

ION. ANT.—9

**IONOSPHERIC DATA AT SYOWA BASE
(ANTARCTICA)**

February 1967 — July 1967

Issued in October 1970

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	400 kHz ~ 15 MHz
Transmitting power	10 kW (peak value)
Duration of Sweep	30 sec
Transmitted Pulse width	100 μ sec
Recurrence Frequency of Transmitted Pulse	50 Hz (by power frequency)
Frequency Scale	Every 1 MHz
Height Range	900 km
Height Scale	Every 50 km
Total Receiver Gain	120 dB
Recording Method	35 mm film running
Power Supply	100 Volt AC, 2.5 kVA
Transmitting Antenna	25 m high vertical delta terminated by 600 Ω
Receiving Antenna	25 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 Second Report of the Committee, May, 1957, supplementary to the First Report.

Terminology

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

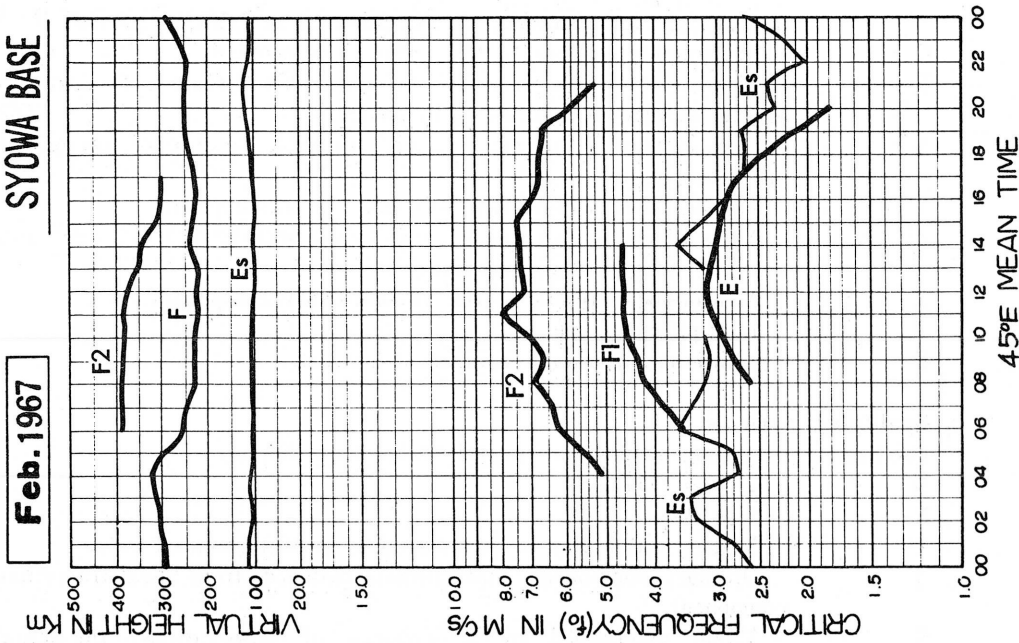
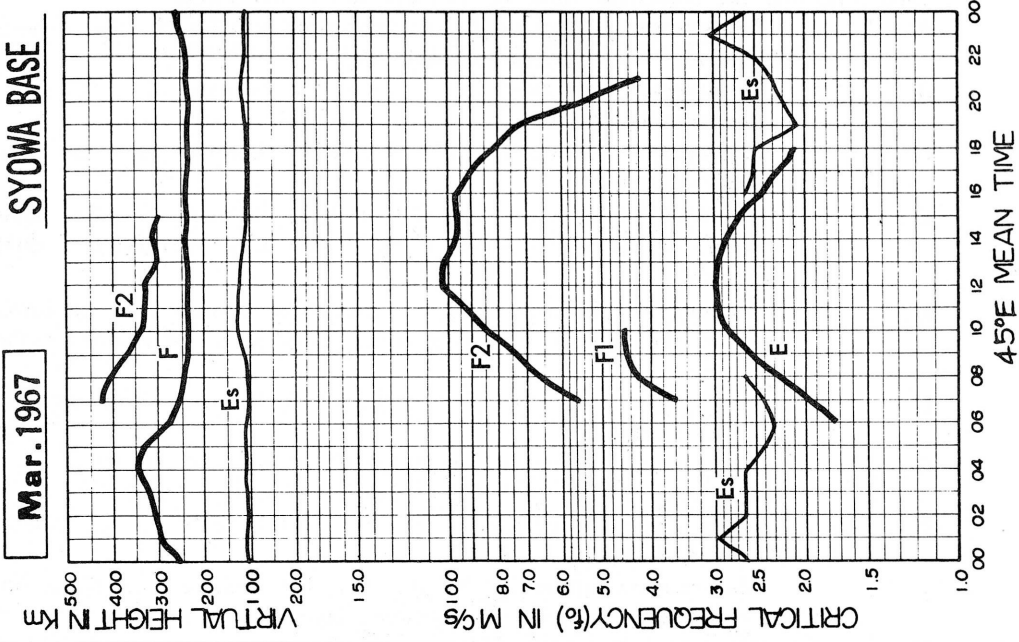
- A Measurement influenced by, or impossible because of, the presence of a lower thin layer, for example E_s .
- B Measurement influenced by, or impossible because of, absorption in the vicinity of f_{min} .
- C Measurement influenced by, or impossible because of, any non-ionospheric reason.
- D Measurement 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

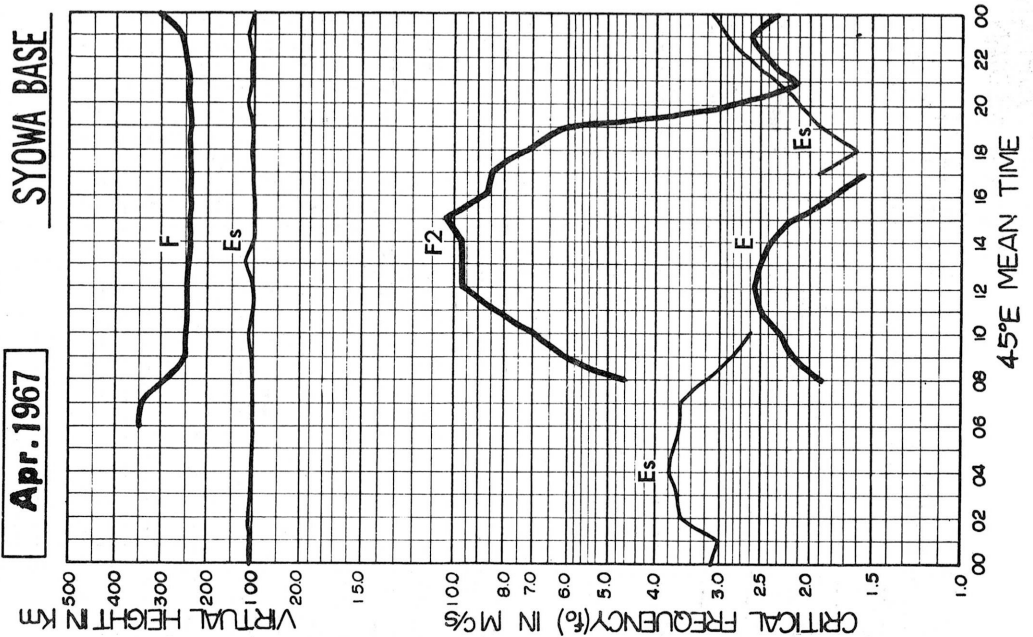
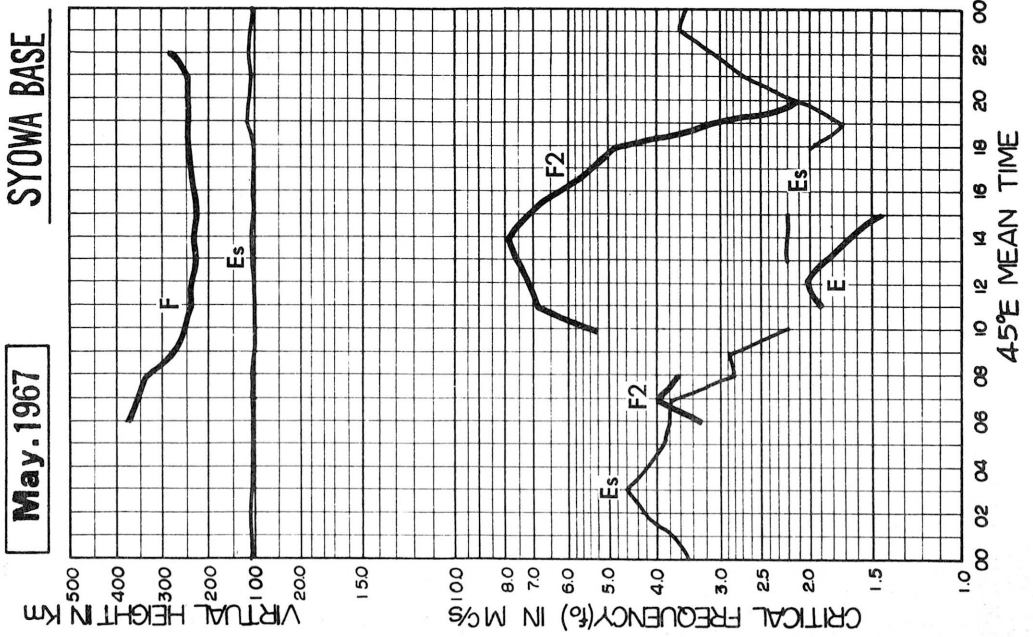
Used as a preceding symbol on monthly tabulation sheets.

- 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.

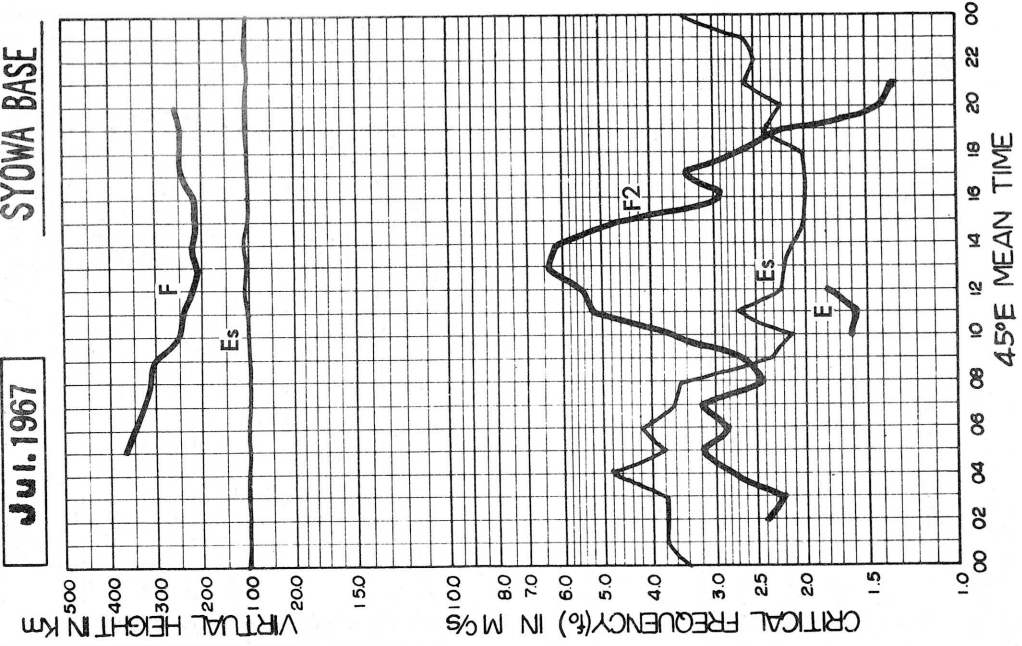
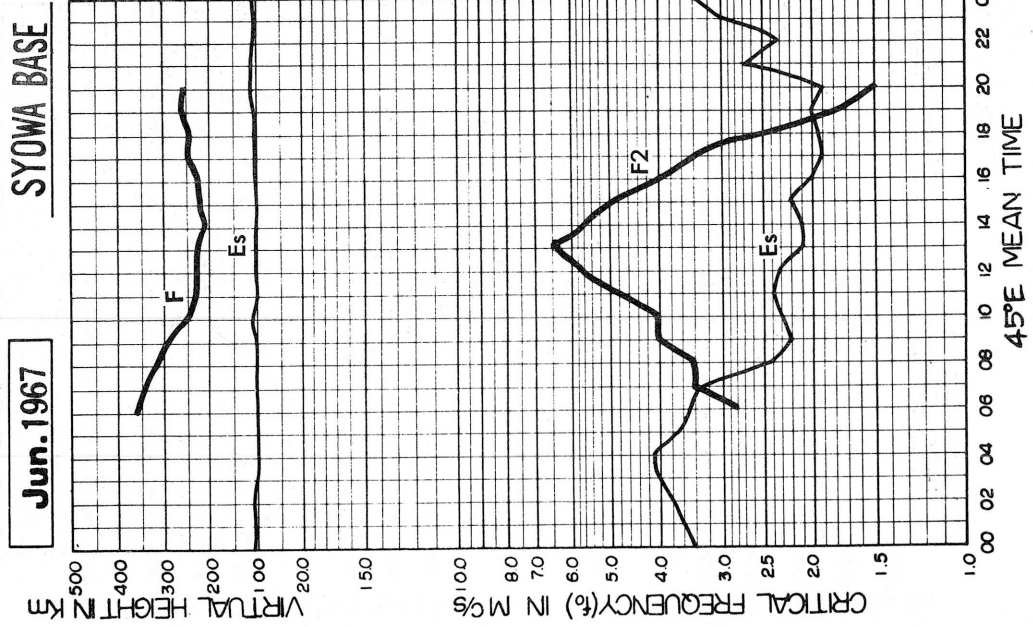
IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS



IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS



IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS



IONOSPHERIC DATA

FEB. 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 **0.4 MHz** to **15 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	F	F ₅₉	F	53	B	A	A	B	JR ₆₄	71	72	74	73	C	C	C	C	C	C	C	C	C	C			
2	C	C	C	C	C	62	64	59	62	F	58	59	C	C	C	C	58	66	67	F	73	F	F	F	R		
3	F	F	F	R	R	R	B	R	R	80	83	81	80	76	74	73	69	68	66	67	67	65	F	63	F		
4	F	F	F	F	F	F	F	F	R	R	F	F	F	F	F	F	72	F	73	74	63	F	F	F	C		
5	F	A	A	A	B	R	R	A	B	A	48	F	53	F	57	58	C	C	C	C	C	C	C	C	C		
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	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	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	C		
12	C	C	R	JR ₅₂	R	R	R	64	69	79	78	84	91	88	UR ₉₃	84	JR ₇₇	64	66	66	62	R	52	R			
13	R	31	56	R	C	C	C	C	UR ₈₆	86	87	84	90	85	85	84	F	77	F	73	70	C	C	C	A		
14	A	A	F	F	JF ₅₁	F	F	44	A	F	44	53	C	C	C	C	C	C	57	56	58	56	A	R	F		
15	C	A	R	C	46	F	F	C	C	C	C	C	C	C	C	C	60	60	61	62	56	JR ₅₁	R	R			
16	F	R	C	A	A	F	56	C	C	C	C	C	C	C	C	C	C	C	C	C	JF ₄₄	C	R	C	C		
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
19	R	52	R	R	66	64	70	C	C	C	C	C	C	C	JF ₉₀	JF ₉₀	JF ₈₁	JR ₈₃	F	79	JF ₇₂	JR ₆₅	F	R	C		
20	C	JR ₄₁	F	F	JR ₅₈	F	C	65	C	C	C	81	71	73	72	66	67	67	F	A	JR ₆₅	55	UR ₅₀	F	R		
21	R	34	R	JR ₄₂	JR ₅₁	JR ₅₂	JR ₆₂	C	C	C	C	C	71	72	72	63	69	71	71	68	F	37	A	A			
22	A	A	A	A	A	A	48	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
23	C	C	C	42	F	F	41	C	C	68	64	69	71	70	C	JF ₇₃	75	C	63	C	A	C	A	A	C		
24	A	C	C	C	C	C	C	C	C	C	C	C	68	71	70	65	63	62	58	58	61	UR ₅₆	42	A			
25	F	F	F	F	F	F	F	F	B	B	B	B	JF ₇₁	F	76	UR ₇₅	F	F	81	R	F	71	R	F	A	A	A
26	39	F	A	A	A	B	A	A	F	F	67	63	60	64	66	69	67	66	60	56	56	42	F	A	R		
27	F	32	F	42	A	R	R	F	F	JF ₈₅	F	80	81	86	87	87	80	81	83	77	R	73	R	R	R	R	
28	JF ₄₀	F	F	R	R	R	F	F	F	F	F	F	F	F	88	89	90	88	86	JR ₇₇	72	69	63	53	R	R	
29																											
30																											
31																											
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			
CNT	2	5	4	3	6	5	6	3	5	9	10	9	12	12	13	11	14	15	13	14	10	6	4	1			
MED	40	34	52	JR ₄₂	51	56	63	64	69	67	70	81	72	74	74	75	70	67	67	66	58	52	49	35			
UQ		41	58	JR ₄₉	53	62	67	64	85	80	81	84	88	86	85	84	81	73	71	69	63	56	58				
LQ		32	45	42	JR ₅₈	52	48	62	68	64	59	71	70	72	72	66	66	62	61	58	55	58	44				

FEB. 1967

FOF2 (0.1 MHz)

IONOSPHERIC DATA

FEB. 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 0.4 MHz to 15 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	L	450	460	L	L	C	C	C	C	C					
2					C		L						C	C	C	C			L	L				
3					B	B	B	B	B	B	B	B	L	B	L	480		L						
4						L	L	420	440	B	470	470	500	480	500	L	L	L						
5					B	R	A	A	B	A	430	460	460	460	470	C	C	C	C					
6					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
7					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
8					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
9					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
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				
12							360	360	410	430	420	480	A	L	A	A	L							
13					C	C	C	C	430	440	480	L	A	L	A	L	L							
14					270	320	380	A	A	A	440	C	C	C	C	C	C							
15					300	310	350	C	C	C	C	C	C	C	C	C	L							
16						350	370	C	C	C	C	C	C	C	C	C	C	C						
17						C	C	C	C	C	C	C	C	C	C	C	C	C						
18						C	C	C	C	C	C	C	C	C	C	C	C	C						
19							L	L	L	L	460	L	L	L	L	L	L	L						
20							350	360	400	410	450	L	450	450	L	L	L	L						
21							L	400	430	430	450	450	470	460	470	L	L							
22							350	370	390	400	C	C	C	C	C	C	C	C						
23							350	390	400	410	440	450	460	450	450	L	C	420						
24							C	C	C	C	C	C	460	470	450	L	L	L						
25						300	L	L	B	B	B	B	490	L	L	L	L							
26									420	450	L	450	450	460	460	L	L							
27							340	L	420	L	480	L	L	L	L	L								
28							L	L	L	460	L	470	480	490	L	L								
29																								
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT					2	4	8	6	9	8	11	8	9	8	6	1					1			
MED					285	315	350	380	420	430	450	460	460	460	465	480					420			
UQ					335	365	400	430	445	465	470	480	475	470										
LQ					305	350	360	400	410	440	450	450	455	450										

FEB. 1967

FOF1 (0.01 MHZ)

IONOSPHERIC DATA

FEB. 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 **0.4 MHz** to **15 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	B	B	B	B	B	A	B	A	A	C	C	C	C	C	C	C	C	C	C	
2	C	C	C	C	C	B	A	R	B	R	B	C	C	C	C	C	A	B	B	B	B	B	B	A	
3	A	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B	B	B	B	B	B	B	B	
4	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A	B	B	B	B	B	B	C	
5	B	B	B	B	B	B	B	B	B	B	A	R	A	A	A	C	C	C	C	C	C	C	C	C	
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
12	C	C	A	A	A	A	A	225	240	260	290	A	310	315	A	A	310	290	265	250	A	A	A	A	
13	A	A	140	A	C	C	C	C	280	305	310	315	320	A	A	A	A	A	A	C	C	C	C	A	
14	A	A	A	A	A	A	A	A	A	A	A	C	C	C	C	C	C	280	275	225	180	175	A	A	
15	C	A	A	A	A	A	A	C	C	C	C	C	C	C	C	C	A	270	245	210	180	130	A	A	
16	A	A	A	A	B	B	A	C	C	C	C	C	C	C	C	C	C	C	C	A	C	A	C	C	
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
19	A	A	110	120	A	160	A	225	260	270	280	R	B	315	310	275	A	270	245	A	A	A	A	A	
20	A	A	A	A	120	170	A	A	A	A	305	310	320	310	300	295	285	A	A	A	A	A	A	A	
21	A	A	A	A	A	120	200	220	250	280	290	300	R	R	A	275	280	A	A	A	180	A	100	A	
22	A	A	A	A	A	A	A	A	270	280	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
23	C	C	C	B	A	A	A	A	260	A	295	305	320	315	310	295	C	270	C	A	C	A	A	C	
24	A	C	C	C	C	C	C	C	C	C	C	C	C	315	310	305	300	295	B	B	B	B	B	A	A
25	A	A	A	A	B	B	200	B	B	B	B	B	320	315	310	B	290	270	A	A	A	A	A	A	
26	A	B	B	B	A	B	B	A	A	A	295	A	A	310	305	300	290	275	225	A	B	A	A	A	
27	A	A	A	A	A	A	A	A	260	285	300	310	315	310	A	300	285	260	240	190	130	A	A	A	
28	A	A	A	A	A	A	A	A	A	A	300	305	310	310	305	300	285	270	230	210	170	A	A	A	
29																									
30																									
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT			2	1	1	3	2	3	7	6	9	6	8	9	7	8	8	9	7	5	5	2	1		
MED			125	120	120	160	200	225	260	280	295	308	318	310	305	298	288	270	245	210	180	152	100		
UQ						165		225	265	285	300	310	320	315	310	300	292	275	255	225	180				
LQ						140		222	255	270	290	305	312	310	305	285	285	270	235	210	170				

FEB. 1967

FOE (0.01 MHz)

