THE NOVEMBER MEETING SPEAKER

Quick! Who is the only living astronomer to have discovered two classes of variable stars? I suggest you make your way to the New Mexico Museum of Natural History for our November 4th meeting to find out! Dr. John McGraw, Director of UNM's Institute for Astrophysics, will be presenting Chaco to Crisium: Astronomy in New Mexico, a topic that will thrill both astronomer and anthropologist alike. Dr. McGraw, as most of you know, was the recipient of our first "John Dobson Award" given for excellence in public astronomy education, and has addressed our group in the past. Dr. McGraw is the originator and driving force behind the project "Lodestar"—a three-pronged approach to bringing astronomy to the public here in New Mexico and beyond. He has published more than 100 articles from research funded by the National Science Foundation and NASA. He is currently involved in measuring the mass of the Milky Way, searching for unseen mass in the universe, and measuring the distances of galaxies that border the very "edge" of the universe, and we are happy that he is willing to take the time to address The Albuquerque Astronomical Society.

Members of the Academy of Science will be joining us for this presentation as they convene for their annual meeting and sponsor exhibits, displays and workshops high-
lighting the theme: Probing Earth and Space: Science Technology and Education for the 21st Century—(please write to New Mexico Academy of Science, 1801 Mountain Road NW, Alb., NM 87104 for further information) and refer also to the following article, The November Meeting...A Special Event, for details concerning this special event.

THE NOVEMBER MEETING...A SPECIAL EVENT

Sometime around the beginning of the year I was contacted by a Ms. Melva Knoll of the New Mexico Academy of Science. At that time she informed me that the annual meeting of the Academy would be held at the Museum of Natural History here in Albuquerque. And that the theme for this year’s meeting would be Astronomy.

She asked if I thought some Society members would be interested in participating in this event and further asked if we would like to have our meeting there as well. She went on to say that the Academy was going to get a well known astronomer for their keynote speaker and that we would all be invited to attend his or her talk.

The date set for this event is Saturday November 4th. The event will consist of several volunteers transporting and setting up display equipment for daytime exhibition to begin at 11 a.m.

Display from the V.L.A., Sunspot, The Institute For Astrophysics and more will be on hand as well as a daytime lecture by Dr. Hale at 1p.m. Admission to the museum is not free. If you wish to attend any of the lectures during the day or see the displays set up there, call the museum for details or be part of our Society exhibit. We are in need of two solar observers from 11 a.m. to ? Give me a call if we can help each other.

At 5 p.m. that evening, all displays will be moved to a large all purpose meeting room.

Our meeting will begin at 7 p.m. as usual but of course it will be at the Museum of Natural History instead of Regenier Hall.

At 8 p.m., attendance at our meeting will expand as we are joined by the members of the Academy and their guests. At that time, our meeting will become the lecture portion of both meetings.

Sounds simple, doesn’t it? Well, all of the volunteers have spoken up at this point, that certainly simplifies things a whole bunch. Most of the details have been worked out very nicely.

At the beginning of this months newsletter, our Vice President, Lisa Wood has written an article that addresses our very special guest speaker Dr. John McGraw and the topic of his talk.

George Pellegrino, President

THE OCTOBER MEETING

For the October 7th General Meeting, we were fortunate in convincing Dr. Mark Boslough of Sandia Laboratories to be our guest speaker.

Dr. Boslough holds a Ph.d. in Physics from Cal Tech and is the senior member of the Experimental Impact Physics Group at Sandia.

The announcement in February of 1994 that “A String Of Pearls”—actually one comet that split into many smaller comets would impact on Jupiter in July of 1994, gave Dr. Boslough and his team a once-in-a-many lifetimes opportunity to predict the trajectories of these sub-comets and their resultant impacts on Jupiter. By employing the fastest computer in captivity today, they were able to produce a model of the comets as they entered the Jovian atmosphere. They would cause a tremendous temperature rise and result in a multi-megaton explosion followed by a fireball which, they estimated, could be seen from earth with minimal optical aid.

What is now astronomical history was, in early July of 1994, mere conjecture. Dr Boslough and his assistant traveled to Hawaii where they could obtain the best views of the impacts. They were not in touch with the big telescopes on Maui which were recording the event, but Dr. Boslough was able to give precise data with respect to the size of the impacts. Since they were located in a remote area, they could only contact the observatories via Email once a day.

As things turned out, their predictions were “right on” and they
subsequently proved that a model of a comet impact could be accurately predicted and produced.

