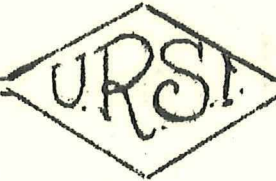


UNION RADIO - SCIENTIFIQUE INTERNATIONALE

International Scientific Radio Union



BULLETIN MENSUEL

MONTHLY BULLETIN

OCTOBRE 1939

OCTOBER 1939

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I N F O R M A T I O N S

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COTISATION 1939 :

Nous prions Messieurs les Présidents des Comités Nationaux qui n'ont pas encore versé la cotisation pour 1939, de bien vouloir faire les démarches nécessaires pour que celle-ci soit réglée le plus rapidement possible sur la nouvelle base adoptée par l'Assemblée Générale 1938, soit 150 francs-or par unité statutaire.

CONTRIBUTION 1939 :

We beg the Presidents of the National Committees whose contribution for 1939 has not yet been paid, to make the necessary steps for its payment, as soon as possible on the new basis adopted by the General Assembly 1938, that is 150 gold-francs per statutory unit.

DOCUMENTS - TRAVAUX

DOCUMENTS - WORKS

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COMITE NATIONAL AUSTRALIEN

AUSTRALIAN NATIONAL COMMITTEE

N°550 : Bulletin n°127 - RADIO RESEARCH BOARD - Report n°14 -

CONTENTS :

1. Further Studies of Directions of Atmospherics at Toowoomba and Canberra, by H.C. Webster, G.H. Munro, and A.J. Higgs.

Summary : The paper discusses further results obtained by an expedition to Toowoomba (Queensland). Simultaneous observations of directions of atmospherics at Toowoomba and Canberra gave the location of the sources of the atmospherics. A more detailed analysis than that given in previous papers has been aimed at in order to enable a more accurate comparison with meteorological records and conditions.

It has been possible to supplement previous informations regarding the duration, activity, and distribution of sources, particularly for the north-eastern portion of the continent. An estimate of the probability of aircraft encountering thunderstorms when traversing specified air routes has been calculated from the data given.

2. An Aperiodic Amplifier for Investigating the Wave-form of Atmospherics, by H.C. Webster.

Summary : An amplifier is described which produces a voltage amplification of about 120, with a maximum output of about 200 V. r.m.s., the amplification being independent of frequency between 50 c./Sec. and 5×10^5 c./sec. This amplifier was designed for use with an aperiodic aerial circuit for investigating the wave-form of atmospherics, suitable means of calibration being provided. Disturbances due to fluctuations in a.c. supply mains are eliminated by means of a push-pull arrangement.

3. Applications of the Modulating Electrode of Television Cathode-ray Tubes in Investigations of the Wave-form of Atmospherics, by H.C. Webster.

Summary : An apparatus is described which, when applied to

the modulating electrode of an electron-lens cathode-ray oscillograph tube, prevents the electron-beam current from flowing except when a deflecting voltage in excess of a defined minimum is present between one pair of deflecting plates, and/or for a predetermined time following the occurrence of a specified deflecting voltage. The apparatus has been found useful for visual and photographic observations on the non-recurrent electric transients as produced by atmospherics.

U R S I G R A M M E S

U R S I G R A M S

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COMITE NATIONAL AMERICAIN
AMERICAN NATIONAL COMMITTEE

PROGRAMME - CODE

Voir Bulletin Mensuel See Monthly Bulletin

N°10, Oct. 1938, p. 6.

M. A. G.

U.S. Coast and Geodetic Survey, Cheltenham, Md.

Date.	Ursigrams	Amplification
1939 Aug.		
6	13XXX	Quiet
7	23XXX	Quiet
8	33XXX	Quiet
9	43XXX	Quiet
10	53XXX	Slightly disturbed
11	65XXX	Quiet until 10:28 a.m., August 11; then slightly disturbed until 4 p.m. August 11; then moderately disturbed until 6 p.m., August 11; then slightly disturbed.
12	7793X 0139X	Slightly disturbed until 8:39 p.m., August 11, then greatly disturbed until 6 a.m., August 12, then moderately disturbed.
13	1595X 0500X	
14	23XXX	

1939

Aug.

