ION. ANT.—8

IONOSPHERIC DATA AT SYOWA BASE (ANTARCTICA)

August 1966 — January 1967

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Prepared by

THE RADIO RESEARCH LABORATORIES
MINISTRY OF POSTS AND TELECOMMUNICATIONS
NUKUI-KITAMACHI, KOGANEI-SHI, TOKYO, JAPAN.

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MAIN CHARACTERISTICS OF THE IONOSONDE USED AT SYOWA BASE

Item	Specification
Frequency Range	1-20 Mc/s
Transmitting Power	10kW(peak value)
Duration of Sweep	30sec
Transmitted Pulse width	100 μsec(variable)
Recurrence Frequency of Transmitted Pulse	50 c/s(by power frequency)
Frequency Scale	Every 1 Mc/s
Height Range	1100 km
Height Scale	Every 100 km
Total Receiver Gain	140 dB
Noise Figure	About 9 (at 5 Mc/s)
Time Constant of Differential Circuit	50 μsec
Recording Method	35 mm film running and 16 mm movie picture
Power Supply	100 V AC, 3 kVA
Transmitting Antenna	20 m high vertical delta terminated by 600 Ω
Receiving Antenna	15 m high vertical delta terminated by 600 Ω

SYMBOLS AND TERMINOLOGY

All symbols and terminology in the table of ionospheric data are used in accordance with the First Report of the Special Committee on World-Wide Ionospheric Soundings (URSI/AGI), Brussels, September 2, 1956, and the Secnd Report of the Committee, May, 1957, supplementary to the First Report.

Terminology

f_0F2, f_0F1, f_0E — The ordinary-wave critical frequency for the $F2$, $F1$ and E layers respectively.

f_0Es — The ordinary wave top frequency corresponding to highest frequency at which a mainly continuous trace is observed.

f-min — That frequency below which no echoes are observed.

$M(3000)F2$ — The maximum usable frequency factor for a path of 3000 km for transmission by $F2$ layer.

$h'F2$ — The minimum virtual height of the ordinary wave trace for the highest stable stratification in the F region.

$h'F$ — The natural and most significant F region virtual height parameter is that for lowest F region stratification. This will be denoted by $h'F$. Thus $h'F$ is identical with the current $h'F2$ when F region stratification is absent, e. g., at night, and with the current $h'F1$ when $F1$ stratification is present.

$h'Es$ — The lowest virtual height of the trace used to give the f_0Es.

a. Descriptive Symbols

Used following the numerical value on monthly tabulation sheets.

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

B — Measurement influenced by, or impossible because of, absorption in the vicinity of *f*-min.

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

D — Measurement influenced by, or impossible because of, the upper limit of the normal frequency range. Used in a qualifying sense, see below.

E — Measurement influenced by, or impossible because of, the lower limit of the normal frequency range. Used in a qualifying sense, see below.

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

G — Measurement influenced or impossible because the ionization density is too small compared with that of a lower thick layer.

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

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

M — Measurement questionable because the ordinary and extraordinary components are not distinguishable.

N — Conditions are such that the measurement cannot readily be interpreted, for example, in the presence of oblique echoes.

O — Measurement refers to the ordinary component.

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

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

V — Forked trace which may influence the measurement.

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

X — Measurement refers to the extraordinary component.

Y — Intermittent trace.

Z — Third magneto-ionic component present.

b. Qualifying Symbols

Used as a preceeding symbol on monthly tabulation sheets.

D — *greater than.....*

E — *less than.....*

I — Missing value has been replaced by an interpolated value.

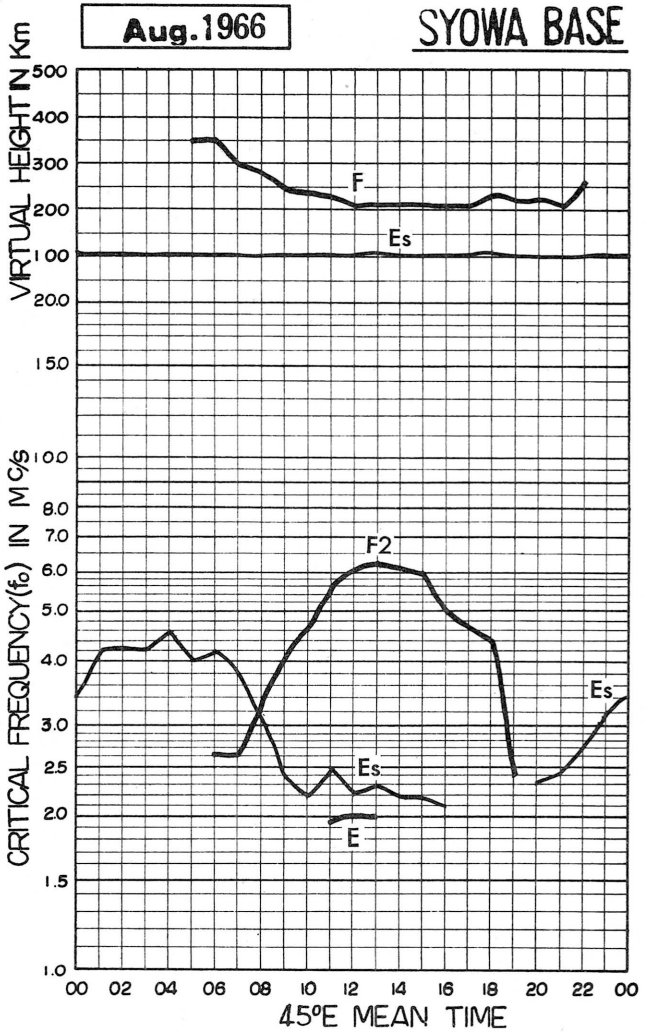
J — Ordinary component characteristic deduced from the extraordinary component.

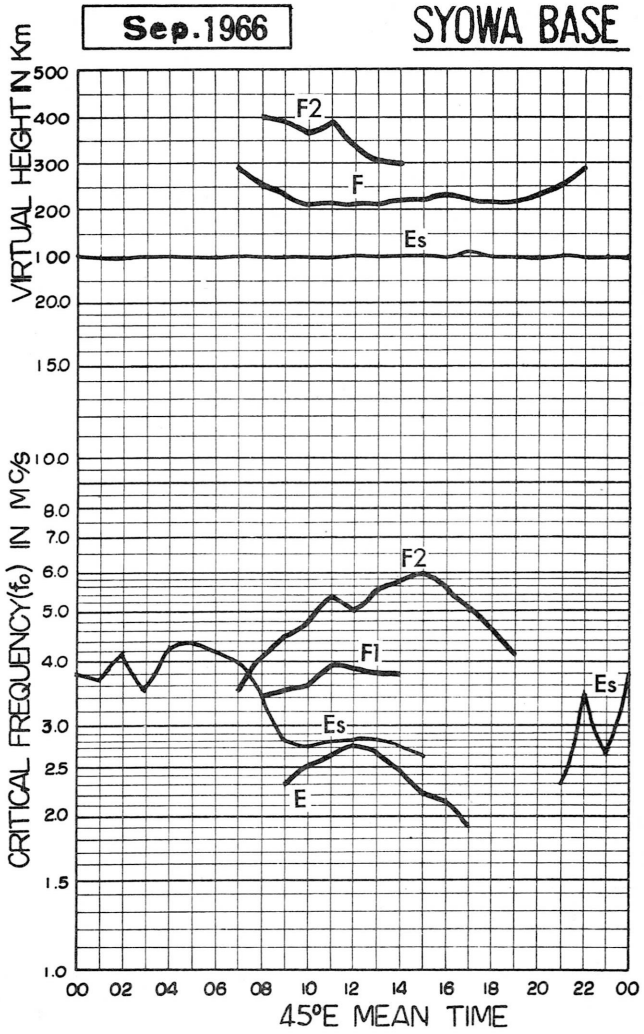
T — Value determined by a sequence of observations, the actual observation being inconsistent or doubtful.

U — Uncertain or doubtful numerical value.

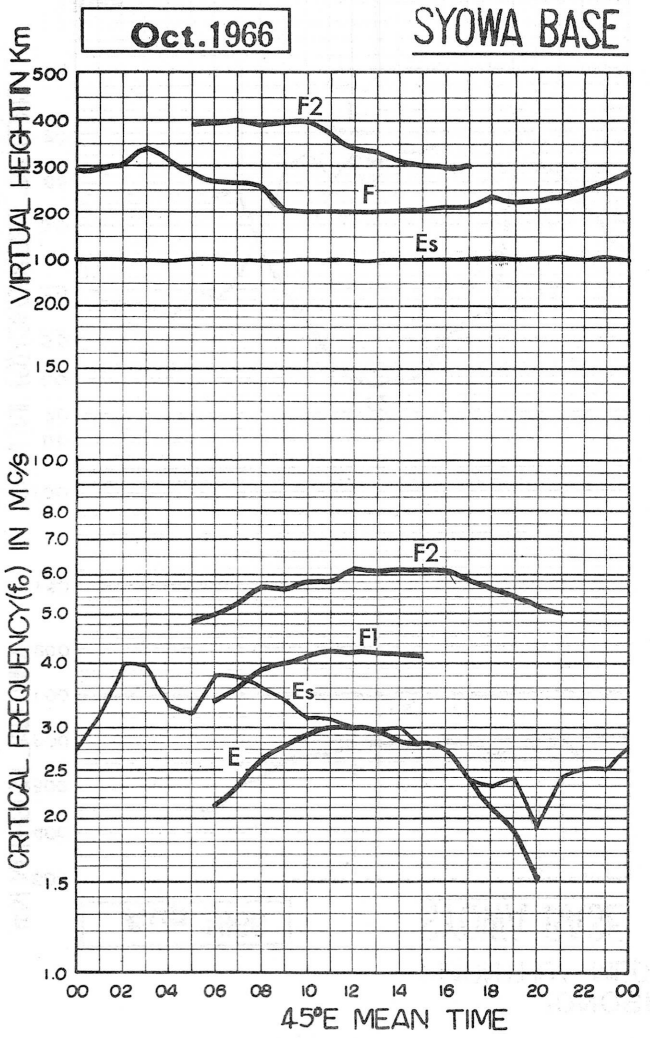
Z — Measurement deduced from the third magnetoionic component.

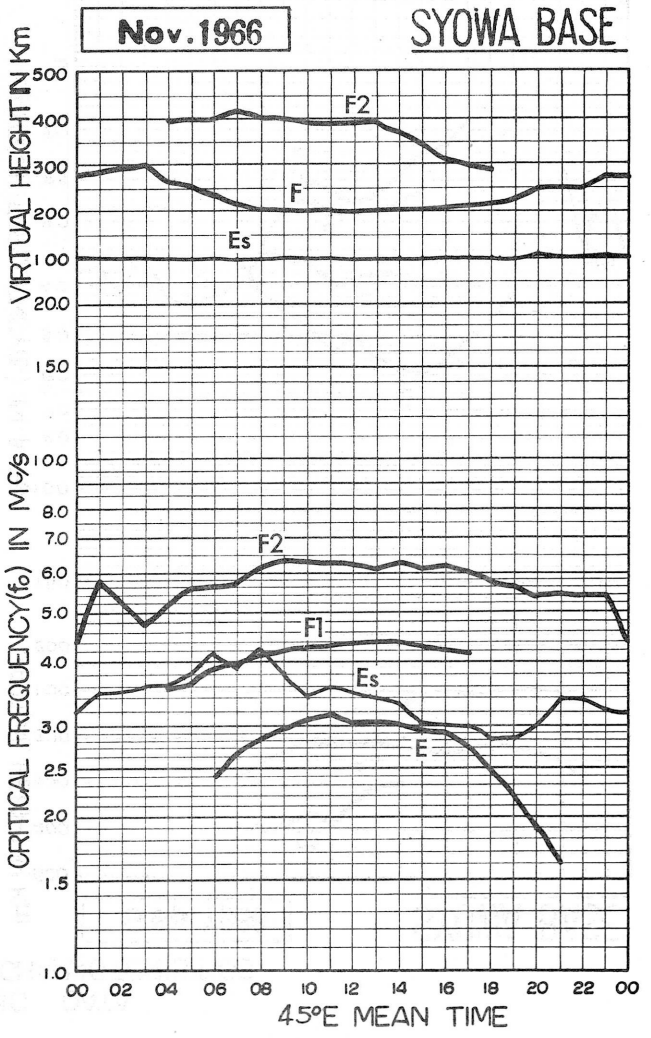
IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS



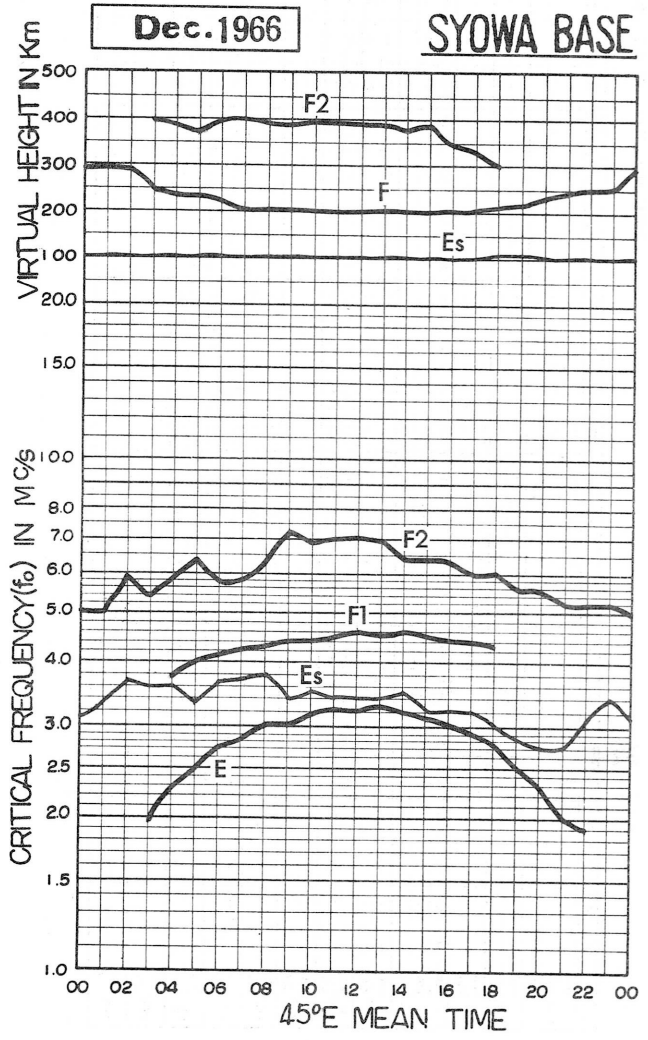


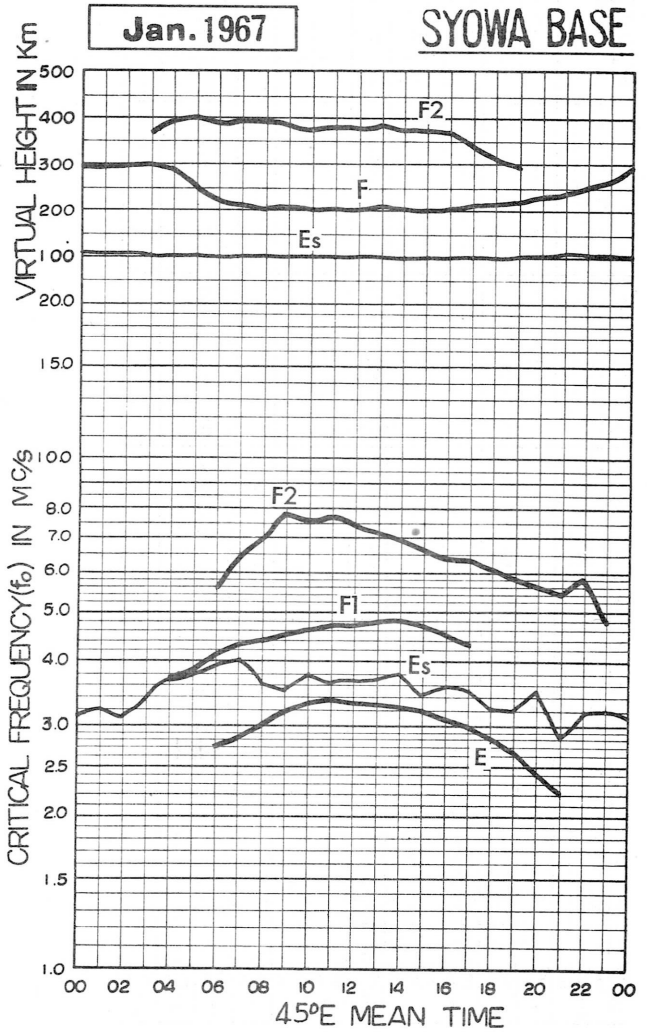
IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS





IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS





IONOSPHERIC DATA
LIST OF MEDIAN VALUES

OBSERVED AT: SYOWA BASE

AUGUST, 1966

45° E Mean Time (G.M.T. +3h)

CHAR	HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
foF2	MED	18	18		J48F	27F	J26F	J26F	26F	J32F	41F	46	56	60F	64F	61	60F	50	47F	44	24	35F	20	U18R	
	CNT	2	1		1	3	3	5	8	7	15	22	24	23	21	21	17	14	11	9	7	3	2	1	
	Q R																								
foF1	MED																								
	CNT																								
foE	MED										130	175	195	200	200	188									
	CNT										1	2	6	3	5	2									
foEs	MED	J34X	J42X	J42X	J42X	J46X	J40X	J42X	J38X	J32X	J24X	J22X	25	22	23	U22	U22	U21	E21B	E20B	E20B	J23X	J24X	J27X	J32X
	CNT	27	30	30	28	29	29	28	30	24	24	28	27	26	29	30	28	30	29	27	26	21	24	20	26
	Q R																								
f-min	MED	13	13	14	15	15	15	13	14	13	15	15	17	18	17	18	19	18	18	16	14	16	14	14	11
	CNT	31	31	31	30	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31
M (3000) F2	MED	290	280			240F	225F	265	270F	265F	280	290	295	295F	295F	298	300	298	292F	290	300	270F	275	U250R	
	CNT	1	1			3	1	2	5	4	8	17	18	17	19	18	10	12	8	6	7	3	1	1	
M (3000) F1	MED																								
	CNT																								
h'F2	MED																								
	CNT																								
h'F	MED	300	U235		200	370	350	350	300	277	250	230	225	210	215	211	208	215	205	230	220	224	205	260	240
	CNT	3	2		1	4	7	9	13	14	20	27	26	26	28	30	28	30	29	27	23	8	5	5	2
h'Es	MED	105	105	100	100	100	100	100	100	100	100	100	102	105	105	105	105	105	105	112	105	102	100	100	105
	CNT	26	29	30	28	28	29	27	28	21	24	24	22	19	18	16	16	15	9	12	11	14	20	18	25
hpF2	MED																								
	CNT																								
ypF2	MED																								
	CNT																								

IONOSPHERIC DATA
LIST OF MEDIAN VALUES

OBSERVED AT: SYOWA BASE

SEPTEMBER, 1966

45° E Mean Time (G.M.T. +3h)

CHAR	HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
foF2	MED				25	31F	42F	37	35	41	45	48	54	50	55	57	60	56	50	46	41F	32	25	21	15
	CNT				3	1	2	3	9	11	14	16	16	17	17	20	21	18	17	16	15	4	3	4	1
	Q R																								
foF1	MED								300	340	350	360	395	390	380	380	350								
	CNT								3	5	3	5	6	4	3	5	2								
foE	MED									180	230	250	260	275	265	245	240	230	190	170					
	CNT									3	5	9	7	6	7	8	3	3	6	3					
foEs	MED	J38X	J37X	J42X	J35X	J43X	J44X	J42X	J40X	J34X	28	27	28	28	28	27	26	E25B	U21	U20	E18B	E22E	23	J35X	J26X
	CNT	29	25	27	25	27	25	23	20	20	16	16	16	19	20	21	24	20	24	23	24	23	27	25	27
	Q R																								
f-min	MED	14	14	15	16	16	17	20	20	24	32	34	42	30	30	26	23	26	24	20	16	14	14	13	13
	CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	28	29	29
M (3000) F2	MED				270	285F	292F	270	270	290	310	300	300	312	305	315	315	325	330	335	322	330	300	352	280
	CNT				3	1	2	3	9	10	13	16	15	16	16	18	19	17	14	14	12	4	3	4	1
M (3000) F1	MED																								
	CNT																								
h'F2	MED								460	400	390	360	380	335	300	300	338	290							
	CNT								3	5	3	7	7	7	6	9	4	1							
h'F	MED	301	B490A	E500A	400A	345	335	298	290	250	230	210	215	211	208	222	218	230	222	220	220	230	U250	285	285
	CNT	2	1	1	1	4	4	4	7	12	11	16	15	18	19	20	22	19	23	22	19	15	12	6	3
h'Es	MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	115	100	100	100	100	100	100
	CNT	29	25	27	25	27	24	22	19	20	13	14	12	12	12	15	16	9	13	13	8	11	18	25	25
hpF2	MED																								
	CNT																								
ypF2	MED																								
	CNT																								

IONOSPHERIC DATA
LIST OF MEDIAN VALUES

OBSERVED AT: SYOWA BASE

OCTOBER, 1966

45° E Mean Time (G.M.T. +3h)

CHAR \ HR		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
foF2	MED	J34F	24F		22	42F	J48F	50F	52F	57F	56F	58F	58	62	62	62	62	62	58F	56F	54	52F	50	51	26
	CNT	2	2		2	4	9	12	13	16	16	18	18	20	21	22	25	26	23	20	16	9	6	4	1
	Q R																								
foF1	MED						310	335	360	390	400	410	420	420	415	415	410L	385	335	330					
	CNT						4	12	17	17	23	20	21	18	14	10	7	4	2	1					
foE	MED						130	210	230	260	275	290	300	300	295	282	280	268	240	210	188	150	125		
	CNT						1	8	10	11	15	15	11	17	15	12	13	12	17	13	6	6	1		
foEs	MED	J27X	J32X	J40X	J40X	J33X	J32X	J38X	J38X	U36	34	31	31	30	29	U30	28	26	24	23	24	19	J24X	J25X	J25X
	CNT	26	27	24	26	25	24	25	25	24	23	22	21	22	22	24	26	28	27	28	27	27	27	27	27
	Q R																								
f-min	MED	E	E	E	14	15	14	15	15	14	14	15	19	19	16	16	16	15	14	14	13	13	13	E	E
	CNT	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	27	27	27	27	27
M (3000) F2	MED		248F		245	275F	250	260F	265F	265F	262	265	275	285	285	300	305	310	330	322F	315	322	320	308	315
	CNT		2		2	3	3	10	12	13	14	17	17	17	19	22	25	25	19	18	13	6	6	4	1
M (3000) F1	MED																								
	CNT																								
h'F2	MED						380	395	398	385	400	400	370	340	330	308	300	295	300	395	340				
	CNT						6	12	18	17	21	21	21	19	20	22	21	13	5	2	1				
h'F	MED	288	292	300	342	315	280	270	218	210	202	200	200	200	200	200	205	215	215	230	221	225	230	245	270
	CNT	12	8	7	8	10	11	13	17	16	22	20	19	20	19	21	23	25	26	27	22	20	21	18	17
h'Es	MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105	100	105	110	100	105
	CNT	23	26	24	26	25	24	22	20	19	17	13	13	12	13	15	14	14	18	20	20	16	22	20	24
hpF2	MED																								
	CNT																								
ypF2	MED																								
	CNT																								

IONOSPHERIC DATA
LIST OF MEDIAN VALUES

OBSERVED AT: SYOWA BASE

NOVEMBER, 1966

45° E Mean Time (G.M.T. +3h)

CHAR \ HR		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
foF2	MED	44	J58	J52	47F	J52	56F	J56F	J57F	62F	67F	66F	64	64	62	65	62	64	60	57	56	53	54	54F	54
	CNT	6	8	9	5	8	12	14	15	20	19	15	20	23	21	24	22	27	28	27	24	23	17	13	8
	Q R																								
foF1	MED				320	355	365	390	395	410	420	430	430	440	440	440	430	425	415L	370	360				
	CNT				3	6	12	16	20	24	27	26	27	28	29	26	20	10	6	1	1				
foE	MED			135	180	195	228	240	265	280	295	310	315	305	305	300	290	290	270	245	220	190	160	130	210
	CNT			2	1	2	2	9	9	13	13	16	17	14	13	10	15	14	13	19	21	16	5	1	1
foEs	MED	J32X	J35X	J35X	J36X	J36X	J38X	J41X	J39X	J42X	J38X	34	36	35	34	33	U30	30	U30	28	28	J30X	J34X	J34X	J32X
	CNT	30	29	30	29	28	28	30	28	29	28	26	28	29	30	30	30	29	30	30	30	30	30	30	30
	Q R																								
f-min	MED	12	13	13	14	13	15	14	14	13	14	14	14	15	15	16	16	16	14	14	12	13	13	12	12
	CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
M (3000) F2	MED	285	300	282	275	260	260F	260F	255	260F	265F	262	270	270	280	282	285	290	310	315	320	315	318	318F	310
	CNT	5	3	4	3	3	9	5	7	11	13	10	19	19	18	20	21	26	28	26	23	21	14	10	5
M (3000) F1	MED																								
	CNT																								
h'F2	MED			460	360	390	400	400	422	400	395	390	385	390	390	370	340	310	295	285	330	390			
	CNT			1	3	7	14	19	22	26	28	27	28	28	30	30	27	26	23	10	3	1			
h'F	MED	275	280	292	300	265	250	232	208	204	200	205	205	200	205	205	205	205	210	218	228	250	250	250	275
	CNT	16	13	10	11	11	9	16	17	24	25	26	26	28	28	27	26	26	28	26	28	27	23	15	16
h'Es	MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	109	105	105	105
	CNT	29	29	30	29	28	26	29	22	25	25	21	21	23	20	17	16	15	17	20	25	28	27	30	29
hpF2	MED																								
	CNT																								
ypF2	MED																								
	CNT																								

IONOSPHERIC DATA
LIST OF MEDIAN VALUES

OBSERVED AT: SYOWA BASE

DECEMBER, 1966

45° E Mean Time (G.M.T. +3h)

CHAR	HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
foF2	MED	50	50	J59F	54F	59F	64F	58F	58F	63	72	68	70	71	70	64	64	63	60	60	56	55	52	52	52
	CNT	9	8	6	5	11	7	12	10	13	19	25	24	24	21	25	26	28	24	28	25	27	22	20	14
	Q R																								
foF1	MED				360	375	400	410	420	430	440	440	450	460	450	460	450	445	440	430	400				
	CNT				1	8	15	21	22	22	25	27	24	27	27	25	25	20	10	4	2				
foE	MED	170		178	195	225	252	272	280	300	305	315	325	325	330	320	310	300	292	275	250	228	200	198	200
	CNT	1		2	4	5	6	8	9	7	9	10	3	5	5	9	9	5	10	19	17	16	13	6	1
foEs	MED	J31X	J33X	J37X	J36X	J36X	J33X	J37X	J37X	J38X	34	U35	34	34	U34	35	U32	32	32	30	28	27	J27X	J31X	J34X
	CNT	31	31	25	25	28	30	31	30	30	29	29	29	28	29	30	31	31	31	30	30	31	31	30	29
	Q R																								
f-min	MED	14	16	19	17	15	16	14	14	15	16	16	21	20	19	18	17	16	15	14	14	14	13	13	14
	CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
M (3000) F2	MED	310	278	275F	265	265F	265F	250	250F	255	260	258	270	265	275	275	280	290	295	300	305	310	318	305	310
	CNT	7	6	1	4	9	5	6	8	13	17	22	23	23	21	25	25	28	23	27	25	27	22	17	13
M (3000) F1	MED																								
	CNT																								
h'F2	MED				390	382	370	390	400	390	380	395	385	390	380	375	380	345	330	302	320	310			
	CNT				8	16	19	23	26	23	26	28	26	27	27	30	29	31	25	16	4	4			
h'F	MED	285	288	290	250	235	230	222	205	200	200	200	200	200	200	205	202	200	200	210	212	225	240	250	250
	CNT	20	18	14	11	14	17	20	22	21	24	27	25	26	27	27	28	27	27	30	28	29	27	24	23
h'Es	MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	115	105	105	105	105
	CNT	30	30	25	23	24	24	28	27	24	22	18	18	18	17	20	18	20	21	18	24	28	27	27	28
hpF2	MED																								
	CNT																								
ypF2	MED																								
	CNT																								

IONOSPHERIC DATA
LIST OF MEDIAN VALUES

OBSERVED AT: SYOWA BASE

JANUARY, 1967

45° E Mean Time (G.M.T. +3h)

CHAR	HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
foF2	MED	55F	56	55	46F	U42F	72	56F	64F	69F	78	76	77	74	71	68	66	64	63	61	58	56	54	58	48
	CNT	4	8	4	4	3	4	8	9	14	17	21	23	24	24	23	25	26	23	23	21	22	23	13	13
	Q R																								
foF1	MED					370	385	410	430	440	450	460	470	470	480	480	470	450	430	415	400L				
	CNT					7	12	21	24	25	23	25	27	25	26	24	15	17	10	4	1				
foE	MED	180	185	200		245	258	272	280	302	320	328	335	330	328	325	320	308	300	280	265	240	220	188	165
	CNT	1	3	1		1	4	6	10	10	15	12	11	7	6	7	7	8	13	15	13	9	8	2	2
foEs	MED	J31X	J32X	J31X	J34X	J37X	J38X	J39X	J40X	J36X	35	38	36	37	37	38	34	J36X	35	32	32	J35X	J28X	J32X	J32X
	CNT	28	30	30	29	28	30	30	29	30	29	30	29	29	30	29	28	28	28	28	29	29	29	29	29
	Q R																								
f-min	MED	14	14	15	15	16	14	15	14	14	15	18	17	16	18	19	18	15	15	15	14	14	14	13	15
	CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31
M (3000) F2	MED	295	U288	272	250	U265F	270	252F	240	250F	260	260	265	270	265	275	275	280	295	300	300	310	310	315	300
	CNT	2	6	2	2	3	3	8	7	12	16	18	23	24	23	23	25	26	23	23	20	21	22	10	10
M (3000) F1	MED																								
	CNT																								
h'F2	MED				370	385	400	385	390	390	380	372	380	375	380	370	370	370	340	315	290	280	298	330	
	CNT				5	10	16	23	25	25	24	26	28	26	27	26	27	25	22	21	13	4	2	1	
h'F	MED	290	290	295	300	290	250	225	215	205	205	200	205	200	210	205	205	205	210	212	220	230	240	250	265
	CNT	21	21	19	17	14	17	17	21	25	23	26	27	26	27	26	25	25	22	22	25	25	24	25	23
h'Es	MED	110	110	110	105	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105	110	110	110
	CNT	23	26	27	26	27	26	24	24	21	20	22	21	20	24	23	19	19	19	19	23	26	26	25	24
hpF2	MED																								
	CNT																								
ypF2	MED																								
	CNT																								

