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IONOSPHERIC DATA IN JAPAN

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

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NATIONAL INSTITUTE OF INFORMATION
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TOKYO, JAPAN

INTRODUCTION

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

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

A. IONOSPHERE

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

A1. Automatic Scaling

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

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

a. Characteristics of Ionosphere

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

b. Descriptive Letters

The following descriptive letters are used in the tables.

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

C Impossible measurement because of any failure in observation.

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

N Impossible automatic scaling because of complex echoes.

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

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

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

Median (**MED**) is defined as the middle value when the numerical values are arranged in order of magnitude, or the average of the two middle values if there is an even number of values.

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

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

d. Reliability of Automatic Scaling

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

e. Summary Plot

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

A2. Manual Scaling

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

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

a. Characteristics of Ionosphere

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

b. Symbols

(i) Descriptive Letters

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

A Measurement influenced by, or impossible because of, the presence of a lower thin layer, for example *Es*.

B Measurement influenced by, or impossible because of, absorption in the vicinity of *fmin*.

C Measurement influenced by, or impossible because of, any non-ionospheric reason.

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

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

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

G Measurement influenced by, or impossible because the ionization density of the layer is too small to enable it to be made accurately.

H Measurement influenced by, or impossible because of, the presence of a stratification.

K Presence of particle *E* layer.

L Measurement influenced or impossible because the trace has no sufficiently definite cusp between layers.

M Interpretation of measurement questionable because the ordinary and extraordinary components are not distinguishable.

N Conditions are such that the measurement cannot be interpreted.

O Measurement refers to the ordinary component.

P Man-made perturbations of the observed parameter; or spur type spread *F* present.

Q Range spread present.

R Measurement influenced by, or impossible because of, attenuation in the vicinity of a critical frequency.

S Measurement influenced by, or impossible because of, interference or atmospherics.

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

V Forked trace which may influence the measurement.

W Measurement influenced or impossible because the echo lies outside the height range recorded.

X Measurement refers to the extraordinary component.

Y Lacuna phenomena, severe layer tilt.

Z Third magneto-electronic component present.

(ii) Qualifying Letters

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

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

D Greater than.

E Less than.

I Missing value has been replaced by an interpolated value.

J Ordinary component characteristic deduced from the extraordinary component.

M Mode interpretation uncertain.

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

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

U Uncertain or doubtful numerical value.

X Measurement deduced from the third magneto-electronic component.

(iii) Description of Types of *Es*

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

The types are:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B. SOLAR RADIO EMISSION

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

B1. Daily Data at Hiraiso

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

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

* Measurement impossible because of interference.

B Measurement impossible because of bursts.

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

B2. Outstanding Occurrences at Hiraiso

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

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

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

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

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

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

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

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

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

B3. Summary Plots of F10.7 at Hiraiso

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

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

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

HOURLY VALUES OF foF2 AT Wakkanai

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	54	A	A	A	47	54	62	A	A	A	A		A	A	A	58	57	58	53	66	66	54	54	58
2	41	48	47	34	45	44	45	A	A	A	A	A		A	A	A	A		45	46	39	54	54	A
3	46	44	37	40	42	38	A	A	A	A	A						A	A	A	45	61	61		26
4	46	44	44	42	42	51	58	59	58	A	A	A		A	A	A	A	A	A	52	A	62	61	A
5	A	A	48	47	47	28	45	52	A	A		A		58	A		45	45	A	61	72	75	71	54
6	52	47	45	46	46	53	64	A	A	A	A		A	A	A	A	A	A	63	72	A	A		
7	A		A	A	42	49	72	A	A			A	A	A	A	A	A	56	54	63	A	A	A	54
8	47	54	50	52	48	24	A	A	A	A	A	A		49			A	57	A	A		63	54	48
9	A	51	A	A	A	A	A		A	A	A	A	A	A				A	39	61	61	A	60	54
10	54	47	44	47	A	53		49	A	A	A	A						56	60	53	65	62	54	A
11	A	42	42	40	34	48	53	A	A	A	A						A	A	A	A		A	A	A
12	A	A	41	38	40		A	A	A		A	A	A	A	A	62	A	A			A	62	54	54
13	54	47	46	44	45				76	A	A	A	A	A	A	A	A	A	37	47	A	42	A	54
14	53	47	46	A	42	50	A	51	49	A	59		56		39	A	A	A	A		54	63	A	A
15	51	51	48	47	45	46	A	A	A	A	A		A			60	A	62	A	A	72	65	72	54
16	A	A	A			A	A	59	A	A	A		A	A	A	A	A	A		A	A	A	A	A
17	A	50	51	47		47	A	A	A	A	A	A	A	A	A	A	A			62	A		A	A
18	45	47	A	44	45	47	38	A	A	57	A		52		A	A	54	58	58	A	69	A	A	A
19	A	A	A	A	A		A			41		A		A	A			45		42	A	54	39	46
20	45	44		45	45		A	A	A	A	A	A	A	A	A	A		A	A		65	54	52	51
21			39	47	39	47		59	57		A	A	A	A	A	A		50	55		63	61	60	54
22	54	53	45		52	45	A	A	A	A	A	A	A	A	A	57	A	60	57	65	66	64	51	54
23			42	37		48	A	A	A		A		A		A	A	A	A	A	A	66	A	71	62
24			41	42	45	47	56	A	A	66	A		A	A		A	A	A	A	60	A	A	A	A
25	54	48	A	40	45	A	A	A	A	A	A			A	51	A	A	A	39	A	A	A	66	55
26	A	43	44	46	A	54	A	A	A	A	A	A	A		A	A			A	A	80	74	51	55
27	46	38	36	A	38	44	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	61	71	65
28	47	40	A	A	40	51	57	65	64	A	A	A	A	A	A			A	A	A	A	71	72	53
29	54	47	40	A		A	A	A	A	A	A	A	A		A		41	48	A	A		66	54	39
30	42	40	38	43	44	55	55	A	A	58	A	A	A	A			A	A	A	A	70	66	71	
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	18	21	21	20	22	22	11	7	5	4	1		2	2	2	4	4	11	11	14	15	20	20	19
MED	49	47	44	44	45	48	56	59	58	58	59		54	54	45	59	50	56	54	60	66	62	57	54
U Q	54	49	46	47	45	51	62	59	70	62	29		56	58	51	61	55	58	58	63	70	65	71	55
L Q	46	43	40	40	42	45	45	51	53	49	29		52	49	39	57	43	48	39	47	61	57	54	51

HOURLY VALUES OF fEs AT Wakkanai

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	50	60	79	59	30	40	54	66	84	111	95	50	79	78	79	65	40	41	41	36	33	37	32	29
2	28	G	G	29	30	34	43	73	72	90	68	66	41	48	77	124	81	50	44	36	39	37	41	81
3	59	38	30	27	G	35	56	71	58	62	69	42	46	41	G	48	58	56	49	36	59	G	33	G
4	43	32	30	25	G	35	56	42	59	66	52	66		50	66	80	89	68	86	52	80	59	43	59
5	77	68	48	36	G	35	46	58	95	132	99	66	G	46	53	41	37	45	52	42	46	40	60	26
6	G	G	G	G	G	G	49	75	71	76	88	47	98	155	102	83	92	100	39	49	72	88		51
7	66	73	77	88	44	44	85	80	83	48	40	177	100	98	84	148		72	56	60	60	83	72	59
8	38	30	G	29	31	37	45	82	78	69	86	51	G	G	G	47	53	60	151	111	66	38	33	60
9	67	59	60	78	82	96	80	60	61	48	46	51	51	79	45	G	G	76	60	53	36	58	50	39
10	33	37	34	28	78	71	59	50	64	86	80	68	50		G	G	46	149		58	54	51	59	50
11	51	36	28	26	33	41	54	71	97	110	69	G	G	G	G	52	88	76	90	95		83	55	71
12	147	69	46	36	33	39	46	88	89	73	91	88	86	90	113	62	66	106	108		78	59	39	48
13	32	36	38	34	29	47	53	78	77	95	97	67	86	50	96	80	80	81		45	60	50	60	32
14	30	33	48	53	33	33	61	35	48	52	50	N	61	48	52	61	85	78	82	48	49	48	77	68
15	45	28	38	24	32	46	58	57	78	73	81	51	58	50	38	51	66	52	76	90	69	46	50	43
16	50	59	79	48	38	42	45	49	97	95	60	108	58	76	76	62	66	63	63	83	69	60	46	94
17	72	59	44	39	45	30	51	52	77	52	67	106	110	140	73	80	82	71	70	83	78	60	57	71
18	39	38	60	48	36	35	33	77	60		45	35	42		43	46	38	40	40	68	46	72	71	52
19	48	46	58	39	60		48	39	39	38	42	61	36	52	40	60	63	37		60	55	33	29	33
20	38	37	51	36	28	24		40	66	82	100	85	78	65	98	151	84	144	94	80	61	45	36	48
21	46	60	40	58	44	G		32	48	36		60	63	66	50	61	74		42	54	54	32	68	30	30
22	48	33	33	61	36	34	69	72	130		82	82	60	65	90	68	48	44	38	36	26	27	39	40
23	72	60	40	39		28	60	72	82	50	52	46	40	40	65	60	76	61	90	107	70	80	69	60
24	60	39	40	33	37	37	51	72	62	47	60	40	76	70	47	58	65	62	66	60	83	72	78	70
25	44	43	47	39	42	50	62	152	95	90	108	42	41	76	40	72	65	51	40	68	94	76	78	
26	56	34	27	39	64	48	61	87	90	72	85	71	60	47	48	88	108	90	114	93	57	58	47	33
27	33	34	36	46	32	33	95	82	80	98	84	107	91	82	105	83	62	80	50	72	58	60	43	48
28	38	40	60	46	27	38	48	69	48	60	56	63	86	77	71	53	63	90	170	89		51	80	46
29	39	32	33	40	46	72	84	106	84	72	90	59	72	G	33	32	29	34	68	60		59	40	39
30	25	24	G	59	35	44	53	68	82	50	53	76	59	62	42	36	50	72	76	75	58	58	36	50
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	29	29	29	30	30	27	30	29	29	28	30	30	27	30	27	29	27	30	29	29
MED	46	38	40	39	33	37	54	71	78	72	69	63	60	57	57	62	65	66	66	60	59	58	47	48
U Q	59	59	51	48	44	45	61	78	84	90	88	79	82	77	79	80	82	80	90	83	70	68	64	60
L Q	38	33	30	29	29	33	47	52	61	52	53	48	41	47	40	48	50	50	49	48	46	45	37	36

HOURLY VALUES OF fmin AT Wakkanai

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	14	14	14	14	15	15	15	15	16	20	34	20	32	21	20	20	14	15	14	15	15	15	14
2	15	15	14	14	15	14	15	14	16	23	22	23	20	20	18	20	15	14	14	14	14	14	14	14
3	15	15	15	14	14	14	15	15	18	20	18	20	20	18	21	21	17	16	14	15	14	15	15	22
4	15	15	14	14	14	14	16	17	20	21	22	20	23	20	21	20	20	15	14	14	14	14	15	14
5	14	15	14	14	14	14	15	14	18	21	21	18	18	18	20	18	14	14	14	14	14	14	14	17
6	15	15	15	15	15	16	14	15	18	16	15	20	20	22	20	17	15	14	16	14	14	14		15
7	14	15	15	14	14	15	14	14	15	15	18	28	33	33	18	28	15	18	15	14	14	15	15	14
8	14	14	15	14	14	14	14	15	15	18	18	23	20	18	20	14	15	14	14	15	15	14	15	15
9	14	15	14	14	14	15	20	17	15	20	20	16	20	21	23	17		14	15	14	15	14	15	14
10	14	15	14	14	14	14	14	16	14	20	17	18	27		22	20	20	14	16	14	15	14	15	14
11	14	15	15	15	14	15	14	16	18	17	22	16	17	15	21	15	16	15	15	17		15	15	15
12	16	14	14	14	14	16	14	16	20	18	20	18	20	22	22	21	15	15	16		15	14	15	15
13	15	14	14	14	14	16	14	16	17	16	18	20	17	20	18	16	14	14	16	14	14	15	14	14
14	15	15	14	14	14	14	14	15	14	16	18	20	20	20	22	18	14	14	14	14	14	14	14	14
15	14	15	14	14	14	14	15	16	17	17	20	23	22	20	20	20	14	14	14	15	14	14	15	15
16	14	14	14	14	14	14	15	14	14	20	17	20	20	21	20	14	16	15	14	14	15	14	15	15
17	14	15	14	14	14	14	14	16	17	20	23	18	21	24	21	18	18	14	14	14	14	14	14	14
18	14	14	14	14	14	14	14	16	18	21	20	22	26		17	18	15	18	14	14	14	15	15	15
19	14	14	14	14	14		15	15	16	18	18	20	20	21	21	16	16	14		14	14	14	14	15
20	15	14	15	14	14	14	14	14	17	20	23	22	21	18	20	18	20	14	14	14	14	14	14	14
21	14	15	14	14	14	14	14	14	17		26	22	22	21	22	18		14	14	14	14	14	15	14
22	15	14	14	15	14	14	14	14	18	16	22	24	20	24	18	20	15	14	14	14	14	16	14	15
23	17	15	14	15		14	14	14	14	16	18	24	20	18	20	15	16	14	15	14	14	14	15	15
24	14	14	14	14	14	14	14	15	15	21	22	20	22	18	20	17	14	14	14	14	15	14	15	14
25	14	14	14	14	14	15	14	14	18	18	20	21	20	16	23	20	15	15	14	14	14	14	14	15
26	14	14	15	14	14	14	14	14	15	16	18	20	20	20	18	15	14	14	14	14	14	14	15	14
27	14	14	14	14	14	14	16	15	20	18	20	20	24	22	18	15	14	14	15	14	14	14	14	14
28	15	14	14	14	17	14	14	14	16	16	18	18	18	26	21	20	15	14	14	14	14	14	14	14
29	15	14	14	14	14	14	14	15	17	17	20	23	20	20	20	15	17	15	14	14		14	14	14
30	15	14	14	14	15	15	14	15	15	16	20	20	20	17	16	20	18	15	14	14	14	15	14	14
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	29	29	30	30	30	29	30	30	30	28	30	30	28	30	29	29	28	30	29	30
MED	14	14	14	14	14	14	14	15	17	18	20	20	20	20	20	18	15	14	14	14	14	14	15	14
U Q	15	15	14	14	14	15	15	16	18	20	22	23	22	22	21	20	17	15	15	14	14	15	15	15
L Q	14	14	14	14	14	14	14	14	15	16	18	20	20	18	18	16	14	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Kokubunji

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	54	44		51	54	A	A	A	A	A	A	A	69	A	A	76	69	73	76		54	61
2	54	52	43		41	46	58	56	A	A	A	A	A	A	A	A	55	53	57	52	54	A		A
3	A	A	47	A	37	47	45	55	A	A	A	A	81			A		56	A	A	A	51	47	44
4	44	40	38	37	36	45	54	54	A	A	A	A	A	A	62	67	A	A	59	58	53	48	54	52
5	47	45		44	39	43	45	54	52	59	59	A	A	A		A		55		66	71	A		A
6	A	A	A	A	42	45	54	A	A	A	C	C	C	C	C	A	C	86	A	75	65	52	53	54
7	A	A	A	52	45	45	55	A	A				A			63	64	61	69	59	64	59	53	59
8	54	55	54	A	53	54	47	A	A	56	A		A	A			62	A	A		A	54	52	45
9	44	43	44	42	41		48	55				A	A			63	65	66	A		61	55	54	53
10	53	53	44	45	42	40	51	62	64	A	A	A			55			62	76	A	A	A	47	44
11	A	43	A	A	A	A	59	55		56	A				58	62	67	77	84	63	66	54	52	51
12	47	44	42	41	36	A	46	56	68		A	A	A	A	65	A	79	A	88	A	66	52	51	A
13	A	51	A	A	42	42	53	64	72	63	A	A	A	A		64	55	A	A	A	A	65	54	A
14	A	55	42	44	44	44	54	76	52	A	A	A	A	A			A	A	54	71	71	55	53	A
15	A	A	A		42	52	44						A	A	A	60	75	72	69	73	74	66	60	51
16	33	39		45			A	A	A		A	A				A		52	54	57	61	40	47	43
17	42			A	44	49	A			A	A		A	A		A	A	55		69	70	54		45
18			44	37	38	42	48	55	A	A				A	A	58	44	52	58	72	58	43	46	
19	42	A	A	A	38	A	A		51								57		50	54	51	54	53	49
20	47	42		38	35	35	43	56	A	A					61	61	A		62	63	63		48	47
21	43	39	38	36	34		50	61	62	61		48		A	56	A	54	59	95	50	A	A	54	52
22	52	A	42	41	39	40	52	68	66	A		A	A	A			62	58	59	63	65	55	53	51
23	48	44	A	39	41		49	56	69	62						58	A	47	61	A	78	A	49	A
24		36	34	36	A	A	A		52	A	A	A			57	A	A	53	A		59	54	54	47
25	44	44	42	40			54	55	45									53	58	63	70		A	A
26	A		A	39	41	44	56	69	76	61		A	A	A	57	A	62	A	A	64	72	66	A	A
27	A	A	42	41	36	A	56	59	59	93		A				54	53	54	61	66	74	61	A	A
28	A	A		A	A		52	71	A	59		A	A		64	69	A		63	72	A	51	65	A
29	46	44	44	44	36		57	66	A	A	A	A	A	A	A	A	A	48	59	61	69		A	
30	A	A	A	A		45	55	55	58	70	62						A	A		66	73	72	A	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	16	17	16	19	23	18	26	21	14	10	2	1	1		10	11	14	20	20	22	24	21	22	17
MED	46	44	42	41	41	45	52	56	60	61	60	48	81		60	62	62	56	61	64	66	54	53	51
U Q	50	51	44	44	42	47	55	65	68	63	62	24	40		64	64	65	64	69	71	71	60	54	52
L Q	43	41	42	38	36	42	48	55	52	59	59	24	40		57	58	55	53	58	59	61	51	49	45

HOURLY VALUES OF fEs AT Kokubunji

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	59	68	49	49	57	60	40	69	148	81	73	61	124	82	83	62	91	86	29	41	53	47	28	40
2	40	49	33	32	24	G	36	G	67	62	62	70	73	72	72	54	42	45	34	40	G	59	46	71
3	69	60	50	60	G	G	30	61	63		93	80	70		53	115	81		104	107	88	34	33	25
4	42	39	33	G	G	G	28	51		81	100	105	70	76	40	60	79	70	41	44	39	29	39	36
5	26	G	35	G	G	37	42	34	G	48	50	72	87	62	48	54	29	43	62	43	57	65	41	59
6	59	59	51	51	29	35	40	61	146	154	C	C	C	C	C	152	C	77	115	84	52	59	54	59
7	72	58	70	59	30	34	59	87	73	49			74		40	42	36	41	32	G	52	30	34	33
8	37	30	35	72	33	23	48	69	85	52	51		67	103		73	51	86	87	87	84	81	29	26
9	G	27	36	34	G	33	108	50	88			84	84	68	124	G	53	47	108	88	60	43	59	G
10	41	51	51	51	29	29	39	44	44	65	71	68	51		52	65	60	48	72	90	134	93	46	37
11	91	82	60	52	60	56	34	50	71	60	55	73	46		50	47	45	55	65	53	42	51	59	42
12	36	36	33	26	39	79	29	49	56	40	61	61	99	64	58	94	103	108	103	84	39	51	35	53
13	117	91	60	60	59	39		71	62		77	108		123	69	52	48			179	94	59	57	92
14	82	43	34	G	G	29	37	51	61	114	95	83	93	60	81	145	74	65	55	59	60	49	49	48
15	70	55	48	50	26	31	40	53	50	62	116		99	96	61	51	50	35	34	40	42	G	G	20
16	29	G		G	26	29	50	60	82		52	50			48	70		39	84	40	41	58	26	28
17	37	43	41	61	42	41	61	51	43	96	70	G	118	76		75	78	39	77	32	42	82	48	45
18	49	43	G		29	27	35	52	70	60	47			87	60	G	29	42	43	39	35	25	G	31
19	27	91	72	46	37	68	60	52	42	34	40	44				62	59	52	40	43	32	50	30	43
20	26	29		29	G	G	35	41	61	60					53	37	84	48	30	G	G	26	30	33
21	50	30	29	31	29	G	33	39	31	48	51	56	58	125	51	105	61	52	96	83	94	104	51	23
22	56	58	32	28	34	29	41	42	48	90	52	79	77	71		82		40	50	36	G	37	32	29
23	36	25	59	60	G	60	37	42	41	39			50			G	61	51	42	71	57	160	59	68
24	45	33	30	43	47	40	108	51	42	68	75	84			42	97	112	84	72	81	40	51	28	31
25	48	36	29	30	34		59	39	39	41			50	49		80		G	39	26	29	34	68	53
26	51	42	52	26	37	29	42	60	72	47		67	89	96	G	101	49	96	103	41		69	103	84
27	60	60	45	G	45	54	36	30	55	87	56	79	50	45		G	43	46	33	28	47		72	45
28	60	84	46	59	50	41	56	55	105	G			57		45	G	121	107	43	58	92	65	59	82
29	60	G	G	G	G	35	52	83	76	86	66	77	88	60	61	58	70	46	41	37	58	33	60	36
30	50	49	57	40	42	31	49	49	50	61	G	50					79	60	55	80	93	84	59	82
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	28	29	30	29	29	30	29	26	22	21	22	18	21	29	26	28	29	30	29	29	30	30
MED	50	43	43	40	30	33	40	51	61	60	62	72	74	74	53	62	60	50	55	44	52	51	46	41
U Q	60	59	51	55	42	41	54	60	74	81	75	81	89	96	65	88	79	73	85	83	72	67	59	59
L Q	37	30	33	26	G	28	35	42	43	48	51	58	57	62	46	44	48	42	39	39	39	34	30	31

HOURLY VALUES OF fmin AT Kokubunji

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	13	13	13	13	13	13	13	14	24	24	36	35	36	35	29	26	15	20	13	15	17	13	14	15
2	14	13	13	13	14	20	14	17	22	25	30	33	33	28	29	23	20	13	13	13	24	13	13	13
3	13	13	13	13	13	13	14	17	22	34	34	34	40		33	31	23	15	13	17	15	13	13	14
4	13	13	14	17	18	20	18	13	18	34	33	34	34	36	46	23	17	13	13	15	14	15	13	15
5	14	13	13	17	20	13	14	37	40	33	34	36	34	34	24	26	20	14	14	13	15	13	14	14
6	13	14	14	13	13	17	17	20	22	33	C	C	C	C	C	22	C	13	13	15	14	14	14	14
7	14	14	15	13	15	13	14	18	30	23			36		34	31	26	17	13	21	14	14	13	13
8	14	14	14	17	13	14	22	28	29	34	34		36	36		25	18	17	15	14	14	13	14	14
9	14	15	13	14	21	13	18	20	28	31		38	34	34	33	43	30	15	14	21	14	14	14	17
10	13	14	14	20	13	14	13	17	14	25	37	29	29		34	34	28	15	13	13	14	14	13	14
11	14	14	13	14	15	14	14	14	24	22	29	34	30		34	33	26	14	14	13	13	14	14	14
12	14	14	14	14	15	15	13	17	23	33	34	35	35	33	33	29	21	14	21	15	14	17	14	13
13	13	13	13	14	13	14	13	14	17	30	33	34	33	31	36	28	30	14	13	20	13	13	14	13
14	13	14	13	13	14	15	22	25	21	30	33	34	34	30	29	23	20	20	13	17	14	14	13	13
15	14	14	13	13	14	14	14	18	22	33	31	38	33	30	34	24	23	13	14	13	14	24	14	13
16	14	18		14	13	18	13	18	22		34	39			34	31		13	13	13	15	13	14	15
17	13	13	15	13	13	21	17	21	24	35	34	47	39	34		33	21	14	13	13	15	18	13	14
18	15	15	14	14	13	15	13	21	24	25	28			39	33	44	21	14	13	13	17	13	18	13
19	13	15	14	17	14	13	13	13	20	24	44	30				26	17	17	14	14	15	14	14	13
20	14	14		13	13	22	13	14	20	25					34	46	29	14	13	14	14	13	14	14
21	14	14	13	13	13	34	14	15	14	24	35	36	35	34	34	28	26	24	13	13	14	13	14	14
22	14	14	13	13	13	18	13	14	15	29	34	31	31	31		23	21	14	13	13	17	13	14	15
23	13	13	13	15	14	13	13	20	23	44			36			43	28	24	13	15	14	15	13	13
24	13	13	14	13	14	14	13	13	22	28	29	31			35	31	29	17	13	14	15	13	15	13
25	13	14	13	13	13		13	14	21	31			35	36		34		14	13	13	14	14	13	13
26	14	13	14	15	13	13	15	15	20	24		36	35	36	54	33	21	14	13	14	13	14	13	13
27	13	13	13	13	13	13	14	13	26	24	29	30	29	31		43	22	25	14	14	13	14	13	14
28	14	13	13	13	13	13	13	14	33	47		34	34		36	45	28	21	14	13	17	15	14	13
29	13	14	15	17	17	13	20	20	22	24	35	34	29	31	36	26	21	15	15	14	14	13	14	14
30	13	13	13	13	14	13	13	13	20	23		28					28	14	17	13	14	14	13	13
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	28	30	30	29	30	30	30	29	21	23	23	18	21	29	27	30	30	30	30	30	30	30
MED	14	14	13	13	13	14	14	17	22	29	34	34	34	34	34	31	22	14	13	14	14	14	14	14
U Q	14	14	14	15	14	17	15	20	24	33	34	36	36	36	35	34	28	17	14	15	15	14	14	14
L Q	13	13	13	13	13	13	13	14	20	24	30	31	33	31	33	25	20	14	13	13	14	13	13	13

HOURLY VALUES OF foF2 AT Yamagawa

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	51	A	A	42	61	60	A	A	A	A	A	A	A	A	A	A	A	A	A	62	A
2	A	A	48	46	44	44	55	55	66	A	A	A		A	A	A		66	52	54	60		A	A
3	42	48	52	A	A	A	43	55	61	A	A	A	A	58	A	A		64	76	77	61	62	A	54
4	54	44	47	46	44	37	44	51	54	58	55	A	A	57	66		65	61	66	64	55	52	54	54
5	50	A	47	50	44	45	51	48	58	64	58				54	56	59	63	A	66	66	64	50	A
6	A	A	45	49	42	40	41	54	49	A	A	58	A	64	A	A	A	92		A	66	62	61	52
7	54	54	54	52	51	49	60	51	59	A	52	A		A	54	60	73	75	66	71	62	66	52	54
8	54	47	52	48	54	44	45	A	A	A	49	A	A	60	64	61	62	73	76	78	74	64	52	50
9	51	51	48	43	A	44	48	47	62	56	A		54	53	58	76	83	80	A	70	78	A	A	52
10	51	52	44	44	46	42	46	60	68	52		A	61	58	64	60		66	77	74	A	41	38	38
11	A	A	A	A	A	A	49	58	56		54	64	A		57	65	76	81	76	71	61	A	A	A
12	A	A	A	40	38	41	45	61	A	A	A	A		57	A		A	63	76	78	55	52	54	42
13	44	50	47	45	41	39	48	68	64	A		A	A	A	68	58	66	65	A	A	66	62	50	52
14	52	53	53	47	42	42	54	A		A	A	A	A	A	A	A		A	75	83	70	61	54	50
15	42	A	A	36	34	37	45	48		61	A	A	A	A	65	67	77	77	81	88	72	64	52	52
16	53	50	51	48	48	47	41	A	56							A	56	55	57	53	54	50	37	38
17	38	42	A	37	34	A	35		A	A	70	60	A		58	A	67	64	77	73	71	54	54	52
18	46	51	47	44	41	36		A	55		A	58			57	72	56	A	A	72	52	52	A	A
19	47	46		A	A	A	40	54	53	56	48				61	58	A	57		51	52	52	51	A
20	47	45	42	38	36	36	46	51	47	52	49	A	A	56	62	58	54	64	76	82	62	52	51	48
21	47	44	36	34	34	35	51	54	62	56	51				57	47	70	60	56	55	54	52	51	46
22	47	45	A	36	A	39	59	56	A		52	A	A	A	A		A	65	A	66	60	54	52	53
23	52	54	50	48	45	41	A		67	66	62	56				57	62	62	68	73	78	66	A	
24	34	34	34	32	29		45	51	52	44		58	A		A	58	62	60	56		44	53	47	44
25		40	32	32	32	39	47	50	51		60	55	A	A	A	60	A	62	67	77	A	54	A	A
26	A	A	A	32	28	31	50	46	54	A	A	A	A	A	A	61	75	67	62	54	A	A	A	A
27	44	38	A	34	28	42	48	59	55	56			A	A	57	58	65	66	73	72	66	54	A	A
28	A	A	A	29	A	A	40	44	61	55		A	A		63	80	71	70	72	78	80	77	42	42
29	44	46	42	44	42	36	46	58	66	55		A	A	A	A	A	A		65	71	64	54	44	38
30	A	46	A	A	A	A	45	57	72	76	A		57					51	55	71	78	54	A	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	21	21	19	26	22	22	28	25	24	14	12	7	3	8	16	18	18	26	22	26	26	25	20	19
MED	47	46	47	44	42	40	46	54	58	56	53	58	57	58	60	60	66	64	70	72	63	54	52	50
U Q	52	51	51	48	44	44	49	58	63	61	59	60	61	59	64	65	73	70	76	77	71	63	54	52
L Q	44	44	42	36	34	37	43	50	54	55	50	56	54	56	57	58	62	62	62	66	55	52	48	42

HOURLY VALUES OF fEs AT Yamagawa

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	71		104	36	71	67	50	56	64	69	94	122	105	92	98	124	150	90	149	115	91	91	68	59
2	92	85	50	48	33	32	G	83		74	55	95	106	77	99	103	82	48	47	59	34	41	71	70
3	59	58	67	60	49	70	33	52	57	134	88	140	74	44	118	110	110	65	68	40	55	49	59	53
4	42	32	36	28	G	26	37	36	44	51	48	68	68	56	70	72	52	56	48	60	41	36	30	32
5	34	59	26	32	26	G	39	49	49	58	53	50	G	50	49	49	38	59	66	46	36	54	36	71
6	70	59	41	40	27	33	40	49	61	69	147	49	75	60	82	118	135	116	91	88	46	24	33	38
7	40	57	60	58	G	G	37	42	51	64	50	51	55	73	53	52	70	40	36	26	27	33	39	G
8	27	G	G	38	31	39	32	53	79	92	46	92	90	51	G	45	G	G	43	34	39	40	G	G
9	28	25	G	G	50	38	34	36	51	61	92	51	48	52	G	47	58	63	85		56	59	83	45
10	32	33	44	44	32	40	40	47	56	49	62	50	44	43	48	48	G	40	58	53	114	34	45	G
11	49	50	52	54	58	49	42	38	38	49	46	48	80	50	G	G	G	G	47	40	36	84	70	68
12	72	78	59	39	29	35	34	54	61	62	173	126	63	51	69	105			39	40	49	G	G	56
13	26	41	58	30	G	G	36	39	49	56			145		60	33	58		128	107	44	50	45	40
14	36	59	33	44	38	24	35	60		67	100	72	84	96	157	107	96	95	57	46	71	40	35	27
15	40	59	60	G	G	G	33	45	84	68	84	92	63	72	72	54	49	40	36	G	G	G	G	29
16	40	37	35	39	32	G	31	39	40	40	36	3.5		48	46	56	49	38	49	32	G	34	G	23
17	24	33	72	49	28	56	48	40	81	80	80	G	79	41	54	62	61	39	34	28	32	27	40	
18	59	37	39	47	34	48	60	60	58	62	66	52	41	61	39	60	51	70	72	83	80	71	71	94
19	34	48	41	52	60	42	35	49	42	48	51	51	43	48	39	51	70	39		29	25	30	33	48
20	34	39	50	G	G	23	27	42	36	46	38	72	79	37	49	55	50	51	60	56	41	36	30	31
21	32	32	32	G	27	26	26	34	44	38	41	47	34		39	G	G	34	39	33	37	39	36	70
22	41	36	55	34	59	28	27	44	56	61	53	88	73	66	74	75	81	64	83	60	60	46	30	44
23	36	37	39	30	36	28	50	49	56	60	43	50	43	40	42	39	50	37	40	40	28	44	68	30
24	43	23	24	25	23	50	41	42	40	41	51	57	91	46	66	46	47	41	40	40	37	58	26	
25	47	46	26	30	23	G	32	40	45	50	53	48	71	62	60	80	72	84	38	32	86	59	59	59
26	55	46	39	40	25	29	30	46	46	81	81	84	58	69	136	54	G	28	27	32	116	83	84	58
27	33	33	56	60	40	56	50	68	53	58	59	61	100	84	62	53	36	41	70	40	30	40	68	59
28	59	48	83	30	40	46	37	60	34	48	46	59		52	47	40	G	30	39	32	24	G	G	32
29	39	25	25	27	34	24	34	40	46	50		101	100	79	111	80	92	62	58	59	49	53	29	23
30	48	32	59	82	67	78	51	36	54	74	95		G			56	49	53	54	58	58	58	55	72
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	29	30	30	30	30	30	30	28	30	28	28	28	27	29	30	29	28	29	29	30	30	30	28
MED	40	39	42	38	32	32	36	46	51	60	54	58	72	52	60	54	51	44	49	40	41	40	38	44
U Q	55	57	59	48	40	48	41	53	57	69	86	90	87	72	78	80	76	63	69	59	58	58	68	59
L Q	34	32	33	30	25	24	32	40	44	49	47	50	46	48	44	47	37	38	39	32	32	34	30	29

HOURLY VALUES OF fmin AT Yamagawa

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	14	14	14	14	14	14	14	14	20	24	32	26	22	24	20	17	14	14	14	14	14	14	14
2	14	14	14	14	14	14	15	14	17	22	20	26	27	34	27	18	17	15	14	14	14	15	14	14
3	14	14	14	14	15	14	14	14	16	20	24	28	28	24	33	21	21	14	14	15	15	14	14	14
4	14	15	14	14	15	16	14	14	14	21	26	30	29	27	27	18	17	14	14	14	14	14	14	14
5	14	15	16	14	14	15	14	14	17	18	21	33	24	29	20	18	20	14	14	14	14	14	14	14
6	14	14	15	14	14	14	14	14	16	17	32	28	26	29	32	22	17	14	14	14	15	15	14	14
7	14	14	14	14	14	14	15	15	14	20	20	20	27	35	26	26	17	14	18	17	16	14	14	16
8	14	17	14	14	14	14	17	14	14	17	33	26	20	26	21	20	16	14	15	14	14	14	16	15
9	15	15	15	14	14	14	15	14	14	18	20	29	28	27	36	20	22	15	14	14	14	15	14	14
10	14	15	15	14	14	14	14	14	14	15	17	20	23	28	17	21	18	15	14	14	15	14	14	14
11	15	14	14	15	14	14	14	14	15	21	18	23	18	26	24	21	18	16	20	14	14	14	14	14
12	14	14	14	14	14	14	16	14	17	18	24	27	29	23	29	20	21	16	15	14	14	15	14	14
13	14	16	14	14	14	16	14	14	15	20		21	30	23	29	22	18	16	14	14	15	14	14	14
14	14	15	14	14	14	14	14	14		16	20	30	33	33	27	21	18	15	14	15	14	14	14	14
15	14	15	15	14	14	14	14	14	14	16	21	22	23	22	36	20	20	15	14	17	15	15	14	14
16	14	14	14	14	14	14	14	14	14	17	22	26		26	26	21	17	14	20	14	15	14	15	14
17	14	14	15	15	15	14	15	14	17	17	21	34	34	23	34	30	18	14	14	14	14	15	14	14
18	14	14	14	14	15	14	14	14	16	16	28	30	20	35	18	17	16	14	14	14	14	14	14	14
19	14	14	14	14	14	14	14	14	16	17	22	22	18	18	26	22	20	14		14	15	15	14	14
20	15	14	14	14	14	15	14	14	15	16	17	18	26	23	34	22	20	14	14	14	15	15	15	15
21	14	15	14	14	15	15	14	14	17	20	22	24	24		23	22	20	16	14	14	14	14	15	14
22	14	14	14	14	14	14	14	14	17	18	21	22	29	24	21	21	17	14	14	14	15	14	14	14
23	14	14	15	14	14	15	14	14	14	16	20	27	20	24	20	22	16	14	14	14	14	14	14	14
24	15	14	14	14	15	14	14	15	17	18	20	28	22	26	21	21	17	14	14	15	14	15	16	14
25	15	14	15	14	14	16	14	15	17	22	18	33	26	22	29	20	21	14	14	14	15	14	14	14
26	14	14	15	15	14	14	14	14	14	16	20	27	27	21	33	18	16	14	15	14	15	14	15	14
27	18	14	15	15	15	14	15	16	18	17	20	22	27	24	21	20	18	14	14	14	14	14	14	14
28	14	14	15	15	14	14	14	14	16	20	34	21	34	35		33	18	15	14	15	16	16	17	14
29	14	14	14	14	14	15	14	14	17	18		29	24	27	21	21	21	14	14	14	16	15	14	15
30	15	14	14	14	15	15	14	14	14	17	27	33	48			34	17	17	14	14	14	15	14	14
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	29	30	28	30	29	28	28	30	30	30	29	30	30	30	30	30
MED	14	14	14	14	14	14	14	14	16	18	21	27	26	26	26	21	18	14	14	14	14	14	14	14
U Q	14	15	15	14	15	15	14	14	17	20	24	30	29	28	30	22	20	15	14	14	15	15	14	14
L Q	14	14	14	14	14	14	14	14	14	17	20	22	23	23	21	20	17	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Okinawa

