

SIDEREAL TIMES

The Official Publication of the
Amateur Astronomers Association of Princeton

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From the Director

40 Years and Counting A couple of events have occurred this past month which should make all members of the AAAP particularly proud. On October 3, 2002 we received an official letter from the Department of Parks and Forestry of the State Parks Service in the State of New Jersey that our lease to use the observatory grounds at Washington Crossing State Park (originally dated March 1, 1977) has been renewed for another 25 years until February 28, 2027! This feels like a great achievement to those of us that participated in the various email exchanges, wrote letters, and (only somewhat) anxiously awaited for official confirmation to really appear in the mail. What made the process go so smoothly was the fact that several club members have been involved long enough that they saw the club through this process last time around. It was a great feeling to see so much enthusiasm for keeping our stake in the ground for another twenty five years.

Yet there's another dimension to all this as well. It turns out that the AAAP was founded on November 5, 1962 making this year, 2002, our 40th anniversary. By tremendous good luck we were able to get Freeman Dyson as our speaker for the regular monthly meeting on November 12. What makes this special for the AAAP is that Freeman himself was a part of the club from the early '70s and John Church has photographs of him helping to lay the foundation when the Simpson Observatory was constructed (see page 3). In this day of advanced satellite astronomy and billion dollar telescopes it seems rare to find evidence of a world class physicist taking time to support an amateur activity. I think we owe Freeman a lot for helping build our club and for helping start the tradition that fortunately has now been revived for another quarter century.



In closing I would also just like to mention the passing of a similar kindred spirit, David Wilkinson. Dave may be best known to us for his contributions related to the Cosmic Background Radiation. A service of Remembrance for Dave was held on Friday October 25, 2002 at the Princeton University Chapel. Several AAAP members were present and the OSETI (Optical SETI) group was specifically represented in the service. A number of members of the AAAP have participated in this group which Dave started a couple of years ago. I mention Dave because (as was brought out clearly in the service) Dave was extraordinarily generous with his time – and especially so when it came to sharing his love of the night sky. Dave was often to be seen at 2:00 in the morning at one of the Princeton observatories help-

ing students find their way with the sky and the equipment. Dave has set a tremendous example for us all to follow and I can only hope that when the AAAP lease comes up for renewal next time someone will be thinking similar thoughts about some of our more recent club members.

Note: John Church has compiled a nice chronology of the AAAP which can be read on the club's web site (Features/Reviews->Features/Papers->A Chronology of the AAAP) or you can go there directly via: <http://www.princetonastronomy.org/papers/history.html>

Simpson Observatory (609) 737-2575

Kirk

Live Long And Prosper: AAAP in the 1970's

by John A. Church

On the eve of the 40th anniversary of the AAAP, Sidereal Times Editor Vic Belanger has asked me to look back over the years and write up some memories of our earlier history for inclusion in the newsletter. I wish I could say that I went back to the absolute beginning, but I came into this movie a little late. I joined in 1971, when the club already had nine years under its belt. However, I think I can say that the 70's was the time when the AAAP made its "great leap forward." For that was when we built our own observatory - the heart of any really good astronomy club.

Back in the early 70's, we used to meet in Room A-07 of Jadwin Hall. By the spring of 1978, when the observatory was about half finished, we had outgrown that relatively small room and moved our meeting venue to Peyton Hall, where we meet to this day. At times, even this large lecture room is filled nearly to capacity, which is a testament to our solid growth over the years.

Astronomy clubs tend to be populated by individuals with widely different personality types. All, however, share a deep love of astronomy, whether it be of the deep-sky, lunar and planetary, telescope engineering, solar or other variety. Organizations of all kinds profit from having people with highly diverse backgrounds, talents, and personal characteristics. Lots of different hands clapping makes for loud applause! Few readers now will recognize many of the following names, but let me mention some of the core people we had in the 70's who helped to make the club become what it is today. Many others come to mind as well, but here is a sample of those who marched to amateur astronomy's drumbeat in their own particular way in that era:

Mike Clark: photographer and ebullient organizer of star parties. Always changing his equipment to the newest and latest, always prodding people to do new things. In many ways, the forerunner of John Simpson.

Leith Holloway: mathematical climatologist; sworn enemy of astrologers, thorough and efficient in all the many things he did for the club.

