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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. 2007

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

HOURLY VALUES OF fEs AT Wakkanai

JAN. 2007

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	34	G	26	G	G	G	G	G	G		G	G	G	G	G	G	32	44	G	G	G	G	28	26
2	27	32	34	29	G	G	G	G	G	G	33	70	71	G	G	G	G	G	G	G	G	G	28	G
3	G	G	G	G	27	G	G	G	34	51	39	G	34	G	73	53	72	52	47	40	36	39	35	32
4		29	30	32	32	32	30	30	G	G	G	G	G	G	G	40	G	33	68	45	32	32	34	26
5	G	G	G	28	40	40	37	41	46	40	44	47	G	G	G	G	35	28	40	39	51	42	49	30
6	G	G	G	G	G	G		25	54	G	32	G	G	G		30	29	32	G	G	29	27	27	29
7	28	29	G	G	G	G	G	G	26	G	G	G	G	G	G	G	G		G	G	G	G	G	27
8	G	G	G	G	G	G	30	29		G	G	N	G	G	G	G	G	G	47	40	37	30	24	G
9	30	G	G	G	G		G	30	32	G		G	G	G			G	30	28	32	28	33	39	27
10	27	G	G	G	G	G	G	G	30	G	G	G	G		N	G	G	29	31		51	34	32	30
11	25	28	G		G	G	G	G	31	35	G	G	G	G	G	G	G	G	G	G	G	G	26	G
12	G	G	G	68		G	G	G	30	G	G	G	G	G	32	G	G		G	G	40	30	28	29
13	32	30	G	G	25	G	G	G		40	33	34	G	41	G	G	G	26	28	G	G		G	G
14	G	G	G	G	G	G	G	G			G	50	47	G	G	G	G				G		G	G
15	G	G	G	23	G	G		G		35	36	39	G	G	G	G	G	G	29	G	G	G	30	G
16	G	G	G	G	11	G	G	27	G	42	43	G	G	G	G	G	G	11	G	28	G	G	26	G
17	G	G	G	G	G	G	G	G	G	G	G	G	35	G	G	49	G	G	32	28	G	G	G	G
18	G	32		G	26	37	G	G	27	G	G	G	G	G	G	G	G	36	48	59	39	G	G	G
19	G	G	32	37	67	37	59	33	39		45	G	50	46	G	52		G	G	G	G	G	G	G
20	24	G	27	32	32	G	G	48	40	64	76	46	44	G	G	G	G	G	42	77	72	54	40	29
21	32	G	G	G	G	G	G	30	38	42	G		50		G	G	G	G	40	30	G	27	G	27
22	G	G	G	G	G	G	G	31	G	G		G	G	G	G	G	G	G	G	34	G		G	32
23	G	G	G	G	G	G	G	G	G	G	38		G	G	G	35	G	G	G	29	28	40	40	33
24	G	G	G	G	G	G	G	G		G	G	36	48	60	50	45	G	53	69	46	40	33	G	G
25	G	G	G	G	G	G	G	G	G	42	42	36	48	44	49	35	G	31	40	29	G	G	G	G
26	G	33	32	43	37	G	34	G		44	41	41	G	G	41	G		32	32	G	G	23	G	G
27	G	G	G	G	G	G	G		29	G	G	G	G	G	G	G	G	26	29		G	G	G	G
28	G	26	26	G	27	G	24	G	G		39	39	58	44	42	38	41	50	37	24	G	40	28	26
29	G	25	25	G	G	26	G	27	35	32	35	G	G	G	34	35	30	31	34	32	33	32	26	G
30	G	G	G	G	32	28	45	39	50	G	G	G	G	G	G	34	G	G	G	32	G	G	29	G
31	G	G	G	G	G	G	G	G	G		47	G	G	G	G	G	G	11	G	G	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	30	31	30	30	30	30	29	30	25	26	29	28	31	29	28	30	29	28	30	28	31	28	31	31
MED	G	G	G	G	G	G	G	G	29	G	32	G	G	G	G	G	G	26	29	28	G	25	26	G
U Q	25	26	25	23	27	G	12	30	36	40	40	37	44	G	16	35	G	32	40	36	36	33	30	29
L Q	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Wakkanai

JAN. 2007

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	15	15	15	15	14	15	15	14	21	23	28	20	18	27	17	15	14	15	18	17	17	20	18	18
2	15	14	14	15	15	15	17	15	20	20	20	20	22	21	20	22	14	17	15	18	15	18	17	15
3	14	14	16	16	15	15	20	14	20	18	21	24	24	27	21	18	15	14	14	15	15	15	15	16
4		17	14	14	17	14	15	14	14	21	26	18	20	18	15	15	14	14	14	14	15	14	15	16
5	14	14	14	16	15	15	15	14	14	15	15	16	16	17	17	21	14	14	18	15	15	14	16	16
6	14	14	14	14	15	15		15	14	14	14	18	15	14	24	15	14	15	18	17	15	16	15	14
7	14	15	15	14	14	17	15	15	20	14	17	16	20	24	24	20	14		14	16	17	16	14	14
8	14	14	14	14	14	15	17	14	18	15	17	20	20	21	24	21	16	20	15	14	14	15	15	15
9	16	14	14	14	14		18	14	16	14	15	15	15	18	14	15	20	15	18	16	15	15	15	15
10	14	15	15	15	14	15	18	14	18	15	15	15	18	20	18	20	20	15	15		15	16	16	15
11	14	14	14		14	15	15	15	14	14	16	17	18	18	24	21	16	18	20	14	14	15	15	15
12	14	15	15	15		14	18	15	14	15	17	20	27	20	18	21	18		15	20	15	17	20	17
13	14	14	14	14	15	17	15	14	20	14	15	15	15	15	14	22	20	20	16	16	20		20	21
14	15	15	15	15	15	15	16	15	14	14	15	17	18	18	24	21	20				20		21	16
15	15	16	15	17	14	14		17	14	14	17	14	17	18	17	21	17	15	17	15	16	17	16	16
16	17	15	14	14	15	14	20	16	17	17	18	21	29	32	24	21	21	15	21	16	16	20	18	15
17	16	14	14	14	20	16	15	18	21	22	28	29	18	22	22	20	18	14	15	15	16	15	17	15
18	15	15	14	15	15	14	14	16	17	20	20	21	27	24	28	22	18	14	15	16	17	15	15	14
19	16	14	14	14	14	14	15	14	14		20	20	20	20	28	17		20	14	17	14	17	17	15
20	17	14	14	14	14	20	16	15	16	17	18	17	18	21	27	18	18	20	16	15	15	15	15	17
21	14	14	14	15	15	15	16	15	14	17	15	21	21	21	27	22	18	20	15	15	15	17	17	16
22	15	15	15	14	14	15	15	14	16	15	20	14	18	17	16	15	18	21	15	17	21		16	17
23	16	14	16	14	14	17	16	15	18	16	15	15	16	15	16	15	18	15	17	15	15	15	15	15
24	14	14	14	14	14	14	15	15	18	18	20	20	21	20	20	18	20	17	15	14	15	17	15	16
25	15	15	14	14	14	14	15	15	16	14	18	18	18	18	16	15	21	15	14	18	14	21	15	14
26	15	14	15	14	14	15	15	15	16	15	20	18	14	15	20	15		15	14	21	18	14	15	18
27	15	14	14	14	14	16	16	15	15	20	15	20	17	18	18	18	16	15	16		18	17	18	15
28	14	15	15	14	15	15	15	14	14	20	16	17	14	20	18	17	14	14	14	15	16	16	16	15
29	15	14	15	15	14	15	15	16	14	15	14	15	16	15	17	17	14	16	16	15	15	16	18	16
30	16	20	18	14	14	15	15	14	15	15	18	17	17	18	18	15	17	15	20	15	15	14	15	14
31	15	15	15	15	15	15	15	15	15	24	20	37	28	21	21	26	20	14	15	16	15	15	14	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	30	31	31	30	30	30	29	31	31	30	31	31	31	31	31	31	29	28	30	28	31	28	31	31
MED	15	14	14	14	14	15	15	15	16	15	17	18	18	20	20	18	18	15	15	16	15	16	16	15
U Q	15	15	15	15	15	15	16	15	18	20	20	20	21	21	24	21	20	17	17	17	17	17	17	16
L Q	14	14	14	14	14	14	15	14	14	14	15	16	16	18	17	15	14	14	15	15	15	15	15	15

HOURLY VALUES OF foF2 AT Kokubunji

JAN. 2007

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	A		23			27	28	48	49	52		56	58	54	60	56	44	A			34			
2		32		A				47	55	65	65	77	69	66	60	56	48	42	39	38	32	32	36	
3					24	27	26	45	64	73	69	100	76	59	59	55	58	53	45	36	44	A	A	
4				27	27			38	69	62	72	65	59	57	63	51	51	A		A	36	30		
5	27	28	28			28	31	46	56	61	82	81	67	57	59	55	44	38			34	35	A	30
6	A							38	58	68	78	80	74		56	A	40	A	A	A	28		A	
7	A	A	32	30				38	53	59	78	78	71	59	59	54	49					27	23	
8		25	36					36	44	55	55	61	59	59	55	51	41	A	A	A	A	A	A	
9		25	34					37	48	55	52	62	63	59	52	51	46	A			32	31	A	
10	28		26				27	38	51	54	65	73	85	69	49	56	46		32					A
11		A						41	50	59	67	67	58	59	60	59	46			38	38	32	34	
12		A	34				30	42	47	58	66	59	65	59	67	55	A	A	A	A		A		30
13	28				A			41	49	53	66	69	64	56	55	45	45	39				31	28	28
14	28			28	28			39	52	58	49	59	64	61	59	45	45	43		32		34		28
15	28	30	28	30				42	50	41	56	78	65	51	58	55	51	39	36	36	38	28		
16	32	30	34		35			39	69	84	116	102	91	85	62	59	64						A	
17	30		30	38				34		51	68	83	65	90	64	62	45	38	34	43	39			A
18		A		28		28		49	54	65	82	78	72	80	77	84	70	39		A				
19		30	30	32		35		47	59	59	56	64	90	71	56	68	63	37				38	31	32
20	34	32		28	A	A		45	48	51	52	78	69	77	56	55	61	38			30	34	28	
21						34	32	41	54	53	59	72	63	62	56	58	58			33	42	28	A	
22	30	28	30	30	28	28	27	45	48	42		65	59	65	56	45	56	42		36				27
23	32		36	35	44	35	30	45	53	39	57	52	57	76	74	51	54	38					34	32
24	34	34	34	34	41	34		49	54	68	47	55	65	57	54	59	66	38				30		
25	28			28	39			38	46	50	55	53	54	59	57	65	54	38			26	28		28
26		30	28		28	26		39	46	52	55	56	59	54	47		47	44		28	31			27
27	27		27	A	27			39	45	51	47	49	55	65	65	40	52	36		27	28			
28				28	27			41	53	56	59	59	59	66	71	49	51				28	28		28
29		27			43			42	42	49	49	55	59	58	68	68	51	44	28	36	36	30		
30	34	25	32	34	26			42	55	55	65	82	77	63	53	62	59	47		36	36	34		26
31		34	34	34	28		28	49	54	67	69	63	66	65	66	67	65	49			28		27	
	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	14	18	15	14	10	9	31	30	31	29	31	31	30	31	29	30	19	6	12	19	17	8	11
MED	29	30	31	30	28	28	28	41	52	55	65	65	65	60	59	55	51	39	35	36	34	31	30	28
U Q	32	32	34	34	39	34	30	45	55	62	69	78	71	66	64	60	58	44	39	37	38	34	34	30
L Q	28	27	28	28	27	27	27	38	48	51	55	59	59	58	56	51	46	38	32	32	28	28	27	27

HOURLY VALUES OF fEs AT Kokubunji

JAN. 2007

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	34	33	G		G	G	G	G	G	39		G	G	G	G	G	G	34	41		G			
2		28	29	30	24		G	G	G	G	36	G	G	G	G	33	G	28	G	G	G	G	G	34
3			G		G	G	G	G	G	G	G	G	G	G	G	76	G	G	G	36	27	45	41	27
4			29	24	G	26	29	44	G	G	G	39	G	36	37	35	G	41	G	43	G	G		G
5	G	G	G			G	G	G	G	G	G	G	G	G	34	G	G	G	G	G	G	29	40	G
6	36	G	G					G	31	33	G	G	G		41	46	51	41	50	60	51	60	41	43
7	50	40	G	G	G			G	G	G	G	G	G	G	39	40	38	27				G	G	
8		G	G			G		G	G	33	G	G	G	G	G	53	38	36	32	50	51	60	83	31
9	29	24	G		G	G		26	34	67	G	G	G	G	44	43	52	40	27		G	G	59	26
10	28	32	28	28			G	G	40	35	G	G	44	G	G	G	G	36	G			33	35	43
11	26	35	25	27				G	34	49	47	G	G	G	G	G	G			G	G	G	G	29
12		50	G	29	30	26	25	G	31	45	38	37	G	60	59	61	60	59	40	36	28	29		G
13	G	31	31	26	32			G	40	34	41	G	G	G	G	G	G	G				G	G	G
14	G			G	G			G	G	G	G	G	G	G	49	G	27	G		G		G		G
15	G	G	G	G				G	G	40	41	40	G	G	G	G	G	G	G	G	G	G		
16	G	G	G	G	G			G	G	G	G	57	38	G	G	47	G	33					34	
17	30	26	G	G	G			G	G	G	G	G	G	G	G	G	G	G	27	G	G	G	26	68
18	39	57		G	G	G	G	G	52	60	76	70	59	G	G	G	G	G		37				
19	43	G	33	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G				G	G	G
20	G	G	G	G	36	27		G	42	G	36	59	39	G	G	G	G	G		27	G	24	G	
21		31	29	42	29	25	G	G	G	G	37	G	G	G	G	G	G	G		G	G	G	46	34
22	G	G	G	G	G	G	G	G	G	G	42	39	38	G	37	33	30	G		G				G
23	G		G	G	G	G	G			G	G	G	G	G	G	G	G	G				G	G	G
24	G	G	G	G	G	G	G	G	43	34	37	G	G	G	G	G	G	26		G		G		
25	G	G	G	G	G			27	40	33	G	40	38	43	43	G	G	G			G	G	G	G
26	G	G	G	G	23	G		37	G	G	G	G	42	43	40		G	G		G	25			G
27	G	29	G	33	G			G	G	G	G	43	42	40	G	G	G	11	G	G	G	G		
28			G	G	G			G	G	G	G	G	52	40	G	33	G	33			G	G		G
29		G		G	G	G	G	G	37	40	G	42	G	G	G	G	G	G	G	G	G	G		
30	G	G	G	G	G	G	G	26	G	35	G	42	61	G	G	G	36	G		G	G	G		G
31		G	27	G	G	G	G	G	G	G	G	G	42	G	G	40	34	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	22	26	28	25	25	18	16	30	30	31	30	31	31	30	31	30	31	30	14	20	21	26	18	21
MED	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	14	G
U Q	30	31	26	26	12	G	G	G	34	35	37	40	39	G	37	40	30	33	32	36	13	24	41	32
L Q	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Kokubunji

JAN. 2007

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	13	14	14		13	13	14	17	13	17		22	21	18	17	15	23	14	14		17			
2		13	13	13	13		14	15	14	22	20	23	22	23	18	15	21	14	21	15	14	18	18	13
3			13		14	17	17	17	24	29	38	38	36	36	34	15	22	14	15	13	14	13	13	13
4			17	14	14	14	14	13	13	14	17	21	20	21	14	13	21	14	23	14	13	14		14
5	14	13	14			17	14	18	13	14	17	18	21	15	14	13	21	14	17	22	14	13	14	13
6	14	14	17					23	14	15	14	18	17		13	13	13	20	13	14	13	15	13	13
7	13	15	13	14	13			14	13	15	15	18	14	15	14	13	13	14				14	17	
8		14	13			15		15	14	17	20	38	39	23	24	17	13	14	14	14	15	13	14	13
9	14	14	15		13	14		18	14	15	14	21	41	15	13	14	13	13	14		15	13	14	13
10	13	13	13	14			13	18	13	14	17	14	14	15	29	33	13	13	17			15	15	13
11	14	14	14	14				20	17	18	17	33	13	14	39	28	24			17	14	17	14	14
12		13	17	14	13	13	13	14	14	14	17	20	17	15	20	20	13	13	13	14	14	14		13
13	15	13	13	13	14			15	17	13	17	13	13	22	31	25	31	15				13	14	18
14	14			14	23			23	13	14	23	20	22	21	15	29	15	21		15		15		13
15	14	13	18	14				15	24	14	15	14	21	17	15	17	22	14	14	14	14	14		
16	17	17	14	14	13			20	24	15	21	23	23	21	36	14	24	13					14	
17	14	14	15	15	15			14	22	14	23	39	37	38	29	31	21	21	13	17	14	26	14	14
18	14	13		13	17	14	22	15	20	20	24	24	34	24	33	29	33	24		13				
19	14	14	13	14	17	17	18	21	24	34	38	38	37	40	38	25	29	22				13	13	22
20	15	22	14	14	13	13		23	15	22	18	14	17	20	22	30	26	17		14	14	15	15	
21		13	13	13	14	15	13	18	14	14	18	23	21	21	17	14	25	25		18	14	14	13	13
22	14	13	14	13	15	17	14	15	24	18	14	21	18	13	13	13	13	18		17				15
23	15		13	15	18	13	20	18	13	18	17	15	22	20	17	15	24	14				22	15	13
24	15	21	15	14	14	17	23	15	14	14	21	20	17	31	14	28	14	14		24		14		
25	13	14	14	13	14			15	13	17	18	22	23	21	22	14	17	14			20	17	15	18
26	13	14	14	13	13	14		13	13	14	39	21	14	21	17		14	21		13	17			13
27	21	15	15	13	20			20	13	14	17	14	22	20	21	31	14	14	18	18	17	17		
28			18	18	13			17	22	14	14	21	21	21	23	14	13	14			17	18		14
29		15		15	15	13	17	20	13	18	17	17	17	20	17	25	22	15	20	15	14	13		
30	18	17	15	14	13	17	17	17	28	15	18	17	23	24	18	14	17	20		18	21	14		14
31		17	13	23	14	18	14	20	25	18	21	39	23	34	14	15	13	18			18	21	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	22	26	28	25	25	18	16	31	31	31	30	31	31	30	31	30	31	30	14	20	21	26	18	21
MED	14	14	14	14	14	14	14	17	14	15	18	21	21	21	18	15	21	14	14	15	14	14	14	13
U Q	15	15	15	14	15	17	17	20	22	18	21	23	23	23	29	28	24	20	18	17	17	17	15	14
L Q	14	13	13	13	13	13	14	15	13	14	17	17	17	17	14	14	13	14	14	14	14	13	14	13

HOURLY VALUES OF foF2 AT Yamagawa

JAN. 2007

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	29	26	29	29	29	29	28	38	47	46	58	71	72	62	56		60	56	37	41	44	63	42	31
2	32	43		A	A			35	51	56	69	78	66	70	64	42	52	58	38		35		A	A
3	37	45	A					28	62	52	80	108	78	62	57	55	62	66	52	34	34	41		34
4	25				28				66	63	68	72	70	68	68	70	54	50	42	30	36	30		
5			28			26	26	32	59	60	75	82	74	66	65	58	A	A	A	A	38	34		
6	32	32	31	28	29				52	72	82		77	76	76	57	48	55	40	A	A	A	28	29
7	30	32	34	28				28		51	81	98	89	86	70	60	55	51		A	32		29	29
8	29	30	34			A	A	29	51	52	61	71	76	74	64	54	51	50	A	A	A	31	A	A
9	34	42	42	44	32			69	47	54	66	77	82	81		56	52	A	A	A	38			34
10		A	A	34	A			32	46	51	68	87	96	101	78	61	58	52	35	A	A		28	30
11	30	A		28		A		34	52	51	61	61	60	63	63	57		46				29	39	28
12	28	28	29	32	28			49	50	47	61	69	70	89	107	72	51	50	A	A	A	28		28
13	30	30				26	A	26		52	56	70	76	57	57	62	67	55	38		29	34	30	28
14	29	28	28	29	30	31		26	50	54	50	56	66	74	82	70	60	58	A	A	A	A	A	A
15		A	30	29	32			27	48	51	52	61	64	56	64	62	60	52	40		41	38		
16	30		36	30				26	54	65	81	99	124	110	81	86	72	60	34		36	28	29	28
17	31	34	34	28					61	57	57	65	74	90	62	64	57	54	40	32	41	37	28	26
18	28	30			34	31	28	34	69	56	74	101	82	106	96	92	88	A	37		31	A		
19	26	30	29	29	37	32	A	26	61	58	53	60	84	84	67	A	74	55	A	A		38	34	26
20	28	30	30	30	34			30	60	56	60	69	72	82	64	56	54	51	38			28	34	
21	29	28	32	28	32	20	26	32	47	61	60	66	65	62	53	64	58	50	34	28	36	38	28	28
22	32	32	32	30	26	26	29	38	52	61	63	59	62	62	62	65	66	54	36	28		31		
23		28	28	29	34	32		35	47	54	56	55	56	75	84	54	54	55	40		34	28	28	28
24		30	30	32	34	39	29	34	49	60	54	55		80	62	49	64	56	36	36	35	34		
25			28	28	34	41		28	45	52	63	60	54	60	68	70	60	60	40	30	34	26	28	
26	28	26	26	26	28			26	45	57	66	57	62		64	51	50	54	46	30	34	34		26
27	28	30	32		32	26	26	32	47	50	48	51	56	59	69	64	60	50	37	A			34	28
28	28			30	32				55	54	62	64	61	66	72	58	56	55	40	30	28	34	34	28
29	30	30	28	34	32			29	48	68	48		63	62	66	88	62	55	41	41	37	29	28	
30		28	29	41				36	50	60	70	85	85	67	62	66	61	61	37	36	40	36	32	28
31	28	32	29	32			26	30	66	58	72	88	78	61	71	71	66	66	51		36	29	26	
	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	24	23	23	23	19	12	8	27	29	31	31	29	30	30	30	29	29	28	23	12	21	23	18	18
MED	29	30	30	29	32	30	27	32	51	56	62	69	72	69	66	62	60	55	38	31	36	34	29	28
U Q	30	32	32	32	34	32	28	35	59	60	70	83	78	82	72	70	63	57	40	36	38	37	34	29
L Q	28	28	28	28	29	26	26	28	47	52	56	60	63	62	62	56	54	51	37	30	34	29	28	28

HOURLY VALUES OF fEs AT Yamagawa

JAN. 2007

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	32	25	G	24	G	G	G	G	28	41	42	48	41	G	36		40	G	G	G	G	G	G	G
2	23	G	34	29	40	28	30	23	G	G	40	52	46	50	59	57	50	54	40	39	34	33	60	68
3	30	G	39					G	G	G	G	76	52	48	44	G	41	29	G	25	G	G		G
4	G		23	26	G			41	40	60	40		46	40	47	38	49	28	28	G	G	G		G
5		G	G	G		G	G	G	50	34	39	44	40	42	52	38	65	82	40	59	G	26	30	
6	G	24	G	G	G	G		G		37	43	46	44	73	54	58	49	32	32	81	50	46	G	27
7	27	G	G	G	G	G		28		36	36	G	G	46	52	58	56	41	36	36	27	28	G	G
8	G	G	G			28	25	G	28	34	40	48	50	56	43	40	50	36	45	57	51	26	34	49
9	26	26	G	23	27	G	G	26	29	43	56	57	56	61		52	51	60	52	50	34	32	33	G
10		37	40	50	36		G	23	32	39	60	47	42	G	43	38	34	G	G	40	72	41	27	G
11	G	59	29	31	34	28	26	G	36	42	68	52	39	52	49	36		46	35	32	G	G	G	G
12	G	32	G	G	G			G	G	41	56	56	44	48	45	62	51	50	49	41	35	G		G
13	G	G	G		28	G	34	27	G	G	48	41	39	G	45	36	G	G	G		G	G	G	G
14	G	G	G	G	G	G	G	G	G		G	48	82	43	G	42	46	61	46	53	59	43	46	33
15	33	37	34	G	G	G		G		G	39	45	46	40	38	35	32	27	27		G	G		
16	G		G	G				G	G	34	40	46	50	48	43	40	G	34	38	32	G	G	G	G
17	G	26	28	29					27	34	40	48	50	39	G	G	34	G	30	G	26	G	G	G
18	G	24	24	G	G	27	G	G	G	G	G	44	45	70	72	G	38	65	29		G	39		G
19	G	G	32	32	G	11	28	G	G	G	G	44	64	58	114	79	72	42	41	31		27	G	G
20	G	G	G	G	G		G	G	G	35	44	49	G	49	66	67	39	32	33	30	26	G	G	G
21	28	G	27	G	36	G	26	27	32	40	42	G	G	46	49	G	G	32	26	G	G	G	G	G
22	G	G	G	G	G	G	G	G		36	G	40	38	47	50	50	46	46	28	G	27	G	G	
23	G	G	G	G	G	G	G	G		G	G	42	41	48	38	46	34	31	35	26	23	28	G	G
24		24	G	G	G	G	G	G		G	G	42	45	46	G	G	G	30	24	25	G	G	G	
25	G	G	G	G	G	11		11	44	36	38	G	49	47	47	40	G	32	G	G	G	G	G	G
26	G	G	G	G	G	11		G	36	G	35	43	44		43	37	36	34	G	G	G	G	G	G
27	G	G	G		G	G	G	G		37	G	G	G	G	G	G	G	G	G	38	26	27	G	G
28	G	32	40	G	23			27	G		G	48	48	46	54	43	G	G	11	G	G	G	G	G
29	G	G	G	G	G		G	G	33	G	44		G	39	G	G	G	G	G	G	G	G	G	G
30	G	G	G	G		G	G	G		33	40	G	40	48	40	G	33	28	11	G	G	G	24	26
31	G	26	G	G	G		G	G	G	G	36	39	38	38	G	G	34	G	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	28	29	31	27	25	21	20	30	23	29	31	29	31	30	30	30	30	31	31	27	30	31	26	26
MED	G	G	G	G	G	G	G	G	27	34	40	45	44	46	44	38	37	32	28	30	G	G	G	G
U Q	12	26	28	24	25	11	25	23	33	38	43	48	49	49	52	50	49	46	38	40	27	28	24	G
L Q	G	G	G	G	G	G	G	G	G	G	G	40	39	40	38	G	G	G	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Yamagawa

JAN. 2007

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

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

HOURLY VALUES OF foF2 AT Okinawa

JAN. 2007

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	29			31	56	48	57	78	71	61	61	65	70	71	54	A	60	80	44	36
2	32	34			A			28	48	64	85	69	65	78	65	62	58	55		A	A	44	40	36
3	37			A					59	57	70	124	82	71	70	62	71	87	55	A	46		31	34
4				A	A			A	65	72	81	82	97	118	110	98	75	72	50	47	51	44	34	
5								26	61	63	78	75	88	93	87	73	73	65	50	29		51		
6			28						59	82	101	104	127	119	115	101	84	78	52	A	A	63		A
7		31	A						54	76	101	130	127	114	105	76	66	A	A	A	A	44		
8	30		29	30					54	57	66	84	98	86	75	71	61	57	41		30	A	30	
9	30	A		A	A	A		28	57	56	68	98	108	110	88	74	56	61	A	A	A	A	A	A
10						A		28	51	57	60	86	121	140	117	85	82	64	A	A	A		30	
11			A	A	A					63	A	72	70	86	100	86	A	A	47		34	31		
12	30	A		A					51	55	54	70	96	122	141	113	A	62	A	A	A			
13									50	60	56	68	76	82	81	88	97	78	52	36				
14					28	29				60	62	70	83	110	109	106	103	73	A	A	A	A	29	
15		29	32	A		A			50			56	57		70	75	62	57	46		38	38		
16		28	32						45	61	81	106	150	133	122	110	90	78	A	A	46			28
17		32	A						58	72	72	60	82	104	88	85	76	52	54	30	32	36		
18			30		29			34	56	60	85	97	106	133	145	131	126	88	64	42	31			
19			26	29	22		A		55	64	55	50	81	96	90	78	75	62	36				29	
20				29	29				52	56	62	62	77	88	89	62	A	56	53					
21					37			A	47	55	72	69	67	68	83	70	72	61	45		37	38	34	
22			26					30	54	61	65	66	69	64	88	90	103	64	52	34	32	30		
23					28	26			42	48	62	56	70	82	81	72	57	56	44	29	32	32		
24						29		30	44	55	66	68	55	61	90	84	61	67	60	45	42			
25				28	37	A			43	48	50	57	72	67	49	81	94	78	60	34	36	34	26	29
26					30				44	52	73	77	66	63	52	65	50	55	52	37	36	37		
27							A	29	44		50	52	54	55	66	84	71	63	55		31	32		28
28			30	26						59	65	78	75	62	74	84	61	60	51			28	28	32
29			26	30	30			28	55	58	53	52	61	68	81	88	95	60	52	48				
30	26	29	29	39				30	58	58	72	95	82	77	66	68	66	65	54	A		55	32	
31		36						32	54	54	71	98	90	88	81	87	86	84	72	57		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	6	7	10	8	10	3		12	28	29	29	31	31	30	31	31	28	29	24	12	16	18	12	7
MED	30	31	29	29	29	29		30	54	58	66	72	81	86	87	84	72	64	52	36	36	38	30	32
U Q	32	34	30	30	30	29		30	56	63	75	95	97	110	105	88	88	75	54	46	44	44	34	36
L Q	30	29	26	28	28	26		28	47	55	58	62	69	68	70	71	61	58	48	32	32	32	29	28

HOURLY VALUES OF fEs AT Okinawa

JAN. 2007

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	36	28	G	34	G	G		G	28	35	45	47	44	38	43	38	45	36		28	26	G	G	G
2	G	G	24		30			G	G	G	54	47	44	39	49	50	54	61	69	71	72	41	G	G
3	G	36		60				G	G	G	G	G	50	54	62	36	33	G	31	48	45	46	G	G
4		26		36	70			28	30	43	46	52	49	48	47	41	36	36	36	34	G	G	G	
5		49	G					G	G	36	46	53	G	G	G	G	G	G	11	G	29	G	28	G
6			G	G	26			G	29	37	47	43	52	52	51	38	44	46	44	114	91	58	49	32
7		G	40		G			G	31	42	59	52	50	40	44	48	72	63	52	34	44	36	42	
8	G	G	G	G	25	28		G	G	G	45	45	50	48	45	40	G	G	G	27	28	49	29	
9	G	35	35	33	37	37		G	32	36	54	72	66	42	78	60	40	50	57	81	50	50	48	38
10	34		G	G		28	26	G	27	46	48	86	52	52	52	40	51	48	50	29	52		32	28
11	G	G	37	34	35			G		41	70	65	53	49	44	41	83	65	44	36	24	G		G
12	G		28	30					28	36	49	58	53	51	68	91	82	48	71	67	43	30		
13	G		G		G				G	G	G	40	39	G	G	45	50	36	32	27	33	34	28	
14					G	G		G		G	G	39	46	39	57	66	61	35	68	60	44	37	G	
15	26	26	27	45		28			G			G	55	64	G	G		G	25	30	G	G		
16		G	G	G		G			G	G	G	G	44	57	G	42	66	G	71	36	30	27		25
17	26	G	35						G	32	G	G	44	G	G	41	38	G	G	G	28	26	26	
18			G		G		G	G	G	G	G	44	58	42	56	102	76	40	G	G	G		G	
19		G	30	G	28	27	28		G	G	G	G	49	G	41	G	G	38	36	G			G	
20	G			G	G				G	G	G	40	50	40	45	G	60	35	43	26				
21		G			G			30	G	36	G	39	G	G	G	G	38	36	36	28	26	G	G	
22			G	G	G	G	G	G	G	G	G	48	G	G	G	43	42	34	G	G	G	G		
23			G	G	G	G		G	36	39	G	G	G	G	40	G	N	G	G	G	G	G		
24				G		G		G	39	33	45	43	G	41	G	G	G	G	27	G	G		G	
25				G	G	33		G	G	40	39	G	G	74	G	40	G	G	26	G	G	G	G	G
26				G	G			G	G	36	42	44	G	G	G	38	38	31	G	G	G	G	G	G
27	G	G	G		G		29	G		36	G	G	G	43	50	44	42	38	34	33	G	G		G
28	G	G	G	G	G			G		G	G	G	43	G	G	G	G	G	G			G	G	G
29			G	G	G			G	G	G	G	G	G	G	G	G	G	G	G	G	G		G	G
30	G	G	G	G				G	G	G	G	45	40	G	G	G	G	G	34	51	37	28	G	G
31	G	G			G	G		G	G	36	G	G	G	G	G	G	36	36	33	28		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	16	18	22	21	22	13	5	24	27	30	30	31	31	31	31	31	29	31	30	30	27	25	22	15
MED	G	G	G	G	G	G	26	G	G	34	G	43	44	40	41	40	40	35	34	28	28	G	G	G
U Q	13	26	28	33	26	28	28	G	28	36	46	48	50	49	50	44	57	40	44	36	44	36	28	25
L Q	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G