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	56	66		A	A	A	A	A	A	87	111	105	82	66	66	A	A
2	A	A	58	A	50	44	54	61	60	55	45			A	67	77	78	A	A		54	47	42	36
3	A	A	40	A			40	56		57	A	A	A			A	62	80	85	64	66	60	49	52
4	47	44	48	49	32			52	57	62		52		67	67		67	72	72	A	A	60	58	52
5	52	47	50	44	48	43	44	52		66	A	A		A	A	64	66	70	72	66	A	63	51	48
6	44	44	51	54	32	30	42	51	45	A	60	A	64	70	A	A	101	108	88	72	66	66	54	53
7	54	54	57	52	52	47	56		74	60		53			A	A	A	75	74	64	A		51	
8	53	53	52	51	31	41	A	47	47	A	60			64	A	58	63	76	85	77	71	66	54	52
9	52	54	48	50	46	42	51	A	56	56	57				64	78	92	90	86	85	87	67	63	62
10	66	65	54	54	44	A		68	64		A	A	64	A	65	67	73	80	85	74	53	45	A	43
11	32	A		A	A		A	58	53	A	62	A	A	A		74	85	83	78	72	66	54	44	A
12	44	A	44	36	26	37	46	63	A					61			75	90	104	88	64	53	A	A
13	40	42	32	37	30	36	47	51	54	A	62	65	A	A	76	81	82	82	82	A	89	66	A	A
14		49	44	45	44	51	52	56	50	A	A	A	A	A	A	A	A	86	88	A	A	A	53	44
15		A			A		40	52	65	56				65	72	76	86	88	104	100	66	54	60	52
16	52	50		39	44	A	34	47									58	62	66	61	A	52		45
17	A	32	41	A	35	30	38	38	51	A	61	59		A	60	61	68	78	88	A		55	52	48
18	42	51	41	37	A	34	A	56	A	49		A		C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	63			61			60	62	56	50	58	44	50	50
20		44	44	36	38	36	47	48	47		53	A		A	63	A		64	81	82	61		54	47
21	42	43		38	30	34	46	52	58	57					55	70	80	64	65	54	52	52	50	40
22	42	42	38	30	29	36	48	44	46	52				A	64	71	76	84	85	78	61	49	49	50
23	44	42	43	44	36	30	40	60	68	A	78					61	66	65	72	82	86	44		
24		A	32		26		36	52	A	57	61	64	67		A	57	66		A	50	54	51	42	40
25				32	31	29	46	56			58	A		A	A		71		C	88	66	62	32	
26			A	30	30		40	50	56	53	53					65	70	78	66	54	77	58	A	
27		A		A	23	23	47	56	58	A		A	73	C	C	C	C	C	C	C	C	C	C	C
28	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	15	16	18	18	21	17	20	24	19	12	13	5	4	6	10	14	22	22	22	20	19	22	18	17
MED	44	46	44	42	32	36	46	52	56	56	60	59	66	64	64	68	72	79	84	73	66	54	51	48
U Q	52	52	51	50	44	42	47	56	64	58	62	64	70	67	67	76	82	86	88	82	71	63	54	52
L Q	42	42	41	36	30	30	40	50	50	54	55	52	64	61	63	61	66	70	72	62	58	51	49	43

HOURLY VALUES OF fEs AT Okinawa

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	56	51	79	77	52	48	105	56	68	68	94	148	146	164	168		55	G	49	39	41	40	92	92
2	132		79	61	36	28	30	39	56	57	50	G	56	76	G	40	68	89	114	60	35	57	29	36
3	49	83	59	43	36	35	36	41	58	46	65	90	103	56	55	95	94	50	36	G	38	39	28	G
4	28	28	G	36	38	32	52	38	48	48	58	48	53	50	56	82	64	74	60	66	86	45	36	28
5	27	29	25	G	G	G	40	65	60	72	78	58		50	77	G	G	43	40	46	80		G	33
6	44	42	39	42	G	26	27	40	70	76	48	68	61	52	83	85	67	94	71	40	48	29	27	25
7	29	27	47	33		30	G	48	47	46	49	43	51	55	64	79	86	60	68	66	80	36	34	28
8	G	34	G	36	39	38	40	37	43	70	61	G	50	51	98	G	52	41	G	32	49	24	29	39
9	47	41	G	G	34	31	36	84	145	G	G	G	50	51	G	G	G	43	38	42	50	59	38	51
10	30	42	36	40	29	40	41	42	46	49	125	79	53	114	50	40	G	G	41	26	26	35	51	38
11	28	46	40	59	36	35	68	66	49	52	53	70	90	58	49	G	G	38	34	32	36	32	40	51
12	41	51	45	G	G	G	G	38	50	G	G	57	73	G		G	G	40	44	58	40	37	39	43
13	26	G	G	G	G	G	31	49	50	106	74	56	116	98	78	46	66	42	69			83	71	67
14		33	40	30	27	28	G	35	46	151	70	134	80	89	136	101	91	74	84	90	88	57	36	33
15	37	71	37	26	39	36	35	40	46	51	43	57	60	58	51	48	45	42	G	G	G	G	G	G
16	G	36		34	36	43	34	35	43	32	36					78	46	46	29	44	60		50	45
17	80	27	30	48	43	36	28	34	52	75	G	52	70	80	G	G	G	34	56	79	26	34	28	G
18	33	32	48	30	46	27	72	43	59	47	58	67	50	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	44	51	38	G		60	50	34	33	30	35	30	G	G
20	37	25	26	28	34	24	G	34	36	36	48	63	40	96	56	92	61	47	56	53	50	58	36	26
21	30	26	44	G	G	G	41	G	35	41	38	40			35	53	58	33	51	41	38	34	30	28
22	34	30	43	G	24	G	G	28	33	39	56	39		76	66	48	40	77	60	29	59	28	28	36
23	G	39	37	39	35	G	30	38	35	66	40	36			G	G	G	36	36	27	G			26
24	49	38	27		34		31	38	83	62	35	54	54	54	67	G	59		96	50	36	46	38	G
25				24	29	32	33	42	46	36	46	73		61	74		72	40	C	30	25	25	29	26
26		39		27	31		28	36	39	36	54			49	57	49	50	G	47	70	28	33	49	30
27	G	39	31	40	38	27	43	48	62	83	63	84	G	C	C	C	C	C	C	C	C	C	C	C
28	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	23	24	23	25	25	24	26	26	26	26	27	25	20	22	22	23	25	24	24	24	24	22	24	25
MED	33	37	37	33	34	29	34	40	48	50	50	57	55	57	56	48	52	42	48	42	39	36	35	30
U Q	47	42	45	41	38	35	41	48	59	70	63	71	76	80	77	79	66	55	64	59	54	46	39	41
L Q	27	28	26	12	25	12	28	36	43	39	40	41	50	51	49	G	G	35	36	30	31	30	28	25

HOURLY VALUES OF fmin AT Okinawa

JUN. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	14	14	14	14	14	15	14	15	21	22	35	38	34	21	22	15	15	14	14	14	14	14	15
2	14	14	14	14	14	14	14	14	18	16	22	54	38	38	48	21	21	16	14	14	14	14	14	14
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18	14	14	14	14	14	14	14	14	21	23	26	38	27	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	22	29	30	52	48	24	20	17	14	14	14	14	18	15
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27	53	14	14	14	14	14	14	14	15	20	20	34	53	C	C	C	C	C	C	C	C	C	C	C
28	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
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31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	26	25	24	25	26	24	26	26	26	26	26	25	19	22	23	24	25	24	24	25	25	25	24	25
MED	14	14	14	14	14	14	14	14	16	20	22	32	34	35	32	24	21	16	14	14	14	14	14	14
U Q	15	14	15	14	14	14	15	14	17	21	27	35	38	38	38	30	21	17	14	14	14	14	14	15
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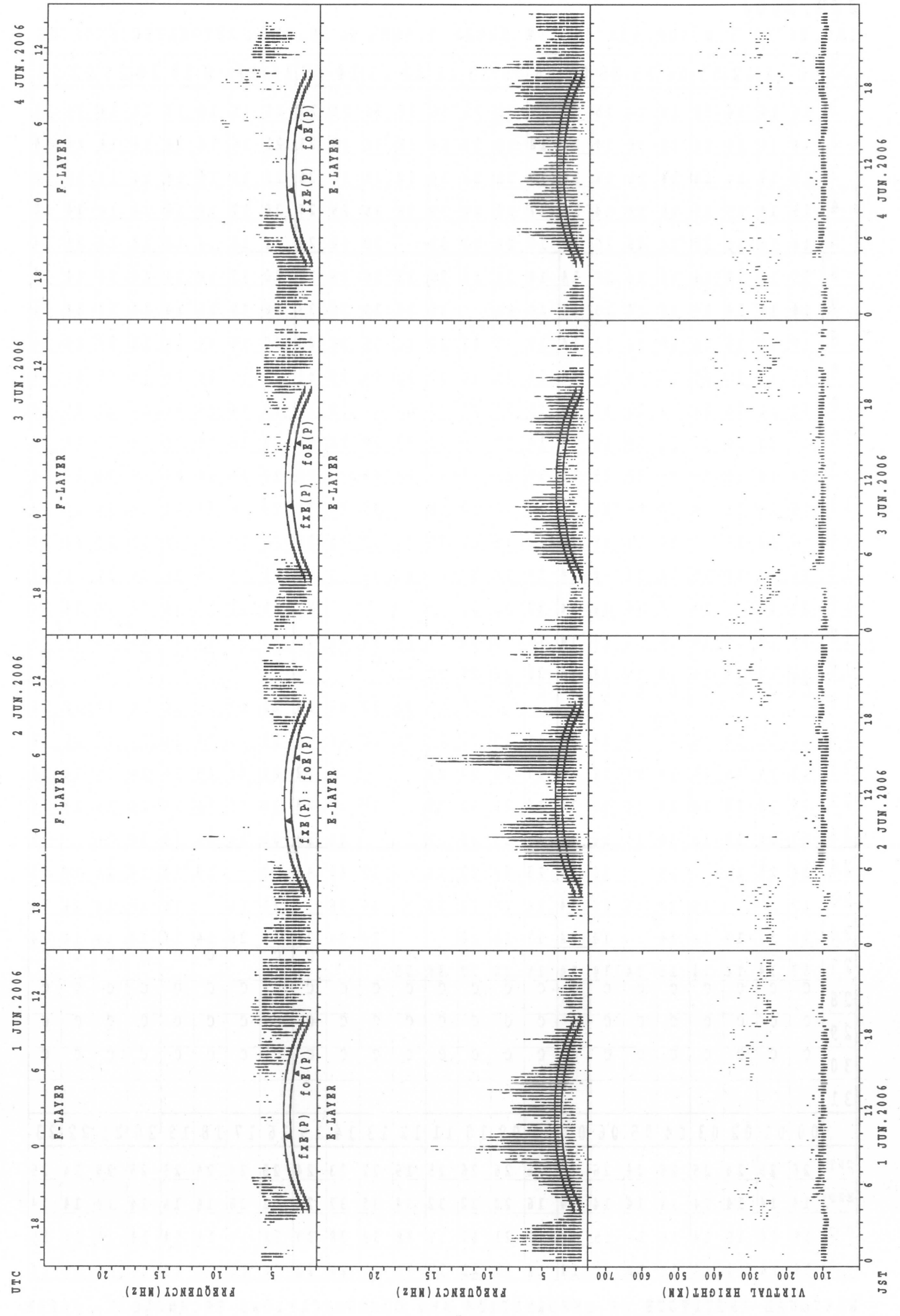
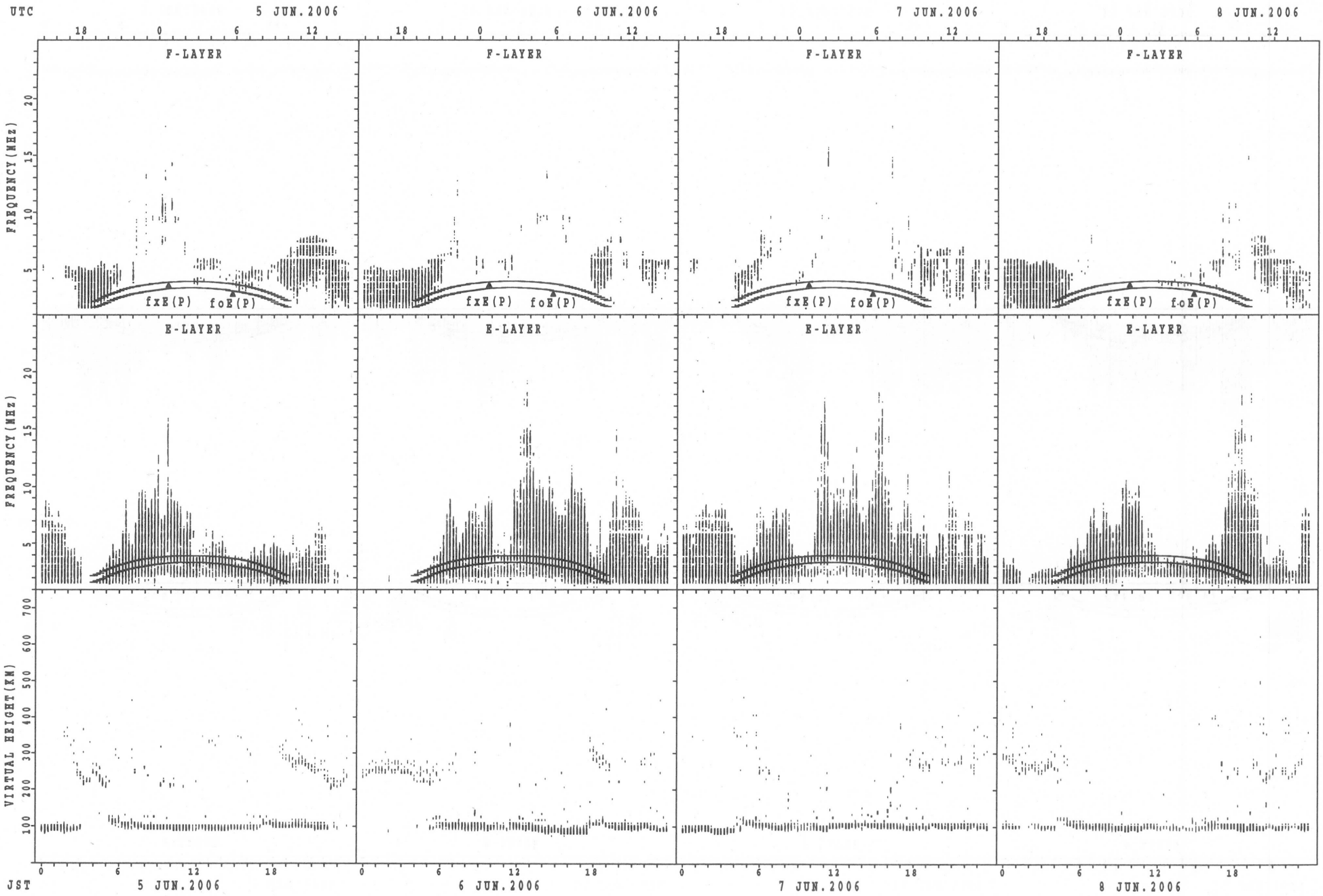
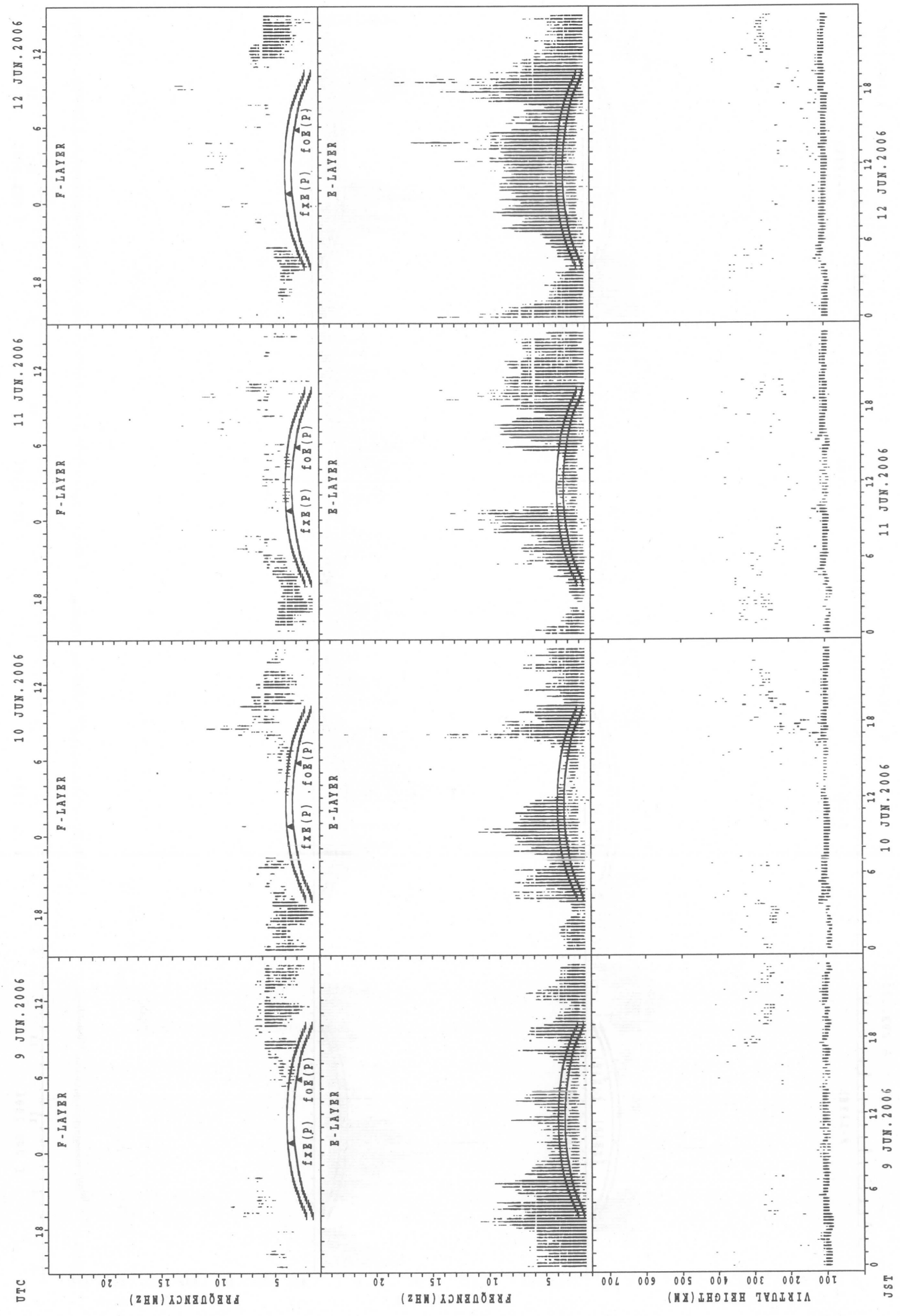

SUMMARY PLOTS AT Wakkanai
UTC
JST
1 JUN.2006
2 JUN.2006
3 JUN.2006
4 JUN.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P) foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

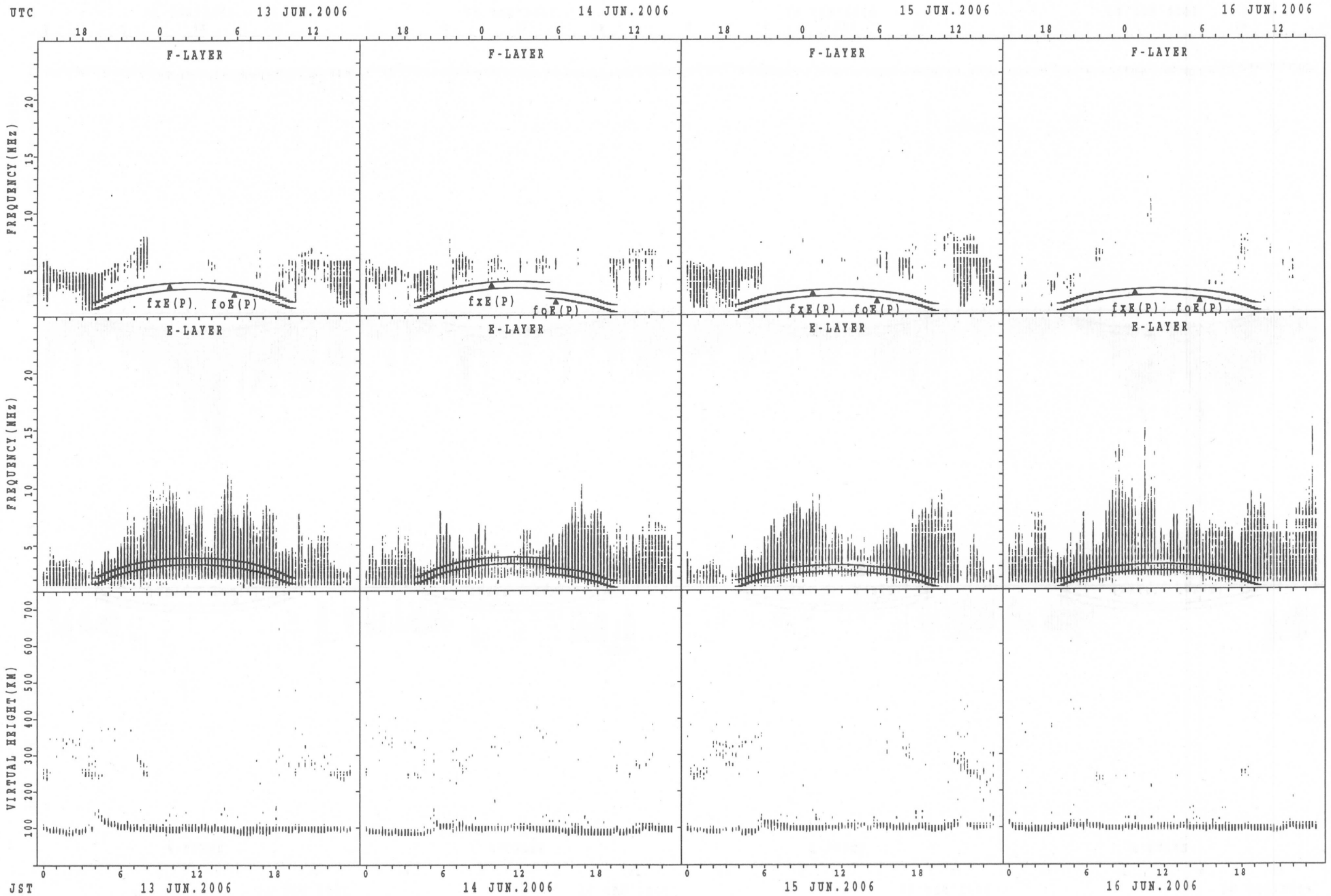
SUMMARY PLOTS AT Wakkanai



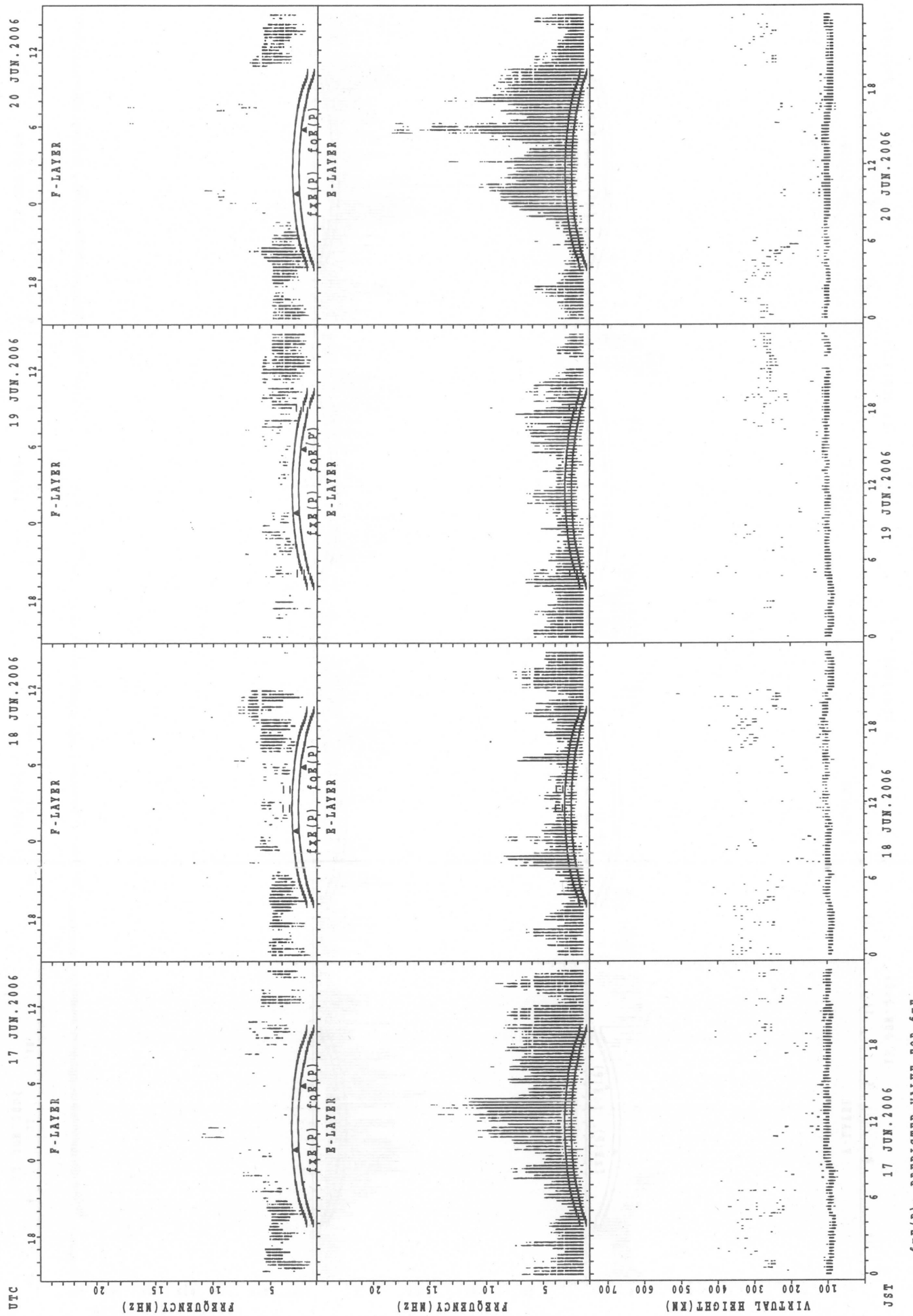
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Wakkanai
UTC
9 JUN.2006
10 JUN.2006
11 JUN.2006
12 JUN.2006
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

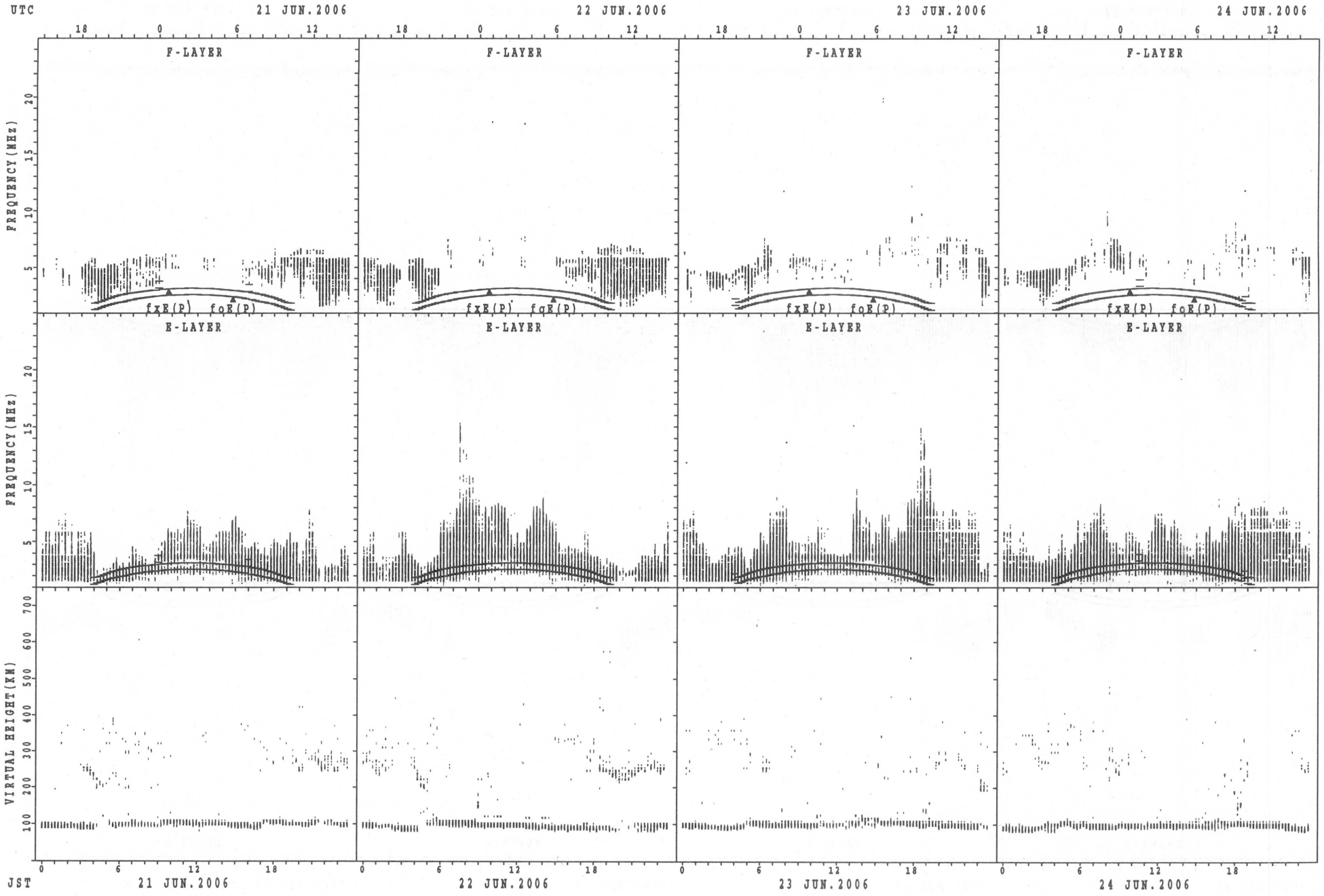
SUMMARY PLOTS AT Wakkanai



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

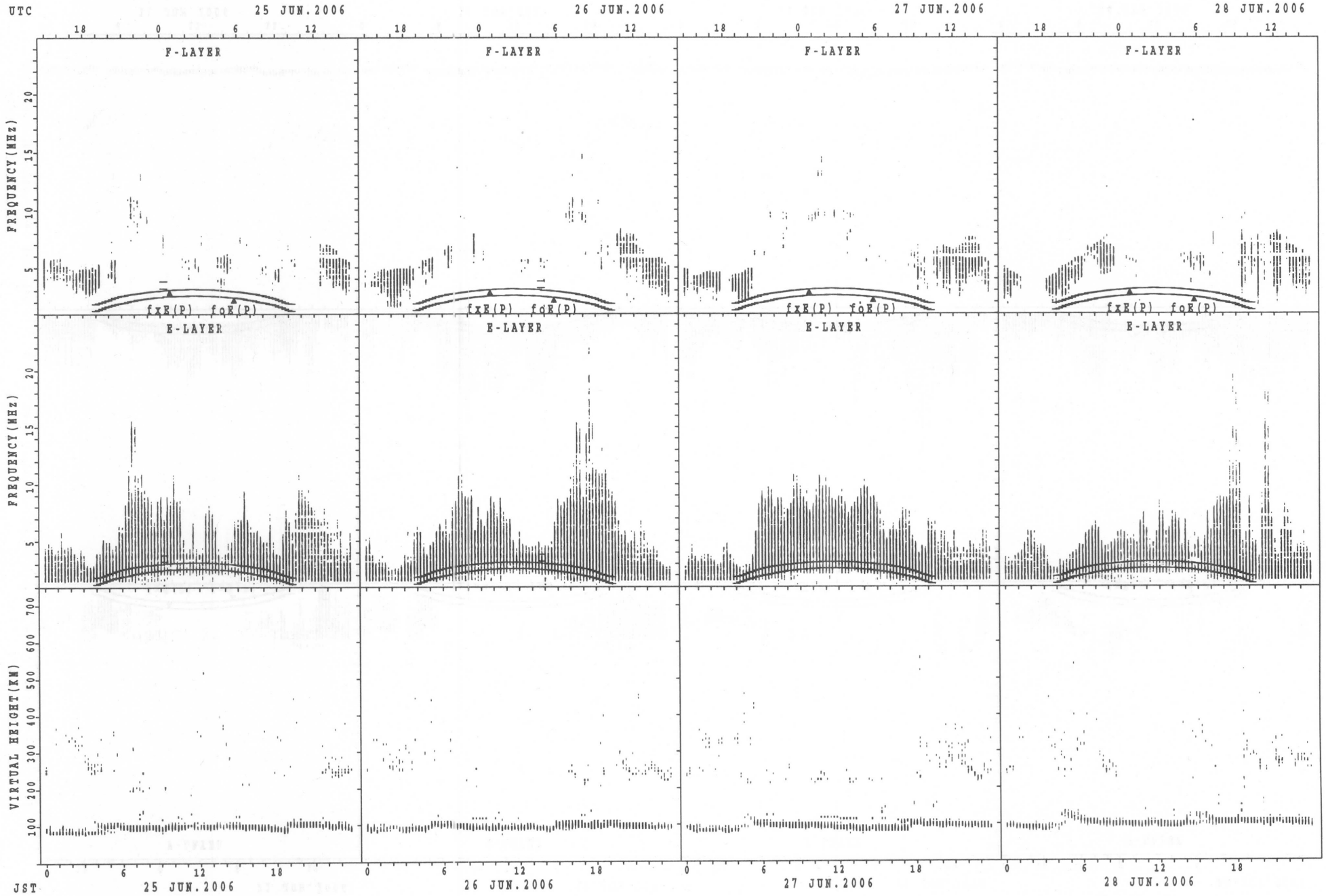

SUMMARY PLOTS AT Wakkanai
UTC
JST
17 JUN.2006
18 JUN.2006
19 JUN.2006
20 JUN.2006
F-LAYER
E-LAYER
FREQUENCY (MHz)
VIRTUAL HEIGHT (KM)
fxE(P)
foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



