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IONOSPHERIC DATA IN JAPAN

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CONTENTS

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INTRODUCTION

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

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

A. IONOSPHERE

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

A1. Automatic Scaling

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

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

a. Characteristics of Ionosphere

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

b. Descriptive Letters

The following descriptive letters are used in the tables.

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

C Impossible measurement because of any failure in observation.

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

N Impossible automatic scaling because of complex echoes.

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

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

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

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

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

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

d. Reliability of Automatic Scaling

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

e. Summary Plot

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

A2. Manual Scaling

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

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

a. Characteristics of Ionosphere

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

b. Symbols

(i) Descriptive Letters

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

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

(ii) Qualifying Letters

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

A Less than. Used only when *fbEs* is deduced from *foEs* because total blanketing of higher layer is present.
D Greater than.
E Less than.
I Missing value has been replaced by an interpolated value.
J Ordinary component characteristic deduced from the extraordinary component.
M Mode interpretation uncertain.
O Extraordinary component characteristic deduced from the ordinary component. (Used for x-characteristics only.)
T Value determined by a sequence of observations, the actual observation being inconsistent or doubtful.
U Uncertain or doubtful numerical value.
X Measurement deduced from the third magneto-electronic component.

(iii) Description of Types of *Es*

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

The types are:

f An *Es* trace which shows no appreciable increase of height with frequency.
l A flat *Es* trace at or below the normal *E* layer minimum virtual height or below the part *E* layer minimum virtual height.
c An *Es* trace showing a relatively symmetrical cusp at or below *foE*. (Usually a daytime type.)
h An *Es* trace showing a discontinuity in height with the normal *E* layer trace at or above *foE*. The cusp is not symmetrical, the low frequency end of the *Es* trace lying clearly above the high frequency end of the normal *E* trace. (Usually a daytime type.)
q An *Es* trace which is diffuse and non-blanketing over a wide frequency range.
r An *Es* trace showing an increase in virtual height at the high frequency end similar to group retardation.
a An *Es* trace having a well-defined flat or gradually rising lower edge with stratified and diffuse traces present above it.
s A diffuse *Es* trace which rises steadily with frequency and usually emerges from another type *Es* trace.
d A weak diffuse trace at heights below 95 km associated with high absorption and large *fmin*.
n The designation 'n' is used to denote an *Es* trace which cannot be classified into one of the standard types.
k The designation 'k' is used to show the presence of particle *E*. When *foEs* > *foE* (particle *E*) the *Es* type precedes k.

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

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

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

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

B. SOLAR RADIO EMISSION

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

B1. Daily Data at Hiraiso

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

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

* Measurement impossible because of interference.
B Measurement impossible because of bursts.

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

B2. Outstanding Occurrences at Hiraiso

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

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

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

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

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

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

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

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

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

B3. Summary Plots of F10.7 at Hiraiso

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

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

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

HOURLY VALUES OF foF2 AT Wakkanai

AUG. 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	45			40	32	42	A	A	54		A	58	A	A	A	60	57	61	60	A	A	62	54	A
2	45		38	38	36	40	40	45		58		A	55	A		53	53	43	46	66	63	54		44
3	42		A	A	32	A	A	A	A	A			A	A		50	46	45	47	54	57	58	49	46
4	32	36	38	38	37	52	53	33	54	59				A			A	41	A	57	A	54	A	A
5	A	A	36	37	39		A	44	A	A	A	A		39			49	30	34	54	62	57	52	51
6	47	44	42	41	42	44	41	47	52		57	A	A		A	A	A	A	A	A	42	A	47	44
7		41	40	36		37	A	41	A			A	A	A	A		56	54	A	A	74		A	45
8	59		A	A	A	A	A	A	A	A		A	C			A	A	A	36	A	46	47	47	40
9	A	34	34	31	A	A	A	A	49	A	A	A	A	A	A	A	A	A	A	A	53		A	A
10	36	37	37	34	35	A		A	56	57	A	A	A	A	A		40	40	29	A	A	51	A	A
11	A	A	A	A	24	A	60	A	A	A	A	A	A		39		39	46	48	53	53	54	52	39
12	44	41	37	34	34	37	A	A	A	A	A	A	A	A	A	40	A	A	A	A	58	54	51	40
13	34	A	32	32	29	39	47	A	A	A			41	A	A	A	45	46	52	60	52	54	54	47
14	43	44	40		39	43	42	A	58	61	58	56	A	A	A	A		44	45	53	55	54	A	
15	A	A	A	A	A	40	A	A	A	A	A	A	A			A	A	A	A	58	61	61	54	41
16	41	41	36	36	37	43	52	40	52	54		61	A				46	A	47	52	50		54	47
17	42	A	A	29	37	41	46	59	56	49		A	54			A	A	56	60	54	A	50	A	A
18	A	A		38	40	46	49	A	A	63		A	A	A	A	A	50	62		55	A	55	47	A
19	A	A	A	46	A	A	43	48	54	A	A	A	A	A	A		52	64	A	55	58	53	54	47
20	44	36	42	38	34	34			34		A	A	A	A	A	A		50	44	43	48	42	32	A
21		26					A	60	60	52	A	A	A	58	57	A	58	60	59	A	A	53	A	A
22	42	40	37	35	A	A				A	34				A	A	A	A		55	52	52	46	32
23	31	32	A	32		A	A		A	A			A		A	A	A		44	A	A	A	A	A
24			A	A	A		A	A	A	A	A	A	A	A	A	A	47	46	45	57	A	54	53	A
25	38	35	34	34	32		41	47	48	60	A	A	A	A	A	A	A		48	58		54	A	A
26		38	36	36	34	38	46	A	56	56	53	A		56		44	40	47	42	52	49	54	52	46
27	42	42		38	40	40	49	53	57	56					58	52	45	50	47	57	62	A	A	48
28	50	47	46	40	41	38	47	54	A	61	A	A	A	56	65	57	58	56	50	52	54			54
29	47	45	42	35	28	30	41		A	56	59	A			53	54	52	52		52	52	61	54	47
30	42	40	41	40	37	36	25	51	50	60	51					53	52	A	57	61	52	54	50	53
31	47	47	46	38	44	43		54	33	61	67	49		58	39	57	57	54	A		50	58	53	52
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	21	19	19	24	22	19	16	14	16	15	7	4	3	5	6	10	19	21	20	21	22	24	19	19
MED	42	40	38	36	36	40	46	48	54	58	57	57	54	56	55	53	50	50	47	55	53	54	52	46
U Q	46	44	42	38	39	43	49	54	56	61	59	59	55	58	58	57	56	56	51	57	58	56	54	48
L Q	39	36	36	34	32	37	41	44	49	56	51	52	41	47	39	50	45	44	44	52	50	53	47	41

HOURLY VALUES OF fEs AT Wakkanai

AUG. 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	47	43	43	36	34	31	60	64	48	58	48	53	60	74	68	52	43	40	56	72	60	59	81	68
2	G	39	26	G	G	G		41	32	33	45	41	40	50	36	35	32	40	39	39	26	30	44	29
3	29	36	39	44	31	57	39	48	58	52	36	38	50	46		39	32	30	32	36	37	34	28	29
4	34	32	G	27	25	28	34	44	37	44	39	42	38	66	40	40	69	40	44	35	66	46	65	60
5	71	65	23	37	36	40	60	41	50	56	90	76	39	36	34	48	34	38	72	48	42	31	G	25
6	27	24	25	26	G	G		39	37	58	50	100	117	71	77	81	109	68	93	77	58	76	67	70
7	59	33	33	30	39	26	36	45	53	59					70	38	34	50	89	44		38	65	36
8	32	24	55	72	77	59	68		66	82	36	61	C	38		44	41	46	47	40	30	33	46	26
9	50	33	32	28	53	37	45	45	G	49	62	73	40	74	54	46	83	79	84	94	46		69	54
10	40	29	G	G	28	47	47	51	44	45	45	46	78	48	52	37	39	39	37	54	60	43	85	92
11	44	40	60	71	G	50	72	82	88	143	80	52	49	32			G	26	31	29	29	39	G	G
12	29	26	G	26	G	G	43	66	98	61	56	100	83	60	66	53	64	60	77	78	57	49	38	30
13	26	43	32	25	G	28	36		48	57	51	44	32	40	35	34	28	39	50	52	25	G	G	G
14	G	G	33	58	24	37	36	46	69	40	33	45	118	54	52	64	44	37	28	G	78	27	58	33
15	60	78	56	71	59	39		82	127	99	114	78	50	42	34	61	57	75	98	82	37	34	30	G
16	G	G	35	29	39	G	41	35	40	34	33	42	43	43	38		28	88	80	45	28		34	33
17	44	50	75	46	36	G	34	48	63	50	44	50	40	39	52	66	62	51	39	29	78	67	69	59
18	45	38	33	36	37	39	53	58	85			46	61	51	65	76	42	38	66	65	58	43	32	71
19	70	71	82	38	46	50	26	45	51	54	62	68	64	62	53		46	60	101	111	32	38	36	39
20	25	G	G	G	G	G	29	36	G	39	48	47	75	46	50	54	35	52	35	29	29	G	G	30
21	29	24	27	26		32	46	59	48	47	51	50	61	39		61	52	80	78		89	60	72	77
22	32	36	34	33	46	39	34	50	35	50	36	47	35	36	53	56	69	59	44	50	26	G	23	G
23	28	32	41	50	40	41	65	37	55	62	36	33	46	43	46	72	133	36	79	88	84	65	59	69
24	39	46	60	47	58		51	58	50	64	111	50	50	81	61	47	38	G	G	27	77	51	60	72
25	26	32	30	32	28	39	42	60	58	50	52	60	58	90	96	80	81		26	46		72	60	69
26	47	39	37	34	34	34	38	71	52	51	35	49	32			G	27	28	G	26	32	36	40	39
27	46	36	39	34	29	28	26	41	52	60	47	42	37		48		31	39	38	51	39	60	60	46
28	39	39	32	26	G	35	38	58	58	57	58	55	61	42	40	51	34	37	38	N	34	34		39
29	37	36	G	G	24	G	34	48	58	53	65	60	41	G	32	G	29	G		G	G		38	29
30	27	33	27	G	26	26	34	45	47	43	N	35	38			32	42	80	28	G	G	38	39	G
31	G	23	27	G	G	G	40	48	44	50	41	34		34	44	32	46	55	86	66	34	33	45	78
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	30	30	28	29	31	30	28	30	28	27	25	27	31	30	30	29	29	29	30	31
MED	34	36	33	32	30	33	40	48	51	52	48	50	50	46	52	48	42	40	46	46	37	38	44	39
U Q	46	40	41	44	39	39	49	58	58	59	60	60	61	62	63	61	62	60	79	69	60	55	65	69
L Q	27	26	26	26	G	G	34	42	44	47	37	42	39	39	39	37	32	37	35	29	29	32	32	29

HOURLY VALUES OF fmin AT Wakkanai

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

HOURLY VALUES OF foF2 AT Kokubunji

AUG. 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	45	45	44	47	37	A		57	63	A			A	63		71	69	75	71	72	44	48	A	A
2	A		42	41	41	35	41	42	62	56		A	A			49	66	66	A	71	54	47	44	37
3	36						A	A	A	A	A	A	A		A	A	56	A	55	62	57	53	54	A
4	34		34			37	45	67	64	40	48					A		A	A	A	65	A		A
5	A	A	A	A	27	36	47	A	A	59	A	A		A			A	A	99	66	A	53	47	44
6	A	A	A	32	34			55	57	A	A	A	A	A		A	A	A	53	57		A	A	39
7				35	36	41		51	53	52	54					66	76	71	69	87	88	52		
8	49	55	43	A	44		A	A	A			A		A		A	A			A		A	A	A
9	34	A			32	A			A	A	A	A	A	A		A		48	46	51	54	46	52	
10	34	34			A			51			A	53			A	A		A		A	A	A	A	A
11	A	A	28		A			56	62	A	A	A	A	A	A	A			46	54	61	54	A	45
12	42	38	36	36	34	35	45	53	A		A	A				61	55	56	54	A	54	A	A	45
13	39	A			26		49	A	A	56	A	A	A		A	A	A	A	A	66	72	61	54	51
14	42	36	36	36	36	35	A	46	47	68	65		A			54	58	41	54	54	47		27	31
15	A	A	28	28		36	42	50	A				A	A		47	54	54	53	55	55		54	54
16	A	A	32	A	32	35	43	54	55	38	63	68	A	A	A		55	49	52	54	63	54	52	A
17	A		A		26			A	A	A						62	68	68	56	58	51	48	44	
18	36	27	28	30	30	32	43	56	67	64		A	A	A	A	A	A	64	71		65	49		38
19	A	36	A	A	34	41	59	46	51						68	69	64	57	48	53	59	52	52	44
20	42	42		36	34	36		A	A	A	A		A		79	48	49	A	58	55	54	47	45	43
21	42	42	39	44	41	42	52	68		59	54			59	62	65	60	59	66	71	A	49	43	41
22	A	39	39	41	34	32	A	A	A	A	A	A	A	A	A	A	49	A	44	A	54	54		A
23	A			A	A		A	A							49		52		47	A	A	48		A
24		31	34	34	32	35	43	49	55		61	A			55	52	51	52	54		54	51	34	41
25	34	32	36	35		31	47	60	A	A	A	A	A	58	48	53	53	A	A	59	54	A	A	A
26	42	A	A	34	32	30	45	60	94	A	59	A	A	61	59	61	48	43	45	53	53		53	52
27	42	A	A	A	A	A	45	49	59	65	48	A			A	57	54	48	59	71	80	53		
28	A	38	43	41	36	A	54	56	59	56	48	61	62		67	71	64	56	54	54	59	A	54	A
29	44	42	39	A	34	34	45	54	52	63	59	A	A	54	59	59	61	56	A	72	64	61		54
30	47	45	42	39	36	35	41	43	64	57	A	A			53	60	58	54	A	66	A	61	54	51
31	49	45	42	38	36	38	56	51	68	65	A			55	58	61	64	58	62	60	54	54	54	53
	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	16	18	17	23	19	18	22	17	14	10	3	1	6	11	18	22	19	23	23	24	21	17	17
MED	42	38	38	36	34	35	45	54	59	58	56	61	62	58	59	60	57	56	54	59	54	52	52	44
U Q	44	43	42	41	36	37	49	56	64	64	61	68	31	61	67	65	64	64	62	71	63	54	54	51
L Q	36	35	34	34	32	34	43	49	54	56	48	53	31	55	53	53	53	49	48	54	54	48	44	40

HOURLY VALUES OF fEs AT Kokubunji

AUG. 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	49	43	29	32	37	54	42	53	82		50	50	94	51	84	67	70	49	26	26	G	G	59	60
2	59	49	G	22	G	G	G	43	64	48	50	53	47	35	G	38	51	51	59	41	G	37	29	39
3	37	40	29				52	49	95	123	78	80	77		51	62	53	62	50	43	34	59	59	50
4	39	32	39	29		G	33	35	48	45	G		40		60	102	70	59	68	160	58	133	48	51
5	51	60	60	52	40	34	45	61	117	61	85	94	149	149	43	49	93	110	92	41	59	43	34	33
6	72	84	39	24	G	28	G	33	50	85	59	64	50	74	G	105	118	84	45	68	60	80	60	50
7	39	38	40	29	G	49	38	39	47	43	43				33	G	55	33	40	31	82	39	59	
8	26	59	G	94	49		57	49	40		46	86		83		50	104	49	36	76	43	45	68	71
9	70	50		27	G	46	57		60	60	107	50	71	56	48	63	40	42	34	45	46	43	39	42
10	G	27	G	29	60		32	30		48	107	G	G	42	59	47	45	84	60	82	50	34	42	60
11	83	57	27	43	53		G	41	46	64	79		162	101	70	68	50		32	27	49	60	67	32
12	G	G	G	G	G	G	27	41	66	65	90	94	50	50	41	G	47	70	48	70	50	83	70	48
13	50	40	30	26	G		41	54	58	37	60	76	80	53	50	60	48	52	61	29	54	40	G	26
14	33	49	G	G	29	26	48	33	33	53	52	49	48		G	37	46	39	33	26	G	26	G	40
15	36	41	29	G	34	29		37	71	50	55	50	92	60	36	G	34	40	30	G	43	60	60	59
16	55	61	29	79	42	G	32	37	53	34	G	75	57	61	53	34	32	35	G	29	28	34	41	56
17	60	31	40	36	26	38	43	70	72	51		G			35	G	40	39	68	50	50	30	G	
18	G	G	G	G	G	28	33	31	70	61	60	53	65	75	71	81	94	50	55	72	28	40	26	G
19	50	24	60	50	34	29	24	33	G	G	49		G	53	45	51	39	30	30	G	G	23	31	26
20	29	G	39	G	G	G	30	50	52	51	62		50	49	84	44	35	68	50	57	49	26	33	G
21	G	G	G	G	24	G	29	63		39	G			50	55	49	50	35	35	28	70	37	30	G
22	68	31	G	77	29	24	39	90	123	97	53	150		77	49	57	43	50	70	104	45	69	41	50
23	48	42	45	40	41		70	49	31	G		34	46	52	48		42	52	38	77	69	43	41	42
24		G	26	G	G	G	G	40	54	60	60	52			G	G	G	43	51	47	G	27	G	G
25	39	29	36	27	26	27	51	43	53	80	114	77	69	50	40	46	42	60	83	37	113	58	84	59
26	49	53	41	G	59	30	33	40	82	70	49	81	87	42	43	49	39	33	30	G	31		55	50
27	G	41	59	33	36	41	37	50	54	54	54	72	60	56	65	G	31	G	26	26	35	33		
28	42	33	G	G	G	41	42	41	47	45	43	50	G	G	45	G	45	G	G	36	42	82	67	84
29	68	31	27	46	29	27	G	40	55	51	67	62	78	G	49	45	G	50	67	58	29	34		G
30	G	G	G	G	32	G	29	34	43	45	89	82	48	36	39	45	60	79	59	46	70	G	68	38
31	28	28	24	G	G	G	G	36	46	51	65	G	50	48	45	G	33	51	47	34	43	31	G	G
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	31	30	30	29	25	30	30	29	29	29	25	25	25	30	30	31	30	31	31	31	30	29	28
MED	40	38	29	27	29	27	33	41	54	51	59	62	57	52	46	46	45	50	47	41	45	40	41	42
U Q	55	49	39	40	38	36	43	50	70	62	78	80	79	67	55	60	55	60	60	68	58	59	60	53
L Q	28	27	G	G	G	G	27	36	46	45	49	50	47	45	39	G	39	39	32	28	29	31	29	26

HOURLY VALUES OF fmin AT Kokubunji

AUG. 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	15	14	15	13	14	15	14	15	28	33	34	30	30	26	22	17	13	15	15	14	14	13	13
2	14	13	14	13	14	13	18	17	23	25	26	29	24	22	18	14	17	21	13	14	17	14	13	14
3	15	14	14				13	13	17	28	28	28	26		26	22	14	15	13	14	14	13	13	13
4	13	13	14	14		17	13	14	15	22			26		37	35	26	20	14	21	13	13	14	13
5	13	15	13	13	17	13	14	14	18	21	28	36	31	26	29	18	26	14	14	14	13	15	13	14
6	13	14	13	13	14	13	14	13	17	23	25	28	33	35	51	23	22	13	22	14	14	13	13	14
7	13	13	14	15	13	14	13	13	22	24	29				26	23	23	13	14	13	13	13	13	
8	14	14	13	15	14		14	15	18		31	26		30		29	24	14	13	14	14	13	13	13
9	14	13		13	18	13	13		20	30	28	34	36	37	34	30	18	14	13	18	14	13	13	13
10	14	15	22	13	14		13	18		31	28	44	35	34	29	24	20	13	13	14	15	13	13	14
11	14	14	13	13	13		14	14	24	28	31	34	30	31	26	21	21		14	13	13	13	13	14
12	17	13	22	20	17	14	13	15	21	24	28	26	31	29	25	21	17	14	14	22	13	13	13	13
13	13	14	13	14	15		13	14	25	25	29	26	26	25	24	20	13	13	13	14	14	13	15	14
14	14	14	13	13	14	14	13	14	24	24	30	31	30		45	44	29	13	13	13	18	13	20	13
15	13	13	14	13	13	14	14	14	22	23	30	29	28	30	25	42	14	13	13	17	13	13	13	13
16	14	17	13	13	13	13	13	17	18	26	45	24	25	28	21	18	14	17	23	13	17	14	13	13
17	13	13	13	13	13	14	13	13	20	24		53			24	44	17	17	13	13	13	14	18	
18	14	18	14	13	14	15	13	14	20	23	26	33	30	30	23	20	14	13	14	13	14	13	14	20
19	13	14	13	13	13	15	14	13	44	22	34			35	44	31	15	14	14	13	17	14	13	14
20	13	14	13	20	18	14	15	23	21	26	34		37	34	33	30	26	13	14	13	14	15	13	14
21	14	15	14	14	13	21	13	15		43	44			34	35	29	20	14	14	13	14	14	15	13
22	13	13	15	13	13	24	13	13	15	28	29	26	30	34	40	23	23	14	13	14	14	14	14	13
23	25	17	13	13	13		14	14	22	22		28	26	24	36		26	13	13	14	13	13	13	14
24		14	14	17	21	18	14	15	17	30	29	24			44	39	38	13	13	14	14	14	13	13
25	15	14	14	13	13	15	14	14	17	23	28	23	24	22	20	18	26	13	14	14	13	13	13	13
26	13	14	13	17	13	13	13	14	15	20	25	25	23	24	21	14	14	13	14	31	15		14	14
27	13	13	13	13	15	14	13	13	18	31	24	34	34	21	31	42	28	24	15	14	17	14		
28	14	13	17	25	13	14	14	15	15	22	29	30	46	44	22	43	24	17	17	13	14	14	13	13
29	14	14	14	14	13	13	21	13	17	28	30	33	24	24	24	18	28	14	13	13	14	14		17
30	15	14	13	13	14	14	14	15	26	26	21	29	29	26	24	31	25	13	13	18	13	14	13	14
31	13	13	14	21	18	17	22	13	26	29	30	44	24	28	17	40	13	13	14	13	13	17	23	15
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	31	30	30	29	25	31	30	29	30	28	26	25	25	30	30	31	30	31	31	31	30	29	28
MED	14	14	14	13	14	14	14	14	20	25	29	29	30	30	26	24	21	14	14	14	14	14	13	14
U Q	14	14	14	15	15	15	14	15	22	28	30	34	32	34	35	35	26	14	14	14	14	14	14	14
L Q	13	13	13	13	13	13	13	13	17	23	28	26	25	24	24	20	15	13	13	13	13	13	13	13

HOURLY VALUES OF foF2 AT Yamagawa

AUG. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	42	40	38	41	34		38	46	57	A	A	A	A	A	74	82	76	88	74	43	A	51	48	48
2	50	44	40	40	38	A	A	52	56	A	A	A	A		54	62	71	75		A	65	63	51	A
3	A	42	41			26	40	46	56	62	A	A	A	A	A		70	66	A	55	54	47	44	A
4	A	A	37	37	28	26		48	67	54	A		A	58	A	A	A		A	A		59	36	40
5	A	A	A	A	A	A	38	A	A	A	A	A	A	A	A	55		55	62	72	71	52	A	37
6	34	32	32	32	32	32	40	51		59	A	A	A			A	A		A	A		50	A	A
7	A	A	A	28	32	31	41	55	51	50	A	A	A	A	52	64	76	70	67	84	85	38	42	A
8		38	A	A	32	38	38	42	A		A	A	A	A		A	A	A	40	44	47	38	37	34
9	A	32	29	A		30	43	40	52	A		A	A	A	A			51	50	A	A	A	A	A
10	A	A	A		28	A	A	62	47	A	54	56	A	A		60	A	59	55	A	47	37	A	A
11	28	32	31	A	A	A	A	52	A	A	A	A	A	57	A	A	A		50	50	44	51	A	42
12	37	34	29	29		A	41	47	44	51	A			56	62	69	82	68	59	54	50	44	A	A
13	A	A	A	A	29		A	A	A	A	A	A	A	A	A	A	54	52	51	60		61	42	44
14	32		34	34	A		37	47	44	59	48		A		60	64	74	78	59	43	48	48	46	32
15	32	32	A	28		A	42	48	47	50		A			A	54	57	50	A	A	54	52	51	54
16	29	26		29	30	A	A	A	A	A	58		A				61	67	66	64	54	53	50	42
17	40	A	32	30	A	28	41	59	59	52	A					57	74	81	91	76	72	54	48	42
18	26		25	26			35	60	A	52	A	A	A			61		A	73	75	A	A	A	36
19	40	41	A	36	36	36	44	51	58	56	39	55	59	60	62	72	70	62	55	52	60	53	51	44
20	41	41	38	37	38	42	35	A	A			A				49	A	55	60	49	53	A	44	A
21		37	37	34	36	34	48	A	57	49	54	A		58	67	72	71	70	73	78	A		A	
22	37	36	36	34	32	30	38	A	A	A	A	A	A	A	A	A	A	49	A	A	A	A	A	
23	A	A	A	36	41	36	A	48	A	A	A	A	A				56	A	59	60	66	40	A	30
24		A	A				34	59	55	56	A	A	58	56		56	59	60		66	54	A	38	38
25		32	30	30	29	29	44	50	50	54	48	A	A		61	65	64	56	54	60	64		37	A
26	A	A		32	30			55	64	A		A	A	A	A	A	99	A	A	A	A	54	47	46
27	A	A	41	37	28		37	47	A		59	58	66	A	A	61	54	54	60	77	87	54	44	
28	39		A	34		32	41	50		64	A	57		62	A	74	65	58	55	49	52	53	50	51
29	A	A	43	41	36	30	A	48	52	57	64	A	A	A	60	63	68	72	78	83	76	66	52	51
30	54	52	52	48	43	45	41	52		51	61	A	49	A	56	62	66	66	64	74	76	65	A	A
31	52	42	40	35	34	28	35	58	77	59	52	A	63	62	64	58	64	62	61	70	65	64	54	54
	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	19	23	20	17	22	25	18	17	10	4	5	8	11	20	21	24	23	23	22	24	20	18
MED	38	37	37	34	32	31	40	50	56	54	54	56	59	58	61	62	68	62	60	60	57	52	46	42
U Q	41	41	40	37	36	36	41	55	58	59	59	57	64	61	64	67	74	70	67	75	71	56	50	48
L Q	32	32	31	30	29	28	37	47	50	51	48	55	53	56	56	57	60	55	55	50	52	47	42	37

HOURLY VALUES OF fEs AT Yamagawa

AUG. 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	43	43	29	G	G	26	31	38	41	83	113	110			56	64		64	65	48	71	28	33	40
2	56	39	36	32	32	70	54	37	64	100	102	66	74	35	63	35	56	58	131	77	80	59	71	50
3	51	34	26	33		G	28	33	58	63	65	99	111	88	73	80	58	60	82	50	36	30	25	50
4	56	70	32	28	G	G	27	43		45	89	46	109	54	60	75	84	81	72	62	39	31	40	83
5	60	50	59	49	58	44	32	60	79	84	100	84	88	124	62	60	67	78	40	59	33	54	46	36
6	G	G	33	G	G	G	G	34		44	46	61	62		50	60	91	78	58	80	54	44	57	56
7	112	89	57	34	33	30	G	33	44	54	101	52	50	54	50	40	37	46	28	G	23	36	30	43
8	38	28	49	56	G	28	32	44	80	39	62	98	60	48	34	50	55	64	32	29	G	34	30	54
9	36	71	27	33	34	26	28	38	40	69	61	57	48	54	97	40	38	46	43	50	81	43	83	70
10	60	58	63	33	G	50	59	46	44	70	43	44	51	64	44	43	81	42	60	58	46	48	34	28
11	23	G	G	58	55	53	46	60	70	61	66	64	71	54	135	102	54		30	46	49	32	84	58
12	26	G	G	G	G	30	29	43	46	57	44	40	50	44	50	52	46	44	37	40	39	32	58	60
13	57	52	54	54	28	G	39	58	81	84	73	102	59	63	54	87	49	42	48	44	28	39	32	34
14	G	40	32	G	60	34	27	34	39	68	41	50	57	50	47	47	44	G	28	25	30	25	G	G
15	G	33	44	26	30	48	48	36	43	40	44	49	54	38	68	39	48	40	85	67	34	59	48	44
16	24	33	33	58	66	72	80	105	76	63			64	50	36	G	34	38	30	G	G	26	79	27
17	34	54	G	G	44	G	34	29	34	38	113	41	41	40	40	33	46	49	52	44	29	36	G	G
18	G		G	G			31	44	78	68	80	64	65	52	49	56	87	115		58	69	42	43	52
19	77	G	47	46	36	34	37	48	35	35	40	42	50	48	52	52	56	41	36	G	26	G	38	43
20	G	32	27	29	G	32	32	43	62	44	38	55	53	35	52	33	60	45	43	44	79	59	48	43
21	44	28	25	27	G	G	70	58	55	48	40	47		42	63	38	53	57	31	34	83	38	53	45
22	G	G	G	G	G	G	G	60	58	67	102	96	113	57	75	64	96	102			90	92	70	50
23	57	47	32	30	51	58	54	45	66	71	60	70	50	51	46	53	34	91	64	48	36	54	39	49
24	34	47	38	G	G	26	25	35	40	49	70	63	G	G	G	40	G	38		41	78	78	34	28
25	58	23	G	G	28	G	28	33	G	40	48	56	75	53	63	46	49	56	52	71	58	48	83	56
26	59	60	38	33	26		34	42	44	58		80	91	90	88	104	82	83	57	66	70	70	32	31
27	60	60	60	41	G	G	26	38	58	47	52	46	50	60	56	35	G	38	47	44	86	79	44	50
28	45	34	43	G	29	G	G	41	54	74	68	50	69	46	84	39	33	39	34	24	G	G	36	46
29	79	67	52	26	48	G	50	36	41	48	58	54	63	102	49	54	43	44	34	29	G	26	40	50
30	41	46	34	35	34	G	27	36	44	44	52	59	56	56	50	51	61	50	51	43	82	70	79	91
31	46	G	G	G	G	G	G	36	57	49	44	77	54	48	46	47	62	50	40	34	36	44	33	G
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	30	31	31	29	29	31	31	29	31	29	30	29	29	31	31	30	30	28	30	31	31	31	31
MED	44	40	33	29	28	26	31	41	54	57	61	58	59	52	52	50	54	50	45	44	39	42	40	46
U Q	58	54	47	35	40	39	46	46	65	69	84	77	72	58	63	60	62	64	59	58	78	59	58	54
L Q	24	28	25	G	G	G	27	36	41	44	44	49	50	45	47	39	43	42	34	34	29	31	33	34

HOURLY VALUES OF fmin AT Yamagawa

AUG. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	15	14	15	17	14	16	14	14	16	18	20	18	23	21	27	20	15	14	14	14	15	14	14	14
2	14	14	14	15	14	16	14	15	16	16	17	27	21	20	14	15	14	18	14	14	16	14	14	15
3	15	14	16	14		15	14	15	17	17	20	28	29	21	18	23	16	14	14	14	14	15	15	14
4	14	14	14	15	14	15	14	14	15	18	20	22	28	35	35	32	17	16	14	15	15	14	14	15
5	15	14	14	14	14	14	15	14	15	20	21	21	22	23	22	21	16	14	14	14	14	15	14	14
6	15	17	14	15	14	14	16	14		17	20	18	23		35	17	17	15	17	17	14	14	14	14
7	14	14	14	14	14	14	15	14	14	17	23	22	27	28	21	18	14	15	15	15	15	14	15	14
8	14	14	14	14	14	14	14	14	14	17	17	20	20	20	21	21	16	14	15	14	14	14	14	14
9	14	15	15	14	14	14	14	14	15	16	20	28	26	23	21	18	18	14	15	14	14	15	14	14
10	14	14	14	14	16	14	14	14	16	20	21	23	27	29	26	24	22	14	14	14	14	14	14	14
11	14	15	14	15	14	14	14	14	15	26	29	28	29	27	27	23	18		15	14	14	14	14	14
12	14	14	14	14	16	15	14	14	14	17	20	23	28	35	23	20	16	14	14	14	15	15	14	14
13	15	14	14	14	15	17	14	14	14	17	20	21	27	28	26	18	17	14	14	14	15	15	14	15
14	17	14	15	15	14	14	15	14	14	18	18	23	24	27	35	20	16	16	14	15	14	14	15	15
15	15	15	14	15	15	14	16	14	18	18	22	23	27	32	21	20	17	14	14	15	15	14	14	14
16	15	14	14	14	14	14	15	14	14	14	22		27	28	20	18	17	14	14	16	16	16	14	14
17	14	14	15	14	14	14	14	14	14	14	17	21	22	22	20	21	15	14	14	14	14	14	15	15
18	15		14	15			15	14	14	17	21	18	24	32	21	18	17	16	14	15	14	14	14	14
19	14	15	14	14	14	15	14	14	14	17	21	23	24	27	23	21	18	14	14	18	15	15	14	14
20	14	14	15	14	14	14	14	14	16	16	18	21	34	28	26	18	14	18	14	14	14	14	14	15
21	15	14	17	15	15	14	14	14	15	16	21	24		28	34	18	17	15	14	14	14	14	14	14
22	14	15	16	15	16	14	15	17	14	17	29	29	33	35	27	22	16	14	14	14	15	14	14	14
23	14	14	15	14	14	14	14	14	16	19	21	27	27	29	27	22	19	14	14	14	14	15	14	14
24	14	14	14	14	16	15	17	14	14	15	21	29	48	46	20	15	16	14		14	14	14	14	14
25	14	14	14	14	14	14	14	14	14	17	17	18	27	20	20	17	14	15	15	14	14	14	14	15
26	14	14	15	14	15		14	14	14	17		18	21	20	18	18	14	15	14	15	15	14	14	14
27	14	14	14	14	14	15	15	14	14	15	18	18	23	21	17	16	14	14	14	14	14	16	14	14
28	15	14	14	17	16	14	17	14	14	14	20	21	22	21	22	18	15	14	14	14	15	15	14	15
29	14	14	17	14	14	14	15	14	14	16	20	24	22	28	20	18	17	14	14	14	15	15	14	14
30	14	14	14	14	14	14	14	14	14	16	21	18	24	21	20	18	16	14	14	14	14	14	14	14
31	14	16	15	14	14	15	16	15	14	18	27	23	28	23	21	16	14	14	14	14	14	15	14	16
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	30	31	31	29	29	31	31	30	31	30	30	30	30	31	31	31	30	30	31	31	31	31	31
MED	14	14	14	14	14	14	14	14	14	17	20	22	26	27	21	18	16	14	14	14	14	14	14	14
U Q	15	14	15	15	15	15	15	14	15	18	21	24	28	28	27	21	17	15	14	15	15	15	14	15
L Q	14	14	14	14	14	14	14	14	14	16	20	20	23	21	20	18	15	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Okinawa

