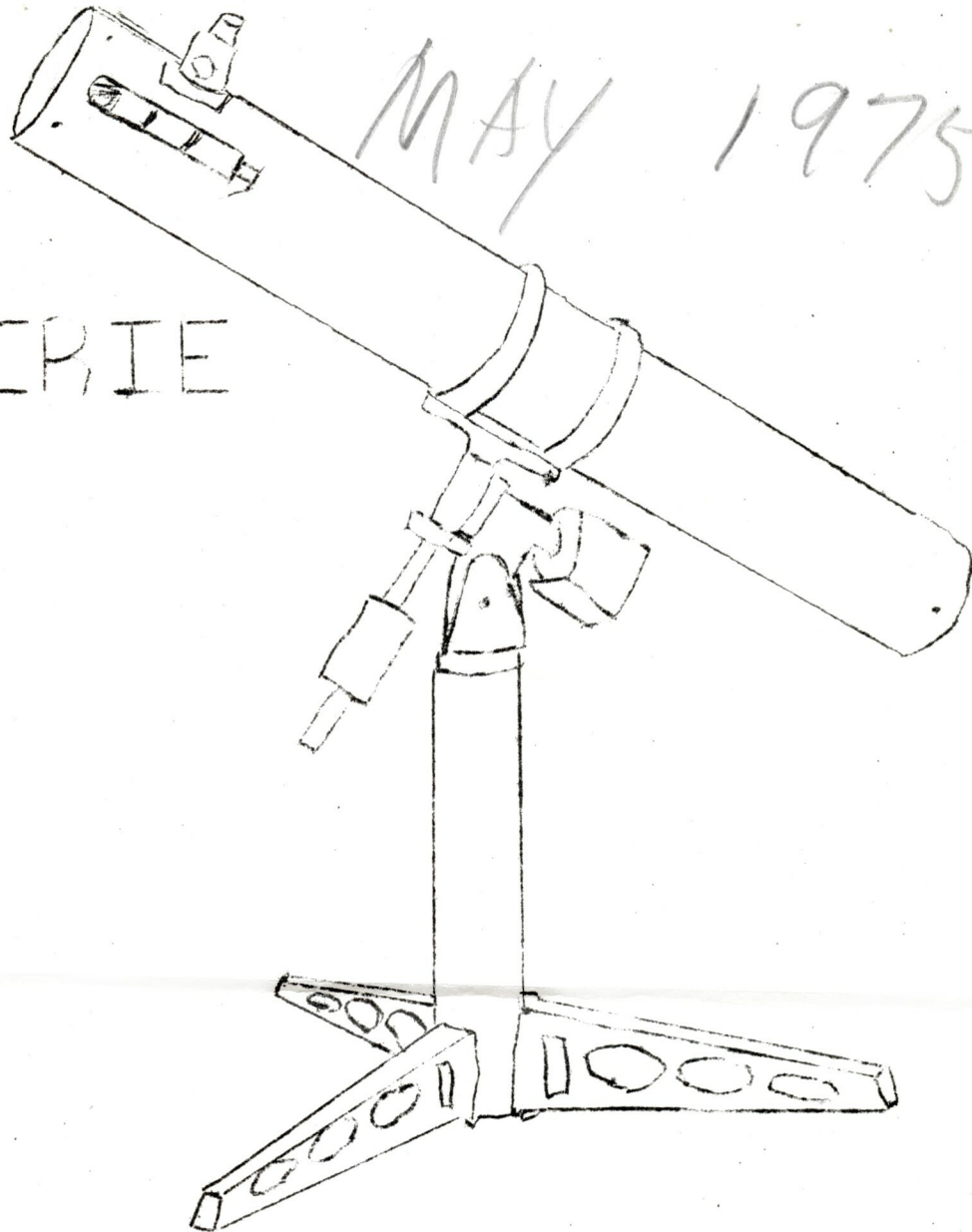


THE  
PRAIRIE

TELESCOPE SOCIETY



Our meeting for this month will be on May 27, 1975 at 7:30pm in the Olin Hall of Science on the Nebraska Wesleyan Campus. Russ Maag from the St. Joseph club will give us the details on the Mid-States convention. There will also be a drawing for a door prize and some refreshments so beshure to make it.

\*\*\*\*GATEWAY SHOW\*\*\*\*

Our Gateway show for June will be on the 19th (Thurs.) and the 20 incase of clouds the previous night. Hope to see you there.

