

Data of Field Strength Measurements of HF Radio Waves
Measured at Syowa Station during the Period from 1974 to 1979

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1. Introduction

The field strength of JJY (standard frequency) radio waves transmitted from Japan has been measured at Syowa Station, Antarctica, since 1958.

In 1973, the receivers were modified to detect only the upper side-band signals to avoid interfering signals from other countries on the same carrier frequency.

This report summarizes the field strength measurements of JJY 10 MHz in 1974-1979 and 15 MHz in 1977-1979.

Copies of data are available to users on request. The request should be addressed to:

Radio Research Laboratories

Ministry of Posts and Telecommunications

2-1, Nukui-Kitamachi 4-chome, Koganei-shi, Tokyo 184, Japan.

2. Observers

Observers	Observation period
Ichizo NISHIMUTA	January 1974
Hisashi YABUUMA	
Ichiro YAMAZAKI	February 1974-January 1975
Isao SHIRO	
Hidetoshi SUGIUCHI	February 1975-January 1976
Noriaki KOMIYA	

Akihisa YAMAKOSHI	February 1976-January 1977
Tsutomu SASAKI	
Noboru NISHIYAMA	February 1977-January 1978
Jun-ichi SAKAMOTO	
Kiyoshi IGARASHI	February 1978-January 1979
Shigehiko TSUZURAHARA	
Seishin OJIMA	February 1979-December 1979
Noriaki KOMIYA	

3. Particulars of the Transmitter and Receiver

3.1. Transmitting station

Call sign	JJY
Location	(1) Koganei, Tokyo (before November 1977) Geographic latitude 35°42'N, longitude 139°42'E
	(2) Nazaki, Ibaraki (after December 1977) Geographic latitude 36°11'N, longitude 139°51'E
Frequency	10 and 15 MHz
Carrier power	2 kW
Modulation frequency	1000 Hz
Degree of modulation	65 %
Antenna	$\lambda/2$ vertical dipole
Transmission time	Continuous (24 hours)

3.2. Receiving station

Location	Syowa Station, Antarctica Geographic latitude 69°00'S, longitude 39°35'E
Frequencies	10.001 and 15.001 MHz
Bandwidth	100 Hz

Antenna (1) Inverted L (h=10 m, l=30 m) (before December 1977) and
9 m vertical rod (after January 1978) for 10 MHz
(2) 9 m vertical rod for 15 MHz

3.3. The distance between transmitter and receiver

14000 km (short path)
26000 km (long path)

4. Remarks

The hourly field strength F normalized with respect to a radiation power of 1 kW is related to the hourly intensity of received signals F_m (dB μ), the effective radiation power P (dBkW), and antenna gain A (dBi)

$$F = F_m - P - A,$$

where F_m is given by the averaged value of signals received between 00^m and 10^m (05^m for data obtained after December 1977) every local time hour (LT=UT+3h), and $P = 10 \log (P_o M^2 / 4)$, P_o and M being the carrier power (in kW) and the degree of modulation, respectively.

The following two letters are entered or used in the tables for describing the receiving conditions.

C: Measurements influenced by, or impossible because of, any artificial conditions.

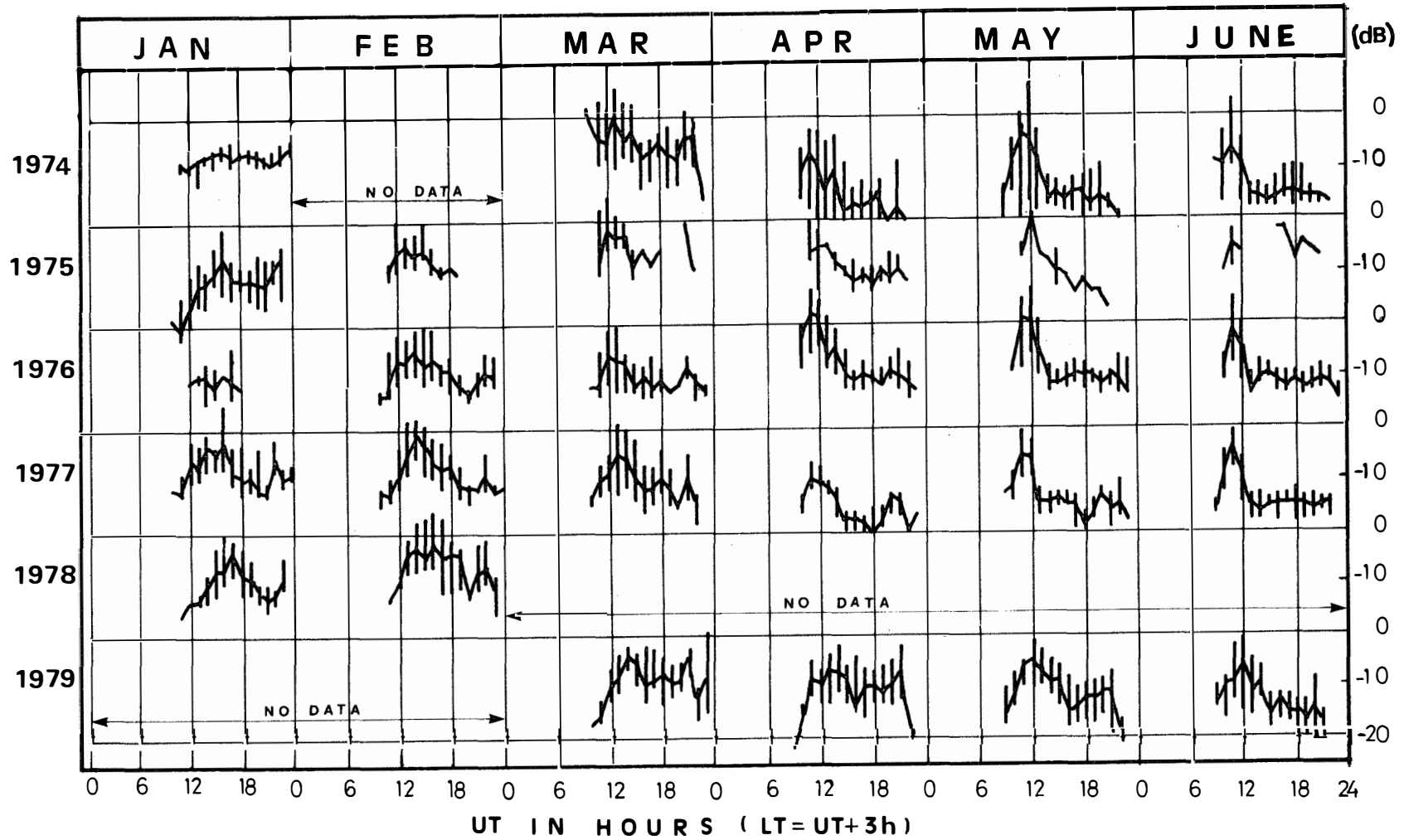
S: Measurements influenced by, or impossible because of, interfering signals.

When no signal was received because of absorption or deterioration of circuit conditions, neither a numerical value nor a letter is entered on the monthly tabulation sheets.

The monthly medians of hourly values and upper and lower quartile values are given on the monthly tabulation sheets. They are also illustrated in figures together with the quartile ranges indicated by vertical bars.

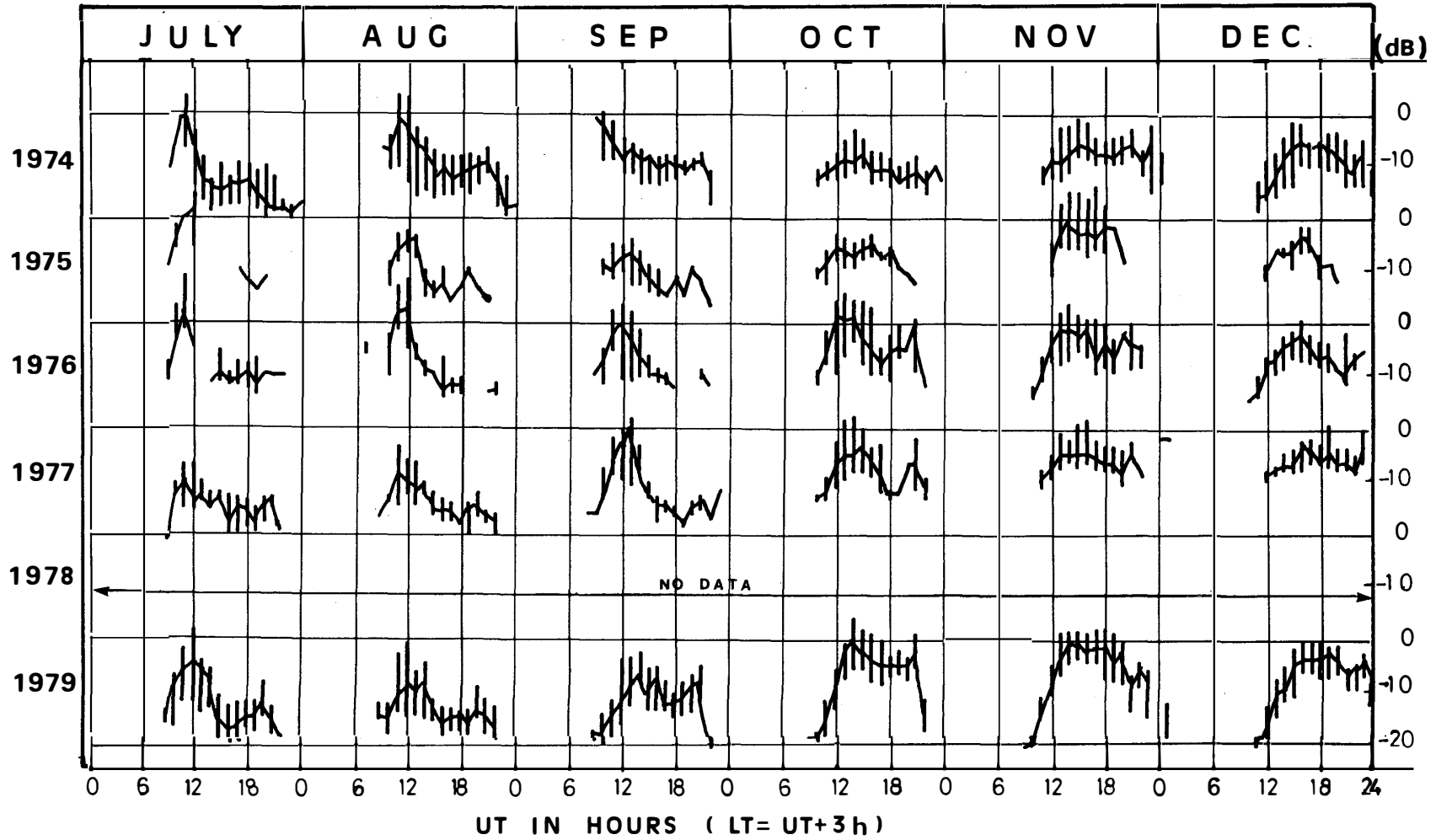
MONTHLY MEDIAN AND QUARTILE RANGE

10 MHz



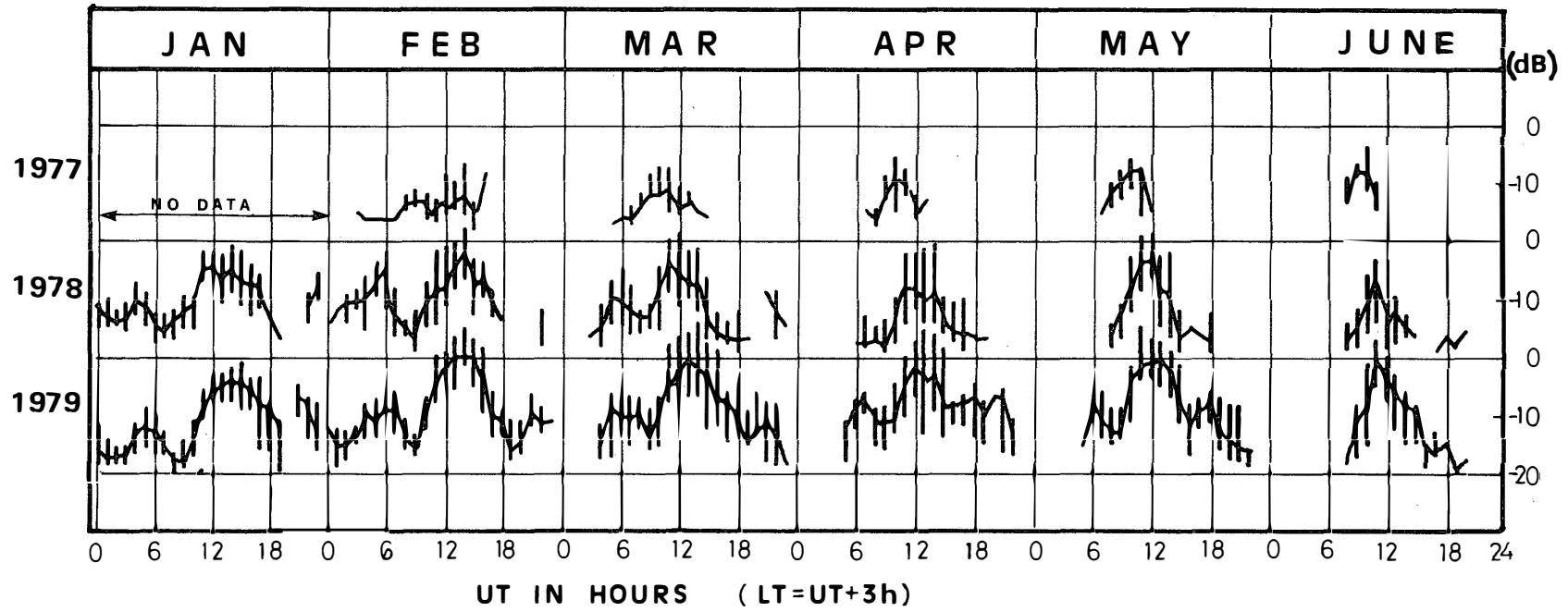
MONTHLY MEDIUM AND QUARTILE RANGE

10 MHz



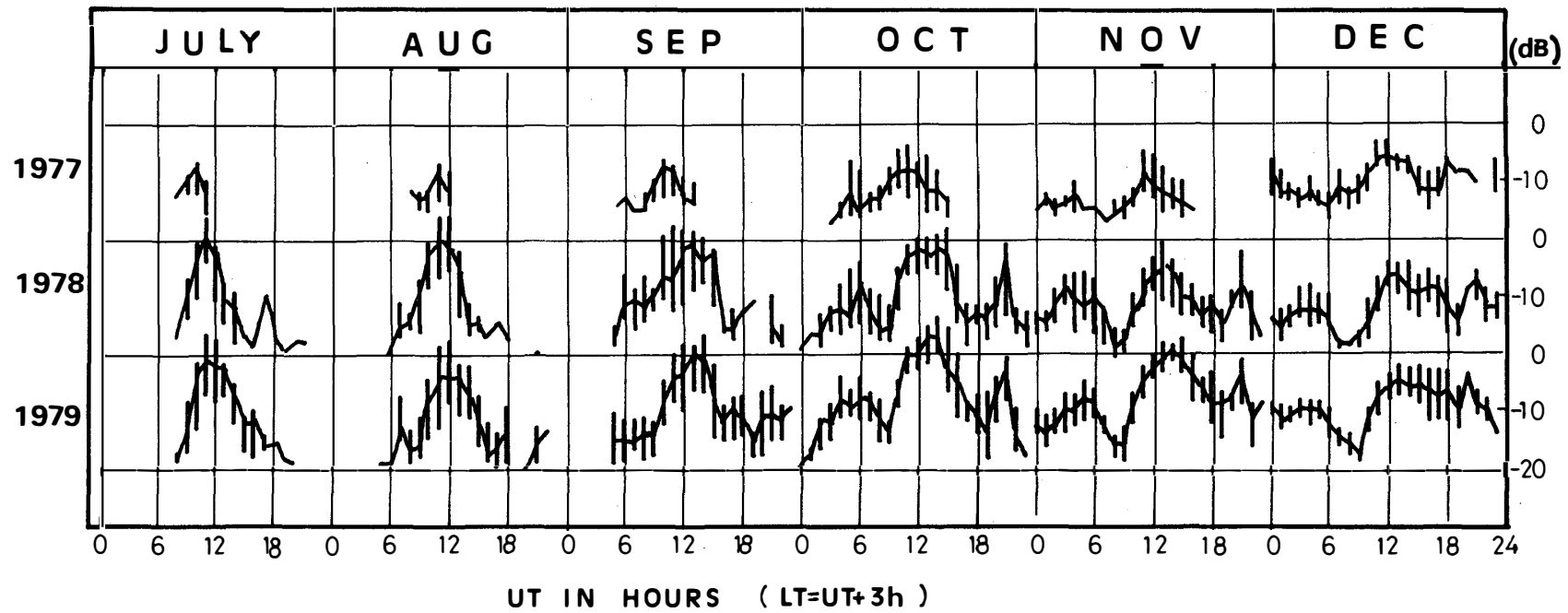
MONTHLY MEDIAN AND QUARTILE RANGE

15 MHz



MONTHLY MEDIAN AND QUARTILE RANGE

15 MHz



MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JAN.1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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			-2	-8											-8									-15	
2				-7	-7										-9	-10	-15	-15	-10	-10					
3															-9	-6	-8	-7	-9	-8	-4	-8	-7		
4															-9	-9	-8	-7	-9	-8	-8				
5																	-9	-9	-8	-6	-4	-2	-5	-7	
6																		-8	-8	-6	-8	-7	-7	-7	
7															-10	-9	-8	-7	-6	-4	-4	-3	-6	-3	
8	-6	-3		-3													-6	-7	-7	-8	-8	-7	-8	-8	
9	-7	-6	-4	-7												-9	-7	-6	-5	-5	C	C	C	C	
10	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
11	C	C	C	C	C											-10	-10	-8	-8	-8	-4	-5	-5	-5	
12	-6															-15	-9	-7	-5	-7	-8	-7	-6	-7	
13	-8	-9														-15	-8	-7	-4	-8	-9	-10	-8	-6	
14	-5			-7	-5										-15	-10	-9	-8	-4	-6	-9	-6	-6	-10	
15	-8	-7		-5												-10	-15	-9	-8	-5	-9	-7	-7	-5	
16	-9	-9	-7	-6	-6													-9	-8	-10	-8	-9	-8	-9	
17																-8	-8	-7	-5	-2	-9	-7	-8	-9	
18	-15	-20	-10	-4	-15												-13	-10	-8	-9	-9	-9	-9	-9	
19	-9		-9													-15	-14	-9	-5	-6	-6	-8	-9	-10	
20		-9	-10															-15	-3	-9	-15	-3	-6	-8	
21																			-20	-9	-5	-5	-8	-7	-7
22	-10															-10	-8	-8	-7	-6	-3	-8	C	C	
23	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
24	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
25	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
26	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
27	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
28	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
29	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
30	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
31	C	C	C	C	C										C	C	C	C	C	C	C	C	C	C	
CNT	10	7	6	8	4										6	13	15	20	19	19	18	17	16	16	
MED	-8	-9	-8	-6	-6										-9	-10	-9	-8	-7	-6	-8	-7	-7	-7	
UQ	-7	-6	-5	-4	-5										-9	-9	-8	-7	-6	-5	-4	-6	-6	-6	
LQ	-9	-9	-9	-7	-11										-10	-10	-13	-9	-10	-8	-9	-8	-8	-9	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

MAR.1974

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	C	C	C											C	C	C	C	C	C	C	C	C	C	C
2	C	C	C											C	C	C	C	C	C	C	C	C	C	C
3	C	C	C											C	C	0	0	3	-1	-3	3	-5	-9	-5
4	1	0															2	0	1					
5																-8	6	6	0	-10	-6			
6																	-7	-5	-4		-7			
7																-10	-10	0	0	-8	-8	-10		
8	-6														-8	-7	-5	-6						
9															-8	-8	0	-7	-8	-8				
10	-5	-5														-4	2	-5	-6					
11		-3														-9		-10	-5		-5	C	C	C
12	C	C	C											C	C	C	C	C	C	C	C	C	C	C
13	C	C	C											C	C	C	-20	-5	-9	-10	-2	-3	-14	-9
14	5	0	-15													-16	-7	1	-15	-15	-8	-8		
15	-7	-20													-15	4	8	8	15	4	2	6	2	-13
16	7	2															4	-7	-3	-12	-10	2	-3	8
17															-4	-2	6	4	8	0	-8	-6		
18															4	4	5	2	4	-6	-5			
19	-4													0	4	4	7	10	9	2	-4	-5		
20	1	-6												1	1	4	7	5	8	-6	-5	-3		
21	-8																-7	0	3	3	-7	-8		
22																-1	3	-7	-10	-7				
23	-7															-6				-8				
24																		-10	-20	-18	-6			
25	-20																-17	-12	-4	-6	-18			-15
26	-10															-15			-13	-8				
27		-9	-18													-18			-20	-18				
28															-20		-20		-20	-13			-20	
29																	-20	-20		-20	-13			
30																		-18	-9		-18			
31																			-17	-14	-19			
CNT	12	8	2											2	7	16	21	23	24	22	20	10	6	5
MED	-5	-4	-16											1	-4	-5	0	-5	-3	-8	-7	-5	-8	-9
UQ	1	0													3	2	5	3	2	-6	-5	-4	-3	-5
LQ	-8	-9													-9	-8	-10	-8	-9	-14	-13	-8	-14	-13

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MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

APR. 1974

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-10																-10	-8	-19		-15	-15	-20
2		-20														-10	-18	-20	-20	-16	-8	-16	-20	
3																			-20	-18	-15	-18		
4																			-19	-15	-15	-18	-10	-10
5	-18	-20															-19	-10			-20	-16		
6	-18																-9		-15			-20		
7																					-20	-15	-20	
8															-12	-17	-20		-20	-18	-17	-20	-15	
9	-15																	-17	-12	-11	-10			
10																-18	-13	-9		-14	-17			
11																	-5	-10	-19					-20
12	-20													-17	-7	-4	-2	-8	-18					
13	-19														-12	-8	-5	-3	-10	-12	-8	-20		
14															-8	-4	-8	-5	4	-4				
15															-5	1	6	8	8	3	-15			-20
16	-20														-2	-4	6	8	7	-5			-13	
17															-15	5	-3	-3	3	-20	-20	-20	-20	-20
18															-20	-3	-1	-20	-9	-9	-14	-6	-5	
19																-20	-20	-20	-19	-10	-10	-10	-12	-10
20																			-20		-20	-20		
21																					-20			
22																			-20	-20	-20			
23																		-20	-20	-20				
24															-20	-20	-20				-20			
25																					-20	-20		
26															-18	-20			-20	-18	-18	-20		
27																		-20		-20	-10	-15	-20	
28																-15	-20	-20	-20	-20	-18		-20	-20
29																-20	-20	-20	-20	-20	-20			
30																								-20
31																								
CNT	6	3												6	11	15	18	19	21	19	21	14	10	8
MED	-18	-20												-11	-7	-10	-15	-10	-19	-18	-18	-17	-15	-20
UQ	-8													-5	-3	-3	-5	-3	-9	-14	-12	-15	-13	-20
LQ	-20													-17	-18	-20	-20	-20	-20	-20	-20	-20	-20	-20

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAY 1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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												-20	-10	3	0	-20				-20	-20			
2													-20	-20	-20	-20			-20	-20	-20	-20	-20	-3	
3	-1	-20													-10	-8		-20	-7	-12	-20	-20	-20	-20	
4	-18														-20		-20	-10	-15	-20	-20	-12	-7	-4	
5																	-20	-20							
6															-13	-5	8	-3	-12						
7																	-9		-5	-20	-15	-20	-20	-15	
8														-20								-20	-20	-18	
9																						-12	-13	-10	
10	-18	-19											-17	-15	0	5	5	-7	-13	-20	-11	-20	-20	-18	
11	-19	-20												-10	5	6	-9	-15	-20	-20	-19	-19	-17	-13	
12	-14	-19												-6	-2	6	0	-6	-15	-20	-20	-19	-17	-15	
13	-19	-19												-5	7	8	1	2	-14	-18	-16	-15	-9	-14	
14	-18													-4	-6	8	0	-7	-15	-18	-17	-13	-19		
15															-17	-19	-16	-17	-15	-18	-19	-10	-10	-10	
16																-11		-18	-14	-15	-15	-13	-17	-19	
17	-20	-20															-19	-14	-14	-16	-14	-17	-14	-20	
18	-20																C	-20	-15		-19	-20	-18	-20	
19																-15		-17	-20	-18	-16	-20	-19	-20	
20																	-19	-12	-18	-14	-15	-14	-20		
21	-19	-20													-19			-17	-14	-15	-11	-19	-19	-18	
22															-20	-20	-19	-19	-15	-12	-14	-16	-16		
23															-20	-20		-17	-20	-16	-14	-19	-20	-20	
24																		-18	-14	-15	-12	-15	-16	-20	
25																					-12	-15	-18	-16	
26	-19																	-20	-11	-17		-15	-19	-20	
27	-17														-16	-3	-7	-8	-16	-20		-15	-16	-17	
28	-15	-20													-20			-13	-14	-19	-14	-4	-10	-14	
29	-17																	-18	-15	-14	-11	-11	-8	-10	
30	-17												-15	-8	0		-4	-6	-7	-7	-6	-9	-2	-6	
31	-17													0	4	-3			-5	-5	-6	-8	-9	-10	
CNT	17	8											4	12	18	16	18	25	25	24	27	29	28	25	
MED	-17	-20											-18	-8	-4	-5	-11	-16	-15	-16	-15	-15	-17	-16	
UQ	-16	-19											-16	-5	0	6	-3	-11	-13	-14	-12	-12	-11	-10	
LQ	-18	-20											-20	-15	-20	-17	-19	-18	-18	-19	-19	-20	-19	-20	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JUNE 1974