AUG. 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	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
2	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
14	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
20	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
22	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
24	C	C	C	C	C	C	C	C	C	C	C	C	C	C	60	C	64	76	82	79	A	A	A	A
25	C	30	A	A	A	26	34	47	52	47	A	A	A	63	71	C	78	66	A	76	64	A	A	30
26	28	30	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
28	C	C	C	C	C	C	C	C	C	C	C	A	A	72	73	A	82	66	A	52	60	54		30
29	31	44	42	34	A	30	36	57	52	55	58	66	A	A	65	70	83	88	98	102	87	66	53	53
30	A	44	46		39	30	32	58	59	57	A	A		A	A	61	67	72	76	82	78	74	46	44
31	A	A	34	42	30	28	A	61	64	A	54	A	67	80	78	71	68	70	72	80	84	53	51	53
	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	4	3	2	2	4	3	4	4	3	2	1	1	3	5	3	6	6	4	6	5	4	3	5
MED	30	37	42	38	34	29	34	58	56	55	56	66	67	72	71	70	73	71	79	80	78	60	51	44
U Q	31	44	46	42	39	30	36	59	61	57	58	33	33	80	75	71	82	76	90	82	85	70	53	53
L Q	28	30	34	34	30	27	32	52	52	47	54	33	33	63	62	61	67	66	74	76	62	53	46	30

HOURLY VALUES OF fEs AT Okinawa

AUG. 2006

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

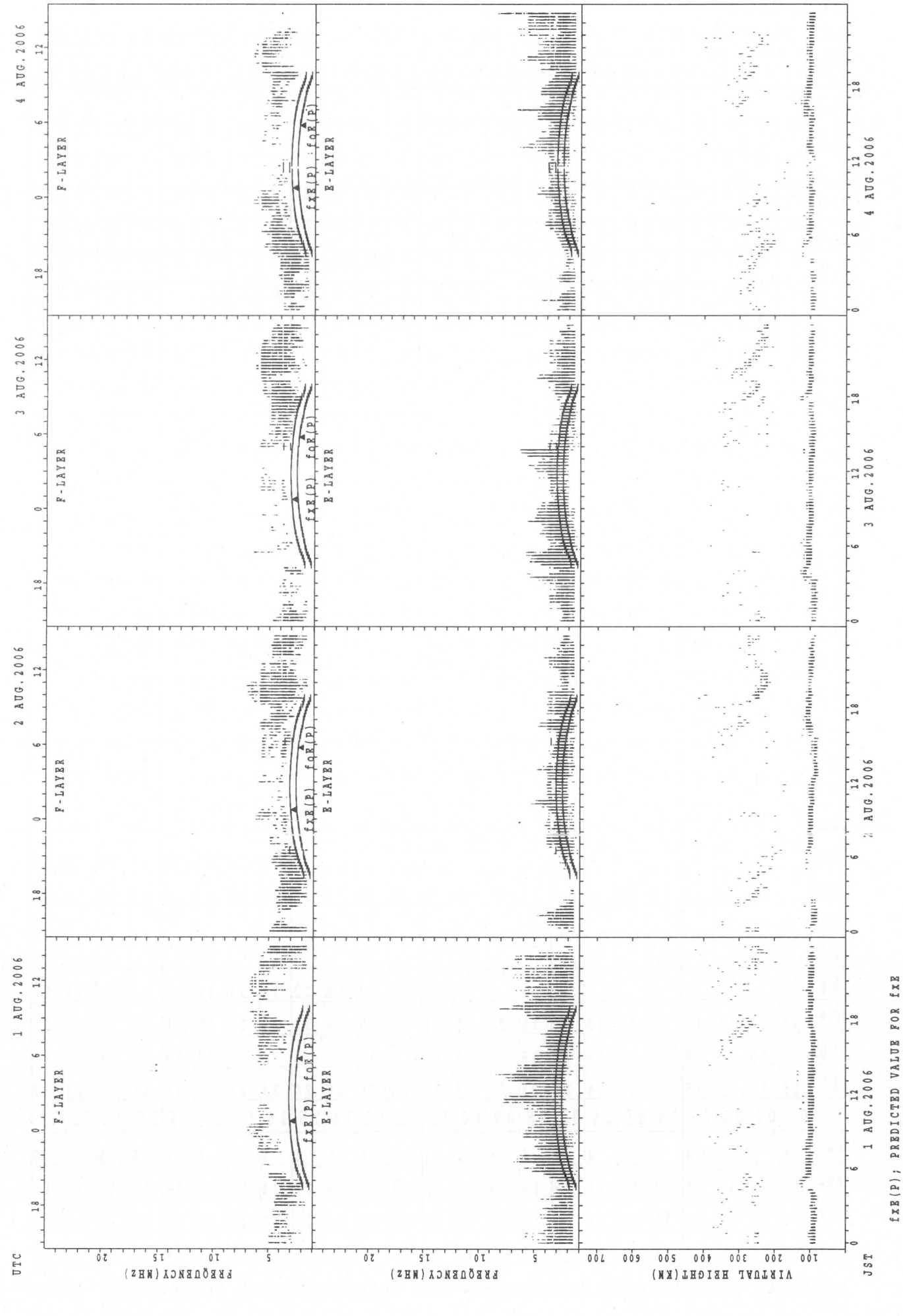
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
2	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
14	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
20	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
22	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
24	C	C	C	C	C	C	C	C	C	C	C	C	C	C	G	C	38	53	90	110	71	72	57	50
25	C	G	50	36	36	28	27	30	39	36	55	54	46	50	50	C	57	50	78	50	46	29	40	G
26	34	27	34	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
28	C	C	C	C	C	C	C	C	C	C	C	85	109	75	G	85	64	60	55	32	26	G	27	G
29	G	47		45	48	G	26	G	35	50	58	52	50	50	53	49	50	41	30	G	G	G	G	G
30	49	29	37	G	30	G	G	26	28	G	51	64		50	62	54	54	37	39	25	G	G	31	G
31	49	35	G	G	G	25	29	32	41	60	51	51	49	48	70	49	55	52	47	40	36	36	30	G
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	4	5	4	4	4	4	4	4	4	4	4	5	4	5	6	4	6	6	6	6	6	6	6	6
MED	42	29	36	18	33	13	26	28	37	43	53	54	50	50	52	52	54	51	51	36	31	15	30	G
U Q	49	41	43	40	42	26	28	31	40	55	56	74	79	62	62	69	57	53	78	50	46	36	40	G
L Q	17	14	17	G	15	G	13	13	31	18	51	51	47	49	G	49	50	41	39	25	G	G	27	G

HOURLY VALUES OF fmin AT Okinawa

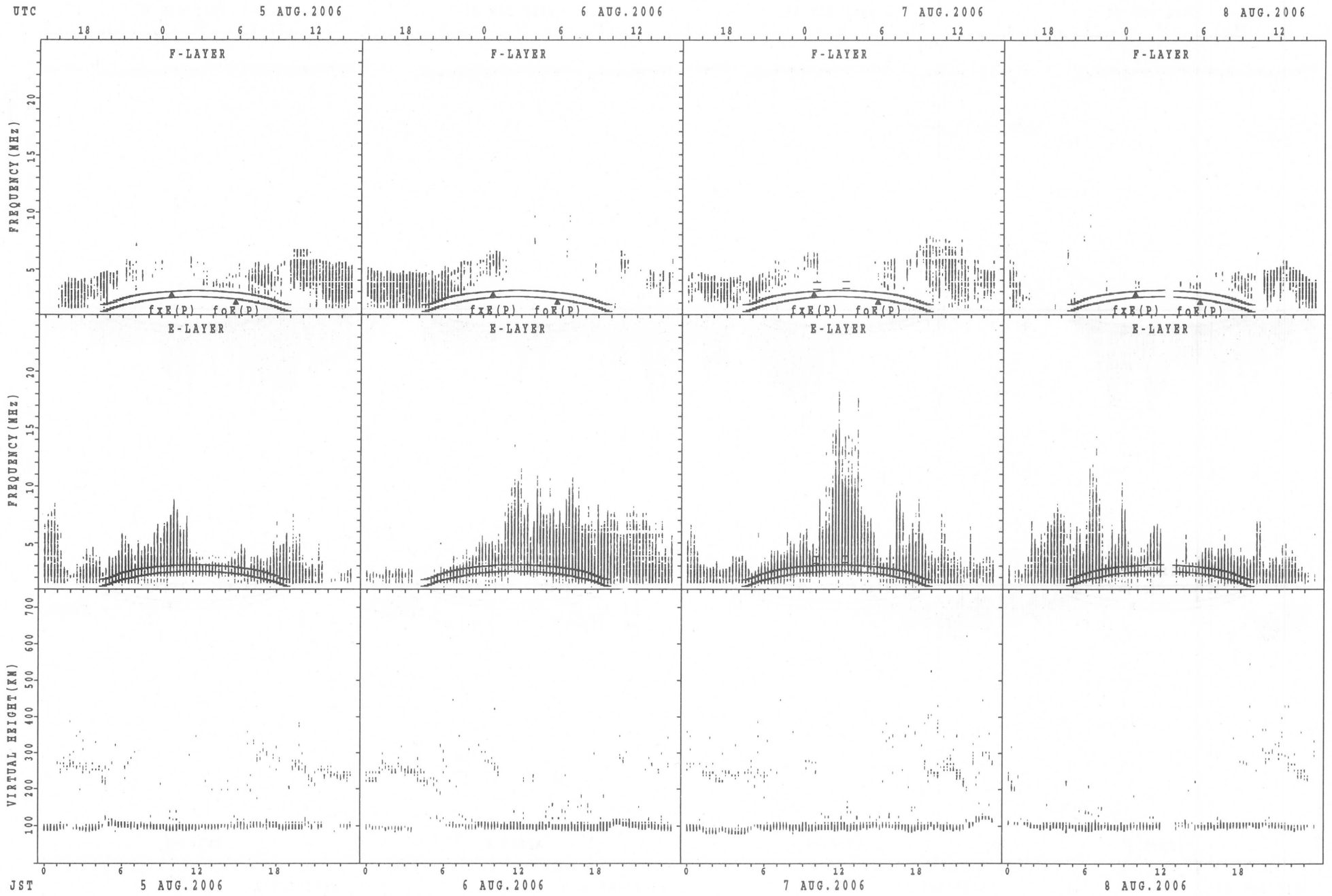
AUG. 2006

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

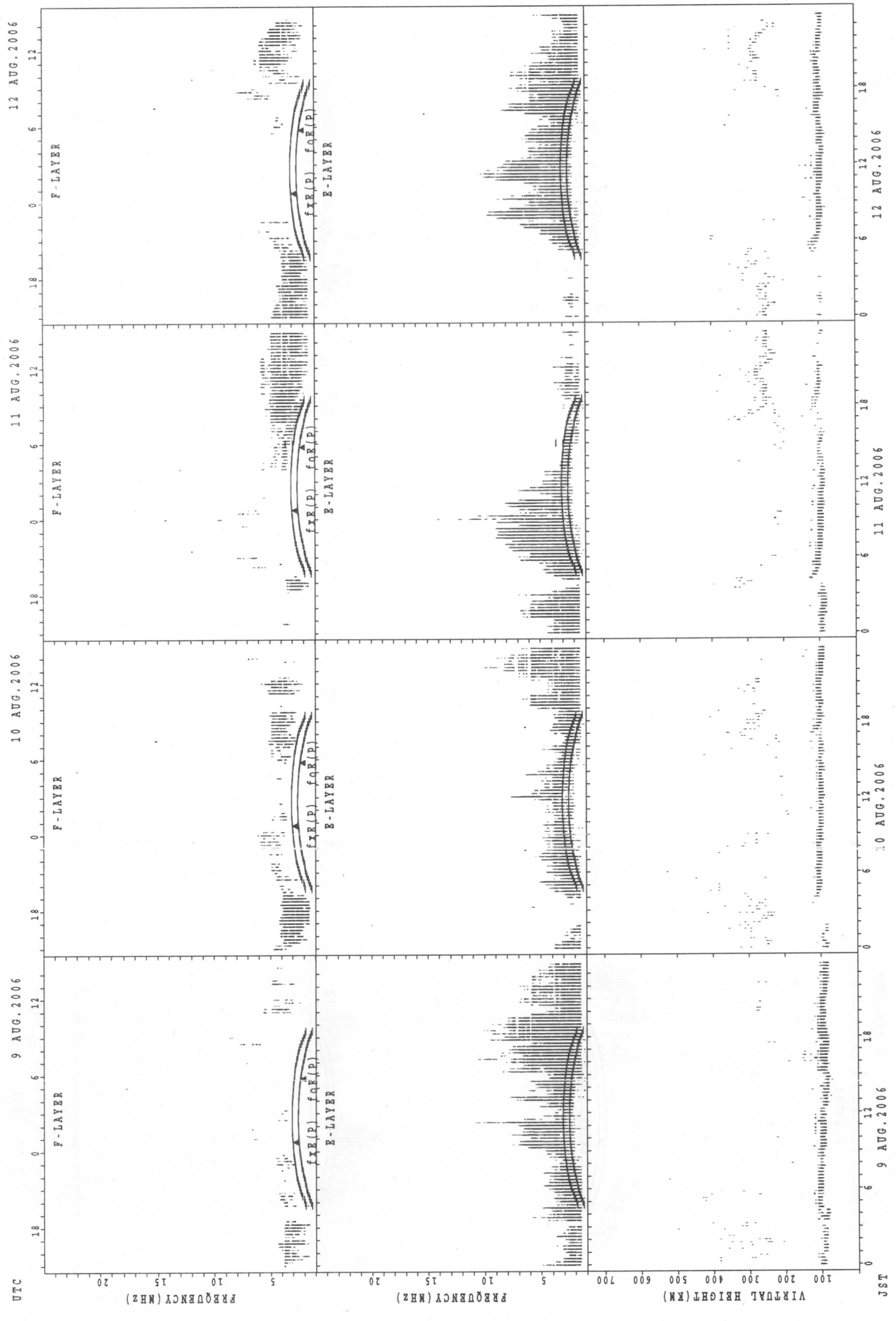
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
2	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
14	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
20	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
22	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
24	C	C	C	C	C	C	C	C	C	C	C	C	C	C		C	30	15	14	15	15	14	16	14
25	C	16	14	14	14	15	15	14	14	20	33	22	27	23	50	C	20	15	14	14	15	15	15	22
26	22	15	14	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
28	C	C	C	C	C	C	C	C	C	C	C	30	35	34	50	22	18	14	14	14	15	15	20	20
29	18	18	15	15	14	18	15	14	15	21	34	36	38	35	36	32	29	23	15	15	15	15	15	15
30	15	15	15	30	15	17	20	23	16	41	36	43		28	27	23	20	20	14	14	22	14	16	17
31	15	17	21	15	15	14	15	17	23	28	32	33	32	29	26	20	29	27	15	16	15	17	15	32
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	4	5	5	4	4	4	4	4	4	4	4	5	4	5	5	4	6	6	6	6	6	6	6	6
MED	16	16	15	15	14	16	15	16	16	24	34	33	34	29	36	22	24	18	14	14	15	15	16	18
U Q	20	17	18	22	15	17	17	20	19	34	35	39	36	34	50	27	29	23	15	15	15	15	16	22
L Q	15	15	14	14	14	14	15	14	14	20	32	26	29	25	26	21	20	15	14	14	15	14	15	15


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

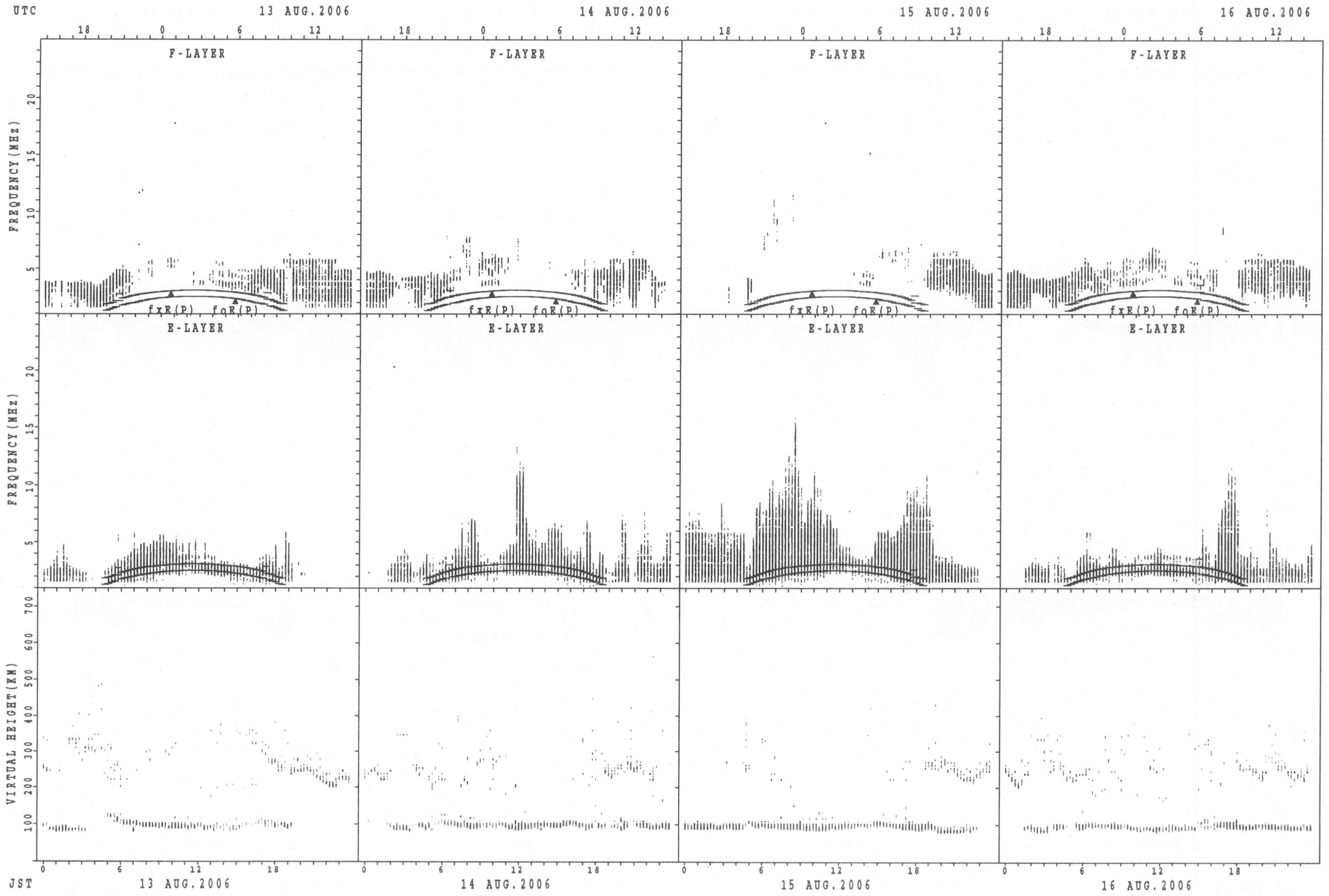
SUMMARY PLOTS AT Wakkanai



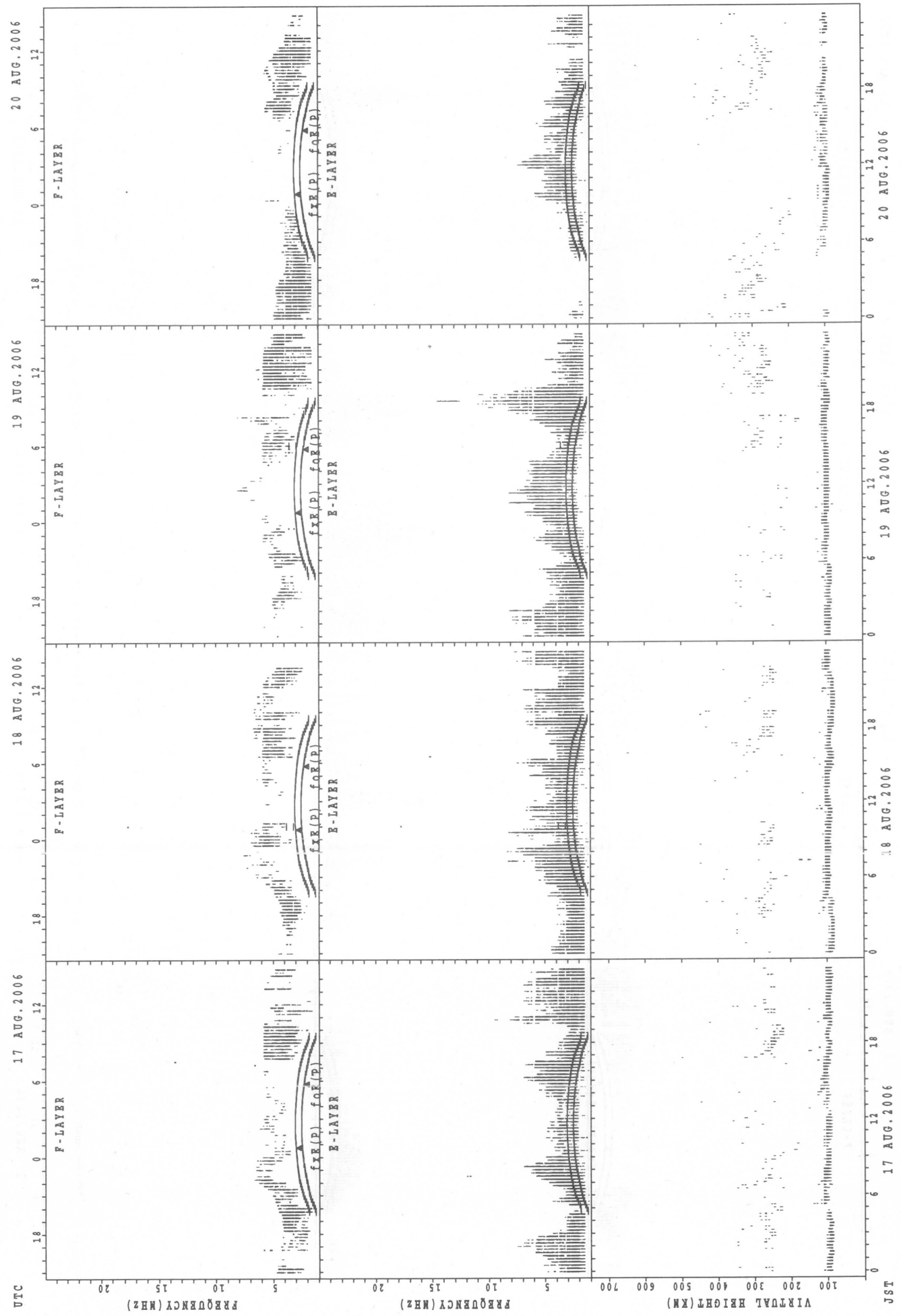
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


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

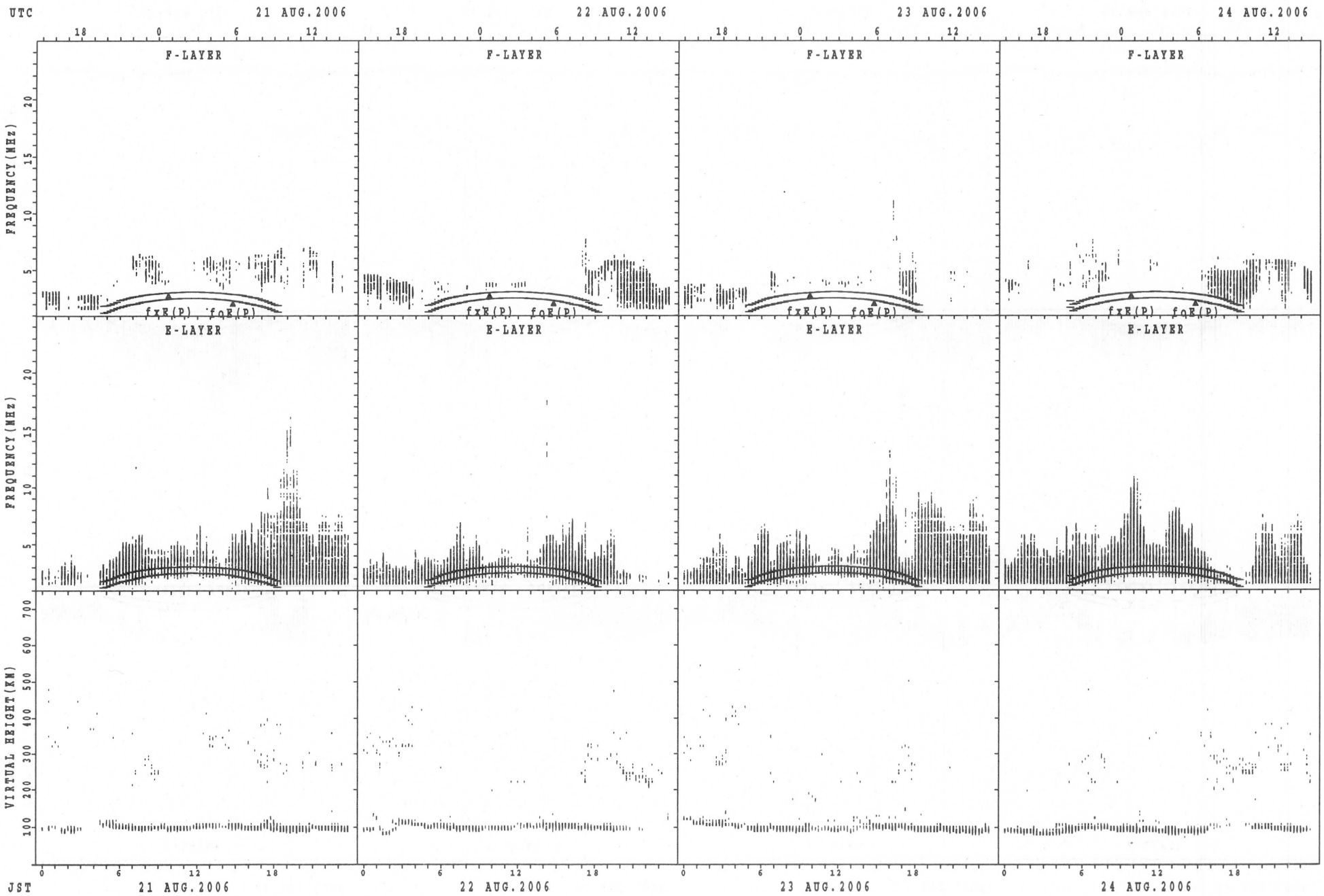
SUMMARY PLOTS AT Wakkanai



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

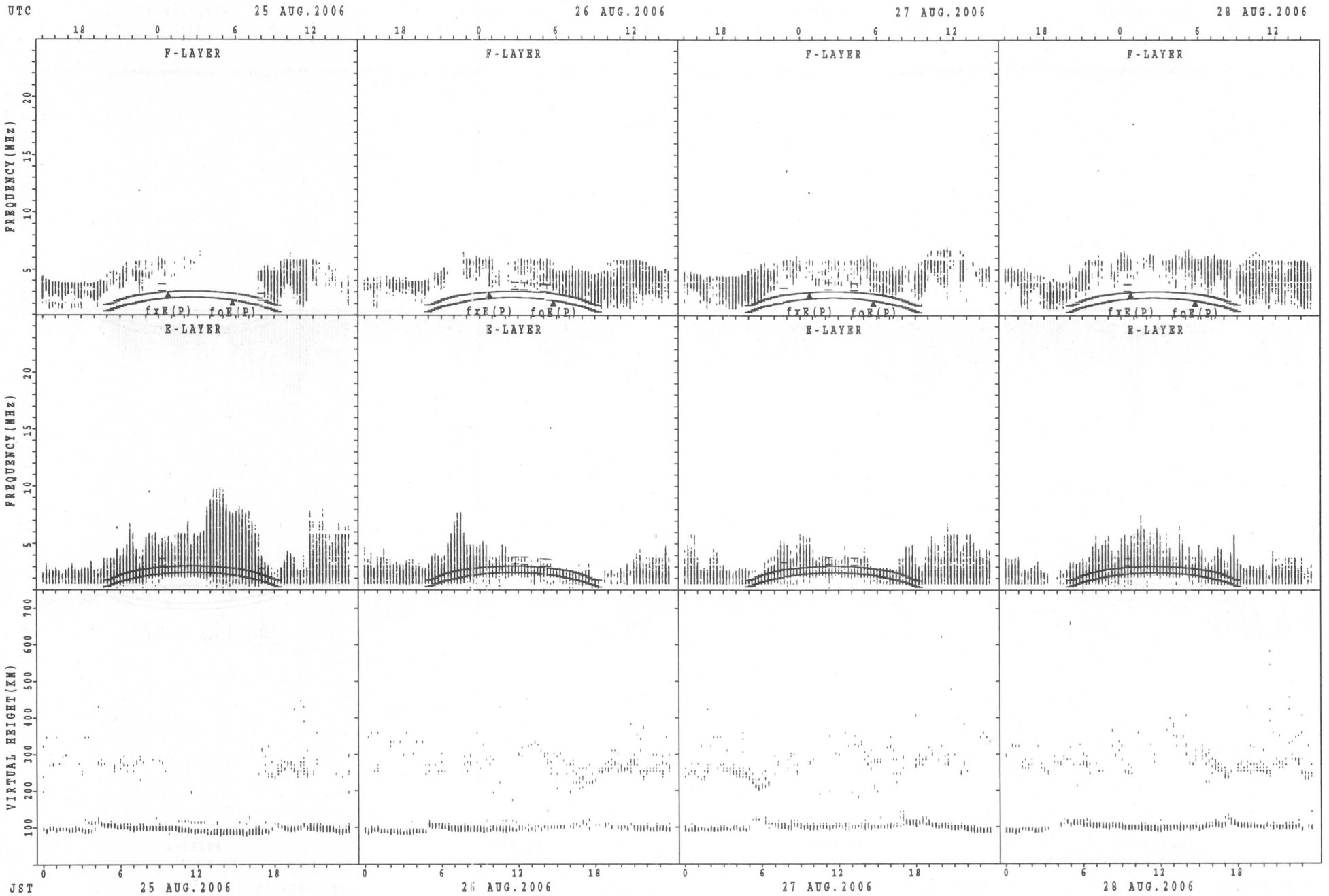

SUMMARY PLOTS AT Wakkanai
UTC
JST
17 AUG.2006
18 AUG.2006
19 AUG.2006
20 AUG.2006
F-LAYER
E-LAYER
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P)
foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



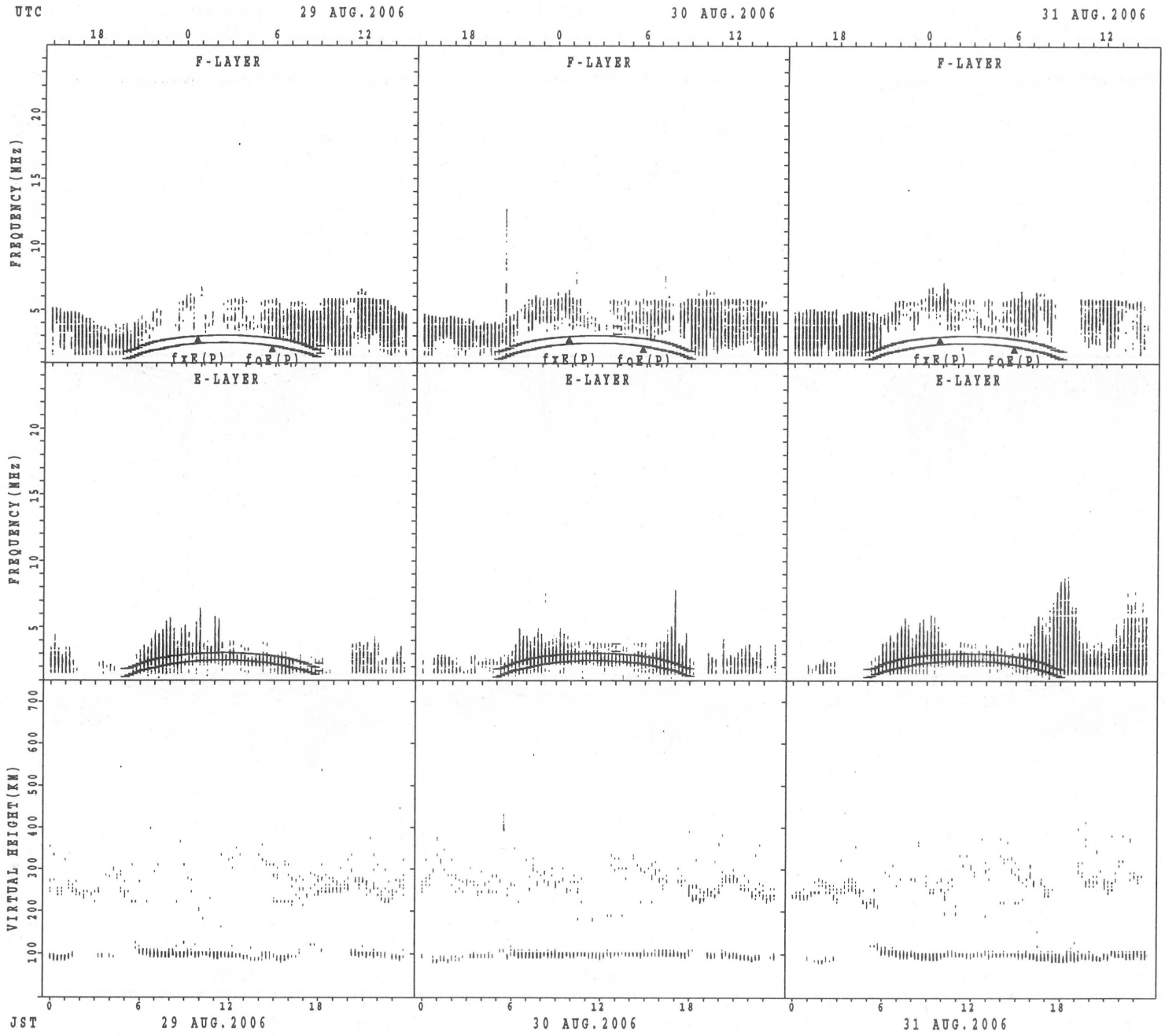
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai

