F-740

IONOSPHERIC DATA IN JAPAN

FOR AUGUST 2010

VOL. 62 NO. 8

CONTENTS

≪Real Time Ionograms on the Web ・・・・・・・・・・・・・http://wdc.nict.go.jp/index_eng.html≫

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 , Japan.

Stations	Geographic(WGS84)		Geomagnetic (IGRF-10(2005))		Technical Method
	Latitude	Longitude	Latitude	Longitude	
✳Wakkanai/Sarobetsu	45˚10'N	141˚45'E	36.4˚N	208.9˚	Vertical Sounding (I)
Kokubunji	35˚43'N	139˚29'E	26.8˚N	208.2˚	Vertical Sounding (I)
Yamagawa	31˚12'N	130˚37'E	21.7˚N	200.5˚	Vertical Sounding (I)
Okinawa	26˚41'N	128˚09'E	17.0˚N	198.6˚	Vertical Sounding (I)
Hiraiso	36˚22'N	140˚37'E	27.6˚N	209.1˚	Solar Radio Emission (S)

✳We moved the observation facilities at Wakkanai to Sarobetsu on February 2009. The new observatory is located at approximately 26km south from the old observatory. The observation at Sarobetsu commenced on March 6, 2009.

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 a 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 by experienced specialists to supplement automatically-scaled parameters.

A1. Automatic Scaling

Digital ionograms are automatically scaled by the pattern recognition method. The following five characteristics of the ionospheric are listed below. 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 iono-spheric 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 very small ionization density of the layer (for *fEs*).

N Impossible automatic scaling because of complex echoes.

Blank No digital record because of problems occurring in the auto matic data processing system, but existence of film record.

c. Definitions of 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 spread ***F*** trace
foF2 ***foF1*** ***foE*** ***foEs***	Ordinary wave critical frequency for the ***F2***, ***F1***, ***E,*** and ***Es*** (including particle type ***E)*** layers, respectively
fbEs	Blanketing frequency of the ***Es*** layer, e.g. the lowest ordinary wave frequency visible through ***Es***
fmin	Lowest frequency that shows vertical ionospheric reflections
M(3000)F2 ***M(3000)F1***	Maximum usable frequency factor for a path of 3000 km for transmission by the ***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.
Z 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 as-sociated 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. 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
SGD Code	Letter Symbol	Morphological Classification
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.

B2. Summary Plots of F10.7 at Hiraiso

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

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

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

HOURLY VALUES OF foF2 AT Wakkanai

AUG. 2010

LAT. 45°10.0′N LON. 141°45.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

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

HOURLY VALUES OF fEs AT Wakkanai

AUG. 2010

LAT. 45°10.0′N LON. 141°45.0′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	24	G	G	G	G	58	51	40	G	53	50	57	74	G	G	G	72	73	129	40	26	28	69	71
2	55	33	27	G	G	38	50	71	62	72	55	G	G	71	39	G	G	44	38	48	51	68	45	39
3	30	32	28	26	G	G	37	81	39	43	49	G	G	G	42	G	G	38	37	35	G	G	30	71
4	44	33	30	34	49	47	43	41	42	G	51	G	G	G		G	51	50	59	91	54	28	G	33
5	G	G	24	32	69	39	53	G	66	68	71	50	52	G	55	38	71	51	61	33	G	38	35	32
6	27	28	28	G	34	42	45	G	38	39	74	55	42	G	G	G	35	40	39	39	38	27	33	G
7	27	G	39	30	G	32	40	44	G	41	41	G	G	G	56	G	G	42	103	70	49	39	40	33
8	46	38	30	30	25	G	41	46	58	71	86		40	G	G	51	54	59	50	34	48	65	G	36
9	26	30	24	28	27	32	40	41	70	41	42	G	G	G	G	G	G	41	G	28	25	55	45	69
10	50	48	36	34	35	27	39	50	41	61	102	68	72	71	69	G	38	40	81	50	25	33	40	39
11	30	24	G	32	33	29	38	45	49	G	40	G	54	87	52	G	60	67	73		112		65	29
12	58	59	72	66	49	29	33	56	70	50	42	52	62	41	48	49	48	62	74	44	38	30	32	31
13	28	29	28	G	G	G	36	49	57	57		G	43	G	G	39	42	60	66	50	26	G	34	38
14	50	38	25	42	40	G	G	39	44	60	70	54	53	67	102	74	68	62	44	38	40	29	43	38
15	28	31	G	G	26	G	32	36	38	39	G	50	G	51	G	38	48	39	32	36	32	45	38	40
16	33	27	29	11	G	34	60	69	49	60	65	58	87	85	90	92	51	41	32	52	33	G	G	G
17	29	38	68	40	28	26	40	50	73	69	69	42	48	50	72	44	48	60	57	42	34	57	39	58
18	54	40	34	39	38	32	31	50	53	55	58	65	72	G	G		36	34	35	30	40	24	G	G
19	G	G	29	25	G	G	32	38	49	G	41	55	40	40	G	G	G	35	30	44	34	27	G	G
20	24	31	25	G	G	G	34		41	38	69	51	40	G	47	40	35	44	38	G	60	49	G	26
21	25	G	G	23	27	G	32	37	40	G	50	44	54	52	49	44	44	40	39	39	50	48	59	58
22	38	38	34	36	28	28	38	42	46	46	57	62	47	52	71	70	75	96	60	72	40	54	60	71
23	81		58	70	50	28	49	59	55	52	73	118	59	75	58	97	60	104	53	60	40	G	40	38
24	48	51	59	38	32	36	60	68	93	117	95	81	104	98	91	61	49	39	34	30	92	59	52	57
25	51	40	36	26	28	27	33	38	44	44	G	G	G	50	G	G	41	37	40	G	G		46	25
26	G	G	23	G	G	28	36	73	60	62	51	72	72	G	51	71	69	53	72	48	79	92	69	71
27	57	34	59	33	26	35	50	97	79	80	50	65	93	66	G		G	40	73	48	49	73	71	38
28	48	39	34	32	33	38	52	52	49	48	40	G	63	40	G	63	46	41	80	51	46	33	34	60
29	38	57	40	38	27	G	38	58	89	59	113	76	G	61	G	41	36	58	71	70	73	70	60	72
30	96	59	71	56	58	36	32	44	50	64	G	69	42	52	42	G	G	33	G	G	59	60	48	65
31	25	G	G	G	45	35	32	52	61	50	G	49	44	48	53	56	73	43	G	31	46	29	35	25
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	30	31	31	31	31	31	30	31	31	30	30	31	31	30	29	31	31	31	30	31	29	31	31
MED	33	32	29	30	28	29	38	48	49	52	51	52	47	48	44	39	46	43	50	41	40	38	40	38
U Q	50	39	39	38	38	36	49	58	62	62	70	65	63	66	56	58	60	60	72	50	51	58	52	60
L Q	26	24	24	G	G	G	33	40	41	41	41	G	G	G	G	G	35	40	35	33	32	27	32	29

HOURLY VALUES OF fmin AT Wakkanai

AUG. 2010

LAT. 45°10.0′N LON. 141°45.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

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

HOURLY VALUES OF foF2 AT Kokubunji

AUG. 2010

LAT. 35°43.0′N LON. 139°29.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1		36	39	41	39	44	A	A	A	56	A	57	58	59	A	54	55	54	A	A	52	A	44	42
2	42	42		30	34	42		55	A	A	48	A	A	73	76	80	A	58	61	64	A	45	38	41
3	39	38	A	A	34	38	43	A	A	67	59	67	69				57	64	66	71	A	52	51	52
4	42	46	34	44	38	36	39		48	60	74			63		75	69	77	80	78	67	52	53	44
5	51	44	47	53	54		A		A	79			A		62		56	60	62	77	76	53	A	A
6		27		32	36	38	45	53			A	A		A	A	A	A	65	77	71	A	A	38	36
7	32	32	34			37	40	51	A		A	A	56			65	80	86	A	A	42	45	51	44
8	44	41	A	A	36	41	51	53	A	A	A	A	A	A	A	75	77	63	67	69	51		A	A
9	A	37	37	36	36	39	55	66	48	47	A	A	A			64	A	90	81	A	A	A	44	
10	23		35	36	27	41	52	59	A	A	A	62	58	67	66	68	78	83	66	67	54	A	45	40
11	42	42	43	39	38	C	C	C	C	C	C	C	69		69		75	75	69	58	54	51	46	42
12	44	44	39	41				58	67	A	62	59		A	A	A	A	56	61	64	A	44	49	46
13	47	46	45	44	43	42	52	63	67	52		A			A	61	A	62	68	66	61	54	45	
14	38	A	A		36	39	52		58			A	A		51	A	54	53	A	66	64	51	52	49
15	42	45	44		41	41	49	55			58	A	A	58	62	72	74	A	59	63	52	59	58	48
16	44	44	44	46			48	59	77	54	A	52	58	56	A	A		66	A	A	78	70	65	
17	52	49	42	42	45	53	53	64	A	A	A	A		A	A	A	55	A	45		54	52		
18	52	45	A				51	60		A	A	61	A			58	69	66	55	59	59	54	53	
19			42	42	41	39	44	65	56		58			48		62	55	54	58	67	54	52	59	49
20	41	44	46	44	34	36	48	59	64		A	A	A	64	66	66	60	55	54	72	66	52	A	A
21	34	38		37	36	36	56	64	64	65	68			62	63	64	73	78	62	66	54	A	A	A
22	A	39		39	39	42	56	54	67			A	A			63	A	58	A		66	50	52	46
23	45	45	42	47	45	42	65	59	51	66		A	48			66	73	80	88	84	54	43	41	38
24	38	38	42	39	41		50	93	56	54	38			64	77	71	63	73	86	88	54	51		44
25	42	46	36		32	34	62	67	A	55	61	A	67		A	74	80	81	76	74	A		A	A
26	A	44	44	44	44	42	56	A	47	A			A	A	A	69	77			64	54	58	42	
27	34	34	35	34	32	34		60	60	A	A	A	A	A	66	74	65	57	55	63	54	58	53	52
28			39	36	34	37	53	54	56	A	A	A	78	65	61	64	57	55	59	59	54	51	51	38
29	A	34	A	34	34	34	47		57	48	A	A	A		48	58	58	57	67	73	66	51		44
30	44		A	A		34	46	59	72	67	A	A	A	A	A	57	54	54	60	76	76	54	A	
31	A	A		A	A	34	45	54	59	A	A	A		63	62		59	63		72	78	54	A	32
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	22	25	20	22	25	25	25	23	18	13	9	6	9	12	13	22	24	28	24	25	25	24	21	19
MED	42	42	42	40	36	39	51	59	58	56	59	60	58	63	63	66	64	63	64	67	54	52	51	44
U Q	44	45	44	44	41	42	54	64	67	66	65	62	69	64	67	72	74	76	72	73	66	54	53	48
L Q	38	37	36	36	34	36	45	54	56	53	53	57	57	58	61	62	56	56	59	64	54	51	44	40

HOURLY VALUES OF fEs AT Kokubunji

AUG. 2010

LAT. 35°43.0′N LON. 139°29.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	29	30	40	28	35	G	64	52	71	46	72	G	G	G	65	G	47	47	80	113	58	53	34	34
2	28	38	37	28	G	G	36	50	106	68	G	50	52	95	50	G	86	G	42	47	73	72	38	34
3	26	29	50	40	26	G	35	53	96	59	G	G	G				G	G	28	G	107	33	G	G
4	29	G	G	G	29	G	G	G	G	G	G	G		G		G	G	G	30	G	G	G	39	29
5	25	23	G	26	G		47	G	38	82					G		G	47		45	48	33	53	39
6	29	G		G	G	G	G	G	G	G	61	64		78	121	108	59	G	G	29	57	60	G	33
7	40	G	G	32	28	29	32	40	83	53	68	49	G	G	52	62	58	61	115	78	27	G	53	34
8	43	33	57	59	G	G	G	46	92	151	71	51	51	65	65	G	51	59	40	58	31	35	51	60
9	50	G	28	31	G	27	G	45	50	61	52	83	73			58	71	60	62	89	60	49	34	52
10	25	69	47	27	G	G	G	51	72	68	65	54	61	51	68	57	G	G	38	32		56	25	30
11	40	29	G	G	27	C	C	C	C	C	C	C	G			59	57	53	44	73	41	36	28	30
12	50	28	32	28	33	29	G	G	52	62	50	G	G	78	79	86	67	47	34	33	79	40	28	23
13	26	28	28	29	G	28	G	G	G	48		49			47	45	73	33	33	33	49	40	31	29
14		71	40	32	30	36	29	G	52		53	55	70	G	G	78	53	38	53	42	43	43	G	34
15	G	G	35	47	35	25	G	G		G	49	75	57	59	54	50	53	70	29	27	52	50	47	29
16	G	G	G	G	27	29	52	51	42	G	82	49	50	G	142	104	138	96	107	115	46	40	36	
17	G	G	G	G	G	G	34	44	57	79	68	61		78	85	55	40	58	33	59	50	39	52	58
18	43	43	83	53	33	35	G	G	52	82	94	53	60		51	50	G	39	42	50	51	31	29	34
19	44	40	26	43	27	G	29	G	G	48	50		G	G	53	65	G	52	40	46	G	G	40	49
20	37	32	25	27	24	G	G	G	G	52	56	59	87	52	G	57	G	47	51	40	G	40	30	41
21	30	38	33	G	26	35	32	G	43	50	53	49	51	51	46	G	G	G	34	35	29	53	82	73
22	53	23	58	30	34	33	29	G	44	48	51	72	59			52	61	79	65	29	49	G	G	55
23	24	48	40	39	27	28	32	58	46	43		47	41			48	53	40	35	73	39	31	26	26
24	23	29	G	28	G	38	58	41	G	40	G			50	54	G	G	32	26	28	51	G	34	40
25	49	34	31	42	G	28	43	49	49	42	49	47	G	50	102	52	65	60	89	70	71	57	80	59
26	83	43	31	31	25	G	G	79	61	67	54		49	64	69	47	59	113	91		32	32	33	39
27	33	G	40	G	G	G	29	40	47	62	75	114	65	76	57	50	38	G	27	32	51	49	52	49
28	59		G	G	G	G	G	G	50	96	104	76	50	G	G	50	57	90	61	34	48	33	45	31
29	34	23	25	G	G	G	39		51	46	57	62	46		G	G	36	45	35	40	31	34	32	33
30	40	50	46	40	38	24	G	G	51	46	55	70	52	94	41	G	G	G	33	26	22	27	34	40
31	59	67	50	50	34	34	29	50	54	67	59	57	53	52	49	49	G	50	61	60	G	18	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	30	30	30	31	31	29	30	29	29	29	27	26	25	22	25	29	31	31	30	30	30	31	31	30
MED	34	29	32	28	26	24	29	40	50	52	55	54	51	52	53	50	51	47	40	41	48	36	34	34
U Q	44	40	40	40	30	29	35	50	59	67	68	64	59	76	68	58	59	60	61	60	52	49	47	49
L Q	26	G	G	G	G	G	G	G	40	44	50	49	G	G	43	G	G	G	33	32	31	31	28	30

HOURLY VALUES OF fmin AT Kokubunji

AUG. 2010

LAT. 35°43.0′N LON. 139°29.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	13	13	13	13	13	14	14	17	33	44	33	48	49	47	17	44	20	18	13	14	14	13	14	13
2	13	14	13	13	14	20	14	13	29	34	44	34	36	33	37	45	33	14	14	13	14	13	13	13
3	13	13	17	14	13	13	13	13	17	28	47	50	50				20	14	13	17	13	13	14	14
4	13	14	13	23	13	20	29	14	21	47	48	46		50		45	15	13	13	13	14	13	13	14
5	14	13	14	13	14		13	13	15	33			38		44		42	18	14	14	17	14	14	14
6	13	14		13	13	26	24	15	20	45	40	36		39	40	21	20	14	13	13	13	13	20	13
7	14	17	13	14	13	13	14	13	13	17	37	34	48	46	37	35	17	13	14	13	14	17	13	14
8	13	14	15	13	13	14	13	14	22	37	33	35	34	21	21	44	39	13	13	13	13	13	13	14
9	14	15	14	13	15	13	14	15	41	33	34	36	35			18	31	14	13	18	13	14	13	13
10	14	13	13	14	15	15	14	14	15	33	34	35	37	34	26	17	18	13	14	14	13	14	14	14
11	13	14	14	14	13	C	C	C	C	C	C	C			38	37	14	14	13	13	14	13	13	13
12	14	13	14	13	13	13	13	14	13	33	24	48		21	22	18	14	13	13	14	14	13	14	14
13	14	13	14	13	15	13	13	13	14	22		22			22	14	14	15	13	13	13	13	14	14
14	14	14	13	13	13	14	14	13	17		34	38	39	55	46	18	14	14	13	13	13	13	17	14
15	14	14	13	13	14	17	34	13		18	38	34	37	38	36	17	14	13	13	14	13	13	13	13
16	14	15	15	13	14	13	13	13	39	41	38	36	35	43	38	20	14	30	13	13	13	13	14	
17	14	14	13	15	18	14	14	15	37	35	35	36		36	21	15	18	15	15	13	13	13	13	13
18	13	13	13	13	13	13	26	14	15	34	35	34	33		37	33	20	13	13	14	14	13	13	13
19	14	15	13	13	13	18	13	14	15	24	15		45	47	30	21	17	15	13	13	14	14	13	13
20	13	13	15	13	13	14	13	15	17	39	33	33	28	36	21	15	14	13	14	13	14	13	14	14
21	13	13	13	15	14	13	13	13	15	37	33	36	35	36	46	20	42	14	13	13	13	13	13	14
22	14	13	13	13	13	13	13	13	21	35	34	36	38			39	15	14	17	14	13	17	18	13
23	13	13	13	13	17	14	13	14	28	44		35	53			21	15	13	14	17	14	13	17	14
24	13	13	17	14	14	13	13	13	39	42	42			37	40	20	20	13	13	13	13	14	14	13
25	13	13	13	13	13	13	14	14	25	41	33	33	47	43	34	34	14	13	13	14	14	13	14	13
26	13	14	13	13	14	14	15	13	15	21	35		38	34	35	18	14	13	14	13	13	14	13	13
27	13	13	14	13	13	14	13	13	20	33	34	37	31	31	25	21	15	17	13	13	13	14	13	13
28	13		13	14	13	14	15	14	23	23	33	28	31	44	46	33	17	13	13	14	13	13	13	13
29	13	14	14	15	13	14	13		20	31	33	33	31		41	40	14	13	14	13	13	13	13	13
30	13	13	13	13	13	14	23	14	18	31	28	34	33	31	20	40	15	14	13	13	14	14	13	13
31	13	13	13	13	13	13	13	13	29	33	34	34	34	34	34	30	13	13	13	18	14	14	14	14
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	30	30	31	31	29	30	29	29	29	27	26	24	22	26	29	31	31	31	31	31	31	31	30
MED	13	13	13	13	13	14	14	14	20	33	34	35	36	36	36	21	15	14	13	13	13	13	13	13
U Q	14	14	14	14	14	14	14	14	28	40	38	36	42	44	40	38	20	14	14	14	14	14	14	14
L Q	13	13	13	13	13	13	13	13	15	29	33	34	33	34	22	18	14	13	13	13	13	13	13	13

HOURLY VALUES OF foF2 AT Yamagawa

AUG. 2010

LAT. 31°12.0′N LON. 130°37.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	47	42		37		A	45	63	54			62	A	A	A	77	68	A	A	53	A	A	A	A
2	42	42	37		28	28	38	60	66	62	A	A		A	84	91	80	82	68	63	50	44		37
3			34	36	29	A	A		A	A	A	A		70	64	66	70	70	68	71	54	52	52	54
4	52	42	47	46	34	29	36	46	60	77	63	A		A	75	76	74	86	85	74	60	51	44	47
5	47	45	46	54		A	41	49	53	40	A	62	A	61	76	A	65	68	81	87	86	A		
6	35		34	34	31		40	52	59	64		A			56	59	63	68	76	72	52	34	34	A
7		34	32	30	30	29	41	52	53	A	A	A	61	A	A	A	80	88	A	A	54	52	54	54
8	52	48	45	44	42	38		42	A	A	A	A	A	65	75	88	90	81	83	77	A		A	40
9	34				34	34	43	45	66	54	A		A	A		72	78	84	80	74	66		A	A
10	A		A	34	34	32	47	63	70	54	A	A	A	A	A	A	86	81	75	48	44	A	44	46
11	A	A	42	41	40	34	44	54	68	A	A	A	A		77	94	103	90	88	72	67	53	37	A
12	34	36	37	37	37	36	42	45	57	60	61	59	65	67	76	78	74	76	80	76	53	47	A	42
13	41	42	42	42	34	34	45	54	64	48	58		A	62	63	67	71	A	A	74	70	53	A	44
14	44	42	41	A	37	34	42	54	55	66	67	58	A	A	61	54	64	68	73	77	67	47	44	
15	41	41	45	47	38	30	44	57	56	60	A	A	A	A	A	70	67	66	67	67	67	54	54	
16	51	50	49	46	38	38	47	A	60	54	62	60	A	59	68	A	A	80	84	82	85	70	51	46
17	42	38	49	40	40	40	47	69	57	A		63	A	A	A	66	60	58	A	A	A		53	46
18	42	43	41	41	40	40	43	47	58	A	A	A	A	A	A	A	83	81	66	63	A	53	A	A
19	A	42	41	38	36			65	57	58	55	64	59	61	A	61	48	44	58	A	67	54	52	52
20	53	53	54	45	36	34	44	54	45	61	56	61	62	A	67	80	76	72	A	A	80	A	A	34
21	36	36		A	31		41	49	67	87	56	A		A	64	78	93	92	91	83	53	34		A
22	A	A	34	34	34	29	41	59	60	58	53			59	A	68	72	66	A	65	72	54	44	
23	42	42	42	41	39	36	48	46	60	67	52	A	49	58	A	A	76	81	88	85	53	42	40	38
24	40	38	37	37	36	34	45	70	51	50					84	87	77	77	94	90	73	51	50	52
25	52	44	36	34	36	37	55	38	A	56	A		68	74	A	80	92	83	77	66	54	51	A	A
26	A	A		40	38	32	46	A	63	A	A	A	A	65	77	80	80	71	81	86	79	45	44	42
27	41	40	37	37	34	34	50	62	47	57	A	A	A	66	80	72	73	62	58	74	76	54	46	42
28	42	40	38	34	34	31	40	54	58		57	71	72	78	68	64	56	54	55	64	67	A	A	
29	41	38		37	31	32	40	54	60	A	A	50		64	62	59	58	65	70	71	71	37	36	A
30	A	34	32	34	30	26	37	59	72	59	54	A	A	62	61	55	56	61	73	76	75	43		
31	30	A	32	34			37	54	57	A	62	65	A	A	58	66	68	72	75	85	88	A	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	23	23	25	27	28	24	28	28	28	20	13	11	7	15	20	25	30	29	25	27	27	22	17	16
MED	42	42	41	37	35	34	43	54	58	58	57	62	62	64	68	72	74	72	76	74	67	51	44	45
U Q	47	43	45	42	38	36	45	59	63	63	62	64	68	67	76	80	80	81	83	82	75	53	52	49
L Q	40	38	35	34	32	30	40	48	55	54	54	59	59	61	62	65	65	66	68	66	54	44	42	41

HOURLY VALUES OF fEs AT Yamagawa

AUG. 2010

LAT. 31°12.0′N LON. 130°37.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1		34		G	31	86	34	34	48	59	G	52	82	152	76	G	N	151	150	79	92	73	71	53
2	58	32	35	40	32	G	34	44	48	45	52	119	51	93	67	64	G	G	34	40		29	28	26
3	28	G	G	33	33	54	46	51	78	96	69	96	49	48	G	G	G	39	36	30	33	G	G	G
4	G	G	G	G	G	G	27	35	36	G	G	86	G	47	42	G	G	42	40	28	25	25	38	G
5	G	28	G	29	37	33	33	44	48	45	64	116	106	G	42	62	72	39	49	32	40	82	36	44
6	40	27	G	27	G	G	27	G	36	G	G		G	G	G	G	G	G	32	27	G	G	37	82
7	45	G	G	G	G	G	G	46	60	78	64	72	61	76	81	81	75	98	132	154	73	46	27	33
8	38	28	32	32	26	G		34	64	92	94	54	63	50	44	64	45	49	60	61	84	49	44	30
9	37	40	40	40	30	G	33		44	40	57	46	56	59	60	63	53	76	50	47	44	43	50	48
10	59	42	38	27	30	32	G	34	44	46	72	83	84	87	126	85	43	56	70	55	39	65	49	40
11	58	72	40	41	28	29	40	43	60	73	90	53	61		56	49	58	74	52	G	32	G	30	33
12	G	G	28	G	G	23	32	56	G	54	49	51	42	52	54	68	44	62	78	G	G	G	59	30
13	38	28	31	26	24	G	G	34	44	43	51	G	118		G	G	44	86	95	59	30	40	72	44
14	33	36	36	43	26	24	36	39	42	50	66	58	52	42	42	51	40	44	38	32	46	32	23	34
15	34	G	G	G	43	25	G	41	46	53	96	62	66	68	151	73	G	52	36	40	24	29	58	43
16	40	29	36	37	G	G	34	114	60	60	G	G	60	52	41	101	92	35	G	39	44	G	G	G
17	G	G	G	G	G	G	33	36	46	80	46	50	64	107	85	62	52	41	107	87	93	33	G	G
18	40	36	34	30	35	29	27	39	57	68	96	132	115	100	80	84	118	84	57	78	78	56	49	46
19	51	39	39	31	44	39	52	43	46	46	45	44	48	54	58	56	45	46	44	73	103	27	38	36
20	39	32	33	28	G	G	28	40	44	51	48	G	52	86	G	60	63	71	73	77	49	78	44	30
21	29	36	45	44	40	29	G		44	49	56	59	60	79	60	53	46	41	37	33		31	40	36
22	65	43	32	29	G	G	G	G	46	46	44	42	48	G	81	69	74	50	61	54	24	59	32	48
23	32	G	G	35	34	28	27	40	42	48	41	42	42	44	87	134	72	39	35	24	48	36	40	30
24	G	G	G	G	23	34	G	G	G		48	49		G	43	46	G	46	44	40	36	30	31	54
25	46	25	30	29	32	26	31	42	62	57	61	59	48	54	90	58	53	49	54	44	57	32	72	103
26	58	53	45	32	52	G	43	70	64	90	103	104	96	49	58	40	51	53	35	83	33	46	40	31
27	G	G	G	G	G	G	G	36	G	42	52	55	56	60	44	G	G	38	36	44	46	34	44	48
28	54	34	G	G	G	G	G	40	36		49	44	G	G	G	G	G	50	44	83	41	70	45	40
29	46	40	44	G	G	G	G	G	47	67	63	51	G	42	43	G	41	34	31	29	32	26	33	43
30	50	G	G	G	23	32	45	40	41	46	46	47	48	53	G	G	45	56	60	54	43	43	34	30
31	33	48	32	30		25	G	50	51	55	62	67	72	63	52	53	65	40	62	95	82	58	60	
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	31	30	31	30	31	30	29	31	29	31	30	30	29	31	31	30	31	31	31	29	31	31	30
MED	38	29	32	29	26	23	28	40	46	51	52	54	56	53	54	56	45	49	49	44	43	34	40	36
U Q	50	39	36	33	33	29	34	44	57	67	66	72	66	77	80	68	63	62	62	77	65	56	49	46
L Q	29	G	G	G	G	G	G	34	42	45	46	46	48	43	42	G	G	39	36	32	32	27	31	30

HOURLY VALUES OF fmin AT Yamagawa

AUG. 2010

LAT. 31°12.0′N LON. 130°37.0′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		16	14	14	14	14	14	16	24	20	21	20	18	18	18	16	14	14	14	14	14	14
2	15	14	14	14	14	14	14	14	16	16	17	18	30	23	33	20	16	15	15	14	15	14	14	15
3	14	15	14	14	14	14	14	21	16	16	18	21	22	21	26	18	14	14	14	14	14	16	17	15
4	14	15	15	15	14	15	14	14	14	17	18	21	26	22	18	20	18	14	14	14	16	15	14	14
5	15	15	15	15	14	14	15	14	14	16	20	18	20	23	18	21	16	14	15	14	14	14	14	14
6	14	14	15	14	15	18	14	17	15	17	22	23	27	26	22	20	16	16	14	15	14	18	14	14
7	14	15	16	14	14	14	17	14	17	17	20	21	24	20	21	18	14	14	14	14	15	14	15	15
8	14	14	15	15	14	14		14	14	16	17	20	21	20	18	16	15	16	14	14	14	14	14	14
9	14	14	14	14	14	14	14	14	14	17	17	18	21	21	21	20	14	16	14	14	14	15	16	14
10	14	14	14	14	14	14	18	14	14	17	18	20	20	26	18	17	15	14	14	14	14	15	14	14
11	15	14	14	14	14	14	14	14	15	16	18	20	26		38	18	15	14	14	15	14	15	15	14
12	15	14	14	15	16	15	14	14	14	17	18	20	22	22	18	15	14	14	14	15	20	14	14	14
13	14	14	15	14	15	14	20	14	14	24	20	26	36	28	20	18	14	14	15	15	14	15	15	14
14	15	14	14	14	14	14	14	14	15	17	20	23	24	18	18	18	16	15	14	14	14	14	14	14
15	14	15	15	15	14	14	18	15	14	21	20	20	24	21	27	17	17	14	14	14	15	16	15	14
16	15	15	14	14	14	15	14	14	14	17	18	18	22	22	18	17	14	14	14	14	15	16	15	15
17	14	15	18	17	15	15	14	14	16	18	24	28	34	21	22	17	18	15	14	14	15	15	15	14
18	14	14	15	14	14	15	14	14	14	17	18	26	33	36	35	34	22	17	14	15	14	14	14	14
19	15	14	15	14	14	14	14	14	14	17	22	22	20	23	18	18	14	15	14	15	14	14	14	15
20	14	15	14	14	15	15	14	14	15	17	20	20	20	20	18	18	17	15	14	14	14	14	15	14
21	14	14	14	14	14	14	17	14	14	16	17	18	26	21	18	18	17	14	14	14	15	15	14	14
22	14	14	14	14	14	14	16	15	14	15	28	21	33	18	22	20	16	14	14	15	16	14	14	14
23	14	14	15	14	14	15	14	14	14	17	20	22	20	36	27	21	15	14	14	17	15	14	14	14
24	14	14	14	15	14	14	16	14	14	15	18	22		21	18	14	15	16	14	14	15	14	14	14
25	14	14	14	15	14	14	14	14	15	17	18	32	24	22	33	17	15	15	16	14	14	14	14	14
26	14	14	14	16	14	15	14	14	14	17	20	20	23	21	22	18	15	14	14	14	14	14	14	15
27	18	14	14	14	15	14	16	14	14	18	20	21	27	22	20	18	14	14	16	14	14	14	15	14
28	14	14	14	14	14	14	18	14	14		18	20	21	47	18	17	14	14	14	14	14	15	15	14
29	15	14	14	14	16	14	15	14	14	15	21	21	18	28	21	18	17	14	14	14	14	14	14	14
30	14	14	15	14	15	15	14	14	15	16	18	22	22	23	21	18	15	14	14	14	14	15	14	14
31	14	14	14	15		17	16	14	14	17	18	23	20	21	21	18	14	14	15	14	14	14	15	14
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	30	31	30	31	30	31	31	30	31	31	30	30	31	31	31	31	31	31	31	31	31	31
MED	14	14	14	14	14	14	14	14	14	17	18	21	22	22	21	18	15	14	14	14	14	14	14	14
U Q	15	15	15	15	15	15	16	14	15	17	20	22	26	23	22	20	17	15	14	15	15	15	15	14
L Q	14	14	14	14	14	14	14	14	14	16	18	20	21	21	18	17	14	14	14	14	14	14	14	14

HOURLY VALUES OF foF2 AT Okinawa

AUG. 2010

LAT. 26°41.0′N LON. 128°09.0′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	40	36		36	45	A	62	A	A		65	78	94	95	A	55	A		A		32
2		A	36	A				58				59		A	86	100	108	98		A	64	52	44	
3	44	44	43	40	32	29	36	45	52	58	62	A	A	73	84	90	90	84	78	76	59	60		53
4	45	53	44	42			A	51	63	74					92	73	72	88	90	67	52	42	47	43
5			43	46	N	A	A	54	52	A	66	A	A	A	71	83	81	78	88	88	77	51		45
6		26	34	43	29	A	35	55	67	58	60			65	63	74	83	81	78	67	66	A		
7	A		34				36		52	A	A	A	A	72	A		87	104	A	86	67	53	53	64
8		52	45		44	42	46	58	54	58	A	A		72	85	104	104	104	102	80			A	A
9	A	30				A	42	58	61		A	A	A	A	67	77	86	84	90	88	43		A	A
10	A	A	A	A	A	A	44	56	46	39	64				82	88	102	97	88	65	A	40	36	30
11	36	34	A	34	32	A		64	67	56			68	77		108	129	132	119	88	80	46	34	
12	35		34	32	34		35	55	59	66	64	62	62	71	80	98	115	106	88	73	52	34	42	41
13	34		41	34			36	55	66	54	A			81	85	86	90	88	90	88	82	44	A	A
14	32	34	34	32	32		36	47	62	68	68	A		A	61	67	81	90	A	82	A	52	43	
15		43	45	47			A	47	58	66	A	A	A		70	72	70	71	72	A	72	66	52	44
16	53	44	51				37	A	56	A	74		A		A	76	A	90	102	106	87	77	A	A
17	34	34		37		30	37	60	70	64	63	80	A	A	90	89	76	A	A	87	86	51		52
18	46	44	44	44		32	32	39	53	60	A	A	A	A	71	76	90	90	73	50	66	44	A	A
19			30				44	56	A		66	71	68	63		62	71	67	62	65	66	A	53	52
20	52	53	52	46	36	30	34	54	65	62	64	67	A		74	78	90	92	A	A	A	A	A	A
21	A	A	A	A	A	A	32	50	75	70	A	66	76	A	91	108	111	121	125	105	58			A
22				29		A	41	53	58	61				A	69	71	75	84	89	88	78	53	34	34
23			A		29			50	77	55			74	A		76	87	97	106	94				
24		29		30	29		41	64	52	46		63	68		82	87	88	84	101	110	78		A	A
25	34	32	32	34	32		38	50	51	61			71	83	84	96	110	107	80	64	52	A	A	A
26	44	44	43	34			36	66	57	A	A	A	68	80	92	91	81	90	110	110	72			32
27	37				28	31	36	56	46	61	A	A	68	81	77	78	82	85	90	87	87	60	A	
28	A		34	28			36	50	53	56	63	72	81	97	86	77	70	60	63	78	73	A	28	A
29	A				A		34	56	60	60	A	A	A	66	72	66	71	78	80	82		30		
30		A	A	32	A	A		62	58	56		62		70	66	A	68	76	89	107	66	A	A	A
31								56	A	61	75	A	A	A	67	74	78	86	88	107	A	A	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	13	15	19	19	12	6	23	29	27	24	12	9	10	15	26	29	30	29	26	27	23	17	11	12
MED	37	43	42	34	32	30	36	55	58	60	64	66	68	72	79	78	86	88	88	87	67	51	43	44
U Q	45	44	44	43	35	32	41	58	65	63	67	71	74	81	85	92	95	97	101	94	78	56	52	52
L Q	34	32	34	32	29	30	35	50	52	56	63	62	68	66	70	74	76	82	78	73	59	43	34	33

HOURLY VALUES OF fEs AT Okinawa

AUG. 2010

LAT. 26°41.0′N LON. 128°09.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	29	49	G	29	28	28	48	48	59	49	84	74		63	G	G	62	88	44	60	60	90	48	49
2	48	48	29	36	29	G	G	46	G			48		89	86	51	69	G	82	90	39	29	G	34
3	28	G	G	G	G	G	30	G	35	G	G	68	91	54	G	G	G	G	G	32	26	G		G
4	G	G	G	G			32	32	G	G					G	49	G	G	40	46	G	G	G	G
5	G	G	G	G	G	27	58	48	45	58	G	60	80	68	89	G	48	41	41	33	72	50	34	39
6	36	31	G	G	G	41	G	G	G		G			G	G	G	G	G	32	G	34	50	27	28
7	38		G			29	G		39	48	82	68	48	65	84	71	90	72	95	50	35	G	G	G
8	27	33	28	58	27	G	44	39	49	59	72	96	G	49	G	G	G	52	37	33	G		84	50
9	49	G		34		38	32	56	58		67	54	58	83	64	G	48	61	58	53	56	35	82	59
10	36	43	40	30	35	39	32	G	35		43	G	G		G	G	53	36	45	30	54	42	G	G
11	32	36	37	G	38	41	29	44	41	44			G	G		G	48	77	108	79	59	29	G	26
12	G	36	G	G	G		G	G	G	G	44	53	47	46	49	G	51	86	44	G	G	G	G	34
13	28	29	35	G	28		26	G	G	G	51		G	G	G	G	G	50	70	71	49	30	50	36
14	30	50	32	27	G	34	G	30	40	49	56	72		54	G	G	47	40	92	83	85	40	28	
15	28	G	39	48		30	49	50	43	53	62	70	66	72	52	63	64	60	60	95	49	G	G	G
16	G	G	39	32	26	36	29	85	68	88	G		59		101	59	80	74	66	38	41	39	50	59
17	G	G	G	G	G	G	29	47	50	38	46	54	80	96	58	82	72	81	151	104	57	48	40	26
18	G	G	34	G	G	G	G	32	G	G	45	105	92	116	59	50	40	G		26	40	28	32	80
19	32	29	G				30	49	54	50	56	50	52	G		50	41	48	44	59	35	58	40	G
20	34	34	39	30	28	G	27	40	50	47	G	59	88	52	46	50	52	66	90	96	71	40	43	39
21	48	69	68	102	59	57	51	52	50	52	54	61	60	87	73	94	61	74	60	G		36	G	39
22	34	32	31	33		34	29	G	G	54				72	54	53	G	42	50	59	34	40	28	36
23	34	31	34	37	G	G	G	29	48	46			66	88		74	69	78	38	27	40			
24		G		G	G	G	G	G	G			G	G		G	G	G	G	36	54	53	G	46	43
25	34	G	G	G	G		G	G	39	53	49		47	75	76	63	50	42	49	38	49	67	66	53
26	G	27	G	G			G	49	49	148	136	81	65	G	50	52	G	50	G	32	28			G
27	G				G	G	G	G	G	48	59	48	G		51	G	40	41	38	45	33	34	45	30
28			G	G			G	G	G	G	G	G	G	G	G	G	G	G	42	46	35	41	27	39
29	40	26	38	27	29	27	24	29	43	56	62	67	60	50	G	G	40	G	37	37	36	G		34
30	38	35	33	G	36	42	30	33	G	G		G		G	52	84	67	52	42	56	60	32	55	35
31	28							37	69	50	60	68	69	67	41	50	G	G	36	60	109	72	50	69
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	29	27	27	27	22	23	30	30	31	26	24	23	24	26	28	31	31	31	30	31	30	28	27	29
MED	30	29	29	G	14	28	28	32	40	48	52	60	58	58	50	49	48	48	44	46	40	36	34	35
U Q	36	36	37	33	29	38	32	48	50	53	62	70	67	75	61	59	62	72	66	60	57	45	50	46
L Q	G	G	G	G	G	G	G	G	G	G	22	48	G	G	G	G	G	G	38	32	34	14	G	13

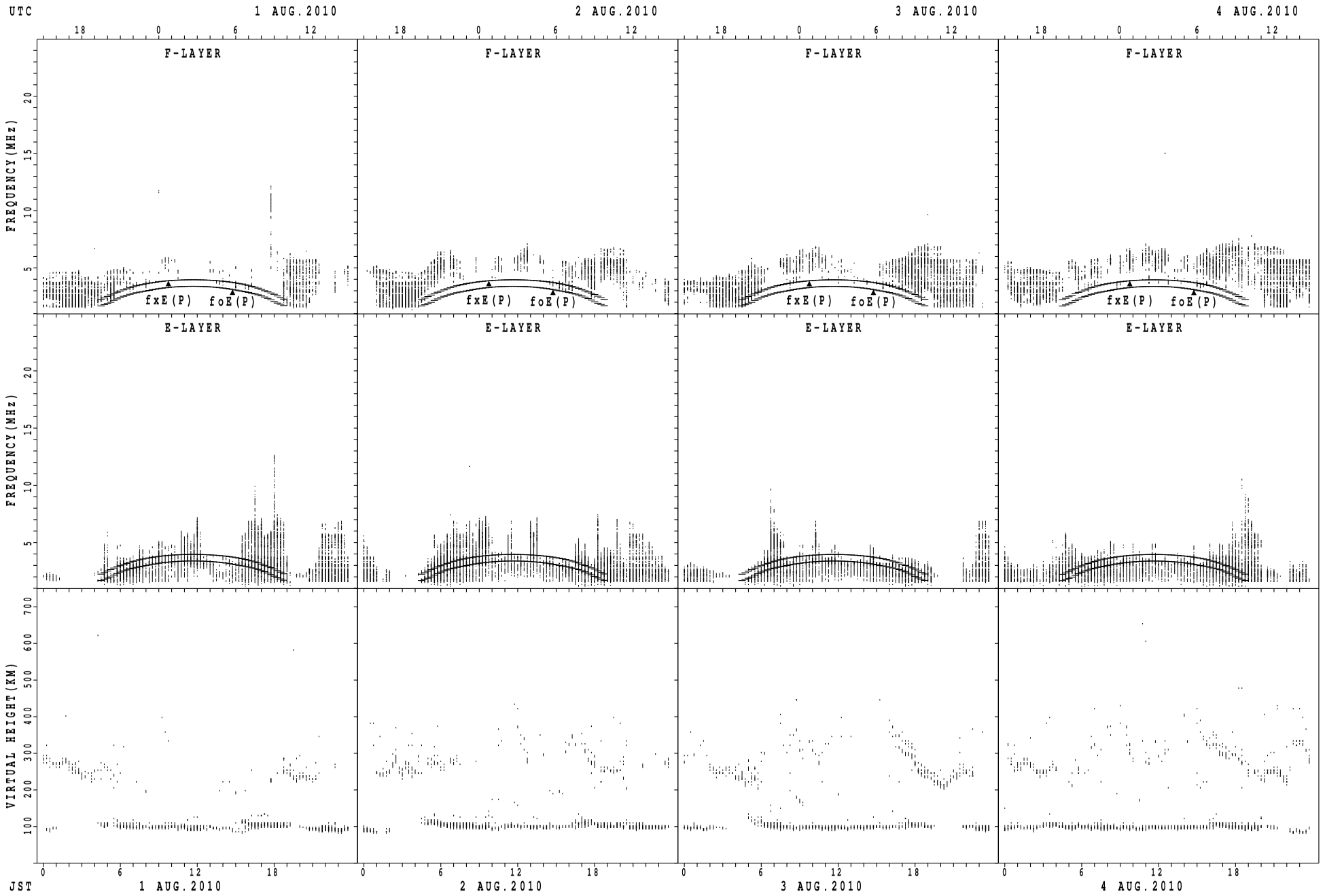
HOURLY VALUES OF fmin AT Okinawa

AUG. 2010

LAT. 26°41.0′N LON. 128°09.0′E SWEEP 1.0MHz TO 30.0MHz AUTOMATIC SCALING

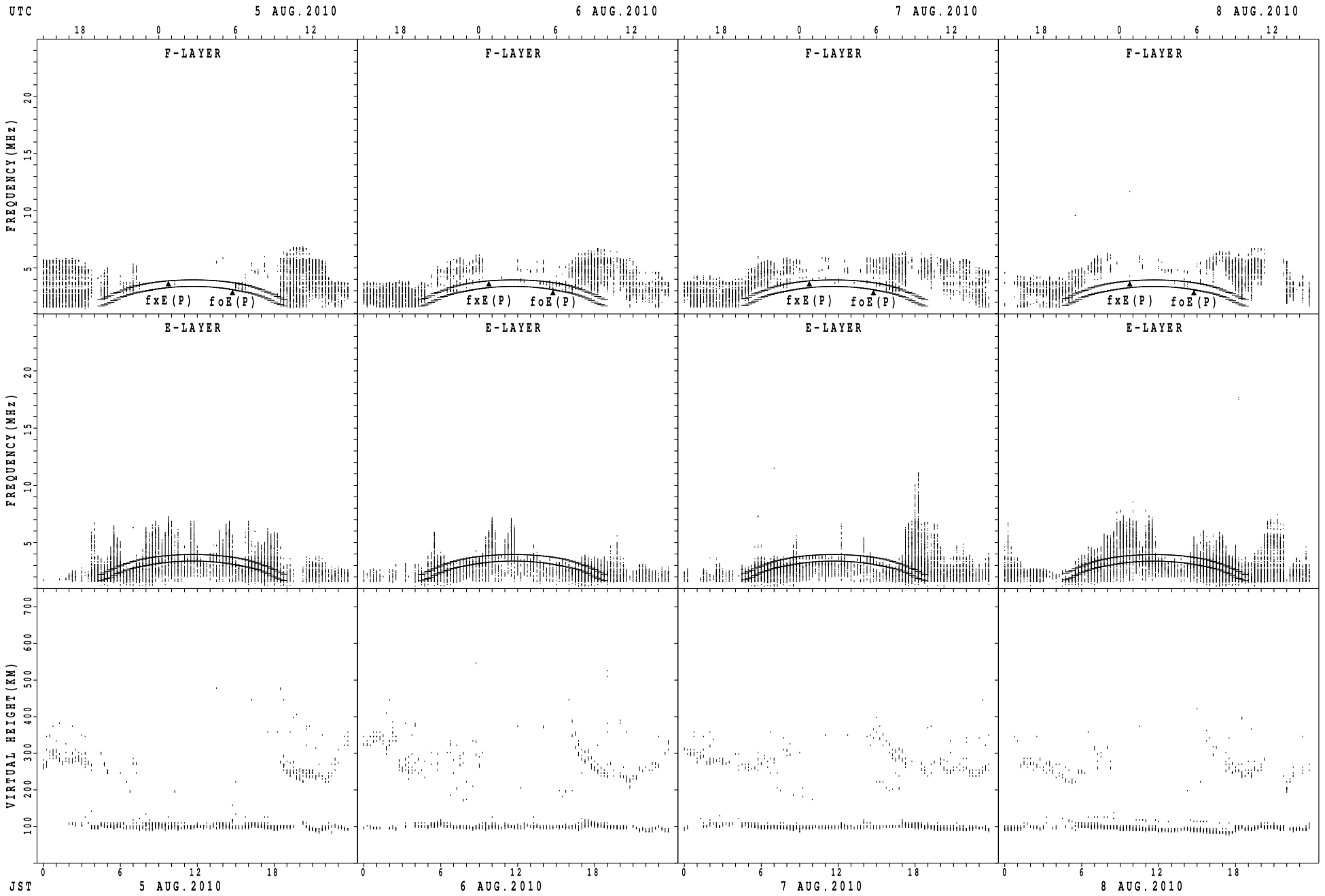
D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	15	17	30	14	14	16	14	15	16	27	28	38		40	53	51	27	22	17	15	17	16	15	16
2	14	14	14	15	15	18	27	14	30			40		38	36	34	29	29	14	14	15	15	15	15
3	15	20	26	20	20	16	15	15	20	28	51	29	30	28	53	26	22	15	14	14	14	24		29
4	16	29	40	16			14	14	15	18					53	33	15	20	20	15	15	21	15	17
5	18	27	18	16	15	15	14	14	15	30	53	37	36	38	35	51	30	23	15	14	15	14	14	15
6	14	15	17	16	20	15	22	15	42	42	54			53	56	53	53	29	14	21	14	15	15	14
7	15		29			14	17		22	24	32	30	32	33	30	28	30	27	15	14	14	36	16	16
8	15	15	14	14	14	15	15	18	17	29	30	29	29	28	28	55	50	15	15	15	14		17	15
9	15	17		14		15	16	18	22		28	29	30	28	39	53	32	27	15	14	15	16	14	14
10	14	14	14	14	14	15	14	14	18	26	53	48	53		53	55	17	14	14	14	17	15	20	18
11	15	17	15	14	16	14	14	21	16	27			33	54		54	30	18	15	15	14	16	29	15
12	17	18	22	20	15		20	15	14		22	39	27	24	54	55	18	14	14	27	15	15	18	15
13	17	15	14	15	14		14	14	32	42	33		60	52	55		26	20	23	26	14	15	15	14
14	14	16	15	14	18	16	24	28	17	21	32	33		32	50	53	32	22	17	15	14	14	14	
15	16	28	15	14		15	15	14	20	27	27	36	39	43	37	38	30	17	15	16	15	34	18	29
16	21	20	15	15	14	15	14	14	18	28	30		39		38	34	28	24	14	14	16	24	14	15
17	22	20	15	20	30	14	16	15	20	29	29	34	35	38	36	35	30	23	14	14	15	15	14	15
18	30	18	16	17	26	17	24	14	36	46	36	40	43	40	37	42	30	15	14	17	17	15	15	15
19	17	16	21				16	14	17	22	29	29	30	28		29	30	20	16	15	15	15	15	17
20	18	16	15	16	20	15	18	18	18	22	27	29	28	37	55	35	30	27	14	14	14	14	16	21
21	14	15	14	14	15	14	15	14	17	30	33	38	38	38	34	24	28	16	14	17	14	15	21	14
22	16	14	15	18		18	18	29	33	29				39	36	34	42	27	16	15	15	15	15	14
23	15	15	15	16	23	16	22	14	20	30			40	39		34	27	18	14	23	18			
24		21		17	16	16	16	23	29	40		53	50		53	50	44	38	14	14	15	15	14	18
25	17	15	23	16	18		15	16	16	29	32		39	38	38	34	29	26	14	15	15	15	15	15
26	18	16	24	21			16	20	18	28	29	29	29	28	28	24	15	29	28	14	21			15
27	18				18	20	27	23	17	24	26	29	55	34	28	27	18	27	14	15	15	15	14	15
28	16		16	14			15	14	20	41	49	54	54	53	52	49	44	44	14	15	15	15	17	17
29	16	15	15	17	14	15	15	14	18	27	29	30	30	29	54	48	23	28	16	14	14	17		14
30	14	15	16	16	14	15	14	14	18	26		49		56	29	26	22	15	14	14	14	15	14	15
31	17							17	28	29	29	32	32	32	29	28	44	14	14	14	14	14	14	17
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	27	27	27	22	23	30	30	31	28	24	23	24	27	28	30	31	31	31	31	31	28	27	29
MED	16	16	15	16	16	15	16	15	18	28	30	34	36	38	38	35	30	22	14	15	15	15	15	15
U Q	17	20	22	17	20	16	18	18	22	30	34	40	41	40	53	51	32	27	16	15	15	16	17	17
L Q	15	15	15	14	14	15	14	14	17	26	28	29	30	29	34	29	23	16	14	14	14	15	14	15

