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IONOSPHERIC DATA IN JAPAN

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

NiCT

NATIONAL INSTITUTE OF INFORMATION
AND COMMUNICATIONS TECHNOLOGY
TOKYO, JAPAN

INTRODUCTION

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

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

A. IONOSPHERE

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

A1. Automatic Scaling

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

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

a. Characteristics of Ionosphere

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

b. Descriptive Letters

The following descriptive letters are used in the tables.

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

C Impossible measurement because of any failure in observation.

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

N Impossible automatic scaling because of complex echoes.

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

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

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

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

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

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

d. Reliability of Automatic Scaling

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

e. Summary Plot

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

A2. Manual Scaling

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

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

a. Characteristics of Ionosphere

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

b. Symbols

(i) Descriptive Letters

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

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

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

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

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

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

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

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

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

K Presence of particle *E* layer.

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

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

N Conditions are such that the measurement cannot be interpreted.

O Measurement refers to the ordinary component.

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

Q Range spread present.

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

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

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

V Forked trace which may influence the measurement.

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

X Measurement refers to the extraordinary component.

Y Lacuna phenomena, severe layer tilt.

Z Third magneto-electronic component present.

(ii) Qualifying Letters

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

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

D Greater than.

E Less than.

I Missing value has been replaced by an interpolated value.

J Ordinary component characteristic deduced from the extraordinary component.

M Mode interpretation uncertain.

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

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

U Uncertain or doubtful numerical value.

X Measurement deduced from the third magneto-electronic component.

(iii) Description of Types of *Es*

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

The types are:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B. SOLAR RADIO EMISSION

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

B1. Daily Data at Hiraiso

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

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

* Measurement impossible because of interference.

B Measurement impossible because of bursts.

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

B2. Outstanding Occurrences at Hiraiso

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

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

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

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

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

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

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

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

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

B3. Summary Plots of F10.7 at Hiraiso

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

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

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

HOURLY VALUES OF foF2 AT Wakkanai

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

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

HOURLY VALUES OF fEs AT Wakkanai

SEP. 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	70	44	56	37	43	31	38	36	78	71	53	41	65	48	46	61	G	G	G	G	38	40	35	60
2	38	29	31	34	25	26	29	44	52	63	54		50	50	60	33	28	G	G	G	28	26	28	33
3	G	31	27	G	G	G	24	G	29	35	40		40	34	G	G	40	33	29	25	G	G		28
4	24	27	G	25	G	G	29	48	50	50	43	49	38	32	31	G	28	35	34	47		60	39	43
5	29	32	27	27	G	G	37	40	56	61	49	52	52	G		35	44	48	54	59	57	80	49	70
6	33	G	29	32	32	53	43	36	50		46	45	38	G	46	41	51	60	51	36	33	41	51	
7	39	32	G	33	28	G	41	35	G			G	38		31	35		58	45	34	26	27	48	30
8	27	G	G	G	40	39	40	33	37	31	32	33		39	32	30	27	32	G	G	G	G	G	30
9	G	G	29	G	G	G	G	33	33	38	60	38	33		37	35	28	32	31	34	29	G	32	G
10	G	G	G	G	G	26	G	41		58	46	46	41		31	34	30	G	G	29	G	24	G	G
11	G	G	G	G	G	G	33		34	43	44	41	42	39	33	52	68	29	31	29	48	39	59	59
12	34	35	38	30	28	26	64	51	42	46	44	36	42	42		G	26	31	29	38	30	39	33	50
13	34	25	G	G	G	G	G	38	42	35	42	81	42	48	37	35	34	34	27	32	33	43	39	G
14	G	G	G	26	23	G	37	38	35	43	50	41	G	G	G	G	41	35	29	34	26	G	33	G
15	30	28	G	G	G	G	29	31	35	66	41		G	G	42	38		32	29	34	35	33	40	30
16	G	24	27	G	G	25	29	33		39	G	38	39	38	41	G	39	33	26	G	24	G	G	G
17	G	G	G	G	G	G		32	35	G	38	42		G	G	G	37	34	G	G	G	G	G	G
18	G	G	G	G	26	38	34	32	G	G	41	G	43	39	G	G	40	63	51	50	32	24	G	G
19	G	G	G	30	33	37	30	32	35	38	41	G		G	G	G	G	32	40	29	34	29	26	40
20	30	G	24	27	27	40	30	73	G	G	G	G	G	G	G	G	32	G	G	G	G	G	G	G
21	G	G	G	G	G	24	G	32	G	40	G	G	38	G	G	G	38	30		26	38	G	25	G
22	G	G	G	G	G	G	G	34	52	38	41	G	39	G	G	G		31		35	34	32	38	30
23	50	G	33	26	G	G	31	42	40	46	40	G	G	G	G	G		G	33	33	33	68	47	G
24	G	G	G	G	G	G	G	G	G	G	G	G	40	G	G	G	31	G	G	G	25	29	G	G
25	G	G	G	G	34	32	28	33	59	42	G	G	G	G	G	G	31	G	G	28	25	G	32	G
26	G	G	G	G	25	30	32	38	42	43	G	38	N	G	G	G	G	G	26	27	G	G	24	G
27	24	G	G	G	G		G	G	42	53	46	G	G	39	N	34	G	G	G	36	33	29	G	G
28	38	30	33	G	26	G	54	G	G	G	G	48	58	G	45	G	32	G	G	G	40	33	60	36
29	35	43	44	33	41	34	G	38	41	61	49	54	50	70	70	38	36	33	50	33	33	39	59	
30	58	70	36	28	32	33	28	34	50	46	47	52	69	61	50	33	56	52	78	43	35	72	89	51
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	29	29	29	28	28	29	27	26	27	27	30	26	30	28	30	29	30	29	28
MED	24	G	G	G	12	24	29	34	38	42	41	38	40	G	31	G	32	32	29	30	32	29	33	14
U Q	34	30	29	28	28	32	37	39	50	51	46	46	43	39	42	35	40	34	37	35	34	39	47	38
L Q	G	G	G	G	G	G	G	32	31	35	16	G	33	G	G	G	28	G	G	G	24	G	G	G

HOURLY VALUES OF fmin AT Wakkanai

SEP. 2006

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

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

HOURLY VALUES OF foF2 AT Kokubunji

SEP. 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	51	46	42	42		41	56	55	56	53	A	A	61	66	75	80	67	58	66	63	55	47	44	39
2	37		32	36	36	37	38	59	58	A	A	A	A	66	62	64	66	68	62	65	54	44	34	
3	39	32	36	34	36	37	40	56	69	49	66	57		63	67	61	60	59	65	76	58			
4	34	30	28	30		34	46	61	58	54	59	67	48		57	67	72	81	80	76			A	A
5	44	39	34	34	A	28	43		47	59	58	A	A		56	55	62	64	78	76	A	A	A	
6	A	36	34	34	34	34	46	56	62	54	45		56		65	62	55	58	61	66	53	47	38	38
7	32	37	36	32	24	30	47	59	63		54		61	56	60	55	59	59	67	54	76	43	31	27
8	31				32	32	49		64	71				64	61	59	56	59	71	80	66	46		38
9		30	32	30	27	26	51	59	60	64	63	A	60		59	59	61	67	71	71	64	47	38	36
10	36	34	36	34	31	35	49	54	65	64	61	60	59	58	59	64	66	59	66	73	78	46	42	
11	41	37	37		34	34	57	55	65	69	64	A	59	59	71	66	71	74	72	73	A	54	49	A
12	42	43	42	43	A		47	60	60	67	64	68	66	57	55	59	63	59	66	62	45	54	44	42
13	42	39	37	37	37	35	49	61	55	65	59	63	64	65	68	62	56	61	66	66	53	46	46	47
14	47	44	39	42	41	35	53	54	52	68	58	57	58	56	63	68	65	59	68	77	63	44	34	
15	34	32	32	26			44	58	67	66	56	56	59	62	61	59	57	61	69	65	66	54	43	36
16	34	36	36	35	A		47	59	60	54	57	62	67	59	55	55	55	63	82	81	44	34		28
17		30	30	28		28	47	62	45	59	63	58	70	62	65	61	56	58	73	63	66	37	43	41
18	42		44	35	30		41	74	90			53	58	62	69	74	80	84	77	69	52	38	36	36
19	34	34	31	25	A			A	67	76	66	73	70	61	57	64	56	56	44	51	44	42		42
20	43	36	38	36		A	44	42	77	49	48	55	65	70	59	56	60	71	80	61	34	36		34
21	30	34	32	28		28	47	66	55	62	58	65	66	63	62	55	56	59	80	61	36		34	
22		34	32	34	35		44	52	57	55	62	52		56	57	55	52	58	71	71		36	34	34
23	37	36	37	38	32	36	51		62	62	55	55	64	57	62	56	56	56	61	66	47	34	32	34
24	34	35	36		32	31	54	48	48	56	62	69	62	67	67	74	68	62	66	75	35	37		47
25	47	42	47	47	41	39	51	56	63	63	65	76	62	52	56	52	55	58	58	61	52	48	45	44
26	41	41	37	39	28	32	51	65	75	58	68	69	64	57	58	55	60	64	52	46		A	41	41
27	38	38	36	34	30	32	53	48	64	57	55	63	70	74	66	61	65	66	63	A	A	41	42	39
28	36	34	35	34			46	49	56	56	55	69	72	78	66	58	57	54	56	48	46	47	42	41
29	39	27	34	26	32		46	56	62	55	62	62	72	78	67	58	59	66	69	55	41	41	A	38
30	38	36	36	34	34	28	44	54	69	59	56	73	61	65	55	54	55	66	73	54	52	41	A	39
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	26	27	29	27	19	21	29	26	30	27	26	22	25	26	30	30	30	30	30	29	24	25	20	22
MED	38	36	36	34	32	34	47	56	62	59	59	62	62	62	62	59	60	60	68	66	52	44	42	38
U Q	42	39	37	37	36	35	51	60	65	65	63	69	66	66	66	64	65	66	73	74	63	47	43	41
L Q	34	34	32	30	30	29	44	54	56	55	56	57	59	57	57	55	56	58	63	61	44	37	34	36

HOURLY VALUES OF fEs AT Kokubunji

SEP. 2006

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

HD	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	29	26	42	52	50	24	G	39	G	32	50	60	G	G	G	G	41	35	31	29	27	G	30	G
2	29	G	31	33	29	33	39	41	86	60	68	65	58	46	G	G	G	36	33	31	28	26	26	G
3	24	G	G	G	G	24	28	35	33	G	35	43		G	G	35	G	28	G	G	G	G		
4	33	28	28	33	31	G	32	40	43	43	G	37	G	51	40	45	40	42	41	60		41		59
5	39	G	G	31	51	G	G		52	50	G	80	50	40	39	65	60	120		93	69	50	40	35
6	71	25	G	G	24	G	40	52	53	51	G		53		G	G	27	30	32	26	39	26	26	28
7	27	G	G	G	G	G	G	G	G		G		G	G	G	G	33	34	46	48	42	G	G	G
8	G			26	29	28			29	32			G	43	38	G	49	39	G	G	45	36		25
9		G	G	G	G	G	30	38	G	G	G	71	G	G	G	29	40	35	G	G	G	G	G	G
10	G	G	G	26	G	G	G	37	40	37	44	40	34	35	45	31	31	41	33	G	G	G	G	24
11	G	G	G	G	G	G	34	40	47	53	50	76	51	49	G	G	50	G	29	50	70	49	39	36
12	29	31	G	51	43	27	G	G	42	G	41	G	40	G	G	35	G	G	G	G	26	36	29	34
13	G	27	27	G	G	G	G	29	34	45	G	40	G	G	G	G	G	G	G	G	G	30	G	G
14	G	G	G	G	G	24	G	32	G	48	50	G	G	G	G	G	G	34	G	34	28	28	25	G
15	G	G	G	G	G	G	32	G	G	G	G	G	G	43	49	38	37	40	29	26	29	G	G	G
16	G	G	59	41	34	29	G	G	G	G	G	42	42	G	G	G	36	28	G	G	11	G	33	G
17		G	G	G		G	40	G	G	G	G	G	G	G	G	42	G	33	G	G	11	G	G	G
18	G		G	G	G	23	G	43	54	40	G	41	G	G	G	G	38	39	26	33	G	G	G	G
19	G	G	G	G	35	29	36	72	42	G	G	G	G	G	G	G	34	G	30	G	G	G	26	G
20	G	G	G	G	26	35	G	31	59	G	G	G	G	G	G	G	35	28	25	G	G	G		G
21	G	G	G	G		G	G	39	37	G	G	G	G	G	G	G	G	28	26	22	G		G	G
22		G	G	G	G		G	G	38	G	40	G	G	G	G	G	40	43	26	G	G	29	24	27
23	G	G	G	G	G	G	29		47	G	G	G	G	G	G	G	G	34	G	40	32	29	G	G
24	G	G	G		G	G	G	33	G	G	G	G	G	G	G	G	G	G	G	G	36	G	G	G
25	27	G	G	G	G	G	27	38	47	50	62	70	50	G	G	G	35	30	29	34	28	G	G	G
26	G	G	G	G	G	G	32	35	G	G	G	G	G	G	G	G	40	43	G	G	40	57	27	G
27	G	G	G	G	G	G	G	34	43	42	48	G	G	G	G	37	G	G		60	60	34	28	27
28	G	G	G	G	G	G	36	G	39	41	47	G	G	G	G	G	33	G	G	28	28	27	G	G
29	25	G	G	G	G	33	28	33	50	54	52	48	50	G	G	G	G	G	35	G	36	48	60	36
30	24	28	G	G	G	G	G	35	40	43	42	40	G	G	G	G	G	35	26	G	G	G	51	28
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	27	28	29	29	28	29	29	27	30	29	29	27	29	29	30	30	30	30	28	30	29	29	26	29
MED	G	G	G	G	G	G	G	35	40	32	G	37	G	G	G	G	33	34	26	12	28	26	24	G
U Q	27	G	G	26	29	25	32	39	47	46	47	48	41	18	G	31	40	39	30	34	37	35	29	27
L Q	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G

HOURLY VALUES OF fmin AT Kokubunji

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

HOURLY VALUES OF foF2 AT Yamagawa

SEP. 2006

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

HD	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	51	53	50	44	41	38	51	54	52		56	58	62	67	84	88	84	75	74	72	77	48	36	34
2	32	35	30	31	A	32	42	54	57	51	57	58	66	71	A	64	71	73	73	81	66	34	37	38
3	34	38	37	34	34	30	32	60	70	62	53	52	56	67	A	62	72	80	88	83	73	29	28	31
4	32	32	32	34	36	36	42	62	62	60	67	62	63		58	68	77	81	88	88	65	31	42	40
5	42	A	A	38	37	34	36	58	65	66	A	62	57	58	59	64	72	82		83	52	34	32	36
6	32	32	34	30	32	32	46	54	A	A	A	A		72	88	78	66	66	84	77	75	37	A	
7	32	32	34	32	30	29	37	60	58	50	62	57	59	61	61	63	61	65	83	86	67	36	30	30
8	30	30	32	32	34		35	59	71	46	54	59	62	64	66	65	62	66	72	75	65	54		37
9		38	37	36	34	34	42	54	61	54	62	64	62	61	62	63	65	71	70	73	74	66	36	34
10	34	34	34	35	34	29	34	57	74	66	57	61	63	70	70	66	60	58	70	78	86	34	28	31
11	32	32	30	30	32	30	42	50	61	68	55	53	61	64	67	72	81	90	88	70		53	52	50
12	49	44	44	51	29	29	42	50	59	75	68	A	57	62	66	74	70	67	71	75	78	54	34	37
13	40	41	38	33	35	26	37	55	61	61	60	67	70	67	69	64	66	70	77	71	66	42	44	42
14	43	42	40	40	34	34	40	60	67	67	55		61	60	67	72	60	58	75	82	73	34	34	34
15	34	34	36	37			36		62	67	61	57	61	65	64	62		62	66	62	65	A	A	40
16	41	40	41	40	41		34	53	58	67	58	60	65	62	58	64	55	72	78	81	66	32	30	31
17	32	34		29	30	28	37	50	60			64	62	61	77	73	60	60	66	66	66	37	40	40
18	38	38	38	44	31	26	34	69	91	71	55			68	77	78	86	96	86	75	66	28	34	34
19	37	34	37	30	32	28	32	60	80	68	67	74	84	81	70	72	68	66	76	70	52	42	42	42
20	42	42	42	42	30		34	60	68	54	57	62	74	70	65	59	66	76	73	58	47	34	37	36
21	37	36	34	30	28	28	37	57	62	75	71	49	63	61	62	46	58	73	66	77	40			
22	30	29	29	31	34		32	54	50	68	58	58	58	59	63	66	73	80	76	64	54	28		28
23	29	30	30	30	28		34	57	71	70	57	58	62	68	62	65	70	75	76	72	A	A	28	30
24	30	32	31	34	32		26	48	56	55	56	74	71	76	84	67	71	71	66	79	51	30	32	37
25	36	38	32	30	28		34	56	67		59	68		61	62	57	53	A	68	66	54	38	44	45
26	44	40	34	31		29	34	59	72	90	70	60	67	77	68	49	67	64	60	48	42	38	39	40
27	37	34	34	34	29	32	38	60	64	58	55	61	75	80	87	77	67	66	78	62	43	32	41	39
28	36	36	34	30	30		32	50	55	61	51	61	72	80	71	62	58	60	60	64	50	40	37	36
29	30	34	31	30	29	29	34	55	57	61	61	A	75	86	87	70	66	70	78	66	42	37		34
30	34	34	34	34	29	28	32	58	65	63	54	66	62	69	71	65	54	60	78	85	65		30	
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	29	29	28	30	27	21	30	29	29	26	27	25	27	29	28	30	29	29	29	30	28	26	24	27
MED	34	34	34	34	32	29	36	57	62	64	57	61	62	67	67	65	66	70	75	74	65	36	36	36
UQ	40	39	37	37	34	33	40	60	69	68	62	64	70	71	74	72	71	75	78	81	70	42	40	40
LQ	32	32	32	30	29	28	34	54	58	58	55	58	61	61	62	63	60	64	69	66	51	32	31	34

HOURLY VALUES OF fEs AT Yamagawa

SEP. 2006

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	G	36	33	33	33	36	36	35	35	47	48	39	49	50	38	32			39	30	26	G	G	G
2	G	26	G	29	38	36	26	28	50	39	42	34	34	53	77	52	38	38	38	41	25	G	31	G
3	23	32	G	G	G	G	G	34	34	38	41	34	50	51	67	53	48	46	45	35	31	G	G	G
4	G	G	G	G	G	26	28	33	41	37	35	51	56	39	38	37	40	39	32	30	44	33	40	30
5	38	58	68	26	30	27	29	45	54	70	73	56	47	50	39	47	30	37	48	32	26	26		46
6	44	G	G	G	28	30	G	66	85	61	79	68	58	55	32	34	G		39	24	26	32	38	35
7	26	G	23	G	26	G	G	34	39	G	G	G			G	31	42	40	42	28	21	32	G	G
8	G	G	G	G	G	G	G	36	42	33	34			40		34	30	43	31	31	50	32	51	34
9	40	32	37	32	G	G	G	33	38	34	G	N	33	G	33		35	41	32	26	G	G	G	G
10	G	G	G	G	G	G	G	33	31	34		42	45	42	38	32	42	32	39	26	G	25	G	G
11	G	G	G	G	G	G	G	38	43	48	61	69	40	57	53	48	89	38	42	36	57	32	50	29
12	37	30	G	31	G	G	25	35	52	62	54	70	51				G	34	32	30	25	G	34	24
13	34	24	26	28	G	G	G	30	35	43	44	47	48	39			G	G	30	26	G	24	28	40
14	24	28	30	26	26	24	G	G	35	40	46	50		G	G	G	G	32	G	27	23	G	26	G
15	G	G	G	G	G	G	25		40	G	G	G	45	41	39	56	44	59	50	66	56	56	46	G
16	G	G	G	G	G	G	G	35	39	G	G	45	46	46	G	47	49	42	28	G	39	G	G	G
17	G	24	29	G	G	G	G	33	34	39	G	43	G	53	40	49	G	35	36	25	32	G	28	G
18	G	G	G	G	G	G	G	33	52	56	42	48	62	G	G	G	40	G	35	G	27	26	25	27
19	30	27	G	G	G	G	27	39	38	G	G	G	G	G	G	G	G	G	29	23	25	G	G	G
20	G	G	G	G	G	G	G	29	36	G	G	40	G	G	G	G	39	39	34	27	G	G	G	G
21	G	G	G	G	G	G	G	30	39	42	49	G	G	G	G	G	35	34	56	11	40			
22	G	G	G	G	G	G	G	34	38	40	39	42	41	47	56	46	40	43	40	46	32	G	33	32
23	24	G	25	G	G		G	34	44	44	52	47	G	G	G	G	G	34	82	83	60	49	32	25
24	26	G	G	25	G		G	30	36	G	G	G	G	G	G	G	G	32	G	28	54	G	G	G
25	G	26	G	G	G		G	G	33		38	60	45	G	45	46	51	68	47	33	36	41	25	28
26	24	25	G	24		G	G	35	40	43	G	G	G	G	G	45	39	38	35	45	34	23	28	G
27	G	G	G	G	G	G	G	33	40	49	54	56	50	73	48	43	44	53	60	11	G	33	37	G
28	G	G	G	G	G	G	G	36	40	G	48	45	N	40	G	46	41	36	33	30	G	28	G	G
29	G	G	G	G	G	G	G		34	G	48	65	G	G	43	G	G	38	28	11	29	49	33	32
30	36	28	G	26	24	G	G	34	40	42	50	47	48	51	44	G	G	36	37	39	26	32	G	G
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	29	27	30	28	30	29	29	28	26	28	27	27	29	28	30	30	30	29	28	29
MED	G	G	G	G	G	G	G	34	39	39	42	45	45	40	38	34	38	38	36	29	26	25	27	G
U Q	26	27	23	26	12	G	G	35	42	45	49	53	49	50	44	47	42	41	42	35	39	32	33	29
L Q	G	G	G	G	G	G	G	31	35	G	G	34	G	G	G	G	G	34	32	25	23	G	G	G

HOURLY VALUES OF fmin AT Yamagawa

SEP. 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	16	14	15	14	15	14	14	14	15	16	17	20	18	23	20	23	14	17	14	14	16	15	15	16
2	17	14	14	14	14	15	14	14	16	16	17	24	26	20	18	18	15	14	15	14	16	15	14	15
3	15	14	15	15	14	16	16	14	14	14	18	21	23	22	17	14	14	14	14	14	17	18	15	15
4	15	14	15	15	17	15	14	15	14	20	17	18	22	21	20	17	14	14	14	14	15	14	14	14
5	15	14	14	14	14	16	15	14	14	16	18	23	20	20	21	16	15	15	15	14	15	15	14	14
6	14	14	15	14	14	14	14	14	15	17	27	32	20	20	18	16	17	14	16	15	14	17	14	14
7	15	14	15	15	14	14	17	14	14	17	34	42	44	21	42	18	18	14	14	14	15	15	15	17
8	14	14	14	18	15	17	18	14	14	16	17	45	44	26	21	20	17	15	14	14	15	14	14	14
9	14	15	14	14	14	16	14	14	16	15	18	21	18	43	23	20	16	14	14	14	15	14	16	14
10	20	15	15	14	15	15	15	14	14	18	18	18	20	20	17	16	14	14	14	14	14	14	16	14
11	15	16	15	14	15	15	14	15	14	16	33	29	22	26	29	20	16	14	14	14	15	14	14	14
12	14	15	17	14	22	16	16	14	14	16	18	21	20	23	22	15	14	14	14	14	15	15	14	14
13	15	14	14	15	14	14	15	14	14	17	18	21	20	20	46	24	17	14	14	15	15	15	15	15
14	14	14	14	15	14	14	15	14	14	16	20	20	20	45	21	20	17	14	17	15	14	15	15	14
15	14	15	15	15	15	17	16		15	17	18	20	21	21	20	16	14	14	14	14	15	15	14	14
16	15	14	14	14	16	15	16	14	14	16	20	18	18	24	17	18	14	14	14	15	14	14	15	14
17	15	14	15	15	15	16	14	15	14	14	20	21	20	20	18	14	14	14	14	15	14	17	14	15
18	15	15	15	14	15	17	14	14	14	17	18	18	20	17	42	14	15	14	15	15	14	14	15	14
19	14	14	15	15	14	15	14	14	14	17	20	20	17	42	17	18	14	14	14	15	15	14	15	15
20	15	14	15	14	15	16	15	14	14	15	17	17	16	15	34	21	14	14	14	14	14	15	15	14
21	21	16	17	15	15	15	15	14	14	16	21	23	35	34	20	20	14	14	14	14	15			
22	16	21	14	15	15	15	14	14	14	16	17	17	17	17	20	15	14	14	14	14	14	18	14	15
23	14	15	15	15	15		15	15	14	20	20	20	46	17	17	14	14	14	14	14	14	14	14	15
24	14	15	15	15	15		17	14	14	17	18	18	42	24	21	18	16	15	17	15	15	21	15	16
25	14	16	16	14	16		14	14	15		17	21	20	18	15	14	15	14	14	14	14	14	14	17
26	14	15	14	15		18	15	14	14	16	33	20	42	44	21	15	17	14	15	14	14	14	14	15
27	17	14	15	14	15	15	14	14	14	16	20	22	18	20	20	15	16	14	15	15	15	14	14	14
28	14	15	15	14	14	15	14	14	14	15	18	29	28	29	41	18	17	14	14	14	14	15	14	14
29	14	15	15	15	14	14	15	14	14	17	18	20	21	46	21	18	15	14	14	14	15	14	14	15
30	14	14	15	14	14	15	15	14	14	18	20	22	27	28	20	21	17	14	15	14	16	14	17	16
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	29	27	30	29	30	29	30	30	30	30	30	30	30	30	30	30	30	29	29	29
MED	15	14	15	14	15	15	15	14	14	16	18	21	20	22	20	18	15	14	14	14	15	15	14	14
U Q	15	15	15	15	15	16	15	14	14	17	20	23	27	28	22	20	17	14	15	15	15	15	15	15
L Q	14	14	14	14	14	15	14	14	14	16	18	20	20	20	18	15	14	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Okinawa

SEP. 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	51	46	52		45	32	A	50	48	52	57	58		72	88	95	91	87	89	88	78	50		A
2	A		29		27	A	37	49	57	52	62		65	75	77	77	67	A	84	88		32	32	
3	35	29	30	34	30		30	58	73	61		66	71	65		67	86	86	98	103	59			
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			86	107		107	120	150	108		34		34
7		28	37					54	52	58	60	61	66	67	70	68	70	85	102	91	54	32		
8				30	31		30	60	66	76	57	60	66	78	87	85	73	76	80	88	66	53		
9	31	32	32	29	30	34	32	58	62		65	62	72	71	72	66	71	76	83	85	65	66	34	
10	35			31	30		28	61	70	70	59		72	84	84	67	62	68	86	86		A		
11		30		30	29		30	50	57		62	A	64		67	74	87	104	88	77	66	A	47	
12	35		34			30		52	58		69		A	70	86	88	90	90	88	87	79	45		A
13	32		32		34			52	61	67	65	71		75	C	74	83	90	88	88	77	34		
14	31	26	34	34	29		29	52	68	64				75	76	68	56	70	88	87	78	34	A	
15		30	30	30			29	48	62	66	65	60		63	67	68	67	A	72	80	74	A	A	A
16		32	30	37	29			50	60	70	56	62	60	66	68	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		66	80	86	92	104	107	86	82		32		32
19			34	30				58	85	78	67	80	101	90	88	81	83	84	76	65	34			
20	41	32		36				66		62		74	77	66	71	75	80	85	70	51	48			
21		32		31				50	72	83	80	71	71	73	64	61	70	90	90	A	30			
22			28		26			46	62	64	55		66	74	78	82	102	117	88	66	61	A		
23		31	31	47				52	68	65	61	57	74	88	90	86	103	121	130		A	A	A	A
24	A	A	A	A	A			48	59	62	60	77	96	103	114	83	88	92	67	88	A	A		31
25	32		34					47	64	87	77		67	75	72	60	58	A	80	66	54	34	32	34
26	38	30	30					52	76	102	77	64	87	110	108	100	90	58	A	A		31	30	32
27	41	31	30	31			29	55	64	64	57	61	74	88	108	108	88	87	98	89	53	37		31
28	49	42	32	32				52	52	57	60	68	75	84	84	74	71	70	73	76	66	A		
29		29					30	57	55	58	60	71	78	86	100	101	97	100	88	84	49			
30								62	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	12	15	17	14	11	3	10	25	23	21	21	17	20	25	24	24	25	22	24	22	18	13	5	6
MED	35	31	32	31	30	32	30	52	62	64	61	64	72	75	84	76	83	87	88	86	63	34	32	32
U Q	41	32	34	34	31	34	30	58	68	73	66	71	76	86	89	87	90	100	89	88	74	47	40	34
L Q	32	29	30	30	29	30	29	50	57	59	58	60	66	70	71	68	70	76	80	77	53	32	31	31

HOURLY VALUES OF fEs AT Okinawa

SEP. 2006

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

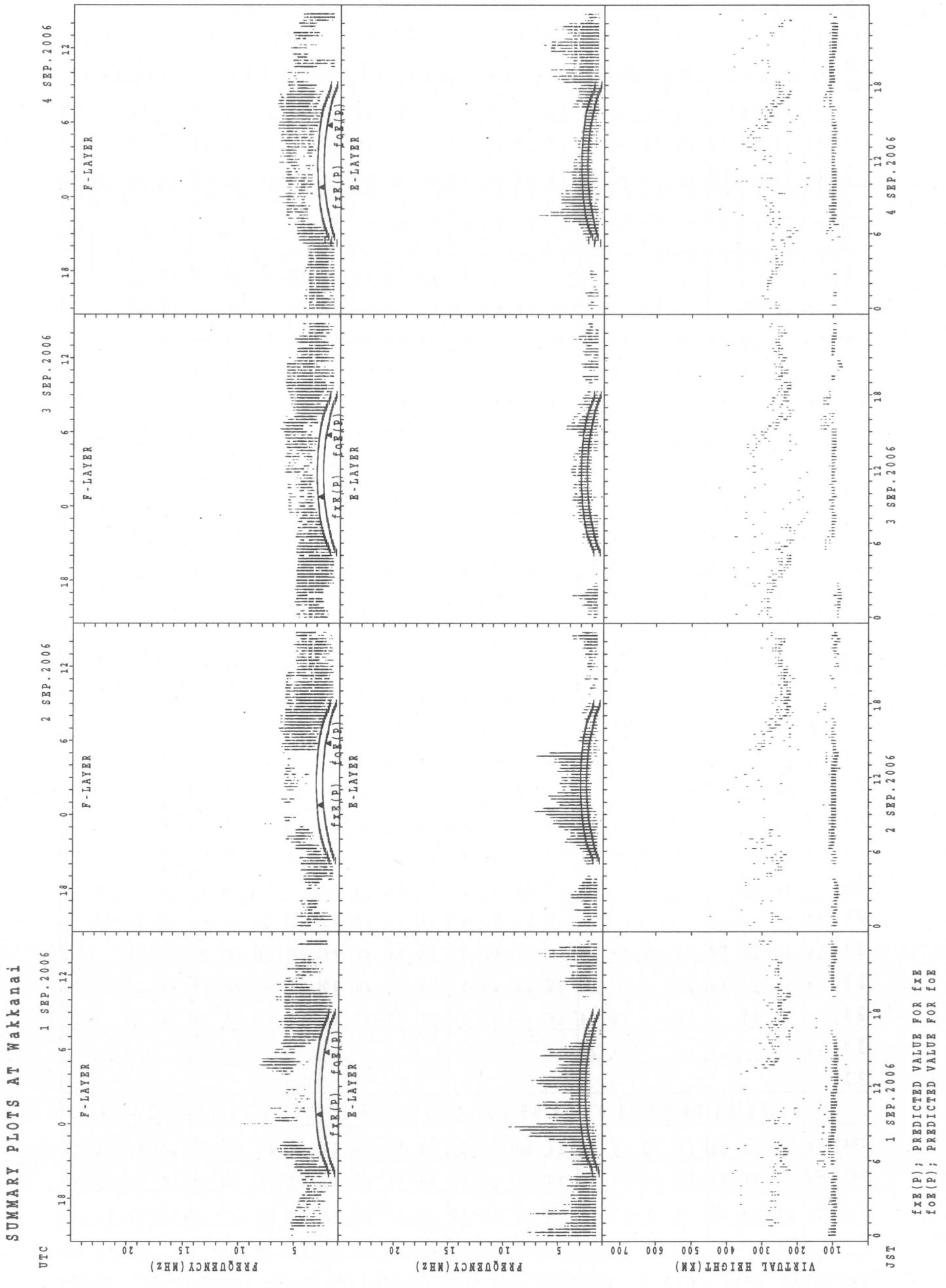
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	G	G	G		27	27	47	35	G	35	G	G		G	G	53	G	27	G	G	G	G		36
2	34	G	G	G	25	35	36	31	30	40	38		G	G	G	34	37	70	35	30		G	G	
3	G	G	G	G	G		G	G	36	37	33	G	44	G	57	58	39	50	40	50	60	34	34	G
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	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	57	54	60	52		38	43	30	28	39	G		G
7		G	G			25		G	G	G	G	G	G	G	G	G	47	55	54	39	21	G		
8			G	G	G		G	36	41	37		G	35	41	40	36	36	38	30	G	G	G		
9	28	35	G	28	G	G	G	30	28		33	G	G	G	53	57	57	40	41	36	35	24	G	
10	G			G	G		G	35	42	G	G		G	G	G	G	G	31	44	40		36		
11		G		G	G		G	34	41	49	61	73	58	52	68	54	65	G	29	28	32	71	36	35
12	G		G	31		G	G	G	40		48	53	60	39	G	G	37	45	50	38	57	23	G	36
13	G		G	G	G		G	29	40	37	39	40	35	G	C	G	G	G	32	25	G	G		
14	G	G	G	G	G		G	G	G	G				G	G	40	55	58	58	57	G	G	29	G
15		G	G	G			G	29	34	47	G	G		G	G	39	G	74	69	60	70	54	41	34
16	28	G	G	G	G		G	G	35	G	G	G	G	G	49	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		G	G	50	G	G	42	32	40		G	G	32
19	29		G	G	G			33	38	G	50	G	G	G	G	G	G	38	37	39	26			
20	G	G		G			G	30		G	62	G	G	G	G	G	G	41	40	36	24			
21	G	G		G			G	32	38	41	G	G	G	G	G	G	G	G	80	59	26	28		G
22		G	G	G	G			G	G	G	G		G	68	50	G	40	36	36	25	35	35		
23	28	G	G	G	G		G	32	52	50	39	G	G	G	G	47	51	65	115		71	61	34	33
24	33	34	36	32	29			32	38	G	G	G	G	G	G	G	G	G	50	48	60	50		G
25	G	24	G					G	G	G	G	54	G	G	42	48	48	82	52	46	G	27	30	G
26	G	G	G	G				34	38	42	G	G	G	G	G	G	38	55	78	66	G	G	26	G
27	G	G	G	G	G	G	G	30	34	42	G	40	G	60	G	G	44	94	78	78	34	32		G
28	G	G	G	G	G			32	G	48	G	G	G	G	G	40	G	G	G	38	29	36		G
29		G	G		G		G	30	38	46	51	60	51	G	G	G	G	39	34	28	G	28		28
30	27			G				30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	19	19	20	21	17	6	17	25	23	22	22	21	23	26	25	24	25	25	25	24	22	23	11	16
MED	G	G	G	G	G	13	G	30	36	37	G	G	G	G	G	G	37	41	40	38	28	27	29	G
U Q	28	G	G	G	G	27	G	32	40	42	39	46	35	G	49	43	45	56	56	49	39	36	34	33
L Q	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	29	32	28	G	G	G	G