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3																-7								
4																								
5	-14																							
6	-16	-15																						
7	-4	-17																						
8		-17																						
9	-15																							
10																								
11																								
12	-18																							
13	-18																							
14	-11	-17																						
15																								
16																								
17																								
18																								
19	-19	-20																						
20																								
21																								
22	-19																							
23																								
24																								
25																								
26	-17																							
27																								
28																								
29																								
30																								
31																								
CNT	10	5																						
MED	-16	-17																						
UQ	-14	-16																						
LQ	-18	-18																						

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JULY 1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																		-12					-16		
2			-19																-18	-12	-10	-10	-12	-10	
3	-12																				-17				
4	-12														-16	-15									
5																									
6																									
7																									
8																				-20	-18		-17		
9																					-19	-18	-19	-19	
10	-19	-20	-20													-20		-20	-13	-13	-6	-8	-14	-17	
11	-18														-4	-10			-14	-12	-14	-16	-19	-19	
12	-20	-18														-5				-14	-10	-10	-15	-8	
13																		-15	-19	-19	-18	-17	-17	-18	
14	-18	-18	-20												-20	-20	-18		-19		-17	-20	-19	-20	
15	-19															-13							-20	-20	
16	-19																			-18	-15	-14	-13	-10	-10
17	-18	-19																				-14	-15	-19	-19
18	-12	-15								-10	1	5	-8	-17											
19													1	2	-14	-18	-17	-18	-18	-18	-18	-18	-17	-18	
20	-17	-19	-20												-3	3	0	-8	-19	-17	-18	-18	-14	-6	-17
21					-19										2	-3	-11	-15	-7	-7	-7	-13	-19	-18	
22		-18																			-18	-19	-18	-7	-14
23	-15	-18	-18													-12			-8	-7	-8	-6	-11	-19	
24		-20																							
25																								-7	
26																			-19	-18	-15	-18	-12	-17	-19
27		-17																				-17	-13	-10	-6
28			-16	-17																	-12	-11	-18	-9	-11
29	-18	-18																			-14	-11	-16	-16	-14
30	-11																				-9	-8	-9	-15	-18
31	-17	-17	-18		-15										-1	-6	-9	-9	-7	-7	-18	-5	-5	-7	-9
CNT	15	12	7	1	2							1	2	7	12	8	11	12	17	24	20	22	21		
MED	-18	-18	-19	-17	-17							-10	-1	-1	-9	-13	-15	-15	-15	-14	-14	-13	-16	-18	
UQ	-12	-17	-18											3	-4	-8	-12	-10	-12	-9	-10	-11	-10		
LQ	-19	-19	-20												-16	-14	-17	-19	-18	-18	-18	-17	-19	-19	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

AUG.1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	0	-18															-13	-11	-14	-9	-13	-8		
2															3	8	-6	-8	-12	-13	-16	-12	-11		
3																	-18	-11	-7	2		-15	-11		
4																									
5																				-19	-16	-15	-15		
6																-13					-13	-10			
7	-11	-18													-16	-10	-18	-18	-18	-10	-18	-12	-16	-12	
8	-11	-18														-14	-16	-15		-15	-8	-9	-9	-8	
9															-12	-18	-16	-16	-18	-16	-8	-16	-15	-14	
10	-19	-11															-19	-15	-15	-8	-8	-12	-10	-14	
11		-18	-9																	-18	-9	-10	-17	-18	
12			-19	-18											-8	-7	0	-4	-4	-3	-12		-14	-10	
13													-8	-7	0	-4	-4	-3	-12	-18		-14	-10	-10	
14	-11	-17													5	6	1	-9	-14		-17	-15	-8	-9	
15	-9	-18													7	4	-3	-15	-16		-20	-18	-11	-7	
16	-7														-6	0	-5	-15	-10	-9	-7	-14	-18	-10	
17	-11	-17	-19							-6	-4	3	10	5	3	10	5	-4	-6	-11	-16	-14	-17	-17	
18	-11	-14	-18										-13	-5	-1	-3	-7	-8	-7	-5	-7	-6	-7	-7	
19	-3	-13	-16													-18	-5	-8	-7	-6	-13	-3	-7	-7	
20	-10	-10															-17		-18	-8	-17	-15	-16		
21															-18	-18			-15	-18	-19	-19	-15	-15	
22	-15																		-14	-20	-17	-15	-16	-12	
23																			-18	-20	-13	-16	-17	-16	
24	-8																		-9	-18	-18	-18	-10	-10	
25	-7																		-9	-8	-9	-5	-7	-9	
26																									
27		-10	-11											-4	3	-3	-4	-3	-7	-5	-7	C	-8	-9	
28																		-9	-10	-6	-9	-7	-8	-9	
29	-9	-10																				-8	-8	-7	
30																			-2	-3	-5				
31															1	-2	-5						-8	-7	
CNT	15	13	7	1						2	5	13	17	19	22	23	24	23	24	23	27	26	20		
MED	-10	-14	-18	-18						-7	-7	0	-3	-5	-9	-12	-10	-13	-12	-11	-10				
UQ	-7	-10	-11												3	3	-3	-5	-7	-8	-8	-8	-8		
LQ	-11	-18	-19												-11	-10	-13	-16	-15	-17	-16	-16	-15	-16	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

SEP.1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-11																							
2																									
3																					-9	C	-7		
4																					-9	-8	-9		
5																	-7						-10	C	
6																	-6	-9	-7		-8	-8	-7	-9	-8
7	-9																	-7	-8						
8																		-7	-7						
9																						-7			
10													0	1	0	4	-5	-6							-10
11													-1	2	-2	-5	-7	-8	-7		-5	-7		-7	-10
12													-8	C	-8	-7	-6	-8	-9						-9
13														-9	-9	-9	-7	-7					-6		
14	-6													-3	-3	-4	-7	-8	-8						
15														-3											
16																	-3	-2	0	-7	C				
17	-8															3	4	2							
18																	-5	-10				-8	-9	-9	
19																	-11	-11	-10	-11	-11	-10	-9	-9	
20																									
21																							-13	-12	-11
22	-7	-12														-11	-12	-14		-12		-10	-9	-13	
23		-11														-10	-9	-12	-12	-11	-10		-11		
24																	-14	-15	-14	-8	-10				
25																	-14	-12				-14	-14	-11	
26																									
27																									
28	-17	-18																-15	-16	-15	-15	-15	-15	-15	
29																		-19	-18	-18	-17	-17	-17	-11	
30																		-10	-12	-14	-16	-15	-13	-14	
31		-19																-13	-9	-14	-14	-11	-8	-12	
CNT	5	6											3	6	8	13	18	19	14	13	12	14	11	11	
MED	-8	-14											-1	-3	-7	-9	-7	-9	-9	-11	-10	-10	-11	-10	
UQ	-7	-11												1	-2	-4	-6	-7	-7	-8	-8	-8	-9	-9	
LQ	-9	-18												-9	-9	-12	-12	-14	-14	-14	-13	-13	-12	-11	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

OCT.1974

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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														-11	-12	-13	-13								
2	-9	-15		-16											-14	-13	-12								
3															-15	-2	-2	-4			-10	-8	-11		
4		-9												-3	-3	-11	-1	-4	-10	-3	-4	-11	-3	-14	
5	-3	-18												-14	-10	-10	-7	-8	-8	-9			-10		
6		-15	-10	-18										-14	-11	-10	-9	-7	-4	-15	-15				
7														-13	-14	-16	-14	-4	-3	-6	-6		-16		
8		-17												-10	-9	-9	-5	-9	-7	-13			-14	-11	
9	-7													-9	-6	-11	-12	-15	-8	-12	-8	-14			
10		-18												-12	-6	-3	-2	-5	-14	-13	-10	-13	-15		
11	-15	-17												-14	-12	-4	-3	3	C	C	C	C	C	C	
12		-16													-10	-9	-4	-2	-2	-5	-5	-1			
13	-7	-14													-13	-13	-11	-13	-14	-13	-3	-4	-11		
14															-11	-9	-2	-2	-7	-14	-9	-16	-16	-16	
15	-13																-15	-13	-15	-16	-15	-16	-15	-16	
16																-8	-11	-13	-5	-15	-15	-13			
17																-18	-17	-14	-15	-17		-17		-17	
18	-10	-13														-18	-11	-3							
19															-16	-10	-13	-3	-3	-15					
20	-17														-17	-13	-10	-9	-16	-17	-15	-16			
21															-13	-5	-9	-7	-6	-8	-11	-14	-10	-9	
22	-8	-10														-16	-15	-11	-11	-11	-13	-14			
23	-14	-12													-10	-9	-2	-5	-6	-5	-12	-10	-8	-8	
24	-9	-10													-13	-8	-9	-7	-7	-8	-7	-5	-9		
25	-11	-9													-8	-9	-13	-14		-13	-13	-12	-13		
26																-7	-8	-11	-7	-9	-13	-8	-12	-12	
27	-13	-15													-9	-14	-11	-12	-9	-13	-12	-13	-13	-12	
28	-15	-14		-10												-11	-8	-7	-8	-7	-8	-10	-13	-11	
29																-17	-16	-8	-12	-15	-15	-15			
30	-17	-14														-12	-13	-15	-10	-13	-15	-16	-14	-15	
31				-11												-5	-3	3	1	0	-2	-4	-5	-6	-8
CNT	15	17	1	4										7	20	27	31	28	26	26	22	22	22	14	
MED	-11	-14	-10	-13										-13	-11	-10	-9	-9	-7	-11	-11	-11	-13	-12	
UQ	-8	-11												-10	-9	-8	-5	-3	-5	-7	-7	-8	-10	-9	
LQ	-15	-16												-14	-13	-13	-13	-12	-11	-14	-13	-15	-14	-15	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

NOV.1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-6	-8													-9	-3	0	3	0	-1	-4	-4	-4	-5
2	-7	-14	-2												-14	-9	-9	-12	-9	-1	-2	-6	-8	-6
3	-2	-8													-13	-14	-15	-12	-5	-8	-5	-9	-9	-8
4	-6	-11	-4												-10	-4	-1	2	2	0	-8	-9	-10	-5
5	-10														-8	-6	-2	-4	-2	-2	-1	-3	-5	-2
6																		-14	-9	-9	-10	-11	-11	-8
7	-2	-1													-12	-9	-4	0	1	1	-9	-6	-3	-5
8															-9	-6	-2	-3	-7	-1	-4	0	-2	-7
9	-9	-10													-10	-11	-4	-5	-6	-9	-8	-7	-8	-3
10																-10	-10	-8	-3	-4	-7	-9	-10	-14
11	-13	-12															-8	-9	-10	-12	-11	-9	-15	-11
12															-10	-15	-14	-10	-7	-9	-13	-7		
13															-12	-7	-9	3	-9	-9	-16	-9		
14																	-6	-7	-3	-4	-8	-6	-15	-12
15	-9	-15	-16												-17	-15	-12		-9	-2	-6	-18	-6	-12
16	-15	-17															-15	-4	-12	-5	-1	-5	-8	-16
17	-2	-5	-15												-15	-10	-10	-16	-6	-12	-13	-10	-10	-7
18																-8	-6	-2	-4	-6	-7	-8	-8	-5
19	-1	-8	-9												-12	-6	-2	-6	-1	-2	-6		-3	-4
20	-6	-12													-12		-16	-9	0	-8	-13	-11	-16	
21		-14															-10	-12				-5	-6	-10
22	-14														-18	-18	-8	-11	-16	-16	-9	-8	-16	-15
23																-14	-8	-14	-14	-8	-5	-8		
24																	-16	-14	-13	-9	-6			-8
25																-1	2	9	6	9	9	4		
26	-5	-6														0	3	0	3	4	0	3	3	
27			3												-10	-2	-15	-5	-8	-10	-8	-9	-5	-7
28															-10	-13	-12	-19	-11	-17	-13	-14	-12	-8
29	-9																-19	-20	-20	-17	-10	-12		-6
30																-9	-10	-9	-6	-6	-10	-9	-9	-7
31																								
CNT	16	16	6												17	22	29	29	29	29	29	28	24	24
MED	-6	-9	-6												-12	-9	-9	-8	-6	-6	-8	-8	-8	-7
UQ	-3	-8	-2												-10	-6	-2	-2	-1	-1	-4	-5	-5	-5
LQ	-9	-13	-15												-13	-13	-13	-12	-9	-9	-10	-9	-10	-10

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

DEC.1974

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-4	-9	-6													-15	-17	-14	-1	-10	-14	-8	-6	-17
2															-15	-14	-20	-20	-9	-9	-7	-20	-12	-10
3	-12	-9	-5															-20	-12	-10	-19	-10	-11	-9
4	-19	-20		-18												-16	-15	-9	-7	-10	-10	-2	-12	-18
5															-16	-16	-13	-5	-7	-12				
6															-17	-8	-4	-5	-2	-2	-5	-4	2	-1
7	-1	-4	0													-16	-15	-16		-5	-2			
8		-4													-20	-15	-7	-11	-20	-9				
9																								
10																-9	-12	-18	-18	-9				
11																			-15					-2
12																	-15	-15	-13	-7	-6			
13	-7																	-10	-17	-10		-16		
14																	-4	-6	-8	-16		-8		
15		-8		-11	-3											-18			-13	5	-6	-6	-13	-9
16	-11	-10	-8																-9	-5	-4	-5	-6	-9
17	-14	-15													-6	-3	0	3	5	-1	-15	-9		
18	-14														-18	-7	-12	-14	-7	0	-6	-6	-12	-13
19															-14	-15	-9	-4	-3	-1	-5	-7	-18	
20																		-16	0	-14	-8	-5	-4	
21	-13	-16																	-4	8	6	-6	-13	-14
22															-7		-3	-2	-9	-9	15	0		
23																	-18	-4	-7	-5		-15	-14	-6
24				-14														0		-5	-13	0	0	-3
25	-4	-8													-10	-8	-8	-5	-2	-3	-9	-5	-5	
26		-15	-15		-14										-20	-19	-19	-14	3	-2	-9	-10	-13	-10
27					-13										-15	-20	-14	-14	-16	-5	-7	-9	-3	-12
28															-20	-16	-19	-10	-16	-1	1	-11	-7	-8
29	-15	-13	-8	-12	-11											-18	-16	-17	-14	-9	-3	-5	-3	-3
30		-13	-15													-14	-6	-2	6	2	5	-2		-3
31															-16	-12	-9	-4	1	-11	-13		-7	-3
CNT	12	13	7	4	4										13	19	22	29	29	29	23	23	20	17
MED	-12	-10	-8	-13	-12										-16	-15	-12	-9	-7	-5	-6	-6	-7	-9
UQ	-5	-8	-5	-12	-6										-12	-9	-7	-4	-1	-1	-5	-5	-3	-3
LQ	-14	-15	-15	-16	-13										-19	-16	-16	-14	-14	-10	-10	-10	-12	-12

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JAN.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-17	-7	-7											-19	-14	-8	-7	-9	-10	-9	-11	-4	-15	-5
2	-7	-6	-7												-15	-8	-15	-10	-10	5	-6	-13	-12	-10
3	-13	-11													-24	-21	-13	-17	-20	-14	-20	-14		
4															-25	-25		-21	-20	-15	-21	-12	-15	-20
5															-24			-23	-10	-20				
6																			-10	0	-5	-9	-16	-18
7																	-22	-22	-17	-7	-15	-13	-11	-7
8	-10	-10													-22	-20	-20	-12	-10	-20	-20	-17	-7	-15
9	-18	-14	-24												-17	-16	-10	0	-1	-9	-10	-11	-6	
10	-7	-12													-11	-11	-11	-5	2	5	4	-10	-14	
11	-12	-8	-4												-22	-15	-16	-18	-12	-2	-8	-10	-9	-12
12	-12	-1													-22	-18	-15	-5	5	-2	0	-10	-2	-5
13	-6	-8	-7												-11	-11	-20	-8	-10	-14	-16	-16	-11	-17
14																								
15																	-8	-5	-2		-15			
16																								
17																			-15	-14	-8			
18																					-5			
19																					-5			
20																					-7	-7	-11	
21																					-8			
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30																								
31																								
CNT	10	10	5											1	8	13	15	16	19	17	16	12	11	11
MED	-12	-9	-7											-19	-22	-16	-13	-11	-10	-7	-11	-11	-11	-12
UQ	-7	-7	-5												-14	-10	-8	-9	-5	-1	-7	-9	-9	-6
LQ	-17	-12	-15												-23	-20	-16	-17	-12	-14	-15	-13	-15	-17

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

FEB.1975

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																			-7					
2																		-10		-7				
3																-9				-7				
4																-12	-9			-8		-10		
5																				-12				
6																			-5	-10				
7																	-12	-6	-9				-8	
8																								
9																								
10																	2			-11				
11																								
12																								
13																	-6					-13		
14																								
15																	-15		-6	-5				
16																								
17																		-8		-6				
18																	-5							
19																			4	-10	-10			
20																	-3		-7	-10				
21																								
22																-10		-6	1	-5				
23																-6	0			0	-9			
24																-12				-9				
25																			-6	-9	-9			
26																				-10	-9		-10	-10
27																	-11	-5	-5	-1				
28																								
29																								
30																								
31																								
CNT																4	6	10	4	9	13	5	2	1
MED																-10	-7	-5	-7	-6	-9	-10	-9	-10
UQ																-8	-5	-3	-2	0	-5	-9		
LQ																-11	-10	-9	-9	-7	-10	-11		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAR.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3															-12		0	-3	-6					
4																-5	0						-6	
5																								
6																								
7																		-6	-9	-6	-11	-5		
8																		7						
9															-10	-10	-3	-5		-6				
10																								
11																								
12																								
13																								
14																								
15																								
16																	-3		-14					
17																								
18																								
19																								
20																								
21															-8	-2	1	-1						
22															-2	4	7							
23	-1	-10															-6		-6		-8			
24																								-8
25															-3	5		-5						
26																								
27																								
28																								
29																								
30																								
31																	-3							
CMT	1	1													5	5	7	7	4	2	2	3		
MED	-1	-10													-8	-2	-3	-3	-9	-6	-9	-6		
UQ															2	5	1	0	-7					
LQ															-11	-6	-5	-5	-12					

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																			-10						
2															0	-5	-5	-11				-15			
3																-6	-7	-12				-13	-10	-10	
4															-7			-10	-10	-10	-5	-12			
5																		-7							
6																			-12				-10		
7															-7							-13			
8																									
9																									
10																									
11																		-10		-14					
12																									
13																									
14																									
15																									
16																-14					-14		-13		
17																									
18	-9														-1	-5								-14	
19															-6	-5					-14	-10	-10		
20	-6	-10																						-11	
21																									
22																									
23																									
24																									
25																						-12			
26																									
27															-10									-12	
28	-9														4	1									
29															-9										
30	-10	-15																							
31																-15				-10	-6	-11	-12	-5	-5
CNT	4	2													8	5	2	6	6	5	4	5	6	5	
MED	-9	-12													-6	-5	-5	-8	-10	-12	-11	-13	-10	-11	
UQ	-7														0	-2		-7	-10	-8	-10	-9	-10	-7	
LQ	-9														-8	-14		-10	-11	-14	-12	-14	-12	-13	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAY 1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																1	-7		-6	-9			-12		
2																						-13	-12		
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																							-12	-14	
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30																									
31																									
CNT	3	1														4	1	1	3	4	3	3	6	3	2
MED	-14	-17														-6	1	-7	-8	-10	-11	-14	-12	-12	-14
UQ																-5				-6			-12		
LQ																-7				-13			-12		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JUNE 1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3																								
4																								
5																								
6																								
7																							-7	
8																							-5	-4
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30																								
31																								
CNT	1																							
MED	-7																							
UQ																								
LQ																								

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JULY 1975

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2	-10												-9	-2										
3																								
4																								
5																								
6														-1	0	0								
7														-4		6								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																					-8	-10		
16		-11																			-10		-13	
17																					-11	-14		
18																								
19																4								
20																								-11
21																								
22														-6	4	-5								
23																								
24																								
25	-11	-12																						
26																								
27																								
28																								
29																								
30																								
31																								-5
CNT	2	2											1	4	3	5					3	2	1	1
MED	-10	-11											-9	-3	0	2					-10	-12	-13	-11
UQ														-1		5								
LQ														-5		-5								

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

AUG.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3	-17														-10	-3	-3	-13						
4															-8	-1	-3				-12			
5	-13															-9	-7							
6	-15																							
7																-7	-7		-9	-9				
8																							-3	-5
9	-16																		-15	-14		-15	-15	
10																				-17				
11																								
12																								
13																								
14																								
15																								-14
16																-9								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27	-16																							
28																								
29	-12																							
30	-16																							
31																								
CNT	7																							
MED	-16																							
UQ	-13																							
LQ	-16																							

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

SEP.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																-11	-15	-15	-16					
2															-11	-8	-6	-11					-10	
3														-9	-3	-8	-3	-8	-12					
4															-12	-8	-7	-12	-16					
5														-13	-12	-2	-3	-6			-15		-17	-17
6		-17													-4	-3	-1	-13	-9	-11	-15	-12	-14	
7																	-16	-15						
8																-15		-14		-13				-10
9	-12																				-16			
10																								
11																								
12																								
13																								-10
14																								
15																-7	-6	-9						
16																-16								
17	-12														-8	-12	-12	-9	-10	-15				
18														-7	-3	-3	-13	-14	-13					
19																								
20															-10	-5	-5	-5	-11					
21	-13														-10	-6	-8	-5	-8	-10	-10			
22															-8	-3	-5	-9	-6	-3		-15		
23															-10	-16	-14		-14	0				
24															-10	-9	-7	-7	-7	-16				
25															-13	-9	-4	-7	-8	-15				
26	-10														-14	-10								
27															-16						-16			
28														-9										
29															-13	-12	-17	-10	-14					
30															-15	-8	-3	0	-4	-8				
31																								
CNT	4	1												8	17	20	18	18	14	8	3	3	2	2
MED	-12	-17												-9	-10	-8	-7	-9	-11	-14	-15	-12	-15	-10
UQ	-11													-8	-5	-5	-4	-7	-9	-10				
LQ	-12													-11	-12	-11	-13	-13	-14	-15				

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

OCT.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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														-9	-9		-12	-10	-6	-5					-15
2	-15													-11	-2	-3	-1	-3	-2	-8					
3														-9	-2	-2	-6	-5	-5	-3	-7	-5	-8		
4															-14	-1	-2	-5	-7	-11	-9				
5																-15		-9	-7	-14	-7				-8
6	-13																-15	-15	-12						
7																									
8																									
9																									
10																									
11																-8	-7	-10		-15					
12																			-8						
13																-15		-15		-11					
14																									
15														-13	-8	-5	0	-8	-4	-8					
16															-16	-6	-16		-5	-9	-8				
17															-9			-11	-4						
18	-14														-15	-8	-10								
19	-10														-4	-2	-7	4	3	2	-2				
20																-3	-4	-2	-2	-4	-6			-14	
21																-13	-7	-6	-5	-4	-11				
22																-3	-5	-5	-6	-3					
23	-11															-3	1	-7	-5						
24															-11	-6	-5	-4	-6	-4	-6	-13	-10		
25															-11	-10			-10	-3	-6	-7			
26																-8		-8	-9						
27															-10	-3	-7		-2	-7					
28																-15	-6	-6	-3	-5					
29																-8	-15	-15	-10	-2	-7	-7			
30																			-8	-7					
31																				-7					
CNT	5													4	12	20	18	18	22	21	10	4	3	2	
MED	-13													-10	-9	-6	-6	-7	-6	-5	-7	-7	-10	-11	
UQ	-10													-9	-6	-3	-4	-5	-4	-3	-6	-6			
LQ	-14													-12	-13	-9	-10	-10	-8	-8	-8	-10			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

NOV.1975

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-7	-7	-7				
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30																								
31																								
CNT																								
MED																								
UQ																								
LQ																								

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

DEC.1975

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																		-10						
3																			-8	-11				
4																					-6	-11		
5																				-14	-7	-4		
6																					-10			
7																		-7	-10	-5	0		-3	-13
8																			-10	-7	-1			
9																				-9	-9	-5	-12	-12
10																					-4			
11																		-6	-5	-2				
12																				-2	-1	-9		
13																			-7	0				
14																			-3	-5	-3			
15																-9				-3	-5			
16																				-4	-1	-2		
17																-14	-8	-7	-5	2	-7		-9	
18																-11	-4		-3	-1	-1	-9		
19																			-7	-1	-5			
20																-11			-8	0				
21																			-5					
22																					-6			
23																					-11			
24																								
25																-10							-13	
26																								
27																								
28																								
29																								
30																								
31																								
CNT																5	2	6	11	18	13	5	3	2
MED																-11	-6	-7	-7	-3	-4	-9	-9	-12
UQ																-9		-6	-5	-1	-1	-7		
LQ																-12		-7	-10	-7	-6	-12		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JAN.1976

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3																								
4																								
5																								
6																	-11	-9	-14			-16		
7																			-8					
8																		-16	-10	-10	-7			
9																		-15	-15			-11	-13	
10																-16								
11																			-17					
12																								
13																								
14																								
15																	-15	-6	-12			-12		
16																-10	-4	-9	-14	-12				
17																			-22					
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																	C	C	C	C	C	C	C	
26																	-11	-9	-6	-12				
27																								
28																	-10	-10						
29																								
30																								
31																	-10	-12	-13	-7	-1	-11		
CNT																3	6	9	9	3	5	2		
MED																-11	-10	-10	-12	-10	-11	-12		
UQ																-9	-7	-8			-4			
LQ																-11	-15	-14			-14			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

