DETROIT ASTRONOMICAL SOCIETY

Volume 4 No. 2 **Newsletter** JUNE 1967

9900 EAST JEFFERSON DETROIT, MICHIGAN 48214

Cosmic Ray Movie Featured at Sunday, June 11 Meeting

The Motion Picture 'The Mysterious Case of the Cosmic Rays' will be featured at the Meet-ing, Sunday, June 11, at 3: 15 p.m. in the Science Bldg. of the University of Detroit. This picture, one of the best in the Bell Telephone Science Series, is an astronomical and scientific 'Who-Done-It'.

Tracing the history of scientists' discovery of these bullets of energy and conse-quent search for the source, the film employs a humorous and interesting animated cartoon technique. A complicated scientific phenom-enon is thus presented in a form easily understood by the layman.

Be sure to attend and learn about the bombardment of the earth from outer space which may have been responsible for drastic changes in the life forms of our planet over

millions of years.

Also an observing calendar for the summer Observatory months, and a report on the Project.

The June 11 Meeting will be the last monthly meeting until September. However, meetings will be held at Sylvia Allen Center every Friday evening throughout the summer.

Past, Present and Future

The May Meeting was different, Starting with the movie 'Why Explore Space' we viewed the space program into the future; shifted gears & stepped into the past to view the Astronomers Baily; then the present to view Vesta. It was different and we enjoyed it.

Maksutov HURRY

Calling all Maksutov Enthusiasts!

$40.00 covers the price of a 6 5/8" corrector blank and tool and a 7" Pyrex mirror blank. The order goes in soon, so dial 534-2717 and let Larry Applebaum know you wish to join the fun.

An Impartial Report

by E. J. 'Dick' Love

The Detroit Astronomical Society recorded another successful solar eclipse expedition in less than six months following the great adventure in the Andes Mountains.

This refers to the partial on May 9 ob-served in Love's backyard by Mrs. Love, Dick Lloyd, Norm Mousseau and myself.

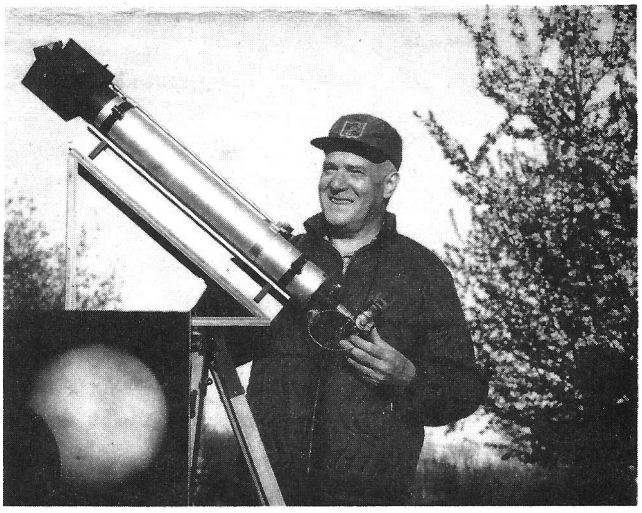
Time lapse motion pictures were attempted as an experiment anticipating this project for 1970 in Mexico. Color transparencies on 35 mm were made with the identical arrangement and equipment used on the Peru eclipse, Other experimental exposures were made including photo-graphing the projected image on a white card.

Overhead light and ground temperature were projects planned but later deleted.

A partial is not very exciting after experiencing a total in a clear sky, but it does offer an opportunity for experiment in antici-pation of the next expedition, This was the major objective of the small gathering,

Conditions were very good with only thin.

...continued on page 3



Photograph taken at mid-eclipse, 8:47:50 for this particular eclipse. Sometimes one need not journey 7000 miles to see an eclipse.