\*\*\*\*THE PRESIDENTS REPORT\*\*\*\*

This month I received information on the Mid-States and also on the National conventions. In the back of this newsletter are a "bunch" of sheets containing information on these two happenings. Read them all carefully and if any questions come to mind bring them up at the meeting and hopefully they can be answered

John Bruce Jr.  
President-Editor

If any one has a telescope for sale see me at the meeting or call Jess Williams, and we will try to find a new home for your scope.

At our last meeting Sgt. Gary Hoffman of the Lincoln Police Dept. paid us a visit and asked us for some help at their camp for youngsters on June 7-10 (boys) and 12-15 (girls). What they want is for some of us to come out one night for the boys and one night for the girls and answer questions and show them some of the wonders of the skies. I will have the dates and the location of the camp at the meeting (because I don't have them as of this printing) so anyone with or without a telescope that can make it would be welcomed by the kids.

MIRROR-IMAGE  
(contd)

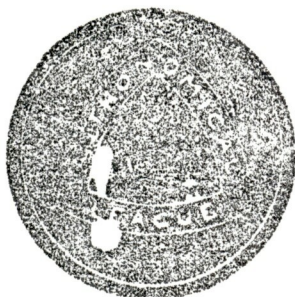
The electron and the positron are anti-particles. After the positron's discovery, scientists theorized that anti-protons (negatively charged protons) and anti-neutrons (neutrons and anti-neutrons have no electric charge; since all subatomic particles act a planets rotating about their axes, thus creating magnetic fields, an anti-neutron would have its magnetic poles reversed) must also exist. They theorized correctly. In 1965, scientists successfully combined an anti-proton and an anti-neutron to form the nucleus of anti-deuterium. This is hard to do because if a particle and anti-particle meet they will cancel each other out releasing energy (in other words they will explode).

Scientists are puzzled that anti-matter is so scarce in this universe. But there does seem to be small quantities of anti-matter floating around the universe, maybe even in our solar system. An anti-matter collision with the earth's atmosphere is one hypothesis proposed to explain the titanic explosion in Siberia a little after midnight on June 30, 1908. This explosion, comparable to that of a multimegaton nuclear warhead, was visible over two hundred and fifty miles away as a giant pillar of fire; it sent tremors halfway around the world, created wind gusts that swept horses off the ground four hundred miles away, and burned the shirt off a farmer's back at a distance of forty miles. Some scientists think that entire galaxies are made of matter and entire galaxies of anti-matter. If this is true, a collision between matter galaxies and anti-matter galaxies would release tremendous amounts of energy. Astronomers are watching such a large-scale collisions going on right now, and the energy released is high enough to be the result of matter anti-matter annihilation.

One might think that, since matter and anti-matter don't mix, interaction between our universe and its mirror-image is impossible. But this would not be so if a person were reversed in the process of crossing from one world to the other. Entering a mirror-universe would not be as difficult as traveling faster than light, which Einstein's theory of Relativity tells us is impossible to do. As an object approaches the speed of light (which is 186,000 miles per second), it shrinks and when it reaches the speed of light, it disappears entirely. If a mirror-universe exists, our space ship would drop out of our space and into that of the mirror-universe. On the other hand, if the inhabitants of the mirror-universe wanted to visit ours, they would have to slow one of their spaceships down to a sub-light speed, which I imagine one of their physicists told them is impossible to do. In the process of such a transference, a space traveler's atomic structure would also be reversed so that he would interact freely with whoever or what ever he might meet, without the fear of extinction.

#### REFERENCES

1. Isaac Asimov, Inside the Atom (Abelard-Schuman, 1966) pp. 147-151
2. Astronomy, "What Caused the Siberian Collision?" (January 1975), p 57.



# ASTRONOMICAL LEAGUE

A FEDERATION OF ASTRONOMICAL SOCIETIES

- ★ To promote the science of astronomy.
- ★ To encourage and coordinate activities of amateur astronomical societies.
- ★ To foster educational and recreational work, and conferencing opportunities in the various fields of astronomy.
- ★ To provide a medium for correlating amateur activities with professional research.
- ★ The Astronomical League shall be a non-profit organization.