Bob Richardson: go-getter salesman for Questar and mentor of budding astrophotographers; later the founder of Optical Techniques, which made the Quantum line of 4- and 6-inch Maksutovs.

Norm Sperling: teacher and "planetarian" at Princeton Day School; one-man band and astronomy promoter; prolific writer and founder of *Cluster* magazine.

Dick Peery: NJ State Museum Planetarium director; immense help in negotiating for and obtaining a lease for the WC site; tireless worker at the construction site.

Roxanne Tobin Peery: long-time editor and namer of *Sidereal Times*; always there at every club function and work party; embodied the true spirit of the AAAP.

Karl Koehler: founding member, expert engineer; designer of the Washington Crossing observatory. Without him, we couldn't possibly have done it.

Bill Phillips: physicist; observatory chairman during negotiations for the WC site and our straw boss during construction.

Dave Brown: engineer; enthusiastic, gregarious organizer of field

trips and other club activities, later the founder of Beemerville/Jersey Starquest.

It was my own fortunate privilege to be given charge of the 6-inch refractor in September of 1972. It had been stored outside under a tarpaulin at George Parker's farm in Plainsboro ever since a foresighted group of members had purchased it for \$200 (!) from a member of the defunct Galileo Club in Trenton in 1968. George had decided that it couldn't stay on his farm any longer, and no one else was interested in taking it, so I volunteered. I refurbished it, cleaned the optics, and put it back into active service for the club (it was stored in my garage, mounted on a rolling dolly for use on my driveway). Since the maker was unknown, later on I researched its history through a number of channels and found that the lens had been designed and fabricated by Charles Hastings, a physics professor specializing in optics, with the mounting having been made by John Byrne of New York City. I wrote up the story of its earlier history for *Sky & Telescope* (March, 1979).

Our 10th anniversary dinner was held on Nov. 13th, 1972 at Emerson's Steakhouse on Route 1, with about 35 members and guests attending. During this celebration we formed the first observatory committee, charged with the responsibility of building a permanent home for the 6-inch. At its first official meeting about two weeks later, we decided to eliminate Washington Crossing State Park from the list of possible sites - due mainly to an unfounded fear of having to work with the state bureaucracy!

Looking for a suitable site was perhaps the hardest part of the whole project. We would cruise through the countryside, scoping out old silos with domed tops. We explored Mount Rose near Hopewell and discovered the Bus People's hideaway. We were about to modify a garage at the Institute for Advanced Study when this plan fell through because we would have had to use outside union labor. In 1976, we finally overcame our dread of working with the state and proposed a formal agreement with them and the NJ State Museum Planetarium, an arrangement which has worked well over the years and has just been renewed for another 25-year term.

Once the Washington Crossing site was obtained, progress was rapid. Ground was broken on April 2, 1977. We had a hardy work crew who dug the 3-foot deep footing trenches and pier foundations in tough shale by hand, with pick and shovel. Under the tutelage of Karl Koehler, we learned much about construction techniques. By late August of 1978, the 6-inch refractor was operational in the new building, which however still needed a lot of finishing work. It wasn't until near the end of 1979 that we had all major systems in place, including the electrical and plumbing hookups.

While all this was going on, the club carried on business as usual, with a full complement of speakers and other activities. I was happy to have been a part of the club in this decade of progress. I can think of no better way to end this short summary than simply by saying, in a popular slogan of the 70's: Live long and prosper, AAAP.

Deadline for the December Issue
of the Sidereal Times
November 29, 2002

From the Editor

This is a wonderful time for the AAAP, which has prospered over the last 40 years this month, borrowing the theme of John Church's excellent article on the history of our club through the '70s and '80s. In his article, he spoke of the hardy work crews that showed up for ground breaking in 1977. One of those hardy workers was none other than Professor Freeman Dyson, our guest speaker at this month's meeting so I dug through the archives for a picture of that historical day. Freeman is shown front and center making it possible for all of us to enjoy the fine state-of-the-art facility we have today. We have many to thank for what we have today and this is an opportune time for all of us to reflect on all of their contributions.