FEB. 1976

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																-10	-11	-7	-14	-14						
2																-13	-15	-11	-10	-9	-12					
3																	-15		-13	0						
4																	-8	-6	-12	-14	-10					
5															-4	-5	-7	-2	-10	-15	-9	-9	-9			
6														-13	-14	-14	-4	1	4	2	-8	-3	-12			
7														-15		-15	-10	-3	-3	0	-9					
8			-12													-7	-2	-10	-7							
9																	-15	-7	7	-7	-2	-10				
10																	-7	-5	1	0	-14					
11																			-7	-5						
12																-1	-2	-15	-12	-16	-15	-13				
13																-11	-10	-5	12	-7	-8					
14																-15	-5	-8	5	-14						
15			-10	-14											-14	-5	-7	-11	-10	-13	-9					
16			-12												-15	0	-1	0	2	-4	-12	-10				
17			-5	-9												-10	-7	6	5	-7	-10					
18	-10	-1	-7													-11	-2	5	-1	-12	-5	1				
19	-14	-12	-6														-13			-7		-13				
20																	-7	-2		-7		-13	-13	-16		
21	-13	-14	-10																-12	-10						
22		-9	-12													-13	-2	-4	3	-9	-10					
23	-14		-10													-12	0	-2	1	-3	-10	-8	-6	-5		
24	-9	-9	-2													-5		2	-3	0	1	-4				
25	-3	-4														-15	-7	-3	-3	0	9	6	-11	-6	-14	-14
26	-11	-10	-3													-13			-10	-10	-13	-13				
27			-12														4	-6	-7	-12	-8	1				
28																-13	-6	6	-5	-6	-11	-13	-15		-15	
29																-13	2	-5	-13	-13	-6	-2	-8	-12	-10	
30																										
31																										
CNT	7	10	11											4	11	17	24	25	27	29	20	14	6	4		
MED	-11	-9	-10											-14	-13	-7	-7	-5	-8	-7	-9	-9	-12	-14		
UQ	-9	-5	-6											-13	-5	-1	-2	-1	0	0	-7	-6	-9	-12		
LQ	-14	-12	-12											-15	-13	-12	-10	-10	-12	-11	-12	-13	-13	-15		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAR.1976

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-10												-15		-10		-12					
2																	-7				-15	-16		
3																			-11	-10	-3	-11	-13	-12
4																	-15	-8			-15			
5																-12	-14	-9	-11	-10	-6	-7		
6																-10	8	-13	-14		-13	-13	-13	
7																		-13	-13					
8																		-7	-14	-10	-14			
9																		-13	-15					
10																	-4				-16			
11																	-14			-13	-12	-12		
12																-7	9	-6	-15	-16	-10	-9		
13																		-14	-5		-12	-12		
14																			-7	-15	-10			
15																-11	-6	0			-16	-9	-15	-9
16	-6															-14	9	-4	-12		-15	-15	-16	
17		-16																			-15			
18	-13	-15																-7	-12	-10	-15	-11		
19	-10		-12													-12	-5	-14	-16	-7	-5	-4		
20		-10	-14											-15	-14	-12	-13	-12		-8	-12	-10	-12	-12
21	-4	-8	-11												-7	3	0	-8	-13	-11	-12			
22	-8	-12													-1	-1	0	0	4	-6	-4			
23	-1	-13	-13												-11	-4	0	9	5	3	-5	-15	-9	
24	-8	-8													-12	-4	1	6	10					
25															-6	-5	-5	-4	-8					
26															-14	-13				-15		-12		
27															-12	0	-7	-9		-13	-12			
28															-14	-5	-15							
29																	-16	-13	-7		-12	-10		
30			-15														-16	-4	-1	-9	-10	-11		
31																	-15	-15	-12	-8	-15	-8	-13	
CNT	7	7	5										3	13	18	23	21	19	17	24	16	5	3	
MED	-8	-12	-13										-12	-12	-6	-7	-8	-12	-10	-12	-11	-13	-12	
UQ	-4	-10	-12												-5	-1	0	-6	-7	-9	-6	-9	-13	
LQ	-10	-15	-14												-14	-12	-13	-13	-13	-15	-15	-13	-14	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR. 1976

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-11	-13												-15		4			-11	-13				
2															-16	4	4	-4	-15						
3																			-10						
4																			-15	-15					
5															C	C	C	C	-11	-11	-5				
6																		-12	-15				-11		
7	-14																								
8																									
9																									
10																									
11	-10	-15																							
12																									
13																									
14																									
15																									
16	-13																								
17																									
18																									
19																									
20	-10	-15	-7																						
21	-7																								
22	-4	-7	-15																						
23																									
24	0	-10																							
25																									
26																									
27	-9																								
28																									
29																									
30																									
31																									
CNT	9	5	3												10	16	16	16	14	15	18	17	14	9	4
MED	-10	-11	-13												-4	2	1	-7	-5	-10	-11	-10	-10	-12	-9
UQ	-5	-8													0	7	4	2	-1	-5	-9	-7	-10	-9	-7
LQ	-13	-15													-9	-6	-11	-9	-10	-13	-13	-13	-12	-12	-11

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

MAY 1976

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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								
2																				-13	-13				
3																			-5	-10	-4	-10			
4																			-11		-13				
5																			-14		-12				
6																									
7															-8	-4	-6		-14			-12			
8	-14														0	1					-13			-10	
9	-10													0	5	-3									
10	-12													-5	0	-12				-11	-12	-12	-7	-14	
11	-15													-11	-8	-6	-9			-6	-14	-14	-15		
12																				-7	-8	-10	-12	-9	
13	-11													-1	10	-5	-12	-12						-11	
14	-6	-12												-9	2	1						-12	-14		
15														5	10	10	-6			-12		-10			
16	-1													4	7	10	-8			-12	-11			-10	
17														2	-5	-10									
18	-8													5	6	-5	-12								
19														-6	4	12	-8	-15							
20																				-8	-7	-5	-8		
21																				-11	-10	-8	-9		
22														-10	-5	-13	-11	-12	-8	C	-10	-12			
23														-15	-7		-12	-10	-11	-11	-7	-10			
24		-14													-5	-14						-10			
25	-15	-12													-7	-15				-15		-14	-12		
26		-14													3	5	-5	-13			-9	-10	-14		
27		-14												-13	-6					-12	-10				
28																		-9	-4	-8	-5	-9	-7	-8	
29																			-14	-6	-12	-7	-9	-12	
30																					-9	-13			
31																					-8	-10	-11	-12	-13
CNT	9	5											2	14	17	15	13	6	12	15	18	18	9	6	
MED	-11	-14											-9	0	0	-5	-12	-12	-11	-10	-10	-10	-12	-10	
UQ	-7	-7												4	7	1	-8	-10	-8	-7	-8	-10	-10	-10	
LQ	-14	-14												-9	-6	-10	-13	-12	-13	-12	-13	-12	-14	-12	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JUNE 1976

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																					-12	-14	-14	-14	
2																							-15		
3		-15											-14	-7	-1										
4																	-10					-12	-15	-10	-13
5	-3														-13	-14			-6	-6	-9	-10	-6	-4	
6	-12	-13													-8				-14	-13	-12	-13	-13		
7	-12													-14						-15	-10	-15	-13		
8	-13																			-13	-13	-9	-13	-12	
9																									
10	-13	-15												-6	-6	-12					-15	-11	-9		
11		-15													-12			-10		-10	-10	-10	-9	-8	
12																					-11		-12	-4	
13	-7	-10													-5	-14									
14	-9												-10	-1	-7						-14				
15													-8	4	-9	-14				-14	-14			-14	
16													-9	5	-1						-11		-10	-12	
17	-12												-8	4				-8	-10	-14	-15	-11			
18																		-8	-10	-12	-9	-13			
19														-8											
20	-12																			-15	-10	-11	-14	-15	
21	-9	-12											-7	5	6	-10	-13	-12				-13			
22													-6	9	-12								-8	-9	
23	-9	-10											-5	5		-9	-12	-10	-12	-12				-9	
24	-12												-12	0	1										
25	-12	-10															-5		-10	-8		-12			
26													-9	0	4								-11	-11	
27														-16		-15					-11		-15		
28		-15												-8											
29													-11												
30														-12						-14	-6			-13	
31																									
CNT	13	9											11	16	13	7	4	5	8	15	14	15	13	10	
MED	-12	-15											-9	0	-6	-14	-11	-10	-11	-13	-11	-13	-12	-11	
UQ	-9	-12											-7	5	0	-10	-7	-8	-10	-10	-10	-10	-9	-8	
LQ	-12	-15											-11	-8	-11	-14	-12	-11	-14	-14	-12	-14	-13	-13	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

JULY 1976

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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													-12					-10	-9	-12				
2	-10																					-13	-14	4	
3	-11																				-14	-7	-14	-14	-12
4																			-11	-12	-11	-13	-6	-7	
5																						-4	-5	-7	
6													C	C	C	C									
7		-15																							
8	-10												-6							-11	-12	-12	-8	-12	-10
9																					-13	-7	-9		
10		-14																						-12	
11	-15												-11	0	-5										
12		-10												3	3										
13														-5	2										
14	-10	-7												-3	4										
15														-2	0										
16	-5																								
17															-7										
18																									
19																									
20		-12																							
21													-10	0	8										
22														-7	-1										
23	-13	-9												-2	0										
24		-10												-7	6	11									
25		-5												-10	10					0	-10	-6			
26																									
27	-5	-10											-11	4	9										
28		-12												12	11										-12
29	-10																								
30																									
31																									
CNT	10	10											5	13	15	1			1	4	9	12	8	7	3
MED	-10	-10											-10	-2	3	-5			-11	-10	-11	-11	-9	-12	-10
UQ	-10	-9											-7	4	9					-5	-9	-7	-7	-7	
LQ	-13	-12											-11	-5	-1					-11	-12	-12	-13	-14	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

AUG.1976

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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												-12	-9	3	-7								
2															-4	-8									
3															-9	-2									
4														-2	11	14									
5														-4	8	13					-13	-10			
6	-12	-14												-10	4	10	-7								
7																-3									
8														-12	10	11	0								
9		-7														-10	-14		-10	-10	-9	-12			
10														-2	6										
11																									
12														-6	-5	-11									
13														-1	3	3	-7								
14		-11												-4	-1	3	-5								
15														-5	-1	7									
16														-3	9	0	-3	-6							
17														0	10	9									
18	-14	-14												3	7	9	5	-8							
19														-9	-1	4									
20														-14	0	9	-5								
21														-2						-10	-13	-14			
22														-4	5	-8									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30	-13																								
31																									
CNT	3	5												18	20	21	11	4	3	7	5	4			
MED	-13	-13												-4	2	3	-7	-9	-10	-13	-12	-12			
UQ		-11												-2	8	9	-3	-7		-6	-10	-10			
LQ		-14												-10	-1	-5	-7	-10		-14	-13	-14			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

SEP.1976

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-11												-6	0	-5	0			-10	-10	-11			
2																-14	-11	-9						
3																								
4	-15														-6									
5																-12				-12	-14			
6	-9																-15	-11	-10	-14				
7																		-13	-10					
8													-5	6	7	-12	-10							
9	-12												-14	0	0				-11	-10	-7			
10	-10	-10													-5	2	10	0						
11	-2												-10	1	11	14	14	1	-9	-10	-14	-13		
12	-11													-9	3	4	-8	-4	-11	-12	-11	-9		
13														-12	-4	0	0	-3						
14														-13	7	5	-5	-9			-7			
15															-6	-10	-12	-12					-10	
16															0	0	0	3		-8				
17		-13												0	7	6	1	4						-12
18																	-14		-12	-11	-11			
19														-5	-12			-10	-7					
20														-13	-12									
21																-12		-11						
22																								-12
23																								
24															-7	-6								
25														-6	2	0			-10	-12	-6			
26																								
27																		-7						
28	-10															-12	-6	-5	0	-10				
29														-9	-8	-6	-1	1	4	-10	-13			
30														-7	-10	4	5	-1	-5	-12				
31																								
CNT	8	2											1	13	18	20	16	19	12	13	8	3		
MED	-10	-11											-10	-7	-2	0	-3	-7	-10	-10	-11	-12		
UQ	-9													-5	3	4	1	-1	-6	-9	-10			
LQ	-11													-12	-6	-11	-11	-10	-10	-12	-12			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

OCT.1976

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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				-7			-14	-12		
2																			-12	-9				
3																	-10	-4						
4																-10	-4	-4	-6	-6	-10			
5																	-9	-1						
6	-10																-14	-10	-13					
7														-7	-1	6	6	2	-5					
8														-12	-9	-10	5	7	-2			-11		
9														-9	0	2	0	-9	-9	-10	-10	-12		
10	1	-12												-11	-16	-13	-5	2	-7			-10		
11														-8	0	5	9	3	-4	-5	-8	-8	-8	
12	-7													-9	-6	4	6	9	14	6	-1			
13																-13	-5	-1	-10					
14														-12	-9	2	2	5	5	3	-5			
15															-9	-5	-10	-13	-12					
16																		-3						
17																								
18																			-10	-11				
19																								
20																	2	5	2	-10	-11			
21														-12	-1	4	1	2	0	2				
22	0														4	1	4	-6	-7	-10	-6	-1	2	
23	10													-11	-12	-10	-7	0	2					
24														-12	-1	5	10	8	3	-9				
25															0	6	14	13	14	7			-10	
26	-10	-12													-9	-2	4	7	6	3	-1			
27	-8														-7	2	-9	-1	0	-4		-3	-3	
28	0														-7	0	6		6	-10	-8	-7	-5	
29														-12	-1	4	5	5	7	4		-1		
30	2														-8	1			-10		-9	0		-5
31																	-8	-12	-5	-1	-3		-6	
CNT	9	2												12	19	21	25	26	24	17	14	9	5	1
MED	0	-12												-11	-7	1	1	1	-3	-5	-8	-7	-5	-5
UQ	2													-9	-1	4	6	5	4	3	-5	-1	0	
LQ	-9													-12	-9	-10	-7	-4	-8	-10	-10	-11	-7	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

NOV.1976

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																7	3	-2						-12	
2																-5	5	-3							
3	-8															-8	-1	0	-3	-10	-12	-4	-10		
4	-3														-6	-5	2	0	1	0					
5															-7	-7	3	2	1		0	-4	-1		
6	-5	-5														-8	-8	-8	-9	-5					
7															-8	-10	-10	-1	5	-1					
8	0	-6													-7	0	5	7	2						
9	-10															-5			-6	-9	-10	2			
10	4														-6	-1			-10	-7	-8		-10		
11																			-8	-6					
12	-1														-9		-6	-5	-7						
13																		-4	-11	1	-10				
14	-12													-14	-13	-12		-9	3						
15	-12															-11	-6		-5	-9	-12		-8		
16																-7	-2				2	-2	0		
17	2	-9												-14	-10		-8	-8	-5	-10	-9				
18	-4														-12	-3	2	7	5	5	7	-1	-5	-2	
19														-14	-13	-6	0	0	-1				-5	-9	
20														-12	-8	-7	-9	-9	-3	0	-8				
21														-12	-1	3	-1	5	5	1	-6		-10		
22		-5													-7	2	1	5	9	6	1	-2			
23															-10	-2	2	6	9	5	4	3			
24																5	3	-8			0	-9			
25	-1	-9																	-2	0	-8				
26	-6														-10	0	0	-1		-8	-11	0	3		
27																	-9	-5	-1	-1	-4		-5		
28															-12	-9	-8	-6	-6	4	1	-10			
29		-5															-10	-9	1	-7		-10	-7		
30															-14	-4	-3	-11	-4	-7	-12				
31																									
CNT	13	6												5	17	22	23	24	27	21	19	11	12	1	
MED	-4	-5												-14	-9	-5	-1	-1	-2	-1	-8	-2	-7	-2	
UQ	0	-5												-12	-7	-1	2	4	2	1	1	0	-3		
LQ	-9	-9												-14	-12	-8	-8	-8	-6	-7	-10	-9	-10		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

DEC.1976

FREQUENCY :

10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	-6														-10	-6	-10		-10	7					
2															-10	-8	-3	-6	-4	-4	-3	1				
3	-12	-11													-14	-10		-5	-4		-6	-6				
4		-7	-8													-7	-7					-10				
5		-7													-9	-5	-10	-8		-10	-10					
6																	-5	-4	-4	0						
7															-14	-7	-5	-3	-3		-2	-8	-10			
8																		-6	-1	4	1	-5	-8			
9		-2	-6																-9	0	-9	-2				
10																	-10	-1			-8		-7			
11																			-3	-8	-9					
12																			-6		-11					
13	-12																-5	-5	-9	-4	-3	-11	-10			
14	-11															-6	-5	-7	-7		-11	-9	-3	-9		
15		-9																	-9		-8	-9	-2			
16		-6	7																							
17																-14	-14	-10	-12	-7						
18																-12	-7	-2	-5	-1		-7	-13			
19																-14	-14	-10	-2	1	-6					
20	3	-5														-8	-3	-2	2	-3	0					
21																-12	-6	-1	-3	2	-5			-10		
22																-14	0	0	2	-12	2	-7	-3	-4		
23	-12	-11															-11	-9	-7	-8	-7					
24		-7														-9	-6	-1	-1	1	-2					
25		-10																								
26		-9															-10	-14	-7	0	0					
27	-1	-6														-14	-12	-8	-5	-5	-8					
28																-15	-10	-7	-7	4	3	-1	0			
29		-7														-13	-8	-9	-5	-1	-3	-6				
30		-8																								
31																										
CNT	7	15	3													3	9	18	23	23	25	21	22	12	8	3
MED	-11	-7	-6													-15	-13	-8	-7	-5	-4	-3	-6	-7	-7	-9
UQ	-1	-6														-10	-7	-5	-2	-1	1	-1	-3	-3		
LQ	-12	-9														-14	-10	-10	-9	-7	-8	-8	-9	-10		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

JAN.1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-8																-12	7	4	3	-1			
2																		-1	-3	7	-3s				
3																-10	0	8	5	5	5				
4																									
5																	-12s	-1	-6	9	-11s				
6															-13	-10s	-1	1	-2	-13	-13	-14			
7		-8												-15	-15s	-6	1	5	12	7	-12	-13	-15		
8		-9	-11													-10	-13s	-12s	-1		-3	-7	-9s		
9	-13	-5	-9												-13	-4	-5	-8	-5	1	-9s				
10		-12	-11													-7	-3	-12	-9	-9	-9	-12	-12		
11			-12	-12s												-9	-7	-3							
12																	-9s	-9s	-1	-13					
13																-12s	-10	-7	-7s	-2s	-6s				
14																-14	-14	-13	-12s	-13s	-14s				
15																	-13s	1	-6	-11	-12	-13			
16																-2	-2	-2	0	-2	-12	-13			
17															-12	-10	-11	-8	-7	-9s	-7	-10	-8		
18		2	-1																C	C	C	C	4	-2	
19	-8	1	C	-7												-6	1	1	3	18c	13	-8		-13	
20	-12															-3	-8	-7	-12	-13	-10c	-10	-8		
21	-13	2														-12	-8	-7	-3	C	3	0	2	-7	-12
22																-12	-3	-7	-8	-13	-7	-9			
23	C	C		-5													-12	-7	2	5	8	13	7	2	-3
24	C		-12													-13	3	3	2	5	15	-4	s	s	s
25	s	5	-10													-5	13	8	3	s	5	s	s	s	s
26	s	s														s	6	s	s	s	s	s	s	s	s
27	C															s	7	-3	s	s	s	-7	s	s	s
28			-7s	-9s												-7s	-3	C	12	-7					
29																-8	-18	-6	-12	-7s				-9s	
30																				0s		-5	-12	-23	
31																-15	-12	-13s	-4	-10	-8				
CNT	4	9	8	4										2	11	23	25	27	23	25	21	12	10	5	
MED	-12	-5	-10	-8										-13	-12	-6	-7	-3	-5	-2	-9	-10	-9	-12	
UQ	-10	2	-8	-6											-8	-2	-3	-1	-3	5	-3	-3	-7	-3	
LQ	-13	-8	-11	-10											-13	-10	-10	-8	-8	-8	-11	-13	-12	-13	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

FEB.1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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			-11												-14	-10	-8	-3	6	4	2	2	-5	
2		-3													-12s	-12	-9	-2	-1	-2	2	7	-9s	
3															-12	-8	-2	1	8	7	-4	1	-7s	-13s
4															-15	-8	6	7	6	7	1	-2s	-7	
5		-3	-7	-11s													-11	-3	-12	-7	-6	-6s	-7	-11
6		-7	-12												-9s	-6	-9	-8	-13s	-12	-12	-6	-15s	-12s
7		-5												-13		-12	-12	0	6	-7	-8	-13	-17	
8															-8	-7	-5	-13	-15					
9																		-9	-10s	-12	-7	-11	-11s	
10															-13	-18	-20	-8	0	-1	-10			
11																	-12	-10	-15	-13				
12															-15	-12	-11	-11	-7	-7	-8	-11		
13		-10													-18	-15	-1	-7	-5	-8	-13	-15	-17	-18
14															-15	-3	-3	-13s	-13	-13	-8			
15															-15	-11	-10	2	3	-2	-10	-8	-12	-14
16															-12	-5	-4	3	4	3	-2	-3	-9	C
17		-12														-12	-8	-1	-8	-8	-13s	-15	-6	-12s
18	-14	-12	-15												-12	-12	-7	-8s	-2	-2	-7	-5	-14	
19															2	3	-1	1	-13	-13s	-8s	-11		
20															-3	-1	0	-6	-6	1	-7	-3		
21															-8	3	7	-1	-3	-5	-10s	-8	-7	-9
22	-12s	-12	-12											-8	-6s	2	C	7	-4s	-4	-2	-5	-13	
23		-12													-8	C	C	-13s	-9	-9	-9	-12	-12	-17
24	-11	-11													-12	-8	3	0s	C		-12	-12		-17
25																-10	3	3	-12		-11	-8	-12	
26															-12	-15	-12	-7	0	-1	-13	-6	-7	
27																-12s	7	C	4	-7s				
28																-10	2	7	0	-4	-8	2	-12	
29																								
30																								
31																								
CNT	3	10	5	1										6	16	24	25	23	26	26	26	24	20	8
MED	-12	-10	-12	-11										-12	-12	-9	-4	-1	-3	-7	-8	-7	-11	-12
UQ		-5	-11											-12	-10	-4	2	2	1	-2	-2	-4	-7	-11
LQ		-12	-12											-15	-14	-12	-9	-6	-9	-10	-12	-10	-14	-15

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

MAR.1977

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-5	-8s	13	16	5	-8s	-8	2	-2		
2														-13	-9s	-14	-12	-1	-6	-12	-7	-9			
3														-13	-7s	-7	7	5	-1	C	C	C	C		
4		-10												-15	-10s	-7	-6	-2	10	-3	-13	-12s	-13		
5		-14												-15	-4	-3	5	3	4	-2	-2	2	-9s		
6		-4												-13	-8s	-11s	1	-3	-12	-12	2	-9	-16		
7																-2	-3	3	-9	-9		-8s	-8		
8														-13	-1	7	7	0	-2	-12	-1	-2	-14		
9																		-14	-12s	-5s	-12				
10																	-8	-12	-15		-12	-12	-12	-17	
11	-5															-12	-13	-6	-13	-9	-17s				
12																-12	-12	3	-2	-11	-12				
13	-5	-14													-13	-12	3	2	-9	-9	-8s	-5	-15	-13	
14	-5	-13														-5	-5	-8	-7	-17s	-11	-9	-8	-15	
15															-8	1	-5		-15	-15	-18		-15		
16	-5	-17															-6	-7	-13			-13			
17																	-12	-20	-18	-19					
18																	-13	-11	-13	-15	-12	-20	-19		
19	-13	-15														-15	-13	-10	-9	-3	-12s	-14	-17	-17	
20	-15	-20												-17	-9	-7	-14s	-17s			-15	-13			
21																	-19	-6	0	-5	-12	-15			
22																									
23	-15																				-20				
24																	-12	-17s			-17				
25																	-10	-13	-10		-18		-21	-12	
26																	-15	-12	-17	-18	-20	-17			
27	-12	-20															-13	-12	1	-8	-9	-13			
28																					-21				
29																	-18	-9	-13	-17					
30		-19															-20	-12	-5	-5	-15	-15			
31																	-4	-4	-3	-3	-15s				
CNT	8	10												8	20	22	26	27	24	21	19	15	12	3	
MED	-8	-14												-13	-10	-8	-5	-6	-10	-12	-12	-9	-12	-15	
UQ	-5	-13												-13	-7	-5	1	0	-2	-9	-8	-6	-8		
LQ	-14	-19												-15	-13	-12	-13	-12	-14	-17	-15	-13	-15		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR.1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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														-9	-12	-11	-12	-13					-19
2	-9	-20	-17											-13	-3	-12	-9	-9	-17s			-20		
3	-15	-20													-14	-8	-18						-13	
4																			-20		-17			
5																								
6																-11	-11	-12						
7																								
8																	-20							
9																	-11	-13						
10																								
11															-12	-11	-14						-21	
12															-10	-12	-11	-11					-15	
13																-6	-7	-10						
14																								
15																-17	-15	-12	-12		-20	-20		
16														-11	-7	-5	-3	-12		-20	-20	-20		
17																								
18														-20								-18		-13
19	-13																	-17	-20	-15				
20																								
21																							-20	
22																		-22						
23																	-13	-17						
24	-20																-12					-15	-15	-13
25	-20																			-18	-18			-17
26														-17	-10	-9	-13	-21						-12
27	-15													-17	-3	-12	-11	-15						-21
28														-14	-7	-4	-8	-17s	-18	-20			-20	
29		-18																	-18	-17	-18			
30															-13	-13	-13							
31																								
CNT	7	3	1											6	11	13	18	14	6	5	6	6	5	5
MED	-15	-20	-17											-15	-10	-11	-11	-12	-18	-18	-18	-20	-19	-13
UQ	-13													-13	-7	-8	-11	-12	-17	-17	-18	-15	-15	-13
LQ	-17													-17	-12	-12	-13	-17	-20	-20	-20	-20	-20	-17