SCIENCE SERVICE BUILDING  
WASHINGTON D.C. 20004

May 1, 1975

Dear Fellow Member:

I extend to each and every one of you a sincere invitation to attend your 1975 National Convention here in Atlanta. The dates are set for August 13-16 and we hope these are convenient to you for that last fling of the summer or a final vacation before the children go back to school. We are proud to say Atlanta is a hub of activity for all ages and hope you include this convention in your family plans.

I have a very enthusiastic and efficient local arrangements committee working with me. We are on or ahead of schedule in our arrangements and feel sincerely this will be our best convention yet. We will keep you busy for three full days with the many activities in the tentative program enclosed. Five paper sessions are scheduled each kicking off with an invited paper by a professional astronomer in the field. Thursday evening we plan tours of Bradley and Fernbank Observatories with their 30 and 36 inch telescopes, respectively. Friday is a Bar-B-Que dinner at the foot of the world-famous carving at Stone Mountain Park followed by a special program. But Saturday is our real coup. Dr. Gerald A. Soffen, Project Scientist for Project Viking, will be flying up from the Cape between the two Viking launches to speak to us at our Saturday evening banquet. What could be more timely in the world of astronomy and space exploration?

Enclosed are preregistration forms and an information sheet. We look forward to your participation here in August.

Sincerely,

*Bob Hayward*

Robert R. Hayward  
Convention Chairman  
(404) 378-4311

ASTRONOMICAL LEAGUE  
1975 National Convention  
August 13-16, Atlanta, Ga  
Information

REGISTRATION: Please complete the enclosed preregistration form and return it prior to August 1. Regular registration will be \$1 per person higher. A comprehensive registration includes the individual or family registration, one (individual) or two (family) adult BBQ and banquet tickets, one group photograph, and one copy of the proceedings. A registration and information desk will be maintained at the Ramada during hours indicated on the enclosed tentative schedule. Registration Chairperson is Mrs. Katrina M. Gale.

LOCATION: All activities except for Thursday and Friday evenings will be held at the new Ramada Inn Central, 480 Plasters Ave., NE, Atlanta, GA 30324, PH (404) 873-8661. The enclosed card should be returned directly to the Ramada prior to July 23. Rooms are \$17 single and \$23 double.

TRANSPORTATION: This new Ramada does not yet have its own limousine service to the airport established but may by August. There is commercial limousine service available at \$5 per person. Taxi is approximately \$8.50 + \$.25 per person and is recommended if you are traveling together. Bus service to downtown is available approximately one block away from the Ramada. The Ramada is on I-85 at Monroe Drive and thus very convenient by automobile.

CAMPING: Camping is available at many locations along the interstate highways entering Atlanta. Most convenient is Stone Mountain Park.

PAPERS: Please consider presenting a paper at this meeting. Return the enclosed form prior to July 20 to allow time for abstracts to be printed. Proceedings will be published and mailed after the convention. Paper Chairman is Dr. Ralph L. Buice, Jr., Physics/Chemistry Department Chairman at Fernbank Science Center.

EXHIBITS: You are also encouraged to exhibit the fruits of your astronomical labor to your fellow stargazers. Exhibits should be limited to a single five foot table or equivalent floor space. Please return your preregistration form prior to July 20 if you plan to exhibit. Exhibit Chairman is Mr. Lee R. Wilson.

ADDRESS: Please return all forms except the Ramada room reservations to

Mr. Robert R. Hayward  
Astronomical League Convention  
Fernbank Science Center  
156 Heaton Park Drive, NE  
Atlanta, Georgia 30307

May 1, 1975

Dear Fellow Member:

As one amateur astronomer to another, I hope that you will consider presenting a paper in one of the paper sessions during the 1975 Astronomical League convention in Atlanta. I am sure that most of you have a pet project, idea, or topic which would be of interest to other amateurs. Your latest sky photographs, details of the construction of your observatory or telescope, or perhaps an explanation of some piece of astronomical equipment of your own design all make paper sessions enjoyable to everyone at the convention.

Five paper sessions are planned: a General session, two Observational sessions, a Theoretical session, and one session on Instrumentation. Each session will begin with a 30 minute invited paper by a professional astronomer active in the field. Subsequent papers will be allotted 15 minutes for delivery with an additional 5 minute period for discussion. Each paper session will be conducted by an invited Session Chairman. A complete range of audio-visual materials will be available.

The deadline for submission of paper topics is July 20. If you would like to present a paper, please fill out the attached form and return it before the above deadline. I would also like to receive an abstract of your paper in the form of a few sentences which could be printed in the convention program. At the conclusion of your presentation, please give to the Session Chairman a copy of your paper so that it can be printed in the Convention Proceedings.

