

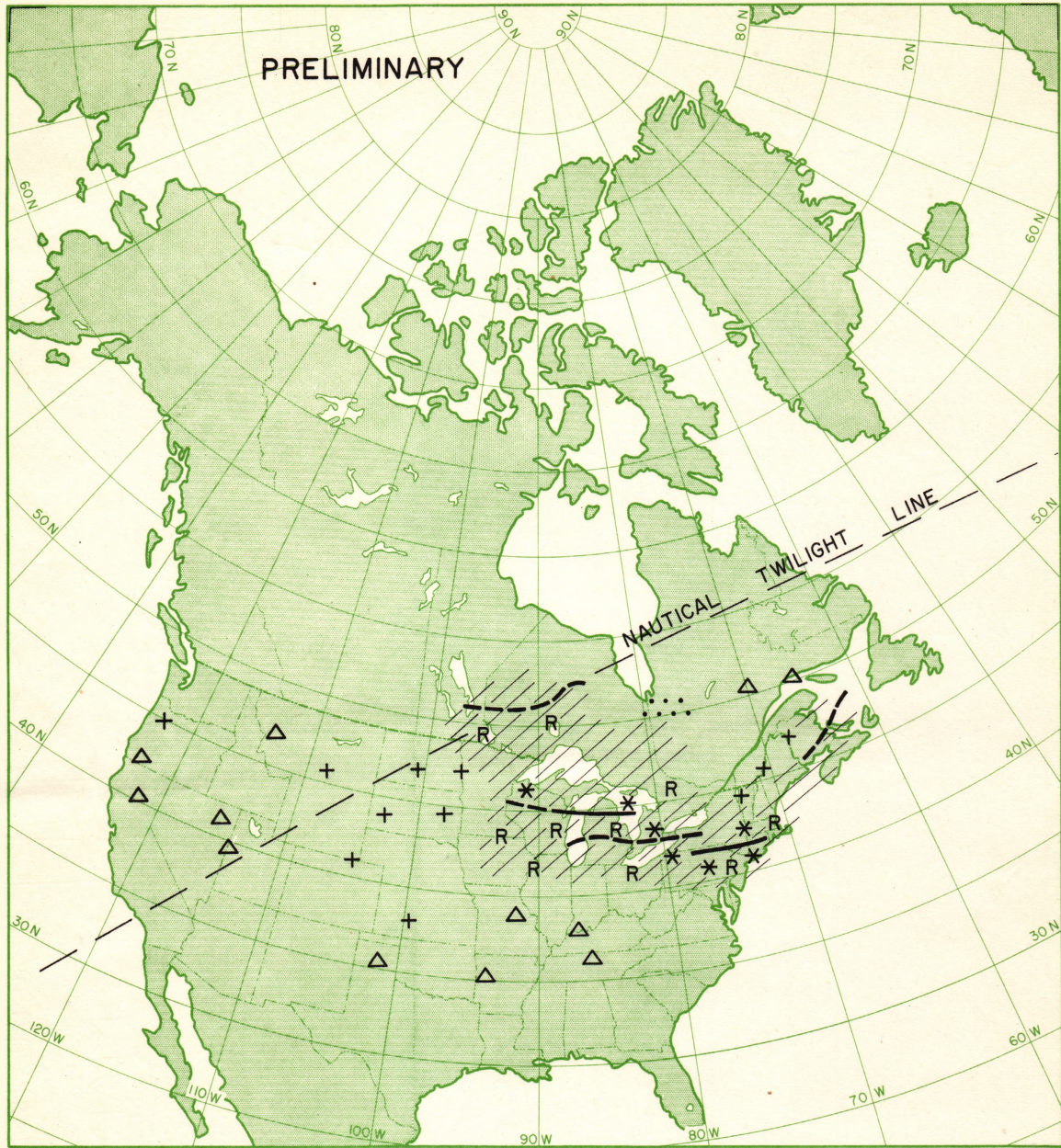
I.G.Y. VISUAL AURORAL PROGRAM

YEAR	MONTH	DATE	POS	NEG	YEAR	MONTH	DATE	POS	NEG
1957	OCT	13/14	6		1958	MAY	23/24		1
		15/16		2			25/26		2
		16/17		1		26/27		4	
	OCT/NOV	31/1		2		JUN	2/3		1
		NOV	10/11				3	6/7	4
			12/13			4	7/8		2
		26/27	11	2		14/15		2	
		27/28		1		18/19		2	
	DEC	2/3		2		19/20		2	
		3/4		5		JUL	30/31		2
		4/5		1			AUG	10/11	
		11/12		1		11/12			1
		13/14		1		13/14		8	
		17/18		4		15/16		10	
		22/23		5		16/17		2	
		24/25		6		23/24	4	1	
		27/28		6		SEP	2/3		3
		1958	JAN	2/3				1	3/4
	11/12					2	8/9		3
12/13				4	13/14		8		
19/20			10	19/20		2			
20/21			3	23/24		1			
23/24			7	OCT	1/2	1	2		
FEB	14/15				12	7/8		2	
	22/23			5	NOV	1/2		3	
	25/26			18		3/4		4	
MAR	9/10			16	7/8		2		
	18/19		6	8	12/13		1		
	19/20			2	13/14		1		
	25/26			8	DEC	2/3		6	
28/29			2	7/8			1		
APR	13/14			3	9/10		6		
	14/15			2	10/11		3		
	15/16			11	30/31		8		
	18/19			8	1959	JAN	5/6		2
MAY	17/18		1				13/14		2
	19/20		5	25/26			4		
	21/22		2	27/28			5		