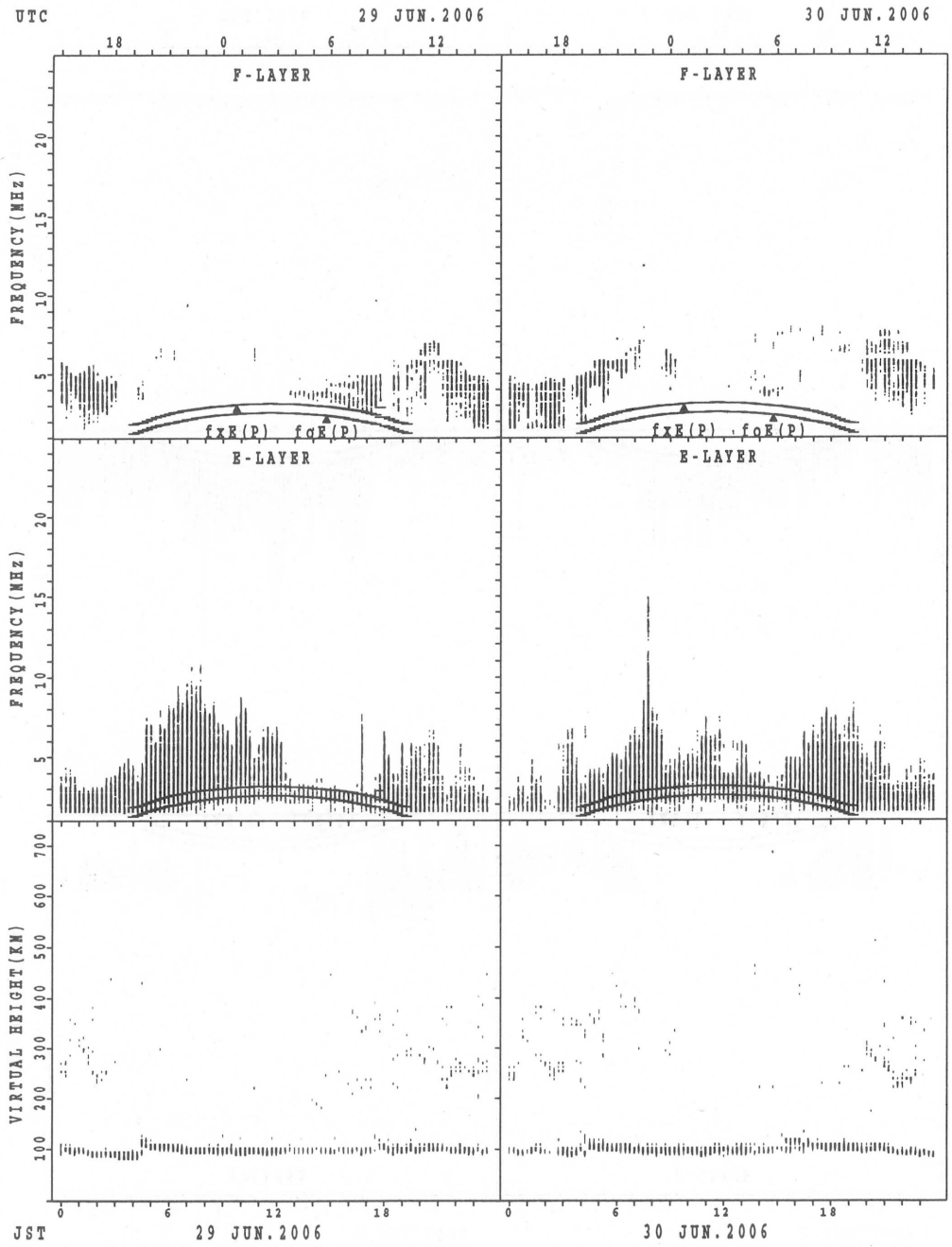
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



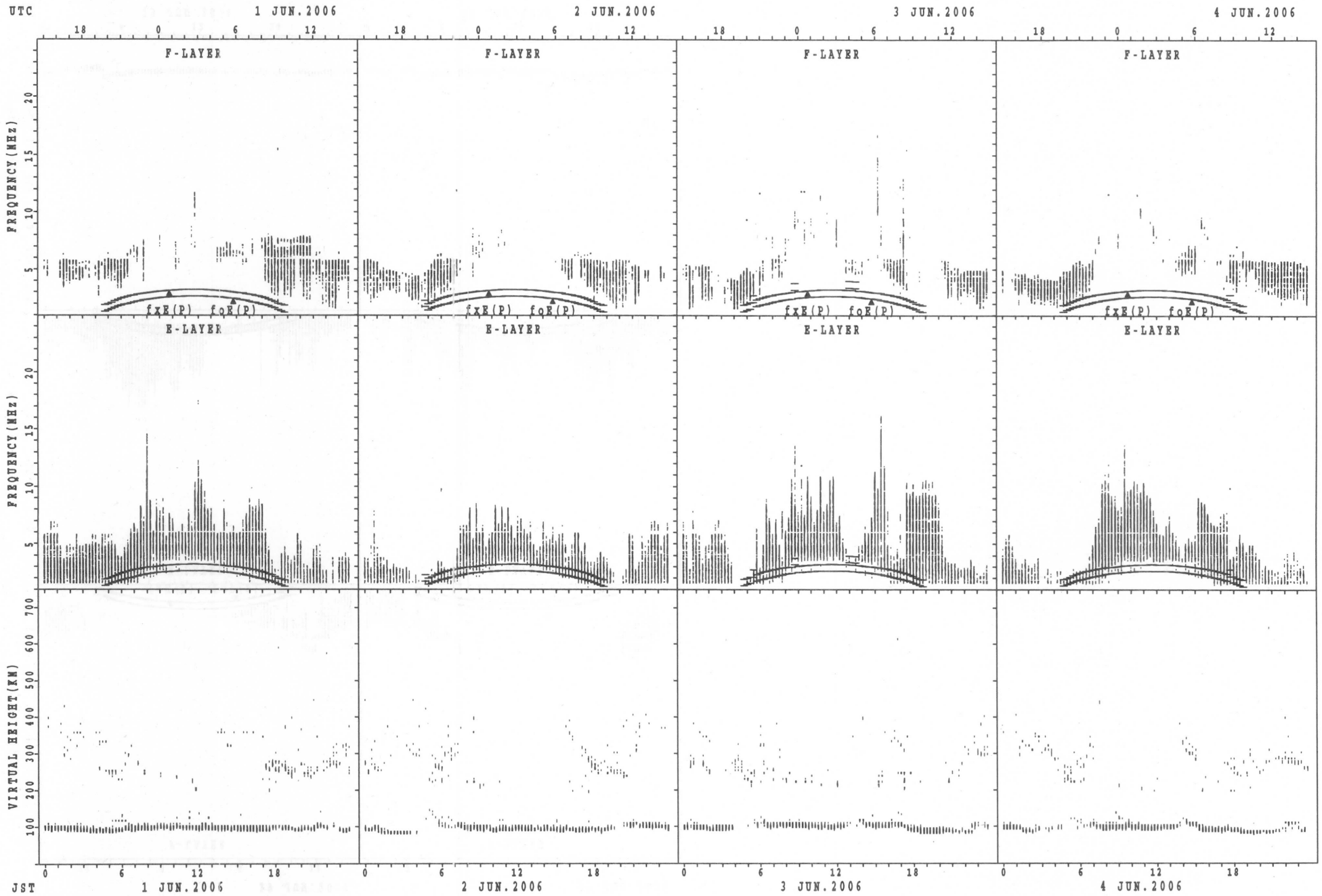
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



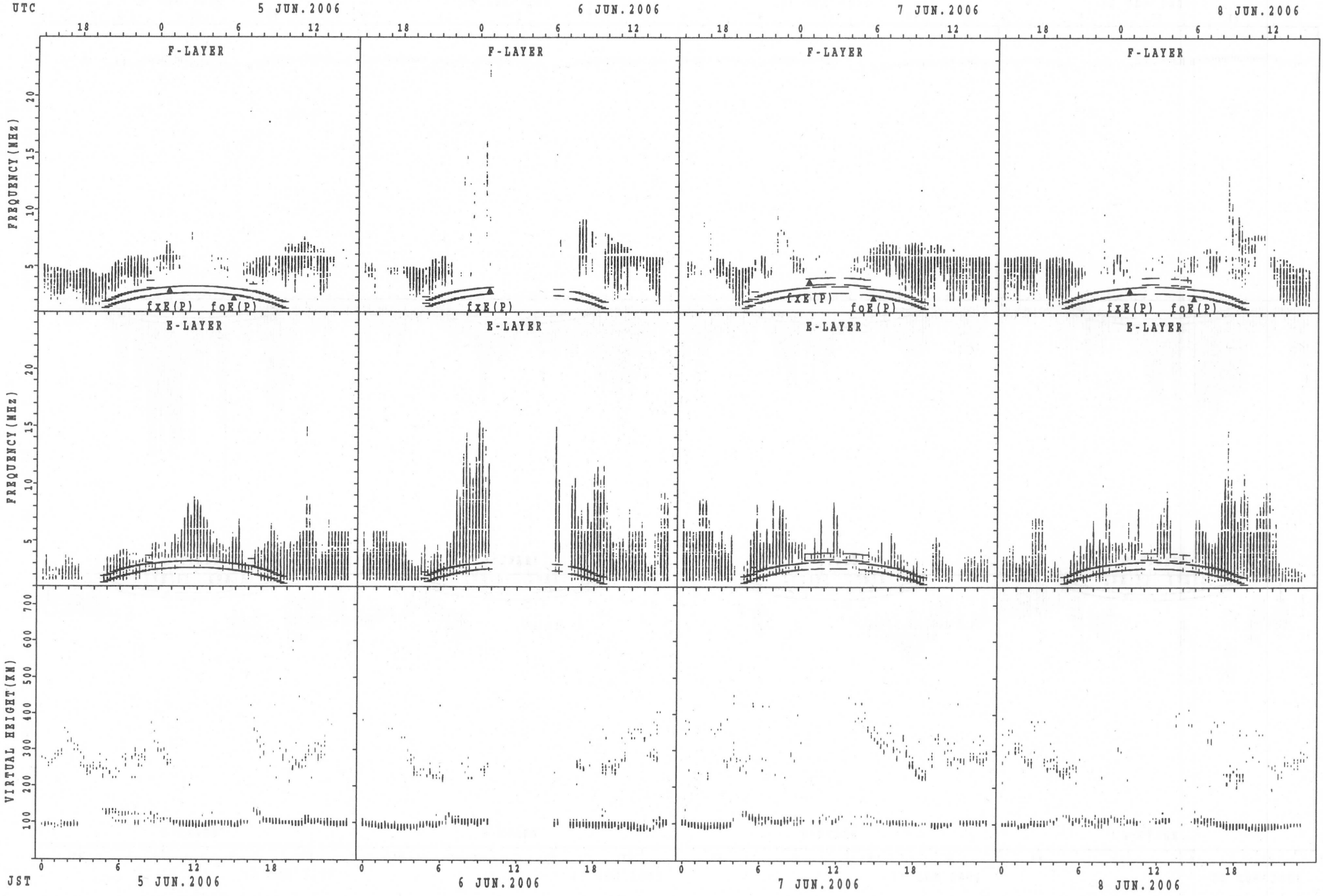
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji

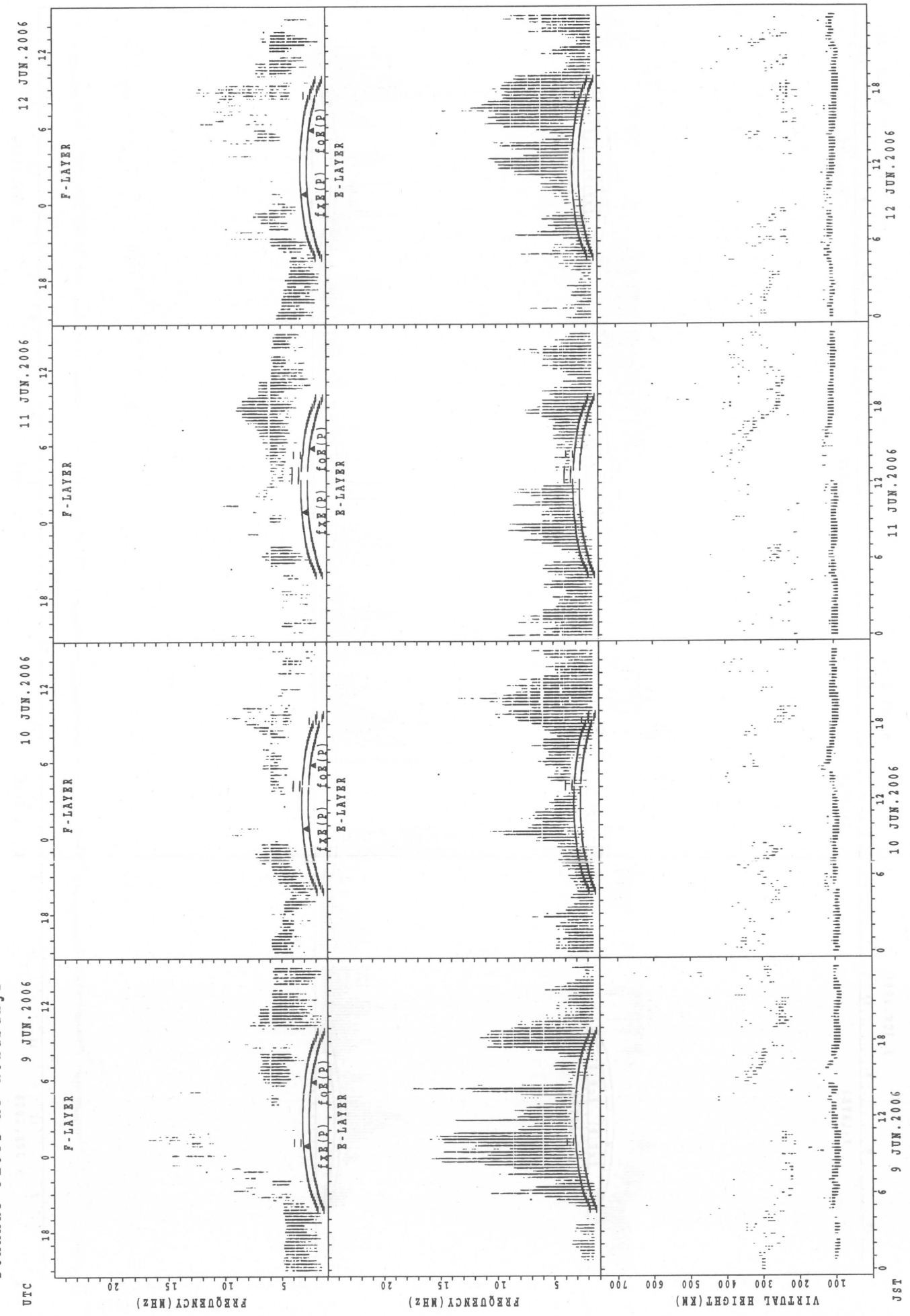


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

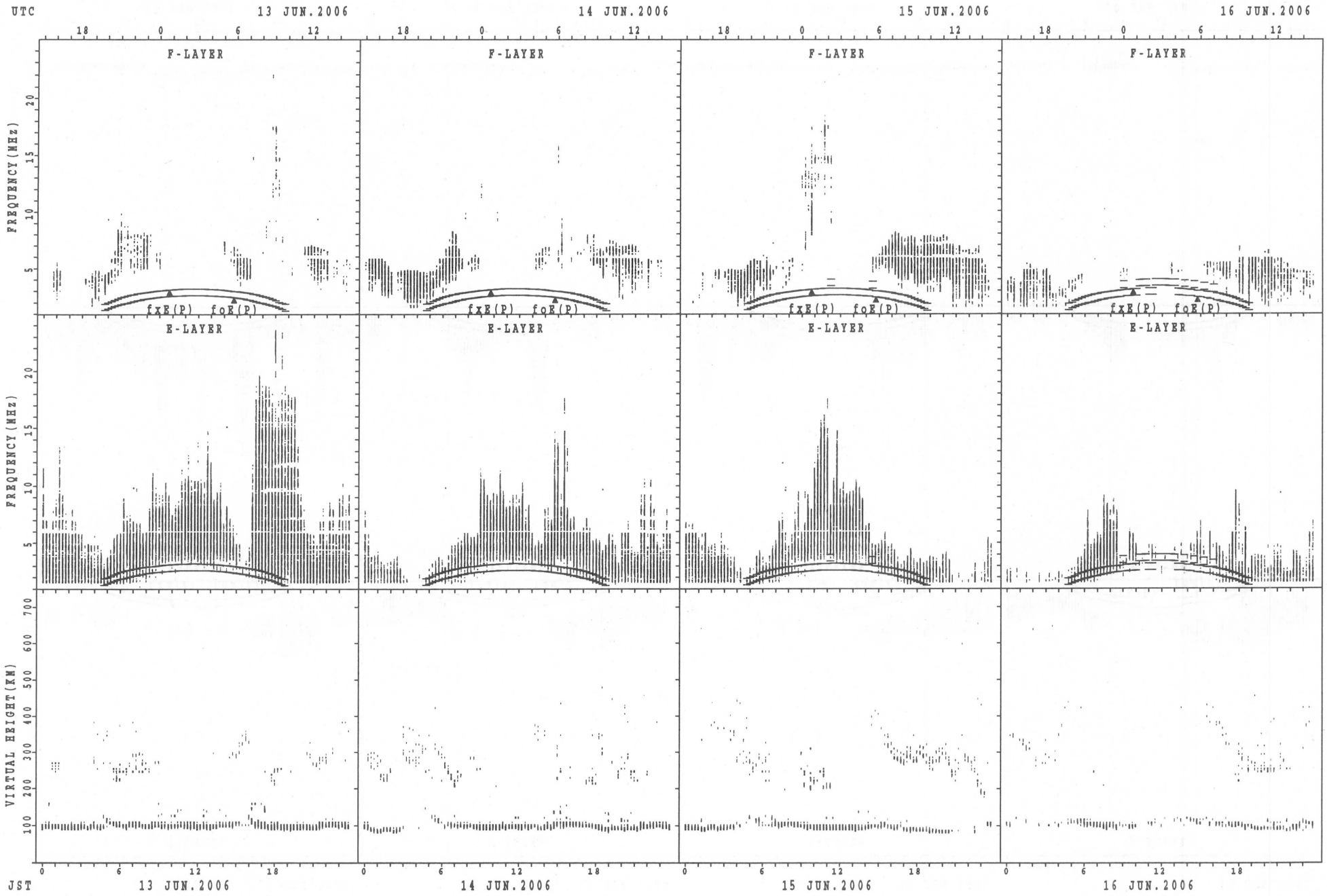
SUMMARY PLOTS AT Kokubunji



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

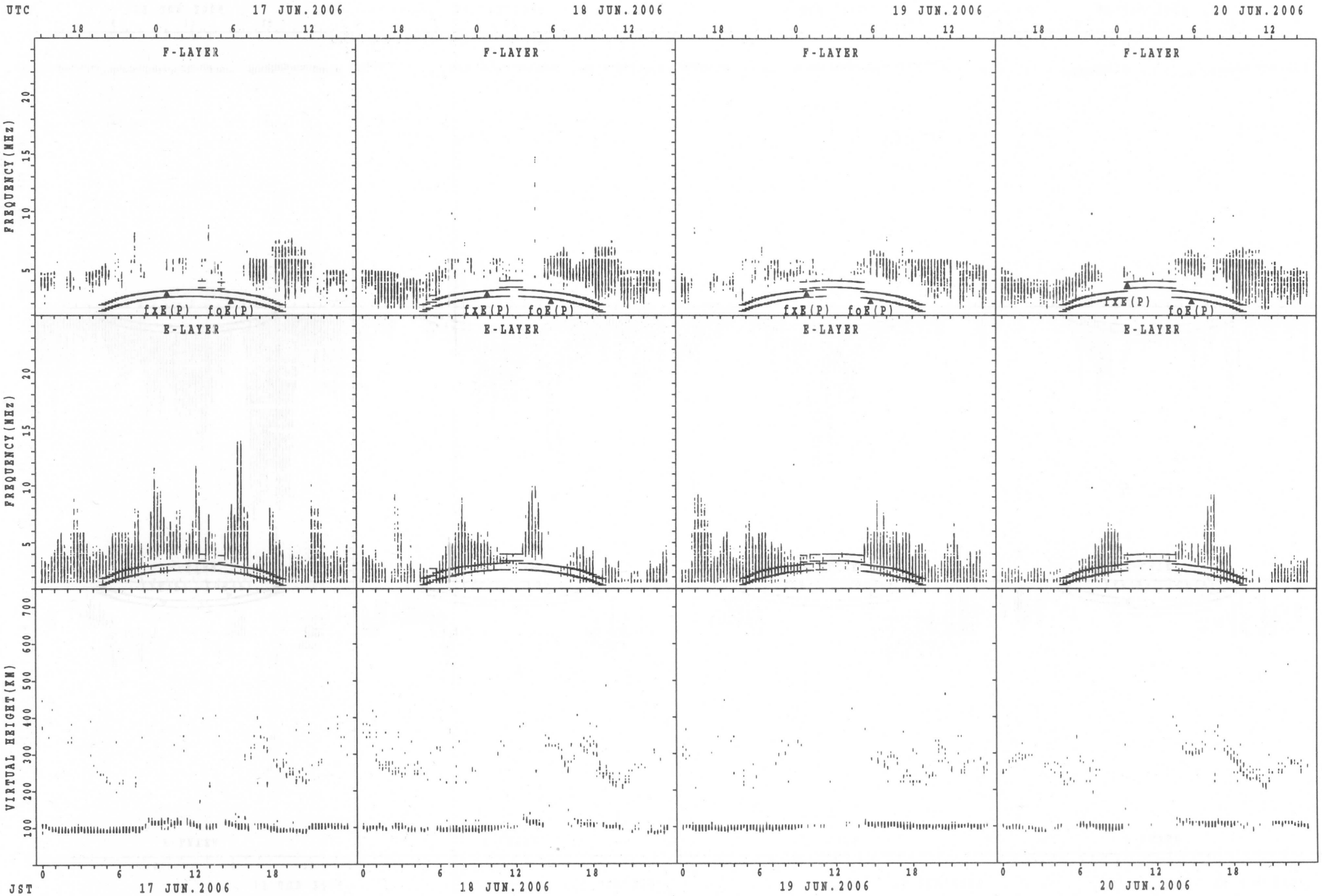

SUMMARY PLOTS AT Kokubunji
UTC
JST
9 JUN.2006
10 JUN.2006
11 JUN.2006
12 JUN.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



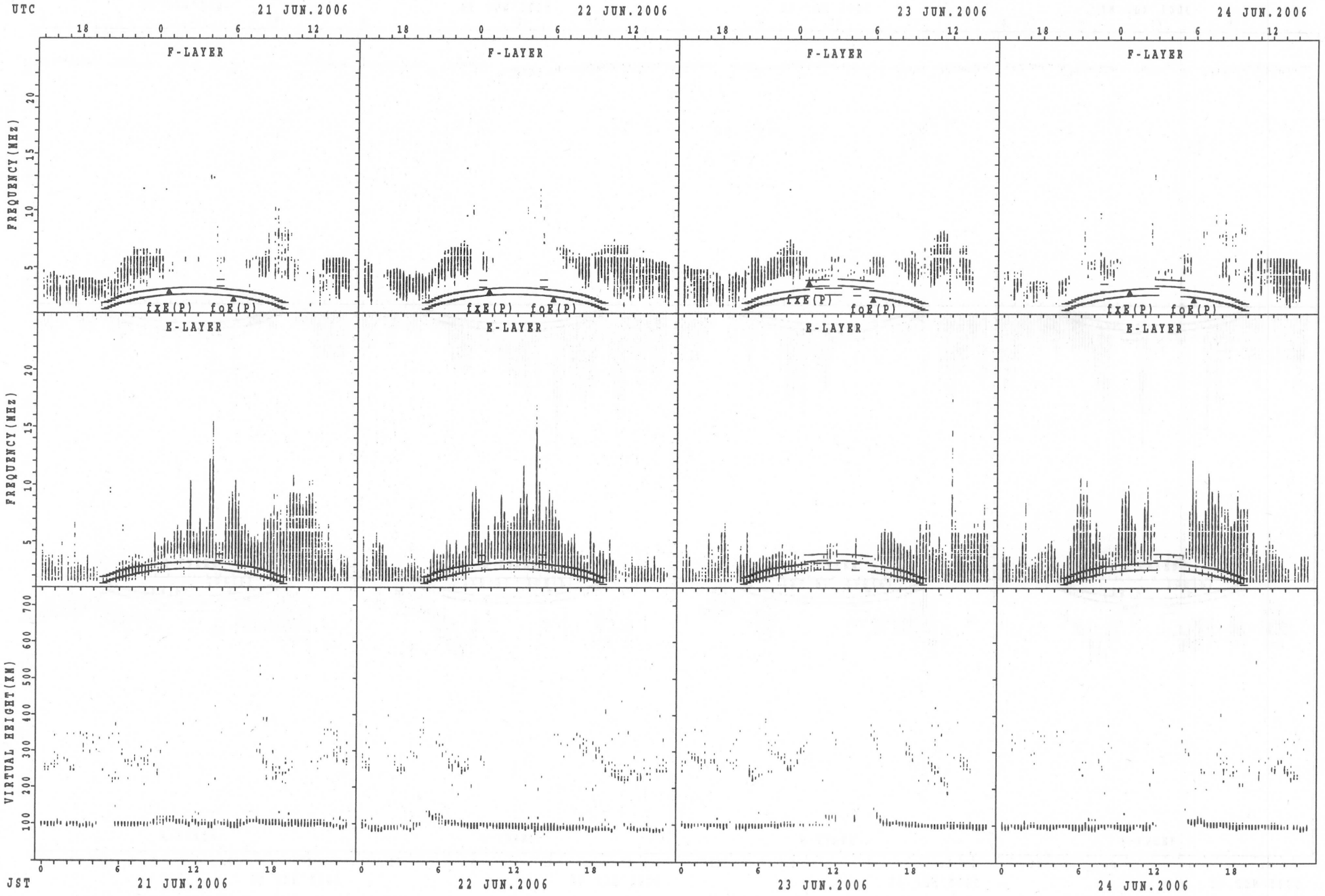
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji

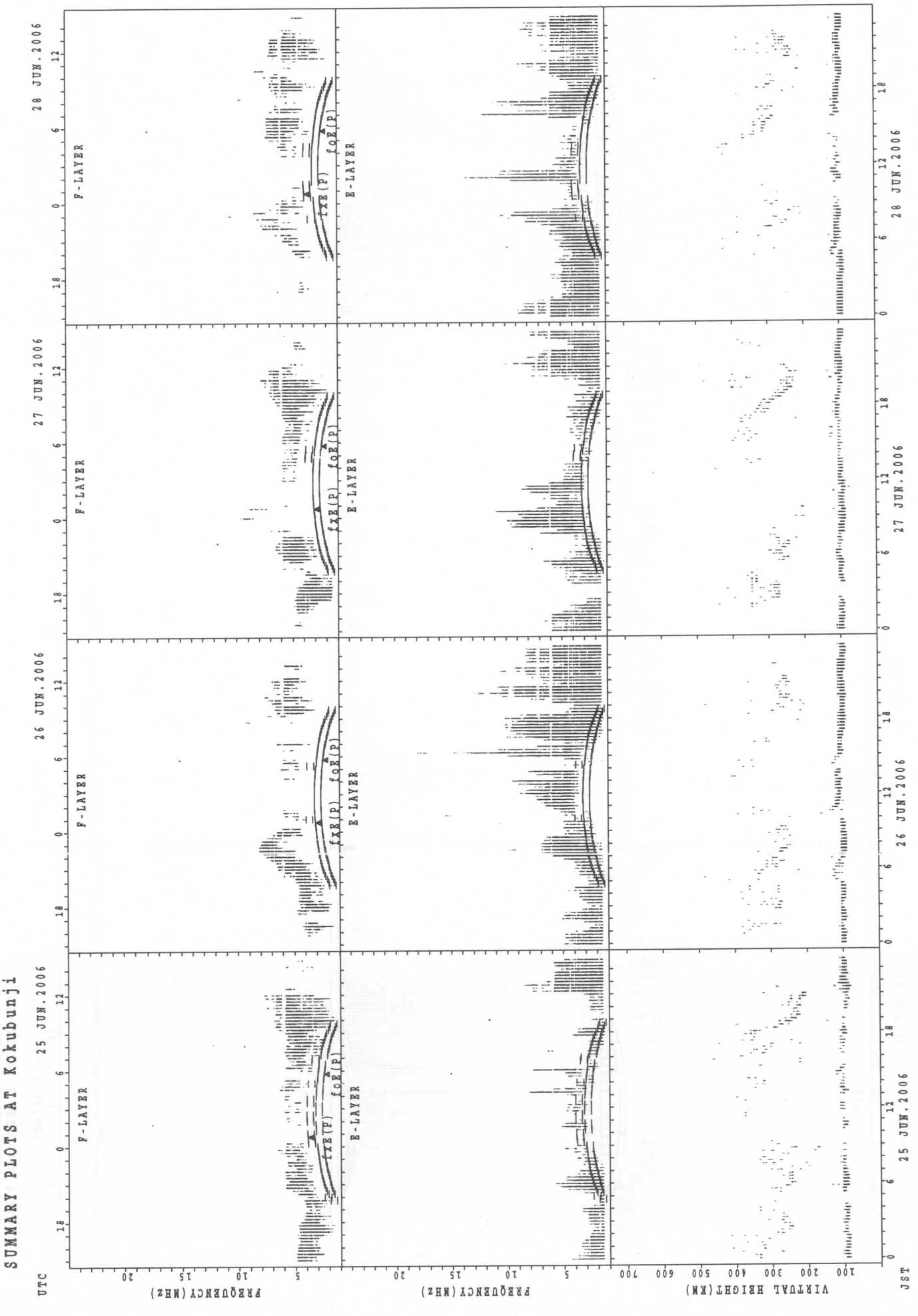


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

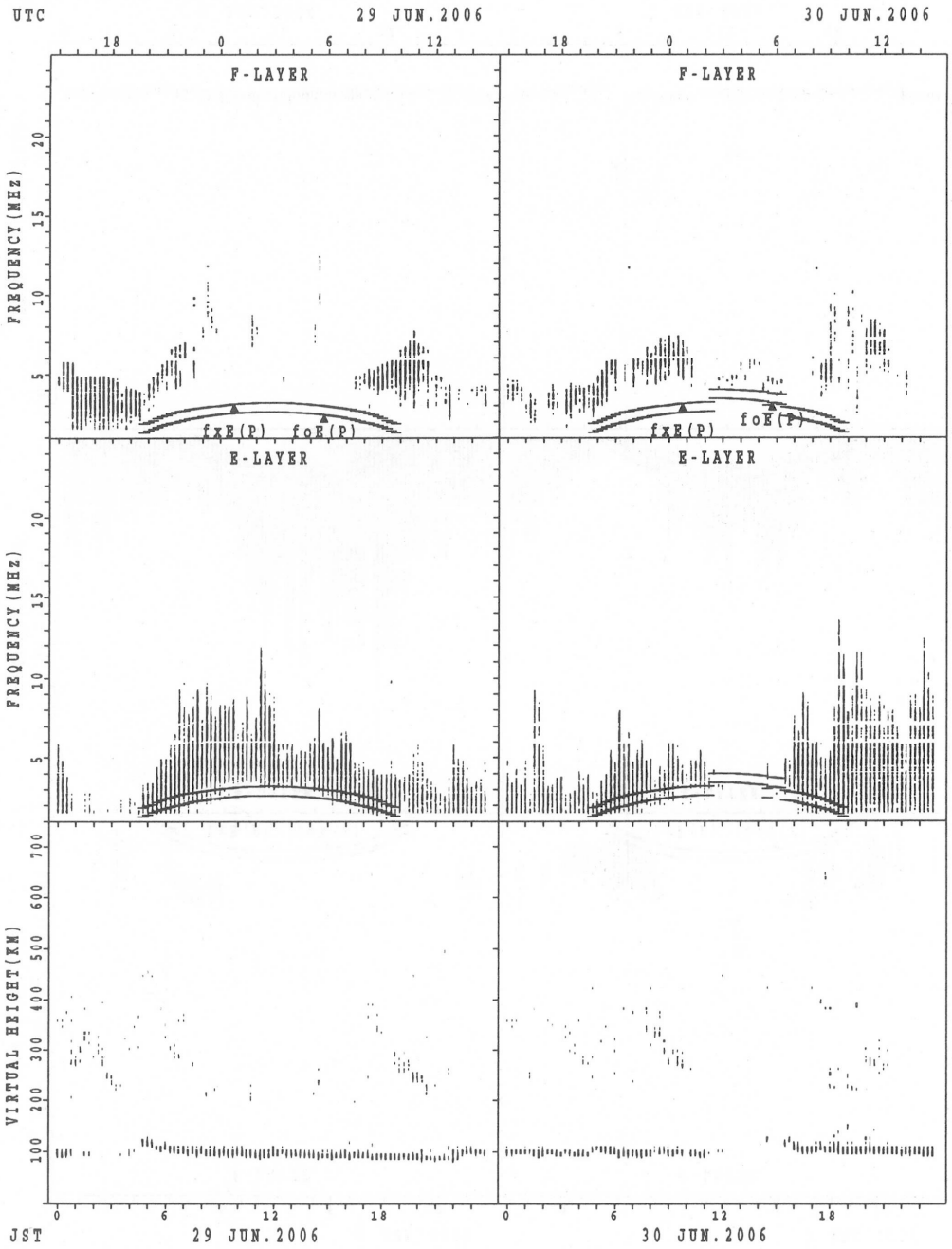
SUMMARY PLOTS AT Kokubunji



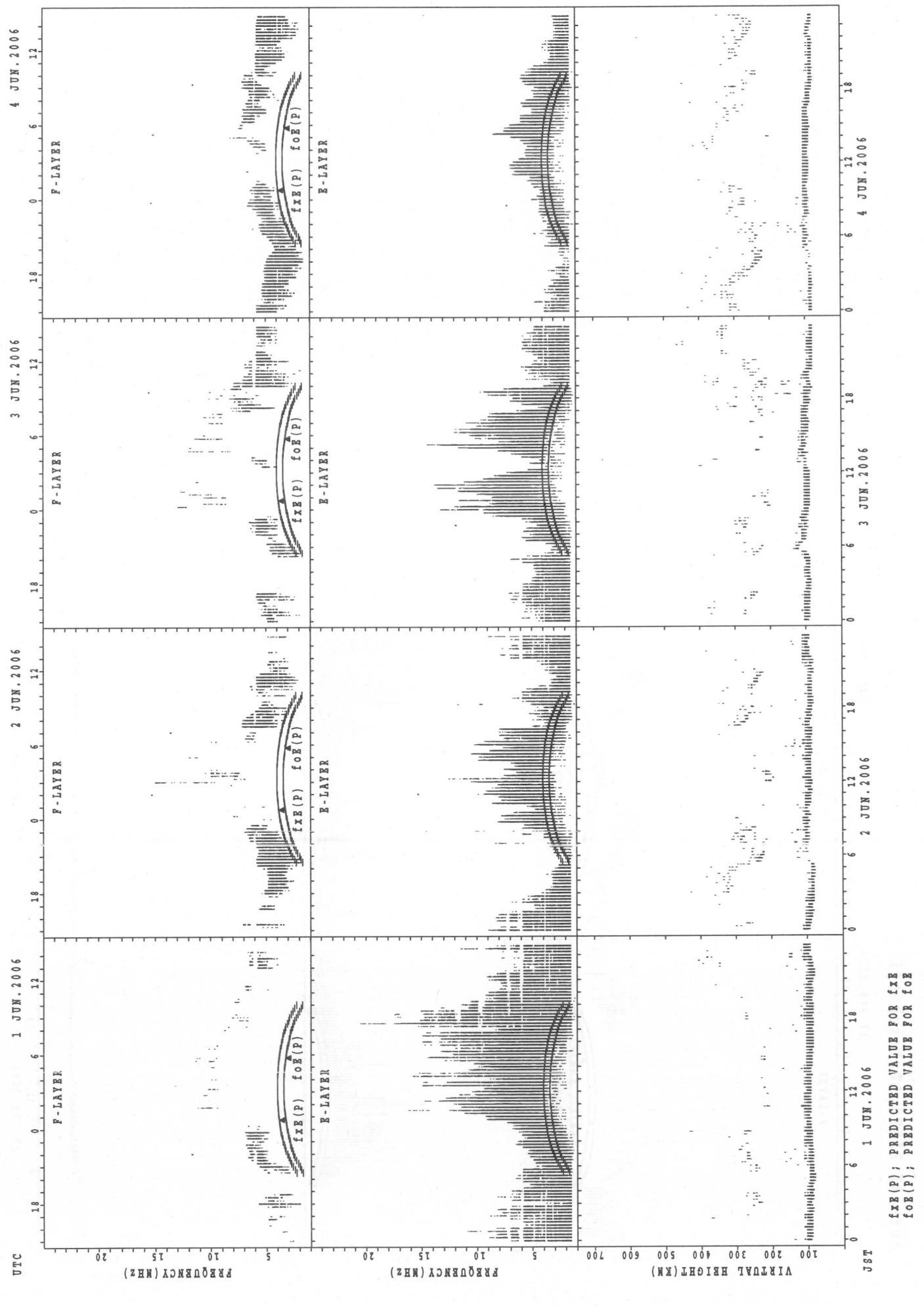
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

