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IONOSPHERIC DATA IN JAPAN

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CONTENTS

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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

JAN. 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	44	44	45	46	47	48	47	36	54	74	81	77	80	76	77	58	50	46	36	37	44	A	44	47
2	45	43	45	46	46	45	44	51	80	76	79	77	72	75	65	50	44	48	40	43	34		44	45
3	46	38	40	37	40	40		31	64	77	75	64	66	61	57	50	40	35	30	32		29	26	26
4	A	34	32	32	36	34	29		68	64	75	68	69	62	64	57	40	30	28	30			38	40
5	36	37	37	34	34	35	35	37	60	65	71	68	63	64	55	45	45	44	36	26	28	32	32	34
6	32	28	30				30	36	56	66	68	64	62	68	58	54	45	30	29	30		24	31	32
7	34	35	38	30	31	30	28	37	50	66	74	72	64	77	58	44	50	58	28	29	30	35	30	35
8	36	37	36	37	37	35	20	36	52	68	62	66	72	70	57	46	52	42	36	32	38		38	38
9	42		34	36	36	36	34	37	58	76	77		68	68	45	48	53	36	31	24	30	34	35	32
10	34	32		30	30	29		34	47	53	56	54	55	56	54	52	42		30	30	28	28	28	31
11	34	32	A	32	31	30	26	30	48	57	59	55	57	56	51	50	44	38	38	35	34	37	34	35
12	35	38	35	36	36	31	34	37	58	67	61	61	54	52	52	56	45	34	32	32	34	34	37	35
13	40	43	32	38	41	40	37	40		47	56	55	53	57	58			38	35	32	31	34	34	34
14	34	34	26	34	32	34		36	48	63	67	60	60	57	49		41	41	38	45	44	44	44	47
15	48	39	41	41	38	34	25	40	49	61	52	58	48	58	61	55	41	34	40	37	46	54	52	47
16	36	36	40	38	38	40	42	50	61	70	66	64	67	65	54	40	43	41	35	38	35	37	34	36
17	36	34	34	30	38	34	31	40	60	54	65	77	54	54	47	39	45	35	A	A	A	A	A	A
18	A	32	26	32	34	29		36	64	82	C	72	64	64	60	49	50	34	A	A	29			36
19	30	30	31	30		A	A	34	54	64	65	74	62	53	55	51	46	35	30	32				34
20	34	34	34	29	31	A	A	37	62		56	65	58	58	60	52	46	38	A	23		29	34	36
21	34	32	32	32	36	28		34	60	56	60	62	69	57	61	46	40	42	40		32	34	32	
22	34	32	34					40	49	58	62	58	55	60	58	54	45	34	28	26		30	32	32
23	34	36	34	34	35	31		34	53	51	65	64	60	57	54	42	44	36	32	31	29		32	34
24	34	34	32		28	26		37		54	52		63	60	53	52	45	37	34	26	A		30	32
25	32	32	30	34	32	26		33	47	55	53	59	60	59	55	51	41	35	34	35	29	30	31	35
26		29	28	28	30	27	26	40	62	68	62	76	67	64	62	58	57	51	37	32	40	45	45	43
27	42	39	41	42	40	37	31	50	54	58	76	76	79	74	71	64	53	34	43		A	32	34	38
28	32	34	34	36	40	40	32	44	54	62	66	67	63	64	70	57	51			36	32	32	34	34
29	32	32	34	26	35	36	31	40	54	58	64	60	61	64	67	A	51	A	A	A	A	A	30	32
30	30	31	31	32	37	36	30	42	39	51	71	77	67	58	56	58	46	32	A	A	31	34	32	32
31	32	32	32	36	37	36	37	45	54	54	60	73	64	61	60	58	48	A	A	32	32	32	32	32
	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	30	29	28	28	27	20	30	29	30	30	29	31	31	31	28	30	27	24	25	21	21	28	29
MED	34	34	34	34	36	34	31	37	54	62	65	65	63	61	58	52	45	36	34	32	32	34	34	35
U Q	38	37	37	37	38	37	36	40	60	68	71	73	67	65	61	56	50	42	37	35	36	36	37	38
L Q	33	32	31	31	32	30	28	36	49	55	60	60	58	57	54	47	43	34	30	29	29	30	31	32

HOURLY VALUES OF fEs AT Wakkanai

JAN. 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	29	G	G	G	25	36	36	42		40	32	G	G	G	G	G	G	28	77	38	32
2	28	G	28	G	G	G	G	G		43	40	32	28	28	G	36	34	40	30	26	38	42	32	32
3	30	G	G	G	G	G		G	G	42	28	36	28		G	31	G	30	28	40	39	29	G	30
4	39	35	28	32	24	28	G	40	29		29	28	G	G	G	G	11	G	G	G		32	38	32
5	31	G	28	24	G	G	G	G	G			29		28	G	G	G	26	G	G	G	G	G	28
6	G	G	G		26		G	44		30	27	28		G	G	G	23	G	G	G		G	G	27
7	G	24	G	G	G	G	G	27	26	27	28	G	30	G	G	G	G	G	G	G	G	G	G	32
8	33	29	G	G	G	G	G	G	26	34	56	38	43		29	G	G	G	G	G	36	37	29	G
9	28		G	G	G	G	G	24	34	G						G	40	G	G	G	G	G	G	32
10	37	28	40	G	G	G		G	G	28	29	G	G	G		G	G	G	29	G	G	G	G	G
11	G	32	39	29	G	G	G	G		34	36		38	30	26		G	11	G	G	G	G	25	26
12	29	26	26	G	G	G	G	G	30			50			41	G	G	G	28	26	26	27	27	G
13	G	G	G	G	G	G	G	G		35	29	32	31	27	34		G	G	G	G	G	G	G	G
14	G	G	G	G	G	G			33	37	33	39	32	32	36	32	28	G	G	G	G	24	32	G
15	G	G	25	G	G	G	G	G	34	30	32	40	40	39	36	32	G	G	G	G	G	30	27	G
16	G	G	26	G	G	G	G	G		27	39		33	46	39	40	41	36	G	28	28	G	29	G
17	G	G	30	38	59	30	24	G	G			32	39	31	40	46	40	40	39	58	43	44	59	49
18	42	G	28	26	29	G	G	G	G	G	C	35	43	G	G	G	46	44	41	40	G	29	32	32
19	G	G	G	36	34	42	46	39	24	G	G	G	G	G	G	G	23	G	G	G	34	38	40	29
20	G	G	G	G	36	38	33	32			30	30	G	G	46	28	G	39	68	38	36	G	G	G
21	G	G	G	G	G	G		G	28	G	39	32	G	G	27	G	34	29	G		G	G	G	
22	G	G	G	27	G			32			28	28	32	G	G	G	G	G	G	28		G	28	G
23	27	G	G	G	G	G		G	G	G		28			G		G	G	G	G	G	G	G	G
24	25	G	G	G	G	G		G			28	G			30	G	G	G	G	29	39	26	27	G
25	G	G	G	G	G	G		G	28	48	33	34	39			G	G	G	G	G	G	G	G	G
26	34	27	G	G	G	G	G	G	29	32	37	39	39	37	34	35	29	G	G	G	28	G	33	48
27	29	G	28	G	G	G	G	29	32	33	35	37	36	35	32	28	26	31	32	30	41	G	G	26
28	28	26	G	G	G	G	G	G	G	G	39	34	46	G	41	43	41	34	G	34	G	G	G	G
29	G	G	G	G	G	30	G	G		46	38	46	40	39	42	72	48	74	30	73	33	41	G	G
30	G	G	G	G	25	24	32	27		28	39	33	33	G	40	44	40	28	43	60	G	G	G	G
31	G	G	27	G	31	G	G	11	41	33	38	40	39	40	39	33	G	47	32	34	26	24	G	G
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	30	31	30	31	29	23	30	21	24	25	27	25	24	28	28	31	31	31	30	28	31	31	30
MED	G	G	G	G	G	G	G	G	28	31	33	32	33	28	30	G	G	G	G	G	14	G	G	G
U Q	29	24	28	24	24	G	G	27	32	35	39	38	39	33	39	34	34	34	30	34	35	30	32	32
L Q	G	G	G	G	G	G	G	G	G	14	28	28	28	G	G	G	G	G	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Wakkanai

JAN. 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	14	21	18	15	14	17	15	17	14	16	15	15	16	18	26	18	18	15	14	16	15	15	14	15
2	15	14	15	16	15	14	16	15	21	14	14	15	14	15	14	15	14	15	17	15	15	14	14	15
3	14	14	14	14	17	15		14	21	15	15	16	18	18	26	14	18	14	14	15	15	15	15	18
4	14	14	17	14	15	16	16	14	14	17	16	17	20	15	24	20	17	20	20	14		15	15	15
5	14	14	14	15	14	14	16	15	14	17	15	15	18	20	23	21	17	18	15	16	15	16	15	16
6	14	15	20		15		16	16	18	14	14	15	18	18	15	20	18	20	16	17		16	18	15
7	15	15	15	14	15	15	14	15	14	14	15	17	16	15	15	17	15	17	17	21	15	16	17	14
8	15	15	15	15	14	15	17	14	14	16	14	18	20	18	17	21	20	14	15	15	16	15	16	17
9	16		18	14	15	16	15	15	15	22	26	20	27	20	23	22	20	15	15	16	16	18	18	16
10	14	15	15	15	15	15		17	20	20	20	28	28	27	24	21	15	18	20	18	17	21	18	15
11	17	16	15	15	15	15	17	18	15	15	15	15	16	15	18	15	14	17	15	18	15	15	15	14
12	14	15	17	15	15	15	15	15	14	17	15	20	18	16	14	20	18	15	17	14	17	18	18	20
13	16	15	17	15	15	15	18	15		15	14	15	14	20	14		15	15	15	15	16	16	14	15
14	15	16	16	15	15	15		17	16	21	14	14	16	15	16	14	18	16	15	16	15	17	15	15
15	15	15	15	15	15	14	15	15	15	14	15	14	15	14	14	14	15	15	15	16	14	15	16	15
16	15	15	14	14	14	14	18	14	15	15	14	16	16	15	21	15	16	14	16	17	15	14	16	14
17	15	15	14	14	15	14	15	15	21	16	17	20	17	18	15	15	14	16	15	14	14	16	15	14
18	15	15	17	14	14	18	17	15	21	15	C	14	15	29	16	22	14	15	16	15	20	20	15	15
19	15	14	15	14	14	15	15	14	17	26	27	28	29	29	27	23	16	20	20	21	17	17	15	18
20	21	21	16	20	15	15	15	14	16		29	32	32	32	23	20	14	15	15	15	14	18	15	15
21	14	16	15	15	15	18		17	21	15	15	14	17	15	16	24	15	15	15		14	15	15	
22	16	20	18	18	20			14	23	26	18	32	18	33	27	22	20	16	18	16		18	17	17
23	17	15	17	15	15	15		15	15	24	21	20	22	16	18	20	20	15	18	16	18	16	18	17
24	16	20	15	17	14	15		17		21	18	21	21	21	21	22	20	15	16	17	15	17	14	15
25	15	15	20	14	15	15		18	15	16	14	14	17	18	15	21	20	20	18	17	17	15	16	15
26	15	17	18	17	15	15	18	17	15	14	17	14	15	18	14	14	17	17	15	15	17	16	15	16
27	15	15	15	15	15	15	18	15	15	15	14	14	14	15	15	14	20	15	14	16	15	17	20	17
28	15	18	18	14	15	15	17	17	20	18	16	18	21	15	18	15	14	14	15	14	15	18	14	18
29	14	15	15	15	15	15	16	17	23	14	14	15	18	14	14	14	14	15	17	14	15	16	15	18
30	14	14	15	15	15	15	14	15	14	14	15	18	14	17	18	15	14	15	14	15	15	15	15	15
31	16	14	15	15	15	18	15	15	16	15	15	15	14	18	18	14	14	17	17	15	17	18	18	17
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	30	31	30	31	29	23	31	29	30	30	31	31	31	31	30	31	31	31	30	28	31	31	30
MED	15	15	15	15	15	15	16	15	15	16	15	16	17	18	18	19	16	15	15	16	15	16	15	15
U Q	16	16	17	15	15	15	17	17	20	18	17	20	20	20	23	21	18	17	17	17	17	18	17	17
L Q	14	15	15	14	15	15	15	15	14	15	14	15	15	15	15	15	14	15	15	15	15	15	15	15

HOURLY VALUES OF foF2 AT Kokubunji

JAN. 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					28		38	42	54	73	91	81	71	65	65	69	55			36			36	32
2		36	26	34	A	35	34	52	70	77	87	85	71	64	65	61	46		39	43	28	30	37	39
3								44	59	71	90	70	60	63	62	59	56	39	24					
4	28	30		A		30	28	46	51	68	83	80	62	67	63	58	51	34		34	37	32	30	
5	34		36	30	29			42	59	59	71	72	62	61	62	59	44		38	36	30		27	A
6	A			26				45	59	64	72	73	71	65	64	56	51	36				32	31	25
7	34	36	34					41	54	69	87	72	59	58	76	59	45	42	50		A	A	34	A
8		A			26			36	49	41	72	68		58	64	56	44			42	34			32
9	32		31			26	24	44	53	68	78	65	63	54	54	50	42	47	51	38	30		28	
10		30		27				35	45	51	55	52	53	57	52	52	45	40	30	31	36			
11		28						36	44	52	62	59	51	55	63	58		35	34	39	26	34	30	26
12	30	30	30	30			26	41	47	53	75	56	53	52	51	55	51	32	26	27	34	36	35	
13	24	32	24					39	38	59	51	59	51	55	61	64	49	30				27		24
14	26			30				38	47	48	66	61	56	45	48	49	44	34		34	36		32	28
15	28	30	28	27		28	27	24	49	49	57	59	62	56	54	63	46		A		36			
16	27	28	27		A			42	47	54	66	72	61	54	55	51	A	A	A	36	36	36	36	32
17	28	30	30	24		27		39	54	48	67	78	72	55	51	54	45	41	A	A	A	A	A	
18								47	61	69	91	82	62	58	63	62	48	44	A	A				
19							A	39	47	64	77	72	62	53	52	52	46	35	A	A	34			
20		28				A	A		A	66	80	78	63	59	62	59	51	44	40				A	
21				25				34	49	55	66	69	72	69	66	61	49	39	32	34				34
22	34	38	32					43	49	53	62	52	64	68	55	59	54				30		26	26
23	30			36				37	48	58	68	68	60	59	53	52	49	37		34	36	36		
24	43	34						45	53	59	63	71	64	57	56	52	51	43		28				
25	A		32	32				39	47	52	72	64	61	60	58	57	52	35		31	34		31	32
26	32	31	30		28			41	54	66	63	72	69	64	58	58	52	51	46	43	44	44	44	30
27	28	34	41	24	28		28	42	54	68	81	95	67	71	68	63	61	45			36	35	32	31
28	30	30	30	31		27	23	51	59	54	67	72	78	64	68	57	51	46	39	36		A	A	
29	27	28	27	30	36		A	46	54	60	A	A	76	74	74	70		44	A	36	37	A		34
30		28	30	32	37	A		45	69	59	54	63	78	72	A	55	A	A	A	A	A	A	A	
31	26				37	34	A	44	54	57	63	65	77	71	58	54	52	44				32		30
	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	18	18	16	15	8	7	8	30	30	31	30	30	30	31	30	31	27	23	12	18	18	11	15	15
MED	29	30	30	30	28	28	28	42	53	59	70	70	62	59	62	58	49	40	38	36	35	34	32	31
U Q	32	34	32	32	36	34	31	45	54	68	80	73	71	65	64	61	52	44	43	38	36	36	36	32
L Q	27	28	27	26	28	27	25	39	47	53	63	63	60	55	54	54	45	35	31	34	30	32	30	26

HOURLY VALUES OF fEs AT Kokubunji

JAN. 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	31	36	36	29	G		G	G	47	G	77	97	61	39	50	51	41	41	31	G			29	59
2	G	26	26	G	44	G	G	G	G	40	36	29	39	G	29	G	G	G	G	G	G	G	48	40
3		34	29	29	G			G	30	28	29	31	30	40	G	G	G	G	G	G	G	G	G	G
4	G	G	37	30	G	G	G	G	29	40	34	34	G	42	39	31	33	G	26	23	32	G	G	
5	G		G	G	G			G	G	34	32	G	30	G	G	G	32	27	27	G	G		G	34
6	35		G	G	G		G	G	59	36	40	30	G	30	28	G	26	33				G	G	G
7	G	29	28	G		G		G		37	40	31	30	35	G	G	G	G	G	G	29	29	28	34
8	34	24	29		G			G	26	53	40	41	33	39	38	G	33	29	G	G	G	G	G	G
9	G		24			G	G	G		31	31	31	G	G	G	G	G	G	G	23	27	26	G	
10		G		27	G	G		G	36	29	31	G	G	34	33	G	G	G	G	G	G	G		
11		G	G		G			G	G	G	G	31	35	47	36	37	27	G	G	G	G	G	G	G
12	26	G	G	G			G	G		34	34	43	31	G	G	29	G	G	G	G	26	G	G	
13	G	G	G			G		G	26	32	33	35	43	37	42	34	G	G				G	G	G
14	G			G	G			G	32	40	40	31	G	38	36	34	G	25	27	G	G	G	G	G
15	G	G	G	G		G	G	29	25	30	34	42	42	34	41	34	G	34	30	26	29	28		G
16	G	G	G		34	G	G	28	37	39	33	34	G	35	29	37	50	81	76	50	G	G	G	G
17	G	G	G	G		G		G	26	31	G	45	G	G	34	G	G	32	36	51	41	36	60	38
18	31	G	32	32	29		G	26	35	39	49	43	36	40	29	G	G	G	50	36	39	29	G	24
19							34	26	35	28	50	G	G	G		G	25	G	34	42	29	29		
20		G				58	32	45	60	46	34	47	G	G	G	G	G	26	G				46	
21				G			23	G	34	43	G	31	30		29	G	N	G	G	G				G
22	G	G	G					G	32	G	42	45	31	44	33	39	39	24			G		G	G
23	G		G	G				G	G	34	31	40	G	30	G	G	G	29	27	G	G	G	G	G
24	G	G						G	44	33	30	51	G	34	G	G	43	29	29	G			47	32
25	44	31	29	G				G	40	33	31	38	50	49	36	27	G	G		G	G		G	G
26	G	G	G		G	G		G	G		30	40	41	42	40	31	29	G	G	G	G	G	G	G
27	G	G	G	28	G	28	G	27	G	G	32	33	47	42	39	G	G	30	30		G	G	G	G
28	G	G	G	G		G	G	G	G	G	35	35	36	43	49	47	36	26	30	72	40	40	36	
29	G	G	G	28	G	G	34	49	G	G	67	78	62	60	61	75	60	43	69	32	G	40		29
30	G	G	G	71	36	30	36	26	G	G	44		37	46	71	53	85	143		43	52	41	36	G
31	G	G	42	G	G	25	26	34	40	41	55	44	35	39	29	31	31	G	G			G		G
	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	21	17	16	17	31	28	30	31	30	31	30	30	31	30	31	26	25	24	24	25	24
MED	G	G	G	G	G	G	G	G	30	33	34	35	31	38	33	G	13	24	26	G	G	G	G	G
U Q	13	12	29	28	15	13	29	26	36	39	40	43	39	42	39	34	33	30	30	34	29	29	32	30
L Q	G	G	G	G	G	G	G	G	G	28	31	31	G	30	G	G	G	G	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Kokubunji

JAN. 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	14	14	13	13	14		14	17	26	14	18	18	14	14	13	13	13	13	14	17			14	13
2	14	13	13	14	13	17	20	18	14	14	17	18	18	17	14	26	22	25	14	14	13	15	14	13
3		13	13	14	18			15	13	20	20	21	18	21	14	15	21	14	17	13	13	14	14	15
4	13	14	13	13	15	14	14	14	13	14	15	17	33	22	15	13	15	20	14	13	14	17	13	
5	17		15	13	14			17	14	14	15	14	17	18	20	14	13	15	14	14	13		15	14
6	13		17	14	13		17	13	13	13	13	14	18	18	20	18	13	13				14	14	14
7	15	15	14	14		15		14	13	13	13	14	18	21	13	14	23	17	18	20	14	14	13	13
8	13	17	13		14			14	13	14	17	14	13	14	13	14	13	14	23	13	13	13	13	13
9	13		13			14	14	14	13	13	13	18	14	20	17	24	18	18	14	17	14	17	14	
10		14		14	14	14		21	13	18	15	37	38	13	17	24	22	23	20	13	14	18		
11		15	14		14			17	14	15	15	36	15	13	13	13	14	15	14	14	14	14	14	14
12	13	14	14	14			15	17	13	13	14	15	20	34	36	14	22	15	15	14	14	13	13	
13	14	17	21			15		14	18	14	13	15	13	18	13	13	20	15				18	18	14
14	13			15	14			17	14	14	17	14	33	14	13	15	13	18	13	14	13	15	13	13
15	13	14	14	14		14	14	14	13	14	14	13	17	13	15	13	15	13	13	14	14	14		14
16	14	14	14		14	17	18	13	13	13	14	14	15	15	14	13	13	18	14	13	14	15	13	14
17	14	14	18	20		14		25	20	15	43	14	40	39	18	33	21	13	13	14	13	13	14	13
18	14	14	13	13	14		18	14	13	13	13	13	39	14	18	13	14	21	13	13	13	13	17	13
19							13	15	13	13	15	38	39	39	22	36	14	15	14	13	14	14		
20		15				14	14	13	14	13	15	29	40	39	39	26	23	13	14				13	
21				14			14	20	13	15	40	23	17	23	17	33	14	14	17	21				14
22	17	13	23					20	15	14	29	14	13	18	14	24	13	18			15		17	13
23	15		18	14				17	13	17	18	24	22	22	36	14	24	14	14	13	14	13	13	13
24	14	14						21	14	25	22	24	36	23	15	18	14	13	13	13			15	14
25	13	13	13	13				17	14	15	14	22	21	13	14	17	15	23		14	14		17	18
26	13	14	14		14	15		15	21	31	33	20	23	15	14	14	13	18	14	14	18	17	21	14
27	14	15	14	13	14	14	17	14	25	28	14	15	18	15	15	14	13	13	13		14	15	15	14
28	14	14	13	13		15	14	18	23	13	14	40	41	24	15	14	13	14	14	14	14	13	14	
29	13	13	13	13	14	14	14	13	18	20	28	21	22	17	15	13	15	14	14	15	14	13		14
30	15	14	14	13	14	14	14	14	14	13	15	13	18	13	13	13	13	21	21	15	13	15	13	14
31	13	14	14	13	13	13	15	14	13	18	22	23	21	17	15	14	13	17	13			14		13
	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	21	17	16	17	31	31	31	31	31	31	31	31	31	31	31	27	25	24	24	25	24
MED	14	14	14	14	14	14	14	15	14	14	15	18	18	18	15	14	14	15	14	14	14	14	14	14
U Q	14	14	14	14	14	15	17	17	15	17	20	23	33	22	18	24	21	18	15	14	14	15	15	14
L Q	13	14	13	13	14	14	14	14	13	13	14	14	17	14	14	13	13	14	13	13	13	13	13	13

HOURLY VALUES OF foF2 AT Yamagawa

JAN. 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	28	A	A	A	31	31	36	32	50	68	68	96	80	72	74	72	A	55	38	36	34	37	34	32
2		29	A		A				64	64	87	97	77	80	72	66	61		35		41	30	32	29
3	28	A			A		28		45	61	82	78	75	64	65	68	62	52	A	A	34	40	42	41
4	32	28	31	29	29		26	32	54	54	75	80	68	67	58	58	55	52	37		34	39	32	
5	28		32	32	28			29	51	58	60	80	66	57	63	72	52	43	34	34	42	36	32	26
6		26		28		26	26	30	54	58	78	71	70	72	65	66	58	54	38	32	34	29	32	28
7	30	31	36					28	42	72	76	85	81	71	75	80	55	41	44	54	36			30
8		26	28	30	37			29	48	56	66	66	64	71	66	65	60	47	37	41	41	26	26	28
9	30	32	37	30	28			31	54	64	74	85	74	66	66	59	51	47	47	52	42	A	26	28
10		30	30	28	32			28	48	54	54	58	58	53	49	60		47	32		44	42		26
11		28	26	28	28			26	52	52	54	68	54	46	57	65	55	47	34	38	47			
12	28	26	28	29	26			26	50	58	55	55	60	53	61	58	56	48	34	30	38	38	36	31
13	32	32	32	32	28				54	50	57	64	55	55	62	58	60	53	34	34	38			
14		28	28	28	34			28	48	52	58	62	58	51	51	55	50	46	32	34	38	40	28	26
15	26	28	28	26				28	48	50	45	57	60	61	51	55		48	A		26	34	29	25
16	26	28	28						54	46	38	75	80	65	56	60	52	45		34	40	37	34	34
17	32	30	31	44				30	48	51	68		108	87	66	63	45	51	35		34	34	34	36
18	34	34	36	42	26			28		67	81	81	88	80	A	64	57	41	47	31	36	34	38	36
19	36	34	32		25				49	56	70	93	84	65	63	65	55	A	A	A				
20		36	34		30	28	28	32	51	57	88	110		117	98	91	74	59	55	A	A			29
21	28	A							45	50	60	79	88	82	86	101	58	47	36	32	34	32	32	30
22	30	34	26	26				28	50	55	63	77	78	72	69	69	64	52	42		29	32	30	30
23	30	31	36	42					54	55	60	71	74	62	60	64	56	48	37		43	47	42	43
24	48	44	28					26	64	58	65	78	58	49	54	58	54	55	41	26	32	A		
25	28	30	30	34		A	A		50	64	62	67	58	62	65	58	60	56	35	30	34	35	32	32
26	32	32	30	26	29	30		28	53	64	58	68	81	78	66	61	59	52	54	52	46	51	38	30
27	30	32	38	28	29	29	26	32	54	67	80	113	75	76	68	64	71	54	51	42	43	48	40	31
28		32	A	26	A		A	34	60	61	75	64	86	85	69	60	58	58	54	38	37	A	A	
29	28	30	30	36	34			31	55	63	73	77	101	111	81	A	A	A	58	A	47	51	41	43
30	A	A	A		45			A	54	71	70	70	92	101	71	61	59	55	40	28	34	28		29
31	28	26	28	30	44	28	A	28	48	60	68	76	91	89	86	A	A	A	54		A	A		34
	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	26	24	21	18	6	6	22	30	31	31	30	30	31	30	29	26	27	27	19	28	22	21	25
MED	30	30	30	29	29	28	27	28	51	58	68	76	75	71	66	64	58	51	38	34	38	36	32	30
U Q	32	32	33	33	34	30	28	31	54	64	75	81	84	80	71	67	60	54	47	41	42	40	38	34
L Q	28	28	28	28	28	28	26	28	48	54	58	67	60	61	60	58	55	47	35	31	34	32	31	28

HOURLY VALUES OF fEs AT Yamagawa

JAN. 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	G	32	40	43	24	G	27	27	34	36	43	45	39	66	48	55	77	G	28	29	G	G	G	G
2	G	27	42	37	44	28	28	28	31	35	40	39	39	34	37	36	34		25		32	G	G	G
3	G	58	38	38	40	26	G		G	30	34			32	30	34	32	33		37	G	G	G	G
4	G	G	G	G	G	G	28	G	G	28	38	38	34	32	43	36	32	26	28	24	G	G	G	G
5	G		G	G	G			G	26	33	35	41	37	38	35	36	36	34	26	G	G	G	G	G
6		G	34	G		G	G	G	29	32	35	32	41	55	57	46	34	G	G	G	27	G	27	G
7	G	G	27	33			G	G	29	36	46	39	58	44	34	28	G	G	G	G	G	G	G	G
8	G	G	G	G	G			G	33	37	42	44	43	40	37	34	32	G	G	29	G	G	G	G
9	G	38	28	26	G	G		G	30	38	40	40	39	38	36	36	37	28	G	G	34	34	G	25
10	30	G	G	G	G			G	28	41	39	38	32	33	37	34		35	27	G	G	G	28	23
11	32	G	G	G	G	G		G	26		34	35	38	44	52	39	36	30	26	G	G	G		G
12	G	G	G	28	G	25	G	G	29	35	36	39	44	40	36	35	33	G	G	G	G	G	G	G
13	G	G	G	G	G	G		G		33	43	46	42	38	44	39	31	G	30	G	32		G	G
14	G	G	G	G	11		G	G	31	38	40	44	50	49	50	38	39	27	G	23	G	G	G	G
15	G	G	G	G	G	G	G	G	47	31	39	44	46	40	36	43		39	56		G	G	G	G
16	G	G	G	G				G	27	36	44	50	51	59	43	38	35	29	G	G	G	G	G	G
17	G	G	G	G	G			G					39	40	36	48	49	39	34	31	28	G	26	G
18	G	G	G	G	G	28		G	46	78	53	45	43	44	79	64	68	39	28	26	G	G	G	G
19	G	G	G		G	G		G	33	49	58	31	47	43	32	50	40	50	50	39	28	32	27	
20	34	G	34	G	G	31	G	G	40	40	38	43	44	34	34	35	32	26	26	69	32			G
21	G	33	28	28				G		36	34	31	32	39	39	34	36		G	G	G	G	G	G
22	G	G	G	G	G		G	G	G		39	34	32	45	32	36	39	36	28		G	G	27	G
23	30	26	G	G	G			G	30		40	40	44	40	43	40	33	28	G	27	G	G	G	G
24	G	G	G	G	G			G	28		38	34	42	40	46	38	31	30	27	25	G	45	28	25
25	28	G	32	28	28	27	27		24	37		40	44	43	35	37	41	36	24	G	G	G	G	G
26	G	G	G	G	G	G		G	G	29	38	49	52	48	44	48	49	36	37	33	G	G	G	G
27	G	G	G	G	G	G	G	22	32	31	33	N	45	35	52	43	46	33	G	G	G	G	G	24
28	24	24	27	G	48	28	49	28	26			42	46	44	57	52	38	29	25	23	26	33	30	30
29	G	G	G	G	G			G	37	38	45	46	44	35	60	103	115	87	73	58	28	G	34	59
30	58	58	69	40	32	11	G	44	29	26	36	47	43	40	45	44	48	27	11	G	25	G	G	G
31	G	G	G	G	G	33	27	24	32	39	68	43	46	49	60	94	81	70	59	35	52	47	33	52
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	31	30	27	19	16	29	28	25	28	28	30	31	31	31	29	29	30	28	31	29	29	30
MED	G	G	G	G	G	G	G	G	29	36	39	40	43	40	43	38	36	30	26	23	G	G	G	G
U Q	G	24	28	28	11	28	27	G	32	38	43	44	46	44	50	48	47	36	28	30	28	G	27	G
L Q	G	G	G	G	G	G	G	G	26	31	36	38	39	38	36	36	32	26	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Yamagawa

JAN. 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	15	15	14	14	14	14	16	15	14	14	15	16	17	18	16	14	14	18	15	14	14	14	15	14
2	16	14	14	14	14	14	14	14	14	14	17	18	20	18	17	14	21				15	15	15	14
3	15	14	14	14	14	15	14		21	14	18	17	18	38	20	15	15	14	14	15	15	14	14	
4	22	15	15	14	16	21	15	18	14	14	15	14	16	14	14	14	15	16	15	15	17	14	15	15
5	17		15	15	15			16	14	14	14	14	17	18	17	17	14	14	15	14	14	14	14	18
6		17	14	15		20	15	14	14	14	14	16	17	14	16	14	14	20	15	20	14	17	15	15
7	14	14	14	14			17	18	14	14	14	16	17	20	14	17	15	20	15	14	18	18	17	15
8	15	17	15	14	15			17	14	15	14	14	18	15	14	14	14	17	15	15	14	15	14	14
9	14	14	14	14	14	15		15	14	14	14	14	16	14	16	16	15	15	15	14	14	14	17	15
10	14	15	15	15	15			15	14	14	14	14	18	17	14	14		14	14	15	15	17	14	15
11	14	15	16	15	16	14		22	17	14	15	17	16	20	14	14	21	14	15	17	16	17		17
12	16	17	14	14	16	15	17	18	15	14	15	16	17	17	16	16	14	20	15	18	15	15	18	14
13	14	14	15	16	15	15		15	14	14	14	16	16	15	14	14	15	14	14	20	15		15	15
14	15	15	14	15	15		16	15	15	14	14	14	14	17	14	14	21	14	14	15	14	14	16	14
15	15	15	15	15	17	14	16	15	15	14	14	16	17	15	14	14		14	15		14	14	15	14
16	14	16	14	15				15	14	14	14	14	17	17	14	14	14	14	15	15	15	14	14	14
17	15	14	14	15	15			15	16	14	15		16	17	17	15	14	14	14	15	14	17	15	15
18	17	17	14	15	15	14		14	14	14	14	14	14	14	14	15	14	14	14	15	15	15	14	14
19	15	16	15		14	16		14	18	15	16	20	18	18	16	15	14	14	15	14	15	14	14	
20	16	15	14	22	15	15	16	14	14	14	14	15	16	15	17	14	14	16	14	14	14			18
21	18	14	15	14				16	14	14	16	17	16	18	16	14	14	14	15	14	15	15	15	14
22	15	16	15	15	15		16	15	17	20	16	15	20	15	14	15	14	14	14		15	15	15	15
23	15	14	14	15	15			18	15	16	17	17	17	18	18	17	14	15	15	14	14	14	14	15
24	15	14	15	15	16			18	14	14	14	17	17	18	17	17	14	15	14	15	18	14	15	17
25	14	14	14	14	14	14	14		24	14	14	14	20	18	17	15	14	14	17	15	20	14	14	14
26	14	14	14	14	15	14		15	21	14	15	16	15	17	15	14	14	14	14	14	16	17	15	15
27	16	15	14	15	15	15	17	14	14	14	14	16	18	16	17	15	15	14	14	17	14	15	14	14
28	15	14	14	15	14	14	15	14	14	16	14	20	15	17	16	18	14	14	16	15	14	14	15	14
29	15	15	14	15	14			15	14	15	17	18	18	18	18	14	14	14	14	14	15	14	15	15
30	15	14	14	14	14	16	16	14	14	14	14	14	14	14	18	15	14	15	14	16	14	14	18	14
31	15	14	14	14	14	15	15	15	14	14	16	17	17	22	14	15	14	14	14	14	15	14	14	14
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	31	30	27	19	16	29	31	31	31	30	31	31	31	31	29	30	30	28	31	29	29	29
MED	15	15	14	15	15	15	16	15	14	14	14	16	17	17	16	15	14	14	15	15	15	14	15	15
U Q	16	15	15	15	15	15	16	16	15	14	16	17	18	18	17	15	15	15	15	15	15	15	15	15
L Q	14	14	14	14	14	14	15	14	14	14	14	14	16	15	14	14	14	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Okinawa

