

9900 EAST JEFFERSON

DETROIT, MICHIGAN 48214

## Sunday Meeting Sept. 10 to Feature Talk by Dr. Blass

As reported in last month's Newsletter, Dr. Blass will be our Speaker at the Sunday, September 10 meeting. He will give a report of his work in India this summer and illustrate it with the pick of several hundred color pictures made during his travels in that far country,

Plan to be there, The meeting starts at 3:15 p.m. in the Science Bldg. at the University of Detroit. The public is invited.

## Birth of Radio Astronomy

The Annual Convention of the Antique Wireless Association will be held at the Henry Ford Museum (Dearborn) September 22, 23, 24.

Dick Love transmitted the following good news:

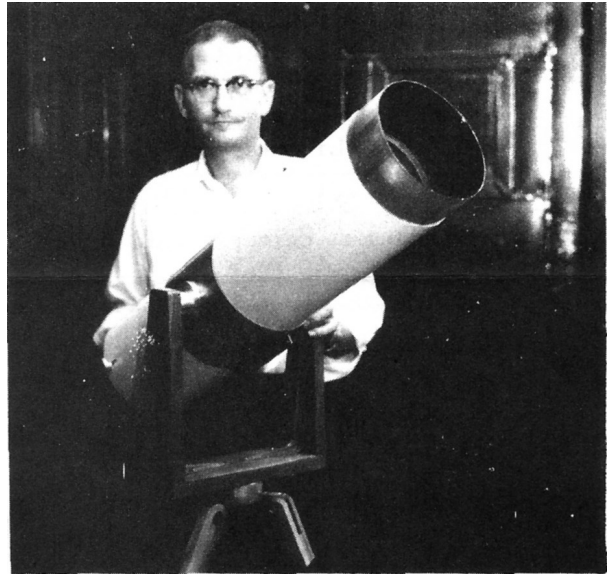
An exceptional program is planned for Saturday (Sept. 23) at 10:30 a.m. George Batterson, President of the Association, will extend a few notes of welcome before the featured speaker, Grote Reber, presents comments and details on 'Birth of Radio Astronomy'. A question and answer period will follow.

Mr. Reber, who designed and built the first radio telescope in 1936, is the world's out-standing pioneer in the field of radio astronomy,

There is an admission charge of \$3.00 (registration is from 9 to 10:30 a.m. Saturday) unless...UNLESS you are a member of the Detroit Astronomical Society. Your current membership card will provide proper identification for free admission to Mr. Reber's lecture. (Lapsed cards are not valid and cannot be honored)

A Special 'thank you' goes to Frank Davis, Curator of Communications, who extended the invitation to D.A.S. members to be guests of the Museum Communications Department for this lecture,

Elmo N. Pickerill will be guest of honor at a luncheon following the lecture. If you wish to stay for the luncheon at 12:00, send your reservation and check (\$3.00 per person) to arrive not later than noon of Wednesday, Sept. 20. Mail to: Frank, Davis, Henry Ford Museum, Dearborn, Michigan



## New Maksutov Unveiled

D.A.S. member, Earl McRae pulled a surprise Friday, August 18. He arrived at the Allen Center with his 'just completed' Maksutov telescope tucked under his arm. The 6 1/2 inch catadioptric 'scope is a project Earl started in October of 1962. After getting off to a good start, he was forced to lay the project aside for almost 3 years because of the overtime demands of his job. During the past year, however, he returned to the task with new vigor and pushed to completion,

In order to bring 3 curved surfaces to the precision required by this type of instrument,

Earl found it necessary to design and build his own testing stand and spherometers. The 'scope has a spherical correcting lens and a seven inch perforated mirror. A circular spot on the rear surface of the corrector returns the cone of rays to a focal plane in front of the mirror. A small achromatic lens placed between the focal plane and mirror transfers the image to a point behind the mirror where the eyepiece is placed. This transfer lens also acts as an erecting system, and may be moved along the optical axis to increase or decrease the power,

The mount is a simple but sturdy altazimuth yoke type which shows workmanship of a quality to complement the fine optics.

# SEPTEMBER Program of Events at Sylvia Allen Center

Friday, September 1, 1967

8:30 p.m. - Optics  
 'The Richest Field Telescope'  
 9:30 p.m. - Beginner's Class  
 'The Moon'

Friday, September 8, 1967

8:30 p.m. - Astrophotography  
 'Photographing Saturn'  
 9:30 p.m. - Beginner's Class  
 'Lunar Librations'

Sunday, September 10, 1967

Monthly Meeting at University of Detroit  
 (See article on page one)

Friday, September 15, 1967

8:30 p.m. - Optics  
 'Spectroscopes'

9:30 p.m. - Beginner's Class  
 Star Classifications

Friday, September 22, 1967

8:30 p.m. - Astrophotography  
 'The Heliostat and Coelestat'  
 9:30 p.m. - Beginner's Class  
 'The Equinoxes'