HOURLY VALUES OF fmin AT Okinawa

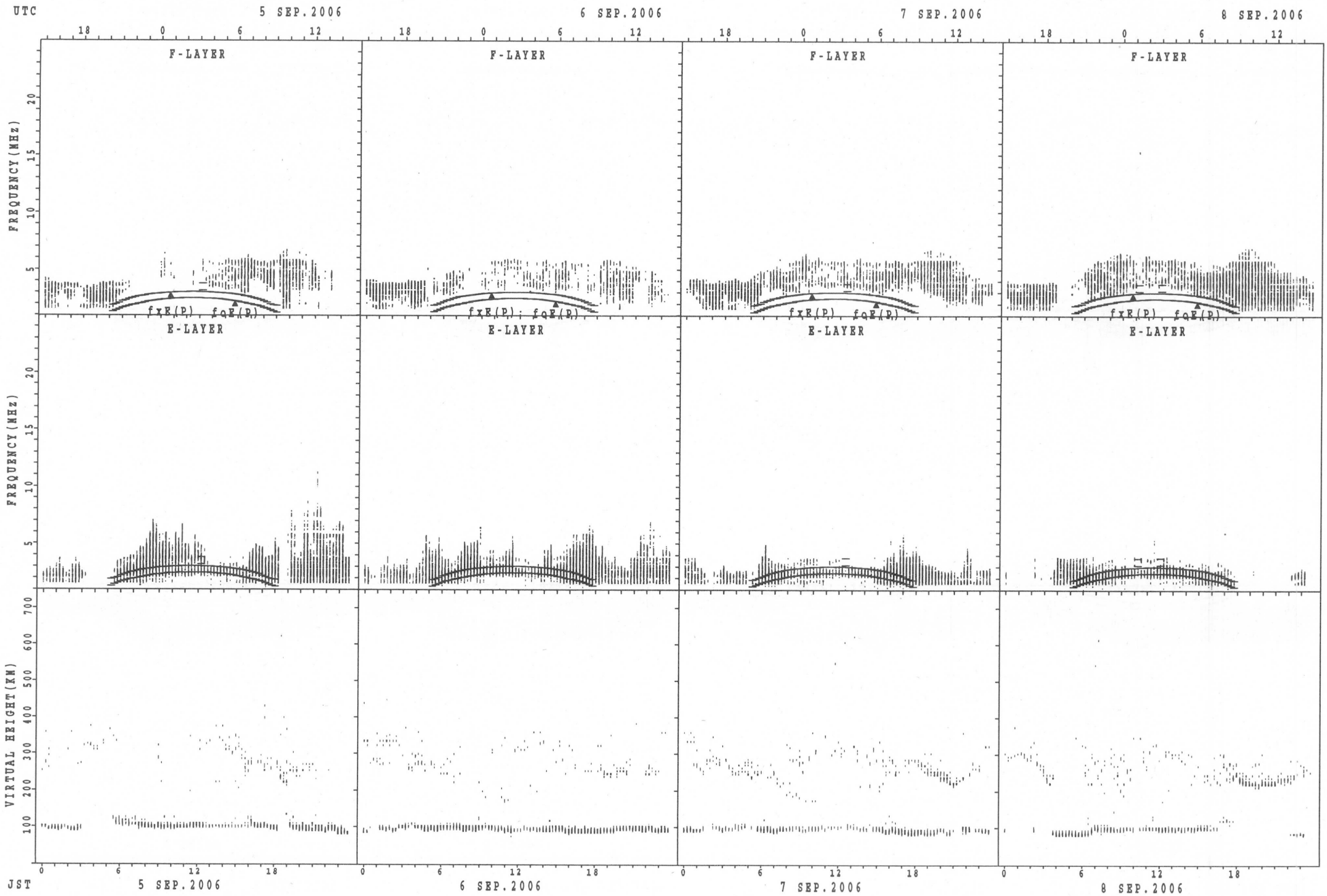
SEP. 2006

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

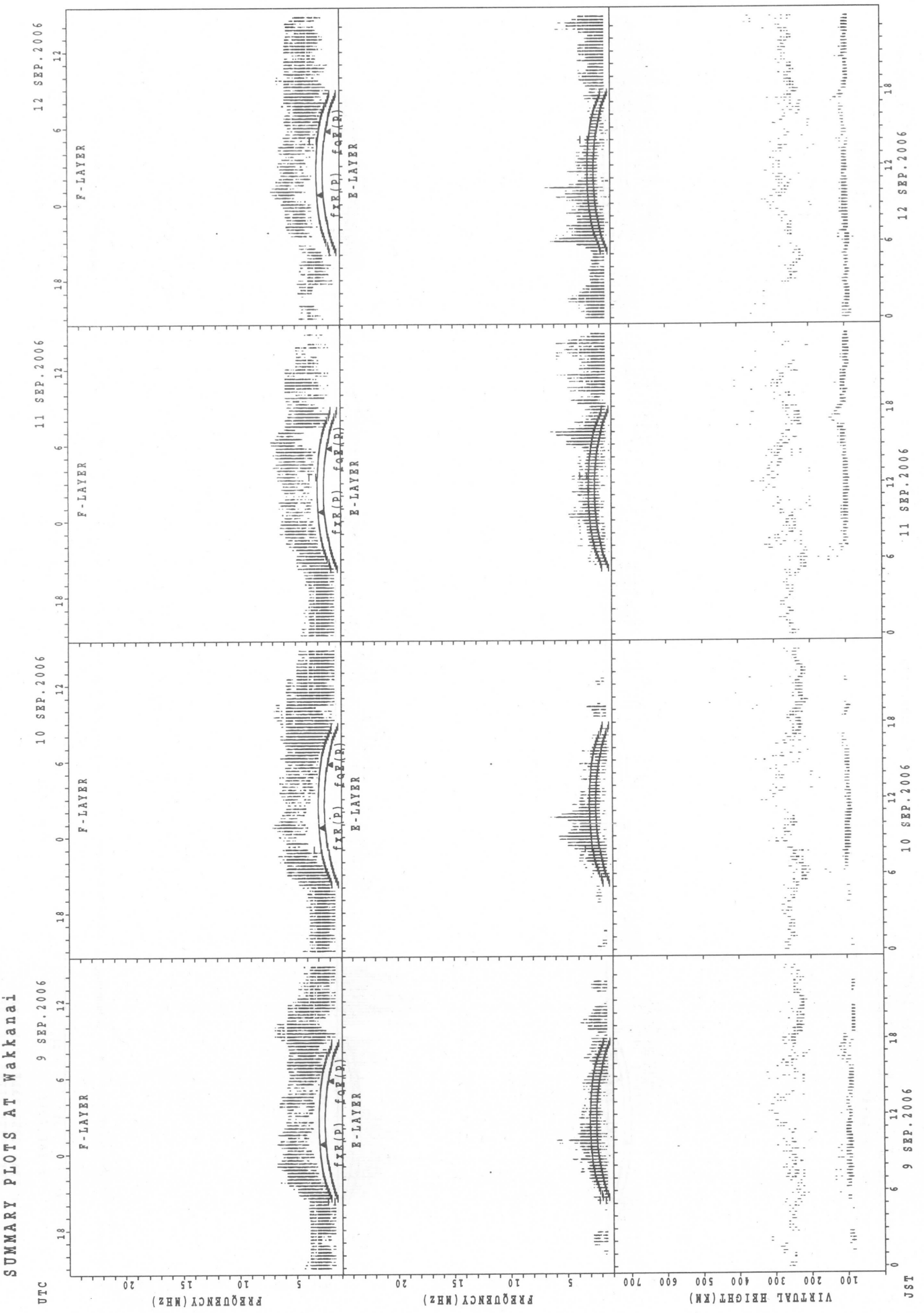
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	21	20	16		16	15	15	14	14	21	45	43		47	47	36	33	34	23	18	17	16		15
2	16	15	16	18	15	14	14	14	17	21	23		53	52	50	23	21	14	14	15		15	17	
3	18	17	18	15	17		21	14	14	21	26	53	56	46	22	18	23	14	21	17	42	16	18	21
4	C	C	C	C	C	C	C	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	36	29	38	35		20	26	14	15	15	21		21
7		15	20			15		17	30	42	43	45	52	52	49	45	30	27	15	16	16	17		
8			22	14	18		17	20	16	21	22	53	28	53	52	23	29	20	15	14	15	15		
9	16	16	15	15	14	21	16	15	16		24	49	50	52	36	34	23	23	15	14	14	15	15	
10	20			17	15		15	18	20	22	42		53	50	50	43	43	14	14	15		15		
11		22		16	21		17	16	15	23	34	34	35	36	34	30	27	16	14	14	15	15	15	17
12	20		20	14		22	20	26	26		22	30	27	24	54	48	46	15	14	15	15	15	21	15
13	20		20	15	21		17	18	15	22	32	50	50	52	C	44	30	27	15	15	15	16		
14	15	20	14	15	14		22	16	15	21				49	47	42	29	14	15	15	15	15	15	20
15		18	17	21			18	18	15	20	41	44		29	44	22	17	18	15	15	16	15	15	14
16	14	17	16	17	16		18	23	15	20	21	47	50	52	35	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		56	52	22	45	15	14	14	16		18	20	15
19	14		21	16	16			15	16	23	22	47	53	48	50	43	22	18	14	14	17			
20	20	20		21			18	16		33	24	22		43	15	43	36	16	14	16	15			
21	27	20		18			17	14	15	24	28	29	55	46	43	43	21	26	15	16	15	21		21
22		18	18	18	17			24	29	33	42		50	38	35	45	30	17	21	17	15	15		
23	16	16	17	20	15		14	17	20	29	28	44	49	53	23	22	17	15	14		16	15	17	18
24	18	14	15	16	17			14	16	23	42	43	22	50	47	41	22	15	14	15	15	17		20
25	16	16	21					21	18	50	46	21	52	27	17	32	22	15	14	14	18	16	15	22
26	23	16	17	22				16	15	23	31	45	45	50	46	40	28	15	15	17	16	20	15	16
27	16	20	21	16	15	16	20	14	15	22	41	46	49	30	43	40	24	14	15	18	15	14		20
28	15	15	18	15	23			15	15	26	43	47	50	48	43	30	21	15	22	15	20	16		20
29		17	18		15		15	14	16	23	33	35	34	48	42	40	18	22	15	15	16	15		15
30	15			14				24	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	19	19	20	21	17	6	17	25	23	22	23	21	22	26	25	24	25	25	25	24	22	23	11	16
MED	16	17	18	16	16	16	17	16	16	23	32	44	50	48	43	40	23	16	15	15	15	15	15	19
U Q	20	20	20	18	17	21	19	19	18	26	42	47	53	52	48	43	30	22	15	16	16	17	18	20
L Q	15	16	16	15	15	15	15	14	15	21	24	34	35	38	34	30	21	14	14	15	15	15	15	15


SUMMARY PLOTS AT Wakkanai
UTC
JST
1 SEP.2006
2 SEP.2006
3 SEP.2006
4 SEP.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

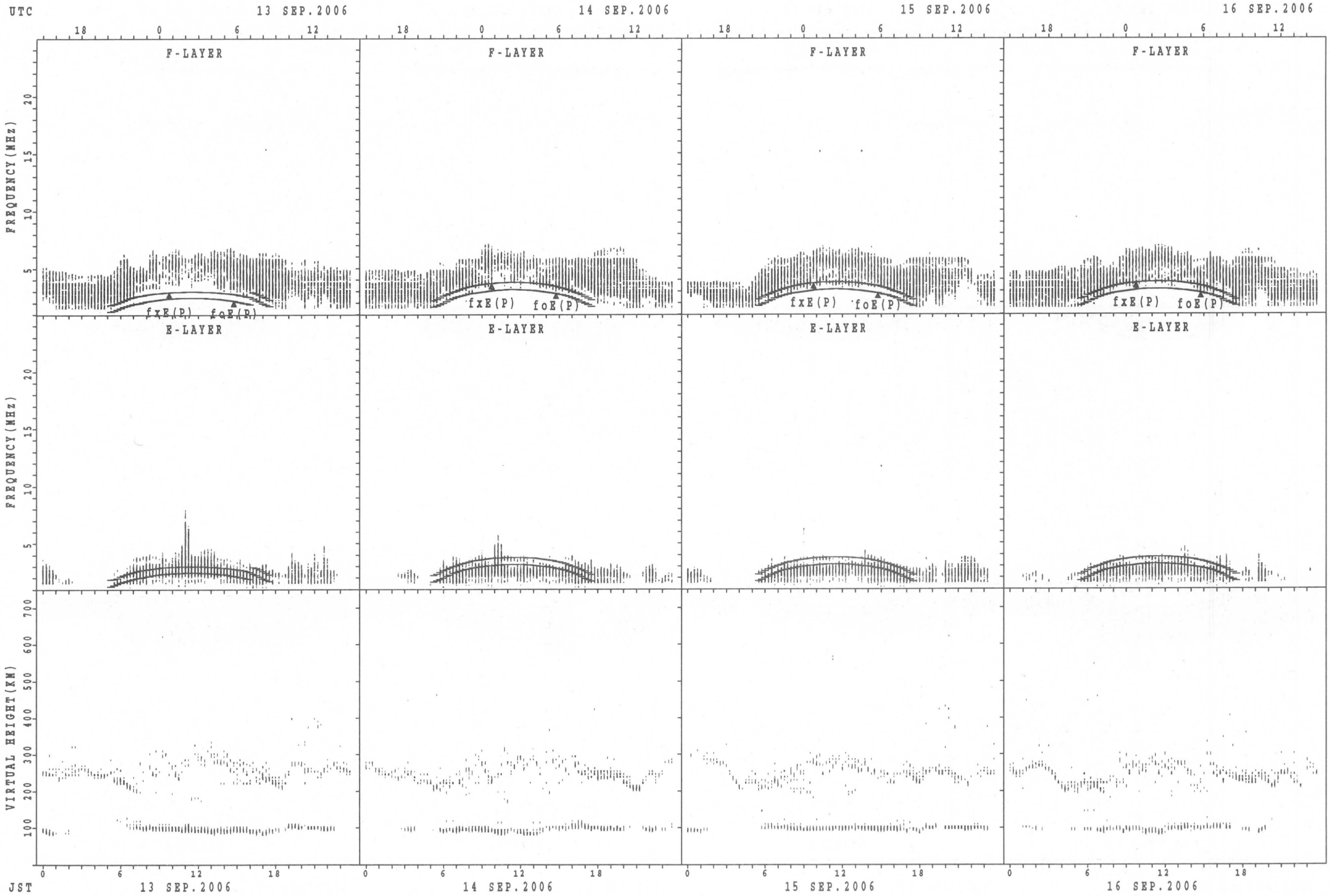
SUMMARY PLOTS AT Wakkanai



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

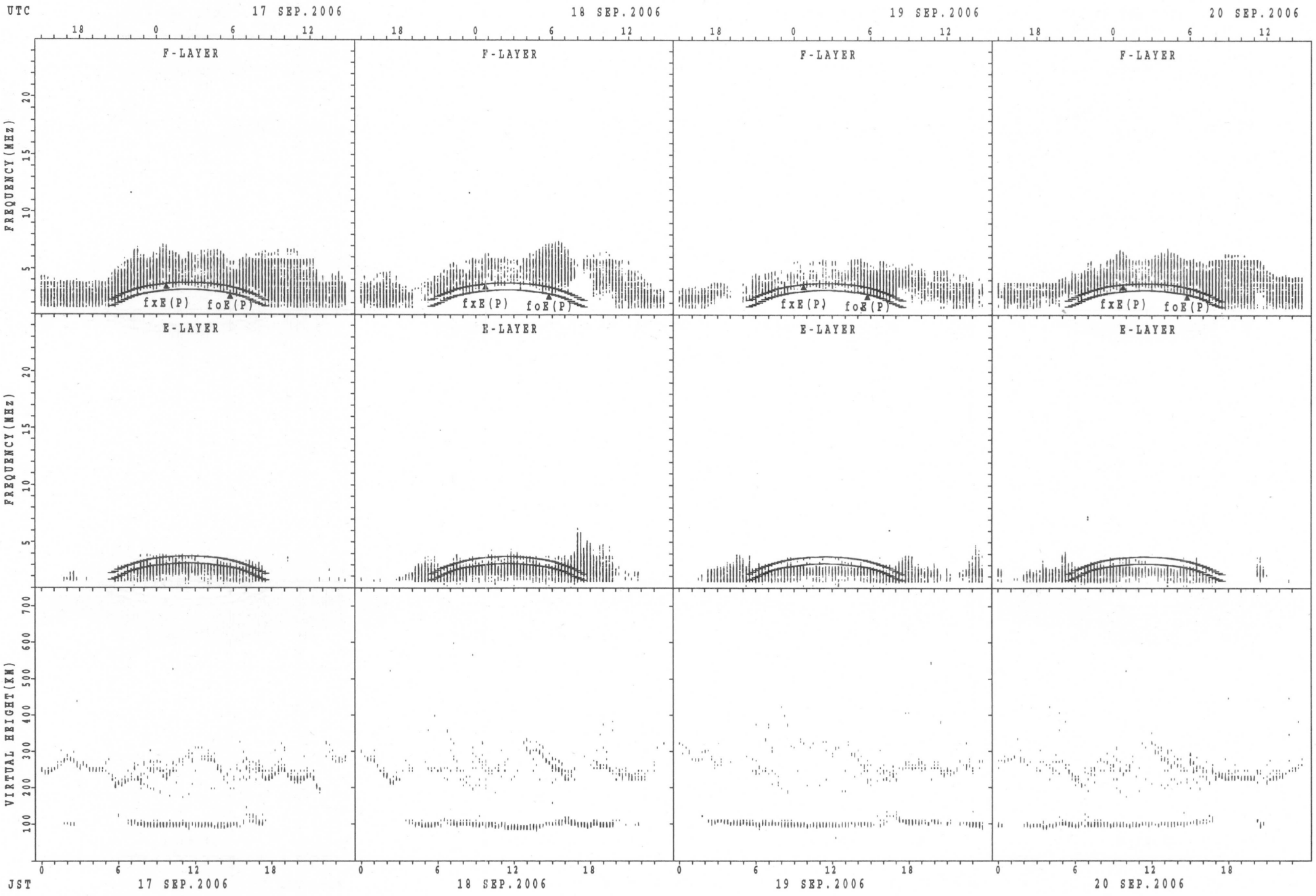

SUMMARY PLOTS AT Wakkanai
UTC
JST
9 SEP.2006
10 SEP.2006
11 SEP.2006
12 SEP.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



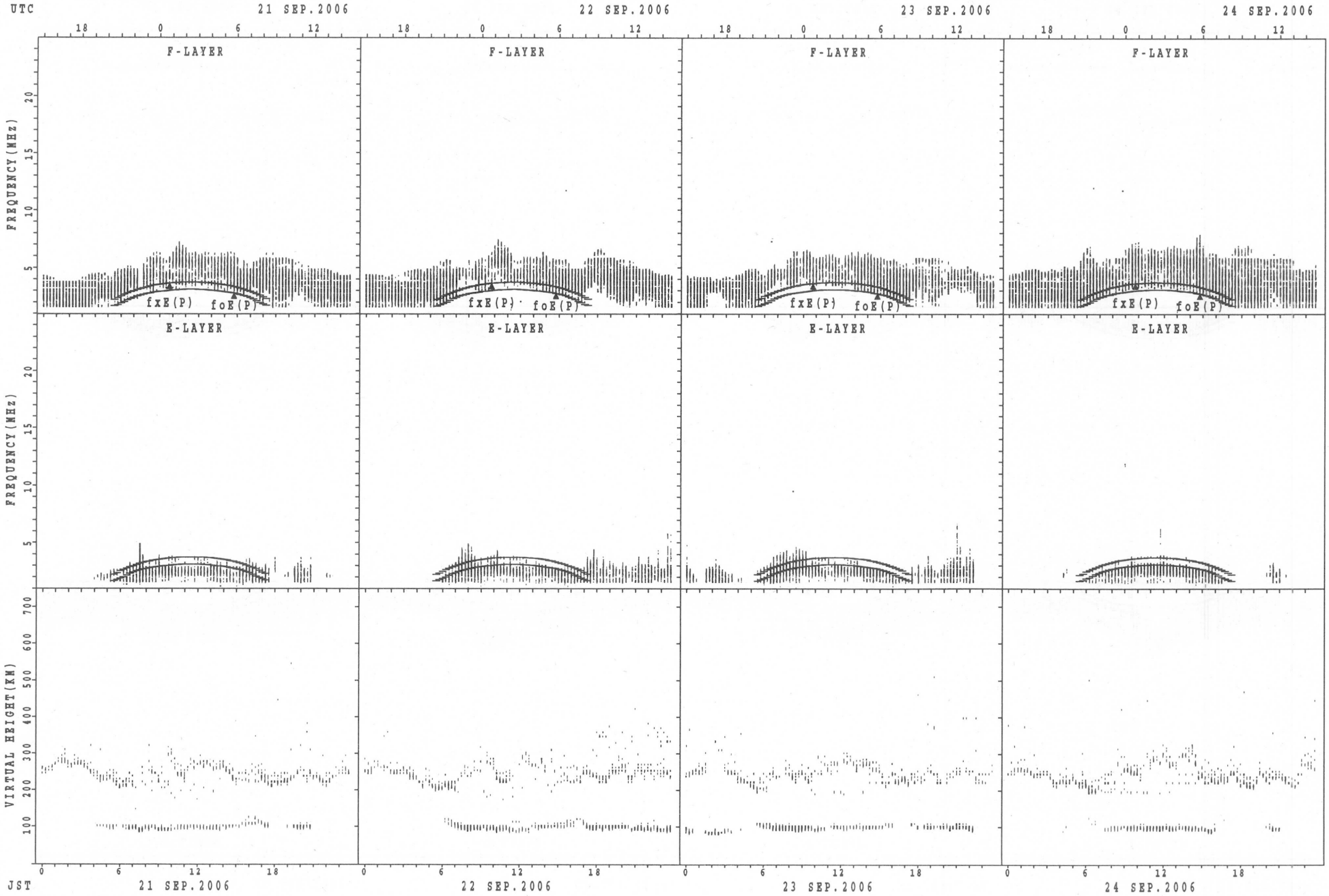
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai

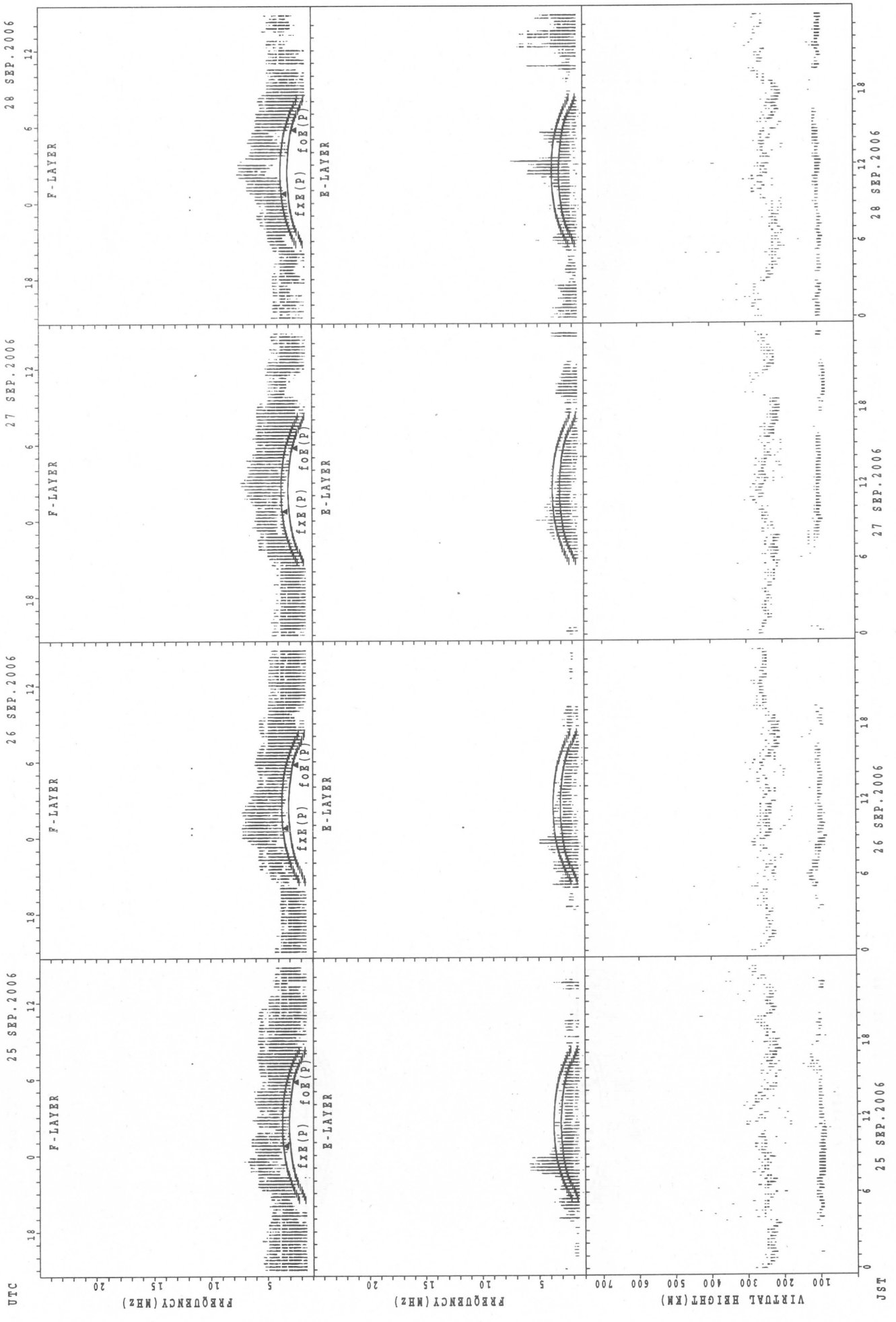


fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

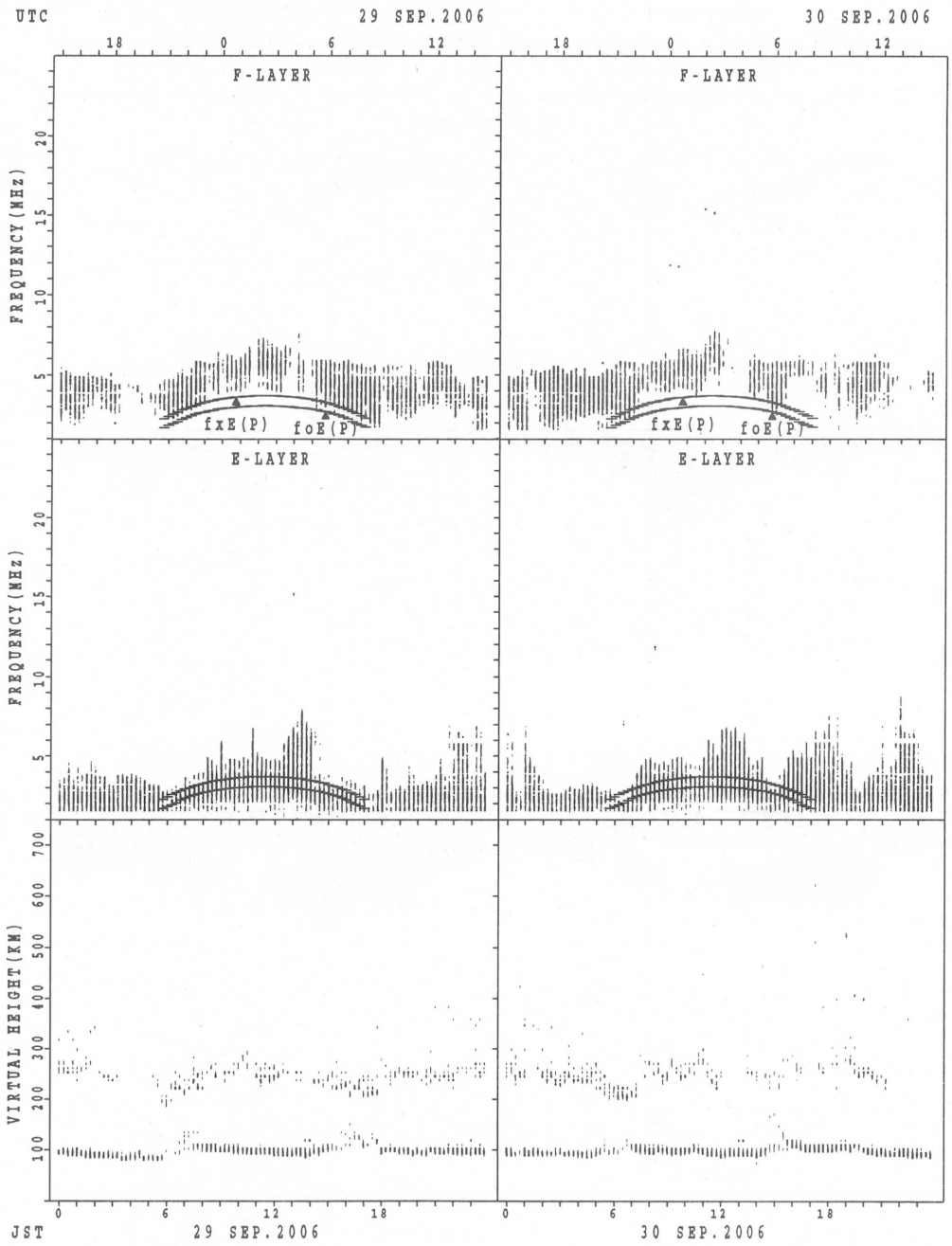
SUMMARY PLOTS AT Wakkanai



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

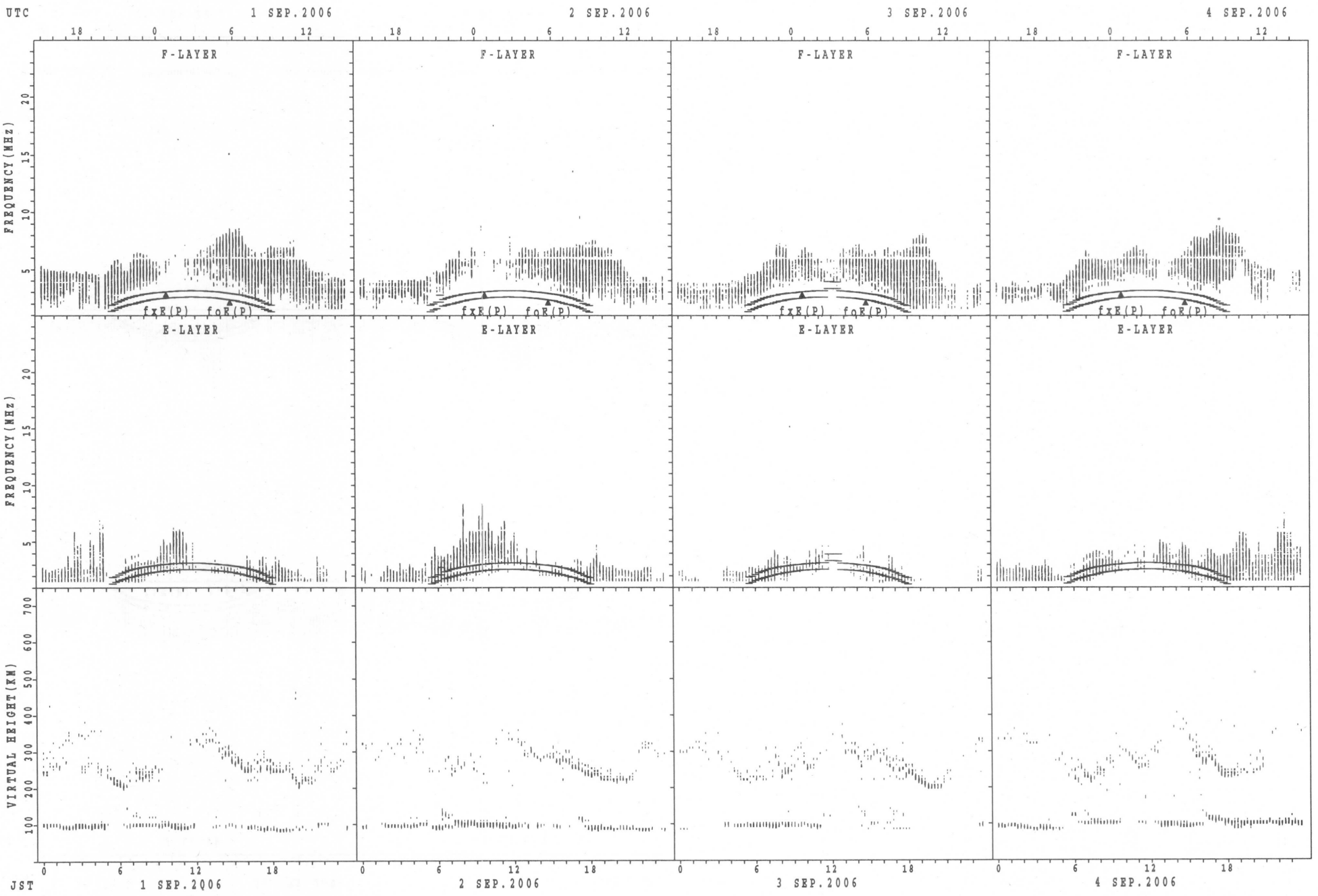

SUMMARY PLOTS AT Wakkanai
UTC
JST
25 SEP.2006
26 SEP.2006
27 SEP.2006
28 SEP.2006
F-LAYER
E-LAYER
fxE(P)
foE(P)
FREQUENCY(MHz)
VIRTUAL HEIGHT(KM)
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