June Program of Events at Sylvia Allen Center

Friday, June 9, 1967
8:15 p.m. - Beginner's Class
'ARE WE ALONE'
Probabilities of intelligent life in the Universe
9:00 p.m. Junior Award Class (Sixth Session)
Repeat of June 2 class)

Sunday, JUNE 11, 1967 - MONTHLY MEETING
at U of D (see article on page 1)

Friday, June 16, 1967
8:15 p.m. – Prevue of Summer Construction Program at Rattle Run (see article page 4)
9:00 p.m. - Junior Award Class
Construction Project Night - also, Lunar plotting charts will be distributed.

Friday, June 23, 1967
8:30 p.m. - Junior Award Class
Construction Projects
9:30 p.m. - Movie

Friday, June 30, 1967
8:30 p.m. - Junior Award Class
Qualifying Tests
9:30 p.m. - Travel Talk and Movie from 1966
Eclipse Expedition 'IGUASSU FALLS'

Friday, July 7, 1967
8:30 p.m. - Movie
9:00 p.m. - Junior Award Class
Final Session

Friday, July 14, 1967
8:30 p.m.- Optics
The Dall-Kirkham Telescope
9: 15 p.m. - Astrophotography
Constructing a Solar Camera (Part 1)

We wish to welcome . . .

...and MAY we introduce ...

May 9 the subject of conversation in Mr. Moore's 8th grade math class at Jackson School was the partial solar eclipse. Meet Steven Biondo, a student whose ardent interest prompted Mr. Moore to introduce him to another student of his (Mark Ross) who had run some eclipse observations atop the Jackson School (with permission & supervision, of course). Mark Ross (you met him in March) brought Steven to the Center and now Steve is knee deep in making an 8" f9...

that isn't all ...Steven has a neighbor who shares his enthusiasm in Astronomy. Now meet Mark Gostine, student at DeLaSalle School who has a telescope but is now making another - a 6" f 8 ...

and, as we stepped out of alphabetical line we'll add one more to the 'chain' that Mark Ross started. His 9 year old sister has been a cheerful helper at the Junior Canteen and a regular attendant at the Junior Award Classes. Greetings to our newest Junior Associate Laura Ross.

A new member who answered the call of the Speakers Bureau is William Champine. Inter-ested in Astronomy, Bill liked the Griffith Ob-servatory in Los Angeles, Cal., and looked for a group in Detroit. He 'phoned the Detroit News and they referred him to 9900 E. Jeff. A couple of serious, hard working companions have been helping Bill grind his 6" reflector--his younger brothers Tim and Tom.

Welcome: Tim Champine, a 7th grade student who is now working on his own telescope -- a 4''. Tom (in the 4th grade) can be twice as busy now, We're glad you 'phoned the News, Bill.

Do you remember the 'Open House for Science Teachers'? That stormy night introduced the D.A.S. to a student, now we introduce the student as a new Junior member, Welcome, Leigh Daniels.

The Committee has not met Dr. Roger C, O'Dell (our last May member) personally. But from the enthusiasm with which George Swistock (D.A.$. 1965) speaks, we feel we're o1d friends sharing a deep interest in Astronomy.

Welcome to you All.

Out of Michigan

Don't Forget:

For June 20. The Royal Canadian Astronomical Society of Windsor is meeting at Poplar Lodge at 8:00 p.m. the 3rd Tuesday of this month. The D.A.S. members are invited. For further info 'phone Mr. Henry Lee: 1-519-945-6854 in Windsor, Canada.

For June 30 thru July 4. Astronomical League National Convention at Georgetown University, Washington, D.C.

For August 4, 5 and 6. Great Lakes Regional Convention at Indiana Central College, Indianapolis, Indiana.

What? Another project?

During the past year two of the Society acti-vities have shown a steady increase. More re-quests for star shows and telescope demonstra-tions are being received every month, also, the number of persons engaged in making tele-scopes on Friday evenings is growing steadily.

As a result some problems have arisen, There are not enough persons available to act as telescope making instructors. It is also be-coming difficult to get enough persons with telescopes and the available time to take care of all the star show requests.

