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Observations of solar flux at the Algonquin Radio Observatory on 2800 MHz and at the Dominion Radio Astrophysical Observatory on 2700 MHz: monthly reports-January-June 1969

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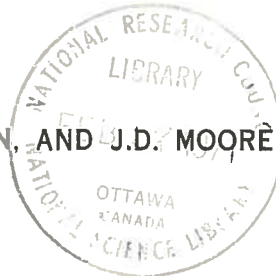
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NATIONAL RESEARCH COUNCIL OF CANADA
RADIO AND ELECTRICAL ENGINEERING DIVISION

ANALYZED

OBSERVATIONS OF SOLAR FLUX AT THE
ALGONQUIN RADIO OBSERVATORY ON 2800 MHz AND AT THE
DOMINION RADIO ASTROPHYSICAL OBSERVATORY ON 2700 MHz
MONTHLY REPORTS - JANUARY - JUNE 1969

A.E. COVINGTON, H.P. GAGNON, AND J.D. MOORE



OTTAWA
JULY 1969

ANALYZED

ABSTRACT

Tabulations of the daily values of solar radio flux and bursts observed on a frequency of 2800 MHz at the Algonquin Radio Observatory, and on 2700 MHz at the Dominion Radio Astrophysical Observatory are given for the period January–June 1969.

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January 1969

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (OTTAWA-ARO)

AND 2700 MHz (PENTICTON-DRAO) -- SERIES "C"

Flux in watts/m²/cycles/sec bandwidth ($\times 10^{-22}$) -- 2 polarizations

		<u>O T T A W A</u>			adj. to	<u>P E N T I C T O N</u>	
1969		Observed			1 A.U.	Observed	adj. to
Jan.	14:00	17:00	20:00	17:00	19:35	19:35	1 A.U.
1	141.0	144.7	144.5	139.9	138.3	133.7	
2	147.6	146.9	145.1	142.1	139.9	135.3	
3	145.9	149.0	151.3	144.1	145.3	140.5	
4	157.4	159.8	164.0	154.5	160.5	155.2	
5	165.4	168.0	170.0	162.5	164.3	158.9	
6	182.5	181.9	186.2	178.9	178.8	172.9	
7	188.2	189.2	193.9	183.0	181.5	175.5	
8	186.7	189.3	192.3*	183.1	185.4*	179.3*	
9	191.3	189.6	189.7	183.3	186.2*	180.1*	
10	178.8	175.1	178.6	169.3	171.7	166.0	
11	169.6	174.3*	175.0	168.5*	166.9	161.4	
12	166.4	168.7	168.8*	163.1	164.2*	158.8*	
13	162.5	162.6*	163.7	157.2*	157.7*	152.5*	
14	155.4	158.5	162.1	153.3	157.8	152.6	
15	158.4	159.4	163.3	154.1	155.4*	150.3*	
16	154.3	157.9	158.3	152.8	149.9	145.1	
17	154.6*	154.0	158.7	149.1	150.7	145.9	
18	151.5	149.1	150.5	144.3	--	--	
19	139.0	136.0	136.6	131.6	131.0	126.8	
20	131.9	132.2	134.9	128.0	131.2	127.0	
21	139.2	136.3	136.6	131.9	132.2	128.0	
22	136.0	138.2	135.8	133.9	131.8	127.7	
23	128.0	128.8*	127.8	124.8*	125.9	122.0	
24	135.5*	135.0	135.8	130.8	132.9	128.8	
25	139.5	138.4	139.5	134.1	134.3*	130.1*	
26	145.1	146.7	145.7	142.2	141.3	136.9	
27	134.9	135.6	139.0	131.5	133.8	129.8	
28	135.3	133.6	137.5	129.6	128.4	124.5	
29	132.7	133.2	137.4	129.2	130.6	126.7	
30	128.5	130.0	131.6	126.1	126.7	122.9	
31	130.7	130.2	131.2	126.4	126.7	123.0	
Mean	152.1	152.7	154.4	147.8	148.7	143.9	

*Adjusted for burst

January, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Jan.			H M	H M	H M		
2	3	Simple 3	14 20	0 15	14 25	3.6	1.8
		Absorption A	15 30	0 50	15 50	-3.4	-1.7
	3	Simple 3A	15 32	0 10	15 35	2.6	1.3
	1	Simple 1	15 38.5	0 01	15 39.1	3.2	1.6
		Fall	16 55	0 25	---	5.0	---
	3	Simple 3	18 20	1 30	19 10	4.2	2.1
	3	Simple 3F	20 00	2 00	20 30	3.8	1.8*
3		Rise	14 27	0 10	---	3.8	---
		Absorption	15 42	0 38	15 59	-6.8	-3.4
	3	Simple 3	17 30	0 50	17 35	2.6	1.3
4	2	Simple 2	13 35.5	0 03	13 36	14.0	5.2
	6	Complex	15 43	0 08	15 46.2	20.0	6.0
		1st Compt.	15 43	0 03	15 44	14.6	---
		2nd Compt.	15 46	0 02.5	15 46.2	20.0	---
		3rd Compt.	15 47.5	0 02.5	15 49.2	10.6	---
	6	Complex	20 55	0 12	21 03	70.0	38.0
		1st Compt.	20 55	0 07	21 00	65.0	---
		2nd Compt.	21 02	0 02	21 03	70.0	---
		3rd Compt.	21 04	0 03	21 04.8	52.0	---
	4	Post B.I.	21 07	1 20	---	24.0	8.0*
5	1	Simple 1	15 18	0 01.5	15 18.4	8.4	4.2
	3	Simple 3	15 40	0 25	15 48	3.0	1.5
	1	Simple 1	17 32.8	0 01	17 33	2.8	1.4
	3	Simple 3F	18 20	0 30	18 25	2.6	1.3
	3	Simple 3A	19 00	0 16	19 09	4.4	2.2
	1	Simple 1	19 00	0 04	19 02	5.8	2.9
	1	Simple 1	19 09	0 01	19 09.4	4.0	2.0
	3	Simple 3	19 22	0 09	19 28	2.6	1.3
		Absorption	19 37	0 43	19 50	-6.8	-3.4

*Only observed at Penticton.

January, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Jan.			H M	H M	H M		
7	1	Simple 1	16 04	0 02	16 04.5	2.6	1.3
	3	Simple 3F	16 40	0 50	17 07	4.2	2.1
	3	Simple 3	18 30	1 00	18 44	7.6	3.2
	3	Simple 3A	20 00	2 20	21 12	6.8	3.4*
	6	Complex	21 45	0 05	21 48.8	6.0	3.0*
8	3	Simple 3A	16 50	2 20	17 55	5.8	2.9
	6	Complex	17 31	0 02	17 31.3	6.4	3.2
	3	Simple 3A	19 25	1 45	19 45	2.8	1.4
	2	Simple 2	20 37.5	0 06	20 38	55.0	13.0
9	3	Simple 3AF	18 30	1 20	18 35	8.6	4.3
	1	Simple 1	18 57	0 02	18 58	2.2	1.1
	1	Simple 1	19 02	0 04	19 04.5	6.4	3.0
	1	Simple 1	19 06.5	0 01	19 07	2.0	1.0
	2	Simple 2	20 14	0 02.5	20 14.5	11.0	5.5
	3	Simple 3F	20 48	0 14	20 51.5	3.6	1.8
	3	Simple 3	21 10	1 20	22 05	3.0	1.5*
11	1	Simple 1F	14 13	0 01	14 13.5	2.0	1.0
	3	Simple 3	16 29	0 15	16 32	2.0	1.0
	3	Simple 3	19 30	0 10	19 32	2.0	1.0
	1	Simple 1	22 57.8	0 01	22 58	5.2	2.6*
12	3	Simple 3F	17 05	0 40	17 35	2.0	1.0
	3	Simple 3F	17 55	1 15	18 20	2.4	1.6
	3	Simple 3AF	19 16	1 10	19 23	7.2	3.6
	1	Simple 1	19 19	0 01.5	19 19.5	9.0	4.8
	2	Simple 2	19 23.6	0 02	19 24.4	10.8	5.4
13	3	Simple 3F	15 40	2 30	16 30	5.0	2.5
	3	Simple 3A	19 00	1 00	19 30	2.4	1.2
	1	Simple 1	19 26.3	0 00.5	19 26.5	5.2	---
14	2	Simple 2	17 45	0 03	17 45.5	14.4	3.8

Only observed at Penticton.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
			H M	H M	H M		
Jan. 14	3	Simple 3A	20 14	0 15	20 20	2.4	1.0
	1	Simple 1	20 14.5	0 02	20 15	2.6	1.3
	1	Simple 1	21 55	0 03	21 56	1.8	0.9*
15	3	Simple 3	14 55	1 45	15 38	4.8	2.4
	3	Simple 3	19 05	2 10	19 20	3.0	1.5
16	2	Simple 2F	13 21.5	0 04	13 23.5	36.0	9.0
	3	Simple 3	17 15	1 50	18 10	4.8	2.8
17	3	Simple 3	13 55	1 05	14 15	4.8	2.8
	2	Great Burst	17 04	0 08	17 04.8	515.0	75.0
	5	Post Decrease	17 12	0 50	17 23	-3.8	-1.9
18	1	Simple 1	17 26.7	0 00.8	17 27	5.2	2.6
19	1	Simple 1F	15 23	0 05	15 26	4.6	2.0
	3	Simple 3	21 00	1 00	21 30	4.0	2.0*
		1st Compt	21 00	0 20	21 05	2.8	---
		2nd Compt	21 20	0 40	21 30	4.0	---
20	3	Simple 3	17 15	0 45	17 40	2.6	1.3
21	3	Simple 3	22 13	0 15	22 14	1.8	1.2*
23	3	Simple 3	15 40	3 20	16 55	3.8	1.9
24	3	Simple 3	13 40	2 20	14 50	5.0	2.5

* Only observed at Penticton.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Jan.			H M	H M	H M		
25	3	Simple 3A	13 55	1 50	14 37	6.8	3.4
	1	Simple 1	14 09	0 03	14 10	5.6	2.8
	1	Simple 1	15 46	0 04	15 47.2	4.4	2.0
	3	Simple 3F	19 25	1 25	19 35	4.8	2.4
26	3	Simple 3	15 15	0 35	15 30	2.0	1.0
	3	Simple 3F	16 00	0 40	16 15	4.4	2.6
	3	Simple 3F	17 15	2 10	18 10	2.4	1.2
28	2	Simple 2F	14 43.5	0 03.5	14 45	10.0	2.4
29	1	Simple 1	19 22.5	0 01.5	19 23.5	3.0	1.5
	7	Irregular Activity	20 29	0 09	20 34	4.0	---
	2	Simple 2F	21 13	0 04	21 13.8	60.0	12.0
	1	Simple 1F	21 18.5	0 02	21 19	2.2	1.1
31	1	Simple 1	15 29.5	0 02.5	15 30	5.4	2.7
	1	Simple 1	17 18.5	0 01	17 19	4.2	2.1
	3	Simple 3	17 25	0 30	17 35	2.4	1.2

FLUX
515

JANUARY 17, 1969

SELECTED 2700 & 2800 MHz
SOLAR NOISE BURST
ARO,CANADA & DRAO,PENTICTON,B.C.

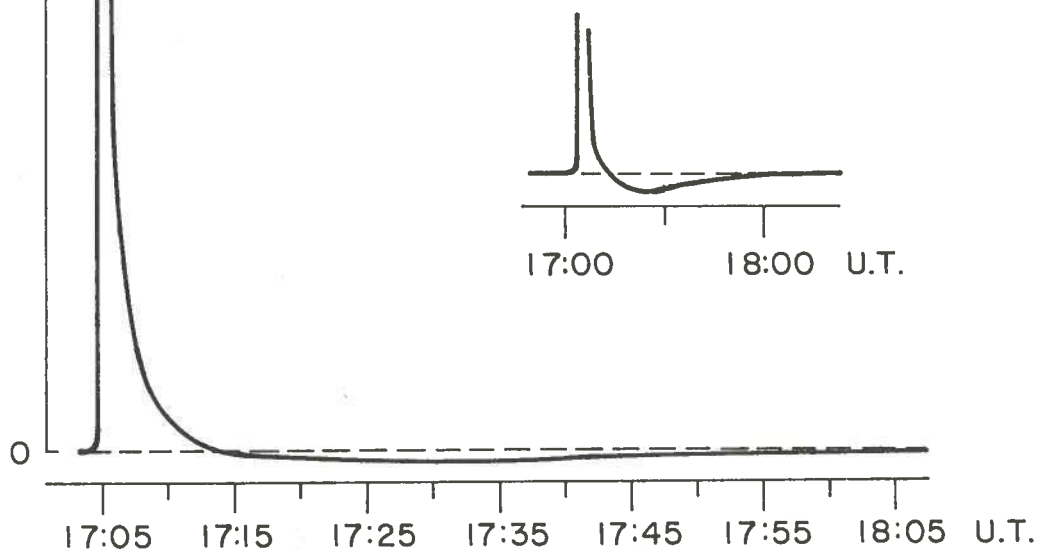


Figure 1

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (OTTAWA-ARO)

AND 2700 MHz (PENTICTON-DRAO) -- SERIES "C"

Flux in watts/m²/cycles/sec bandwidth ($\times 10^{-22}$) -- 2 polarizations

		<u>O T T A W A</u>			<u>P E N T I C T O N</u>	
1969		Observed		adj. to 1 A.U. 17:00	Observed	Adj. to 1 A.U. 19:35
Feb.	14:00	17:00	20:00		19:35	19:35
1	133.9	133.7	137.3	129.8	133.7	129.8
2	140.9	143.2	143.8	139.0	---	---
3	143.2	143.3	142.9	139.1	138.5	134.5
4	140.5	141.8	141.6	137.8	136.4	132.6
5	143.1*	142.9	143.2	138.9	138.0	134.1
6	143.2	142.5	148.1	138.5	144.9	140.8
7	142.8	144.2	145.6	140.3	139.9	136.1
8	135.7	138.0	136.8	134.3	134.0	130.4
9	138.2	137.0	138.5	133.3	133.4	129.8
10	133.0	133.1	134.8	129.6	131.0	127.6
11	131.0	132.3	132.8	128.9	126.1	122.8
12	128.2	127.9	127.2	124.6	122.6	119.4
13	128.0	129.4	129.0	126.2	127.1	123.9
14	128.6	128.2	128.7	125.0	124.0	120.9
15	126.1	128.0	(127.8)	124.8	123.1	120.0
16	129.5	131.1	132.5	128.0	128.3	125.2
17	134.0	137.6	136.7	134.3	132.5	129.3
18	140.2	142.7	143.2	139.4	138.9	135.7
19	151.5	153.5	152.8	150.0	149.3	145.9
20	161.4	162.7	163.9	159.1	160.2	156.7
21	169.1	173.0	174.2	169.2	---	--- **
22	188.1	188.9	194.6	184.7	---	--- **
23	204.7	205.7*	206.0*	201.4*	---	--- **
24	205.3	210.2	212.8	205.8	207.3	202.9
25	212.5	211.3	205.9*	207.1	203.2*	199.1*
26	198.8	[198.7]	198.6	194.7	194.6*	190.7*
27	B.1.P	200.9	199.0*	197.1	194.1	190.4
28	181.1*	184.0	181.1*	180.5	176.5	173.1
MEAN	152.3	155.2	155.7	151.5	147.4	143.8