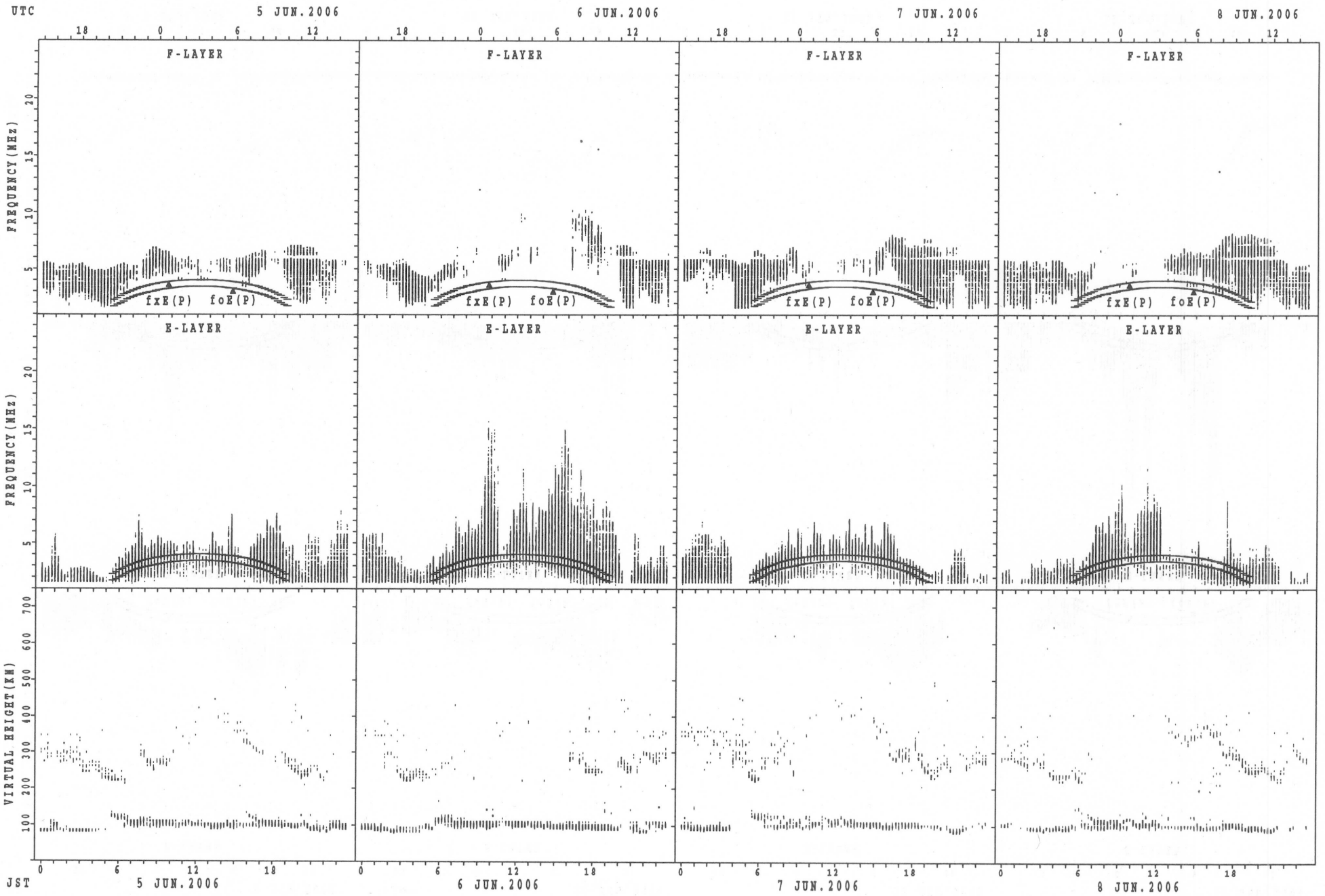

SUMMARY PLOTS AT Kokubunji
UTC
JST
25 JUN.2006
26 JUN.2006
27 JUN.2006
28 JUN.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

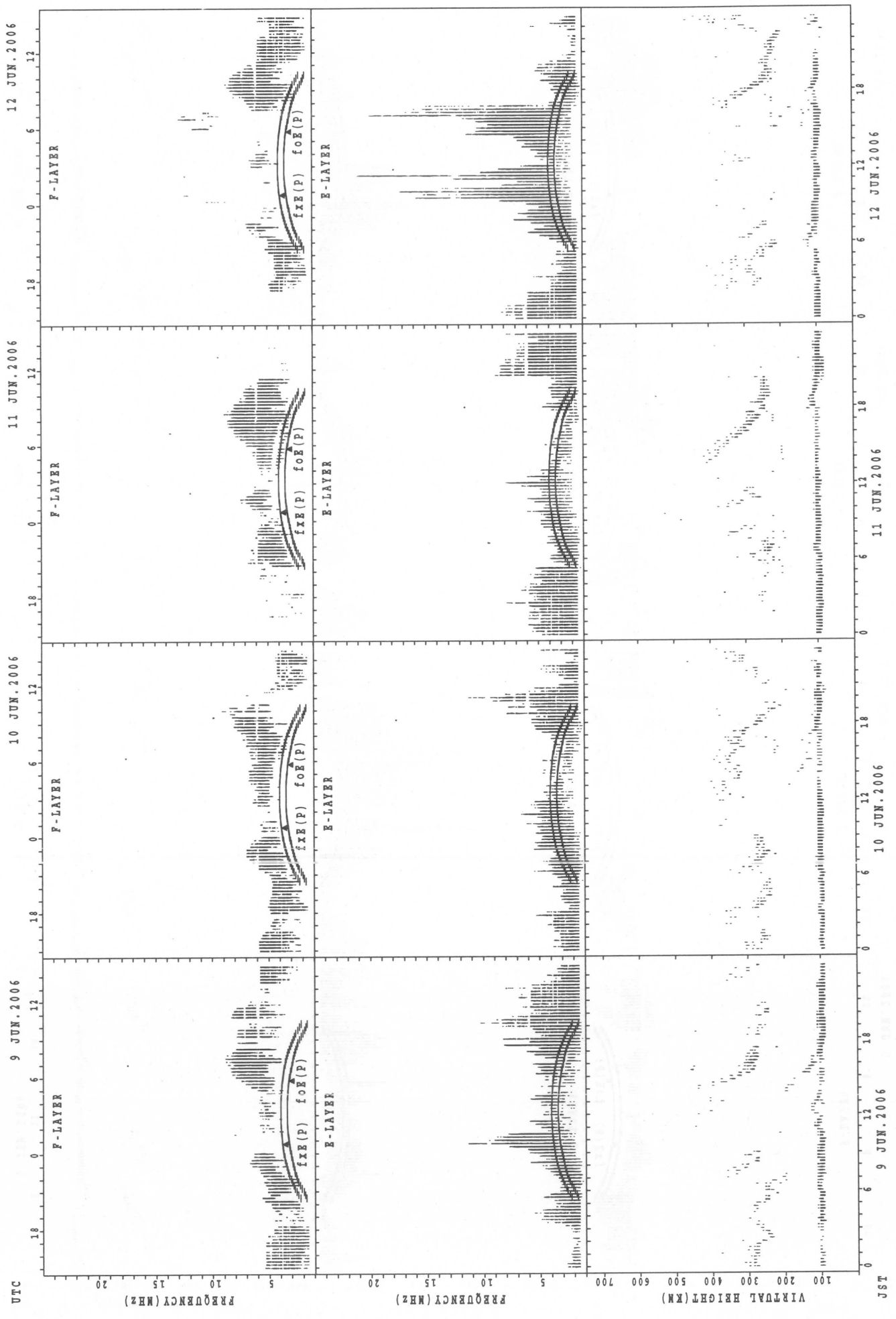
SUMMARY PLOTS AT Kokubunji



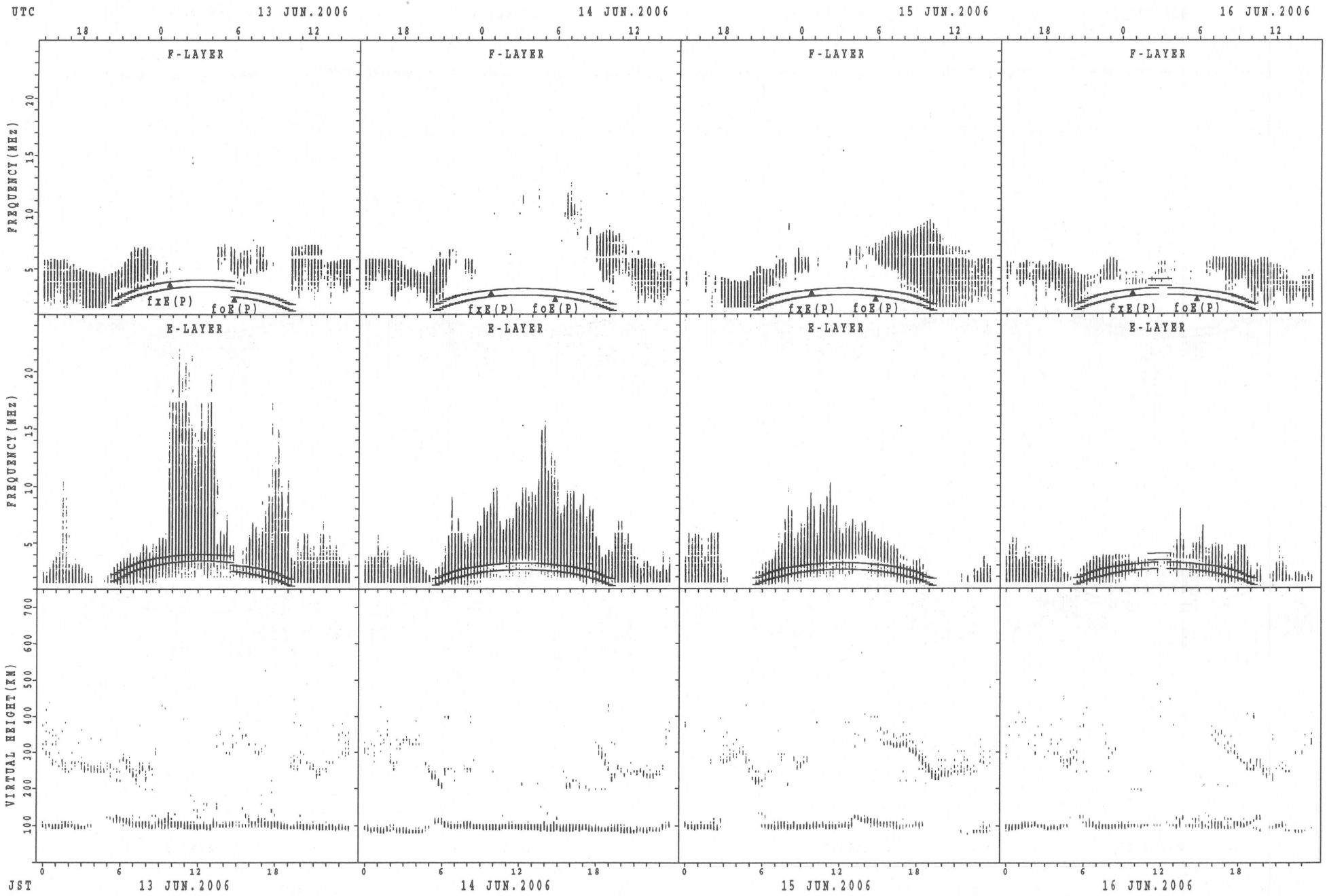
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Yamagawa
UTC
1 JUN.2006
2 JUN.2006
3 JUN.2006
4 JUN.2006
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

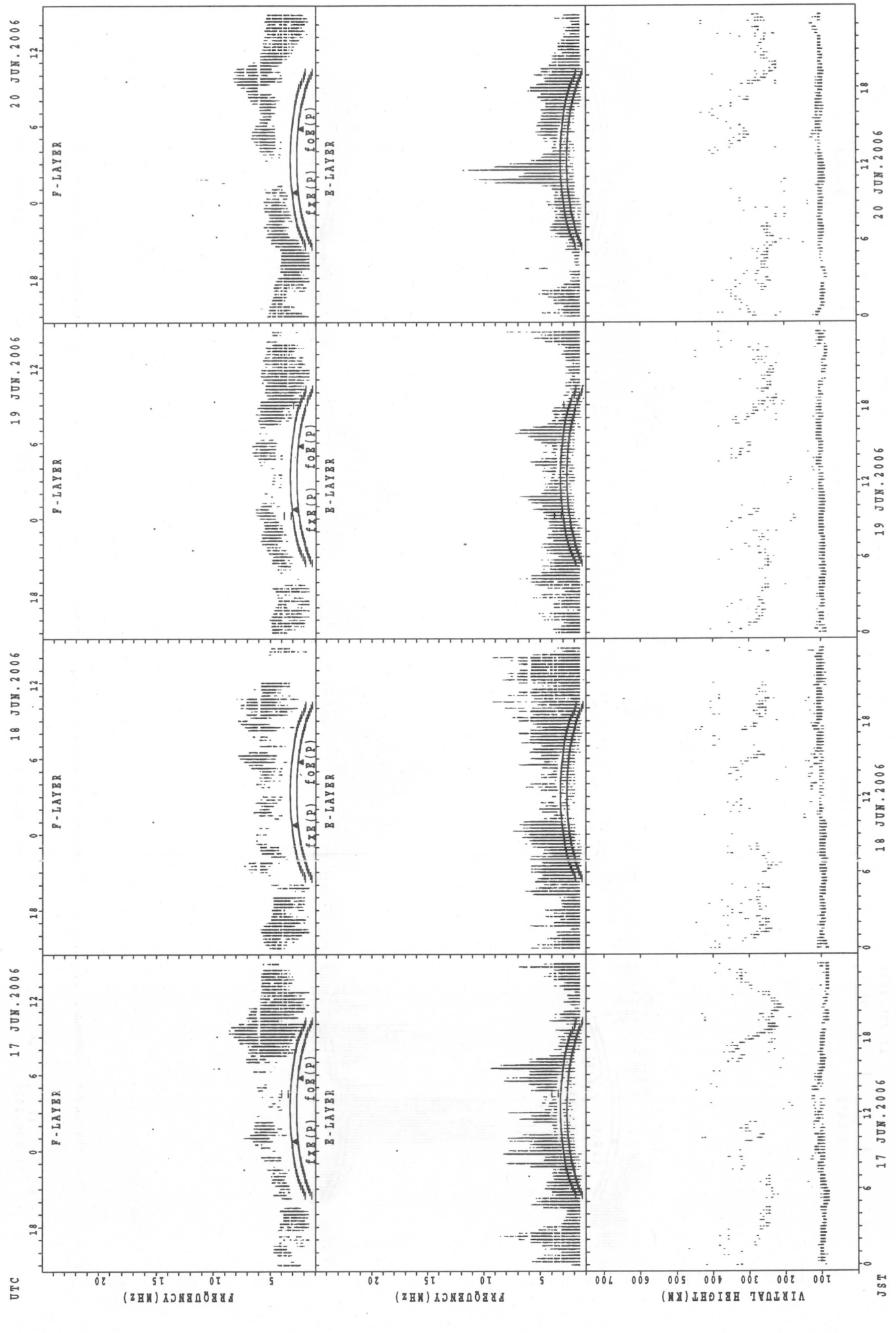

SUMMARY PLOTS AT Yamagawa
UTC
5 JUN.2006
6 JUN.2006
7 JUN.2006
8 JUN.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
foE(P)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


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

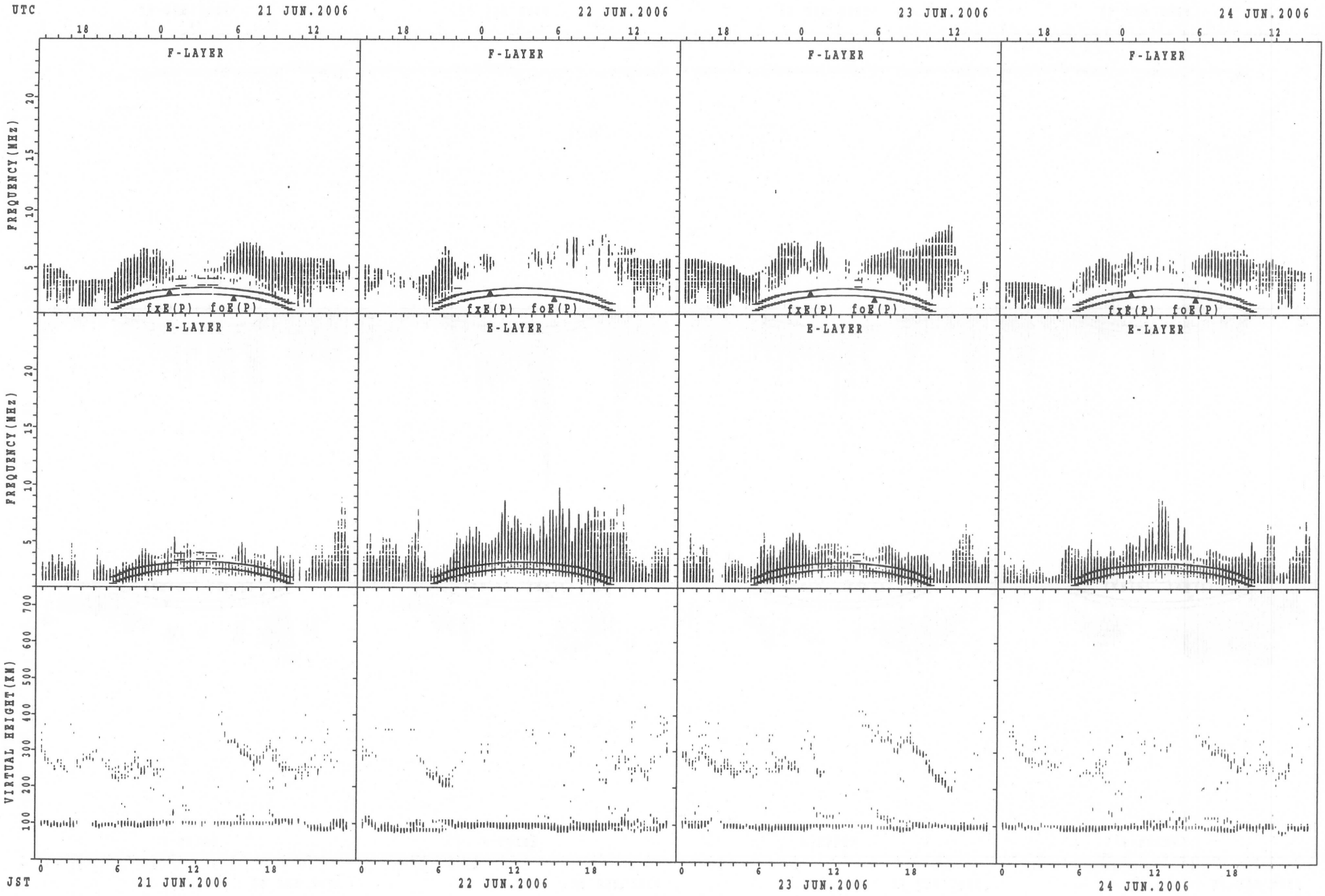
SUMMARY PLOTS AT Yamagawa



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

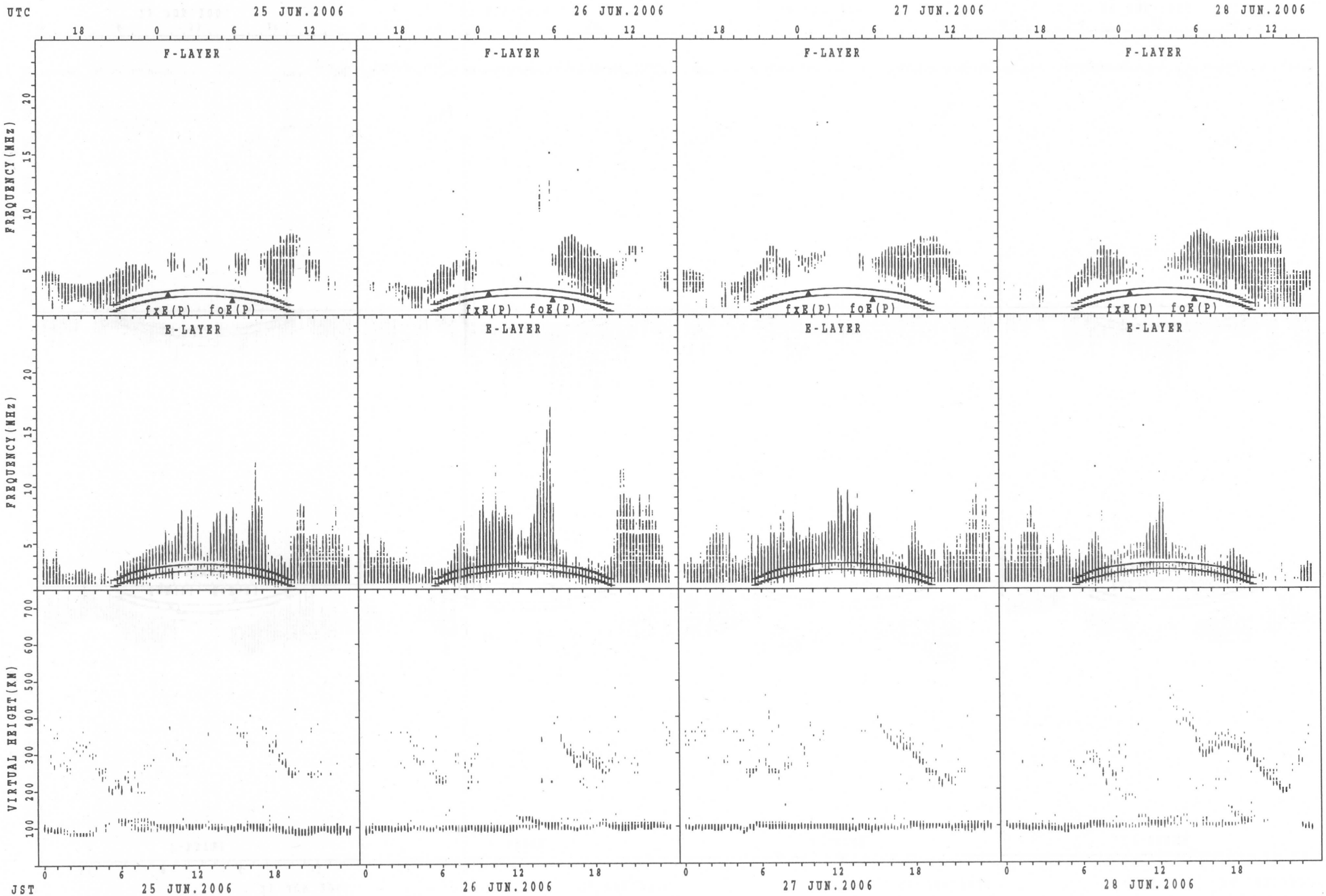

SUMMARY PLOTS AT Yamagawa
UTC
JST
17 JUN.2006
18 JUN.2006
19 JUN.2006
20 JUN.2006
F-LAYER
E-LAYER
FREQUENCY (MHz)
VIRTUAL HEIGHT (KM)
fxE(P)
foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa

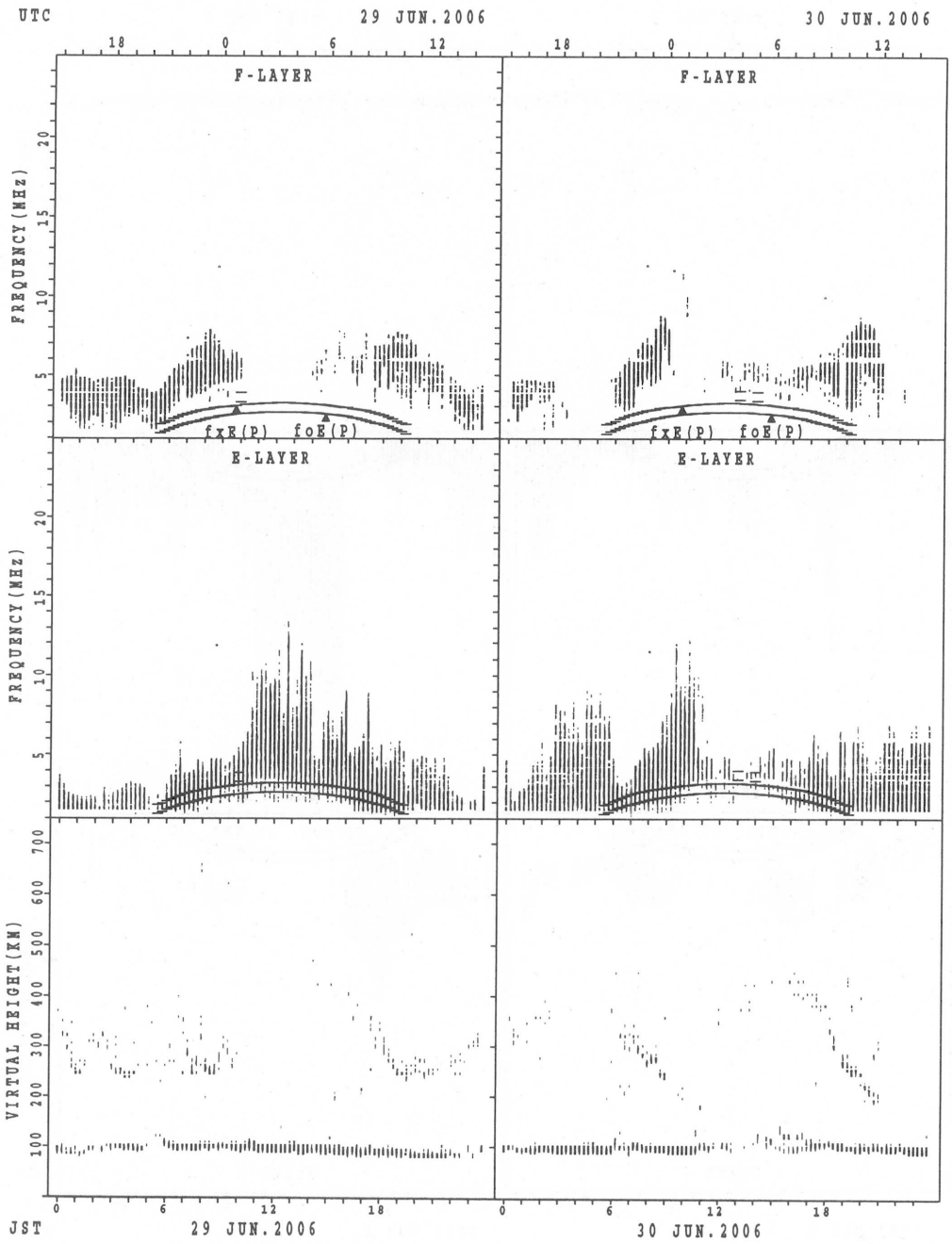


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

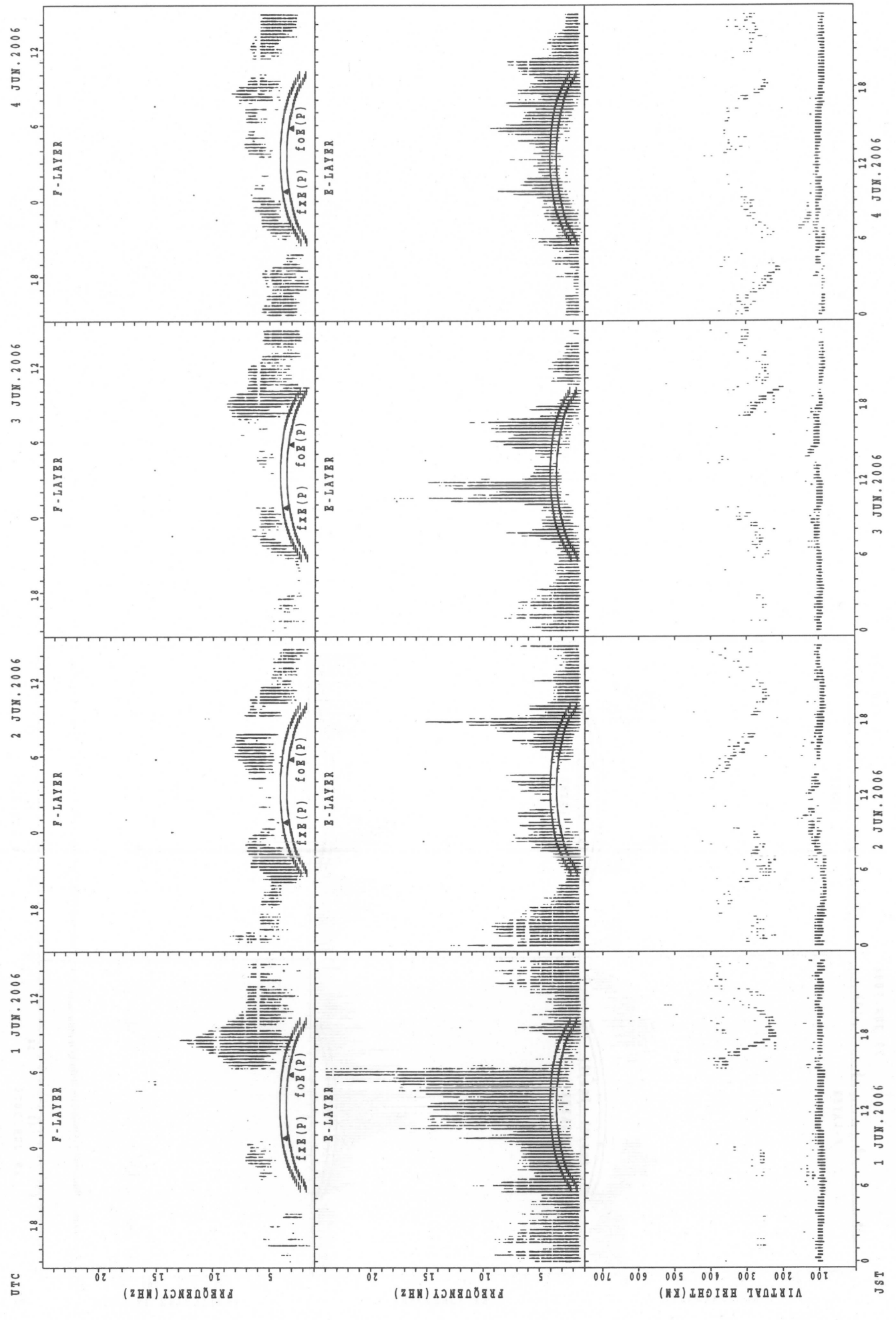
SUMMARY PLOTS AT Yamagawa



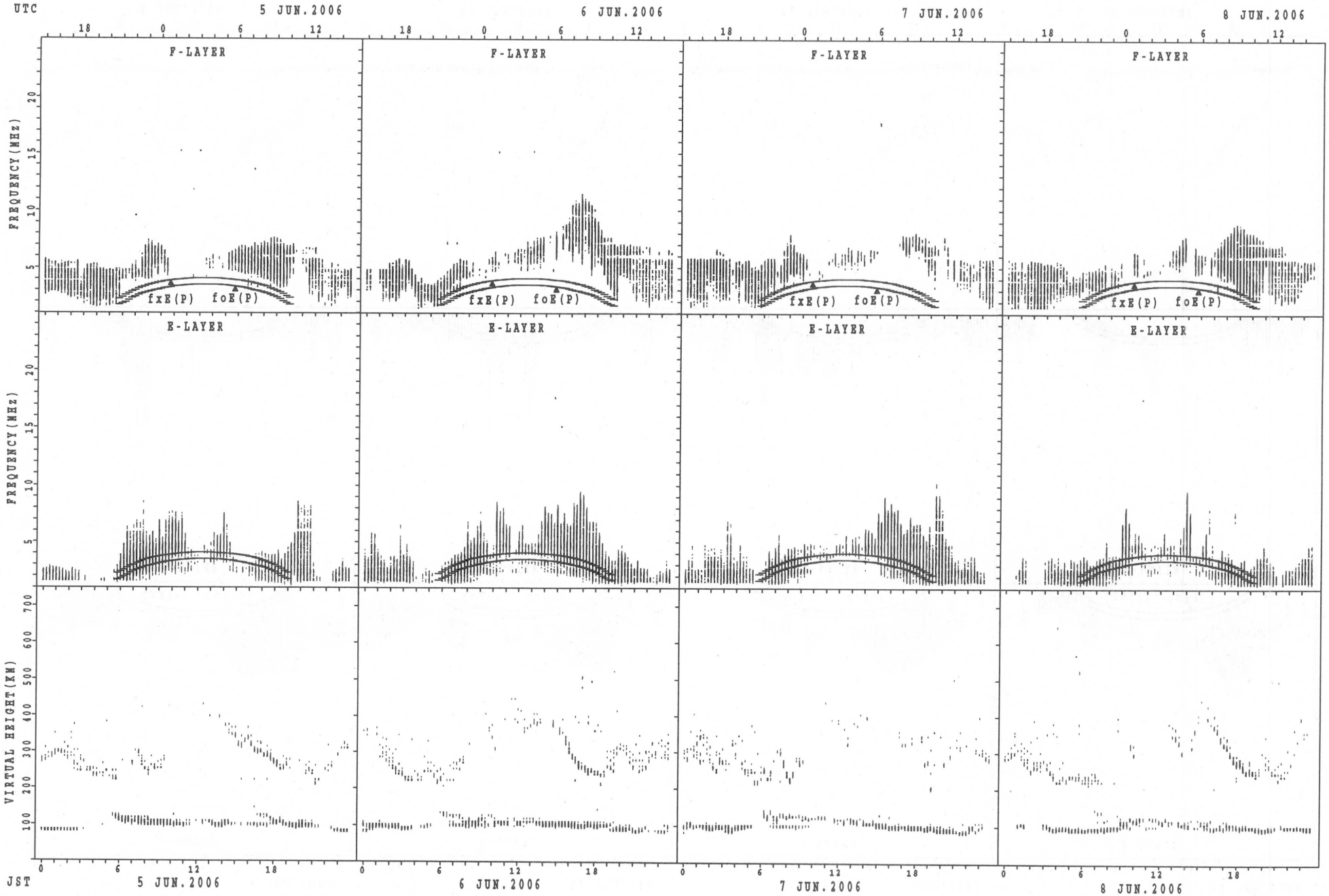
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE



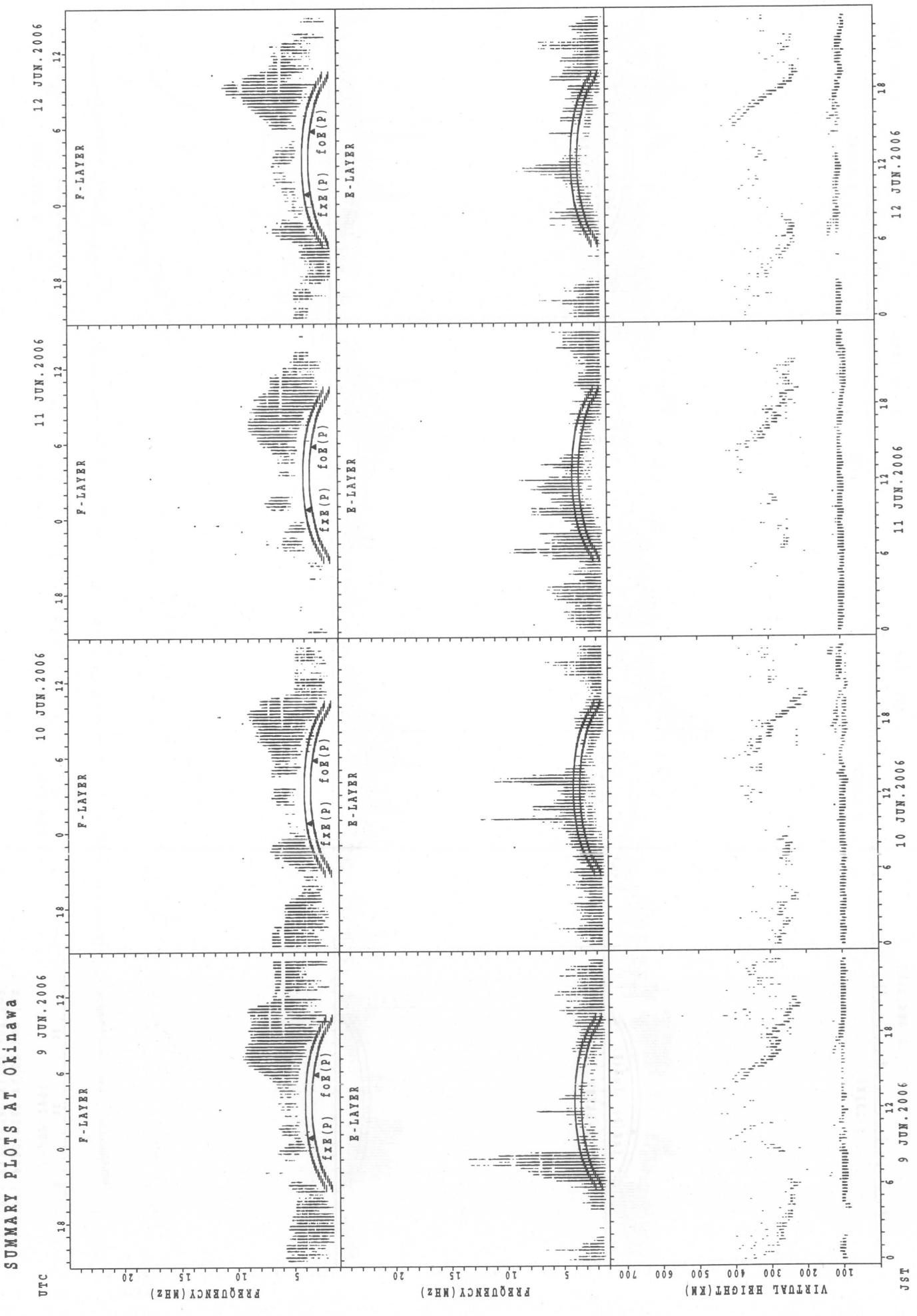
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


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

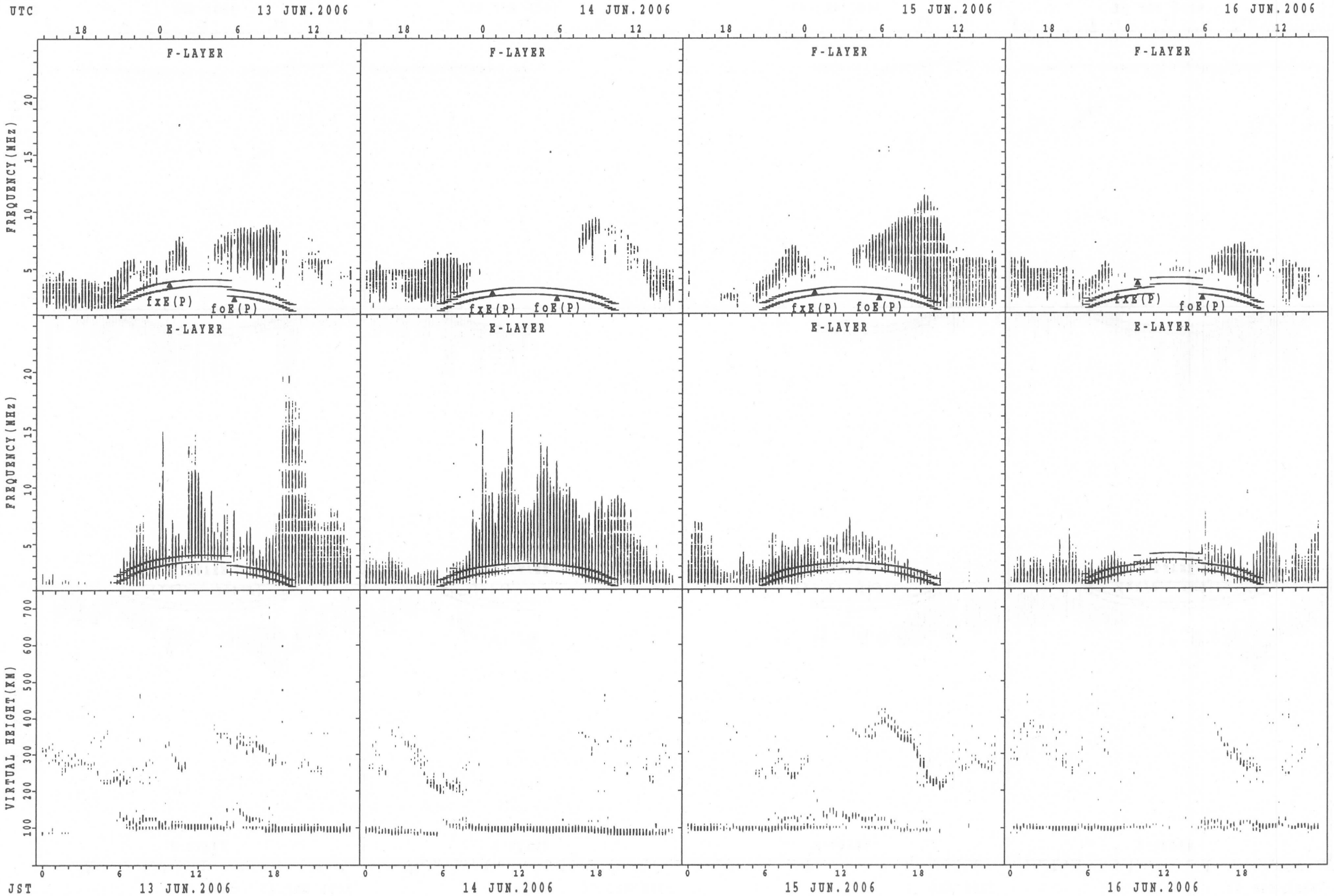
SUMMARY PLOTS AT Okinawa



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

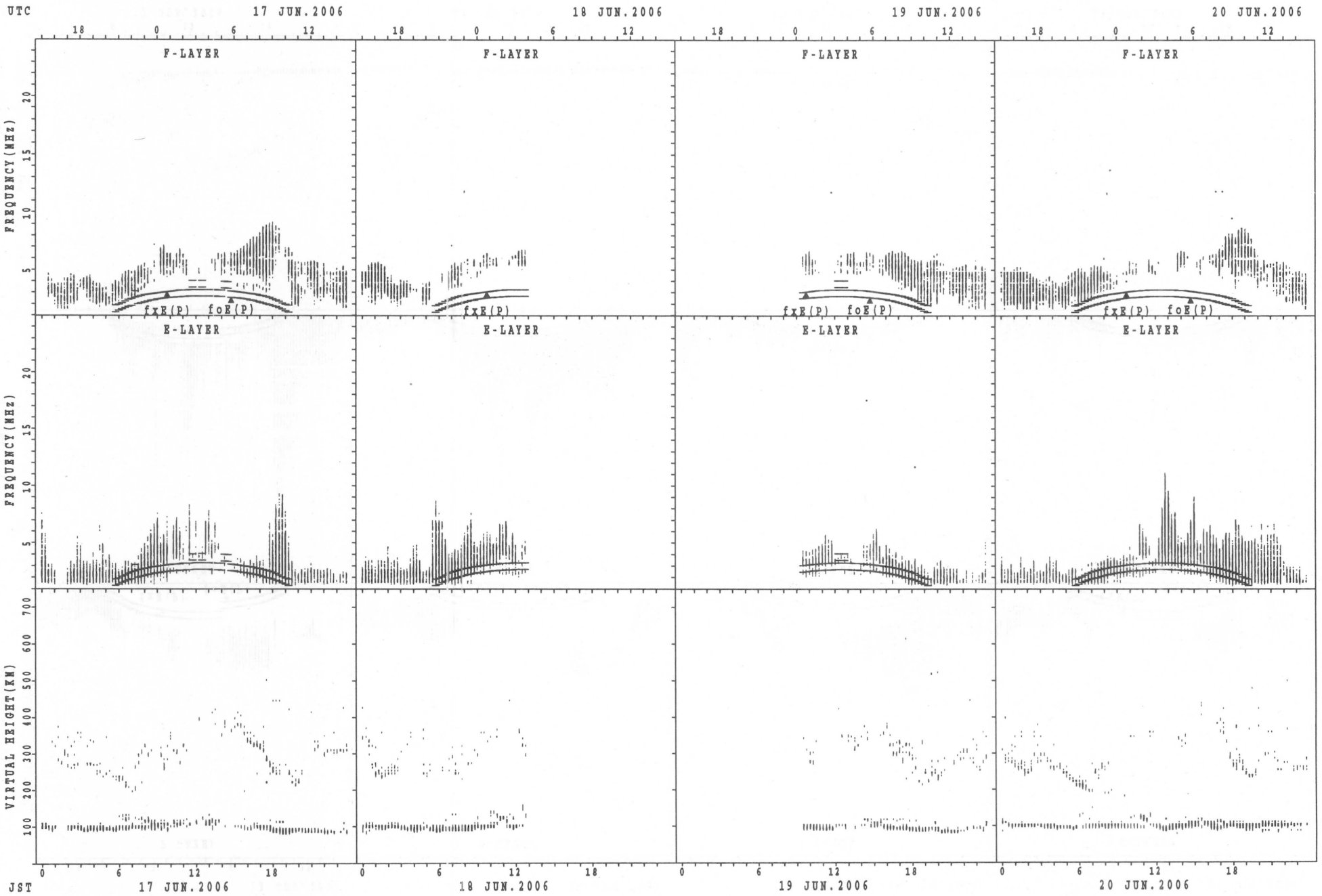

SUMMARY PLOTS AT Okinawa
UTC
JST
9 JUN.2006
10 JUN.2006
11 JUN.2006
12 JUN.2006
F-LAYER
E-LAYER
fxE(P) foE(P)
FREQUENCY (MHz)
VIRTUAL HEIGHT (KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



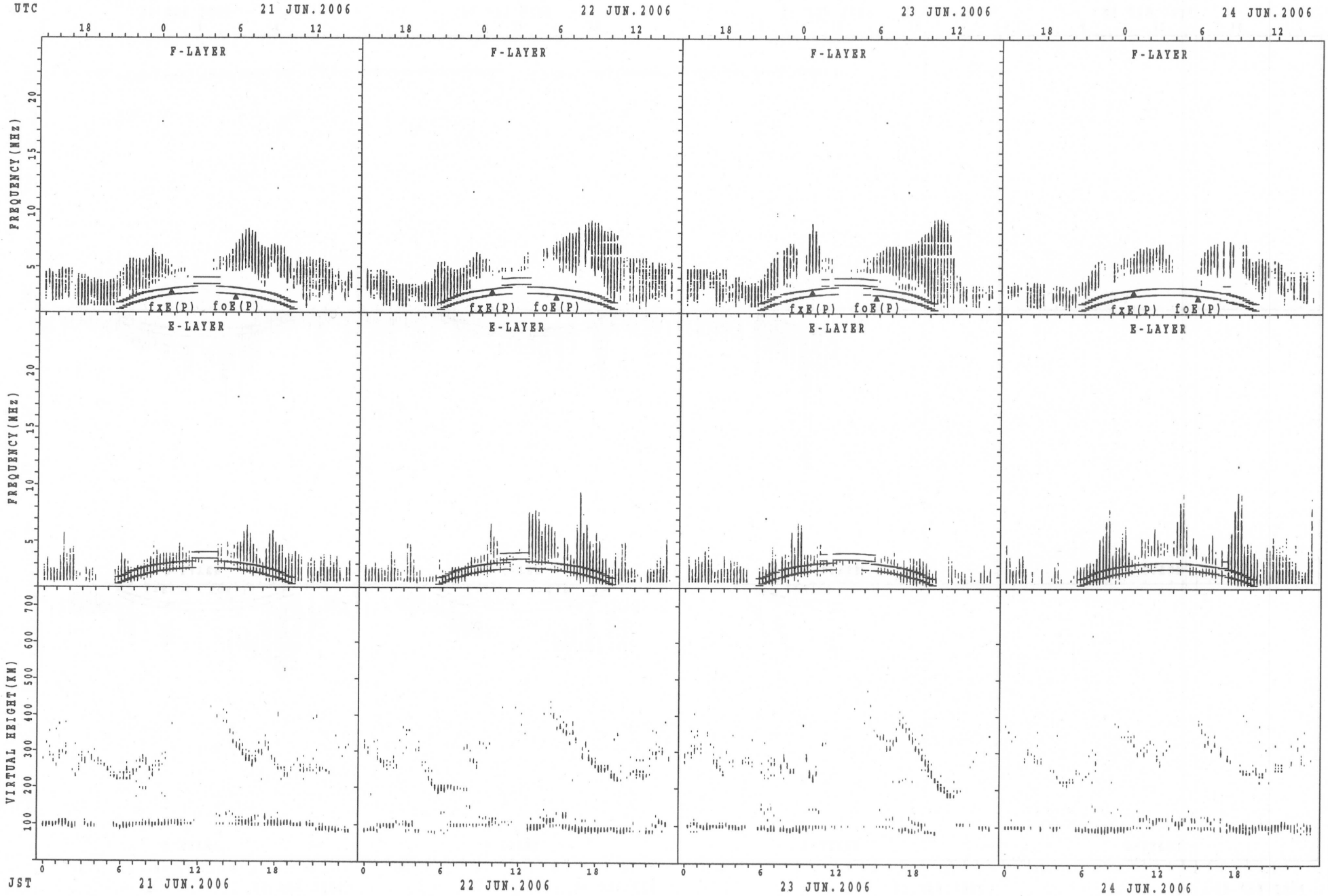
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa

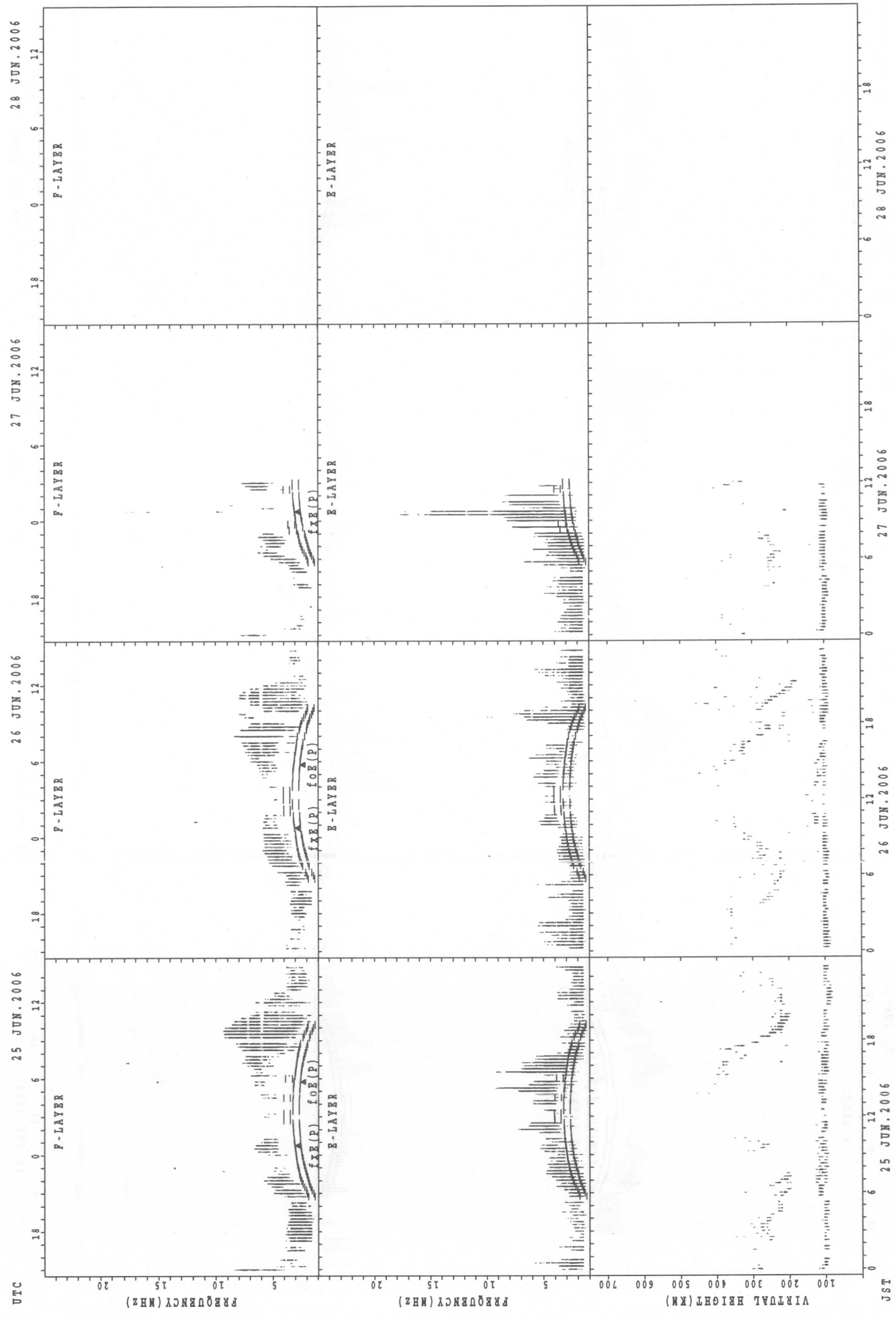


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

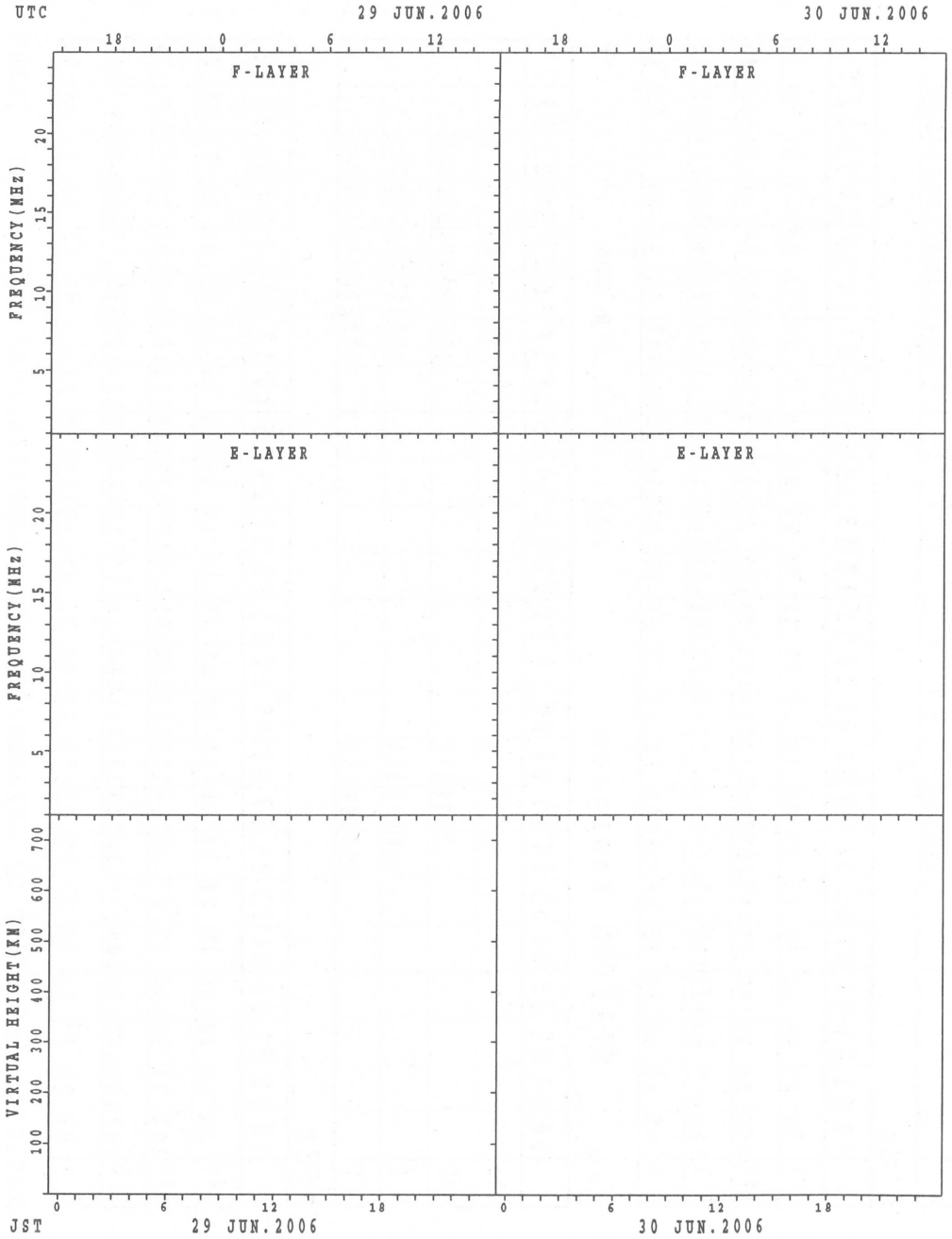
SUMMARY PLOTS AT Okinawa



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


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

SUMMARY PLOTS AT Okinawa



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

MONTHLY MEDIANS OF h'F AND h'Es

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

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							1											5	4	4	5	7	3	1
MED							248											260	261	240	304	306	262	236
U Q							124											324	302	259	310	348	274	118
L Q							124											225	236	232	264	270	252	118

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	29	28	26	29	25	27	29	30	30	27	30	28	24	25	26	28	27	30	27	29	27	29	29	28
MED	97	97	95	95	95	111	107	103	103	103	101	101	103	103	103	104	105	103	105	103	103	103	103	97
U Q	103	102	97	96	98	119	111	107	105	105	105	105	105	105	107	112	111	111	109	107	107	105	107	102
L Q	95	91	91	89	89	105	103	103	99	99	99	97	98	97	97	99	99	101	103	101	99	97	97	95

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							2	10										6	9	7	10	5	2	
MED							225	271										295	232	270	265	220	320	
U Q							230	294										312	279	296	278	265	342	
L Q							220	260										254	220	236	256	209	298	

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	29	27	26	23	22	24	29	29	28	25	21	20	22	18	20	24	26	27	29	28	26	28	28	29
MED	101	99	97	97	97	110	107	105	103	103	101	98	103	99	106	108	109	105	101	99	101	100	102	103
U Q	104	101	99	101	105	123	113	110	107	115	107	103	107	105	118	112	113	111	105	103	105	105	105	105
L Q	97	97	95	95	95	99	98	101	98	97	95	96	99	97	100	98	101	101	96	95	95	95	99	98

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							2	3	9									10	9	13	6	2		
MED							257	360	294									300	290	270	262	256		
U Q							264	372	313									336	317	281	272	272		
L Q							250	266	268									272	258	245	256	240		

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	30	28	28	26	25	24	29	30	27	30	28	27	26	27	25	28	23	26	29	28	28	27	25	25
MED	102	99	97	96	97	97	99	104	101	104	102	103	103	107	109	110	103	106	105	100	99	97	101	99
U Q	107	101	101	99	100	100	116	113	107	111	108	111	111	117	119	119	115	107	109	107	105	101	107	105
L Q	97	95	95	91	95	95	95	97	99	99	98	97	97	103	100	103	99	101	99	97	95	91	89	95

MONTHLY MEDIANS OF h'F AND h'Es

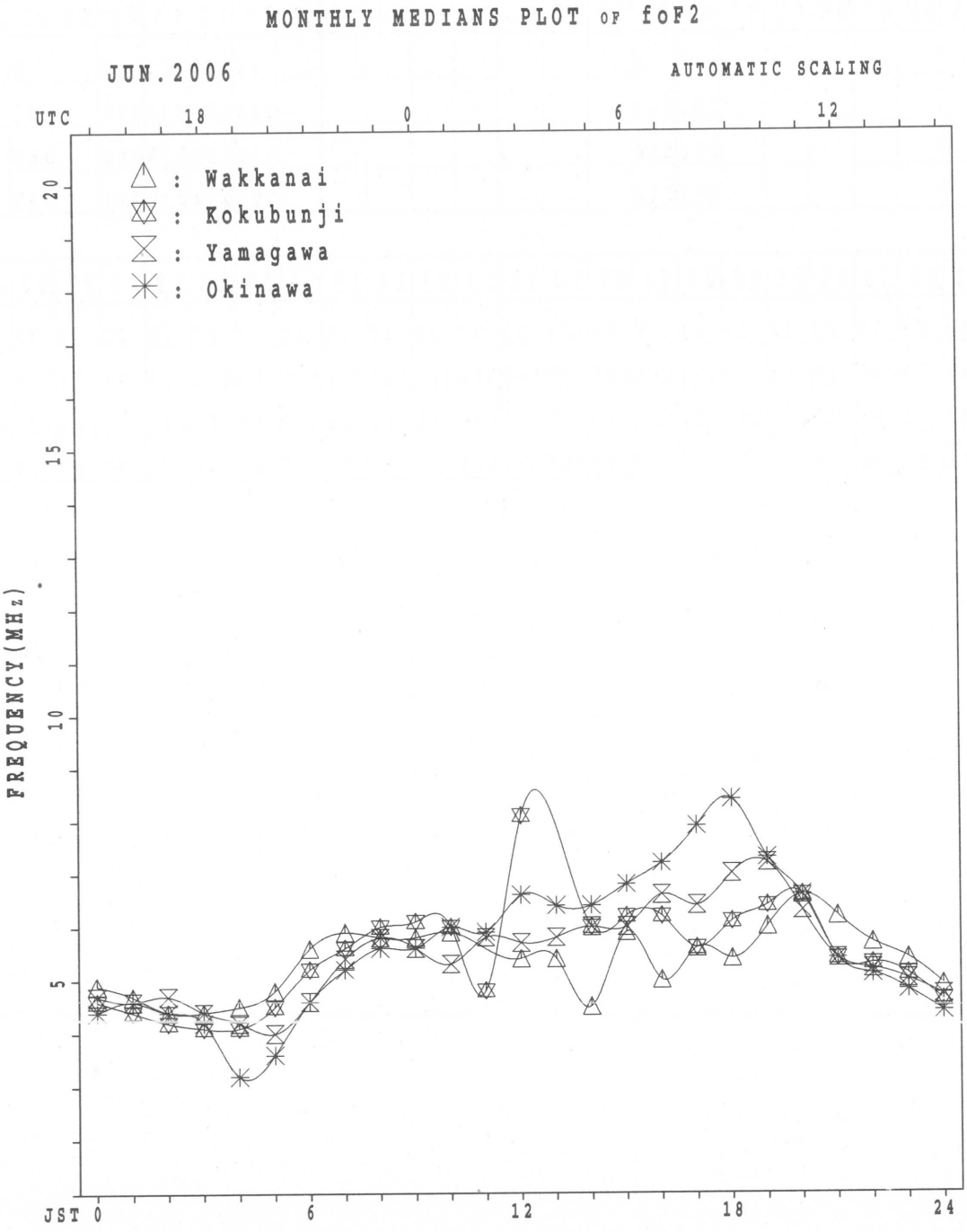
JUN.2006 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	3							2	6									18	20	12	4		1	
MED	326							251	250									300	269	248	225		330	
U Q	346							270	256									312	290	275	242		165	
L Q	286							232	244									278	254	235	214		165	

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	19	23	19	19	20	18	21	25	26	24	24	22	19	20	18	15	18	21	22	22	22	21	21	20
MED	101	101	99	99	97	99	97	113	104	106	107	105	105	107	103	111	111	103	101	97	95	95	95	99
U Q	103	103	103	101	99	101	102	123	117	113	115	113	117	113	111	135	113	111	105	103	101	103	103	103
L Q	93	95	95	95	95	95	95	100	97	99	102	99	101	98	99	103	101	100	95	91	91	89	89	89


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

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	63	62	65	64	X 57															X 78	X 80	X 79	X 65	67
2	X 65	X 58	X 51	X 48	X 46															X 58	X 63	X 55	57	A
3	X 55	X 55	X 56	X 48	X 42															A	A	X 57	X 52	52
4	52	48	51	50	X 42								A							X 65	X 63	X 59	X 58	X 57
5	X 53	X 50	X 47	50	X 46															X 70	X 76	72	70	64
6	57	52	52	54	52						C	C	C	C	C		C			X 79	74	X 64	66	62
7	X 56	A	A	X 56	53															X 66	X 69	X 68	X 65	X 65
8	X 60	X 58	X 62	X 57	X 60															X 81	X 81	X 66	X 56	X 51
9	X 49	X 49	X 49	50	50															X 78	X 73	X 64	X 63	X 59
10	X 58	63	55	X 50	X 48															A	X 60	X 58	57	51
11	A	52	49	A	A															X 76	X 70	X 60	X 58	X 57
12	X 54	X 51	X 46	X 46	X 41															X 72	X 72	X 60	72	58
13	A	60	50	50	49															A	67	X 70	69	62
14	61	65	50	50	X 49															X 75	X 76	X 73	X 63	60
15	A	X 45	52	51	51	58														X 81	X 80	X 73	X 66	X 68
16	X 44	X 48	X 56	X 50	X 39															X 63	X 66	X 62	X 54	X 48
17	X 47	X 48	50	X 45	49															X 74	X 77	X 60	53	53
18	54	52	50	45	X 42															X 77	X 65	X 54	X 51	X 50
19	X 47	A	X 44	48	X 41	X 46														X 61	X 62	X 64	X 58	X 55
20	X 53	X 47	X 43	X 44	X 42															X 69	X 71	X 59	X 54	X 53
21	X 49	X 46	X 44	X 41	X 40															X 62	X 60	X 60	X 58	61
22	58	X 51	X 49	50	50															X 76	X 77	X 68	X 63	X 56
23	58	52	50	46	X 45															X 72	X 85	X 77	75	A
24	51	50	40	44	X 40	X 44														X 62	X 68	X 64	63	54
25	52	50	50	49	47															X 70	X 72	X 81	A	52
26	48	47	A	50	48															X 70	78	72	62	A
27	52	51	52	50	43															X 74	X 80	X 68	A	55
28	A	A	52	46	X 43															X 77	X 76	X 75	72	A
29	59	61	57	X 48	46															X 67	X 75	X 53	X 44	47
30	48	48	X 41	X 41	X 41															X 72	X 85	X 78	56	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	26	27	28	29	29	3														27	29	30	28	25
MED	54	51	50	50	X 46	X 46														X 72	X 73	X 64	X 60	56
U Q	58	58	52	50	50	58														X 77	X 78	X 72	66	62
L Q	X 49	X 48	X 48	46	X 42	X 44														X 66	X 66	X 60	X 56	52

JUN. 2006 fxI (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F	F	F	F	50	55	54	66	A	A	A	60	A	67	68	65	68	75	70	72	74	73	59	F
2	59	52	45	42	40	44	54	56	A	58	A	A	A	A	A	53	55	57	56	52	57	49	F	A
3	49	49	50	42	36	48	50	58	54	57	A	A	A	53	54	A	56	55	A	A	A	51	45	F
4	F	F	F	F	36	44	51	53	A	56	A	A	A	A	62	68	A	61	60	59	57	53	52	51
5	47	44	41	F	40	41	48	55	52	59	60	A	A	56	52	51	49	55	54	64	69	F	F	F
6	F	F	F	F	F	44	52	49	A	A	C	C	C	C	C	A	C	88	74	73	F	58	F	F
7	50	A	A	50	F	44	54	A	A	52	57	49	A	52	58	63	63	61	68	60	63	62	59	59
8	54	52	56	51	54	52	46	A	A	57	A	52	57	A	54	58	60	60	A	75	75	60	50	44
9	42	43	43	F	F	43	A	54	A	A	A	A	A	57	A	62	66	66	64	72	66	58	56	53
10	52	F	F	43	41	43	50	61	63	57	A	54	52	54	57	61	59	59	76	A	54	50	F	F
11	A	F	F	A	A	41	58	54	A	55	52	67	58	56	58	61	64	76	83	70	64	54	52	51
12	48	45	40	40	34	40	53	57	68	51	51	A	A	A	68	A	A	A	A	66	66	54	F	F
13	A	F	F	F	F	40	52	62	71	63	A	A	A	A	69	60	57	A	A	A	F	64	F	F
14	F	F	F	F	43	41	54	76	52	A	A	A	59	57	65	70	A	61	59	69	70	66	56	F
15	A	39	F	F	F	F	51	48	52	59	A	A	A	A	A	A	74	70	69	75	74	67	60	62
16	38	42	50	44	33	36	45	A	48	51	A	A	54	51	48	A	50	52	54	57	60	55	48	41
17	41	42	F	39	F	49	46	46	47	A	A	57	A	A	56	60	61	56	66	68	70	54	F	F
18	F	F	F	F	36	41	48	52	59	52	52	52	52	A	A	56	63	52	58	70	59	47	45	44
19	41	A	38	F	35	40	A	52	51	52	52	48	48	48	54	62	59	51	50	55	56	58	52	49
20	46	41	37	37	36	40	44	49	A	R 49	54	R 52	51	51	61	62	A	55	62	63	65	53	47	47
21	43	40	38	35	34	38	48	60	60	62	51	54	54	A	54	A	52	58	62	56	54	54	52	F
22	F	46	43	F	F	39	52	62	65	A	54	A	A	A	63	65	61	56	59	70	71	62	56	50
23	F	F	F	F	39	46	48	55	68	62	52	53	57	53	52	56	54	51	58	66	79	71	F	A
24	F	F	F	F	34	38	A	52	52	53	A	A	51	51	58	A	A	55	A	56	61	58	F	F
25	F	F	F	F	F	44	55	55	52	58	51	54	54	56	57	53	53	52	55	64	65	74	A	F
26	F	F	A	F	F	41	55	66	76	60	51	A	A	A	57	A	60	A	55	64	F	F	F	A
27	F	F	F	F	F	43	54	58	58	A	53	A	56	55	54	54	52	54	58	68	74	62	A	F
28	A	A	F	F	37	41	50	70	A	60	54	A	A	52	64	67	A	58	62	70	70	69	F	A
29	F	F	F	42	F	39	56	64	52	A	A	A	53	A	A	A	A	48	52	61	69	47	38	F
30	F	F	35	35	35	43	53	55	61	69	62	52	55	52	54	50	A	50	52	66	79	72	F	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	13	12	12	12	18	29	27	27	20	22	15	13	15	17	24	21	21	27	25	27	26	28	16	11
MED	47	44	42	42	36	41	52	55	56	57	52	53	54	53	57	61	59	56	59	66	66	58	52	50
U Q	51	48	48	44	40	44	54	62	64	60	54	56	57	56	62	64	63	61	67	70	71	65	56	53
L Q	42	42	38	38	35	40	48	52	52	52	51	52	52	52	54	55	54	52	55	60	60	54	48	44