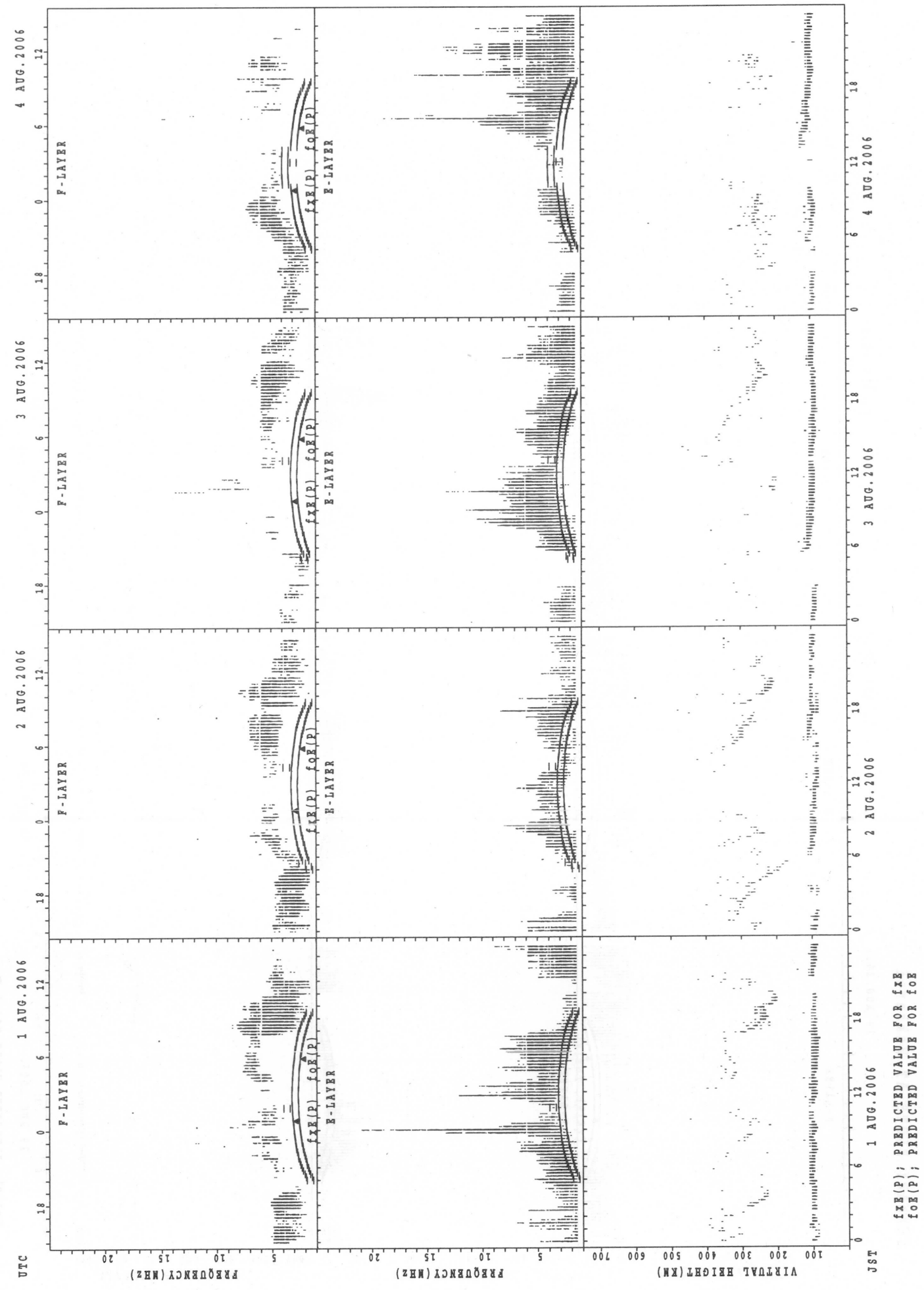


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

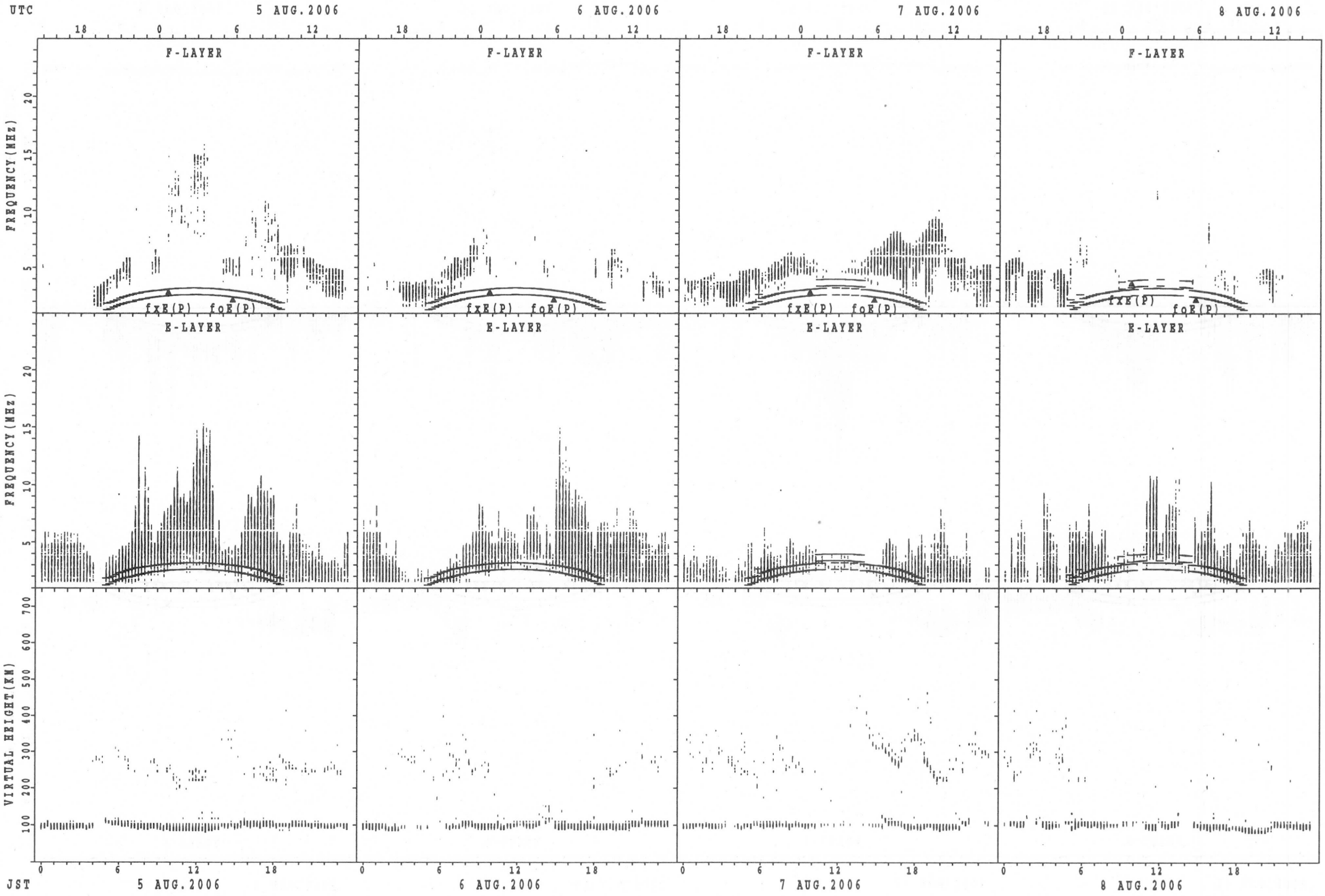
SUMMARY PLOTS AT Wakkanai



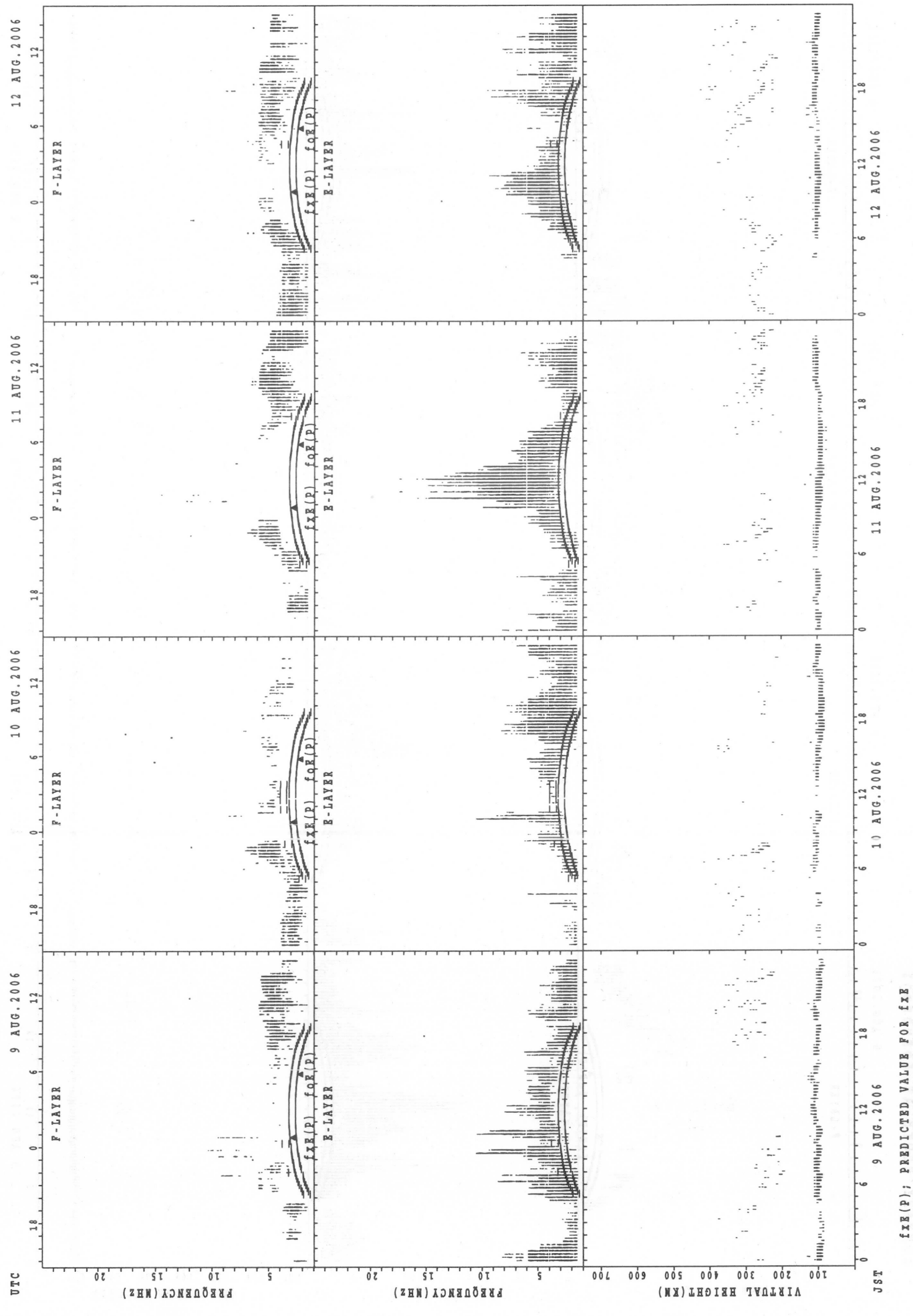
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE


SUMMARY PLOTS AT Kokubunji
UTC
1 AUG.2006
2 AUG.2006
3 AUG.2006
4 AUG.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

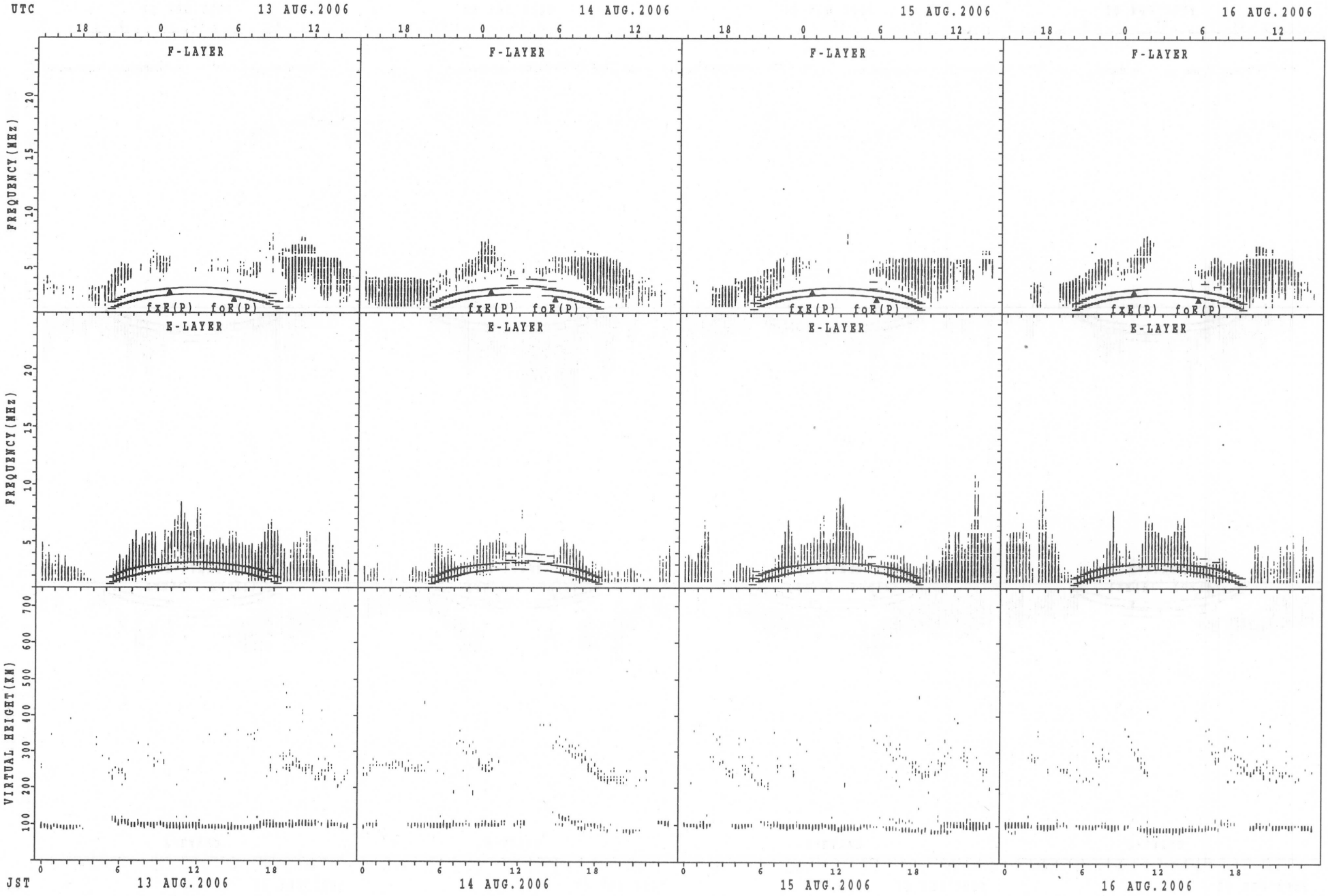
SUMMARY PLOTS AT Kokubunji



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

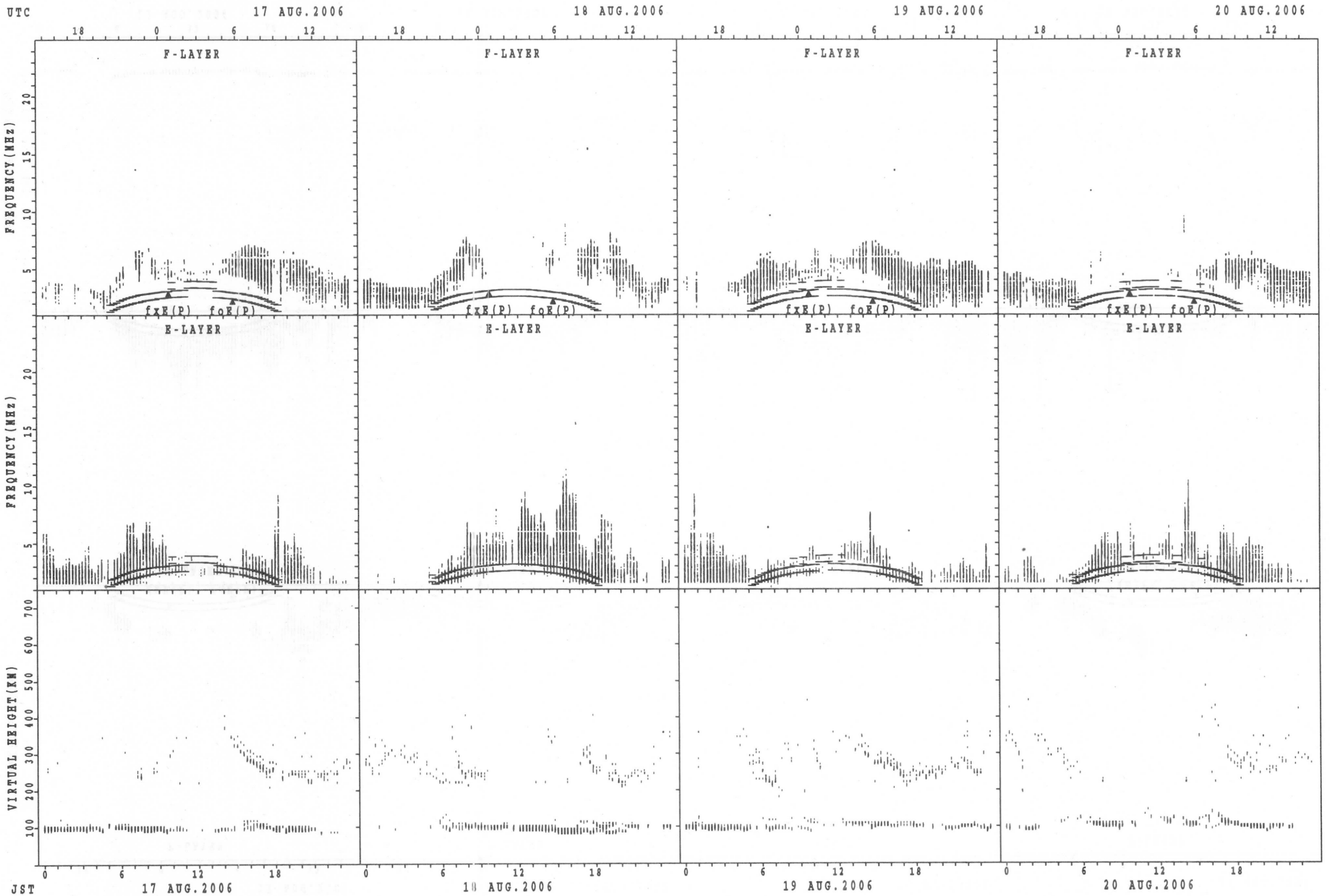

SUMMARY PLOTS AT Kokubunji
UTC
JST
9 AUG.2006
10 AUG.2006
11 AUG.2006
12 AUG.2006
F-LAYER
E-LAYER
fxE(P) foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



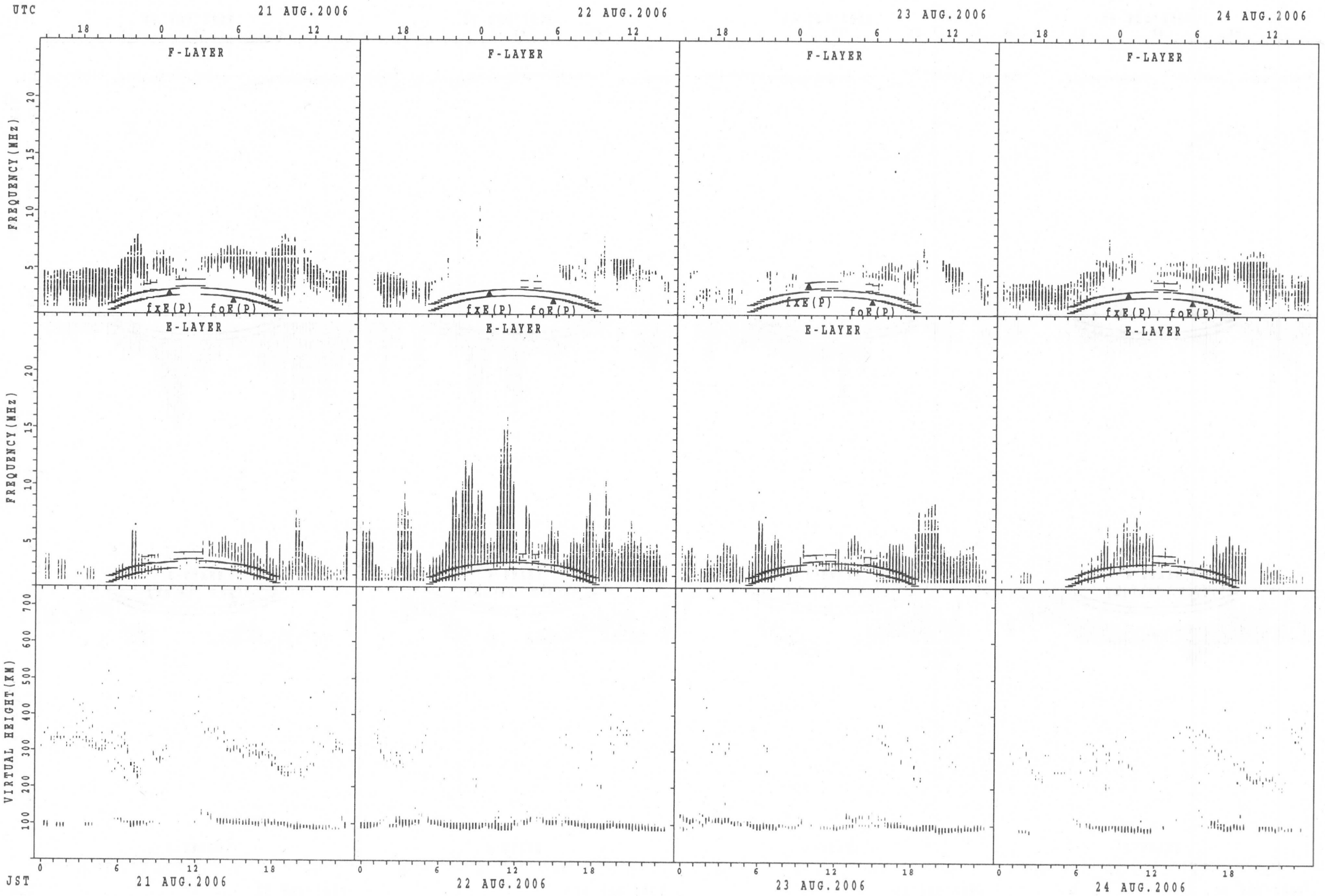
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



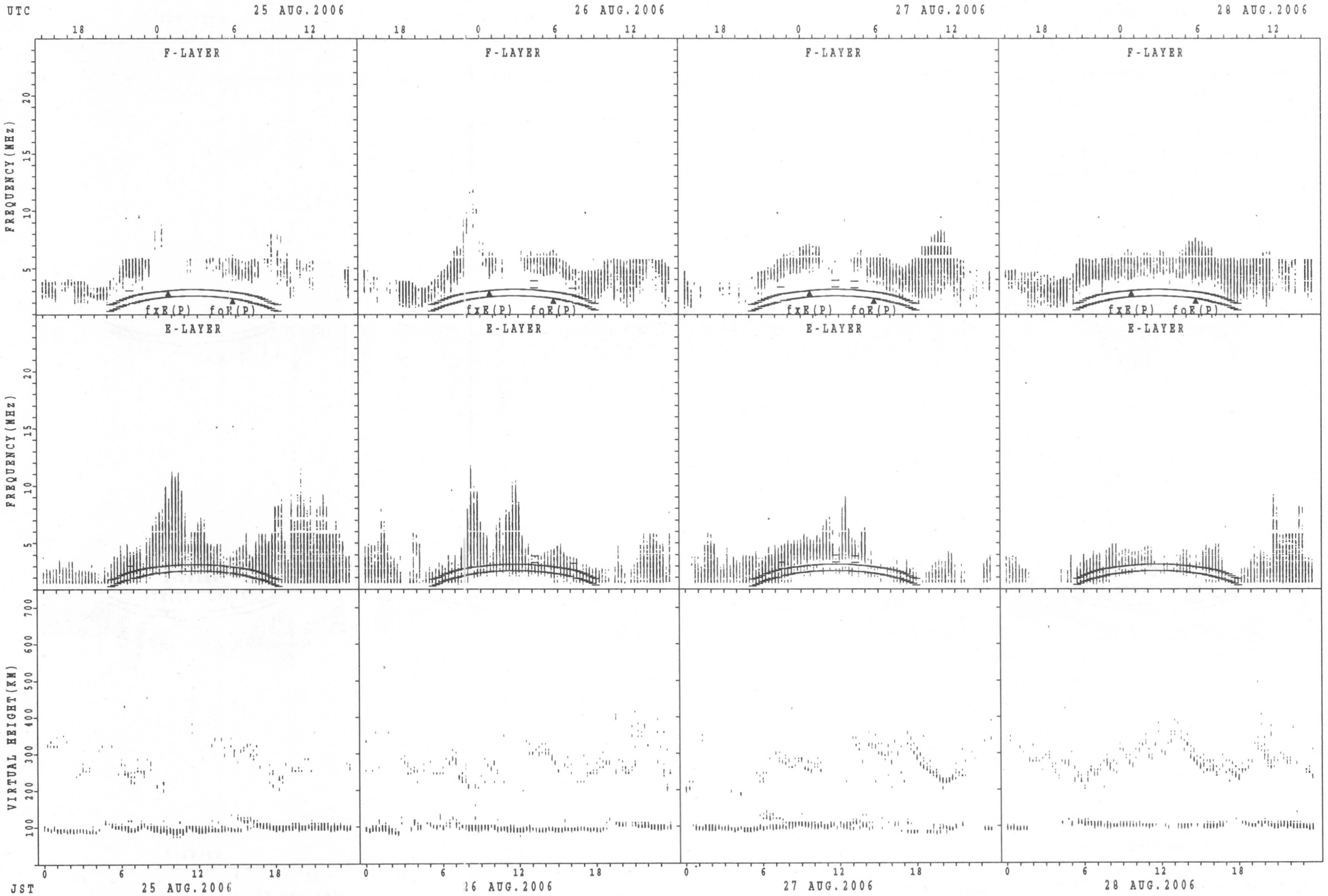
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



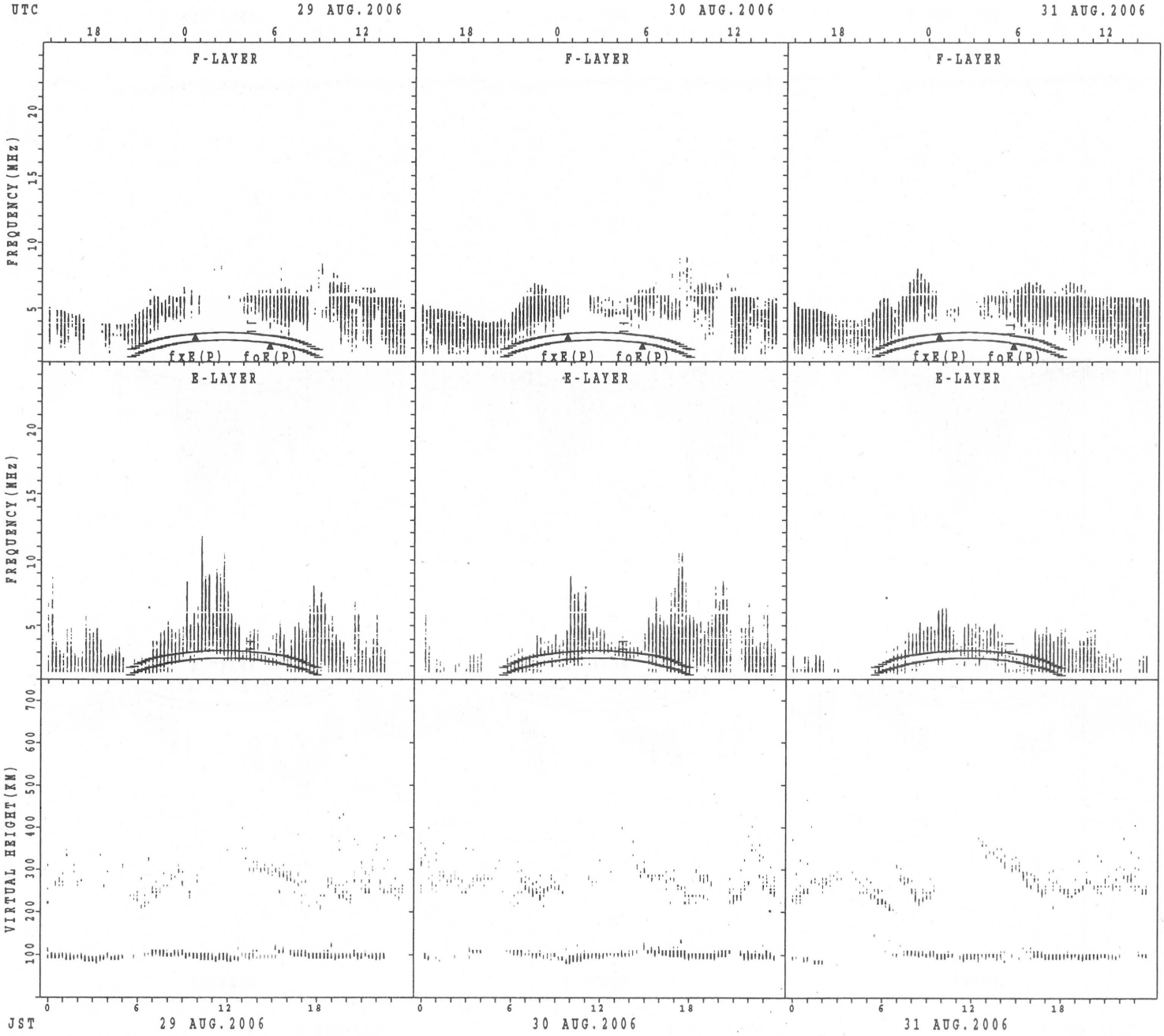
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



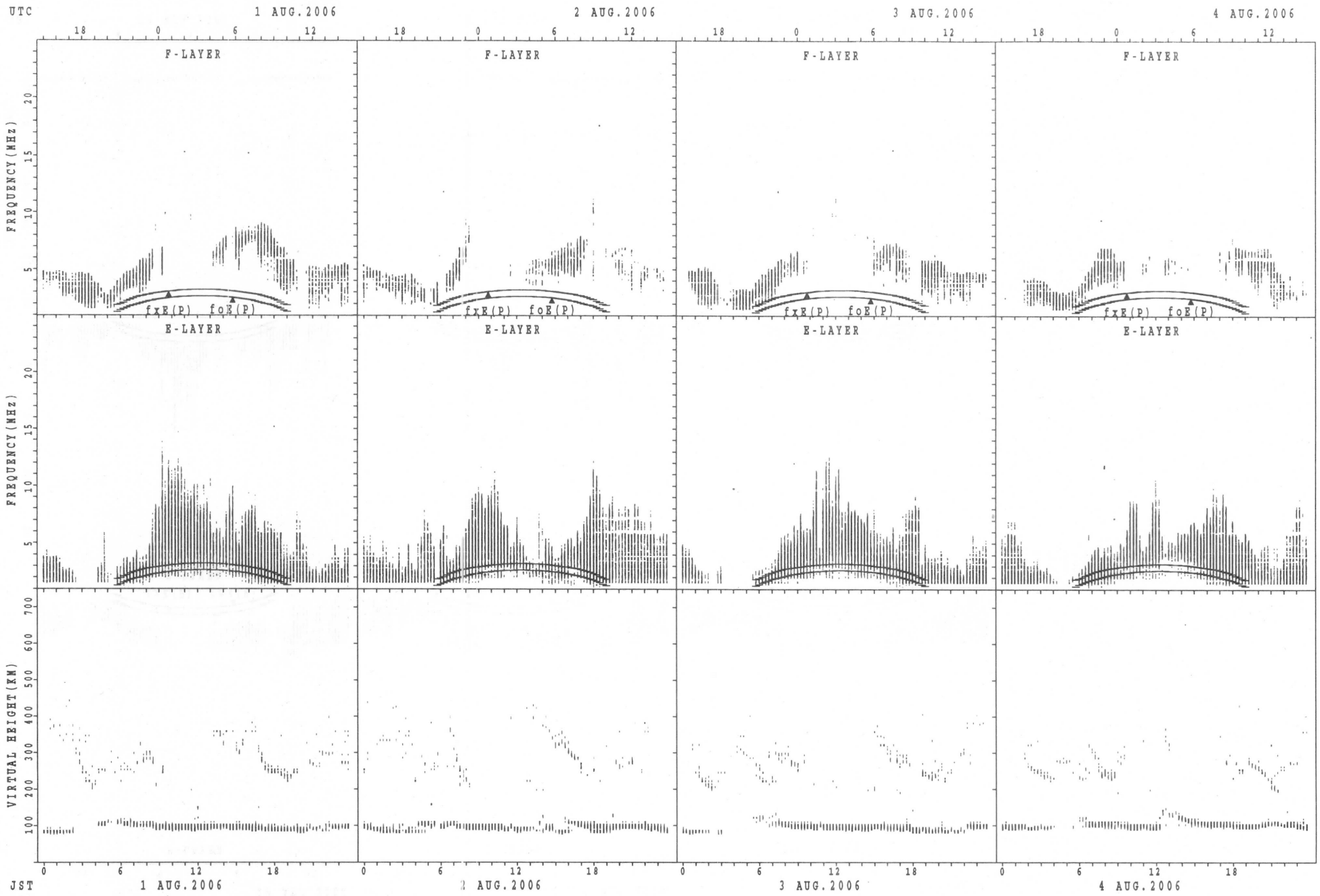
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



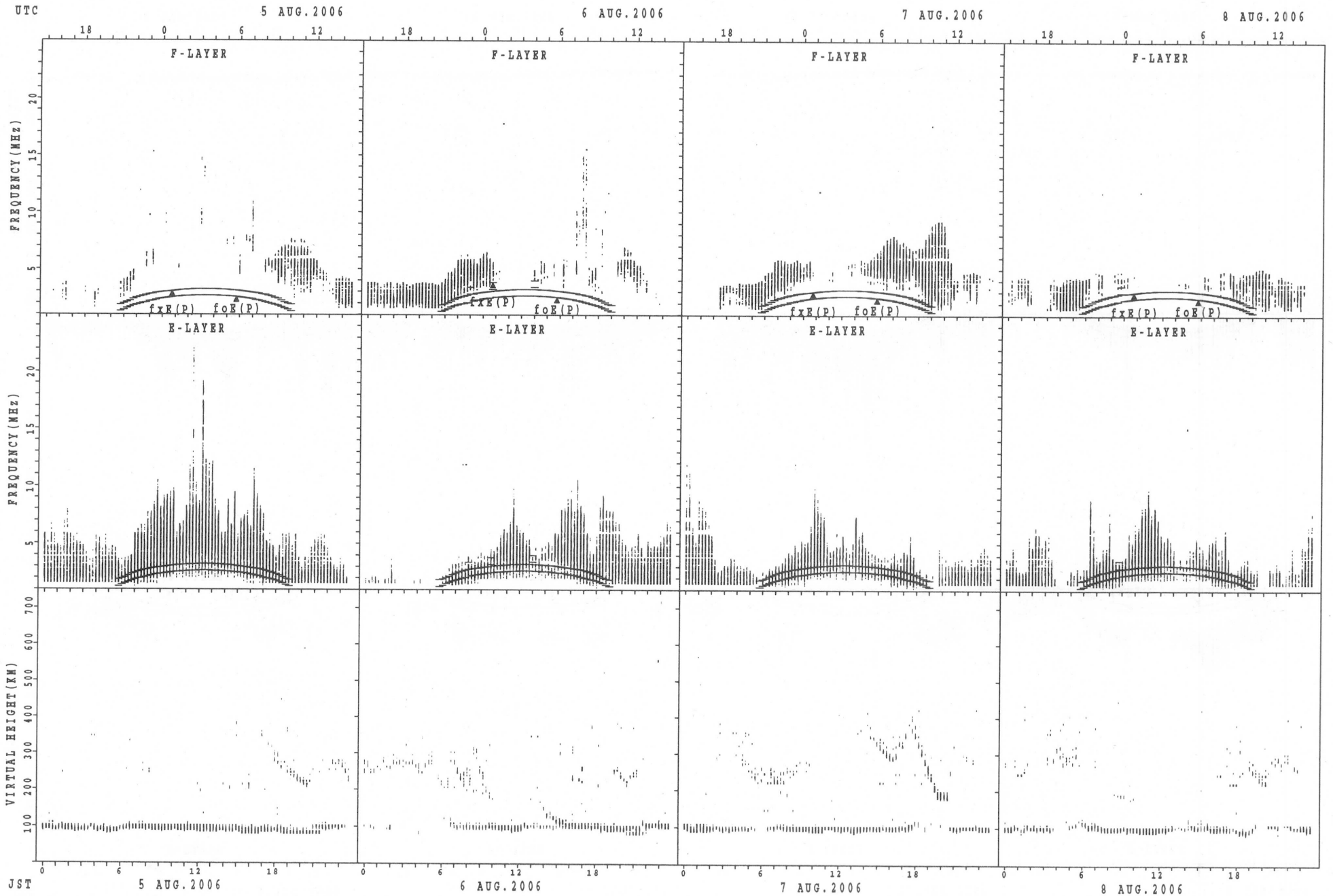
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa

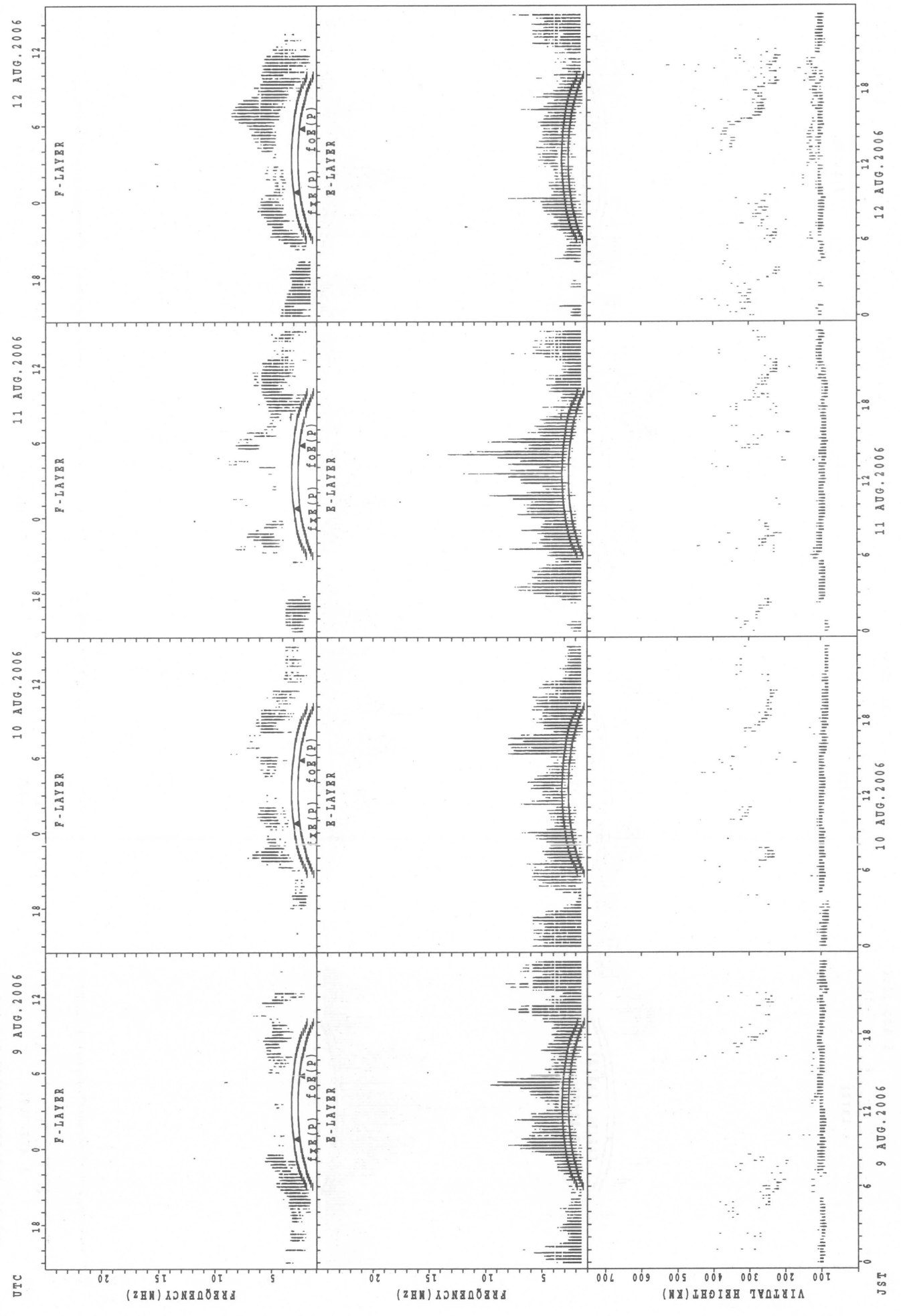


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

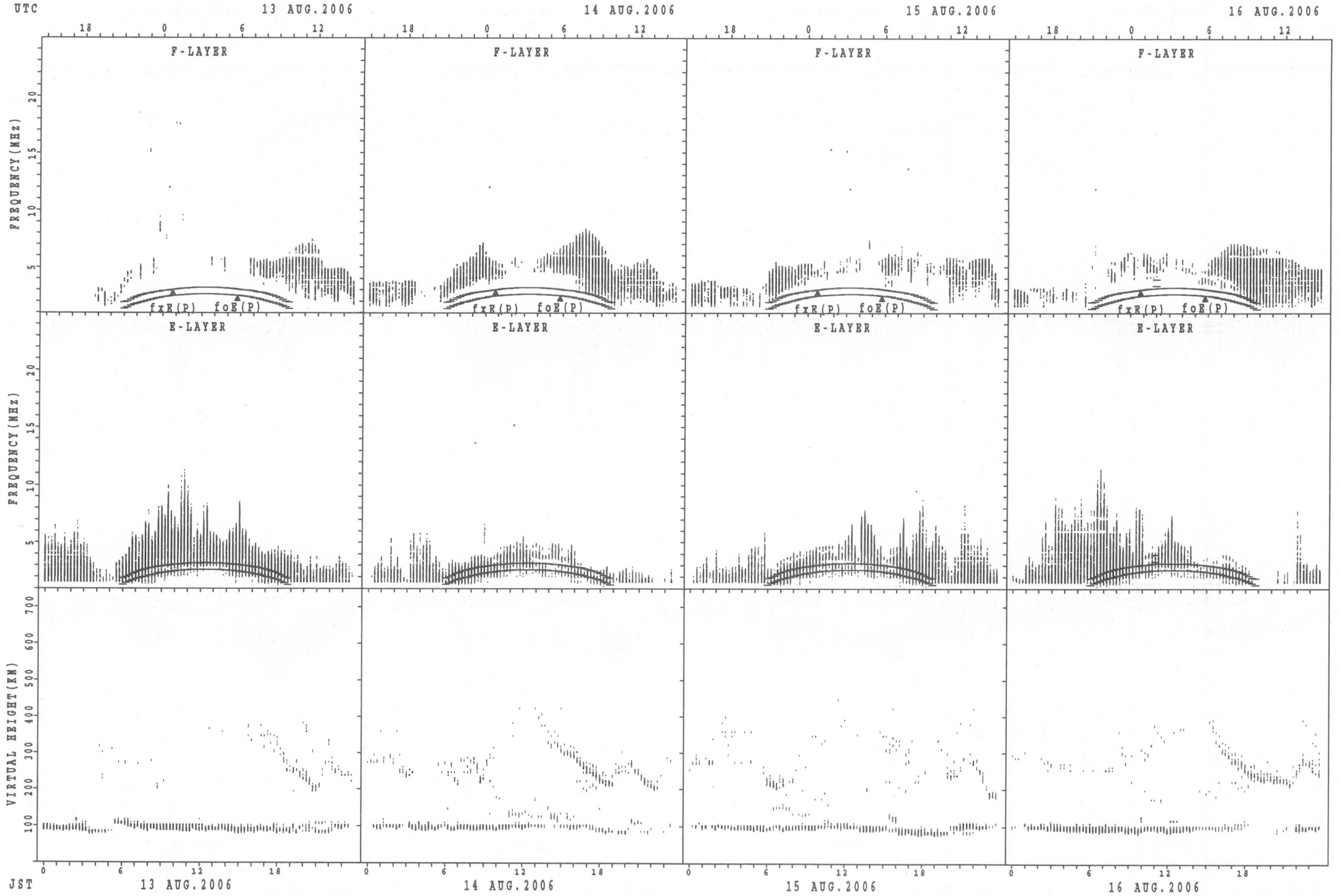
SUMMARY PLOTS AT Yamagawa



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

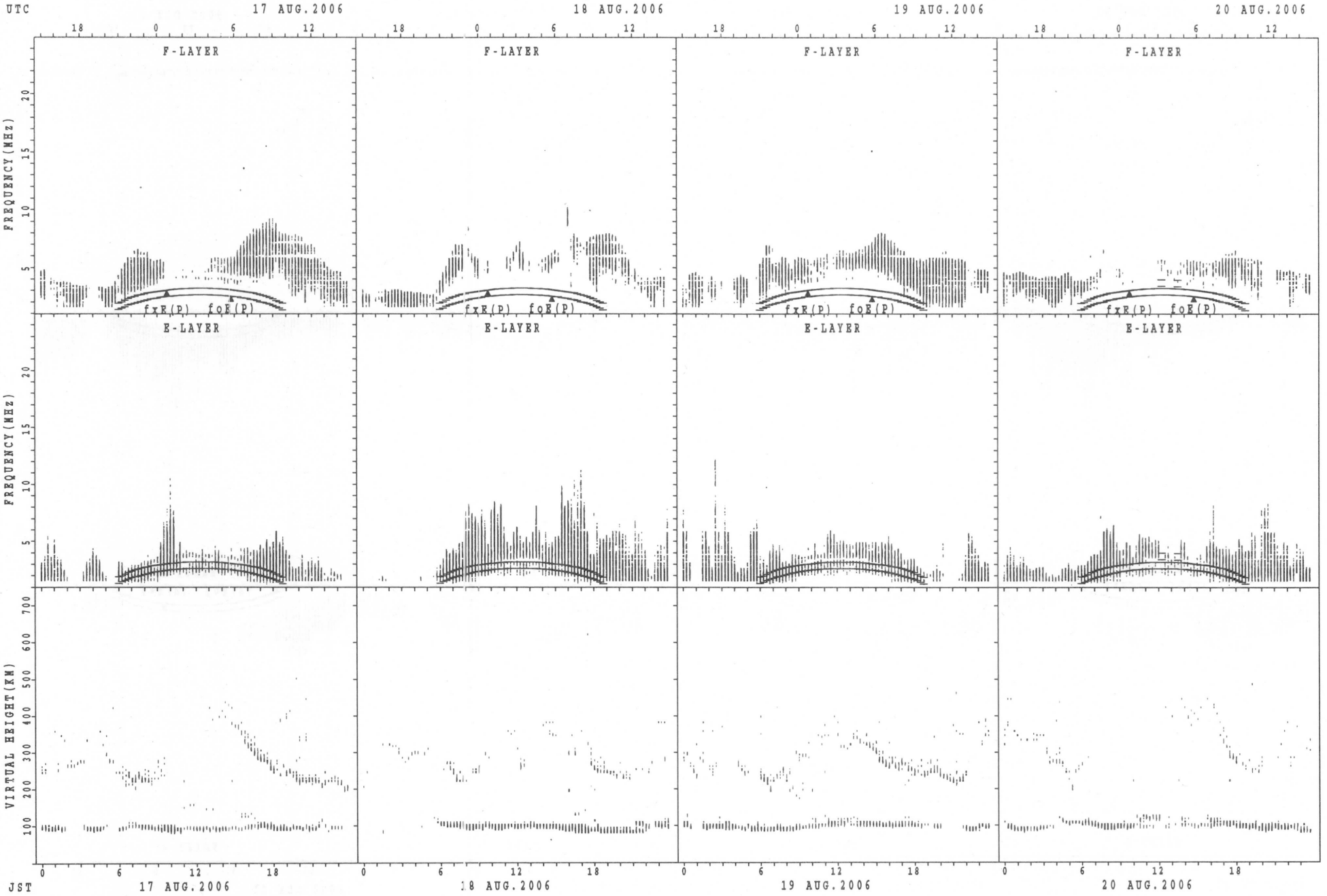

SUMMARY PLOTS AT Yamagawa
UTC
JST
9 AUG.2006
10 AUG.2006
11 AUG.2006
12 AUG.2006
F-LAYER
E-LAYER
FREQUENCY (MHz)
VIRTUAL HEIGHT (KM)
fxE(P)
foE(P)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa

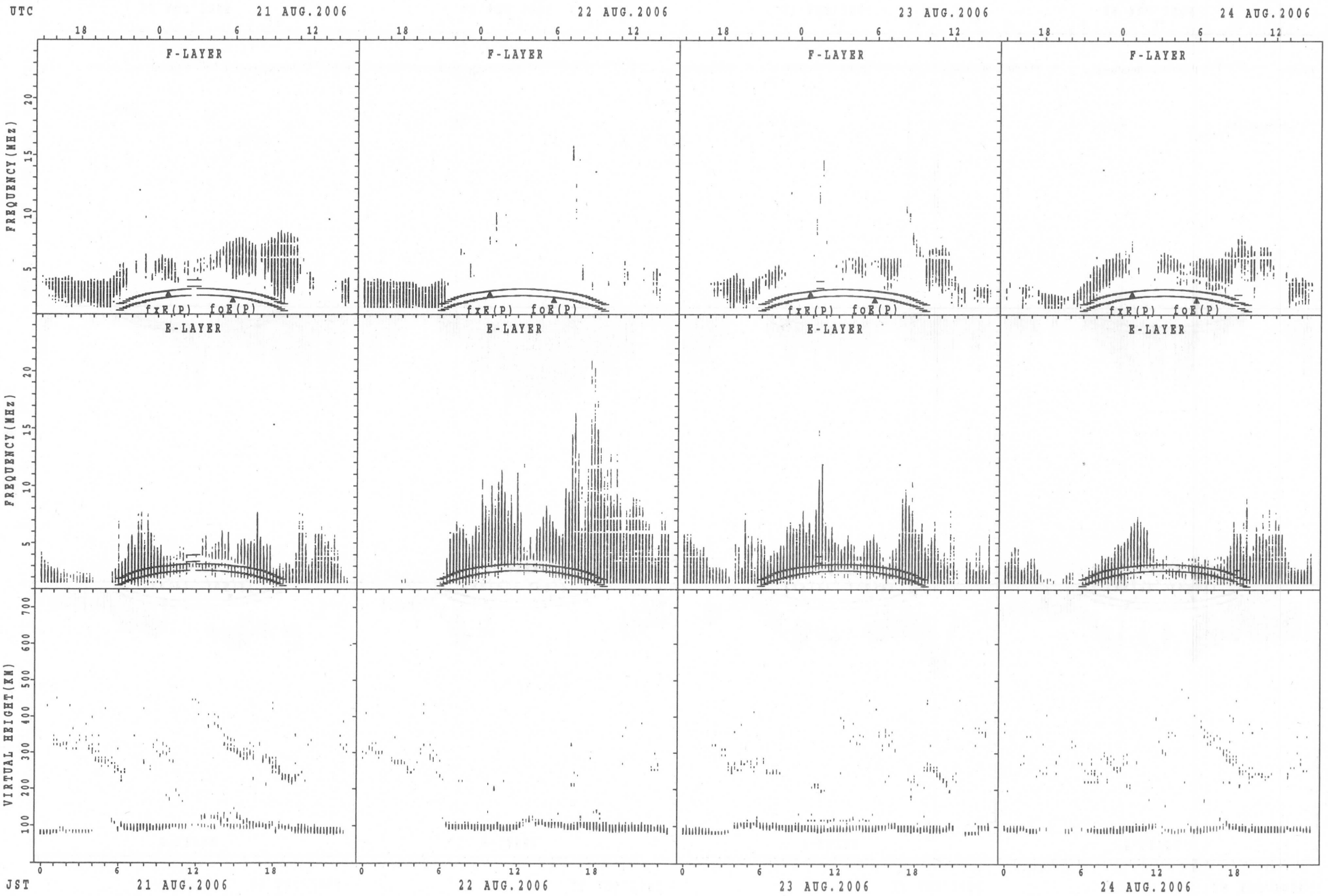


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

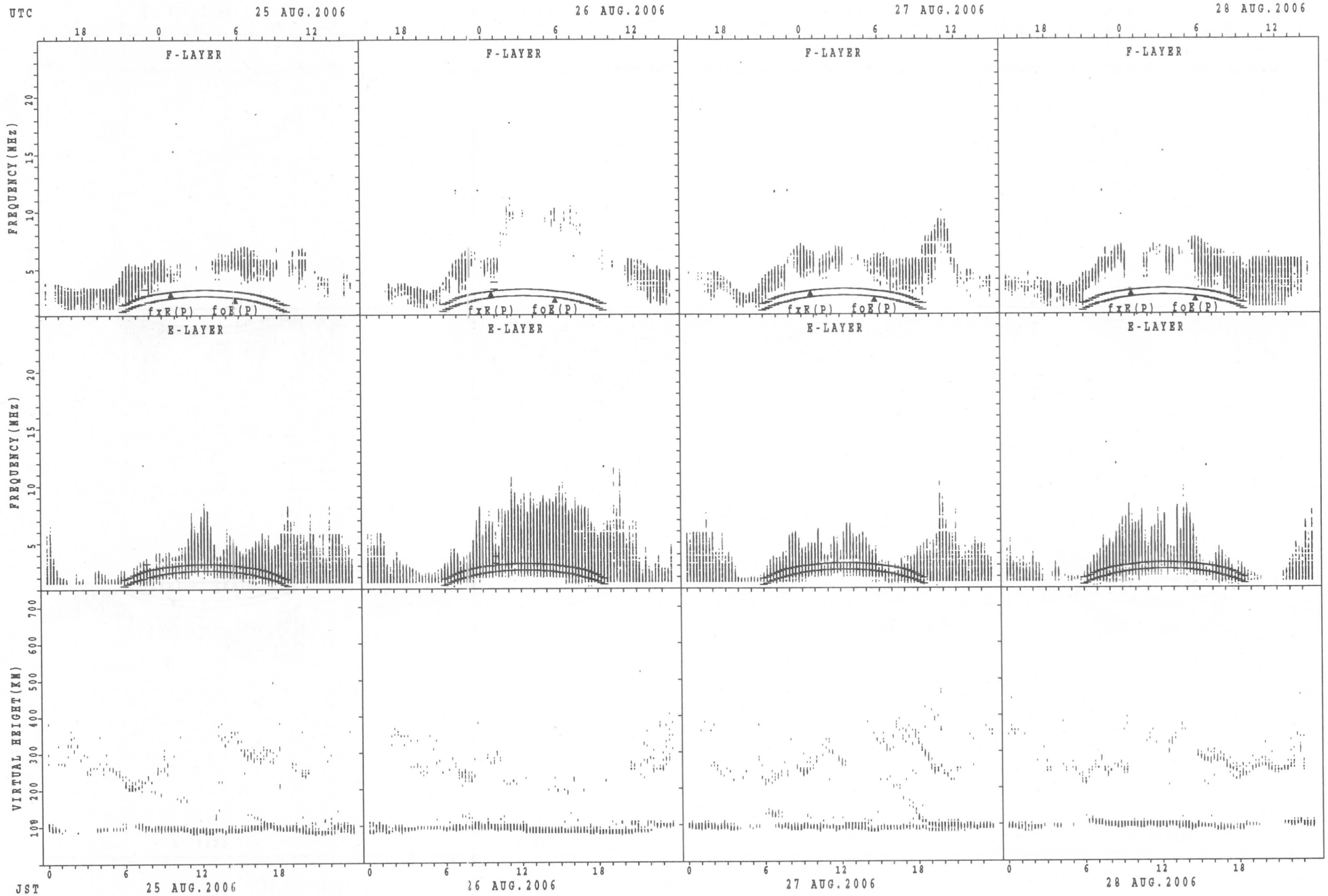
SUMMARY PLOTS AT Yamagawa



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

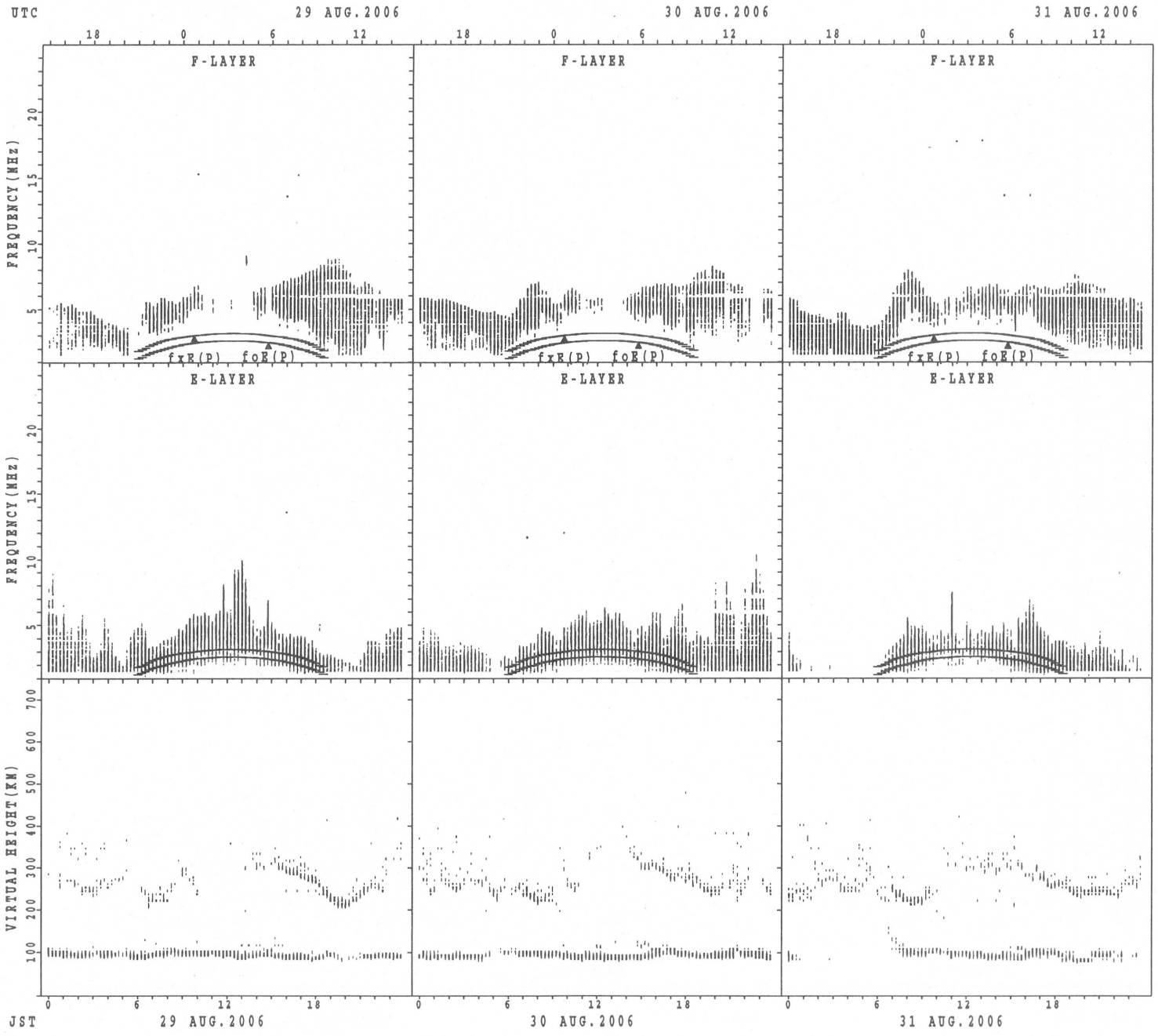

SUMMARY PLOTS AT Yamagawa
UTC
21 AUG.2006
22 AUG.2006
23 AUG.2006
24 AUG.2006
F-LAYER
fxE(P) foE(P)
FREQUENCY(MHz)
E-LAYER
VIRTUAL HEIGHT(KM)
JST
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



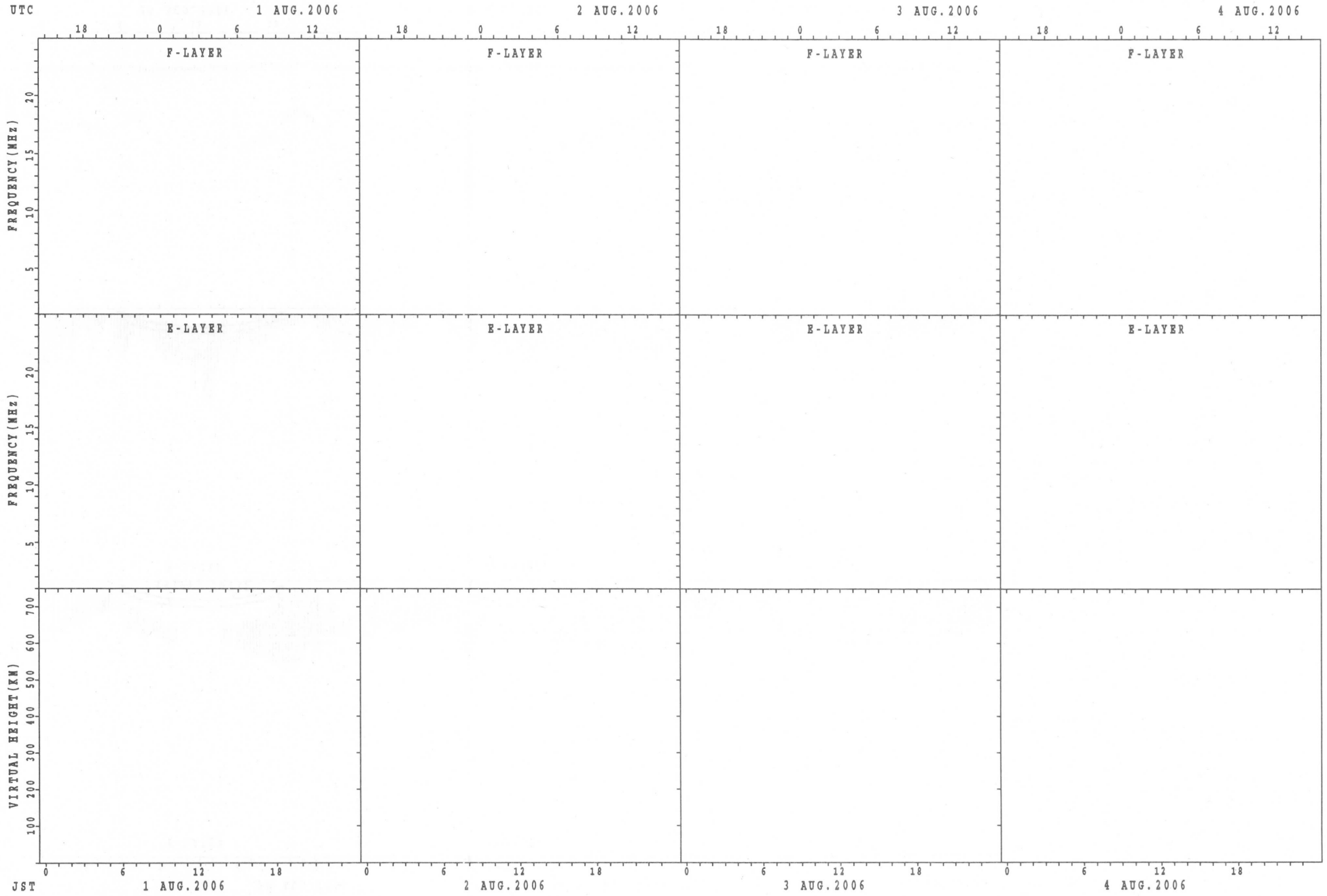
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



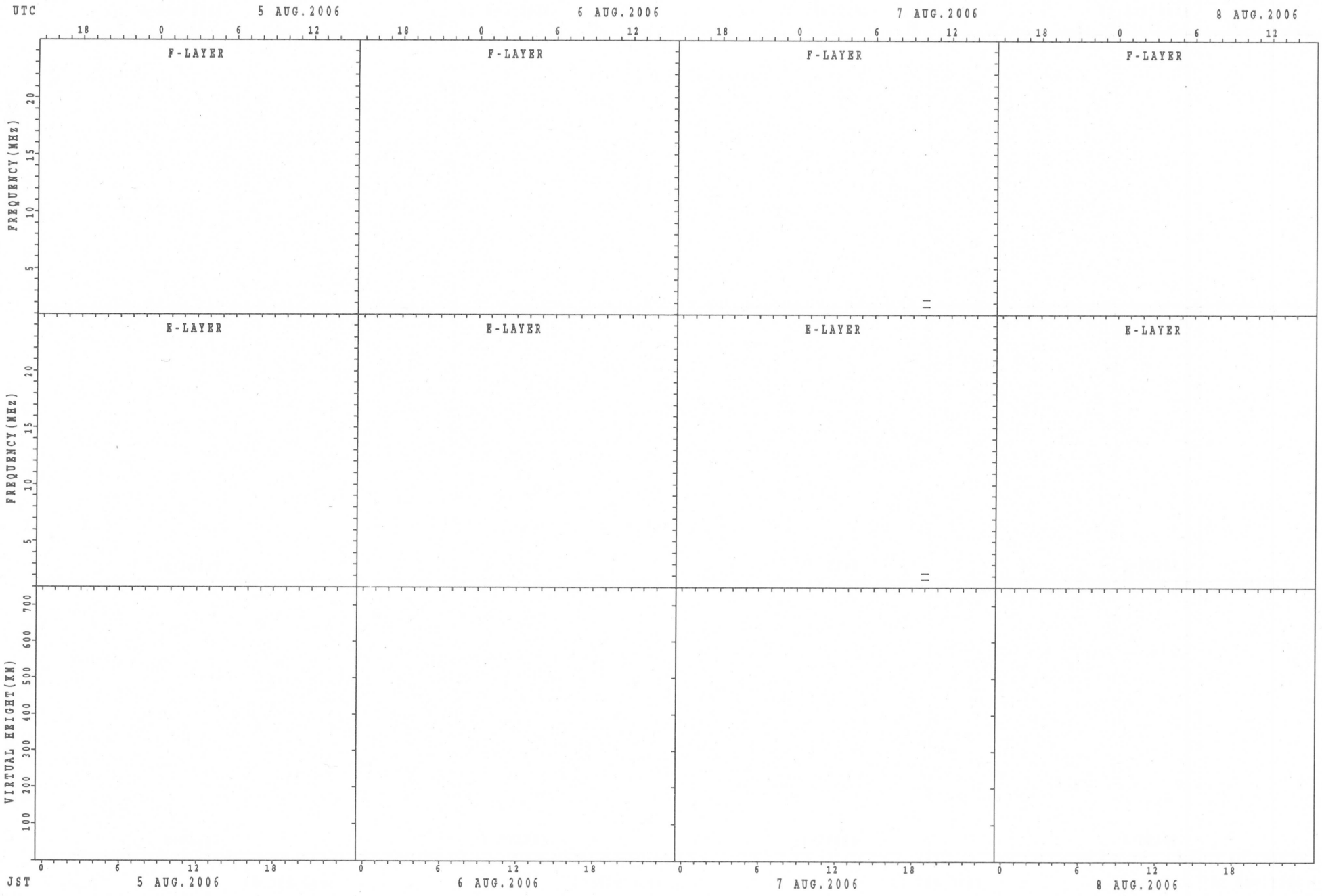
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



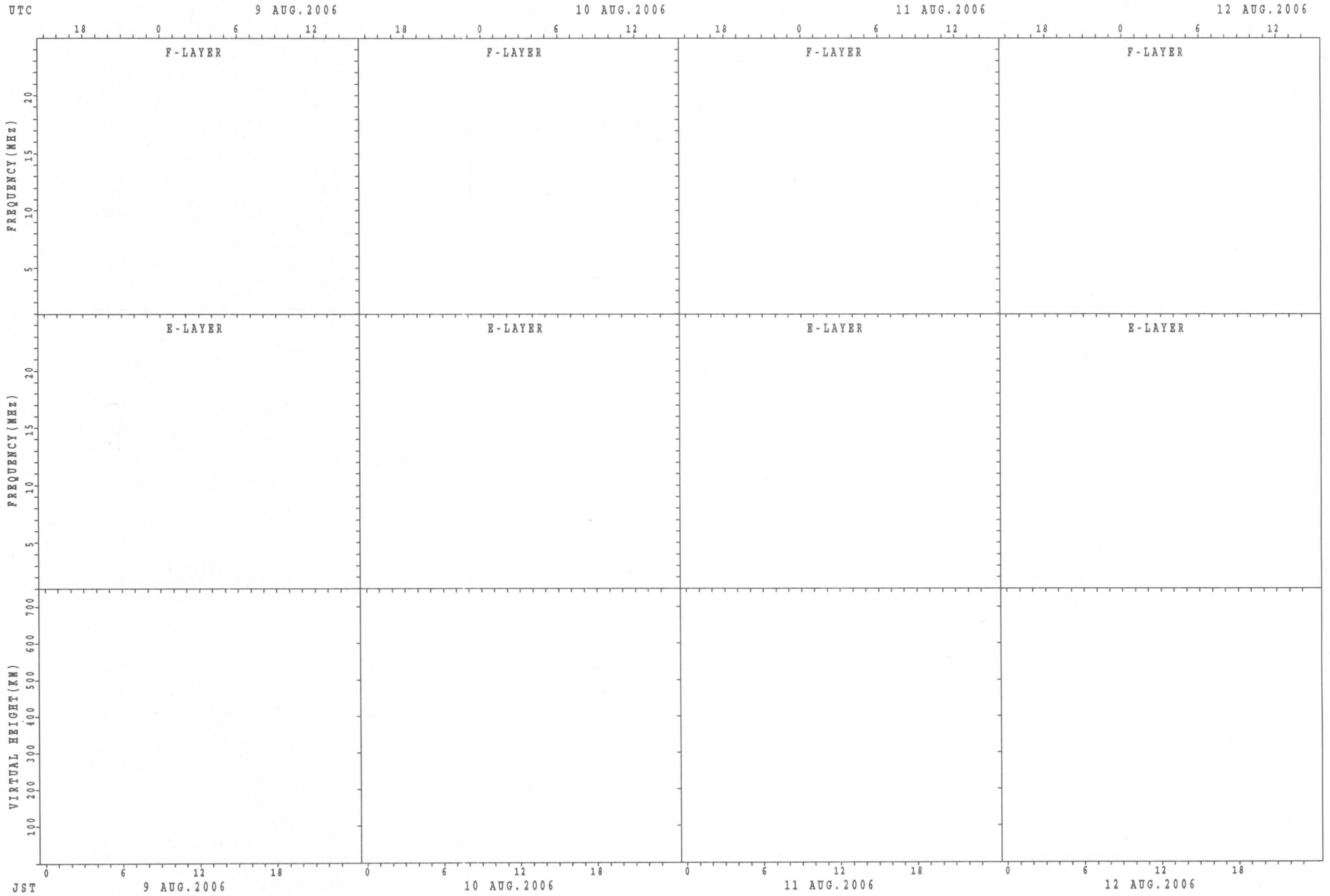
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