Friday, September 29, 1967

8:30 p.m. - Optics  
 'The Spectroheliograph'  
 9:30 p.m. - Beginner's Class  
 'The Michelson-Morley Experiment'

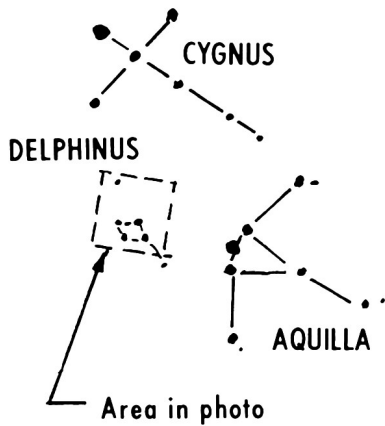
Friday, October 6, 1967

8:00 p.m. - Astrophotography  
 'Processing Ektachrome Color Film'  
 9:30 p.m. - Lecture  
 'The Case for going to the Moon'  
 (the first of three lectures on this subject)

## Nova in Delphinus

Photo by

Larry F. Kalinowski



NOVA DELPHINI is a new naked eye star that suddenly flared up about a million times brighter than normal. Discovered last June, the star has remained at a steady 6th magnitude with very little variation. Easily seen in binoculars, it is approximately three degrees north of Alpha Del-

phini, as shown by the arrow in the picture. This photograph was taken with a 200 mm tele-photo lens on a standard.35 mm camera. The camera was mounted on a 6 inch reflecting tele-scope, which was used as a guide telescope during a 30 second exposure. The lens opening was f4.

# We wish to welcome

the following group of AUGUST astronomers:

Richard Deyo is a 10th grade student from Bentley High School (Livonia) who planned to make a large telescope (he has a 3" reflector). However, after talking it over with Joel Goldstick, Bick decided the energy output on an 8" would be sufficient at the present time, The large telescope will be a future project. Welcome, Rick.

Douglas Feben was anxious to discuss Astrophotography with others of like interest, We're certain he will like the 'photos Nels Lewis took of the transit of Mercury which are on display at the Sylvia Allen Center, We look forward to meeting Mr. Feben on a future Friday.

Larry Applebaum had passed along information about the D.A.S. to Bernard A. Parafin some time ago, Mr. Parafin's particular interest is in the Maksutov group. He is making one of these 6" 'scopes. Be encouraged by the 'photo of Earl McRae's Maksutov in this issue.

Hugh Ravitz, student at Brooks Jr High School, heard about the Society from a friend, D.A.S. member Gerard Chezick. Gerry's enthusiasm must be contagious because Hugh has started a 6" Newtonian. We expect that for Hugh things will soon be 'looking up'.

Reading about amateur astronomical societies in a Sky and Telescope magazine led Sally Schott (freshman at U. of D.) to inquire about the D.A.S. from Charles Johnson, We look forward to seeing you at the meetings, Sally.

Geoffrey A.D. Smereck was going it alone on a telescope making project and was already at the polishing stage when his dad, Art, learned about the D.A.S. from Treasurer, Dick Lloyd. As a result, Geoffrey, 9th grade student at Radcliff Jr High (Garden City), is our sixth new member for August and the Treasurer has a little more membership money in the bank account.

Michael G. Weddle, age 11, of Farmington has been observing the skies for some time with his 4 1/4" reflector, He attended a Sunday meeting at U. of D. and has kept up a regular correspondence with the Society. With his August message he included a check for membership. Welcome to the Society, Mike.

WELCOME ONE AND ALL

# The BOOK CORNER

This column will not be concerned with literary style or skill but will look at books from the standpoint of interest to our members, If you know of a particularly good book you think should be included, call Doc Marshall at 393-6631 days or 535-7117 evenings.



Reviewed by C. D. 'Doc' Marshall

WE ARE NOT ALONE *by Walter Sullivan*

291 pages, Published in 1964 by McGraw - Hill.

The subtitle of this interesting volume is 'The Search For Intelligent Life On Other Worlds' which describes it exactly.

In content, the book closely parallels the material in Shklovskii - Sagan '*Intelligent Life In The Universe*' which was reviewed in the July Newsletter.

However, it is shorter and much less technical. Sullivan's style of writing is warm, colorful and interesting. It is easy to read and the reader needs practically no mathematical or scientific background,

Perhaps the best possible recommendation for Mr. Sullivan's book is Harlow Shapley's comment:

'A remarkable volume: clear, conservative, and full of interesting facts and convincing argument.'

## LIBRARY

Bob Bologna has been working diligently every Friday night in the Library with the result that he has a long long list of missing magazines - Sky & Telescope and Scientific American - and a couple of books. If anyone has magazines or books out, please return same,

We will print Bob's list in the next Newsletter with the hope that some kind reader will have an extra copy to donate to the library reference file.