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	A	A	A	A	A	A	A	A	A	A	L					
2							L	L 400	A	A	A	A	A	A	A	A	396	A	L					
3							L 384	A	A	A	A	A	A	L 464	A	A	A	L 388	A					
4							L	A	A	A	A	A		A	A	A	A	A	A					
5								L 416	428	A	A	A	A	A	L 464	A	L 420	L 376	A					
6							L	A	A	A	C	C	C	C	C	A	C	A	A					
7							A	A	A	A	U L 468	A	A	U L 464	U L 456	420	404	L 388	L					
8							E A	A	A	E A	A	U L 444	U L 496	A	U L 440	E A	E A	E A	A					
9							A	L 408	A	A	A	A	A	A	A	U L 420	A	A	A					
10							L 384	408	L 420	A	A	A	A	U L 448	A	A	A	A	A					
11							L	A	A	436	A	A	U L 460	U L 452	U L 452	U L 440	A	A	A					
12						U L 336	L 368	A	A	L 448	A	A	A	A	A	A	A	A	A					
13							A	A	A	A	A	A	A	A	A	416	L 400	A	A					
14						L	368	A	A	A	A	A	A	A	A	A	A	A	A					
15						L	L	A	U L 432	A	A	A	A	A	A	A	A	L	L					
16						U L 288	400	A	A	L 436	A	A	U L 448	U L 440	L 428	A	A	372	L					
17							A	A	U L 440	A	A	U L 460	A	A	424	A	A	384	L					
18							L	A	A	A	444	L 448	U L 456	A	A	428	L 408	376	L 324					
19							A	A	L 412	432	448	L 444	L 440	U L 440	L 444	A	L 400	A	A					
20							L 352	L 396	A	L 440	A	U L 456	L 448	U L 444	A	436	A	A	L					
21						L 328	372	400	420	444		A	A	A	A	A	416	A	A					
22						296	U L 352	400	416	A	A	A	A	A	A	A	A	376	A					
23						A	L	400	416	432	U L 444	U L 456	U L 464	U L 444	U L 440	416	A	A	A					
24							A	A	L 420	U L 452	A	A	U L 472	452	444	A	A	A	A					
25							L	L	U L 420	U L 440	A	U L 456	U L 464	A	440	436	U L 420	L	U L 344					
26						U L 308	356	A	A	U L 436	448	A	A	A	440	A	U L 420	A	A					
27						A	L	L	A	A	A	A	A	U L 496	U L 468	432	408	A	340					
28							A	A	A	452	436	A	A	A	A	424	A	A	A					
29						U L 332	U L 396	A	A	A	A	A	A	A	A	A	A	372	A					
30							A	420	A	A	448	U L 472	U L 452	U L 452	448	440	A	A	A					
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						6	10	9	10	11	7	8	10	11	13	11	10	8	3					
MED						U L 318	L 370	400	L 420	L 440	L 448	U L 456	U L 458	U L 452	L 444	428	L 408	L 376	L 340					
U Q						U L 332	L 384	L 412	U L 428	L 448	L 448	U L 458	U L 464	U L 464	U L 454	436	U L 420	L 386	U L 344					
L Q						296	L 356	400	416	436	444	L 446	L 448	U L 444	440	420	L 400	374	L 324					

JUN. 2006 foF1 (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	A	A	A	A	A	A	A	A	A	A	A	A					
2						U A 172	A	A	A	A	A	A	A	A	A	A	A	A	A					
3						B	A	A	A	A	A	A	A	A	A	A	A	U A 280	A					
4						180	A	A	A	A	A	A		A	A	A	A	A	A					
5						U A 176	U A 252	A	U A 312	A	A	A	A	A	A	A	304		A					
6						A	A	A	A	A	C	C	C	C	C	A	C	A	A					
7						U A 176	U A 248	A	A	A	A	A	A	A	A	A	A	A	A					
8						U A 168	A	A	A	A	A	A	A	A	U A 328	A	A	A	A					
9						B	A	U A 280	A	A	A	A	A	A	A	U A 320	U A 284	A	A					
10						U A 164	A	A	A	A	A	A	A	A	A	A	288		A					
11						A	A	A	A	A	A	A	A	U A 352	A	A	A	U A 248	A					
12						A	A	A	A	A	A	A	A	A	A	A	A	A	A					
13						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
14						176	A	A	A	A	A	A	A	A	A	A	A	A	A					
15						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
16						U A 160	A	A	A	A	A	A	A	A	A	A	A	U A 252	A					
17						A	A	A	A	A	A	A	A	A	A	A	A	A	A					
18						A	A	A	A	A	A	A	R	A	A	R	U A 292	A	A					
19							A	A	A	348	A	A	A	A	A	A	A	A	A					
20						R	A	A	A	A	A	348	356	A	A	A	A	U A 252	A					
21						U R 216	R	U A 288	U A 308	A	A	A	A	A	A	A	A	A	A					
22						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
23						B	A	A	A	A	A	U A 356	U A 356	U R 344	U R 324	A	U A 292	U A 256	A					
24							A	A	A	A	A	A	A	U A 348	344	U A 320	A	A	A					
25						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
26						A	U A 240	A	A	A	352	U A 356	A	A	U R 352	A	A	A	A					
27						B	A	A	A	A	A	A	A	A	A	328	U A 288	U A 260	A					
28						B	A	U A 276	A	A	352	A	A	A	A	U A 320	A	A	A					
29						U A 176	A	A	A	A	A	A	A	A	A	A	A	A	A					
30						B	A	A	A	A	A	A	U A 360	A	392	320		A	U A 272					
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						10	3	3	2	1	2	3	3	3	5	5	6	7						
MED						U A 176	U A 248	U A 280	U A 310	348	352	U A 356	U A 356	U A 348	U 344	U A 320	U A 290	U A 256						
U Q						U 176	U A 252	U A 288				U A 356	U A 360	U A 352	372	324	292	U A 272						
L Q						U A 168	U A 240	U A 276				348	356	U R 344	U 326	320	288	U A 252						

JUN. 2006 foE (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	J A 60	J A 68	J A 46	J A 47	J A 52	J A 54	J A 35	J A 63	J A 141	J A 78	J A 75	J A 58	J A 179	J A 85	J A 86	J A 59	J A 86	J A 82	22	J A 36	J A 48	48	J A 23	J A 34
2	J A 40	J A 53	J A 29	J A 27	J A 20	20	30	33	J A 64	J A 66	J A 60	J A 66	J A 75	J A 69	J A 66	J A 47	J A 40	J A 41	J A 32	J A 36	J A 24	J A 58	J A 50	J A 85
3	J A 72	J A 68	J A 51	J A 70	J A 22	20	30	J A 65	J A 62	J A 129	J A 96	J A 75	J A 69	42	J A 48	J A 108	J A 77	J A 41	J A 98	J A 102	J A 85	J A 38	J A 27	J A 27
4	J A 42	J A 44	J A 34	J A 25	J A 24	21	28	J A 44	J A 144	J A 90	J A 94	J A 99	J A 64	J A 72	J A 48	J A 70	J A 72	72	36	40	34	26	J A 35	J A 44
5	J A 27	J A 26	J A 32	J A 23	19	30	35	34	36	42	J A 49	69	J A 82	J A 61	J A 48	J A 48	34	36	J A 59	43	J A 53	J A 61	J A 42	J A 65
6	J A 62	J A 57	J A 54	J A 57	J A 28	J A 32	J A 35	J A 56	J A 144	J A 148	C	C	C	C	C	J A 146	C	J A 74	J A 110	J A 83	J A 51	J A 54	J A 48	J A 53
7	J A 71	J A 60	J A 74	J A 53	J A 29	27	J A 59	J A 84	J A 74	44	42	41	J A 68	41	40	J A 47	38	35	J A 26	J A 22	J A 49	J A 23	J A 32	J A 35
8	J A 32	J A 35	J A 44	J A 67	J A 32	23	J A 43	J A 67	J A 78	J A 52	J A 61	42	J A 68	J A 105	39	J A 69	J A 47	J A 80	J A 83	J A 84	J A 81	J A 82	27	J A 23
9	20	J A 24	J A 31	J A 28	J A 19	J A 28	J A 101	J A 44	J A 84	J A 142	J A 148	84	J A 81	J A 66	J A 123	40	J A 48	J A 42	J A 104	J A 82	58	46	62	J A 27
10	J A 36	J A 54	J A 46	J A 54	J A 22	23	32	J A 39	J A 39	J A 71	J A 68	J A 70	J A 48	J A 44	J A 46	J A 59	J A 56	J A 43	J A 68	J A 84	J A 141	88	48	J A 39
11	J A 88	J A 77	J A 54	J A 46	J A 54	J A 51	29	J A 44	J A 66	J A 56	J A 52	J A 67	J A 66	42	43	43	J A 46	J A 50	J A 60	J A 48	J A 38	53	62	J A 41
12	J A 33	J A 37	J A 27	J A 24	J A 46	J A 72	29	J A 47	J A 52	39	J A 55	J A 55	J A 95	J A 61	J A 63	J A 88	J A 98	J A 103	J A 97	J A 81	J A 33	J A 46	J A 31	J A 53
13	J A 126	J A 102	J A 58	J A 61	J A 59	J A 33	J A 56	J A 66	J A 57	J A 68	J A 77	J A 103	J A 100	J A 126	J A 70	53	J A 43	J A 226	J A 238	J A 179	J A 100	54	56	88
14	J A 88	J A 38	J A 31	J A 22	J A 18	24	31	J A 46	J A 54	J A 118	J A 90	J A 82	J A 98	J A 62	J A 80	J A 144	J A 75	J A 58	J A 50	J A 54	J A 65	J A 51	J A 42	J A 51
15	J A 65	J A 50	J A 54	J A 49	J A 23	24	J A 38	J A 47	J A 48	J A 58	J A 118	J A 142	J A 96	J A 93	J A 65	J A 46	J A 46	J A 32	J A 28	J A 34	J A 36	J A 20	J A 19	J A 20
16	J A 26	21	19	19	J A 22	23	J A 46	J A 61	J A 76	37	J A 58	J A 58	42	J A 47	J A 45	J A 64	J A 51	31	J A 84	J A 35	J A 38	J A 52	26	J A 28
17	J A 38	J A 39	J A 37	J A 60	J A 44	J A 40	J A 58	J A 48	J A 39	J A 99	J A 65	J A 46	J A 114	J A 88	40	J A 74	J A 78	33	J A 77	J A 26	J A 36	J A 83	J A 51	J A 44
18	J A 44	J A 39	J A 21	J A 84	J A 23	J A 22	J A 32	J A 50	J A 63	J A 54	J A 49	J A 45	G 33	J A 92	J A 60	G 26	34	J A 40	J A 41	J A 34	J A 33	J A 19	J A 23	J A 27
19	J A 25	J A 87	J A 77	J A 44	J A 33	J A 65	J A 53	J A 46	J A 44	38	41	45	42	38	38	J A 56	J A 72	J A 56	39	J A 39	J A 28	J A 56	J A 24	J A 39
20	J A 23	J A 26	J A 24	J A 24	19	G	29	J A 42	J A 57	J A 58	J A 75	39	40	41	J A 46	38	J A 78	J A 44	J A 30	J A 23	J A 25	J A 20	J A 30	J A 33
21	J A 46	J A 26	J A 36	J A 26	J A 24	G 18	G J A 25	39	34	42	J A 48	J A 52	J A 56	J A 125	54	J A 104	J A 61	J A 48	J A 94	J A 82	J A 96	J A 103	J A 51	J A 19
22	J A 52	J A 54	J A 28	J A 24	J A 34	22	33	J A 40	J A 42	J A 85	J A 52	J A 75	J A 74	J A 72	J A 71	J A 79	J A 84	J A 33	J A 46	J A 31	J A 22	J A 32	J A 27	J A 25
23	J A 35	J A 27	J A 52	J A 66	J A 22	J A 54	J A 33	J A 36	36	41	38	42	44	42	40	38	J A 56	J A 46	J A 40	J A 66	J A 50	J A 175	J A 62	J A 68
24	J A 45	J A 32	J A 28	J A 37	J A 40	J A 36	J A 102	J A 44	36	J A 72	J A 72	J A 81	44	42	42	J A 96	J A 111	J A 85	J A 64	J A 74	J A 35	J A 55	J A 27	J A 26
25	J A 43	J A 31	J A 32	J A 28	J A 32	20	J A 53	31	35	J A 42	43	38	44	J A 52	40	J A 73	32	32	J A 35	J A 22	J A 25	J A 33	J A 65	J A 54
26	J A 46	J A 38	J A 52	J A 22	J A 44	J A 24	34	J A 55	J A 68	J A 42	41	J A 60	J A 90	J A 91	G 30	J A 98	J A 51	J A 94	J A 96	J A 37	J A 169	J A 82	J A 100	J A 82
27	J A 74	J A 62	J A 42	19	J A 44	J A 52	J A 32	33	J A 49	J A 84	J A 55	J A 74	J A 50	J A 45	39	37	37	J A 44	J A 33	J A 22	J A 42	J A 145	J A 68	J A 42
28	J A 64	J A 83	J A 45	J A 59	J A 44	J A 34	J A 50	J A 50	J A 98	39	44	J A 169	J A 56	49	48	39	J A 115	J A 108	J A 37	J A 48	J A 87	J A 61	J A 58	J A 80
29	J A E 60	B 15	22	J A 20	J A 22	J A 31	J A 48	J A 79	J A 74	J A 81	J A 81	J A 74	J A 92	J A 56	J A 62	J A 52	J A 69	J A 46	J A 36	J A 34	J A 58	J A 27	J A 61	J A 34
30	J A 47	J A 46	J A 56	J A 37	J A 36	J A 28	J A 45	J A 43	J A 45	J A 58	J A 41	J A 49	42	40	46	37	J A 77	J A 67	J A 49	J A 75	J A 98	J A 70	J A 53	J A 88
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	29	29	29	29	29	30	29	30	30	30	30	30	30	30
MED	J A 46	J A 42	J A 40	J A 37	J A 28	J A 28	J A 35	J A 46	J A 57	J A 58	J A 58	J A 66	J A 68	J A 61	J A 48	J A 58	J A 56	J A 46	J A 50	J A 42	J A 48	J A 54	J A 45	J A 40
U Q	J A 64	J A 60	J A 52	J A 57	J A 44	J A 36	J A 50	J A 56	J A 74	J A 84	J A 76	J A 78	J A 91	J A 86	J A 64	J A 79	J A 78	J A 74	J A 84	J A 81	J A 81	J A 70	J A 58	J A 54
L Q	J A 35	J A 31	J A 29	J A 24	J A 22	22	31	40	42	42	46	46	44	42	40	43	44	40	J A 36	J A 34	J A 34	J A 33	J A 27	J A 27

JUN. 2006 foEs (0.1MHz)

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	26	35	27	23	30	35	30	57	A A 141	A A 78	A A 75	51	A A 179	58	53	50	60	64	21	26	36	44	19	24
2	23	21	22	24	17	19	29	31	A A 64	48	A A 60	A A 66	A A 75	A A 69	A A 66	43	32	35	23	22	E B 15	22	34	A A 85
3	38	29	23	27	16	19	29	42	49	53	A A 96	A A 75	A A 69	38	44	A A 108	44	30	A A 98	A A 102	A A 85	26	24	E B 14
4	23	E B 15	23	16	16	20	26	40	A A 144	45	A A 94	A A 99	A A 64	A A 72	44	44	A A 72	46	32	34	31	21	22	20
5	23	17	24	17	E B 15	28	34	32	35	41	44	A A 69	A A 82	45	40	46	34	31	41	39	34	41	27	36
6	27	35	31	35	20	24	30	46	A A 144	A A 148	C	C	C	C	C	A A 146	C	54	59	22	24	35	35	E B 16
7	34	A A 60	A A 74	24	E B 16	24	39	A A 84	A A 74	41	39	40	A A 68	38	38	35	35	30	22	20	32	17	23	23
8	16	E B 16	18	42	E B 15	23	37	A A 67	A A 78	42	A A 61	38	42	A A 105	37	40	41	40	A A 83	38	44	37	18	15
9	E B 16	E B 15	20	17	16	25	A A 101	32	A A 84	A A 142	A A 148	A A 84	A A 81	50	A A 123	38	46	38	54	25	E B 14	21	27	17
10	21	32	31	35	20	22	30	35	35	45	A A 68	44	42	37	43	53	51	40	62	A A 84	40	22	26	25
11	A A 88	18	31	A A 46	A A 54	24	26	40	A A 66	39	46	49	40	39	42	40	39	47	49	45	26	28	38	32
12	27	16	21	17	E B 15	22	26	39	42	38	42	A A 55	A A 95	A A 61	53	A A 88	A A 98	A A 103	A A 97	38	24	35	E B 16	21
13	A A 126	E B 15	24	24	17	25	44	46	45	46	A A 77	A A 103	A A 100	A A 126	52	35	34	A A 226	A A 238	A A 179	34	35	25	24
14	28	32	25	18	E B 14	22	29	39	44	A A 118	A A 90	A A 82	51	46	45	44	A A 75	55	43	35	22	21	24	38
15	A A 65	16	24	24	17	22	30	42	34	43	A A 118	A A 142	A A 96	A A 93	A A 65	A A 46	42	29	26	25	20	E B 15	E B 15	E B 15
16	20	E B 16	18	16	17	21	33	A A 61	41	34	A A 58	A A 58	38	38	38	A A 64	42	29	23	35	16	20	22	18
17	18	32	23	28	25	31	38	40	36	A A 99	A A 65	39	A A 114	A A 88	37	48	56	31	26	22	26	27	E B 16	E B 16
18	E B 16	E B 14	E B 16	E B 15	16	21	26	40	54	40	38	38	G 33	A A 92	A A 60	G 26	32	33	30	23	28	16	17	22
19	E B 16	A A 87	26	36	25	32	A A 53	40	33	37	39	38	38	36	37	48	35	38	37	34	24	20	18	25
20	E B 16	E B 15	16	18	17	G	28	32	A A 57	37	41	38	38	37	43	36	A A 78	35	26	19	18	E B 15	E B 16	21
21	21	E B 15	E B 15	21	E B 16	G 17	G 24	30	33	39	43	46	47	A A 125	52	A A 104	32	41	48	36	34	22	21	E B 16
22	24	32	23	19	17	21	32	34	36	A A 85	45	A A 75	A A 74	A A 72	45	45	42	32	40	30	19	22	19	22
23	E B 15	E B 15	17	16	16	31	27	32	34	38	37	39	42	40	38	37	48	39	32	42	47	28	29	A A 68
24	24	20	E B 15	17	29	33	A A 102	40	34	40	A A 72	A A 81	41	41	40	A A 96	A A 111	41	A A 64	31	23	26	E B 16	17
25	25	22	19	17	22	18	28	31	34	37	40	38	41	42	36	36	29	28	30	E B 15	18	18	A A 65	37
26	26	22	A A 52	16	24	21	30	46	56	35	40	A A 60	A A 90	A A 91	G 30	A A 98	33	A A 94	42	34	23	25	30	A A 82
27	26	24	22	E B 15	E B 15	38	27	31	44	A A 84	45	A A 74	44	38	36	35	36	38	26	20	17	35	A A 68	32
28	A A 64	A A 83	28	24	30	32	40	45	A A 98	39	41	A A 169	A A 56	45	45	37	A A 115	38	35	43	36	25	23	A A 80
29	28	E B 15	E B 15	16	17	26	34	52	40	A A 81	A A 81	A A 74	47	A A 56	A A 62	A A 52	A A 69	32	31	26	23	24	26	24
30	26	20	24	26	24	23	39	36	42	44	39	39	40	40	41	35	A A 77	40	42	52	37	41	37	A A 88
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	29	29	29	29	29	30	29	30	30	30	30	30	30	30
MED	24	20	23	20	17	23	30	40	44	42	46	A A 58	51	46	43	44	42	38	38	34	25	24	24	24
U Q	28	32	26	26	24	28	38	46	A A 66	A A 78	A A 76	A A 78	A A 82	A A 80	A A 52	A A 53	A A 70	46	A A 54	39	34	35	29	A A 36
L Q	E B 20	E B 15	18	17	E B 16	21	28	32	35	39	40	39	41	38	38	37	34	32	26	23	20	21	E B 18	E B 17

JUN. 2006 fbEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

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

JUN. 2006 fmin (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F	F	F	F	304	354	320	343	A	A	A	328	A	319	308	312	301	316	320	318	320	316	303	F
2	305	329	305	305	301	309	344	324	A	305	A	A	A	A	A	296	294	325	339	320	321	288	F	A
3	303	299	318	322	312	336	305	366	305	344	A	A	A	309	306	A	319	303	A	A	A	326	308	F
4	F	F	F	F	307	357	341	335	A	328	A	A	A	A	318	332	A	330	324	338	327	302	298	309
5	316	306	301	F	328	346	345	339	362	328	357	A	A	324	311	290	299	310	317	313	324	F	F	F
6	F	F	F	F	F	354	364	329	A	A	C	C	C	C	C	A	C	332	313	305	F	302	F	F
7	294	A	A	310	F	331	339	A	A	344	291	305	A	275	289	305	293	291	330	314	286	297	294	309
8	304	286	319	322	319	364	355	A	A	338	A	260	305	A	286	300	314	300	A	302	309	330	299	310
9	298	298	311	F	F	341	A	306	A	A	A	A	A	296	A	293	310	322	308	312	312	318	301	289
10	295	F	F	322	316	329	327	307	346	321	A	303	289	297	304	323	305	316	318	A	330	313	F	F
11	A	F	F	A	A	345	357	361	A	317	288	333	288	306	291	307	307	313	341	329	333	303	293	303
12	287	286	298	317	316	305	354	340	347	329	288	A	A	A	331	A	A	A	A	315	316	294	F	F
13	A	F	F	F	F	310	311	330	341	348	A	A	A	A	313	339	299	A	A	A	F	317	F	
14	F	F	F	F	294	311	330	390	328	A	A	A	317	316	326	331	A	309	310	303	331	338	339	F
15	A	327	F	F	F	F	360	298	316	332	A	A	A	A	A	A	318	308	304	304	290	299	290	342
16	302	286	299	310	287	284	251	A	285	280	A	A	278	265	298	A	296	319	322	312	302	323	301	304
17	287	297	F	301	F	381	361	309	332	A	A	329	A	A	308	326	330	296	312	299	333	330	F	F
18	F	F	F	F	325	339	334	341	350	354	300	344	318	A	A	327	353	318	309	322	346	311	306	313
19	302	A	299	F	319	314	A	348	348	327	329	327	273	312	293	330	352	306	322	338	303	304	314	306
20	320	306	314	330	325	348	356	363	A	R 333	330	R 314	330	306	326	323	A	316	319	327	338	317	321	315
21	320	321	316	314	308	306	326	343	357	380	340	317	310	A	314	A	308	332	321	341	324	311	298	F
22	F	305	304	F	F	291	316	359	365	A	325	A	A	A	310	319	321	319	305	325	328	326	338	321
23	F	F	F	F	329	348	348	328	344	344	320	305	331	298	314	312	332	307	321	296	331	309	F	A
24	F	F	F	F	346	323	A	330	347	313	A	A	283	311	313	A	A	335	A	312	329	320	F	F
25	F	F	F	F	F	325	353	338	327	352	315	294	300	332	322	318	311	302	306	327	325	378	A	F
26	F	F	A	F	F	301	330	326	327	357	285	A	A	A	308	A	320	A	329	309	F	F	F	A
27	F	F	F	F	F	352	348	362	352	A	345	A	323	290	283	302	303	306	310	316	341	355	A	F
28	A	A	F	F	319	313	327	333	A	359	340	A	A	310	294	314	A	314	303	311	315	323	F	A
29	F	F	F	328	F	272	302	309	311	A	A	A	269	A	A	A	A	294	311	310	337	318	327	F
30	F	F	303	293	331	306	313	287	315	341	351	361	273	303	332	321	A	286	294	293	329	346	F	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	13	12	12	12	18	29	27	27	20	22	15	13	15	17	24	21	21	27	25	27	26	28	16	11
MED	302	302	304	316	318	329	339	335	342	336	325	317	300	306	309	318	310	313	317	313	326	317	302	309
U Q	310	314	315	322	325	348	354	348	349	348	340	331	318	314	316	326	320	319	322	325	331	326	318	315
L Q	294	292	300	308	307	308	320	324	322	327	291	304	278	296	296	304	300	303	308	305	315	304	298	304

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	A	A	A	A	A	A	A	A	A	A	L					
2							L	L 384	A	A	A	A	A	A	A	A	390		A	L					
3							L 361	A	A	A	A	A	A	L 396	A	A	A	L 352	A					
4							L	A	A	A	A	A		A	A	A	A	A	A					
5								L 383	385	A	A	A	A	A	L 372	A	L 365	L 349	A					
6							L	A	A	A	C	C	C	C	C	A	C	A	A					
7							A	A	A	A	U L 393	A	A	U L 392	U L 356	379	377	L 357	L					
8							E A	A	A	E A	A	U L 397	U L 396	A	U L 382	E A	E A	E A	A					
9							A	L 370	A	A	A	A	A	A	A	U L 388	A	A	A					
10							L 366	377	L 387	A	A	A	A	U L 397	A	A	A	A	A					
11							L	A	A	398		A	U L 373	U L 395	U L 408	U L 328	A	A	A					
12						U L 330	L 361	A	A	L 411	A	A	A	A	A	A	A	A	A					
13							A	A	A	A	A	A	A	A	A	382	L 387	A	A					
14						L	377	A	A	A	A	A	A	A	A	A	A	A	A					
15						L	L	A	U L 432	A	A	A	A	A	A	A	A	L	L					
16						U L 326	253	A	A	L 401	A	A	U L 397	U L 339	L 413	A	A	371	L					
17							A	A	U L 363	A	A	U L 399	A	A	412	A	A	369	L					
18							L	A	A	A	437	L 440	U L 404	A	A	372	L 386	380	L 372					
19							A	A	L 434	419	403	419	L 423	U L 428	L 376	A	L 383	A	A					
20							L 390	L 411	A	L 355	A	U L 427	L 379	U L 405	A	393	A	A	L					
21						L 339	372	399	404	401	A	A	A	A	A	A	383	A	A					
22						348	U L 395	425	412	A	A	A	A	A	A	A	A	376	A					
23						A	L	386	402	409	U L 422	U L 405	U L 423	U L 369	U L 409	390	A	A	A					
24							A	A	L 418	U L 344	A	A	U L 409	413	409	A	A	A	A					
25							L	L	U L 428	U L 414	A	U L 442	U L 394	A	410	388	U L 365	L	U L 346					
26						U L 348	376	A	A	U L 444	400	A	A	A	406	A	U L 372	A	A					
27						A	L	L	A	A	A	A	A	U L 379	U L 386	389	381	A	365					
28							A	A	A	448	465	A	A	A	A	412	A	A	A					
29						U L 329	U L 324	A	A	A	A	A	A	A	A	A	A	380	A					
30							A	381	A	A	418	U L 434	U L 422	U L 405	388	386	A	A	A					
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						6	10	9	10	11	7	8	10	11	13	11	10	8	3					
MED						U L 334	L 369	384	L 408	L 409	418	U L 423	U L 400	U L 396	L 406	388	L 382	370	L 365					
U Q						348	L 377	405	U L 428	419	437	U L 437	U L 422	U L 405	410	390	L 386	378	L 372					
L Q						U L 329	L 361	379	L 387	L 398	400	U L 402	U L 394	U L 379	379	379	U L 372	L 354	U L 346					

JUN. 2006 M(3000)F1 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								E A 284	A	A	A	296	A	E A 322	E A 318	E A 318	E A 352	E A 324	264					
2							272	298	A	E A 342	A	A	A	A	A	378	360	288	268					
3							330	244	E A 344	E A 298	A	A	A	360	376	A	E A 312	326	A					
4							274	282	A	E A 294	A	A		A	326	284	A	E A 282	262					
5								282	266	294	262	A	A	330	352	E A 392	382	310	E A 292					
6							242	E A 344	A	A	C	C	C	C	C	A	C	258	E A 292					
7							248	A	A	292	392	374	A	434	384	334	318	298	262					
8							E A 266	A	A	304	A	482	336	A	402	340	328	328	A					
9							A	350	A	A	A	A	A	E A 364	A	332	298	298	E A 324					
10							304	318	258	296	A	314	390	378	346	E A 314	E A 340	318	E A 300					
11							252	252	A	330	402	300	336	360	374	334	316	294	246					
12						378	264	288	258	336	E A 358	A	A	A	294	A	A	A	A					
13							E A 336	E A 286	256	270	A	A	A	A	E A 304	288	326	A	A					
14						328	284	216	330	A	A	A	E A 300	344	302	286	A	E A 340	E A 310					
15						282	254	E A 382	340	298	A	A	A	A	A	A	302	274	278					
16						400	530	A	E A 410	418	A	A	432	432	400	A	370	330	290					
17							E A 252	E A 354	354	A	A	304	A	A	346	320	E A 324	352	294					
18							308	290	E A 294	272	388	300	362	A	A	318	254	330	308					
19							A	286	298	324	324	352	396	368	368	298	266	E A 286	304					
20							286	272	A	332	294	332	360	382	312	294	A	320	284					
21						358	324	262	266	240	298	E A 342	E A 348	A	344	A	350	294	E A 294					
22						364	320	250	246	A	308	A	A	A	294	300	288	314	E A 298					
23						264	258	294	272	268	346	358	312	356	368	332	E A 320	338	282					
24							A	298	276	364	A	A	386	364	332	A	A	286	A					
25							238	272	318	268	E A 316	394	370	312	320	356	344	302	344					
26						332	284	284	282	256	384	A	A	A	342	A	308	A	302					
27						E A 286	266	246	264	A	E A 304	A	324	392	408	356	356	332	294					
28							E A 338	294	A	268	310	A	A	378	358	306	A	328	306					
29						432	326	E A 306	328	A	A	A	E A 408	A	A	A	A	394	322					
30							294	374	306	278	272	280	352	408	328	366	A	E A 384	E A 342					
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						10	25	27	20	22	15	13	15	17	24	21	21	27	25					
MED						345	278	284	278	294	313	323	356	364	345	319	321	310	289					
U Q						378	322	E A 306	329	330	384	366	390	387	371	348	351	330	307					
L Q						286	256	272	265	270	298	300	336	350	319	299	305	294	280					

JUN. 2006 h'F2 (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E A 324	E A 326	E A 274	E A 308	E A 286	238	218	A	A	A	A	A	A	A	A	A	A	A	212	236	E A 252	232	252	E A 260
2	E A 256	E A 242	E A 268	E A 292	E A 274	224	220	206	A	A	A	A	A	A	A	A	212	A	208	238	236	E A 314	E A 370	A
3	E A 318	E A 298	240	E A 272	E A 250	230	220	A	A	A	A	A	A	212	A	A	A	224	A	A	A	224	E A 268	E B 288
4	E A 306	E B 278	E A 294	E A 278	E A 264	226	206	A	A	A	A	A	A	A	A	A	A	A	A	240	240	E A 256	E A 268	E A 264
5	E A 254	E A 262	E A 294	E A 256	228	240	232	204	196	A	A	A	A	A	218	A	212	E A 248	A	E A 276	E A 246	E A 280	E A 276	E A 322
6	E A 290	E A 326	E A 306	E A 272	230	224	206	A	A	A	C	C	C	C	C	A	C	A	A	234	238	E A 266	E A 296	E B 262
7	E A 332	A	A	E A 290	E B 250	236	A	A	A	A	210	A	A	206	222	210	234	218	230	226	E A 304	E A 258	E A 268	E A 268
8	E A 256	E B 280	E A 262	E A 302	E A 234	232	252	A	A	A	A	214	208	A	206	A	A	A	A	E A 276	E A 262	E A 258	E A 250	E A 250
9	E B 286	E B 284	E A 252	E A 284	E A 266	234	A	210	A	A	A	A	A	A	A	234	A	A	A	256	222	228	E A 278	E A 266
10	E A 290	E A 284	E A 306	E A 316	E A 254	232	232	216	218	A	A	A	A	202	A	A	A	A	A	A	E A 294	E A 274	E A 276	E A 292
11	A	234	E A 310	A	A	E A 242	H 196	A	A	204	A	A	238	212	216	E A 282	A	A	A	234	226	E A 262	E A 316	E A 290
12	E A 298	E A 296	E A 268	E A 252	E B 260	E A 256	222	A	A	198	A	A	A	A	A	A	A	A	A	E A 262	224	E A 308	224	E A 330
13	A	228	E A 298	E A 312	E A 252	232	A	A	A	A	A	A	A	A	A	226	234	A	A	A	E A 316	E A 266	244	E A 288
14	E A 286	E A 254	226	E A 292	E B 256	242	222	A	A	A	A	A	A	A	A	A	A	A	A	E A 264	230	220	214	E A 286
15	A	248	E A 342	E A 310	E A 270	234	222	A	H 194	A	A	A	A	A	A	A	A	220	222	252	E A 274	222	E B 270	194
16	E A 274	E B 310	E A 290	E A 262	E A 302	E A 262	E A 476	A	A	192	A	A	214	236	212	A	A	212	230	E A 264	244	226	E A 248	E A 280
17	E A 312	E A 350	E A 300	E A 306	E A 250	228	A	A	218	A	A	222	A	A	206	A	A	204	226	242	218	230	E B 272	E B 286
18	E B 286	E B 282	248	236	248	224	224	A	A	A	192	H 186	214	A	A	224	212	226	228	240	208	232	244	E A 280
19	E B 276	A	E A 308	E A 318	E A 294	E A 312	A	A	182	192	214	198	194	190	244	A	220	A	A	E A 242	E A 254	E A 250	244	E A 292
20	242	E B 268	E A 268	E A 260	232	214	220	204	A	E A 264	A	182	E A 230	206	A	206	A	A	226	232	220	220	230	E A 262
21	E A 254	232	E B 256	E A 286	E B 266	244	214	210	204	204	A	A	A	A	A	A	204	A	A	E A 266	E A 270	244	E A 274	E B 268
22	E A 252	E A 310	E A 274	242	E A 256	252	232	206	H 188	A	A	A	A	A	A	A	A	228	A	238	226	220	224	234
23	242	E B 272	E A 268	E A 248	E A 254	A	212	214	210	210	196	206	194	E A 260	208	202	A	A	A	E A 290	E A 240	202	248	A
24	E A 320	E A 314	E B 270	E A 278	E A	E A 340	A	A	190	E A 286	A	A	202	222	194	A	A	A	A	E A 264	228	E A 252	246	214
25	E A 300	E A 294	E A 266	E A 262	E A 262	232	202	H 182	H 184	H 188	A	H 178	234	A	H 184	H 182	196	204	E A 258	236	220	208	A	E A 332
26	E A 326	E A 326	A	E A 268	E A 274	236	234	A	A	H 182	228	A	A	A	200	A	H 208	A	A	E A 262	228	230	E A 262	A
27	E A 318	E A 308	E A 308	E A 254	E B 264	A	204	200	A	A	A	A	A	206	H 176	202	214	A	224	246	222	218	A	E A 316
28	A	A	E A 312	E A 304	E A 312	E A 292	A	A	A	H 180	188	A	A	A	A	200	A	A	A	E A 270	E A 268	228	238	A
29	E A 322	E B 262	E B 274	232	E A 274	E A 306	E A 272	A	A	A	A	A	A	A	A	A	A	220	A	260	230	210	E A 262	E A 340
30	E A 340	E A 326	E A 318	E A 346	E A 274	234	A	216	A	A	204	194	196	206	224	208	A	A	A	E A 344	244	230	E A 320	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	26	27	28	29	28	28	22	11	10	11	7	8	10	11	13	11	10	10	10	27	29	30	28	25
MED	E A 290	E A 284	E A 274	E A 278	E A 261	233	220	206	195	195	204	196	208	206	208	207	212	220	226	243	229	222	E A 262	E A 280
U Q	E A 318	E A 310	E A 306	E A 305	E A 274	248	232	214	210	E A 210	214	210	230	222	220	226	220	226	230	E A 264	E A 258	E A 258	E A 275	E A 292
L Q	E A 256	262	E 267	E 258	250	231	212	204	H 188	H 188	192	H 184	196	206	197	202	208	212	222	238	225	222	244	E 262

JUN. 2006 h'F (KM)

