SIDEREAL TIMES

The Official Publication of the
Amateur Astronomers Association of Princeton

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Volume 32 | September 2003 | Number 8

From the Director

Welcome back from summer vacation and into another season with AAAP! It's an exciting time to be an amateur astronomer, riding the great wave of technological advance into the vast interstellar spaces of the night. At times our hobby seems to capture the imagination of mainstream society-- as the recent Mars mania in the press and media have shown. But what separates an astronomer from the merely curious is staying power, the desire to understand at a deeper level, the motivation to develop a personal cosmology based on observation and physics. Membership in the AAAP provides a framework for this, from guest lectures by world-class astrophysicists at our regular monthly meetings at Peyton Hall, to observing sessions at our state-of-the-art observatory at Washington Crossing Park and our affiliation with UACNJ/ Jenny Jump Observatory. It's up to you to take advantage of all this, to show your fellow club members what amateur astronomy means to you.

It's a privilege and honor for me to be back at the helm as Director of the AAAP. As detailed in the Mid-Summer issue of Sidereal Times, elected director Kirk Alexander unexpectedly relocated to California this summer. I have agreed to accept the Board of Trustees' appointment as director for the current season. I join with fellow Board members **John Miller** (Asst Director), **Mark Lopez** (Program Chair), **Ron Mittelstaedt** (Treasurer), and **Mark Jaworsky** (Secretary), as well as **Vic Belanger** (ST Editor), **Gene Ramsey** (Observatory Chair), outreach coordinator **Brian Van Liew**, membership chair **Saul Moroz**, special events coordinator **Michelle Novatski**, and several other key members to continue to drive the AAAP to being one of the finest astronomy clubs in not only NJ but the country.

Our club stands on three strong legs, which we could call the AAAP Tripod of Observation, Education, and Outreach. For each leg of the tripod, the ground beneath has changed markedly across the landscape of amateur astronomy, even from the early nineties when I first joined AAAP. Advances in technology, theory and understanding, and the increased availability of high quality instruments for observing and imaging celestial objects have

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Simpson Observatory (609) 737-2575

Sharing Mars with Friends and Family

by Brian Van Liew

I was asked by my in-laws to show some of their friends Mars the week of the opposition. Since they had heard of this once in a lifetime experience, many of their friends were anxious to come for a look. The location was at my in-laws where they had an open view in most every direction from their yard. I planned on having Mars night the week of the opposition and just needed to pick a good night. Wednesday looked like an ok night so I set the wheels in motion and notified everyone. I had asked for some help from Gene Ramsey to lend a hand since I had an expected head count of twenty plus attending the evening. He agreed and met me there around 8pm. The evening started out poor with just a few of the brighter stars visible overhead. The turn out was more than expected. A total of thirty came during the evening. Gene and I talked and answered their questions while showing the limited brighter objects like double stars above. Later Mars tried to peek through the haze. Everyone got a chance at a scope to see Mars. I thought the image was better through the haze since it cut down the bright glare and I could make out a lot of the surface features and the polar cap more easily. The group dispersed as it got later and everyone thanked us as they left. I invited everyone back the next night if they wanted for a clearer view. I would be on my own the second night since Gene had other plans.

The next evening was much better. About ten showed up about half repeats from the previous night. After spending time on some of the show piece DSO's, I put the scope on Mars. Much brighter this night and exciting to try to glimpse and recognize the surface

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affected our approach to amateur astronomy. Perhaps the greatest impact of all comes from the internet, where astro-images straight from the Hubble and from dozens of ground-based and orbiting telescopes operating in visible, X-ray, UV, and IR can be readily downloaded in seconds. Yet many of us feel strongly that there is no substitute for direct optical observing through the telescope. For others (including myself and several others in AAAP) observing at the eyepiece is complemented by CCD imaging and other forms of astrophotography. Similarly, the Internet has affected our own astro-educations, and that of the public to which we reach out.

The expectations and needs of our members and of the public has changed from all this.
We might ask how we can take advantage of the energies unleashed by the current Mars craze to improve the club and direct its focus to serve member interests even better. Over the coming year I will challenge AAAP members to think about how each of us can help the AAAP grow in the directions that matter most to each of us, to provide service to our club and community, and most of all help us all grow in amateur astronomy in a way that touches our lives.

Rex Parker, Director

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features. The last of the friends left around 11pm and now it was my turn to play. Racing around before my corrector dewed up, I set up to image Mars with a newly acquired web camera. All the software to capture and process the images were downloaded from the web. I've got to admit some of us amateur astronomers are really nice guys providing the rest of us with such powerful codes for free! I spent over an hour trying different settings to get the best results or what I thought were the best anyway. The final processing wouldn't be done until the next day when I had more time. I packed up and headed for home around 12:15am.

I did process some of the images and have attached one of the better ones (shown at the beginning of the article).