JAN. 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	28		28	29	30		36	65	68	77	92	105	86	101	88	70	70	58		41	49	46	37
2	29	29			29			31	64	66	80	92	107	117	108	108	89	67	42		46	42	38	28
3						C		C	65	70	80	88	118	114	96	84	81	68	50		34	53	37	30
4	40	36	36	34	36			28	62	58	76	77	80	80	C	84	83	86	52		37	C		26
5	31		28						C		60	72	82	C	78	90	66	50	C	31	42	C	C	
6	C		28					27	54	69	81	75	76	88	C	100	76	62	49	C	C	C	C	C
7	C	28	C	C	C				60	82	82	74	104	101	C	111	78	C	44	62	77	C	C	C
8	C	C	C	C	C	C	C	N	54	64	66	C	C	80	78	98	84	62	45	37	44	34		25
9	29	30	36	31				30	64	67	77	90	88	105	113	89	73	56	53	64		42	32	30
10				32	43			28	49	54	58	66	52	52	58	74	77	62	A	32		48	30	32
11	31		30	36	32	29			66	59	61	52	67	61	60	66	72	62	50	29	60	47	25	
12		29		29					52	66	56	58	49	66	62	62	60	61		41	43	51	44	37
13		43	44	40	29				60		54	70	62	55	64	50	67	66	63	34	45	52	30	36
14		28		26					49	57	56	55	64	56	50	52	52	51	30	32	C	C	30	C
15	C		C	C	C	C	C	C	C	C	C	54	67	77	69	69	56	60			C	C	32	C
16	28		28		A	C	C		51	51	C	102	115	91	85	72	60	C	C	31	23	51	42	30
17	30	30	C	C			C		54	62	92	C	124	106	97	84	72	57	40			40	30	
18	28	29				A	A		62	74	85	110	122	124	110	87	70	52	44		51	52	47	45
19	41	38							49	58	72	111	148	108	87	82	66				48	47	36	37
20	34	29		31				36	56	45	86	134	126	120	112	108	112	88	52	40	37		31	30
21	30	32	34	35				31	47	50	57	82	126	121	113	116	84	54	43	34	40	34		
22	30	28	30	32					54	57	76	112	138	114	104	104	90	84	50	30	34	34	31	34
23	30	28		47					51	66	59	72	91	104	101	78	71	62	60	52	66	66	66	64
24	52	40	35						54		70	76	66	66	75	66	76	80	63		34	36	30	
25		35	44	32	A				52	66	72	62	71	65	68	78	84	66	46			34	C	
26	C	41	42	31	30	30			54	65	C	61	81	94	72	62	65	64	61	60	54	52	37	
27	C	29	38			C	C	C	C	C	C	C	C	76	82	72	C	C	72	C	C	C	C	51
28	42	43	A		30			29	C	73	C	C	C	116		C	C	C	C	52	49	40	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	101	81	64	57	46	28		28		
31			30	32	36				46	59	81	104	130	126	110	102	87	77	58			45	42	43
	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	20	14	15	9	3		9	25	24	24	25	26	28	26	29	28	25	23	17	20	22	20	17
MED	30	30	34	32	30	30		30	54	64	74	76	90	92	86	84	72	62	50	34	44	46	34	34
U Q	37	37	38	35	36	30		33	62	67	80	97	122	114	104	99	83	69	58	52	50	51	42	40
L Q	29	28	30	31	29	29		28	51	57	59	64	67	71	69	70	66	57	44	31	37	36	30	30

HOURLY VALUES OF fEs AT Okinawa

JAN. 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	G	G	G	G	G	33	38	29	28	33	42	51	64	48	57	74		71	36	66	G	G	G	G
2	G	G	G		G			G	G	G	34	42	37	36	32	37	34	28	19		G	G	G	G
3			G		G	C	G	C	G	G	40	35	N	36	44	44	46	35	G	40	G	G	G	G
4	G	G	G	G	G			G	26	28	39	36	49	36	C		34	33	26	28	G	C	33	G
5	35	26	28	36	34	34			C		39	39	36	C	37	36	30	28	C	29	28	C	C	27
6	C		G				G	27	30	37	39	40	34		C		G	G	G	C	C	C	C	C
7	C	G	C	C	C			G	32	47	42	41	40	52	C	34	32	C	G	G	35	C	C	C
8	C	C	C	C	C	C	C	G	30	36	45	C	C	53	36	37	33	34	28	G	G	G		G
9	G	27	28	G		26		G	32	40	44	42	40	46	36		28	G	28	45	52	G	G	G
10	G	29	28	G	11			G	30	37	44	37	35	41	45	G	39	40	56	26	48	54	G	G
11	26	39	24	G	G	G		G	32	35	36	42	36	N		32	32	26	29	43	G	G	G	G
12	G	G	G	G	26	G		G	28	34	30	42	44	49	36	36	29	35	42	28	G	G	G	G
13		G	G	26	G			G	G		42	30	42	36	58	56	32	30	11	G	G	11	G	G
14		G	G	G	G			G		38	44	43	46	38	43	49	51	37	34	24	C	C	G	C
15	C	G	C	C	C	C	C	C	C	C	C	37	46	49	43	46	61	34	47	30	C	C	26	C
16	G	G	G		37	C	C		G	35	C	44	55	56	49	41	36	C	C	G	G	G	G	G
17	G	G	C	C			C	G	G	33	41	C	40	36		41	35	32	37	45	71	34	23	G
18	G	G	G	G	G	44	36	26	30	42	41	41	68	37	51	59	48	38	34		29	G	G	G
19	G	G	G	G				G	G	36	42	37	37	45	42	44	41	76	65	41	28	30	G	G
20	G	G	40	G	29	G	G	G	30	42	48	31	46	47	39	37	33	27	G	11	G	38	G	G
21	G	G	G	G	27			G	28	39	42	37	38			36	34	34	25	G	G	G		34
22	29	G	G	G	G			G		38	35	47	36	38	37	38	30	34	26	29	25	G	G	G
23	G	28	38	G	26			G	24	G	42	42	39	43	37	37	34	31	24	29	28	36	34	G
24	11	G	G	G	G			G	G		42	42	44	49	44	36	30	34	26	60	G	28	G	27
25	27	39	35	G	34	28	27	G	G	27	40	35	44	38	41	36		27	G	47	33	26	C	G
26	C	G	G	G	G	G		G	23		C	50	51	52	45	39	37	30	G	28	G	G	G	G
27	C	G	G	G	G	C	C	C	C	C	C	C	C	37	90	56	C	C	52	C	C	C	C	G
28	44	G	44	34	G	24		G	C		C	C	C	50	84	C	C	C	C	36	51	28	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	37	34	37	28	24	G	34	G		G
31		G	G	29	26			G	32	38	36	38	56	44	38	51	51	60	32	37	44	40	35	25
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	19	26	25	21	22	10	6	24	23	22	24	25	25	25	24	26	26	26	27	26	26	23	21	25
MED	G	G	G	G	G	25	14	G	28	36	42	41	42	44	42	38	34	34	26	29	13	G	G	G
U Q	26	G	28	G	26	33	36	G	30	38	42	42	47	49	47	46	39	35	36	41	34	30	12	G
L Q	G	G	G	G	G	G	G	G	G	33	39	37	37	37	37	36	32	28	11	11	G	G	G	G

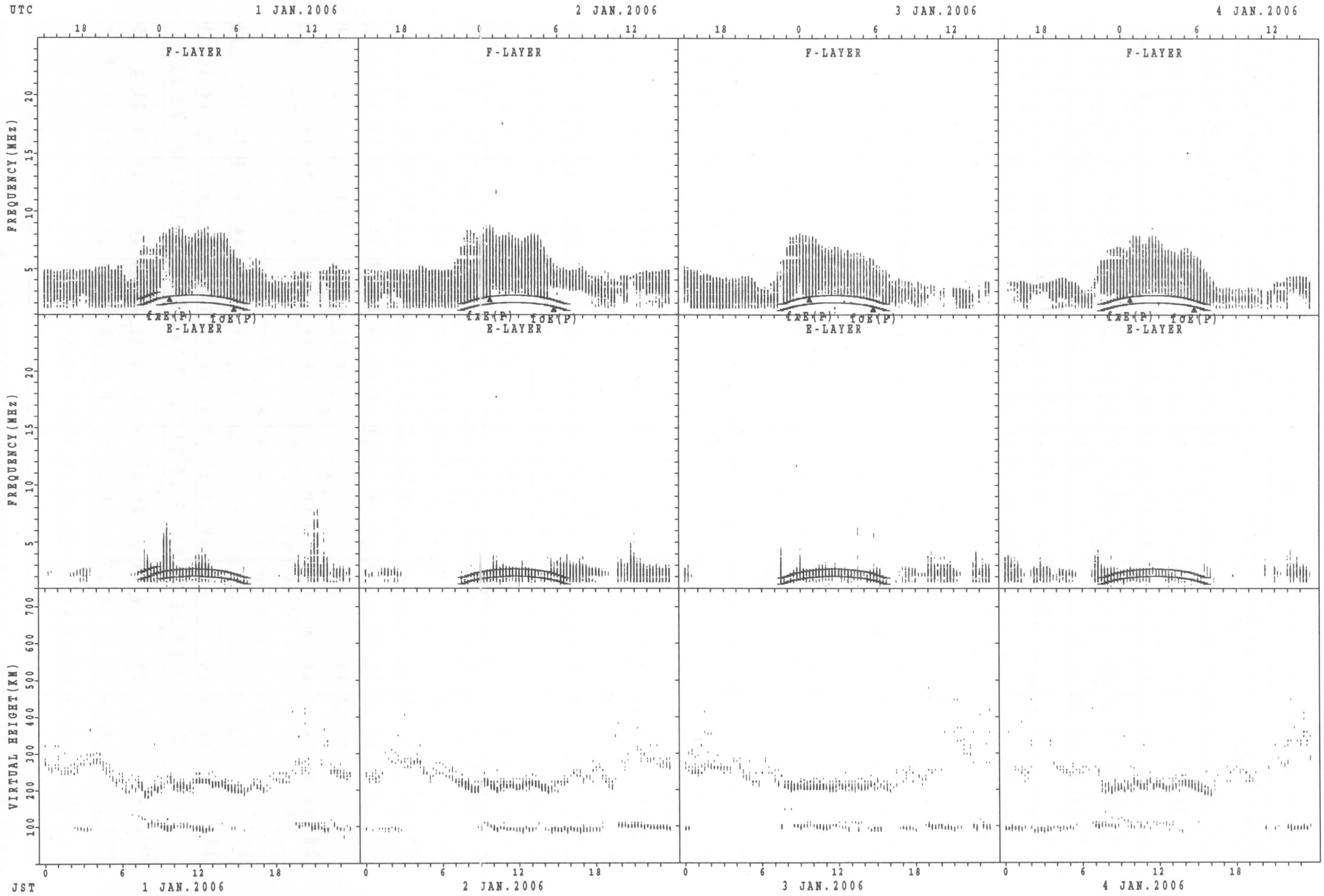
HOURLY VALUES OF fmin AT Okinawa

JAN. 2006

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

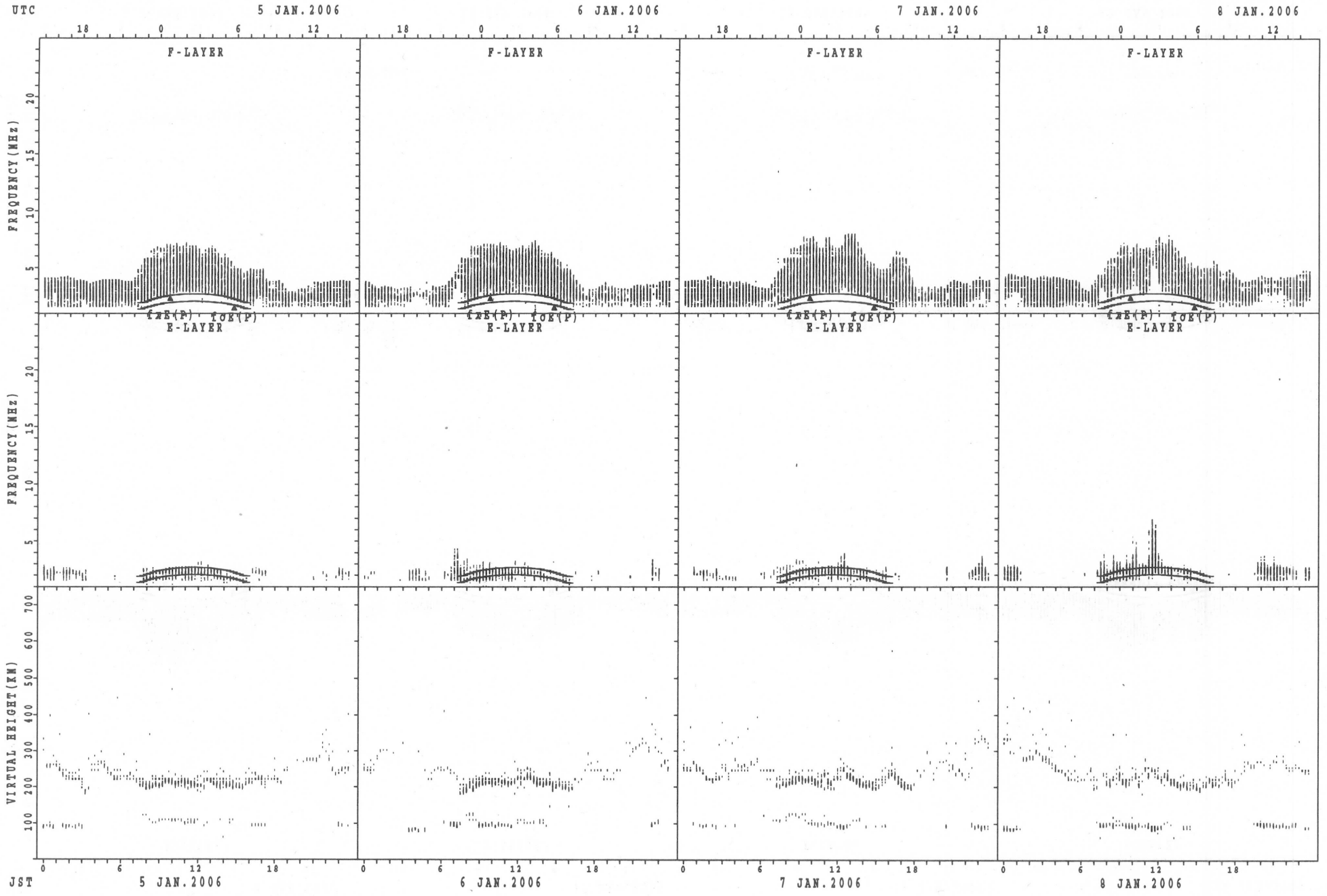
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	15	15	14	14	14	14	14	14	14	14	14	18	20	18	18	16	14	14	14	14	15	16	16	15
2	20	15	17		17			15	14	15	15	18	24	17	16	16	14	14	14		15	18	15	15
3			15		15	C	17	C	21	17	16	18	23	22	18	14	14	14	15	14	15	14	14	21
4	15	15	14	14	14			15	14	14	17	21	20	18	C	17	14	14	14	15	14	C	15	18
5	14	14	14	14	14	15			C		15	16	17	C	18	21	14	14	C	14	14	C	C	14
6	C		14				15	14	14	14	14	20	17	20	C	22	16	21	14	C	C	C	C	C
7	C	16	C	C	C			15	14	14	14	14	18	14	C	14	14	C	14	15	15	C	C	C
8	C	C	C	C	C	C	C	14	14	14	15	C	C	18	16	15	14	14	14	15	15	15		14
9	14	15	14	14		15		14	14	14	14	14	14	20	17	14	14	15	14	14	14	15	14	15
10	15	14	14	18	14			15	14	14	14	15	15	16	15	15	14	14	14	14	14	14	14	14
11	15	14	14	14	14	15		15	14	14	14	14	14	16	15	14	14	14	14	14	15	14	15	17
12	14	15	15	14	14	15		15	14	14	20	17	14	18	17	14	14	14	14	14	17	15	15	15
13		14	16	14	14			18	14		15	15	16	14	16	14	14	14	15	14	16	14	15	15
14		15	15	16	14			15	14	14	14	17	15	15	14	14	14	14	14	15	C	C	14	C
15	C	17	C	C	C	C	C	C	C	C	C	14	17	14	14	14	14	14	14	14	C	C	15	C
16	14	15	14		14	C	C		14	14	C	17	21	16	16	14	14	C	C	15	18	14	15	15
17	16	14	C	C			C	15	16	14	14	C	14	14	14	14	14	14	14	14	14	14	14	18
18	16	14	15	14	17	14	14	15	14	14	15	14	17	16	14	14	14	14	14		14	14	15	14
19	14	15	14	14				15	14	14	17	21	21	21	20	17	14	14	14	14	14	14	15	14
20	15	15	14	18	14	17	15	15	14	14	17	16	16	15	14	15	14	14	15	14	14	14	15	14
21	16	16	14	15	14			14	14	14	15	18	21	18	18	14	14	14	14	18	20	14		15
22	15	14	14	14	14			15	14	14	14	14	20	21	16	14	14	14	14	15	15	15	15	15
23	15	14	14	14	14			20	14	14	14	23	17	20	20	16	14	15	16	14	14	14	14	15
24	15	14	14	14	15			15	14	14	14	15	20	20	18	18	14	14	14	14	14	14	14	14
25	14	14	14	15	14	14	14	15	15	15	14	17	18	18	20	14	16	14	14	14	14	14	C	21
26	C	14	14	14	14	15		15	15	14	C	14	15	18	16	16	14	14	14	14	14	14	14	14
27	C	16	15	14	14	C	C	C	C	C	C	C	C	14	20	18	C	C	14	C	C	C	C	14
28	14	15	14	15	14	14		15	C	14	C	C	C	16	14	C	C	C	C	14	14	14	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	17	15	14	14	16	14	15	15		14
31		14	14	14	15			15	15	14	14	17	18	18	16	17	17	14	14	14	15	14	14	14
	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	19	26	25	21	22	10	6	24	25	25	24	25	26	28	27	29	28	26	27	26	26	23	21	25
MED	15	15	14	14	14	15	14	15	14	14	14	17	17	18	16	15	14	14	14	14	14	14	15	15
U Q	15	15	15	15	14	15	15	15	14	14	15	18	20	19	18	16	14	14	14	15	15	15	15	15
L Q	14	14	14	14	14	14	14	15	14	14	14	14	15	15	15	14	14	14	14	14	14	14	14	14

SUMMARY PLOTS AT Wakkanai

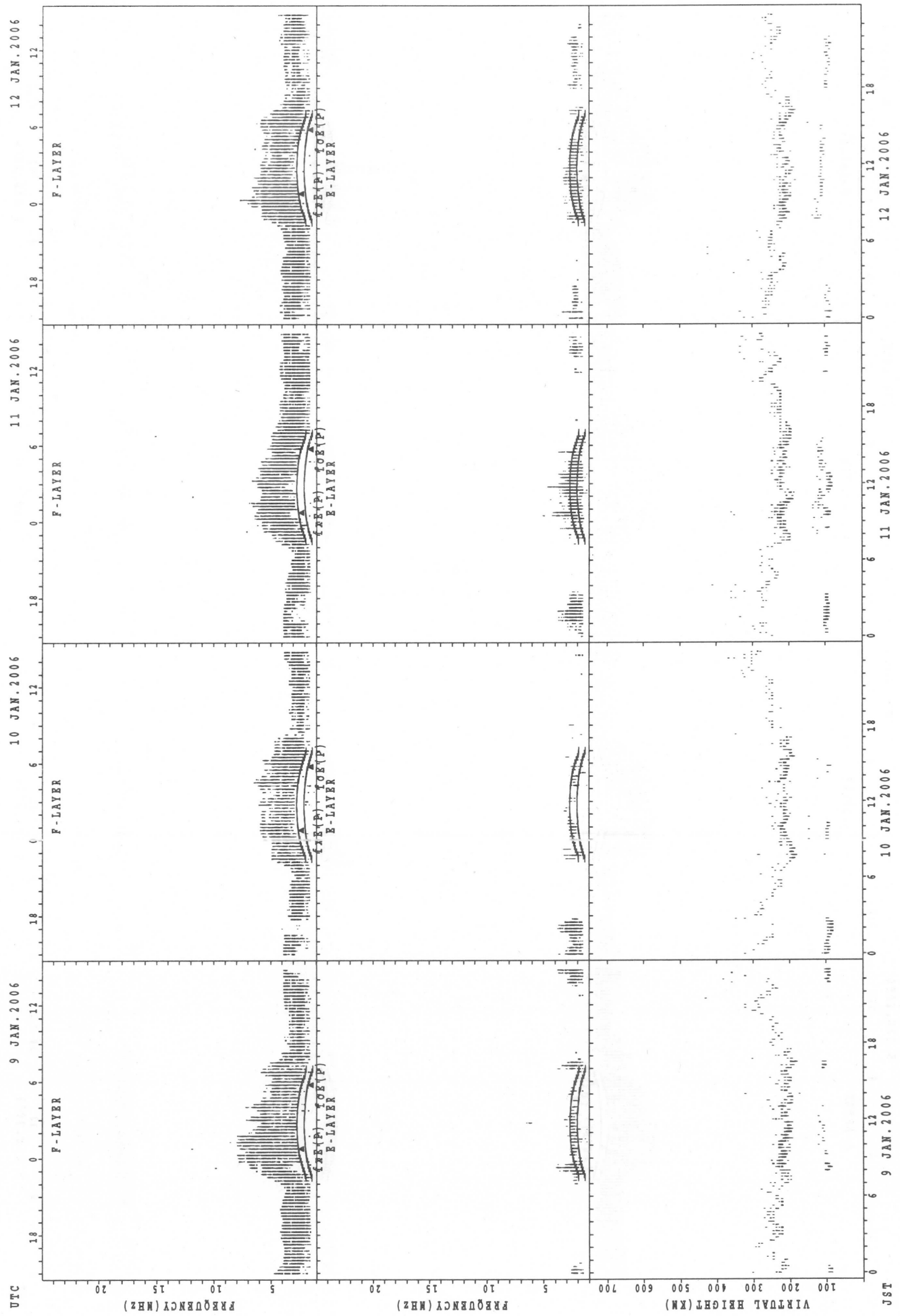


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

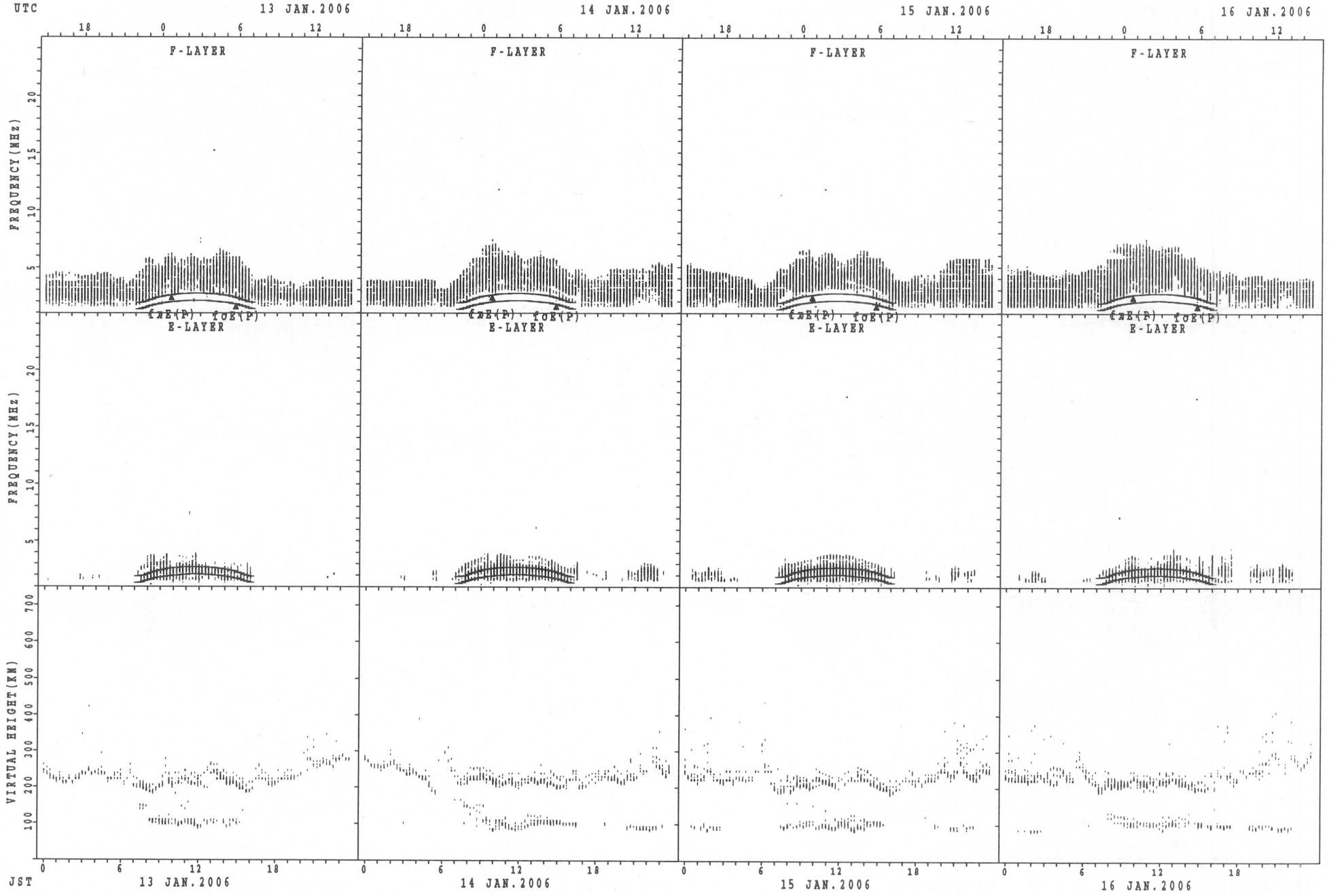
SUMMARY PLOTS AT Wakkanai



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

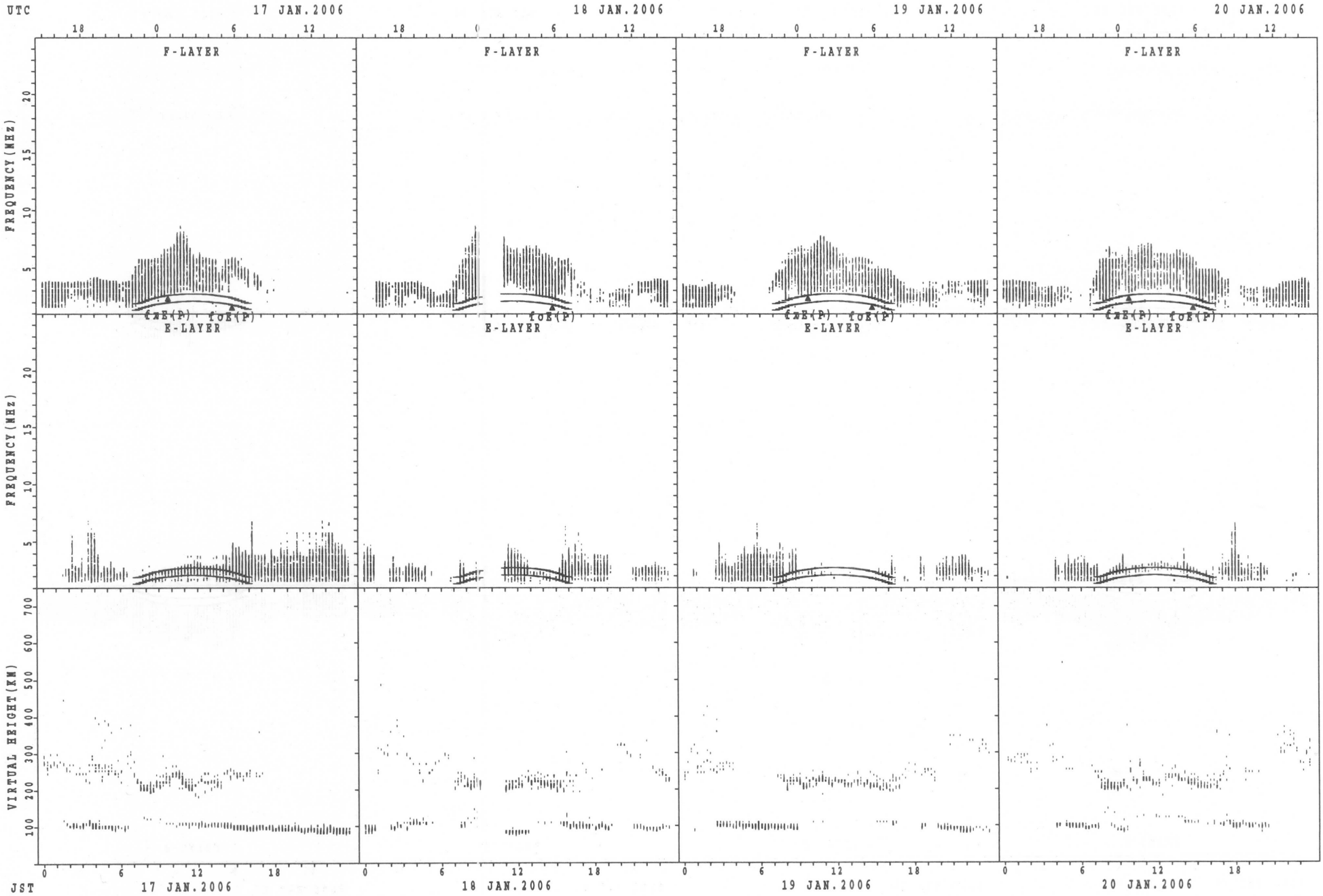

SUMMARY PLOTS AT Wakkanai
UTC
JST
9 JAN.2006
10 JAN.2006
11 JAN.2006
12 JAN.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY (MHz)
VIRTUAL HEIGHT (KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



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

SUMMARY PLOTS AT Wakkanai



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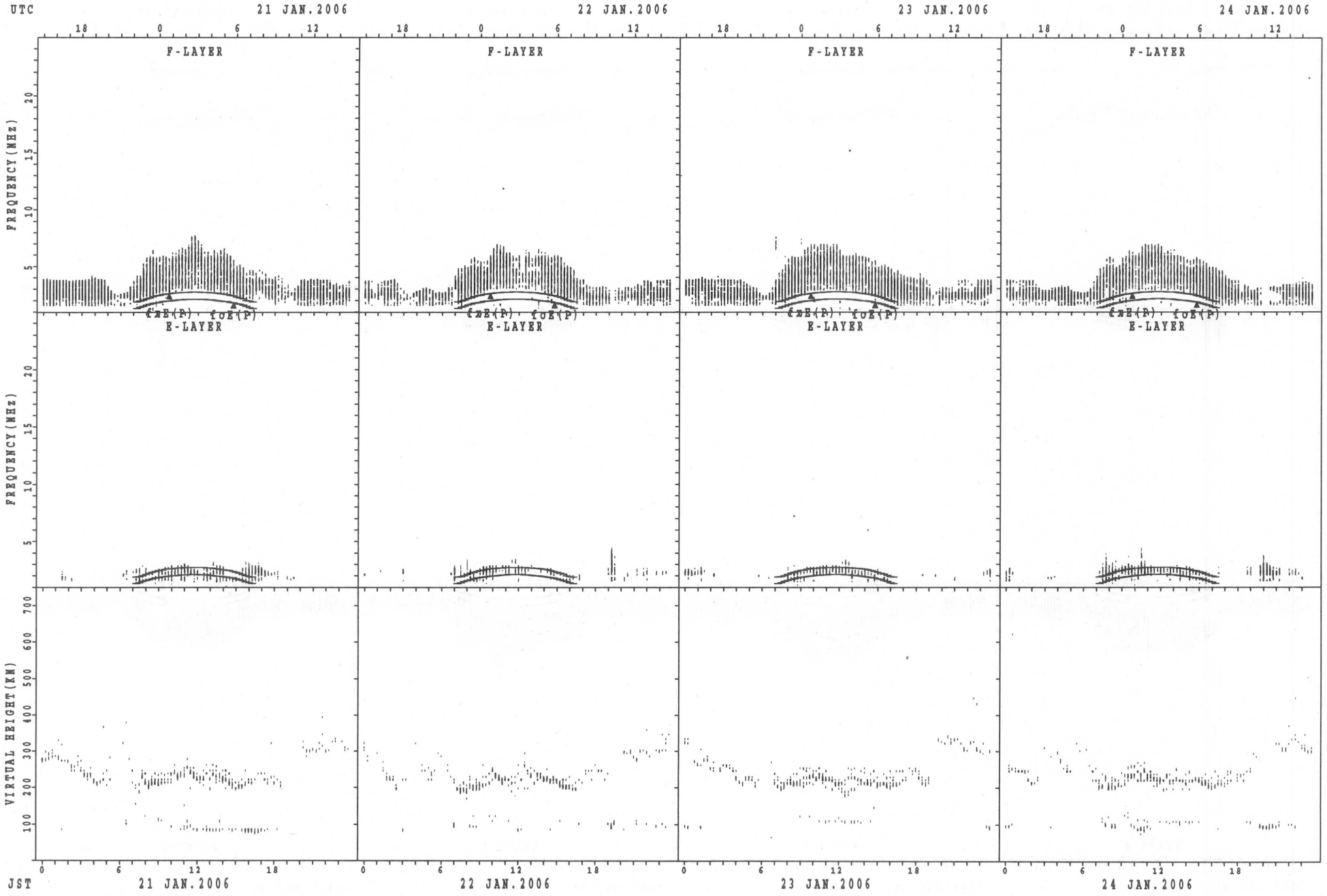
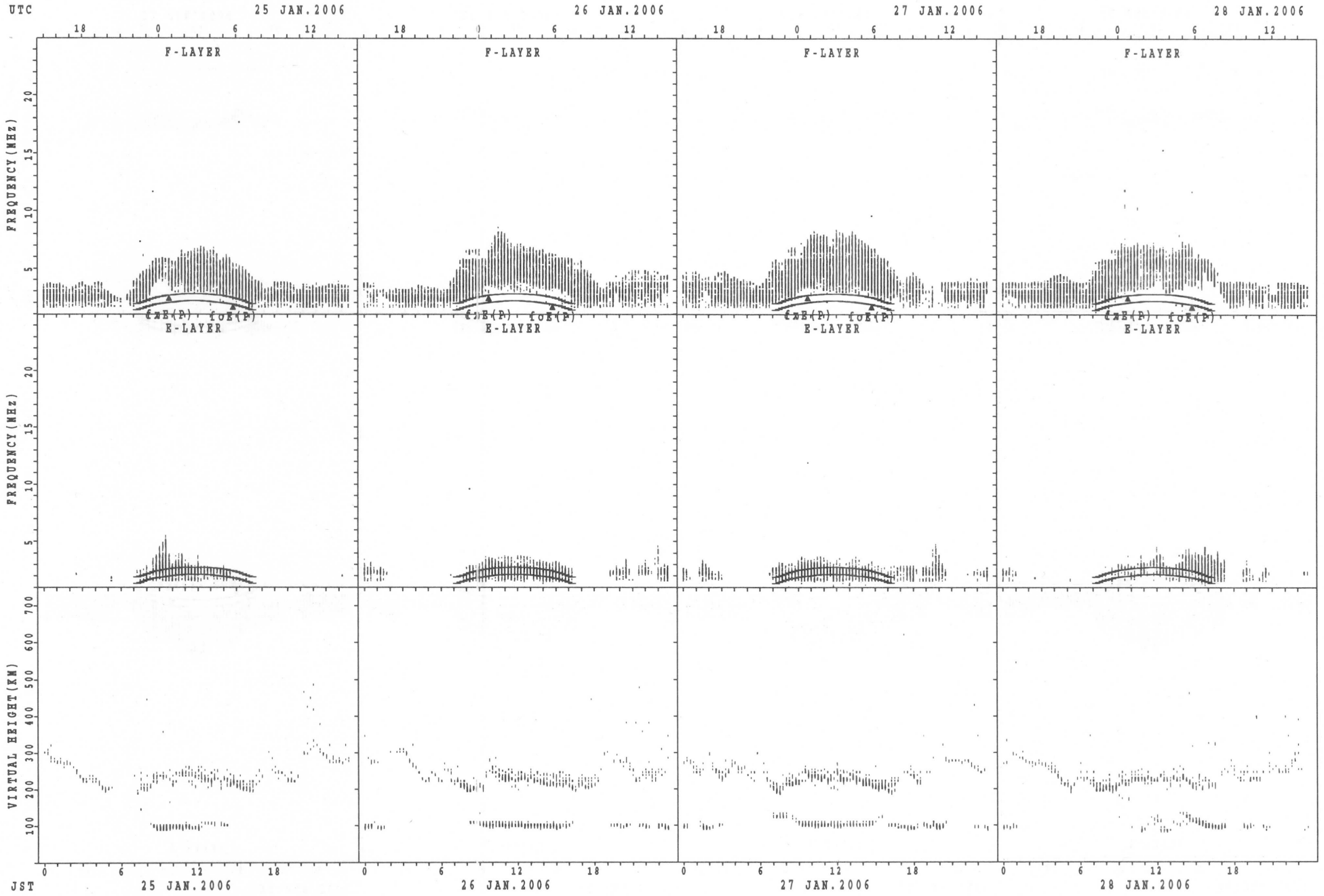
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