15	33XXX	
16	4593X	0945X
17	5595X	0700X
18	63XXX	
19	73XXX	
20	13XXX	
21	2593X	2126X
22	359XX	
23	4595X	1600X
24	53XXX	
25	63XXX	
26	73XXX	
27	13XXX	
28	23XXX	
29	33XXX	
30	43XXX	
31	53XXX	

Sept.

1	63XXX	
2	7593X	2145X
3	1595X	2200X
4	23XXX	
5	33XXX	
6	43XXX	
7	53XXX	
8	63XXX	
9	7597X	0600X 1300X

MAGNETIC CHARACTER FIGURE

Average of data from the magnetic observatories of the U.S. Coast and Geodetic Survey located at Cheltenham, Maryland; Tucson, Arizona; Sitka, Alaska; Honolulu, Hawaii; and San Juan, Puerto Rico, and from the magnetic observatories of the Department of Terrestrial Magnetism located at Watheroo, Western Australia, and Huancayo, Peru.

Date	0h - 12h	12h - 24h	Date	0h - 12h	12h - 24h.
1939 Aug. 5	0.0	0.0	1939 Aug. 23	1.7	0.8
6	0.0	0.0	24	0.3	0.2
7	0.0	0.0	25	0.2	0.1
8	0.0	0.1	26 ⁽⁺⁾	0.2	0.2
9	0.0	0.0	27	0.0	0.2
10	0.6	0.6	28	0.1	0.0
11	0.1	1.0	29	0.0	0.0
12	1.9	1.1	30	0.0	0.7
13	0.9	0.9	31	0.0	0.3
14	0.5	0.1	Sept. 1	0.0	0.0
15	0.0	0.1	2	0.1	0.8
16	0.5	1.3	3	1.4	0.8
17	0.9	0.4	4	0.1	0.0
18	0.0	0.0	5	0.0	0.1
19	0.3	0.5	6	0.1	0.4
20	0.3	0.4	7	0.3	0.0
21	0.1	0.6	8	0.2	0.2
22	1.8	1.7			

(+) From Aug. 26 to Sept. 8. no report was received from Watheroo Magnetic Observatory. The above figures for these weeks are based on reports from only six observatories.

S.O.L.

U.S. Naval Observatory

Date	Groups	Spots	Area Sq. Degrees
1939			
Aug.			
16	13	135	74
17	13	125	75
20	10	186	62
21	8	116	64
22	7	80	41
23	8	53	41
24	10	63	37
26	9	98	39
29	9	88	41
30	11	149	49
31	10	163	61
Sept.			
1	10	134	61
2	14	146	66
3	11	110	62
4	13	156	87
5	16	201	118
6	11	89	128
7	11	164	92
8	14	160	73
9	16	131	76

K.H.L.

National Bureau of Standards

For Aug. 9		For Aug. 16		For Aug. 23	
3417X	70033	3417X	52044	3417X	45037
25012	74035	25012	56032	25012	46051
37013	80036	37013	56042	35013	470XX
41024	80040	39014	60046	360XX	48025
43021	86038	40027	60055	37027	50026
47023	86051	42024	64046	38022	52031
50030	90040	46028	68055	40024	530XX
54034	94048	51044	700XX	43028	
55035	960XX				
60032					

For Aug. 30		For Sept. 6	
3417X	58036	3417X	54044
25012	64038	25012	58044
35012	68039	36012	66048
39012	68048	39014	68046
40026	70039	40016	68056
41023	70060	41024	72047
48030	74042	43022	76053
52046	78062	48026	780XX
53048	800XX		

MANILA URSIGRAMS

M.A.G.

received at Navy Department

For August 1 to 14, 1939 :

August 1. :	359XX	459XX	53XXX	659XX	759XX	13XXX
	43XXX	573XX	675XX	775XX	177XX	259XX

For August 15 to 31, 1939 :

August 15 :	353XX	479XX	589XX	653XX	755XX	155XX
	253XX	379XX	477XX	553XX	663XX	753XX
	153XX	253XX	33XXX	45XXX	553XX	

JAPANESE URSIGRAMS

From Tokyo Station JAP 11980 KC, received by the RCA
San Francisco Station.

