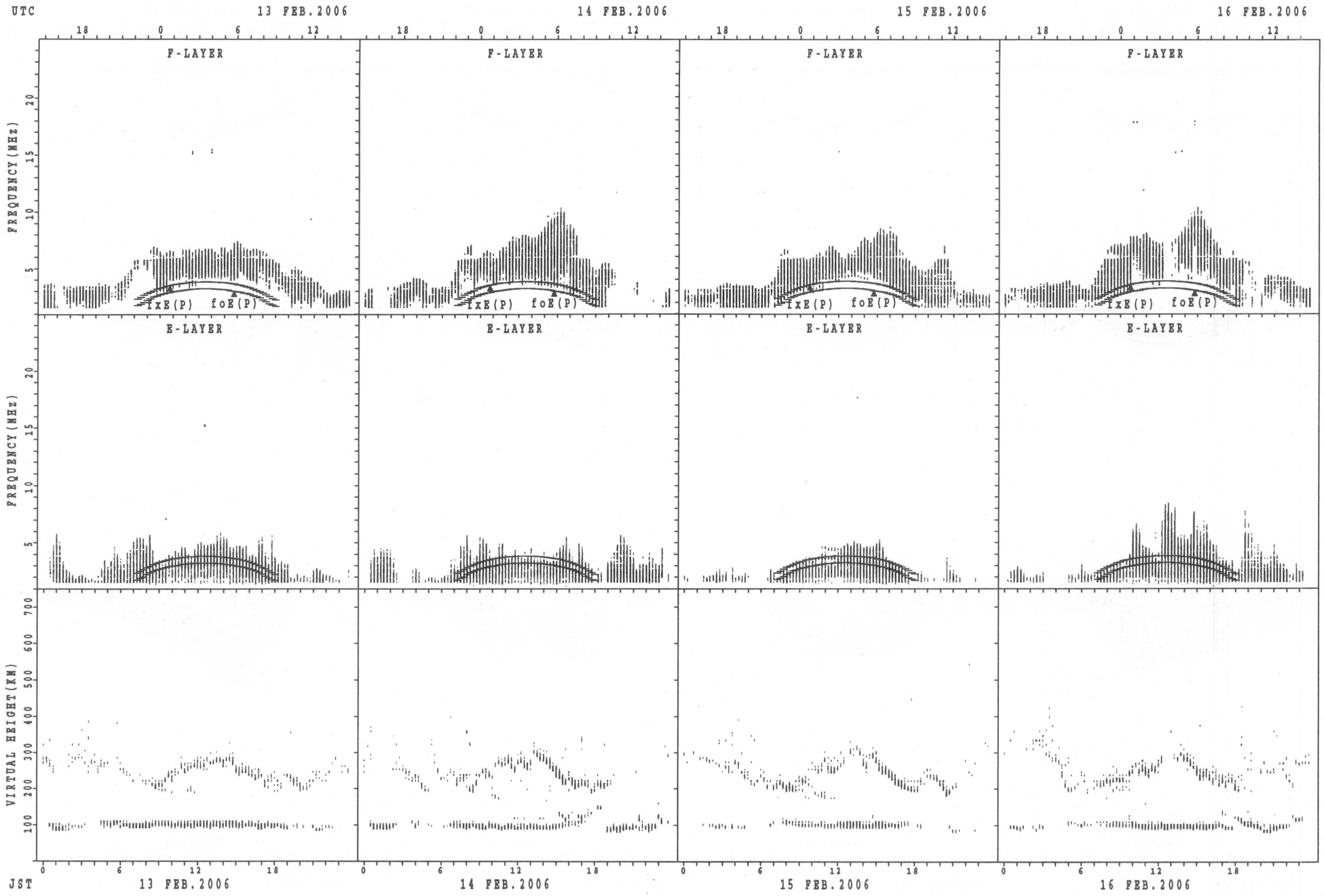
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



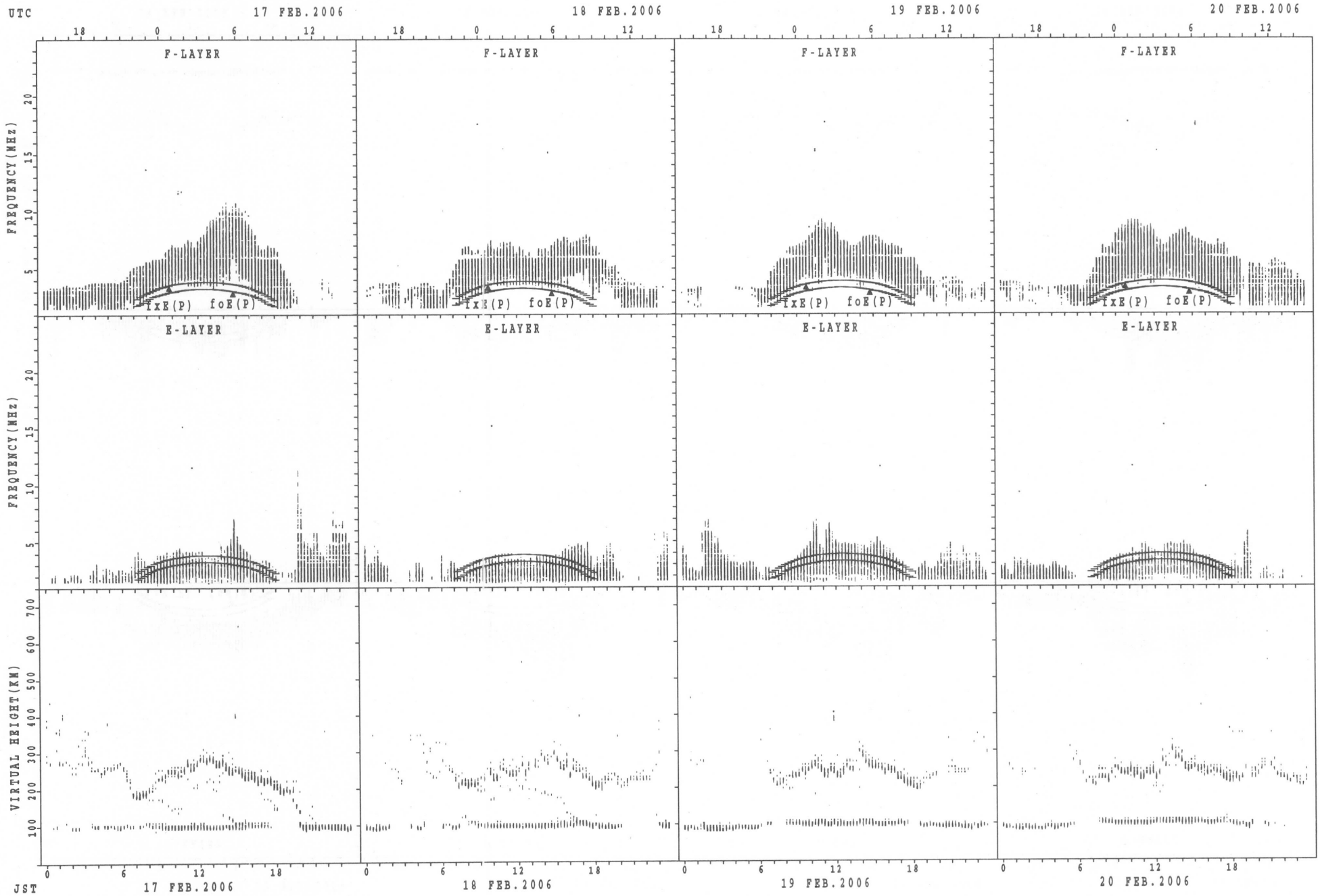
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



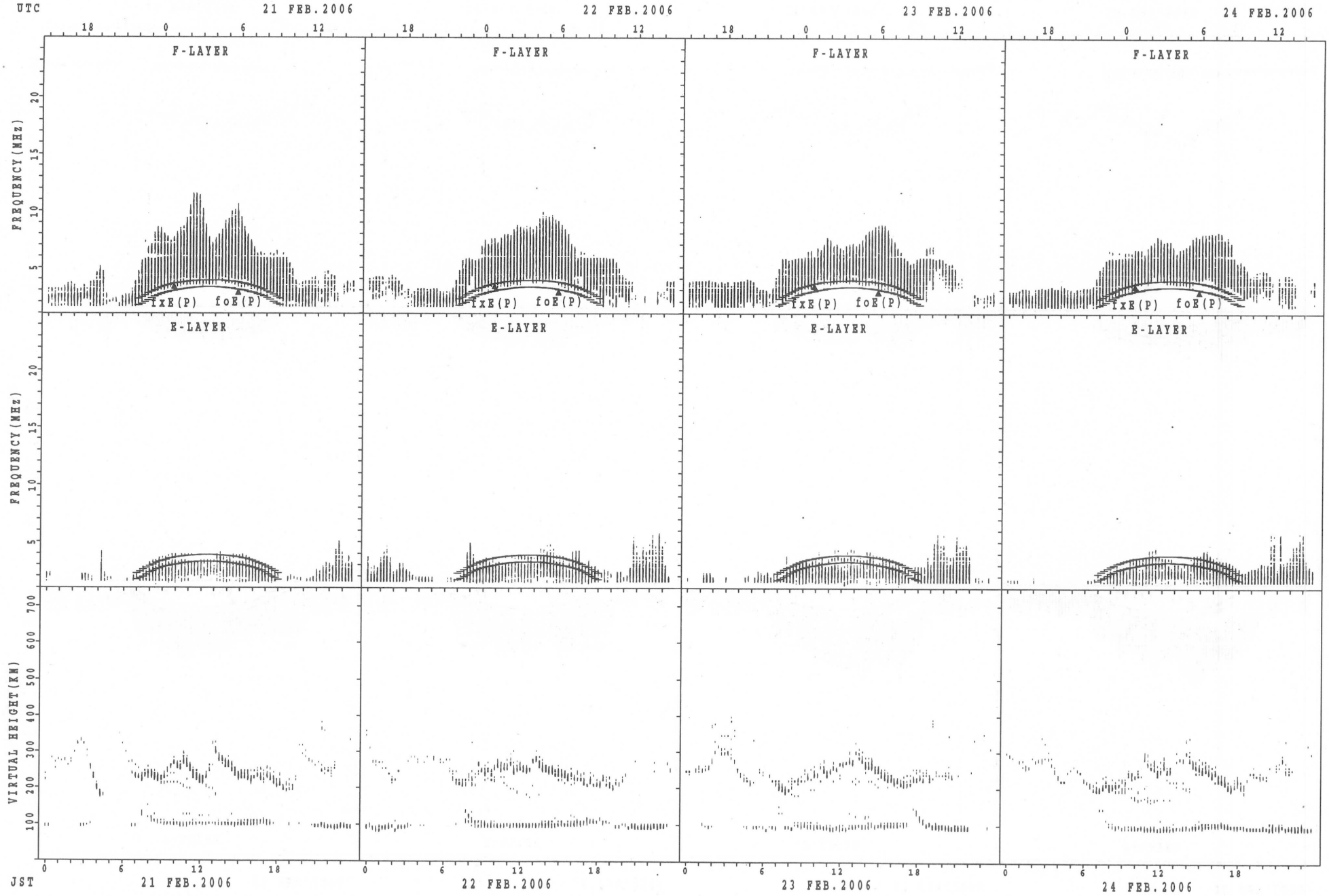
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



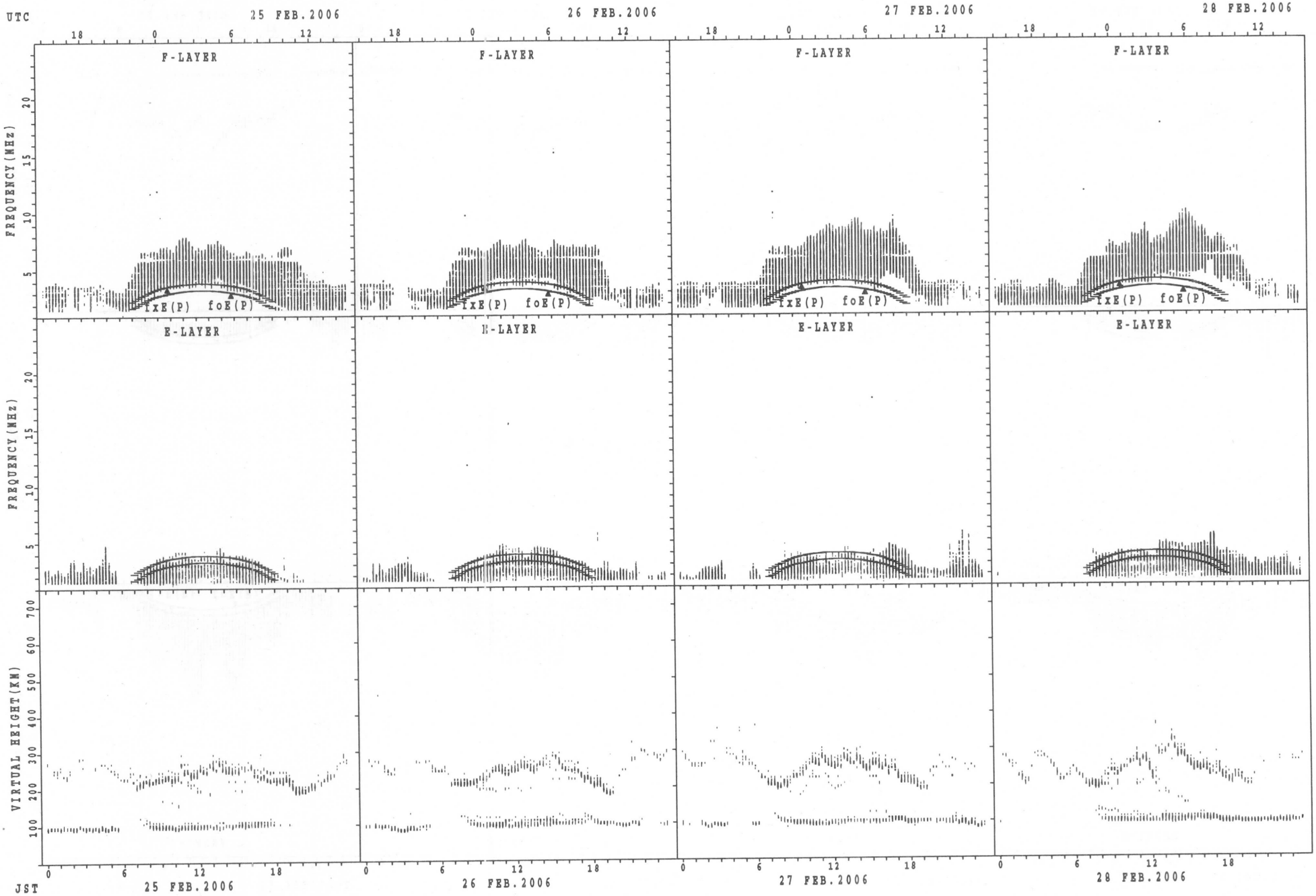
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



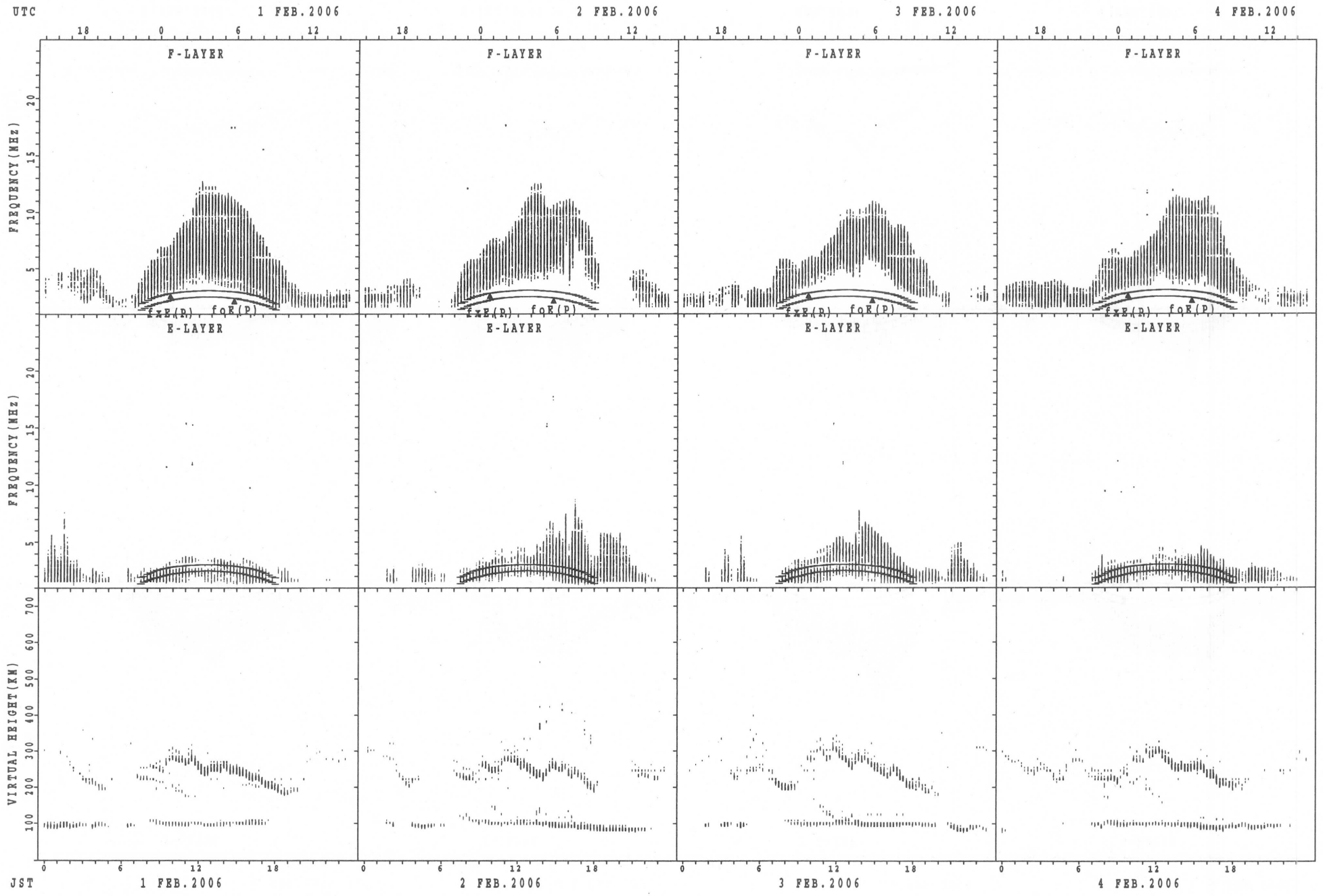
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