	22/23		2	JAN/FEB		31/1		1	

I.G.C. VISUAL AURORAL PROGRAM

YEAR	MONTH	DATE	POS	NEG	YEAR	MONTH	DATE	POS	NEG
1959	FEB	1/2		2					
		3/4		1					
		6/7		1					
		25/26	2	2					
	MAR	2/3		4					
		4/5		1					
		7/8		3					
		8/9		1					
		9/10		5					
		27/28		1					
		28/29	2						
		29/30		2					
	MAR/APR	31/1		1					
	APR	6/7		4					
		14/15		1					
		16/17		1					
	MAY	4/5	1						
		9/10		1					
		16/17		1					
		25/26		1					
		28/29		1					
	JUN	23/24	2						
	JUL	25/26	1						
	OCT	20/21		1					
		21/22		2					
		25/26		3					
		28/29		1					
		29/30		2					
	NOV	7/8		1					
		8/9		1					
		15/16		1					
	DEC	24/25		5					

SYNOPTIC AURORAL MAP



DATE: 1957 July 1st. U. T. 04 h. 00 m.

To All Auroral Observers: Here is a preliminary plot of the aurora made by combining results from the U. S. headquarters at Ithaca and the Canadian headquarters at Ottawa. This will indicate the way your observations are being used. Cross hatching shows general area of arc structures.