S.O.L.

1939

- Aug. 12 : 50794 6XXXX 7XXXX 10749 20649 31256 40967
From Sunday to Wednesday add 100 to number of spots.
- Aug. 19 : 5XXXX 61050 71165 11055 21101 31180 41141
Monday add 200 all other days add 100 to number of spots.
- Aug. 26 : 51218 61155 7XXXX 1XXXX 20622 30607 40492
Thursday, Friday, Monday and Tuesday add 100 to number of spots. Tuesday Central Meridian Passage of large group of spots.
- Sept. 2 : 50608 60780 70977 10777 20668 30677 40672
Thursday add 100 to number of spots.
- Sept. 9 : 50605 60719 7XXXX 10846 2XXXX 31063 41139
Thursday, Friday, Sunday and Wednesday add 100 to number of spots. Friday Central Meridian passage of large group of spots.

P.R.O.

- Aug. 12 : 52132 6XXXX 7XXXX 1XXXX 23130 32031 43121
- Aug. 19 : 5XXXX 64421 72241 13221 22141 32131 43110
Friday SW Limb High prominence Height 108000 km.
Friday NE Limb Broad prominence Breadth 340000 km.
- Aug. 26 : 53231 63241 7XXXX 1XXXX 2XXXX 32031 43020
Friday ES Limb Prominence Height 110000 Km.
- Sept. 2 : 54132 65123 75120 14120 23131 34142 43131
Friday W Limb High prominence Height 118000 km.
- Sept. 9 : 53162 62131 7XXXX 1XXXX 2XXXX 32130 43121

M.A.G.

- Aug. 12 : 80300 00000
- Aug. 19 : 81022 52112
- Aug. 26 : 81720 11152
- Sept. 2 : 82411 00001
- Sept. 9 : 83100 12100

K.H.L.

1939

Aug. 12 : 70703 XX111 11342 005XX
Aug. 19 : 71403 XX100 12340 005XX
Aug. 26 : 72103 00212 13430 006XX
Sept. 2 : 72803 XX100 42343 575XX
Sept. 9 : 70503 00200 31435 426XX

F.A.D.

Aug. 12 : Nil
Aug. 19 : Nil
Aug. 26 : Nil
Sept. 2 : 30500 30913
Sept. 9 : 60315 60740 70623 40350

COMITE NATIONAL ITALIEN
 ITALIAN NATIONAL COMMITTEE

PROGRAMME - CODE

Voir Bulletin Mensuel . See Monthly Bulletin
 N° 9, Sept. 1938, p. 19.

M.A.G.

Observations de l'Observatoire Astrophysique de Gênes

URSIGRAMMES

du 30.8. au 5.9.1939 : 13000 02210
 du 6.9. au 12.9.1939 : 10622 23322 40105 00480 50188
 88230
 du 13.9. au 19.9.1939 : 11311 00302 51103 45220
 du 20.9. au 26.9.1939 : 12032 22223 11111 15200 71101
 00230
 du 27.9. au 3.10.1939 : 12711 20223 71108 00480

TRADUCTION

Date	Observations relevées
1939	
Août	
30	Calme
31	Calme
Sept.	
1	Calme
2	Perturbation de faible étendue
3	Perturbation de faible étendue
4	Presque calme

1939	
Sept.	
5	Calme
6	Perturbation de faible étendue
7	Perturbation de faible étendue
8	Perturbation de faible étendue
9	Agité
10	Agité
11	Perturbation de faible étendue
12	Perturbation de faible étendue
13	Presque calme
14	Presque calme
15	Calme
16	Calme
17	Agité
18	Calme
19	Perturbation de faible étendue
20	Agité
21	Perturbation de faible étendue
22	Perturbation de faible étendue
23	Perturbation de faible étendue
24	Perturbation de faible étendue
25	Perturbation de faible étendue
26	Agité
27	Presque calme
28	Presque calme
29	Perturbation de faible étendue
30	Calme
Oct.	
1	Perturbation de faible étendue
2	Perturbation de faible étendue
3	Agité

S.O.L.