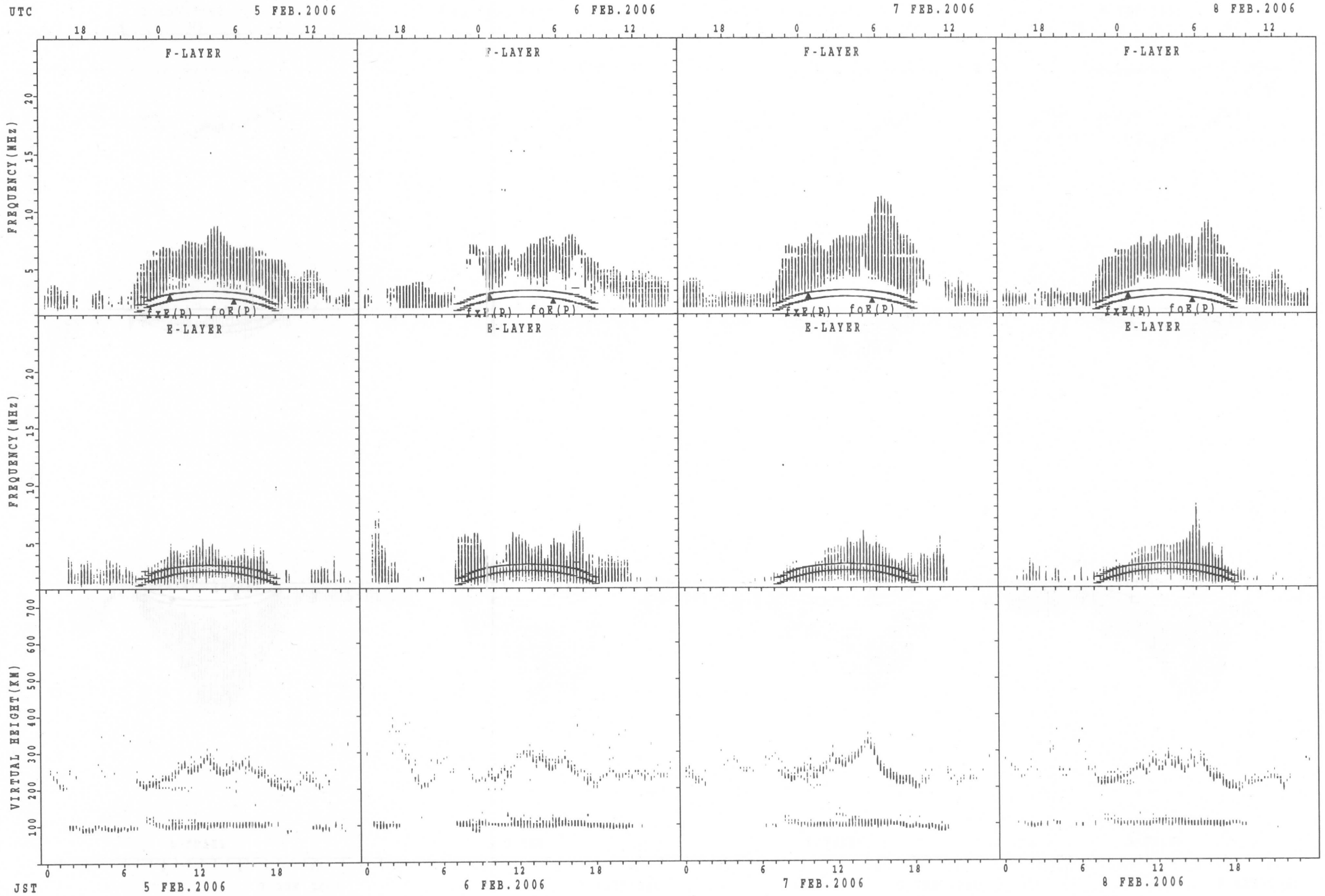
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



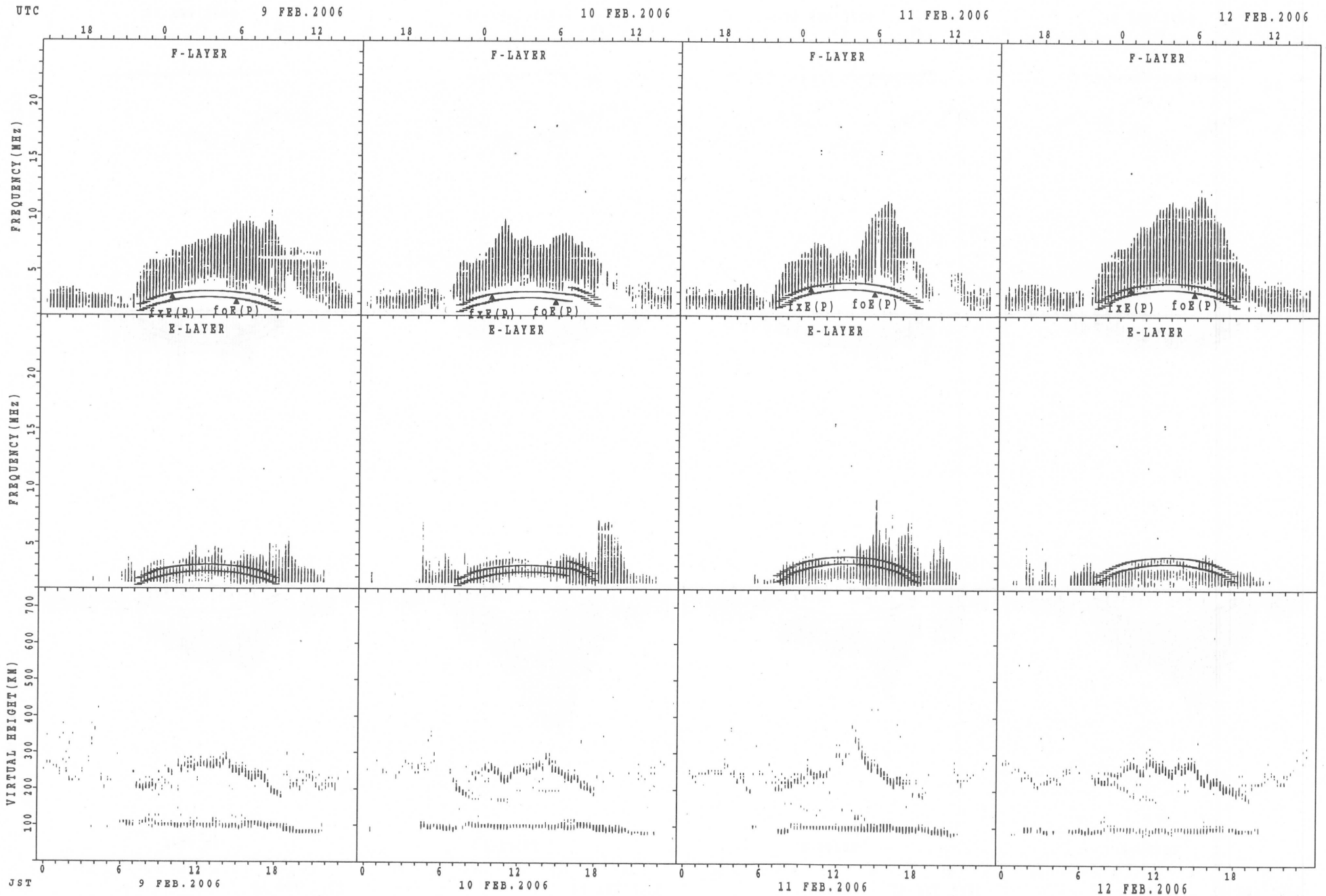
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa

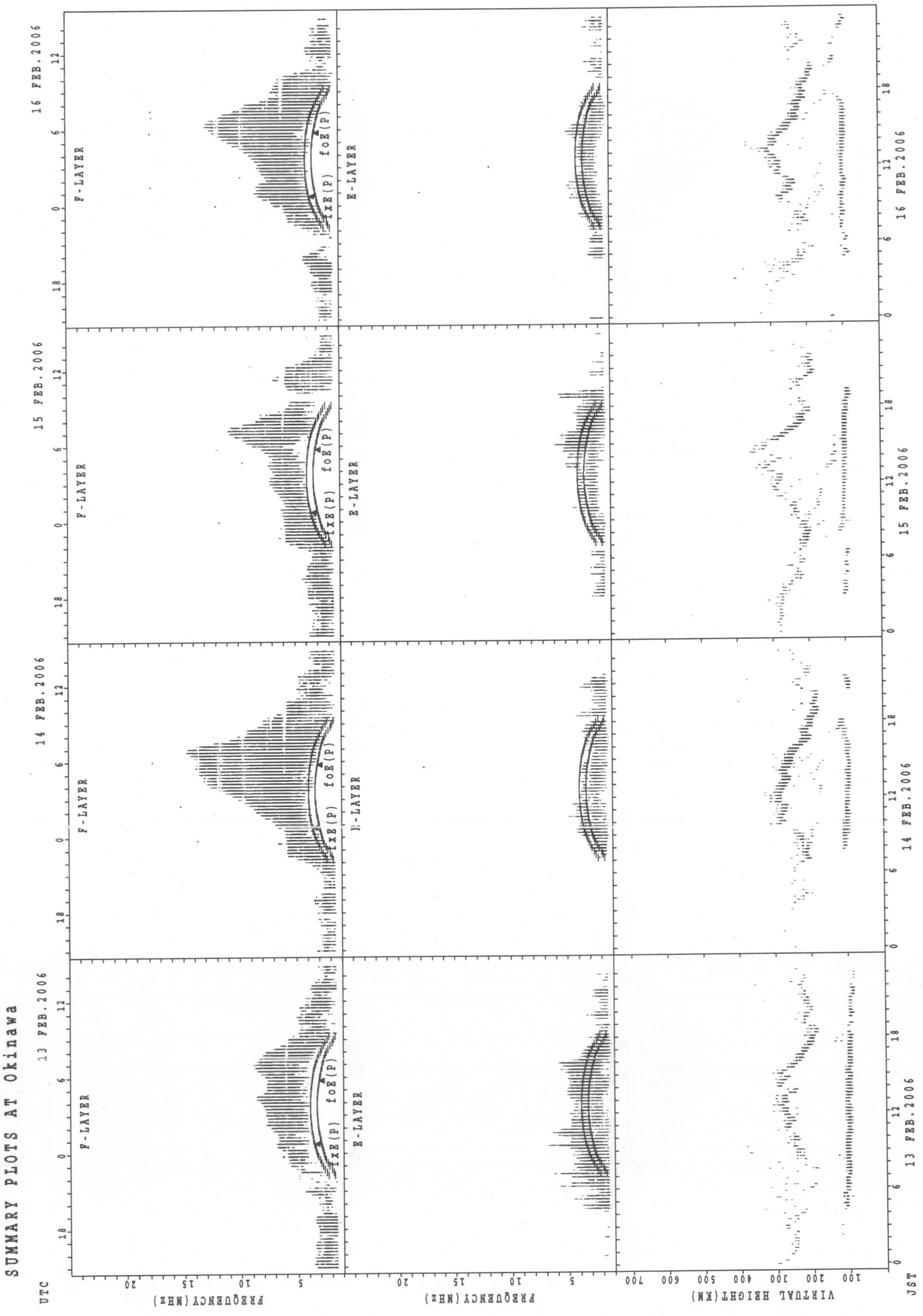


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

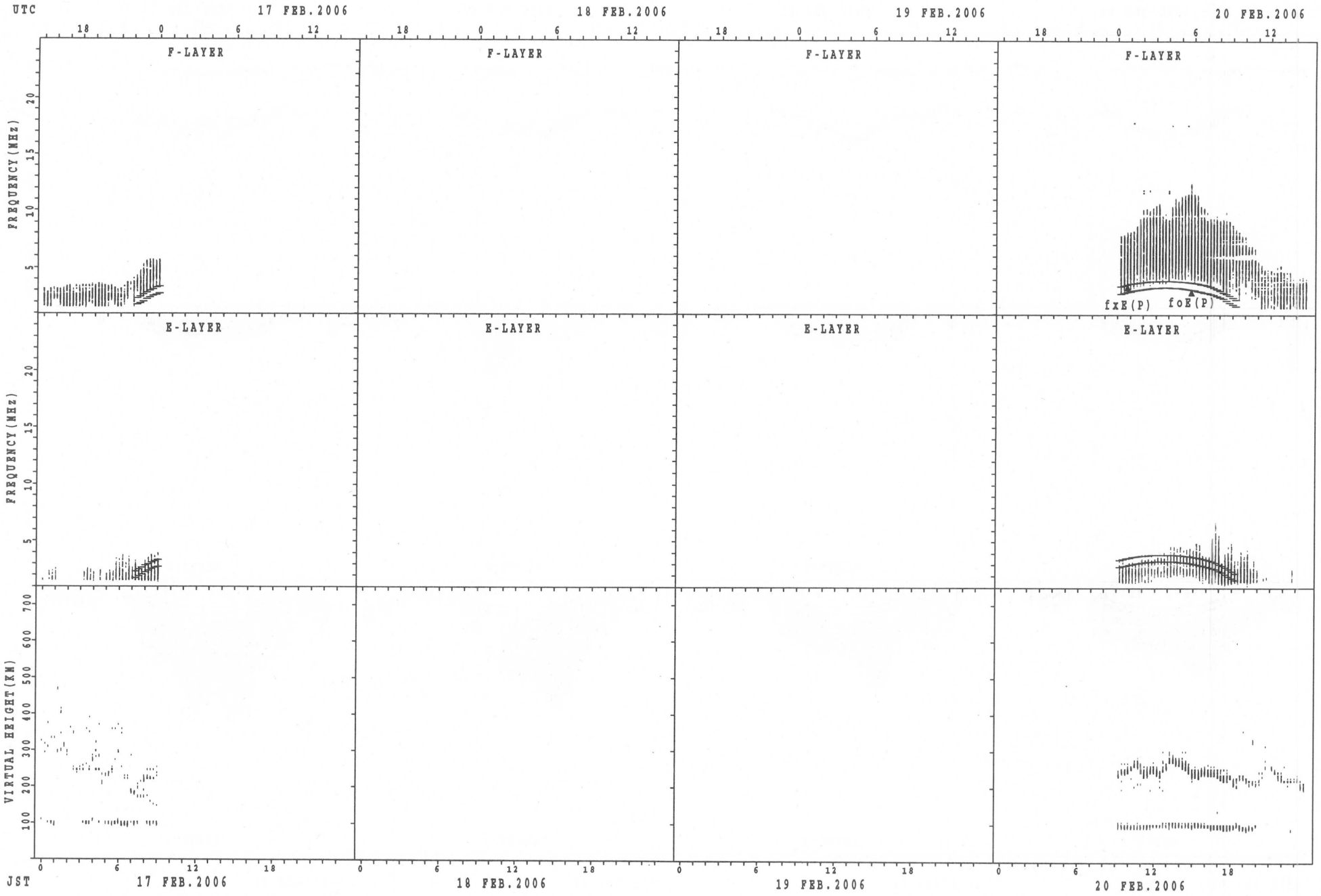
SUMMARY PLOTS AT Okinawa



fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

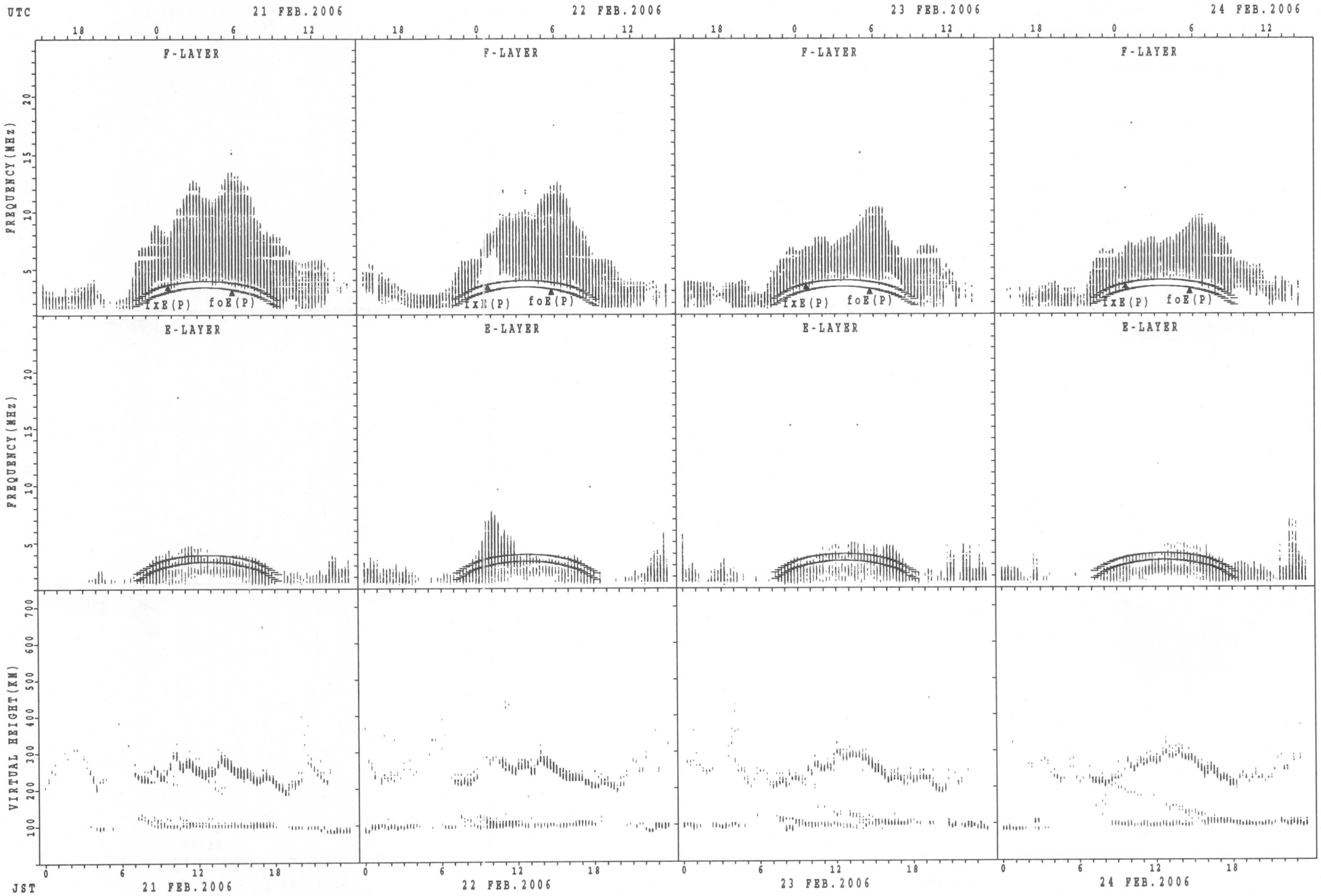

SUMMARY PLOTS AT Okinawa
UTC
JST
13 FEB.2006
14 FEB.2006
15 FEB.2006
16 FEB.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



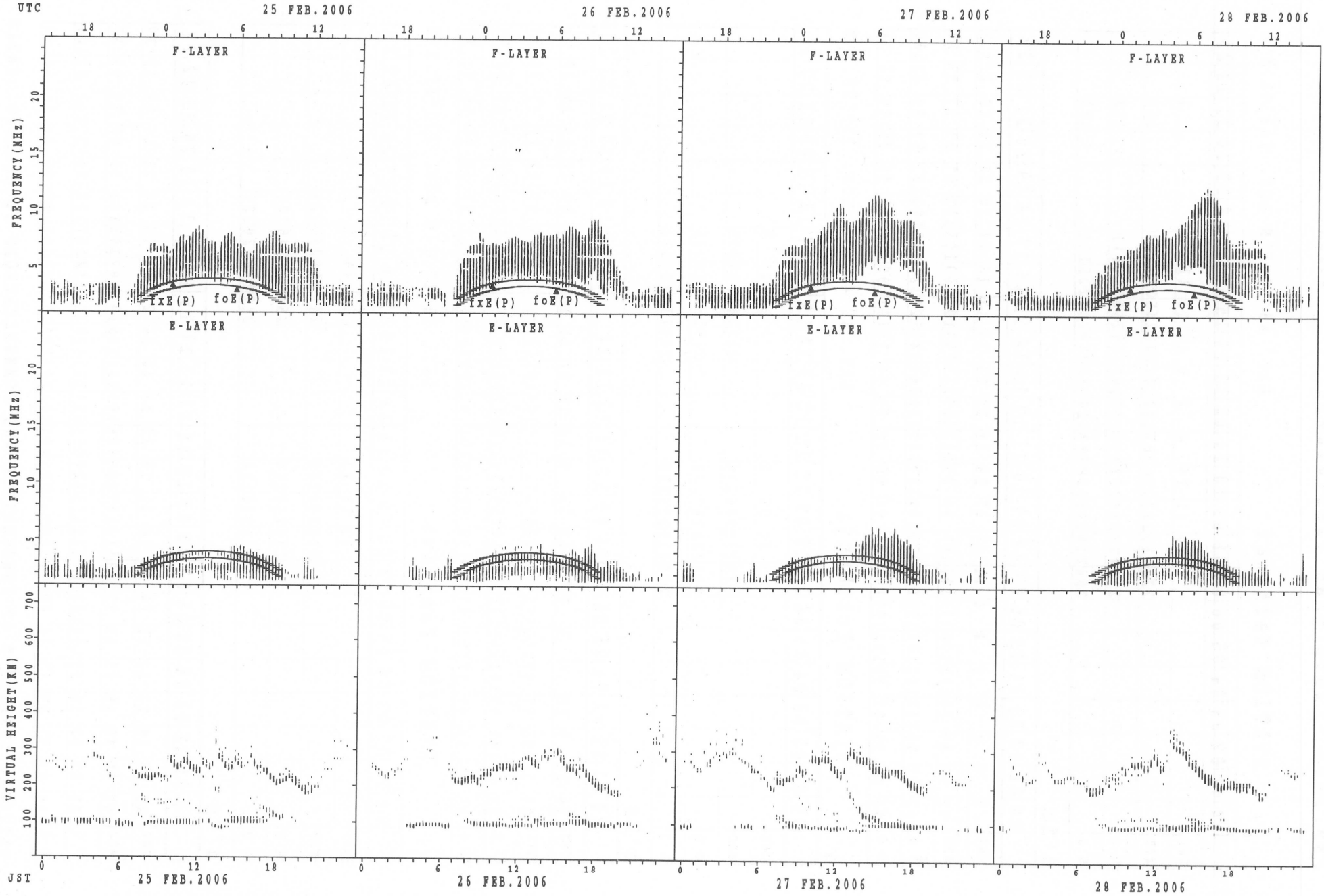
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