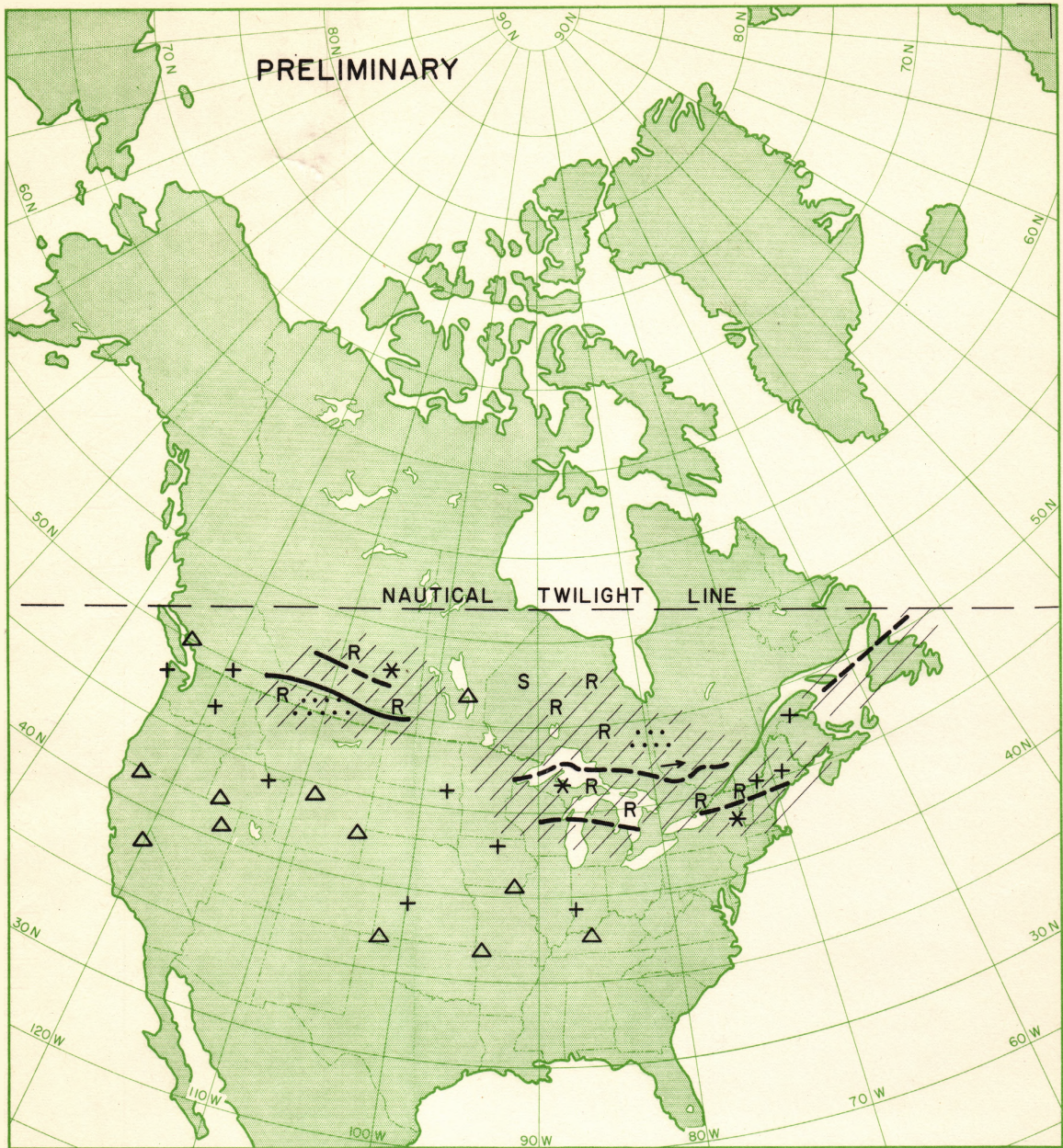
Peter M. Millman

LEGEND: AURORA (UNCLASSIFIED)	A	RAYS	R	STATION REPORTING AURORA	O
HOMOGENEOUS ARC	—————	GLOW	∴	CLEAR - NO AURORA	Δ
RAYED ARC	- - - - -	SPOTS	S	CLOUDY	+
PULSATING FORMS	P	FLAMES	*	MOTION	→

AURORAL CENTRE I G Y, N. R. C., OTTAWA.

NO. _____

SYNOPTIC AURORAL MAP



DATE: 1957 July 1st. U. T. 06 h. 00 m.

To All Auroral Observers: Here is a preliminary plot of the aurora made by combining results from the U. S. headquarters at Ithaca and the Canadian headquarters at Ottawa. This will indicate the way your observations are being used. Cross hatching shows general area of arc structures.