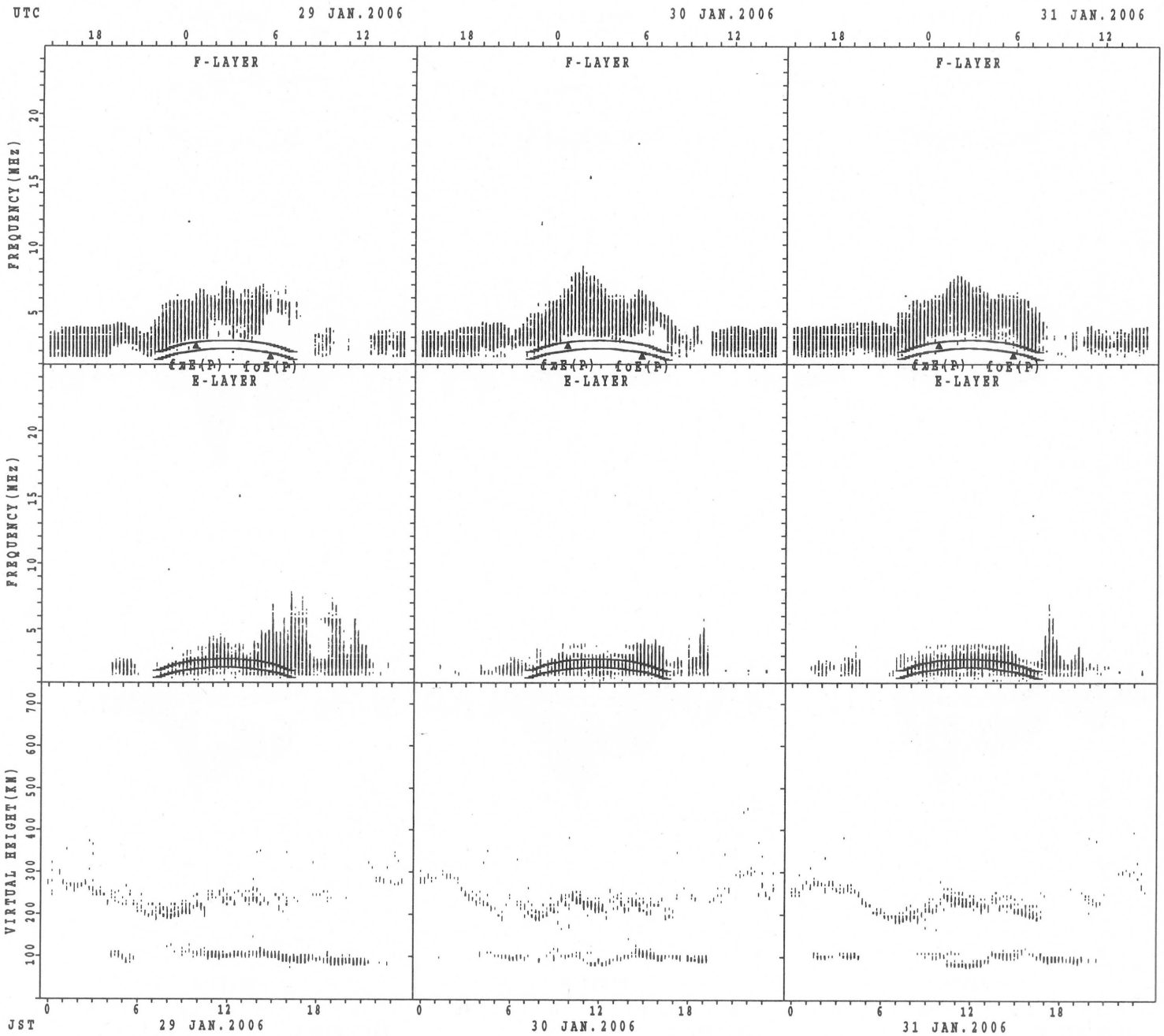
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



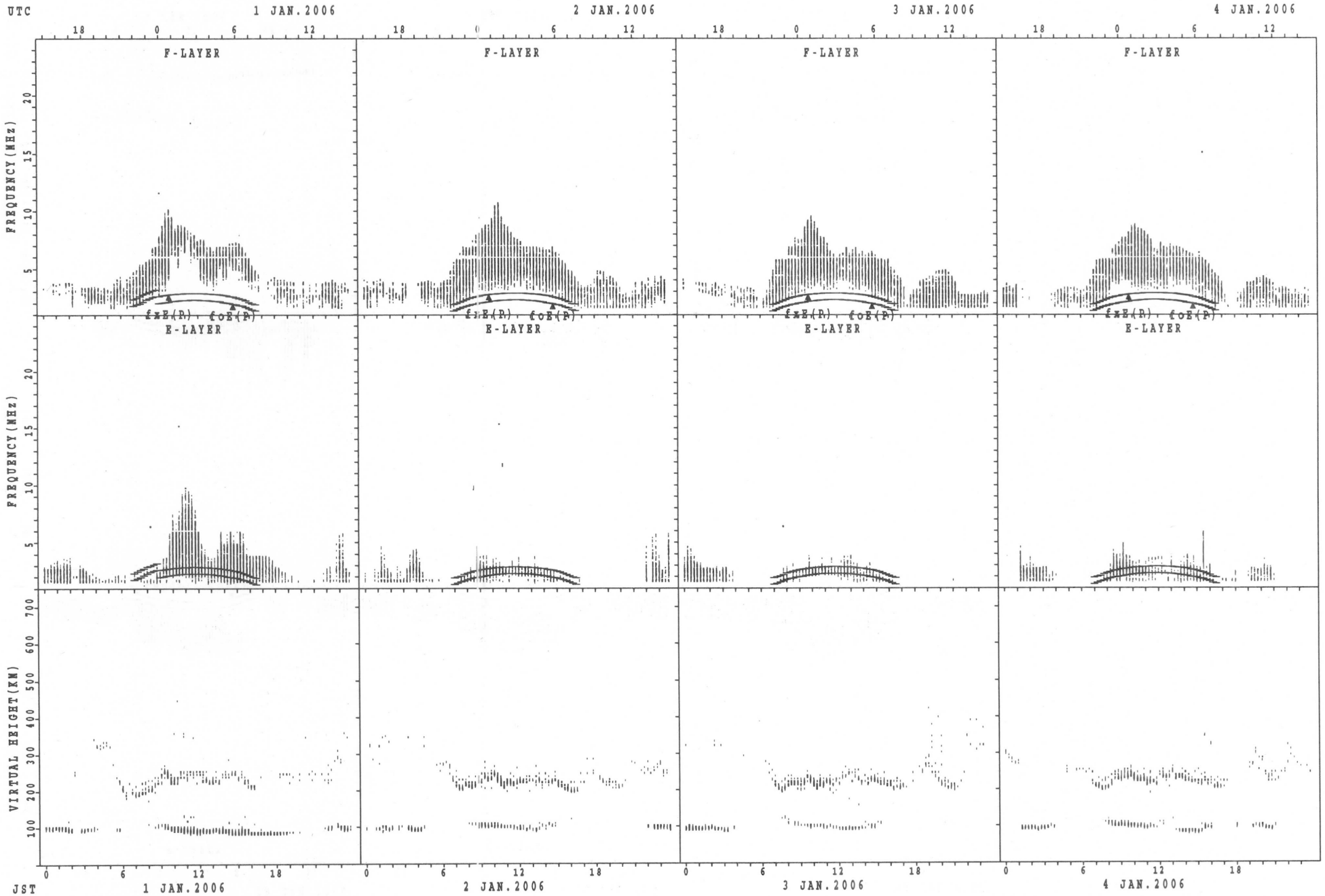
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



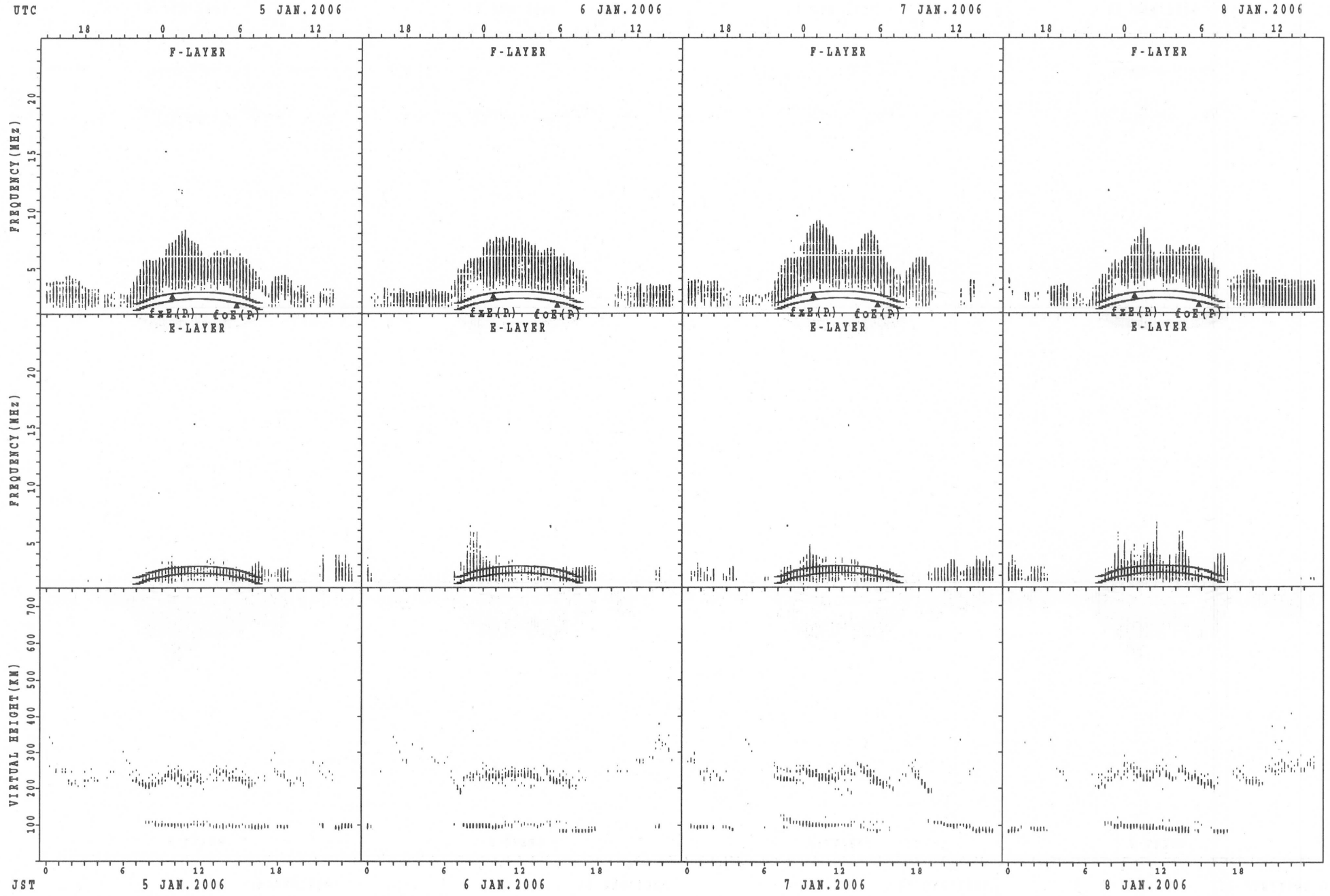
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji

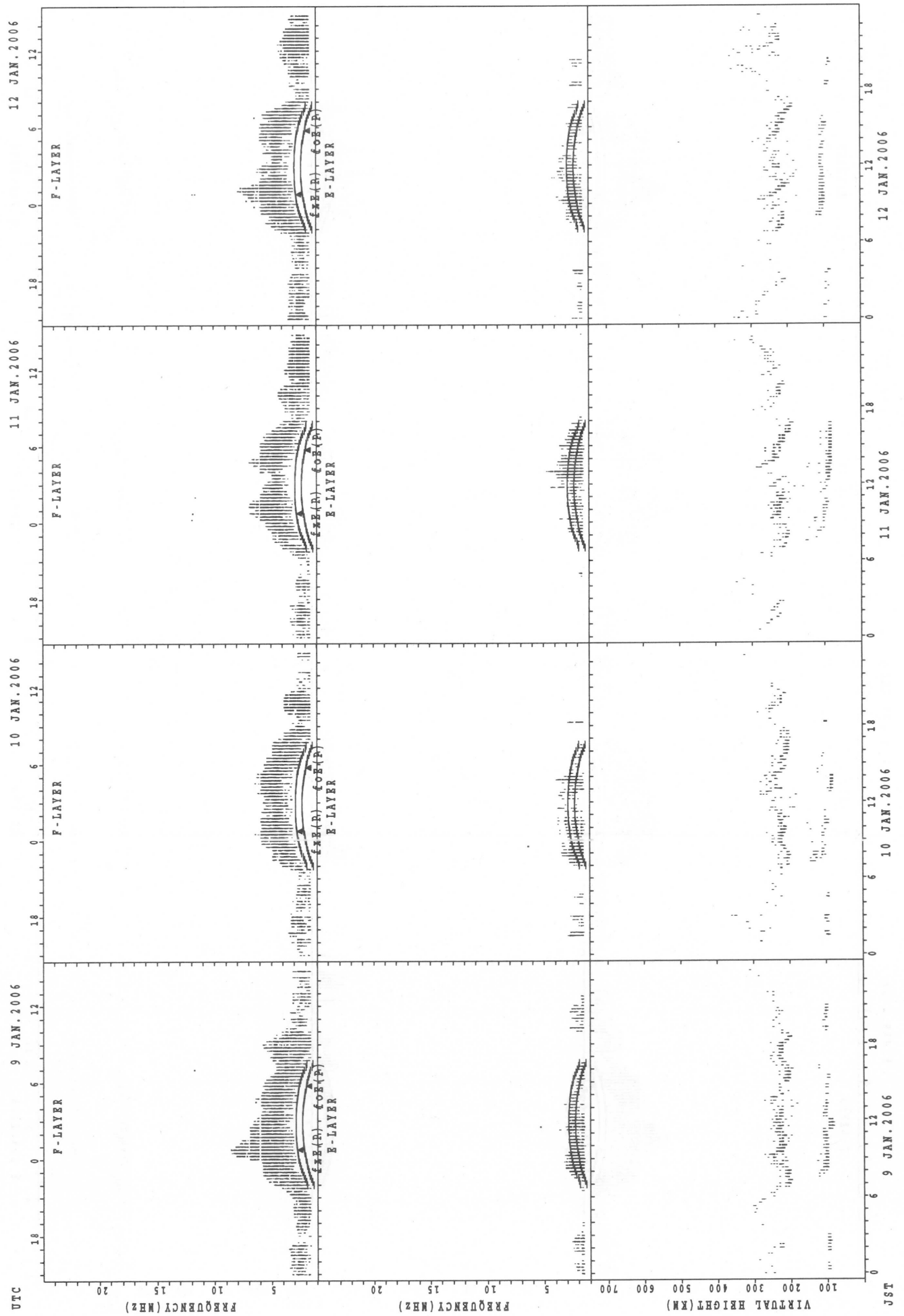


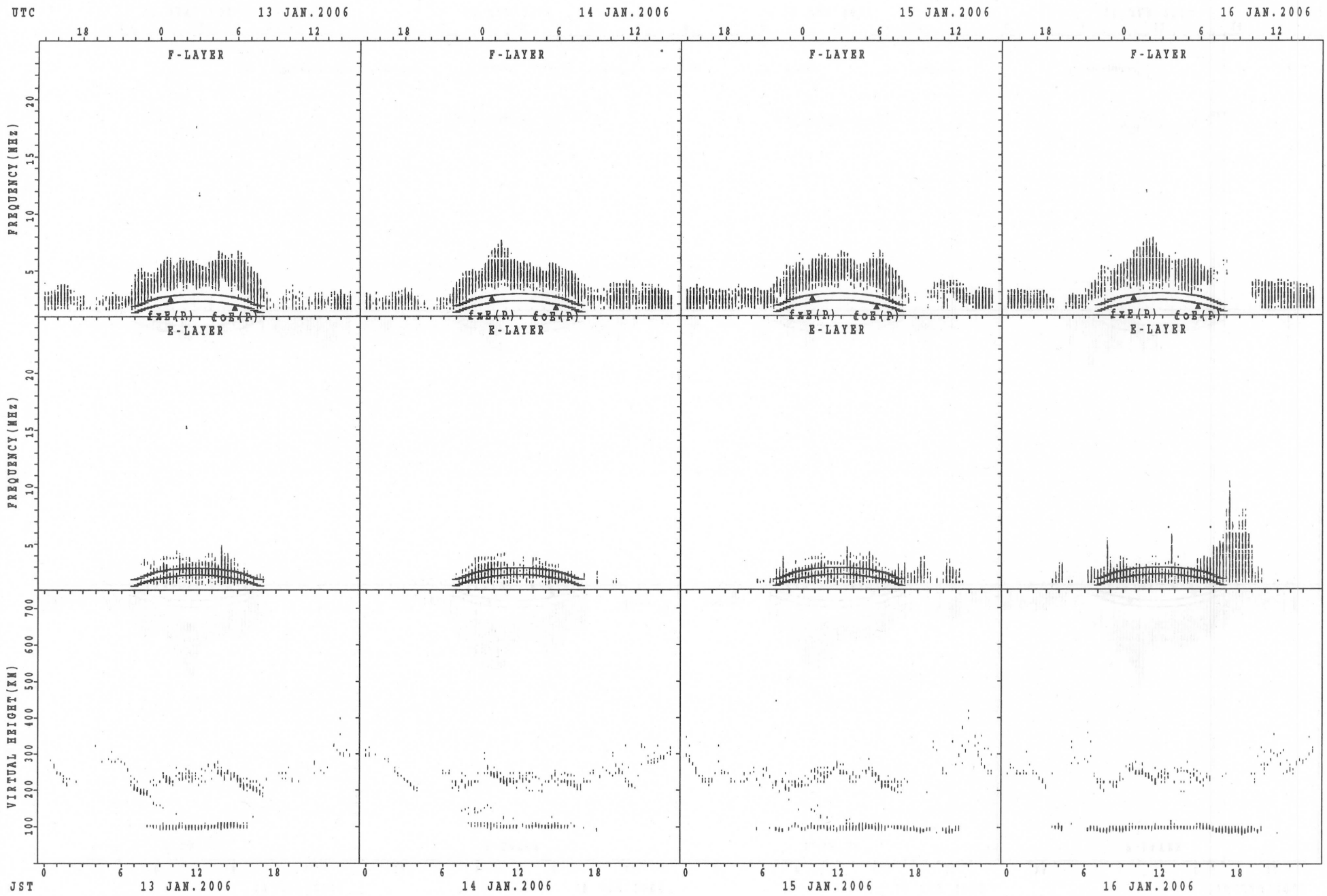
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

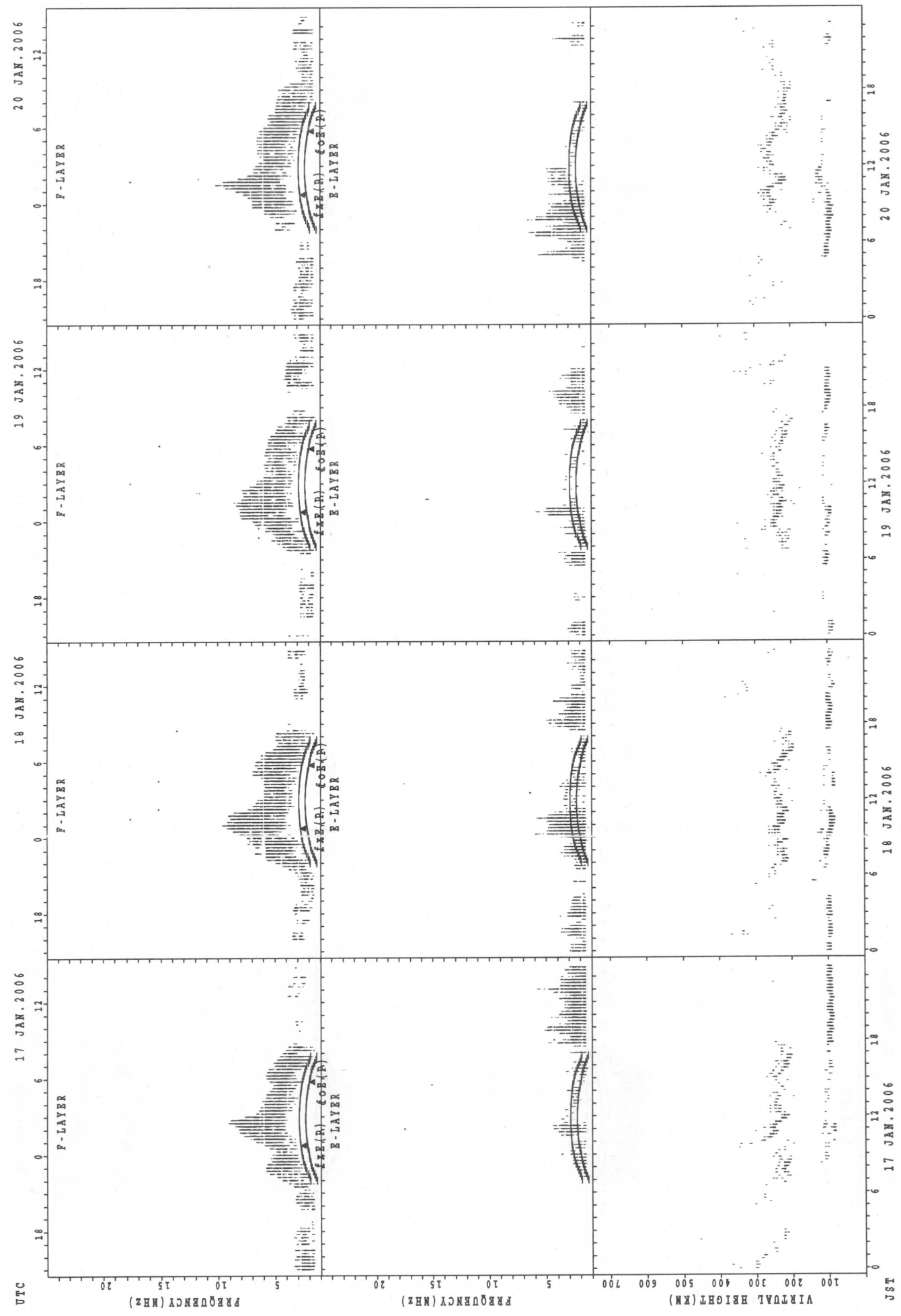
SUMMARY PLOTS AT Kokubunji



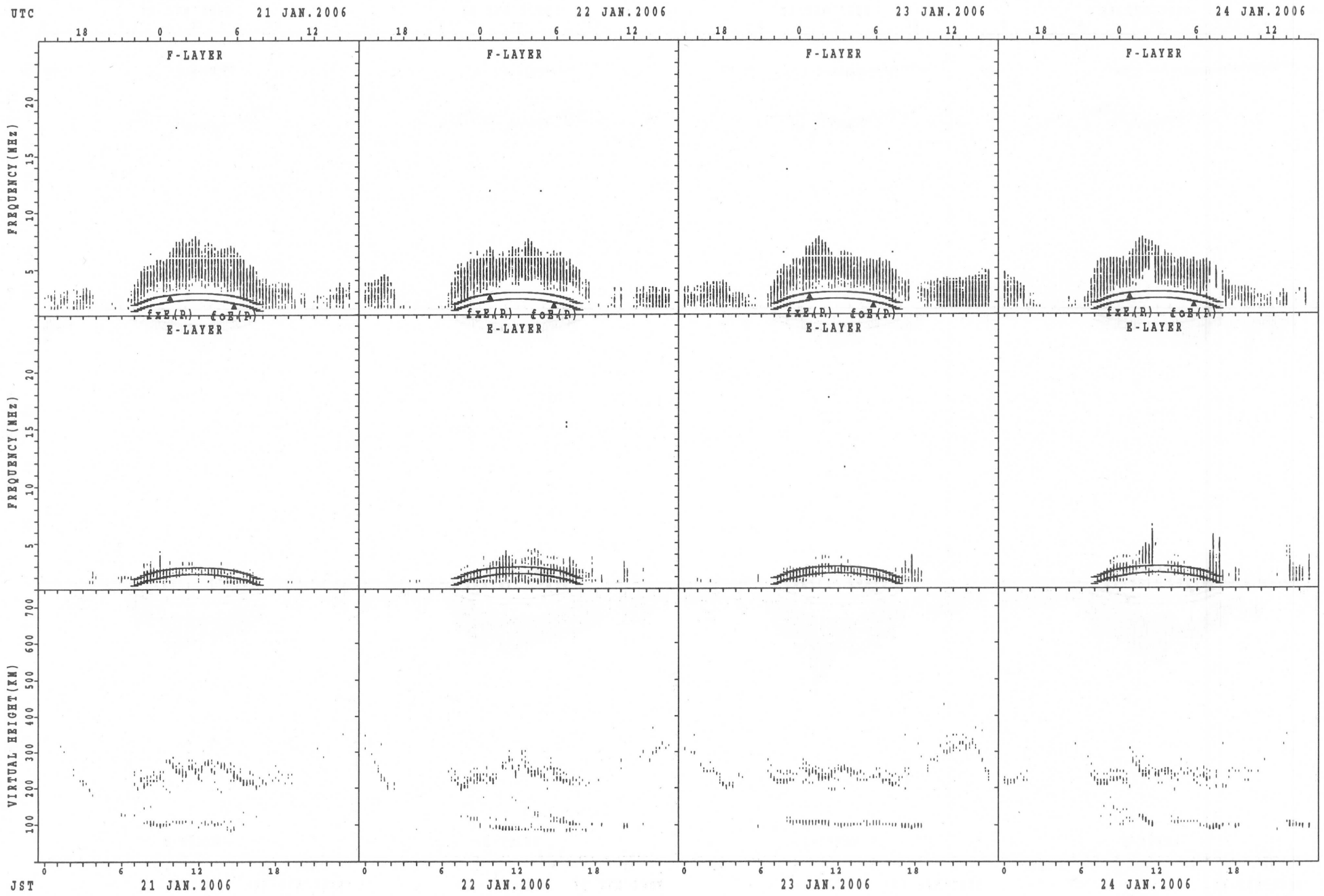
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Kokubunji
UTC
JST
9 JAN.2006
10 JAN.2006
11 JAN.2006
12 JAN.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

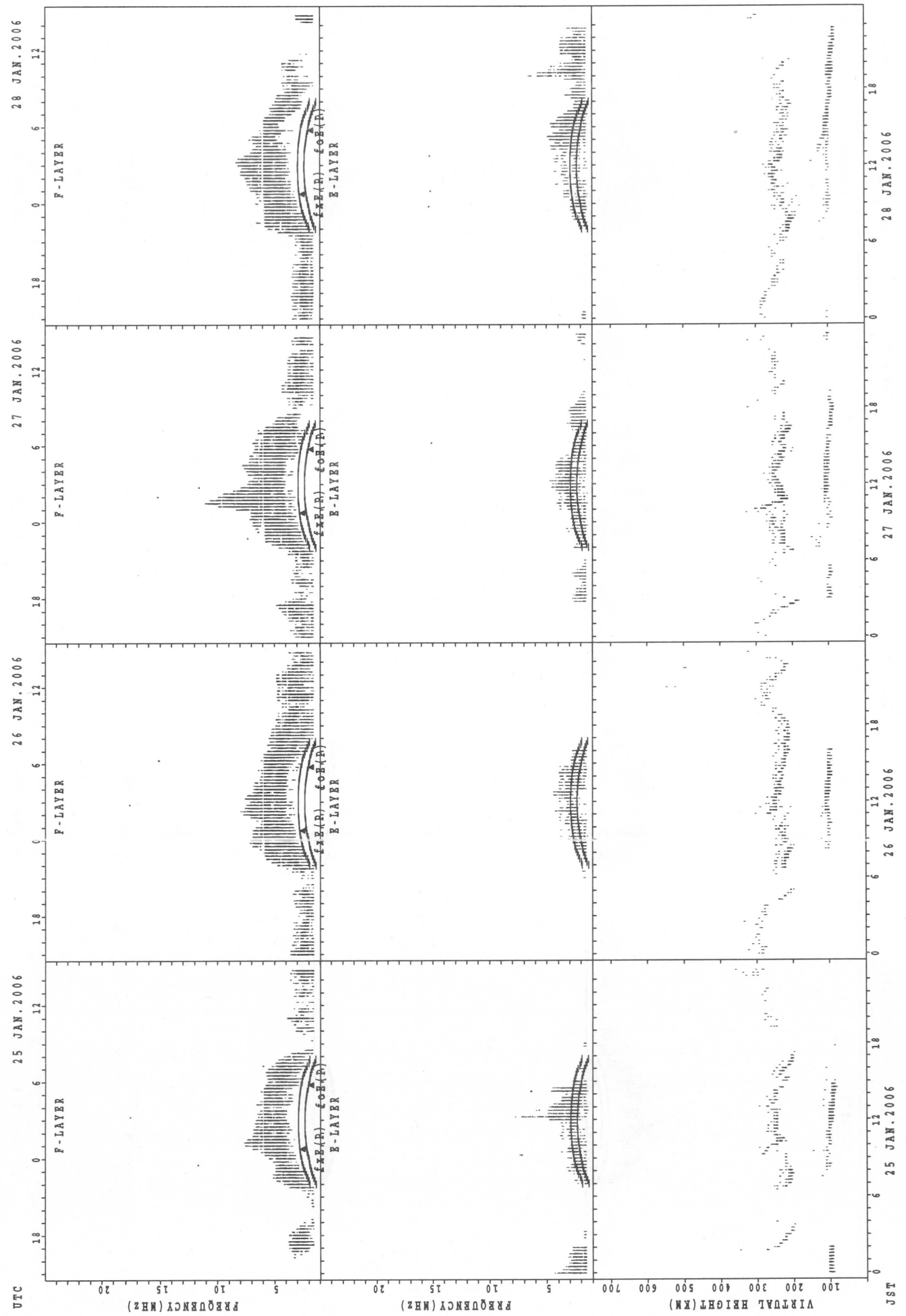

SUMMARY PLOTS AT Kokubunji
UTC
13 JAN.2006
14 JAN.2006
15 JAN.2006
16 JAN.2006
F-LAYER
fxE(P), foE(P)
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

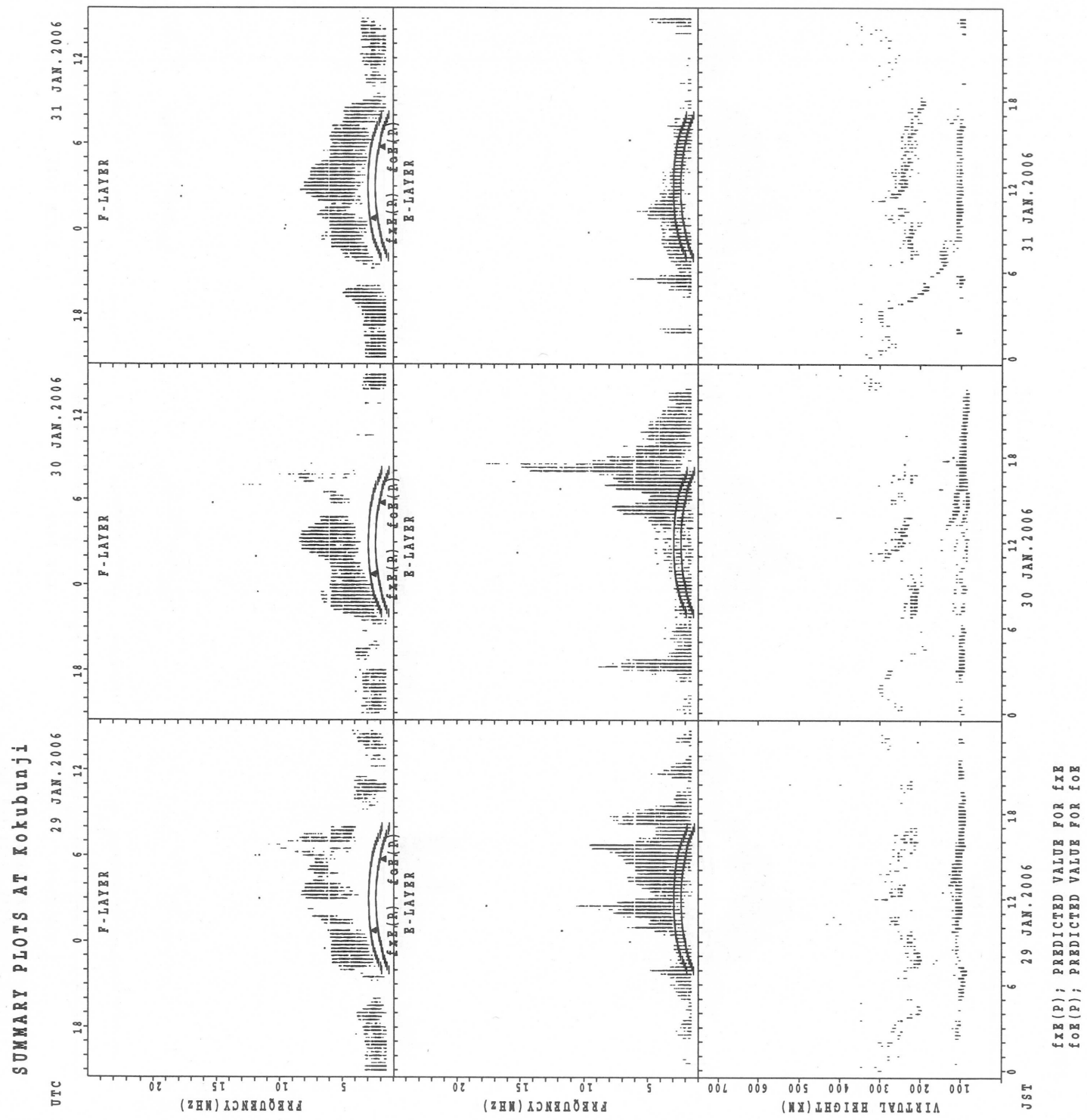

SUMMARY PLOTS AT Kokubunji
UTC
JST
17 JAN.2006
18 JAN.2006
19 JAN.2006
20 JAN.2006
F-LAYER
E-LAYER
fxE(P) foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