IONOSPHERIC DATA

FEB. 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 0.4 MHz to 15 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 ₂₀	E ₂₁	E ₂₅	E ₃₄	E ₃₉	B	J ₄₅	J ₅₂	B	E ₃₅	37	E ₃₇	37	34	C	C	C	C	C	C	C	C	C	C	
2	C	C	C	C	C	E ₃₄	26	G	E ₂₅	G	E ₃₂	C	C	C	C	C	28	J ₄₆	J ₃₀	26	E ₂₃	E ₂₂	E ₁₉	J ₂₆	
3	28	E ₂₁	E ₂₂	E ₃₄	E ₃₇	E ₅₁	B	E ₅₈	E ₅₄	E ₅₂	E ₅₁	E ₅₆	E ₄₄	E ₅₄	J ₃₇	31	E ₃₆	41	E ₃₇	E ₃₄	E ₃₇	E ₃₄	E ₃₃	E ₂₄	
4	J ₃₆	E ₂₃	E ₂₄	E ₃₃	E ₃₃	E ₃₃	E ₃₆	E ₃₃	E ₃₇	E ₅₈	E ₃₃	E ₃₅	E ₃₅	J ₃₁	J ₄₄	J ₄₂	31	28	E ₃₂	E ₂₉	E ₃₂	E ₃₄	E ₂₃	C	
5	26	J ₅₀	J ₆₀	J ₅₀	B	J ₃₆	41	J ₅₅	B	J ₄₅	35	G	33	35	33	C	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	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	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	C
12	C	C	J ₃₅	J ₃₆	23	24	20	G	G	28	J ₃₃	J ₆₄	J ₇₁	36	J ₄₆	J ₃₈	G	G	G	G	J ₄₁	J ₂₆	16	J ₁₈	
13	J ₁₉	J ₃₂	28	J ₂₁	C	C	C	C	J ₆₈	36	J ₈₆	38	J ₁₁₀	J ₁₁₂	J ₉₄	J ₄₅	J ₄₀	J ₅₂	J ₆₀	C	C	C	C	J ₄₁	
14	J ₄₁	J ₄₁	39	J ₄₂	J ₃₀	J ₃₂	33	50	J ₆₆	J ₃₈	J ₃₀	C	C	C	C	C	C	G	G	26	J ₃₈	J ₆₂	13	J ₂₂	
15	C	J ₄₁	J ₃₈	J ₃₇	36	28	J ₄₇	C	C	C	C	C	C	C	C	C	J ₃₅	J ₃₇	J ₄₆	J ₄₂	J ₃₂	17	J ₂₃	19	
16	29	J ₃₆	J ₃₉	J ₆₁	52	J ₃₄	J ₂₅	C	C	C	C	C	C	C	C	C	C	C	C	J ₃₃	C	28	C	C	
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	J ₂₀	J ₂₁	J ₂₀	J ₂₃	17	23	26	G	G	29	31	G	E ₃₇	G	J ₃₆	33	J ₃₀	G	27	J ₃₂	J ₂₆	J ₃₃	J ₂₀	J ₂₀	
20	J ₂₀	J ₂₀	J ₂₀	32	19	21	J ₃₅	J ₄₁	42	35	33	G	G	34	J ₄₈	34	30	J ₃₇	J ₆₄	J ₂₆	23	16	J ₁₇	16	
21	J ₂₅	21	16	14	17	16	28	24	32	G	31	32	G	G	J ₃₉	32	32	28	24	25	22	23	J ₃₄	J ₃₇	
22	J ₃₉	J ₃₇	J ₄₀	J ₃₇	J ₄₅	J ₄₁	J ₄₀	J ₄₀	33	G	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
23	C	C	C	29	J ₂₄	J ₃₅	J ₄₀	36	33	36	G	G	G	G	G	G	C	G	C	J ₃₆	C	J ₆₀	J ₆₆	C	
24	J ₈₅	C	C	C	C	C	C	C	C	C	C	C	G	G	G	G	G	E ₃₄	E ₂₆	E ₂₃	E ₂₀	E ₁₄	J ₂₇	J ₃₅	
25	22	27	J ₃₃	J ₂₂	E ₃₀	E ₂₃	G	E ₃₂	B	B	B	B	G	G	G	E ₃₃	G	G	J ₃₅	J ₄₁	24	J ₃₆	J ₄₁	J ₄₁	
26	J ₃₄	J ₃₆	J ₄₂	J ₆₅	J ₄₇	B	J ₅₂	J ₅₉	42	34	31	38	38	37	34	G	G	G	G	J ₃₁	E ₁₇	32	J ₃₀	28	
27	21	J ₃₀	J ₅₁	42	37	31	J ₃₇	29	32	G	G	G	G	J ₃₄	J ₃₅	G	G	G	26	24	24	J ₂₀	12	16	
28	J ₂₀	18	J ₁₈	J ₁₉	J ₂₂	20	J ₄₀	34	G	33	G	G	G	G	G	G	G	G	G	G	G	13	13	J ₂₂	
29																									
30																									
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	16	16	17	18	16	16	17	16	14	16	15	13	15	15	14	13	14	16	15	16	14	16	15	14	
MED	J ₂₆	J ₂₈	J ₃₃	J ₃₄	U ₂₇	U ₂₈	J ₃₆	34	32	U ₃₁	32	E ₃₂	E ₃₃	32	J ₃₆	32	28	E ₂₈	26	27	23	U ₂₄	J ₂₀	J ₂₂	
UQ	J ₃₅	J ₃₆	J ₃₉	J ₄₂	37	J ₃₄	J ₄₀	J ₄₈	42	36	34	U ₃₅	36	35	J ₄₀	34	32	37	J ₃₄	J ₃₄	J ₂₉	34	J ₃₀	J ₃₅	
LQ	J ₂₀	20	U ₂₀	22	21	23	26	E ₂₆	25	E ₂₈	E ₃₀	G	G	G	G	G	G	G	E ₂₄	24	E ₂₂	17	14	J ₁₉	

FEB. 1967

FOES (0.1 MHz)

IONOSPHERIC DATA

FEB. 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 0.4 MHz to 15 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	20	21	25	34	39	B	33	36	B	35	26	37	22	32	C	C	C	C	C	C	C	C	C	C
2	C	C	C	C	C	34	23	20	25	21	32	C	C	C	C	21	21	23	21	23	22	19	17	
3	17	21	22	34	37	51	B	58	54	52	51	56	44	54	23	23	36	33	37	34	37	34	33	24
4	27	23	24	33	33	33	36	33	37	58	33	35	35	23	26	18	21	25	32	29	32	34	23	C
5	20	26	31	48	B	33	33	41	B	32	23	22	16	15	15	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	8	8	11	10	13	11	12	12	13	12	12	14	12	11	17	13	12	11	14	10	10	11
13	11	10	8	7	C	C	C	C	7	9	8	9	9	9	9	8	8	8	8	C	C	C	C	12
14	7	7	9	11	11	12	9	13	13	11	12	C	C	C	C	C	12	13	13	12	13	11	9	
15	C	13	11	12	14	14	14	C	C	C	C	C	C	C	C	C	10	11	12	11	11	11	10	9
16	12	14	14	19	26	24	19	C	C	C	C	C	C	C	C	C	C	C	C	12	C	14	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	7	7	7	7	7	8	7	8	12	14	18	19	37	14	11	9	10	12	13	9	11	7	8	7
20	7	8	6	11	9	13	13	12	18	9	10	11	11	11	13	12	9	11	8	11	17	9	7	10
21	8	8	8	9	10	8	8	9	9	10	11	14	12	14	19	14	13	10	11	7	13	11	7	21
22	12	7	7	14	14	11	14	14	9	13	C	C	C	C	C	C	C	C	C	C	C	C	C	C
23	C	C	C	14	11	11	11	13	10	14	11	13	12	13	18	18	C	9	C	23	C	7	7	C
24	13	C	C	C	C	C	C	C	C	C	C	C	15	13	13	11	9	34	26	23	20	14	11	13
25	12	11	12	18	30	23	13	32	B	B	B	B	19	16	14	33	11	14	11	11	13	8	11	8
26	8	13	21	15	13	B	36	16	21	14	12	11	13	14	12	20	19	17	18	10	17	9	9	8
27	11	8	10	18	13	12	10	11	9	11	11	12	12	13	11	11	11	9	11	11	9	7	7	8
28	8	8	8	7	8	10	11	14	13	15	13	11	11	11	10	10	12	14	11	12	11	7	7	6
29																								
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	16	16	17	18	17	18	18	16	17	17	16	14	15	15	14	13	14	16	15	16	14	16	15	14
MED	12	10	10	14	13	14	14	14	13	14	13	14	13	14	13	12	12	12	12	12	14	10	10	10
UQ	15	18	21	19	30	33	34	32	37	32	29	35	20	16	18	18	19	19	20	22	20	14	11	13
LQ	8	8	8	9	11	11	11	12	10	11	11	11	12	13	11	11	10	10	11	11	11	8	7	8

FEB. 1967

F=MIN (0.1 MHZ)

IONOSPHERIC DATA

FEB. 1967

H^oF₂ (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 0.4 MHz to 15 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	430	400	400	390	330	C	C	C	C	C					
2					C		L					C	C	C	C	C			295	295				
3					370	B	B	400	390	B	B	B	B	380	B	395	360	320						
4						350	335	360	370	400	380	390	390	390	355	L	390	300						
5					B	R	A	A	B	A		600	600	565	500	490	C	C	C	C				
6					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
7					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
8					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
9					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				
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				
12							345	350	390	390	385	390	400	305	300	250	250							
13					C	C	C	C	395	355	350	355	340	290	320	300	250							
14					370	395	500	A	A	A	530	C	C	C	C	C	C							
15					420	450	495	C	C	C	C	C	C	C	C	C	300							
16						335	C	C	C	C	C	C	C	C	C	C	C	C						
17						C	C	C	C	C	C	C	C	C	C	C	C	C						
18						C	C	C	C	C	C	C	C	C	C	C	C	C						
19							310	390	330	345	315	325	310	325	L	290	L	270						
20							455	415	445	445	360	L	375	355	320	L	345	300						
21							350	360	410	365	360	340	375	380	355	345	340							
22							475	520	475	440	C	C	C	C	C	C	C	C						
23							500	450	410	400	390	390	405	450	400	L	C	365						
24							C	C	C	C	C	C	330	370	330	L	300	280						
25						F	380	370	B	B	B	B	410	320	L	L	220							
26									445	400	400	450	425	395	370	330	300							
27							350	L	310	345	390	350	325	300	340	L								
28							400	390	390	380	355	350	340	350	305	L								
29																								
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT					3	4	12	10	12	13	16	12	15	14	12	6	10	6	1					
MED					370	372	390	390	392	390	382	388	380	352	348	315	300	298	295					
UQ					395	422	485	415	428	400	400	395	402	390	382	345	340	300						
LQ					370	342	348	360	380	355	355	350	340	320	320	290	250	280						

The Radio Research Laboratories, Japan

FEB. 1967

H^oF₂ (KM)

IONOSPHERIC DATA

FEB. 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 **0.4 MHz** to **15 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	285	290	305	340	340	B	A	A	B	B	A	250	210	210	C	C	C	C	C	C	C	C	C	C
2	C	C	C	C	C	235	260	250	235	250	270	C	C	C	C	C	255	230	200	250	250	245	250	A
3	A	250	290	300	B	B	B	B	B	B	B	B	240	B	215	200	205	215	270	265	260	260	255	260
4	B	290	320	B	B	B	B	220	220	B	200	205	200	200	215	220	200	A	215	285	270	265	260	C
5	B	B	B	B	B	B	B	B	B	B	200	215	200	220	210	C	C	C	C	C	C	C	C	C
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	C	350	300	350	320	255	240	215	225	240	A	A	A	A	A	215	215	210	250	A	245	240	230
13	255	A	335	320	C	C	C	C	205	205	240	225	A	210	A	A	230	215	215	C	C	C	C	A
14	A	A	A	A	A	340	A	A	A	A	205	C	C	C	C	C	C	225	245	250	245	A	240	A
15	C	A	H 225	A	A	A	E 320	C	C	C	C	C	C	C	C	C	205	240	A	A	250	240	240	240
16	A	H 245	H 250	A	A	A	A	C	C	C	C	C	C	C	C	C	C	C	C	A	C	A	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
19	350	350	270	375	290	290	255	230	240	220	210	220	225	210	200	205	220	225	230	240	240	250	230	260
20	345	380	A	A	345	300	300	230	A	240	230	220	215	220	A	235	240	A	A	250	240	240	255	275
21	A	A	H 390	315	310	270	250	250	235	215	210	230	225	225	245	230	225	225	250	250	330	300	A	A
22	A	A	A	A	A	A	A	A	250	250	C	C	C	C	C	C	C	C	C	C	C	C	C	C
23	C	C	C	A	A	A	A	A	225	240	235	220	225	210	240	245	C	245	C	A	C	A	A	C
24	A	C	C	C	C	C	C	C	C	C	C	C	225	225	230	230	240	A	250	245	240	250	A	A
25	A	A	A	A	B	350	265	255	B	B	B	B	245	225	245	240	240	240	245	250	270	A	A	A
26	A	A	B	A	A	B	B	A	A	250	240	245	240	240	240	235	240	240	245	265	250	295	A	A
27	A	A	A	A	A	345	A	265	220	225	240	220	210	225	225	225	225	225	230	240	225	270	A	340
28	280	290	285	280	275	300	A	A	290	230	205	210	220	220	245	225	215	225	230	230	230	225	230	250
29																								
30																								
31																								
CNT	5	7	10	7	6	9	7	8	10	11	13	11	13	13	11	11	14	13	13	13	13	12	9	7
MED	285	290	298	315	325	300	25R	245	230	230	230	220	225	220	230	230	225	225	230	250	250	250	240	260
UQ	345	320	335	330	345	340	272	252	240	245	240	228	225	225	242	235	240	240	245	250	260	268	255	278
LQ	280	250	270	300	290	290	255	230	220	222	205	218	210	210	215	222	215	225	215	245	240	242	240	245

FEB. 1967

H⁺F (KM)

IONOSPHERIC DATA

FEB. 1967

H^oE5 (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69 00.4 S. Long. 39 35.4 E Sweep 0.4 MHz to 15 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	B	100	100	B	B	100	B	100	100	C	C	C	C	C	C	C	C	C	C	
2	C	C	C	C	C	B	100	G	B	G	B	C	C	C	C	C	115	110	105	105	B	B	B	110	
3	110	B	B	B	B	B	B	B	B	B	B	B	B	B	100	100	B	110	B	B	B	B	B	B	
4	100	B	B	B	B	B	B	B	B	B	B	B	B	100	100	100	100	105	B	B	B	B	B	C	
5	130	100	100	110	B	110	120	100	B	100	100	G	100	100	100	C	C	C	C	C	C	C	C	C	
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
11	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
12	C	C	110	115	130	100	120	G	G	120	105	100	115	115	100	105	G	G	G	G	100	100	100	100	
13	110	110	150	105	C	C	C	C	120	115	115	115	105	100	100	100	100	100	100	C	C	C	C	110	
14	110	100	100	100	100	100	115	100	100	100	100	C	C	C	C	C	C	G	G	115	125	120	120	130	
15	C	110	100	100	115	130	115	C	C	C	C	C	C	C	C	C	100	120	115	115	140	130	115	130	
16	110	120	125	100	110	130	130	C	C	C	C	C	C	C	C	C	C	C	C	115	C	115	C	C	
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
19	100	100	100	100	120	100	100	G	G	130	130	G	B	G	100	100	100	G	155	100	100	100	100	110	
20	100	100	100	115	120	115	120	100	105	100	115	G	G	140	125	125	130	100	100	100	140	130	130	135	
21	120	115	130	105	125	115	100	145	125	G	130	105	G	G	105	125	150	105	105	115	110	150	105	125	
22	100	100	100	100	100	100	105	105	105	G	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
23	C	C	C	125	105	100	105	115	120	105	G	G	G	G	G	G	C	G	C	145	C	125	100	C	
24	100	C	C	C	C	C	C	C	C	C	C	C	G	G	G	G	G	B	B	B	B	B	B	120	115
25	120	110	120	125	B	B	G	B	B	B	B	B	G	G	G	B	G	G	100	100	100	110	110	105	
26	100	120	120	125	100	B	110	100	110	105	130	100	105	105	100	G	G	G	G	110	B	130	110	110	
27	125	110	100	100	105	110	100	105	100	G	G	G	G	100	100	G	G	G	F ₁₅₅	125	140	140	150	155	
28	100	130	100	100	120	100	105	110	G	105	G	G	G	G	G	G	G	G	G	G	G	100	100	100	
29																									
30																									
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	15	13	14	15	12	12	15	10	8	9	9	4	5	8	10	7	7	7	8	11	8	12	12	13	
MED	110	110	100	105	112	105	105	102	108	105	115	102	105	100	100	100	100	105	104	115	118	122	110	110	
UQ	115	115	120	115	120	115	118	110	120	115	130	110	105	110	100	115	122	110	122	115	140	130	120	130	
LQ	100	100	100	100	102	100	100	100	102	100	100	100	100	100	100	100	100	102	100	102	100	105	100	110	

The Radio Research Laboratories, Japan

FEB. 1967

H^oE5 (KM)

IONOSPHERIC DATA

MAR. 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 **0.4 MHz** to **15 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	R	R	R	R	R	R	F	F	E ₆₂	J ₇₄	F ₈₆	F ₇₇	F ₈₃	F ₈₆	85	89	93	95	R	80	R	R	R	R
2	R	R	R	R	R	R	R	R	F	F	98	100	97	97	96	96	F ₉₇	90	F ₈₁	F ₇₅	R	F	R	R
3	R	R	F	R	F	R	R	F	F	F	F	F	F	94	97	96	97	93	F	F	R	R	A	F
4	A	F	A	F	F	F	F	F	88	F	98	103	106	105	104	99	J ₉₈	F ₈₈	81	F	R	R	R	R
5	R	R	A	A	A	R	R	R	F	F	F	F	F	F ₈₈	89	86	78	J ₇₈	F ₆₈	F	F	F	R	A
6	A	F	A	J ₆₂	A	F	R	F	F ₆₆	66	F ₇₃	F	74	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	R	C	C	C	C	C	C	C	C	C	C	C	J ₈₆	R	R	R	R	R
8	R	A	R	R	R	C	R	C	C	C	C	C	C	C	C	C	C	90	R	R	R	R	A	R
9	R	C	49	C	R	A	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C	R	A	A
10	A	A	C	C	R	R	R	R	A	33	B	B	C	C	C	63	63	64	58	54	50	42	R	R
11	R	A	R	R	C	C	C	44	C	C	85	C	C	C	C	C	87	86	F	66	U ₅₈	E ₅₂	F	45
12	R	R	R	C	C	C	C	C	71	B	B	B	B	B	115	C	C	C	C	C	C	C	R	R
13	C	R	J ₄₀	C	C	C	R	C	C	C	C	C	C	C	C	C	C	F	F	R	R	R	R	A
14	A	A	A	A	A	C	R	R	C	C	86	82	C	C	90	87	92	89	77	C	R	R	R	R
15	R	R	A	A	C	C	C	C	C	63	R	72	B	B	86	84	80	R	68	R	R	R	R	C
16	A	J ₃₀	R	R	C	C	R	J ₆₂	R	R	C	103	F ₁₀₆	111	106	101	J ₉₇	R	77	C	R	R	R	R
17	R	R	R	R	C	C	R	56	U ₆₁	72	88	94	107	105	105	J ₁₀₀	J ₉₇	R	R	R	R	48	R	R
18	R	26	A	R	R	R	R	B	R ₆₇	R	R	R	R	83	90	J ₉₈	R	R	J ₁₂₀	R	R	R	A	A
19	R	R	A	R	A	R	A	R	B	B	R	B	R	C	R	R	R	R	R	R	R	C	C	A
20	A	C	B	B	R	R	R	C	B	B	B	B	B	B	C	C	60	B	R	C	R	R	C	A
21	C	B	B	B	C	C	C	J ₃₇	C	C	C	C	C	C	61	C	C	J ₆₂	B	B	B	R	A	A
22	A	R	A	R	R	R	R	B	R	B	B	R	R	78	83	J ₈₄	J ₇₈	R	R	R	R	R	R	J ₃₁
23	J ₂₇	R	R	R	R	R	R	R	68	76	87	R	R	R	J ₉₆	R	R	R	R	R	R	A	R	B
24	R	A	A	B	R	R	R	R	R	R	J ₇₂	R	B	R	R	R	R	R	R	B	R	R	R	C
25	R	R	R	R	R	R	R	R	R	F	F	105	F	F	116	111	116	J ₉₈	F ₈₅	R	R	C	C	C
26	C	C	C	C	R	R	R	R	R	R	F ₈₃	F ₉₂	F ₁₀₃	109	110	R	J ₁₀₆	R	R	78	R	R	R	J ₄₂
27	R	R	A	A	R	A	A	R	R	85	R	J ₉₅	R ₉₀	96	93	91	R	C	R	R	A	J ₃₇	R	R
28	R	A	31	R	R	R	R	F	F	F	F	71	F	R	100	F	96	F	F	R	R	R	26	22
29	31	23	A	F	25	F	F	F	F	F	F ₇₃	F ₈₂	F	F	98	F	110	115	114	F ₁₁₂	R	R	F	F
30	F	57	R	R	R	R	B	F	F	J ₇₉	F	F	94	104	111	106	102	102	105	R	R	R	R	R
31	A	A	57	F	F	B	F	F	R	F	F	F	96	F ₁₀₂	107	108	103	104	R	R	R	R	R	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	4	4	1	1			5	7	9	11	13	11	14	20	18	18	13	11	5	2	5	1	3
MED	29	28	44	J ₆₂	25			56	67	73	86	94	103	102	96	96	97	90	81	73	54	42	22	J ₄₂
UQ		44	53					60	70	76	88	100	106	109	106	101	102	95	86	78		48		44
LQ		24	36					44	64	66	82	82	94	88	90	87	80	86	72	66		37		J ₃₆

MAR. 1967

FOF2 (0.1 MHz)

IONOSPHERIC DATA

MAR. 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 0.4 MHz to 15 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	450	460	L	L	L		L								
2										L	L	L	L	L	L	L								
3									L	L	L	L	L	L	L	L								
4								L	L	L	L	L	L	L										
5							350	430	A	450	470	L	L	L	L	L								
6							390	460	450	450	480	H	L	C	C	C								
7								L	L	L	L	L	L	L	L									
8										L		L												
9							370	460	460	450		L	L	L	C	C								
10													460	L	450	L	L							
11									L	L		L	L											
12									B	B	B	B	B	B		C								
13								L	L				L	L	L	L								
14							360	L	L	L	L	L	L	L	L									
15							350	400	L	L		B	B	L										
16												L	L	L										
17																								
18							B	L	460	L		L												
19								B	B		B			C	L									
20								B	B	B	B	B	B	B	C	C								
21								C	C	C	C	C	C	C	430	C								
22									B	B	L	L	L											
23														L										
24													B											
25																								
26													L	L										
27							400				L	L	L	L	L									
28											L		B											
29									B	B														
30											L	L												
31							330																	
	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	6	4	5	4	1	1		2									
MED							350	365	430	450	455	480	460		440									
UQ							390	460	460	465														
LQ							350	400	450	450														

MAR. 1967

FOF1 (0.01 MHz)

IONOSPHERIC DATA

MAR. 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 0.4 MHz to 15 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	R	A	A	295	300	315	320	315	310	300	290	260	A	B	A	A		
2				A	A	A	A	A	B	R	310	315	320	310	300	A	A	A	A	A	R	A		
3				A	A	A	A	B	B	A	A	R	315	A	A	B	295	A	B	220	A	A		
4				A	A	A	A	A	A	295	B	B	B	320	315	310	290	270	230	A	A	A		
5				A	A	A	A	A	A	A	A	A	320	325	315	310	A	295	255	240	A	A	A	
6				A	A	B	A	A	A	B	B	315	A	C	C	C	C	C	C	C	C	C	C	
7				C	A	160	180	225	240	260	280	300	305	295	A	A	A	250	240	R	A	A		
8				A	A	A	A	A	245	270	295	A	310	285	A	A	C	A	A	A	A	A		
9				A	A	A	A	A	A	260	A	300	320	315	C	C	C	C	C	C	C	A	A	
10				C	A	A	A	A	A	A	B	B	B	305	300	290	270	230	B	A	A	A		
11				A	A	A	180	205	240	255	B	A	A	A	250	280	A	240	A	A	A	A		
12				A	A	B	B	215	A	B	B	B	B	B	B	C	C	C	C	C	C	C	C	
13				A	A	A	A	A	225	255	290	B	315	295	B	B	B	B	A	A	A	A		
14				A	A	A	175	220	255	275	290	300	270	265	260	280	270	225	180	B	B	B		
15				A	A	A	150	195	225	A	R	275	B	B	295	280	245	240	205	A	A	A		
16				A	A	A	A	A	A	240	A	280	300	295	A	A	A	A	A	C	A	A		
17				C	C	A	195	220	250	275	280	270	245	A	A	A	A	210	150	110				
18				A	A	A	B	A	A	290	295	300	295	280	260	B	B	A	A	A				
19				A	A	A	A	B	B	B	B	B	B	C	B	260	240	A	A	B	C			
20				A	A	A	C	B	B	B	B	B	B	B	C	C	B	B	B	C	B			
21				C	C	C	A	C	C	C	C	C	C	C	B	C	C	B	B	B	B			
22				A	A	A	B	B	B	B	B	B	305	300	285	255	230	B	B	B	130			
23				A	B	A	B	200	250	B	B	R	270	B	260	240	220	A	B	A				
24				A	A	170	190	215	245	260	290	B	R	R	A	A	A	B	B	B				
25				A	A	A	170	A	255	285	R	290	B	B	270	250	220	A	A	A				
26				A	A	A	A	205	250	270	290	295	280	275	255	225	200	180	A	A				
27				A	A	A	A	A	A	270	275	280	B	B	250	225	C	B	A	A				
28				A	A	A	175	A	245	A	B	280	B	260	B	B	220	A	B	A				
29				A	B	A	B	B	B	B	B	290	R	290	B	240	200	B	150	A				
30				A	A	B	B	A	A	255	R	B	290	285	270	225	220	175	B	B				
31				B	B	B	A	A	225	270	275	280	275	270	250	240	205	A	A	A				
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT					1	5	9	10	16	14	15	19	18	15	15	16	15	8	3	2				
MED					160	175	195	225	255	282	295	300	295	285	270	242	225	208	150	120				
UQ					180	215	240	265	290	308	315	310	300	280	280	245	235	185						
LQ					170	190	215	248	270	280	285	280	272	258	235	220	180	150						

MAR. 1967

FOE (0.01 MHz)

IONOSPHERIC DATA

MAR. 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 0.4 MHz to 15 MHz in 30 sec in automatic operation

Table with columns for Hour/Day (00-23) and rows for various days (1-31) and summary rows (CNT, MED, UQ, LQ). Data points include J (J-layer) and E (E-layer) values for each hour.