[] Interpolated

() Extrapolated

* Corrected for burst

** Equipment trouble

February, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	H M		
1	3	Simple 3	18 35	0 25	18 43	3.4	1.4
	2	Simple 2	20 54	0 07	20 55	14.0	6.0
	2	Simple 2F	21 30.5	0 05.5	21 36.5	36.0	18.0*
	4	Post B.I.A.F.	21 41	0 30	---	5.8	1.4*
	1	Simple 1	21 42.5	0 03.5	21 44	3.6	1.8*
2	1	Simple 1	18 00	0 01	18 00.5	2.0	1.0
4	3	Simple 3	20 40	2 40	22 00	7.0	3.5*
5	3	Simple 3	13 25	1 50	13 50	5.2	2.6
6	1	Simple 1F	20 29.5	0 01	20 30	2.0	1.0
	7	Irregular Activity	22 28	0 10	22 31	6.0	---*
7	3	Simple 3	14 52	1 30	15 00	2.4	1.2
	3	Simple 3AF	16 10	1 35	17 30	2.8	1.4
	2	Simple 2F	16 44.7	0 02.7	16 45.5	26.0	9.0
	1	Simple 1	17 29	0 02	17 29.8	2.4	1.2
	1	Simple 1	19 34.8	0 01	19 35.2	3.8	1.9
	1	Simple 1	22 10	0 02	22 10.5	2.0	1.0*
	3	Simple 3A	22 19	1 05	22 25	3.4	1.2*
	1	Simple 1	22 19.8	0 01	22 20	1.6	0.8*
	1	Simple 1	22 21	0 02	22 22	2.2	1.1*
8	1	Simple 1	14 25.5	0 03	14 26.5	3.4	1.7
	1	Simple 1	15 13.5	0 02.5	15 14	2.4	1.2
	1	Simple 1	15 23	0 07	15 24	2.0	1.0
	1	Simple 1	15 50.5	0 05	15 51	4.8	2.0
	1	Simple 1	16 24	0 05	16 27	1.8	0.9
	3	Simple 3A	17 05	1 00	17 15	2.2	1.1
	1	Simple 1F	17 30	0 06.5	17 32	8.2	4.1
	2	Simple 2F	17 50.2	0 03	17 51	40.0	13.0
	6	Complex	17 55	0 04.5	17 56	6.6	3.3
	3	Simple 3F	19 24	0 09	19 26	3.4	1.4

*Only observed at Penticton

February 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	H M		
9	1	Simple 1	13 50	0 01	13 50.4	3.2	1.6
	1	Simple 1	13 54	0 03	13 55	3.2	1.6
	2	Simple 2F	14 31.2	0 03	14 32	60.0	20.0
	7	Irregular Activity	15 38	0 04	15 40	13.0	---
	1	Simple 1F	15 58	0 05	15 59	3.4	1.7
	2	Simple 2F	17 22	0 07	17 24.5	132.0	15.0
	1	Simple 1	20 17	0 02	20 17.9	3.2	1.6
10	1	Simple 1F	19 13	0 01	19 13.1	2.0	1.0
	3	Simple 3F	21 05	2 20	21 50	2.4	1.4
11		Fall	20 10	0 15	---	2.0	---
	3	Simple 3A	20 40	1 20	21 15	7.4	3.0
	1	Simple 1F	20 55	0 06	20 56.8	4.6	2.3
	1	Simple 1	21 08	0 01.5	21 09	2.0	1.0
	2	Simple 2F	21 21	0 06	21 24.5	16.0	4.0
13	1	Simple 1F	16 26.5	0 02	16 27.5	4.4	2.2
	8	Group (2)	16 33	0 07	---	---	---
	2	Simple 2F	16 33	0 04	16 34	11.4	3.0
	1	Simple 1	16 37	0 03	16 37.2	7.4	3.7
	2	Simple 2F	20 12.7	0 05.3	20 13.3	135.0	36.0
	4	Post B.I.	20 18	0 10	---	4.0	1.2
	3	Simple 3	22 00	1 35	indet.	3.4	1.7*
15	3	Simple 3	20 40	1 40	21 30	2.2	1.1*
16	1	Simple 1	13 18.8	0 01	13 19	2.4	1.2
19	3	Simple 3A	17 00E	>2 00	17 25	6.0	3.0
	3	Simple 3F	17 50	0 25	17 55	4.4	1.6
	3	Simple 3	21 35	1 25	21 44	2.6	1.3*
20		Rise	19 55	0 30	---	4.0	---
	3	Simple 3	21 30	2 30	23 05	4.8	2.4*
21	2	Simple 2	00 33.5	0 00.5	00 33.8	21.0	8.0*

*Only observed at Penticton.

February, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	H M		
21	1	Simple 1	17 40.8	0 01	17 41	2.4	1.2
	3	Simple 3A	22 05	1 35	23 00	4.4	2.2*
	1	Simple 1	22 48	0 07	22 51	2.6	1.3*
22	1	Simple 1F	14 49	0 02	14 50	4.0	2.0
		Rise A	17 30	0 30	---	6.0	---
	1	Simple 1F	17 34	0 06	17 36	9.4	4.7
	3	Simple 3A	19 09	0 35	19 25	3.0	1.0
	2	Simple 2	19 21.5	0 01.5	19 22.2	10.0	5.0
	3	Simple 3F	19 28	0 11	19 30	8.8	4.4
23	3	Simple 3F	16 10	3 10	17 30	7.8	3.9
	3	Simple 3AF	19 25	1 55	20 00	6.0	3.0
	1	Simple 1	19 46	0 01.5	19 46.5	3.0	1.5
24	6	Complex	14 27	0 14	14 32.8	24.0	9.2
		1st Compt.	14 27	0 03	14 28	11.0	---
		2nd Compt.	14 30	0 11	14 32.8	24.0	---
	3	Simple 3F	15 04	0 35	15 06	3.8	1.9
	3	Simple 3	19 40	0 20	19 42	2.2	1.1
	3	Simple 3F	20 35	1 55	20 50	3.8	2.2
	9	Pre	22 46	0 18	---	3.4	1.7**
	6	Great Burst	23 04	1 12	23 13	580.0	140.0**
		1st Compt.	23 04	0 37	23 13	580.0	---
		2nd Compt.	23 41	0 35	23 56	160.0	---
25	-	Absorption A	14 20	1 10	15 00	-3.8	-1.9
	1	Simple 1	15 25	0 05	15 27	3.0	1.5
	2	Simple 2F	16 48	0 18	16 59.5	144.0	36.0
	4	Post B.I.	17 06	0 50	---	4.6	2.3
	-	Fall	18 10	0 40	---	5.7	---

* Only observed at Penticton

** Time accuracy ± 2 min. due to timer failure

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	H M		
25	2	Simple 2F	19 33	0 16	19 42.2	158.0	51.0
	4	Post B.I.	19 49	0 55	---	11.6	5.8
	7	Irregular Activity	21 05	3 15	22 40	5.2	---*
	1	Simple 1	22 10.3	0 01	22 10.7	4.8	2.4
26	3	Simple 3	13 51	0 10	13 55	3.6	1.8
	3	Simple 3A	19 15	0 55	19 35	5.2	2.6
	3	Simple 3	19 47	0 10	19 50	3.0	1.5
	3	Simple 3A	20 35	2 15	21 05	5.4	2.7
	2	Simple 2	20 51	0 11	20 53	12.0	5.0
	1	Simple 1	21 19	0 07	21 20.5	6.6	3.0
27	6	Great Burst F	14 00	0 38	14 08.5	810.0	180.0
		1st Compt.	14 00	0 07	14 05	375.0	---
		2nd Compt.	14 07	0 07	14 08.5	810.0	---
		3rd Compt.	14 14	0 24	14 16	405.0	---
	4	Post B.I.A.F.	14 38	0 50	---	28.0	16.0
	2	Simple 2	14 42.5	0 05	14 45	36.0	18.0
	3	Simple 3A	15 40	1 05	16 00	3.6	1.8
	1	Simple 1F	15 40.7	0 05	15 42.3	4.6	2.3
		Fall	16 55	0 25	---	3.7	---
	3	Simple 3A	17 25	0 45	17 50	3.8	1.9
	1	Simple 1	17 38.8	0 04	17 40	6.8	3.4
	3	Simple 3	19 30	1 00	20 02	5.8	2.6
	-	Fall	20 40	1 15	---	9.8	---
28	2	Simple 2	00 11	0 10	00 13.2	32.0	8.0*
	2	Simple 2F	13 40	0 04.5	13 41	48.0	16.0
	4	Post B.I.A	13 44.5	0 55	---	5.8	2.9
	2	Simple 2F	13 48	0 03	13 50.2	15.0	7.0

*Only observed at Penticton.

February, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	H M		
28		Rise	15 05	0 15	---	3.0	---
	2	Simple 2F	16 12.7	0 01	16 13.2	13.0	6.0
	1	Simple 1	16 57	0 01.5	16 57.8	3.8	1.9
	3	Simple 3	17 12	0 20	17 13	3.8	1.6
		Fall	18 05	0 10	---	3.0	---
	3	Simple 3A	19 10	0 15	19 18	9.4	4.7
	6	Complex F	19 14	0 03	19 14.5	16.0	8.0
	3	Simple 3A	19 30	2 00	19 52	11.0	5.5
	1	Simple 1	19 47	0 02	19 48	7.6	3.8
	3	Simple 3F	20 30	0 40	20 36	13.0	6.2

Addendum: Minus sign for the flux of the Post Decrease of the Great Burst of Jan. 17, 1969

5 Post Decrease 17:12 0:50 17:23 -3.8 -1.9

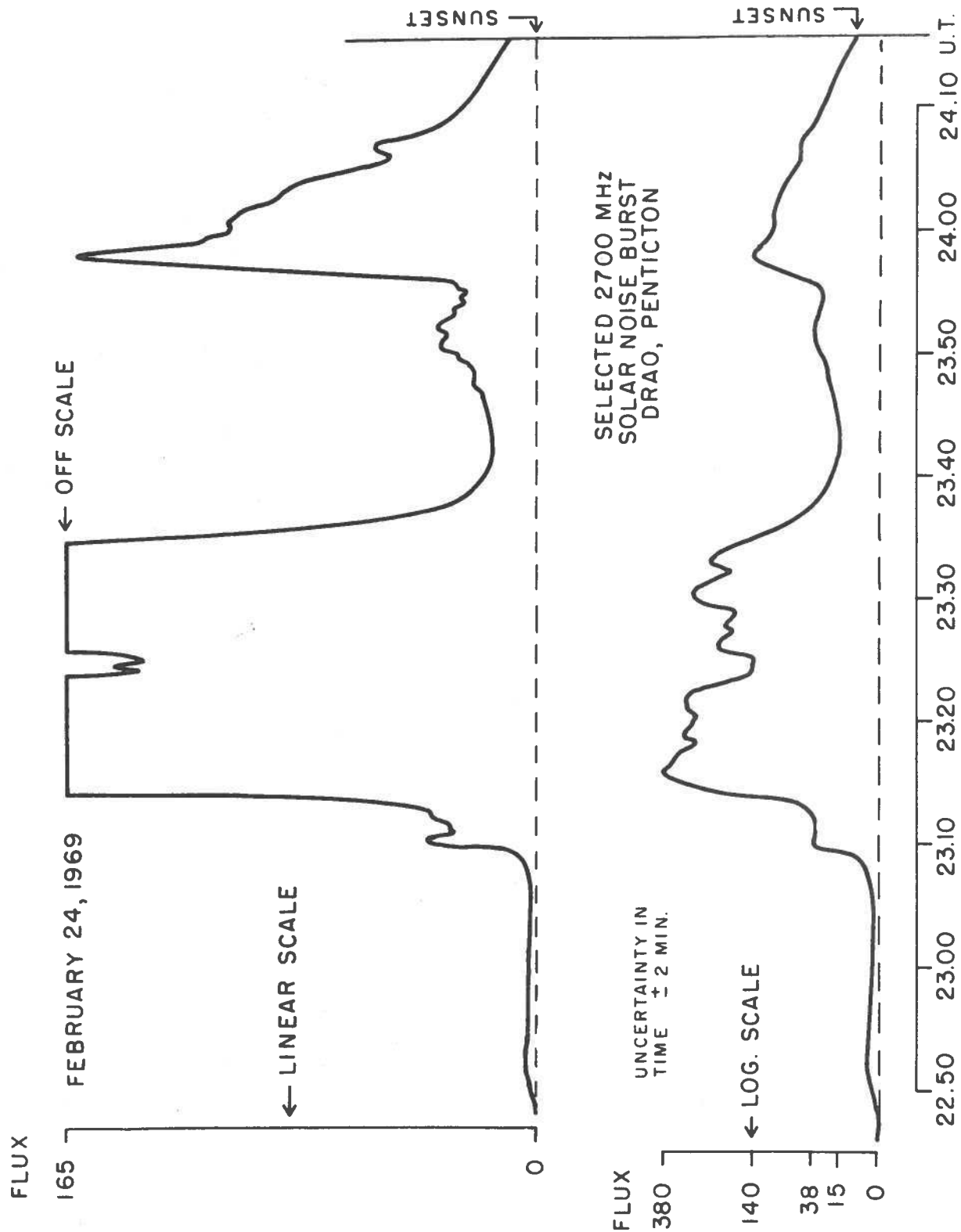


Figure 2

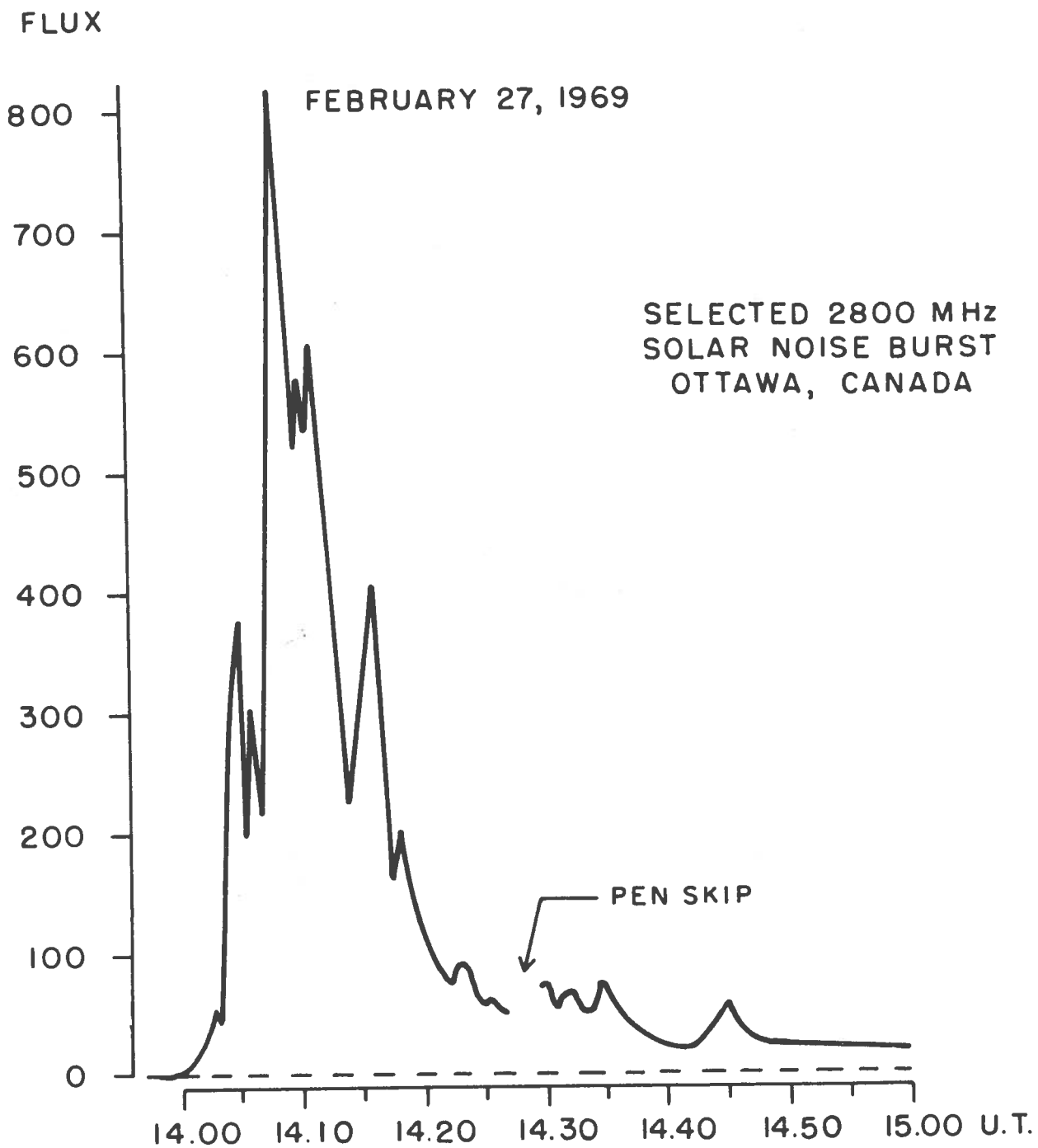


Figure 3

March, 1969

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (OTTAWA-ARO)