During the post-mortem period of the event, Dr. Boslough's research turned up a postal stamp which was issued by the Soviet Union in 1949 and depicted an eye-witness sketch of a comet composed mainly of iron which impacted in Siberia. The drawing of the comet on the stamp was almost exactly that of Dr. Boslough's computer model which was developed almost 50 years later!

Dr. Boslough continues his research at Sandia Labs in Experimental Impact Physics and our society is indeed grateful to him for sharing his adventures in Astronomy with us.

THE PRESIDENT'S UPDATE

The end of the year is fast approaching. With the year's end comes our annual Winter Solstice Potluck in December followed by elections in January.

To that end, Carl Frisch has volunteered to be this year's Potluck coordinator. He's going to need some help and sure would appreciate hearing from you. If you would like to lend a hand, give him a call. His phone number is on the back of the newsletter.

Carl has found a very nice place for this event and is in need of about six or eight people to help set up tables and chairs. He'll need some help in the kitchen as well as a greeter at the door. Please help him out.

Also at the end of the year...elections. The nominating committee has been formed in accordance with our bylaws and consists of Bruce Levin, Chair; Karina Horse Comes Running and yours truly, me.

We have three nominees so far who wish to serve in office as either President, Vice President or Treasurer. We are in need of someone who would like to serve as secretary. No prior experience is required. The job consists of making a reasonable record of the board meetings and publishing a synopsis of that meeting in the newsletter once a month.

This is a wonderful way to get involved in the planning of events and much, much more. If you have always wanted to give back to the organization that has given so much to you, give me or one of the other committee members a call.

As a member of the Dobson award committee, I am anxiously awaiting additional nominations from the members of our society. So far we have received a few names to consider. It would be nice to have a few more.

On another matter: now that we have removed the little weather beaten blocks of wood that made our observatory dome restraint system nearly inoperable (I'm sure this design was not approved or intended to be permanent) and replaced them with solid 3/4" steel, our dome rotates with ease. Now that the 16 inch mirror has been repaired and properly coated and reinstalled in our 'scope, you'd expect us to be announcing the big reopening date...right?

Not just yet! We have two more tasks to complete before we can pronounce the job done. The electronics must be reinstalled and some weights must be strategically located to balance the 'scope before we step back and admire our work. Bear with us just a little while longer. I'm sure you'll agree it was worth the wait.

George Pellegrino, President

OCTOBER BOARD MEETING

After George Pellegrino called the meeting to order, Heather Vogel summarized the September board meeting which was accepted for the records, and Gordon Pegg gave the treasurer's report: Education $355.50, Observatory $2466.65, and General $1699.28.

As usual, there were several committee reports. The Observatory Committee is ready for the final assembly of the telescope now that the mirror has returned in excellent condition. There were also some additional items of concern for the observatory including prevention of soil erosion, purchase of a fire extinguisher, installation of an anti-bird device, and a telescope operator seminar. Karina Running Horse presented the Dobson Award Committee report. They will be accepting nominations from members for consideration and all nominations will remain confidential. Karina also noted that the Raffle Committee is ready to distribute the raffle tickets and the raffle is formally registered with the State.

There were several items of old business. Lee Mesibov has completed the TAAS 200 list which is now ready for putting into a computer database for members. A 13" Dobsonian offered to TAAS from La Mesa Elementary will be accepted provided that it is given to the organization and not a long-term loan. Helix Fairweather will be holding an Internet class for members to show them how to access the TAAS account at UNM. Mike Pendley will have a press release for the Nov. 4 meeting at the New Mexico Museum of Natural History and George will contact those who have agreed to assist in the event. The Valencia Star Party is scheduled for Oct. 13 and Brock Parker will be in charge of it. Allan Green has arranged a tour of the Starfire Optical Range; unfortunately participation is limited and it is currently full. A waiting list has been instituted.

The big news of new business is that Albuquerque Public Schools has offered to lend the Portable Planetarium to TAAS on a long-term basis. Lisa Wood has written a proposal outlining the commitments of both parties. Robert Semrad has offered to
purchase an eyepiece for the 16" telescope. Allan is donating a 40mm eyepiece as well. George mentioned the 1996 calendars "Discover the Universe" may be purchased for $4.95 if we have enough requests from members. The Nominating Committee was formed and will consist of Bruce Levin, Karina Running Horse and George Pellegrino. Two star parties have been scheduled: Oct. 14 is the McBride Star Party and Oct. 28 is the El Malpais Star Party. Lastly, Carl Frisch has donated a finder and Mike will have the mirror of the raffled telescope be sent to be barrel coated.