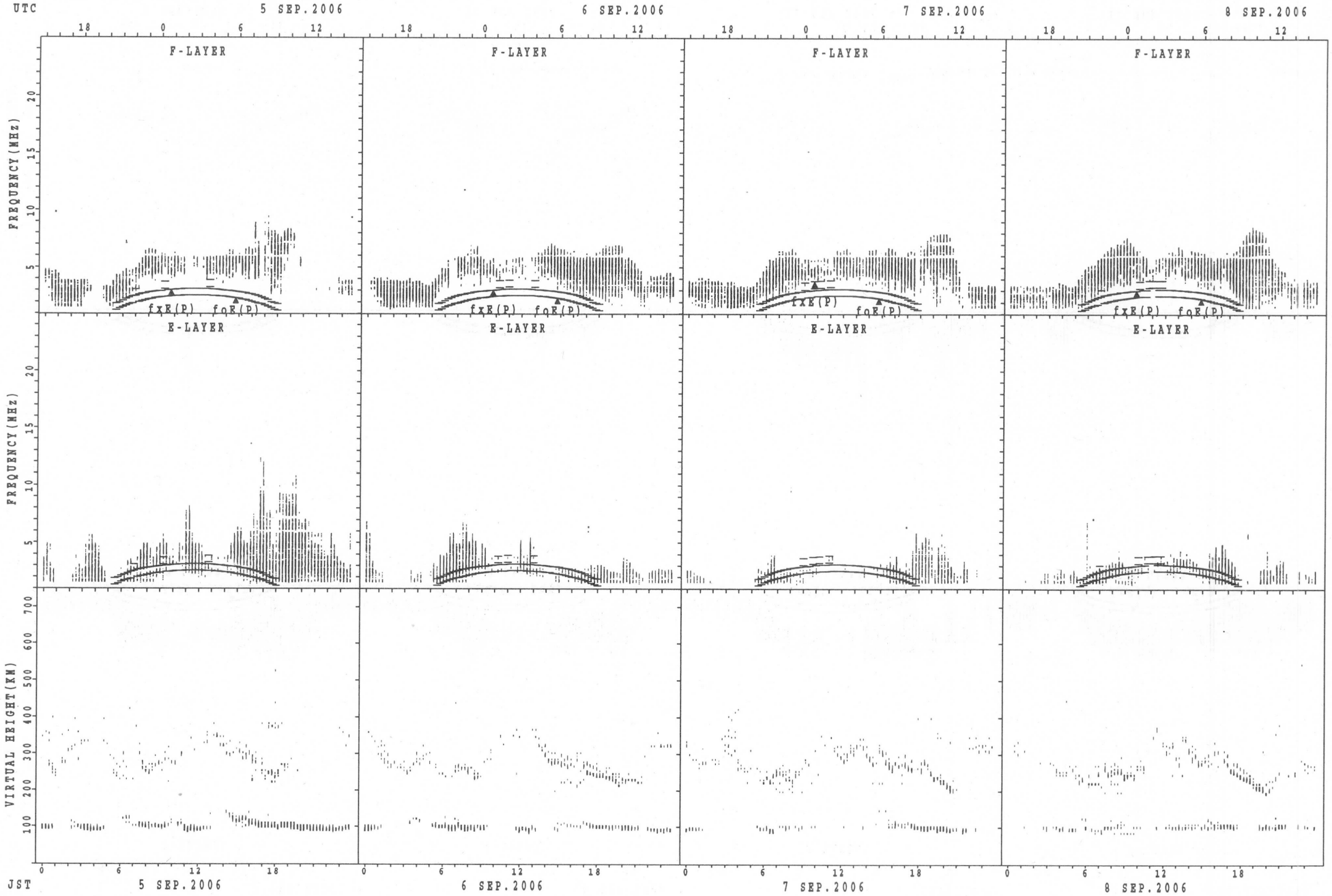
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



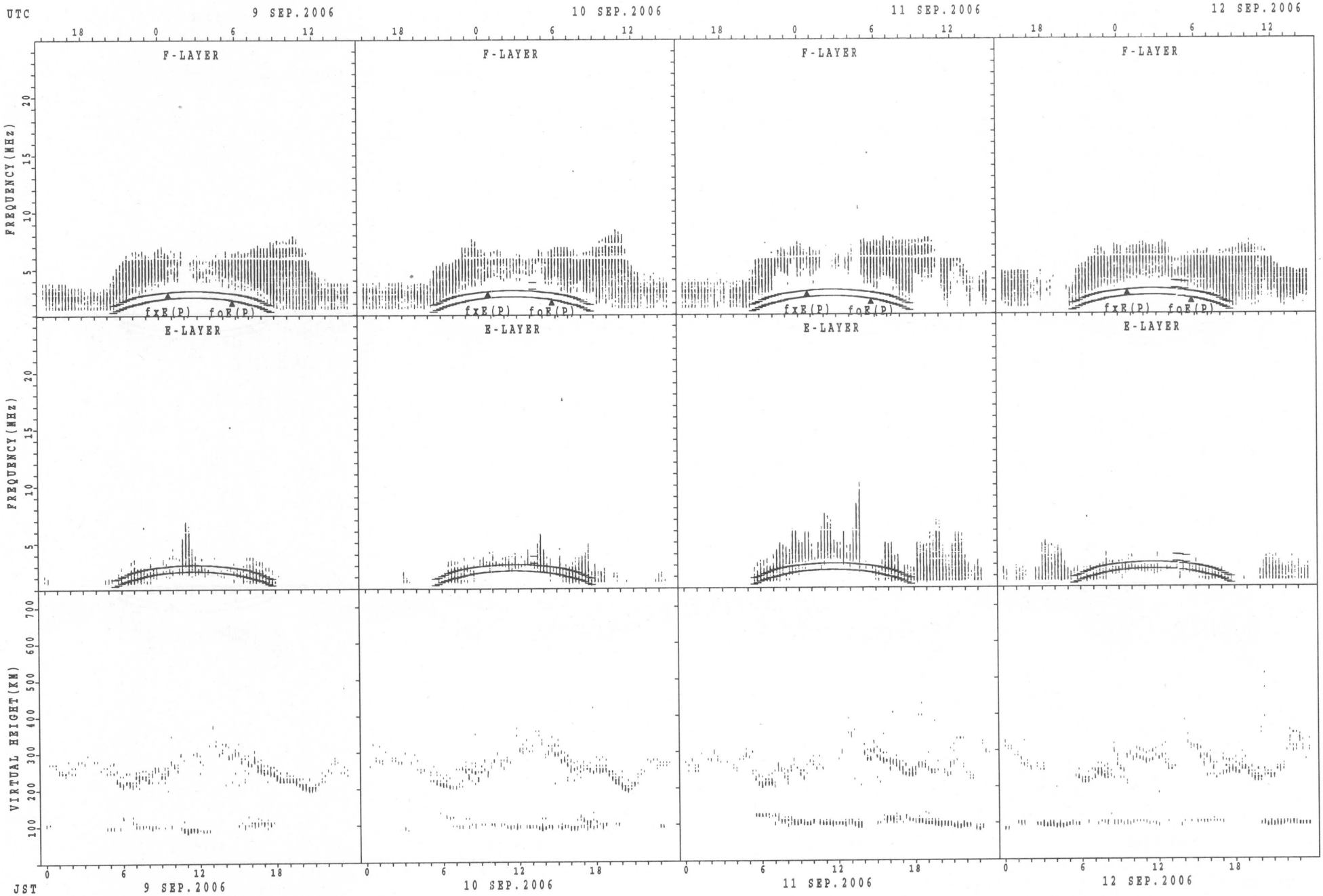
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



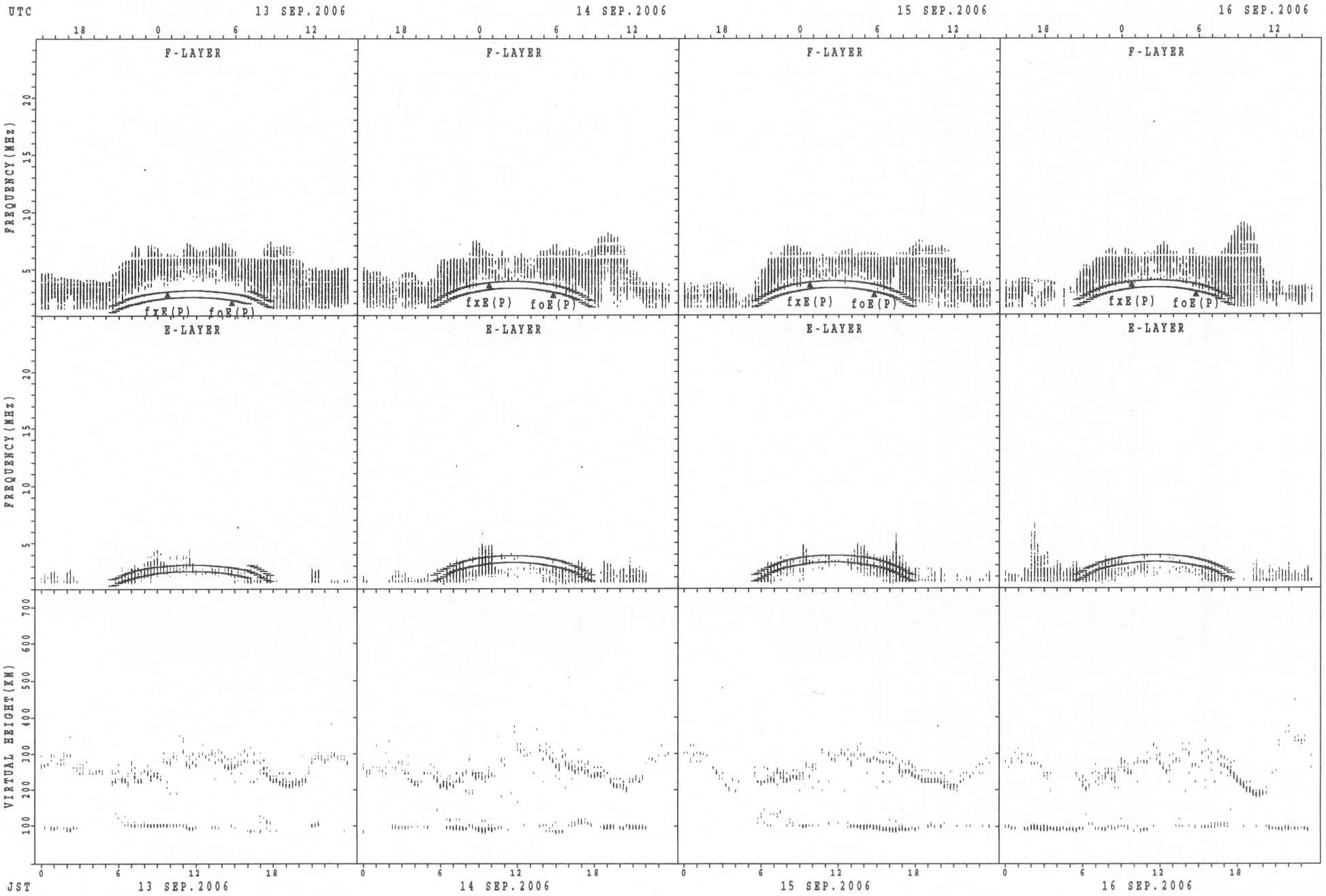
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



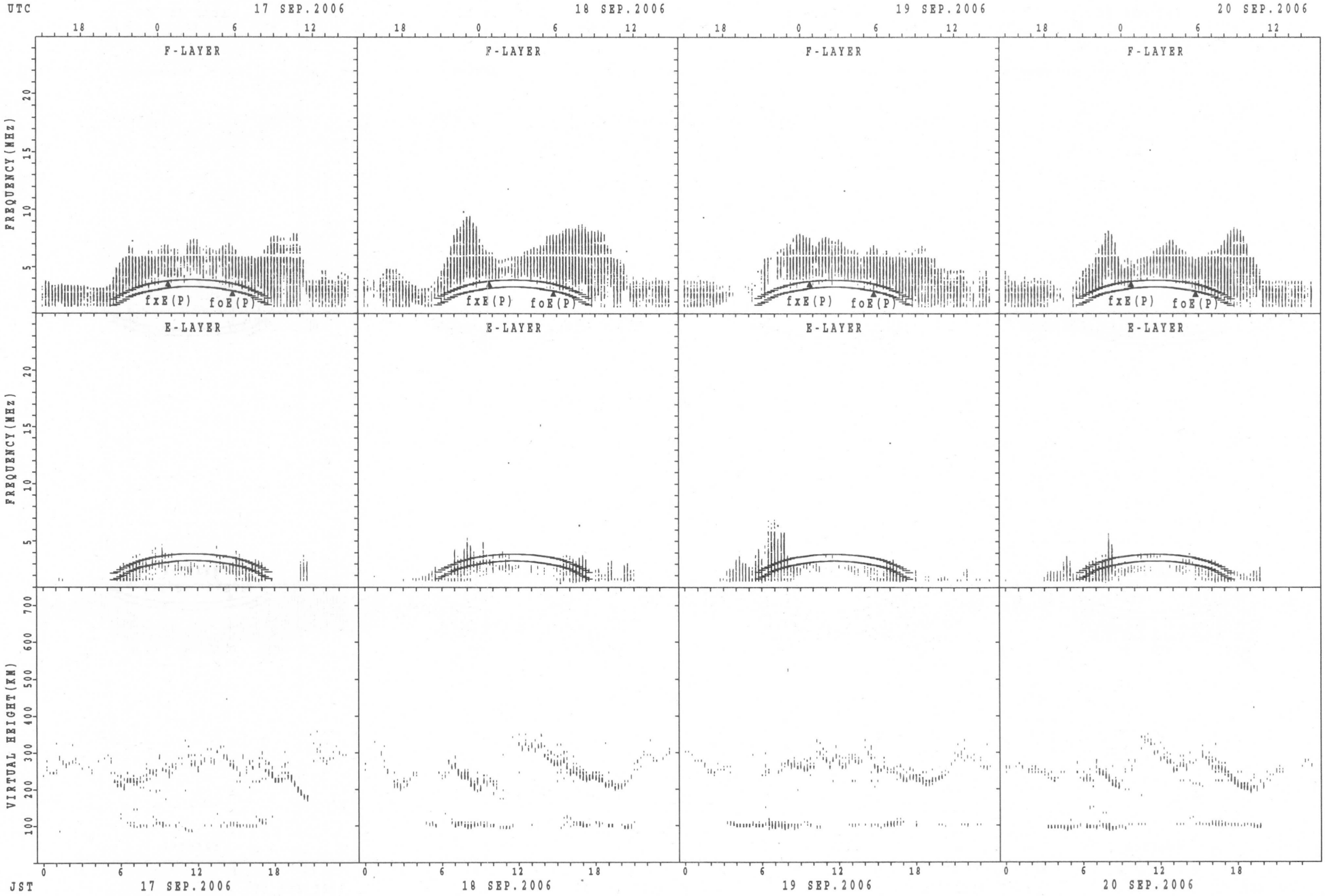
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



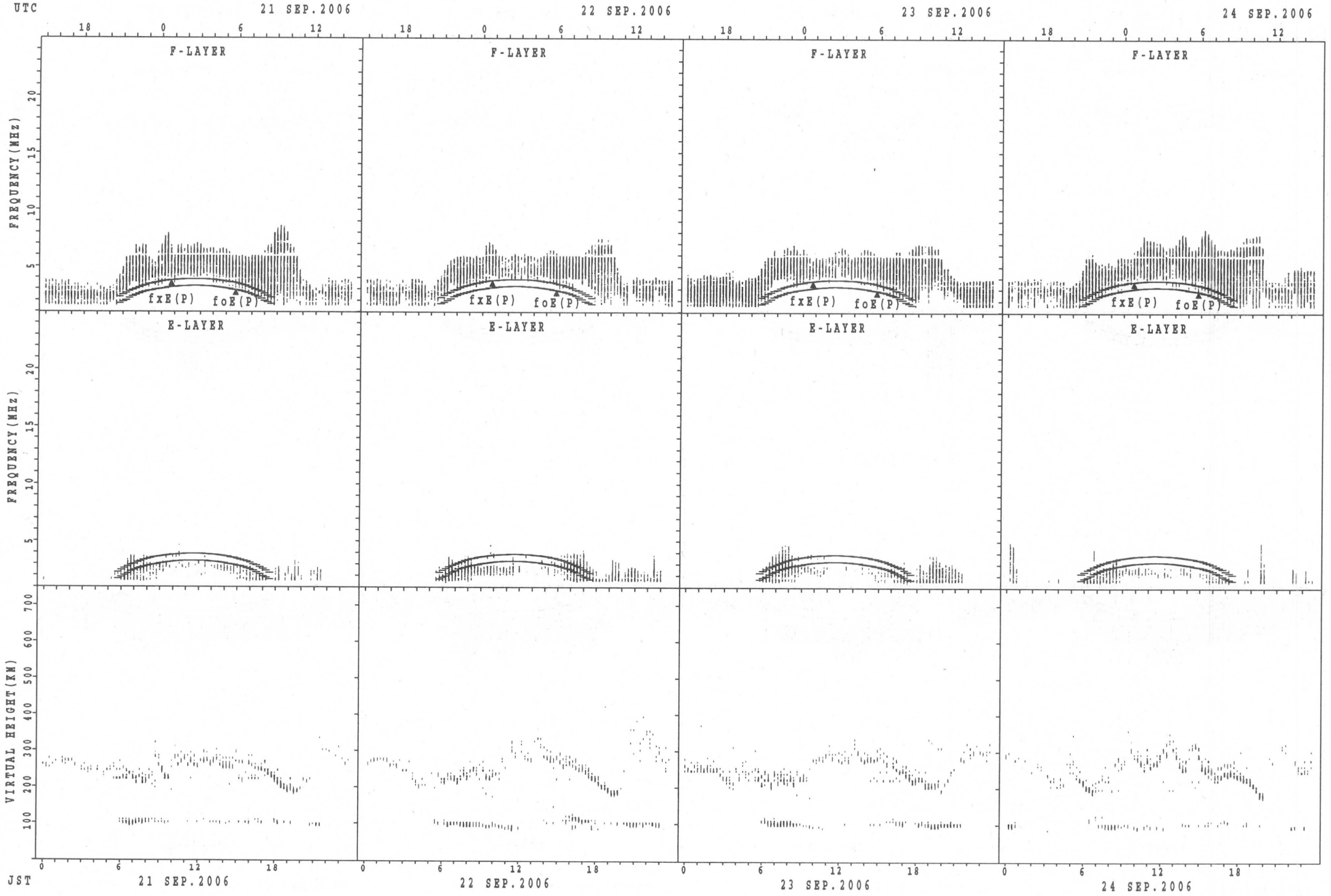
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



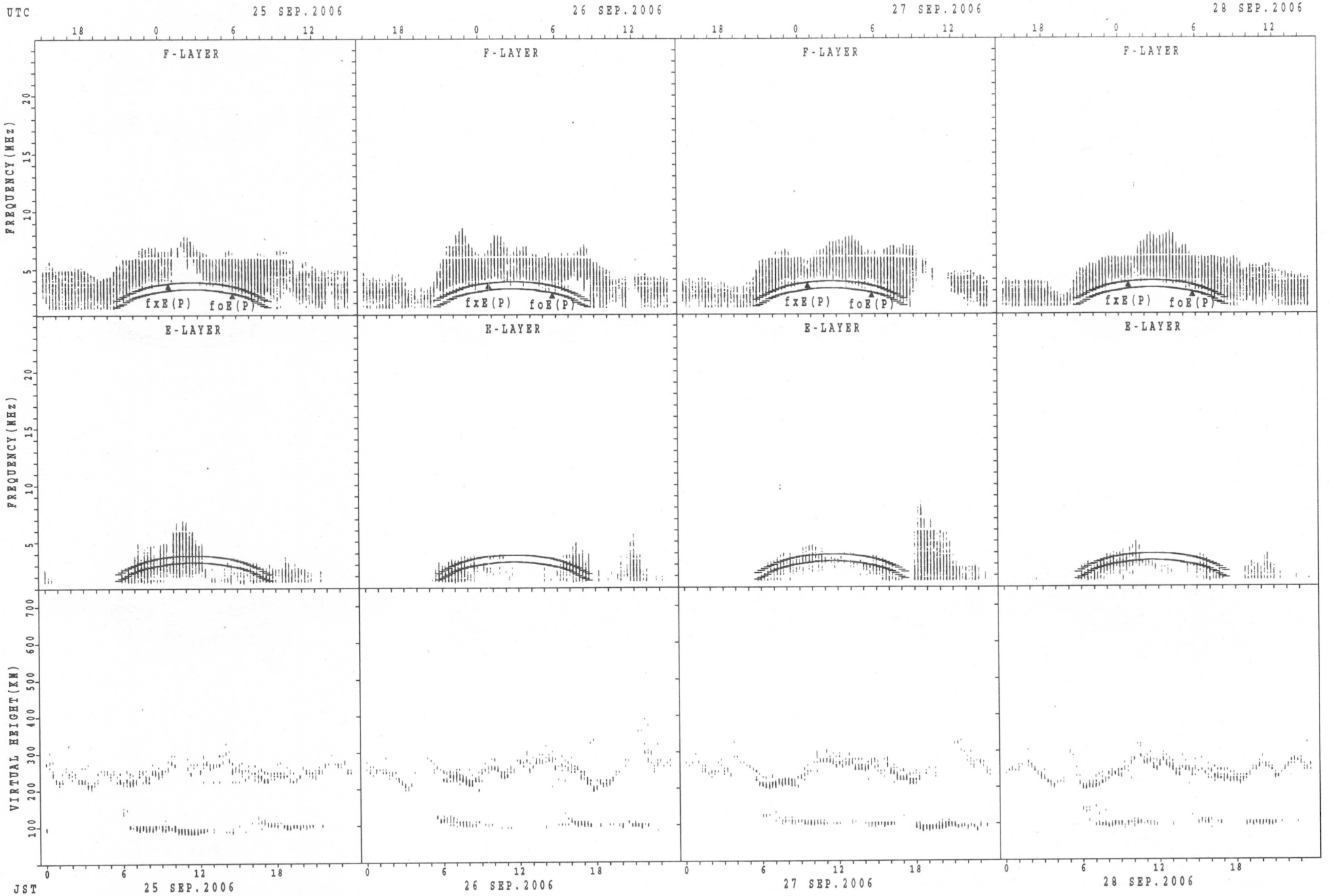
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



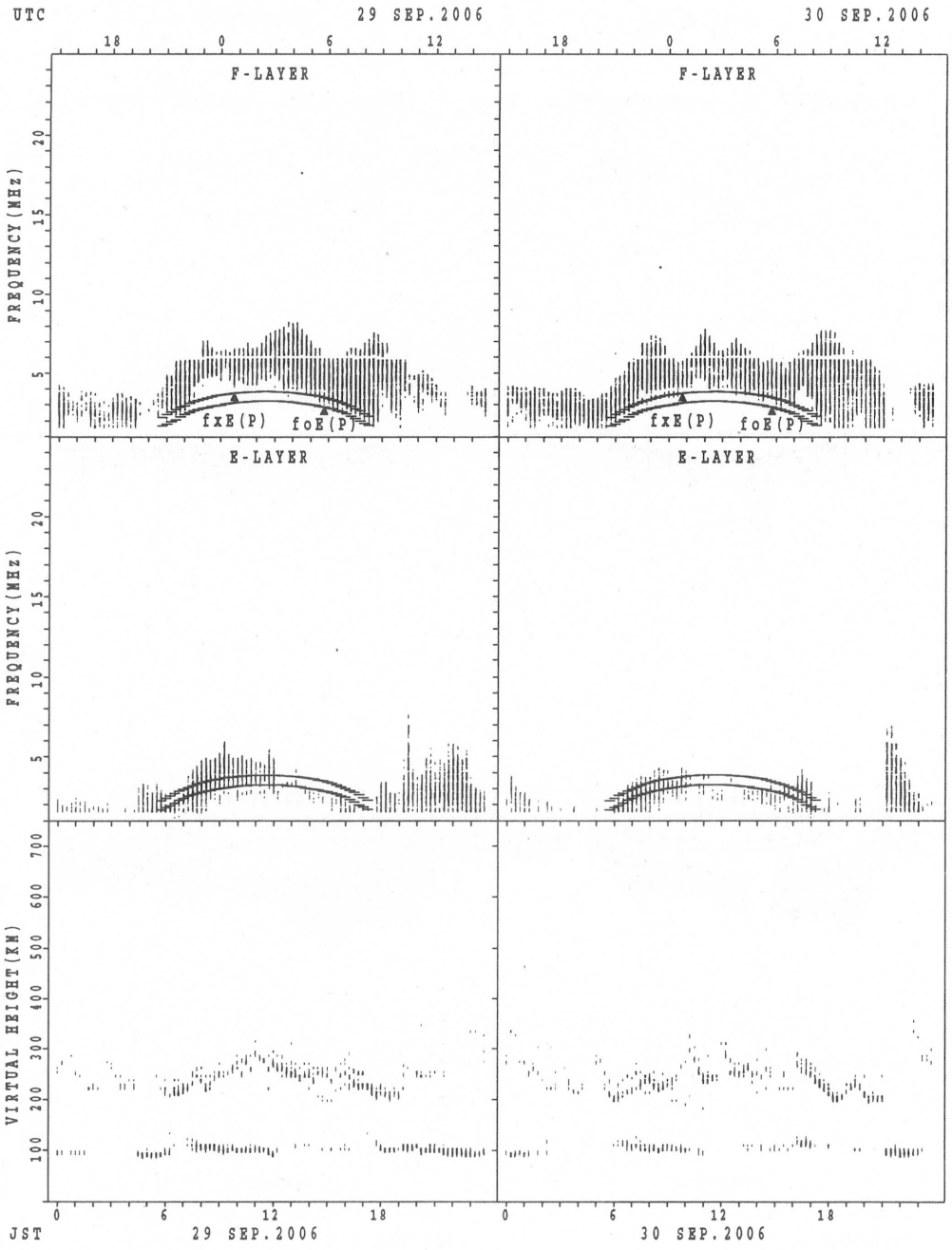
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



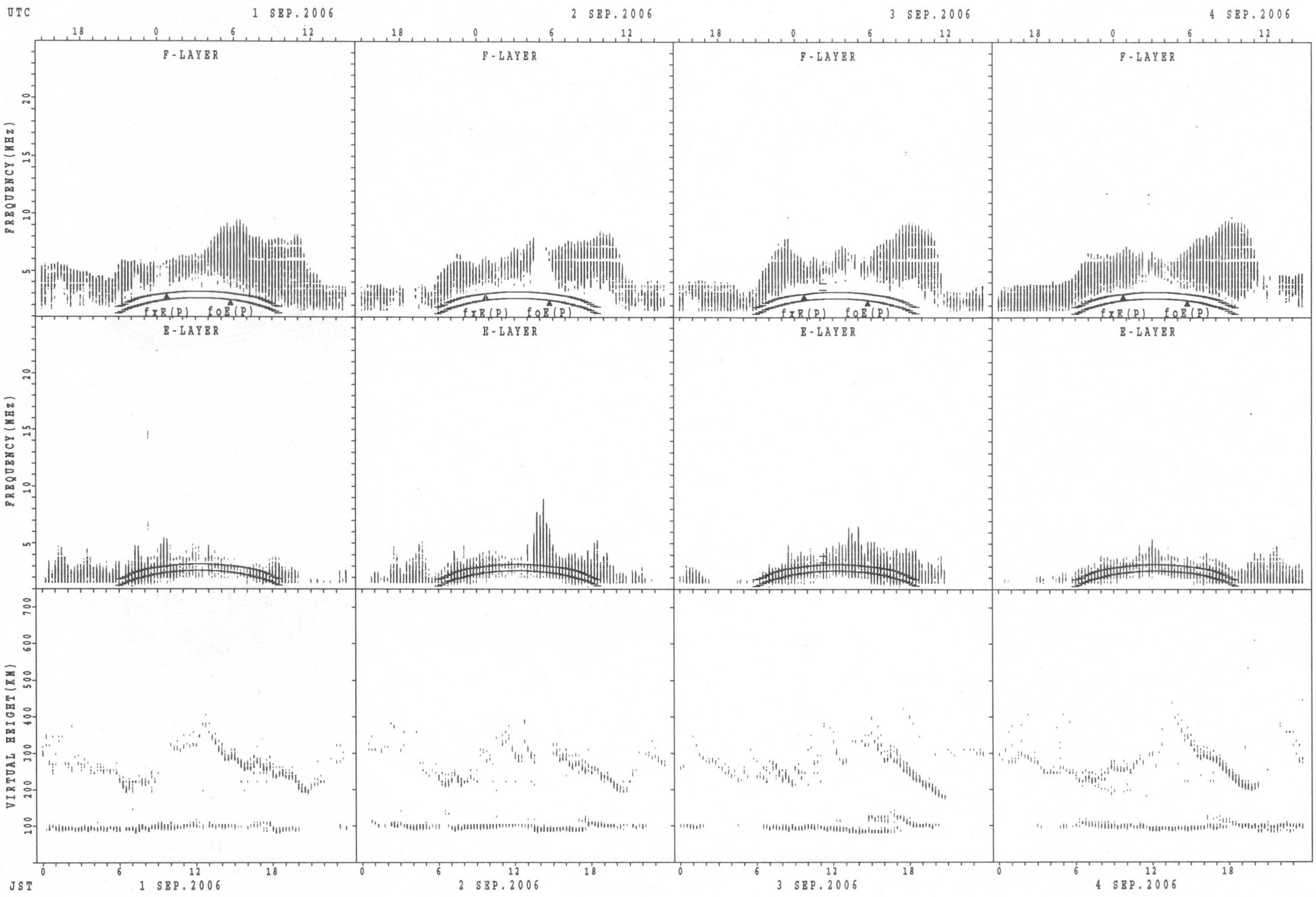
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



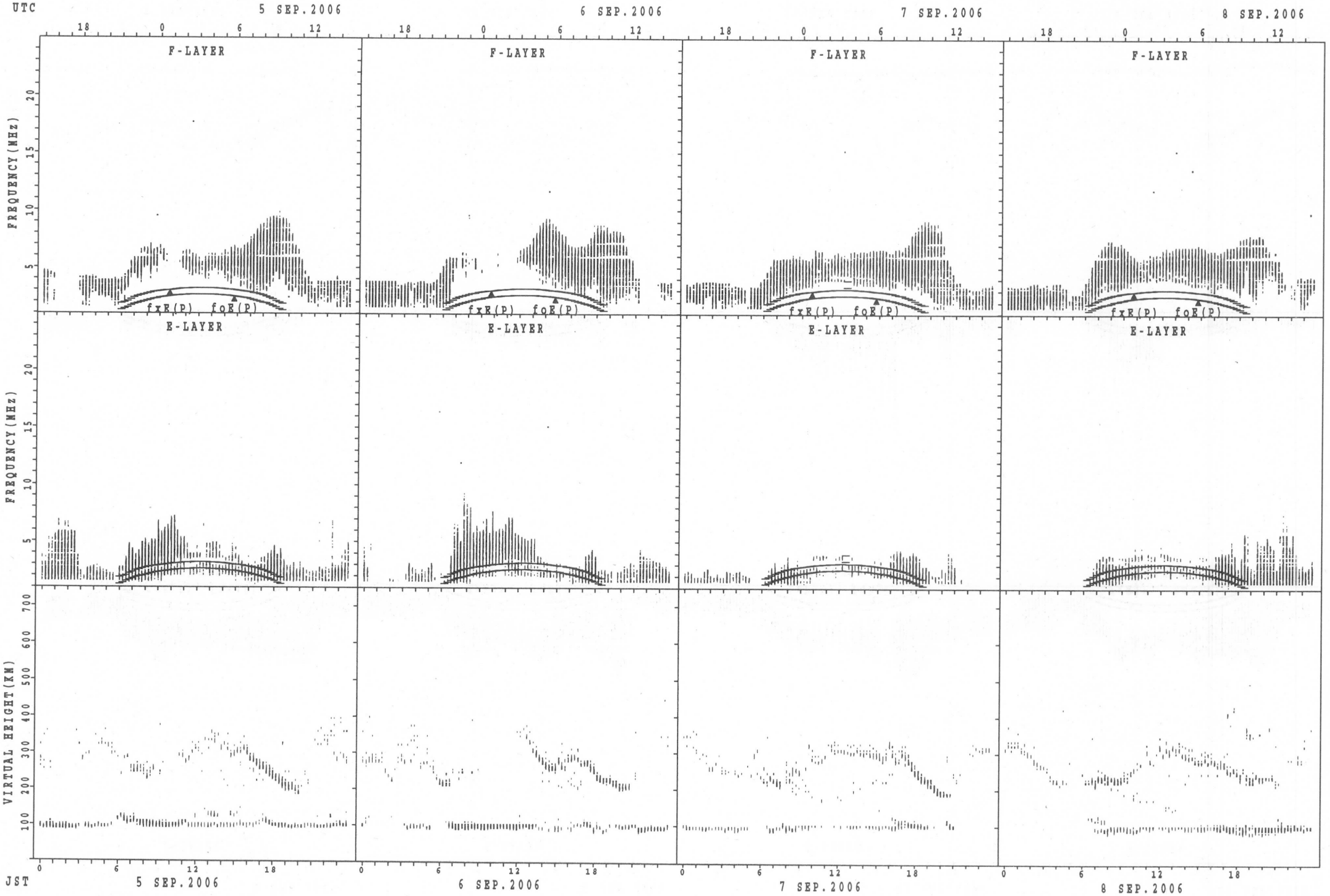
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