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAY 1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1														-17	-12	-1	-2	-20							
2																									
3																									-13
4	-20														-12	-11							-20		
5																									-15
6														-19				-10s	-18s	-15	-13s	-18			
7															-12										-18s
8		-7s												-13	-5	-2	-13								-16s
9														-15			-13	-15							
10																			-13	-13	-14	-20			-12
11	-13																	-20							
12																		-15	-13	-12	-14				
13	-20													-14											
14														-13	-6	-2	-13		-19						
15																		-13		-16	-13				
16																			-14			-20			
17																					-17			-16	
18	-20																				-20	-17			
19															-2	-4									
20	-19													-12	-7	-8						-17			
21		-18											-13	-9	-6	-6	-18		-15					-17s	-11
22														-12	-8	-6	-17								
23														-9	1	0	-18s		-15	-20					
24														-13	-8	-6	-13				-20	-20			-21
25															-13s										
26													-15s	-3	-1	-12s								-18s	
27													-13	-12	-10										
28	-16												-12	0	-9	-15s	-18s	-18				-20	-13s	-13s	
29	-11	-13	-19										-13	-2	0	-7	-14	-17							-12
30	-14												-13	-3	3	-7	-15s	-13s							-16s
31	-13	-17	-17											-14	-3	-17	-19s	-14	-8	-13	-12	-15	-14	-13	
CNT	9	4	2										6	17	18	15	12	10	8	7	10	8	6	9	
MED	-16	-15	-18										-13	-12	-6	-6	-14	-15	-14	-15	-15	-19	-16	-13	
UQ	-13	-10											-13	-9	-2	-3	-13	-13	-13	-13	-13	-17	-14	-12	
LQ	-20	-17											-13	-14	-10	-9	-18	-18	-16	-15	-20	-20	-17	-13	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

JUNE 1977

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-15s												-12	-4	-10	-18	-17s			-15	-19	-17	-19	
2																			-15s	-13s	-15s	-15s			
3	-16																								
4														-8	-1	-13	-14						-18s	-15s	-14
5	-13													-8	-1			-13s	-13	-12	-13	-15		-13	
6	-16													-13	-8s	-17s	-13	-18s							
7														-3	2										-18
8													-16	-3	-1	-15s									-18s
9	-13												-15	-3	1	-15							-17s	-15	-8
10	-15s	-16 s												-11	-2										
11														-13	-12										
12													-14	-7	-4	-13									-16s
13														-18	-12s					-16		-16	-13	-15s	-17
14	-20																								
15														-8	-4									-19	
16													-13	-3	2	-3	-14	-13			-18	-16	-12	-12	-12
17	-14	-13												-20	-12						-19	-12	-15	-19	-14
18																			-17						-21
19																					-20				
20															-15							-20	-12		
21	-17														-15s							-15	-19		
22													-21	-3	-2	-10s	-20		-8	-13	-12	-17	-12s	-9s	
23	-10	-20												-13	-3	2					-21	-15	-14		-21
24	-19																						-20	-18	-19
25														-13	-8s	-17s									-15
26	-15													-7	3	-11		-20	-16	-12	-11	-10	-12	-19	
27	-15												-18	-7	-2	-1									-17
28													-17						-17	-15	-13	-12	-20		-15s
29	-20														-4							-13	-10	-15	
30														-13	-7								-21	-20	
31																									
CNT	14	4											7	20	23	12	5	5	7	9	13	18	14	16	
MED	-15	-15											-16	-8	-4	-12	-14	-17	-16	-15	-15	-15	-15	-16	
UQ	-14	-14											-14	-5	-1	-6	-14	-13	-14	-13	-13	-12	-15	-13	
LQ	-17	-18											-17	-13	-8	-15	-18	-18	-16	-19	-15	-19	-19	-18	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JULY 1977

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																			-11	-9	-12	-10	-13	-8
2	-11	-20													-17	-18					-13			
3													-21	-7					-14	-13	-13	-13	-12	-14
4	-13														-14s			-15			-20			
5	-15												-21	-15				-11	-13	-18	-14			-20
6													-21	-3	-7	-7	-13		-19		-16	-15	-19	
7		-19																		-18	-14	-20	-17	-18
8	-12													-13	-9					-12	-18	-18		-18
9	-15																			-20	-13	-15		-14s
10															-15									
11																					-20	-20		
12														-15	-3	-13								-14
13														-10	-3	-13	-7	-7	-12s	-16	-18	-15	-21	
14																				-18	-21	-16		
15	-13	-18																		-20				
16																		-13				-20		
17																								
18																-15						-15		
19																							-20	
20																								
21															-16	-17s								
22																								
23	-21														-18s	-7	-13	-15s						
24																					-13	-13	-17	-15s
25	-13													-12	-12	-17	-13	-15s		-20				
26														-12	-10	-8	-13							-16
27	-18													-12	-1	1	-8	-19						
28													-20	-13	-8	-1	-12	-15s						
29																				-20	-20			
30																				-13	-19			-20
31	-16																							
CNT	10	3											4	10	13	11	7	8	5	12	14	12	8	9
MED	-14	-19											-21	-12	-10	-13	-13	-15	-13	-18	-15	-15	-18	-15
UQ	-13												-20	-10	-7	-7	-10	-12	-12	-13	-13	-14	-15	-14
LQ	-16												-21	-13	-15	-16	-13	-15	-14	-20	-20	-19	-20	-18

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

AUG.1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																-7	-5							
2	-17												-18	-12	-4	-12	-15					-18	-20	-21
3	-20													-17	-8	-1	-15							
4														-12	-16	-18	-19	-10s						
5		-21														-21	-18	-11	-11	-11	-13	-20		
6																				-21		-16		
7																			-15	-13	-21			-12
8	-16																							
9																				-17s	-16s			
10																					-20		C	
11																								
12																				-17		-20	-12	
13																						-18	-21	
14																-7								
15																			-7	-13	-13	-13	-15s	-15s
16	-19													-13	-7	-7	-10		-10					
17																			-20	-18				
18															-10s	-13s				-18	-18			-13
19	-15																-15				-19		-22	
20																								
21																-15	-13s			-16	-16	-13		
22	-16															-17	-7	-7	-15	-20		-15	-13	-17
23													-17s	-15	-2	-2	-2	-12	-14	-13s	-15s			
24	-18	-18													1	-6				-12		-15s	-15	-8
25	-12														-1	-18s				-13	-13		-17	
26	-17	-19														-10			-15	-19			-13	-19
27																			-15					
28														-13	-10	-13					-13			
29																-1								-18
30	-17	-15													-17	-13	-12	-13	-17		-13	-18		
31														-14	-7	-3	-6	-7	-17			-20	-15	-15
CNT	10	4											2	7	13	19	11	6	13	13	11	13	8	8
MEO	-17	-18											-17	-13	-8	-10	-12	-11	-15	-16	-16	-18	-15	-15
UQ	-16	-16											-12	-4	-6	-6	-10	-10	-12	-13	-14	-15	-14	-12
LQ	-18	-20											-14	-15	-13	-15	-13	-13	-17	-18	-18	-18	-20	-17

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

SEP.1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-18		-12									-19	-20	-12	0	-1	1	-7	-12	-20				-18s	-20
2	-13	-18												-19	-8	0	2	3	-13						
3	-15													-8	2	-2	0	-8s				-15			
4	-14											-13s						-18	-15	-13	-18	-17	-18		
5	-13													-13	-2	3	4	-1	-11						
6														-14	-3	2	4	-3	-12						
7														-7	1	-2	2	-1	-10			-15			
8	-16s														-3	-7	3	-2	-8	-18			-19	-15	
9												-13			-13	-11s		-17			-16	-17	-19		
10	s	-16													-18	-12	-5	-16	-18	-18	-15				
11																	-15								
12															-7	-9	-11	-7							
13																									
14															-13	-3	-3	-8	-13s						
15																									
16															-9	-2	0	-3	-13		-13		-12		
17																									
18															-5	-12	-11	-13	-10						
19													-3		-3	-11	-8s				-10s	-13			
20																									
21																									
22																									
23																	-10s								
24																									
25																									
26																									
27																-13	-13								
28																									
29															-6	-2	-8	-8	-13	-13	-15				
30															-10	-1	2	-5	-3	-7	-17	-20	-17	-15s	
31																									
CNT	6	2	1									2	2	7	15	18	17	17	13	6	7	6	6	3	
MED	-14	-17	-12									-16	-16	-12	-6	-2	0	-7	-12	-15	-15	-16	-18	-15	
UQ	-13													-7	-2	-1	2	-3	-10	-13	-14	-15	-17	-15	
LQ	-16													-13	-9	-10	-11	-8	-13	-18	-16	-17	-19	-17	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

OCT.1977

FREQUENCY :

10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-8	-2	2	2	-2	-7	-13		-13	
2																-12	-7	-5	0	-7	-12	-14		
3																			-8	-8	-13	-15	-15	-7
4	-2														-13	-5	-10	-13	-8	-9				
5														-12	-3	-7	0	0	-8	-14				
6	-9	-15													-14	-3	-3	-5	-7	-14	-13			
7															-12	-3	7	5	4	-2	-12			
8															-7	3	3	2	-2	-3	-2	-10	-13	
9	-8	-13												-13	-7	0	4	6	3	2	-15			
10														-10	-2	2	5	7	5	-2			-11	-6s
11	-1													-13	-12	1	3	3	0	-8	-9	-14	-13	
12	-3																							
13														-13	-11	-5			-15					
14														-17	-8	-9	3	2	-2	-3	-6	-13	-13	
15															-18	-18	-16		-10					
16															-16	-8	-2	-8	-2		-13			
17															-4	1	-1	-11s						-14
18																		-15				-7		
19															-7	-7	-8	-9						
20	-15s														-14	-15	-17							
21																-10	-2	-15						
22	-12																-17							
23	-12																-13	-7	0	-2	-3	-12	-13	
24	-13														-13	-9	-13	-10	-7	-12	-14			-15
25	-7														-13	-8	-2	2	2	1	-3	-13s		
26															-15	-12	-10	-5	-1	-6	-10	-12	-9	
27		-12																-7s	-10	-12				
28															-13	-9	-12	-13	-9					
29																-8	-3	-9	-13	-8	-15			
30	-7	-8													-17	-12	0	1	-7	-15				
31	-2s																	-7	-7	-3	-8			
CNT	12	4												5	16	22	24	28	26	21	18	11	9	3
MED	-7	-12												-13	-12	-7	-5	-5	-4	-7	-9	-13	-13	-7
UQ	-25	-10												-13	-9	-3	1	2	0	-3	-3	-12	-13	
LQ	-12	-14												-14	-13	-12	-10	-9	-9	-10	-13	-14	-13	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

NOV.1977

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-3	2	3	3	3	0	-5	-2	
2		8s													-8	3	8	8	7	8	-5			
3																-8	-2	-3	-2	2	0	-7		-12
4		-1	-8													-5	2	3	-3					
5		-5														-5	-3	0	-5	-5	-10s	-8s	-1	
6		-2s													-10	-8	-6	-3	-7	-7		-7	3	2
7		-8s	-12													-9	-9	-10	-8	-7	-3	-3	-12	
8		-2													-12	-11	-9	-5	0	0	-7	-3	-7s	-12
9		-5														-7	-4	2	2	2	-6	-2	-3	-9
10		-2	-9												-10	-10	-3	-5				-8	0s	
11		0s													-8	-3	0	-2	2	3	2	2	-10	
12																		-8	-7					
13																			-7			-8	-5	-10
14																	-10				-8			
15																								
16		-5																	-9	-6	-8	-8		
17																			-8	-8	-9	-8	-8	-8s
18		-7																	-8					
19		-7																-9	2	-2	-5	-8	-7	
20																-10	-6	-7	-5	2	-2	1		
21																-11	-7	-3	-2	-6	-7	-8		
22																								
23																								
24																								
25																			-5	-8				
26																-12			-5	-8	-7			
27																	-10	-8	-5	-7	-8	-4	-9	
28																		-10	-6	-2	-2	-4	-12	
29																	-7	-6	-8s	-8	-8s	-9		
30																			-10	-5	-10			
31																								
CNT	13	3													6	13	16	19	24	19	19	18	13	7
MED	-2	-9													-10	-8	-5	-5	-5	-5	-6	-7	-7	-9
UQ	-2														-8	-5	-1	-2	1	2	-2	-3	-3	-4
LQ	-5														-12	-10	-8	-7	-8	-7	-8	-8	-9	-11

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

DEC.1977

FREQUENCY :

10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																-4	3	-2	3	-7				
2																			-2					
3																								
4																-9	-10	-8	-10	-8		-7	-8	
5			-5	-2														-3				-8	-7	-5
6	2															-9		-7	-3	-4	-2	2	-8	
7	-1		-7													-8	-8	-7	-5	-7	2	0	-8	
8	-7		-7															-7	-4	-6	-7	-7	-7	
9	-7		-2															-12	-8	-5	2	-1	-3	
10	-2		-4													-8	-8	-7	-8	-2	-2	-8		
11			-7														-9	-8	-7	-8	-6	-2	2	-3
12																-9	-2	-2	-6	-2	0	-3	-8	
13																		-7	-8	-9	-8		-7	
14			-7													-10	-10		-9	2	-1	2	1	-1s
15	-10		-2	-2	-2													-11		-9	-2	-7	3	-3
16	-11																		-7	-9		-11	-8	-7
17																	-10	-10	-12	-8	-5	-7	-8	
18	-10		-2														-10	-6	-7	-8		-9	3	0
19		-8	-2														-8	-8	-8	-10	-4s	-7	2	-9
20	-3s	-8	-2													-11	-7	-3	-2	-3	-8	-7	-8	
21			-5														-9	-7	-2	-2	-4	-3	0	0s
22	-8		-7													-12	-8	-9s				-4	-8	
23	-6	-8	2													-12			-7	-9	-9	2	0	-7
24		-9	2																-7	-3	-7	-10	-10	-10
25		-9	0	-3															-5		-4	-5	-9	
26			-4s														-8	-8	-2	2	-2	-4	-2	-6s
27	-4	-9	0															-10	-8	-3	-8			
28	-8		0															-8		-9		-9		
29			s														-7	2	-7	0	5	3	-2	-8
30	-3	-5	3															-3	-2	2	7	2	-7	-10
31	-8	-8	-8														-8	-7	-7	2	3	-10		
CNT	15	8	21	3	1											8	18	24	27	27	25	27	22	15
MED	-7	-8	-2	-2	-2											-9	-8	-7	-7	-3	-4	-7	-5	-7
UQ	-3	-8	0													-8	-8	-4	-3	-2	-1	-2	1	-3
LQ	-8	-9	-7													-11	-9	-8	-8	-8	-7	-7	-8	-8

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JGY) AT SYOWA STATION

JAN.1978

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-15s		-12													-15	-13	-10	-13	-1	-3	-9	-13	-12
2		-15s	-7s	2s												-14	-15	-14	-13	-5	-8	-13		
3		-13	-13	s															-3		-13	-13s		
4																		-12		-15				
5																		-15	-12	-9			-15	
6																	-13	-13	-12	-5	-8			
7	-15s																-13s	-16	-8		-7	-3	-7	-11
8	-10s	C	C	C	C													-13		-15s		-13	-14	
9																		-11	-5				-10	
10	-14																-12	-2	-14			-14s	-6s	
11																			-12s	-8	-7	-10	-11s	-3
12																	-14	-12	-4	2	1	-2	-6	
13																		-15	-11	-12	-3	2	-2	-15
14	-14																	-16	-17	-8	-3	-3	-2	
15	-13		-12s													-17		-7	-2	2	-3	-6	-13	
16		-13	-5s												-16	-12	-8	-9	-12	-8	-2	-13	-12	-13s
17	-10	-14	-11s													-13	-9	-3	0	2	-3	-10	-15	
18	-15s	-11	-10s	-9s												-15	-15	-11	-12	-8	-1	-10	-16	
19		-13	-5s													-14	-14	-17	C	-13	-10	-8		
20	-15s		-3s	-1s												-16	-13	-5	-7	-3	-3	-1	-8	-15
21		-12	-5s													-15	-12	2	4	2	3	-1	-2s	-9
22		-14	1s													-14	-5	-2	-1	-2	-2	-2	0	-13
23	C	C	C	C	C											C	C	C	C	C	C	C		
24	-10s	-8	-2s	-2s													-12	-12	-8	-8s			-10	-8
25		-10	0s																-11	-5s	-12s	-8		-12
26	-12s	-15	-9s															-11	-7	-7	-9	-11	-5	
27			-10s															-8	-3	-1	2	-7		
28			-7s															-13	-10	-12	-12s			
29			-10s															-8	-8s	-12	-6			
30	-8		s														-12	-12	-3	-3	-12	-8s		-12
31			-13														-14		-15		-3	-15		
CNT	12	11	18	4											1	10	16	26	27	25	24	23	19	12
MED	-13	-13	-8	-1											-16	-14	-13	-11	-8	-7	-3	-8	-10	-12
UQ	-10	-11	-5	1											-14	-12	-8	-3	-1	-2	-3	-5	-10	
LQ	-15	-14	-11	-5											-15	-14	-13	-12	-10	-8	-8	-12	-12	-14

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

FEB.1978

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	s		-10s																-15	-8	-15	-18	-10s		
2	-16		-20s												-12			-5	-2	-1	6	-3	-2	-2	
3	3	-10	s													-10s	-7	-7	-6	-7	-10	-9	-13	-13	
4	-12	-12	s														-8	-1	2	-1	4	1	-2s	-13	
5	-8	-8	s												-15		-4	-8	-3	-3	-5	-13			
6	-3s	-1s	-12												C	-7	-1	0	-8	-6	-15	-12	-3		
7	0	1	s												-13	-9	-3	-1	7	8	-3	-14	-16	-8	
8	-8	-12	s												-13	-8	-5	-7	-5	-15	-12	-3	-5	-14	
9	-10	-7	s												-12	-13s	-8	-10	-7	-2	-7	-3	-1	-14	
10	0	-7	-8												-13	-8	2	7	3	2	1	-1	-3	-12	
11	-7s	-2	s													-11	2	3	7	5	6	3	-7	-12	
12	-9	-1	s												-13s	-8	2	2	8	6	2	2	-4s		
13	C																							C	
14	C																								C
15	C																								C
16	C																								C
17	C																								C
18	C																								C
19	C																								C
20	C																								C
21	C																								C
22	C																								C
23	C																								C
24	C	-5	s												-13	-13	-3	2	2	4	-1	-6	-2	-13	
25	-1	s	s												-13	-8	-13	-12	-7	3	6	-2	-2	-12	
26	s	s													-12	-10	-17s	s	-13	-9	-12s	-8	-20	-13	
27	s	s														s	s	s	-13	-6	-7s	-17	-17	-13	
28	-16	s														-10	-7	-15	-5	-12	-16s	s	s	s	
29																									
30																									
31																									
CNT	13	11	4												10	12	14	14	17	17	17	16	15	12	
MED	-8	-7	-11												-13	-9	-4	-3	-5	-2	-5	-4	-4	-13	
UQ	-2	-1	-9												-12	-8	-1	2	3	4	3	-1	-2	-12	
LQ	-11	-10	-16												-13	-10	-8	-8	-7	-7	-12	-12	-11	-13	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAR.1979

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	 																																													
2																																														
3																																														
4																																														
5																																														
6	 																																													
7																																														
8																																														
9																																														
10																																														
11	 																																													
12																																														
13																									-5	-8	-14																			
14																									-5	-14	-1																			
15																									-6	-17	3																			
16	-1	-13																																												
17	-2	-13												-19	-17	-8	-14	-7	-5	-4	-4	-1	-4	-4	-3	-6	-3																			
18	-2	-11														-11	-9	-2	-3	-2	-1	-5	-7	-5																						
19	-7	-14															-13	-4	-10	-10	-10	-11	-12	-10																						
20	1	-11															-14	0	6	1	-1	-3	-9	-10	-10																					
21	-4	-20																																												
22	2	-15												-16	-9	-19	-16	-7	-11	-13	-9	-7	-14	-4																						
23	-2	-15															-1	1	4	0	3	-10	-8	-11	-12																					
24	-6	-20															-15	-7	-3	-5	-10	-9	-11	-5	-8																					
25	-6	-20															-12	-8	-8	-10	-10	-9	-10	-14	-10																					
26	-8																																													
27															-19	-10	-4	-10	-10	-12	-10	-14	-16	-17																						
28	-16																																													
29															-14	-3	-9	-7	-5	-16	-20																									
30	-12	-6	-16																																											
31	-7																																													
CNT	17	14	4												2	9	17	19	19	19	19	19	19	19	18	18	18																			
MED	-5	-14	-7												-17	-15	-10	-7	-4	-5	-10	-9	-8	-9	-9	-9																				
UQ	-2	-11	1															-12	-7	-3	-2	-4	-2	-3	-4	-6	-5																			
LQ	-7	-17	-15															-17	-13	-11	-7	-10	-13	-10	-14	-12	-11																			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR.1979

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-6														-8	-14	-10	-10	-14	-10	-11	-13	-13			
2	-6														-18	-9	-12	-11	-13	-16	-18	-17	-14	-16		
3	-19														-7	-4	-4	-1	-15							
4																										
5															-19	-21	-17	-10	-10	-18		-19	-18	-16		
6	-13														-13	-7	-7	-4	-15	-14	-16	-12	-18			
7	-17																	-14	-17	-9	-11	-15	-14			
8	-6														-9	-8	-21	-20	s	-16	-14	-10	-11	-10		
9	-11	-18													-7	-3	0	0	0	-9	-8	-4	0			
10	-3	-18													-10	-13	-14	-15	-9	-5	-2	0	s			
11	s	s													s	s	s	s	s	s	-8	-6	-4	-4		
12	1	-21													-8	-8	-4	-4	-5	-7	-8	-3	1			
13	1	-16													-3	2	2	-5	-10	-5	-7	-3	-4			
14	0	-19													-14	-12	-8	-3	-10	-10	-14	-9	-7			
15	0														-18	-4	1	-8	-14	-9	-9	-12	-5			
16	-8														-18	-4	0	-5	-3	-5	-9	-16	-13			
17	-8	-22													-13	-11		-11	-5	-7	-7	-5				
18																	-16	-3	-4	-4	-8	-8	-8			
19	-9	-21													-17	-6	-5	-3	-5	-2	-6	-8	-10	-8	-5	
20	-7	-20													-21	-15	-3	-4	0	-1	-2	0	-13	-13	-9	-8
21	-2														-21	-14	-7	-5	-3	-9	-9	-10	-5	-8	-13	
22	-14														-15	-9	-7	-14	-18	-18	-18	-21	-18	-22	-19	
23	-21														-4	-14	-5	-12	-15	-18	-18	-13	-19			
24																		-13	-19	-20	-20					
25															-19	-20	-16	-4	-14	-16	-18	-21	-11			
26															-1	-13	-11	1	-1	-18	-19	-14	-20	-17		
27															-17	-11	-16	-8	-5	2	-10	-18	-13			
28																	-5	-11	-10	-17	-15	-14	-9			
29																	-13	-7	-11	-13	-19					
30																	-10	-8	-19	-21	-18	-10				
31																										
CNT	19	8											2	4	12	24	25	26	27	28	25	26	25	19		
MED	-7	-19											-21	-15	-9	-10	-7	-8	-9	-14	-10	-10	-11	-10		
UQ	-2	-18												-14	-5	-7	-4	-3	-4	-5	-7	-8	-6	-5		
LQ	-13	-21												-16	-12	-14	-14	-11	-14	-17	-16	-14	-14	-16		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAY 1979

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-8	-14	-18	-11	-22	
2																		-13	-15	-15	-16	-18	-21	
3													-22	-16	-7	-4	-6	-1	-11	-17	-15	-10	-9	
4														-16	-6	-10	-9	-10	-9	-12	-13	-10	-11	-18
5																	-20	-12	-6	-20	-16	-11	-11	-4
6	-7	-21											-17	-12	-3	-3	-4	-4	-3	-8	-11	-10	-8	-1
7	-7	-20															-11	-7	-12	-21	-16	-9	-5	
8	-9																-9	-10	-5	-1	-6	-12	-10	-9
9	-14												-14	-8	-10	-5	-8	-6	-7	-7	-7	-3	-8	
10		-21											-10	-5	1	-1	0	-2	-6s	-6	-10	-9	-12	-4
11	-11s	-14s														-11	-4s	s	-7s	-3s	-5s	-11	-13	-4
12	-4															-17	-12	-14	-16	-12	-12	-18	-9	
13	-19													-15	-13	-12	-8	-5	-6	-18	-14	-15	-12	-16
14	-13													-8	-6	2	-5	-12	-7	-9	-9	-9	-11	-7
15																-16	-9	-10	-4	-9	-10			
16														-14	-6	1	-2	-3	-9	-14	-21	-17	-14	-9
17	-11												-17	-8	-4	0	-9	-6	-4	-8	-16	-14		
18	-11												-6	-6	-3	3	2	-1	-4	-17	-17	-12	-9	-2
19	-7												-8	-14	-15	-2	-12	-11	-10	-12	-15	-19	-15	
20													-16	-16	-4	-2	-13	-9	-15	-18	-13	-16	-12	
21	-20														-16	-11	-4	-8	-9	-14	-9	-10		
22	-20													-13	-4	1	-8	-9	-16	-8s	-20	-18	-19	-19
23														-19	-9	-3	-11	-6	-13s	-22	-20	-17	-10	
24															-16	-10	-10	-11	-14	-18	-14	-8	-18	-18
25															-10	-9	-3	-9	-12	-20	-20	-14	-13	
26																-2	-5	-6	-19	-18		-21	-8	-14
27	-19																	-17	-18	-17	-21			
28													-16	-14	-5	-10	-19	-4						
29														-17	-4	-14		-17	-20		-20	-21		
30														-17	-11	-13	-10	-9	-11s	-21			-15	-18
31														-9	-2	3	4	1	-5	-19	-18	-21	-21	-14
CNT	14	4											7	18	21	26	28	30	30	29	28	27	24	18
MED	-11	-20											-16	-12	-6	-5	-7	-9	-9	-15	-14	-12	-12	-11
UQ	-7	-17											-10	-8	-4	-1	-3	-5	-6	-8	-10	-10	-9	-9
LQ	-19	-21											-17	-14	-10	-11	-10	-12	-14	-18	-18	-17	-18	-16

