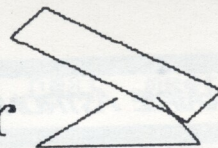


The Prairie Astronomer



Lincoln Ne.

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IRAS STANDS FOR INFRARED ASTRONOMY SATELLITE. IT WAS LAUNCHED IN JAN. 83. IT HAS COVERED SUCH DIVERSE SUBJECTS AS STARS DURING THEIR EVOLUTION, OBSERVATIONS OF OUR GALAXY CENTER, AND BEYOND TO THE EDGE OF THE UNIVERSE.

ALTHOUGH THE SATELLITE IS PREDICTED TO CEASE OPERATION IN JAN. 84 SCIENTISTS ALREADY GATHERED INITIAL FINDINGS AND ARE WORKING FEVERISHLY TO OBTAIN AS MUCH DATA AS POSSIBLE IN THAT TIME FRAME.

GARY NEUGEBAUER, TEAM LEADER OF THE IRAS GROUP SUMMARIZED THE FINDINGS TO DATE.

** DUST CIRCLING THE SUN BETWEEN MARS AND JUPITER HAS BEEN FOUND.

** COMETS THAT WOULD NOT BE FOUND WITH NORMAL GROUND BASED TELESCOPES HAVE BEEN FOUND IN MORE NUMBERS THAN EXPECTED.

** THE ORIGIN OF THE GEMINID METEOR STREAM MAY HAVE BEEN FOUND. A 1.2 MILE IN DIAMETER BODY MOVING ALONG THE GEMINID PATH MAY BE THE CAUSE. CALLED MINOR PLANET 1983TB IT PASSES WITHIN 9 MILLION MILES OF THE SUN.

** THE FORMATION OF SOLAR SYSTEMS MUCH LIKE OURS MAY BE MORE NUMEROUS THAN FIRST THOUGHT.

** AT SOME INFRARED WAVELENGTHS THE SKY IS DOMINATED WITH GALAXIES UNDETECTED IN VISIBLE LIGHT.

GROUP SCIENTISTS SAY OBSERVING WITH THE IRAS MAKES IT POSSIBLE TO OBSERVE THROUGH MUCH OF THE INTERSTELLAR DUST THAT OBSCURES OUR VISIBLE SPECTRUM.

MUCH MORE INFORMATION NEEDS TO BE STUDIED. TIME IS THE BIGGEST PROBLEM. DATA POURS IN FROM THE SATELLITE AT 350 MILLION DATA BITS PER DAY. A NEW MORE POWERFUL ONE IS EXPECTED TO BE LAUNCHED IN THE 1990'S FROM THE SHUTTLE. THIS SYSTEM WILL POSSIBLY BE ABLE TO STUDY STAR SYSTEMS AND ANY RELATED PLANETARY BODIES.

ELECTIONS '84

FOLLOWING FIND THE RESULTS OF THE PAC ELECTIONS FOR THE COMING YEAR. GOOD LUCK TO ALL AND A PROSPEROUS YEAR FOR US.

PRESIDENT--JOHN LORTZ

VICE PRESIDENT--RON VEYS

TREAS.--LEE THOMAS

SECRETARY--BEV HETZEL

PROGRAM CHAIR.--ANDY CORKILL

OBSERVING CHAIR.--TO BE APPOINTED

***** PRESIDENTS MESSAGE *****

WELL, IT'S TIME FOR A NEW YEAR AND A NEW FLEDGLING PRESIDENT. IT WON'T BE EASY FOLLOWING IN THE FOOTSTEPS OF TWO DYNAMIC INDIVIDUALS SUCH AS RUSS AND RON, BUT I GUESS THE DAMAGE HAS BEEN DONE...AND I'M IT? QUITE SERIOUSLY, I DID A LOT OF THINKING BEFORE ALLOWING MYSELF TO BE NOMINATED. BEING PRESIDENT OF A GROUP IS NOT SOMETHING ONE SHOULD TAKE LIGHTLY, ESPECIALLY WITH A CLUB AS ACTIVE AS THE PAC. BUT AFTER A MONTH-LONG DELIBERATION I DECIDED THAT I AS AN INDIVIDUAL AND AS A CLUB MEMBER HAD SOMETHING TO CONTRIBUTE BY BEING PRESIDENT.

OF COURSE I'M NOT ABOUT TO DRASTICALLY CHANGE THE CLUB MEETINGS OR FUNCTIONS...THAT'S SOMETHING I COULDN'T DO EVEN IF I WANTED TO. I THINK THE CLUB AS A WHOLE IS A VERY STRONG AND ACTIVE ORGANIZATION. HOWEVER, I WOULD BE FAILING THE CLUB AS WELL AS MYSELF BY NOT ATTEMPTING TO IMPROVE THE CLUB THROUGH MY NEW POSITION BY THE IDEAS THAT I HAVE.