After newsletter articles were assigned, the meeting was adjourned.

Heather Vogel

**OBSERVATORY COMMITTEE REPORT**

The Observatory Committee met at Lisa Wood's house on September 28. Gordon Pegue brought the newly recoated mirror for all to see. What a relief it was to see such a beautifully smooth mirror after so many months of struggling with the previously botched coatings. Nova Optical seems to have done a fine job of repolishing, and this time QSP got the high reflectance coatings just right.

The observatory work party on October 7 was a great pleasure for all concerned. Kevin McKeown, Granvil Morgan, Gordon Pegue, George Pellegrino, and Bill Tondreau turned out for the momentous event of actually putting the 16" Isengard telescope back into working condition. Everything went exceptionally well. The mirror was placed in its cell, and the finder scopes were reattached. George demonstrated the fine art of balancing a scope with numerous protrusions. And just about everyone got into the collimation voodoo ritual. Our bird friend had thoughtfully headed south for winter, and some wire mesh was placed around the dome shutter drive to prevent the return of the ever-so-messy nest just above the telescope. The TAAS general meeting that evening prevented us from seeing first light on the new mirror, so the verdict is still out on the actual optical quality of the refitted mirror. Check this column next month for the final word.

A few loose ends still need to be tidied up, including the fine balancing of the scope, the installation of the drive electronics, and a general putting in order of the observing environment. It seems certain that everything will be ready to go for the November 18th observing session, to which you are invited. Call Bill at 263-5949 to verify.

With the aggravating complications of mirror and break-in related problems finally put to rest, the attention of the Observatory Committee can return to the more normal aspects of maintaining and staffing the facility. We're going to need help with everything from resealing and repainting the woodwork, to solving the erosion problems around the building, to improving the outdoor observing sites, to acting as telescope operators and astro-docents for the general public. If you're interested in helping out in any way, please contact any member of the Committee listed below:

| Chair: Gordon Pegue | 299-5944 |
| Kevin McKeown | 254-9117 |
| Dennis Mitchell | 677-1741 |
| Granvil Morgan | 864-6438 |
| Karina Running Horse | 275-4797 |
| Bill Tondreau | 263-5949 |
| Lisa Wood | 344-8308 |

**JOHN HOCKEMEIER—FIRST MAGNITUDE ASTRONOMER!**

Shortly after moving to New Mexico I found myself stumbling about in a pitch black night at the UNM campus observatory armed with a maddening and elusive astronomy question. I was soon huddled over a field guide with two amateur astronomers trying to discover if the remnants of the Supernova of 1572 (Tycho's Star) were in any way visible to the naked eye. We searched the dome by the glow of a tiny astronomer's light, and I remember wondering who these fellows were, now quite intent upon discovering the answer themselves. Much later I learned. Bruce Levin was the originator of the cooperative effort TAAS and UNM make to provide the public with an experience at the eyepiece every Friday night at the UNM campus observatory. This joint venture has continued for nearly a decade now, and John Hockemeier has enthusiastically served as the Campus Observatory Coordinator of this effort for more than eight years. John's wife informs me that as a result of this experience, John has learned how to dress warmly, how to predict the weather, and most important of all, how to bring the light to a child's eye as he explores the sky through a telescope for the first time. John has decided to move on to other projects now, and the position of Campus Observatory Coordinator will be filled by our former Telescope Curator, Brad Hamlin. We are sad to see John leave—his dedication has been phenomenal and much appreciated not only by club members, but also by thousands of people who have looked through a telescope with his guidance. John, we thank you for sharing your light with so many!

Lisa Wood

**RANDOM ACTS OF KINDNESS**

Amateur astronomers are among the most generous of people, both with their time and resources. Here are some of our most recent acquisitions:

**Robert Semrad:** Funds to purchase a new eyepiece to replace one taken during the break-in last spring.

**Wilfred Pedroncelli:** Five mirror blanks ready for grinding. Gratis to any member who is serious
about building a telescope. (Contact a board member for details.)

Many thanks for your generosity!

**BETTER LATE THAN NEVER?**

Our apologies to anyone who received their September newsletter after the scheduled September meeting. We are now in the process of working with a new printing company who will also prepare the mailing for us, and it may take a couple of tries to get it right. Every effort was made to contact the membership by phone.