Professor Dyson's talk will be, "A New Way To Look For Life In Cold Places Far From The Sun". This will start at the usual time of 8:00 PM in Peyton Hall. During our pre-meeting Anniversary Dinner in Frist Hall, another long time member, John Church, has agreed to say a few words about our club history. After the dinner (see the menu in the Aniv. issue), you'll be able to work off a few calories in our half-block walk to Peyton Hall.

In 1990, when I took over the Program Chairman position, Don Monticello turned over the slide projector to me and there was a tray of 50 slides in the case which were pictures taken during the observatory construction. John Church and I reviewed these about two years ago to come up with names of the people in them where we could and we made some descriptive captions. The above picture came from that set.

In early 2001, I ran all 50 of the slides through my 35mm scanner and saved them as raw Tiff images and optimized Jpeg files. The .tif files are about 2 megabytes each but all 50 .jpg files only occupy about 6 megabytes. The files have been burned onto CD's given to both John Church and John Miller. Hopefully, we'll get them on the Website someday. In the mean time anyone wishing to see or use them should contact me.

Besides John's article we have another fine contribution to this issue by Saul Moroz. Be sure to read about his trip out west with his wife Judy. They stayed at the New Mexico Skies Resort and



Freeman always tried to keep his options open for a backup career in the event things didn't work out at the Institute

saw first hand what dark skies are really like. They also got to visit the Sloan Digital Sky Survey Telescope that we have heard so much about in our meetings over the last five years from those that actually made it a reality. I'm sure his visit has made the talks by Professors Jim Gunn, Netta Bachall, and other Peyton Hall faculty, come alive.

For those members that aspire to become keyholders, requirements are available in Rex Parker's report. These new training guidelines have been approved by

our Directors at the last Board Meeting. Lisa's minutes of this meeting, as well as those of our regular meeting, are also here for your review.

The deadline for contributions to the December Sidereal Times will be Friday, November 29. If you've never contributed to our newsletter in the past, why not follow Saul's lead and try out those latent writing skills you have been hiding from us.

Vic

Observatory Open House

On November 9, 2002 the 36" Cassegrain at Fitz Randolph Observatory, Princeton University, will be the star attraction at an open house of the observatory this evening. AAAP members and their guests are invited to arrive at 6:00 PM and later. Optical SETI and Near Earth Object searches highlight projects currently underway. Visitors will have a chance to use the scope optically and see CCD imaging. Visit the observatory web site (<http://observatory.princeton.edu/>) for additional information.

John Miller

Under New Mexico Skies

By Saul Moroz

In mid September George Walker, Ron Mittlestaedt, my wife Judy, and I went down to Middletown to a STAR meeting and to hear Andy Russo and his brother-in-law tell about their experiences at New Mexico Skies in Cloudcroft, NM. When Andy said the sky is darker in the Catskills than in New Mexico, I was really intrigued. We had been to New Mexico and also to many places in the Catskills, and as far as I could remember, the skies in NM were much darker. Back in 1953 Judy and I drove to California and we remember what the skies in the Southwest were like—*black* with more stars than we had ever seen.

Well, there was only one way to compare the skies. For some time we had been planning to take a trip down memory lane and try to retrace some of our 1953 route, which took us along Rt. 66 (now mostly a memory). We set out on Sunday, September 22 and headed to Knoxville to pick up the 25x100 binoculars I had ordered from Bill Burgess. He's the fellow that made the new focuser for our refractor at Washington Crossing. The best way to describe the new binoculars is to say "wow, fantastic," star points from edge to edge. Then we were off to Hot Springs for the mineral baths, and on to Oklahoma, Texas, and into New Mexico. We stayed in Roswell a couple of days; saw the little green men at the UFO Museum and Research Center. It was very interesting and Roswell is a nice town.

The next stop was *New Mexico Skies*. We checked in about 1 p.m. on Sunday, the 29th to very comfortable accommodations. Everything is supplied except food, which we had stocked up on in Roswell. The sky did not look very promising that afternoon, but about 7 p.m. it cleared and by 8 p.m. it was sparkling. The best sky I had ever seen. It was estimated at 6.5-6.6 mag. I was about to set up Ralph's Genesis, when the fellow who had the 25" Dob asked if I would like to observe with him. Before I could answer, another guy asked if I wouldn't rather observe with him on the 30". What a decision, so I said, "Don't fight over me, I'll spend time with both of you." The eyepieces provided by *NMS* were not very good, but as luck would have it, I had brought my eyepiece case with me and was able to share them with the other two fellows. It was a great night and I saw more objects than I had ever seen in one night before. Even with a last quarter moon, which came up about 3 a.m., it was still great. The second day there started out cloudy, then rain, and by 9 p.m. it was clear as a bell, but wet (no dew on the optics).