AND 2700 MHz (PENTICTON-DRAO) -- SERIES "C"

Flux in watts/m²/cycles/sec bandwidth ($\times 10^{-22}$) -- 2 polarizations

		<u>O T T A W A</u>			<u>P E N T I C T O N</u>	
1969		Observed		adj. to 1 A.U.	Observed	Adj. to 1 A.U.
March	14:00	17:00	20:00	17:00	19:35	19:35
1	171.5	168.6	166.6	165.6	162.0	159.1
2	154.6	154.6	154.8	152.0	150.7	148.1
3	150.6	150.4	150.3	147.8	147.3	144.8
4	142.1	146.2	143.9	143.9	141.9	139.6
5	138.0	138.1*	137.9	135.9	136.0	133.8
6	135.5	141.5	(141.5)	139.4	137.8	135.7
7	136.2	140.2	138.4	138.1	132.3	130.3
8	138.0	139.3	140.6	137.3	135.5	133.6
9	140.6	143.8	142.1	141.8	138.8	136.9
10	140.5	139.6	141.9	137.8	138.0	136.2
11	139.3	138.2	(138.2)	136.0	132.4	130.7
12	132.4	140.2	137.8	138.5	134.5	132.9
13	134.6	135.6	135.6	134.0	131.9	130.3
14	140.0	140.5	140.9	139.0	135.5	134.0
15	149.1	163.6	166.0	161.8	160.1	158.3
16	174.4	176.7	180.1*	174.9	172.9	171.2
17	197.6	202.1	204.1*	200.1	198.0*	196.0*
18	211.3	212.8	209.5*	210.9	201.6*	199.8*
19	211.1	210.2	210.0*	208.5	205.6*	204.0*
20	216.2	215.4*	213.6	213.7*	211.6	209.9
21	232.6*	232.4*	232.9*	230.8*	226.0*	224.4*
22	219.3*	224.1	223.8*	222.5	215.7	214.2
23	206.6*	207.0*	205.8	205.8*	194.1	192.9
24	199.5	196.6	194.9	195.4	186.1	185.0
25	181.0	182.0	184.0	181.1	178.8	177.9
26	188.4*	192.0*	191.9*	191.2*	188.0*	187.2*
27	B.I.P.	178.4*	177.5	177.7*	172.3	171.6
28	177.2	178.0	175.1	177.5	---	---
29	179.9	182.5*	182.2*	181.9*	176.7*	176.2*
30	181.0*	183.3*	187.2	182.9*	177.4	177.0
31	184.2	185.9	185.9	185.5	179.0	178.6
Mean	170.1	172.3	172.1	170.6	166.6	165.0

() Extrapolated

*Corrected for burst

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
1	9	Pre F	19 54	0 12	---	7.4	3.4
	6	Complex F	20 06	0 46	20 21	75.0	30.0
		1st Compt.	20 06	0 24	20 21	75.0	---
		2nd Compt.	20 30	0 22	20 33	37.0	---
	6	Complex F	21 40	0 10	21 43	74.0	33.0
		1st Compt.	21 40	0 05	21 43	74.0	---
		2nd Compt.	21 45	0 05	21 47.5	35.0	---
	4	Post B.I.	21 50	1 40	---	4.8	2.4
2	3	Simple 3	22 25	1 35	23 10	3.2	1.6*
3	3	Simple 3	13 20	0 40	13 28	6.0	3.0
	3	Simple 3	21 00	0 17	21 02	3.0	1.5
	9	Pre F	22 16.2	0 02	---	2.0	1.4*
	2	Simple 2F	22 08.2	0 05	22 21	25.0	12.5*
	4	Post B.I.	22 23.2	1 00	---	8.0	4.0*
4		Rise	15 31	0 05	---	2.4	---
5	3	Simple 3	14 10	5 40	17 00	8.6	4.3
6		Rise	15 40	0 35	---	3.0	---
	3	Simple 3A	20 55	0 55	21 17	2.4	1.2
	1	Simple 1	20 57	0 05	20 58.5	3.4	1.7
	3	Simple 3	22 25	0 35	22 35	2.4	1.2*
7	3	Simple 3	15 35	0 25	15 40	2.0	1.0
	3	Simple 3	17 10	2 10	18 05	2.4	1.4
8	3	Simple 3 AF	14 40	2 25	16 00	4.0	2.4
	1	Simple 1	14 53.5	0 01	14 54	4.0	2.0
	9	Pre	18 05	0 05	---	2.4	1.8
	2	Simple 2F	18 10	0 09	18 13	19.0	9.0
	4	Post B.I.	18 19	1 20	---	3.6	1.8
	3	Simple 3	18 25	0 20	18 31	3.2	1.6
	3	Simple 3	20 50	0 12	20 52	2.4	1.2
	1	Simple 1	22 07	0 01.2	22 07.2	5.4	2.7

*Only observed at Penticton.

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			M H	M H	M H		
9	1	Simple 1	13 22	0 04	13 23	2.4	1.2
	3	Simple 3F	14 47	0 12	14 50.5	3.0	1.5
	3	Simple 3	16 20	0 15	16 22	2.4	1.2
	7	Irregular Activity	18 14	0 06	18 17	2.4	---
	3	Simple 3A	19 15	0 11	19 19	2.4	1.2
	1	Simple 1	19 16.5	0 01	19 17.2	2.4	1.2
	3	Simple 3	21 10	0 15	21 11	1.8	0.9
	2	Simple 2	22 34.6	0 02.4	22 35.1	44.0	11.0
	4	Post B.I.A.	22 37	0 40	---	4.6	2.0
	1	Simple 1F	22 37.5	0 01	22 37.8	2.2	1.1
10	6	Complex	13 25	0 05	13 27.5	3.8	1.6
	1	Simple 1	18 53.5	0 02	18 54	4.8	2.4
11		Spike	17 53.7	---	17 53.7	4.6	---
	1	Simple 1F	18 00	0 04	18 01.5	4.0	2.0
	1	Simple 1	19 51.3	0 01.5	19 51.7	7.2	2.4
12		Rise AF	14 45	0 15	---	5.0	---
	1	Simple 1	14 57	0 03	14 58.5	2.4	1.2
	1	Simple 1	15 00.5	0 07	15 04	4.6	2.3
	2	Great Burst	17 38	0 14	17 40.2	1560.0	540.0
	4	Post B.I.	17 52	1 40	---	16.0	5.4
	8	Group (3)	20 02	0 12	---	---	---
	1	Simple 1	20 02	0 02	20 02.5	5.8	2.9
	1	Simple 1	20 05.8	0 01	20 06	4.6	2.3
	1	Simple 1	20 10	0 04	20 11	6.2	3.1
	2	Simple 2F	22 26	0 04	22 28	23.0	11.0*
	5	Post Decrease	22 30	0 45	22 42	-5.6	-2.8*
13	1	Simple 1	00 40.5	0 01	00 41	3.0	1.5*
	2	Simple 2F	13 16	0 03.5	13 17	22.0	6.0
	1	Simple 1	15 21.2	0 03	15 21.7	4.8	1.6
	1	Simple 1	17 05	0 05	17 07	9.8	2.9

*Only observed at Penticton.

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
13		Absorption A	20 40	1 00	indet.	-2.8	-1.4
	3	Simple 3A	21 12	0 14	21 20	4.0	2.0
	2	Simple 2	21 18.5	0 01	21 18.9	16.0	7.0
	3	Simple 3A	22 48	1 30	22 58	7.6	3.8*
	2	Simple 2F	22 52	0 06	22 55	15.0	7.5*
	1	Simple 1F	23 06.5	0 05	23 07.5	7.0	3.5*
14	3	Simple 3A	22 10	2 40	22 45	6.0	3.0*
	3	Simple 3F	22 25	0 13	22 28	8.0	4.0*
15		Rise	15 00	1 00	---	12.0	---
		Rise	18 50	0 30	---	3.8	---
		Rise	22 00	0 25	---	4.2	---*
16		Rise A	13 20	0 20	---	4.8	---
	1	Simple 1	13 26.5	0 05	13 27.7	3.0	1.5
		Incomplete	14 01	0 25	14 09	8.6	---
	2	Simple 2	14 57.5	0 02	14 57.9	17.0	4.4
	1	Simple 1	17 05.5	0 01	17 05.8	3.4	1.7
	3	Simple 3A	17 45	0 25	18 00	2.4	1.2
	1	Simple 1	17 52	0 02	17 53	1.6	0.8
	1	Simple 1	18 31.5	0 01.5	18 32	6.8	2.3
	2	Simple 2F	19 30	0 01.5	19 30.5	30.0	15.0
	3	Simple 3A	19 53	2 10	21 25	15.6	7.8
	2	Simple 2F	21 08	0 11	21 13.5	80.0	14.0
	2	Simple 2F	23 37	0 03	23 38	78.0	29.0*
	4	Post B.I.A.	23 40	0 15	---	4.0	2.0*
	1	Simple 1	23 43.5	0 01.2	23 44.5	2.2	1.1
17	3	Simple 3	14 50	1 20	15 10	2.4	1.8
		Rise	16 10	0 40	---	8.8	---
	1	Simple 1	18 09.1	0 01	18 09.5	4.2	2.1

*Only observed at Penticton

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
17	{ 3	Simple 3A	18 15	2 10	18 38	7.8	3.9
	{ 2	Simple 2	19 19.2	0 02.8	19 20	24.0	8.0
	{	Fall A	21 00	1 30	---	8.0	---
	{ 1	Simple 1	21 27.8	0 02	21 28	2.8	1.2
	2	Simple 2F	23 30	0 05	23 31	18.0	9.0*
18	3	Simple 3	12 30	0 45	12 55	3.2	1.6
	3	Simple 3	13 32	0 45	13 40	2.2	1.1
		Absorption	16 03	0 21	16 16	-2.4	-1.2
	1	Simple 1	16 43	0 07	16 46.5	5.2	2.6
	{	Absorption A	17 43	0 15	17 54	-2.2	-1.1
	{ 1	Simple 1	17 56.8	0 01	17 57	2.2	1.1
	{ 3	Simple 3A	19 00	2 10	19 23	15.0	7.5
	{ 1	Simple 1F	20 10.8	0 01.2	20 11.2	7.0	3.5
	{ 3	Simple 3A	20 16	0 25	indet.	3.8	2.0
	{ 2	Simple 2	20 16.9	0 04	20 18	20.0	7.5
	{ 6	Complex	20 25	0 08	20 27	9.2	3.6
		1st Compt.	20 25	0 03	20 27	9.2	---
		2nd Compt.	20 28	0 05	20 29	5.6	---
19	{ 3	Simple 3AF	16 55	5 55	20 20	13.4	6.8
	{ 1	Simple 1	19 16	0 01.5	19 16.5	3.0	1.5
	1	Simple 1	23 05	0 07	23 08	3.4	2.6*
20	3	Simple 3	13 23	0 14	13 30	4.6	2.3
	1	Simple 1	14 47.8	0 01	14 47.9	5.6	2.8
	{ 3	Simple 3A	15 00	4 10	15 55	11.6	7.2
	{ 7	Irregular Activity	16 28	0 20	16 30	35.0	---
	3	Simple 3	20 25	0 30	20 30	3.8	1.9
	{ 3	Simple 3A	21 25	0 15	21 31	3.8	1.9
	{ 1	Simple 1	21 26.5	0 02	21 27	9.4	4.7

*Only observed at Penticton.

March 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
20	3	Simple 3A	21 40	1 15	21 55	5.0	2.5
	1	Simple 1	21 45	0 01.5	21 46	7.4	3.7
	2	Simple 2F	21 48	0 02	21 48.7	18.0	8.0
21	3	Simple 3A	12 40	4 50	14 00	46.0	20.0
	2	Simple 2F	13 00	0 05	13 05	17.0	6.0
	1	Simple 1	13 06	0 04	13 09	3.4	1.7
	2	Great Burst	13 16	0 40	13 34	1875.0	255.0
	3	Simple 3AF	18 15	3 00	19 50	15.0	7.5
	3	Simple 3AF	18 20	0 30	18 25	12.0	6.0
	1	Simple 1	18 30	0 02	18 31	3.4	1.7
	2	Simple 2F	19 15	0 08	19 18.9	38.0	7.0
	2	Simple 2	19 42	0 05	19 44.9	21.0	7.0
	3	Simple 3A	21 20	1 30	21 50	8.4	4.2
	1	Simple 1	21 23.5	0 02.5	21 24.5	5.6	2.8
	2	Simple 2F	23 33.8	0 02.2	23 35	62.0	24.0*
22	2	Simple 2	12 11.8	0 01	12 12	17.4	8.7
	3	Simple 3A	12 35	2 55	13 34	10.4	5.2
	1	Simple 1	12 43	0 01	12 43.2	3.4	1.7
	3	Simple 3	14 43	0 30	14 52	5.2	2.6
	2	Simple 2F	18 43	0 03	18 44	66.0	20.0
	4	Post B.I.	18 46	0 08	---	5.0	2.5
	3	Simple 3F	19 42	0 40	19 46	3.6	1.8
		Spikes	20 23	0 01	---	50.0	---**
	6	Complex	20 32	0 03	20 32.8	14.0	6.0
23	3	Simple 3	12 20	2 20	12 30	7.6	3.8
	3	Simple 3A	15 25	2 50	indet.	8.0	4.0
		Incomplete	16 50E	>0 08	16 50.5	16.0	---
	3	Simple 3A	18 16	0 55	18 26	6.4	3.2
	1	Simple 1	18 17	0 01	18 17.5	2.0	1.0

*Only observed at Penticton

** Doubtful

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
23	3	Simple 3	19 15	0 30	19 25	3.4	1.7
	3	Simple 3F	20 35	1 15	indet.	3.0	1.5
24	2	Simple 2F	00 34.2	0 01.5	00 34.5	14.0	7.0*
	3	Simple 3AF	13 50	1 30	13 58	3.8	2.0
	6	Complex F	14 22.8	0 02	14 22.9	10.0	5.0
	2	Simple 2	14 49	0 03	14 50	15.0	6.0
	2	Simple 2	16 39.8	0 01	16 40	10.0	2.4
	1	Simple 1F	16 42.8	0 03	16 44	6.4	3.2
	3	Simple 3A	17 25	1 25	18 00	4.6	2.3
	1	Simple 1	17 55.5	0 01	19 56	2.8	1.4
	3	Simple 3	18 22	0 17	18 23	3.4	1.7
	7	Irregular Activity	18 56	0 05	18 59.2	42.0	---
	2	Simple 2	20 17	0 01	20 17.5	18.0	9.0
	3	Simple 3A	20 35	2 40	21 00	6.2	4.4
	3	Simple 3A	21 14	0 08	21 16	3.6	1.8
	1	Simple 1	21 14	0 01.5	21 14.8	9.8	4.9
25	1	Simple 1	00 14.3	0 01	00 14.9	8.2	4.1*
	1	Simple 1	00 17.8	0 01	00 17.9	9.6	4.8*
	2	Simple 2F	12 29	0 03	12 29.2	47.0	17.0
	4	Post B.I.	12 32	0 10	---	4.4	2.2
	6	Complex	14 44	0 02	14 44.1	34.0	9.0
	4	Post B.I.	14 46	0 04	---	3.4	1.7
	1	Simple 1	14 54	0 02	14 54.6	7.3	2.4
	3	Simple 3A	15 17	0 30	15 20	3.4	1.7
	3	Simple 3	15 32	0 08	15 33	2.4	1.2
	3	Simple 3A	17 05	2 10	17 25	5.2	2.6
	3	Simple 3F	18 15	0 45	18 20	14.6	7.3

*Only observed at Penticton.