MONTHLY MEDIANS OF h'F AND h'Es

FEB.2006 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

h'F STATION Wakkanai LAT. 45°23.5'N LON. 141°41.2'E

	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	10	11	14	4	1	8	18	14	11	1				1		
MED								223	216	232	246	267	240	247	248	245	240	222				264		
U Q								238	222	240	252	295	120	260	256	250	244	111				132		
L Q								208	214	216	238	250	120	237	238	236	226	111				132		

h'Es

	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	9	7	8	8	4	4	4	11	17	17	18	13	12	13	13	17	18	17	20	20	17	19	12	9
MED	97	93	95	95	101	106	105	103	105	99	97	113	119	113	103	107	109	105	101	97	97	97	97	97
U Q	97	97	98	103	112	109	136	111	116	104	107	159	161	140	125	114	121	110	103	101	99	99	99	100
L Q	89	89	91	93	99	102	105	101	101	96	95	98	99	96	98	101	99	98	99	96	95	95	91	91

h'F STATION Kokubunji LAT. 35°42.4'N LON. 139°29.3'E

	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	14	20	2				8	22	11	6						
MED								224	230	246	236				258	248	234	235						
U Q								232	248	251	266				267	256	264	246						
L Q								206	220	239	206				242	230	228	228						

h'Es

	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	16	14	9	10	6	3	2	6	12	13	9	18	15	17	16	15	23	19	20	22	19	19	20	21
MED	95	95	95	97	99	105	102	103	104	103	113	118	109	105	109	107	105	105	99	102	99	97	98	97
U Q	99	97	101	97	103	109	107	109	110	155	139	175	137	120	117	109	113	115	104	103	99	99	99	99
L Q	95	95	93	97	97	103	97	99	100	98	100	101	97	101	104	103	103	99	97	99	95	95	97	95

h'F STATION Yamagawa LAT. 31°12.1'N LON. 130°37.1'E

	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									11	15	13					16	24	9	3					
MED									228	248	242					246	240	232	224					
U Q									246	250	254					254	247	245	224					
L Q									218	240	236					242	230	220	220					

h'Es

	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	13	16	14	13	12	13	14	14	16	21	16	22	19	20	24	26	28	26	20	21	18	19	19	17
MED	95	95	95	95	95	97	97	99	113	107	105	106	105	104	108	107	107	105	102	99	97	97	95	97
U Q	101	97	97	96	99	104	103	107	121	113	127	155	119	115	125	111	112	107	112	104	101	103	97	104
L Q	94	92	91	89	93	95	95	95	106	103	101	101	103	103	104	103	102	103	97	95	95	95	91	91

MONTHLY MEDIANS OF h'F AND h'Es

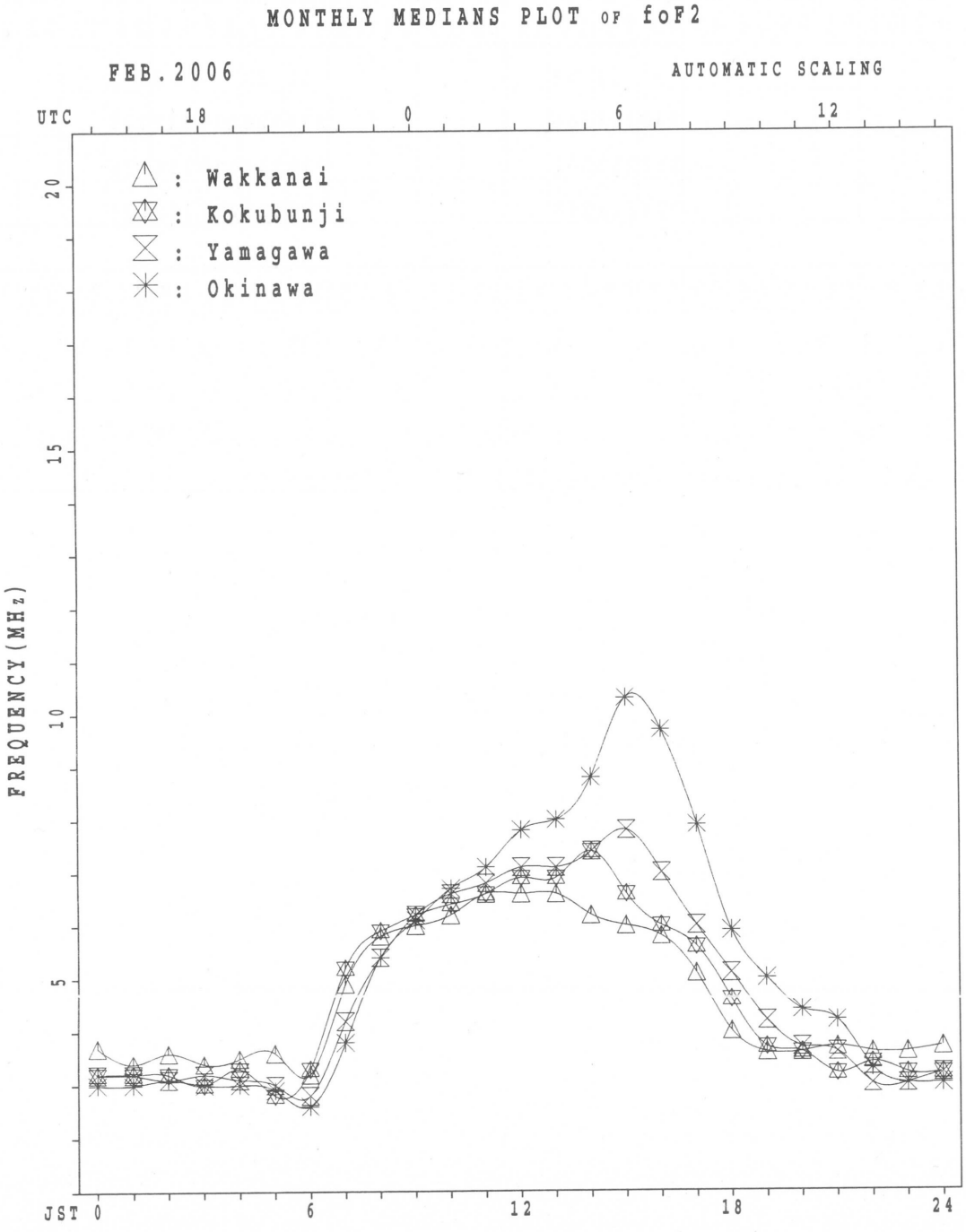
FEB.2006 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

h'F STATION Okinawa LAT. 26°40.5'N LON. 128°09.2'E

	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	13	17						24	23	7	3	2			
MED									232	248	256						230	222	214	232	225			
U Q									252	259	278						238	230	222	256	226			
L Q									228	238	244						228	218	214	216	224			

h'Es

	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	9	7	7	8	9	9	9	12	13	19	14	18	17	20	19	21	23	23	21	17	16	12	8	7
MED	97	97	97	97	103	95	97	100	107	113	134	113	111	113	107	105	105	103	101	97	97	95	90	99
U Q	100	101	105	98	107	104	107	105	115	151	147	129	131	139	119	113	113	105	105	100	102	98	100	105
L Q	89	91	95	95	95	95	96	94	103	107	107	105	110	109	103	99	103	99	98	93	95	87	87	93


MONTHLY MEDIANS PLOT OF foF2
FEB.2006
AUTOMATIC SCALING
UTC
18
0
6
12
△ : Wakkanai
✡ : Kokubunji
⧖ : Yamagawa
✳ : Okinawa
FREQUENCY(MHz)
20
15
10
5
JST 0
6
12
18
24

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 fxI (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	X 38	X 38	X 35	X 36	X 39	X 33	X 27												A	X 33	X 35	X 34	X 36	X 35
2	X 36	X 35	X 37	X 37	X 37	X 34	X 30												X 35	X 29	X 37	X 39	X 38	X 36
3	X 38	X 38	X 38	X 39	X 40	40	X 37												A	X 39	A	X 37	X 38	X 39
4	X 40	X 39	X 39	X 39	X 38	X 37	X 40												X 40	X 39	X 39	X 37	X 35	A
5	X 38	44	42	X 35	X 35	X 36	X 35												X 43	X 42	X 46	X 48	X 42	X 37
6	X 37	X 37	X 37	X 36	X 36	X 34	X 33												X 45	X 49	X 39	X 39	X 40	X 39
7	X 40	X 38	X 39	X 37	X 41	X 35	X 32												X 48	X 55	X 31	X 32	X 31	X 35
8	X 36	X 35	X 35	X 35	X 36	X 31	X 26												X 37	A	X 43	A	A	X 33
9	X 37	X 36	X 41	45	44	X 36	X 32												X 42	X 42	X 36	X 38	X 38	X 38
10	X 38	X 33	X 36	X 36	X 34	X 32	X 35												X 37	X 39	X 35	X 35	X 34	36
11	X 37	X 36	X 36	X 36	X 34	X 35	A												X 41	A	X 44	X 40	A	X 40
12	X 45	X 44	X 46	X 47	X 45	50	X 40												A	A	A	A	X 40	X 39
13	X 39	X 38	X 38	X 37	X 38	40	X 36												X 48	X 50	X 41	X 36	X 32	X 35
14	X 36	X 38	X 38	X 38	42	X 35	X 33												X 52	A	A	X 35	X 33	X 34
15	X 35	X 35	X 34	X 33	X 33	X 35	X 39												X 46	X 55	X 61	A	O X 36	X 34
16	X 39	X 40	43	42	43	X 40	X 36												X 45	A	X 53	X 38	A	X 38
17	X 38	X 40	X 40	47	49	49	X 55												X 50	A	X 40	X 39	X 39	X 40
18	X 45	X 42	X 43	X 41	X 40	46	46												A	X 43	X 43	46	X 40	X 40
19	X 38	A	X 35	X 36	X 37	X 34	X 38												X 52	X 44	X 42	X 32	X 34	X 37
20	X 39	X 40	X 34	X 35	X 39	X 36	X 40												X 51	X 46	X 52	X 52	X 50	X 52
21	X 35	X 35	X 34	X 36	X O 43	X 28	X 36												X 55	X 38	X 40	X 44	X 42	X 41
22	X 44	X 43	X 40	X 32	X 33	X 34	X 36												X 58	X 43	X 42	X 38	X 39	X 40
23	X 42	X 39	X 38	X 37	X 39	X 40	X 33												X 58	X 55	X 48	X 39	X 30	X 32
24	X 35	X 36	X 36	X 36	X 35	X 36	X 40												X 54	X 49	X 42	X 41	X 37	X 36
25	X 38	X 38	X 37	X 37	X 36	X 35	X 39												X 64	X 65	X 54	X 51	X 43	X 41
26	X 40	X 42	X 41	X 38	X 37	X 36	X 41												X 61	X 44	X 44	X 34	X 33	X 36
27	X 38	X 38	X 37	X 38	X 36	X 36	X 45				C								X 56	X 42	X 41	X 39	X 38	X 37
28	X 38	X 38	X 36	X 38	X 38	X 36	X 40												X 61	X 48	X 43	X 40	X 38	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	28	27	28	28	28	28	27												24	22	25	25	25	26
MED	X 38	X 38	X 38	X 37	X 38	X 36	X 36												X 49	X 44	X 42	X 39	X 38	X 37
U Q	X 40	X 40	X 40	X 38	40	38	X 40												X 56	X 49	X 45	X 40	X 40	X 40
L Q	X 37	X 36	X 36	X 36	X 36	X 34	X 33												X 42	X 39	X 39	X 36	X 34	X 35

FEB. 2006 fxI (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 foF2 (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	32	32	29	30	33	27	20	45	54	62	61	68	88	93	86	67	62	46	A	27	29	28	30	29
2	30	29	30	31	30	28	24	46	54	62	A	A	A	58	60	58	50	47	29	23	31	33	32	30
3	32	32	32	33	34	F	31	51	58	58	53	56	64	73	70	68	59	52	A	33	A	31	32	33
4	34	33	33	33	32	31	34	50	58	58	60	53	69	69	81	65	54	42	34	33	33	31	29	A
5	32	F	F	29	28	28	29	55	66	68	68	66	67	69	61	63	54	48	37	36	40	42	36	31
6	30	31	31	30	30	28	27	46	55	61	66	63	V 59	58	59	58	56	47	39	43	32	33	33	33
7	34	32	33	31	35	29	26	49	73	76	63	68	72	70	74	80	62	58	42	49	25	26	25	29
8	30	29	29	29	30	25	20	44	54	58	66	71	68	74	77	61	66	52	31	A	37	A	A	27
9	31	30	35	F	F	30	26	46	53	60	57	66	67	65	82	69	61	51	36	36	30	32	31	32
10	32	26	30	30	28	26	29	64	57	56	62	60	68	73	68	64	58	59	31	33	29	29	28	F
11	30	30	30	29	28	28	A	44	55	62	61	56	60	74	81	79	64	50	35	A	38	34	A	34
12	39	38	40	40	39	F	34	52	66	72	66	68	69	79	79	62	63	52	A	A	A	A	34	33
13	33	32	32	30	32	F	30	66	75	62	58	62	64	A	64	58	A	A	42	44	35	30	26	29
14	30	32	32	32	F	29	27	48	66	64	57	59	62	70	82	82	62	58	46	A	A	29	27	28
15	29	29	28	27	27	29	33	51	53	55	64	63	56	59	77	A	A	48	40	49	55	A	30	28
16	33	34	F	F	F	33	29	48	68	68	71	69	68	64	74	71	64	59	39	A	47	32	A	32
17	32	34	34	F	F	F	49	55	58	61	65	65	66	79	77	68	63	63	44	A	34	33	33	34
18	39	36	37	35	34	F	F	57	64	63	64	65	66	64	64	54	64	60	A	37	37	F	34	34
19	32	A	29	30	31	28	32	53	63	60	74	64	70	60	63	59	57	58	46	38	36	26	28	31
20	33	34	28	31	33	29	34	48	62	70	87	83	64	64	65	68	63	59	44	40	45	45	44	46
21	29	29	28	30	37	22	30	52	62	76	74	83	78	68	72	73	55	59	49	32	34	38	36	35
22	37	37	35	25	27	28	30	49	68	69	79	73	88	76	76	62	56	59	52	37	36	32	33	34
23	36	33	32	30	33	34	27	53	57	64	57	65	70	70	76	67	57	A	52	48	42	33	24	26
24	29	30	30	30	29	30	34	54	58	64	63	60	72	73	64	64	62	60	48	43	36	35	30	30
25	32	32	30	31	30	29	33	54	64	60	66	72	65	68	65	60	55	53	58	59	48	45	37	35
26	34	36	35	32	31	30	35	53	59	62	63	69	74	70	65	62	60	66	55	38	38	28	27	30
27	32	32	31	32	30	30	39	58	66	58	C	77	76	78	75	68	68	64	50	36	35	33	32	31
28	32	32	30	32	32	30	34	52	57	68	66	66	73	70	78	78	55	81	56	42	37	34	32	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	28	26	26	25	24	23	26	28	28	28	26	27	27	27	28	27	26	26	24	22	25	24	25	25
MED	32	32	31	30	31	29	30	52	58	62	64	66	68	70	74	65	60	58	43	38	36	32	32	31
U Q	34	34	33	32	33	30	34	54	66	68	66	69	72	74	78	69	63	59	50	43	39	34	34	34
L Q	30	30	30	30	30	28	27	48	56	60	61	62	64	64	64	61	56	50	36	33	32	30	28	29

FEB. 2006 foF2 (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 foF1 (0.01MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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									L	L	L	L 436	U L 420	412	A	L								
2										A	A	A	A	A	A	A								
3										L	L	L 460	L 452	L	A	L	A							
4										L	L	L	L	428	L 420	L								
5									L	L	L	L	L	L	L	L								
6										L	L	L	L 424	L	L									
7										L	L	A	A	A	L	A								
8										L	L	L	L	L 420	A									
9											L	L	A	A	A	L								
10									L	L	L 404	L 408	L 440	L 424	L 404	L								
11											L	A	A	A	A	A	A							
12									L	L	L	L	L 464	L 432	L 408	L								
13											A	L	A	A	A	A	A	A						
14									L	L	L	A	L	L	L 436									
15										A	A	A	A	A		A	A							
16										A	L	L 432	A	A	L	A								
17										L	A	L	L	L	L	L								
18									L	L	L	L 428	A	L	L	L	A							
19									L	L	L 428	L	L 452	U L 448	L	L								
20									L	L	L 424	L	L 444	L 436	L	L								
21										A	L	L	L 464	L	L									
22										L	L	L 440	L 444	L	L									
23									L	L	L	L 436	L 436	L	L 420	L		A						
24									L	L	L	L	L 444	L	L	L								
25									L	L	L	L 436	L	L	L	L	L							
26									L	L	L	L 436	L	L 444	L	L 408								
27									L	L	C	A	L 456	L 460	L	L	A							
28									L	L	L	L 464	L 444	L 456	L	L	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	10	13	10	5	1								
MED											L 424	L 436	L 444	L 434	L 420	L 408								
U Q											L 428	L 440	L 454	L 448	L 428									
L Q											L 404	L 432	L 438	L 424	L 406									

FEB. 2006 foF1 (0.01MHz)