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

JUNE 1979

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-12														-13	-17	-5	-10	-16	-19	-17	-17	-13	-9
2													-13	-10	-9	-15	-16	-10	-20	-21	-18	-19	-20	-7
3	-18													-8	1	4	2	2	-12	-9	-13	-14	-12	-15
4														-10	-11	-10	-5	-9	-7	-12	-9	-12	-14	-8
5	-17												-16	-6	1	3	1	3	-9	-12	-18	-20	-17	-9
6	-14													-8	1	3	-1	-5	-11	-12	-17	-21		
7																	-21	-20						
8																-19	-19	-6	-21					
9																		-9	-15	-18	-20	-20	-21	
10																		-10	-13	-12	-21	-21		-20
11	-21														-14	1	-14	-8	-20	-12	-15	-19	-22	-20
12														-17	-10	-3	0	-10	-13		-22			-18
13													-10	-10	-17	5	0	-4	-12		-12	-20	-20	-19
14														-14	-1	-1	-12	-7	-20	-18	-22	-13	-19	-19
15	-18													-6	-2	-6	-5	-5	-12	-5	-6	-14	-10	-8
16																-16	-14	-9	-18	-14	-14	-10	-12	
17																-21	-12	-9	-12	-19	-8	-9	-10	-12
18	-15												-13	-9	-3	-4	-3	-9			-10	-12	-14	-10
19	-16													-21	-16	-19	-19	-11	-16	-18	-18	-13	-14	-13
20	-21													-9	0	-4	-12	-12	-20			-14	-13	-12
21														-19	-19	-9	-11	-13	-16	-13	-12	-16		
22															-19	-4	-13	-11	-12	-9	-12	-20	-20	-9
23	-20															-21	-19	-15	-18	-13	-14	-20	-18	-19
24															-11	-21	-21			-21	-16	-19	-20	-20
25														-17				-19	-19	-18	-16	-15	-21	-20
26														-17	-5	-15	-16	-20	-10	-10	-9	-9		
27																-21	-16	-12	-13	-18	-16	-17	-18	-20
28	-17												-11	-11	-5	-1	-6	-13	-18	-21	-16	-17	-17	-10
29	-21														-4	-4	-7	-17	-21	-21	-11	-19	-18	-20
30														-12	-10	-6	-16	-11	-18	-16	-15	-11	-7	-20
31																								
CNT	12												5	18	22	26	27	29	27	24	26	26	23	23
MED	-17												-13	-10	-9	-6	-12	-10	-16	-13	-15	-16	-17	-15
UQ	-15												-10	-9	-2	-1	-5	-7	-12	-12	-12	-13	-13	-9
LQ	-20												-14	-17	-13	-16	-16	-13	-19	-18	-18	-20	-20	-20

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JULY 1979

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-12													-7	2	1	-5	-11	-19	-18	-12	-11	-19	-17
2	-19													-8	1	1	-1	-6	-15	-21		-19	-14	-9
3	-9												-16	-5	6	6	3	0	-6	-5	-11	-16	-13	-9
4	-14															-16	-11	-13	-14					-19
5	-16													-7	-10	-8	-14	-9	-17	-15	-19	-14	-15	-11
6	-14												-17	-16	-19			-14	-20		-20	-20		
7	-18														-12	-16	-13	-8	-19					
8															-17	-20	-21	-18	-19					
9														-17	-5	-4	-7	-7	-14	-20				
10													-17	-12	-4	-2	-7	-13	-9				-18	-19
11													-15	-19	-12	-16	-11	-19					-19	-17
12	-16												-14	-8	5	3	0	-2	-18	-19	-16	-16	-18	-8
13	-10													-9	-12	-8	-8	-8	-5	-10	-11	-6	-12	-14
14	-19													-4	1	5	-1	-7	-11	-19	-14	-15	-13	-14
15	-20																-17	-9	-10	-15	-11	-10	-16	-11
16	-14													-19	-13	-15	-19	-11	-19	-21	-18	-8	-7	-4
17	-16												-10	-9	-12		-16	-6	-15	-13	-15	-13	-15	-8
18	-7													-19	-7	-17	-19	-18	-17	-18	-14	-12	-12	-14
19													-17	-19	-15	-4	-4	-4	-13	-18	-18	-20	-20	-14
20																-11	-3	-5	-8	-7	-10	-17	-18	-8
21	-15												-15				-16	-14	-17				-17	-15
22														-19	-18	-12	-16	-13	-21		-21	-16	-12	-11
23	-18												-19	-17	-14	1	-14	-14	-18	-20	-18	-16	-17	-21
24	-18												-15	-12	-4	1	-8	-6	-17	-20	-17	-17	-17	-14
25	-16												-14	-6	-1	1	-5	-7	-17	-21	-19	-17	-8	-11
26	-9	-19													-10	-11	-6	-5	-14	-10	-10	-10	-22	-10
27	-19													-9	-1	-1	-1	-8	-10	-14	-17	-14	-11	-5
28	-11	-21											-16	-12	-5	4	-4	-8	-19	-20	-19	-17	-16	-7
29	-15	-17											-11	-7	-6	-1	-1	-10	-11	-12	-14	-14	-6	-3
30	-16												-9	-5	-3	-4	-10	-7	-20	-16	-18	-14	-12	-13
31	-17												-12	-6	-2	-4	-5	-8	-10	-18	-20			
CNT	24	3											15	24	27	27	30	31	30	23	23	23	25	26
MED	-16	-19											-15	-9	-6	-4	-7	-8	-16	-18	-17	-15	-15	-11
UQ	-13												-13	-7	-2	1	-4	-6	-11	-13	-12	-12	-12	-8
LQ	-18												-16	-17	-12	-12	-14	-13	-19	-20	-19	-17	-18	-14

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

AUG. 1979

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1													-15	-14	-12	0	0	-3	-12	-18	-20	-19	-22	-7
2																	-19	-16	-21	-20	-15	-21	-20	-14
3	-20	-11																						
4	-19																							
5																								
6																								
7	-19																							
8																								
9	-17																							
10	-13																							
11	-10																							
12																								
13	-15																							
14																								
15																								
16																								
17	-16																							
18	-15																							
19																								
20																								
21																								
22																								
23																								
24	-19																							
25		-19																						
26	-2	-20																						
27	-8	-16																						
28	-18																							
29	-15																							
30	-15																							
31	-8																							
CNT	16	4											7	14	18	23	27	30	29	23	21	26	24	16
MED	-15	-17											-15	-15	-11	-9	-10	-9	-13	-17	-16	-15	-17	-14
UQ	-11	-13											-12	-12	-3	-1	-6	-5	-11	-13	-13	-14	-14	-9
LQ	-18	-19											-15	-18	-14	-15	-15	-15	-16	-19	-18	-18	-19	-15

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

SEP.1979

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-4	-21											-18	-13	-4	-1	2	0	-1	-6	-13	-12	-11		
2	-13	-19											-14	-9	-20	-19	-13	-7	-9	-9	-13	-10	-8	-7	
3	-8														-20	-4	-4	-1	-20	-13	-11	-11	-10		
4	-7	-17													-12	-4	4	-2	-2	-8	-9	-14	-12		
5	-19												-21	-19	-15	-11	-4	3	-8	-11	-9	-13	-10		
6													-18	-16	-12		-19	-4	-15	-11	-18	-13	-15	-11	
7	-14												-19	-20	-15	-2	2	-2	10	-18	-16	-16	-15	s	
8	-13														-17	-13	-15		-13	-15	-12	-5	s		
9	-3	-20											-19	-20	-8	-8	-6	-9	-7	-8	-13	-11	-17	-16	
10	-13	-21											-18	-18	-10	-14	-10	-7	-11	-12	-4	-13	-13	-12	
11	-6														-20	-17		-8	-14	-8	-8	-14	-15	-8	
12	-8												-19	-18	-9	-5	-2	-2	-4	-5	-11	-8	-14	-7	
13	-5	-18											-17	-9	-4	1	3	1	2	0	-4	-7	-5	-4	
14	-10	-20													-15	-9	-4	1	2	1	2	0	-5	1	
15	-6	-19											-16	-15	-12	-7	-5	-9	-8	-5	-9	-5	-5	s	
16	-2	-21														-21	-21		-18	-8	-14	-11	-18	-16	
17	-19																	-20	-20	-14	-14	-19	-19	-11	
18	-8	-20																			-17	-13	-10	-8	
19	-14														-20	-20	-20	-19	-18	-8	-12	-17	-18	-14	
20	-12														-16	-18	-20	-9	-20			-17	-11	-15	
21	-10																	-18	-19	-20	-16	-18	-13	-16	
22	-4	-19													-15	-11	-14	-5	-12	-14	-14	-16	-15	-8	
23	-3	-20													-20	-12	-12	-12	-15	-10	-8	-10	-15	-14	-8
24	-9	-19													-18	-19	-16	-12	-12	-13	-16	-14	-14	-12	-5
25	-8														-17	-14	-12	-11	-10	-5	-19	-16	-13	-2	
26	-9	-20													-18	-16	-12	-4	-5	-14	-15	-8	-16	-18	
27	-5														-14	-14	-5	-7	-13	-3	-8	-13	-6	-5	
28	-5	-19													-21	-18	-11	-8	-2	-10	-6	-7	-9	-12	
29	-10	-21													-20	-12	2	-3	-6	-14	-5	-7	-15	-9	
30	-8	-16													-19	-10	-10	-4	-5	-5	-13	-14	-8	-6	
31																									
CNT	29	17											10	14	25	25	26	28	28	28	29	30	30	23	
MED	-8	-20											-18	-18	-15	-12	-10	-7	-10	-8	-13	-13	-12	-9	
UQ	-5	-19											-17	-15	-12	-4	-3	-2	-5	-5	-8	-10	-9	-7	
LQ	-12	-21											-19	-20	-19	-16	-13	-9	-14	-13	-14	-15	-15	-14	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

OCT.1979

FREQUENCY : 10 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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														-19	-18	-9	-7	-7	-4	-6	-5	-4	-2	-5
2	-5	-19											-20	-19	-8	-7	-3	-6	-6	-6	-8	-11	-11	-5
3	2	-15												-21	-10	-2	3	-4	2	1	-3	-3	-10	-10
4	-1	-20																-8	-8	-9	-12	-5	-7	-6
5	-2	-18												-18	-13		-8	5	0	-1	-8	-5	-4	
6	-10	-20													-17	-5	-9	-4	-13	-9	-8	-7	3	-8
7	1	-14												-20	-14	-9	-5	-9	-6	-17	-9	-7	-7	-5
8	-12	-3												-16	-11	-15	-14	-5	-4	-10	-9	-12	-15	-15
9	-5																	-14	-6	-8	-7	-10	-7	-8
10	-10													-20	-16	-12	-9	5	-15	-9	-15	-10	-7	-14
11	-4	-14											-18	-20	-17	-9	-11	2	-6	-3	-5	-8	-6	-4
12	1	-19												-18	-11	-10	-9	0	-7	-7	-10	-13	-9	-3
13	-5	-21													-10	-5	-2	3	3	1	0	-3	-4	-9
14	-4														-9	-6	0	4	1	-1	-5	-5	-2	-2
15	3	-15													-18	-17	-4	-10	-7	-12	-9	-1	-5	-5
16	-9	-16													-10	-2	-1	3	3	1	2	-3	-7	-8
17	-5	-17													-16	-4	1	6	5	6	6	6	4	0
18	3	-13													-20	-11	-2	11	4	5	5	4	5	-1
19	1	-15													-14		2	3	5	6	6	6	7	-2
20	5	-12													-20		-14	-8	-1	4	-1	-1	0	-3
21	-1	-14													-17	-13	-6	-4	-4	-9	-6	-6	-9	-4
22	1	-16													-19	-13	-8	0	0	0	-9	-9	-7	-7
23	-4	-17												-19	-21	-13	-7	-6	-5	-5	0	-1	-5	-6
24	-1	-13													-15	-13	-2	-7	-8	-4	-6	-6	-4	-3
25	7	-13												-21	-12	-7	-2	9	-9	-6	-4	-3	-5	-6
26	-11	-19													-12	-1	2	6	-3	-2	-4	-4	-3	0
27	-5	-17													-20	-12	-6	0	-3	1	0	-5	-3	-3
28	-1	-11												-20	-16	-10	-10	-5	0	1	1	4	-1	-2
29	-4	-13													-15	-12	-4	4	2	-4	-12	-12	-14	-8
30	-1	-15													-18	-15	-1	-1	-3	-5	-4	-4	-7	-7
31	0	-9													-19	-8	0	0	-2	-3	-7	-8	s	s
CNT	30	27											2	12	29	26	29	31	31	31	31	31	30	29
MED	-1	-15											-19	-19	-16	-9	-4	0	-3	-4	-5	-5	-5	-5
UQ	1	-13												-18	-11	-6	-1	4	1	1	0	-3	-2	-3
LQ	-5	-18												-20	-18	-13	-8	-6	-6	-8	-9	-8	-7	-8

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

NOV.1979

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	s	s													-11	-4	-2	-5	0	-4	-2	0	-12	-12
2	-9	-16													-21	-15	-10	-10	-4	-6	-6	-11	-7	-2
3	0	-14													-13	-5	-2	2	-7	-4	-3	-6	-8	-11
4	-10	-15													-19	-11	-9	-7	-8	-1	-5	-4	-2	-6
5	-2	-12													-21	-13	-12	-4	0	-1	1	1	-7	-9
6	-4	-10													-18	-12	-7	-4	3	2	2	2	3	2
7	1	-11													-19	-19	-13	-6	-4	-4	-4	-9	-13	-5
8	-4	-9														-14	-10	-5	-3	1	3	2	4	1
9	1	-10													-21	-16	-2	-9	-5	-8	-6	-5	-1	5
10	-12	-17													-22	-15	-11	-2	0	0	0	0	5	-4
11	-2	-12													-20	-11	-6	-3	2	0	3	-2	-3	-4
12	1	-8													-22	-12	-5	-1	1	2	-5	-2	-5	-5
13	0	-9	-4							-21					-20	-15	-11	-11	0	-2	-1	-11	-8	-8
14	-18	-14													-21	-13	-5	-3	-2	2	5	5	2	1
15	-1	-11	-5												-19	-10	-4	2	5	8	6	7	9	2
16	2	-7	-4																		-21	-18	-20	-21
17	-17	-18														-21	-13	-10	-6	-3	-2	3	-2	-5
18	-5	-6	-5	-6												-21	-19	-14	-8	-5	-5	-6	-8	-11
19	-9	-14	-12s													-15	-12	1	4	0	-2	2	4	-8
20	-3	-3s	-9												-13	-10	-10	-7	-3	-6	-1	-1	1	-1
21	-1	-7	-5s	-6												-21	-19	-10	-9	-7	-5	-3	0	-8
22	-3	-11	-9s												-20	-13	-8	-3	1	-1	-2	5	7	1
23	-5	-6														-14	-10	-8	-10	-5	-4	-4	-4	-7
24	-7	-9	-8												-13	-6	-6	-1	0	0	-6	-5	-11	-3
25	3	-14	-17												-20	-12	-5	5	-1	-1	0	-3	-9	-10
26	-1	-6														-10	-3	4	2	4	3	4	2	1
27	s	s	s													-16	-8	0	-1	-3	-2	-3	1	1
28	0	-7	s	-13											-18	-14	-8	1	0	1	2	4	4	1
29	-4	-8	-2												-21	-12	-5	3	-4	-2	-4	-3	-5	-11
30	-14	-10	s	-17											-21	-18	-13	-6	-10	-2	-4	-3	-2	4
31																								
CNT	28	28	11	4								1	21	29	29	29	29	29	29	29	30	30	30	30
MED	-3	-10	-5	-9								-21	-20	-13	-8	-4	-1	-1	-1	-1	-2	-2	-2	-4
UQ	0	-7	-4	-6									-18	-11	-5	1	1	1	1	1	1	2	2	1
LQ	-9	-14	-9	-15											-21	-15	-11	-7	-5	-4	-5	-5	-8	-8

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

DEC.1979

FREQUENCY : 10 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-3	-7	-2	-15											-15	-14	-11	-7	-7	-6	-4	s	s	s
2	-7	-10	-11	-13												-19	-12	-11	-5	-5	-2	2	1	-1
3	-11	-8	-8	-10													-19	-12	-14	-10	-8s	-12s	-4	0
4	-8	-9	-2	-7													-20	-12	-9	-7	-5	-9	-3	-1
5	-5	-12																						-5
6	-10	-7	-9														-18	-11	-5	-3	1	2	3	3
7	-10	-6	-2														-16	-10	-9	-5	-1	1	0	-5
8	-9	-6	-9	-16													-10	-12	-12	-10	-7	-7	-4	-3
9	-6	-4	7	-9													-19	-12	-5	-3	-2	2	0	-1
10	-4	-4	0	-3													-20	-15	-7	0	0	-5	-10	-5
11	-3	-4	1	-13													-16	-10	-4	1	3	1	-1	-9
12	-5	-4	-1	-14													-20	-13	-6	-4	2	4	3	2
13	-6	-6	-5														-21	-11	-6	-5	-1	3	3	2
14	-7	-8	-4	-7													-21	-12	-9	0	3	3	0	0
15	-1	-4	-2	-7														-10	-3	-2	1	-3	-5	-8
16	-4	-8	-9	-6													-16	-10	-6	-7	4	0	-4	0
17	-4	-5	-13	-18														-19	-6	-6	-11	-5	-5	-4
18	0	-12	-8	-7														-21	-12	-7	-6s	-1	0	-1
19	-8	-7	-4	-12														-21	-20	-15	-9	-4	1	0
20	-15	-7	-4	-11	-16													-18	-17	-17	-17	-10	-5	-6
21	-2	-10	-7	-1	-20													-19	-10	-9	-11	-13	-10	-9
22	-7	-10	-7															-13	-19s	-20	-16	-6	-6	-10
23	1	-9	-5	-9														-21	-15	-9	-11	-9	-2	0
24	-4	-5	-6	-2														-21	-14	-15	-13	-14	-9	-5
25	-11		-4	-2	-11													-21	-13	-8	-7	-4	-4	-6
26	-4	-3	1	-11														-14	-13	-12	-9	-4	-13	-13
27	-11	-11	-7	-7	-14													-20	-13	-6	-18	-11	-5	-10
28	-9	-7	-3	-12																	-17	-6	-4	-16
29	-11																				-17	-6	-4	-16
30	-16	-11																-20		-20	-19	-16	-6	-9
31	-9	-13	-19															-21	-10	-8	-3	-5	0	-1
CNT	31	29	28	23	4													15	25	30	30	31	31	31
MED	-7	-7	-4	-9	-15													-21	-15	-10	-9	-5	-4	-4
UQ	-4	-5	-2	-7	-12													-19	-12	-8	-5	-1	0	0
LQ	-10	-10	-7	-13	-18													-21	-19	-15	-12	-11	-6	-7

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

FEB.1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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			-17					
2													-17	-10s	-17				-18					
3													C	-18	-13	-13	-14		-18					
4								-16				-13	-10	-16	-18	-16	-8	-5	-16					
5							-15	-18		-17		-12	-14				-15	-9	-18					
6								-14	-16	-16		-14	-13	-12	-13	-13	-17							
7														-15	-18	-14			-17					
8															-15	-9	-14	-17						
9																			-13					
10															-18	-17							-8	
11																								
12							C	C					-18	-12			-15							
13															-18	-12	-17							
14														-18			-7							
15							C	C	C	C					-14	-16	-9							
16														-12	-16	-14		-16	-15s					
17											-15	-17	-15			-13s								
18													-12	-17	-15s	-17								
19												-13	-12	-13	-15s	-2	-7	s						
20												-14	-13	-13	-13	-10	-12							
21											-17	-13	-10	-10s	-12	-6	-12							
22													-12	-9	-9	-14								
23													-15	-17	-10									
24											-16		-9		-13									
25												-11s	-9											
26															-15	-13								
27											-16	-14	-17	-14										
28													-12	-14					-13					
29																								
30																								
31																								
CNT							1	3	1	2	3	9	12	17	20	20	12	4	9	1				
MED							-15	-16	-16	-16	-16	-13	-13	-13	-15	-13	-14	-12	-17	-8				
UQ												-12	-11	-12	-13	-9	-10	-7	-14					
LQ												-14	-14	-16	-17	-15	-15	-16	-18					

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAR.1977

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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												-12	-9	-8	-7	-12									-16
2											-13s	-12	-12	-13			-13	-14							
3												-13	-12	-5	-10	-13									-16
4												-12	-9	-12	-17										
5												-15	-9	-8	-8	-15	-13								
6									-17	-16	-15	-13	-7	-7	-10										
7													-9	-15	-12	-15									
8												-13	-15	-11	-5	-8	-13								
9																									
10															-13										
11													-8s												
12																									
13																-17	-17								
14															-14	-12									
15												-11	-13	-13	-15										
16														-13s	-17		-12	-16							
17													-14	-12	-10	-17									
18													-12	-17											
19													-12	-13	-16	-15									
20											-17	-12	-8	-7	-5	-7									-17
21										-17	-17	-15	-12	-13	-17	-15									
22																									
23														-12		-15									
24														-14	-15	-16									
25													-12	-12	-9										
26																									
27													-11	-8	-8	-11	-12s								
28																									
29														-15s	-16	-12									
30													-13	-8											
31												-14	-9	-5	-7	-11									
CNT									1	2	4	10	19	22	20	17	6	2	3						
MED									-17	-16	-16	-13	-12	-12	-11	-15	-13	-15	-16						
UQ											-14	-12	-9	-8	-8	-11	-12								
LQ											-17	-14	-12	-13	-15	-15	-13								

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR.1977

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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													-12s	-16	-7	-13	-13							
2												-16	-7	-4	-9	-17								
3														-14	-12	-7								
4																								
5																								
6														-11s	-12									
7																								
8																								
9																								
10																								
11																								
12																-10								
13											-15s			-15	-11	-15								
14												-16												
15																-10								
16													-12	-2	-13	-13								
17																								
18													-12	-5	-12	-16								
19																								
20																								
21																								
22																								
23																								
24															-17	-17	-17							
25												-17	-10	-7	-8	-16								
26																								
27											-15s	-15	-9	-7	-8	-13								
28																-12								
29														-16	-5									
30																								
31																								
CNT											2	5	7	12	15	10	1							
MED											-15	-16	-12	-9	-10	-15	-13							
UQ												-15	-9	-6	-8	-13								
LQ												-17	-12	-15	-12	-16								

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAY 1977

FREQUENCY :

15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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													-12	-7	-7	-17								
2																								
3																								
4														-15	-15									
5																								
6														-13										
7														-15	-12									
8													-15	-8	-8									
9																								
10												-17	-10	-7										
11																								
12														-15	-8									
13														-9	-8	-8								
14												-17	-9	-8	-8	-14								
15														-12										
16																								
17																								
18																								
19													-11	-8	-17									
20														-10	-7									
21												-12	-7	-3	-16									
22													-17	-5	-7									
23													-12	-7	-15									
24														-12	-8									
25												-12		-14	-8									
26												-10	-7	-2	-14									
27												-8	-10	-8										
28											-15	-10	-5	-2										
29											-16	-8	-5	-2	-16									
30												-12	-10	-8	-8									
31												-14	-17	-11										
CNT											2	10	16	21	15	2								
MED											-15	-12	-10	-8	-8	-15								
UQ											-10	-8	-6	-8										
LQ											-14	-13	-11	-15										

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

JUNE 1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	-8										
2													-6												
3																									
4												-15	-8	-3	-13										
5												-13	-8	-8	-14										
6														-12											
7												-9	-8	-11	-14										
8													-7	-4	-7										
9												-13	-8	-7											
10														-8	-10										
11														-8											
12													-7	-7											
13																									
14																									
15													-8	-8											
16												-8	-7	-3											
17														-11											
18																									
19																									
20																									
21																									
22														-4	-14										
23														-15	-15										
24																									
25														-15	-13										
26												-13	-7	-7											
27												-13	-8	-3	-12										
28													-6												
29																									
30													-8	-8	-16										
31																									
CNT												7	13	19	11										
MED												-13	-8	-8	-13										
UQ												-9	-7	-4	-10										
LQ												-13	-8	-11	-14										

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JULY 1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3													-8	-5										
4															-16									
5													-8	-13										
6											-12	-8	-3											
7																								
8														-13										
9																								
10																								
11																								
12																								
13															-12									
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30																								
31																								
CNT													1	6	9	5								
MED												-12	-10	-8	-12									
UQ													-8	-6	-10									
LQ													-12	-12	-15									

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JYJ) AT SYOWA STATION

AUG. 1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3												-12	-13	-7	-2									
4														-14	-8									
5												-13s		-15	-13									
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30																								
31																								
CNT												3	6	10	13	4								
MED												-12	-13	-13	-9	-12								
UQ													-12	-12	-7	-8								
LQ													-15	-15	-13	-14								