AUG. 1966 | FOF2 (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	B	B	J F 41	J F 42	F	J F 60	63	F	J F 56	F 51	F	R	A	A	A	B	A
2	A	A	A	A	A	J F 29	J F 30	U F 30	J F 29	F 35	46	62	J R 57	R	J F 62	J R 62	F 50	R	R	F	A	A	A	A
3	17	A	A	A	F	F	R	R	A	B	A	R	J F 68	R	72	J F 75	J F 57	R	J R 57	A	B	A	A	A
4	A	A	A	F	R	A	F	F	F	F	F	J F 57	F 61	J F 65	69	F	82	R	F 67	R	A	A	A	A
5	A	A	A	B	A	A	A	J F 25	F 22	A	J F 47	51	B	R	F 73	F 72	F 53	48	R	A	B	A	U R 18	A
6	A	A	A	A	A	A	B	A	A	31	37	F 49	54	F 63	F	F 63	R	F	R	R	B	B	B	A
7	A	A	A	A	A	A	A	A	B	F 30	46	57	61	61	R	R	J R 44	F 31	F	F	A	A	A	A
8	A	A	A	A	F 27	J F 26	J F 26	F	F	F	R	F 58	J F 60	F 65	68	J F 60	R	J F 36	F 32	U F 24	R	A	B	A
9	A	A	A	A	A	A	J F 27	F	F	U F 34	B	U F 45	F 58	F	F 61	58	R	F	F	F	B	B	B	B
10	B	B	B	B	B	B	B	A	A	A	F 43	54	F 63	58	59	R	F 50	F	B	28	F	B	B	A
11	A	A	A	A	A	A	20	B	B	B	A	B	B	F	F	R	F	B	43	B	A	A	A	A
12	A	A	A	A	A	A	A	A	A	B	B	B	B	B	F 51	B	B	B	B	B	B	A	B	A
13	A	A	A	A	A	A	A	A	B	B	F	J F 48	U F 54	U F 53	J F 56	57	F	F 26	F	F 22	R	A	R	B
14	A	A	A	A	A	A	A	A	B	B	J R 33	J R 37	F 48	U F 55	F 50	F	F 46	38	R	B	B	B	F	A
15	A	A	A	A	A	A	A	F	F	J F 36	U F 42	B	R	F	J R 50	R	48	F	B	B	A	B	B	A
16	A	A	A	A	A	B	F	A	A	38	46	U F 52	J R 64	58	F 57	R	R	R	R	F	A	A	B	A
17	A	A	A	A	A	A	26	U R 24	F	J F 43	J R 57	F 59	U F 56	U F 65	U R 63	F 49	45	F	J F 28	19	A	A	B	B
18	A	A	A	A	J F 28	A	F	J F 32	J F 36	R	J F 58	J F 60	R	F 66	61	F	F	F	F	B	F 18	A	A	A
19	A	A	A	J F 48	A	A	A	A	B	A	F 44	43	C	48	F	B	F	F	B	A	A	A	A	A
20	A	R	A	A	A	A	A	A	F	41	42	R	61	J F 67	53	J F 57	F	F	F	R	R	B	R	B
21	A	A	A	C	A	A	A	A	J F 22	F	53	58	66	F 64	F	F	F	F	F	F	F	A	A	A
22	B	A	A	A	A	A	A	J F 27	J F 41	J F 46	F 48	J F 63	F 57	U F 65	U F 65	J F 57	F	U F 47	F	U F 35	F	J F 22	F	F
23	F	A	A	A	A	A	A	A	A	J F 48	F	F 54	U F 53	F	F 65	B	U F 84	U F 52	46	F	A	A	A	A
24	A	A	A	A	A	A	A	F 24	32	39	41	51	55	58	53	66	R	F	R	F	B	A	A	A
25	A	A	A	A	R	A	A	F 26	J F 39	F 45	52	55	61	70	69	68	R	F	F	F	B	R	A	A
26	A	A	A	A	A	A	A	A	B	B	F 49	61	F 62	68	F 59	62	F	F	F	F	F	A	B	A
27	A	A	A	A	A	A	A	F 29	B	J F 50	F 55	J F 68	J F 65	U F 71	F	F	U R 65	F	F	R	B	B	A	B
28	A	A	A	F	F 26	F	F	F	F	F	F 60	67	F	R	F	J F 65	F	J F 55	J F 44	F	F 36	R	B	R
29	20	18	A	A	A	F 23	F	F	F	J F 48	F 61	60	F 66	U F 74	R	R	F	J F 55	F	F	U F 35	19	B	B
30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	49	51	F 55	48	40	A	F	A	B
31	B	B	A	A	A	A	A	A	A	B	32	33	33	33	38	38	36	33	29	19	B	B	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	2	1		1	3	3	5	8	7	15	22	24	23	21	21	17	14	11	9	7	3	2	1	
MED	18	18		J F 48	F 27	J F 26	J F 26	F 26	J F 32	F 41	46	56	F 60	F 64	61	F 60	50	F 47	44	24	F 35	20	U R 18	
UQ					F 28	J F 28	J F 27	F 30	J F 38	J F 46	F 53	60	F 62	F 66	65	F 65	F 57	F 54	48	32	F 36			
LQ					F 26	F 24	26	F 24	F 26	36	42	50	F 56	58	53	F 57	46	F 34	F 32	20	F 26			

AUG. 1966 FOF2 (0.1 MHZ)

IONOSPHERIC DATA

AUG. 1966 | FOF1 (0.01 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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													B	B										
6																								
7																								
8																								
9											B													
10																								
11												B	B											
12											B	B	B	B										
13																								
14																								
15												B												
16																								
17																								
18																								
19													C											
20																								
21																								
22																								
23																								
24																								
25																								
26										B														
27																								
28																								
29																								
30										B	B	B	B	B	B									
31										B														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
UQ																								
LQ																								

The Radio Research Laboratories, Japan

AUG. 1966 | FOF1 (0.01 MHZ)

IONOSPHERIC DATA

AUG. 1966 | FOE (0.01 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1										B	B	B	A	A	A	A								
2										A	170	185	A	A	A	A								
3										B	B	200	B	A	B	B								
4										A	A	A	B	B	B	B								
5										B	A	A	B	B	B	B								
6										A	180	A	B	B	B	B								
7										B	A	A	A	200	190	A								
8										A	A	A	A	200	185	A								
9										A	B	A	A	A	A	B								
10										B	A	A	200	A	A	B								
11										B	B	B	B	B	B	B								
12										B	B	B	B	B	B	B								
13										B	B	A	B	B	B	B								
14										B	B	B	B	B	B	B								
15										A	B	B	B	B	B	B								
16										A	A	B	B	B	B	B								
17										A	A	A	A	195	A	A								
18										130	A	A	A	A	B	B								
19										A	A	A	C	B	B	B								
20									A	A	A	B	A	B	B	B	B							
21									A	A	A	185	200	190	A	A	A							
22									A	A	A	A	A	200	A	A	A							
23									A	A	A	205	A	A	B	B	B							
24									A	A	A	A	A	A	A	B	B							
25									A	A	A	200	A	A	A	B	B							
26									B	B	A	B	B	A	A	A	B							
27									B	A	A	B	A	B	B	B	B							
28									A	A	A	190	200	A	A	A	A							
29									B	A	A	A	A	A	A	A	B							
30									B	B	B	B	B	B	B	B	B							
31									B	B	A	A	A	A	A	A	B							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT										1	2	6	3	5	2									
MED										130	175	195	200	200	188									
UQ												200	200	200										
LQ												185	200	195										

AUG. 1966 | FOE (0.01 MHZ)

IONOSPHERIC DATA

AUG. 1966 | FOES (0.1 MHZ) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	J X 25	J X 42	J X 57	J X 45	J X 50	J X 52	J X 47	J X 42	B	J X 22	E B 34	28	21	J X 48	22	27	25	24	J X 31	J X 24	J X 22	J X 86	B	J X 22
2	J X 37	J X 35	J X 46	J X 54	J X 35	21	13	J X 33	J X 51	J X 27	J X 27	J X 25	J X 33	J X 39	19	J X 28	J X 29	J X 23	J X 26	J X 22	J X 23	J X 25	J X 26	J X 42
3	J X 38	J X 31	J X 25	J X 22	J X 30	J X 12	J X 17	J X 26	J X 36	B	J X 40	J X 33	E B 25	24	E B 20	E B 19	16	E	J X 21	E B 13	B	J X 37	J X 52	J X 109
4	J X 62	J X 44	J X 25	J X 30	J X 38	J X 52	J X 35	J X 45	J X 41	J X 43	J X 52	J X 46	E B 17	E B 23	E B 20	E B 23	E B 33	E B 21	J X 24	E B 19	J X 18	J X 60	J X 42	J X 35
5	J X 37	J X 46	J X 46	J X 40	J X 55	J X 42	J X 36	22	21	J X 35	J X 34	27	B	E B 59	E B 24	E B 17	E B 27	E B 37	E B 19	J X 33	B	13	15	J X 105
6	J X 21	J X 64	J X 39	J X 46	J X 48	J X 47	B	J X 46	J X 48	J X 43	J X 20	J X 26	23	E B 32	E B 31	E B 27	J X 25	E B 14	E B 11	E B 12	B	B	B	J X 13
7	J X 25	J X 41	J X 55	J X 42	J X 50	J X 58	J X 55	J X 42	B	J X 45	22	22	J X 42	J X 22	J X 62	J X 22	E B 13	E B 12	E B 14	26	J X 22	J X 21	J X 19	J X 22
8	J X 27	J X 24	J X 25	J X 35	J X 23	J X 27	J X 23	J X 25	E	J X 22	19	J X 21	J X 24	22	J X 26	J X 43	J X 32	J X 22	18	F	E B 14	J X 22	B	J X 50
9	J X 32	J X 30	J X 54	J X 52	J X 58	J X 50	J X 33	21	E B 13	J X 19	B	J X 41	J X 21	J X 18	J X 52	E B 18	E B 34	E B 15	E B 13	E B 13	B	B	B	B
10	B	B	B	B	B	B	B	J X 41	J X 50	J X 44	J X 42	24	G 20	19	19	E B 26	E B 16	E B 20	B	E B 23	E B 14	B	B	J X 24
11	J X 34	J X 37	J X 42	J X 51	J X 36	J X 26	J X 51	J X 40	J X 45	J X 58	J X 48	B	B	E B 34	E B 25	E B 42	E B 33	B	E B 18	B	J X 46	J X 33	J X 12	J X 42
12	J X 40	J X 47	J X 48	J X 79	J X 55	J X 49	J X 51	J X 62	J X 52	B	B	B	B	B	E B 41	B	B	B	B	B	B	J X 34	B	17
13	J X 30	J X 46	J X 47	J X 36	J X 46	J X 64	J X 50	J X 42	B	B	E B 23	J X 32	E B 23	E B 27	E B 22	20	E B 17	E B 18	22	E B 16	E B 15	J X 20	E	B
14	J X 52	J X 62	J X 37	J X 43	J X 54	J X 49	J X 56	J X 48	J X 49	B	E B 33	E B 37	E B 40	E B 30	E B 34	E B 34	E B 40	E B 29	E B 24	B	B	B	J X 28	J X 38
15	J X 32	J X 34	J X 32	J X 32	J X 47	J X 49	J X 43	J X 42	J X 32	J X 20	E B 20	B	E B 43	E B 24	E B 43	E B 34	E B 27	E B 24	B	B	J X 62	B	B	J X 22
16	J X 32	J X 32	J X 96	J X 24	J X 35	J X 34	J X 47	J X 42	J X 30	J X 31	J X 21	E B 23	E B 27	E B 42	E B 31	20	J X 22	J X 20	J X 22	E B 13	J X 34	J X 12	B	J X 22
17	J X 34	J X 23	J X 38	J X 32	J X 35	J X 28	J X 42	E	17	J X 23	J X 23	24	25	24	22	21	J X 21	J X 27	J X 18	J X 42	23	J X 27	B	B
18	J X 26	J X 42	J X 42	J X 30	J X 24	J X 34	J X 28	J X 21	J X 33	J X 23	J X 38	24	J X 22	22	E B 28	29	E B 36	E B 21	E B 25	B	J X 25	J X 35	J X 50	J X 42
19	J X 42	J X 43	J X 35	J X 24	J X 53	J X 54	J X 48	J X 35	B	J X 39	J X 30	28	C	E B 20	E B 33	B	E B 33	E B 28	B	J X 33	J X 42	J X 103	J X 43	J X 42
20	J X 38	E B 31	J X 79	J X 47	J X 45	J X 32	J X 42	J X 33	J X 32	18	J X 20	E B 47	22	E B 19	E B 24	25	22	23	24	E B 14	E B 16	J X 42	E B 13	B
21	J X 21	J X 38	J X 42	C	J X 50	J X 40	J X 43	J X 48	J X 57	J X 41	J X 34	J X 27	J X 41	J X 25	J X 22	J X 21	J X 24	J X 21	J X 20	J X 26	J X 30	J X 22	J X 25	J X 25
22	B	J X 26	J X 26	J X 24	J X 32	J X 25	J X 25	J X 42	J X 17	J X 18	J X 21	26	23	J X 22	J X 30	J X 22	J X 24	E B 12	E B 13	J X 102	E	E	J X 54	J X 22
23	J X 37	J X 30	J X 43	J X 108	J X 55	J X 40	J X 43	J X 55	J X 47	J X 25	J X 20	26	22	J X 26	E B 23	B	E B 45	E B 24	E B 33	E B 15	J X 26	J X 102	J X 42	J X 53
24	J X 52	J X 46	J X 120	J X 41	J X 63	J X 43	J X 40	23	J X 40	J X 22	J X 43	23	23	25	J X 20	E B 21	E B 45	E B 32	E B 33	J X 25	B	J X 21	J X 34	J X 44
25	J X 37	J X 62	J X 52	J X 42	E B 25	J X 48	J X 42	J X 37	J X 22	J X 24	J X 22	J X 23	J X 22	23	26	E B 23	E B 58	E B 28	E B 25	E B 21	B	E B 14	J X 26	J X 33
26	J X 33	J X 43	J X 42	J X 50	J X 50	J X 57	J X 52	J X 38	B	B	25	E B 42	E B 27	25	24	24	19	19	22	J X 32	J X 30	J X 22	B	J X 32
27	C	J X 43	J X 48	J X 35	J X 49	J X 36	J X 27	J X 22	B	J X 38	22	E B 30	31	E B 26	J X 20	E B 34	E B 28	E B 23	E B 19	E B 15	B	B	J X 22	B
28	E B 14	J X 55	J X 37	J X 54	J X 19	J X 14	E B 12	J X 22	J X 24	J X 23	J X 22	26	25	J X 22	J X 24	24	J X 22	17	E B 14	E	E	E	B	E
29	E B 15	J X 18	J X 25	J X 62	J X 44	J X 37	17	E B 14	E B 14	J X 22	J X 22	J X 21	J X 22	23	24	22	23	E B 13	E B 14	E B 14	E B 13	E B 14	J X 90	J X 23
30	B	D	J X 58	B	B	B	B	B	B	B	B	B	B	B	B	33	26	E B 19	E B 17	E B 23	24	J X 27	40	D
31	J X 64	J X 47	J X 56	J X 55	J X 45	J X 30	J X 53	J X 21	J X 30	B	J X 22	J X 22	J X 21	24	26	J X 20	21	E B 18	20	E	B	B	J X 25	21
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	27	30	30	28	29	29	28	30	24	24	28	27	26	29	30	28	30	29	27	26	21	24	20	26
MED	J X 34	J X 42	J X 42	J X 42	J X 46	J X 40	J X 42	J X 38	J X 32	J X 24	J X 22	25	22	23	U 22	U 22	U 21	E B 21	E B 20	E B 20	J X 23	J X 24	J X 27	J X 32
UQ	J X 38	J X 46	J X 54	J X 52	J X 50	J X 49	J X 49	J X 42	J X 48	J X 40	J X 34	U 29	26	26	E B 31	U 26	E B 33	E B 24	23	J X 26	J X 30	J X 36	J X 42	J X 42
LQ	J X 26	J X 31	J X 37	J X 32	J X 35	J X 30	J X 28	J X 22	J X 22	J X 22	J X 22	24	22	22	20	20	22	E B 18	E B 18	E B 13	E E 15	J X 17	J X 20	J X 22

AUG. 1966 | FOES (0.1 MHZ)

AUG. 1966 F-MIN (0.1 MHZ) 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4 S Long. 39° 35.4 E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	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	16	14	15	17	19	17	41	B	17	34	25	18	15	15	14	16	14	15	15	15	14	B	11
2	13	13	28	16	11	E	E	E	E	E	13	15	16	16	15	12	E	E	E	E	14	E	E	E
3	E	11	13	15	E	E	E	E	16	B	34	17	25	16	20	19	13	E	E	13	B	15	11	E
4	E	12	13	E	11	E	E	E	E	E	15	16	27	23	20	23	33	21	17	19	17	11	E	E
5	E	14	17	40	16	19	14	13	13	27	15	17	B	59	24	17	27	37	19	13	B	E	E	E
6	E	12	16	15	16	15	B	18	16	13	15	16	21	32	31	27	15	14	11	12	B	B	B	11
7	E	E	E	13	16	16	15	14	B	17	16	15	15	14	16	14	13	12	14	12	19	14	14	12
8	12	E	11	12	13	12	E	E	E	E	15	14	15	13	14	14	12	E	11	E	14	15	B	11
9	E	19	16	15	15	16	13	E	13	12	B	18	17	15	16	18	34	15	13	13	B	B	B	B
10	B	B	B	B	B	B	B	17	18	17	16	17	15	14	16	26	16	20	B	23	14	B	B	E
11	11	13	13	14	13	12	11	33	33	44	31	B	B	34	25	42	33	B	18	B	12	E	12	13
12	15	12	12	19	17	15	18	19	13	B	B	B	B	B	41	B	B	B	B	B	B	E	B	11
13	11	E	21	13	16	23	18	16	B	B	23	20	23	27	22	18	17	18	17	16	15	11	E	B
14	18	17	14	16	19	20	18	19	46	B	33	37	40	30	34	34	40	29	24	B	B	B	14	E
15	E	E	E	12	12	13	12	12	12	12	20	B	43	24	43	34	27	24	B	B	23	B	B	15
16	11	E	13	E	E	32	13	15	14	14	15	23	27	42	31	18	13	E	E	13	17	15	B	15
17	17	16	E	11	E	11	11	E	E	12	13	15	15	15	14	14	E	13	13	13	14	E	B	B
18	14	12	E	E	E	E	11	E	E	11	15	15	15	16	28	22	36	21	25	B	13	E	E	14
19	11	E	14	17	22	14	16	15	B	16	14	16	C	20	33	B	33	28	B	14	12	12	11	E
20	13	31	23	16	16	13	17	13	12	14	16	47	18	19	24	20	18	16	16	14	16	43	13	B
21	13	E	11	C	13	14	E	18	13	14	13	14	13	13	16	17	18	13	14	E	E	23	E	E
22	B	E	E	E	E	E	E	E	E	15	14	20	20	14	15	14	13	12	13	E	E	E	E	E
23	E	17	15	13	E	14	13	14	11	12	13	12	13	14	23	B	45	24	33	15	E	12	11	14
24	14	24	17	15	14	22	14	13	13	15	13	16	16	17	18	21	45	32	33	14	B	E	E	E
25	19	18	19	18	25	16	16	13	13	13	E	17	15	16	15	23	58	28	25	21	B	14	E	E
26	E	14	14	21	16	17	18	16	B	B	19	42	27	18	18	15	14	15	15	15	13	14	B	E
27	E	19	E	15	15	18	13	E	B	14	15	30	21	26	18	34	28	23	19	15	B	B	14	B
28	14	13	E	13	14	E	12	E	12	13	15	15	15	16	15	15	14	12	14	E	E	E	B	E
29	15	E	11	14	14	E	E	14	14	18	18	18	17	17	18	17	16	13	14	14	13	14	41	24
30	B	45	44	B	B	B	B	B	B	B	B	B	B	B	B	22	23	19	17	23	19	23	25	29
31	46	24	17	16	18	18	17	17	18	B	18	20	19	18	18	19	19	18	15	E	B	B	E	13
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	30	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31
MED	13	13	14	15	15	15	13	14	13	15	15	17	18	17	18	19	18	18	16	14	16	14	14	14
UQ	15	18	16	16	16	18	17	17	40	36	22	28	27	26	26	26	33	24	24	20	B	33	B	15
LQ	E	E	11	13	12	12	11	E	12	12	14	16	15	15	16	16	14	13	14	12	13	E	E	E

AUG. 1966 F-MIN (0.1 MHZ)

IONOSPHERIC DATA

AUG. 1966 | M(3000)F2 (0.01) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69 00.4 S. Long. 39 35.4 E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	B	B	F	F	F	F	315	F	F	F 295	F	R	A	A	A	B	A
2	A	A	A	A	A	F	F	U F 235	F	F 270	285	290	R	R	F	R	F 300	R	R	F	A	A	A	A
3	A	A	A	A	F	F	R	R	A	B	A	R	F	R	290	F	F	R	R	A	B	A	A	A
4	A	A	A	F	R	A	F	F	F	F	F	F	F 295	F	275	F	280	R	F 275	R	A	A	A	A
5	A	A	A	B	A	A	A	F	F 215	A	F	290	B	R	F 275	F 300	F 285	290	R	A	B	A	U R 250	A
6	A	A	A	A	A	A	B	A	A	260	280	F 270	280	F 285	F	F 295	R	F	R	R	B	B	B	A
7	A	A	A	A	A	A	A	A	B	F 285	300	300	310	295	R	R	R	F 315	F	F	A	A	A	A
8	A	A	A	A	F 210	F	F	F	F	F	R	F 295	F	F 315	310	F	R	F	F 315	U F 300	R	A	B	A
9	A	A	A	A	A	A	F	F	F	U F 310	B	U F 355	F 295	F	F 295	300	R	F	F	F	B	B	B	B
10	B	B	B	B	B	B	B	A	A	A	F 285	310	F 315	295	305	R	F 280	F	B	270	F	B	B	A
11	A	A	A	A	A	A	300	B	B	B	A	B	B	F	F	R	F	B	260	B	A	A	A	A
12	A	A	A	A	A	A	A	A	A	B	B	B	B	B	F 305	B	B	B	B	B	B	A	B	A
13	A	A	A	A	A	A	A	A	B	B	F	F	U F 285	U F 300	F	335	F	F 270	F	F 295	R	A	R	B
14	A	A	A	A	A	A	A	A	B	B	R	R	F 270	U F 275	F 290	F	F 285	295	R	B	B	B	F	A
15	A	A	A	A	A	A	A	F	F	F	U F 310	B	R	F	R	R	290	F	B	B	A	B	B	A
16	A	A	A	A	A	B	F	A	A	290	305	U F 305	R	310	F 315	R	R	R	R	F	A	A	B	A
17	A	A	A	A	A	A	230	R 335	F	F	R	F 355	U F 285	U F 310	U R 300	F 315	310	F	F	305	A	A	B	B
18	A	A	A	A	U F 250	A	F	F	F	R	F	F	R	F 290	300	F	F	F	F	B	F 250	A	A	A
19	A	A	A	F	A	A	A	A	B	A	F 260	280	C	270	F	B	F	F	B	A	A	A	A	A
20	A	R	A	A	A	A	A	A	F	275	300	R	310	F	320	F	F	F	F	R	R	B	R	B
21	A	A	A	C	A	A	A	A	U F 275	F	320	335	290	F 295	F	F	F	F	F	F	F	A	A	A
22	B	A	A	A	A	A	A	F	U F 255	F	F 290	F	F 300	U F 290	U F 275	F	F	U F 300	F	U F 300	F	F	F	F
23	F	A	A	A	A	A	A	A	A	F	F	F 285	U F 300	F	F 275	B	U F 300	U F 290	305	F	A	A	A	A
24	A	A	A	A	A	A	A	F 270	280	270	275	295	290	295	290	275	R	F	R	F	B	A	A	A
25	A	A	A	A	R	A	A	F 230	F	F 310	300	285	305	300	290	280	R	F	F	F	B	R	A	A
26	A	A	A	A	A	A	A	A	B	B	F 280	295	F 290	310	F 310	305	F	F	F	F	F	A	B	A
27	A	A	A	A	A	A	A	F 275	B	F	F 290	F	F	U F 295	F	F	U R 310	F	F	R	B	B	A	B
28	A	A	A	F	F 240	F	F	F	F	F	F 285	285	F	R	F	F	F	F	F	F	F 335	R	B	R
29	290	280	A	A	A	F 225	F	F	F	F	F 290	300	F 305	U F 320	R	R	F	F	F	F	U F 270	275	B	B
30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	265	305	F 290	275	300	A	F	A	B
31	B	B	A	A	A	A	A	A	A	B	315	320	305	325	310	310	360	305	305	315	B	B	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	1	1			3	1	2	5	4	8	17	18	17	19	18	10	12	8	6	7	3	1	1	
MED	290	280			F 240	F 225	265	F 270	F 265	280	290	295	F 295	F 295	298	300	298	F 292	290	300	F 270	275	U R 250	
UQ					F 245			F 275	278	F 300	300	310	F 305	310	310	310	308	302	305	302	F 302			
LQ					F 225			F 235	F 235	270	F 285	285	F 290	F 292	F 290	280	F 285	F 290	275	298	F 260			

AUG. 1966 | M(3000)F2 (0.01)

IONOSPHERIC DATA

AUG. 1966 | H'F2 (KM)

45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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													B	B										
6																								
7																								
8																								
9											B													
10																								
11												B	B											
12											B	B	B	B										
13																								
14																								
15												B												
16																								
17																								
18																								
19													C											
20																								
21																								
22																								
23																								
24																								
25																								
26										B														
27																								
28																								
29																								
30										B	B	B	B	B	B									
31										B														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
UQ																								
LQ																								

AUG. 1966 | H'F2 (KM)

IONOSPHERIC DATA

AUG. 1966 | H'F (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4 S. Long. 39° 35.4 E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	B	B	290	B 290	230	210	205	200	200	200	200	230	E B 260	A	A	B	A
2	A	A	A	A	A	350	320	290	290	210	205	210	195	200	200	205	200	200	225	230	A	205	A 230	A
3	E E 300	A	A	A	E E 330	380	350	330	A	B	200	230	215	200	220	210	205	200	220	A	B	A	A	290
4	225	A	A	A	350	350	305	280	290	270	230	215	200	220	240	250	230	200	250	230	A	A	A	A
5	A	A	A	B	A	A	A	310	E A 390	A	230	240	B	B	215	200	240	295	270	A	B	A	A	A
6	A	A	A	A	A	A	B	A	A	305	270	250	215	280	230	210	200	205	200	200	B	B	B	A
7	A	A	A	A	A	A	A	A	B	290	215	215	210	205	195	200	200	190	275	215	A	A	A	A
8	A	A	A	A	A	350	A 330	295	290	220	200	215	210	200	205	200	190	200	200	205	E B 250	A	B	A
9	A	A	A	A	A	A	A	300	275	260	B	230	230	210	205	205	210	205	270	270	B	B	B	B
10	B	B	B	B	B	B	B	A	A	A	270	225	200	220	205	200	220	250	B	E B 300	250	B	B	A
11	A	A	A	A	A	A	A	B	B	B	A	B	B	270	230	250	270	B	300	B	A	A	A	A
12	A	A	A	A	A	A	A	A	A	B	B	B	B	B	250	B	B	B	B	B	B	A	B	A
13	A	A	A	A	A	A	A	A	B	B	240	270	210	205	215	200	220	B 225	270	275	230	A	200	B
14	A	A	A	A	A	A	A	A	B	B	275	300	315	280	270	260	295	275	290	B	B	B	370	A
15	A	A	A	A	A	A	A	A 395	350	230	270	B	295	230	250	210	250	220	B	B	A	B	B	A
16	A	A	A	A	A	B	370	A	A	250	240	225	215	230	210	205	200	195	210	220	A	A	B	A
17	A	A	A	A	A	A	380	295	250	225	210	205	200	200	210	195	220	205	200	B 220	A	180	B	B
18	A	A	A	A	390	340	390	315	270	225	215	205	205	220	230	215	230	230	270	B	A	A	A	A
19	A	A	A	200	A	A	A	A	B	A	250	265	C	215	E B 320	B	240	270	B	A	A	A	A	A
20	A	200	A	A	A	A	A	A	290	230	220	B	240	270	220	220	210	215	200	220	290	B	320	B
21	A	A	A	C	A	A	A	A	A	250	215	205	210	205	200	210	220	210	230	195	A	A	A	A
22	B	A	A	A	A	A	A	340	260	220	200	230	210	210	200	205	205	200	200	205	195	260	260	A
23	A	A	A	A	A	A	A	A	A	250	250	215	205	210	230	B	205	250	280	290	A	A	A	A
24	A	A	A	A	A	A	A	A	295	280	240	200	205	260	200	250	240	230	270	270	B	A	A	A
25	A	A	A	A	A	A	A	A	270	210	205	205	200	205	205	230	E B 250	205	225	240	B	205	A	A
26	A	A	A	A	A	A	A	A	B	B	270	280	215	215	200	205	200	200	205	205	205	B	B	A
27	A	A	A	A	A	A	A	340	B	280	215	250	205	200	215	220	215	205	220	200	B	B	A	B
28	A	A	A	A	390	350	350	290	220	230	205	205	210	220	200	200	205	200	250	220	205	295	B	190
29	A 390	E A 340	A	A	A	A	380	290	240	270	220	200	205	220	200	200	200	200	200	205	230	B	B	B
30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	295	290	250	240	285	A	A	A	B
31	B	B	A	A	A	200	A	A	A	B	260	240	240	270	215	A 270	240	280	240	E E 270	B	B	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	3	2		1	4	7	9	13	14	20	27	26	26	28	30	28	30	29	27	23	8	5	5	2
MED	300	U 235		200	370	350	350	300	277	250	230	225	210	215	211	208	215	205	230	220	224	205	260	240
UQ	345				390	350	380	330	290	275	255	240	215	230	230	225	240	230	270	U 252	250	260	320	
LQ	U 244				340	345	330	290	260	225	212	205	205	205	200	200	200	200	208	205	205	205	230	

The Radio Research Laboratories, Japan

AUG. 1966 | H'F (KM)

AUG. 1966 | H'ES (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	120	105	100	100	100	105	100	130	B	100	B	105	105	100	150	100	105	105	120	100	100	100	B	140
2	105	115	105	100	100	105	130	100	100	105	100	100	115	130	105	100	100	100	100	100	100	100	100	130
3	110	100	100	100	105	105	140	100	170	B	160	110	B	105	B	B	140	E	125	110	B	150	150	115
4	105	100	110	100	100	100	100	100	100	100	100	100	B	B	B	B	B	B	120	B	160	100	100	100
5	105	105	105	150	100	100	100	105	105	130	100	100	B	B	B	B	B	B	B	105	B	140	110	105
6	100	100	105	100	100	100	B	100	100	100	100	100	160	B	B	B	100	B	B	B	B	B	B	150
7	120	105	100	105	100	100	100	100	B	100	110	160	100	100	100	100	B	B	B	130	105	105	105	130
8	115	105	115	100	105	100	115	100	E	100	130	100	100	100	100	100	105	105	115	E	B	100	B	105
9	100	105	100	100	100	100	100	105	B	125	B	100	105	110	100	B	B	B	B	B	B	B	B	B
10	B	B	B	B	B	B	B	100	100	100	100	105	115	105	105	B	B	B	B	B	B	B	B	105
11	100	105	100	100	100	100	100	105	100	105	100	B	B	B	B	B	B	B	B	B	100	100	105	100
12	100	100	100	100	100	100	100	100	100	B	B	B	B	B	B	B	B	B	B	B	B	100	B	150
13	110	100	100	105	105	110	100	100	B	B	B	100	B	B	B	170	B	B	110	B	B	150	E	B
14	120	110	100	100	100	100	100	100	100	B	B	B	B	B	B	B	B	B	B	B	B	B	100	100
15	100	100	100	100	100	100	100	100	100	100	B	B	B	B	B	B	B	B	B	B	100	B	B	190
16	110	110	105	100	100	150	100	100	100	160	100	B	B	B	B	120	100	100	100	B	100	100	B	110
17	110	100	110	100	100	110	100	E	160	100	140	120	110	105	110	110	100	100	100	100	100	100	B	B
18	140	105	100	100	100	100	100	100	100	100	100	105	100	150	B	100	B	B	B	B	150	105	100	105
19	105	105	105	110	100	100	100	100	B	100	100	110	C	B	B	B	B	B	B	105	100	100	100	100
20	105	B	100	100	100	105	100	100	100	105	100	B	150	B	B	110	110	110	150	B	B	100	B	B
21	100	110	105	C	100	100	100	100	100	100	100	100	100	100	105	120	110	115	105	105	105	140	180	120
22	B	180	110	110	105	105	100	180	105	115	105	120	110	150	110	105	100	B	B	100	E	E	100	100
23	100	125	100	100	100	100	100	100	100	100	100	100	100	100	B	B	B	B	B	B	105	105	100	100
24	100	100	100	100	100	100	100	105	100	100	100	150	110	120	105	B	B	B	B	125	B	105	105	100
25	100	150	100	105	B	100	100	100	100	100	100	100	100	105	105	B	B	B	B	B	B	B	100	100
26	100	100	100	100	100	100	100	100	B	B	100	B	B	105	130	100	120	110	105	165	140	100	B	145
27	C	100	100	100	105	100	100	100	B	100	105	B	105	B	175	B	B	B	B	B	B	B	150	B
28	170	130	100	105	180	105	B	100	100	100	105	100	105	105	105	105	100	130	B	E	E	E	B	E
29	B	120	100	100	100	100	120	B	B	165	110	125	105	105	115	120	160	B	B	B	B	B	100	140
30	B	100	100	B	B	B	B	B	B	B	B	B	B	B	B	110	120	B	B	B	170	125	100	100
31	100	105	100	100	100	125	105	120	100	B	105	130	105	160	125	105	135	B	130	E	B	B	100	115
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	26	29	30	28	28	29	27	28	21	24	24	22	19	18	16	16	15	9	12	11	14	20	18	25
MED	105	105	100	100	100	100	100	100	100	100	100	102	105	105	105	105	105	105	112	105	102	100	100	105
UQ	110	110	105	102	100	105	100	102	100	105	105	120	110	120	120	115	120	110	122	118	140	115	105	130
LQ	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	100	100	100	102	100	100	100	100	100