The Radio Research Laboratories, Japan

MAR. 1967 FOES (0.1 MHZ)

IONOSPHERIC DATA

MAR. 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 0.4 MHz to 15 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	7	7	7	7	8	10	23	14	11	14	15	13	10	11	9	10	9	8	14	23	12	11	7	7
2	8	8	7	7	9	10	16	14	32	21	20	18	14	13	20	16	18	18	11	9	13	21	11	9
3	8	9	9	9	8	7	7	23	31	29	23	25	18	15	11	34	11	17	34	19	19	11	18	10
4	9	12	9	14	17	13	11	10	9	28	32	33	33	11	12	12	13	11	10	9	9	10	10	6
5	8	9	9	11	8	12	11	12	11	14	12	12	13	11	21	12	11	11	9	12	11	11	9	9
6	8	9	5	9	13	39	18	12	11	38	35	13	13	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	10	10	11	11	11	11	11	10	11	11	12	11	13	11	11	10	9	10	8	8
8	14	8	10	7	8	9	9	11	11	10	11	11	11	13	12	14	C	9	9	8	8	7	8	7
9	7	C	7	6	6	9	9	12	9	9	11	9	11	14	C	C	C	C	C	C	7	9	8	9
10	5	13	5	C	8	16	11	19	14	11	B	B	33	16	13	13	12	16	32	16	16	14	11	9
11	7	10	7	7	11	11	11	19	11	14	31	14	13	15	14	12	12	11	11	9	7	6	7	6
12	6	6	6	5	6	13	18	16	15	B	B	B	B	B	32	C	C	C	C	C	C	C	9	10
13	9	9	9	9	9	11	11	11	12	12	12	35	15	13	32	28	33	39	21	16	13	10	10	10
14	10	14	14	12	15	14	11	14	15	14	15	14	13	13	11	13	13	12	12	15	10	10	10	17
15	14	13	13	12	13	16	10	9	12	12	15	13	B	B	12	11	11	11	9	8	8	6	6	C
16	10	9	10	9	7	10	6	9	10	8	11	9	9	10	11	9	9	9	9	C	9	6	8	15
17	13	10	10	12	C	C	9	9	9	9	10	11	14	12	12	12	11	9	9	8	8	11	7	10
18	16	16	10	10	9	15	10	B	14	15	13	11	12	11	16	10	30	20	14	11	9	10	9	10
19	10	10	13	13	10	9	15	11	B	B	35	B	39	C	35	16	11	14	20	21	C	C	11	15
20	10	C	B	B	18	24	11	C	B	B	B	B	B	B	C	C	36	B	33	C	15	10	C	11
21	C	B	B	B	C	C	C	18	C	C	C	C	C	C	34	C	C	22	B	B	B	17	14	15
22	16	25	21	14	12	14	15	B	38	B	B	37	20	22	20	21	20	23	19	19	11	19	13	15
23	15	15	14	15	10	13	9	18	18	19	33	38	21	17	35	18	18	11	19	13	10	14	B	13
24	14	14	13	B	13	12	13	13	14	14	15	25	B	15	19	17	11	14	24	B	20	17	17	C
25	10	10	8	8	9	9	9	14	13	12	22	14	16	39	32	20	15	11	9	9	9	C	C	C
26	C	C	C	C	9	7	7	8	9	9	9	14	12	11	11	10	11	9	11	11	9	9	10	10
27	9	7	10	12	6	13	15	17	21	16	11	11	24	37	32	14	12	C	23	9	10	11	9	8
28	10	11	11	11	10	9	10	9	11	16	24	39	17	44	15	59	49	19	13	17	10	9	9	9
29	9	8	11	17	13	16	14	21	27	45	40	31	18	22	20	35	19	19	23	10	11	12	11	9
30	10	10	11	9	10	11	B	37	19	17	10	23	34	15	14	14	13	10	11	15	13	9	9	10
31	10	13	45	38	24	B	21	14	14	11	14	13	11	11	13	11	12	10	8	7	9	10	9	10
	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	27	29	28	29	29	30	30	30	30	30	30	30	28	28	26	26	27	28	26	28	27	28	27
MED	10	10	10	11	10	12	11	14	14	14	15	14	16	14	14	14	12	11	12	12	10	10	9	10
UQ	12	13	13	14	13	14	15	18	19	28	33	35	33	22	26	18	18	18	22	17	13	12	11	10
LQ	8	9	8	8	8	10	9	11	11	11	11	12	12	11	12	11	11	10	10	9	9	9	8	9

The Radio Research Laboratories, Japan

MAR. 1967

F-MIN (0.1 MHZ)

IONOSPHERIC DATA

MAR. 1967

H^oF₂ (KM)

45 E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S Long. 39° 35.4' E Sweep 0.4 MHz to 15 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	440	365	L	360	300		300									
2										350	310	325	L	310	315	305									
3									325	345	340	330	345	345	320	L									
4								390	340	345	365	350	L	290											
5							405	460	500	475	400	L	380	340	305	295									
6								480	445	455	395	405	L	C	C	C									
7								L	L	L	L	325	L	L	L										
8										330			285												
9								405	355	365	340	330	340	L	C	C									
10													440	L	390	345	L								
11										L	300		280	280											
12										B	B	B	B	B			C								
13								390	300				305	290	325	L									
14								340	L	L	300	300	315	300	270										
15								440	430	L	305		B	B	265										
16												290	260	L											
17																									
18								B	450	440	L		340												
19								B	B		B			C	300										
20								B	B	B	B	B	B	B	C	C									
21								C	C	C	C	C	C	C	340	C									
22								B	B		325	L	290												
23														255											
24													B												
25																									
26													270	260											
27									405			350	350	320	275	300									
28												L		390											
29									300	265															
30												L	265												
31								440																	
	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	9	9	12	10	14	13	10	5									
MED						405	422	405	365	335	328	328	300	310	300										
UQ						450	445	440	365	350	350	320	325	305											
LQ						390	340	345	302	325	280	290	275	300											

MAR. 1967

H^oF₂ (KM)

IONOSPHERIC DATA

MAR. 1967

H¹F (KM)

45° E Mean Time (G. M. T. + 3h)

Station **SYOWA BASE** Lat. **69° 00.4' S**, Long. **39° 35.4' E** Sweep **0.4 MHz** to **15 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	285	330	310	325	330	300	305	A	A	250	235	240	220	225	240	230	240	225	250	240	225	225	240	240	
2	250	290	310	315	310	305	275	240	255	240	255	240	240	A	250	250	245	245	240	240	250	250	225	250	
3	290	A	A	340	350	255	250	200	290	250	230	225	230	220	245	240	250	250	230	240	235	260	255		
4	A	A	A	A	A	A	A	330	250	240	240	230	215	225	245	240	225	240	240	230	280	230	245	250	
5	265	310	A	A	A	A	360	A	A	290	275	240	220	235	240	230	230	240	260	A	A	A	A	A	
6	A	280	A	370	A	B	A	A	270	B	250	220	230	C	C	C	C	C	C	C	C	C	C	C	
7	C	C	C	C	365	330	270	250	250	240	240	240	220	230	220	225	250	240	230	225	225	240	250	260	
8	290	A	355	340	320	290	240	240	240	225	240	230	220	235	220	A	C	240	235	225	A	A	A	240	
9	250	C	280	320	315	A	A	280	225	215	230	215	230	205	C	C	C	C	C	C		255	230	230	A
10	A	A	A	C	A	A	A	A	A	270	B	B	B	240	250	230	245	240	245	260	250	250	260	A	A
11	A	A	A	A	360	315	275	255	250	240	245	230	230	225	225	220	230	230	225	230	225	225	240	240	
12	250	275	290	290	300	300	265	250	250	B	B	B	B	B	B	230	C	C	C	C	C	C	C	240	240
13	260	265	300	A	330	305	275	255	260	240	235	250	230	240	235	245	250	240	240	240	A	240	A	245	
14	250	A	A	225	A	405	325	280	260	250	250	240	220	225	240	230	240	225	230	230	215	230	280	290	
15	280	A	A	A	A	340	A	275	240	275	220	210	B	B	230	230	240	240	235	235	215	230	235	C	
16	265	240	315	300	300	300	275	245	245	240	240	225	220	220	225	235	240	230	225	C	225	225	240	A	
17	250	315	325	390	C	C	210	250	225	220	230	225	240	230	225	235	225	225	210	210	210	205	230	230	
18	335	410	A	A	A	A	270	B	A	265	240	240	240	240	240	240	250	250	270	255	A	A	A	A	
19	A	A	A	A	A	A	A	A	B	B	B	B	280	C	B	250	250	355	285	A	C	C	A	A	
20	A	C	B	B	A	A	290	C	B	B	B	B	B	B	C	C	300	B	B	260	C	320	A	C	A
21	C	B	B	B	C	C	C	A	C	C	C	C	C	C	C	260	C	C	255	B	B	B	265	A	A
22	A	A	A	A	A	A	A	B	B	B	B	270	250	245	235	245	250	230	240	230	225	245	250	280	
23	280	345	360	370	350	330	300	255	250	240	240	250	230	230	240	250	240	230	220	220	A	A	B	230	
24	A	A	A	B	365	350	320	270	245	245	250	230	B	235	250	A	230	230	225	B	220	230	240	C	
25	260	300	300	275	390	350	A	260	240	250	240	230	225	250	240	240	240	220	215	220	225	C	C	C	
26	C	C	C	C	A	390	320	250	250	240	240	235	230	240	240	235	225	225	210	215	225	240	240	240	
27	260	330	255	230	A	A	A	A	A	290	260	240	240	275	250	240	240	C	240	240	A	340	340	300	
28	A	A	A	A	400	460	385	385	290	255	255	255	B	250	B	250	B	B	255	240	260	290	330	A	A
29	A	A	A	A	A	385	370	305	290	B	B	225	240	250	245	250	240	225	220	240	230	290	335	360	
30	A	A	A	380	400	430	B	B	285	250	245	245	255	230	240	250	240	225	225	205	215	A	A	A	
31	A	A	B	B	B	B	A	A	275	220	250	240	250	250	245	240	240	230	210	230	210	240	255	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	16	12	11	14	15	18	19	19	22	24	24	25	26	23	27	23	25	26	27	22	21	21	18	17	
MED	262	305	310	322	350	330	275	255	250	242	240	235	230	235	240	240	240	235	235	230	225	240	240	248	
UQ	282	330	320	370	365	385	320	278	260	252	250	240	240	242	245	245	245	245	245	240	250	250	255	270	
LQ	250	278	295	290	318	300	270	250	245	240	240	230	220	228	230	232	240	225	225	225	220	230	240	240	

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H¹F (KM)

IONOSPHERIC DATA

MAR. 1967

H¹ES (KM)

45° E Mean Time (G. M. T.+ 3h)

Station SYOWA BASE Lat. 69° 00.4' S, Long. 39° 35.4' E Sweep 0.4 MHz to 15 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	110	100	100	115	125	110	100	100	G	G	120	G	105	G	G	G	G	120	B	125	100	100	100	
2	110	100	100	100	100	120	140	120	B	G	125	125	120	110	115	105	110	100	100	100	G	140	100	120	
3	100	125	120	100	100	100	100	B	B	105	100	G	120	100	100	B	G	100	B	105	100	120	115	160	
4	110	115	105	110	130	105	110	105	100	G	B	B	B	130	130	130	125	125	130	120	100	100	100	100	
5	120	125	100	105	100	110	105	105	100	105	105	105	130	120	G	105	135	125	100	120	115	125	120	120	
6	110	100	100	100	110	B	100	105	100	B	B	130	120	C	C	C	C	C	C	C	C	C	C	C	
7	C	C	C	C	120	G	G	120	G	G	G	E ₁₄₀	120	120	105	130	110	G	G	G	100	105	105	100	
8	100	110	140	120	120	120	100	110	G	G	G	120	125	120	110	105	C	100	100	100	100	100	100	100	
9	100	C	100	100	100	110	100	120	110	120	100	120	G	G	C	C	C	C	C	C	150	120	100	120	
10	100	100	100	C	100	100	100	100	100	100	B	B	B	G	G	G	G	150	B	140	130	135	140	115	
11	120	120	100	100	100	130	G	G	G	130	130	125	115	120	110	G	100	G	100	100	100	100	100	100	
12	100	100	100	100	120	B	B	G	105	B	B	B	B	B	110	C	C	C	C	C	C	C	C	120	120
13	100	100	100	100	100	100	100	100	G	G	G	B	G	125	B	B	B	B	B	120	100	120	140	130	130
14	125	125	105	110	100	105	G	G	G	G	G	G	125	E ₁₃₀	E ₁₂₅	G	G	G	E ₁₆₀	B	B	B	B	B	
15	150	125	125	120	115	100	125	100	G	110	G	G	B	B	G	G	105	100	100	100	100	100	100	C	
16	100	100	100	100	100	100	100	100	100	100	100	E ₁₄₀	G	100	100	100	100	100	100	C	100	100	100	100	
17	125	140	140	105	C	C	100	G	G	140	125	125	110	105	105	100	100	100	G	100	G	B	100	B	
18	100	120	125	140	100	120	140	B	105	115	140	G	G	G	G	G	B	170	145	130	120	115	120	100	
19	130	125	125	130	125	110	120	110	B	B	135	B	B	C	B	165	G	120	150	125	C	C	110	110	
20	100	C	B	B	115	110	110	C	B	B	B	B	B	B	C	C	B	B	B	C	B	120	C	115	
21	C	B	B	B	C	C	C	100	C	C	C	C	C	C	B	C	C	B	B	B	B	110	125	125	
22	120	140	100	130	120	115	110	B	120	B	B	B	G	G	130	E ₁₃₀	E ₁₃₀	E ₁₃₀	B	B	B	B	G	B	B
23	B	B	B	B	125	B	125	B	G	G	B	B	G	125	B	130	G	G	100	B	120	B	B	120	
24	120	105	120	B	130	130	G	G	G	G	G	G	B	G	G	105	100	100	B	B	B	B	B	C	
25	B	100	100	100	110	140	120	G	125	G	G	G	G	B	B	G	100	100	100	100	100	C	C	C	
26	C	C	C	C	105	120	100	100	100	G	G	G	G	G	G	G	130	100	100	100	100	100	100	100	
27	100	100	140	130	100	100	105	110	100	110	G	G	E ₁₄₅	B	B	G	G	C	B	100	120	140	140	100	
28	120	115	120	115	105	100	G	G	125	G	140	B	G	B	G	B	B	G	100	B	140	150	120	110	
29	100	115	115	140	145	B	125	B	B	B	B	B	G	G	G	B	G	G	B	G	130	B	100	110	
30	110	110	115	110	100	145	B	B	115	110	G	G	B	150	G	G	G	G	G	B	100	115	115	115	
31	105	100	B	B	B	B	115	110	110	G	125	G	G	E ₁₈₀	140	G	105	G	100	100	100	B	100	150	
	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	25	25	23	28	23	23	17	16	11	11	10	10	15	12	11	13	14	17	16	20	20	24	24	
MED	108	110	105	105	108	110	110	105	102	110	125	122	120	120	110	105	105	100	100	100	108	112	102	112	
UQ	120	125	120	120	120	120	120	110	112	118	132	128	125	125	128	130	U ₁₈	125	120	120	122	130	120	120	
LQ	100	100	100	100	100	100	100	100	100	105	102	120	120	108	105	105	100	100	100	100	100	100	100	100	

MAR. 1967

H¹ES (KM)

IONOSPHERIC DATA

APR. 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 **0.4 MHz** to **15 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	F	R	A	R	R	R	R	F ₆₉	R	R	F	F ₁₀₆	F ₁₀₈	F ₁₂₁	F ₁₂₃	F ₁₃₁	F	R	F ₁₁₂	R	R	R	R	
2	A	F	A	R	R	A	F	F	R	F	F	F ₈₆	F	F	F ₈₇	F ₈₉	F ₉₇	F	R	F	R	18	A	A	
3	A	A	A	F	J _A ₃₈	B	F	R	R	F	F	F ₉₂	F ₉₆	F ₉₄	F ₈₉	F ₈₈	F ₈₅	F ₈₄	R	R	R	40	35	29	
4	26	R	J _R ₃₄	F	R	A	R	R	F	40	52	F	F	F ₁₀₀	F ₁₀₀	F ₁₀₅	R	91	R	R	R	R	R	F	
5	R	A	R	A	A	A	A	A	B	B	49	J _F ₅₉	F	F	F	J _F ₈₇	F	F	F	R	F	B	B	R	
6	R	R	A	A	A	B	A	R	B	F	B	B	80	B	82	F	F ₉₄	F ₁₀₃	R	R	R	R	F	18	F
7	R	R	R	A	A	R	R	R	F ₆₅	F ₆₂	F	F	90	93	97	91	87	76	71	62	46	R	R	A	F
8	R	26	F	21	R	A	B	B	F	64	J _F ₇₀	75	82	89	96	F	F	F	R	R	R	R	F ₂₅	F	
9	F	J _R ₃₆	A	A	A	A	F	F	F	69	F ₇₅	F ₈₄	93	99	108	112	110	96	F	R	R	R	J _F ₄₁	F	
10	F	22	R	A	A	F	F	B	F	F	F	F	100	110	114	110	J _R ₁₀₄	U _F ₉₅	U _F ₉₄	R	R	R	A	A	
11	A	R	F	A	F	22	R	F	U _R ₄₆	63	71	83	96	95	J _F ₉₈	106	87	E	R	F	R	R	R	F	A
12	A	A	A	A	A	A	F	B	R	F	61	71	88	105	108	104	91	88	R	R	R	F	F	F	F
13	23	F	F	F	A	A	A	F	F ₅₄	F	F	91	F	107	R	F	R	J _R ₈₅	R	R	J _R ₄₂	F	F	F	F
14	F	F	A	A	A	A	F	R	R	R	F	F	F	112	F	R	R	R	F ₆₈	R	R	R	R	32	
15	J _R ₂₄	R	R	A	R	F	R	R	R	64	78	88	U _R ₉₈	F ₁₁₀	F ₁₁₀	109	R	R	R	R	R	F	U _R ₂₅	A	
16	R	A	A	C	C	C	C	C	C	C	C	C	C	76	87	83	R	J _R ₉₅	F	R	R	A	A	A	
17	A	R	R	A	A	A	R	A	A	A	R	F	F	76	F	F	F	F	R	F	28	B	16	A	
18	A	F	A	A	A	A	A	A	A	F	F	F ₆₃	F	J _F ₇₇	J _F ₇₆	70	F	F ₇₅	F	R	F	A	A	A	
19	A	A	A	A	F	A	A	B	A	A	F	F	B	56	F	F	F	F	R	F	A	A	A	A	
20	A	A	A	B	B	A	R	A	33	41	F	F	F	F ₈₉	96	F	F	F	F	F	B	A	A	A	
21	A	A	A	A	A	A	A	A	A	A	A	F	55	F	F ₇₁	F	F	F	F	R	A	A	A	31	
22	A	A	A	A	A	A	R	A	A	A	R	A	B	B	B	B	F	F	F	F ₃₇	F ₂₄	F ₂₁	A	R	
23	A	A	A	R	B	A	A	A	F ₃₈	F	46	51	55	61	70	76	76	71	R	R	A	A	A	A	
24	A	A	A	R	A	A	A	A	B	R	F	F ₅₃	56	B	F ₆₆	F	66	77	R	R	A	A	A	A	
25	A	B	A	A	B	B	B	B	43	F	U _F ₆₀	F ₆₈	74	B	78	74	70	70	56	R	31	21	18	F ₁₈	
26	17	R	A	23	22	24	F	J _F ₃₆	F	F ₅₆	F ₇₇	88	96	113	106	J _R ₁₁₀	F ₈₂	R	J _F ₇₂	R	R	20	C	C	
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	F	R	R	F	F	F	F	
28	F	F	F	F	F	F	F	F	B	B	86	U _F ₉₈	108	121	J _R ₁₁₀	J _R ₁₀₉	F	R	R	F	F	20	17	F	
29	A	A	A	J _R ₃₆	36	A	J _R ₄₉	F	R	R	R	87	105	J _F ₁₁₀	F	F ₁₀₇	F	F	R	R	R	41	32	22	F
30	F	23	21	J _A ₃₆	F	F	J _R ₆₅	J _F ₆₂	R	F	F	J _R ₉₄	J _F ₉₆	R	118	114	R	J _F ₉₈	R	R	B	B	R	B	
31																									
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	
CNT	6	3	2	4	3	3	2	2	7	8	13	16	19	20	23	19	13	14	5	3	5	6	10	6	
MED	23	26	J ₃₅	28	36	24	J _R ₅₇	J _F ₄₉	F ₄₆	62	71	84	96	97	97	104	87	86	71	62	31	21	24	26	
UQ	24	31		34	37	24			F ₆₀	64	77	88	99	110	109	110	97	95	72	87	48	40	32	31	
LQ	F ₂₂	24		22	29	23			40	48	60	66	81	83	84	88	82	76	68	50	28	20	18	F ₁₈	