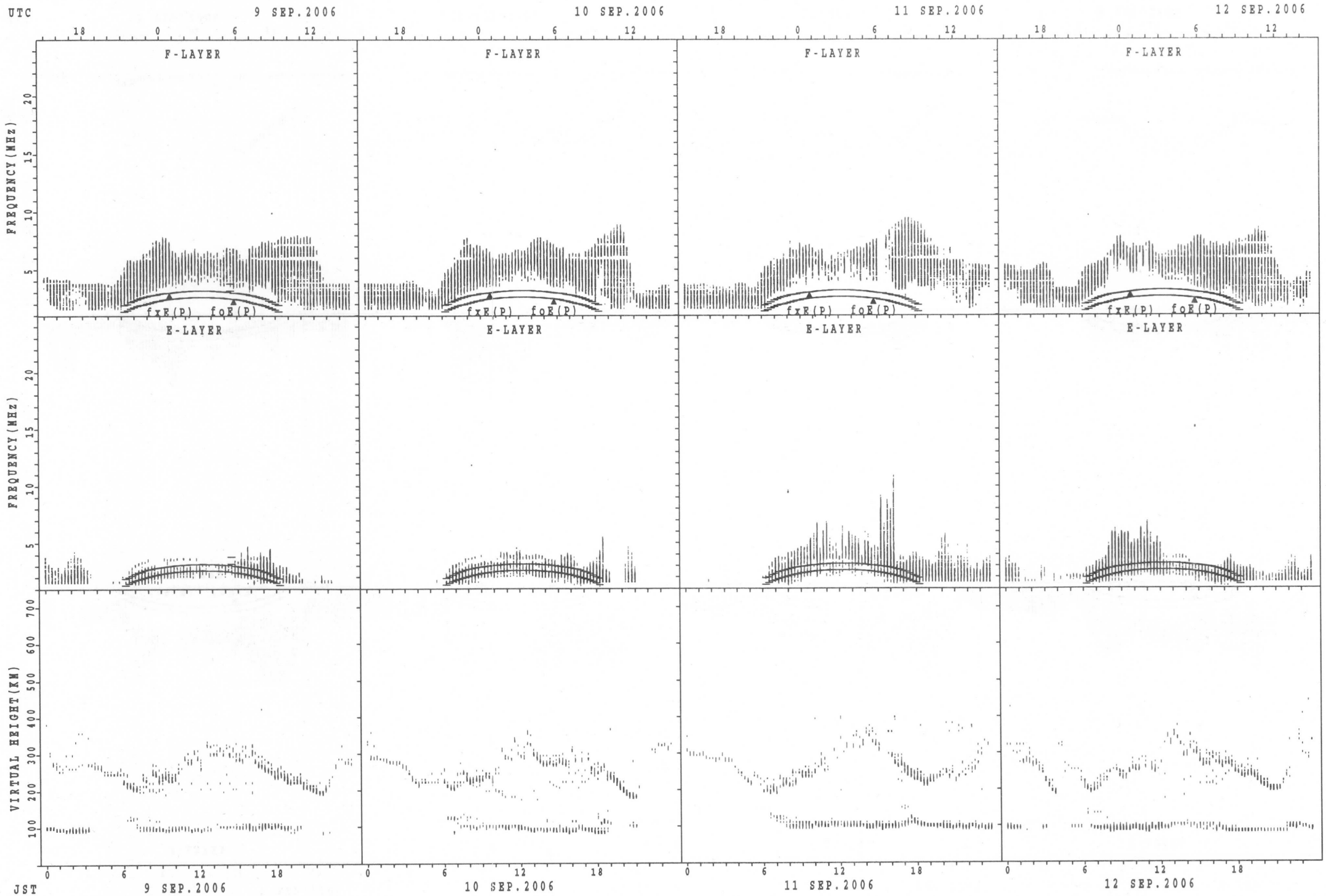
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



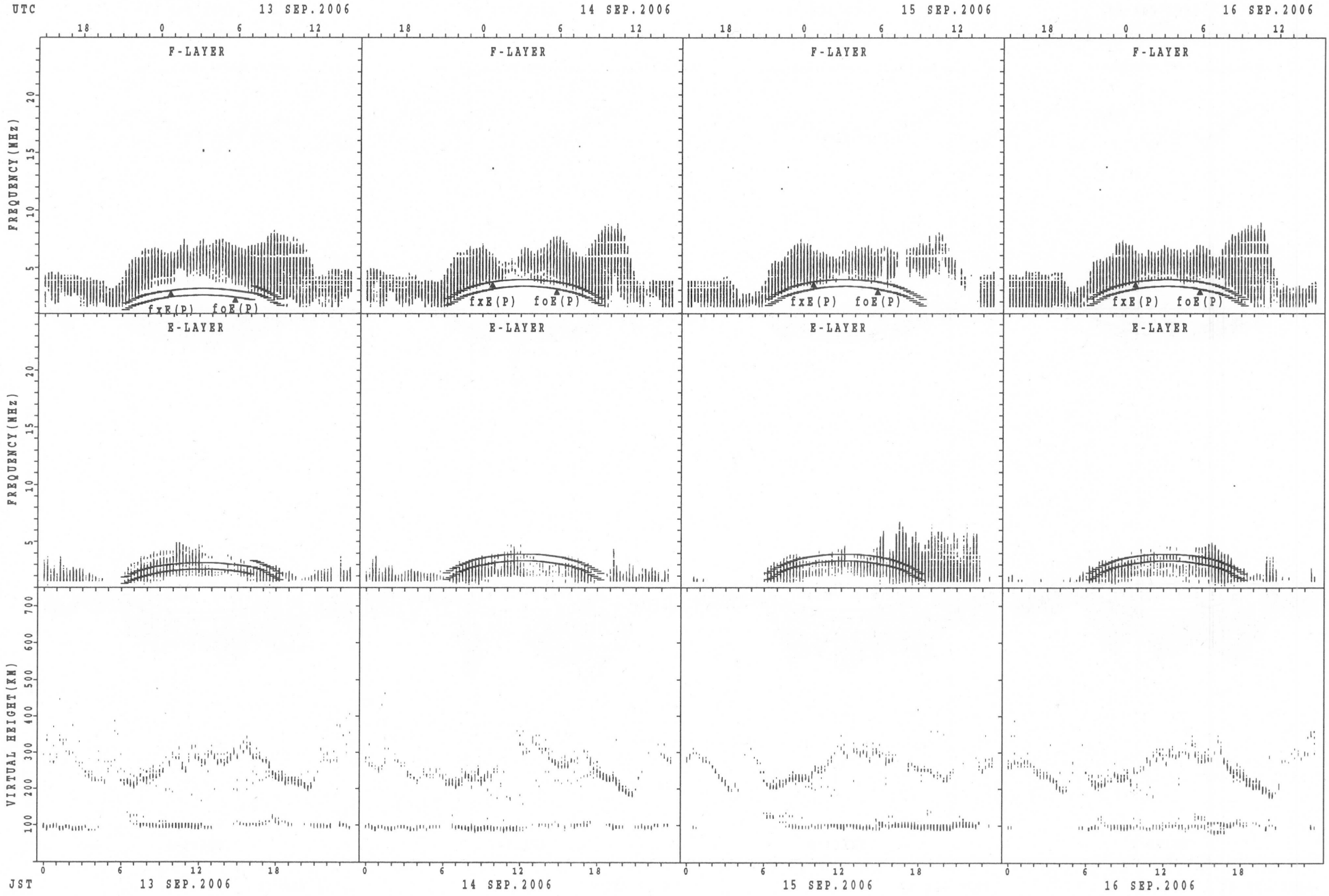
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



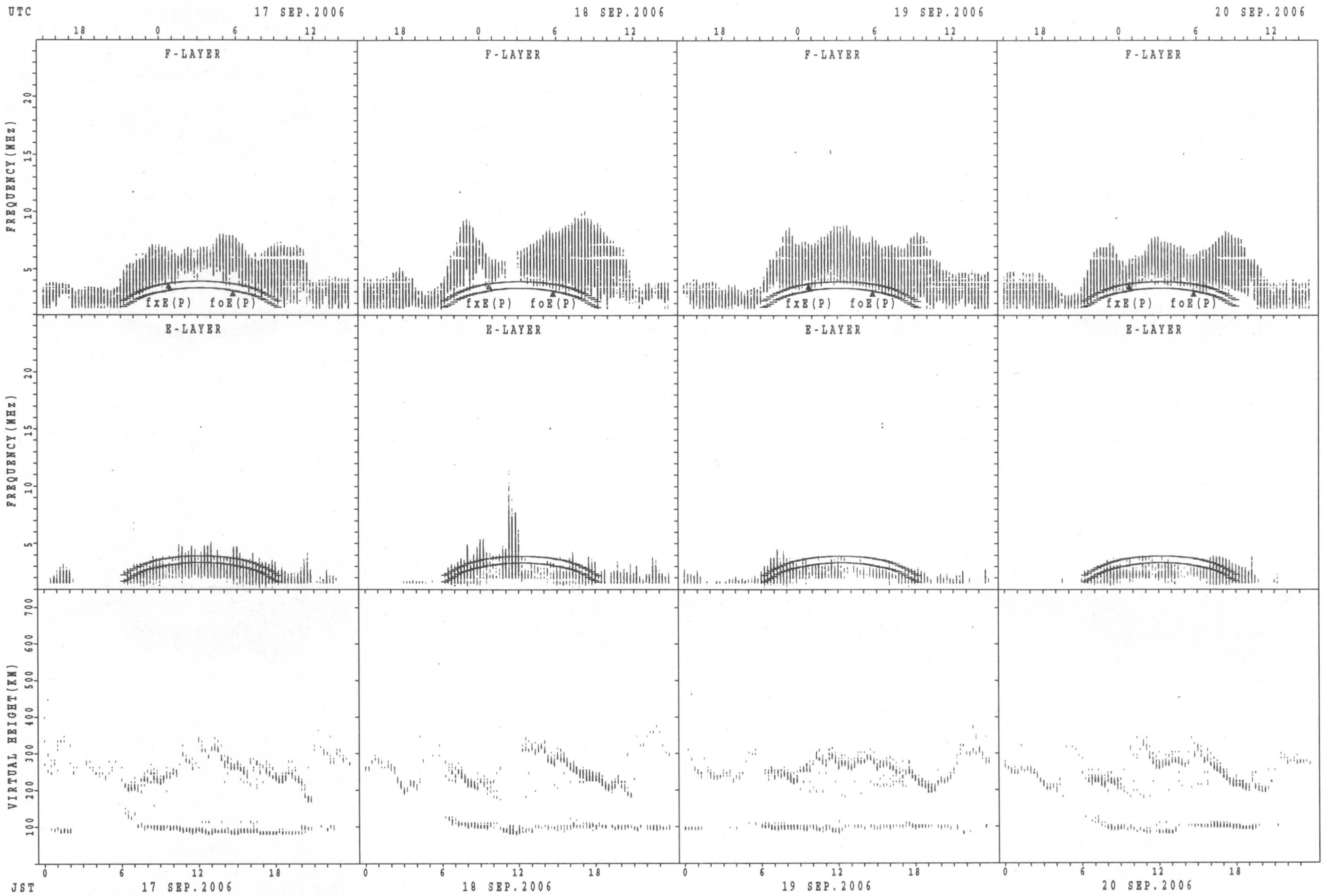
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



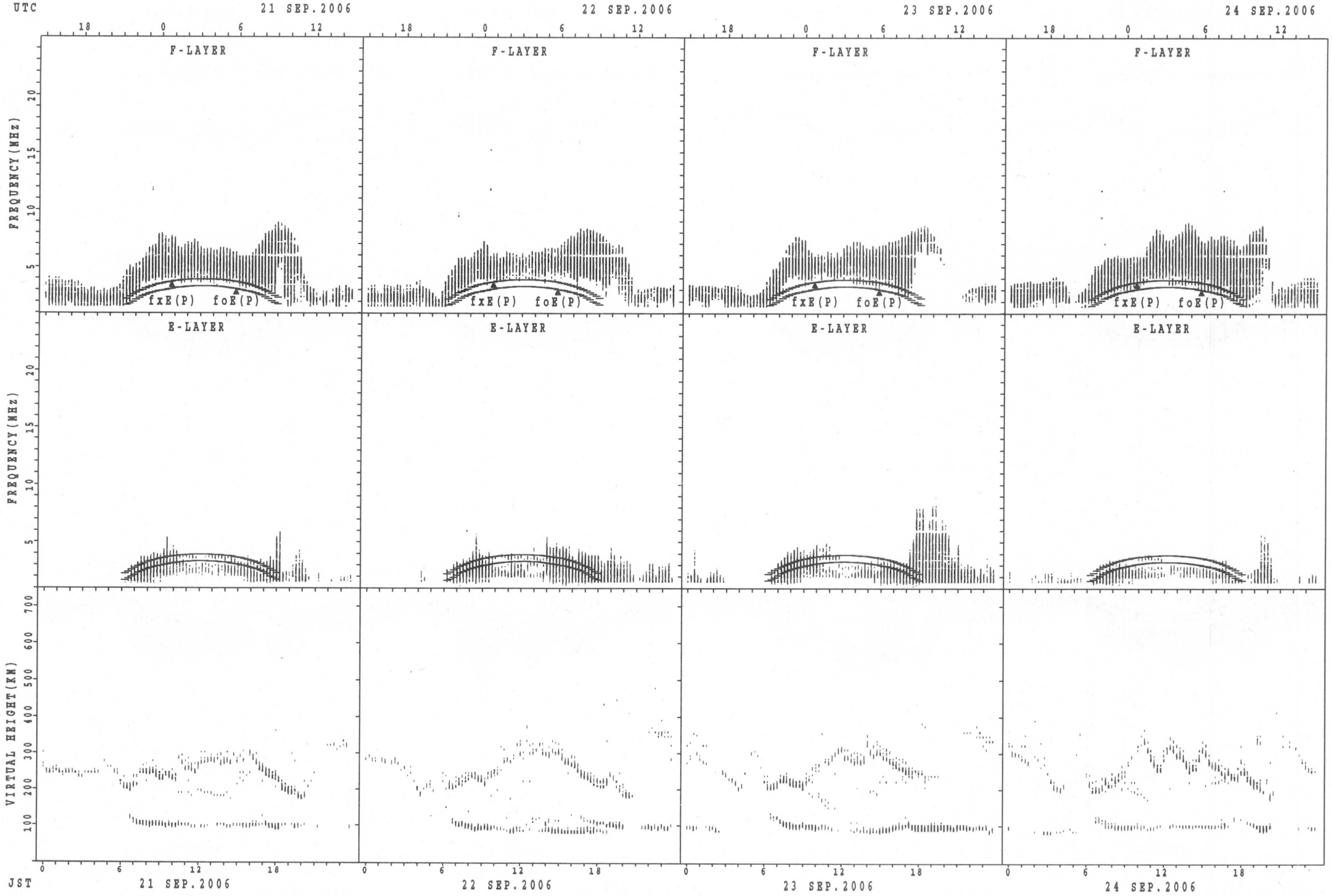
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



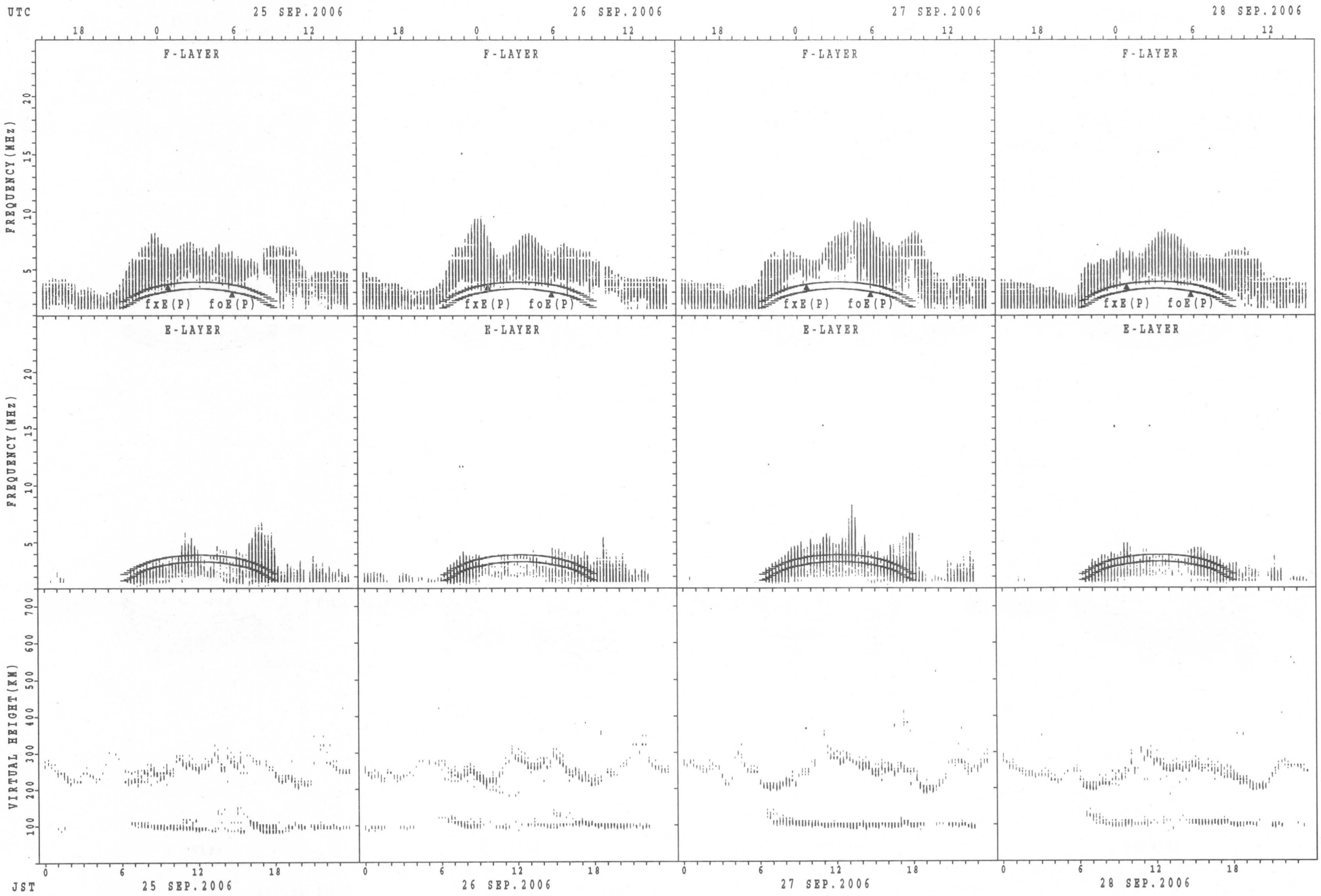
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



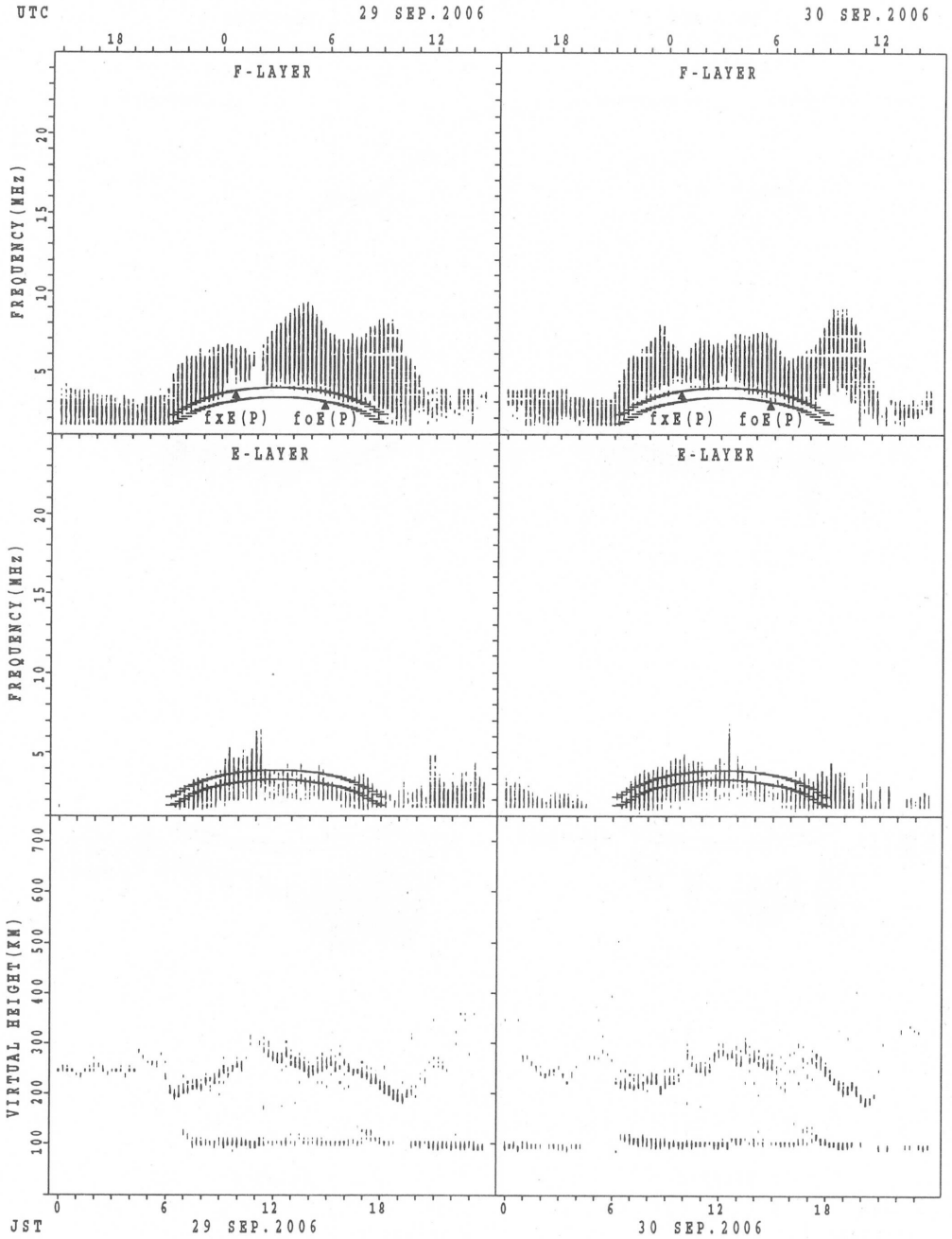
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



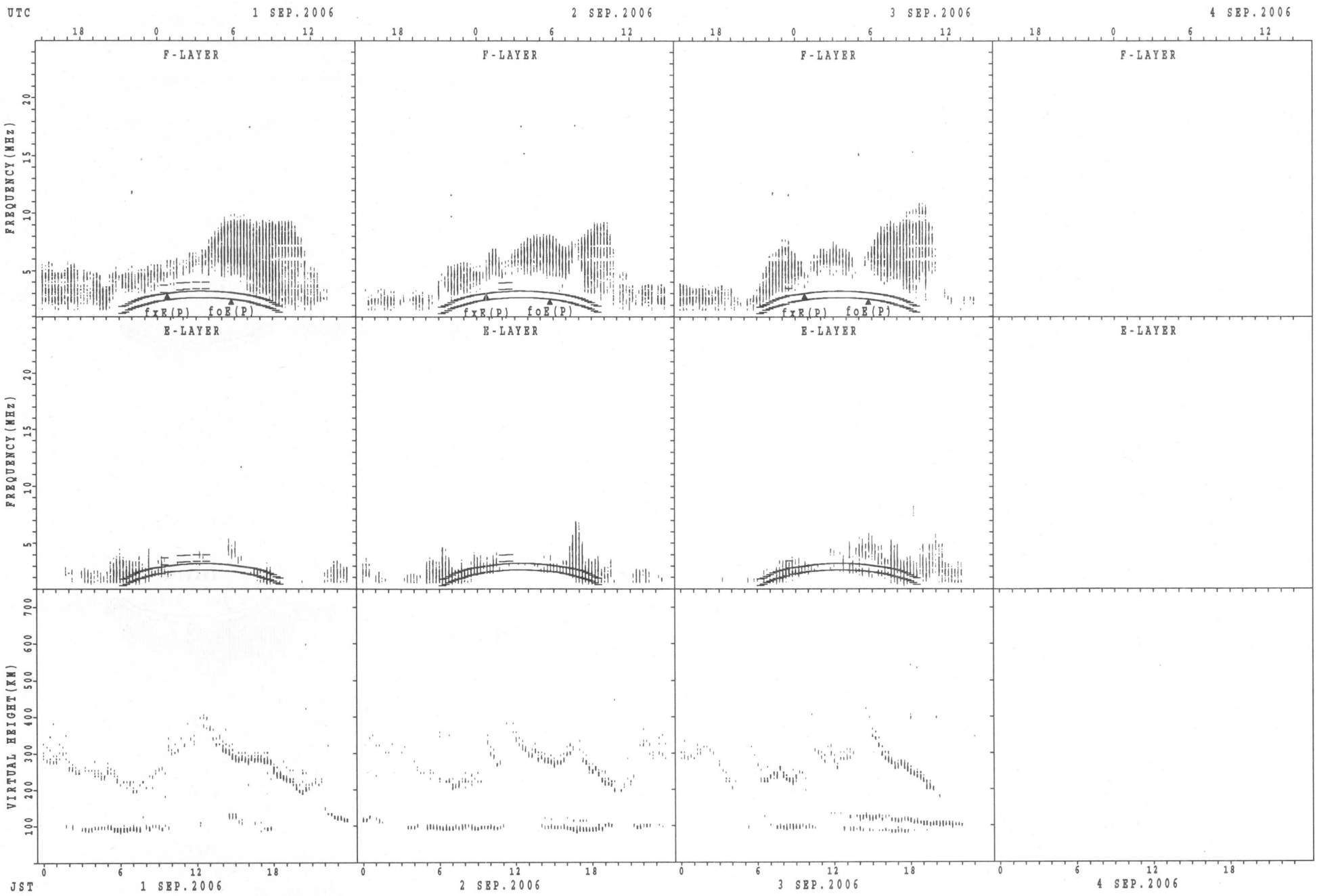
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



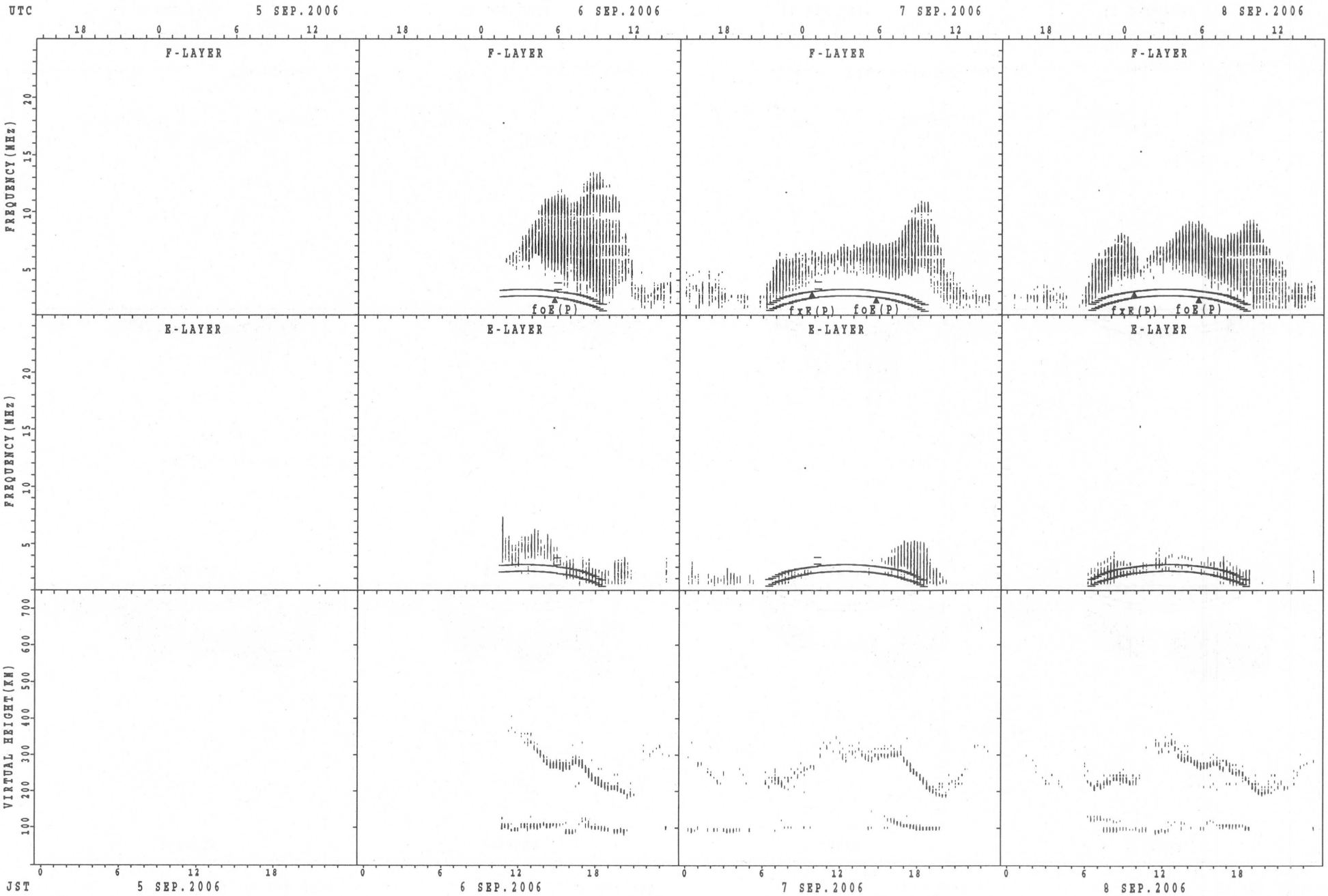
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



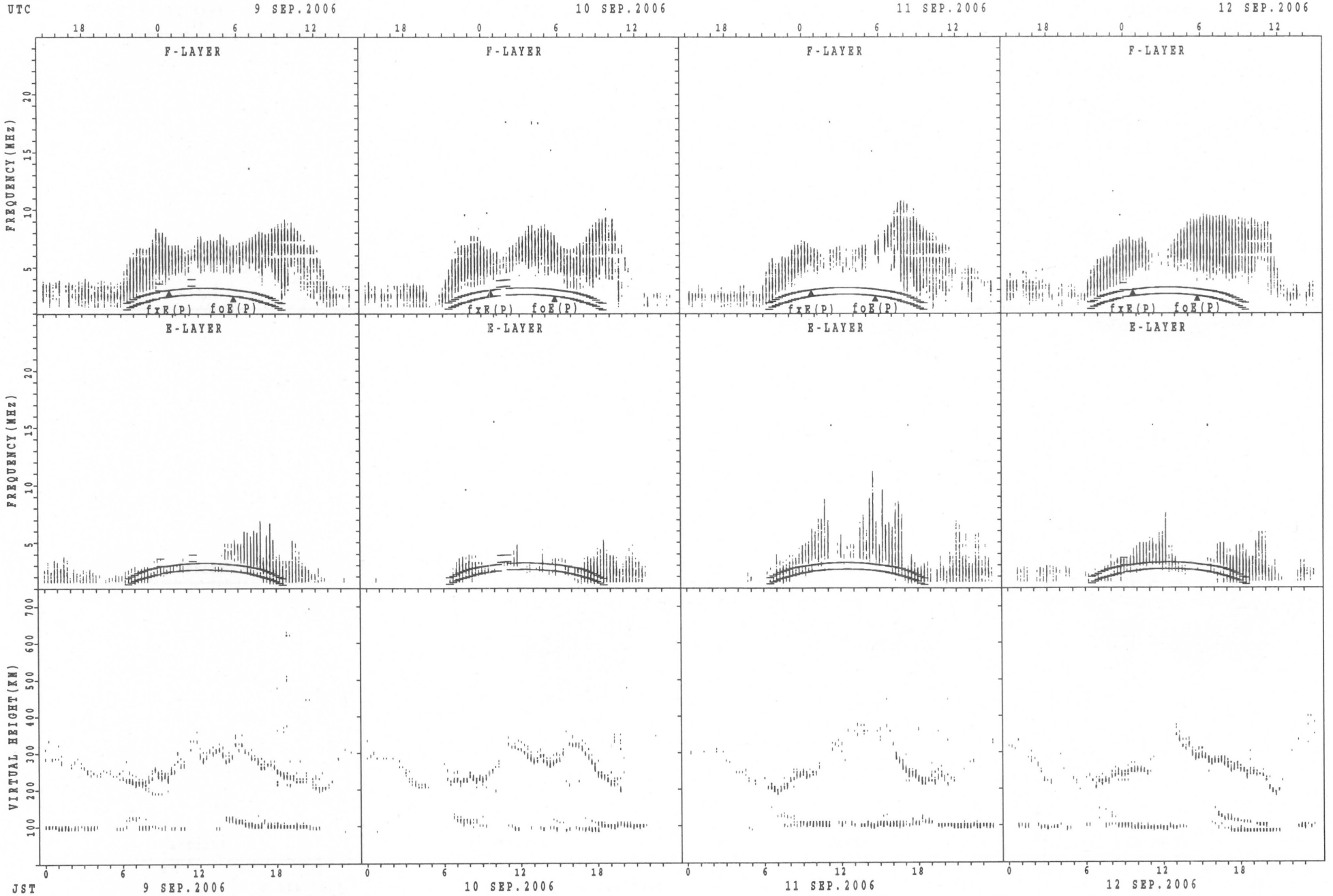
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



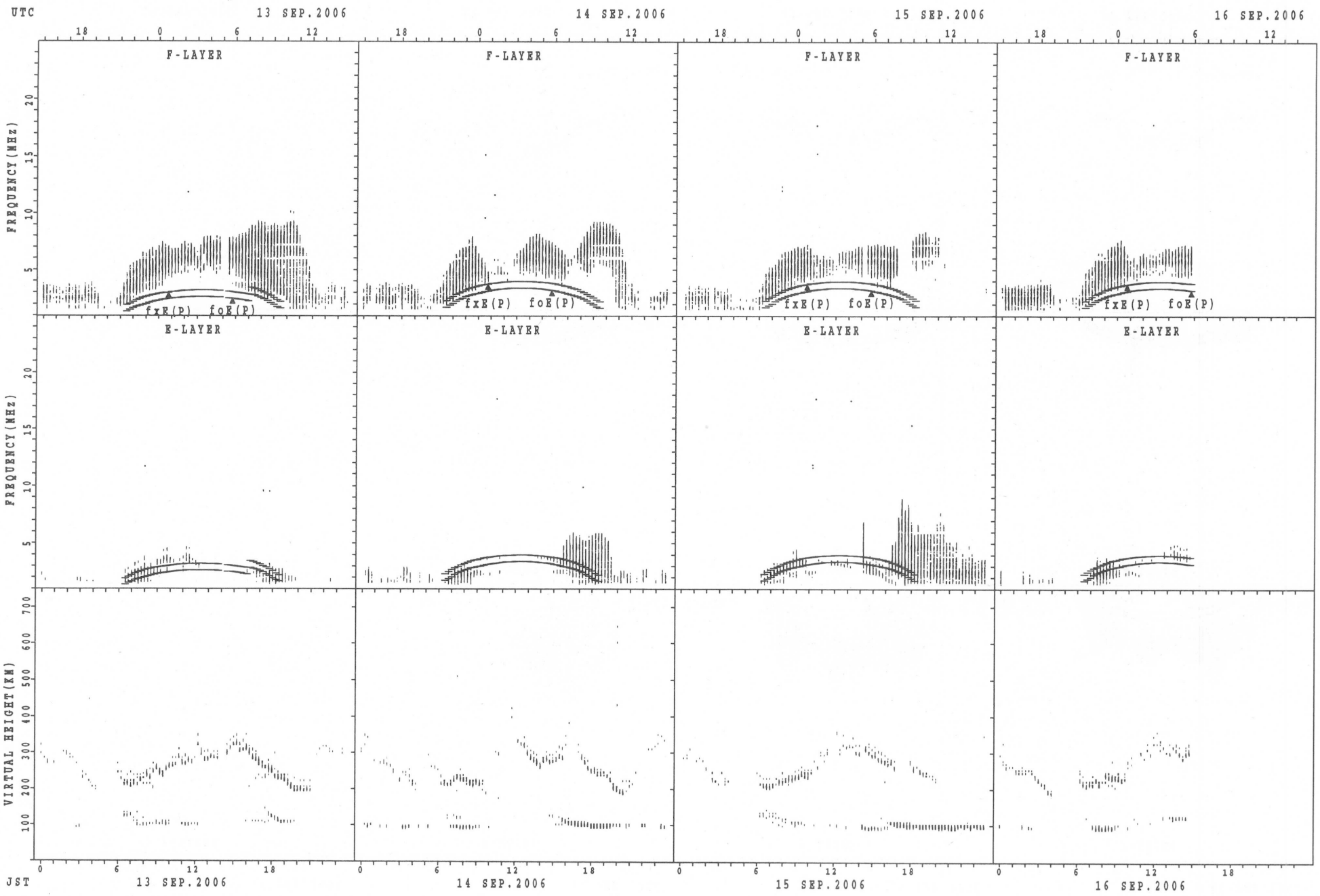
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