SUMMARY PLOTS AT Wakkanai



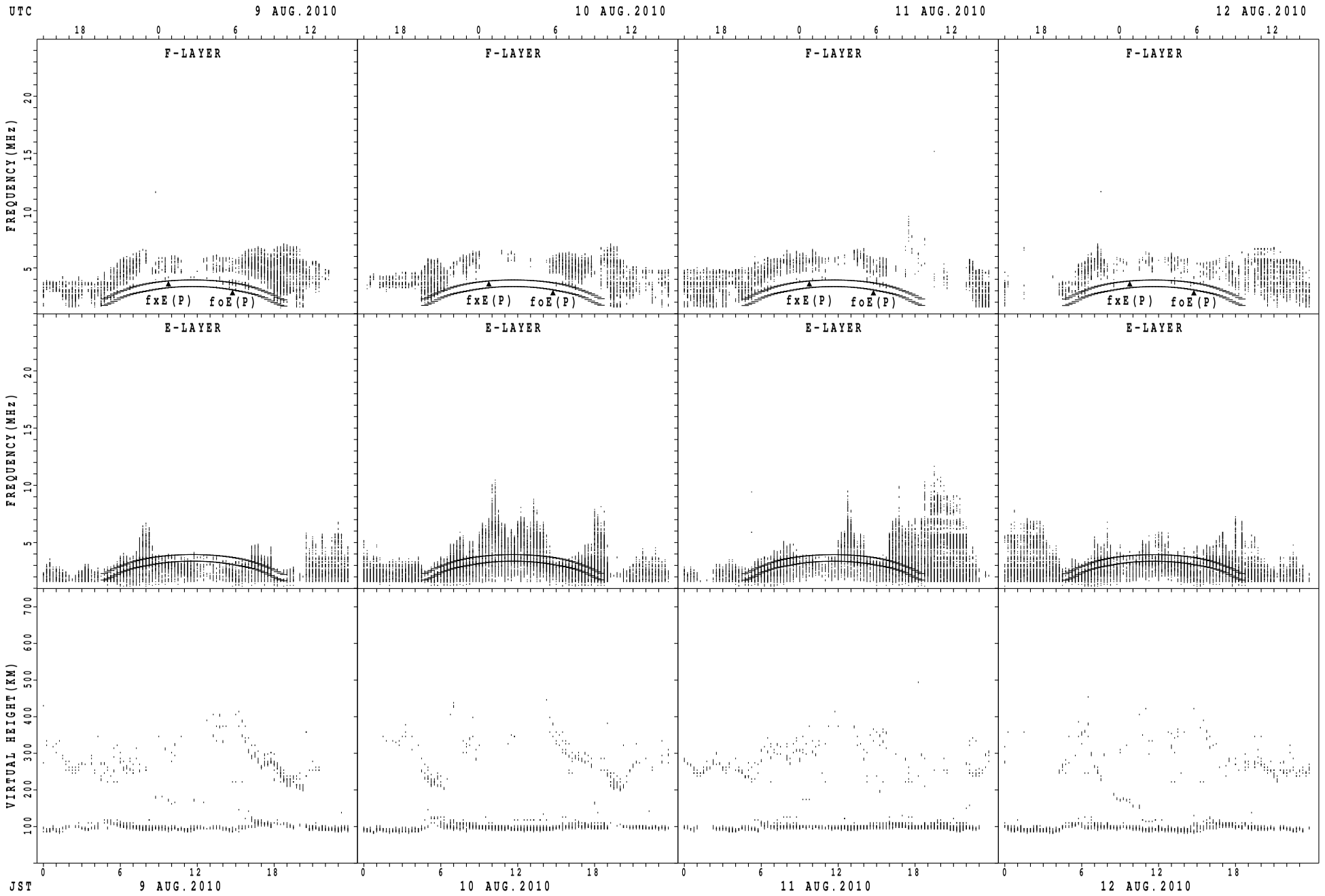
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



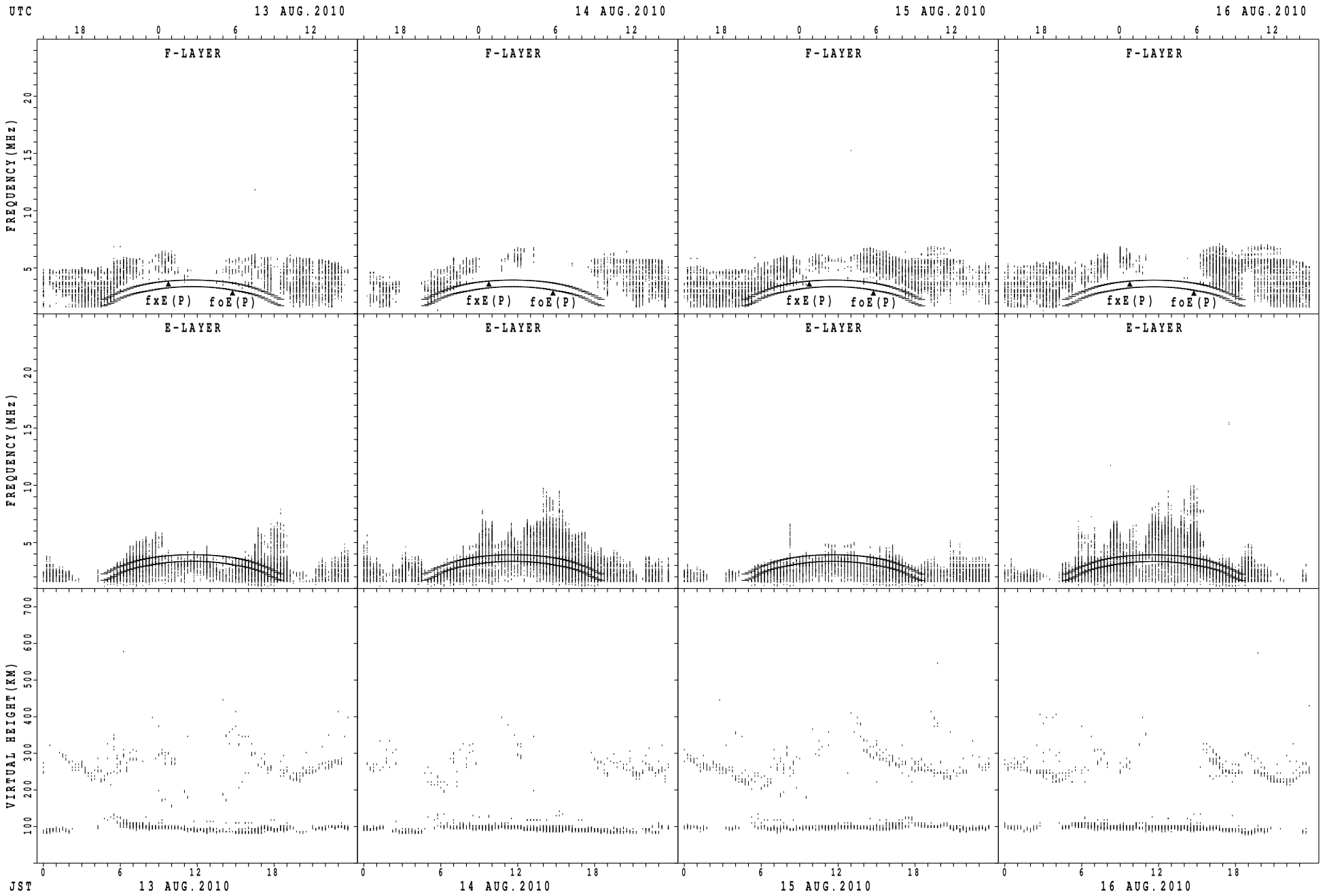
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



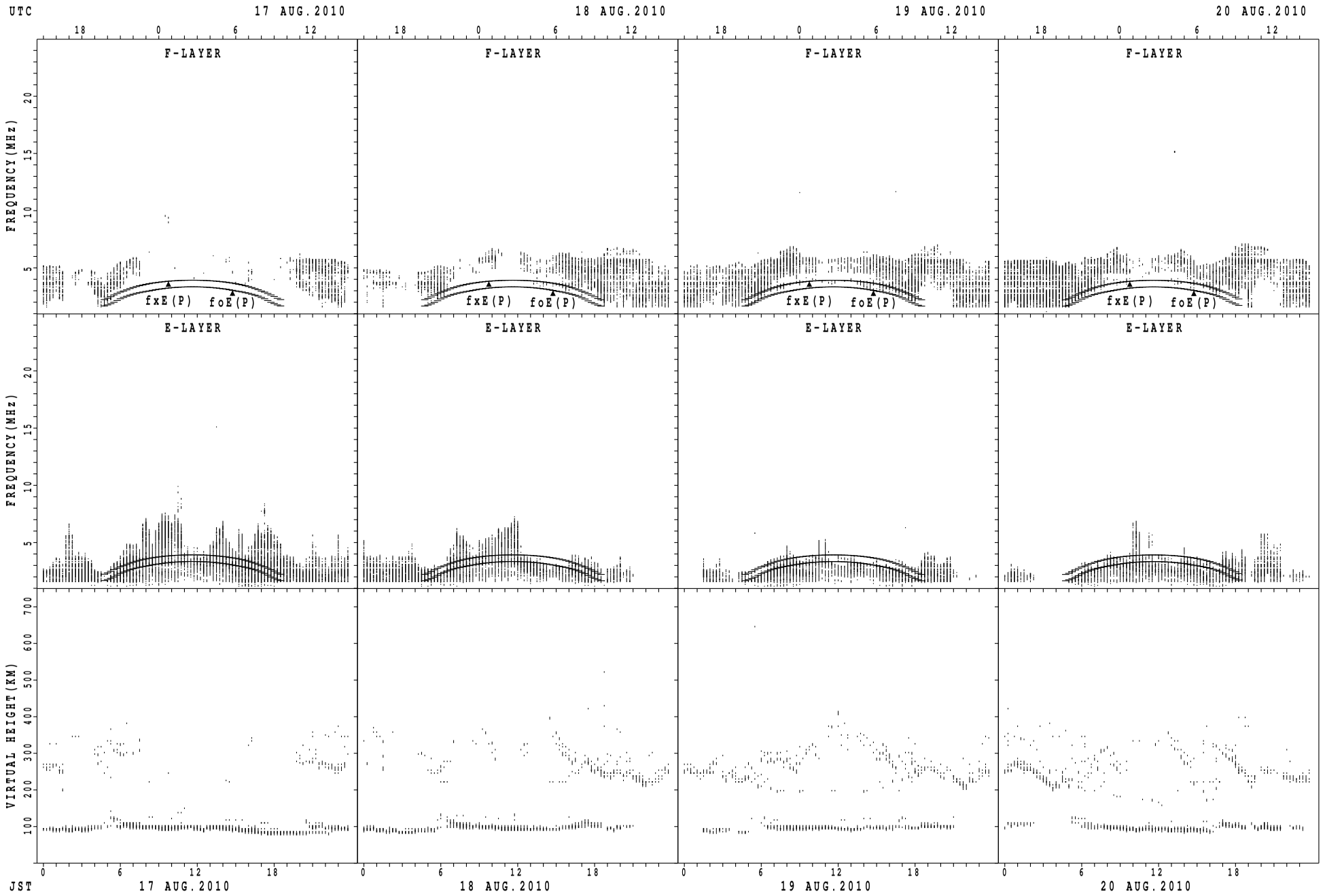
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



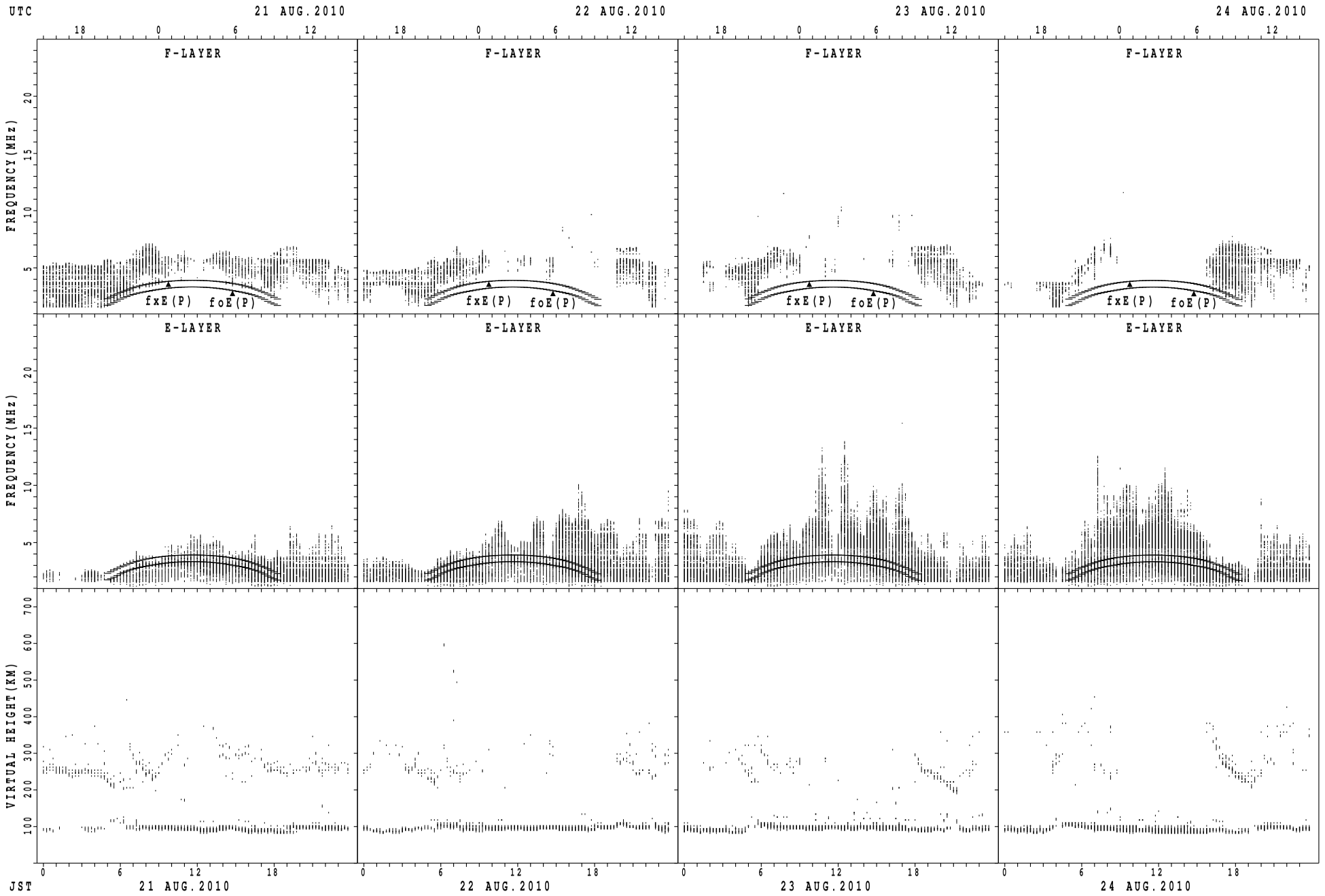
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



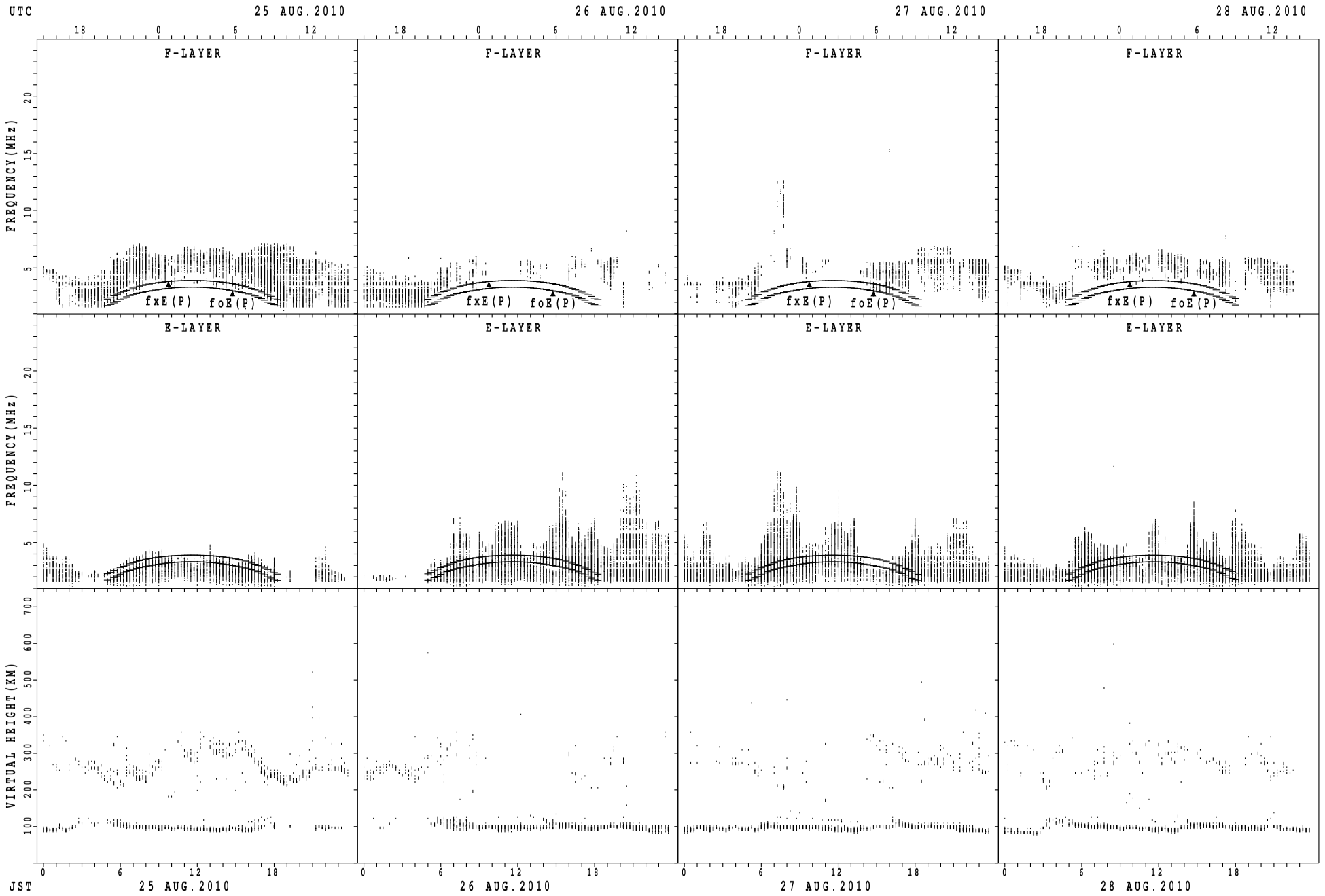
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



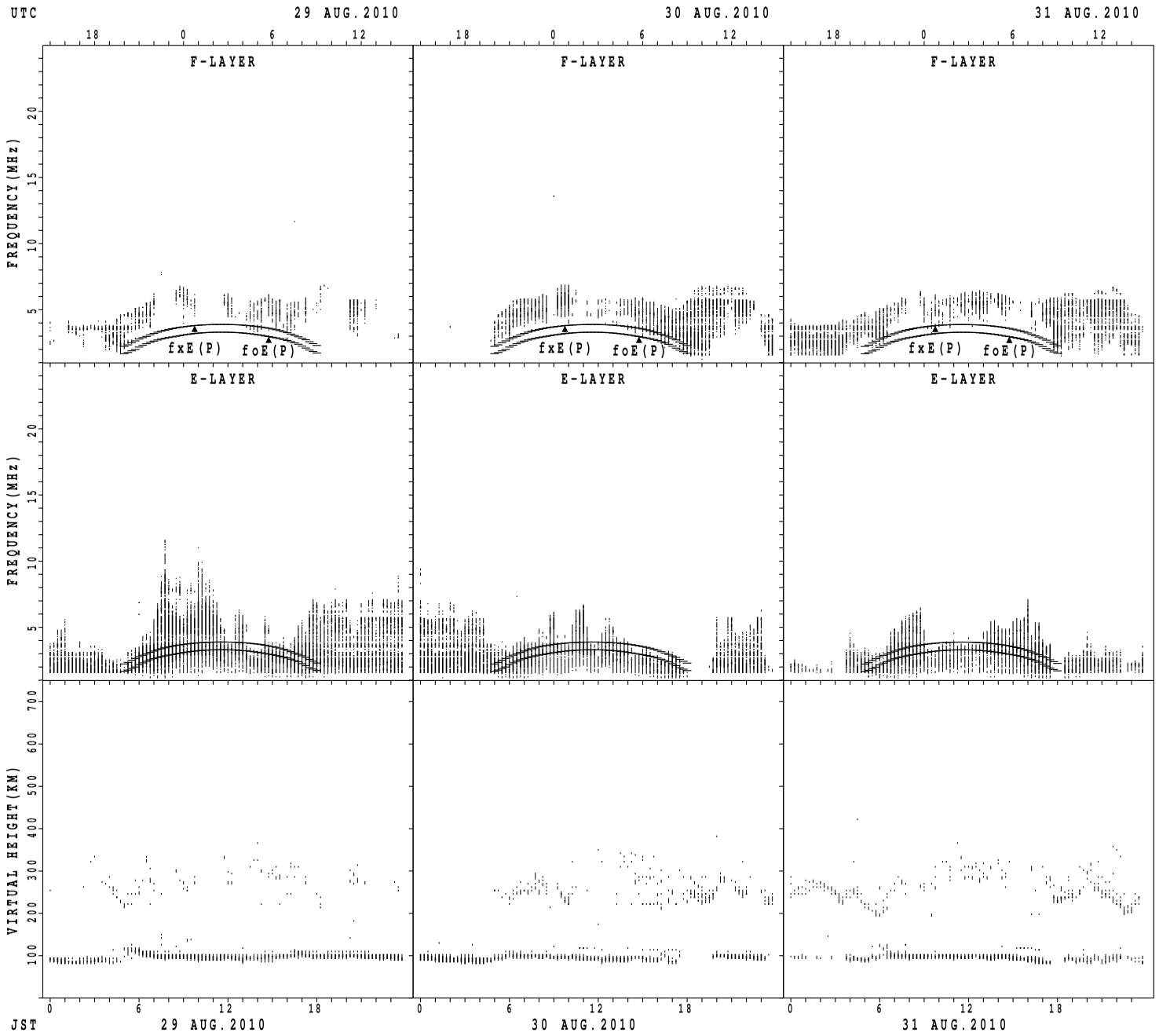
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



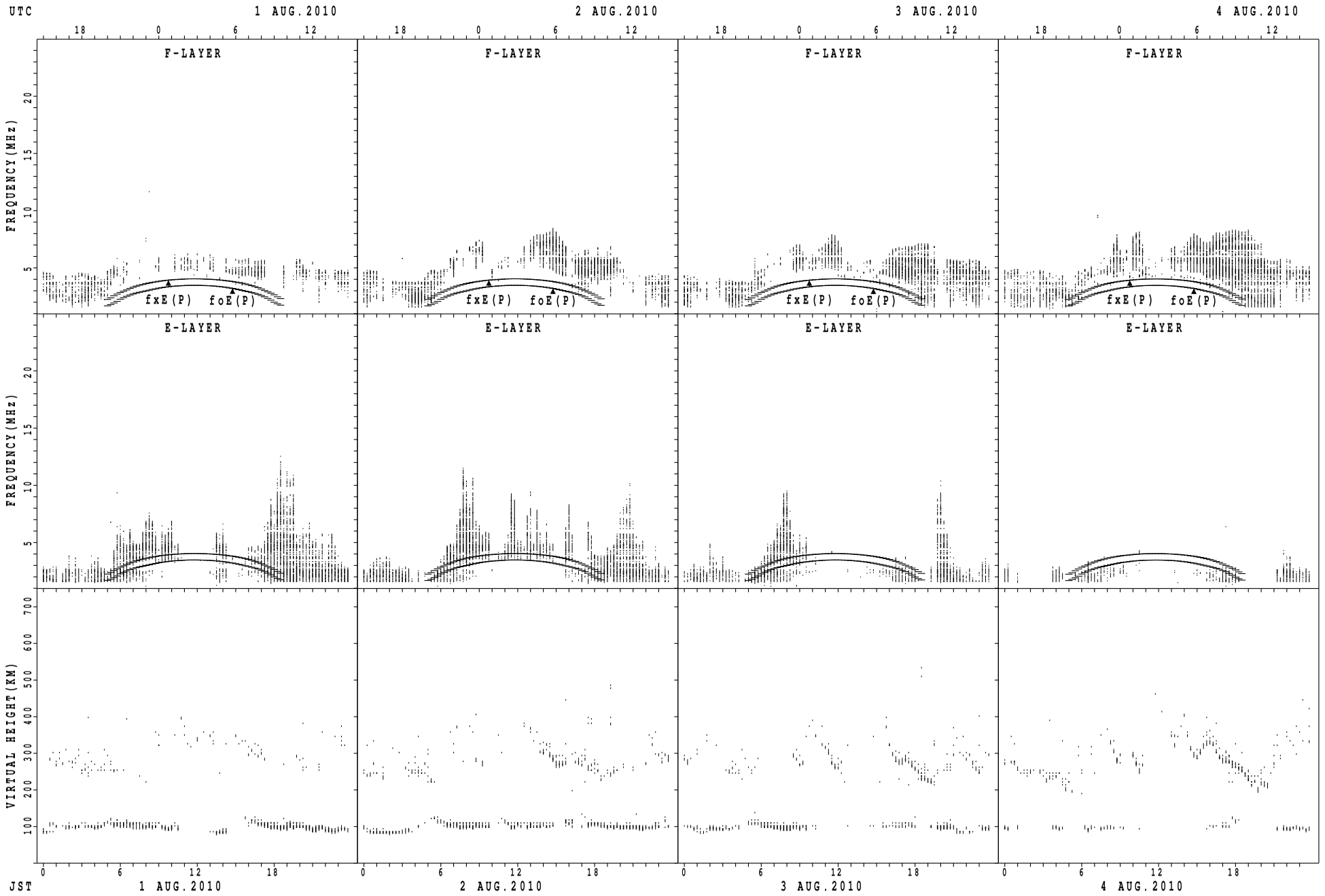
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Wakkanai



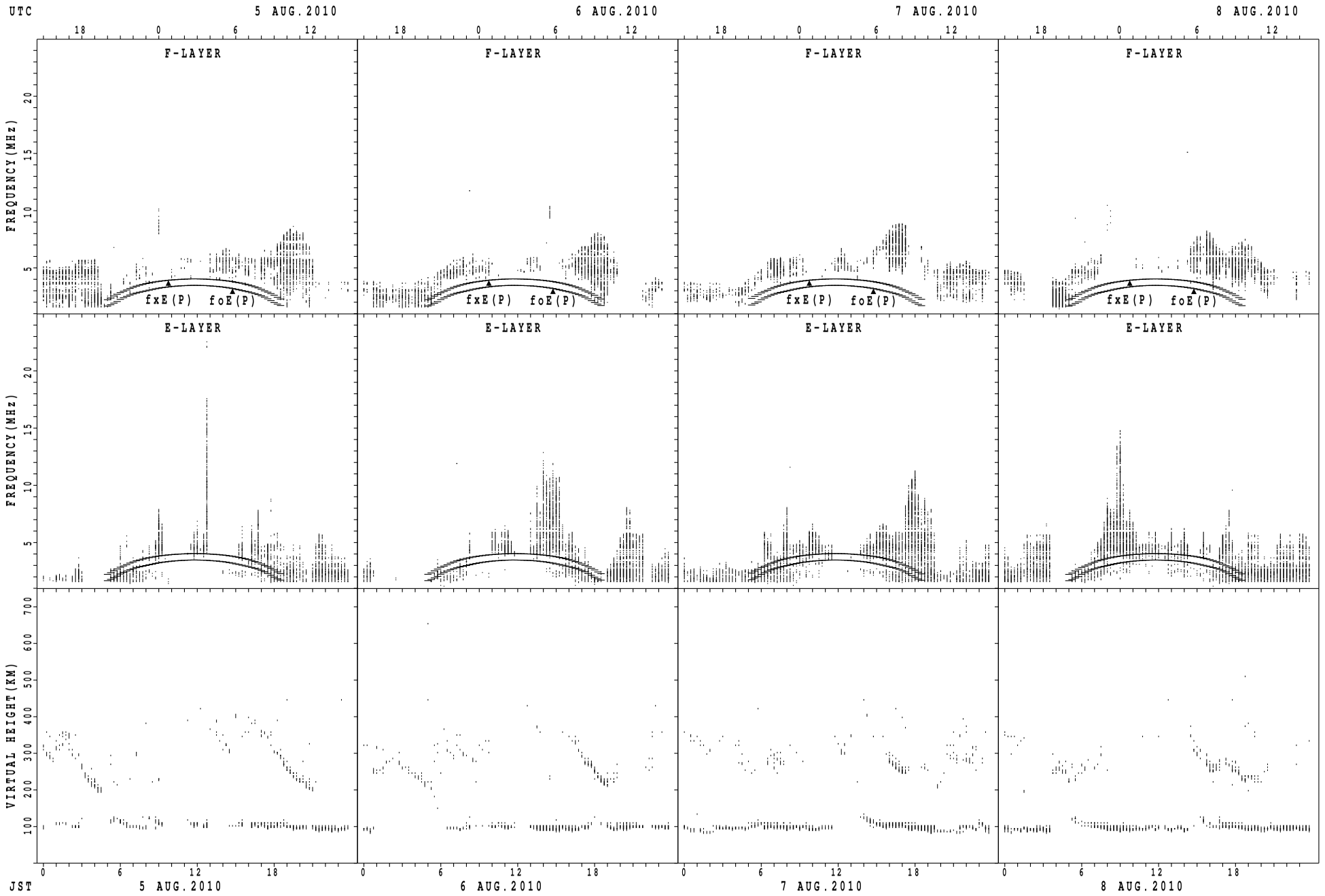
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



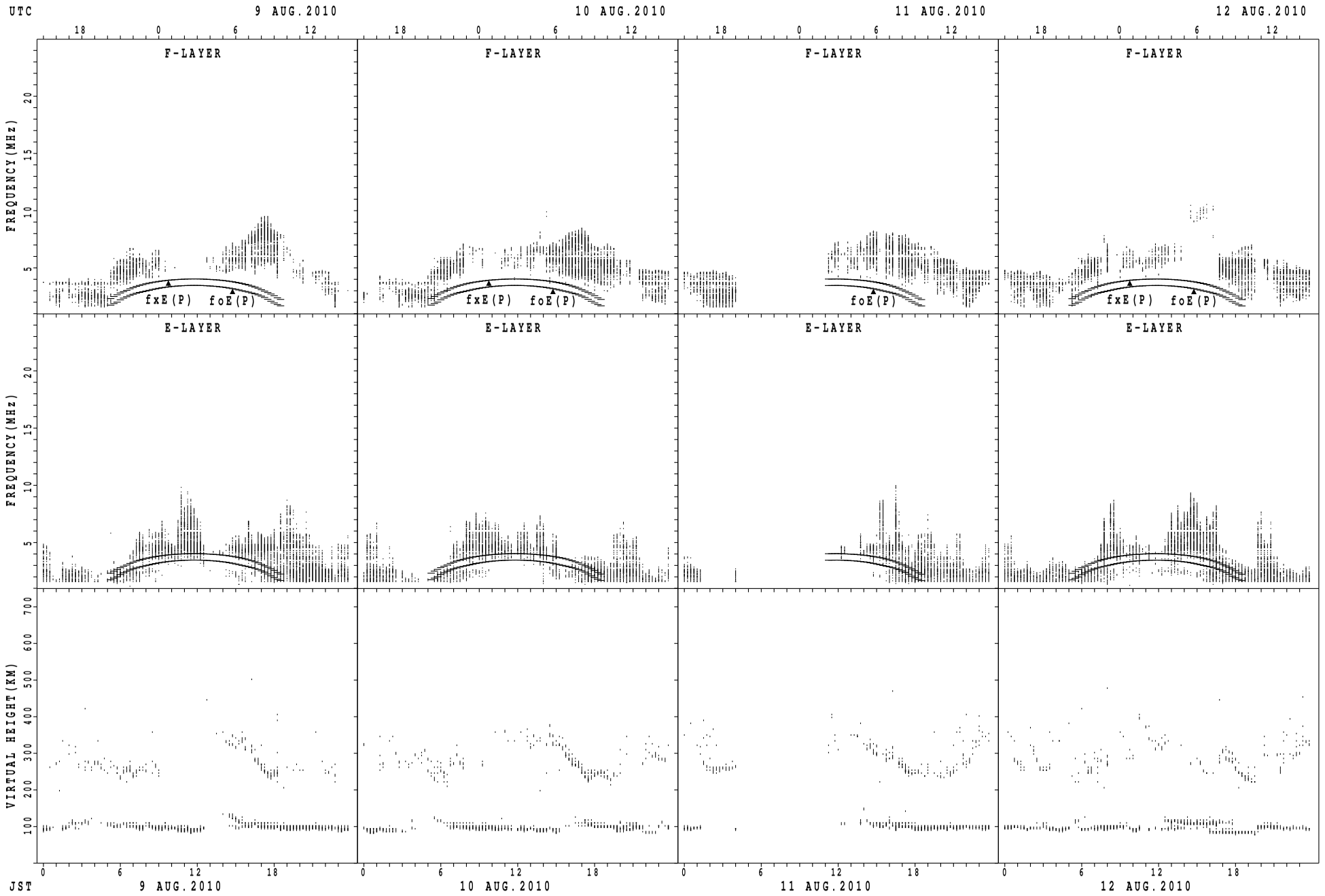
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



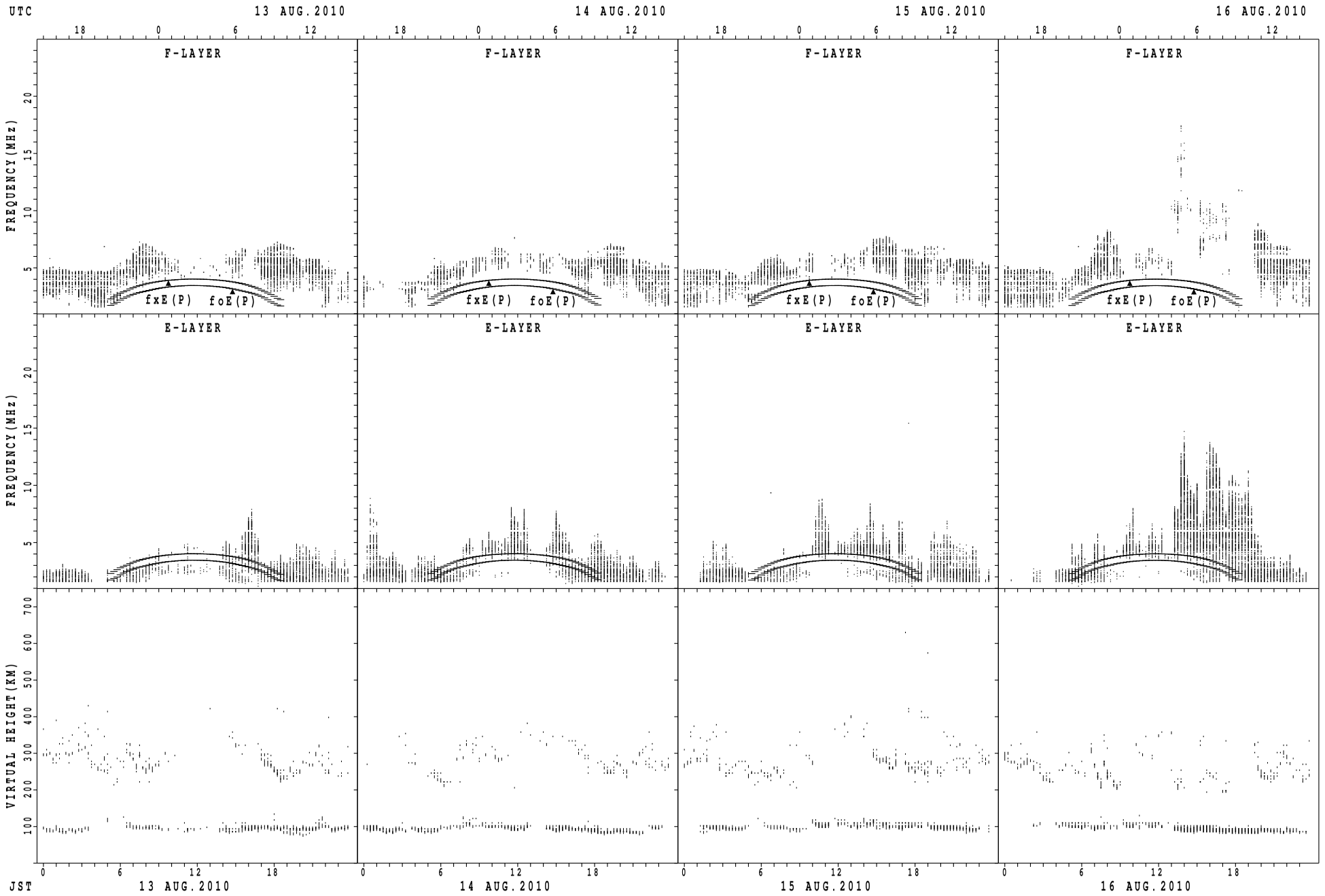
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



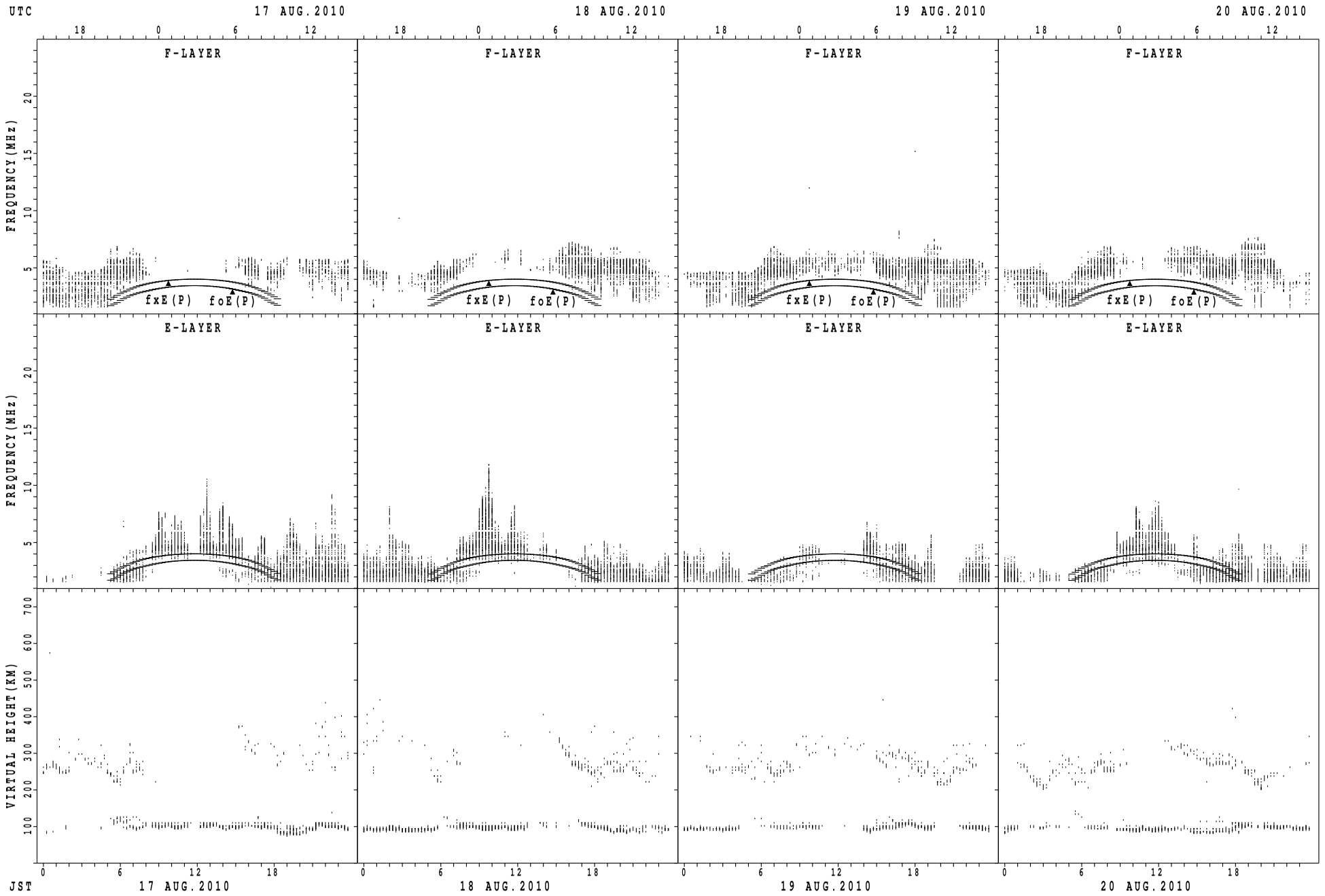
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