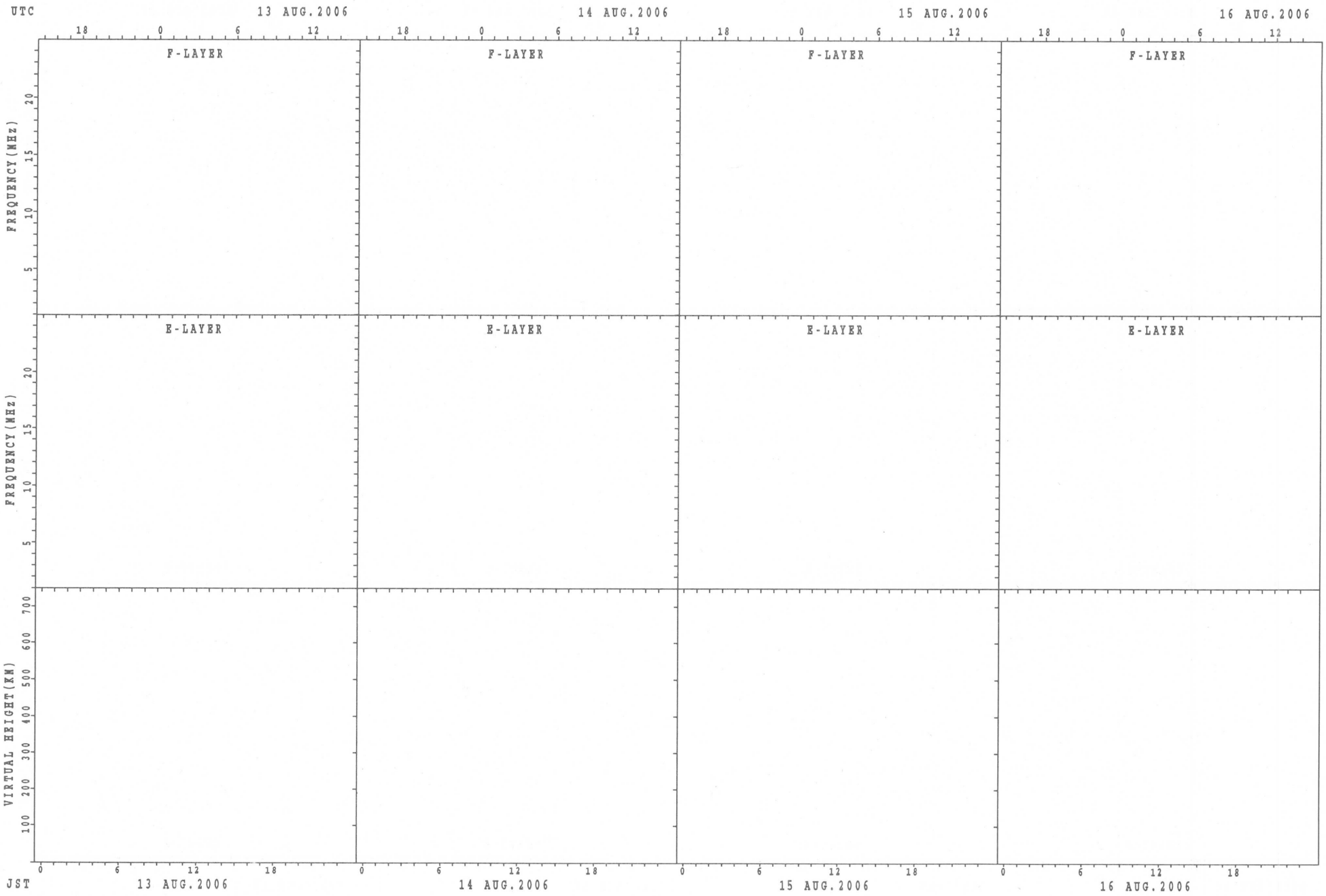
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



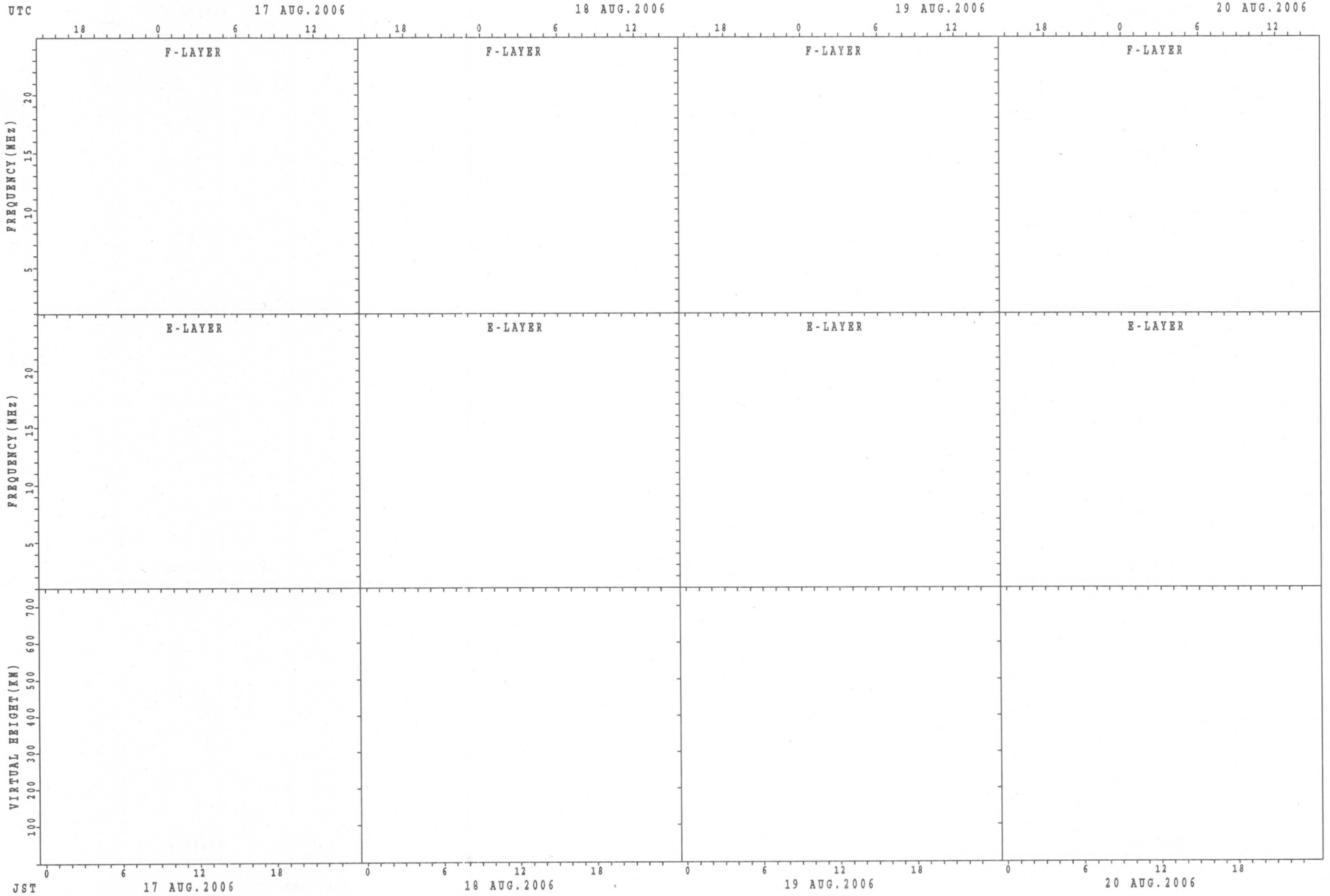
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



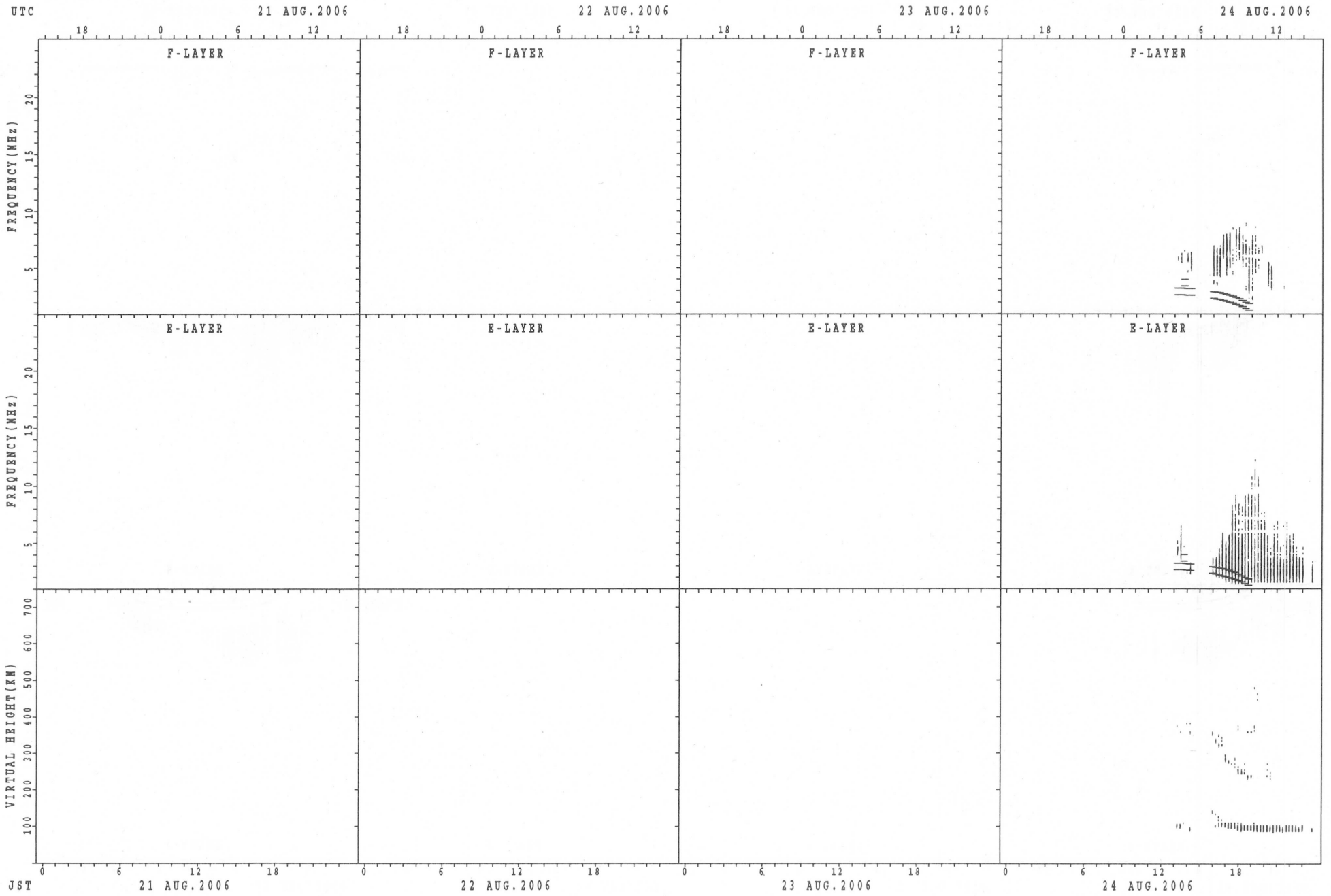
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



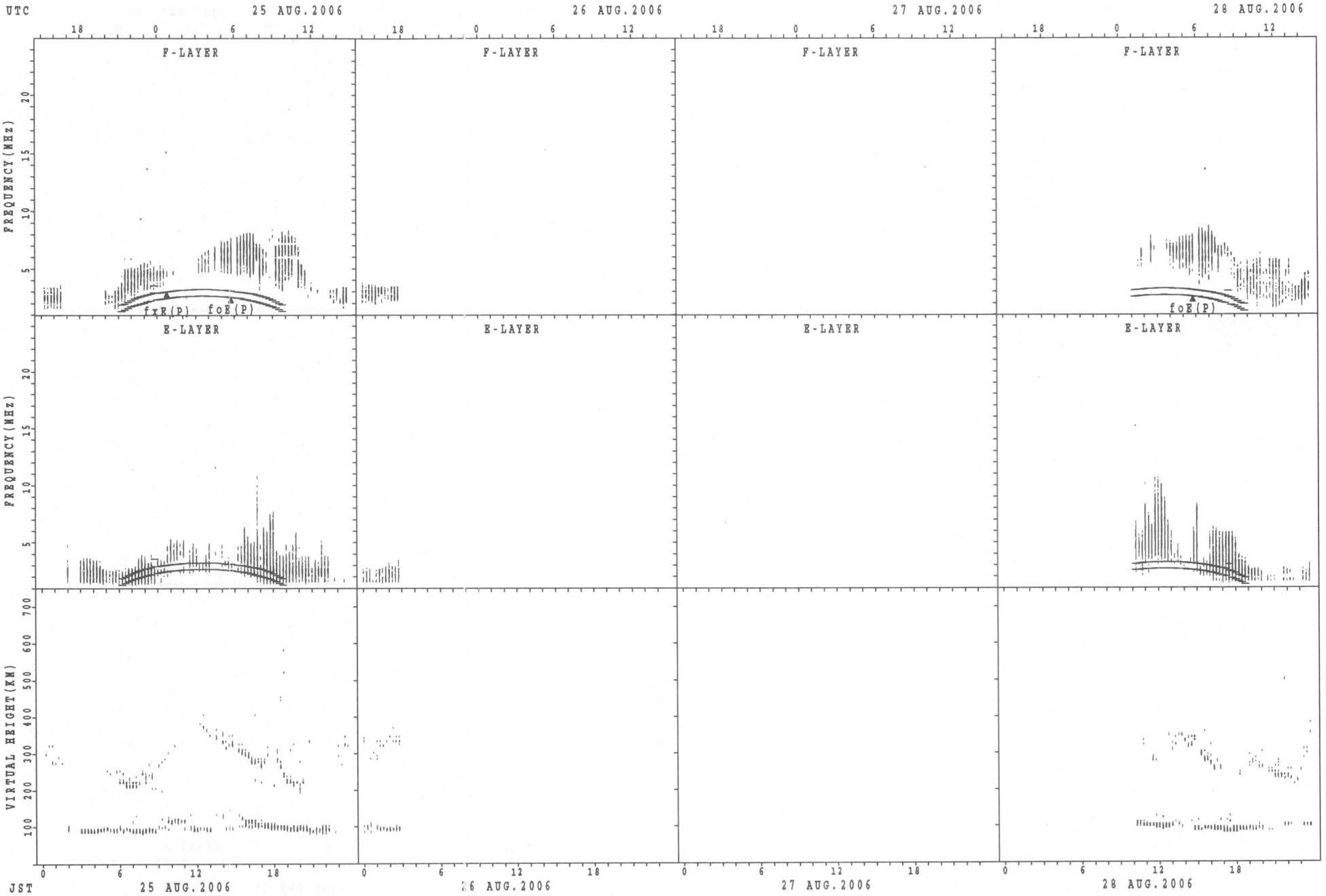
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



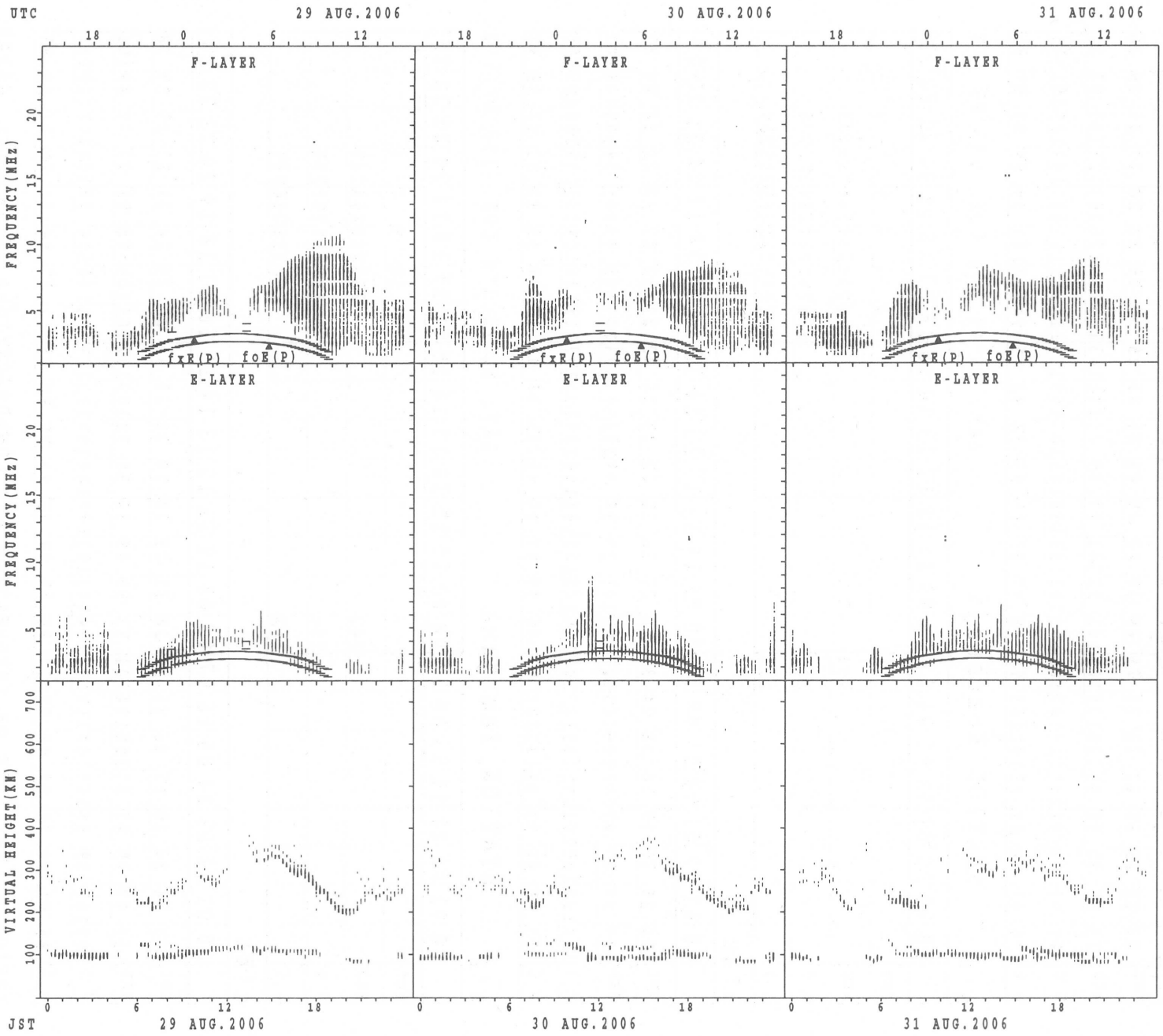
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



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

SUMMARY PLOTS AT Okinawa



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

MONTHLY MEDIANS OF h'F AND h'Es

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

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							2	1									2	1		1	2		1	
MED							219	294									314	280		282	300		264	
U Q							224	147									336	140		141	320		132	
L Q							214	147									292	140		141	280		132	

h'Es

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	27	28	26	25	22	22	28	29	29	30	28	29	28	26	25	25	30	28	28	26	27	26	26	26
MED	95	95	95	95	99	105	105	103	101	99	101	97	99	99	101	103	105	105	105	103	105	103	99	97
U Q	97	97	99	98	105	111	107	105	103	103	103	103	105	107	109	110	113	111	111	107	107	105	103	103
L Q	95	91	89	89	95	101	103	99	99	97	97	95	95	97	98	95	99	103	101	99	99	99	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								5									5	5	4	6	5	2		
MED								274									306	290	234	264	238	270		
U Q								284									323	309	249	284	277	276		
L Q								264									291	280	221	246	216	264		

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	24	25	20	19	18	16	24	30	28	27	26	22	22	23	26	22	29	28	29	28	26	28	24	22
MED	99	99	97	97	103	105	103	103	103	101	99	96	97	101	103	103	107	103	99	101	99	102	103	102
U Q	103	104	100	103	105	108	107	107	105	105	105	103	105	109	105	107	113	105	103	103	105	105	105	105
L Q	97	95	92	93	99	101	101	97	96	97	97	95	95	95	97	93	96	99	95	99	93	97	98	97

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									8									10	9	7	8			
MED									242									285	248	268	248			
U Q									280									316	289	288	270			
L Q									222									262	236	246	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	25	24	24	20	17	16	26	31	28	31	29	30	28	28	30	30	27	29	28	27	27	29	29	28
MED	99	97	95	97	97	100	104	101	99	99	99	98	99	98	102	102	105	105	98	95	99	97	99	101
U Q	105	101	99	99	100	107	113	107	104	103	103	107	104	107	113	111	113	108	104	99	103	103	105	104
L Q	95	91	90	90	94	96	97	99	95	95	96	95	95	95	95	95	91	97	94	89	91	91	93	97

MONTHLY MEDIANS OF h'F AND h'Es

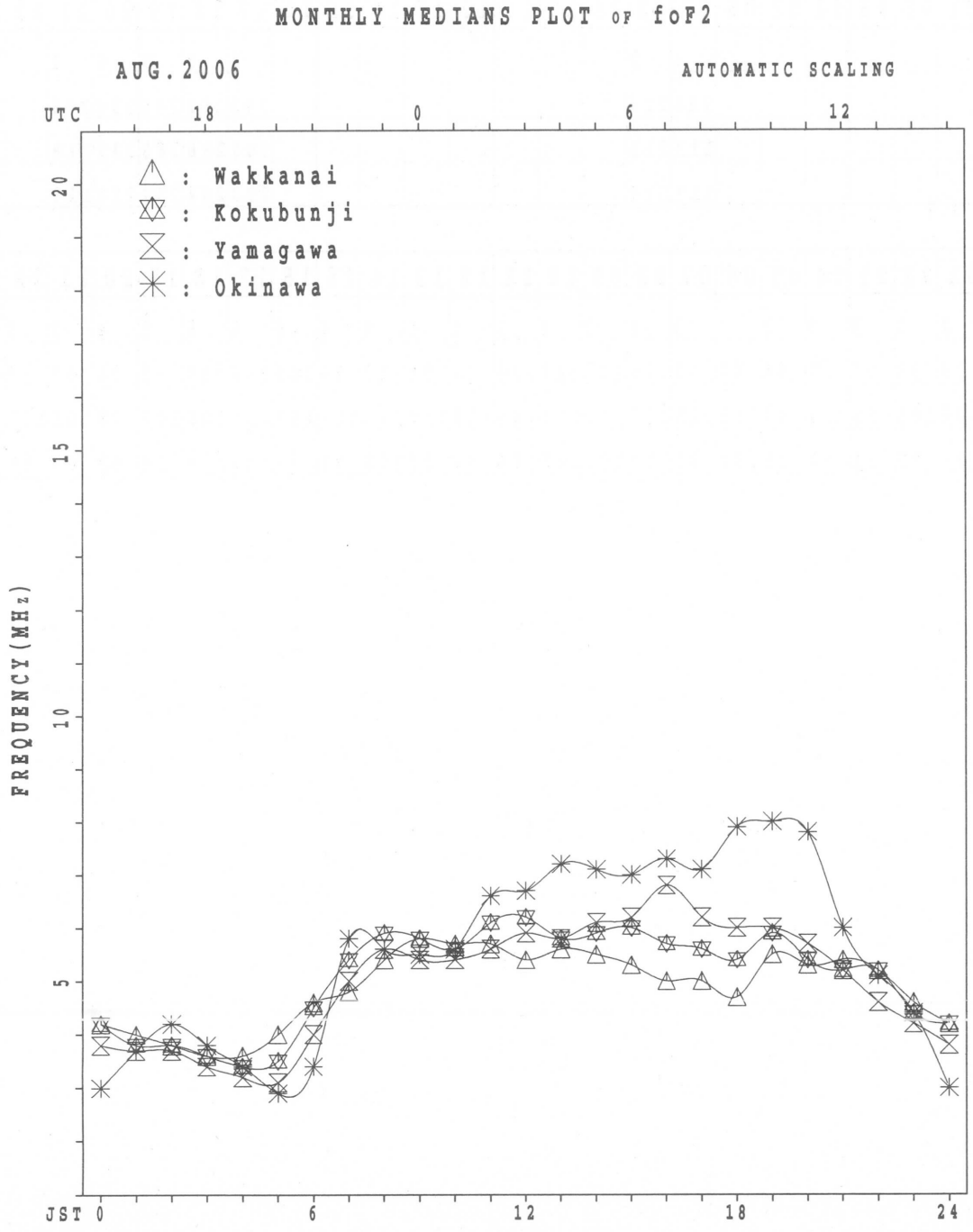
AUG. 2006 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

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								1	2									6	3	5	4	1		
MED								226	218									292	262	246	230	238		
U Q								113	222									300	296	266	239	119		
L Q								113	214									290	254	234	219	119		

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	3	4	3	2	3	2	3	3	4	3	4	5	4	5	4	4	6	6	6	5	4	3	5	1
MED	95	98	95	95	97	96	97	113	110	103	110	113	102	95	113	96	109	108	104	99	96	91	93	97
U Q	99	100	105	99	103	97	101	125	113	107	119	115	110	112	123	107	117	111	105	102	98	105	102	48
L Q	91	97	95	91	91	95	97	91	99	101	105	104	98	95	108	91	95	107	101	94	92	89	88	48


MONTHLY MEDIANS PLOT OF foF2
AUG.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

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	X 52	55	51	X 52	X 43															X 78	X 52	X 56	58	52
2	57	51	50	49	49															X 79	X 69	X 53	X 51	X 43
3	X 41	X 45	X 40	X 34	X 33															X 68	X 67	X 59	64	X 50
4	X 40	X 38	X 39	X 42	X 37															A	74	A	51	45
5	A	A	A	X 35	37															X 74	A	X 63	X 52	X 49
6	X 47	A	X 40	X 38	X 39															X 64	X 58		48	O X 41
7	X 42	X 40	50	48	50	51														X 92	X 95	X 66	X 58	X 55
8	X 55	X 60	X 48	X 49	52															A	X 50	X 48	A	X 44
9	X 40	X 40	X 35	X 34	40															X 57	X 60	56	X 56	51
10	X 39	X 40	X 40	X 36	X 35															X 58	X 56	X 46	X 39	A
11	X 42	X 38	39	X 32	A	X 37														X 62	X 65	X 58	58	52
12	X 45	X 44	X 41	X 41	X 40															A	X 60	52	54	53
13	48	X 34	X 35	X 34	X 34															X 72	X 77	X 72	67	X 56
14	X 46	X 41	X 41	X 42	X 41															X 60	X 55	X 52	X 42	X 38
15	X 36	X 37	X 34	39	X 38															X 60	63	63	64	67
16	X 45	X 36	X 37	X 38	X 38															X 69	X 69	X 62	X 57	X 46
17	X 42	X 39	39	40	39															X 67	X 65	X 54	X 50	X 45
18	X 44	X 40	X 36	X 35	X 36																X 72	X 54	X 47	X 44
19	49	48	47	46	X 38															X 60	X 60	X 57	X 57	52
20	X 48	X 48	X 43	X 43	X 41															X 66	X 58	X 54	X 50	X 48
21	51	50	51	54	55	54														X 80	X 74	X 56	X 48	52
22	50	52	X 45	48	X 39															X 61	64	X 62	X 51	X 48
23	X 40	X 36	X 36	X 37	X 35															X 61	X 63	X 55	X 48	X 44
24	X 38	X 39	X 40	X 40	X 38															X 68	X 68	X 57	X 44	48
25	50	45	44	X 40	X 35															X 64	X 61	59	A	54
26	53	X 43	X 40	X 39	X 38															X 62	X 61	X 58	65	64
27	50	X 36	A	X 37	X 35															X 77	X 86	O X 68	X 58	X 51
28	X 51	X 50	X 50	X 46	X 43															X 64	X 64	X 66	66	63
29	X 54	X 48	X 44	A	X 38															X 78	X 72	X 67	65	64
30	55	53	50	48	X 41															X 71	X 70	67	X 58	X 52
31	56	X 50	50	X 45	X 42															X 71	X 65	X 61	X 62	X 59
	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	29	30	30	3														27	30	29	29	30
MED	X 48	X 43	X 41	X 40	X 38	51														X 67	X 64	X 58	X 56	X 51
U Q	51	50	49	46	41	54														X 74	X 70	X 63	60	54
L Q	X 42	X 38	X 39	X 37	X 37	X 37														X 61	X 60	X 54	X 49	X 45

AUG. 2006 fxI (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

AUG. 2006 foF2 (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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	UL412	A	UL444	UL448	A	A	A	A	A	364						
2							L392		A	A	A	A	A	UL444	424	432	A	A	A					
3							A	A	A	A	A	A	A	UL460	UL432	A	UL400	A	A					
4							UL368	UL388	UL424	UL424	UL436	UL448	UL444	448	A	A	UL408	A						
5							A	A	A	A	A	A	A	A	428	UL424	A	A	A					
6							UL356	UL396	A	A	A	A	A	A	UL440	A	A	A	UL372			A		
7								392	392	436	UL448	UL472	UL468	436	UL432	424	A	UL352	L328					
8						A	A	A	A	UL404	A	A	A	A	L	A	A	UL360						
9						A	A	372	A	A	A	A	A	A	A	A	UL392	UL360	L					
10							UL328	UL384	UL404	UL432	A	UL436	UL436	UL432	A	A	UL400	A	A					
11							UL348	388	UL416	A	A	A	A	A	A	A	A	UL372	L					
12							L	L388	UL416	A	A	A	UL444	A	UL476	UL396	UL400	A	A					
13							A	A	A	UL424	A	A	UL444	A	A	A	A	A	A					
14								U L400	UL424	A	A	UL440	A	424	436	428	412	UL368	A					
15								392	E A	436	E A	UL452	A	A	UL444	420	400	L	L					
16							UL364	L392	A	UL440	UL440	A	A	A	A	UL424	UL388	UL376	L					
17								A	A	UL452	452	UL464	UL448	UL456	UL456	428	L404	L	A					
18								392	A	A	UL460	A	A	A	A	A	A	A		A				
19							UL332	L	UL420	UL432	UL448	UL448	UL440	A	UL440	A	UL400	L						
20								A	A	UL408	A	428	A	A	A	408	392	A						
21							L	A	L	UL428	UL444	UL452	UL448	A	A	A	A	L						
22							A	A	A	A	A	A	A	A	A	A	UL384	A						
23							A	A	UL400	UL424	UL424	UL428	UL436	A	A	UL408	UL392	A	A					
24							UL356	UL388	A	A	UL436	A	UL432	UL448	UL428	UL420	UL408	A	A					
25							A	A	A	A	A	UL456	A	A	UL416	L	A	A	A					
26								U L384	A	A	UL444	A	A	UL424	432	A	L	UL380						
27								L	A	A	A	A	UL456	A	A	UL420	UL392		L					
28								L	L	UL428	432	L440	UL444	UL440	UL444	UL424	A	L						
29								L	A	A	A	A	A	UL448	A	UL420	UL404	A	A					
30							L	UL384	UL404	UL432	A	A	UL448	UL460	UL424	UL408	A	A	A					
31								UL400	UL404	A	A	UL444	UL452	A	UL444	UL436	L							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							7	16	11	14	12	14	14	12	16	16	16	8	2					
MED							UL356	L390	UL412	UL430	UL444	UL448	UL444	UL446	UL434	UL422	UL400	UL366	L350					
U Q							UL364	UL392	UL420	436	UL448	UL452	UL448	UL452	UL444	426	UL404	UL374						
L Q							UL332	UL386	UL404	UL424	UL436	L440	UL440	434	UL428	UL414	UL392	UL360						

AUG. 2006 foF1 (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							B	A A	A	A	A	A	A	A	A	A	A	A	A					
2							B 232	A	A	A	A	A	A	A	A	312	A	A	A					
3							B U A 220	A	A	A	A	A	A	A	A	A	A	A	A					
4							B A	A	A	A	A	R	A	A	A	A	A	A	A					
5							B A	A	A	A	A	A	A	A	A	A	A	A	B					
6							B 224	U R 284	A	A	A	A	A	A	U A 344	A	A	A	A			A		
7							B A	A	A	A	A	A	U R 348	344	320	304	A	U R 256	A					
8							B A	A	A	A	A	A	A	A	A	A	A	A	A					
9							B A	A	A	A	A	A	A	A	A	U A 300	U A 276	A	A					
10							B A	A	A	A	A	A	A	A	A	A	A	A	A					
11							U R 232	A	A	A	A	A	A	A	A	A	A	A	A					
12							B A	A	A	A	A	A	A	A	A	U R 324	A	A	B					
13							B A	A	A	A	A	A	A	A	A	A	A	A	A					
14							B A	A	A	A	A	A	A	U R 344	R	316	A	A	A					
15							B U R 224	A	A	A	A	A	A	A	A	300	A	U A 236	A					
16							B U R 224	A	A	A	R	A	A	A	A	A	U A 284	A	B					
17							B A	A	A	A	R	R	R	344	A	R	U A 280	A	B					
18							B U A 208	A	A	A	A	A	A	A	A	A	A	A	A	A				
19							B U A 204	A	A	U A 316	A	A	A	A	A	A	A	U A 240	B					
20							B U A 192	A	A	A	A	U R 360	U A 360	A	A	A	276	U A 236	B					
21							B U A 200	A	U R 308	R	R	U R 356	U R 364	A	A	A	A	A	B					
22							B A	A	A	A	A	A	A	A	A	A	A	A	A					
23							B A	A	A	A	R	R	A	A	A	U A 300	A	A	A					
24							B	A	A	A	A	A	R	R	R	312	U R 284	U A 236	B					
25							B A	A	A	A	A	A	A	A	A	U A 308	U A 268	A	A					
26							B A	A	A	A	A	A	A	A	A	A	A	A	B					
27							B U A 248	A	A	A	A	A	A	A	A	A	A	A	B					
28							B A	A	A	A	A	A	R	R	A	A	A	U R 224	B					
29							B U R 208	A	A	A	A	A	A	A	A	U A 300	A	A	A					
30							B B	A	A	A	A	A	A	A	A	U A 312	U A 276	A	A					
31							B 196	A	A	A	A	A	A	A	A	U R 300	A	A	A					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							13	1	1	1		2	3	3	2	12	7	6						
MED							U 220	U R 284	U R 308	U A 316		U R 358	U R 360	344	332	U 306	U A 276	U A 236						
U Q							U 228						U R 364	U R 344		312	U 284	U 240						
L Q							U A 202						U R 348	344		U A 300	276	U 236						

