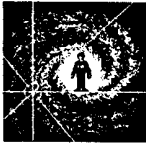


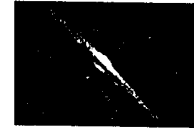
The Dark Sky Observer



A publication of
The North Jersey Astronomical Group

Volume: 2 Number: 5

June 1989



NEW BY - LAWS ON THE TABLE

By Charles O'Reilly

After the aborted attempt at revising the NJAG's Constitution and By-Laws during fall and winter, many Group members never wanted to here the words "by-laws" again. However, the need still existed for an overhaul of the documents, based on the changes in the Group's structure since the last official revision, in 1986.

To that end the group sat down, combined elements from the current documents, the 1988 proposal and member suggestions, and arrived at a brand new Constitution and By-Laws, which are now on the table for discussion at the June meeting. A vote to accept the documents is scheduled for July. Unlike the 1988 proposal, the new endeavor retains the old format of two separate documents. However, several important changes have been made. Examples:

* The various forms of membership have been spelled out. A distinction has been made between Honorary members, elected from outside the group and not able to hold office, and Lifetime members. This newest membership category applies to Group members who have "devoted unceasing effort and time to the Group or the science of astronomy." Lifetime members are not assessed dues, but they are eligible to hold office.

* The rules for voting eligibility have been clarified to include every family member covered by a Family Membership. However, each person in a family must have filled out his or her own application to be eligible to vote.

* Proxy voting, a hot topic in the discussions of the 1988 proposal, has been explicitly eliminated. A member must be present in order to vote, both on ratification of the documents and upon any question at a business meeting.

* An eleventh standing committee, the Library Committee, will be established in order to maintain the growing NJAG bookshelf. The librarian appointed will maintain a catalog and notify members of overdue books. Copies of the document are available for all members at the observatory building. We encourage your attendance at the June discussion and at the July ratification vote. ☆

Magellan - on to Venus

taken from Science News, 5/13/89

If Magellan, the first U.S. interplanetary spacecraft sent from earth since 1978, orbits Venus next year as successfully as it took off on MAY 4th, a stroke of scientific luck may emerge from the six-day delay in launching the space shuttle Atlantis.

The relative motions of Venus and Earth meant that as late as May 5th the radar mapper's approach to Venus would be slower for each day the launch was postponed, reducing the amount of hydrazine propellant needed to slow the craft enough to settle into its correct orbit. The "launch window" opened April 28th, and mission officials had planned to launch that day, because unforeseen delays lasting more than a month would have forced Magellan to wait nearly two years for another try. May 5th would have proved best from a fuel economy point of view, says Elliot Cutting, head of the Magellan Mission Planning Team at the Jet Propulsion Laboratory in Pasadena, Calif., but May 4th was "awfully close."

That launch date probably saved about 5 of Magellan's 132 kilograms of hydrazine, Cutting says. If everything else about the craft behaves as planned, this

(Continued Page 2 column 2)

Last Meeting

N.J.A.G. MINUTES
date: May 10, 1989

CALL TO ORDER:

(PRESIDENT GLENN BURKE) The meeting was called to order at 8:15 p.m. by President Glenn Burke and was attended by 16 members.

RECORDING SECRETARY:

(JULIE CONROY) A motion to accept the minutes of the previous meeting as corrected.

CORRESPONDING SECRETARY:

(DENNIS KOENIG) Dennis announced that requests for literature for Astronomy Day have been sent out as well as fliers announcing the event to local clubs. A second bonus certificate has been received from the Astronomy Book Club and it is good for one year.

TREASURER:(RUTH KOENIG)

Ruth reported a current balance of \$ 654.85. She also informed members that NJ Bell has lowered the interest rate to be paid on deposits.

VICE PRESIDENT:(GRACE CASALINO)

No report.

COMMITTEE REPORTS

ASTROPHOTOGRAPHY:(CHAIRMEN ANGELO RESTIVO AND DON POLZO)

Glenn Burke reminded members about the annual Astrophotography Contest.

COMPUTER:(CHAIRMAN MIKE KOENIG)

No report.

DARKROOM:

(CHAIRMAN MIKE KOENIG AND ALLEN KOENIG)

Reported that the slide copier has arrived. Alan also requested that fixer not be discarded. A suggestion was made to keep a record of the chemicals in stock and when they were mixed.

EDUCATION:(CHAIRMAN JIM BEIRNE)

No report.