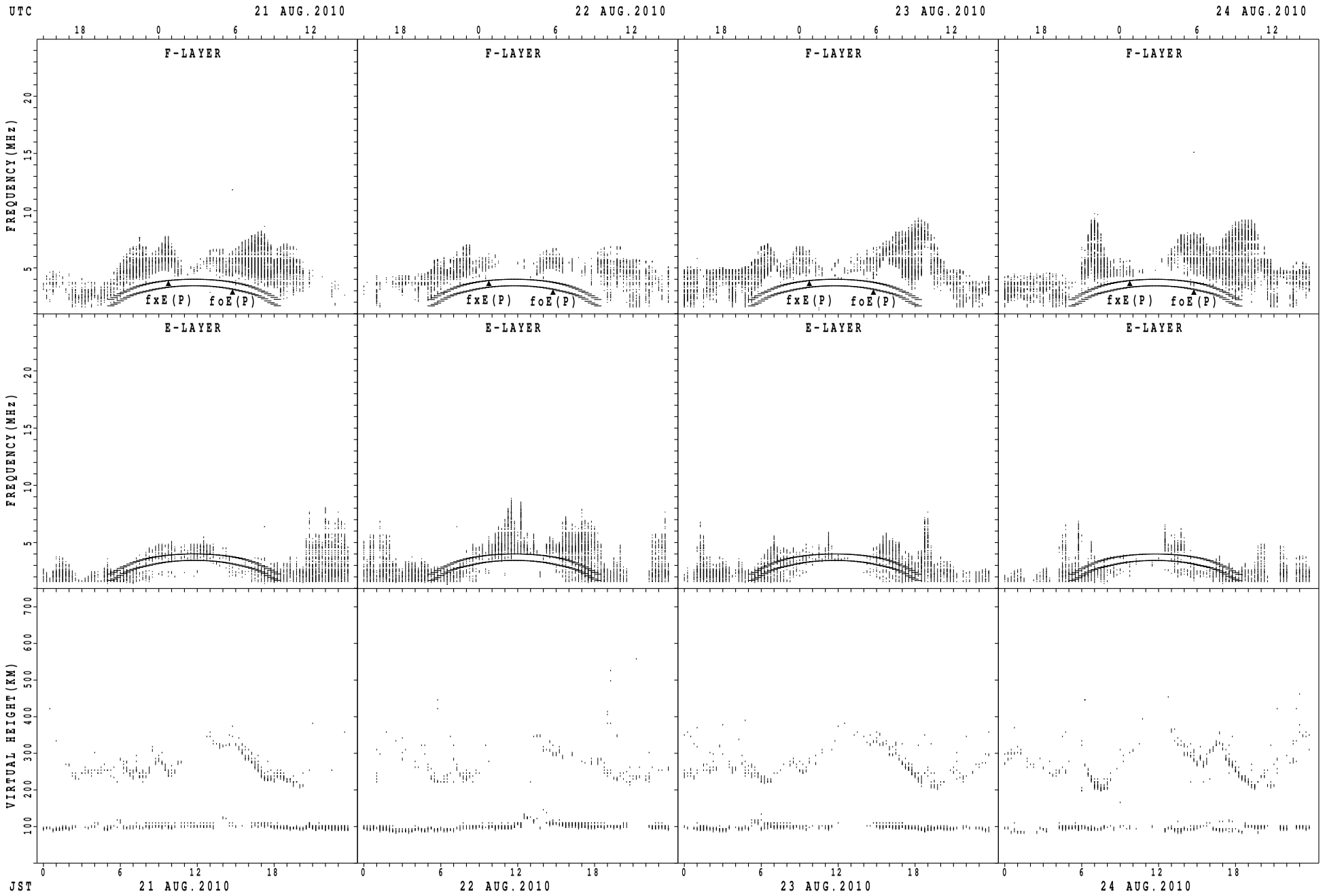
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



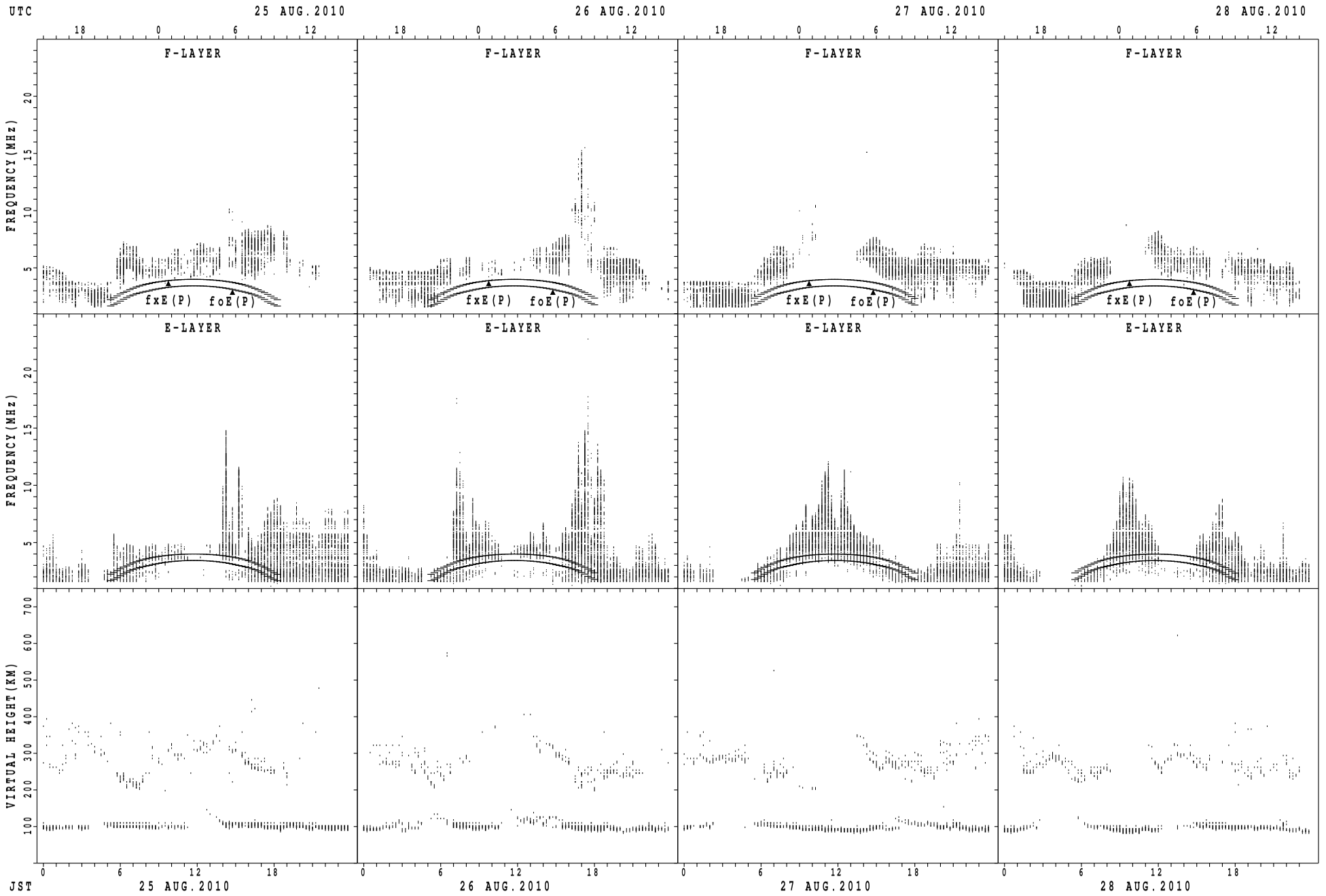
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



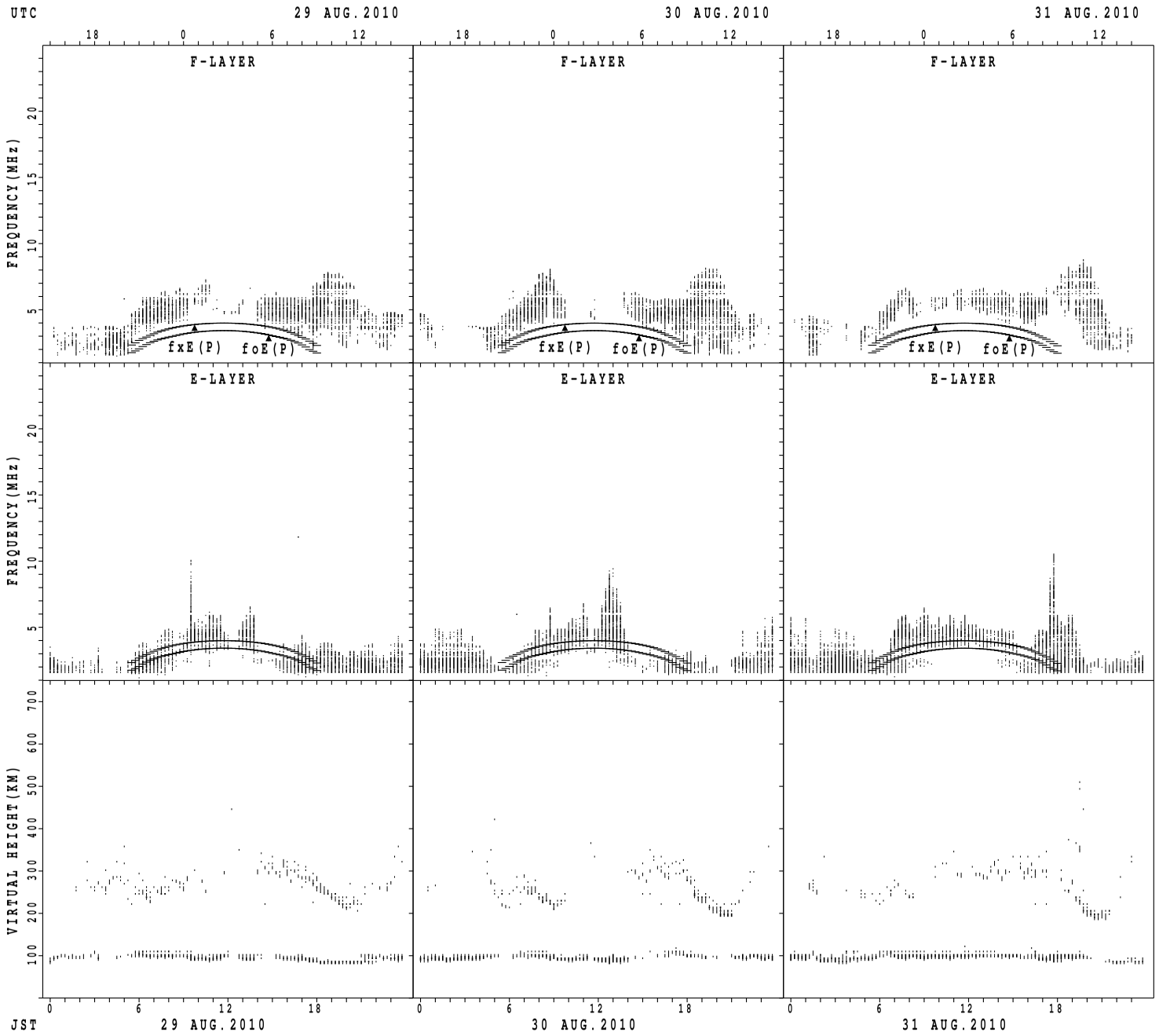
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



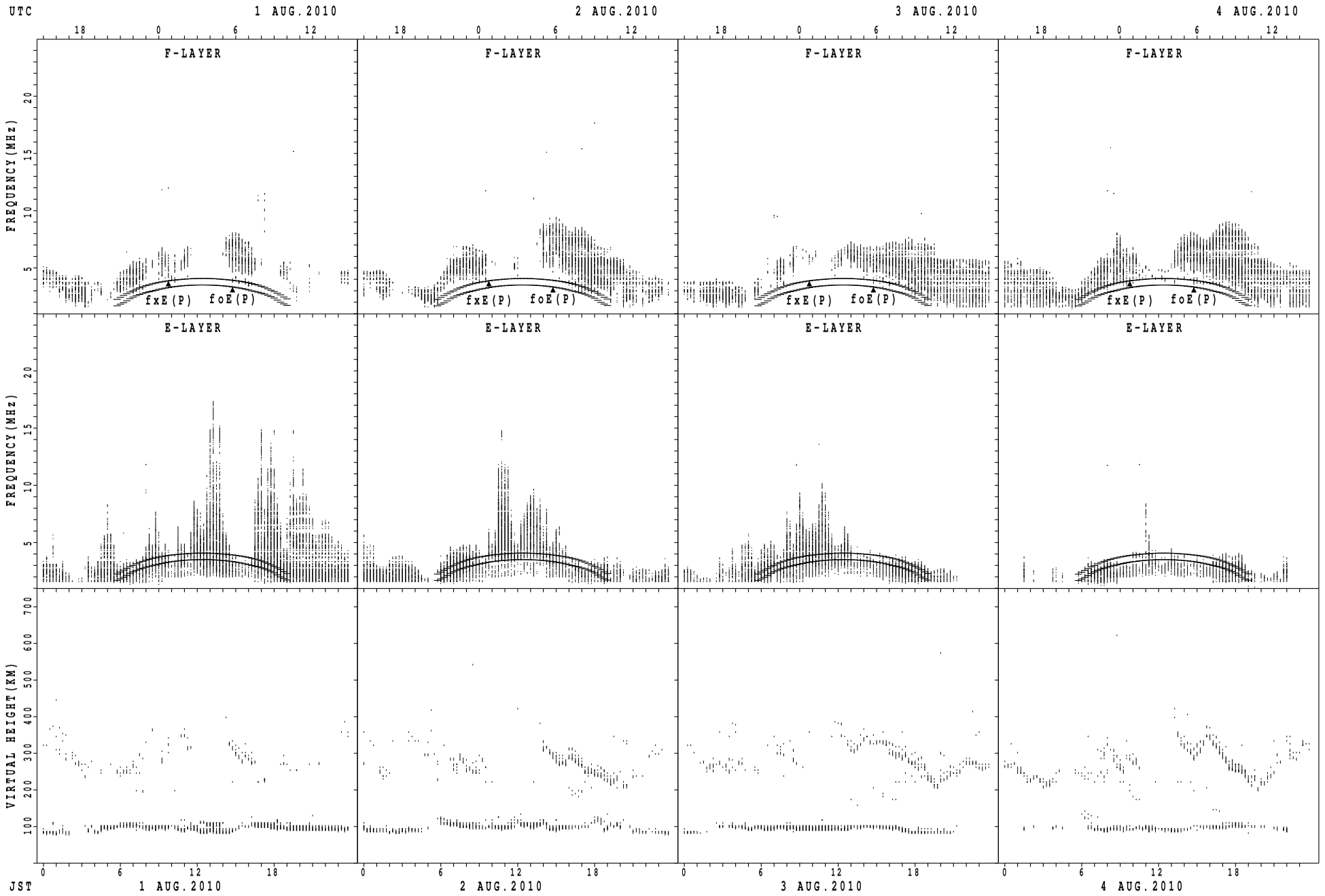
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Kokubunji



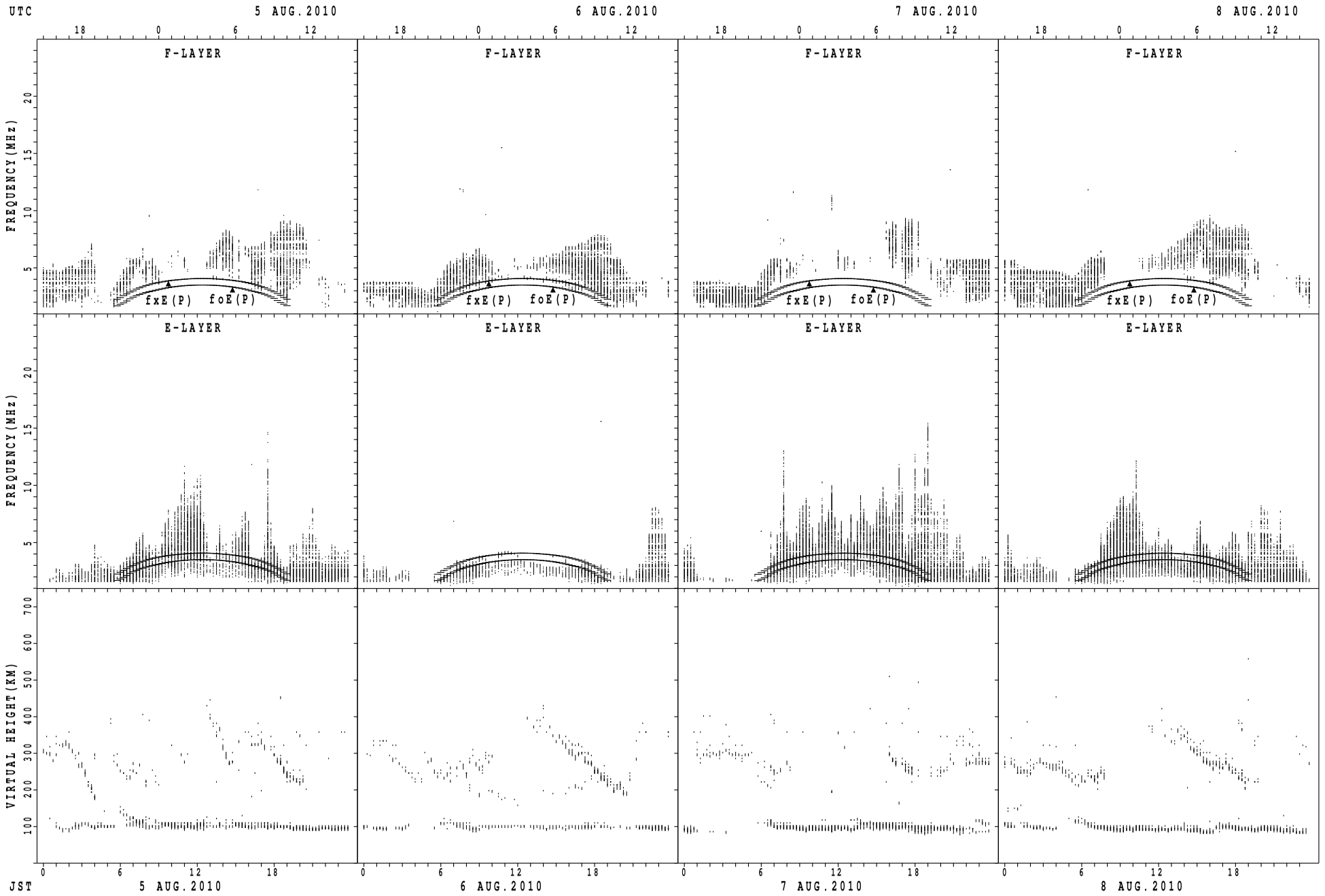
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



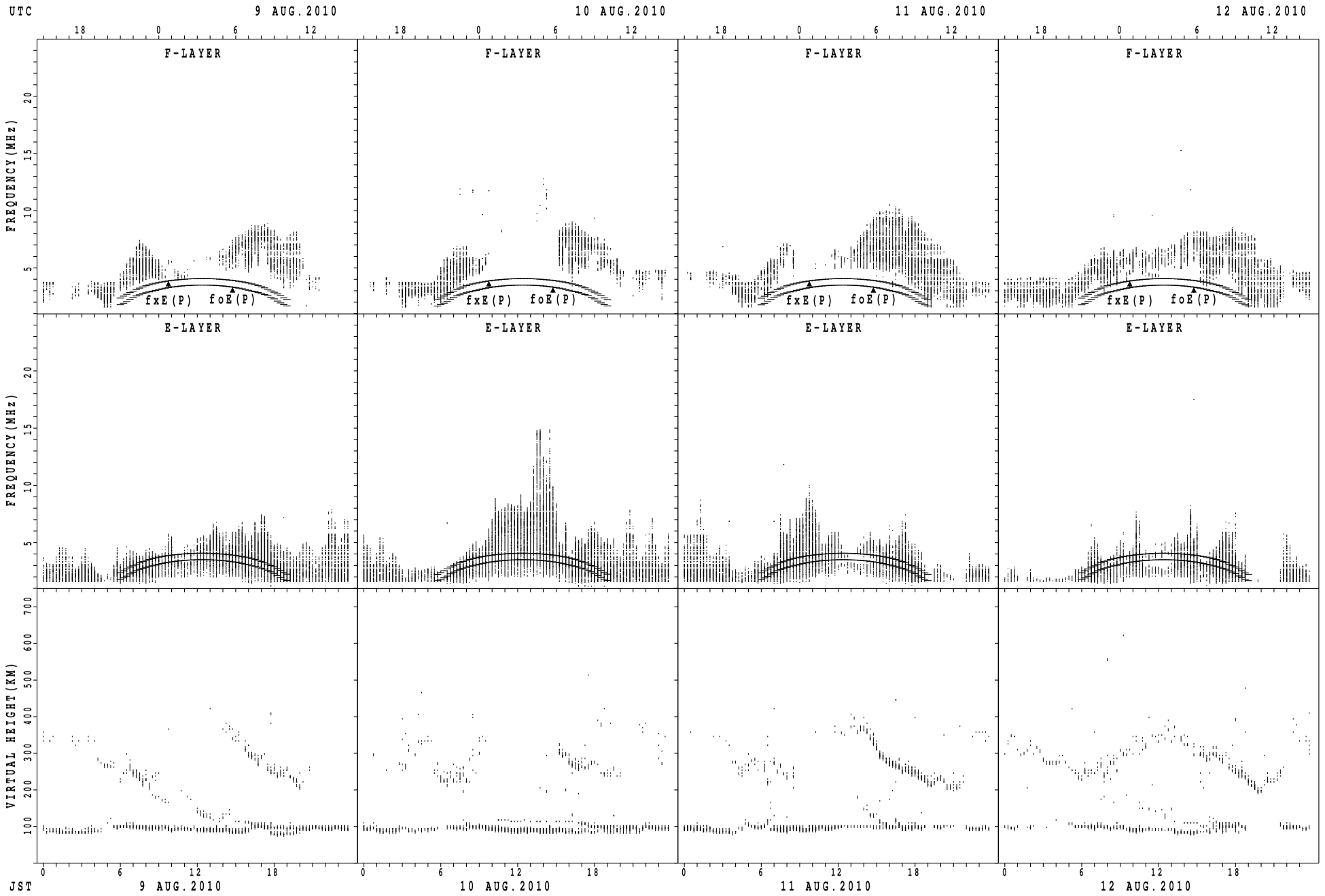
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



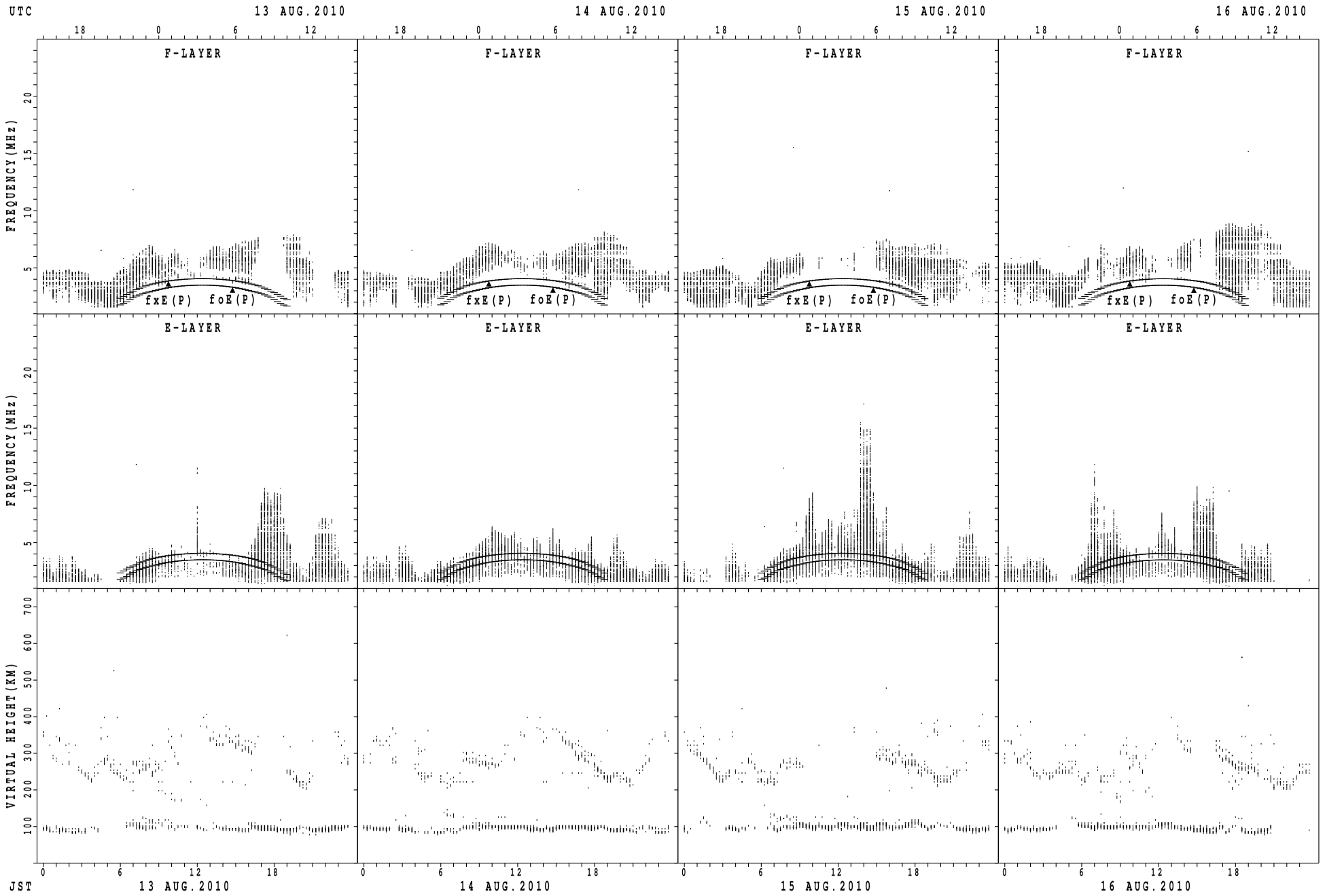
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



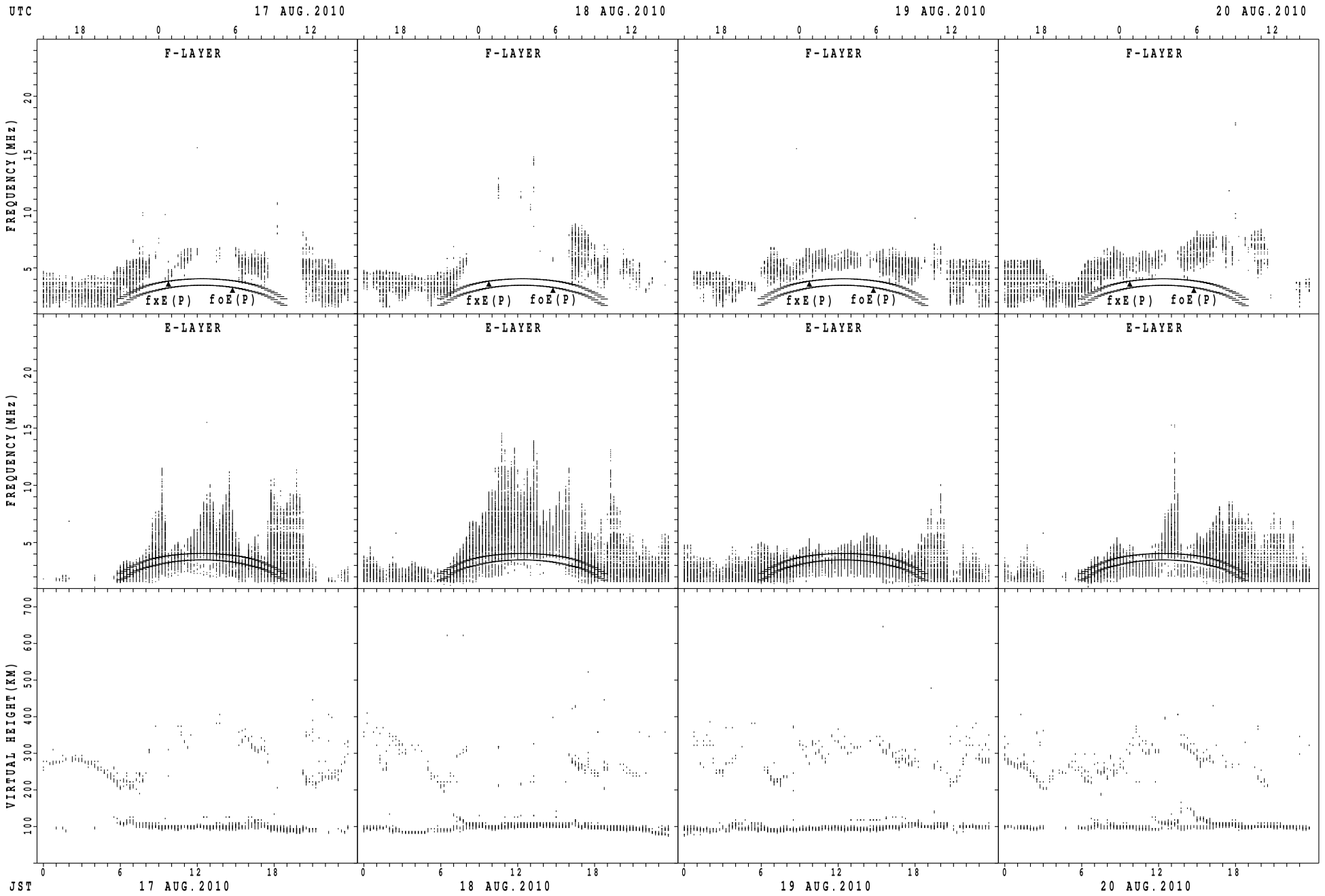
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



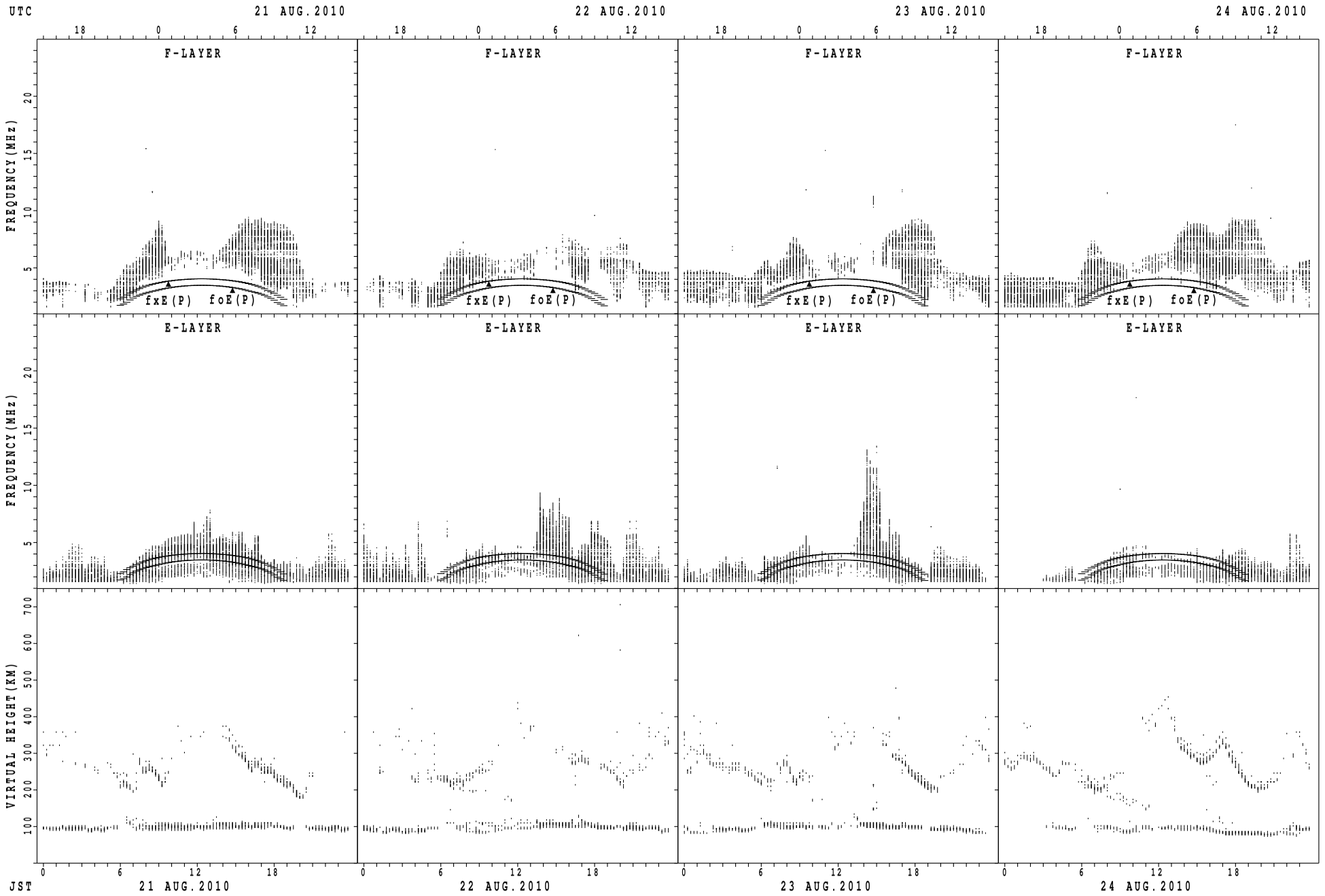
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



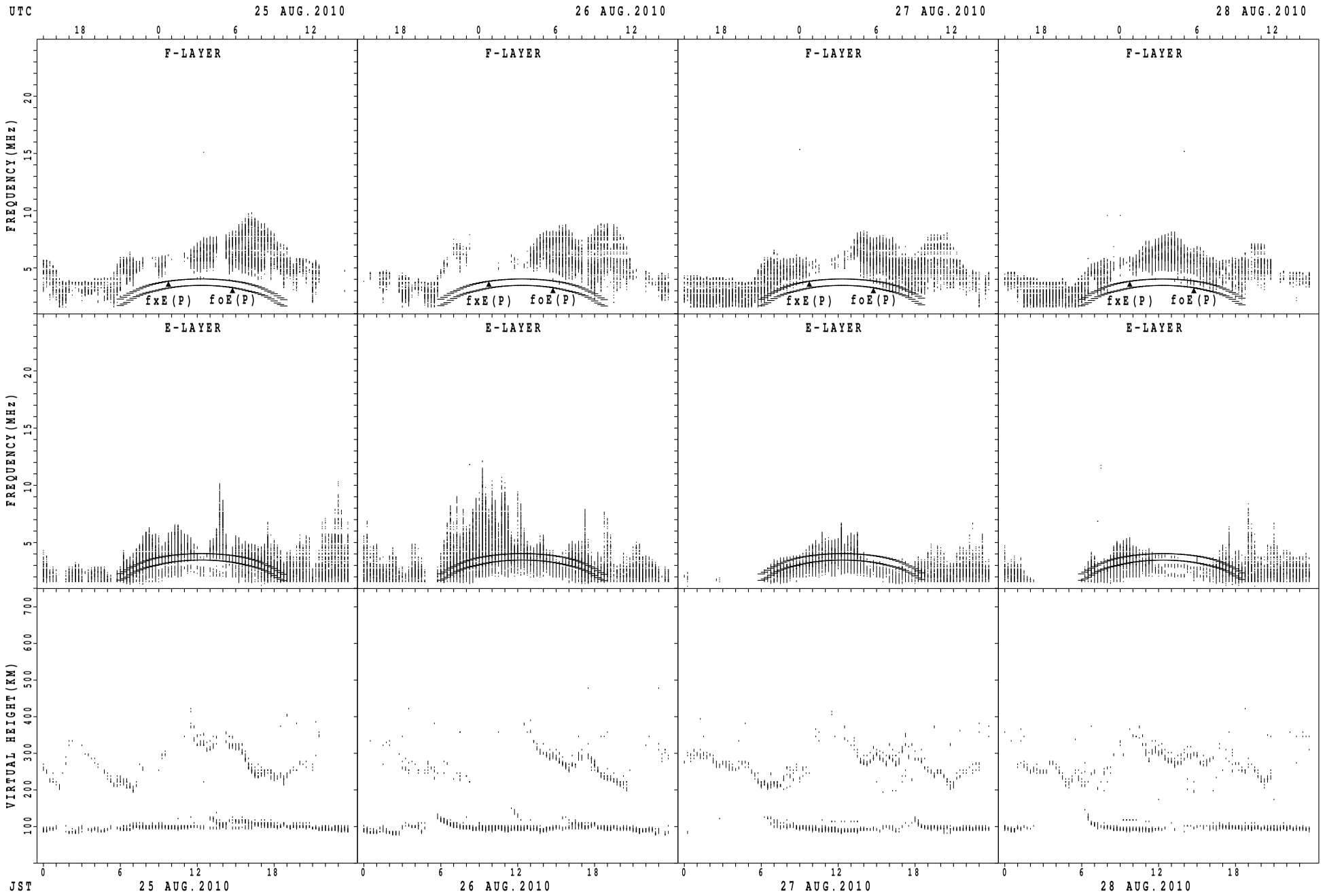
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



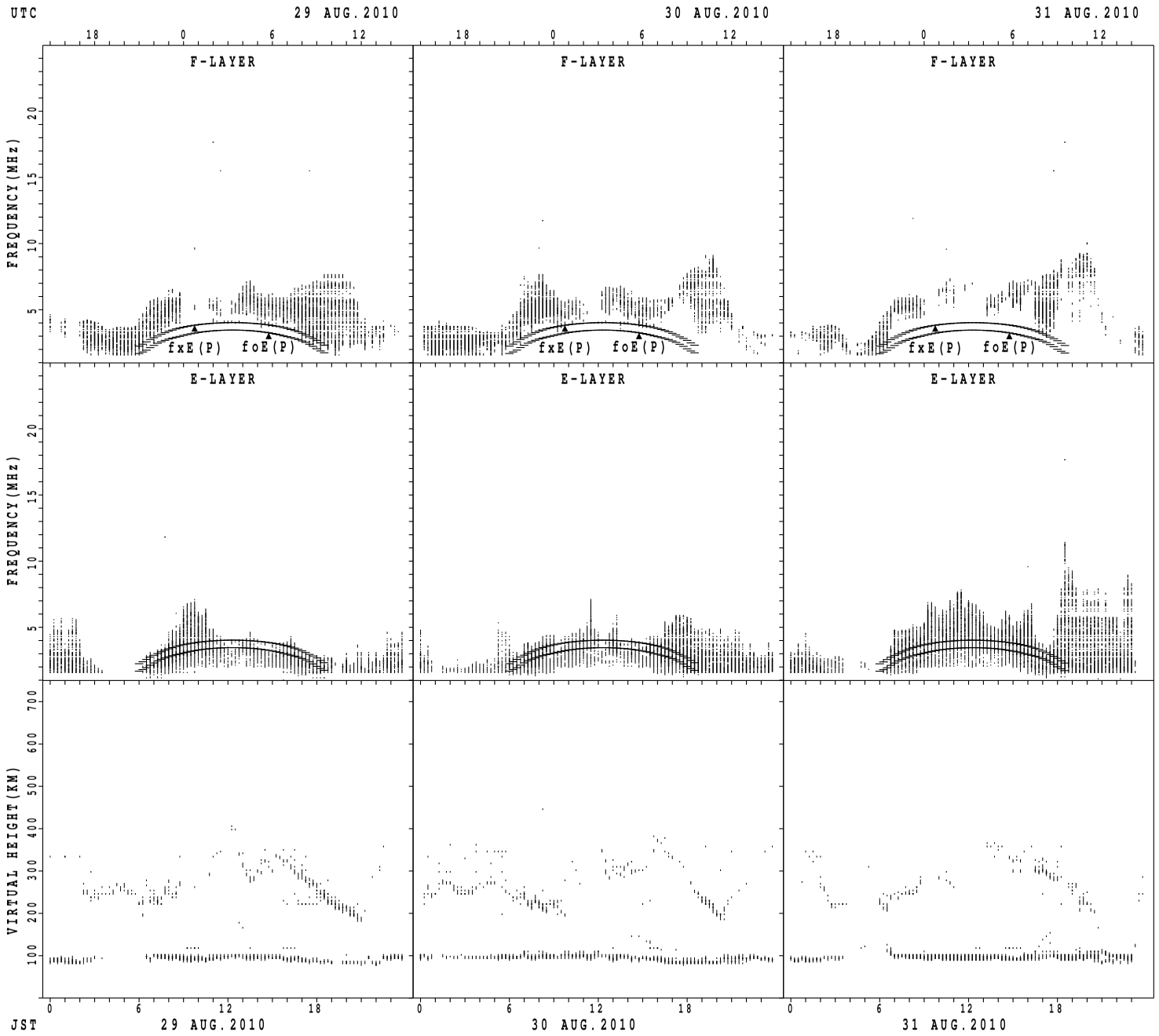
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



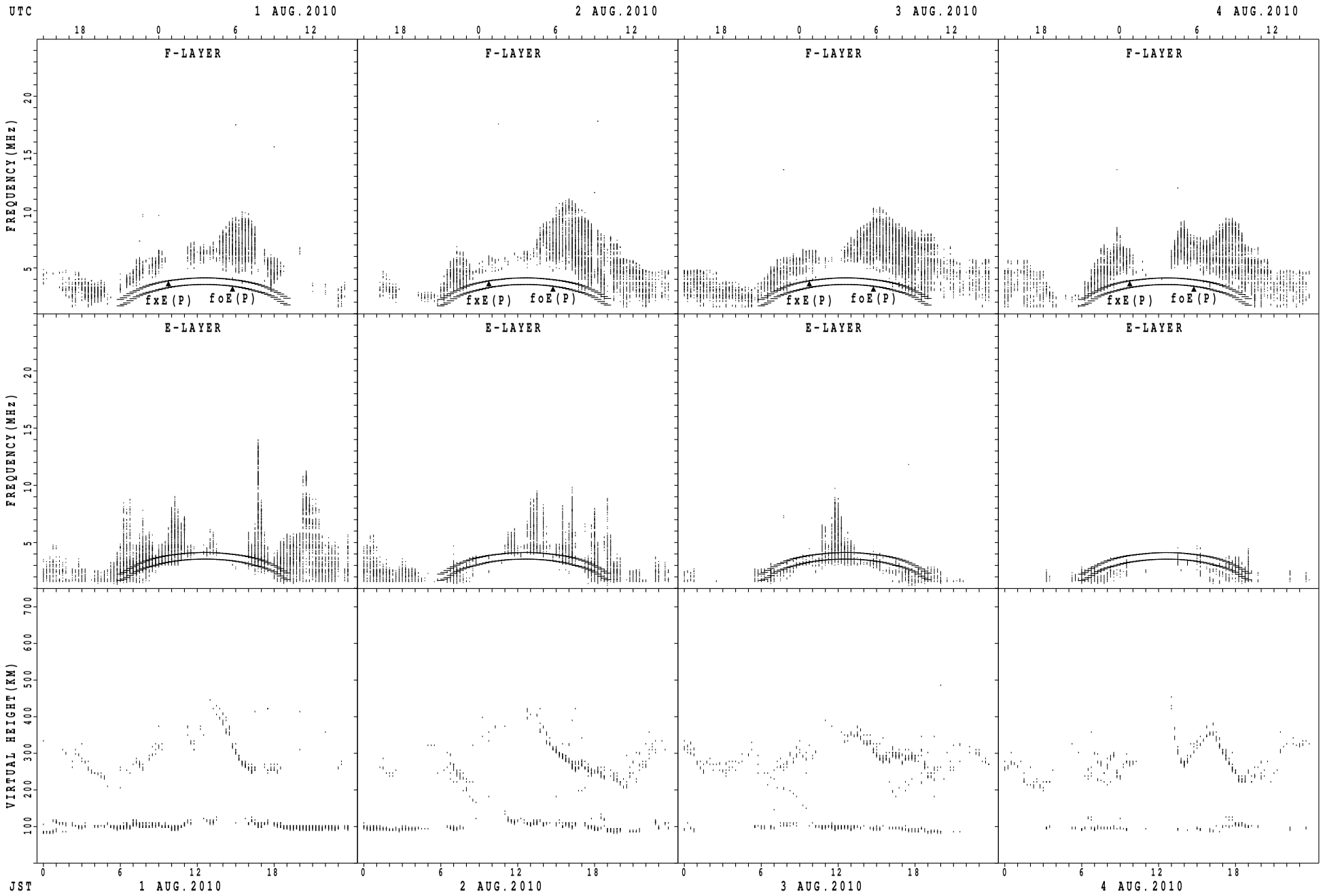
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Yamagawa