Lisa Wood

**THE DECEMBER REGULAR MEETING AND POT LUCK**

Each December regular society meeting we have a pot luck. This year is no exception. It will be held at the New Mexico Engineering Research Institute at 901 University Blvd. SE this year. Next month’s newsletter will contain more details. So dig up your favorite specialty recipe and brush up on some Christmas carols and plan on an evening of good food, camaraderie, and maybe an exaggerated star tale or two. If you have any questions feel free to give me a call @ 891-8978.

**RAFFLE NEWS**

As I write, the number of tickets signed out to be sold is 740, (this does not mean we have sold 740 tickets, only that people have agreed to try and sell this number of tickets). We had 1000 tickets printed. What does this all mean? Well, what this means to all of our loyal and long suffering fellow members is that we need a few more volunteers to sell tickets. One book of tickets consists of ten tickets and since the price of one ticket is only $2.00 it really doesn’t take too much arm twisting to get folks to bu a ticket or two. The money raised is to go to our sorely depleted observatory fund. Now that the Twinng Observatory telescope is 

nearly on line we will be needing some eyepieces and various other sundry equipment and supplies. So come on folks and give me a call at 275-4797 and check out a couple of books of tickets. Don’t worry, you’re not stuck with the tickets if you can’t sell them. Just turn in the unsold tickets with the ticket stubs and money from the sold ones on the due date.

Karina Running Horse

**THE STARFIRE OPTICAL RANGE**

On the dark night of Saturday October 21st we met at the gate of Kirtland Air Force Base. Promptly at 7:00 p.m. a long black bus pulled up and we boarded it for what seemed like a very long, slow, ride into the mountain depths of the base.

As the lights of Albuquerque receded the inky blackness of our surroundings became apparent. Finally, after 45 minutes we arrived at a checkpoint where passwords were given and a tall man emerged from the darkness. He entered the bus and said he would be our guide for the night.

He was Dr. Robert Fugate who heads up the Starfire Optical Range and the Adaptive Optics program Phillips Laboratories.

We entered a conference room where Dr. Fugate gave us a detailed briefing of the 1.5 and 3.5 meter telescopes. He explained the optical system in detail: the adaptive optics mirror which adjusts its figure to the variables in the Earth’s atmosphere, the laser which is projected through the telescope’s optics to a point in space where it functions as a man-made star, the advanced computer technology which samples the constantly changing atmosphere a thousand times a second, and lastly a demonstration of images with and without the employment of adaptive optics.

Having grasped the mere basics of this installation we went to the 1.5 meter mount (telescope) and visited with the personnel on duty in the control room that night. They showed us a binary star system (Tau Cygni) without the "loop" (adaptive optics) and then with the "loop" activated. The difference was incredible.

After many adroit questions from our members we adjourned to the 3.5 meter telescope (mount) and the operator activated the high speed satellite tracking mode. They operated the unique dome which functions much like a Boy Scout nesting cup.

Later, we went down to the control room where we could ask to see some of our favorite projects.

The ring nebula (M27) was requested and 15 seconds later the famous object appeared on the monitor. Someone asked to see NGC 7331, a galaxy located just north of the great square of Pegasus. The big mount (telescope) silently and effortlessly found the object in seconds. The globular cluster M-15 looked like a high resolution photograph.

Many other questions were asked and cheerfully answered by the cooperative team, and it wasn’t long before we started to experience adaptive optics overload.

The temperature dropped to below 40 degrees when we left the 1.5 meter dome and stood on the roof and gazed briefly at the summer triangle and the Cygnus star cluster riding high overhead.

Out of nowhere two lights pierced the darkness and we knew it was our bus coming to take us back to reality.

**A.A.V.S.O. supernova search committee**


Dear friends,

It is great to welcome again so many friends in the supernova hunting business. Hello to you all!!!

*Sidereal Times* November, 1995
Negative Galaxy Observations.

Perhaps the most important piece of information for us all is that, from this year onwards, the A.A.V.S.O. wants us all to send in our negative galaxy observations, on a monthly basis, where they will be kept on file, in the same way as all of the other variable star observations that they receive. Totals will be published each year, for each observer, in the annual returns of the Association. Other groups of supernova hunters, belonging to clubs in other countries, are welcome to send in their returns also, so that a major resource list of negative galaxy observations can be kept in the one place, and made available for use for various purposes.