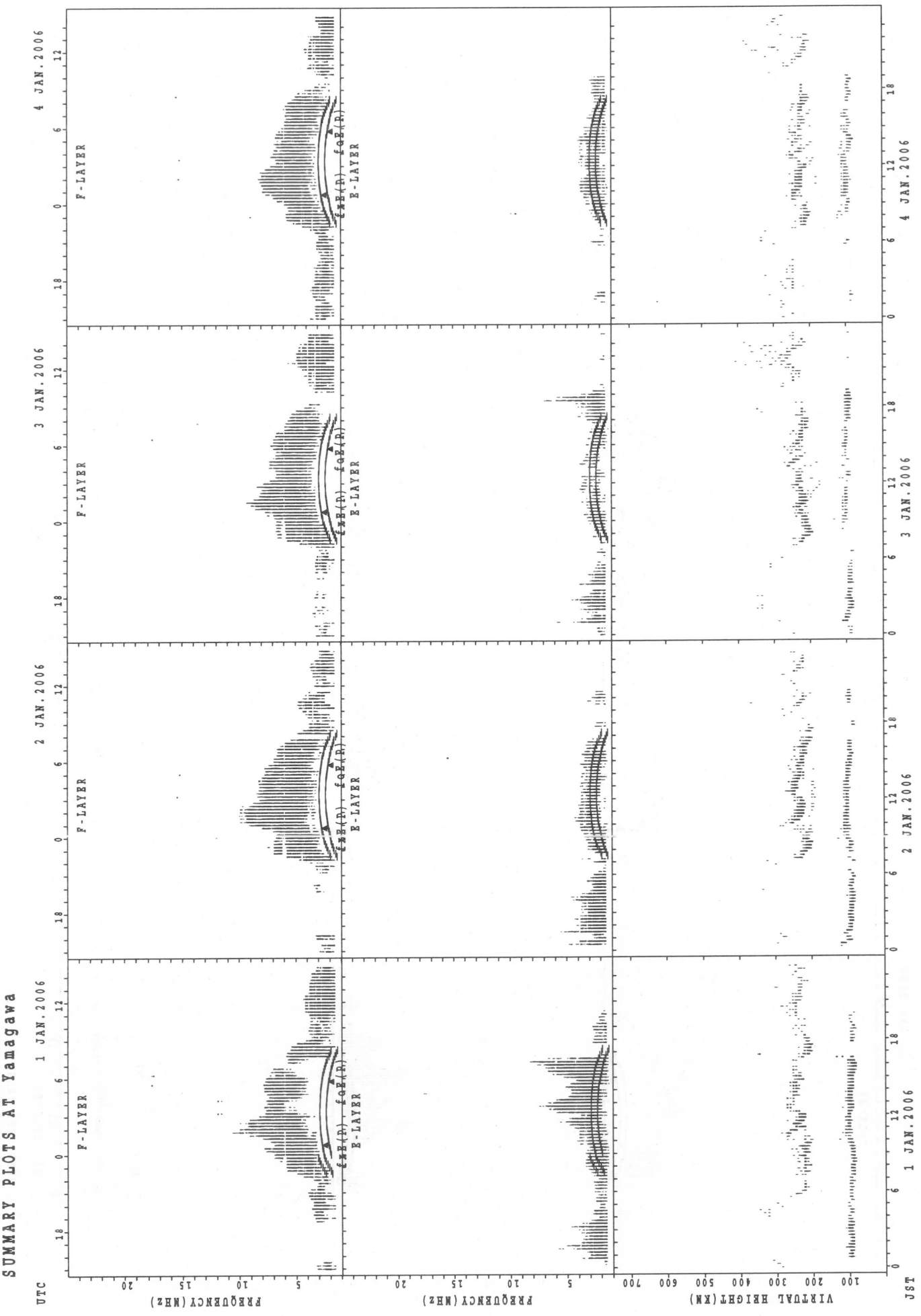
SUMMARY PLOTS AT Kokubunji



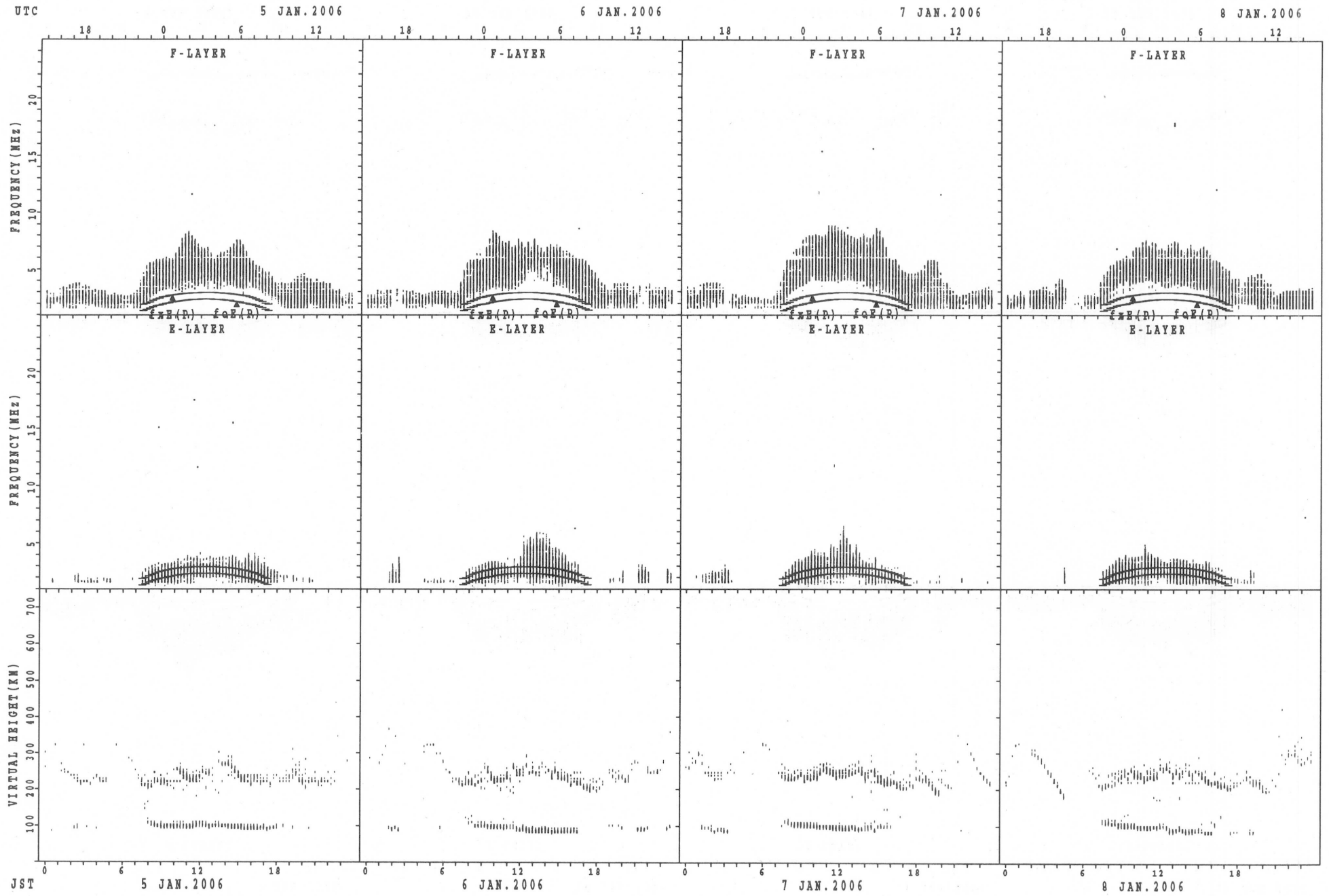
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Kokubunji
UTC
25 JAN.2006
26 JAN.2006
27 JAN.2006
28 JAN.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
JST


SUMMARY PLOTS AT Kokubunji
UTC
29 JAN.2006
30 JAN.2006
31 JAN.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
foE(P)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

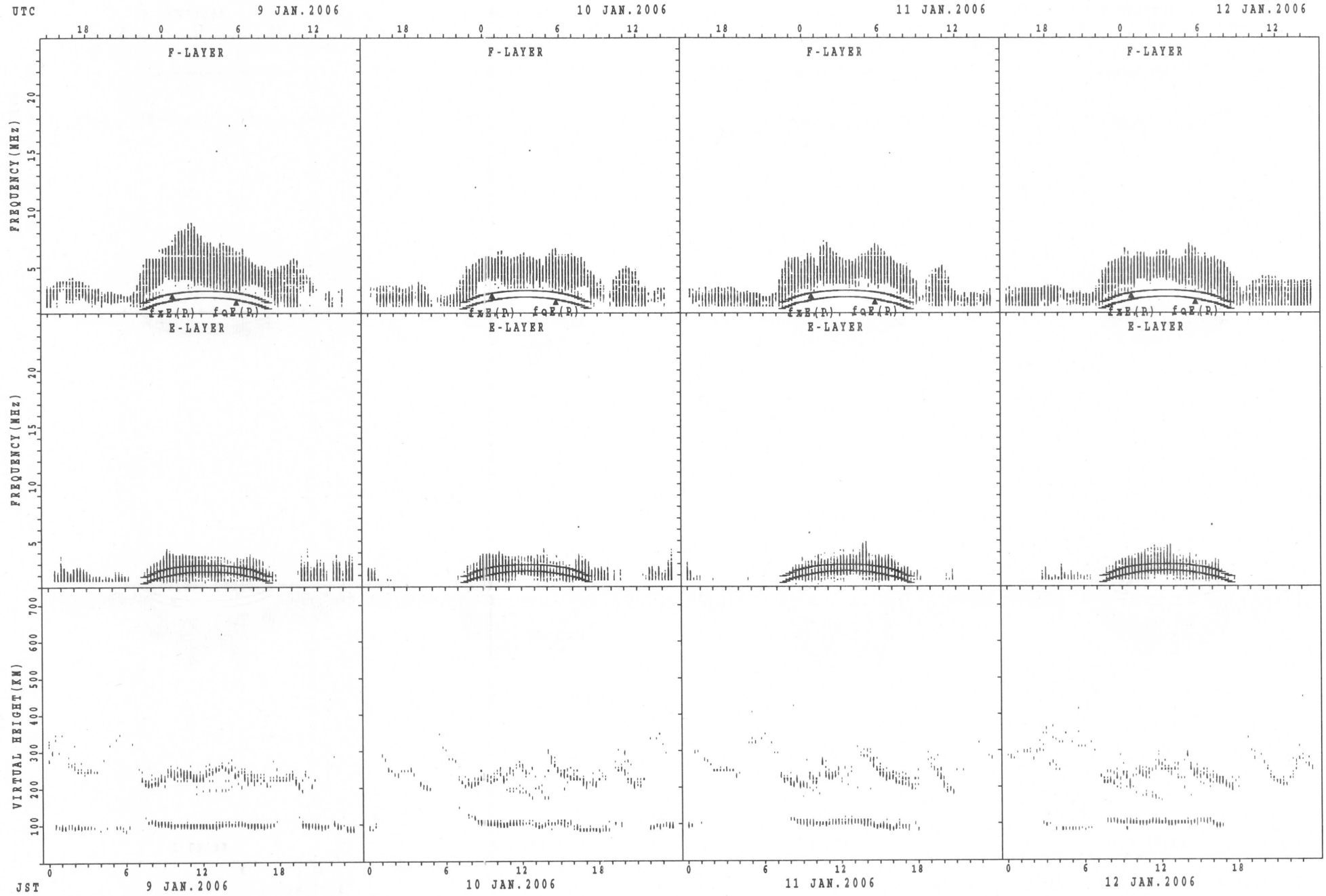

SUMMARY PLOTS AT Yamagawa
UTC
JST
1 JAN.2006
2 JAN.2006
3 JAN.2006
4 JAN.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



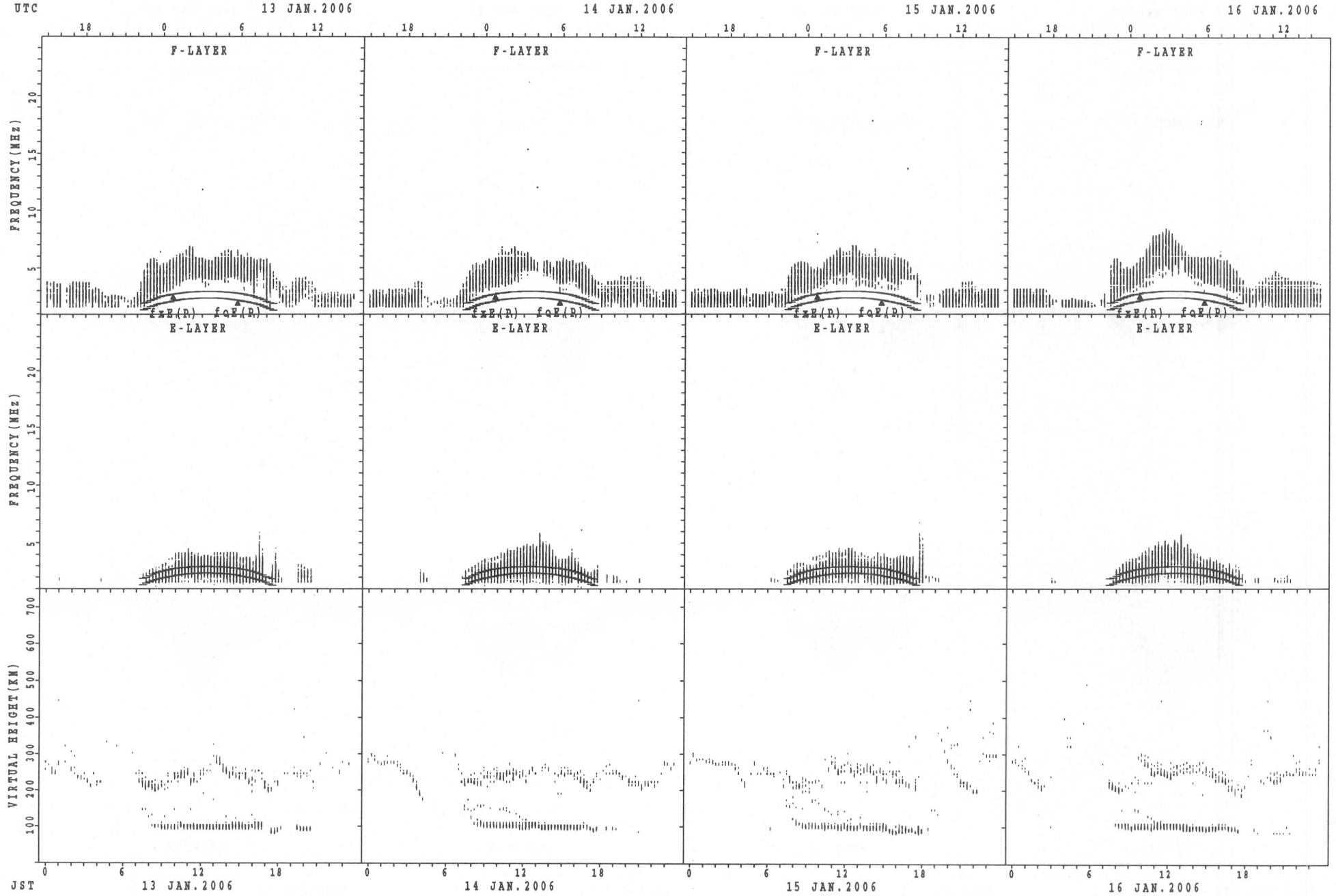
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa

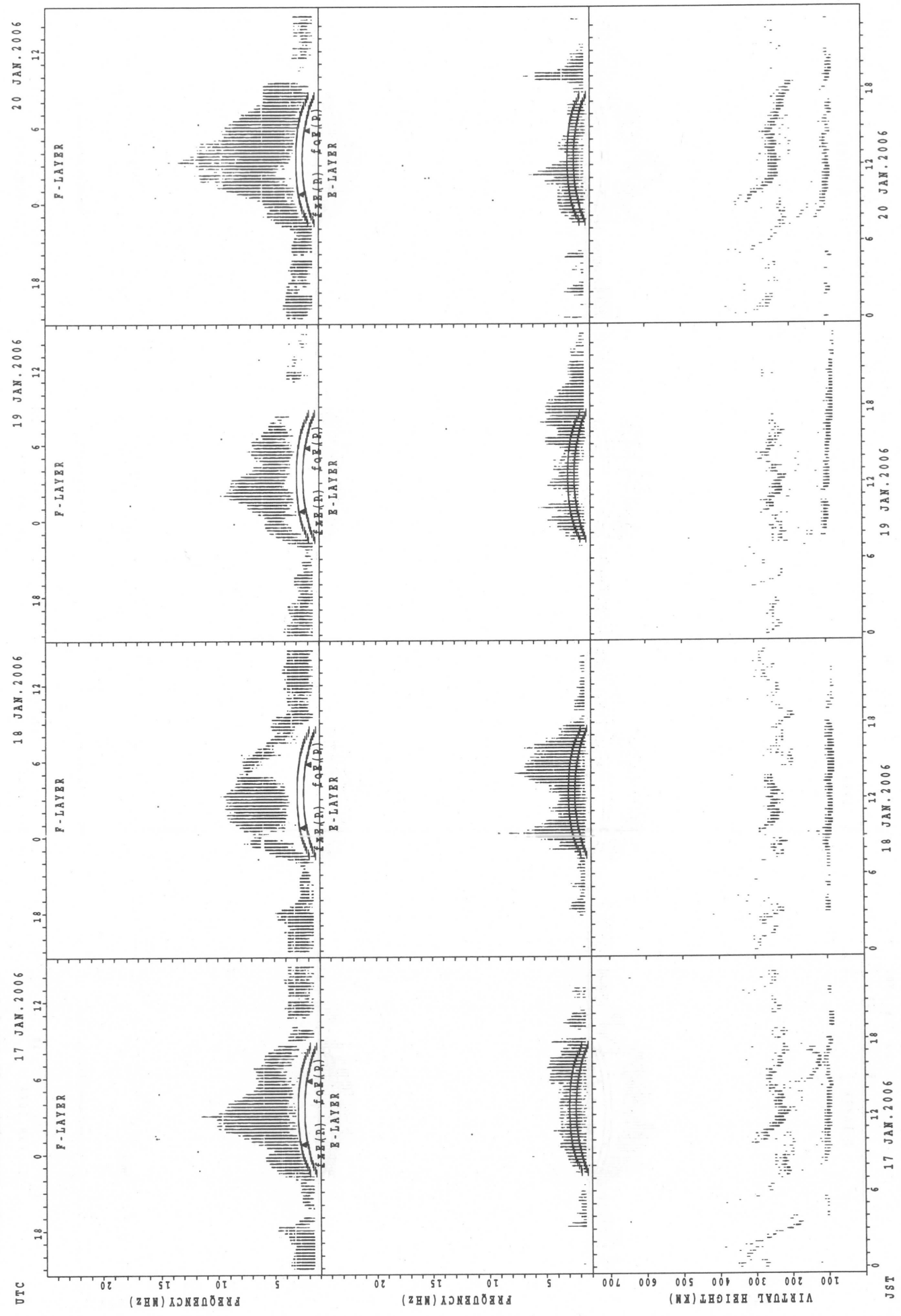


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

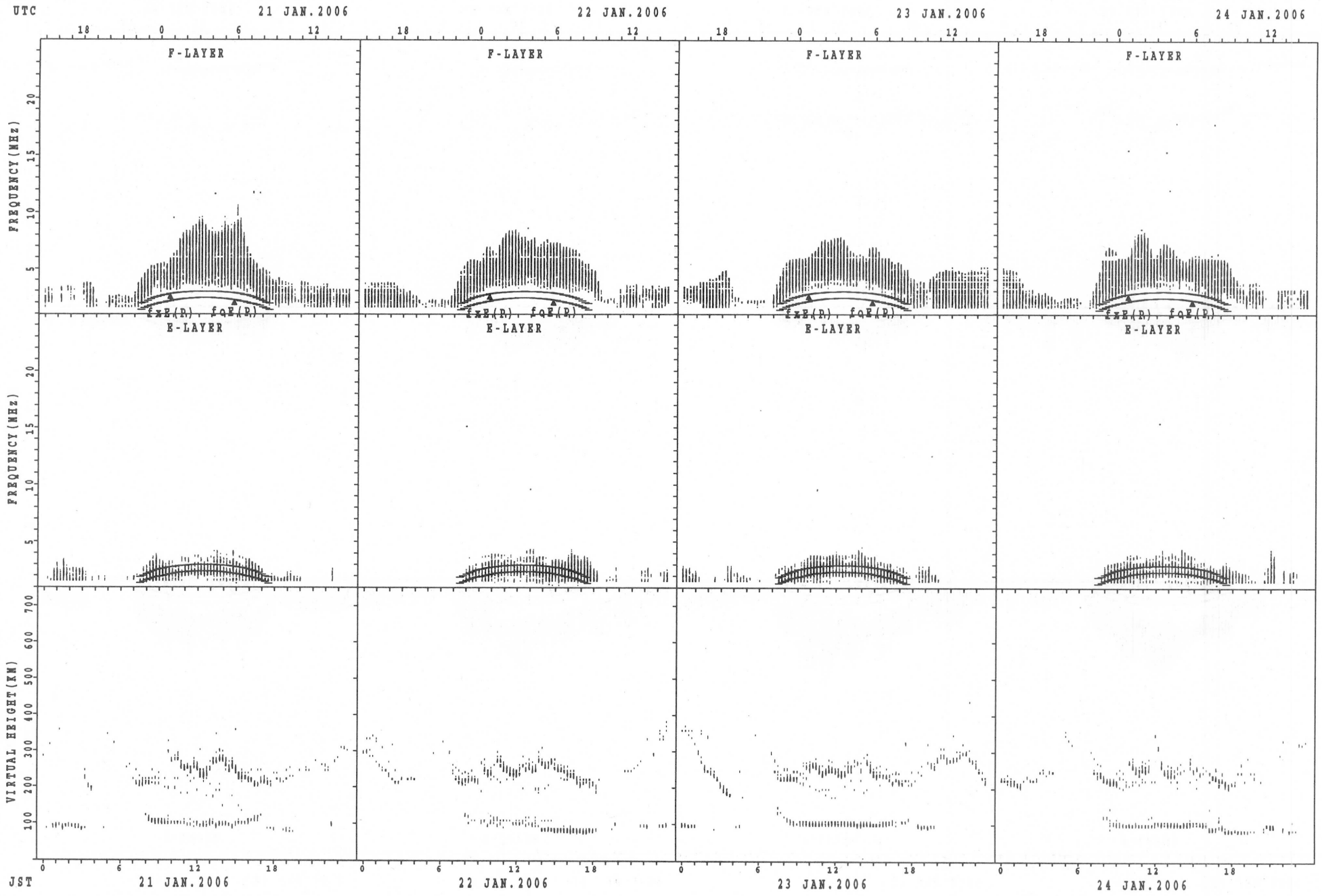
SUMMARY PLOTS AT Yamagawa



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

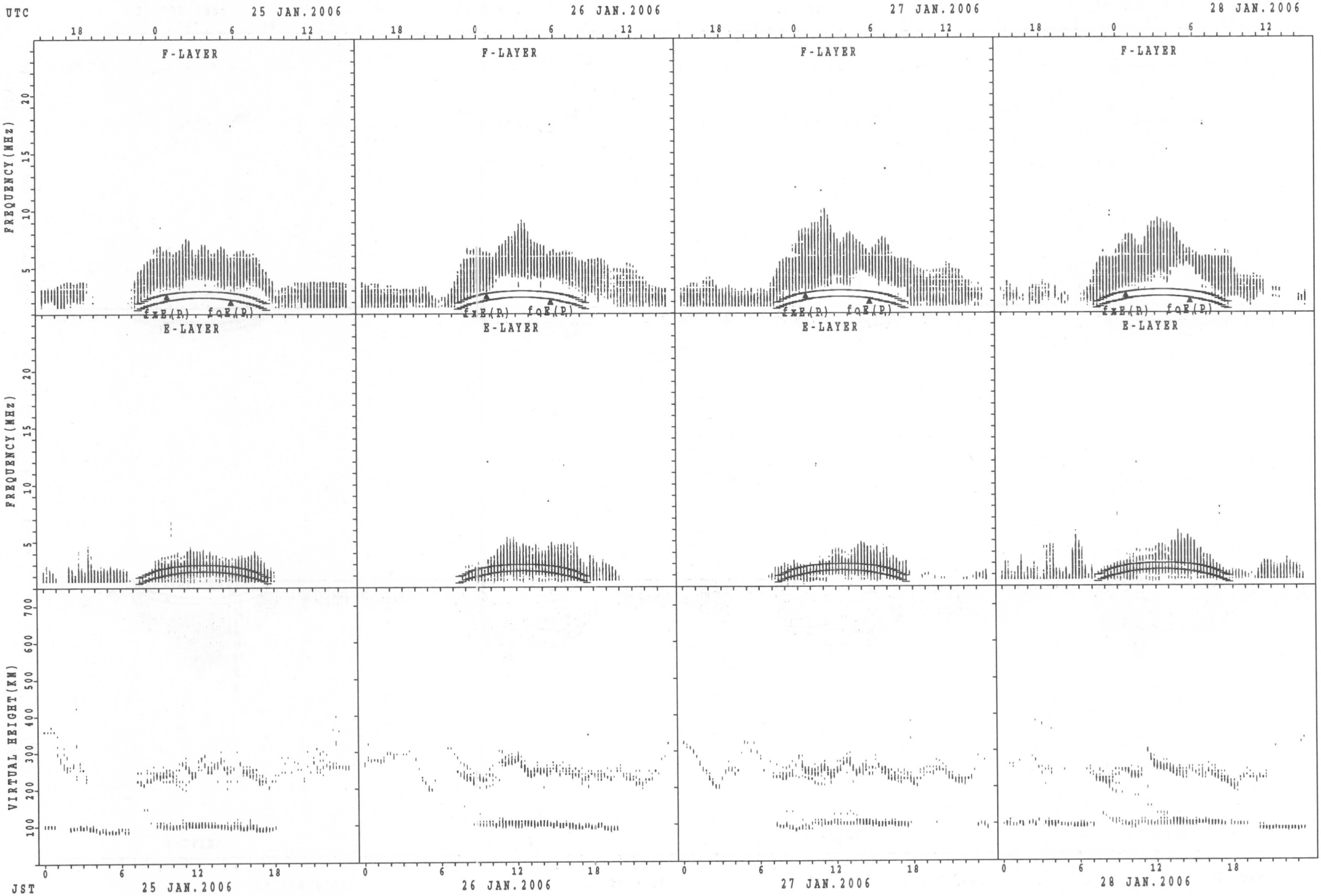

SUMMARY PLOTS AT Yamagawa
UTC
JST
17 JAN.2006
18 JAN.2006
19 JAN.2006
20 JAN.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P) fxE(P)
foF(P) foF(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



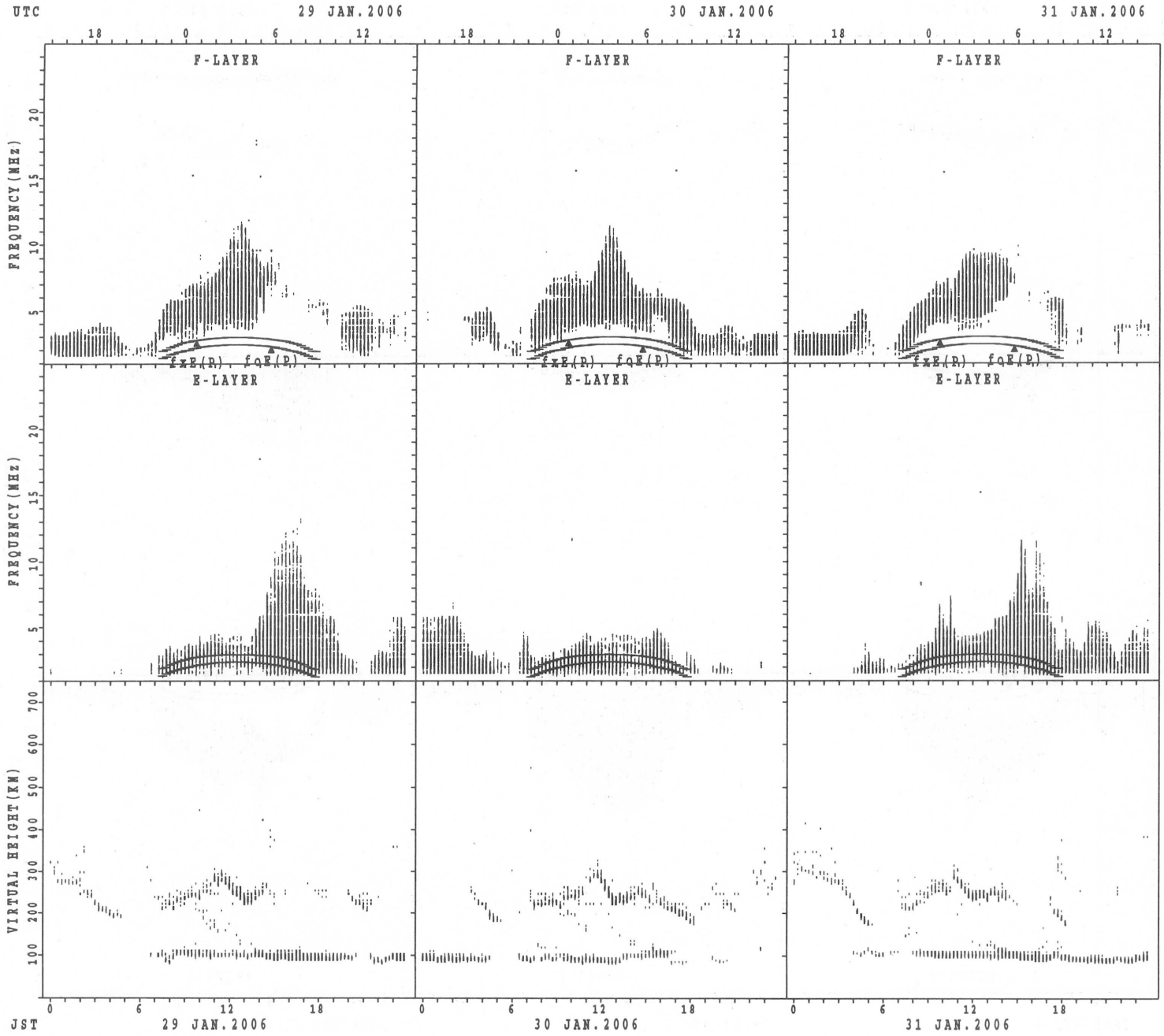
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



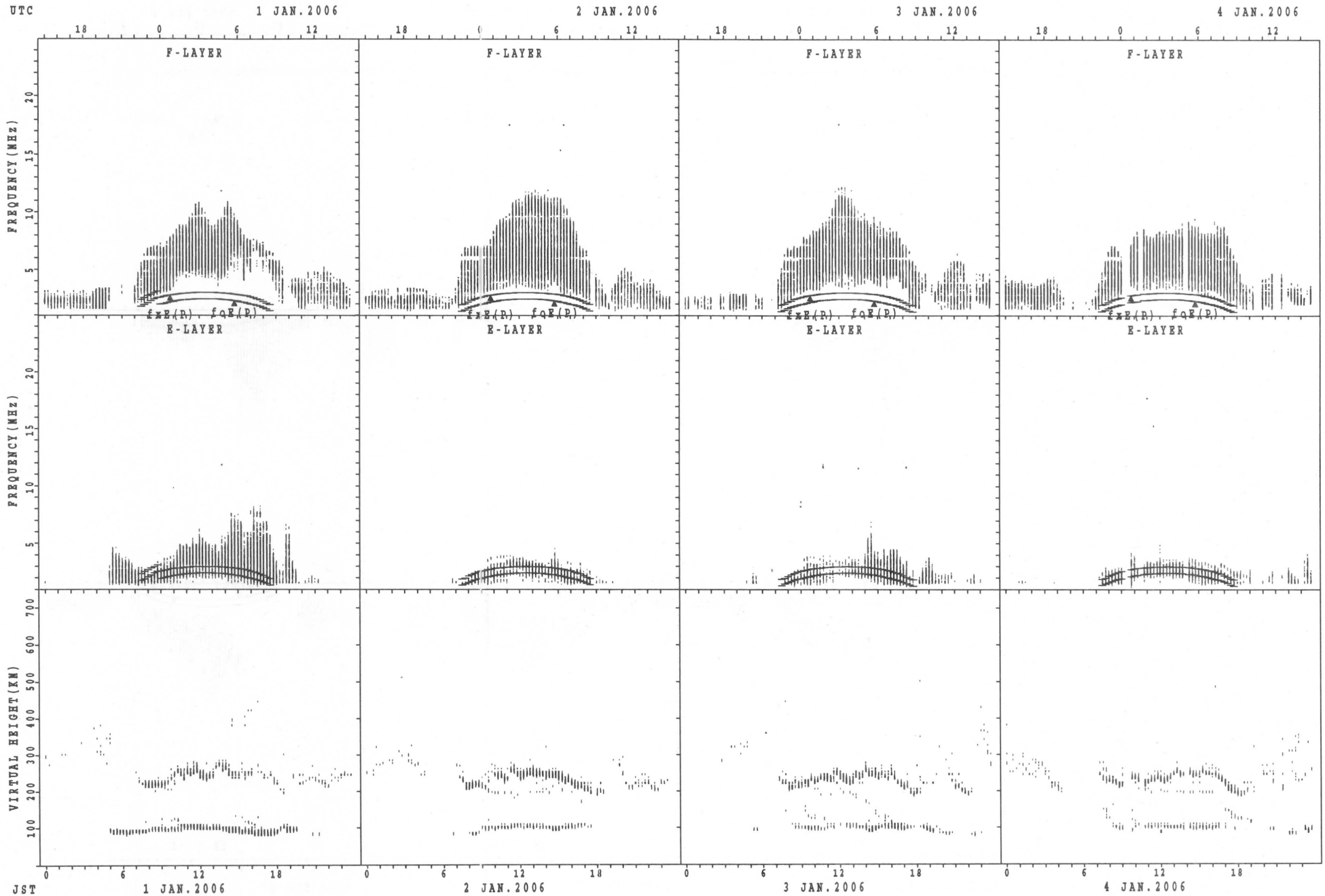
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



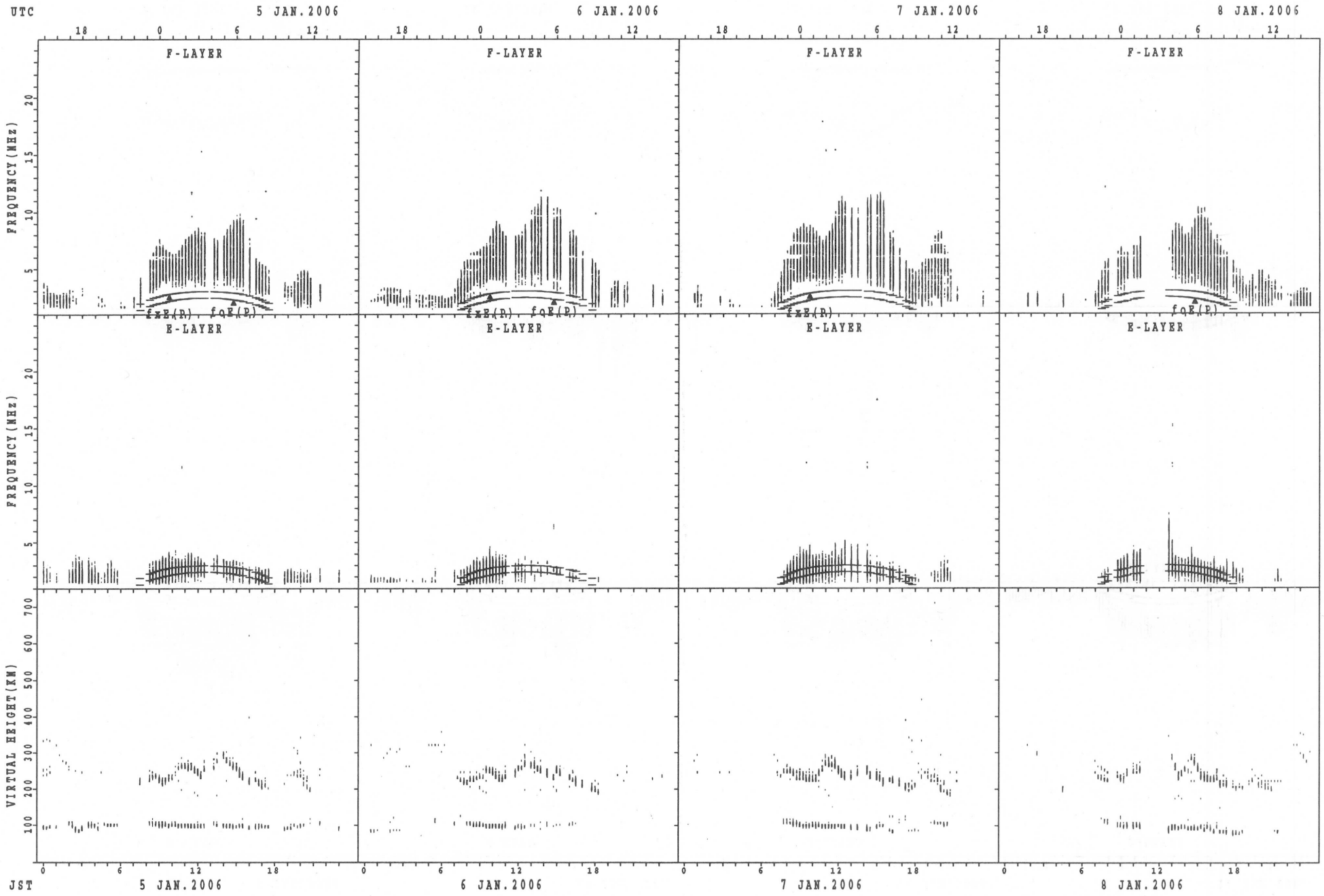
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