APR. 1967

FOF2 (0.1 MHz)

IONOSPHERIC DATA

APR. 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 0.4 MHz to 15 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												L			L	L	B							
3										L			L											
4																								
5										B			L		L									
6									B		B	B	L	B	B	B								
7																								
8												L												
9													L											
10										L	L													
11														L										
12																								
13																								
14																								
15																								
16										C	C	C	C											
17													L	B										
18																								
19													B											
20																								
21																								
22												B	B	B	B	B								
23																								
24														B										
25														B										
26																								
27										C	C	C	C	C	C									
28																								
29																								
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
UQ																								
LQ																								

APR. 1967

FOF1 (0.01 MHZ)

IONOSPHERIC DATA

APR. 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 0.4 MHz to 15 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	145	200	240	260	270	275		B	B	B	B	B	A					
2							A	A	210		B	A	265	280	275	250	235		B	B	B				
3							B	A	195	210	245	250	255		A	250	240	215	170		A				
4								125	A	A	B	R	270		A	245	235	200	A		175				
5							B	B	B	B	B	B	B		250	240	225		B	B	B				
6							B	B	B	B	B	B	B	B	B	B	B	B	E						
7							B	A	B	B	250		A	250	245	230	180		A						
8							B	A	A	A	250	255	240		A	A	200	A	A						
9							B		175	215	225	250	255	250	240	225		A	A	A					
10							A	A	240	A	A	A	A	A	240	A	200	155	A						
11							A	150	180		A	245	250	245	240	220	180	A	A						
12							B	200	A	250	255	260	250	240	205		A	145	B						
13							A	175	A	225	A		A	A	A	A	A	A	A						
14							A	190	A	225	235		A	240	A	A		190	A						
15							A	A	185	225	230	250	240	235	215	195		A	A						
16							C	C	C	C	C	C	C	250	A	200	A	B	B						
17							B	B	A	250	A	280	B	B	B	B	B	B	B						
18							A	A	205	230	B	240	B	B	200	180	A	A							
19							B	A	A	A	B	B	B	B	B	B	B	B	A						
20							B	A	A	A	B	B	B	B	B	B	B	B	B						
21							B	A	A	A	B	B	B	B	B	B	B	B	B						
22							B	B	A	A	B	B	B	B	B	B	B	200	B						
23							A	A	215	A	A	A	A		240	200	175	A							
24							A	B	B	B	B	B	B	B	B	200	B	B							
25							B	B	A	210	225		B	B	B	B	B	B							
26							A	A	B	205	A	240	225	220	A	160	A								
27							C	C	C	C	C	C	C	C	C	C	C	A							
28							A	B	B	B	225	230	225	220	195	170	A								
29							A	190	A	A	R	245	B	215	A	A	A								
30							A	A	A	A	A	245	A	215	200	170	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	9	8	11	12	15	12	15	15	13	5	1						
MED								135	190	212	225	250	255	248	240	215	180	155	175						
UQ								200	228	248	252	265	250	242	228	200	170								
LQ								175	195	225	232	245	240	228	200	175	145								

APR. 1967

FOE (0.01 MHz)

IONOSPHERIC DATA

APR. 1967

FOES (0.1 MHz)

4.5 E Mean Time (G. M. T. + 3h)

Station **SYOWA BASE** Lat. **69° 00.4' S** Long **39° 35.4' E** Sweep **0.4 MHz** to **15 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 ₂₀	J ₂₀	J ₂₄	J ₃₈	J ₃₇	J ₂₃	J ₁₈	22	G	G	G	J ₃₇	29	E ₄₈	E ₃₇	E ₇₀	E ₅₁	E ₂₂	J ₁₈	17	J ₃₇	J ₂₃	J ₃₈	J ₂₇		
2	J ₇₈	J ₄₂	J ₅₂	J ₃₁	J ₃₁	J ₃₆	J ₃₈	J ₃₇	J ₅₂	E ₃₅	26	J ₃₇	33	G	30	G	E ₅₁	E ₅₉	E ₅₈	E ₃₅	23	J ₂₅	J ₃₅	J ₆₂		
3	J ₅₂	J ₃₆	J ₄₂	31	J ₅₁	B	E ₃₆	J ₃₀	G	G	G	G	27	28	G	G	G	J ₂₁	J ₁₈	13	J ₁₇	J ₂₃	J ₁₈	J ₂₃		
4	J ₁₇	J ₂₀	J ₁₇	J ₂₅	J ₂₅	J ₃₂	J ₄₁	18	22	J ₄₆	J ₄₈	G	G	30	26	G	24	26	G	J ₂₈	27	23	J ₂₇	J ₃₂		
5	J ₃₂	30	30	J ₃₆	J ₄₀	J ₅₀	J ₄₂	J ₃₈	B	B	E ₃₇	E ₄₈	E ₃₁	G	G	G	E ₂₃	E ₄₂	E ₂₆	J ₂₇	E ₁₇	B	B	J ₂₈		
6	J ₃₃	J ₂₈	J ₃₇	J ₃₇	J ₄₅	B	J ₃₆	E ₃₈	B	E ₄₆	B	B	E ₃₃	B	E ₅₈	E ₅₈	E ₃₈	E	E ₅₇	J ₂₃	J ₂₆	J ₂₀	21	21		
7	J ₂₃	J ₂₅	J ₂₃	J ₄₃	J ₄₈	J ₂₇	B	J ₃₇	J ₃₇	E ₄₈	E ₄₇	G	26	G	G	G	G	J ₂₁	24	J ₂₂	J ₂₃	J ₂₀	J ₃₇	J ₂₄		
8	23	J ₂₈	21	20	25	J ₃₇	B	B	J ₃₅	26	27	G	G	G	G	G	26	24	G	22	J ₂₀	24	12	13	17	J ₂₄
9	J ₂₅	J ₂₀	J ₄₃	J ₄₅	J ₃₈	J ₁₁₇	J ₃₂	E ₂₀	G	G	G	G	G	G	G	G	22	19	J ₂₁	J ₃₁	23	J ₂₀	E ₁₃	22		
10	J ₂₂	J ₃₉	J ₃₈	J ₃₆	28	J ₂₁	B	J ₅₂	J ₃₇	J ₄₇	30	26	J ₂₇	33	G	J ₂₈	23	21	J ₂₁	J ₂₀	J ₂₁	J ₁₇	J ₃₀	J ₃₉		
11	J ₃₈	J ₂₄	23	J ₁₉	J ₂₉	J ₂₀	J ₂₇	J ₁₆	J ₁₉	27	24	G	G	28	J ₃₇	G	23	23	J ₂₀	22	J ₂₁	J ₂₁	J ₂₄	J ₃₃		
12	J ₃₇	J ₅₃	J ₅₁	J ₄₃	J ₃₇	J ₄₂	J ₆₅	B	28	23	G	28	G	G	G	26	24	G	E ₁₃	13	E ₁₄	24	E ₁₃	E ₁₃		
13	20	J ₃₀	J ₃₂	J ₂₅	J ₄₀	J ₄₆	J ₅₃	J ₃₇	J ₂₆	26	28	J ₃₃	33	27	25	26	J ₂₂	J ₂₀	J ₂₀	19	J ₁₄	J ₂₀	18	J ₁₉		
14	J ₂₀	J ₁₈	J ₂₆	J ₄₀	J ₃₇	J ₃₆	J ₃₈	J ₂₀	24	23	G	29	J ₃₇	27	26	30	24	27	J ₂₀	J ₂₀	J ₂₀	J ₁₇	J ₁₇	J ₁₇		
15	J ₁₈	J ₂₀	E ₁₅	J ₂₅	J ₃₈	J ₁₈	E ₁₆	J ₄₀	J ₃₇	J ₂₁	G	G	G	G	G	G	G	22	12	E ₁₁	12	E ₉	E ₁₀	J ₃₃		
16	J ₂₇	J ₃₇	J ₃₅	C	C	C	C	C	C	C	C	C	C	C	G	26	26	26	E ₁₉	E ₃₁	E ₁₁	J ₃₄	J ₃₉	J ₇₅	J ₆₁	
17	J ₃₇	J ₂₅	J ₂₅	43	J ₄₆	J ₃₇	J ₂₅	J ₄₂	J ₄₆	J ₅₃	J ₃₆	30	G	E ₆₃	E ₃₃	E ₂₈	E ₂₀	E ₂₀	E ₂₇	E ₂₅	E ₁₉	B	J ₃₃	J ₃₇		
18	J ₃₆	J ₃₆	J ₅₁	J ₄₇	J ₅₁	J ₄₇	J ₅₀	J ₅₁	J ₄₃	J ₄₂	J ₈₅	E ₄₆	G	E ₃₃	E ₂₃	G	23	26	24	E ₃₅	E ₂₁	J ₄₂	J ₃₇	J ₃₀		
19	J ₃₁	J ₄₅	J ₅₈	J ₄₆	J ₃₇	J ₉₅	J ₃₁	B	J ₁₁₇	J ₄₃	J ₄₂	E ₃₂	B	E ₄₉	E ₃₅	E ₄₄	E ₂₁	E ₁₈	J ₃₇	J ₂₂	J ₃₆	J ₁₉	J ₄₁	J ₆₂		
20	J ₃₇	J ₃₇	J ₃₀	B	B	J ₄₁	24	J ₃₆	J ₄₀	J ₃₃	28	E ₃₂	E ₃₅	E ₃₄	E ₃₈	E ₂₅	E ₃₈	E ₃₇	E ₄₆	20	B	J ₃₁	J ₃₈	J ₃₄		
21	J ₃₆	37	J ₃₆	J ₆₁	J ₄₈	J ₅₆	J ₄₈	J ₅₈	J ₅₀	J ₅₈	J ₅₃	E ₃₆	E ₃₈	E ₃₇	E ₄₈	E ₄₀	E ₅₈	E ₅₉	E ₃₇	E ₁₄	J ₅₃	J ₃₉	37	J ₃₀		
22	J ₃₄	J ₈₇	J ₇₃	J ₆₂	J ₄₈	J ₅₇	J ₂₀	J ₅₇	J ₃₄	J ₅₂	J ₅₂	B	B	B	B	B	E ₂₉	G	E ₂₂	E ₁₇	J ₂₉	J ₄₇	J ₃₈	J ₄₉		
23	J ₃₇	J ₄₄	J ₇₇	J ₃₆	B	J ₆₃	J ₄₇	34	J ₂₁	26	27	J ₂₃	J ₃₆	26	J ₃₈	29	26	J ₂₇	J ₂₄	J ₂₈	J ₂₀	J ₁₂₇	J ₅₃	J ₅₃		
24	J ₆₂	J ₆₁	J ₇₇	J ₄₃	J ₆₅	J ₃₇	J ₆₅	J ₅₄	B	44	E ₃₃	E ₃₆	E ₃₆	B	E ₃₉	G	E ₅₁	E ₃₆	E ₂₃	J ₂₃	29	J ₃₉	23	28		
25	J ₄₀	B	J ₃₃	J ₅₄	B	B	B	B	E ₃₅	29	22	G	E ₄₉	B	E ₃₁	E ₂₅	E ₂₄	E ₁₈	E ₁₇	E ₁₃	J ₂₀	25	J ₂₃	21		
26	24	J ₂₆	J ₁₉	J ₂₃	21	J ₁₈	J ₂₃	J ₁₇	22	E ₁₇	G	22	G	G	J ₃₇	26	G	13	E ₁₀	E ₁₁	E ₁₁	E ₁₅	C	C		
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	22	15	E ₁₂	E ₁₁	J ₁₈	J ₉₄	J ₃₆	
28	J ₂₃	21	19	22	E ₁₁	J ₁₉	J ₁₈	J ₂₀	B	B	E ₃₅	G	G	G	G	G	G	14	E ₁₆	E ₁₄	E ₁₃	E ₁₁	J ₂₀	J ₂₀		
29	J ₂₀	J ₅₃	J ₅₁	J ₂₃	J ₃₂	J ₄₂	J ₃₆	J ₃₃	G	J ₃₃	J ₂₂	G	28	E ₂₅	G	20	21	J ₂₃	J ₂₀	21	J ₂₀	J ₅₂	E ₁₇	J ₂₃		
30	J ₁₈	J ₂₁	J ₅₂	J ₃₀	J ₆₂	J ₃₅	J ₃₇	33	J ₅₂	23	J ₅₂	23	G	27	G	G	J ₂₀	J ₂₀	14	E ₁₂	B	B	E ₉	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	29	28	29	27	25	25	24	24	24	26	27	26	26	25	28	28	29	30	30	30	30	28	27	28	28	
MED	J ₃₁	J ₃₀	J ₃₆	J ₃₆	J ₃₈	J ₃₇	J ₃₆	J ₃₆	J ₃₂	U ₂₈	U ₂₆	E ₂₄	E ₂₇	E ₂₇	E ₂₆	E ₂₄	E ₂₃	U ₁₉	U ₁₆	19	J ₂₁	J ₂₃	J ₂₆	J ₂₉		
UQ	J ₃₇	J ₄₀	J ₅₁	J ₄₃	J ₄₈	J ₄₇	J ₄₂	J ₄₁	J ₄₂	J ₄₄	U ₃₆	U ₃₀	U ₃₀	U ₃₀	E ₃₇	27	E ₂₆	U ₂₄	E ₂₆	J ₂₃	J ₂₈	J ₃₅	J ₃₈	J ₃₆		
LQ	J ₂₂	J ₂₂	J ₂₅	J ₂₅	J ₃₁	J ₂₇	J ₂₃	J ₂₁	22	23	E ₂₂	G	G	G	G	G	E ₂₀	U ₁₆	17	E ₁₃	U ₁₄	J ₁₈	18	J ₂₂		

The Radio Research Laboratories, Japan

APR. 1967

FOES (0.1 MHz)

IONOSPHERIC DATA

APR. 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 **0.4 MHz** to **15 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	9	9	9	10	14	10	10	7	11	11	11	14	11	48	37	70	51	22	9	12	11	7	8	8
2	8	11	12	8	7	11	15	11	14	35	16	11	11	14	10	11	51	59	58	35	10	8	9	9
3	7	8	11	10	9	B	36	14	14	10	12	14	13	15	14	11	10	9	8	8	8	2	5	11
4	8	6	6	6	8	9	8	9	8	13	38	21	14	17	15	20	11	9	13	11	11	11	9	8
5	8	9	20	19	10	12	14	25	B	B	37	48	31	21	19	16	23	42	26	8	17	B	B	9
6	9	9	15	16	14	B	11	38	B	46	B	B	33	B	58	58	38	E	57	12	21	11	10	9
7	8	7	14	15	18	12	B	20	13	48	47	21	18	15	13	13	11	9	9	9	8	8	7	6
8	9	9	10	10	14	23	B	B	16	15	8	14	11	13	17	16	18	11	9	8	9	8	8	7
9	8	8	11	21	14	29	14	20	16	18	18	16	16	12	13	15	18	18	19	12	13	10	13	10
10	9	14	13	11	12	11	B	14	13	10	11	11	10	13	11	11	11	9	7	6	7	8	10	9
11	15	12	11	10	8	8	8	6	7	11	11	12	11	11	11	11	9	6	6	7	5	6	7	12
12	20	10	15	16	14	24	14	B	12	14	9	14	16	12	11	11	11	11	13	9	14	14	13	13
13	9	7	9	11	14	12	17	11	7	11	11	11	9	9	10	9	9	10	11	13	9	9	11	9
14	7	8	8	9	9	9	10	5	9	11	11	11	11	12	11	9	9	7	6	6	11	6	6	6
15	9	16	15	8	9	9	16	6	9	11	11	14	12	11	11	11	11	9	9	11	9	9	10	14
16	9	14	14	C	C	C	C	C	C	C	C	C	C	11	11	8	7	19	31	11	10	11	9	9
17	10	11	15	35	16	23	13	37	37	14	14	12	10	63	33	28	20	20	27	25	19	B	9	8
18	11	16	12	16	12	11	15	12	15	14	9	46	17	33	23	11	9	11	15	35	21	13	13	13
19	8	9	14	33	13	13	11	B	18	11	11	32	B	49	35	44	21	18	9	9	8	9	8	15
20	36	17	16	B	B	11	11	21	18	16	15	32	35	34	38	25	38	37	46	13	B	8	7	5
21	12	12	14	25	16	39	37	17	20	16	16	36	38	37	48	40	58	59	37	14	5	6	9	9
22	10	17	11	11	14	11	11	22	25	14	16	B	B	B	B	B	29	17	22	17	9	11	8	14
23	11	9	16	11	B	17	11	10	12	12	13	11	11	9	9	11	11	6	5	6	9	10	8	5
24	9	7	14	11	16	11	11	11	B	37	33	36	36	B	39	18	51	36	23	12	11	7	11	16
25	16	B	16	18	B	B	B	B	35	14	18	13	9	B	31	25	24	18	17	13	8	10	7	8
26	8	7	9	9	10	9	7	6	11	17	16	16	13	12	14	9	11	9	10	11	11	15	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	11	11	12	11	11	7	9
28	8	9	9	11	11	11	9	11	B	B	35	19	16	16	14	14	12	11	16	14	13	11	11	11
29	6	9	8	9	10	11	9	7	8	7	9	11	11	25	14	11	11	9	9	9	12	14	17	12
30	11	11	11	11	17	11	11	9	10	8	9	9	11	12	11	11	8	10	9	12	B	B	9	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	29	29	29	28	28	28	28	28	28	28	28	28	28	28	29	29	29	29	30	30	30	30	29	29
MED	9	9	13	11	14	11	12	13	14	14	14	14	13	15	14	13	11	11	12	12	11	10	9	9
UQ	11	12	15	17	16	23	16	24	30	18	18	32	24	37	33	25	24	19	23	13	13	11	11	12
LQ	8	8	10	10	10	11	10	9	10	11	11	12	11	12	11	11	11	9	9	9	9	8	8	8

APR. 1967

F=MIN (0.1 MHZ)

IONOSPHERIC DATA

APR. 1967

H^oF₂ (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S Long. 39° 35.4' E Sweep 0.4 MHz to 15 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												L			L	L	300							
3										L			290											
4																								
5										B			355		L									
6									B		B	B	400	B	300	300								
7																								
8												L												
9													L											
10										L	L													
11														L										
12																								
13																								
14																								
15																								
16										C	C	C	C											
17													L	B										
18																								
19													B											
20																								
21																								
22												B	B	B	B	B								
23																								
24														B										
25														B										
26																								
27											C	C	C	C	C	C								
28																								
29																								
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT													3		1	1	1							
MED													355		300	300	300							
UQ													378											
LQ													322											

APR. 1967

H^oF₂ (KM)

IONOSPHERIC DATA

APR. 1967

H¹F (KM)

45° E Mean Time (G. M. T. + 3h)

Station **SYOWA BASE**

Lat. **69° 00.4' S**, Long. **39° 35.4' E**

Sweep **0.4 MHz to 15 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	500	375	350	A	A	355	325	280	245	240	240	240	240	B	260	B	245	235	240	220	255	290	250	200	
2	A	A	A	A	A	A	A	375	270	315	250	240	235	255	250	255	B	260	B	240	350	A	240	A	
3	A	A	A	A	420	B	E 410	370	275	260	250	250	245	245	245	245	240	230	230	225	220	240	245	250	
4	260	A	385	A	410	420	340	305	350	A	B	265	240	250	240	250	225	255	245	265	255	320	400	A	
5	A	A	A	A	A	A	A	B	B	B	B	B	B	275	245	240	250	265	250	260	275	310	B	B	A
6	A	A	A	A	A	B	A	B	B	B	B	B	B	290	B	B	B	255	300	B	290	A	300	B	A
7	A	A	A	A	A	A	B	A	340	B	B	240	250	250	250	245	230	215	215	225	205	250	245	A	
8	350	A	A	B	B	B	B	B	A	250	240	250	240	230	245	240	235	210	215	200	215	220	250	A	
9	A	A	A	A	A	A	A	A	310	265	240	245	220	240	240	240	215	215	235	225	230	225	230	250	
10	240	A	A	A	A	A	B	A	365	315	300	290	290	290	280	275	280	275	260	255	270	200	A	A	
11	A	A	A	A	A	A	400	340	300	300	290	290	280	265	285	295	270	275	255	275	265	A	A	A	
12	A	A	A	A	A	A	A	B	295	255	245	255	250	245	240	235	220	215	220	215	240	240	250	B	B
13	A	A	A	A	A	A	A	A	270	240	240	230	240	235	225	215	215	200	205	220	215	240	250	260	
14	A	A	A	A	A	A	A	A	350	290	240	235	225	225	220	210	210	210	200	200	225	105	215	205	240
15	250	B	B	A	365	A	350	300	255	250	225	240	240	225	215	220	205	200	205	205	200	225	240	A	
16	A	A	A	C	C	C	C	C	C	C	C	C	C	245	230	240	240	240	245	245	A	A	A	A	
17	A	A	A	B	A	A	A	B	B	A	290	265	255	B	255	245	245	240	250	250	290	B	A	A	
18	A	A	A	A	A	A	A	A	A	300	265	B	250	260	250	255	250	245	250	265	290	290	A	A	
19	A	A	A	B	A	A	A	B	A	A	A	B	B	B	320	B	265	255	290	285	A	A	A	A	
20	B	B	A	B	B	A	A	A	A	A	255	290	290	240	235	240	240	250	B	250	B	A	A	A	
21	A	A	A	B	A	B	B	A	A	A	A	B	320	320	B	B	B	B	B	250	A	A	A	240	
22	A	A	A	A	A	A	A	B	B	A	A	B	B	B	B	B	240	240	270	265	370	A	A	A	
23	A	A	A	A	B	A	A	A	400	E 340	290	260	245	250	230	235	230	210	250	290	A	A	A	A	
24	A	A	A	A	A	A	A	A	B	B	340	300	300	B	B	300	B	275	325	A	A	A	A	A	
25	A	B	A	A	B	B	B	B	B	255	250	250	B	B	240	235	235	225	225	230	225	250	A	A	
26	A	A	A	A	A	385	350	315	270	240	240	240	220	240	225	220	200	190	225	205	225	260	C	C	
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	220	200	230	205	240	290	275	
28	300	280	320	360	390	375	340	350	B	B	235	220	230	215	210	220	205	200	200	215	225	240	250	290	
29	A	A	A	375	375	A	410	360	265	240	240	235	230	210	220	225	200	220	210	205	250	250	250	315	
30	340	B	350	A	A	A	425	400	310	250	240	240	220	225	220	220	225	200	200	230	B	B	245	B	
31																									
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	
CNT	7	2	4	2	5	4	9	12	16	17	21	22	25	22	25	24	26	29	27	29	22	18	15	10	
MED	300	328	350	368	390	380	350	345	282	250	245	245	245	245	240	240	235	230	235	230	235	240	250	255	
UQ	320	368		410	402	410	365	325	280	265	265	275	250	250	250	245	250	252	265	270	260	250	275		
LQ	250	335		375	365	340	308	268	240	240	240	240	230	225	222	215	210	212	220	215	225	242	240		