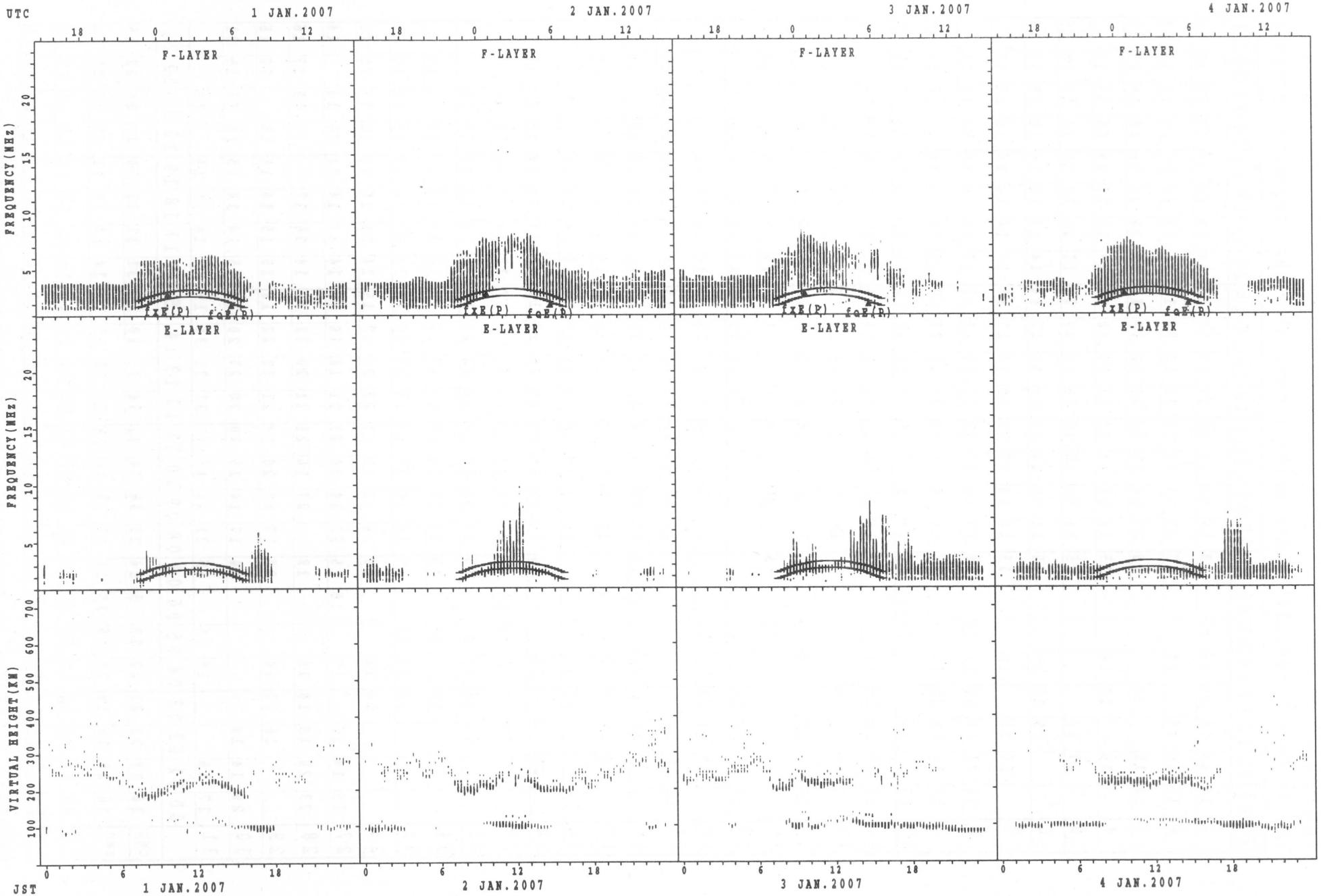
HOURLY VALUES OF fmin AT Okinawa

JAN. 2007

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

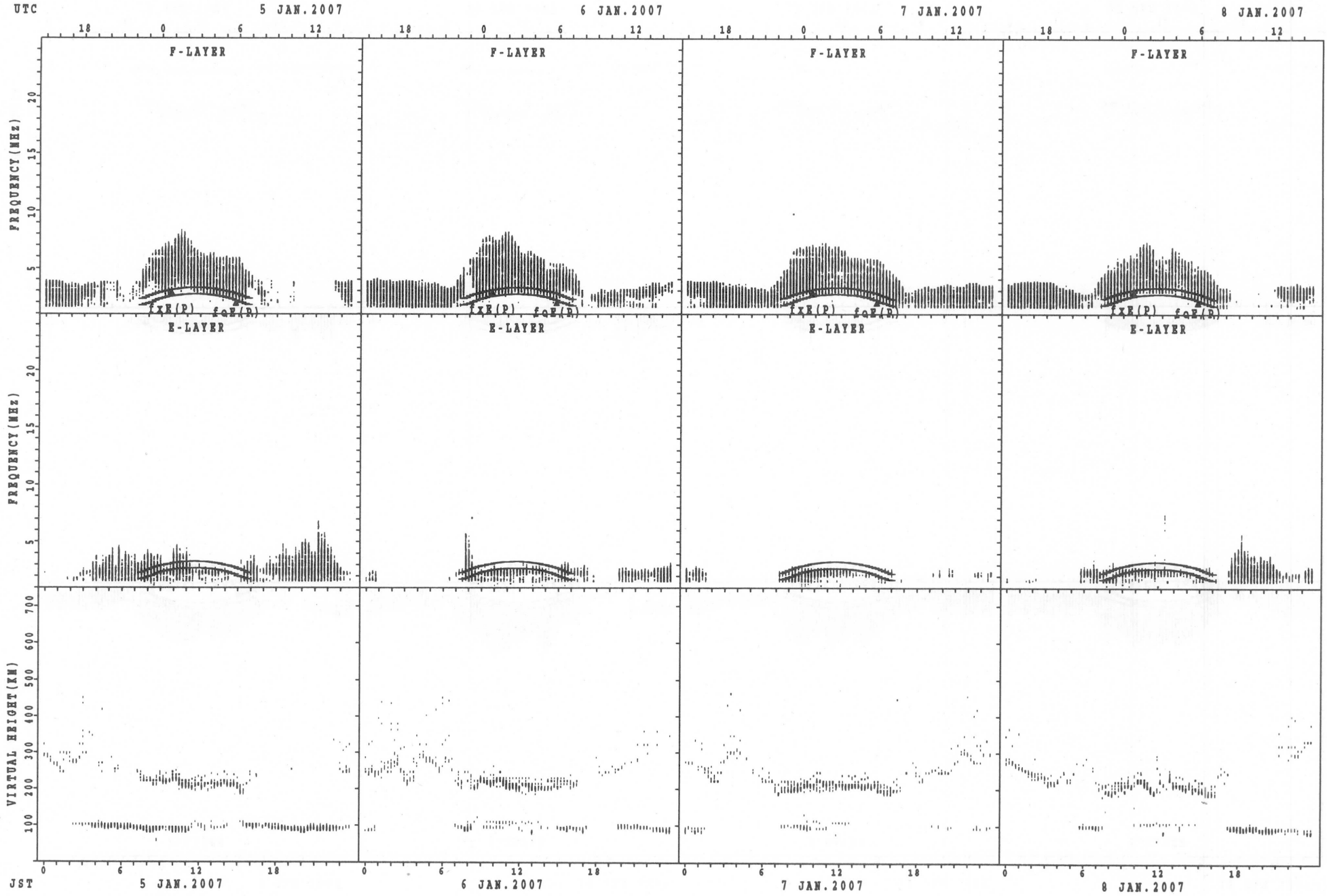
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	14	14	14	15	17		18	14	14	15	15	17	17	17	14	14	14	14	14	15	17	15	14
2	15	16	15		14			17	21	14	15	16	18	20	20	17	14	14	14	14	15	14	16	15
3	16	15		14				18	21	14	17	20	21	20	17	14	14	22	14	15	14	14	17	15
4		15		14	14			15	14	18	14	21	21	20	18	15	14	14	14	14	15	15	17	
5		17	14					15	14	14	15	18	18	16	17	20	15	21	16	15	14	15	15	15
6			15	15	17			18	14	14	14	18	20	18	17	14	14	14	14	14	14	15	14	15
7		15	15		16			15	14	14	17	21	20	20	17	15	14	14	14	14	15	14	17	
8	22	21	18	15	15	14		18	17	18	20	22	23	23	20	18	17	14	14	15	15	14	14	
9	22	15	15	15	14	14		18	14	14	15	18	20	21	20	17	14	14	14	14	14	15	14	15
10	17		16	15		14	15	14	14	14	17	20	22	21	20	18	15	15	15	14	15		15	15
11	16	17	14	14	14			17	15	16	20	21	24	21	20	14	14	15	15	15	17	15		20
12	21	15	14	14					14	15	15	21	23	20	20	18	15	14	15	14	16	15		
13	18		15		14				17	15	20	18	20	17	18	15	14	14	14	14	14	14	14	
14					15	21		18		16	14	16	20	22	18	17	15	15	14	14	15	14	16	
15	16	15	14	14		14			18			15	18	20	20	16	14	14	15	16	16	16		
16		20	15	16		21			22	17	15	15	23	21	22	21	16	14	15	16	18	16		16
17	16	16	15						21	14	14	18	22	20	18	15	14	14	16	15	15	15	14	
18			14		21		16	16	22	28	21	20	21	28	22	17	16	15	18	14	22		16	
19		15	16	15	16	15	14		22	28	22	18	29	21	20	17	14	15	15	20			15	
20	15			15	15				22	15	17	18	16	18	17	14	15	14	14	14				
21		21			16			14	14	15	16	20	20	16	18	14	14	14	14	14	15	17	17	
22			16	15	15	18	15	17	22	14	16	16	20	23		17	17	14	17	15	21	15		
23			14	15	15	15		15	23	16	17	20	20	22	20	17	15	14	18	20	15	16		
24				16		15		15	18	15	14	21	17	17	17	15	14	14	14	15	15		17	
25				14	15	14		15	14	14	17	17	21	21	20	17	32	27	15	15	15	18	15	15
26				14	14			18	14	15	15	21	22	22	32	15	14	14	16	15	15	15	15	16
27	15	14	16		17		15	15	22	14	20	20	21	18	18	20	14	14	14	14	20	15		14
28	23	20	18	14	15			18		27	16	21	21	20	21	39	14	26	17			15	17	16
29			16	20	16			20	17	17	20	18	21	22	22	18	15	15	18	15	15		20	15
30	20	14	14	15				14	17	14	15	20	20	20	20	18	15	14	14	15	15	15	15	21
31	17	15			16	16		15	21	15	14	17	21	21	35	15	14	14	15	14		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	16	19	22	21	22	13	5	24	29	30	30	31	31	31	30	31	31	31	31	30	27	25	22	15
MED	16	15	15	15	15	15	15	16	17	15	16	18	21	20	20	17	14	14	15	14	15	15	15	15
U Q	20	17	16	15	16	17	15	18	21	16	17	21	22	21	20	18	15	15	16	15	16	16	17	16
L Q	15	15	14	14	14	14	14	15	14	14	15	17	20	18	18	15	14	14	14	14	15	14	15	15

SUMMARY PLOTS AT Wakkanai

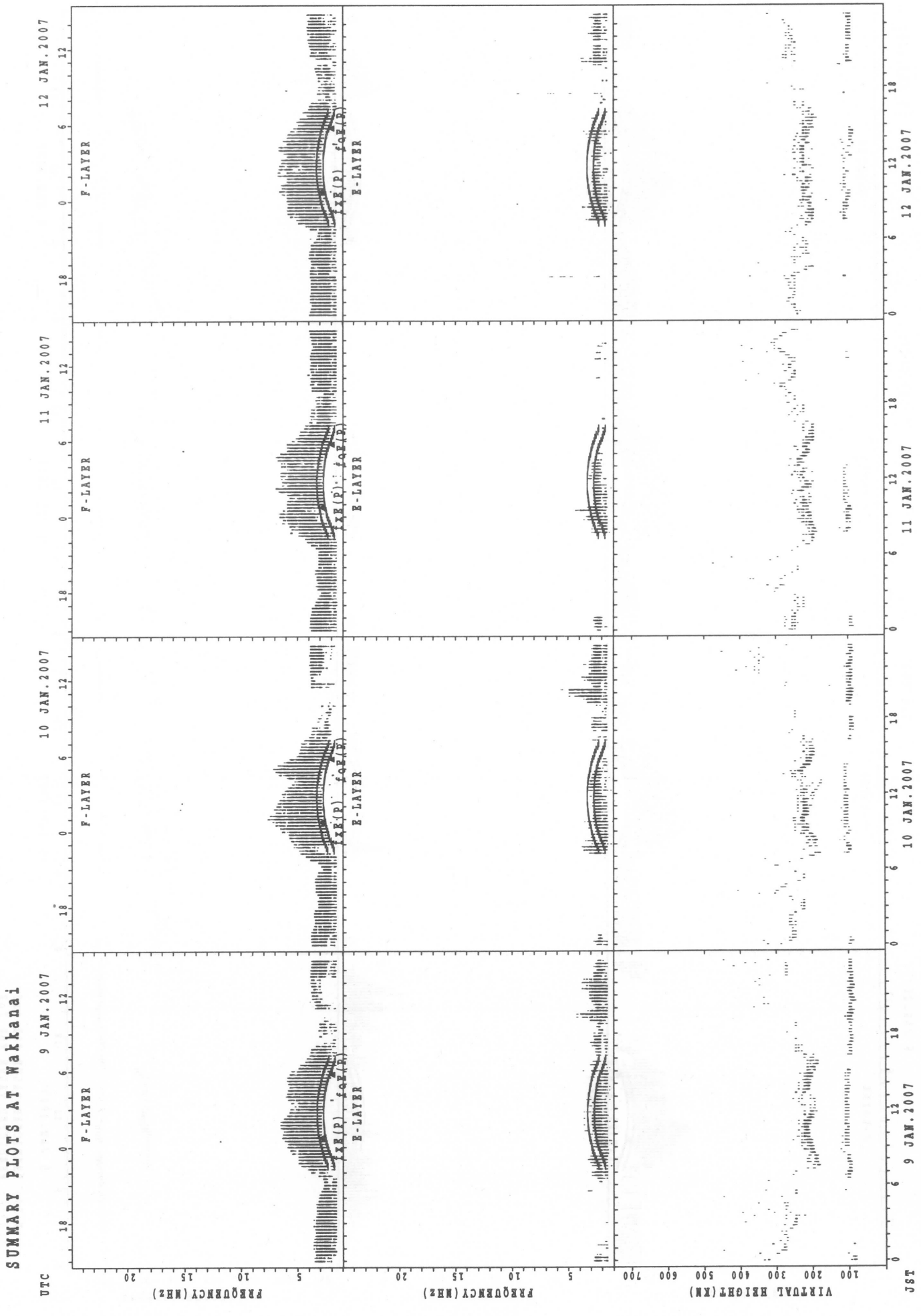


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

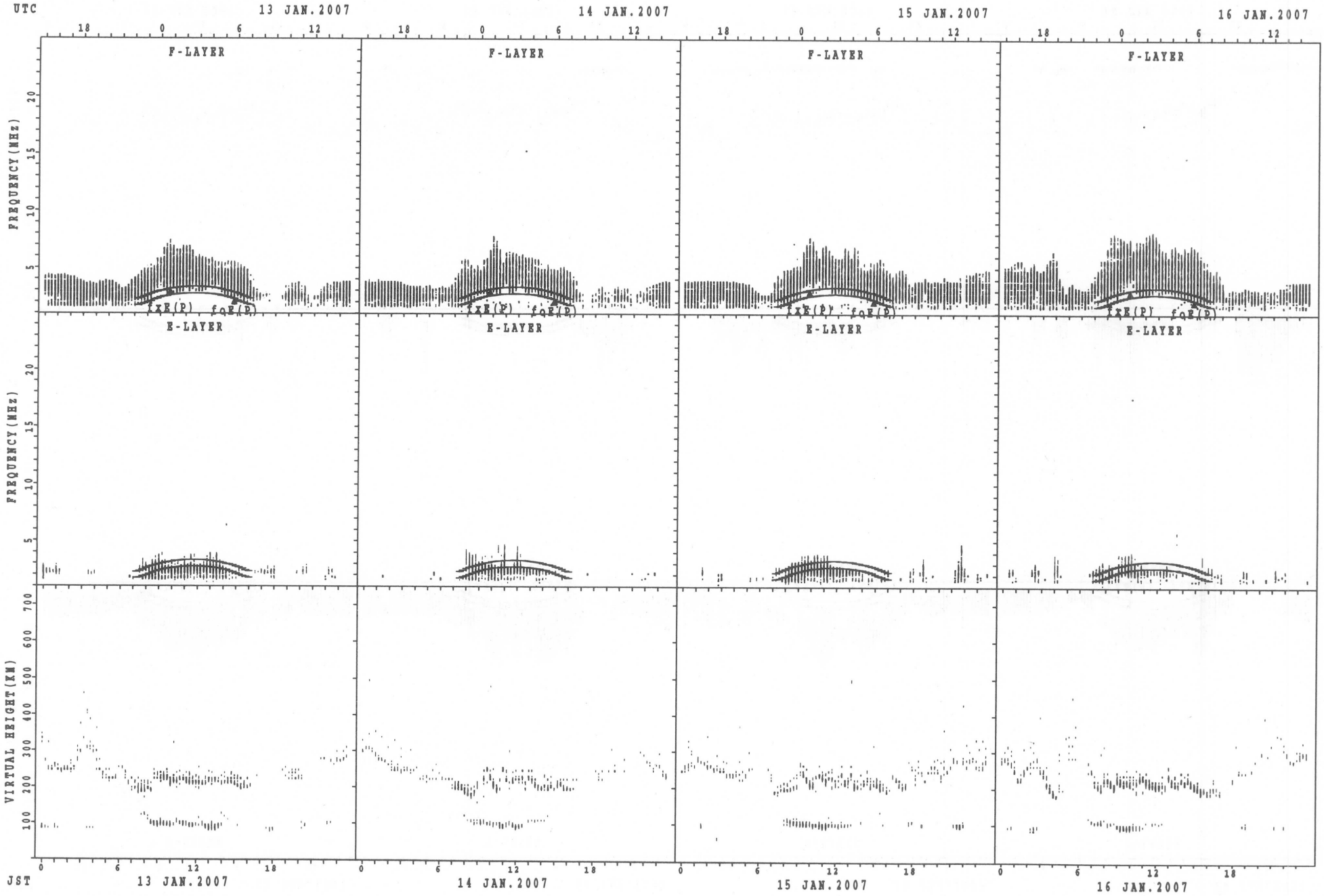
SUMMARY PLOTS AT Wakkanai



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

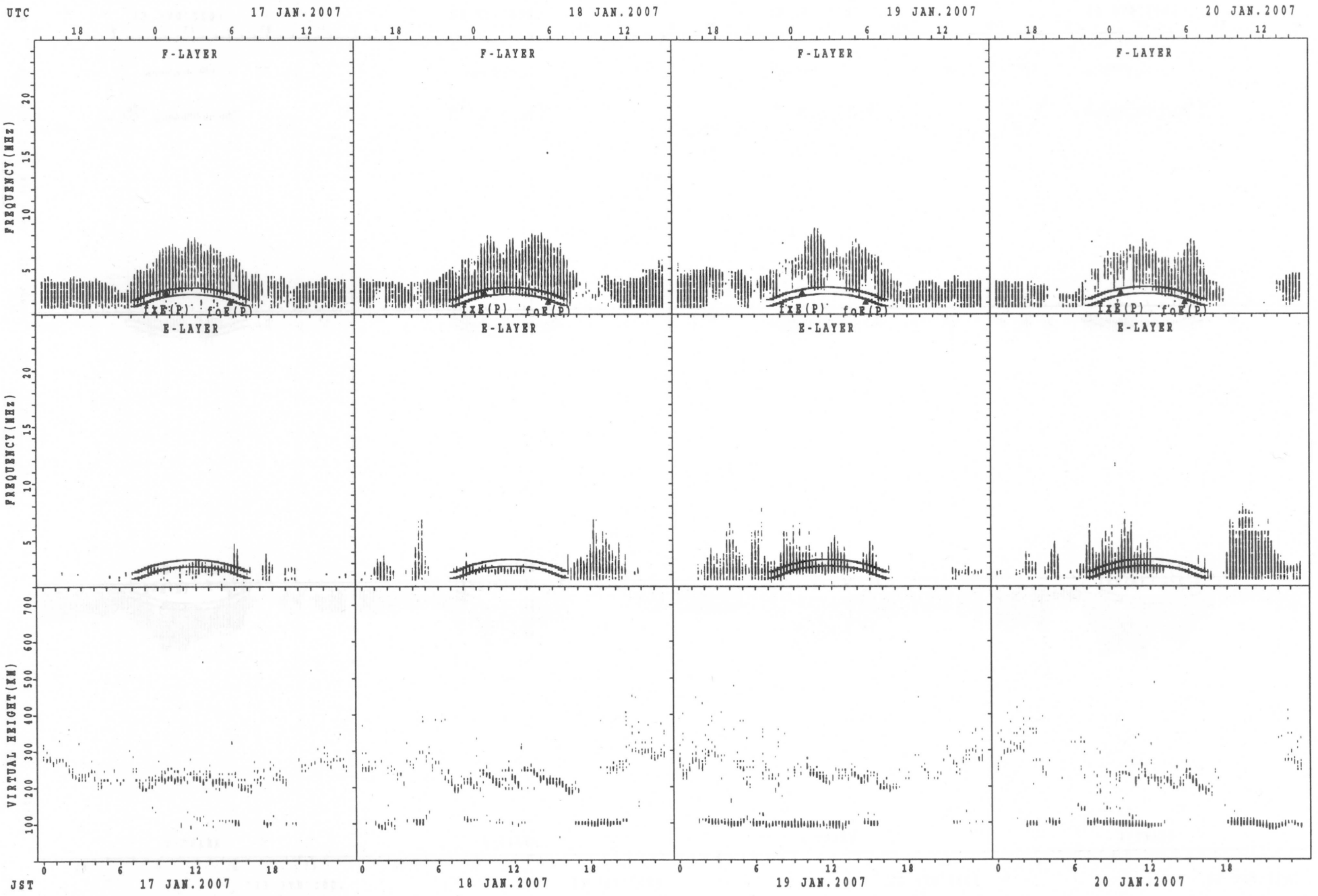

SUMMARY PLOTS AT Wakkanai
UTC
9 JAN.2007
10 JAN.2007
11 JAN.2007
12 JAN.2007
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai

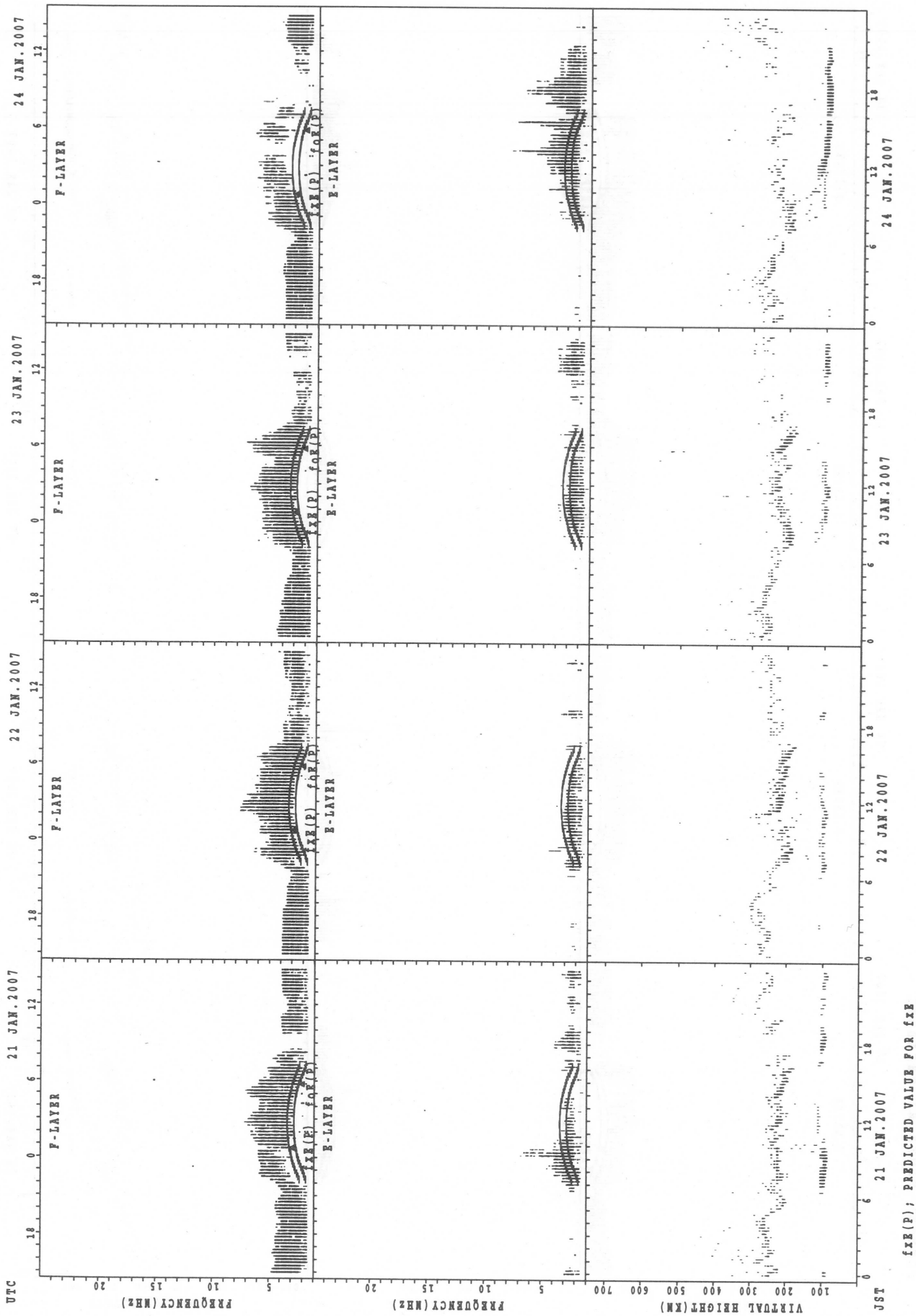


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

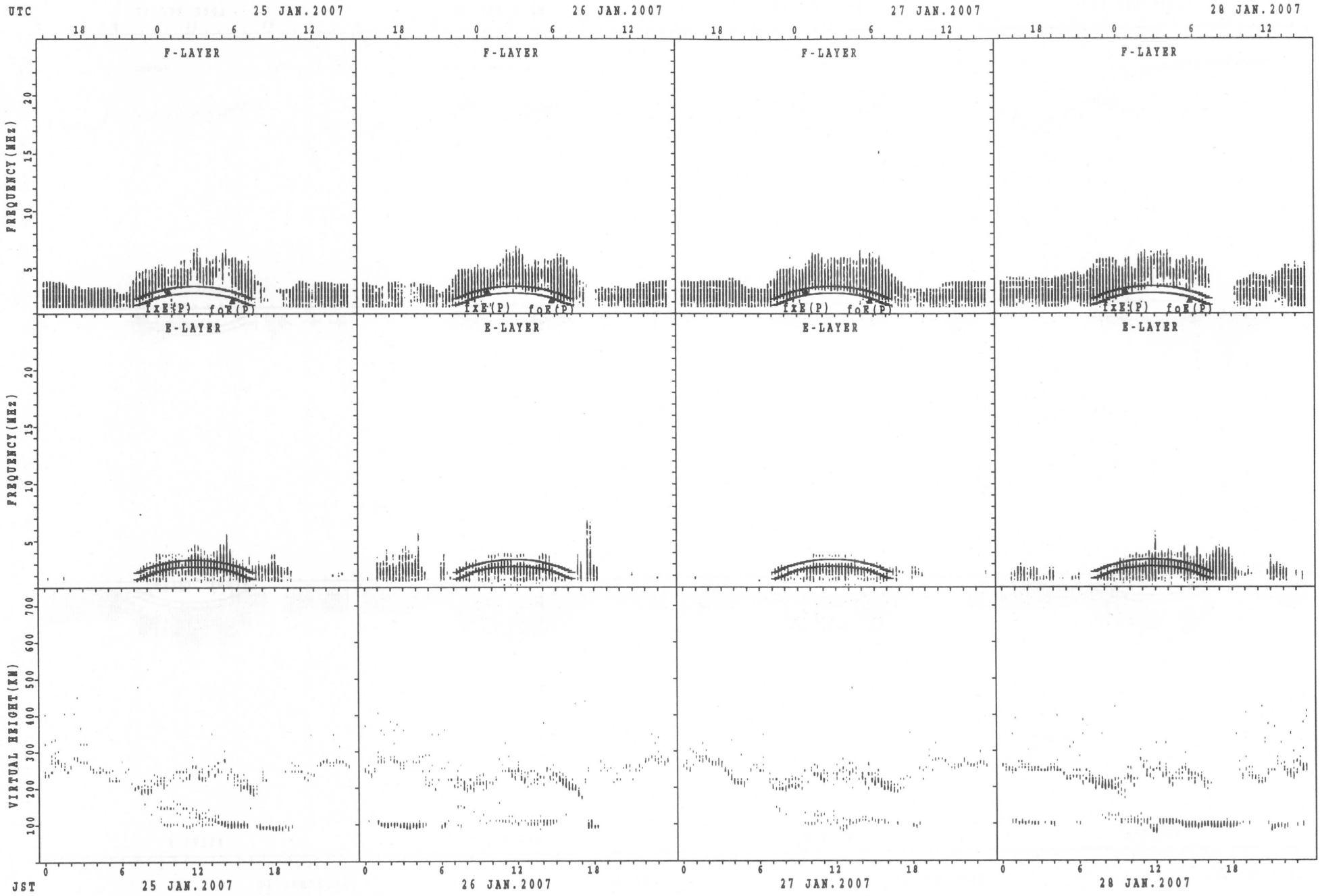
SUMMARY PLOTS AT Wakkanai



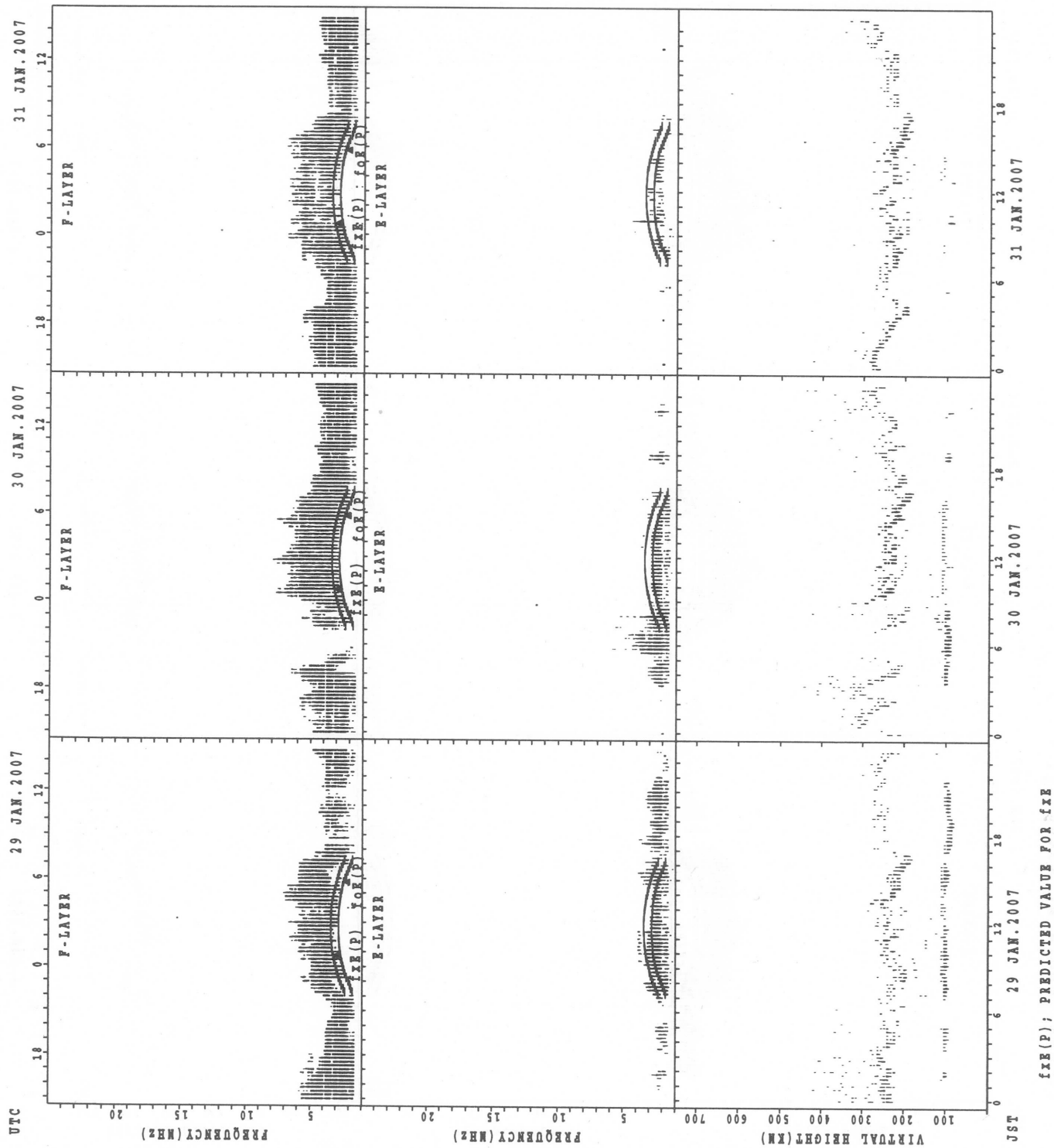
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

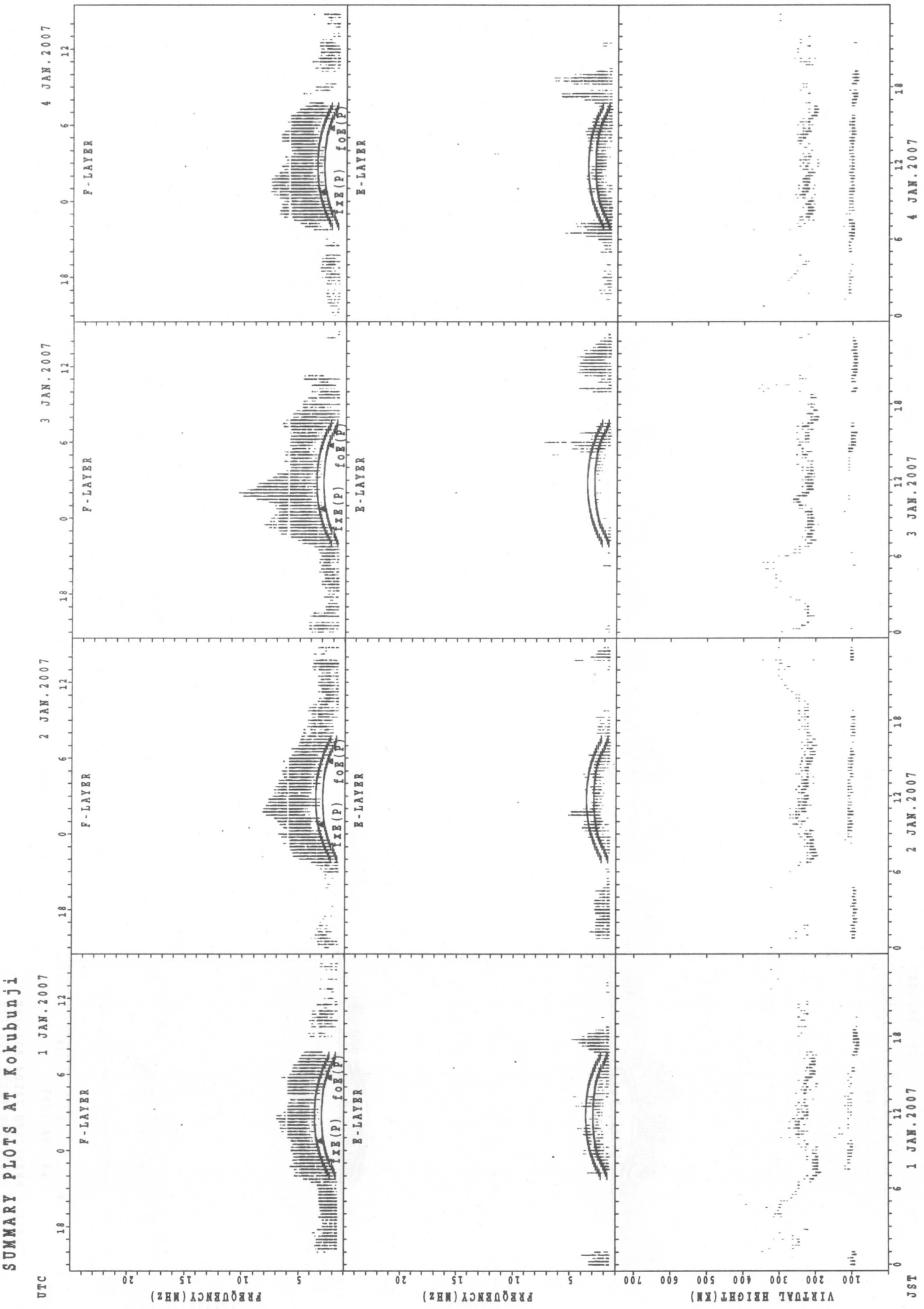

SUMMARY PLOTS AT Wakkanai
UTC
21 JAN.2007
22 JAN.2007
23 JAN.2007
24 JAN.2007
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P) foE(P)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai

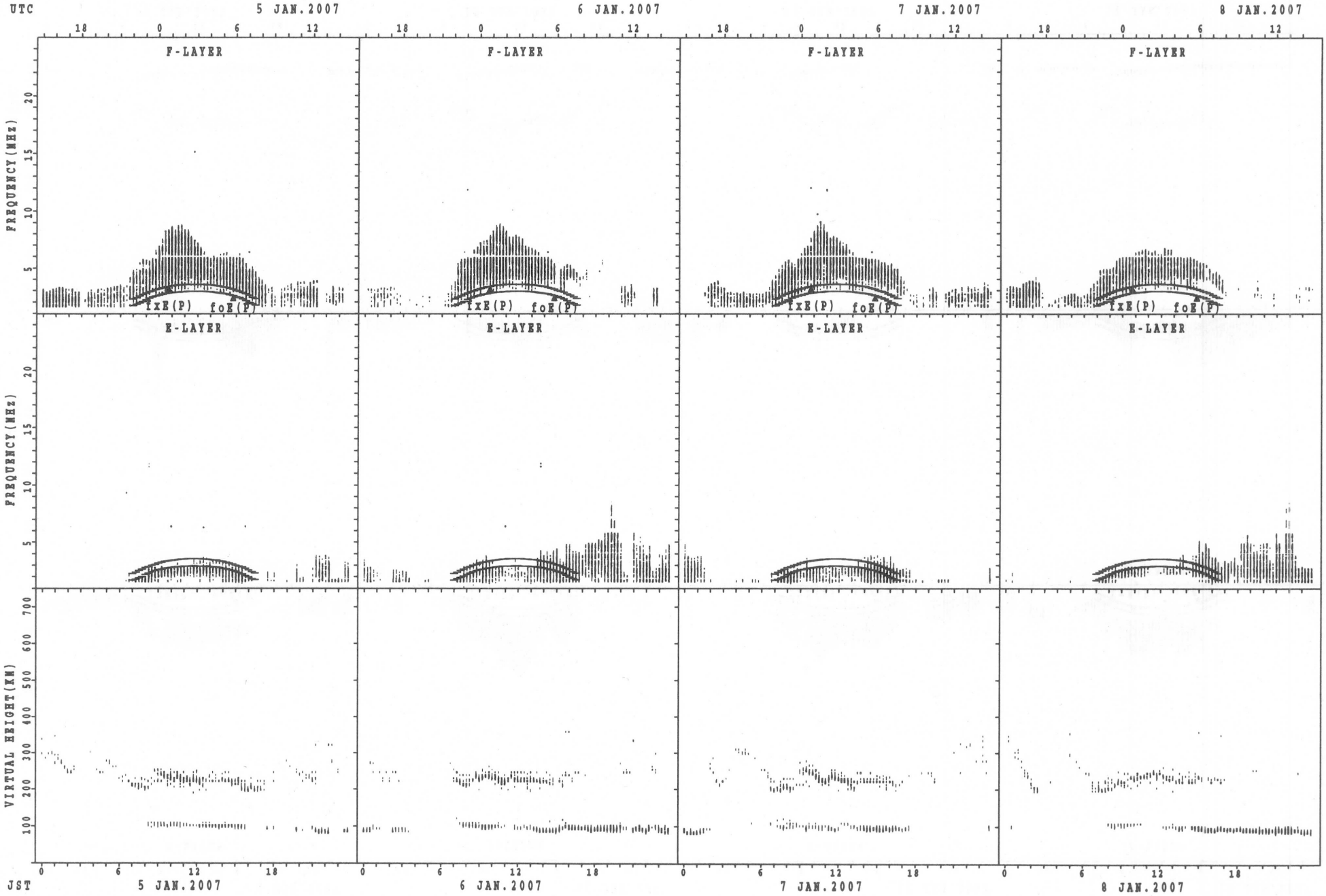


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Wakkanai
UTC
JST
29 JAN.2007
30 JAN.2007
31 JAN.2007
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

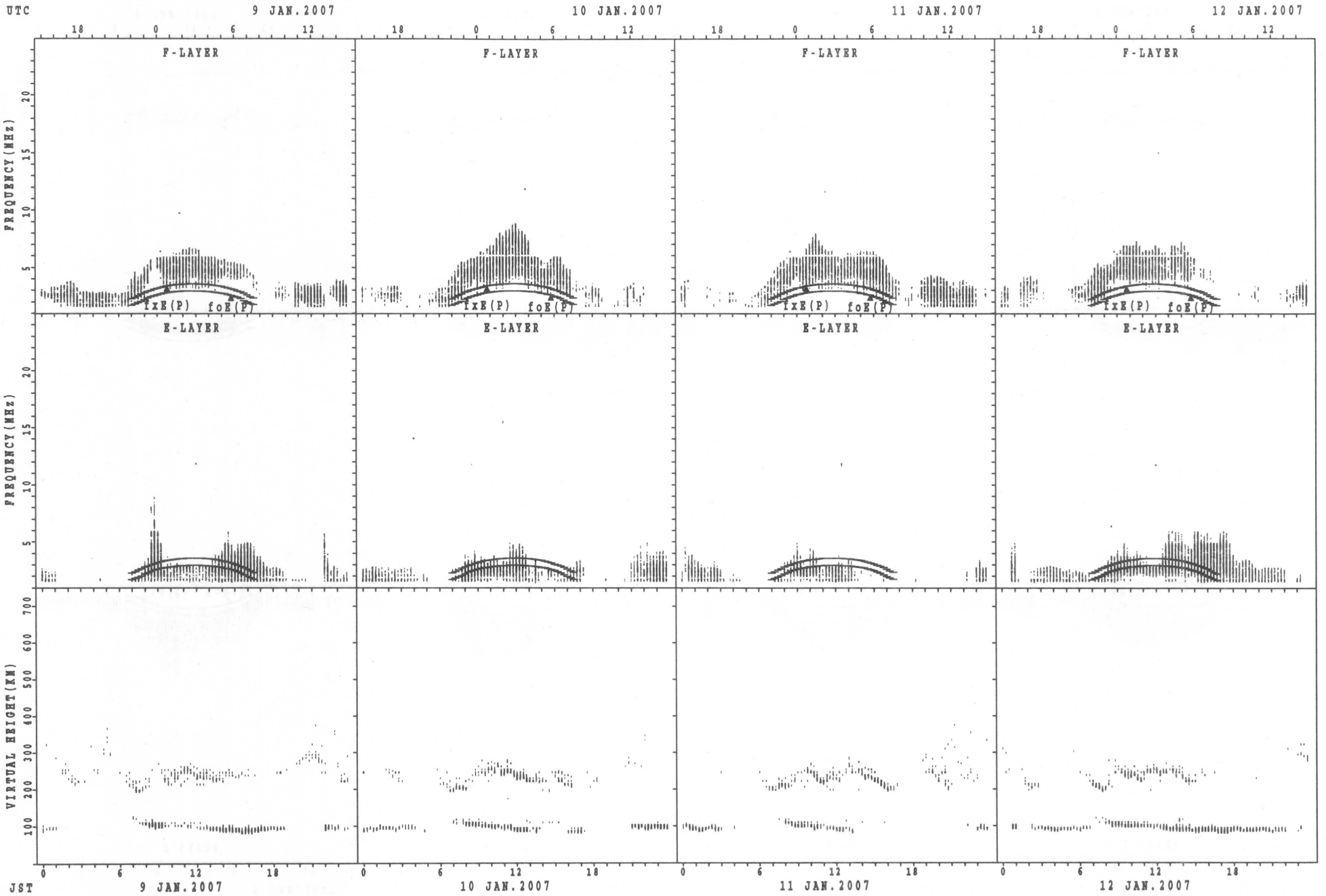

SUMMARY PLOTS AT Kokubunji
UTC
JST
1 JAN.2007
2 JAN.2007
3 JAN.2007
4 JAN.2007
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



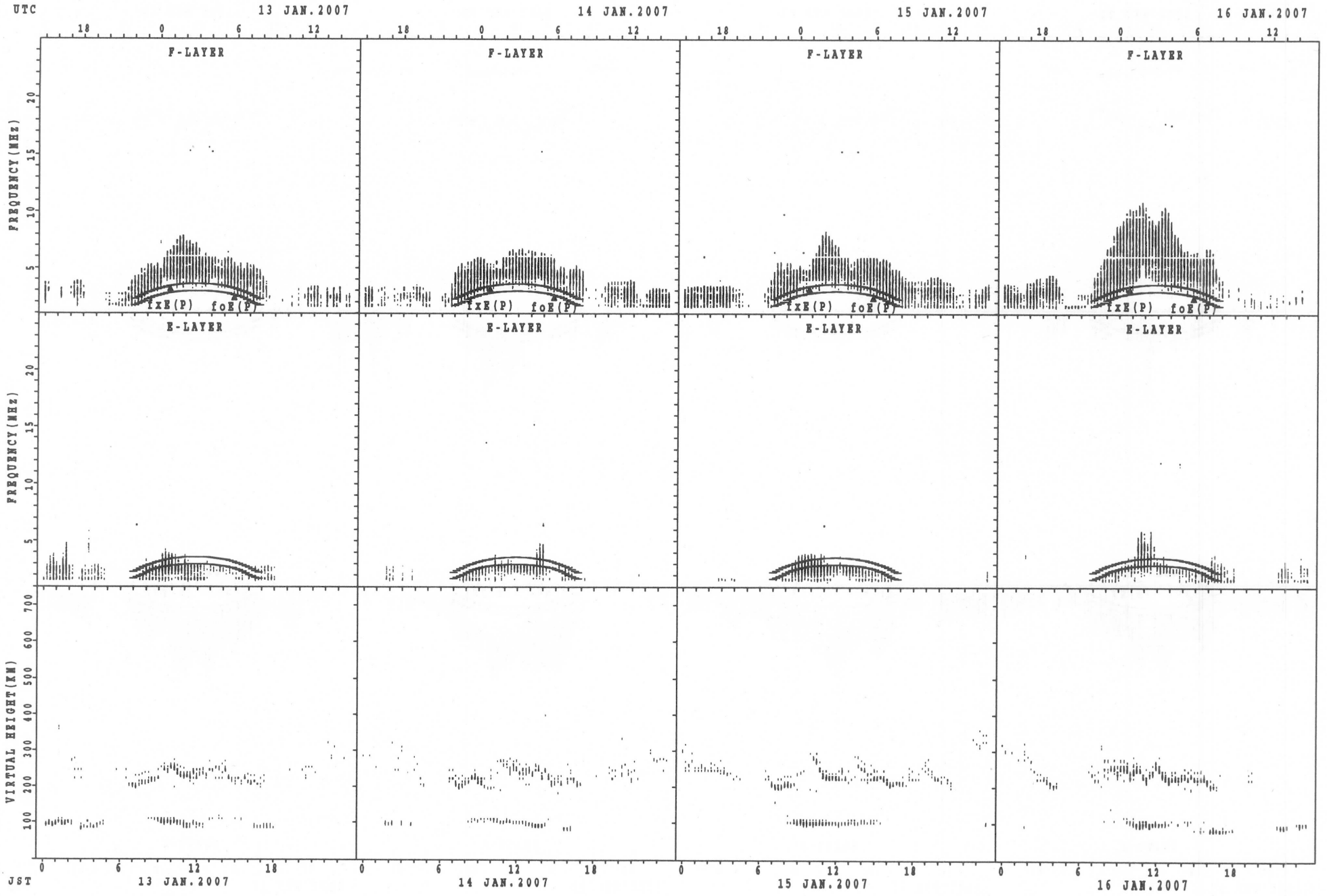
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



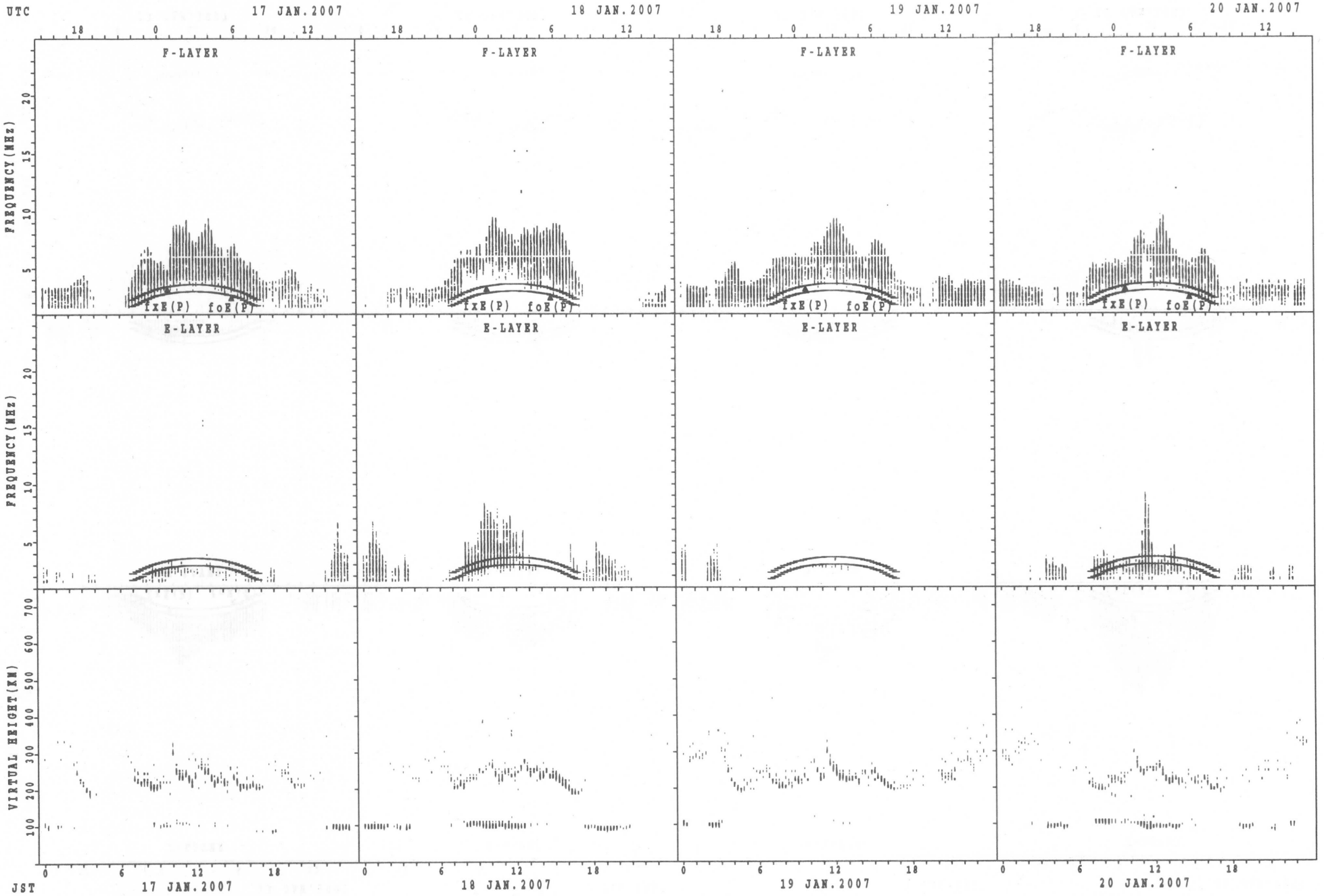
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



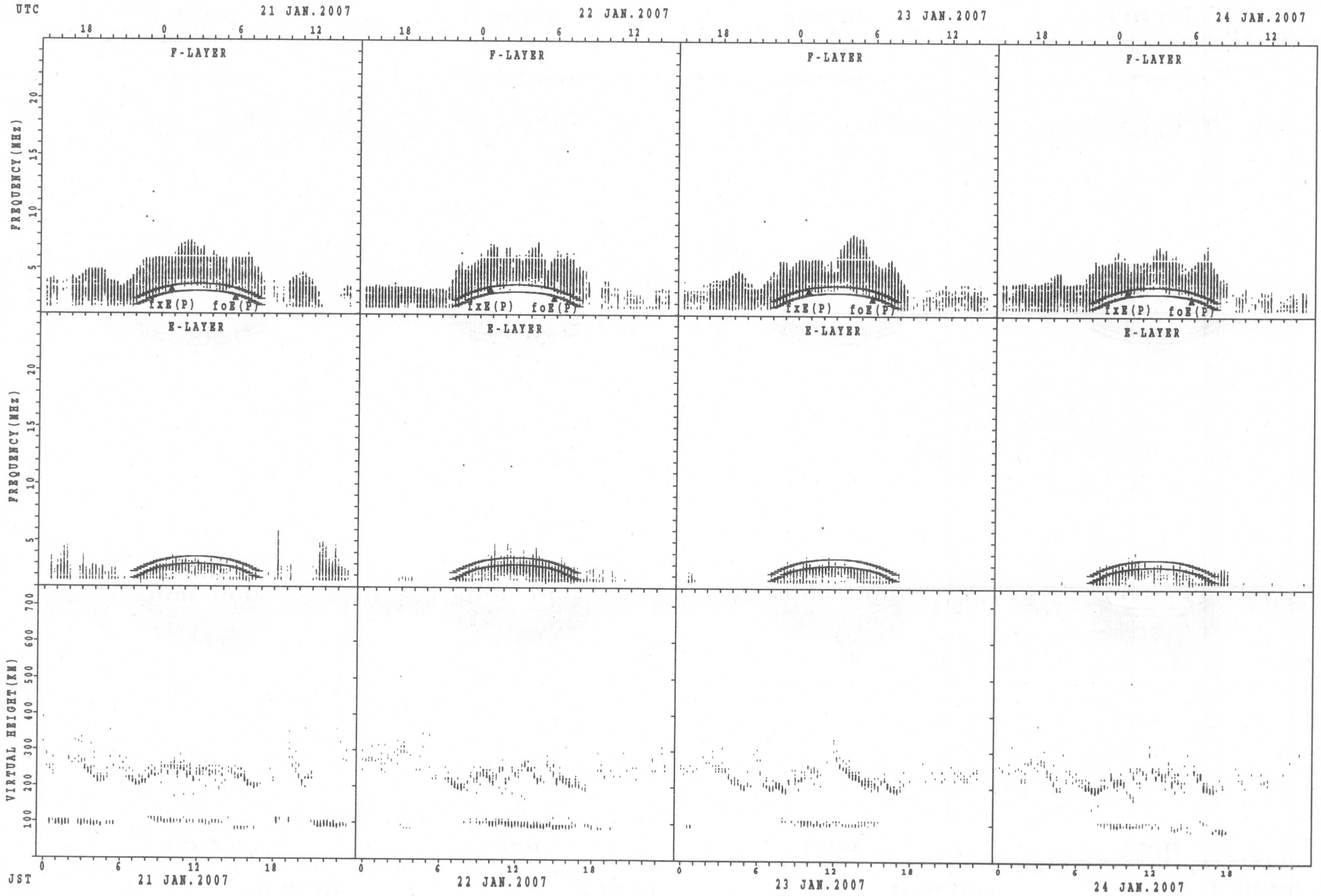
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



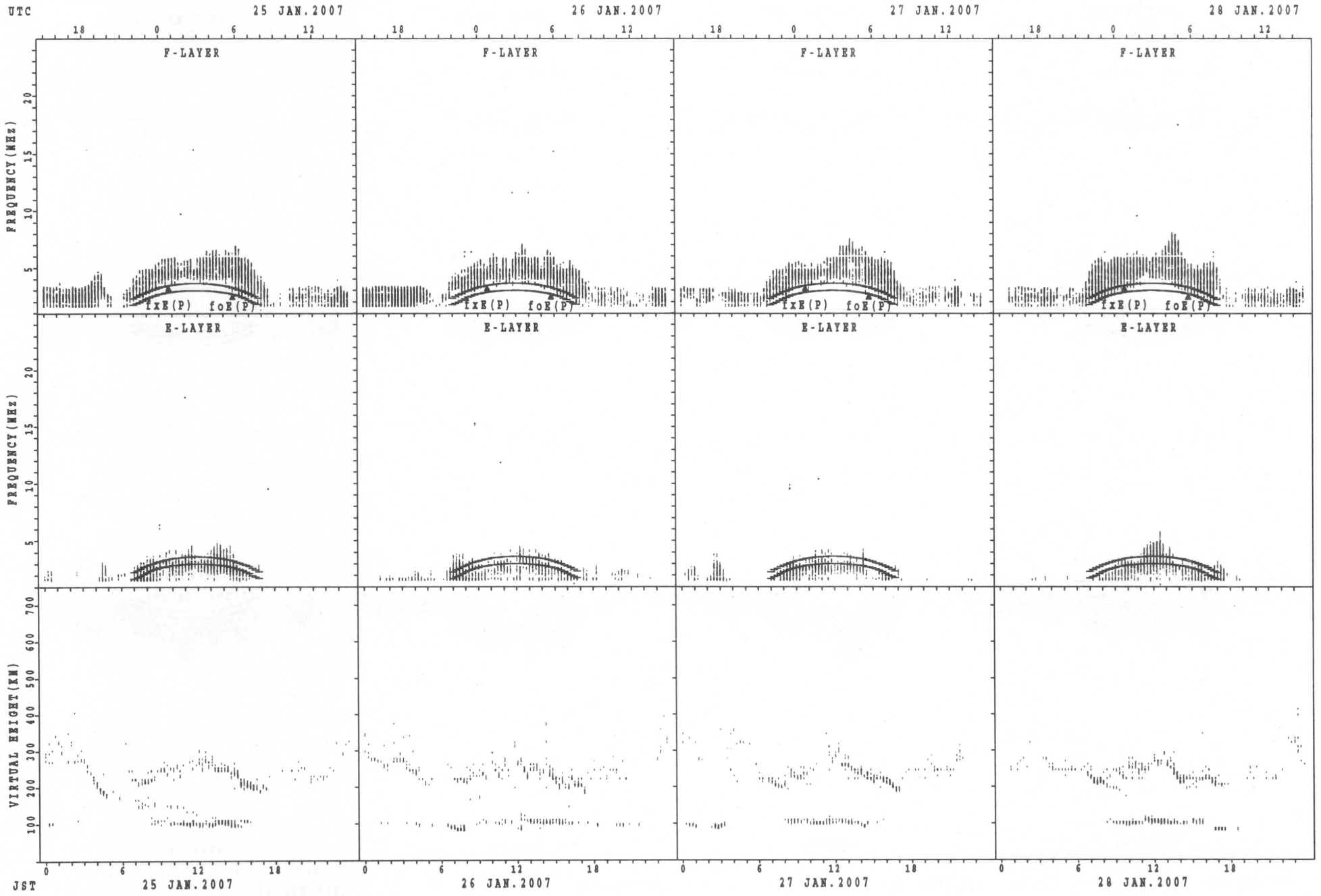
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



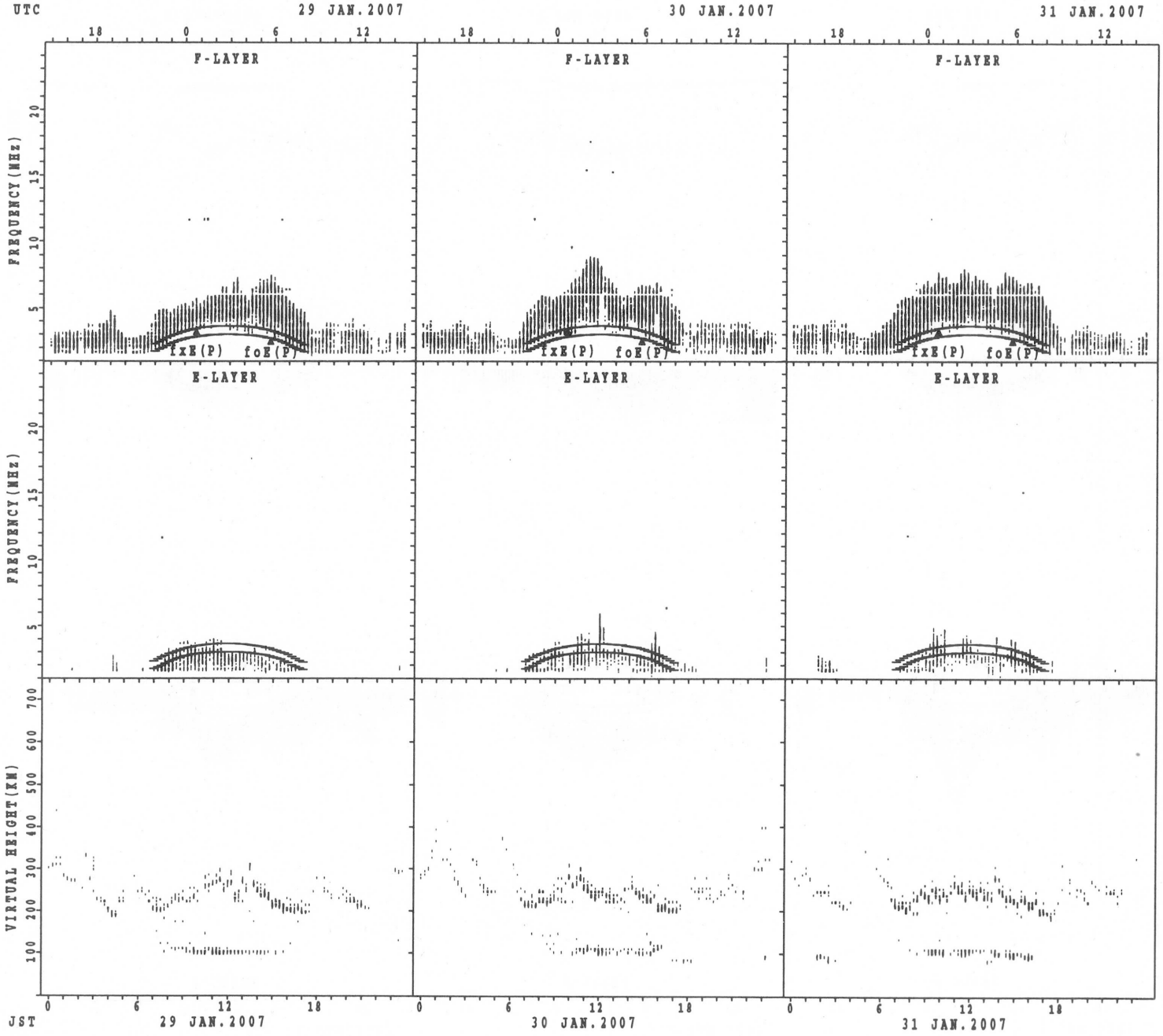
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



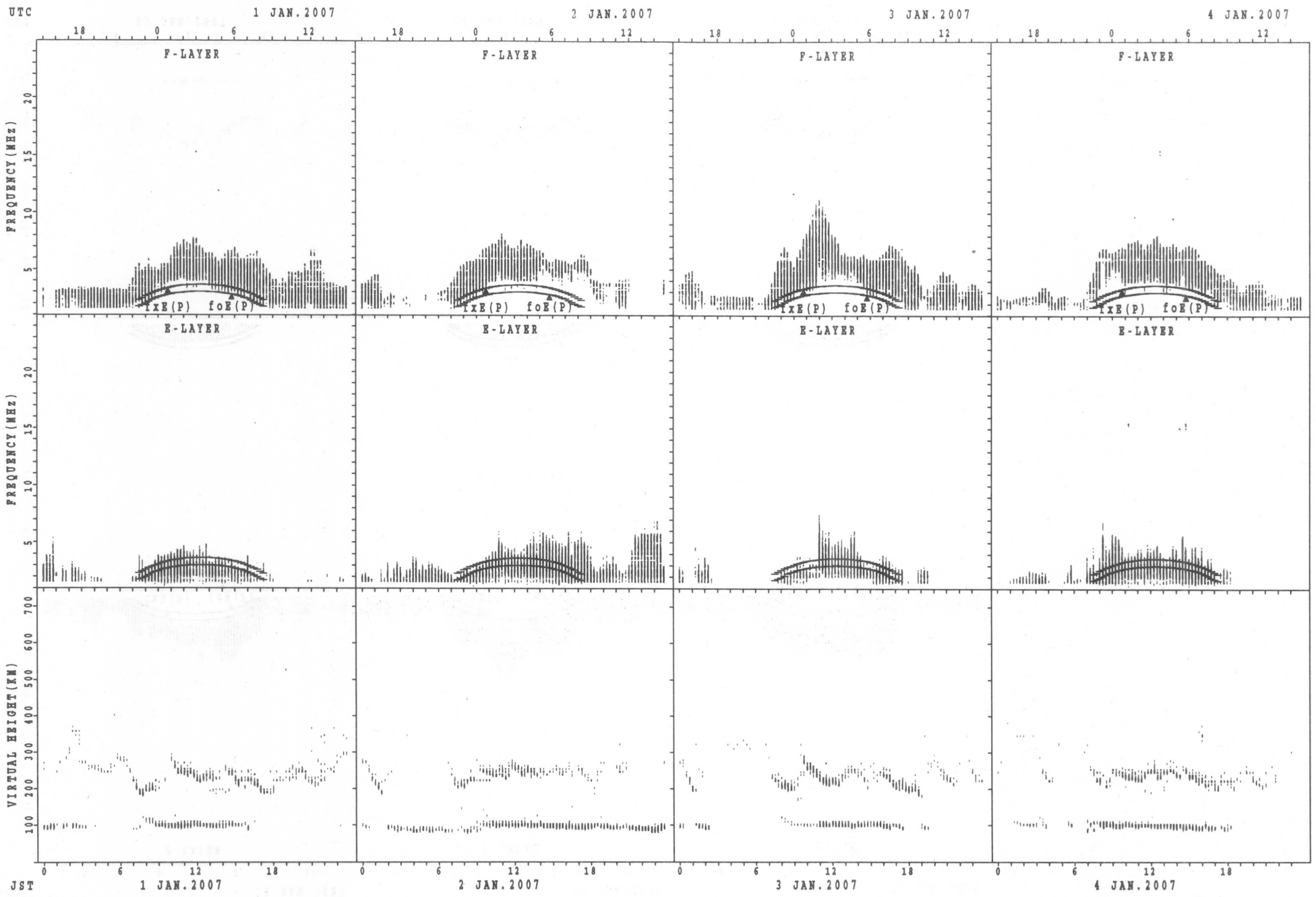
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji

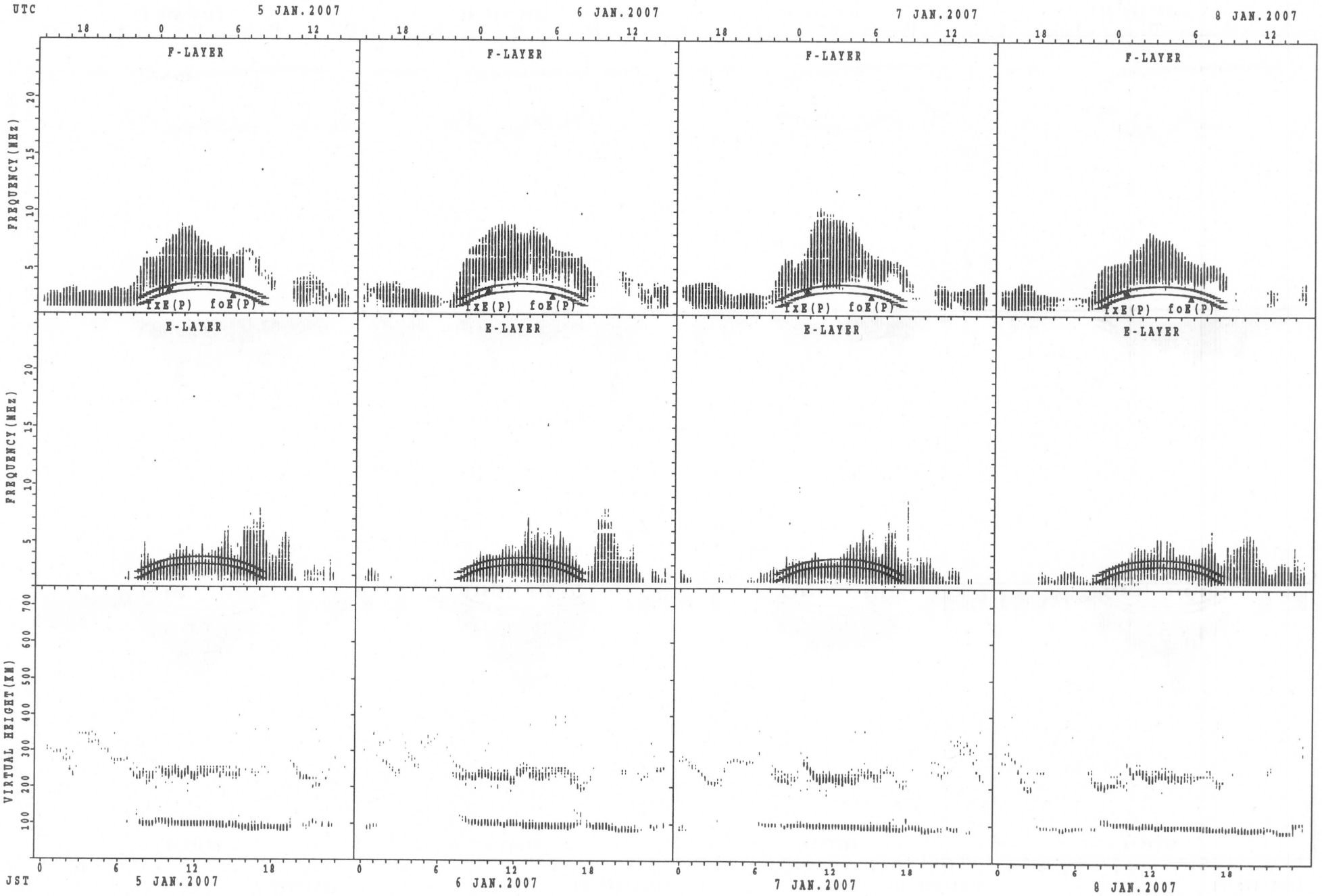


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

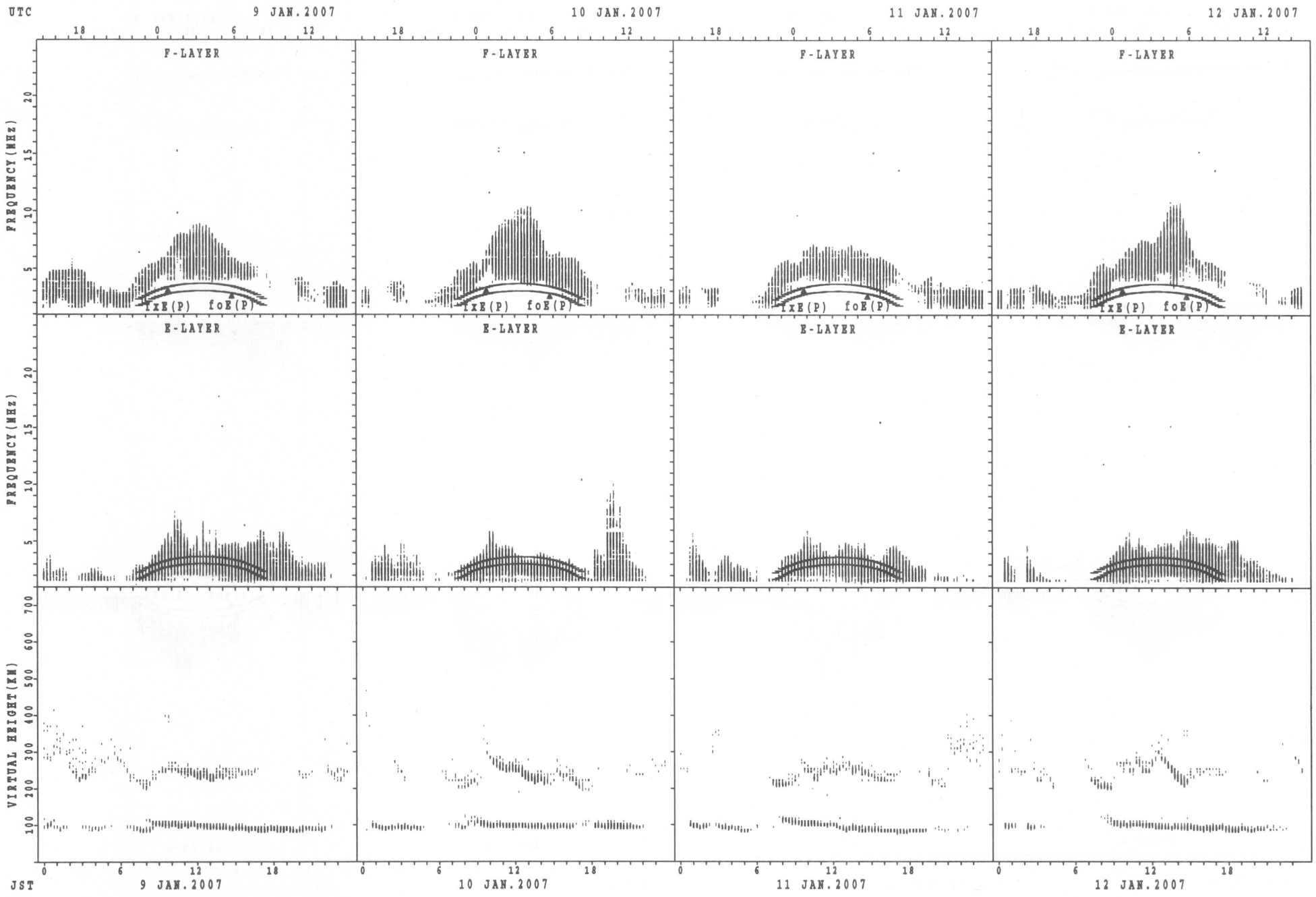
SUMMARY PLOTS AT Yamagawa



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

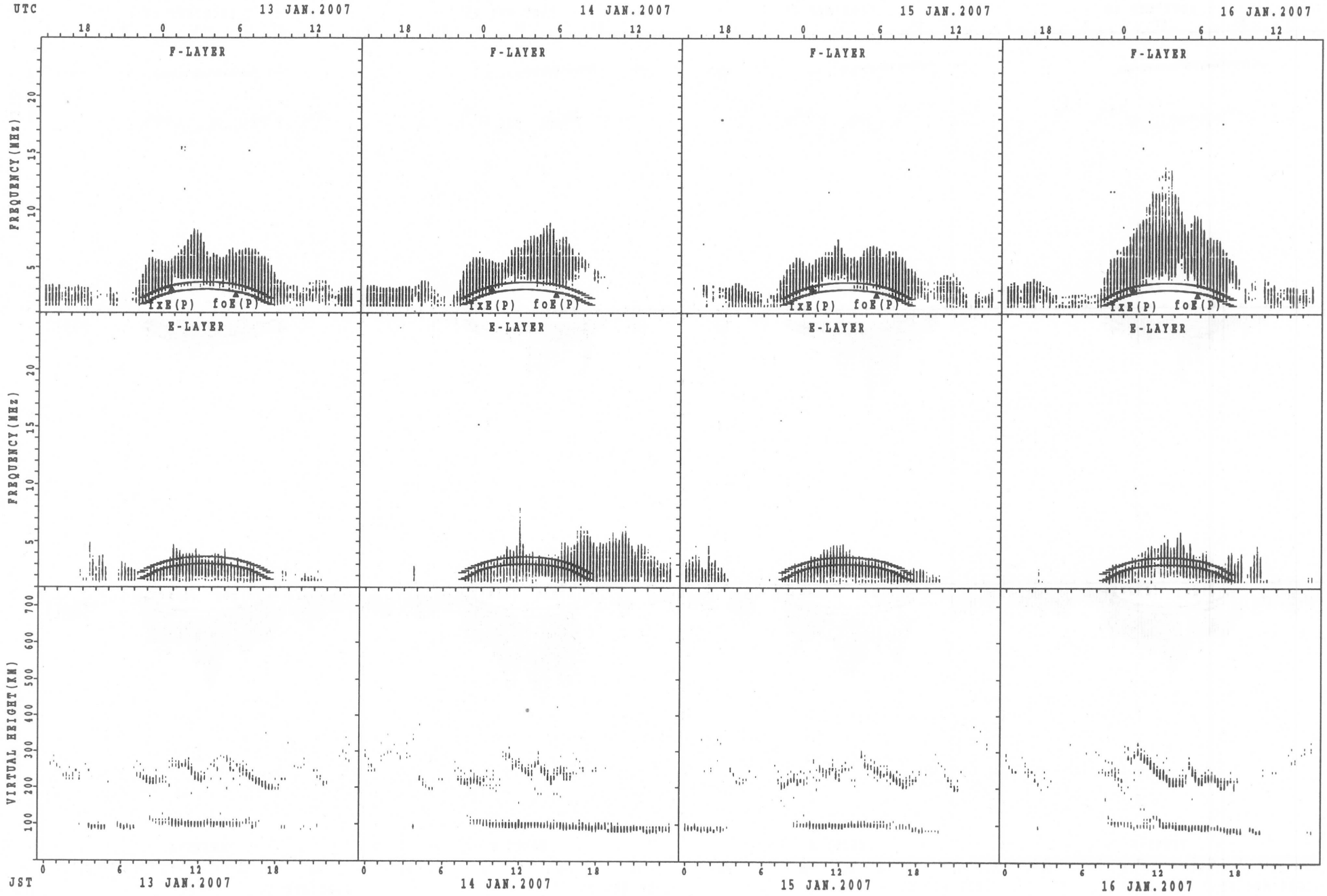

SUMMARY PLOTS AT Yamagawa
UTC
5 JAN.2007
6 JAN.2007
7 JAN.2007
8 JAN.2007
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P) foE(P)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



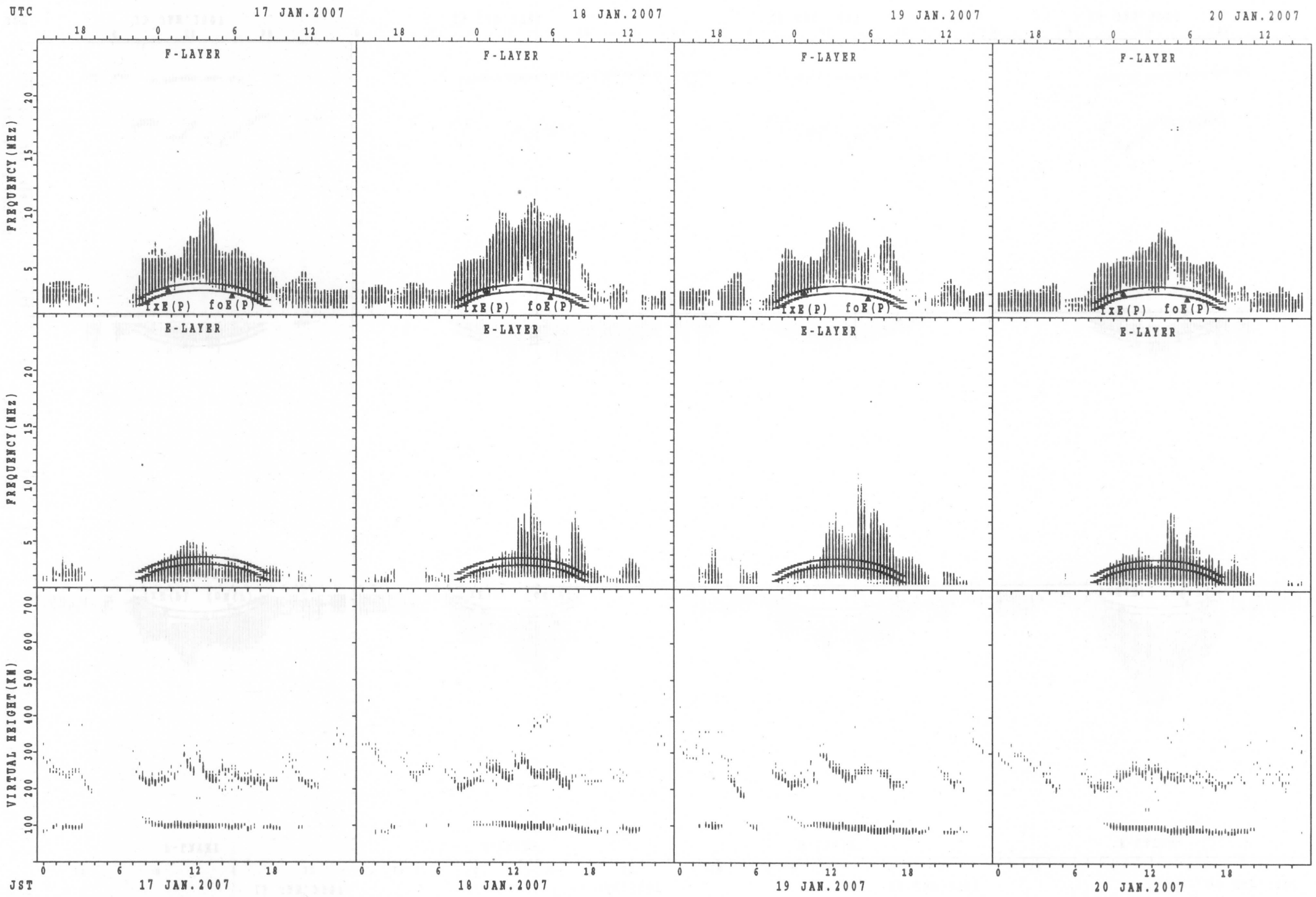
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



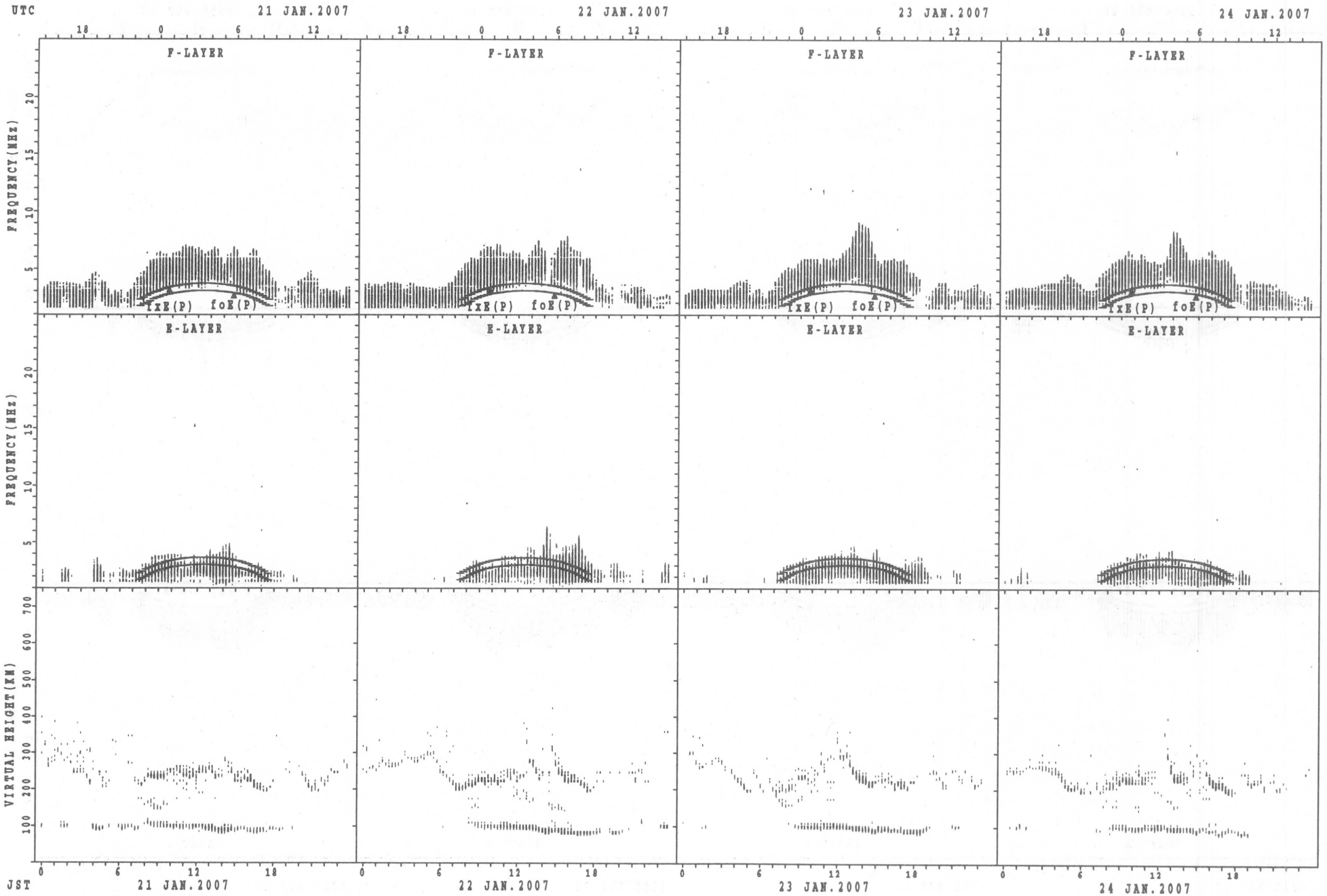
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa

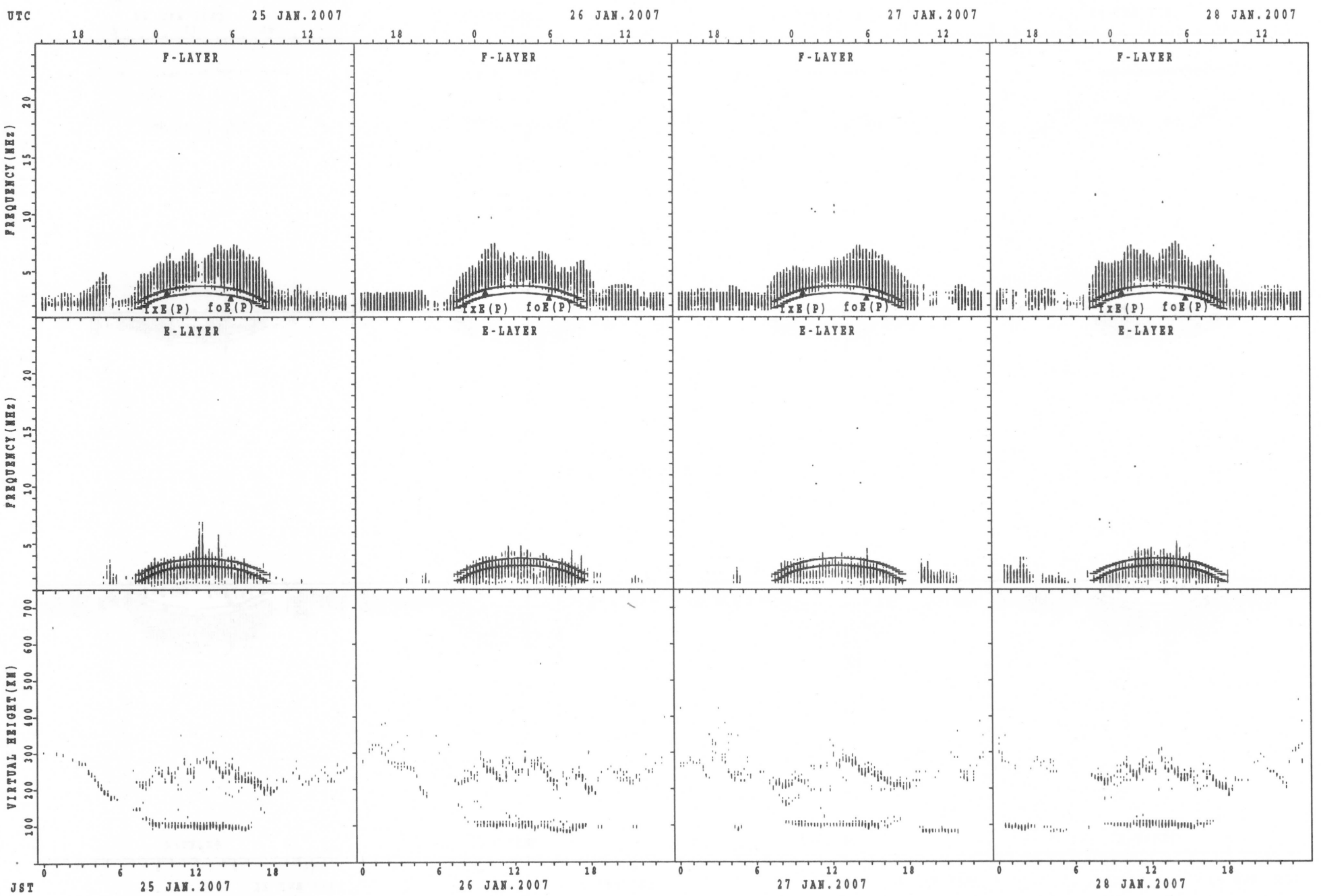


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

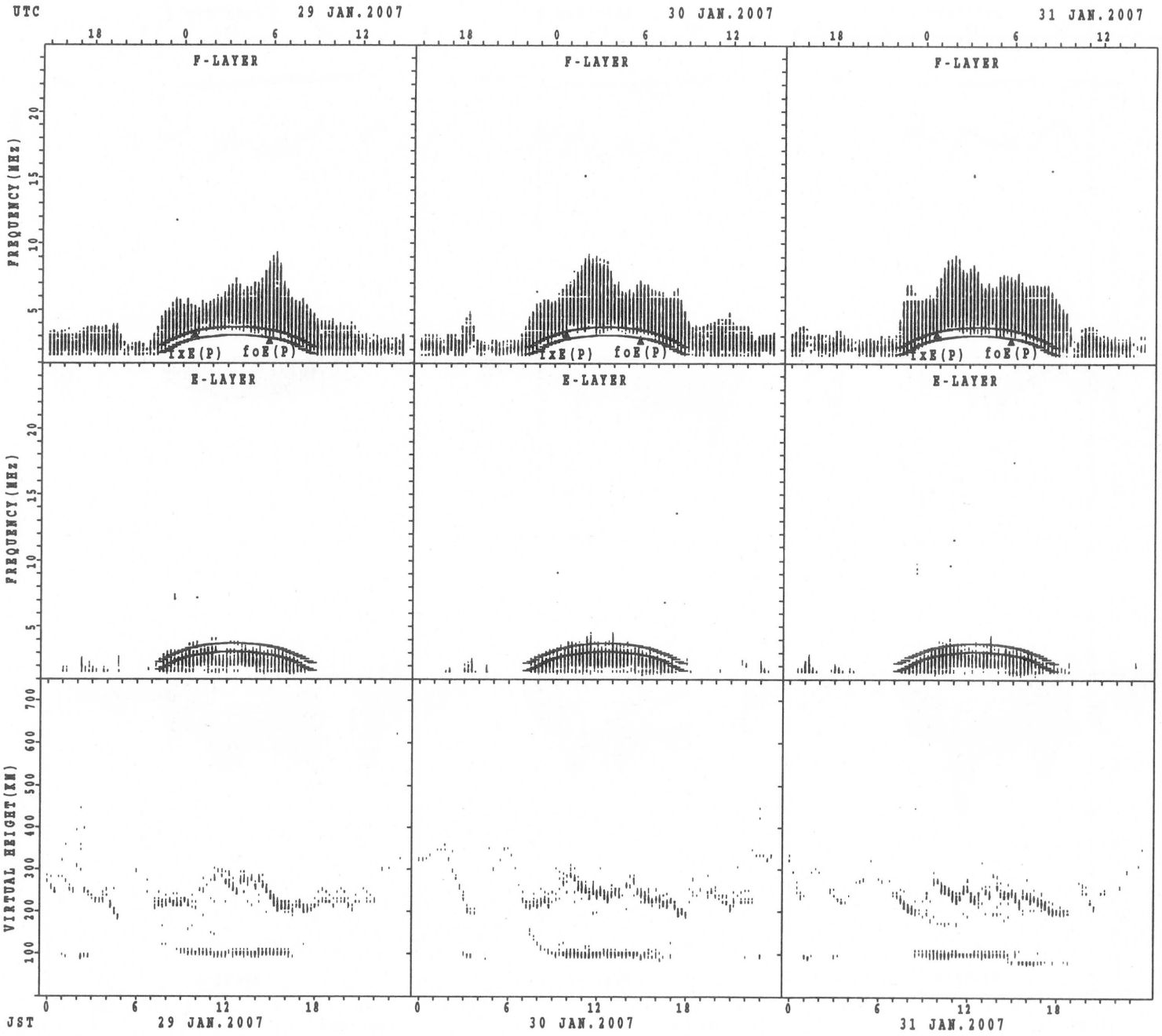
SUMMARY PLOTS AT Yamagawa



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

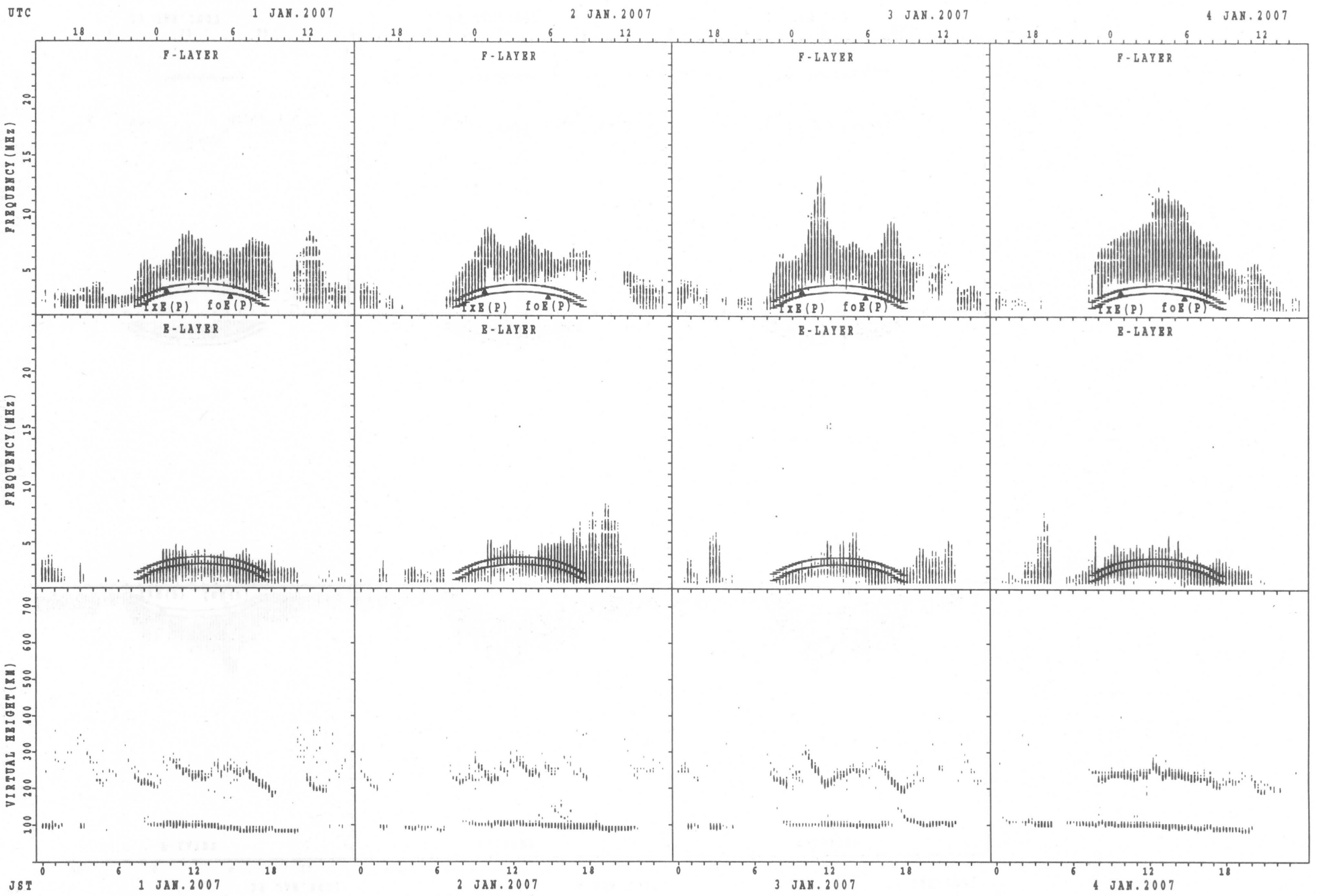

SUMMARY PLOTS AT Yamagawa
UTC
25 JAN.2007
26 JAN.2007
27 JAN.2007
28 JAN.2007
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
foE(P)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



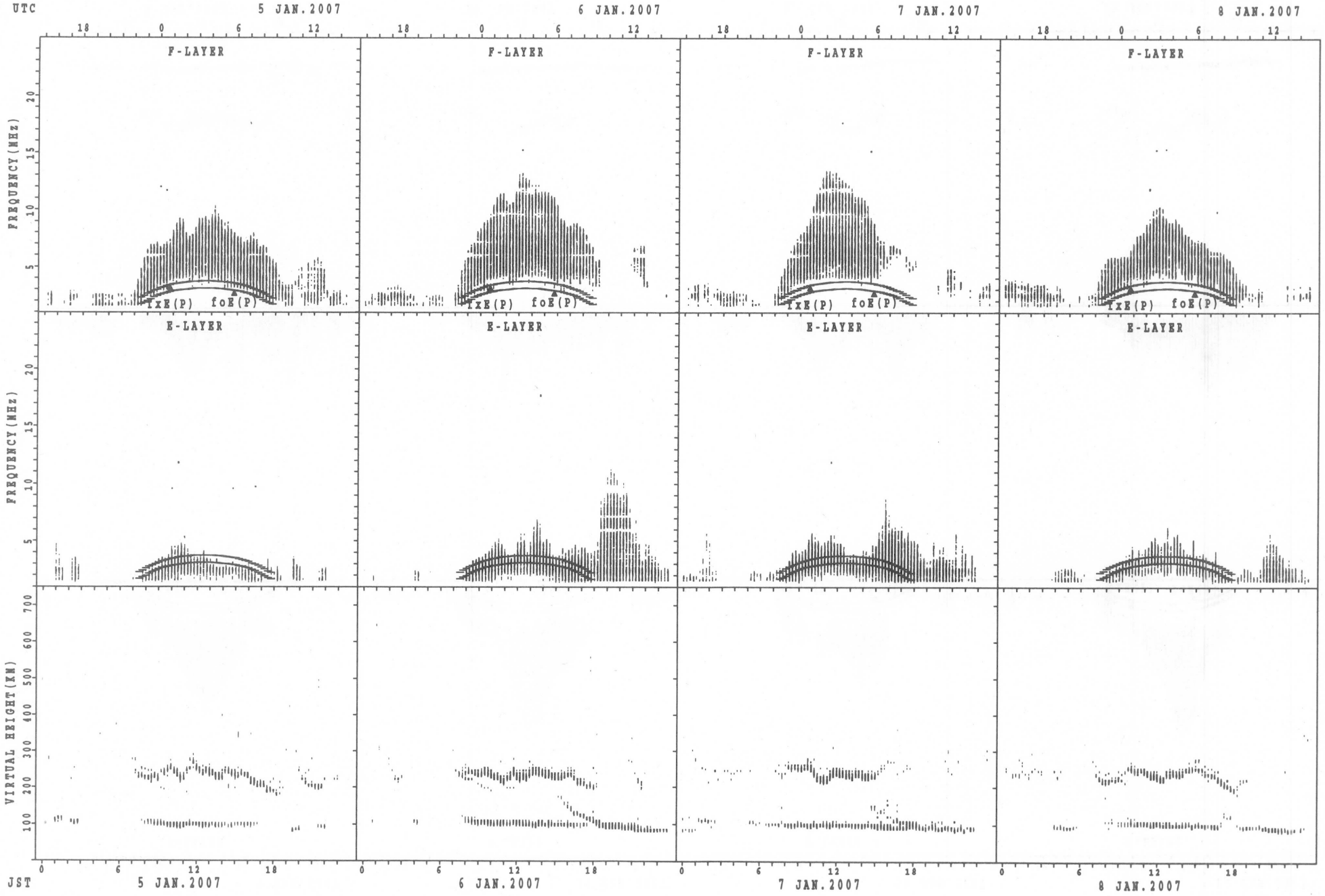
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



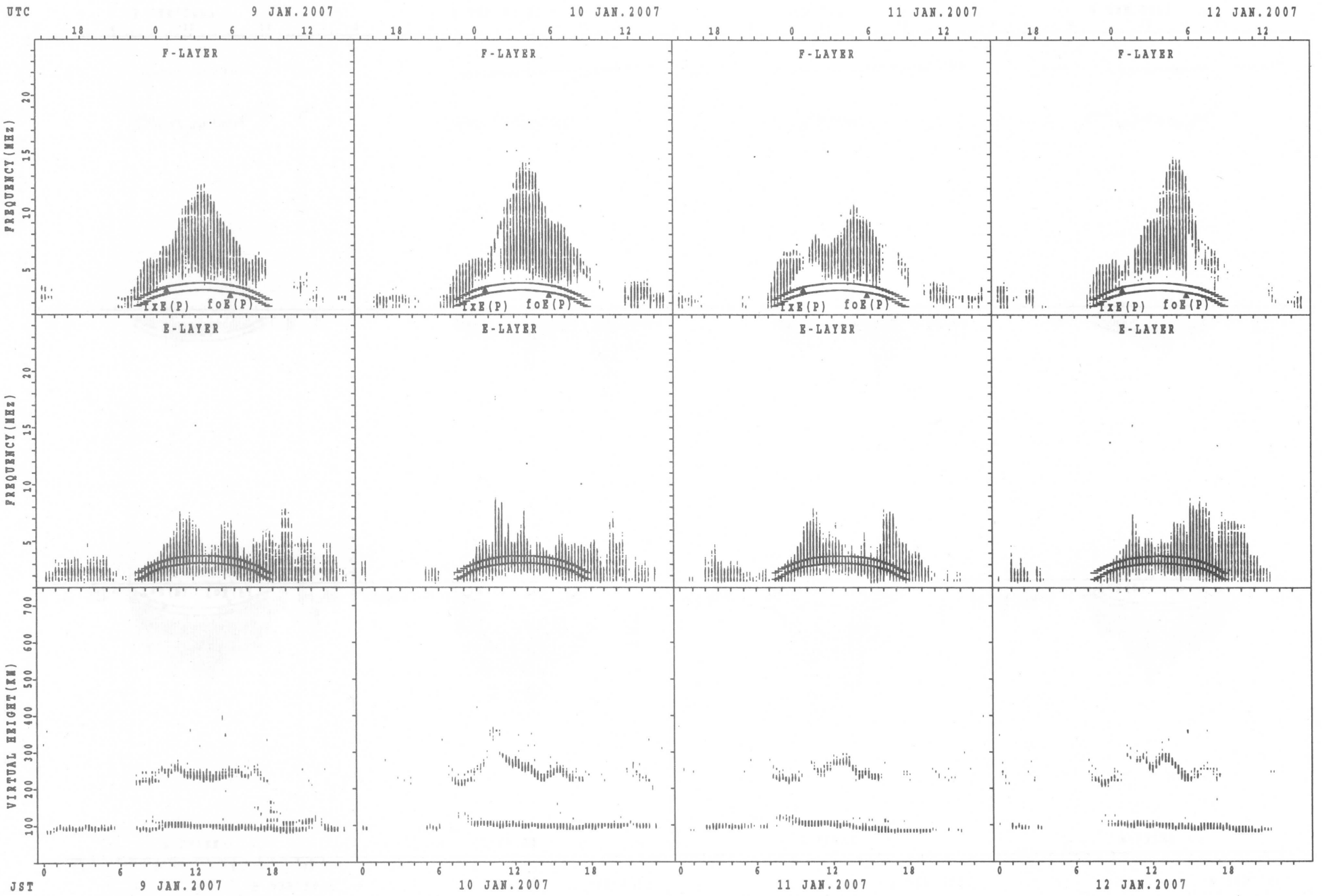
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



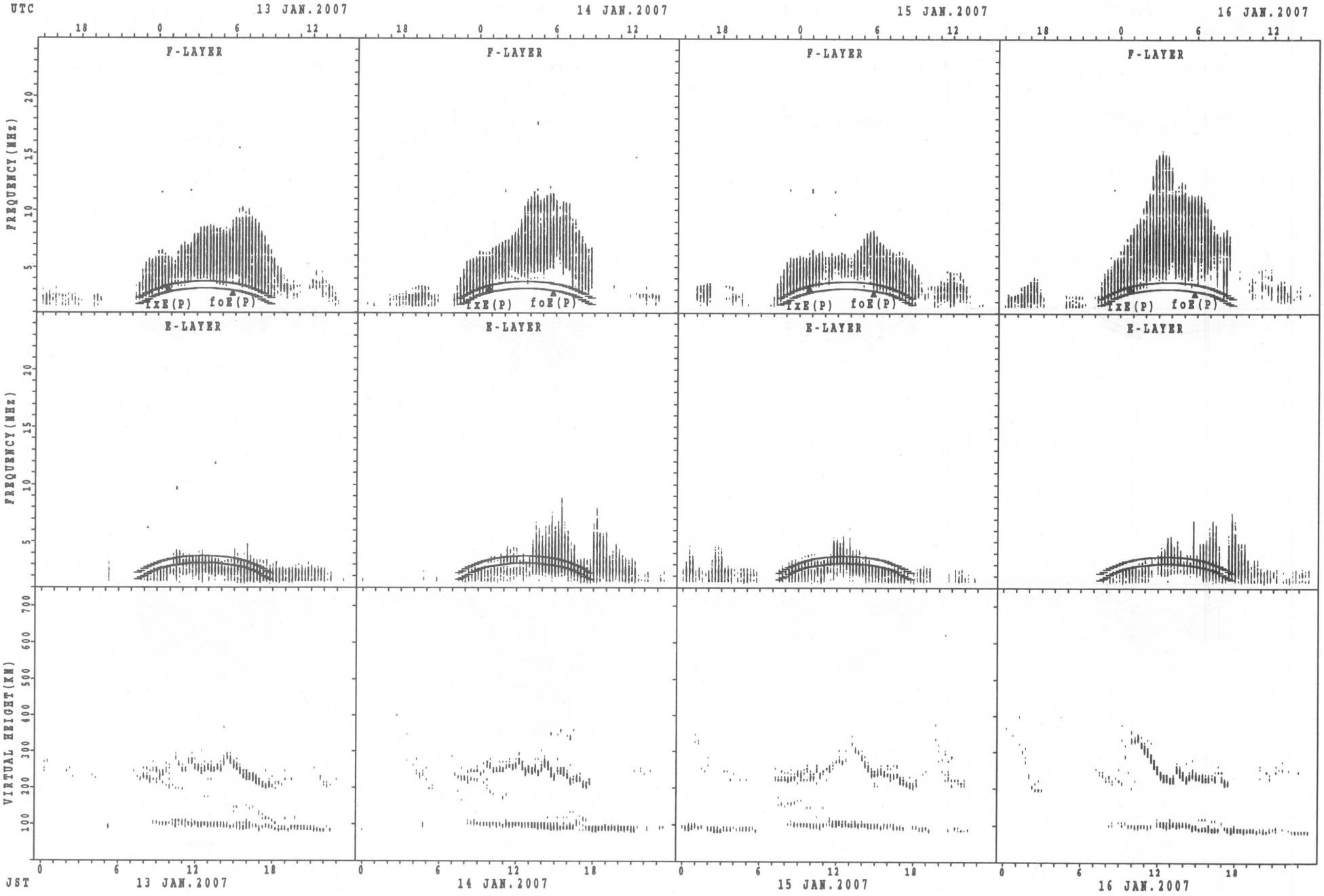
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



