

## PRESIDENT RETURNS Dr. Blass Back From India Will Report at Sept. 10 Meeting

D.A.S. President, Dr. Gerhard Blass, has recently returned from India. Last April at the request of the Indian Government through the U.S. State Department and National Science Foundation Dr. Blass consented to help with a program aimed at improving the Indian Educational System. Since mid-April he has served as a Consultant at the University of Baroda where he aided in the training of Physics Professors,

During his three months sojourn, the Doctor had many opportunities to observe and photograph the scenery, architecture and culture of this ancient land. The program committee, being well aware of this fact, waxed most importunate as soon as they learned of his return, and before he had rested enough from his travels to say "no".

So we are pleased to report that the first meeting of the fall series will feature "A Report On a Little Known Section of the Third Planet of the Solar System"; - little known, that is, to the Amateur Astronomers of Michigan. It will be illustrated in living color.

The Date is Sunday, September 10 ~ - the Place is the University of Detroit Science Building - - the Time is 3:15 p.m.

The meeting is open to the public. Bring your friends.

Have you sent in your suggestions, articles, etc. for the Newsletter to Lee Johnson 01" Linda Lloyd? You would but you lost their addresses? Here they are:

Lee Johnson, 25170 Strawberry Lane, Southfield, Mich. 48075

Linda Lloyd, 14298 Lauder, Detroit, Mich. 48227

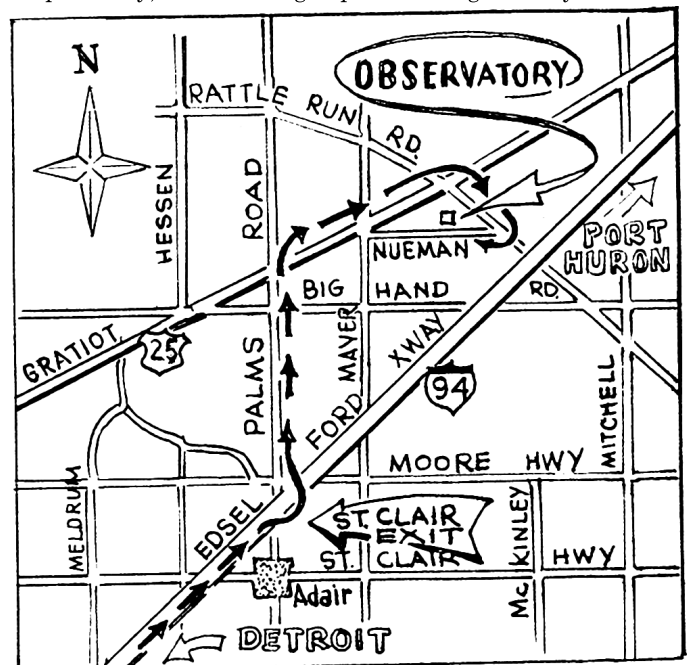
## Picnic and Star Party at Rattle Run Sept. 2

Start making your plans Today.

An afternoon picnic and evening star party are planned for Saturday, September 2, at the Rattle Run Observatory Site. Coffee and cold drinks will be provided. Bring your own food and insect repellent. If the weather is clear it should be a good evening for observing, since it is only two days before new moon. Those who wish to camp are invited to do so. There is plenty of room for tents and trailers. No organized games or similar activities are planned, however, a volunteer crew will be working on the observatory building through Monday afternoon, and all those who wish may try their hand at digging, mixing mortar, or laying cement block.

The unseasonable weather has set the construction program far behind schedule, but we are hoping for a dry, warm fall to enable us to catch up.

See the map below for directions. (After leaving the expressway, watch for signs posted along the way.)