A great many of the star show requests are from school groups. A great many of the 6th & 7th grade classes are engaging in science study camp-out weeks at the various centers provided by the Michigan Conservation Dept. Groups up to 180 in number spend five days at one of the camps during which time they concentrate on studying the various physical and natural sciences. For many of these subjects the Conservation Dept. provides instructors from their Geology, Forestry and Wildlife sections. There is, however, no personnel trained in teaching observational astronomy. Because many of these young people ask for some instruction about the stars, more and more school principals are re-questing assistance from the D.A.S.

The camp requests are generally covered by a team of D.A.S. members. One person gives a talk on basic astronomy to the entire group indoors while two or three other members set up the tele scopes. After being briefed on how the telescope works and what they may expect to see through it they troop outside for some exciting glimpses of the heavens, When there are more than 75 young-sters, they are divided into two groups. One group remains inside to watch a 30 minute astro-nomical movie while the others observe. After 40 minutes the groups change places. If the night is cloudy, a 45 minute slide talk is sub-stituted for the outdoor observing.

It is felt that this type of project is of great benefit to both the students and our Society, It has succeeded in promoting an in-terest in astronomy and also in publicizing the D.A.S. In fact, part of the increase in telescope building may be traced to these pro-grams. No charge is made to the schools, but to date voluntary contributions have more than off-set the expenses incurred.

Doc Marshall's training classes for speakers which were held recently were aimed, in part, at insuring a supply of speakers for this project. It has also been proposed by the directors that the Society construct four 4" telescopes for use at the camps. This size is easily trans-ported and set up, and in the case of cloudy skies one may be loaned to the group for the remaining nights at camp.

The materials for these telescopes have been obtained and all that is needed are some volunteers to work on them on Friday evenings. It is hoped that at least six persons will come for-ward. This group, while working as a team on this project, will also receive some intensive training in optical theory, telescope design and mirror making and testing. This program is planned in the hope that we will also be pro-ducing some Friday evening instructors.

How about giving it a try? Please contact Nelson Lewis: 585-3433; John Hartleib: 846-6703; or, Dick Lloyd: VE 7-7857 before June 16 if possible.

MAY 9 ECLIPSE

Cont. from front page

wisps of clouds on occasion. First contact was observed on the projected image; about 12 inches in diameter; at precisely 8:03:50, timed with WWV. Coordinates for the site are 4 2 ° 2 6' 13°° North and 8 2 ° 5 6' 45°° West. Unfortunately last contact was lost by cloud cover.

An Optron filter was used, and with a focal ratio of 26, a shutter speed of 1/50 was just about correct for Kodachrome II. This is also suitable for sun spot photography.

The lapsed time motion picture photography was done on l6 mm Ektachrome (type 7255) with a 25 mm lens. Guiding was not employed, the image being allowed to sweep across the field. Exposures were made at the rate of one frame every two seconds. This would compress the 60 minutes between first and second contact in a total eclipse to 75 seconds. Various stop openings were employed in order to gather exposure data.

Look, Astronomer, LOOK!

The planet Mercury will be at greatest eastern elongation on June 12, at which time it will be 17 degrees above the western horizon at sunset. If the western sky is free of clouds, it may be seen low in the sky just after sunset during the period June 5 thru 20.

You have probably noticed that Venus seems to be growing brighter each evening and dwarfing the brilliance of Jupiter, which at present is close to it in the western sky. During the next four weeks this trend will continue until July 5, at which time it will attain greatest brilliance (magnitude- 4.l).