# REGIONAL REPORT

by Frank Lipke

On Friday, August 4, Charles Johnson and I drove in a Volkswagen to Indianapolis to attend the Convention of the Great Lakes Region of the Astronomical League, The Telescope Fair, which had its beginning in Greenville, Ohio, in 1966, was continued as a part of this year's meeting. The sessions were held at Indiana Central College, which has a 1200 student capacity. Accommodations were available in the dormitory.

The Registration Desk was in the basement of the Lilly Science Hall, a five story structure, on the top of which is a 20 foot dome containing an 8 inch refractor, approximately 13 feet in length. As soon as darkness came we were taken to inspect and try this instrument. We were briefed on a newly discovered nova in Delphinus, a 16th magnitude star which had increased suddenly to 6th magnitude,

The General Session opened at 9 a.m. on Saturday. Several papers were read and a short business meeting was held. After lunch we spent some time inspecting the telescopes, orreries and other astronomical exhibits displayed in Lilly Hall. The group reconvened in the Auditorium at 2:00 p.m. Of the three papers read at this afternoon session, the most interesting to me was the one presented by Frank Sutter of Dayton, Ohio. It was 'A Report of the 1966 Solar Eclipse Expedition' illustrated with 150 color slides taken by Frank in South America. Since I had been a member of the expedition, the photos and remarks brought back to me many fond memories of an extraordinary astronomical project.

At 5:00 p.m. about 100 astronomers gathered in front of Schwitzer Hall for the group photo, after which we marched into the Banquet Hall. At the Banquet there were 15 round tables seating 6 to 8 each.

At 7:00 p.m. we left by 18 car caravan, journeying 45 miles southwest to the Goethe Link Observatory, Situated on the top of a 300 foot hill surrounded by woods, the observatory houses a 36 inch Cassegrain telescope. After inspecting 25 photos on the walls of the viewing auditorium, we climbed the spiral steps to the dome.

There we viewed the M-13 cluster and could make out hundreds of individual stars. Looking at the Ring Nebula we could see that it filled the entire field of the telescope.

On Sunday morning several papers were read and various awards presented.

Two persons from the Detroit area contributed papers to this convention. D.A.S. member Mark John Christensen presented 'The Application of Computerized Mathematics to Elementary Optics', with a short note on 'The Afocal Mersenne Camera'. Gary Ross, who presented two papers, is a former member of the D.A.S.

Mark's article will appear in the next issue,

## JUNIOR SECTION

Joel Goldstick wants to try 'Something Special for Juniors.

The D.A.S. Newsletter has had articles for Junior members, by Junior members and about Junior members. (This is a good place to state that we learned about another D.A.S. Junior who received newspaper recognition for his excellent exhibit at the Science Fair (May Newsletter). Congratulations to Kenneth Dearden.)

Now the *Special for Juniors* that Joel has planned will begin with the following letter:

Dear Junior Astronomer:

At the recent Astro-League convention, Junior Astronomers from all over the country held several 'bull sessions' on which I will briefly report,

Through three sessions of chaos, we decided that Junior Astronomers should exchange newsletters, The reason for this being:

- A. The Reflector does not serve the purpose of communication between Junior Astronomers in the A.L.
- B. We decided we want to exchange observing program ideas.
- C. We felt we should exchange other ideas, i.e. columns for our own newsletters,

At the present there is a slight mix-up. At this time some of the societies decided we need our own national Junior newsletter. I don't have all the info - so I do not wish to further discuss that matter,

To be sure, I have a friend in Allentown, Pa., that I met at the convention. I am exchanging newsletters as well as letters with him and will bring these to the Allen Center,

Any questions you have, contact me at the Allen Center on Fridays or write me at:

32128 Barkley, Livonia, Mich, 48154

Joel Goldstick

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Larry Kalinowski, who has been working with the Junior Class, will soon have an announcement on the results of Junior Awards.

# Eclipse Report



"Vi" Love

## 'The Unscientific Side of the South American Eclipse'

Chapter V - AREQUIPA by V. E. 'Vi' Love

Pronounced Ara KEEP a  
790 miles southeast of Lima  
Population - 200,000  
Second largest city in Peru  
Called the 'white city' because nearly all buildings are  
constructed of the volcanic rock quarried near here.

Wednesday, November 9, 1966

When we returned to our hotel yesterday, after our trip to Pachacamac, Ted Kaleveldt called Newell Saigeon. Through the efforts of Linda Lloyd and Doc Marshall, the equipment had been located in Miami. The two sleuths had been promised that it would be sent to Lima on the first available flight. Dr. Giesecke, Executive Director of the Geophysical Institute of Peru, assured us that a truck would be provided to transport the equipment to Arequipa.