SEP. 1966 | FOF2 (0.1 MHZ) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	A	A	J R 30	B	F 46	F 53	B	B	B	B	F	B	B	A	A	A	A
2	A	A	A	A	B	A	A	22	30	34	38	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	R	B	B	B
4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	J F 44	F 48	J F 47	B	R	B	A	B	A
6	A	B	B	A	A	A	B	B	B	B	B	B	B	B	B	B	B	F 48	F 52	R	B	A	A	A
7	A	A	A	A	A	B	A	A	B	B	B	54	F 52	55	61	F 65	F 66	B	F 36	A	A	A	A	A
8	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	F	B	B	B	A	A	A	A	A
9	A	B	A	B	B	A	B	A	B	B	B	B	B	B	B	J F 46	B	J F 36	B	F 29	B	A	A	A
10	B	B	B	B	B	B	B	B	B	B	B	B	F 43	F 43	B	B	B	B	F 35	B	F	A	A	A
11	A	A	A	B	A	A	A	31	R	B	B	B	50	58	55	58	54	F 53	F 44	F	F	F	A	A
12	A	A	A	F	F	F 51	F	U F 35	43	50	55	58	J F 67	F	J F 63	F	U F 61	48	F	J F 50	F	F	B	A
13	A	A	A	F	A	A	A	38	43	52	F 55	J F 60	F 61	F	F	F	F	F	F	F	F	F	B	A
14	A	A	A	25	F	F	F	F	U F 46	51	52	F 61	F	F	J F 67	F 62	B	F	F	C	C	C	C	C
15	A	A	A	A	A	A	A	B	B	B	B	B	B	B	F 47	52	46	42	F 45	37	F 26	20	A	A
16	A	A	A	A	A	A	B	33	36	41	42	43	46	50	51	58	57	56	46	37	F	F	A	A
17	A	A	A	A	B	B	B	B	31	42	43	F 47	50	F 56	62	61	58	56	53	F 46	F	F 25	F 21	F
18	F	A	A	F 24	F	F	24	32	41	51	53	56	56	61	67	71	74	68	F 51	47	41	F	F 21	A
19	A	A	A	A	A	A	A	A	A	B	F 46	53	F	J F 75	F 74	71	59	59	52	F 44	F 36	F	F	A
20	A	A	A	A	A	A	A	B	F 39	F 46	F 51	58	B	69	73	73	B	F	F	J F 40	A	A	A	A
21	A	A	A	A	A	A	R	A	A	F 36	43	46	50	56	59	61	U R 71	R	U F 63	52	F	F	F	A
22	A	A	A	A	A	A	37	F 41	F 46	B	F 55	F 58	57	60	57	63	63	F 58	61	F 48	R	R	A	A
23	A	A	A	26	F 31	F 32	A	A	F	F 48	52	F 58	F 60	F 66	F 67	F 63	R	R	R	J F 59	A	A	58	A
24	A	A	A	F	A	A	41	F 43	J F 47	F 50	51	F 51	51	F 52	F 50	F 60	J F 70	J F 62	J F 60	R	R	F	F	F
25	F	F	F	A	A	A	A	A	A	A	B	B	36	38	43	47	46	42	40	35	27	26	21	15
26	A	A	A	A	A	A	A	A	41	U F 44	43	46	45	48	57	F 62	F 56	F	F	A	B	A	A	A
27	A	A	A	A	B	A	A	A	B	B	B	36	36	38	40	40	46	46	40	F 36	F	F	A	A
28	A	A	A	A	A	A	B	B	A	A	37	B	36	37	41	40	40	41	42	41	A	A	A	A
29	A	B	A	A	A	A	F	B	B	35	36	B	B	48	51	48	53	50	J R 47	40	F	A	A	A
30	A	A	A	A	A	A	A	35	B	B	B	B	B	B	54	54	56	56	F	A	B	A	A	K
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT				3	1	2	3	9	11	14	16	16	17	17	20	21	18	17	16	15	4	3	4	1
MED				25	F 31	F 42	37	35	41	45	48	54	50	55	57	60	56	50	46	F 41	32	25	21	15
UQ				26			39	F 38	44	50	52	58	F 56	60	65	63	63	56	52	F 48	38	26	40	
LQ				24			30	32	38	36	42	46	45	48	50	48	48	46	41	37	26	22	21	

The Radio Research Laboratories, Japan

SEP. 1966 | FOF2 (0.1 MHZ)

SEP. 1966 FOF1 (0.01 MHZ) 45 E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											B	B		B	B	B								
2												B	B	B	B									
3										B	B	B	B	B	B	B								
4										B	B	B	B	B	B	B								
5										B	B	B	B	B	B									
6										B	B	B	B	B	B	B								
7										B	B													
8										B	B	B	B	B	B									
9										B	B	B	B	B	B	B								
10										B	B	B			B	B								
11											B	B	B	L										
12																								
13																								
14																								
15										B	B	B	B	B	L									
16																								
17											360	390												
18									L 340	L	L	L		L	L									
19											360	400	400	400	L	L								
20												400												
21											360	380	360	340	360	L								
22								300	340	B	400	L	L	L										
23									F 350	380	L	L 400	L											
24								300	330	350	L	L	410											
25									B		B	B			380	L								
26									320	340	370	370	380	380	380									
27									B	B	B					360								
28												B			360									
29									B			B	B	B	380	340								
30								300	B	B	B	B	B	B	B	B	B								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								3	5	3	5	6	4	3	5	2								
MED								300	340	350	360	395	390	380	380	350								
UQ								300	340	365	370	400	405	390	380									
LQ								300	330	345	360	380	370	360	360									

The Radio Research Laboratories, Japan

SEP. 1966 FOF1 (0.01 MHZ)

IONOSPHERIC DATA

SEP. 1966 | FOE (0.01 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								B	A	B	B	B	B	B	B	B	B	B						
2								B	180	230	255	B	B	B	B	B	B	B						
3								B	B	B	B	B	B	B	B	B	B	B						
4								B	B	B	B	B	B	B	B	B	B	B						
5								B	B	B	B	B	B	B	B	B	B	B						
6								B	B	B	B	B	B	B	B	B	B	B						
7								B	B	B	B	B	B	B	B	A	B	B						
8								B	B	B	B	B	B	B	B	B	B	B						
9								B	B	B	B	B	B	B	B	B	B	B						
10								B	B	B	B	B	B	B	B	B	B	B						
11								B	B	B	B	B	B	B	B	B	B	B						
12								B	A	B	B	B	A	A	A	A	B	B						
13								A	A	A	235	A	B	A	240	A	A	B						
14								B	A	B	B	B	260	255	240	A	B	B						
15							B	B	B	B	B	B	B	B	B	B	B	B	B					
16							B	B	B	220	A	245	225	260	240	225	205	B	B					
17							B	B	B	A	A	A	B	A	A	A	A	B	B					
18							B	A	180	A	250	255	A	A	A	A	B	B	B					
19							B	B	A	B	A	A	275	240	240	A	A	A	125					
20							B	B	200	A	260	270	B	B	B	A	B	B	B					
21							B	B	B	A	250	265	280	275	260	255	235	B	B					
22							A	A	A	B	A	A	280	270	260	A	230	190	B					
23							B	B	A	240	250	260	A	A	250	A	A	A	A					
24							A	A	A	230	250	265	A	265	250	A	R	190	A					
25							B	B	B	A	B	B	B	280	A	R	B	190	170					
26							B	B	A	240	255	260	275	B	R	B	B	B	A					
27							B	B	B	B	B	A	R	B	R	240	A	190	170					
28							B	B	B	A	A	B	R	B	B	B	B	200	A					
29							B	B	B	A	260	B	B	B	B	B	B	180	B					
30							B	A	B	B	B	B	B	B	B	B	B	B	B					
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT									3	5	9	7	6	7	8	3	3	6	3					
MED									180	230	250	260	275	265	245	240	230	190	170					
UQ									190	240	255	265	280	272	255	248	232	190	170					
LQ									180	230	250	258	260	258	240	232	218	190	148					

SEP. 1966 | FOE (0.01 MHZ)

SEP. 1966 FOES (0.1 MHZ)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	J X 26	J X 30	J X 54	J X 47	J X 46	J X 48	J X 42	J X 41	J X 32	E B 31	B	E B 41	E B 32	B	B	B	B	E B 24	B	B	34	D	D	J X 104
2	J X 48	J X 54	36	J X 46	J X 55	J X 44	J X 41	23	G 18	G 23	32	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	E B 47	B	J X 65	B
4	J X 58	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	J X 95	J X 120	J X 77	J X 52
5	J X 79	J X 50	J X 36	J X 42	J X 42	B	J X 47	B	B	B	B	B	B	B	B	E B 37	E B 36	E B 36	B	E B 23	B	23	B	J X 20
6	J X 30	B	B	J X 28	J X 26	26	J X 50	B	B	B	B	B	B	B	B	B	B	E B 21	J X 35	E B 41	B	J X 38	J X 52	26
7	33	J X 37	J X 62	J X 49	J X 52	E B 35	J X 54	J X 52	B	B	B	E B 34	E B 26	E B 28	E B 28	23	E B 33	B	E B 32	J X 46	J X 32	J X 20	J X 36	J X 59
8	J X 54	J X 45	J X 45	J X 37	J X 39	J X 46	J X 84	B	J X 59	B	B	B	B	B	B	E B 34	B	B	B	18	J X 45	D	J X 74	J X 67
9	J X 48	J X 62	J X 36	B	J X 40	J X 45	B	J X 60	J X 37	B	B	B	B	B	B	E B 42	B	E B 27	B	E B 16	B	23	J X 37	J X 40
10	J X 65	B	J X 42	B	B	B	B	J X 47	B	B	B	B	E B 37	E B 36	B	B	B	B	E B 24	B	J X 22	J X 28	J X 20	J X 22
11	J X 63	35	J X 36	B	J X 45	J X 37	J X 31	J X 29	31	B	B	B	E B 40	E B 26	E B 27	24	E B 23	E B 23	J X 22	E B 13	E	J X 25	J X 23	J X 26
12	J X 32	18	J X 25	J X 22	J X 22	J X 45	J X 23	J X 23	J X 20	E B 22	E B 37	E B 44	M 26	M 29	J X 28	M 28	E B 26	E B 38	E B 26	E B 16	E B 18	E B 20	B	J X 22
13	J X 26	J X 34	J X 42	J X 27	J X 39	J X 45	J X 44	J X 42	J X 37	28	26	29	E B 28	28	26	J X 35	J X 22	J X 30	J X 20	E B 14	E B 20	J X 25	B	J X 26
14	21	J X 27	J X 22	J X 32	J X 59	19	J X 25	E B 14	22	E B 32	E B 31	E B 30	J X 27	J X 27	J X 56	M 29	B	22	E B 13	C	C	C	C	C
15	J X 40	J X 65	47	J X 85	J X 45	J X 34	J X 55	B	J X 46	B	B	B	B	B	E B 33	E B 35	E B 24	E B 34	E B 28	E B 19	E B 19	E B 16	J X 28	J X 76
16	38	J X 40	J X 42	J X 27	J X 26	J X 58	B	J X 32	B	G 22	M 26	28	27	27	25	25	22	18	E B 15	E B 14	E B 13	E B 14	J X 32	J X 21
17	J X 33	J X 88	51	J X 51	J X 43	B	B	B	J X 31	J X 32	27	29	E B 29	30	J X 25	27	23	19	J X 20	E B 13	J X 52	E B 19	J X 20	E B 13
18	J X 54	12	J X 25	4 X 25	18	J X 38	E B 13	J X 22	J X 22	28	27	J G 23	30	27	28	25	E B 25	E B 26	E B 24	E B 22	E B 16	E B 16	J X 21	J X 20
19	J X 27	J X 25	J X 26	J X 37	J X 45	50	J X 65	J X 48	J X 64	B	26	J X 23	29	J X 31	J X 31	J X 31	J X 25	J X 34	J X 32	J X 25	J X 22	J X 22	J X 62	J X 42
20	J X 32	J X 40	J X 65	J X 24	J X 35	J X 57	J X 55	B	25	J X 40	27	J X 54	B	E B 41	E B 36	26	B	J X 22	J X 43	E B 35	J X 40	J X 21	J X 35	J X 42
21	J X 45	J X 53	J X 70	J X 55	J X 42	J X 36	23	J X 41	J X 30	J X 27	G 25	G 26	29	28	27	G 25	G 23	E B 24	E B 26	E B 18	E B 13	E B 14	19	18
22	J X 24	J X 32	34	J X 32	J X 36	J X 48	J X 31	J X 25	J X 32	B	28	J X 25	G 28	J X 30	28	24	G 23	20	16	E	E B 18	E B 15	J X 22	31
23	J X 42	J X 23	J X 31	J X 20	17	22	J X 37	J X 42	J X 36	27	27	28	29	29	28	27	J X 43	J X 20	J X 21	E B 14	J X 55	J X 107	J X 45	J X 55
24	J X 43	J X 32	J X 63	J X 22	J X 53	J X 37	J X 40	J X 40	J X 43	29	27	29	27	29	28	27	21	J X 28	21	E B 15	E B 13	E B 12	J X 38	E B 12
25	J X 38	J X 22	J X 22	J X 75	J X 48	J X 59	J X 60	J X 42	49	J X 60	B	B	E B 33	G 28	28	23	E B 28	G 19	G 17	16	17	18	J X 29	17
26	J X 42	J X 43	J X 36	J X 29	J X 65	J X 83	J X 49	J X 52	J X 44	G 24	J X 40	J X 38	G 27	E B 32	26	E B 35	E B 26	E B 25	J X 44	J X 43	B	J X 48	J X 48	J X 58
27	J X 21	J X 38	J X 55	J X 57	J X 47	J X 36	J X 52	J X 40	B	B	B	27	27	E B 33	G	G 24	J X 28	J X 21	J X 22	20	E B 22	E B 15	J X 32	J X 39
28	J X 40	J X 41	J X 58	J X 35	J X 45	J X 52	B	B	J X 58	J X 40	28	B	26	E B 28	E B 30	E B 38	E B 27	22	22	21	J X 37	31	41	J X 26
29	J X 25	B	J X 46	J X 62	J X 42	J X 43	J X 35	B	B	J X 44	G 26	B	B	E B 41	24	E B 26	E B 23	21	E B 45	E B 30	E B 14	J X 38	J X 22	J X 38
30	J X 22	J X 34	22	26	J X 107	J X 43	J X 27	22	B	B	B	B	B	B	E B 51	E B 34	E B 46	E B 52	E B 28	J X 40	B	J X 25	J X 32	J X 21
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	29	25	27	25	27	25	23	20	20	16	16	16	19	20	21	24	20	24	23	24	23	27	25	27
MED	J X 38	J X 37	J X 42	J X 35	J X 43	J X 44	J X 42	J X 40	J X 34	28	27	28	28	28	27	26	E B 25	U 21	U 20	E B 18	E E 22	23	J X 35	J X 26
UQ	J X 48	J X 45	J X 52	J X 49	J X 48	J X 48	J X 53	J X 44	J X 45	J X 36	29	U 32	29	30	29	E B 34	E B 28	E B 29	E B 30	U 24	J X 37	J X 34	J X 48	J X 47
LQ	J X 27	J X 30	J X 32	J X 27	J X 38	J X 36	J X 31	J X 24	J X 28	26	26	26	27	28	26	24	22	20	20	E B 14	E B 16	E B 17	J X 23	J X 21

IONOSPHERIC DATA

SEP. 1966 | F-MIN (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	13	21	14	15	18	14	17	15	31	B	41	32	B	B	B	B	24	B	B	14	14	18	14
2	13	14	14	13	21	14	14	13	14	22	18	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	47	B	47	B
4	52	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	38	55	29	23
5	33	38	28	35	39	B	25	B	B	B	B	B	B	B	B	37	36	36	B	23	B	18	B	18
6	16	B	B	18	16	19	28	B	B	B	B	B	B	B	B	B	B	21	16	41	B	13	12	12
7	12	14	18	21	22	35	15	20	B	B	B	34	26	28	28	20	33	B	32	13	13	11	13	13
8	43	18	13	18	19	16	23	B	32	B	B	B	B	B	B	34	B	B	B	13	E	13	13	E
9	23	36	15	B	28	15	B	18	30	B	B	B	B	B	B	42	B	27	B	16	B	12	E	E
10	36	B	30	B	B	B	B	42	B	B	B	B	37	36	B	B	B	B	24	B	13	A	E	12
11	14	13	14	B	16	18	15	14	24	B	B	B	40	26	27	23	23	23	E	13	E	E	15	14
12	15	E	E	14	12	11	E	13	15	22	37	44	23	23	19	20	26	38	26	16	18	20	B	19
13	11	E	12	12	13	13	13	14	15	14	16	16	28	17	16	15	16	15	13	14	20	14	B	14
14	17	E	14	11	E	E	E	14	17	32	31	30	22	19	16	18	B	14	13	C	C	C	C	C
15	14	13	17	21	16	19	20	B	36	B	B	B	B	B	33	35	24	34	28	19	19	16	19	17
16	16	22	20	19	19	18	B	19	23	20	18	18	16	14	15	16	17	17	15	14	13	14	13	17
17	18	26	26	19	25	B	B	B	19	18	15	23	29	23	19	17	15	15	13	13	14	19	14	13
18	11	11	13	E	E	12	13	13	13	13	14	15	18	23	21	22	25	26	24	22	16	16	15	19
19	18	14	13	15	17	16	23	24	16	B	21	23	18	19	18	13	14	13	E	E	13	E	E	E
20	E	12	E	17	16	14	19	B	17	16	15	16	B	41	36	20	B	13	13	35	E	11	13	21
21	12	E	23	16	13	13	19	33	24	21	16	13	18	17	17	23	15	24	26	18	13	14	12	13
22	13	12	15	19	16	21	14	14	14	B	22	18	15	15	14	16	15	16	15	E	18	15	13	13
23	14	22	15	12	13	14	23	21	15	14	14	15	17	15	14	14	14	13	13	14	12	E	13	13
24	13	12	E	E	E	13	26	15	12	12	16	E	14	15	13	14	15	13	12	15	13	12	E	12
25	E	E	E	11	14	15	22	18	43	21	B	B	33	18	18	16	28	14	15	13	12	E	E	E
26	16	13	13	12	14	19	17	19	15	13	15	16	19	32	24	35	26	25	13	13	B	13	E	16
27	15	12	15	18	36	22	19	23	B	B	B	24	20	33	21	17	16	17	13	13	22	15	E	E
28	14	17	15	14	14	13	B	B	23	22	23	B	24	28	30	38	27	15	13	19	E	15	E	E
29	13	B	15	15	19	14	13	B	B	16	16	B	B	41	23	26	23	15	45	30	14	E	16	E
30	13	15	13	12	17	18	16	18	B	B	B	B	B	B	51	34	46	52	28	15	B	14	12	E
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	28	29	29
MED	14	14	15	16	16	17	20	20	24	32	34	42	30	30	26	23	26	24	20	16	14	14	13	13
UQ	18	26	21	21	22	21	28	B	B	B	B	B	B	B	B	38	B	38	45	30	38	16	18	17
LQ	13	12	13	12	14	14	14	15	15	18	16	18	19	19	18	17	16	15	13	13	13	12	E	E

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SEP. 1966 | F-MIN (0.1 MHZ)

SEP. 1966 | M(3000)F2 (0.01)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69°00.4'S, Long. 39°35.4'E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	A	A	R	B	F 260	F 265	B	B	B	B	F	B	B	A	A	A	A
2	A	A	A	A	B	A	A	250	250	275	250	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	R	B	B	B
4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	F	F 325	F	B	R	B	A	B	A
6	A	B	B	A	A	A	B	B	B	B	B	B	B	B	B	B	B	F 315	F 290	R	B	A	A	A
7	A	A	A	A	A	B	A	A	B	B	B	335	F 325	305	330	F 315	F 325	B	F 305	A	A	A	A	A
8	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	F	B	B	B	A	A	A	A	A
9	A	B	A	B	B	A	B	A	B	B	B	B	B	B	B	F	B	F	B	F 285	B	A	A	A
10	B	B	B	B	B	B	B	B	B	B	B	B	F 315	F 300	B	B	B	B	F 300	B	F	A	A	A
11	A	A	A	B	A	A	A	290	R	B	B	B	320	310	340	345	335	F 370	F 320	F	F	F	A	A
12	A	A	A	F	F	F 320	F	U F 270	335	325	330	305	F	F	F	F	U F 350	355	F	F	F	F	B	A
13	A	A	A	F	A	A	A	275	290	335	F 310	F	F 345	F	F	F	F	F	F	F	F	F	B	A
14	A	A	A	270	F	F	F	F	U F 325	335	325	F 310	F	F	F	F 355	B	F	F	C	C	C	C	C
15	A	A	A	A	A	A	A	B	B	B	B	B	B	B	F 295	F 310	325	340	F 335	325	F 325	300	A	A
16	A	A	A	A	A	A	B	290	305	310	300	300	285	305	335	330	335	355	335	325	F	F	A	A
17	A	A	A	A	B	B	B	B	325	275	300	F 275	300	F 305	355	335	360	340	340	F 370	F	F 300	F 345	F
18	F	A	A	F 285	F	F	290	315	290	320	320	305	305	305	315	325	310	330	F 355	340	340	F	F 360	A
19	A	A	A	A	A	A	A	A	A	B	F 260	265	F	F	F 275	305	320	320	345	F 320	F 305	F	F	A
20	A	A	A	A	A	A	A	B	F 270	F 260	F 285	260	B	310	330	290	B	F	F	F	A	A	A	A
21	A	A	A	A	A	A	R	A	A	F 310	280	305	290	305	305	310	U R 325	R	U F 350	325	F	F	F	A
22	A	A	A	A	A	A	270	F 255	F 285	B	F 290	F 300	315	310	315	335	335	F 330	345	F 315	R	R	A	A
23	A	A	A	270	F 285	F 265	A	A	F	F 290	300	F 310	F 310	F 305	F 320	F 315	R	R	R	F	A	A	360	A
24	A	A	A	F	A	A	250	F 255	F	F 245	295	265	265	F 270	F 270	F 300	F	F	F	R	R	F	F	F
25	F	F	F	A	A	A	A	A	A	A	B	B	340	335	275	275	325	315	325	315	335	310	295	280
26	A	A	A	A	A	A	A	A	250	U F 245	255	260	265	270	280	F 290	F 340	F	F	A	B	A	A	A
27	A	A	A	A	B	A	A	A	B	B	B	355	360	340	320	295	305	305	340	F 305	F	F	A	A
28	A	A	A	A	A	A	B	B	A	A	350	B	365	340	270	300	320	295	310	275	A	A	A	A
29	A	B	A	A	A	A	F	B	B	320	360	B	B	270	320	335	340	340	R	325	F	A	A	A
30	A	A	A	A	A	A	A	245	B	B	B	B	B	B	315	315	330	305	F	A	B	A	A	K
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT				3	1	2	3	9	10	13	16	15	16	16	18	19	17	14	14	12	4	3	4	1
MED				270	F 285	F 292	270	270	290	310	300	300	312	305	315	315	325	330	335	322	330	300	352	280
UQ				278			280	290	325	320	322	308	332	310	330	332	335	340	345	325	338	305	360	
LQ				270			260	F 255	270	F 275	282	265	288	302	280	300	325	315	F 310	F 310	F 315	300	320	

SEP. 1966 | M(3000)F2 (0.01)

IONOSPHERIC DATA

SEP. 1966 | H'F2 (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											B	B		B	B	B								
2												B	B	B	B									
3										B	B	B	B	B	B	B								
4										B	B	B	B	B	B	B								
5										B	B	B	B	B	B									
6										B	B	B	B	B	B	B								
7										B	B													
8										B	B	B	B	B	B									
9										B	B	B	B	B	B	B								
10										B	B	B			B	B								
11											B	B	B 320	260										
12																								
13																								
14																								
15										B	B	B	B	B	350									
16																								
17											360	380												
18									375	L	L	L		300	290									
19											410	390	340	300	300	L								
20												380												
21											420	300	335	300	290	L								
22								400	350	B	315	L	290	295										
23									400	380	300	295	290											
24								460	400	390	330	400	400											
25									B		B	B			450	380								
26									470	475	490	425	490	420	300									
27									B	B	B					490								
28												B			470									
29									B			B	B	B	300	280								
30								490	B	B	B	B	B	B	B 320	295	290							
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT								3	5	3	7	7	7	6	9	4	1							
MED								460	400	390	360	380	335	300	300	338	290							
UQ								475	400	432	415	395	370	300	350	435								
LQ								430	375	385	322	340	305	295	300	288								

SEP. 1966 | H'F2 (KM)

SEP. 1966 | H'F (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	A	A	B	B	B	285	B	B	B	B	250	B	B	A	A	A	A
2	A	A	A	A	B	A	A	A	305	290A	295	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	290	290	295	B	280B	B	A	B	A
6	A	B	B	A	A	A	B	B	B	B	B	B	B	B	B	B	B	240	295	B	B	A	A	A
7	A	A	A	A	A	B	A	A	B	B	B	290	200	200	250	225	265	B	B	A	A	A	A	A
8	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	310	B	B	B	A	A	A	A	A
9	A	B	A	B	B	A	B	A	B	B	B	B	B	B	B	B	B	290	B	300	B	A	A	A
10	B	B	B	B	B	B	B	B	B	B	B	B	300B	350	B	B	B	B	300	B	350A	A	A	A
11	A	A	A	B	A	A	A	300	E A 300	B	B	B	B	205	205	210	200	200	200	210	200	E A 280	A	A
12	A	A	A	A	360	340	295	250	220	210	270	290	200	230	300	250	200	205	205	200	250	295	B	A
13	A	A	A	400A	A	A	A	A	300A	240	210	200	215	190	225	205	210	200	200	200	240	A	B	A
14	A	A	A	A	330	330	295	250	240	240	200	220	200	205	200	200	B	200	195	C	C	C	C	C
15	G	A	A	A	A	A	A	B	B	B	B	B	B	B	E B 290	300	240	E B 285	250	255	250	E B 305	A	A
16	A	A	A	A	A	A	B	A	250	205	270	200	200	200	200	220	205	200	205	200	210	E B 270	A	A
17	A	A	A	A	B	B	B	B	A	A	200	215	250	225	230	205	210	200	205	200	215	E B 290	270	E B 285
18	E A 305	A	A	A	350	330	300	260	230	220	200	200	220	200	225	220	230	205	210	215	220	240	240	A
19	A	A	A	A	A	A	A	A	A	B	210	230	245	210	220	200	265	220	210	205	220	260	300	A
20	A	A	A	A	A	A	A	B	250	290	250	230	B	290	270	215	B	275	285	285	A	A	A	A
21	A	A	A	A	A	A	R	A	A	A	210	220	220	200	210	205	230	225	200	220	200	220	290	A
22	A	A	A	A	A	A	390	300	300	B	205	230	215	200	200	225	210	210	200	220	290	E B 340	A	A
23	A	A	A	A	340	390A	A	A	225	200	200	200	200	200	200	200	210	200	230	210	A	A	A	A
24	A	A	A	A	A	A	A	385A	250	230	215	200	210	210	205	215	230	200	205	200	200	240	280	300
25	300	E A 490	E A 500	A	A	A	A	A	B	A	B	B	E B 300	270	220	230	270	240	250	240	230	280	290	A
26	A	A	A	A	A	A	A	A	300	220	230	205	200	E B 260	250	290	250	260	300	A	B	A	A	A
27	A	A	A	A	B	A	A	A	B	B	B	200	210	270	225	210	300	290	270	250	300	E B 340	A	A
28	A	A	A	A	A	A	B	B	A	A	200	B	200	215	E B 260	370	260	260	275	295	A	A	A	A
29	A	B	A	A	A	A	A	B	B	270	240	B	B	B	260	210	210	225	250	265	280	A	A	A
30	A	A	A	A	A	A	A	290	B	B	B	B	B	B	B	B	B	B	260	A	B	A	A	110
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	2	1	1	1	4	4	4	7	12	11	16	15	18	19	20	22	19	23	22	19	15	12	6	3
MED	301	E A 490	E A 500	400A	345	335	298	290	250	230	210	215	211	208	222	218	230	222	220	220	230	U 250	285	285
UQ					355	365	345	300	300	255	245	230	U 232	236	248	250	262	258	270	260	265	E B 300	290	292
LQ					335	330	295	255	235	215	200	200	200	200	205	205	210	200	205	202	212	240	270	U 154

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IONOSPHERIC DATA

SEP. 1966 | H'ES (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	105	105	100	100	100	105	100	100	100	B	B	B	B	B	B	B	B	B	B	B	105	100	100	100
2	100	100	100	100	100	100	100	100	100	105	105	B	B	B	B	B	B	B	B	B	B	B	B	B
3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	100	B
4	100	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	110	175	105	140
5	100	115	100	105	115	B	100	B	B	B	B	B	B	B	B	B	B	B	B	B	B	105	B	120
6	105	B	B	100	100	105	110	B	B	B	B	B	B	B	B	B	B	B	100	B	B	100	105	100
7	100	100	100	100	100	B	100	100	B	B	B	B	B	B	B	160	B	B	B	100	105	100	100	105
8	100	100	100	100	100	100	100	B	100	B	B	B	B	B	B	B	B	B	B	100	100	105	105	105
9	105	100	100	B	100	100	B	100	100	B	B	B	B	B	B	B	B	B	B	B	B	100	100	100
10	100	B	100	B	B	B	B	100	B	B	B	B	B	B	B	B	B	B	B	B	160	100	115	100
11	100	100	100	B	100	100	100	100	110	B	B	B	B	B	B	130	B	B	100	B	E	100	100	100
12	100	115	100	100	100	100	100	100	100	B	B	B	105	105	100	100	B	B	B	B	B	B	B	100
13	100	100	100	100	100	100	100	100	100	100	100	105	B	100	100	100	105	100	100	B	B	100	B	100
14	150	100	100	100	100	105	100	B	150	B	B	B	160	110	105	100	B	160	B	C	C	C	C	C
15	100	100	100	105	100	100	100	B	100	B	B	B	B	B	B	B	B	B	B	B	B	B	100	100
16	100	100	100	105	105	120	B	100	B	125	170	110	100	100	100	100	110	140	B	B	B	B	100	120
17	160	105	100	100	105	B	B	B	100	100	100	115	B	105	100	100	105	120	100	B	100	B	100	B
18	100	120	100	100	100	100	B	100	100	100	100	100	100	100	110	110	B	B	B	B	B	B	100	100
19	100	125	110	100	100	100	100	100	100	B	105	105	100	105	105	100	100	100	100	100	100	110	120	100
20	100	100	100	100	100	100	100	B	100	100	100	100	B	B	B	105	B	150	100	B	100	130	100	100
21	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	100	B	B	B	B	B	105	105
22	100	105	100	100	100	100	100	100	100	B	105	100	100	100	100	100	100	130	175	E	B	B	160	100
23	100	120	100	100	115	110	100	100	100	100	100	100	100	100	100	100	100	100	105	B	100	100	100	100
24	100	100	100	100	120	100	105	100	100	100	100	100	100	100	100	100	100	100	120	B	B	B	100	B
25	140	100	100	100	100	100	100	100	105	100	B	B	B	100	100	100	B	105	150	150	130	130	100	125
26	120	100	100	100	100	100	100	100	100	100	100	100	105	B	120	B	B	B	105	100	B	100	100	100
27	100	100	100	100	140	105	100	100	B	B	B	120	110	B	110	105	100	115	100	150	B	B	100	100
28	100	100	100	100	100	105	B	B	110	100	110	B	125	B	B	B	B	130	150	160	100	105	115	100
29	100	B	100	100	100	100	100	B	B	100	105	B	B	B	115	B	B	110	B	B	B	100	110	100
30	120	100	105	100	100	100	100	130	B	B	B	B	B	B	B	B	B	B	B	100	B	120	100	105
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	29	25	27	25	27	24	22	19	20	13	14	12	12	12	15	16	9	13	13	8	11	18	25	25
MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	115	100	100	100	100	100	100
UQ	105	105	100	100	100	105	100	100	100	100	105	108	108	105	108	108	105	130	120	150	108	110	105	105
LQ	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