Regards,

*Ralph L. Buice, Jr.*

Dr. Ralph L. Buice, Jr.  
Paper Chairman

-----  
Name \_\_\_\_\_

Club \_\_\_\_\_

Title of Paper \_\_\_\_\_

Audio Visuals needed \_\_\_\_\_

Abstract:

ASTRONOMICAL LEAGUE  
1975 National Convention  
August 13-16, Atlanta, Ga  
Tentative Schedule

Wednesday	1:00-10:00pm	Registration and Information Booth open
	8:30-10:00pm	Mixer
Thursday	8:00am-10:00pm	Registration and Information Booth open
	9:00-12:00	Welcome Papers: Instrumentation Group Photograph
	1:30-5:00pm	Papers: Observations
	8:30-11:30pm	Tours to Bradley and Fernbank Observatories*
Friday	8:00am-7:00pm	Registration and Information Booth open
	9:00-12:00	Papers: Observations
	1:30-5:00pm	President's Address Papers: Theoretical Topics
	7:30-10:30pm	Bar-B-Que and program at Stone Mountain Park**
Saturday	8:00am-7:00pm	Registration and Information Booth open
	9:00-12:00	Papers: General Topics
	1:30-2:30pm	General Business Meeting
	6:30-9:30pm	Social Hour Banquet: Dr. Gerald Soffen, NASA, Project Viking

\*Bus transportation from the Ramada will be furnished.

\*\*Entrance fee to the park is \$1.50 per automobile. Bus transportation from the Ramada will be arranged as necessary at approximately \$2 per person.

ASTRONOMICAL LEAGUE  
 1975 National Convention  
 August 13-16, Atlanta, Ga  
 Preregistration

Name \_\_\_\_\_

Address \_\_\_\_\_  
 \_\_\_\_\_

Club Affiliation \_\_\_\_\_

_____ Individual Registrations	x \$ 7.50* =	_____
_____ Family Registrations	x \$12.00* =	_____
_____ Banquet tickets	x \$ 9.00 =	_____
_____ Adult BBQ tickets	x \$ 6.00 =	_____
_____ Child (under 12) BBQ tickets	x \$ 4.75 =	_____
_____ Child (under 5) BBQ tickets	x \$ 1.00 =	_____
_____ Group photographs	x \$ 2.00 =	_____
_____ Copies of proceedings	x \$ 2.50 =	_____
_____ Comprehensive Individual Registrations	x \$25.00* =	_____
_____ Comprehensive Family Registrations	x \$45.00* =	_____
TOTAL		_____

\*Add \$1 per person for regular registration. Preregistrations close August 1.

Please inclose check or money order made out to the Astronomical League. Thank you.

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 If you plan to bring an exhibit, please complete the following and return this entire form prior to July 20.

Description of exhibit:

Space requirements:

Special requirements (power, etc.):



ASTRONOMICAL LEAGUE

The 25th., Silver Anniversary of the Mid-States Region, Astronomical League and the 100th, Centennial Anniversary of the founding of The Morrison Observatory, will be held at Central Methodist College, Fayette, Missouri, June 12, 13, 14 & 15, 1975.

REGISTRATION - Registration will begin at NOON, June 12, at The Morrison Observatory. Individual registration fee is \$4.00 and \$5.00 for a family. Delegates may send their fee in advance to Mrs. Del Scott, Route # 2, Box 144, O'Fallon, MO, 63366, in order that we'll know ahead of time, about how many to expect.

HOUSING - Delegates will be housed either on an individual basis or families in Howard-Payne Hall. Bed linens will be furnished. It is suggested, since the residence hall is not air-conditioned that you bring along a portable electric fan. Also you may want to bring a light blanket: your toilet articles, towels and wash-cloths etc. Holt Hall will also be used as dormitory housing.

MEALS - Meals will be served cafeteria style and past experience has shown that no one was ever disappointed in the food or the service at Central Methodist College. Cafeteria basement of Holt Hall.

COSTS - The package cost for dormitory housing to include Thursday, Friday, Saturday nights and 9 (nine) meals AND INCLUDING THE SATURDAY NIGHT BANQUET will be \$32.00. Pro-rated charges will be made for anyone who can come on a one day basis. The above stated registration fee is over and above the \$32.00 housing and meals charge.