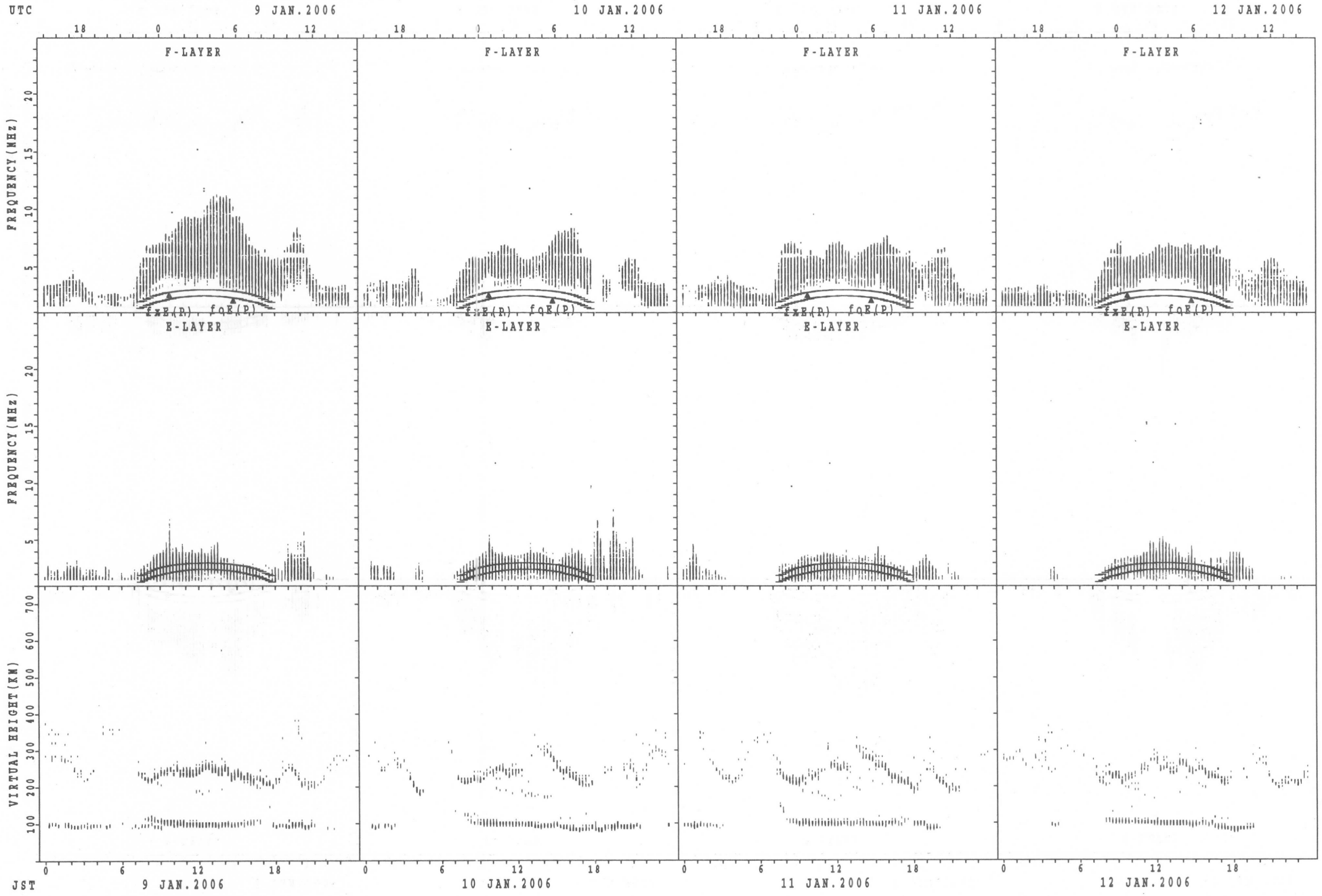
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



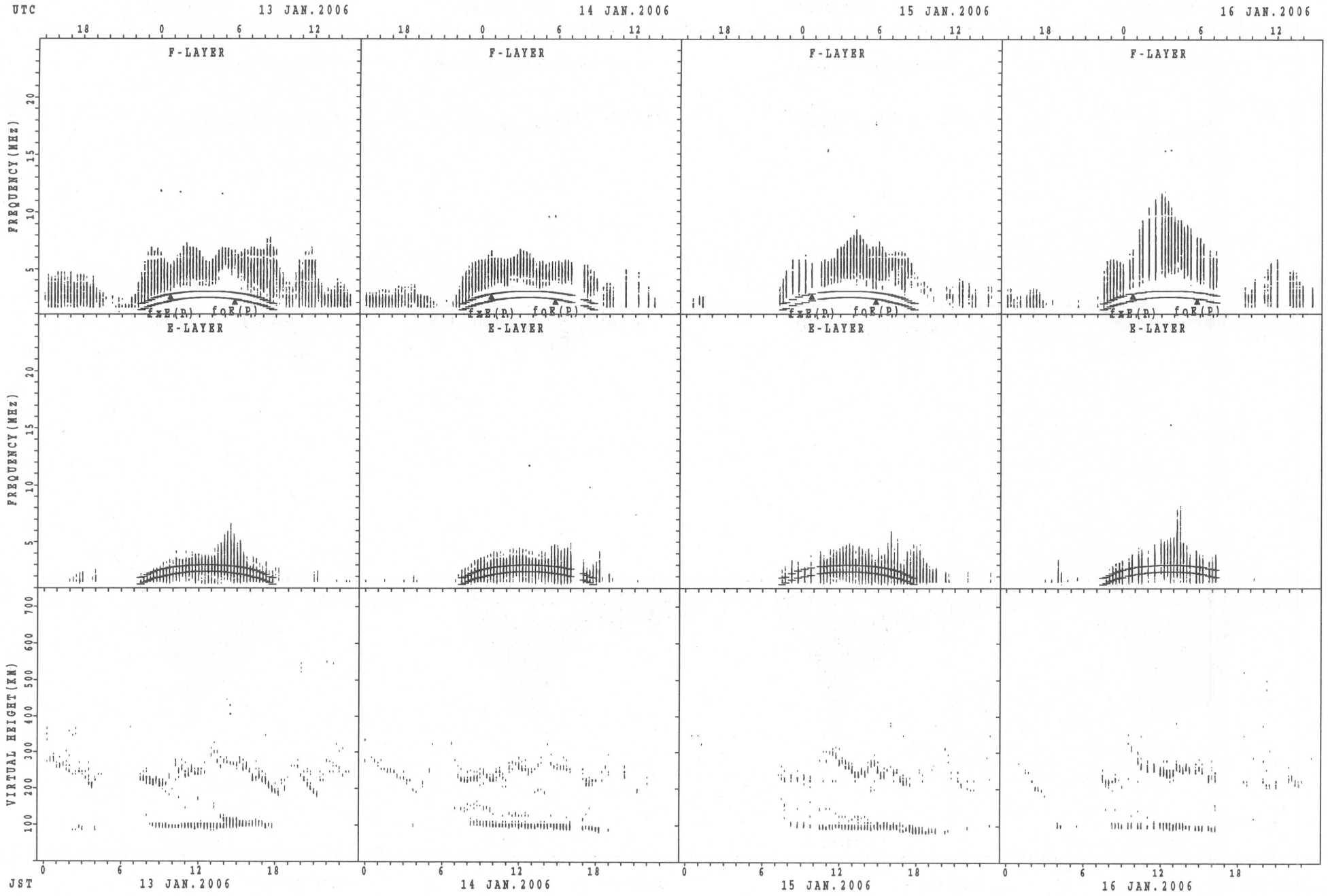
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



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

SUMMARY PLOTS AT Okinawa



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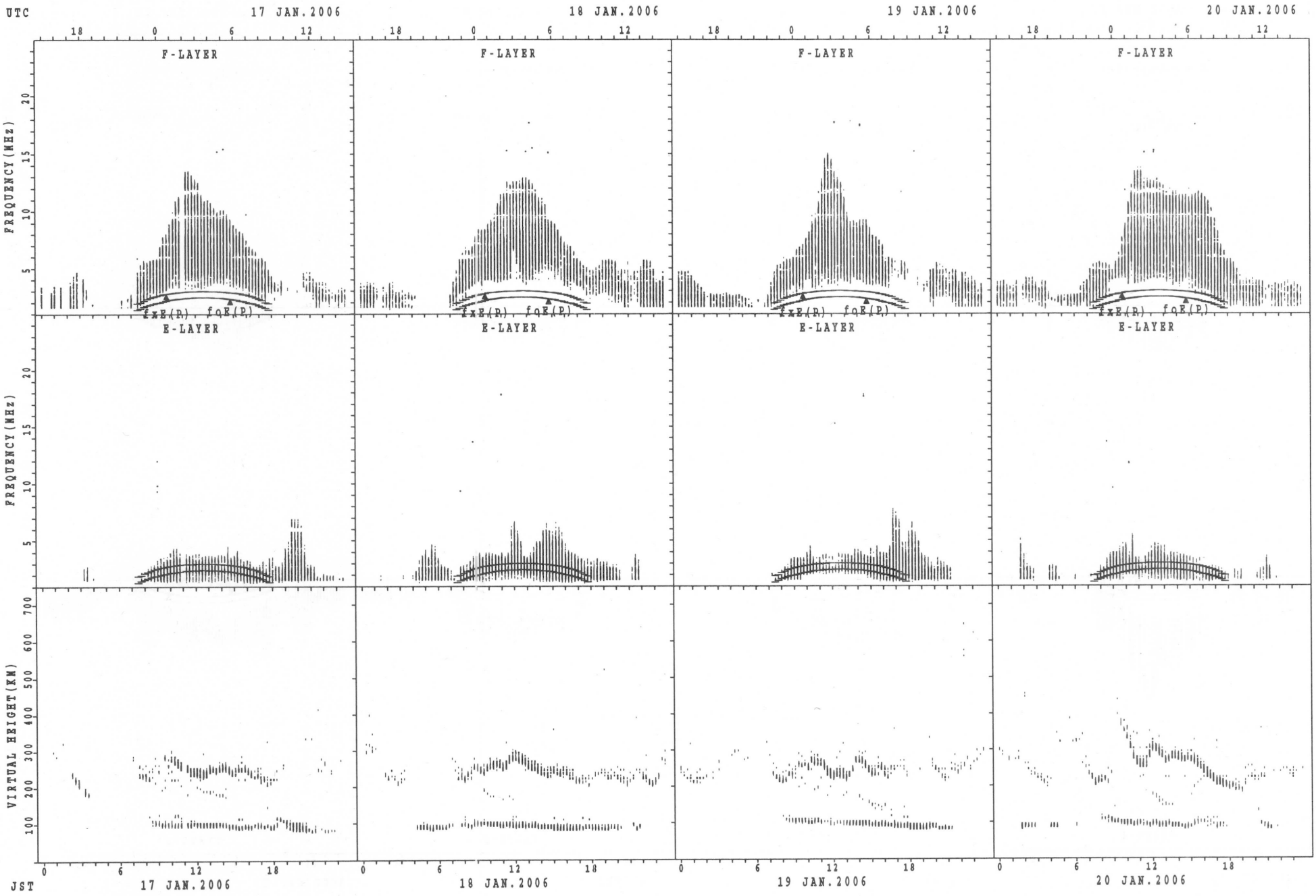
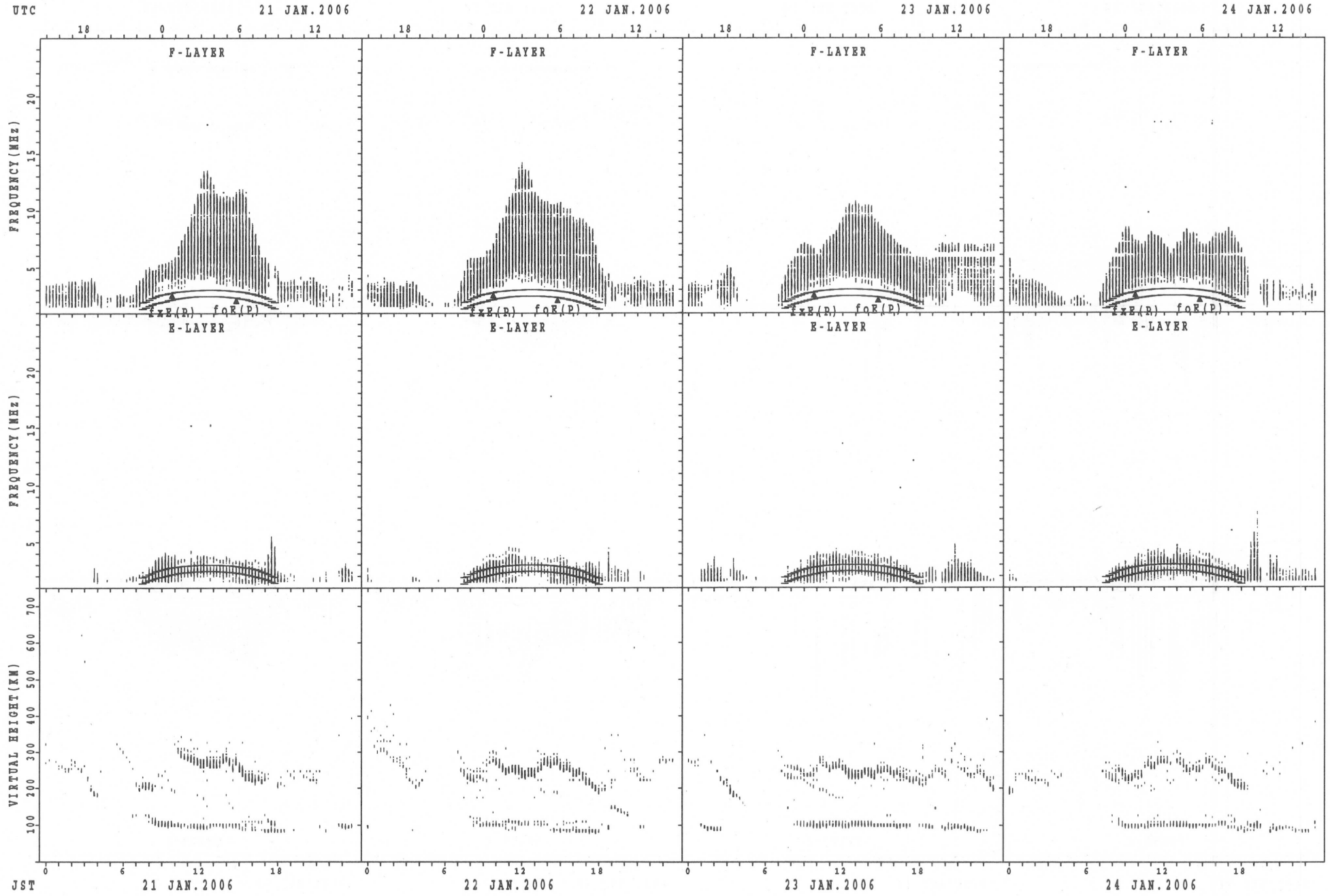
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa

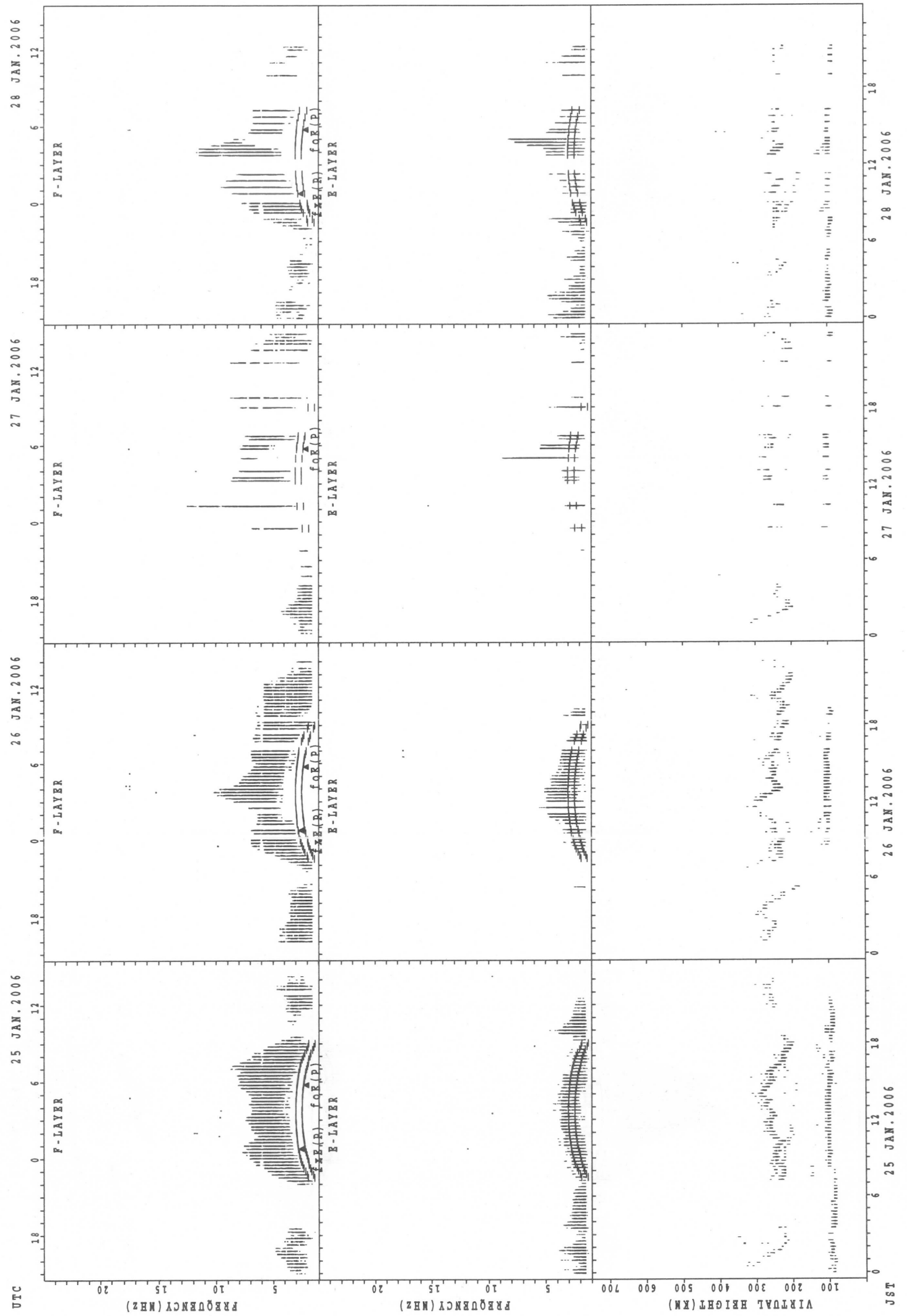


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

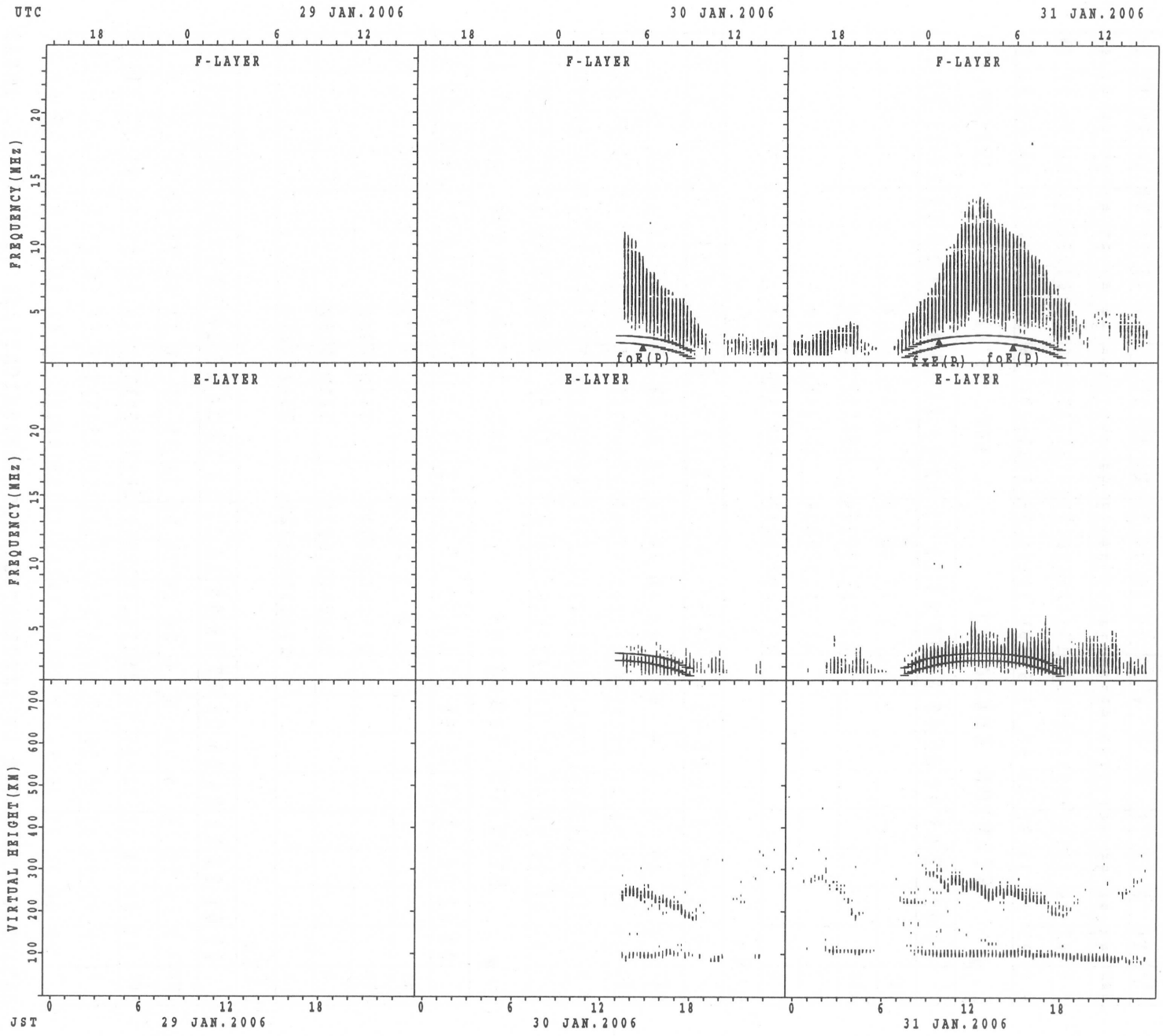
SUMMARY PLOTS AT Okinawa



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


SUMMARY PLOTS AT Okinawa
UTC
JST
25 JAN.2006
26 JAN.2006
27 JAN.2006
28 JAN.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 Okinawa



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

MONTHLY MEDIANS OF h'F AND h'Es

JAN. 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									7	16	24	26	22	15	13	2								
MED									230	230	240	235	235	232	238	232								
U Q									250	240	253	242	244	246	245	238								
L Q									224	223	224	222	230	224	227	226								

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	14	8	12	8	8	6	4	10	14	18	24	23	20	13	17	13	13	13	11	14	14	14	15	14
MED	95	96	95	96	103	102	99	101	114	107	109	113	98	109	113	105	99	97	97	97	97	95	95	96
U Q	97	99	99	107	109	103	100	113	131	125	128	131	107	113	125	106	105	102	101	101	101	99	99	99
L Q	93	92	94	91	98	97	99	97	105	97	101	99	89	105	103	96	96	92	95	95	95	91	91	95

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									2	17	25	8		6	15	10	2							
MED									230	250	238	224		253	252	242	222							
U Q									232	261	255	234		266	258	248	230							
L Q									228	239	228	217		246	240	238	214							

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	6	6	10	8	4	4	6	9	19	23	28	27	20	23	22	15	15	16	14	10	10	9	8	8
MED	97	97	95	98	102	99	101	103	111	107	107	105	107	107	105	105	95	97	97	97	98	95	97	101
U Q	97	99	97	105	104	103	133	124	131	125	135	113	140	125	115	107	103	100	99	103	101	99	101	103
L Q	97	95	95	96	98	97	97	96	101	101	101	97	97	95	93	95	89	92	95	95	95	91	90	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									3	7	21	6			5	19	5							
MED									238	250	248	227			266	246	248							
U Q									260	256	265	230			313	256	250							
L Q									220	230	238	222			254	242	234							

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	7	8	11	9	6	8	6	6	24	25	28	28	30	30	31	31	28	23	19	15	11	5	9	7
MED	97	96	95	95	92	95	95	95	115	107	105	103	107	105	103	103	100	95	95	95	95	97	93	97
U Q	99	99	95	97	99	96	97	99	147	116	113	113	113	113	111	105	107	99	97	97	97	140	97	103
L Q	95	94	91	91	89	91	91	95	105	99	103	101	103	101	101	95	92	93	89	91	89	89	89	89

MONTHLY MEDIANS OF h'F AND h'Es

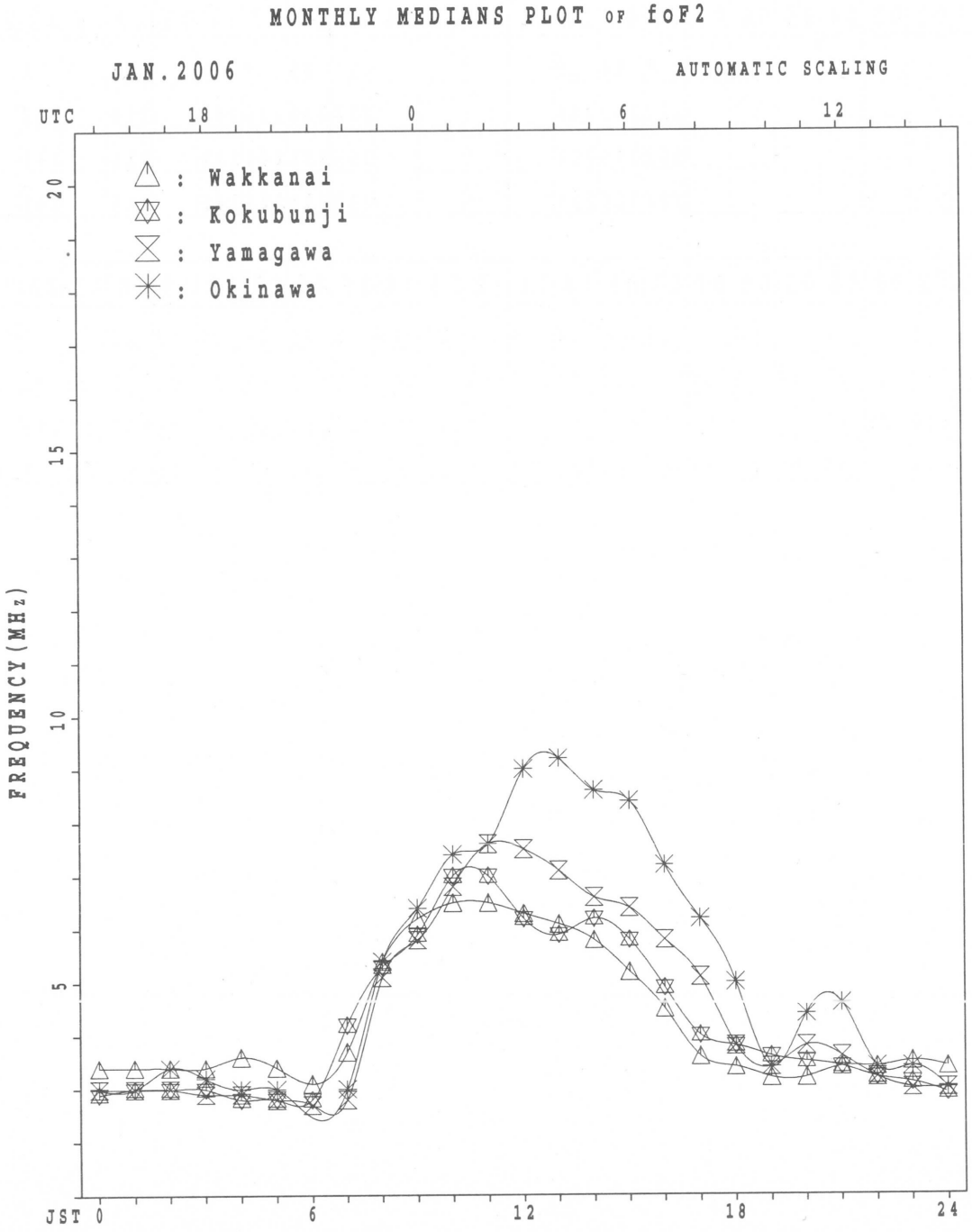
JAN.2006 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

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	14	19					23	25	9	1		2		1	
MED									230	239	246					252	238	230	282		214		282	
U Q									252	246	254					256	255	243	141		214		141	
L Q									224	226	234					238	230	220	141		214		141	

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	5	6	8	4	8	6	3	3	15	19	24	25	25	25	24	25	25	24	20	19	13	9	5	4
MED	97	95	94	95	101	95	91	97	115	107	107	105	105	103	103	103	101	98	94	95	95	95	93	90
U Q	97	97	100	104	144	99	91	109	137	119	122	115	112	108	114	117	105	103	97	101	100	96	95	95
L Q	93	93	93	92	92	89	89	95	107	105	102	103	99	98	99	97	95	90	89	91	91	87	85	89


MONTHLY MEDIANS PLOT OF foF2
JAN. 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

JAN. 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 39	X 40	X 36	X 38	X 35	X 46												X 44	X 42	X 38	X 38	X 41	X 40
2	X 36	X 36	X 38	X 39	A	X 41	X 40												X 46	X 49	X 38	X 36	X 40	X 46
3	X 43	X 41	X 40	X 38	X 38	X 36	X 31												X 38	46	51	51	X 30	34
4	X 35	X 37	X 36	X 33	X 34	X 36	X 35												X 32	X 39	X 50	X 38	X 35	X 38
5	X 39	X 41	X 41	X 36	X 34	X 33	X 32												X 46	X 44	X 35	X 35	X 35	X 35
6	X 35	X 35	34	X 32	X 31	X 33	32												O X 31	X 35	X 37	X 37	X 37	X 36
7	X 39	X 42	X 40	X 33	X 30	X 29	X 28											X 48	X 63	X 42	X 30	X 32	X 40	X 35
8	X 41	X 37	X 35	X 33	X 37	X 30	X 27											X 43	X 48	X 48	X 37	44	42	X 38
9	X 38	X 35	X 37	X 30	X 32	X 33	X 34											X 54	X 62	X 44	X 37	X 31	X 34	X 36
10	X 35	X 37	X 36	X 35	X 35	X 32	X 30											X 47	X 38	X 38	X 40	X 33	X 32	X 32
11	X 33	X 35	X 34	X 30	X 30	X 28	X 26											X 42	X 41	X 46	X 39	X 38	X 38	X 35
12	X 36	X 36	X 36	X 35	X 31	X 34	X 32											X 39	X 32	X 35	X 40	46	X 40	X 36
13	X 35	X 39	X 37	X 30	X 30	X 34	X 34											X 38	X 36	X 40	X 34	X 34	X 34	X 33
14	X 33	X 33	X 33	X 36	X 30	X 27	X 28												X 38	X 40	X 42	X 35	X 37	X 34
15	X 34	X 36	X 35	X 34	X 34	X 35	X 30												X 28	X 35	X 41	43	38	37
16	X 34	X 35	X 32	X 30	A	34	36												X 46	X 46	X 41	X 42	X 42	X 39
17	X 36	X 35	X 36	X 36	X 28	X 32	X 33												X 34	A	A	X 39	X 40	X 36
18	X 36	X 36	X 35	X 35	X 30	X 28	X 33											X 51	X 41	A	X 35	X 39	X 39	X 39
19	X 40	X 35	X 32	X 30	31	X 25	X 27											X 40	X 34	X 37	X 40	44	X 34	X 35
20	X 37	X 37	X 35	X 32	X 32	A	A		X 58									X 50	X 47	X 34	X 35	X 34	X 39	X 35
21	X 37	X 35	X 35	X 36	X 24	X 25	X 24												X 40	X 40	X 33	X 35	X 37	X 38
22	X 39	X 43	X 41	X 27	X 27	X 26	X 26												X 33	X 31	X 36	X 35	X 38	X 34
23	X 36	X 36	X 40	X 42	X 32	X 29	X 25											X 44	X 37	X 42	X 43	X 42	45	51
24	X 47	X 41	X 32	X 27	X 25	X 26	X 25												X 38	X 36	X 31	X 32	X 32	X 33
25	A	X 34	X 37	X 37	X 25	X 24	X 24											X 44	X 33	X 38	X 40	X 37	X 37	X 38
26	X 38	X 37	X 36	X 34	X 36	X 34	X 29												X 52	X 49	X 49	X 50	X 50	X 40
27	X 40	X 42	X 47	X 37	X 38	X 38	X 34												X 38	X 45	X 43	X 41	X 40	X 37
28	X 37	X 37	X 38	X 38	X 38	X 34	X 35												X 46	X 46	X 47	X 28	A	X 32
29	X 33	X 34	X 34	X 35	X 40	X 30	X 27												A	X 41	X 43	X 33	X 35	X 38
30	X 41	X 37	X 35	X 37	X 41	X 25	X 28												A	A	A	X 32	O X 34	38
31	X 32	34	X 35	38	X 42	X 39	A											X 50	X 35	X 30	X 36	X 37	X 37	X 36
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	31	31	31	29	30	29		1									13	29	28	29	31	30	31
MED	X 36	X 36	X 36	X 35	X 32	X 32	X 30		X 58									X 44	X 38	X 40	X 39	X 37	X 38	X 36
U Q	X 39	X 39	X 38	X 37	X 38	X 34	X 34											X 50	X 46	X 46	X 42	42	X 40	X 38
L Q	X 35	X 35	X 35	X 32	X 30	X 28	X 27											X 41	X 34	X 36	X 36	X 34	X 35	X 35

JAN. 2006 fxI (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 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	33	34	30	32	29	40	44	53	74	91	83	71	65	65	68	57	40	38	36	32	32	35	34
2	30	30	32	33	A	35	34	50	70	76	93	84	71	65	65	61	47	33	40	43	32	30	34	40
3	37	34	33	32	32	30	25	46	58	72	92	72	58	64	62	59	54	39	32	F	F	F	24	F
4	29	31	30	27	28	30	29	45	56	69	83	78	62	66	63	58	50	34	26	33	44	32	29	32
5	33	35	35	30	28	27	26	43	53	58	70	73	62	60	62	58	46	35	40	37	29	29	29	29
6	29	29	F	26	25	26	F 23	44	57	64	72	73	70	66	63	55	50	38	25	29	31	31	31	30
7	33	36	33	27	24	23	22	41	55	68	87	74	59	59	76	59	43	42	57	36	24	26	34	29
8	35	30	29	27	31	24	21	37	49	58	72	66	61	58	65	56	45	37	42	42	31	F	F	32
9	32	29	31	24	26	27	28	43	54	65	76	66	63	55	56	52	42	48	56	38	30	25	28	30
10	29	31	30	29	29	26	24	36	44	57	54	52	53	56	58	52	46	40	32	32	34	27	25	26
11	27	29	28	24	24	22	20	37	43	51	62	56	52	53	62	56	50	36	35	40	32	32	32	29
12	30	30	30	29	25	28	26	42	48	56	74	54	53	52	57	56	52	32	26	28	34	F	34	30
13	29	33	30	23	24	28	28	42	45	52	51	57	50	54	60	65	49	31	30	33	28	28	28	26
14	27	27	27	30	24	21	22	36	46	49	65	66	52	49	50	50	45	33	32	34	36	29	31	28
15	28	30	29	28	28	29	24	42	49	50	57	57	62	54	52	63	48	30	22	29	35	F	F	F
16	28	29	26	23	A	F	F	41	46	53	66	74	60	53	56	50	45	A	40	40	35	36	36	33
17	30	29	30	30	22	26	27	39	54	48	64	78	72	56	51	53	46	42	28	A	A	33	34	30
18	30	30	29	29	24	22	27	47	60	68	93	81	62	58	65	63	47	45	35	A	29	32	32	33
19	34	29	26	24	F	19	21	38	48	69	76	72	61	55	53	52	46	34	28	31	34	F	28	29
20	30	31	29	26	25	A	A	A	52	66	78	77	64	59	62	56	51	44	41	28	29	28	32	29
21	31	29	29	30	18	19	18	34	49	56	66	68	72	69	65	59	49	39	34	34	27	29	31	32
22	33	37	34	20	21	20	20	42	51	59	62	57	63	70	56	60	54	42	26	25	30	29	32	28
23	30	30	34	36	26	23	19	38	49	58	68	69	58	59	53	53	51	38	31	36	37	36	F	F
24	41	35	26	20	19	20	19	45	52	58	64	70	65	58	54	51	51	42	32	30	25	26	26	27
25	A	28	31	31	19	18	18	40	46	51	71	65	63	59	58	51	51	38	27	32	34	31	31	32
26	32	31	30	28	29	28	23	43	57	67	62	73	68	64	59	58	52	51	46	43	43	44	44	34
27	34	36	41	31	32	32	28	42	58	66	81	94	69	70	68	63	60	45	32	39	37	35	34	31
28	31	31	32	32	32	28	29	50	55	62	68	72	78	66	67	56	50	46	40	40	40	22	A	26
29	27	28	28	29	34	24	20	46	54	58	59	A	75	74	73	63	55	46	A	35	37	27	29	32
30	35	31	29	31	35	19	22	45	61	58	54	66	78	72	A	54	A	A	A	A	A	26	28	F
31	26	F	29	F	36	33	A	43	56	57	65	64	76	70	58	54	51	44	29	24	30	31	31	30
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	28	29	28	30	31	31	31	30	31	31	30	31	30	29	29	27	28	26	27	27
MED	30	30	30	29	26	26	24	42	53	58	68	71	63	59	61	56	50	39	32	34	32	30	31	30
U Q	33	33	32	30	32	28	28	45	56	67	78	74	71	66	65	60	51	44	40	39	36	32	34	32
L Q	29	29	29	26	24	22	20	39	48	56	62	65	59	55	56	53	46	34	28	30	30	27	28	29