So, please send in your list of negative observations, as you are able, preferably monthly, to 25 Birch Street, Cambridge, Mass. 02138. U.S.A. Include your name, the name of the galaxy, telescope aperture and focal ratio, magnitude limit on the night, and date of each observation.

Discoveries.

Between January 1 this year, and early August, only two amateur and visual discoveries of supernovae have occurred, SN 1995G in NGC 1643, and SN 1995V in NGC 1087, both of which were found by my group, using the Australian National University’s 40 inch (1 metre) Boller and Chivens telescope at Siding Spring Observatory.

As it requires more than one person to operate this telescope efficiently, in the first instance, my helpers were John Shobbrook, a local amateur, and Samantha Beaman, an amateur from Queensland, and who was only seventeen years of age at that time. My helpers in the second instance were A.A.V.S.O member Tom Cragg, and Western Sydney amateur John Jarman.

Three amateur discoveries have been made using CCDs. The first was SN 1995D in NGC 2962, found by Reiki Kushida, and perhaps the brightest supernova so far this year. The second was found by the Italian amateur Gabrijelic, SN 1995E in NGC 2441. The third was found by Sunsearch leader Wayne Johnson of California—SN 1995J in NGC 4512.

U.K. Schmidt Supernova Search.

This is a new “Pro-Am” enterprise, linking Robert McNaught and myself with Dr. Brian Schmidt of Mount Stromlo Observatory. The purpose is to obtain photographs with the U.K. Schmidt telescope of a small number of specified fields, and on a regular basis of about every three weeks, looking for a very young supernova with a medium ranged redshift. In this way it is hoped to find medium redshift supernovae before maximum light, or at early maximum. These will be particularly useful for Brian’s research on the age of the universe, distances within it, and its subsequent destiny.

While U.K. Schmidt staff take the films (fifteen minute unfiltered exposures of 4415 or red film), McNaught and I are responsible for searching the fields for supernovae, and Brian Schmidt will take charge of the subsequent research on all of these objects. The films reveal nineteenth magnitude, without overexposing the galaxies in an unacceptable way.

One supernova has been found very early in the piece, on the third film to be taken, which was the first copy of ESO field 235 to be made for this project. It was SN 1995U in ESO galaxy 235 IG 13 at mag. about 18, and was found by McNaught. It turned out to be of Type 1a a few weeks after maximum.

The initial choice was of four fields, as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Right Ascension</th>
<th>Declination</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESO 269</td>
<td>13h 04m</td>
<td>-45d</td>
</tr>
<tr>
<td>Hercules</td>
<td>16h 05m</td>
<td>-17d 30s</td>
</tr>
<tr>
<td>ESO 104</td>
<td>19h 04m</td>
<td>-65d</td>
</tr>
<tr>
<td>ESO 235</td>
<td>21h 00m</td>
<td>-50d</td>
</tr>
</tbody>
</table>

Because of the earth’s movement, field 269 is soon to be replaced by a field centred upon 03h 30m -53d.

Rev. Robert Evans
Chair. A.A.V.S.O. Supernova Search Committee.

<table>
<thead>
<tr>
<th>Master-list of Discoveries.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN 1995A. +04 16 006. mag.18 Pollas.</td>
</tr>
<tr>
<td>SN 1995C. anon. mag.17.5 McNaught.</td>
</tr>
<tr>
<td>SN 1995G. NGC 1643. mag.15.5 Evans, Shobbrook, Beaman.</td>
</tr>
<tr>
<td>SN 1995I. anon. mag.19.5 Pollas.</td>
</tr>
<tr>
<td>SN 1995J. NGC 4512. mag.16.5 Pollas.</td>
</tr>
<tr>
<td>SN 1995K. anon. mag.22.5 Johnson.</td>
</tr>
<tr>
<td>SN 1995N. -02 38 017. mag.18.5 McNaught.</td>
</tr>
<tr>
<td>SN 1995O. in Abell 2218. mag.17.5 Pollas.</td>
</tr>
<tr>
<td>SN 1995P. anon. mag.18. Le Borgne, Sanahuja, Maddox.</td>
</tr>
<tr>
<td>SN 1995S. 235 IG 13. mag.15.0 McNaught.</td>
</tr>
<tr>
<td>SN 1995T. 235 IG 14. mag.15.0 Evans, Jarman, Cragg.</td>
</tr>
</tbody>
</table>
### December 1995 Lunar Almanac

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Albuquerque, NM  
Time Zone: MST  
Latitude: 35.08  
Longitude: 106.65

- **MR**:Moonrise, upper limb on horizon.  
- **TR**:Transit, moon is due south and also highest in the sky.  
- **NS**:Moonset, upper limb on horizon.  
- **RA**:Rising arc of moon.  
- **TA**:Azimuth of mean moon at transit.  
- **SA**:Azimuth of setting moon.  