MOTEL OR HOTEL ACCOMODATIONS - The Silver Bell is the only motel in Fayette, which has limited facilities. Major motels are in the Cities of Columbia and Boonville 23 and 13 miles distant by auto. Excellent accomodations may be had at Ramada Inn, Holiday Inn and Best Western Motels in Columbia. Delegates are urged to make direct contact with these motels by calling your local area unit who will in turn make reservations for you. Please mention that you will be attending the MSR regional convention at Fayette.

PROGRAM - Russ Maag, Vice-president, Astronomical League and member of the Midland Empire Astronomy Club, St. Joseph, MO. is acting program chairman. He and Mr. & Mrs. Del Scott, address above will receive any titles, including a brief resume for papers any delegate wishes to present during the convention. A program agenda will be prepared and if you desire your paper to be presented - PLEASE GET THE NOTICE TO EITHER OF THE ABOVE PARTIES - DEADLINE IS JUNE 10, 1975!!

BANQUET SPEAKER - Dr. Willet I. Beavers, Associate Professor of Physics and Astronomy and Director of the Edwin W. Fick Observatory, State University of Iowa and "one of our boys" having been a member of the Central Missouri Amateur Astronomers at Fayette, while he was a student at the University of Missouri, Columbia, Mo., will be our banquet speaker and talking on "Astronomical Heritage of the Mid-West" The banquet (INFORMAL) will be held on Saturday night.

AWARDS - The annual Mid-States Regional Award will be presented during the time of the Saturday evening banquet. All societies are thus notified that if there is a person among your membership, who has performed an outstanding service to amateur astronomy; he or she is eligible for this award. Club officers take note and get your recommendations in to Regional Chairman, Hollis Schmohe, 1306 Randall, Route # 4, Fulton, MO. 65251. Hollis and the past two regional chairmen will decide who is to receive this years award. The deadline for your recommendations is June 10. In view of the 25th anniversary of the founding of our region there will be some additional awards this year.

DISPLAYS - Bill Case, 806 Grand, Fulton, MO. 65251, will be the person to contact about individual and society displays. Please send Bill your request for space along with a brief description of what you wish to display.

STAR PARTIES - There will be observing each night, providing the weather cooperates. WE URGE YOU TO BRING ALONG YOUR PORTABLE SCOPES! In the event of inclement weather several "Bull Sessions" will be arranged to include such subjects as telescope making, mirror and lens grinding techniques, astrophotography, star grazing etc., etc.

FEATURED SPEAKERS - Several speakers for major talks are assured during the convention and these include:

Dr. FLOYD F. HELTON - Chairman, Department of Mathematics, University of the Pacific, Stockton, California. Dr. Helton was a former staff member at Central Methodist College, being chairman of the Math. Dept. there before going to California, former Director of the Morrison Observatory at the time of the founding of the Mid States Region. Dr. & Mrs. Helton are returning for the convention and he will talk to the group about the "good ole days".

Major John W. Reed,-- Research Scientist, U.S. Air Force, Cambridge Research Center, Cambridge, Mass. John is another of "our boys", whose hometown is Columbia, MO., and while a student in physics at U. of MO., was among the early "founders" of the CMAA and the MSR. Major Reed will discuss some recent research problems involving the upper atmosphere an especially in the infra-red "nitty-gritty" research.

Dr. Edward Zeller - Geophysicist, Space Technology Center, University of Kansas, Lawrence, KS., will discuss "Comparative Differences of the Inner Planets" with respect to the latest analysis gleaned from the most recent space probes to Mercury, Venus and Mars.

Dr. John P. Basart - Associate Professor of Electrical Engineering, State University of Iowa, and Director of the Radio Astronomy Section of the Edwin W. Frick Observatory, Ames, Iowa. Dr. Basart will discuss "Radio Astronomy Techniques". Dr. Basart, while in the U.S. Air Force, Knob Noster, Mo., Whiteman AFB, is familiar with many of our people.

APPEAL - To all regional society officers and/or editors of local society bulletins. Please reproduce the essential information in this bulletin in your May or June issue, so that more individual members within your group will have this information. Bulk mailing is being made to all societies. We urge you to pass this on

RUSSELL C. MA  
PLANETARIUM COORD  
MISSOURI OBSERVATORY  
ST. LOUIS MISSOURI

Abbreviated street outlay of City of Fayette, MO.