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 196 9	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
26	3	Simple 3A	12 40	5 50	13 48	22.0	11.0
	1	Simple 1	12 49.5	0 01.5	12 50	3.6	1.8
	2	Simple 2	13 02.2	0 13	13 04	86.0	22.0
	1	Simple 1	16 39	0 04	16 40.5	4.4	2.2
	3	Simple 3A	19 05	1 55	indet.	7.2	3.6
	2	Simple 2F	19 07	0 03	19 08.3	11.0	5.5
	4	Post B.I.A.	19 10	0 18	---	6.0	3.0
	3	Simple 3A	19 16	0 07	19 20	3.6	1.8
	1	Simple 1	19 17	0 01	19 17.5	4.2	2.1
	6	Complex	20 10	0 08	20 10.5	6.0	2.8
27	1	Simple 1	00 11.2	0 01	00 12	3.2	1.6
	6	Great Burst F	13 18	0 38	13 26	895.0	164.0
	4	Post B.I.A.	13 56	1 30	---	25.0	12.0
	2	Simple 2F	13 58	0 20	13 59	27.0	13.5
	2	Simple 2	16 29	0 03	16 29.5	42.0	8.0
	4	Post B.I.	16 32	0 30	---	4.4	2.2
		Absorption	20 00	0 45	20 25	-3.2	-1.6
28	1	Simple 1	00 58.5	0 01.5	00 59.1	6.4	3.2*
	3	Simple 3A	15 51	0 50	15 36	8.2	6.2
	1	Simple 1	15 15.5	0 01.5	15 16.3	9.6	4.8
	1	Simple 1F	15 18	0 03	15 19	8.0	4.4
	1	Simple 1	15 27	0 03	15 29	6.8	3.4
29	1	Simple 1	12 52.5	0 01.5	12 53	2.4	1.2
	3	Simple 3	13 27	0 08	13 30	5.0	2.5
	1	Simple 1	14 23	0 04	14 24.5	3.6	1.8
	3	Simple 3A	14 40	2 30	15 00	8.2	4.1
	1	Simple 1	14 51	0 05	14 52	2.8	1.4
	3	Simple 3	17 20	1 40	17 58	4.2	1.9

*Only observed at Penticton.

March, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
March			H M	H M	H M		
29	2	Simple 2F	19 21	0 03	19 23	120.0	30.0
	4	Post B.I.A.	19 24	0 30	---	5.4	2.4
	3	Simple 3	19 30	0 08	19 32	4.6	2.3
	2	Simple 2F	19 59.5	0 03.5	20 00.2	28.0	14.0
	4	Post B.I.	20 03	0 25	----	5.4	2.7
	1	Simple 1	20 35	0 01.5	20 36	2.4	1.2
30	2	Simple 2	12 30	0 03	12 30.5	12.0	3.0
	3	Simple 3	13 09	1 40	13 15	7.8	3.9
	3	Simple 3A	15 50	1 30	16 15	5.0	2.5
	1	Simple 1	16 41.5	0 01	16 43	1.8	0.9
	3	Simple 3	18 25	0 50	18 35	3.2	1.6
	3	Simple 3A	21 50	1 00	22 05	2.8	1.4
	1	Simple 1	21 51	0 04	21 53.5	2.8	1.4
	3	Simple 3	23 10	1 40	23 35	3.0	1.5*
31	2	Simple 2	11 59	0 01.5	11 59.5	34.0	17.0
	4	Post B.I.	12 00.5	0 06	---	6.8	3.4
	3	Simple 3F	15 10	0 30	15 20	11.0	5.5
	3	Simple 3	18 40	0 35	indet.	3.6	2.0
	3	Simple 3A	20 10	2 00	20 20	7.0	3.5
	1	Simple 1	20 13.5	0 02.5	20 14	4.4	2.2

*Only observed at Penticton.

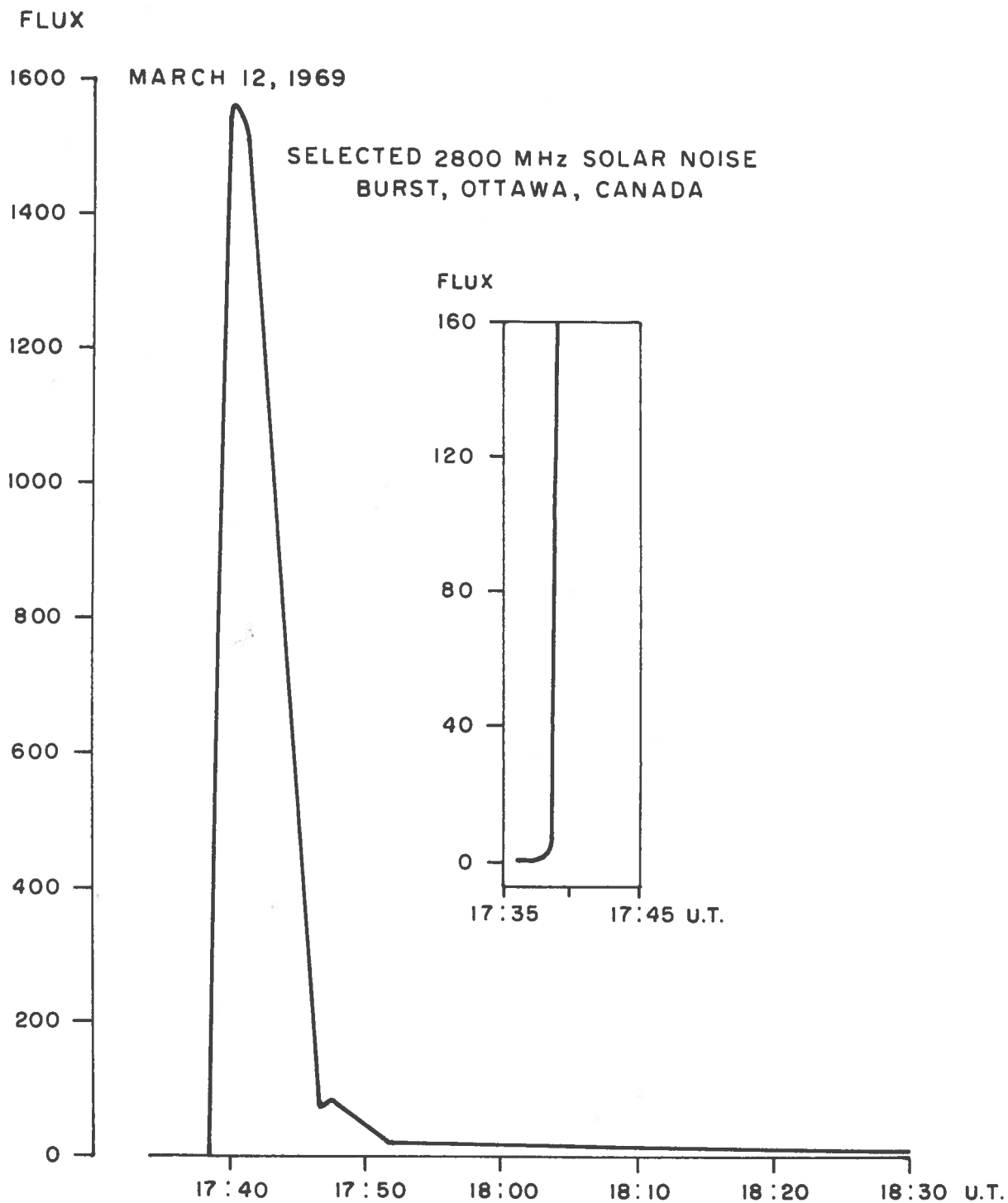


Figure 4

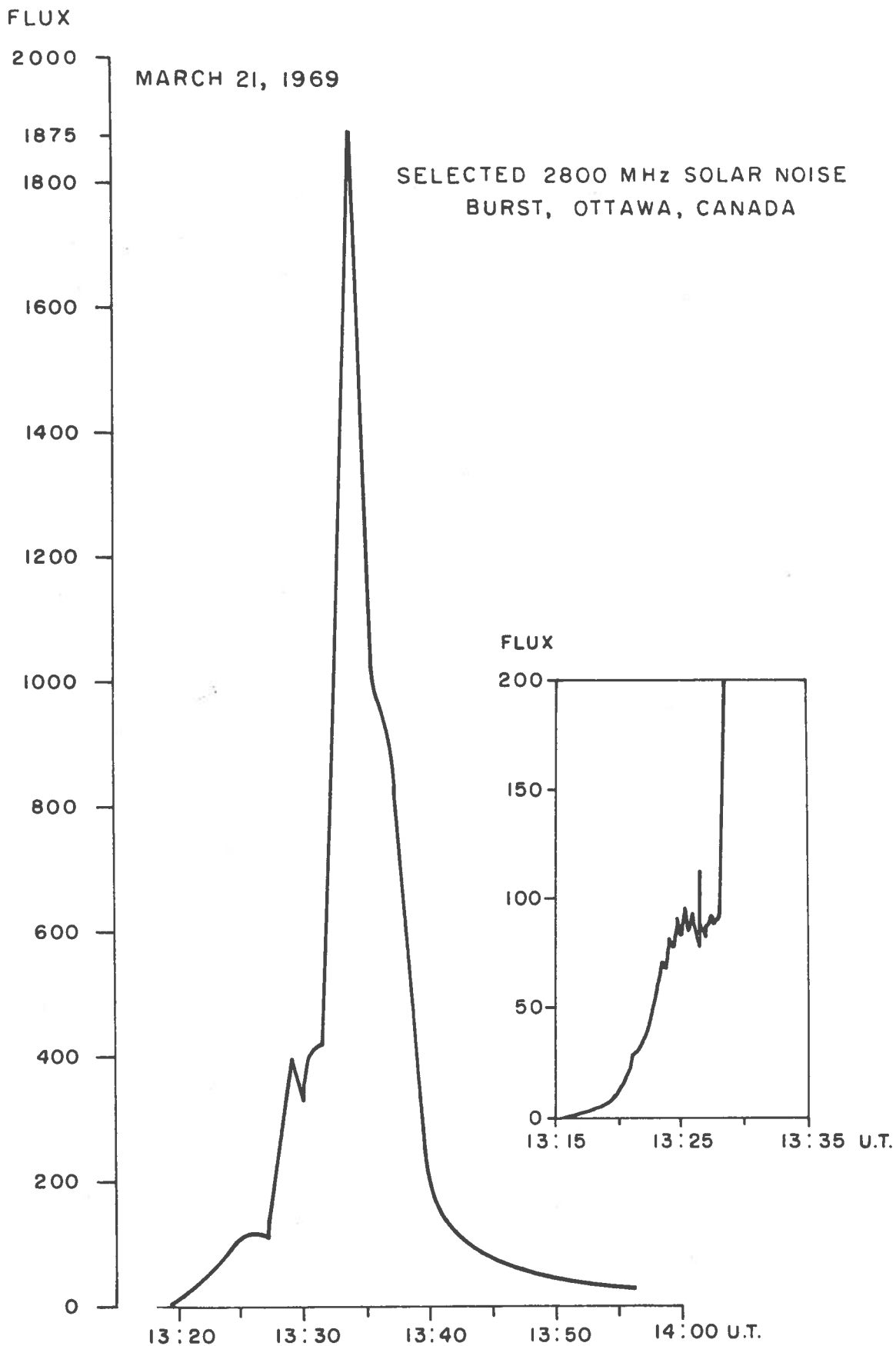


Figure 5

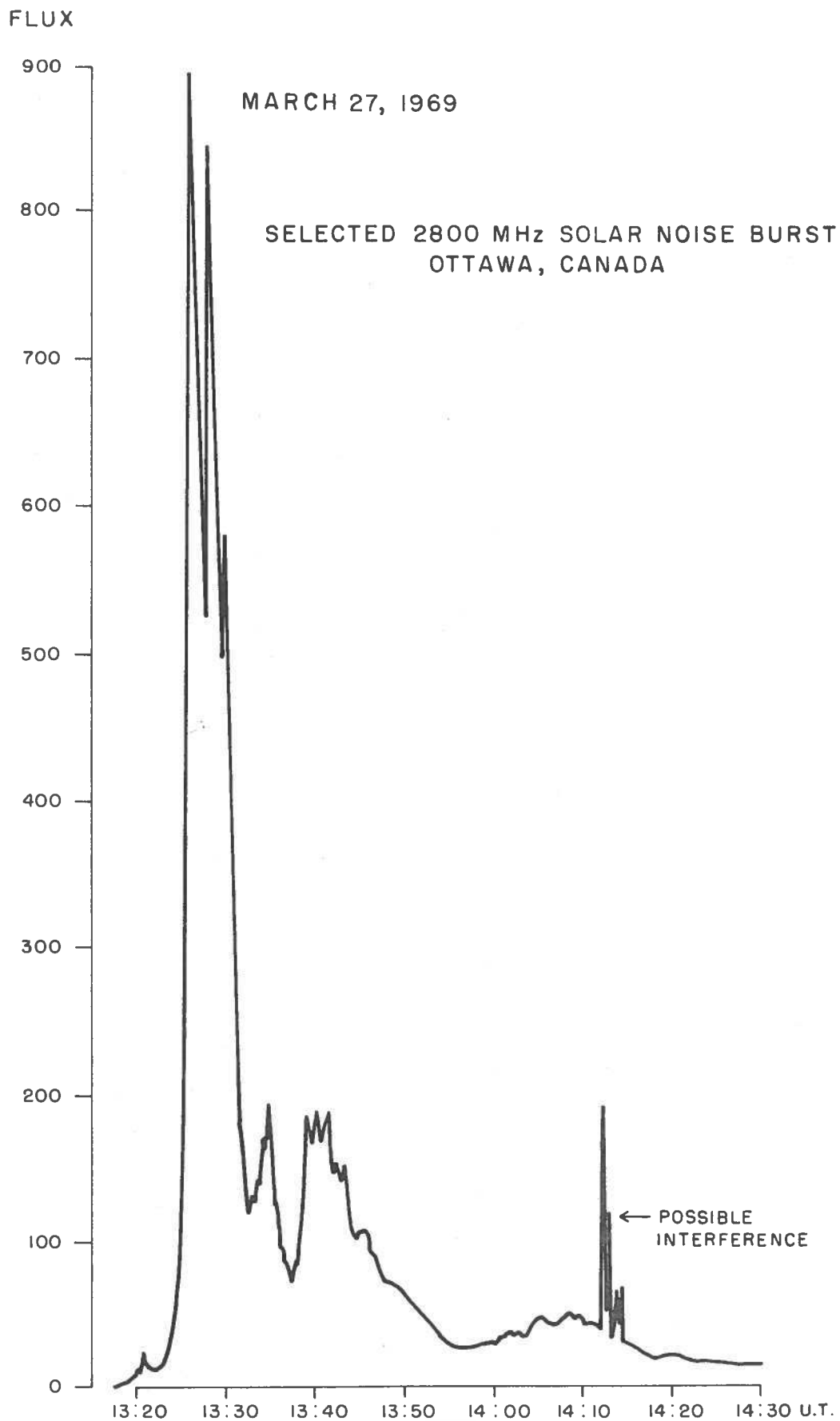


Figure 6

April, 1969

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND 2700 MHZ (PENTICTON-DRAO) -- SERIES "C"