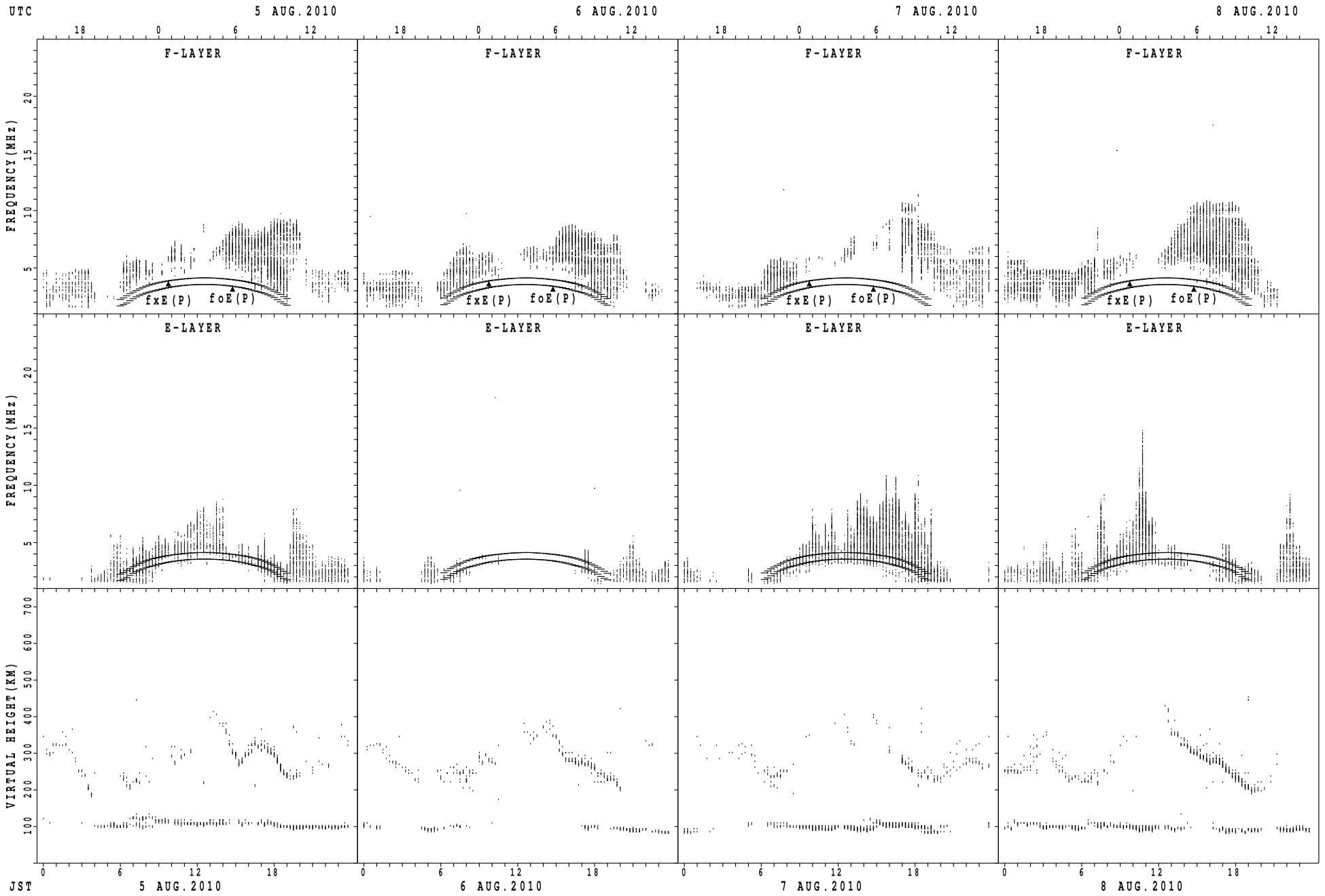
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



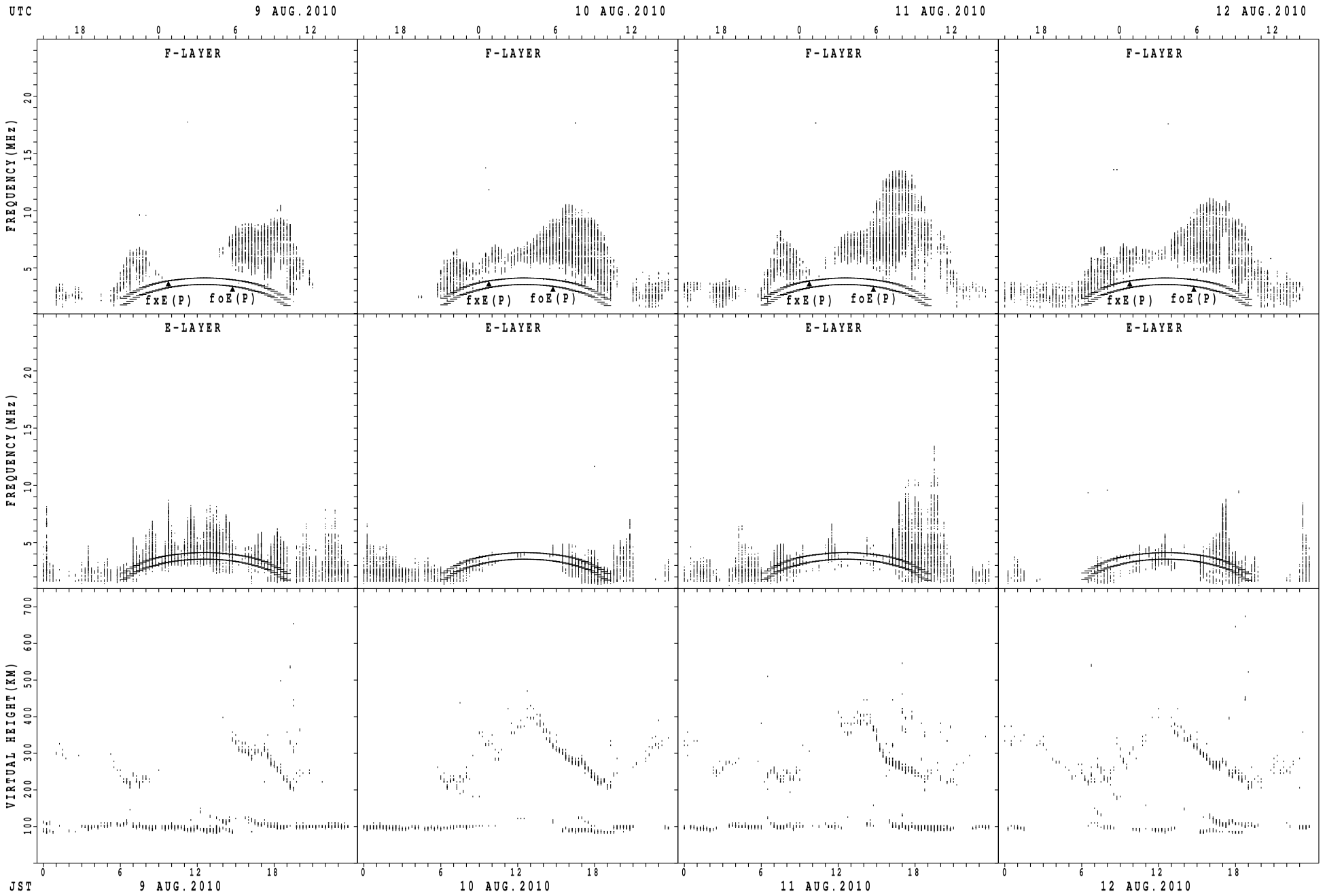
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



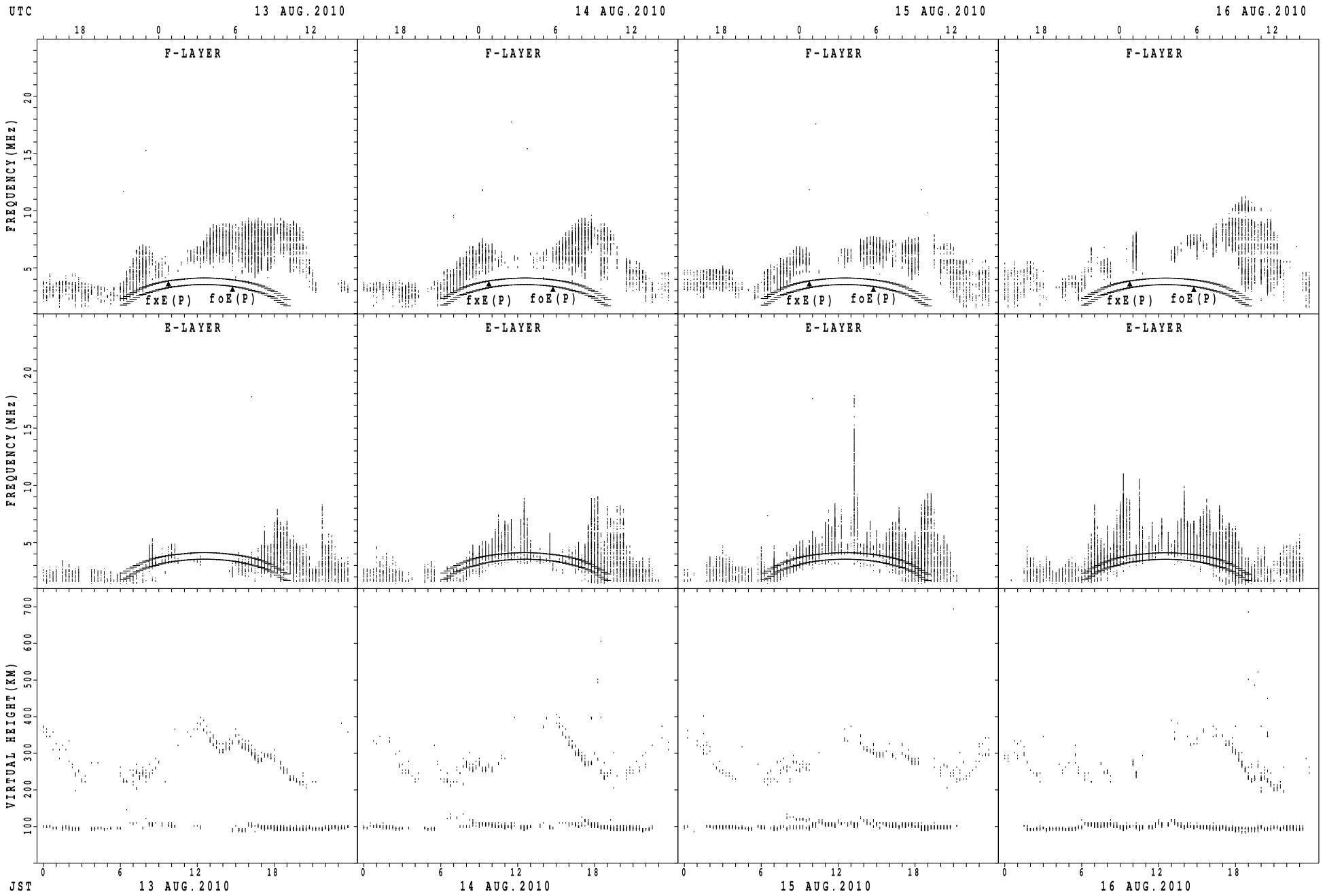
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



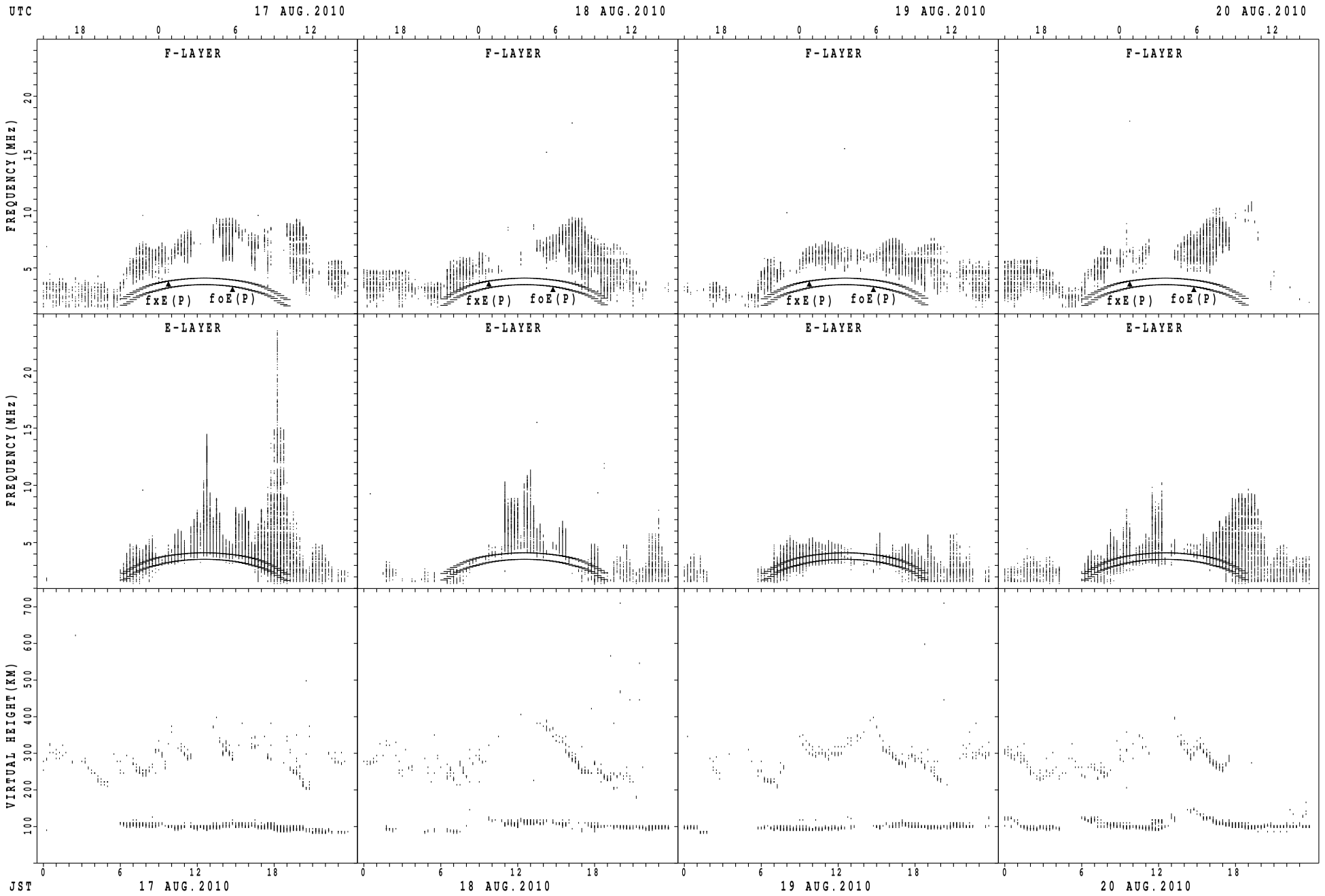
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



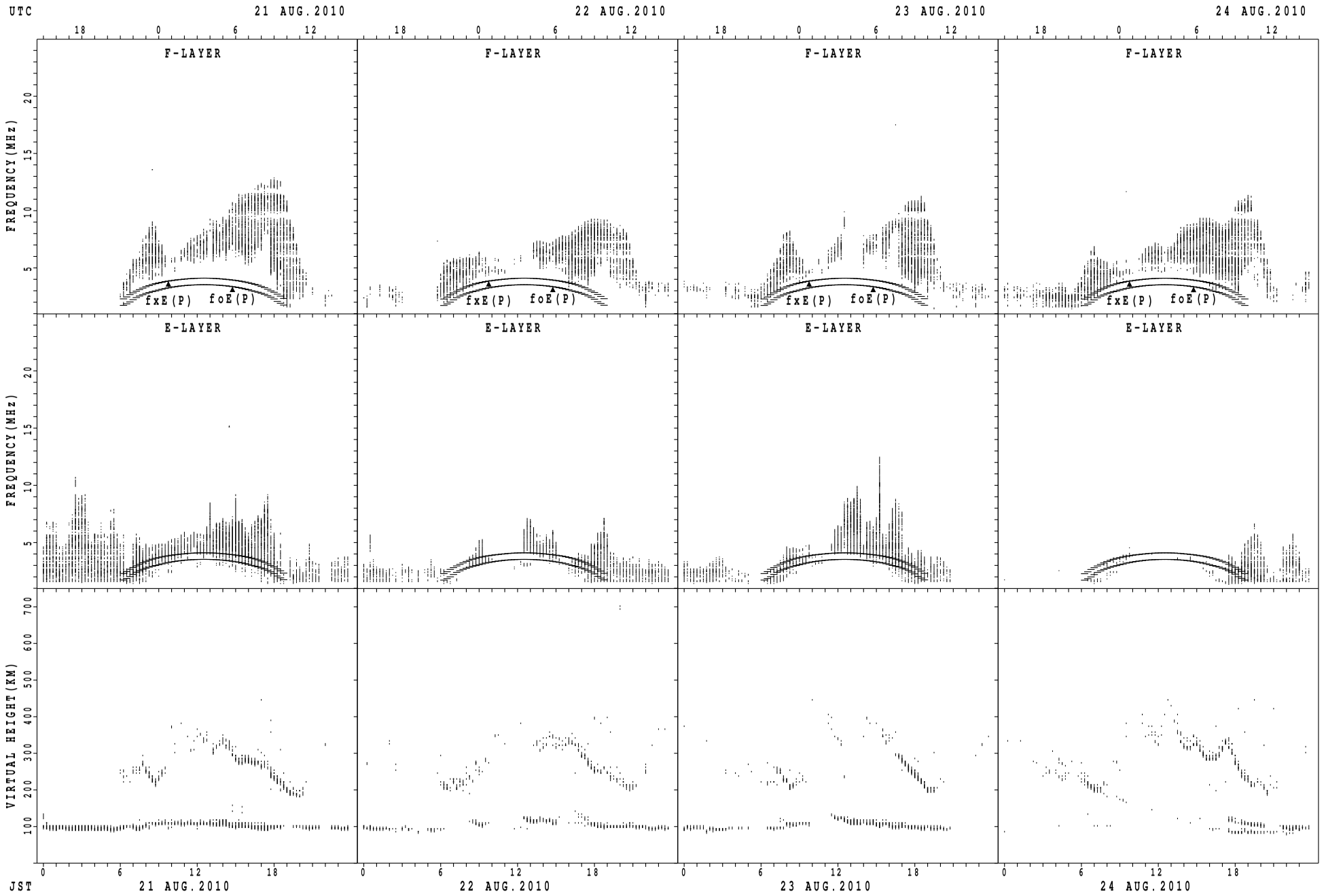
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



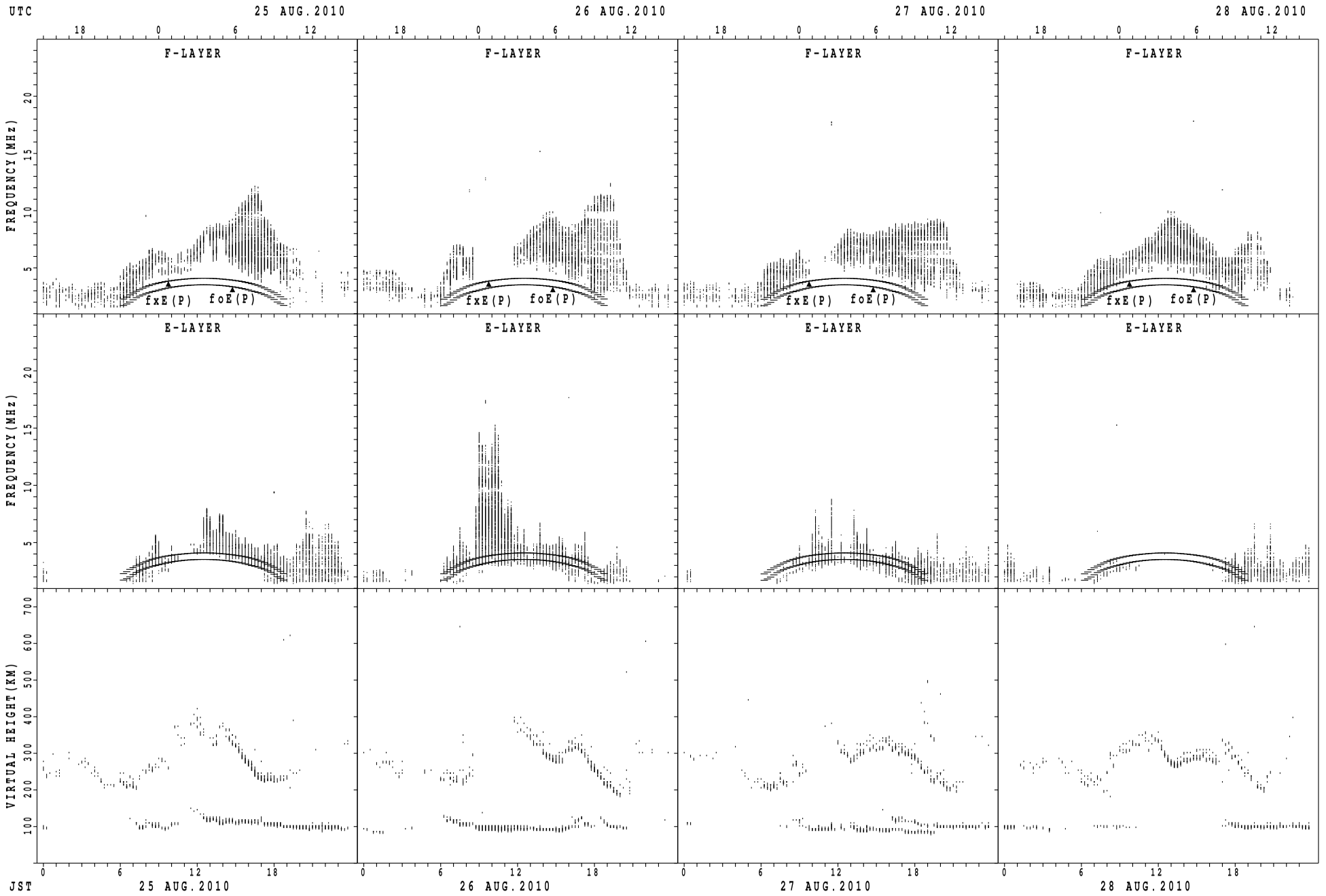
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

SUMMARY PLOTS AT Okinawa



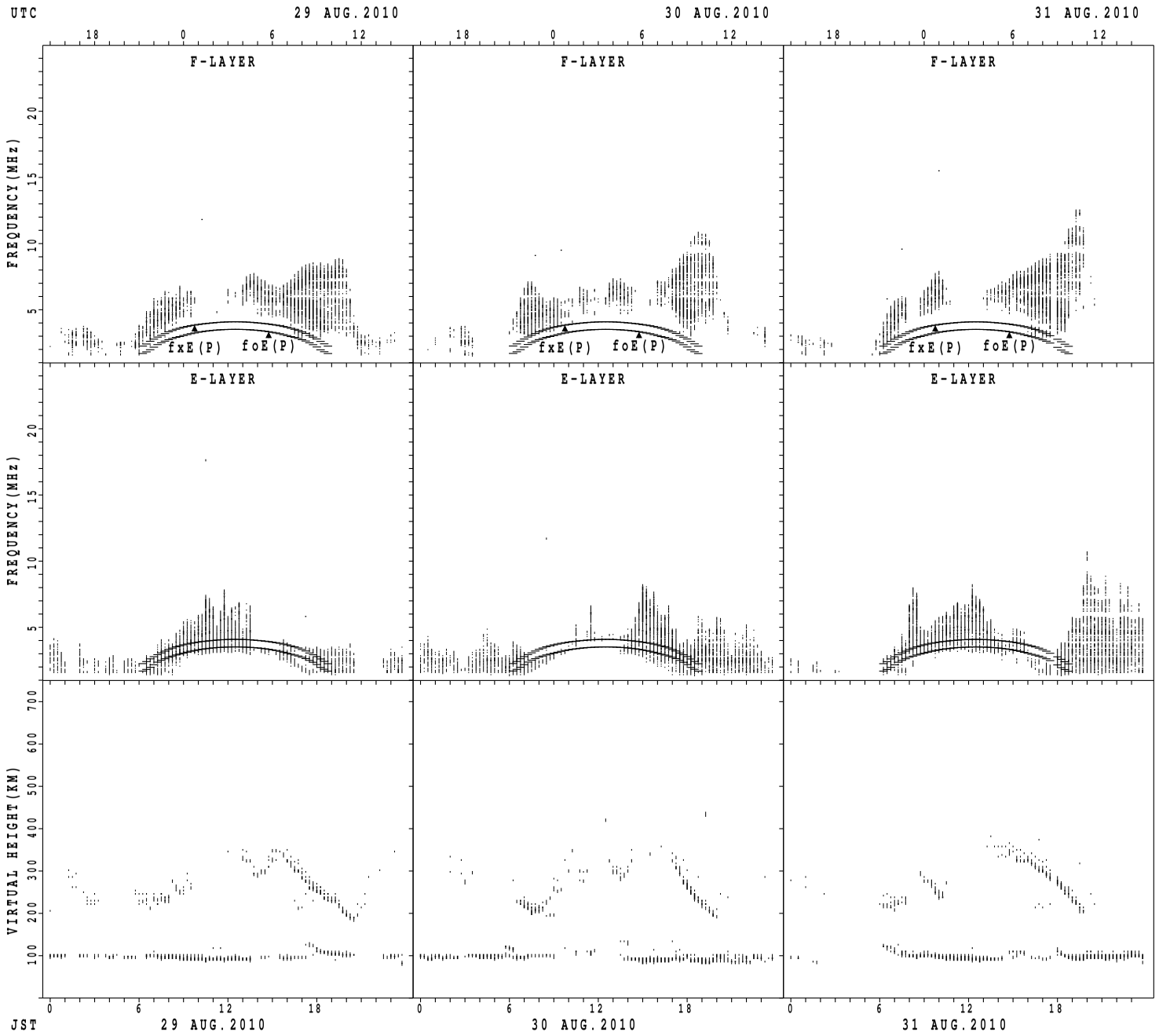
fxE(P); PREDICTED VALUE FOR fxE
foE(P); PREDICTED VALUE FOR foE

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

AUG.2010 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

h′F STATION Wakkanai LAT. 45°10.0′N LON. 141°45.0′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	8									8	6	3	7	7	1		
MED							278	288									314	291	260	262	276	352		
U Q							139	303									325	304	292	282	282	176		
L Q							139	275									302	268	260	252	266	176		

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	28	23	26	23	22	22	30	28	29	27	26	21	23	19	18	17	24	31	28	27	28	25	25	27
MED	96	95	96	95	96	104	108	105	103	103	103	99	99	95	104	99	102	105	102	99	102	101	97	97
U Q	99	97	101	103	103	107	113	108	106	113	131	103	103	99	107	110	107	107	104	103	107	103	99	99
L Q	93	91	91	91	91	97	105	103	99	97	97	95	95	93	97	95	95	95	96	95	96	97	94	95

h′F STATION Kokubunji LAT. 35°43.0′N LON. 139°29.0′E

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							2	7									17	14	12	13	6	1		
MED							239	264									292	264	264	256	236	282		
U Q							240	292									321	282	274	284	254	141		
L Q							238	226									275	242	249	243	228	141		

h′Es

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	27	22	22	22	18	15	17	15	23	25	23	22	18	15	20	21	20	23	29	28	26	25	27	29
MED	97	95	97	95	95	99	105	105	105	99	97	99	99	103	103	105	103	103	103	101	99	99	97	97
U Q	97	97	99	97	103	105	111	107	107	103	103	103	109	107	112	112	110	107	106	105	103	103	101	99
L Q	93	93	95	93	95	95	101	101	99	97	95	95	95	97	95	97	95	97	97	97	95	95	95	95

h′F STATION Yamagawa LAT. 31°12.0′N LON. 130°37.0′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								9	11								1	18	21	19	10			
MED								244	254								352	278	272	246	227			
U Q								263	284								176	310	286	264	240			
L Q								224	226								176	262	248	226	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	24	21	18	20	19	16	19	25	28	27	27	27	26	24	25	22	22	29	30	29	27	26	28	26
MED	97	95	92	95	95	97	103	105	102	103	99	99	104	103	103	103	103	105	102	97	97	97	97	97
U Q	99	97	95	95	99	105	113	112	107	103	103	105	109	111	109	107	111	107	107	103	103	101	98	99
L Q	93	92	87	89	89	95	97	103	98	95	95	95	99	93	95	93	99	98	97	94	93	91	91	91

MONTHLY MEDIANS OF h′F AND h′Es

AUG.2010 135E MEAN TIME(UTC+9H) AUTOMATIC SCALING

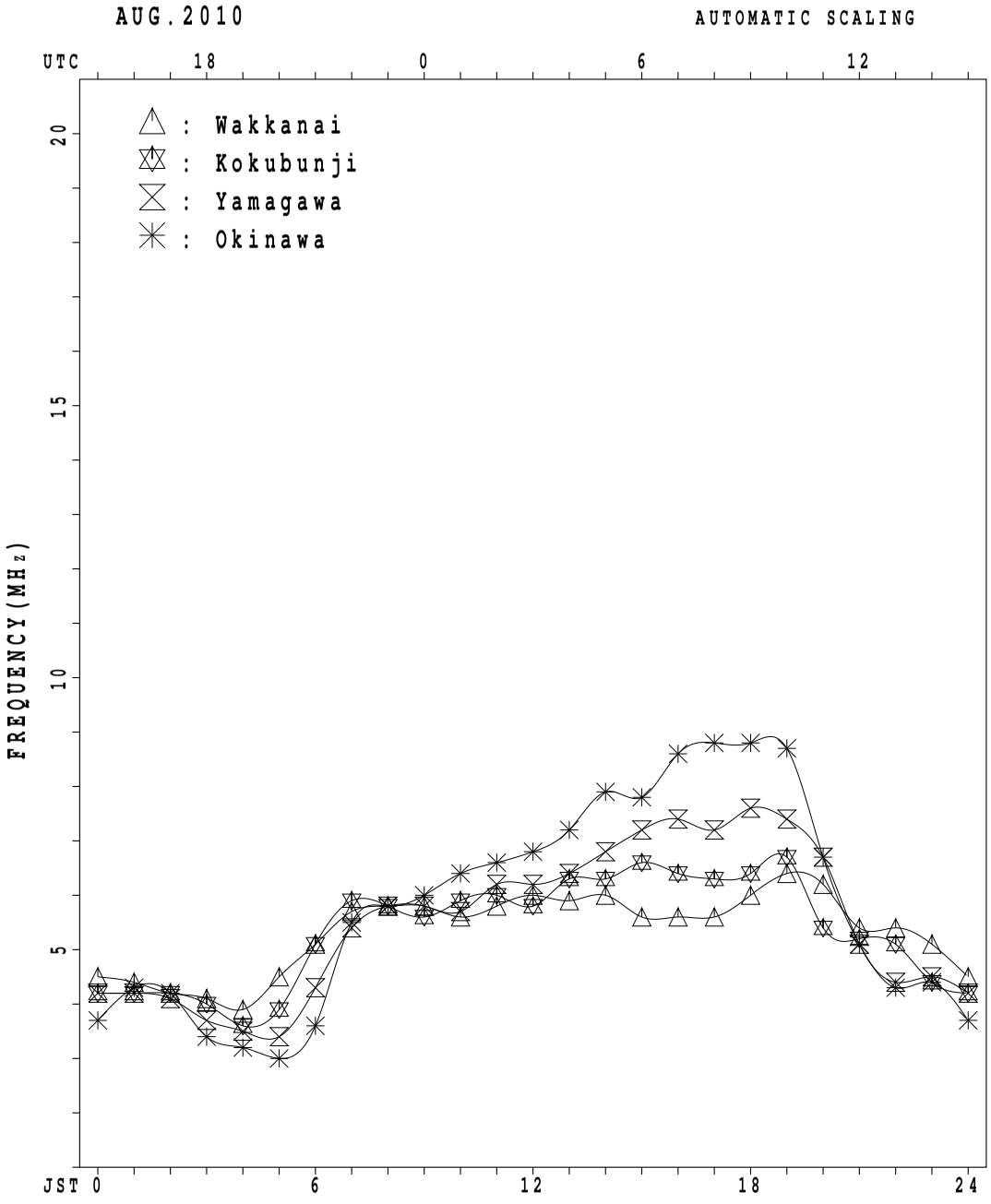
h′F STATION Okinawa LAT. 26°41.0′N LON. 128°09.0′E

	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								9	16									28	22	22	13	1		
MED								248	245									281	262	239	238	216		
U Q								269	260									304	282	256	242	108		
L Q								233	237									268	238	224	217	108		

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	21	17	15	13	11	14	18	20	20	19	17	19	17	19	17	16	21	22	28	28	27	21	19	22
MED	101	97	97	97	99	97	99	104	107	107	103	99	103	111	111	105	107	107	103	99	101	99	97	98
U Q	103	106	101	101	101	103	107	112	109	111	109	107	113	115	118	111	115	113	107	103	103	103	103	103
L Q	97	97	95	97	95	97	97	96	103	101	95	95	96	97	99	101	99	99	99	96	97	96	95	97

MONTHLY MEDIANS PLOT OF foF2



IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 fxI (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′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 47	X 46	X 46	X 46	X 45															X 61	66	63	52	52
2	51	52	46	44	46															X 70	X 60	X 51	X 44	49
3	X 45	X 44	X 42	46	X 39															X 77	X 67	X 58	X 57	X 56
4	X 54	X 53	X 51	X 49	X 43															X 85	X 75	X 60	X 62	X 56
5	X 57	X 54	X 56	X 58	X 64															X 84	X 82	X 64	X 42	X 40
6	X 40	X 41	X 39	X 41	X 43															X 77	X 54	A	O X 52	46
7	44	44	X 39	X 38	X 37															X 68	X 53	57	58	54
8	51	52	A	A	42															X 76	X 56	X 52	53	46
9	X 47	X 42	X 41	X 40	X 42															X 78	X 60	X 49	X 50	X 41
10	39	X 43	X 42	X 43	X 41															X 73	X 60	X 55	X 52	X 51
11	X 47	49	X 48	X 47	X 43	C	C	C	C	C	C	C								X 72	X 65	X 58	56	55
12	54	52	X 46	X 46	X 42															X 72	A	59	59	55
13	54	X 53	X 50	X 48	X 48															X 70	X 68	X 61	X 58	X 51
14	49	X 40	X 43	X 40	43															X 73	X 70	X 64	X 57	X 56
15	X 55	X 51	X 50	X 50	X 46															X 74	X 74	X 65	X 65	X 56
16	X 55	X 54	X 50	X 52	X 42															X 85	X 86	X 72	X 72	X 69
17	X 58	X 54	X 49	X 48	X 49															X 63	X 66	X 65	67	62
18	62	X 49	X 48	48	48	50														X 67	X 71	71	X 61	X 49
19	X 48	X 47	X 49	X 47	X 48															X 74	X 74	X 63	X 63	X 56
20	X 52	X 50	X 52	X 54	X 40	X 41														X 78	X 76	X 60	A	X 46
21	X 48	49	X 45	X 43	X 42															X 75	X 67	X 52	A	48
22	A	X 44	X 43	46	X 45	49														X 74	X 72	X 62	X 57	X 52
23	55	54	X 52	X 52	52															X 91	X 66	X 52	X 48	X 45
24	47	48	50	X 44	X 45															X 97	X 74	X 59	X 56	59
25	X 54	X 51	45	42	42															X 86	X 66	X 55	A	54
26	A	X 51	X 49	X 48	51															X 68	X 65	67	X 46	49
27	46	X 41	X 41	X 40	X 39	X 40														X 76	X 69	X 65	68	65
28	64	53	51	44	44	X 41														X 67	X 69	X 56	X 61	X 50
29	X 39	X 38	X 40	X 41	X 40															X 81	X 76	X 57	O X 54	X 50
30	X 50	X 45	X 41	X 42	X 40															X 81	X 84	X 57	X 49	X 46
31	O X 45	46	46	X 41	X 42															X 85	X 85	X 62	X 42	42
	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	31	30	30	31	5														31	30	30	28	31
MED	X 50	X 49	X 46	X 46	X 43	X 41														X 75	X 68	X 60	X 56	X 51
U Q	X 54	X 52	X 50	X 48	X 46	50														X 81	X 74	X 64	X 61	X 56
L Q	46	X 44	X 42	X 42	X 42	X 40														X 70	X 65	X 56	X 51	X 46

AUG. 2010 fxI (0.1MHz)

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 foF2 (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′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	41	40	40	40	39	41	46	59	A	56	A	58	60	59	54	54	54	53	A	55	F	F	F	F
2	F	F	F	F	F	40	46	54	61	70	53	59	58	72	78	79	64	59	60	64	54	45	38	F
3	39	38	36	F	33	36	45	50	60	66	59	68	69	56	51	47	58	63	66	70	61	52	51	50
4	48	46	45	43	37	35	43	46	55	61	73	56	56	64	64	74	70	78	80	79	68	54	56	50
5	51	48	50	52	58	30	A	A	45	A	46	56	54	59	62	58	55	59	62	78	76	58	35	34
6	34	35	33	35	37	37	44	53	61	54	56	A	50	58	A	A	56	64	77	70	48	A	46	F
7	F	F	33	32	30	36	45	56	48	58	A	53	61	56	54	64	79	86	A	62	46	F	F	F
8	F	F	A	A	F	39	50	54	A	A	A	58	56	A	57	73	77	63	64	70	50	46	F	F
9	41	35	35	34	36	39	55	63	57	61	51	A	A	56	62	68	75	91	79	72	54	43	44	35
10	F	36	36	37	35	40	58	57	63	66	58	62	64	68	67	67	77	83	65	67	54	49	45	45
11	41	F	42	41	37	C	C	C	C	C	C	C	69	66	71	78	75	74	69	65	59	52	F	F
12	F	F	40	40	35	36	50	62	68	58	63	60	65	A	70	A	A	57	61	66	A	F	F	F
13	F	47	44	42	42	41	50	62	66	62	58	54	A	53	56	61	A	61	66	64	62	55	52	45
14	F	34	37	34	F	38	49	47	59	58	61	62	A	58	58	A	53	54	56	66	64	57	51	50
15	49	45	44	44	40	40	50	55	51	54	58	A	58	54	61	71	73	62	62	68	68	58	59	50
16	49	48	44	46	36	38	49	62	77	53	A	57	59	57	A	A	A	A	74	79	80	66	66	62
17	52	48	43	42	43	54	59	64	48	A	A	A	47	A	A	54	54	A	51	56	60	59	F	F
18	F	43	42	F	F	F	51	53	54	A	58	61	60	57	54	60	68	65	61	60	65	F	55	43
19	41	41	43	41	42	40	49	63	59	56	58	56	55	61	61	60	55	55	57	67	67	57	57	50
20	45	44	47	48	34	35	50	56	64	57	52	A	57	64	66	65	60	56	60	72	70	53	A	40
21	42	F	39	37	35	37	50	64	65	65	69	52	56	61	62	62	71	78	62	69	61	46	A	F
22	A	38	36	F	39	F	55	52	65	54	58	A	A	56	61	63	60	57	A	68	66	56	51	46
23	F	F	46	46	F	46	62	59	54	66	60	47	53	58	60	65	73	80	88	85	60	46	42	39
24	F	F	F	38	39	38	48	94	56	54	54	48	58	64	76	76	66	72	87	91	68	53	50	F
25	48	44	F	F	F	34	63	65	50	55	60	56	67	64	66	73	80	81	76	80	60	49	A	F
26	A	45	43	42	F	41	54	53	56	A	52	49	R	59	64	69	75	70	A	62	58	F	40	F
27	F	35	35	33	33	33	48	65	61	A	A	A	A	A	66	73	64	56	54	69	63	59	F	F
28	F	F	F	F	F	35	52	60	56	56	A	68	77	64	62	65	56	54	58	61	63	50	55	44
29	33	32	34	35	34	34	48	56	57	62	63	62	50	60	59	58	58	57	66	75	69	51	48	44
30	44	39	35	36	34	34	45	57	71	68	51	A	A	53	60	57	54	53	61	75	78	51	43	40
31	39	F	F	35	36	34	44	54	60	A	57	59	58	63	62	56	59	60	71	79	79	56	36	F
	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	17	21	25	24	23	28	29	29	28	23	23	22	24	27	28	27	28	29	27	31	29	25	21	17
MED	42	41	40	40	36	38	50	57	59	58	58	58	58	59	62	65	64	62	64	69	63	53	50	45
U Q	48	46	44	42	39	40	53	62	64	65	60	61	62	64	66	73	74	76	74	75	68	57	55	50
L Q	40	36	36	35	34	35	46	54	54	55	53	54	56	56	58	58	56	56	60	64	58	49	42	40

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 foF1 (0.01MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							A	A	A	UL 432	A	UL 460	472	480	A	440	A	A	A					
2								412	A	A	452	A	UL 476	A	A	A	A	376	A					
3							L	A	A	456	464	460	456	468	464	416	424	A	L					
4							L	404	420	436	468	452	UL 444	UL 468	UL 452	436	404	L	L					
5							A	A	A	A	UL 376	UL 476	UL 464	UL 460	444	468	416	392	L					
6								L	UL 444	448	A	A	UL 440	UL 464	A	A	A	368	L					
7								UL 384	A	A	A	UL 460	A	452	A	A	A	A	A					
8								UL 412	A	A	A	UL 468	480	A	A	456	UL 424	A	L					
9								404	428	444	452	A	A	UL 456	A	A	A	A						
10							L	A	A	A	UL 524	A	A	A	A	A	416	388	A					
11						C	C	C	C	C	C	C	476	UL 464	A	A	A	A	A					
12							L	L	A	460	472	472	480	A	A	A	A	A	A					
13							L	416	432	452	468	UL 468	A	460	UL 428	A	A	UL 400	A					
14									A	448	A	A	A	A	460	A	UL 432	UL 404	A					
15								L		452	A	A	A	UL 468	A	A	A	A	L					
16							L	A	416	L	A	UL 480	480	UL 476	A	A	A	A	A					
17								UL 392	L	A	A	A	A	A	A	A	408	A	A					
18								UL 420	A	A	A	A	A	464	452	A	408	L						
19								L	UL 424	UL 492	456	464	UL 468	452	A	A	428	A	A					
20								L	A	UL 444	A	A	A	444	436	432	UL 400	A	A					
21							L	UL 396	L	A	A	UL 476	464	448	448	428	412	L						
22								UL 404	420	UL 492	448	A	A	444	444	A	A	A	A					
23							A	A	UL 452	UL 436	UL 456	440	UL 496	448	440	A	A	A						
24							UL 348	384	L	UL 456	A	A	UL 464	456	428	UL 440	400	368	L					
25								A	L	UL 440	UL 448	UL 472	A	A	A	A	A	A	A					
26							A	A	416	A	440	UL 452	UL 472	A	A	A	A	A	A					
27							L	L	420	A	A	A	A	A	A	A	L	L						
28							L	L	A	A	A	A	A	436	UL 504	A	A	A	A					
29								L	412	436	A	A	UL 464	A	UL 444	420	UL 412	L	A					
30								L	A	A	A	A	A	A	456	428	UL 420	L	A					
31								A	A	A	A	A	A	A	A	UL 448	UL 408	A	A					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							1	11	11	16	13	14	16	19	14	11	15	7						
MED							UL 348	UL 404	420	448	456	UL 466	UL 470	460	446	436	412	388						
U Q								UL 412	UL 432	UL 456	468	UL 472	478	UL 468	456	448	424	UL 400						
L Q								UL 392	416	UL 438	448	460	UL 464	448	440	428	408	368						

