

S T A R D U S T

A monthly publication of the

ROYAL ASTRONOMICAL SOCIETY

Edmonton Centre

MEETING:

Monday, November 10, 1969

Annual Banquet

University Faculty Club - 11435 Sask. Drive at 7:00 pm

EDITOR'S MESSAGE

It was quite an honour to be chosen as this year's Stardust editor and I sincerely hope that I shall be able to provide our subscribers with a good newsletter throughout the forthcoming months. I hope to be able to put photographs in one or two issues of Stardust this year, but whether I can or not will partly depend on finances. Those who would like to see photographs in Stardust can help the situation by paying their Stardust dues as soon as possible.

In the past several months, the Edmonton Center of the RASC has shown a number of very interesting movies at our monthly meetings and at our weekly observer's meetings. These films were loaned to us through the courtesy of the National Aeronautics and Space Administration in Washington D.C. I would like to take this opportunity to thank NASA for its kind cooperation in providing these films. I would also like to thank NASA's Jet Propulsion Laboratory for material they have provided and for the hospitality shown to my wife and I during our summer visit to Pasadena. The RASC extends best wishes to all branches of NASA in all of their future space ventures.

As editor of Stardust, I will endeavour to publish any material sent in by any member of the Edmonton Center providing it is in my hands by the 23rd of the month. Material to be published in the December issue should reach me no later than the 23rd of November.

In closing, I would like to wish the Apollo 12 astronauts the best of luck and smooth sailing on their long voyage this month. Here's hoping they have fair weather in the "Ocean of Storms".

PRESIDENT'S MESSAGE:

Well, our 1969/70 season got off to a good start with the excellent talk given by Dr. D. Hube on Radar observations of the Planets. There was no doubt that his lecture was thoroughly enjoyed by all who attended the meeting.

I was greatly honored to be reelected as your president for a second term. This will give me the opportunity to finish some of the projects which were started during the last year, and perhaps get some new ones going.

The telescope nights at the Planetarium on Friday's, which were started last November, seem to become ever more popular with our members and are going over well with the visiting public also.

The October meeting was the deadline to submit entries for the observing contest and also for the competition in Astro-Photography. I have received several entries from the observers section, but only a few entries of photographs. This may to a great part be due to the inclement weather we have had during the last year. I would like to urge all those who are

interested in this field to take every opportunity possible and perhaps we'll have a good number of participants at the next contest which closes on September the 30th, 1970.

Christmas is just around the corner and I would like to remind you now that if you plan to order any astronomical gifts to do it now in order to receive it in time for Christmas. I can think of nothing better than a telescope mirror kit, or better yet, a mirror grinding kit. If you are willing to do the work, there certainly would be no problem in getting the necessary technical information from some of your fellow members who have already made their own instruments. So don't be afraid to ask.

The next meeting will be the annual banquet. I hope to see you all there.

Angus. D. Smith, President.

A Word from the Secretary

For those members who were unable to attend the annual meeting on October 20, I would like to mention several items that were discussed at the meeting and which I think should come to the attention of every member. As you all know the new executive and council for the next term are always elected at the October meeting each year. The following members have taken office for the term 1969/70.

Honorary President	Professor E.S. Keeping
Immediate Past President	Mr. R. Allin
President	Mr. A. Smith
Vice President	Mr. F. Loehde
Secretary	Mr. R. Haeckel
Treasurer	Mr. B. Veilleux
Librarian	Mr. D. Bruner
Educational Activities	Mr. C. Cumming
Editor of "Star Dust"	Mr. D. Roles
Observer Representative	Mr. R. Newman
Member at large	Dr. D. Crosby
Social Convener	Mrs. R. Haeckel

We are welcoming two new members to the council. Mr. F. Loehde, who is by no means a stranger, has been elected Vice President. He is a past president of the Edmonton Centre and has served on council in other capacities. Mr. R. Newman, who was elected President of the Observers Group, will represent this section at the council.

Mr. W. Cable resigned his position as Editor of "Star Dust" due to an overload of work as Director of the Planetarium. We wish to thank Mr. Cable for his valuable contribution to the Society during the last year. Mrs. Jenny Rusch asked to be relieved as Member at Large due to the arrival of an

"Astronomess", who seems to be taking all of Mrs. Rusch's time right now. The best of luck to the both of you, and of course to you too, Mr. Rusch.

According to the new constitution of the Royal Astronomical Society of Canada a representative for national council had to be elected by the Centres membership. Professor E. S. Keeping has been chosen to fill this position. The constitution states that there shall be one representative on National Council for each two hundred members. Since our membership has not reached such proportions we are only entitled for one member. Previously each centre was represented by the president and one member of Council, regardless of how large the membership of the Centre was.

I have a letter from the Sky Publishing Corporation, outlining the conditions for a special rate plan for Societies subscribing to the magazine "Sky and Telescope". It is pointed out that ALL members must receive the magazine and that it is not a matter of choice. It has been decided at the meeting that members be given time to think it over and that the matter perhaps be brought up at one of the Observers Group meetings. In any case if you wish to have more information about this, feel free to call me at any time. The normal yearly rate in Canada is \$8.00 and the Special Rate is \$5.00. I believe it would be worthwhile to consider making Sky and Telescope a privilege of membership in our centre. There are a good number of members already subscribing to it and they all think that it is a very good investment.

My last point would be a reminder for the upcoming annual banquet on November 10, at the University Faculty Club. Tickets have been selling quite well, however as usual there are those who can not make up their mind until the last moment as to whether they should go or not. Ticket sales will have to close on November 5. They will be available at both Friday meetings before that date. If you are unable to attend any of these meetings you may call either President Smith at 434-2144, or myself at 455-1069, to make the necessary arrangements. The Guest of Honor and speaker will be the National President of the Society, Professor J.E. Kennedy of Saskatoon. The fact that banquet is being held at the Faculty Club should convince everyone that the evening will not be a wasted one. So I hope to see you all at the banquet.