News from the North

Rattle Run Observatory

The ravages of winter have disappeared from the Observatory site at Rattle Run. The excess water resulting from last winter's heavy snow-fall with resultant Spring floods has all dried up. Several families of ducks are swimming happily on the lake. However, what is most im-portant is that the lake level is back to where it belongs, and the mud-holes are gone from the service road. It is now time to start the summer construction program. The building schedule is as follows:

On the week-end of June 24-25 a wooden work building will be erected at the site. Parts for this building will be pre-cut at the Allen Center and transported to the site. This will ensure that there is adequate protection for equipment and materi-als. It is also planned that the building will provide housing for four persons in the event they wish to stay over-night, A I0" reflector and 8' reflector with Springfield mount will be available for observing.

On the week-end of July 1 and 2, placing of forms for remaining foundations and walk-ways will be carried out plus excavation for septic tank and tile fields.

On July 8 concrete will be poured and laying up of cinder block for the meeting room will be-gin in the northeast corner of the building. It is planned to finish the north room before starting the block laying on the round portion of the build-ing. This will provide additional room for materials and overnight accommodations. This section should be completed by July 30.

0n the week-end of July 15-16 the water line from the lake to the building will be laid and toilet and lavatory installed during the following week.

The week-end of July 22-23 should see the completion of the septic tank and tile runs. Also this week-end, work on casting the concrete slabs and risers for the circular stair in the dome section will begin.

A picnic and star party are planned for Sat-urday, August 12. On this week-end masonry work on the curved section of the building will begin

It is anticipated that the dome may be set in place on September 9. This should have everything ready for a dedication of the Observ-atory building on Saturday, September 16.

The program at the Sylvia Allen Center on Friday, June 16 will feature a talk on this project illustrated with slides showing the proposed con-struction in a step by step sequence

Ohiyesa Star Show

Camp Ohiyesa near Highland, Mich., was the setting for an 'Astronomy Nite' for 115 sixth grad-ers from Kennedy and Vandenberg Schools (Southfield).

Fr. John Morel started the program with a slide talk in the Camp Meeting room, then hus-tled out to join Dick Cam and Nels Lewis who had 'scopes set up.

Despite the brilliance of the night - the moon was a beauty Monday, May 22- Jupiter, Mars 'and all impressed not only the children but also the teachers and counselors,

From the 'thank you' note and separate in-quiries the D.A.S. has received from the school children, it is plain to see that Fr. Morel, Dick & Nels put on a good 'Star Show'.

? ? ?

Refer to your Astronomical League Reflector for details on an Astra League emblem for your automobile. Why? If the quantity ordered goes up, the price comes down. So if enough of you members would like an emblem, the Society will send a bulk order, You decide. If you like the idea and want one or more emblems, 'phone John Hartleib: TI 6-6703.

Radio Astronomy On the Beam

Interested in Radio Astronomy? phone: Mark Christensen 425-3475.

Eclipse Report

"Vi" Love

Vi's second Chapter of her 'Unscientific Side of the South American Eclipse' ended with the Eclipse members gathered together like one big happy family -- hurdles cleared, feet on the ground and all accounted for in the noisy Lima corral,

Weariness and cares would soon vanish for the next day held the promise of a pleasant trip into the Andes:

Chapter 111 - The Transandean Highway Sunday, November 6, 1966

by V. E. 'Vi' Love

There were 5 cars in our safari. Each car had a driver who did not speak English and a couple of the cars had guides to explain var-ious sights along the way. The Saigeons were in our car and we had a guide going up the mountain. We left at 9:00 a.m. and proceeded via the main East-West road to Rio Blanco. This is the world's highest highway. On the outskirts of Lima, we passed many new factories of U.S. manufacturers - automobiles, tires, pharmaceutical products. Although these indust-ries have been a boost to Lima's economy, they have also contributed to one of its biggest headaches - the Barriadas. These are squatter settlements on the edge of the city. They have grown up in the last 10 or 15 years. The people from the mountains and jungles are attracted by higher wages paid by the new industries. The population of these slums is estimated at more than a quarter million (Lima's total population is 2 million). Each family lives in a one-room shack with woven cane walls, no water or sewers, Cooking is done over open fires outside the hut. If the weather does not permit, cooking is done inside, smoke exiting-by means of the doorway. Water is carried from the nearest spring or stream. Their way of life resembles that of the old time American Indian. The government is trying to rehabilitate these slums by installing electricity for light and power, paving streets supplying water and sewage systems, hospitals and schools. Our guides were reluctant to have us take pictures of these settlements for fear we would create the impression that these shacks were the real Lima.