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 foE (0.01MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	UR 228	UA 256	UR 288	312	A	308	UA 292	UA 268	220	B						
2								B	A	A	A	A	A	A	A	A	A	B						
3								B	A	UR 272	A	A	336	A	A	A	A	B						
4								B	A	280	R	R	R	R	R	A	A	B						
5								B	A	A	A	R	UR 328	UR 304	R	UR 264	UA 220	B						
6								B	224	UR 284	R	R	R	UR 312	A	UA 264	A	B						
7								B	232	UR 292	A	A	A	A	A	A	A	B						
8								B	UR 224	268	UA 308	A	A	UA 308	UA 292	A	A	B						
9								B	UR 232	296	308	A	A	A	A	A	A	B						
10								B	240	UR 280	UR 296	UR 308	320	UR 316	A	A	A	B						
11								B	A	A	312	332	A	A	A	A	A	B						
12								B	A	A	UR 304	320	R	316	UA 296	272	232	B						
13								B	UR 244	UR 292	A	A	A	A	A	A	A	B						
14								UR 176	256	UR 292	UR 312	A	A	A	308	272	A	B						
15								B	R	296	320	340	356	320	UA 312	A	A	B						
16								B	A	A	A	A	A	A	A	A	UA 240	B						
17								B	A	A	A	A	A	A	A	276	248	B						
18								168	UR 252	UR 288	312	A	A	UR 316	R	276	UA 240	B						
19								B	UR 260	R	R	R	R	A	A	UR 296	A	B						
20								UR 200	UR 260	R	R	R	R	R	R	R	UR 256	B						
21								B	240	UA 288	A	A	A	A	A	A	UA 244	B						
22								204	240	UR 284	R	A	R	R	R	UR 284	A	B						
23								A	R	R	R	320	UR 328	312	300	280	A	B						
24								196	UR 260	UR 292	R	UR 324	A	A	R	A	A	184						
25								192	R	R	312	320	328	R	UA 312	UA 284	UA 252	B						
26								UR 196	UR 272	R	A	A	A	A	A	A	252	UA 176						
27								200	256	R	C	R	R	UR 320	A	A	A	B						
28								180	256	R	R	R	UR 332	A	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								9	17	15	10	8	7	10	7	11	10	2						
MED								196	UR 244	UR 288	310	320	328	U 314	UA 300	U 276	U 242	180						
U Q								200	UR 258	292	312	328	336	UR 316	UA 312	UR 284	U 252							
L Q								178	UR 232	280	UR 304	316	328	U 308	UA 292	UA 268	232							

FEB. 2006 foE (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 foEs (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	J A 55	J A 31	E B 16	E B 15	E B 15	E B 16	E B 16	J A 22	G 20	32	G 20	37	34	37	38	32	26	J A 41	J A 47	J A 45	E B 15	21	20	20
2	J A 26	20	J A 27	J A 20	J A 23	E B 15	21	19	J A 36	59	J A 68	J A 69	J A 95	J A 66	J A 64	J A 88	J A 69	J A 32	J A 24	18	E B 16	19	J A 45	J A 24
3	J A 23	J A 19	E B 15	18	19	E B 16	E B 14	E B 17	24	G 20	32	40	38	34	J A 40	33	J A 41	J A 21	J A 44	J A 38	J A 55	20	E B 16	J A 26
4	25	19	E B 16	E B 15	18	19	J A 43	J A 36	J A 31	31	G 23	G 30	G 27	G 28	G 29	J A 34	J A 41	J A 32	J A 20	J A 24	J A 28	26	J A 26	J A 49
5	23	J A 32	J A 24	J A 31	J A 25	J A 20	E B 15	E B 16	J A 28	J A 35	J A 34	G 28	G 23	35	G 20	G 20	J A 36	J A 26	J A 23	J A 33	E B 16	J A 43	J A 28	J A 22
6	J A 16	E B 16	J A 20	E B 16	E B 15	E B 15	E B 15	E B 16	26	G 24	G 24	G 26	G 23	G 22	33	31	29	19	J A 21	J A 17	J A 25	21	J A 35	J A 32
7	J A 26	J A 22	J A 19	J A 20	J A 20	J A 20	E B 16	E B 16	26	G 22	J A 40	J A 52	J A 68	J A 43	33	50	J A 70	32	J A 28	J A 26	J A 26	E B 15	18	E B 15
8	19	E B 16	E B 15	19	J A 21	22	20	E B 16	G 20	33	36	34	40	34	35	J A 46	J A 38	J A 34	J A 34	J A 38	J A 61	J A 52	J A 35	J A 19
9	18	19	20	E B 15	J A 24	E B 16	19	E B 16	G	34	34	40	J A 44	J A 52	J A 88	30	J A 37	J A 37	J A 30	J A 47	J A 34	J A 24	J A 23	J A 26
10	J A 41	J A 32	20	J A 45	J A 25	J A 20	J A 17	J A 17	G 20	G 24	G 23	G 24	38	34	34	30	26	20	J A 17	J A 45	J A 28	J A 62	J A 52	J A 41
11	18	J A 23	J A 26	J A 22	J A 54	J A 56	J A 76	J A 20	J A 29	J A 37	35	42	J A 46	J A 47	J A 43	J A 70	J A 131	J A 91	J A 75	J A 67	J A 62	J A 45	J A 35	J A 37
12	J A 42	E B 16	E B 15	E B 24	J A 17	23	J A 18	E B 16	25	29	G 24	38	G 25	35	35	30	32	J A 28	J A 84	J A 76	J A 85	J A 66	J A 55	J A 36
13	J A 35	J A 30	J A 22	18	E B 16	E B 15	20	E B 16	G 19	G 25	36	J A 47	J A 47	J A 89	38	37	J A 78	J A 78	J A 23	19	19	J A 24	J A 47	J A 42
14	J A 24	J A 28	J A 26	J A 24	J A 18	J A 20	J A 18	G	J A 28	G 26	G 29	J A 45	J A 38	J A 38	G 28	32	30	J A 38	J A 45	J A 88	J A 75	J A 33	20	E B 15
15	E B 16	J A 21	20	E B 15	E B 15	J A 20	19	22	G 21	40	46	42	48	49	J A 48	J A 82	J A 113	J A 28	J A 44	J A 64	J A 88	J A 59	J A 43	J A 26
16	J A 32	20	J A 26	19	J A 16	E B 15	20	J A 26	J A 54	J A 64	J A 55	J A 45	J A 72	J A 55	J A 45	J A 42	29	J A 27	J A 22	J A 53	J A 46	J A 35	J A 70	J A 59
17	J A 21	J A 20	18	J A 18	J A 20	E B 15	20	J A 25	J A 35	J A 54	J A 46	J A 43	40	J A 43	38	34	31	J A 36	J A 30	58	J A 32	J A 30	J A 30	J A 27
18	J A 25	J A 23	21	E B 16	E B 15	E B 15	E B 15	20	G 22	G 23	36	38	J A 45	G 27	G 25	32	J A 43	J A 44	J A 78	J A 60	J A 45	J A 54	J A 28	J A 34
19	J A 35	J A 58	J A 27	J A 33	J A 23	J A 18	19	J A 32	G 24	G 26	G 30	G 28	G 33	37	36	J A 33	27	J A 26	J A 89	J A 28	J A 36	J A 43	J A 27	J A 27
20	J A 27	J A 26	19	E B 16	E B 15	E B 14	E B 15	G	G 24	G 26	G 24	G 25	G 24	G 22	G	G 21	G 20	J A 24	J A 25	J A 20	E B 14	J A 24	J A 46	J A 29
21	J A 24	J A 34	J A 26	J A 22	20	E B 16	E B 15	E B 16	31	J A 45	35	35	34	35	34	32	G 24	20	E B 15	J A 23	J A 22	J A 23	20	J A 43
22	J A 40	J A 41	19	E B 14	E B 15	E B 16	E B 15	G	28	J G 27	G J A 27	35	G 26	G 26	G 26	G 25	32	J A 37	J A 21	J A 20	J A 37	J A 75	J A 76	J A 24
23	J A 19	18	E B 15	22	J A 38	20	18	J A 24	G 20	G 22	G 22	37	G 25	34	34	30	J A 43	J A 61	J A 52	J A 21	J A 53	J A 33	J A 24	J A 24
24	J A 43	J A 32	20	E B 15	18	19	E B 16	G	G 21	G 24	G 24	G 27	36	35	G 23	33	30	22	E B 15	J A 23	J A 39	J A 40	E B 15	J A 18
25	E B 16	E B 15	20	J A 22	E B 15	E B 15	E B 16	G	G 20	G 20	34	35	36	G 25	35	32	27	J A 28	E B 16	E B 15	E B 15	18	22	J A 26
26	J A 27	J A 23	J A 22	J A 16	19	E B 15	E B 15	G	G 19	G 22	33	36	39	J A 39	35	34	28	J A 26	E B 15	J A 19	J A 17	20	18	J A 17
27	J A 27	J A 24	E B 15	J A 22	19	E B 15	E B 15	G	29	G 26	C	G 27	G 27	39	34	36	J A 40	21	E B 15	J A 26	J A 32	J A 25	J A 42	19
28	E B 15	20	E B 14	E B 15	E B 15	E B 15	E B 14	22	28	G 28	G 23	G 29	G 25	34	J A 38	J A 44	J A 50	J A 30	J A 28	J A 24	J A 31	J A 21	J A 56	J A 46
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	28	28	28	28	28	28	28	28	28	28	27	28	28	28	28	28	28	28	28	28	28	28	28	28
MED	J A 25	J A 22	20	18	18	E B 16	16	G	24	G 26	33	36	37	35	35	33	34	J A 29	J A 26	J A 27	J A 32	J A 28	J A 29	J A 26
U Q	J A 34	J A 30	J A 23	J A 22	J A 22	J A 20	20	J A 22	J A 28	J A 34	J A 36	J A 42	J A 44	J A 43	J A 38	J A 40	J A 43	J A 37	J A 44	J A 50	J A 50	J A 44	J A 46	J A 36
L Q	19	19	E B 16	E B 16	E B 15	E B 15	E B 15	E B 16	G 20	G 24	G 24	G 28	G 26	G 34	G	30	28	25	E B 20	J A 20	E B 20	21	21	21

FEB. 2006 foEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 fbEs (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	19	16	E B 16	E B 15	E B 15	E B 16	E B 16	E B 16	G 19	27	G 20	35	32	34	35	30	24	36	A A 47	E B 16	E B 15	E B 15	E B 15	E B 15
2	18	E B 16	21	E B 15	18	E B 15	E B 15	19	34	58	A A 68	A A 69	A A 95	44	41	42	36	17	E B 15	E B 16	E B 16	E B 16	E B 16	18
3	16	E B 15	E B 15	E B 15	17	E B 16	E B 14	E B 17	23	G 19	31	39	37	34	37	32	38	17	A A 44	23	A A 55	A A E B 15	E B 16	18
4	23	E B 16	E B 16	E B 15	E B 14	E B 15	E B 23	32	26	30	G 23	G 27	G 26	G 27	G 26	29	28	29	16	16	27	24	16	A A 49
5	E B 15	16	E B 16	18	17	E B 15	E B E B 15	E B 16	24	28	31	G 28	U Y 23	34	G 19	G 17	25	23	20	E B 15	E B E B 16	E B E B 15	16	17
6	16	E B 16	E B 15	E B 16	E B 15	E B 15	E B 15	E B 16	25	G 23	G 23	G 26	G 23	G 21	32	29	27	18	18	E B 16	20	E B 15	17	E B 15
7	16	18	16	E B 15	E B E B 15	E B 15	E B 16	E B 16	25	G 22	33	40	44	40	31	50	53	31	E B 15	E B 16	17	E B 15	E B 15	E B 15
8	E B 16	E B 16	E B 15	E B 16	E B 15	16	16	E B 16	G 19	32	35	34	37	33	34	42	35	30	26	A A 38	25	A A 52	A A 35	16
9	E B 16	16	E B 16	E B 15	16	E B 16	16	E B 16	G	32	32	37	42	44	76	29	30	32	26	22	17	16	E B 15	20
10	26	23	E B 15	17	E B 15	E B E B 15	E B 15	17	G 19	G 23	G 22	G 23	36	34	31	30	25	19	E B 15	E B 15	16	18	E B 16	E B 15
11	E B 16	16	17	16	20	16	A A 76	E B 16	21	32	33	40	41	43	40	53	50	40	24	A A 67	22	19	A A 35	26
12	30	E B 16	E B 15	16	E B 15	E B 15	E B 15	E B 16	24	28	G 24	36	G 25	34	33	30	30	21	A A 84	A A A 76	A A 85	A A 66	25	21
13	24	23	18	E B 15	E B E B 16	E B 15	E B 15	E B 16	G 18	G 24	35	38	44	A A 89	38	32	A A 78	A A 78	20	16	16	E B 15	E B 19	E B 16
14	E B 16	17	E B 15	E B E B 16	E B 16	16	E B 16	G	G 21	G 24	G 28	40	37	35	G 28	31	27	28	36	A A 88	A A 75	20	E B 15	E B 15
15	E B 16	E B 15	E B E B 15	E B E B 15	E B 15	16	16	20	G 20	38	44	40	46	47	43	A A 82	A A 113	25	30	26	29	A A 59	25	17
16	18	E B 14	E B 14	E B 15	E B 15	E B 15	E B 15	23	33	59	38	34	52	43	37	38	27	24	18	A A 53	22	23	A A 70	22
17	16	E B 16	E B 15	E B E B 15	E B 15	E B 15	E B 14	20	30	31	42	34	37	35	34	32	29	27	23	A A 58	17	16	17	18
18	E B 16	E B 16	E B 15	E B 16	E B 15	E B 15	E B 15	20	G 20	G 22	35	37	42	G 25	G 24	31	34	35	A A 78	23	26	21	E B 15	18
19	22	A A 58	17	E B 15	19	E B 15	16	28	G 22	G 23	G 26	G 27	G 30	35	34	G 27	26	22	39	E B 16	17	16	17	20
20	21	E B 15	E B 14	E B 16	E B 15	E B 14	E B 15	G	G 20	G 23	G 23	G 24	G 24	G 22	G	G 18	G 17	20	20	16	E B 14	19	E B 15	20
21	23	17	17	16	15	E B 16	E B 15	E B 16	30	42	34	34	34	34	32	31	G 24	19	E B 15	22	17	E B 15	E B 15	17
22	17	24	16	E B 14	E B 15	E B 16	E B 15	G	27	G 24	G 26	34	G 26	G 26	G 26	G 24	28	35	19	16	17	20	E B 15	E B 16
23	E B 15	E B 15	E B 15	E B 14	17	16	E B 15	21	G 18	G 21	G 21	36	G 24	34	32	30	34	A A 61	46	E B 16	20	21	E B 15	E B 15
24	21	18	E B 15	E B 15	E B 15	E B 16	E B 16	G	G 19	G 24	G 23	G 26	35	34	G 23	30	29	22	E B 15	17	17	17	E B 15	E B 14
25	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	G	G 18	G 19	34	34	34	G 24	34	31	26	22	E B 16	E B 15	E B 15	E B 16	E B 15	20
26	E B 16	E B 15	16	E B 16	E B 16	E B 15	E B 15	G	G 18	G 22	32	34	39	35	34	34	27	23	E B 15	16	E B 16	E B 15	E B 15	E B 16
27	16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	G	28	G 26	C	G 26	G 26	38	33	34	36	19	E B 15	21	28	22	26	E B 15
28	E B 15	E B 15	E B 14	E B 15	E B 15	E B 15	E B 14	22	26	G 28	G 23	G 28	G 25	34	35	32	38	27	26	21	20	17	E B 15	A A 46
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	28	28	28	28	28	28	28	28	28	28	27	28	28	28	28	28	28	28	28	28	28	28	28	28
MED	16	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	G	G	G 25	31	34	36	34	34	31	29	24	20	16	17	17	E B 16	17
U Q	21	17	16	16	16	16	16	20	26	32	35	38	42	39	36	34	36	32	33	A A 24	26	21	18	20
L Q	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	G 19	G 23	G 23	G 28	G 26	G 34	G	30	26	20	E B 16	E B 16	E B 16	E B 15	E B 15	E B 15

FEB. 2006 fbEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 fmin (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	16	14	16	15	15	16	16	16	15	15	14	16	17	15	13	14	16	15	14	16	15	15	15	15
2	15	16	14	15	14	15	15	15	14	14	14	14	16	15	14	12	14	15	15	16	16	15	16	15
3	16	15	15	15	15	16	14	17	15	14	14	14	14	16	13	14	15	14	15	16	15	15	16	14
4	14	16	16	15	14	15	15	15	15	13	13	14	15	15	13	14	13	14	15	14	15	15	15	14
5	15	15	16	14	14	15	15	16	14	16	14	14	15	13	14	14	14	15	15	15	16	15	16	15
6	15	16	15	16	15	15	15	16	14	14	14	15	16	14	15	14	15	14	16	16	15	15	16	15
7	16	15	15	15	15	15	16	16	15	14	13	14	14	15	15	14	13	14	15	16	15	15	15	15
8	16	16	15	16	15	15	16	16	13	15	14	14	15	14	16	16	14	14	14	14	14	15	15	15
9	16	16	16	15	14	16	16	16	14	14	16	16	16	15	14	14	15	15	14	16	14	15	15	15
10	15	15	15	16	15	15	15	16	15	14	15	17	14	15	15	15	14	14	15	15	15	15	16	15
11	16	16	15	16	15	15	15	16	14	13	16	15	16	15	14	13	15	15	15	16	16	16	14	16
12	15	16	15	16	15	15	15	16	15	15	14	14	15	16	14	15	14	15	14	15	15	14	15	15
13	16	15	14	15	16	15	15	16	14	15	14	20	14	16	15	14	14	14	15	14	15	15	16	16
14	16	16	16	16	16	14	16	15	14	15	13	15	14	15	14	15	14	14	16	15	15	15	15	15
15	16	15	15	15	15	15	15	15	14	15	15	14	14	17	15	15	13	14	14	15	16	14	16	15
16	15	14	14	15	15	15	15	14	14	14	15	13	17	15	16	14	13	14	14	14	14	14	15	14
17	15	16	15	15	14	15	14	15	14	13	14	15	16	18	20	15	13	15	14	16	15	16	15	15
18	16	16	15	16	15	15	15	14	15	14	14	15	14	14	15	16	14	16	15	16	15	16	15	15
19	15	15	14	15	15	15	15	16	14	15	15	16	19	16	15	16	14	15	16	16	15	15	15	15
20	14	15	14	16	15	14	15	14	12	12	14	14	14	12	15	15	13	12	14	14	14	13	15	13
21	16	15	14	15	15	16	15	16	15	14	15	13	17	18	16	15	14	14	15	15	14	15	15	16
22	15	15	16	14	15	16	15	15	13	13	14	16	16	16	15	14	13	15	15	15	15	14	15	16
23	15	15	15	14	16	16	16	14	13	14	15	16	16	14	14	13	14	15	15	16	14	15	15	15
24	16	15	15	15	15	16	16	15	15	14	15	15	17	16	16	15	13	15	15	15	15	14	15	14
25	16	15	15	15	15	15	16	15	14	14	15	15	14	16	17	15	14	14	16	15	15	15	15	15
26	16	15	15	16	16	15	15	15	14	14	13	17	15	17	16	14	15	14	15	15	16	15	15	16
27	16	15	15	15	15	15	15	14	15	15	C	14	17	16	18	14	15	15	15	15	15	15	15	15
28	15	15	14	15	15	15	14	16	15	14	15	15	15	16	16	16	16	14	15	15	14	15	15	15
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	28	28	28	28	28	28	28	28	28	28	27	28	28	28	28	28	28	28	28	28	28	28	28	28
MED	16	15	15	15	15	15	15	16	14	14	14	15	15	15	15	14	14	14	15	15	15	15	15	15
U Q	16	16	15	16	15	16	16	16	15	15	15	16	16	16	16	15	15	15	15	16	15	15	16	15
L Q	15	15	14	15	15	15	15	15	14	14	14	14	14	15	14	14	13	14	14	15	14	15	15	15