# AUGUST Program of Events at Sylvia Allen Center

Friday, August 4, 1967

8:30 p.m. - Optics  
Assembling a Newtonian Telescope  
9:30 p.m. - Movie 'How Many Stars'

Friday, August 11, 1967

8:30 p.m. - Optics  
'Collimating the Newtonian Telescope'  
9:30 p.m. - Beginner's Class  
'Variable Stars'

10:00 p.m. - Movie 'The Sun And its Family'

Friday, August 18, 1967

8:30 p.m. - Optics  
'Finder Telescopes and Reticles'  
9:30 p.m. - Beginner's Class  
'The Andromeda Galaxy'

Friday, August 25, 1967

8:30 p.m. - Optics  
'Aligning the Polar Axis'  
9:30 p.m. - Beginner's Class  
'Observing in Sagittarius'

Friday, September 1, 1967

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



Saturday, September 2, 1967

Picnic and Star Party at Rattle Run  
(see story on page one)

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)

## We wish to welcome...

for the month of JULY, three well known names with shiny new titles.

Gerald Gainor, our Junior member who won the Science Fair Grand Award (May Newsletter) with his experiment in holography (we must interrupt just long enough to say we're hopeful of getting an article from Gerald for the Newsletter on his San Francisco trip to the International Science Fair) and his dad, Vincent, who has been an Associate member, have recruited another member for our roll call. We are happy to announce that the Gainors now have a Family membership, We are pleased to Welcome Mrs. Sophie Gainor.

Our Junior classes have been galloping along with Larry Kalinowski at the reins, Larry is preparing a report for the Newsletter on the achievements of these ambitious Juniors. Back in 1958 Larry made the 'scopes for the Moonwatch Team and was one of the mainstays of that group. He has worked on many another D.A.S. project (including the first Junior class back at Elmwood Center) with the patience and dependability that makes a project successful. We welcome Larry as a new Faculty member.

The "snappy" displays which have graced D.A.S. exhibits over the years, the wooden tripod kits, the blueprints for the telescope mounts, the - well, there would not be room to list all the handiwork of Cass

Niborski, (see February & March Newsletters) He also instructed a Saturday morning telescope making class for Notre Dame High School students who couldn't work Friday night classes into their schedules. His daughter Mary Ann (now a housewife) was a steady helper back at the Elmwood Center Canteen. His talented, hard working son, Jim, now helps either in the Craft Shop or at the Canteen, wherever he is needed the most. We welcome Cass as a new Faculty member.

There you are. Familiar names, all tried and true, with brand new titles

WELCOME ONE AND ALL.

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FOR SALE

3 1/4" F12 Refractor, Jaegers lens  
Unitron deluxe rack and pinion  
Unitron finder scope  
Equatorial mount with R.A. and Dec. slow motion control  
Sturdy tripod, clock drive  
Four Brandon eye pieces in fitted box  
32mm - 16mm - 8mm - 6mm  
Prism star diagonal 8" Astro Camera  
Illuminated crosshair eye piece  
All of above for \$200.00

Contact: Mrs. Rose Bastian 741-4218  
22936 King Dr.  
Mt, Clemens

For details call Dick Love DR 1-1216

# 'twas July

The "Open House" held by Mr. and Mrs. Oliver Grunow on July 23 was thoroughly enjoyed by all of the guests. The "ohs" and "ahs" from those attending the Planetarium lectures were proof that Leigh LaChapelle and "Doc" Marshall were giving exciting tours through outer space.

A telescope set up in the spacious yard had a penny as the object for viewing. Original plans were to have the sun spots reflected upon a board but cloudy skies prevented this. The racing clouds were welcome on an otherwise too-hot day.

Tony Rand of the Detroit Society for General Semantics was busy replenishing the buffet table set on the patio near tall shade trees with delicious food that Mr. and Mrs. Grunow's daughter was busy preparing.

Sounds like a delightful afternoon, doesn't it? But wait -- did we say sounds? Beautiful organ music drifted out the windows and we investigated the source. There was Ernest Kossow (past D.A.S. officer) in one corner of the huge living room, playing request numbers for a Standing Room Only audience.