APR. 1967

H¹F (KM)

IONOSPHERIC DATA

APR. 1967

H^oES (KM)

45° E Mean Time (G. M. T. + 3h)

Station **SYOWA BASE** Lat. **69° 00.4' S**, Long. **39° 35.4' E** Sweep **0.4 MHz** to **15 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	140	130	130	105	105	140	100		G	G	G	105	F ₃₀	B	B	B	B	100	100	125	100	125	100		
2	100	100	100	115	160	100	125	125	120		B	140	100	100	G	100		G	B	B	B	125	140	105	105	
3	100	105	100	100	115		B	B	105	G	G	G	G	F ₃₀	120	G	G	G	100	100	100	100	100	100	100	
4	100	100	125	110	110	125	100	140	130	105	160		G	G	120	130	G	100	100	G	100	155	140	105	115	
5	120	110	140	110	100	100	110	110		B	B	B	B	B	G	G	G	B	B	B	135	B	B	B	115	
6	115	115	110	110	100	B	100		B	B	B	B	B	B	B	B	B	E	B		100	140	130	120	105	
7	110	105	120	105	105	120		B	105	100	B	B	G	F ₃₀	G	G	G	G	100	100	100	100	100	100	125	
8	105	105	120	100	130	105		B	B	105	125	120		G	G	G	120	120	G	100	100	100	120	140	135	110
9	110	140	100	100	100	110	100		B	G	G	G	G	G	G	G		105	105	100	100	100	100	B	115	
10	100	110	105	100	130	100		B	100	120	130	115	110	110	110	G	100	100	100	100	100	100	100	115	105	
11	110	110	105	105	100	100	100	100	100	100	100		G	G	130	120	G	100	100	100	130	100	100	100	120	
12	130	150	115	125	100	100	120		B	120	120	G	130	G	G	G	100	100	G	B	130	B	140	B	B	
13	100	105	140	130	110	105	105	105	100	100	100	100	100	100	100	100	100	100	100	100	130	125	100	125	100	
14	100	115	105	100	105	100	105	100	100	100		G	100	105	125	105	100	100	100	100	100	100	100	100	100	
15	105	100	B	140	100	100		B	140	100	100		G	G	G	G	G	G	G	100	100	B	100	B	B	120
16	125	120	100	C	C	C	C	C	C	C	C	C	C	C	G	100	100	100	B	B	B	135	100	100	145	
17	100	105	135	145	105	130	125	130	170	100	110	105		G	B	B	B	B	B	B	B	B	B	B	100	115
18	120	125	110	105	100	100	100	100	100	125	150		B	G	B	B	G	100	100	130	B	B	130	120	150	
19	100	105	105	115	100	120	100		B	105	110	100		B	B	B	B	B	B	B	105	140	125	125	100	130
20	120	140	110	B	B	100	100	100	110	120	120		B	B	B	B	B	B	B	B	B	125	B	100	100	105
21	120	115	120	125	100	125	120	100	100	100	100		B	B	B	B	B	B	B	B	B	120	100	110	115	
22	125	140	100	100	100	100	100	160	100	100	100		B	B	B	B	B	B	G	B	B	130	135	120	105	
23	100	100	100	110	B	100	100	120	100	125	115	100	100	100	100	100	100	100	100	100	105	100	125	125		
24	100	100	105	100	100	100	100	100		B	140	B	B	B	B	B	G	B	B	B	110	115	100	125	115	
25	110	B	105	105	B	B	B	B		B	110	120		G	B	B	B	B	B	B	B	100	100	100	115	
26	100	100	175	105	100	100	100	100	100	B	G	115	G	G	100	100	G	100	B	B	B	B	B	C	C	
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	100	100	B	B	100	100	100	
28	100	130	130	130	B	105	100	105		B	B	B	G	G	G	G	G	G	100	B	B	B	B	100	100	
29	100	100	120	100	105	100	105	100		G	100	100	G	100	B	G	100	130	100	100	100	100	100	B	150	
30	140	140	120	100	115	140	100	125	120	100	140	100		G	140	G	G	100	100	100	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	29	28	28	27	24	25	22	22	19	19	16	10	9	8	9	9	12	17	16	18	21	24	23	27		
MED	105	110	110	105	102	100	100	105	100	105	115	102	102	120	100	100	100	100	100	100	115	100	105	115		
UQ	120	128	122	120	110	110	110	125	120	122	130	110	F ₃₀	128	120	100	100	100	100	130	125	130	120	120		
LQ	100	102	105	100	100	100	100	100	100	100	100	100	100	105	100	100	100	100	100	100	100	100	100	105		

The Radio Research Laboratories, Japan

APR. 1967

H^oES (KM)

IONOSPHERIC DATA

MAY. 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 **0.4 MHz** to **15 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 23	F 22	20	F 20	F	A	F	F	R	F	F 76	R	R	90	96	93	100	J 8	F	R	F 48	J 25	28	A	
2	A	R	A	A	F	R	R	R	F	R	F	F	R	C	88	F	R	R	R	R	R	R	A	A	
3	R	R	B	R	R	R	R	B	R	B	A	F 40	F	F	F	F	F 47	F 41	A	A	A	A	A	B	
4	R	R	A	A	A	A	A	R	R	33	39	46	U 46	B	R 69	68	R	R	R	R	A	A	A	H	
5	A	A	B	R	B	R	B	A	A	A	B	53	F	B	B	F	J 76	F	F	28	22	A	R	R	
6	A	A	A	A	A	R	A	B	F 44	B	F	F	J 82	96	U 103	F	R	R	R	R	A	F 21	R	R	
7	A	A	R	A	A	A	A	B	B	B	R	F	B	B	B	R	54	F	F	25	R	A	A	F	
8	R	R	A	A	R	F	F 33	F	R	F	F	F	J 67	F	J 70	R	F 64	69	54	J 51	F	A	A	A	
9	A	A	F	A	A	A	U 37	J 50	F	B	55	F	F	F	F	F	J 80	F	F	F	F	B	B	F	
10	18	A	F 26	J 19	R	28	21	24	26	F	58	73	83	89	R	J 78	J 71	J 50	52	R	F	R	F	A	
11	A	A	F	A	A	A	R	B	B	B	F	J 70	F 68	F 74	78	F 72	F 67	F 53	45	32	F	F	F 21	F	
12	R	A	A	A	A	A	B	A	B	F	F	U 71	70	76	81	F	F 50	F 51	R	R	29	R	A	A	
13	A	A	A	A	A	A	R	A	A	A	B	B	F	F	F 65	C	63	F 63	F	31	20	R	R	A	
14	33	A	B	A	R	R	J 23	A	R	B	F	F 75	88	88	83	76	53	53	F	F	F	A	A	A	
15	A	A	A	B	A	B	A	40	R	F	49	64	71	66	65	73	F 49	F	F	R	B	A	A	A	
16	A	A	A	A	A	A	A	A	39	B	47	F	F 68	74	R	F	R	R	R	F	R	B	B	R	
17	R	A	A	A	R	A	A	41	A	F	F	49	F 58	66	J 79	J 77	F	F	R	B	B	A	34	A	
18	A	A	B	A	A	B	A	A	28	B	B	F	B	B	R	F	F	F	41	B	B	B	B	B	
19	F	F	R	R	F	A	A	A	B	B	B	B	B	51	F	56	66	R	R	36	B	R	R	13	
20	A	A	A	28	B	R	A	A	U 36	F 36	F 44	B	B	F	F	F	F	F	F	R	B	B	B	R	
21	R	R	A	29	A	A	A	A	R	F	F 53	69	75	J 86	F	R	R	F	F	F	R	A	A	A	
22	A	A	A	A	A	A	A	F	F	F	F 57	J 80	79	91	F	R	F	J 60	F	R	A	F 16	20	F 21	
23	F	F	R	R	R	F	J 47	J 21	F	F	F	J 83	F	F	R	J 61	F	F	F	F	F	18	18	21	21
24	A	A	A	A	45	F	R	J 60	R	F	F	J 66	J 81	R	F 81	C	U 58	62	41	F	F 16	B	A	A	
25	F 41	R	R	B	B	B	B	B	F	F	B	B	B	B	B	B	J 65	B	B	B	B	B	B	B	
26	B	B	B	A	B	B	B	B	B	A	B	B	B	B	B	B	B	B	A	B	A	A	A	A	
27	R	R	B	A	A	A	A	A	A	B	B	B	B	F	F	F 67	F	F	B	B	A	R	F	A	
28	R	R	A	A	A	A	A	A	F	F	F	B	B	B	B	B	B	41	R	B	B	B	A	B	
29	B	B	B	A	B	R	R	A	B	B	B	B	B	B	B	F	F	B	57	58	R	R	R	R	
30	R	A	B	B	R	A	A	A	B	B	B	F	92	F	R	B	45	F	R	R	B	A	B	A	
31	R	A	R	A	A	R	A	R	A	R	R	B	39	43	48	42	37	F	F	B	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	4	1	2	4	1	1	5	6	5	2	9	13	15	13	13	11	17	11	6	7	6	4	5	3	
MED	28	F 22	23	24	45	28	33	40	36	34	53	69	71	76	79	72	63	53	48	32	21	F 20	21	21	
UQ	33			28			F 37	J 50	F 39		57	F 73	82	89	83	76	67	62	54	44	29	23	28	21	
LQ	23			20			23	24	28		47	53	68	66	69	64	50	50	41	30	F 18	F 17	21	17	

MAY. 1967

FOF2 (0.1 MHz)

IONOSPHERIC DATA

MAY. 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 **0.4 MHz** to **15 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															B									
5											B				B	B								
6																								
7														B	B	B								
8																								
9										B														
10										L														
11										B														
12																								
13											B	B												
14										B														
15																								
16																								
17																								
18										B				B	B									
19										B	B			B										
20											B	B												
21																								
22																								
23																								
24																								
25												B	B	B	B									
26										B	B	B	B	B	B									
27											B	B												
28											B													
29											B	B	B											
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT																								
MED																								
UQ																								
LQ																								

MAY. 1967

FOF1 (0.01 MHz)

IONOSPHERIC DATA

MAY, 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 **0.4** MHz to **15** 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	B	B	B	205	A	165	A	R	B						
2								B	B	A	A	A	A	180	B	150	A	A						
3								B	A	B	B	A	A	A	B	R	B	A						
4								A	B	A	B	B	B	B	B	B	A	B						
5								B	B	B	B	B	B	B	B	B	B	B						
6								B	A	B	B	B	B	B	170	A	A	B						
7								B	B	B	B	B	B	B	B	B	B	B						
8								A	A	165	175	B	A	A	A	150	B	B						
9								A	A	B	B	B	B	B	B	B	B	B						
10								A	130	B	B	B	205	A	A	A	A	B						
11									B	B	B	185	B	200	A	145	130							
12								A	B	B	B	200	B	B	B	B	B	A						
13								A	A	B	B	B	B	B	B	A	B	B						
14								B	A	B	B	A	A	A	A	A	A	A						
15								A	A	A	170	B	B	A	A	A	A	A						
16								A	A	B	B	195	A	200	B	A	A	A						
17								A	B	A	A	B	B	B	A	B	B	B						
18								A	A	B	B	B	B	B	B	B	B	A	B					
19								A	B	B	B	B	B	B	160	B	B	B						
20								B	A	A	A	B	B	B	B	B	B	B						
21									A	A	A	180	175	A	A	140	B							
22									A	A	175	200	205	175	A	125	A							
23									A	A	165	190	205	190	155	B	B							
24									B	B	A	B	195	175	B	C	A							
25									B	B	B	B	B	B	B	B	B							
26									B	B	B	B	B	B	B	B	B							
27									A	B	B	B	B	B	B	B	B							
28									A	A	A	B	B	B	B	B	B							
29									B	B	B	B	B	B	B	B	B							
30									B	B	B	A	B	B	B	B	B							
31									A	A	A	B	B	A	165	A	B							
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
CNT									1	1	4	6	6	6	5	5	1							
MED									130	165	172	192	205	185	165	145	130							
UQ										175	200	205	200	165	150									
LQ										168	185	195	175	160	140									

MAY, 1967

FOE (0.01 MHZ)

IONOSPHERIC DATA

MAY. 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 0.4 MHz to 15 MHz in 30 sec in automatic operation

Table with 24 columns (00-23) and 33 rows (1-31, CNT, MED, UQ, LQ). Each cell contains ionospheric data points such as J30, E17, G, etc.

MAY. 1967

FOES (0.1 MHZ)

IONOSPHERIC DATA

MAY, 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 0.4 MHz to 15 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	9	10	9	11	9	37	14	12	11	23	37	26	18	12	16	11	17	17	8	9	8	8	11	15					
2	14	14	18	37	11	11	11	15	37	12	11	11	11	11	27	12	16	8	11	8	7	7	8	7					
3	22	7	B	7	8	11	9	B	11	B	53	11	11	11	22	11	24	10	9	7	8	10	10	B					
4	11	9	11	11	11	11	12	5	15	13	25	26	32	B	28	38	11	19	14	9	9	9	13	8					
5	8	24	B	46	B	13	B	16	16	25	B	39	22	B	B	35	22	36	28	16	9	7	12	9					
6	9	13	11	13	17	16	17	B	13	B	34	25	22	24	11	7	9	35	26	11	11	10	8	8					
7	8	15	21	36	16	11	14	B	B	B	24	31	B	B	B	45	35	32	21	17	16	16	11	11					
8	12	20	19	11	15	14	14	11	11	16	16	21	14	16	11	11	23	18	17	11	11	10	12	11					
9	14	11	11	11	12	11	11	11	11	B	47	38	37	23	21	19	11	14	11	11	14	B	B	12					
10	11	9	11	9	8	8	9	9	9	25	25	20	17	17	15	14	11	14	8	8	15	12	11	8					
11	9	9	9	15	14	32	12	B	B	B	36	14	20	19	18	10	10	11	13	11	9	9	9	10					
12	9	11	13	12	10	11	B	11	B	47	20	17	34	50	48	28	17	9	11	11	10	8	7	9					
13	9	19	14	19	16	10	11	11	11	30	B	B	46	23	23	23	23	37	21	12	11	11	9	9					
14	10	11	B	14	11	50	13	14	11	B	24	20	18	18	17	13	11	9	8	9	9	9	13	12					
15	16	15	14	B	7	B	18	15	10	11	10	21	21	18	16	13	12	12	14	19	B	9	12	8					
16	8	8	14	9	13	14	11	11	12	B	37	15	11	19	37	12	11	11	15	17	15	B	B	8					
17	15	14	13	8	11	15	16	11	33	11	13	37	24	19	11	20	22	31	28	B	B	9	8	12					
18	7	15	B	15	15	B	22	18	9	B	B	28	B	B	58	39	17	19	14	B	B	B	B	B					
19	17	11	8	9	10	15	13	11	B	B	B	B	B	35	14	14	15	36	38	17	B	14	11	10					
20	11	10	10	9	B	13	7	13	9	9	10	B	B	46	40	31	21	15	18	17	B	B	B	9					
21	9	8	9	11	18	16	10	11	7	8	11	11	11	11	10	11	14	11	10	12	12	9	10	13					
22	11	22	13	11	14	15	12	9	9	8	8	10	11	11	8	8	9	9	9	10	8	9	9	8					
23	8	8	8	8	8	8	10	10	10	10	13	11	11	11	9	11	18	13	11	11	9	10	9	10					
24	11	14	13	14	14	12	9	9	8	10	13	17	14	14	18	C	13	17	23	17	13	B	21	24					
25	17	25	28	B	B	B	B	B	37	48	B	B	B	B	B	B	61	B	B	B	B	B	B	B					
26	B	B	B	37	B	B	B	B	B	21	B	B	B	B	B	B	B	B	14	51	14	13	13	13					
27	10	11	B	10	10	11	13	10	11	B	B	B	B	37	31	23	19	47	B	B	10	11	10	14					
28	11	10	11	13	12	10	11	11	21	11	12	B	B	B	B	B	B	37	38	B	B	B	23	B					
29	B	B	B	32	B	23	13	31	B	B	51	B	B	B	B	24	24	B	10	11	10	13	18	17					
30	10	14	B	B	11	18	16	21	B	B	B	22	86	63	58	B	36	20	18	13	B	12	B	10					
31	9	9	9	11	11	15	11	11	11	13	14	B	30	13	14	20	26	13	11	B	B	B	8	9					
	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	31	31	31	31	31	31	31	31					
MED	11	11	13	12	12	14	13	11	11	25	25	26	24	23	22	20	17	17	14	12	12	11	11	10					
UQ	14	15	D ₂₈	26	16	20	16	20	37	B ₅₃	D ₅₃	B	B ₆₃	D ₆₃	53	35	24	36	22	18	B ₁₆	D ₁₆	20	14					
LQ	9	10	11	10	10	11	11	11	10	12	13	17	16	15	14	11	12	12	11	11	9	9	9	9					

The Radio Research Laboratories, Japan

MAY, 1967

F-MIN (0.1 MHz)

IONOSPHERIC DATA

MAY. 1967 H^oF2 (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 0.4 MHz to 15 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															B									
5											B				B	B								
6																								
7													B	B	B									
8																								
9											B													
10											360													
11											B													
12																								
13											B	B												
14											B													
15																								
16																								
17																								
18											B		B	B										
19											B	B	B											
20												B	B											
21																								
22																								
23																								
24																								
25													B	B	B	B								
26											B	B	B	B	B									
27												B	B											
28												B												
29												B	B	B										
30																								
31																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT											1													
MED											360													
UQ																								
LQ																								

The Radio Research Laboratories, Japan

MAY. 1967 H^oF2 (KM)

IONOSPHERIC DATA

MAY. 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 0.4 MHz to 15 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	280	290	300	350 ^B	390	B	A	A	A	365	255	250	240	225	240	215	225	220	200	210	220	235	290 ^B	A																								
2	A	A	A	B	A	A	390	450	345	270	260	245	245	250	230	275	245	250	280	280	270	A	A	A																								
3	A	A	B	A	A	A	A	B	A	B	B	250	290	290	B	R	B	A	A	A	A	A	A	B																								
4	A	A	A	A	A	A	A	A	A	A	320	265	280 ^B	B	280	230	225	270	220	A	A	A	A	A																								
5	A	B	B	B	B	A	B	A	B	B	B	B	250	B	B	225	225	240	240	230	270	A	A	A																								
6	A	A	A	A	A	A	A	B	340	B	300	250	230	240	210	210	200	B	250	210	230	260	A	A																								
7	A	A	A	B	A	A	A	B	B	B	A	B	B	B	B	B	280	280	250	290	A	A	A	A																								
8	A	A	A	A	A	400 ^A	375	345	295	265	225	230	225	225	220	205	240	230	230	230	250	A	A	240																								
9	A	A	A	A	A	A	400 ^H	315 ^H	290 ^H	B	B	B	240	225	210	220	210	240	205	230	250	B	B	300 ^B																								
10	A	350	A	A	A	A	A	350 ^A	A	280	230	215	220	205	200	215	205	225 ^H	225	290	230	250	290 ^B	A																								
11	A	A	A	A	A	B	A	B	B	B	265	225	240	225	220	205	210	210	210	210	235	245	A	A																								
12	A	A	A	A	A	A	R	A	B	B	255	245	250 ^B	250 ^B	240 ^B	225	205	240	215	230	230	A	A	A																								
13	A	A	A	B	A	A	A	A	A	B	B	B	B	235	230	240	250	250	240	225	A	A	A	240																								
14	A	A	B	A	A	B	A	A	A	B	275	250	240	220	205	200	230	240	240	270	A	A	A	A																								
15	A	A	A	B	A	B	A	A	320	265	245	240	225	220	230	260	200	220	260	280	B	A	A	A																								
16	A	A	A	A	A	A	A	A	A	B	B	225	225	225	235	225	200	215	245	240	300 ^B	B	B	A																								
17	A	A	A	A	A	A	A	A	B	A	285	B	255	250	240	230	235	240	240	B	B	A	235	A																								
18	A	A	B	A	A	B	B	A	A	B	B	280	B	B	B	240	225	230	225	B	B	B	B	B																								
19	A	A	A	A	A	A	A	A	B	B	B	B	B	280 ^B	240	230	240	245	255	260	B	205	A	B																								
20	B	A	A	A	B	A	A	A	335	290	275	B	B	245 ^B	250	240	230	230	275	250	B	B	B	A																								
21	A	270	340	A	A	A	A	A	375	265	250	225	210	205	210	215	230	230	250	245	275	A	235	A																								
22	A	A	A	A	A	A	A	A	295	280	240	235	225	225	200	200	215	240	210	240	265 ^B	A	B	315																								
23	A	A	325 ^H	330 ^H	340 ^H	360 ^H	350 ^B	380 ^A	380 ^A	305	240	225	210	205	205	200	245	250	220	230	250	A	280	A																								
24	A	A	A	A	A	A	340	265	260	255	250	240	225	210	200	C	205	250	240	250	240 ^B	B	B	B																								
25	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B																								
26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	B	A	A	A																								
27	A	205	B	A	A	A	A	A	A	B	B	B	B	250	245	265	260	260	B	B	A	A	275	A																								
28	A	A	A	A	A	A	A	A	A	A	290	B	B	B	B	B	B	B	240	B	B	B	A	B																								
29	B	B	B	B	B	A	A	B	B	B	B	B	B	B	B	325	315	B	A	A	A	A	A	A																								
30	A	B	B	B	A	A	A	A	B	B	B	250	B	B	B	B	B	260	350 ^H	A	B	A	B	A																								
31	A	A	A	A	A	A	A	A	A	A	A	B	B	300	265	280	300 ^B	265	280	B	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	4	3	2	2	2	5	6	10	10	17	18	19	22	22	24	26	25	26	20	14	5	6	4																								
MED	280	280	325	340	365	380	375	348	328	275	255	242	240	225	230	225	228	240	240	240	250	245	278	270																								
UQ		320	332				390	380 ^A	345	290	275	250	248	250	240	240	245	250	250	265	270	250	290 ^B	308																								
LQ		238	312				350	315	295	265	245	225	225	220	210	212	210	230	220	230	230	235	235	240																								

MAY. 1967

H'F (KM)

