

RCAF Station, Great Whale River

P.O. Box 6121, Montreal, P.Q.

November 19, 1962

Dear Mrs. Yane,

Thank-you for your letter of November 12. I did not receive the report forms with the letter, but since we have only one aircraft a week into G.W.R., I expect they will arrive on November 20th's plane.

I wish that I could have attended the McGill meeting on Nov. 8, as I am most interested in the subject that was lectured. Yes, Ephemeris time is a fairly new form of time. It officially came into use in 1960. Until that year, Universal Time was used in all (official) Ephemerides. U.T. depends on the rotation of the earth, which is slightly irregular, and since these variations cannot be predicted with any accuracy, they use E.T. for making future predictions. In universal time, one second of time is defined as $1/86400$ of the mean solar day --- but the "mean" solar day is slightly irregular. In ephemeris time, however, one second is defined as $1/31556925.9745$ of the tropical year for the beginning of 1900. In short, all predictions are made in Ephemeris time, and all observations are made in Universal time. The correction between the two times has to be found by observing the difference between the observed and predicted positions of the moon (occultations permit us to do that). In 1962, U.T. is about $34\frac{1}{2}$ seconds behind E.T., and the difference is increasing about $\frac{1}{2}$ second per year at present.

Re: the reporting of observations. I felt that the C & N Section could be a somewhat "freer" programme than other observation programmes that required strict procedures to be followed. Although observing to sixth magnitude is excellent, I think it could be left up to the individual observer what his own

limiting magnitude will be. If an observer wishes to observe to seventh or even eighth magnitude, I don't think we need ask him to limit himself to sixth. Also, even observations to fourth or fifth magnitude are useful. Several Novae have been discovered when brighter than that. However, I will leave it up to you to make the decision, as Chairman of the Nova Search Section of the Montreal Centre. Yes, I do agree that there is no value in reporting cloudy nights, and these nights should not be included in the monthly total.

That is all I can think of for now. Please excuse my typing --- I am the "hunt and punch" type.

Best regards to you and the Centre, and Good observing,


Jim Low