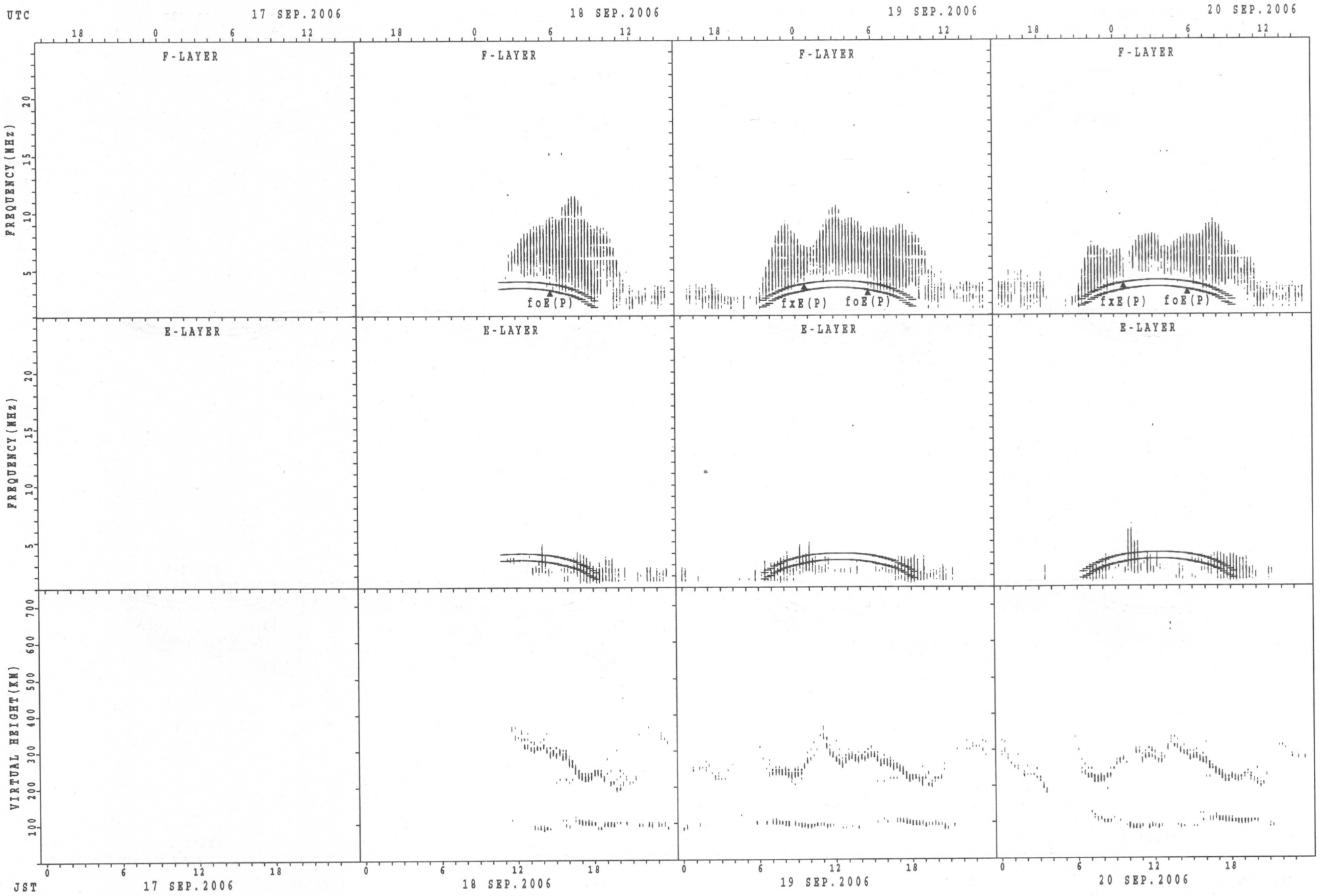
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



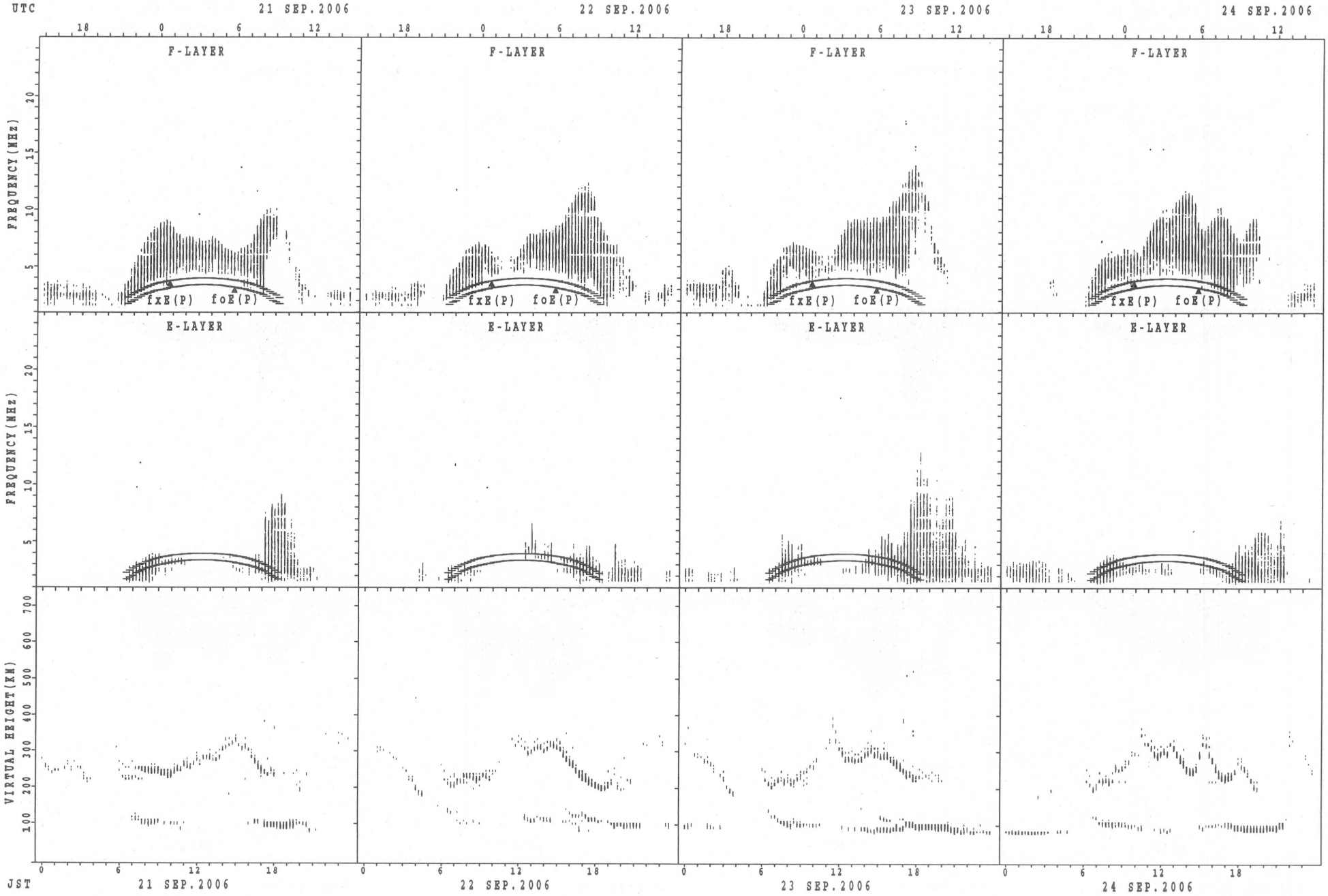
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



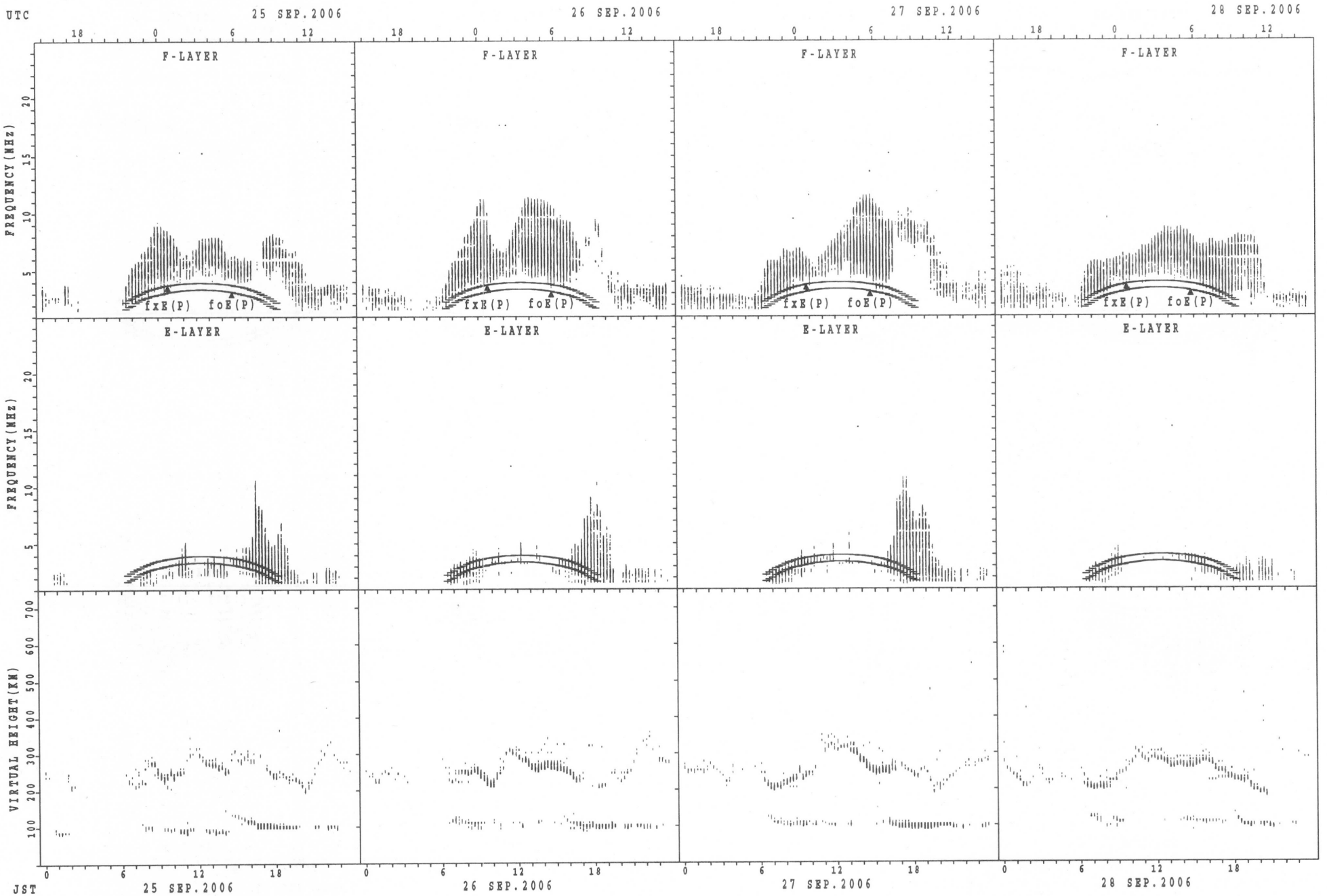
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



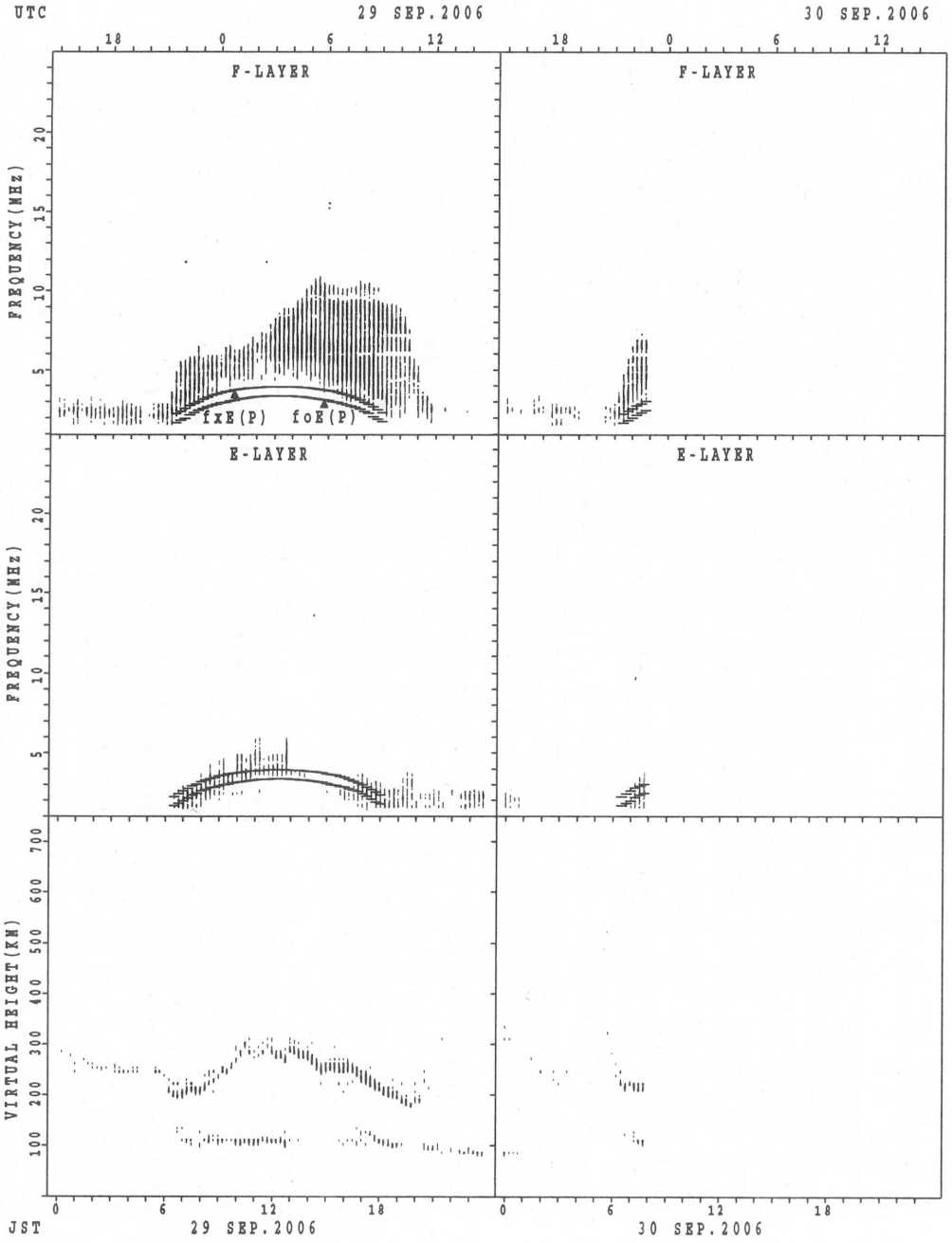
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

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

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

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							1	2	3							3	3			3				
MED							236	264	268							264	250			288				
U Q							118	272	276							280	286			288				
L Q							118	256	264							260	240			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	16	13	13	13	15	15	21	25	22	23	22	17	19	13	15	14	22	20	18	22	23	20	21	14
MED	97	97	95	97	101	97	103	103	101	99	99	99	107	99	95	101	112	110	101	100	103	102	99	97
U Q	101	97	97	101	105	105	113	109	103	103	103	139	181	102	103	107	125	122	105	107	105	103	101	99
L Q	95	92	90	93	95	97	97	98	97	95	99	97	95	93	93	95	107	103	97	95	97	97	96	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								12	13							4	14	11	17	19	7			
MED								261	234							273	281	256	244	240	232			
U Q								276	250							286	298	270	260	258	238			
L Q								240	226							267	260	246	236	224	222			

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	11	6	5	8	10	11	14	20	21	16	13	14	9	7	5	9	18	22	16	14	17	15	14	11
MED	95	99	97	97	97	99	120	107	105	103	101	98	95	105	97	105	107	108	105	103	101	103	97	97
U Q	99	103	102	97	97	105	131	116	107	106	106	105	144	105	133	116	115	111	107	105	102	105	103	99
L Q	95	95	93	94	95	95	103	105	100	98	98	95	93	95	95	97	101	105	99	99	98	97	95	95

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								3	14								19	19	26	23	16	1		
MED								242	239								286	262	250	238	223	274		
U Q								250	246								300	288	262	252	238	137		
L Q								238	228								280	252	238	222	215	137		

h'Es

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	13	13	8	10	7	6	7	26	30	21	20	22	18	17	16	18	19	25	28	25	24	17	17	12
MED	97	97	95	95	95	96	105	114	104	103	99	103	100	107	100	103	107	107	101	101	99	99	97	99
U Q	102	97	96	99	95	99	139	125	113	107	105	111	107	140	107	113	119	114	105	103	101	103	99	101
L Q	96	95	92	93	93	93	99	107	101	98	97	99	95	99	93	93	101	103	96	92	97	96	95	97

MONTHLY MEDIANS OF h'F AND h'Es

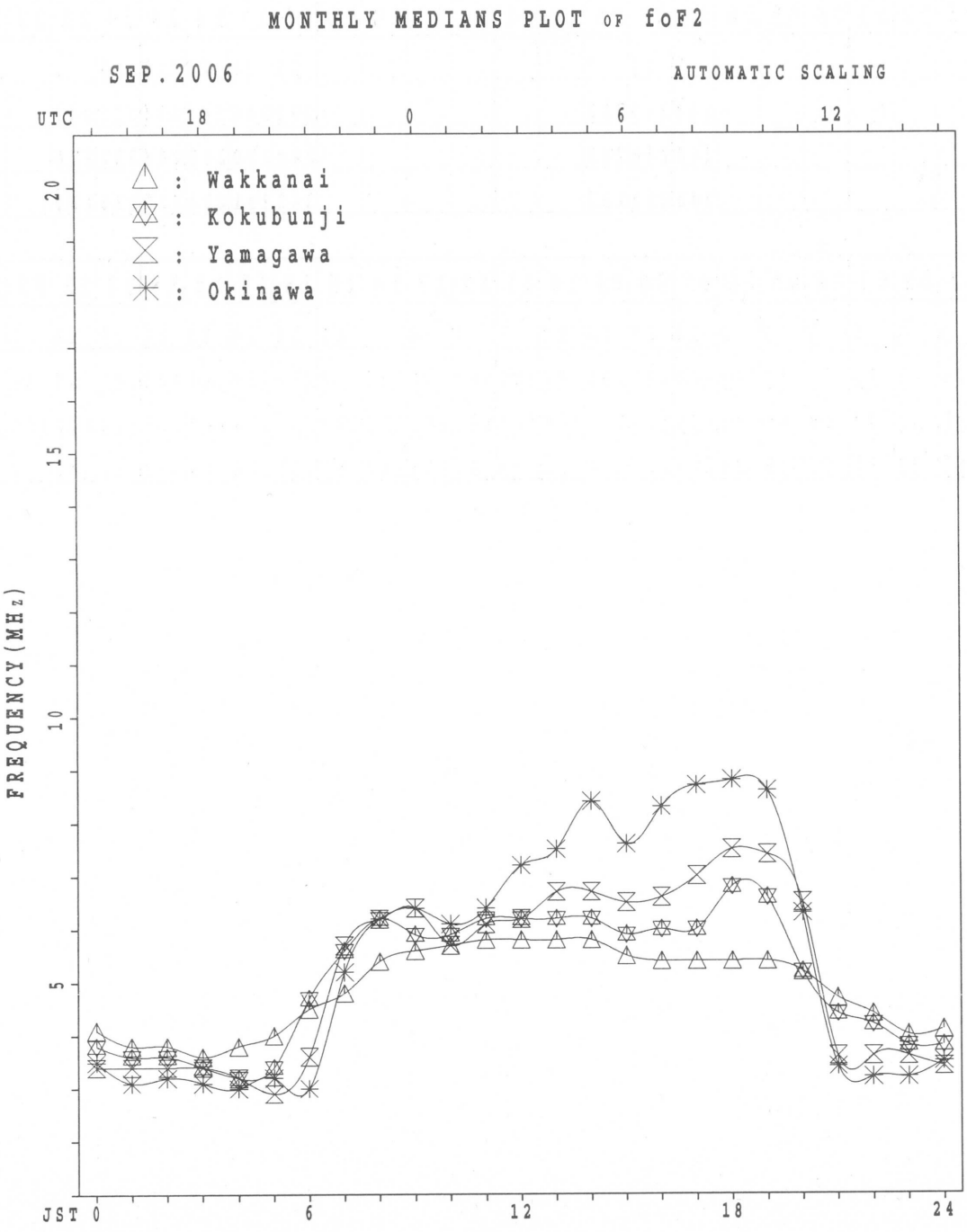
SEP.2006 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

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

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								3	12	7							15	20	23	19	9	1		
MED								244	243	238							272	246	246	234	222	240		
U Q								250	246	248							288	270	256	246	232	120		
L Q								240	238	232							262	231	234	226	215	120		

h'Es

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	7	3	1	3	3	3	2	18	17	13	10	7	7	6	9	11	14	20	23	22	15	14	7	7
MED	97	89	87	95	95	97	93	120	107	107	98	105	103	105	115	113	110	108	103	103	103	97	99	97
U Q	105	97	43	97	99	99	97	125	113	110	105	107	109	105	122	129	119	114	107	105	105	101	103	103
L Q	89	87	43	89	91	95	89	119	101	98	95	95	97	101	107	97	101	104	99	99	99	97	97	91


MONTHLY MEDIANS PLOT OF foF2
SEP. 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

SEP.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 57	X 51	51	X 48	X 47															X 72	X 68	X 56	X 49	X 46
2	X 44	X 44	X 41	X 42	X 41															X 74	X 68	X 52	X 47	X 45
3	X 45	X 42	X 42	X 41	X 40															X 82	X 65	X 44	X 41	X 40
4	X 40	X 37	X 35	X 37	X 39	X 38														X 83	X 61	X 54	X 52	52
5	53	50	46	44	A	39													X 84	X 87	X 57	X 45	X 42	X 43
6	X 40	X 41	X 41	X 40	X 39	X 38													X 67	X 72	X 66	X 54	X 46	X 46
7	47	X 42	X 41	43	44	X 35													X 72	X 80	X 82	X 48	X 37	X 37
8	X 37	X 37	X 36	X 36	X 38	X 37													X 77	X 88	X 72	X 51	X 46	X 44
9	X 43	X 44	X 40	X 38	X 38	X 39													X 77	X 77	X 76	X 53	X 46	X 45
10	X 44	X 43	X 42	X 41	X 40	X 40													X 70	X 79	X 86	X 54	X 49	X 48
11	X 47	X 45	X 45	X 43	X 43	41													X 78	X 78	X 67	X 62	X 54	X 47
12	X 47	X 48	X 47	X 47	A	X 35													X 68	X 75	X 70	X 60	X 49	51
13	50	51	X 44	X 42	X 41	X 40													X 74	X 72	X 60	X 52	X 53	X 51
14	X 52	X 50	X 46	X 46	X 47	X 39													X 75	X 82	X 75	X 52	X 41	X 40
15	X 40	X 39	X 39	X 41	X 33	X 30													X 75	X 74	X 73	X 60	X 48	X 43
16	X 41	X 42	X 41	X 41	X 36	X 35													X 88	X 87	X 50	X 40	X 35	X 35
17	X 36	X 37	X 35	X 35	X 33	X 33													X 80	X 75	X 75	X 44	X 49	X 46
18	X 48	X 46	X 49	X 44	X 36	X 34													X 84	X 76	X 58	X 46	X 44	X 44
19	X 42	X 41	X 41	X 38	A	X 37													X 68	X 64	X 54	X 49	X 49	X 50
20	X 48	X 44	X 43	X 43	X 38	X 34													X 87	X 67	X 46	X 42	X 40	X 42
21	X 42	X 40	X 39	X 37	X 37	X 35													X 85	X 74	X 43	X 38	X 39	X 41
22	X 42	X 41	X 40	X 40	X 41	X 35													X 76	X 76	X 38	44	48	43
23	45	45	45	X 42	X 39	X 38													X 73	X 73	X 54	X 40	X 39	X 40
24	X 40	X 41	X 42	X 42	X 40	X 37													X 73	X 80	X 42	X 45	X 51	X 54
25	X 54	X 54	X 50	X 52	X 46	X 44													X 65	X 67	X 57	X 55	X 52	X 51
26	X 50	X 45	X 46	X 46	X 36	X 38													X 58	X 52	X 45	X 46	48	X 46
27	X 44	X 43	X 44	X 42	X 39	X 38													X 72	X 61	X 44	50	52	50
28	X 42	X 40	X 40	X 40	X 34	X 30													X 61	X 54	X 52	X 54	X 48	X 46
29	X 46	X 43	X 39	X 39	X 37															X 61	X 51	X 46	A	48
30	45	X 42	X 42	X 39	X 40	X 37													X 79	X 67	X 64	X 47	X 41	48
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	27	26													25	30	30	30	29	30
MED	X 44	X 43	X 42	X 42	X 39	X 37													X 75	X 74	X 60	X 50	X 48	X 46
U Q	X 48	X 45	X 45	X 43	X 41	X 39													X 80	X 80	X 70	X 54	X 49	X 48
L Q	X 42	X 41	X 40	X 39	X 37	X 35													X 69	X 67	X 51	X 45	X 41	X 43

SEP.2006 fxI (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

SEP.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	51	45	F	42	41	40	54	53	60	54	57	58	60	66	75	80	68	60	66	66	62	50	43	40
2	38	38	35	36	35	35	44	57	61	64	A	55	58	65	62	65	64	69	69	68	62	46	41	39
3	39	36	36	35	34	36	42	53	69	56	66	57	55	62	68	61	60	60	65	76	59	38	35	34
4	34	30	29	31	33	32	46	62	57	54	60	66	57	53	58	67	74	80	81	77	55	48	45	F
5	F	F	F	F	A	F	40	45	60	60	58	54	52	55	58	60	64	74	77	81	51	39	36	37
6	34	35	35	34	33	31	47	56	62	54	52	52	55	57	64	62	58	57	61	66	60	48	40	40
7	F	36	35	F	F	28	49	56	63	52	54	54	62	56	60	57	60	57	66	74	76	42	31	31
8	31	30	30	30	32	31	48	56	64	72	61	51	59	64	60	58	55	58	71	81	66	45	40	38
9	37	38	33	32	32	33	50	62	61	65	62	A	60	56	60	60	60	65	71	71	70	47	40	39
10	38	37	36	35	34	34	50	52	65	65	60	60	60	58	62	66	67	58	64	73	80	48	42	42
11	41	39	39	37	36	F	56	54	64	69	65	A	60	60	71	71	71	71	71	72	60	56	48	41
12	40	41	41	41	A	29	46	58	60	66	63	68	65	63	55	59	62	58	62	69	64	54	43	F
13	F	F	38	36	35	34	51	60	61	64	59	64	65	63	68	62	56	58	68	66	54	45	47	45
14	46	44	40	40	41	33	55	58	52	68	57	57	59	56	62	66	65	61	68	76	68	46	34	34
15	34	33	33	34	26	24	44	57	67	64	57	58	60	63	60	59	57	60	69	68	67	54	41	36
16	35	36	35	35	29	29	48	55	62	59	58	61	66	59	58	56	55	63	82	81	44	34	29	29
17	30	30	29	29	27	27	50	62	61	62	63	60	70	63	64	60	55	58	74	69	69	38	43	40
18	42	40	43	37	30	28	44	73	91	72	58	52	58	62	70	74	80	83	78	70	52	40	38	38
19	36	35	35	32	A	31	46	56	65	75	67	72	70	62	58	63	55	56	62	58	48	43	43	44
20	42	38	37	37	32	28	45	58	78	50	53	56	64	70	59	54	60	70	81	61	40	36	34	36
21	35	34	33	31	31	29	46	64	58	66	60	64	66	62	62	55	55	59	79	68	37	32	33	35
22	36	35	34	34	35	29	43	58	55	54	61	53	55	56	59	54	57	58	70	70	32	F	F	F
23	F	F	F	36	33	32	49	56	62	61	54	56	62	57	62	56	56	60	66	66	48	34	33	34
24	34	35	35	36	34	31	54	48	50	56	63	70	65	67	66	74	69	62	67	74	36	39	45	48
25	47	47	44	46	40	38	50	55	62	64	65	76	64	58	58	57	56	60	59	61	51	48	46	45
26	44	40	40	40	30	32	50	69	75	58	69	70	64	58	56	56	58	63	52	46	39	40	F	40
27	38	37	37	36	33	32	52	57	62	57	55	63	70	74	64	60	64	65	66	55	38	F	F	F
28	36	34	34	34	28	24	46	48	57	55	56	70	70	78	65	57	57	54	55	48	46	47	42	40
29	40	37	33	33	31	29	45	54	67	60	63	63	72	78	66	58	59	65	69	55	45	40	A	F
30	F	36	36	33	34	30	43	52	69	59	55	74	60	64	57	53	55	68	72	61	58	41	35	F
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	25	27	27	28	26	28	30	30	30	30	29	28	30	30	30	30	30	30	30	30	30	28	26	24
MED	38	36	35	35	33	31	48	56	62	60	60	60	61	62	62	60	60	60	68	68	54	44	40	39
U Q	42	39	38	37	35	33	50	58	65	65	63	67	65	64	65	65	64	65	72	74	64	48	43	40
L Q	34	35	33	33	31	29	45	54	60	56	56	56	59	57	58	57	56	58	65	61	45	39	35	36

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								L	L	L	U L 452	A	U L 436	U L 448	U L 424	U L 420	L	L						
2								A	A	A	A	A	A	U L 452	U L 436	U L 404	L	L						
3								L	U L 404	L	A	U L 460	456	440	U L 440	U L 416	L	L						
4								L	L	U L 432	452	U L 436	440	U L 448	U L 452	432	L	A						
5								U L 380	A	A	U L 444	A	A	U L 456	U L 436	A	A	A						
6								A	A	A	L 448	U L 448	A	U L 444	428	L 428	L	L						
7								L	L	L	U L 448	U L 456	444	U L 448	U L 432	U L 432	L	L						
8								L	U L 428	U L 436	U L 452	U L 468	U L 456	U L 452	U L 452	L	A	A						
9								L	L	U L 436	U L 448	A	U L 464	U L 472	U L 452	U L 424	L	L						
10								L	U L 416	U L 448	U L 460	U L 452	456	456	L 448	U L 428	L	L						
11									A	A	A	A	A	U L 452	U L 436	436	A							
12								L	L	L	440	448	452	U L 448	U L 468	U L 432	L	L						
13								L	L	U L 440	U L 448	468	U L 452	440	U L 440	L		L						
14									L	A	U L 444	U L 448	456	L	U L 448	L	L	L						
15									L	L	U L 452	U L 448	U L 460	U L 440	U L 452	L	L							
16									L	L	U L 448	U L 456	U L 452	L	U L 444	L	L	L						
17								L	L	L	U L 464	468	U L 456	U L 440	436	L	L							
18								L	A	L	L	U L 452	U L 464	U L 464	U L 432	L								
19								A	U L 420	U L 428	U L 448	440	448	U L 448	U L 440	L	L							
20								U L 376	A	L	U L 444	U L 448	U L 440	U L 440	L	L	L	L						
21								L		U L 420	440	U L 452	U L 448	U L 440	L	L	L	L						
22									L	L	412	U L 428	U L 460	U L 424	U L 432	L	L							
23									L	U L 420	U L 444	U L 444	440	U L 448	U L 424	L	L	L						
24									L	U L 424	U L 436	U L 432	U L 448	U L 440	U L 420	U L 400	L							
25										L	U L 428	A	A	L	L	L	L							
26								L	L	U L 432	U L 444	U L 424	U L 440	L	L	L	L							
27										L	U L 452	U L 436	U L 444	L 440	L	L	L							
28										L	L	U L 432	U L 448	U L 448	L	L	L							
29										E A	U A 408	U L 456	U A 412	U L 448	L	L	L							
30									L	L	U L 448	428	L	U L 424	L	L								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								2	4	10	25	24	24	26	22	11								
MED								U L 378	U L 418	U L 432	U L 448	U L 448	U L 450	U L 448	U L 438	U L 428								
U Q									U L 424	U L 436	U L 452	U L 456	U L 456	U L 452	U L 448	U L 432								
L Q									U L 410	U L 424	U 442	U L 436	U 442	U L 440	U L 432	U L 416								