IONOSPHERIC DATA

MAY. 1967 H^oES (KM)

45 E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69 00.4 S. Long. 39 35.4 E Sweep 0.4 MHz to 15 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	140	100	B	100	170	100	100	100	100	125	B	B	100	100	105	100	G	B	100	100	100	140	110	115	
2	125	115	100	115	100	100	105	125	110	100	100	100	100	125	B	150	140	100	130	165	100	100	115	135	
3	105	100	B	100	100	100	100	B	100	B	155	100	100	160	B	G	130	130	125	140	100	105	100	B	
4	100	100	105	100	105	100	105	100	100	100	B	B	B	B	B	B	100	B	B	120	110	120	120	100	
5	100	150	B	125	B	100	B	100	100	100	B	B	B	B	B	B	B	B	B	B	140	100	130	110	
6	110	130	135	100	105	100	130	B	130	B	B	B	B	B	100	100	110	B	B	130	100	150	115	100	
7	105	115	120	150	100	100	115	B	B	B	125	B	B	B	B	B	B	B	B	B	140	130	125	125	
8	120	150	135	110	130	140	130	130	125	125	130	B	100	105	105	105	B	B	125	B	100	120	125	120	
9	130	125	140	105	110	100	100	100	130	B	B	B	B	B	B	B	B	B	B	110	140	B	B	130	
10	125	110	105	100	105	100	100	100	100	B	B	B	G	100	100	100	100	B	100	125	B	B	100	100	
11	115	115	125	115	100	100	100	B	B	B	B	G	B	G	100	100	100	B	B	B	140	100	100	100	
12	100	100	100	100	100	115	B	100	B	B	125	G	B	B	B	B	B	100	B	B	B	115	100	115	
13	115	115	100	120	110	140	100	100	100	150	B	B	B	B	B	120	B	B	B	B	150	150	100	120	
14	130	105	B	115	100	B	105	100	100	B	B	120	125	125	105	100	105	115	105	140	120	100	115	100	
15	100	100	100	B	125	B	105	115	155	140	100	B	B	105	100	100	100	100	100	B	115	100	100		
16	105	100	125	100	105	100	105	105	105	B	B	100	100	G	B	100	100	100	140	120	B	B	B	110	
17	125	115	100	100	100	100	100	100	120	100	100	B	B	B	100	B	B	B	B	B	B	100	100	125	
18	100	110	B	100	100	B	115	105	100	B	B	B	B	B	B	B	120	B	B	B	B	B	B	B	
19	115	105	100	105	115	100	100	100	B	B	B	B	B	B	105	B	B	B	B	B	B	100	100	100	
20	110	100	110	100	B	100	100	100	120	100	100	B	B	B	B	B	B	B	B	B	B	B	B	115	
21	110	100	130	100	100	100	100	100	100	100	105	G	100	100	100	100	B	100	100	100	130	100	100	115	
22	125	145	115	125	100	100	105	100	110	100	100	100	100	100	100	100	100	100	100	100	100	100	160	100	
23	100	100	100	100	100	100	140	100	100	100	G	125	105	105	100	B	B	B	100	105	140	150	130	120	
24	110	100	100	105	105	105	140	100	110	B	105	B	G	150	B	C	100	B	B	B	B	B	135	130	
25	125	130	140	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
26	B	B	B	120	B	B	B	B	B	130	B	B	B	B	B	B	B	B	B	125	120	125	110	130	110
27	100	100	B	130	100	100	100	100	100	B	B	B	B	B	B	B	B	B	B	B	100	105	105	105	
28	120	100	125	105	140	100	105	100	100	100	100	B	B	B	B	B	B	B	B	B	B	B	150	B	
29	B	B	B	115	B	125	100	130	B	B	150	B	B	B	B	B	B	B	100	100	100	100	130	140	
30	100	140	B	B	100	100	105	100	B	B	B	125	B	B	B	B	B	B	125	110	B	105	B	105	
31	105	145	100	100	100	115	100	100	105	100	100	B	B	105	150	120	B	115	140	B	B	B	110	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	29	29	22	28	26	26	27	25	23	15	14	7	9	12	13	13	12	9	15	15	18	22	25	27	
MED	110	110	108	105	100	100	105	100	100	100	102	100	100	105	100	100	100	100	105	120	115	105	115	110	
UQ	125	125	125	115	110	100	105	100	115	125	125	122	100	125	105	105	115	115	125	128	140	120	130	120	
LQ	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	102	100	100	100	100	

MAY. 1967 H^oES (KM)

IONOSPHERIC DATA

JUN. 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 **0.4 MHz** to **15 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	A	A	A	30	30	A	F ₃₁	F	R	F	J ₆₅	U ₆₅	64	65	45	34	F	21	16	B	F ₁₅	F	
2	F	A	A	R	A	A	A	F	F	F	J ₅₃	J ₇₀	F	78	F	F	F	F	F	F	25	F	A	A	
3	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	C	F ₄₃	F	R	F	15	A	F	16	
4	A	A	A	A	A	A	A	F ₃₆	J ₃₆	F	F	62	J ₆₇	R	R	R	F	48	54	29	A	A	A	A	
5	A	A	B	A	A	R	A	A	F	F	F	J ₄₉	61	72	80	68	B	F	R	F	26	A	A	A	
6	A	A	A	A	A	A	A	R	A	F	B	43	45	46	45	41	31	23	F	15	A	A	A	A	
7	A	A	A	A	B	A	A	B	A	B	B	B	B	B	B	B	B	B	B	B	A	B	B	A	
8	A	33	A	A	38	F	R	F	F	F	32	48	52	F	B	B	B	F	R	R	A	C	C	42	
9	C	A	C	A	C	C	C	C	C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	A	
10	A	A	B	A	A	A	A	B	A	A	B	43	B	F	B	F	36	B	A	14	F	15	A	A	
11	A	28	A	A	A	A	A	A	F ₃₀	F	F	F	F	F	F	F	F	F	21	R	B	A	A	A	
12	A	A	A	A	F ₃₁	A	A	A	F ₃₁	F	F	F	F	F	F	J ₅₀	F	F	28	F ₁₆	21	16	A	A	
13	A	A	A	A	A	A	A	J ₄₂	J ₄₀	J ₃₉	41	F	J ₅₈	F	F	J ₅₀	R	R	24	A	B	B	A	13	
14	A	22	A	A	A	A	A	A	A	F	31	B	B	F	F	60	66	56	B	F	F	15	A	A	A
15	A	A	B	A	A	A	B	A	B	B	B	B	B	R	47	42	F	B	16	B	13	15	R	R	
16	R	R	R	F ₂₆	23	35	J ₃₈	F	J ₃₇	F	F	R	F	B	B	R	B	B	B	B	B	F	A	A	
17	R	A	A	A	A	A	F	F	F	F	F	F	54	C	F ₅₆	F	F	F	F	A	A	A	A	A	
18	A	A	A	A	A	B	A	A	F	F	35	47	48	61	49	36	F	F	F	16	15	A	A	F	
19	A	A	A	F	31	F	R	F	F	F	F	F	55	F	R	F	40	F	F	J ₂₅	A	A	A	32	
20	F	A	A	F	A	A	F	R	46	F	F	F	F	U ₇₄	J ₆₈	47	F	A	A	F ₁₅	13	13	F ₁₆	A	
21	F	15	16	25	F ₂₆	R	F	F ₁₅	16	A	B	F	F	J ₆₅	J ₆₃	F	F ₃₀	F	A	A	F	F	R	A	
22	A	A	A	A	F	C	U ₂₈	31	A	F	F	F	F	F	F	F	F	F	F	B	B	B	A	A	
23	A	B	B	B	B	A	16	17	A	F	23	F	41	R	J ₆₉	51	C	C	C	C	A	B	B	A	A
24	F	A	A	A	22	A	25	F	F	F	F	F	F	F	R	R	F	F	F	F ₁₅	F	F	F	F ₁₅	
25	F	18	A	A	A	F	F	F	R	J ₆₀	40	F	F	F	F	J ₅₀	J ₄₀	J ₄₀	F	19	21	A	F	A	
26	A	A	F	F	A	A	A	F	F	B	B	B	F	F ₄₆	F ₄₃	F	B	R	B	A	13	A	A	A	
27	A	A	A	A	B	A	A	B	C	A	C	B	B	B	B	B	B	A	24	A	A	A	A	A	
28	A	A	A	F	A	A	A	43	J ₄₀	J ₄₀	J ₄₂	45	56	R	F	F	F	F	R	R	A	A	A	A	
29	A	A	A	A	A	22	F	F ₃₁	23	B	B	F	F	F	F	F	F	F	38	26	F	A	A	A	
30	A	F	A	A	B	C	C	C	C	B	B	B	F	F	F	B	B	F	B	B	A	A	A	F	
31																									
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	
CNT		5	1	2	6	3	5	8	10	4	7	10	10	9	11	10	9	5	8	12	11	4	2	5	
MED		22	16	26	28	30	28	34	34	J ₄₀	40	48	56	65	56	50	40	34	25	18	15	15	14	16	
UQ		28			31	32	38	39	J ₄₀	J ₅₀	42	51	J ₆₁	72	64	65	45	40	33	26	21	16		32	
LQ		18			23	26	25	24	30	F ₃₁	34	43	52	61	48	42	36	33	22	15	14	14		15	

The Radio Research Laboratories, Japan

JUN. 1967

FOF2 (0.1 MHz)

IONOSPHERIC DATA

JUN. 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 0.4 MHz to 15 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										L														
3											B	B	B	B	B									
4										L	L													
5										L		L												
6											B													
7											B	B	B	B										
8																B								
9											C	B	B	B	B									
10											B		B											
11																								
12												L				L								
13																								
14										L		B	B											
15											B	B	B											
16															B	B								
17										L					C									
18																								
19																								
20																								
21											B													
22																								
23																								
24																								
25																								
26											B	B												
27											C	B	B	B	B									
28															L									
29											B													
30											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																								
MED																								
UQ																								
LQ																								

JUN. 1967

FOF1 (0.01 MHZ)

IONOSPHERIC DATA

JUN. 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 **0.4 MHz** to **15 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	165	180	165	150	A									
2										A	A	A	A	A	B	B									
3										B	B	B	B	B	B	C									
4										B	140	165	A	A	A	A									
5										130	150	A	A	A	A	A									
6										A	B	B	B	A	B	B									
7										B	B	B	B	B	B	B									
8										A	A	B	180	170	B	B									
9										C	C	B	B	B	B	B									
10										A	B	B	B	B	B	B									
11										A	A	A	A	A	A	A									
12										A	A	A	A	B	A	A									
13										120	160	A	A	A	A	A									
14										A	B	B	B	B	B	B									
15										B	B	B	B	B	A	B									
16										A	A	A	B	B	B	B									
17										A	A	A	A	C	A	A									
18										A	A	A	A	A	A	120									
19										A	A	A	A	A	A	A									
20										A	A	B	A	A	A	A									
21										A	B	B	A	A	A	A									
22										A	A	B	A	165	A	A									
23										A	A	A	A	A	A	C									
24										A	A	A	A	A	A	A									
25										A	A	A	190	A	A	A									
26										B	B	B	B	B	B	B									
27										A	C	B	B	B	B	B									
28										A	135	A	A	160	A	B									
29										B	B	B	A	A	140	B									
30										B	B	B	B	B	B	B									
31																									
CNT											2	4	2	3	4	2	1								
MED											125	145	165	180	165	145	120								
UQ											155		185	168											
LQ											138		180	162											

JUN. 1967

FOE (0.01 MHz)

IONOSPHERIC DATA

JUN. 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 0.4 MHz to 15 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	25	B	J _X ₃₇	J _X ₂₈	J _X ₃₀	J _X ₂₂	J _X ₃₆	J _X ₄₂	J _X ₃₈	J _X ₂₈	20	25	19	19	J _X ₂₀	20	13	12	E ₁ ₁₅	E ₁ ₁₁	17	B	20	17	
2	23	J _X ₆₄	J _X ₄₃	J _X ₄₀	J _X ₅₅	J _X ₃₇	J _X ₃₇	J _X ₃₅	J _X ₃₀	21	J _X ₂₅	J _X ₃₇	23	J _X ₂₀	E ₂ ₂₈	E ₂ ₄₀	E ₂ ₃₂	20	22	E ₂ ₂₁	E ₂ ₁₉	22	J _X ₄₀	J _X ₄₅	
3	32	33	J _X ₃₇	J _X ₅₂	J _X ₄₅	J _X ₃₂	J _X ₃₆	B	B	B	B	B	B	B	B	C	22	E ₃ ₁₃	E ₃ ₁₂	E ₃ ₁₁	17	J _X ₂₂	23	20	
4	J _X ₂₈	30	J _X ₅₉	J _X ₆₄	J _X ₄₅	J _X ₄₁	30	21	E ₁₀	E ₁₀	G	G	24	J _X ₁₈	J _X ₂₀	J _X ₃₆	E ₁₂	E ₁₂	E ₁₃	J _X ₂₅	J _X ₅₂	J _X ₄₃	J _X ₅₄	J _X ₅₀	
5	47	J _X ₇₀	42	J _X ₃₃	J _X ₃₆	J _X ₃₀	J _X ₃₉	J _X ₅₂	J _X ₂₁	23	G	J _X ₂₀	19	22	J _X ₁₉	J _X ₂₂	B	E ₁₈	E ₂₆	E ₁₈	J _X ₁₇	29	J _X ₃₈	J _X ₆₀	
6	J _X ₅₉	J _X ₆₂	J _X ₁₂₁	J _X ₆₉	J _X ₇₁	J _X ₆₇	J _X ₄₆	J _X ₄₀	J _X ₄₀	29	B	E ₃₇	E ₂₂	21	E ₂₁	E ₁₉	19	23	E ₁₁	J _X ₂₂	J _X ₂₀	J _X ₂₇	J _X ₃₀	J _X ₇₈	
7	J _X ₉₀	J _X ₅₈	J _X ₄₁	J _X ₅₂	B	J _X ₂₀	J _X ₃₅	B	J _X ₉₁	B	B	B	B	B	B	B	B	B	B	B	J _X ₁₈	B	B	J _X ₂₀	
8	J _X ₂₃	37	J _X ₃₃	30	29	23	J _X ₂₅	J _X ₂₆	11	17	23	E ₂₂	21	G	B	B	B	J _X ₁₈	J _X ₃₃	29	J _X ₃₇	C	C	J _X ₄₉	
9	C	J _X ₃₆	C	J _X ₂₀	C	C	C	C	C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	J _X ₂₆	
10	J _X ₄₂	J _X ₃₈	B	J _X ₂₀	J _X ₃₇	J _X ₁₈	J _X ₅₂	B	J _X ₂₀	J _X ₁₈	B	E ₃₆	B	E ₅₄	B	E ₃₅	E ₂₂	B	J _X ₂₀	J _X ₂₀	15	J _X ₁₆	J _X ₂₂	J _X ₃₂	
11	J _X ₂₈	J _X ₂₇	J _X ₃₄	J _X ₄₂	J _X ₄₂	J _X ₄₆	J _X ₃₈	J _X ₃₅	J _X ₆₅	J _X ₃₁	22	21	24	26	J _X ₂₅	J _X ₂₀	21	J _X ₅₁	J _X ₂₀	J _X ₂₀	B	23	J _X ₄₀	J _X ₄₁	
12	J _X ₃₆	J _X ₃₃	J _X ₄₃	J _X ₃₆	J _X ₂₆	J _X ₄₅	J _X ₄₇	J _X ₃₆	J _X ₂₂	J _X ₁₈	J _X ₁₇	J _X ₁₆	J _X ₂₀	E ₁₈	J _X ₂₂	23	J _X ₂₀	E ₁₄	E ₁₉	E ₁₁	J _X ₁₈	J _X ₂₇	22	J _X ₂₅	
13	J _X ₃₄	36	J _X ₄₂	J _X ₃₂	J _X ₄₁	J _X ₆₁	J _X ₂₃	J _X ₃₅	J _X ₂₁	J _X ₂₀	22	23	J _X ₂₃	J _X ₃₈	J _X ₄₈	J _X ₃₈	24	19	J _X ₁₈	J _X ₂₀	B	B	J _X ₂₀	J _X ₁₅	
14	J _X ₂₆	J _X ₂₉	33	J _X ₅₀	J _X ₅₈	J _X ₄₈	J _X ₁₈	J _X ₃₅	J _X ₄₂	34	25	B	B	E ₂₂	E ₂₁	E ₃₂	E ₃₁	B	E ₂₅	J _X ₂₃	J _X ₁₉	J _X ₄₁	J _X ₄₁	J _X ₅₁	
15	J _X ₉₅	J _X ₈₅	B	J _X ₄₆	J _X ₆₂	J _X ₅₅	B	33	B	B	B	B	B	E ₁₈	25	E ₁₉	E ₁₄	B	E ₁₄	B	E ₁₁	14	13	J _X ₁₈	
16	J _X ₃₀	J _X ₂₆	31	J _X ₃₀	31	J _X ₃₇	J _X ₂₉	J _X ₆₆	23	J _X ₁₉	17	J _X ₂₂	E ₁₈	B	B	E ₃₈	B	B	B	B	B	B	21	J _X ₁₄	J _X ₃₀
17	J _X ₂₄	J _X ₈₆	J _X ₃₉	J _X ₅₀	J _X ₄₅	J _X ₄₁	J _X ₃₈	J _X ₂₀	19	17	J _X ₂₃	21	J _X ₅₄	C	18	21	23	J _X ₁₉	E ₁₀	26	J _X ₃₉	J _X ₃₇	J _X ₃₅	J _X ₃₅	
18	J _X ₃₇	J _X ₃₇	J _X ₃₈	J _X ₄₆	J _X ₆₄	B	J _X ₄₆	J _X ₃₈	J _X ₂₄	23	23	J _X ₂₅	J _X ₂₄	21	14	23	21	17	J _X ₂₀	13	J _X ₂₂	J _X ₁₈	J _X ₃₆	J _X ₁₉	
19	J _X ₂₀	J _X ₃₂	J _X ₃₇	J _X ₂₃	23	J _X ₂₂	16	J _X ₂₃	21	21	J _X ₃₆	J _X ₄₆	22	16	16	23	13	24	J _X ₁₉	16	J _X ₃₇	J _X ₃₇	31	J _X ₂₈	
20	J _X ₂₄	J _X ₂₇	J _X ₃₄	31	J _X ₄₀	J _X ₄₅	J _X ₄₀	J _X ₃₃	J _X ₂₂	J _X ₂₂	J _X ₅₇	26	J _X ₂₂	J _X ₄₇	J _X ₃₇	J _X ₅₂	J _X ₃₆	J _X ₅₀	J _X ₂₃	21	18	16	13	J _X ₂₀	
21	J _X ₂₃	J _X ₅₃	J _X ₂₃	J _X ₃₄	J _X ₃₂	J _X ₂₃	J _X ₂₃	J _X ₂₀	J _X ₂₅	J _X ₃₇	B	E ₂₂	25	J _X ₃₂	J _X ₂₃	J _X ₁₈	J _X ₂₂	J _X ₄₂	J _X ₃₀	15	12	J _X ₂₃	J _X ₂₀	J _X ₃₀	
22	J _X ₃₆	J _X ₃₉	J _X ₄₁	J _X ₅₃	30	C	J _X ₁₉	19	J _X ₃₈	39	J _X ₃₉	E ₃₂	24	26	24	25	23	J _X ₂₀	23	B	B	B	J _X ₂₀	J _X ₂₁	
23	J _X ₂₀	B	B	B	B	23	J _X ₂₀	J _X ₅₂	J _X ₂₅	J _X ₂₄	J _X ₂₅	J _X ₃₆	J _X ₄₂	J _X ₆₂	J _X ₃₈	C	C	C	C	17	B	B	J _X ₁₆	J _X ₁₉	
24	J _X ₃₄	J _X ₃₆	J _X ₃₄	J _X ₄₂	J _X ₅₄	J _X ₄₆	J _X ₃₄	J _X ₁₇	J _X ₅₂	J _X ₃₁	J _X ₃₇	J _X ₃₄	J _X ₂₃	J _X ₂₃	24	J _X ₆₇	18	18	J _X ₂₃	J _X ₁₉	J _X ₂₃	J _X ₂₀	J _X ₂₃		
25	J _X ₂₃	J _X ₃₂	J _X ₃₆	J _X ₄₀	J _X ₃₇	J _X ₃₇	J _X ₂₆	J _X ₂₃	22	J _X ₁₉	J _X ₃₃	J _X ₅₁	J _X ₃₁	J _X ₂₀	J _X ₁₉	J _X ₁₉	J _X ₁₉	J _X ₁₈	13	J _X ₂₃	J _X ₁₈	J _X ₂₉	J _X ₃₃	J _X ₉₉	
26	J _X ₆₅	J _X ₆₁	J _X ₄₀	J _X ₂₉	J _X ₇₁	J _X ₅₇	55	J _X ₃₄	J _X ₂₄	B	B	B	E ₂₁	E ₂₀	E ₂₄	E ₂₀	B	E ₁₈	B	19	J _X ₂₁	J _X ₃₈	J _X ₁₉	31	
27	J _X ₈₀	J _X ₆₀	J _X ₄₀	J _X ₉₅	B	J _X ₂₂	29	B	C	J _X ₂₃	C	B	B	B	B	B	24	J _X ₁₈	J _X ₁₉	J _X ₁₈	J _X ₁₉	J _X ₃₅	J _X ₃₄		
28	J _X ₃₄	J _X ₃₄	J _X ₄₂	J _X ₄₂	J _X ₆₅	J _X ₅₂	J _X ₅₁	J _X ₃₅	23	J _X ₂₀	G	18	J _X ₂₅	J _X ₂₁	J _X ₂₂	E ₆₃	E ₁₉	E ₂₃	29	J _X ₂₀	J _X ₃₅	J _X ₂₈	J _X ₄₀	J _X ₄₃	
29	J _X ₃₉	J _X ₃₄	J _X ₃₄	33	23	J _X ₁₉	23	25	26	B	B	J _X ₂₆	29	23	G	E ₁₁	E ₁₁	21	16	J _X ₁₉	14	J _X ₃₁	J _X ₁₃	J _X ₅₂	
30	J _X ₃₆	J _X ₂₀	J _X ₈₅	J _X ₆₅	B	C	C	C	C	B	B	B	E ₃₂	E ₃₃	E ₃₉	B	B	E ₂₃	B	J _X ₁₇	J _X ₃₁	J _X ₃₇	J _X ₂₂		
31																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
CNT	29	28	26	29	25	26	27	24	25	23	19	22	23	24	23	23	21	23	24	24	24	24	23	30	
MED	J _X ₃₄	J _X ₃₆	J _X ₃₈	J _X ₄₀	J _X ₄₁	J _X ₃₇	J _X ₃₅	J _X ₃₄	J _X ₂₄	J _X ₂₂	23	24	23	21	21	22	20	19	19	20	J _X ₁₈	J _X ₂₇	J _X ₂₃	J _X ₃₀	
UQ	J _X ₃₉	J _X ₅₉	J _X ₄₂	J _X ₅₀	J _X ₅₅	J _X ₄₆	J _X ₄₀	J _X ₃₇	J _X ₃₈	J _X ₂₈	J _X ₂₉	J _X ₃₁	24	U ₂₆	25	U ₃₀	22	23	J _X ₂₂	J _X ₂₂	J _X ₂₂	J _X ₃₁	J _X ₃₆	J _X ₄₅	
LQ	J _X ₂₄	J _X ₃₂	J _X ₃₄	J _X ₃₁	J _X ₃₁	J _X ₂₃	J _X ₂₃	J _X ₂₃	21	J _X ₁₉	18	20	22	20	19	20	U ₁₆	18	E ₁₆	16	17	J _X ₂₀	J _X ₂₀	J _X ₂₀	