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SEP. 1966 | H'ES (KM)

IONOSPHERIC DATA

OCT. 1966 | FOF2 (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	B	B	A	A	B	B	B	B	44	47	B	46	49	49	F 46	43	F 37	F	F	F
2	F	F	F	F	F	J F 31	F 40	F	F	50	F 52	B	B	J F 56	F	F 62	F	J F 56	U F 55	F	F	F	F	F
3	F	F 26	F	F	F	F	J F 46	U F 55	F 52	F 54	53	F	F 61	62	62	62	J F 66	F 62	F 56	F	F	F	F	F
4	J F 26	A	A	A	A	A	A	F 50	F 48	F	F 51	F	J F 63	F	61	F 61	F 62	F 65	59	U F 58	J F 50	F 41	A	A
5	A	A	A	A	B	A	A	B	B	B	B	B	B	B	B		45	J F 40	F 39	A	A	A	A	A
6	A	A	A	A	A	B	B	B	B	B	B	B	R	B	B	B	F 47	B	R	31	A	A	A	A
7	A	A	B	A	F	A	B	F	F 46	J F 46	F 48	51	54	56	F 58	62	67	F 58	56	47	A	F	A	26
8	A	A	A	A	A	F 38	J F 50	46	F 51	49	47	49	51	55	56	F 58	61	F 57	F	J F 46	F	F	F	F
9	R	A	F	20	F	A	A	A	J R 42	F	F	F	56	B	75	66	65	F	F	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	F 62	F 67	F	F 61	U F 54	R	F 46	F	F
14	R	F 23	A	A	U F 38	J F 42	F 42	A	F	J F 56	J F 57	61	F 65	66	62	61	61	F 60	55	F 56	F	F	F	F
15	F	S	S	U S 24	F	S	F 50	F 33	F	F 51	F 54	F 57	F 60	F 65	F 65	F 70	F 69	F 65	F	F	S	F	A	A
16	F	A	A	A	F	F	A	A	A	R	A	B	B	B	F	F	F 62	A	F	F	F	A	A	A
17	A	A	A	A	A	40	U F 49	F 49	U F 59	F	F	43	50	54	56	54	F 53	55	F 56	J R 55	F 52	R	R	F
18	R	A	A	A	A	A	U F 45	F 52	U F 55	F 55	F 56	54	53	54	56	55	55	57	F	J R 51	R	U R 48	R	R
19	S	A	A	F	F 44	F	F	F 58	63	61	58	J F 59	J F 62	J F 60	U F 66	F 62	F	J F 65	J F 62	F 58	J F 55	R	F	F
20	J F 42	F	A	F	F	F	F	F	62	67	67	F 66	J F 64	F 64	F 65	63	62	J F 65	J F 62	F	F	R	F	F
21	A	F	F	R	F	J F 52	F 52	F	J F 57	61	60	61	61	F 63	66	65	63	U F 66	F 68	F	F	F	F	F
22	R	R	F	F	F	R	R	U F 72	76	80	81	81	81	79	79	76	74	72	F 66	V 64	56	53	F 53	F
23	F	A	A	A	A	56	U F 66	F	J F 62	F	F	68	67	64	66	68	65	63	F 62	F 66	J F 62	R	R	F
24	A	A	A	F	J F 57	J F 62	F	F	F	F	F 62	58	63	F 63	64	67	63	63	59	F	F	F	F	A
25	R	A	A	F	A	A	A	F 46	F 45	F 45	F	52	B	52	52	F 53	F 54	F 56	F	A	F	F	39	A
26	B	F	B	B	A	R	F 46	47	A	R	F 48	F 46	R	48	52	52	51	53	50	F	A	F	F	A
27	A	A	A	A	A	A	F	J F 55	F 57	J F 59	F 60	56	57	56	55	52	55	52	51	51	47	F	F	F
28	F	F	B	A	F	F	F	F	F	F 53	65	68	65	63	61	58	55	53	52	51	53	54	U F 50	S
29	F	A	F	F	F	J F 52	U F 52	F 56	F 60	62	67	68	66	64	60	61	58	52	54	56	52	52	52	F
30	F	S	F	F	39	J F 48	F 55	60	65	F 68	F 66	67	66	F 65	F 65	F 64	61	62	F 61	U F 61	R	A	A	A
31	A	A	A	F	F	B	A	A	A	B	B	B	B	B	F 52	Z 63	63	F	F	A	F	A	A	F
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	2	2		2	4	9	12	13	16	16	18	18	20	21	22	25	26	23	20	16	9	6	4	1
MED	J F 34	F 24		22	F 42	J F 48	F 50	F 52	F 57	F 56	F 58	58	62	62	62	62	62	F 58	F 56	54	F 52	50	51	26
UQ					F 50	J F 52	F 52	F 56	62	62	65	67	65	64	65	64	65	F 64	F 62	F 58	F 55	53	52	
LQ					38	J F 40	F 46	F 47	F 50	F 50	F 52	52	55	55	56	58	55	54	53	49	F 50	F 46	44	

OCT. 1966 | FOF2 (0.1 MHZ)

The Radio Research Laboratories, Japan

IONOSPHERIC DATA

OCT. 1966 | FOF1 (0.01 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	B	B	B	B	390	390	B		L							
2									B	390	390	B		B		400L								
3								350	370L	400L	B	430L	390L	410L	390L	L								
4									B	400F	B	410	410L	400	400L	B	B							
5								B	B	B	B	B	B	B	B	B	B							
6								B	B	B	B	B	R	B	B	B	370	B						
7								330	350	360	390	400L	430L	L	L	L		300L						
8							310	360	370	410L	400	400	410	410	400	400								
9							A	A	B	400	410	420	420	B	B	B								
10							C	C	C	C	C	C	C	C	C	C	C							
11							C	C	C	C	C	C	C	C	C	C	C							
12							C	C	C	C	C	C	C	C	C	C	C							
13							C	C	C	C	C	C	C	C	C									
14						260L	290	A	350	400	400	410	420	410	430L	L	L	L						
15							A	A	380	390	400	420	420	L	L	L	L							
16							A	A	A	400	390	B	B	B	B	B	390F	A	L	A				
17							330	390F	410F	400	410	430L	L	440	420	L	L							
18							320	340	370	390	400	410	420	L	L	L	L	L						
19						300	A	380	400	410	410	420	430		L	L	L							
20							370L	380	390	410	430	430L	460L	L	L	L								
21						L	330	380	390	410	420	430	450L	430L	L	L								
22							310L	400L	420	440L	450	460	450	L	L	L								
23						320	350	370	400	410	430	430	L	460L	L	L	L							
24								360	400	400	420	420	430	430	410	420L	L							
25								360	390	390	R	400	B	400	B	410	B	L						
26							340	360	A	390	390	410	R	400	410	L	L	L	330					
27								360	370	390	390	420	420	420	420L	L	UL 380	L						
28							360F	400	L	410	410	430	420	UL 440	420	410L	L							
29						L	360	340	400	400	420	420	430	430	L	UL 410	L							
30						340	370	380	400	400	430	430	430	L	L	L								
31							A	A	A	B	B	B	B	B	440	400	420	370	B					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						4	12	17	17	23	20	21	18	14	10	7	4	2	1					
MED						310	335	360	390	400	410	420	420	415	415	410L	385	335	330					
UQ						330	360	380	400	410	420	430	430	430	420	410L	405							
LQ						280	315	360	370	390	395	410	420	400	400	400	375							

OCT. 1966 | FOF1 (0.01 MHZ)

OCT. 1966 FOE (0.01 MHZ) 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69°00.4'S. Long. 39°35.4'E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						B	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B			
2						A	R	B	B	B	290	B	B	B	A	R	B	B	B	B	B			
3						130	A	220	245	260	B	B	310	R	270	250	A	205	A	B	B			
4						B	B	A	B	300	B	A	305	280	B	B	B	A	200	B	B			
5						A	A	B	B	B	B	B	B	B	B	B	B	B	A	A	A			
6						B	B	B	B	B	B	B	A	B	B	B	230	B	B	B	A			
7						A	B	A	A	270	B	B	290	A	275	255	A	210	180	A	A			
8						A	200	A	A	260	A	A	R	280	A	B	B	210	B	B	B			
9						B	B	A	B	B	B	A	B	B	B	B	B	220	B	C	C			
10						C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
11					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
12						C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C			
13						C	C	C	C	C	C	C	C	C	C	A	A	A	205	A	A			
14					B	A	A	A	A	A	300	B	A	A	A	280	A	270	A	180	B			
15					A	A	A	A	A	280	280	295	300	300	290	300	260	230	A	A	A			
16					A	A	A	A	B	A	290	B	B	B	B	B	240	A	A	A	A			
17					A	B	A	A	A	A	280	295	295	300	275	B	270	A	200	190	150			
18					B	A	A	225	240	260	280	300	295	300	280	275	260	240	A	A	140			
19					A	A	A	A	A	A	285	290	290	285	275	A	A	A	210	A	A			
20					A	A	A	250	265	275	A	300	300	300	300	285	A	230	210	A	A			
21					A	A	215	220	260	280	300	305	300	295	A	290	265	240	210	190	A			
22					A	A	210	230	260	280	305	305	300	300	295	280	A	240	215	A	150			
23					A	A	210	230	260	285	300	300	310	305	A	A	275	250	235	190	A			
24					B	A	210	230	270	275	290	A	280	270	A	280	A	A	A	A	A			
25					A	A	A	A	A	A	A	A	B	B	B	B	B	230	A	A	A			
26					B	A	270	A	B	A	290	A	300	295	285	280	275	250	A	A	A			
27					B	A	B	A	245	245	270	280	290	280	275	275	245	225	215	185	160	125		
28					B	A	J R 210	225	265	270	C	300	295	290	285	280	275	250	215	A	150			
29					A	A	250	255	280	285	300	A	310	A	A	290	280	250	225	180	160			
30					A	A	A	250	275	290	300	300	305	295	290	A	280	255	220	A	B			
31					A	B	B	A	B	B	B	B	B	B	B	B	B	A	B	A	A			
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						1	8	10	11	15	15	11	17	15	12	13	12	17	13	6	6	1		
MED						130	210	230	260	275	290	300	300	295	282	280	268	240	210	188	150	125		
UQ							232	250	268	282	300	300	305	300	290	285	275	250	215	190	160			
LQ							210	225	252	265	282	295	295	284	275	275	252	225	205	180	150			

The Radio Research Laboratories, Japan

OCT. 1966 FOE (0.01 MHZ)

IONOSPHERIC DATA

OCT. 1966 | FOES (0.1 MHZ) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	J_{32}^{X}	18	J_{40}^{X}	J_{49}^{X}	B	B	J_{53}^{X}	J_{55}^{X}	B	B	B	B	E_{31}^{B}	E_{38}^{B}	B	E_{28}^{B}	E_{28}^{B}	E_{22}^{B}	E_{29}^{B}	E_{24}^{B}	E_{14}^{B}	J_{41}^{X}	E_{13}^{B}	17
2	J_{22}^{X}	J_{37}^{X}	J_{21}^{X}	J_{39}^{X}	J_{20}^{X}	18	G	E_{31}^{B}	E_{47}^{B}	E_{29}^{B}	G	B	B	E_{45}^{B}	28	27	E_{33}^{B}	E_{25}^{B}	E_{22}^{B}	E_{16}^{B}	E_{15}^{B}	J_{22}^{X}	J_{25}^{X}	J_{20}^{X}
3	J_{22}^{X}	J_{22}^{X}	J_{29}^{X}	J_{26}^{X}	22	J_{23}^{X}	18	23	J_{45}^{X}	J_{53}^{X}	E_{42}^{B}	E_{42}^{B}	$\frac{G}{31}$	G	29	28	27	22	22	E_{17}^{B}	E_{16}^{B}	E_{15}^{B}	E_{13}^{B}	J_{19}^{X}
4	J_{20}^{X}	J_{65}^{X}	J_{55}^{X}	J_{42}^{X}	J_{41}^{X}	J_{37}^{X}	J_{56}^{X}	J_{42}^{X}	M 46	J_{37}^{X}	E_{41}^{B}	J_{37}^{X}	J_{31}^{X}	29	E_{33}^{B}	E_{38}^{B}	E_{34}^{B}	23	G 20	E_{18}^{B}	E_{16}^{B}	J_{33}^{X}	J_{42}^{X}	J_{49}^{X}
5	J_{55}^{X}	J_{42}^{X}	J_{40}^{X}	J_{62}^{X}	B	J_{41}^{X}	J_{101}^{X}	B	B	B	B	B	B	B	B	B	E_{41}^{B}	E_{31}^{B}	J_{21}^{X}	J_{33}^{X}	J_{37}^{X}	J_{42}^{X}	J_{42}^{X}	J_{41}^{X}
6	J_{47}^{X}	J_{42}^{X}	J_{55}^{X}	J_{27}^{X}	33	B	B	B	B	B	B	B	32	B	B	B	25	B	E_{31}^{B}	31	J_{21}^{X}	J_{40}^{X}	J_{41}^{X}	J_{41}^{X}
7	J_{27}^{X}	J_{38}^{X}	B	36	J_{25}^{X}	J_{26}^{X}	B	J_{42}^{X}	J_{38}^{X}	J_{41}^{X}	E_{31}^{B}	E_{38}^{B}	31	28	28	27	28	$\frac{G}{21}$	G 18	28	J_{27}^{X}	J_{30}^{X}	J_{36}^{X}	J_{20}^{X}
8	J_{27}^{X}	J_{31}^{X}	J_{47}^{X}	J_{50}^{X}	36	28	J_{24}^{X}	J_{22}^{X}	23	$\frac{G}{26}$	28	J_{30}^{X}	$\frac{G}{28}$	$\frac{G}{28}$	27	E_{31}^{B}	E_{37}^{B}	23	E_{19}^{B}	E_{27}^{B}	E_{18}^{B}	E_{24}^{B}	E_{16}^{B}	E_{15}^{B}
9	E_{14}^{B}	J_{25}^{X}	J_{20}^{X}	J_{19}^{X}	J_{37}^{X}	J_{47}^{X}	J_{57}^{X}	J_{54}^{X}	E_{43}^{B}	E_{34}^{B}	E_{33}^{B}	34	E_{38}^{B}	B	E_{42}^{B}	E_{50}^{B}	E_{30}^{B}	$\frac{G}{22}$	J_{22}^{X}	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	36	29	24	21	23	J_{20}^{X}	E_{20}^{B}	E_{15}^{B}	J_{21}^{X}
14	J_{37}^{X}	J_{53}^{X}	J_{42}^{X}	J_{36}^{X}	25	J_{22}^{X}	J_{50}^{X}	J_{48}^{X}	38	J_{44}^{X}	J_{35}^{X}	E_{35}^{B}	31	J_{35}^{X}	30	J_{30}^{X}	28	35	20	G	E_{17}^{B}	E_{14}^{B}	E	16
15	12	J_{25}^{X}	J_{18}^{X}	J_{21}^{X}	J_{30}^{X}	25	J_{47}^{X}	J_{37}^{X}	33	G	G	G	G	G	G	G	G	J_{27}^{X}	28	J_{24}^{X}	19	24	J_{41}^{X}	J_{54}^{X}
16	J_{42}^{X}	J_{61}^{X}	J_{44}^{X}	J_{43}^{X}	47	J_{57}^{X}	J_{44}^{X}	J_{47}^{X}	J_{48}^{X}	J_{38}^{X}	J_{58}^{X}	B	B	B	E_{42}^{B}	E_{42}^{B}	33	J_{43}^{X}	J_{36}^{X}	37	43	J_{44}^{X}	J_{44}^{X}	J_{47}^{X}
17	55	J_{46}^{X}	J_{31}^{X}	J_{84}^{X}	43	32	J_{39}^{X}	J_{46}^{X}	J_{48}^{X}	34	G	G	G	G	32	34	G	28	J_{29}^{X}	J_{50}^{X}	18	J_{25}^{X}	J_{25}^{X}	J_{24}^{X}
18	J_{25}^{X}	J_{25}^{X}	J_{85}^{X}	D	J_{55}^{X}	J_{46}^{X}	J_{41}^{X}	G	G	J_{44}^{X}	J_{47}^{X}	G	G	G	40	J_{43}^{X}	G	G	J_{28}^{X}	J_{24}^{X}	G	15	E	13
19	28	J_{30}^{X}	40	J_{40}^{X}	J_{38}^{X}	J_{35}^{X}	J_{54}^{X}	J_{38}^{X}	J_{34}^{X}	28	J_{30}^{X}	J_{30}^{X}	J_{30}^{X}	J_{30}^{X}	J_{31}^{X}	J_{27}^{X}	J_{29}^{X}	J_{30}^{X}	J_{22}^{X}	J_{22}^{X}	J_{23}^{X}	J_{22}^{X}	J_{50}^{X}	E_{13}^{B}
20	J_{17}^{X}	J_{32}^{X}	J_{25}^{X}	J_{35}^{X}	J_{41}^{X}	32	27	32	33	33	J_{30}^{X}	J_{31}^{X}	35	J_{31}^{X}	J_{31}^{X}	30	J_{28}^{X}	J_{25}^{X}	G	23	19	J_{22}^{X}	J_{25}^{X}	J_{20}^{X}
21	J_{29}^{X}	J_{28}^{X}	J_{30}^{X}	23	22	J_{20}^{X}	G	J_{24}^{X}	J_{41}^{X}	J_{39}^{X}	J_{48}^{X}	37	J_{31}^{X}	J_{32}^{X}	J_{48}^{X}	36	33	32	J_{42}^{X}	26	24	J_{53}^{X}	E	J_{25}^{X}
22	J_{22}^{X}	J_{25}^{X}	J_{17}^{X}	J_{30}^{X}	J_{19}^{X}	J_{25}^{X}	J_{40}^{X}	J_{47}^{X}	33	33	36	J_{50}^{X}	36	J_{34}^{X}	37	J_{30}^{X}	J_{28}^{X}	31	G	21	G	11	J_{20}^{X}	J_{25}^{X}
23	J_{26}^{X}	J_{40}^{X}	J_{42}^{X}	J_{53}^{X}	J_{47}^{X}	J_{40}^{X}	J_{23}^{X}	31	J_{38}^{X}	J_{30}^{X}	J_{30}^{X}	J_{32}^{X}	J_{43}^{X}	31	32	J_{30}^{X}	31	31	26	G	21	18	J_{23}^{X}	J_{22}^{X}
24	J_{32}^{X}	J_{38}^{X}	J_{42}^{X}	J_{40}^{X}	J_{30}^{X}	J_{37}^{X}	J_{31}^{X}	J_{38}^{X}	33	34	J_{30}^{X}	J_{31}^{X}	J_{30}^{X}	J_{30}^{X}	J_{37}^{X}	J_{30}^{X}	J_{30}^{X}	J_{27}^{X}	J_{35}^{X}	J_{39}^{X}	36	J_{42}^{X}	J_{32}^{X}	J_{42}^{X}
25	J_{42}^{X}	J_{59}^{X}	J_{52}^{X}	J_{42}^{X}	J_{32}^{X}	J_{22}^{X}	J_{32}^{X}	J_{48}^{X}	J_{33}^{X}	J_{35}^{X}	34	33	B	E_{40}^{B}	E_{44}^{B}	E_{30}^{B}	E_{52}^{B}	G	J_{45}^{X}	J_{65}^{X}	J_{46}^{X}	J_{20}^{X}	J_{65}^{X}	J_{48}^{X}
26	B	J_{32}^{X}	B	B	J_{44}^{X}	38	33	J_{38}^{X}	J_{45}^{X}	J_{42}^{X}	34	J_{29}^{X}	G	G	G	G	G	G	27	23	J_{44}^{X}	J_{21}^{X}	J_{30}^{X}	J_{35}^{X}
27	J_{36}^{X}	J_{32}^{X}	J_{32}^{X}	J_{32}^{X}	J_{44}^{X}	53	J_{38}^{X}	33	G	G	G	G	G	G	G	G	G	G	J_{21}^{X}	G	G	15	E_{11}^{B}
28	E_{12}^{B}	J_{18}^{X}	B	J_{43}^{X}	J_{21}^{X}	J_{30}^{X}	G	G	G	G	C	G	G	G	G	G	G	G	23	20	G	J_{41}^{X}	J_{25}^{X}	J_{50}^{X}
29	J_{20}^{X}	J_{34}^{X}	J_{30}^{X}	19	J_{22}^{X}	27	28	G	33	30	G	36	G	31	31	G	G	J_{52}^{X}	J_{44}^{X}	J_{27}^{X}	G	23	J_{25}^{X}	J_{25}^{X}
30	E	E	J_{42}^{X}	J_{25}^{X}	J_{37}^{X}	32	31	G	J_{53}^{X}	G	36	36	G	33	35	29	36	G	J_{27}^{X}	22	J_{30}^{X}	J_{40}^{X}	J_{42}^{X}	J_{42}^{X}
31	J_{44}^{X}	J_{86}^{X}	J_{41}^{X}	41	J_{26}^{X}	B	J_{59}^{X}	49	J_{54}^{X}	B	B	B	B	B	E_{37}^{B}	E_{29}^{B}	J_{41}^{X}	35	E_{39}^{B}	J_{38}^{X}	J_{52}^{X}	J_{75}^{X}	J_{44}^{X}	J_{34}^{X}
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	26	27	24	26	25	24	25	25	24	23	22	21	22	22	24	26	28	27	28	27	27	27	27	27
MED	J_{27}^{X}	J_{32}^{X}	J_{40}^{X}	J_{40}^{X}	J_{33}^{X}	J_{32}^{X}	J_{38}^{X}	J_{38}^{X}	U 36	34	31	31	30	29	U 30	28	26	24	23	24	19	J_{24}^{X}	J_{25}^{X}	J_{25}^{X}
UQ	J_{37}^{X}	J_{42}^{X}	J_{43}^{X}	J_{43}^{X}	J_{41}^{X}	J_{39}^{X}	J_{50}^{X}	J_{47}^{X}	J_{46}^{X}	J_{38}^{X}	36	35	31	32	U 34	U 32	U 31	31	J_{29}^{X}	J_{30}^{X}	J_{28}^{X}	J_{40}^{X}	J_{42}^{X}	J_{42}^{X}
LQ	J_{20}^{X}	J_{25}^{X}	J_{30}^{X}	J_{27}^{X}	J_{25}^{X}	J_{25}^{X}	27	24	33	27	E_{28}^{G}	J_{29}^{X}	G	G	28	E_{27}^{G}	E_{25}^{G}	E_{22}^{G}	20	20	E_{18}^{G}	U 18	16	J_{20}^{X}

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OCT. 1966 | FOES (0.1 MHZ)

OCT. 1966 F-MIN (0.1 MHZ) 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69°00.4'S. Long. 39°35.4'E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	27	E	22	11	B	B	19	24	B	B	B	B	31	38	B	28	28	22	29	24	14	13	13	E
2	E	E	E	E	E	11	14	31	47	29	19	B	B	45	20	19	33	25	22	16	15	13	13	14
3	12	11	E	E	12	E	13	14	13	13	42	42	24	17	14	16	14	14	15	17	16	15	13	13
4	E	16	16	19	18	15	27	18	38	22	41	24	19	14	33	38	34	21	16	18	16	14	13	E
5	11	E	E	24	B	13	17	B	B	B	B	B	B	B	B	B	41	31	19	14	E	13	23	19
6	18	14	E	23	27	B	B	B	B	B	B	B	26	B	B	B	19	B	31	22	15	E	E	19
7	18	31	B	16	17	15	B	22	21	15	31	38	22	17	18	15	14	16	12	13	13	E	E	13
8	E	13	21	22	22	14	14	14	16	17	17	14	25	22	22	31	37	17	19	27	18	24	16	15
9	14	E	E	E	23	19	23	19	43	34	33	24	38	B	42	50	30	16	20	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	13	16	21	18	13	E	20	15	E
14	14	E	15	14	16	14	15	15	21	13	14	35	21	14	16	14	14	12	14	12	17	14	E	E
15	E	E	E	E	E	E	16	16	12	13	13	14	12	12	12	E	14	15	11	14	E	E	E	E
16	13	E	E	15	E	E	15	20	30	18	15	B	B	B	42	42	18	15	12	12	E	13	E	13
17	E	E	E	14	E	19	13	15	17	15	12	15	13	15	22	28	15	14	13	12	13	13	E	E
18	E	E	14	14	15	15	15	11	11	E	E	12	14	14	12	13	11	E	11	E	E	E	E	E
19	E	E	17	14	13	13	15	12	13	12	13	12	13	13	14	16	14	12	12	E	E	E	E	13
20	E	E	E	15	15	13	12	12	12	14	14	13	13	13	13	13	13	13	12	13	13	E	E	E
21	E	E	E	E	11	E	E	12	12	12	14	14	13	14	13	12	E	12	14	13	13	E	E	E
22	E	E	E	E	E	12	E	13	13	13	12	14	14	13	13	E	E	E	12	E	E	E	E	E
23	13	12	E	14	13	12	12	13	E	13	13	E	13	15	15	13	13	13	13	12	12	E	E	E
24	E	E	12	13	15	13	12	11	14	14	13	13	13	13	12	13	E	E	E	13	14	13	E	E
25	E	15	16	12	13	15	14	15	13	13	28	20	B	40	44	30	52	18	20	13	14	13	13	16
26	B	12	B	B	21	18	18	18	33	20	18	15	15	16	19	21	19	13	13	14	E	16	13	E
27	E	16	13	20	37	20	25	15	13	12	13	14	15	14	14	15	15	15	13	12	11	E	E	11
28	12	E	B	23	17	15	15	14	13	13	18	19	18	18	15	16	18	14	15	13	12	E	E	E
29	E	19	E	E	13	15	14	14	13	15	15	22	20	20	16	22	15	14	13	12	12	E	E	E
30	E	E	E	E	17	13	13	13	13	14	14	14	14	13	13	15	13	13	12	11	25	E	16	19
31	E	15	18	18	12	B	22	22	36	B	B	B	B	B	37	29	30	16	39	16	13	41	21	14
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	27	27	27	27	27
MED	E	E	E	14	15	14	15	15	14	14	15	19	19	16	16	16	15	14	14	13	13	13	E	E
UQ	13	14	16	18	20	16	18	20	34	21	32	40	28	39	35	30	29	18	19	15	14	14	13	14
LQ	E	E	E	E	12	12	13	13	13	13	13	14	14	14	14	13	14	13	12	12	E	E	E	E

IONOSPHERIC DATA

OCT. 1966 | M(3000)F2 (0.01) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S, Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	B	B	A	A	B	B	B	B	265	300	B	320	325	345	F 335	330	F 330	F	F	F
2	F	F	F	F	F	F	F 280	F	F	280	F 290	B	B	F	F	F 305	F	F	U F 325	F	F	F	F	F
3	F	F 270	F	F	F	F	F	U F 290	F 305	F 280	285	F	F 295	325	330	340	F	F 340	F 320	F	F	F	F	F
4	F	A	A	A	A	A	A	F 320	F 270	F	F 275	F	F	F	310	F 310	F 325	F 310	320	U F 310	F	F 305	A	A
5	A	A	A	A	B	A	A	B	B	B	B	B	B	B	B	B	280	F	F 310	A	A	A	A	A
6	A	A	A	A	A	B	B	B	B	B	B	B	R	B	B	B	F 255	B	R	305	A	A	A	A
7	A	A	B	A	F	A	B	F	F 245	U F 260	F 270	300	295	300	F 310	325	330	F 330	325	275	A	F	A	315
8	A	A	A	A	A	F 275	F	285	F 295	280	275	270	275	280	300	F 295	310	F 335	F	F	F	F	F	F
9	R	A	F	260	F	A	A	A	R	F	F	F	280	B	305	305	310	F	F	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	F 290	F 300	F	F 330	U F 315	R	F 260	F	F
14	R	F 225	A	A	U F 275	F	F 225	A	F	F	F	260	F 275	305	295	295	310	F 335	320	F 320	F	F	F	F
15	F	S	S	U S 230	F	S	F 250	F 230	F	F 245	F 260	F 265	F 285	F 275	F 275	F 285	F 305	F 310	F	F	S	F	A	A
16	F	A	A	A	F	F	A	A	A	R	A	B	B	B	F	F	F 260	A	F	F	F	A	A	A
17	A	A	A	A	A	250	U F 255	F 245	U F 235	F	F	330	270	280	305	295	F 320	325	F 320	R	F 315	R	R	F
18	R	A	A	A	A	A	U F 240	F 250	U F 255	F 255	F 250	260	285	270	285	310	310	315	F	R	R	U R 315	R	R
19	S	A	A	F	F 250	F	F	F 260	240	260	260	F	F	F	U F 275	F 305	F	F	F	F 330	F	R	F	F
20	F	F	A	F	F	F	F	F	275	270	275	F 275	F	F 285	F 290	310	315	F	F	F	F	R	F	F
21	A	F	F	R	F	F	F 270	F	F	260	255	280	285	F 300	310	315	305	U F 350	F 340	F	F	F	F	F
22	R	R	F	F	F	R	R	U F 275	265	265	275	275	285	280	305	300	325	335	F 315	V 330	325	325	F 315	F
23	F	A	A	A	A	240	U F 260	F	F	F	F	290	290	295	305	310	355	335	F 340	F 320	F	R	R	F
24	A	A	A	F	F	F	F	F	F	F	F 265	260	285	F 280	290	300	300	300	300	F	F	F	F	A
25	R	A	A	F	A	A	A	F 285	F 245	F 245	F	235	B	270	275	F 275	F 280	F 285	F	A	F	F	290	A
26	B	F	B	B	A	R	F 260	260	A	R	250	245	R	250	290	305	300	300	240	F	A	F	F	A
27	A	A	A	A	A	A	F	F	F 245	F	F 265	250	265	275	305	290	310	330	335	315	320	F	F	F
28	F	F	B	A	F	F	F	F	F	F 280	260	275	275	285	305	310	325	340	345	335	345	335	U F 300	S
29	F	A	F	F	F	F	U F 270	F 270	F 265	260	270	280	295	295	300	305	330	325	335	315	310	325	325	F
30	F	S	F	F	280	F	F 265	260	270	F 280	F 260	285	285	285	F 295	F 305	305	325	F 310	U F 310	R	A	A	A
31	A	A	A	F	F	B	A	A	A	B	B	B	B	B	F 240	Z 240	285	F	F	A	F	A	A	F
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT		2		2	3	3	10	12	13	14	17	17	17	19	22	25	25	19	18	13	6	6	4	1
MED		F 248		245	F 275	250	F 260	F 265	F 265	262	265	275	285	285	300	305	310	330	F 322	315	322	320	308	315
UQ					278	262	F 270	F 285	F 270	280	275	280	285	298	305	310	325	335	F 335	F 330	330	325	320	
LQ					F 262	245	F 250	F 255	F 245	F 260	F 260	260	275	278	290	295	300	312	F 315	310	315	F 305	295	