AUG. 2010 foF1 (0.01MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 foE (0.01MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
2						B	A	A	A	A	A	A	A	A	A	A	A	U A 252	A					
3						B	A	A	A	A	A	R	R 332		R	R	R	A	B					
4						A 236		R	R	R	R	R	R	R	R	R	R	R	B					
5						B	A	A	A	A	A	A	A	A	A	R	A	A	A					
6						B 224		R	A	A	A	A	A	A	A	A	A	A	A					
7						A	A	A	A	A	A	A	356	A	A	A	A	A	B					
8						B	A	A	A	A	A	A	A	A	A	A	A	A	B					
9						B	A	A	A	A	A	A	A	A	A	A	A	A	B					
10						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
11						C	C	C	C	C	C	C	R	R	A	A	A	A	B					
12						B	A	A	A	A	A	A	A	A	A	A	A	A	B					
13						B U R 224		A	R	A	R	A	A	R	A	A	A	A	B					
14						B U A 216		A	A	A	A	A	A	A	A	A	A	A	A					
15						B	A	A	R	A	A	A	A	A	A	A	A	A	U R 212					
16						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
17						B U A 212		A	A	A	A	A	A	A	A	A	A	A	A					
18						B 216		A	A	A	A	A	A	A	A	A	A	A	A					
19						B	A	A	A	A	A	A	A	R	A	A	A	A	B					
20							A	A	A	A	A	A	A	A	A	A	A	A	A					
21						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
22						B	A	A	A	A	A	A	A	A	A	A	A	A	B					
23						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
24						B	A	A	A	R	A	A	A	A	A	A	A	A	B					
25						B	A	A	A	A	A	A	352	A	A	A	A	A	A					
26						B	A	A	A	A	A	R	A	A	A	A	A	A	A					
27							A	A	A	A	A	A	A	A	A	A	A	A	B					
28							U A 184	A	A	A	A	A	A	R	R	A	A	A	A					
29						B	A	A	A	A	A	A	A	A	A	R	A	A	A					
30						B	A	A	A	A	A	A	A	A	A	R	A	A	B					
31						B	A	A	A	A	A	A	A	A	A	A	R	A	A					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							7						2	1				1	1					
MED							U 216						354	332				U A 252	U R 212					
U Q							224																	
L Q							U A 212																	

AUG. 2010 foE (0.01MHz)

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 foEs (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	JA 46	JA 28	JA 44	JA 28	JA 32	22	JA 62	JA 47	JA 70	JA 43	JA 68	42	40	40	JA 63	38	JA 42	JA 41	JA 76	JA 124	JA 61	JA 49	JA 32	JA 29
2	JA 23	JA 33	JA 32	JA 31	JA 21	19	31	JA 43	JA 102	JA 63	41	44	JA 60	JA 94	JA 52	42	JA 80	34	JA 36	JA 41	JA 75	JA 74	JA 53	JA 37
3	JA 23	JA 26	JA 54	JA 38	JA 24	JA 23	JA 32	JA 49	JA 92	JA 56	40	G	G	41	G	G	G 26	38	23	EB 14	JA 104	JA 31	JA 22	25
4	JA 30	JA 21	EB 14	JA 21	JA 24	EB 15	G	G 24	G 28	G 30	G 31	G 28	G	G	G	G 28	G	G 26	24	EB 15	EB 14	JA 27	JA 40	JA 27
5	JA 24	22	EB 15	JA 25	JA 14	EB 16	EB 43	JA 34	45	JA 81	33	42	JA 91	42	42	G 28	36	JA 44	JA 102	JA 48	JA 47	JA 38	JA 52	JA 36
6	JA 24	EB 16	EB 15	EB 14	EB 14	EB 14	28	G 24	JA 37	39	JA 55	JA 61	JA 47	JA 72	JA 127	JA 104	JA 55	35	27	JA 26	JA 53	JA 53	21	JA 28
7	JA 37	JA 29	20	JA 29	JA 22	JA 32	JA 30	JA 35	JA 78	JA 48	JA 64	JA 43	44	42	JA 47	JA 58	JA 52	JA 55	JA 108	JA 84	JA 22	JA 20	JA 48	JA 33
8	JA 42	JA 28	JA 56	JA 64	JA 19	18	28	JA 40	JA 87	JA 149	JA 68	JA 45	JA 46	64	61	40	JA 47	JA 52	JA 37	JA 60	30	JA 36	JA 54	JA 73
9	JA 44	21	JA 23	JA 28	JA 22	21	29	JA 42	40	JA 62	JA 48	JA 84	JA 70	43	44	JA 53	JA 65	JA 56	JA 59	JA 89	JA 67	JA 52	JA 36	59
10	JA 23	JA 73	JA 44	JA 22	JA 19	22	27	JA 44	JA 68	JA 64	JA 66	JA 50	JA 58	JA 48	JA 62	JA 52	37	33	JA 34	JA 29	JA 36	JA 55	JA 21	JA 25
11	JA 36	JA 28	EB 15	EB 15	JA 22	C	C	C	C	C	C	C	G	G	JA 66	JA 55	JA 53	JA 47	JA 41	JA 75	JA 40	JA 40	JA 28	JA 26
12	JA 54	JA 24	JA 28	JA 24	JA 26	JA 25	29	41	JA 46	JA 58	JA 46	42	40	JA 72	JA 73	JA 80	JA 60	JA 41	JA 32	JA 28	JA 81	JA 44	JA 23	JA 20
13	JA 24	JA 27	JA 24	JA 24	20	21	G	33	GJA 30	JA 42	GJA 31	JA 46	JA 45	G 33	JA 42	JA 41	JA 67	JA 30	JA 30	JA 28	JA 43	JA 36	JA 28	JA 28
14	JA 45	JA 72	JA 33	JA 27	JA 47	JA 35	28	33	51	40	JA 49	JA 50	JA 63	JA 43	42	JA 73	JA 49	JA 34	JA 50	JA 38	JA 41	JA 41	23	JA 30
15	JA 17	JA 17	JA 30	JA 42	JA 30	JA 21	27	33	G 25	41	JA 46	JA 76	JA 54	JA 57	JA 54	JA 47	JA 48	JA 74	GJA 20	JA 22	JA 53	JA 57	JA 44	JA 26
16	22	21	JA 24	EB 14	JA 22	JA 28	JA 48	JA 45	JA 43	40	JA 77	JA 45	JA 45	42	JA 150	JA 98	JA 132	JA 101	JA 102	JA 128	JA 47	JA 33	JA 34	JA 26
17	JA 22	EB 16	21	21	20	EB 14	28	JA 38	JA 54	JA 76	JA 62	JA 57	42	JA 74	JA 81	JA 52	34	JA 52	34	JA 54	JA 52	JA 43	JA 46	JA 74
18	JA 41	JA 42	JA 78	JA 46	JA 33	JA 35	26	33	JA 47	JA 76	JA 101	JA 59	JA 58	42	JA 59	JA 46	41	JA 38	JA 41	JA 55	JA 48	JA 29	28	JA 30
19	JA 39	JA 36	JA 21	JA 40	JA 24	JA 22	24	31	37	41	JA 46	42	44	G 33	JA 48	JA 63	JA 46	JA 47	JA 34	EB 41	15	22	JA 46	JA 46
20	JA 39	JA 26	JA 24	JA 22	JA 23	JA 18	27	32	38	JA 46	JA 51	JA 57	JA 81	JA 52	42	JA 50	37	JA 41	JA 48	JA 35	21	JA 42	JA 28	JA 52
21	JA 28	JA 44	JA 27	20	JA 24	JA 31	27	36	JA 38	JA 45	JA 50	JA 45	JA 47	JA 50	41	36	36	JA 32	JA 30	JA 34	JA 24	59	84	82
22	JA 47	JA 24	JA 55	JA 30	JA 35	JA 27	27	32	JA 40	JA 45	JA 46	JA 66	JA 57	42	41	JA 46	JA 57	JA 77	JA 61	JA 26	JA 44	EB 15	EB 14	JA 64
23	JA 18	JA 42	JA 38	JA 42	JA 20	JA 26	30	JA 52	JA 40	JA 38	40	JA 43	JA 44	40	40	JA 44	JA 48	JA 40	JA 32	JA 76	JA 36	JA 28	JA 23	JA 21
24	JA 18	JA 23	EB 16	JA 24	21	JA 35	JA 54	JA 36	JA 37	G 31	40	45	39	JA 59	JA 52	36	35	30	22	JA 25	JA 47	EB 15	JA 34	JA 42
25	JA 55	JA 47	JA 30	JA 41	20	JA 25	JA 37	JA 42	JA 43	JA 40	JA 43	JA 44	43	44	JA 98	JA 47	JA 60	JA 54	JA 82	JA 64	JA 70	JA 62	JA 78	JA 60
26	JA 83	JA 41	JA 28	JA 33	JA 21	19	28	JA 72	JA 60	JA 62	JA 54	G 32	48	JA 58	JA 62	JA 43	JA 53	JA 108	JA 86	JA 74	JA 29	JA 29	JA 35	JA 35
27	JA 29	JA 22	JA 43	EB 15	EB 15	21	JA 32	JA 36	JA 41	JA 56	JA 69	JA 108	JA 61	JA 72	JA 54	JA 44	JA 34	30	21	JA 26	JA 48	JA 44	JA 46	JA 44
28	JA 54	JA 38	JA 21	EB 15	EB 15	JA 24	26	34	JA 44	JA 92	JA 103	JA 73	JA 46	G 30	G 28	JA 44	JA 52	JA 88	JA 58	JA 29	JA 45	JA 29	JA 44	JA 28
29	JA 36	JA 21	JA 22	JA 22	EB 15	20	JA 35	JA 34	JA 52	JA 42	JA 55	JA 62	JA 45	JA 52	41	G 28	JA 32	JA 40	JA 34	JA 34	JA 28	JA 31	JA 28	JA 31
30	JA 34	JA 45	JA 48	JA 44	JA 34	JA 26	24	34	JA 47	JA 42	JA 49	JA 67	JA 48	JA 96	JA 40	G 30	33	29	JA 28	JA 21	23	JA 22	JA 35	JA 42
31	JA 64	JA 73	JA 60	JA 48	JA 45	JA 30	27	JA 44	JA 49	JA 64	JA 53	JA 52	JA 49	JA 46	JA 45	JA 44	G 23	JA 44	JA 60	JA 62	JA 18	19	JA 24	JA 28
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31
MED	JA 36	JA 28	JA 28	JA 27	JA 22	JA 22	28	JA 36	JA 44	JA 46	JA 50	JA 46	JA 46	JA 44	JA 48	JA 44	JA 47	JA 41	JA 36	JA 38	JA 44	JA 36	JA 34	JA 31
U Q	JA 45	JA 42	JA 44	JA 40	JA 26	JA 27	JA 32	JA 43	JA 54	JA 63	JA 64	JA 61	JA 58	JA 59	JA 62	JA 53	JA 55	JA 54	JA 60	JA 64	JA 53	JA 49	JA 46	JA 46
L Q	JA 23	22	EB 21	EB 21	EB 20	19	27	33	38	41	43	43	43	G 41	41	G 38	35	34	30	JA 26	28	28	JA 24	JA 27

AUG. 2010 foEs (0.1MHz)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 fbEs (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′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	20	E B 15	E B 15	E B 16	20	19	39	43	A A 70	39	A A 68	36	38	38	44	36	39	36	A A 76	20	32	33	20	22
2	E B 15	18	20	20	E B 15	16	30	35	52	57	37	40	42	46	44	42	47	31	34	32	36	18	17	18
3	E B 15	E B 16	19	29	E B 14	17	24	41	52	32	35	G	G	40	G	G	G 25	36	21	E B 14	17	E B 15	E B 15	E B 15
4	19	E B 15	E B 14	E B 15	16	E B 15	G	G 23	G 28	G 29	G 30	G 28	G	G	G	G 28	G	G 23	21	E B 15	E B 14	E B 15	20	20
5	E B 14	E B 15	E B 15	E B 15	E B 14	E B 16	A A 43	A A 34	40	A A 81	29	38	39	38	37	G 27	33	28	20	E B 15	21	20	18	24
6	E B 15	E B 16	E B 15	E B 14	E B 14	E B 14	26	G 21	34	34	52	A A 61	39	39	A A 127	A A 104	42	29	21	17	39	A A 53	E B 15	E B 16
7	E B 15	16	15	21	16	17	27	31	38	42	A A 64	37	42	39	44	54	45	42	A A 108	33	17	17	17	18
8	26	E B 15	A A 56	A A 64	E B 15	E B 15	25	32	A A 87	A A 149	A A 68	40	39	A A 64	50	38	34	48	21	44	22	24	34	20
9	32	E B 15	E B 15	E B 15	E B 15	18	26	33	36	37	40	A A 84	A A 70	38	42	48	61	51	43	53	28	19	18	17
10	E B 15	22	16	16	16	E B 15	25	41	58	56	44	46	47	42	56	44	34	30	28	22	20	34	18	19
11	22	E B 15	E B 15	E B 15	17	C	C	C	C	C	C	C	G	G	52	42	44	33	38	32	29	16	E B 16	17
12	34	E B 16	17	E B 15	16	19	25	35	43	41	40	38	40	A A 72	60	A A 80	A A 60	37	27	20	A A 81	19	16	E B 16
13	E B 15	16	18	E B 15	E B 16	20	G	32	G 29	34	G 30	41	A A 45	G 32	37	40	A A 67	28	28	18	32	27	E B 15	19
14	16	17	28	17	17	24	24	31	50	38	44	44	A A 63	40	39	A A 73	33	30	31	30	31	30	E B 16	21
15	E B 15	E B 15	22	18	22	18	23	30	G 24	38	44	A A 76	51	40	46	44	40	50	G 20	16	33	28	20	E B 15
16	E B 15	E B 16	E B 15	E B 14	16	21	24	39	32	38	A A 77	39	42	41	A A 150	A A 98	A A 132	A A 101	59	70	16	E B 15	22	21
17	E B 15	E B 16	E B 14	E B 15	E B 15	E B 14	28	33	36	A A 76	A A 62	A A 57	38	A A 74	A A 81	43	32	A A 52	29	34	39	22	34	22
18	29	17	24	20	18	24	24	31	44	A A 76	55	46	46	39	40	41	30	30	20	36	31	20	19	20
19	34	23	E B 16	35	16	16	22	28	36	36	38	40	38	G 32	45	42	34	31	28	34	E B 15	E B 16	17	19
20	27	18	E B 15	17	E B 15	E B 15	24	30	35	38	47	A A 57	49	39	35	36	31	34	40	27	E B 15	22	A A 28	25
21	20	E B 15	16	16	E B 15	17	23	32	35	41	44	40	39	36	39	34	34	29	22	18	19	20	A A 84	28
22	A A 47	E B 15	16	18	19	20	23	29	36	39	37	A A 66	A A 57	40	39	44	53	39	A A 61	17	35	E B 15	E B 14	19
23	E B 15	22	17	20	16	17	28	48	37	35	38	38	38	38	37	38	42	35	26	52	28	21	17	E B 15
24	E B 15	17	E B 16	17	E B 15	19	23	32	33	G 31	40	41	39	37	38	31	31	29	18	19	32	E B 15	20	E B 15
25	16	21	18	16	E B 15	16	35	40	36	36	37	40	40	40	62	42	43	47	41	39	42	35	A A 78	31
26	A A 83	23	20	22	E B 15	E B 16	24	49	34	A A 62	35	G 26	44	52	58	41	42	62	A A 86	E B 15	18	21	21	26
27	18	E B 15	E B 16	E B 15	E B 15	E B 15	24	29	37	A A 56	A A 69	A A 108	A A 61	A A 72	49	42	30	28	20	22	33	18	29	27
28	30	20	E B 15	E B 15	E B 15	E B 15	22	31	39	48	A A 103	54	44	G 28	G 27	40	40	42	30	22	28	20	20	20
29	21	E B 16	E B 16	E B 15	E B 15	E B 16	25	29	33	36	45	51	38	45	38	G 26	30	26	27	30	19	20	24	17
30	21	18	25	24	20	16	22	31	40	37	46	A A 67	A A 48	42	35	G 27	31	28	23	E B 15	E B 15	E B 15	23	20
31	27	16	E B 15	20	18	19	25	41	45	A A 64	50	49	46	43	40	34	G 21	40	56	54	E B 15	E B 14	19	E B 15
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31
MED	19	E B 16	16	16	E B 16	16	24	32	36	38	44	41	42	40	42	41	34	34	28	22	28	20	19	19
U Q	27	18	19	20	17	19	26	39	44	A A 56	A A 55	A A 57	A A 47	43	52	44	44	42	41	34	33	24	23	22
L Q	E B 15	E B 15	E B 15	E B 15	E B 15	E B 15	23	30	34	36	37	38	38	G 38	37	G 34	31	29	21	E B 17	E B 17	E B 16	E B 17	E B 17

AUG. 2010 fbEs (0.1MHz)

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 fmin (0.1MHz) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'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	15	16	15	13	14	15	14	19	20	22	26	20	15	18	13	17	15	15	15	15	14	15
2	15	14	14	15	15	15	14	15	14	14	16	21	25	24	24	20	15	14	14	14	14	15	15	14
3	15	16	15	14	14	14	13	14	14	14	14	28	24	26	18	20	16	16	15	14	14	15	15	15
4	15	15	14	15	15	15	12	15	15	19	20	18	21	23	20	18	12	15	14	15	14	14	14	16
5	14	15	15	15	14	16	15	13	14	17	18	24	24	22	21	17	16	14	14	15	14	15	15	15
6	15	16	15	14	14	14	14	13	16	18	20	22	19	21	21	19	16	12	14	14	14	15	15	16
7	15	14	14	15	14	15	14	13	13	14	16	18	20	18	17	17	12	13	14	14	14	15	14	15
8	15	15	14	14	15	15	12	13	12	15	21	20	19	18	19	17	15	13	14	14	14	15	15	15
9	14	15	15	15	15	14	14	13	12	13	18	23	19	20	20	18	16	15	14	16	15	14	14	16
10	15	15	15	14	14	15	16	15	15	20	19	23	21	21	16	13	16	14	13	15	15	14	15	15
11	14	15	15	15	14	C	C	C	C	C	C	C	16	22	22	21	14	13	14	14	14	15	16	14
12	15	16	15	15	15	14	14	14	14	14	18	20	17	20	18	19	14	14	14	14	15	15	16	16
13	15	16	15	15	16	14	13	16	13	18	17	20	18	22	17	14	14	13	15	15	15	15	15	15
14	15	15	15	14	15	15	14	13	14	18	18	28	21	26	20	17	15	14	16	15	15	15	16	15
15	15	15	15	14	15	14	15	15	13	17	15	23	19	20	20	14	14	14	15	15	15	16	14	15
16	15	16	15	14	15	14	15	15	13	18	20	24	22	24	16	18	15	16	15	14	14	15	15	15
17	15	16	14	15	15	14	16	12	13	22	22	24	22	22	20	14	14	14	14	15	15	15	15	14
18	15	15	15	15	15	14	14	14	13	21	20	20	22	20	20	30	17	14	13	14	14	15	15	15
19	16	16	16	14	15	15	12	13	14	15	16	19	18	18	19	15	13	14	15	15	15	16	16	14
20	16	15	15	15	15	14	15	15	14	16	19	22	18	18	18	15	14	14	14	15	16	14	15	16
21	14	15	15	16	15	14	15	14	15	18	20	17	15	19	18	19	18	13	14	14	15	14	15	14
22	15	15	15	15	14	14	14	14	16	16	20	22	21	21	22	21	14	14	13	15	15	15	14	15
23	15	16	15	15	14	15	15	14	14	18	21	21	19	22	19	16	14	14	15	15	15	14	15	15
24	15	15	16	15	15	15	13	14	14	16	16	20	20	20	17	16	12	13	14	14	14	15	14	15
25	16	15	14	14	15	14	15	14	12	15	15	19	20	19	24	18	15	13	14	14	14	15	16	15
26	15	16	14	16	16	16	14	12	13	17	20	23	18	18	16	13	15	12	13	15	14	14	14	14
27	14	15	16	15	15	15	14	14	16	15	19	23	27	19	19	16	14	14	13	15	13	14	13	15
28	16	14	15	15	15	15	15	14	13	18	20	18	20	17	15	18	13	14	14	15	14	14	14	14
29	15	16	16	15	15	16	15	15	13	18	15	18	18	20	16	14	14	14	14	14	15	16	14	15
30	14	15	15	15	15	15	14	14	14	14	17	23	23	20	15	16	15	14	12	15	15	15	15	14
31	16	14	15	15	15	15	15	13	13	17	19	22	27	23	19	15	14	14	15	15	15	14	15	15
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31
MED	15	15	15	15	15	15	14	14	14	17	19	22	20	20	19	17	14	14	14	15	15	15	15	15
U Q	15	16	15	15	15	15	15	15	14	18	20	23	22	22	20	19	15	14	15	15	15	15	15	15
L Q	15	15	15	14	14	14	14	13	13	15	16	20	18	19	17	15	14	13	14	14	14	14	14	14

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 M(3000)F2 (0.01) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'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	307	310	309	334	335	346	352	300	A	327	A	316	317	314	308	315	339	325	A	317	F	F	F	F
2	F	F	F	F	F	344	322	319	324	348	326	322	278	298	310	334	320	333	334	328	350	314	299	F
3	314	303	287	F	331	334	322	300	314	350	303	315	348	304	318	332	315	328	332	338	316	287	293	316
4	299	315	315	336	334	361	355	262	302	343	328	343	267	306	278	318	293	300	314	321	321	287	281	266
5	280	273	286	314	366	337	A	A	302	A	337	302	275	302	320	284	296	294	299	307	350	379	307	290
6	305	316	322	314	343	343	331	332	360	336	321	A	267	314	A	A	312	327	339	358	337	A	298	F
7	F	F	296	290	316	341	323	354	337	338	A	260	324	312	293	303	321	345	A	342	326	F	F	F
8	F	F	A	A	F	347	359	351	A	A	A	329	322	A	304	316	346	330	335	352	333	326	F	F
9	317	327	313	332	307	323	361	368	370	380	320	A	A	284	303	308	302	332	339	350	334	294	324	309
10	F	337	309	310	300	325	347	346	341	341	275	304	314	314	308	314	323	343	347	344	319	304	301	303
11	309	F	307	317	318	C	C	C	C	C	C	C	316	293	311	310	313	334	344	323	324	311	F	F
12	F	F	303	331	310	302	306	329	355	307	326	299	305	A	324	A	A	323	339	336	A	F	F	F
13	F	302	301	297	319	332	330	334	361	357	343	308	A	293	298	322	A	330	337	335	322	312	310	323
14	F	289	305	307	F	359	373	349	334	353	326	341	A	313	305	A	321	313	333	325	311	309	302	302
15	303	304	291	332	332	350	348	356	365	315	361	A	292	296	314	340	345	333	318	319	329	305	309	302
16	291	309	303	338	335	312	340	352	376	411	A	312	316	306	A	A	A	A	303	311	313	313	294	322
17	299	309	309	304	313	327	351	358	378	A	A	A	309	A	A	309	317	A	314	309	303	333	F	F
18	F	305	300	F	F	F	370	341	299	A	316	315	321	310	285	301	329	344	330	309	327	F	325	302
19	295	306	313	328	316	313	336	355	350	293	338	311	319	330	337	337	329	331	326	314	331	310	318	316
20	312	317	331	366	321	335	353	353	350	342	348	A	329	326	331	328	344	341	324	332	360	341	A	303
21	308	F	318	328	334	352	335	361	348	340	362	325	312	311	311	311	322	353	342	347	362	325	A	F
22	A	336	301	F	325	F	363	334	372	335	341	A	A	311	332	325	330	327	A	327	337	319	329	334
23	F	F	312	316	F	340	368	373	324	364	346	257	303	296	305	303	313	314	332	366	361	322	314	315
24	F	F	F	328	330	309	323	385	412	331	330	313	257	297	315	325	311	297	323	340	336	301	298	F
25	313	317	F	F	F	331	373	391	395	348	320	269	314	316	305	308	331	333	356	342	329	305	A	F
26	A	309	315	311	F	337	365	323	354	A	325	350	R	304	313	319	329	334	A	322	321	F	321	F
27	F	298	302	315	302	313	343	357	369	A	A	A	A	A	319	344	326	331	309	329	296	301	F	F
28	F	F	F	F	F	321	361	363	364	350	A	315	340	335	330	353	343	336	336	327	355	310	315	329
29	287	327	313	330	312	309	352	336	364	355	327	345	333	330	328	330	328	325	329	336	355	340	299	303
30	301	325	319	330	318	333	348	349	378	396	354	A	A	341	334	336	321	314	318	333	347	372	313	316
31	311	F	F	315	343	361	368	351	382	A	347	328	311	344	344	315	322	321	313	331	369	371	341	F
	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	17	21	25	24	23	28	29	29	28	23	23	22	24	27	28	27	28	29	27	31	29	25	21	17
MED	305	309	309	322	321	334	351	351	358	343	328	315	314	311	312	318	322	330	332	331	331	312	309	309
U Q	312	321	314	332	334	345	362	358	371	355	346	328	322	316	326	332	330	334	339	342	350	330	320	319
L Q	297	304	301	312	313	322	333	333	336	335	321	304	298	298	305	309	314	322	318	321	321	304	298	302

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 M(3000)F1 (0.01) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							A	A	A	UL 432	A	UL 361	383	388	A	383	A	A	A					
2								390	A	A	433	A	UL 425	A	A	A	A	381	A					
3							L	A	A	374	421	435	449	382	386	403	384	A	L					
4							L	385	387	394	385	406	UL 417	UL 392	UL 391	388	393	L	L					
5							A	A	A	A	UL 384	UL 335	UL 415	UL 405	376	346	380	334	L					
6								L	UL 362	425	A	A	UL 404	UL 411	A	A	A	381	L					
7								UL 392	A	A	A	UL 403	A	391	A	A	A	A	A					
8								UL 391	A	A	A	UL 377	325	A	A	354	UL 395	A	L					
9								391	408	399	456	A	A	UL 428	A	A	A	A						
10							L	A	A	A	UL 317	A	A	A	A	A	359	382	A					
11						C	C	C	C	C	C	C	388	UL 356	A	A	A	A	A					
12							L	L	A	364	380	423	357	A	A	A	A	A	A					
13							L	356	399	416	343	UL 427	A	393	UL 430	A	A	UL 347	A					
14									A	404	A	A	A	A	365	A	UL 363	UL 360	A					
15								L		419	A	A	A	UL 336	A	A	A	A	L					
16							L	A	425	L	A	UL 398	358	UL 358	A	A	A	A	A					
17								UL 373	L	A	A	A	A	A	A	A	378	A	A					
18								UL 359	A	A	A	A	A	375	349	A	365	L						
19								L	UL 401	UL 363	402	399	UL 398	394	A	A	378	A	A					
20								L	A	UL 400	A	A	A	381	412	381	UL 378	A	A					
21							L	UL 393	L	A	A	UL 400	404	399	385	389	377	L						
22								UL 392	406	UL 377	388	A	A	415	361	A	A	A	A					
23							A	A	UL 378	UL 367	UL 436	426	UL 355	437	361	A	A	A						
24							UL 358	406	L	UL 427	A	A	UL 379	387	387	UL 379	389	352	L					
25								A	L	UL 382	UL 404	UL 386	A	A	A	A	A	A	A					
26							A	A	400	A	425	UL 408	UL 377	A	A	A	A	A	A					
27							L	L	399	A	A	A	A	A	A	A	L	L						
28							L	L	A	A	A	A	A	428	UL 357	A	A	A	A					
29								L	399	410	A	A	UL 407	A	UL 408	371	UL 356	L	A					
30								L	A	A	A	A	A	A	368	365	UL 356	L	A					
31								A	A	A	A	A	A	A	A	UL 362	UL 365	A	A					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								1	11	11	16	13	14	16	19	14	11	15	7					
MED							UL 358	UL 391	399	400	402	UL 402	UL 393	392	380	379	378	360						
U Q								UL 392	406	418	429	423	UL 411	411	UL 391	388	384	381						
L Q								UL 373	UL 387	UL 376	382	UL 386	368	UL 381	361	362	UL 363	347						

AUG. 2010 M(3000)F1 (0.01)

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 h′F2 (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E A 278	300	A	320	A	346	332	344	372	346	290	300	A					
2								306	E A 300	270	326	304	402	338	298	268	310	274	260					
3							304	E A 370	E A 348	270	358	322	264	366	364	304	320	276	262					
4							256	360	364	284	298	280	434	350	386	286	330	282	272					
5							A	A	E A 372	A	268	378	424	356	310	400	358	342	304					
6								296	258	322	E A 360	A	428	344	A	A	322	296	254					
7								272	E A 296	294	A	474	320	338	390	E A 338	282	250	A					
8								264	A	A	A	316	340	A	E A 386	302	258	E A 280	252					
9								242	254	238	336	A	A	402	352	314	E A 328	262						
10							254	270	E A 294	E A 276	422	350	332	316	E A 324	316	286	250	240					
11						C	C	C	C	C	C	C	314	334	322	296	282	260	242					
12							336	314	272	326	288	360	314	A	E A 320	A	A	E A 270	260					
13							288	290	256	270	286	368	A	414	382	316	A	280	254					
14									320	282	306	288	A	344	360	A	312	306	274					
15								260		344	268	A	E A 390	390	342	284	262	E A 272	264					
16							280	270	232	216	A	344	336	356	A	A	A	A	E A 310					
17								252	258	A	A	A	E A 344	A	A	350	328	A	294					
18								300	E A 338	A	E A 350	330	306	340	404	348	296	266						
19								242	270	354	298	356	332	312	294	284	302	274	272					
20								258	254	270	E A 302	A	310	314	302	290	272	270	266					
21							280	244	242	278	240	322	358	340	316	330	282	244						
22								288	230	298	288	A	A	354	310	296	E A 302	268	A					
23							228	232	298	254	274	374	358	366	340	330	290	272						
24							314	212	208	310	300	E A 376	496	364	298	266	300	314	254					
25								218	234	286	316	404	306	298	E A 394	306	268	254	234					
26							248	E A 318	278	A	342	364	334	E A 366	E A 372	294	276	E A 310	A					
27							266	254	246	A	A	A	A	A	314	266	280	270						
28							246	246	254	E A 282	A	E A 322	264	280	308	262	280	E A 268	250					
29								268	248	256	296	E A 260	312	320	292	306	294	284	256					
30								268	238	218	E A 310	A	A	310	300	290	312	294	280					
31								E A 260	230	A	E A 286	310	318	280	292	324	292	278	E A 306					
	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	28	27	23	23	22	25	27	28	27	28	29	22					
MED							278	265	252	282	294	341	332	342	318	303	292	273	260					
U Q							296	298	E A 298	310	336	368	374	364	372	330	312	289	274					
L Q							251	249	242	270	286	316	313	316	305	286	281	267	254					

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 h'F (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E A 280	E B 252	E B 266	234	E A 254	228		A	A		A				A		A	A	A	E A 276	E A 268	E A 296	E A 286	E A 294
2	228	E A 238	E A 274	E A 252	E B 234	220	214	224		A	A	198	A	202		A	A	A	196	A	234	224	232	E A 266	E A 286
3	E B 276	E B 278	E A 314	E A 292		228	224	216		A	A	194	184	184	168	214	204	198	210	A	218	220	218	E B 274	E B 278	E B 244
4	E A 266	E B 256	E B 234	220	218	210	178	212	210	194	204	210	206	206	214	222	204	214	230	228	210	E B 256	E A 320	E A 320
5	E B 298	E B 314	E B 302	E B 250	208	204		A	A	A	A	186	204	204	204	206	234	196	218	222	252	214	196	E A 262	E A 334
6	E B 288	E B 240	E B 250	E B 246	228	206	E A 236	208	210	186		A	A	214	196		A	A	A	208	214	214	E A 272		A	E B 242	E B 292
7	E B 292	E A 286	E A 280	E A 332	E A 278	232	218	206		A	A	A	200		A	208		A	A	A	A	A	E A 216	204	E A 264	E A 284	E A 268
8	E A 300	E B 288		A		E B 242	220	216	204		A	A	A	226	E A 254		A		A	E A 246	196		A	214	224	210	E A 248	E A 326	E A 270
9	E A 294	E B 252	E B 280	E B 252	E B 250	E A 240	222	210	200	200	174		A		A	210		A	A	A	A		E A 242	220	226	230		E A 258
10	E B 288	E A 282	E A 276	E A 260	E A 266	E B 248	222		A	A	A	E A 272	A		A		A	A	A		A		204	196		A	222	218	E A 278	E A 272	E A 278
11	E A 302	E B 296	E B 244	E B 250	E A 250		C	C	C	C	C	C		206	214		A	A	A	A	A	E A 230	228	220		E B 256	E A 294
12	E A 322	E B 262	E B 282	E B 248	E A 276	E A 246	222	204		A	E A 254	222	182	226		A	A	A	A	A	A	224		A	E A 242	E A 270	E B 282
13	E B 276	E A 266	E A 268	E B 288	E B 258	E A 242	214	214	198	182	198	198		A		222	194		A	A		204		A	218	E A 242	E A 262	E B 236	228
14	232	E A 310	E A 316	E A 286	E A 260	E A 242	222	198		A	202		A	A		A		224		A	212	216		A	E A 246	E A 250	E A 250	E B 260	E A 262
15	E B 252	E B 272	E A 280	E A 246	E A 254	230	210	212	204	194		A	A		A	E A 300		A	A	A	A	A		218	E A 238	E A 242	E A 262	E A 246	E B 270
16	E B 272	E B 252	E B 268	224		E A 266	206		A	190	196		A	206	228	E A 266		A	A	A	A	A	A	E A 296	226	214	E A 276	228
17	E B 238	E B 252	E B 248	E B 280	E B 270	E B 238	214	226	206		A	A	A	A	A	A	A	216		A	A	E A 270	E A 302	E A 242	E A 310	E A 248
18	E A 280	E A 290	E A 292	E A 278	E A 268	E A 278	210	216		A	A	A	A		A	200	E A 268		A	210	220	230	E A 268	E A 252	E A 260	208	E A 242
19	E A 348	E A 296	E B 248	E A 296	E A 238	E A 254	214	200	200	190	206	210	190	196		A	A	206		A	A	E A 258	216	E B 244	E A 246	230
20	E A 284	E A 272	230	198	E B 234	E B 244	218	210		A	204		A	A	A	212	198	216	220		A	A	228	204	216		A	E A 298
21	E A 274	E B 284	E A 258	232	E B 236	236	212	202	194		A	A	196	200	208	214	204	214	212	214	206	202	224		A	E A 310	
22	A	214	E A 302	E A 260	E A 258	E A 246	188	202	208	210	206		A	A	206	E A 264	A	A	A	A	226	220	218	218	222		
23	230	E A 240	E A 236	E A 262	E A 246	E A 246	A	A	208	218	174	206	226	194	206		A	A	A	238	218	202	E A 236	222	E B 250		
24	E B 266	E A 280	E B 264	E A 258	234	E A 254	208	208	184	168		A	A	212	196	222	202	216	240	218	210	208	208	E A 270	E B 298		
25	E B 262	E A 242	E A 294	E A 306	E B 290	E A 254	224		A	204	204	182	210		A	A	A	A	A	A	A	234	E A 272	E A 316		A	E A 322	
26	A	E A 276	E A 264	E A 278	E B 238	230		A	A	202		A	182	198	E A 250	A	A	A	A	A	A	218	224	E A 236	E A 248	E A 304		
27	E A 264	E B 260	E B 274	E B 278	E B 276	E B 254	216	214	210		A	A	A	A	A	A	A		218	224	234	232	E A 292	E A 268	E A 258	E A 290		
28	E A 280	E A 284	E A 238	E B 256	E B 278	E B 246	214	198		A	A	A	A		198	194		A	A	A	A	230	232	E A 256	E A 242	E A 244		
29	220	E B 254	E B 256	E B 248	E B 258	E B 258	222	202	196	198		A	A	204		A	188	212	224	224		A	232	210	208	E A 238	E A 264		
30	228	E A 258	E A 300	E A 272	E A 280	E A 236	210	216		A	A	A	A		A	A	208	222	216	230		A	220	198	194	E A 248	232		
31	E A 324	E A 306	E B 260	E A 262	218	218	216		A	A	A	A	A		A	A	A	210	208		A	A	E A 260	200	186	E A 232	E A 276		
	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	31	30	30	31	30	26	21	16	17	13	14	16	19	14	11	16	13	12	31	30	30	28	31
MED	E 276	E 272	E 268	E 259	E 250	E 241	214	208	203	197	192	205	205	205	206	212	211	216	220	224	213	E 242	E A 257	E A 270
U Q	E A 293	E A 286	E A 282	E A 278	E A 268	E A 248	222	214	208	204	206	210	226	214	222	222	216	224	230	E A 246	E A 242	E A 262	E A 274	E A 294
L Q	257	E 252	E B 250	248	234	228	210	202	197	192	182	198	202	198	198	204	205	206	216	220	210	218	240	244

AUG. 2010 h'F (KM)

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 h′E (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						B	A	A	A	A	A	A	A	120	A	114	116	A	A					
2						B	118	A	A	A	118	A	A	A	A	A	A	116	A					
3						B	A	A	A	A	A	128	126	118	118	118	120	120	B					
4						A	116	120	118	118	118	118	118	118	118	118	118	118	B					
5						B	120	118	118	116	A	A	A	A	116	120	120	A	A					
6						B	124	114	A	122	A	A	A	A	A	A	A	A	122					
7						A	A	A	A	A	A	A	122	118	114	A	A	A	B					
8						B	112	A	A	A	A	A	A	A	A	A	A	A	B					
9						B	A	A	A	A	A	A	A	A	120	120	A	A	B					
10						B	120	A	A	A	A	A	A	A	A	A	120	120	A					
11						C	C	C	C	C	C	C	112	112	120	A	124	A	B					
12						B	A	A	A	A	A	A	A	A	114	A	120	A	B					
13						B	118	112	116	A	116	A	A	114	A	A	A	A	B					
14						B	118	120	A	120	A	A	A	A	A	A	A	A	A					
15						B	120	120	122	122	122	A	A	A	122	A	A	A	130					
16						B	A	A	A	A	A	A	A	A	A	A	A	A	A					
17						B	122	116	A	A	A	A	A	A	A	A	A	A	A					
18						B	116	122	A	A	A	A	A	A	A	A	A	A	A					
19						B	120	114	A	A	A	A	A	118	A	A	118	A	B					
20							118	118	A	A	A	A	A	A	A	A	A	A	A					
21						B	A	A	A	A	A	A	A	A	120	120	118	A	A					
22						B	A	118	A	A	A	A	A	122	122	A	A	A	B					
23						B	A	A	A	A	A	A	A	120	120	A	A	A	A					
24						B	A	A	A	118	A	A	A	A	A	A	118	118	B					
25						B	A	A	A	A	A	A	118	124	A	A	A	A	A					
26						B	124	A	A	A	A	118	116	118	116	122	A	A	A					
27							A	A	A	A	A	A	A	A	A	A	A	112	B					
28							114	A	A	A	A	A	A	118	112	A	A	A	A					
29						B	A	A	A	A	A	A	A	A	A	114	A	A	A					
30						B	A	A	A	A	A	A	A	A	A	116	118	114	B					
31						B	A	A	A	A	A	A	A	A	A	A	110	A	A					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT							15	11	4	6	4	3	6	12	13	9	12	7	2					
MED							118	118	118	119	118	118	118	118	118	118	118	118	126					
U Q							120	120	120	122	120	128	122	120	120	120	120	120						
L Q							116	114	117	118	117	118	116	118	115	115	118	114						

AUG. 2010 h′E (KM)

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 h'Es (KM) 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0'N LON.139°29.0'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	92	102	102	108	106	106	106	104	104	104	104	108	108	106	92	130	120	104	104	102	108	94	96	94
2	98	92	88	90	100	110	114	106	106	106	118	108	104	104	104	106	106	122	110	104	104	100	100	106
3	102	102	96	96	94	106	102	104	100	100	98	G	G	136	G	G	100	114	118	B	104	104	98	100
4	96	102	B	100	100	B	G	104	100	100	100	102	G	G	G	98	G	104	114	B	B	114	98	98
5	94	110	B	108	B	B	120	122	128	112	104	110	110	104	126	102	108	104	108	102	100	102	100	100
6	92	B	B	B	B	B	142	94	102	124	104	102	100	102	100	96	98	102	114	110	102	104	104	102
7	102	96	88	94	96	104	106	106	102	98	100	98	132	116	122	116	102	104	104	104	96	94	98	104
8	96	92	92	94	118	122	116	104	96	96	98	98	98	96	98	102	104	106	104	100	98	98	98	98
9	98	98	98	108	112	112	104	104	102	102	102	96	96	100	124	126	104	104	104	100	100	98	98	98
10	98	94	96	96	92	96	114	106	104	100	102	102	98	94	94	94	126	120	104	104	100	102	92	98
11	104	98	B	B	96	C	C	C	C	C	C	C	G	G	118	102	118	102	102	100	100	100	102	100
12	100	100	100	110	96	96	96	100	102	102	96	96	98	114	112	108	110	116	86	84	100	100	100	98
13	98	96	96	94	94	114	G	112	98	96	100	112	102	100	96	102	96	98	96	100	94	92	108	96
14	102	98	94	92	96	94	116	134	108	120	104	104	102	102	102	96	96	96	94	88	88	92	90	98
15	102	102	100	96	96	98	122	116	102	114	116	106	112	104	116	106	104	104	106	104	102	100	98	96
16	94	94	106	B	110	110	104	98	104	108	104	108	104	108	96	100	98	94	92	90	90	90	90	90
17	100	B	96	102	100	B	120	118	106	104	104	104	102	106	102	100	102	118	102	90	100	98	108	106
18	94	94	94	92	92	90	118	122	104	104	98	102	104	100	108	110	110	110	104	96	94	96	94	94
19	96	96	98	98	98	104	112	114	102	100	100	100	102	104	102	114	122	106	106	98	B	96	100	102
20	94	98	100	102	104	100	126	120	102	98	96	96	96	96	98	96	92	112	100	104	106	102	98	98
21	96	96	96	98	102	98	106	104	102	102	100	106	110	104	126	122	116	108	106	102	100	104	100	96
22	96	98	96	92	96	96	96	116	104	102	100	100	108	128	124	110	106	106	102	102	100	B	B	102
23	96	96	96	96	100	100	114	104	106	98	100	104	106	126	120	106	100	100	96	96	96	96	100	100
24	96	90	B	90	106	100	100	100	100	96	100	102	100	98	94	98	124	114	114	100	100	B	100	100
25	100	98	98	96	98	106	106	100	102	102	102	102	144	120	110	108	102	106	104	104	104	100	100	100
26	100	96	98	110	96	98	122	104	102	102	104	108	120	116	116	120	108	96	98	102	96	92	96	94
27	94	108	102	B	B	102	102	104	102	102	100	98	98	94	94	96	98	116	108	114	104	104	100	98
28	96	96	100	B	B	102	116	102	100	96	92	92	92	98	104	108	106	104	102	96	98	100	98	94
29	90	100	100	104	B	98	106	104	102	106	98	96	102	100	100	100	100	98	92	90	90	88	94	98
30	94	96	96	96	98	102	102	108	100	100	100	96	96	92	92	98	116	110	104	102	96	98	98	98
31	98	98	100	94	108	96	108	104	100	98	98	98	98	100	100	102	102	104	96	98	94	94	90	92
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	29	26	26	26	26	28	30	30	30	30	29	28	29	29	30	30	31	31	29	29	29	30	31
MED	96	98	97	96	98	101	110	104	102	102	100	102	102	104	102	102	104	104	104	100	100	98	98	98
U Q	100	100	100	102	104	106	117	114	104	104	104	106	108	111	117	110	110	112	106	104	102	102	100	100
L Q	94	96	96	94	96	98	104	104	100	98	98	98	98	99	97	98	100	102	98	96	96	94	96	96

IONOSPHERIC DATA STATION Kokubunji

AUG. 2010 TYPES OF Es 135°E MEAN TIME (G.M.T. + 9 H)