HAVING BEEN IN THE CLUB FOR FIVE YEARS NOW, I FEEL I KNOW PEOPLE WELL ENOUGH AND HAVE PARTICIPATED IN CLUB ACTIVITIES ENOUGH TO FORMULATE A FEW IDEAS THAT I BELIEVE WOULD BE BENEFICIAL. FIRST, I THINK IT EXTREMELY IMPORTANT TO CONTINUE WITH PRESIDENT GENZMER'S HOPES OF GETTING MORE MEMBERS INVOLVED WITH CLUB MEETINGS AND FUNCTIONS. I HOPE THAT BETWEEN MYSELF AND THE REST OF THE OFFICERS THIS CAN BE ACCOMPLISHED. SECOND, I THINK ANY GROUP TENDS TO STAGNATE WITHOUT NEW PEOPLE JOINING IT'S RANKS. IN THE NEXT YEAR I HOPE TO START SOME PROGRAMS TO PROMOTE THE CLUB AND DRAW IN NEW MEMBERS. THIRD, LOOKING AT OLD SKY AND TELESCOPE'S I FOUND THAT MANY OF THE MOST ACTIVE CLUBS HAVE LARGE-SCALE PROJECTS THEY DEVELOPE. WE ARE NOW ENGAGED IN BUILDING A NEW TELESCOPE. I HOPE TO PROMOTE SOME MORE IDEAS FOR THE CLUB TO TAKE ON AS PROJECTS IN THE NEXT YEAR, KEEPING US AS ACTIVE AS POSSIBLE.

FINALLY, I FELT ONE OF THE MAJOR FUNCTIONS OF THE CLUB AS A WHOLE IS TO COMMUNICATE ASTRONOMY TO ITS MEMBERS, AND IN THE NEXT YEAR I WOULD LIKE TO SEE ORGANIZATION OF STRUCTURED OBSERVING PROGRAMS FOR ALL MEMBERS INTERESTED.

I'VE TAKEN UP MORE THAN ENOUGH SPACE THIS MONTH AND PROMISE TO BE LESS WORDY IN THE FUTURE. I'M VERY OPTIMISTIC ABOUT THE COMING YEAR AND HOPE THAT I WILL SERVE YOU ALL WELL AS PRESIDENT. SEE YOU AT THE MEETING.

JOHN LORTZ

THE PRAIRIE ASTRONOMER IS PUBLISHED MONTHLY BY THE PRAIRIE ASTRONOMY CLUB.
MEMBERSHIP STRUCTURE.

1. NEWSLETTER SUBSCRIBER ONLY, \$6.00. OVER 21 YEARS OF AGE NO VOTING PRIVILEGES (NEWSLETTER ONLY).
 2. JUNIOR MEMBER (NEW) \$6.00. 21 YEARS OF AGE AND LESS. RECEIVE NEWSLETTER AND CLUB VOTING PRIVILEGES. NO SKY AND TELE SUBSCRIPTION THROUGH CLUB AT THIS RATE.
 3. REGULAR MEMBER \$19.00. RECEIVES NEWSLETTER, VOTING PRIVILEGES, SKY AND TELESCOPE SUBSCRIPTION WITH DUES THROUGH CLUB. NO AGE RESTRICTION.
 4. FAMILY MEMBERS \$21.00. SAME AS REGULAR MEMBER, BUT RECEIVES 2 VOTES IN ELECTIONS.
- NUMBERS 2,3, AND 4 ABOVE ALSO CAN RECEIVE AS AN ELECTIVE, ASTRONOMY MAGAZINE THROUGH THE CLUB AT \$12.00 PER YEAR. ADDRESS MEMBERSHIP RENEWALS TO: PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN NE. 68501. ADDRESS ALL ARTICLES FOR INCLUSION IN THE NEWSLETTER TO RUSS GENZMER 5301 SOUTH 30TH. LINCOLN NE. 68516. ALL ARTICLES MUST BE RECEIVED 10 DAYS BEFORE THE MEETING DATE.

WELCOME NEW MEMBERS

THE CLUB WELCOMES THE FOLLOWING NEW MEMBERS TO OUR CLUB.

SCOTT MCMASTER AUBURN NE
MICHAEL MCCARTY LINCOLN NE
TOBY KERENSKY LINCOLN NE
EUGENE C. BROTT SEWARD NE

MAGS. ARE IN

TELESCOPE MAKING MAGAZINE NUMBER 20 IS IN AND THOSE THAT HAVE STANDING ORDERS PLEASE PICK UP AT THE MEETING.