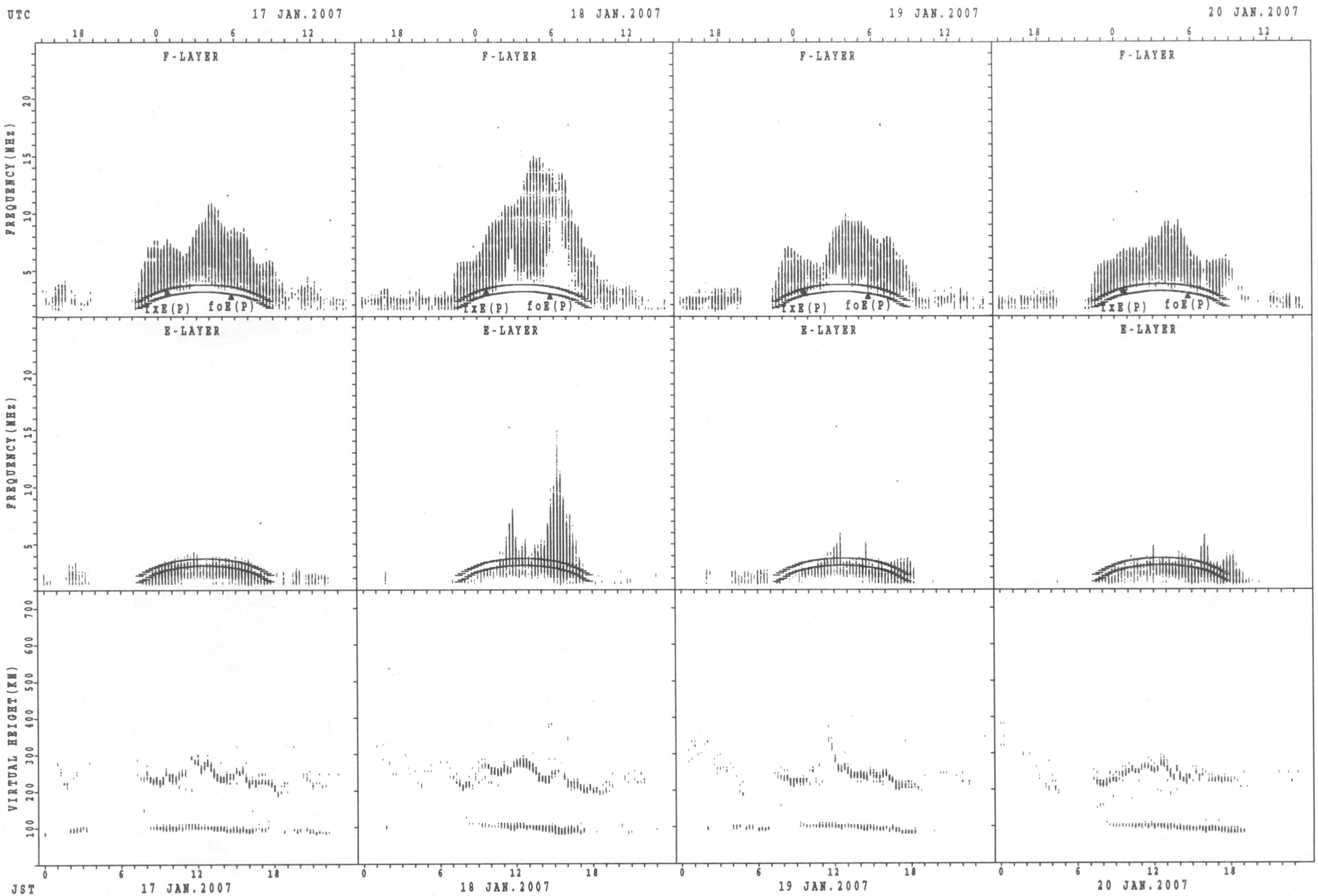
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



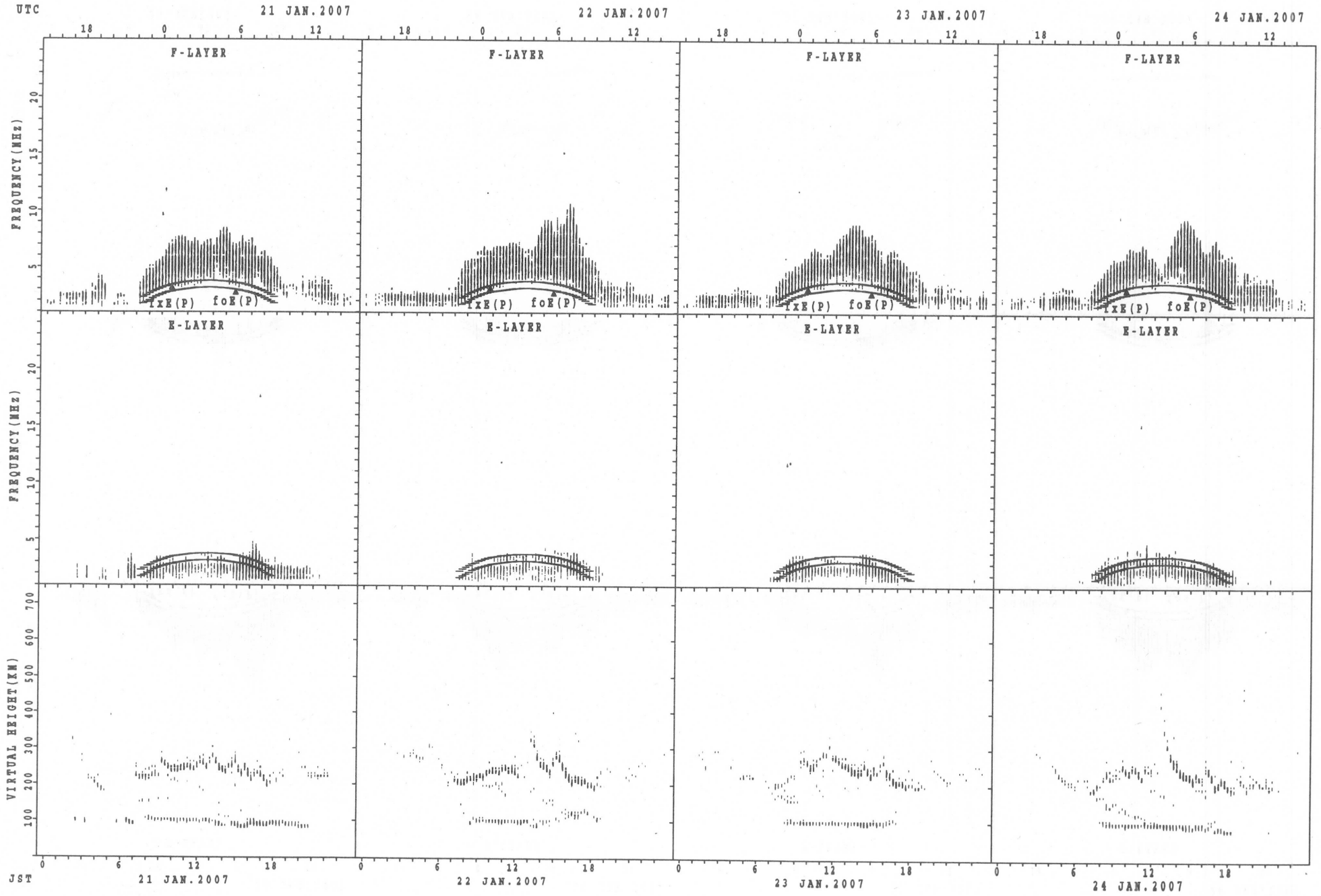
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



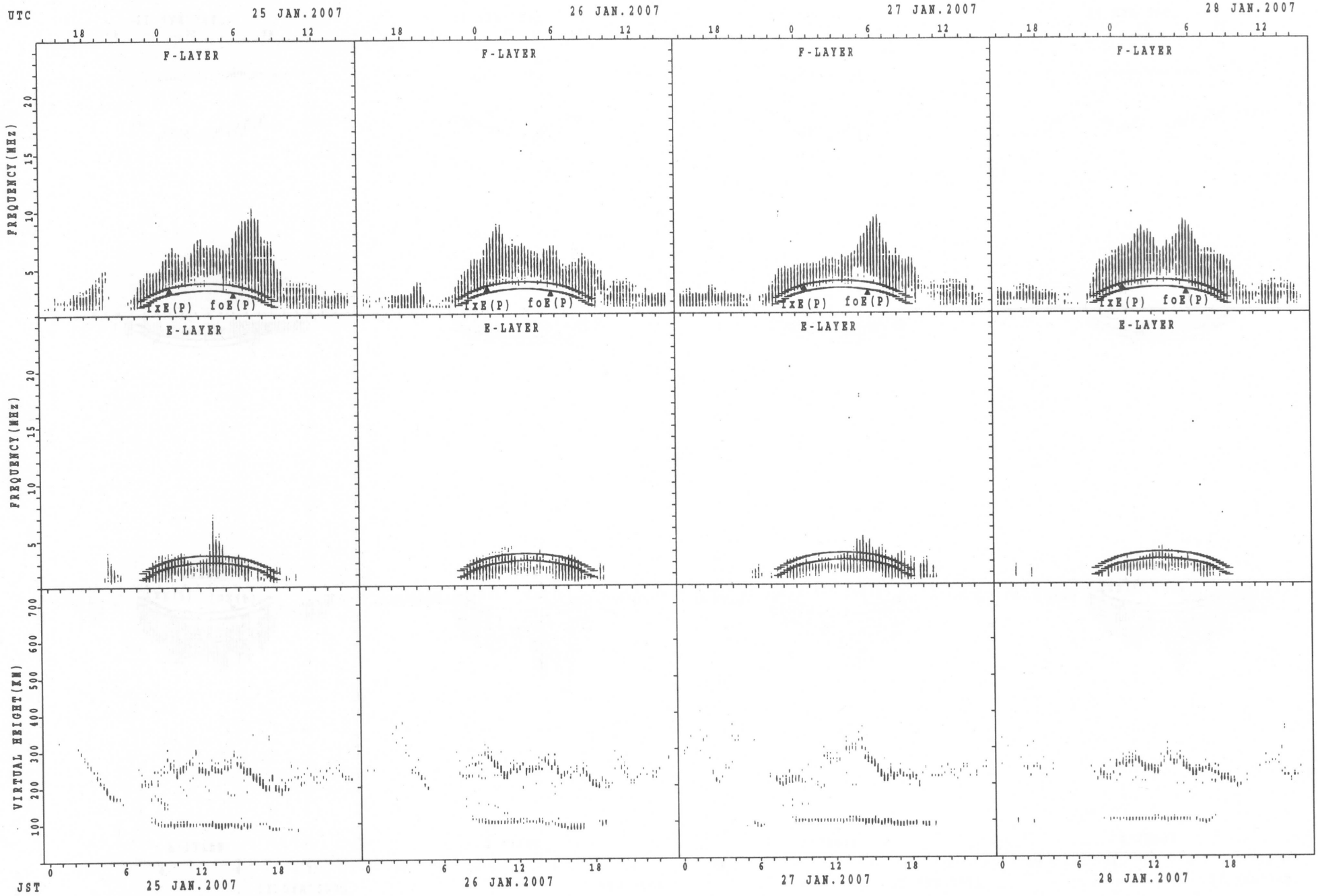
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



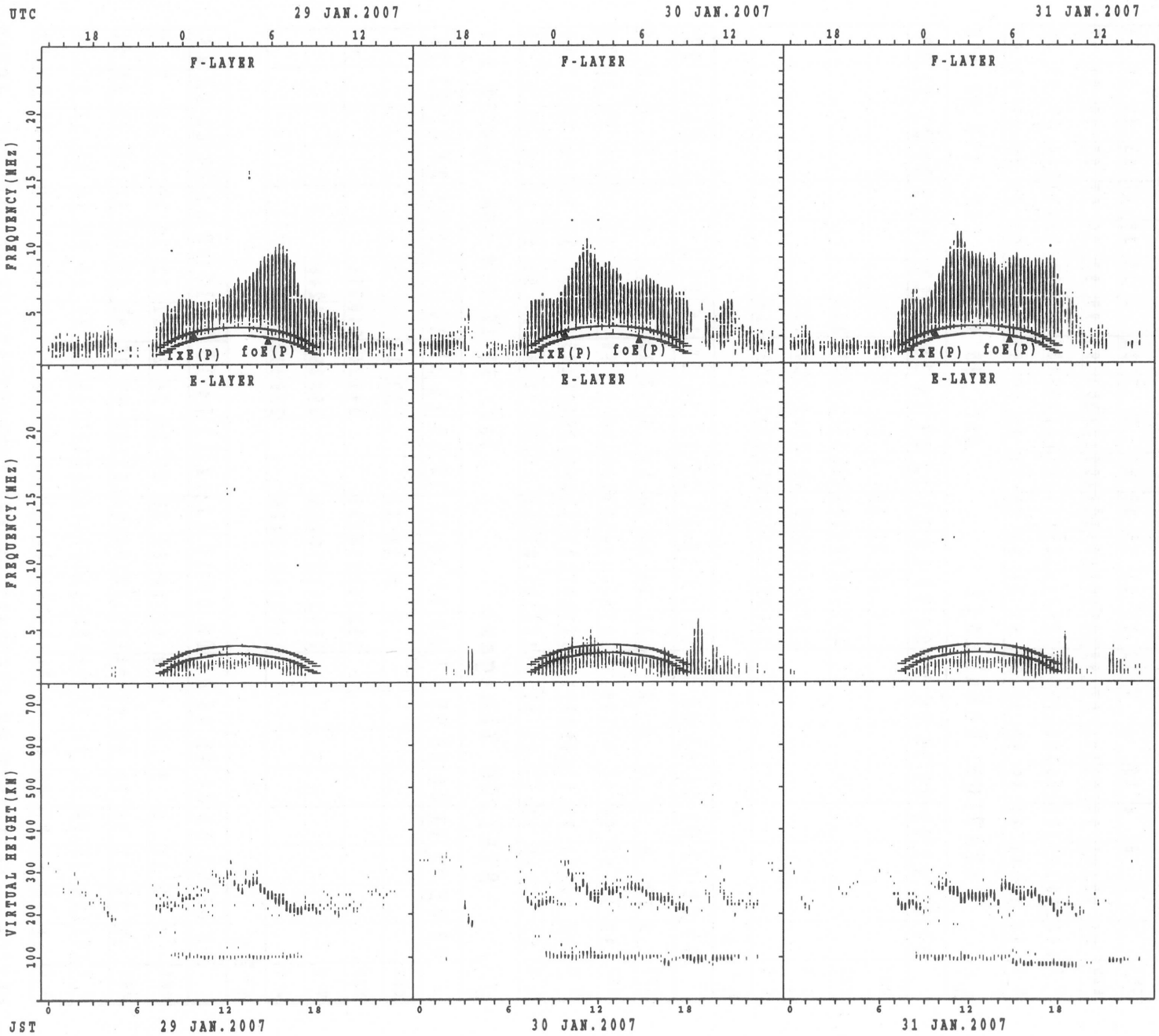
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



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

SUMMARY PLOTS AT Okinawa



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

MONTHLY MEDIANS OF h'F AND h'Es

JAN. 2007 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					1				4	9	19	23	15	15	13	7	1	1						
MED					290				225	234	230	242	228	240	236	238	216	208						
U Q					145				240	242	240	266	238	252	250	238	108	104						
L Q					145				223	230	224	222	226	228	228	230	108	104						

h'Es

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	9	9	8	8	10	6	7	12	15	11	15	10	10	5	7	11	6	15	18	17	13	15	18	14
MED	95	99	101	98	101	101	97	99	105	103	103	101	100	103	103	99	99	97	96	97	97	95	97	97
U Q	100	106	109	105	105	109	103	103	109	105	113	119	117	115	103	105	101	103	99	103	104	97	99	99
L Q	90	94	93	95	99	99	97	96	97	95	95	95	93	93	99	99	99	95	93	95	95	87	93	97

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									4	10	21	14	5	11	12	10	7							
MED									237	238	254	235	232	238	246	237	222							
U Q									259	264	272	252	239	256	261	248	224							
L Q									232	228	237	222	219	230	234	232	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	9	12	8	8	6	4	2	5	11	14	10	11	11	6	10	12	9	12	6	7	5	7	9	9
MED	99	97	97	94	95	97	100	131	113	106	104	103	103	106	97	98	95	94	94	93	101	93	95	95
U Q	104	98	103	95	97	104	107	161	161	107	107	113	109	109	105	105	97	97	97	95	104	99	97	100
L Q	91	95	95	92	93	96	93	97	105	105	103	103	97	105	95	91	90	89	91	91	94	91	92	94

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	5	18	13			12	14	8	2						
MED									232	240	258	238			241	243	240	236						
U Q									250	248	272	254			258	256	250	248						
L Q									212	236	246	225			230	232	228	224						

h'Es

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	7	12	11	8	7	4	6	8	12	18	22	24	26	26	24	21	22	23	20	17	13	12	7	5
MED	97	97	97	98	95	90	96	94	113	107	104	103	103	102	97	97	95	95	91	91	95	92	93	91
U Q	101	104	103	100	95	98	99	104	161	113	107	106	105	103	104	101	97	99	95	96	97	97	97	100
L Q	91	96	91	97	89	88	95	91	103	103	101	103	99	97	95	95	91	91	89	89	89	89	89	91

MONTHLY MEDIANS OF h'F AND h'Es

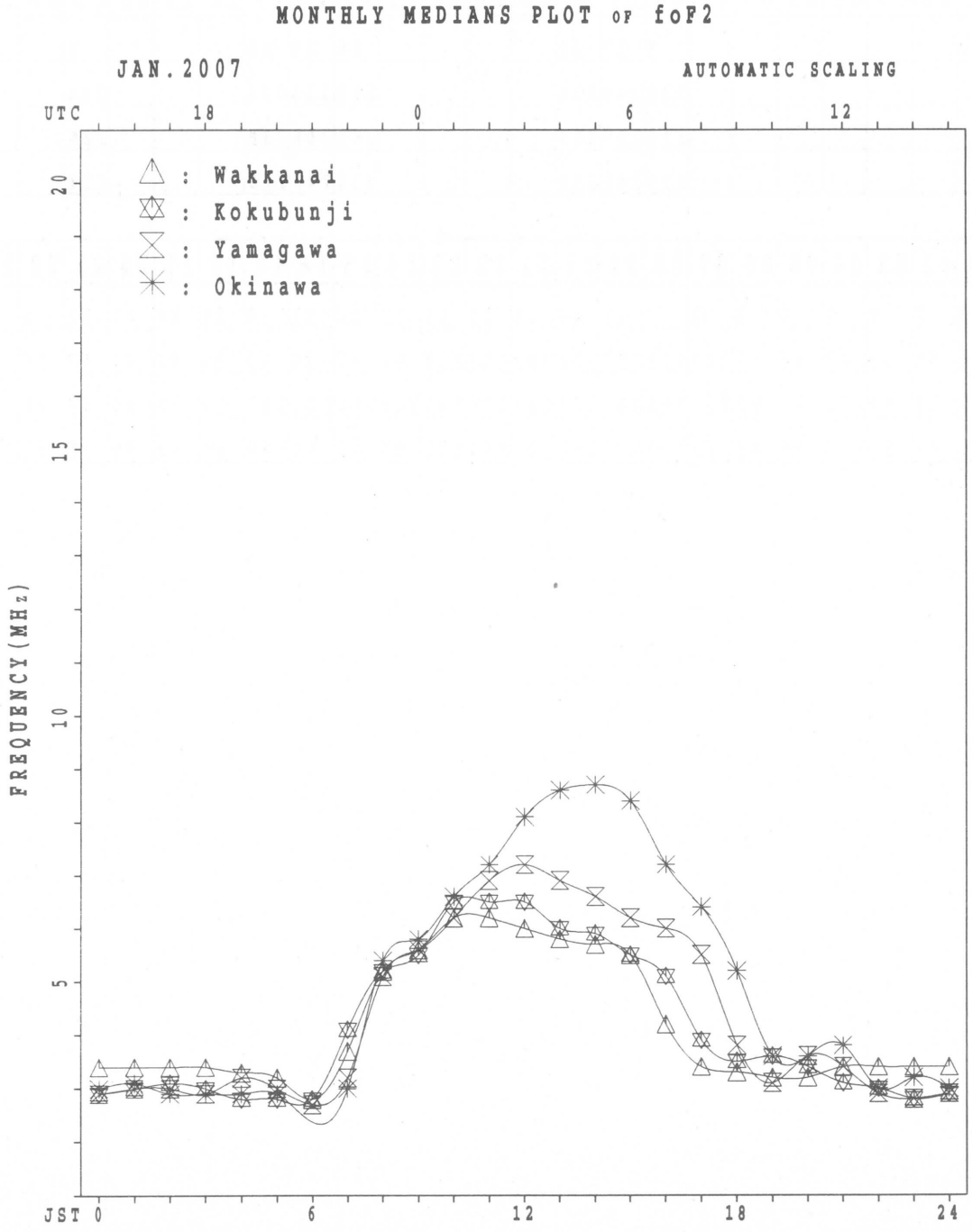
JAN.2007 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

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									1	12	21					30	20	15				1		
MED									238	240	256					239	233	224				248		
U Q									119	259	269					262	246	238				124		
L Q									119	240	236					230	225	216				124		

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	4	6	8	7	7	6	3	2	9	17	14	20	21	19	17	20	21	19	21	20	17	12	8	4
MED	97	101	95	95	97	96	93	101	119	113	106	106	103	103	97	97	95	93	95	92	93	93	90	91
U Q	99	113	97	99	107	97	97	107	146	159	111	110	106	103	103	100	103	107	97	96	98	98	96	96
L Q	91	95	95	93	93	95	89	95	105	107	103	103	103	101	95	95	90	89	90	89	90	91	87	88


MONTHLY MEDIANS PLOT OF foF2
JAN.2007
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. 2007 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	A	X 35	38	X 33	33	X 32	X 33												X 45	X 42	X 40	X 35	X 33	X 34
2	X 35	X 38	X 33	A	X 29	X 31	X 32											X 48	X 47	X 44	X 38	X 39	X 41	X 39
3	X 42	X 46	X 34	X 30	X 34	38	39											X 61	X 50	X 40	X 49	A	O X 33	X 34
4	X 25	X 29	X 30	X 34	X 34	X 31	X 29												X 39	X 38	X 41	X 36	X 33	X 30
5	X 32	X 33	X 34	X 31	X 34	X 35	X 36											X 44	X 33	X 38	X 41	X 39	X 33	X 36
6	X 33	X 36	X 36	X 28	X 28	X 27	X 24												A	A	X 37	X 38	O X 35	X 35
7	X 36	X 36	X 36	X 35	X 31	X 30	X 30												X 32	X 36	X 28	X 32	X 35	X 35
8	X 35	X 37	X 41	X 28	X 27	X 28	X 28												A	X 39	A	X 32	A	X 35
9	X 37	X 36	X 38	X 31	X 28	31	X 28												X 36	X 37	X 38	X 37	X 40	45
10	41	39	39	X 32	X 28	X 29	X 33												X 39	X 34	X 33	X 38	X 37	X 38
11	X 38	X 36	X 35	X 31	X 30	X 29	X 30												X 37	X 42	X 44	X 34	X 40	X 32
12	X 35	A	X 46	X 34	X 34	X 32	X 35	X 48											A	X 38	X O 36	X 31	X 34	X 37
13	X 37	X 36	X 36	X 36	A	X 28	X 29	X 46											X 31	X 33	X 37	X 37	X 34	X 35
14	X 35	X 35	X 34	X 35	X 35	X 31	X 29												X 36	X 38	X 40	X 39	X 31	X 34
15	X 35	X 36	X 36	X 36	X 35	X 29	X 31												X 42	X 42	X 44	X 37	X 32	X 35
16	X 39	X 38	X 39	X 42	X 42	X 25	X 26											X 44	X 34	X 34	X 32	X 31	X 30	X 33
17	X 35	X 35	X 36	X 43	X 27	X 22	X 26												X 44	X 49	X 45	X 40	X 35	X 36
18	X 38	A	X 36	X 35	X 34	X 34	X 34												X 32	A	X 37	X 30	X 30	X 32
19	40	X 37	X 35	X 34	58	X 40	43												X 36	X 35	X 41	X 43	X 37	X 38
20	X 40	X 39	40	X 35	X 32	O X 27	X 28												X 35	X 38	X 34	X 39	X 40	40
21	42	X 38	45	50	53	X 39	X 37												X 42	X 40	X 48	X 35	X 34	X 35
22	X 37	X 36	X 36	X 36	X 35	X 34	X 32												X 34	X 42	X 36	X 33	X 30	X 34
23	X 38	X 38	X 40	X 42	X 48	X 40	X 36												X 31	X 37	X 36	X 36	X 39	X 37
24	X 38	X 38	X 37	X 39	50	42	X 40												X 30	X 38	X 34	X 35	X 30	X 32
25	X 34	38	36	X 34	X 41	X 27	X 24												X 32	X 35	X 36	X 37	X 32	X 34
26	37	X 36	X 35	38	X 35	X 31	X 26												X 36	X 36	X 36	X 30	X 32	X 34
27	X 34	X 33	X 33	X 34	X 35	X 30	X 30												X 33	X 34	X 37	X 37	X 35	X 35
28	X 36	X 35	X 35	X 34	X 33	X 34	X 33	X 49											X 29	X 35	X 34	X 36	X 32	X 34
29	40	X 34	X 35	40	X 42	32	X 30											X 49	X 36	X 42	X 44	X 41	X 32	X 34
30	X 39	X 37	X 39	X 39	X 38	X 34	X 30												X 42	X 43	X 44	X 41	X 38	X 37
31	X 39	X 39	X 40	X 42	X 35	X 31	X 34												X 34	X 36	X 36	X 33	X 35	X 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	30	29	31	30	30	31	31	3										5	28	29	30	30	30	31
MED	X 37	X 36	X 36	X 35	X 34	X 31	X 30	X 48										X 48	X 36	X 38	X 37	X 36	X 34	X 35
U Q	39	X 38	X 39	X 39	X 38	X 34	X 34	X 49										X 55	X 40	X 42	X 41	X 39	X 37	X 37
L Q	X 35	X 35	X 35	X 33	X 31	X 29	X 28	X 46										X 44	X 32	X 36	X 36	X 33	X 32	X 34

JAN. 2007 fxI (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	A	28	F	26	F	26	27	48	50	51	58	62	59	53	56	53	47	32	39	36	34	29	27	28
2	29	32	27	A	23	25	26	47	57	64	64	78	69	64	61	56	48	42	41	38	32	33	35	32
3	36	40	28	24	28	F	F	44	65	72	69	100	76	59	59	55	59	55	44	34	42	A	27	28
4	19	23	24	28	28	25	23	41	66	62	72	70	60	56	62	57	51	39	32	32	35	30	27	24
5	26	27	28	25	28	29	30	45	52	66	82	80	67	57	59	56	47	38	26	32	35	33	27	30
6	26	29	29	22	22	21	18	40	59	67	78	78	74	63	56	A	48	38	A	A	31	32	29	29
7	30	30	30	29	25	24	24	40	52	60	77	77	69	58	53	52	49	36	25	30	22	26	29	29
8	29	30	35	22	20	22	22	38	47	55	60	60	60	60	55	50	40	A	A	33	A	26	A	29
9	31	29	32	24	22	F	22	38	47	53	57	60	62	56	52	50	45	31	30	30	32	31	34	F
10	F	F	F	26	22	23	27	38	50	55	64	73	83	70	51	56	46	36	33	28	27	32	31	32
11	32	30	29	25	24	23	24	40	52	53	65	65	58	58	59	60	48	34	31	36	38	28	34	26
12	28	A	40	27	28	26	29	42	47	57	64	58	64	62	67	53	46	A	A	32	30	25	28	31
13	31	30	30	30	A	22	22	40	49	51	66	68	62	54	55	48	48	39	25	27	30	30	28	28
14	29	29	28	28	28	25	22	41	51	56	50	58	62	61	58	42	45	42	30	32	33	33	25	28
15	29	30	30	30	29	23	25	42	50	46	54	79	64	51	58	54	50	40	36	36	37	30	26	29
16	33	32	33	36	36	18	20	40	63	85	97	103	90	88	62	60	63	38	28	28	26	25	23	27
17	29	29	29	37	21	16	20	40	67	50	69	84	70	90	65	67	50	38	38	43	39	34	29	30
18	32	A	30	29	29	28	28	48	58	63	82	78	71	79	77	86	71	38	26	A	31	24	24	25
19	F	30	29	28	F	34	F	46	55	58	55	64	89	71	56	68	64	38	30	28	35	36	31	32
20	34	33	F	29	26	21	22	45	48	53	54	77	68	76	53	53	61	38	29	32	28	32	34	F
21	F	32	F	F	F	33	31	46	54	55	59	70	63	60	54	57	58	36	36	34	42	29	27	29
22	31	30	30	30	29	28	26	44	49	59	66	65	59	65	52	64	54	46	28	36	30	27	24	28
23	32	32	34	36	42	34	30	45	53	56	56	50	58	75	73	52	54	39	25	31	30	29	33	30
24	32	32	31	33	F	F	34	48	52	64	47	54	66	56	54	52	64	40	23	32	28	29	24	26
25	28	F	F	28	35	21	18	37	45	51	54	52	55	59	57	64	54	39	26	29	30	31	26	27
26	F	30	29	F	28	25	20	39	44	52	55	55	60	55	50	56	45	44	30	30	30	24	26	28
27	28	27	27	28	29	23	23	39	44	50	48	49	55	65	64	57	53	36	27	28	31	31	29	29
28	29	29	29	28	27	28	27	42	53	55	58	58	57	66	71	49	50	46	23	29	29	29	26	27
29	F	28	29	F	36	F	24	41	43	49	49	55	60	57	65	64	51	43	30	36	37	34	26	28
30	33	30	33	33	31	28	24	42	55	52	65	82	76	60	55	63	61	48	36	37	38	35	32	30
31	33	33	33	36	29	25	28	47	60	68	68	68	66	65	64	67	65	50	27	30	30	27	28	26
	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	27	26	27	26	27	29	31	31	31	31	31	31	31	31	30	31	29	28	29	30	30	30	29
MED	30	30	30	28	28	25	24	42	52	55	64	68	64	60	58	56	50	39	30	32	31	30	28	28
U Q	32	32	32	30	29	28	28	45	57	63	69	78	70	66	64	63	59	42	34	36	35	32	31	30
L Q	28	29	29	26	24	22	22	40	48	52	55	58	60	57	54	52	47	37	26	30	30	27	26	27

JAN. 2007 foF2 (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 foF1 (0.01MHz) 135°E MEAN TIME (G.M.T. + 9 H)

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											L	L	L	L	L									
2										L	L	L	L	L	L									
3											L		L		L	A								
4											L	L	L		L									
5										L	L	L	L	L	L									
6										L	L	L	L	L	L	A								
7										L	L	L	L	L	L									
8										L	L	L	L	L					A					
9											L	L	L	L	L	A								
10										L	L	L	L	L	L	L								
11											L	L	L	U 416 L	L									
12										L	L	L	L		A	A	A	A						
13											L	L	L	L	L									
14											L	U 420 L	U 416 L	L	L									
15										L	U 424 L	U 404 L	L	L	L									
16									L	L	L	A	L	L	L	U 316 L								
17									L		400 L	U 412 L	L	U 364 L	L									
18										L	A	A	A	L	L									
19										L	L	L				L								
20										L		L	L	E A	L	L								
21											U 400 L	U 428 L	L	L	L									
22										L		416	L	L	L	L								
23										L	L	L	416	L 416	U 396 L									
24										L	L	U 408 L	A	L	L	L								
25										L	L	L	U 408 L	U 424 L	L	L								
26											U 400 L	U 416 L	U 412 L	U 416 L	L									
27										L	L	U 420 L	U 416 L	U 416 L	L	L	L							
28										L	L	L	U 436 L	E A	L									
29									L		L	L	L	L 412	L									
30											L	L												
31											L	L	L	L	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											4	8	6	7	1	1								
MED											U 400 L	U 416 L	U 416 L	U 416 L	U 396 L	U 316 L								
U Q											U 412 L	U 420 L	U 416 L	U 416 L										
L Q											L 400	U 410 L	U 412 L	L 412										

JAN. 2007 foF1 (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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 U R 224	A	296	A	A	A	A	R	B	B						
2									B U R 224	A	A	A	U R 312	U R 292	A	A	B							
3									B U R 232	U A 264	U R 296	R	R	R	A	A	B							
4									B U R 228	U R 272	A	A	A	A	A	A	U R 188	B						
5									B U R 224	U R 268	U R 296	R	308	U R 292	U R 276	A	U R 188							
6									B	A	U R 272	U R 292	R	R	R	A	A	A	B					
7									B U A 232	U R 276	R	R	R	U R 292	A	A	A	B						
8									B 232	A	A	U R 308	R	A	A	A	A	B						
9									B U R 232	A	U A 292	R	R	R	A	A	A	B						
10									B	A	A	A	R	A	R	R	A	B						
11									B	A	A	A	R	R	U R 308	R	R	U R 188	B					
12										A	A	A	A	U R 320	A	A	A	A	B					
13										236	268	A	A	R	R	280	U R 264	R	B					
14									B U R 220	U R 284	A	A	R	U R 304	A	244	A	A						
15									B 216	A	A	A	U R 312	R	R	U R 248	U R 204	B						
16									B U R 228	R	A	A	A	R	R	R	A							
17									B	R	U R 280	U R 296	U R 308	R	U R 284	264	R	U R 200	B					
18									B	A	A	A	A	A	A	A	U R 264	B	B					
19									B	B	B	U A 280	A	U R 320	A	B	R	B	B					
20									B	A	A	276	A	A	A	R	R	U R 220	B					
21									B	R	A	A	312	304	R	R	A	A	B					
22									B	220	U R 268	A	A	A	U A 288	A	256	A	B					
23									B	216	A	300	A	R	U R 300	U R 280	R	U R 216	B					
24									B	232	U R 268	A	U R 320	312	A	R	R	U R 224	B					
25									B	220	292	316	324	320	A	A	A	A	B					
26									B	220	256	296	316	A	A	A	R	A	B					
27									B	224	272	A	A	A	A	R	A	U R 224	B					
28										216	U R 268	304	A	A	A	A	A	U R 220	B					
29									B U A 192	276	A	A	U R 320	R	R	252	216							
30									B	228	U A 284	A	A	A	U R 292	U R 260	A	B						
31									B	200	292	A	R	A	R	A	A	A	B					
	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	17	12	6	9	8	5	7	11							
MED									224	U R 272	296	314	U R 312	U R 292	U R 280	U R 256	U R 216							
U Q									232	U 282	298	320	U R 320	U R 302	U R 286	U R 264	U R 220							
L Q									220	U 268	U 292	U R 308	310	U R 290	270	248	U R 188							