A unique and most delightful afternoon.

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*Bring your friends with you to the September 10 Sunday Meeting - 3:15 p.m. at U of D.*

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## "Best Regards" From Peru

The letter printed below, from the Instituto Geofisico Del Peru, was received by Dick Love, Chairman of the Eclipse Committee:

Lima, July 3, 1967

Dear Dr. Love:

I enclose copy of my letter to Mayor Cavanagh, The presentation of the medallion of the city of Detroit, by Ambassador Jones, was carried out wonderfully; I was never more surprised by such unmerited honor. Thank you very much for your efforts on my behalf, and all I can say is that I hope I may have the opportunity of being of further service to you some time,

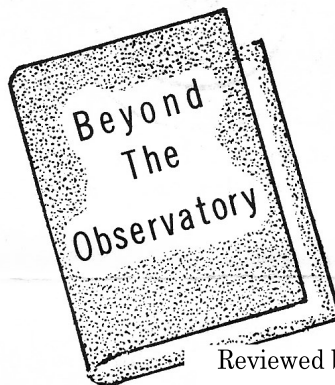
Please give my best regards to Mr. Lloyd and to all your fellow members of the Society. With kind regards.

Alberto A. Giesecke M.  
Executive Director

## 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

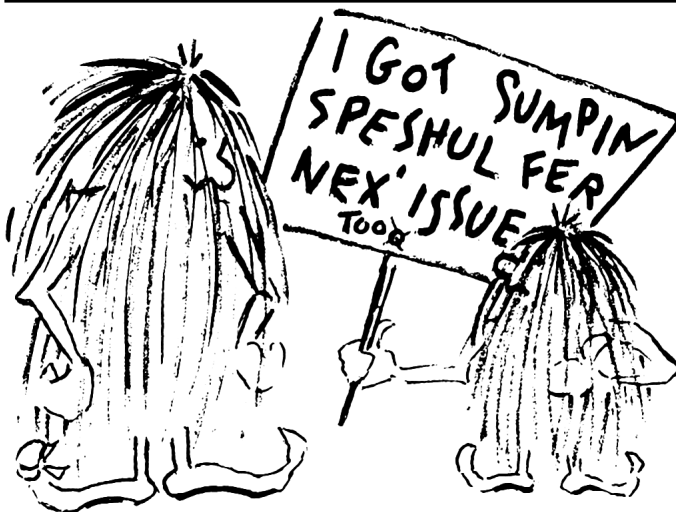
BEYOND THE OBSERVATORY by Harlow Shapley

208 pages. Published in 1967 by Charles Scribner's Sons - \$4.50.

Shapley here is in his usual masterful form. Whatever his subject, one can depend upon him for writing that is clear, warm, colorful and witty.

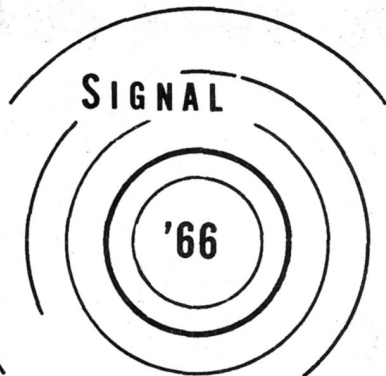
The book contains 11 short informal essays that Shapley developed from talks given in recent years. They deal with a variety of subjects from the sub-atomic to the cosmos. However, it is far more than merely a scientific discussion of these topics,

Shapley's professional work inevitably led him to consider many social, ethical, religious and philosophical questions about man and man's relationship and destiny in the universe. In this little volume he outlines some of his views about these questions in an intriguing and provocative manner.