LAT.35°43.0′N LON.139°29.0′E SWEEP 1.0MHz TO 30.0MHz IN 15.0SEC IN MANUAL SCALING

D \ H	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F3	F2	F2	F2	F6	L2	L3	L2	L3	L2	L2	L2	L2	CL12	L2	CL12	CL21	L2	L4	F3	F5	F4	F3	F3
2	F2	F2	F3	F2	F1	L2	C2	L3	L2	L2	CL21	L2	L2	L2	L2	L2	L2	CL22	L2	F4	F4	F4	F3	F3
3	F2	F2	F2	F2	F1	L2	L2	L3	L3	L2	L2			H2			L2	CL22	CL22		F3	F2	F2	F2
4	F3	F2		F1	F3			L2	L2	L2	L2	L2				L2		L2	C2			F2	F3	F4
5	F2	F2		F2			C3	CL22	CL22	CL32	L2	L2	L2	L2	CL12	L2	CL22	L2	L2	F2	F2	F3	F3	F3
6	F3						HL11	L2	L2	C2	L2	L2	L2	L2	L2	L3	L3	L2	C2	F3	F3	F6	F2	F3
7	F2	F2	F2	F3	F3	L2	L3	L2	L2	L2	L3	L2	HL12	CL12	CL22	CL32	L3	L3	L4	F3	F2	F4	F3	F3
8	F3	F2	F3	F3	F2	C1	C3	L2	L3	L3	L2	L2	L2	L3	L2	L2	L2	L4	L2	F3	F3	F4	F3	F4
9	F4	F2	F2	F2	F1	C2	L2	L2	L2	L2	L2	L2	L3	L2	CL22	CL32	L3	L4	L3	F5	F3	F3	F3	F3
10	F2	F3	F2	F2	F2	L2	C2	L3	L4	L3	L2	L2	L2	L2	L3	L2	CL11	CL21	L3	F3	F3	F3	F2	F2
11	F3	F3			F3										CL22	L2	CL22	L2	L4	F3	F5	F3	F3	F3
12	F5	F2	F3	F3	F3	L3	L3	L2	L2	L3	L2	L2	L2	CL22	CL32	L3	CL32	CL22	L3	F3	F3	F3	F2	F2
13	F2	F2	F2	F2	F2	C4		C3	L2	L2	L2	CL12	L3	L2	L2	L2	L4	L2	L2	F2	FF33	F4	F2	F3
14	F2	F3	F5	F2	F2	L3	CL22	CL22	L2	CL22	L2	L2	L3	L2	L2	L3	L2	L2	L3	F3	F3	F3	F2	F3
15	F2	F2	F4	F3	F4	L3	C2	CL22	L2	CL11	CL22	L3	CL12	L2	C2	L2	L2	L3	L2	F3	F4	F3	F2	F2
16	F2	F1	F1		F2	L3	L3	L3	L2	L2	L3	L2	L2	L2	L3	L3	L3	L4	L4	F4	F3	F3	F3	F4
17	F2		F2	F1	F1		C2	CL22	L2	L2	L2	L2	L2	L2	L3	L3	L2	CL22	L2	F3	FF24	F4	F5	F3
18	F5	F3	F5	F3	F3	L2	C2	CL21	L2	L3	L3	L2	L2	L2	L2	L2	L2	L2	L4	F4	F4	F3	F2	F3
19	F5	F3	F3	F4	F3	L1	C2	C2	L2	L2	L2	L2	L2	L2	L2	CL22	CL22	L3	L4	F3		F2	F2	F3
20	F2	F4	F2	F3	F2	L2	C2	CL22	L2	L2	L3	L3	L2	L2	L2	L2	L3	CL23	L3	F5	F2	F3	F5	F3
21	F3	F2	F3	F2	F2	L2	L2	L2	L2	L2	L2	L2	L2	L2	CL12	CL22	CL12	L2	L3	F3	F3	F3	F5	F3
22	F6	F3	F3	F4	F3	L4	L5	CL12	L2	L2	L2	L3	L2	CL22	C2	L2	L3	L3	L3	F3	F4			F3
23	F2	F3	F2	F3	F3	L2	CL22	L3	L2	L2	L2	L2	L2	CL11	CL11	L2	L3	L3	L5	F3	F3	F3	F3	F2
24	F2	F4		F2	F1	L3	L3	L2	L2	L2	L2	L2	L2	L2	L2	L2	CL12	CL22	CL22	F3	F3		F3	F4
25	F3	F3	F3	F2	F1	L3	L3	L3	L2	L2	L2	L2	HL12	CL22	L2	L2	L2	L3	L3	F6	F5	F4	F6	F4
26	F3	F4	F3	FF32	F2	L2	C3	L3	L2	L3	L2	L2	CL22	CL22	CL22	CL22	L3	L4	L4	F2	F3	F3	F3	F4
27	F2	F2	F2			L2	L4	L2	L3	L3	L3	L3	L3	L3	L3	L2	L2	CL22	C3	F6	F3	F3	F3	F3
28	F3	F3	F2			L2	C2	L2	L2	L4	L3	L2	L2	L2	L2	L2	L2	L3	L5	F3	F5	F3	F3	F3
29	F4	F2	F2	F2		L1	L3	L2	L2	L2	L2	L2	L2	L2	L2	L2	L2	L2	L3	F4	F3	F4	F5	F3
30	F4	F3	F3	F3	F4	L2	L2	L2	L2	L3	L2	L2	L3	L3	L2	L2	CL12	CL22	L2	F3	F1	F2	F3	F4
31	F4	F3	F2	F3	FF23	L3	L3	L3	L3	L3	L2	L2	L2	L2	L2	L2	L2	CL22	L4	F4	F2	F1	F4	F2
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
U Q																								
L Q																								

AUG. 2010 TYPES OF Es

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY, JAPAN

f-PLOTS OF IONOSPHERIC DATA

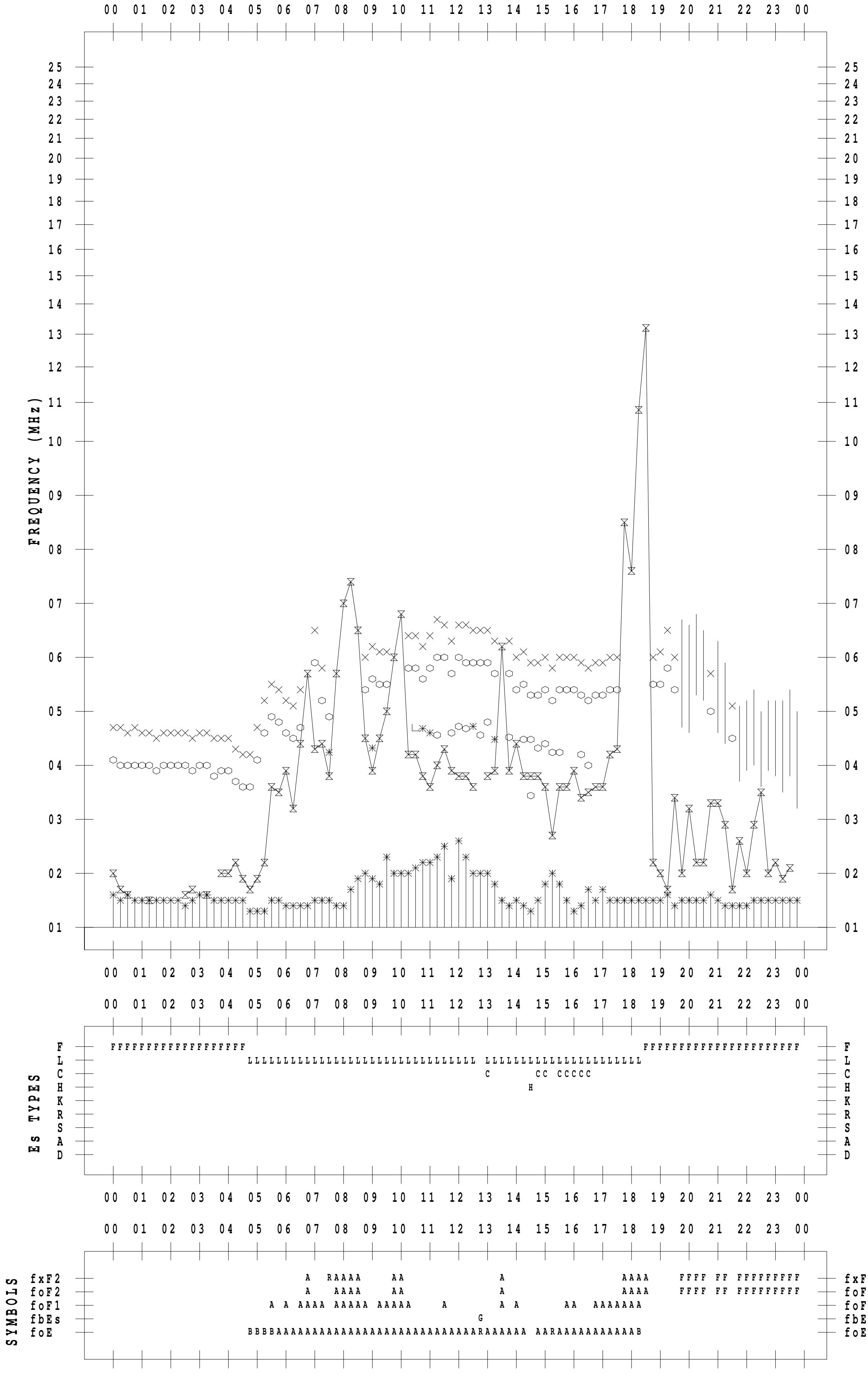
KEY OF f-PLOT	
	SPREAD
	foF2,foF1,foE
	fxF2
	DOUBTFUL foF2,foF1,foE
	fbEs
	ESTIMATED foF1
	fmin
	GREATER THAN
	LESS THAN

f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji DATE : 2010/ 8/ 1

135 °E MEAN TIME



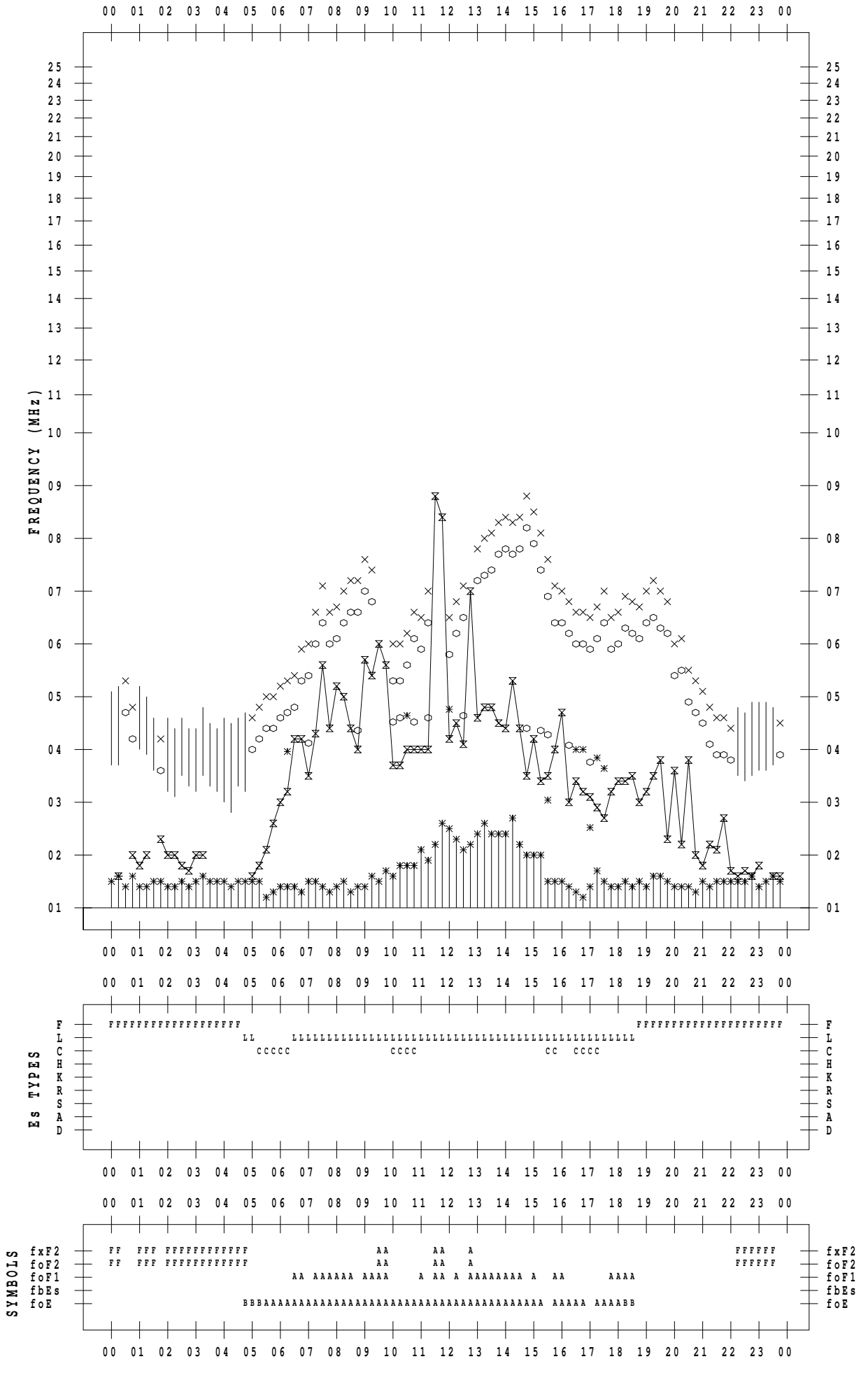
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 2

135 °E MEAN TIME



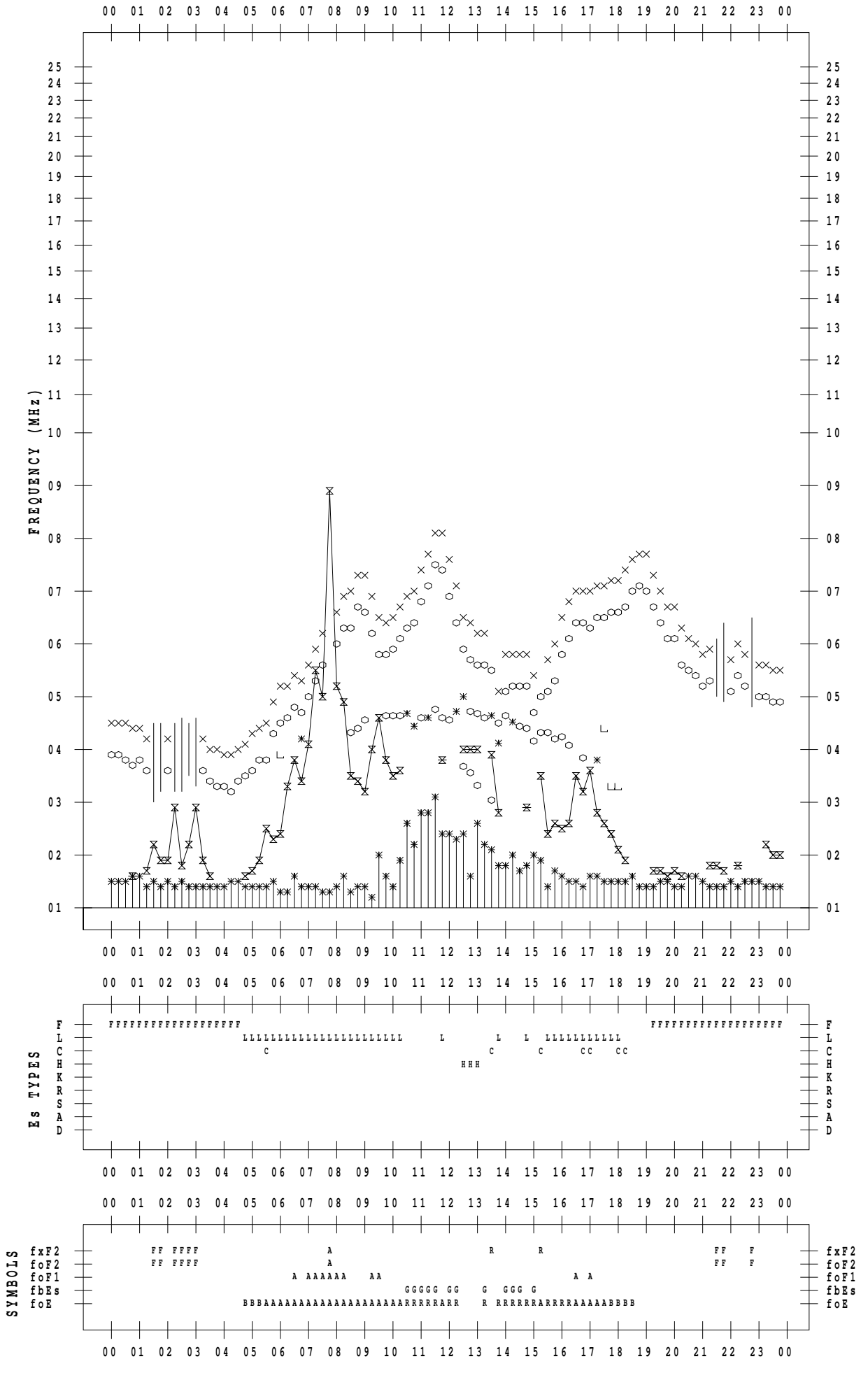
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 3

135 °E MEAN TIME



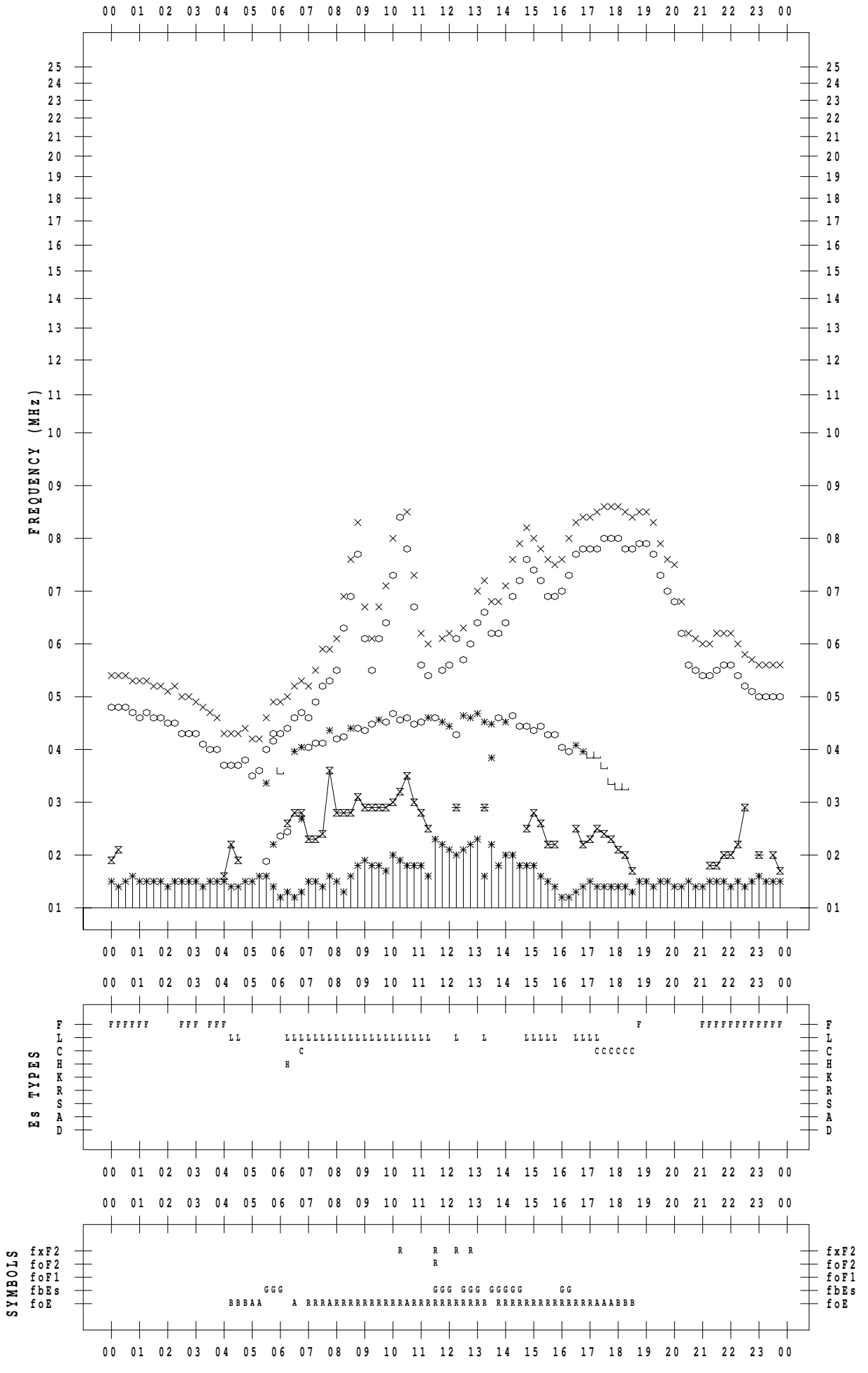
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 4

135 °E MEAN TIME



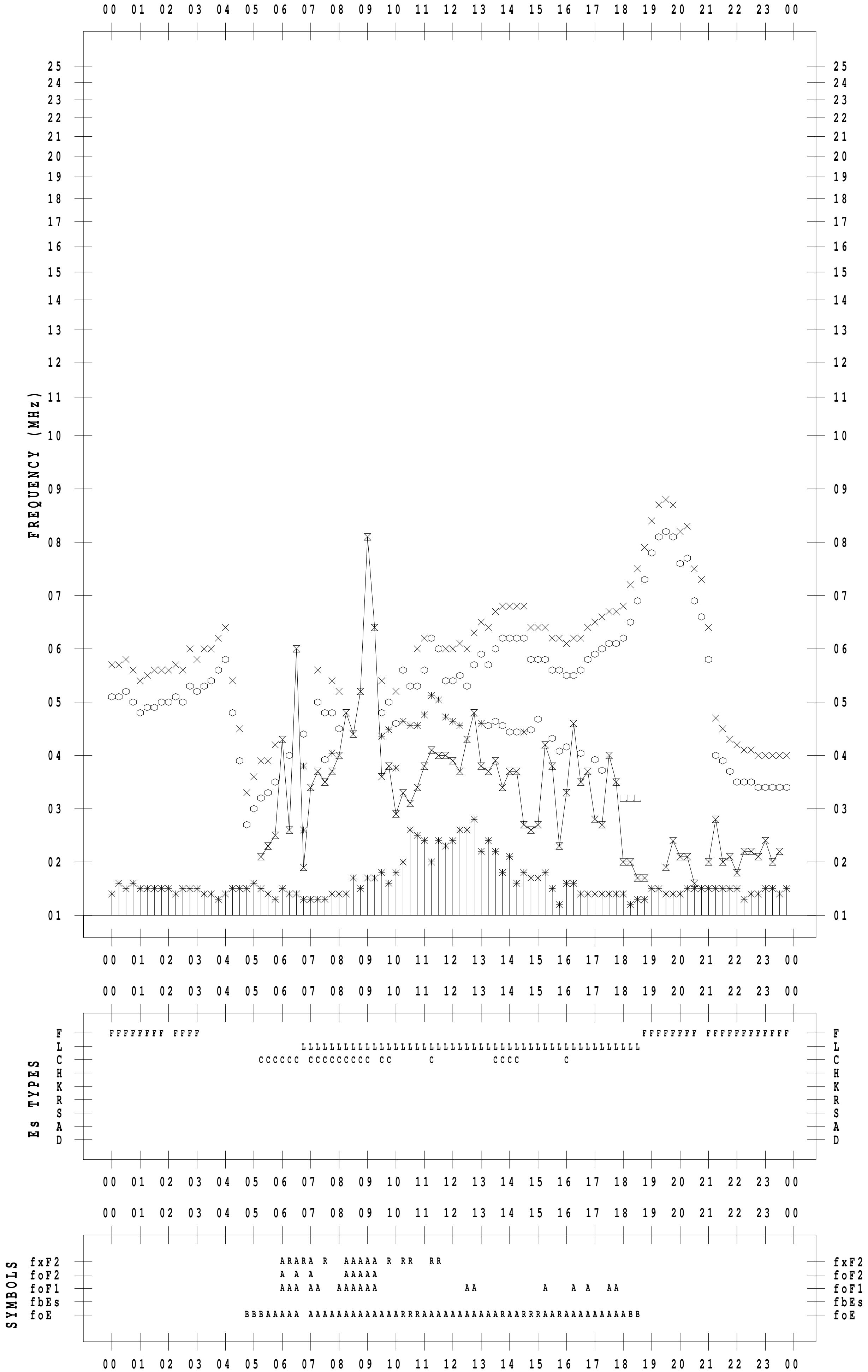
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 5

135 °E MEAN TIME



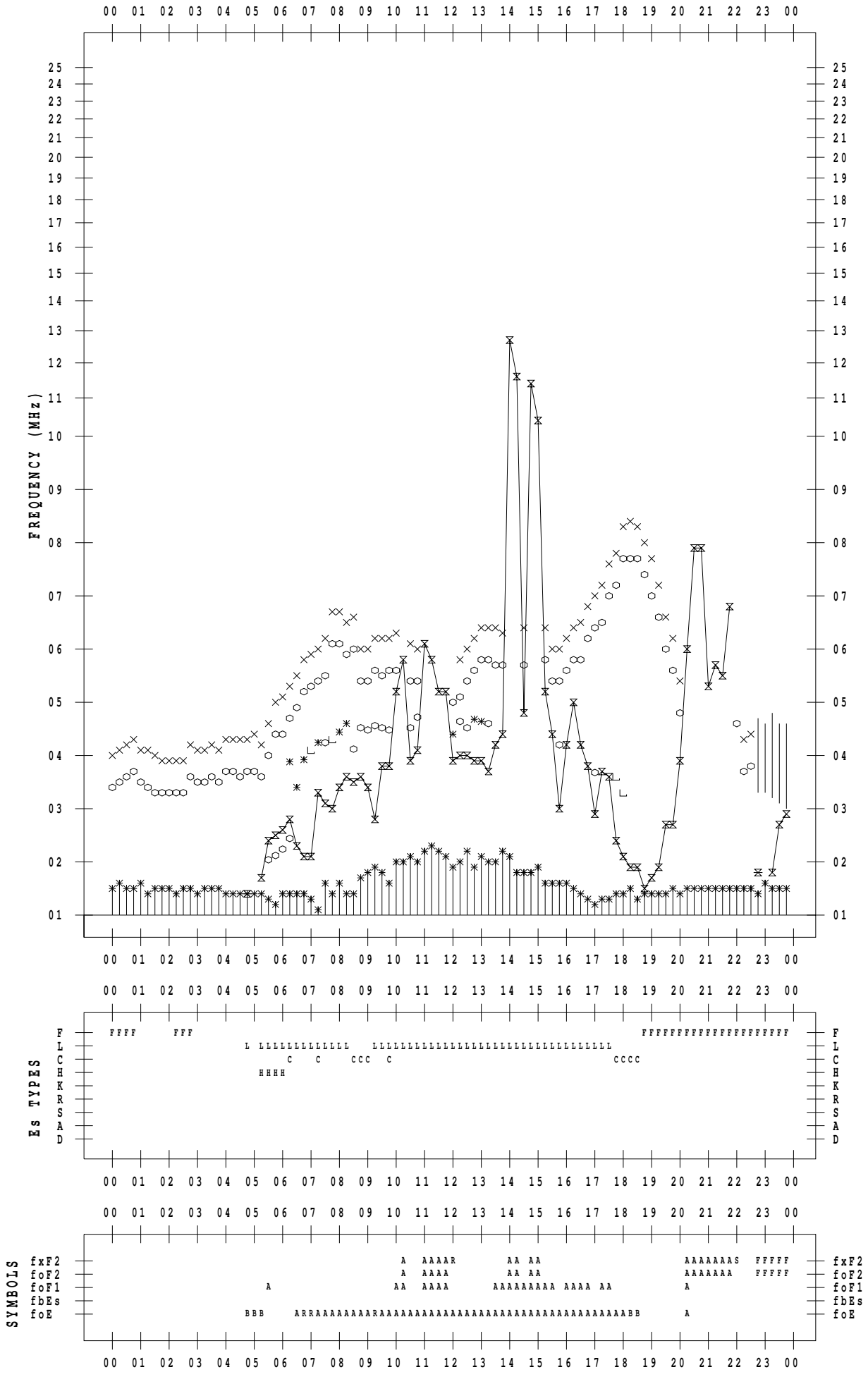
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 6

135 °E MEAN TIME



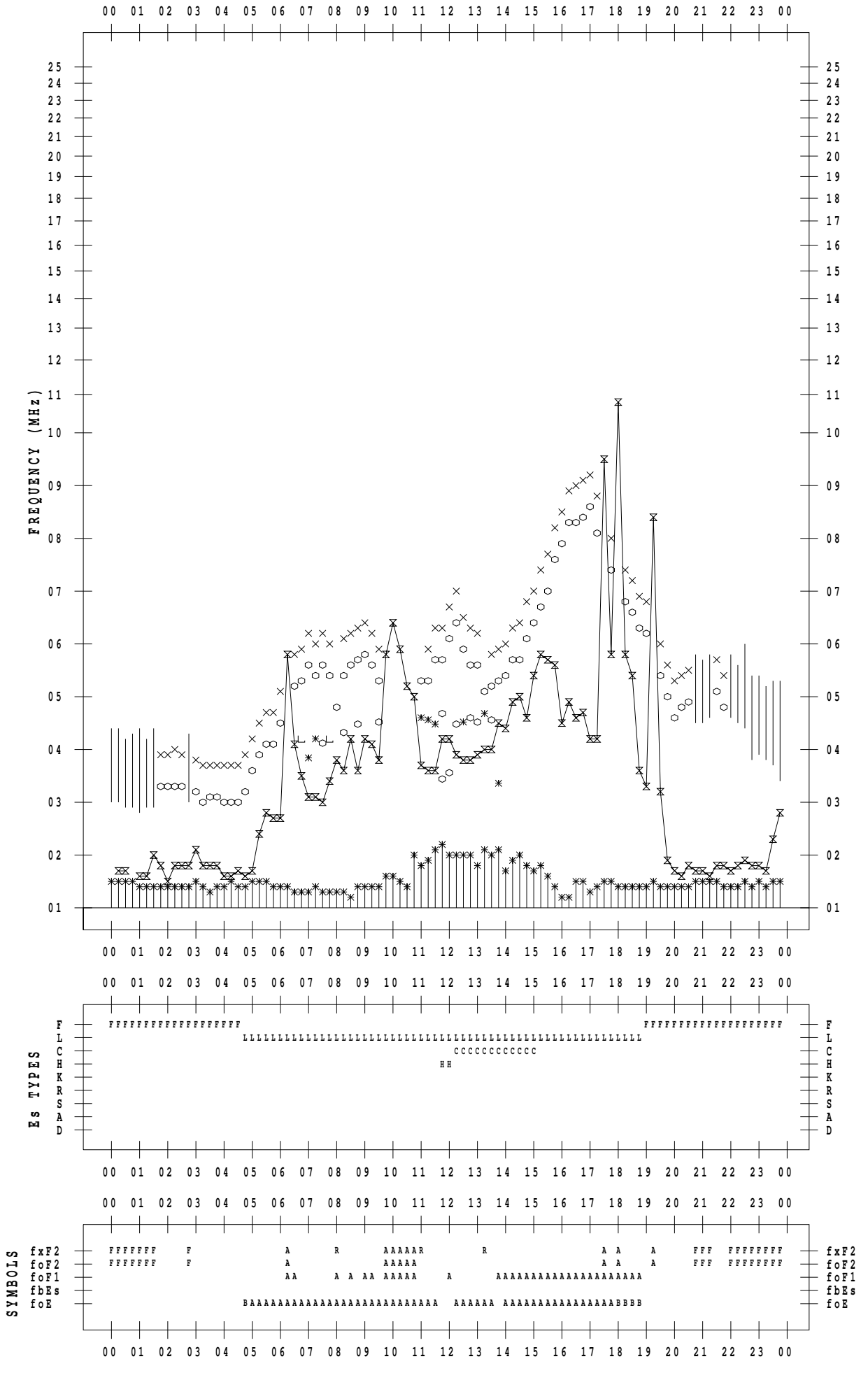
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 7

135 °E MEAN TIME



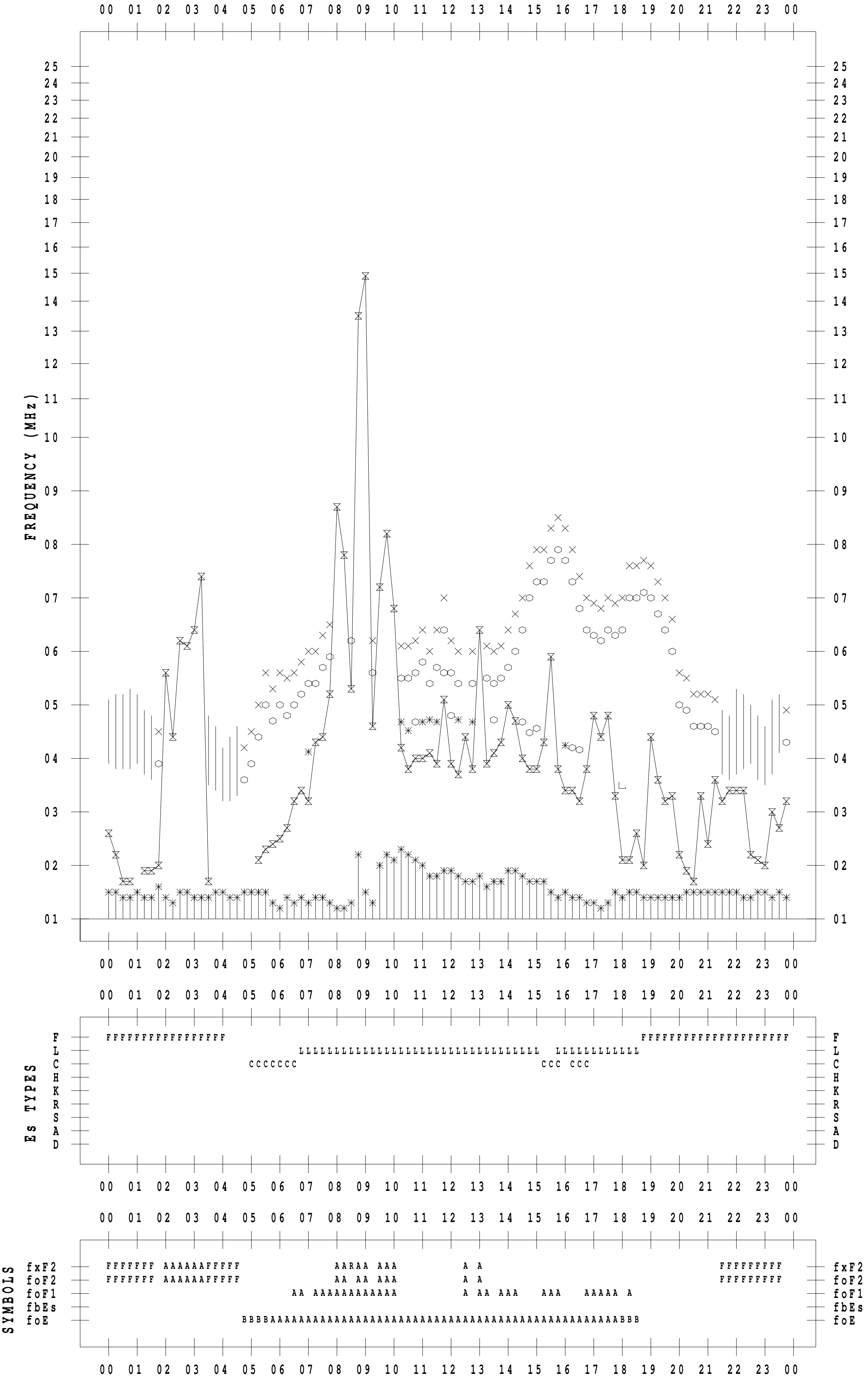
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 8

135 °E MEAN TIME



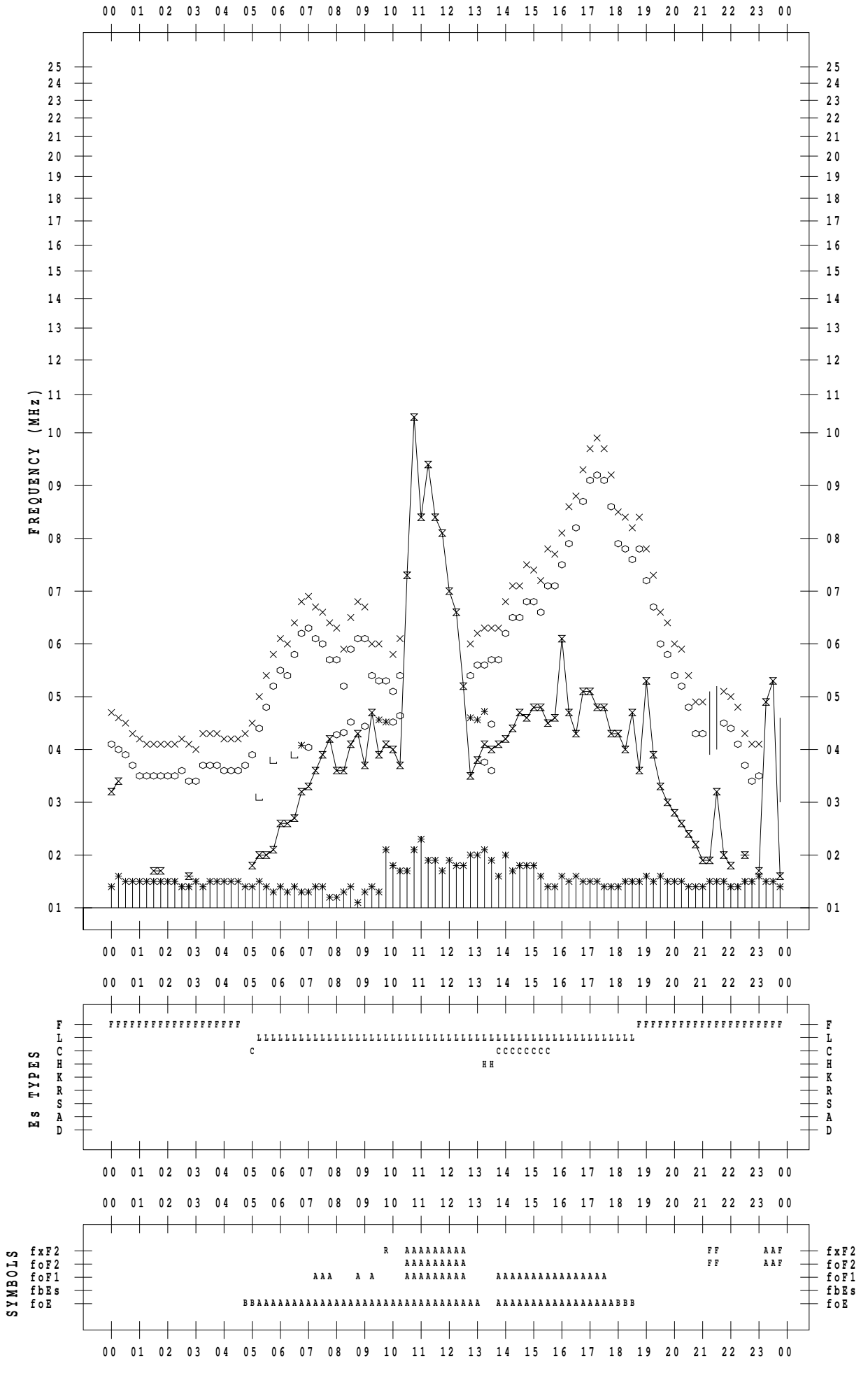
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/ 9

135 °E MEAN TIME



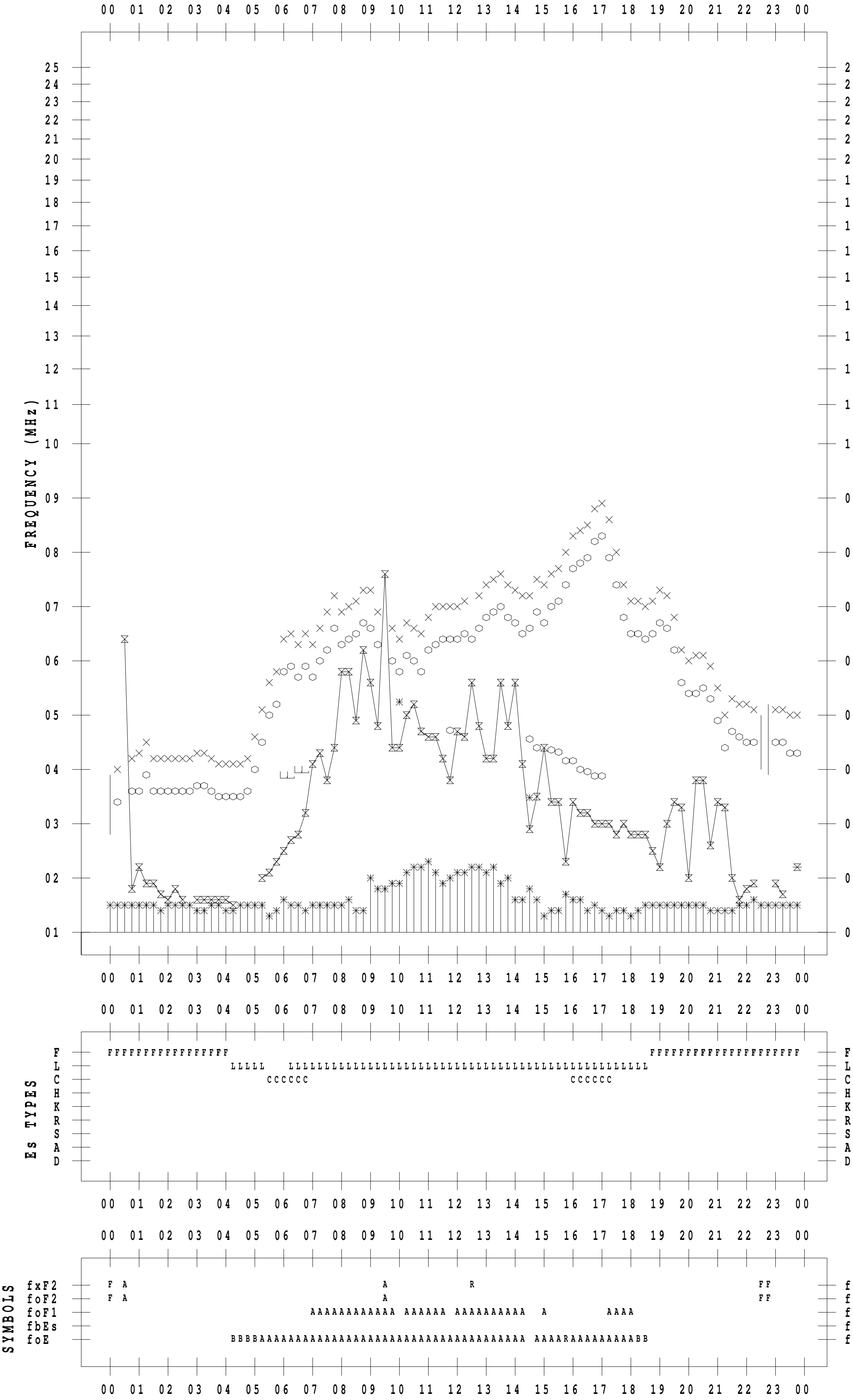
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/10

135 °E MEAN TIME



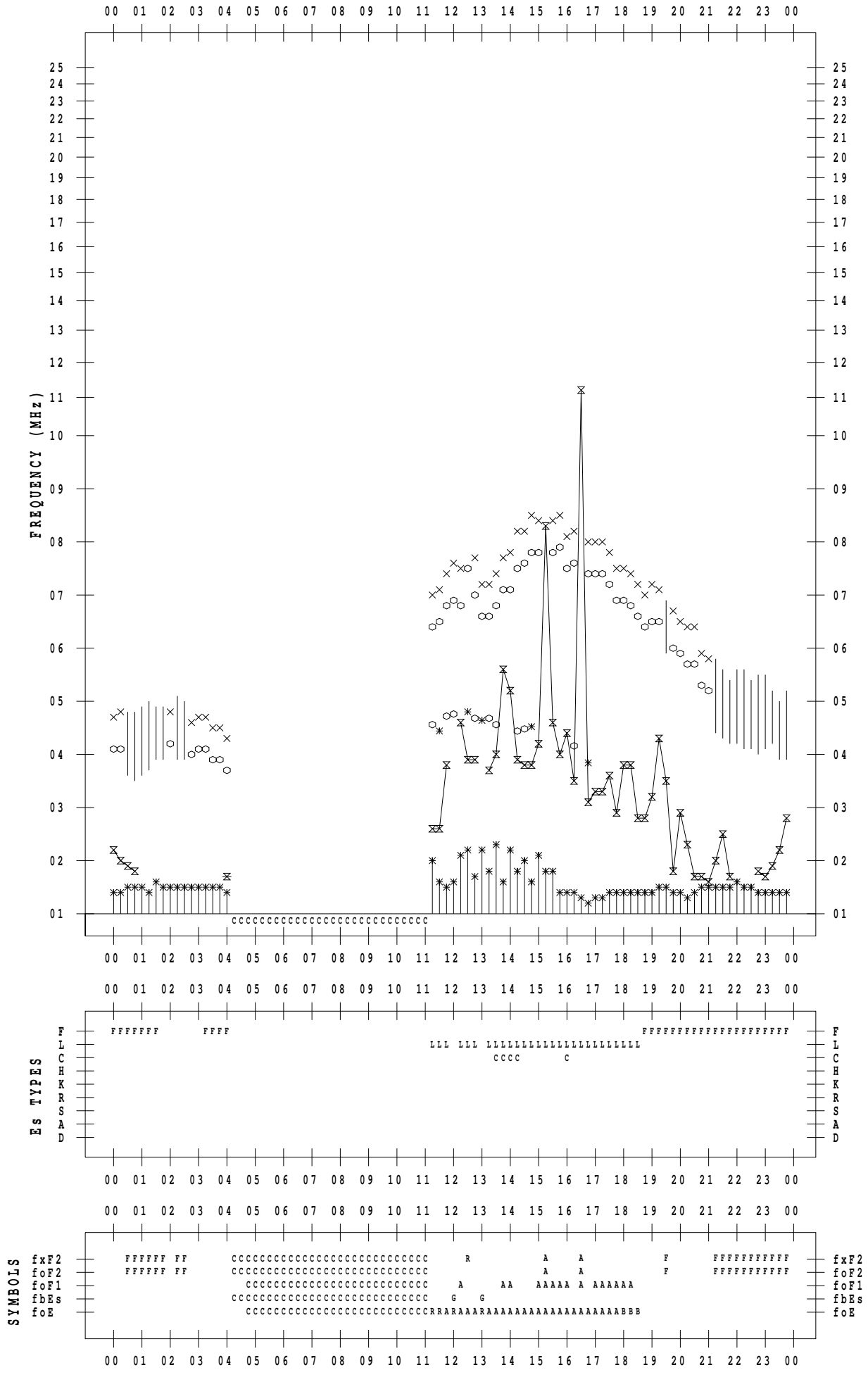
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/11