JUN. 1967

FOES (0.1 MHZ)

IONOSPHERIC DATA

JUN. 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 0.4 MHz to 15 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	8	B	11	11	8	8	8	14	9	8	9	9	12	9	9	11	11	11	15	11	11	B	9	8					
2	9	7	8	8	11	11	11	9	8	8	11	10	12	10	28	40	32	17	16	21	19	14	8	8					
3	11	13	9	11	18	11	10	B	B	B	B	B	B	B	B	C	13	13	12	11	9	9	12	10					
4	12	10	8	10	14	12	9	10	10	10	9	11	9	8	9	10	12	25	13	11	15	11	9	10					
5	9	11	37	17	11	22	16	11	10	10	10	10	11	11	9	9	B	18	26	18	11	11	11	11					
6	11	10	16	11	12	11	11	11	9	11	B	37	22	18	21	19	11	10	11	11	9	11	8	9					
7	11	11	18	16	B	11	17	B	22	B	B	B	B	B	B	B	B	B	B	B	11	B	B	16					
8	10	11	10	11	11	10	8	9	10	10	13	22	16	12	B	B	B	11	8	10	9	C	C	23					
9	C	24	C	11	C	C	C	C	C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	8					
10	10	13	B	11	14	11	18	B	9	11	B	36	B	54	B	35	22	B	15	11	9	8	7	8					
11	7	8	8	8	12	9	9	11	11	11	14	11	11	11	11	8	11	11	11	11	B	10	8	10					
12	11	13	11	14	9	9	9	11	9	9	8	7	9	18	11	12	11	14	19	11	11	9	8	8					
13	7	9	8	6	16	11	11	9	10	8	8	8	8	8	7	8	11	13	8	10	B	B	8	7					
14	6	8	9	11	12	18	17	13	13	11	16	B	B	22	21	32	31	B	25	8	11	11	8	9					
15	9	12	B	16	31	21	B	18	B	B	B	B	B	18	16	13	14	B	14	B	11	12	11	8					
16	8	8	10	12	12	9	11	9	9	8	8	8	18	B	B	38	B	B	B	B	B	10	8	7					
17	5	11	10	11	19	11	10	10	8	8	9	10	9	C	15	11	9	11	10	10	10	9	10	9					
18	8	11	17	11	9	B	14	10	10	8	9	8	11	11	11	10	10	11	9	11	11	9	9	8					
19	8	7	7	8	9	10	8	8	8	8	8	10	11	12	9	9	10	11	10	7	10	9	10	8					
20	8	8	8	13	15	14	11	8	8	9	8	16	12	10	9	13	12	13	11	10	11	11	11	8					
21	8	8	7	7	5	6	7	9	11	11	B	22	14	14	11	11	11	14	11	12	10	7	8	7					
22	8	13	13	11	8	C	6	E	14	7	18	32	12	13	8	8	8	8	11	B	B	B	14	12					
23	14	B	B	B	B	14	12	12	14	13	9	8	11	16	12	C	C	C	C	13	B	B	9	8					
24	10	8	10	9	8	8	11	8	8	8	11	12	11	11	9	8	9	8	8	8	9	7	8	8					
25	5	7	7	9	8	8	8	8	8	8	11	9	10	10	11	11	10	8	8	7	8	8	9	10					
26	11	11	11	14	11	26	16	23	11	B	B	B	21	20	24	20	B	18	B	10	8	10	12	11					
27	9	11	11	14	B	11	11	B	C	11	C	B	B	B	B	B	B	16	12	12	12	14	9	10					
28	9	10	14	11	13	11	15	9	9	8	8	10	8	6	9	63	19	23	14	16	8	8	8	10					
29	22	12	9	10	10	7	9	9	9	B	B	19	20	14	12	11	11	12	12	11	10	8	12	10					
30	8	14	16	9	B	C	C	C	C	B	B	B	32	33	39	B	B	23	B	B	9	10	8	10					
31																													
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					
CNT	29	30	29	30	29	27	28	28	27	29	28	30	30	29	30	28	29	29	29	30	30	29	29	30					
MED	9	11	10	11	12	11	11	10	10	10	11	14	12	14	12	12	12	14	12	11	11	10	9	9					
UQ	11	13	16	13	16	13	17	14	11	11	B	B	32	22	39	39	B	23	19	18	15	14	11	10					
LQ	8	8	8	9	9	9	9	9	9	8	9	10	11	11	9	10	11	11	11	10	9	9	8	8					

JUN. 1967

F-MIN (0.1 MHz)

IONOSPHERIC DATA

JUN. 1967

H^oF₂ (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 0.4 MHz to 15 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										400														
3											B	B	B	B	B									
4										L	300													
5										345		315												
6											B													
7											B	B	B	B										
8																B								
9											C	B	B	B	B									
10											B		B											
11																								
12												L				L								
13																								
14										340		B	B											
15											B	B	B											
16															B	B								
17										355					C									
18																								
19																								
20																								
21											B													
22																								
23																								
24																								
25																								
26											B	B												
27											C	B	B	B	B									
28															L									
29											B													
30											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										4	1	1												
MED										350	300	315												
UQ										378														
LQ										342														

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H^oF₂ (KM)

IONOSPHERIC DATA

JUN. 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 0.4 MHz to 15 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	A	A	A	390	425	A	350	310	250	230	220	200	225	225	200	230	250	245	250	B	200	305			
2	A	A	A	300	A	A	A	380	395	345	250	235	215	240	240	270	240	250	235	260	255	A	A	A			
3	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	C	210	230	230	220	E	B	A	A	B		
4	A	A	A	A	A	A	A	A	350	300	250	260	230	220	225	205	200	225	270	250	340	A	A	A	A		
5	A	A	B	A	A	A	A	A	325	300	250	200	225	225	220	200	B	230	280	245	300	A	A	A	A		
6	A	A	A	A	A	A	A	400	A	380	B	B	320	290	250	250	225	250	280	A	A	A	A	A	A		
7	A	A	A	A	B	A	A	B	A	B	B	B	B	B	B	B	B	B	B	B	B	A	B	B	A		
8	A	A	A	A	A	325	A	310	300	340	320	245	220	250	B	B	B	270	A	A	A	C	C	B			
9	C	A	C	A	C	C	C	C	C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	B	A		
10	A	A	B	A	A	A	A	B	A	A	B	B	B	B	B	255	250	B	A	B	B	215	A	A	A		
11	A	A	A	A	A	A	A	A	A	335	260	230	225	210	220	220	215	A	255	A	B	A	A	A	A		
12	A	A	A	A	350	A	A	A	350	300	240	240	225	215	205	230	250	275	240	280	255	265	A	A	A		
13	A	A	A	A	A	A	A	A	300	255	250	220	225	190	205	205	210	250	245	A	B	B	A	A	A		
14	A	A	A	A	A	A	A	A	A	320	400	B	B	255	245	250	245	B	255	280	A	A	A	A	A		
15	A	A	B	A	A	A	A	A	B	B	B	B	B	230	210	220	240	B	B	B	B	B	A	A	A		
16	A	A	290	240	A	A	350	340	295	250	245	240	210	B	B	240	B	B	B	B	B	B	B	A	A		
17	A	A	A	A	A	A	A	350	350	290	255	230	225	C	205	240	225	250	280	A	A	A	A	A	A		
18	A	A	A	A	A	B	A	A	320	250	240	210	200	205	205	265	A	245	230	260	260	A	A	A	A		
19	A	A	A	A	A	390	390	300	300	270	240	200	200	190	200	215	205	255	225	280	A	A	A	290	A		
20	A	A	A	A	A	A	A	395	400	280	235	240	275	220	200	230	A	A	A	A	B	B	300	A	A		
21	B	A	A	A	A	A	370	A	B	A	B	260	230	205	210	200	205	A	A	B	255	A	A	A	A		
22	A	A	A	A	A	C	340	385	A	A	310	B	220	230	210	200	225	250	250	B	B	B	A	A	A		
23	A	B	B	B	B	A	B	B	A	B	265	A	205	215	200	C	C	C	C	A	B	B	A	A	A		
24	A	A	A	A	A	A	A	300	300	300	A	270	240	225	210	200	175	A	225	B	245	A	230	B	A		
25	280	270	A	A	A	A	A	340	300	300	A	265	225	225	200	200	220	225	205	A	250	A	A	A	A		
26	A	A	A	A	A	A	A	A	A	B	B	B	275	240	260	305	B	250	B	A	A	A	A	A	A		
27	A	A	A	A	B	A	A	B	C	A	C	B	B	B	B	B	B	A	250	A	A	A	A	A	A		
28	A	A	A	A	A	A	A	A	325	250	230	220	220	250	285	B	220	265	240	A	A	A	A	A	A		
29	A	A	A	A	A	A	360	330	305	B	B	B	260	240	225	215	240	230	230	250	B	A	A	A	A		
30	A	A	A	A	B	C	C	C	C	B	B	B	290	255	245	B	B	B	B	B	A	A	A	A	A		
31	
CNT	1	1	1	2	1	3	6	12	16	18	17	17	23	23	23	22	19	17	19	10	9	2	3	2			
MED	280	270	290	270	350	390	365	345	312	300	250	230	225	225	210	222	225	250	245	260	255	240	230	298			
UQ						390	390	382	350	320	260	240	235	240	232	250	240	255	252	280	258		265				
LQ						358	350	320	300	255	240	220	220	212	205	200	210	230	230	245	250		215				

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H'F (KM)

IONOSPHERIC DATA

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H^oES (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 0.4 MHz to 15 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	B	120	100	100	105	100	100	100	100	130	100	150	100	100	100	110	105	B	B	125	B	100	150
2	105	105	150	100	100	100	100	100	100	105	140	100	100	100	B	B	B	105	100	B	B	145	100	100
3	115	125	100	115	100	100	100	B	B	B	B	B	B	B	B	C	105	B	B	B	100	120	100	145
4	140	105	105	100	100	100	150	B	B	G	G	100	100	100	125	B	B	B	140	125	100	100	100	
5	100	100	125	120	110	140	105	100	100	120	G	100	105	100	100	100	B	B	B	B	150	120	125	100
6	100	100	100	100	105	100	105	100	100	110	B	B	B	125	B	B	145	115	B	100	120	115	115	145
7	110	100	105	105	B	100	120	B	105	B	B	B	B	B	B	B	B	B	B	B	100	B	B	125
8	110	120	110	125	110	105	105	140	150	105	115	B	130	G	B	B	B	150	100	110	105	C	C	105
9	C	100	C	100	C	C	C	C	C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	105
10	110	105	B	100	100	100	100	B	100	100	B	B	B	B	B	B	B	B	115	100	110	100	115	105
11	110	110	105	110	110	105	100	100	105	100	110	120	105	105	105	105	110	105	100	100	B	100	105	105
12	115	120	115	120	100	100	100	105	100	100	100	100	100	B	105	100	100	B	B	B	100	115	100	100
13	100	110	105	110	115	100	100	100	105	100	100	100	100	100	100	100	120	110	100	100	B	B	105	100
14	100	120	110	110	100	100	100	100	100	125	120	B	B	B	B	B	B	B	B	100	100	100	110	100
15	100	100	B	100	110	110	B	130	B	B	B	B	B	B	105	B	B	B	B	B	B	150	145	100
16	110	105	105	115	105	105	120	130	100	100	145	130	B	B	B	B	B	B	B	B	B	100	110	115
17	105	100	100	100	120	100	105	115	110	100	105	105	100	C	100	100	100	100	B	120	110	110	125	110
18	110	115	120	100	160	B	100	100	100	100	105	105	105	105	155	100	110	125	100	120	110	100	100	100
19	110	120	155	110	115	105	110	100	100	100	140	125	120	140	100	100	100	100	100	155	110	110	120	115
20	110	110	100	120	120	105	105	100	130	100	115	105	115	100	100	100	100	100	100	100	145	120	125	100
21	120	150	105	100	100	100	105	100	105	160	B	B	100	100	100	100	100	120	120	120	150	115	140	120
22	115	100	115	100	100	C	100	120	105	105	150	B	100	105	100	100	100	100	100	B	B	B	100	100
23	110	B	B	B	B	130	110	100	105	100	100	100	155	120	100	C	C	C	C	105	B	B	100	100
24	115	100	110	110	100	100	105	100	130	100	150	100	100	100	100	100	110	120	160	105	100	100	100	100
25	115	105	110	105	100	100	100	100	100	110	100	100	100	100	100	100	100	100	130	125	115	120	125	100
26	100	105	100	105	100	135	100	150	140	B	B	B	B	B	B	B	B	B	B	145	130	100	130	120
27	100	100	110	155	B	100	100	B	C	100	C	B	B	B	B	B	B	B	100	100	100	100	100	105
28	105	100	120	155	100	100	105	110	115	100	G	120	100	100	100	B	B	B	110	120	100	105	100	100
29	105	105	100	105	105	100	100	100	100	B	B	110	110	120	G	B	B	150	130	100	120	105	155	140
30	100	130	140	105	B	C	C	C	C	B	B	B	B	B	B	B	B	B	B	B	150	120	100	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	29	28	26	29	25	26	27	24	24	22	16	16	19	17	17	14	14	16	15	19	22	23	27	30
MED	110	105	110	105	100	100	100	100	102	100	115	102	100	100	100	100	102	105	100	105	110	110	105	105
UQ	110	118	120	115	110	105	105	118	108	105	140	115	110	105	100	100	110	120	118	120	125	120	125	115
LQ	100	100	105	100	100	100	100	100	100	100	102	100	100	100	100	100	100	100	100	100	100	100	100	100

The Radio Research Laboratories, Japan

JUN. 1967

H^oES (KM)

IONOSPHERIC DATA

JUL. 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 **0.4 MHz** to **15 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	B	A	A	A	A	B	B	B	B	B	B	B	B	B	R	R	A	A	A
2	A	A	A	A	R	B	A	A	A	A	A	JF55	57	54	63	41	F29	JF27	F26	A	13	A	A	A
3	A	F	16	A	A	35	32	JF38	F	F	F	50	51	C	F	F	C	C	C	C	C	C	C	C
4	C	C	C	C	A	33	A	37	A	B	B	F	F	F	F	F	F26	C	B	A	13	F13	F	F
5	B	12	A	C	A	A	A	A	C	A	F	B	B	B	F	46	F	F	C	R	A	A	A	A
6	A	A	B	A	A	A	A	A	25	F	40	C	51	64	43	UF42	F	F	B	B	A	A	A	14
7	A	A	A	B	A	A	A	B	B	A	30	40	42	56	52	F	F	F	15	B	A	A	A	F
8	A	A	A	A	A	A	A	A	A	A	F38	C	46	53	54	R	A	A	A	A	A	A	A	A
9	A	A	A	C	F16	F	F	19	20	22	34	B	53	F	48	30	20	25	25	B	B	A	A	A
10	B	B	A	A	A	A	A	A	A	A	F36	F	50	48	46	38	26	31	A	A	B	A	A	F
11	F	A	A	A	A	A	A	40	JF50	F	B	B	F	F	F	JF65	F	JF50	39	R	A	A	A	A
12	A	A	A	A	A	A	A	A	A	F	30	47	B	B	R	46	F	R	F18	A	A	R	R	A
13	A	A	A	A	A	A	E22	JF26	F	F	35	50	R	F	R	F	R	F	R	15	15	11	11	20
14	F	A	A	A	A	A	A	A	A	A	B	B	51	B	61	39	46	F	A	B	B	B	A	A
15	A	A	A	20	F	F	F	F	F	22	26	40	44	55	54	F	47	R	F	F24	R	B	A	A
16	A	A	A	A	A	F	A	A	A	A	F	F52	53	61	53	61	R	F	F	R	13	A	F	F23
17	A	A	A	18	26	A	F	F	20	F	F	R	R	JR65	R	51	F	F	R	14	R	F	F	13
18	A	30	28	26	JF33	R	F	F	F	F	32	32	F	F	B	R	F	R	B	F	F30	21	A	A
19	A	A	A	A	A	A	F	A	F	F	F	54	R	R	R	R	F	R	R	A	A	13	A	A
20	A	A	A	A	A	A	F	F	A	F	A	72	65	A	A	68	R	R	25	A	14	12	F	13
21	A	A	A	A	F	A	F	F	A	JF38	F	F	R	R	F	R	R	36	F	25	15	B	A	A
22	A	A	36	A	A	F	F	F	F	F	F	F	R	JF66	R	R	A	F	26	20	A	R	A	A
23	A	R	R	F	40	R	F	A	A	F	F	52	R	63	70	R	F48	A	24	20	15	15	F	A
24	A	A	A	A	A	A	A	A	A	F	45	F56	74	68	60	F59	F	F	JR42	17	F	A	A	A
25	A	A	A	A	A	B	A	F	F	40	F	50	F	71	65	70	R	F	F	F	A	A	A	A
26	A	A	A	A	A	F	A	A	F	F	F	F	60	JR68	JR74	R	UR51	37	33	25	R	F	F	A
27	A	F	JF24	F	21	F	F	25	F	F	F	F	F	F	F	R	F	F	F43	B	B	B	B	B
28	R	F	B	B	B	B	B	C	F	F	F	JF59	66	75	F	F	F	F	R	JR41	A	A	A	F
29	A	A	A	A	A	A	A	F	A	B	F	JF50	F	JF74	82	JF72	F	R	R	R	A	B	A	A
30	A	A	A	A	F	R	B	B	A	F	A	42	50	B	64	R	F	F	R	F	A	R	R	R
31	F	A	19	24	28	29	25	F	F	F	R	JF72	R	F	JB75	R	R	F	37	33	B	B	B	R
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
CNT		2	5	4	6	4	4	6	6	5	11	16	16	15	15	14	7	6	13	10	8	5	1	5
MED		21	24	22	27	32	28	32	24	F26	36	52	53	64	61	46	29	34	26	22	14	13	11	14
UQ			28	25	33	34	36	38	F40	F32	40	58	62	67	70	61	47	37	37	30	15	13		20
LQ			19	19	21	30	24	25	20	25	33	48	50	55	52	41	26	27	24	17	13	12		13

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FOF2 (0.1 MHz)

IONOSPHERIC DATA

JUL. 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 0.4 MHz to 15 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											
2																									
3															C										
4																									
5												B	B	B											
6												C													
7																									
8												C													
9												B													
10																									
11											B	B													
12													B	B											
13																									
14														B											
15																									
16																									
17																									
18															B										
19																									
20																									
21																									
22																									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30															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																									
MED																									
UQ																									
LQ																									

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FOF1 (0.01 MHZ)

IONOSPHERIC DATA

JUL. 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 0.4 MHz to 15 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	B	B	B	B	B	B								
2									A	A	A	A	A	A	140	B	A							
3									A	A	A	A	A	C	A	B	C							
4									B	B	B	B	B	B	B	A	B							
5									C	A	A	B	B	B	B	B	130							
6									A	A	150	C	A	145	A	B	A							
7									B	A	A	A	A	B	B	B	B							
8									A	A	A	C	A	A	A	130	A							
9									100	A	B	B	B	B	B	B	B							
10									A	A	A	A	A	B	B	A	A							
11									A	A	B	B	B	A	A	B	B							
12									A	A	165	170	B	B	B	B	B							
13									A	A	150	B	175	A	A	B	A							
14									A	A	B	B	B	B	B	B	B							
15									A	A	A	150	160	A	A	A	A							
16									B	A	A	A	A	A	A	A	B							
17									A	A	A	A	A	150	140	A	110							
18									A	A	A	160	B	B	B	B	B							
19									A	A	A	B	A	A	A	A	A							
20									B	A	A	150	A	A	A	A	A							
21									A	A	150	B	B	B	B	B	B	120						
22									110	140	A	A	180	A	150	A	A							
23									B	B	B	B	B	B	B	B	B							
24									A	A	A	B	B	B	A	A	A	A						
25									A	130	145	170	B	B	A	160	B	A	A					
26									A	A	A	170	A	180	170	A	140	A	A					
27									A	A	140	A	A	A	A	A	A	B						
28									C	A	A	160	A	A	A	A	A	A						
29									B	A	B	165	A	180	B	A	A	A						
30									B	A	A	A	A	B	B	B	A	B	A					
31									110	A	A	A	180	A	A	A	A							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT									4	3	8	4	6	3	4	2	2	1						
MED									110	140	162	155	180	150	145	135	120	120						
UQ									120	142	168	165	180	160	155									
LQ									105	140	150	150	175	148	140									

JUL. 1967

FOE (0.01 MHZ)