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

SEP.1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	-7	-8	-10									
2												-10	-10	-7	-8	-12	-15								
3													-13	-8	-7	-13									
4												-16		-15	-15										
5												-12	-13	-6	-13	-15	-16								
6													-10	-2	-7	-12	-13								
7												-16	-10	-3	-7	-10	-8								
8														-8	-13	-13	-16								
9														-17	-12										
10																									
11																									
12														-17	-17	-17									
13																									
14																									
15																	-15								
16													-15	-15	-6	-7	-2	-7							
17																									
18															-10	-8									
19													-15	-10	-5										
20																									
21																									
22																									
23																									
24																									
25																									
26																	-15								
27																									
28																									
29													-15	-15	-12	-8	-15								
30													-14	-13	-15	-12	-6	-7	-8	-7	-13				
31																									
CNT																									
MED																									
UQ																									
LQ																									

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

OCT.1977

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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										-2	-5	-10	-8	-2	-3	-3	-6	-8	-17					
2													-13	-3	-14	-17	-13							
3									-11	-17	-17	-13	-8	-15	-17									
4													-13	-13	-10	-7	-13							
5												-15	-12	-10	-8	-10	-14	-13						
6										-15			-11	-17	-12	-8								
7									-16	-16	-12	-15	-7	-8	-10	-7	-7	-6	-9					
8											-16	-14	-7	-7	-3	2	-6	-12	-17					
9								-17	-12	-15	-13s	-11s	-7	-2	-2	0	-3	-4	-13					
10									-7		-15s	-13	-10	-7	-10	-7	-5	-12	-10					
11								-13s	-4	-8	-12	-13	-3	-2	-8	-2	-2	-3	-15					
12																								
13													-11	-8	-3	-8								
14									-13			-11	-7	-4	-2	-3	-2	-8						
15							-17										-17							
16													-13	-8	-14	-11	-12	-17						
17														-13	-8	-12								
18								-16								-11								
19														-13s	-15	-7	-16							
20																-17	-17							
21								-17				-12	-12			-8	-17	-16						
22															-17	-17								
23																-12	-15	-13	-17					
24									-16			-17	-9	-12	-7	-7	-17							
25												-8	-12	-9	-8	-7	-5	-12	-13					
26										-15				-12	-7	-10	-13	-17	-16					
27												-15				-13	-14							
28																								
29													-15	-14	-7	-8s	-17							
30								-14				-13	-16	-10	-8	-7	-5	-15						
31							-17								-4	-12	-10	-10	-13					
CNT						2	6	7	6	7	14	19	20	23	27	25	15	10						
MED						-17	-15	-12	-15	-13	-13	-11	-8	-8	-8	-12	-12	-14						
UQ							-14	-7	-8	-12	-11	-7	-5	-4	-7	-5	-8	-13						
LQ							-17	-16	-16	-16	-15	-13	-12	-13	-11	-15	-15	-17						

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

NOV.1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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						-12	-14					-12s	-13	-10	-6	-4	-5	-4	-8					
2								-10	-14			-15	-13	-13	-7	-5	-8	-1	-8					
3				-15				-11	-13	-16		-13	-10	-12	-10	-8	-6	-14	-14					
4					-16	-15							-17	-17	-11	-6	-2	-6	-12					
5													-14	-16	-8	-14	-9	-15						
6													-17	-8	-3	-3	-10	-16						
7						-17						-17	-16	-8	-3	-12	-16	-14						
8						-16	-15s							-11	-5	-3	-14	-15						
9						-17	-14					-17	-14	-14	-7	-7	-13	-9	-16					
10						-13	-12					-17	-12	-3	-9	-6								
11							-14	-15	-15s			-13		-12s	-2	-2	-7	-15						
12					-13	-15									-8	-16	-15	-12			-15			
13																	-17	-13						
14															-15s	-12	-15	-17						
15													-15s					-13	-17					
16																-17			-17					
17														-15										
18							-13								-17	-13	-17	-17	-17					
19								-10					-16	-13	-7	-15	-17		-17	-17				
20								-16				-16		-13	-13	-13	-8					-15		
21												-16	-8	-14	-5	-7	-8	-8	-14					
22						-14s	-13						-15											
23																								
24																-12	-14		-2					
25					-13										-14	-10		-17						
26								-14	-12		-17		-17	-11	-9	-12	-12	-10	-13					
27																								
28					-13	-15									-17	-17	-17	-17	-17					
29							-17			-15		-17	-15	-8	-11	-8	-2	-14						
30					-12	C	C	C	C	C	C				-12		-17	-17						
31																								
CNT				1	6	8	10	6	3	1	1	10	14	18	21	24	24	20	13	3				
MED				-15	-13	-15	-14	-12	-15	-15	-17	-16	-15	-12	-8	-11	-12	-14	-14	-15				
UQ					-13	-14	-13	-10				-13	-13	-11	-5	-6	-7	-9	-10					
LQ					-14	-16	-14	-15				-16	-16	-14	-12	-13	-16	-15	-17					

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

DEC.1977

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-10	-9	-11			-16s		-15	-8	-8	-5	-10s	-7	-3	-9					
2																			-8					
3														-13	-8	-7	-9	-6	-10					
4		-10	-8	-7	-9	-12					-13	-9	-2	-2	0	-5	-6							
5														-14	-10	-8	-10							
6		-10		-13	-13	-15						-13	-10	-8	-5	-7	-8	-3	-13	-17	-12			
7		-13		-10	-12	-14						-12	-13	-15	-5	-5	-5	-8	-12					
8		-10		-8	-8	-9	-12	-10				-13	-9	-8	-3	-7	-9	-10	-8					
9		-6		-7	-12	-15								-6	-6	-8	-7	-17				-2		
10		-2		-7	-10	-12	-12						-15		-3	2	-2	-8	-17			-8		
11		-12		-7	-7	-8	-13									-12	-8	-7	-2	-8	-12	-9	-9	-9
12														-8	-7	-6	2	-2	-10		-8			
13													-14	-3	-8	-14	-8	-15	-17					
14		-14											-11	-10	-2	-5	-2	-10	-13	-12	-10			
15		-12		-15							-13		-12	-10	-12	-7	-10	-8						
16		-10										-15	-15		-10	-9	-6	-8	-17					
17		-8												-8	-7	-3	-5	-7		-10				
18		-13		-14	-16	-8		-15				-15	-13		-7	-7	-8	-3	-15s					
19		-6		-8	-7	-11		-13			-13	-10	-8		-3	1	-5	-14	-13					
20		-7		-10	-15	-14	-13					-17	-15	-10	-15	-5	-2	-14	-8	-10				
21		-11		-9	-14	-15	-12				-15	-15	-14	-6	-2	-3	-6	-11	-13	-8				
22		-13		-16	-13	-13	-8					-13	-9	-7	-6	-8	-12	-7						
23		-7		-12				-10	-14	-15	-13	-15	-11	-7	-7	-2	-3	-7	-13					
24		-4		-13	-13		-8	-13s	-13	-17	-13	-10	-11s	-5	-4	-5s	-10s	-7s						
25		-4		-12	-14	-17						-16	-15		-10s	-7		-12						
26		-11		-13		-15			-10	-8	-12	-9	-7	-6	-2	-9	-7	-8s	-15					
27		-8		-9	-16	-12		-8			-8	-12	-8	-5	-8	-9s	-8	-8	-12					
28		-13		-12	-12		-10	-15s	-16s	-9	-12	-12	-13	-2	-3	-7	-8	-15s						
29		-11		-17	-10							-12		-12	-5	-9		-13s	-14	-15				
30		-11		-14	-12	-9	-12	-14	-16	-10	-13s	-9	-7	-7	-8	-7	-3	-7	-13	-13				
31		-3		-8	-14	-13						-13	-11	-7	-2	-2	-6	-5	-13					
CNT		25	1	15	21	18	11	13	4	6	8	21	23	22	29	30	28	28	26	9	7	2	1	1
MED		-10	-8	-9	-12	-12	-13	-12	-14	-15	-11	-13	-11	-8	-6	-6	-7	-7	-12	-12	-12	-6	-9	-9
UQ		-6		-7	-9	-11	-12	-9	-13	-13	-8	-12	-9	-7	-3	-3	-5	-6	-8	-9	-8			
LQ		-12		-13	-13	-14	-15	-13	-14	-16	-14	-15	-14	-12	-7	-8	-8	-9	-13	-15	-13			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JAN.1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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			-7	-8	-8	-9	-10				-17	-10	-7	-7	-1	-1	-8	-6							
2		-15			-9									-15	-4	-4	-3	-2	-8	-6	-10				
3		-14	-6		-13	-16	-19	-13	-12	-18	-17	-17	-14	-10	-8	-9	-3	-4							-15
4																-16		-12							
5															-18	-18	-9								
6														-11	-12	-10	-6	-2	-11						
7								-2	-5				-14	-18	-7	-4	-8	-3							-19
8								-7	-8	-14			-14	-6	-5	-5	-12	-17							
9				-17	-18	-15	-8								-14	-12	-13	-7	-3						
10														-17	-14	-13	-4	-8							
11						-14	-12	-9				-11	-12	-14	-5	-7	-10	-18	-14						
12					-11	-13	-15	-10	-10	-16	-16	-12	-11	-17	-5	-4	-14	-7			-12				
13						-14		-17	-17	-15	-17s	-18	-13	-15	-1	-6	-8	-7							
14				-19	-16	-13	-7	-13	-16	-13	-11	-13	-11	-10	-6	-4	-18	-10							
15		-12	-7	-11	-10	-10	-10	-12	-9	-14	-11	-14	-9	-6	-4	-9		-9	-17	-14	-11				
16		-9		-8	-13	-14	-15	-13	-14	-13	-13	-9	-10	-3	-2	-2	-3	0		-16	-6	-13	-17		
17						C	C	C	C				-16	-16	-10	-2	-1	-2	3	-1	-6				
18		-13											-19	-17	-7	-7	-3	-5s							
19				-13s	-12								-17	-16	-15	-5	-1	-9							
20					-17					-12	-19	-20	-15	-11	-6	-2	-2	3	s						
21						-11	-16	-9			-15	-12	-11	-10	2	-5	-3	-2	2	1	-6				
22		-11		-15				-16	-12	-18	-15	-12	-10	-17	-3	-2	-7	1	0	-1	0				
23		-10		-10	-15			-10	-14	-14	-16	-16	-17	-10	-2	4	0	2							
24		-3				-17	-17	-8	-10	-18	-13	-12	-10	-9	4	3	2	1							
25		-6		-10	-14	-15	-13	-7	-16	-18	-16	-11	-15	-6	1										
26														-12	-9										
27													-17	-15	-4										
28						-15	-14	-7			-17	-13	-9	-14	-4										
29		-16		-12			-17											-20s							
30			-14													-14	-10	-3	-11						
31														-15	-6	-6	-11	-18	-7	-11					
CNT		10	4	10	12	13	14	15	12	12	14	18	20	26	28	26	24	25	10	8	6	2	1		
MED		-11	-7	-11	-13	-14	-14	-10	-12	-14	-16	-13	-12	-11	-5	-5	-7	-5	-7	-8	-8	-14	-17		
UQ		-9	-6	-10	-10	-12	-10	-7	-9	-13	-13	-12	-10	-10	-2	-2	-3	-1	-2	-4	-6				
LQ		-14	-10	-15	-15	-15	-16	-13	-15	-18	-17	-17	-15	-15	-7	-9	-10	-9	-11	-13	-11				

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

FEB. 1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	-7	-4	-2s	0	-6	-2				
2		-17					-11				C		-15	-12	-1	-8	-8	1	-2	-7	-11	-12		
3														-15	-8	-3	-4	-2	-8					
4													-19	-12	-9	-5	-4	6	-6					
5		-20											-20	-11	-12	-11	-7	-12	-13	-7				
6								-9			C	C	-19	-8	C	2	2	0	-14					
7								-1	-6	-11	-8	-15	-17	-14	-10	0	2	-2	-10					
8		-14				-18	-14	-15	-15	-16			-13	-10	0	1	-3	1						
9		-16		-14				-18	-8			-17	-19	-9	-15	-10	-6	-3	-4	-7	-12s	-14		
10		-19						-10					-9	-7	-1	0	0	4	-3	-12	-18s			
11		-10		-15	-13	-9	-10	C	C	C	C	C	-10	-6	-4	-2	0	3	5	-6	-9s			
12		-7		-15	-11	-11	-6	-6	-3	1	-16		-16	-12	-2	-1	0	3	6	-2	-10s			
13		-15		-14					-9	-2	-7													
14																								
15																							C	C
16	C	C	C	C	C	C	C	C	C	C	C	C												
17															-14	-15								
18															-15	-11	-8	-17	-19					
19														-19	-13	-8	-4	-18						
20														-18	-20	-11	-16							
21														-18	-10	-12	-11	-4						
22											-15	-19		-17	-14	-14	-7							
23													-20	-15	-12	-11	-6	-3	-10					
24								-8	-9				-19	-14	-2	-3	7	2	-11					
25								-10	-3	-2	-16	-16	-11	-5	1	3	C	C	C	C	-8			
26												-13	-9	-17	-3	-9		-12	-14	-18	-13			
27													-19		-20	-12	-16							
28												C	C	C	C	-14	C	C				C	C	C
29																								
30																								
31																								
CNT		8		4	2	3	4	7	7	6	4	5	17	19	22	24	20	19	15	8	7	2		
MED		-15		-14	12	-11	-10	-10	-8	-5	-12	-15	-17	-12	-9	-8	-4	-2	-8	-7	-11	-13		
UQ		-12		-14		-10	-8	-6	-3	-2	-8	-14	-12	-8	-2	-1	0	2	-3	-4	-9			
LQ		-18		-15		-14	-11	-15	-9	-11	-16	-16	-19	-15	-14	-11	-8	-7	-13	-9	-13			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAR. 1978

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	C	C											-17		-14	-9	-9	-7	s					
2													C			-6	-6							
3									C	C	C	C	-14	-14	-12	-8	-9	-20	-13					
4									-10	-2	-17	-12	-13	-8	-2	0	1	5	-1	-5	-14s	-17s		
5							-16	-8	-8	-10	-9	-17	-11	-7	0	2	-5	-10	-12	-11	-12	-9	-17s	
6									-20	-6	-5	-7	-11	-12	-4	1	-3	-4	0	-11	-14	-18	-19	
7									-14	-6	-16	-15	-14	-11	-4	-1	-1	-2	-2	-16	-17	-17	-20	
8									C	C	C	C	-15	-12	-6	0	3	-3	-2	-8				
9															-15	-13	-18	-9	-4					
10															-17	-12	-10	-9	-11	-14	-17		-20s	-19s
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30																								
31																								
CNT	1	5	2				1	4	9	11	13	16	20	25	29	29	29	29	29	19	12	11	7	1
MED	-9	-13	-14				-16	-15	-9	-10	-11	-13	-13	-8	-3	-6	-7	-8	-15	-16	-17	-17	-17	
UQ		-9						-11	-7	-5	-8	-12	-11	-4	0	1	-2	-2	-7	-12	-14	-12		
LQ		-17						-18	-14	-15	-16	-16	-15	-15	-9	-11	-9	-13	-18	-17	-18	-19		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR.1978

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-16	-11	-9	-18					
2											-18	-17	-18	-7	-2	-1	-1	-7						
3															-7	-3	-13	-19	-12	-13	-6			
4														-19	-8	-18	-16	-12						
5														-11	-9	-9	-8	-15						
6													-20	-15	-6	-10	-8							
7											-14	-16	-11	-3	4	0	5	3	-6					
8												-17	-17	-10	-1	-3	2	3	0	-7				
9	-15									-18	-9	-18	-10	-4s	-1	2	1	-3	-8	-20	-18	-17		
10										-19	-18	-17	-9	-4	-2	3	4	2	-10	-12				-18
11	-17													-16	-10	-12	-16							
12														-19	-16	-17	-9							
13											-18	-13	-14	-14	-3	-3	-3	0	-13	-18	-18	-17		
14														-11	-17	-17	-15	-18	-17					
15															-8	-11	-15	-15	-16s					
16													-17	-8	1	-9	-14	-11	-15					
17											-18	-20	-17	-13	-15	-15	-9	-13						
18														-14	-7	-7	-2	-4	-15					
19														-18	-1	-4	-17	-14		-18	-15			
20														-18	-5	-9	-13	-17						
21											-18	-15	-18	-20	-10	1	-1	-20						
22											-12		-19	-11	-4	-2	3	6	-16	-17	-16s			
23																	-15	-9	-16	-16		-12		
24																		-20						
25																	-17	-14						
26														-19	-12	-9	-7							
27													-12	-10	-19	-11	-1	-16						
28														-15	-12	-7								
29																			-17s					
30																								
31																								
CNT	2									2	7	7	11	19	25	25	27	26	15	9	5	3	2	
MED	-16									-18	-18	-17	-18	-12	-8	-8	-10	-9	-15	-16	-16	-17	-17	
UQ											-13	-15	-14	-10	-2	-2	-1	-1	-10	-10	-10			
LQ											-18	-17	-19	-18	-14	-12	-15	-15	-16	-17	-19			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAY 1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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																								
2																								
3																								
4																	-19	-18				-16		
5															-12	-4	-7	-10	-16					
6												-18	-19	-12	-4	1	-2	-3						
7																	-20	-16						
8												-17		-14	-5	2	-10	-1	-10	-16		-15		-20
9		-4												-8	-14		-15	-9	-16			-12		
10												-14	-12	-3	6	1	2	-4	-20					
11															-18	-18	-7	-12	-9	-15				
12																-12s	-9s	-18s						
13													-16	-8	1	-3	-12							
14													-19	-13	-12	-14	-13	-17						
15												-17	-12	-1	6	5	-3	0	-10					
16												-12	-11	-4	4	2	2	-4	-19s					
17													-15	-8	-6	-3	-4	-3s						
18												-10	-12	-6	-3	-2	-3	-1						
19												-18	-7	-7	-4	6	-2	-2						
20												-19	-7	1	6	7	3	-10	-20				-20	
21												-15	-5	3	0	-4	1	0	-16	-14	-12	-19		
22													-17	-3	-1	-7		-19s						
23													-18	-17	-10	-18	-16					-19		
24															-18	-14	-18							
25															-17	-19								
26													-17	-3	-4	-7	-15							
27													-17	-10	-3	-2	-8							
28												-17	-6	2	-4	-7	-8	-19	-19					
29												-18	-11	-3	4	-3	-9							
30														-18	-6	-3	-10							
31													-19	-12	-2	-8	-8							
CNT	1											11	18	23	25	25	26	19	9	2	3	4		1
MED	-4											-17	-13	-8	-4	-3	-9	-9	-16	-15	-16	-17		-20
UQ												-14	-11	-3	1	1	-3	-2	-12			-13		
LQ												-18	-17	-12	-8	-7	-15	-17	-19			-19		

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JUNE 1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-12	-13	-13s						
2													-18	-12	-9	-11	-18	-7s	-13					
3														-11	-8	-18		-12s						
4														-17	-7	-19					-20			
5																							-18	
6													-13	-2	-3	-11	-18							
7														-16	-12									
8														-19	-10									
9													-19	-6	-4									
10												-16	-19	-1	-3	-18		-11						
11																-20								
12												-17	-12	1	0	-18	-16							
13												-20	-13	-19		-19		-16s						
14												-19	-8	-3	-7	-19s								
15															-19	-4								
16												-14	-3	5	4	1								
17														-8	1	-16								-15s
18														-10	3	-16								
19														-10	-15	-18	-20s	-16s			-19			
20														-16	-6	-6	-11							
21														-14	-11	-9	-12	-17s	-17		-19			
22														-12	-2	-10	-10							
23												-16			-19	-17	-12	-14						
24															-15	-15	-19	-16s						
25															-14	-13	-10	-16s						
26													-15	-11	-2	-15	-20							
27														-17	-4	-10	-10							
28													-12			-12	-10	-14	-17		-17			
29													-20	-17	-9	-13	-12							-17s
30														-12	-18	-13	-18	-20			-19s			
31																								
CNT												5	12	22	26	26	16	12	3	4	1	1	2	
MED												-17	-14	-11	-7	-14	-12	-15	-17	-19	-17	-18	-16	
UQ												-14	-12	-6	-3	-11	-10	-12		-19				
LQ												-18	-18	-16	-14	-18	-18	-16		-19				

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

JULY 1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1												-17	-6	-2	8	-1	-14	-8							
2												-17	-10	-5	-3	-11									
3													-15	-6	-2	-2	-13								
4													-18	-8	1	-3	-7								
5																			-19	-19			-15s	-9s	
6													-8	-3	2	-11									-18
7	-17											-19	-13	2	5	-16	-8								
8														-13	-9	-14								-19	-18
9	-19											-18	-6	2	5	8	1	-11							-20
10															-13	-7									
11													-19	-14	-1	0	-9								
12												-18	-6	0	3	-2	-12								
13														-13	-7	-11	-3								
14														-20		-18	-14	-20s			-9	-17			
15												-17	-9	-5	0	-4	-14	-12s							
16												-18	-8	-4	4	-2	-5	-18s							
17												-17	-5	1	-5	-5	-5	-6							
18												-17	-12	-3	6	3	0	-9			-10s		-19	-15s	
19													-12	2	-3	-3	-11	-18							
20													-19	-16	-6	-8	-15	-9							
21												-19	-17	-15	-18	-17	-11	-11							
22													-19	-13	-5	-2	-8	-15	-16s						
23														-8	-4	-8	-10	-20					C	C	
24	C	C									C	C	C	C	C	C	C	s							
25	C	C											-12	-7	0	-2	-12	-15s			-15s				C
26													-14	-1	8	0	-17s								
27											C	C	-7	-1	4	-1	-11	-13s							
28												-19	-7	-6	-3	-12	-13		s	-17s					
29												-18	-13	-2	2	-7	-19								
30												-15	-8	1	7	0	-10								
31												-14	-7	-1	5	-5	-18s								
CNT	2											14	24	28	28	29	25	14	2	2	3	3	3	4	
MED	-18											-17	-11	-4	0	-4	-11	-12	-17	-18	-10	-17	-19	-18	
UQ												-17	-7	-1	5	-1	-7	-9						-16	
LQ												-18	-14	-10	-4	-11	-14	-18						-19	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

AUG.1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	-2	-2	-7	-14	-20s						
2												-13	-6	-1	4	-6								
3												-18	-9	-6	-1	-6	-18		-16	-17				
4													-20	-8	-18		-16	-17						
5															s	s								
6															-13	-12								
7														-17	-7	-3	-5	-19s						
8												-19		-19	-8	-14	-15	-15						
9												-17	-11	-19	-11	-3	-7	-11						
10	-20											-11	-17	-15	-3	-7	-18	-15						
11												-14	-17	2	5	5	-5	-7						
12														-13	1	-19				-12				
13														-10	-5		-19							
14												-16	-15	-5	3	-2	-4	-16						
15											-20	-14	-11	-6	-2	-1	-5							
16											-13	-16	-11	-2	4	7	-2	-9						
17												-17	-8	-1	4	2	-1	-11	-14	-18	-18			
18												-16	-13	-2	4	3	-8							
19												-19	-19s		-11	-4	-14s	-15s						
20											-17	-11	-4	3	6	3	-9							
21											-10	-11	-4	0	5	-4	-7							
22												-16	-9	-4	0	5	-5	-18s						
23											-18	-13	-10	0	3	5	-2	-17						
24											-17	-14	-4	2	6	7	4	-12s						
25										-20	-16	-11	-16	-2	-7	-6	0	-16						
26											-10	-13	-8	-2	1	-4	-2							
27												-13	-8	1	-5	-3	-9	-12	-17	-9	-12	-18		
28																								
29																								
30																								
31																	-19							
CNT	1							1	8	21	21	24	26	25	23	16	4	3	2	1				
MED	-20							-20	-16	-14	-10	-2	0	-3	-7	-15	-15	-17	-15	-18				
UQ									-11	-13	-7	0	4	3	-2	-11	-13							
LQ									-17	-16	-16	-9	-7	-6	-14	-17	-16							

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

SEP.1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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															-19	-14									
2															-12	-6s									
3														-18	-15	-17	-10								
4											-9				-9	-6	-9	-8							
5													-19	-11	-4	1	-2	-7			-19				
6	-11												-14	-13	-8	-14	-16	-11							
7															-1	-6	1	0							
8	-19	-20								-12	-18	-13	-13	-6	-1	-6	1	0							
9															-19	-12	-6	-16	-18	-20					
10															-14	-2	-7		-19				-13	-10	s
11															4	6	1	-6							
12															4	6	1	-6							
13															4	6	1	-6							
14															4	6	1	-6							
15															4	6	1	-6							
16															4	6	1	-6							
17															4	6	1	-6							
18															4	6	1	-6							
19															4	6	1	-6							
20															4	6	1	-6							
21															4	6	1	-6							
22															4	6	1	-6							
23															4	6	1	-6							
24															4	6	1	-6							
25															4	6	1	-6							
26															4	6	1	-6							
27															4	6	1	-6							
28															4	6	1	-6							
29															4	6	1	-6							
30															4	6	1	-6							
31															4	6	1	-6							
CNT	5	4								5	9	15	14	13	16	22	23	22	18	11	11	8	3	2	
MED	-16	-18								-17	-12	-11	-12	-10	-7	-7	-3	-1	-4	-3	-15	-16	-13	-11	
UQ	-10	-15								-15	-6	-9	-7	-9	0	2	1	1	0	-2	-14	-12			
LQ	-18	-19								-18	-14	-16	-15	-13	-12	-13	-12	-9	-8	-12	-16	-18			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