As far as what I used:
Scope C-11 SCT
Camera Philips ToUcam Pro PCVC740K
Prime Imaging (no EP)
Collected 300 frames via K3CCD Tools (freeware)
Processed the frames via Registax2 (freeware)

There are several settings that I didn't record for the camera. Being new at this is, I will learn the hard way to pay more attention so I will cut down my trial and error for next time.

From the Treasurer

The treasury balance is $XXXX. There are 126 paid members.

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 would 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.

Note! the dues structure is as follows: $30 basic membership. $60 for membership and subscription to Astronomy magazine. $63* for membership and subscription to Sky and Telescope magazine.$93 if both magazines are desired with membership.*Recent Increase of the Sky and Telescope magazine subscription rate.

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

Ron Mittelstaedt

Observations

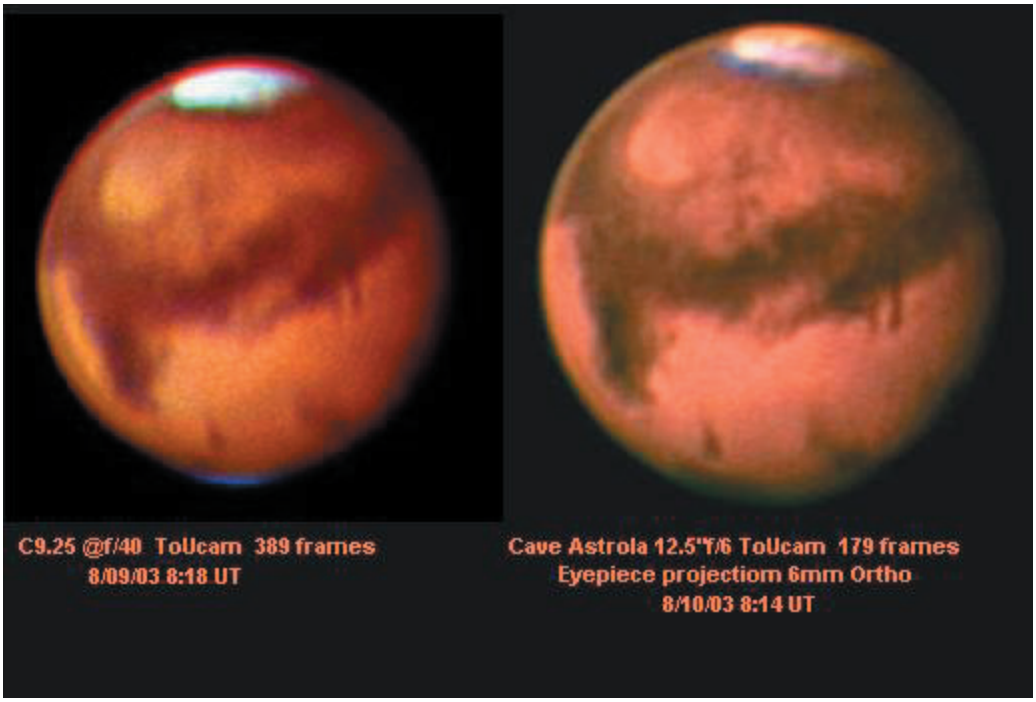
This year's Summer Star Party, sponsored by the Rockland Astronomy Club, was attended by more than any year in the past. The event is held in Northwestern Massachusetts near the town of North Adams. In the beginning of August the temperatures in central New Jersey are in the 90's with the same percentage of humidity, while at the SSP the temperature is in the mid 70's with low humidity. At night the temps go into the 50's and sometimes in the 40's. Just the right weather for observing.

During the day Barlow Bob is out in the middle of the scopes with his Bob-O-Scope giving those great solar views. The solar prominences seen through his scope were even better then those viewed at StarQuest. One prominence came out of the edge with a tree like effect with many branches. Some were reaching across the surface like a ribbon. Bob was generous to lend me his semi-retired Daystar H-Alpha filter set-up to use on my TV 102. The views aren't as defined as those in his scope, but still worth observing.

We had three and a half decent observing nights. I started on my Caldwell log on the first Friday night and attempted to sketch most of them. I was wondering why at the end of the night my neck didn't hurt. I was so involved in looking at the go-to computer, the eyepiece, and the sketchpad that I was never looking up at the night sky. So time went by and I'm sketching and looking in the eyepiece. The scope was pointed to the East into Cassiopeia when the star clusters were harder to see. This is when I first looked up to the sky in about three hours and it was nearly 4 AM with dawn breaking. I guess I'm getting trapped in this computer/go-to craze. I was always looking at the sky when I star-hopped, but now just the computer and the eyepiece.

But now it's like looking into the eyepiece of a microscope, you never see the whole picture, just a small section. I think I enjoyed the night sky more when I was star-hopping; that is what attracted me to this hobby. The next night the dew go really heavy and the computer and encoder cables must have gotten wet because the go-to features of my scope when wacky. So here I was back to the old skill of star hopping and enjoying it.