Peter M. Millman

LEGEND: AURORA (UNCLASSIFIED)	A	RAYS	R	STATION REPORTING AURORA	O
HOMOGENEOUS ARC	—	GLOW	⋯	CLEAR - NO AURORA	△
RAYED ARC	- - - -	SPOTS	S	CLOUDY	+
PULSATING FORMS	P	FLAMES	*	MOTION	→

AURORAL CENTRE I G Y, N. R. C., OTTAWA.

NO. 2

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr Loherty,*

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *November.*

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Saherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *December*

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Maherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *January*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Gaherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *February*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Ms. Saherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *March*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Saherty* :

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *April*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

FMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear Mr. Galsby,

This will acknowledge with thanks all visual
auroral reports for the I. G. Y., made in May.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Geoffrey Gaherty, Jr.,
636, Sydenham Avenue,
Montreal 6, Quebec.
June 23, 1958.

Auroral Centre, I. G. Y.,
National Research Council,
Ottawa, Ontario.

Dear Sirs:

This letter will notify you that I am sailing tomorrow for England and will return in a month's time. I shall continue sending in Aurora reports as often as I am able. My address while in England will be the Savoy Hotel, London. I hope that this will clear up any confusion that might occur concerning my reports.

Yours truly,

Geoffrey Gaherty, Jr.

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Gaherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *June*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

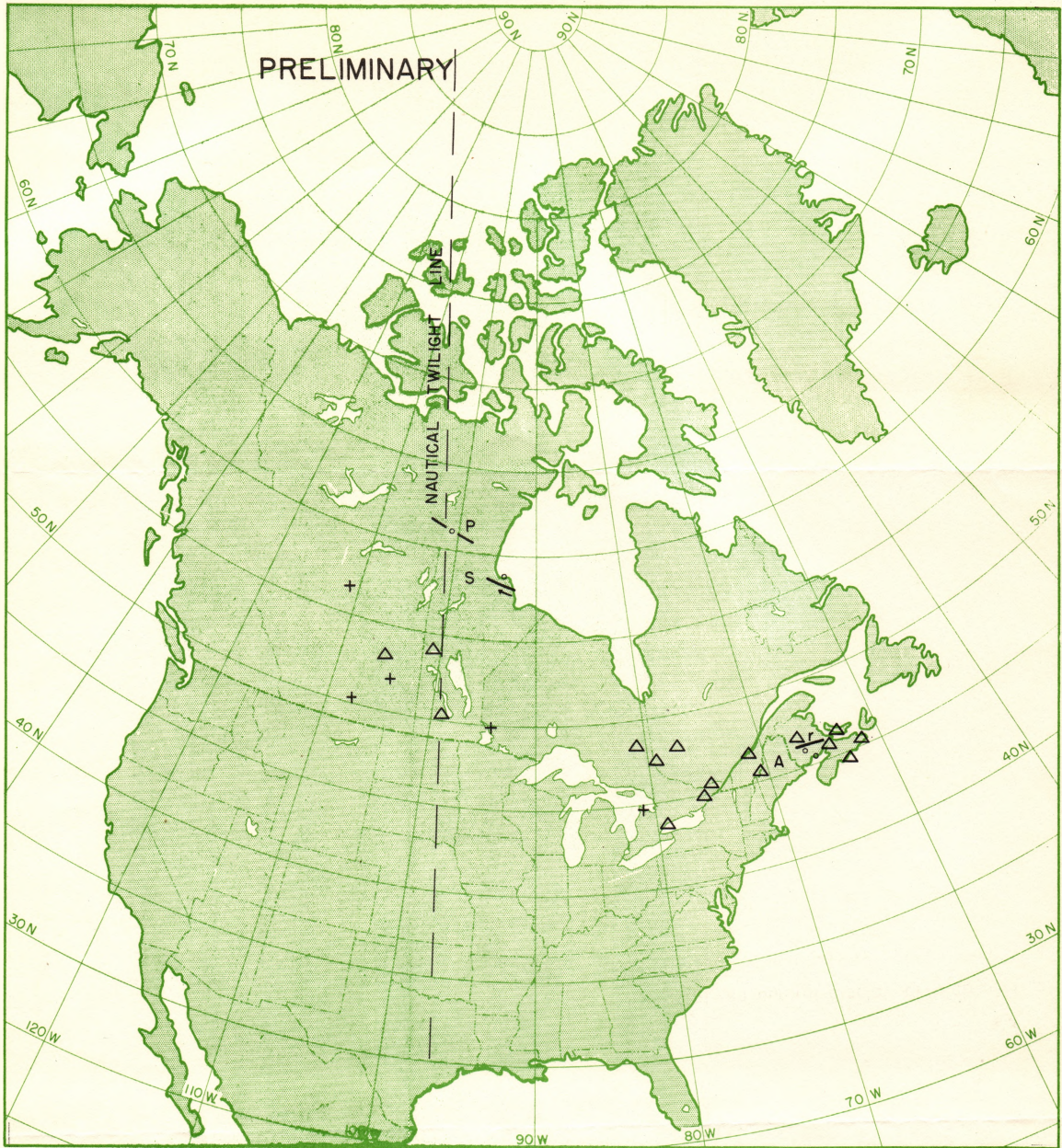
Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

