

ROYAL ASTRONOMICAL SOCIETY OF CANADA
STANDING COMMITTEE ON OBSERVATIONAL ACTIVITIES

Bulletin No. 2

AURORA SECTION

March 1963

Since the introductory bulletin last year, four of the sixteen R.A.S.C. Centres have indicated a desire to co-operate in the national auroral observing programme. The four local recorders are as follows:-

Calgary	James F. Wright	218 - 4th Avenue N.E., Calgary, Alta.
Edmonton	Franklin C. Loehde	9749 - 89th Avenue, Edmonton, Alta.
Hamilton	Frank Dorosh	216 Millen Road, Stoney Creek, Ont.
Montreal	Louis R. Duchow	5987 MacDonalD Avenue, Montreal 29, Que.

The purpose of an auroral observing programme co-ordinated by the R.A.S.C. Committee on Observational Activities is to encourage more interest in aurora observing amongst our observing members so that there will be a more complete reporting of auroral occurrences in Canada. The programmes are to be geared to both positive and negative observations of the aurora.

POSITIVE REPORTING PROGRAMMES

For many years most of those Centres in the Society making active observations of the aurora were primarily reporting the appearance of displays of aurora. During the I.G.Y. when solar activity was high and auroral displays were frequent, a positive reporting programme led to very accelerated auroral reporting activity even in Centres which had been observing for many years prior to the I.G.Y. However, in years of lowered solar activity, auroral displays tend to become much less frequent and interest in the positive reporting programmes tends to wane.

It must be remembered that no matter how seldom aurora is seen in your locality, your positive reports of aurora are extremely valuable in constructing maps of total activity for the North American continent. No matter how seldom you see them, keep reporting all auroras in your area!

NEGATIVE REPORTING PROGRAMMES

With the coming of the next important observing period, the International Quiet Sun Year (or I.Q.S.Y.) in 1964, a negative emphasis will be applied to the observing programme to add to the already flourishing positive programme and to increase the interest in NOT seeing auroras. The aim of the negative programme will be to collect data on just how many aurora-less nights occur near of the sixteen R.A.S.C. Centre locations.

One copy of all reports will be made on the observing forms provided by the National Research Council, in addition to any forms which the individual Centres wish to use for the programme. The programme will involve individual observers (now active in the N.R.C. Auroral Survey), who will contribute a copy of their reports of clear, aurora-less sky directly to N.R.C. as well as to their local aurora recorder.

At the same time, the R.A.S.C. Centres will be asked to collect reports from other individuals in their Centres who can report any portions of the sky free from aurora. These reports could be made during observations of other astronomical phenomena, say, while out observing the moon, planets, nova searching, etc. Also, interested observers who due to inferior observing locations can only report on

AURORA Bulletin No. 2 (cont'd.)

a small area of the sky (such as those who can not see the northern sky) can report on those parts of the sky that they can see and which are free of aurora. These casual and partial reports can later be pieced together by the local recorder and often the Centre will thereby be able to report "no aurora in clear sky" from a composite of several of these negative views of the incomplete sky.

THE N.R.C. SURVEY OF AURORA

For information regarding observation of the aurora in co-operation with the National Research Council's Auroral Survey, write to:-

Auroral Centre,
National Research Council,
Ottawa 2, Ontario.

A supply of report forms, mailing envelopes and instructions is available on request.

The value of all positive observations of aurora can not be over-estimated, but it must be remembered that negative observations are also very useful in the N.R.C. auroral survey. To be most useful, negative observations should be made between five minutes prior to the hour and five minutes after the hour. Made within this ten minute interval the data are easiest to handle in the N.R.C. data system, but reports of "sky clear, no aurora" are valuable regardless of what time they are made. Negative observations can be made with cloud cover approaching 40% of the sky, especially when the northern sky or the north-south meridian is free from cloud. The reporting of the presence, or absence, of aurora in the sky is important, so keep looking!

Since the study of aurora is often interfered with by cloud cover, even occasional reports made when the sky is clear and when it is convenient for the observer to make out a report can serve as very useful data. A regular observer may be clouded out and unable to report on the very night when you CAN observe. It may be YOUR report that fills the gap. So keep looking! And remember that "Nothing is as good as Something so far as aurora is concerned".

I would be pleased to discuss methods of supplementing the N.R.C. observing programme for use in your local Centre. I have a very small supply of types of report forms already in use for both negative and positive reporting programmes as well as information concerning how to use observing data to make conclusions regarding location and frequency of auroral displays. I shall be pleased to hear from your group.

Thanking you for your co-operation, I am,

your National Co-ordinator

NOTE:

Earl Milton

Present Address

Apt. 17,
729 Cooper Street,
Ottawa 4, Ontario.