Our first stop was at Chosica, where we walked through the native market. Sunday is market day in the smaller villages - the day when the natives have an opportunity to sell their produce and purchase their needs while visiting with their friends, It was all very gay and colorful as well as noisy and smelly. Various wares were spread out in the streets -vegetables, fruits, clothing and even luxury items such as treadle sewing machines. A building of some size housed the meat market. There was no evidence of refrigeration, the skinned and dressed animals just hung on hooks in the heat with the insects buzzing around. The busiest tradesmen seemed to be the shoe repairmen and the barbers.

In less than an hour, we found our respective drivers and were on our way again, The road wound relentlessly upward, at times through narrow gorges with vertical stony sides, at other times hugging the face of the mountain side. Vegetation consisted mainly of tall cacti often in bloom, Occasionally we would see ter-raced plots dug out of the mountain side where some enterprising individual was trying to farm.

The drivers stopped at various vantage points for us to take pictures. At one place we saw

our first llamas. It was a small herd of about ten, haughty, ear tassels bobbing, intent on returning to their mountain home. They were accompanied by a very ordinary looking man, dressed like any North American farmer in his Sunday best. The colors of the animals varied -white, black, shades of brown - but the most photographed was white with huge black polka-dots. There was no visible evidence of the method of persuasion used by the man to control the animals. Since returning, I have read that the llama is directed by a kind of chirping sound from the herder.

At one o'clock, our guides decided we had reached the turning point, We were at an elevation of about 13,000 ft, The sun was warm but it was cool enough for a sweater, Some of us experienced slight dizziness due to the alti-tude. Box lunches were provided - cheese, meat and chicken sandwiches, oranges and bananas washed down with warm pop. We sat on rocks along the road, carefully observed by three small Indian children who lived in a nearby shack. This was the only habitation we had seen in many miles, The children didn't bother us, just sat and watched. le gave them some fruit which they took home at once. Their two dogs fared quite well with our luncheon scraps.

continued on page 6

1966 Eclipse Report

...cont. from pg 5

By this time we were all wishing for a 'powder room', The guides had forgotten that Americans like a little privacy in such matters. Upon consultation, they decided to stop at a bottling plant on the way down the mountain and ask permission to use their rest-rooms, This proved unsuccessful, so the chief guide took off first in his car to find another place. Our car was last, but we finally caught up with the others in front of a native 'hotel'. It was a two story building, restaurant and kitchen on first floor, owner's quarters and rooms for guests on the second floor. As we arrived, a bus was about to continue on its way up the mountain. The occupants were very much interested in us. Later our people in the first car told us the bus had just started out when their car pulled in. The bus driver stopped and all of the people got out to watch us. At first this puzzled us, but after a couple of weeks in South America, we decided the natives were intrigued by our fair skins and the white hair of some of our party.

The ladies were permitted to use one of the bathrooms on the second floor, As we mounted the stairs, we could see the kitchen where the food was being prepared and decided we were not hungry. The bedroom was simply furnished with a bed, a beat-up chest of drawers and a wooden luggage rack suspended from the ceiling, The bathroom had no tub, but a shower head in the ceiling and a drain in the floor. There was no attempt at decoration in either room - this was stark reality. The men were not given such 'royal' treatment. I understand that 'native' restrooms are beyond imagining.

For a half hour rest stop, we proceeded on our way back to Lima.

To be continued

The Detroit Astronomical Society
9900 East Jefferson
Detroit, Michigan 48214