SYNOPTIC AURORAL MAP



DATE: 1958 February 11 th.

U. T. 01 h 00 m

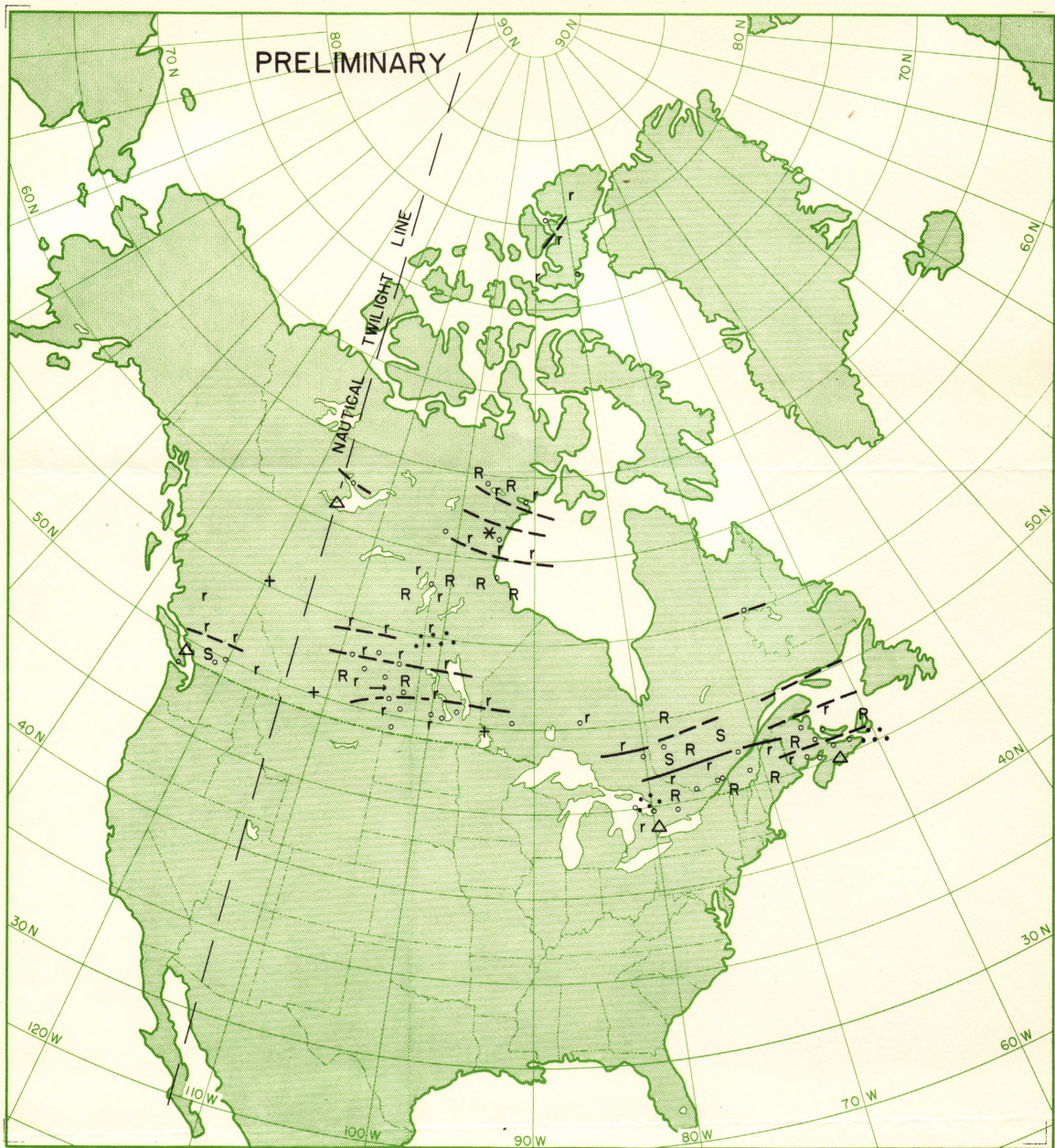
To All Auroral Observers: This illustrates the first stages of the great red auroral display of Feb. 10/11, as observed at the Canadian stations. When additional observations have been received and the plots from points in the U.S.A. added, we should have a very good synoptic picture of this striking phenomenon.