We left Lima for Arequipa at 9:00 a.m. by Faucett airlines. The plane followed the Pan American Highway (south) for some time, giving us an excellent view of the desert coastline. Later we flew high over the barren Andes with deep valleys running to the Ocean. All the valleys had river beds, most of which appeared to be dry. Where there was water, farms and orchards flourished. The plane arrived at Arequipa at 11:15 a.m. Our guide, Senor Garcia-Leon was waiting at the entrance gate. He efficiently disposed of the paper work and baggage collecting and transported us to the hotel.

The short ride from the airport took us through part of the city. A few of the streets were so narrow that pedestrians had to flatten against a wall until cars passed. The Hotel Turistas is on a hill in a new section of the city on the Pan American Highway from Lima to Bolivia. It is one of a chain of inns owned and operated by the government. Our first glimpse of the hotel was quite favorable. The front entrance to the pink, two story, Spanish type building was flanked by two very tall palm trees.

There was a profusion of blooming shrubs and trees everywhere,

While Edgar was registering he received a message informing him that someone must return to Lima on the next flight to claim the equipment which was being held by customs and could not be released without some authorization. It was decided that Richard would make the trip; first, because he was best qualified for international negotiation and second, he had the most extensive command of the Spanish language. His two pet expressions guaranteed to stop any conversation abruptly were: Las mangas son demasiado cortas (the sleeves are too short) and mi hermano tiene dos cabeza (my brother has two heads).

Our room on the first floor was clean, simply decorated and overlooked a flower garden. There were three dining rooms - a patio with umbrella protected tables for morning, an awning roofed porch for lunch and an indoor dining room for the more formal evening meal. The birds were our constant companions when eating outdoors. All of our meals here were delicious. When the maître d' discovered that we knew very little Spanish, the menu was typed in English each day.

After lunch Edgar, Harvey Johnson and Dr. Arehart with Senor Garcia and a driver started looking for a desirable site. Richard had been in Arequipa the previous week and found a site at Salt Lake, but it was at 14000 ft. and the temperature fell to 26° F. This made it unsuitable because the rarefied air made any activity difficult and the cold made any manipulation of cameras and recording of data by hand impossible. Garcia had the driver stop when they reached a spot with a desirable elevation and an unobstructed view of the eastern horizon. The fellows spread out looking for a suitable site. Harvey Johnson found the perfect place. It resembled a crater 50' x 100' with a rocky rim 6' - 8' high and a solid level floor covered with volcanic ash. It was quite near the road, so that bringing the equipment in would be no great problem. Across the road, north of the site, towered El Misti (19,200 ft.), a dormant volcano.

While this was taking place, some of us explored the section around the hotel, modern homes with lovely gardens. Finally, we followed a foot path along the edge of the hill. Ahead loomed the snow-capped, triple Chachani peaks. In the valley, where there were many small farms, we could see a man plowing with a yoke of oxen. When we returned to the hotel, a little old lady was selling water color paintings by a local artist (Delgado) depicting local scenes. Since they were reasonably priced and easily packed, her stock was soon depleted. In fact,

...continued on page 6

## 1966 Eclipse Report

..cont. from page 5

most of us regret that we didn't purchase more.

Some of the men had been busy buying lumber and tools for setting up some of the projects. They found mahogany to be the least expensive wood. The carpentry shop was Ed Denslow's room on the second floor.

Before dinner one of our teenagers (Jim Dominy) decided to call home. After more than 2 hours of exasperation due to the language barrier and broken connections from Peru through Ecuador, Colombia to United States and then to Ohio, Jim was able to talk to his mother. After dinner, Edgar and I watched TV in the lounge - t Flintstones with a Spanish soundtrack a different voices for the characters.

That night we were introduced to 'Turista beds'. They were the same in all the government hotels. The mattresses were like hammocks elevated top and bottom and sagging in the middle. The only thing

that can he said about the bolster-type pillows is that now we know what happens to old hot water tanks. Nevertheless, we slept soundly.

At 11 o'clock, I was wakened by someone pounding on the door and calling for Mr. Lovay (Spanish pronunciation of Love). I finally managed to rouse Edgar enough to get him to open the door. An almost non-English speaking night clerk informed him that there was a 'phone call for him. There was no 'phone in our room hut there was one on the wall in the hall. Edgar lifted the receiver and after shouting a few times, discovered the connection had been broken. He came back to bed and went to sleep. In a half hour, more pounding and yelling - by this time everyone in our wing must have been awake. Edgar sprinted to the 'phone, it was Richard reporting at the equipment had been impounded by customs for \$2500 bond and \$500 duty. Edgar's reply -send it back home if they won't release it. And so to sleep!

(..to be continued)

The Detroit Astronomical Society  
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Detroit, Michigan 48214