Flux in watts/m²/cycles/sec bandwidth ($\times 10^{-22}$) -- 2 polarizations

		<u>O T T A W A</u>			<u>P E N T I C T O N</u>	
1969		Observed		adj. to 1 A.U.	Observed	Adj. to 1 A.U.
April	14:00	17:00	20:00	17:00	19:35	19:35
1	185.9	188.9	188.3	188.7	180.9	180.7
2	191.8*	191.6	191.5*	191.4	182.5*	182.3*
3	188.0	189.8	189.1	189.8	180.3	180.3
4	179.5	177.1	181.6	177.3	172.5	172.7
5	174.1	175.5*	172.3	175.7*	165.2	165.4
6	165.0	162.3	160.9	162.6	155.3	155.6
7	151.5	153.9	151.7*	154.2	146.0*	146.3*
8	147.5	147.2	146.7	147.6	141.9	142.3
9	143.0	143.4	144.9	143.8	140.4	140.8
10	147.4	148.3	148.2	148.9	143.7	144.3
11	146.7	150.0	151.9	150.8	145.4	146.1
12	157.0	154.7	154.6*	155.5	149.6*	150.3*
13	163.9	171.5	174.9	172.5	171.0	172.0
14	172.5*	178.3	185.6	179.4	179.7	180.8
15	182.5	179.9	176.3	181.2	171.8	173.0
16	167.3	165.9	163.7	167.1	160.0	161.1
17	156.8	153.5*	152.8	154.7*	149.6	150.8
18	145.1*	145.5*	145.0*	146.8*	141.1*	142.4*
19	144.0*	145.1	152.4	146.4	148.5	149.8
20	147.0*	147.8	149.3	149.3	---	---
21	155.5	155.6	150.8	157.2	146.3*	147.8*
22	152.6	146.2*	144.5	147.8*	141.4	143.0
23	144.4	142.5	146.0	144.1	141.3	142.9
24	147.1	143.0	139.9	144.7	135.6	137.2
25	139.0	145.9	149.4	147.7	138.9	140.6
26	141.5	141.9	142.8	143.7	138.1	139.9
27	133.3	133.1	132.9	135.0	126.2	128.0
28	133.1	133.0	132.4	134.9	126.2	128.0
29	129.5	126.3	126.0	128.2	123.7	125.6
30	122.6	127.2	126.1	129.1	120.6	122.4
Mean	155.2	155.5	155.8	156.5	150.5	151.5

*Corrected for burst.

April, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	H M		
1	1	Simple 1	13 34	0 04	13 35.5	3.6	2.0
2		Absorption F	13 35	1 10	13 51	-5.4	-2.7
	1	Simple 1	17 46	0 01	17 46.2	3.6	1.3
	3	Simple 3	18 20	3 10	19 00	26.0	13.0
	1	Simple 1	18 34.5	0 01	18 34.7	3.0	1.5
	2	Simple 2	19 23.5	0 02.5	19 24	10.0	4.6
3	3	Simple 3	16 35	1 15	16 40	4.4	2.2
	3	Simple 3	20 20	0 40	20 35	2.0	1.0
4	1	Simple 1	14 53	0 03	14 54.5	2.8	1.4
5	2	Simple 2F	15 57	0 06	16 00	24.0	12.0
	4	Post B.I.	16 03	0 40	---	6.4	3.2
7	3	Simple 3	14 50	0 30	14 59	2.0	1.0
	3	Simple 3	18 58	2 00	19 00	4.2	2.1
8	1	Simple 1F	22 54	0 01	22 54.5	5.2	2.6
9	3	Simple 3	22 00	3 00	22 20	3.8	1.9
10	3	Simple 3	16 50	1 00	17 05	2.0	1.0
11	1	Simple 1	17 38	0 05	17 38.5	1.4	0.7
		Absorption	21 40	2 10	22 55	-5.4	-2.7
12	3	Simple 3	17 55	2 30	18 45	2.6	1.3
	3	Simple 3F	21 05	0 35	21 10	2.6	1.6
13	2	Simple 2F	13 36	0 14	13 46	69.0	26.0
	4	Post B.I.A.	13 50	1 35	---	15.0	7.5
	3	Simple 3F	14 44	0 25	14 46	10.0	5.0
	1	Simple 1	15 53	0 07	15 56	2.4	1.2
	3	Simple 3F	17 20	0 20	17 27	4.2	2.0
	3	Simple 3	19 06	0 20	19 08	5.2	2.2
	1	Simple 1F	20 03	0 04	20 05	5.4	2.7*
	4	Post B.I.	20 07	0 10	---	2.0	1.0

*Only observed at Penticton.

April, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	H M		
14	2	Simple 2	12 31.8	0 05	12 32.3	60.0	15.0
	3	Simple 3F	12 59	3 05	13 36	9.2	4.6
	6	Complex F	17 12	0 20	17 25	49.0	22.0
		1st Compt.	17 12	0 11	17 20	44.0	---
		2nd Compt.	17 23	0 09	17 25	49.0	---
	4	Post B.I.A.	17 32	1 25	---	12.4	6.2
	1	Simple 1	17 55	0 05	17 56.5	1.6	0.8
	3	Simple 3F	18 00	0 40	18 16	7.0	3.5
	1	Simple 1	19 04	0 06	19 05.2	6.8	3.4
	3	Simple 3F	19 14	0 10	19 15	2.6	1.3
	1	Simple 1F	20 00.8	0 03	20 01	3.4	1.7
	2	Simple 2F	20 16.5	0 03.5	20 17	24.0	6.0
	1	Simple 1	20 28.5	0 04	20 29	2.0	1.0
	3	Simple 3A	21 20	2 00	22 10	5.8	2.9
	1	Simple 1	21 21	0 04	21 22	2.0	1.0
	3	Simple 3A	23 30	2 00	24 20	12.0	5.0*
	2	Simple 2	24 05	0 07	24 07.8	13.0	6.0*
15	1	Simple 1	15 55	0 02	15 56	2.2	1.1
	3	Simple 3A	17 55	1 15	18 30	3.0	1.5
	1	Simple 1	18 04	0 06	18 07	2.0	1.0
	3	Simple 3	20 05	1 05	20 15	4.4	2.2
16	1	Simple 1	00 50	0 02	00 51	3.4	1.7*
	1	Simple 1	14 37	0 07	14 39	3.0	1.5
	3	Simple 3A	17 45	1 30	18 05	3.0	1.5
	1	Simple 1	17 54	0 03	17 55.5	2.0	1.0
	3	Simple 3	18 45	0 20	18 50	3.0	1.5

*Only observed at Penticton.

April, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	H M		
16	3	Simple 3A	20 25	1 55	indet.	11.8	5.9
	6	Complex F	20 38.5	0 05.5	20 41	13.0	6.0
	2	Simple 2F	20 56	0 06	20 59	48.0	22.0
	4	Post B.I.	21 02	0 30	---	4.2	2.1
	1	Simple 1	21 42	0 04	21 43.5	2.0	1.0
	3	Simple 3	22 30	0 20	22 40	2.8	1.4
17	1	Simple 1	11 44	0 02	11 44.5	5.4	1.8
	1	Simple 1	12 32.5	0 03.5	12 35	6.6	3.6
	4	Post B.I.	12 36	0 25	---	3.0	1.5
	3	Simple 3	16 05	1 45	16 30	3.0	1.5
	2	Simple 2	18 28	0 06	18 32.5	10.0	5.0
	4	Post B.I.	18 34	0 25	---	3.0	1.5
	3	Simple 3	21 55	0 35	22 15	3.2	1.6
	6	Complex	22 36.8	0 04	22 37.5	10.8	5.2
	3	Simple 3	23 00	2 20	23 40	6.4	3.2*
18	3	Simple 3	13 20	1 20	indet.	5.2	3.8
	3	Simple 3	15 05	6 00	17 30	7.8	3.9
	1	Simple 1	21 48	0 06	21 52.2	9.0	4.2
	4	Post B.I.	21 54	0 45	---	3.4	1.7
19	3	Simple 3	12 51	2 30	12 52.5	6.0	3.0
		Rise	17 20	0 45	---	5.4	---
	3	Simple 3A	18 35	0 55	18 55	6.0	3.0
	6	Complex	18 40	0 10	18 43.2	35.0	20.0
		1st Compt.	18 40	0 02.5	18 41.5	20.0	---
		2nd Compt.	18 42.5	0 07.5	18 43.2	35.0	---
	3	Simple 3A	22 10	>3 40	23 30	9.4	---
	7	Irregular Activity	22 47	0 03	22 48	24.0	---
20	3	Simple 3	13 40	1 00	14 00	10.8	3.6
	3	Simple 3	15 35	0 40	15 45	3.0	1.5

*Only observed at Penticton.

April, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	H M		
20	{ 3	Simple 3A	18 08	0 30	18 10	4.2	2.0
		Spike	18 15.1	---	18 15.1	3.6	---
	3	Simple 3F	19 10	1 05	19 30	3.0	1.5
	1	Simple 1	21 06.3	0 01	21 06.8	2.8	1.4
	{ 3	Simple 3A	22 30	3 00	23 25	4.8	2.4
	1	Simple 1	22 32.5	0 02	22 33	2.8	1.4
	1	Simple 1	22 43	0 02.5	22 43.8	2.8	1.4
21	1	Simple 1	11 45	0 06	11 48	1.8	0.9
		Fall	12 25	0 25	---	6.0	---
	3	Simple 3F	14 27	0 20	14 36	6.0	3.0
		Fall	14 55	0 35	---	6.0	---
	{ 3	Simple 3A	15 50	1 40	16 30	4.4	2.2
	7	Irregular Activity	16 01.8	0 02	16 03	25.0	---**
	3	Simple 3	18 25	1 05	19 00	2.6	1.6
	{ 2	Great Burst	20 09E	>0 18	20 10	1290.0	---
	4	Post B.I.A	20 27	3 20	---	25.0	7.0
	1	Simple 1	20 30	0 04	20 31.2	3.8	1.9
	1	Simple 1	20 43.8	0 03	20 45.5	4.2	2.1
22	{ 2	Simple 2F	00 03	0 07	00 05	25.0	7.0*
	4	Post B.I.	00 10	0 55	---	2.8	1.4*
	{	Rise A	11 20	0 25	---	4.5	---
	1	Simple 1	11 38	0 01	11 38.5	3.0	1.5
		Fall	14 10	0 50	---	4.5	---
	3	Simple 3	16 10	1 40	17 00	4.4	2.0
	1	Simple 1	18 34.2	0 02	18 35	4.2	2.1
23	3	Simple 3	12 40	1 20	12 45	4.4	2.2
		Rise	17 40	0 45	---	3.8	---
	3	Simple 3	18 10	1 45	19 05	4.4	2.2

* Only observed at Penticton

** possible interference

April, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
April			H M	H M	H M		
24	6	Complex F	12 28	0 23	12 45.8	56.0	14.0
		1st Compt.	12 28	0 07	12 30.5	7.2	---
		2nd Compt.	12 35	0 09	12 40	17.4	---
		3rd Compt.	12 44	0 07	12 45.8	56.0	---
	4	Post B.I.	12 51	0 09	---	2.4	1.2
	1	Simple 1	22 42	0 03.5	22 43.5	2.2	1.1
25	3	Simple 3	20 40	0 10	20 43	2.2	1.1
	3	Simple 3F	21 10	1 00	21 22	6.6	2.2
26	1	Simple 1	13 16	0 01	13 16.5	2.4	1.2
	1	Simple 1	13 42	0 01.5	13 42.6	3.4	1.2
	6	Complex F	14 59	0 17	15 02.8	27.0	9.6
		1st Compt.	14 59	0 09	15 02.8	27.0	---
		2nd Compt.	15 08	0 08	15 09	12.0	---
	4	Post B.I.	15 16	0 08	---	3.6	1.8
	6	Complex F	23 00.2	0 16	23 03.8	380.0	140.0
		1st Compt.	23 00.2	0 05	23 03.8	380.0	---
		2nd Compt.	23 05.2	0 11	23 07.8	287.0	---
	4	Post B.I.	23 16	>2 30	---	12.0	---
29	3	Simple 3	13 25	0 35	13 40	2.6	1.3
	3	Simple 3	20 20	1 40	20 50	3.0	1.5
30	2	Simple 2F	14 30.2	0 03.8	14 31.7	70.0	14.0
	4	Post B.I.	14 34	0 55	---	4.4	2.2
	3	Simple 3	21 40	0 40	21 52	3.4	1.7
	3	Simple 3	23 05	>2 45	indet.	6.0	---*

*Only observed at Penticton.