Ken Burgess



Burgess was one of two 16 year old amateurs who traveled to Peru last fall with the D.A.S. Eclipse-Team: (The other, Jim Dominy of Cardington, Ohio)

Ken, a Junior member of the D.A.S., attends Melvindale High School. He designed and assembled the equipment for his project and raised part of the expense money by giving talks on Astronomy to various Civic Groups. He is also active with the American Association of Variable Star Observers, Solar Flare section, and a licensed Ham Radio Operator. Other hobbies are Amateur Theatricals, Fine Art and Photography.

#### RADIO OBSERVATIONS OF THE 1966 SOLAR ECLIPSE

by Kenneth Burgess

It was early in February 1966 that I became interested in the Eclipse Expedition, I soon developed an idea for a project which I took to the committee chairman, Mr. E. Love, for his criticism and approval, As far as he could find, my idea was feasible and should work, (Later on I found out it wasn't as easy a project as I thought it was originally.)

My idea was to monitor the radio emission of the sun throughout the course of the eclipse. This would be on a frequency of 432 megacycles because it is relatively free of noise in that part of the world. My instrument is known as a radiometer, a device that measures the intensity of radio waves in a small band of frequencies. Measurements using this type of instrument are not truly useful unless combined with measurements from similar devices operating on different frequencies, So far, I haven't obtained any data from the various organizations to which I've written,

The radiometer I used was assembled from various component parts -- among them, a J beam with 16 db. gain, a low noise converter, a communications receiver, an audio to d.c. inverter, and a strip chart recorder, The antenna was fixed on a mount which was locked on the sector of the sky in which the eclipse was to occur. The signal was fed from the an-

tenna to the con-verter and then to the receiver. The audio output of the receiver was fed into the inverter which changed it into a direct current signal which could be recorded on the strip chart recorder.

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One of our Junior members whom you met in the March Welcome Column attended the National Convention and has been bubbling over ever since. He has made arrangements to keep in contact with other Juniors he met and to exchange Newsletters with them. He will share the Newsletters he receives from them with you, Look on the bulletin board at Sylvia Allen Center, And now,

## THE D.C. REPORT

by Joel Goldstick

This year I was fortunate enough to go to the Astro League National Convention in Washington, D.C. which was hosted by the National Capital Astronomers. This year's convention unofficially had a registration of over 400 persons.

General paper sessions and those presented by Amer. Association of Variable Star Observers and Association of Lunar and Planetary Observers were most interesting. The Junior Session was also very interesting. Juniors from Fairbanks to Dallas gave papers on subjects such as "The Aurora Polaris", "Astrophotography", and "A New Theory on Quasars" to name a few

On Saturday, July 1, a field trip to the Science and Technology building of the Smithsonian Institute was taken. Mrs. Deborah Warner gave a short slide illustrated lecture on some of the astronomical items the Smithsonian possesses, but are not on display at present. Then we informally toured the exhibits open to the public.

Sunday was, for the most part, a free day with nothing scheduled except a visit to the Goddard Space Center, Since my mom and my sister are not interested in astronomy we toured the city this day.

Monday we went to the Naval Observatory to see the many astronomical instruments there...the "main attraction" being the 26" refractor.

Tuesday was just a wrap up business meeting, A very successful convention ended,

Did you circle Sunday, September 10 on your calendar? 3:15 p.m. at U of D- Bring your family,

# Eclipse Report



"Vi" Love

A colorful tale of contrasts - the primitive splashed with the new, in both culture and architecture - is told by Vi in her 'Unscientific Side of the South American Eclipse'. We continue with Vi touring our sister Continent with the second half of :

Chapter IV- LIMA (Cont. from July)

by V. E. 'Vi' Love

Tuesday, November 8, 1966

Inability to speak Spanish presented a few problems. On Monday I had tried to find sunburn lotion. Edgar had not worn a cap when we had our mountain trip on Sunday and since his hair is a 'little sparse' on top, he received quite a sunburn. I tried every store that sold cosmetics, looked over their entire stock and could not find what I wanted. Today Betty and I were walking through Sears and found that they had quite a cosmetics counter. The clerks couldn't understand us, but tried very hard to be helpful. Finally Betty drew a picture of the sun's rays beating down on a person. Immediately they got the idea and brought out several different preparations. All of us deplored the fact that we had not studied the language, although we had no real difficulties. If we stood on a street corner reading our maps, someone usually approached us and asked in perfect English if they could be of help, and the policemen at some of the corners were only too willing to be of assistance. Betty and I visited a number of shops but made no purchases. Later we re-turned to the Bolivar and had lunch in the Lounge.