Observations de l'Observatoire Royal d'Arcetri-Catania

URSIGRAMMES

du 31.8. au 6.9.1939 : 53XX3 118X5 XXXXX 63333 124X4
 X5X51 73XX1 169X7 XXXXX 13XX3
 130X4 XXXXX 23XX3 156X6 X9X88
 33XX3 210X7 X8112 43XX1 170X5
 XXXXX

du 7.9. au 13.9.1939 : 5XXXX 6XXXX 74441 248X6 X8X66
 14XX3 21010 X6X42 23442 168X7
 X6X62 33443 195X5 XXXXX 43XX3
 187X6 X8X77

Notevole eruzione 9 Settembre Ore 10 -
 Estesio G.M. Lat. 12° Sud, passato Meri-
 diano Centrale 10 Settembre.

du 14.9 au 20.9.1939 : 5XXXX 62XX2 119X7 X9136 72XX3
 139X8 11112 12XX3 110X6 XXXXX
 22XX3 102X6 14X63 33XX3 X98X6
 XXXXX 42323 137X6 X9115

du 21.9. au 27.9.1939 : 53XX2 X92X5 14174 63XX3 X94X4
 11125 7XXXX 13XX1 117X7 XXXXX
 23431 13411 10X61 33433 117X4
 X7X38 4XXXX

Notevole Attivito G.M. Lat. 13° Sud
 Passato Meridiano Centrale tra 27 e
 28 Settembre

du 28.9. au 3.10.1939 : 53XX3 178X3 XXXXX 6XXXX 73XX1
 175X4 XXXXX 13XX1 106X9 X9X85
 23XX3 197X8 XXXXX 33XX3 123X4
 X8X88 43XX3 108X5 X8208

TRADUCTION

ACTIVITE SOLAIRE

Date	Activité générale	Activité d'après les plaques faculaires brillantes	Activité d'après les filaments	Variation de l'activité générale
1939 Août 31	Grande	---	---	Constante
Sept. 1	Grande	Assez intense	Assez intense	Constante
2	Grande	---	---	Croissante
3	Grande	---	---	Constante
4	Grande	---	---	Constante
5	Grande	---	---	Constante
6	Grande	---	---	Croissante
7	---	---	---	---
8	---	---	---	---
9	Très grande	Intense	Intense	Croissante
10	Très grande	---	---	Constante
11	Grande	Intense	Intense	Décroissante
12	Grande	Intense	Intense	Constante
13	Grande	---	---	Constante
14	---	---	---	---
15	Moyenne	---	---	Décroissante
16	Moyenne	---	---	Constante
17	Moyenne	---	---	Constante
18	Moyenne	---	---	Constante

1939				
Sept.				
19	Grande	---	---	Constante
20	Moyenne	Assez intense	Faible	Constante
21	Grande	---	---	Décroissante
22	Grande	---	---	Constante
23	---	---	---	---
24	Grande	---	---	Croissante
25	Grande	Intense	Assez intense	Croissante
26	Grande	Intense	Assez intense	Constante
27	---	---	---	---
28	Grande	---	---	Constante
29	---	---	---	---
30	Grande	---	---	Croissante
Oct.				
1	Grande	---	---	Croissante
2	Grande	---	---	Constante
3	Grande	---	---	Constante
4	Grande	---	---	Constante

TACHES ET PROTUBÉRANCES

Date	Nombres relatifs de		Nombre de protubérances sur le bord.	Superficie totale des protubérances
	tâches	plages faculai- res visibles sur le disque		
1939 Août 31	118	5	--	--
Sept. 1	124	4	5	510
2	169	7	--	--
3	130	4	--	--
4	156	6	9	880
5	210	7	8	1120
6	170	5	--	--
7	--	--	--	--
8	--	--	--	--
9	248	6	8	660
10	210	10	6	420
11	168	7	6	620
12	195	5	--	--
13	187	6	8	770
14	--	--	--	--
15	119	7	9	1360
16	139	8	11	1120
17	110	6	--	--
18	102	6	14	630
19	98	6	--	--