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	A	A	A	A	A	A	A	A	A	A	A	A					
2						116	114	118	A	A	A	A	A	A	A	A	A	A	A					
3						B	118	A	A	A	A	A	A	A	118	A	A	114	A					
4						114	120	116	A	A	A	A		A	116	A	A	A	A					
5						118	126	116	114	108	A	A	A	A	A	A	114	114	A					
6						A	A	118	A	A	C	C	C	C	C	A	C	A	A					
7						124	114	116	A	116	116	114	A	112	110	114	114	A	A					
8						116	118	118	118	118	116	116	116	116	116	112	118	A	A					
9						B	A	114	A	A	A	A	A	A	A	116	114	A	A					
10						118	116	A	A	A	A	A	A	A	A	116	110	A	A					
11						A	A	A	A	A	A	A	A	114	114	114	114	114	A					
12						A	114	A	A	116	118	A	A	A	A	A	A	A	A					
13						B	A	A	A	A	A	A	A	A	A	A	116	A	A					
14						116	116	A	A	A	A	A	A	A	A	A	A	A	A					
15						B	114	118	116	A	A	A	A	A	A	A	A	A	A					
16						120	118	A	A	A	A	A	118	116	116	116	116	116	A					
17						A	A	A	A	116	114	114	A	A	114	A	A	118	A					
18						A	A	A	A	A	A	A	118	114	A	112	116	116	116					
19							A	A	A	118	118	118	118	116	116	A	A	A	A					
20						116	A	A	A	A	124	124	120	116	116	116	A	116	A					
21						114	124	118	118	120	118	A	A	A	A	A	116	A	A					
22						B	110	A	A	A	A	A	A	A	A	A	A	A	A					
23						B	A	A	A	116	118	114	114	118	118	118	114	114	A					
24							A	A	A	A	A	A	114	116	116	116	A	A	A					
25						B	A	A	A	A	A	A	A	A	A	120	A	120	A					
26						118	112	A	A	A	112	114	114	A	122	A	118	A	A					
27						B	A	114	A	A	A	A	A	A	114	114	120	120	A					
28						B	116	116	A	A	112	A	A	A	A	120	A	A	A					
29						118	118	A	A	A	A	A	A	A	A	A	A	A	A					
30						B	A	A	A	A	A	A	118	118	118	118	118	118	A					
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						12	16	11	4	8	10	7	9	10	14	14	14	11	1					
MED						117	116	116	117	116	117	114	118	116	116	116	116	116	116					
U Q						118	118	118	118	118	118	118	118	116	118	118	118	118						
L Q						116	114	116	115	116	114	114	114	114	114	114	114	114						

JUN. 2006 h'E (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	102	96	100	96	94	98	96	104	106	104	100	104	102	102	100	100	98	98	102	102	98	108	100	96
2	94	92	92	90	86	126	118	128	104	100	96	98	98	98	98	98	98	96	96	96	104	106	108	104
3	100	100	100	98	108	136	120	102	106	106	104	104	104	108	118	102	106	110	94	92	90	90	90	98
4	102	98	90	96	94	166	122	116	102	104	106	102	100	100	116	106	92	96	94	90	90	88	92	104
5	94	106	94	96	98	126	122	120	118	116	106	100	98	98	98	98	170	120	104	104	104	106	106	100
6	102	98	92	92	92	98	102	116	102	104	C	C	C	C	C	104	C	104	100	98	94	94	92	106
7	108	100	96	94	112	124	118	114	108	118	120	116	108	116	116	116	114	104	106	104	98	102	106	106
8	106	106	104	104	108	120	114	112	118	118	118	116	114	118	136	120	118	102	102	100	94	94	96	102
9	104	102	98	102	102	112	106	118	104	100	100	102	106	106	104	134	118	108	98	96	100	94	94	98
10	100	98	94	94	96	112	122	106	100	100	100	100	100	108	108	120	118	106	100	98	102	102	100	102
11	102	96	96	96	96	102	104	104	98	98	98	96	98	126	120	118	118	112	104	106	102	102	102	102
12	102	104	100	102	102	106	126	108	106	122	114	104	98	98	100	98	96	96	94	92	90	92	104	102
13	98	100	96	96	98	114	106	104	104	104	104	104	104	102	104	104	126	106	102	98	98	98	104	104
14	104	92	92	92	94	132	116	104	102	98	96	96	100	100	98	104	106	104	104	94	124	96	100	102
15	96	98	96	96	102	118	124	116	116	106	98	96	96	96	116	120	100	90	92	90	90	86	86	96
16	108	122	108	108	108	114	118	104	104	104	102	106	116	116	120	114	114	114	104	104	98	96	92	114
17	108	100	96	98	96	96	94	102	102	118	112	124	104	104	120	106	102	116	104	96	92	106	104	104
18	102	100	100	104	98	98	98	100	98	98	100	102	102	120	106	102	132	118	112	104	102	90	102	90
19	96	100	98	98	98	100	98	98	102	156	122	116	128	124	116	104	108	104	108	102	100	100	102	102
20	102	98	92	90	90	G	102	104	98	98	138	124	152	120	112	114	106	114	106	104	98	108	110	104
21	100	100	100	98	94	102	102	114	130	114	118	106	106	100	104	104	110	104	104	104	102	102	102	94
22	104	92	92	90	90	130	120	104	102	96	100	98	98	96	96	94	94	94	94	90	90	108	90	88
23	102	104	100	102	102	98	100	104	102	126	132	116	116	138	120	130	112	114	106	104	100	102	100	98
24	96	100	102	100	100	100	98	98	100	104	100	102	118	138	144	114	104	106	102	102	102	102	100	100
25	94	94	94	96	92	94	100	100	104	102	106	102	106	104	104	112	106	118	102	102	96	94	106	102
26	100	100	98	104	102	114	116	104	98	98	150	120	114	106	106	106	116	100	96	100	100	102	102	102
27	98	98	96	106	98	102	102	112	100	96	98	96	96	98	118	128	122	116	108	104	98	102	106	102
28	98	92	96	96	94	94	112	112	104	102	158	100	104	106	108	122	102	106	106	98	98	100	102	96
29	96	B	96	98	98	118	114	102	102	102	100	96	100	100	100	98	96	94	92	92	92	92	106	104
30	104	102	102	102	102	108	104	100	102	102	102	100	122	132	160	146	112	108	108	106	106	106	106	106
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	29	30	30	30	29	30	30	30	30	29	29	29	29	29	30	29	30	30	30	30	30	30	30
MED	102	100	96	97	98	112	109	104	102	104	104	102	104	106	108	106	108	106	102	100	98	101	102	102
U Q	104	101	100	102	102	122	118	114	106	114	118	111	114	119	119	120	118	114	106	104	102	102	106	104
L Q	98	97	94	96	94	99	102	102	102	100	100	99	99	100	102	102	101	100	96	96	94	94	96	98

JUN. 2006 h'Es (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

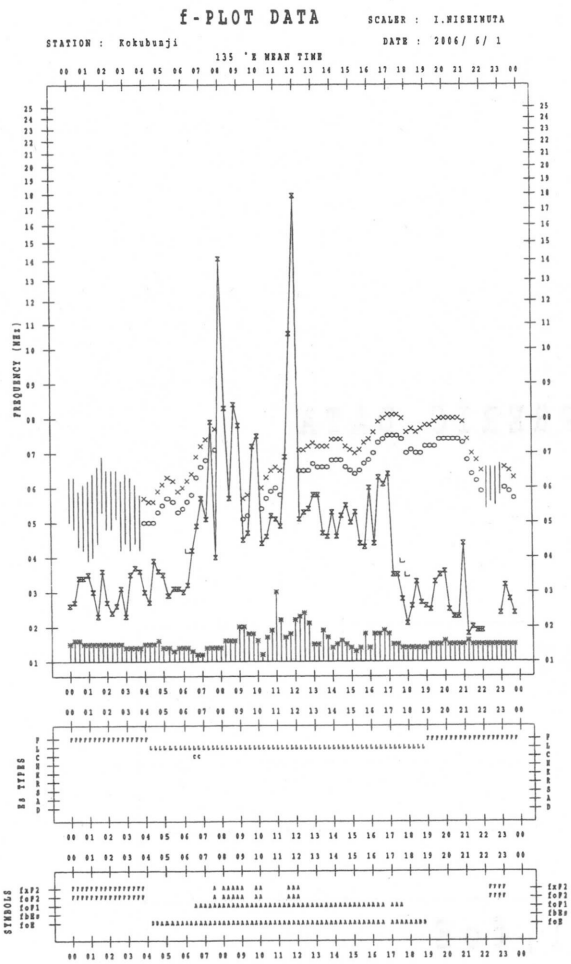
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F 4	F 3	F 3	F 3	F 3	L 3	L 3	L 3	L 3	L 3	L 3	L 2	L 3	L 2	L 2	L 3	L 3	L 4	L 3	F 3	F 4	FF 43	F 3	F 4
2	F 3	F 3	F 4	F 4	F 2	C 2	CL 21	CL 11	L 4	L 3	L 3	L 3	L 3	L 2	L 2	L 3	L 3	L 4	L 3	F 2	F 2	F 3	F 5	F 5
3	F 4	F 4	F 3	F 3	F 1	CL 11	CL 11	L 3	L 3	L 3	L 3	L 3	L 3	L 1	CL 21	L 4	L 2	CL 22	L 4	F 3	F 4	F 4	F 4	F 2
4	F 3	F 3	F 4	F 2	F 2	HL 11	CL 21	CL 21	L 4	L 2	L 4	L 4	L 3	L 3	CL 11	L 2	L 5	L 4	L 3	F 5	F 3	F 3	F 2	FF 22
5	F 3	FF 13	F 3	F 3	F 1	C 2	CL 32	CL 22	CL 11	CL 11	L 2	L 3	L 3	L 3	L 2	L 2	HL 11	CL 21	L 3	F 3	F 5	F 4	F 4	F 5
6	F 3	F 5	F 4	F 3	F 2	L 1	L 2	CL 21	L 3	L 4						L 3		L 3	L 4	F 3	F 3	F 4	F 3	F 2
7	F 4	F 6	F 4	F 3	F 2	C 3	C 4	C 3	L 4	CL 11	CL 11	C 2	L 3	CL 11	CL 11	CL 11	CL 31	L 2	L 1	F 2	F 4	F 3	F 4	F 4
8	F 3	F 3	F 3	F 4	F 2	C 2	CL 21	CL 21	CL 21	CL 21	CL 21	CL 11	CL 11	CL 31	CL 11	CL 21	CL 21	L 3	L 4	F 4	F 4	F 6	F 2	F 2
9	F 1	F 2	F 3	F 2	F 2	C 2	L 4	CL 21	L 3	L 3	L 4	L 3	L 3	L 2	L 3	CL 21	CL 31	L 4	L 3	F 3	F 2	F 3	F 3	F 2
10	F 3	F 3	F 3	F 4	F 3	CL 22	CL 22	L 2	L 2	L 2	L 3	L 2	L 2	L 1	L 2	CL 22	CL 42	L 4	L 4	F 4	F 5	F 3	F 3	F 4
11	F 6	F 4	F 5	F 4	F 5	L 3	L 2	L 2	L 3	L 2	L 2	L 2	L 2	CL 11	CL 11	CL 11	CL 21	CL 31	L 4	F 5	F 5	F 3	F 3	F 6
12	F 3	F 3	F 4	F 3	F 2	L 2	CL 21	L 2	L 3	CL 11	CL 11	L 2	L 4	L 3	L 3	L 4	L 5	L 5	L 5	F 4	F 3	F 5	F 2	F 3
13	F 4	F 3	F 3	F 4	F 3	CL 21	L 3	L 3	L 3	L 2	L 2	L 3	L 3	L 3	L 2	L 2	CL 21	L 4	L 5	F 4	F 3	F 3	F 2	F 4
14	F 3	F 5	F 4	F 2	F 2	H 3	C 2	L 2	L 2	L 2	L 4	L 3	L 3	L 2	L 2	L 2	L 3	L 3	L 4	F 3	FF 22	F 2	F 3	F 4
15	F 4	F 4	F 3	F 3	F 3	C 2	C 2	CL 21	CL 11	L 2	L 3	L 3	L 3	L 3	CL 23	CL 22	L 2	L 3	L 3	F 3	F 4	F 2	F 2	F 2
16	F 3	F 2	F 1	F 1	F 4	C 3	C 2	L 2	L 3	L 2	L 3	L 2	CL 11	CL 11	CL 11	CL 21	CL 21	CL 11	L 3	F 3	F 3	F 3	F 4	FF 12
17	FF 32	F 4	F 3	F 4	F 4	L 3	L 3	L 2	L 2	CL 31	CL 21	CL 21	L 3	L 3	CL 11	L 3	L 3	CL 31	L 3	F 3	F 3	F 3	F 3	F 2
18	F 3	F 3	F 2	F 3	F 3	L 2	L 3	L 3	L 3	L 3	L 2	L 1	L 1	CL 21	L 2	L 1	CL 11	CL 21	CL 31	F 3	F 4	F 3	F 3	F 4
19	F 3	F 5	F 4	F 6	F 4	L 3	L 4	L 2	L 2	HL 11	CL 11	CL 11	CL 11	CL 11	CL 11	L 2	L 2	L 3	L 5	F 3	F 4	F 3	F 3	F 4
20	F 2	F 2	F 2	F 3	F 3		L 2	L 2	L 3	L 2	HL 11	CL 11	HL 11	CL 11	CL 21	CL 21	L 4	CL 31	L 3	F 2	F 3	F 2	F 2	F 3
21	F 3	F 2	F 3	F 4	F 2	L 1	L 2	CL 11	CL 11	CL 11	CL 11	L 3	L 2	L 3	L 2	L 3	CL 22	L 2	L 4	F 3	F 5	F 3	F 3	F 2
22	FF 32	F 3	F 3	F 2	F 2	CL 21	CL 21	L 2	L 2	L 3	L 3	L 3	L 3	L 3	L 3	L 3	L 2	L 3	L 3	F 3	F 3	FF 23	F 3	F 3
23	F 3	F 2	F 3	F 2	F 2	L 3	L 2	L 2	L 2	CL 11	CL 11	CL 11	CL 11	HL 11	CL 11	CL 11	CL 41	CL 21	L 4	F 3	F 4	F 4	F 4	F 3
24	F 4	F 4	F 3	F 3	F 5	L 3	L 4	L 2	L 1	L 3	L 3	L 3	CL 11	HL 11	HL 11	CL 31	L 4	L 3	L 4	F 3	F 3	F 3	F 2	F 3
25	F 4	F 4	F 2	F 2	F 2	L 1	L 2	L 2	L 2	L 2	L 1	L 1	L 2	L 2	L 1	CL 21	L 2	CL 11	L 4	F 3	F 3	F 4	F 6	F 6
26	F 4	F 4	F 5	F 3	F 7	C 3	CL 22	L 3	L 3	L 2	HL 11	CL 21	CL 21	L 3	L 1	L 3	CL 21	L 4	L 3	F 5	F 3	F 3	F 4	F 4
27	F 3	F 4	F 4	F 1	F 3	L 3	L 2	CL 11	L 3	L 4	L 3	L 3	L 2	L 2	CL 11	CL 11	CL 11	CL 21	L 2	F 3	F 6	F 4	F 5	F 6
28	F 5	F 5	F 3	F 3	F 4	L 3	CL 32	CL 21	L 3	L 2	HL 11	L 3	L 2	L 2	L 2	CL 11	L 3	L 3	L 4	F 4	F 3	F 3	F 5	F 5
29	F 3		F 2	F 2	F 3	C 2	CL 21	L 3	L 2	L 2	L 2	L 3	L 2	L 2	L 3	L 3	L 3	L 3	L 4	F 4	F 2	F 3	FF 24	F 6
30	F 5	F 5	F 3	F 6	F 4	L 3	L 2	L 4	L 2	L 2	L 2	L 2	CL 11	CL 11	HL 11	HL 11	CL 31	CL 42	L 3	F 4	F 3	F 3	F 5	F 5
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
U Q																								
L Q																								

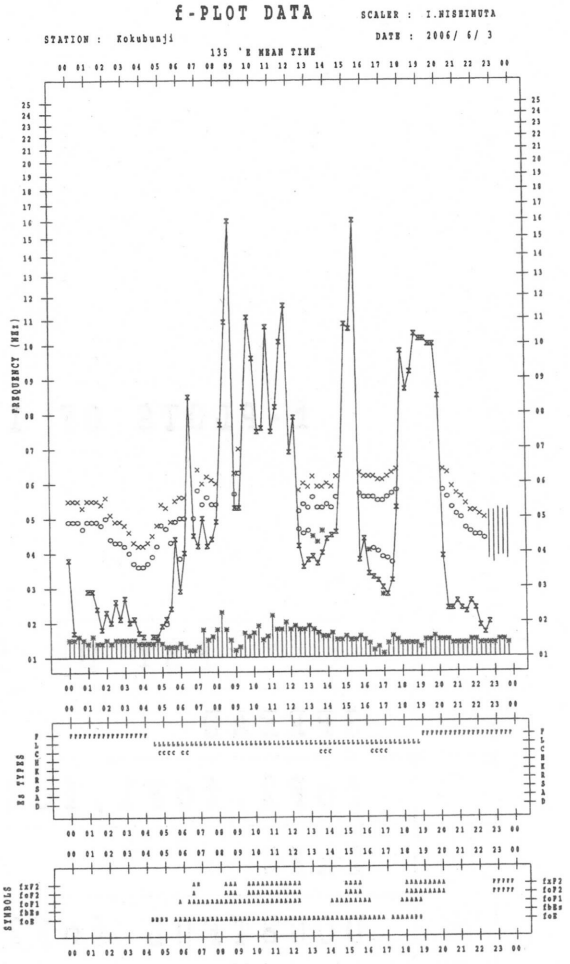
JUN. 2006 TYPES OF Es

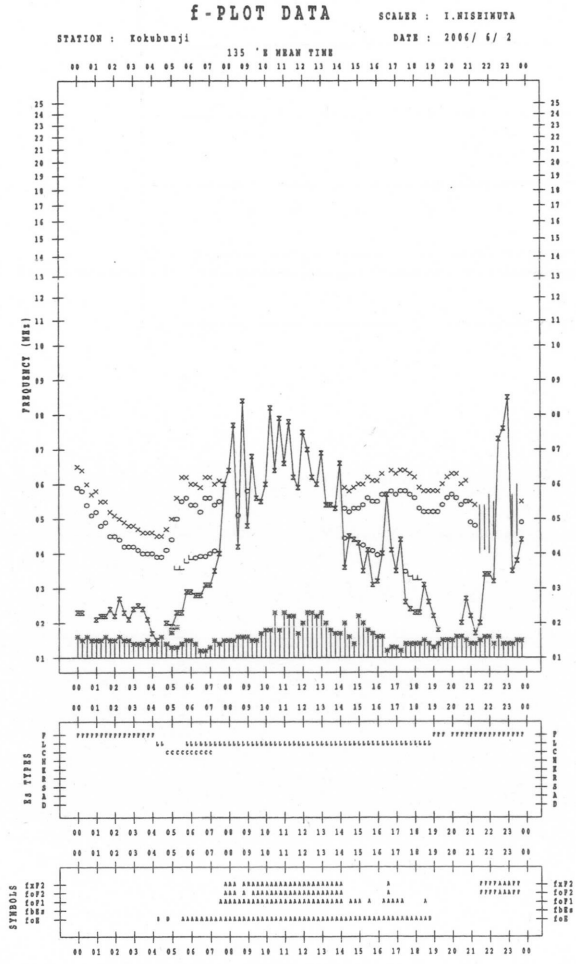
NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

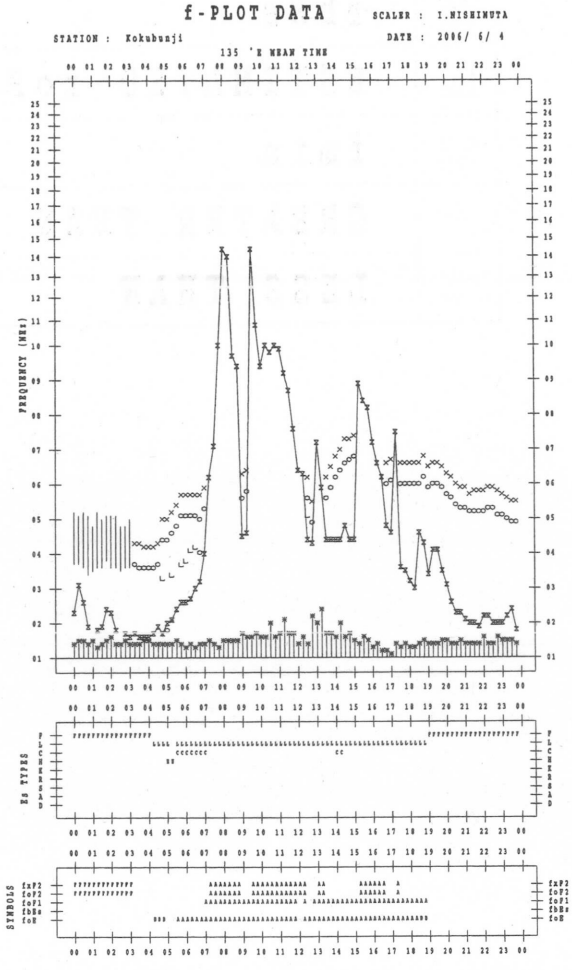
f-PLOTS OF IONOSPHERIC DATA

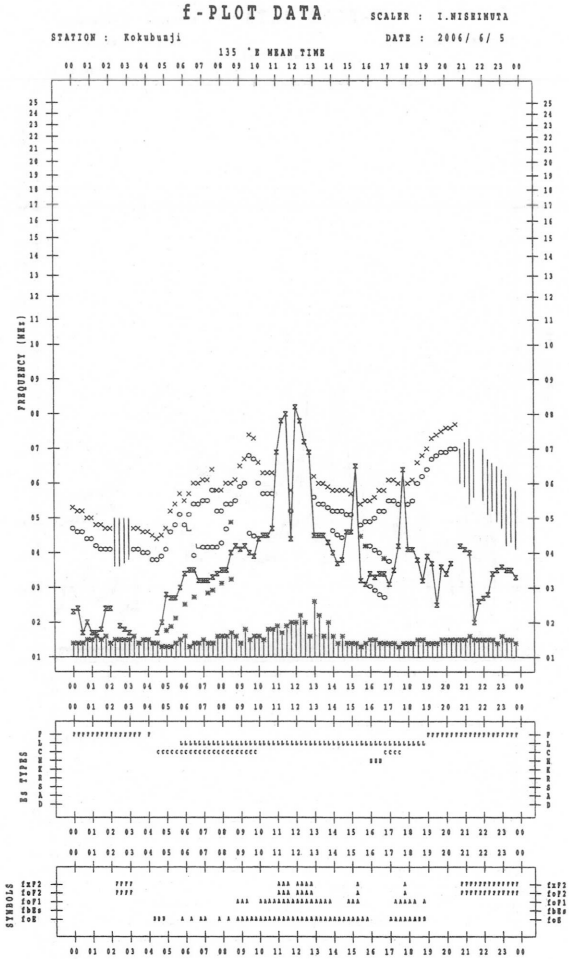
KEY OF f-PLOT	
	SPREAD
	foF2, foF1, foE
	fxF2
	DOUBTFUL foF2, foF1, foE
	fbEs
	ESTIMATED foF1
	fmin
	GREATER THAN
	LESS THAN

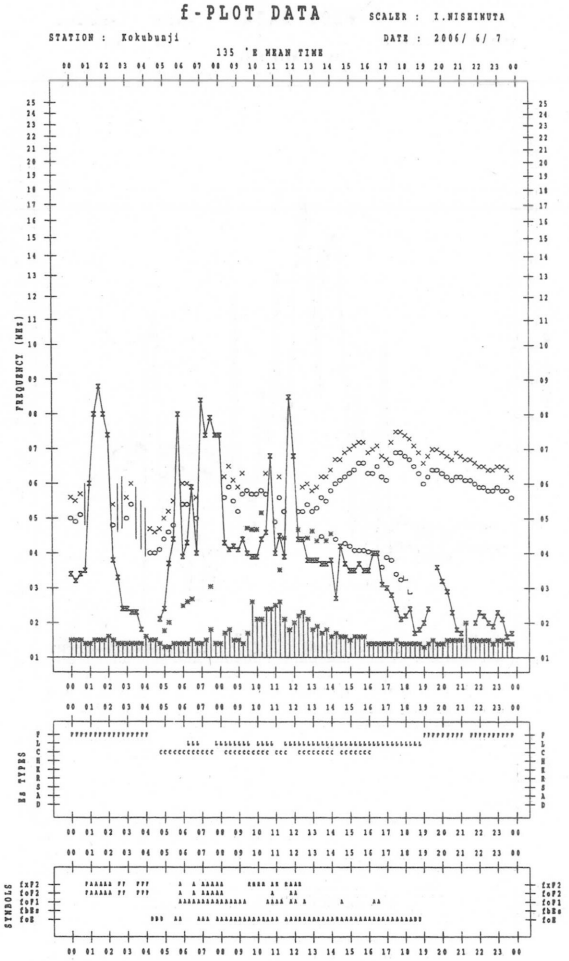

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 1
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

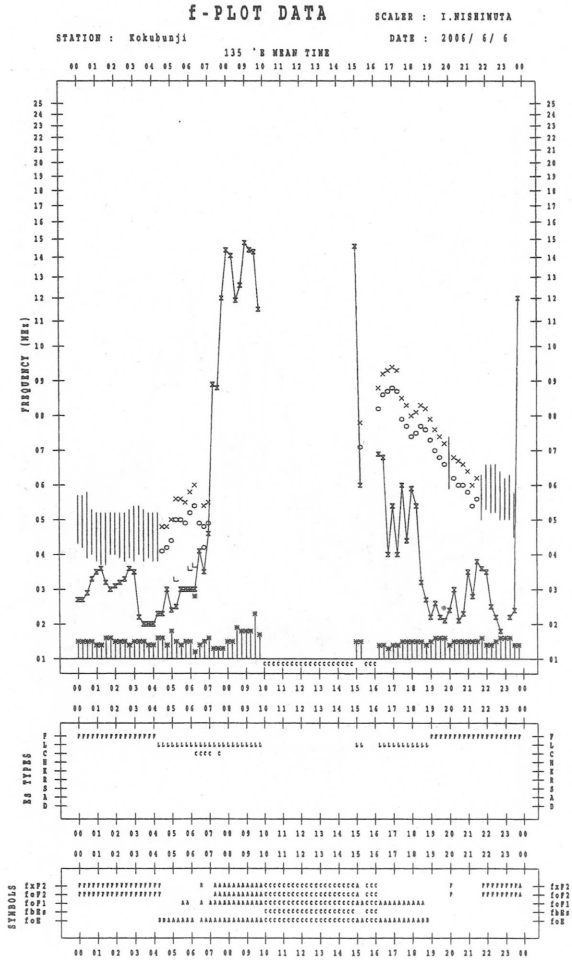

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 3
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

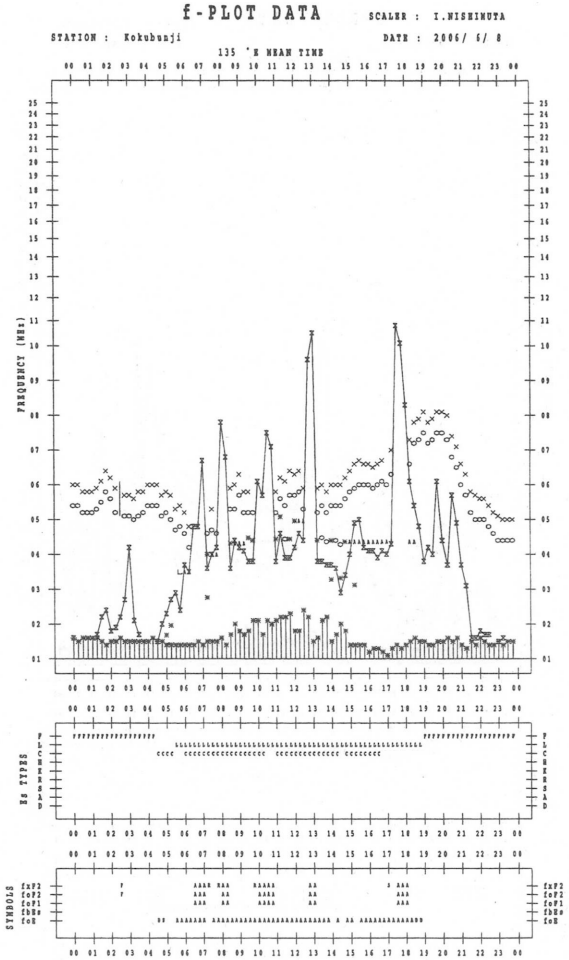

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 2
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

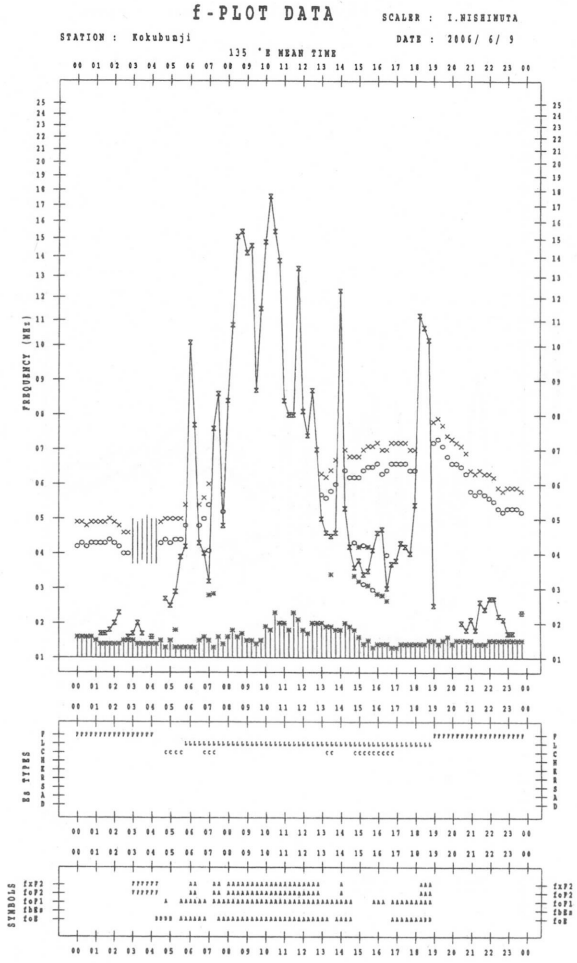

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 4
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

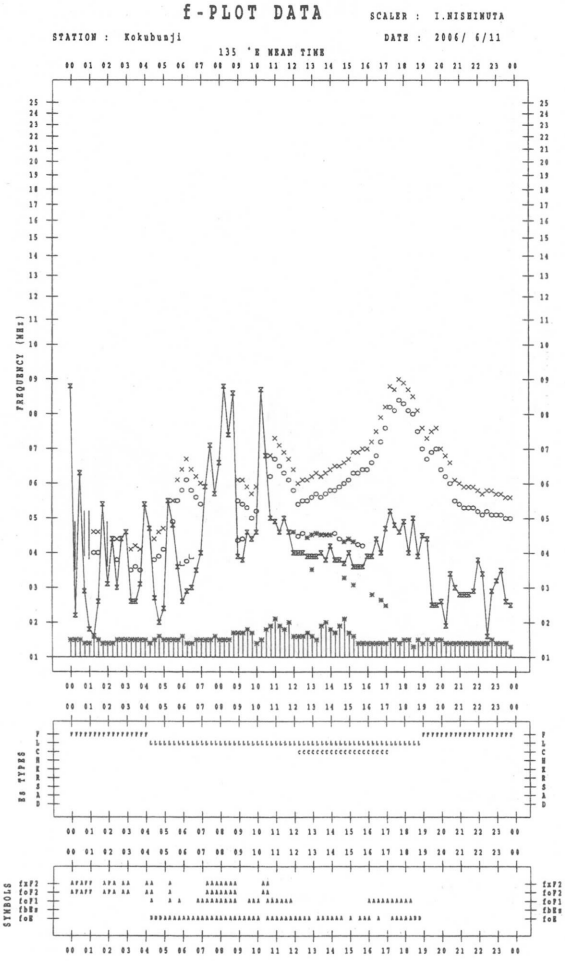

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 5
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

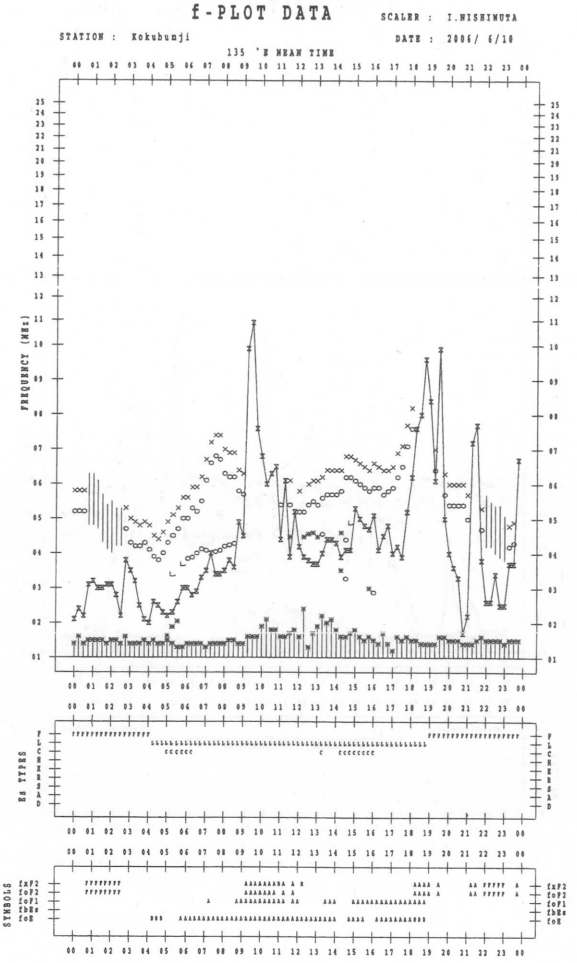

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 7
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

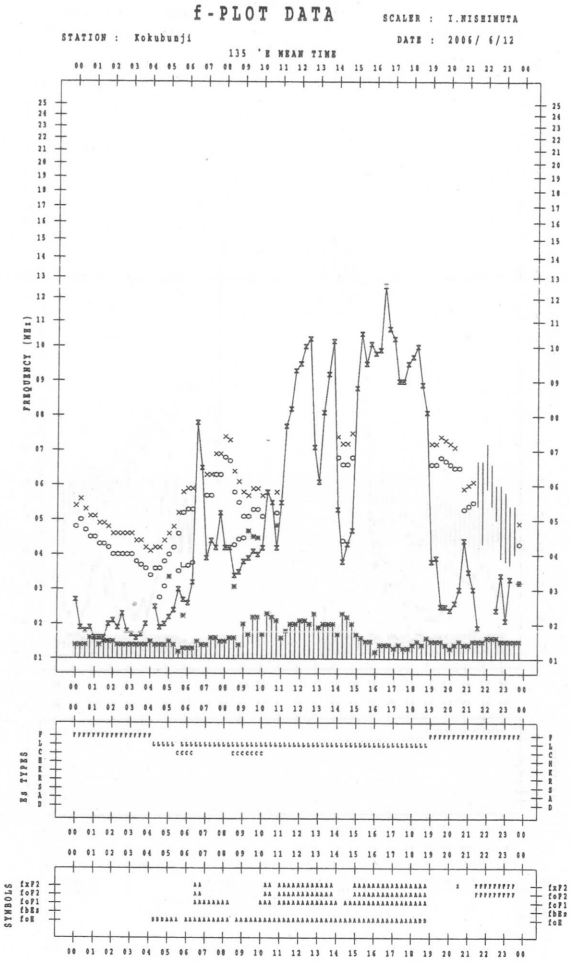

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 6
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

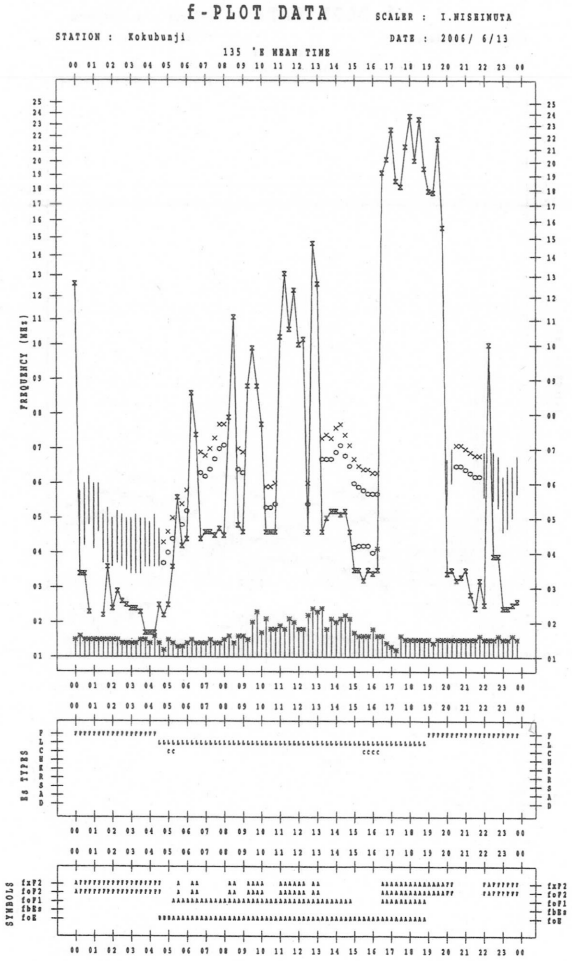

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 8
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