JAN. 2007 foE (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	JA 33	JA 28	EB 15	EB 14	JA 21	EB 15	20	EB 16	G 20	JA 37	37	36	35	36	30	G 21	JA 24	JA 30	JA 42	20	EB 15	JA 23	JA 22	JA 20
2	JA 18	JA 23	JA 23	JA 28	JA 24	JA 17	19	EB 15	G 19	30	JA 35	36	G 26	JA 35	32	JA 27	22	JA 24	JA 24	20	EB 14	20	20	JA 31
3	JA 20	20	EB 14	EB 15	EB 14	19	19	EB 15	G	28	G	G 26	G	G 27	33	JA 70	23	EB 15	EB 14	JA 34	JA 30	JA 41	JA 42	JA 26
4	JA 22	EB 15	JA 29	JA 19	21	JA 20	JA 24	JA 44	G 18	G 20	JA 34	JA 36	35	30	JA 31	JA 29	GJ 17	JA 40	JA 24	JA 48	EB 15	EB 14	EB 16	18
5	EB 16	EB 16	19	EB 14	EB 15	EB 15	EB 16	19	G	G 20	G 26	G 24	G 24	G 26	G 23	25	GE 14	BJ 19	AJ 20	AJ 23	AJ 24	AJ 34	AJ 19	
6	JA 32	JA 22	JA 19	JA 23	18	20	EB 15	18	24	G 25	G 27	G 23	G 26	G 23	JA 35	JA 41	JA 47	JA 36	JA 45	JA 62	JA 65	JA 62	JA 42	JA 43
7	JA 48	JA 36	JA 23	EB 14	19	20	20	20	26	G 22	G 23	G 25	G 25	G 26	JA 34	JA 36	JA 32	JA 24	JA 24	20	JA 20	20	19	EB 15
8	JA 23	JA 18	20	JA 20	EB 14	18	EB 15	EB 16	G 21	JA 31	32	G 24	G 27	32	34	JA 47	JA 33	JA 30	JA 34	JA 43	JA 48	JA 76	JA 92	JA 28
9	JA 27	JA 22	20	EB 15	EB 14	19	18	JA 20	JA 29	JA 62	34	G 25	G 23	G 28	JA 41	JA 37	JA 46	JA 34	JA 23	JA 23	20	19	JA 65	JA 23
10	JA 23	JA 30	JA 23	JA 24	JA 22	JA 21	18	JA 22	JA 30	JA 34	JA 32	G 28	JA 42	G 22	G	G 22	JA 23	JA 32	EB 14	18	JA 20	JA 29	JA 39	JA 46
11	JA 23	JA 33	JA 27	JA 24	JA 21	21	EB 16	22	27	JA 45	JA 44	G 24	G 29	G 26	G	G	GE 17	BJ 19	JA 22	19	EB 14	EB 15	JA 24	
12	JA 24	JA 47	AE 15	BJ 23	AJ 27	AJ 24	AJ 20	21	26	JA 42	38	JA 36	GJ 27	AJ 55	AJ 52	AJ 52	AJ 53	AJ 54	AJ 38	AJ 30	AJ 22	AJ 26	AJ 25	JA 20
13	JA 24	JA 28	JA 32	JA 22	JA 27	AJ 20	AJ 19	EB 14	30	30	JA 36	JA 38	G 24	G 22	32	G 19	GJ 18	AJ 25	AJ 24	AE 15	BJ 21	19	19	19
14	EB 15	EB 16	BJ 24	AJ 24	AJ 18	20	EB 14	EB 15	G 20	G 20	31	34	G 27	GJ 29	JA 44	27	JA 28	AJ 24	AE 14	BE 14	BE 14	BE 14	BE 15	BE 14
15	EB 16	EB 15	19	20	20	JA 23	21	EB 16	26	JA 34	JA 36	JA 36	G 29	G 24	G 21	G 20	GE 14	BJ 17	AE 15	BE 14	BE 14	BE 15	BE 14	
16	JA 16	AE 15	BE 15	BJ 17	AE 14	BE 14	BE 15	BE 15	G	GJ 24	AJ 33	AJ 53	JA 44	G 23	G 23	GJ 21	AJ 28	AJ 29	AJ 28	BE 15	BE 14	BE 13	BJ 33	AJ 28
17	JA 33	JA 23	JA 25	AE 15	20	20	EB 14	EB 15	G	G 22	G 24	G 27	G 27	G 26	31	G 23	GJ 20	AJ 20	AJ 24	BE 14	BE 16	BE 15	BJ 22	AJ 65
18	JA 35	JA 60	JA 25	JA 23	AE 14	BE 13	BJ 20	AE 15	JA 48	AJ 54	JA 72	AJ 65	AJ 62	AJ 40	A 32	GE 21	BJ 20	AJ 26	AJ 32	A 32	18	18	EB 14	
19	JA 43	AE 14	BJ 34	AJ 30	BE 15	BE 16	BE 15	BE 16	BE 24	BE 30	B 32	34	36	32	EB 29	G	EB 22	BE 15	BE 15	BE 14	BE 14	BE 15	BE 14	
20	EB 15	BE 15	BE 15	BJ 22	AJ 34	AJ 24	AE 15	BE 15	BJ 37	29	36	JA 53	AJ 34	34	G 22	G 22	GE 18	BJ 15	AJ 21	AJ 24	AJ 20	AJ 20	AJ 22	AE 15
21	EB 16	BJ 32	AJ 28	AJ 42	JA 26	AJ 21	22	EB 16	G 20	30	JA 34	35	35	G 26	G 26	34	29	23	20	JA 40	AE 15	BJ 44	AJ 55	JA 33
22	JA 24	AE 15	B 20	21	JA 42	AE 14	BE 16	BE 16	G 19	G 20	JA 38	JA 35	JA 34	33	JA 34	31	JA 26	AJ 24	AJ 23	AJ 22	23	EB 14	BE 15	BE 15
23	20	JA 18	20	EB 16	EB 14	BE 15	20	EB 16	G	29	34	JA 37	G 24	G 24	G 23	G 21	GJ	AE 20	BE 16	BE 14	BE 15	BE 15	BE 14	BE 15
24	EB 15	BE 15	BE 15	BE 15	BE 15	BE 15	BE 15	BE 16	27	30	JA 35	G 23	35	34	G 23	G 20	GJ	A 23	23	19	19	EB 15	19	EB 16
25	JA 18	19	EB 15	BE 15	BE 15	BE 14	BE 16	BJ 24	28	33	36	38	37	38	JA 38	29	26	EB 16	BE 15	BE 15	BE 15	BE 15	20	19
26	EB 16	19	20	20	JA 19	19	18	JA 36	27	32	35	36	37	37	33	G 27	24	18	JA 20	AJ 17	AJ 20	AJ 18	19	EB 15
27	EB 16	BJ 23	AJ 21	AJ 37	AE 14	BE 15	BE 14	BE 15	26	31	JA 33	37	35	JA 36	G 28	30	GE 15	BE 15	BE 15	BE 15	BE 15	BJ 18	A 19	JA 21
28	EB 16	BE 14	20	EB 15	18	JA 17	19	EB 17	G 19	G 20	34	35	JA 49	JA 44	31	28	GJ 19	AJ 29	AJ 19	20	EB 15	BE 15	BE 14	BE 14
29	EB 15	BE 16	19	20	EB 15	18	EB 16	20	24	34	36	36	G 27	G 26	G 24	29	GE 16	BE 15	B 20		EB 15	BE 14	BE 15	BE 15
30	20	EB 15	BE 15	BE 15	BE 15	19	JA 22	20	28	34	36	39	JA 57	37	G 24	G 24	29	JA 18	AJ 18	AE 15	BE 15	BE 15	BE 15	BE 16
31	20	EB 15	BJ 24	AJ 22	AE 15	BE 15	BE 15	BE 15	26	32	35	31	38	G	32	JA 35	AJ 29	AE 15	BE 14	BE 16	BE 15	19	EB 14	BE 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	JA 20	19	20	JA 20	18	19	18	EB 16	24	30	34	35	34	G	31	27	23	JA 23	AJ 20	20	EB 16	18	19	19
U Q	JA 24	AJ 28	AJ 24	AJ 23	AJ 21	AJ 20	20	JA 20	27	JA 34	JA 36	JA 37	JA 37	36	JA 34	JA 34	AJ 29	AJ 29	AJ 24	AJ 24	AJ 21	AJ 23	AJ 33	AJ 26
L Q	EB 16	BE 15	BE 15	BE 15	BE 15	BE 15	BE 15	BE 15	G 21	G 24	G 32	G 26	G 27	G 26	G 24	G 22	GE	BE 16	BE 15	BE 15	BE 15	BE 15	BE 15	BE 15

JAN. 2007 foEs (0.1MHz)

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IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	A A 33	20	E B 15	E B 14	E B 15	E B 15	E B 15	E B 16	G 19	28	34	35	32	35	29	G 20	18	24	20	16	E B 15	17	17	16
2	E B 15	17	17	A A 28	16	E B 14	E B 15	E B 15	G 19	29	32	34	G 23	G 26	29	25	20	18	21	E B 15	E B 14	16	19	18
3	18	E B 16	E B 14	E B 15	E B 14	E B 15	E B 15	E B 15	G	27	G	G 26	G	G 27	31	28	22	E B 15	E B 14	E B 15	E B A A 15	41	20	21
4	E B 15	E B 15	17	E B 15	E B 15	17	16	26	G 18	G 19	30	31	31	30	28	25	G 17	27	E B 15	26	E B 15	E B 14	E B 16	E B 15
5	E B 16	E B 16	E B 15	E B 14	E B 15	E B 15	E B 16	16	G	G 20	G 24	G 24	G 24	G 26	G 22	25	G	E B 14	E B 15	17	E B 16	E B 16	16	16
6	E B 15	E B 15	16	16	E B 15	E B 15	E B 15	16	22	G 24	G 26	G 22	G 25	G 22	31	A A 41	35	33	A A 45	A A 62	17	E B 15	23	16
7	20	26	16	E B 14	E B 15	E B 15	17	16	24	G 22	G 22	G 25	G 23	G 24	29	26	21	19	E B 15	E B 15	15	E B 16	E B 15	E B 15
8	E B 15	E B 15	E B 15	E B 15	E B 14	E B 15	E B 15	E B 16	G 18	26	30	G 24	G 27	30	28	36	28	A A 30	A A 34	25	A A 48	17	A A 92	17
9	E B 15	17	E B 15	E B 15	E B 14	16	E B 15	18	G 20	35	32	G 23	G 23	G 25	35	30	36	23	18	16	E B 16	E B 15	E B 15	16
10	16	E B 16	17	16	16	16	16	19	23	28	30	G 25	36	G 20	G	G 23	22	26	E B 14	17	E B 15	22	17	20
11	17	24	18	E B 15	16	E B 15	E B 16	19	26	29	30	G 23	G 24	G 24	G	G	G	E B 17	16	E B 15	E B 16	E B 14	E B 15	16
12	E B 16	A A 47	E B 15	18	21	17	16	E B 15	24	30	33	31	G 26	38	36	38	35	A A 54	A A 38	26	19	22	19	16
13	E B 15	20	18	20	A A 27	16	E B 15	E B 14	28	28	31	32	G 23	G 18	31	G 18	G 17	21	18	E B 15	E B 15	E B 15	E B 15	16
14	E B 15	E B 16	20	19	16	E B 16	E B 14	E B 15	G 19	G 20	29	32	G 27	G 28	32	27	23	19	E B 14	E B 14	E B 14	E B 14	E B 15	E B 14
15	E B 16	E B 15	E B 14	16	16	16	E B 15	E B 16	24	29	31	31	G 27	G 23	G 21	G 20	G	E B 14	E B 16	E B 15	E B 14	E B 15	E B 15	E B 14
16	E B 16	E B 15	E B 15	E B 15	E B 14	E B 14	E B 15	E B 15	G	G 24	30	41	33	G 23	G 22	G 20	22	24	20	E B 15	E B 14	E B 13	20	16
17	16	16	E B 16	E B 15	E B 16	15	E B 14	E B 15	G	G 21	G 23	G 27	G 26	G 24	30	G 23	G	18	20	E B 14	E B 16	E B 15	19	20
18	16	A A 60	E B 15	E B 15	E B 14	E B 13	E B 14	E B 15	42	30	53	44	48	33	30	G	E B 21	17	18	A A 32	24	16	E B 15	E B 14
19	20	E B 14	16	E B 15	E B 15	E B 16	E B 15	E B 16	E B 24	E B 30	31	33	34	31	E B 29	G	E B 22	E B 15	E B 15	E B 14	E B 14	E B 15	E B 14	E B 14
20	E B 15	E B 15	E B 15	E B 15	20	19	E B 15	E B 15	26	26	35	33	32	34	G 19	G 18	G 17	E B 15	16	E B 19	E B 15	17	E B 15	E B 15
21	E B 16	20	16	17	18	17	E B 16	E B 16	G 20	28	30	34	34	G 25	G 24	28	24	21	17	E B 16	E B 15	E B 15	E B 15	18
22	16	E B 15	E B 15	E B 15	E B 14	E B 14	E B 16	E B 16	G 19	G 20	32	30	30	32	29	29	23	17	19	19	20	E B 14	E B 15	E B 15
23	E B 15	E B 16	E B 15	E B 16	E B 14	E B 15	E B 16	E B 16	G	27	33	34	G 24	G 22	G 23	G 19	G	15	E B 16	E B 14	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 15	E B 16	25	29	30	G 22	34	33	G 22	G 18	G	20	20	E B 15	E B 15	E B 15	16	E B 16
25	E B 16	E B 15	E B 15	E B 15	E B 15	E B 14	E B 16	22	26	32	34	37	35	35	35	28	24	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16
26	E B 16	16	E B 15	E B 15	E B 15	E B 15	16	22	26	30	33	35	35	36	31	G 26	22	16	17	E B 15	17	16	E B 15	E B 15
27	E B 16	16	E B 15	20	E B 14	E B 15	E B 14	E B 15	24	29	30	35	34	32	G 27	30	G	E B 15	E B 15	E B 15	E B 15	16	14	E B 15
28	E B 16	E B 14	E B 16	E B 15	E B 15	E B 14	E B 16	E B 17	G 18	G 19	32	34	36	37	31	26	G 18	21	E B 15	E B 15	E B 15	E B 15	E B 14	E B 14
29	E B 15	E B 16	E B 15	E B 15	E B 15	E B 15	E B 16	18	22	32	32	33	G 27	G 24	G 23	27	G	E B 16	E B 15	E B 15	E B 15	E B 14	E B 15	E B 15
30	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	18	26	30	32	35	50	33	G 23	G 23	26	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 16
31	E B 15	E B 15	E B 16	17	E B 15	E B 15	E B 15	E B 15	24	30	33	30	35	G	30	32	26	E B 15	E B 14	E B 16	E B 15	E B 15	E B 14	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 15	E B 15	E B 15	E B 15	E B 16	22	28	31	32	30	G 28	29	G	21	18	16	E B 15	E B 15	E B 15	E B 15	E B 16
U Q	16	17	16	16	16	16	16	18	25	30	33	34	34	33	31	28	24	23	20	17	16	16	17	16
L Q	E B 15	E B 15	E B 15	E B 15	E B 14	E B 15	E B 15	E B 15	G 20	G 24	G 30	G 25	G 25	G 24	G 23	G 23	G	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15

JAN. 2007 fbEs (0.1MHz)

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IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	15	15	15	14	15	15	15	16	14	14	16	15	16	15	15	14	15	14	14	15	15	15	15	14
2	15	16	15	14	14	14	15	15	13	15	16	19	15	14	16	14	13	14	15	15	14	14	14	15
3	16	16	14	15	14	15	15	15	14	16	17	18	19	18	16	13	16	15	14	15	15	15	15	15
4	15	15	15	15	15	15	14	14	14	15	13	16	13	16	14	13	14	15	15	15	15	14	16	15
5	16	16	15	14	15	15	16	15	15	14	15	15	17	13	15	14	15	14	15	16	16	16	15	15
6	15	15	15	15	15	15	15	15	14	14	14	15	16	13	16	15	14	14	14	15	15	15	14	15
7	14	15	15	14	15	15	14	15	14	12	14	15	15	16	15	14	15	13	15	15	15	16	15	15
8	15	15	15	15	14	15	15	16	15	16	15	16	21	17	16	16	13	13	15	15	14	13	16	15
9	15	15	15	15	14	14	15	14	14	15	13	14	16	16	13	13	15	14	15	15	16	15	15	15
10	15	16	14	16	15	15	14	15	14	14	13	15	13	14	15	15	14	14	14	14	15	15	15	15
11	14	14	15	15	15	15	16	14	13	15	15	15	15	15	17	14	16	17	14	15	16	14	15	15
12	16	16	15	15	15	15	15	15	16	16	14	14	15	16	16	17	15	16	15	16	15	15	14	15
13	15	15	14	14	13	14	15	14	16	14	14	14	14	16	20	15	15	15	15	15	15	15	15	14
14	15	16	15	14	14	16	14	15	15	15	16	16	15	18	16	14	13	13	14	14	14	14	15	14
15	16	15	14	14	15	14	15	16	14	13	14	14	14	15	14	13	12	14	16	15	14	15	15	14
16	16	15	15	15	14	14	15	15	14	15	15	18	18	14	15	14	15	14	14	15	14	13	15	16
17	14	14	16	15	16	14	14	15	15	13	14	17	20	14	13	12	16	15	14	14	16	15	15	14
18	14	15	15	14	14	13	14	15	14	12	14	20	16	20	18	16	21	15	14	14	14	14	15	14
19	14	14	16	15	15	16	15	16	24	30	16	20	16	17	29	20	22	15	15	14	14	15	14	14
20	15	15	15	15	14	14	15	15	14	13	13	16	14	14	14	14	13	15	14	15	15	14	15	15
21	16	15	13	13	15	14	16	16	13	13	15	12	14	17	14	11	14	14	15	16	15	15	15	14
22	14	15	15	15	14	14	16	16	13	11	13	15	15	14	13	12	13	13	14	14	14	14	15	15
23	15	16	15	16	14	15	16	16	14	14	12	14	12	16	15	15	15	15	16	14	15	15	14	15
24	15	15	15	15	15	15	15	16	14	13	18	15	15	14	15	13	14	14	16	15	15	15	15	16
25	16	15	15	15	15	14	16	16	15	14	15	14	15	15	17	15	12	16	15	15	15	15	14	16
26	16	16	15	16	15	15	14	14	15	15	14	14	15	15	13	16	13	14	14	15	16	14	15	15
27	16	15	15	14	14	15	14	15	15	12	13	13	15	15	15	14	15	15	15	15	15	14	14	15
28	16	14	16	15	15	14	16	17	15	15	13	14	13	14	14	13	13	14	15	15	15	15	14	14
29	15	16	15	14	15	14	16	14	14	12	14	14	12	15	12	12	14	16	15	15	15	14	15	15
30	16	15	15	15	15	15	16	15	12	12	12	13	12	14	14	13	13	15	15	15	15	15	15	16
31	15	15	16	15	15	15	15	15	13	15	13	14	14	16	13	16	13	15	14	16	15	15	14	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	15	15	15	15	15	15	15	15	14	14	14	15	15	15	15	14	14	14	15	15	15	15	15	15
U Q	16	16	15	15	15	15	16	16	15	15	15	16	16	16	16	15	15	15	15	15	15	15	15	15
L Q	15	15	15	14	14	14	14	15	14	13	13	14	14	14	14	13	13	14	14	15	14	14	14	14

JAN. 2007 fmin (0.1MHz)

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	A 322	321	F 365		F 294	329	334	379	397	375	346	369	391	377	378	400	392	396	350	340	349	324	298	304
2	322	365	361	A	294	336	328	370	370	387	361	369	377	371	377	383	377	345	343	360	322	314	318	306
3	316	373	360	318	301	F	F	351	366	371	357	379	379	378	381	355	333	331	355	309	332	A	308	345
4	304	312	301	328	351	314	331	372	390	367	369	392	377	334	370	353	390	357	352	330	346	341	348	314
5	315	307	335	306	315	319	350	362	374	357	367	368	379	371	367	359	378	369	340	330	334	370	300	335
6	327	338	364	315	342	300	318	360	385	369	362	381	380	376	375	A	378	375	A	A	334	303	306	321
7	323	306	326	360	303	306	329	379	380	344	357	373	378	398	379	375	381	363	342	337	347	325	312	311
8	291	298	376	351	334	332	347	374	381	380	369	370	362	363	362	385	400	A	A	348	A	294	A	341
9	319	338	339	360	335	F	372	375	364	378	373	363	381	382	373	374	380	358	332	340	320	313	328	F
10	F	F	F	391	319	313	370	382	383	359	352	344	361	372	381	353	375	358	357	363	307	331	302	280
11	332	336	329	357	322	319	355	392	393	376	372	391	380	353	365	373	395	350	329	342	355	369	335	352
12	325	A	383	389	334	316	354	366	370	352	370	376	360	332	370	381	357	A	A	373	378	330	319	316
13	310	294	304	379	A	334	378	379	377	376	353	372	391	369	358	375	369	381	365	317	361	347	330	324
14	321	320	321	333	359	384	338	361	385	403	386	354	364	372	371	390	352	378	344	339	335	347	311	324
15	314	322	332	340	367	339	344	377	398	388	325	376	386	384	359	371	389	364	356	337	365	387	314	286
16	297	304	312	361	379	318	333	351	342	320	342	365	331	373	357	378	375	364	342	348	358	325	319	304
17	320	317	314	371	423	406	320	353	367	377	321	345	335	382	372	385	363	364	332	338	377	363	301	306
18	312	A	331	324	357	342	335	375	384	354	342	356	348	358	341	362	389	376	341	A	358	321	319	307
19	F	318	309	301	F	360	F	353	355	381	335	355	356	387	341	354	385	358	330	331	339	345	311	318
20	302	311	F	310	340	354	368	389	393	375	349	370	335	391	399	382	373	377	349	360	354	338	325	F
21	F	344	F	F	F	326	315	370	379	371	358	362	362	378	386	366	397	410	377	325	359	365	313	300
22	323	321	321	301	326	326	344	377	369	390	393	364	381	360	388	366	367	367	324	359	352	350	340	338
23	322	326	323	320	354	377	329	375	411	383	357	373	332	356	377	391	363	386	361	345	339	325	359	353
24	338	325	334	311	F	F	360	386	396	395	381	350	367	364	392	351	386	384	307	374	351	393	331	338
25	314	F	F	318	397	411	286	369	383	370	356	345	347	351	360	366	391	377	324	336	340	363	366	317
26	F	320	328	F	327	391	328	387	380	346	358	365	357	366	371	405	405	394	335	341	341	344	340	326
27	303	317	316	342	364	325	372	371	391	374	365	357	347	358	373	391	369	396	330	356	352	343	343	322
28	361	338	327	340	331	345	318	366	387	367	361	366	358	351	379	386	357	385	383	361	347	355	337	290
29	F	325	337	F	392	F	349	376	377	380	367	349	357	374	361	393	374	392	321	341	352	370	310	303
30	326	281	289	349	319	327	313	369	368	358	338	348	373	379	335	361	376	376	315	332	350	313	335	300
31	299	316	349	371	352	296	312	393	337	373	362	339	357	368	363	367	369	371	362	325	373	329	351	313
	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	27	26	27	26	27	29	31	31	31	31	31	31	31	31	30	31	29	28	29	30	30	30	29
MED	319	320	328	340	338	329	335	374	380	374	358	365	362	371	371	374	377	375	342	340	350	342	319	316
U Q	324	336	339	361	359	354	354	379	390	380	369	373	379	378	379	385	389	384	356	358	358	363	337	330
L Q	307	311	316	318	322	318	324	366	369	359	349	354	356	358	361	362	369	360	330	332	339	325	311	304

JAN. 2007 M(3000)F2 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 M(3000)F1 (0.01) 135°E MEAN TIME (G.M.T. + 9 H)

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											L	L	L	L	L									
2										L	L	L	L	L	L									
3											L		L		L	A								
4											L	L	L		L									
5										L	L	L	L	L	L									
6										L	L	L	L	L	L	A								
7										L	L	L	L	L	L									
8										L	L	L	L	L					A					
9											L	L	L	L	L	A								
10										L	L	L	L	L	L	L								
11											L	L	L	U 392 L	L									
12										L	L	L	L		A	A	A	A						
13											L	L	L	L	L									
14											L	U 377 L	U 380 L	L	L									
15										L	U 379 L	U 381 L	L	L	L									
16									L	L	L	A	L	L	L	U 419 L								
17									L		L 399	U 374 L	L	U 431 L	L									
18										L	A	A	A	L	L									
19										L	L	L				L								
20										L		L	L	E A	L	L								
21											U 387 L	U 392 L	L	L	L									
22										L		422	L	L	L	L								
23										L	L	L	400	383 L	U 384 L									
24										L	L	U 406 L	A	L	L	L								
25										L	L	L	U 407 L	U 378 L	L	L								
26											U 384 L	U 382 L	U 399 L	U 394 L	L									
27										L	L	U 389 L	U 394 L	U 369 L	L	L	L							
28										L	L	L	U 382 L	E A	L									
29									L		L	L	L	L 394	L									
30											L	L												
31											L	L	L	L	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											4	8	6	7	1	1								
MED											U 386 L	U 386 L	U 396 L	U 392 L	U 384 L	U 419 L								
U Q											L 393	U 399 L	400	U 394 L										
L Q											U 382 L	U 379 L	U 382 L	U 378 L										

JAN. 2007 M(3000)F1 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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											262	246	232	244	232									
2										230	240	236	236	232	242									
3											244		222		230	226								
4											234	226	226		242									
5										250	232	226	226	238	238									
6										236	240	232	226	230	232	A								
7										248	248	230	232	222	230									
8										234	244	244	250	242				A						
9											246	250	242	238	230	224								
10										250	258	246	232	226	236	242								
11											252	226	232	266	248									
12										254	244	240	252		236	218	E A 232	A						
13											254	230	224	250	256									
14											230	260	252	244	234									
15										228	294	230	232	234	262									
16									262	256	244	232	256	224	238	226								
17									230		302	246	270	228	230									
18										258	262	246	238	248	240									
19										222	264	242				246								
20										226		240	254	216	230	226								
21											250	246	234	230	234									
22										230		252	238	256	220	254								
23										232	260	248	308	248	226									
24										230	206	264	258	238	228	244								
25										252	256	270	268	260	258	240								
26											268	260	268	246	238									
27										236	256	276	286	260	240	228	226							
28										250	256	246	266	260	214									
29									224		238	266	260	272	244									
30											280	260												
31											238	264	252	242	258									
	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	29	30	29	26	28	11	2							
MED									230	236	250	246	242	242	236	228	229							
U Q									262	250	261	260	259	250	242	244								
L Q									224	230	240	232	232	230	230	226								

JAN. 2007 h'F2 (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	A	E A 290	232	210	E B 278	E B 266	236	198	198	H 186	E A 244	226	206	206	198	202	200	200	228	224	216	224	E A 312	E A 296
2	E B 278	202	206	A	E A 344	E B 274	E B 252	214	204	204	192	216	202	202	202	214	200	206	218	214	230	E A 258	E A 278	E A 306
3	E A 268	216	212	E B 272	E B 274	E B 296	E B 254	216	210	210	200	222	204	210	190	A	216	196	202	230	230	A	E A 308	E A 254
4	E B 308	E B 304	E A 326	E B 256	220	E A 260	E A 266	228	218	210	206	206	196	194	210	208	204	214	208	E A 292	214	224	214	E B 264
5	E B 268	E B 260	238	E B 278	E B 268	242	226	212	196	H 176	H 190	204	H 184	H 186	H 198	218	200	196	216	E A 256	220	218	E B 260	234
6	E B 256	232	216	E A 268	E B 260	E B 306	E B 330	226	212	198	208	200	190	194	200	A	210	230	A	A	E A 246	E B 288	E A 324	E A 264
7	E A 282	E A 298	E A 264	210	E B 278	E B 296	242	202	H 190	H 186	198	200	192	206	190	210	210	204	220	224	216	E B 276	E B 260	250
8	E B 280	E B 252	216	204	192	E B 276	240	196	208	H 198	206	194	204	202	206	216	206	A	A	E A 266	A	E A 296	A	232
9	E B 260	230	224	206	228	E A 288	234	208	H 200	220	212	206	210	210	210	A	210	230	236	220	E B 258	E B 272	238	E A 242
10	218	E B 302	236	204	E A 278	E A 298	218	200	202	H 192	212	H 180	E A 220	202	194	190	212	226	212	212	E B 248	E A 276	E A 302	E A 354
11	232	E A 290	246	210	E A 278	E B 264	236	200	206	210	214	206	198	H 184	196	218	200	208	E A 246	236	218	202	218	216
12	242	A	210	202	E A 264	E A 278	236	212	204	218	218	206	198	E A 242	A	A	A	A	A	E A 234	216	E A 306	E A 296	E A 272
13	E B 270	E A 326	E A 316	218	A	E A 258	230	204	204	222	204	H 190	202	204	214	204	210	202	202	222	228	222	238	E A 268
14	E B 274	E B 240	E A 292	E A 282	230	198	E B 256	218	H 200	212	194	192	H 192	208	198	200	210	204	226	226	218	214	E B 282	E B 262
15	E B 248	244	234	232	214	E A 260	234	208	206	200	198	H 188	212	202	208	222	214	208	216	228	210	198	E B 282	E B 288
16	E B 290	E B 286	E B 268	212	198	E B 304	E B 286	234	H 198	H 186	216	A	200	202	200	H 184	216	208	242	216	220	236	E A 322	E B 302
17	E A 270	E A 274	E B 266	214	184	228	E B 304	230	212	H 194	H 184	H 184	206	H 170	208	214	210	210	E A 252	226	204	210	E A 290	E A 302
18	E A 256	A	E B 246	240	212	248	240	208	208	214	A	A	A	218	198	220	200	188	E A 250	A	E A 258	244	E B 272	E B 322
19	E A 284	E B 264	E A 294	E B 272	E B 208	206	214	216	206	H 178	200	204	236	220	198	212	208	198	206	212	226	218	E B 246	238
20	E B 270	E B 256	E B 292	E B 266	E A 304	E A 282	224	202	200	H 176	E A 226	222	216	A	200	186	216	190	226	220	216	218	222	E B 252
21	E B 264	E A 230	E A 266	E A 254	216	218	E A 244	214	H 190	H 180	H 178	206	206	H 186	204	212	206	200	214	E B 252	220	206	E B 306	E A 308
22	E A 254	E B 254	E B 244	E B 268	258	240	218	214	204	H 186	224	188	H 178	214	196	224	214	202	212	220	E A 234	222	224	E B 238
23	E B 248	238	E B 252	244	216	196	240	196	192	184	216	202	H 186	210	206	194	220	196	202	224	224	212	214	218
24	234	234	220	246	228	206	214	206	202	210	H 168	H 170	A	204	H 182	188	204	194	212	212	228	208	E A 248	234
25	E B 266	E B 262	E B 248	E B 260	204	180	E B 384	218	212	204	216	214	224	218	230	H 186	202	198	E B 254	228	228	212	206	E B 250
26	E B 280	E B 260	246	E B 260	228	196	254	214	214	224	E A 240	220	206	210	H 194	212	204	204	238	216	216	220	238	E B 264
27	E B 292	E A 286	E B 274	E A 272	224	E B 252	216	H 180	204	200	192	204	222	228	214	210	194	194	222	222	234	230	246	E B 258
28	226	234	242	E B 254	250	222	230	228	208	H 184	206	212	210	A	200	192	218	206	196	220	224	216	224	E B 300
29	240	E B 252	E B 252	240	206	208	E B 232	210	H 174	224	206	222	206	202	H 178	214	206	198	236	214	224	210	E B 250	E B 288
30	E B 264	E B 328	E B 292	224	E B 258	228	E B 298	220	222	228	210	226	228	214	196	216	210	204	E B 276	222	218	E B 244	222	E B 280
31	E B 282	E B 264	224	216	210	E B 290	E B 270	212	206	226	214	188	224	224	198	222	210	204	E B 258	212	240	220	E B 286	
	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	29	31	30	30	31	31	31	31	31	30	29	29	29	30	27	30	29	28	29	30	30	30	31
MED	E B 267	E 260	U 228	U 223	U 216	E 258	U 229	212	204	200	206	204	205	205	199	212	210	204	216	222	220	217	E 249	E 264
U Q	E B 280	E 288	E 268	E B 266	E 268	E B 282	E B 256	218	208	214	216	215	214	214	206	216	212	208	E 237	E 232	E 230	E 244	E A 290	E A 296
L Q	248	236	224	212	212	218	230	202	200	H 186	198	H 191	197	202	196	194	204	197	210	218	216	212	224	242

JAN. 2007 h'F (KM)

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	120	A	118	120	120	118	118	120	B	B						
2								B	118	A	A	A	120	120	A	A	B							
3								B	118	124	118	120	122	122	124	A	B							
4								B	122	118	A	A	A	A	A	A	112	B						
5								B	116	120	120	120	114	114	114	118	116							
6								B	A	124	122	116	116	114	A	A	A	B						
7								B	112	120	120	116	112	112	A	A	A	B						
8								B	126	A	A	122	120	A	A	A	A	B						
9								B	126	A	128	118	120	116	A	A	A	B						
10								B	A	A	A	116	A	110	112	124	A	B						
11								B	118	A	A	120	110	108	114	118	116	B						
12									A	A	A	A	120	A	A	A	A	B						
13									118	122	A	A	114	120	118	122	116	B						
14								B	120	116	A	A	118	114	A	122	A	A						
15								B	118	A	A	A	118	118	114	116	112	B						
16								B	114	122	A	A	A	120	116	112	A							
17								B	116	120	120	122	120	118	114	116	114	B						
18								B	A	A	A	A	A	A	122	122	B	B						
19								B	B	B	118	A	122	A	B	118	B	B						
20								B	A	A	122	A	A	A	114	114	118	B						
21								B	126	114	A	116	116	114	110	A	A	B						
22								B	122	118	A	A	A	120	A	118	A	B						
23								B	112	116	118	A	120	120	116	116	114	B						
24								B	116	118	A	118	110	118	116	112	124	B						
25								B	118	120	116	126	122	114	A	A	A	B						
26								B	118	120	118	116	114	112	A	118	A	B						
27								B	120	120	A	120	120	A	118	120	120	B						
28									110	114	118	118	A	A	A	A	122	B						
29								B	112	118	116	A	116	114	114	126	124							
30								B	120	120	118	118	A	120	116	120	A	B						
31								B	116	122	A	122	A	116	A	A	A	B						
	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	20	15	18	22	23	17	19	12							
MED									118	120	118	119	119	116	116	118	116							
U Q									120	121	120	120	120	120	118	122	121							
L Q									116	118	118	116	114	114	114	116	114							