Peter M. Millman

LEGEND: AURORA (UNCLASSIFIED)	A	RAYS	R	STATION REPORTING AURORA	○
HOMOGENEOUS ARC	————	GLOW	⋮	CLEAR - NO AURORA	△
RAYED ARC	- - - - -	SPOTS	S	CLOUDY	+
PULSATING FORMS	P	FLAMES	*	MOTION	→
AURORAL CENTRE I G Y, N. R. C., OTTAWA.		RED	r		

NO. 3

SYNOPTIC AURORAL MAP



DATE: 1958 February 11 th. U. T. 02 h. 00 m.

To All Auroral Observers: This illustrates the first stages of the great red auroral display of Feb. 10/11, as observed at the Canadian stations. When additional observations have been received and the plots from points in the U.S.A. added, we should have a very good synoptic picture of this striking phenomenon.

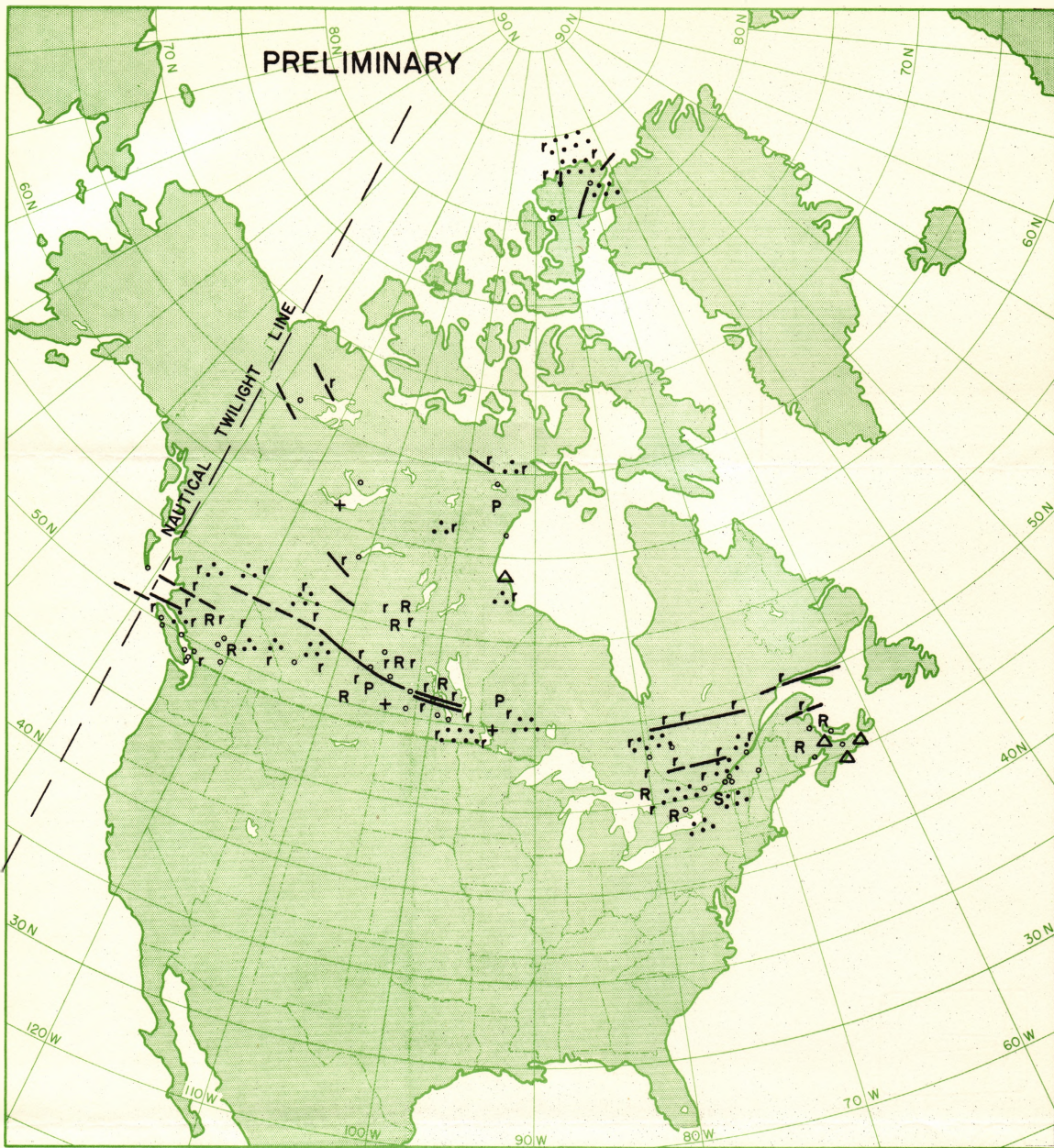
Peter M. Millman

LEGEND: AURORA (UNCLASSIFIED) A RAYS R STATION REPORTING AURORA O
 HOMOGENEOUS ARC ——— GLOW ··· CLEAR - NO AURORA Δ
 RAYED ARC - - - - SPOTS S CLOUDY +
 PULSATING FORMS P FLAMES * MOTION →
 RED r

AURORAL CENTRE I G Y, N. R. C., OTTAWA.

NO. 4

SYNOPTIC AURORAL MAP



DATE: 1958 February 11th.

U. T. 03 h 00 m

To All Auroral Observers: This illustrates the first stages of the great red auroral display of Feb. 10/11, as observed at the Canadian stations. When additional observations have been received and the plots from points in the U.S.A. added, we should have a very good synoptic picture of this striking phenomenon.

Peter M. Hillman

LEGEND: AURORA (UNCLASSIFIED) **A** RAYS **R** STATION REPORTING AURORA **O**
 HOMOGENEOUS ARC **—** GLOW **⋯** CLEAR - NO AURORA **△**
 RAYED ARC **- - -** SPOTS **S** CLOUDY **+**
 PULSATING FORMS **P** FLAMES ***** MOTION **→**
 AURORAL CENTRE I G Y, N. R. C., OTTAWA. RED **r**

NO. 5

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Maherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *August and September.*

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Maherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *November*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Maherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *December*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde



CABLE ADDRESS "RESEARCH"

IN YOUR REPLY PLEASE QUOTE

FILE NO.

NATIONAL RESEARCH COUNCIL
CANADA

RADIO AND ELECTRICAL
ENGINEERING DIVISION

OTTAWA 2, January 15, 1959.