FEB. 2006 fmin (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 M(3000)F2 (0.01) 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	288	310	326	332	368	377	353	382	368	366	366	326	342	343	349	347	369	377	A	330	328	317	318	307
2	305	329	326	341	359	345	345	387	373	364	A	A	A	358	348	359	367	378	394	300	322	341	325	350
3	331	345	318	338	363	F	345	378	385	389	384	314	329	347	344	361	369	388	A	375	A	329	303	319
4	291	318	319	322	308	315	372	384	383	387	363	336	368	333	352	383	376	373	333	334	322	355	307	A
5	343	F	F	313	339	323	374	364	391	370	371	342	346	372	360	352	374	365	368	339	340	365	361	329
6	321	316	319	329	334	332	334	380	383	376	387	384	V 343	346	355	363	369	384	338	350	341	317	296	306
7	316	314	314	308	350	324	311	335	382	363	377	349	372	339	335	366	378	379	336	376	328	341	304	304
8	307	302	318	317	322	346	346	372	386	359	366	365	348	356	374	359	378	388	351	A	344	A	A	306
9	336	322	325	F	F	383	364	390	383	379	344	376	344	370	361	376	367	390	349	356	314	306	310	323
10	343	343	332	322	314	325	347	396	388	388	385	357	346	348	366	377	383	391	323	334	347	327	321	F
11	307	322	327	323	328	358	A	371	384	378	384	343	349	364	348	378	371	378	350	A	345	333	A	302
12	313	315	320	335	327	F	360	381	366	370	349	348	336	343	365	363	375	384	A	A	A	A	319	291
13	320	334	317	311	302	F	352	377	404	390	374	344	348	A	340	370	A	A	359	380	376	370	331	320
14	319	314	313	312	F	328	355	395	380	387	386	334	357	338	336	378	371	380	377	A	A	354	357	320
15	317	305	307	316	314	337	381	402	373	376	373	387	352	330	357	A	A	393	330	335	366	A	405	301
16	304	296	F	F	F	328	371	381	353	370	368	379	346	331	341	365	373	383	358	A	364	362	A	309
17	317	315	321	F	F	F	373	386	365	360	362	362	321	340	357	364	359	370	378	A	363	312	313	320
18	339	334	362	308	373	F	F	383	361	375	384	368	367	353	352	342	357	348	A	341	308	F	323	323
19	320	A	331	321	339	323	348	396	375	351	368	368	353	350	318	353	351	373	362	353	366	312	289	309
20	313	340	337	300	339	311	358	383	384	359	370	382	343	353	350	347	349	362	357	306	324	328	320	379
21	277	328	294	303	386	375	341	383	348	353	335	371	335	335	351	374	364	363	369	341	296	312	323	296
22	318	337	372	324	330	316	329	371	393	341	378	355	355	347	348	371	345	364	354	359	331	303	303	305
23	340	307	313	291	332	376	346	370	385	377	376	359	361	347	361	369	363	A	357	353	349	387	302	301
24	303	316	329	332	318	320	366	390	371	372	367	345	368	334	332	359	343	381	353	373	331	345	313	319
25	296	332	330	337	329	326	346	363	378	368	357	363	350	349	372	364	361	335	349	360	349	338	345	324
26	315	318	340	329	319	321	344	372	382	362	375	349	360	363	360	356	348	364	365	345	340	371	309	304
27	308	324	279	307	310	337	351	396	380	353	C	361	328	342	351	366	347	371	372	348	322	330	345	333
28	323	323	324	304	325	347	351	400	371	364	351	334	371	323	337	368	361	369	380	368	329	330	338	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	28	26	26	25	24	23	26	28	28	28	26	27	27	27	28	27	26	26	24	22	25	24	25	25
MED	316	320	322	321	330	328	351	382	381	370	370	357	348	347	351	364	367	378	357	349	340	332	319	309
U Q	322	332	330	330	344	347	364	390	384	378	378	368	360	353	360	371	373	384	368	360	349	354	334	323
L Q	306	314	317	308	318	323	345	372	371	361	363	343	343	338	342	359	357	365	349	335	323	317	306	304

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 M(3000)F1 (0.01) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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									L	L	L	L 379	U L 414	402	A	L								
2										A	A	A	A	A	A	A								
3										L	L	L 370	L 356	L	A	L	A							
4										L	L	L	L	384	L 371	L								
5									L	L	L	L	L	L	L	L								
6										L	L	L	L 431	L	L									
7										L	L	A	A	A	L	A								
8										L	L	L	L	L 375	A									
9											L	L	A	A	A	L								
10									L	L	L 420	L 428	L 378	L 394	L 399	L								
11											L	A	A	A	A	A	A							
12									L	L	L	L	L 382	L 382	L 382	L								
13											A	L	A	A	A	A	A	A						
14									L	L	L	A	L	L	L 381									
15										A	A	A	A	A		A	A							
16										A	L	L 397	A	A	L	A								
17										L	A	L	L	L	L	L								
18									L	L	L	L 403	A	L	L	L	A							
19									L	L	L 383	L	L 391	U L 376	L	L								
20									L	L	L 399	L	L 411	L 397	L	L								
21										A	L	L	L 386	L	L									
22										L	L	L 379	L 378	L	L									
23									L	L	L	L 407	L 392	L	L 381	L		A						
24									L	L	L	L	L 402	L	L	L								
25									L	L	L	L 397	L	L	L	L	L							
26									L	L	L	L 421	L	L 380	L	L 387								
27									L	L	C	A	L 397	L 367	L	L	A							
28									L	L	L	L 394	L 394	L 373	L	L	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	10	13	10	5	1								
MED											L 399	L 397	L 392	L 381	L 381	L 387								
U Q											L 420	L 407	L 406	L 394	L 390									
L Q											L 383	L 379	L 380	L 375	L 376									

FEB. 2006 M(3000)F1 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 h'F2 (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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									228	230	250	274	250	242	238	246								
2										E A 260	A	A	A	258	264	236								
3										224	234	324	294	256	266	240	228							
4										218	244	262	246	286	258	230								
5									220	234	236	270	258	248	252	246								
6										232	226	234	250	272	262									
7										238	224	230	238	270	270	236								
8										248	244	246	256	250	232									
9											266	236	276	244	E A 280	234								
10									220	208	218	248	268	260	246	234								
11											226	244	254	248	266	230	230							
12									228	234	238	258	272	254	236	242								
13											220	258	258	A	258	238		A	A					
14									224	224	216	254	270	278	272									
15										234	238	228	284	292		A		A						
16										E A 242	242	228	E A 268	262	266	226								
17										236	250	250	262	270	238	248								
18									238	230	236	248	254	256	250	276	250							
19									230	238	242	234	262	254	276	246								
20									234	254	240	224	252	266	272	254								
21										242	256	230	270	240	262									
22										266	234	254	250	244	256									
23									232	244	234	262	260	268	254	244			A					
24									234	230	236	244	242	276	276	240								
25									218	232	244	242	256	260	238	246	236							
26									220	244	242	262	242	246	244	248								
27									234	256	C	244	268	264	252	230	250							
28									226	236	262	294	232	302	272	244	236							
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									14	25	26	27	27	27	27	22	6							
MED									228	235	238	248	257	260	258	241	236							
U Q									234	244	244	262	268	270	270	246	250							
L Q									220	230	234	234	250	248	246	234	230							

FEB. 2006 h'F2 (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 h'F (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°42.4'N LON.139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	EA 300	EA 264	242	240	218	204	224	212	194	194	H 182	222	H 168	206	A	206	214	210	A	226	222	EB 252	EB 250	EB 276
2	EA 302	EB 256	EA 280	234	EA 240	218	224	206	218	A	A	A	A	A	A	A	220	208	196	EB 306	EB 262	226	EB 232	EA 246
3	EA 240	232	228	222	212	EB 246	222	206	196	194	190	230	EA 250	226	A	A	A	210	A	230	A	238	EB 264	EA 280
4	EA 314	EB 264	EB 256	EB 256	EB 250	252	222	210	198	194	200	198	222	190	EA 238	208	210	212	220	222	EA 298	226	EA 258	A
5	214	EA 276	EB 288	EA 278	242	EB 262	216	218	200	196	204	190	196	EA 230	212	206	212	212	210	232	224	220	212	230
6	EA 258	EB 266	EB 256	EB 248	EB 230	226	222	206	210	H 202	H 182	204	196	210	218	222	222	202	220	212	226	242	EA 286	EB 290
7	EA 264	242	EA 254	EB 276	232	216	240	234	206	206	204	A	A	A	222	A	EA 228	204	210	204	EA 242	224	EB 266	EB 278
8	EB 280	EB 276	EB 260	EB 260	EB 252	212	220	206	H 186	216	220	210	214	194	A	222	216	194	EA 258	A	246	A	A	EA 268
9	232	EA 244	242	EB 268	230	198	210	196	H 188	212	216	EA 220	A	A	A	220	214	198	226	224	226	EA 264	EB 246	EA 252
10	EA 260	EA 306	EB 238	EA 262	EB 286	EB 246	226	204	188	184	H 178	H 178	216	210	198	214	210	200	182	224	210	238	EB 258	EB 280
11	EB 258	EA 250	EA 270	EA 256	EA 282	232	A	H 168	214	212	200	A	A	A	A	A	A	216	222	A	EA 246	250	A	EA 304
12	EA 292	EB 256	246	232	236	220	202	202	186	192	H 176	208	194	204	206	214	208	198	A	A	A	A	EA 296	EA 298
13	EA 304	EA 276	EA 288	EB 272	EB 258	EB 240	214	220	196	H 188	A	210	A	A	A	A	A	A	214	204	196	208	EA 250	EB 266
14	EB 266	238	EB 266	EB 270	EB 252	EA 248	224	200	H 186	H 192	190	A	208	204	208	216	208	204	222	A	AE 240	A	214	236
15	EB 268	EB 282	EB 286	EB 270	EB 286	238	200	192	H 174	A	A	A	A	A	250	A	A	196	EA 266	EA 256	216	A	214	EA 298
16	EA 278	EB 270	EB 260	EB 246	240	230	202	206	234	A	202	184	A	A	216	A	218	208	204	A	218	218	A	EA 264
17	232	EB 242	EB 256	EB 254	232	EB 240	208	194	202	182	A	210	202	222	216	EA 228	222	210	210	A	218	EA 266	EA 268	234
18	234	218	214	EB 244	224	EB 254	220	206	198	H 184	198	196	A	H 182	190	210	A	216	A	218	EA 290	EA 280	230	242
19	EA 278	A	EA 252	EB 258	EA 252	EA 250	218	206	196	200	190	194	H 182	H 194	212	214	218	220	EA 254	204	212	EA 250	EA 296	EA 300
20	EA 280	236	EB 238	EB 258	EB 250	244	222	196	198	212	204	194	186	H 178	204	206	220	212	214	EA 270	244	244	246	220
21	EA 338	EA 246	EA 312	EA 306	198	244	234	220	222	A	210	206	196	198	186	226	216	222	200	226	EA 294	EB 272	238	EA 300
22	EA 252	EA 250	212	244	240	EB 260	216	204	214	H 196	216	196	H 192	198	214	212	214	212	208	204	EA 240	EA 280	EB 282	EB 250
23	226	EB 260	EB 254	EB 256	EA 258	198	216	202	202	182	190	H 190	H 186	230	214	212	224	A	EA 252	208	226	210	EB 288	EB 298
24	EA 316	EA 280	246	240	EB 258	EB 258	212	200	198	190	H 184	H 180	EB 170	202	216	206	216	206	200	204	236	222	232	EB 274
25	EB 296	238	234	234	EB 234	242	210	206	190	192	202	194	H 182	198	200	210	204	212	218	210	208	210	212	EA 262
26	EB 250	EB 254	238	222	242	EB 252	226	208	194	202	196	186	A	198	196	204	228	224	198	190	220	202	EB 292	EB 288
27	EA 274	EB 248	EB 290	EB 292	EB 280	232	220	H 186	200	194	C	A	194	202	210	A	A	210	198	220	EA 288	EA 260	EA 268	234
28	EB 244	230	EB 252	EB 264	EB 250	218	214	196	194	H 194	198	186	H 182	H 178	232	216	A	220	200	198	EA 246	230	230	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	28	27	28	28	28	28	27	28	28	24	23	22	19	21	21	20	21	26	24	22	25	25	25	26
MED	EA 267	EA 254	E 254	EB 256	E 242	U 228	220	206	198	194	198	196	194	200	212	212	216	210	209	214	219	U 224	E 250	E 271
U Q	EA 294	EA 270	EA 268	E 269	EB 255	EB 249	224	207	204	202	204	210	208	210	217	218	221	212	EA 222	226	EA 246	EA 256	EA 275	EA 290
L Q	247	242	240	242	232	219	212	198	192	191	H 190	190	H 182	H 194	202	207	211	204	200	204	218	221	231	246

FEB. 2006 h'F (KM)

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 h'E (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	124	120	118	116	116	118	122	124	120	B						
2								B	A	A	A	A	A	A	A	A	A	B						
3								B	A	118	116	112	126	114	A	A	A	B						
4								B	A	118	112	114	116	116	120		A	B						
5								B	116	A	A	122	114	112	116	118	114	B						
6								B	114	120	116	118	118	118	120	120	122	B						
7								B	120	124	122	116	A	A	A	118	A	B						
8								B	114	114	120	112	116	118	120	A	A	B						
9								B	116	120	116	120	114	A	A	116	A	B						
10								B	118	116	116	122	114	116	116	A	A	B						
11								B	A	A	118	120	124	124	124	A	A	B						
12								B	112	A	116	112	112	112	122	124	126	B						
13								B	120	122	116	A	A	A	124	A	A	B						
14								124	120	122	122	A	A	A	112	120	120	B						
15								B	114	124	124	118	118	120	120	A	A	B						
16								B	A	A	A	A	A	A	A	A	122	B						
17								B	A	A	A	A	A	A	A	116	122	B						
18								120	120	116	114	A	A	112	116	118	122	B						
19								B	124	118	118	118	120	A	A	122	124	B						
20								122	122	122	118	118	116	116	112	122	120	B						
21								B	114	128	118	116	114	114	114	A	120	B						
22								132	116	116	116	A	116	116	114	114	118	B						
23								A	120	114	114	114	110	110	114	116	A	B						
24								126	122	116	112	116	116	114	122	120	118	126						
25								114	114	114	110	112	110	112	112	118	124	B						
26								120	122	114	114	114	112	116	116	A	122	114						
27								118	116	116	C	112	114	112	112	118	A	B						
28								110	116	118	110	114	120	A	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								9	22	22	23	21	21	19	20	16	15	2						
MED								120	117	118	116	116	116	116	116	118	122	120						
U Q								125	120	122	118	118	118	118	121	121	122							
L Q								116	114	116	114	113	114	112	114	117	120							

FEB. 2006 h'E (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 h'Es (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	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	98	100	B	B	B	B	B	104	104	120	100	164	116	144	128	126	124	112	104	106	B	128	126	106
2	106	110	104	106	100	B	98	126	104	102	100	100	98	98	100	96	96	100	102	98	B	90	98	98
3	100	100	B	120	118	B	B	B	100	96	120	156	144	120	104	104	104	106	104	100	96	100	B	98
4	86	86	B	B	106	108	110	104	104	160	98	98	102	102	102	102	100	100	106	96	94	104	98	100
5	102	100	104	104	100	114	B	B	112	106	108	106	94	170	92	94	122	130	102	102	B	104	102	98
6	96	B	100	B	B	B	B	B	150	102	102	102	100	100	136	126	120	114	106	102	98	102	104	104
7	96	92	92	92	96	94	B	B	160	104	124	116	104	108	104	114	98	100	102	98	98	B	136	B
8	104	B	B	106	110	102	102	B	100	146	132	124	116	140	120	104	104	100	98	96	96	94	90	90
9	116	106	106	B	102	B	96	B	G	162	150	124	116	104	104	116	104	102	100	100	98	98	94	108
10	100	96	104	100	102	104	102	108	102	102	102	102	150	148	124	104	104	108	102	98	106	106	96	102
11	114	102	94	100	104	104	96	104	98	96	142	160	134	128	122	104	104	102	104	98	98	94	96	96
12	90	B	B	98	96	98	98	B	110	100	100	154	102	162	124	150	138	130	98	96	96	96	96	92
13	92	94	98	98	B	B	110	B	106	102	118	106	106	106	132	122	104	102	100	92	96	118	100	96
14	92	94	96	96	114	110	108	G	104	100	100	96	96	100	100	142	134	114	102	98	98	94	92	B
15	B	102	108	B	B	102	108	104	100	148	136	162	134	130	122	104	102	102	96	98	94	92	90	82
16	98	102	102	130	122	B	116	110	106	100	104	104	106	106	106	104	140	118	112	102	102	102	94	98
17	100	104	104	106	106	B	106	104	100	100	94	98	98	98	106	158	142	118	102	98	98	100	100	98
18	94	96	96	B	B	B	B	132	104	98	166	98	98	96	104	148	126	110	102	102	100	100	96	98
19	94	92	94	94	94	94	96	102	104	102	100	100	102	104	106	104	128	110	100	104	102	100	100	98
20	94	94	94	B	B	B	B	G	106	98	102	102	102	100	G	102	98	96	90	90	B	94	102	100
21	94	98	96	94	96	B	B	B	132	120	122	124	120	114	114	104	104	124	B	102	98	102	100	100
22	96	96	94	B	B	B	B	G	156	100	100	98	96	98	98	102	118	108	104	102	98	98	98	102
23	96	98	B	100	98	104	98	98	98	96	96	158	102	152	138	136	100	100	98	104	100	102	102	102
24	96	96	98	B	110	96	B	G	102	102	100	100	110	114	104	118	112	146	B	104	108	100	B	100
25	B	B	96	96	B	B	B	G	96	96	166	144	132	104	126	124	130	106	B	B	B	106	102	98
26	100	96	92	92	90	B	B	G	104	100	120	112	112	116	118	106	148	124	B	104	102	102	100	98
27	94	94	B	98	96	B	B	G	150	100	C	100	100	150	112	120	102	106	B	102	100	98	94	100
28	B	90	B	B	B	B	B	142	138	98	98	100	104	106	106	108	100	104	98	98	98	98	100	100
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	25	24	20	18	19	12	14	12	27	28	27	28	28	28	27	28	28	28	23	27	23	27	26	26
MED	96	96	97	99	102	103	102	104	104	101	102	105	104	107	106	107	104	107	102	100	98	100	99	98
U Q	100	101	104	106	110	106	108	118	112	105	124	134	116	135	124	125	127	116	104	102	100	102	102	100
L Q	94	94	94	96	96	97	98	104	100	99	100	100	100	101	104	104	102	102	98	98	96	96	96	98

IONOSPHERIC DATA STATION Kokubunji

FEB. 2006 TYPES OF Es 135°E MEAN TIME (G.M.T. + 9 H)

LAT. 35°42.4'N LON. 139°29.3'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