If Andy Russo's place in the Catskills is darker, I'll eat my hat. If you are interested, you can find out all about *New Mexico Skies* at www.nmskies.com. It's owned and operated by Mike and Lynn Rice.

From there we went on to Alamogordo to see White Sands National Monument and the NM Museum of Space History. We were at the end of the Holloman Air force Base runway when a Stealth Bomber took off right over our car. Some noise.

But, the best part of the trip was our visit to the National Solar Observatory at Sunspot. They have a self-guided tour for visitors, but I was lucky enough to stop a fellow coming out of one of the observatories and introduced myself. He was not very impressed until I told him I was from Princeton. That was the key to the

mother load. He took me into every building and observatory and showed me every telescope. The piece de resistance was the 30" coronagraph. We were looking at a monitor when a huge flare erupted near the limb, blew a huge ejection off the limb. The astronomer, Tom Briggs, said, "Sh.., look at that." He called Big Bear and alerted them.

A few miles away at Apache Point Observatory the only person visible was a fellow getting ready to cut down a tree and I asked him if I could speak to an astronomer. He told me the staff is not able to interact with the public, but when I told him I was from Princeton he put down his chainsaw, entered a secure building and returned with a fellow named Carlos who is in charge of all the electronics for SDSS. I introduce myself as a member of AAAP and an acquaintance of Jim Gunn. Well, the same thing happens again, only this time Carlos takes me into the building, takes me to meet the Director whose at a meeting, and introduces me as a Princeton astronomer. When I tell them that I'm only an amateur, the Director stops the meeting and he and Carlos proceed to take me on a tour of the facility. The only thing I didn't see was the rolling back of the building. That's because it's air-conditioned at the same temperature as outside and that way when they roll the building back the inside and outside temperature is the same and there is no cool down time.

On the way home we visited Carlsbad Caverns, stopped in Memphis, Nashville, and Knoxville again. All in all it was a great trip and I can't wait to return to New Mexico

Plan for AAAP Observatory Training Oct 20, 2002

- Any member in good standing can participate in the training program. Trainee must be a member of AAAP for at least one year before keyholder status can be conferred, and is encouraged to contribute to club activities.
- Trainees must first attend at least two Introductory Sessions at WC Observatory. These sessions will be held periodically, conducted by keyholder volunteers.
- **Introductory Sessions Dates for fall 2002: Oct 24, Nov 7, Nov 21, Dec 5. Meet at 7:15 PM at the WC Park gate on Rte 579 (soccer field entrance).**
- Following Introductory Sessions, trainees enter the Apprenticeship period. This will involve participation at the observatory during public nights with the keyholder duty teams (generally the first and last Friday each month Mar-Oct).
- The Apprentice trainee is also encouraged to arrange further training by contacting any keyholder to set up additional individual or group sessions at the observatory. These sessions will be subject to the usual standards of keyholder priorities.
- A record (note card) of training sessions should be kept by the trainee and signed by keyholders. The duration of apprenticeship will depend on the learning progress of the trainee.
- The Observatory Guide will be made available to trainees to be used as reference.
- Eligibility for keyholder status will be based on demonstration

(Training, continued on page 6)

Minutes of the
Regular meeting of the AAAP
October 9, 2002

Assistant Director John Miller called the meeting to order at 8:02 PM. The meeting began with announcements about two upcoming events: AAAP Members Picnic/Star Party on November 2 and the 40th Anniversary Dinner on November 12.

Program chairman Mark Lopez introduced the evening's speaker, Dr. David Nice from the Department of Physics at Princeton University. The title of Dr. Nice's talk was "The Green Bank Telescope". After giving a historical overview of radio telescopes, he showed the original Green Bank Telescope in Green Bank, West Virginia which collapsed on November 15, 1988, and then the new Green Bank Telescope completed in 2000 which is the largest fully steerable radio dish in the world. The talk was well received.