SEP. 2006 foF1 (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							B UR 208	256	A	A	A	A	A	A	A	R	A	A	B					
2							B A 188	A	A	A	A	A	A	A	U R 328	U R 296	A	U A 216	B					
3							B A 188	A	U R 288	U A 328	A	U A 348	R	R	U A 324	296	U R 260	U A 216	B					
4							U A 176	A	A	A	R	A	U R 368	A	A	A	U A 260	A	B					
5							196	A	A	A	A	A	A	340	320	300	U A 268	A						
6							A	A	A	A	R	R	A	U R 332	U R 308	296	264	R						
7							A	U R 256	U R 284	R	R	R	R	R	R	300	U A 264	A						
8							192	U A 256	A	R	R	R	A	A	A	A	U A 264	A						
9							U A 188	A	U A 288	U A 312	R	A	A	U R 352	R	U A 292	U A 264	A						
10							U A 200	U A 248	A	A	A	A	R	A	A	A	U A 268	A						
11							U A 188	U A 256	A	A	A	A	A	A	A	A	U A 264	U A 224						
12							196	U R 260	A	A	R	R	R	R	R	U R 300	U R 268	R						
13							U A 184	A	A	A	R	R	R	R	R	R	R	U A 200						
14							180	A	U R 308	A	A	R	R	R	312	292	256	U A 196						
15							U A 184	A	U A 292	A	A	A	A	A	A	A	A	A						
16							188	U R 264	U A 292	A	A	A	A	A	A	A	A	196						
17							200	268	A	A	U R 336	R	R	A	A	U A 288	A	U A 180						
18							B	A	A	A	A	A	R	336	R	288	A	A						
19							A	A	A	U R 320	R	R	R	U R 316	R	U R 284	A	A						
20							B	240	A	308	316	R	U R 344	R	A	A	A	B						
21							B	A	284	U R 328	R	U R 356	R	U R 332	R	R	U R 260	A						
22							184	A	A	R	R	R	344	U R 324	304	A	A	U A 184						
23							B	A	A	R	R	R	R	R	R	U R 288	A	A						
24							U A 180	U R 272	A	U R 308	U R 324	R	R	R	R	R	U R 240	A						
25							B	A	A	A	A	A	A	R	U R 304	284	U A 240	A						
26							B	A	A	U A 288	R	R	R	R	U R 296	U R 280	U A 228	B						
27							U A 180	U A 232	A	A	A	A	A	R	A	A	A	U R 196						
28							U A 200	248	U A 292	A	A	R	R	U R 328	A	A	A	U R 192						
29							B U A 204	U A 248	A	A	A	A	A	A	R	U R 280	U R 240	R	B					
30							U A 176	A	A	A	A	R	U R 344	R	U R 304	280	U A 244	B						
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							19	13	8	7	3	2	4	8	9	16	17	10						
MED							U A 188	U 256	U 290	U 312	U R 324	U 352	U R 344	U R 332	U R 308	290	U A 260	U A 196						
U Q							U A 200	U R 262	U A 292	U 328	U R 336		U R 356	338	U 322	296	U A 264	U A 216						
L Q							U A 180	248	U 286	308	316		344	U R 326	U R 304	U R 284	U A 242	U A 192						

SEP. 2006 foE (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

SEP. 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 24	J A 23	J A 35	J A 47	J A 56	J A 20	G	32	34	37	J A 45	J A 57	J A 44	38	36	G 27	J A 40	J A 30	J A 28	J A 28	J A 23	22	J A 26	J A 22
2	J A 24	20	J A 25	J A 27	J A 26	J A 27	J A 34	35	J A 84	J A 54	J A 64	J A 58	J A 55	J A 41	G 30	G 28	30	30	J A 31	J A 25	J A 23	J A 21	J A 22	J A 19
3	J A 19	20	E B 14	E B 15	J A 20	J A 20	J A 23	32	33	38	38	42	G 28	G 27	42	36	G 24	29	22	18	J A 20	E B 15	E B 14	20
4	J A 27	J A 22	J A 23	J A 28	J A 31	J A 18	25	33	36	37	G 28	38	G J 29	A J 54	A J 47	A J 46	33	J A 40	A J 36	A J 56	J A 48	A J 39	A J 86	A J 57
5	J A 48	E B 15	J A 29	J A 43	J A 53	19	24	32	J A 47	J A 52	A J 46	A J 80	A J 45	42	39	J A 59	J A 59	J A 116	J A 101	J A 104	J A 65	J A 67	J A 44	J A 29
6	J A 65	J A 21	19	20	J A 19	J A 21	A J 37	A J 46	J A 46	J A 46	G 28	G 29	J A 47	J A 50	G 23	G 23	30	G 19	J A 27	J A 21	J A 34	J A 21	26	J A 25
7	J A 21	20	19	E B 14	E B 14	20	20	G 19	G 22	G 27	G 24	G 28	G 28	G 28	G 26	34	34	28	J A 42	J A 45	J A 45	J A 27	21	E B 15
8	E B 15	19	E B 15	J A 22	J A 23	J A 22	26	30	37	G 23	G 28	G 30	38	J A 43	J A 40	36	J A 43	J A 33	E B 15	19	J A 42	J A 44	22	J A 21
9	J A 18	E B 15	E B 15	E B 15	20	20	24	32	32	36	G 29	J A 66	J A 38	27	G 25	33	34	29	J A 20	20	E B 15	E B 15	E B 15	E B 15
10	E B 16	E B 14	E B 15	J A 20	20	E B 15	24	30	34	38	J A 46	J A 46	G J 33	A J 45	A J 40	A J 36	32	J A 35	J A 26	J A 23	21	E B 15	E B 15	J A 25
11	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	J A 30	34	40	J A 48	J A 45	J A 72	J A 50	J A 47	37	35	J A 44	29	29	J A 53	J A 82	J A 53	J A 37	J A 39
12	J A 24	J A 26	E B 15	J A 49	J A 48	J A 26	22	G 19	36	35	G 31	G 27	G 30	G 27	G 24	G 23	G 20	G 20	19	E B 15	J A 20	J A 34	J A 29	A J 32
13	22	J A 22	J A 21	J A 17	19	E B 14	24	30	35	J A 39	G 32	G 32	G 29	G 28	G 30	G 26	G 22	24	J A 19	E B 15	E B 15	J A 26	J A 21	19
14	22	18	20	J A 21	22	J A 19	22	30	G 27	J A 43	J A 48	G 27	G 25	G 22	39	34	30	29	J A 20	J A 31	J A 22	J A 24	J A 20	19
15	19	E B 14	E B 15	E B 15	E B 13	E B 15	26	32	35	37	36	38	38	39	J A 46	J A 33	J A 44	J A 39	J A 34	J A 32	J A 23	E B 15	21	19
16	J A 20	J A 17	J A 64	J A 44	J A 34	J A 24	23	G 20	34	38	38	J A 39	38	38	36	33	J A 31	24	E B 16	E B 15	J A 23	J A 20	J A 36	J A 20
17	20	18	19	E B 14	E B 14	E B 14	24	31	34	36	G 32	G 29	G 23	35	35	35	32	26	E B 15	E B 15	E B 15	E B 15	E B 14	E B 16
18	E B 16	J A 20	E B 14	19	19	J A 18	20	J A 38	J A 48	35	35	J A 45	G 26	38	G 26	32	32	J A 33	J A 22	J A 28	19	J A 23	E B 15	E B 15
19	E B 15	E B 15	18	19	J A 30	J A 24	J A 30	J A 81	J A 36	G 27	G 29	G 29	G 30	G 29	G 26	G 23	J A 32	23	J A 27	18	20	19	J A 21	19
20	J A 16	E B 15	E B 14	20	J A 20	J A 34	21	31	J A 56	35	36	G 30	G 26	G 29	36	32	30	21	J A 20	20	E B 15	E B 15	E B 15	E B 15
21	22	E B 15	E B 15	20	E B 15	19	J A 21	J A 35	32	G 30	G 29	G 27	G 32	G 30	G 28	G 24	G 23	J A 24	J A 22	23	J A 23	A J 20	E B 16	E B 14
22	J A 19	E B 15	E B 14	E B 15	E B 14	E B 15	25	31	J A 34	34	G 27	G 28	42	G 28	35	34	34	J A 40	26	E B 15	20	J A 25	J A 22	A J 24
23	E B 15	E B 15	E B 16	E B 15	E B 15	E B 14	21	J A 36	J A 43	G 30	G 29	G 28	G	G 30	G 26	G 22	30	J A 31	A J 23	A J 40	J A 31	A J 26	E B 16	E B 16
24	E B 16	19	E B 15	E B 15	20	E B 14	22	G 22	33	G 28	G 28	G 28	G 26	G 24	G 21	G 22	G 20	23	E B 15	J A 24	E B 16	E B 14	E B 15	18
25	J A 21	E B 15	E B 15	E B 15	E B 14	E B 15	24	J A 33	J A 43	A J 44	A J 61	A J 66	J A 43	G 22	G 21	G 23	29	J A 26	A J 24	A J 28	A J 24	21	20	19
26	19	E B 16	E B 15	E B 15	E B 15	E B 16	J A 26	J A 31	33	32	G 27	G 25	G 28	G 27	G 23	G 21	J A 37	J A 38	19	19	J A 36	A J 53	J A 22	20
27	E B 15	E B 15	E B 14	E B 15	E B 15	E B 15	21	28	36	36	J A 42	37	36	G 33	32	31	J A 28	G	J A 29	A J 72	J A 54	A J 38	A J 26	A J 22
28	18	E B 15	E B 15	E B 15	E B 15	E B 15	24	28	33	36	J A 41	G 32	G 30	G 24	32	32	J A 30	J A 27	20	J A 23	J A 24	A J 26	J A 18	E B 15
29	J A 18	A J 23	20	20	20	J A 29	A J 23	30	J A 45	A J 51	A J 45	A J 42	A J 46	36	G 25	G 21	G 19	G	J A 29	A J 25	A J 44	A J 52	A J 54	A J 45
30	J A 19	A J 24	A J 20	20	19	19	20	J A 30	34	37	36	G 31	G 27	G 27	G 22	32	28	J A 31	J A 30	20	E B 14	E B 15	J A 56	A J 22
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
MED	19	18	E B 15	19	20	19	24	31	35	36	36	G 32	G 32	G 30	31	32	30	29	J A 24	A J 23	J A 23	A J 22	J A 21	20
U Q	J A 22	A J 20	A J 20	A J 21	A J 23	A J 21	A J 25	A J 33	A J 43	39	A J 45	45	A J 42	39	37	34	J A 34	33	29	A J 31	A J 36	A J 34	A J 26	A J 24
L Q	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	21	30	33	G 34	G 29	G 28	G 28	G 27	G 25	G 23	G 28	24	20	E B 19	E B 20	E B 15	E B 16	E B 16

SEP. 2006 foEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

SEP. 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	E B 16	16	17	16	25	16	G	31	33	35	39	48	36	35	34	G 26	30	24	18	22	16	E B 15	17	E B 15
2	19	E B 15	18	18	18	16	27	32	44	52	A A 64	45	46	34	G 28	G 27	28	27	24	22	21	17	16	17
3	16	E B E B 15	E B E B 14	E B 15	E B 15	17	19	30	32	35	37	38	G 27	G 26	38	33	G 23	25	18	17	16	E B 15	E B E B 14	E B 15
4	22	16	20	21	21	E B 15	22	29	34	35	G 27	36	G 29	40	34	33	30	34	32	43	23	28	38	24
5	22	E B E B 15	E B 15	16	A A 53	16	22	28	41	39	36	42	42	38	37	49	52	53	27	53	43	22	27	22
6	19	E B E B 15	E B 15	E B 15	16	E B 15	32	41	41	41	G 27	G 29	42	G 30	G 22	G 22	28	G 19	24	16	22	19	22	18
7	16	E B E B 15	E B E B 15	E B E B 14	E B E B 14	E B E B 15	19	G 19	G 21	G 27	G 24	G 28	G 27	G 27	G 26	32	31	26	37	34	E B 16	E B 15	16	E B 15
8	E B E B 15	E B E B 15	E B E B 15	E B E B 15	E B 15	16	23	29	35	G 22	G 28	G 29	36	37	35	32	39	31	E B 15	16	20	23	E B 15	E B 15
9	E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15	23	30	31	34	G 28	A A 66	36	G 27	G 25	32	30	27	17	E B 15	E B 15	E B E B 15	E B E B 15	E B E B 15
10	E B 16	E B 14	E B 15	17	E B 15	E B 15	21	30	32	36	37	38	G 30	36	35	32	29	30	23	19	E B 16	E B 15	E B 15	16
11	E B 16	E B E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15	26	32	39	42	42	A A 72	44	40	35	32	37	24	26	37	39	23	22	26
12	17	16	E B 15	16	A A 48	20	20	G 19	33	34	G 30	G 27	G 30	G 26	G 23	G 23	G 20	G 20	E B 15	E B 15	16	17	E B 15	20
13	E B 15	16	E B 14	E B E B 15	16	E B 14	22	28	32	36	G 32	G 32	G 29	G 28	G 24	G 25	G 20	24	E B 15	E B E B 15	E B 15	16	E B 15	15
14	E B 15	E B E B 15	E B 15	17	E B 15	E B 15	21	27	G 26	40	37	G 26	G 25	G 22	36	33	28	26	17	25	16	16	15	E B 15
15	15	E B 14	E B E B 15	E B E B 15	E B E B 13	E B E B 15	23	29	33	34	35	35	36	35	36	30	30	22	E B E B 14	E B E B 16	E B E B 14	E B E B 15	E B E B 15	E B E B 15
16	E B 15	E B E B 15	E B 15	17	20	17	21	G 20	32	35	35	34	36	37	35	31	28	22	E B 16	E B E B 15	E B E B 15	17	20	16
17	E B 15	E B E B 15	E B E B 15	E B E B 14	E B E B 14	E B E B 14	21	29	33	34	G 31	G 28	G 23	34	34	33	29	24	E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 14	E B E B 16
18	E B 16	17	E B 14	E B E B 15	E B E B 15	E B E B 16	19	33	41	34	34	36	G 26	36	G 26	30	30	28	19	19	E B 15	15	E B 15	E B E B 15
19	E B 15	E B 15	16	E B 15	A A 30	22	24	50	35	G 26	G 29	G 27	G 28	G 28	G 26	G 22	28	21	18	E B E B 15	E B E B 15	E B E B 15	E B E B 16	E B E B 15
20	E B 15	E B E B 15	E B E B 14	E B 15	16	24	20	30	39	33	34	G 29	G 26	G 28	34	30	27	20	E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15
21	16	E B 15	E B E B 15	E B E B 14	E B E B 15	E B E B 15	19	29	30	G 30	G 29	G 27	G 32	G 29	G 27	G 23	G 22	21	17	19	E B 15	16	E B 16	E B E B 14
22	E B 15	E B E B 15	E B E B 14	E B E B 15	E B E B 14	E B E B 15	23	26	30	32	G 25	G 26	38	G 27	34	32	30	32	18	E B 15	17	16	16	E B 15
23	E B 15	E B E B 15	E B E B 16	E B E B 15	E B E B 15	E B E B 14	20	30	33	G 30	G 29	G 26	G	G 30	G 26	G 22	27	20	16	25	E B 15	16	E B 16	E B E B 16
24	E B 16	E B 15	E B E B 15	E B E B 15	E B E B 16	E B E B 14	19	G 19	30	G 24	G 27	G 28	G 25	G 23	G 21	G 21	G 20	21	E B 15	E B E B 16	E B E B 16	E B E B 14	E B E B 15	E B E B 15
25	19	E B 15	E B E B 15	E B E B 15	E B E B 14	E B E B 15	22	26	30	33	35	53	42	G 22	G 20	G 22	28	19	20	22	17	E B 15	E B E B 15	E B E B 15
26	E B 15	E B E B 16	E B E B 15	E B E B 15	E B E B 15	E B E B 16	23	26	31	31	G 27	G 25	G 26	G 27	G 22	G 19	30	35	E B 15	E B E B 15	20	23	E B 15	E B E B 15
27	E B 15	E B E B 15	E B E B 14	E B E B 15	E B E B 15	E B E B 15	21	26	34	34	38	35	35	G 32	30	29	24	G	26	24	28	20	20	17
28	E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15	E B E B 15	22	27	31	34	38	G 31	G 30	G 24	32	30	26	G E B 16	15	18	16	16	E B E B 15	E B E B 15
29	E B 16	16	E B 15	15	E B 15	21	G 17	27	39	44	41	39	41	34	G 23	G 21	G 18	G	25	16	15	20	A A 54	20
30	E B 16	18	16	E B 15	16	E B 15	18	25	31	35	34	G 31	G 27	G 27	G 22	30	27	26	22	E B 15	E B E B 14	E B 15	18	16
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
MED	E B 16	E B 15	E B 15	E B 15	E B 15	E B 15	21	29	33	34	34	G 32	G 31	G 30	29	30	28	24	18	16	16	16	E B 16	E B 15
U Q	16	16	15	16	16	16	23	30	35	36	37	38	36	35	35	32	30	27	24	22	20	19	18	17
L Q	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	19	26	31	G 32	G 28	G 28	G 27	G 27	G 24	G 23	G 26	G E B 20	E B 15	E B 15	E B 15	E B E B 15	E B 15	E B E B 15

SEP. 2006 fbEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

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

SEP.2006 fmin (0.1MHz)

IONOSPHERIC DATA STATION Kokubunji

SEP. 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	310	319	F	308	325	335	384	347	374	358	328	340	310	306	315	326	344	339	331	315	355	337	314	305
2	297	311	306	303	308	307	328	365	348	361	A	326	320	340	337	332	317	339	336	338	351	342	287	299
3	300	300	307	301	325	362	366	344	382	337	363	337	329	343	336	328	337	329	325	354	364	334	302	299
4	304	304	307	309	333	318	375	382	382	368	338	370	353	293	288	298	316	330	341	356	323	303	293	F
5	F	F	F	F	A	F	351	289	385	351	337	344	322	316	323	329	325	325	337	370	343	328	299	289
6	284	293	317	319	318	312	354	363	359	379	372	292	318	318	330	336	334	341	329	334	346	342	295	298
7	F	307	313	F	F	333	353	369	377	319	328	293	343	331	341	322	349	339	318	326	364	359	297	298
8	295	309	310	315	337	331	362	360	360	378	367	310	321	348	341	339	329	336	322	353	364	330	316	316
9	314	328	325	314	317	329	363	368	372	365	365	A	354	298	322	333	339	345	331	339	360	360	321	313
10	321	309	308	316	319	345	373	354	376	353	346	356	331	326	338	329	349	339	320	336	368	353	303	312
11	320	311	301	312	319	F	381	364	374	381	339	A	348	315	320	329	343	342	333	337	338	315	344	305
12	305	305	326	332	A	321	367	363	371	372	353	349	341	377	300	331	339	335	330	327	340	341	284	F
13	F	F	311	325	334	330	339	360	335	382	347	328	350	341	340	344	329	321	330	354	336	303	297	299
14	311	309	312	326	356	328	372	378	371	380	391	348	323	336	332	353	347	335	322	340	365	345	304	304
15	305	301	318	362	345	322	361	384	373	380	369	345	338	347	330	334	334	339	334	334	349	340	328	321
16	321	319	327	349	372	324	374	347	364	346	350	356	351	346	305	331	333	324	339	377	379	310	296	294
17	346	323	317	322	316	317	370	378	378	341	337	314	362	343	338	357	340	321	342	325	387	295	307	290
18	318	303	341	353	347	320	310	341	348	408	400	344	323	320	329	321	343	351	341	370	342	310	302	305
19	300	308	325	329	A	316	328	347	345	339	353	338	351	329	321	360	344	366	350	350	328	298	301	305
20	313	315	323	327	322	320	354	360	383	373	345	318	343	362	364	326	343	343	367	381	350	319	305	310
21	321	324	318	329	333	340	360	388	372	363	340	344	356	365	352	343	347	341	362	389	375	296	297	306
22	307	306	320	334	367	332	366	375	382	349	379	355	310	344	344	336	338	346	362	395	312	F	F	F
23	F	F	F	350	329	326	383	364	380	402	351	337	360	326	347	339	331	343	350	378	390	318	315	295
24	309	329	325	338	371	324	376	388	374	349	326	333	332	315	352	318	345	336	323	357	403	294	295	329
25	314	346	330	358	339	339	366	366	332	351	345	361	358	351	328	347	335	361	333	343	314	326	317	315
26	319	337	340	375	311	318	362	373	391	367	346	370	350	347	338	332	359	370	348	348	305	294	F	318
27	313	320	331	329	314	323	383	405	407	384	342	347	344	341	361	352	353	350	362	355	321	F	F	F
28	323	325	326	339	357	315	393	404	374	381	350	346	345	358	368	356	356	353	352	330	314	354	314	323
29	307	334	353	321	345	324	382	386	371	372	355	334	341	347	363	358	345	346	373	377	330	351	A	F
30	F	318	348	320	356	310	388	366	372	384	349	375	338	362	358	343	327	328	360	339	352	363	291	F
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	25	27	27	28	26	28	30	30	30	30	29	28	30	30	30	30	30	30	30	30	30	28	26	24
MED	311	311	320	326	333	324	366	366	374	368	349	344	342	341	338	334	340	339	336	349	350	329	302	305
U Q	320	324	327	338	347	332	376	378	380	380	364	352	351	347	347	344	345	346	350	370	364	344	314	314
L Q	304	306	311	316	319	318	354	360	364	351	340	330	323	320	323	329	333	335	330	336	330	306	296	298

SEP. 2006 M(3000)F2 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								L	L	L	U L 366	A	U L 398	U L 383	U L 396	U L 371	L	L						
2								A	A	A	A	A	A	U L 384	U L 399	U L 403	L	L						
3								L	U L 375	L	A	U L 385	423	390	U L 388	U L 391	L	L						
4								L	L	U L 408	415	U L 449	413	U L 402	U L 374	363	L	A						
5								U L 372	A	A	U L 406	A	A	U L 388	U L 379	A	A	A						
6								A	A	A	L 395	U L 425	A	U L 399	385	L 369	L	L						
7								L	L	L	U L 410	U L 412	410	U L 376	U L 391	U L 380	L	L						
8								L	U L 386	U L 381	U L 396	U L 397	U L 422	U L 401	U L 380	L	A	A						
9								L	L	U L 392	U L 423	A	U L 364	U L 388	U L 372	U L 391	L	L						
10								L	U L 382	U L 390	U L 396	U L 420	413	392	L 375	U L 361	L	L						
11									A	A	A	A	A	U L 374	U L 390	368	A							
12								L	L	L	413	399	408	U L 390	U L 363	U L 366	L	L						
13								L	L	U L 405	U L 406	391	U L 408	417	U L 384	L		L						
14									L	A	U L 419	U L 416	401	L	U L 361	L	L	L						
15									L	L	U L 411	U L 431	U L 384	U L 407	U L 376	L	L							
16									L	L	U L 411	U L 415	U L 419	L	U L 401	L	L	L						
17								L	L	L	U L 394	401	U L 421	U L 404	405	L	L							
18								L	A	L	L	U L 428	U L 370	U L 352	U L 373	L								
19								A	U L 385	U L 380	U L 387	402	385	U L 381	U L 366	L	L							
20								U L 363	A	L	U L 398	U L 410	U L 416	U L 364	L	L	L	L						
21								L		U L 405	419	U L 407	U L 390	U L 389	L	L	L	L						
22									L	L	449	U L 418	U L 374	U L 403	U L 366	L	L							
23									L	U L 416	U L 425	U L 416	387	U L 375	U L 384	L	L	L						
24									L	U L 397	U L 388	U L 398	U L 376	U L 381	U L 374	U L 360	L							
25										L	U L 404	A	A	L	L	L	L							
26								L	L	U L 404	U L 395	U L 423	U L 395	L	L	L	L							
27										L	U L 411	U L 416	U L 387	L 379	L	L	L							
28										L	L	U L 420	U L 390	U L 378	L	L	L							
29										E A	A	U L 389	A	U L 375	L	L	L							
30									L	L	U L 402	423	L	U L 402	L	L								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								2	4	10	24	24	23	26	22	11								
MED								U L 368	U L 384	U L 400	U L 406	U L 416	U L 398	U L 388	U L 380	U L 369								
U Q									U L 386	U L 405	414	U L 422	U L 413	U L 401	U L 390	U L 391								
L Q									U L 378	U L 390	U L 396	U L 400	U L 385	U L 378	U L 373	U L 363								

SEP. 2006 M(3000)F1 (0.01)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

SEP. 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								270	240	258	322	E A 298	332	328	288	270	254	264						
2								254	256	242	A	320	328	286	278	290	280	258						
3								276	232	262	254	300	312	294	284	284	296	278						
4								226	242	264	302	256	268	320	368	334	278	266						
5								420	248	270	284	286	E A 292	332	316	E A 304	E A 300	E A 276						
6								252	250	242	254	362	338	352	298	282	268	270						
7								250	234	280	310	322	296	302	298	302	262	284						
8								262	246	240	258	340	330	286	310	282	302	276						
9								244	228	240	266	A	274	370	328	298	280	260						
10								256	238	248	276	262	308	304	288	296	254	262						
11									218	238	262	A	274	350	298	284	252							
12								258	244	246	272	266	280	248	370	304	274	286						
13								270	264	240	278	304	270	282	280	266		290						
14									252	234	238	270	304	304	286	260	264	272						
15									240	236	262	278	290	270	292	290	278							
16									250	268	268	276	270	284	314	278	288	276						
17								240	238	286	266	334	254	276	288	262	272							
18								272	238	214	220	284	328	312	294	268								
19								E A 274	274	262	260	276	268	284	318	252	268							
20								270	226	244	278	336	282	250	256	304	268	258						
21								228		262	252	280	256	260	258	272	272	260						
22									230	274	228	254	320	274	284	288	282							
23									222	226	276	282	282	294	272	282	288	254						
24									240	264	298	274	288	308	256	294	256							
25										242	266	254	250	266	294	266	266							
26								240	220	242	256	238	270	260	292	266	260							
27										234	282	274	268	268	248	264	250							
28										240	276	270	262	254	248	254	254							
29										244	264	288	270	254	246	254	258							
30									246	230	284	240	284	250	264	268								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								18	25	30	29	28	30	30	30	30	27	17						
MED								256	240	243	266	278	282	285	288	281	268	268						
U Q								270	249	262	280	302	308	308	298	294	280	277						
L Q								244	231	240	257	268	270	266	272	266	258	260						

SEP. 2006 h'F2 (KM)

IONOSPHERIC DATA STATION Kokubunji

SEP. 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	230	E A 260	E A 268	238	E A 270	230	212	216	216	198	E A 254	A	222	206	212	226	218	216	242	246	206	210	E A 258	E B 246
2	E A 298	E B 264	E A 300	E A 292	E A 278	E A 260	232	A	A	A	A	A	A	218	204	210	208	228	232	220	212	220	E A 280	E A 284
3	E A 280	E B 284	E B 282	E B 268	246	218	214	218	212	196	A	214	H 176	204	222	204	H 196	224	238	216	200	206	E B 274	E B 282
4	E A 304	E A 292	E A 318	E A 288	E A 268	E B 260	220	206	212	188	184	180	H 184	210	192	212	214	A	226	220	230	E A 280	E A 360	E A 340
5	E A 304	234	E B 280	E A 266	A	E A 304	230	228	A	A	H 188	A	A	216	234	A	A	A	226	E A 232	E A 272	222	E A 338	E A 314
6	E A 312	E B 292	E B 260	E B 252	E A 264	E B 272	234	A	A	A	196	H 168	A	H 188	220	208	212	214	238	224	212	214	E A 290	E A 292
7	E A 296	E B 266	E B 258	E B 278	E B 252	226	224	202	204	200	188	H 178	186	218	210	214	226	226	E A 262	242	212	198	E A 270	E B 294
8	E B 308	E B 284	E B 272	E B 262	226	236	218	216	208	198	H 192	188	186	210	210	216	A	A	240	214	194	226	234	E B 258
9	246	236	232	E B 246	E B 252	240	206	210	196	206	180	A	224	H 186	210	216	214	216	230	222	206	198	220	E B 238
10	234	E B 262	E B 266	E A 262	E B 248	216	212	204	200	200	204	194	188	H 176	186	H 186	208	E A 232	236	238	206	202	244	E A 252
11	E B 248	E B 242	E B 258	E B 262	238	E B 270	208	208	A	A	A	A	A	224	212	218	A	240	230	E A 246	E A 244	E A 248	218	E A 294
12	E A 302	E A 282	240	232	A	E A 276	212	214	210	214	178	200	184	H 172	198	188	224	222	238	226	214	216	E B 260	E A 298
13	E B 262	E B 266	E B 266	E B 250	234	244	216	206	206	200	190	H 180	188	180	H 178	212	234	230	226	208	214	E A 256	E B 276	E A 282
14	246	248	E B 256	E A 250	208	244	210	210	196	A	204	182	H 172	206	218	234	214	226	236	228	206	206	240	E B 258
15	E B 280	E B 274	E B 258	224	198	E B 258	218	216	210	192	190	180	198	192	204	208	216	224	238	214	212	206	218	E B 252
16	E B 262	E B 262	E B 274	E B E A 226	230	E A 270	208	H 186	214	194	H 194	H 174	H 184	200	194	206	210	228	228	200	184	E A 240	E A 336	E A 308
17	232	238	E B 252	E B 256	236	E B 262	212	212	196	196	H 180	H 184	H 178	198	H 188	204	202	228	224	228	192	E B 274	E B 252	E B 286
18	E B 254	E A 290	224	202	216	E B 272	232	240	A	194	190	178	232	218	218	212	244	232	226	210	200	E B 244	E B 270	E B 262
19	E B 276	E B 260	244	236	A	E A E A 278	E A 242	A	224	222	202	H 186	186	H 184	206	202	210	232	226	210	222	E B 250	E B 266	E B 266
20	246	E B 254	240	234	214	E A 324	224	232	A	196	196	186	H 176	226	214	212	216	222	214	200	200	230	E A E B 262	E B 256
21	E A 252	242	E B 250	232	228	228	222	220	212	198	H 196	H 180	H 188	H 180	H 192	206	H 190	220	218	196	190	E A 242	E B 278	E B 266
22	E B 252	E B 258	E B 258	234	208	210	212	210	H 198	204	174	194	226	H 174	220	214	224	236	224	196	188	E A 280	E A 292	E B 250
23	246	236	E B 236	220	214	214	212	208	198	190	H 176	H 162	198	204	200	208	222	216	220	208	194	218	E B 272	E B 278
24	E B 278	E B 256	E B 248	230	206	234	218	192	192	190	H 188	H 198	202	194	200	212	228	240	232	214	184	E B 246	E B 282	E B 246
25	E A 262	220	222	212	218	222	218	210	208	188	182	A	A	198	H 178	198	224	222	240	220	E A 250	226	E B 252	250
26	236	228	224	206	E B 254	E B 260	226	216	200	192	H 186	184	192	H 188	H 176	214	220	228	200	204	E A 272	E A 328	E B 266	E B 250
27	E B 250	E B 248	224	236	E B 252	E B 250	208	204	210	200	200	188	H 186	206	H 194	208	212	222	210	218	E A 278	E A 296	E A 276	E A 264
28	224	234	E B 246	212	202	E B 262	200	202	216	206	202	H 196	H 196	H 182	H 194	196	212	220	214	224	248	218	238	E B 252
29	246	244	214	242	224	E A 294	212	212	238	E A	A	212	A	206	210	H 192	H 198	228	210	204	220	220	A	E A 308
30	E B 256	E A 266	230	E B 248	208	E B 246	202	212	208	202	190	188	186	190	H 180	210	214	E A 252	220	208	206	198	E A 316	E A 292
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	27	30	30	27	24	24	26	24	24	30	30	29	27	27	30	30	30	30	29	30
MED	E 255	E 259	E B 254	U 222	U 219	E 254	214	210	208	198	190	185	187	199	204	210	214	225	226	216	206	U 212	E 270	E B 266
U Q	E A 280	E B 266	E B 266	E 262	E A 252	E A 270	224	216	212	201	196	194	198	210	212	214	224	232	238	226	E A 222	E A 248	E A 281	E A 292
L Q	246	242	236	230	214	230	212	206	199	193	184	H 180	H 184	H 186	H 192	204	210	222	220	208	200	210	248	E B 252

SEP. 2006 h'F (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

SEP. 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 E 130	B 118	116	116	A	A	A	114	116	118	A	A	B					
2							B A	118	A	A	A	A	A	A	118	116	116	118	B					
3							B A	A	116	114	A	116	118	116	118	118	118	116	B					
4							124	124	A	A	118	A	116	A	A	A	118	118	B					
5							118	124	A	A	A	A	A	116	110	120	122	A						
6							A	A	A	A	116	118	A	112	110	112	120	122						
7							A	118	110	118	108	116	110	112	112	116	126	124						
8							128	116	118	112	116	122	A	A	A	118	118	A						
9							116	120	114	114	116	A	A	112	112	112	118	118						
10							122	116	114	A	A	A	116	A	A	A	114	110						
11							118	124	116	A	A	A	A	A	118	118	122	122						
12							118	114	116	114	116	116	116	116	112	118	118	120						
13							118	118	118	A	118	116	116	116	112	116	110	116						
14							116	A	118	A	A	114	114	114	114	108	120	122						
15							126	120	124	116	A	A	A	A	A	A	A	A						
16							116	114	114	114	110	A	112	112	116	116	120	122						
17							122	122	120	A	118	118	112	A	116	122	122	120						
18							B	A	A	A	A	A	112	114	112	116	124	A						
19							A	A	A	114	114	114	116	114	110	110	116	A						
20							B	118	A	114	122	124	114	116	118	120	120	B						
21							B	A	118	120	116	122	120	120	118	118	126	A						
22							118	A	A	118	116	118	112	112	120	120	126	124						
23							B	A	A	120	114	112	114	120	118	118	124	A						
24							122	120	120	116	114	114	110	110	108	116	124	122						
25							B	A	A	A	A	A	A	112	110	118	120	A						
26							B	124	A	116	110	110	112	116	116	116	114	B						
27							126	122	118	120	A	A	A	120	A	A	A	124						
28							126	126	118	A	A	118	98	114	112	A	A	114						
29							B 114	126	A	A	A	A	A	A	124	114	114	134	B					
30							122	A	A	A	A	118	114	114	112	122	122	B						
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							19	20	17	16	16	17	19	22	25	25	26	18						
MED							120	120	118	116	116	116	114	114	114	118	120	121						
U Q							126	124	118	118	117	118	116	116	118	118	122	122						
L Q							118	118	115	114	114	114	112	112	112	116	118	118						

SEP. 2006 h'E (KM)

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IONOSPHERIC DATA STATION Kokubunji