OCT.1978

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-17	-19						-20	-16	-19					-19	-3	-5	-18			-20	-18		
2	-20								-15	-20	-18	-19	-18	-12	-5	-2	-8	-12	-12		-17	-20	-18	-17
3	-17	-13					-17	-12	-7				-20	-20		-12	-4	-2						
4	-14		-20s	-20				-16	-19						-5	-3	-15	-20						
5		-18	-18						-17	-15	-19		-15	-9	-8	-7	-12	-8	-6	-8	-15s			
6	-9s	-18					-16	-12	-12	-19	-17	-14	-12	-7	-3	2	2	2	2	-10	-13			
7	-14							-12	-10	-15	-15	-14	-12	-7	-2	2	2	2	1	-7	-17			
8	-19	-19	-17			-20	-13	-13	-16	-18	-16	-11	-12	-7	-1	-10	-7	-5	1	-11				
9	-14							-2	-7	-6	-8	-8	-10	-4	-4	-1	-4	-3	-1	-3	-10			-12s
10	-8	-15							-16	-17	-19	-18	-13	-3	-6	-17	-7	-5	-13	-19s				
11									-15	-4	-2	-10	-16	-7	-2	1	-1	-1	3	-6	-15	-13s		
12								-8	-2	-4	-7	-7	-8	-4	2	0	1	-9	-19	-17	-13	-9	-7s	
13	-2s								-18	-4	-14	-18	-10	-5	-2	0	1	1	5	1	-12	-13		
14								-10	-5	-7	-9	-18	-18	-9	-4	-1	0	0	4	-15	-17	-13		
15	1	-20							-6	-7	-9	-10	-14		-3	0	0	2	9	-12	-19	-10	-12	
16		-10					-13	-2	-4	-4	-4	-10	-18	-8	0	1	1	3		4	-15	-13		
17	1	-15				-15	-12	-4	-5	-4	-6	-7	-7	-5	-2	1	2	3	3	2	-3	-8		
18		-15						-20					-15	-7	-7	-6	-5	-5	-2	-16	-12			
19	-1	-15											-16	-11	-4	-7	-15	-17	-20	-19	-12			
20								-18	-7	-8	-11	-19	-17	-8	1	-2	-5	-1	-7	-11	-20	-12		
21	-2	-11				-17	-15	-16	-15	-7	-17	-17	-13	-5	-5	-6	-1	-2	-7	-9	-14	-12		
22	-3s	-16											-18	-17	-10	-9	-6	-2	-12	-16	-20			
23	0	-12					-13	-19	-14	-12	-10	-19	-14	-12	-7	-2	2	-2	-11	-14	-15		-8s	
24	-10	-10					-16	-14	-14	-11	-12	-18	-16	-7	-3	1	2	1	7	3	-13	-11	-12	-8s
25	-1	-17				-17	-8	-3	-4	-6	-8	-16	-13	-4	2	0	-3	-6	-9	-12	-12	-12		-6s
26	2	-11		-18	-15	-13	-14	-17	-19	-12	-18	-17	-10	-6	1	2	-1	-3	-6	-5	-8	-12		-15s
27	-9												-15	-10	-7	-2	1	3	-10	-9s				
28	-3s	-14s			-17	-19	-20						-20	-7	-5	-5	-3	-6	-9	-15s		-15s		
29	-4s	-13			-20	-10	-4	-8	-9	-8	-15	-19	-17	-12	-3	-2	-3	-8	-13	-20	-20		-19	-11
30	2	-12	-10s					-18	-19				-16	-12	-17	-17	-3	-11					-17	-20s
31																								
CNT	23	20	4	2	3	7	12	20	24	22	21	20	24	27	29	30	30	30	26	25	23	18	6	9
MED	-4	-15	-17	-19	-17	-17	-13	-12	-13	-8	-12	-16	-15	-7	-3	-2	-3	-2	-3	-11	-15	-13	-14	-11
UQ	-1	-12	-13			-13	-12	-8	-6	-6	-8	-10	-12	-6	-2	0	0	1	3	-5	-12	-12	-12	-7
LQ	-14	-17	-19			-19	-16	-17	-16	-15	-17	-18	-18	-13	-7	-6	-6	-7	-9	-15	-19	-15	-18	-16

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

NOV.1978

FREQUENCY :

15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-17s						-19				-19	-10	-6	0	-10	-18	-16	-19	-18				
2		-17				-11			-19	-17			-20	-8	-7	-6	-9	-2	-7	-7	-19	-18	-18	-8s	
3	-10s	-20			-17	-17	-8	-10	-12	-10	-12		-15	-13	-7	-6	-1	1	-3	-11	-14s	-3s	-13		
4	-9	-14			-8	-8	-7	-6	-6	-2	-12	-13	-18	-14	-3	-1	1	-2	-7	-13	-12	-10	-12	-11	
5	-2	-10			-13	-11		-16	-12	-7	-13	-17	-18	-9	-4	0	-2	0	1	-7	-9	-13	-8	-9s	
6	1	-6		-13	-14	-13	-12	-12	-8	-10	-13		-16	-9	-5	1	2	2	-2	-4	-11	-8	-13	-11s	
7	2	-8		-13	-14	-9	-3	-3	-2	-7	-8	-18	-15	-8	-3	1	3	3	1	-5	-6	-6	-16	-10s	
8	-1	-10			-15	-17	-13	-13	-14	-7	-9	-13	-15	-11	-3	0	0	C	C	C	C	C	C	C	
9		-11				s		-5	-5	-10	-13	-20	-19	-15	-9	-4	-2	-3	-14	-14	-7	-14			
10	-2s	-8		-11	-11	-8	-6	-4	-5	-4	-9	-16	-19	-11	-10	-7	-2	-12	-11		-18				
11								-20						-20	-15	-20	-14	-14	-17						
12									-19										-20						
13														-18	-14	-5	-16								
14		-19		-19	-13	-8	-5	-11	-14	-18	-19	-20	-19	-8	-7	-3	-10		-20			-12			
15		-17			-11	-12	-17						-19	-18	-8	-6	-7	-9	-14						
16		-17		-16	-18	-13	-7	-7	-3	-9	-20		-17	-13	-9	-5	-6	-8	-8		-13				
17		-12		-17	-16	-11	-12	-9	-6	-9	-19	-19	-16		-3	-5	-12	-6	-6	-7	-3				
18		-12		-13	-15	-15	-8	-6	-6	-11	-20		-20	-10	-5	-7	-5	-3	-5	-5	-10	-11	-12		
19	-4	-7		-18	-20	-18	-10	-17	-8	-8	-17	-20	-14	-8	-3	-6	-5	-3	-6	-2	-10	-13	-15		
20	-19	-8					-9	-19					-16	-13	-9	-9	-6	-7	-10	-8	-10	-19			
21	-17						-8	-12				-19			-12	-9	-1	-3	s		-12s				
22					-15	-9	-15							-19	-14	-11	-17	-9	-10	-11	-17				
23	-10	-17	-9	-8	-5	-8	-10	-9	-12	-18		-19	-14	-9	-9	-6	-9	-7	-9	-17	-16				
24		-19		-18	-17	-12	-9	-19	-13	-19			-18	-9	C	C	-2	-12	-13	-14	-14				
25	-12													-14	-10	-12	-13							-17	
26														-17	-11	-15	-13	-20	-20						
27	-17s	-19	-17	-18									-19	-19	-14	-12	-16	-7	-13	-12		-17s			
28					-17	-11	-14	-20	-13				-20	-15	-13	-10	0	-7	-15	-17	-16	-11			
29		-14		-12	-13	-16	-11	-11	-11	-18			-17	-13	-8	-7	-3	-5	-9	-16	-14	-18	-20	-17	
30	-2	-10		-14	-15	-17	-15	-18	-16	-7	-20		-19	-13	-8	-4	-4	-4	-18		-13		-18	-12	
31																									
CNT	15	21	3	13	19	20	20	21	21	19	14	11	23	26	28	28	29	27	25	18	21	14	11	7	
MED	-9	-12	-17	-14	-15	-11	-9	-11	-12	-10	-13	-19	-18	-13	-8	-6	-5	-7	-10	-11	-13	-12	-15	-11	
UQ	-2	-9		-12	-13	-9	-7	-6	-6	-7	-12	-16	-16	-9	-5	-3	-1	-3	-6	-7	-10	-10	-12	-9	
LQ	-12	-17		-18	-17	-15	-12	-17	-14	-17	-19	-20	-20	-15	-11	-9	-11	-12	-14	-14	-16	-17	-18	-12	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

DEC.1978

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-6	-15	-18	-19	-16	-15	-13		-15	-9	-18		-19	-15	-8	-7	-7	-7	-11	-7	-7	-12	-19	
2	-7	-8	-13	-16	-15	-13	-13	-13	-15	-20		-20	-19	-10	-7	-6	-7	-2	-13		-9	-18		
3	-15	-10	-12	-16	-15	-12	-13	-12	-12	-16			-20	-15	-11	-9	-5	-10	-9	-18	-13			-9
4	-6	-12	-15	-15	-15	-10	-8	-10	-9	-13	-19		-17	-11	-5	-2	-5	-17	-12	-8		-17	-15	
5		-16	-17	C	C	C	C	C	C	C	-19		-18	-11	-4	-4	-7	-2	-7	-2	-8			
6		-12		-14	-13	-12	-8	-7	-10	-9	-17	-19	-17	-12	-5	-3	0	0	-7	-8	-17			
7		-10		-13		-9	-12	-10	-13	-12	-18		-20	-20	-5	-4	-2	-2	-6	-5	-3	-7	-11	
8		-8		-14	-14	-14	-12	-12	-12	-17	-19			-14	-8	-8	-8	-6	-8	-7	-8	-18		
9		-13	-12		-13	-12	-13	-17	-8	-19			-17	-12	-12	-3	0	0	-10	0	-5			
10		-7		-8	-13	-13	-9	-6	-7	-14			-17	-9	-5	0	-1	-3	-13	-11	-3	-14		
11		-9			-11	-8	-6	-9	-6	-13			-16	-12	-9	-1	-6	-4	-8	-5	-8	-6		
12		-7			-13	-14	-13	-17	-15						-17	-6	-9	-12	-15	-20	-14	-13		
13		-12	-14	-13										-17	-12	-8	-11	-14	-17	-14	-12			
14		-9			-13	-20		-17	-14						-17	-14	-10		-14					
15		-18			-18	-19								-19	-15	-5	-2	-6	-7	-4	-8	-7	C	
16	-9s	-14	-9	-16		C	-13		-18	-19	C		-17	-12	-7	-9	-16	-14	-16					
17	-9s	-14	-14s	-18	-18	-15	-14	-17	-16	-15			-20	-14	-8	-7	-14	-16	-7	-10	-9	-11	-13	-6
18	-5s	-12	-4s	-11s	-13	-7	-5	-2	-9	-14				-15	-4	-17	-12	-12	-10	-6				
19													-19	-11	-8	-10	-10	-17	-17	-10	-18			
20			-11	-11											-19	-16	-9	-6	-8	-16				
21				-12s										-13	-11	-6	-16	-11	-8	-11	-17s			
22		-18		-18	-19	-17								-19	-10		-4	-4	-7	-12	-14			
23					-19	-19									-12	-8	-2	-11	-15	-10	-7	-9	-16	-11s
24		-14			-18	-17	-16	-15							-9	-9	-12	-13	-9	-10	-13	-14s		
25		-9			-18			-14	-13	-7			-15	-18	-8	-8	-9	-18				-2		
26		-12	-4s	-4	-8	-18	-20								-17	-12	-5	-8	-13	-11	-11	-13		
27		-16											-18	-12	-6	-8	-8	-13	-20	-3	-15			
28		-14			-16	-17	-14	-14	-11	-9	-15		-18	-13	-8	-8	-9	-17	-17					
29	-13	-15	-9s	-12	-16	-15	-20	-17	-14	-15	-19	-16	-17	-9	-13	-5	-9	-5	-9					
30		-10												-20	-10	-8	-6	-9	-7	-9	-6	-17		
31								-17		-20				-18	-10	C	C	C	C	C	C	C	C	C
CNT	8	26	13	17	20	21	18	17	19	16	10	3	16	25	31	29	30	29	29	24	22	15	5	3
MED	-8	-12	-12	-14	-15	-14	-13	-13	-13	-14	-19	-19	-17	-14	-9	-7	-7	-9	-10	-9	-9	-13	-15	-9
UQ	-6	-9	-9	-11	-13	-12	-9	-9	-10	-10	-18		-17	-11	-7	-4	-5	-4	-7	-5	-7	-7	-12	
LQ	-11	-14	-14	-16	-18	-17	-14	-16	-15	-16	-19		-19	-18	-12	-9	-10	-13	-14	-11	-14	-17	-17	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JAN.1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-19	-15	-16	-19	-15	-16						-18	-12	-11	-6	-6	-8	2	-7	-2			
2		-11	-18	-18	-20	-17	-15	-10	-12	-18	-19		-20	-15	-11	-4	-15	-9	-8	-8	-8			
3										-17				C	C	C	-6	-3	-7	-6				
4																-17	-13	-10	-4	5	-10			
5															-15	-10	-4	-12	-3	-7	-12			
6		-18						-14	-12	-20				-15	-10	C	C	C	C	C	C	C	C	C
7	C	-11	-8	-14	-20	-20	-19	-17	-15	-17			-15	-11	-5	-7	-7	-6	-4	-6	-17	-17	-14	
8	-5							-20	-18	-16				-9	-4	-4	-1	-2	-2	-7	-8			
9	-13					-19	-17	-18	-16	-14	-20		-19	-17	-6	-3	-4	-2	2	1	-4	-2		
10	-6	-8			-17	-19	-16	-20	-17	-13	-16	-20	-17	-13	-4	-1	-5	5	-2	-6	-2	-9		
11		-8			-18	-17	-20	-13	-11	-7	-14	-20	-13	-8	-4	-4	-6	-2	0	-3	-2	-1	-15	
12		-5			-13	-15			-14	-11	-19		-18	-11	-6	-5	-3	-2	-1	-8	-2	-8		
13		-8	-14	-19	-17	-10	-9	-12	-11	-12		-18	-13	-7	-4	-6	-2	-1	5	-4	-7	-10	-6	
14		-6	-8	-10	-15	-17	-16	-17	-16	-17				-18	-7	-7	-12	-15	-14	-1	-2			
15		-7			-13	-17	-18	-15	-8	-11			-17	-9	-12	-12	-8	-1	1	-4	-4	-13		
16		-11				-19				-15	-13	-17	-16	-11	-7	-7	-2	-3	-5	-7	-1	-2	-14	
17		-9		-12	-12	-15	-17	-14	-12	-13			-18	-11	-4	-2	-3	-2	-7	-6				
18		-14				-20	-13	-8	-9	-13	-17	-19	-11	-5	3	-3	-7	-13	-9					
19		-9		-17	-17					-13	-16	-18	-10	-8	-9	-7	-4	-2					-20	
20	-8	-14				-19	-17			-20	-20	-19	-12	-11	-5	-2	-4	-9	-17	-20	-15			
21		-8			-17	-19	-15	-10	-10	-15	-20	-19	-12	-11	-8	2	-10	-7	-8	-19	-17	-11		
22		-9			-16	-16	-14	-10	-8	-8	-12	-18	-18	-19	-6	-6	-9	-6	-15	-11	-17	-16		
23								-11	-11	-15	-15	-9	-7	-14	-11	-3	-3	-10	-12					
24														-17	-8	-9	-10	-5	0	-6	-14	-17	C	
25	C	C	C	C	C	C	C	C	C	C				-20	-11	-8	-11	-7	-13	-16	-16			
26															-12	-7	-7	-13	-12		-20			
27														-19	-15	-13	-9	2	-6	-17	-18			
28								-17	-15	-14	-19	-14	-9	-9	-17	-4	-7	0						
29				-19	-20	-20	-18	-17	-15	-17			-20	-15	-8	-1	-7	-8	-7	-10	-12			
30		-14						-8	-10	-17				-16	-10	-8	-3	2	-9	-13	-10			
31							-20	-12	-8	-7	-16	-20		-19	-7	-3	0	-4	-2	-3	-6	-8	-20	
CNT	4	18	5	7	14	14	17	17	20	22	15	12	19	26	29	29	30	30	30	26	24	14	7	
MED	-7	-9	-14	-16	-17	-17	-17	-14	-12	-13	-15	-18	-18	-12	-8	-6	-4	-4	-4	-6	-9	-9	-14	
UQ	-5	-8	-8	-12	-15	-15	-16	-12	-9	-10	-13	-17	-15	-11	-6	-3	-3	-2	-1	-4	-3	-8	-11	
LQ	-10	-14	-16	-18	-19	-19	-19	-17	-16	-17	-17	-20	-19	-17	-11	-8	-8	-8	-9	-9	-16	-16	-20	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

FEB. 1979

FREQUENCY :

15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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		-19						-13	-11	-9	-4	-16	-20	-12	-8	-5	2	4	4	0	0	-7		
2		-12			-15		-19	-14	-20		-18			-14	-6	-6	-2	-2	-2					
3		-15						-14	-4	-7	-9	-16	-11	-12	-6	-6	0	6	4	5	-11	-12		
4		-10			-13	-20		-8	-9	-8	-9	-16	-1	-10	-7	-4	-1	-6	-8	-12	-7	-9	-14	-16
5							-13	-12	-11	-17		-16	-15	-7	-6	-5	-2	-6	0	-1	-17			
6		-5			-19	-14	-12				-13	-19		-17	-8	-6	-9	-2	1	-2	-8	-17	-18	
7						-12	0	-7	-6	-6	-5	-10	-13	-7	2	2	1	2	2	-8	-14	-14		
8		-15			-19			-12	-9	-9	-9	-14	-15	-7	-4	-4	-6	0	0	-5	-14	-19		
9	-4	-12	-11	-18				-11	-11	-10	-9	-17	-17	-5	0	3	3	1	-8	-19	-13	-12	-11	-19
10							-17	-8	-3	-7	-7	-16	-16	-10	2	0	-1	5	-2	-4	-10	-14	-18	-11
11		-12						-19	-18	-10	-7	-9	-13	-7	0	-4	-3	2	3	2	1	-8		
12													-19	-9	-7	-8	-1	-2	-4	-6	-13	-19		
13	-14	-9		-12	-16	-16	-12	-8	-10	-5	-7	-14	-16	-10	-3	2	3	5	4	2	2	-10	-18	
14		-5		-13	-13	-15	-13	-8	-7	-6	-6	-16	-17	-8	0	0	3	6	5	4	5	-7	-9	
15	-10	-8		-17	-17	-13	-6	-5	-3	-8	-9	-9	-15	-10	-5	-2	4	0	0	-7	-8	-9	-10	-12
16									-15	-9	-6	-12	-16	-8	2	7	2	0	1	2	-5	-9	-16	
17									s	s	-5	-7	-10	-7	0	0	2	7	5	1	-6	-8	-14	
18		-10						-14	-10	-9	-15	-16	-14	-13	-1	-2	-1	-3	-3	-18		-16	-11	
19		-9							-17	-12	-9	-15	-20	-16	-8	-9	-8	-11	-9	-9	-20			
20		-12					-8	-12	-9	-7	-9	-9	-16	-12	-4	-2	0	4	6	2	-9	-12	-12	
21	-8s	-5											-16	-16	-5	-7	0	1	-9	-15				
22		-20								-18	-16		-12	-9	-11	4	2	-5	-10	-10	-2	-18		
23											-14	-19	-16	-6	1	4	6	5	-1	-10	-10	-10	-20	
24												-15	-20		-4	1	3	5	-12	-18		-20	-17	
25														-19	-3	0	7	0	0	-1	-10	-10	-18	
26														-12	-3	-2	-11	-10	-18		-16			
27														-20	-7	-3	-12	-11	-11					
28								-14	-7	-14	-16			-10	2	6	-11	-4	-13	-18	-14	-13		
29																								
30																								
31																								
CNT	4	16	1	3	7	6	8	14	18	18	21	21	19	26	28	28	28	28	28	26	24	22	16	4
MED	-9	-11	-11	-13	-16	-15	-13	-9	-11	-9	-9	-16	-16	-10	-4	-2	0	0	0	-4	-10	-11	-16	-14
UQ	-6	-8			-13	-13	-12	-8	-7	-7	-6	-11	-13	-7	0	1	3	5	3	1	-6	-9	-11	-11
LQ	-12	-13			-19	-18	-15	-14	-14	-10	-13	-16	-17	-13	-7	-5	-6	-2	-5	-10	-14	-14	-18	-17

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

MAR.1979

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-7	-8								-4	-9	-19	-15	-7	0	-3	-8	-9	-12	-14	-15	-14		
2		-18												-13	-5	-4	-9	-7	-14	-12	-13	-15		
3									-17	-8	-15	-8	-18	-17	-7	-3	-5	-5	-17	-15	-11			
4	-11s	-19									-20	-12		-9	-19	-16	-13	-17	-16		-20	-15	-15	
5		-16												-20	-7	-2	-3	-3	-5	-8	-19			
6										-16				-7	-7	-7	-7	-10	-14		-18	-16s	-14s	-15s
7	-19s	-20									-14	-9	-16	-16	-5	-3	2	1	2	-11	-16s			
8		-19								-13	-5	-12	-11	-12	-1	3	4	-2	-3	-2	-8	-12s		
9								-18	-15	-17	-10	-13	-10	-13	-15	-4	-3	-2	-6	-8	-10	-9	-9	
10												-17	-15	-9	-2	1	2	1	-3	-7	-9			-12
11														-15	-6	1	0	-3	-12		-17	-18		
12	-10									-17s	-16s	-12			-14	-3	C	C	2	0	-8	-11	-14	
13	-12	-9	-19					-19	-17	-18	-12	-11	-12	-12	-6	-4	3	C	C	C	C	C	C	
14		-12						-12	-9	-10	-7	-7	-13	-7	3	5	4	6	6	6	6	1	-9	
15		-6							-9	-7	-7	-7	-12	-7	2	4	5	6	5	1	0	-4	-5	-3
16								-15	-4	-9	-2	-4	-9	-6	3	5	6	7	6	-4	-13	-10	-18	-12
17								-14	-6	-7			-13	-7	1	7	0	2	-4	-4	-2	-1	-15	
18	-19							-9	-7	-8	-4	-6	-6	-4	-4	2	3	5	5	3	-6	-5	-14	
19		-7							-5	-12	-17	-4	-7	-7	-4	-6	2	7	0	-8	-8	-9	-9	-12
20								-15	-10	-10	-10	-9	-18		-5	1	7	8	8	1	-4	-4	-16	-4
21	-17								-6	-10	-10	-9	-10	-4	4	3	4	7	4	3	2	-4	-5	
22	5	-14							-7	-4	-2	-5	-7	-4	3	-7	-7	-2	-18					
23									-20	-12	-13	-7	-7	-3	5	5	5	6	-2	-13				
24																-12	-4	-2	0	4	-6	-13		
25													-20	-6	4	1	2	-9	-10	-10	-7	-11		
26															-8	5	-7	-7	-13	-18	-12			
27													-18	-11	-4	2	4	-6	-14	-14	-7	-10	-14	-12
28										-9				-15	2	-11	-13	-8						
29													-16	-19	-2	-10	-17				-19			
30	-10													-15	-7	-6	-10	-17						
31										-13	-18	-14	-20	-17	-2	3	0	3	-7	-12	-7	-13	-12	-7
CNT	9	11	1					7	14	17	19	19	21	27	30	31	30	28	27	23	26	20	14	8
MED	-11	-14	-19					-15	-9	-10	-10	-9	-13	-9	-4	-2	0	-2	-4	-8	-8	-10	-14	-12
UQ	-8	-8						-12	-6	-7	-7	-7	-9	-7	2	3	4	6	2	1	-6	-4	-9	-6
LQ	-18	-19						-18	-17	-13	-15	-12	-16	-15	-7	-6	-7	-7	-13	-12	-15	-13	-15	-12

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

APR.1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-2	-12								-12	-6	-15	-17	-11	-3	-3	-14	-10	-10	-16	-8	-18	-19		
2														-13	-4	-7	-12	-18	-17	-19	-19	-17			
3															-2	3	7	1	-2	-16					
4																									
5													-19	-7	-1	-4	-4	-7	-9						
6													-20		-10	-6	-3	-1	-14				-19	-15	
7		-17										-18		-13	-14	-7	-16	-9		-8	-7	-5			
8	-7											-15	-10	-5	1	-4	-6	-5	-12	-8	-6				
9	-20											-9	-12	-4	2	3	5	7	2	-9	-12	-7	-10		
10										-13	-7	-13	-14	-11	-4	3		-3	-10	-8	-3	0	-14		
11		-11								-9	-2	-7	-9	-2	6	7	8	8	1	-10	-8	-7	-15		
12		-17								-10	-8	-12	-7	5	6	1	2	4	-1	-6	-8	-7	-5		
13	-4	-10								-13	-5	-6	-14	-20	-14	-5	4	7	9	-2	-10	-7	-5	-7	
14		-19								-19	-8	-7	-10	-7	1	0	1	0	3	2	-7	-12	-8	-8	-7
15	-4									-13	-8	-7	-14	-10	-8	1	-3	6	3	-14	-20	-12	-8	-8	
16																									
17	-17									-17	-11		-19	-10	-11	0	-1	-20	-12	-5	-8	-12	-3	-13	
18																									
19	-8	-13																							
20	-14	-14																							
21		-17																							
22	-4	0																							
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30																									
31																									
CNT	9	10								5	9	12	16	20	25	27	27	28	29	27	20	14	15	14	1
MED	-7	-13								-13	-9	-7	-13	-11	-11	-4	-2	-4	-3	-9	-9	-8	-7	-11	-7
UQ	-4	-11								-11	-8	-6	-9	-9	-5	0	3	5	4	-1	-8	-7	-5	-8	
LQ	-16	-17								-18	-12	-9	-15	-16	-13	-10	-7	-13	-9	-14	-12	-12	-14	-15	