The business meeting began with a discussion of the observatory schedule for October and the planned keyholder training. It was agreed that details of the keyholder training would be discussed at the AAAP Board meeting the following day. Asst. Observatory Chair Gene Ramsey mentioned that he was looking for volunteers to assist with painting the observatory the following weekend. It was mentioned that someone had cleaned the eye pieces (thanks!). An issue was brought up that sometimes the padlock has been found open and that keyholders need to be sure to lock up after using the observatory.

Program Chair Mark Lopez mentioned that he had lined up additional speakers. Details are posted on the AAAP Web site.

Sidereal Times Editor Vic Belanger said there would be a special issue of Sidereal Times with details of the upcoming picnic and 40th Anniversary dinner.

John Miller gave the Treasurer's report for Treasurer Ron Mittelstaedt. The membership count is 124 members and the balance is \$9040.27.

John provided an update on the Web site: weather information has been added as well as an announcements section. The Sidereal Times are available in full color from the site. Links to current astronomy news are also updated daily.

Larry Smith mentioned the dates for the New Jersey Star Quest will be June 27-29, 2003.

The meeting was adjourned at 10:00 PM.

Lisa I. Yeh, Secretary

Minutes of the
Board Meeting of the AAAP
October 10, 2002

Meeting Attendees: Vic Belanger, Rex Parker, John Miller, Mark Lopez, Kirk Alexander, Ron Mittelstaedt, Larry Smith, Bill Murray, Larry Kane, and Lisa Yeh

Details for the upcoming 40th Anniversary Picnic were discussed. Date is November 2 with a rain date of November 9. It was voted and agreed by the board that all costs associated with the picnic will be borne by the AAAP Club.

Keyholder Training was the next major topic of discussion. A

major feature of AAAP is having a fully equipped observatory. The keyholder training is an attempt to provide an opportunity for additional members to fully benefit from this. An expectation is that members who enter into the training program are serious and willing to give back to the club. It was discussed and agreed that to become a keyholder, a member would need to attend at least 2 dedicated training sessions, have experience with public night, and demonstrate proficiency. Detailed requirements will be communicated by Observatory Chair Rex Parker.

The 40th Anniversary dinner was also briefly discussed. It will be held in the basement of the Frist Bldg. Cost will be \$36/pp with check payable to Amateur Astronomers Association of Princeton (no cash, please). RSVP by November 4 to Mark Lopez.

Details of both the picnic and dinner will be circulated in a special issue of Sidereal Times.

The meeting was adjourned at 8:55 PM.

Lisa I. Yeh, Secretary

From the Treasurer

The treasury balance is \$9138.45 and we have 127 members.

Note: Michele, our publisher, will continue putting the dues renewal date on the upper right corner of each Sidereal Times address label. This is the date that your renewal membership is due with the AAAP. Those with club magazine subscriptions to Astronomy or Sky and Telescope or both will want their subscriptions renewed about three months prior to the date of your club renewal. Please act accordingly, for if you wait until your club dues are due to pay for your magazine subscription you may miss one or two issues.

I am not going to send out renewal notices to members who get magazines; they get enough notices from their respective publishers. If I don't receive your renewal on the date indicated on your address label you will be dropped from the roster. If you are a keyholder, the respective observatory chairman will be notified and you will be asked to return the key.

The dues structure is as follows:

\$30 basic membership.

\$60 for membership and subscription to Astronomy or Sky and Telescope magazine.

\$90 if both magazines are desired with membership.

If you have a Sky and Tel subscription please send the subscription notice and the postage paid envelope when renewing your membership.

You may send the dues directly to me at: Ron Mittelstaedt-Treasurer, 149 Palmer Lane, Ewing, NJ 08618-3207

Ron Mittelstaedt

(Training, continued from page 4)

of proficiency in operating the observatory, basic knowledge of celestial objects and astronomy, handling the public, and adherence to park rules.

- Keyholder status will be conferred after the trainee meets the eligibility requirements and demonstrates proficiency in the use of the observatory and working with the public based on recommendation of one or more keyholders and on the judgement of the observatory chair.

Rex Parker, Chairman

November 2002

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