The Radio Research Laboratories, Japan

OCT. 1966 | M(3000)F2 (0.01)

IONOSPHERIC DATA

OCT. 1966 | H'F2 (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69°00.4'S. Long. 39°35.4'E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	B	B	B	B	450	380	B		295							
2									B	380	360	B		315		280								
3								300	300	320	350	295	300	295	270	265								
4									B	490	400	400	340	360	300	300	290							
5								B	B	B	B	B	B	B	B	B	B							
6								B	B	B	B	B	R	B	B	B	405	B						
7								440	460	440	415	335	335	310	270	290		230						
8							325	400	365	380	400	405	400	370	325	320								
9							A	A	B	410	460	370	390	B	290	295								
10							C	C	C	C	C	C	C	C	C	C	C							
11							C	C	C	C	C	C	C	C	C	C	C							
12							C	C	C	C	C	C	C	C	C	C	C							
13							C	C	C	C	C	C	C	C	C									
14						400	550	A	495	410	405	400	330	300	300	300	295	250						
15							A	410	510	460	300	280	390	230	350	L	L							
16							A	A	A	R	A	B	B	B	B	410	400	A	400	340				
17							430	500	450	400	400	410	L	400	360	330	L							
18							500	415	410	430	420	405	400	L	370	L	L	L						
19						370	A	380	400	400	400	400	370		305	300	290							
20							400	395	370	385	350	340	370	330	290	295								
21						370	365	400	385	390	400	370	390	295	295	270								
22							325	325	350	305	325	325	300	300	265	240								
23						390	330	360	365	370	350	310	300	330	305	L	240							
24								380	370	385	390	385	350	380	350	320	290							
25								400	550	530	R	500	B	430	420	400	B	340						
26							400	480	A	A	490	530	R	500	390	360	340	300	390					
27								400	400	400	400	440	400	400	340	350	315	L						
28							415	370	L	405	360	365	340	360	310	305	290							
29						350	365	390	385	400	360	360	310	300	310	300	280							
30						410	390	390	370	315	370	325	320	310	300	300								
31							A	A	A	B	B	B	B	B	495	410	330	500	F					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT						6	12	18	17	21	21	21	19	20	22	21	13	5	2	1				
MED						380	395	398	385	400	400	370	340	330	308	300	295	300	395	340				
UQ						400	422	410	450	410	400	405	380	380	350	330	330	340						
LQ						370	348	380	370	380	360	335	315	300	295	295	290	250						

OCT. 1966 | H'F2 (KM)

OCT. 1966 | H'F (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE · Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	B	B	A	A	B	B	B	B	250	B	B	215	250	235	250	220	240	220	250	E A 340
2	A	A	315	A 370	330	280	250	E B 300	B	210	270	B	B	B	210	240	265	225	220	205	230	210	250	250
3	260	300	A	A 395	340	290	240	220	210	200	B	B	200	200	200	200	200	210	215	205	220	215	220	270
4	305	A	A	A	A	A	A	260	B	260	B	E A 300	235	220	E B 250	B	B	220	230	250	230	270	A	A
5	A	A	A	A	B	A	A	B	B	B	B	B	B	B	B	B	B	330	300	A	A	A	A	A
6	A	A	A	A	A	B	B	B	B	B	B	B	A	B	B	B	260	B	310	310	A	A	A	A
7	A	A	B	A	A	A	B	E A 270	260	250	215	B	215	200	200	200	260	205	220	A	A	A	A	A 290
8	A	A	A	A	A	A	280	200	200	200	H 200	200	B	205	200	220	280	230	210	230	280	290	300	300
9	200	A	360	A	A	A	A	A	B	300	240	240	295	B	B	B	250	240	270	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	200	215	215	220	210	215	290	250	270
14	360	E A 400	A	A	350	360	A	A	A	220	210	230	200	200	200 H	200	200	205	215	220	235	220	270	270
15	300	340	300	360	300	250	A	A	260	210	210	210	200	200	200	210	215	220	240	215	215	230	A	A
16	A	A	A	A	A	A	A	A	B	260	200	B	B	B	B	B	270	A	295	A	A	A	A	A
17	A	A	A	A	A	A	320	A	A	240	200	200	200	200	230	210	210	240	240	225	240	240	230	400
18	A	A	A	A	A	A	A	250	230	200	H 200	H 200	205	H 200	215	230	230	200	260	230	220	230	240	260
19	310	A	A	A 440	400	300	A	290	215	200	200	200	200	200	205	200	200	200	210	210	220	215	300	295
20	245	A 310	A	A	A	A	265	230	200	200	200	195	200	200	200	200	205	210	220	225	205	270	300	325
21	A	A	365	325	300	280	270	230	210	210	200	190	200	200	200	205	205	215	205	215	205	200	215	230
22	250	290	285	300	290	270	230	205	200	205	210	210	200	200	200	200	200	200	205	210	205	205	205	215
23	275	A	A	A	A	A	235	205	200	200	200	205	H 200	210	240	205	200	200	230	225	220	210	210	230
24	A	A	A	A	A	290	290	205	215	200	200	200	290	200	200	200	220	230	240	E A 315	245	250	230	A
25	A	A	A	A	A	A	A	215	280	200	R	230	B	B	B	230	B	225	260	290	295	290	A	A
26	B	H 225	B	B	A	A	305	A	A	A	200	200	210	200	210	220	220	215	265	A	A	300	310	A
27	A	A	A	A	B	A	A	270	230	205	230	H 200	200	200	210	215	215	210	230	235	230	300	290	300
28	360	290	B	B	370	400	270	220	200	H 200	200	200	210	200	200	200	205	205	205	205	250	220	220	290
29	300	A	300	300	295	280	290	210	200	200	195	225	205	200	200	205	210	200	200	210	220	205	230	220
30	260	270	280	290	A	H 200	240	210	200	200	205	195	195	200	200	200	200	215	205	225	A	A	A	A
31	A	A	A	A	H 290	B	A	A	A	B	B	B	B	B	E B 260	320	A 240	290	B	A	A	B	A	A
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	12	8	7	8	10	11	13	17	16	22	20	19	20	19	21	23	25	26	27	22	20	21	18	17
MED	288	292	300	342	315	280	270	218	210	202	200	200	200	200	200	205	215	215	230	221	225	230	245	270
UQ	308	315	338	A 382	350	295	290	U 245	230	220	210	214	212	200	210	218	250	230	255	230	240	270	290	298
LQ	255	280	292	300	295	275	240	210	200	200	200	200	200	200	200	200	205	205	212	210	218	215	220	250

The Radio Research Laboratories, Japan

OCT. 1966 | H'F (KM)

IONOSPHERIC DATA

OCT. 1966 | H'ES (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69°00.4'S. Long. 39°35.4'E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	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	120	100	100	100	B	B	100	100	B	B	B	B	B	B	B	B	B	B	B	B	B	100	B	140
2	125	100	110	105	170	110	G	B	B	B	G	B	B	B	115	105	B	B	B	B	B	115	160	120
3	100	125	105	105	130	110	110	105	120	100	B	B	120	105	170	160	105	105	130	B	B	B	B	110
4	105	100	100	110	100	105	100	100	100	100	B	100	100	E G 160	B	B	B	120	120	B	B	145	105	105
5	100	100	100	100	B	100	100	B	B	B	B	B	B	B	B	B	B	B	150	100	100	100	105	100
6	100	100	100	105	150	B	B	B	B	B	B	B	100	B	B	B	105	B	B	165	105	100	100	120
7	105	105	B	100	100	100	B	140	100	100	B	B	160	100	100	100	100	115	105	105	100	100	100	105
8	100	100	100	100	100	100	105	100	100	100	100	100	110	105	110	B	B	110	B	B	B	B	B	B
9	B	110	130	120	110	100	100	100	B	B	B	105	B	B	B	B	B	110	120	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	100	105	115	105	130	100	B	B	120
14	140	100	100	100	100	105	100	100	105	100	100	B	100	100	100	100	100	110	130	G	B	B	E	120
15	120	120	115	120	105	100	95	100	100	G	G	G	G	G	G	G	G	130	115	120	130	110	100	120
16	110	100	90	95	100	100	100	100	100	95	100	B	B	B	B	B	150	100	150	100	110	150	100	100
17	100	100	115	100	100	140	105	110	160	100	G	G	G	G	120	130	G	130	105	95	160	100	150	130
18	120	115	100	105	100	100	100	G	G	100	130	G	G	G	100	110	G	G	105	120	G	150	E	160
19	100	115	115	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	140	100	B
20	130	100	100	100	100	100	100	100	100	100	100	100	100	100	100	130	100	105	G	115	115	100	100	135
21	105	105	100	140	130	105	G	100	100	100	100	100	100	100	100	100	100	105	100	100	100	100	E	100
22	100	100	160	100	145	100	100	100	100	100	105	100	100	100	100	100	100	100	G	140	G	120	100	100
23	100	105	100	100	100	100	100	100	100	100	100	100	100	105	100	100	100	100	100	G	130	120	100	100
24	100	105	100	100	105	100	100	100	105	105	100	100	100	100	100	100	100	100	100	100	105	110	100	100
25	100	100	100	100	100	100	100	100	100	100	105	100	B	B	B	B	B	G	150	120	105	120	100	100
26	B	100	B	B	100	100	145	100	100	100	100	100	G	G	G	G	G	G	100	100	100	100	120	100
27	100	100	100	100	110	100	100	105	G	G	G	G	G	G	G	G	G	G	G	100	G	G	160	B
28	B	110	B	100	100	100	G	G	G	G	C	G	G	G	G	G	G	G	125	105	G	100	100	100
29	105	100	100	120	100	105	100	G	105	100	G	100	G	100	100	G	G	100	100	100	G	150	100	100
30	E	E	100	100	100	100	110	G	100	G	110	105	G	100	100	100	105	G	100	100	100	100	100	100
31	100	100	100	100	100	B	100	100	100	B	B	B	B	B	B	B	160	100	B	100	120	130	100	105
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	23	26	24	26	25	24	22	20	19	17	13	13	12	13	15	14	14	18	20	20	16	22	20	24
MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105	100	105	110	100	105
UQ	115	105	108	105	110	105	100	100	102	100	105	100	105	102	105	110	105	115	128	120	118	130	105	120
LQ	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

OCT. 1966 | H'ES (KM)

IONOSPHERIC DATA

NOV. 1966 | FOF2 (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

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

The Radio Research Laboratories, Japan

NOV. 1966 | FOF2 (0.1 MHZ)

NOV. 1966 FOF1 (0.01 MHZ) 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	U A 340	A 410	B	B	R 410	B	B	400	B							
2								370	380	390	B	410	420	430	420	420								
3								380	400	B	B	B	420	410	B	B	B	390	B	A				
4							360	380	B	410	410	410	420	420	420	420	400	L						
5							370	330	400	400	420	410	410	430	420	420	410	L	L					
6						330	390	400	B	A	430	420	C	430	430	420	L							
7							A	400	400	410	410	420	440	430	430	L	L	L						
8							430	B	A	420	420	430	430	430	430	430	420	L						
9						A	360	400	400	410	410	420	440	440	L	L	L		L					
10					L	F 350	F	F 390	F 400	F 400	R 430	F 430	F 430	F 440	F 440	440	440	B	L	L	L			
11						370	F 380	B	R	F 420	430	430	430	430	430	430	L	L	L					
12						B	A	400	400	420	420	430	440	450	450	L	430	L	L					
13						A	340	380	410	410	F 430	450	450	440	450	450	L	L						
14						360	380	390	400	420	430	430	450	450	H 450	L	L	L	L					
15					330	350	370	390	420	430	440	440	460	460	L									
16									430	440	430	450	440	450	440	L	L	L						
17									450	440	440	450	460	460	430	L	L	L						
18						340	F	390	410	420	440	440	450	450	450	440	L	410						
19									A	420	410	420	430	430	430	430	420	L	L					
20						A	F 420	A	430	430	420	470	450	460	430	L	L	L						
21				350	370	350	A	420	A	420	420	440	440	460	440	430	L	L	L					
22				310	380	A	400	400	420	430	430	440	440	450	440	440	L	L	L					
23					330	390	400	410	420	440	440	460	450	450	450	430	L	L	L					
24					350	380	420	B	420	430	450	450	450	450	450	440	440	L						
25				L	360	380	390	390	410	430	440	450	440	410	460	430	L							
26				A	A	A	A	A	400	420	430	420	430	430	450	L	L	L		L	L			
27						380	390	400	400	420	430	440	440	440	440	440	430	420						
28					A	A	A	400	410	420	430	430	440	440	440	430	430	420	370					
29				A	A	A	A	400	420	B	B	430	440	440	440	440	420	410						
30			A	A 320	A	380	400	B	430	430	420	B	B	430	440	430	430	430	R	360				
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT				3	6	12	16	20	24	27	26	27	28	29	26	20	10	6	1	1				
MED				320	355	365	390	395	410	420	430	430	440	440	440	430	425	415	370	360				
UQ				335	370	380	400	400	420	430	430	445	450	450	450	440	430	420						
LQ				315	330	350	370	385	400	410	420	420	430	430	430	425	420	410						

NOV. 1966 FOF1 (0.01 MHZ)

IONOSPHERIC DATA

NOV. 1966 | FOE (0.01 MHZ) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1			B	A	A	B	B	B	A	A	B	B	B	B	B	R	B	245	240	A	A	A	A	
2			B	B	B	B	A	A	275	285	B	R	R	300	330	290	B	B	B	A	A	A	A	
3			B	B	B	A	B	A	300	B	B	B	A	310	B	B	B	B	B	A	190	A	A	
4			B	B	A	A	A	300	B	B	A	A	300	305	280	275	275	250	225	200	180	160	A	
5			B	B	B	A	240	255	B	A	B	300	310	B	300	290	280	B	B	B	A	A	A	
6			B	B	A	A	A	A	B	B	A	315	305	R	B	280	R	A	B	200	A	A	B	
7			B	B	A	B	A	A	A	A	300	305	A	B	305	295	280	250	240	210	185	A	A	
8		B	B	B	B	B	B	B	A	A	310	315	310	320	300	A	A	A	235	205	A	A	A	
9		A	A	A	A	A	220	A	275	285	A	300	305	A	300	285	280	260	250	210	A	A	130	
10		A	B	A	A	A	230	250	260	A	B	A	A	275	A	275	B	250	245	215	160	A	A	
11			B	B	A	A	250	B	A	A	A	320	A	305	B	B	B	A	235	225	200	A	A	
12	A	A	120	A	190	B	B	A	A	A	310	310	A	325	A	A	A	A	B	205	185	B	B	B
13	B	A	A	A	A	A	A	A	280	A	320	320	305	A	B	300	A	265	240	220	180	A	B	A
14	A	A	A	A	A	230	250	265	275	290	A	310	305	A	A	290	290	280	245	230	190	A	A	A
15	A	A	A	A	A	A	230	270	280	A	310	320	310	305	A	A	A	A	A	A	A	A	A	A
16	A	B	A	A	A	A	A	A	A	310	325	330	A	325	A	A	300	280	250	230	B	B	A	A
17	A	A	A	A	A	A	A	A	A	A	A	315	305	300	295	A	290	275	245	A	180	A	A	A
18	A	A	A	A	A	A	230	260	280	290	300	300	305	300	A	A	A	A	A	210	A	A	A	B
19	A	B	B	A	A	A	A	A	A	A	300	B	B	A	A	300	290	B	A	220	180	A	A	A
20	B	A	A	A	A	A	A	A	A	310	320	325	315	A	A	A	A	A	260	230	190	160	A	A
21	A	B	B	A	A	A	A	A	A	A	315	325	R	320	B	A	290	A	250	240	220	A	A	A
22	B	B	B	A	A	A	A	A	295	295	310	330	320	A	A	295	290	280	250	225	210	190	A	A
23	A	A	A	A	A	A	245	270	280	295	310	A	A	A	A	A	280	A	240	230	A	A	A	A
24	A	A	A	180	200	225	A	B	A	A	B	A	325	R	325	320	300	280	A	240	220	B	A	A
25	A	A	A	A	A	A	A	265	280	290	300	A	A	A	A	A	A	A	250	235	190	160	A	A
26	A	A	150	A	A	A	B	A	290	290	290	300	305	310	315	300	295	275	240	220	B	A	A	A
27	A	A	A	A	A	A	245	265	275	295	300	A	A	A	A	270	A	A	255	A	A	A	A	A
28	B	A	A	A	B	B	A	A	A	295	300	A	A	A	295	290	285	270	A	A	A	A	A	B
29	B	B	A	B	B	A	A	A	A	B	B	B	B	B	B	B	B	R	300	260	A	235	A	210
30	A	B	A	A	A	A	B	B	A	300	A	B	B	B	B	A	B	B	A	A	190	A	A	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT			2	1	2	2	9	9	13	13	16	17	14	13	10	15	14	13	19	21	16	5	1	1
MED			135	180	195	228	240	265	280	295	310	315	305	305	300	290	290	270	245	220	190	160	130	210
UQ							245	270	280	295	312	320	310	320	315	298	290	280	250	230	195	190		
LQ							230	260	275	290	300	305	305	300	295	282	280	250	240	210	180	160		

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NOV. 1966 | FOE (0.01 MHZ)

IONOSPHERIC DATA

NOV. 1966 | FOES (0.1 MHZ) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	JX 48	JX 40	JX 30	34	JX 42	B	JX 43	JX 50	JX 42	JX 45	B	B	EB 35	EB 45	EB 46	G	B	31	28	JX 31	JX 37	38	JX 40	JX 36
2	JX 32	44	JX 47	JX 24	B	B	JX 39	JX 31	G	G	EB 40	G	G	31	G	34	EB 33	EB 28	EB 25	27	24	JX 41	JX 21	21
3	25	JX 30	JX 45	JX 42	B	JX 42	43	JX 40	JX 42	B	B	EB 43	34	G	EB 44	EB 49	EB 42	EB 33	EB 34	JX 40	JX 21	JX 51	JX 30	28
4	39	JX 41	33	JX 37	19	JX 30	JX 30	JX 34	B	EB 38	33	36	G	G	G	G	G	G	G	JX 50	21	G	JX 34	40
5	JX 40	JX 32	JX 32	35	31	JX 37	32	JX 30	EB 35	JX 42	EB 34	G	G	EB 32	G	G	G	EB 33	EB 31	JX 42	JX 32	JX 29	JX 32	JX 32
6	JX 25	JX 26	JX 34	JX 41	JX 38	JX 40	37	JX 44	EB 54	JX 40	JX 35	33	G	G	EB 33	G	G	28	EB 26	27	28	JX 40	JX 39	JX 47
7	JX 52	JX 37	JX 39	JX 32	JX 32	JX 36	JX 52	JX 47	JX 45	JX 30	JX 46	JX 30	35	EB 33	G	G	G	JX 54	27	29	JX 31	22	JX 22	JX 21
8	JX 41	JX 42	37	B	50	EB 33	JX 40	B	JX 60	JX 52	36	37	37	36	36	34	43	27	28	31	22	21	JX 33	30
9	30	22	JX 25	26	JX 34	42	JX 49	33	JX 55	38	JX 30	JX 52	JX 31	JX 36	36	G	G	G	G	JX 25	JX 46	JX 34	JX 24	EB 12
10	EB 14	JX 14	JX 21	JX 22	JX 27	26	JX 59	G	G	JX 34	EB 35	JX 35	33	G	JX 42	G	EB 52	G	JX 43	26	JX 29	JX 45	JX 15	JX 25
11	JX 35	JX 51	JX 36	JX 51	JX 44	JX 30	G	EB 52	35	JX 65	JX 34	36	JX 32	JX 31	EB 32	EB 33	EB 33	27	G	G	26	18	JX 17	JX 51
12	17	16	13	22	JX 35	EB 45	JX 51	JX 55	JX 37	JX 30	C	37	JX 32	JX 57	31	JX 29	33	28	EB 25	24	28	35	JX 51	JX 41
13	JX 37	JX 34	JX 53	JX 35	JX 41	JX 30	JX 45	JX 43	34	30	38	JX 45	JX 99	JX 35	EB 33	G	30	JX 39	JX 31	JX 42	JX 44	JX 30	JX 31	23
14	32	JX 42	31	JX 30	JX 35	JX 22	26	G	34	JX 37	32	JX 50	JX 40	JX 34	JX 32	34	G	G	25	G	22	JX 51	JX 50	JX 60
15	JX 31	21	JX 37	JX 36	JX 35	JX 38	JX 42	JX 41	35	33	JX 46	35	38	JX 38	JX 117	JX 77	JX 57	JX 54	JX 37	JX 40	JX 47	23	JX 28	JX 31
16	JX 33	JX 35	JX 41	JX 42	JX 46	JX 57	JX 58	JX 62	JX 52	JX 52	JX 58	36	JX 35	JX 32	JX 32	JX 30	G	G	JX 30	G	EB 22	EB 22	21	JX 19
17	JX 25	JX 32	JX 63	JX 42	JX 35	JX 37	JX 47	JX 50	JX 49	JX 45	38	G	JX 51	36	37	JX 35	32	JX 31	G	JX 46	JX 22	JX 35	JX 49	JX 41
18	JX 42	JX 40	JX 32	JX 36	JX 36	JX 54	JX 26	G	JX 52	30	36	36	JX 90	JX 34	JX 44	JX 62	JX 46	JX 46	JX 24	27	JX 42	JX 57	JX 41	JX 46
19	JX 30	JX 85	JX 53	JX 37	JX 34	JX 62	JX 35	JX 88	JX 61	JX 53	JX 31	EB 36	38	36	JX 35	G	JX 52	EB 32	29	JX 31	JX 33	JX 22	JX 22	32
20	JX 40	JX 37	JX 52	JX 50	JX 52	JX 55	JX 46	JX 40	JX 42	JX 52	JX 54	JX 42	JX 46	JX 54	JX 70	JX 54	JX 32	JX 52	JX 56	26	JX 51	JX 20	JX 36	JX 39
21	JX 41	JX 60	JX 52	40	36	JX 36	38	43	JX 60	JX 31	32	G	31	33	33	28	G	JX 48	JX 33	G	JX 28	JX 32	JX 42	JX 23
22	29	JX 63	JX 42	JX 34	JX 40	JX 52	JX 39	39	JX 47	34	33	JX 40	36	39	37	JX 33	JX 52	G	27	27	JX 32	JX 23	JX 20	17
23	16	JX 23	JX 34	JX 42	JX 52	JX 65	JX 21	G	35	38	JX 40	36	JX 45	JX 56	JX 57	JX 35	JX 36	JX 38	JX 60	JX 65	JX 22	JX 51	JX 50	JX 62
24	JX 26	JX 25	JX 52	JX 30	31	JX 52	JX 42	EB 43	JX 39	JX 41	EB 33	JX 33	JX 31	31	G	G	G	JX 44	28	JX 34	JX 40	JX 60	D	25
25	JX 26	JX 25	JX 25	JX 49	JX 35	27	JX 37	JX 30	JX 30	JX 50	JX 42	JX 46	JX 40	JX 57	JX 42	JX 37	JX 30	JX 36	JX 27	JX 32	JX 32	JX 37	JX 42	JX 21
26	JX 21	JX 27	JX 34	JX 65	JX 54	JX 60	JX 78	JX 49	31	36	32	38	JX 36	G	G	JX 36	JX 50	G	27	JX 21	B 23	JX 49	JX 21	28
27	JX 30	JX 32	JX 52	JX 27	JX 37	JX 37	28	32	JX 60	JX 38	JX 31	JX 35	JX 35	38	38	38	29	JX 32	29	28	JX 34	28	JX 38	39
28	JX 35	JX 35	JX 33	JX 32	31	JX 40	JX 49	JX 38	31	G	G	36	36	37	JX 53	G	36	34	27	JX 45	JX 45	JX 82	JX 46	JX 50
29	JX 35	B	JX 33	JX 70	JX 61	JX 62	JX 42	32	JX 47	B	B	EB 34	EB 39	EB 38	EB 32	EB 44	EB 30	G	G	G	JX 37	G	36	22
30	JX 35	JX 35	JX 34	JX 36	JX 36	JX 33	37	B	JX 42	JX 44	33	B	B	EB 34	EB 33	28	33	EB 34	31	20	26	JX 64	JX 32	JX 45
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	29	30	29	28	28	30	28	29	28	26	28	29	30	30	30	29	30	30	30	30	30	30	30
MED	JX 32	JX 35	JX 35	JX 36	JX 36	JX 38	JX 41	JX 39	JX 42	JX 38	34	36	35	34	33	U 30	30	U 30	28	28	JX 30	JX 34	JX 34	JX 32
UQ	JX 39	JX 41	JX 47	JX 42	JX 43	JX 53	JX 47	JX 47	JX 50	JX 45	JX 40	38	JX 39	38	JX 40	JX 36	U 39	JX 38	30	JX 40	JX 37	JX 49	JX 42	JX 41
LQ	JX 26	JX 26	JX 32	JX 32	JX 34	JX 33	JX 35	32	35	31	32	33	32	E 31	E 32	G	G	G	E 25	24	23	22	JX 22	23

The Radio Research Laboratories, Japan

NOV. 1966 | FOES (0.1 MHZ)

IONOSPHERIC DATA

NOV. 1966 | F-MIN (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	24	15	18	15	14	B	26	30	24	18	B	B	35	45	46	14	B	15	20	15	15	12	13	16
2	18	41	18	19	B	B	21	17	15	18	40	26	21	16	15	13	33	28	25	14	13	13	14	13
3	12	19	32	24	B	20	27	16	17	B	B	43	23	18	44	49	42	33	34	14	14	E	13	12
4	17	18	19	21	16	18	18	19	B	38	23	23	18	16	14	14	18	14	13	12	14	13	E	13
5	21	15	15	27	23	21	14	13	35	20	34	20	22	32	26	E	23	33	31	22	13	13	E	E
6	14	E	13	19	17	16	14	13	54	32	20	18	15	20	33	21	23	18	26	18	13	14	30	11
7	13	14	16	22	16	22	18	15	13	14	13	14	17	33	20	16	14	14	15	13	13	12	E	E
8	11	14	18	B	43	33	28	B	18	15	13	14	15	15	14	16	15	15	12	13	13	13	E	E
9	E	E	12	E	13	15	13	E	13	12	13	13	13	13	14	15	14	14	12	12	13	E	E	12
10	14	E	15	15	15	E	11	11	E	15	35	15	21	11	12	12	52	22	20	E	12	13	E	E
11	11	15	15	18	12	11	E	52	21	15	16	16	14	14	32	33	33	19	14	12	14	13	12	E
12	12	E	E	E	12	45	31	16	13	E	13	14	16	14	16	17	21	20	25	16	E	21	14	20
13	22	13	11	11	12	E	18	15	E	13	14	14	13	18	33	22	13	13	13	11	16	E	13	E
14	E	13	11	13	13	E	13	E	E	11	15	13	13	15	14	15	14	13	13	E	12	13	E	E
15	E	E	E	15	E	E	11	13	E	E	E	11	13	13	17	21	23	19	19	13	14	14	13	E
16	13	16	13	12	19	18	14	15	13	E	15	18	19	16	18	24	18	12	12	13	22	22	14	13
17	E	E	16	15	13	13	22	15	14	16	16	15	13	14	13	13	13	E	12	11	12	13	E	E
18	E	E	E	E	E	E	E	12	11	13	13	12	11	12	E	E	E	12	E	E	13	11	13	17
19	E	21	23	12	13	12	12	13	13	13	14	36	33	24	18	21	23	32	18	15	15	E	12	12
20	15	E	E	22	21	24	13	28	13	13	11	13	12	13	13	13	E	E	13	E	E	E	E	13
21	E	16	24	14	15	13	22	14	19	14	14	15	24	23	28	21	17	14	14	16	15	14	E	E
22	24	21	20	15	13	19	13	E	E	14	13	14	14	13	14	14	14	E	12	E	E	E	E	12
23	E	E	E	13	12	12	E	E	13	13	14	13	13	13	E	13	13	13	16	23	21	14	13	13
24	E	E	E	E	E	11	13	43	14	15	33	18	18	21	19	20	16	14	15	18	19	23	15	14
25	13	E	E	E	13	13	E	E	E	13	13	14	12	13	14	12	14	13	12	E	13	11	E	E
26	E	E	11	14	13	14	45	14	13	14	14	12	E	E	12	E	13	E	13	E	23	16	E	E
27	E	E	E	13	12	E	12	E	E	E	E	12	12	13	13	14	14	13	13	14	E	12	13	13
28	14	E	12	14	21	31	16	14	12	14	14	E	12	E	17	19	15	13	18	E	13	14	12	38
29	20	B	14	24	54	21	15	18	14	B	B	34	39	38	32	44	30	20	16	E	E	13	13	13
30	12	17	13	13	12	15	32	B	18	16	23	B	B	34	33	25	31	34	14	12	11	13	21	15
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
MED	12	13	13	14	13	15	14	14	13	14	14	14	15	15	16	16	16	14	14	12	13	13	12	12
UQ	15	16	18	19	19	21	22	18	18	16	23	20	21	21	28	21	23	20	19	15	15	14	13	13
LQ	E	E	E	12	12	11	12	12	11	13	13	13	13	13	14	13	14	13	13	E	12	11	E	E