JAN. 2006 foF2 (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 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	A	A	A	L	A									
2											L	L	L	L										
3											L	L	L											
4										L	L	L	L	L	L	A								
5											L	L	L	L	L									
6										L	L	L	L	L	L									
7										L	L	L	L	L 392										
8										L	L	L	L	L	L									
9										L		L	L	L	L									
10												L	L	L	L	L								
11										L	L	L	L 396			L								
12										L	L	L	L	L	L	L								
13									L			L	A		L	L								
14											L		L	L										
15											L	L	L	L 412	L									
16											L	L	L	L	L	L		A						
17										L	L 416	L	L	L	L	L 316								
18									L		L 428	L	L	L	L	L								
19										L	L	L 428	L	L	L	L								
20								A		A	L 440	L	L	L	L 408	L								
21											L 416	L	L	L 416	L 412	L								
22										L		L	L 428	A	L									
23										L	L	L	L	L	L									
24											416	A	L	L	L									
25											L	L	L 424	A	L									
26										L	L	L	L	L	L									
27										L	L	L	L	L										
28									L	L	L	L	L	L	A	A								
29											A	A	A	A	A	A	A							
30										L	L	L	L	A	A	A	A	A						
31										L	L 420	436	L 432	L 424	L									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT											6	2	4	4	2	1								
MED											L 418	432	L 426	L 414	L 410	316								
U Q											L 428		L 430	L 420										
L Q											416		L 410	L 402										

JAN. 2006 foF1 (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 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 224	A	A	A	A	A	A	A	A	B						
2									B UR 232	A	A	UR 312	A	R	R	UR 260	UA 172	B						
3									B A	R	R	R	R	A	280	UR 248	196	B						
4									B R	A	A	R	R	A	A	A	A	B						
5									B 228	UR 296	A	R	R	R	R	UR 252	A	B						
6									B A	A	A	R	R	R	UR 276	A	A	B						
7									BUR 236	R	A	R	R	R	R	R	A							
8									B A	A	A	A	UR 304	A	A	236	A							
9									BUR 236	A	UR 304	A	UR 320	R	R	R	184							
10									BUA 212	UA 256	A	A	R	UR 296	A	UR 256	192							
11									B 220	UR 276	A	A	UR 312	A	A	A	A							
12									B 244	UR 272	R	R	R	R	R	UR 256	192							
13									BUR 208	256	296	A	320	A	A	A	180							
14									B 204	256	A	A	A	A	A	A	UR 188	B						
15									BUR 212	UA 260	284	A	A	A	A	A	A	B						
16									B 236	284	296	A	320	UA 292	UA 276	A	A	B						
17									BUA 212	UA 256	R	A	A	R	R	R	A	B						
18									B A	A	A	UR 312	R	A	UR 300	R	A							
19									B A	R	A	R	R	R	UR 284	UR 252	A							
20									B	UA 276	A	A	324	R	R	R	UR 208							
21									BUA 236	A	UR 300	R	316	UR 312	R	244	200	B						
22									B	AUR 276	304	A	316	300	UA 292	A	A	A						
23									B 236	A	R	A	UR 316	R	UR 292	R	UA 204							
24									B 220	264	A	A	320	A	A	UR 264	A	B						
25									B 224	276	A	A	A	A	A	R	R							
26									B 196	R	308	A	A	A	A	UR 268	A	B						
27									BUA 224	A	A	A	A	A	A	R	204	B						
28									BUR 228	UR 264	R	312	328	308	A	A	A	B						
29									B 240	UR 280	A	A	A	A	UA 296	A	A	B						
30									BUR 228	UR 272	R	312	328	304	UA 284	A	A	B						
31									BUA 248	UA 292	A	A	R	R	A	A	A							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT									23	17	7	4	12	6	9	10	11							
MED									U 228	U 272	300	312	320	302	U 284	UR 254	192							
U Q									U 236	UR 278	304	UR 312	322	308	UR 294	UR 260	U 204							
L Q									U 212	UA 258	296	312	316	U 296	U 278	248	184							

JAN. 2006 foE (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 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 35	J A 38	J A 39	J A 28	J A 20	J A 17	J A 18	E B 17	27	28	J A 74	J A 92	J A 58	J A 34	J A 45	J A 45	J A 36	J A 36	J A 28	J A 18	19	J A 20	J A 25	J A 54
2	J A 24	J A 21	J A 23	J A 22	J A 42	J A 23	18	E B 15	G 20	J A 36	J A 35	G 28	J A 37	G 27	G 19	G 22	20	E B 16	E B 15	E B 16	E B 15	E B 16	J A 45	J A 43
3	J A 36	J A 34	J A 26	J A 24	J A 20	20	E B 15	E B 15	24	G 27	G 28	G 29	G 28	J A 38	30	G 20	E B 14	E B 15	E B 15	J A 22	E B 15	20	E B 15	19
4	18	E B 15	J A 36	J A 28	J A 20	E B 15	E B 15	E B 15	G 22	J A 37	J A 34	G 29	G 21	36	J A 37	35	J A 33	18	J A 21	J A 22	J A 26	J A 28	E B 15	14
5	E B 15	E B 15	19	18	21	20	E B 14	E B 16	26	G 27	J A 35	G 28	G 26	G 26	G 27	G	J A 27	J A 21	J A 23	J A 22	E B 16	E B 15	20	J A 28
6	J A 32	J A 22	E B 16	E B 14	E B 14	E B 16	20	J A 21	J A 56	J A 35	J A 34	G 24	G 27	G 21	G 24	J A 29	J A 29	J A 29	J A 24	19	E B 15	E B 15	E B 16	J A 17
7	J A 18	J A 24	J A 23	J A 19	J A 18	19	20	20	G	G 30	J A 38	G 29	G 24	G 22	G 23	G 22	J A 24	22	E B 14	J A 20	J A 24	J A 24	J A 26	J A 34
8	J A 34	J A 22	J A 26	J A 20	19	E B 16	E B 15	E B 15	22	J A 48	J A 36	J A 36	G 27	J A 36	J A 34	27	J A 28	J A 28	E B 15	E B 16	J A 20	E B 15	E B 16	20
9	J A 19	J A 20	J A 21	J A 21	18	E B 15	E B 14	J A 20	G	31	G 26	32	J G 24	G 25	G 24	G 23	22	E B 14	E B 14	J A 22	J A 24	J A 21	19	E B 16
10	E B 15	E B 15	E B 15	J A 23	20	21	E B 15	19	29	30	32	34	32	34	J A 36	G	G	E B 15	E B 15	E B 16	E B 14	E B 15	E B 15	E B 15
11	E B 15	E B 16	E B 15	E B 15	E B 15	21	E B 15	E B 15	25	G 22	31	32	G 22	J A 44	J A 35	J A 32	J A 25	J A 20	E B 15	E B 15	E B 15	E B 16	19	E B 15
12	J A 21	J A 17	18	18	21	E B 15	E B 15	E B 16	G	G 20	G 21	G 24	G 29	G	G 25	G 21	22	E B 16	E B 15	E B 15	J A 20	E B 15	E B 16	E B 15
13	E B 14	E B 16	E B 15	E B 15	E B 15	E B 15	E B 16	E B 15	G 18	32	33	35	36	36	J A 37	J A 30	23	E B 14	21	E B 16	E B 15	E B 16	E B 15	E B 15
14	E B 15	E B 16	E B 15	E B 16	E B 15	E B 15	E B 16	E B 15	28	34	36	35	34	32	J A 30	26	G 17	19	J A 23	E B 16	19	E B 15	E B 15	E B 15
15	E B 15	E B 15	E B 15	E B 15	E B 15	18	19	J A 23	J A 21	31	34	36	35	37	35	28	J A 22	J A 29	J A 33	J A 23	J A 28	J A 26	19	E B 15
16	E B 16	E B 15	E B 15	E B 15	J A 35	21	E B 16	J A 24	30	J A 32	32	34	34	36	31	J A 34	J A 43	J A 86	J A 77	J A 58	23	20	E B 15	E B 15
17	E B 16	E B 16	E B 15	E B 15	E B 14	E B 15	E B 15	E B 15	26	31	G 22	38	37	G 24	G 21	G 21	23	J A 26	J A 39	J A 58	J A 46	J A 34	J A 66	J A 36
18	J A 33	J A 24	J A 28	J A 34	J A 24	E B 14	E B 16	J A 23	J A 34	J A 34	J A 43	J A 44	G 27	J A 38	G 23	G 20	J A 25	19	J A 53	J A 35	J A 35	J A 24	J A 24	J A 30
19	J A 28	J A 26	E B 14	J A 24	E B 15	E B 16	J A 34	J A 24	J A 30	G 22	J A 46	G	G	G	G	G 22	J A 26	19	J A 45	J A 43	J A 26	J A 29	E B 15	J A 22
20	18	19	J A 20	E B 16	E B 14	J A 56	J A 28	J A 46	J A 55	34	35	J A 43	G 28	G 27	G 27	G 22	G	J A 21	E B 15	E B 16	E B 16	19	J A 45	J A 26
21	E B 16	E B 15	E B 15	E B 14	E B 15	E B 16	J A 17	20	28	J A 41	G 26	G 25	36	G	G 21	30	25	E B 16	19	20	E B 16	E B 16	E B 15	E B 15
22	J A 20	E B 16	E B 16	E B 16	21	22	E B 15	E B 16	26	G 22	36	J A 39	34	41	33	32	J A 35	J A 26	J A 29	E B 15	J A 17	E B 15	J A 20	E B 16
23	E B 16	J A 19	19	E B 15	E B 15	E B 15	19	E B 16	27	30	G 28	34	G 28	G 28	G 23	G 22	24	J A 23	J A 27	J A 17	E B 15	E B 15	E B 14	E B 15
24	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	E B 17	27	33	35	J A 44	36	35	30	G 20	J A 41	J A 26	J A 23	E B 15	19	J A 16	J A 42	J A 30
25	J A 45	J A 27	J A 23	E B 16	18	E B 15	E B 15	18	26	32	33	32	J A 46	J A 44	J A 34	G 21	G 18	E B 16	20	E B 15	E B 15	E B 15	E B 14	E B 15
26	E B 16	E B 15	E B 15	E B 16	19	E B 15	19	E B 16	23	G 24	34	33	35	36	J A 36	G 23	J A 24	E B 15	E B 15	E B 16	E B 15	E B 16	E B 16	E B 15
27	E B 16	E B 15	E B 15	J A 26	J A 17	J A 23	20	20	25	30	34	35	J A 41	J A 36	J A 34	G 23	24	J A 26	J A 24	22	E B 16	19	18	J A 18
28	J A 17	17	E B 15	18	E B 15	E B 15	E B 16	E B 16	G 20	G 24	G 23	38	39	36	J A 43	J A 42	J A 30	J A 21	J A 24	J A 74	J A 36	J A 40	J A 36	J A 25
29	E B 16	E B 15	E B 15	J A 23	22	J A 21	J A 31	J A 43	28	G 23	J A 60	J A 72	J A 58	J A 55	J A 56	J A 70	J A 55	J A 39	J A 81	J A 27	J A 20	J A 38	18	J A 24
30	21	J A 17	19	J A 78	J A 43	J A 26	J A 34	J A 24	G 20	J G 22	G 23	38	38	40	J A 65	J A 47	J A 78	J A 137	J A 129	J A 42	J A 51	J A 41	J A 33	19
31	E B 15	E B 15	J A 37	E B 16	E B 15	J A 20	J A 25	28	34	34	J A 55	J A 39	G 31	G 24	32	29	26	J A 22	19	20	19	J A 46	E B 16	J A 18
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MED	17	E B 16	E B 16	18	18	E B 16	E B 16	E B 17	26	31	34	34	34	35	31	G J A 25	J A 21	J A 23	20	19	19	18	18	
U Q	J A 24	J A 22	J A 23	J A 23	21	J A 21	J A 20	J A 23	28	J A 34	J A 36	J A 38	J A 37	J A 37	J A 36	J A 32	J A 30	J A 26	J A 29	J A 23	J A 24	J A 26	J A 25	J A 26
L Q	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	G	G 24	G 28	G 29	G 27	G 27	G 24	G 22	22	E B 16	E B 15	E B 16	E B 15	E B 15	E B 15	E B 15

JAN. 2006 foEs (0.1MHz)

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IONOSPHERIC DATA STATION Kokubunji

JAN. 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	21	23	E B 15	18	E B 16	E B 15	E B 15	E B 17	26	27	45	57	42	31	36	36	30	29	22	E B 16	E B 16	17	19	E B 16
2	E B 16	E B 16	18	18	A A 42	E B 16	E B 15	E B 15	G 19	29	30	G 25	32	G 23	G 17	G 22	20	E B 16	E B 15	E B 16	E B 15	E B 16	E B 16	20
3	E B 16	25	20	18	E B 15	E B 15	E B 15	E B 15	23	G 26	G 26	G 27	G 25	32	30	G 18	E B 14	E B 15	E B 15	E B 15	E B 15	E B 16	E B 15	E B 16
4	E B 16	E B 15	20	19	E B 15	E B 15	E B 15	E B 15	G 21	30	32	G 24	G 19	33	32	30	22	17	16	16	17	E B 15	E B 15	E B 14
5	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 14	E B 16	24	G 25	30	G 24	G 24	G 24	G 24	G	20	19	16	E B 15	E B 16	E B 15	E B 15	20
6	24	E B 15	E B 16	E B 14	E B 14	E B 16	16	18	24	28	30	G 23	G 27	G 20	G 21	25	23	24	17	E B 16	E B 15	E B 15	E B 16	E B 15
7	E B 16	18	18	17	E B 15	E B 15	E B 15	E B 16	G	G 29	32	G 26	G 23	G 22	G 22	G 20	22	E B 14	E B 14	18	20	22	18	24
8	20	20	20	15	E B 15	E B 16	E B 15	E B 15	22	30	30	33	G 24	31	29	26	22	25	E B 15	E B 16	16	E B 15	E B 16	E B 15
9	E B 16	17	E B 15	16	E B 15	E B 15	E B 14	E B 16	G	28	G 25	30	G 23	G 25	G 24	U Y 23	20	E B 14	E B 14	E B 15	E B 16	17	16	E B 16
10	E B 15	E B 15	E B 15	16	E B 15	E B 15	E B 15	19	27	28	30	32	32	34	31	G	G	E B 15	E B 15	E B 16	E B 14	E B 15	E B 15	E B 15
11	E B 15	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	24	G 22	29	32	G 20	36	31	27	21	16	E B 15	E B 15	E B 15	E B 15	E B 16	E B 15
12	E B 16	E B 16	E B 14	E B 14	16	E B 15	E B 15	E B 16	G	G 20	G 20	G 23	G 28	G	G 24	G 19	21	E B 16	E B 15	E B 15	17	E B 15	E B 16	E B 15
13	E B 14	E B 16	E B 15	E B 15	E B 15	E B 15	E B 16	E B 15	G 18	31	32	34	35	34	32	25	20	E B 14	E B 15	E B 16	E B 15	E B 16	E B 15	E B 15
14	E B 15	E B 16	E B 15	E B 16	E B 15	E B 15	E B 16	E B 15	26	32	34	34	32	31	28	24	G 17	17	18	E B 16	E B 15	E B 15	E B 15	E B 15
15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	20	G 16	29	32	35	33	33	29	26	21	22	18	16	16	E B 14	E B 14	E B 15
16	E B 16	E B 15	E B 15	E B 15	A A 35	16	E B 16	17	G 18	G 23	32	32	33	33	30	26	40	A A 86	27	22	E B 15	E B 16	E B 15	E B 15
17	E B 16	E B 16	E B 15	E B 15	E B 14	E B 15	E B 15	E B 15	25	30	G 20	36	34	G 23	G 20	G 21	22	20	E B 15	A A 58	A A 46	24	21	19
18	E B 16	19	21	21	16	E B 14	E B 16	17	24	29	35	G 23	G 26	31	G 22	G 19	20	16	21	A A 35	19	19	21	22
19	18	18	E B 14	16	E B 15	E B 16	16	19	26	G 20	34	G	G	G	G	G 19	22	16	16	25	E B 15	16	E B 15	16
20	E B 16	E B 17	E B 15	E B 16	E B 14	A A 56	A A 28	A A 46	37	33	33	36	G 27	G 27	G 26	G 20	G	18	E B 15	E B E B 16	E B 16	16	22	21
21	E B 16	E B 15	E B 15	E B 14	E B 15	E B 16	E B 15	20	26	30	G 26	G 24	35	G	G 20	28	24	E B 16	E B 15	17	E B 16	E B 15	E B 15	E B 15
22	E B 16	E B 16	E B 16	E B 16	17	16	E B 15	E B 16	24	G 20	34	36	34	37	32	31	30	21	18	E B 15	E B 16	E B 15	E B 16	E B 16
23	E B 16	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	26	23	G 29	33	G 29	G 29	G 23	G 22	22	20	19	E B 15	E B 15	E B 15	E B 14	E B 15
24	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	E B 17	26	32	34	42	34	33	30	G 19	34	23	19	E B 15	E B 16	E B 15	E B 16	16
25	A A 45	18	17	E B 16	E B 15	E B 15	E B 15	18	25	30	33	31	36	40	30	G 20	G 18	E B 16	18	E B 15	E B 15	E B 15	E B 14	E B 15
26	E B 16	E B 15	E B 15	E B 16	E B 16	E B 15	E B 15	E B 16	22	G 22	33	32	34	34	33	G 23	20	E B 15	E B 15	E B 16	E B 15	E B 16	E B 16	E B 15
27	E B 16	E B 15	E B 15	E B 15	E B 15	E B 17	E B 15	20	24	28	32	34	33	32	31	G 22	23	24	21	E B 15	E B 16	E B 16	15	E B 15
28	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16	E B 16	G 20	G 22	G 20	37	38	36	40	39	29	16	21	20	22	17	A A 36	17
29	E B 16	E B 15	E B 15	16	E B 15	E B 15	17	34	26	G 20	55	A A 72	43	46	53	58	43	35	A A 81	20	E B 15	20	17	E B 15
30	16	16	E B 15	16	E B 15	16	E B 15	17	G 18	G 17	G 23	36	36	38	A A 65	42	A A 78	A A 137	A A 129	A A 42	A A 51	18	24	E B 16
31	E B 15	E B 15	17	E B 16	E B 15	16	A A 25	26	32	30	36	34	G 30	G 23	30	27	24	17	E B 15	E B 15	19	E B 16	E B 16	E B 15
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MED	E B 16	E B 16	E B 15	E B 16	E B 15	E B 15	E B 15	E B 16	24	28	32	32	32	31	30	23	22	17	16	E B 16	E B 16	E B 16	E B 16	E B 15
U Q	16	17	17	16	15	16	16	19	26	30	34	36	34	34	32	27	24	23	19	18	17	17	17	16
L Q	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	G	G 22	G 28	G 26	G 26	G 27	G 24	G 20	20	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15

JAN. 2006 fbEs (0.1MHz)

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IONOSPHERIC DATA STATION Kokubunji

JAN. 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	15	14	16	15	15	17	15	16	15	16	15	15	14	14	16	15	15	16	16	16	16	16
2	13	16	15	16	14	16	15	15	15	13	14	16	18	16	12	14	14	16	15	16	15	16	15	15
3	16	15	15	15	15	15	15	15	13	14	16	19	16	14	15	14	14	15	15	15	15	16	15	16
4	16	15	16	15	15	15	15	15	13	16	14	15	14	15	13	13	14	15	15	14	15	15	15	14
5	15	15	15	15	15	15	14	16	16	14	13	14	14	16	16	13	14	13	15	15	16	15	15	16
6	15	15	16	14	14	16	14	15	16	14	15	15	14	15	15	17	14	15	15	16	15	15	16	15
7	16	15	14	15	15	15	15	16	15	14	13	14	14	15	13	14	14	14	14	15	14	15	14	15
8	16	16	14	14	15	16	15	15	15	15	13	14	14	15	14	16	14	15	15	16	15	15	16	15
9	16	15	15	15	15	15	14	16	15	15	15	13	14	16	16	16	14	14	14	15	16	14	14	16
10	15	15	15	15	15	15	15	15	15	14	14	17	17	15	15	16	17	15	15	16	14	15	15	15
11	15	16	15	15	15	15	15	15	14	14	14	15	16	15	14	13	13	15	15	15	15	16	15	15
12	16	16	14	14	15	15	15	16	14	15	14	15	18	19	16	15	14	16	15	15	14	15	16	15
13	14	16	15	15	15	15	16	15	14	13	14	15	14	14	16	14	14	14	15	16	15	16	15	15
14	15	16	15	16	15	15	16	15	14	14	15	14	13	14	13	14	14	14	14	16	15	15	15	15
15	15	15	15	15	15	15	16	16	15	15	13	13	16	14	15	15	15	14	14	14	15	14	14	15
16	16	15	15	15	15	15	16	14	14	13	15	14	16	13	14	14	14	15	15	15	15	16	15	15
17	16	16	15	15	14	15	15	15	14	16	14	14	16	16	16	16	14	14	15	15	15	15	16	15
18	16	15	14	15	14	14	16	15	14	13	14	14	22	16	14	15	14	14	16	14	15	14	14	15
19	16	16	14	15	15	16	15	15	15	14	14	17	18	21	16	17	16	15	16	14	15	15	15	15
20	16	17	15	16	14	15	14	14	15	15	15	15	21	20	17	15	16	14	15	16	16	16	14	14
21	16	15	15	14	15	16	15	15	15	13	16	19	16	20	16	14	15	16	16	16	16	15	15	15
22	16	16	16	16	15	16	15	16	16	13	13	16	14	13	15	14	16	15	15	15	16	15	16	16
23	16	16	15	15	15	15	15	16	15	16	16	18	19	15	14	15	14	15	14	15	15	15	14	15
24	15	15	15	15	15	15	16	17	15	14	15	16	17	15	15	14	14	14	14	15	16	15	16	15
25	15	15	14	16	15	15	15	15	15	16	15	16	13	13	16	12	14	16	15	15	15	15	14	15
26	16	15	15	16	16	15	15	16	14	15	14	13	15	16	14	14	14	15	15	16	15	16	16	15
27	16	15	15	15	15	15	15	14	14	16	14	16	16	14	14	14	14	14	14	15	16	16	15	15
28	15	15	15	15	15	15	16	16	14	15	14	14	14	14	15	13	14	14	14	15	15	16	14	14
29	16	15	15	15	15	14	15	16	15	16	16	17	19	14	15	14	14	15	15	15	15	15	15	15
30	16	16	15	15	15	15	15	15	15	15	14	13	13	13	13	14	14	16	15	14	16	14	14	16
31	15	15	15	16	15	15	16	15	13	14	16	18	16	15	15	15	13	14	15	15	15	16	16	15
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MED	16	15	15	15	15	15	15	15	15	14	14	15	16	15	15	14	14	15	15	15	15	15	15	15
U Q	16	16	15	15	15	15	16	16	15	15	15	16	17	16	16	15	14	15	15	16	16	16	16	15
L Q	15	15	15	15	15	15	15	15	14	14	14	14	14	14	14	14	14	14	14	15	15	15	14	15

JAN. 2006 fmin (0.1MHz)

IONOSPHERIC DATA STATION Kokubunji

JAN. 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	290	295	324	284	283	307	382	367	362	349	377	365	359	367	352	364	381	330	342	348	328	330	348	299
2	304	313	320	286	A	312	324	353	373	353	342	362	368	363	350	369	369	318	332	354	367	326	319	314
3	315	311	315	291	306	310	313	369	366	351	383	382	366	350	355	366	374	371	308	F	F	F	351	F
4	297	321	347	324	309	340	322	360	352	362	369	387	356	357	375	367	380	372	310	324	308	360	325	309
5	315	314	347	347	368	313	314	353	388	367	365	385	391	357	364	370	388	338	345	362	377	328	340	284
6	324	329	F	322	304	320	F 347	386	372	344	367	368	372	364	363	373	374	385	326	312	335	319	318	296
7	313	350	344	348	305	308	317	360	362	347	355	366	352	334	360	393	391	327	344	371	324	300	341	321
8	312	297	300	294	337	351	343	366	358	347	360	383	343	338	369	388	386	347	337	358	325	F	F	309
9	324	344	359	323	313	301	323	378	372	352	379	366	369	353	384	379	376	341	353	362	352	345	325	307
10	308	331	335	330	335	344	359	388	389	387	395	375	371	381	370	370	376	373	349	324	358	354	341	298
11	304	334	340	309	308	303	341	379	377	356	371	388	388	323	377	383	398	350	321	355	338	334	321	293
12	296	320	333	375	312	337	328	364	341	354	384	362	386	366	358	367	398	362	313	313	291	F	353	326
13	310	322	351	325	323	307	314	381	404	357	389	364	368	345	374	369	381	387	315	342	317	326	326	314
14	309	312	325	357	382	313	350	378	378	337	375	397	382	385	342	373	378	357	338	325	313	366	303	304
15	308	340	344	323	323	330	337	376	375	382	372	374	367	370	366	372	380	383	326	323	325	F	F	F
16	338	324	333	372	A	F	F	382	377	351	360	366	370	344	352	386	376	A	365	353	306	298	317	299
17	304	331	347	383	361	322	333	359	378	348	339	347	376	353	359	356	378	367	337	A	A	313	348	341
18	305	316	328	322	336	336	343	372	369	336	372	385	374	359	354	373	396	374	386	A	295	291	318	296
19	356	310	324	330	F	324	375	370	378	357	374	359	379	358	366	368	376	359	324	334	320	F	372	286
20	317	313	340	326	336	A	A	A	363	361	335	378	364	348	354	377	367	353	380	350	334	330	326	268
21	301	305	327	376	468	318	339	369	370	372	358	361	353	348	348	365	362	350	336	364	322	300	324	297
22	315	334	393	315	338	331	341	366	369	376	387	342	338	356	360	367	385	367	347	319	319	323	312	302
23	299	309	335	374	331	322	319	365	361	351	363	379	353	372	362	354	388	344	321	330	282	297	F	F
24	343	353	348	352	320	320	299	359	380	367	339	367	363	375	361	356	361	376	333	352	319	311	283	306
25	A	306	332	388	384	334	352	378	386	317	363	354	362	342	357	364	377	388	313	324	326	319	311	312
26	301	309	309	300	326	375	337	355	357	353	364	336	349	358	365	353	362	348	347	315	314	309	336	306
27	298	302	345	391	306	310	325	345	356	345	324	367	363	356	363	351	377	360	301	329	338	340	324	314
28	314	312	318	332	341	335	357	376	372	394	353	348	345	367	385	384	374	355	329	352	382	364	A	292
29	300	325	306	334	388	365	358	383	375	376	349	A	337	363	363	382	382	380	A	325	349	326	310	304
30	316	312	310	323	382	412	334	369	389	386	343	328	338	370	A	363	A	A	A	A	A	347	305	F
31	297	F	311	F	359	421	A	363	370	377	373	340	360	357	366	356	371	357	402	321	325	336	326	298
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	28	29	28	30	31	31	31	30	31	31	30	31	30	29	29	27	28	26	27	27
MED	308	315	333	328	333	322	337	369	372	354	365	366	364	357	362	369	378	359	336	334	325	326	325	304
U Q	315	331	345	357	360	338	348	378	378	372	375	379	372	367	366	377	385	374	347	354	338	340	341	312
L Q	301	310	320	322	310	311	322	360	362	348	353	359	353	348	355	364	374	348	321	324	316	311	317	296

JAN. 2006 M(3000)F2 (0.01)

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JAN. 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	A	A	A	L	A									
2											L	L	L	L										
3											L	L	L											
4										L	L	L	L	L	L	A								
5											L	L	L	L	L									
6										L	L	L	L	L	L									
7										L	L	L	L	L 408										
8										L	L	L	L	L	L									
9										L		L	L	L	L									
10												L	L	L	L	L								
11										L	L	L	L 426			L								
12										L	L	L	L	L	L	L								
13									L			L	A		L	L								
14											L		L	L										
15											L	L	L	L 385	L									
16											L	L	L	L	L	L		A						
17										L	L 377	L	L	L	L	L 430								
18									L		L 377	L	L	L	L	L								
19										L	L	L 396	L	L	L	L								
20								A		A	L 351	L	L	L	L 391	L								
21											L 397	L	L	L 407	L 379	L								
22										L		L	L 398	A	L									
23										L	L	L	L	L	L									
24											404	A	L	L	L									
25											L	L	L 391	A	L									
26										L	L	L	L	L	L									
27										L	L	L	L	L										
28									L	L	L	L	L	L	A	A								
29											A	A	A	A	A	A	A							
30										L	L	L	L	A	A	A	A	A						
31										L	L 381	400	L 376	L 385	L									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT											6	2	4	4	2	1								
MED											L 379	398	L 394	L 396	L 385	430								
U Q											397		L 412	L 408										
L Q											L 377		L 384	L 385										

JAN. 2006 M(3000)F1 (0.01)

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IONOSPHERIC DATA STATION Kokubunji

JAN. 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										250	222	228	232	234	232									
2											246	230	226	242										
3											226	224	230											
4										248	238	224	240	252	238	222								
5											236	220	222	252	246									
6										244	236	240	240	240	248									
7										262	238	236	244	244										
8										268	240	230	264	240	234									
9										254		234	236	242	228									
10												232	244	238	244	232								
11										238	222	216	226			232								
12										240	230	236	232	240	256	238								
13									202			240	230		242	234								
14											246		234	234										
15											250	240	246	246	258									
16											252	240	242	258	260	234		A						
17										246	280	254	220	256	248	244								
18									224		232	216	232	246	260	232								
19										252	232	238	234	246	244	230								
20								A		244	262	224	242	264	254	230								
21											264	242	238	256	262	240								
22										228		264	250	240	242									
23										260	244	232	254	242	246									
24											272	240	242	238	248									
25											254	256	248	268	250									
26										232	250	272	254	244	242									
27										266	278	230	238	254										
28									222	230	254	254	260	236	236	222								
29											E A 296	A	286	248	246	E A 244	216							
30										220	234	284	244	240	A	244	A	A						
31										236	246	296	242	244	238									
	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	18	27	29	31	28	24	14	1							
MED									222	245	245	236	240	244	246	232	216							
U Q									224	254	254	248	246	252	252	240								
L Q									202	236	234	229	232	240	240	230								

JAN. 2006 h'F2 (KM)

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IONOSPHERIC DATA STATION Kokubunji

JAN. 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	E A 308	E A 320	244	E A 348	E B 304	E B 292	206	194	204	H 196	A	A	A	208	A	224	208	E A 252	236	218	220	226	216	E B 260
2	E A 256	E B 262	E A 262	E A 286	A	E B 270	E B 254	218	218	214	206	198	198	202	196	216	200	212	E B 234	214	202	E B 244	238	E A 260
3	246	E A 300	E A 282	E A 290	E B 258	E B 268	E B 262	212	212	204	202	196	190	200	214	216	212	206	218	E B 250	212	200	220	E B 290
4	E B 284	E B 258	242	E A 282	E B 280	228	232	210	202	210	212	200	190	200	210	A	208	202	E A 270	E A 252	224	214	234	E B 248
5	E B 258	236	206	206	E B 214	230	E B 262	216	206	212	202	194	194	H 182	202	208	210	210	224	208	204	238	218	E A 302
6	E A 300	246	E B 282	E B 254	E B 296	E B 276	E A 256	204	H 184	H 186	210	H 186	208	206	190	212	206	202	E A 258	244	226	244	E B 254	E B 290
7	E B 260	234	230	224	E B 252	E B 290	E B 266	226	222	216	212	212	190	182	236	214	202	230	224	190	E A 318	E A 346	234	E A 300
8	E A 268	E A 332	E A 320	E A 284	236	224	230	204	H 170	218	210	208	190	196	H 184	216	192	224	224	210	230	E B 230	E B 242	E B 242
9	238	224	216	E A 248	E B 252	E B 270	E B 242	206	206	212	214	196	200	196	196	208	194	226	216	202	220	226	E A 248	E B 272
10	E B 272	E B 264	E B 258	E A 270	226	224	220	206	206	224	204	196	H 184	198	204	198	208	200	210	228	214	214	222	E B 304
11	E B 302	E B 252	226	E B 234	E B 284	E B 310	E B 256	208	204	192	H 186	H 192	H 164	E A 230	228	216	198	196	240	216	206	226	228	E B 264
12	E B 288	E B 268	E B 250	206	E A 262	226	236	216	210	204	208	H 184	202	196	224	202	204	210	220	E B 254	E A 258	E B 260	216	218
13	E B 262	234	212	242	E B 268	E B 246	E B 252	210	184	214	206	204	A	220	218	208	206	186	E B 258	224	E B 244	240	236	E B 288
14	E B 280	E B 278	E B 262	228	202	E B 288	236	212	214	226	228	222	202	198	196	212	H 194	212	222	228	236	202	E B 254	E B 272
15	E B 282	234	214	236	206	212	212	214	H 184	210	214	206	218	204	216	226	208	204	E A 306	E A 262	E A 252	E B 266	230	E B 264
16	240	234	238	202	A	E A 268	E B 266	212	198	204	208	202	204	208	194	210	E A 242	A	222	E A 240	246	E B 270	244	E B 262
17	E B 286	E B 274	236	196	210	E B 274	E B 252	H 194	218	206	208	224	A	212	H 180	H 176	214	206	210	A	A	E A 314	232	E A 240
18	E B 280	E A 286	E A 292	E A 282	230	E B 266	240	218	190	202	210	202	182	194	H 192	206	198	206	206	A	E A 330	E A 304	E A 276	E A 296
19	224	E A 260	224	E A 256	E B 310	E B 316	234	206	206	210	206	H 184	194	194	H 190	H 194	212	196	228	E A 288	238	E A 274	196	E A 320
20	E B 266	E B 270	226	222	250	A	A	A	230	A	214	A	214	200	206	202	H 202	210	204	208	226	236	E A 282	E A 316
21	E B 278	E B 276	E B 248	212	176	E B 324	E B 252	208	212	206	192	198	220	188	H 180	218	212	214	216	212	E B 250	E B 282	E B 262	E B 284
22	E B 300	244	202	E B 288	E A 252	E A 278	E B 282	224	204	186	216	202	202	A	202	216	208	204	218	E B 278	E B 248	E B 260	E B 270	E B 290
23	E B 292	E B 282	236	208	210	E B 260	E B 280	222	218	218	212	206	196	196	206	206	218	210	222	242	E B 278	E B 292	E B 296	E B 282
24	214	212	216	220	E B 306	E B 284	E B 318	224	212	214	204	A	212	200	H 188	208	222	204	E A 232	216	E B 250	E B 282	E B 316	E A 302
25	A	E A 300	E A 238	210	214	E B 298	E B 274	210	210	218	224	H 186	206	A	H 182	216	220	202	E A 266	E B 254	244	E B 250	E B 260	E B 268
26	274	E B 282	E B 282	E B 272	248	198	E B 254	224	200	H 188	212	208	208	212	208	204	206	212	212	234	E B 260	244	224	214
27	E B 262	E B 286	234	200	E B 254	E A 254	228	206	224	220	218	212	204	206	210	200	210	204	E A 270	246	216	234	226	E B 268
28	E B 262	E B 270	E B 264	234	220	228	218	210	188	182	H 176	208	A	216	A	A	208	204	228	224	210	220	A	E A 300
29	E B 290	E B 254	E B 256	E A 252	202	210	E A 254	216	206	214	A	A	A	A	A	A	A	220	A	E A 252	216	E A 284	E A 278	E B 272
30	246	E B 256	E B 282	E A 264	206	200	E B 266	220	208	198	H 180	214	220	A	A	A	A	A	A	A	A	230	E A 342	E B 286
31	E B 308	E B 262	E A 272	E B 284	220	186	A	220	218	210	210	192	194	208	198	208	214	210	188	E B 270	E A 264	E B 254	E B 258	E B 274
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	31	31	31	29	30	29	30	31	30	29	27	26	27	27	27	29	29	29	28	29	31	30	31
MED	E B 273	E B 262	U 224	E 242	U 225	E B 267	E B 252	212	206	210	210	202	201	200	202	208	208	206	220	U 220	U 223	E 244	U 223	E B 274
U Q	E B 288	E A 282	E 264	E A 282	E B 265	E B 284	E B 264	218	214	214	213	208	208	208	210	216	212	212	E A 238	E 252	E A 251	E A 274	E 262	E A 296
L Q	258	244	226	212	212	226	233	206	200	202	204	H 194	190	196	H 190	204	202	203	216	215	216	226	226	E 262