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

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

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	102	102	96	96	96	98	G	134	128	120	102	96	100	126	142	98	94	94	92	88	92	90	106	102
2	94	104	100	100	100	100	92	118	104	106	102	104	98	100	100	98	130	120	98	90	90	90	90	90
3	88	88	B	B	96	100	100	142	140	128	102	124	106	100	136	162	104	130	86	102	104	B	B	86
4	96	98	94	92	94	92	124	124	104	102	98	102	102	102	102	98	122	120	106	106	106	106	104	102
5	102	B	118	100	96	100	138	122	102	104	104	98	96	136	142	122	120	104	104	104	100	100	94	96
6	98	98	120	116	116	116	106	102	98	100	100	100	94	92	96	90	128	108	104	104	102	100	98	94
7	94	94	94	B	B	94	98	94	96	102	100	100	106	102	100	136	122	120	106	102	98	98	96	B
8	B	104	B	100	98	96	124	126	118	96	98	100	106	104	104	112	118	104	B	94	102	108	108	108
9	104	B	B	B	100	100	118	116	120	122	104	92	94	90	96	128	118	112	106	96	B	B	B	B
10	B	B	B	94	96	B	132	110	116	104	104	100	100	98	98	100	126	118	106	102	106	B	B	96
11	B	B	B	B	B	B	128	122	116	102	104	104	102	104	116	116	120	124	110	106	104	98	96	92
12	90	100	B	98	96	100	140	96	122	122	102	104	98	98	100	98	100	102	100	B	96	96	98	98
13	94	94	94	94	94	B	132	122	110	102	102	102	94	98	96	102	92	126	90	B	B	102	112	90
14	84	90	100	100	100	100	144	112	100	98	96	98	92	96	138	148	130	114	110	100	100	102	102	104
15	94	B	B	B	B	B	132	134	126	132	106	106	108	106	102	102	94	94	98	102	104	B	104	106
16	100	100	98	96	96	96	138	100	128	120	118	94	116	116	120	126	118	168	B	B	104	102	98	96
17	98	98	94	B	B	B	150	144	122	108	108	94	94	106	136	122	132	114	B	B	B	B	B	B
18	B	96	B	110	112	106	132	104	104	106	104	98	98	136	104	144	120	102	106	102	102	102	B	B
19	B	B	118	116	102	102	102	102	102	102	100	98	100	100	100	100	118	106	106	106	102	100	102	104
20	102	B	B	100	102	94	152	134	98	140	152	104	104	106	116	118	112	102	100	100	B	B	B	B
21	98	B	B	96	B	110	104	104	138	100	104	104	100	104	102	102	102	104	106	102	100	100	B	B
22	98	B	B	B	B	B	158	98	102	112	96	96	156	94	162	124	122	110	112	B	104	100	104	104
23	B	B	B	B	B	B	114	104	106	100	100	98	G	100	104	102	122	106	108	108	104	104	B	B
24	B	104	B	B	86	B	126	104	114	102	98	96	92	92	98	102	104	114	B	108	B	B	B	102
25	96	B	B	B	B	B	142	102	100	100	98	92	90	94	90	100	120	106	108	102	98	102	102	92
26	98	B	B	B	B	B	114	120	104	118	108	96	98	100	98	104	116	106	108	104	100	104	98	88
27	B	B	B	B	B	B	124	124	118	114	106	106	106	104	104	102	102	G	96	94	94	100	94	94
28	96	B	B	B	B	B	138	138	128	102	100	100	98	94	116	106	106	104	94	100	100	102	104	B
29	100	98	98	98	98	94	94	116	106	106	104	104	102	106	102	98	102	G	108	106	114	102	102	100
30	94	94	94	88	92	92	126	104	104	106	104	98	98	100	102	138	126	116	114	112	B	B	100	100
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	22	16	13	17	19	18	29	30	30	30	30	30	29	30	30	30	30	28	26	25	24	22	21	22
MED	97	98	98	98	96	100	126	116	108	105	102	100	100	100	102	103	118	109	106	102	102	101	102	97
U Q	100	101	109	100	100	100	138	124	122	118	104	104	105	106	116	124	122	119	108	106	104	102	104	102
L Q	94	94	94	95	96	94	110	104	102	102	100	96	95	98	100	100	104	104	98	100	99	100	97	92

SEP. 2006 h'Es (KM)

IONOSPHERIC DATA STATION Kokubunji

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

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

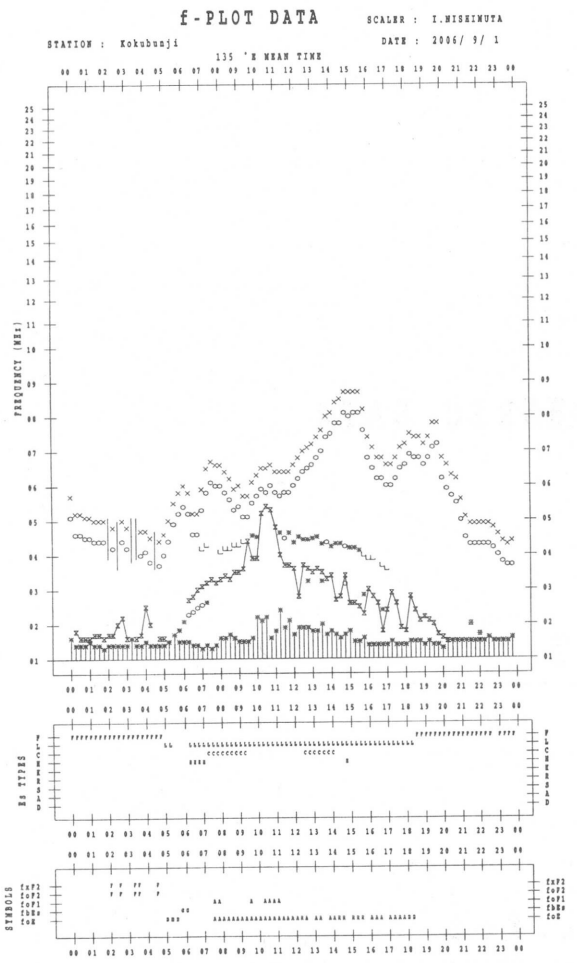
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F 4	F 3	F 4	F 2	F 2	L 2		HL 21	CL 11	CL 11	L 2	L 3	L 2	CL 11	CL 11	L 1	L 2	L 4	L 4	F 3	F 3	F 2	F 3	F 2
2	F 3	F 2	F 4	F 5	F 3	L 3	L 3	CL 22	L 2	L 2	L 4	L 2	L 2	L 2	L 2	L 2	CL 11	CL 42	L 4	F 4	F 3	F 2	F 6	F 2
3	F 2	F 2			F 2	L 4	L 3	CL 13	HL 11	CL 11	L 2	CL 12	L 2	L 2	CL 12	HL 12	L 2	CL 21	L 3	F 1	F 2			F 1
4	F 4	F 2	F 5	F 4	F 4	F 2	C 2	CL 22	L 2	L 1	L 1	L 1	L 2	L 3	L 2	L 2	CL 22	CL 32	L 5	FF 33	F 3	F 5	F 5	F 4
5	F 3		F 2	F 2	F 4	F 2	H 2	CL 21	L 3	L 2	L 2	L 2	L 2	HL 22	HL 12	CL 32	CL 32	L 3	F 3	F 4	F 5	F 3	F 4	F 5
6	F 4	F 3	F 1	F 1	F 2	F 1	L 2	L 3	L 3	L 2	L 2	L 2	L 2	L 3	L 2	L 1	CL 12	L 2	F 2	F 2	F 4	F 3	F 3	F 4
7	F 4	F 2	F 1			F 2	L 2	L 2	L 2	L 2	L 2	L 1	L 1	L 2	L 2	HL 11	CL 21	CL 21	F 4	F 4	F 3	F 2	F 2	
8		F 1		F 2	F 2	F 3	CL 21	CL 12	CL 22	L 1	L 2	L 1	L 2	L 2	L 2	CL 11	CL 41	L 4		F 1	F 4	F 4	F 2	F 2
9	F 2				F 2	F 2	C 2	CL 11	CL 11	CL 11	L 1	L 3	L 2	L 2	L 2	CL 21	CL 21	CL 31	F 2	F 1				
10				F 4	F 2		C 2	CL 11	CL 21	L 2	L 2	L 1	L 1	L 2	L 3	L 3	CL 32	CL 32	FF 32	F 2	F 3			F 4
11							C 2	CL 21	CL 31	L 4	L 2	L 3	L 2	L 2	CL 11	CL 11	CL 21	CL 21	F 4	F 6	F 5	F 3	F 3	F 5
12	F 4	F 2		F 4	F 6	F 4	HL 11	L 1	CL 11	CL 11	L 1	L 1	L 1	L 1	L 1	L 1	L 1	L 2	F 1		F 3	F 3	F 2	F 3
13	F 4	F 5	F 2	F 2	F 1		C 2	C 2	CL 21	L 2	L 2	L 2	L 2	L 2	L 2	L 2	L 2	CL 22	F 1			F 3	F 1	F 2
14	F 2	F 1	F 2	F 3	F 2	F 2	H 2	CL 22	L 1	L 3	L 2	L 1	L 1	L 1	HL 11	HL 11	HL 11	CL 22	F 3	F 4	F 2	F 2	F 2	F 1
15	F 1						C 2	CL 11	CL 11	CL 11	L 1	L 1	L 1	L 1	L 2	L 3	L 3	L 3	F 1	F 1	F 1		F 1	F 1
16	F 4	F 2	F 4	F 4	F 4	F 3	CL 22	L 2	CL 22	CL 11	CL 11	L 2	CL 11	CL 11	CL 11	CL 21	CL 21	HL 12			F 2	F 2	F 5	F 2
17	F 1	F 1	F 1				H 1	HL 11	CL 11	L 2	L 2	L 2	L 2	L 1	CL 11	CL 11	CL 22	CL 22						
18		F 2		F 1	F 1	F 2	CL 22	L 2	L 2	L 1	L 1	L 2	L 2	HL 11	L 2	HL 12	CL 11	L 4	F 3	F 4	F 1	F 1		
19			F 1	F 2	F 6	F 5	L 4	L 4	L 2	L 1	L 2	L 2	L 1	L 2	L 1	L 1	CL 11	L 2	F 3	F 1	F 2	F 1	F 2	F 2
20	F 1			F 2	F 3	F 3	HL 22	HL 22	L 2	HL 12	HL 11	L 2	L 1	L 1	CL 11	CL 11	CL 21	L 3	F 1	F 2				
21	F 2			F 1		F 1	L 3	L 3	HL 12	L 2	L 2	L 2	L 2	L 2	L 2	L 2	L 2	L 3	F 2	F 2	F 1	F 2		
22	F 2						HL 22	L 2	L 2	CL 11	L 2	L 2	HL 12	L 2	HL 12	CL 22	CL 22	CL 32	F 3		F 2	F 2	F 2	F 2
23							C 3	L 3	L 2	L 1	L 1	L 2		L 2	L 1	L 1	CL 11	L 3	F 3	F 3	F 3	F 3		
24		F 2			F 2		C 2	L 2	CL 22	L 2	L 2	L 2	L 2	L 2	L 2	L 1	L 2	C 2		F 3				F 2
25	F 3						H 2	L 2	L 2	L 2	L 2	L 3	L 3	L 2	L 2	L 2	CL 22	L 4	F 3	F 4	F 3	F 2	F 2	F 1
26	F 2						C 3	C 2	L 2	CL 11	L 2	L 2	L 2	L 2	L 2	L 2	CL 31	L 2	F 1	F 1	F 2	F 3	F 2	F 3
27							C 2	CL 21	CL 11	CL 11	L 2	L 2	L 2	L 2	L 1	L 2	L 2		F 3	F 3	F 4	F 3	F 2	F 2
28	F 1						HL 11	HL 12	CL 12	L 2	L 1	L 2	L 1	L 1	CL 11	L 2	L 3	L 2	F 1	F 3	F 3	F 2	F 2	
29	F 2	F 2	F 3	F 2	F 2	L 3	L 2	CL 11	L 2	L 2	L 2	L 2	L 2	L 1	L 1	L 2	L 2		L 3	F 2	F 3	F 2	F 3	F 3
30	F 2	F 3	F 2	F 2	F 2	F 1	C 2	L 2	L 1	L 1	L 1	L 2	L 2	L 2	L 1	HL 11	CL 42	C 3	F 3	F 1			F 3	F 2
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
U Q																								
L Q																								

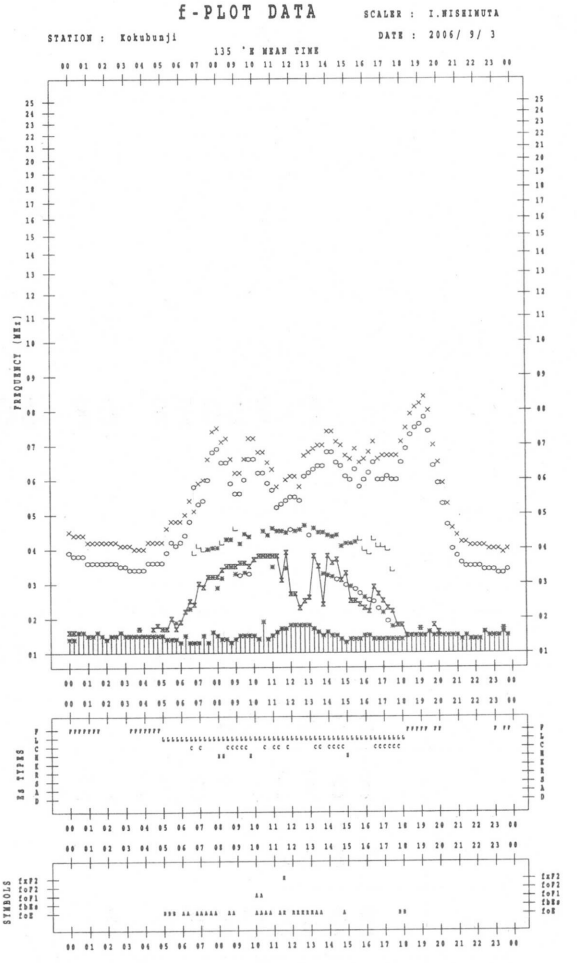
SEP. 2006 TYPES OF Es

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/ 9/ 1
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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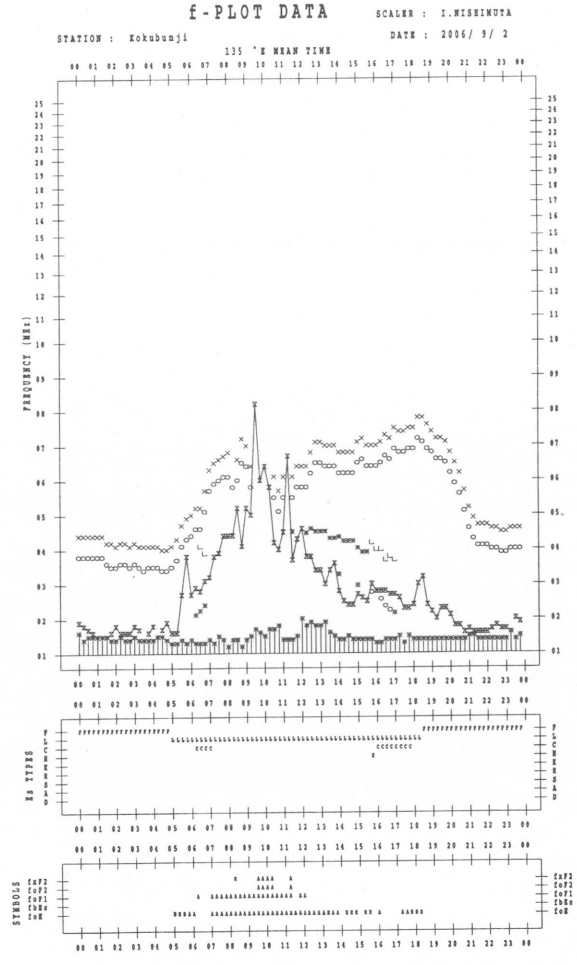
STATION : Kokubunji
DATE : 2006/ 9/ 3
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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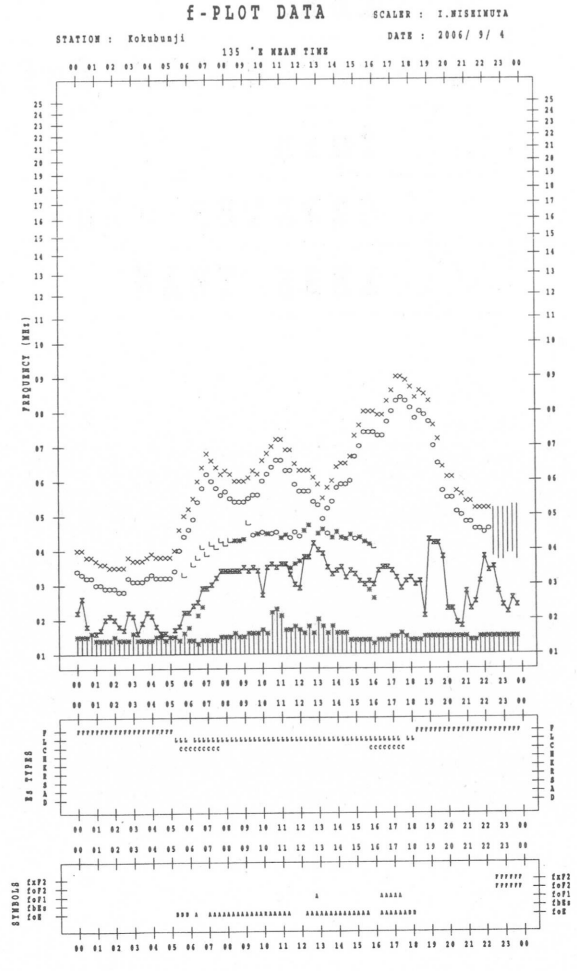
STATION : Kokubunji
DATE : 2006/ 9/ 2
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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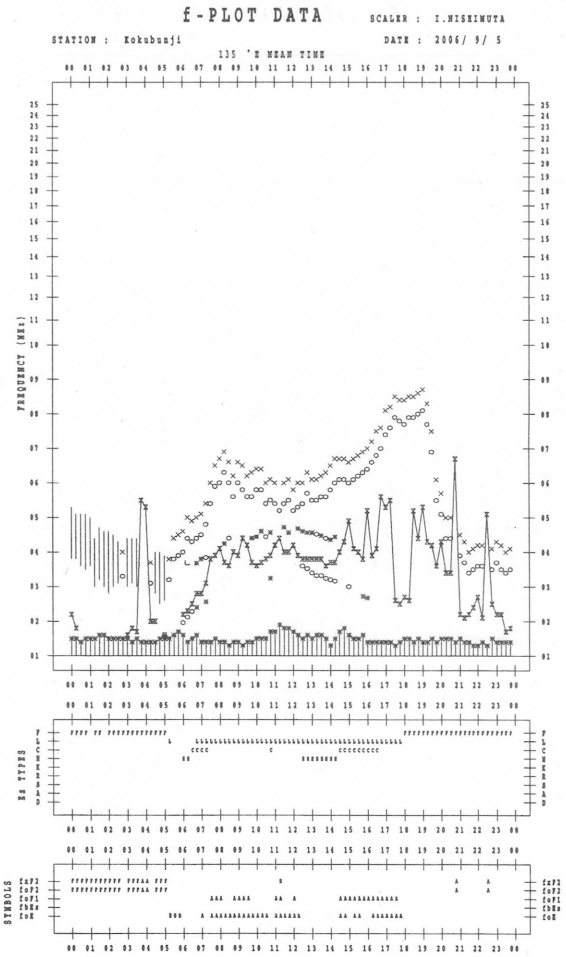
STATION : Kokubunji
DATE : 2006/ 9/ 4
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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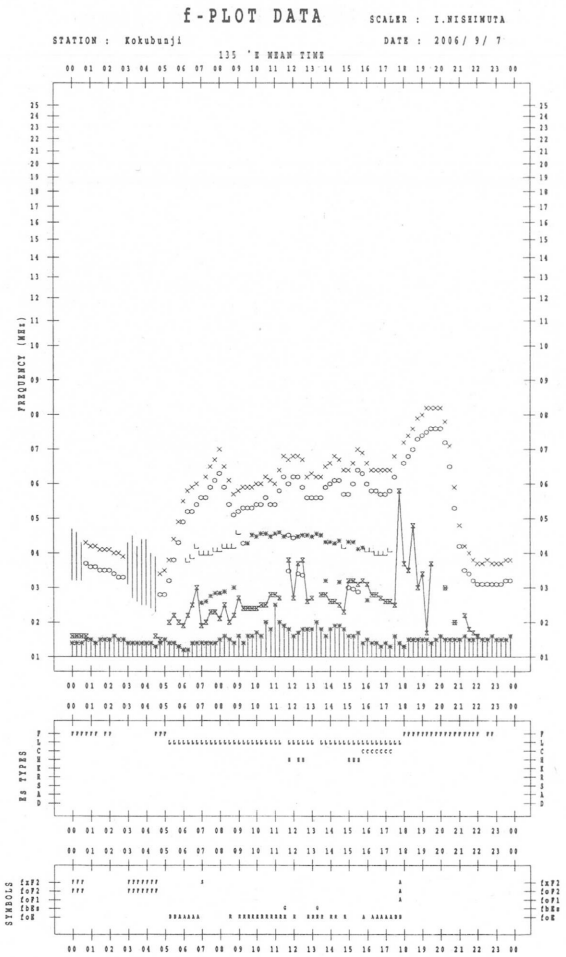
STATION : Kokubunji
DATE : 2006/ 9/ 5
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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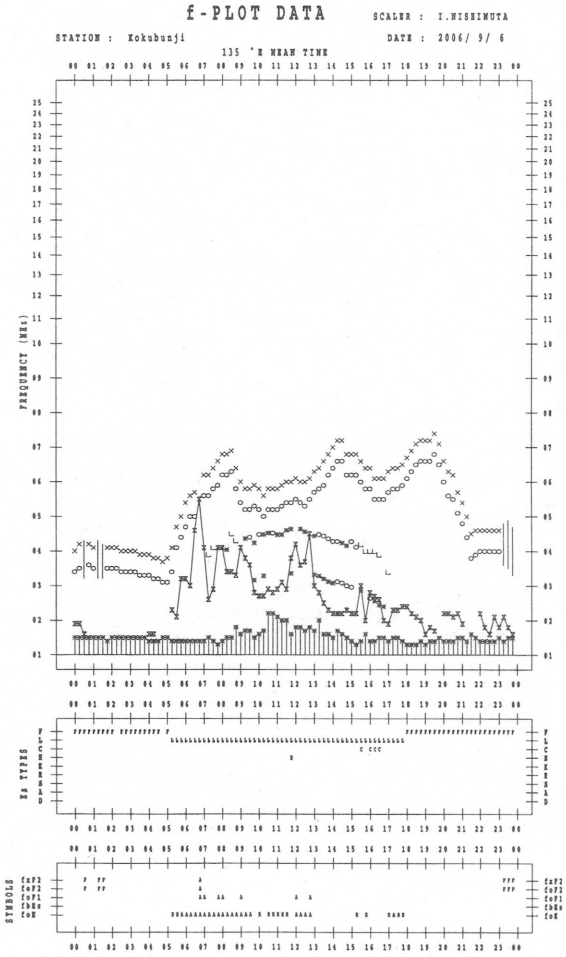
STATION : Kokubunji
DATE : 2006/ 9/ 7
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
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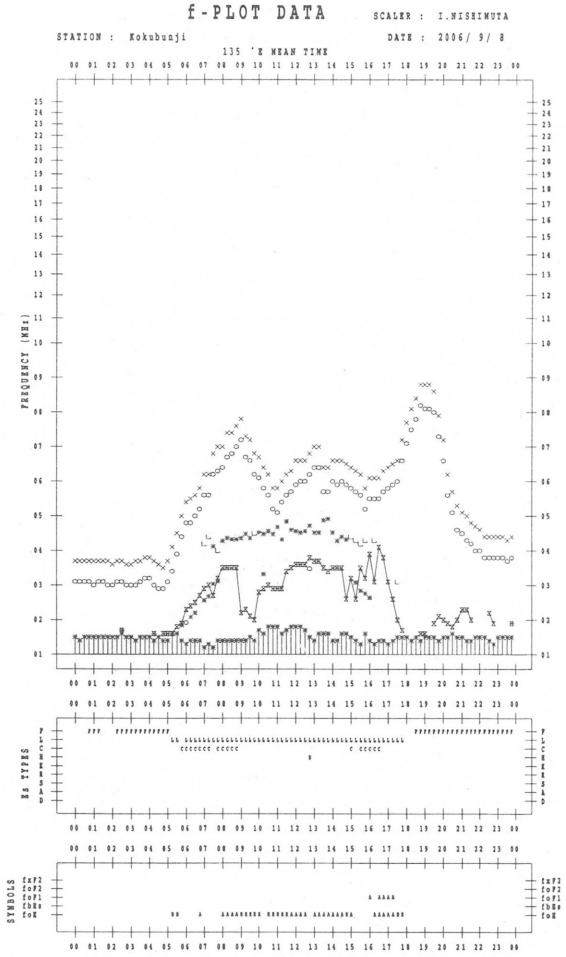
STATION : Kokubunji
DATE : 2006/ 9/ 6
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