NOV. 1966 M(3000)F2 (0.01) 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	F	F	UF 290	B	A	A	F	F	B	B	F	F 240	F	F	B	UF 295	F	R	A	A	A	A
2	A	A	A	R	B	B	F	F	F 270	F 255	265	260	275	275	295	295	310	315	320	F	R	A	F	F
3	F	F	A	A	B	F	F	UF 235	F	B	B	275	F	F	F	F	F	295	320	F	F	F	F	320
4	A	F	280	A	R	UF 245	275	250	B	F	F	F	F	F	F 295	300	320	315	315	325	320	F 300	F	A
5	A	F	F	F 265	260	F	F	F 260	250	F	F	F	F	F	F	F	F	325	295	F	R	F	A	A
6	275	R	F	275	F	F 255	F	F	265	F	F	F	F	F	F	295	310	310	F 335	335	300	A	A	A
7	A	A	A	A	F	240	A	F	F	F 275	F 260	F 265	F 270	285	F 285	280	295	315	320	315	R 305	F	R	F
8	A	A	F	B	A	F	F	B	A	F	F	280	275	280	295	290	295	320	315	325	335	290	A	F
9	F	R	300	295	R	F 260	UF 250	F	F	F	F	F 270	290	300	295	290	300	335	330	330	310	340	335	310
10	S	S	S	S	F	F	F	F	F	F	F	F	F	F	F	F 240	R 315	F 315	F 310	F 300	S	S	S	S
11	F	A	A	A	F	S	F	260	F 255	F	F	F	F 275	250	275	F 300	F 285	F 310	F 325	325	F 325	F	S	S
12	R	S	S	R	R	F	R	F	F	F	F	F	F 270	F	290	F 295	F 300	315	F 325	F 320	345	A	A	A
13	F 285	F	F	F	F	F	F	F	F	F	F	275	265	270	F 280	F	F	F 300	F	F	F 340	F	F	F
14	R	A	F	F	R	255	F	F	F 255	275	270	280	260	295	290	285	300	305	315	325	325	320	UF 315	S
15	300	285	R	F	R	F	F	F	F	270	F 255	F 275	F	285	280	275	290	290	310	UF 315	UF 310	UF 310	F	F
16	A	A	F	F	F	A	F 230	245	F	F 275	250	F	F	F	F	F	290	315	F 310	F 325	S 305	305	F	R
17	R	R	A	A	F	F	F 260	260	F	F	F	F	F	F	280	F 285	300	315	345	315	UF 305	F	F	F
18	F	F	A	F	F	F	F	F	F 260	290	260	280	270	280	290	295	F 305	300	UF 300	300	F	F	A	A
19	A	A	A	F	A	F	F	F	A	F 235	F 240	245	260	F 260	F 270	UF 280	290	310	F 305	F 310	UF 290	F 330	F 310	F
20	A	A	F	A	A	F 290	F	F	F	265	265	265	265	260	280	F 280	F 280	F 290	F 305	315	320	F	A	A
21	F	A	A	F	F	F	F	F	A	F	F	F 260	270	F	F	F 280	295	305	F 315	F 325	315	315	320	F
22	R	A	A	R	R	A	F	F	F	F	F	F 280	275	280	285	285	285	315	315	315	325	320	335	310
23	300	R 300	285	R	F	UF 260	F	F	V 255	UF 255	UF 275	270	270	285	295	300	290	315	315	335	F 320	330	F 320	F 310
24	R	F	275	R	R	R	F	F	F	F	F	F	F	F	F	F	F 285	F 305	F 305	UF 335	F	F 320	F 305	F 295
25	F	R	F	F	F	UF 270	F	F	F	255	F	290	285	285	265	305	290	295	F 315	305	UF 290	295	325	R
26	R	F	F	A	A	A	A	A	F 230	F 250	F	255	260	F 285	270	F 280	280	295	315	295	F	320	F	A
27	R	300	A	F	R	UF 260	F	F	260	270	F	255	285	275	275	270	285	305	315	F 320	F 315	R	F	F
28	S	S	R	F	245	F	F	F	F 265	F 265	275	265	F 260	260	265	F	265	F	F	F	F	A	F	A
29	A	B	A	A	A	A	UF 270	F 255	F 265	B	B	F 245	265	F	F	F	F 270	F	F	290	295	F	UF 295	F
30	285	A	F	F	F	F	F	B	F	F	F	B	B	F	F	F	F 250	F 315	UF 285	F	F 305	F 300	F 305	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	5	3	4	3	3	9	5	7	11	13	10	19	19	18	20	21	26	28	26	23	21	14	10	5
MED	285	300	282	275	260	F 260	F 260	255	F 260	F 265	262	270	270	280	282	285	290	310	315	320	315	318	F 318	310
UQ	300	300	292	285	275	UF 260	F 270	260	F 265	275	270	278	275	285	292	295	300	315	320	325	325	320	325	310
LQ	285	292	278	270	252	F 255	F 250	248	255	F 255	F 255	260	265	260	275	F 280	285	300	F 310	312	F 305	300	F 305	F 310

NOV. 1966 M(3000)F2 (0.01)

IONOSPHERIC DATA

NOV. 1966 | H'F2 (KM) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	520	540	B	B	495	500	380	455	B							
2								470	395	405	410	445	415	400	380	370								
3								470	380	B	B	400	390	425	400	310	355	315	300	A 350				
4							430	480	B	435	370	370	350	360	360	340	300	300						
5							425	395	445	400	425	415	400	395	335	300	305	290	295					
6						405	390	385	400	320	395	390	C	390	370	325	305							
7							A	500	400	370	395	390	400	385	370	L	L	295						
8							480	B	A	400	355	400	410	405	385	385	325	305						
9						430	415	420	390	370	360	375	300	295	300	L	280		L					
10					360	400	L	380	370	390	390	370	350	395	350	440	300	270	L	L				
11						400	400	B	440	460	470	465	400	500	390	320	315	290	290					
12						305	A	555	435	395	380	380	350	390	315	300	300	295	280					
13						A	550	505	460	405	380	370	390	385	365	300	295	230						
14						400	400	415	390	360	380	360	400	365	315	390	320	L	L					
15					470	400	400	380	390	325	390	370	330	300	260									
16									435	390	395	390	370	375	330	340	300	290						
17									410	400	370	360	370	400	370	330	335	295						
18						450	430	400	390	390	395	380	380	340	320	300	295	300						
19									A	530	495	490	490	415	390	350	325	295	280					
20						A	340	500	390	350	390	380	400	400	335	340	310	290						
21				360	450	425	490	425	A	550	380	445	400	390	390	370	310	310	255					
22				370	390	A	390	405	390	350	390	370	390	380	370	370	320	295	245					
23					390	380	400	370	330	340	340	315	335	320	300	300	305	280	270					
24					320	300	350	450	450	395	390	390	370	310	305	305	310	295						
25				330	400	390	400	395	370	360	380	310	310	340	370	300	300							
26				A	A	A	A	A	485	425	460	400	400	390	400	395	350	320		320	390			
27						370	390	390	375	325	340	375	325	390	365	370	320	295						
28					A	A	A	450	400	395	395	390	405	400	390	390	330	320	R 420					
29				A	A	A	420	430	400	B	B	425	390	380	370	380	350	480						
30			460	A	A	410	415	B	450	415	415	B	B	500	375	340	395	320	330	330				
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT			1	3	7	14	19	22	26	28	27	28	28	30	30	27	26	23	10	3	1			
MED			460	360	390	400	400	422	400	395	390	385	390	390	370	340	310	295	285	330	390			
UQ				365	425	410	428	470	440	410	395	400	400	400	380	375	325	308	300	340				
LQ				345	375	380	395	395	390	360	380	370	350	365	330	308	300	290	270	325				

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NOV. 1966 | H'F2 (KM)

IONOSPHERIC DATA

NOV. 1966 | H'F (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	300	315	B	A	A	E A 270	260	B	B	B 280	B	B	260	B	235	270	A	A	A	A	A
2	A	A	A	315	B	B	A	290	215	H 200	B	255	235	230	255	205	275	220	230	240	270	A	300	295
3	A 360	A	B	A	B	A	A	H 280	215	B	B	B	230	H 225	B	B	B	B 265	B	A	260	250	280	300
4	A	A	A	A	B	A	E A 300	E A 310	B	B	230	230	200	205	205	H 230	205	200	205	225	220	265	A	A
5	A	A	210	B	A	A	270	200	290	215	240	200	210	205	215	205	215	E B 275	B	240	A	300	A	A
6	350	300	A	A	A	A	A	210	B	A	255	230	200	205	220	205	215	210	235	240	250	A	A	A
7	A	A	A	A	A	A	A	A	210	200	200	200	200	H 250	205	210	205	215	210	220	265	260	280	280
8	A	A	A	B	A	300	260	B	A	270	200	H 215	200	H 250	205	215	215	215	230	230	240	270	A	295
9	270	255	280	205	A 310	A	H 300	240	205	190	195	200	H 200	H 205	195	200	200	210	210	230	A 260	210	245	250
10	265	280	295	A	A	260	250	250	215	230	230	200	200	200	200	215	B	230	240	260	250	240	280	A
11	A	A	A	A	A	240	240	B	A	270	225	H 280	200	200	205	225	B 220	215	210	230	265	230	270	270
12	285	290	280	290	265	B	A	A	205	200	210	200	H 260	205	H 260	200	215	230	250	225	230	A	A	A
13	A	A	A	A	250	A	A	A	200	200	205	205	H 245	290	240	205	H 200	200	A	230	230	270	A	300
14	A	A	A	A	305	265	230	200	200	225	225	A	E A 270	H 195	200	H 200	205	205	205	230	230	230	225	260
15	255	270	290	300	A	A	230	215	200	200	200	205	H 200	210	200	A	A	A	230	235	220	240	230	360
16	A	A	A 390	395	A	A	A	A	H 250	205	210	235	200	H 200	230	220	210	215	230	230	240	240	250	235
17	280	300	A	A	290	A	A	A	A 295	A	270	195	205	205	210	210	200	220	225	225	270	340	210	300
18	210	200	A	A	A	A 290	225	200	H 200	200	200	200	220	200	200	A 220	205	205	190	230	A 270	A	A	A
19	A	A	A	300	A	A	A	A	A	200	195	230	A	220	215	205	210	220	215	240	290	240	270	A
20	A	A	A	A	A	A	210	A	A 200	200	200	240	200	A	A	A	210	A	220	220	255	270	A	A
21	340	A	A	235	250	A	A	205	A	210	H 210	230	205	220	200	205	200	210	210	230	240	250	260	A
22	310	200	A	230	225	A	230	200	200	200	200	200	200	200	205	205	200	210	215	205	220	220	240	260
23	265	210	300	300	A	A	215	195	195	200	200	210	H 220	200	H 220	200	200	200	205	225	230	250	210	225
24	250	280	300	290	215	205	A 195	B	260	250	220	210	200	H 200	210	210	205	210	200	200	270	260	A	250
25	290	290	300	A	200	230	265	200	200	200	205	205	A 230	A 240	205	200	205	200	205	220	230	265	225	230
26	260	300	290	A	A	A	A	A	200	200	200	H 200	200	210	210	200	205	205	210	200	280	A	A	A
27	295	A	A	A	295	215	210	195	H 200	200	195	195	195	200	H 200	210	210	210	230	200	265	200	A	A
28	A	300	A	A	A	A	A	325	205	200	200	H 200	200	H 205	205	200	200	205	R 220	200	A	A	A	A
29	A	B	A	A	A	A	A	230	215	B	B	230	E B 290	B 230	200	B	H 200	200	280	220	E A 310	270	A	290
30	210	A	A	A	A	E A 370	E A 300	B	E A 320	200	210	B	B	250	240	225	205	260	R	200	235	220	A	A
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	16	13	10	11	11	9	16	17	24	25	26	26	28	28	27	26	26	28	26	28	27	23	15	16
MED	275	280	292	300	265	250	232	208	204	200	205	205	200	205	205	205	205	210	218	228	250	250	250	275
UQ	302	300	300	300	300	278	262	245	224	215	225	230	225	222	218	215	210	220	230	230	266	268	275	298
LQ	258	255	280	262	238	230	220	200	200	200	200	200	200	200	200	200	200	205	210	220	230	235	228	250

NOV 1966 | H'F (KM)

IONOSPHERIC DATA

NOV. 1966 | H'ES (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S, Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	100	100	100	100	100	B	100	110	105	100	B	B	B	B	B	G	B	170	165	100	100	100	100	105
2	100	100	100	100	B	B	100	100	G	G	B	G	G	180	G	120	B	B	B	110	130	100	160	160
3	100	100	100	100	B	100	100	100	100	B	B	B	100	G	B	B	B	B	B	100	130	100	120	120
4	100	100	100	100	100	100	100	100	B	B	100	100	G	G	G	G	G	G	G	100	150	G	105	100
5	100	100	100	100	105	100	160	100	B	100	B	G	G	B	G	G	G	B	B	100	100	110	105	100
6	120	100	100	105	100	100	100	100	B	100	100	100	G	G	B	G	G	100	B	120	120	115	125	100
7	100	100	100	105	100	100	100	100	100	100	100	100	100	B	G	G	G	100	100	100	100	100	100	130
8	105	110	100	B	120	B	130	B	100	100	100	100	100	100	100	100	100	100	100	100	140	150	100	100
9	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	G	G	G	G	120	110	100	100	B
10	B	110	110	110	115	100	110	G	G	100	B	100	100	G	100	G	B	G	140	160	115	115	140	110
11	105	100	100	100	100	100	G	B	100	100	100	100	100	100	B	B	B	100	G	G	120	125	125	100
12	125	125	105	150	100	B	100	100	100	100	C	100	100	100	100	100	100	100	B	150	100	110	100	100
13	105	100	100	100	105	100	100	100	100	100	105	100	105	100	B	G	100	100	100	100	120	130	115	130
14	100	100	100	120	100	100	100	G	100	100	100	100	100	100	100	100	G	G	F G 170	G	F G 160	105	100	100
15	100	100	100	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	115	130	135	120
16	105	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	G	G	100	G	B	B	140	120
17	100	105	125	110	100	100	100	100	100	100	100	G	100	100	100	100	100	100	G	100	125	130	105	105
18	105	100	120	110	100	100	100	G	100	F G 150	105	100	100	100	100	100	100	100	100	105	110	100	100	105
19	100	100	100	100	100	100	100	100	100	100	100	B	110	105	100	G	100	B	150	105	125	120	125	105
20	110	100	100	100	100	100	100	120	100	100	100	100	100	100	100	100	100	100	100	140	100	105	105	105
21	100	100	100	100	100	100	100	100	100	100	100	G	100	F G 130	120	100	G	100	100	G	110	100	100	130
22	160	120	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	G	100	100	100	100	100	130
23	105	100	100	100	100	100	100	G	100	140	100	100	100	100	100	100	100	100	100	100	100	100	100	100
24	100	100	100	100	120	100	100	B	100	100	B	100	100	100	G	G	G	100	100	140	105	105	100	100
25	110	100	140	100	100	160	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105	100	110
26	110	105	140	100	100	100	140	100	F G 170	105	110	130	100	G	G	100	100	G	F G 150	F G 130	B	120	110	110
27	105	100	100	105	100	100	125	120	100	100	100	100	100	100	100	100	100	100	100	105	100	120	105	100
28	100	100	100	105	100	120	100	100	100	G	G	100	100	100	100	G	105	100	105	100	100	100	100	100
29	100	B	100	100	100	100	100	100	100	B	B	B	B	B	B	B	B	G	G	G	100	G	100	F G 160
30	100	100	100	100	105	105	130	B	100	130	100	B	B	B	B	105	180	B	100	100	100	100	105	100
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	29	29	30	29	28	26	29	22	25	25	21	21	23	20	17	16	15	17	20	25	28	27	30	29
MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	109	105	105	105
UQ	105	100	100	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	U 111	115	121	120	120	120
LQ	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

NOV. 1966 | H'ES (KM)

DEC. 1966 FOF2 (0.1 MHZ) 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	38	A	A	B	R	A	A	A	B	A	51	53	F 51	F 57	63	F	63	57	R	F	F 46	F	F	F
2	A	F	B	A	F	F	J F 57	F 58	F 65	66	65	63	65	60	61	61	61	59	57	56	53	49	39	43
3	F 46	F	B	48	J F 62	F	F	F	86	83	77	77	74	72	72	72	69	63	57	57	57	56	53	56
4	61	61	B	B	F	F	F	F	F	U F 91	87	R	F	F	F	F 53	56	F	J F 68	R	F	49	52	A
5	A	F	A	A	B	R	R	R	F	B	F	F	B	B	60	J F 62	62	58	61	56	56	F	B	A
6	F	37	F	F	F	R	R	R	F 47	F 52	F 52	50	48	R	52	51	51	F 51	54	53	53	46	44	S
7	F	F	F 48	F 56	J F 62	F 63	J F 63	F	F	F 78	82	74	71	67	64	61	F 58	J F 60	F 61	57	57	58	56	53
8	J S 48	R	R	R	R	J F 80	F	F	F	F	J F 77	78	70	70	67	67	64	62	62	59	54	54	55	59
9	59	J F 62	R	F	F	F	F	F	78	82	78	72	F 72	69	68	71	69	65	62	57	58	59	56	A
10	R	J R 62	J F 62	R	R	R	J R 85	F	F	F 93	F 88	88	83	83	76	F 71	F	F 64	65	63	64	65	61	F
11	R	R	J R 60	U F 60	60	F	F 68	J F 67	F	87	87	F 82	F 82	F 74	F	64	61	57	60	58	58	56	58	R
12	R	R	J R 58	R	F 68	F 71	F	F	F	F 76	F 83	84	81	75	70	65	66	59	60	58	58	R	R	R
13	R	R	R	R	R	F	F	B	A	F	F	A	J F 60	F	52	53	54	61	52	R	U F 46	F	F 51	R
14	J F 50	F 44	F	R	F	J F 51	F	F	A	A	48	47	B	R	50	46	48	R	39	F 41	F 36	U F 38	F 37	B
15	A	R	B	B	B	R	A	F	A	51	54	R	53	54	54	54	54	52	52	50	45	44	F	J F 50
16	F	F	B	B	59	F	J F 58	F	63	F 66	65	69	70	72	73	68	66	66	60	58	56	56	54	56
17	R	R	J F 61	R	R	R	R	R	F	F	F 89	84	79	79	79	F 73	72	U F 68	F 66	F 66	F 59	F 57	R	F
18	55	F	A	J F 52	F 56	F	J F 68	F	F	F	68	78	F 75	F 67	F 69	63	64	60	59	60	62	57	55	54
19	F	F	J F 51	F	F	48	53	56	63	64	63	62	57	59	62	62	62	60	58	56	55	58	56	53
20	R	F	F	54	64	67	71	72	75	78	78	74	71	64	62	61	63	57	58	55	53	50	J F 50	B
21	R	F	F	A	A	A	F	F 62	F 57	F	F	J F 63	F	F	F 58	F	F	62	54	F 48	F	F	J F 50	A
22	F	F	A	B	50	F	F	U F 51	F	F	J F 62	F 63	F 63	59	60	61	68	63	63	F 57	F 56	46	J F 41	F
23	A	A	B	F	F	F	F	F	F	J F 66	F 66	F 60	F 61	65	64	58	F 57	F 56	51	49	49	R	F	U F 42
24	42	A	A	A	A	A	F 54	F 52	49	A	B	B	51	B	B	F	F 62	F	F 53	F 56	F	F 52	R	F 41
25	R	F 43	F	B	F 53	F	J F 58	58	59	61	F 62	67	73	F 73	F 74	F	76	F	65	F	F 54	52	45	U F 41
26	R	F	F	F	A	B	F	F	U F 62	J F 63	F 67	F 66	F	F	F	F	F 57	F	R	A	49	F	A	F
27	F	A	A	A	F	R	F	A	A	B	B	B	B	F	F 73	U F 71	F	F 43	46	50	F	F	R	F
28	A	A	A	F	B	A	47	U F 57	61	61	J F 62	F 66	F 72	F 76	F 78	F 74	66	R	B	50	45	F 46	F 47	F
29	F	F 42	A	F	F 51	A	F 56	J F 66	F	F 72	70	F 72	76	77	F	F 67	63	63	59	54	55	53	56	F 48
30	R	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F 75	74	71	F 64	B	48	52	F	F 50
31	54	U S 56	S	F	U F 56	F 64	F	F	98	98	88	84	84	F 81	71	F 67	F 67	F	F 64	F 67	F 68	F	F	F 62
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	9	8	6	5	11	7	12	10	13	19	25	24	24	21	25	26	28	24	28	25	27	22	20	14
MED	50	50	J F 59	F 54	F 59	F 64	F 58	F 58	63	72	68	70	71	70	64	64	63	60	60	56	55	52	52	52
UQ	55	62	J F 61	F 56	62	F 69	J F 68	F 66	75	82	82	78	76	75	72	F 71	66	63	62	58	58	57	56	56
LQ	46	F 42	J F 51	52	F 54	F 57	F 55	F 56	59	64	62	63	60	64	60	61	58	57	54	53	49	49	F 46	F 43

DEC. 1966 FOF2 (0.1 MHZ)

The Radio Research Laboratories, Japan

IONOSPHERIC DATA

DEC. 1966 | FOF1 (0.01 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	A	B	A	430	R	420	430	430	420	410	410	L					
2						A	380	A	410	420	420	440	440	440	460	440	L 430	L	L	L				
3					350	380	390	420	420	420	440	440	440	450	440	450	L	L	L					
4						400	410	420	430	440	430	B	440	450	450	440	420	400	L					
5					B	A	A	A		B	430	440	B	B	450	450	L	L	L					
6						A	A	A	400	410	430	440	460	R	440	440	L 430	L	L					
7				L	L 380	400	420	420	430	440	450	460	460	450	460	L	460	L						
8					L	L	L 410	H 440	440	440	450	460	460	470	L 460	L 470	L	L	L					
9					L	400	F 410	420	420	440	450	460	470	480	A	470	L	L	L					
10				L	400	400	410	430	440	450	460	480	480	470	L	480	L	L						
11						400	420	F	440	450	470	470	470	480	480		L	L						
12					L	L 410	L 420	430	440	460	470	470	480	480	480	400	L 460		L					
13						420	430	B	A	460	450	A	460	450	450	450	440	440	430	F 400				
14					360	370	420	420	A	A	440	450	B	440	450	R	430	R						
15				B	B	R	A	430	A	440	A	A	460	460	460	450	450	440						
16				B	B	400	400	420	430	440	440	460	450	420	460	420	L 460	L 450	L					
17						L	420	420	440	450	440	470	470	490	470	L	460	L						
18				L	370	390	390	410	480	470	R	470	460	480	480	L	L	L						
19					380	400	400	390	430	430	440	450	460	460	450	450	L 430	L	L					
20				L	L	L	400	410	420	450	440	450	450	460	470	460	L	L						
21				A	A	A	A	430	A	R	440	F 440	450	450	470	460	450	L 450	L	400				
22				B	A	B	390	A	420	440	430	440	450	450	450	460	H 440	L 440	L	L	L			
23				A	350	340	F	400	420	420	440	B	450	450	450	450	450	L						
24				A	A	A	A	410	A	A	B	B	B	B	B	460	A	L						
25				B	A	A	400	420	430	450	440	440	450	450	460	450	460	430	430					
26				A	A	B	A	A	440	420	420	430	440	430	B	450	430	L	F 400	A	A			
27				A	A	L	A	A	A	B	B	B	B	450	B	430	420	L	L	L				
28					B	A	R	410	B	430	430	430	440	450	450	450	450	430	B	L	L			
29					A	A	410	410	440	450	440	450	460	B	460	L 460	A	L 440	L					
30				L	L	L 410	420	430	450	460	470	430	470	L 480	L 480	L 470	L 450	R	460	B	L			
31				360	F 380	390	410	430	450	460	470	480	470	480	L	L	L	L	L					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT				1	8	15	21	22	22	25	27	24	27	27	25	25	20	10	4	2				
MED				360	375	400	410	420	430	440	440	450	460	450	460	450	445	440	430	400				
UQ					380	400	420	430	440	450	450	465	465	475	470	460	455	L 440	445					
LQ					355	390	400	410	420	430	430	440	450	450	450	440	430	430	415					

DEC. 1966 | FOF1 (0.01 MHZ)

DEC. 1966 FOE (0.01 MHZ) 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	B	B	B	A	B	A	B	B	B	B	B	B	B	B	300	B	B	B	A	190	A	A	B
2	B	B	B	B	B	A	A	A	300	305	310	A	A	A	305	A	305	280	A	210	205	190	A	A
3	A	A	B	B	A	A	250	270	290	295	310	A	A	A	310	300	A	A	A	230	225	190	170	A
4	A	A	B	B	A	A	A	280	A	300	A	B	B	310	325	A	A	A	A	A	A	A	A	B
5	A	B	B	A	B	B	A	A	A	B	B	A	B	B	B	285	295	290	260	240	225	A	B	A
6	A	A	A	A	A	A	A	A	A	A	320	320	315	325	320	310	305	295	285	265	220	220	200	A
7	A	A	180	190	225	260	A	A	A	R	300	A	A	A	325	320	A	A	275	240	A	200	A	A
8	170	A	175	A	225	255	275	A	A	320	325	A	A	A	A	325	A	A	280	240	A	200	A	A
9	A	A	B	A	A	A	275	280	A	A	A	A	A	A	A	A	A	A	A	265	240	A	A	A
10	B	A	A	200	A	A	260	280	310	A	A	A	A	340	A	B	A	A	285	275	240	A	A	A
11	A	A	A	A	A	A	275	295	310	R	A	A	A	A	A	A	A	A	290	265	245	200	A	A
12	A	A	A	180	A	235	A	290	A	A	340	A	A	A	A	A	A	300	280	270	A	A	A	A
13	A	A	A	A	235	A	A	B	A	A	B	A	B	330	340	335	A	290	280	B	A	245	A	A
14	B	A	A	A	305	A	A	A	A	A	A	A	B	B	A	A	R	A	A	A	A	A	A	B
15	A	A	B	B	B	B	B	A	A	A	A	A	A	B	A	B	B	B	B	240	A	230	220	B
16	A	A	B	B	B	A	250	285	295	B	B	B	B	B	B	B	B	315	B	B	230	B	A	B
17	A	A	A	B	B	A	B	A	R	R	B	B	B	A	B	A	B	B	270	B	A	A	A	B
18	B	B	B	A	A	300	A	A	A	A	B	A	A	A	A	A	A	A	280	250	230	A	210	200
19	A	A	A	A	A	A	A	R	A	A	330	A	A	330	325	A	A	280	260	255	240	200	180	A
20	A	A	A	210	225	240	275	280	300	R	A	R	330	A	A	A	R	A	270	A	230	B	A	B
21	B	B	A	B	A	A	A	A	A	B	B	A	325	R	B	A	B	A	270	A	A	A	A	A
22	B	A	B	B	A	B	A	A	A	325	A	R	R	B	B	325	A	295	275	A	B	205	A	B
23	B	B	B	B	A	A	A	A	A	310	320	B	A	A	315	310	300	280	275	260	230	190	A	A
24	B	B	B	B	B	A	A	A	A	A	B	B	B	B	B	B	B	B	A	B	A	A	B	A
25	A	A	B	B	A	A	A	270	A	A	B	B	320	R	A	B	B	B	B	B	B	200	A	A
26	A	A	B	A	A	B	A	A	A	330	B	B	B	B	B	B	A	B	300	A	A	A	A	B
27	A	A	B	B	A	B	A	A	A	B	B	B	B	B	B	B	A	B	B	240	A	A	B	A
28	B	B	B	A	B	A	A	A	B	A	A	A	A	B	B	B	B	A	B	240	220	A	A	A
29	A	A	B	A	B	B	A	A	295	300	310	325	A	B	A	A	A	A	280	250	210	A	195	A
30	A	A	B	A	A	A	A	A	A	A	300	335	335	A	320	A	A	A	270	B	200	195	A	A
31	A	A	A	A	A	250	270	A	A	290	B	B	B	B	B	A	300	295	270	A	B	B	B	B
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	1		2	4	5	6	8	9	7	9	10	3	5	5	9	9	5	10	19	17	16	13	6	1
MED	170		178	195	225	252	272	280	300	305	315	325	325	330	320	310	300	292	275	250	228	200	198	200
UQ				205	235	260	275	285	305	320	325	330	330	330	325	325	305	295	280	265	235	205	210	
LQ				185	225	240	255	280	295	300	310	322	320	325	315	300	300	280	270	240	215	195	180	

DEC. 1966 FOE (0.01 MHZ)

IONOSPHERIC DATA

DEC. 1966 | FOES (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4 S. Long. 39° 35.4 E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	J X 47	J X 55	J X 37	B	24	J X 44	J X 54	J X 45	B	J X 42	E B 36	E B 36	E B 35	E B 35	E B 35	G	E B 33	E B 30	E B 33	J X 27	27	J X 34	37	J X 43
2	J X 37	J X 30	B	J X 37	J X 40	J X 40	42	J X 34	36	G	G	J X 40	33	J X 32	J X 50	J X 32	G	36	28	J X 36	G	27	J X 26	28
3	J X 30	30	B	E B 41	J X 35	J X 34	J X 43	J X 43	G	G	G 29	J X 48	33	J X 32	32	G	J X 32	J X 38	J X 54	31	J X 48	J X 30	J X 28	J X 22
4	29	31	B	B	J X 41	40	J X 57	J X 56	J X 58	J X 33	36	E B 51	E B 34	36	G	J X 32	J X 33	33	J X 44	J X 34	J X 37	J X 40	J X 39	J X 51
5	J X 63	J X 42	J X 62	J X 37	B	J X 36	J X 42	J X 50	J X 54	B	E B 35	31	B	B	E B 34	G	G	G	32	J X 34	J X 34	38	B	J X 48
6	J X 30	J X 58	J X 60	J X 52	J X 80	J X 49	J X 46	43	J X 46	35	G	34	34	G	G	37	J X 42	33	G	G	27	G	J X 25	J X 22
7	J X 22	18	22	26	J X 42	J X 32	27	J X 33	J X 57	G	33	36	38	J X 35	J X 38	J X 52	35	J X 61	G	28	J X 23	25	J X 51	J X 24
8	19	J X 23	24	23	G	G	G	J X 55	J X 30	J X 34	G	38	J X 31	J X 52	J X 55	38	J X 62	J X 38	J X 38	28	26	27	J X 32	J X 52
9	J X 52	31	41	J X 58	J X 40	J X 35	J X 57	J X 32	J X 32	J X 32	J X 53	J X 100	J X 55	J X 69	J X 97	J X 34	J X 30	J X 45	J X 35	J X 28	26	28	36	J X 100
10	E B 14	J X 60	J X 22	J X 21	J X 35	J X 27	J X 28	J X 36	38	J X 34	39	36	J X 34	36	38	E B 35	32	32	32	G	41	27	J X 24	J X 47
11	J X 25	26	20	27	25	25	G	G	G	31	J X 33	37	37	33	J X 34	J X 37	J X 52	J X 52	33	31	28	J X 42	J X 38	J X 25
12	J X 21	J X 34	J X 38	J X 60	J X 27	J X 38	28	32	J X 29	38	38	J X 32	37	33	36	J X 32	J X 34	J X 44	G	G	27	J X 21	J X 22	J X 20
13	22	J X 20	J X 22	J X 22	26	J X 43	J X 38	B	J X 47	J X 51	E B 38	J X 42	E B 36	G	J X 30	G	31	J X 55	G	37	J X 34	J X 31	J X 38	J X 36
14	J X 31	32	J X 42	J X 40	G	29	33	J X 40	J X 44	J X 56	J X 45	38	B	E B 33	J X 31	J X 30	30	28	J X 30	28	27	J X 57	J X 53	B
15	J X 65	J X 36	B	B	B	E B 30	J X 60	J X 35	J X 50	J X 40	J X 50	J X 37	J X 33	E B 36	34	E B 33	E B 32	E B 30	E B 32	28	J X 35	27	G	E B 27
16	33	J X 37	B	B	E B 49	J X 30	31	29	G	E B 34	E B 40	E B 35	38	38	J X 40	E B 34	E B 32	G	E B 32	E B 29	30	E B 29	24	J X 34
17	J X 30	J X 32	24	E B 32	J X 30	J X 31	J X 32	J X 40	G	G	E B 34	E B 34	38	43	E B 44	J X 57	E B 38	E B 30	G	E B 25	27	J X 33	57	35
18	J X 52	J X 74	J X 42	J X 34	J X 26	G	J X 36	J X 47	J X 50	J X 42	J X 32	J X 52	J X 47	J X 52	J X 35	J X 32	J X 37	J X 24	29	G 25	27	J X 27	G	26
19	26	24	26	J X 38	J X 37	J X 33	J X 37	G	J X 33	J X 30	37	39	36	36	38	J X 37	J X 37	33	J X 31	28	G	25	J X 27	J X 20
20	22	J X 26	J X 22	26	G	G	G	G	G	G	36	G	G	36	J X 44	30	G	35	30	27	26	E B 23	J X 30	B
21	38	E B 40	J X 30	J X 47	J X 56	J X 50	J X 48	J X 38	J X 52	38	38	J X 32	32	G	E B 47	30	E B 33	31	G 27	28	J X 26	J X 29	J X 35	J X 39
22	J X 37	J X 41	J X 42	B	J X 41	E B 42	J X 66	J X 47	J X 51	37	J X 31	G	G	E B 36	E B 35	G	J X 31	G	J X 57	26	26	26	J X 32	J X 40
23	J X 38	J X 77	B	J X 27	J X 36	J X 28	J X 65	J X 42	J X 34	37	38	E B 53	J X 57	34	37	36	G	29	29	28	27	26	23	34
24	36	J X 62	J X 52	J X 41	J X 45	J X 60	J X 37	J X 43	J X 55	J X 27	B	B	E B 46	B	B	E B 36	J X 73	J X 44	J X 45	J X 52	J X 60	J X 24	32	J X 32
25	J X 22	J X 25	J X 24	B	J X 45	J X 63	31	29	J X 32	35	E B 38	E B 34	G	G	31	E B 45	E B 46	E B 34	E B 33	E B 32	28	26	J X 25	J X 23
26	J X 36	J X 37	J X 83	J X 64	J X 54	B	J X 36	J X 52	J X 45	38	E B 37	E B 36	E B 35	E B 33	E B 51	E B 41	J X 30	E B 32	G	45	J X 46	J X 77	J X 43	J X 97
27	J X 42	J X 51	J X 54	J X 42	J X 37	E B 35	40	J X 66	J X 45	B	B	B	B	E B 36	E B 47	E B 33	34	E B 28	29	28	J X 38	J X 40	40	J X 52
28	J X 110	J X 53	J X 47	J X 32	B	J X 39	J X 33	J X 30	E B 44	34	J X 37	J X 33	33	38	E B 34	E B 34	E B 34	J X 32	B	J X 43	25	J X 36	J X 36	J X 23
29	J X 28	34	J X 62	J X 37	36	J X 39	37	J X 36	33	G	37	G	33	E B 47	J X 50	J X 32	J X 75	J X 47	J X 39	27	J X 33	J X 22	26	J X 22
30	31	J X 23	J X 31	J X 22	26	28	J X 36	J X 32	J X 34	J X 40	38	36	G	J X 32	36	J X 98	J X 43	J X 23	G	B	27	J X 25	J X 22	J X 27
31	26	J X 23	J X 22	J X 22	J X 20	G	31	J X 35	J X 42	J X 34	E B 42	E B 42	E B 38	E B 37	38	J X 41	32	G	G	28	E B 32	E B 32	E B 27	38
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	25	25	28	30	31	30	30	29	29	29	28	29	30	31	31	31	30	30	31	31	30	29
MED	J X 31	J X 33	J X 37	J X 36	J X 36	J X 33	J X 37	J X 37	J X 38	34	U 35	34	34	U 34	35	U 32	32	32	30	28	27	J X 27	J X 31	J X 34
UQ	J X 38	J X 46	J X 47	J X 41	J X 42	J X 40	J X 44	J X 45	J X 50	J X 38	38	39	38	36	U 41	36	J X 37	J X 38	J X 33	32	J X 34	J X 34	J X 38	J X 43
LQ	26	26	J X 24	J X 26	26	28	31	J X 32	32	28	U 31	E G 34	32	E G 33	32	30	30	E G 28	G	27	26	26	J X 24	J X 24