***** This Month's Meeting *****

THIS MONTHS PROGRAMS SHOULD PROVE QUITE INTERESTING. JOHN JOHNSON WILL PRESENT A TALK ON HIS 10" TELESCOPE AND ITS CONSTRUCTION. RON VEYS HAS RETURNED FROM WASHINGTON AND AFTER VISITING THE AERO SPACE MUSEUM AND THE NAVAL OBSERVATORY WILL LET US KNOW HIS FINDINGS.

***** Observer's Report *****

OPEN CLUSTERS DOMINATE THE LATE FALL SKY, AND AURIGA IS FULL OF THEM. M38, LOCATED 1 1/2 DEGREES SOUTH AND ABOUT ONE HALF DEGREE WEST OF SIGMA AURIGAE, IS A BEAUTIFUL GROUP OF FAIRLY BRIGHT STARS IN A RICH MILKY WAY BACKGROUND. JUST TO THE SOUTH OF M38 IS THE SMALL DENSE CLUSTER NGC 1907. AN 8 INCH MAKES THE ENTIRE AREA SEEM LIKE AN OPEN CLUSTER. 2 DEGREES SOUTHEAST OF MGC 1907 IS M36, A NICE BRIGHT GROUP OF STARS THAT IS AN EASY TARGET FOR THE SMALL TELESCOPE. THE BEST CLUSTER IN AURIGA IS M37, LOCATED 4 1/2 DEGREES SOUTH AND JUST OVER A DEGREE WEST OF THETA AURIGAE. IT SHOULD BE VIEWED WITH AT LEAST A 4 INCH INSTRUMENT WHICH WILL SHOW IT AS A SPECTACULAR BALL OF FAIRLY BRIGHT STARS IN A DENSELY PACKED FORMATION RIVALING THE FAMOUS M11.

THOSE OF YOU WISHING TO GO AFTER THE CRAB NEBULA IN TAURUS MAY WANT TO FORGET ALL THE PHOTOGRAPHS YOU HAVE SEEN OF IT. LOCATE 1 DEGREE NORTHWEST OF ZETA TAURI, IT CAN BE GLIMSED WITH A GOOD 2.4 INCH REFRACTOR AT LOW POWER, BT MOST TELESCOPES ONLY SHOW IT AS A DIM FUZZY IRREGULAR PATCH OF LIGHT. INFRARED PHOTOGRAPHS OF THIS OBJECT SHOW IT VERY MUCH AS IT APPEARS VISUALLY THROUGH EVEN FAIRLY LARGE TELESCOPES.

MANY OF YOU WILL WANT TO LOOK AT THE GREAT ORION NEBULA IN ORION'S SWORD. AFTER YOU DO THIS, HOSE WITH SIX INCH OR LARGER INSTRUMENTS MAY WANT TO TRY FOR THE MANY FAINT GASEOUS NEBULAE THAT DOT THE ENTIRE REGION. JUST NORTHEAST OF ZETA ORIONIS IS THE FAINT NEBULA NGC 2024. IT APPEARS AS A SET OF IRREGULAR HAZY PATCHES AND WHISPS (ITS A GOOD IDEA TO KEEP ZETA OUT OF THE FIELD WHILE OBSERVING THIS NEBULA).

THE NEXT STAR PARTY IS SCHEDULED FOR DECEMBER 2ND WITH THE DATE OF DECEMBER 30TH BEING THE ONE AFTER THAT. I AM PUTTING TOGETHER A PROGRAM FR THE CLUB ON DEEP SKY OBSERVING THAT SHOULD BE PRESENTED AT THIS MONTH'S OR NEXT MONTH'S MEETING, SO BE SURE TO ATTEND.

**** Please read these Bylaws carefully before the next meeting.**

We will discuss them and make necessary changes at that time.

PRAIRIE ASTRONOMY CLUB BYLAWS

NAME

The name of the Club is Prairie Astronomy Club of Lincoln, Nebraska.

PURPOSE

The purpose of the Club is to encourage and to participate in the study of astronomy and related subjects for the benefit of its members and of the general public, including but not limited to owning an observatory, telescopes or other instruments or property useful in such studies. No part of its income or net earnings are to inure to the benefit of or be distributable to its members, directors or officers or any private individual.

PROCEDURES

A quorum of one-third of the memberships on the current membership list must be present for a vote to be binding. A Family membership shall count as one membership for this purpose. A simple majority vote of the members present is required except where a two-thirds majority vote has been required by these Bylaws.

When conducting the business of the club, procedural disputes shall be decided by consulting Roberts Rules of Order. All amendments to a motion must be voted upon before the vote on the main motion may be called for.