1939				
Sept.				
20	137	6	9	1150
21	92	5	14	1740
22	94	4	11	1250
23	--	--	--	--
24	117	7	--	--
25	134	11	10	610
26	117	4	7	380
27	--	--	--	--
28	178	3	--	--
29	--	--	--	--
30	175	4	--	--
Oct.				
1	106	9	9	850
2	197	8	--	--
3	123	4	8	880
4	108	5	8	2080

NOTES

9.9.1939 : Importante éruption à 10 heures. Un groupe de taches Latitude 12° Sud a passé sur le méridien central le 10 septembre.

27-28.9.1939 : Importante activité. Groupe de taches Latitude 13° Sud a passé sur le méridien central.

K.H.L.

Observations du Centre G. MARCONI

URSIGRAMMES

du 6.9.1939 : 10611 13113 16216 16320 20421 43446 21521
 49549 216XX 516XX

du 13.9.1939 : 11311 15116 18230 30330 31431 33534 376XX

du 20.9.1939 : 12011 15115 18225 25325 25426 28530 306XX

du 28.9.1939 : 12811 13113 23223 26328 30431 33533 336XX

du 4.10.1939 : 10411 13113 13215 15315 15415 15526 266XX

TRADUCTION

Freq. Mc/s.	Hauteurs (Km.)				
	6.9.1939	13.9.1939	20.9.1939	28.9.1939	4.10.1939
2,5	130	150	150	130	130
3	130	160	150	130	130
3,5	160	180	180	230	130
4	160	300	250	230	150
4,5	160	300	250	260	150
5	200	300	250	280	150
5,5	200-430	310	250	300	150
6	210-460	310	260	310	150
6,5	210-490	330	280	330	150
7	210	340	300	330	260
7,5					260

F.A.D.URSIGRAMMES

- 1. 9.1939 : 60740
- 6. 9.1939 : 41140
- 7. 9.1939 : 51120
- 8. 9.1939 : 61115
- 14. 9.1939 : 50720

TRADUCTION

Voir rubrique : Evanouissements brusques

EVANOUISSEMENTS - ATMOSPHERIQUES
FADING - ATMOSPHERICS

EVANOUISSEMENTS BRUSQUES

COMITE NATIONAL ITALIEN
ITALIAN NATIONAL COMMITTEE

<u>Date</u>	<u>Heure TMG</u>
1939	
Sept.	
1	0740
6	1140
7	1120
8	1115
14	0720

Date	Fréquences K H Z	Début T M G	Disparition totale des signaux RT	Retour des signaux	Rétablisse- ment des com- munications normales
1939 Sept. 1	16345	7h40	Peu après	9h 15	9h 30
	15450	7h40	" "	8h 45	9h 30
	13380	7h40	" "	8h 20	9h 30
	10255	7h40	" "	8h 15	9h 30
	8615	7h40	" "	8h	9h
	5455	7h40	" "	8h	9h
	6	16345	11h40	" "	12h 40
	15450	11h40	" "	12h 25	13h
	13380	11h40	" "	12h 25	13h
	10235	11h40	" "	12h 20	13h
	8615	11h40	" "	12h	13h
	5455	11h40	" "	12h	13h
14	16345	7h20	" "	8h 30	9h 10
	15450	7h20	" "	8h 20	9h 10
	13380	7h20	" "	8h 20	9h 10
	10235	7h20	" "	8h 15	9h 10
	8615	7h20	" "	8h	9h 10
	5455	7h20	" "	8h	9h 10

1939
Sept.

- 7 De 11h20 à 13h 30 évanouissement avec les mêmes caractéristiques que le 6.
- 8 Evanouissement général pour toutes les transmissions mais sans la disparition totale des signaux.

NOTE : Pendant les évanouissements les résultats des observations de l'ionosphère sont resté normaux.