JAN. 2006 h'F (KM)

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JAN. 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	110	118	A	A	A	A	A	A	A	B						
2								B	126	A	A	118	A	118	114	120	116	B						
3								B	114	118	118	116	114	A	118	118	116	B						
4								B	126	A	A	118	112	114	A	A	A	B						
5								B	116	116	A	114	112	116	114	116	A	B						
6								B	A	A	A	116	116	110	114	A	A	B						
7								B	118	118	A	118	116	116	112	108	A							
8								B	A	A	A	A	114	A	A	116	A							
9								B	116	A	122	A	118	116	116	A	116							
10								B	118	120	118	122	122	108	A	120	114							
11								B	112	120	110	114	112	A	A	A	A							
12								B	118	118	120	120	120	116	118	114	114							
13								B	122	114	116	112	116	116	A	A	116							
14								B	114	120	120	116	120	A	A	A	120	B						
15								B	116	118	116	112	114	118	A	A	A	B						
16								B	130	120	122	122	122	120	122	A	A	B						
17								B	116	122	112	116	118	122	118	118	120	B						
18								B	A	A	A	116	122	A	114	118	A							
19								B	A	116	A	114	114	116	112	114	118							
20								B		120	116	116	122	122	120	116	114							
21								B	124	A	118	120	114	110	108	112	128	B						
22								B	114	118	120	A	106	116	116	116	A	A						
23								B	122	A	122	A	122	116	118	116	116							
24								B	116	120	116	116	116	116	112	118	A	B						
25								B	118	120	118	A	A	A	A	116	118							
26								B	122	120	118	118	A	A	A	120	A	B						
27								B	124	122	122	122	A	A	A	118	118	B						
28								B	126	122	116	114	114	116	116	118	A	B						
29								B	126	120	A	A	A	A	120	A	A	B						
30								B	120	114	118	108	114	118	118	112	A	B						
31								B	122	130	A	A	120	118	118	A	A							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT									26	23	20	23	25	21	20	20	14							
MED									118	120	118	116	116	116	116	116	116							
U Q									124	120	120	118	120	118	118	118	118							
L Q									116	118	116	114	114	116	114	115	116							

JAN. 2006 h'E (KM)

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JAN. 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	102	96	96	96	98	96	B	160	122	98	96	94	96	94	94	92	88	86	88	88	96	96	98
2	98	96	98	100	96	102	94	B	106	106	106	102	100	98	94	106	118	B	B	B	B	B	100	100
3	96	98	96	92	94	92	B	B	116	106	102	100	98	98	142	100	B	B	B	104	B	94	B	94
4	94	B	96	94	96	B	B	B	108	102	102	100	94	114	90	88	96	100	100	104	100	96	B	B
5	B	B	96	96	96	94	B	B	172	102	104	100	100	102	98	G	100	98	98	100	B	B	102	94
6	98	90	B	B	B	B	106	104	100	100	98	98	104	104	100	90	90	86	90	98	B	B	B	98
7	98	98	96	98	92	96	98	96	G	104	104	102	102	102	96	92	90	90	B	108	108	102	102	90
8	92	92	92	92	90	B	B	B	108	100	100	98	96	92	92	158	86	86	B	B	108	B	B	104
9	100	96	100	94	90	B	B	112	G	106	106	108	92	106	102	100	116	B	B	110	106	100	96	B
10	B	B	B	100	98	92	B	150	126	132	136	132	132	156	88	G	G	B	B	B	B	B	B	B
11	B	B	B	B	B	96	B	B	144	104	132	126	94	92	90	86	88	86	B	B	B	B	94	B
12	94	94	94	94	90	B	B	B	G	106	102	104	108	G	102	100	158	B	B	B	88	B	B	B
13	B	B	B	B	B	B	B	B	98	148	140	124	144	126	106	104	140	B	96	B	B	B	B	B
14	B	B	B	B	B	B	B	B	138	140	122	128	126	104	104	108	104	102	98	B	94	B	B	B
15	B	B	B	B	B	98	98	98	102	134	136	124	126	118	106	102	104	102	94	96	94	94	94	B
16	B	B	B	B	106	104	B	98	162	98	154	126	134	116	122	106	102	96	94	96	112	88	B	B
17	B	B	B	B	B	B	B	B	130	122	94	112	114	102	100	98	118	104	98	96	92	94	98	102
18	98	100	96	98	102	B	B	128	106	102	94	96	108	90	90	96	102	102	98	98	96	90	96	98
19	94	90	B	112	B	B	106	108	100	102	98	G	G	G	G	98	116	134	106	98	100	100	B	96
20	108	92	98	B	B	100	102	96	92	130	122	120	104	106	106	100	G	96	B	B	B	98	92	96
21	B	B	B	B	B	B	134	122	126	102	104	106	158	G	92	148	162	B	88	88	B	B	B	B
22	92	B	B	B	92	94	B	B	124	96	130	94	160	136	124	114	102	90	100	B	104	B	106	B
23	B	100	100	B	B	B	98	B	152	108	106	106	102	102	104	104	114	100	98	98	B	B	B	B
24	B	B	B	B	B	B	B	B	150	136	126	116	160	118	118	100	98	100	100	B	98	96	108	106
25	98	100	100	B	92	B	B	150	154	146	132	104	100	98	96	92	104	B	84	B	B	B	B	B
26	B	B	B	B	94	B	96	B	128	108	136	120	106	106	104	102	100	B	B	B	B	B	B	B
27	B	B	B	100	100	96	96	124	136	126	128	120	106	104	106	104	180	98	92	92	B	94	104	106
28	104	120	B	104	B	B	B	B	104	102	100	160	140	122	118	112	106	100	94	96	94	92	88	88
29	B	B	B	110	110	104	96	96	156	106	106	102	104	108	120	106	102	100	94	96	96	102	102	100
30	100	102	102	104	104	102	98	102	104	94	100	152	144	124	116	114	100	98	100	96	96	92	90	88
31	B	B	108	B	B	102	110	138	136	132	106	106	108	104	116	104	130	116	108	102	98	108	B	98
	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	15	15	16	18	15	14	15	28	31	31	30	30	28	30	29	28	22	21	19	18	17	16	17
MED	98	98	96	98	96	98	98	108	126	106	106	106	106	104	103	102	103	99	98	98	97	96	97	98
U Q	99	100	100	102	100	102	106	128	147	130	130	124	132	117	116	106	117	102	100	102	104	100	102	101
L Q	94	92	96	94	92	94	96	98	105	102	100	100	100	100	94	97	99	90	93	96	94	93	94	94

JAN. 2006 h'Es (KM)

IONOSPHERIC DATA STATION Kokubunji

JAN. 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

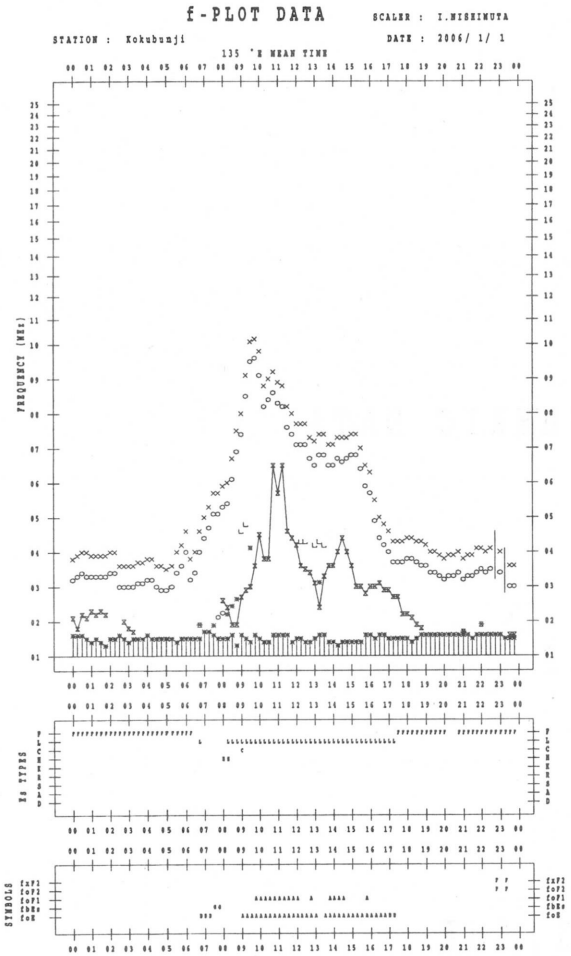
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F1	F2	F2	F2	F2	F2	F1		H1	CL11	L3	L3	L2	L2	L2	L2	L3	L3	F3	F2	F1	F1	F3	F2
2	F2	F2	F2	F2	F4	F1	F1		L1	L2	L1	L1	L1	L1	L1	L1	C1						F2	F2
3	F2	F2	F2	F3	F1	F2			C2	L1	L1	L1	L1	L2	HL11	L2				F1		F1		F1
4	F1		F2	F2	F2				L2	L2	L1	L1	L1	CL11	L1	L1	L2	L1	F2	F2	F3	F2		
5			F1	F1	F1	F1			H2	L2	L2	L1	L1	L2	L2		L2	L2	F2	F1			F1	F2
6	F2	F1					F1	L3	L2	L2	L1	L1	L1	L1	L1	L2	L2	L2	F1	F1				F1
7	F2	F4	F3	F2	F2	F1	F2	L1		L2	L1	L1	L1	L1	L2	L2	L1	F1		F2	F4	F4	F2	F3
8	F3	F2	F2	F2	F1				L2	L2	L2	L2	L2	L2	L1	HL11	L3	L2			F1			F1
9	F1	F1	F2	F2	F2			C1		L1	L1	L1	L1	L1	L1	L1	C1			F1	F2	F2	F1	
10				F2	F2	F2		H1	C2	CL21	CL11	CL11	CL11	HL11	L2									
11						F2			H2	L1	CL11	CL11	L2	L2	L2	L3	L2	L2					L1	
12	F2	F2	F1	F1	F2					L1	L1	L1	L1		L1	L3	H1				F2			
13									L2	HL22	CL12	CL11	HL11	CL11	L2	L2	H1		F1					
14									H2	HL21	CL11	CL22	CL11	L1	L2	L2	L2	L2	F2		F2			
15						F1	F1	L2	L2	CL22	HL12	CL22	CL11	CL21	L2	L3	L3	L2	F4	F3	F2	F2	F1	
16					F4	F1		L3	HL12	LH21	HL11	CL11	CL12	CL11	CL12	L2	L3	L5	F3	F3	F1	F1		
17									C2	CL21	L1	CL11	CL11	L1	L1	L2	CL12	L2	F2	F3	F2	F2	F2	F2
18	F2	F2	F3	F3	F2			CL21	L2	L1	L2	L2	L1	L1	L1	L1	L1	F1	F2	F3	F2	F2	F2	F2
19	F1	F2		F2			F2	L3	L2	L1	L2					L2	CL11	F1	F2	F3	F2	F2		F1
20	F1	F1	F1			F3	F5	L5	L3	CL11	CL11	CL11	L1	L2	L2	L1		F2				F1	F2	F1
21							F1	C2	CL22	L2	L1	L1	HL11		L2	HL12	H1		F1	F1				
22	F1				F2	F1			CL21	L1	HL11	L3	HL12	HL12	CL21	CL11	L4	L2	F2		F1		F1	
23		F2	F1				F2		H1	L1	L1	L1	L2	L1	L1	L1	CL11	F3	F3	F2				
24									H1	H1	CL11	CL21	HL11	CL22	CL11	L2	L5	L3	F3		F1	F2	F2	F2
25	F2	F2	F2		F1			H1	HL11	HL11	CL11	L1	L1	L2	L2	L1	L1		F1					
26					F2		F1		C2	L1	HL11	CL11	L1	L1	L3	L1	L2							
27				F1	F2	F4	F2	C2	CL11	CL11	CL11	CL21	L1	L1	L1	L2	HL12	L3	F4	F2		F1	F1	F2
28	F2	F1		F1					L1	L1	L2	HL11	HL11	CL11	CL21	CL21	L3	L2	F3	F4	F3	F2	F3	F1
29				F2	F3	F2	F3	L3	HL12	L1	L3	L4	L3	L2	CL32	L4	L4	L3	F4	F3	F2	F3	F1	F3
30	F2	F4	F1	F4	F2	F2	F3	L1	L2	L2	L1	HL12	HL12	CL12	CL22	CL22	L4	L5	F5	F4	F3	F3	F3	F1
31			F3			F3	F3	H5	HL21	CL11	L1	L2	L1	L1	CL11	L1	CL22	C2	F1	F2	F2	F1		F1
	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																								

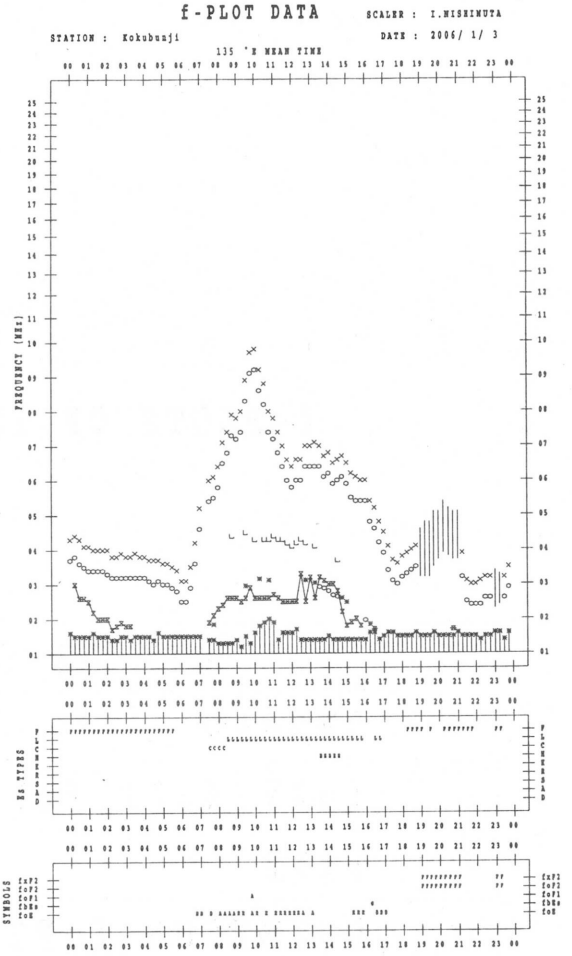
JAN. 2006 TYPES OF Es

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/ 1/ 1
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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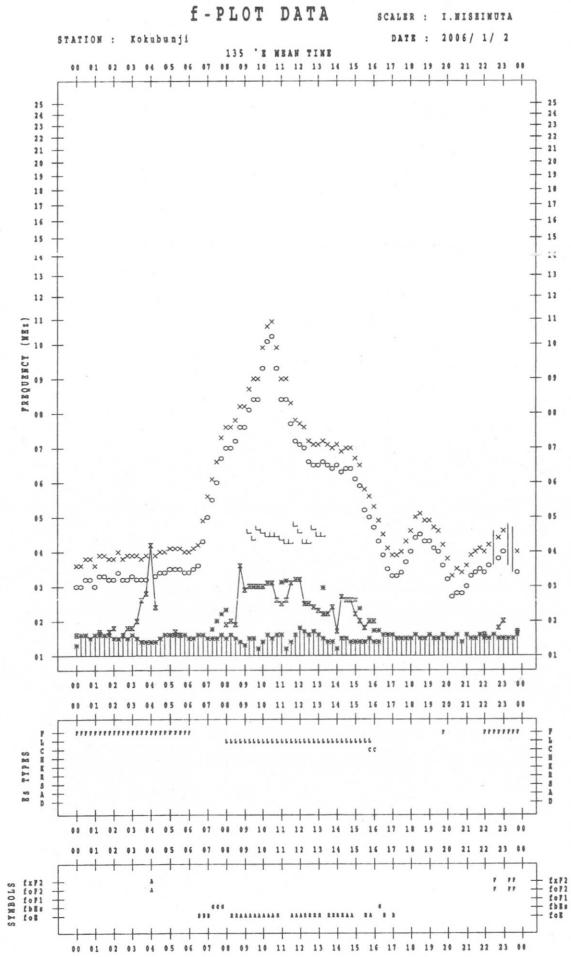
STATION : Kokubunji
DATE : 2006/ 1/ 3
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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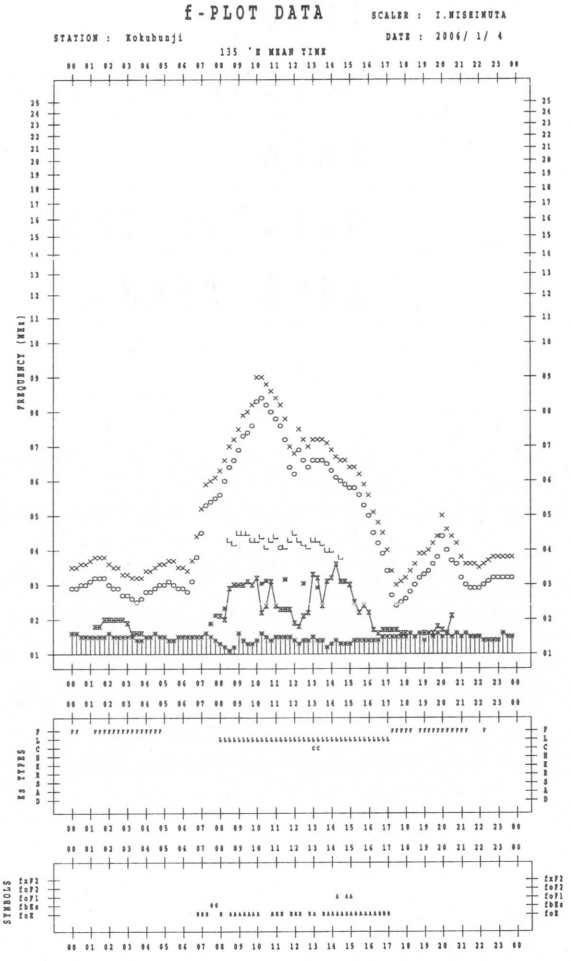
STATION : Kokubunji
DATE : 2006/ 1/ 2
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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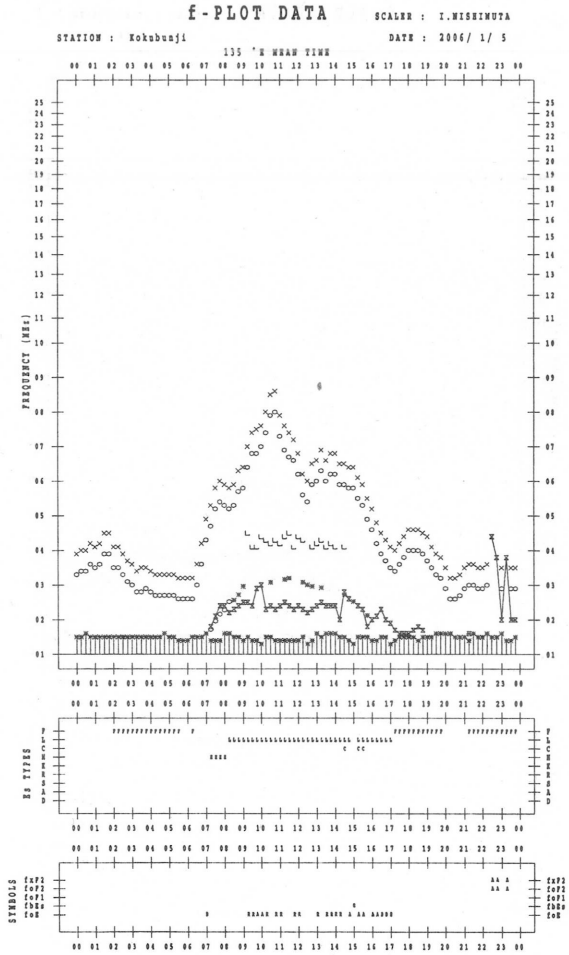
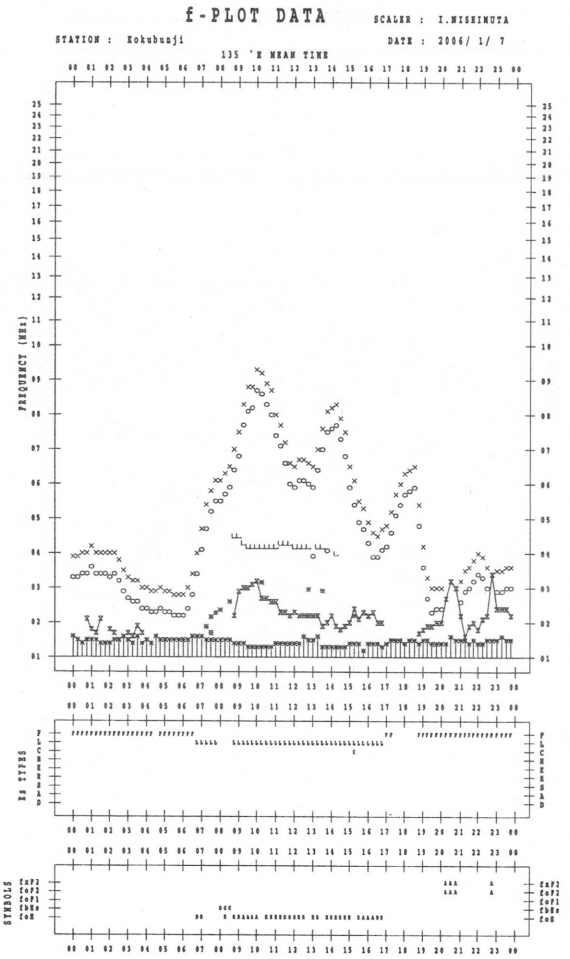
STATION : Kokubunji
DATE : 2006/ 1/ 4
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/ 5
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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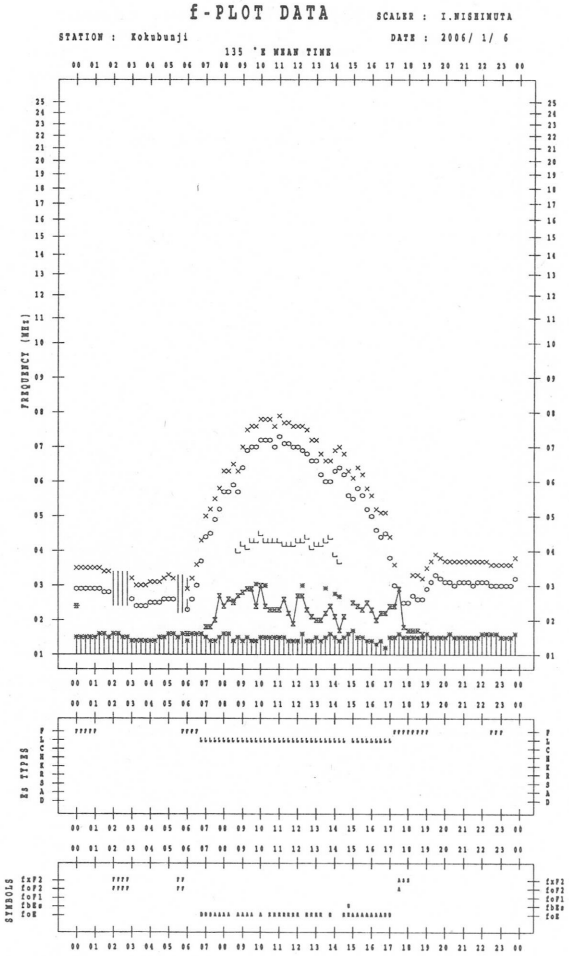
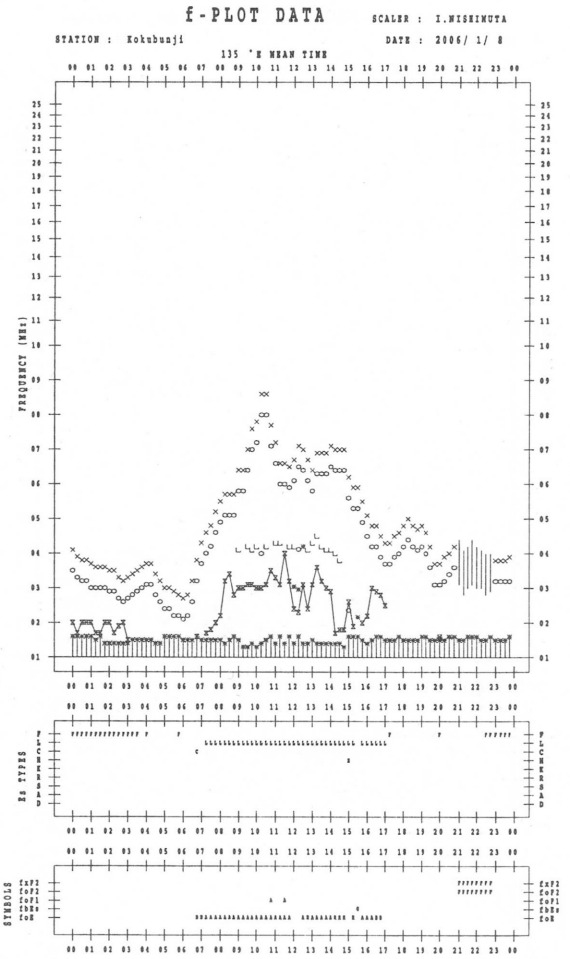
STATION : Kokubunji
DATE : 2006/ 1/ 7
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/ 6
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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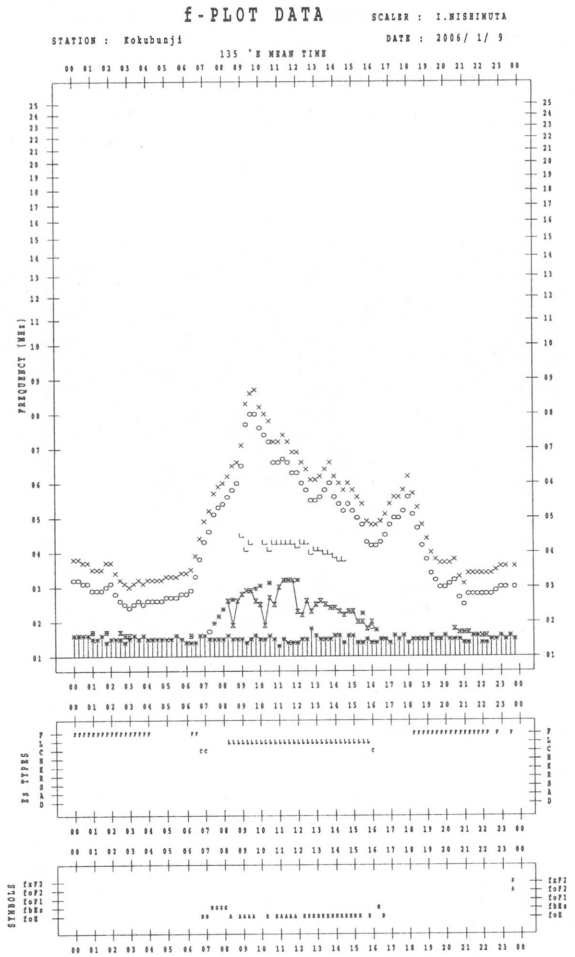
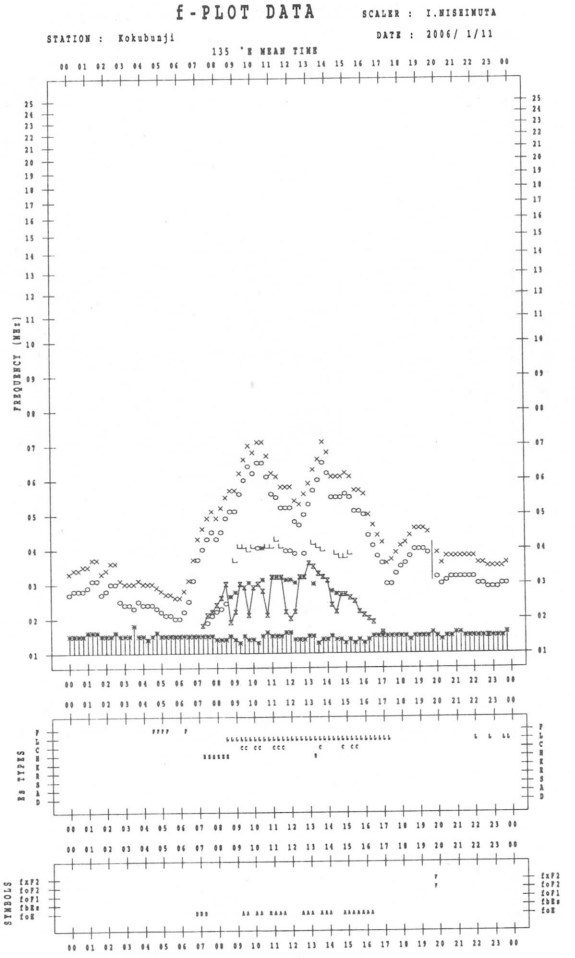
STATION : Kokubunji
DATE : 2006/ 1/ 8
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/ 9
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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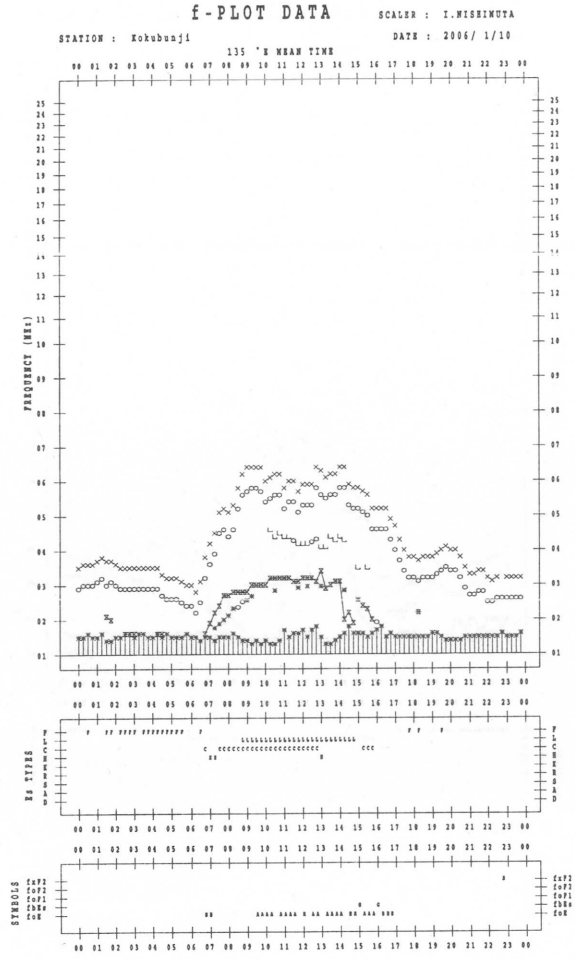
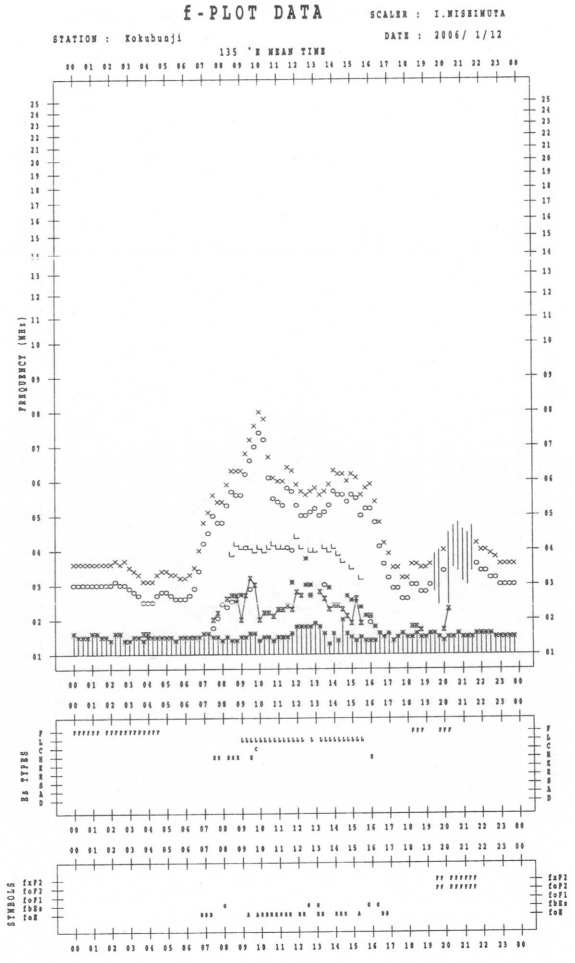
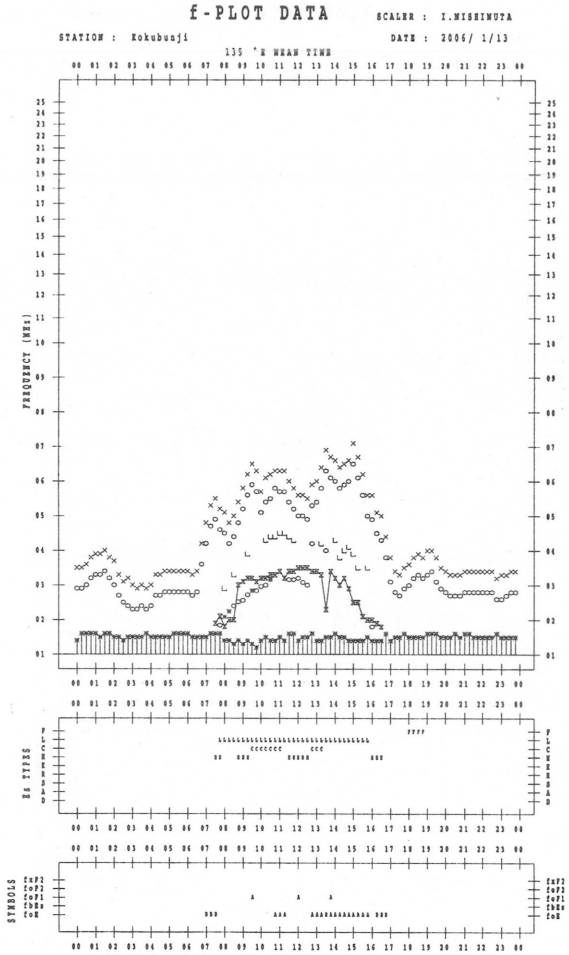
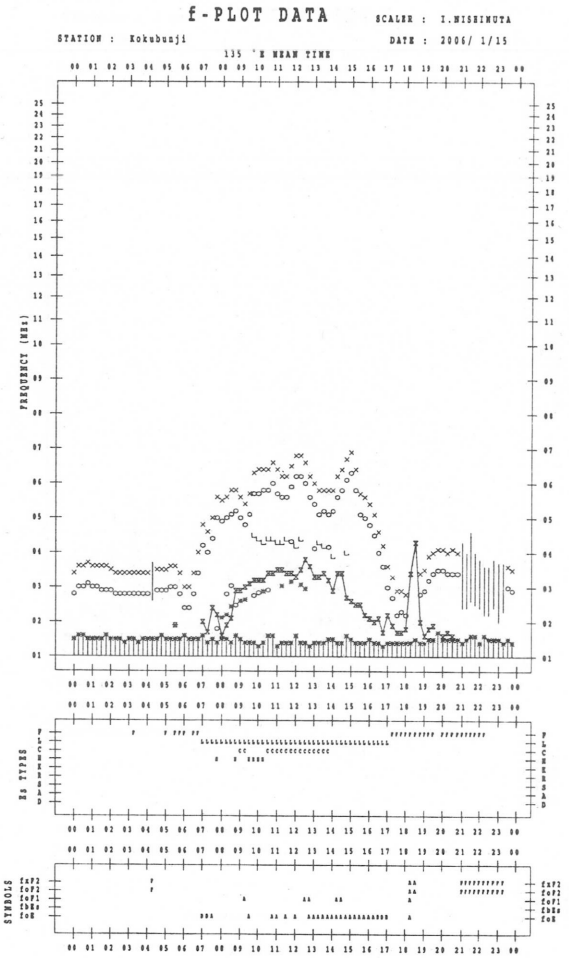
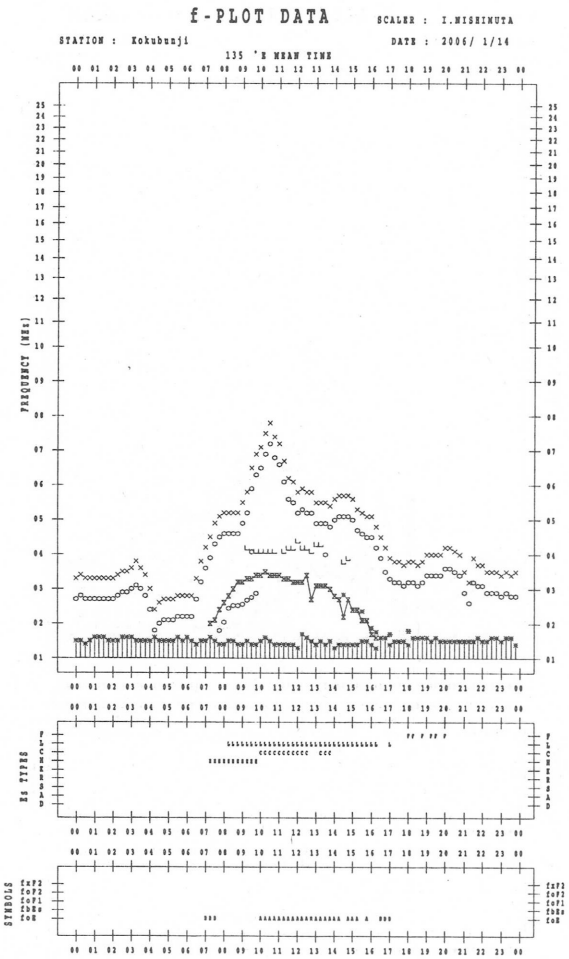
STATION : Kokubunji
DATE : 2006/ 1/11
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