FLUX

380

APRIL 26, 1969

SELECTED 2800 MHz SOLAR NOISE BURST
OTTAWA, CANADA

300

200

100

0

23:00

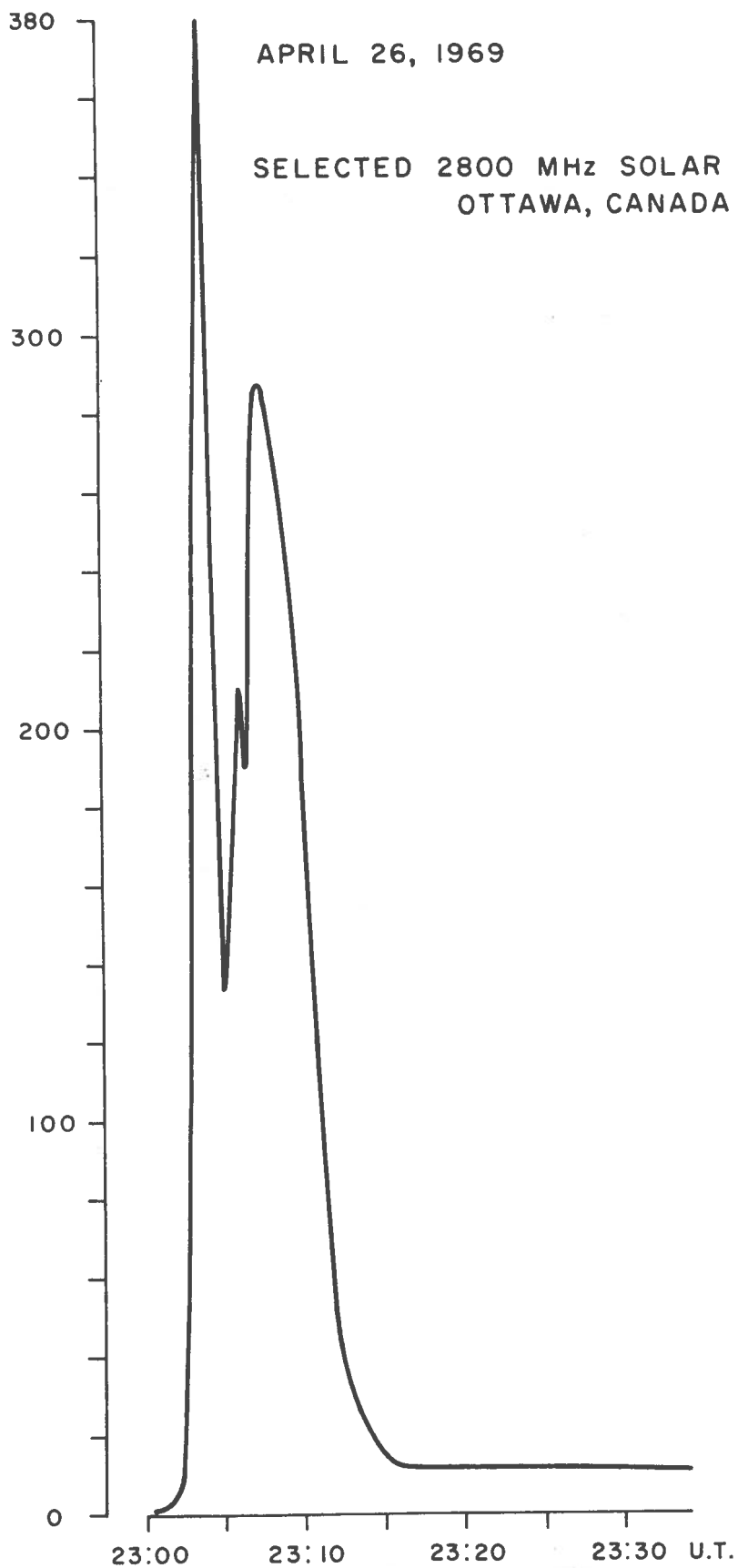
23:10

23:20

23:30

U.T.

Figure 7



May, 1969

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (OTTAWA-ARO)

AND 2700 MHz (PENTICTON-DRAO) -- SERIES "C"

Flux in watts/m²/cycles/sec bandwidth ($\times 10^{-22}$) -- 2 polarizations

		<u>O T T A W A</u>			<u>P E N T I C T O N</u>	
		Observed		adj. to 1 A.U.	Observed	Adj. to 1 A.U.
1969						
May	14:00	17:00	20:00	17:00	19:35	19:35
1	124.1	123.0	124.8	125.0	118.5	120.4
2	125.5*	125.8	130.8	127.8	124.0	126.0
3	129.8	129.7*	131.3*	131.9*	126.6	128.8
4	134.1	133.2	135.4	135.5	129.3	131.5
5	152.0	151.4	148.0	154.1	146.2	148.8
6	136.5	135.8	135.7	138.2	132.4	134.8
7	125.7	127.4	127.9	129.8	124.8	127.2
8	134.3*	135.9	135.6	138.5	132.0	134.5
9	135.0	132.9	132.9	135.4	129.3	131.8
10	134.0	135.0	136.8	137.7	132.1	134.7
11	142.2	147.2	147.9	150.1	140.7	144.5
12	150.0	157.0	157.1	160.3	151.4	154.6
13	150.3	150.9	151.5*	154.1	146.2	149.3
14	153.3	154.3	155.5	157.7	151.4	154.7
15	155.8	155.4	158.8	158.8	155.0	158.4
16	151.7	155.8	155.3	159.4	151.3	154.8
17	158.9	160.4	159.1	164.1	155.1	158.7
18	156.1	158.6	151.1*	162.4	146.0*	149.5*
19	152.8*	153.9	154.7*	157.6	150.8*	154.4*
20	155.6*	155.3*	155.5*	159.0*	150.1*	153.7*
21	164.2*	166.5*	166.8*	170.7*	161.8	165.8
22	172.1	173.1	172.1*	177.4	169.0*	173.2*
23	167.6	168.4	170.9	172.8	167.9	172.3
24	169.1	167.1	171.0	171.4	166.2	170.5
25	164.8	164.2*	164.6	168.5*	156.8	160.9
26	156.5	159.4	158.8	163.7	153.4	157.5
27	148.4	149.5	147.7	153.5	---	---
28	136.1	139.4	136.8	143.2	131.0	134.5
29	122.4	119.3	120.2	122.6	114.3	117.5
30	112.6	113.5	112.0	116.7	105.9	108.9
31	108.8	108.9	108.7*	111.9	104.4*	107.3*
Mean	144.5	145.4	145.7	148.7	140.8	144.0

*Corrected for burst.

May, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
May			H M	H M	H M		
2	3	Simple 3A	13 55	2 10	14 28	4.6	2.3
	1	Simple 1	14 25	0 02	14 25.5	2.6	1.8
	3	Simple 3	15 20	0 10	15 25	1.6	0.8
	2	Simple 2F	17 45	0 09.5	17 50.5	102.0	41.0
	4	Post B.I.F	17 54.5	0 50	---	16.0	6.0
	3	Simple 3A	20 35	2 25	22 15	3.8	1.9
	2	Simple 2F	21 05	0 12	21 06.7	52.0	12.0
3	3	Simple 3F	14 05	4 20	15 25	6.0	3.0
	6	Complex F	19 42	0 24	19 48.3	28.0	9.8
		1st Compt.	19 42	0 14	19 48.3	28.0	--
		2nd Compt.	19 56	0 10	19 57	19.0	--
	4	Post B.I.	20 06	0 55	---	4.8	2.4
	1	Simple 1	22 24.5	0 01.5	22 25.2	3.8	2.0
	4	Post B.I.	22 26	0 15	---	2.2	1.1
	3	Simple 3A	23 00	0 13	indet.	1.8	0.9
	1	Simple 1	23 02	0 03	23 03	4.8	2.4
		Spike	23 48.2	0 00.5	23 48.5	14.0	-- *
4	1	Simple 1	19 43	0 05	19 44	3.6	1.3
	1	Simple 1F	20 50	0 02	20 51	9.6	4.6
5		Absorption A	12 15	1 30	indet.	-4.0	-2.0
	6	Complex	12 33	0 11	12 38	25.0	10.0
		1st Compt.	12 33	0 07.5	12 38	25.0	--
		2nd Compt.	12 40.5	0 03.5	12 41.5	15.0	--
	4	Post B.I.	12 44	0 30	---	7.2	3.6
		Rise	13 45	0 20	---	8.4	--
	1	Simple 1	15 11.5	0 00.5	15 11.8	3.6	1.8
	3	Simple 3	15 30	2 20	16 25	2.2	1.4
	3	Simple 3A	17 55	0 15	17 58	4.2	2.0
	1	Simple 1	17 56.8	0 01	17 57.1	2.0	1.0

*Only observed at Penticton.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
May			H M	H M	H M		
5	{ 3	Simple 3A	20 30	0 50	20 40	2.6	1.6
	{ 1	Simple 1	20 31	0 02	20 31.5	2.4	1.2
6	1	Simple 1	15 34.9	0 01.5	15 35.2	5.4	2.4
	3	Simple 3	18 30	2 30	18 50	2.4	1.2
7	3	Simple 3	15 53	0 50	15 56	4.6	2.3
8	3	Simple 3F	13 00	3 10	14 15	6.6	3.8
	3	Simple 3	21 44	0 25	21 46	4.0	1.8
11	3	Simple 3	22 45	0 40	23 00	2.0	1.0
12	3	Simple 3	16 50	2 00	17 30	3.2	2.0
	3	Simple 3F	21 10	3 50	23 05	10.8	4.2
13	{ 3	Simple 3A	19 40	3 45	20 30	5.8	2.9
	{ 1	Simple 1	19 55.5	0 01	19 56	2.8	1.8
14	1	Simple 1	12 20	0 02	12 21	9.6	3.2
	3	Simple 3	20 55	1 30	21 15	3.4	1.7
15	3	Simple 3	14 05	0 35	14 20	3.6	1.8
	{ 3	Simple 3A	21 00	0 40	21 10	2.6	1.3
	{ 1	Simple 1F	21 04	0 03	21 04.5	6.0	2.6
	3	Simple 3	22 05	1 40	22 50	9.0	4.5
16	2	Simple 2	16 18.5	0 02	16 19.5	10.0	5.0
		Rise	16 30	0 10	--	2.6	--
	1	Simple 1	18 52	0 03	18 52.2	2.8	1.4
	1	Simple 1	20 17	0 01	20 17.5	7.0	3.5
	3	Simple 3	21 40	0 15	21 50	2.0	1.0
	2	Simple 2F	23 23.8	0 02	23 24.7	11.0	3.8
17	3	Simple 3	00 40	1 10	01 00	2.6	1.3*
	{ 3	Simple 3A	11 23	2 55	11 30	7.6	3.8
	{ 1	Simple 1	11 26	0 01	11 26.5	2.4	1.2
	{ 1	Simple 1	13 26.5	0 01.5	13 27	2.8	1.4

*Only observed at Penticton.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
May			H M	H M	H M		
17	3	Simple 3	15 00	1 35	15 55	4.2	2.1
	1	Simple 1F	17 14	0 02	17 15.1	2.8	1.2
	6	Complex	19 22	0 07	19 25.5	570.0	100.0
		1st Compt.	19 22	0 03	19 24.4	208.0	--
		2nd Compt.	19 25	0 04	19 25.5	570.0	--
	4	Post B.I.AF	19 29	0 30	--	6.0	3.0
	2	Simple 2F	19 33.5	0 03.5	19 39.5	14.0	5.0
	1	Simple 1F	19 44.5	0 03	19 45	2.8	1.4
18	1	Simple 1	13 01	0 03	13 02	2.6	1.6
	2	Simple 2	14 46	0 05	14 48.5	17.0	8.8
	4	Post B.I.A	14 51	0 35	--	6.8	3.4
	1	Simple 1F	14 56	0 05	14 57	2.6	1.3
	6	Complex F	17 13	0 11	17 19.7	43.0	19.0
		1st Compt.	17 13	0 03	17 13.7	35.0	--
		2nd Compt.	17 16	0 08	17 19.7	43.0	--
		Fall	17 25	0 55	--	8.4	--
	3	Simple 3A	19 05	4 00	19 55	8.4	4.8
	7	Irregular Activity	21 02	0 07	21 07.2	19.0	--
19	3	Simple 3AF	12 40	4 15	14 55	8.2	4.1
	2	Simple 2F	14 30	0 05	14 32.8	40.0	10.0
	1	Simple 1	14 38	0 06	14 40.7	3.0	1.5
	3	Simple 3	19 10	1 20	20 00	7.6	3.8
		Rise	20 50	1 10	--	9.6	--
	1	Simple 1	23 06.5	0 03	23 07.2	16.0	5.0
20	6	Complex F	00 34	0 06	00 35.8	116.0	34.0*
		1st Compt.	00 34	0 03	00 35.8	116.0	--
		2nd Compt.	00 37	0 03	00 38	35.0	--
	4	Post B.I.	00 40	0 14	--	7.8	2.0*

* Only observed at Penticton.

May, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
May			H M	H M	H M		
20	1	Simple 1	12 18	0 01	12 18.5	2.6	1.3
		Absorption	13 35	0 55	14 00	-4.0	-1.8
	3	Simple 3	14 40	1 30	15 20	2.8	1.4
	{ 3	Simple 3A	16 20	2 45	17 10	9.0	4.5
	{ 2	Simple 2	16 56	0 01	16 56.1	13.0	6.0
	3	Simple 3F	19 30	2 15	21 00	8.2	4.1
		Rise	22 30	0 15	--	6.4	--
21	3	Simple 3	13 00	1 35	13 35	3.2	1.6
	3	Simple 3	14 58	0 10	15 00	2.2	1.1
	3	Simple 3	16 55	0 35	indet	2.8	1.4
	3	Simple 3	19 50	1 10	20 20	2.6	1.3
22	3	Simple 3	13 10	1 15	indet	2.8	1.8
		Rise	14 35	0 02	--	1.8	--
	3	Simple 3	17 50	0 50	17 57	3.8	2.4
	{ 6	Complex F	18 59	0 51	19 34.2	230.0	46.0
		1st Compt.	18 59	0 27	19 02	130.0	--
		2nd Compt.	19 26	0 24	19 34.2	230.0	--
	{ 4	Post B.I.	19 50	3 20	--	15.4	6.2
23	3	Simple 3	23 20	0 30	23 32	4.2	2.0*
24	3	Simple 3	13 20	1 15	14 00	2.2	1.1
	3	Simple 3	14 40	2 10	14 55	3.4	1.7
	3	Simple 3	18 00	1 00	18 30	2.8	1.4
25	{ 3	Simple 3AF	11 40	2 25	12 20	12.0	6.0
	{ 1	Simple 1F	11 53	0 09	11 55.5	7.2	3.6
	{ 3	Simple 3A	16 56	2 05	17 00	7.0	3.5
	{ 2	Simple 2	16 56.5	0 01.5	16 57.2	24.0	12.0
	1	Simple 1	19 48	0 04	19 49.5	3.6	1.8
	1	Simple 1	20 04	0 01	20 04.5	2.6	1.3

*Only observed at Penticton.

May, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 196 ⁹	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
May			H M	H M	H M		
25	3	Simple 3A	20 07	2 15	21 05	9.4	4.7
	6	Complex F	20 07	0 21	20 15.5	44.0	17.0
		1st Compt.	20 07	0 06	20 09	23.0	--
		2nd Compt.	20 13	0 15	20 15.5	44.0	--
	1	Simple 1	20 49	0 04	20 51.5	6.6	3.3
	3	Simple 3F	22 40	1 00	23 00	5.4	2.7
26	2	Simple 2F	01 25	0 11	01 29	16.0	7.0 *
	3	Simple 3A	11 00	1 35	11 17	8.0	4.0
	2	Simple 2F	11 08	0 08	11 10.4	30.0	11.0
	1	Simple 1	11 23.5	0 03.5	11 25	3.6	1.8
27	3	Simple 3A	00 45	0 45	01 00	8.2	4.1 *
	2	Simple 2F	00 52.5	0 05.5	00 54.5	105.0	17.0 *
	3	Simple 3	13 20	0 20	13 22	2.8	1.4
	1	Simple 1	16 43	0 03	16 44.3	3.0	1.0
	3	Simple 3A	17 25	0 40	17 45	3.0	1.5
	1	Simple 1	17 42	0 01	17 42.5	1.4	0.7
28	2	Simple 2F	12 54	0 08	12 59	19.0	9.0
	4	Post B.I.	13 02	0 20	--	2.6	1.3
	3	Simple 3A	14 25	1 20	14 44	8.4	4.2
	7	Irregular Activity	14 52	0 02.5	14 52.8	14.6	--
	3	Simple 3	15 50	1 30	16 05	2.8	1.4
	3	Simple 3	21 30	0 50	21 40	5.0	2.5
	1	Simple 1	23 14	0 01	23 14.5	8.6	4.3
29	2	Simple 2F	00 20	0 06	00 21.8	55.0	16.0 *
	2	Simple 2	14 50	0 05	14 52.8	24.0	9.6
	4	Post B.I.F	14 55	0 30	--	4.8	1.8
	1	Simple 1	17 17.5	0 02.5	17 19	9.8	4.0
	4	Post B.I.	17 20	0 05	--	3.2	1.6

* Only observed at Penticton.