In the afternoon, Felix introduced us to Peru's heritage, We traveled 20 miles by bus over the Southern Panamerican highway to Pachacamac ruins. Our first stop was the National Archaeological Museum where Felix lectured on the significance of the various displays of mummies, pottery, jewels and tapestries.

Pachacamac ('Creator of the World') was a sacred city that flourished from 300 B.C. to 400 A.D.

Here the primitive dwellers built a pyramid in homage to an omnipotent God. The city, covering about 4 sq. mi. became to Indian Pilgrims what Mecca was to Mohammedans. About 1450 A.D., the Incas conquered the city and under their rule it became the most opulent city on the low coastal plain. They erected next to the original temple a larger temple pyramid dedicated to the worship of the sun. Lesser temples to the Goddesses Moon and Urpy Wachac were built at a lower level. In 1533, Pizzaro and 20 soldiers captured the city.

The first ruin we visited was the Temple of the Moon, discovered in 1940 and now partly re-stored. The architecture reminded me of early Egyptian temples, severely simple, use of the pyramid and plastered walls. Felix pointed out the mark of the Inca - trapezoidal windows and doorways and the use of niches in the walls. This temple housed the 'Virgins of the Sun', young maidens dedicated to the service of the deity. They were placed under the care of elderly matrons (mamacunas) who had grown gray within these walls. The virgins were instructed in their religious duties, employed in spinning and embroidery, wove the fine hair of the vicunas into hangings for the temple, apparel for the Inca and his household. At a marriageable age, the most beautiful were selected as brides of the Inca. Polygamy was permitted among the nobles only.

After examining the cell-like rooms of the temple, Felix took us to a section of the city where excavations were still being carried on. Apparently it was a burial ground that had been uncovered because bones, cloth and hair were protruding from the sand in a few places. It seems the dead were buried in a seated position with knees drawn up to the chin. The sand and dry air have preserved some of these mummies for thousands of years. We had not been at this location for ten minutes when a car pulled up and an angry-looking man proceeded to inform Felix that we were in forbidden territory and must leave at once (which we did).

Our bus traveled slowly over the narrow road to the base of the Temple of the Sun. There was no evidence that this had been a truncated pyramid, maybe excavations are not complete. We climbed to the top from which we could see the entire area for miles around. This Temple was on a small hill, Immediately below was the Temple of the Moon. Stretching out from the base of the hill were the ruins of the city. In the distance, green fields bordered the Panamerican highway. There was no evidence of habitation. The waves of the Pacific Ocean pounded on empty beaches and a few miles off shore were the Guano Islands.

...continued on page 6

## 1966 Eclipse Report

..cont. from page 5

Before returning us to our hotels, Felix stopped at the Museum of Anthropology and Archaeology in Lima where we learned more about Peruvian history,

That evening, some of us decided to have dinner at a famous restaurant - Casa de las trece monedas (House of the 13 coins). I never did discover the reason for the name, The restaurant is in a house built

in the 17th Century. There were the typical gates at the sidewalk, an inner court where we were met by the maitre d' and dining rooms in various rooms around another court, Our party: Loves, Saigeons, Sutters (it was Frank's birthday), Dr. Arehart, Jean Fox and Ann Olmstead, After a well-prepared and delicious meal, we walked the 10 blocks back to the hotel.

(Next Month: Arequipa and The Eclipse)

The Detroit Astronomical Society  
9900 East Jefferson

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