

Halifax Branch Centre of The R.A.S.C. met at the Memorial Library, Halifax,  
September 27, 1955.

Talk by the Rev. M.W.B-G on the Astronomical Congress in Dublin, August 29 to  
September 5.

The International Astronomical Union organized in Brussels in 1919,  
"to facilitate the relations between astronomers of different countries  
where international cooperation is necessary or useful." The 1st General  
Assembly was held at Rome in the year 1922, and the second in Cambridge (England)  
in 1925. The meeting in Dublin was the 9th General Assembly.

One of the ~~fruits~~ fruits of the first general assembly was international  
agreement to start the astronomical day at midnight, and not at noon, as  
previously. At the 2nd general assembly, agreement was reached as to  
the boundaries (in right ascension and declination) of the constellations  
in the skies. Among recommendations of the 9th general assembly, there  
were the recommendations that: (1) pending the completion of a proposed  
photographic map of the moon, no official recognition be given to  
additional lunar ~~names~~ nomenclature; (2) that the letter A for Angstrom  
(without the little o above the A).

For purposes of International Cooperation the Union is divided into  
42 Commissions dealing with different branches of astronomy. ~~A~~ A number  
of the commissions met on the same day at the same time. Besides the  
commission meetings there were ~~two~~ <sup>Comps</sup> Joint Discussions and two Symposia.

The Symposia were on: (1) Non-Stable stars; and (2) The Large-Scale  
Structure of the Galactic ~~System~~ <sup>System</sup>. The Joint Discussions were on: (1)  
Solar Flares; (2) Photoelectric Image Tubes; <sup>(4)</sup> Turbulence in Stellar  
Atmospheres; (4) Fundamental Stars.

One of the striking features of discussion was the advances made in  
radio astronomy, of which there was mention, not only in Commission  
40 on Radio Astronomy, but in others also, as for instance in the Commissions  
on Meteors, on Stellar Statistics and on Physical observations of the  
planets, as well as in the Joint discussion on Solar Flares.

Research in radio astronomy is carried on by the National Research Councils of Australia, Canada and England. M.J.L.Pawsey, of Australia, is president of the Commission on Radio Astronomy. M.J.P.Wild of Australia contributed a paper on Radio Solar Observations. To the Commission on Physical Observations of the planets, Drs Burke and Franklin of the Carnegie Institution of Washington made a report of their discovery (announced last April) of radio emissions from the planet Jupiter. Dr de Vaucouleurs, of Australia, was able to report that a recheck of past records showed that in Australia radio noises had been received in 1951 from the direction of the planet Jupiter, ~~which~~ and on a similar frequency to the noises recorded in Washington. The cause of the radio emissions from Jupiter remain unexplained. The supposition that they are due to electrical discharges in the atmosphere of Jupiter's atmosphere would ~~mean~~ necessitate the furthermore assumption that the discharges were much ~~higher than~~ greater intensity than lightning storms on earth. Dr Whipple, of the Commission on Meteors, reported that from the ~~proposed~~ proposed American-made satellite it would be possible to study the impact of meteoric objects. He aired the view that ~~the~~ <sup>danger</sup> shooting stars would not constitute a serious hazard for the proposed satellite. At the Commission on Stellar Statistics, Professor Oort, of the Netherlands, pointed out that it might be necessary to change our opinion as to the ~~the~~ position of our own Galaxy, as determined by optical methods, in view of the findings of radio astronomy.

at the Symposium on Non-Stable Stars, Dr Herbig of the Lick Observatory of the University of California, read a paper on "The Nature and Origin of T Tauri Stars." He showed photographs ~~of~~ of an area in the constellation of Orion taken in 1947 and in 1954. In the 1947 photograph three stars were visible embedded in a dark cloud of dust and gas; in the ~~the~~ photograph of 1954, there were five stars. It was suggested that the two new stars had been meanwhile been "born", and that an instance of stellar evolution had been discovered, but, it was hastily added, at the moment our understanding of what is taking place could hardly be more incomplete.

RASC: Halifax Center: 1962 Oct 24

On the program this evening, I am listed to give a talk.

Our/honorary Secretary- Treasurer when inviting me to talk suggested that I talk on the Satellites.

In order not to detain you here past midnight and well into the wee hours of to-morrow morning, I decided to limit my talk to ~~the~~ some remarks of the satellites/launched in the second half of this year, 1962.

The year 1962 has been the best year which the western world has yet had in satellite launching.

This is, of course, as it should be, we are making progress.

I would like to call attention to the progress made in five year.

~~On October 4, just three weeks ago, five years elapsed since~~

It was five years last October 4th since the launching of the first Sputnik.

It is now five years and 20 days.

During these five years, space flight has made more progress than air flight made in the five years following the first flight by the Wright brothers.

The progress in the western world has been greater than in the Soviet Union.

Five years ago at this time, the Americans were preparing to launch their

20 lb sphere into orbit; in Feb of this year they hoisted into orbit a

4,265 lb capsule with Glenn inside, using a rocket thrust of 300,000 lb.

This was four years after they had successfully launched their first satellite, on Jan 31 1958

~~The Russians~~ the 311 lb Explorer I with a <sup>first-stage</sup> rocket thrust of 68,000 lb.  
83,000

The Russians on Nov 3rd 1957 launched their Sputnik 2 weighing <sup>1,120</sup> lb, and using a thrust of 100,000 lb (??).

This year they best they did was to launch Vostok 3 and 4, each weighing about 10,000 lb and requiring a thrust of 800,000 lb.

The Americans in 1962 launched 3 manned satellites weighing 4,200 lb or more. (Glenn's 4,265 lb; Carpenter 4,244, and Schirra's 4,200 lb).

I have said that I propose to speak of the satellites of the 2nd half of 1962.

The fact is that I have been keeping an account of the satellites on a six-monthly period. I have close my books for the first half of 1962.

I started my accounting with a 9 month period, - from ~~my first six-monthly period was, if I may be permitted an Irish Bull, 9 months~~

~~longly~~ ~~March~~ Oct 4 1957 to June 30, 1958. Thereafter, I was able to follow Calendar half years.

In the first nine months of the Space age, the Russians launched Sputniks I, II and III with a gross weight for the three of 4,429 lb.

In the same period, the Americans launched Explorer I, Vanguard I and Explorer III with a gross total weight of 65 lb. (The Explorers weighed 31 lb each; Vanguard 3.25 lb)

This year, 1962, the big Russian ~~achievement was~~ show was putting up two manned space craft within one day of each other, each weighing about 10,000 lb. The three manned flights by the Americans were in 4,200 lb craft.

The big advance in 5 years has been the recovery system, - the result of long experimnts by the Discoverer satellites.

1957, we were wondering if we could ever bring a man back alive from space.