JAN. 2007 h'E (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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	100	96	B	B	98	B	114	B	106	106	144	126	124	118	124	104	102	92	90	90	B	90	90	98
2	100	100	98	94	94	94	94	B	108	106	106	108	104	104	102	102	100	98	98	100	B	100	100	100
3	106	118	B	B	B	100	102	B	G	122	G	106	G	108	120	100	102	B	B	98	98	94	94	96
4	98	B	110	106	104	112	110	104	106	104	104	104	102	104	104	102	104	100	104	94	B	B	B	94
5	B	B	116	B	B	B	B	96	G	104	106	106	104	104	104	124	G	B	96	96	92	96	92	90
6	90	94	94	90	90	94	B	132	104	104	100	100	100	100	96	90	104	102	98	98	98	94	90	96
7	92	88	90	B	108	110	112	114	114	102	92	100	98	102	104	100	98	98	98	98	100	92	92	B
8	104	102	104	96	B	98	B	B	106	104	108	108	106	104	100	104	100	102	96	96	92	92	94	94
9	94	92	92	B	B	98	136	130	108	106	132	104	102	100	94	96	94	94	94	94	98	98	100	96
10	94	94	94	94	94	90	94	116	106	106	104	98	94	94	G	106	92	88	B	98	106	100	100	100
11	100	96	92	92	98	96	B	92	116	100	106	104	98	94	G	G	G	B	96	94	96	B	B	96
12	96	100	B	100	96	94	94	100	108	104	106	102	102	98	96	92	98	94	92	94	92	90	92	94
13	96	96	100	88	90	96	100	B	152	146	104	98	96	100	146	96	96	92	92	B	94	94	94	94
14	B	B	98	102	96	96	B	B	104	106	104	104	102	98	98	154	90	98	B	B	B	B	B	B
15	B	B	98	92	90	94	94	B	156	104	102	102	106	106	106	106	G	B	102	B	B	B	B	B
16	96	B	B	98	B	B	B	B	G	108	106	104	104	104	102	98	98	86	90	B	B	B	94	98
17	106	106	102	B	98	94	B	B	G	106	106	106	104	104	148	102	G	96	92	B	B	B	92	98
18	100	100	104	102	B	B	98	B	106	102	100	104	96	102	130	G	B	104	92	90	92	94	94	B
19	104	B	104	108	B	B	B	B	B	B	110	108	158	102	B	G	B	B	B	B	B	B	B	B
20	B	B	B	100	98	96	B	B	106	106	170	100	94	94	94	96	96	B	96	96	94	94	96	B
21	B	98	98	98	94	94	100	B	106	118	106	160	156	100	98	92	86	82	86	114	B	102	94	96
22	94	B	94	94	96	B	B	B	104	106	102	104	102	142	98	154	98	96	96	88	88	B	B	B
23	96	98	98	B	B	B	94	B	G	122	158	104	104	104	104	104	G	94	B	B	B	B	B	B
24	B	B	B	B	B	B	B	B	156	162	106	106	148	120	98	92	G	94	94	90	94	B	110	B
25	100	106	B	B	B	B	B	166	156	150	142	136	136	118	106	104	108	B	B	B	B	B	114	110
26	B	106	108	106	102	100	100	92	158	162	148	136	126	116	104	104	106	102	102	100	100	96	96	B
27	B	94	98	96	B	B	B	B	156	164	108	120	120	106	102	124	G	B	B	B	B	90	90	90
28	B	B	100	B	100	100	100	B	106	106	154	118	106	106	100	104	102	86	86	86	B	B	B	B
29	B	B	94	92	B	92	B	142	126	160	148	100	110	106	104	122	G	B	B	124	B	B	B	B
30	126	B	B	B	B	98	106	144	142	130	130	122	104	122	106	104	114	96	88	B	B	B	B	B
31	92	B	94	92	B	B	B	B	132	168	106	106	106	G	106	102	100	B	B	B	B	114	B	B
	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	21	18	23	20	17	20	16	12	25	30	30	31	30	30	28	28	21	21	22	20	15	17	20	17
MED	98	98	98	96	96	96	100	115	108	106	106	104	104	104	104	103	100	96	95	96	94	94	94	96
U Q	102	102	104	101	99	99	108	137	147	130	132	108	110	106	106	105	103	99	98	98	98	99	98	98
L Q	94	94	94	92	94	94	94	98	106	104	104	102	102	100	98	97	96	92	92	92	92	92	92	94

JAN. 2007 h'Es (KM)