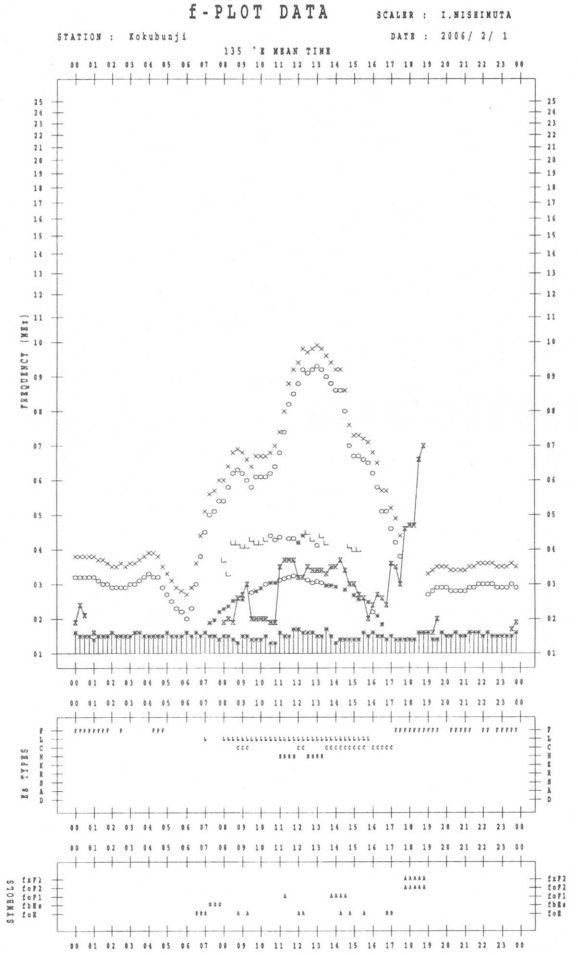
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F2	F2						L1	L2	CL11	L2	HL11	CL11	HL11	CL21	CL21	C2	C5	F5	F2		F2	F1	F1
2	F3	F1	F3	F2	F3		F2	C2	L2	L3	L3	L3	L3	L2	L2	L4	L2	L1	F1	F2		F1	F3	F2
3	F2	F1		F1	F2				L2	L2	CL11	HL11	HC11	CL11	L2	L2	L4	L3	F5	F4	F5	F2		F3
4	F2	F1			F1	F1	F6	L5	L3	HL12	L1	L1	L1	L1	L2	L2	L3	L2	F1	F2	F6	F2	F3	F5
5	F3	F3	F2	F4	F3	F2			C2	L2	L1	L1	L2	HL11	L2	L2	CL12	CL22	FF21	F2		F2	F2	F3
6	F3		F1						HL12	L2	L1	L1	L1	L1	CL11	CL11	CL22	C2	F2	F3	F3	F2	F2	F2
7	F3	F4	F3	F2	F2	F2			HL11	L1	CL11	CL21	L2	L1	L2	CL31	L3	L3	F3	F2	F2		F1	
8	F2			F1	F2	F3	F2		L1	HL11	HL11	CL11	CL11	HL11	CL11	L3	L3	L3	F2	F3	F3	F4	F4	F3
9	F1	F3	F1		F3		F2			H1	HL11	CL11	CL21	L2	L4	CL11	L2	L5	F3	F3	F3	F3	F1	F2
10	F3	F4	F2	F3	F2	F1	F2	L1	L2	L2	L1	L2	HL11	HL11	CL11	L1	L2	C2	F1	F2	F2	F2	F3	F2
11	F1	F2	F2	F3	F4	F2	F3	L2	L2	L2	HL11	HL11	CL11	CL21	CL21	L2	L3	L3	F3	F4	F3	F2	F4	F4
12	F2			F2	F2	F1	F3		C1	L2	L1	HL11	L1	HL11	CL11	HL11	HL11	CL32	F5	F4	F4	F4	F5	F3
13	F2	F4	F2	F1			F1		L2	L1	CL11	L1	L2	L3	CL11	CL22	L3	L4	F2	F2	F1	F2	F2	F2
14	F3	F2	F2	F2	F1	F1	F2		L2	L1	L2	L2	L2	L1	L1	HL21	CL11	C3	F4	F3	F3	F3	F1	
15		F2	F1			F2	F2	L2	L2	HL22	HL22	HL11	HL21	HL21	CL21	L4	L4	L3	F5	F3	F4	F3	F2	F3
16	F2	F1	F2	F1	F1		F1	C3	L3	L3	L2	L1	L2	L2	L1	L2	HL21	C2	F2	F6	F3	F3	F3	F3
17	F2	F1	F1	F2	F1		F1	L2	L2	L3	L2	L1	L2	L2	L1	HL11	HL21	C3	F3	F3	F3	F2	F3	F3
18	F2	F1	F1					H1	L2	L1	HL11	L2	L2	L1	L1	HL11	CL21	CL31	F3	F3	F4	F3	F2	F3
19	F2	F3	F2	F2	F2	F2	F1	L2	L1	L1	L1	L1	L1	L1	L1	L2	CL21	C2	F3	F1	F2	F3	F3	F2
20	F5	F3	F1						L2	L1	L1	L1	L1	L2		L1	L1	LC21	F3	F1		F3	F3	F3
21	F3	F2	F3	F2	F1				HL21	CL22	CL12	CL11	CL11	CL11	CL11	L2	L2	C2		F2	F3	F3	F1	F2
22	F2	F4	F1						HL12	L1	L1	L2	L1	L1	L2	L1	CL12	C2	F2	F1	F3	F3	F2	F1
23	F1	F2		F2	F4	F1	F1	L3	L2	L2	L2	HL11	L1	HL11	HL11	CL11	L3	L4	F3	F1	F3	F3	F2	F3
24	F4	F3	F1		F1	F1			L2	L1	L1	L1	CL11	CL11	L1	CL11	CL21	H2		F2	F2	F3		F2
25			F2	F2					L2	L1	HL11	HL11	HL11	L1	CL11	CL11	CL21	L2				F1	F2	F3
26	F3	F3	F3	F3	F2				L2	L1	CL11	CL11	CL11	C1	C1	L1	HL11	C2		F3	F2	F3	F1	F2
27	F3	F2		F2	F1				HL12	L2		L1	L1	HL11	CL11	CL21	L3	L2		F3	F5	F4	F5	F2
28		F2						H1	HL12	L2	L1	L1	L1	L1	L1	L1	L2	L2	F3	F5	F3	F2	F3	F4
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																								
MED																								
U Q																								
L Q																								

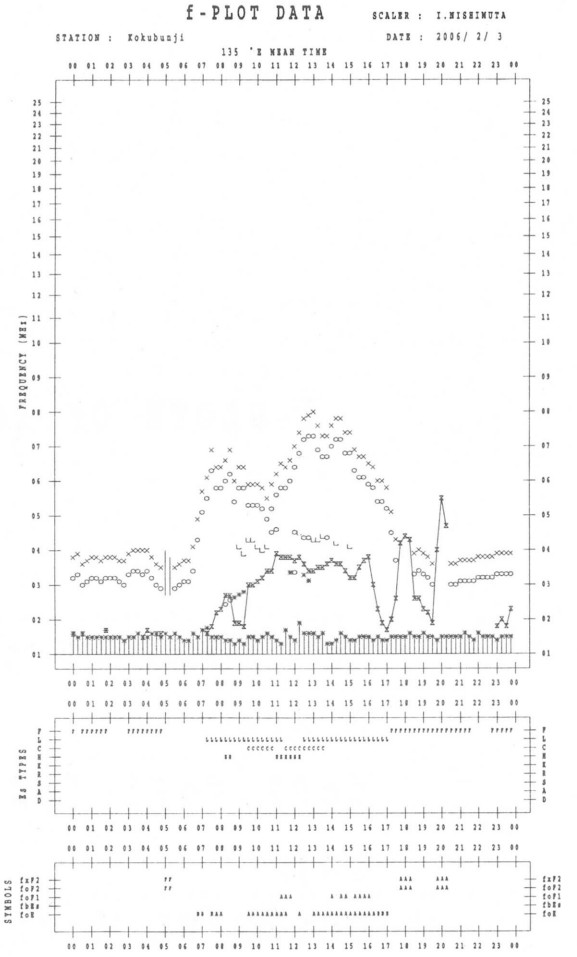
FEB. 2006 TYPES OF Es

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

f-PLOTS OF IONOSPHERIC DATA

KEY OF f-PLOT	
	SPREAD
	foF2,foF1,foE
	fxF2
	DOUBTFUL foF2,foF1,foE
	fbEs
	ESTIMATED foF1
	fmin
	GREATER THAN
	LESS THAN