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

MAY 1979

FREQUENCY :

15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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													-18	-19		-19	-11	-5	-5	-19										
2															-10	-9	-9	-5	-19											
3											-15	-13	-12	-3	5	5	3	3	-6	-16	-11									
4											-12	-13	-11	-3	6	2	3	-2	-10	-12	-13									
5												-16	-12	-5	-12	-8	-5	-2	-7	-18			-20	-13						
6	-7	-16									-17	-10	-8	-2	8	5	5	4	2	-10	-7	-11	-20							
7	-16										-13	-15	-9	-13	-5	3	-1	-5	-15	-11	-10	-8		-18						
8												-18	-13	-5	-4	-4	-1	1	0	-10	-7	-12		-15						
9	-17	-18										-8	-12	-4	2	3	5	7	3	-9	-12s	-7		-13						
10	-19	-19											-12	-7	-13	-14	-11	-4	3					-14						
11	-11												-9	-2	-7	-9	-2	7	7	8	8	0	-8	-7	-15					
12		-17											-8	-13	-8	-7		6	2	2	4	-1	-6	-8	-8	-5	-4			
13		-11													-12	-5	-6	-14	-20	-14	-5	4	7	9	-2	-10	-7	-5	-7	
14	-18	-20													-19	-8	-7	-10	-7	1	1	0	3	2	-7	-12	-8	-7	-8	
15	-2																	-12	-14	-9	-3	-3	0	1	-1	-14			-15	-19
16																														
17																														
18																														
19	-16																													
20																														
21																														
22																														
23																														
24																														
25																														
26																														
27																														
28																														
29																														
30	-18																													
31																														
CNT	9	6																												
MED	-16	-17																												
UQ	-9	-16																												
LQ	-18	-19																												

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JUNE 1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	0	-4	-6	-13							
2												-18	-8	-1	0	-5	-8	-15							
3												-18	-9	2	5	4	-1	-8							
4													-12	-2	-2	-1	-1	-3	-8		-14s	-19			
5												-18	-4	2	7	2	3	-5	-11	-12	-15s	-14s	-20	-18	
6												-18	-7	2	6	3	2	-2	-8	-15					
7																	-16	-18							
8														-19	-9	-11	-7	-7s	-10	-1s					
9												-14				-19	-20	-9	-10						
10														-18	-19	-18	-12	-9	-12	-19	-17				
11														-12	-3	5	-5	-8	-14	-19					
12														-9	1	-1	-5	-5							
13												-19	-6	1	8	6	-3	-12	-12						
14												-19	-10	-5	5	-6	-7	-6							
15													-17	2	2	2	1	-3	-7	-17	-17				
16														-16	-8	-4	-14	-8	-9	-19	-17				
17														-15	1	-2	-16	-14	-10	-16	-13				
18												-17	-7	-1	6	-1	-3	-12							-17
19													-17	-12	-6	-8	-14	-14							-20
20													-10	-1	1	-5	-12	-6s							
21														-13	-5	-9	-13	-20	-17	-19					
22														-17	-7	0	-12	-7	-9						
23													-17	-16	-15	-10									
24														-15	-5	-15	-17								
25													-20	-13	-5										
26													-20	-11	0	-12		-20	-17	-15	-10	-15			
27														-8	-8	-7	-13								
28														-11	-2	3	-3	-11	-15						
29												-20	-8	-2	0	-5	-4	-17							
30													-13	-3	-4	-6	-10	-19	-14	-17					
31																									
CNT												8	18	27	28	28	27	27	15	11	7	3	1	3	
MED												-18	-10	-9	0	-4	-7	-9	-10	-17	-15	-15	-20	-18	
UQ												-18	-8	-1	3	0	-3	-6	-9	-15	-13				
LQ												-19	-17	-15	-5	-8	-13	-15	-14	-19	-17				

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

JULY 1979

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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													-10	-2	4	0	-7								
2												-19	-10	-1	2	-1	-3			-20					
3												-19	-7	3	8	4	0	-5	-12						
4														-14	-9	-7	-3								
5												-18	-7	4	-2	-6	-10	-10							-12
6													-13	-6	-7	-4	-6	-8	-18						
7	-19													-19	-6	-6	-1	-17			-14	-16			
8													-17	-19	-9	-13	-14	-12							
9													-15	-3	3	1	-2	-8							
10													-12	-4	2	3	-3	-7							
11													-7	-11	-7	-11	-4	-12							
12												-17	-5	1	7	3	-1	-12	-19		-16				
13													-9	-2	-1	-3	-1	-2	-12	-9	-10	-13			
14												-16	-6	4	6	7	-1	-5	-17						
15														-18	-8	-10	-9	-11							
16														-13	-12	-10	C	C	C	C	C	C	C	C	
17													-11	-2	-2	-13	-6	-11		-12	-18	-18		C	-18
18													-19	-11	2	-6	-8	-11							
19													-20	-9	-3	4	-1	-8							
20													-16	-15	-10	-8	-5	-8	-8	-12	-14				
21													-18	-5	-19	-17	-5	-19							
22													-19	-13	-6	-8	-11								
23													-14	-10	-7	-1	-9	-10							
24													-18	-5	3	-4	-7	6							
25												-16	-8	2	4	4	-1	-1							
26													-19	-14	-5	-2	0	0	-17	-16	-16				
27												-20	-15	-5	5	0	-8	-13	-12	-10		-17	-12		
28													-12	-2	3	8	-3	-1							
29												-14	-6	0	3	5	2	-5	-11	-18	-16	-16			
30												-14	-8	-1	7	2	-1	3					-20	-20	
31												-18	-9	-1	5	1	1	3							
CNT	1											10	27	31	31	31	30	26	9	7	7	5	2	3	
MED	-19											-17	-12	-5	-1	-2	-3	-8	-12	-12	-16	-16	-16	-18	
UQ												-16	-8	-1	4	3	-1	-5	-11	-10	-14	-16			
LQ												-18	-17	-13	-7	-8	-7	-12	-17	-18	-16	-17			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

AUG.1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-13	-5	0	4	-6	-10	-8	-17		-19		
2												-17			-18	-12	-6	-7						
3														-15	-12	-8	-11	-8						
4															-5	-13								
5												-9	-14	-7	-18	-9	-16							
6														-17	-9	-10	-10	-11	-20	-12				
7														-16	-7		-15	-15	-15	-20				
8														-11	4	-4	-2	-17						
9												-19	-12	-6	4	2	-2	-6						
10												-19	-11	-2	6s	-4	-6	-9	-17		-13			
11												-15	-9	1	5		-3	-4						
12												-17	-13	-3	-20	2	-6	-11						-20
13	-20											-20	-17	-8	0		-16	-11	-13	-12	-13	-9		
14													-18	-6	1	2	-3	-17						
15												-20	-12	-5	5	6	5	-3						
16													-18	-3	2	3	0	2	-13					
17											-7	-6	-10	-9	-3	0	3	-2	-15					
18											-17	-14	-	-2	5	2	3	-1						
19														-18	-16	-14	-16	-16	-7	-14	-20	-19		
20															-19	-14	-12	-5	-17					
21																		-18						
22																-9	-6	-6	-7	-20	-20			
23													-17	-20	-10	-4	0	-1	-7	-18	-17			
24													-20	-13	-9	-6	0	4	-6	-13	-11			
25	-8	-15									-8	-14	-15	-16	-5	-3	-2	-10	-12	-10	-12	-9		
26		-12											-20	-15	-7	-3	-1	-10	-20	-19	-16			
27	-15														-14	-11	-9	-9	-9	-16	C	C	C	
28	-17							-19	-19			-19	-19	-5	-14	-4	-2	-2	-9	-17	-20			
29												-18	-17	-8	-4	-12	-13	-18						-17
30												-19	-12	-3	-3	-2								
31											-12	-13	-7	-2	-2	-1	2	7	-4	-20	-14	-11		
CNT	4	2						1	2	4	15	20	25	28	27	30	28	17	13	10	6			1
MED	-16	-13						-19	-19	-10	-17	-14	-8	-4	-4	-4	-8	-12	-17	-15	-14			-20
UQ	-12							-7	-14	-11	-4	2	2	2	2	-1	-2	-7	-12	-13	-9			
LQ	-18									-14	-19	-18	-15	-13	-9	-11	-11	-16	-19	-20	-19			

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

SEP.1979

FREQUENCY : 15 MHz ZONE TIME : 45°E Mean Time (UT+3h)

Date	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											-18	-12	-12	-5	3	5	3	4	4	-14	-10	-6		
2	-10	-13								-15	-17	-10	-5	0	-5	-4	-1	1	-3	-13	-15	-14	-13	-15
3	-14	-17								-19			-17	-12	-4	3	6	5	-16	-9	-11	-7	-18	
4	-12	-11									-20	-20		-9	0	3	7	3	-3	-9	-9	-12	-19	-18
5	-19	-8								-19	-19	-19	-15	-5	2	0	3	-1	-7	-15	-8		-14	-8s
6	-6s	-11	-10										-18	-5	-4	-15	-7	-1	-18					
7									-20	-11	-14	-13	-11	-11	0	3	4	0	-11	-20				
8										-19		-19		-13	-5	2	-7	-7	-17	-16				-20
9	-16									-15		-14	-13	-12	-5	0	1	-4	-18					
10	-9	-10									-14	-15	-10	-2	3	-2	0	-3	-10	-9	-3			
11	-3													-6	-4	-15		-17	-18	-12	-11			
12										-8	-15	-12	-12	-4	2	0	3	4	0					-17
13	-8	-12							-10	-10	-6	-7	-9	-1	3	6	5	5	3	-5				-16
14	-19								-16	-8	-13		-12	-3	1	2	5	7	4	2	-8	-7		-12
15	-16									-20	-8	-10	-8	-5	-1	0	3	2	-1	-9	-6	-3		
16										-18	-17		-18		-11	-12	-16	-12	-12	-12	-9			
17	-13										-19	-17	-18	-19	-10	-15	-19	-13	-6	-15				-19
18																								
19										-20				-17	-15	-13	-12	-13	-5	-12				
20										-14	-17	-19	-19	-16	-12	-11	-13	-19				-17	-13	
21															-18	-19	-17	-19	-17					
22									-8	-13	-8	-11	-14	-9	-7	-5	-1	-2	-8	-12	-17	-12	-14	
23									-19	-13	-16	-13	-13	-10	-4	-10	-7	-2	-1	-7	-15	-19	-19	-5
24	-1	-9							C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
25	C	C	C						C	C	C	C	C	-13	-5	-5	-4	0	-15	-19				
26									-14	-17			-19	-8	-2	1	1	-8	-17	-20	-16	-8	-16	
27									-15	-11	-14	-20	-20	-11	0	-2	6	7	-1	-11	-8	-12	-15	-7
28	-5	-17											-20	-8	-8	-7	-2	-2	-8	-15	-16	-14	-10	
29										-15	-10	-20	-20	-14	-6	-6	-2	5	-3	-17	-8	-14		
30															-10	-3	-1	-3	-8	-10	-14	-18	-18	
31																								
CNT	14	9	1						7	18	17	17	22	24	28	28	27	28	27	24	18	14	14	6
MED	-11	-11	-10						-15	-15	-15	-14	-14	-8	-4	-4	0	-1	-7	-12	-10	-12	-16	-11
UQ	-6	-9							-10	-11	-11	-11	-12	-5	0	1	3	4	-1	-9	-8	-7	-14	-7
LQ	-16	-15							-19	-19	-17	-19	-19	-12	-9	-10	-7	-7	-15	-15	-15	-14	-18	-18

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

OCT.1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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									-11	-13	-8	-14	-14	-3	-2	3	2	2	-5	-13	-8	-11	-11	
2								-8	-7	-3	-7	-8	-9	-2	1	2	3	2	-2	-3	-12	-7	-14	
3		-10	-18						-14	-16	-15	-12	-19	-4	1	4	4	2	7	-6	-8	-11	-18	-6
4	-5	-9							-6	-9	-6	-7	-12		-13	-18	-11	-5	0	-4	-12	-14	-15	
5	-7							-3	-9	-3	-4	-10	-11	-1	0	-8	1	7	2	-1	-8	-6	-8	-12
6	-8	-17											-16	-10	-2	-2	-8	-8	-10	-12	-8	-8		
7													-17	-8	-4	-3	-2	-12	-16			-14		
8									-14				-7	-5	-12	-5	-4	-14			-13	-13	-18	
9													-14	-8	-15	-14	-8	-17	-12	-14	-17	-17		-12
10	-13	-19							-15	-16	-18	-16	-17	-6	-4	-3	0	-1	-6	-16	-17	-11	-17	-14
11	-1	-9					-19	-9	-3	-6	-7	-11	-11	-5	-1	2	-2	0	-7	-5	-15	-15		
12	-1	-14					-18	-9	-11	-8	-10	-14	-12	-3	2	4	4	5	-4	-7	-9	-17		
13	-3	-19							-14	-8	-9	-10	-17	-7	2	3	3	7	9	-1	-8	-4	-19	-1
14	-12								-6	-6	-7	-11	-14	-5	2	3	5	7	6	-8	-13	-8	-9	
15		-17				-17	-15	-12	-11	-4	-8	-8	-12	-9	0	0	7	0	-10	-12	-12	-6	-7	-7
16	-7	-18							-12	-16	-16	-11	-1	4	7	6	10	7	5	-9	-12	-19		
17	-1	-13					-13	-5	-9	-7	-10	-8	-14	-5	0	3	5	9	9	6	2	-6	-14	
18		-11						-3	-3	-2	-2	-8	-14	-13	-3	-1	3	7	4	6	5	0	-3	
19	0	-12						-1	-8	-2	0	-7	-11	-6	0	-15	7	7	7	5	7	3	0	
20	-2	-8	-19				-10	-2	-5	-6	-6	-13	-18	-7	-3	-4	1	11	8	0	-4	-7	0	-18
21	-1	-7	-14	-19	-19	-13	-12	-12	-7	-2	-7	-8	-13	-8	0	2	5	4	-2	-10	-11	-6	-9	2
22	6	-14		-19				-15	-10		-16	-18	-14	-12	-3	2	5	1	-1	0	-10	-16	-15	-14
23	-1	-9					-9	-8	-10	-11	-8	-15	-16	-7	-3	2	-2	1	-7	-8	-8	-7	-11	-5
24	-4	-17						-7	-16	-15	-20		-7	0	-1	1	1	-6	-7	-9	-9	-3	-5	
25	7	-7			-17	-18	-16	-13		-14	-16		-16	-8	2	0	1	2	-7	-12	-10	-11	-18	-9
26	-8	-16				-19	-12	-14	-9	-11	C	-18	-13	-8	2	6	3	4	2	-4	-8	-12	-12	-7
27	-2	-17				-5	-6	-5	-8	-9	-12	-15	-17	-8	-2	3	4	3	-1	-5	-6	-8	-1	-8
28	3	-13				-12	-11	-12	-8	-4	-9	-12	-11	-5	-1	-7	-9	-2	2	2	1	-10	-14	-5
29	-11				-17	-12	-14	-17	-12	-7	-8	-14	-15	-8	0	0	5	6	-2	-15	-17	-18		-12
30	-4	-14					-8	-7	-3	-11	-13	-15	-5	0	-3	5	7	5	-8	-12	-14	-18		
31					-16	-12	-7	-4	-4	-8	-12	-16	-14	-6	-2	2	9	7	-3	-2	-8	-9	-20	
CNT	22	22	3	2	4	8	13	20	25	27	26	25	28	30	31	31	31	31	31	29	30	31	25	16
MED	-2	-13	-18	-19	-17	-12	-12	-8	-9	-8	-8	-12	-14	-7	0	0	3	2	-2	-5	-9	-10	-14	-7
UQ	-1	-10			-16	-12	-9	-4	-6	-4	-7	-8	-12	-5	1	3	5	7	5	0	-8	-7	-7	-5
LQ	-7	-17			-18	-17	-15	-12	-11	-12	-12	-15	-16	-9	-3	-3	-2	0	-7	-11	-12	-14	-18	-12

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJJ) AT SYOWA STATION

NOV.1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	7				-18	-20			-12	-11	-13	-13	-15	-6	3	4	3	2	-2	-2	-5	-10		
2	-1	-19									-15	-17	-13	-6	-7	-1	-4	-4	-5	-8	-15	-20		-8
3	-1	-17			-15	-8	-7	-8	-5	-4	-9	-16	-14	-5	1	5	4	3	-2	-10	-5	-14	-11	-10
4	-5	-17						-20	-6	-4	-11	-16	-14	-7	0	3	2	-1	-1	3	-11	-11	-8	-7
5	-1	-15			-14	-11	-5	-7	-5	-5	-13	-15	-12	-6	-3	-1	2	2	3	1	-5	-9	-15	
6	-2	-11			-17	-14	-12	-11		-14	-12	-18		-10	-1	3	4	7	5	1	-1	1	-7	-8
7	1	-10			-16	-13	-9	-14	-16	-12	-13	-15	-17	-8	0	0	2	0	-4	-7	-11	-13	-7	
8	-1	-12						-9	-14	-10	-14				-11	-9	-1	3	0	-3	-3	-7	-19	
9		-13			-16	-14	-11	-6	-9	-12	-12	-18	-20	-10	-4	-2	-4	-2	-8	-14	-13	-12	-6	-7
10	-9				-10	-14	-14	-13	-2	-9	-14	-16	-8	4	-3	-2	3	4	1	-8	-9	-11	-4	
11	-3	-17					-18	-13	-13	-11	-13	-17	-7		-3	0	3	2	5	-8	-13	-18		
12	-10				-16	-15	-16	-13	-5	-3	-10	-15	-16	-8	-6	-3	0	0	-6	-10	-9	-8	-19	
13		-13			-17								-14	-18	-14	-13	-4	-11	-7	-16	-10	-16	-13	
14														-18	-10	-6	-2	-1	-1	-10	-10	-7	-20	-17
15	-9	-12			-11	-5	-8	-14	-12	-8	-13	-18	-19	-11	-3	0	0	1	6	5	4	3	4	-7
16	-3	-11			-17	-15	-16	-17																-18
17	-10					-18	-13	-12	-12	-19	-17	-19		-15	-10	-10	-2	0	1	-1	2	-1	-1	-7
18	-3	-11			-15	-15	-7	-9	-7	-9	-8	C		C	-7	-1	2	-1	5	-1	2	-2	-1	-13
19	-2	-8			-13	-13	-6	-9	-8	-8	-11		-19	-13	-7	-4	-2	2	3	-1	-1	-3	-4	-10
20	-8	-19			-18	-10	-7	-7	-8	-7	-12	-16	-13	-10	-3	-1	-3	-5	-5	-5	-9	-14	-7	-4
21	0	-9			-10	-11	-16	-14	-9	-10			-20	-12	-8	-7	-6	-5	-2	-8	-6	-10	-19	-8
22	-10	-11		-14	-12	-12	-13	-13	-11	-12	-14	-12	-18	-12	-5	-1	2	0	0	-6	-7	-3	-9	
23	-3	-9		-10	-9	-12	-10	-8	-7	-7	-13		-17	-11	-7	-2	-4	-7	-9	-12	-8	-11	-18	
24	-6	-12	-8		-19	-10	-18							-18	-10	-7	-7	0	5	2	-6	-17	-16	
25	-9	-17												-14	-8	-1	2	3	-3	-3	-5			
26	-6				-10	-9	-9	-7	-4	-6	-16	-18	-13	-8	-2	2	5	3	3	0	0	0	-9	
27		-10			-11	-12	-7	-6	-4	-7	-13	-14			-8	-3	-3	1	-2	-4	-5	-10	-8	-6
28	-2	-6		-9	-9	-8	-5	-8	-5	-10				-11	-5	-4	-3	1	1	-6	-3	-4	-7	
29		-9			-10	-5	-5	-3	-5	-10	-19		-20	-11	-3	-5	-1	2	-3	-3	-7	-7	-8	
30		-10		-16	-13	-10	-12	-11	-13	-14	-18			-7	-6	-3	-5	-6		-3				
31																								
CNT	24	24	1	4	22	23	23	24	23	24	23	17	19	25	29	29	29	29	28	29	29	27	24	15
MED	-3	-11	-8	-12	-14	-12	-10	-10	-8	-9	-13	-16	-16	-10	-5	-2	-1	1	0	-3	-6	-9	-9	-8
UQ	-1	-10		-9	-11	-10	-7	-7	-5	-6	-11	-14	-13	-7	-2	0	2	2	3	0	-3	-3	-7	-8
LQ	-8	-16		-14	-17	-14	-14	-13	-12	-11	-14	-18	-19	-12	-8	-4	-3	-1	-3	-8	-9	-12	-15	-10

MEASUREMENTS OF HF FIELD STRENGTH (UPPER SIDE BAND OF JJY) AT SYOWA STATION

DEC.1979

FREQUENCY : 15 MHz

ZONE TIME : 45°E Mean Time (UT+3h)

Date	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	-12	-8		-13	-15	-12	-9	-8	-3	-10	-17	-16	-12	-8	-7	-8	-6	-9	-12	-12	-11	-14		
2		-14		-17	-14	-15	-11	-18	-12	-15			-20	-9	-11	-6	-8	-7	-5	-14	-12	-5	-10	
3		-12		-13	-12	-19		-18							-16	-10	-2	-2	-11	-2	-5	-1		
4	-7	-7		-11	-9	-9	-9	-14						-17	-16	-14	-8	-8	-8	-17	-16	-17		-4
5		-13		-12	-12	-16	-13	-12	-12	-18				-16	-12	-6	-5	-8	-6	-9	-13	-4	-7	
6					-14	-13	-15	-14	-10	-17				-13	-4	-9	-7	-2	-2	-6	-1	-2		
7		-12		-11	-12	-10	-10	-10	-9	-12	-10			-11	-4	-4	-5	-5	-2	0	-2	-3	-14	
8				-10	-7	-6	-9	-13	-10	-10	-13	-20	-19	-11	0	-2	-3	-14	-9	-6	-16		-13	
9		-12		-10	-9	-8	-10	-11	-2	-14			-20	-13	-8	-7	-4	-5	-7	-4	-1	-7		
10		-10		-12	-12	-12	-13	-13	-16	-16			-19	-12	-9	-5	-2	0	2	-7	-6	-12	-12	
11	-9	-7		-8	-9	-8	-8	-10	-14	-14	-13		-18	-12	-10	-8	-5	-2	3	-3	-8	-1		
12	-9			-11	-12	-11	-10	-9	-9	-13	-9			-14	-4	-4	-7	-1	-1	2	-1	-6	-15	
13				-9	-12	-11	-12	-9	-8	-10	-17			-15	-4	0	1	-6	-2	2	-1	-6		
14		-8		-13	-12	-12	-13	-8	-8	-13			-18	-9	-3	-3	-4	3	4	2	2			
15	-4	-6		-9	-8	-9	-12	-13	-8	-13	-14	-16	-19	-15	-7	-7	-6	-1	1	-1	-10	-13	-19	-12
16	-11	-10		-12	-16	-13	-9	-12	-17	-16			-19	-9	-8	-3	0	-4	-7	-2	-7	-8	-13	
17	-16	-8	-14		-15	-12	-9	-14	-10	-13	-15	-15		-15	-12	-5	-5	-6	-10	-8	-9	-6	-9	
18		-12		-13	-13	-9	-8	-7	-8	-13			-19	-12	-7	-5	-1	-2	-4	0	-4			
19		-9		-11	-12	-11	-10	-12	-9	-13	-11		-18	-8	-5	-9	-7	-1	-3	-6	-2	-8	-11	
20				-10	-9	-8	-7	-8	-8	-14			-18	-14	-5	-2	-8	-13	-17	-9	-7	-8		
21	-7	-12		-13	-10	-8	-6	-5	-9				-20	-11	-7	-5	-6	-7	-3	-17	-12	-19		
22		-13		-18	-16	-17	-16			-17			-10	-11	-13	-9	-8	-6	-10	-14				
23	-9			-8	-9	-8	-7	-10	-15	-19			-19	-14	-7	-7	-2	-3	-7	0	0	0	-1	-5
24		-7		-9	-12	-10	-11	-10	-15				-14	-7	-4	-2	-7	-15	-13	-3	-11	-5		
25				-10	-8	-6	-6	-10	-14				-12	-5	-2	-1	-3	-1	-17	-11	-19			
26		-5		-8	-11	-8	-8	-10	-12	-11	-18		-20	-18	-7	-4	-6	-7	-5	-2	-16			
27		-18		-12	-12	-8	-7		-13	-17	-17		-20	-11	-13	-11	-15	-18	-18				-4	
28		-8		-9	-9	-10	-10		-20	-19			-19	-8	-5	-7	-17	-9	-2	-11				
29															-16	-10	-8							
30														-15	-16	-13	-10	-17	-18	-13				
31		-12		-18	-12	-10	-12	-12	-17				-19	-14	-9	-7	-4	-8	-7	-6	-10			
CNT	9	22	1	12	29	29	29	27	25	26	19	5	17	28	30	31	31	30	30	30	29	21	13	3
MED	-9	-10	-14	-10	-12	-11	-10	-10	-10	-13	-15	-16	-19	-12	-7	-6	-5	-6	-6	-6	-8	-7	-11	-4
UQ	-7	-8		-9	-9	-8	-8	-8	-8	-10	-13	-14	-18	-10	-5	-4	-2	-2	-2	-2	-2	-3	-6	
LQ	-11	-12		-11	-13	-12	-12	-13	-12	-15	-17	-18	-19	-14	-11	-9	-8	-8	-9	-12	-12	-12	-13	