AUG. 2006 foE (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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 44	J A 44	J A 31	J A 27	J A 32	J A 48	J A 39	J A 48	J A 74	J A 206	J A 54	J A 48	J A 102	J A 54	J A 84	J A 69	J A 74	J A 48	J A 23	J A 24	20	J A 25	J A 56	J A 70
2	J A 65	J A 53	21	J A 38	18	E B 15	30	J A 38	J A 60	J A 50	J A 46	J A 50	J A 50	J A 46	36	37	J A 47	J A 52	J A 60	J A 38	J A 21	J A 40	J A 23	J A 34
3	J A 34	J A 38	J A 26	J A 24	E B 16	E B 16	J A 46	J A 44	J A 91	J A 122	J A 72	J A 74	J A 73	J A 43	J A 51	J A 74	J A 52	J A 57	J A 50	J A 40	J A 30	J A 65	J A 53	J A 54
4	J A 33	J A 26	J A 33	J A 25	20	J A 23	26	35	J A 42	J A 41	38	G 29	J A 38	43	J A 58	J A 96	J A 66	J A 54	J A 62	J A 172	J A 66	J A 143	J A 47	J A 61
5	J A 55	J A 56	J A 56	J A 55	J A 44	J A 28	J A 41	J A 58	J A 110	J A 56	J A 81	J A 90	J A 143	J A 145	J A 48	J A 48	J A 88	J A 105	J A 86	J A 37	J A 64	J A 36	J A 31	J A 31
6	J A 66	J A 88	J A 40	J A 20	J A 22	J A 22	27	J G 27	J A 44	J A 79	J A 81	J A 59	53	J A 69	41	J A 122	J A 119	J A 91	J A 39	J A 76	J A 64	J A 80	J A 73	J A 44
7	J A 34	J A 32	J A 38	J A 25	J A 24	J A 44	J A 33	J A 36	J A 42	J A 39	J A 46	G 26	41	40	37	36	J A 50	G 22	J A 31	J A 44	J A 80	J A 37	J A 79	20
8	J A 24	J A 59	20	J A 88	J A 44	J A 61	J A 57	J A 47	J A 41	37	J A 44	J A 92	J A 108	J A 97	37	J A 50	J A 100	J A 46	J A 32	J A 72	J A 42	J A 41	J A 68	J A 80
9	J A 66	J A 68	J A 21	J A 26	J A 28	J A 44	J A 51	J A 45	J A 57	J A 64	J A 103	J A 52	J A 66	J A 56	J A 54	J A 57	34	J A 39	J A 29	J A 39	J A 44	J A 41	J A 40	J A 43
10	J A 21	J A 24	J A 24	J A 26	J A 56	J A 18	28	30	J A 62	J A 48	J A 101	J A 38	38	J A 46	J A 54	J A 52	J A 39	79	J A 62	J A 80	J A 45	J A 30	J A 40	J A 57
11	J A 86	J A 54	J A 22	J A 38	J A 47	J A 20	G 20	34	J A 40	J A 60	J A 90	J A 174	J A 176	J A 97	J A 70	J A 62	J A 47	28	J A 28	J A 24	J A 44	J A 59	J A 69	J A 27
12	E B 15	E B 15	E B 15	E B 14	E B 15	J A 22	J A 27	J A 37	J A 61	J A 74	J A 88	J A 98	J A 53	50	44	G 27	J A 44	J A 63	J A 41	J A 64	J A 52	J A 82	J A 75	J A 51
13	J A 56	J A 44	J A 28	J A 24	19	E B 15	J A 35	J A 48	J A 52	37	J A 53	J A 72	J A 90	J A 48	J A 52	J A 56	J A 42	J A 47	J A 57	J A 23	J A 60	J A 36	J A 20	J A 20
14	J A 31	J A 45	J A 18	21	J A 28	J A 23	J A 42	J A 40	34	J A 50	J A 48	J A 51	53	38	G 28	38	J A 40	J A 36	J A 30	24	J A 22	J A 21	20	J A 42
15	J A 35	J A 36	J A 25	19	J A 33	J A 22	G	32	J A 64	J A 47	J A 50	J A 49	J A 91	J A 54	J A 40	35	34	J A 34	J A 24	J A 24	J A 42	J A 54	J A 59	J A 75
16	J A 58	J A 65	J A 30	J A 79	J A 45	21	J A 27	J A 32	J A 47	J A 39	G 30	J A 76	J A 55	J A 56	J A 56	J A 38	32	J A 32	20	J A 23	J A 25	J A 29	J A 46	J A 57
17	J A 68	J A 32	J A 41	J A 35	J A 28	J A 33	J A 37	J A 65	J A 67	J A 46	G 30	G 30	G 27	39	J A 48	G 29	33	J A 36	J A 68	J A 57	J A 54	J A 31	J A 20	22
18	E B 14	J A 21	J A 18	E B 15	E B 14	J A 28	27	33	J A 71	J A 57	J A 54	J A 59	J A 61	J A 74	J A 66	J A 76	J A 90	J A 51	J A 50	J A 70	J A 28	J A 45	J A 23	21
19	J A 54	J A 61	J A 64	J A 54	J A 31	J A 30	24	30	34	37	J A 46	42	42	J A 49	J A 40	J A 52	33	27	J A 26	21	J A 20	J A 20	J A 27	J A 20
20	J A 27	J A 18	J A 33	20	19	J A 19	24	J A 48	J A 58	J A 51	J A 60	42	J A 51	42	J A 93	J A 48	34	J A 67	J A 60	J A 51	J A 45	J A 24	J A 30	19
21	J A 23	J A 20	J A 23	J A 17	J A 20	E B 14	J A 26	J A 62	G 29	G 28	G 29	41	41	J A 46	J A 49	J A 46	J A 45	J A 30	J A 30	J A 23	J A 69	J A 34	J A 27	J A 20
22	J A 68	J A 29	J A 26	J A 95	J A 36	J A 22	J A 34	J A 94	J A 116	J A 96	J A 56	J A 144	J A 98	J A 75	45	J A 53	J A 37	J A 44	J A 64	J A 99	J A 40	J A 67	J A 38	J A 52
23	J A 41	J A 37	J A 46	J A 37	J A 36	J A 22	J A 68	J A 43	J A 34	44	G 32	G 34	J A 44	J A 47	J A 44	36	35	J A 47	38	J A 71	J A 88	J A 38	J A 37	J A 44
24	J A 20	E B 15	J A 20	E B 14	E B 14	E B 15	24	J A 35	J A 48	J A 54	J A 66	J A 46	G 28	G 32	G 29	35	35	J A 39	J A 44	J A 42	J A 26	J A 21	J A 21	J A 19
25	J A 38	J A 23	J A 29	J A 22	J A 20	J A 22	J A 46	J A 38	J A 51	J A 74	J A 110	J A 76	J A 64	J A 49	J A 38	J A 46	38	J A 54	J A 78	39	J A 123	J A 58	J A 79	J A 68
26	J A 43	J A 51	J A 43	J A 22	J A 62	J A 26	25	J A 38	J A 76	J A 63	J A 60	J A 91	J A 87	J A 46	J A 38	J A 42	J A 36	J A 27	J A 24	J A 25	J A 43	J A 36	J A 56	J A 46
27	J A 30	J A 43	J A 56	J A 30	J A 32	J A 36	30	J A 44	J A 48	J A 48	J A 48	J A 67	J A 61	J A 52	J A 59	J A 35	31	27	J A 21	26	J A 32	J A 32	20	E B 16
28	J A 36	J A 32	20	19	E B 14	J A 35	J A 37	J A 38	J A 42	39	40	J A 48	G 33	G J A 30	J A 40	J A 42	J A 40	G 21	20	J A 31	J A 42	J A 85	J A 77	J A 77
29	J A 88	J A 40	J A 26	J A 42	J A 28	J A 24	G	J A 34	J A 52	J A 44	J A 74	J A 60	J A 72	J A 48	J A 46	J A 45	31	J A 47	J A 60	J A 53	J A 37	J A 32	J A 57	E B 15
30	19	J A 23	J A 18	J A 23	J A 26	E B 15	J A 24	28	J A 39	J A 39	J A 82	J A 80	J A 46	J A 48	J A 40	J A 43	J A 56	J A 76	J A 58	J A 44	J A 74	E B 15	J A 78	J A 38
31	J A 24	J A 22	J A 23	19	E B 15	E B 14	24	30	J A 40	J A 45	J A 59	J A 47	J A 46	J A 48	J A 44	G 24	34	J A 46	J A 45	J A 36	J A 45	J A 26	J A 22	J A 19
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MED	J A 36	J A 37	J A 26	J A 25	J A 28	J A 22	J A 28	J A 38	J A 51	J A 48	J A 54	J A 52	J A 53	J A 48	J A 45	J A 46	J A 40	J A 46	J A 41	J A 39	J A 44	J A 36	J A 40	J A 42
U Q	J A 58	J A 53	J A 38	J A 38	J A 36	J A 30	J A 39	J A 47	J A 64	J A 63	J A 81	J A 76	J A 87	J A 56	J A 54	J A 56	J A 52	J A 54	J A 60	J A 64	J A 64	J A 58	J A 68	J A 57
L Q	J A 24	J A 23	21	20	E B 19	E B 18	24	33	J A 41	39	46	42	42	43	40	36	34	32	J A 28	J A 24	J A 30	J A 29	23	20

AUG. 2006 foEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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	17	E B 15	17	20	23	A A 48	31	42	36	A A 206	36	38	44	45	46	48	40	25	21	16	E B 16	E B 15	18	28
2	21	23	E B 15	16	E B 15	E B 15	26	34	48	41	42	A A 50	A A 50	38	35	36	40	38	43	24	E B 16	18	18	16
3	18	22	20	E B 15	E B 16	E B 16	A A 46	39	A A 91	A A 122	A A 72	A A 74	A A 73	35	38	40	30	46	33	33	21	18	24	16
4	20	18	24	21	18	18	24	32	38	36	38	G 29	36	41	44	A A 96	33	A A 54	39	A A 172	23	A A 143	28	20
5	A A 55	A A 56	A A 56	22	E B 14	22	36	A A 58	A A 110	42	A A 81	A A 90	A A 143	A A 145	35	36	A A 88	A A 105	A A 86	28	A A 64	26	23	19
6	26	A A 88	24	E B 15	E B 14	18	25	G 25	40	A A 79	A A 81	A A 59	A A 53	69	38	A A 122	39	A A 91	27	27	29	A A 80	22	19
7	20	23	22	17	E B 15	22	27	29	32	35	36	G 26	40	38	36	35	40	G 22	26	16	56	18	25	E B 15
8	E B 16	E B 15	E B 15	17	E B 14	A A 61	A A 57	A A 47	A A 41	33	42	A A 92	A A 108	A A 97	36	A A 50	A A 100	28	22	A A 72	29	24	A A 68	27
9	E B 15	27	E B 15	18	16	A A 44	A A 51	29	A A 57	A A 64	A A 103	A A 52	A A 66	A A 56	41	A A 57	31	31	23	34	18	24	19	22
10	E B 15	16	E B 16	16	16	E B 15	24	27	33	34	44	35	35	37	A A 54	A A 52	34	43	30	34	35	26	25	A A 57
11	E B 15	25	E B 15	16	A A 47	18	G 19	30	35	42	A A 90	A A 174	A A 176	A A 97	A A 70	A A 62	40	26	23	17	22	21	36	E B 15
12	E B 15	E B 15	E B 15	E B 14	E B 15	16	23	28	36	41	41	A A 98	37	46	40	G 26	32	35	26	A A 64	22	26	34	26
13	20	E B 15	17	16	E B 15	E B 15	31	A A 48	44	34	47	A A 72	38	44	44	40	39	38	A A 57	19	30	21	E B 15	16
14	19	17	E B 15	E B 15	E B 15	16	26	27	33	42	43	39	A A 53	38	G 28	37	37	30	26	20	E B 15	19	16	E B 15
15	25	16	E B 15	E B 16	17	18	G 30	49	38	46	40	A A 91	A A 54	34	34	32	31	20	18	20	25	20	30	
16	25	16	16	17	E B 14	16	G 19	29	40	36	G 30	54	A A 55	A A 56	A A 56	32	31	28	17	20	20	20	22	22
17	21	E B 15	19	22	16	18	32	A A 65	54	38	G 30	G 30	G 27	38	38	G 28	32	28	50	23	25	20	E B 15	E B 16
18	E B 14	E B 15	E B 16	E B 15	E B 14	15	25	30	62	45	40	A A 59	A A 61	A A 74	A A 66	A A 76	A A 90	38	44	A A 70	20	23	15	E B 15
19	22	E B 15	24	22	17	18	23	28	32	35	39	37	39	44	35	42	31	25	21	E B 14	16	E B 15	18	16
20	16	E B 15	26	E B 14	E B 15	E B 14	22	A A 48	A A 58	35	A A 60	39	A A 51	41	A A 93	36	33	48	32	26	29	E B 15	18	E B 15
21	E B 15	E B 15	E B 15	E B 15	E B 15	E B 14	22	40	G 28	G 27	G 29	39	40	44	46	40	41	25	25	20	56	28	22	E B 15
22	32	18	E B 15	16	19	17	32	A A 94	A A 116	A A 96	A A 56	A A 144	A A 98	A A 75	A A 45	42	32	40	27	33	29	20	24	26
23	19	16	16	21	16	17	A A 68	36	31	36	G 32	G 33	37	42	41	34	32	36	33	44	34	25	29	29
24	19	E B 15	17	E B 14	E B 14	E B 15	22	28	46	42	37	A A 46	G 28	G 32	G 28	34	33	35	42	32	E B 15	17	E B 16	16
25	E B 15	E B 15	22	16	18	18	31	35	43	A A 74	A A 110	36	45	44	32	36	37	46	A A 78	36	25	26	A A 79	27
26	26	17	20	E B 15	15	20	24	29	A A 76	A A 63	35	A A 91	A A 87	37	34	38	31	25	20	19	24	E B 15	33	33
27	E B 15	24	A A 56	17	22	23	26	32	46	45	44	A A 67	38	46	48	34	30	25	20	22	27	23	16	E B 16
28	28	24	16	E B 15	E B 14	26	34	31	38	36	38	38	G 32	G 29	37	32	37	G 21	18	24	19	25	18	24
29	16	16	E B 15	A A 42	E B 15	18	G 29	43	40	44	A A 60	45	36	40	32	30	36	A A 60	26	21	24	33	E B 15	
30	E B 14	E B 16	E B 15	E B 15	E B 15	E B 15	20	26	34	36	A A 82	53	38	38	34	34	40	42	47	40	43	E B 15	18	16
31	16	18	E B 15	E B 15	E B 15	E B 14	22	28	38	40	42	39	40	43	38	G 23	32	36	33	18	24	23	E B 14	E B 15
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MED	19	16	16	16	E B 15	18	25	30	41	40	42	50	45	44	38	36	33	35	27	26	24	23	22	16
U Q	22	23	22	18	17	20	32	A A 40	A A 54	A A 45	A A 60	A A 72	A A 66	A A 56	A A 46	A A 48	40	42	43	34	29	25	28	26
L Q	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	22	28	35	36	37	38	38	38	35	34	32	26	22	19	20	E B 18	18	E B 15

AUG. 2006 fbEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

AUG. 2006 fmin (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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	276	F	F	324	346	A	317	328	331	A	327	305	294	314	303	311	304	316	333	347	320	290	F	F
2	F	F	F	F	F	347	316	326	378	342	336	A	A	305	305	315	324	327	310	313	360	311	343	297
3	303	337	320	310	299	324	A	325	A	A	A	A	A	331	284	321	316	320	326	330	328	327	F	335
4	312	312	317	340	343	325	315	350	367	380	324	287	314	336	315	A	320	A	322	A	F	A	F	F
5	A	A	A	311	F	325	344	A	A	366	A	A	A	A	327	323	A	A	A	322	A	333	329	327
6	324	A	350	313	314	366	290	335	328	A	A	A	A	A	307	A	329	A	306	338	336	A	F	S 360
7	328	339	F	F	F	F	347	359	362	362	365	274	274	303	288	308	313	304	281	310	359	321	312	288
8	298	367	290	308	F	A	A	A	A	297	305	A	A	A	323	A	A	303	313	A	310	328	A	318
9	316	299	305	299	F	A	A	336	A	A	A	A	A	A	299	A	290	318	341	316	322	F	317	F
10	312	318	332	316	322	290	268	321	382	297	313	319	328	266	A	A	317	340	341	347	337	318	306	A
11	282	300	F	315	A	333	325	333	379	368	A	A	A	A	A	A	338	328	318	317	311	326	F	F
12	331	312	320	323	329	336	354	363	304	352	329	A	305	342	300	326	318	346	354	A	349	F	F	F
13	F	325	311	304	322	321	381	A	341	355	336	A	323	325	312	317	318	306	A	324	326	327	F	359
14	343	325	330	312	327	330	343	318	330	350	368	320	A	282	308	315	335	344	337	347	336	327	331	306
15	305	313	319	F	323	340	360	336	329	338	337	320	A	A	295	319	328	318	347	332	F	F	F	F
16	359	295	322	321	338	322	318	340	342	304	328	373	A	A	A	304	339	321	332	341	342	344	354	342
17	332	326	F	F	F	318	333	A	360	345	355	334	273	318	308	317	328	341	340	334	332	327	326	317
18	298	321	297	316	311	330	338	324	374	391	303	A	A	A	A	A	A	316	347	A	360	349	326	305
19	F	F	F	F	314	325	343	395	338	341	334	324	330	322	324	340	336	368	340	312	322	308	301	F
20	278	298	286	289	290	339	346	A	A	329	A	278	A	313	A	316	290	311	314	328	310	313	301	302
21	F	F	F	F	F	F	288	348	356	350	355	312	292	307	315	326	322	322	311	339	352	315	300	F
22	F	F	297	F	329	293	280	A	A	A	A	A	A	A	A	307	326	313	329	288	F	316	312	323
23	322	315	284	321	308	281	A	344	261	328	315	R	269	322	319	319	318	324	325	314	326	318	336	316
24	306	316	314	339	314	343	319	326	347	345	372	A	318	306	323	318	304	335	325	323	344	331	356	F
25	F	F	F	340	321	329	347	372	351	A	A	317	315	336	345	338	331	335	A	321	351	F	A	F
26	F	313	311	312	343	337	346	346	A	A	355	A	A	333	334	364	349	319	321	312	315	307	F	F
27	F	312	A	322	333	302	367	334	346	352	344	A	319	332	331	326	327	291	307	322	357	334	326	295
28	295	304	312	301	326	334	376	367	357	320	328	343	330	305	313	339	357	333	340	306	292	314	F	F
29	353	308	318	A	313	316	348	371	362	358	361	A	327	312	335	334	330	327	A	326	317	311	F	F
30	F	F	F	F	316	317	321	361	373	364	A	353	323	274	304	337	346	336	317	321	299	F	308	300
31	F 322	319	F	314	314	327	367	330	359	381	382	331	316	318	324	320	335	320	326	312	308	307	314	296
	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	22	19	22	23	26	27	25	24	24	22	15	17	22	25	24	28	28	27	27	27	24	18	17
MED	312	314	314	314	322	326	343	336	354	350	336	320	316	316	313	320	326	322	326	322	328	320	322	316
U Q	330	325	320	322	329	336	348	360	364	363	355	334	325	331	324	330	335	335	340	334	349	328	331	331
L Q	298	308	297	310	314	318	317	327	334	334	327	305	293	305	304	316	318	316	314	313	315	312	308	298

AUG. 2006 M(3000)F2 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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	UL 402	A	UL 402	UL 402	A	A	A	A	A	363						
2							L 380		A	A	A	A	A	UL 399	406	364	A	A	A					
3							A	A	A	A	A	A	A	UL 392	UL 359	A	UL 372	A	A					
4							UL 360	UL 377	UL 399	UL 447	UL 431	UL 427	UL 431	369	A	A	UL 364	A						
5							A	A	A	A	A	A	A	A	397	UL 376	A	A	A					
6							UL 357	UL 377	A	A	A	A	A	A	UL 390	A	A	A	UL 341			A		
7								384	414	415	UL 402	UL 409	UL 405	391	UL 388	375	A	UL 395	L 334					
8						A	A	A	A	UL 435	A	A	A	A	L	A	A	UL 385						
9						A	A	409	A	A	A	A	A	A	A	A	UL 377	UL 370	L					
10							UL 369	UL 404	UL 377	UL 397	A	UL 410	UL 420	UL 384	A	A	UL 392	A	A					
11							UL 362	386	UL 396	A	A	A	A	A	A	A	A	UL 373	L					
12							L	L 383	UL 390	A	A	A	UL 417	A	UL 402	UL 422	UL 375	A	A					
13							A	A	A	UL 403	A	A	UL 405	A	A	A	A	A	A					
14								UL 387	UL 401	A	A	UL 407	A	442	382	379	383	UL 377	A					
15								384	E A	429	E A	UL 428	A	A	UL 386	400	376	L	L					
16							UL 366	L 374	A	UL 415	UL 419	A	A	A	A	UL 380	UL 388	UL 361	L					
17								A	A	UL 396	418	UL 427	UL 410	UL 411	UL 394	372	L 368	L	A					
18								377	A	A	UL 413	A	A	A	A	A	A	A		A				
19							UL 369	L	UL 392	UL 401	UL 428	UL 408	UL 436	A	UL 391	A	UL 393	L						
20								A	A	UL 409	A	398	A	A	A	365	371	A						
21							L	A	L	UL 411	UL 405	UL 411	UL 397	A	A	A	A	L						
22							A	A	A	A	A	A	A	A	A	A	UL 388	A						
23							A	A	UL 410	UL 372	UL 418	UL 409	UL 392	A	A	UL 379	UL 365	A	A					
24							UL 360	UL 364	A	A	UL 384	A	UL 420	UL 419	UL 402	UL 374	UL 365	A	A					
25							A	A	A	A	A	UL 438	A	A	UL 431	L	A	A	A					
26								UL 374	A	A	UL 401	A	A	UL 402	391	A	L	UL 352						
27								L	A	A	A	A	UL 407	A	A	UL 390	UL 384		L					
28								L	L	UL 408	409	397	UL 401	UL 392	UL 351	UL 369	A	L						
29								L	A	A	A	A	A	UL 394	A	UL 369	UL 357	A	A					
30							L	UL 381	UL 395	UL 408	A	A	UL 398	UL 386	UL 402	UL 361	A	A	A					
31								UL 374	UL 385	A	A	UL 438	UL 403	A	UL 380	UL 358	L							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							7	16	11	14	12	14	14	12	16	16	16	8	2					
MED							UL 362	L 380	UL 396	UL 408	UL 411	UL 410	UL 406	UL 393	UL 391	UL 374	UL 376	UL 372	L 338					
U Q							UL 369	385	UL 402	UL 415	UL 418	UL 427	UL 420	UL 406	UL 402	UL 380	UL 386	UL 381						
L Q							UL 360	UL 376	UL 390	UL 401	UL 402	407	UL 401	388	UL 384	UL 367	UL 366	UL 362						

AUG. 2006 M(3000)F1 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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						A		308	288	A	286	356	380	320	302	306	306	272						
2							300	320	252	282	304	A	A	362	372	318	302	266	E A 308					
3							A	E A 320	A	A	A	A	A	318	430	320	314	E A 320	272					
4							318	260	242	238	322	376	360	322	358	A	322	A						
5							284	A	A	242	A	A	A	A	330	326	A	A	A					
6							398	290	296	A	A	A	A	A	352	A	304	A	328			A		
7								276	256	264	272	362	400	366	416	314	294	282	336					
8						A	A	A	A	424	370	A	A	A	286	A	A	294						
9						A	A	296	A	A	A	A	A	A	388	A	386	326	268					
10							492	306	240	398	364	340	354	484	A	A	336	E A 276	258					
11							320	300	238	262	A	A	A	A	A	A	292	296	298					
12							268	272	384	282	344	A	364	310	348	312	320	274	238					
13							238	A	E A 314	270	E A 290	A	332	342	E A 336	344	334	334	A					
14								352	300	262	250	346	A	418	368	324	306	284	244					
15								312	E A 308	304	304	342	A	A	400	322	300	298	262					
16							350	280	276	376	298	240	A	A	A	364	306	312	276					
17								A	E A 262	300	284	312	486	356	364	314	286	262	E A 266					
18								308	244	228	360	A	A	A	A	A	A	296		A				
19							256	226	308	296	312	338	312	326	298	270	270	248						
20								A	A	340	A	396	A	370	A	344	408	E A 322						
21							310	264	274	270	272	370	434	348	330	300	302	292						
22							422	A	A	A	A	A	A	A	A	380	320	E A 316						
23							A	E A 286	492	382	374	R	466	352	352	344	326	294	284					
24							332	308	292	298	268	a	350	384	328	330	350	286	E a 280					
25							276	226	262	A	A	354	338	300	294	282	296	E A 304	A					
26								278	A	A	266	A	A	300	300	254	272	342						
27								298	260	280	262	A	344	314	E A 314	302	276		292					
28								256	262	308	286	292	302	358	326	264	258	266						
29								244	262	270	266	A	310	338	304	292	284	268	A					
30							320	256	238	264	A	E A 300	318	428	352	292	278	E A 272	E A 298					
31								312	256	236	242	310	334	330	326	302	272							
	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	25	24	24	22	15	17	22	25	24	28	26	16					
MED							318	288	262	281	287	342	350	345	336	314	303	286	272					
U Q							350	308	298	306	322	362	390	366	366	328	321	312	298					
L Q							276	262	254	263	268	310	325	320	309	296	285	272	264					

AUG. 2006 h'F2 (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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 274	E B 294	E A 296	E A 262	218	A	E A 246	A	210	A	H 180	190	A	A	A	A	A	214	224	216	202	E B 270	E A 270	E A 360
2	E A 246	E A 300	E B 278	E A 254	230	192	E A 250	228	A	A	A	A	A	208	204	216	A	A	A	234	208	E A 234	226	E A 298
3	E A 302	E A 240	E A 252	E A 262	E B 258	E B 250	A	A	A	A	A	A	A	200	E A 284	A	212	A	A	E A 254	226	228	E A 254	E A 234
4	E A 274	E A 284	E A 300	E A 250	206	224	214	236	222	H 184	H 180	H 176	176	E A 244	A	A	E A 244	A	E A 274	A	230	A	E A 260	E A 324
5	A	A	A	E A 308	E B 248	E A 256	A	A	A	A	A	A	A	A	206	E A 254	A	A	A	E A 252	A	230	238	226
6	E A 248	A	E A 232	E B 256	E B 254	214	226	204	A	A	A	A	A	A	200	A	A	A	202	226	214	A	E A 266	230
7	E A 252	E A 274	E A 258	E A 282	236	224	204	200	186	190	H 182	H 182	210	216	206	210	A	192	E A 270	262	218	238	230	E B 288
8	E B 274	222	E B 274	E A 298	E B 282	A	A	A	A	188	A	A	A	A	208	A	A	198	216	A	E A 296	E A 254	A	E A 298
9	240	E A 316	E B 276	E A 314	E A 270	A	A	190	A	A	A	A	A	A	A	A	224	E A 246	E A 230	E A 276	234	E A 286	E A 260	E A 210
10	E B 262	E A 270	236	E A 246	E A 278	E B 262	222	198	224	202	A	202	194	222	A	A	210	A	A	228	E A 254	E A 262	E A 332	A
11	E B 316	E A 322	E B 264	E B 262	A	242	218	208	208	A	A	A	A	A	A	A	A	206	234	250	232	E A 260	E A 266	E B 258
12	220	E B 252	E B 258	E B 248	224	E A 246	212	196	222	A	A	A	202	A	214	216	220	A	A	A	220	E A 274	E A 338	E A 272
13	E A 240	242	E A 304	E A 308	E B 270	E B 238	A	A	A	198	A	A	220	A	A	A	A	A	A	E A 252	E A 248	224	216	200
14	218	E A 248	E B 248	E B 260	236	234	218	196	198	A	A	212	A	192	194	224	224	224	A	212	206	218	222	E B 268
15	E A 344	E A 278	E B 264	E B 256	E A 244	220	212	210	A	H 188	A	190	A	A	214	204	218	220	230	228	230	E A 276	246	238
16	230	E A 292	E A 266	E A 266	222	230	208	210	A	188	188	A	A	A	A	194	204	206	230	234	230	212	208	218
17	E A 258	236	E A 332	E A 290	E A 278	E A 252	E A 234	A	A	206	H 168	204	214	192	194	208	E A 238	218	A	232	230	228	224	226
18	E B 266	236	E B 276	E B 276	E B 268	236	222	214	A	A	202	A	A	A	A	A	A	A	230	A	210	224	224	E B 262
19	E A 336	E B 262	E A 306	E A 310	E A 268	E A 260	226	204	192	200	196	210	192	A	200	A	210	210	222	230	234	E B 252	E A 254	234
20	E A 312	E B 278	E A 358	E B 312	E B 284	230	226	A	A	204	A	214	A	A	A	E A 250	236	A	E A 260	E A 258	E A 266	240	E A 262	E B 266
21	E B 280	E B 294	E B 294	E B 304	E B 286	E B 276	232	A	190	176	H 176	198	220	A	A	A	A	214	E A 254	222	230	E A 250	E A 274	E B 278
22	E A 336	E A 314	E B 254	240	E A 254	E A 272	A	A	A	A	A	A	A	A	A	A	206	A	E A 270	E A 346	E A 302	E A 256	E A 272	E A 268
23	E A 260	E A 244	E A 318	E A 310	E A 290	E A 318	A	A	H 188	200	200	194	216	A	A	218	228	A	A	E A 284	E A 266	E A 256	E A 254	E A 308
24	E A 274	E B 258	E A 272	212	E B 232	240	210	H 188	A	A	232	A	210	H 194	H 190	214	234	A	A	E A 256	216	214	194	E A 308
25	E B 262	E B 284	E A 274	E A 240	E A 272	E A 270	A	A	A	A	A	H 172	A	A	H 176	E A 248	A	A	A	E A 256	216	E A 270	A	E A 334
26	E A 246	E A 258	E A 294	E B 252	216	E A 246	240	226	A	A	188	A	A	H 186	202	A	214	190	H E A 246	E A 256	E A 254	E B 258	E A 294	E A 274
27	200	E A 308	A	226	E A 286	E A 292	214	212	A	A	A	A	206	A	A	216	204	208	E A 232	240	224	220	214	E B 280
28	E A 320	E A 292	E A 266	E B 268	228	E A 262	210	220	E A 236	196	204	222	190	206	E A 248	220	A	H 200	232	E A 258	E A 292	E A 266	E A 250	E A 270
29	214	E A 244	E B 256	A	E B 250	E A 282	224	224	A	A	A	A	A	H 186	A	214	212	A	A	E A 240	222	E A 254	E A 284	230
30	244	244	E B 266	230	E B 264	E B 258	220	206	218	192	A	A	208	210	190	E A 258	A	A	A	E A 268	E A 300	220	E A 252	E A 250
31	218	E A 240	242	E B 254	E B 262	242	220	202	220	A	A	194	208	A	212	H 184	214	E A 234	E A 252	234	E A 262	E A 262	244	E B 254
	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	29	30	30	28	23	20	13	14	12	14	14	12	17	17	18	15	18	27	30	29	29	30
MED	E A 261	E A 270	E A 272	E A 262	E 256	E 246	219	207	209	194	188	196	208	200	202	213	214	208	226	U 233	222	E 252	E A 254	E 267
U Q	E A 280	E A 293	E A 295	E A 298	E A 272	E A 262	226	217	222	200	201	210	214	213	213	E A 236	228	220	E A 254	E A 258	E A 254	E A 262	E A 268	E A 288
L Q	240	244	E 257	250	232	232	212	199	191	188	H 180	H 190	194	192	194	209	210	200	230	230	218	226	225	234

AUG. 2006 h'F (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
2						B	110	A	A	A	A	A	A	A	A	108	114	A	A					
3						B	112	A	A	A	A	A	A	A	A	A	A	A	A					
4						B	A	116	A	A	A	112	A	118	122	114	116	A	A					
5						B	A	A	A	A	A	A	A	A	A	A	A	A	B					
6						B	122	120	A	A	A	A	A	A	116	A	A	A	A			A		
7						B	A	A	A	A	A	108	118	118	118	114	114	118	A					
8						B	A	A	A	A	A	A	A	A	116	A	A	A	A					
9						B	A	A	A	A	A	A	120	116	116	116	116	A	A					
10						B	114	122	A	A	A	A	A	A	A	A	A	A	A					
11							118	A	A	A	A	A	A	A	A	A	A	A	A					
12						B	A	A	A	A	A	A	A	A	A	122	118	A	B					
13						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
14						B	A	A	118	A	A	A	A	120	116	116	120	118	A					
15						B	112	A	A	A	A	A	A	A	A	114	112	114	A					
16						B	120	A	A	A	116	A	A	A	A	A	114	118	B					
17						B	A	A	A	A	114	114	114	114	A	122	118	A	B					
18						B	118	118	A	A	A	A	A	A	A	A	A	A	A	A				
19						B	120	116	114	114	114	120	118	A	A	A	A	124	B					
20						B	116	A	A	A	A	114	120	118	A	118	118	122	B					
21						B	114	A	120	114	116	118	122	122	A	A	A	A	B					
22						B	A	A	A	A	A	A	A	A	120	116	120	A	A					
23						B	A	A	A	A	116	116	A	118	118	116	118	A	A					
24						B	118	A	A	A	A	A	114	114	120	116	116	122	B					
25						B	A	A	A	A	A	A	A	A	A	116	118	A	A					
26						B	A	A	A	A	A	A	A	A	A	A	A	A	B					
27						B	124	124	120	A	A	A	118	A	A	112	118	112	B					
28						B	A	A	A	A	A	A	118	114	A	A	A	120	B					
29						B	128	A	A	A	A	A	A	A	116	116	116	A	A					
30						B	B	A	A	A	A	A	A	A	A	118	118	A	A					
31						B	116	122	A	A	A	A	A	A	A	116	120	A	A					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							15	7	4	2	5	7	9	10	10	17	18	9						
MED							118	120	119	114	116	114	118	118	117	116	118	118						
U Q							120	122	120		116	118	120	118	120	117	118	122						
L Q							114	116	116		114	112	116	114	116	114	116	116						

AUG. 2006 h'E (KM)