May 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
May			H M	H M	H M		
29	1	Simple 1	19 05	0 05	19 07	2.0	1.0
	6	Complex F	19 38.2	0 07.8	19 42.2	83.0	17.0
		1st Compt.	19 38	0 01.8	19 39	18.0	--
		2nd Compt.	19 40	0 06	19 40.2	83.0	--
	4	Post B.I.	19 46	0 10	--	2.2	1.1
31	3	Simple 3A	18 35	6 20	22 30	9.6	4.0
		1st Compt.	18 35	2 35	20 00	3.6	--
		2nd Compt.	21 10	3 45	22 30	9.6	--
	1	Simple 1	19 22.5	0 08	19 24	5.4	2.7
	1	Simple 1	19 32	0 04	19 34	2.0	1.0
	6	Complex	19 37	0 16	19 40.5	6.8	2.8
		1st Compt.	19 37	0 08	19 40.5	6.8	--
		2nd Compt.	19 45	0 08	19 46.2	4.9	--
	2	Simple 2F	20 58	0 07	21 01	19.0	4.8

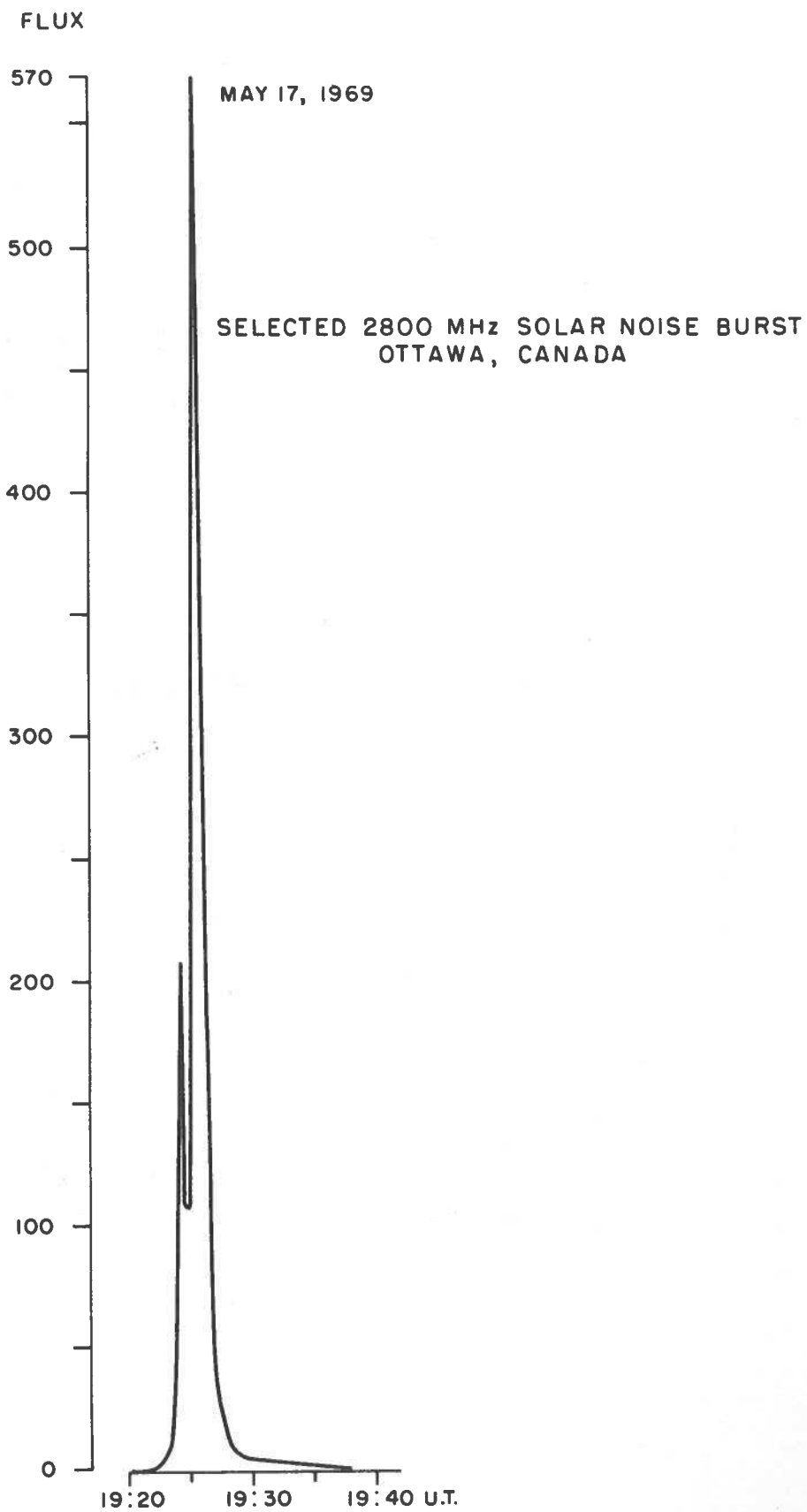


Figure 8

SELECTED 2800 MHz SOLAR NOISE BURST
OTTAWA, CANADA

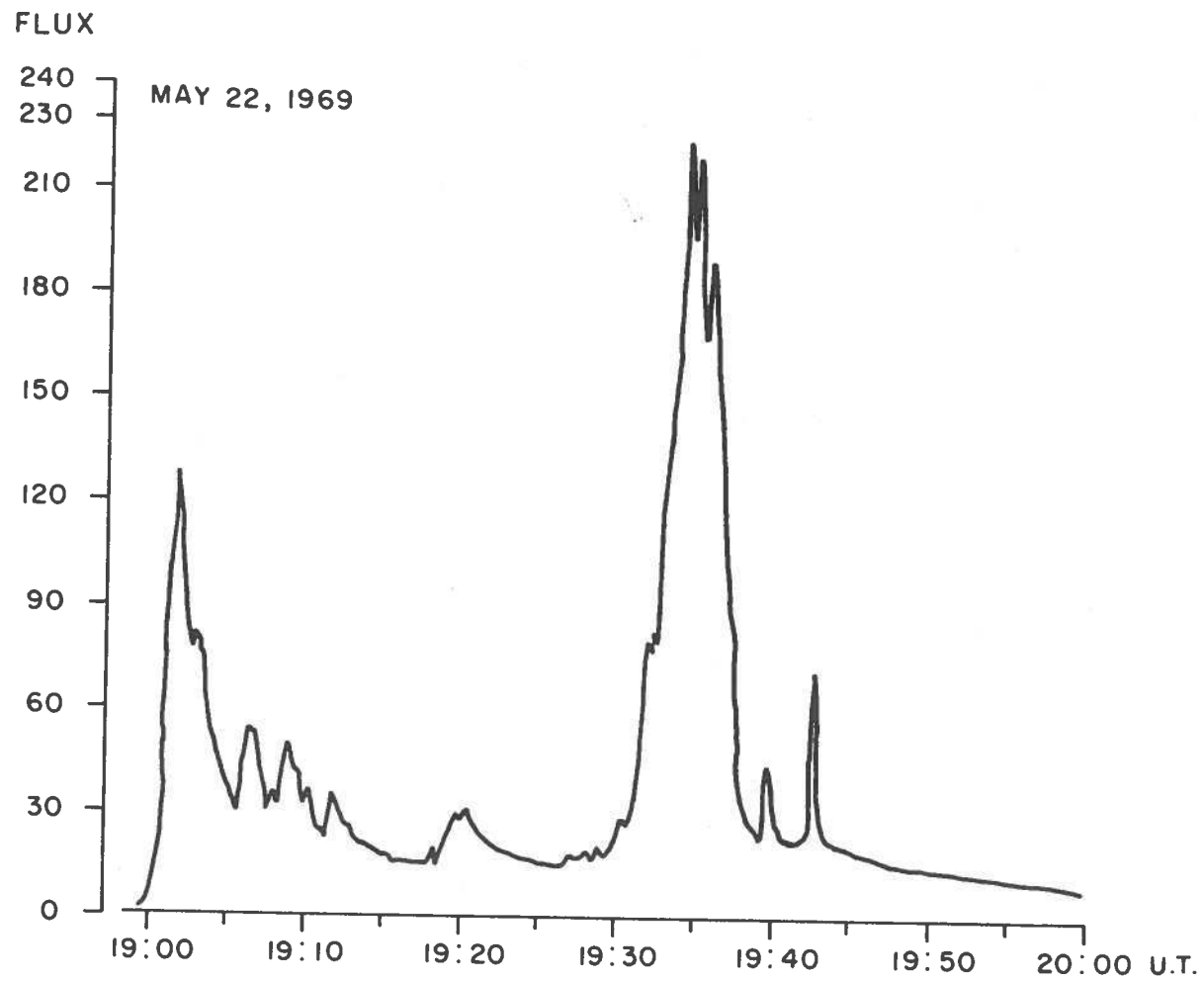


Figure 9

June 1969

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (OTTAWA-ARO)

AND 2700 MHz (PENTICTON-DRAO) -- SERIES "C"

Flux in watts/m²/cycles/sec bandwidth ($\times 10^{-22}$) -- 2 polarizations

		<u>O T T A W A</u>			<u>P E N T I C T O N</u>	
1969		Observed		adj. to 1 A.U. 17:00	Observed	Adj. to 1 A.U. 19:35
June	14:00	17:00	20:00		19:35	
1	108.3	110.1	112.9	113.3	107.6	110.7
2	115.4	117.8	118.1	121.2	114.4	117.7
3	126.7	129.6	133.6	133.4	127.8	131.5
4	148.7	154.5*	154.7	159.0*	149.6	153.9
5	171.1*	172.6*	180.8*	177.8*	171.1	176.2
6	190.0*	190.7*	194.5	196.4*	191.7*	197.5*
7	212.9*	215.7	212.2*	222.2	209.5*	215.8*
8	231.4	231.5*	234.7*	238.4*	233.2*	240.2*
9	228.0*	228.7	231.5	235.8	227.3	234.3
10	226.6	236.2	238.3	243.5	233.6	240.8
11	240.3*	239.2*	238.7	246.6*	229.4	236.5
12	229.8	229.6	227.0	236.7	220.4	227.2
13	222.6	221.6*	220.1*	228.7	215.6*	222.5*
14	218.7	216.6	217.5	223.5	209.1	215.8
15	194.5	194.3	192.8	200.5	183.6	189.5
16	172.0	169.3	167.2	174.7	162.2	167.4
17	154.5	152.3	148.8	157.2	146.6	151.3
18	149.6	149.0	149.6	153.9	144.8	149.6
19	141.4	142.3	142.5*	147.0	138.2*	142.8*
20	139.1*	140.3	139.7*	144.9	136.1*	140.6*
21	134.5	135.2	134.8	139.7	133.0	137.4
22	128.8	128.8*	127.7	133.1*	123.6	127.7
23	124.6	127.4	127.2	131.6	122.6	126.6
24	123.9	124.8	124.3	128.9	120.4	124.4
25	119.6	116.4	116.8	120.2	111.7	115.4
26	113.3	113.3	115.1	117.2	109.9	113.6
27	111.1	110.4	111.3	114.2	106.7	110.3
28	114.9	114.4	115.1	118.3	110.2	113.9
29	120.2	119.7	121.0	123.8	115.6	119.5
30	132.9	132.3*	137.1	136.8*	130.4	134.8
Mean	161.5	162.2	162.9	167.3	157.9	162.8

*Correction for burst.

June, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
June			H M	H M	H M		
2		Rise	20 50	0 50	---	3.2	---
3	3	Simple 3	01 20	>0 20	01 30	3.2	---*
	1	Simple 1	12 28	0 04	12 29.5	2.0	1.0
	3	Simple 3F	18 35	0 15	18 42	2.4	1.2
	3	Simple 3A	20 00	4 40	indet.	4.4	3.8
	1	Simple 1	21 45.5	0 03	21 46	2.6	1.3
		Spike	21 46	---	21 46	22.0	---
4		Rise A	00 55	0 25	---	3.4	---*
	1	Simple 1	01 12	0 04	01 12.5	2.6	1.3*
	3	Simple 3	11 20	0 50	11 40	3.0	1.5
	3	Simple 3	15 55	0 10	16 00	2.6	1.3
	3	Simple 3	16 48	1 35	16 54	5.6	2.8
	3	Simple 3A	21 20	1 25	22 00	4.8	2.4
	2	Simple 2F	21 24	0 03	21 26.5	26.0	6.0
	3	Simple 3	22 55	0 25	23 15	2.8	1.4
5	3	Simple 3	00 30	>1 10	01 00	8.4	---*
	3	Simple 3A	13 10	6 10	16 45	26.0	12.0
	6	Great Burst F	14 39.5	1 20.5	15 01.5	570.0	145.0
		1st Compt.	14 39.5	0 15	14 52	325.0	---
		2nd Comptl	14 54.5	1 05.5	15 01.5	570.0	---
	4	Post B.I.	16 00	0 40	---	17.0	8.5
	1	Simple 1	19 35	0 01.5	19 36.5	6.2	2.8
		Rise	21 25	0 09	---	3.0	---
	3	Simple 3A	22 10	0 35	22 30	3.2	1.6
	1	Simple 1	22 15	0 02	22 16.5	3.2	1.6
		Rise A	23 15	0 15	---	6.6	---
	1	Simple 1	23 27	0 03	23 28.5	3.6	1.8
6	1	Simple 1	00 54	0 05	00 55	5.0	2.5*
		Rise	01 05	0 35	---	5.4	---*

*Only observed at Penticton.

June, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 196 9	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
June			H M	H M	H M		
6	3	Simple 3A	13 10	3 15	15 25	8.4	4.2
	2	Simple 2F	16 02	0 10	16 06.3	95.0	24.0
	1	Simple 1	16 26	0 01.2	16 26.9	2.0	1.0
	3	Simple 3	16 26	0 10	16 29.5	6.2	3.1
	3	Simple 3	16 45	2 15	17 30	9.0	4.5
	3	Simple 3	19 05	0 45	19 30	3.0	1.5
	1	Simple 1	19 53.5	0 03	19 54	2.4	1.2
		Rise	20 00	0 10	---	2.8	---
	3	Simple 3	22 20	0 25	22 30	2.2	1.1
	3	Simple 3A	23 00	2 40	24 00	12.4	6.2
	1	Simple 1F	23 07	0 03	23 07.5	8.0	4.0
	1	Simple 1	23 52	0 04	23 54	3.0	1.5*
	2	Simple 2F	24 19	0 04	24 20.5	18.0	13.4*
	4	Post B.I.A	24 23	1 10	---	9.6	4.8*
	1	Simple 1	24 27	0 04	24 28.5	4.8	2.4*
	3	Simple 3	25 10	0 15	25 14	4.8	2.4*
7	3	Simple 3A	12 50	1 40	12 54	7.8	4.4
	1	Simple 1	13 40	0 08	13 42	2.4	1.2
	1	Simple 1	15 17	0 01.5	15 18	3.8	1.9
	3	Simple 3F	17 25	0 45	17 35	2.8	1.4
	3	Simple 3	18 30	0 25	18 45	2.0	1.0
		Absorption A	18 55	1 55	19 45	-9.4	-4.7
	6	Complex	19 09	0 07	19 10	15.8	4.0
	1	Simple 1	21 20.5	0 04	21 22	8.8	4.4
	3	Simple 3A	23 50	1 20	24 30	5.6	4.0
	1	Simple 1	23 13	0 01	23 13.5	2.8	1.4
8	3	Simple 3	12 50	0 20	13 00	3.0	1.5
	3	Simple 3	14 15	0 40	14 45	4.0	2.0

*Only observed at Penticton.