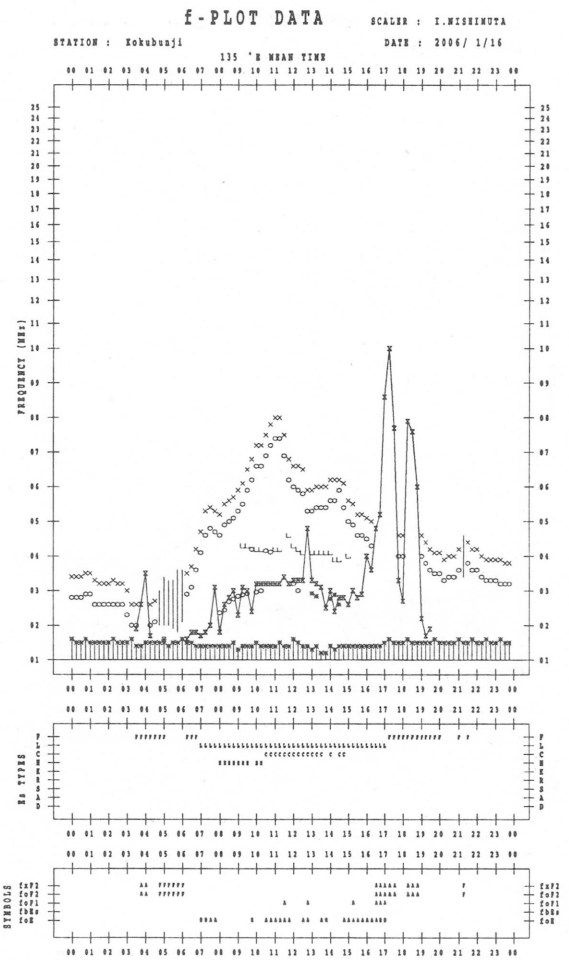

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/10
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

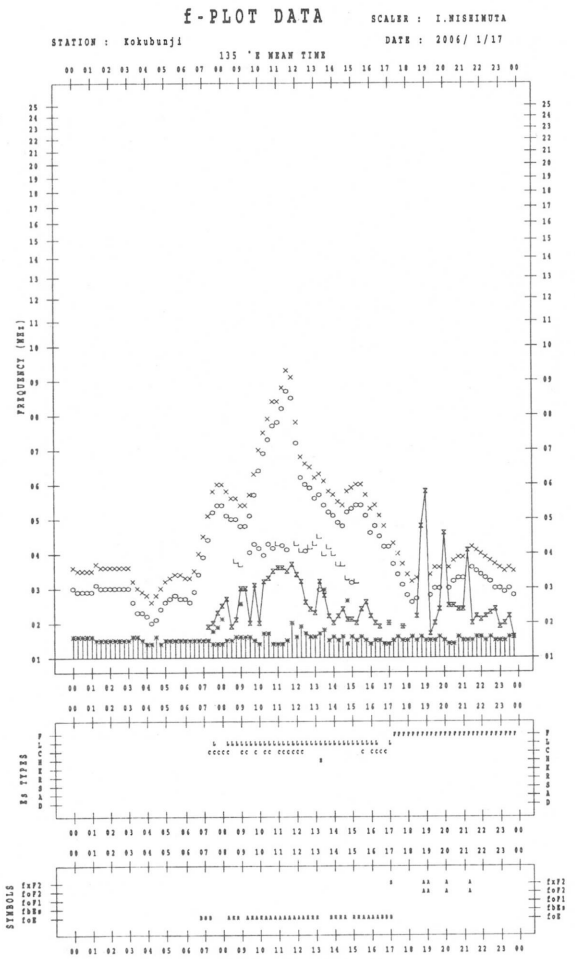

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/12
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/13
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/15
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/14
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/16
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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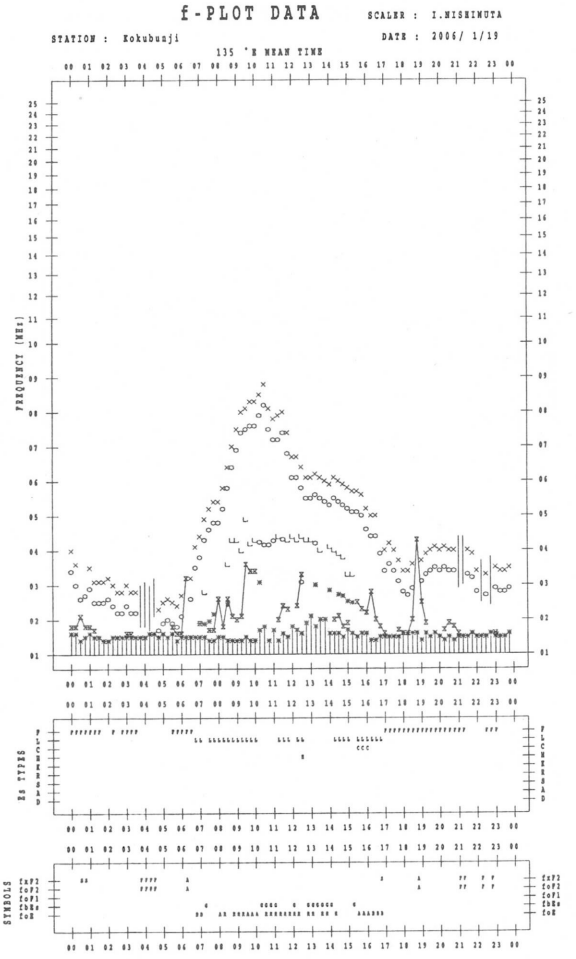
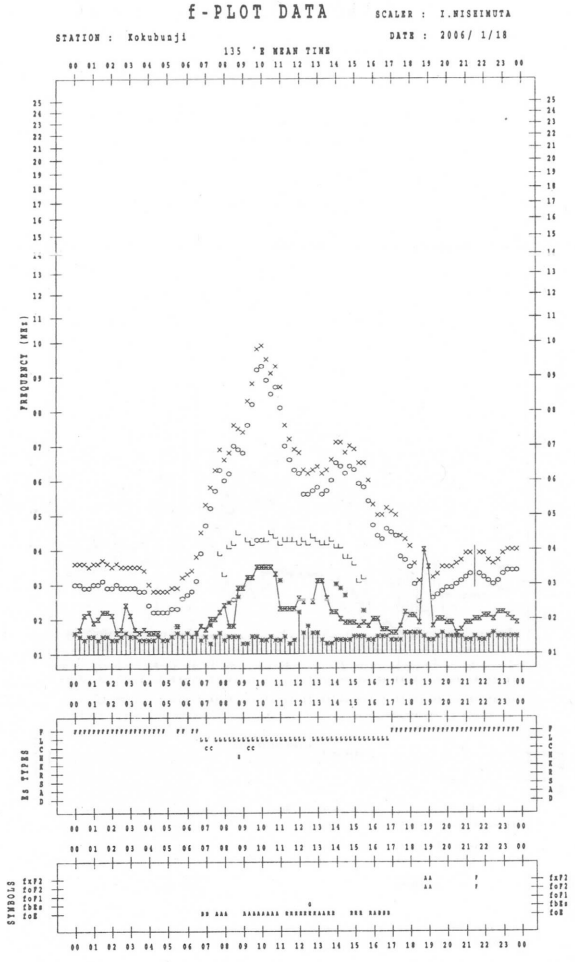
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/17
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/19
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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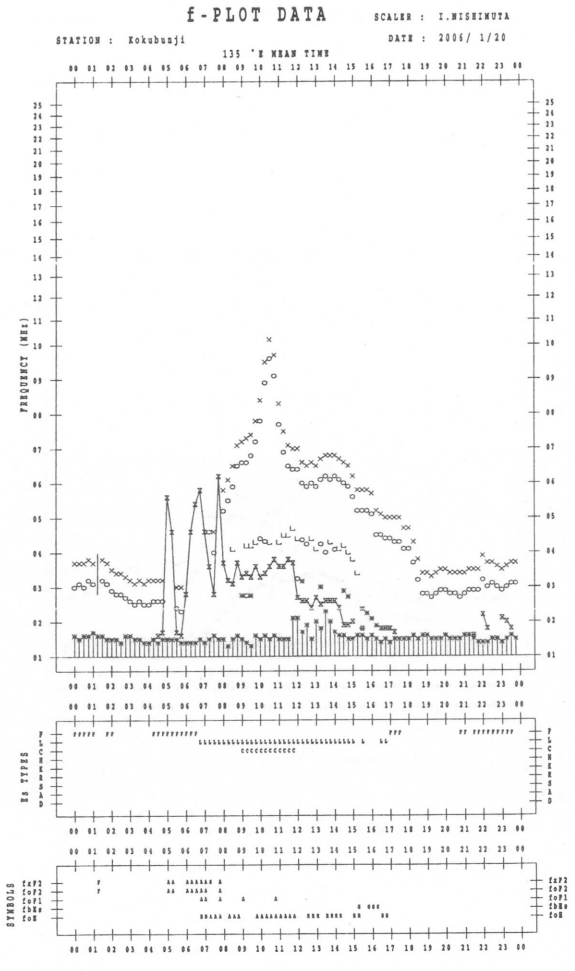
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/18
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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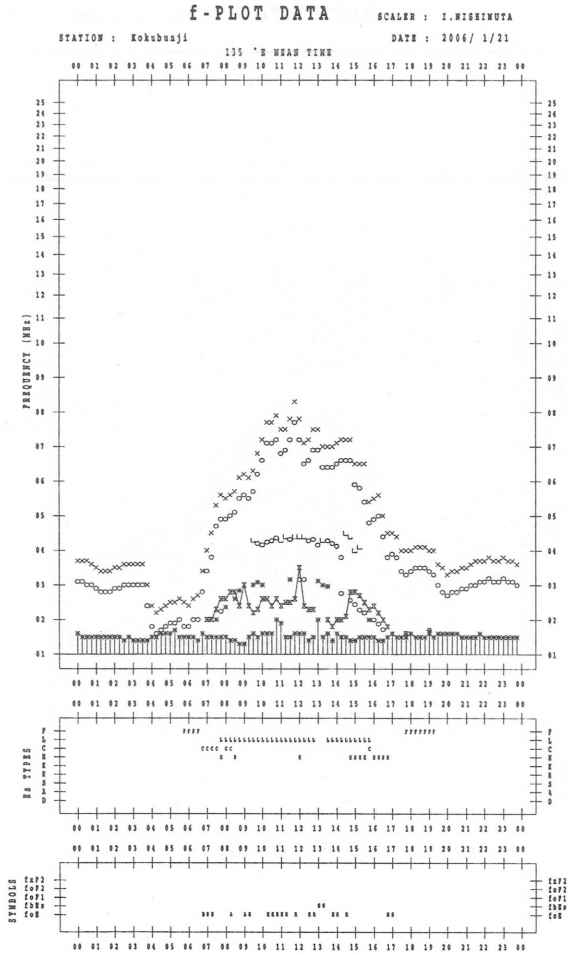
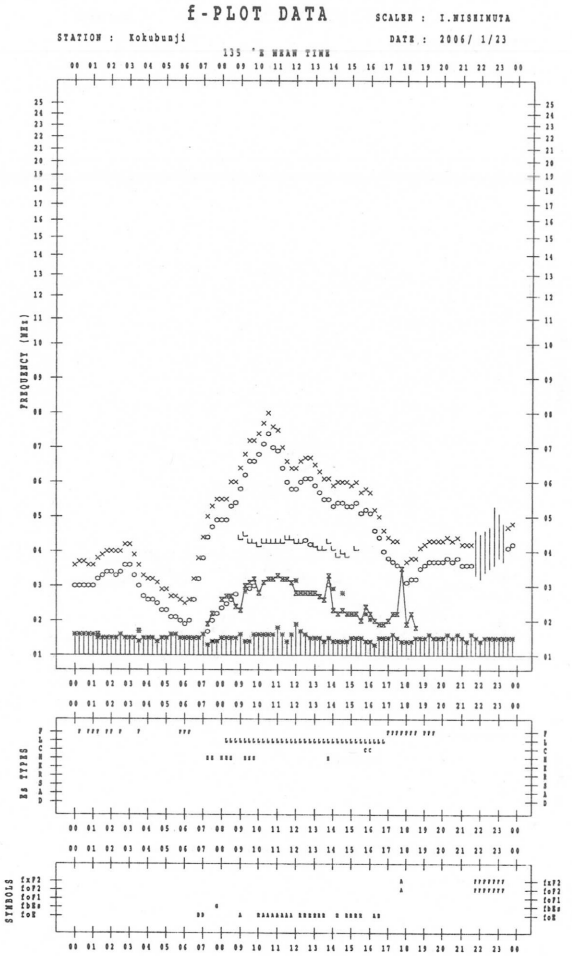
STATION : Kokubunji
DATE : 2006/ 1/20
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/21
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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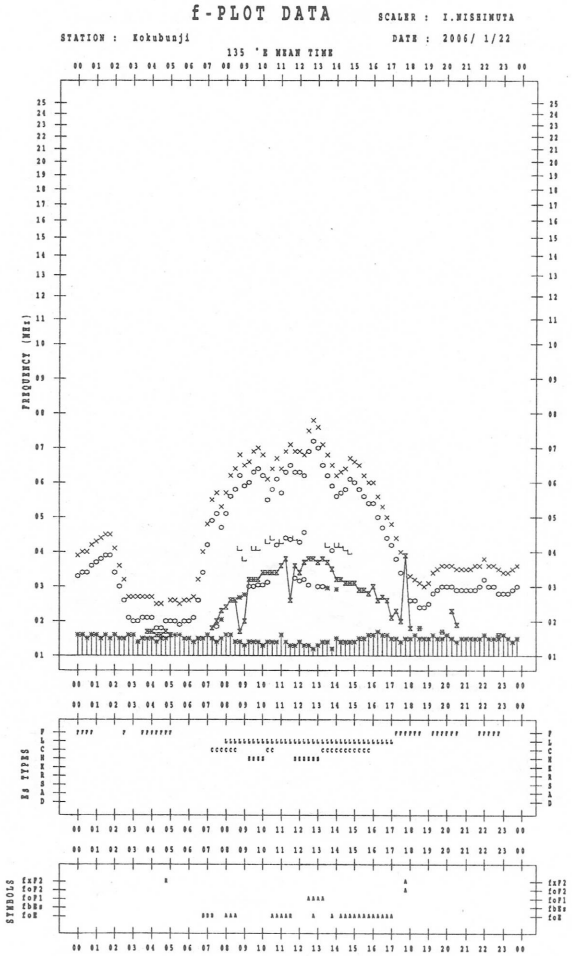
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/23
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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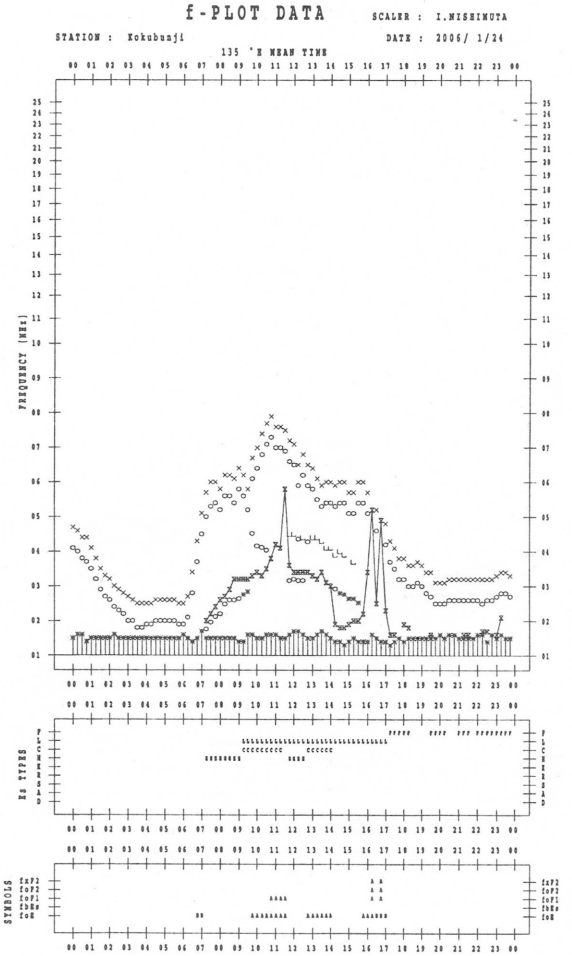
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/22
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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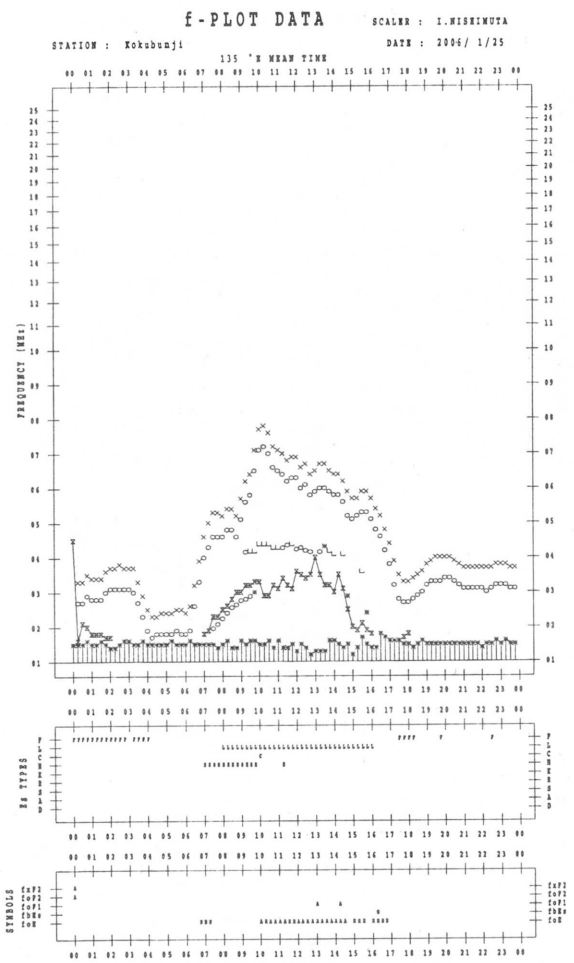
STATION : Kokubunji
DATE : 2006/ 1/24
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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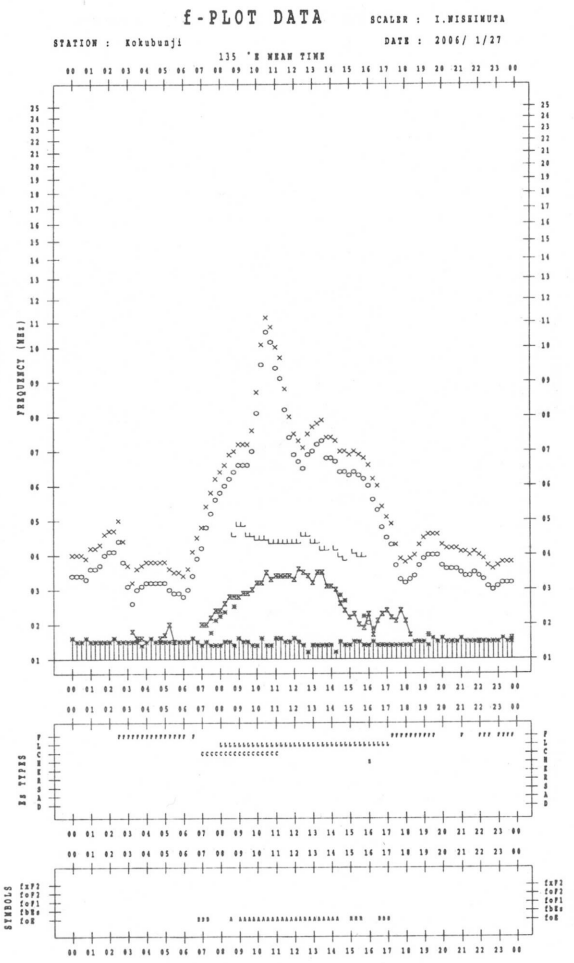
STATION : Kokubunji
DATE : 2006/ 1/25
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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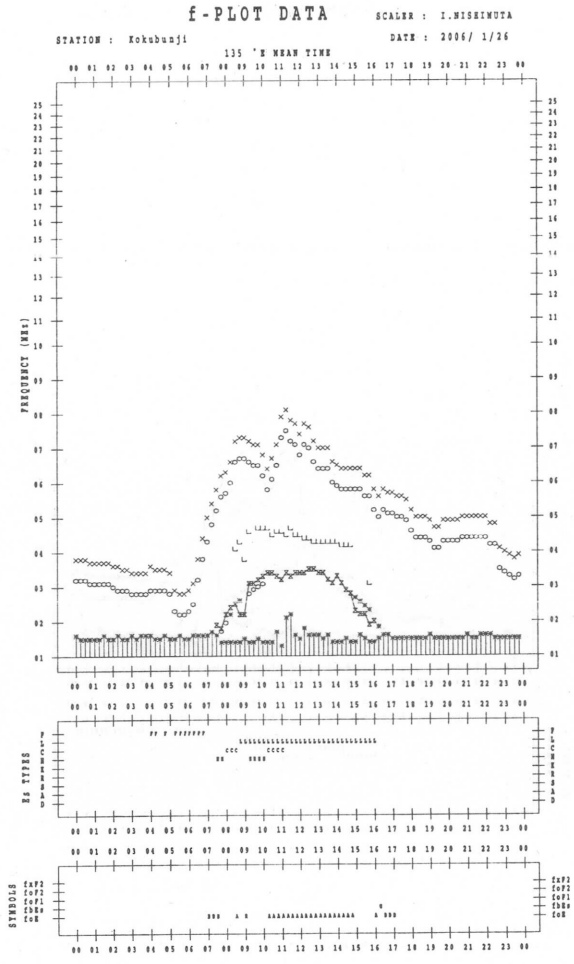
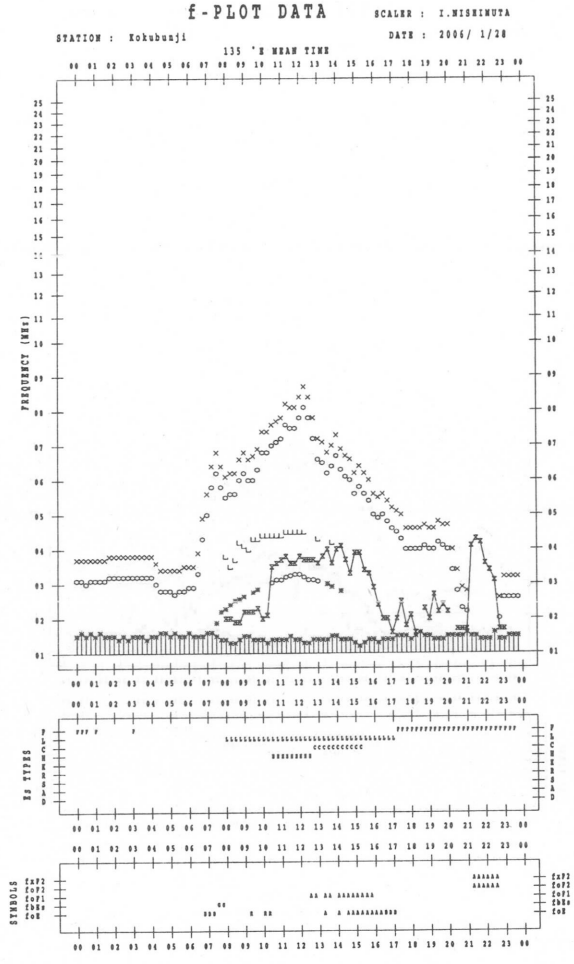
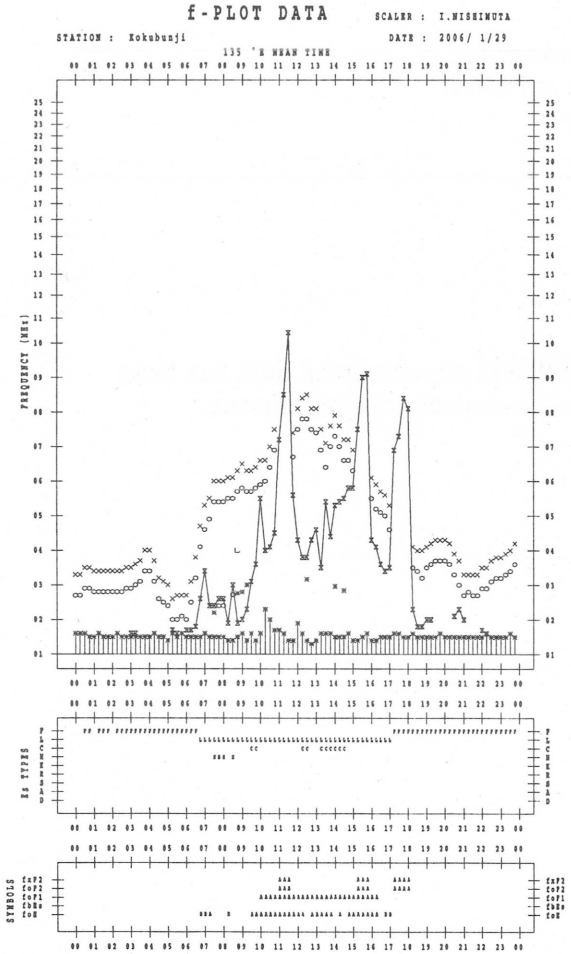
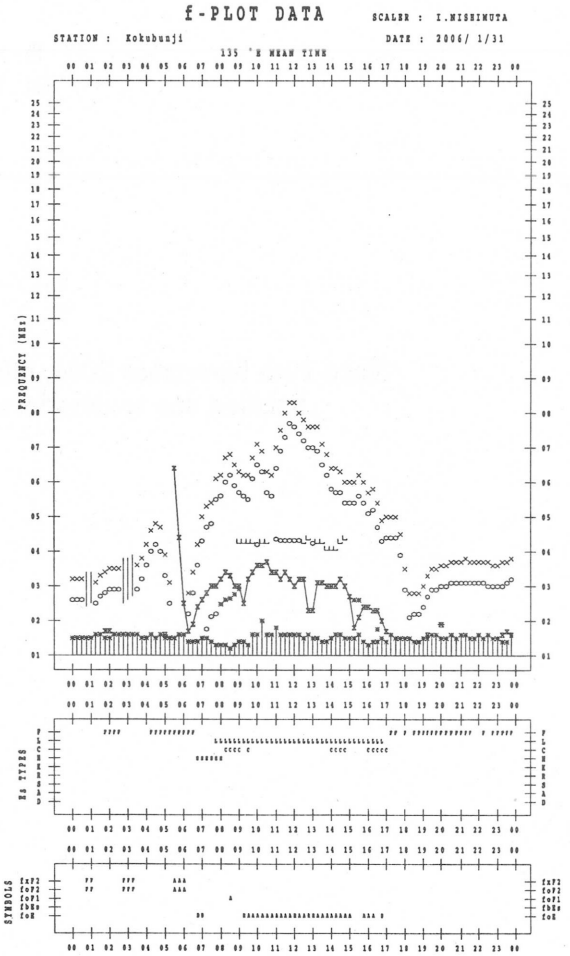
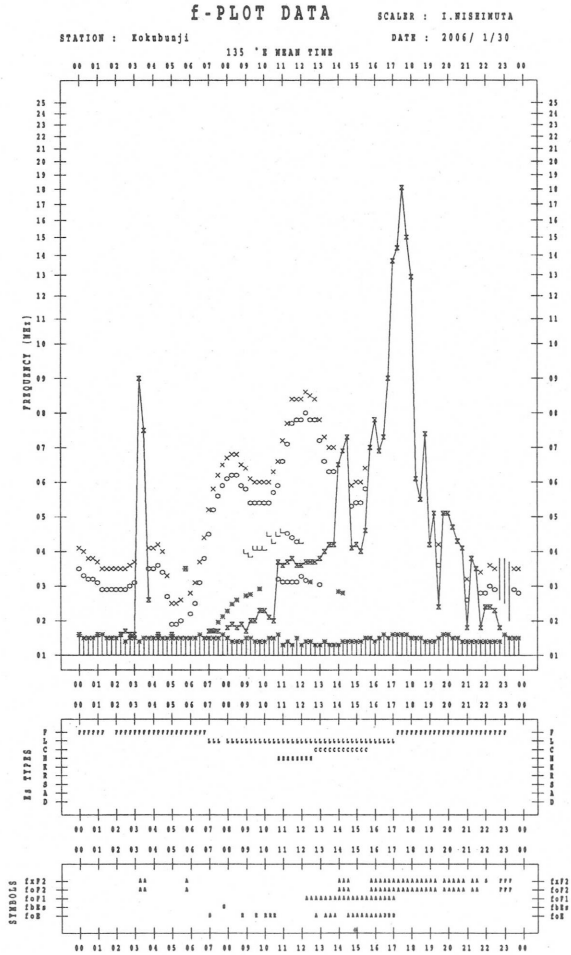
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/27
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/26
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/28
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/29
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/31
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 1/30
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 January 2006

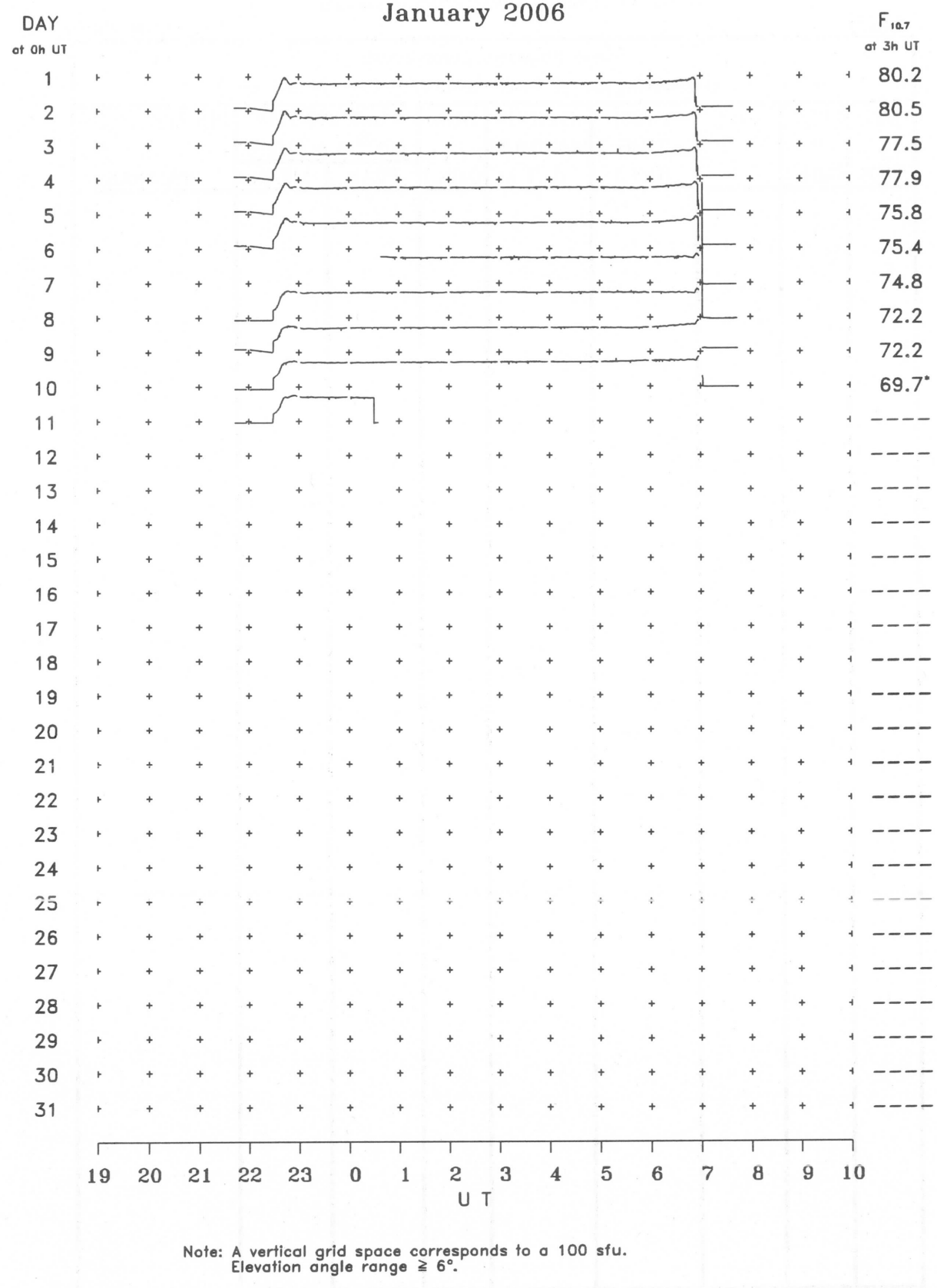
Single-frequency observations
Normal observing period: 2145 – 0745 U.T. (sunrise to sunset)

JAN. 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

January 2006



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

IONOSPHERIC DATA IN JAPAN FOR JANUARY 2006
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