Ralph Haeckel, Secretary
455-1069.

OBSERVERS GROUP MEETINGS -

Dennis Moore

As you all know, the regular Friday night meetings of the Observers Group have been resumed at the Queen Elizabeth Planetarium. The first meeting, held on Sept. 12th, saw the election of two representatives for co-ordinating the activities of the members. Richard Newman was elected as president, and I was elected as secretary. The attendance at these meetings has been very good, the first meeting attended by thirty members and guests.

Up to the present time, the main topic of discussion has been the planetary, lunar and Messier report forms received by Mr. Newman from Mr. Ken Chilton of the Hamilton Centre. Explanation of these forms and their distribution have taken up about three meetings.

On September 26, the Observers Group made a trip out to the northeast corner of the city to do some observing. Five telescopes were set up, but observing was hampered by a full moon, and later by a hazy sky.

At the last meeting held on October 17, Jim Clevette gave a talk on Project Mercury, and gave a detailed account of the first two Mercury flights. He will be giving talks on other space flights at future meetings.

For those of you who have not been attending the meetings, and would like to, the meetings are held every Friday night, and commence at 7:30 P.M.

SUNSPOT ACTIVITY -

Dennis Moore

There has been a considerable amount of activity on the sun for the first half of October. The spot numbers taken from observations are as follows:-

Oct. 4 -	31 spots
Oct. 7 -	69 spots
Oct. 11 -	16 spots

The most active sunspot days this year have been:-

March 19 -	79 spots	June 8 -	93 spots
May 24 -	90 spots	Aug. 3 -	91 spots

Anyone interested in making solar observations and obtaining solar report forms can call me after 6 P.M. at 433-6050.

OBSERVING SECTION: Objects visible for the month of November

SATURN is well placed for viewing this month and can be seen all night in the constellations Aries and Cetus

VENUS rises about one hour before the sun and stands about 14 degrees above the south-eastern horizon.

JUPITER rises about three hours before sunrise.

MERCURY is too close to the sun for observation.

MARS, URANUS, NEPTUNE, and PLUTO - are unfavourable positions for viewing.

TWO METEOR SHOWERS are also visible this month; the TAURIDS on the 5th of November and the Leonids on the 17th.

- Richard Newman

News FLASHES !

- Apollo 11 Moon rocks unlike anything on Earth
 - 3 Billion years old and high percentages of rare elements like Titanium.
- Soviet Union carries out welding experiments in space,
 - Prelude to 1st Space Station ?
- Planet revolving around star in constellation Cancer ?

EDITORIAL by the Editor

WHAT IS THE LIFE EXPECTANCY OF THE EARTH ?

Due to the great size of the moon relative to the earth, Astronomers have often referred to the Earth and the moon as the "twin planet system". Since both "planets" are exactly the same distance from the life giving star which we call the sun; what is it that makes the earth a planet of life and the moon a sterile planet of death, devoid of even a single bacterium or blade of grass ? The answer of course is simple - the earth has enough gravity to hold on to the two most important ingredients for all life as we know it ... AIR AND WATER. The next rather embarrassing question is: What are the two most important life ingredients that are most threatened on the earth today ? The answer of course, is again ... AIR AND WATER !!

Miscellaneous paraphernalia presently being dumped into the earth's rivers, lakes, ponds, streams, creeks and oceans include: elemental phosphorus; mercury compounds and other deadly chemicals; warm, bacteria producing water; sewage and garbage; and last but certainly not least - OIL !

Pollutants presently being poured into the air you breathe include: automobile exhaust fumes, smoke from industrial plants, and the pesticide to end all pesticides (and all forms of life) ... DDT.

The "rewards" of this human carelessness are accumulating at an alarming speed. The carbon dioxide content of the air has increased 15% in the last 100 years. Fish, birds and countless other natural enemies of insect pests are dying off by the billions; some species to the brink of extinction ! The breast milk of American mothers contains .2 ppm of DDT, four times the "safe" level of the U.S. Federal government allows in shipment of cows milk for human consumption ! DDT has drifted into every square foot of the earth's surface, including Antarctica. Millions of gallons of oil released from off shore drilling and from sunken tankers has killed or coated countless birds,

seals and other forms of life on coastal waters. Rivers, lakes, ponds and streams are turning into bacteria infested pools of death, ... incapable of producing oxygen ! Unfortunately these are only a few examples of what is happening to the world labelled by the Astronauts as the "Beautiful Blue Planet".

The most frustrating and most tragic part of this atrocious mess is that the whole thing is completely unnecessary. For approximately \$135.00 automobile manufacturers could install pollution reducing devices on automobiles. For a price, industries could install pollution reducing devices on smokestacks. Chemical pesticides are currently available which are just as potent as DDT but which degenerate into harmless substances in a matter of days. The fact that indestructable and accumulative DDT is still widely used can only be attributed to man's eternal quest for the almighty dollar. DDT is "cheaper" to buy but is it really cheaper if it kills the natural enemies of pests it is supposed to eradicate ? Surely man should realize from past painful experiences that toying with the infinitely delicate balance of nature is playing with fire on a grand scale.

Pollution reducing measures may cost a great deal of money, but man must ask himself this question: What is least expensive in the long run .. spending money, time and effort to alleviate the problem now; or having survivors spend at least a thousand times more in the future just to bury a planetfull of dead organisms ? This is assuming of course, that there are survivors. If the human race neglects to do some serious thinking NOW, it may well become "erased" and our "beautiful blue planet" could come closer to resembling our neighbouring lifeless moon. What IS the life expectancy of earth ?