All regular club meetings shall be open to the general public.

DEBTS AND OBLIGATIONS

A two-thirds majority vote by a quorum at a regular meeting shall be required to obligate the club for any debt or to increase any outstanding debt. The property of members, directors, and officers shall not be liable for payment of the debts and obligations of the club.

BOARD OF DIRECTORS

The business of the club shall be managed by a Board of Directors. The Board shall have the power to spend funds from the treasury for any valid purpose. The Board shall create additional non-elective offices as required and initiate impeachment proceedings against officers who have been negligent in performing their duties.

The Board shall consist of the elected officers of the club. Each decision of the Board shall require an affirmative vote of three Board members.

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ELECTION OF OFFICERS

Five officers shall be elected from the membership: President, Vice-President, Secretary, Treasurer, and Program Chairman.

Nominations for the elected officers shall be held during the September meeting and elections held during the October meeting. The term of office for elected and appointed officers shall be from November 1 until October 31 or until a successor is elected. In the event of a vacated elective office, a special election will be held to fill that office for the remainder of the term.

Impeachment of any officer shall require a two-thirds majority vote by a quorum of members at a regular meeting. Notice that an impeachment vote is to be held and the name of the officer involved shall be printed in the Prairie Astronomer prior to the meeting.

Non-elected offices shall be held by qualified club members appointed by the newly-elected President.

DUTIES OF THE ELECTED OFFICERS

President:

The President shall organize and direct the regular monthly meetings and all other club activities, officially represent the Club at meetings of regional and national importance where he is in attendance or to delegate this authority.

The President shall have the authority to call meetings of the Board of Directors and to appoint non-elected officers.

Vice-President:

The Vice-President shall be responsible for meetings when the President is absent. He is to be the mediator in cases of procedural dispute, to temporarily assume any duties of any officer at the direction of the President, and to be in charge of club publicity.

Secretary:

The Secretary shall handle all club correspondence and be responsible for the distribution of information received through official club correspondence.

Treasurer:

The Treasurer is responsible for all club funds and for keeping accurate records of all monetary transactions. He shall submit a written report of the club's monetary status at the request of the President, or give a verbal report at the request of any member during regular meetings. He shall also maintain a current inventory of all club property.

Program Chairman:

The Program Chairman shall be responsible for the formation and presentation of monthly club programs.

DUTIES OF NON-ELECTED OFFICERS

Publications Chairman:

The Publications Chairman is responsible for the editing, publishing, and mailing of the Prairie Astronomer in advance of each monthly meeting.

Recording Secretary:

The Recording Secretary is responsible for keeping the minutes of club meetings and filing a copy with the club Secretary.

Librarian:

The Librarian shall keep the club library and promote its circulation among the club members. Dated records of persons to whom books are circulated are to be kept by the Librarian. He shall keep a current bibliographic listing of all club library materials and file updated copies as necessary with the club Treasurer.

Observing Chairman:

The Observing Chairman shall present a monthly report at club meetings and/or in the Prairie Astronomer. He shall attempt to keep members informed of upcoming celestial events, sky objects of special interest, and star parties.

MEMBERSHIP

There shall be two classes of membership: Individual and Family.

An Individual Membership shall be granted to any individual who has a valid interest in astronomy and the club's activities, upon payment of the proscribed dues. Family Membership shall be granted to any family, the members of which have a valid interest in astronomy and the club's activities, upon payment of the proscribed dues.

Except for voting rights and dues, the rights of the two classes of memberships are identical.

VOTING

A paid-up Individual member shall have one vote. A paid-up Family membership shall have two votes when two or more family members are present at the time of voting. When only one member of the family is present, he may cast one vote.

A family or individual member must be present in order to cast a vote.

RIGHTS OF MEMBERS

Each paid-up membership has the right to:

1. Receive a years subscription to Sky & Telescope magazine.
2. Receive notification of all club meetings, activities, and other events occurring in the name of the Club.
3. Initiate and second motions. The President does not have this right.
4. Speak out and be heard during club discussions.
5. Submit for publication articles for the Prairie Astronomer.
6. Submit, without charge, advertisements of relevance for publication in the Prairie Astronomer.
7. Require a reading of the minutes of the last meeting, a Treasurer's Report, or request a secret ballot.

DUES

Dues shall be determined by the club membership and adjusted as required to meet expected expenditures and the cost to the club of Sky & Telescope magazine.

DISSOLUTION

The Club shall not be dissolved so long as five members vote against dissolution. If the Club is dissolved, its assets at the time of dissolution, after payment of liabilities, shall be distributed to Nebraska Wesleyan University, to be used for purposes similar to those of this Club.