Ron Mittelstaedt



The Editor thanks Bob Godfrey (Barlow Bob) for finding these excellent amateur astrophotos of the "Red Planet" and obtaining permission from Mr. Chavez for publishing them in the Sidereal Times. Color in the images is preserved in the .pdf edition of the newsletter on the club website.

These two ultimate pictures of Mars were taken by Roland Chavez from Powder Springs, GA

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FitzRandolph Observatory hosts "Mars Fest"

It happens once in a Blue Moon. Neighborhood cocktail party or grocery store chatter contains an astronomical topic. Comet Hale-Bopp, or the 2001 Leonids come to mind. Now the public has been alerted to the fourth planet from the Sun.

The staff working on the Optical SETI project at Princeton University's FitzRandolph Observatory took this opportunity to create "Mars Fest." Originally intended for invited Princeton and Rutgers science faculty, graduate students a few members of the scientific press, this Mars-observing gathering bloomed into a lot more.

The word had gotten out.

The general public is drawn to Princeton's FitzRandolph Observatory on occasions like this, because its appearance is precisely what they expect. It is a relatively large building, as older college observatories go, but more importantly (from the public's perspective), the building sports a large white dome. With the popular media shouting to see Mars "while you can" (as if it was racing away out of sight by the weekend) – passers by spotting the dome's open shutter at twilight is irresistible. I agree.

Though soupy skies dampened Mars observations on our Wednesday, August 27 activities, some 70 people came to FitzRandolph. It was an excellent chance to showcase the refurbished observatory and describe our work with Optical SETI and astrometry.

Thursday, August 28. There were only three FitzRandolph staffers available for the evening. Weather predictions were examined hourly (like rolling dice in a wind tunnel). All the evidence pointed to a clear evening, and we prepped for the onslaught.

And the onslaught came.

By 9:00 PM, there were an estimated 110 people in the observatory, all clamoring for Mars. At that hour, Mars was still low – just below the tree line at -15 deg 50 min declination. We made this known as people arrived (.."no sir, that was an airplane), but had ammunition ready. The first appetizer was M13. In a 40mm eyepiece (62 deg. FOV) the 36" Cassegrain yielded a spectacular cascade of stars. We later swung over to M57 which was another crowd pleaser.

At about 9:15, the FitzRandolph crew were delighted when renowned physicist, Freeman Dyson, and his friend, Nobel laureate, John Nash arrived. I had the distinct pleasure of engaging both in a forty-minute conversation with a handful of visitors in the observatory control room. The topic was Mars – questions about water: past and present, myths about the planet, and talk about the state of today's K-12 science education. Luckily, none of the public seemed to recognize Nash. Autograph-seekers would have driven him away.

How did Mars look in the 36"? Unfortunately, because of its position, seeing was not very favorable during the time the public was there.

However, once everyone had left – about 12:30 AM – the FitzRandolph staff was treated to some incredible views (303X and 486X) of the Red Planet. During brief moments of still air, dark surface zones snapped into crystal clarity. Wow.

All of the visitors thanked us and many said it would be a night to remember for a long while.

Same here.

John Miller,
Assistant Director AAAP

From the Program Chairman

For the September 9 meeting, I have a Mr. Rodger Gordon who will talk about observing Mars and he will also talk about his new book, "Observing the Craters of Mars". Mr. Gordon has been an amateur astronomer for fifty years and he has written over 300 articles on telescopes, astronomy, and viewing techniques.

For October 14, I have Dr. Bohdan Paczynki, Princeton Univ. (www.astro.princeton.edu/faculty/bp.html). He will be speaking on project OGLE - Optical Gravitational Lensing Experiment, http://bulge.princeton.edu/~ogle/ and ASAS, the All Sky Automated Survey http://archive.princeton.edu/~asas/.

For the November 11 meeting, I have a Mr. Mike Carlowicz. He is a science writer and editor at the Woods Hole Oceanographic Institute. He will be speaking on Solar activity, Auroras, and Space Weather. In addition, he will be talking about his new book, "Storms From The Sun". www.stormsfromthesun.net

Mark Lopez, Program Chairman

The Second Annual AAAP Picnic

On Saturday, August 23, we held our second annual picnic after a hiatus of about 10 years on not having this event. It was well attended with over 30 members and guests enjoying food and fellowship. We all owe a round of applause for Michele Novatsky who coordinated and organized the activity. After stuffing ourselves with an overabundance of food we changed our venue from the Nature Center Pavillion to the Simpson Observatory for a Mars Watch.

We also need to thank Gene Ramsey for the many hours he spent sprucing up the observatory. It really looked great.

The weather was very cooperative and we had great visability. Many members and guests hung-out until nearly midnight enjoying the viewing through both telescopes. Mars looked great with most everyone reporting that they could see the Polar Cap in the Hastings refractor. The C-14 was also hopping around the sky dazzeling everyone with views of our favorite non-stellar delights.

Deadline for the
October Issue of the Sidereal Times
Friday, October 3

January 2003

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