IONOSPHERIC DATA STATION Kokubunji

AUG. 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	100	100	100	98	100	108	106	106	104	98	104	102	100	100	100	98	96	98	96	96	96	102	100	98
2	94	90	88	104	90	B	132	100	98	94	96	96	94	92	92	118	116	100	98	98	98	100	100	100
3	98	90	92	90	B	B	114	106	102	102	100	96	96	100	96	96	96	90	94	92	92	102	100	96
4	96	94	94	96	90	92	106	124	94	100	102	100	106	126	126	114	114	104	104	102	104	104	104	102
5	98	98	100	104	100	114	106	102	100	100	96	94	94	92	102	102	104	104	102	102	104	102	100	98
6	96	94	94	94	94	90	140	100	104	98	100	100	104	100	108	100	102	94	98	96	96	106	108	106
7	98	100	100	100	100	102	102	102	104	104	102	102	150	142	136	142	112	106	100	102	94	96	106	114
8	112	106	118	106	100	108	106	106	102	106	106	102	108	104	112	102	98	100	98	90	90	102	100	100
9	100	96	98	88	92	104	104	102	106	104	98	104	114	114	112	114	114	102	98	102	106	102	96	94
10	94	94	94	100	102	106	116	116	102	102	102	106	108	100	100	100	100	98	92	90	90	90	104	102
11	98	96	102	102	100	102	102	104	102	100	100	96	96	96	96	96	94	92	94	94	102	104	100	108
12	B	B	B	B	B	104	106	106	100	100	98	98	98	96	100	102	120	106	108	102	104	104	104	100
13	98	96	94	94	94	B	104	102	100	100	100	96	96	94	92	92	90	96	98	102	102	102	102	100
14	100	102	102	106	104	102	102	102	112	104	104	110	104	156	104	132	120	112	96	88	92	86	84	116
15	106	100	106	102	102	100	G	106	102	100	100	100	96	98	98	130	118	112	90	90	90	104	104	104
16	104	106	104	100	104	102	102	100	102	100	102	94	94	94	98	98	120	114	106	98	100	98	100	100
17	104	102	100	102	100	108	102	100	96	102	96	94	96	134	94	98	118	102	100	94	96	96	92	88
18	B	100	94	B	B	100	124	114	104	102	102	100	100	100	98	96	92	110	114	104	108	104	104	104
19	100	126	100	100	100	96	118	114	120	120	116	122	116	106	106	102	108	120	106	106	102	96	102	100
20	94	96	96	96	118	114	116	104	104	104	106	130	126	114	106	122	134	114	104	102	96	104	104	86
21	100	100	112	100	98	B	120	96	102	102	102	144	146	122	106	106	106	104	106	102	96	94	94	90
22	98	98	102	128	106	118	106	102	96	96	104	96	106	106	120	108	118	102	100	100	98	100	96	90
23	122	112	126	114	108	112	98	98	100	100	102	102	98	128	120	124	120	104	100	100	92	94	94	94
24	98	B	92	B	B	B	110	102	102	100	100	96	96	100	106	156	136	120	102	108	108	104	98	98
25	98	94	94	94	94	118	106	98	102	96	92	94	98	96	96	128	122	104	100	100	102	102	102	102
26	96	98	94	126	112	114	136	106	102	100	102	96	96	96	92	96	94	94	94	118	120	108	104	98
27	102	98	98	96	94	94	122	124	114	108	104	98	112	104	104	116	114	124	88	86	96	96	112	B
28	94	92	98	100	B	112	106	102	104	100	100	100	104	100	98	102	102	108	110	110	110	102	102	102
29	108	100	96	90	96	96	G	106	106	108	102	98	98	96	110	122	116	104	102	120	110	98	98	B
30	94	96	92	112	112	B	112	106	104	100	94	100	102	108	106	120	110	102	102	100	102	B	96	98
31	96	92	90	86	B	B	132	120	106	102	100	100	100	102	104	104	122	104	102	100	98	98	98	104
	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	29	30	28	25	24	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	31	29
MED	98	98	98	100	100	104	106	104	102	100	102	100	100	100	104	104	114	104	100	100	98	102	100	100
U Q	101	100	102	104	104	112	119	106	104	104	102	102	108	114	108	122	120	110	104	102	104	104	104	103
L Q	96	94	94	95	94	100	104	102	100	100	100	96	96	96	98	98	100	100	96	94	96	96	98	97

AUG. 2006 h'Es (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 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

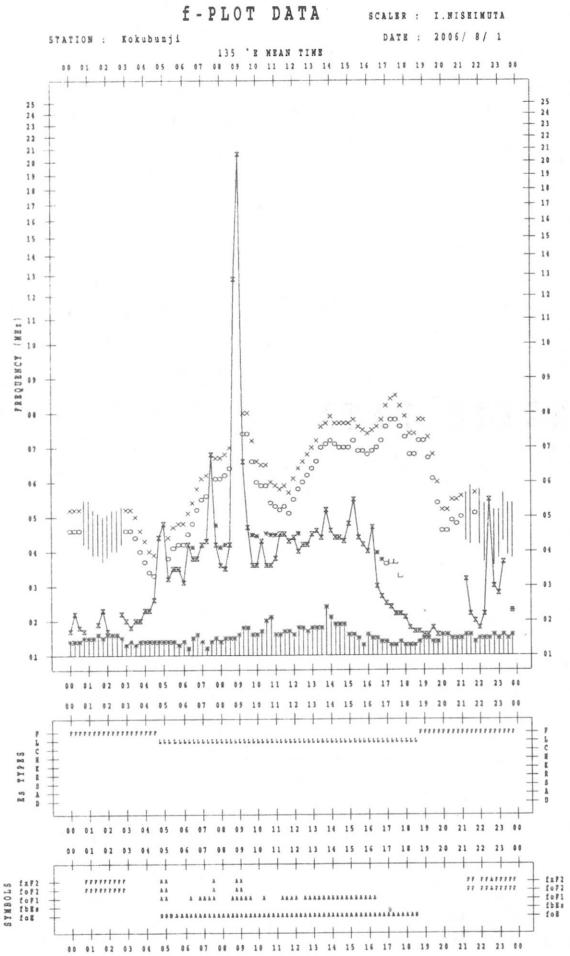
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F 2	F 2	F 2	F 2	F 3	L 5	L 3	L 3	L 2	L 3	L 2	L 2	L 2	L 3	L 3	L 3	L 3	L 3	L 3	F 3	F 1	F 2	F 3	F 3
2	F 4	F 3	F 2	FF 13	F 1		H 2	L 2	L 3	L 2	L 2	L 3	L 3	L 3	L 2	CL 12	CL 21	L 3	L 3	F 3	F 2	F 3	F 3	F 2
3	F 3	F 3	F 2	F 1			C 6	L 2	L 3	L 3	L 3	L 3	L 3	L 2	L 2	L 2	L 2	L 4	L 3	F 3	F 4	F 3	F 4	F 3
4	F 3	F 4	F 3	F 2	F 2	L 2	L 2	CL 12	L 2	L 2	L 1	L 1	L 2	CL 11	CL 21	CL 31	CL 21	L 3	L 3	F 4	F 3	F 5	F 5	F 4
5	F 5	F 4	F 5	F 3	F 3	C 3	L 3	L 3	L 3	L 2	L 3	L 3	L 3	L 3	L 2	L 2	L 4	L 5	L 6	F 4	F 5	F 6	F 4	F 4
6	F 4	F 4	F 3	F 2	F 2	L 2	HL 11	L 2	L 2	L 3	L 3	L 3	L 3	L 3	CL 11	L 4	L 3	L 3	L 3	F 3	F 2	F 4	F 4	F 4
7	F 3	F 4	F 4	F 3	F 2	L 3	L 2	L 2	L 2	L 2	L 2	L 2	HL 11	HL 11	HL 11	HL 11	CL 31	L 2	L 3	F 3	F 3	F 3	F 3	F 1
8	F 2	F 2	F 2	F 3	F 2	L 4	L 4	L 3	L 2	L 1	L 1	L 3	L 3	L 2	CL 11	L 3	L 3	L 2	L 5	F 3	F 3	F 3	F 5	F 3
9	F 3	F 3	F 2	F 2	F 2	L 4	L 4	L 2	L 2	L 3	L 3	L 2	CL 21	CL 21	CL 21	CL 31	CL 11	L 3	L 3	F 4	F 2	F 3	F 3	F 3
10	F 2	F 1	F 1	F 2	F 2	L 1	C 2	C 1	L 1	L 1	L 2	L 2	L 1	L 2	L 3	L 2	L 3	L 4	L 2	F 3	F 4	F 4	F 4	F 4
11	F 3	F 4	F 1	F 3	F 3	L 2	L 2	L 2	L 2	L 3	L 3	L 3	L 3	L 4	L 3	L 3	L 3	L 2	L 2	F 2	F 2	F 4	F 4	F 2
12						L 2	L 2	L 1	L 2	L 2	L 2	L 3	L 2	L 3	L 2	L 2	CL 21	L 2	L 3	F 5	F 2	F 3	F 4	F 4
13	F 3	F 3	F 4	F 2	F 1		L 4	L 3	L 3	L 2	L 3	L 3	L 2	L 3	L 2	L 3	L 4	L 3	L 5	F 4	F 5	F 2	F 1	F 2
14	F 3	F 2	F 1	F 1	F 2	L 3	L 2	L 1	CL 11	L 2	L 2	L 2	L 2	HL 11	L 2	HL 21	CL 22	CL 32	L 3	F 3	F 2	F 3	F 1	F 3
15	F 6	F 4	F 2	F 3	F 5	L 3		L 2	L 3	L 2	L 2	L 2	L 3	L 3	L 2	CL 21	CL 21	CL 22	L 3	F 4	F 3	F 3	F 3	FF 32
16	F 3	FF 22	FF 31	F 3	F 3	L 1	L 2	L 2	L 2	L 2	L 2	L 3	L 3	L 3	L 2	L 2	CL 12	CL 12	L 2	F 6	F 4	F 3	F 3	F 2
17	F 3	F 2	F 3	F 3	F 5	C 2	L 2	L 3	L 3	L 2	L 2	L 1	L 2	HL 11	L 2	L 2	CL 21	L 3	L 4	F 3	F 3	F 2	F 1	F 1
18		F 2	F 2			L 2	CL 21	CL 11	L 3	L 2	L 2	L 3	L 3	L 4	L 3	L 3	L 4	CL 33	CL 43	FF 45	FF 23	F 3	F 2	F 2
19	F 7	FF 23	F 3	F 3	F 3	L 3	CL 22	CL 12	CL 11	CL 11	CL 21	CL 11	CL 11	L 2	L 2	L 2	L 2	CL 22	L 3	F 1	F 3	F 2	F 6	F 4
20	F 3	F 2	F 5	F 2	F 2	C 1	C 2	L 4	L 3	L 2	L 3	CL 11	CL 21	CL 21	L 4	CL 22	CL 22	CL 52	L 4	F 3	F 3	F 1	F 3	F 2
21	F 2	F 2	F 1	F 2	F 2		C 1	L 3	L 2	L 2	L 1	HL 12	HL 11	CL 11	L 2	L 2	L 3	L 2	L 3	F 4	F 4	F 6	F 3	F 2
22	F 2	F 2	F 2	FF 23	F 6	C 2	L 3	L 4	L 3	L 3	L 2	L 3	L 3	L 3	CL 11	CL 21	CL 21	L 2	L 3	F 4	F 4	F 3	F 3	F 3
23	FF 62	FF 34	FF 32	F 4	F 2	C 2	L 5	L 3	L 2	L 1	L 2	L 1	L 2	CL 21	CL 21	CL 11	CL 21	L 3	L 3	F 4	F 3	F 3	F 2	F 3
24	F 3		F 2				C 2	L 2	L 2	L 2	L 2	L 3	L 2	L 2	L 2	HL 11	HL 21	CL 41	L 5	F 4	F 2	F 3	F 2	F 2
25	F 2	F 2	F 5	F 3	F 3	CL 41	L 3	L 3	L 3	L 3	L 3	L 2	L 3	L 2	L 2	CL 13	CL 11	L 2	L 5	F 5	F 3	F 3	F 5	F 5
26	F 4	F 3	F 3	FF 21	FF 21	C 2	CL 23	L 2	L 5	L 3	L 2	L 3	L 3	L 2	L 2	L 3	L 3	L 3	L 3	FF 21	FF 31	F 2	F 5	F 5
27	F 2	F 3	F 5	F 6	F 4	L 4	CL 33	CL 22	CL 22	L 2	L 2	L 2	CL 21	L 3	L 3	CL 12	CL 11	CL 11	L 3	F 4	F 4	F 2	FF 11	
28	F 3	F 3	F 2	F 2		C 4	L 3	L 3	L 2	L 2	L 1	L 2	L 2	L 1	L 2	L 2	L 3	L 2	L 3	F 4	F 3	F 3	F 3	F 3
29	FF 23	F 3	F 2	F 4	F 3	L 3		L 2	L 2	L 2	L 2	L 3	L 2	L 2	CL 21	CL 21	CL 31	L 4	L 5	FF 32	FF 23	F 4	F 4	
30	F 2	F 2	F 2	FF 21	F 2		C 2	L 1	L 1	L 1	L 3	L 2	L 2	L 2	L 2	CL 11	CL 32	L 3	L 4	F 3	F 6		F 3	F 2
31	F 3	F 4	F 2	F 1			H 2	CL 21	L 2	L 2	L 3	L 2	L 2	L 2	L 2	L 2	CL 11	L 4	L 3	F 3	F 3	F 3	F 2	F 1
	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																								

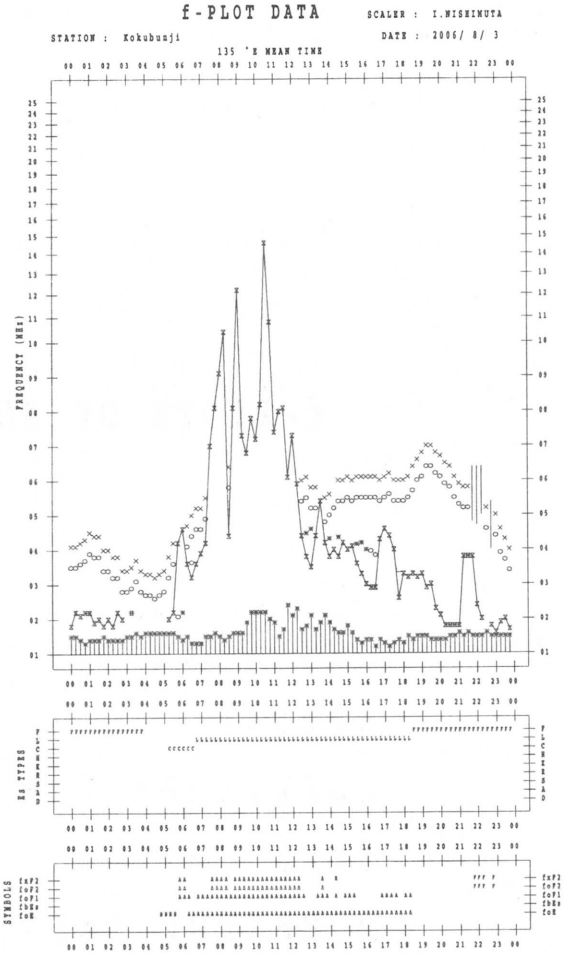
AUG. 2006 TYPES OF Es

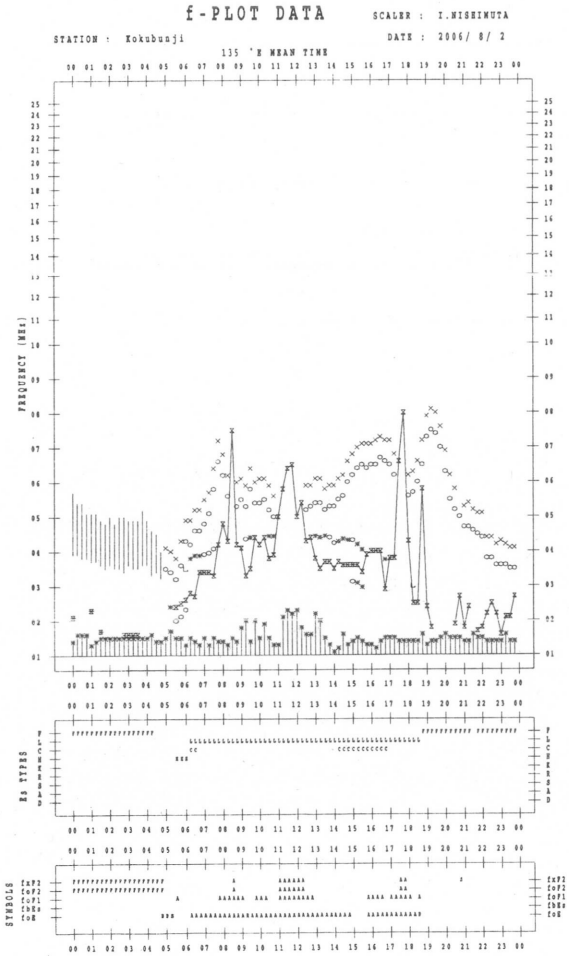
NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

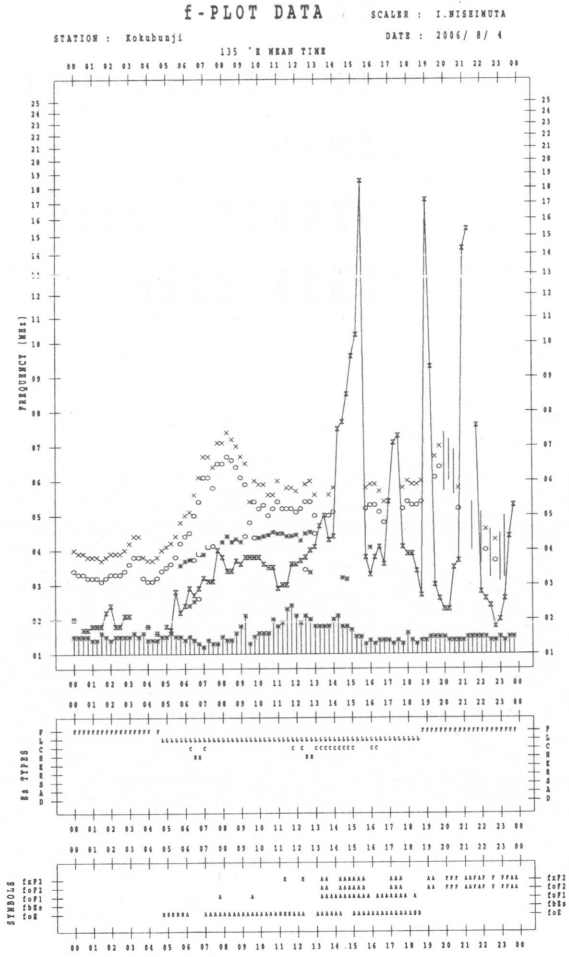
f-PLOTS OF IONOSPHERIC DATA

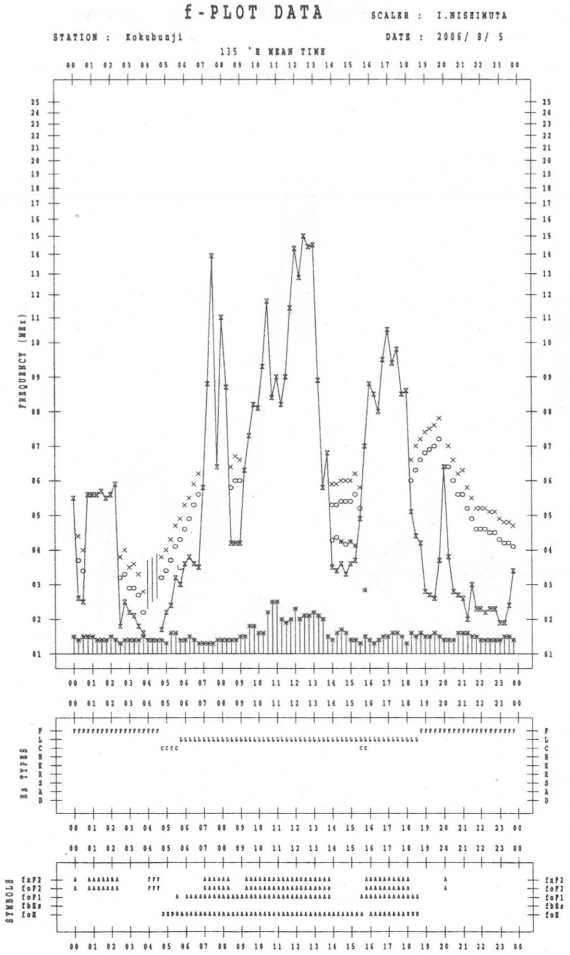
KEY OF f-PLOT	
	SPREAD
	foF2, foF1, foE
	fxF2
	DOUBTFUL foF2, foF1, foE
	fbEs
	ESTIMATED foF1
	fmin
	GREATER THAN
	LESS THAN

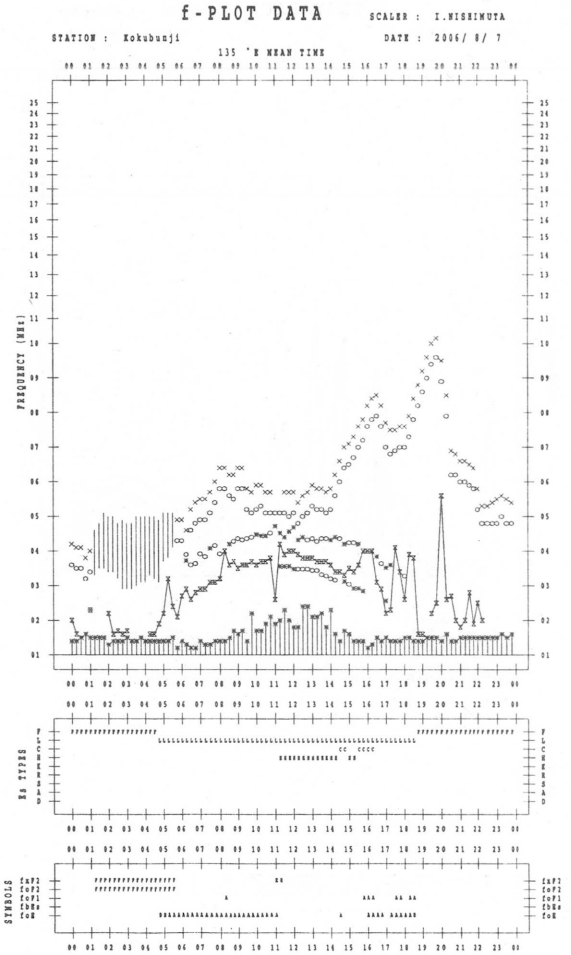

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 1
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

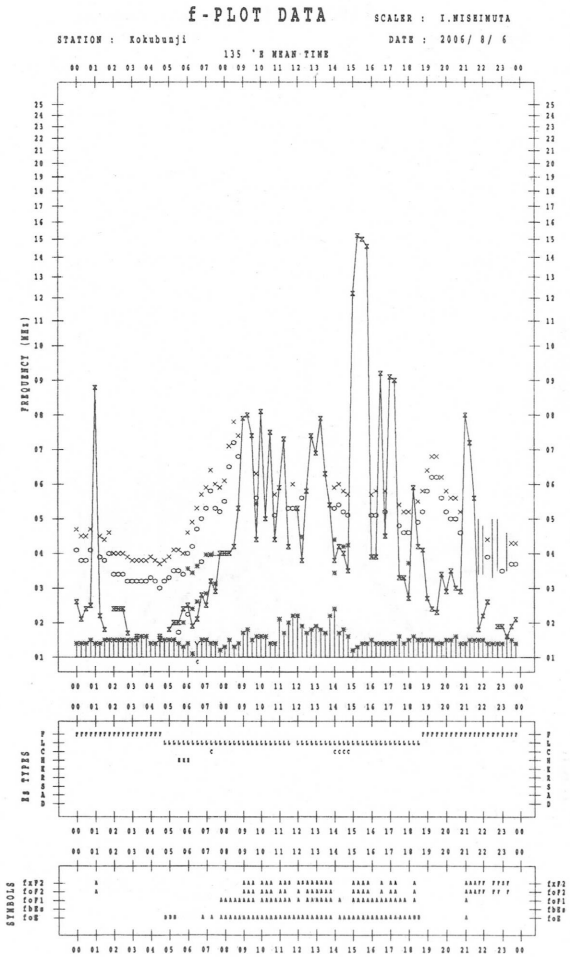

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 3
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

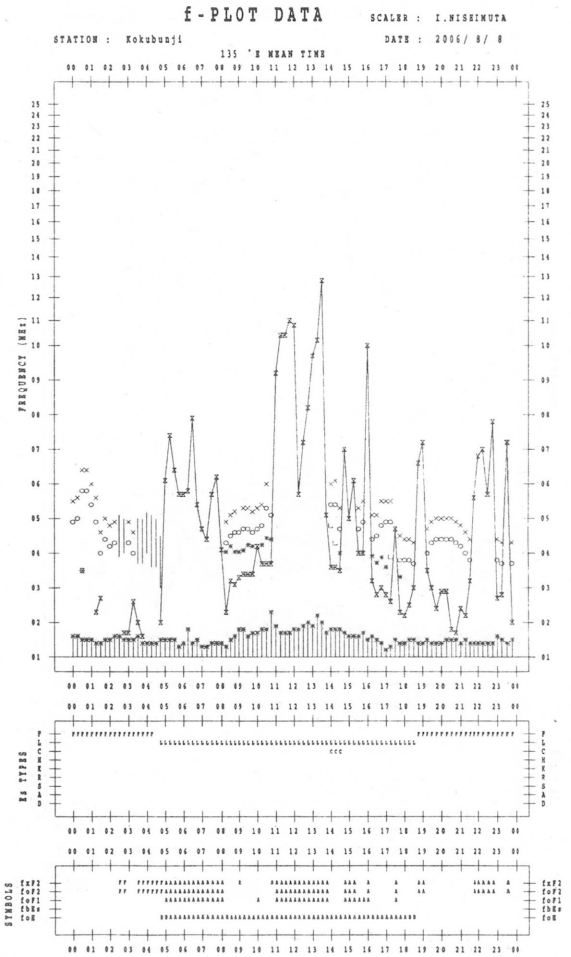

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 2
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

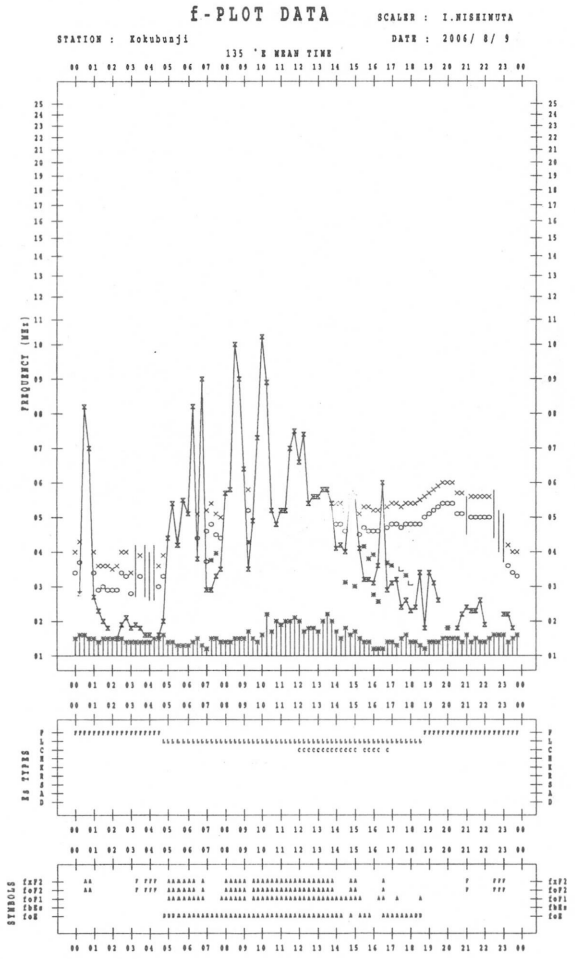

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 4
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

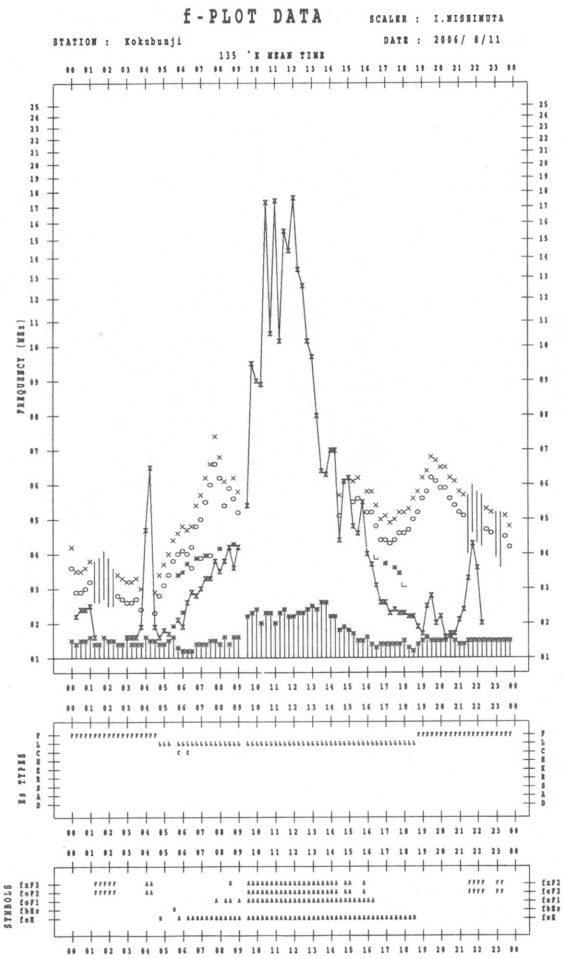

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 5
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

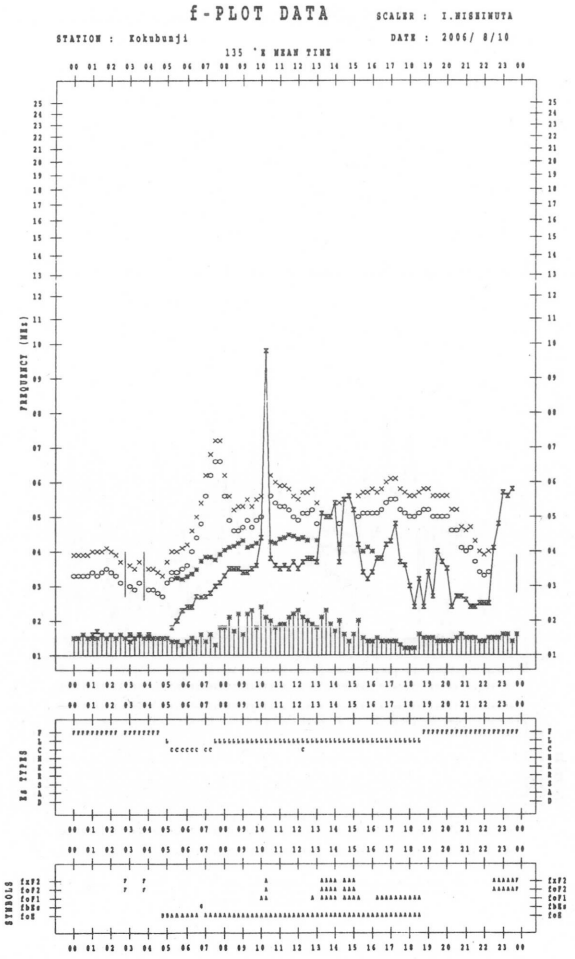

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 7
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

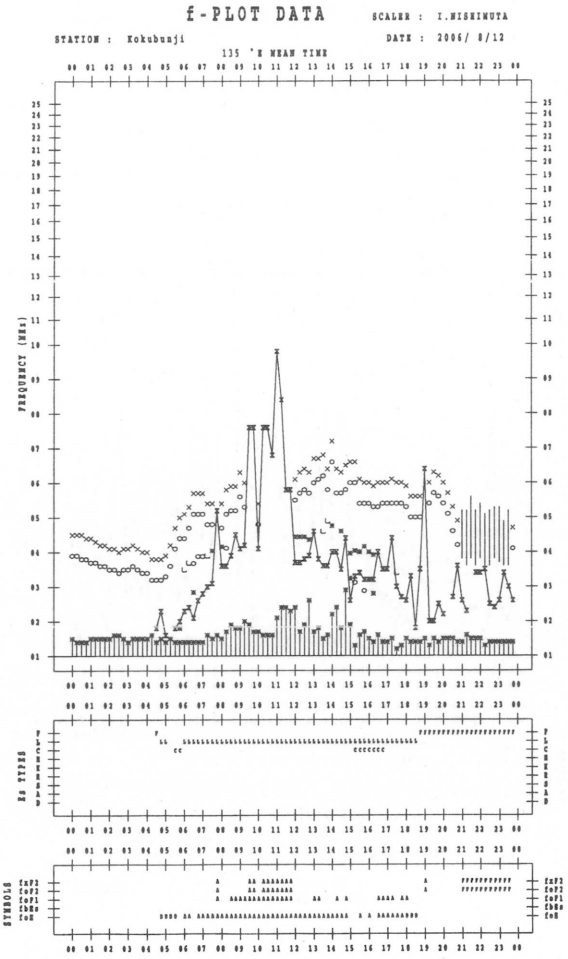

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 6
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

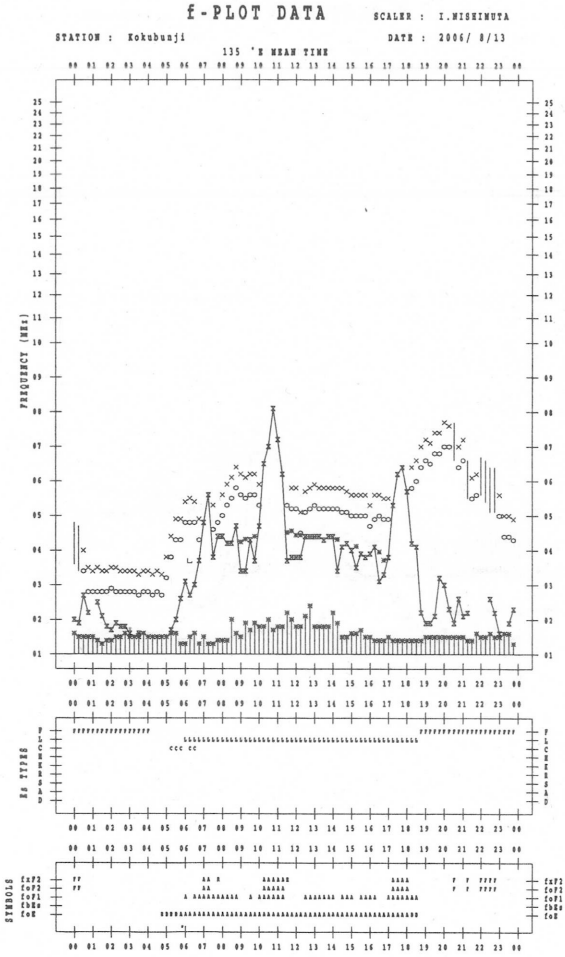

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 8
135 'E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

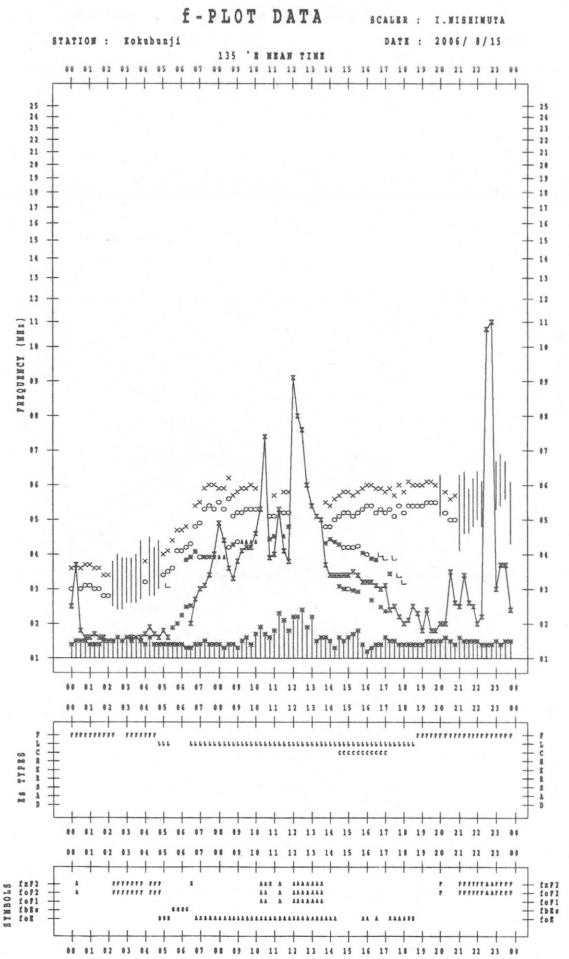

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/ 9
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