135 °E MEAN TIME



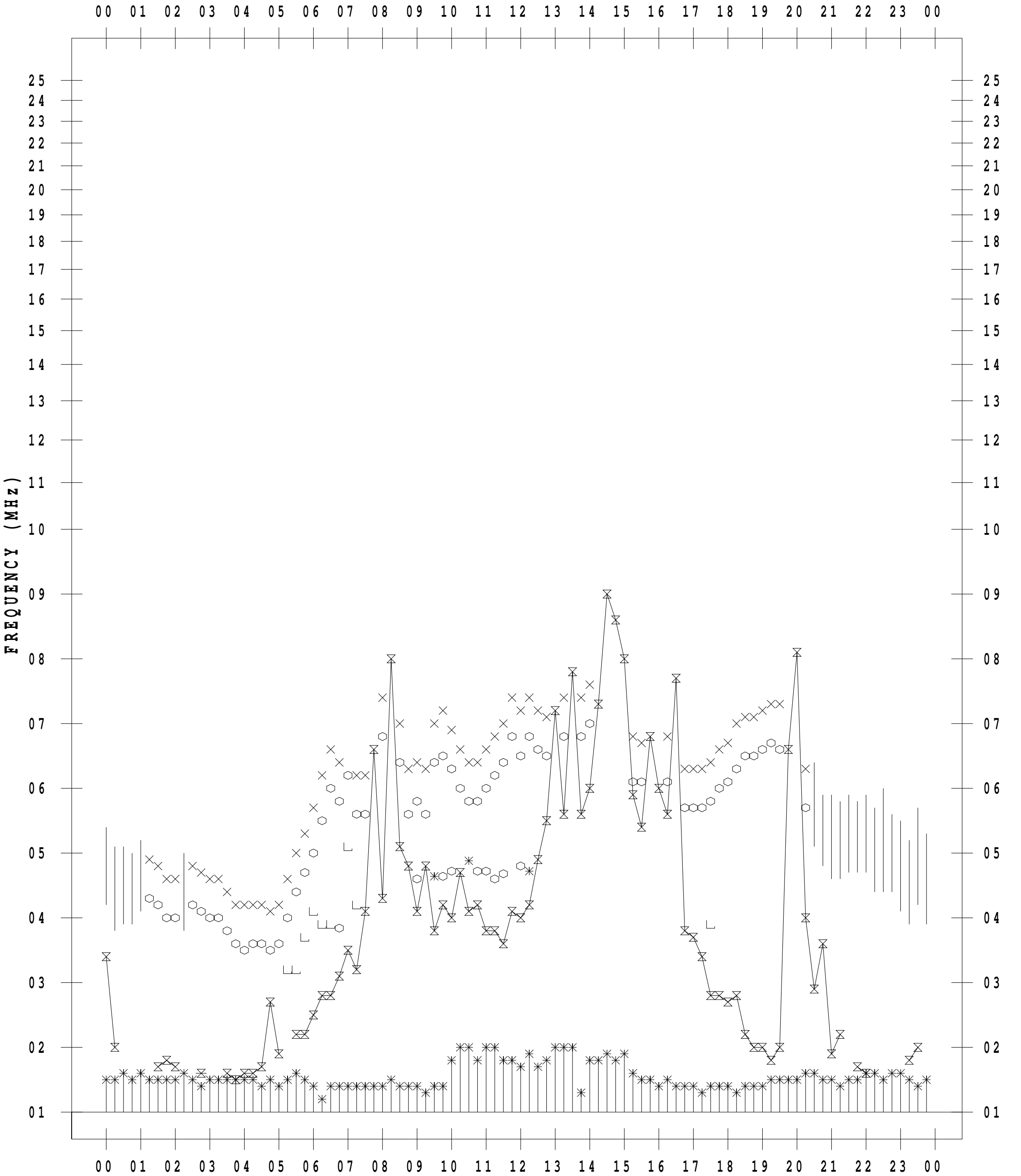
f-PLOT DATA

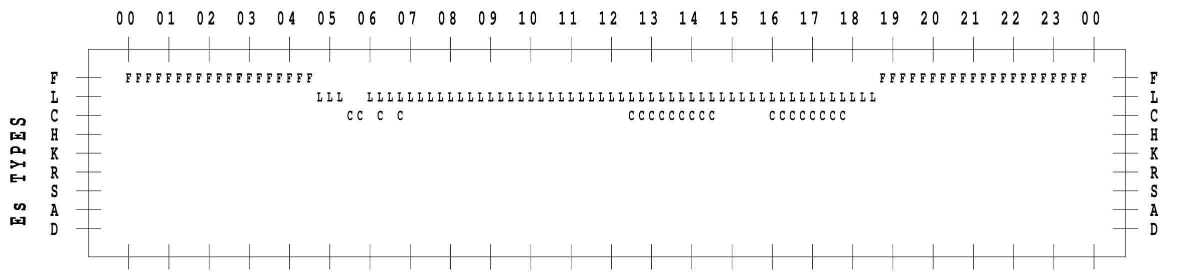
SCALER : I.NISHIMUTA

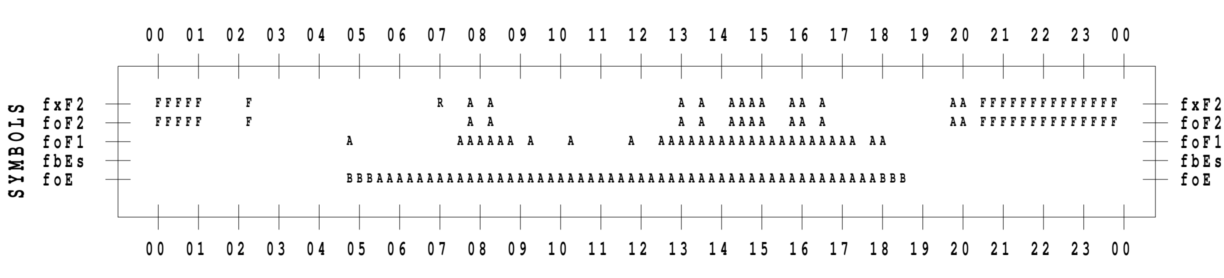
STATION : Kokubunji

DATE : 2010/ 8/12

135 °E MEAN TIME







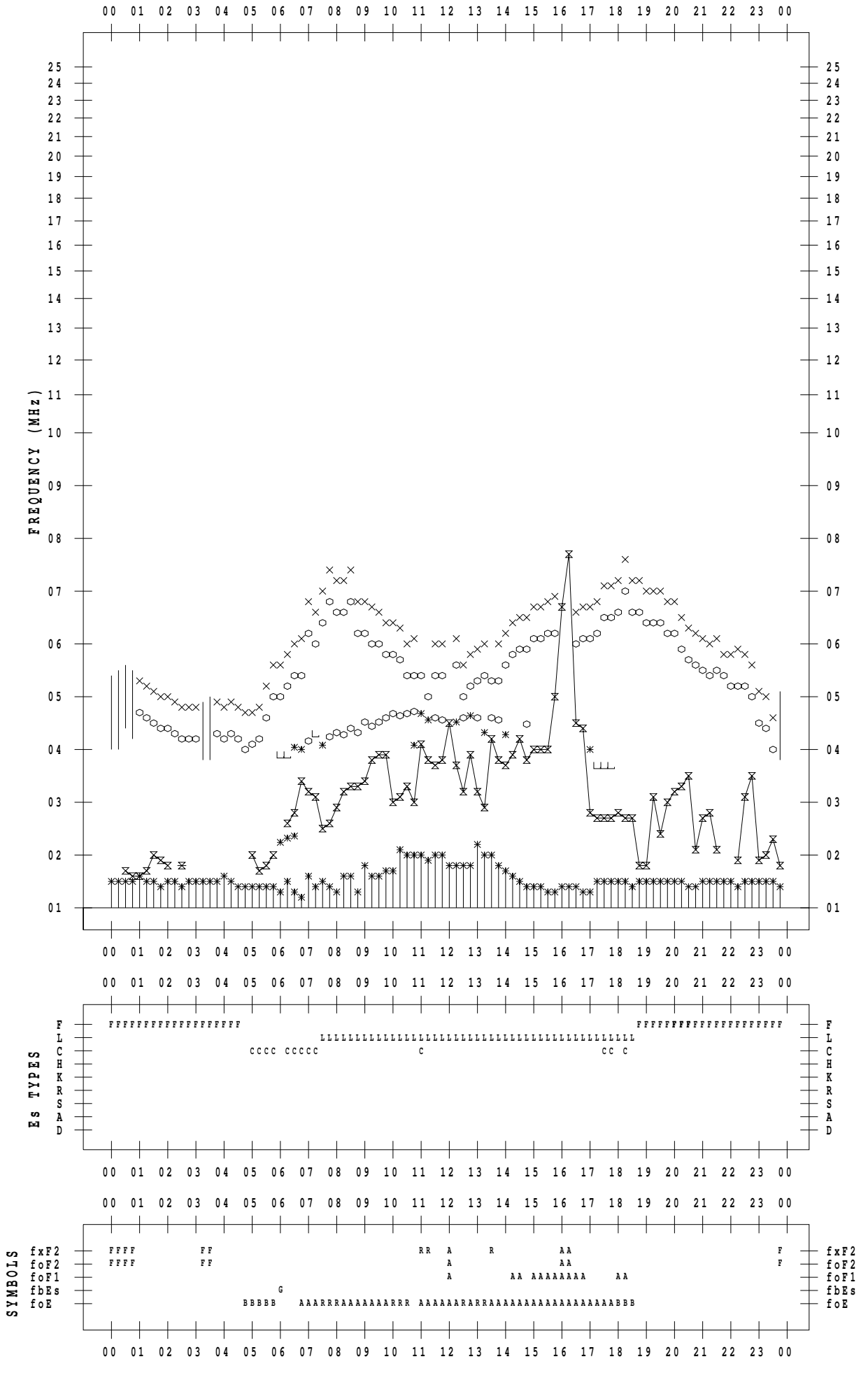
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/13

135 °E MEAN TIME

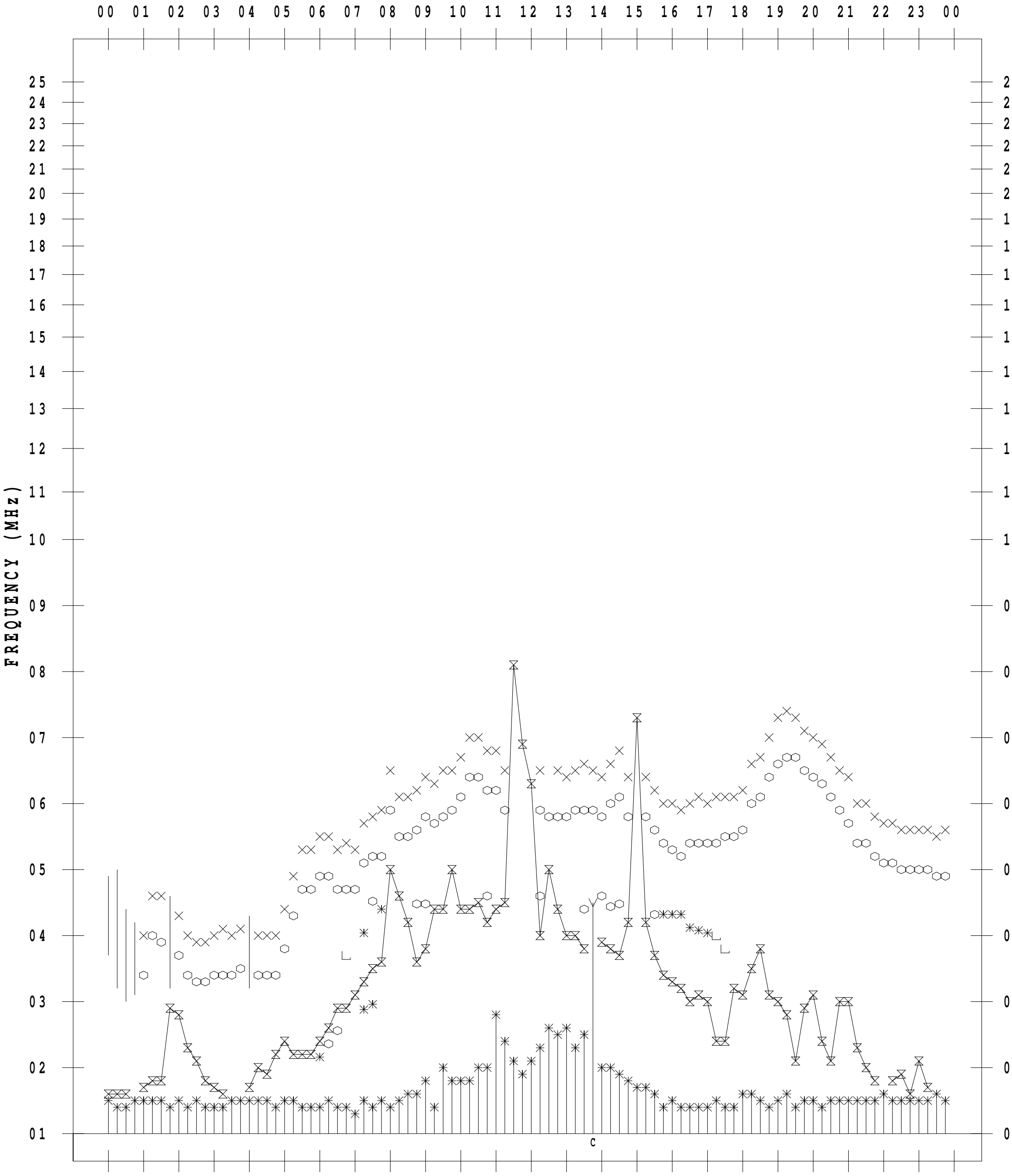


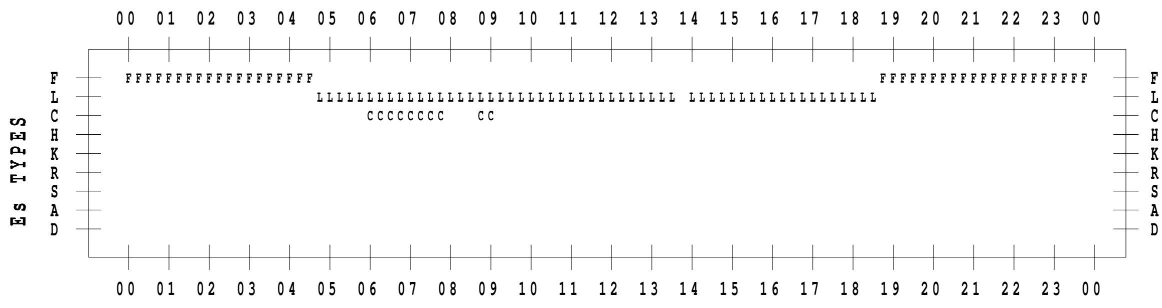
f-PLOT DATA

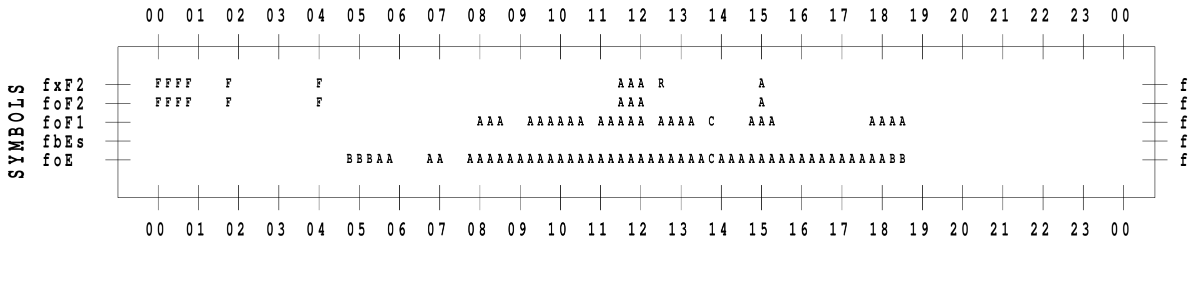
SCALER : I.NISHIMUTA

STATION : Kokubunji DATE : 2010/ 8/14

135 °E MEAN TIME







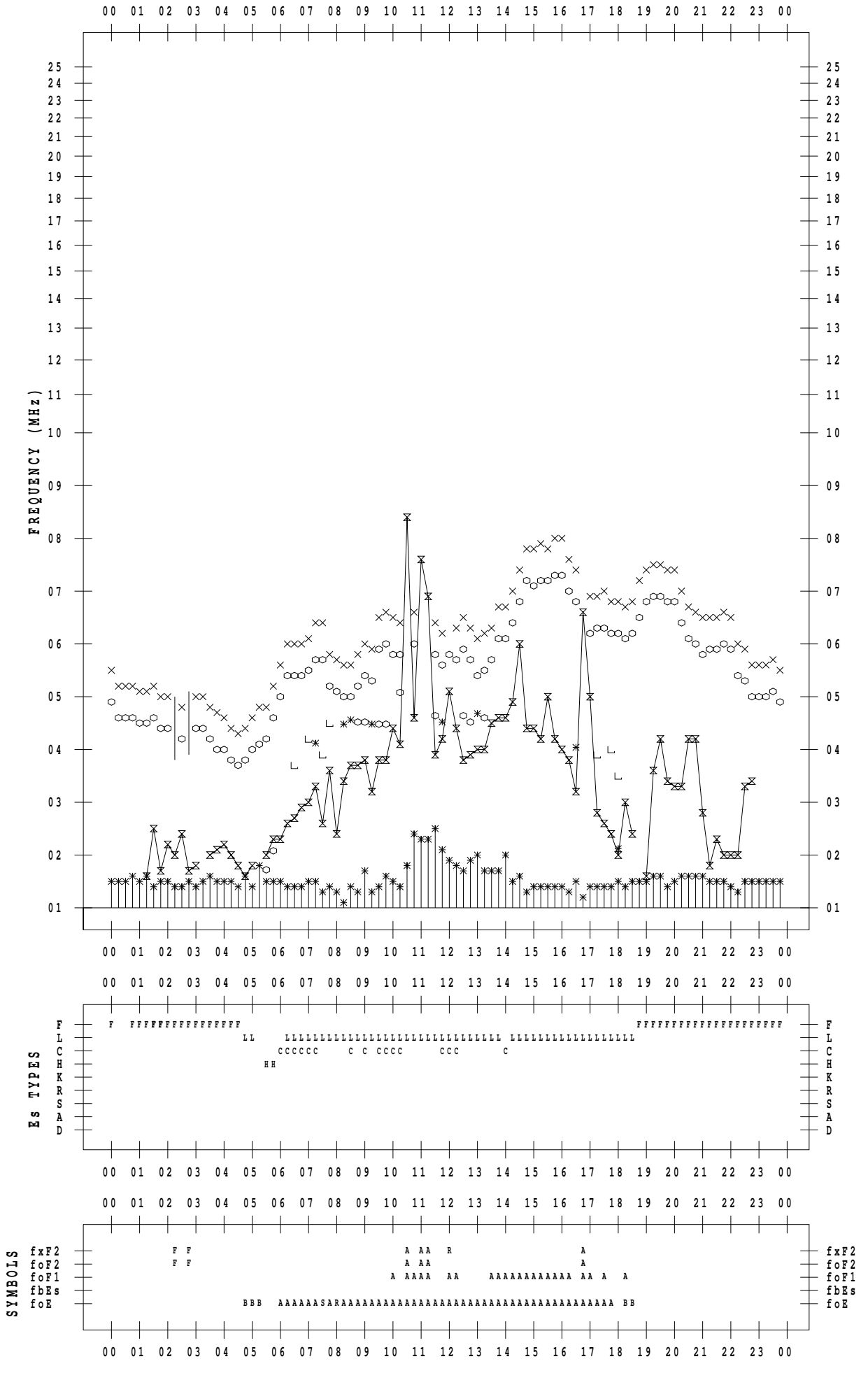
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/15

135 °E MEAN TIME



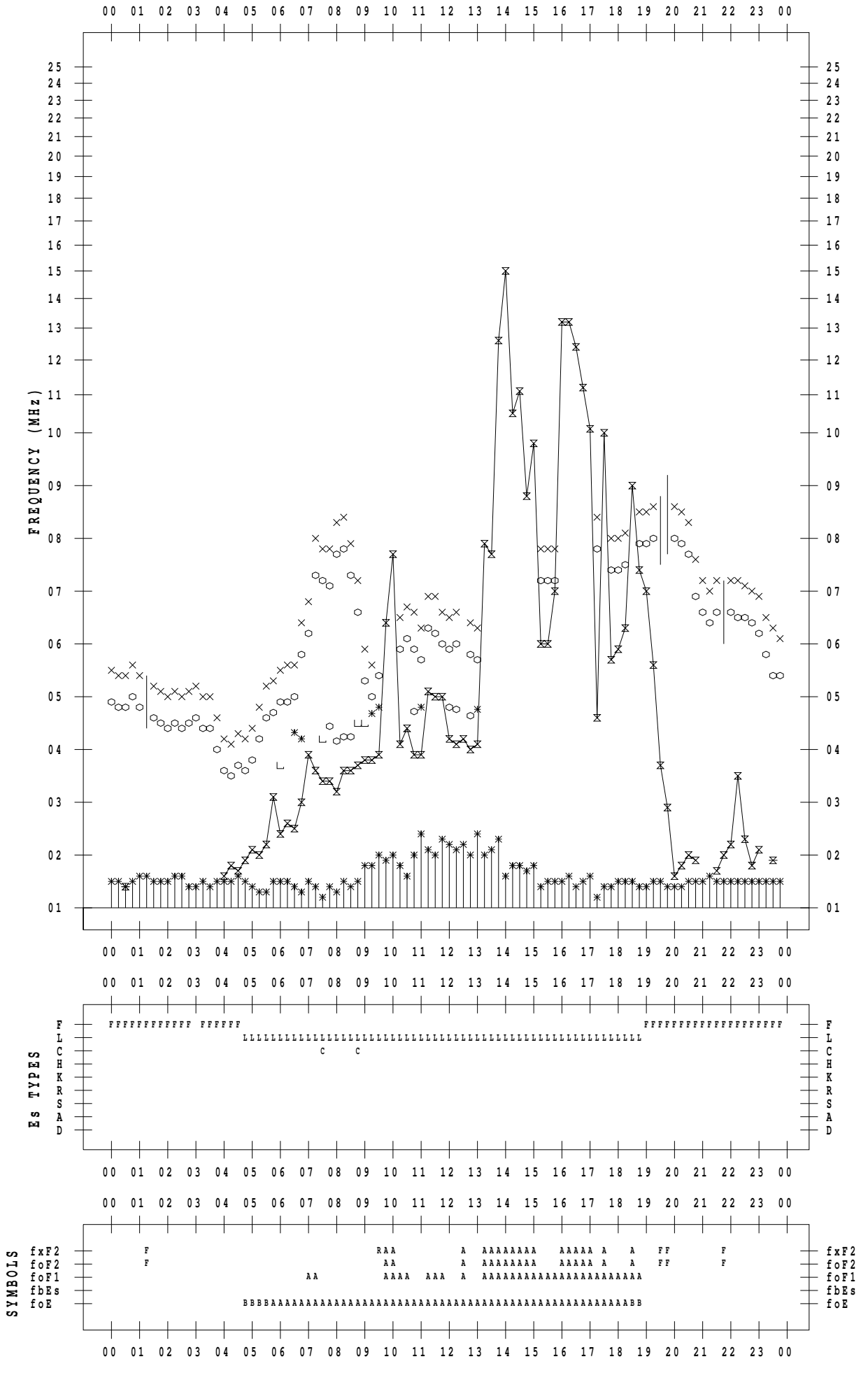
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/16

135 °E MEAN TIME



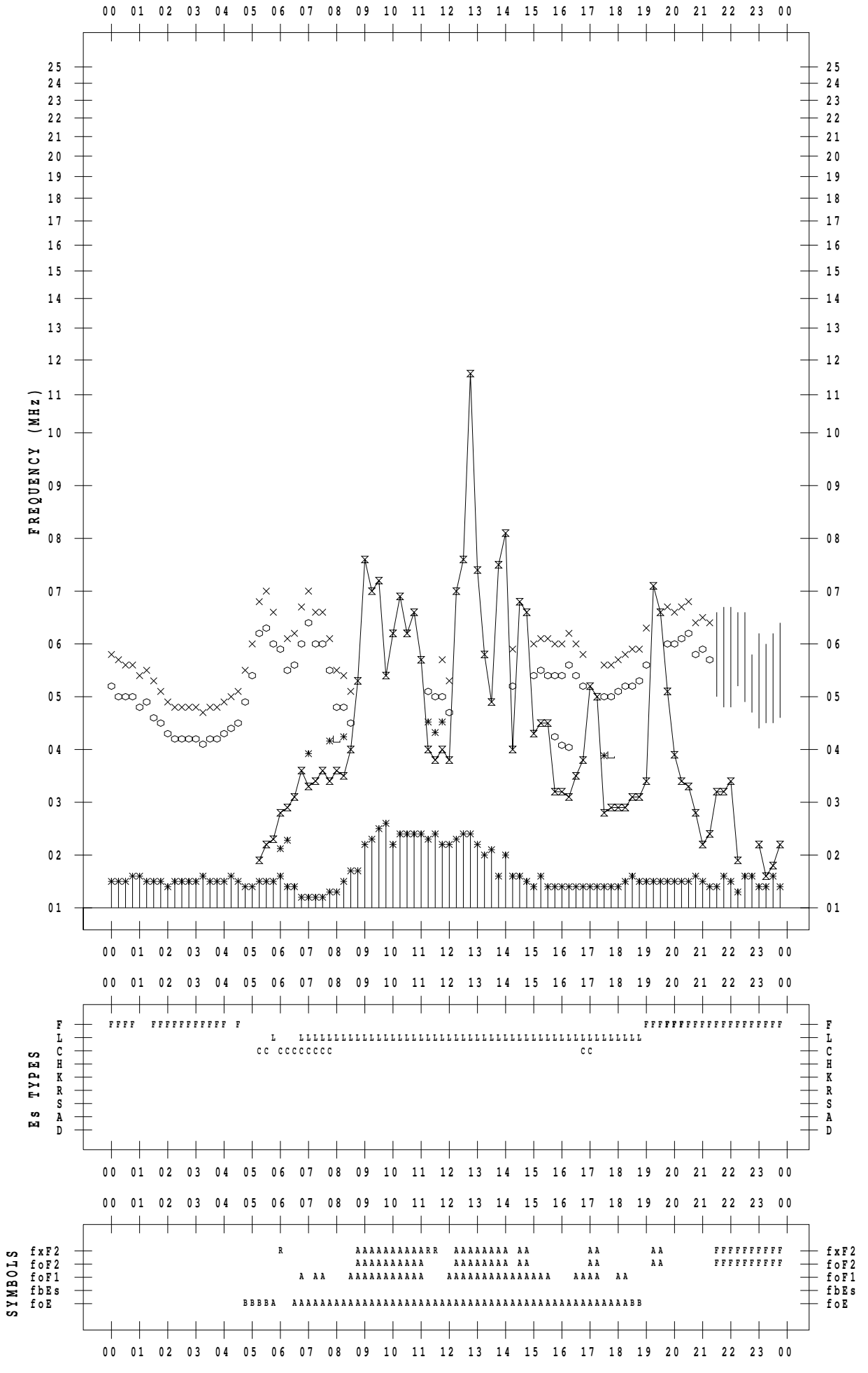
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/17

135 °E MEAN TIME



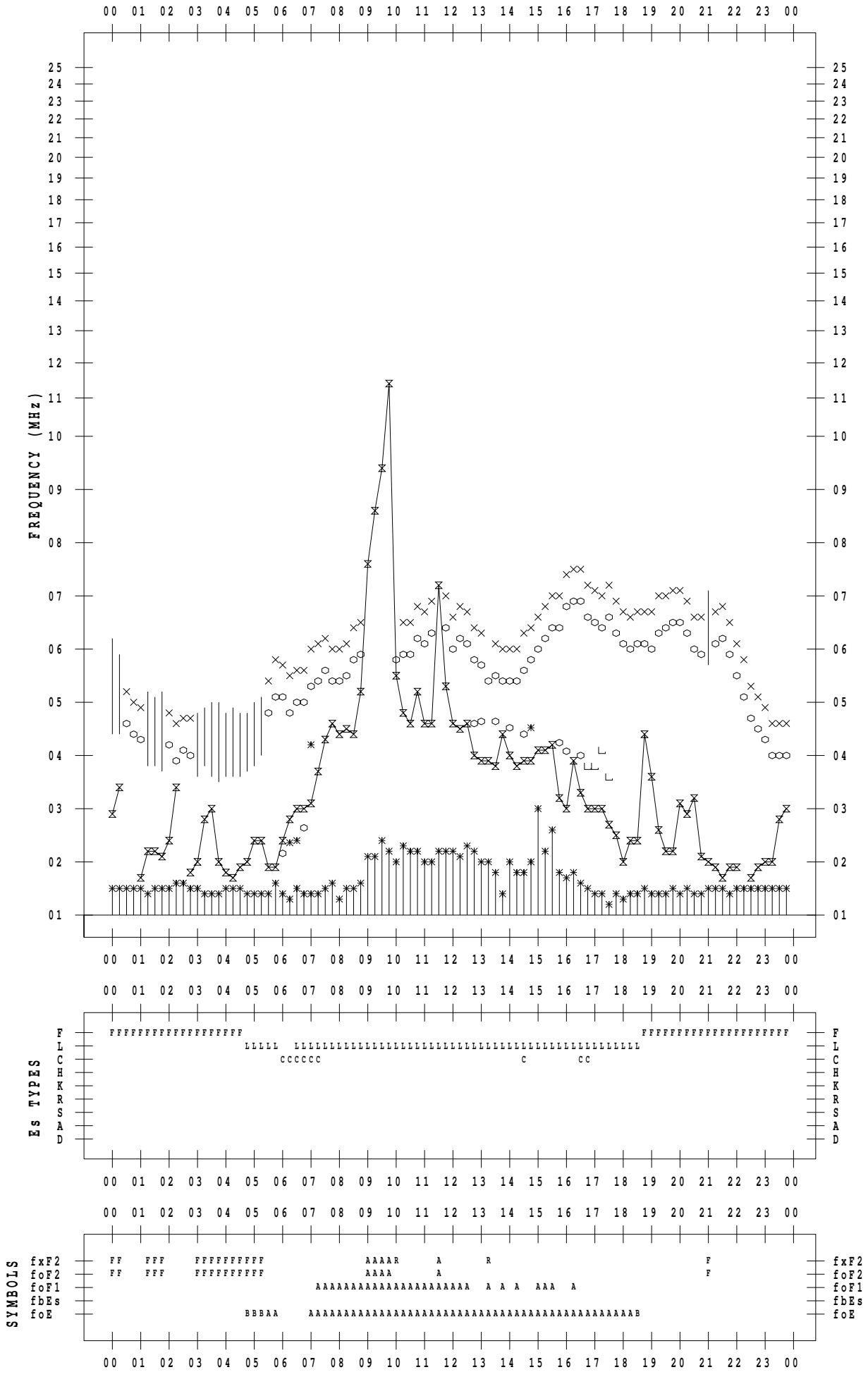
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/18

135 °E MEAN TIME



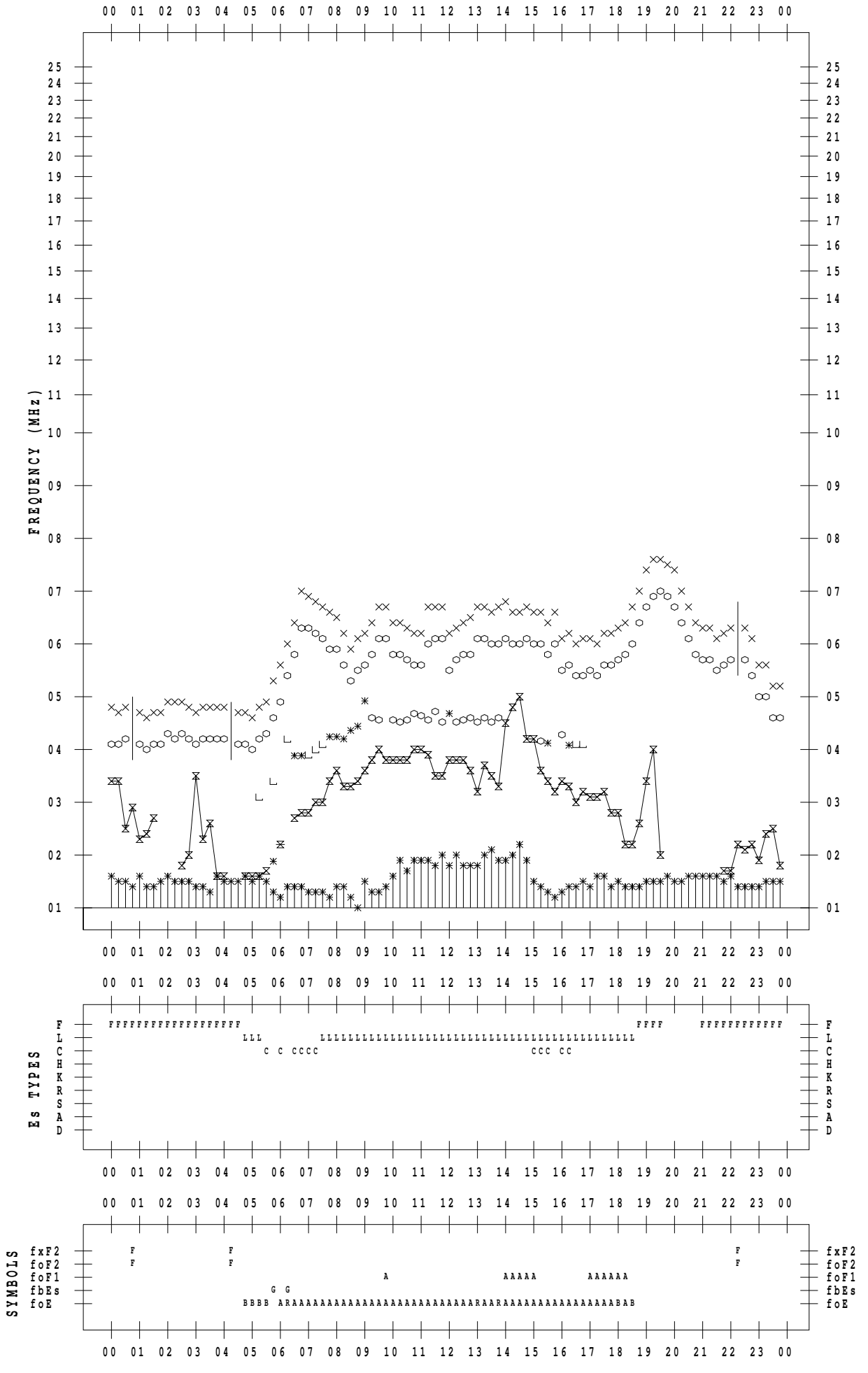
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/19

135 °E MEAN TIME



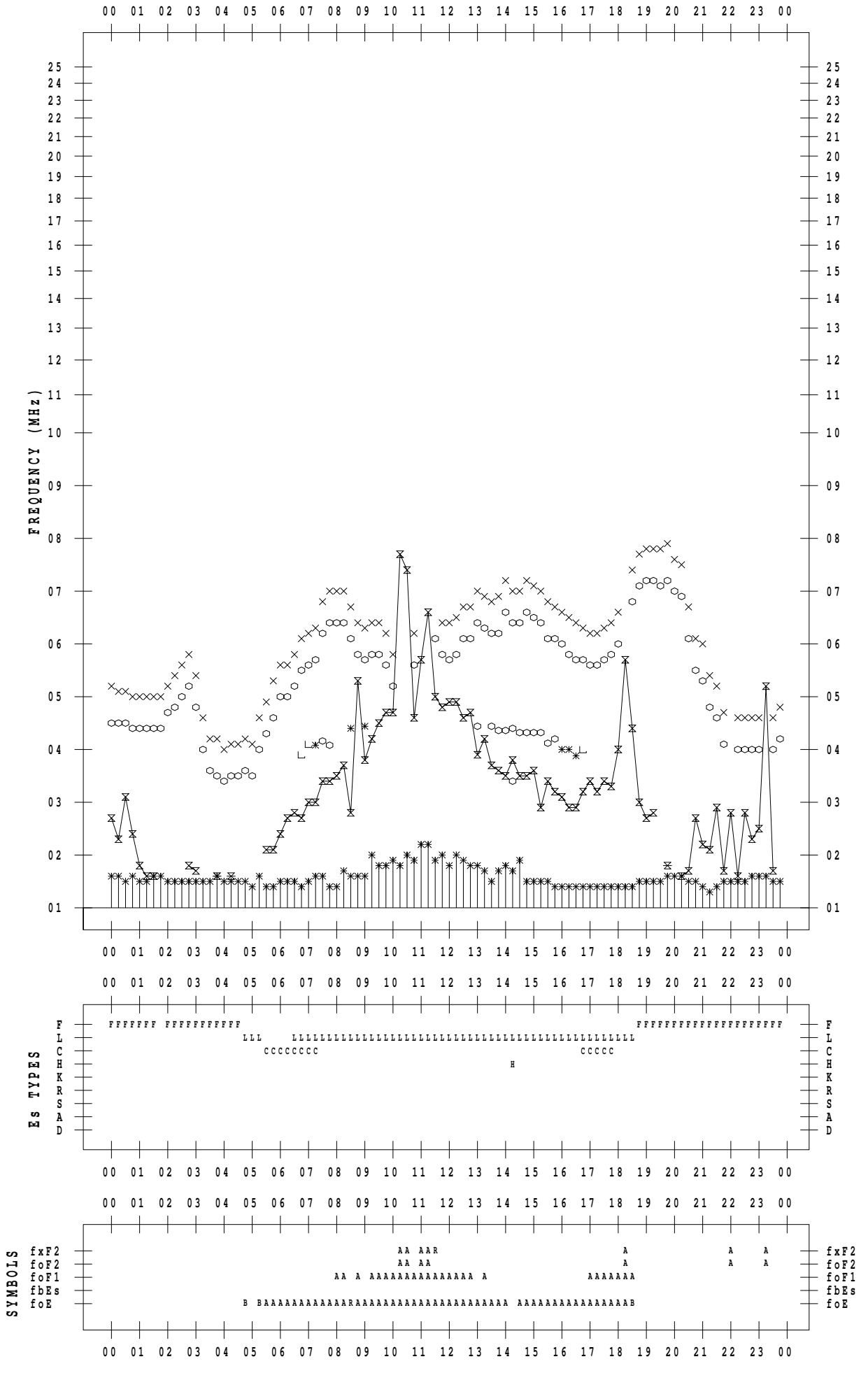
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/20

135 °E MEAN TIME



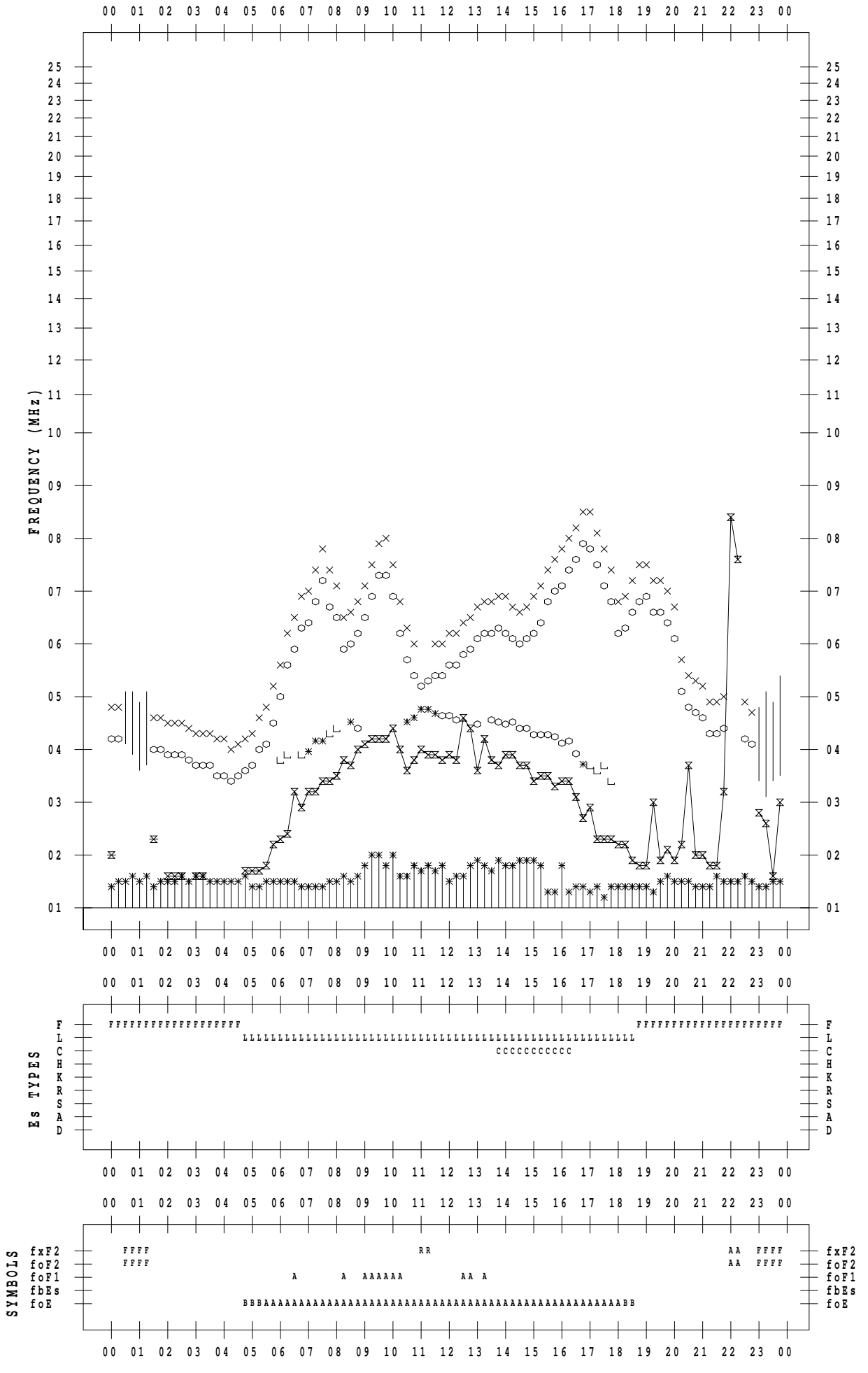
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/21

135 °E MEAN TIME



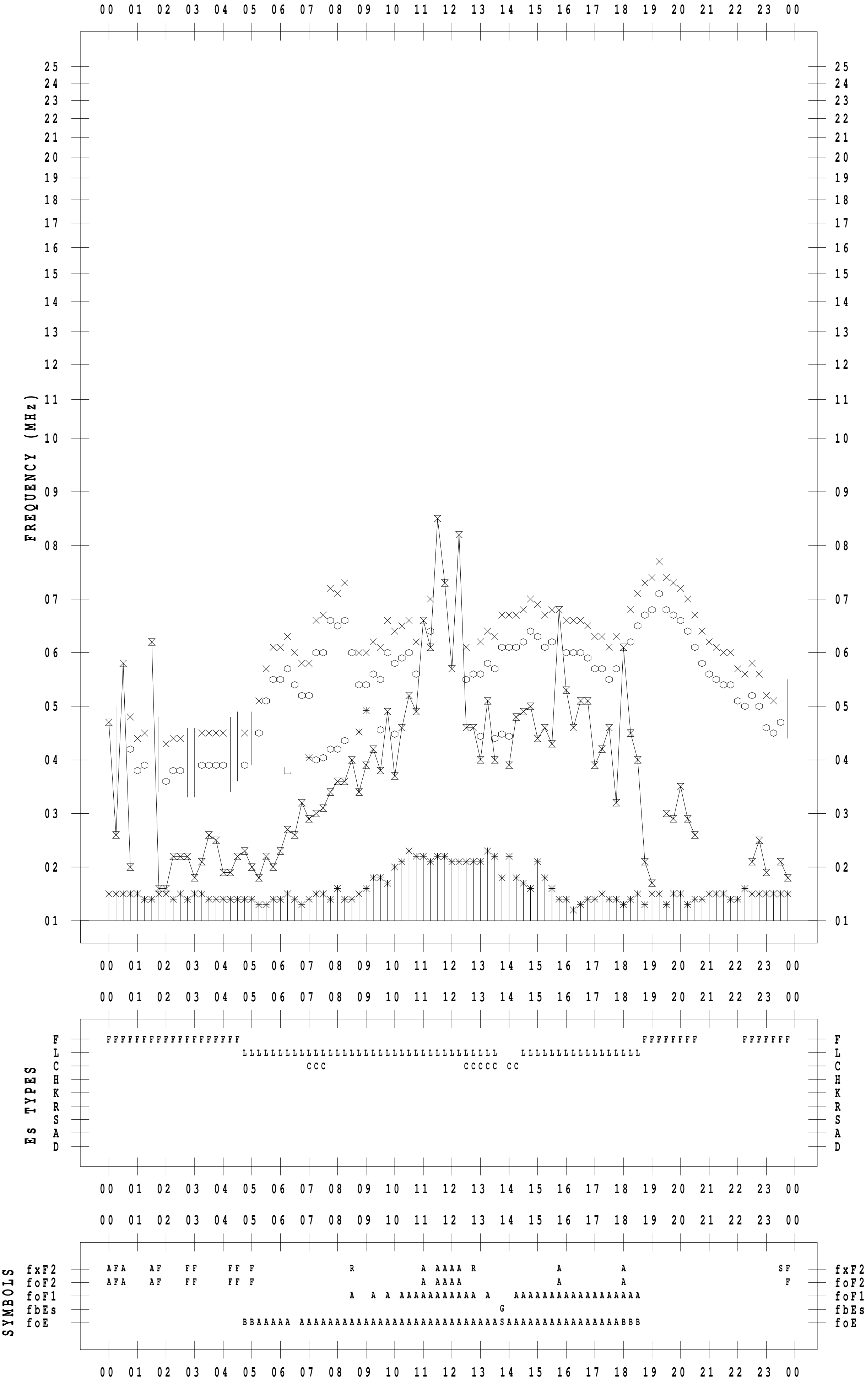
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/22