June 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
June			H M	H M	H M		
8	{ 1	Simple 1	15 30	0 04	15 32.5	9.0	3.4
	{ 4	Post B.I.	15 34	0 09	---	2.4	1.2
	{ 2	Simple 2	15 52	0 04	15 54.5	12.0	5.0
	{ 4	Post B.I.	15 56	0 15	---	3.6	1.8
	3	Simple 3	16 30	1 10	16 55	4.2	2.1
	{ 3	Simple 3A	18 15	0 25	18 20	3.0	1.5
	{ 2	Simple 2F	18 24.2	0 00.8	18 24.9	16.0	8.0
	3	Simple 3	18 50	2 00	19 55	5.4	2.4
	3	Simple 3	21 55	0 35	22 05	6.0	3.0
9	3	Simple 3	00 05	0 35	00 20	5.4	2.8*
	{ 3	Simple 3AF	11 00	6 00	14 05	17.8	8.8
	{ 2	Simple 2	12 17.5	0 12	12 20	11.0	4.0
	{ 2	Simple 2F	13 23.5	0 04.5	13 25	97.0	32.0
	{ 4	Post B.I.	13 28	0 20	---	7.4	3.7
	{ 3	Simple 3A	18 45	0 30	19 00	2.8	1.4
	{ 1	Simple 1	18 50.8	0 01.2	18 51	4.8	2.4
	{ 2	Simple 2	20 05	0 03	20 06.5	15.8	7.9
	{ 4	Post B.I.	20 08	0 27	---	7.2	3.6
	3	Simple 3	20 40	0 20	20 50	3.4	1.7
	3	Simple 3	21 10	1 20	22 05	3.6	1.8
		Spike	22 51.4	---	22 51.4	12.0	---
10	3	Simple 3	15 05	0 40	15 30	3.6	1.8
	3	Simple 3F	15 55	1 00	16 30	4.6	2.3
	3	Simple 3	16 58	0 20	17 05	3.2	1.6
	{ 3	Simple 3A	18 57	0 17	19 01	3.6	1.8
	{ 1	Simple 1	19 03	0 02	19 04	3.0	1.5
	3	Simple 3	21 45	1 10	indet.	3.6	1.8
	1	Simple 1	23 31.5	0 01.5	23 32	6.4	3.2
11	3	Simple 3	13 50	1 20	14 35	2.8	1.4
	3	Simple 3	15 20	0 30	15 30	2.2	1.1

*Only observed at Penticton.

June, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
June			H M	H M	H M		
11	6	Complex F	16 14	0 28	16 23	495.0	120.0
		1st Compt.	16 14	0 16	16 23	495.0	---
		2nd Compt.	16 30	0 12	16 33.8	135.0	---
	4	Post B.I.A	16 42	2 00	---	32.0	14.6
	2	Simple 2	16 46	0 07	16 48.5	28.0	11.2
	2	Simple 2F	17 10	0 13	17 12	18.0	8.0
	2	Simple 2F	21 52	0 01.2	21 52.5	32.0	16.0
12	3	Simple 3A	01 03	0 25	01 10	3.4	1.7
	7	Irregular Activity	01 03	0 03	01 03.5	20.0	---
	3	Simple 3A	11 15	3 30	12 26	12.0	5.8
	1	Simple 1	11 50.2	0 01.5	11 50.7	6.6	3.3
	3	Simple 3	16 46	0 10	16 47	2.0	1.0
	1	Simple 1	20 31.7	0 00.5	20 31.8	2.6	1.3
	1	Simple 1	22 48	0 00.6	22 48.1	2.4	1.2*
13	1	Simple 1F	14 26	0 03.5	14 28	3.2	1.6
	1	Simple 1	14 36.8	0 00.7	14 37	6.4	3.2
	4	Post B.I.	14 37.5	0 08	---	2.8	1.4
	3	Simple 3AF	15 45	7 35	17 50	31.0	15.0
	1	Simple 1	20 24	0 08	20 25	4.0	2.0
14	3	Simple 3	12 10	1 10	12 25	4.0	2.6
	3	Simple 3AF	20 40	4 00	21 20	13.6	6.8
	6	Complex	20 47	0 06	20 49.8	14.0	6.0
		1st Compt.	20 47	0 02	20 47.8	12.4	---
		2nd Compt.	20 49	0 04	20 49.8	14.0	---
	6	Complex F	20 57	0 15	21 05	40.0	18.0
		1st Compt.	20 57	0 04	20 59	13.0	---
		2nd Compt.	21 01	0 03	21 02.8	27.0	---
		3rd Compt.	21 04	0 08	21 05	40.0	---
	3	Simple 3	22 00	0 20	22 05	7.8	3.9
	1	Simple 1	23 30	0 02	23 31	3.6	1.8

*Only observed at Penticton

June, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
June			H M	H M	H M		
15	3	Simple 3	16 58	0 15	16 59	2.4	1.2
	3	Simple 3	17 46	0 09	17 48.5	2.4	1.2
16	3	Simple 3	10 55	1 15	11 30	2.8	1.4
	3	Simple 3AF	20 40	5 05	22 30	7.0	---
	2	Simple 2	20 59	0 10	21 03.5	46.0	18.0
	1	Simple 1	21 30	0 07	21 33	3.6	1.8
	2	Simple 2F	21 45.5	0 10.5	21 51	22.0	13.0
	4	Post B.I.	21 56	0 16	---	8.4	4.2
17	2	Simple 2F	13 24	0 09	13 25	12.8	4.2
	3	Simple 3	16 40	0 30	16 43	3.4	1.7
18	3	Simple 3A	14 35	1 05	14 41	6.2	3.1
	2	Simple 2	15 22	0 01	15 22.5	10.8	5.4
	1	Simple 1	15 26	0 01.2	15 26.9	8.6	2.8
	3	Simple 3A	15 45	1 40	16 05	2.6	1.3
	1	Simple 1F	17 19	0 02	17 19.5	8.0	3.0
	2	Simple 2F	17 31.2	0 02	17 32.5	24.0	12.0
	4	Post B.I.	17 33.2	0 07	---	6.6	1.6
	3	Simple 3A	21 00	1 25	21 30	3.6	1.8
	6	Complex	21 08	0 09	21 10	17.0	6.0
		1st Compt.	21 08	0 03	21 10	17.0	---
		2nd Compt.	21 11	0 06	21 12.2	12.8	---
	3	Simple 3A	22 25	0 35	22 45	2.8	1.4
	1	Simple 1	22 43	0 03	22 44	2.0	1.0
	3	Simple 3A	23 10	2 20	23 40	4.8	3.8*
	1	Simple 1	23 39.5	0 01	23 39.9	6.6	3.3*
19	3	Simple 3A	15 35	1 25	15 55	4.8	2.4
	1	Simple 1	15 46.5	0 01	15 47	6.4	3.0
	3	Simple 3A	17 45	3 05	18 35	8.4	4.2
	1	Simple 1	18 02	0 04	18 04	2.2	1.1
	3	Simple 3	22 50	1 50	23 40	2.6	1.3*

*Only observed at Penticton.

June, 1969

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 & 2800 MHz

DATE 1969	URANE KEY	CLASS	START U.T.	DURATION	MAXIMUM U.T.	PEAK FLUX	MEAN FLUX
June			H M	H M	H M		
20	3	Simple 3	12 23	0 35	12 29	4.4	2.2
	3	Simple 3	13 25	1 20	13 32	5.4	2.7
	3	Simple 3AF	17 30	3 10	19 05	6.0	3.0
	1	Simple 1	18 04	0 02	18 05	1.6	0.8
21	3	Simple 3	12 45	1 00	13 00	2.0	1.0
	3	Simple 3F	19 10	0 30	19 14	4.4	2.2
22	3	Simple 3	00 15	1 20	00 22	2.6	1.3*
	3	Simple 3	15 50	1 30	16 15	3.8	1.9
24	3	Simple 3	00 35	0 25	00 50	2.6	1.3
27		Rise	21 00	0 25	---	2.0	---
30	3	Simple 3F	15 25	2 55	17 25	5.2	2.6
		Rise	18 25	0 15	---	2.8	---
		Spike	23 20.5	---	23 20.5	13.0	---

*Only observed at Penticton.

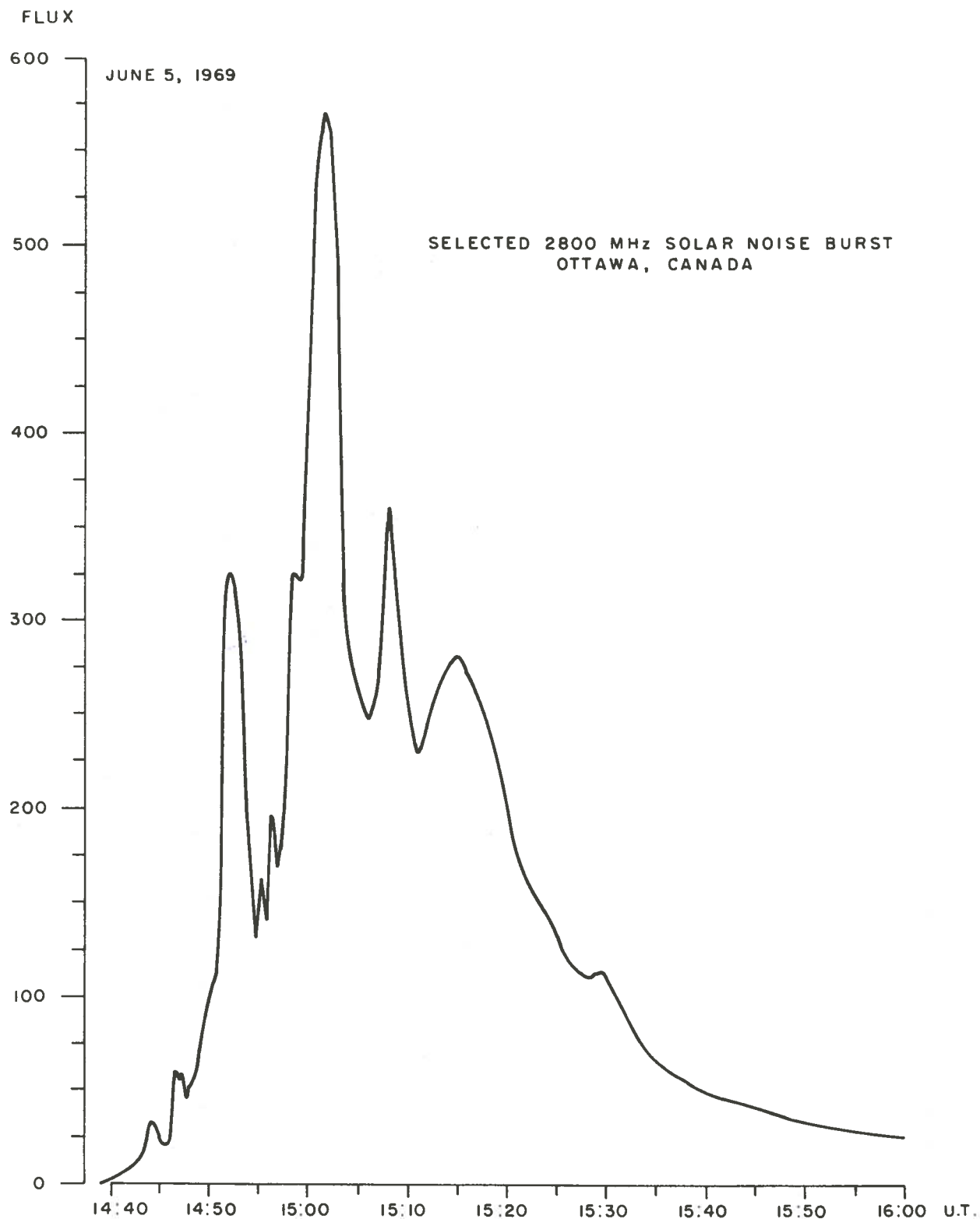


Figure 10

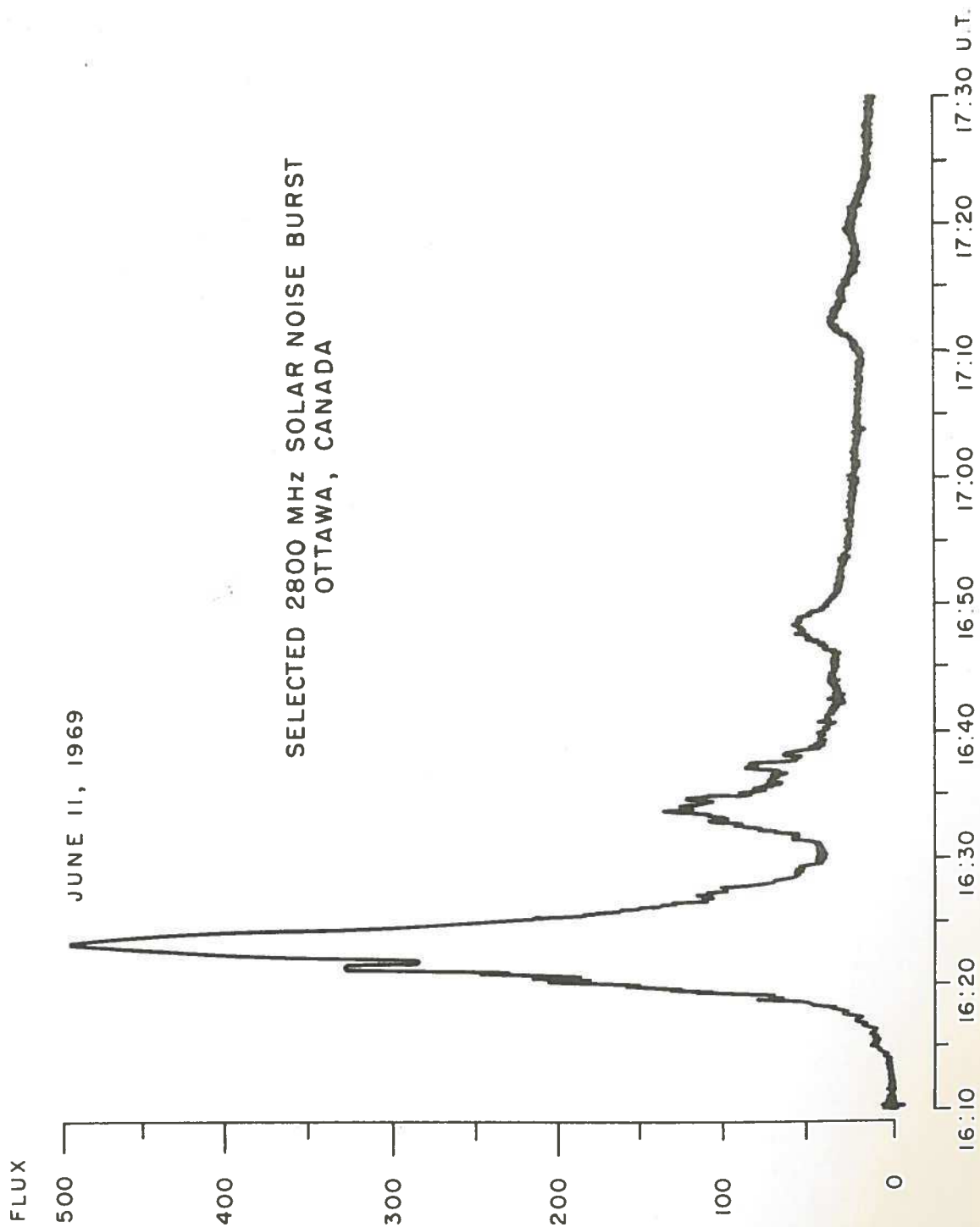


Figure 11