Moon phase is shown each day at 12:00 noon in the time zone indicated.

Calendar by Ray Sterner  
Johns Hopkins Applied Physics Lab.  
 Laurel, MD 20707

### December 1995 Solar Almanac

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Albuquerque, NM  
Time Zone: MST  
Latitude: 35.08  
Longitude: 106.65

- **MA**:Morning astronomical twilight, sun is at -18 degrees altitude.  
- **MN**:Morning nautical twilight, sun is at -12 degrees altitude.  
- **MC**:Morning civil twilight, sun is at -6 degrees altitude.  
- **SR**:Sunrise, upper limb on horizon.  
- **TR**:Transit, sun is due south and also highest in the sky.  
- **SS**:Sunset, upper limb on horizon.  
- **EC**:Evening civil twilight, sun is at -6 degrees altitude.  
- **EN**:Evening nautical twilight, sun is at -12 degrees altitude.  
- **EA**:Evening astronomical twilight, sun is at -18 degrees altitude.  

Times are rounded to nearest minute.

Calendar by Ray Sterner  
Johns Hopkins Applied Physics Lab.  
 Laurel, MD 20707

---

**December 1995**
DUES: Please note the expiration date on your mailing label. If you are due for membership renewal, you may send your dues by mail to our newsletter return address with your check written out to The Albuquerque Astronomical Society or give your check to the Treasurer at the next meeting. Please include the membership application that is sent with your newsletter when it is time to renew. Discount subscriptions to *Sky and Telescope* ($24/12 issues), *Astronomy* ($18/12 issues) and *CCD Astronomy* ($20/4 issues) magazines, and books through *Sky Publishing Corporation* are available at a reduced cost when purchased by The Albuquerque Astronomical Society members through our Society. Include any of the above magazine renewal mailers and subscription payment as part of your renewal check (please renew 1 to 2 months early for uninterrupted magazine subscriptions). Membership dues are $20.00 per year and $3.00 per additional family member. Also available for qualified applicants is an Educator membership—contact a Board member for details. Membership Packets cost $3.50 each for new members or renewing members without the Packet. Contact the Treasurer for more information.

NEWSLETTER ARTICLES: Articles, personal astronomical classified advertisements and business card size advertisements for businesses related to astronomy can be submitted within 3 days after the latest Society general meeting in order to meet the publishing deadline. Rates for business card size ads are $10/ad per issue of the *Sidereal Times*, $7/ad per issue for six continuous issues, and $5/ad per issue for twelve continuous issues. The Newsletter Editor reserves the right to include and/or edit any article or advertisement. ASCII files uploaded to the TAAS BBS newsletter file section are preferred. Contact the Newsletter Editor for more information.

CHANGE OF ADDRESS: Note that the

---

The Albuquerque Astronomical Society

P.O. Box 54072
Albuquerque, NM 87153-4072

Address Correction Requested

---

Society Staff

President:
Vice President, Librarian:
Secretary:
Treasurer, Observatory Committee Chairman:
Event Coordinator, Telescope Curator:
Board Member:
Board Member:
Board Member:
Membership Committee Chair:
Amateur Telescope Maker:
Board Member:
Database Manager:
Campus Observatory Coordinator:
Archivist:
Society BBS Sysop:
Newsletter Editor:

Board Members
George Pellegrino
Lisa Wood
Heather Vogel
Gordon Pogue
Carl Frisch
Ellinor Gates
Barry Gordon
Allan Green
Jay Harden
Bruce Levin
Michael Pendley
Karina Running Horse
Bill Tondreau
Non-Board Members
Brad Hamlin
Jaclyn Fuller Lane
Steve Snider
Steve Williams

Phone
521-8516 (home)
344-8308 (home)
888-7919 (home)
299-5944 (home)
272-7208 (work)
277-1529 (work)
867-6424 (home)
281-6651 (home)
296-0537 (home)
299-0891 (home)
296-0549 (home)
275-4797 (home)
263-5949 (home)

Email Address
hmvogel@galaxy.neca.com
frisch@nmeri_gate.unm.edu
egates@ursaminor.phys.unm.edu
mycall@sandia.gov
horse@carina.unm.edu