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/ 1
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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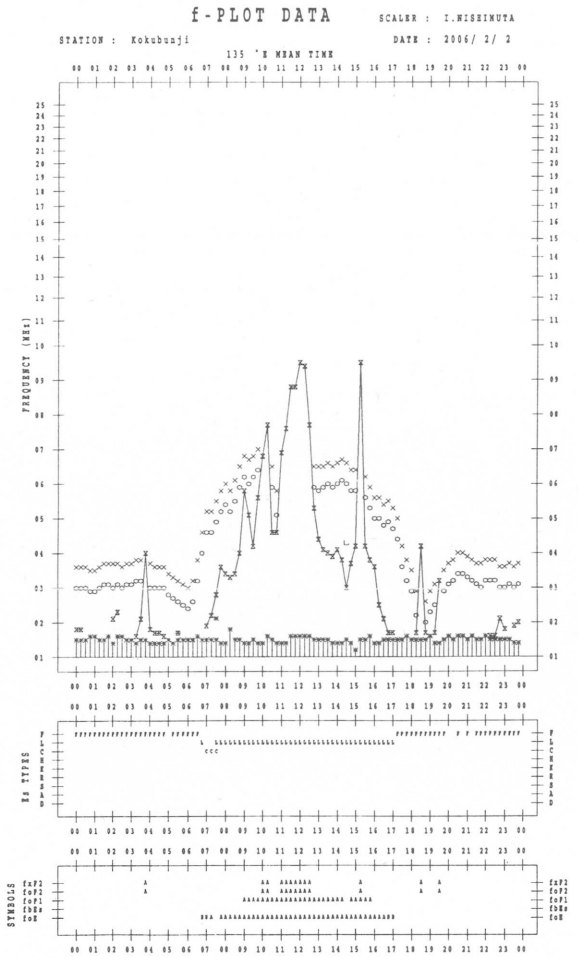
STATION : Kokubunji
DATE : 2006/ 2/ 3
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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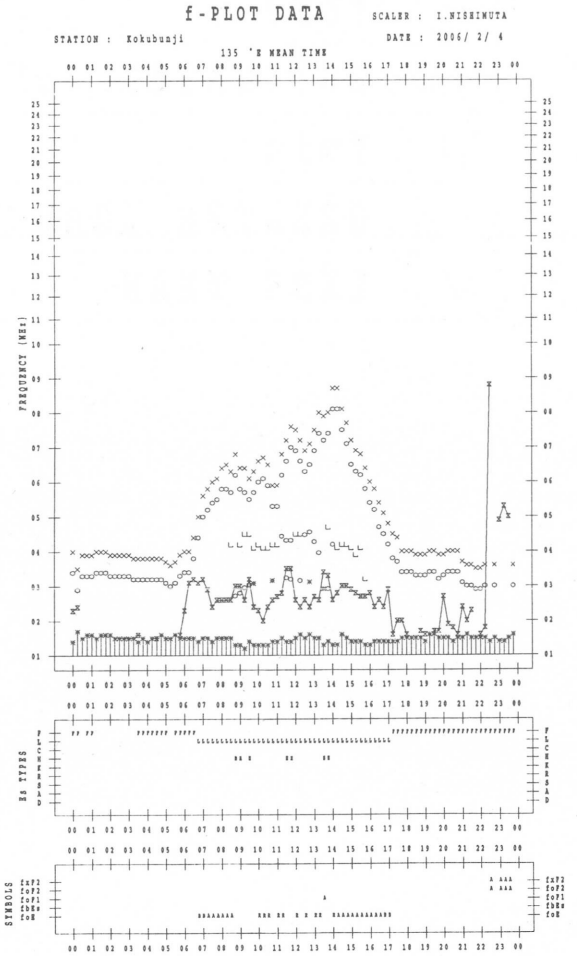
STATION : Kokubunji
DATE : 2006/ 2/ 2
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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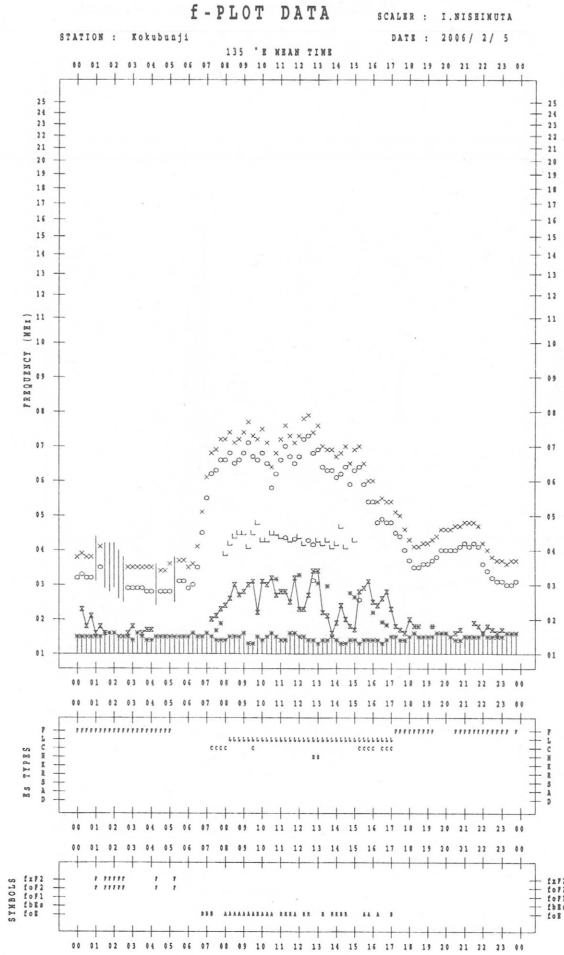
STATION : Kokubunji
DATE : 2006/ 2/ 4
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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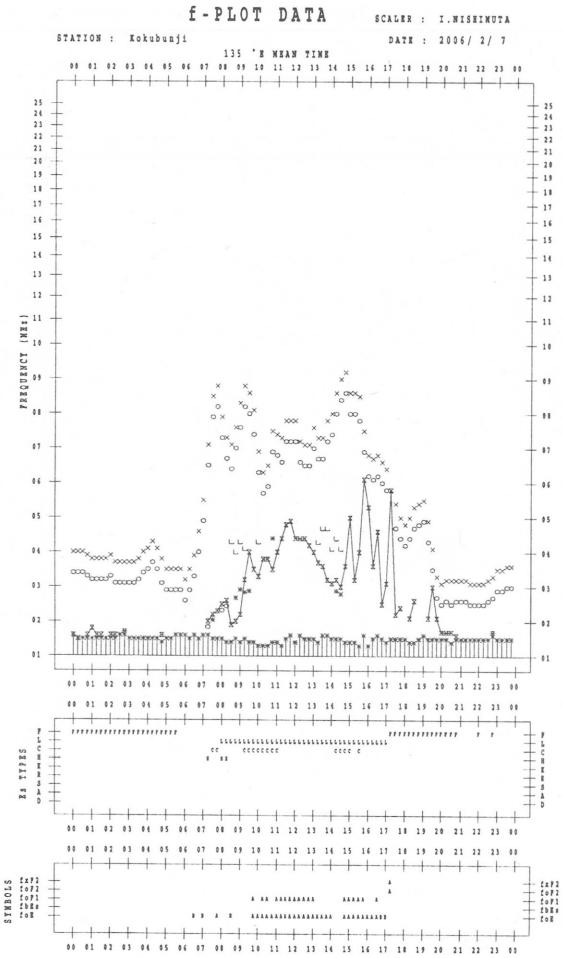
STATION : Kokubunji
DATE : 2006/ 2/ 5
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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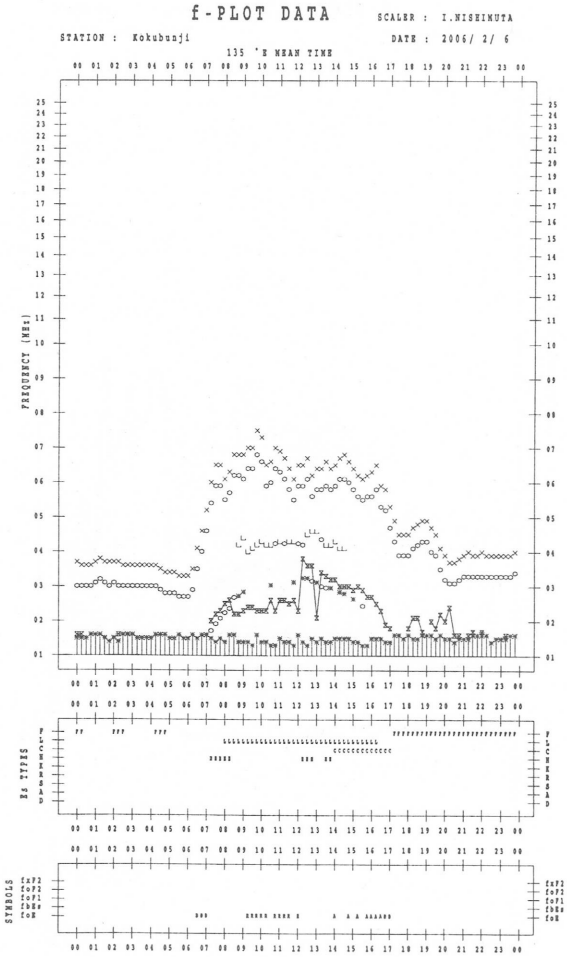
STATION : Kokubunji
DATE : 2006/ 2/ 7
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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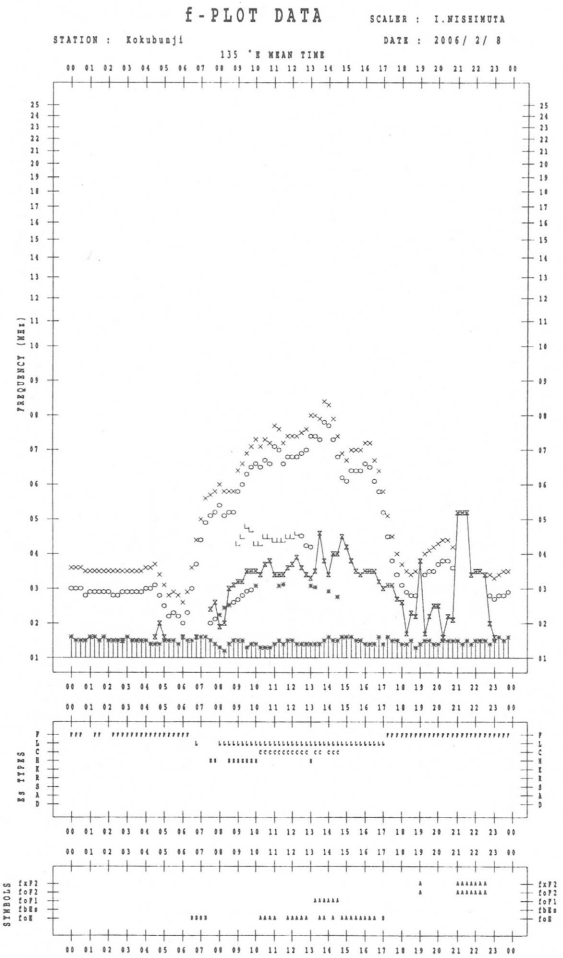
STATION : Kokubunji
DATE : 2006/ 2/ 6
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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STATION : Kokubunji
DATE : 2006/ 2/ 8
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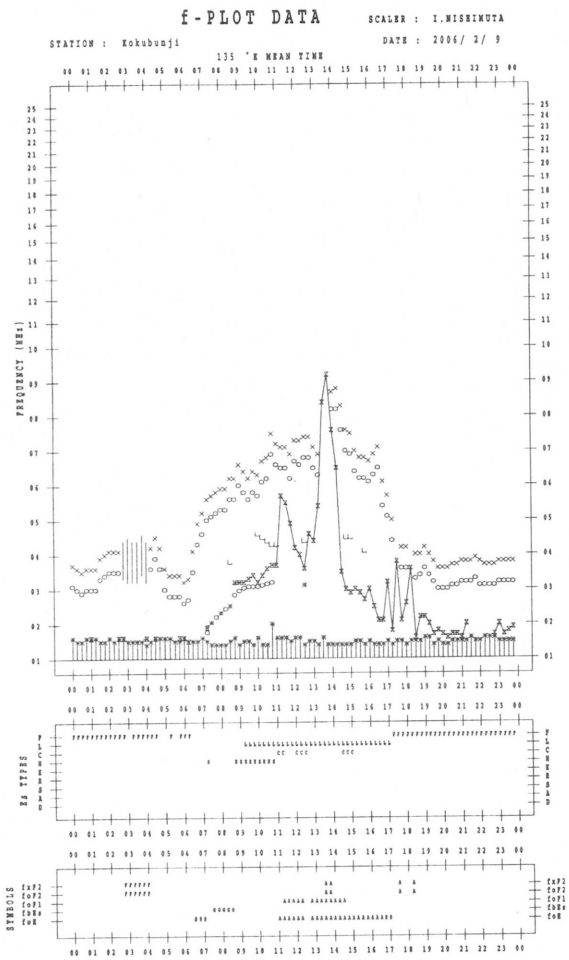
FREQUENCY (MHz)
Es TYPES
SYMBOLS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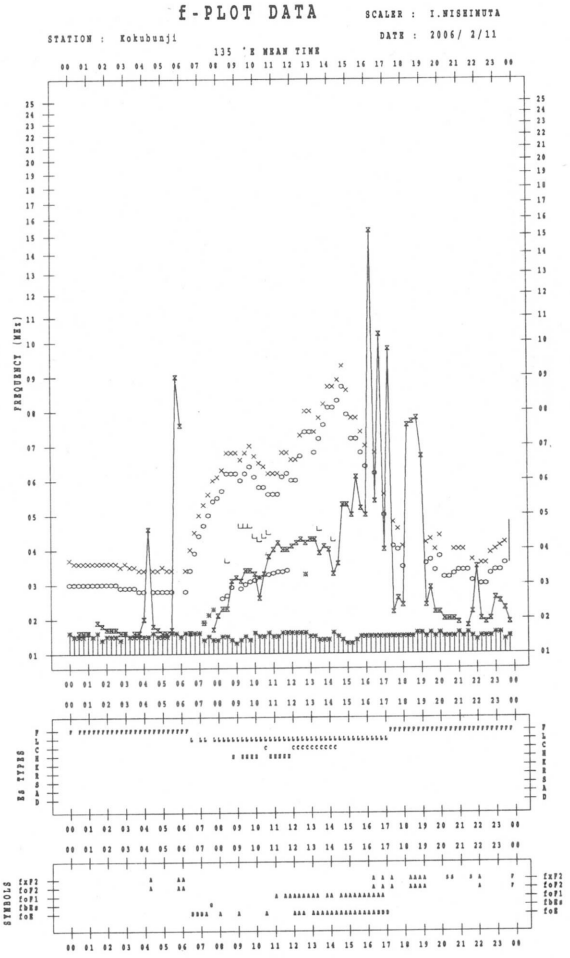
STATION : Kokubunji
DATE : 2006/ 2/ 9
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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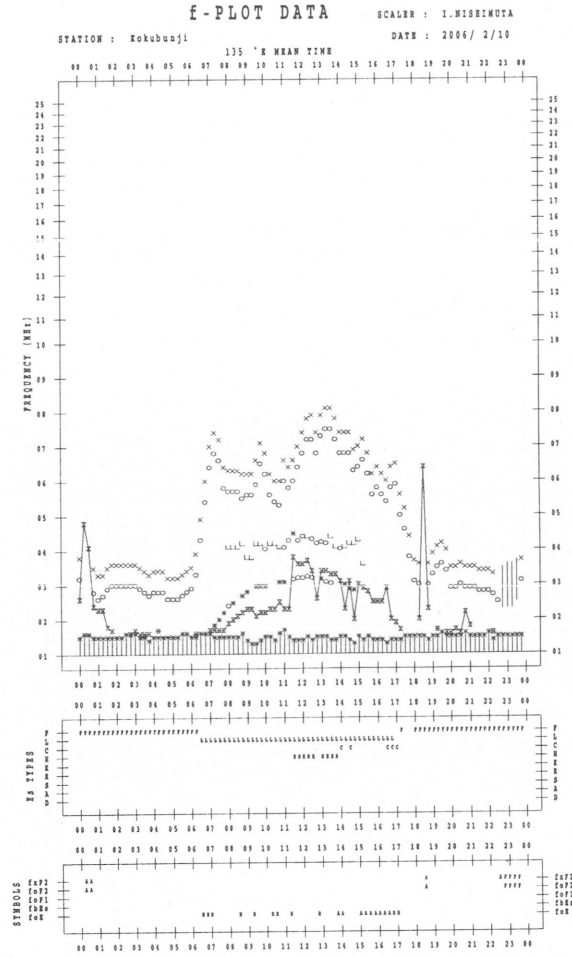
STATION : Kokubunji
DATE : 2006/ 2/11
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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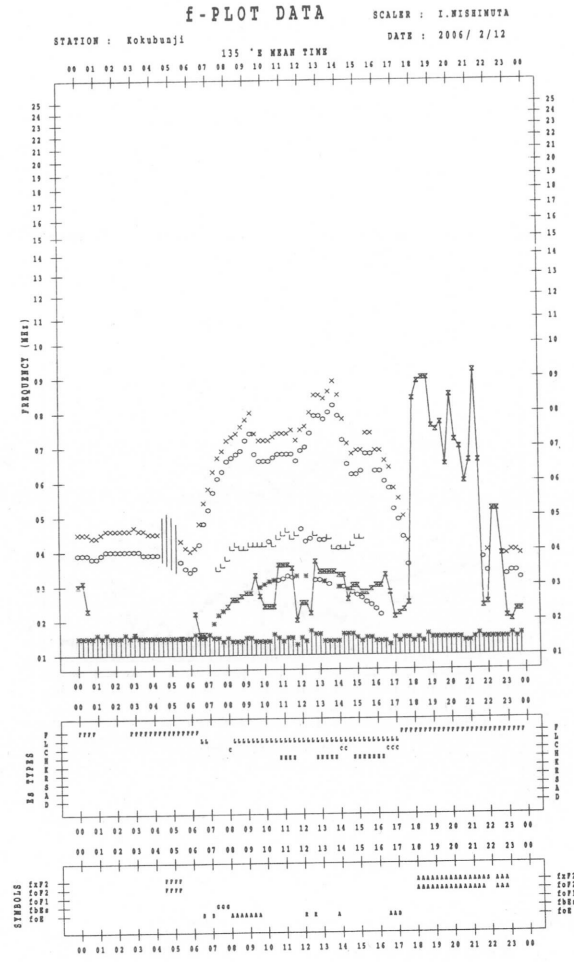
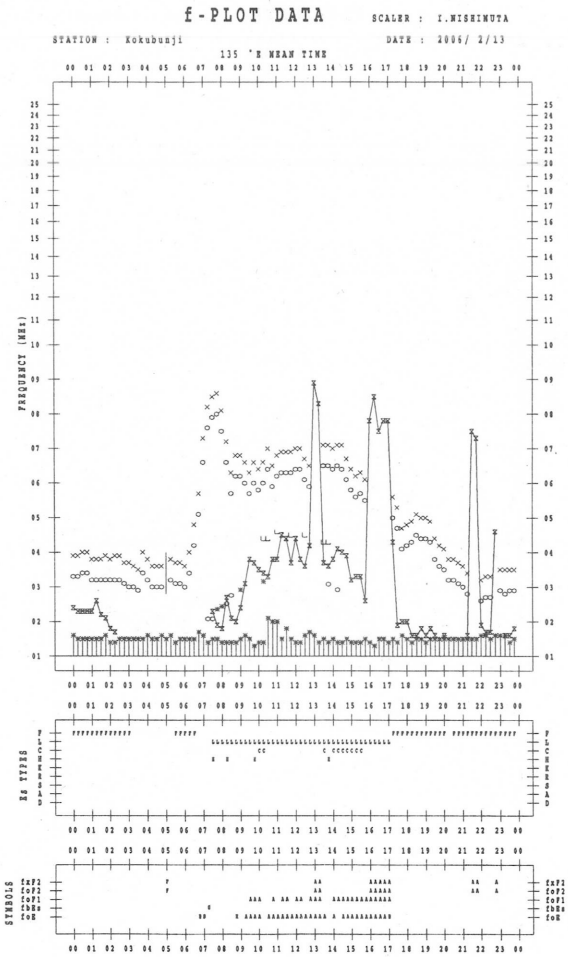
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/10
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/12
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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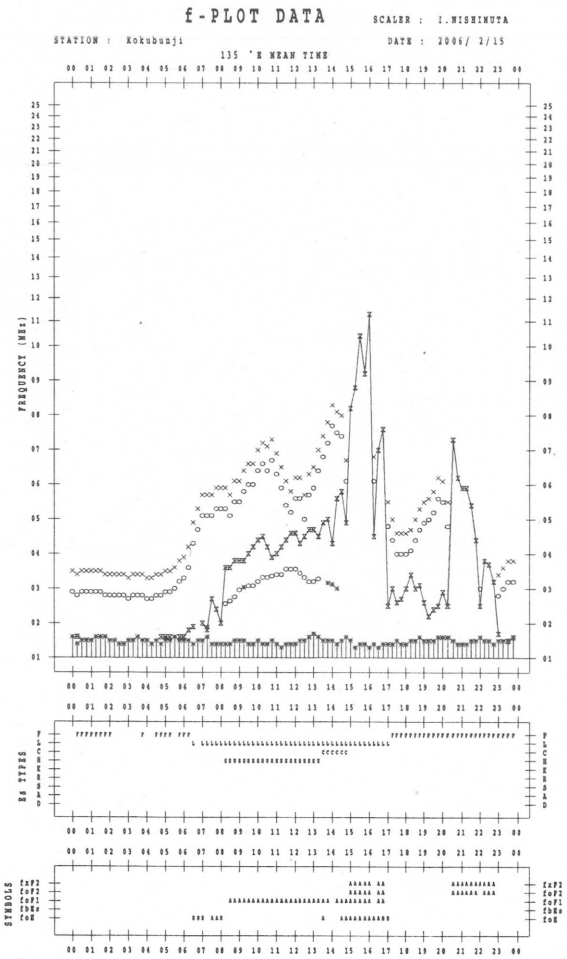
STATION : Kokubunji
DATE : 2006/ 2/13
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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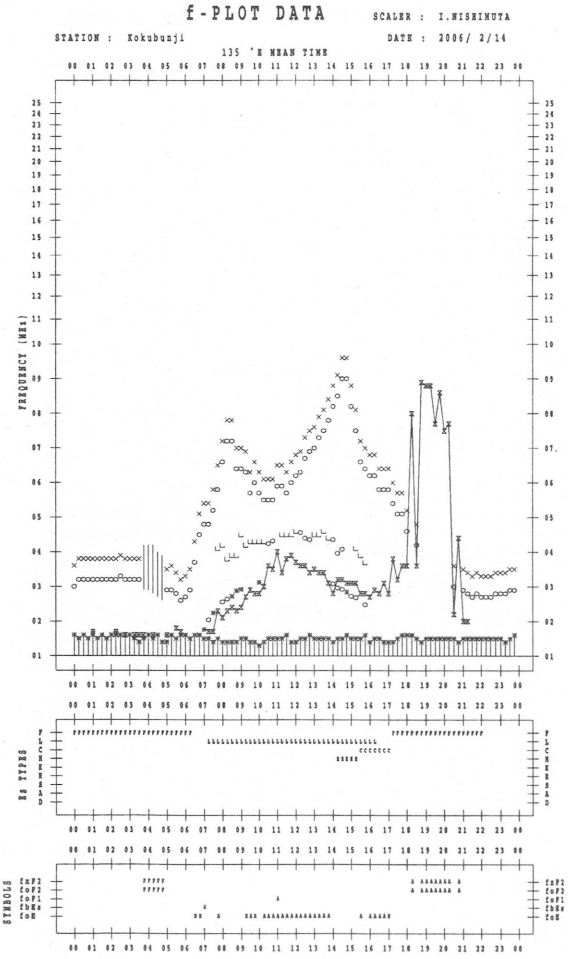
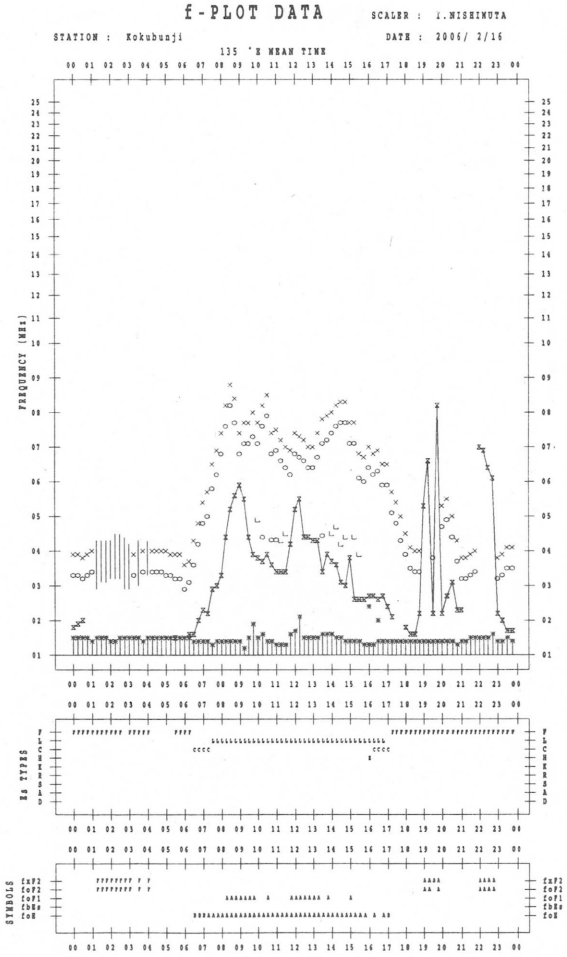
STATION : Kokubunji
DATE : 2006/ 2/15
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/14
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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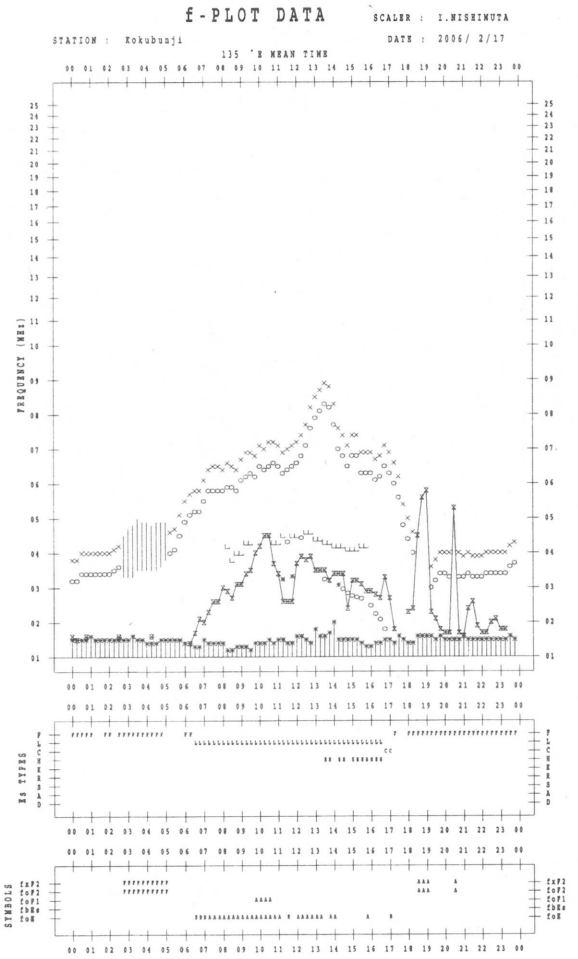
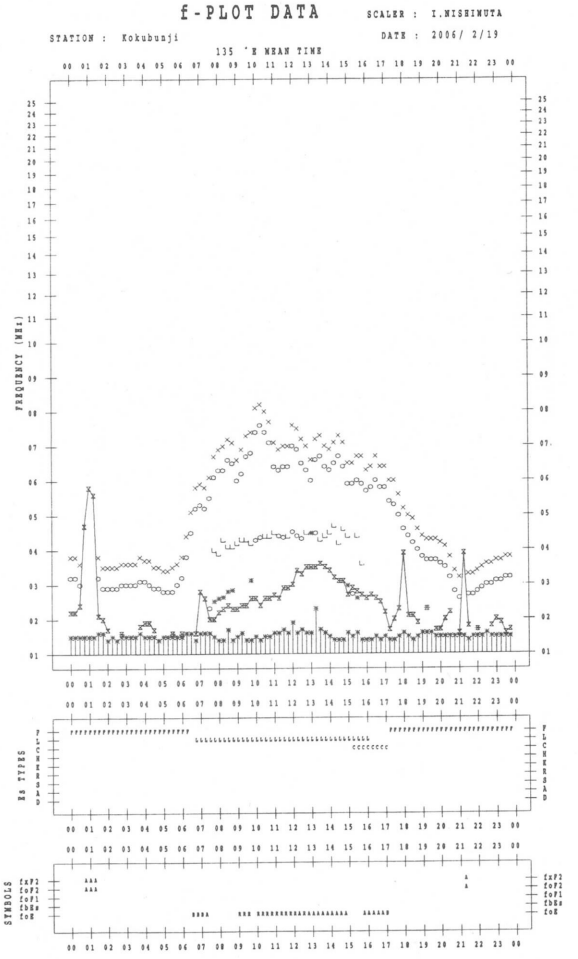
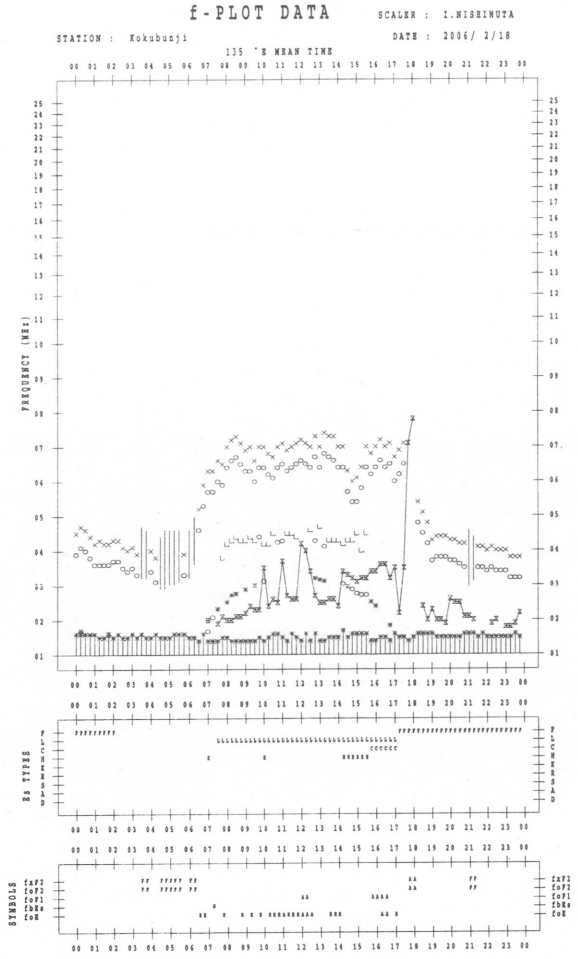
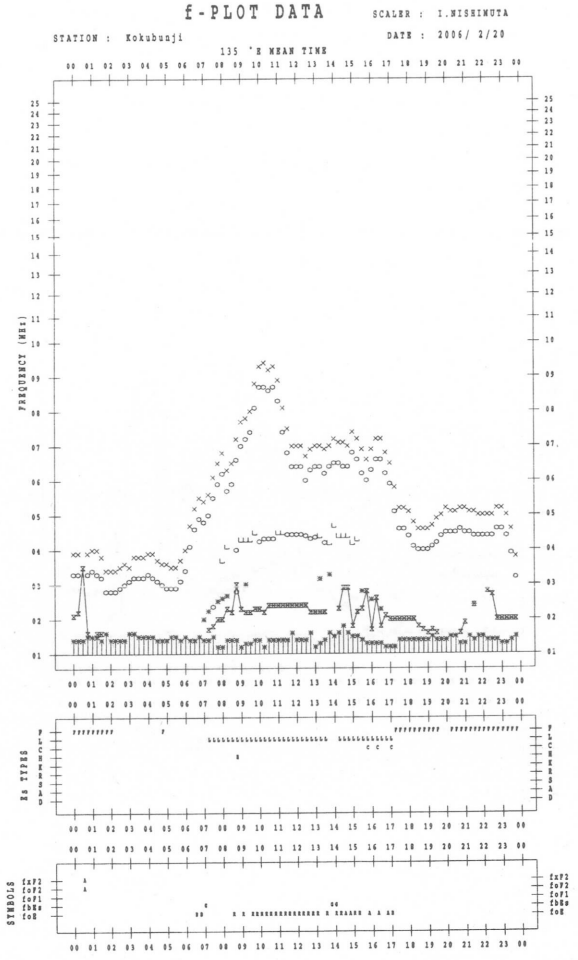
STATION : Kokubunji
DATE : 2006/ 2/16
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/17
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/19
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/18
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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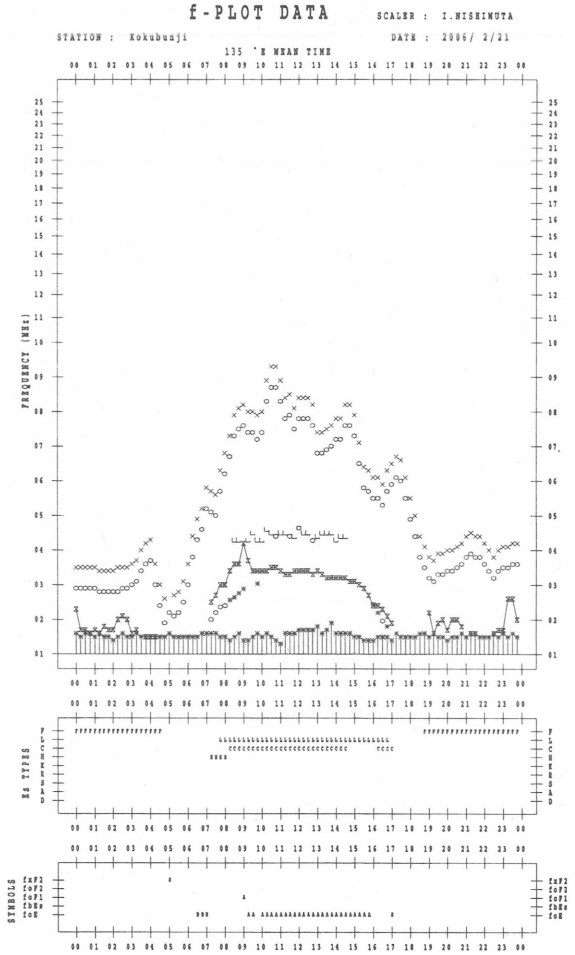
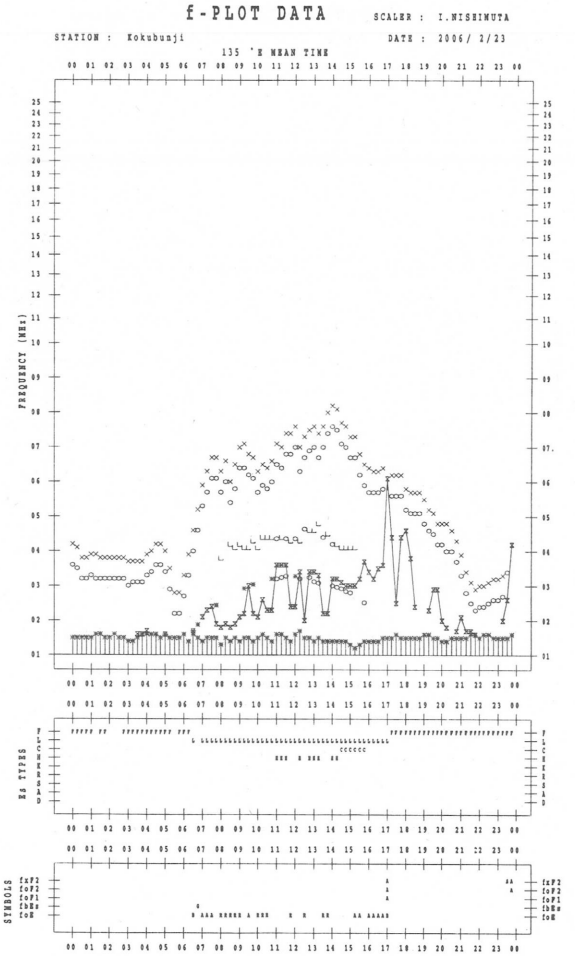
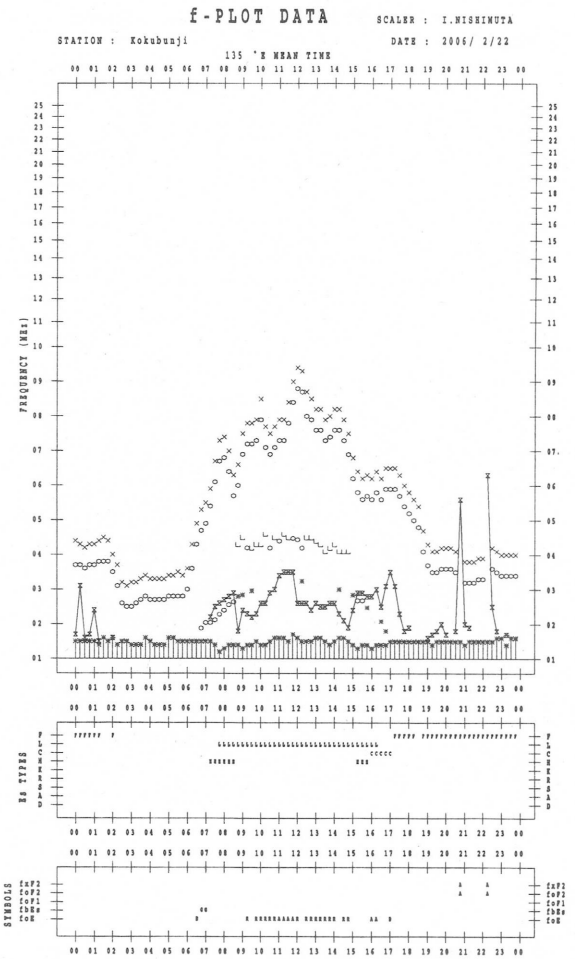
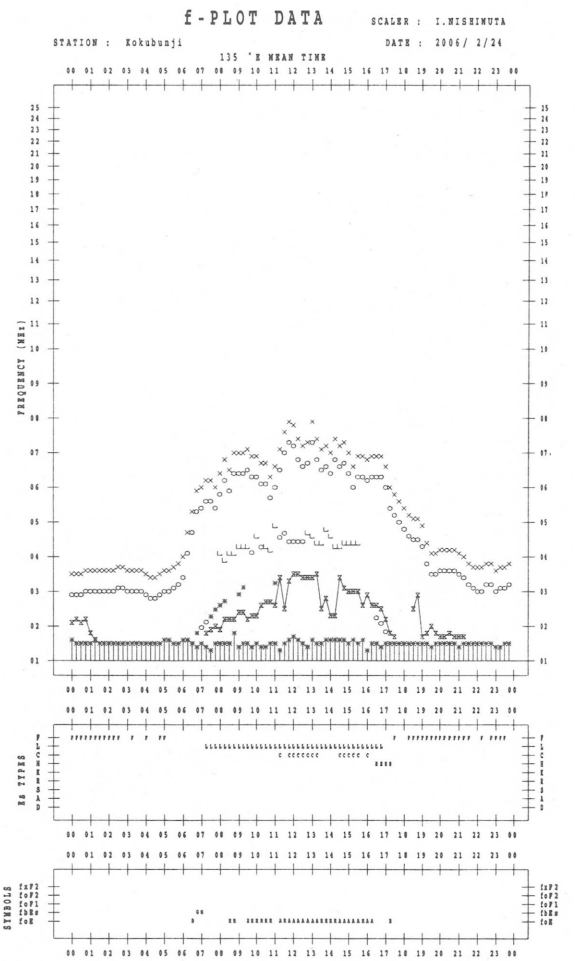
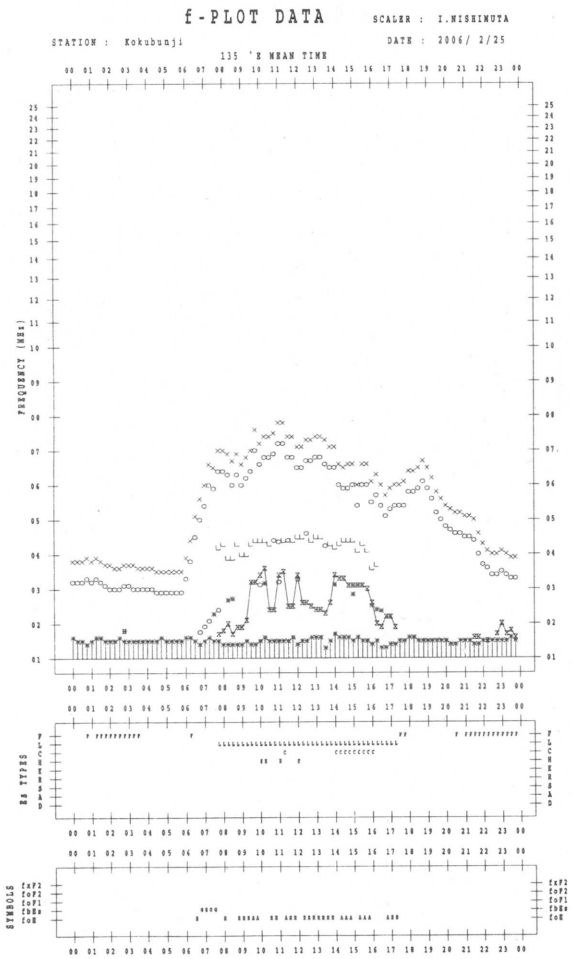
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/20
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/21
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/23
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/22
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/24
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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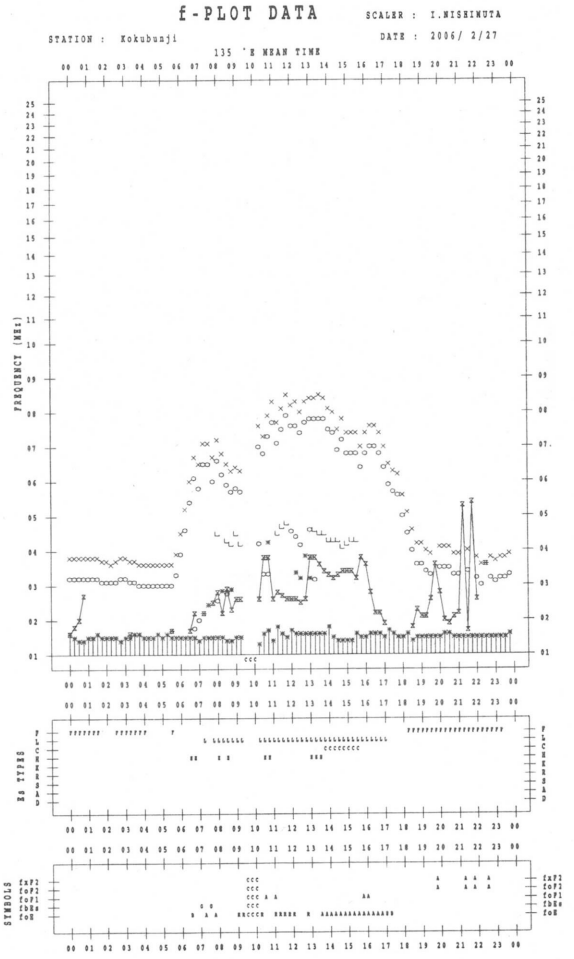
STATION : Kokubunji
DATE : 2006/ 2/25
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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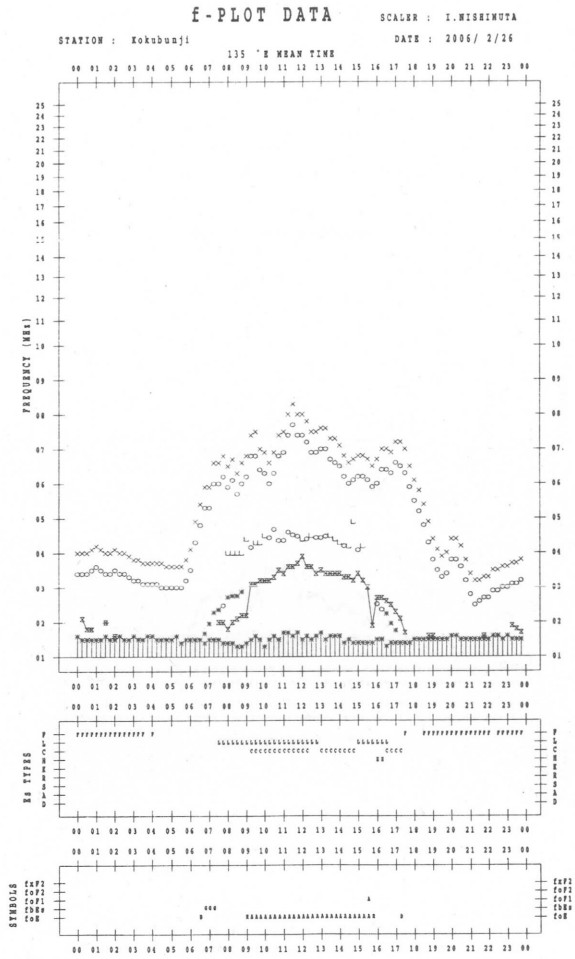
STATION : Kokubunji
DATE : 2006/ 2/27
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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STATION : Kokubunji
DATE : 2006/ 2/26
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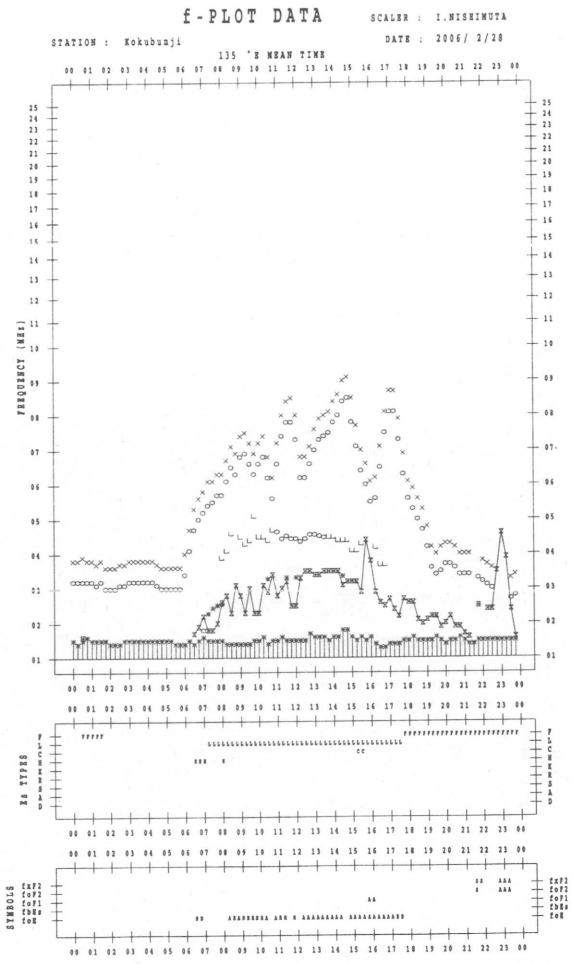
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 2/28
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