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DEC. 1966 | FOES (0.1 MHZ)

DEC. 1966 F-MIN (0.1 MHZ) 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	34	30	B	13	36	15	34	B	38	36	36	35	35	35	24	33	30	33	19	15	13	14	18
2	19	23	B	32	33	15	18	16	13	E	13	15	15	13	14	14	14	17	14	12	18	13	13	13
3	E	18	B	41	15	12	E	E	11	13	13	13	14	13	14	14	16	14	13	E	E	13	13	E
4	13	14	B	B	E	E	E	E	12	14	16	51	34	19	14	13	14	E	E	13	11	E	13	36
5	12	31	32	18	B	24	19	14	16	B	35	23	B	B	34	19	18	19	14	22	13	14	B	13
6	E	14	13	E	18	16	16	17	15	14	13	13	15	13	14	13	13	14	13	11	13	13	13	11
7	11	11	12	15	12	13	13	16	14	19	14	14	14	17	14	18	16	E	14	E	E	E	16	13
8	13	E	12	14	11	14	12	13	13	E	14	13	13	13	14	13	13	13	14	14	15	12	13	13
9	E	E	34	17	E	12	13	E	14	E	13	14	14	16	15	14	14	14	13	E	E	16	12	E
10	14	15	13	19	12	12	14	12	13	13	15	32	20	18	22	35	24	17	16	14	13	14	14	14
11	13	12	12	12	12	13	13	14	14	22	20	17	20	16	16	15	15	14	14	14	13	12	13	14
12	14	17	14	E	E	13	14	13	13	14	14	14	13	14	13	13	13	13	13	E	12	E	12	14
13	12	13	14	12	14	19	14	B	19	15	38	33	36	22	14	14	13	14	13	33	17	14	15	16
14	27	16	15	14	15	15	14	13	14	17	17	24	B	33	19	17	21	14	12	12	18	18	13	B
15	15	17	B	B	B	30	34	13	19	17	19	24	24	36	19	33	32	30	32	14	14	12	13	27
16	21	17	B	B	49	14	14	14	23	34	40	35	34	34	33	34	32	30	32	29	21	29	17	24
17	16	20	16	32	25	18	31	20	24	24	34	34	34	32	44	24	38	30	17	25	22	18	17	31
18	30	30	14	16	15	14	21	14	17	16	33	14	33	32	30	22	22	14	15	13	16	14	13	13
19	15	16	14	17	14	21	23	13	14	14	15	14	16	14	17	16	14	16	13	14	22	13	13	14
20	13	14	13	14	14	16	13	13	16	19	16	18	13	18	16	17	14	13	17	12	20	23	13	B
21	32	40	15	21	16	18	14	14	21	32	33	18	15	14	38	20	33	20	22	12	13	13	13	18
22	24	16	31	B	16	42	14	13	E	14	14	21	18	36	35	14	14	14	15	14	23	12	12	24
23	26	22	B	21	14	13	14	14	15	13	13	53	14	19	16	15	14	14	23	13	16	14	15	13
24	22	32	25	21	34	22	16	19	22	16	B	B	46	B	B	36	38	37	21	26	17	18	23	13
25	15	19	23	B	20	14	14	16	12	18	38	34	16	19	18	45	46	34	33	32	27	13	12	13
26	13	14	23	13	17	B	19	16	19	14	37	36	35	33	51	41	16	32	14	12	12	14	14	22
27	E	15	19	20	12	35	17	14	16	B	B	B	B	36	47	33	16	28	27	14	14	18	31	E
28	31	24	32	15	B	23	19	15	44	21	14	15	23	34	34	34	34	15	B	14	13	13	14	13
29	17	17	23	13	24	34	22	14	14	13	13	14	18	47	17	22	15	13	13	14	14	12	13	13
30	14	13	18	14	14	20	14	14	15	22	14	13	14	13	14	17	15	17	15	B	14	12	13	E
31	13	13	13	14	13	14	14	13	12	14	42	42	38	37	34	14	15	16	14	15	32	32	27	33
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MED	14	16	19	17	15	16	14	14	15	16	16	21	20	19	18	17	16	15	14	14	14	13	13	14
UQ	20	21	32	32	22	22	18	16	19	22	36	34	34	34	34	28	28	24	22	17	18	15	15	23
LQ	12	14	14	14	12	13	14	13	13	14	14	14	14	15	14	14	14	14	13	12	13	12	13	13

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IONOSPHERIC DATA

DEC. 1966 | M(3000)F2 (0.01) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	290	A	A	B	R	A	A	A	B	A	260	285	F 265	F 265	265	F	280	265	R	F	F 325	F	F	F
2	A	F	B	A	F	F	F	F 260	F 255	260	275	270	290	285	280	300	295	305	310	330	320	325	310	285
3	F 325	F	B	255	F	F	F	F	275	270	270	275	305	280	280	295	305	305	315	315	315	320	320	320
4	310	280	B	B	F	F	F	F	F	U F 255	255	R	F	F	F	F 245	270	F	F	R	F	305	290	A
5	A	F	A	A	B	R	R	R	F	B	F	F	B	B	285	F	290	295	330	315	305	F	B	A
6	F	275	F	F	F	R	R	R	F 215	F 235	F 250	275	235	R	265	260	295	F 280	295	325	320	325	290	S
7	F	F	F 275	F 270	F	F 255	F	F	F	F 255	270	270	280	285	275	270	F 295	F	F 295	300	330	320	320	325
8	S	R	R	R	R	F	F	F	F	F	F	255	260	265	285	285	295	305	305	320	320	320	325	305
9	290	F	R	F	F	F	F	F	245	255	270	265	F 240	250	250	285	305	295	310	325	310	320	305	A
10	R	R	F	R	R	R	R	F	F	F 260	F 250	265	265	275	280	F 280	F	F 295	275	290	315	325	300	F
11	R	R	R	U F 280	280	F	F 265	F	F	260	260	F 270	F 280	F 275	F	280	280	285	300	310	305	320	300	R
12	R	R	R	R	F 250	F 265	F	F	F	F 270	F 255	270	265	285	285	275	305	320	310	305	305	R	R	R
13	R	R	R	R	R	F	F	B	A	F	F	A	F	F	265	265	240	260	225	R	U F 285	F	F 275	R
14	F	F 270	F	R	F	F	F	F	A	A	220	215	B	R	225	350	245	R	255	F 340	F 335	U F 315	F 280	B
15	A	R	B	B	B	R	A	F	A	235	240	R	250	240	255	265	280	255	290	320	290	290	F	F
16	F	F	B	B	270	F	F	F	255	F 260	245	245	260	280	280	280	275	305	300	325	305	305	315	300
17	R	R	F	R	R	R	R	R	F	F	F 270	275	270	255	260	F 275	280	U F 280	F 290	F 285	F 275	F 300	R	F
18	310	F	A	F	F 245	F	F	F	F	F	255	275	F 285	F 290	F 285	280	285	285	305	305	310	320	310	280
19	F	F	F	F	F	275	245	250	245	265	255	275	255	255	275	280	295	285	310	300	345	315	305	310
20	R	F	F	260	270	270	255	265	260	265	265	270	285	285	270	280	305	300	310	280	285	340	F	B
21	R	F	F	A	A	A	F	F 240	F 250	F	F	F	F	F	F 260	F	F	275	280	F 265	F	F	F	A
22	F	F	A	B	240	F	F	U F 240	F	F	F	F 255	F 270	260	280	260	280	285	290	F 275	F 305	315	F	F
23	A	A	B	F	F	F	F	F	F	F	F 260	F 255	F 260	275	290	295	F 290	F 305	300	290	290	R	F	U F 310
24	310	A	A	A	A	A	F 260	F 235	220	A	B	B	240	B	B	F	F 305	F	F 300	F 305	F	F 290	R	F 295
25	R	F 265	F	B	F 265	F	F	265	260	260	F 245	240	265	F 275	F 270	F	275	F	275	F	F 295	310	335	U F 315
26	R	F	F	F	A	B	F	F	U F 240	F	F 255	F 245	F	F	F	F	F 245	F	R	A	320	F	A	F
27	F	A	A	A	F	R	F	A	A	B	B	B	B	F	F 260	U F 260	F	F 350	285	320	F	F	R	F
28	A	A	A	F	B	A	220	U F 250	260	260	F	F 260	F 265	F 275	F 270	F 270	290	R	B	300	295	F 300	F 325	F
29	F	F 300	A	F	F 255	A	F 240	F	F	F 250	270	F 265	260	285	F	F 290	300	300	305	315	325	300	305	F 315
30	R	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F 265	275	255	F 295	B	315	325	F	F 340
31	300	U S 285	S	F	U F 270	F 250	F	F	270	275	275	270	285	F 275	280	F 285	F 295	F	F 295	F 300	F 315	F	F	F 325
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	7	6	1	4	9	5	6	8	13	17	22	23	23	21	25	25	28	23	27	25	27	22	17	13
MED	310	278	F 275	265	F 265	F 265	250	F 250	255	260	258	270	265	275	275	280	290	295	300	305	310	318	305	310
UQ	310	285		F 275	270	270	F 260	262	260	265	270	272	280	285	280	285	295	305	308	320	320	320	320	F 320
LQ	295	F 270		258	F 250	F 255	240	F 240	245	F 255	250	255	260	265	265	265	278	280	290	300	300	305	300	300

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DEC. 1966 | M(3000)F2 (0.01)

DEC. 1966 | H'F2 (KM) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	A	B	A	470	R	470	430	395	385	370	400	R					
2						480	400	400	390	375	370	380	325	390	390	315	340	300	300	270				
3					390	370	320	330	310	325	370	365	315	370	325	310	300	290	285					
4						380	360	365	315	340	370	430	400	400	400	500	400	370	330					
5					B	R	A	A		B	515	600	B	B	390	400	320	330	290					
6						A	A	R	575	500	470	435	595	R	475	480	380	L	340					
7				325	375	335	400	395	400	380	320	340	370	340	365	390	380	310						
8					320	360	315	370	395	350	390	340	390	370	360	340	320	300	290					
9					385	370	380	400	400	370	370	365	370	390	360 A	320	300	305	280					
10				340	340	340	300	380	385	330	375	360	380	325	335	340	325	300						
11						400	400	440	370	315	385	330	325	370	320		370	340						
12					380	370	320	390	390	370	370	370	330	320	360	290	300		L					
13						A	390	B	A	570	530	A	470	620	490	470	500	410	590	R				
14					530	500	390	690	A	A	650	670	B	R	620	R	560	R						
15				B	B	R	A	660	A	560	A	530	510	490	480	460	400	450						
16				B	B	400	460	410	400	400	420	390	390	380	315	370	360	300	290					
17						350	360	370	350	330	320	315	330	380	360	330	345	315						
18				480	410	410	400	430	620	490	430	340	330	370	335	305	360	360						
19					580	420	470	425	430	400	400	395	430	450	400	390	310	320	295					
20				400	370	330	390	330	355	380	370	360	320	370	390	390	300	340						
21				A	A	A	470	400	A	430	400	400	410	410	410	350	370	330	385	450				
22				B	A	B	510	500	430	470	430	405	395	450	390	420	340	330	330	340	290			
23				380	360	330	425	480	380	375	405	B	415	390	320	380	380	300						
24				A	A	A	A	485	A	A	B	B	B	B	B	310	295	385						
25				B	415	400	330	395	415	410	430	455	390	390	380	340	305	365	350					
26				540	A	B	A	570	460	425	405	440	430	470	400	440	470	L	R	A	320			
27				A	380	R	A	A	A	B	B	B	B	470	390	395	570	L	L	300				
28					B	A	R	430	405	405	410	415	390	370	350	385	325	R	B	L	370			
29					440	A	490	390	370	390	375	390	385	320	305	340	320	320	300					
30				390	370	370	370	300	330	340	370	375	360	360	320	365	350	375	305	B	300			
31				390	395	400	375	370	315	300	330	370	340	330	370	385	320	300	310					
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT				8	16	19	23	26	23	26	28	26	27	27	30	29	31	25	16	4	4			
MED				390	382	370	390	400	390	380	395	385	390	380	375	380	345	330	302	320	310			
UQ				440	412	400	412	440	410	425	430	430	412	420	400	395	380	365	335	395	345			
LQ				360	370	355	360	370	362	340	370	360	335	370	335	340	320	300	290	285	295			

DEC. 1966 | H'F2 (KM)

IONOSPHERIC DATA

DEC. 1966 | H'F (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	B	230	A	A	A	B	A	220	230	200	205	225	195H	200	225	235B	200	200	210	A	A
2	A	A	B	A	A	A	295A	A	200	200	200	200	200H	200	200	190H	205	205	210	205	225	240	280	300A
3	A	A	B	B	A	225	210	195	195	195	200	200	200	205	200H	200	200	A	200	200	230	215	225	240
4	260	280	B	B	195	280	A	200	190H	200	200	B	220	195	210	195H	200H	200	200	270	310EA	A	A	A
5	A	A	A	A	B	A	A	A	240	B	200H	195	B	B	220	210	210	205	235	255	220	A	B	330A
6	310	A	295	215	270A	A	A	A	A	195	195	195	205	190H	210	200	210	215	240	215	205	250	225	290
7	290	220	240	270	270	220	230	225	200	220	200	180H	200	195	200	215	210	200	200	205	215	220	230	215
8	280	280	290	270	210	240	205	200	200	195H	200H	195	190H	200	215	200H	220	200	210	210	215	240	210	240
9	275	290	A	A	A	280	250	200	200	290H	200	200	A	A	A	210	A	200	205	200	205	230	250	265
10	280	275	300	250	215	220	200	210	195	200	200	250	210	200	205	200	200	200	210	230	225	225	270	230
11	300	300	300	200	290	210	200	200	200	200	200	200	200	200	195	195	200	200	220	220	225	A	250	270
12	270	270	230	200	250	220	200	200	200	200	200	200	200	200	195H	195	200	200H	200	200	240	260	220	220
13	230	270	290	230	260	A	200	B	A	270	225	A	200	200	200H	200	200	205	225	A	295	290	230	320
14	330	390	350	A	240	250	290	240	A	A	250	210	B	200H	220	215	210	R	200	200H	200	310	A	B
15	390	360	B	B	B	A	A	A	A	330	A	A	290	210	195	210	200	210	220	215	290	290	270	280
16	A	330	B	B	B	290	210	200H	200H	200H	250EB	260	210	205	200	200	200	210	200	210	210	260	250	210
17	220	200	235	250	220	230	235	205	195	195	200	200	200	200H	270	215	235	200	210	200	215	260	290	270
18	305	290	A	A	A	300	225	210	300	200	A	205	200	200	200	200	200	200	230	230	260	210	260	190
19	200	290	290	A	A	320	300	200	200	200	200	200	200	200	200	220	200	200	200	200	200H	230	250	250
20	300	300	390	200H	230	230	200	195	200	200	200	200	200	200	200	200	200	200	200	200	215	220	290	B
21	A	B	295	A	A	A	A	A	A	R	295	220	200	210H	220	220	220	205	215	230	230	290	295	A
22	A	A	A	B	A	B	250	200	210	200	200	200	215	220	205	215	220	215	200H	205	230	230	A	A
23	A	A	B	A	A	230	A	290	240	200	200H	B	190H	210	210	205	210	200	205	215	270	270	270	300
24	A	A	A	A	A	A	A	300	A	A	B	B	B	B	B	215	B	B	255	240	240	240	320	210
25	290	A	A	B	A	A	220	205	200	R	225	205	200H	200	200	B	B	215	210	225	205	250	240	220
26	290	A	A	A	A	B	A	A	A	200	220	235	225	205	B	B	270	220	220	A	A	A	A	A
27	A	A	A	A	A	B	A	A	A	B	B	B	B	225	B	210	290	195	270	270	A	260	A	A
28	A	A	A	290	B	A	A	230	B	225	200	200	205	250	210	210	205	240	B	210	270	315	300	290
29	350	380	A	A	A	A	300	240	205	200	200	200	205	B	220	210	A	200	200	240	255	200	230	230
30	240	285	290	A	270	280	265	215	200	200	200	200	200	200	200	A	200	R	200H	B	210	250	240	210
31	280	275	240	270	205	200	200	210	200	200	250EB	255EB	200	225	230	200	200	200	210	225	240	240	250	270
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	20	18	14	11	14	17	20	22	21	24	27	25	26	27	27	28	27	27	30	28	29	27	24	23
MED	285	288	290	250	235	230	222	205	200	200	200	200	200	200	205	202	200	200	210	212	225	240	250	250
UQ	302	300	300	270	270	280	258	225	200	200	210	208	205	208	218	212	210	210	220	230	240	260	275	285
LQ	265	275	240	208	215	220	200	200	200	200	200	200	200	200	200	200	200	200	200	200	210	228	230	220

DEC. 1966 | H'F (KM)

IONOSPHERIC DATA

DEC. 1966 | H'ES (KM) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	100	100	100	B	100	130	100	120	B	100	B	B	B	B	B	G	B	B	B	125	110	100	105	100
2	100	100	B	100	100	100	100	100	100	G	G	100	100	100	100	100	G	100	150	120	G	165	130	110
3	100	105	B	B	100	100	100	100	G	G	100	100	100	100	120	G	100	100	100	100	100	105	105	120
4	100	100	B	B	100	130	100	100	100	100	100	B	B	100	G	100	100	100	100	100	100	100	100	100
5	100	100	100	100	B	100	100	100	100	B	B	100	B	B	B	G	G	G	170	160	100	100	B	100
6	100	100	100	100	100	100	100	100	100	140	G	140	130	G	G	100	100	100	G	G	105	G	100	130
7	130	120	100	120	105	120	100	100	100	G	100	100	100	100	100	100	100	100	G	100	100	120	100	100
8	150	150	120	100	G	G	G	100	100	100	G	100	100	100	100	100	100	100	100	130	100	110	105	100
9	100	100	160	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	130	100	105	100	100
10	B	100	100	E G 160	100	100	100	100	100	100	100	100	100	100	100	B	100	100	100	G	100	100	120	100
11	105	100	100	100	100	100	G	G	G	100	100	100	100	100	100	100	100	100	140	130	120	100	100	130
12	120	110	105	100	100	115	100	100	100	100	100	100	100	100	100	100	100	100	G	G	100	100	105	105
13	100	115	100	100	130	100	100	B	100	100	B	100	B	G	100	G	100	100	G	175	140	115	100	100
14	100	100	110	100	G	100	100	100	100	100	100	100	B	B	100	100	100	100	100	100	100	105	100	B
15	100	100	B	B	B	100	100	100	100	100	100	100	100	B	100	B	B	B	B	110	100	150	G	B
16	100	100	B	B	B	100	100	E G 140	G	B	B	B	110	100	100	B	B	G	B	B	100	B	105	105
17	100	100	100	B	170	100	100	100	G	G	B	B	100	100	B	100	B	B	G	B	170	115	100	110
18	100	110	100	100	100	G	150	100	100	100	100	100	100	100	100	100	100	100	E G 165	100	130	130	G	180
19	100	100	100	100	100	100	100	G	100	100	100	100	100	105	105	100	100	110	120	155	G	120	100	120
20	100	125	100	100	G	G	G	G	G	G	100	G	G	100	100	100	G	100	130	100	170	B	170	B
21	130	B	100	100	100	100	100	100	100	100	100	100	100	G	B	100	B	130	110	100	100	120	115	110
22	100	100	100	B	100	B	100	100	100	100	100	G	G	B	B	G	100	G	100	100	160	100	100	135
23	100	100	B	105	100	100	100	100	100	110	100	B	100	100	110	110	G	120	120	105	100	105	160	105
24	100	160	120	100	100	100	100	100	100	100	B	B	B	B	B	B	120	150	130	130	140	130	130	100
25	110	110	105	B	100	100	100	100	100	100	B	B	G	G	100	B	B	B	B	B	150	100	110	170
26	100	100	100	100	100	B	100	100	100	170	B	B	B	B	B	B	100	B	G	100	105	100	100	125
27	100	100	100	100	100	B	100	100	100	B	B	B	B	B	B	B	100	B	170	150	115	105	150	100
28	100	100	100	100	B	100	100	100	B	105	100	100	100	110	B	B	B	100	B	125	105	100	100	100
29	115	110	100	100	115	105	100	100	100	G	100	G	100	B	100	100	100	100	100	140	120	110	140	130
30	115	105	120	105	100	105	100	100	100	100	100	100	G	100	100	110	100	100	G	B	130	100	130	110
31	130	160	135	105	105	G	100	100	100	100	B	B	B	B	110	100	E G 120	G	G	100	B	B	B	105
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	30	30	25	23	24	24	28	27	24	22	18	18	18	17	20	18	20	21	18	24	28	27	27	28
MED	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	115	105	105	105	105
UQ	110	110	105	100	100	102	100	100	100	100	100	100	100	100	100	100	100	100	135	130	130	118	125	122
LQ	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

DEC. 1966 | H'ES (KM)

IONOSPHERIC DATA

JAN. 1967 | FOF2 (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Day \ Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F	R	R	R	F	F	F	F	F	F	F	F	F	F	79	80	82	F	F	F	51	F	F	F
2	F	A	F	F	F	A	F	A	A	F	F	F	F	J F 68	63	65	65	63	62	58	52	52	R	F
3	S	F	S	J F 52	F	F	F 53	F 56	F 61	62	64	62	62	64	F 66	F 66	70	U F 62	B	F 57	43	47	F	F 48
4	S	U S 57	U S 62	F 65	U S 73	S 78	F 83	86	91	92	91	84	83	75	70	67	64	65	62	59	60	F 65	59	56
5	S	S	S	S	S	F	F	F	F	F	88	79	79	78	75	66	65	66	67	68	67	64	F	S
6	S	S	S	S	S	F	F	F	F	F 80	F 76	F	83	75	68	71	66	66	66	64	64	58	S 58	J S 61
7	S	U S 67	S	S	F	F	87	88	89	88	88	91	91	93	F	F	F	B	R	F	F	51	F	F
8	F	F	A	A	F	F	A	A	A	A	A	B	F	R	F	R	R	A	A	F	F	A	A	F
9	F	F	F	38	F 42	F	F	F	F 60	A	J F 62	F 66	57	56	F 56	F 56	F 60	F 57	F 53	F 54	53	U F 51	J S 48	44
10	F	F	F	F	F	F	F	J F 79	F	F 78	76	78	74	68	67	72	69	64	63	64	62	54	F	F 41
11	F	S	S	F	B	A	54	F	F	71	76	78	F 78	72	73	71	70	71	F 64	F	F 52	F 48	F	U F 47
12	F	F	R	J F 40	F	F	F	69	F 73	F 71	73	70	67	66	65	63	61	61	60	F 56	55	58	57	54
13	54	57	J F 57	F	F	F	F	F	J F 68	F	F	F	91	F	F	F 80	66	86	F	F	F	J F 57	S	A
14	A	A	A	F	A	A	A	F	A	A	A	A	F 42	R	R	C	C	F	U F 57	F	F 51	54	52	A
15	F	J F 55	J S 53	F	A	F	F 48	F 52	F 59	62	65	56	56	53	53	54	56	55	F 57	F	51	46	F	F
16	F	F	A	A	F	F 51	F 51	B	F 57	B	J F 60	F 66	F	F	F	F	71	F	58	56	F 49	F 44	J F 46	F
17	F	R	R	F	A	F	R	F 52	F 52	F 49	F	F 56	56	F 68	F	F 65	F 63	F 58	61	57	54	54	F 52	41
18	J F 40	F	S	S	F	A	F	J F 50	F	J F 60	U F 54	F 49	52	53	55	59	56	58	58	58	61	54	S	F
19	S	U F 43	F 43	R	F	F	F	F	F	78	72	71	66	66	63	F 51	62	62	58	56	J F 58	F 58	F	40
20	B	F	F	F	R	F	F	A	F 53	F	J F 59	F 63	66	71	F 77	68	68	F 66	R	R	A	A	A	F 40
21	F	F	F	F	U F 37	A	A	A	A	R	R	F 53	F 52	52	52	53	58	60	F 57	U F 47	U F 48	F 46	F	F
22	S	F	F	F	A	R	F 58	64	70	F 69	69	68	63	57	56	55	56	58	57	F 57	56	55	F	F
23	F	R	F	R	F	R	F	F	J F 76	F	F 78	U F 77	F 75	71	63	61	61	57	57	58	57	S	U S 71	56
24	U F 56	S	F	F	S	F	F	F	F	F	87	86	79	72	69	65	F 63	F 61	62	61	S 63	51	F 60	J F 62
25	R	S	S	F	F	F	F	F	F 93	92	89	92	88	83	81	80	71	66	66	F 63	F 63	F	F 66	R
26	R	R	R	R	S	F	F	R	U S 97	91	92	90	79	72	70	F 68	F 63	F	60	J F 62	F	F	J R 61	R
27	R	R	R	F	F	F	F	F	F	F 94	94	92	88	83	82	74	73	68	66	66	F 64	65	U F 66	J S 62
28	J F 62	J F 64	R	F	F	F	F	F	A	A	F	F	B	F	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	56	F	B	B	J R 76	R	R	R	R 93	U F 93	R 88	R	82	72	70	64	63	F 63	63	F	F 62	F 57	F
31	F	U F 51	F	F	F	68	F 72	F	F	F 91	F	91	F 83	F 78	76	F 73	68	F 68	64	F 62	F	U F 62	F	F
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	4	8	4	4	3	4	8	9	14	17	21	23	24	24	23	25	26	23	23	21	22	23	13	13
MED	F 55	56	55	F 46	U F 42	72	F 56	F 64	F 69	78	76	77	74	71	68	66	64	63	61	58	56	54	58	48
UQ	F 59	60	60	F 58	58	77	F 78	79	89	91	88	87	83	76	74	71	69	66	64	63	62	58	61	56
LQ	47	F 53	48	39	F 40	60	F 52	F 52	F 59	F 69	65	F 64	60	65	63	61	61	59	58	57	51	51	52	F 41

JAN. 1967 | FOF2 (0.1 MHZ)

JAN. 1967 FOF1 (0.01 MHZ) 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1				B	390	B	420	460	450	470	470	480	480	490	470	470	450	460	410	A	A			
2				A	A	A	A	420	450	440	460	460	460	490	A	470	480	L	L	L				
3					360	390	410	420	440	450	450	470	470	460	490	480	460	460	B	L				
4				L	370	400	410	440	460	470	480	490	480	490	500	490	L	L	L					
5					S	L	440	440	440	470	490	500	500	500	500	L	490	L	L					
6					S	420	430	430	450	450	480	480	480	L	500	A	470	A	L	L				
7					370	400	420	450	450	460	470	510	480	500	490	480	460	B	R					
8							A	A	A	A	A	B	R	440	420	R	410	A	A	A				
9				A	R		A	430	430	A	460	470	B	470	460	480	460	L	L	L				
10				A	390	380	400	430	430	440	450	470	440	500	490	470	L	L	L	L				
11					B	A	410	460	440	440	460	470	460	470	480	L	L	L	L	L				
12						R	410	410	430	450	460	470	500	470	470	480	460	L	L					
13				A	360	370	440	450	460	470	470	470	470	480	470	L	420	430	420					
14					A	A	A	A	A	A	A	A	R	R	R	C	C	420	L	400				
15					A	A	380	380	400	400	420	440	440	430	430	440	430	420	L	L	L	L	L	
16							A	B	410	B	450	420	450	440	440	440	430	420	430	L				
17					A	A	F	430	420	430	430	450	470	450	R	L	450	L	L	L	L	L		
18						A	A	410	420	430	430	440	440	450	450	460	450	420	400					
19					330	370	380	400	420	430	440	450	450	450	460	450	440	L	L	L				
20					R	380	390	A	440	440	440	450	460	460	480	460	450	440	R	R	A			
21						A	A	A	A	R	R	460	450	450	420	450	440	430	L					
22					A	A	390	410	430	440	440	450	470	500	L	450	L	450	L					
23						370	420	440	430	440	450	460	480	480	490	L	L	L	L					
24					L	390	430	460	440	470	460	470	490	500	490	L	L	L	L	L	A			
25				L	L	400	400	420	440	470	480	490	500	490	500	L	L	L	L					
26						370	410	430	450	470	460	480	470	490	470	L	L	L	L	L				
27							420	440	450	480	480	490	510	A	500	L	L	A						
28							420	440	A	A		460	B	B	B	B	B	B	B	B	B	B		
29				B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B		
30				B	B	B	B	B	B	B	B	B	B	520	L	B	L	B	B	L				
31							450	460	450	470	480	500	500	500	480	L	L	L						
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT					7	12	21	24	25	23	25	27	25	26	24	15	17	10	4	1				
MED					370	385	410	430	440	450	460	470	470	480	480	470	450	430	415	400				
UQ					380	400	420	445	450	470	470	480	480	500	490	480	460	450	425					
LQ					360	370	400	420	430	440	450	455	460	450	460	450	440	420	405					

JAN. 1967 FOF1 (0.01 MHZ)