(continued from page 1)

could provide a substantial fuel reservoir for extending the basic 243 day mission. Each additional 243 day cycle — the time needed for Magellan to map its way around the planet — should use about 2 kilograms of hydrazine. The excess could thus be enough to hold the craft steady for 2 1/2 more cycles

What scientists want most from an extended mission is to map any areas Magellan misses the first time. Such gaps may be created when the sun blocks the craft's radio beam to earth.

Scientists also hope the craft will have time (and Hydrazine) to map Venus' south polar region, not seen at all by the Soviet Venera 15 and 16 orbiters, the most recent craft to go there. In addition, the mission team is studying the possibilities of remapping some of the surface with the radar beam aimed at a different angle and polarized differently — two ways to extract more information from the global Venus database that may be the last for years.

A particularly exciting possibility calls for Magellan to make its radar maps in stereo, by electronically adjusting its antenna to add what amounts to a "left eyed" view of areas where it gathered "right eyed" data during a previous orbit. Another use for some of the hydrazine would be to lower the orbit's lowest point at some time from 250 to 200 kilometers, enabling the craft to produce maps, with better contrast and more detail. ☆

Pluto, gets some respect

I am sure Clyde Tombaugh, the discoverer of the planet Pluto and special guest speaker at last year's Stellafane convention, will be happy to hear of this news item.

Recent analysis of telescopic data has proven that far-flung Pluto is indeed a planet and not an asteroid or satellite, researchers said.

William McKinnon, associate professor of planetary science at Washington University in St. Louis, said he has shown the composition of Pluto is just what is expected of a solid planet in the outer solar system. That, he said, should put to rest the long-held notion that Pluto is a fugitive — a satellite that escaped Neptune.

"Pluto has been denied a certain amount of respect since its discovery in 1930," McKinnon said in a news release distributed by Washington University. "But it also has been a constant source of controversy and fascination." ☆

The Large Eyes of Big Binoculars

By Glenn Burke

During the end of May I had the chance to do some observing from the dark skies of Pennsylvania at my aunt and uncle's summer home in the Poconos. Great you might think, dark skies, brilliant stars, the rising milky way! Unfortunately, the night I was able to go was one day past full moon. Rats! I figured though that I would go up just to enjoy the peace and quiet and maybe do some quick observing between the end of twilight and moonrise. To bring my telescope and eyepieces for just an hour or so of observing wasn't worth it, so I took along my 11 x 80 binoculars.

I took the scenic drive up route 80 and arrived at the house before dark. But of course it was cloudy so that night was shot. I decided to stay over and give it a try the next night. The following morning started off just as bad, but the clouds cleared and by sunset the whole sky was open. Soon after sunset the stars began to pop out. The sky although still somewhat blue, looked better than the sky as seen from the club on a good night. I remembered that Venus should be visible in the evening by now so I swung my binoculars to the northwestern horizon and was treated to not only Venus, but Jupiter as well! They were fairly close together and were only 2 or 3 degrees above the horizon. It was a real pretty sight to see Venus and Jupiter hanging in a red tinted sky. I don't really keep up on what the planets are doing so it was only after I got home that I found out that Jupiter and Venus were very close to a conjunction that night. It's a good thing that I remembered to look for Venus or I would have missed this beautiful pairing.

After viewing Jupiter and Venus I searched around where I thought Hercules was, but unlike Alan Koenig, I can't find M-13 while the sky is still blue so I waited. Eventually it began to get really dark and I quickly bagged M-81 and M-82. I was surprised at how good they looked in the binoculars. You see since I won them last year at Stellafane I haven't really used them that much, and when I have, I haven't been really looking through them critically. M-81 showed up as a bright fuzzy oval, brighter than its neighbor galaxy M-82. In a telescope M-82 although the dimmer of the two galaxies, is

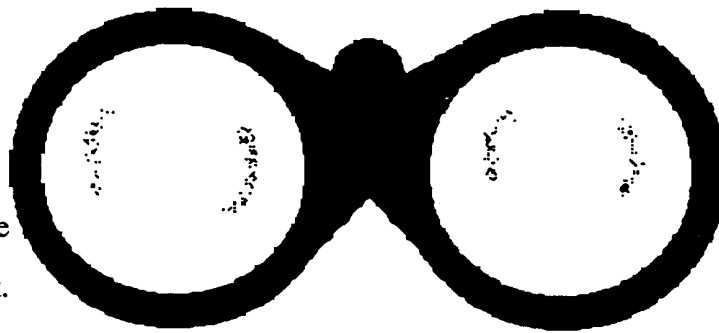
more prominent because it is compact and it has a lot of detail which can be seen. The binoculars show more clearly that 81 is the brighter of the two. Moving to the opposite side of the dipper, off the handle I got the galaxy M-51 the Whirlpool. I can almost say that I saw both galaxies that make up the Whirlpool as a double patch of fuzziness. This encouraged me to go for one of the dimmest Messier objects, M-101.