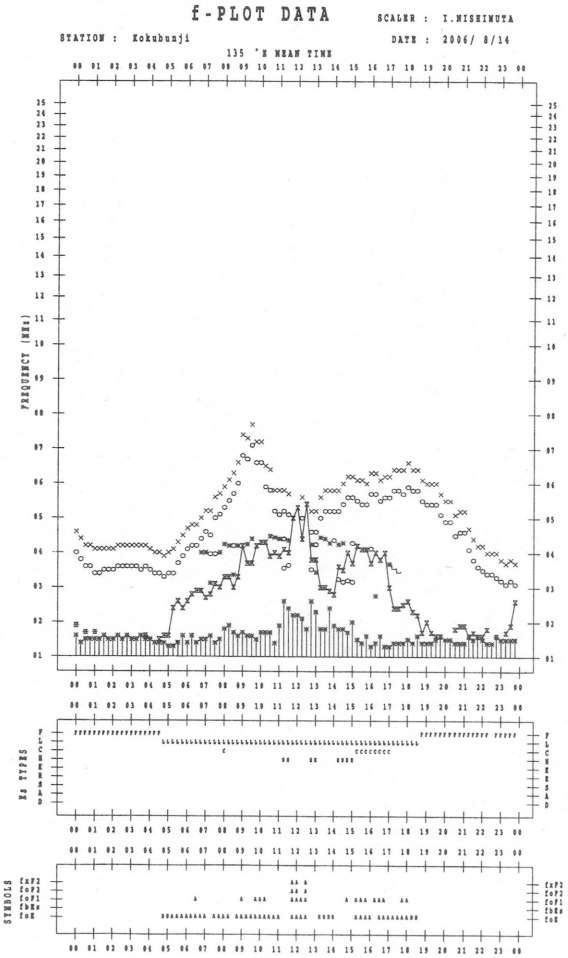

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/11
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

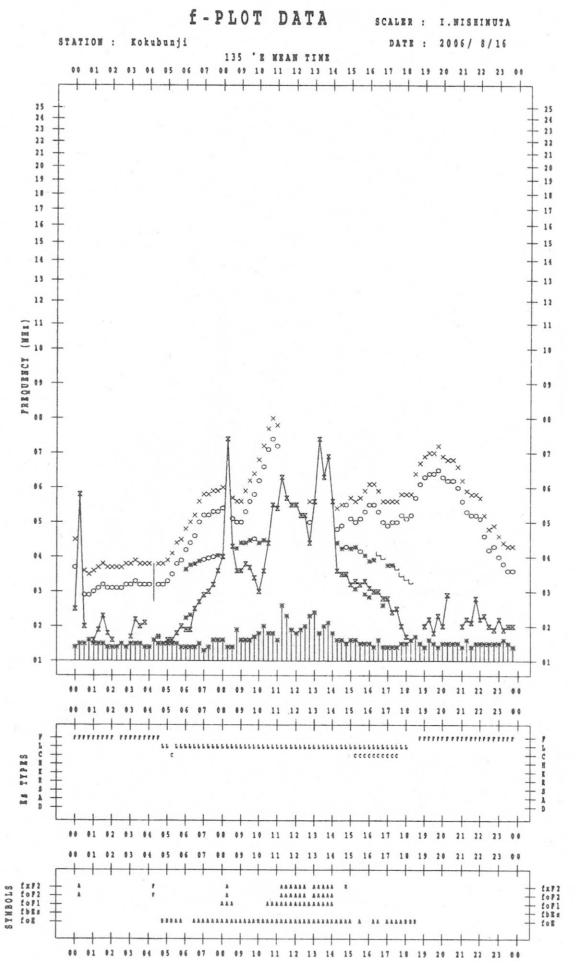

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/10
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/12
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/13
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/15
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/14
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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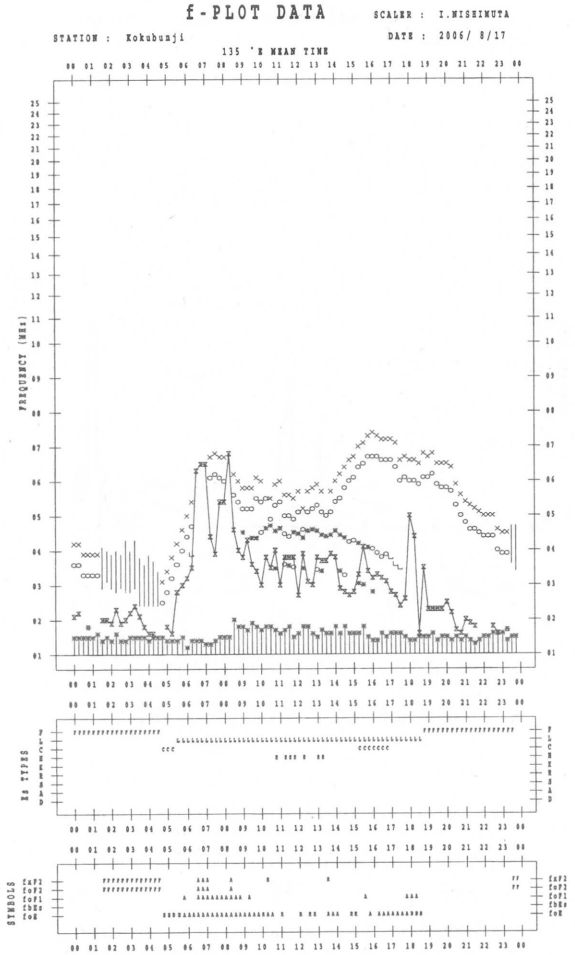
STATION : Kokubunji
DATE : 2006/ 8/16
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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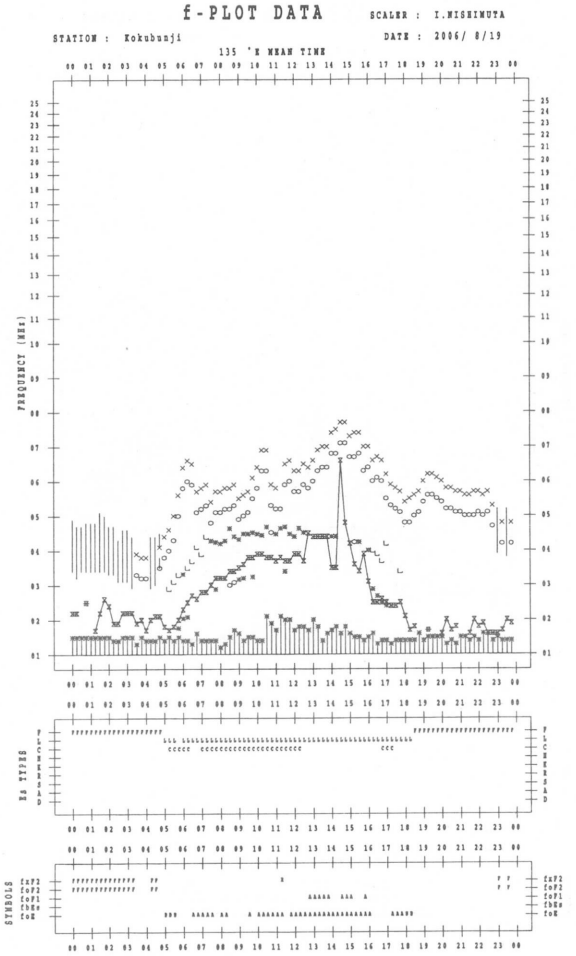
STATION : Kokubunji
DATE : 2006/ 8/17
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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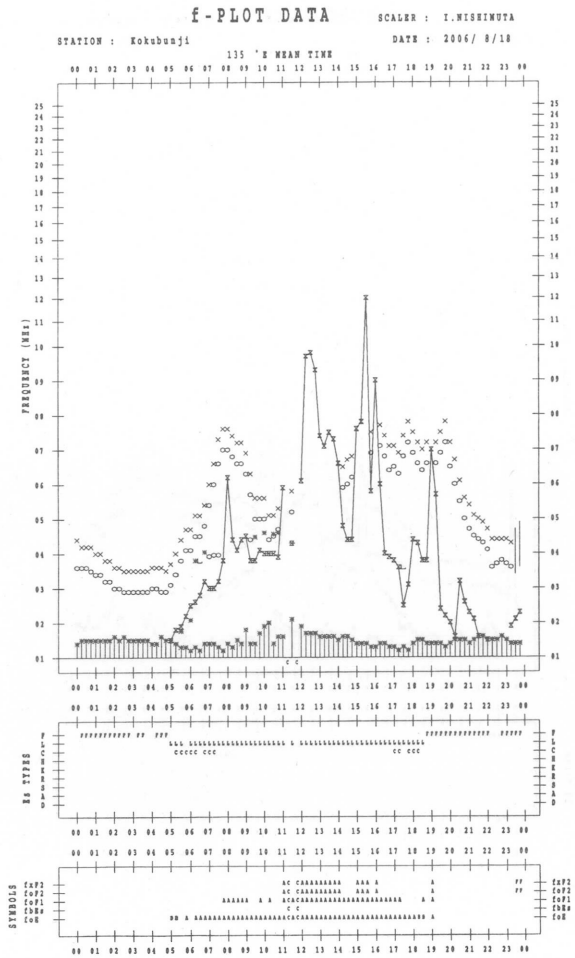
STATION : Kokubunji
DATE : 2006/ 8/19
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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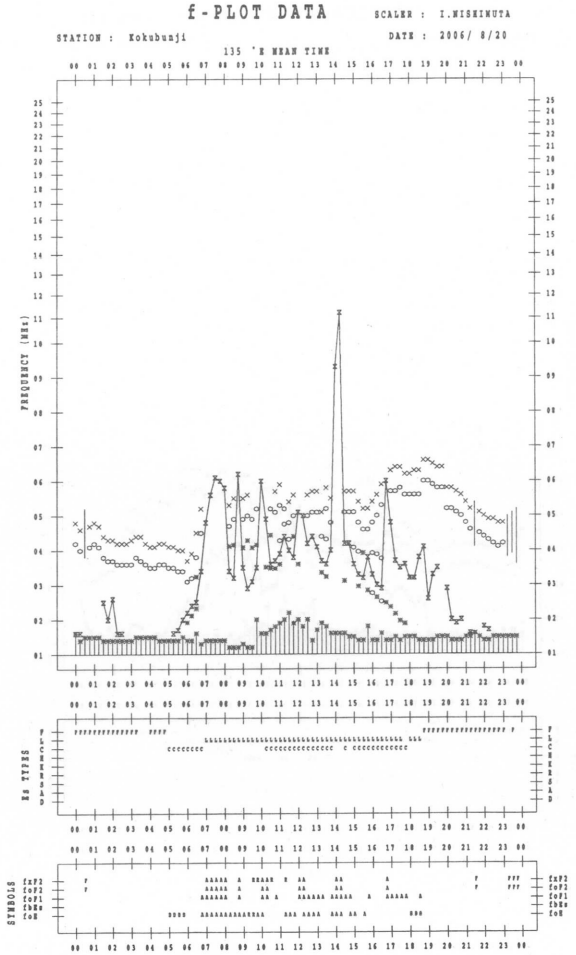
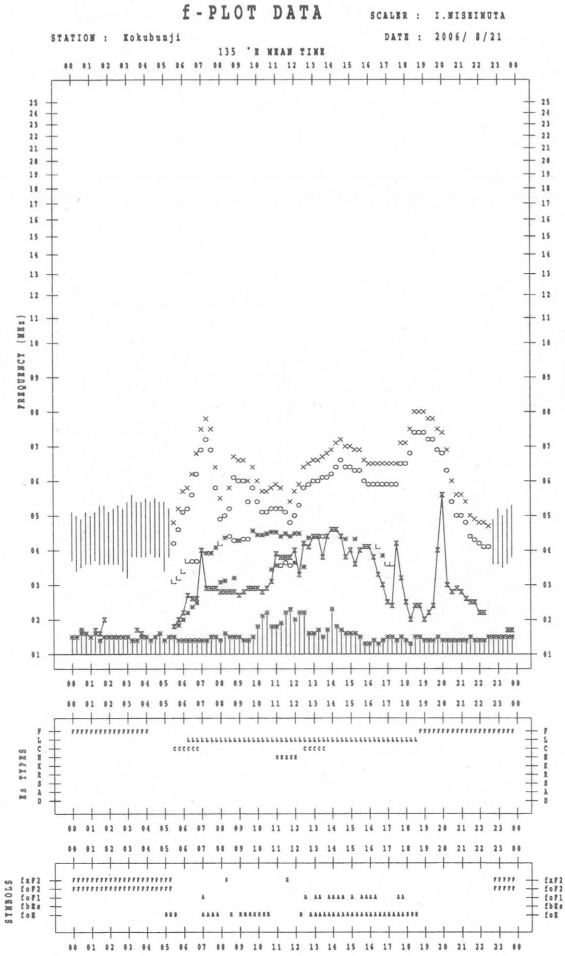
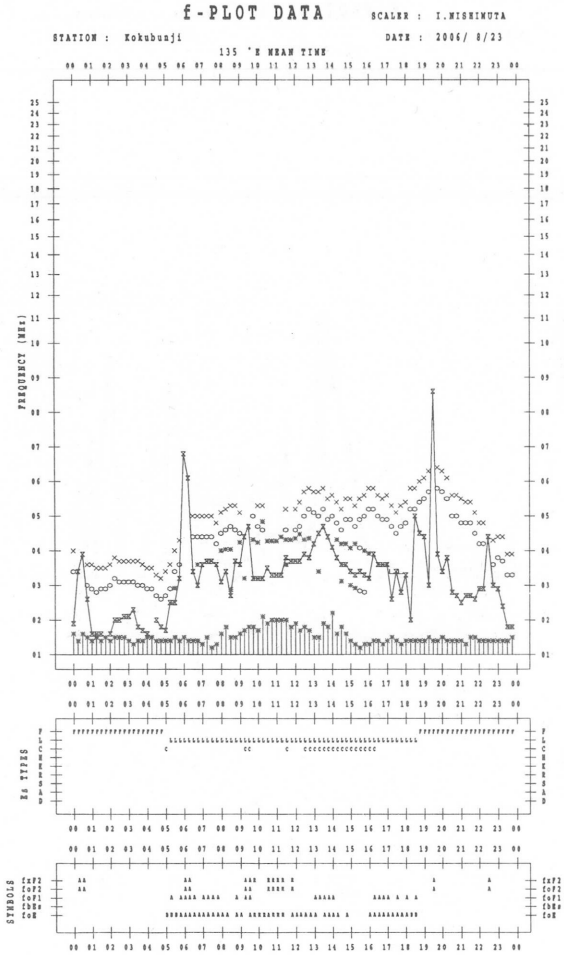
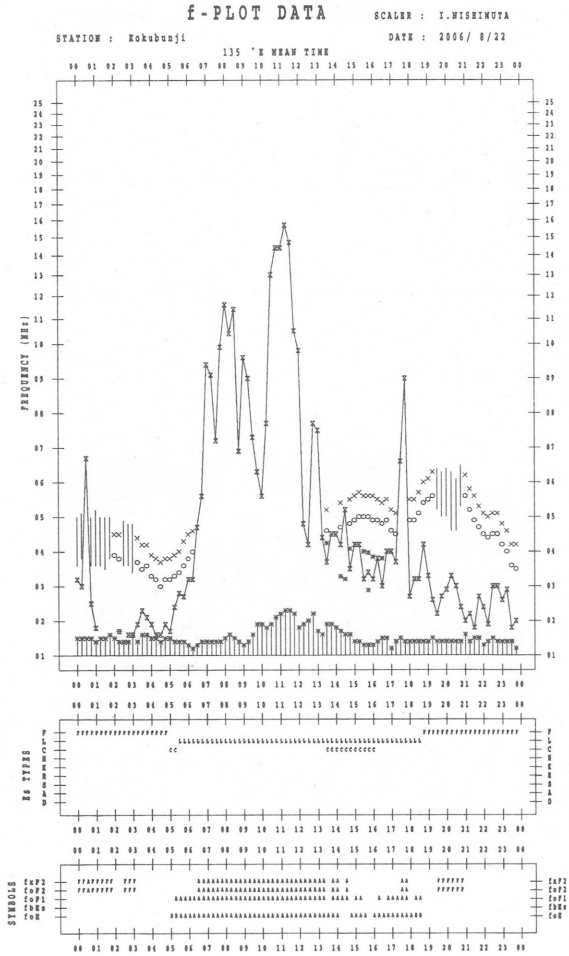
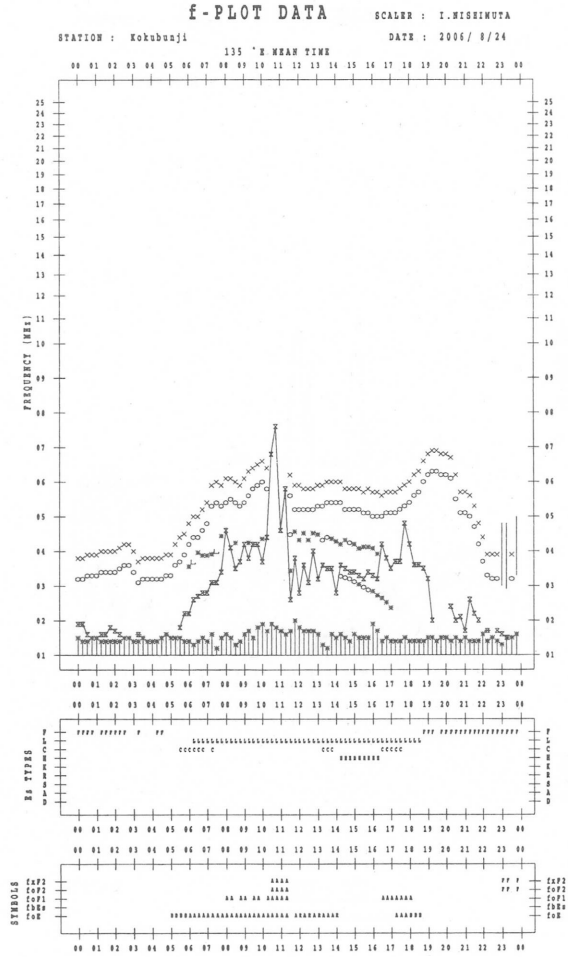
STATION : Kokubunji
DATE : 2006/ 8/18
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/20
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/21
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/23
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/22
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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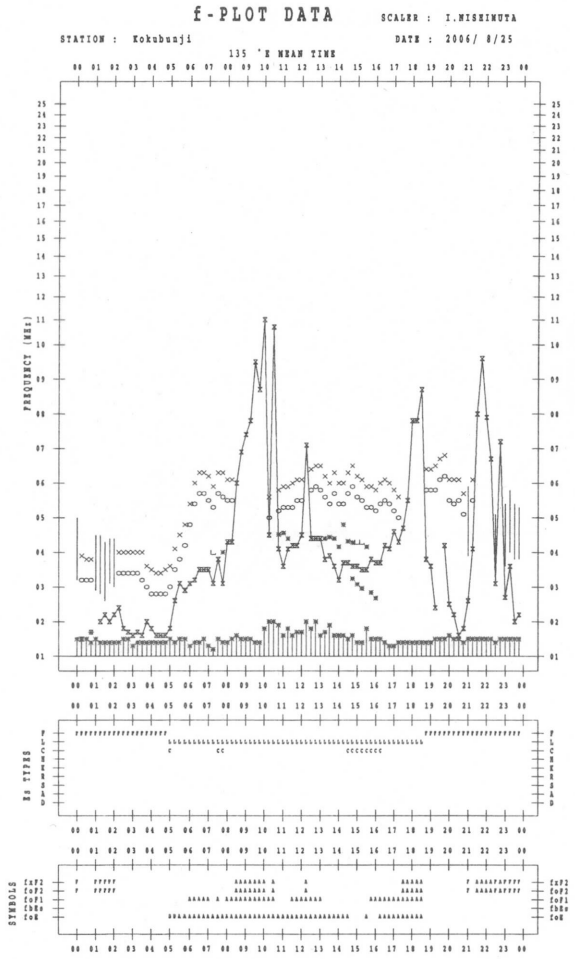
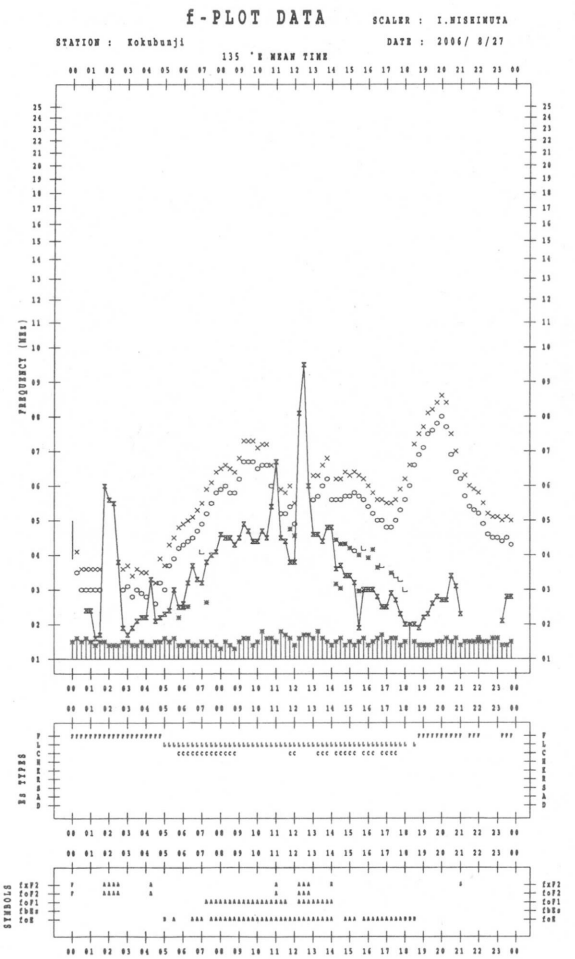
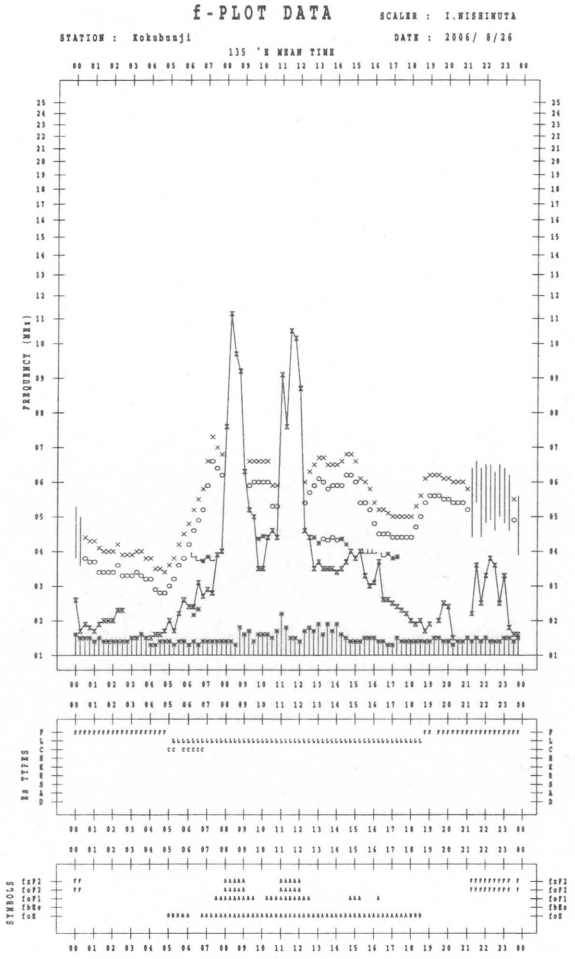
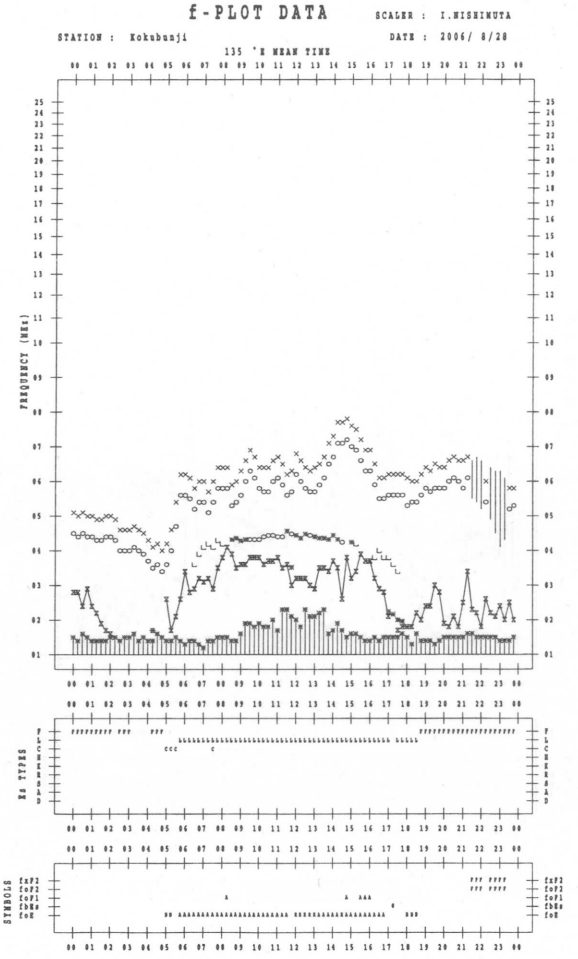
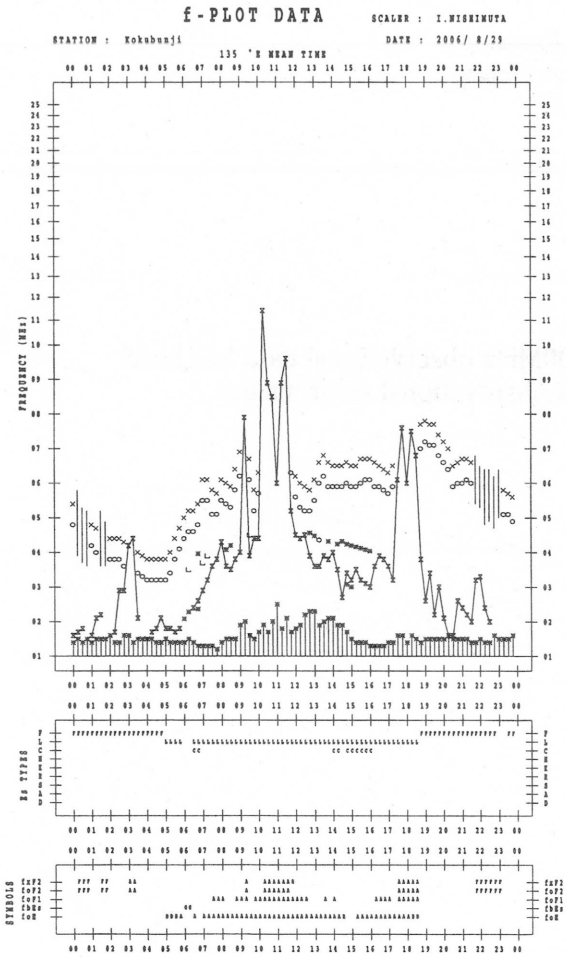
STATION : Kokubunji
DATE : 2006/ 8/24
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

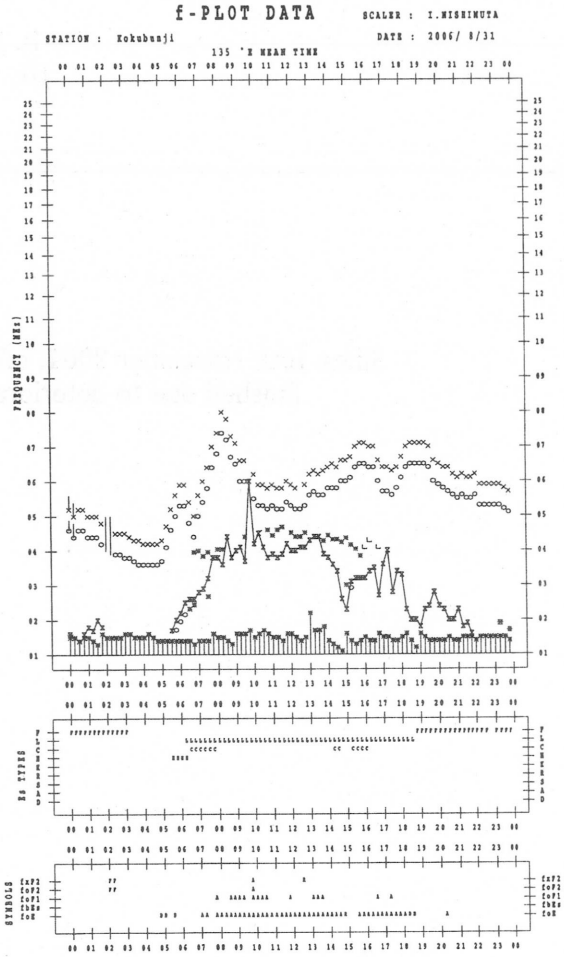

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/25
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

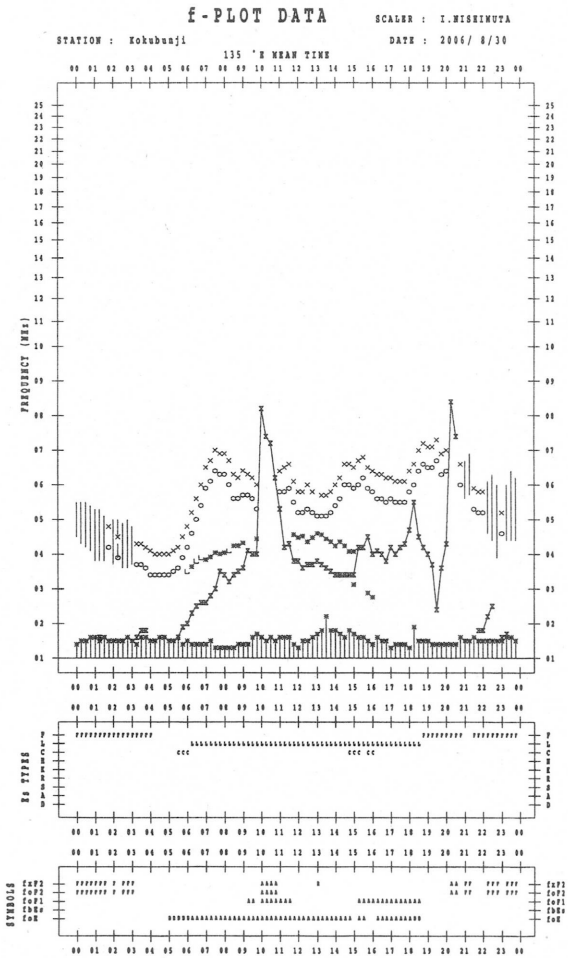

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/27
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/26
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/28
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/29
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/31
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 8/30
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

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

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

B. Solar Radio Emission
B2.Outstanding Occurrences at Hiraiso

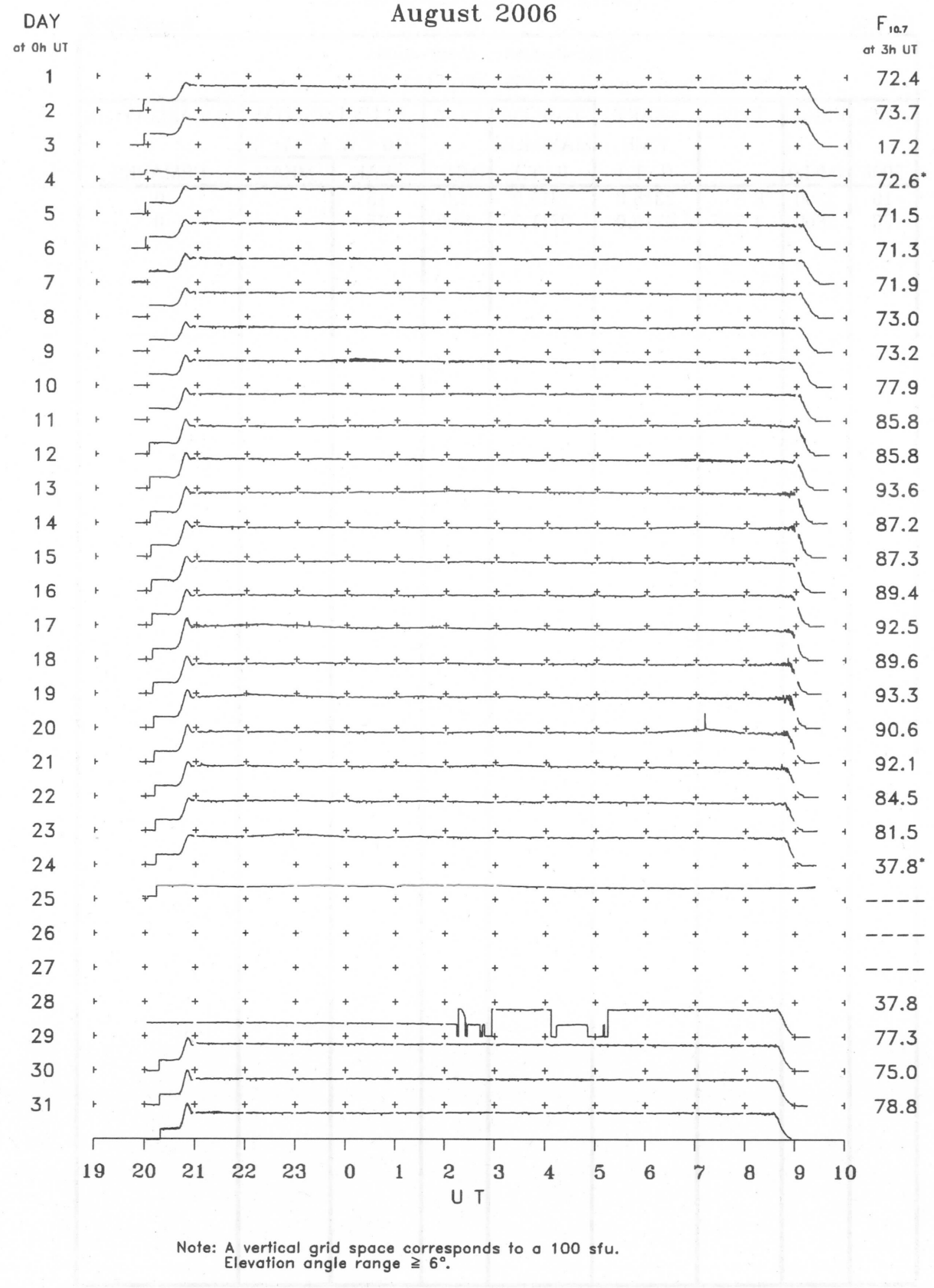
Hiraiso August 2006

Single-frequency observations
Normal observing period: 1950 - 0930 U.T. (sunrise to sunset)

AUG. 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
16	2800	8 S	2315.0	2315.0	1.0	15	-	0
20	2800	4 S/F	0710.0	0711.0	20.0	45	-	0

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 AUGUST 2006
F－692 Vol.58 No.8 (Not for Sale)

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