IONOSPHERIC DATA

JAN. 1967 | FOE (0.01 MHZ) | 45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	B	A	B	B	A	B	B	A	310	B	A	A	325	A	A	B	A	A	A	A	A	A	A	B
2	A	B	A	A	A	A	A	A	A	A	335	340	345	A	A	325	315	300	295	270	250	220	A	A
3	A	A	A	A	A	A	A	A	A	A	A	A	A	325	A	A	A	B	B	A	240	A	A	A
4	A	A	A	A	A	A	A	280	290	315	325	A	A	R	A	320	310	300	280	A	A	220	A	A
5	A	A	A	A	A	265	290	300	325	335	340	A	A	330	325	A	A	A	A	275	265	220	185	A
6	A	185	A	A	A	A	A	A	A	325	A	A	A	A	325	A	A	A	A	A	A	200	A	A
7	A	A	A	A	A	250	265	290	A	320	A	A	A	330	A	320	A	B	R	A	A	A	A	A
8	A	A	A	A	A	A	A	A	A	A	A	B	345	A	A	R	A	A	A	A	A	A	A	A
9	A	A	A	A	A	A	A	A	A	A	A	A	B	B	A	A	A	300	A	A	A	A	A	A
10	A	A	A	A	A	A	A	290	300	315	325	A	A	345	A	320	A	305	295	260	A	A	A	A
11	A	A	A	A	B	A	A	A	330	335	330	A	A	A	340	A	315	295	B	260	A	A	A	B
12	B	B	B	B	B	B	B	B	B	325	340	R	330	A	A	R	A	A	295	270	H 240	A	A	A
13	180	190	200	A	A	A	A	A	310	320	R	335	B	A	A	A	B	300	A	A	A	A	A	A
14	A	A	A	A	A	B	A	A	A	A	A	A	A	A	A	C	C	A	A	B	B	A	A	A
15	A	A	A	A	A	A	295	A	305	315	A	325	A	A	A	R	305	295	275	A	A	240	A	A
16	B	A	A	A	A	A	A	B	A	B	A	B	A	A	A	R	B	B	270	R	A	235	A	A
17	A	B	A	A	A	A	A	A	A	A	320	R 310	A	A	R	A	A	280	275	H 265	230	A	190	170
18	R	A	A	A	A	A	A	A	A	305	A	A	A	310	325	A	305	A	275	250	220	195	A	A
19	A	A	A	A	245	275	H 280	275	290	R	A	325	330	320	A	A	A	295	275	265	225	A	A	A
20	B	A	A	A	A	A	A	A	A	310	315	320	B	B	A	320	305	R	R	A	A	A	A	A
21	A	A	A	A	A	A	A	A	A	A	A	A	B	A	B	B	R	300	275	A	A	A	A	A
22	A	A	A	A	A	A	A	290	A	315	A	A	A	A	325	310	305	280	275	A	A	A	A	A
23	A	A	A	A	A	A	A	280	A	305	325	335	340	A	330	325	320	310	290	265	225	205	A	160
24	A	A	A	A	A	A	A	A	A	A	330	335	R	A	330	A	A	A	H 290	265	240	A	A	B
25	A	A	A	A	A	240	A	280	300	320	325	330	325	A	A	A	A	295	290	265	A	A	A	A
26	A	A	A	A	A	A	260	275	300	A	B	A	A	A	A	A	A	A	A	265	A	A	B	B
27	A	A	A	B	A	A	250	280	R	325	330	335	A	A	A	R	A	A	285	265	A	A	A	A
28	B	170	A	A	A	A	A	A	A	A	B	350	B	B	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
31	B	B	B	B	B	B	B	B	B	B	A	B	B	B	B	R	B	B	A	A	A	B	B	B
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	1	3	1		1	4	6	10	10	15	12	11	7	6	7	7	8	13	15	13	9	8	2	2
MED	180	185	200		245	258	272	280	302	320	328	335	330	328	325	320	308	300	280	265	240	220	188	165
UQ		188				270	290	290	310	325	332	335	342	330	330	322	315	300	290	265	240	228		
LQ		178				245	260	280	300	315	325	325	328	320	325	320	305	295	275	265	225	202		

JAN. 1967 | FOE (0.01 MHZ)

IONOSPHERIC DATA

JAN. 1967 | FOES (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	J X 54	J X 55	30	E B 45	J X 39	E B 45	E B 35	J X 56	G	E B 33	37	38	40	40	40	E B 36	J X 47	31	29	J X 76	J X 47	J X 44	J X 40	J X 41
2	J X 40	J X 59	J X 32	J X 45	J X 41	J X 38	J X 54	J X 60	J X 77	40	G	G	G	J X 39	J X 78	33	J X 49	38	36	G	G	G	28	J X 23
3	J X 24	J X 32	J X 77	J X 49	J X 42	J X 41	J X 38	J X 32	J X 32	36	J X 35	J X 76	J X 61	45	J X 57	J X 48	J X 36	E B 31	B	J X 33	J X 30	26	J X 23	J X 25
4	J X 22	J X 21	J X 21	31	J X 35	J X 42	J X 52	J X 35	J X 65	J X 74	J X 60	J X 124	J X 54	G	J X 59	37	J X 87	J X 106	J X 53	J X 42	J X 57	J X 37	J X 25	J X 22
5	J X 25	J X 25	J X 30	J X 35	32	32	35	J X 43	G	G	G	J X 37	J X 60	J X 58	J X 40	J X 40	J X 42	J X 51	J X 53	J X 37	G	27	J X 42	J X 62
6	J X 62	G	22	J X 20	J X 50	J X 45	J X 47	38	J X 32	38	J X 35	J X 32	J X 37	J X 33	38	J X 65	J X 35	J X 65	J X 37	J X 50	J X 27	22	J X 61	J X 53
7	J X 22	24	25	J X 25	J X 23	J X 33	33	36	J X 33	G	J X 36	J X 52	J X 46	J X 40	J X 58	J X 42	J X 31	B	G	J X 37	J X 49	J X 50	J X 47	J X 35
8	J X 21	J X 37	J X 42	J X 42	D	J X 55	J X 100	J X 60	J X 74	J X 57	D	B	35	J X 31	J X 62	G	J X 38	J X 40	26	J X 46	J X 41	J X 86	J X 56	J X 32
9	J X 30	J X 34	30	36	J X 38	26	J X 42	J X 36	J X 53	J X 63	J X 41	J X 41	E B 53	E B 38	J X 27	J X 38	J X 35	J X 45	J X 55	28	26	J X 30	J X 43	J X 32
10	J X 34	J X 33	31	J X 60	30	J X 51	J X 37	35	J X 54	35	38	38	J X 42	38	J X 57	J X 74	J X 40	J X 52	G	33	J X 34	26	28	J X 30
11	J X 32	J X 30	J X 40	J X 52	B	J X 45	37	J X 35	G	34	36	35	38	34	G	J X 36	G	G	E B 33	29	J X 30	J X 34	J X 40	32
12	J X 32	J X 31	J X 37	38	J X 34	38	E B 36	E B 32	E B 33	G	J X 58	G	J X 41	34	J X 37	G	J X 36	32	32	G	J X 52	J X 26	J X 23	J X 61
13	G	G	G	J X 23	27	J X 38	J X 48	J X 42	G	35	G	J X 58	E B 41	36	34	33	E B 32	G	J X 34	J X 37	J X 36	J X 27	J X 33	J X 61
14	J X 53	J X 51	J X 57	J X 56	J X 48	J X 53	J X 59	J X 65	J X 56	J X 60	J X 58	J X 86	34	39	J X 36	C	C	J X 51	J X 64	E B 32	38	J X 54	J X 61	J X 77
15	J X 61	J X 50	J X 36	J X 62	J X 75	J X 32	J X 32	J X 66	J X 59	G	J X 42	J X 52	35	38	38	G	G	G	G	32	J X 43	26	J X 26	34
16	E B 33	J X 52	J X 47	J X 42	J X 47	J X 38	J X 42	B	J X 46	B	37	E B 37	J X 33	33	33	G	E B 34	E B 33	28	G	28	25	J X 25	33
17	32	J X 41	38	40	J X 47	J X 45	J X 41	42	44	J X 42	G	G	36	J X 36	32	31	J X 76	33	J X 32	28	27	22	G	G
18	G	J X 30	J X 33	J X 38	J X 39	44	J X 45	J X 41	J X 34	33	J X 58	J X 31	J X 35	J X 32	J X 37	J X 32	31	J X 57	34	26	J X 52	26	J X 22	27
19	31	32	J X 30	31	J X 36	J X 34	G	G	G	G	J X 42	G	G	J X 48	J X 39	J X 34	J X 36	J X 60	J X 56	G	26	J X 31	J X 22	J X 39
20	B	J X 42	J X 42	J X 33	J X 36	J X 33	J X 61	J X 44	J X 62	G	37	36	E B 34	E B 34	34	G	G	G	G	27	J X 75	J X 64	J X 51	J X 38
21	J X 38	J X 32	J X 21	J X 23	J X 20	J X 97	J X 54	J X 63	J X 54	J X 36	J X 42	37	E B 38	34	E B 38	E B 34	G	J X 34	G	J X 37	J X 36	J X 44	J X 60	J X 33
22	J X 31	J X 32	J X 60	J X 50	J X 49	J X 44	J X 37	36	35	37	J X 37	42	J X 42	J X 57	38	34	J X 42	J X 52	J X 37	J X 37	J X 42	29	J X 30	J X 30
23	J X 35	J X 29	22	27	J X 65	J X 36	J X 36	34	36	J X 52	G	G	40	J X 58	G	34	G	G	G	29	27	J X 42	J X 22	J X 22
24	J X 21	J X 25	J X 22	26	27	26	J X 37	J X 46	J X 31	J X 32	G	34	G	J X 37	G	J X 33	J X 46	J X 58	G 25	J X 31	J X 37	J X 35	J X 32	E B 18
25	J X 36	J X 27	J X 23	J X 20	26	G	J X 48	J X 38	37	34	38	J X 41	J X 51	J X 61	J X 45	J X 37	J X 32	G	G	32	J X 31	J X 78	J X 43	J X 25
26	31	J X 26	J X 34	J X 31	32	J X 26	G 28	J X 47	J X 42	J X 50	E B 33	35	37	38	38	J X 52	J X 47	J X 33	J X 55	J X 42	27	23	E B 18	E B 22
27	26	31	J X 32	E B 23	J X 22	J X 32	G	G	G	35	J X 47	J X 43	J X 41	J X 76	J X 74	38	J X 48	J X 57	J X 33	35	J X 37	J X 22	J X 41	J X 26
28	E B 13	J X 22	J X 26	J X 21	J X 62	J X 51	J X 71	J X 43	J X 60	J X 55	38	36	B	E B 51	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	E B 42	E B 43	B	B	E B 63	E B 58	E B 54	E B 59	E B 53	E B 55	E B 55	E B 53	E B 45	E B 44	E B 45	E B 42	E B 44	E B 40	E B 35	E B 35	E B 33	E B 32	E B 31
31	E B 23	E B 20	E B 22	E B 25	E B 33	E B 38	E B 35	E B 35	E B 35	E B 35	38	E B 38	E B 37	E B 38	E B 37	G	E B 34	28	J X 32	J X 40	26	E B 23	E B 21	E B 22
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	28	30	30	29	28	30	30	29	30	29	30	29	29	30	29	28	28	28	28	29	29	29	29	29
MED	J X 31	J X 32	J X 31	J X 34	J X 37	J X 38	J X 39	J X 40	J X 36	35	38	36	37	37	38	34	J X 36	35	32	32	J X 35	J X 28	J X 32	J X 32
UQ	J X 36	J X 39	J X 39	J X 45	J X 48	J X 45	J X 50	J X 46	J X 55	J X 46	J X 42	J X 42	J X 42	J X 42	J X 45	J X 38	J X 44	J X 52	J X 38	J X 37	J X 42	J X 42	J X 43	J X 38
LQ	J X 22	J X 25	23	J X 25	30	J X 32	34	35	E G 32	E G 33	35	33	34	34	34	32	E G 32	E G 30	E G 25	28	27	26	J X 23	J X 24

JAN. 1967 | FOES (0.1 MHZ)

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JAN. 1967 | F-MIN (0.1 MHZ) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	27	15	25	45	18	45	35	15	14	33	21	18	16	18	15	36	15	14	13	11	13	13	13	18
2	16	33	13	14	E	14	13	13	13	14	17	13	13	16	14	14	13	13	13	13	16	13	12	13
3	11	12	13	16	13	15	13	14	13	14	14	14	14	15	29	19	14	31	B	14	13	13	12	13
4	13	13	14	E	E	13	E	14	13	14	14	14	14	22	18	18	13	17	17	16	14	13	13	13
5	11	12	14	19	13	13	13	14	14	14	15	14	16	14	16	14	16	13	13	14	14	15	14	14
6	14	14	15	14	13	15	18	14	E	13	14	13	14	18	15	18	14	13	14	13	14	E	11	13
7	13	13	E	E	E	E	13	E	13	16	19	14	14	15	19	14	13	B	14	13	15	17	13	14
8	15	14	18	14	14	14	27	19	14	14	15	B	15	14	13	23	15	15	16	E	14	15	13	14
9	13	13	14	13	E	13	13	14	14	20	18	28	53	38	15	15	13	13	14	13	14	E	E	E
10	13	E	19	17	23	E	15	13	13	E	14	14	14	13	13	13	13	13	14	12	E	13	13	15
11	16	14	14	14	B	32	18	16	17	14	19	18	24	19	16	13	15	15	33	14	16	14	16	25
12	24	25	32	33	34	34	36	32	33	22	19	20	22	18	23	19	19	20	17	17	14	16	15	16
13	14	14	16	21	16	17	14	16	17	14	13	E	41	20	19	20	32	17	24	14	13	13	14	15
14	18	14	14	12	18	39	15	14	E	19	19	19	14	20	20	C	C	34	27	32	32	14	16	14
15	14	13	12	13	16	18	13	14	14	13	13	14	14	17	13	23	17	14	15	16	13	14	13	14
16	33	22	19	19	19	16	18	B	17	B	23	37	18	24	23	18	34	33	20	19	24	14	13	16
17	15	30	E	15	17	13	12	20	15	25	18	20	16	16	23	18	18	15	15	21	16	14	15	14
18	13	14	23	13	18	19	22	14	14	14	14	13	13	14	15	15	14	13	14	14	13	12	12	21
19	15	13	14	15	13	13	14	13	13	14	14	16	14	16	14	14	13	13	12	18	14	13	13	17
20	B	18	19	15	15	13	15	15	17	15	14	14	34	34	31	23	13	14	15	15	16	14	14	15
21	16	14	14	14	15	14	22	19	14	22	27	23	38	30	38	34	23	16	14	14	16	15	15	15
22	14	14	20	19	18	19	14	14	14	15	14	15	14	15	15	16	15	14	13	14	12	11	13	13
23	13	12	13	13	18	14	13	13	13	14	14	14	14	14	19	15	14	15	13	E	E	E	E	E
24	13	E	17	15	12	13	12	23	24	20	25	17	18	17	13	16	15	15	15	14	15	15	14	18
25	13	12	E	13	19	14	11	13	13	18	14	14	14	16	14	16	15	17	14	12	13	13	E	13
26	13	14	15	E	11	13	11	E	E	13	33	33	30	19	24	18	16	14	13	12	17	13	18	22
27	19	20	16	23	14	22	16	21	20	18	18	18	20	21	19	18	17	14	13	11	E	E	E	E
28	13	11	13	16	E	13	16	23	22	24	35	24	B	51	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	42	43	B	B	63	58	54	59	53	55	55	53	45	44	45	42	44	40	35	35	33	32	31
31	23	20	22	25	33	38	35	35	35	35	33	38	37	38	37	23	34	27	23	22	23	23	21	22
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31
MED	14	14	15	15	16	14	15	14	14	15	18	17	16	18	19	18	15	15	15	14	14	14	13	15
UQ	18	19	19	19	18	20	20	20	17	22	22	24	32	23	24	23	19	24	22	18	16	15	15	18
LQ	13	13	14	13	13	13	13	14	13	14	14	14	14	16	15	15	14	14	14	13	13	13	12	13

The Radio Research Laboratories, Japan

JAN. 1967 | F-MIN (0.1 MHZ)

IONOSPHERIC DATA

JAN. 1967 | M(3000)F2 (0.01) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	F	R	R	R	F	F	F	F	F	F	F	F	F	F	265	265	245	F	F	F	325	F	F	F
2	F	A	F	F	F	A	F	A	A	F	F	F	F	F	265	275	290	285	290	295	290	300	R	F
3	S	F	S	F	F	F	F 250	F 230	F 245	240	250	260	260	245	F 250	F 255	245	U F 265	B	F 280	275	325	F	F 335
4	S	U S 280	U S 260	F 290	U S 265	S 255	F 255	240	245	255	260	260	270	280	280	275	265	290	300	290	295	F 310	295	295
5	S	S	S	S	S	F	F	F	F	F	270	265	265	255	280	290	270	290	285	300	300	315	F	S
6	S	S	S	S	S	F	F	F	F	F 250	F 255	F	265	265	265	275	275	290	305	315	315	295	S 295	S
7	S	U S 285	S	S	F	F	260	260	250	260	250	255	235	240	F	F	F	B	R	F	F	F 305	F	F
8	F	F	A	A	F	F	A	A	A	A	A	B	F	R	F	R	R	A	A	F	F	A	A	F
9	F	F	F	210	F 230	F	F	F	F 250	A	F	F 265	230	240	F 235	F 250	F 265	F 315	F 265	F 275	305	U F 290	S	320
10	F	F	F	F	F	F	F	F	F	F 245	260	270	270	260	270	255	265	295	285	315	320	335	F	F 295
11	F	S	S	F	B	A	250	F	F	255	260	255	F 265	270	275	285	270	270	F 295	F	F 300	F 300	F	U F 285
12	F	F	R	F	F	F	F	255	F 260	F 270	270	270	260	265	275	285	300	305	300	F 315	315	310	320	305
13	295	295	F	F	F	F	F	F	F	F	F	F	275	F	F	F 265	275	255	F	F	F	F	S	A
14	A	A	A	F	A	A	A	F	A	A	A	A	F 345	R	R	C	C	F	U F 310	F	F 290	280	320	A
15	F	F	S	F	A	F	F 270	F 230	F 245	255	290	230	270	230	240	265	280	265	F 300	F	310	300	F	F
16	F	F	A	A	F	F 295	F 240	B	F 265	B	F	F 290	F	F	F	F	285	F	275	315	F 315	F 320	F	F
17	F	R	F	F	A	F	R	F 230	F 230	F 245	F	F 285	275	F 250	F	F 290	F 300	F 275	305	300	315	315	F 310	F 320
18	F	F	S	S	F	A	F	F	F	F	U F 255	F 250	275	265	285	295	300	295	295	295	310	320	S	F
19	S	U F 300	F 285	R	F	F	F	F	F	270	265	255	275	290	285	F 330	295	325	325	320	F	F 300	F	305
20	B	F	F	F	R	F	F	A	F 250	F	F	F 270	260	260	F 245	270	270	F 260	R	R	A	A	A	F 275
21	F	F	F	F	U F 305	A	A	A	A	R	R	F 265	F 250	250	255	260	275	275	F 280	U F 280	U F 290	F 300	F	F
22	S	F	F	F	A	R	F 265	250	270	F 260	260	260	275	265	280	290	275	295	300	F 300	305	305	F	F
23	F	R	F	R	F	R	F	F	F	F	F 270	U F 270	F 280	280	275	275	280	300	295	305	310	S	U S 270	290
24	U F 295	S	F	F	S	F	F	F	F	F	275	265	280	275	290	285	F 290	F 295	300	310	S 315	355	F 315	F
25	R	S	S	F	F	F	F	F	F 270	270	260	260	275	275	260	275	280	305	305	F 300	F 315	F	F 320	R
26	R	R	R	R	S	F	F	R	U S 260	260	260	280	280	280	275	F 300	F 285	F	300	F	F	F	R	R
27	R	R	R	F	F	F	F	F	F	F 265	265	260	270	275	330	285	300	310	320	320	F 315	310	U F 320	S
28	F	F	R	F	F	F	F	F	A	A	F	F	B	F	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	280	F	B	B	R	R	R	R	F 260	U F 265	F 260	R	270	290	270	285	295	F 300	240	F	F 325	F 315	F
31	F	U F 290	F	F	F	270	F 250	F	F	F 260	F	265	F 270	F 275	275	F 300	295	F 310	315	F 310	F	U F 315	F	F
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	2	6	2	2	3	3	8	7	12	16	18	23	24	23	23	25	26	23	23	20	21	22	10	10
MED	295	U 288	272	250	U F 265	270	F 252	240	F 250	260	260	265	270	265	275	275	280	295	300	300	310	310	315	300
UQ		U F 295			U 285	282	F 262	252	262	262	270	270	275	275	280	290	290	302	305	315	315	320	F 320	320
LQ		U S 280			248	262	F 250	F 230	F 245	252	260	260	262	252	262	265	270	275	292	292	300	300	295	F 290

The Radio Research Laboratories, Japan

JAN. 1967 | M(3000)F2 (0.01)

IONOSPHERIC DATA

JAN. 1967 | H'F2 (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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				390	440	405	375	325	300	365	350	340	330	360	370	385	400	400	500	A	300			
2				A	A	A	A	790	A	660	590	570	470	360	A	370	330	375	325	300				
3					450	525	490	500	480	490	465	340	430	470	430	425	430	420	B	370				
4				370	370	380	340	380	390	385	370	370	340	340	370	390	L	370	L					
5					S	400	400	370	370	380	330	380	375	390	340	290	395	340	310					
6					S	390	430	410	390	390	390	415	390	390	390	390	395	A 310	300	L				
7					385	440	370	385	385	370	385	380	395	400	315	350	490	B	R					
8							A	A	A	A	A	B	R	R	860	R	A	A	A	A				
9				A	640		A	520	430	A	490	400	B	500	530	490	400	L	400	395				
10				430	390	460	410	390	370	390	385	385	345	390	395	350	310	305	330	290				
11					B	A	470	400	470	400	390	390	375	380	370	310	390	390	310	270				
12						420	430	400	390	380	370	390	400	390	390	360	330	315	L					
13				330	380	320	320	350	385	390	340	330	325	350	330	380	605	370	360					
14					A	A	A	A	A	A	A	A	R	R	R	C	C	380	310	370				
15					A	A	430	500	455	415	315	495	410	575	500	415	390	400	310	295	240	310	330	
16							500	B	410	B	450	355	505	410	470	400	330	315	370	290				
17					A	A	R	550	510	500	500	380	380	360	R	350	335	L	295	290	290	285		
18						A	A	510	410	310	515	510	425	485	390	360	310	320	315					
19					385	370	360	315	360	330	350	385	375	355	370	390	330	295	290	290				
20					R	F 450	395	A	440	400	395	390	400	400	365	370	370	410	R	R	A			
21						A	A	A	A	R	R	490	505	490	500	490	410	385	340					
22					A	A	405	380	390	370	400	390	390	500	390	395	400	340	315					
23						430	400	390	390	380	370	370	330	360	380	385	L	L	330					
24					370	390	370	370	330	325	315	325	340	370	360	355	340	L	315	280	270			
25				320	370	370	350	340	320	330	375	345	370	350	370	335	315	300	300					
26						340	370	370	315	350	350	315	345	370	370	310	370	L	270	260				
27							305	305	330	325	340	355	330	A 350	305	300	310	280						
28							385	390	A	A		600	B	B	B	B	B	B	B	B	B	B		
29				B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B		
30				B	B	400	330	390	390	360	350	380	330	350	305	310	300	295	290	290				
31							310	380	370	370	335	325	360	360	360	310	305	300						
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT				5	10	16	23	25	25	24	26	28	26	27	26	27	25	22	21	13	4	2	1	
MED				370	385	400	385	390	390	380	372	380	375	380	370	370	370	340	315	290	280	298	330	
UQ				390	440	435	420	410	410	395	400	395	400	405	395	390	400	385	330	300	295			
LQ				330	370	375	355	370	370	355	350	350	340	360	360	342	330	305	300	290	255			

JAN. 1967 | H'F2 (KM)

JAN. 1967 | H'F (KM) | 45 E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69 00.4 S. Long. 39 35.4 E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	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	290	275	315	B	A	B	270	A	205	200	195	200	200	210	210	215	205	200	250	A	A	A	A	A
2	300	A	A	A	A	A	A	A	215	220	200	200	H 195	230	A	200	200	200	215	225	H 205	280	265	280
3	280	A	A	295	205	200	210	205	205	205	200	200	215	220	220	270	200	220	B	240	240	230	270	260
4	290	230	215	260	260	240	225	200	210	E A 250	A	A 230	200	200	200	200	A	A	220	210	220	250	230	285
5	290	290	295	290	215	230	225	205	210	210	H 200	200	205	210	215	205	215	A	A	215	240	240	220	240
6	290	290	290	290	300	A	195	290	200	200	H 195	200	200	240	215	A	200	A	A	230	220	230	210	255
7	260	260	240	240	200	230	235	205	H 200	205	210	215	210	210	220	200	200	B	R	A	210	A	A	A
8	A	A	A	A	A	A	A	A	A	A	A	B	200	290	270	R	A	A	A	A	A	A	A	A
9	A	A	A	A	A	230	A	200	215	A	240	205	B	200	200	200	200	200	210	215	250	295	200	270
10	A	E A 370	A	A	300	310	300	220	200	200	205	205	205	200	200	205	200	205	210	220	230	220	230	230
11	320	330	310	300	B	A	A	270	265	H 200	220	220	230	205	200	200	200	210	215	240	290	300	300	310
12	290	310	A	A	A	A	E B 290	230	220	215	200	205	H 285	H 200	205	200	205	215	210	220	230	245	230	265
13	270	260	290	A	300	290	A	230	200	195	195	H 195	220	210	205	210	270	230	300	255	250	260	290	A
14	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	C	A 290	A 300	280	300	290	230	270
15	290	300	305	A	A	A	285	210	210	210	220	210	200	H 195	H 220	210	200	210	210	210	225	235	300	340
16	B 400	A	A	A	A	380	A	B	230	B	200	245	210	210	H 205	210	225	230	220	215	235	240	290	305
17	300	B	A	A	A	A	A	240	330	B 280	210	210	200	210	205	210	210	200	225	230	245	225	230	250
18	300	315	390	225	A	A	A	215	230	195	200	H 200	H 200	H 200	200	200	205	205	205	225	220	210	285	A
19	A	305	315	390	290	300	205	200	200	H 205	H 200	H 200	200	210	200	200	210	205	205	200	215	215	260	250
20	B	A	370	A	A	220	A	A	200	195	230	210	H 195	200	220	210	205	215	R	A	A	A	A	A
21	A	A	A	250	270	A	A	A	A	A	250	H 210	205	225	235	215	215	210	220	300	300	A 330	290	325
22	305	295	A	300	A	A	300	215	200	210	200	200	260	255	200	195	A	225	210	200	220	240	280	290
23	A	290	270	300	A	H 270	H 200	190	200	H 195	H 200	200	200	200	200	200	200	205	205	220	230	230	250	230
24	250	290	370	380	290	240	220	220	210	200	200	H 200	200	H 195	195	200	210	A 270	210	240	A	245	250	250
25	250	295	300	290	290	250	225	200	190	210	205	225	A 250	200	200	210	200	210	210	215	230	A 270	250	
26	250	290	290	305	290	240	210	H 190	H 190	200	205	205	200	235	215	205	200	200	210	210	230	240	230	265
27	270	295	295	300	250	250	240	215	205	H 205	A 250	215	205	A	A	200	200	A	215	215	230	240	250	240
28	240	270	295	360	A	260	A	A	A	A	200	200	B	B	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	315	340	B	B	B	B	B	B	B	B	B	B	E B 270	E B 270	B	240	B	B	240	250	260	270	290
31	270	270	270	300	310	360	260	230	210	205	200	215	200	200	205	215	210	200	260	230	230	240	220	250
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	21	21	19	17	14	17	17	21	25	23	26	27	26	27	26	25	25	22	22	25	25	24	25	23
MED	290	290	295	300	290	250	225	215	205	205	200	205	200	210	205	205	205	210	212	220	230	240	250	265
UQ	300	302	315	300	300	290	265	230	215	210	210	212	210	218	218	210	210	220	220	240	245	260	280	288
LQ	270	275	290	290	250	230	210	200	200	200	200	200	200	200	200	200	200	200	210	215	220	230	230	250

IONOSPHERIC DATA

JAN. 1967 | H'ES (KM) | 45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 1 MHz to 20 MHz in 30 sec in automatic operation

Hour / Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	100	100	110	B	100	B	B	100	G	B	100	100	110	100	100	B	100	100	100	170	100	100	110	110
2	105	100	115	100	100	100	100	100	100	100	G	G	G	100	100	E G 165	100	100	115	G	G	G	115	120
3	110	105	100	100	100	100	100	100	100	100	100	100	100	110	100	100	100	B	B	100	100	105	120	130
4	125	110	110	105	105	100	100	100	110	100	110	100	100	G	100	120	110	105	110	105	100	110	110	150
5	105	110	110	100	105	100	130	100	G	G	G	100	100	100	110	100	110	105	100	100	G	155	160	120
6	125	G	130	110	130	100	100	100	100	100	100	100	100	100	110	100	110	100	100	100	100	150	130	105
7	125	130	100	105	100	100	125	100	100	G	100	100	105	110	100	140	100	B	G	100	100	100	100	105
8	135	115	100	100	100	100	115	100	100	100	100	B	100	100	100	G	100	100	100	105	110	100	105	110
9	130	120	105	100	100	100	100	100	100	100	110	125	B	B	100	100	100	100	100	100	105	105	100	100
10	105	100	120	110	130	100	100	120	100	100	100	100	100	100	100	100	100	100	G	130	100	110	110	110
11	120	120	120	105	B	100	100	100	G	150	100	100	100	100	G	100	G	G	B	100	110	100	110	130
12	130	125	100	115	130	130	B	B	B	G	100	G	100	100	100	G	105	100	100	G	100	120	115	110
13	G	G	G	110	100	105	100	100	G	165	G	100	B	100	100	100	B	G	105	130	105	115	115	110
14	100	100	100	100	100	120	100	100	100	100	100	120	100	100	100	C	C	130	120	B	160	120	115	105
15	105	100	100	100	120	100	100	100	100	G	100	100	100	100	100	G	G	G	G	105	100	120	120	110
16	B	100	160	100	100	100	100	B	100	B	100	B	100	100	100	G	B	B	170	G	170	110	140	110
17	115	100	100	100	100	100	100	100	100	100	G	G	100	100	105	100	100	155	130	170	180	125	G	G
18	G	110	115	105	110	105	100	100	100	100	100	100	100	100	100	120	100	100	100	190	100	115	115	120
19	105	130	110	105	150	100	G	G	G	G	115	G	G	105	110	100	100	100	100	G	180	120	160	110
20	B	105	100	100	100	100	100	100	100	G	100	170	B	B	105	G	G	G	G	110	110	100	100	110
21	120	120	120	100	105	100	110	100	100	100	100	105	B	110	B	B	G	100	G	110	110	110	110	120
22	115	120	110	110	100	100	100	125	100	110	100	100	100	100	110	130	110	110	135	115	105	110	125	110
23	110	110	110	110	105	100	100	110	100	100	G	G	100	100	G	125	G	G	G	100	100	140	100	100
24	110	120	120	110	125	100	100	110	110	100	G	E G 130	G	110	G	100	100	100	100	130	120	115	110	B
25	100	130	130	120	120	G	150	100	115	150	130	125	105	100	100	100	100	G	G	105	100	100	100	100
26	100	100	135	140	110	110	100	100	100	100	B	105	100	100	100	100	120	100	100	125	105	100	B	B
27	100	100	100	B	100	110	G	G	G	150	120	110	105	100	100	110	100	100	100	100	100	100	100	100
28	B	150	145	130	110	100	100	100	100	100	105	105	B	B	B	B	B	B	B	B	B	B	B	B
29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
31	B	B	B	B	B	B	B	B	B	B	105	B	B	B	B	G	B	110	100	100	150	B	B	B
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	23	26	27	26	27	26	24	24	21	20	22	21	20	24	23	19	19	19	19	23	26	26	25	24
MED	110	110	110	105	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105	110	110	110
UQ	122	120	120	110	115	100	100	100	100	105	105	108	100	100	102	118	108	105	112	128	110	120	120	120
LQ	105	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105	105

JAN. 1967 | H'ES (KM)