Dear Mr. Gaherty:

The end of January, 1959, marks the termination of the twenty months officially assigned to the scientific observations connected with the International Geophysical Year. On behalf of the National Committee of Canada for the I.G.Y., I would like to express our appreciation and thanks for your cooperation in making visual observations of the aurora. I would appreciate it if you would convey these thanks to those who have worked with you on this programme.

In surveying what has already been accomplished, I think we can safely say that this has been one of the most successful visual auroral programmes ever attempted. We now have well over 300,000 individual observations from more than 300 cooperating stations. Many more will be received within the next few months and the analysis of this material, which is now proceeding rapidly, will give us a very fine picture of the appearance of the aurora across Canada during the past year and a half. When coupled with similar material from the United States and the results secured by radio and photographic methods, we will have a most valuable synoptic picture of the aurora over the North American continent.

As a result of the success of the I.G.Y. observations it is probable that most of the Canadian auroral instruments will continue to operate until April 15, 1959, and some will carry on throughout the whole of 1959. Auxiliary visual observations will hence be of continuing value during the current year. If you have the opportunity for making such observations during 1959, we will be very glad to have them. The instructions issued for the I.G.Y. will also apply to any observations made during the current year.

In conclusion may I add my own personal word of thanks for your enthusiasm and cooperation during the past months. With best wishes for a happy and prosperous 1959, I am

Sincerely yours,

Peter M. Millman,
Auroral Centre, I.G.Y.,
National Research Council, Ottawa.



CANADA



Mr. G. Gaherty Jr.,
636 Sydenham Ave.,
MONTREAL 6, Que.

M

SEARCH"

SE QUOTE

1959.

connected with the International Geophysical Year, the National Committee of Canada for the I.G.Y., I would like to express our appreciation and thanks for your cooperation in making visual observations of the aurora. I would appreciate it if you would convey these thanks to those who have worked with you on this programme.

In surveying what has already been accomplished, I think we can safely say that this has been one of the most successful visual auroral programmes ever attempted. We now have well over 300,000 individual observations from more than 300 cooperating stations. Many more will be received within the next few months and the analysis of this material, which is now proceeding rapidly, will give us a very fine picture of the appearance of the aurora across Canada during the past year and a half. When coupled with similar material from the United States and the results secured by radio and photographic methods, we will have a most valuable synoptic picture of the aurora over the North American continent.

As a result of the success of the I.G.Y. observations it is probable that most of the Canadian auroral instruments will continue to operate until April 15, 1959, and some will carry on throughout the whole of 1959. Auxiliary visual observations will hence be of continuing value during the current year. If you have the opportunity for making such observations during 1959, we will be very glad to have them. The instructions issued for the I.G.Y. will also apply to any observations made during the current year.

In conclusion may I add my own personal word of thanks for your enthusiasm and cooperation during the past months. With best wishes for a happy and prosperous 1959, I am

Sincerely yours,

Peter M. Millman,
Auroral Centre, I.G.Y.,
National Research Council, Ottawa.

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Saherty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *January*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Gaberty*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *February*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

APR - 3 RECD

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear

Mr. Gaherty

This will acknowledge with thanks ^{also} visual
auroral reports for the I. G. Y., made in *March 1959.*

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

MAY - 2 RECD

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

1st May 1959

Dear

Mr. Gaherty

This will acknowledge with thanks ^{all} visual
auroral reports for the I. G. Y., made in *April 1959*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

JUN - 2 RECD

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr Sabety*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *May, 1959*.

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Haberly*:

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *June, 1959.*

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde

AUG - 6 REC'D

Auroral Centre, I.G.Y.,
National Research Council,
OTTAWA, Ontario.

Dear *Mr. Gaherty:*

This will acknowledge with thanks *all* visual
auroral reports for the I. G. Y., made in *July, 1959.*

We appreciate your cooperation in this special
I. G. Y. program. You will receive progress reports from time
to time.

Sincerely yours,

Peter M. Millman

Peter M. Millman,
I.G.Y. Auroral Reporter
for Canada.

PMM/bde