135 °E MEAN TIME



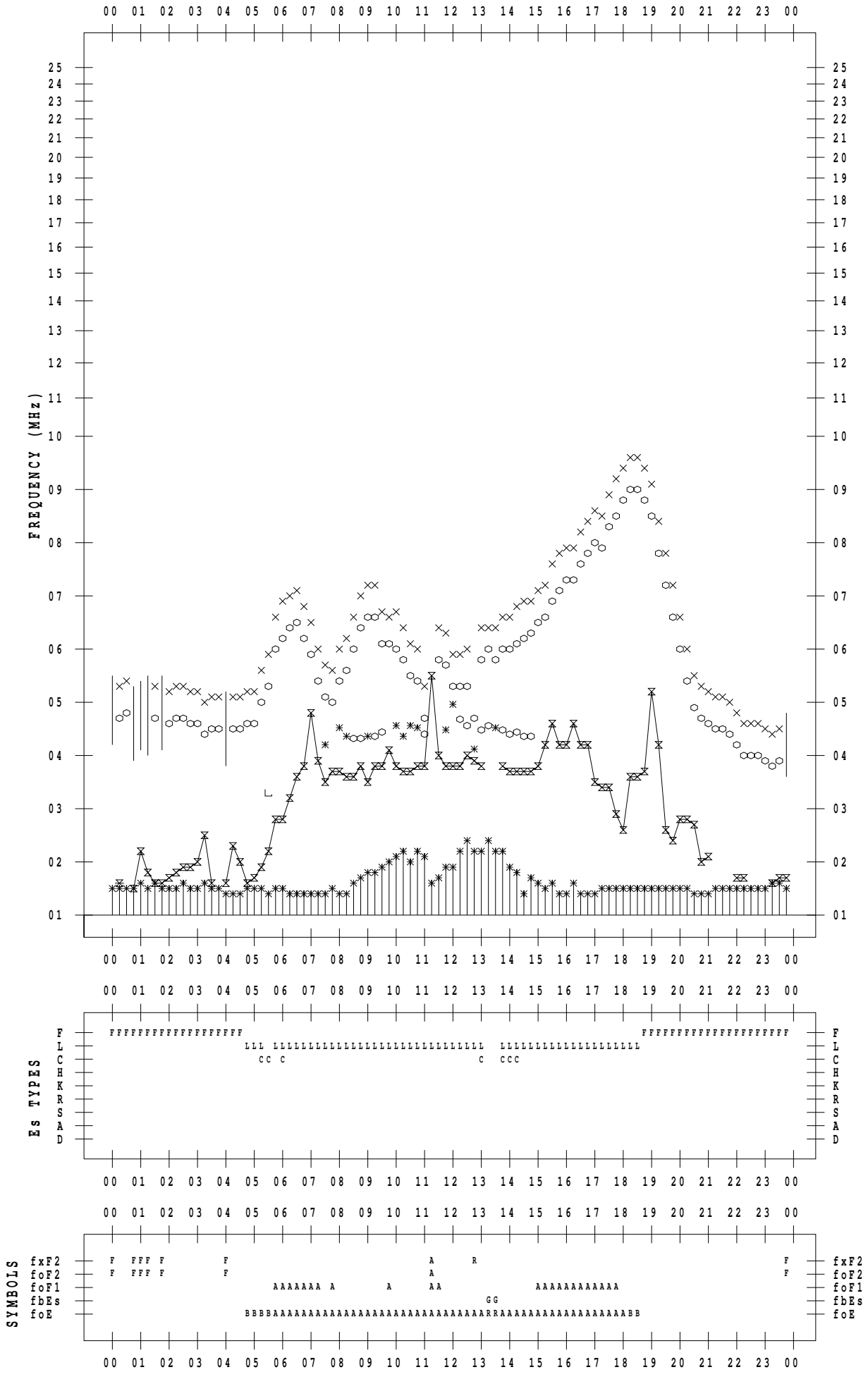
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/23

135 °E MEAN TIME

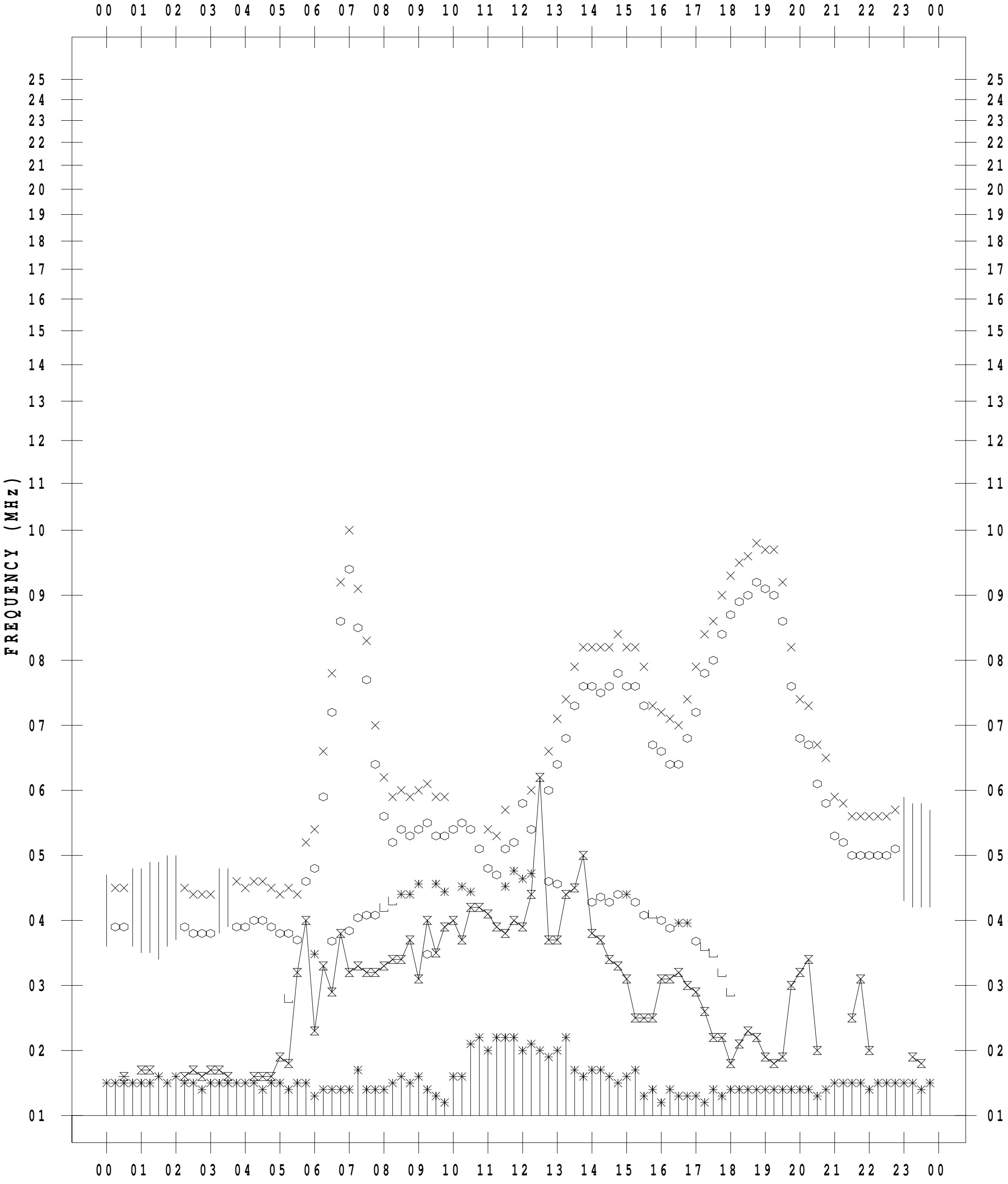


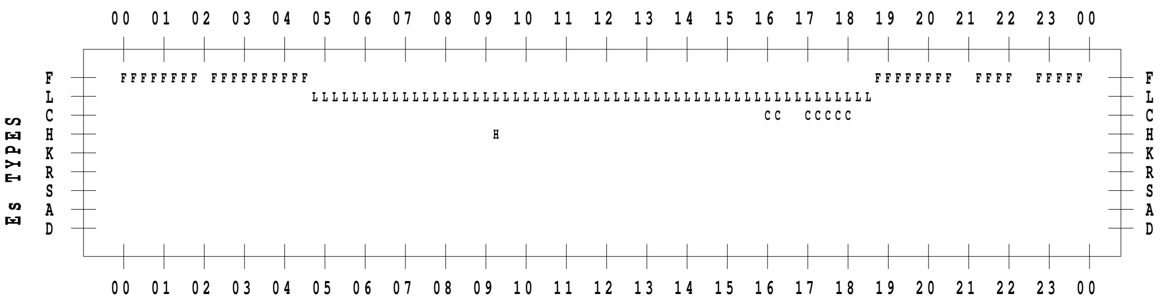
f-PLOT DATA

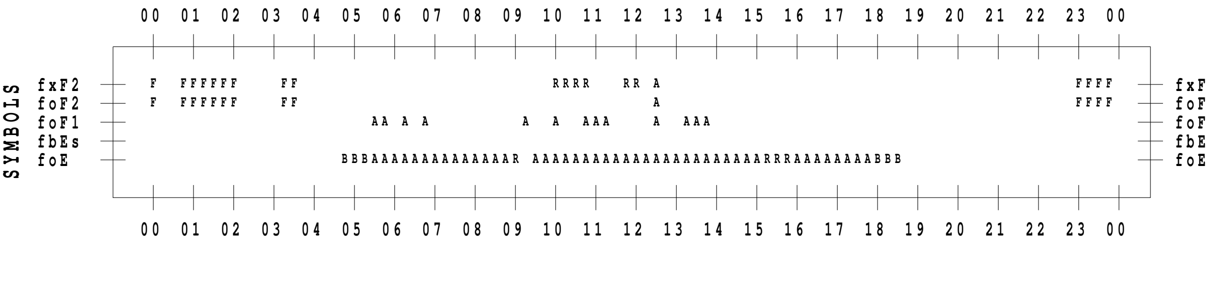
SCALER : I.NISHIMUTA

STATION : Kokubunji DATE : 2010/ 8/24

135 °E MEAN TIME







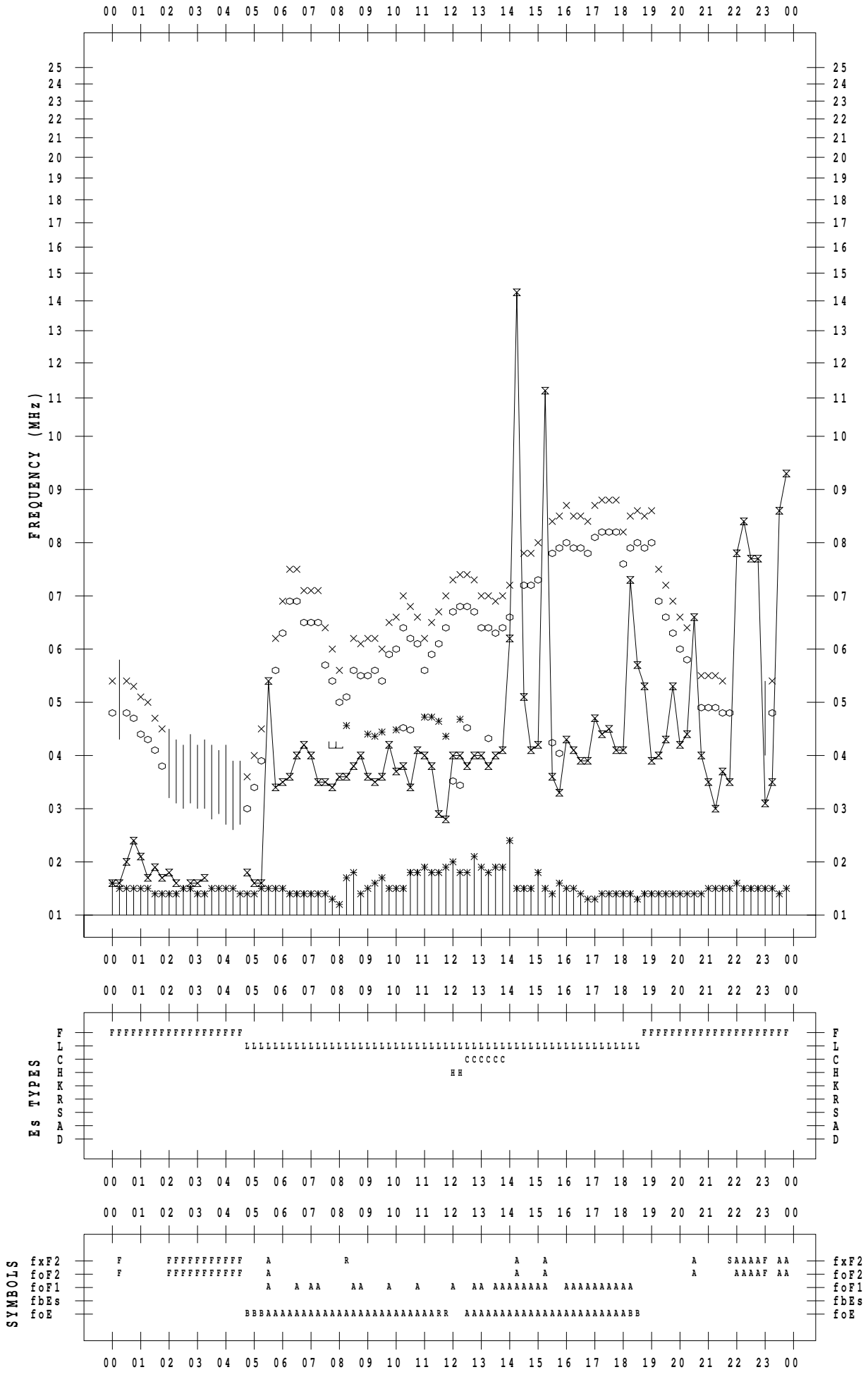
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/25

135 °E MEAN TIME



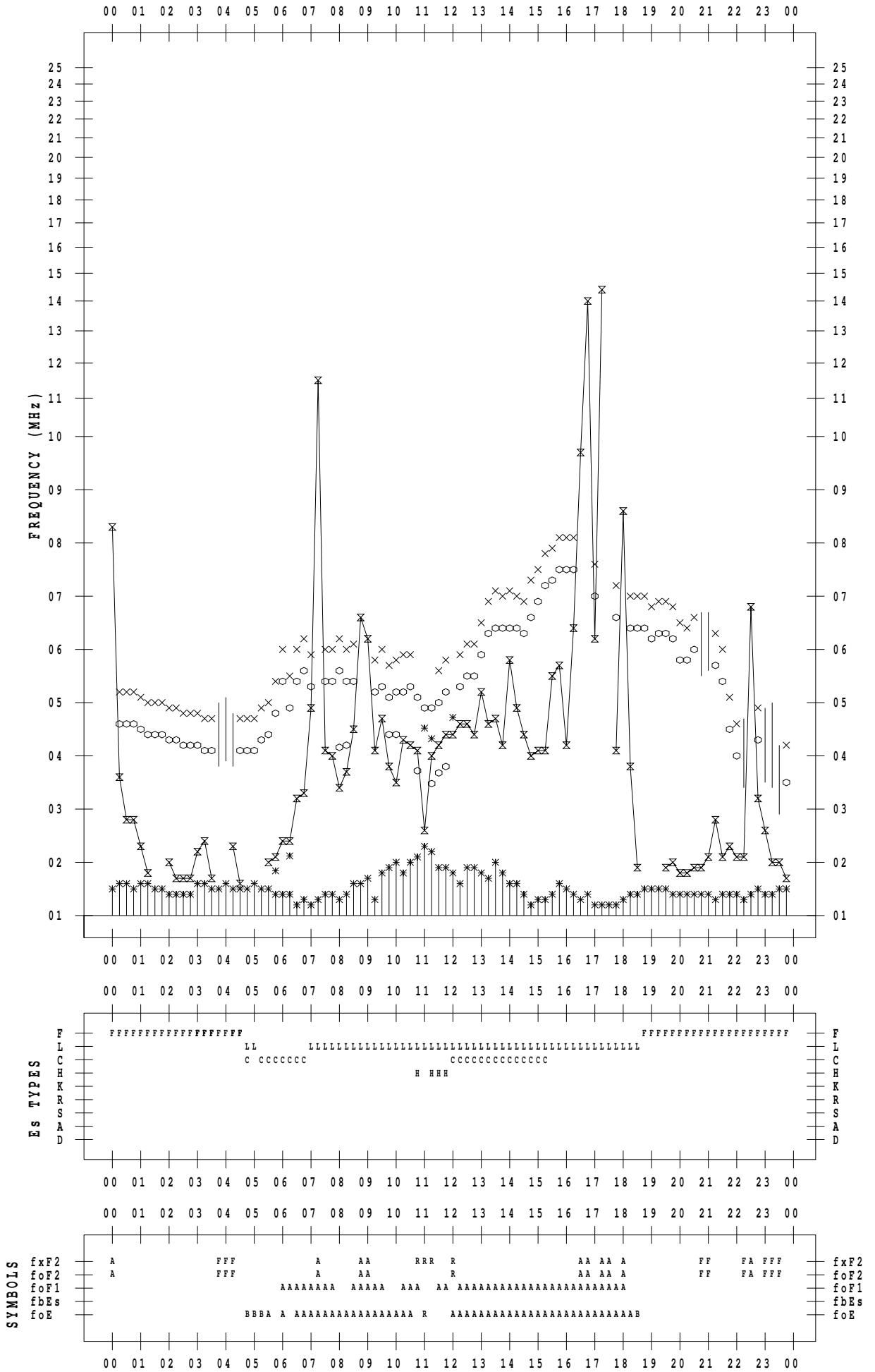
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/26

135 °E MEAN TIME



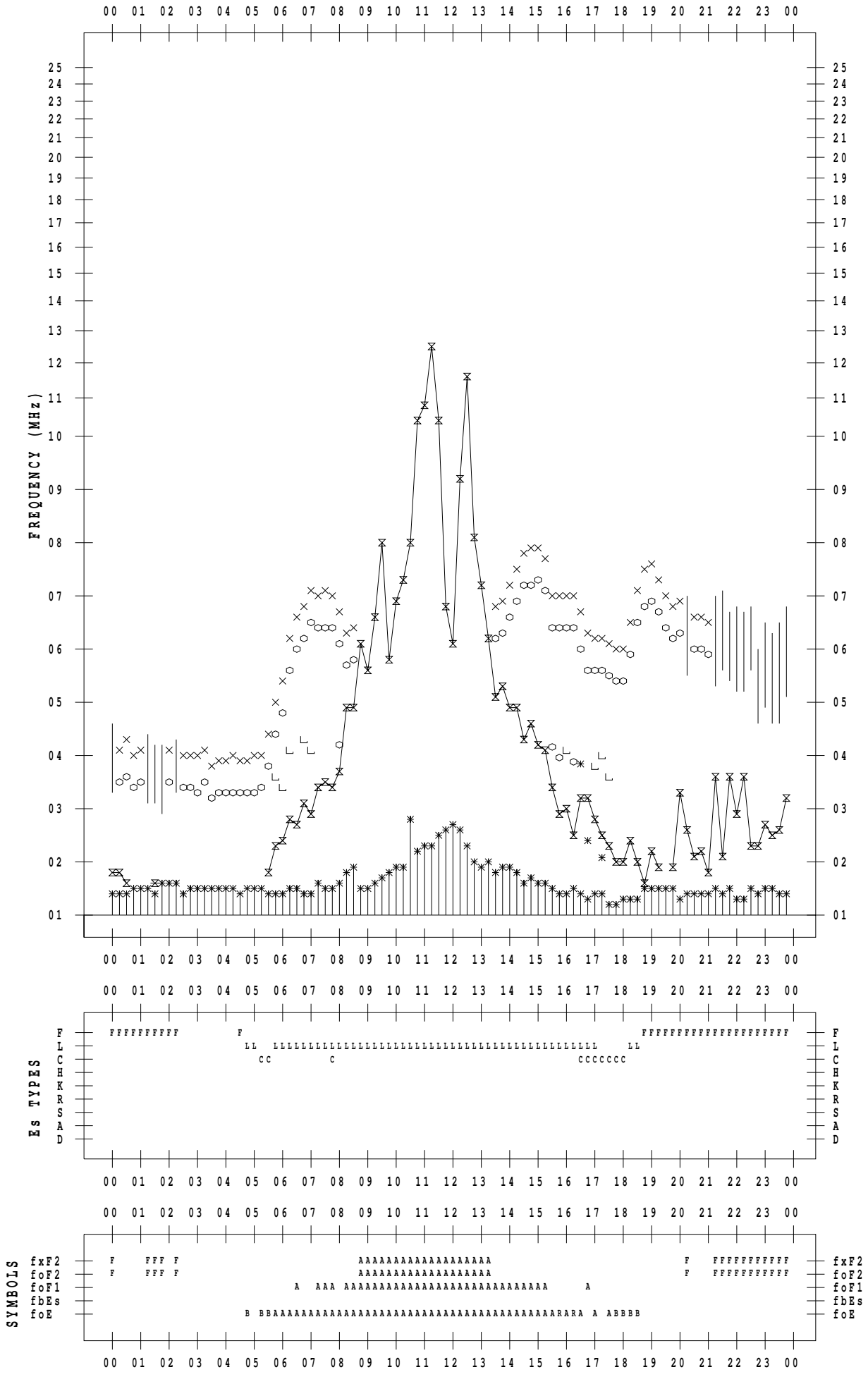
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/27

135 °E MEAN TIME



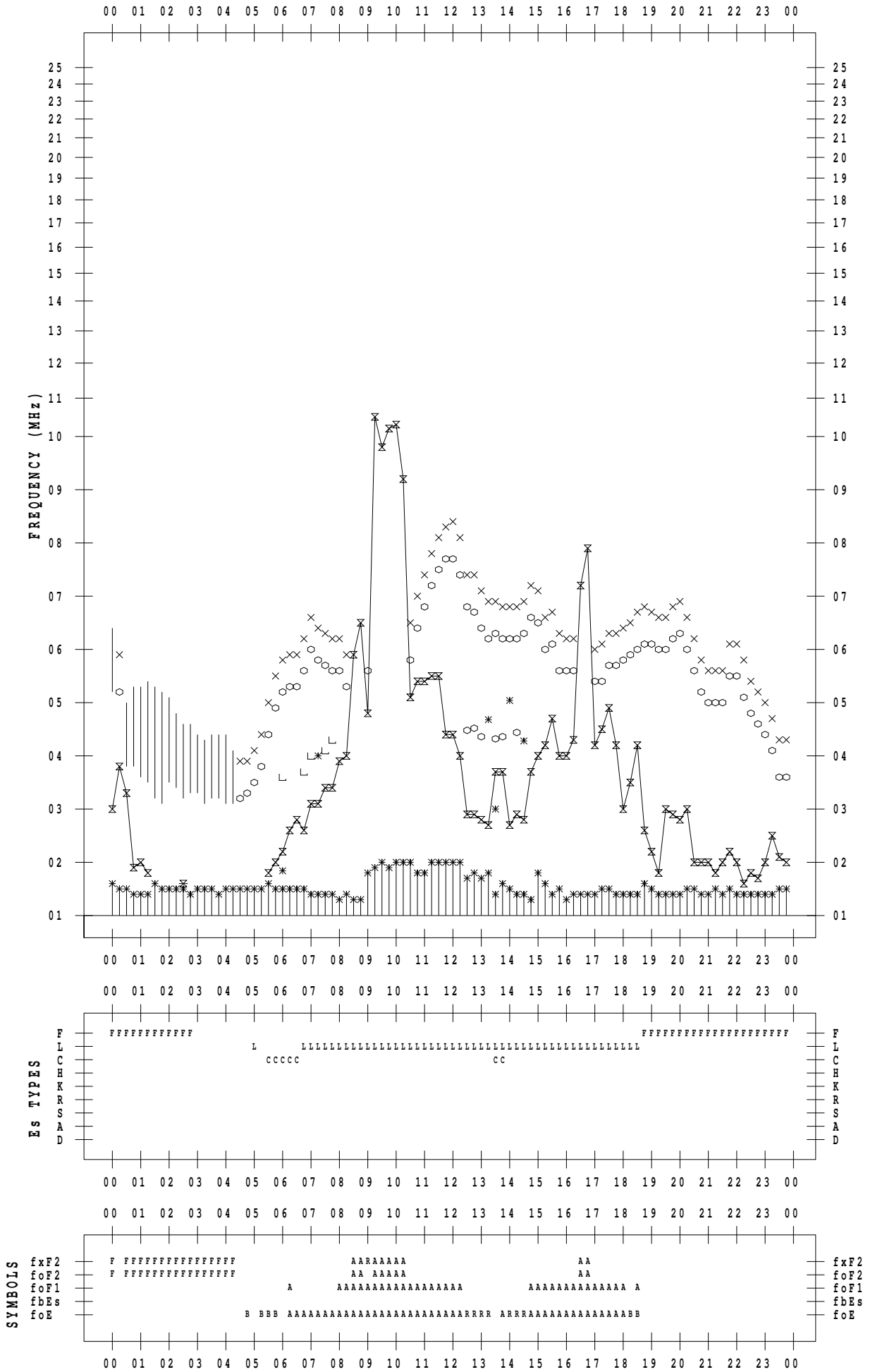
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/28

135 °E MEAN TIME



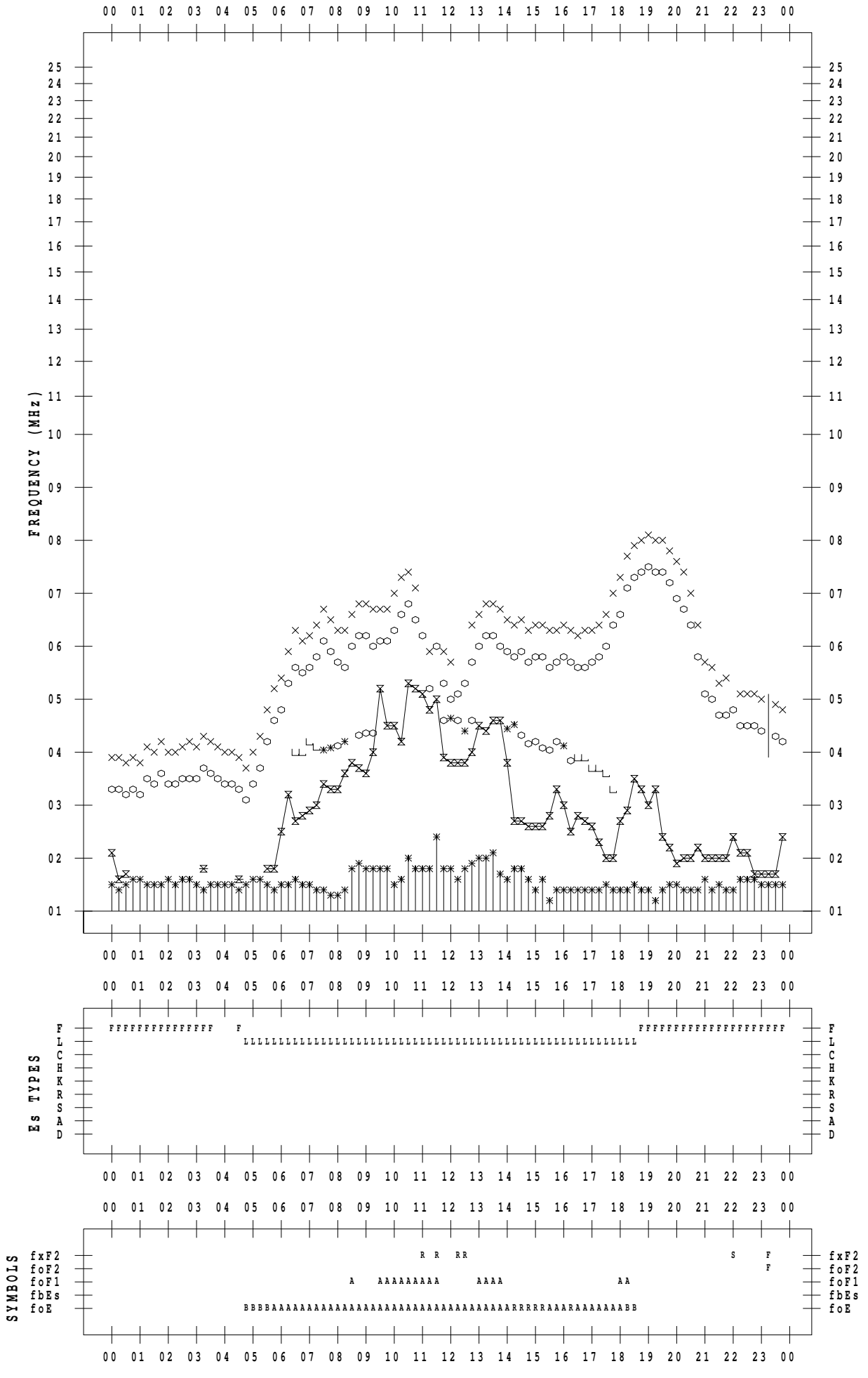
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/29

135 °E MEAN TIME

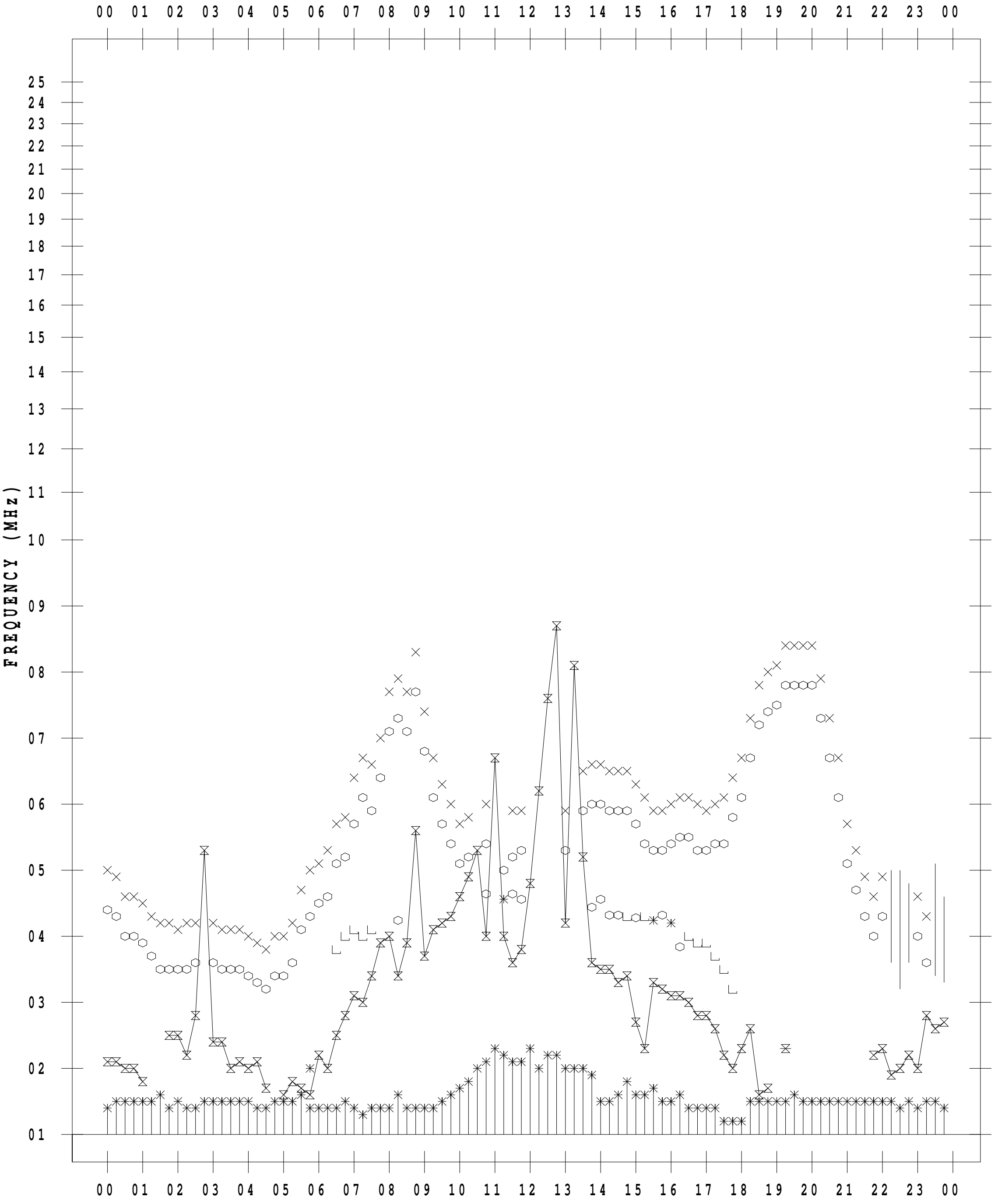


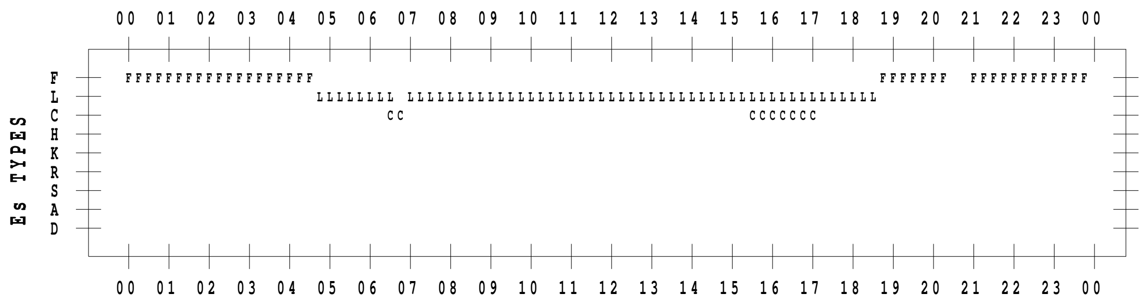
f-PLOT DATA

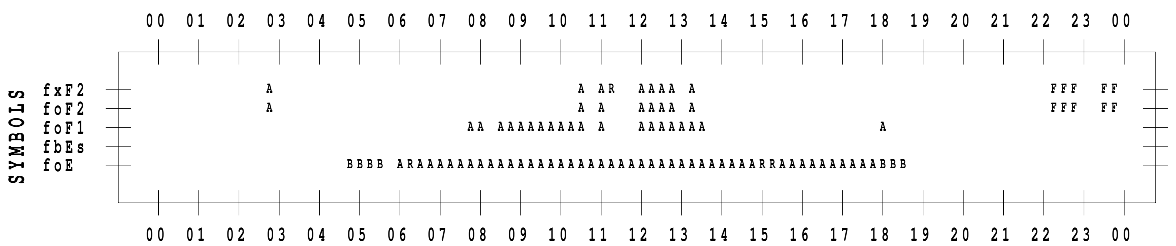
SCALER : I.NISHIMUTA

STATION : Kokubunji   DATE : 2010/ 8/30

135 °E MEAN TIME







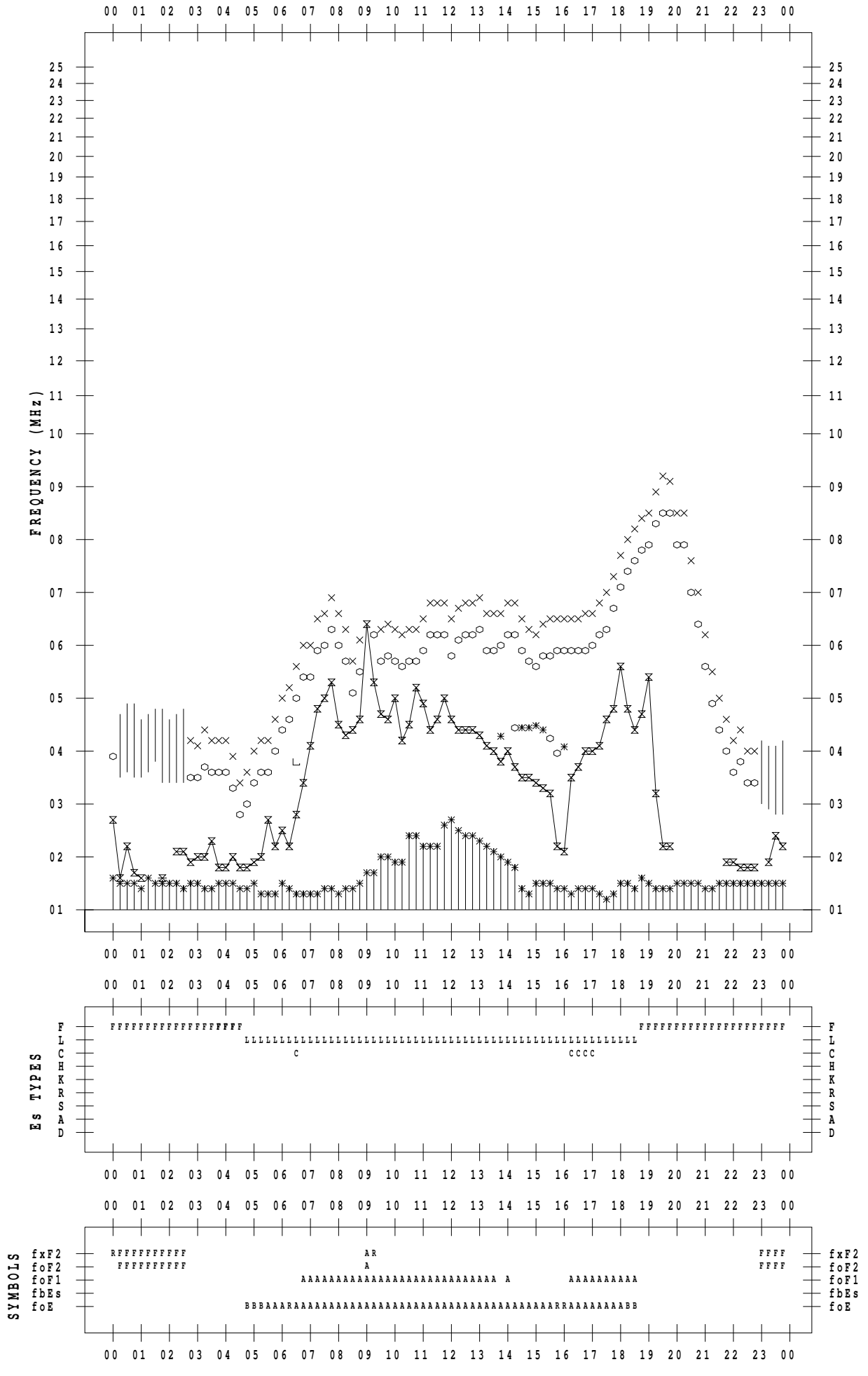
f-PLOT DATA

SCALER : I.NISHIMUTA

STATION : Kokubunji

DATE : 2010/ 8/31

135 °E MEAN TIME



B. Solar Radio Emission

B1.Outstanding Occurrences at Hiraiso

Hiraiso August 2010

Single-frequency observations

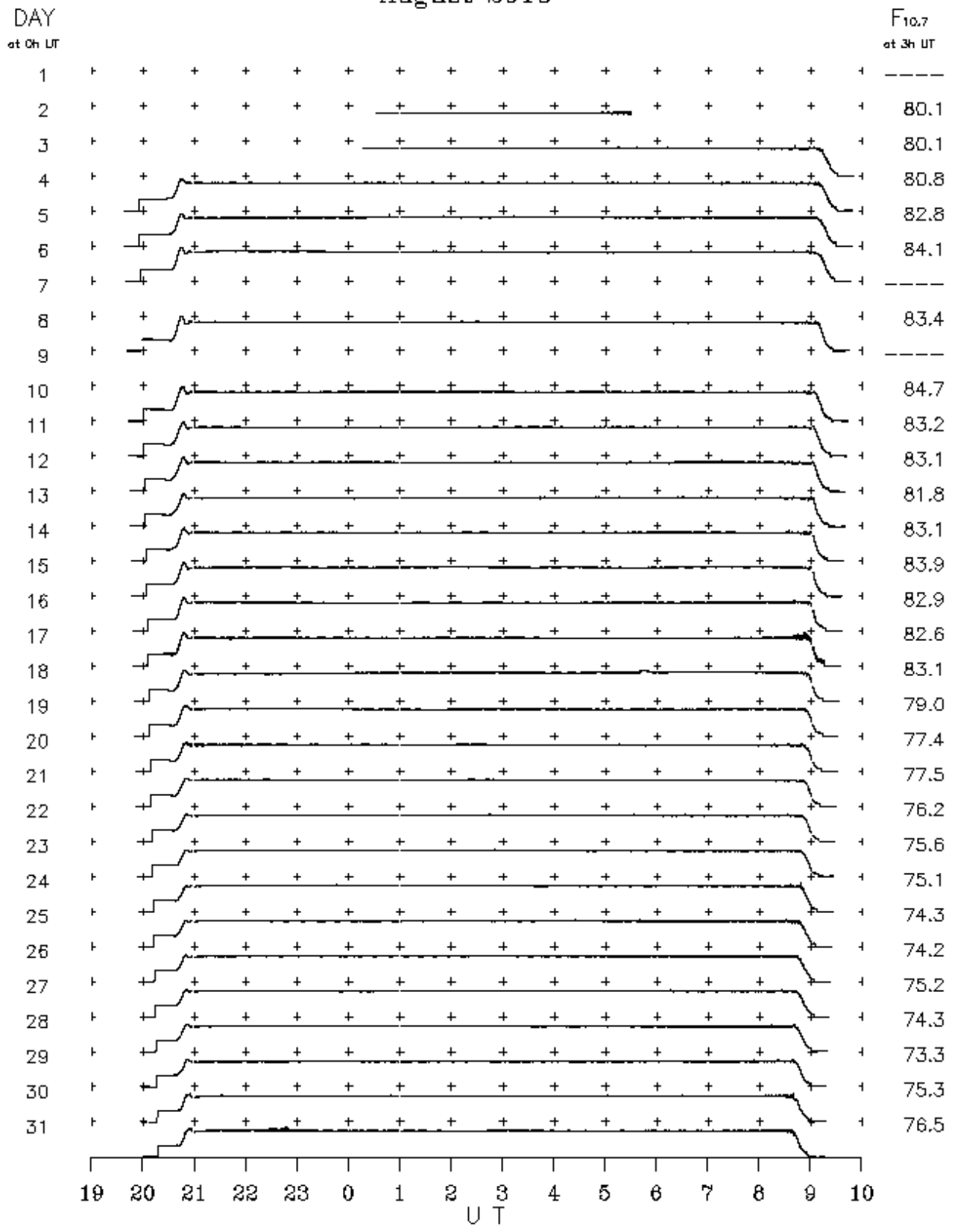
Normal observing period: 1950 - 0935 U.T. (sunrise to sunset)

AUG.	FREQ.	TYPE	START TIME	TIME OF MAXIMUM	DUR.	FLUX DENSITY (10^{-22} W m^{-2} Hz^{-1})		POLARIZATION
2010	(MHz)		(U.T.)	(U.T.)	(MIN.)	PEAK	MEAN	REMARKS
18	2800	1 S	0539.0	0544.0	13.0	10	-	

B.Solar Radio Emission

B2. Summary Plots of $F_{10.7}$ at Hiraiso

August 2010



Note: A vertical grid space corresponds to a 100 sfu.
Elevation angle range ≧ 6°.
A link to the daily plot data directory : http://sunbase.nict.go.jp/solar/denpa/hirasDB/2010/08/