IONOSPHERIC DATA

JUL. 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 0.4 MHz to 15 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	J ₃₈	J ₅₂	J ₅₂	J ₄₇	B	J ₆₀	J ₆₃	J ₂₀	J ₂₀	B	B	B	B	B	B	B	B	B	27	J ₂₇	J ₄₂	J ₄₈	J ₃₇
2	J ₃₇	J ₄₂	J ₄₀	J ₅₄	J ₂₄	B	J ₄₆	J ₃₅	J ₅₉	J ₁₉	J ₃₈	J ₄₆	J ₃₇	J ₃₇	20	E ₁₁	J ₂₀	J ₁₈	J ₁₈	20	19	J ₂₀	J ₁₈	J ₂₀
3	J ₅₁	J ₂₅	J ₂₀	J ₃₆	J ₅₂	J ₃₈	J ₄₈	J ₃₈	J ₂₇	J ₃₄	21	D ₂₅	J ₂₈	C	J ₂₂	E ₁₅	C	C	C	C	C	C	C	C
4	C	C	C	C	J ₇₂	J ₆₇	J ₁₀₇	J ₃₂	J ₄₂	B	B	26	25	E ₃₂	E ₂₃	21	E ₁₅	C	B	J ₃₄	E ₉	J ₅₂	J ₁₉	J ₂₀
5	B	J ₂₂	J ₃₅	C	J ₆₅	J ₂₀	J ₄₅	J ₄₉	C	J ₆₆	J ₅₁	B	B	B	E ₂₅	E ₃₃	18	21	C	24	J ₂₅	J ₂₅	J ₃₁	J ₅₂
6	J ₆₂	J ₄₀	B	J ₃₈	J ₃₂	J ₄₃	J ₃₈	J ₃₆	23	21	J ₂₀	C	24	J ₂₅	20	E ₁₅	J ₃₇	E ₂₂	B	B	J ₃₈	J ₂₆	J ₃₃	J ₂₁
7	J ₄₂	J ₆₁	J ₄₂	B	J ₆₅	J ₄₂	J ₄₈	B	B	J ₂₀	J ₃₇	J ₂₇	20	E ₁₉	E ₁₈	E ₁₅	20	17	13	B	20	J ₂₂	J ₃₂	J ₃₅
8	J ₃₄	J ₃₂	J ₃₇	J ₄₂	J ₅₀	J ₄₆	J ₄₂	J ₄₂	J ₄₇	J ₃₇	26	C	21	23	14	14	J ₇₀	22	J ₂₄	24	22	J ₄₆	J ₅₃	22
9	21	22	24	C	J ₆₅	J ₃₈	J ₅₇	J ₁₄	12	14	E ₁₇	B	E ₂₄	E ₂₄	E ₁₉	E ₁₇	E ₁₅	J ₃₀	24	B	B	20	J ₂₁	J ₁₄
10	B	B	J ₄₂	J ₄₀	J ₁₀₇	D	J ₁₂₀	D	33	J ₄₂	31	J ₃₃	J ₆₀	30	E ₁₇	25	15	21	J ₂₃	J ₂₀	B	24	J ₂₀	J ₂₀
11	J ₂₀	J ₃₆	J ₄₁	J ₇₂	J ₂₀	24	J ₄₂	J ₄₅	J ₃₆	J ₄₀	B	B	E ₃₅	16	19	E ₁₇	E ₁₁	J ₁₄	20	J ₃₅	J ₃₆	J ₃₂	J ₃₇	J ₄₂
12	J ₃₉	J ₄₂	J ₄₉	J ₄₆	J ₅₀	J ₄₂	J ₄₈	25	J ₃₈	J ₃₅	J ₂₀	27	B	B	E ₂₈	E ₁₉	E ₁₅	E ₁₅	J ₂₀	J ₁₈	J ₂₁	16	J ₂₀	J ₂₅
13	J ₃₆	J ₃₇	J ₂₄	J ₂₀	J ₃₄	J ₃₇	J ₂₀	25	J ₂₁	13	G	E ₁₆	20	20	J ₂₂	E ₁₃	21	J ₂₄	20	20	E ₁₁	J ₁₉	J ₂₀	J ₃₃
14	31	J ₂₈	J ₂₀	J ₃₈	J ₃₃	J ₄₆	J ₄₇	J ₂₄	J ₂₃	J ₂₀	B	B	E ₃₇	B	E ₃₆	E ₂₃	E ₁₇	20	E ₂₅	B	B	J ₂₇	J ₂₆	
15	J ₄₅	J ₄₁	32	J ₂₃	21	J ₂₄	J ₂₅	J ₃₄	J ₃₇	J ₂₃	J ₂₀	J ₃₆	J ₂₄	J ₄₂	J ₃₇	J ₂₀	19	E ₁₂	17	J ₂₀	B	J ₃₅	J ₂₀	J ₇₁
16	J ₄₂	J ₄₆	J ₃₈	J ₃₇	J ₃₆	J ₃₀	J ₅₃	J ₂₃	J ₃₆	J ₄₃	20	20	J ₁₉	21	21	19	E ₁₃	E ₁₃	E ₁₆	E ₁₁	J ₂₀	J ₃₈	14	J ₂₄
17	J ₃₅	J ₄₀	J ₃₂	J ₂₆	J ₃₆	J ₅₂	J ₄₁	J ₃₈	23	23	21	27	20	26	17	13	12	J ₁₇	20	25	12	20	J ₂₁	J ₁₉
18	J ₃₃	J ₃₈	J ₄₁	J ₃₆	J ₂₁	24	25	25	J ₅₀	J ₄₀	J ₂₁	J ₂₄	E ₁₇	B	E ₃₄	E ₁₉	E ₃₃	B	J ₃₅	J ₂₀	23	J ₆₀	J ₂₅	J ₂₅
19	51	J ₃₂	J ₅₀	J ₄₈	J ₃₇	J ₃₉	J ₄₆	J ₄₁	J ₃₅	J ₂₂	21	E ₁₄	20	21	19	J ₂₂	19	J ₂₄	J ₂₄	J ₆₆	J ₀₅	J ₅₁	J ₆₂	J ₃₈
20	J ₄₈	J ₃₇	J ₃₈	J ₅₁	J ₅₆	J ₄₂	J ₃₃	J ₁₉	J ₃₇	J ₅₃	J ₃₃	J ₂₀	26	J ₆₇	J ₁₀	J ₁₁₂	J ₂₆	E ₂₄	D	J ₈₇	J ₂₀	J ₄₁	21	J ₄₄
21	J ₃₃	J ₃₈	J ₃₇	J ₃₁	J ₆₀	J ₅₀	J ₄₇	J ₄₁	J ₂₇	J ₂₅	J ₂₄	J ₃₈	E ₃₇	E ₂₀	E ₁₇	E ₁₇	E ₁₄	D	E ₁₂	13	13	B	J ₂₅	J ₃₂
22	D	J ₃₁	J ₄₂	J ₄₆	J ₄₂	J ₂₅	24	19	J ₂₀	J ₂₀	J ₃₈	J ₃₁	G	J ₂₁	J ₃₆	J ₂₅	J ₅₁	J ₂₃	J ₁₁₃	J ₅₇	J ₄₇	24	J ₂₀	J ₂₄
23	J ₂₉	J ₃₁	J ₃₀	J ₂₄	J ₅₁	J ₂₈	J ₃₆	J ₇₈	J ₃₅	J ₁₁₆	J ₁₁₆	J ₉₅	36	E ₃₅	24	20	J ₃₃	J ₃₉	J ₃₈	J ₄₈	J ₂₆	J ₃₀	J ₃₃	J ₃₁
24	J ₄₄	J ₄₀	J ₅₀	J ₅₂	J ₃₇	J ₄₂	J ₄₇	J ₄₆	J ₃₅	J ₂₅	E ₃₃	E ₃₂	E ₂₀	24	21	D	24	J ₂₀	22	J ₂₀	J ₃₈	J ₂₄	J ₄₁	J ₃₀
25	J ₂₃	J ₃₄	J ₂₃	38	J ₇₅	B	J ₃₇	J ₃₆	J ₂₁	G	20	E ₄₅	E ₂₆	20	21	23	D	J ₂₃	J ₂₀	D	D	D	J ₄₁	D
26	J ₃₇	J ₃₈	J ₄₁	J ₄₅	J ₆₇	J ₂₅	J ₂₃	J ₂₆	J ₃₇	21	J ₄₇	21	J ₃₆	21	J ₃₃	24	J ₁₇	J ₂₀	J ₄₉	21	J ₂₀	J ₂₃	J ₁₈	25
27	21	J ₃₉	23	J ₂₄	J ₁₀₉	J ₂₃	23	J ₃₈	J ₂₄	J ₂₁	18	19	J ₃₆	J ₂₂	J ₂₄	J ₃₆	22	E ₁₈	E ₁₈	B	B	B	B	B
28	J ₂₂	J ₂₉	B	B	B	B	B	C	J ₃₈	J ₁₈	J ₂₀	J ₃₁	24	24	24	21	21	J ₂₀	13	J ₂₅	J ₂₅	J ₄₂	J ₅₁	J ₃₁
29	J ₃₀	J ₂₉	J ₃₆	J ₅₄	J ₄₁	J ₅₂	J ₅₉	E ₃₃	J ₅₅	B	20	J ₃₁	24	E ₂₃	24	24	20	20	E ₁₂	20	J ₁₈	B	J ₃₇	J ₈₈
30	J ₃₃	J ₄₀	J ₄₈	J ₃₈	J ₃₈	25	B	B	J ₃₇	J ₆₀	J ₅₅	J ₃₉	E ₃₆	B	E ₃₇	27	25	J ₂₀	24	25	24	25	24	25
31	J ₃₂	J ₅₉	J ₃₅	J ₂₆	J ₅₈	J ₂₄	J ₂₀	J ₃₄	J ₁₉	J ₂₀	J ₂₂	26	26	25	J ₂₁	J ₃₃	21	14	E ₁₂	E ₁₇	B	B	B	23
CNT	28	29	28	26	30	27	29	28	29	29	27	24	28	24	30	30	29	27	26	25	24	25	28	29
MED	J ₃₄	J ₃₈	J ₃₈	J ₃₈	J ₄₈	J ₃₈	J ₄₂	J ₃₆	J ₃₅	J ₂₃	J ₂₁	27	U ₂₂	22	21	20	20	20	20	20	J ₂₂	J ₂₆	J ₂₅	J ₂₆
UQ	J ₄₃	J ₄₀	J ₄₂	J ₄₈	J ₆₅	J ₄₄	J ₄₈	J ₄₂	J ₃₇	J ₄₀	J ₃₅	J ₃₃	U ₃₁	26	U ₂₆	24	24	22	J ₂₄	J ₃₄	J ₃₂	J ₄₂	J ₃₇	J ₃₇
LQ	J ₃₀	J ₃₁	J ₃₁	J ₃₁	J ₃₆	J ₂₅	J ₃₃	J ₂₅	J ₂₃	J ₂₀	20	22	20	20	19	E ₁₇	14	18	U ₁₅	20	20	J ₂₃	J ₂₀	J ₂₃

The Radio Research Laboratories, Japan

JUL. 1967

FOES (0.1 MHZ)

IONOSPHERIC DATA

JUL. 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 **0.4 MHz** to **15 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	10	9	11	11	24	B	11	12	11	11	B	B	B	B	B	B	B	B	B	12	9	8	10	12
2	9	9	9	11	10	B	36	9	11	11	11	12	11	11	12	11	10	11	11	11	11	11	9	10
3	9	8	7	8	11	11	12	11	10	9	8	8	15	C	14	15	C	C	C	C	C	C	C	C
4	C	C	C	C	9	11	9	11	19	B	B	23	19	32	23	11	15	C	B	15	9	8	7	8
5	B	9	6	C	11	14	11	11	C	11	12	B	B	B	25	33	11	12	C	17	9	8	8	8
6	16	10	B	12	13	11	9	11	11	9	8	C	9	11	14	15	13	22	B	B	8	8	8	9
7	22	11	11	B	12	26	32	B	B	11	13	17	14	19	18	15	16	11	10	B	12	7	9	8
8	9	8	8	14	11	11	9	8	11	9	11	C	12	9	9	11	13	16	14	16	14	10	8	11
9	11	11	11	C	10	9	9	9	9	10	17	B	24	24	19	17	15	12	13	B	B	11	9	9
10	B	B	10	20	10	11	11	12	13	11	15	14	9	19	17	10	10	10	18	15	B	11	9	8
11	8	11	10	9	11	11	13	12	11	10	B	B	35	10	17	17	11	9	9	10	9	8	9	15
12	11	11	11	14	15	11	22	17	9	11	13	19	B	B	28	19	15	15	10	10	17	10	9	9
13	9	16	14	14	14	16	12	12	11	10	9	16	13	14	12	13	10	10	11	13	11	11	9	8
14	10	11	E	14	13	14	10	11	10	10	B	B	37	B	36	23	17	14	25	B	B	B	11	9
15	9	17	12	10	11	9	8	9	8	8	9	10	11	9	8	10	10	12	13	10	B	8	9	21
16	11	15	13	11	11	9	17	9	16	14	13	13	12	10	11	11	13	13	16	11	10	9	8	9
17	8	9	8	7	9	11	16	16	11	11	10	11	12	13	10	10	9	10	11	11	10	9	8	8
18	9	9	10	10	9	8	7	9	8	10	13	13	17	B	34	19	33	B	14	9	10	18	13	9
19	9	10	8	34	21	17	14	13	12	10	11	14	12	15	12	8	8	9	11	10	10	9	11	9
20	5	6	9	14	12	11	9	5	15	10	9	9	11	11	10	8	8	24	E	13	13	9	9	8
21	6	6	9	10	9	10	8	9	9	10	9	26	37	20	17	17	14	E	12	10	11	B	10	6
22	11	E	10	16	12	9	9	9	8	11	13	12	13	11	10	9	9	8	6	16	11	11	11	10
23	13	10	10	8	7	E	6	7	14	16	19	32	29	35	18	17	17	13	14	11	8	8	6	13
24	8	9	9	11	12	12	14	10	9	9	33	32	20	16	9	5	12	10	10	9	9	9	6	9
25	13	14	11	15	43	B	13	9	10	10	12	45	26	12	13	17	E	14	11	7	E	E	10	6
26	10	11	5	17	13	9	11	11	12	11	10	11	11	11	10	9	10	10	11	8	9	9	9	17
27	12	9	9	9	10	8	9	9	9	8	14	11	14	14	16	15	13	18	18	B	B	B	B	B
28	9	8	B	B	B	B	B	C	9	10	10	11	12	18	13	14	11	12	9	8	9	9	10	15
29	9	9	10	16	10	10	14	33	11	B	14	12	14	23	13	12	11	12	12	10	5	B	9	10
30	10	13	10	10	10	14	B	B	15	28	12	13	36	B	37	11	18	12	14	14	18	14	13	11
31	10	14	11	9	9	8	8	8	6	5	9	11	14	15	13	13	12	11	12	17	B	B	B	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	30	30	30	28	31	31	31	30	30	31	31	29	31	30	31	31	30	29	29	30	30	30	30	30
MED	10	10	10	12	11	11	11	11	11	10	12	14	14	16	14	13	12	12	12	12	10	9	9	9
UQ	11	11	11	16	13	14	14	12	12	11	14	32	28	32	18	17	15	14	14	16	17	11	10	12
LQ	9	9	9	10	10	9	9	9	9	10	10	11	12	11	12	10	10	10	11	10	9	8	8	8

JUL. 1967

F-MIN (0.1 MHZ)

IONOSPHERIC DATA

JUL. 1967

H^oF2 (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 0.4 MHz to 15 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										
2																								
3															C									
4																								
5												B	B	B										
6												C												
7																								
8												C												
9												B												
10																								
11											B	B												
12													B	B										
13																								
14															B									
15																								
16																								
17																								
18															B									
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27																								
28																								
29																								
30															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																								
MED																								
UQ																								
LQ																								

JUL. 1967

H^oF2 (KM)

IONOSPHERIC DATA

JUL. 1967

H^oF (KM)

45° E Mean Time (G. M. T. + 3h)

Station	SYOWA BASE				Lat. 69° 00.4' S. Long. 39° 35.4' E				Sweep 0.4 MHz to 15 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	B	A	A	A	A	B	B	B	B	B	B	B	B	B	A	A	A	A				
2	A	A	A	A	A	B	B	A	A	A	A	265	205	205	205	200	200	240	240	A	B	B	B				
3	A	A		215	A	A	A	240	A	250	225	220	210	C	210	200	C	C	C	C	C	C	C				
4	C	C	C	C	A	A	A	A	B	B	B	270	245	235	225	200	225	C	B	250	270	280	A	A			
5	B	B	A	C	A	A	A	A	C	A	A	B	B	B	300	300	255	300	C	A	A	A	A				
6	A	A	B	A	A	A	A	A	390	A	240	C	210	210	205	210	310	275	B	B	A	A	A	B			
7	A	A	A	B	B	B	B	B	B	A	300	A	215	230	220	190	230	240	B	B	B	A	A	A			
8	A	A	A	A	A	A	A	A	A	B	280	C	200	225	200	225	205	B	A	B	B	A	A	A			
9	A	A	A	C	B	310	290	340	305	345	240	B	300	225	205	220	B	A	230	B	B	A	A	B			
10	B	B	A	A	A	A	A	A	A	A	250	220	230	200	260	205	275	240	B	B	B	A	A	B			
11	A	A	A	A	A	A	A	A	300	335	B	B	290	245	225	240	245	245	220	215	A	A	A	A			
12	A	A	A	A	A	A	A	A	A	350	B	275	290	B	B	240	215	240	200	225	A	A	A	A			
13	A	A	A	A	A	A	B	325	265	300	240	215	240	200	210	200	210	A	200	300	300	B	B	240			
14	A	A	A	A	A	A	A	A	A	A	B	B	270	B	240	250	245	240	A	B	B	B	A	A			
15	A	A	A	A	B	A	355	325	290	280	230	220	220	210	200	200	200	200	240	255	B	A	A	A			
16	A	A	A	A	A	A	A	A	A	A	240	240	225	220	200	210	215	250	250	225	B	A	230	265			
17	A	A	A	A	A	A	365	360	A	290	265	225	220	210	200	190	200	220	225	B	290	290	B	A			
18	A	A	A	A	360	330	340	305	300	330	265	240	250	B	240	225	275	B	250	240	250	A	A	A			
19	A	A	A	B	B	A	A	A	325	255	200	200	205	205	210	200	195	200	250	A	A	A	A	A			
20	A	A	A	A	A	A	A	340	A	305	A	230	240	200	A	210	200	250	A	A	B	B	280	B			
21	A	A	A	A	A	A	A	A	A	325	250	B	250	205	220	200	245	230	240	220	250	B	A	A			
22	A	A	A	A	A	H	390	340	310	H	290	290	250	200	215	225	205	225	200	225	A	275	A	A	A		
23	A	A	350	310	A	H	350	300	H	A	A	240	250	B	240	225	245	200	275	A	250	225	260	220	A	A	
24	A	A	A	A	A	A	A	A	A	A	340	H	325	250	225	210	215	225	225	200	225	B	A	A	A	A	
25	A	A	A	A	B	B	A	A	A	H	340	290	H	240	250	250	225	225	250	205	250	240	280	A	A	A	A
26	A	A	A	A	A	A	A	A	A	A	450	300	250	240	220	205	235	205	200	200	A	290	245	240	A	B	
27	B	B	B	A	355	400	375	340	315	300	250	220	215	210	210	200	225	205	270	255	B	B	B	B	B		
28	A	A	B	B	B	B	B	C	350	305	245	245	225	225	215	215	205	240	230	240	A	A	A	A	A		
29	A	A	A	A	A	A	A	B	A	B	300	265	235	240	225	215	205	240	225	230	A	B	A	A	A		
30	A	A	A	A	A	A	B	B	A	B	A	A	300	B	260	240	215	250	270	250	A	A	A	A	A		
31	A	A	B	355	380	375	385	375	345	250	220	235	210	200	225	240	200	190	235	220	B	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	4	3	6	8	10	13	18	23	21	28	24	29	30	28	23	19	15	7	4	2	2			
MED			350	332	380	362	340	325	305	300	245	240	225	210	220	212	212	240	240	240	255	260	255	252			
UQ			355	390	375	360	340	345	330	265	250	248	225	235	225	245	250	250	265	280	285						
LQ			262	370	330	320	310	300	280	240	220	212	205	205	200	200	210	225	225	250	230						

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H^oES (KM)

45° E Mean Time (G. M. T. + 3h)

Station SYOWA BASE Lat. 69° 00.4' S. Long. 39° 35.4' E Sweep 0.4 MHz to 15 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	110	100	105	100	100	B	100	100	100	100	B	B	B	B	B	B	B	B	B	115	100	105	105	100
2	105	100	100	100	105	B	110	100	100	100	100	100	110	100	110	B	100	100	100	115	105	100	100	100
3	100	115	110	100	100	100	100	100	100	100	100	100	120	C	150	B	C	C	C	C	C	C	C	C
4	C	C	C	C	100	100	100	100	105	B	B	150	125	B	B	100	B	C	B	100	B	120	105	100
5	B	100	100	C	100	100	100	100	C	100	100	B	B	B	B	B	100	150	C	125	100	100	100	100
6	115	105	B	100	100	100	100	100	115	125	125	C	100	100	125	B	110	B	B	B	100	100	100	130
7	120	100	100	B	100	105	110	B	B	100	100	100	110	B	B	B	100	145	130	B	105	125	100	105
8	105	100	100	100	100	100	100	100	100	100	100	C	100	100	115	150	100	110	105	120	115	105	110	150
9	135	120	115	C	120	100	150	110	135	110	B	B	B	B	B	B	B	120	110	B	B	115	100	100
10	B	B	140	120	105	100	105	125	105	100	100	110	120	105	B	105	145	105	105	105	B	100	100	100
11	125	105	115	120	100	100	100	100	100	100	B	B	B	105	150	B	B	100	100	100	105	100	105	120
12	105	100	100	100	100	105	100	100	155	100	105	125	B	B	B	B	B	B	100	100	110	100	125	100
13	100	100	105	105	100	100	100	100	100	145	G	B	145	105	150	B	100	145	125	100	B	100	110	115
14	105	105	100	100	100	100	100	100	100	100	B	B	B	B	B	B	B	105	B	B	B	B	100	110
15	100	100	105	105	100	100	100	100	100	100	100	105	105	100	100	100	105	B	150	140	B	140	140	115
16	100	105	110	105	105	100	105	100	100	100	130	120	105	110	125	145	B	B	B	B	100	100	145	100
17	105	100	100	105	100	115	100	125	130	120	150	100	140	120	145	140	150	120	130	100	110	100	145	140
18	105	100	105	105	100	100	100	100	105	100	100	105	B	B	B	B	B	B	115	105	100	105	105	110
19	105	105	105	125	125	100	105	100	100	100	130	B	130	140	120	155	120	100	105	100	100	100	130	100
20	100	100	100	100	100	100	100	100	100	100	105	100	100	105	105	105	105	B	105	140	100	100	140	105
21	100	100	105	100	100	100	100	100	100	100	100	150	B	B	B	B	B	100	B	115	105	B	150	105
22	100	105	105	100	100	105	120	120	100	100	110	100	G	105	100	100	105	100	105	150	105	105	100	100
23	125	120	125	125	100	100	100	100	120	110	105	110	125	B	100	105	110	105	105	105	100	105	100	105
24	100	100	100	100	105	100	100	100	100	100	B	B	B	115	100	100	105	100	110	105	100	140	100	100
25	110	110	105	130	125	B	100	100	100	G	105	B	B	100	100	110	105	150	100	105	105	100	100	105
26	105	105	100	100	160	100	100	100	100	110	100	100	100	105	100	105	115	105	100	100	100	100	100	100
27	110	100	100	100	110	125	115	140	100	100	155	105	110	135	110	100	165	B	B	B	B	B	B	B
28	125	100	B	B	B	B	B	C	125	100	100	100	105	110	110	110	125	125	140	120	115	105	115	140
29	100	100	105	100	100	105	105	B	120	B	120	100	100	B	100	100	100	100	B	170	150	B	105	100
30	105	105	100	100	100	100	B	B	100	140	100	100	B	B	B	100	130	100	150	120	120	125	110	125
31	100	120	100	100	100	100	100	100	100	120	100	100	145	110	145	120	125	125	B	B	B	B	B	120
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CNT	28	29	28	26	30	27	29	27	29	28	24	20	19	18	20	18	21	21	20	23	22	25	28	29
MED	105	100	105	100	100	100	100	100	100	100	100	100	110	105	110	105	105	105	105	105	105	100	105	105
UQ	110	105	105	105	105	100	105	100	105	110	115	110	125	110	135	120	125	125	128	120	110	105	120	115
LQ	100	100	100	100	100	100	100	100	100	100	100	100	102	100	100	100	100	100	102	100	100	100	100	100

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