B. Solar Radio Emission
B1. Daily Data at Hiraiso
500 MHz

Since 10th November 2004, offering of 500MHz observational data has been finished due to deterioration of the observational environment.

B. Solar Radio Emission
B2.Outstanding Occurrences at Hiraiso

Hiraiso February 2006

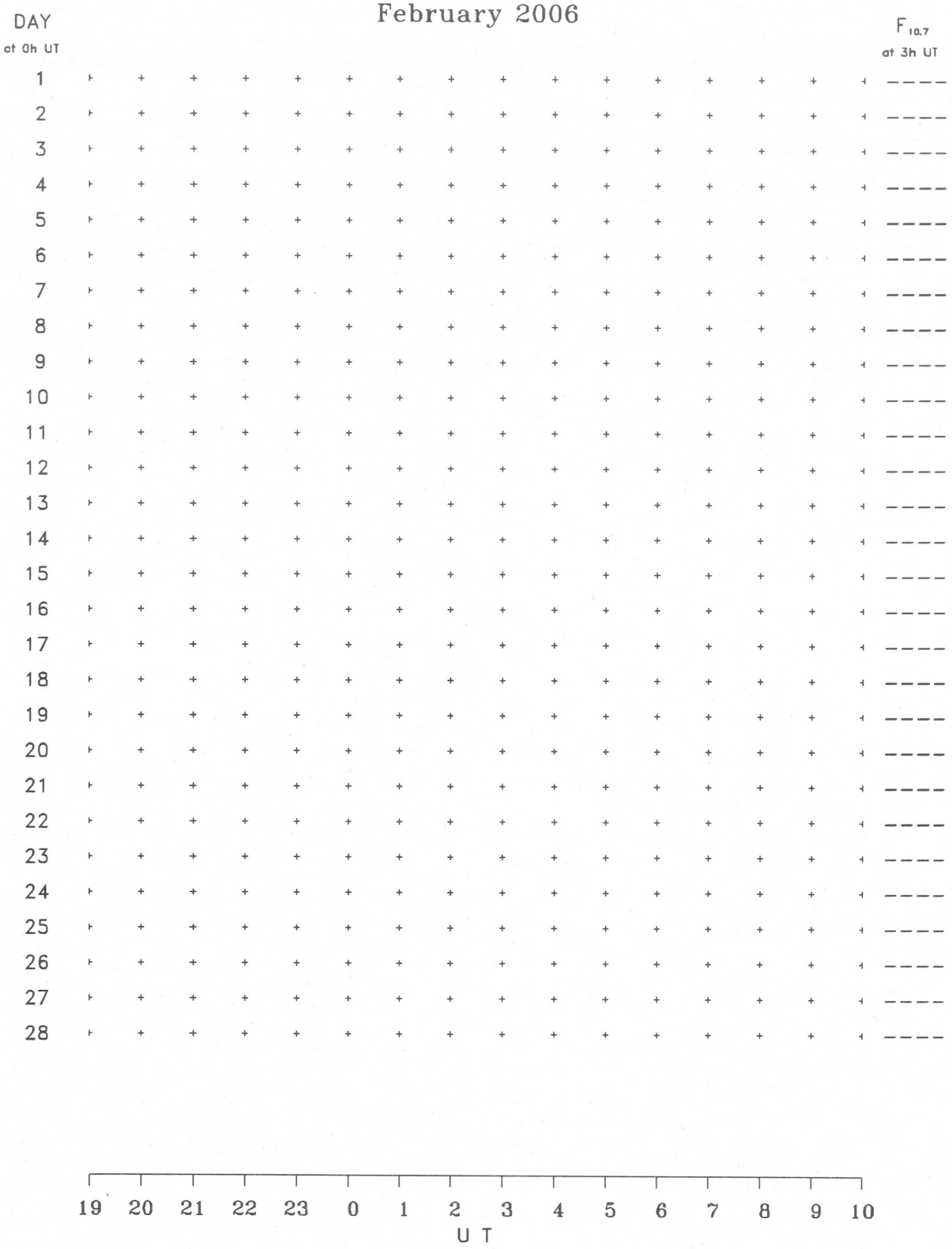
Single-frequency observations
Normal observing period: 2120 - 0820 U.T. (sunrise to sunset)

FEB. 2006	FREQ. (MHz)	TYPE	START TIME (U.T.)	TIME OF MAXIMUM (U.T.)	DUR. (MIN.)	FLUX DENSITY (10^{-22} W m^{-2} Hz^{-1}) PEAK	FLUX DENSITY (10^{-22} W m^{-2} Hz^{-1}) MEAN	POLARIZATION REMARKS

B. Solar Radio Emission

B3. Summary Plots of $F_{10.7}$ at Hiraiso

February 2006



Note: A vertical grid space corresponds to a 100 sfu.
Elevation angle range ≥ 6°.

IONOSPHERIC DATA IN JAPAN FOR FEBRUARY 2006
F－686　Vol.58　No.2（Not for Sale）

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☎（042）（327）7478（直通）

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