This face on spiral galaxy is listed as as 9th magnitude in Burnhams. But, it's big and spreads its light over a large area thus making it appear dim in a telescope. It is somewhat difficult, but it can be found in West Milford.

Scanning over from the double star Mizar and Alcor I had no problem finding M-101 as a faint fuzzy patch which looked as least as big as M-51.

At this point the sky was as dark as it was going to get so I took a few minutes to just look around. I could see the entire constellation of Ursa Major, the Big Bear, standing like a guard over the North star Polaris. Arcturus appeared a brilliant reddish orange beacon hanging high overhead while brilliant blue-white Vega was rising over a stand of pine trees. Pollux and Castor of Gemini hung tenaciously in the west, refusing to set. Capella shone brightly in the northwest, but this star looked tired at the end of its long winter performance. All around it was quiet. I was surrounded by woodlands. There were very few lights, no cars, and the next house was at least 300 yards away.

After this little break I went back to try and find the globular M-13. In the 11x80's it was awesome. It looked like a large fuzzy ball. Many objects have a flat appearance in binoculars but in the 11x80's it really looked like a ball hanging in space. Hercules' other globular M-92 was much smaller but still easily visible. The globular M-3 in Canes Venatici was very nice, but it still didn't compare to M-13. Looking at the time I realized I had to hurry so I left these globulars behind and went for the galaxies M-65 and M-66 in Leo. Although appearing dimmer than M-81 and M-82 they were easily seen. Moving into Cancer I could easily see the Beehive star cluster, M-44, naked eye. It was a



Looking Ahead

The next meeting of the North Jersey Astronomical Group will be held on Wednesday, June 14, 1989 at the Rifle Camp Park Observatory in West Paterson, New Jersey at 8:00 P.M.. At this meeting a newly proposed set of club by-laws and a constitution will be discussed. Should these by-laws and constitution seem agreeable to most members they will be put to a vote during the July business meeting. As always the business meeting is open to the public, so bring a friend.

On Sunday June 25, 1989 the club will hold its annual picnic. Please notify Ruth Koenig if you plan to attend and to find out what is needed that you can bring along. The picnic will begin at 2:00 pm.

The club will take a trip to the Hayden Planetarium on June 17, 1989. If you are interested in coming, contact Glenn Burke for more information.

☆☆☆☆☆☆☆☆

FOR OUR PICNIC

by Ruth Koenig

Our annual club picnic is being held Sunday, June 25 at 2:00 p.m. in the Senior Citizen picnic area of Rifle Camp Park.

The club will supply the hot dogs, hamburgers and rolls. Everyone else brings the other foods and supplies. I will have a sign-up sheet at the park for the next few weeks.

A challenge has been issued to our Bocce Ball Champion Terry Malone to unseat her. Let's all play and anyone that would like to organize any other events can see me or Alice Berman.

Let's hope the weather is good and we have a good turnout of members for a fun day!

☆☆☆☆☆☆☆☆

FOR SALE

COMPLETE set of Edmund Scientific RKE eyepieces: 8mm, 12mm, 15mm, 21.5mm & 28mm. Excellent condition. \$150.00.

80 to 200mm f/4.5 Macro Zoom Lens
Pentax K mount, Like New, \$75
call Mike Koenig at 478-7699



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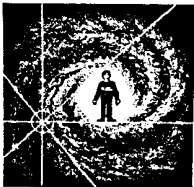
The Dark Sky Observer is a publication of the North Jersey Astronomical Group. All members are invited to write articles for the newsletter. Anyone interested in writing for the DSO, please contact the editor at a meeting or through the mail.

Editor

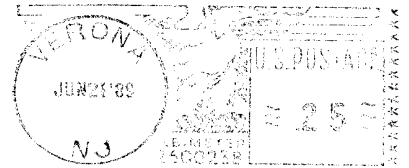
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