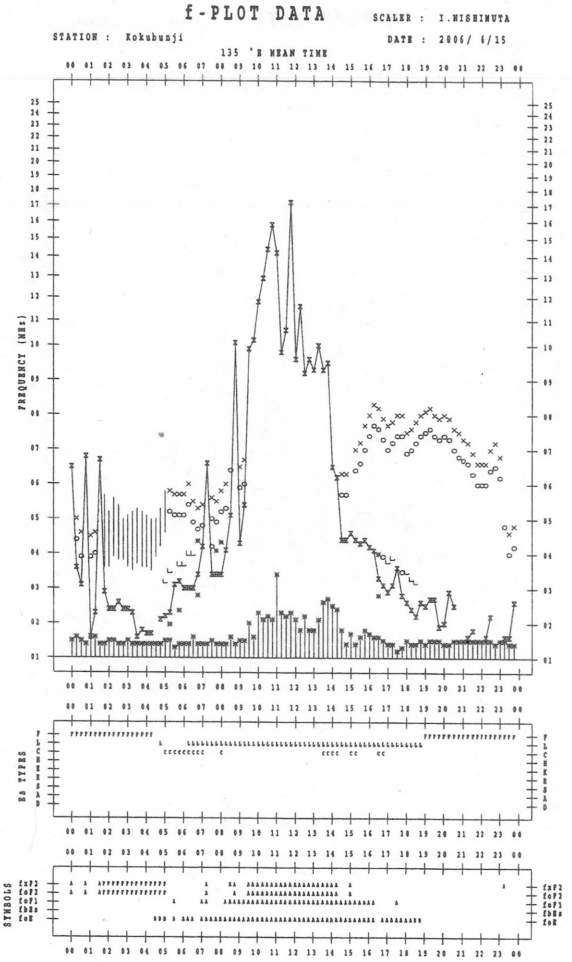

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/ 9
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS
foE
foF1
foF2
fxF2

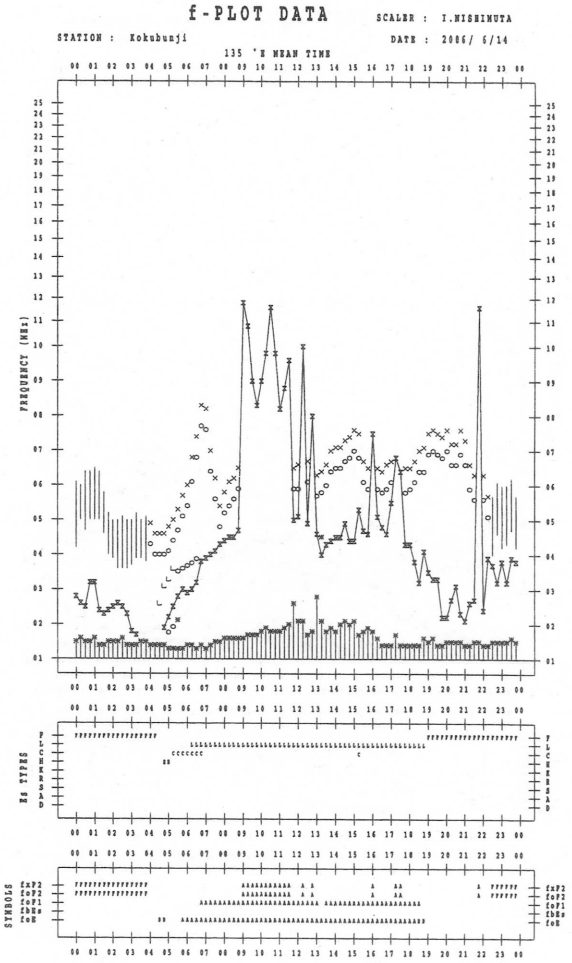

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/11
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS
foE
foF1
foF2
fxF2

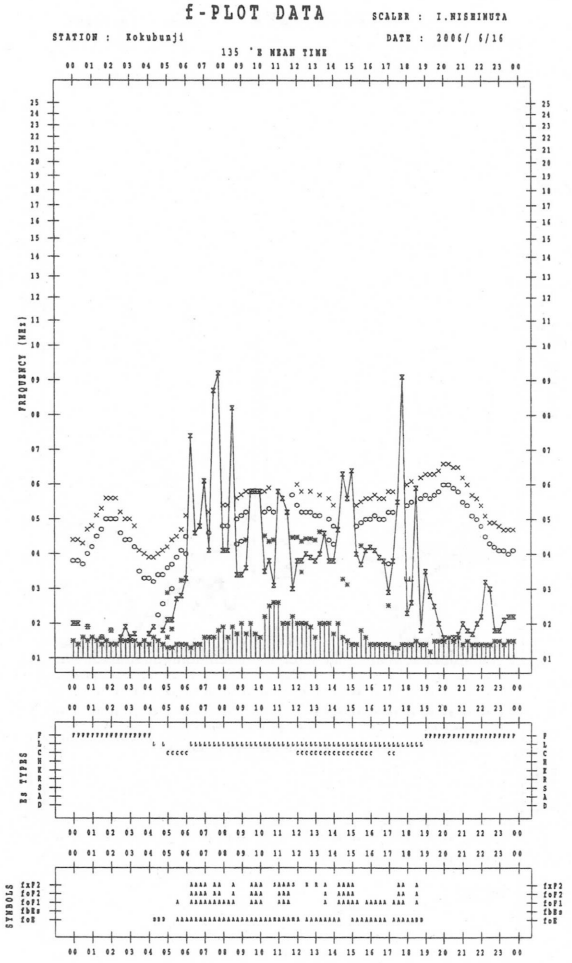

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/10
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS
foE
foF1
foF2
fxF2

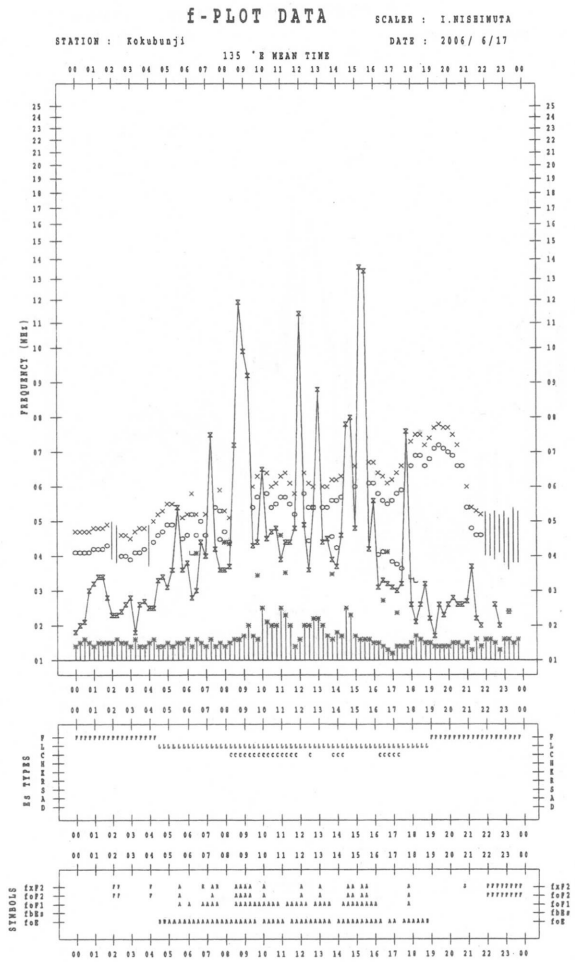

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/12
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS
foE
foF1
foF2
fxF2

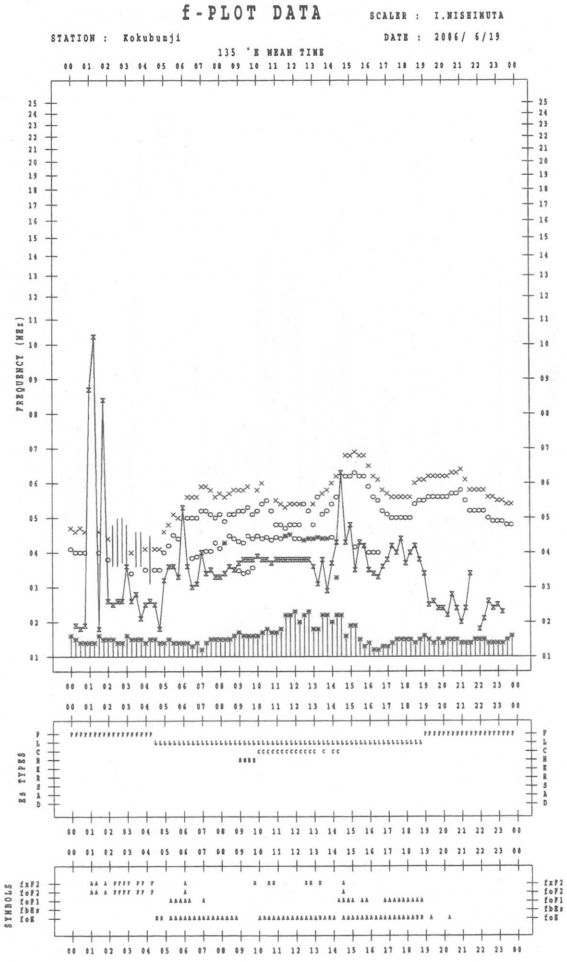

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/13
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/15
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/14
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/16
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/17
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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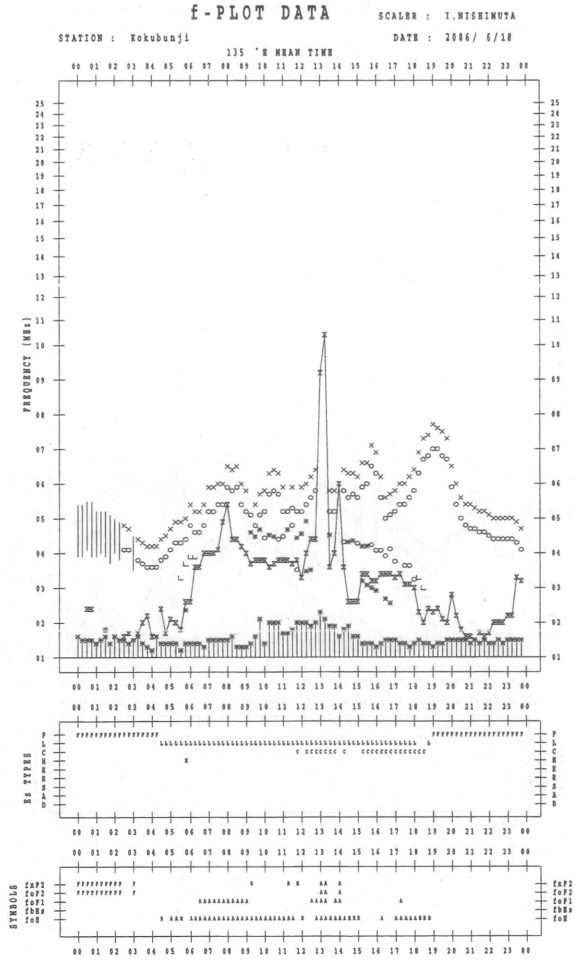
STATION : Kokubunji
DATE : 2006/ 6/19
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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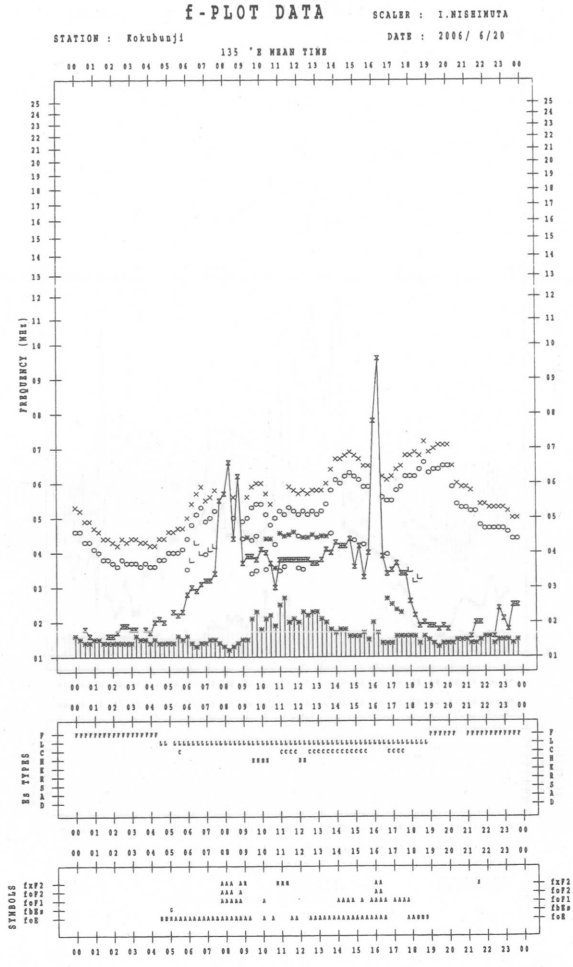
STATION : Kokubunji
DATE : 2006/ 6/18
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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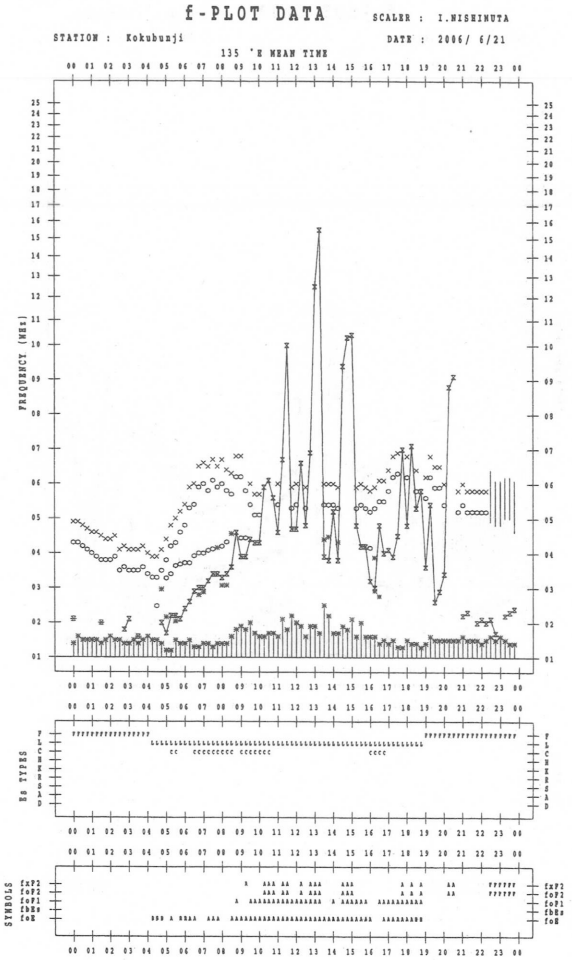
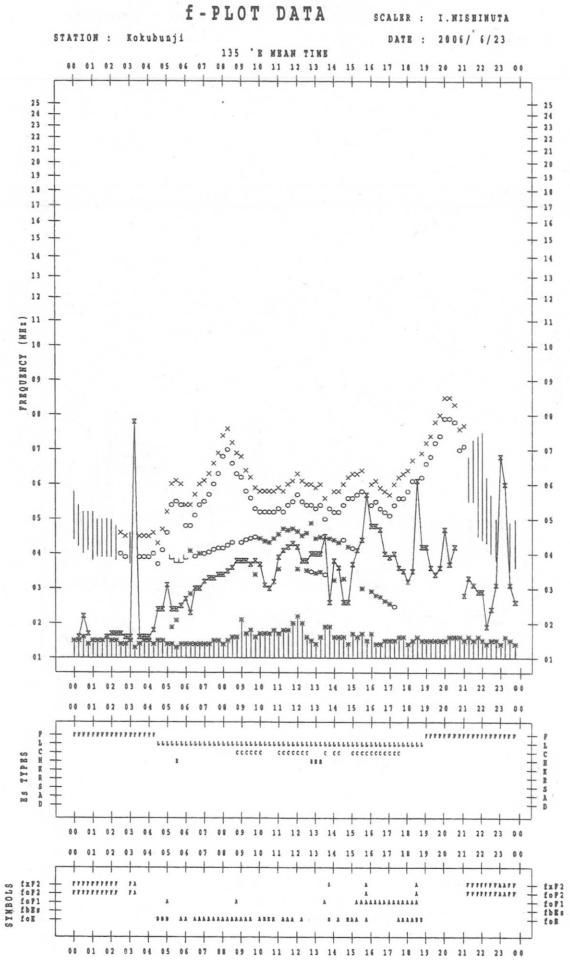
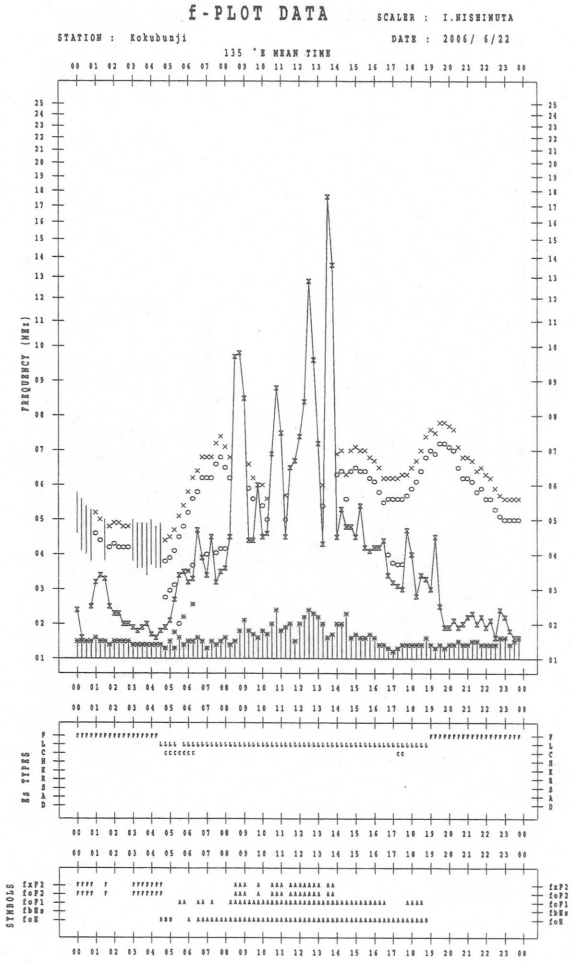
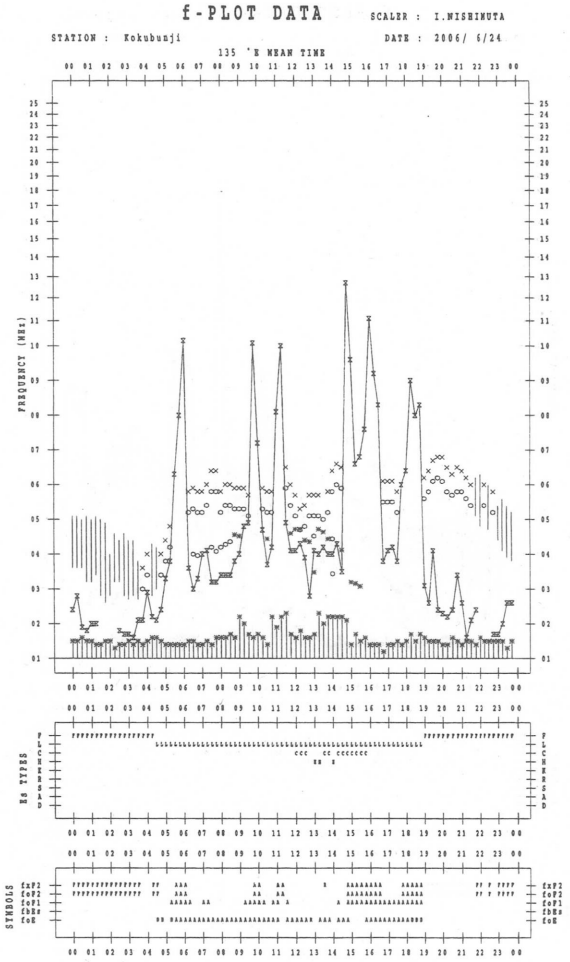
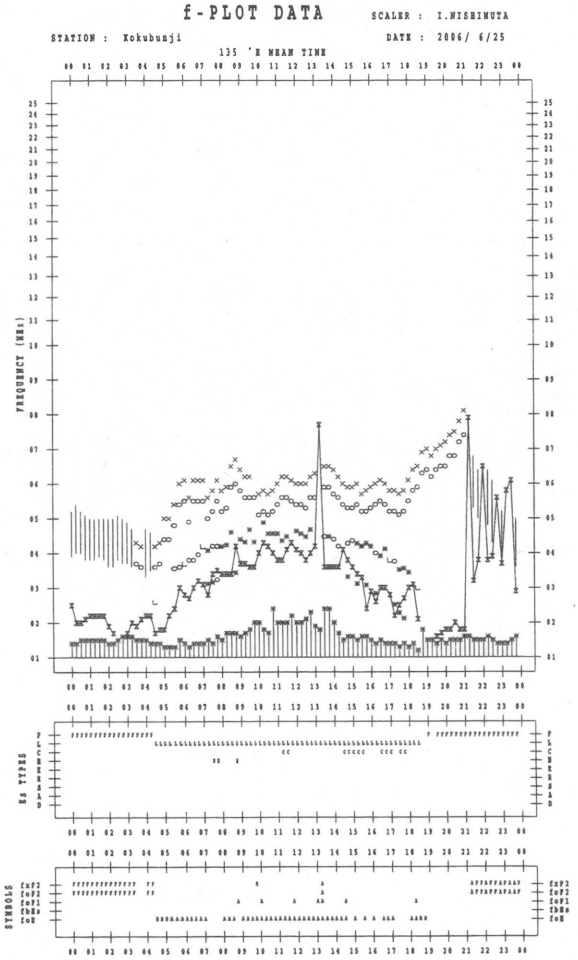
STATION : Kokubunji
DATE : 2006/ 6/20
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHINUTA
STATION : Kokubunji
DATE : 2006/ 6/21
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHINUTA
STATION : Kokubunji
DATE : 2006/ 6/23
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHINUTA
STATION : Kokubunji
DATE : 2006/ 6/22
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHINUTA
STATION : Kokubunji
DATE : 2006/ 6/24
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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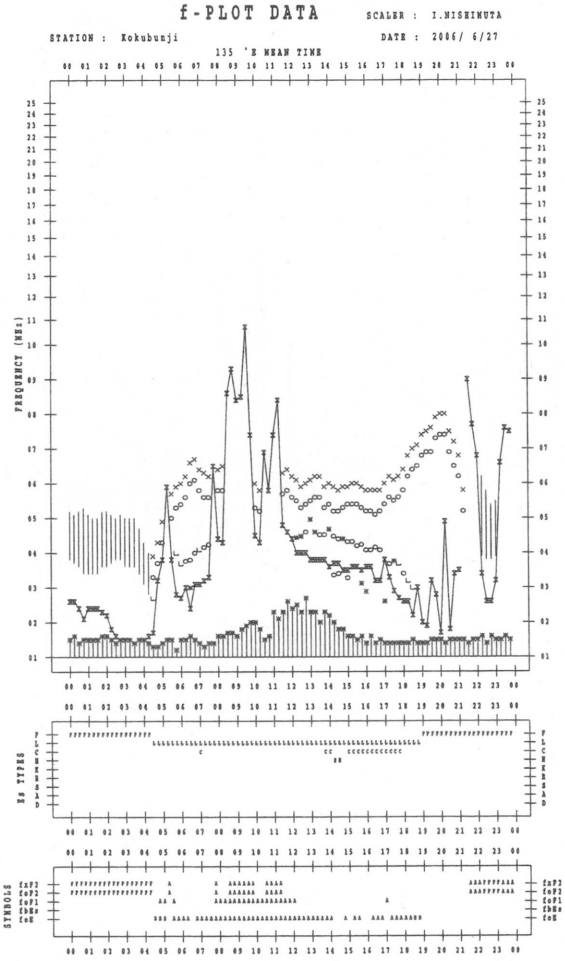
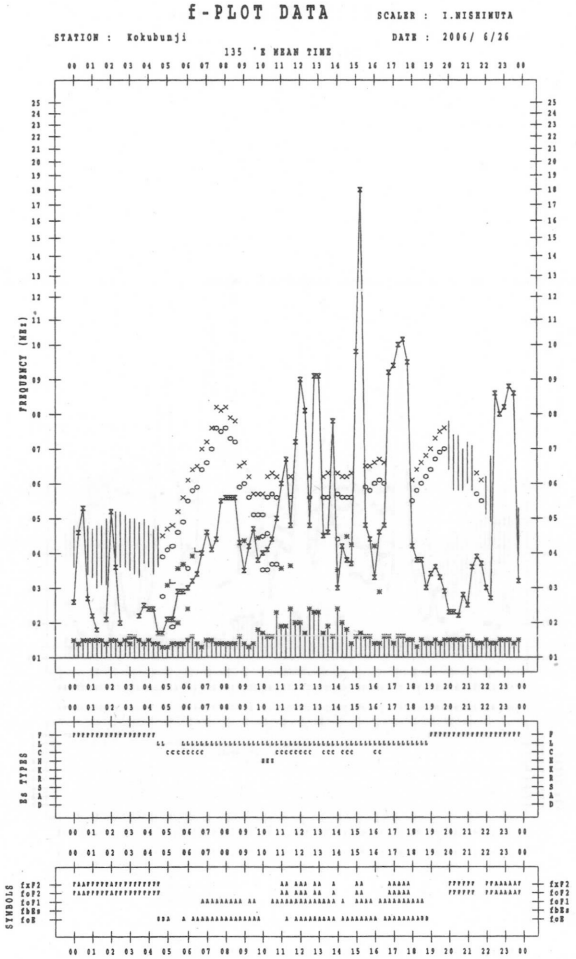
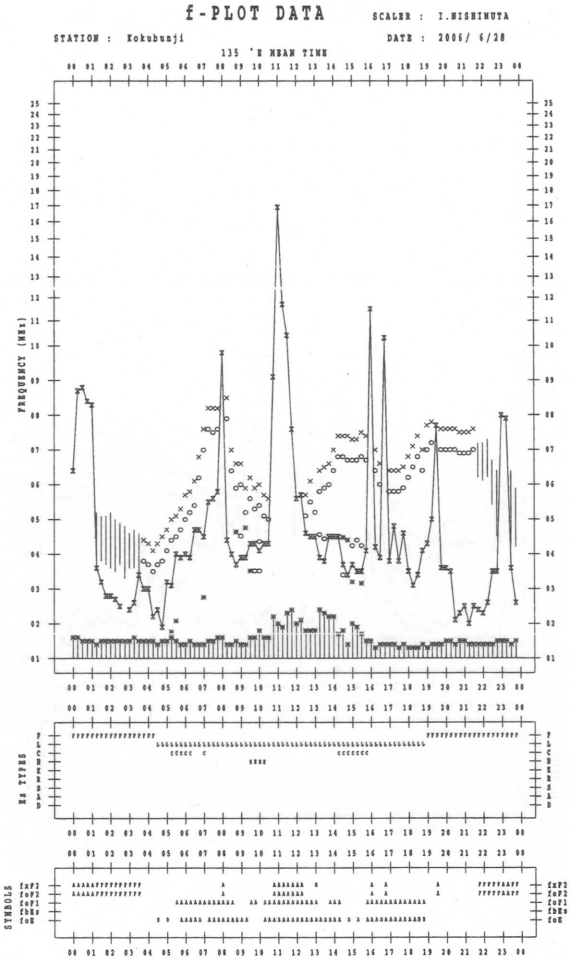
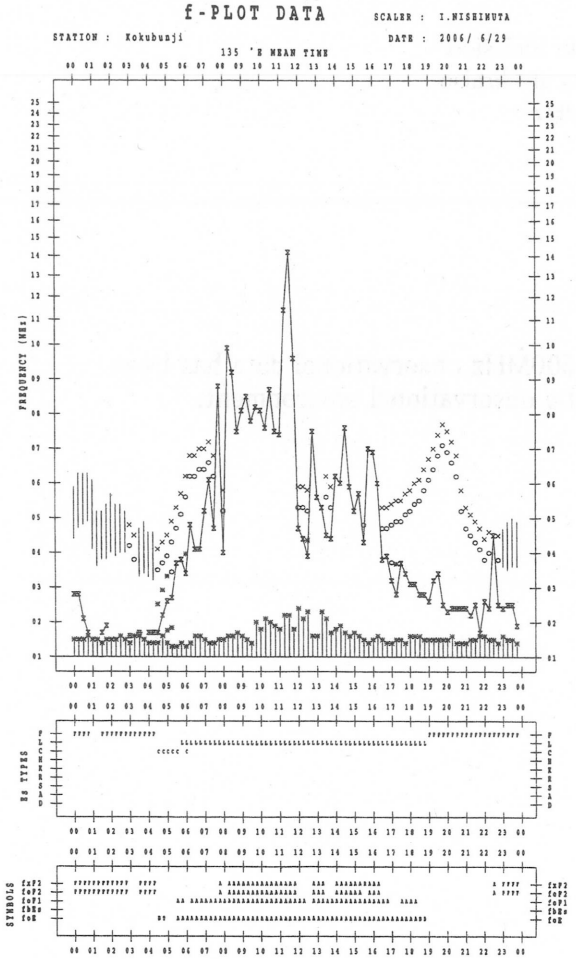
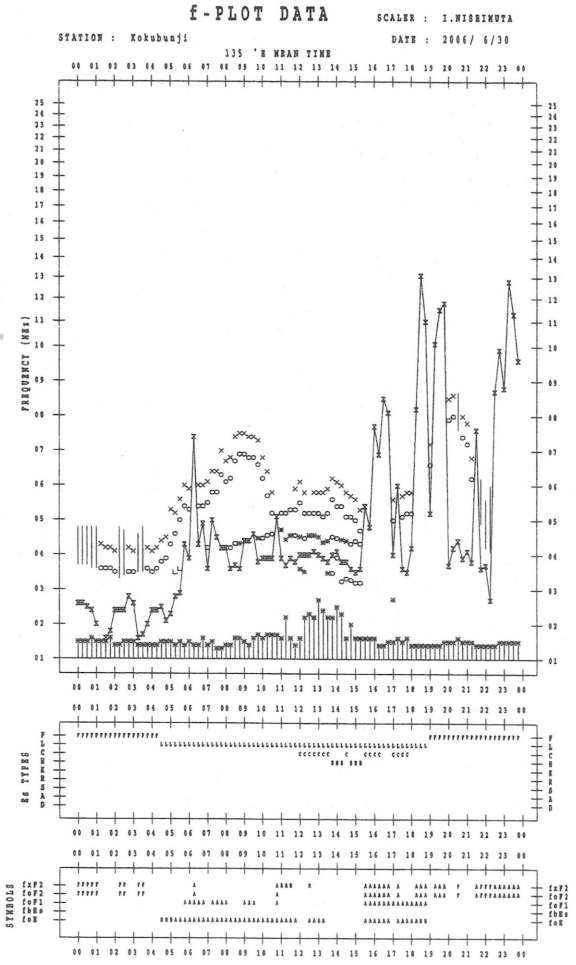
STATION : Kokubunji
DATE : 2006/ 6/25
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/27
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/26
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/28
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/29
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS
fxF2
foF2
foF1
fbEs
foE


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 6/30
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS
fxF2
foF2
foF1
fbEs
foE

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 June 2006

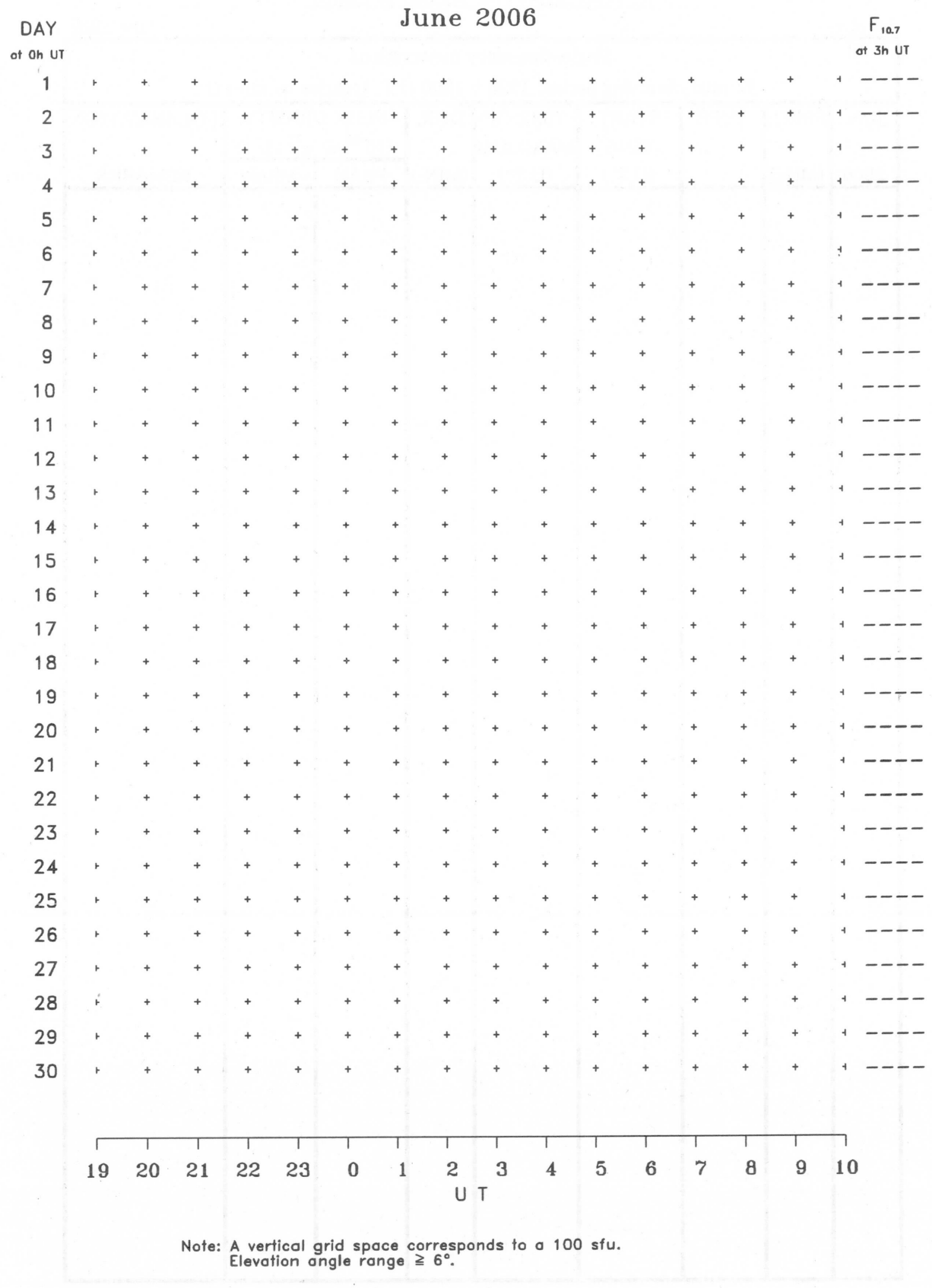
Single-frequency observations

Normal observing period: 1920 - 1000 U.T. (sunrise to sunset)

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

B. Solar Radio Emission

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



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

IONOSPHERIC DATA IN JAPAN FOR JUNE 2006
F－690 Vol.58 No.6 (Not for Sale)

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