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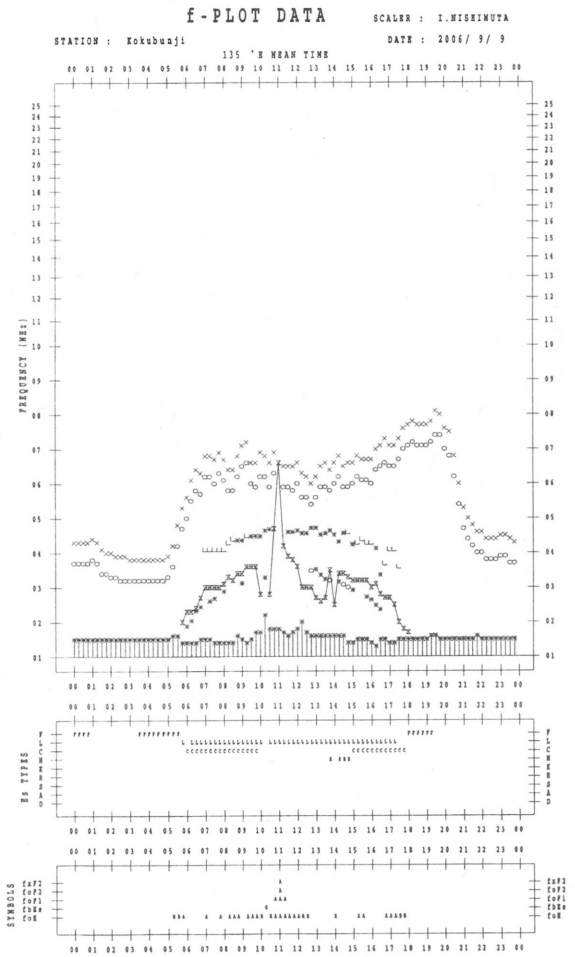
STATION : Kokubunji
DATE : 2006/ 9/ 8
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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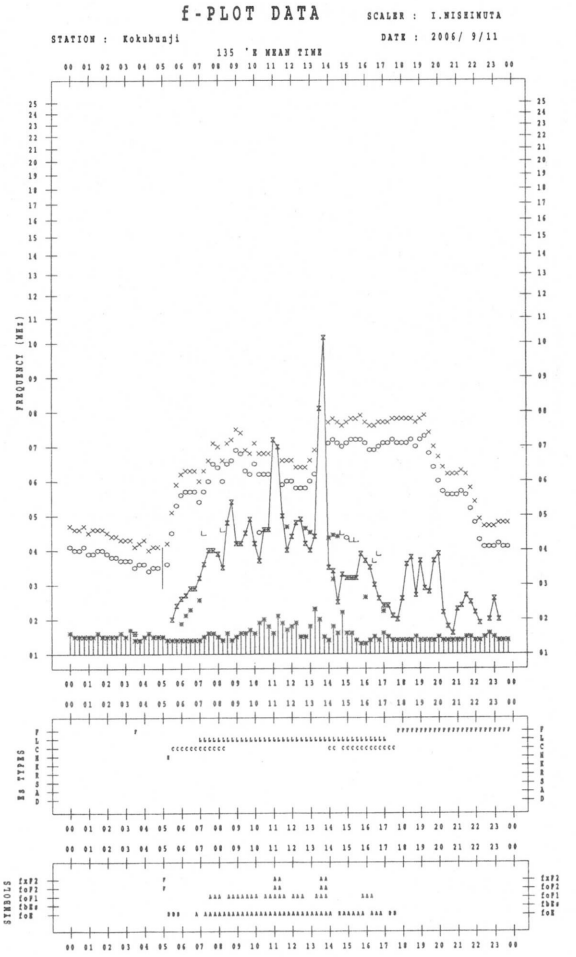
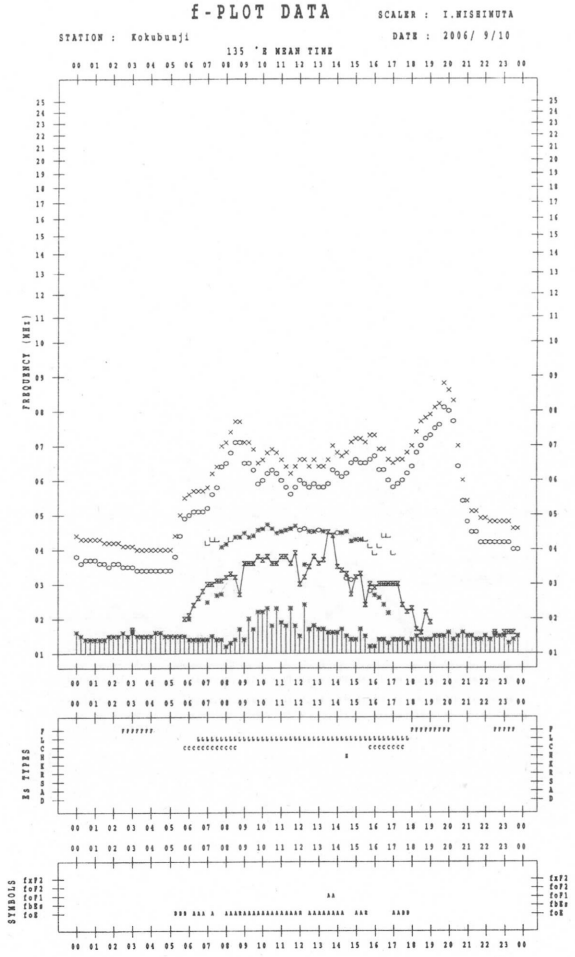
STATION : Kokubunji
DATE : 2006/ 9/ 9
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/11
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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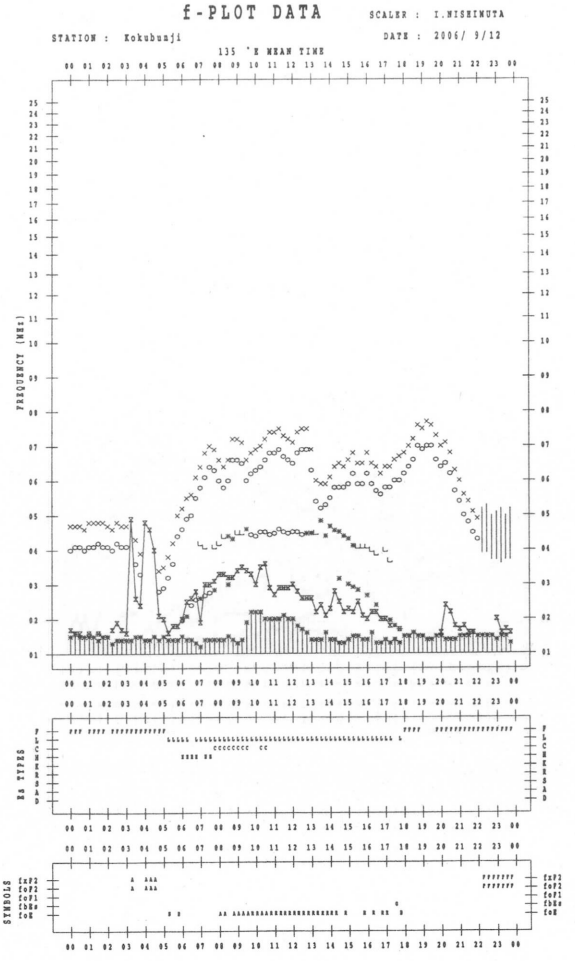
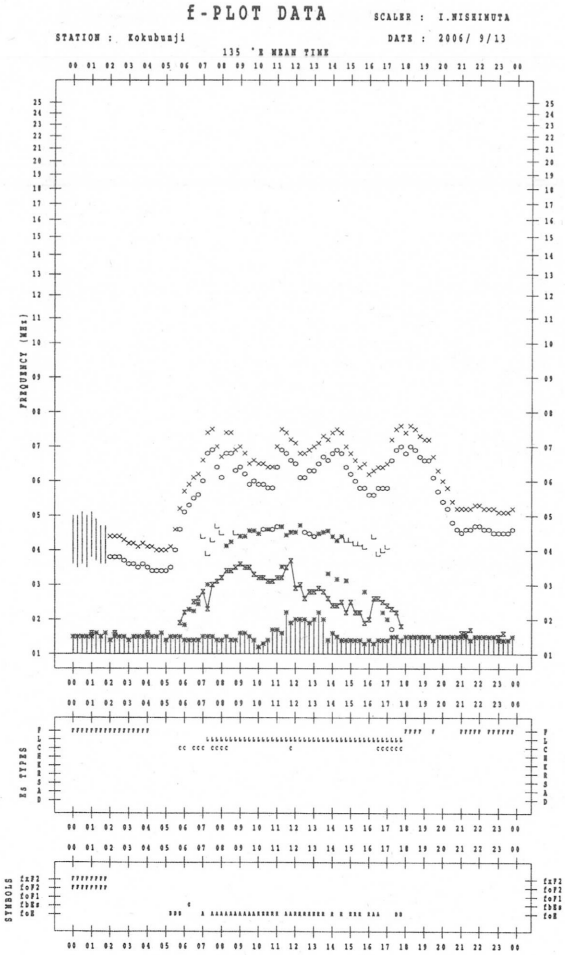
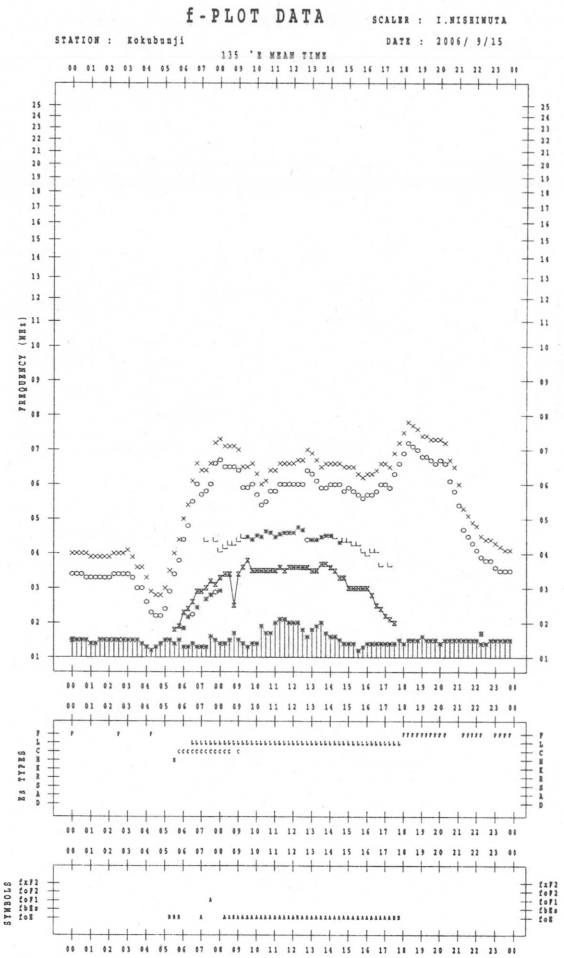
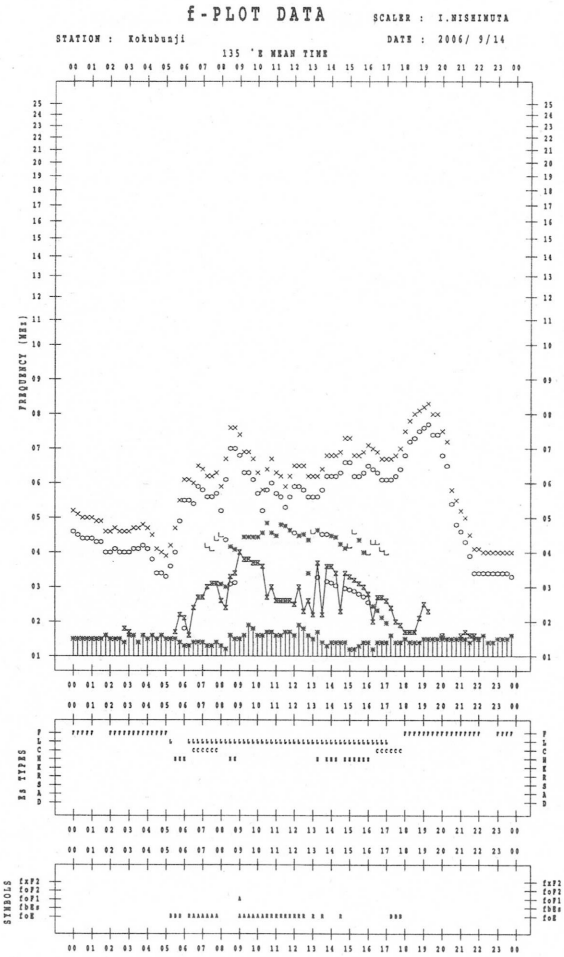
STATION : Kokubunji
DATE : 2006/ 9/10
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/12
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/13
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/15
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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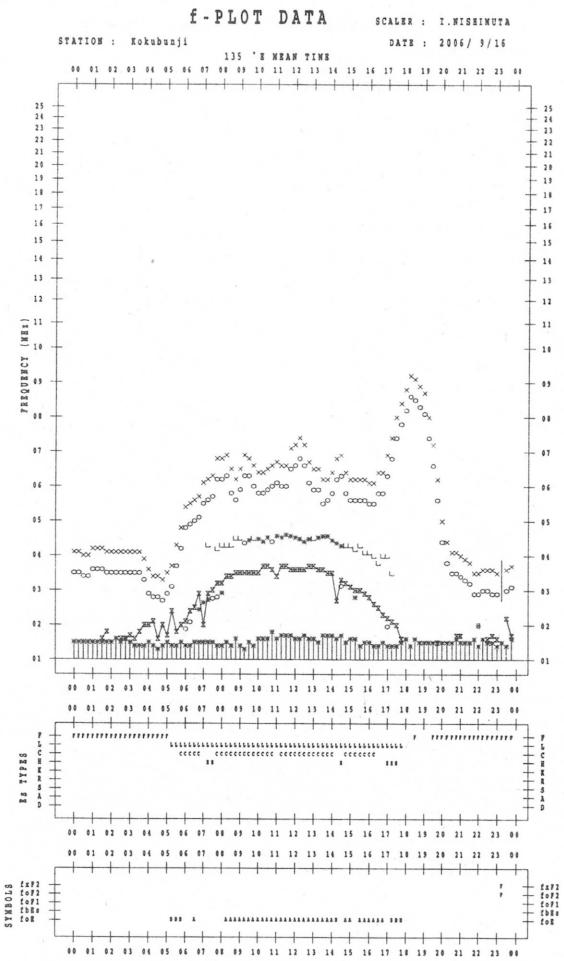
STATION : Kokubunji
DATE : 2006/ 9/14
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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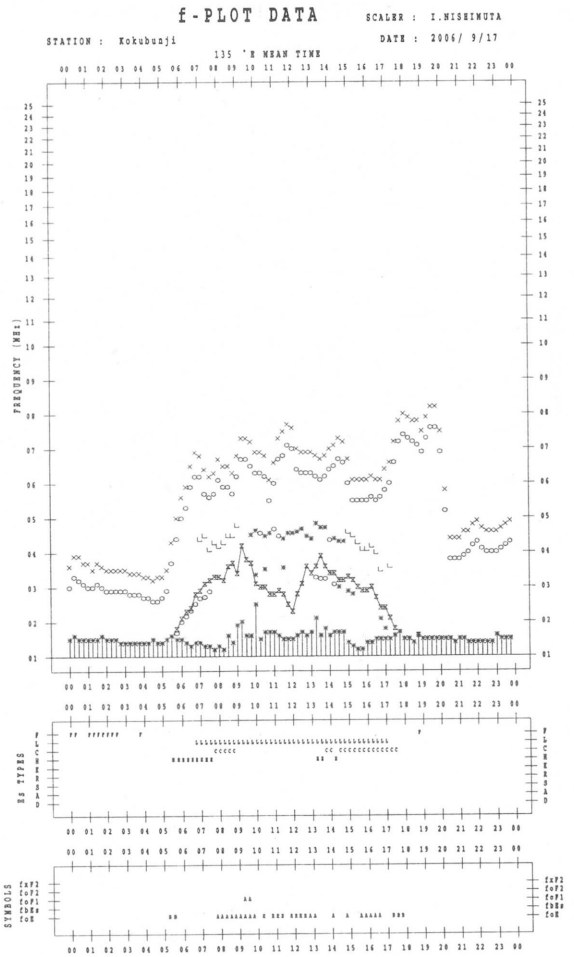
STATION : Kokubunji
DATE : 2006/ 9/16
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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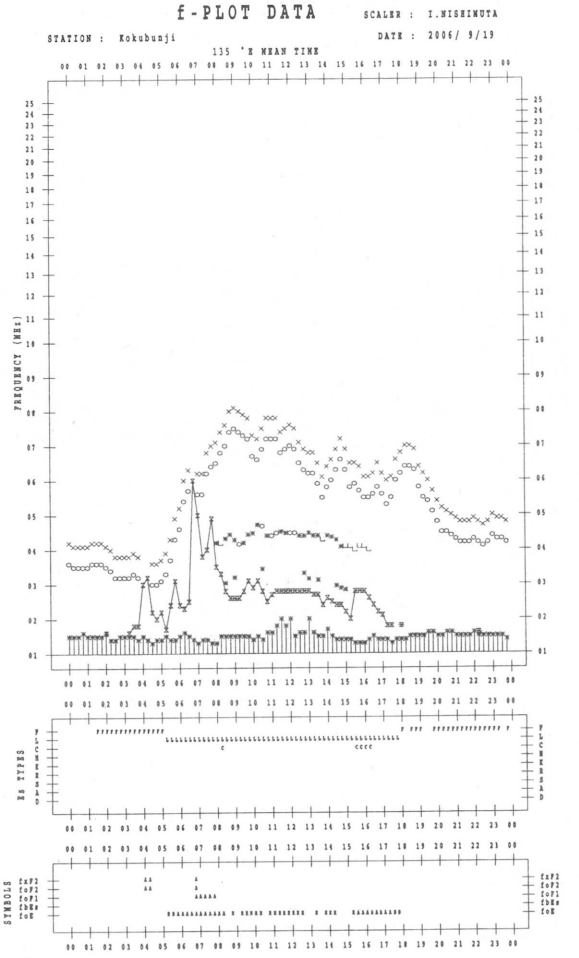
STATION : Kokubunji
DATE : 2006/ 9/17
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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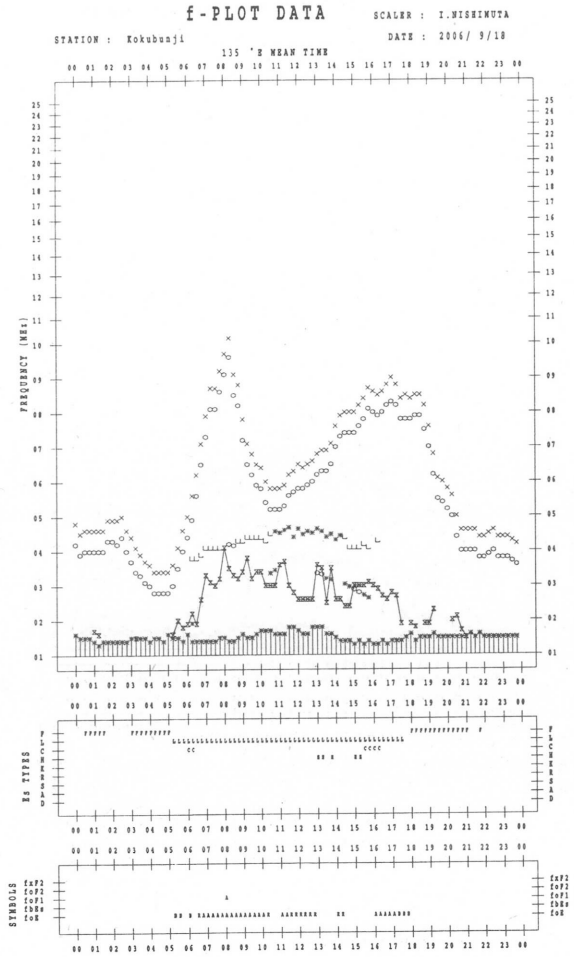
STATION : Kokubunji
DATE : 2006/ 9/19
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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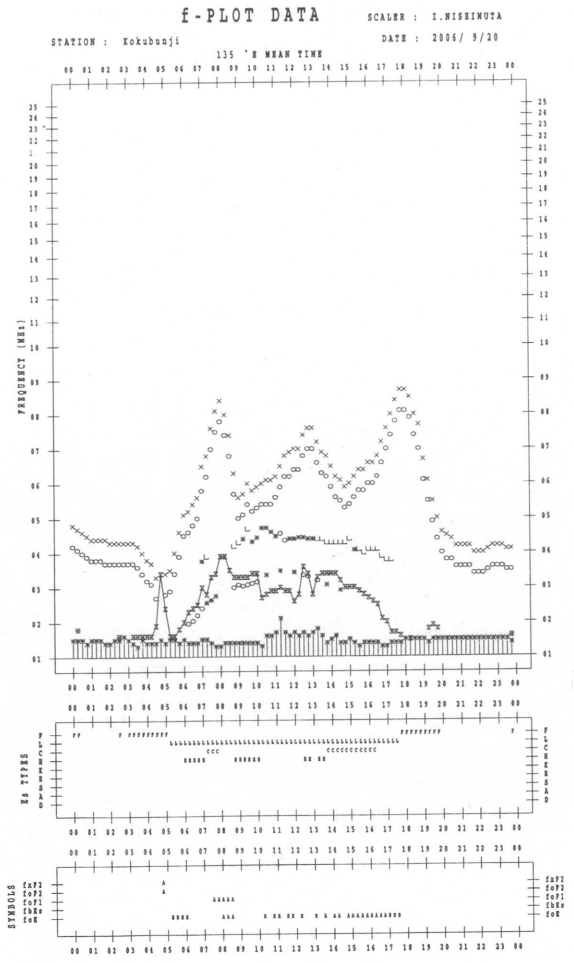
STATION : Kokubunji
DATE : 2006/ 9/18
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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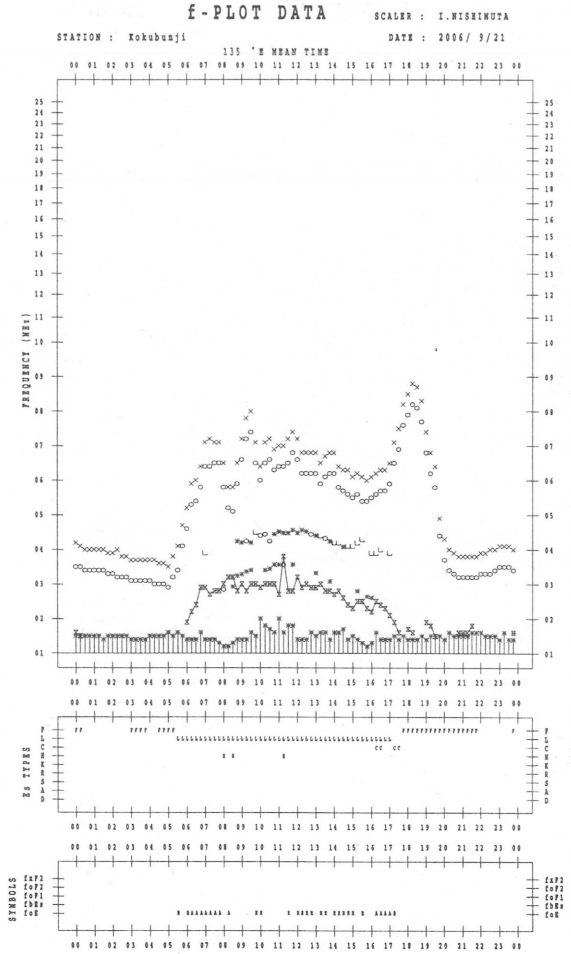
STATION : Kokubunji
DATE : 2006/ 9/20
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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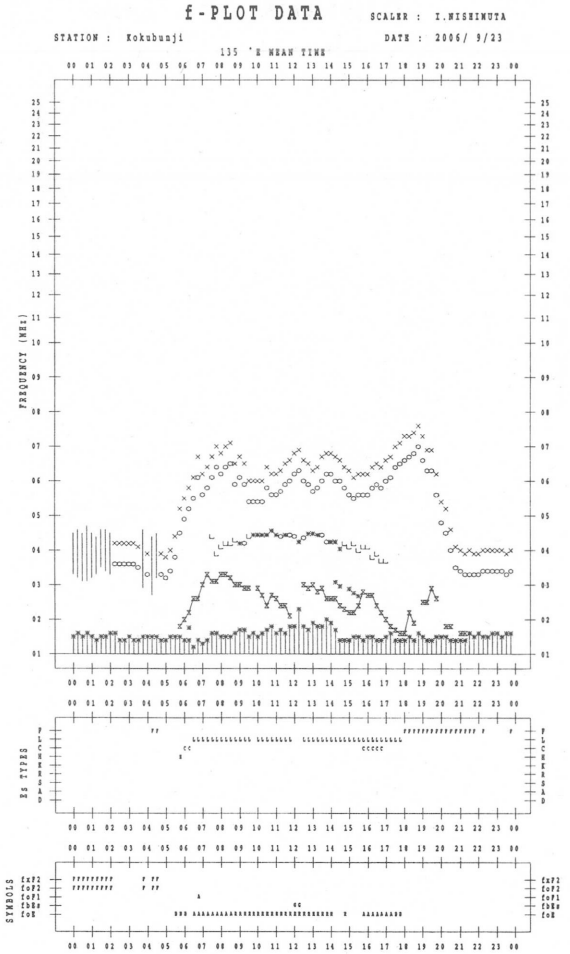
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/21
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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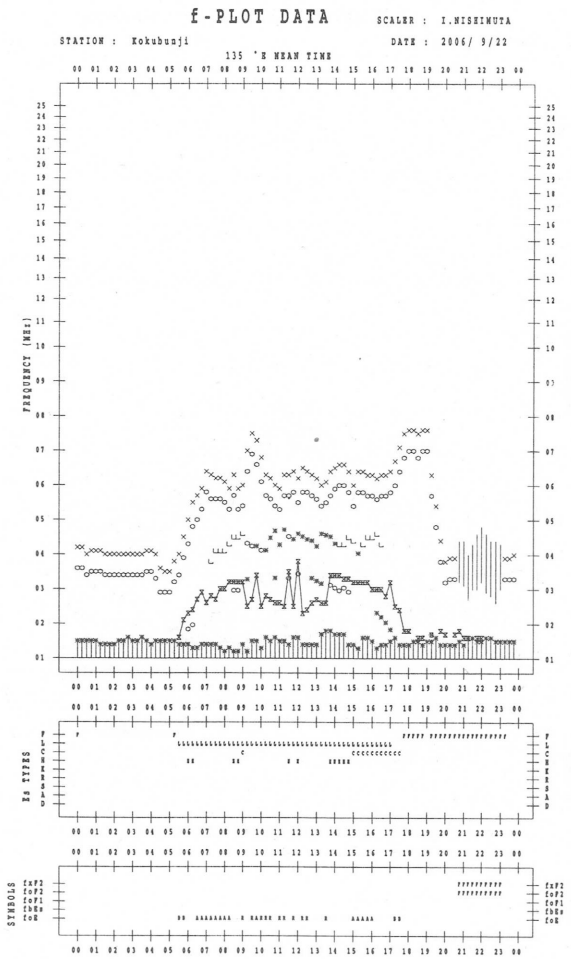
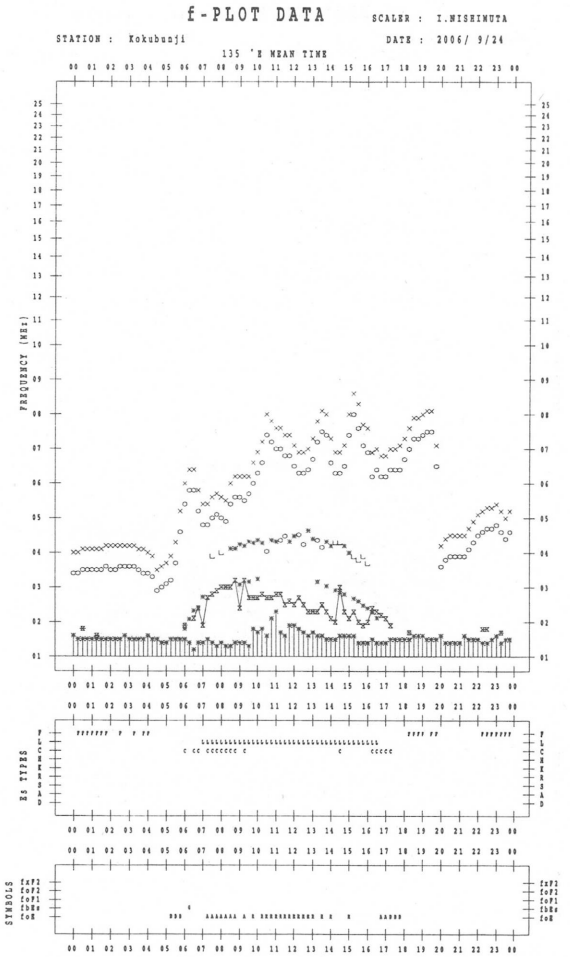
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/23
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/22
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS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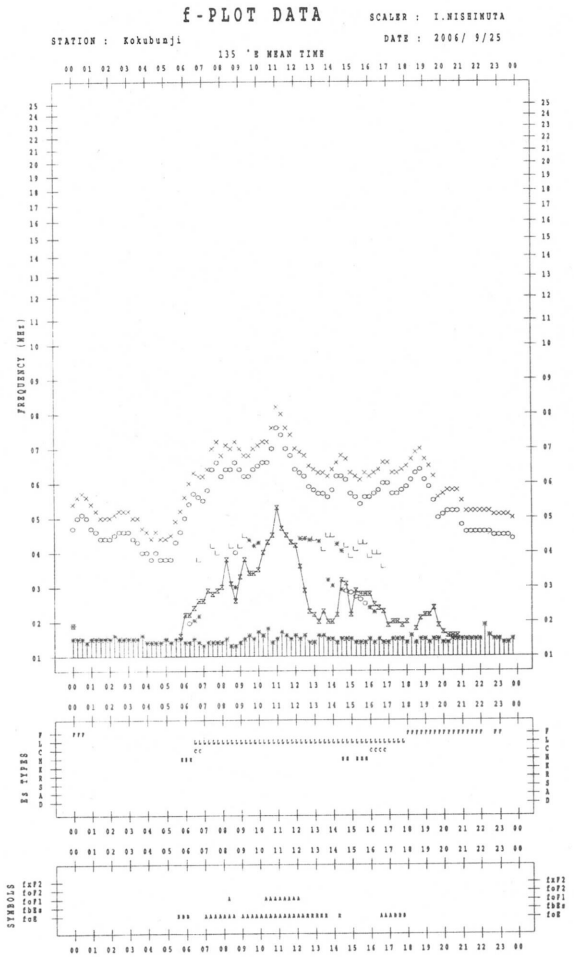
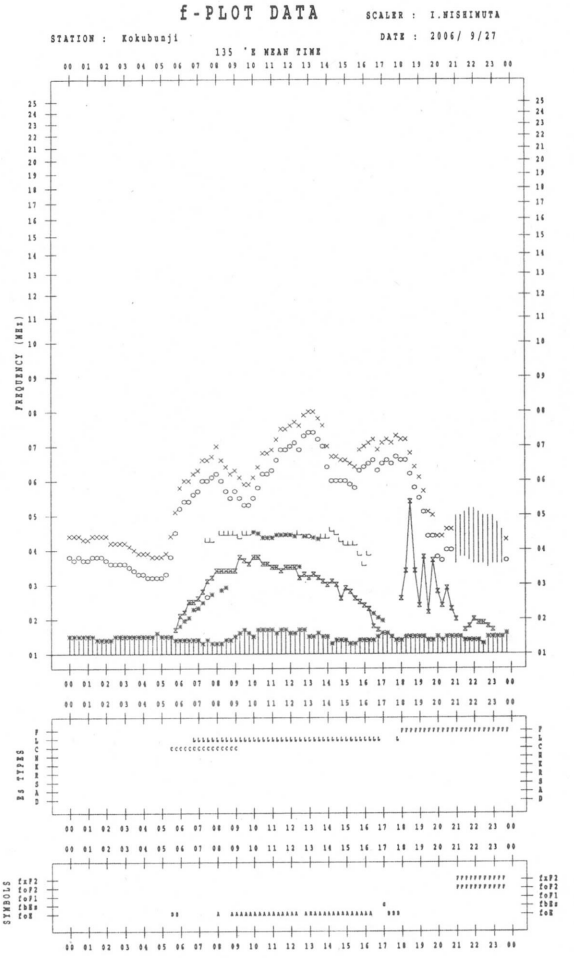
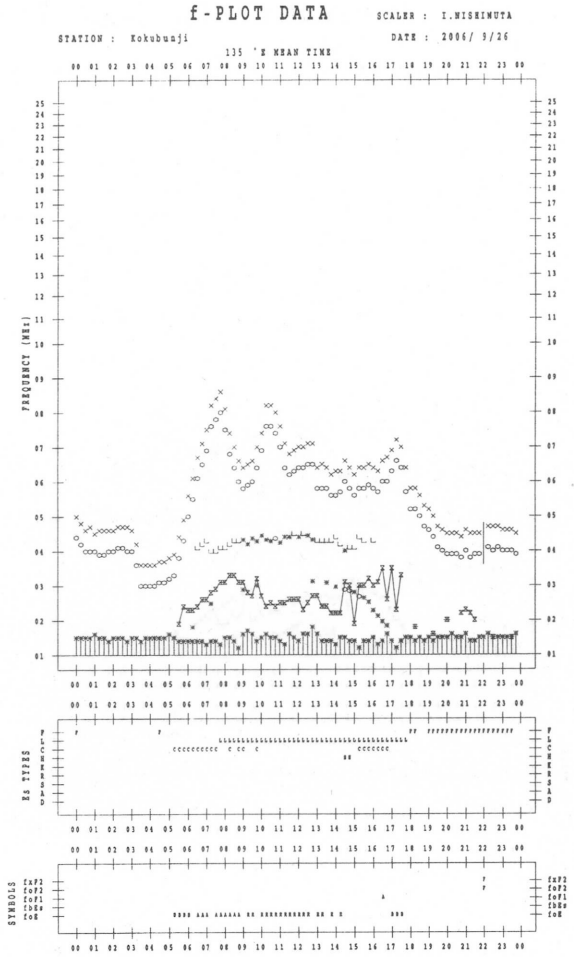
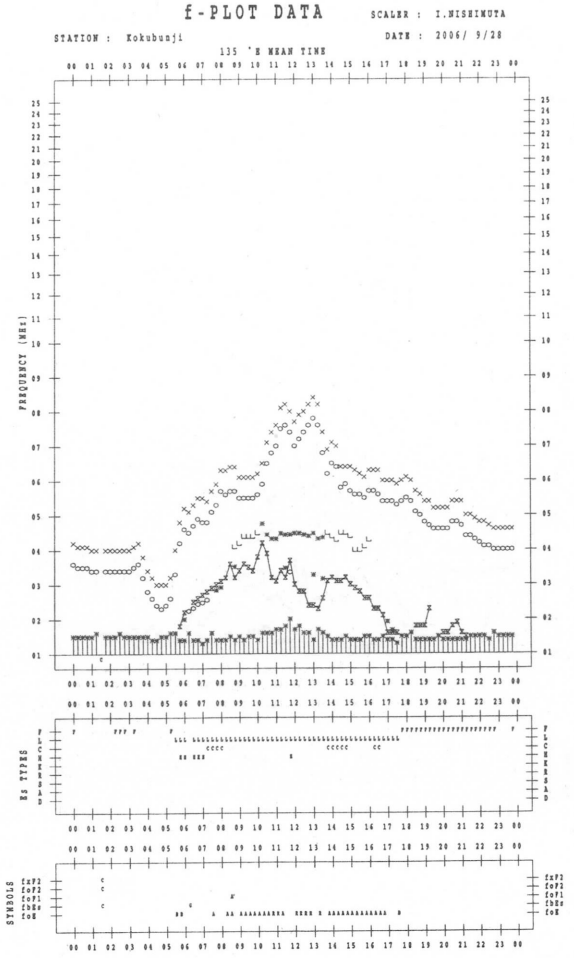
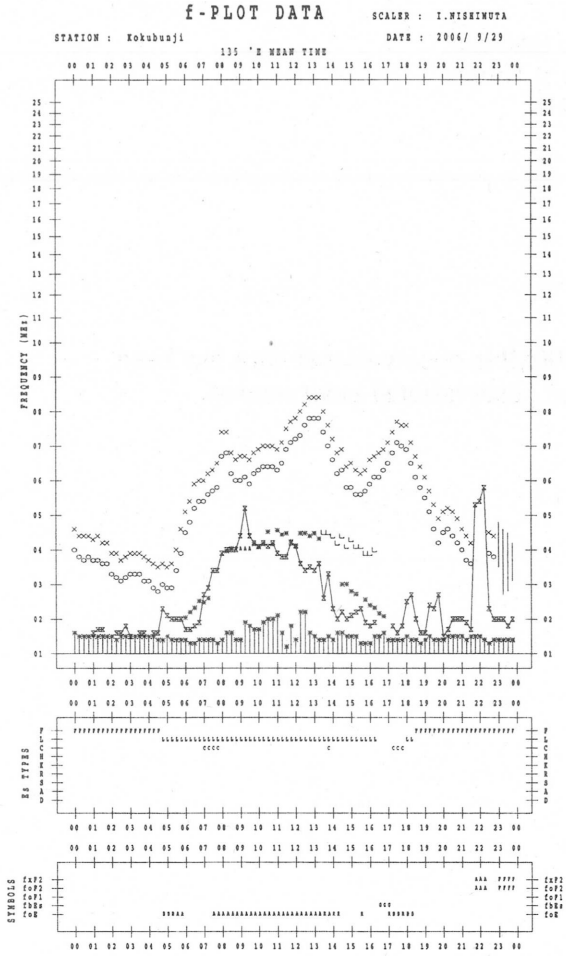
STATION : Kokubunji
DATE : 2006/ 9/24
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS

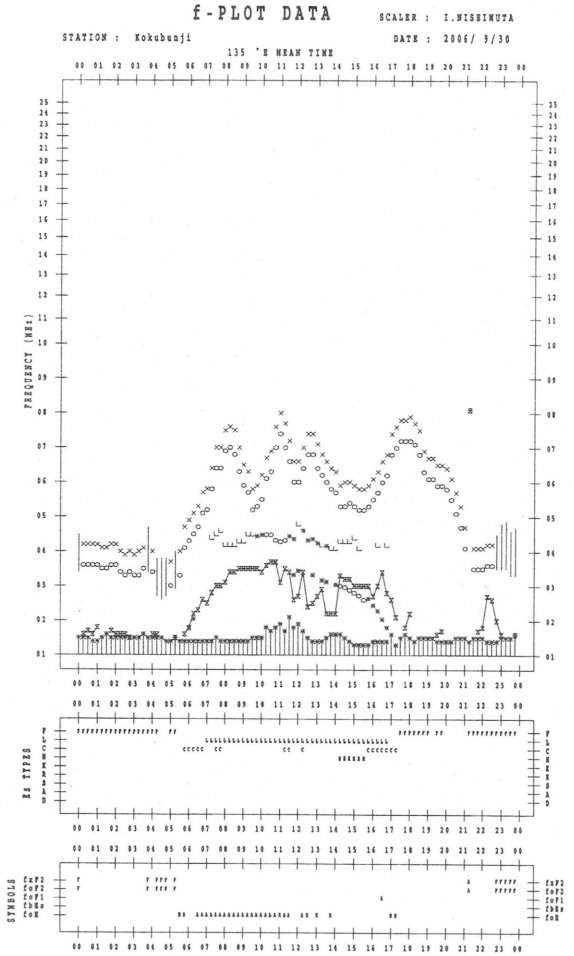

f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/25
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/27
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/26
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHIMUTA
STATION : Kokubunji
DATE : 2006/ 9/28
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHINUTA
STATION : Kokubunji
DATE : 2006/ 9/29
135 °E MEAN TIME
FREQUENCY (MHz)
Es TYPES
SYMBOLS


f-PLOT DATA
SCALER : I.NISHINUTA
STATION : Kokubunji
DATE : 2006/ 9/30
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 September 2006

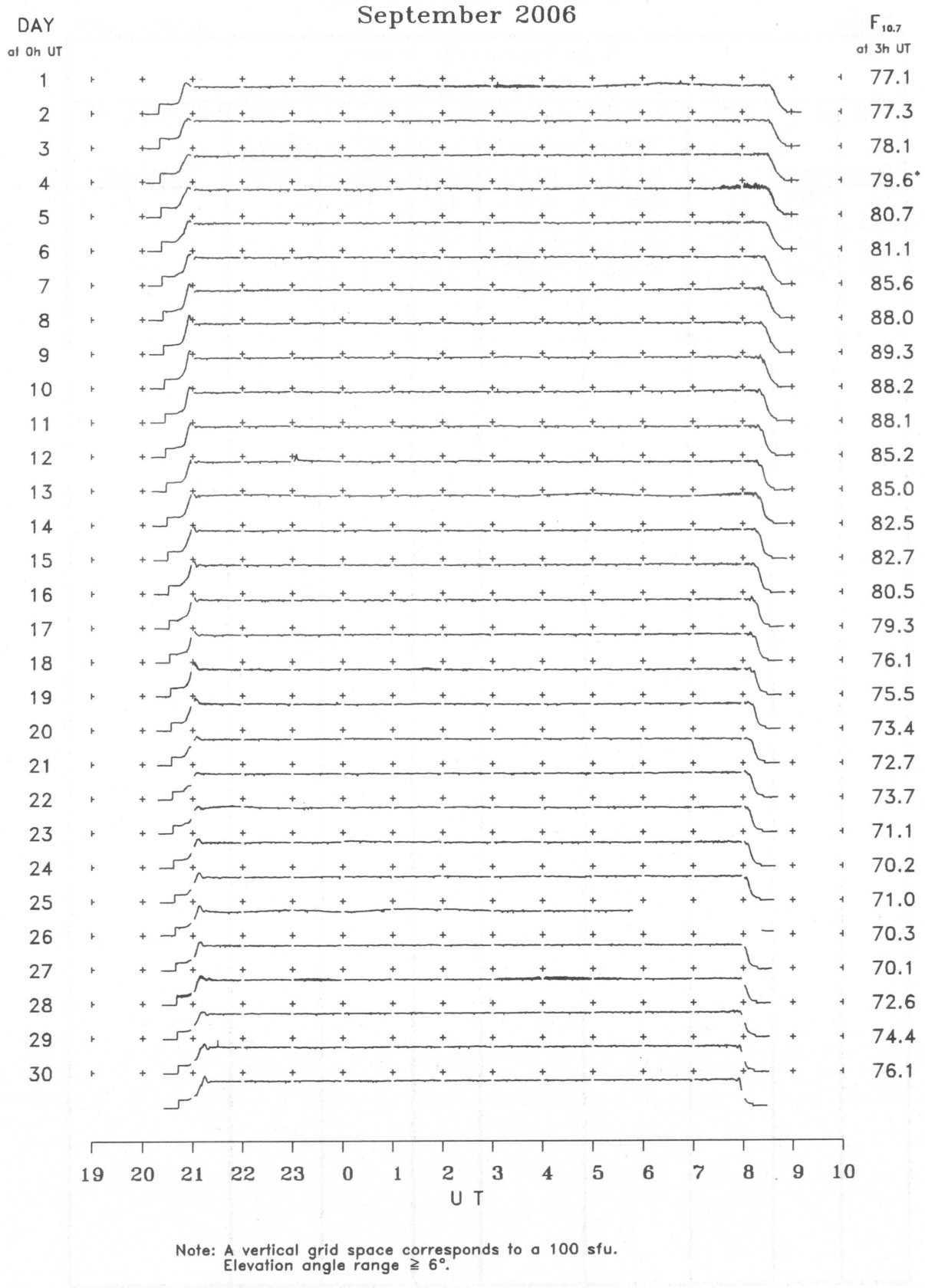
Single-frequency observations

Normal observing period: 2015 – 0850 U.T. (sunrise to sunset)

SEP. 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
1	2800	7 C	0645.0	0645.0	1.0	10	–	
12	2800	3 S	2302.0	2305.0	7.0	25	–	
14	2800	1 S	0733.0	0734.0	3.0	5	–	
18	2800	1 S	2352.0	2353.0	3.0	5	–	

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 SEPTEMBER 2006
F－693 Vol.58 No.9 (Not for Sale)

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