IONOSPHERIC DATA STATION Kokubunji

JAN. 2007 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

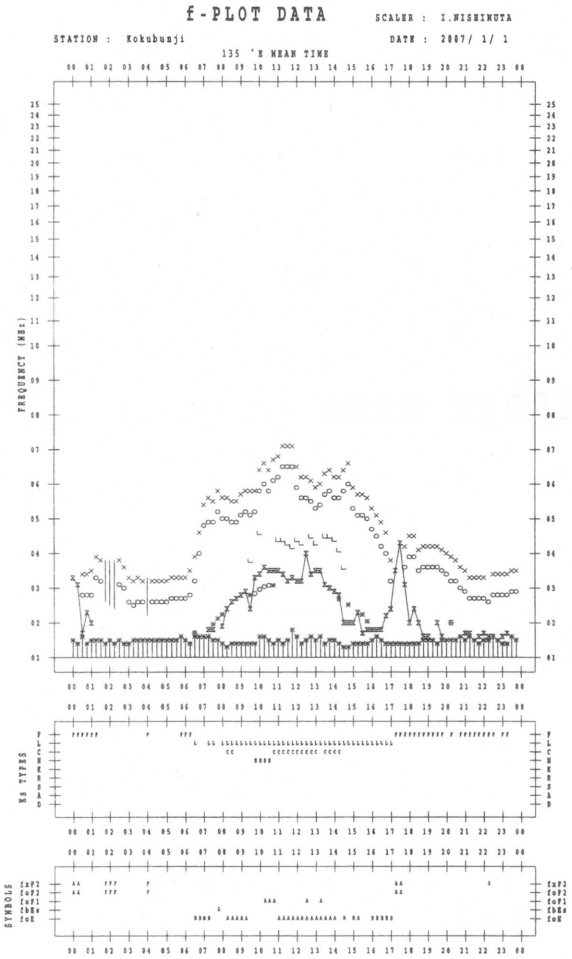
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F3	F3			F1		F1		L1	L1	HL11	CL11	CL11	CL21	CL11	L1	L2	L3	F3	F2		F1	F1	F1
2	F1	F3	F3	F3	F2	F2	F1		L1	L1	L1	L2	L2	L2	L2	L2	L2	F2	F2	F2		F1	F2	F3
3	F2	F1				F1	F1			C1		L1		L1	CL11	L3	L2			F4	F2	F3	F3	F2
4	F2		F3	F2	F2	F2	F4	L3	L1	L1	L1	L2	L1	L1	L2	L2	L2	L3	F2	F3				F1
5			F1					L2		L1	L1	L1	L2	L2	L2	CL11			F2	F2	F3	F2	F4	F2
6	F3	F2	F2	F4	F1	F2		H1	L2	L1	L2	L1	L1	L1	L3	L2	L3	L3	F4	F5	F3	F3	F3	F2
7	F2	F3	F2		F1	F1	F1	C1	CL11	L1	L1	L1	L1	L1	L1	L2	L2	L2	F2	F1	F1	F1	F1	
8	F1	F1	F1	F2		F2			L2	L2	L1	L2	L1	L2	L2	L3	L4	L3	F4	F6	F4	F3	F4	F2
9	F2	F3	F1			F1	F1	H1	L2	L2	HL11	L2	L1	L1	L2	L2	L3	L2	F1	F2	F1	F1	F2	F3
10	F3	F2	F2	F2	F2	F2	F1	C2	L2	L1	L1	L1	L2	L1		L1	L2	L2		F1	F1	F3	F2	F2
11	F2	F3	F2	F2	F1	F1		L2	C1	L2	L2	L2	L2	L2					F2	F2	F1			F3
12	F1	F2		F2	F4	F3	F3	F1	L2	L1	L1	L1	L1	L2	L2	L2	L2	L3	F3	F4	F3	F4	F3	F2
13	F2	F2	F2	F3	F3	F1	F1		HL11	HL11	L1	L1	L1	L1	HL11	L2	L1	L2	F2		F1	F1	F1	F1
14			F2	F2	F2	F1			L1	L1	L2	L1	L1	L1	L2	HL11	L1	L1						
15			F1	F2	F1	F1	F1		HL11	L1	L1	L1	L2	L1	L2	L1			F1					
16	F1			F1						L1	L1	L2	L2	L2	L2	L1	L2	L3	F2				F2	F2
17	F2	F2	F2		F1	F1				L2	L1	L1	L1	L2	HL11	L2		L2	F2				F2	F2
18	F2	F3	F2	F2			F2		L2	L2	L2	L2	L2	L2	CL11			L3	F2	F4	F2	F1	F1	
19	F3		F2	F1							C1	L2	HL11	L2										
20				F1	F3	F3			L2	L2	HL12	L2	L2	L2	L1	L1	L2		F2	F2	F2	F3	F2	
21		F2	F2	F3	F3	F2	F1		L2	CL11	L2	HL11	HL11	L1	L1	L2	L2	L2	F1	F2		F1	F2	F3
22	F1		F2	F2	F2				L2	L1	L2	L1	L1	HL11	L1	HL11	L2	L1	F2	F3	F2			
23	F1	F1	F1				F2			CL11	HL11	L1	L1	L1	L1	L1		L1						
24									H1	HL11	L2	L2	HL11	CL12	L1	L1		L3	F2	F1	F1		F1	
25	F2	F2						H2	HL11	HL21	HL11	HL11	HL11	CL11	L2	L1	L2						F1	F1
26		F1	F2	F2	F2	F1	F2	L4	HL12	HL11	HL11	HL11	CL11	CL11	L2	L1	L2	L1	F2	F2	F2	F2	F2	
27		F2	F2	F3					HL11	HL11	L2	CL11	CL11	L2	L2	CL11						F2	F1	F1
28			F2		F1	F2	F2		L1	L2	HL11	CL11	L1	L2	L2	L2	L2	L2	F1	F2				
29			F2	F2		F2		H1	C1	HL11	HL11	L2	L1	L1	L1	CL11				F1				
30	F1					F1	F2	HL11	H2	CL11	CL11	CL11	L2	CL11	L2	L1	C2	L1	F2					
31	F2		F2	F2					C1	HL11	L2	L1	L1		L2	L3	L2					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. 2007 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
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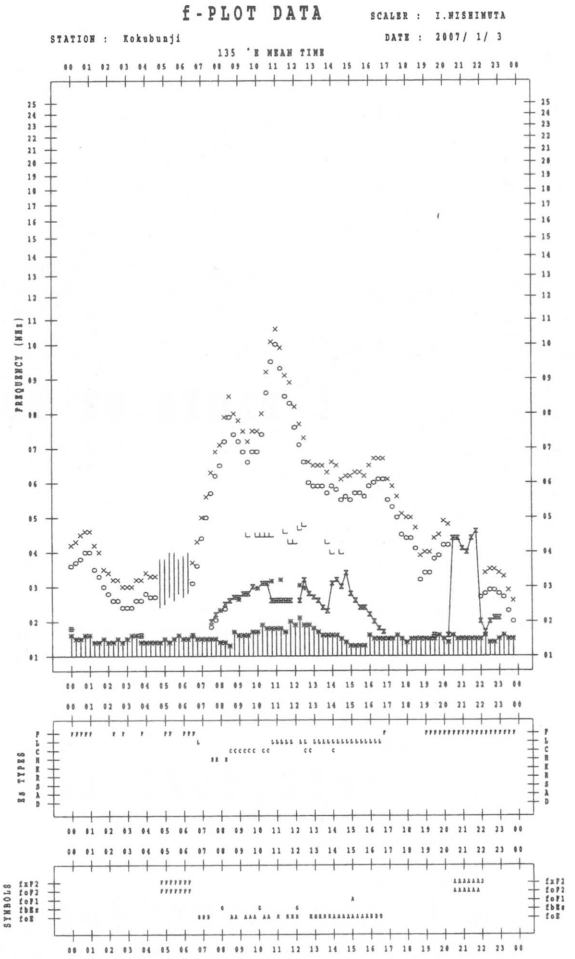
STATION : Kokubunji
DATE : 2007/ 1/ 1
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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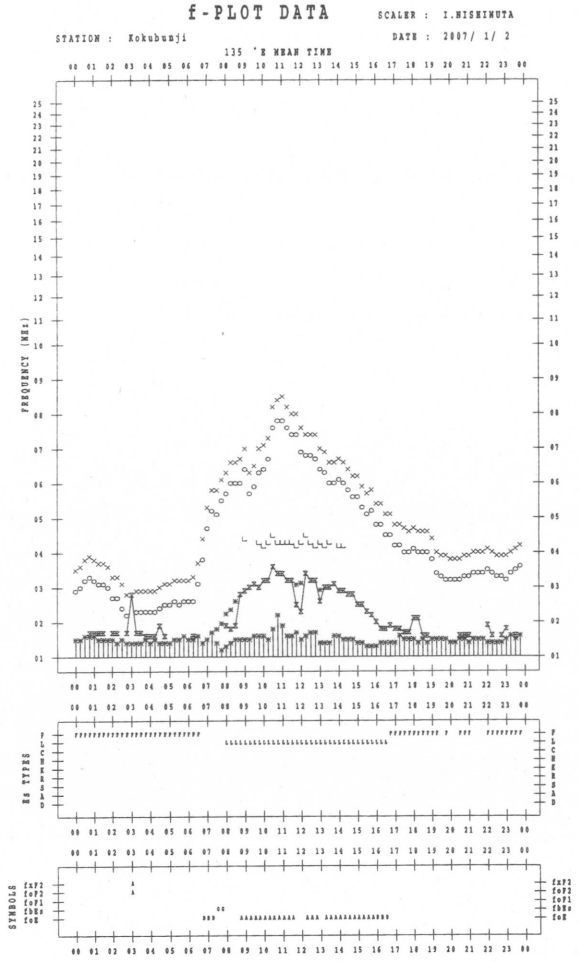
STATION : Kokubunji
DATE : 2007/ 1/ 3
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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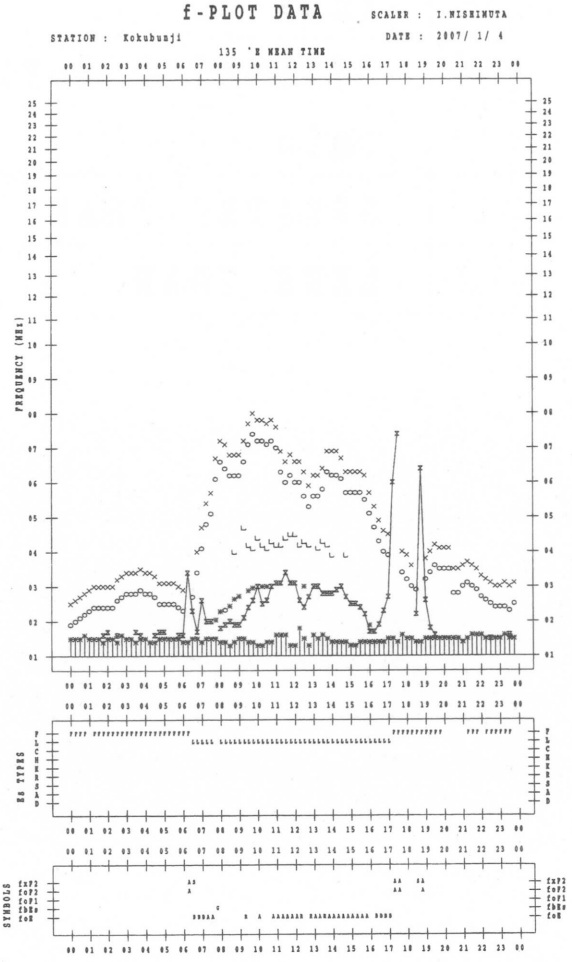
DATE : 2007/ 1/ 2
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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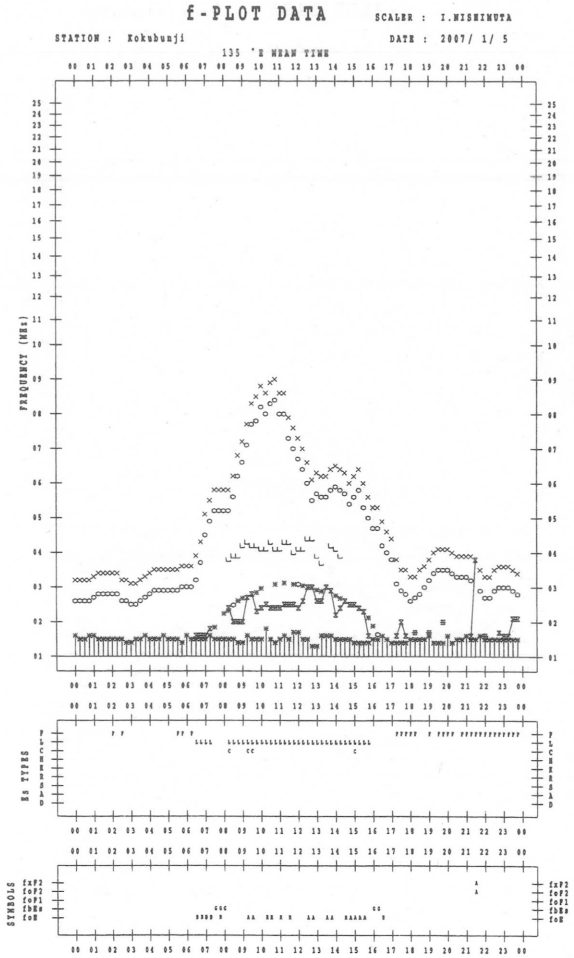
STATION : Kokubunji
DATE : 2007/ 1/ 4
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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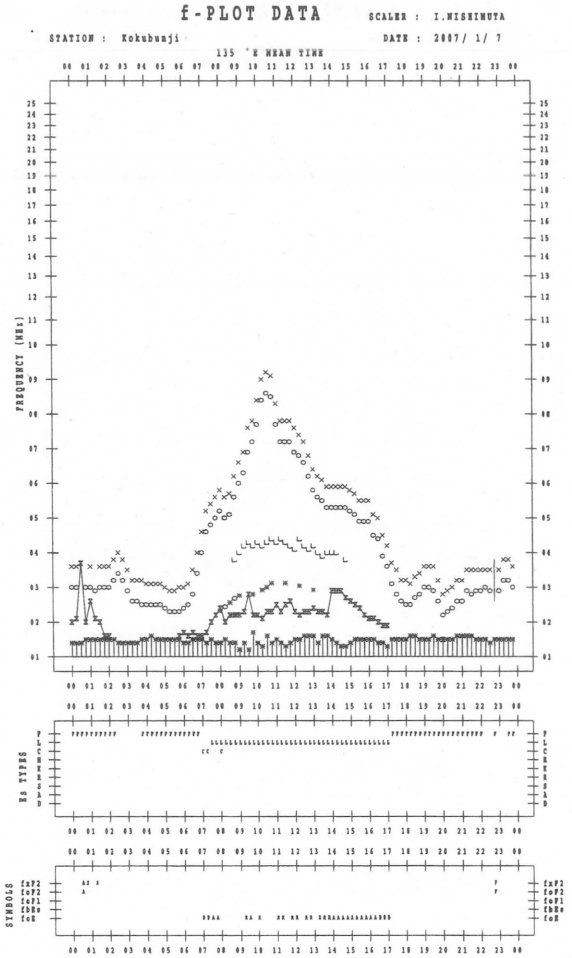
STATION : Kokubunji
DATE : 2007/ 1/ 5
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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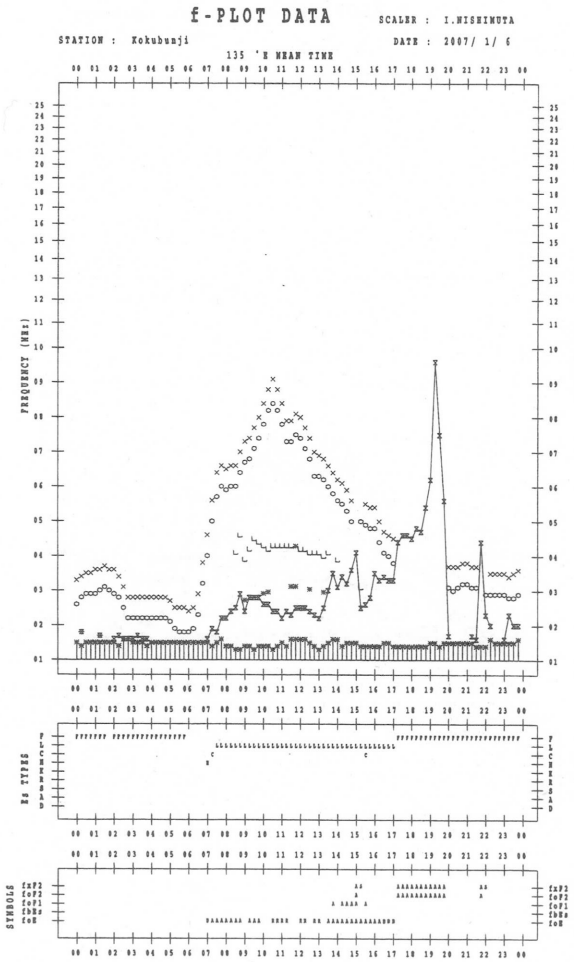
DATE : 2007/ 1/ 7
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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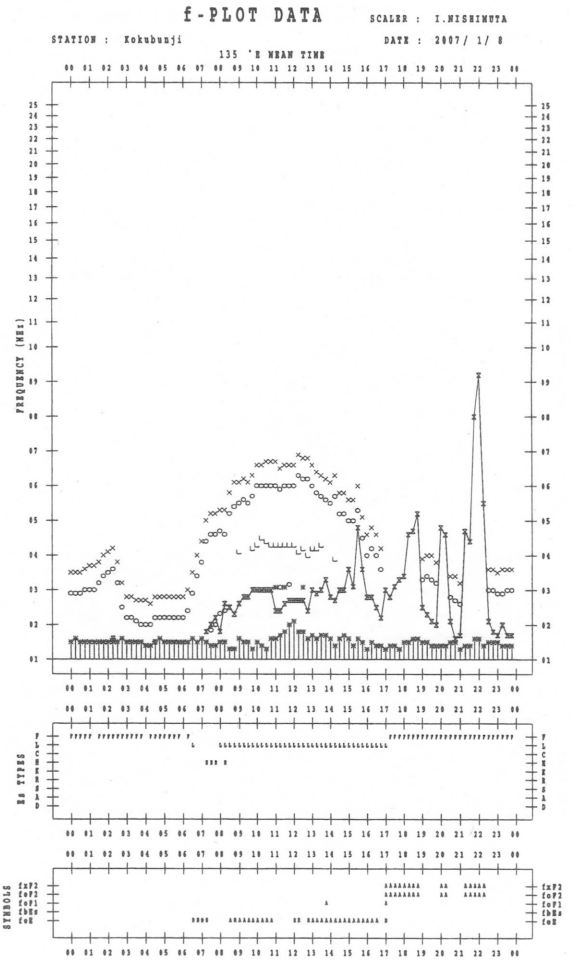
STATION : Kokubunji
DATE : 2007/ 1/ 6
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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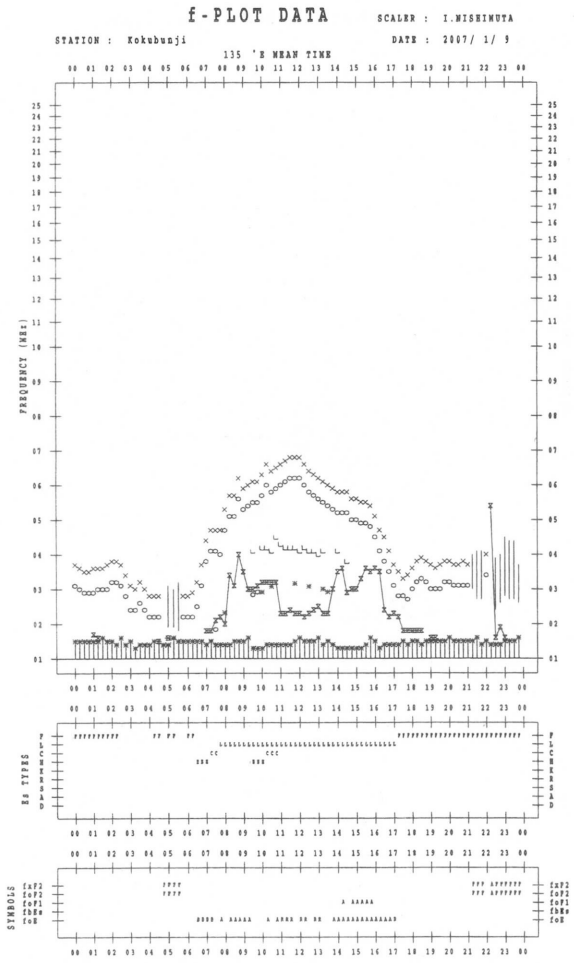
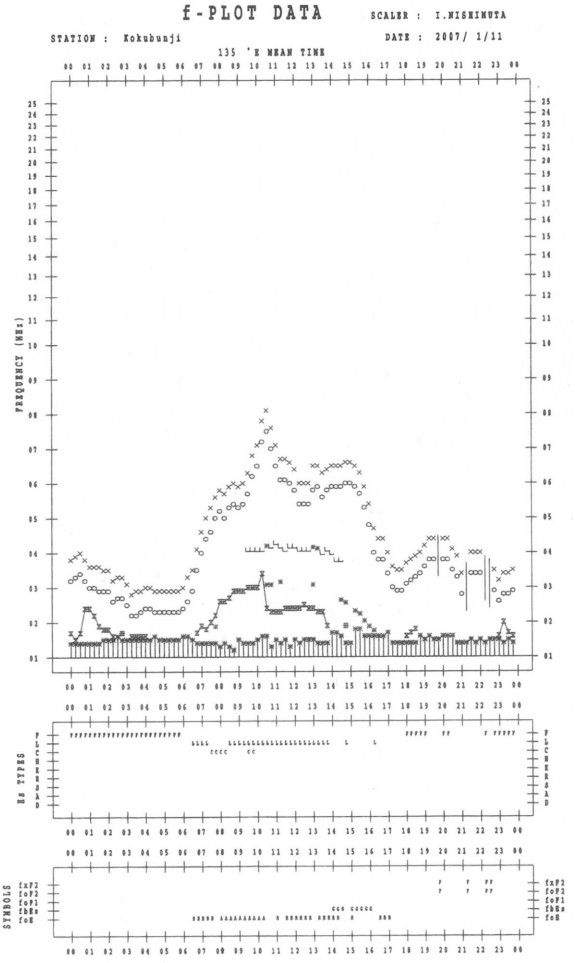
STATION : Kokubunji
DATE : 2007/ 1/ 8
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/ 9
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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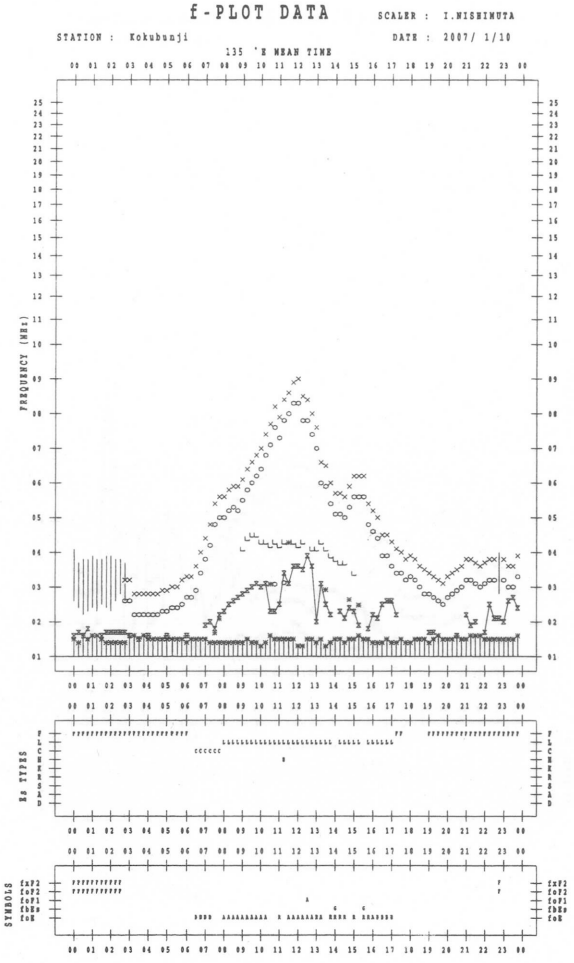
STATION : Kokubunji
DATE : 2007/ 1/11
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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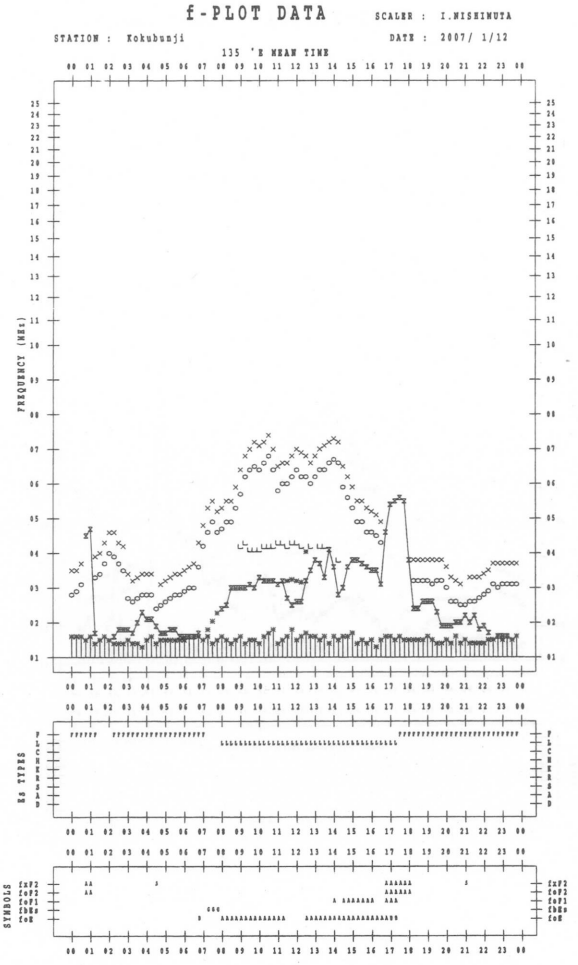
STATION : Kokubunji
DATE : 2007/ 1/10
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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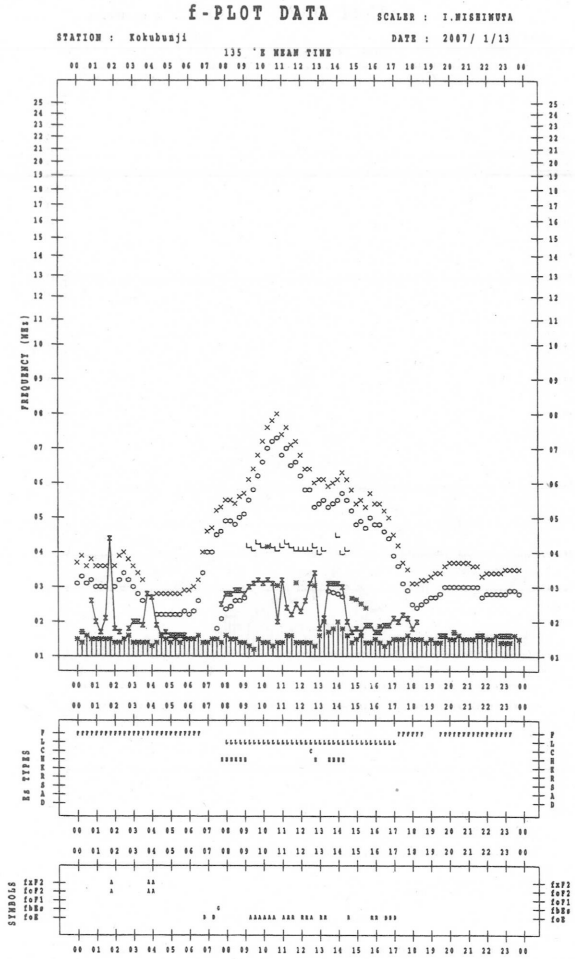
STATION : Kokubunji
DATE : 2007/ 1/12
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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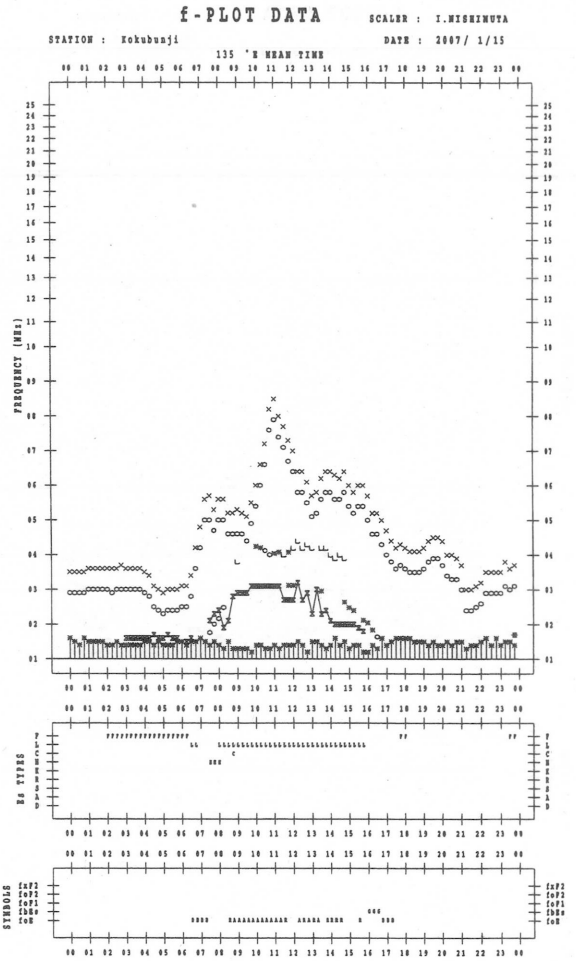
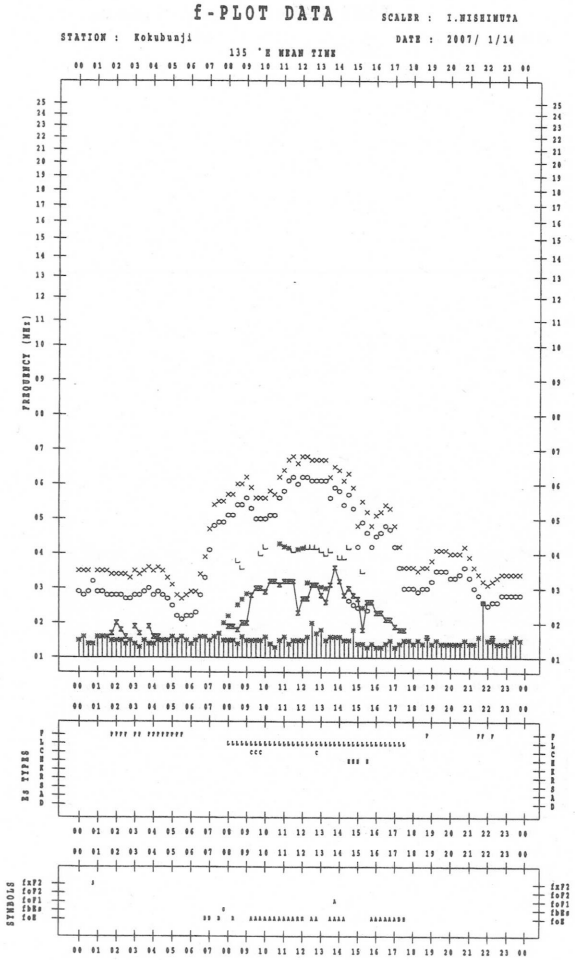
STATION : Kokubunji
DATE : 2007/ 1/13
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/15
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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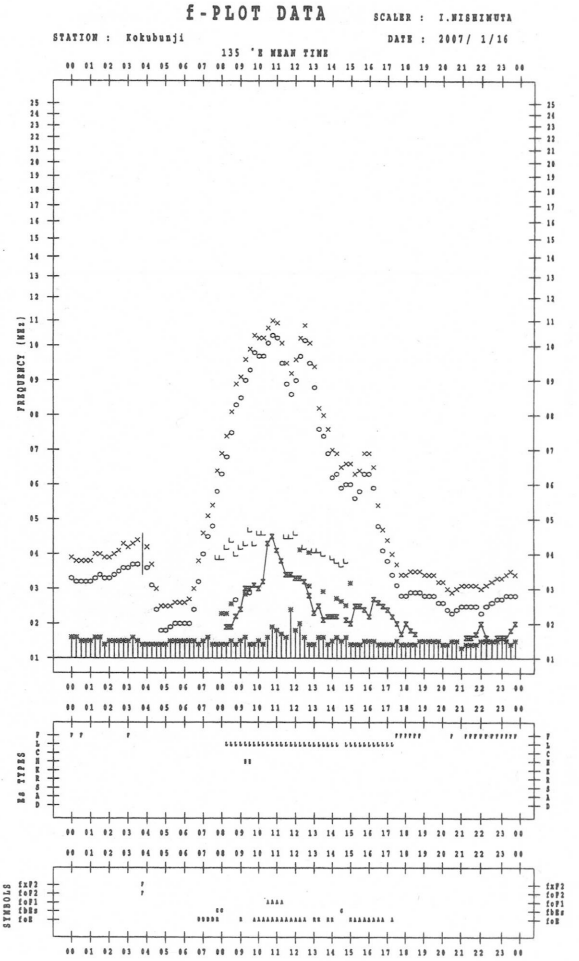
STATION : Kokubunji
DATE : 2007/ 1/14
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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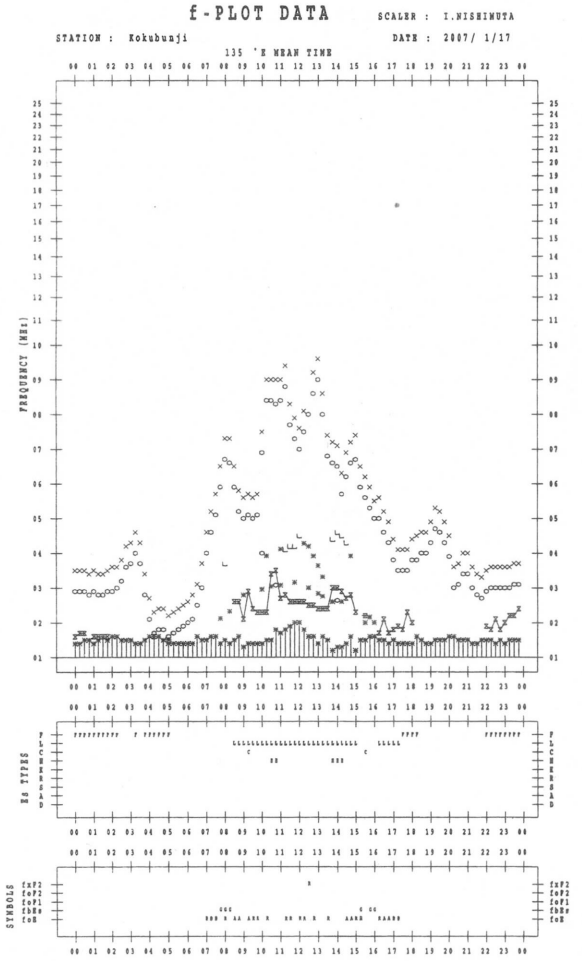
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/16
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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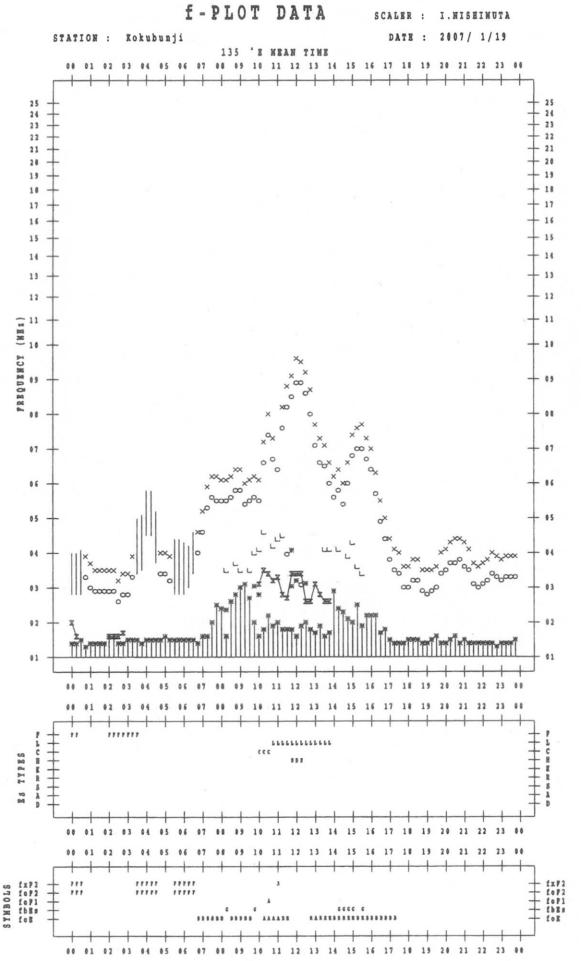
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/17
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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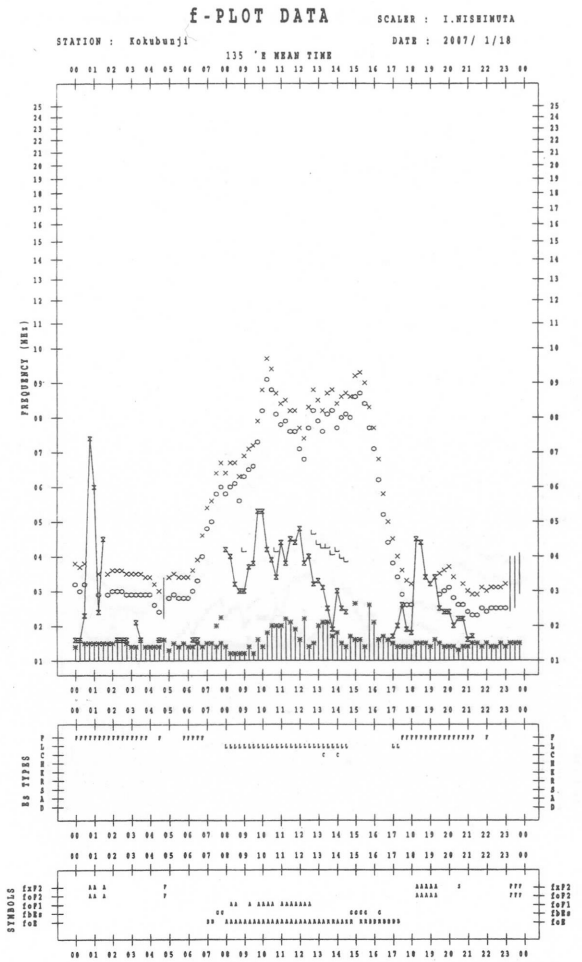
STATION : Kokubunji
DATE : 2007/ 1/19
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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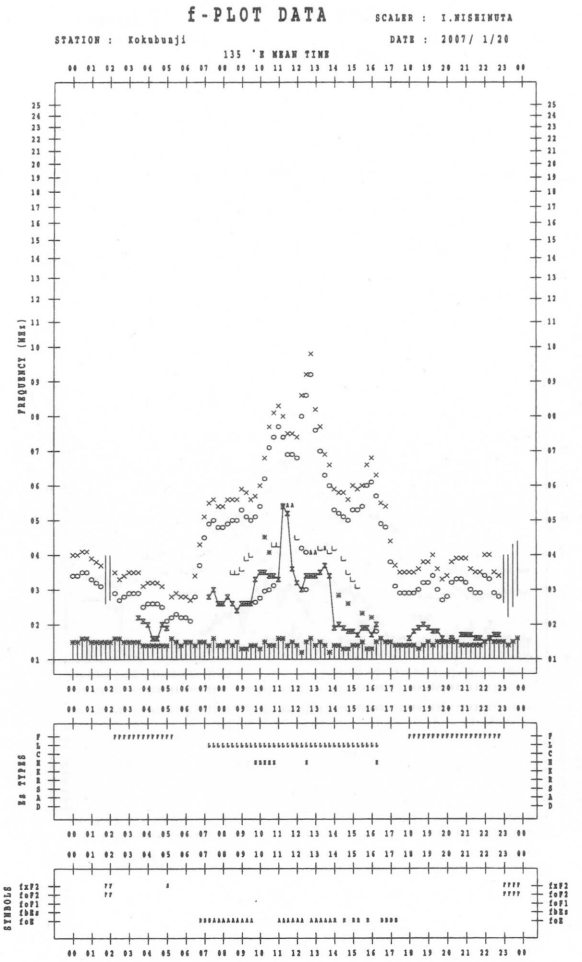
STATION : Kokubunji
DATE : 2007/ 1/18
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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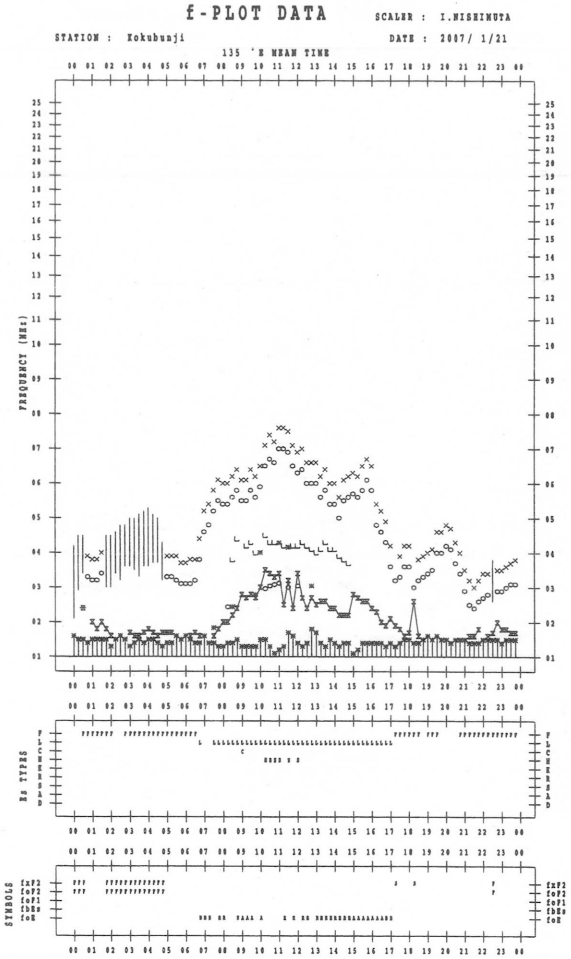
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/20
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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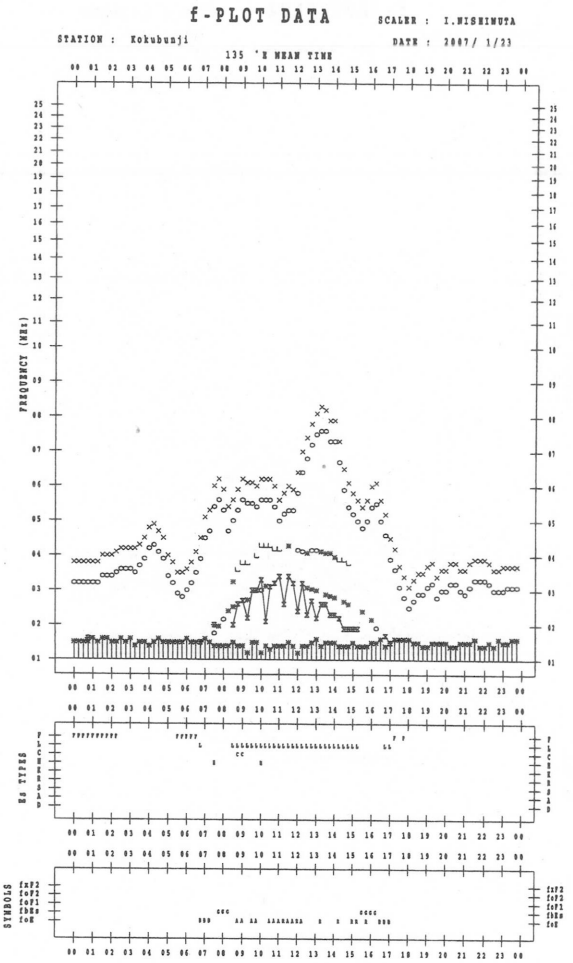
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/21
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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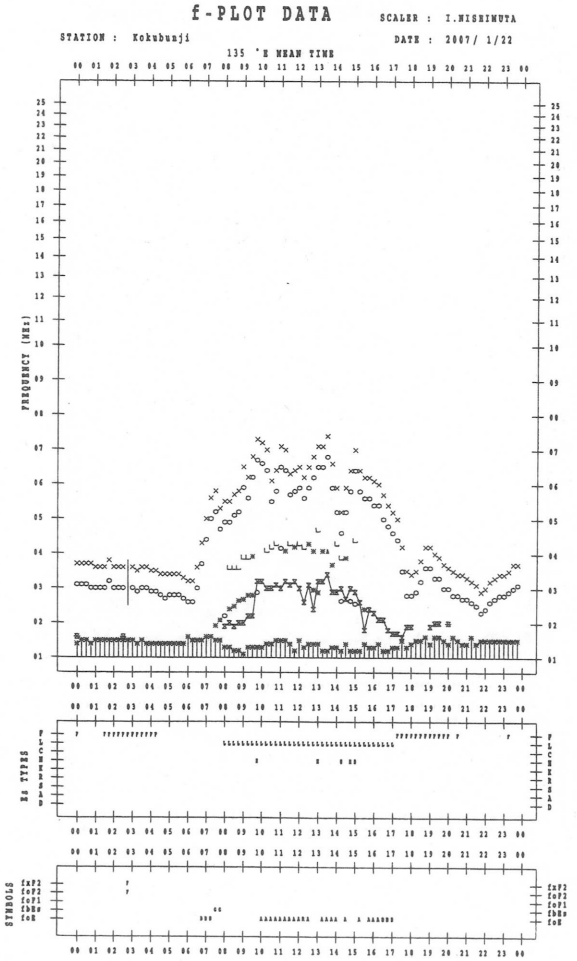
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/23
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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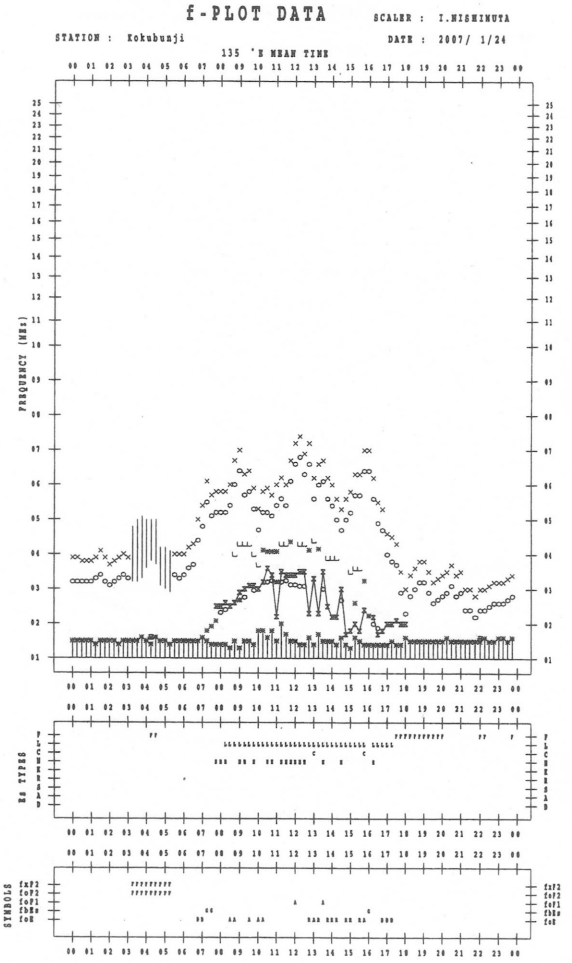
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2007/ 1/22
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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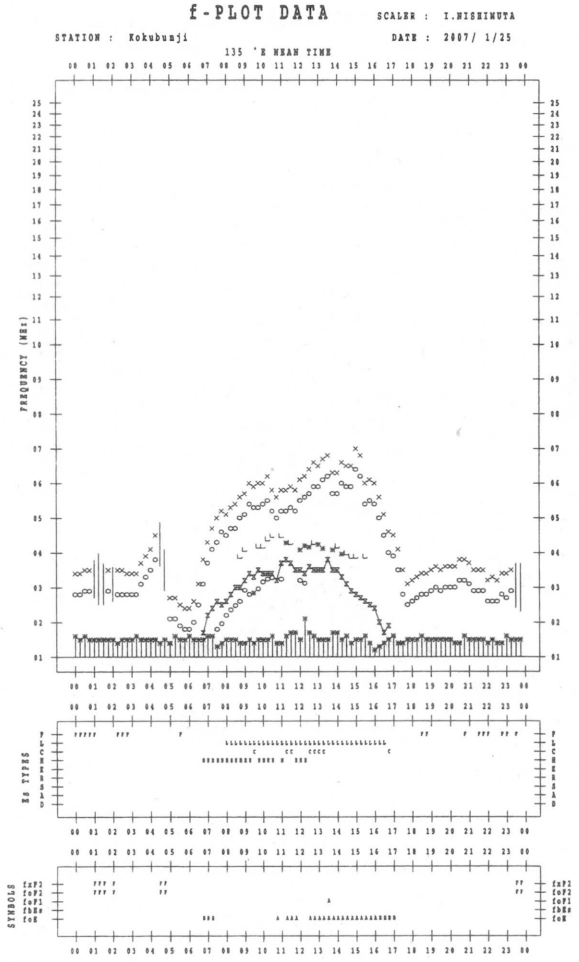
STATION : Kokubunji
DATE : 2007/ 1/24
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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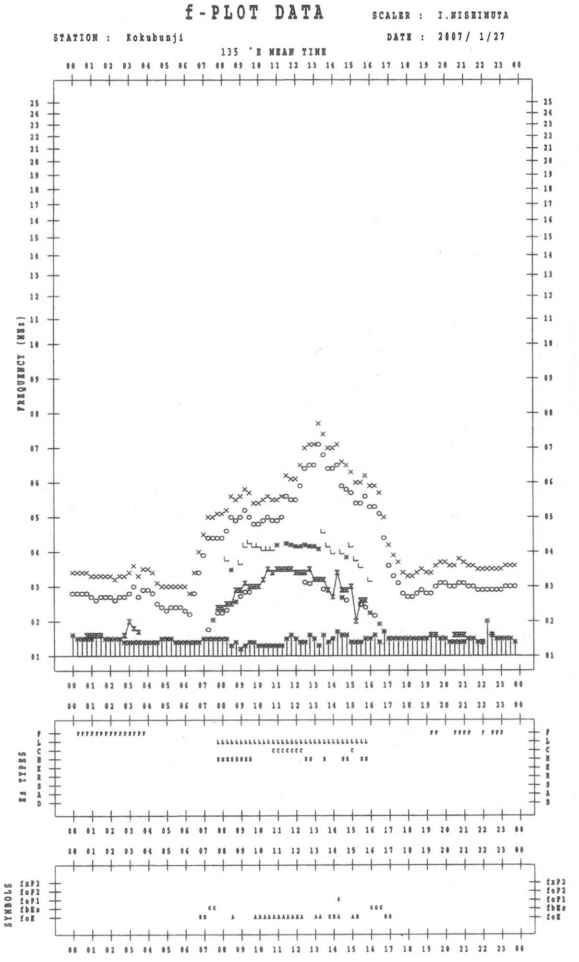
STATION : Kokubunji
DATE : 2007/ 1/25
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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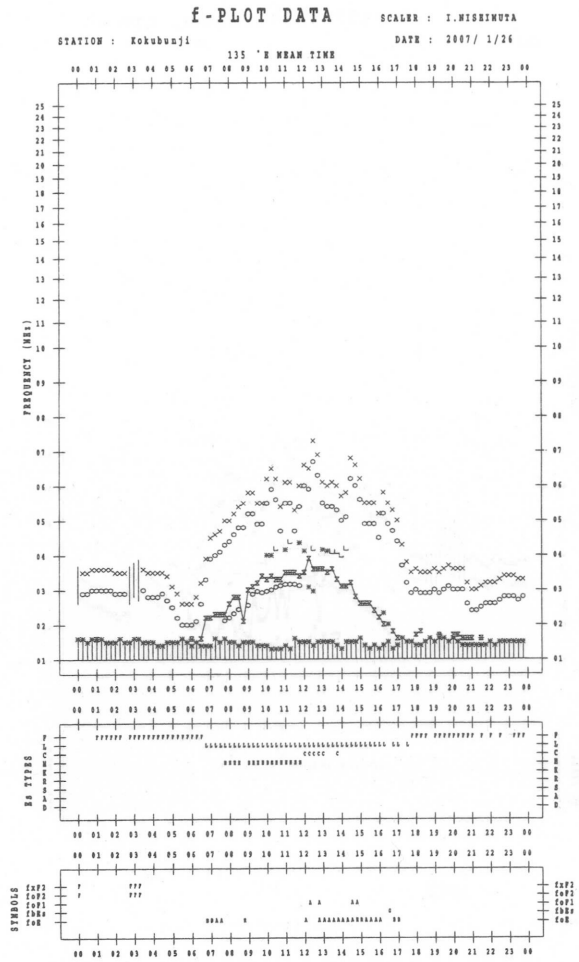
STATION : Kokubunji
DATE : 2007/ 1/27
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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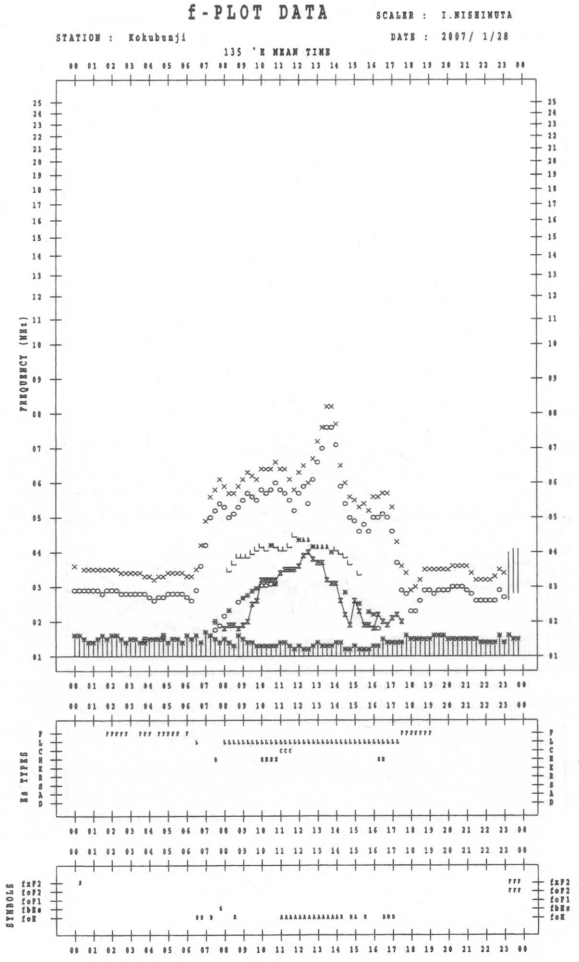
STATION : Kokubunji
DATE : 2007/ 1/26
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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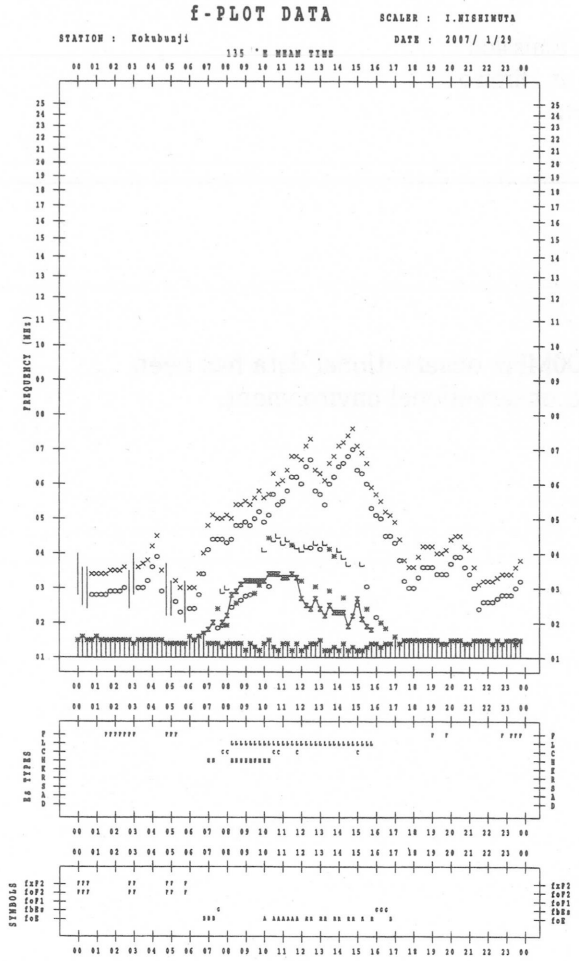
STATION : Kokubunji
DATE : 2007/ 1/28
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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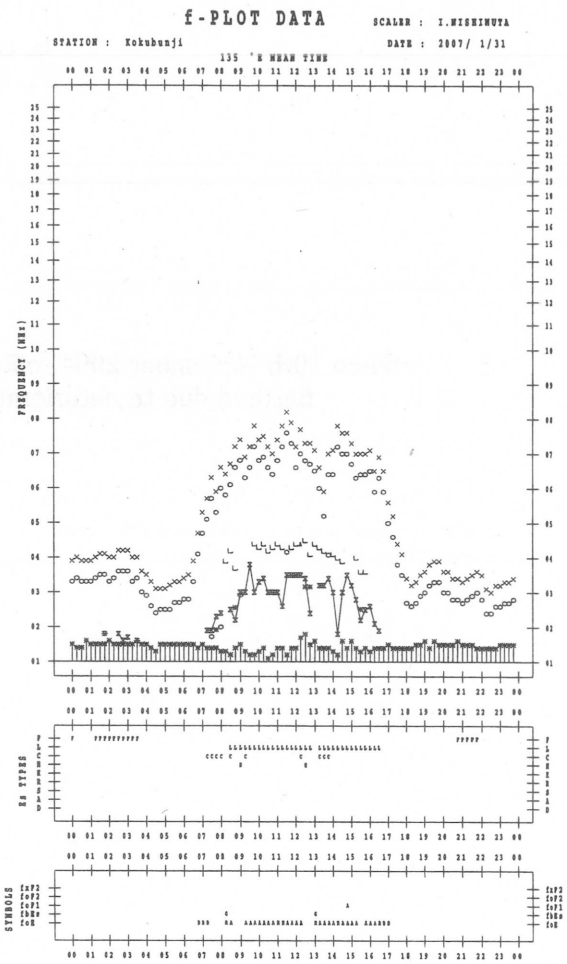
STATION : Kokubunji
DATE : 2007/ 1/29
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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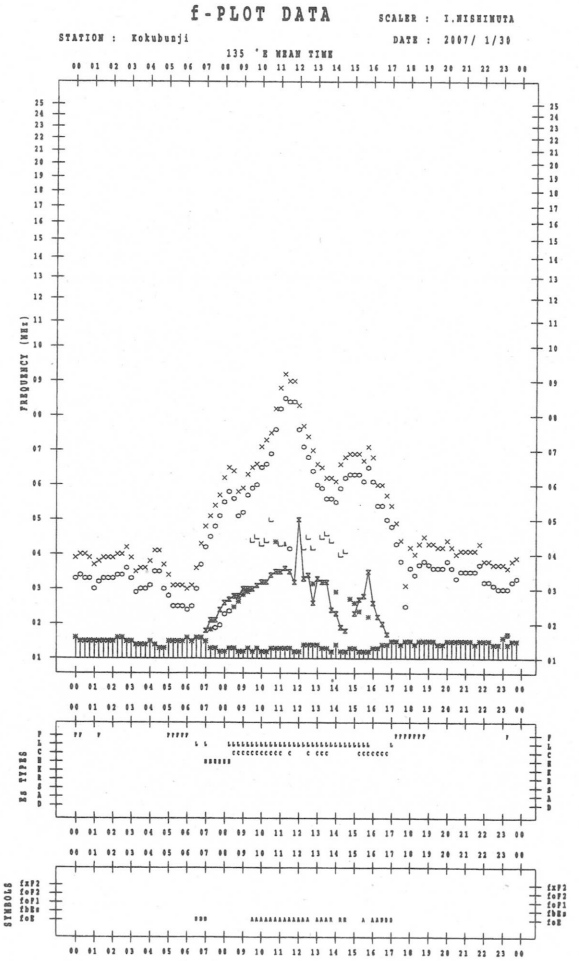
DATE : 2007/ 1/31
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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SCALER : I.NISHIMUYA
STATION : Kokubunji
DATE : 2007/ 1/30
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

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

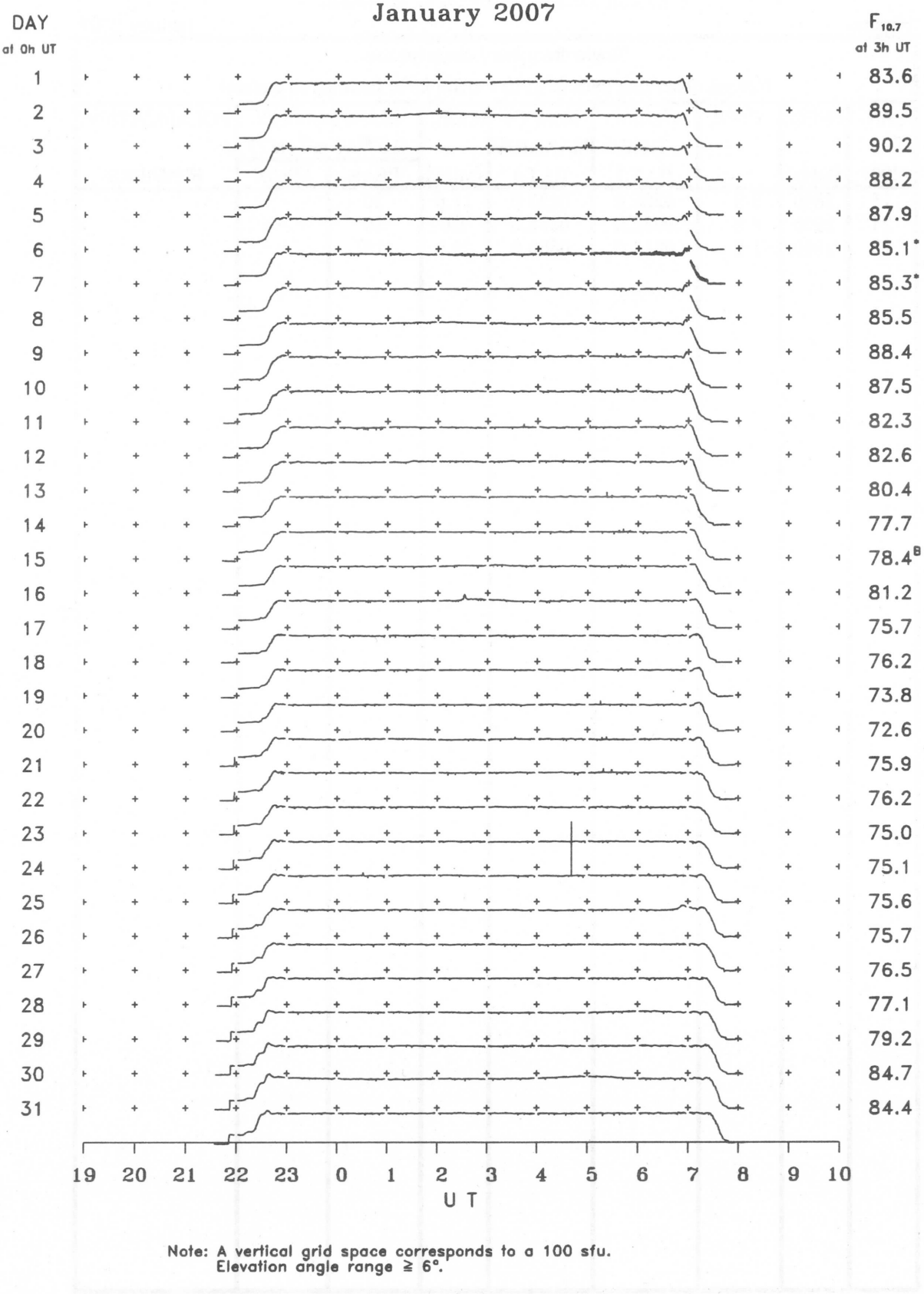
Hiraiso January 2007

Single-frequency observations

Normal observing period: 2140 - 0750 U.T. (sunrise to sunset)

JAN. 2007	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
16	2800	3 S	0225.0	0233.0	11.0	20	-	
24	2800	8 S	0032.0	0032.0	1.0	10	-	
25	2800	1 S	0643.0	0653.0	29.0	15	-	

B. Solar Radio Emission
B3. Summary Plots of $F_{10.7}$ at Hiraiso



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

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